

# FCC Radio Test Report

## FCC ID: YWTWF55724MX

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

**Project No.** : 1511C223  
**Equipment** : WiFi Module  
**Model Name** : GWF-4M02  
**Applicant** : Shenzhen Ogemray Technology Co.,Ltd.  
**Address** : 3/F~4/F,NO.5 Bldg, Dongwu Industrial Park,  
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China

**Date of Receipt** : Nov. 19, 2015  
**Date of Test** : Nov. 19, 2015 ~ Dec. 23, 2015  
**Issued Date** : Dec. 24, 2015  
**Tested by** : BTL Inc.

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### **Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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### REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-2-1511C223	Original Issue.	Dec. 24, 2015

## 1. CERTIFICATION

Equipment : WiFi Module  
Brand Name : N/A  
Model Name : GWF-4M02  
Applicant : Shenzhen Ogemray Technology Co.  
Manufacturer : Shenzhen Ogemray Technology Co.  
Address : 3/F~4/F, NO.5 Bldg, Dongwu Industrial Park, Donghuan 1st Road, Longhua Town, Shenzhen, China  
Factory : Shenzhen Ogemray Technology Co.  
Address : 3/F~4/F, NO.5 Bldg, Dongwu Industrial Park, Donghuan 1st Road, Longhua Town, Shenzhen, China  
Date of Test : Nov. 19, 2015 ~ Dec. 23, 2015  
Test Sample : Engineering Sample  
Standard(s) : FCC Part15, Subpart E(15.407) / ANSI C63.10-2013

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-2-1511C223) 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).

**Test results included in this report is only for the WIFI 5G part.**

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
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) FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.



## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is 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 estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2  $U_{\text{CISPR}}$  requirement.

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard 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)
DG-C02	CISPR	150 kHz ~ 30MHz	2.32

### B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	$U$ , (dB)
DG-CB03 (3m)	CISPR	9KHz ~ 30MHz	V	3.79
		9KHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.78
		200MHz ~ 1,000MHz	V	4.10
		200MHz ~ 1,000MHz	H	4.06

Test Site	Method	Measurement Frequency Range	Ant. H / V	$U$ , (dB)
DG-CB03 (3m)	CISPR	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	WiFi Module	
Brand Name	N/A	
Model Name	GWF-4M02	
Mode Different	N/A	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	300Mbps
Power Source	Supplied from System	
Power Rating	DC 5V	
Output Power	Output Power (Max.)for UNII-1	802.11a: 10.09dBm 802.11n (20M): 10.73dBm 802.11n (40M): 10.86dBm
	Output Power (Max.)for UNII-3	802.11a: 10.20dBm 802.11n (20M): 10.68dBm 802.11n (40M): 10.92dBm

Note:

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

UNII-1(802.11a/ 802.11n(20M))		UNII-1(802.11n(40M))	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220		
48	5240		

UNII-1(802.11a/ 802.11n(20M))		UNII-1(802.11n(40M))	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755
153	5765	159	5795
157	5785		
161	5805		
165	5825		

#### 3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Printed	N/A	2
2	N/A	N/A	Printed	N/A	2

### 3.2 DESCRIPTION OF TEST MODES

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

Pretest 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 5	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.

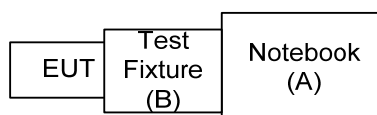
### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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	RT5x7xQA		
Frequency (MHz)	5180	5200	5240
A Mode	13	13	16
Frequency (MHz)	5180	5200	5240
N20 Mode	11	13	15
Frequency (MHz)	5190	5230	
N40 Mode	0C	0E	

UNII-3			
Test Software Version	RT5x7xQA		
Frequency (MHz)	5745	5785	5825
A Mode	17	1B	1D
Frequency (MHz)	5745	5785	5825
N20 Mode	14	1A	1B
Frequency (MHz)	5755	5795	
N40 Mode	12	12	

### 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 3.5 DESCRIPTION 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.
A	Notebook	DELL	INSPIRON 1420	DOC	JX193A01SDC2
B	Test Fixture	N/A	N/A	N/A	N/A

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 limit of " \* " decreases with the logarithm of the frequency
- (2) 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

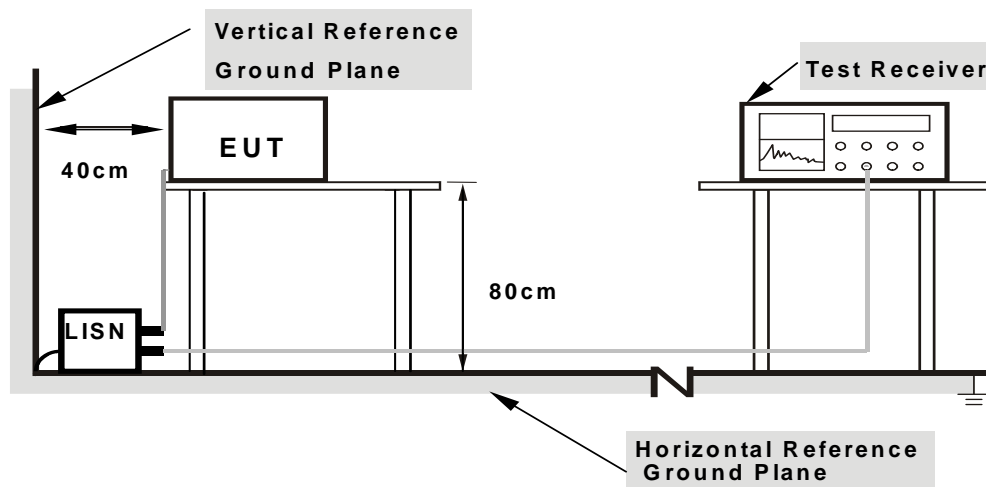
#### 4.1.2 TEST PROCEDURE

- 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 equipments powered 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 ground plane 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.

#### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

#### 4.1.5 EUT 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 EUT TEST CONDITIONS

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

#### 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

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) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) 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 band edge)	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:  $E = \frac{1000000 \cdot \sqrt{30P}}{3}$  μV/m, where P is the eirp (Watts)



#### 4.2.2 TEST PROCEDURE

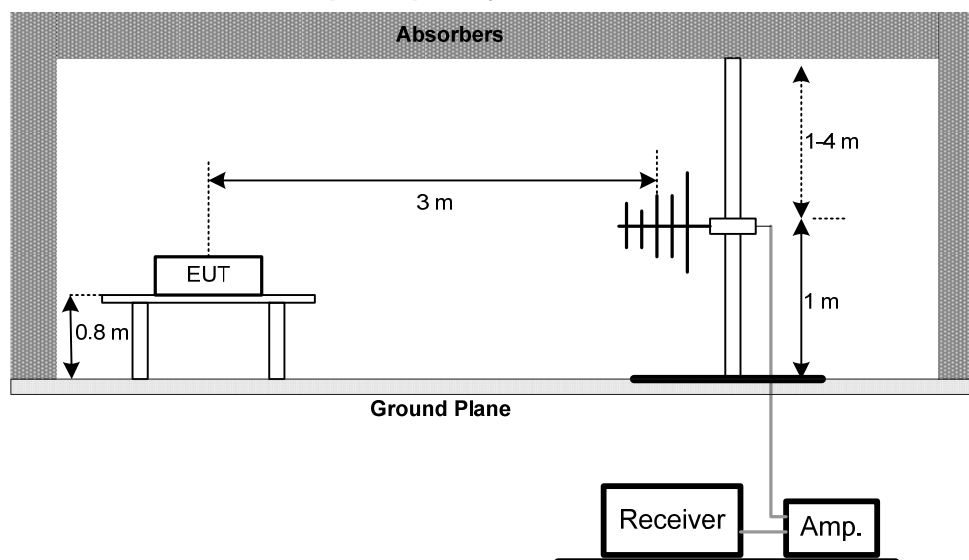
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- The height of the equipment or of the substitution antenna shall be 0.8 m or 1.5m, 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.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- 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. (below 1GHz)
- All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

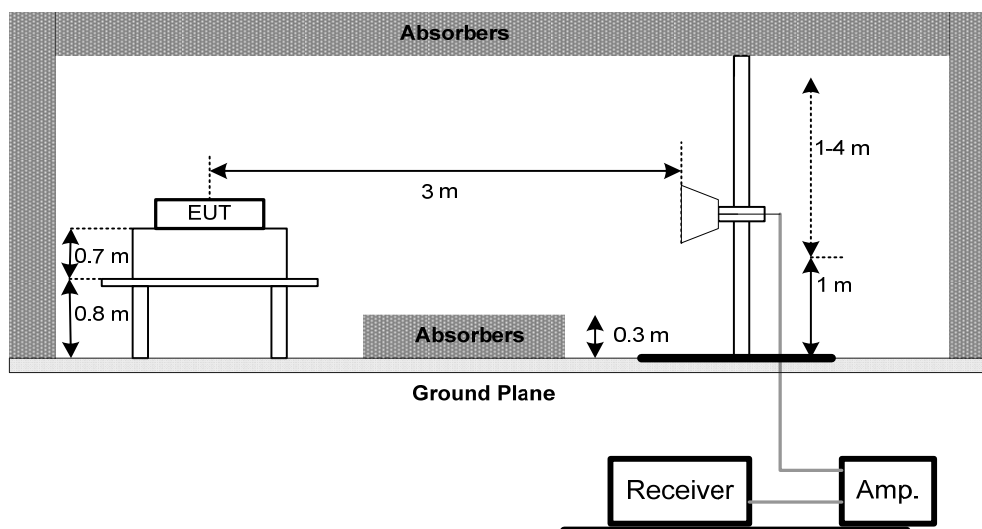
No deviation

#### 4.2.4 TEST SETUP

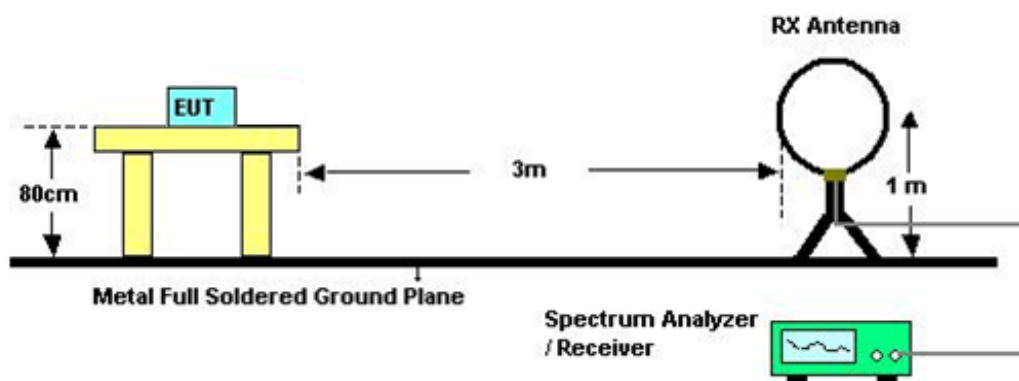
##### (A) Radiated Emission Test Set-Up Frequency Below 1GHz



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



## (C) Radiated emissions below 30MHz



### 4.2.5 EUT OPERATING 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.

### 4.2 EUT TEST CONDITIONS

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

**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 =  $40 \log (\text{specific distance} / \text{test distance})$  (dB);
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

**4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)**

Please refer to the Attachment C.

**4.2.9 TEST RESULTS (ABOVE 1000 MHz)**

Please refer to the Attachment D.

Remark:

- (1) 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.
- (2) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (3) EUT Orthogonal Axes:  
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (4) 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.
- (5) 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

### 5.1 APPLIED 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

#### 5.1.1 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 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

#### 5.1.2 DEVIATION FROM STANDARD

No deviation.

#### 5.1.3 TEST SETUP



#### 5.1.4 EUT 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.

#### 5.1.5 EUT TEST CONDITIONS

Temperature: 24°C    Relative Humidity: 52%    Test Voltage: AC 120V/60Hz

#### 5.1.6 TEST RESULTS

Please refer to the Attachment E.

## 6. MAXIMUM CONDUCTED OUTPUT POWER

### 6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Conducted Output Power	Fixed:1 Watt (30dBm) 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)			

#### 6.1.1 TEST PROCEDURE

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	$\geq$ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

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

### 6.1.2 DEVIATION FROM STANDARD

No deviation.

### 6.1.3 TEST SETUP



### 6.1.4 EUT 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.

### 6.1.5 EUT TEST CONDITIONS

Temperature: 24°C    Relative Humidity: 52%    Test Voltage: AC 120V/60Hz

### 6.1.6 TEST RESULTS

Please refer to the Attachment F.

## 7. ANTENNA CONDUCTED SPURIOUS EMISSION

### 7.1 APPLIED 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

#### 7.1.1 TEST PROCEDURE

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

b.

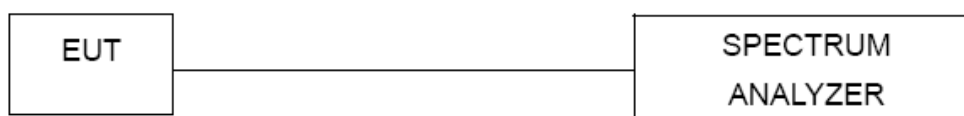
Spectrum Parameter	Setting
Attenuation	Auto
RBW	1000kHz
VBW	1000kHz
Trace	Max Hold
Sweep Time	Auto

c. Offset=antenna gain+cable loss

#### 7.1.2 DEVIATION FROM STANDARD

No deviation.

#### 7.1.3 TEST SETUP



#### 7.1.4 EUT 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.

#### 7.1.5 EUT TEST CONDITIONS

Temperature: 24°C    Relative Humidity: 52%    Test Voltage: AC 120V/60Hz

#### 7.1.6 TEST RESULTS

**Please refer to the Attachment G.**

## 8. POWER SPECTRAL DENSITY TEST

### 8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	Other then Mobile and portable:17dBm/MHz 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) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

Note:

- 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.
- The value measured with RBW=1MHz is to be added with  $10\log(500\text{kHz}/1\text{MHz})$  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.



### 8.1.1 DEVIATION FROM STANDARD

No deviation.

### 8.1.2 TEST SETUP



### 8.1.3 EUT 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.

### 8.1.4 EUT TEST CONDITIONS

Temperature: 24°C    Relative Humidity: 52%    Test Voltage: AC 120V/60Hz

### 8.1.5 TEST RESULTS

**Please refer to the Attachment H.**

## 9. FREQUENCY STABILITY MEASUREMENT

### 9.1 APPLIED PROCEDURES / LIMIT

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

#### 9.1.1 TEST PROCEDURE

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

b.

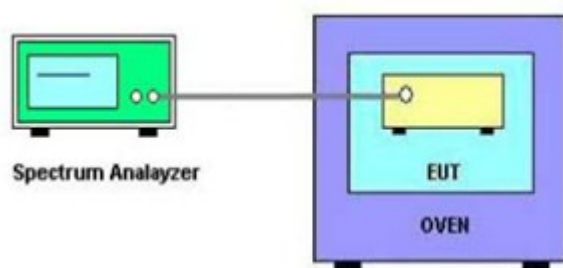
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- 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~50°C.

#### 9.1.2 DEVIATION FROM STANDARD

No deviation.

### 9.1.3 TEST SETUP



### 9.1.4 EUT 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.

### 9.1.5 EUT TEST CONDITIONS

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

### 9.1.6 TEST 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	0052765	Mar. 28, 2016
2	LISN	R&S	ENV216	101447	Mar. 28, 2016
3	Test Cable	emci	RG223(9KHz-30 MHz)	C_17	Mar. 13, 2016
4	EMI Test Receiver	R&S	ESCS30	826547/022	Mar. 28, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122901	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. 09, 2016
3	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
4	Test Cable	emci	LMR-400(30MHz-1GHz)	C-01	Jun. 28, 2016
5	Antenna	ETS	3115	00075789	Mar. 28, 2016
6	Amplifier	Agilent	8449B	3008A02274	Nov. 01, 2016
7	Receiver	AGILENT	N9038A	MY52130039	Oct. 11, 2016
8	Test Cable	emci	EMC104-SM-S M-10000(1GHz – 26.5GHz)	C-68	Jun. 28, 2016
9	Controller	CT	SC100	N/A	N/A
10	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
11	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
12	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Sep. 07, 2016
13	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016
2	Test Cable	emci	EMC104-SM-S M-9000(0.01GHz z – 26.5GHz)	C-100	N/A

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series Power meter	Agilent	N1911A	MY45100473	Mar. 28, 2016
2	Wireband Power sensor	Agilent	N1921A	MY51100041	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	Oct. 11, 2016
2	Test Cable	emci	EMC104-SM-S M-9000(0.01GHz z – 26.5GHz)	C-100	N/A

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Oct. 11, 2016
2	Test Cable	emci	EMC104-SM-S M-9000(0.01GHz z – 26.5GHz)	C-100	N/A

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Mar. 17, 2016
2	Test Cable	N/A	RG316	Cable4-001	Jul. 15, 2016
3	Const Temp. & Humidity Chamber	GIANT FORCE	ITH-225-20-S	IAB0309-001	Dec.04, 2016

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

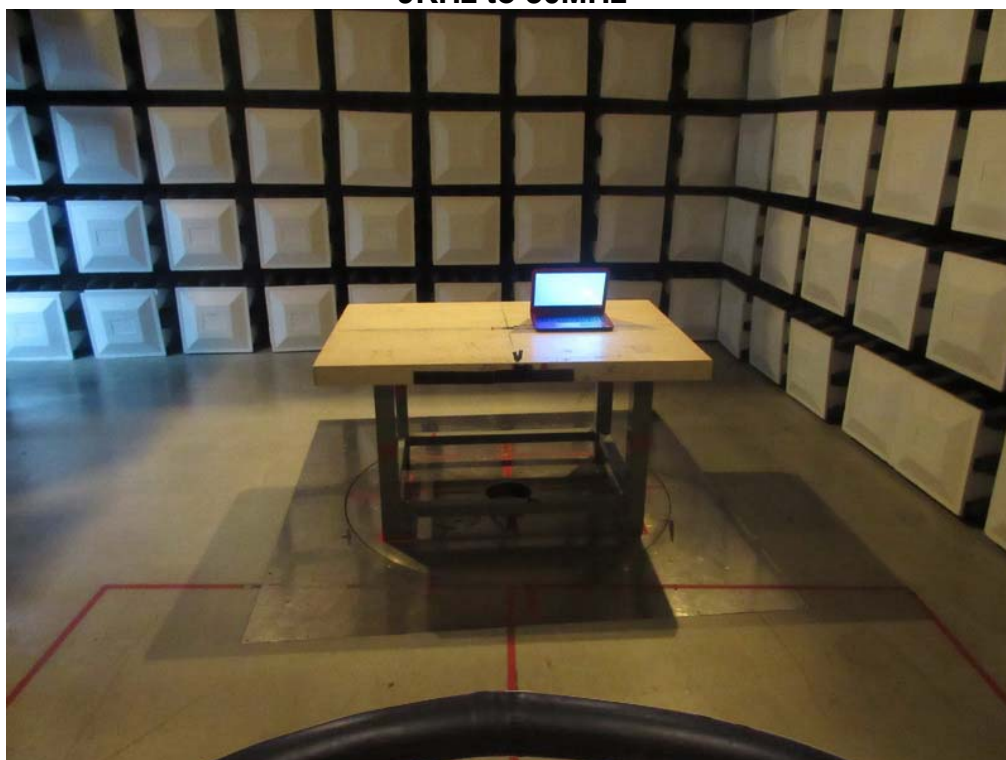
## 11. EUT TEST PHOTO

### Conducted Measurement Photos



## Radiated Measurement Photos

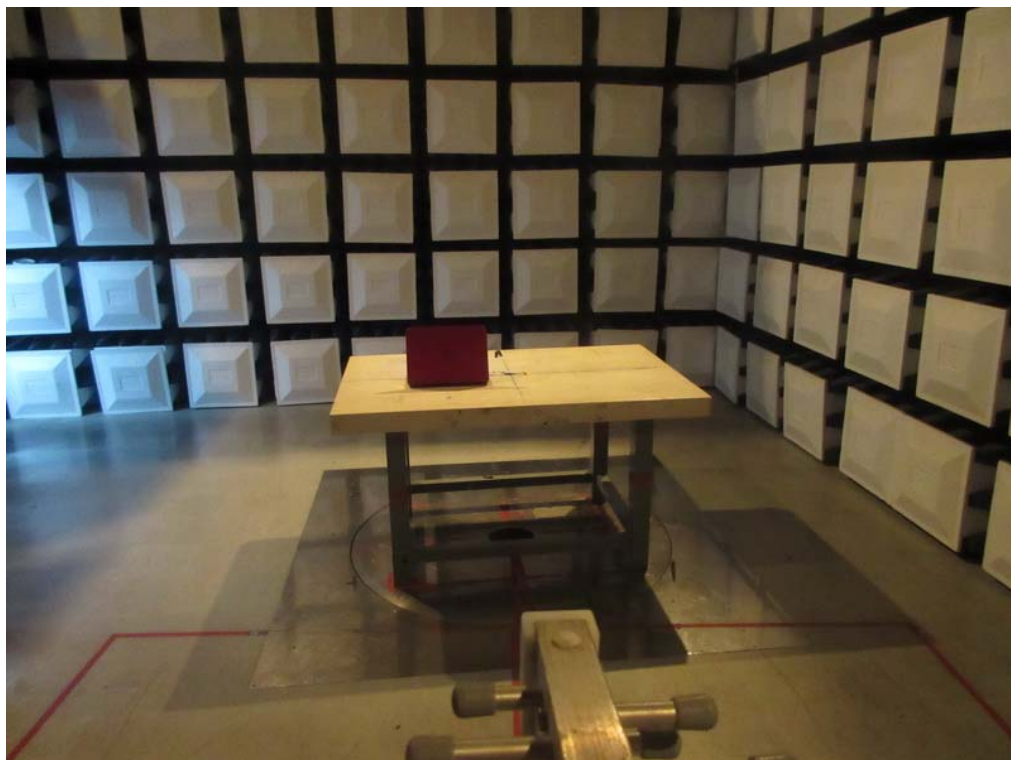
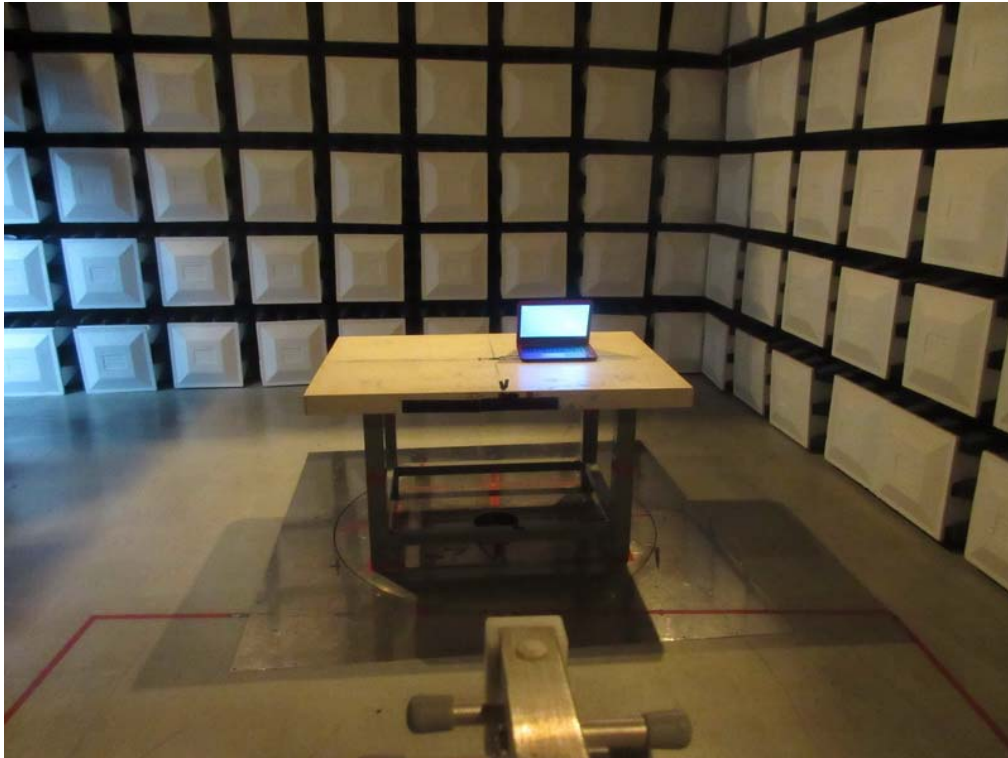
9KHz to 30MHz





## Radiated Measurement Photos

30MHz to 1000MHz





## Radiated Measurement Photos

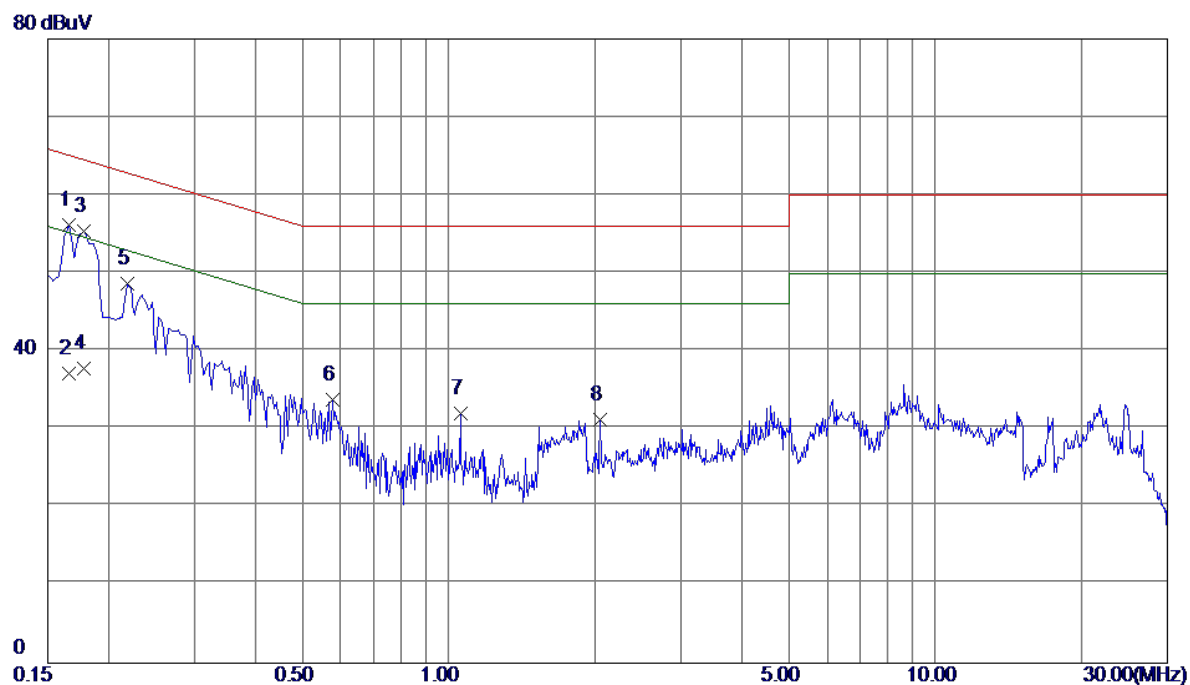
Above 1000MHz



## **ATTACHMENT A - CONDUCTED EMISSION**

Test Mode: TX MODE

### Line

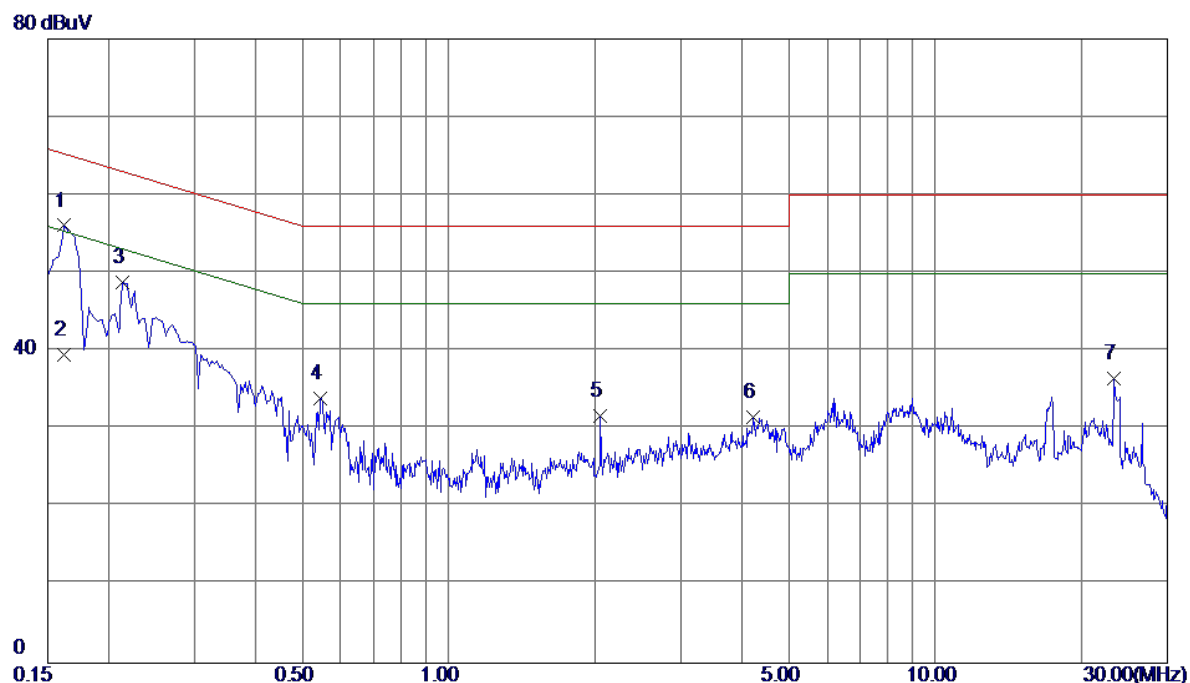


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1660	46.63	9.56	56.19	65.16	-8.97	Peak	
2	0.1660	27.60	9.56	37.16	55.16	-18.00	AVG	
3	0.1780	45.87	9.56	55.43	64.58	-9.15	Peak	
4	0.1780	28.25	9.56	37.81	54.58	-16.77	AVG	
5	0.2180	39.00	9.58	48.58	62.89	-14.31	Peak	
6	0.5780	24.10	9.71	33.81	56.00	-22.19	Peak	
7	1.0580	22.24	9.80	32.04	56.00	-23.96	Peak	
8	2.0460	21.34	9.93	31.27	56.00	-24.73	Peak	

Note : The test result has included the cable loss.

Test Mode: TX MODE

### Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1620	46.60	9.48	56.08	65.36	-9.28	Peak	
2	0.1620	30.04	9.48	39.52	55.36	-15.84	AVG	
3	0.2140	39.34	9.50	48.84	63.05	-14.21	Peak	
4	0.5460	24.41	9.56	33.97	56.00	-22.03	Peak	
5	2.0460	21.97	9.72	31.69	56.00	-24.31	Peak	
6	4.2220	21.63	9.92	31.55	56.00	-24.45	Peak	
7	23.2900	26.43	9.99	36.42	60.00	-23.58	Peak	

Note : The test result has included the cable loss.

## **ATTACHMENT B - 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
0.0123	0°	13.56	24.7877	38.3477	125.8061	-87.4585	AVG
0.0123	0°	14.33	24.7877	39.1177	145.8061	-106.6885	PEAK
0.0264	0°	6.34	23.8947	30.2347	119.1721	-88.9375	AVG
0.0264	0°	8.24	23.8947	32.1347	139.1721	-107.0375	PEAK
0.0375	0°	3.29	23.1917	26.4817	116.1236	-89.6419	AVG
0.0375	0°	5.32	23.1917	28.5117	136.1236	-107.6119	PEAK
0.0543	0°	1.23	22.3140	23.5440	112.9082	-89.3642	AVG
0.0543	0°	2.62	22.3140	24.9340	132.9082	-107.9742	PEAK
0.5017	0°	19.37	19.8054	39.1754	73.5953	-34.4199	QP
1.9582	0°	23.69	19.5042	43.1942	69.5400	-26.3458	QP

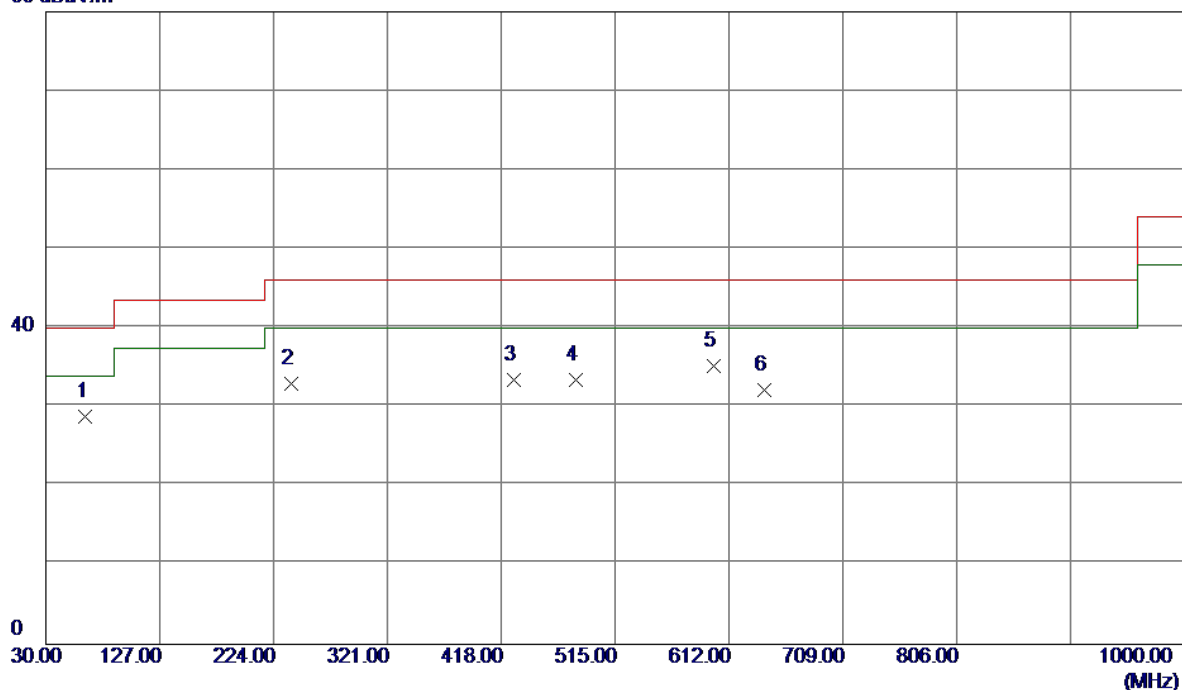
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0131	90°	13.36	24.3000	37.6600	125.2588	-87.5988	AVG
0.0131	90°	14.73	24.3000	39.0300	145.2588	-106.2288	PEAK
0.0253	90°	7.41	23.9643	31.3743	119.5418	-88.1675	AVG
0.0253	90°	8.78	23.9643	32.7443	139.5418	-106.7975	PEAK
0.0419	90°	5.35	22.9130	28.2630	115.1599	-86.8969	AVG
0.0419	90°	6.33	22.9130	29.2430	135.1599	-105.9169	PEAK
0.0567	90°	1.47	22.2660	23.7360	112.5326	-88.7966	AVG
0.0567	90°	2.53	22.2660	24.7960	132.5326	-107.7366	PEAK
0.6246	90°	22.37	20.1987	42.5687	71.6922	-29.1235	QP
2.0535	90°	24.42	19.4679	43.8879	69.5400	-25.6521	QP

## **ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)**

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

### Vertical

80 dBuV/m

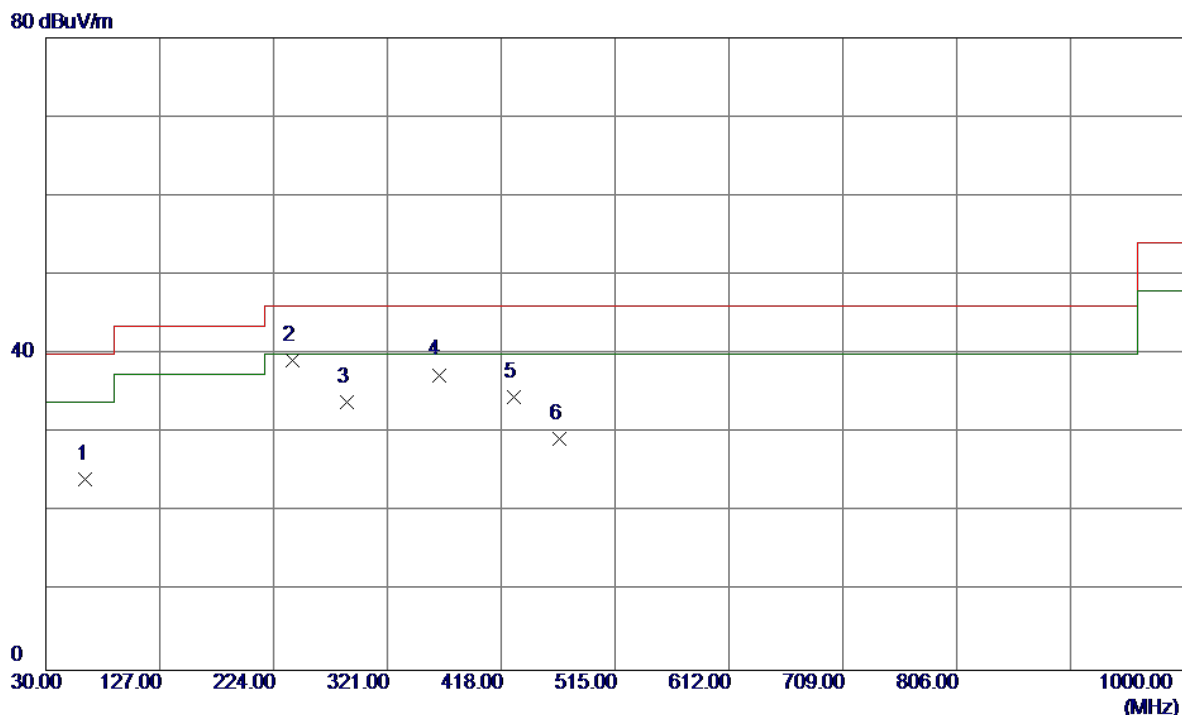


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	42.70	-13.96	28.74	40.00	-11.26	Peak	
2	238.5500	45.43	-12.45	32.98	46.00	-13.02	Peak	
3	428.6700	39.97	-6.48	33.49	46.00	-12.51	Peak	
4	482.0200	40.33	-6.85	33.48	46.00	-12.52	Peak	
5	599.3900	39.79	-4.64	35.15	46.00	-10.85	Peak	
6	642.0700	34.22	-2.12	32.10	46.00	-13.90	Peak	



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

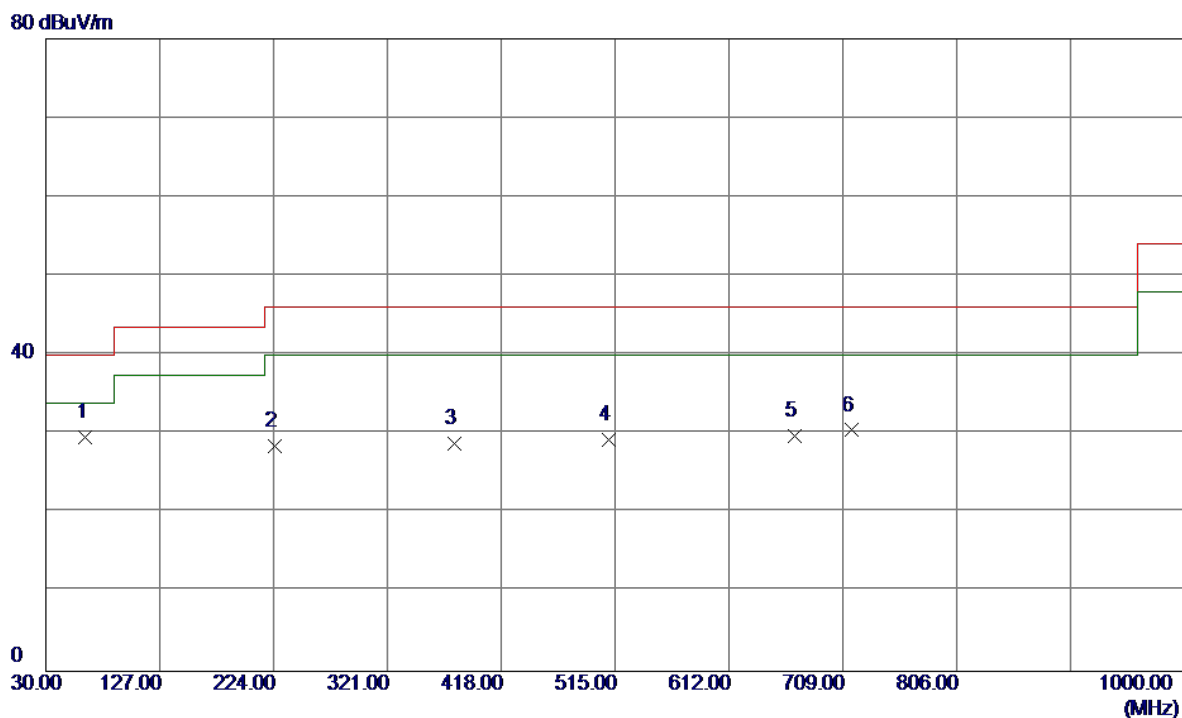
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	38.19	-13.96	24.23	40.00	-15.77	Peak	
2	240.4900	51.58	-12.41	39.17	46.00	-6.83	Peak	
3	286.0799	44.22	-10.31	33.91	46.00	-12.09	Peak	
4	364.6500	46.50	-9.14	37.36	46.00	-8.64	Peak	
5	428.6700	41.07	-6.48	34.59	46.00	-11.41	Peak	
6	467.4700	35.70	-6.42	29.28	46.00	-16.72	Peak	

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

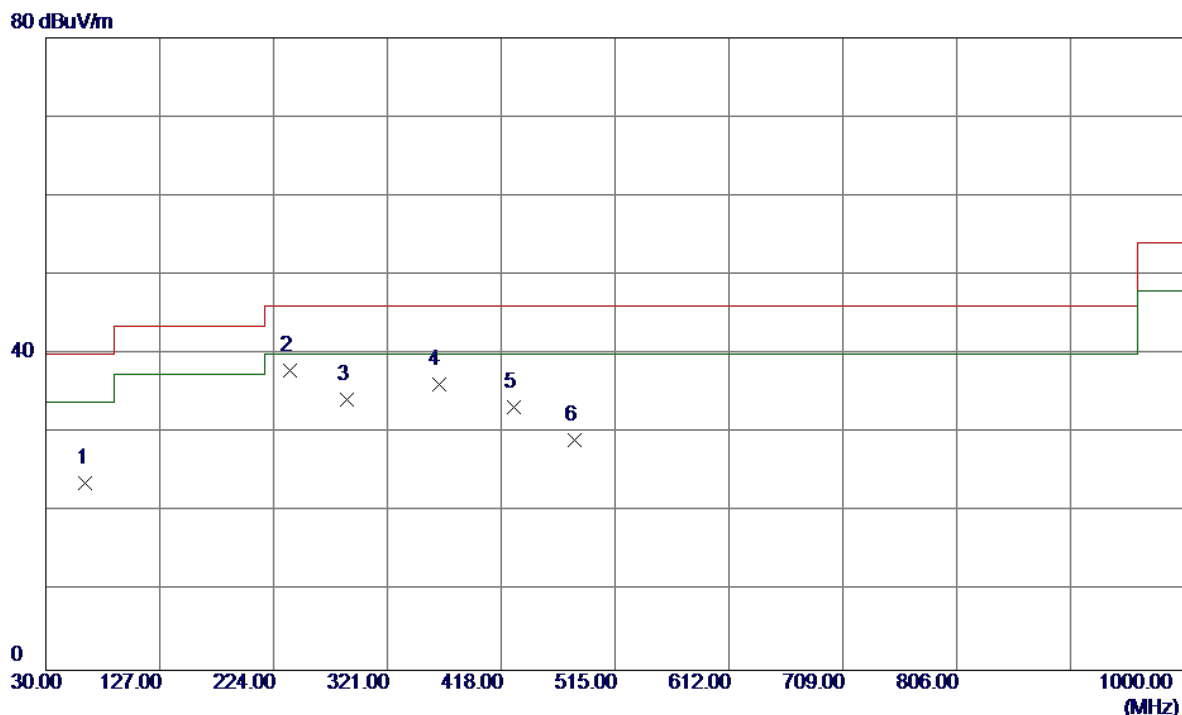
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	43.62	-13.96	29.66	40.00	-10.34	Peak	
2	224.9700	41.63	-13.08	28.55	46.00	-17.45	Peak	
3	378.2300	37.20	-8.42	28.78	46.00	-17.22	Peak	
4	509.1800	36.22	-6.88	29.34	46.00	-16.66	Peak	
5	668.2600	31.41	-1.58	29.83	46.00	-16.17	Peak	
6	716.7600	31.93	-1.45	30.48	46.00	-15.52	Peak	

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

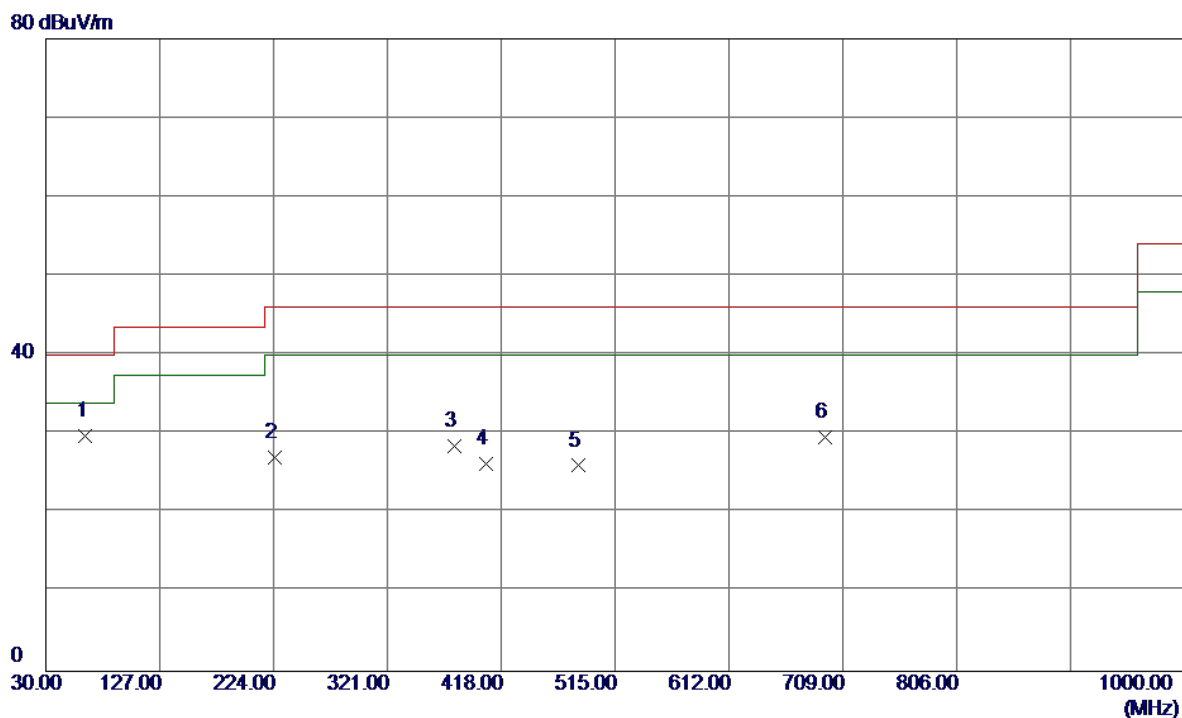
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	37.68	-13.96	23.72	40.00	-16.28	Peak	
2	237.5800	50.37	-12.49	37.88	46.00	-8.12	Peak	
3	286.0799	44.62	-10.31	34.31	46.00	-11.69	Peak	
4	364.6500	45.34	-9.14	36.20	46.00	-9.80	Peak	
5	428.6700	39.78	-6.48	33.30	46.00	-12.70	Peak	
6	480.0800	35.91	-6.79	29.12	46.00	-16.88	Peak	

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

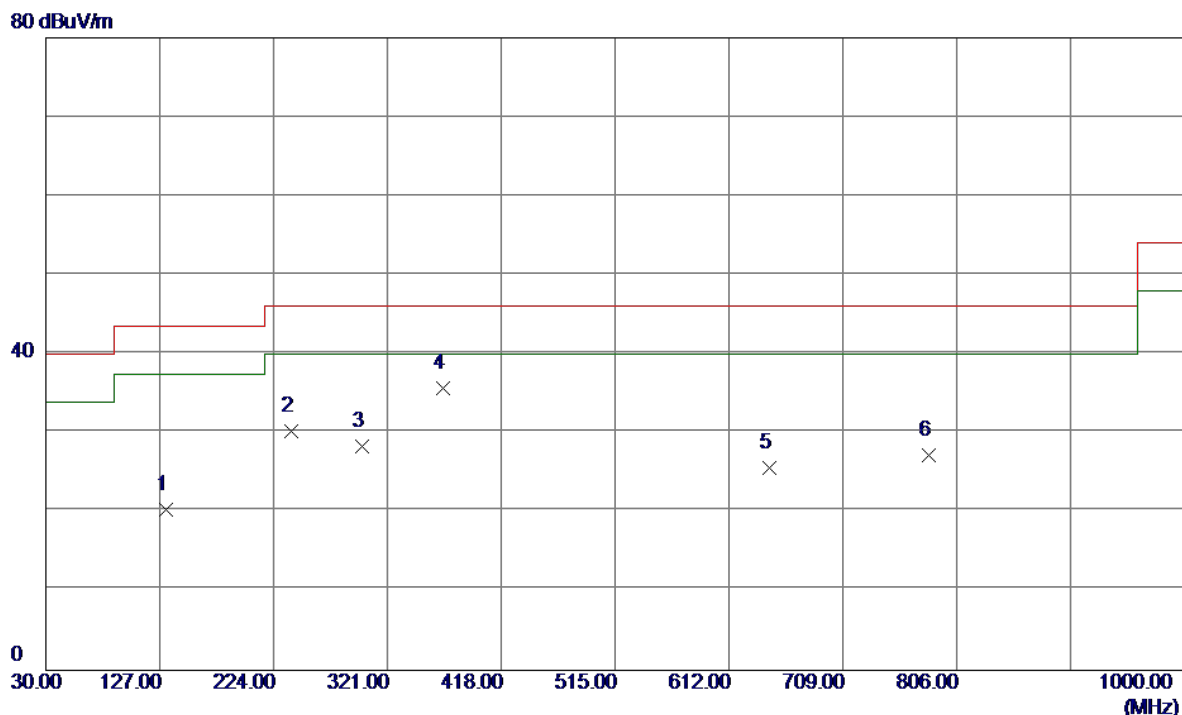
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	43.74	-13.96	29.78	40.00	-10.22	Peak	
2	224.9700	40.11	-13.08	27.03	46.00	-18.97	Peak	
3	378.2300	36.92	-8.42	28.50	46.00	-17.50	Peak	
4	405.3900	33.31	-7.12	26.19	46.00	-19.81	Peak	
5	483.9600	32.91	-6.91	26.00	46.00	-20.00	Peak	
6	693.4800	31.10	-1.49	29.61	46.00	-16.39	Peak	

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

### Horizontal

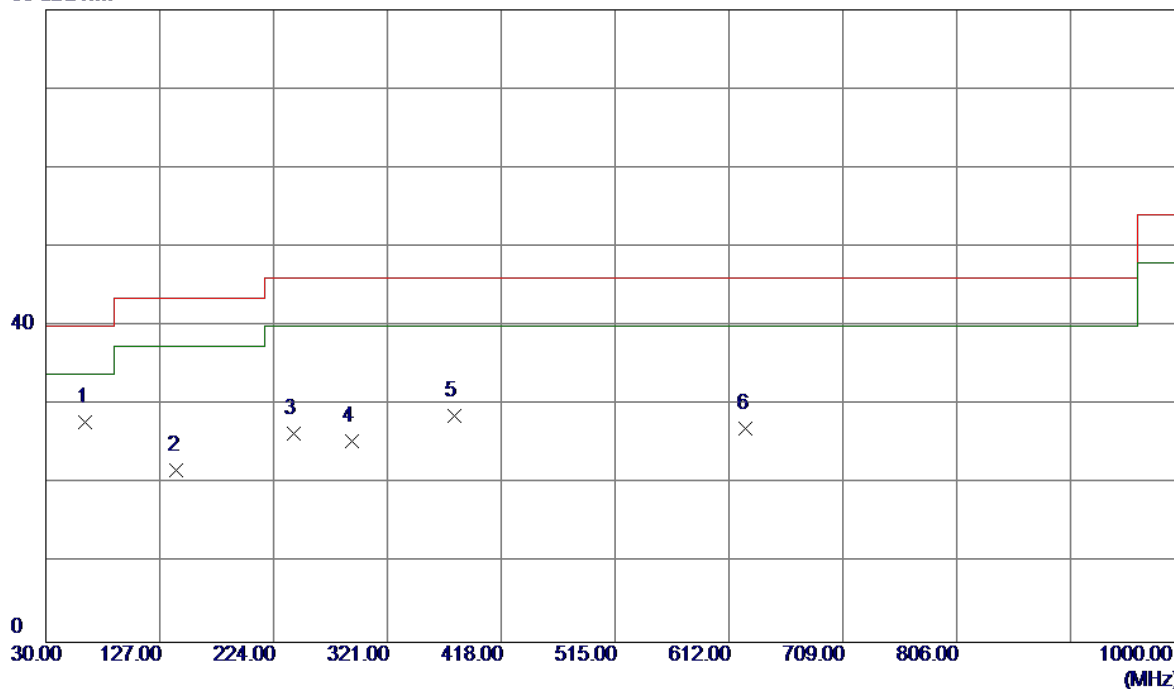


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	132.8200	31.81	-11.52	20.29	43.50	-23.21	Peak	
2	239.5200	42.59	-12.42	30.17	46.00	-15.83	Peak	
3	299.6600	37.98	-9.59	28.39	46.00	-17.61	Peak	
4	368.5300	44.58	-8.94	35.64	46.00	-10.36	Peak	
5	646.9200	27.45	-1.82	25.63	46.00	-20.37	Peak	
6	782.7199	27.60	-0.39	27.21	46.00	-18.79	Peak	

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

### Vertical

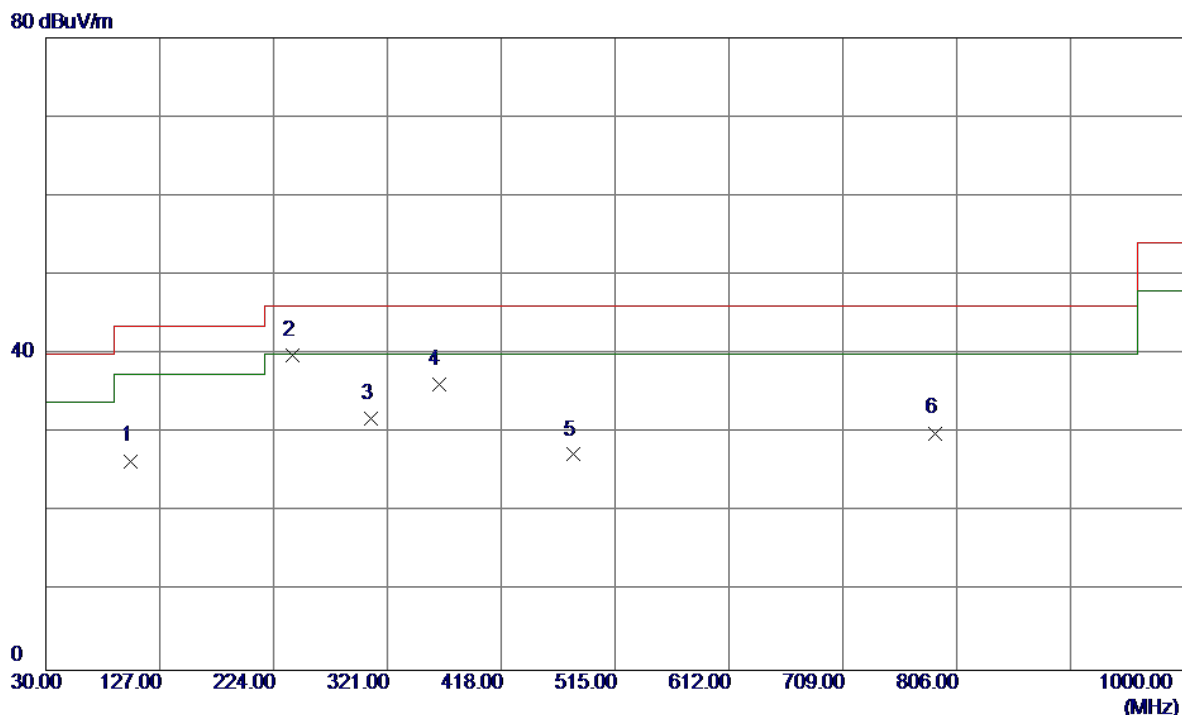
80 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	63.9500	41.83	-13.96	27.87	40.00	-12.13	Peak	
2	141.5500	33.29	-11.57	21.72	43.50	-21.78	Peak	
3	241.4600	38.80	-12.44	26.36	46.00	-19.64	Peak	
4	290.9300	35.22	-9.80	25.42	46.00	-20.58	Peak	
5	378.2300	37.08	-8.42	28.66	46.00	-17.34	Peak	
6	626.5500	30.16	-3.05	27.11	46.00	-18.89	Peak	

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

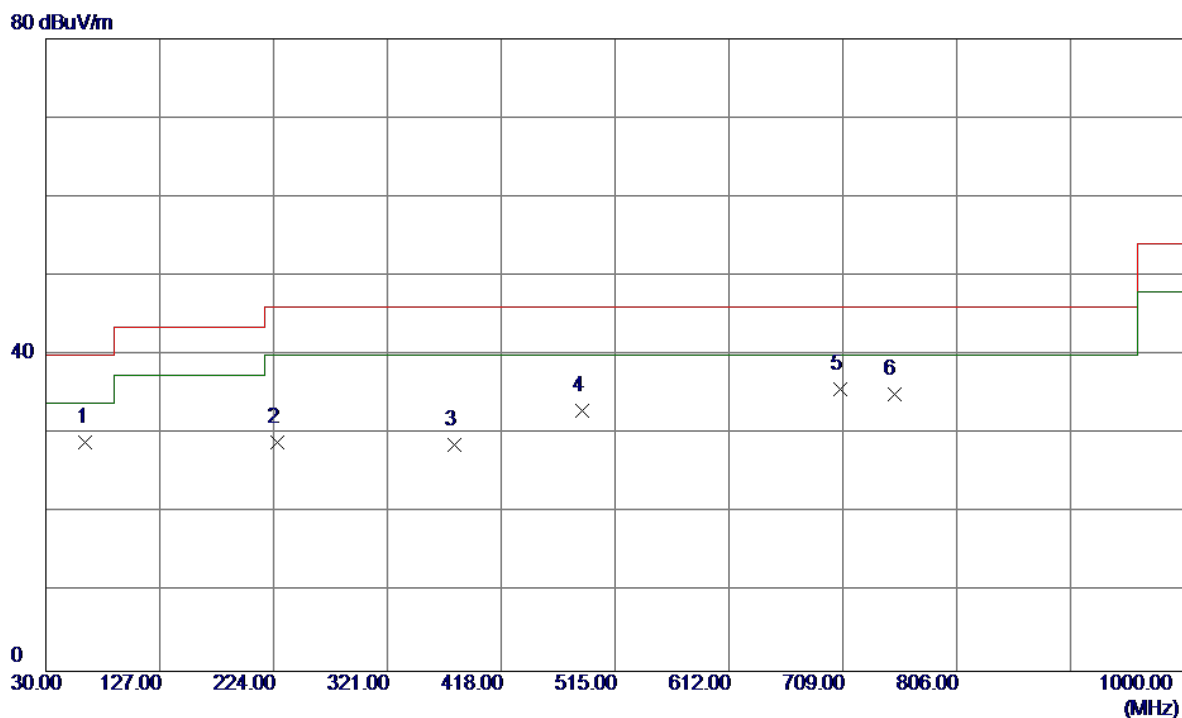
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	101.7800	41.00	-14.52	26.48	43.50	-17.02	Peak	
2	240.4900	52.26	-12.41	39.85	46.00	-6.15	Peak	
3	307.4200	41.50	-9.63	31.87	46.00	-14.13	Peak	
4	364.6500	45.36	-9.14	36.22	46.00	-9.78	Peak	
5	479.1100	34.04	-6.76	27.28	46.00	-18.72	Peak	
6	787.5700	30.23	-0.23	30.00	46.00	-16.00	Peak	

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

### Vertical

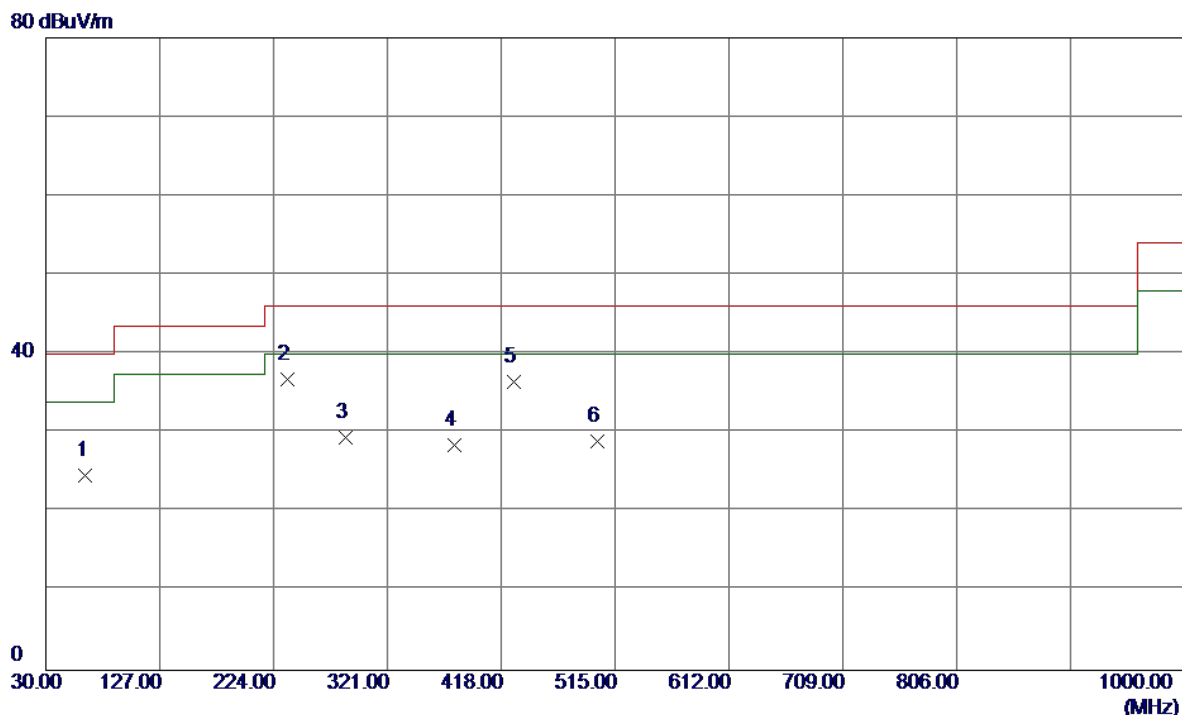


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	42.87	-13.96	28.91	40.00	-11.09	Peak	
2	226.9100	41.90	-12.95	28.95	46.00	-17.05	Peak	
3	378.2300	37.02	-8.42	28.60	46.00	-17.40	Peak	
4	486.8700	39.92	-6.99	32.93	46.00	-13.07	Peak	
5	707.0600	37.11	-1.46	35.65	46.00	-10.35	Peak	
6	752.6500	36.39	-1.34	35.05	46.00	-10.95	Peak	



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

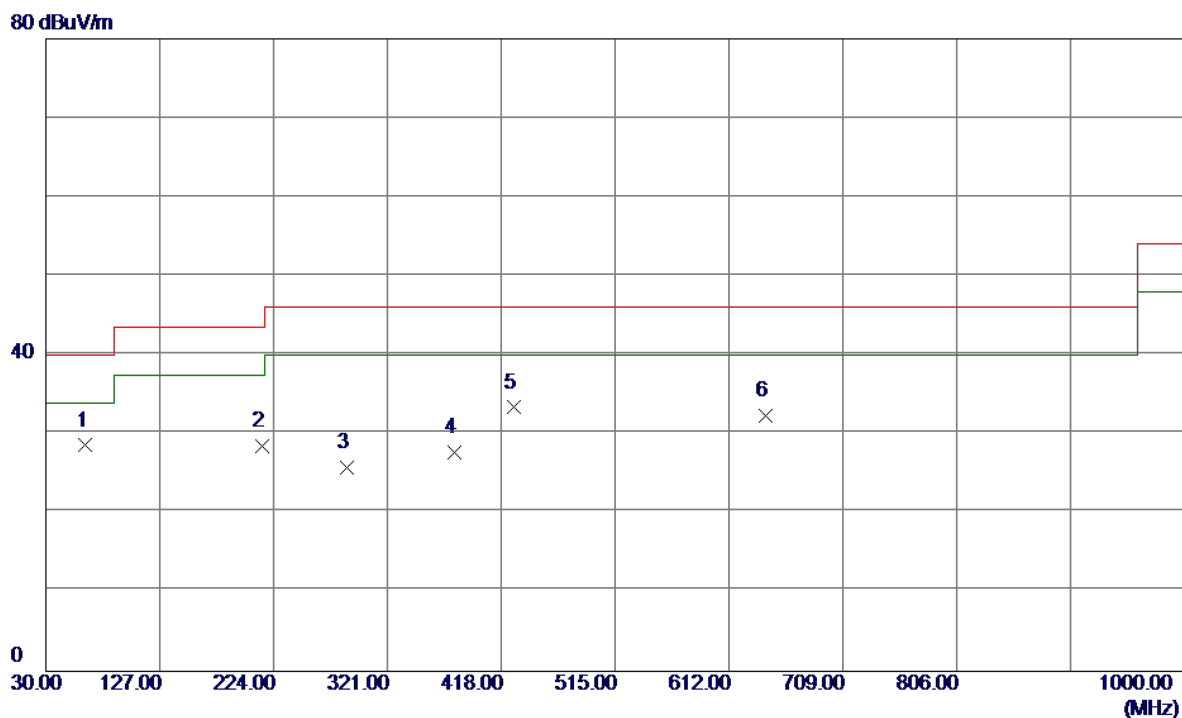
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	38.65	-13.96	24.69	40.00	-15.31	Peak	
2	235.6400	49.40	-12.56	36.84	46.00	-9.16	Peak	
3	285.1099	39.80	-10.43	29.37	46.00	-16.63	Peak	
4	378.2300	36.96	-8.42	28.54	46.00	-17.46	Peak	
5	428.6700	42.99	-6.48	36.51	46.00	-9.49	Peak	
6	499.4800	36.31	-7.37	28.94	46.00	-17.06	Peak	

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

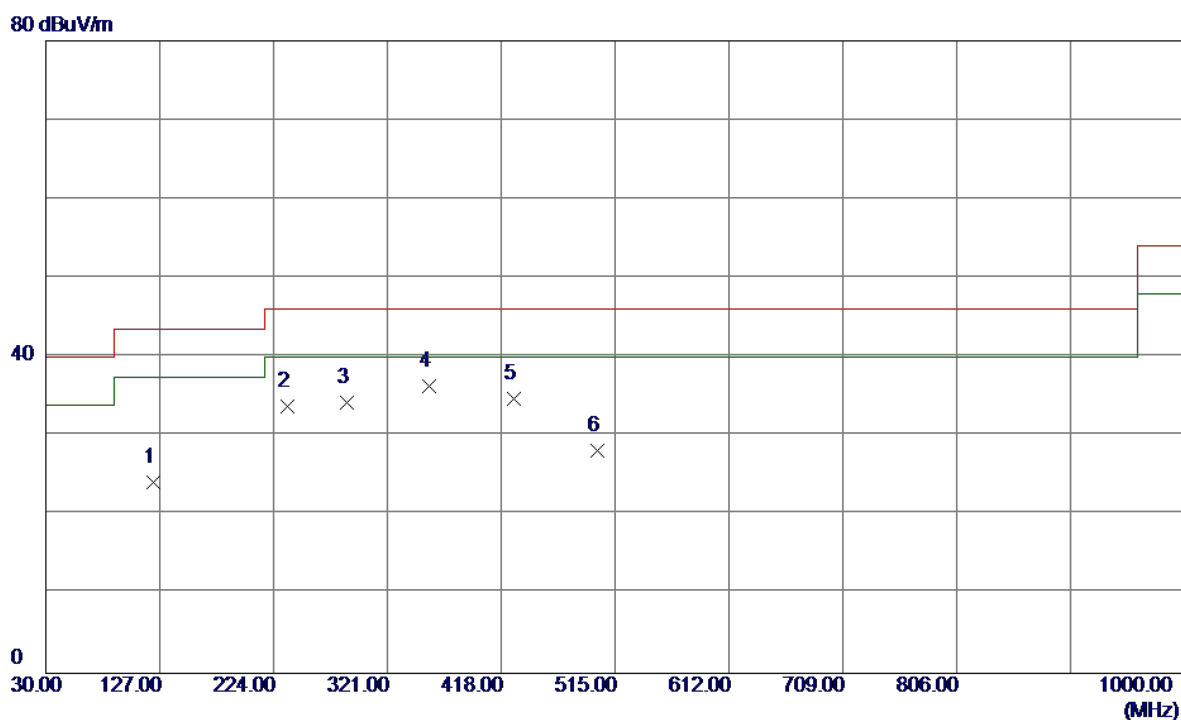
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	42.52	-13.96	28.56	40.00	-11.44	Peak	
2	214.3000	42.06	-13.58	28.48	43.50	-15.02	Peak	
3	286.0799	36.10	-10.31	25.79	46.00	-20.21	Peak	
4	378.2300	36.06	-8.42	27.64	46.00	-18.36	Peak	
5	428.6700	39.84	-6.48	33.36	46.00	-12.64	Peak	
6	643.0400	34.43	-2.06	32.37	46.00	-13.63	Peak	

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

### Horizontal



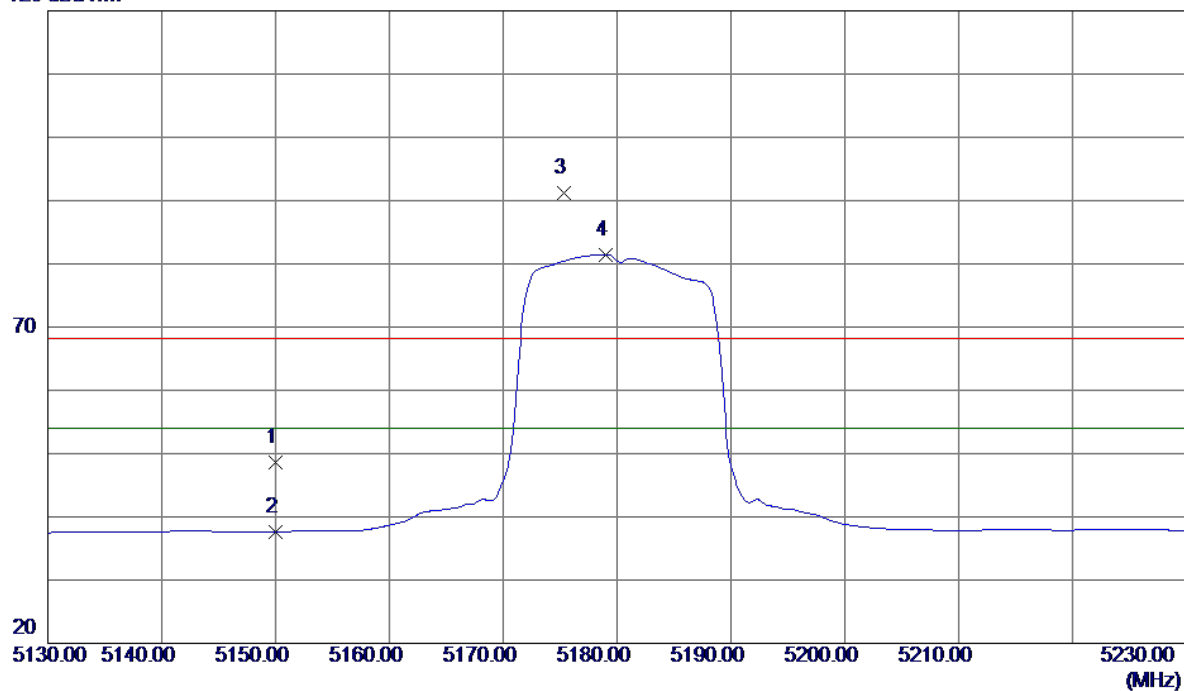
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	121.1800	36.58	-12.44	24.14	43.50	-19.36	Peak	
2	235.6400	46.38	-12.56	33.82	46.00	-12.18	Peak	
3	286.0799	44.56	-10.31	34.25	46.00	-11.75	Peak	
4	356.8900	45.83	-9.56	36.27	46.00	-9.73	Peak	
5	428.6700	41.19	-6.48	34.71	46.00	-11.29	Peak	
6	499.4800	35.51	-7.37	28.14	46.00	-17.86	Peak	

## **ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)**

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

### Vertical

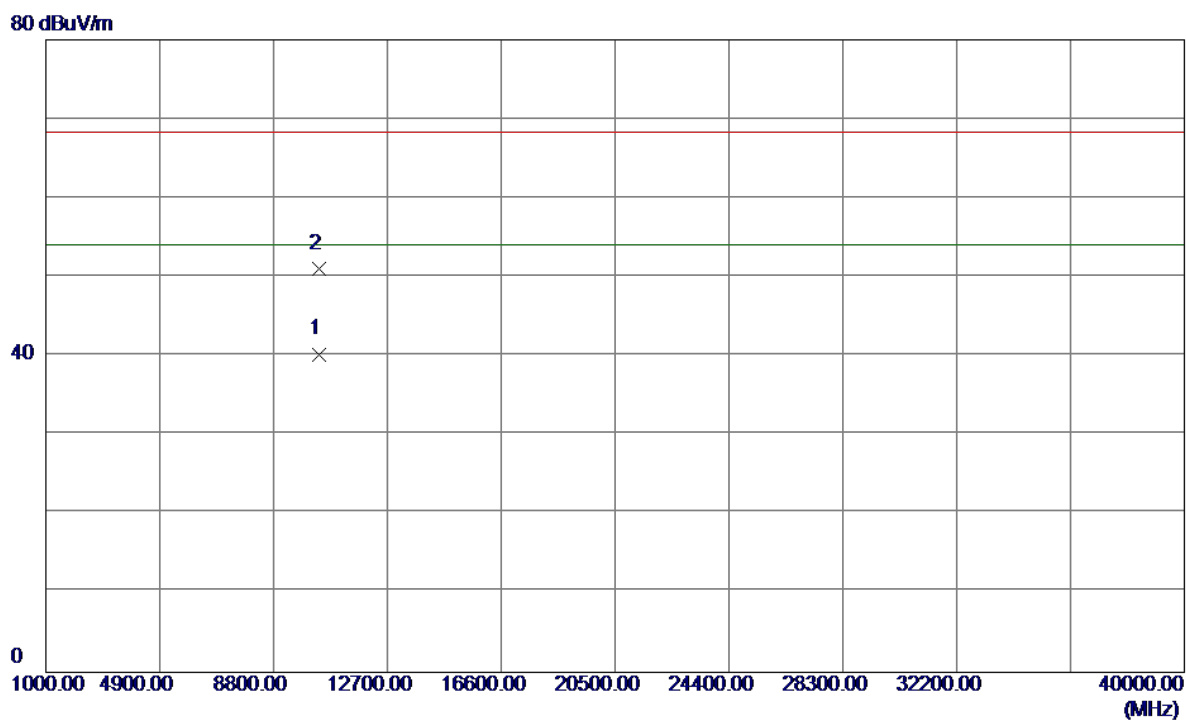
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	10.62	37.89	48.51	68.30	-19.79	Peak	
2	5150.0000	-0.25	37.89	37.64	54.00	-16.36	AVG	
3	5175.3000	53.25	38.00	91.25	68.30	22.95	Peak	No Limit
4	5179.0000	43.42	38.02	81.44	54.00	27.44	AVG	No Limit

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

### Vertical

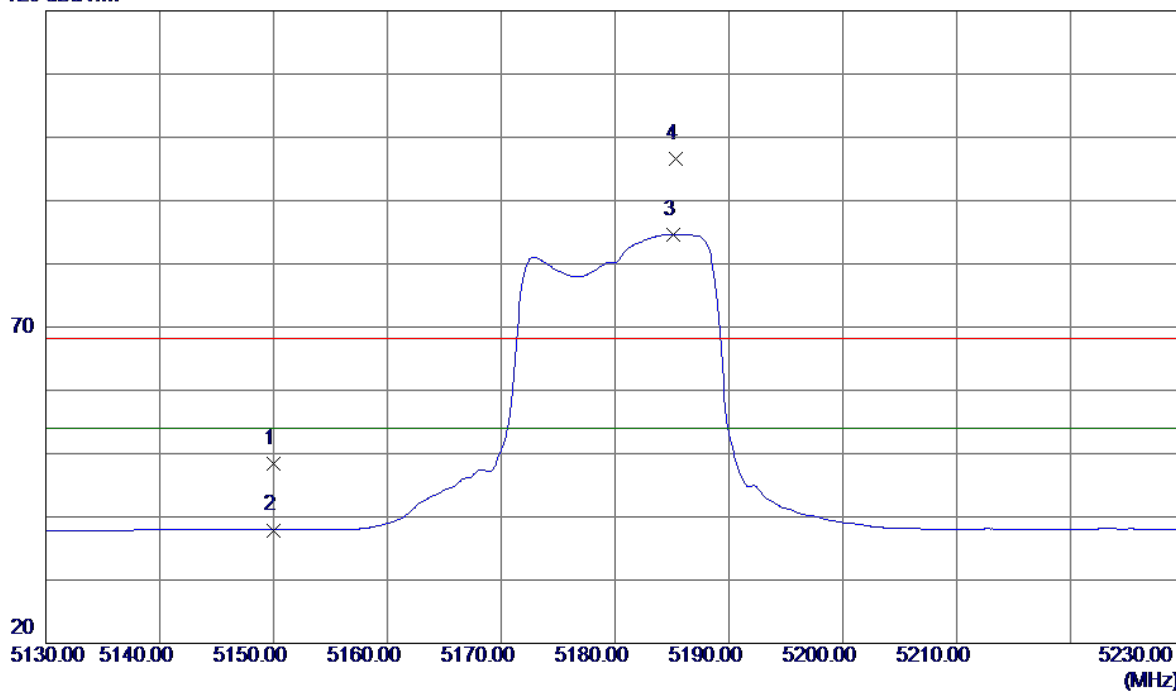


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10360.2500	26.38	13.86	40.24	54.00	-13.76	AVG	
2	10360.7870	37.11	13.86	50.97	68.30	-17.33	Peak	

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

### Horizontal

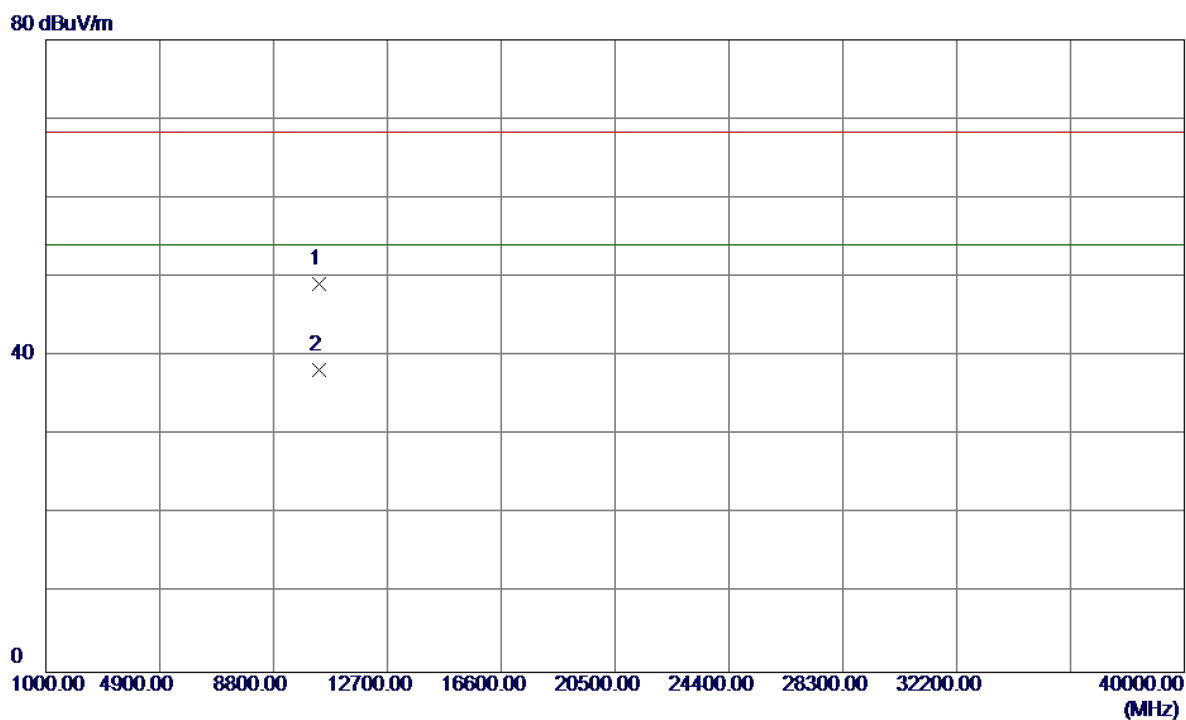
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	10.49	37.89	48.38	68.30	-19.92	Peak	
2	5150.0000	0.01	37.89	37.90	54.00	-16.10	AVG	
3	5185.1000	46.60	38.05	84.65	54.00	30.65	AVG	No Limit
4	5185.3000	58.64	38.05	96.69	68.30	28.39	Peak	No Limit

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

### Horizontal



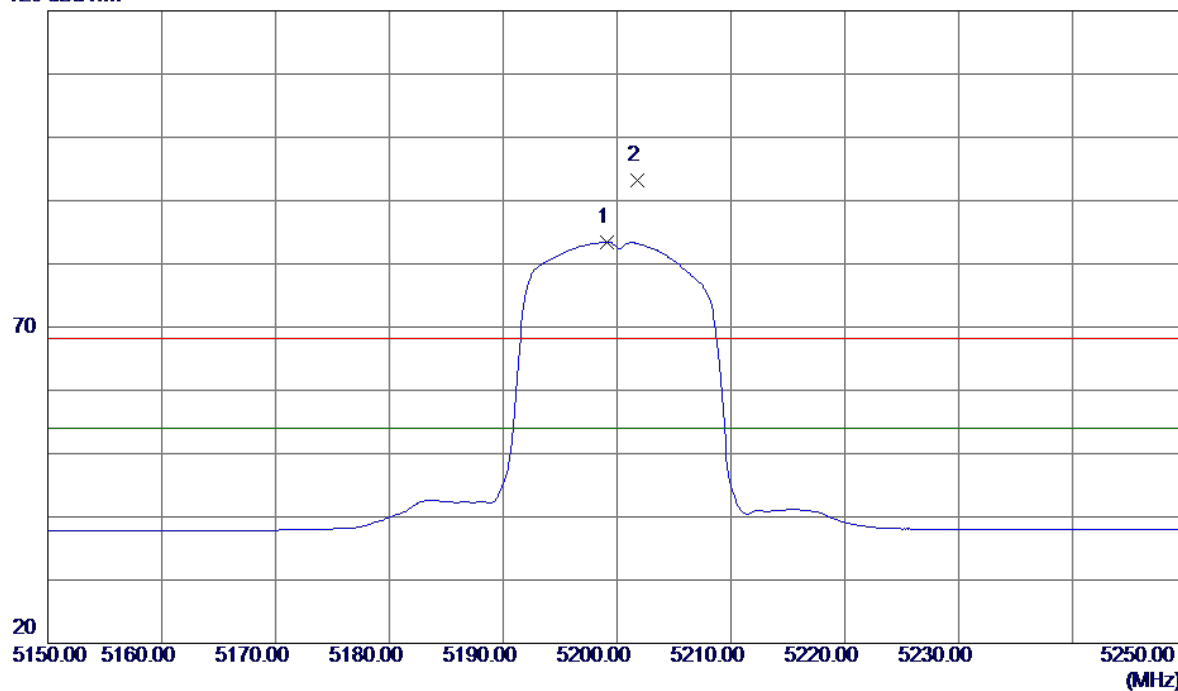
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10360.1200	35.27	13.86	49.13	68.30	-19.17	Peak	
2	10360.7220	24.39	13.86	38.25	54.00	-15.75	AVG	



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

### Vertical

120 dBuV/m

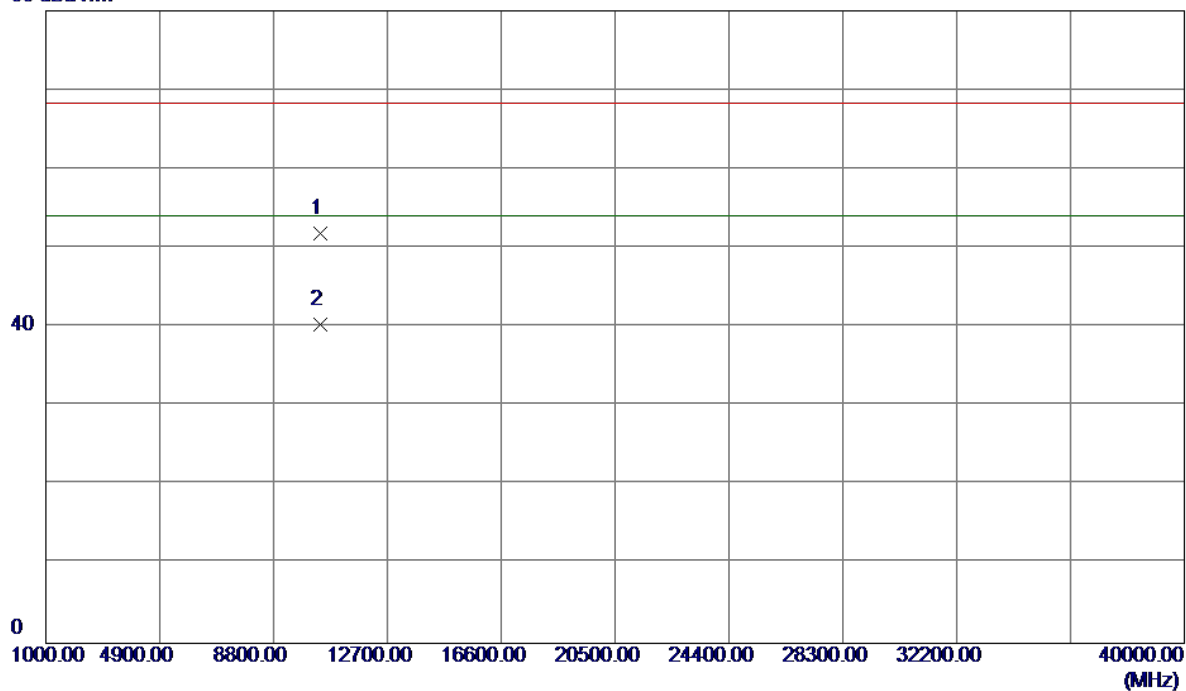


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5199.1000	45.38	38.11	83.49	54.00	29.49	AVG	No Limit
2	5201.8000	54.99	38.12	93.11	68.30	24.81	Peak	No Limit

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

### Vertical

80 dBuV/m

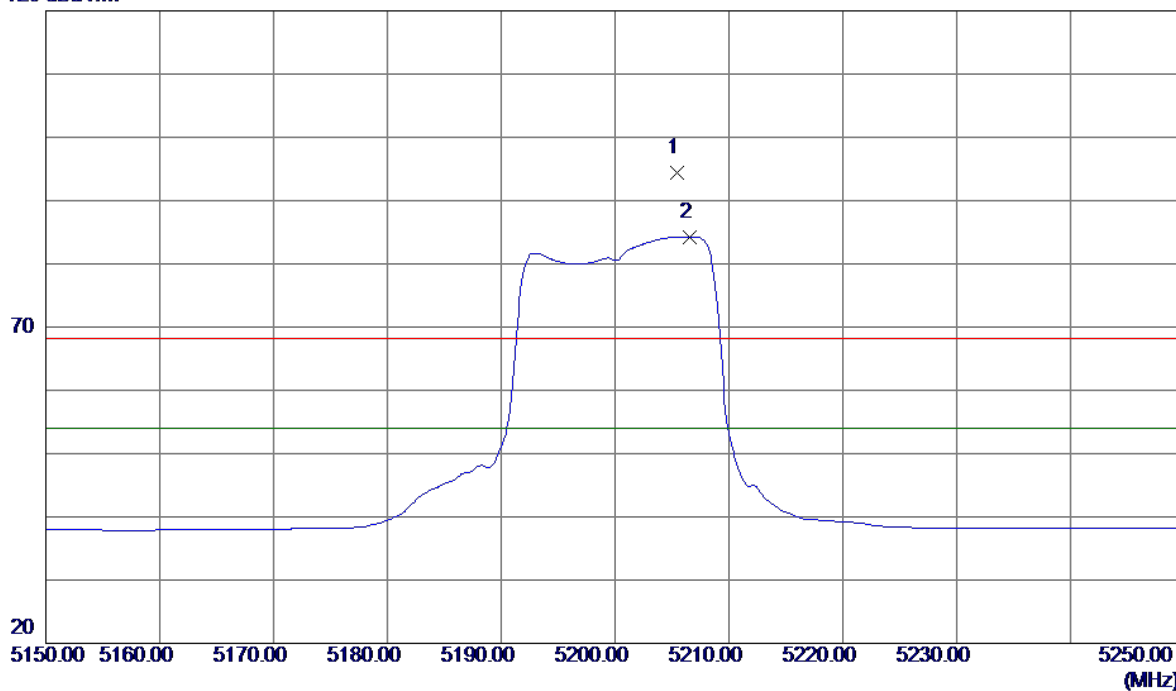


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10400.3500	38.09	13.80	51.89	68.30	-16.41	Peak	
2	10400.3200	26.51	13.80	40.31	54.00	-13.69	AVG	

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

### Horizontal

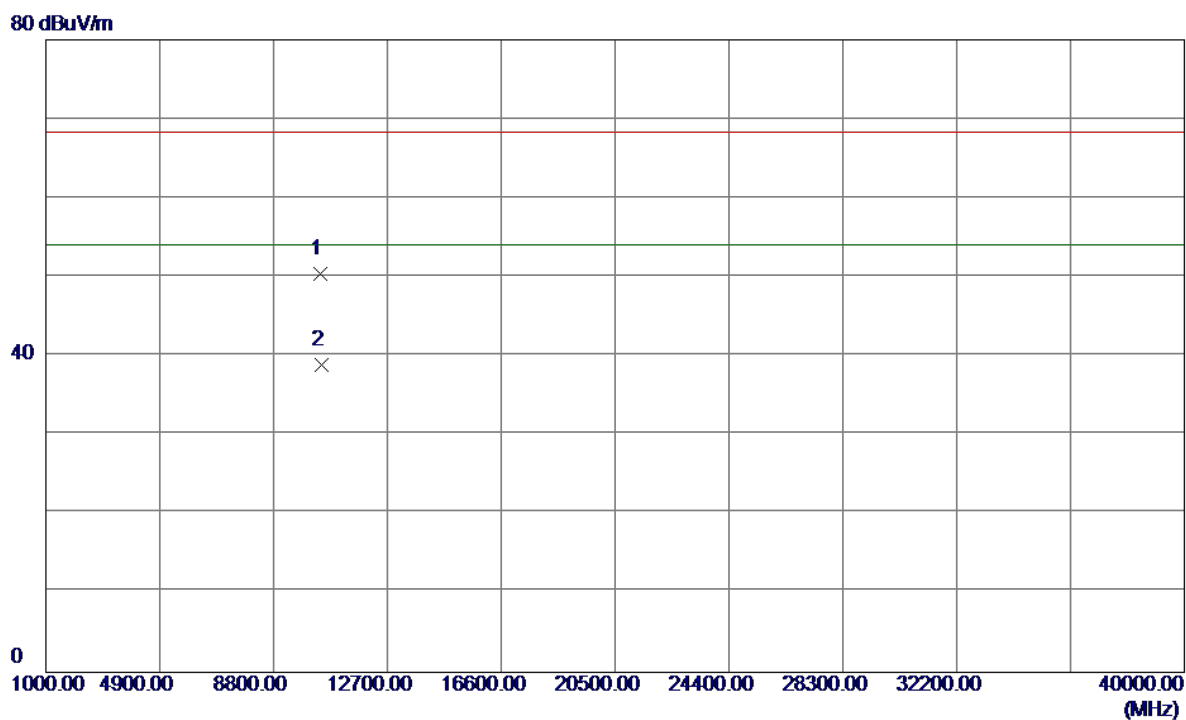
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5205.4000	56.17	38.14	94.31	68.30	26.01	Peak	No Limit
2	5206.6000	46.12	38.14	84.26	54.00	30.26	AVG	No Limit

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

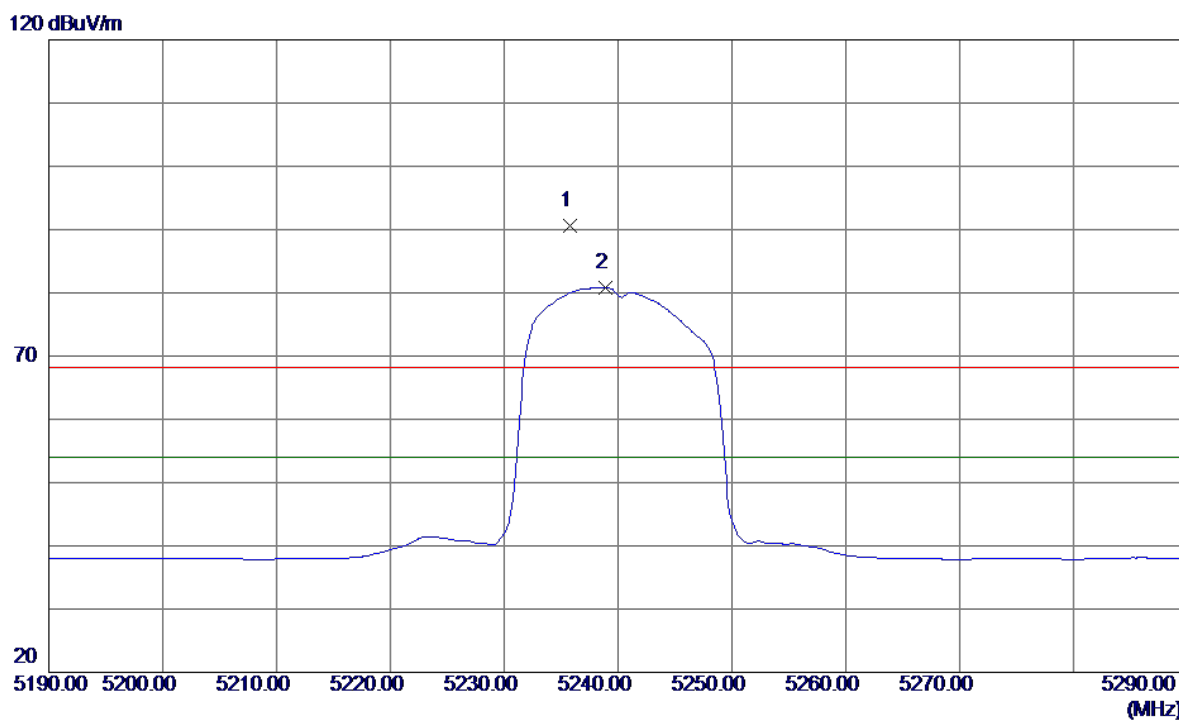
### Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10400.6700	36.59	13.80	50.39	68.30	-17.91	Peak	
2	10440.6700	25.11	13.75	38.86	54.00	-15.14	AVG	

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

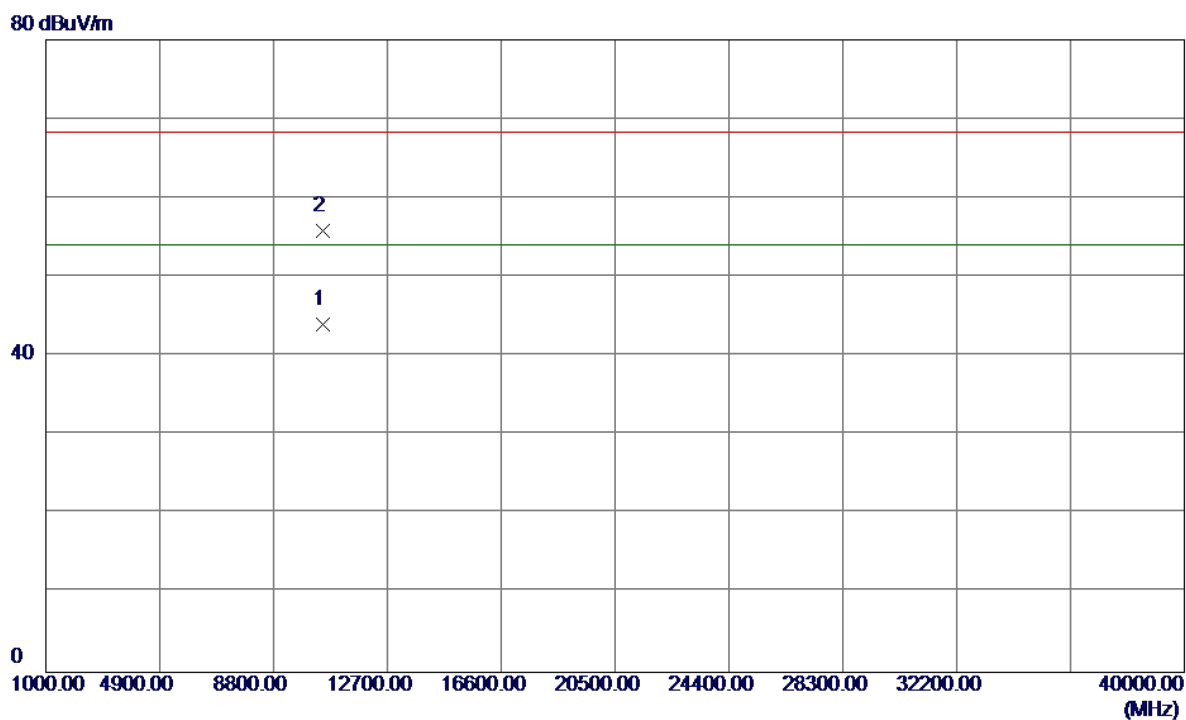
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5235.8000	52.31	38.27	90.58	68.30	22.28	Peak	No Limit
2	5238.9000	42.47	38.29	80.76	54.00	26.76	AVG	No Limit

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

### Vertical

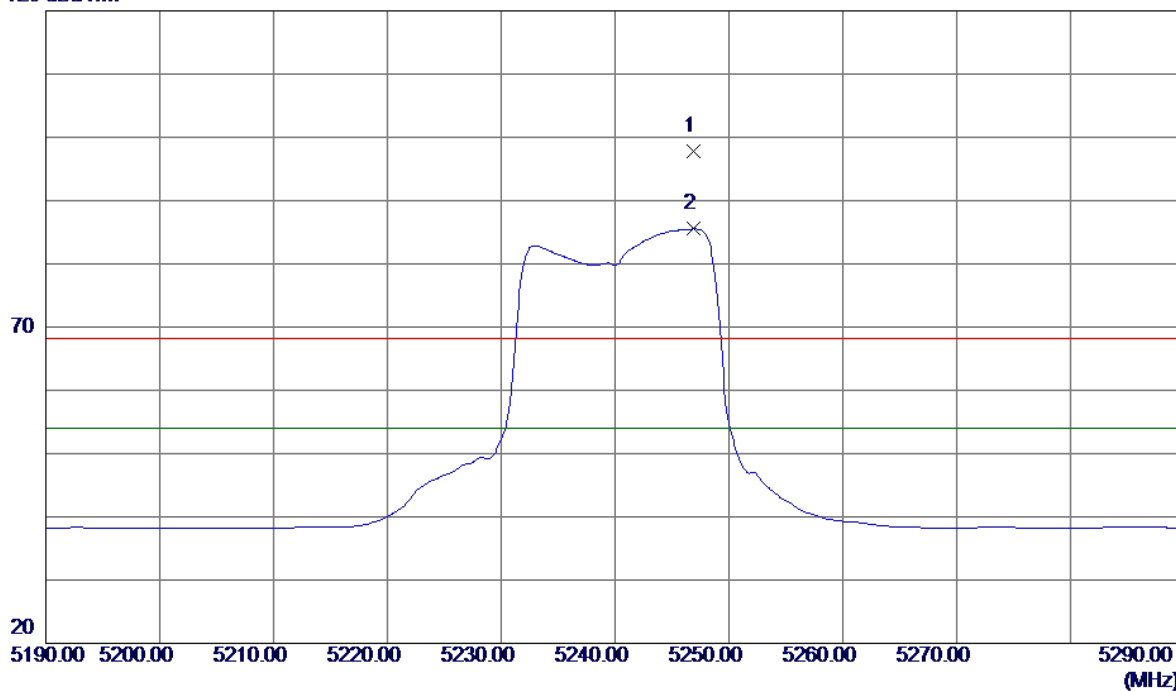


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10480.3400	30.38	13.69	44.07	54.00	-9.93	AVG	
2	10480.8610	42.20	13.69	55.89	68.30	-12.41	Peak	

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

### Horizontal

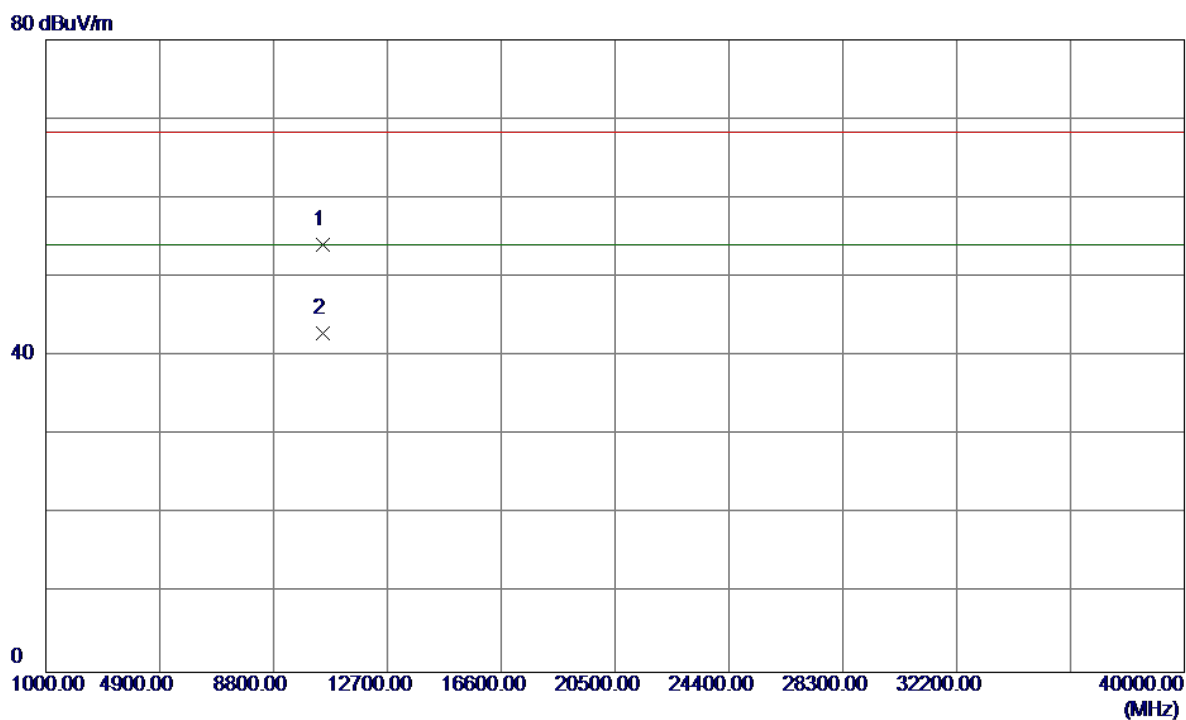
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5246.9000	59.48	38.32	97.80	68.30	29.50	Peak	No Limit
2	5246.9000	47.19	38.32	85.51	54.00	31.51	AVG	No Limit

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

### Horizontal



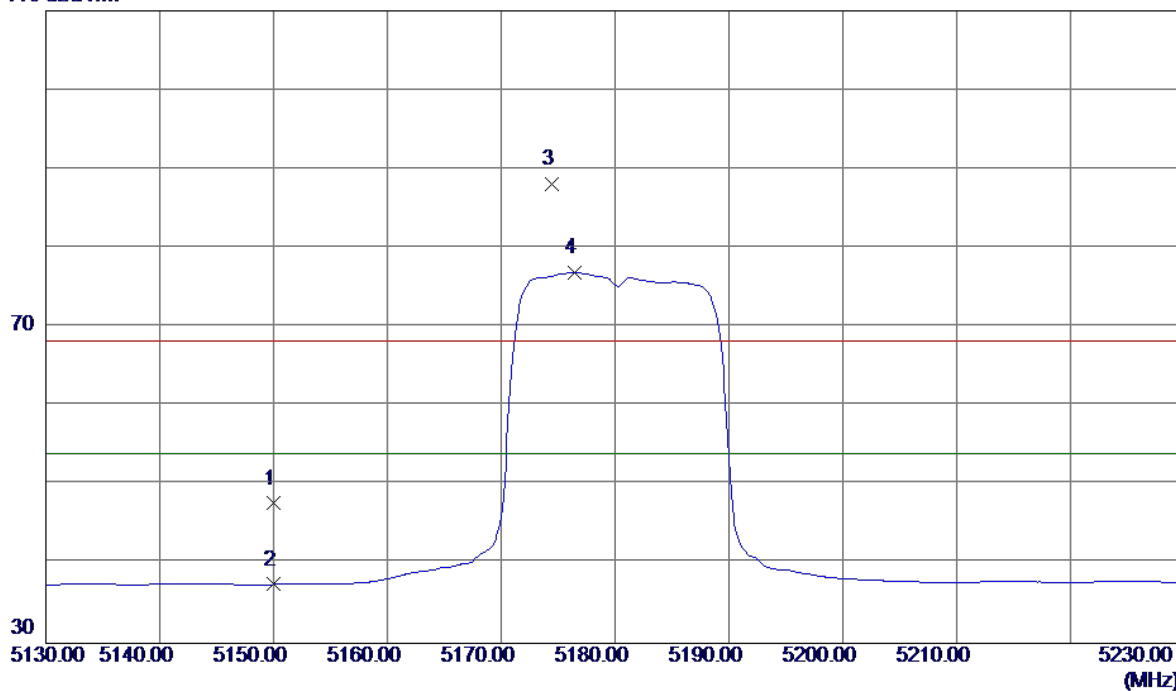
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10480.3200	40.42	13.69	54.11	68.30	-14.19	Peak	
2	10480.6470	29.17	13.69	42.86	54.00	-11.14	AVG	



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

### Vertical

110 dBuV/m

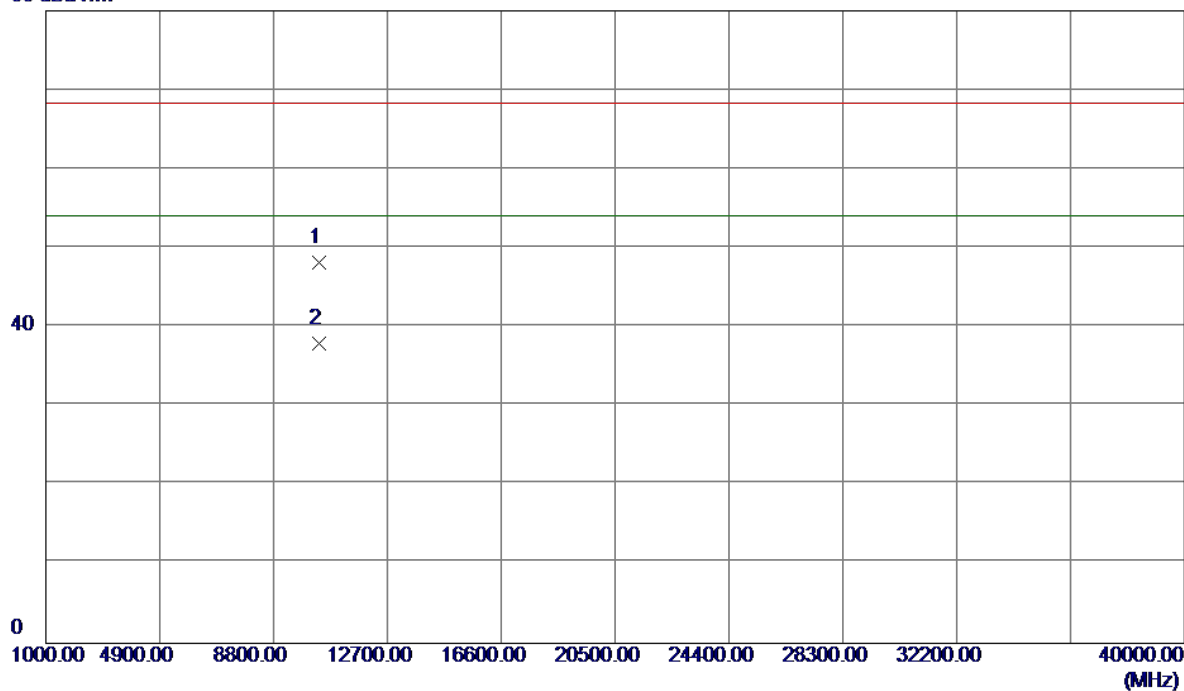


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	9.79	37.89	47.68	68.30	-20.62	Peak	
2	5150.0000	-0.45	37.89	37.44	54.00	-16.56	AVG	
3	5174.4000	50.06	38.00	88.06	68.30	19.76	Peak	No Limit
4	5176.4000	38.92	38.01	76.93	54.00	22.93	AVG	No Limit

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

### Vertical

80 dBuV/m

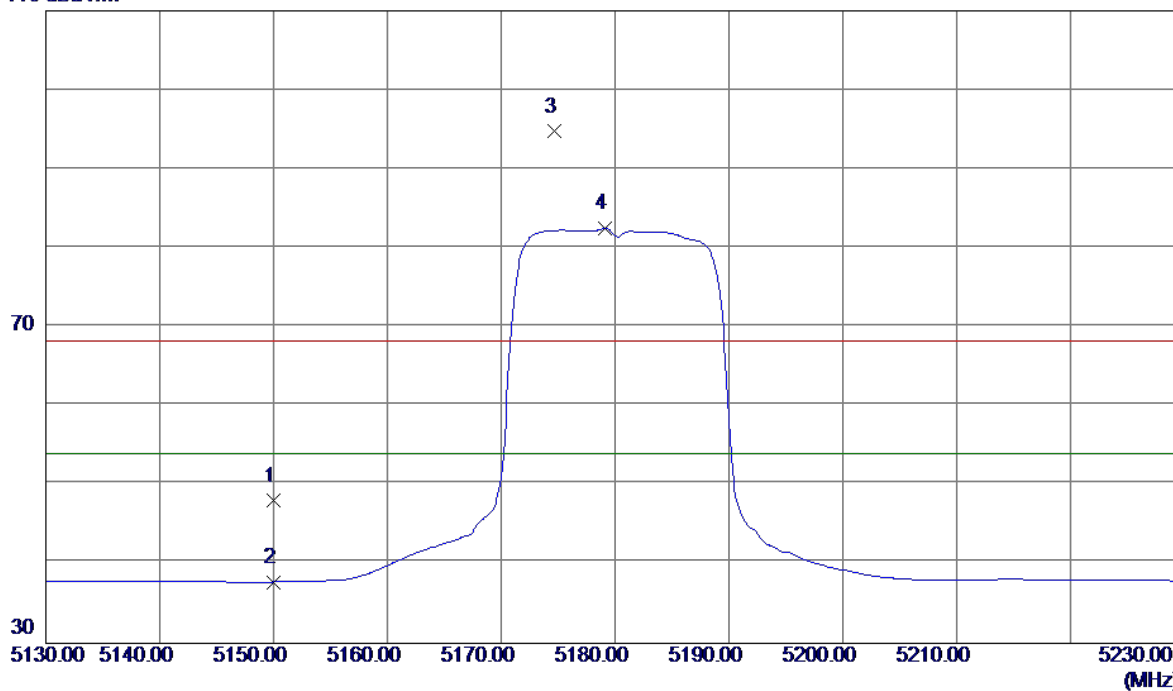


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10360.3540	34.34	13.86	48.20	68.30	-20.10	Peak	
2	10360.0800	24.11	13.86	37.97	54.00	-16.03	AVG	

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

### Horizontal

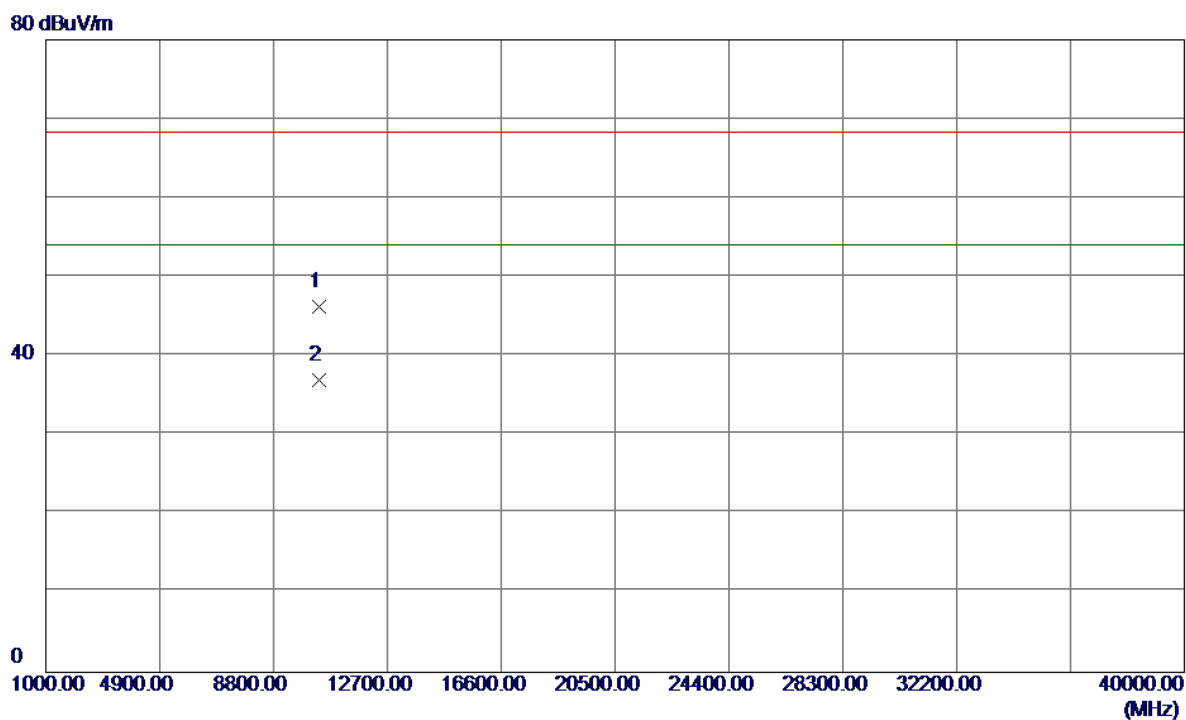
110 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	10.11	37.89	48.00	68.30	-20.30	Peak	
2	5150.0000	-0.13	37.89	37.76	54.00	-16.24	AVG	
3	5174.7000	56.72	38.00	94.72	68.30	26.42	Peak	No Limit
4	5179.1000	44.41	38.02	82.43	54.00	28.43	AVG	No Limit

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

### Horizontal

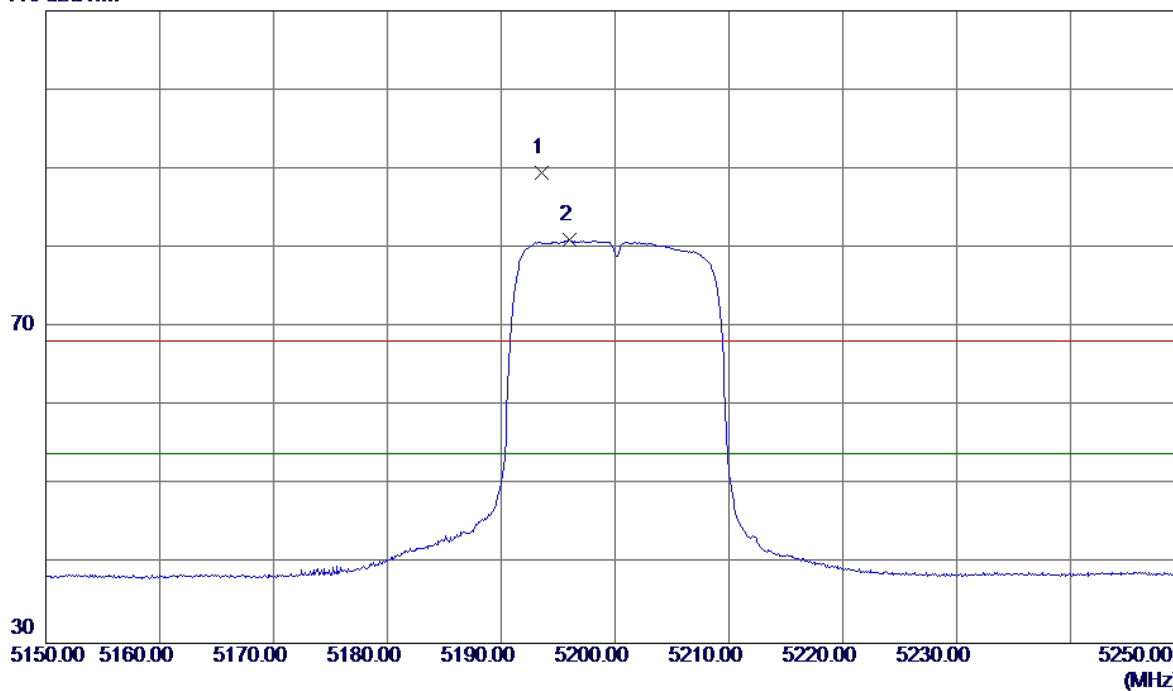


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10360.2590	32.34	13.86	46.20	68.30	-22.10	Peak	
2	10360.3500	23.14	13.86	37.00	54.00	-17.00	AVG	

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

### Vertical

110 dBuV/m

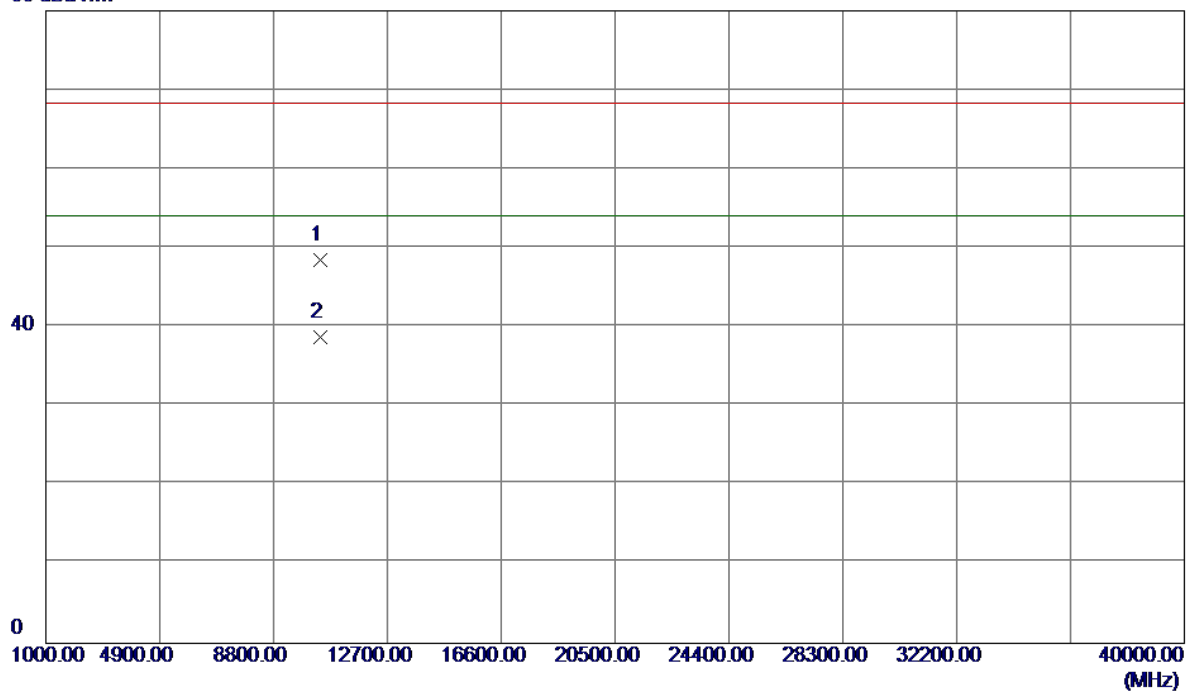


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5193.6000	51.50	38.09	89.59	68.30	21.29	Peak	No Limit
2	5196.0000	42.87	38.10	80.97	54.00	26.97	AVG	No Limit

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

### Vertical

80 dBuV/m

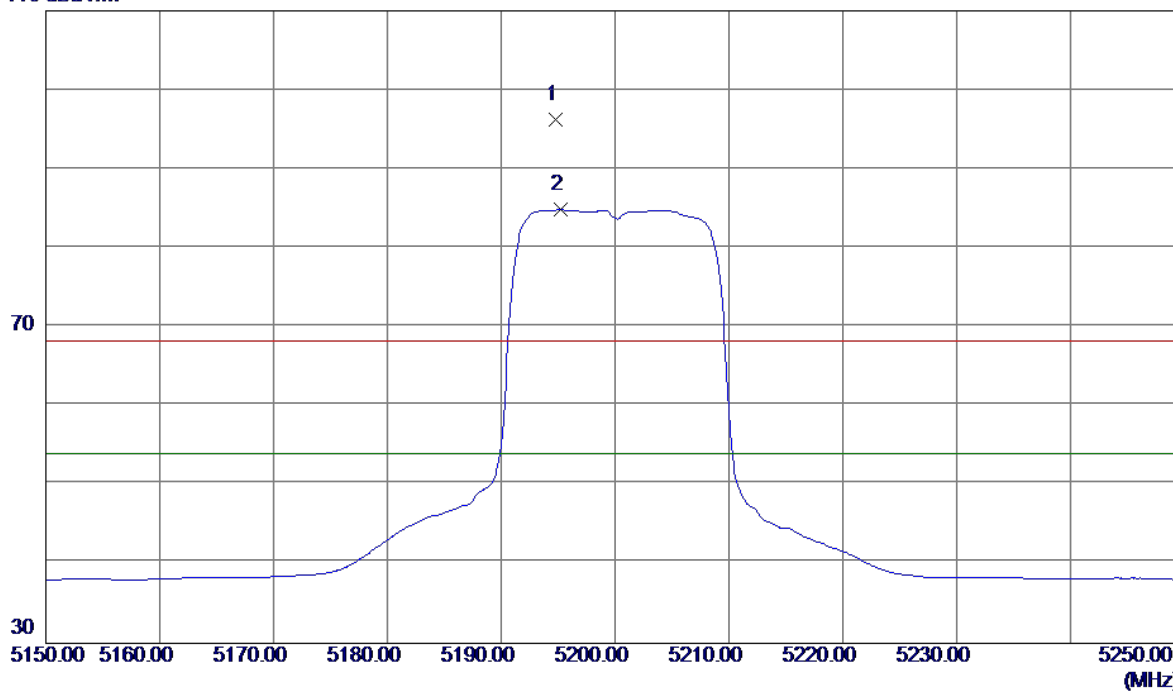


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	10400.3530	34.65	13.80	48.45	68.30	-19.85	Peak	
2	10400.1730	24.87	13.80	38.67	54.00	-15.33	AVG	

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

### Horizontal

110 dBuV/m

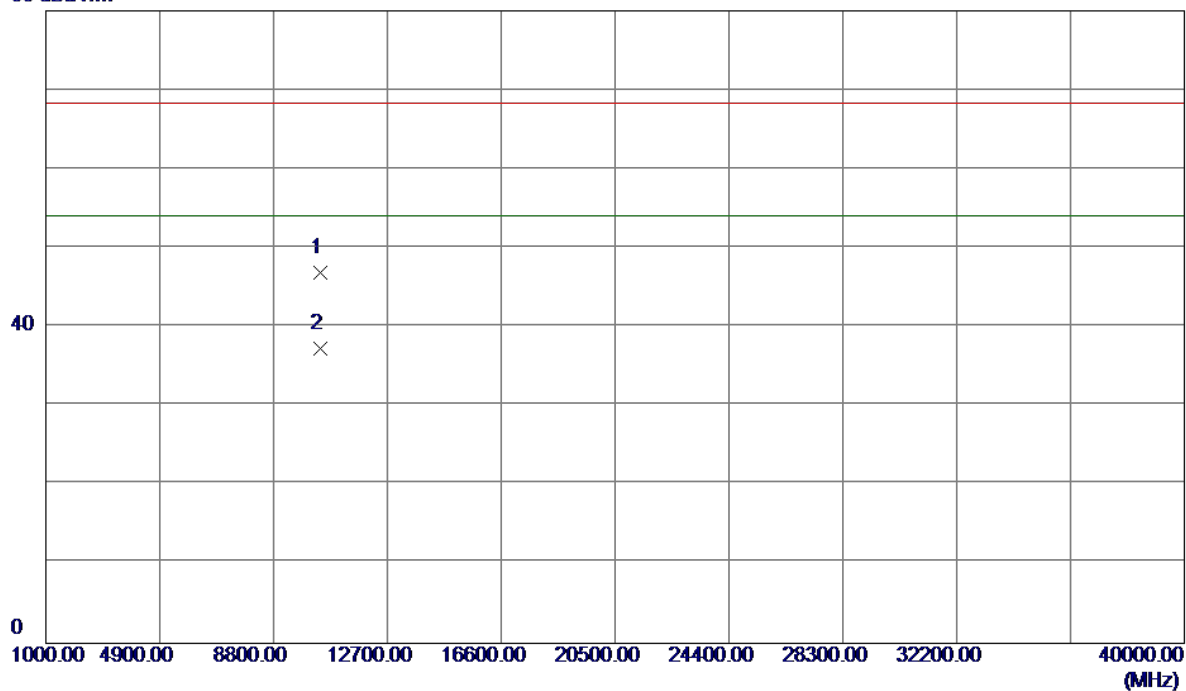


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5194.8000	58.10	38.09	96.19	68.30	27.89	Peak	No Limit
2	5195.2000	46.74	38.09	84.83	54.00	30.83	AVG	No Limit

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

### Horizontal

80 dBuV/m



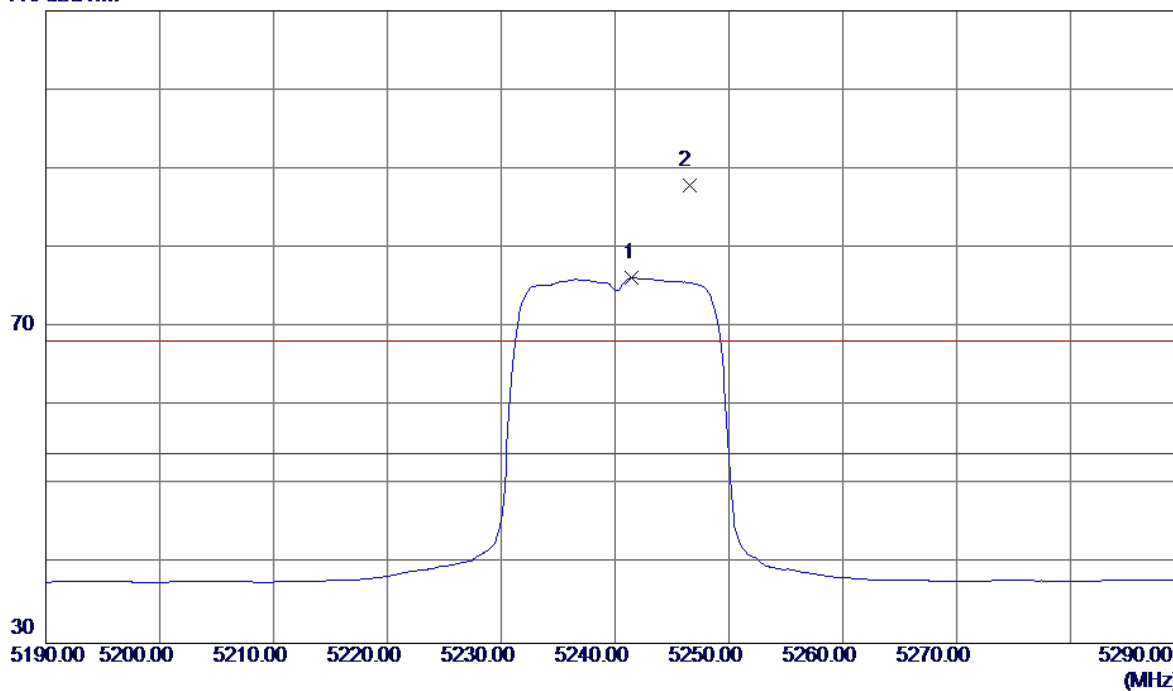
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10400.2200	33.02	13.80	46.82	68.30	-21.48	Peak	
2	10400.2200	23.54	13.80	37.34	54.00	-16.66	AVG	



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

### Vertical

110 dBuV/m

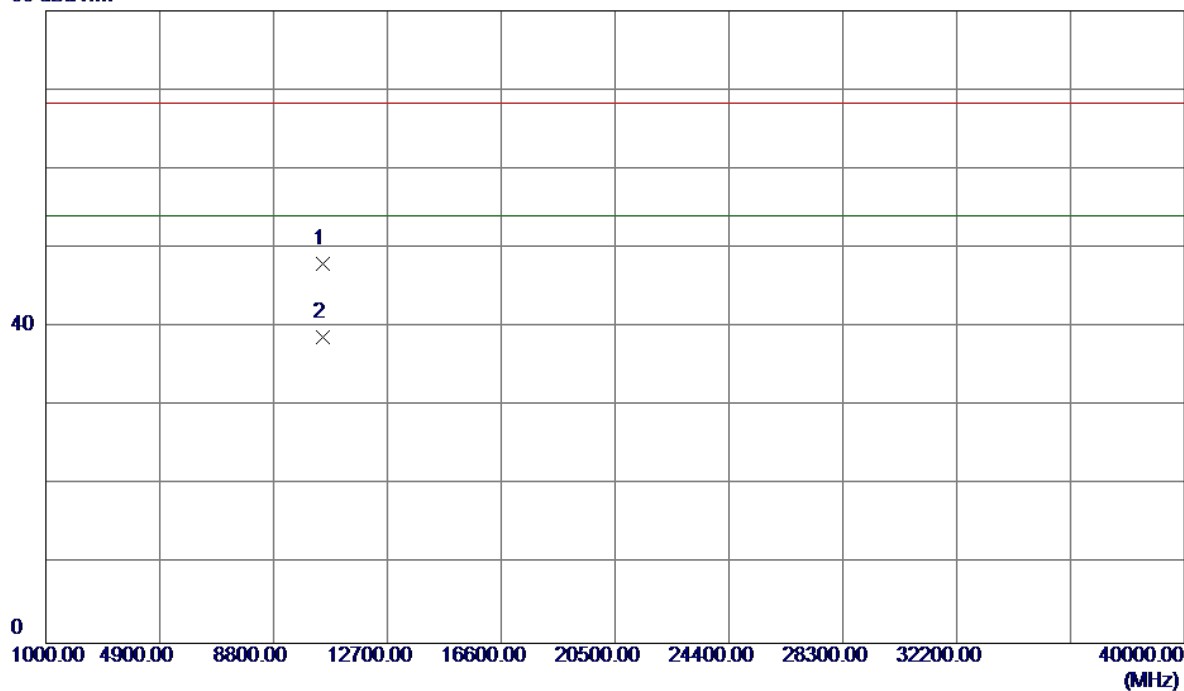


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5241.5000	37.95	38.30	76.25	54.00	22.25	AVG	No Limit
2	5246.5000	49.55	38.32	87.87	68.30	19.57	Peak	No Limit

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

### Vertical

80 dBuV/m

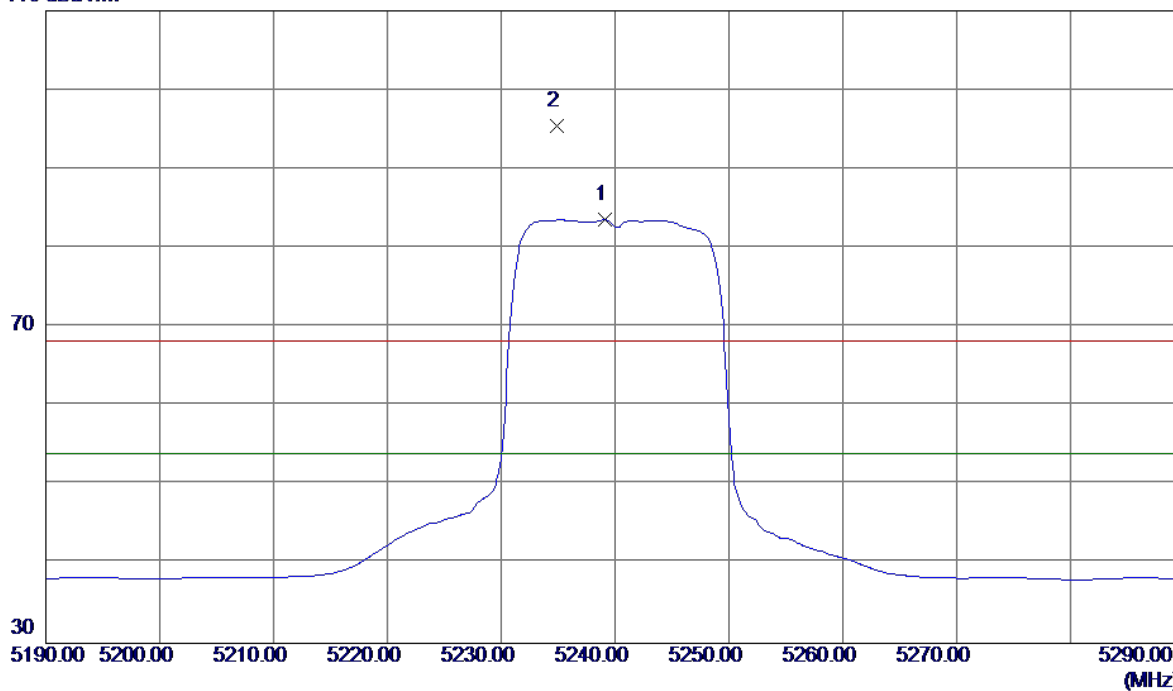


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10480.3099	34.34	13.69	48.03	68.30	-20.27	Peak	
2	10480.3099	25.10	13.69	38.79	54.00	-15.21	AVG	

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

### Horizontal

110 dBuV/m

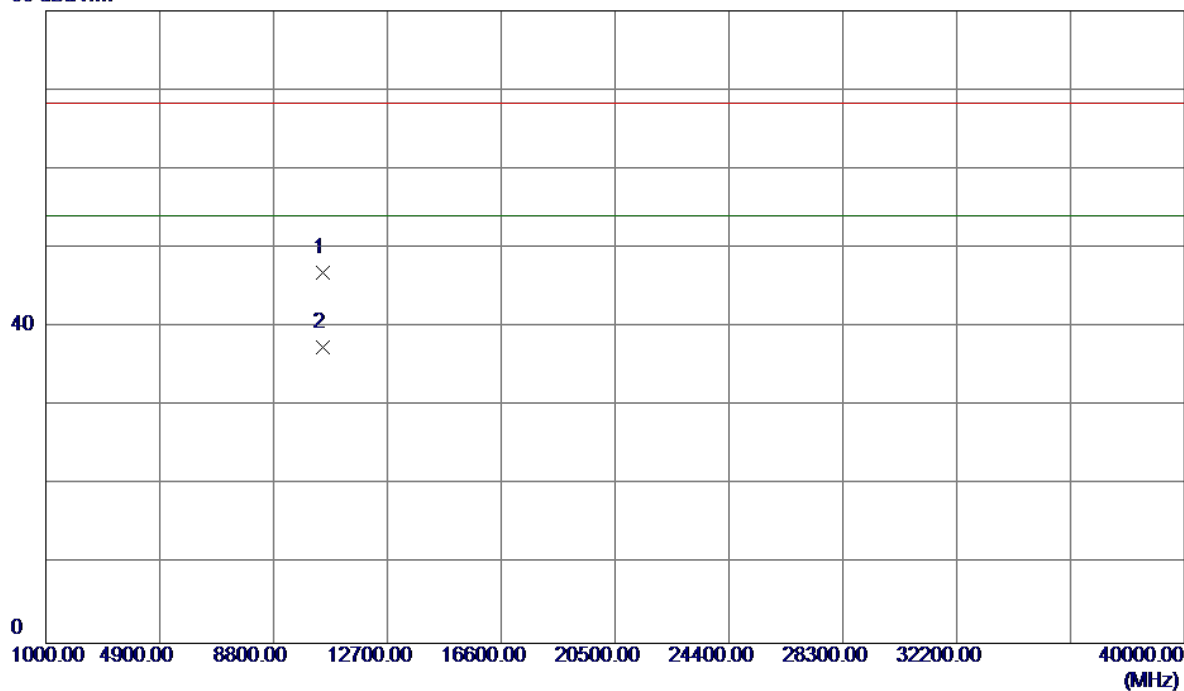


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5239.1000	45.27	38.29	83.56	54.00	29.56	AVG	No Limit
2	5234.9000	57.18	38.27	95.45	68.30	27.15	Peak	No Limit

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

### Horizontal

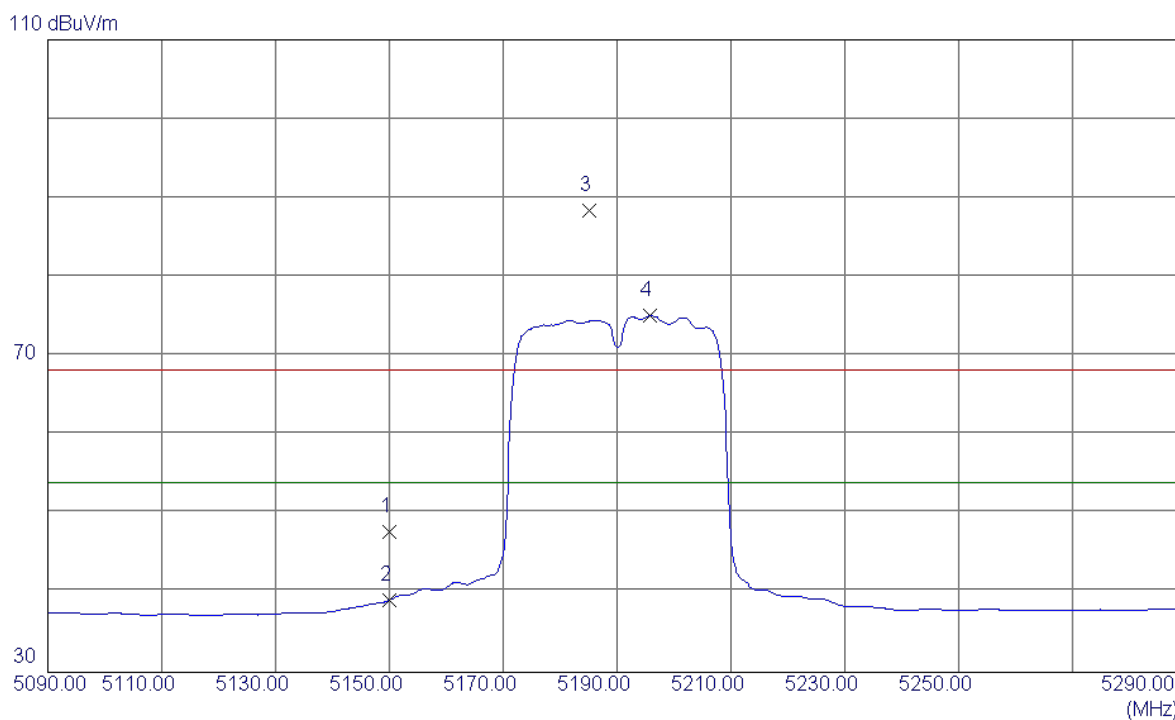
80 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10480.3680	33.22	13.69	46.91	68.30	-21.39	Peak	
2	10480.6600	23.71	13.69	37.40	54.00	-16.60	AVG	

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

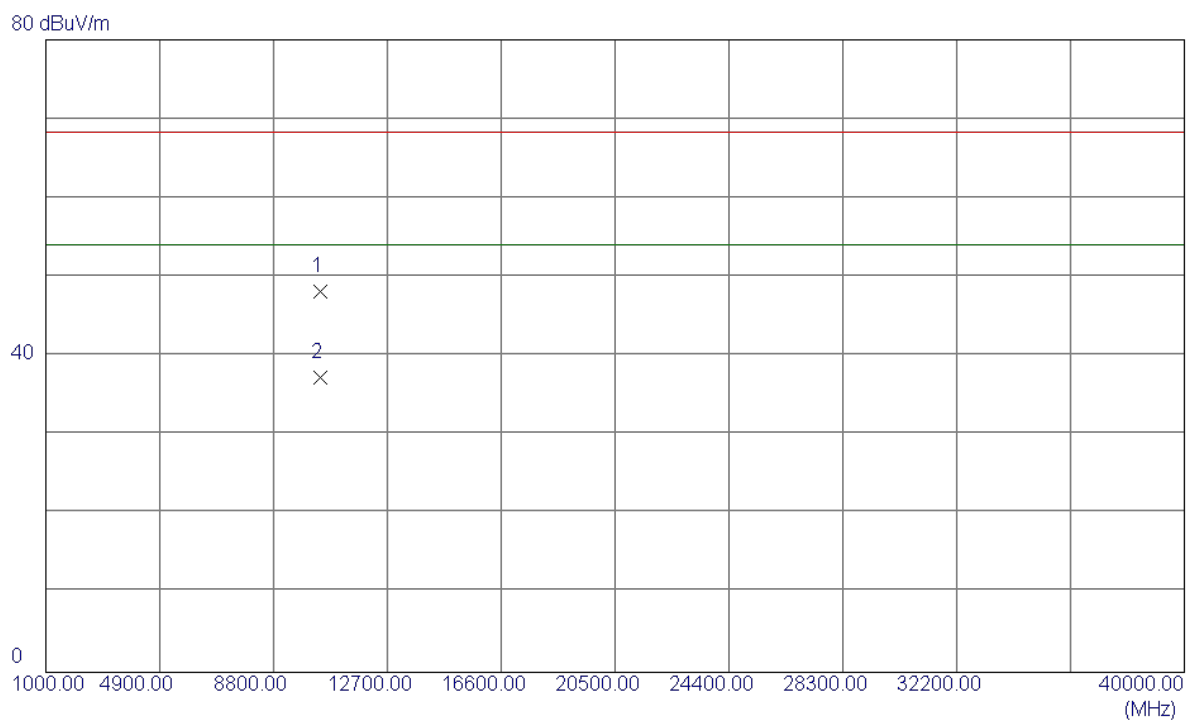
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	9.90	37.89	47.79	68.30	-20.51	Peak	
2	5150.0000	1.25	37.89	39.14	54.00	-14.86	AVG	
3	5185.2000	50.38	38.05	88.43	68.30	20.13	Peak	No Limit
4	5195.8000	36.97	38.10	75.07	54.00	21.07	AVG	No Limit

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

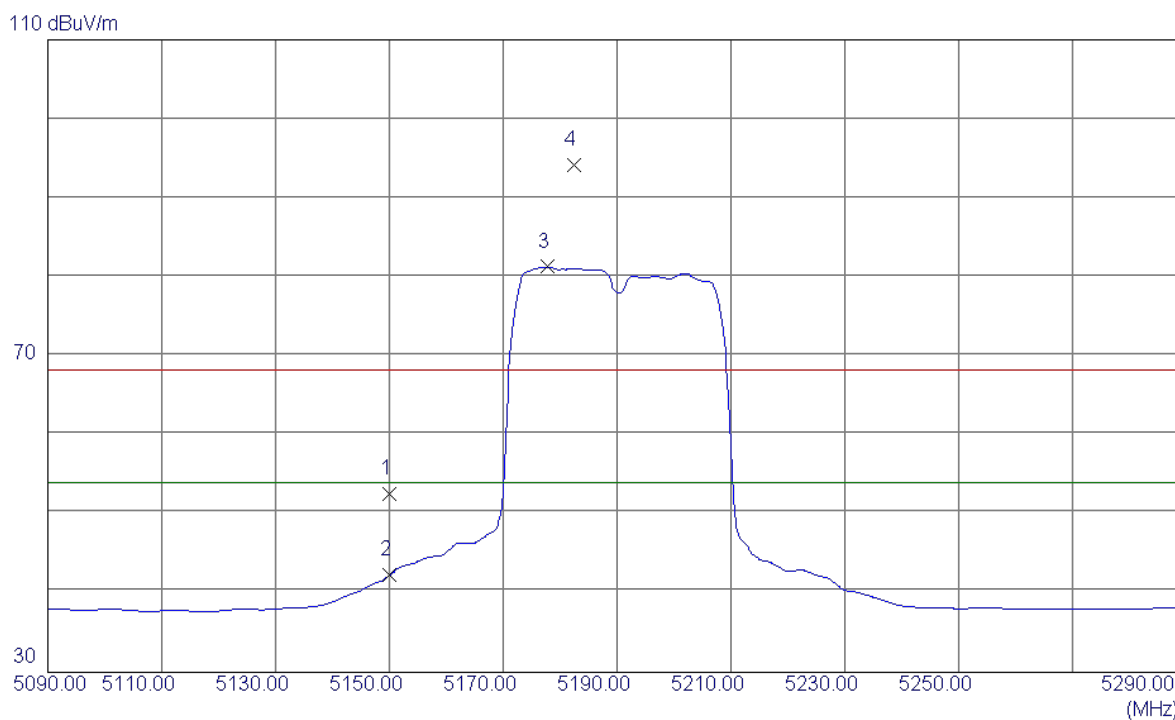
### Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10381.8000	34.26	13.83	48.09	68.30	-20.21	Peak	
2	10381.8270	23.43	13.83	37.26	54.00	-16.74	AVG	

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

### Horizontal

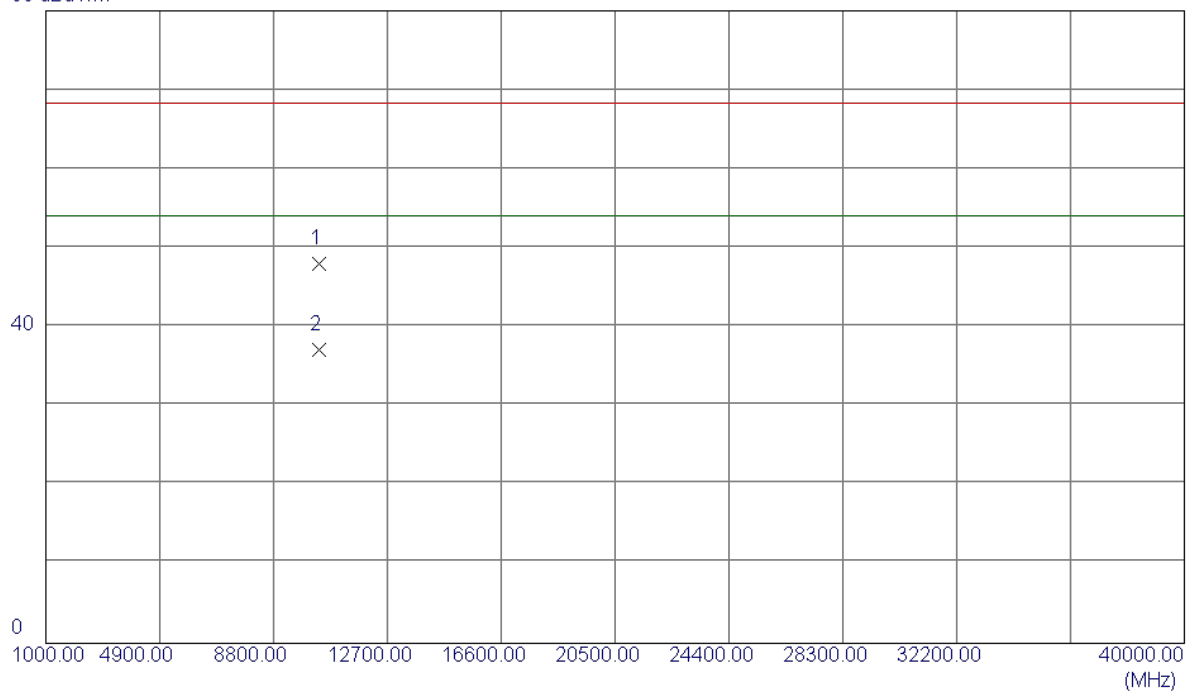


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	14.68	37.89	52.57	68.30	-15.73	Peak	
2	5150.0000	4.38	37.89	42.27	54.00	-11.73	AVG	
3	5177.8000	43.26	38.02	81.28	54.00	27.28	AVG	No Limit
4	5182.4000	56.18	38.04	94.22	68.30	25.92	Peak	No Limit

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

### Horizontal

80 dBuV/m

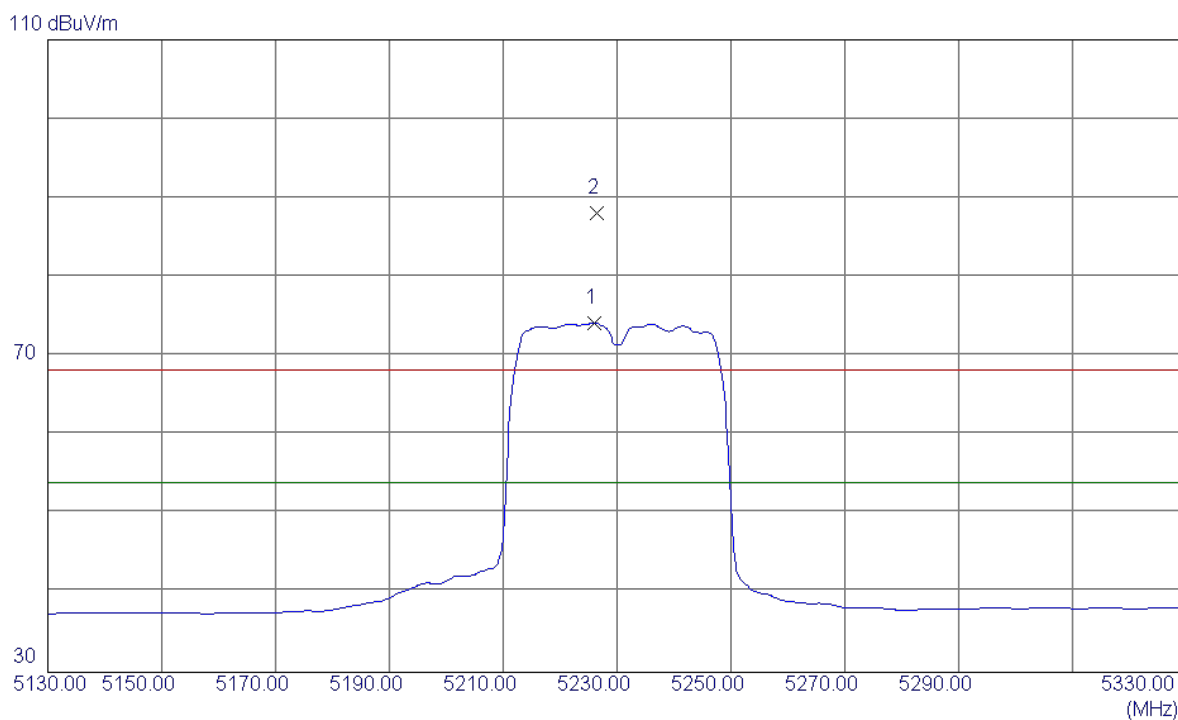


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10380.9600	34.18	13.83	48.01	68.30	-20.29	Peak	
2	10380.9600	23.26	13.83	37.09	54.00	-16.91	AVG	



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

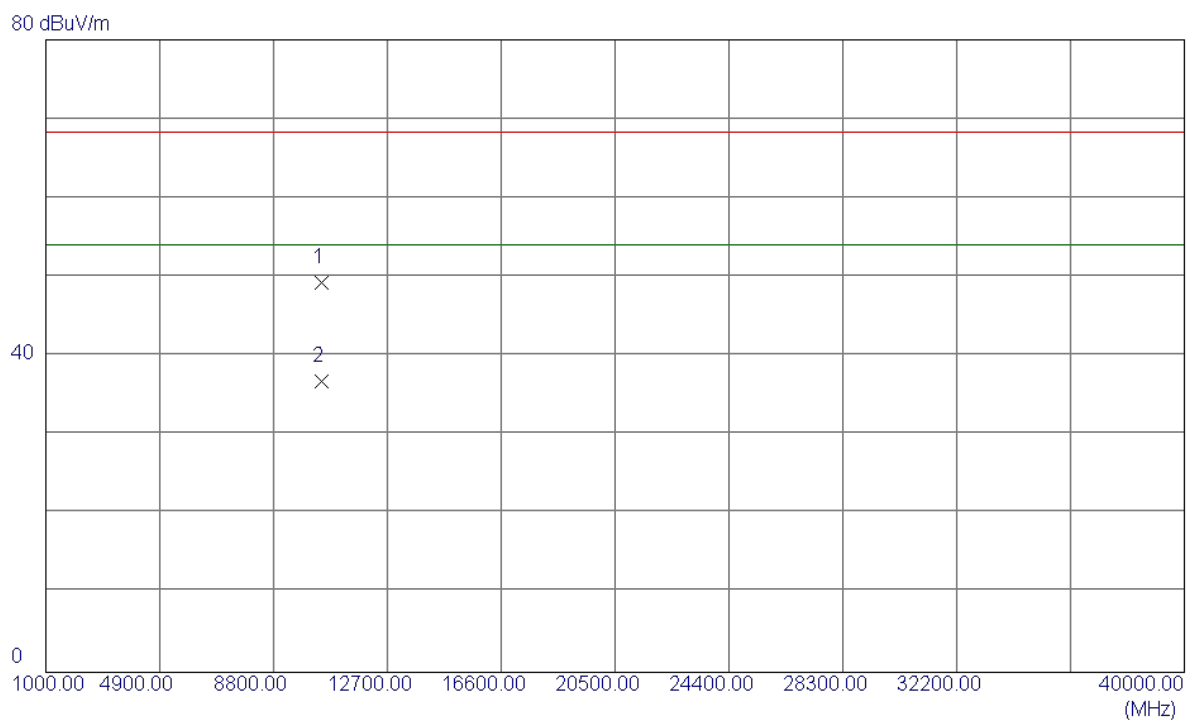
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5226.0000	35.91	38.23	74.14	54.00	20.14	AVG	No Limit
2	5226.4000	49.87	38.23	88.10	68.30	19.80	Peak	No Limit

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

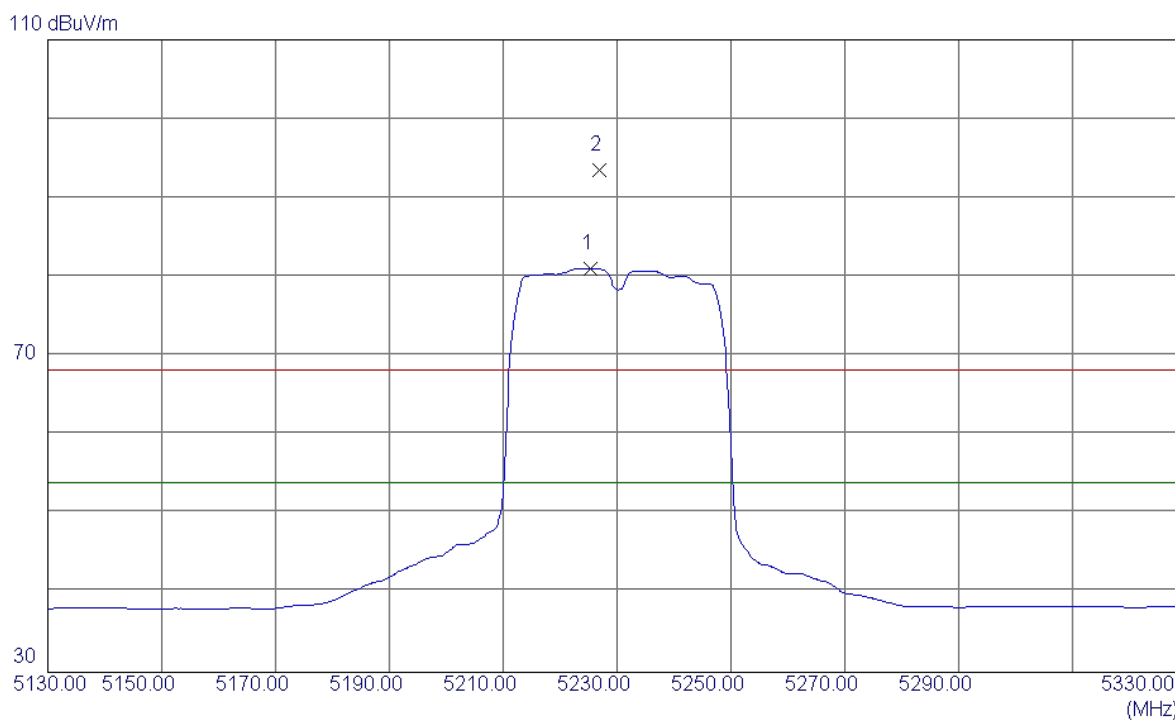
### Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10460.6200	35.62	13.72	49.34	68.30	-18.96	Peak	
2	10460.6449	23.15	13.72	36.87	54.00	-17.13	AVG	

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

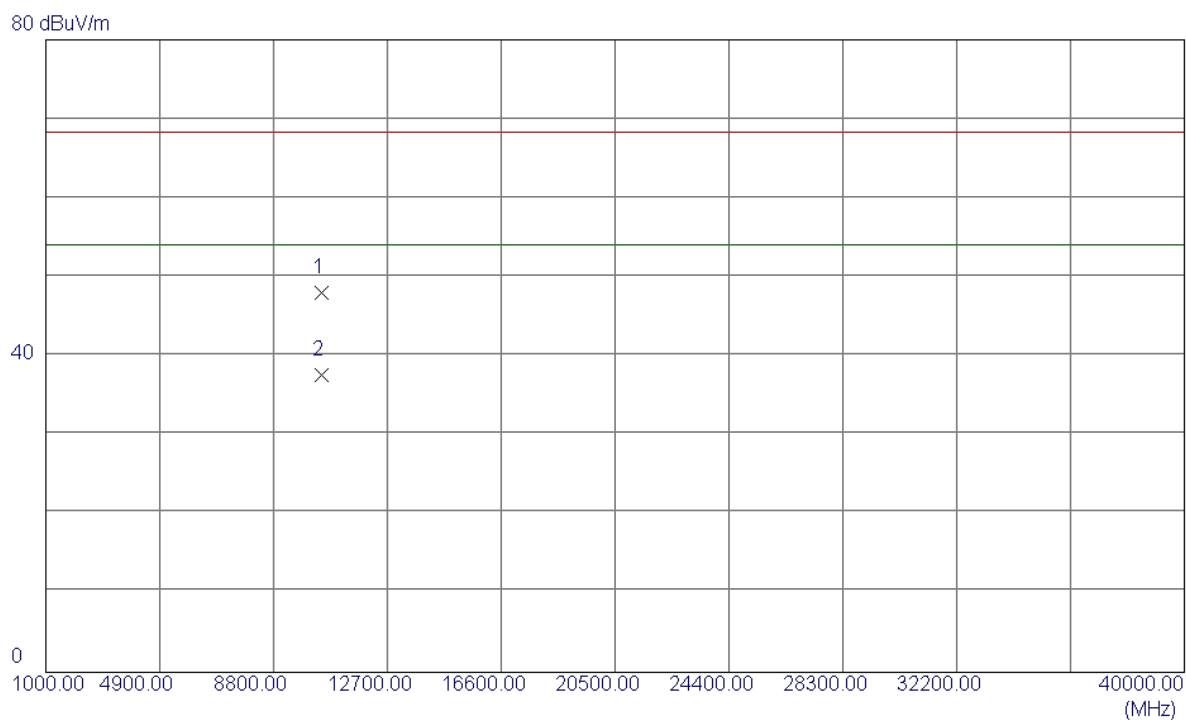
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5225.4000	42.86	38.23	81.09	54.00	27.09	AVG	No Limit
2	5226.8000	55.26	38.23	93.49	68.30	25.19	Peak	No Limit

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

### Horizontal

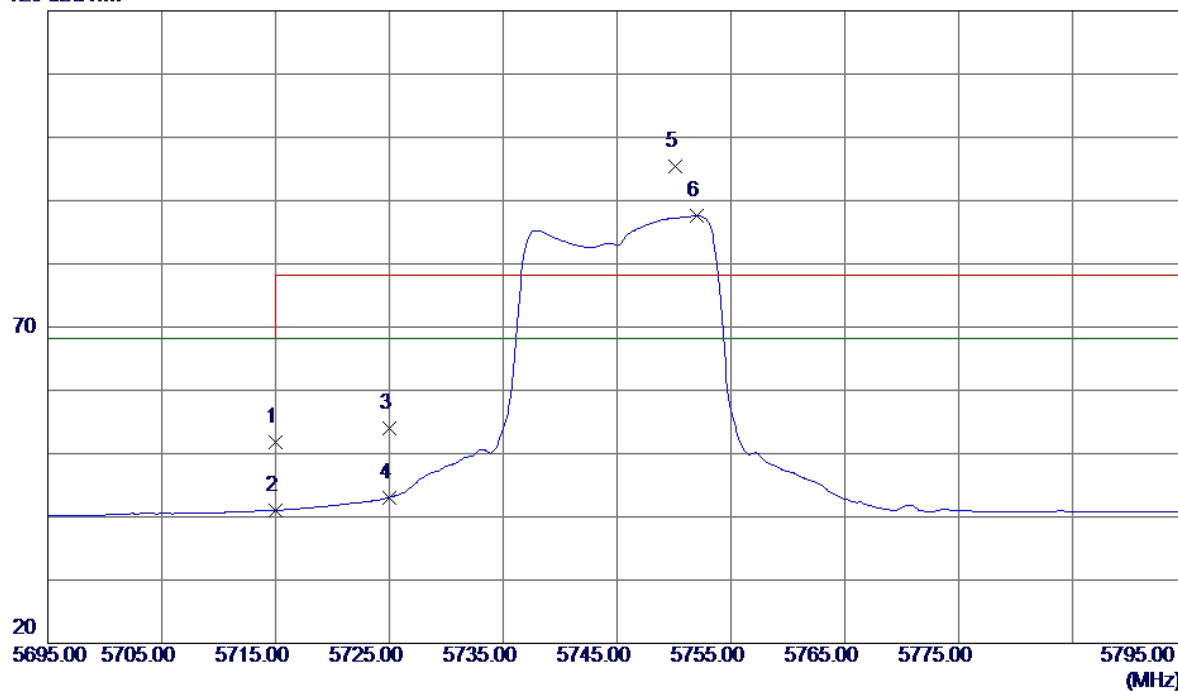


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10460.8800	34.26	13.72	47.98	68.30	-20.32	Peak	
2	10460.8800	23.83	13.72	37.55	54.00	-16.45	AVG	

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

### Vertical

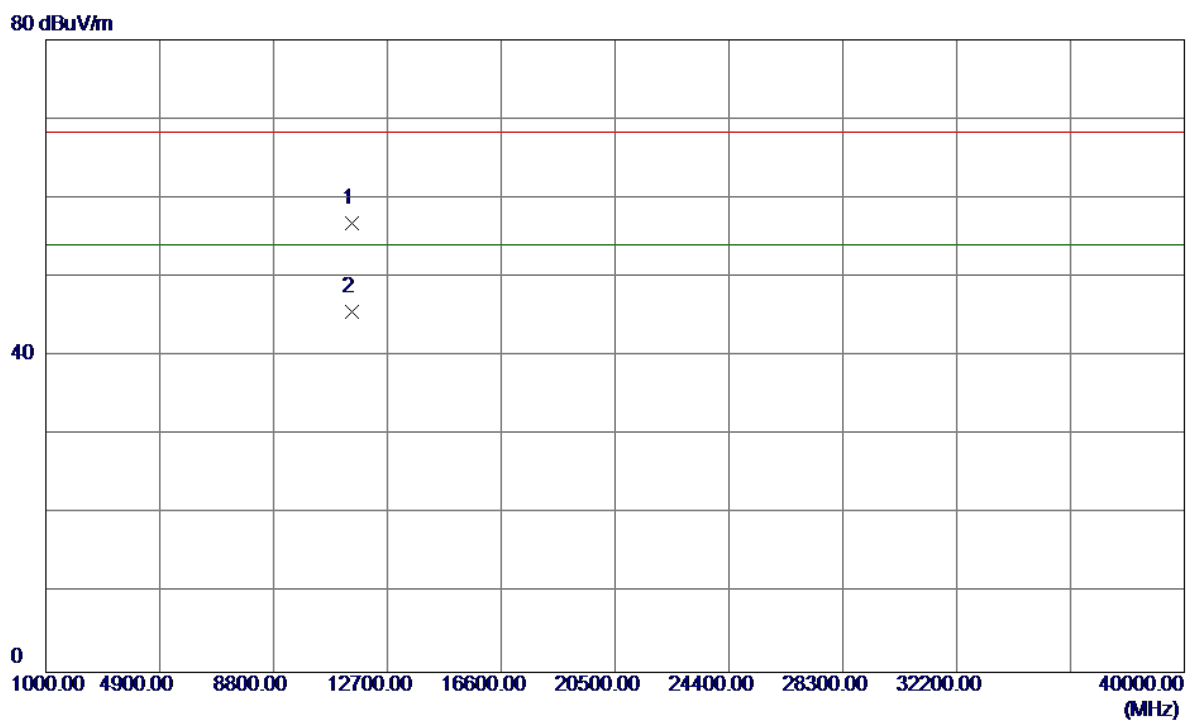
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	11.19	40.54	51.73	68.30	-16.57	Peak	
2	5715.0000	0.48	40.54	41.02	68.30	-27.28	AVG	
3	5725.0000	13.40	40.59	53.99	78.30	-24.31	Peak	
4	5725.0000	2.47	40.59	43.06	68.30	-25.24	AVG	
5	5750.1000	54.75	40.72	95.47	78.30	17.17	Peak	No Limit
6	5752.0000	46.81	40.73	87.54	68.30	19.24	AVG	No Limit

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

### Vertical

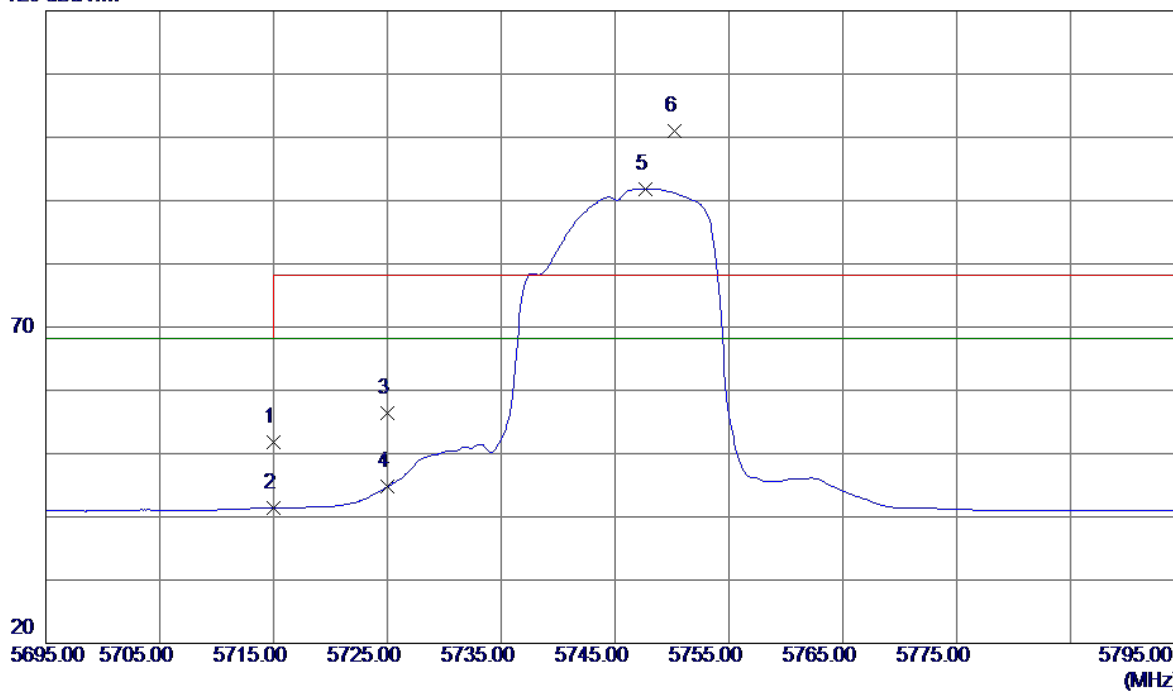


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11490.4300	39.91	16.91	56.82	68.30	-11.48	Peak	
2	11490.1100	28.76	16.91	45.67	54.00	-8.33	AVG	

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

### Horizontal

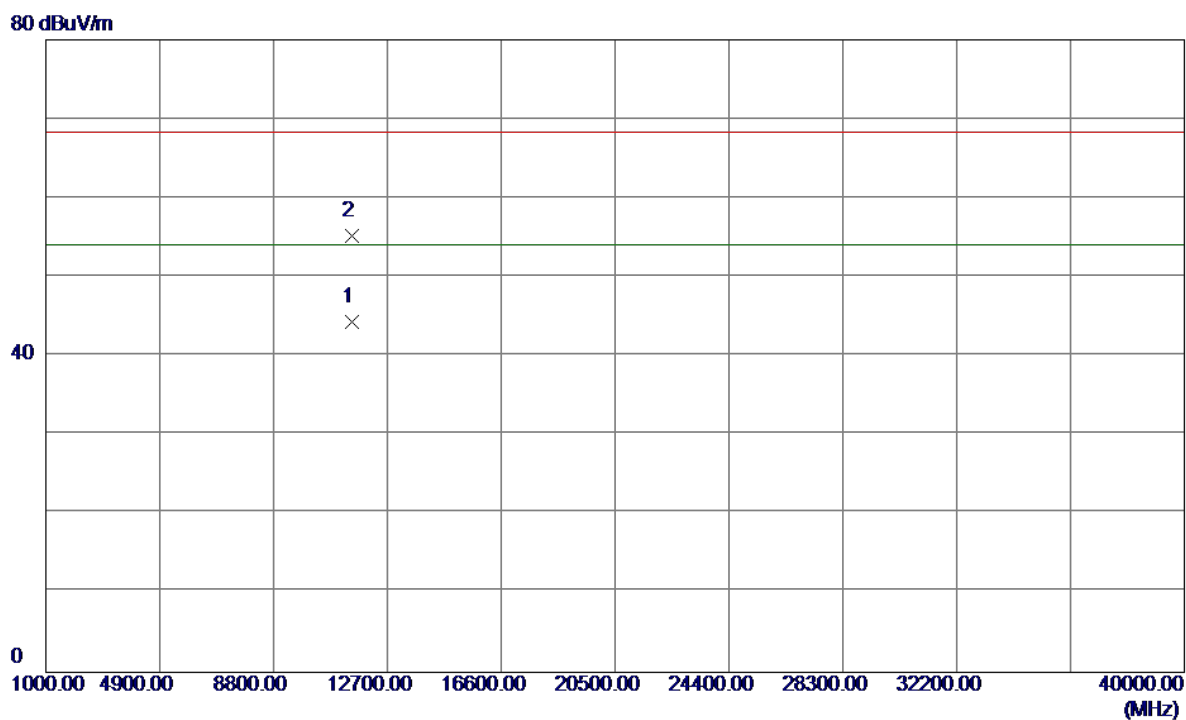
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	11.20	40.54	51.74	68.30	-16.56	Peak	
2	5715.0000	0.84	40.54	41.38	68.30	-26.92	AVG	
3	5725.0000	15.88	40.59	56.47	78.30	-21.83	Peak	
4	5725.0000	4.17	40.59	44.76	68.30	-23.54	AVG	
5	5747.7000	51.11	40.71	91.82	68.30	23.52	AVG	No Limit
6	5750.2000	60.30	40.72	101.02	78.30	22.72	Peak	No Limit

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

### Horizontal



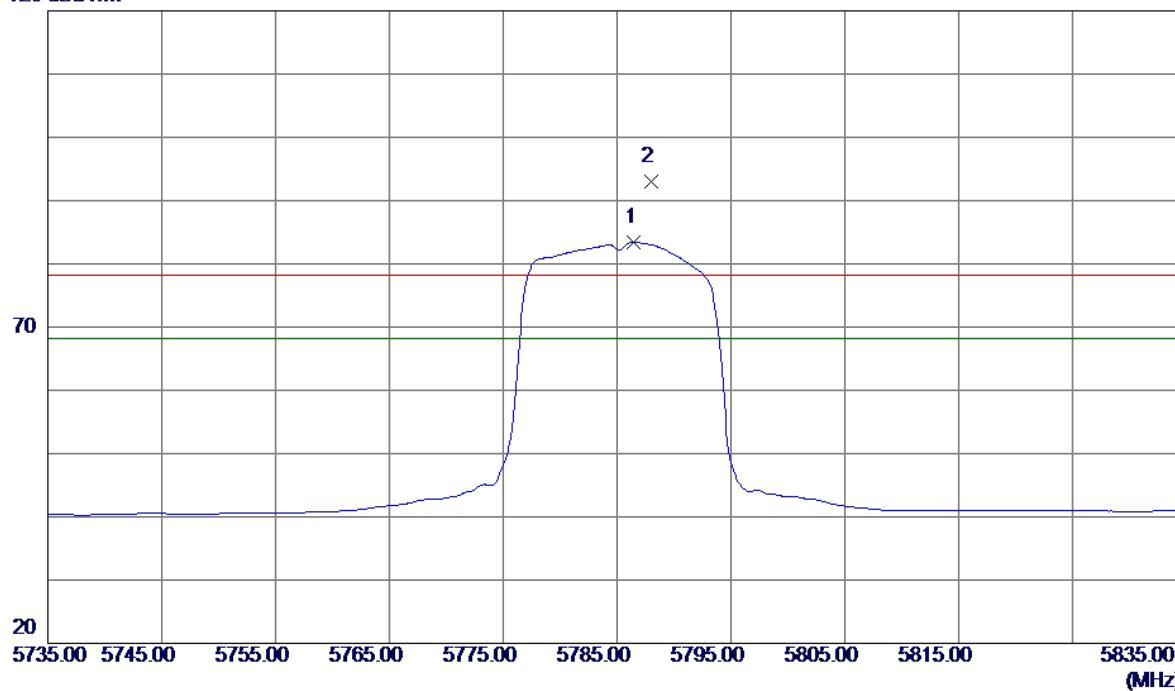
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11490.3500	27.36	16.91	44.27	54.00	-9.73	AVG	
2	11490.6120	38.25	16.91	55.16	68.30	-13.14	Peak	



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

### Vertical

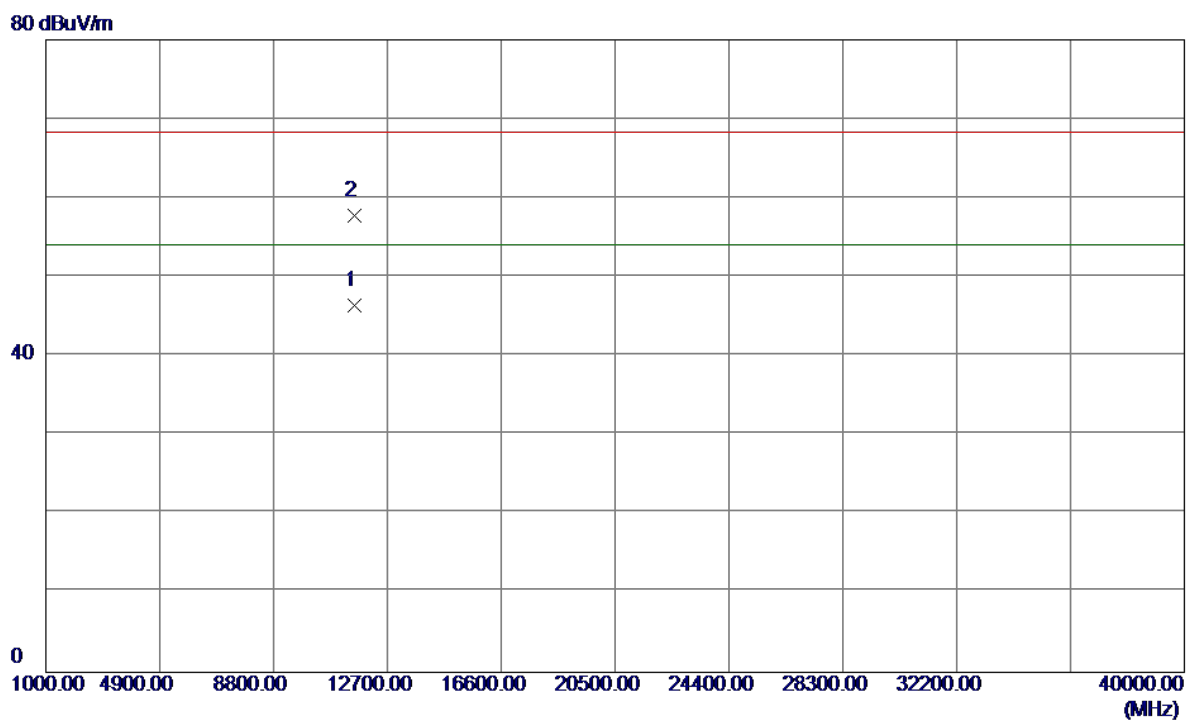
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5786.5000	42.50	40.91	83.41	68.30	15.11	AVG	No Limit
2	5788.0000	52.02	40.91	92.93	78.30	14.63	Peak	No Limit

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

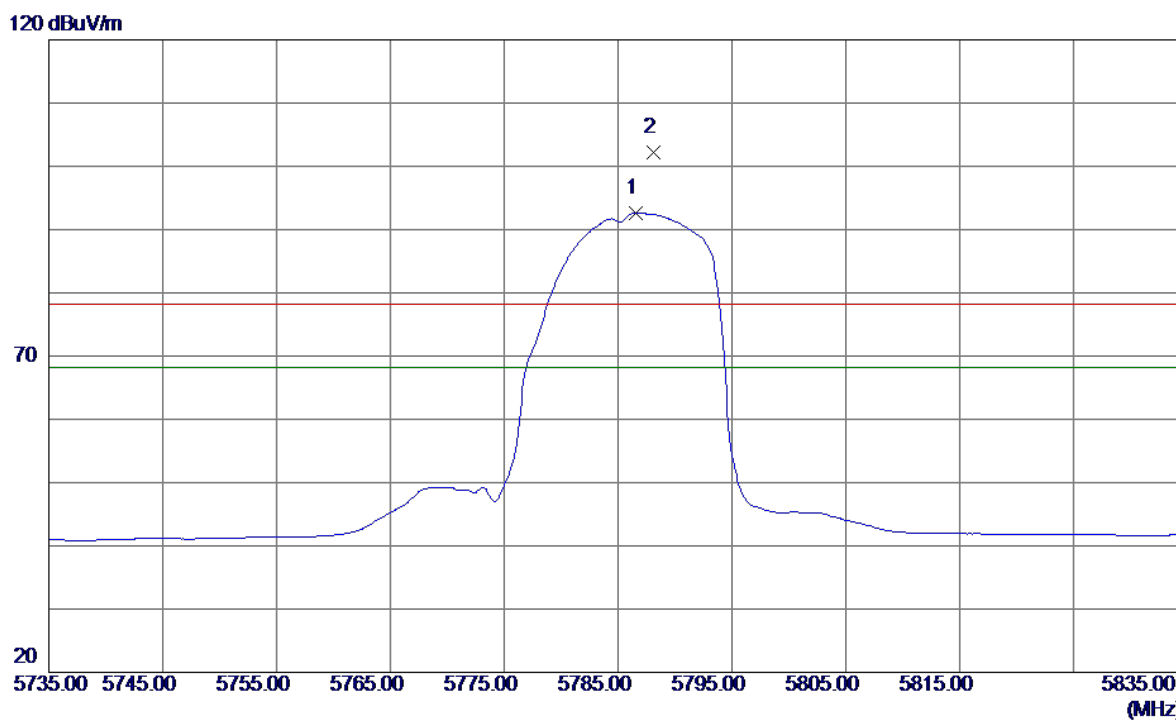
### Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11570.3300	29.37	17.05	46.42	54.00	-7.58	AVG	
2	11570.3640	40.72	17.05	57.77	68.30	-10.53	Peak	

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

### Horizontal

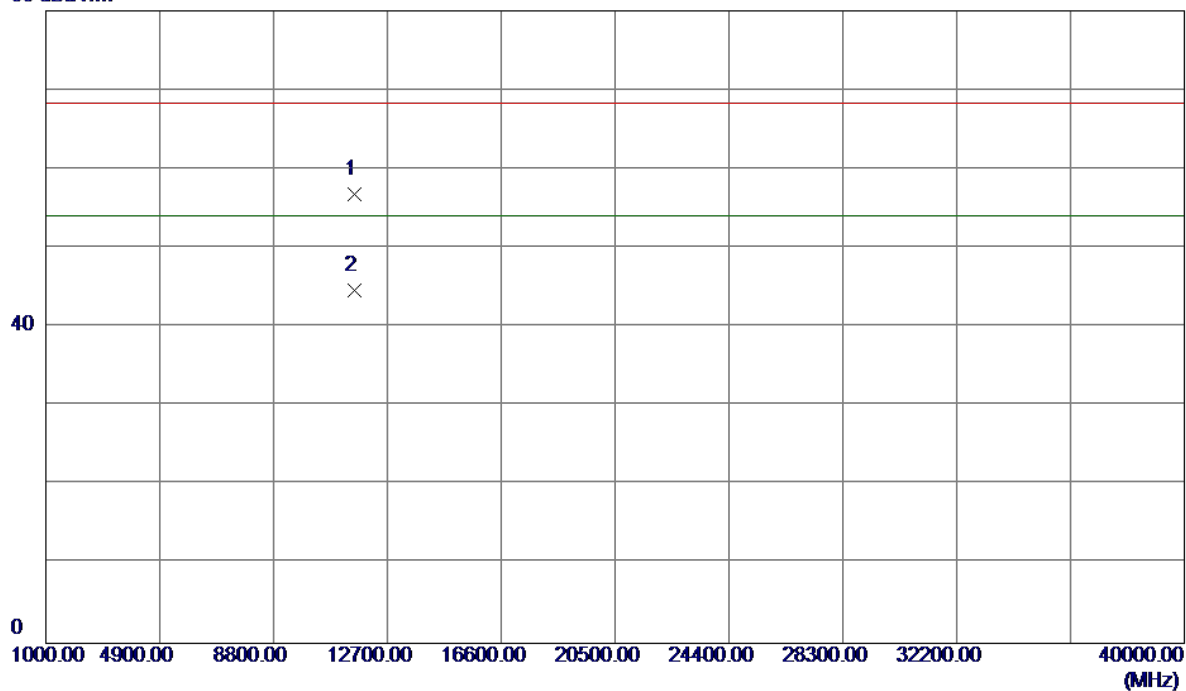


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5786.6000	51.71	40.91	92.62	68.30	24.32	AVG	No Limit
2	5788.1000	61.32	40.91	102.23	78.30	23.93	Peak	No Limit

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

### Horizontal

80 dBuV/m

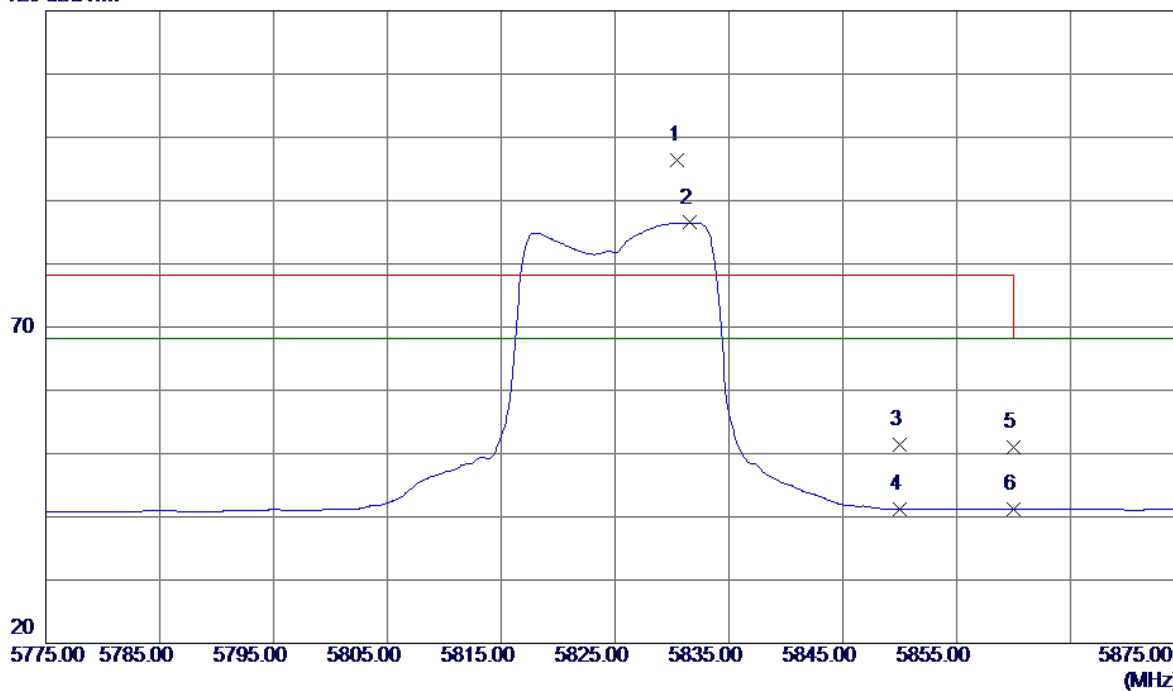


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11570.2200	39.76	17.05	56.81	68.30	-11.49	Peak	
2	11570.2200	27.61	17.05	44.66	54.00	-9.34	AVG	

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

### Vertical

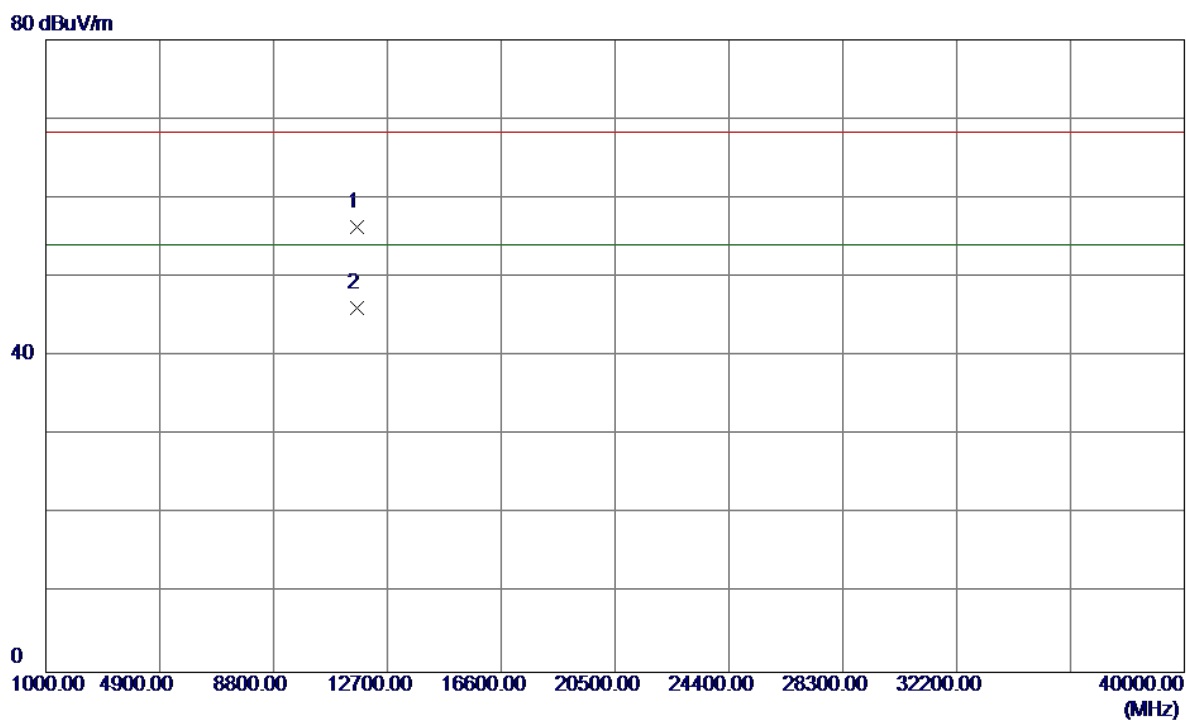
120 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5830.5000	55.19	41.13	96.32	78.30	18.02	Peak	No Limit
2	5831.6000	45.36	41.14	86.50	68.30	18.20	AVG	No Limit
3	5850.0000	10.23	41.23	51.46	78.30	-26.84	Peak	
4	5850.0000	-0.10	41.23	41.13	68.30	-27.17	AVG	
5	5860.0000	9.65	41.28	50.93	78.30	-27.37	Peak	
6	5860.0000	-0.13	41.28	41.15	68.30	-27.15	AVG	

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

### Vertical

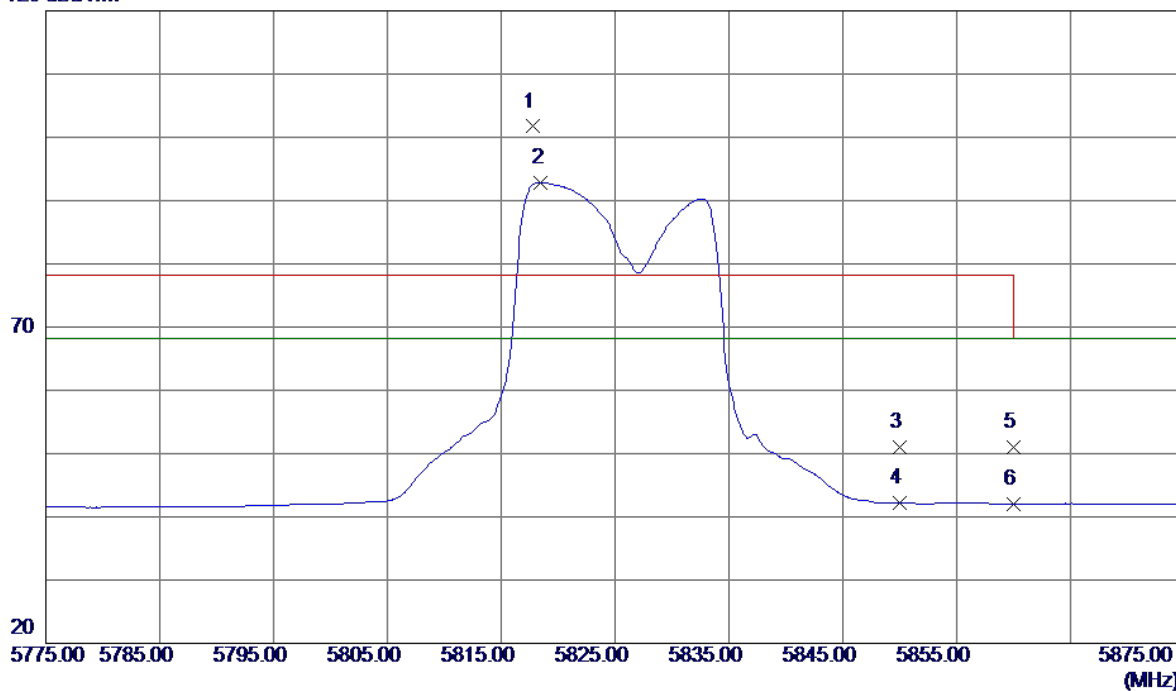


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11650.4300	39.08	17.17	56.25	68.30	-12.05	Peak	
2	11650.1300	28.89	17.17	46.06	54.00	-7.94	AVG	

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

### Horizontal

120 dBuV/m

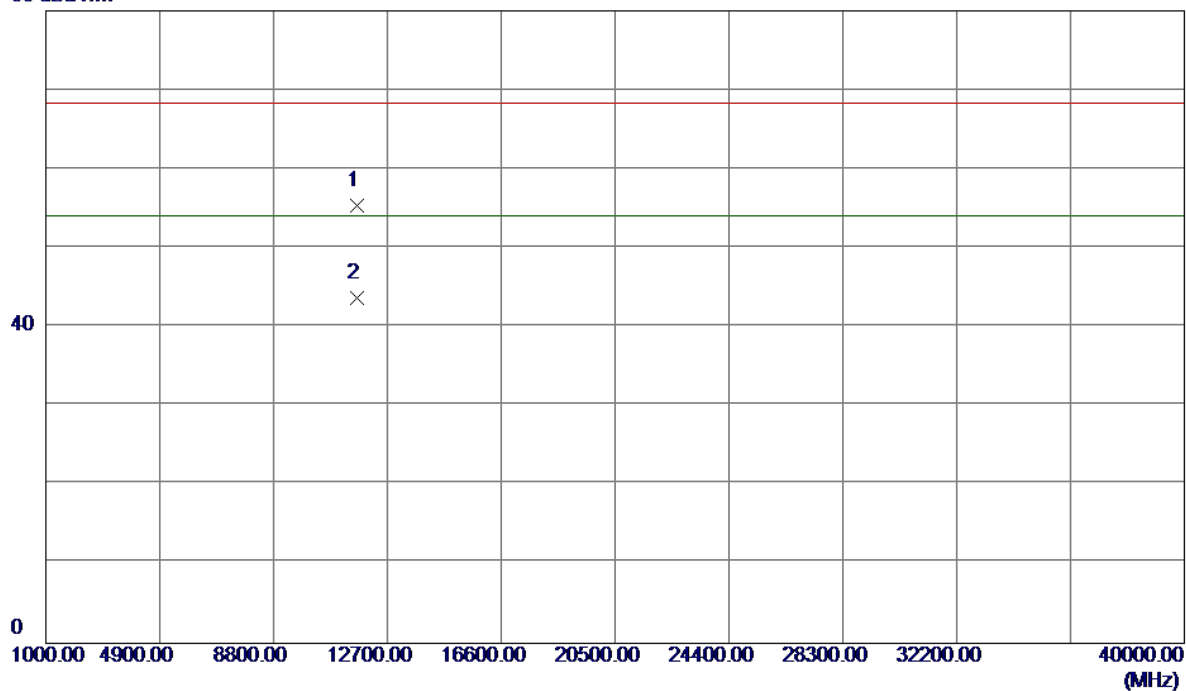


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5817.8000	60.63	41.07	101.70	78.30	23.40	Peak	No Limit
2	5818.5000	51.76	41.07	92.83	68.30	24.53	AVG	No Limit
3	5850.0000	9.81	41.23	51.04	78.30	-27.26	Peak	
4	5850.0000	0.90	41.23	42.13	68.30	-26.17	AVG	
5	5860.0000	9.66	41.28	50.94	78.30	-27.36	Peak	
6	5860.0000	0.75	41.28	42.03	68.30	-26.27	AVG	

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

### Horizontal

80 dBuV/m



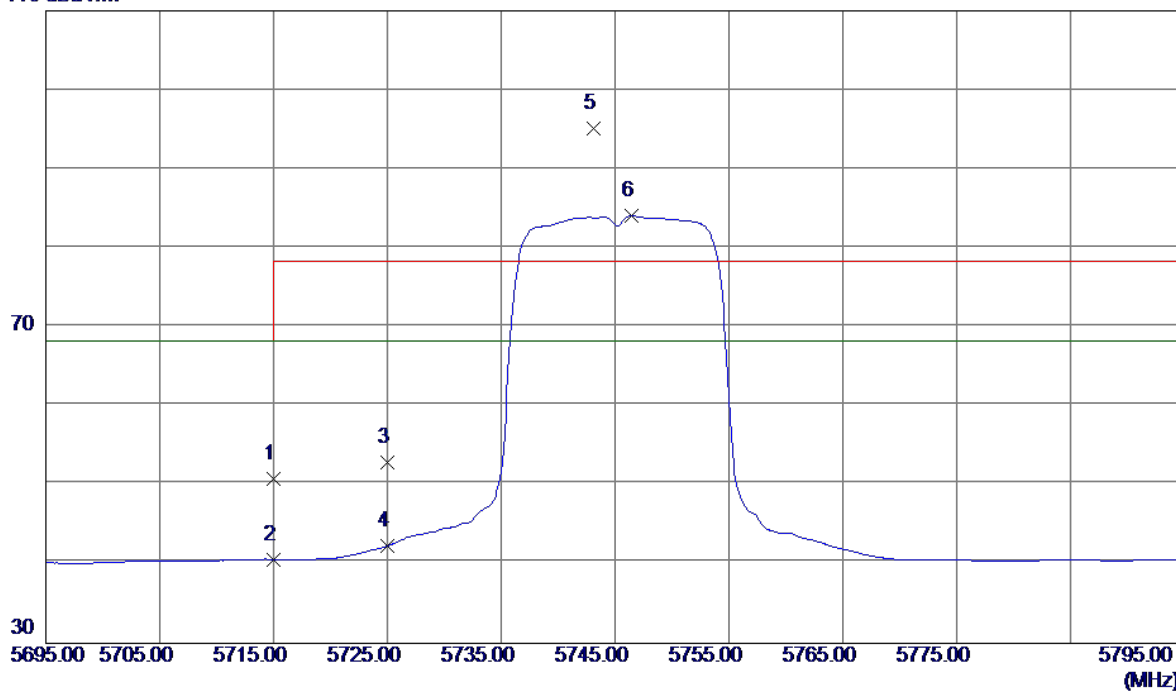
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11650.3660	38.17	17.17	55.34	68.30	-12.96	Peak	
2	11650.6000	26.53	17.17	43.70	54.00	-10.30	AVG	



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

### Vertical

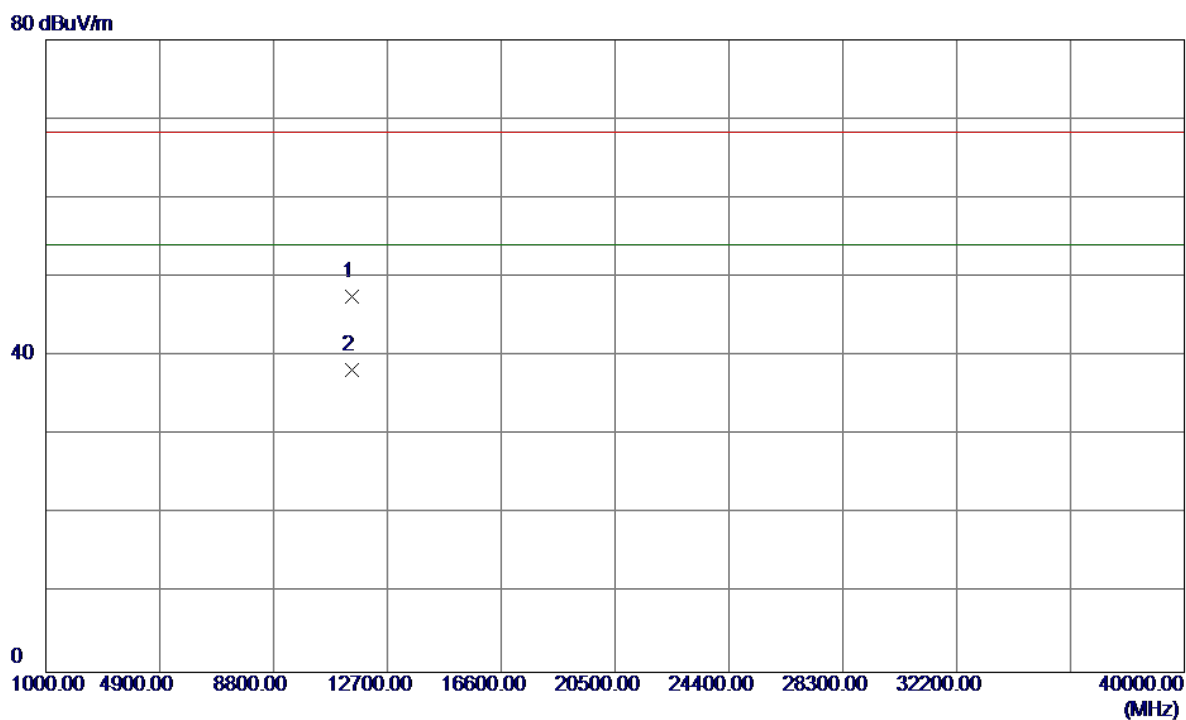
110 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB			
1	5715.0000	10.23	40.54	50.77	68.30	-17.53		Peak	
2	5715.0000	0.09	40.54	40.63	68.30	-27.67		AVG	
3	5725.0000	12.28	40.59	52.87	78.30	-25.43		Peak	
4	5725.0000	1.72	40.59	42.31	68.30	-25.99		AVG	
5	5743.1000	54.43	40.68	95.11	78.30	16.81		Peak	No Limit
6	5746.4000	43.36	40.70	84.06	68.30	15.76		AVG	No Limit

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

### Vertical

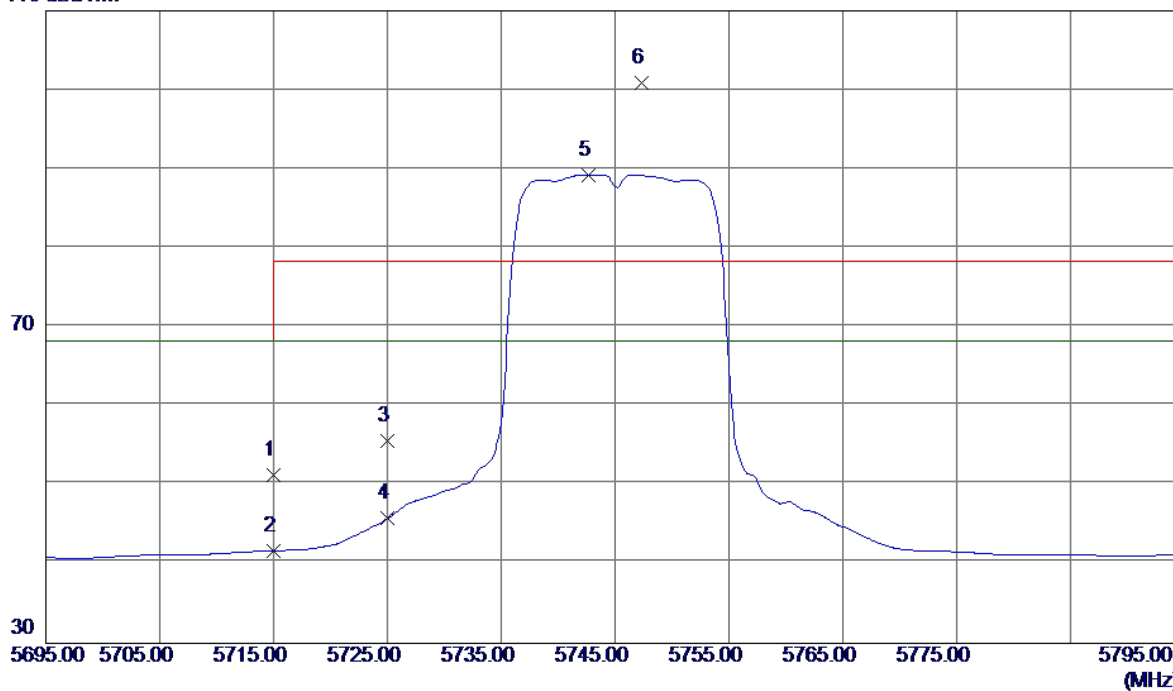


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11490.1300	30.65	16.91	47.56	68.30	-20.74	Peak	
2	11490.1300	21.26	16.91	38.17	54.00	-15.83	AVG	

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

### Horizontal

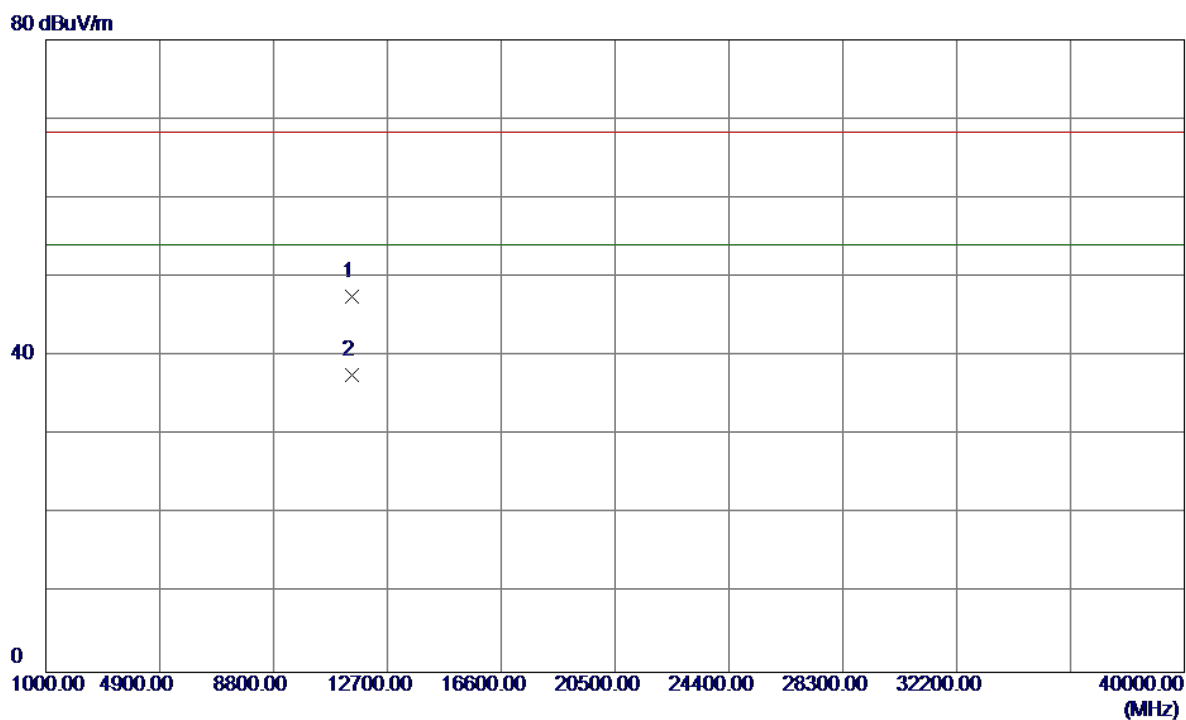
110 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	10.67	40.54	51.21	68.30	-17.09	Peak	
2	5715.0000	1.13	40.54	41.67	68.30	-26.63	AVG	
3	5725.0000	14.96	40.59	55.55	78.30	-22.75	Peak	
4	5725.0000	5.21	40.59	45.80	68.30	-22.50	AVG	
5	5742.7000	48.59	40.68	89.27	68.30	20.97	AVG	No Limit
6	5747.3000	60.12	40.71	100.83	78.30	22.53	Peak	No Limit

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

### Horizontal

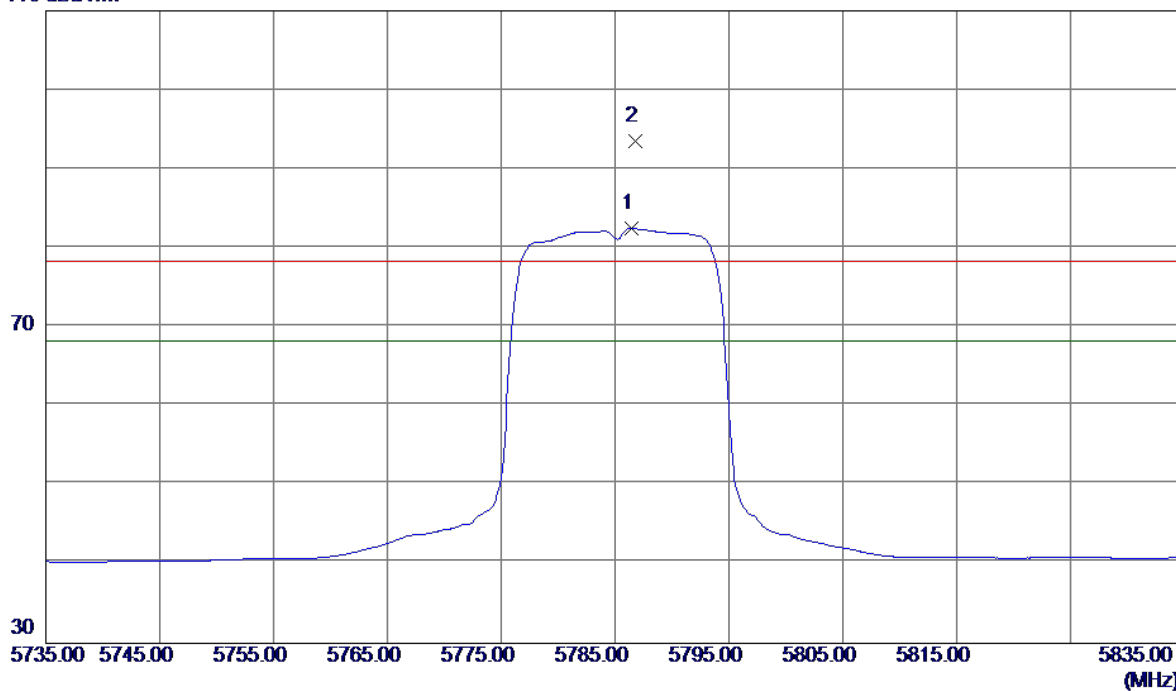


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11490.7699	30.54	16.91	47.45	68.30	-20.85	Peak	
2	11490.3450	20.64	16.91	37.55	54.00	-16.45	AVG	

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

### Vertical

110 dBuV/m

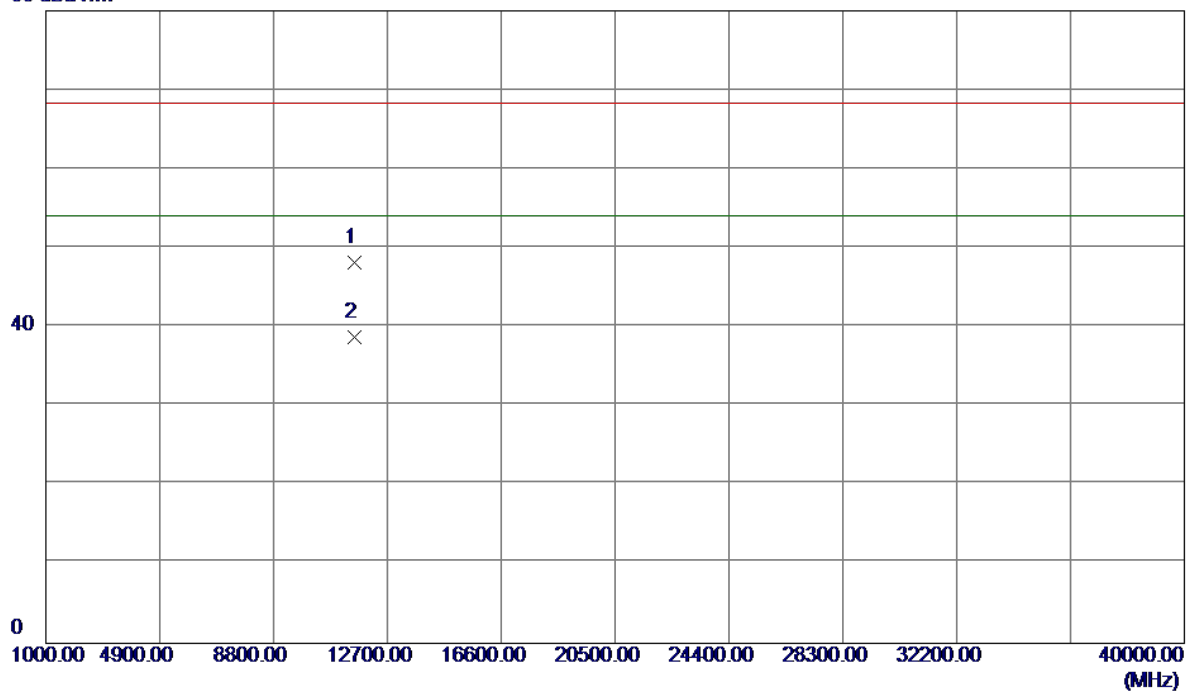


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5786.4000	41.63	40.91	82.54	68.30	14.24	AVG	No Limit
2	5786.8000	52.67	40.91	93.58	78.30	15.28	Peak	No Limit

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

### Vertical

80 dBuV/m

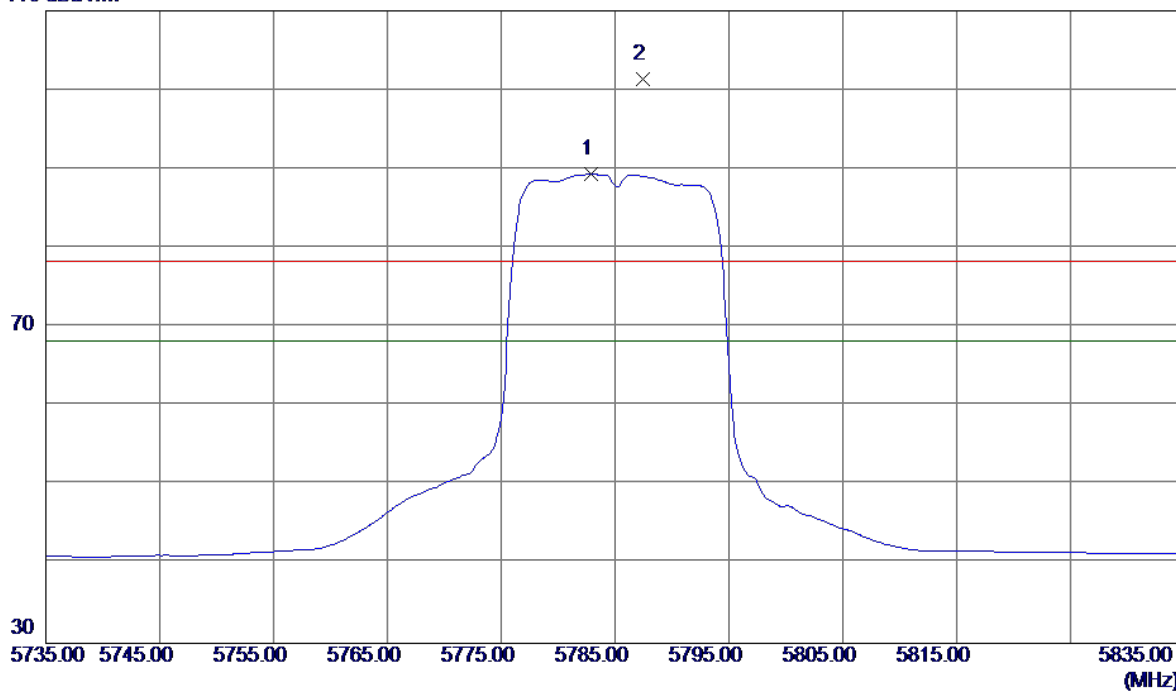


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11570.6910	31.04	17.05	48.09	68.30	-20.21	Peak	
2	11570.6640	21.66	17.05	38.71	54.00	-15.29	AVG	

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

### Horizontal

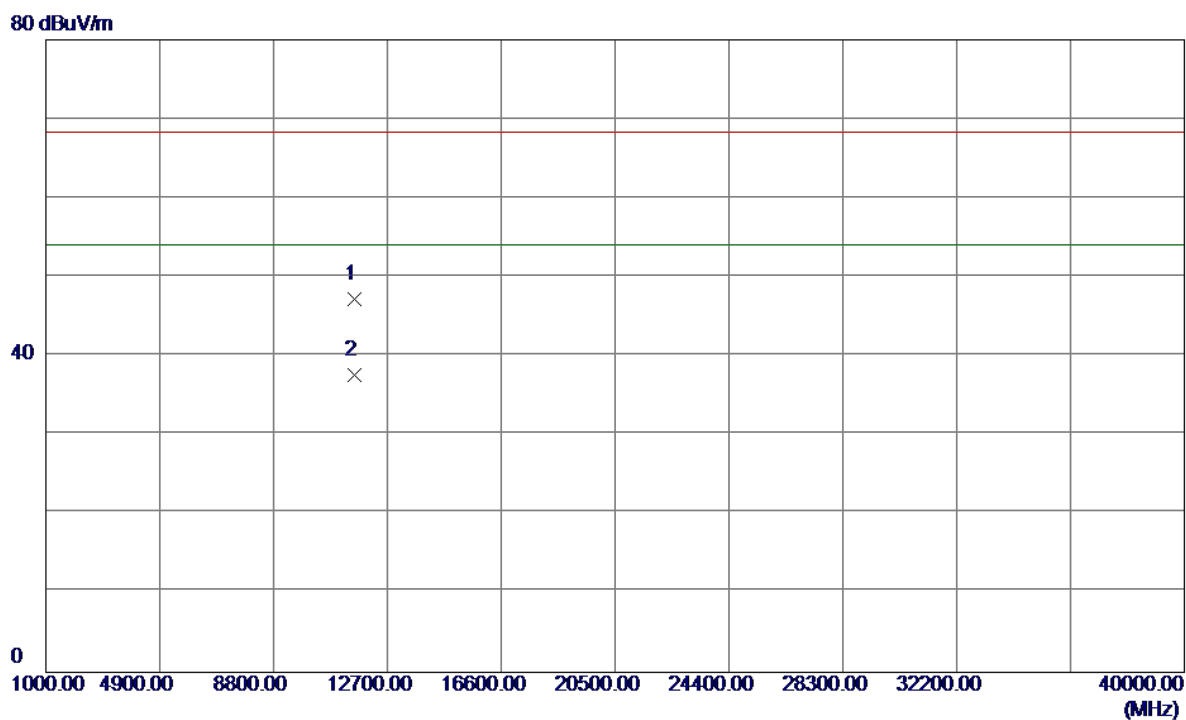
110 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5782.9000	48.45	40.89	89.34	68.30	21.04	AVG	No Limit
2	5787.4000	60.41	40.91	101.32	78.30	23.02	Peak	No Limit

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

### Horizontal



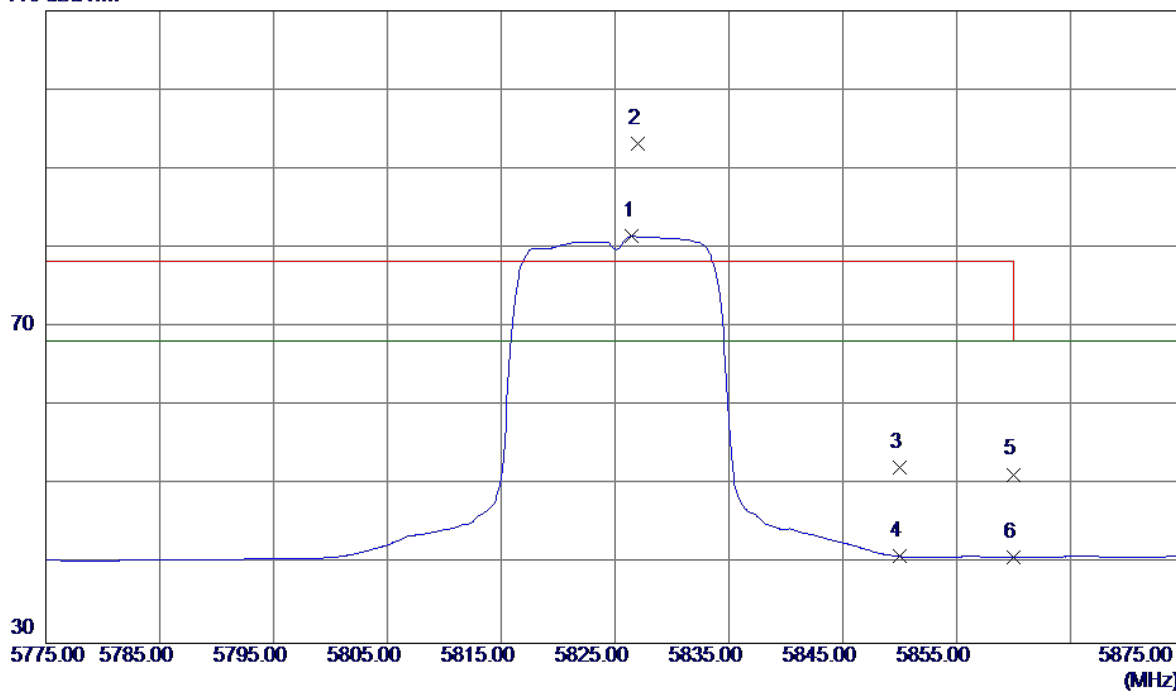
No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11570.1800	30.13	17.05	47.18	68.30	-21.12	Peak	
2	11570.1800	20.61	17.05	37.66	54.00	-16.34	AVG	



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

### Vertical

110 dBuV/m

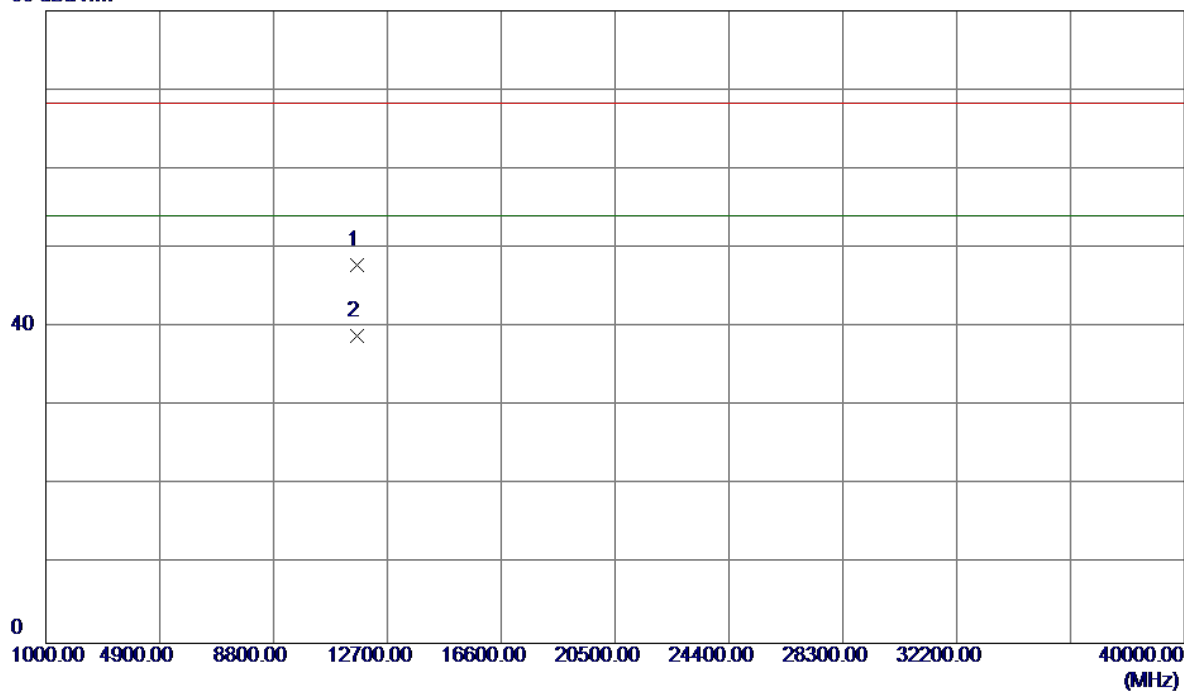


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5826.5000	40.37	41.11	81.48	68.30	13.18	AVG	No Limit
2	5827.0000	52.04	41.11	93.15	78.30	14.85	Peak	No Limit
3	5850.0000	11.03	41.23	52.26	78.30	-26.04	Peak	
4	5850.0000	-0.25	41.23	40.98	68.30	-27.32	AVG	
5	5860.0000	10.08	41.28	51.36	78.30	-26.94	Peak	
6	5860.0000	-0.40	41.28	40.88	68.30	-27.42	AVG	

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

### Vertical

80 dBuV/m

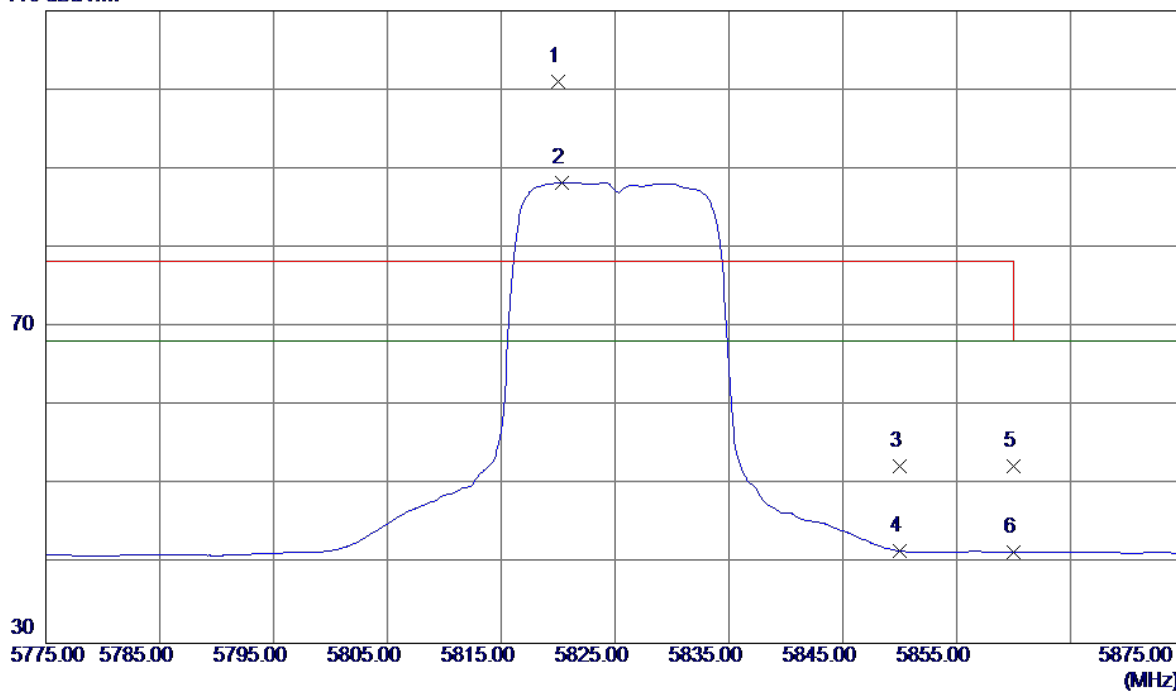


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11650.1800	30.69	17.17	47.86	68.30	-20.44	Peak	
2	11650.1800	21.77	17.17	38.94	54.00	-15.06	AVG	

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

### Horizontal

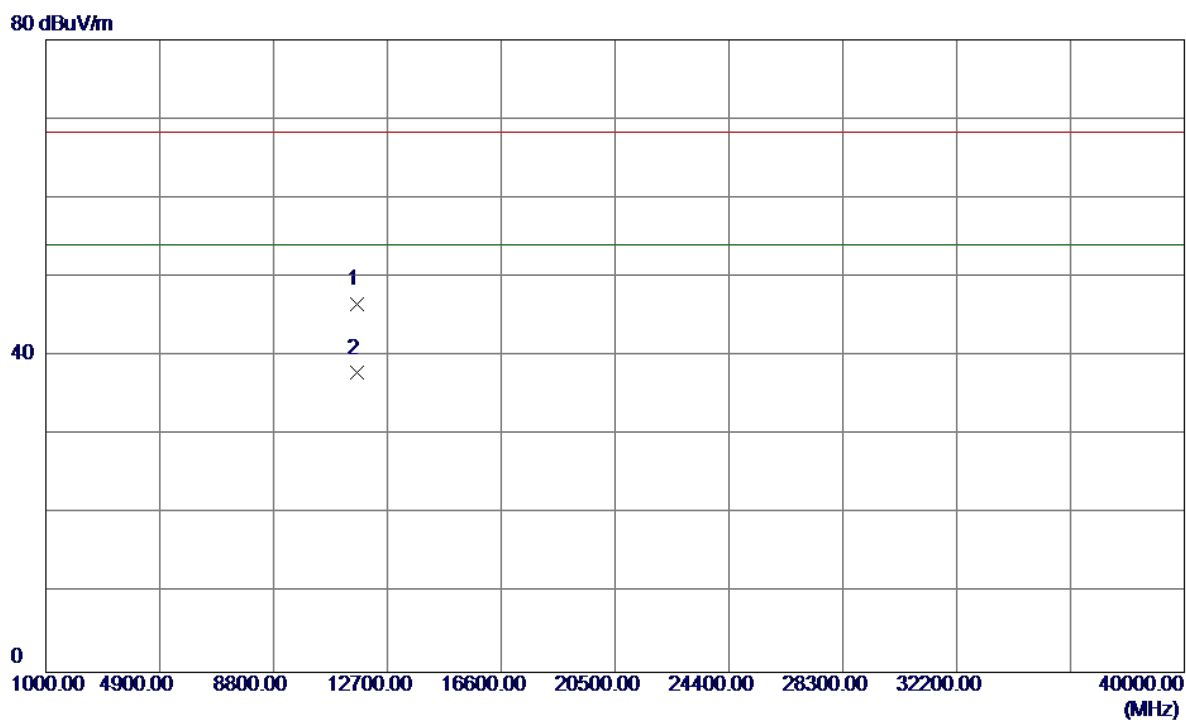
110 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5820.0000	59.93	41.08	101.01	78.30	22.71	Peak	No Limit
2	5820.3000	47.21	41.08	88.29	68.30	19.99	AVG	No Limit
3	5850.0000	11.13	41.23	52.36	78.30	-25.94	Peak	
4	5850.0000	0.44	41.23	41.67	68.30	-26.63	AVG	
5	5860.0000	11.06	41.28	52.34	78.30	-25.96	Peak	
6	5860.0000	0.22	41.28	41.50	68.30	-26.80	AVG	

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

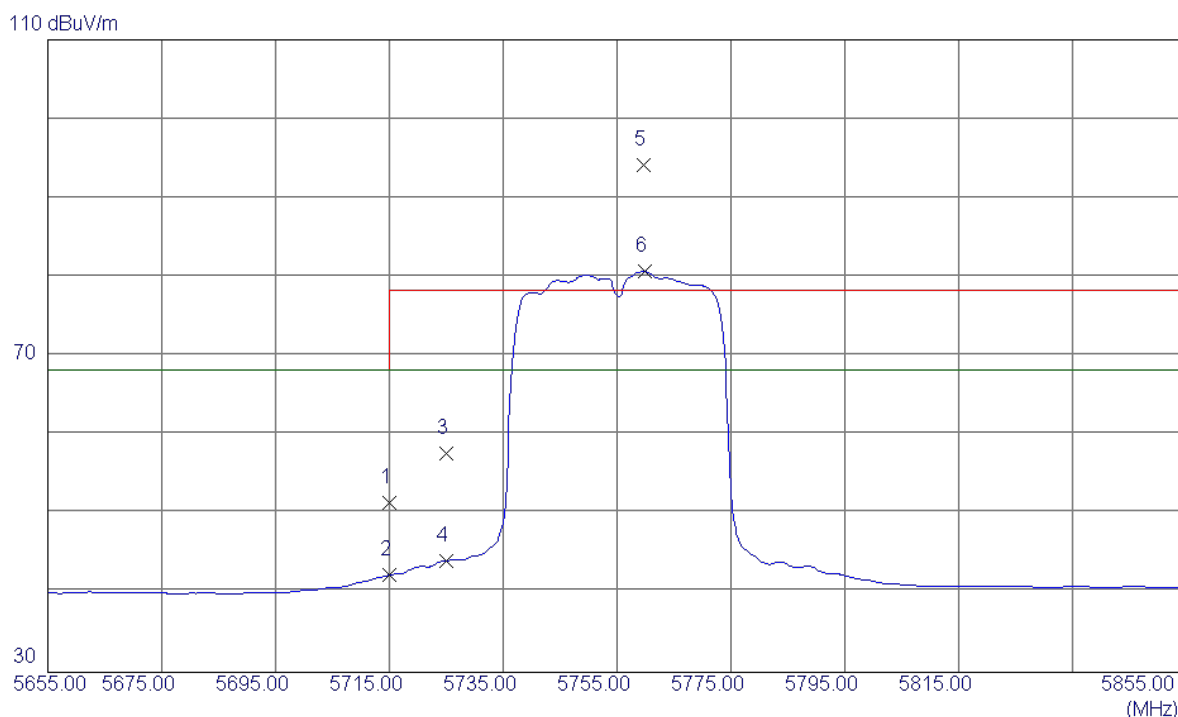
### Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11650.1100	29.37	17.17	46.54	68.30	-21.76	Peak	
2	11650.4720	20.67	17.17	37.84	54.00	-16.16	AVG	

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

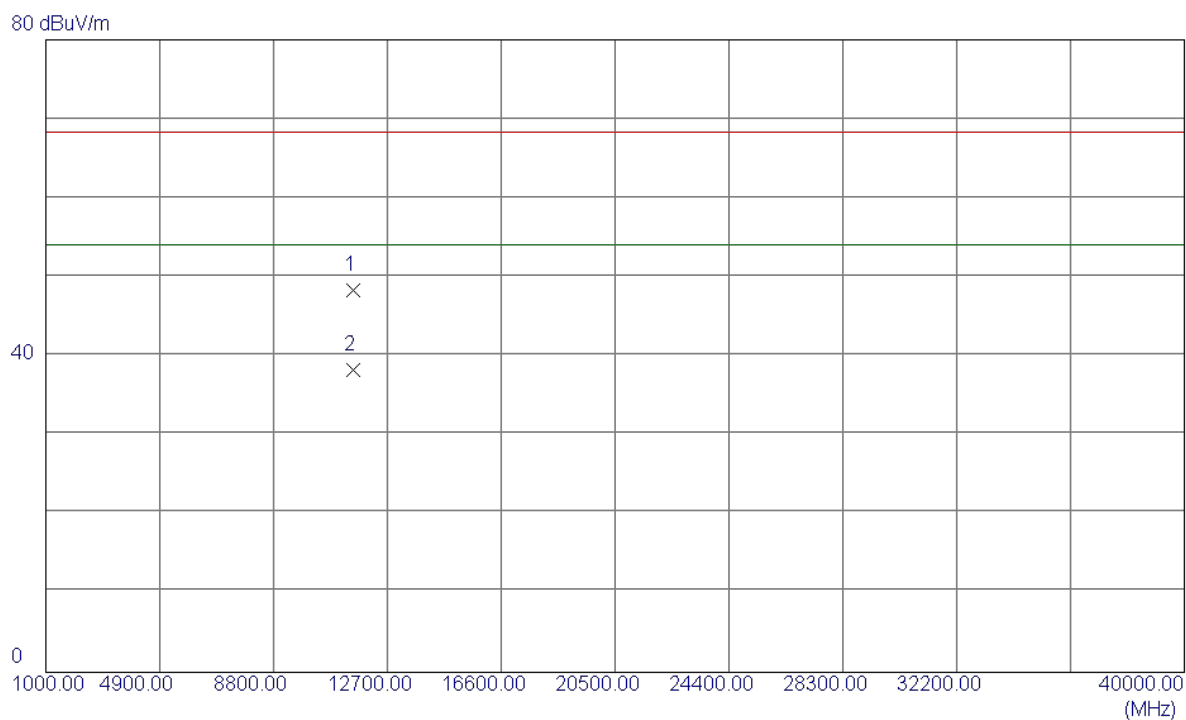
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	10.88	40.54	51.42	68.30	-16.88	Peak	
2	5715.0000	1.75	40.54	42.29	68.30	-26.01	AVG	
3	5725.0000	17.08	40.59	57.67	78.30	-20.63	Peak	
4	5725.0000	3.53	40.59	44.12	68.30	-24.18	AVG	
5	5759.6000	53.34	40.77	94.11	78.30	15.81	Peak	No Limit
6	5759.8000	39.99	40.77	80.76	68.30	12.46	AVG	No Limit

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

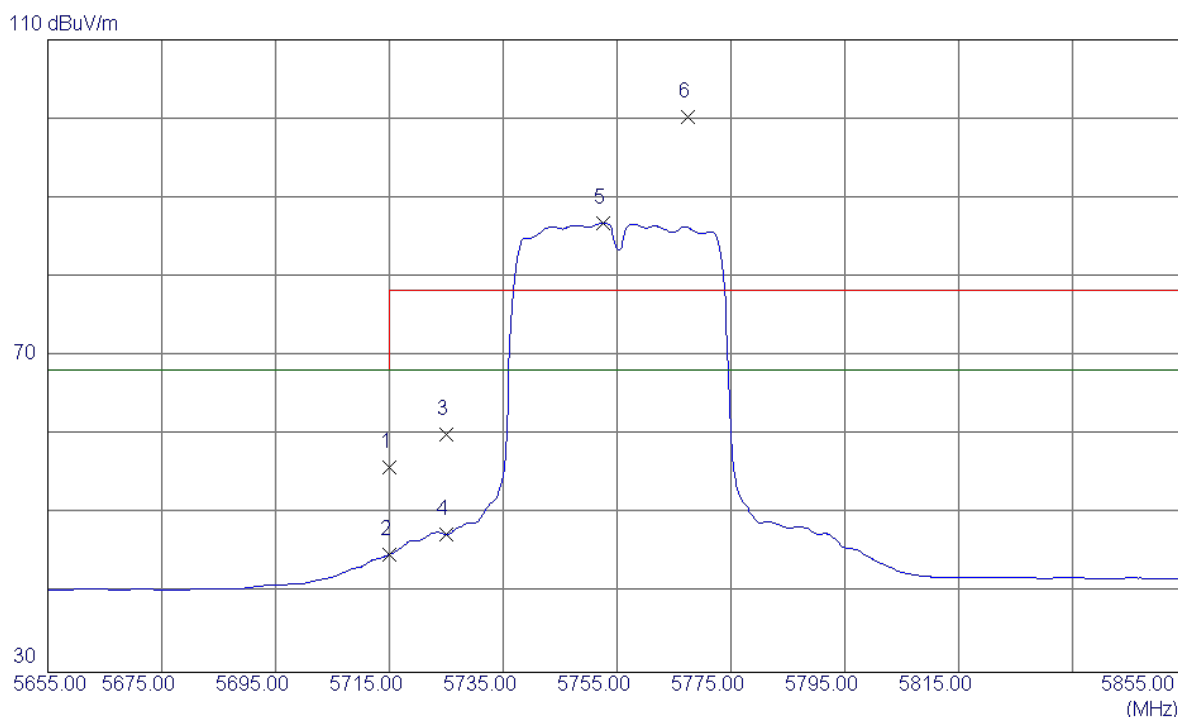
### Vertical



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11510.3300	31.44	16.95	48.39	68.30	-19.91	Peak	
2	11510.7800	21.30	16.95	38.25	54.00	-15.75	AVG	

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

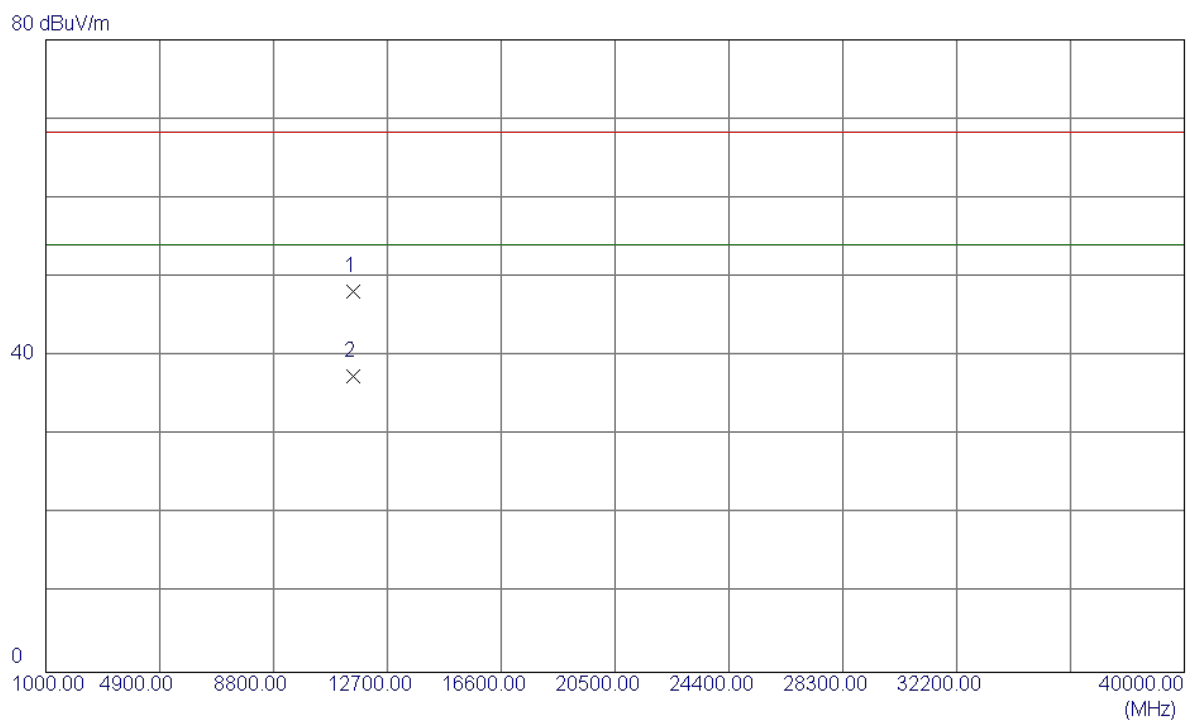
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	15.40	40.54	55.94	68.30	-12.36	Peak	
2	5715.0000	4.35	40.54	44.89	68.30	-23.41	AVG	
3	5725.0000	19.50	40.59	60.09	78.30	-18.21	Peak	
4	5725.0000	6.82	40.59	47.41	68.30	-20.89	AVG	
5	5752.6000	46.12	40.73	86.85	68.30	18.55	AVG	No Limit
6	5767.4000	59.50	40.81	100.31	78.30	22.01	Peak	No Limit

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

### Horizontal

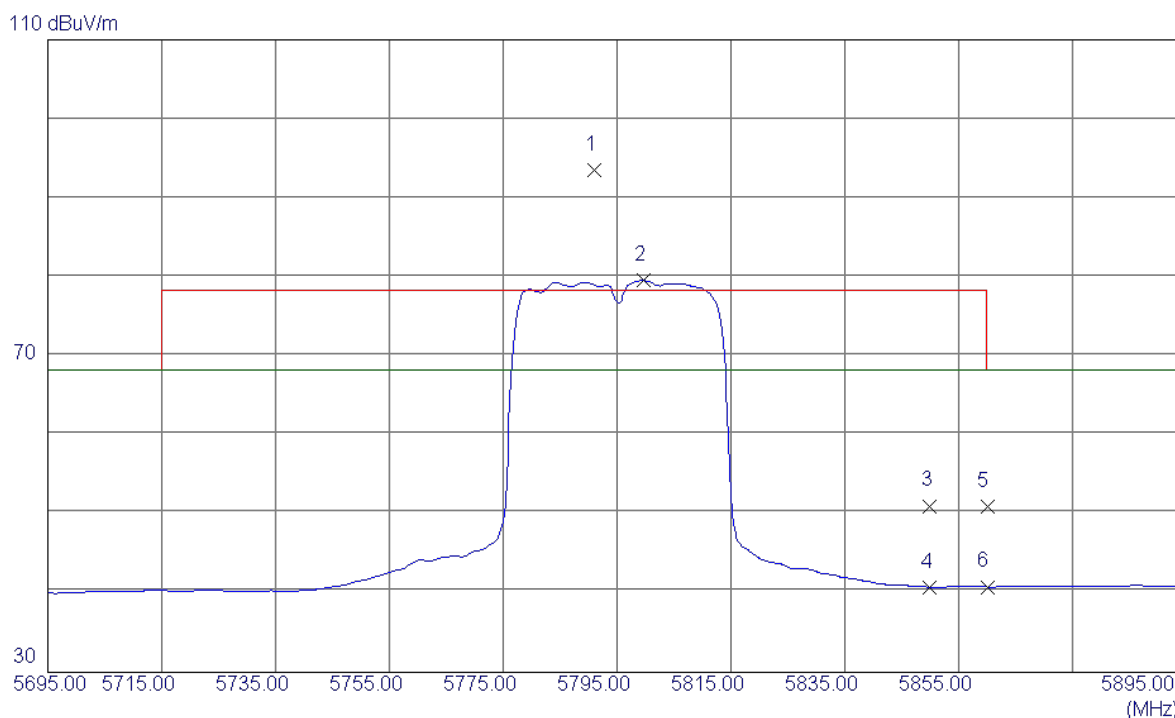


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11510.4300	31.23	16.95	48.18	68.30	-20.12	Peak	
2	11510.1700	20.51	16.95	37.46	54.00	-16.54	AVG	



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

### Vertical

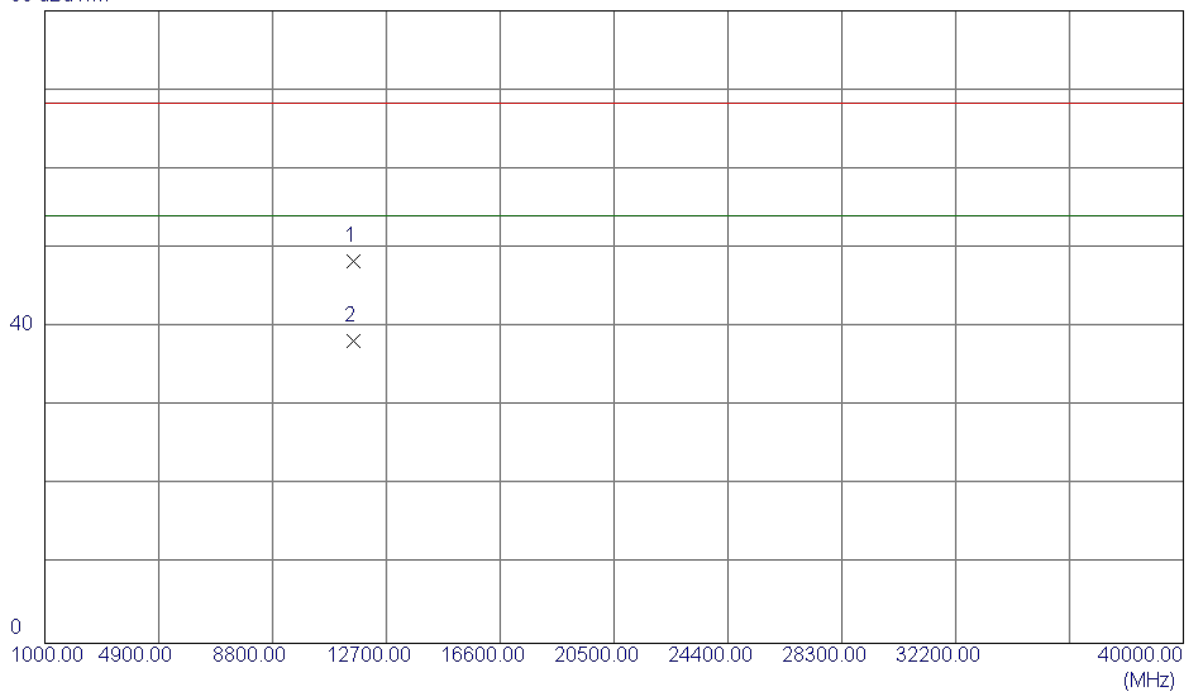


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5791.0000	52.61	40.93	93.54	78.30	15.24	Peak	No Limit
2	5799.6000	38.66	40.97	79.63	68.30	11.33	AVG	No Limit
3	5850.0000	9.81	41.23	51.04	78.30	-27.26	Peak	
4	5850.0000	-0.45	41.23	40.78	68.30	-27.52	AVG	
5	5860.0000	9.70	41.28	50.98	78.30	-27.32	Peak	
6	5860.0000	-0.48	41.28	40.80	68.30	-27.50	AVG	

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

### Vertical

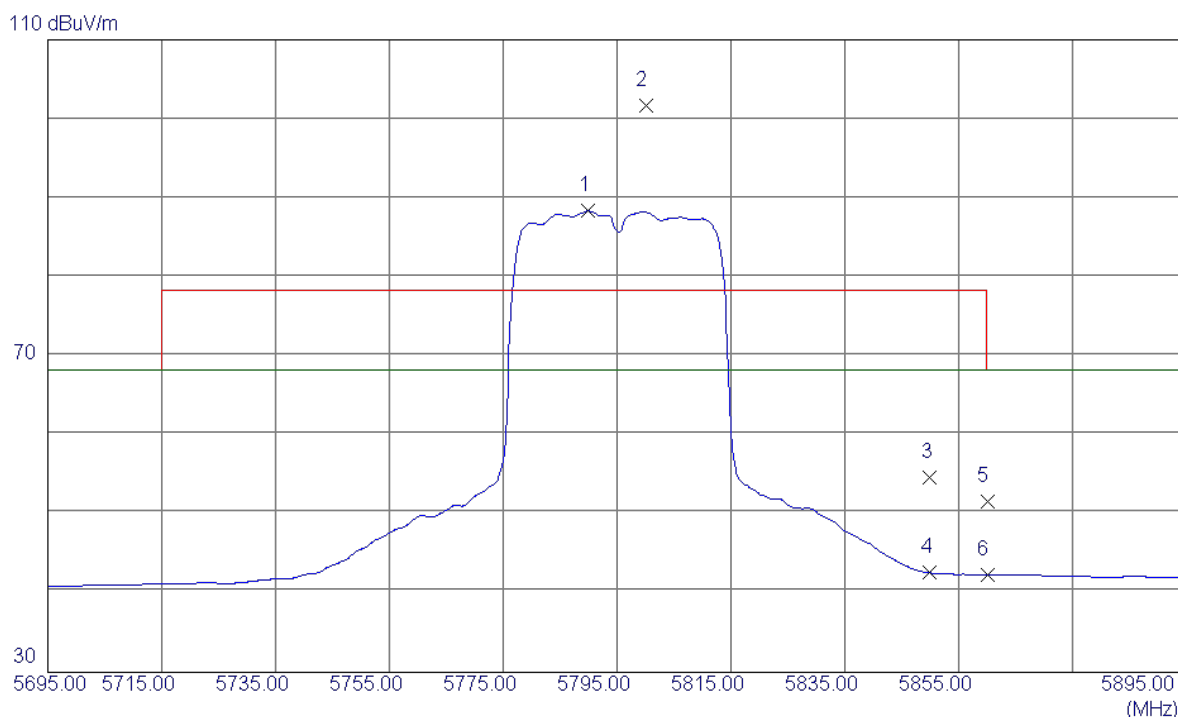
80 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11590.5199	31.25	17.08	48.33	68.30	-19.97	Peak	
2	11590.5199	21.16	17.08	38.24	54.00	-15.76	AVG	

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

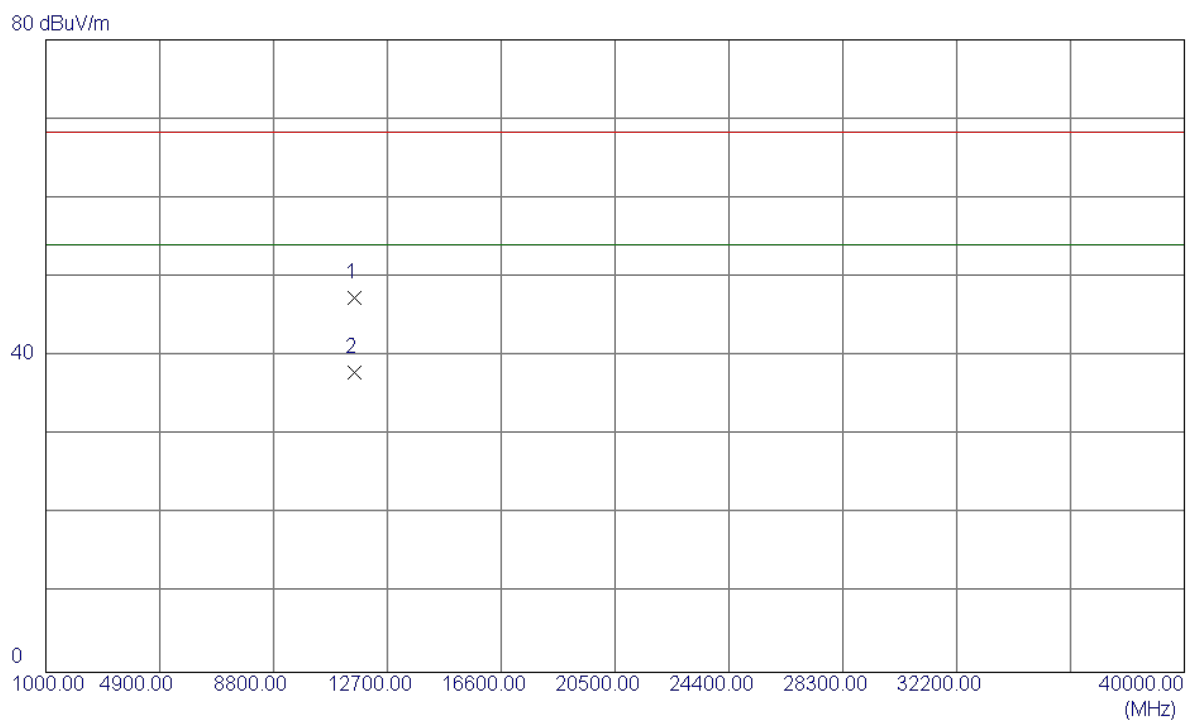
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5789.8000	47.43	40.92	88.35	68.30	20.05	AVG	No Limit
2	5800.0000	60.73	40.98	101.71	78.30	23.41	Peak	No Limit
3	5850.0000	13.48	41.23	54.71	78.30	-23.59	Peak	
4	5850.0000	1.35	41.23	42.58	68.30	-25.72	AVG	
5	5860.0000	10.39	41.28	51.67	78.30	-26.63	Peak	
6	5860.0000	1.03	41.28	42.31	68.30	-25.99	AVG	

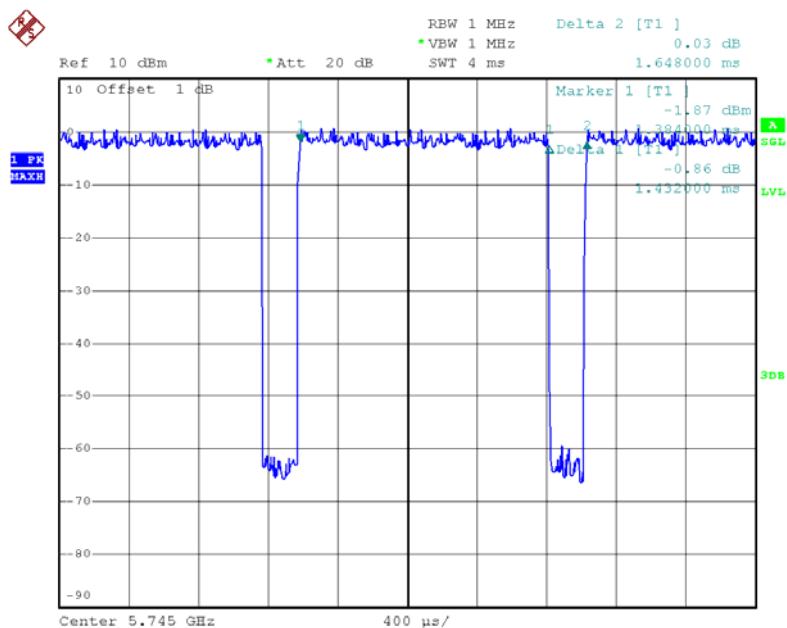
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

### Horizontal



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11590.6600	30.25	17.08	47.33	68.30	-20.97	Peak	
2	11590.3570	20.89	17.08	37.97	54.00	-16.03	AVG	

# TX A Mode\_DUTY CYCLE



Date: 21.DEC.2015 13:42:22

Duty cycle: TX DUTYMHz

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

$T_{ON}$ : 1.43 msec

$T_{Total}$ : 1.65 msec

Duty cycle: 86.67%

Duty Factor =  $10 \log(1/\text{Duty cycle})$

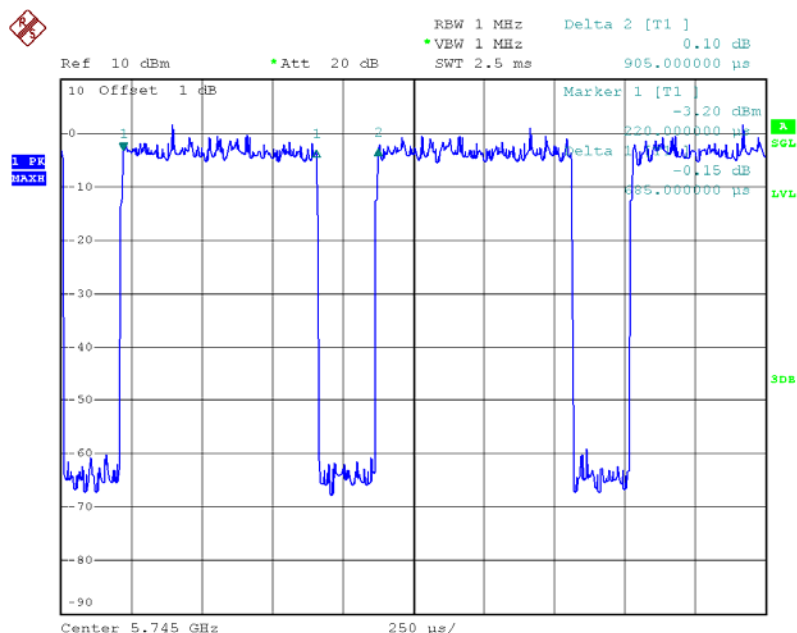
Duty Factor = 0.62

Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is less than 98 %, so, the output power and power density should be caculated as

Output Power = Measured power + Ducus factor

Power Spectral Density = Measured density + Duty factor

# TX N20 Mode\_DUTY CYCLE



Date: 21.DEC.2015 13:53:56

Duty cycle: TX DUTYMHz

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

$T_{ON}$ : 0.68 msec

$T_{Total}$ : 0.90 msec

Duty cycle: 75.56%

Duty Factor =  $10 \log(1/\text{Duty cycle})$

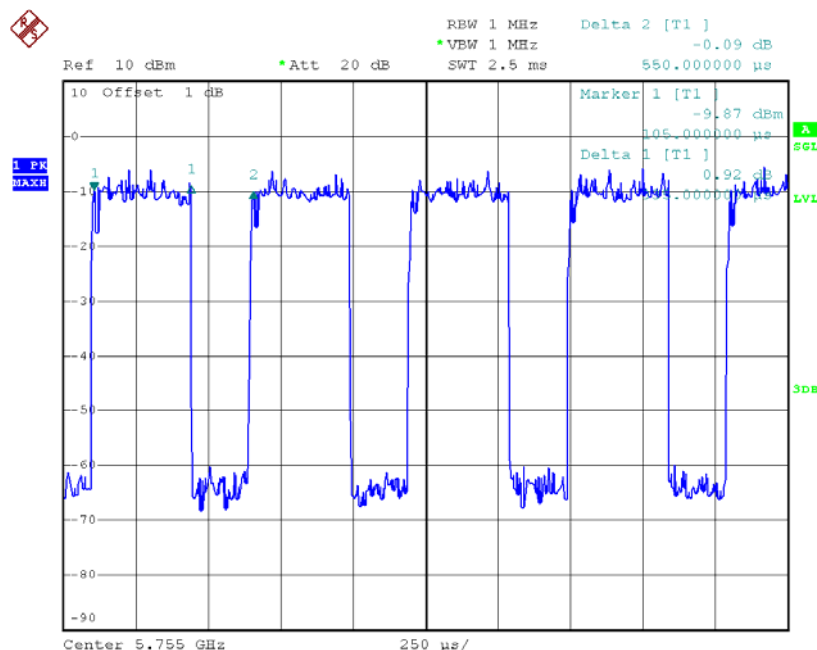
Duty Factor = 1.22

Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is less than 98 %, so, the output power and power density should be caculated as

Output Power = Measured power + Ducus factor

Power Spectral Density = Measured density + Duty factor

# TX N40 Mode\_DUTY CYCLE



Date: 21.DEC.2015 14:01:48

Duty cycle: TX DUTYMHZ

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

$T_{ON}$ : 0.34 msec

$T_{Total}$ : 0.55 msec

Duty cycle: 61.82%

Duty Factor =  $10 \log(1/\text{Duty cycle})$

Duty Factor = 2.09

Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is less than 98 %, so, the output power and power density should be caculated as

Output Power = Measured power + Ducus factor

Power Spectral Density = Measured density + Duty factor

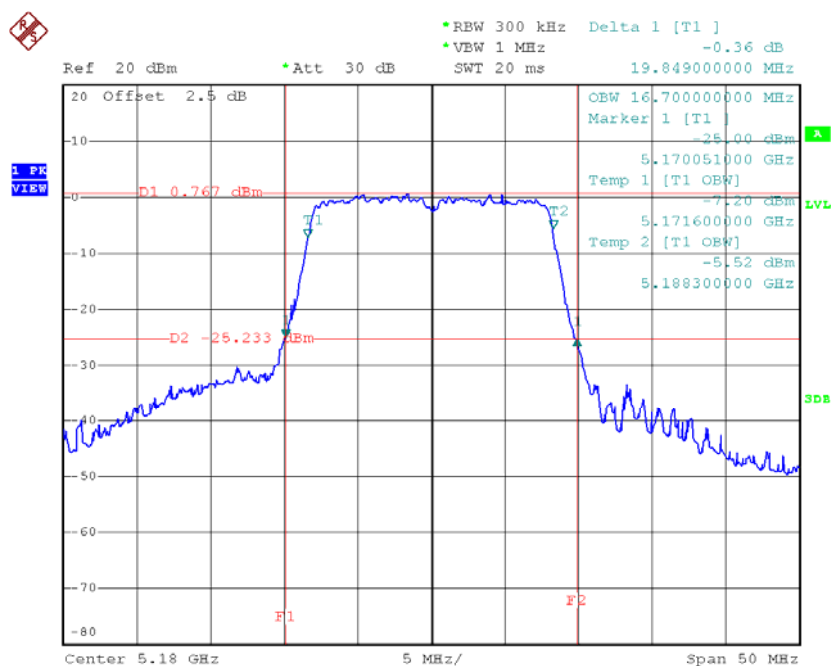
## **ATTACHMENT E - BANDWIDTH**



Test Mode: UNII-1/TX A Mode\_CH36/CH40/CH48

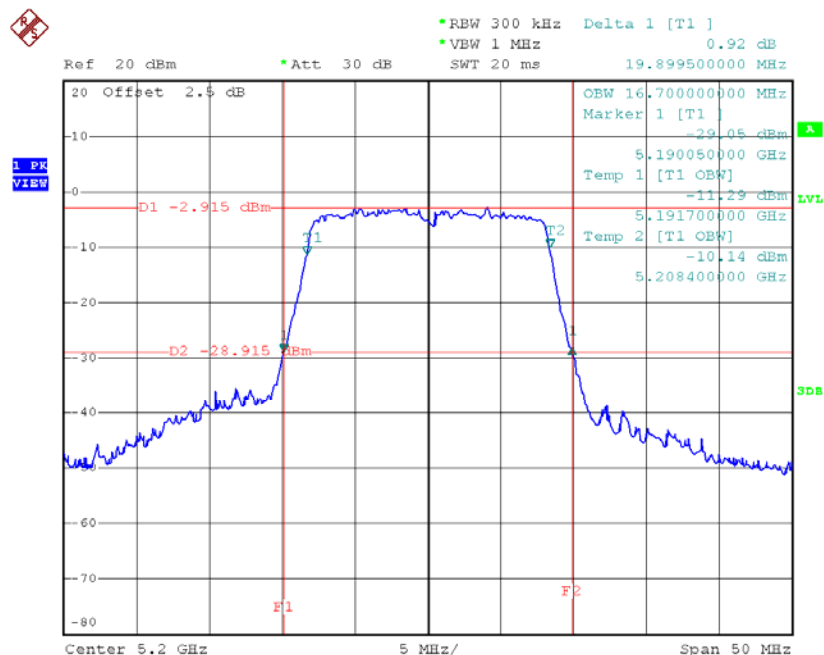
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	19.85	16.70
CH40	5200	19.90	16.70
CH48	5240	19.75	16.70

TX CH36



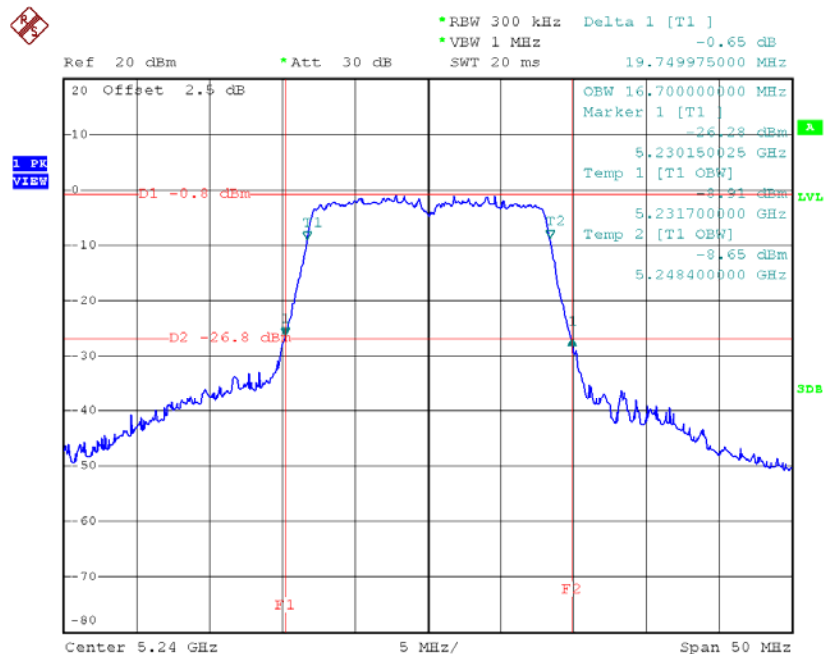
Date: 21.DEC.2015 11:11:58

# TX CH40



Date: 21.DEC.2015 11:25:02

# TX CH48

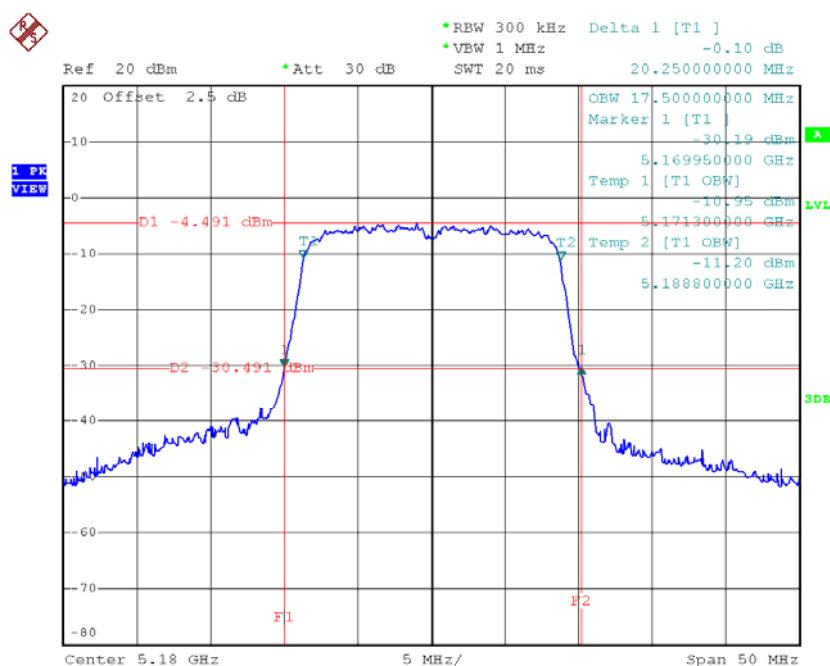


Date: 21.DEC.2015 11:26:05

**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48**

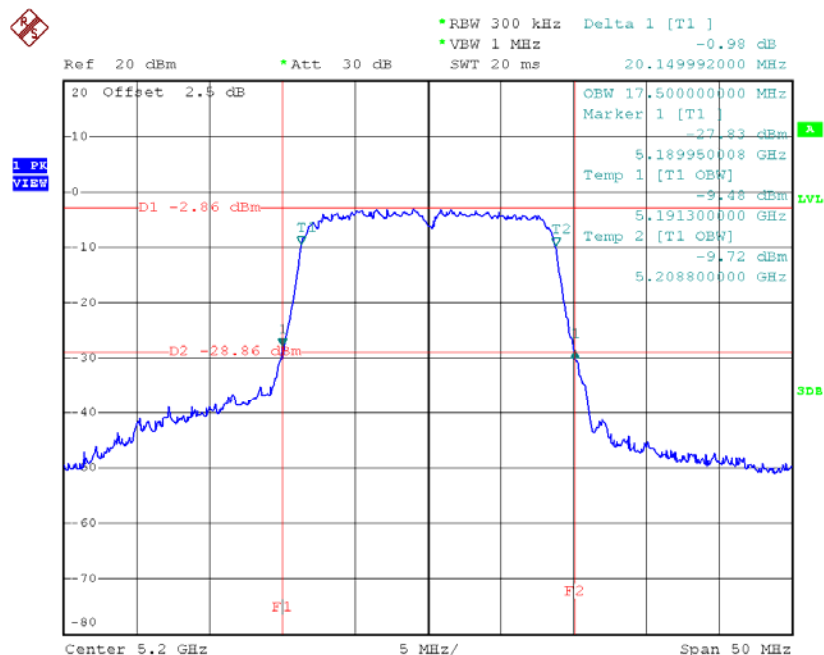
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	20.25	17.50
CH40	5200	20.15	17.50
CH48	5240	20.10	17.50

**TX CH36**



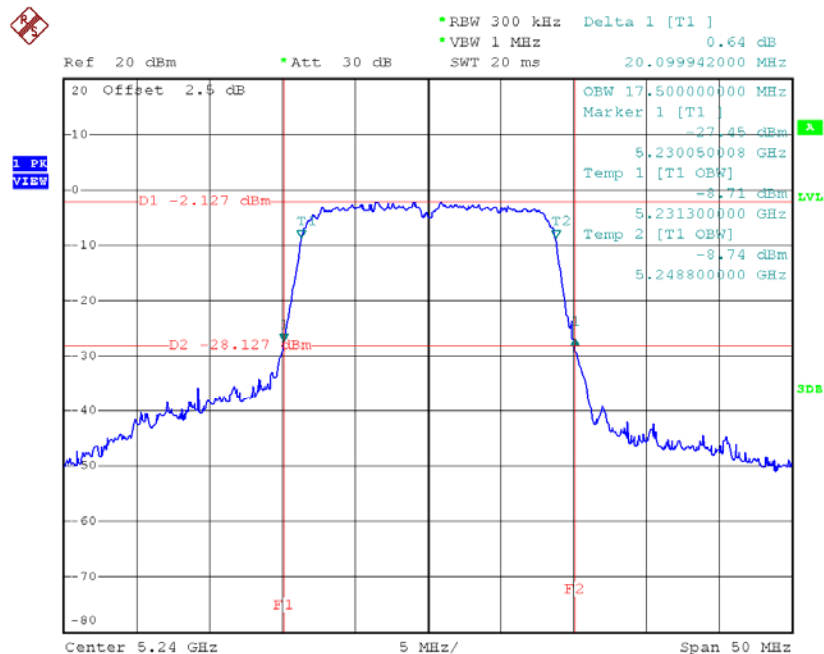
Date: 21.DEC.2015 14:52:16

# TX CH40



Date: 21.DEC.2015 14:53:12

# TX CH48

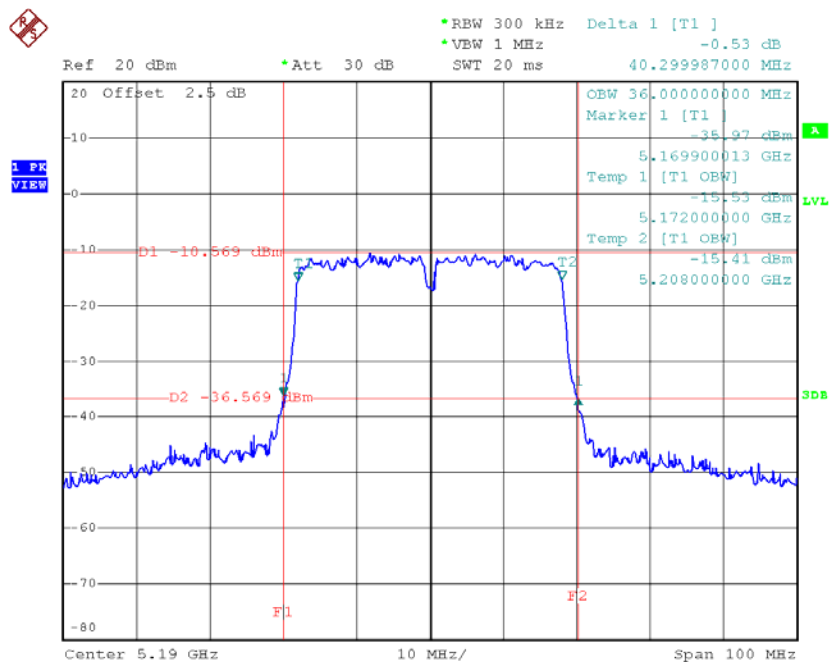


Date: 21.DEC.2015 14:54:03

**Test Mode: UNII-1/TX N40 Mode\_CH38/CH46**

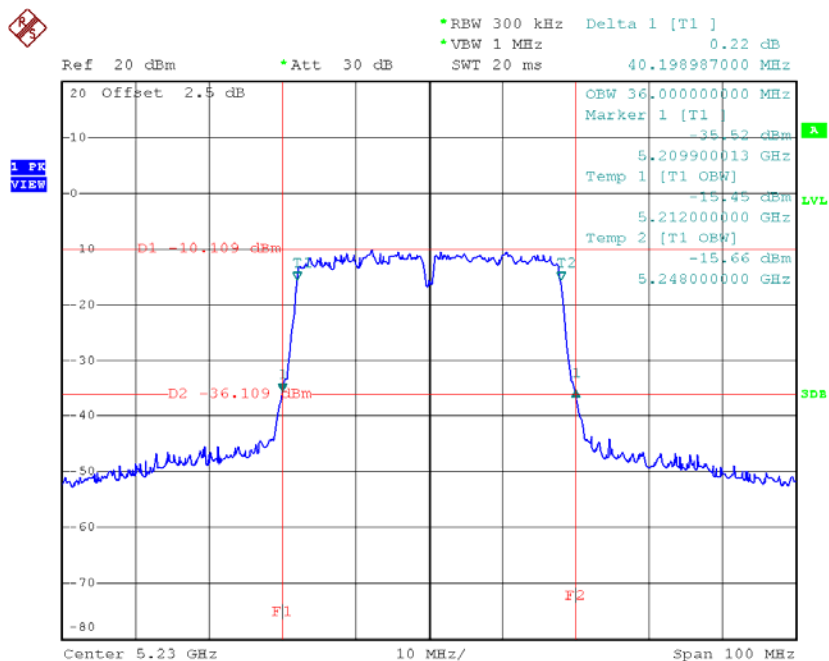
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	40.30	36.00
CH46	5230	40.20	36.00

### TX CH38



Date: 21.DEC.2015 14:58:21

### TX CH46

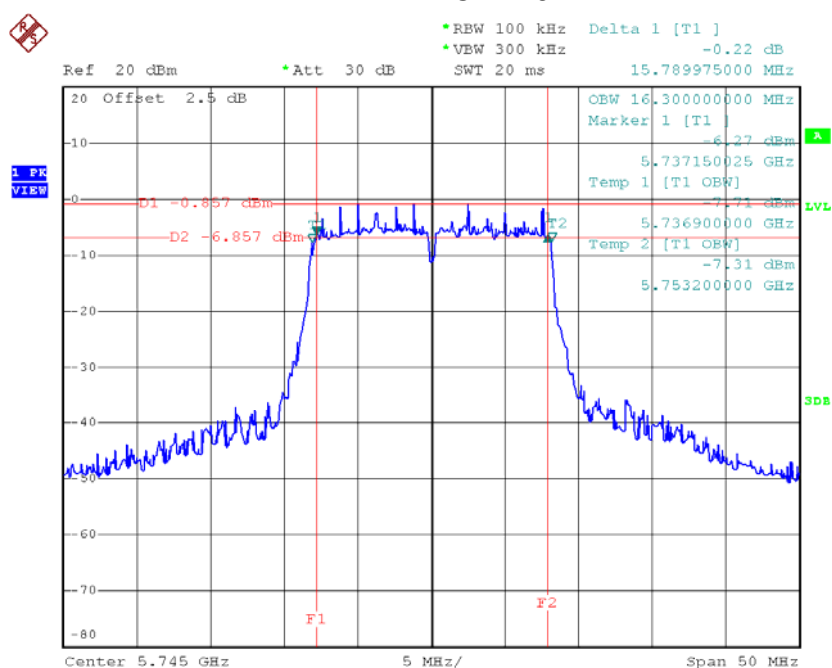


Date: 21.DEC.2015 14:59:20

**Test Mode: UNII-3/ TX A Mode\_CH149/CH157/CH165**

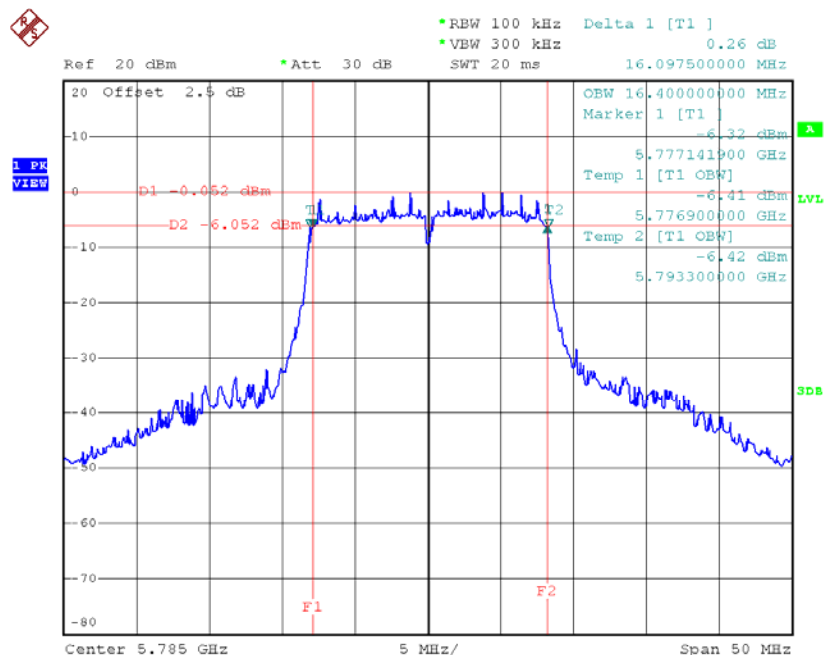
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	15.79	16.30	>=500
CH157	5785	16.10	16.40	>=500
CH165	5825	15.89	16.40	>=500

**TX CH 149**



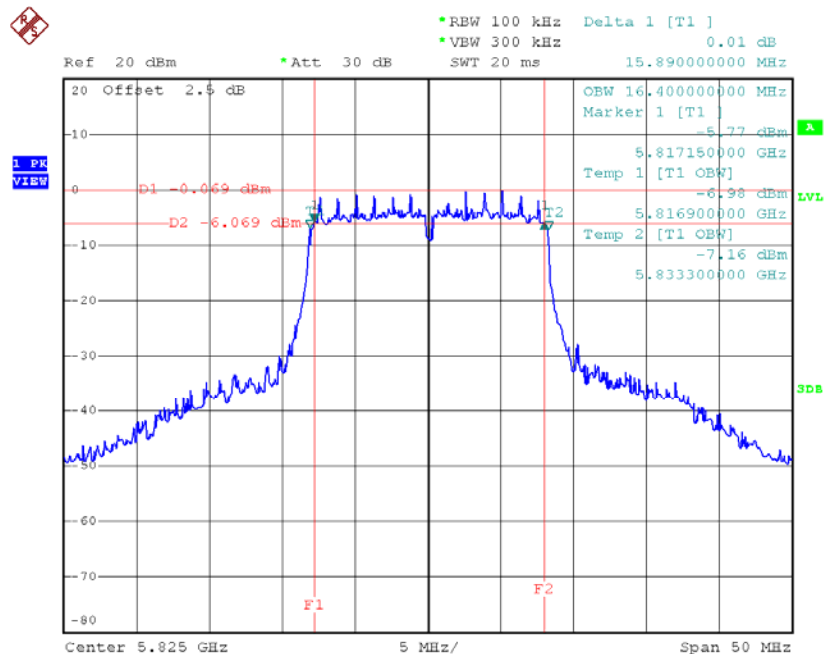
Date: 21.DEC.2015 14:46:47

# TX CH 157



Date: 21.DEC.2015 14:49:37

# TX CH 165



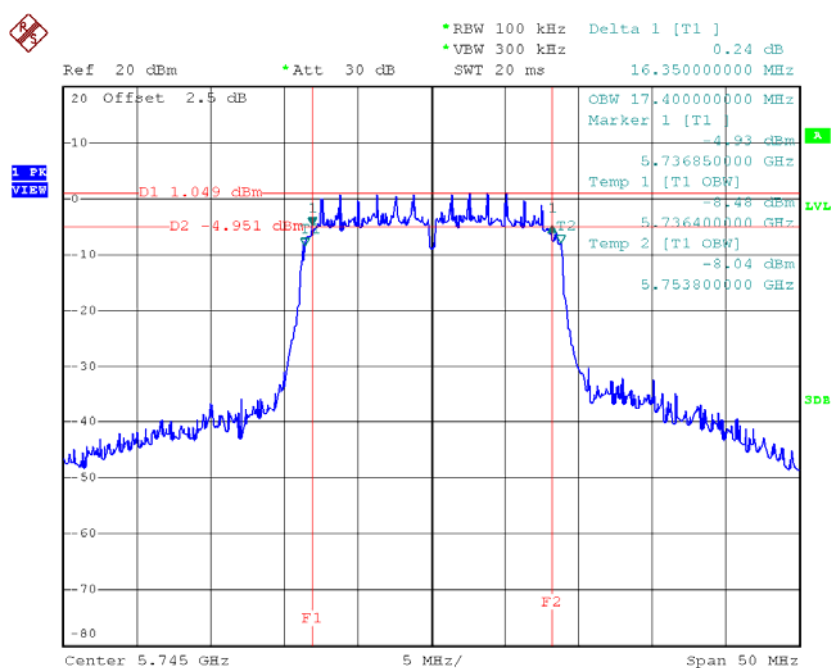
Date: 21.DEC.2015 14:50:58



**Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165**

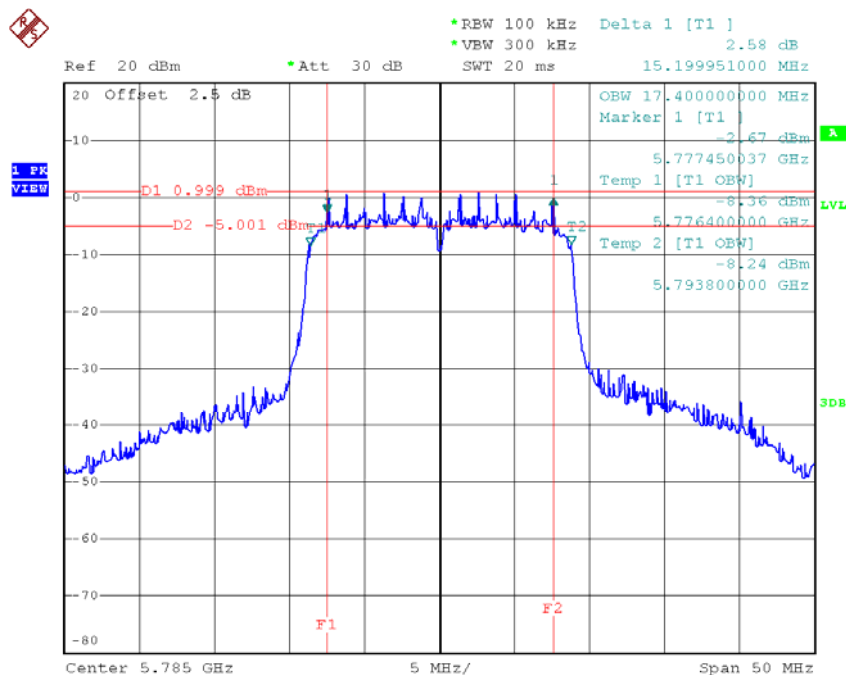
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.35	17.40	>=500
CH157	5785	15.20	17.40	>=500
CH165	5825	15.75	17.50	>=500

**TX CH 149**



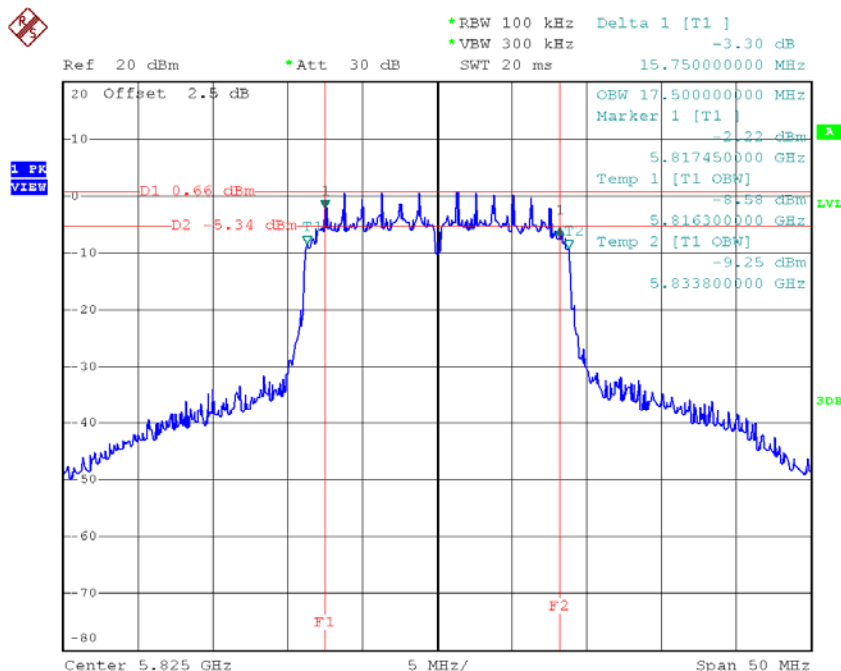
Date: 21.DEC.2015 14:55:05

# TX CH 157



Date: 21.DEC.2015 14:56:12

# TX CH 165

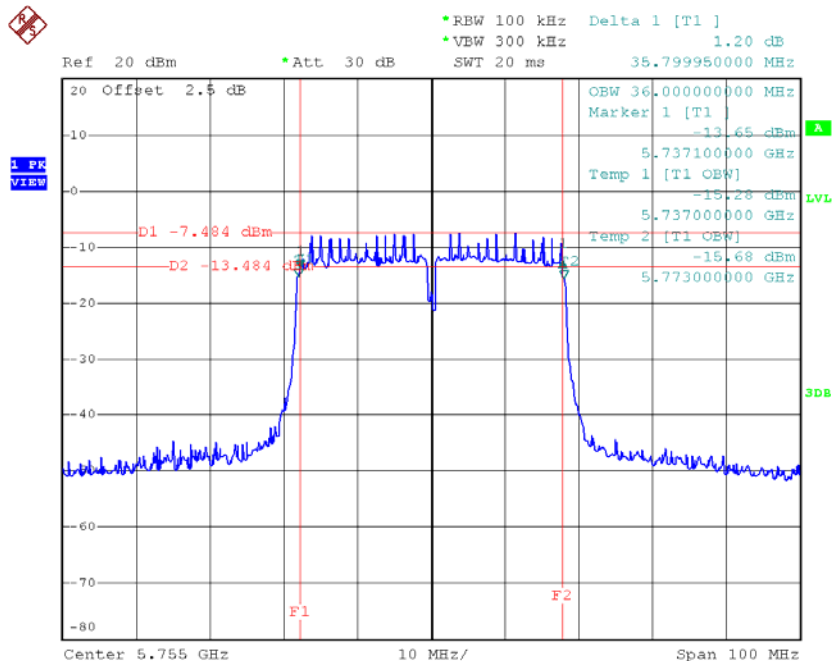


Date: 21.DEC.2015 14:57:15

**Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159**

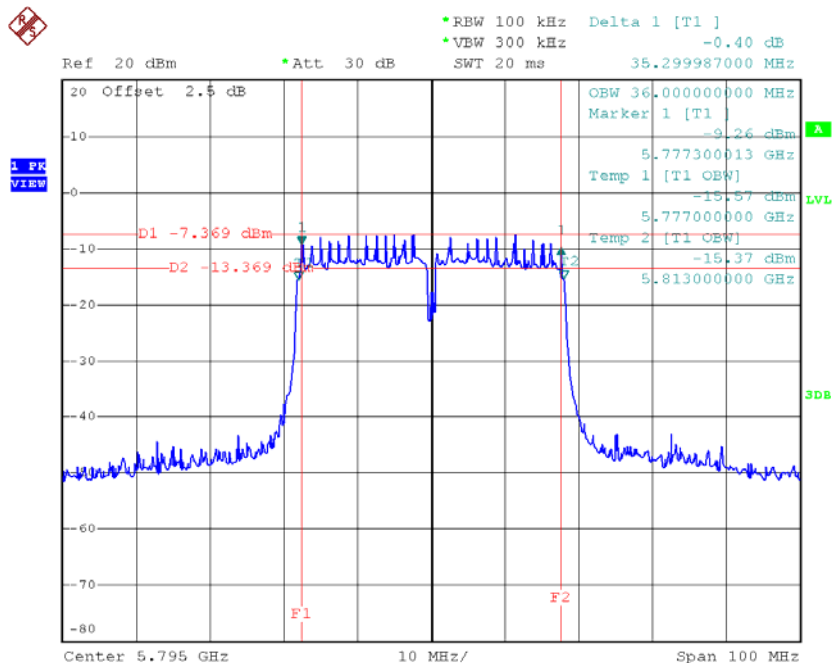
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	35.80	36.00	>=500
CH159	5795	35.30	36.00	>=500

### TX CH 151



Date: 21.DEC.2015 15:00:27

### TX CH 159



Date: 21.DEC.2015 15:01:31

## **ATTACHMENT F - MAXIMUM OUTPUT POWER**

**Test Mode: UNII-1/TX A Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	6.53	0.62	7.15	24.00	0.25
CH40	5200	6.24	0.62	6.86	24.00	0.25
CH48	5240	6.37	0.62	6.99	24.00	0.25

**Test Mode: UNII-1/TX A Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	6.22	0.62	6.84	24.00	0.25
CH40	5200	6.67	0.62	7.29	24.00	0.25
CH48	5240	6.47	0.62	7.09	24.00	0.25

**Test Mode: UNII-1/TX A Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	10.01	24.00	0.25
CH40	5200	10.09	24.00	0.25
CH48	5240	10.05	24.00	0.25

**Test Mode: UNII-1/TX N20 Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	6.49	1.22	7.71	24.00	0.25
CH40	5200	6.73	1.22	7.95	24.00	0.25
CH48	5240	6.45	1.22	7.67	24.00	0.25

**Test Mode: UNII-1/TX N20 Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	6.47	1.22	7.69	24.00	0.25
CH40	5200	6.25	1.22	7.47	24.00	0.25
CH48	5240	6.48	1.22	7.70	24.00	0.25

**Test Mode: UNII-1/TX N20 Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	10.71	24.00	0.25
CH40	5200	10.73	24.00	0.25
CH48	5240	10.70	24.00	0.25

**Test Mode: UNII-1/TX N40 Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	5.41	2.09	7.50	24.00	0.25
CH46	5230	5.84	2.09	7.93	24.00	0.25

**Test Mode: UNII-1/TX N40 Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	5.58	2.09	7.67	24.00	0.25
CH46	5230	5.67	2.09	7.76	24.00	0.25

**Test Mode: UNII-1/TX N40 Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	10.60	24.00	0.25
CH46	5230	10.86	24.00	0.25



**Test Mode: UNII-3/ TX A Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	6.19	0.62	6.81	30.00	1.00
CH157	5785	6.35	0.62	6.97	30.00	1.00
CH165	5825	6.43	0.62	7.05	30.00	1.00

**Test Mode: UNII-3/ TX A Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	6.23	0.62	6.85	30.00	1.00
CH157	5785	6.41	0.62	7.03	30.00	1.00
CH165	5825	6.71	0.62	7.33	30.00	1.00

**Test Mode: UNII-3/ TX A Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	9.84	30.00	1.00
CH157	5785	10.01	30.00	1.00
CH165	5825	10.20	30.00	1.00

**Test Mode: UNII-3/TX N20 Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	6.37	1.22	7.59	30.00	1.00
CH157	5785	6.42	1.22	7.64	30.00	1.00
CH165	5825	6.22	1.22	7.44	30.00	1.00

**Test Mode: UNII-3/TX N20 Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	6.25	1.22	7.47	30.00	1.00
CH157	5785	6.47	1.22	7.69	30.00	1.00
CH165	5825	6.29	1.22	7.51	30.00	1.00

**Test Mode: UNII-3/TX N20 Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	10.54	30.00	1.00
CH157	5785	10.68	30.00	1.00
CH165	5825	10.49	30.00	1.00

**Test Mode: UNII-3/ TX N40 Mode\_ANT 1**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	5.83	2.09	7.92	30.00	1.00
CH159	5795	5.71	2.09	7.80	30.00	1.00

**Test Mode: UNII-3/ TX N40 Mode\_ANT 2**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	5.81	2.09	7.90	30.00	1.00
CH159	5795	5.67	2.09	7.76	30.00	1.00

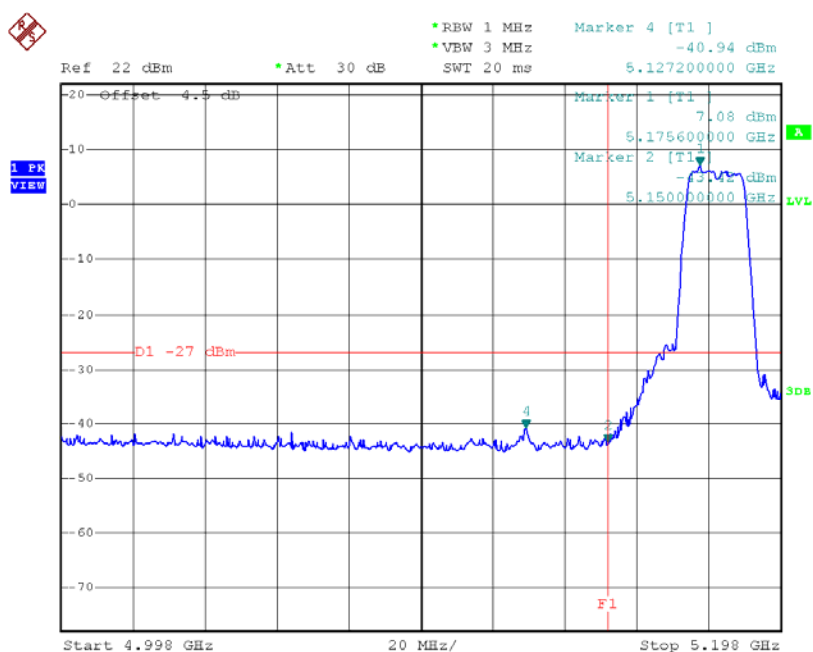
**Test Mode: UNII-3/ TX N40 Mode\_Total**

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	10.92	30.00	1.00
CH159	5795	10.79	30.00	1.00

## **ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION**

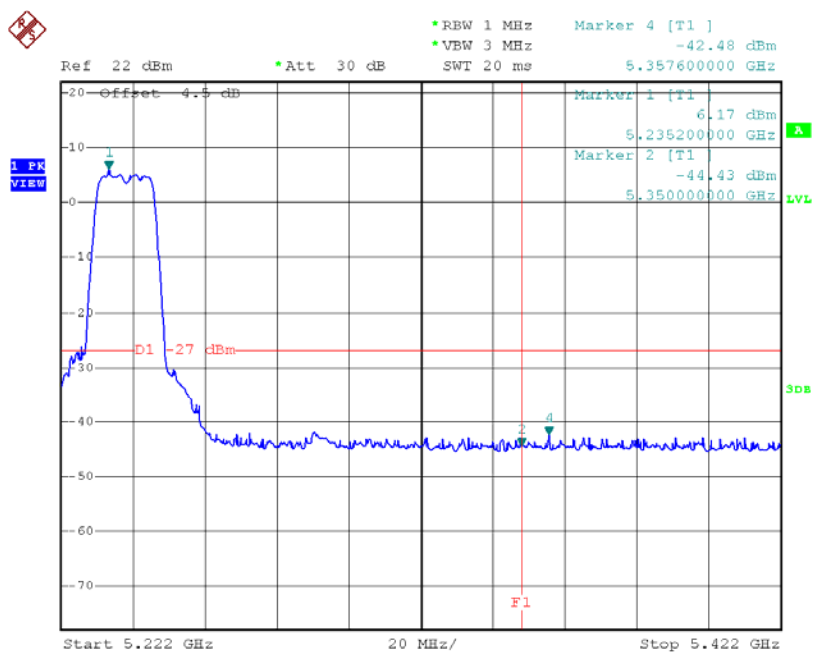
Test Mode: UNII-1/TX A Mode\_ANT 1

### TX mode CH36



Date: 21.DEC.2015 11:12:15

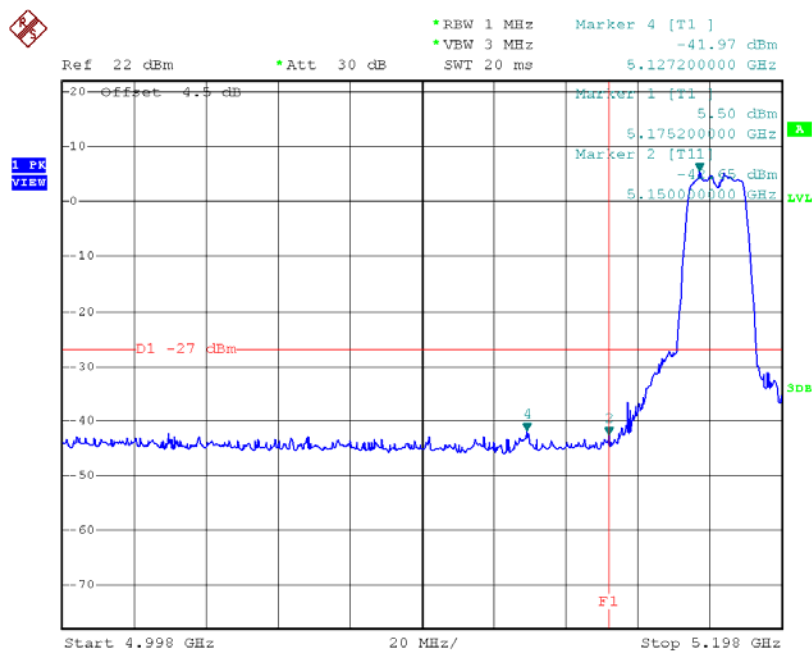
### TX mode CH48



Date: 21.DEC.2015 11:26:22

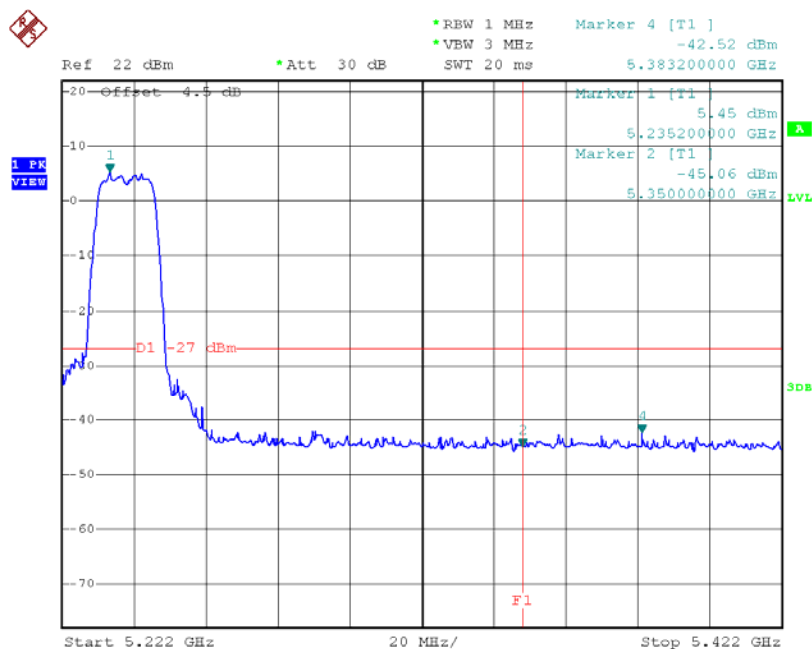
Test Mode: UNII-1/TX A Mode\_ANT 2

### TX mode CH36



Date: 21.DEC.2015 14:22:18

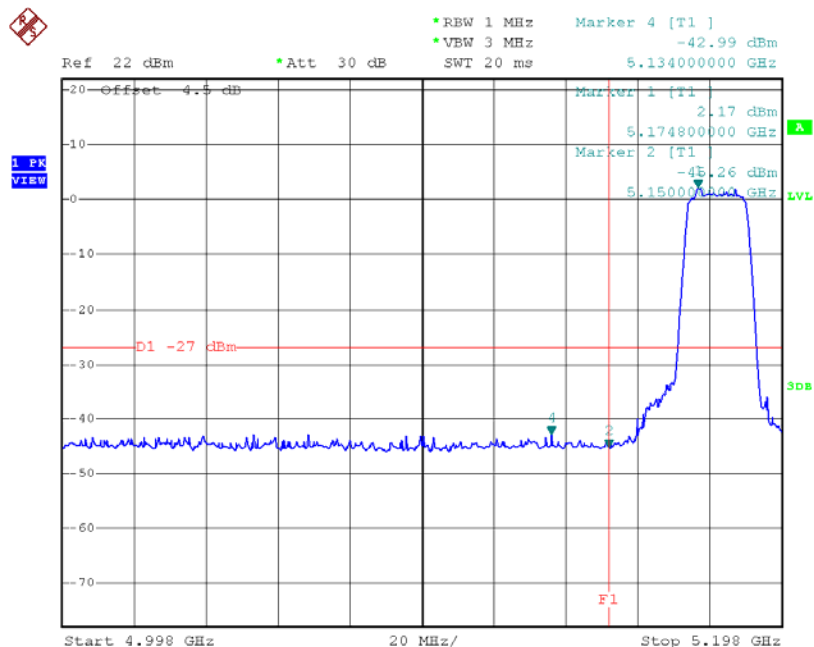
### TX mode CH48



Date: 21.DEC.2015 14:27:35

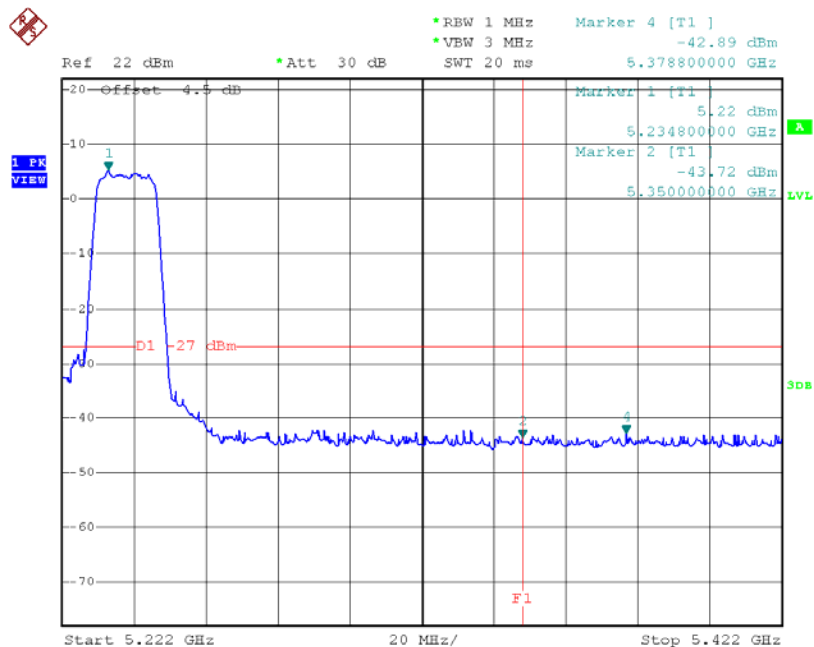
Test Mode: UNII-1/TX N20 Mode\_ANT 1

### TX mode CH36



Date: 21.DEC.2015 14:52:32

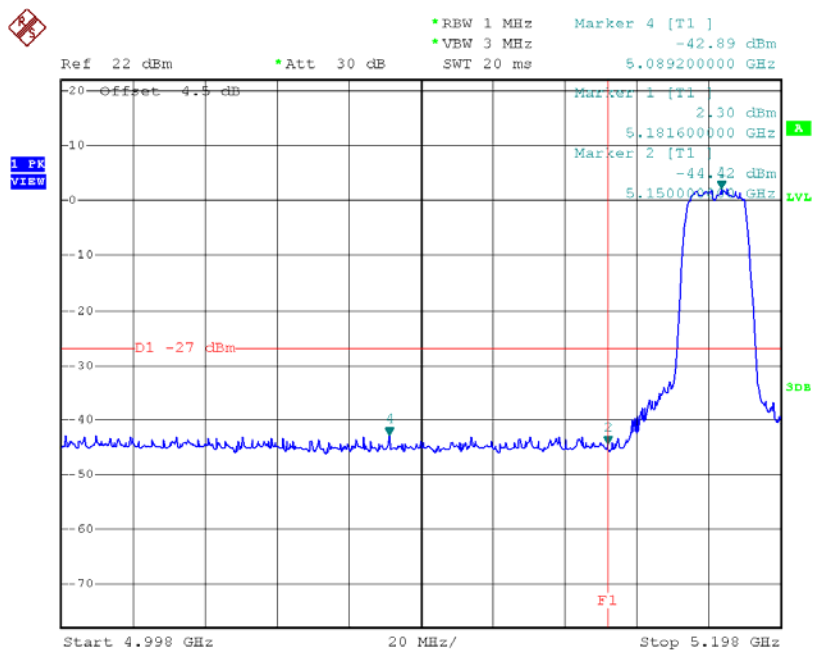
### TX mode CH48



Date: 21.DEC.2015 14:54:20

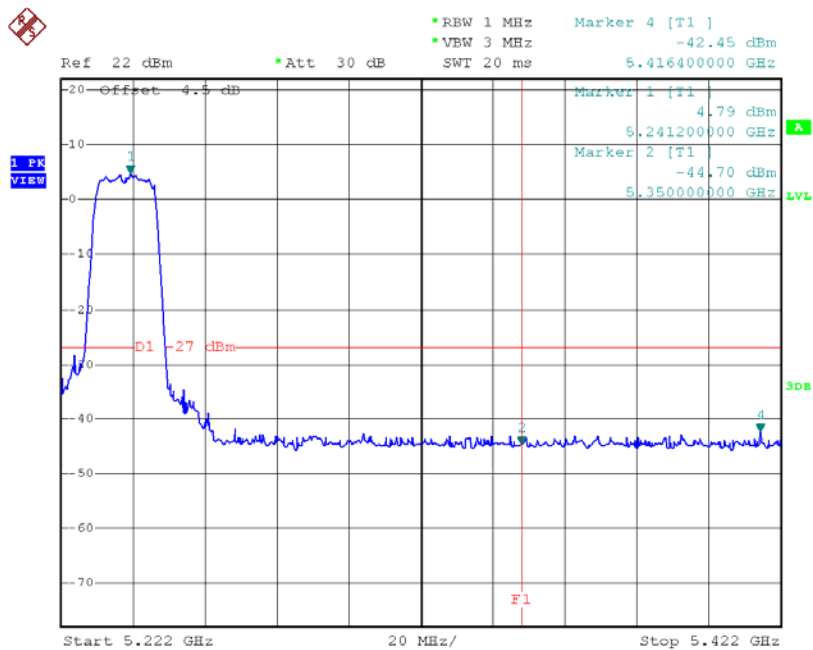
Test Mode: UNII-1/TX N20 Mode\_ANT 2

### TX mode CH36



Date: 21.DEC.2015 14:33:31

### TX mode CH48

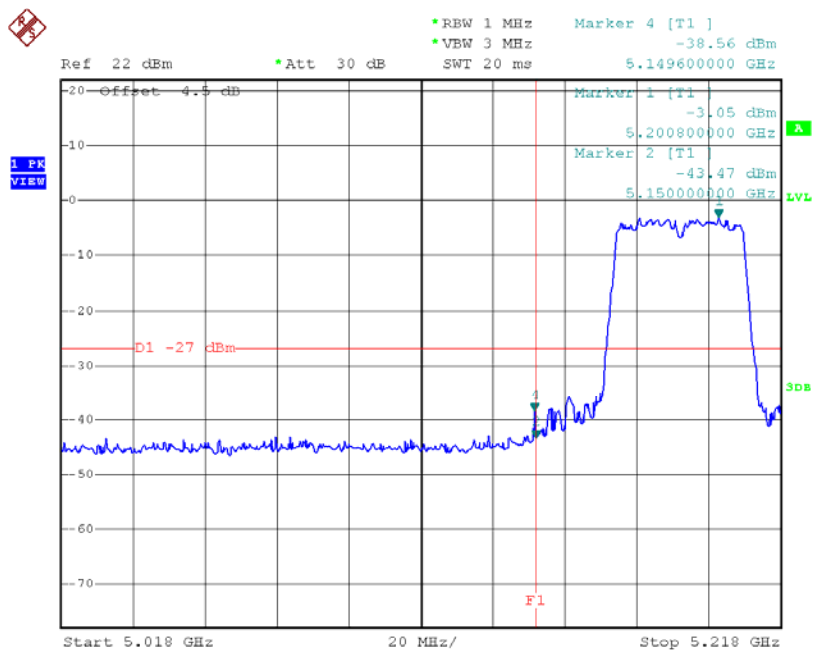


Date: 21.DEC.2015 14:35:23



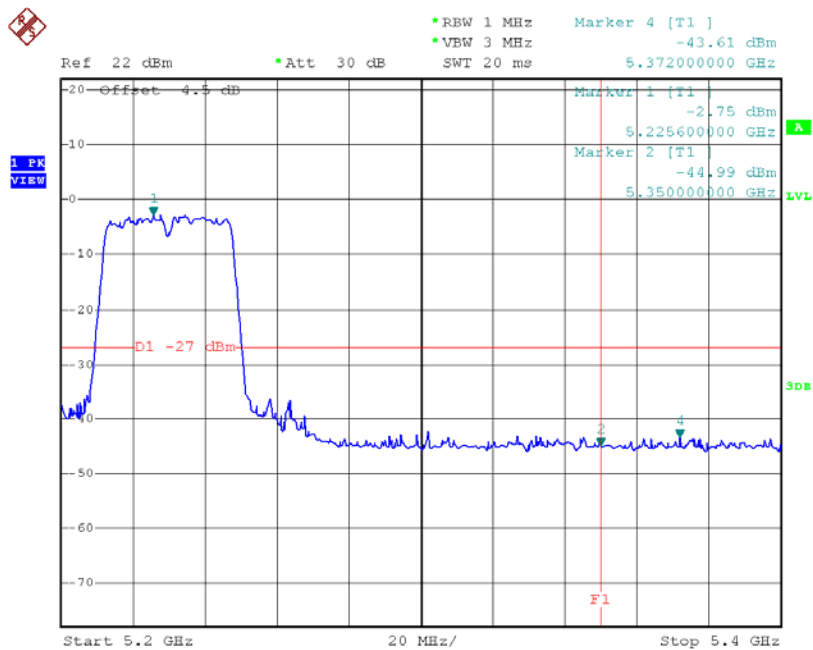
Test Mode: UNII-1/TX N40 Mode\_ANT 1

### TX mode CH38



Date: 21.DEC.2015 14:58:37

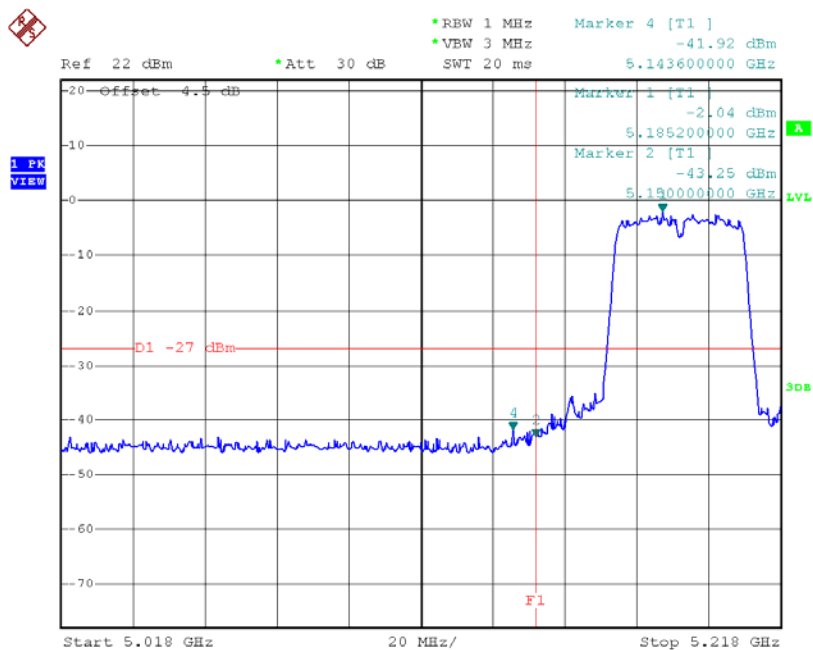
### TX mode CH46



Date: 21.DEC.2015 14:59:37

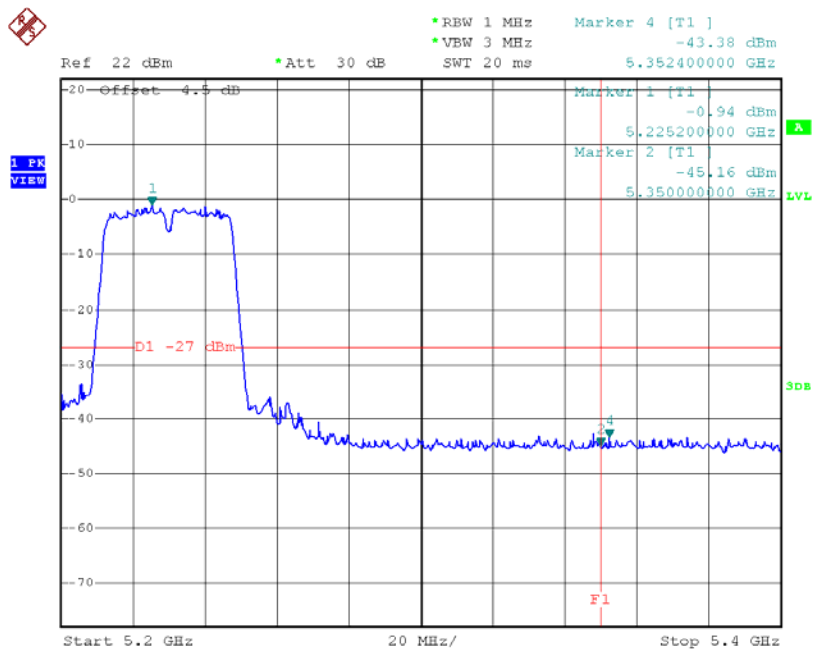
Test Mode: UNII-1/TX N40 Mode\_ANT 2

### TX mode CH38



Date: 21.DEC.2015 14:40:19

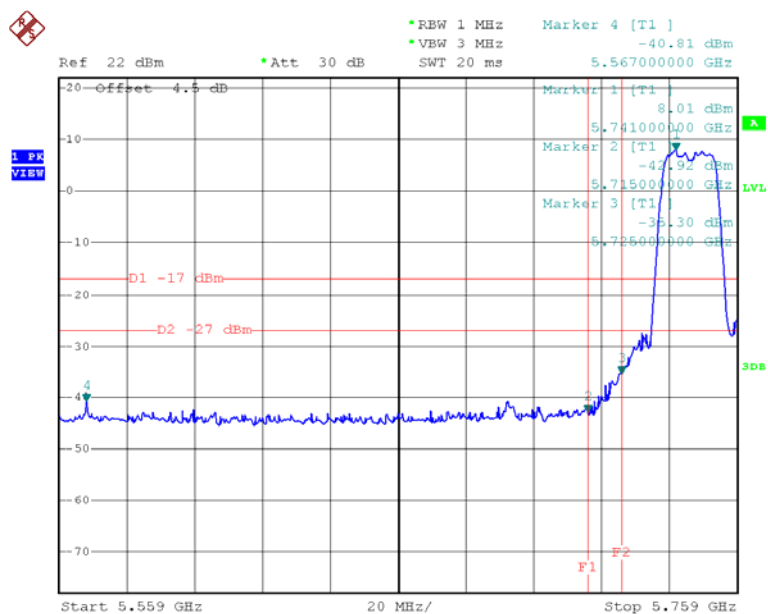
### TX mode CH46



Date: 21.DEC.2015 14:41:22

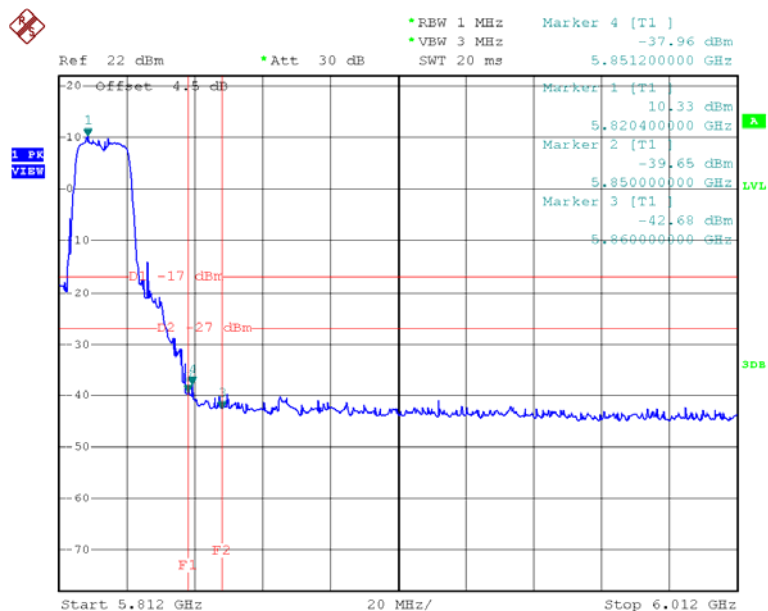
Test Mode:	UNII-3/TX A Mode_ANT 1
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### TX A Mode CH149



Date: 21.DEC.2015 14:48:35

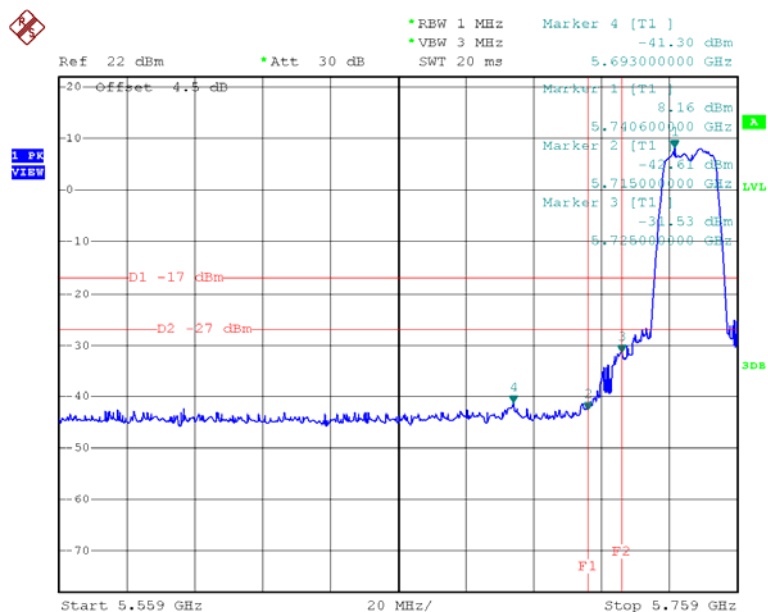
### TX A Mode CH165



Date: 21.DEC.2015 14:51:16

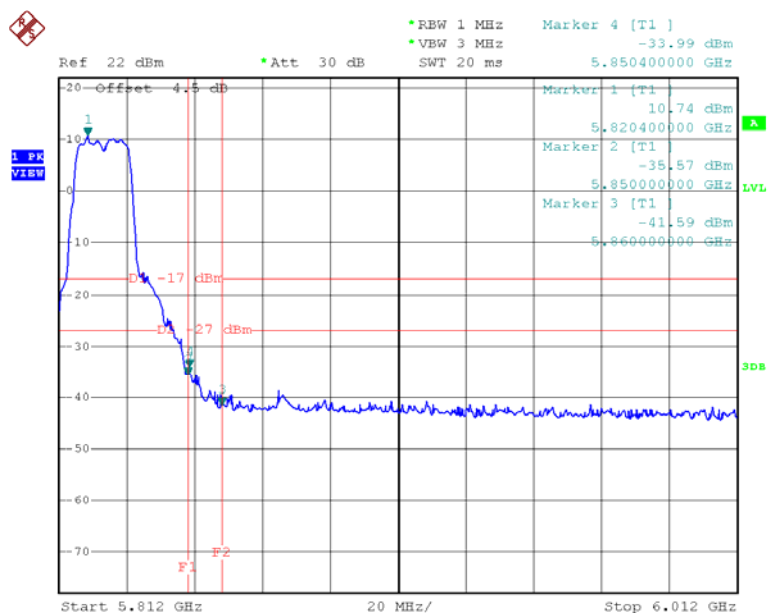
Test Mode: UNII-3/TX A Mode\_ANT 2

### TX A Mode CH149



Date: 21.DEC.2015 14:28:41

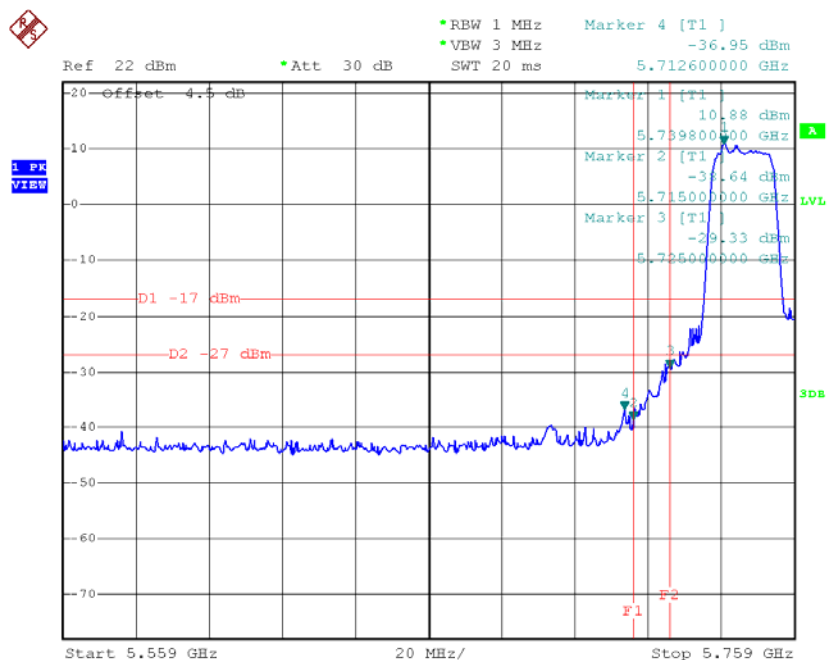
### TX A Mode CH165



Date: 21.DEC.2015 14:32:22

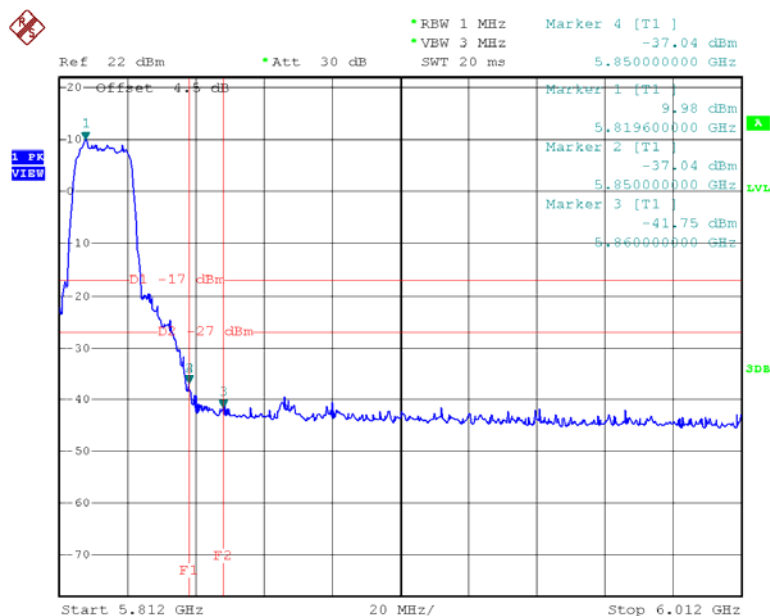
Test Mode: UNII-3/TX N20 Mode\_ANT 1

### TX HT20 mode CH149



Date: 21.DEC.2015 14:55:23

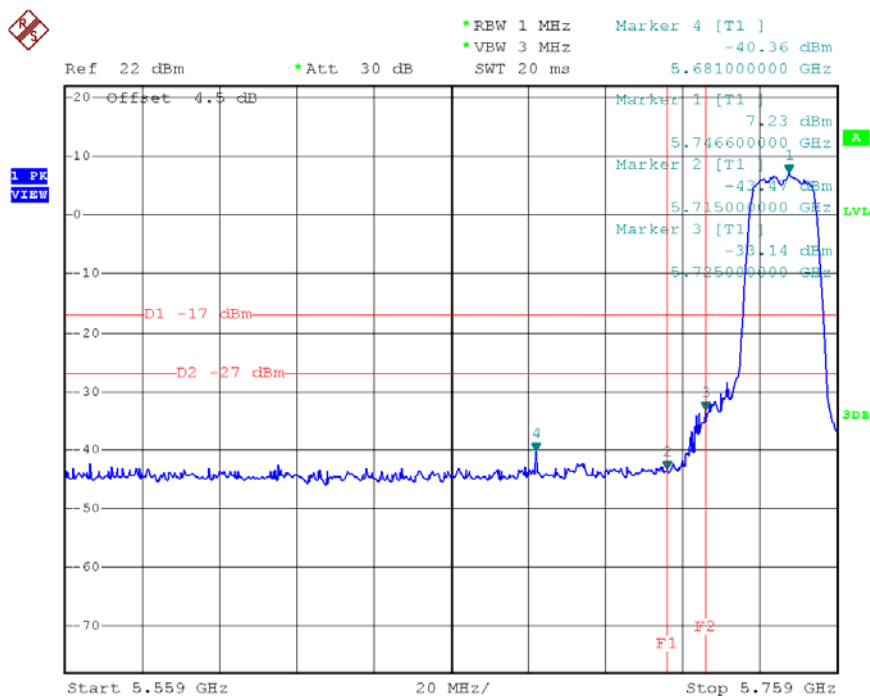
### TX HT20 mode CH165



Date: 21.DEC.2015 14:57:32

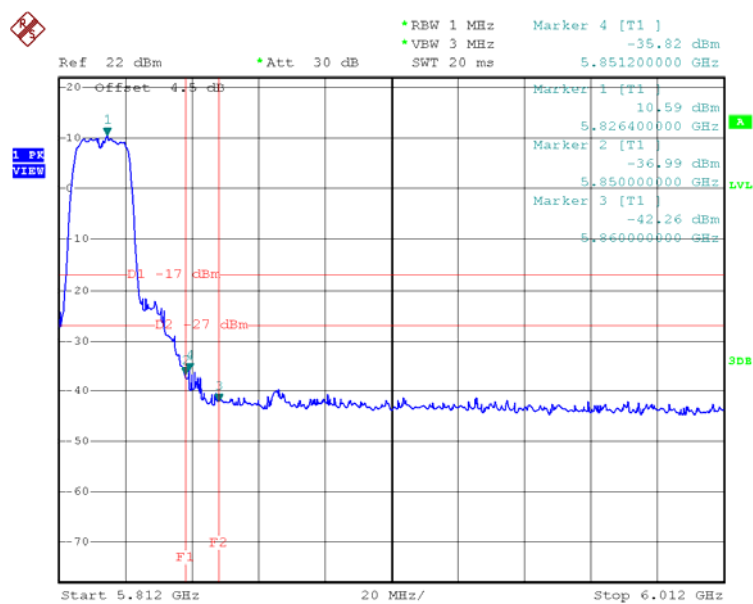
Test Mode: UNII-3/TX N20 Mode\_ANT 2

### TX HT20 mode CH149



Date: 21.DEC.2015 14:36:34

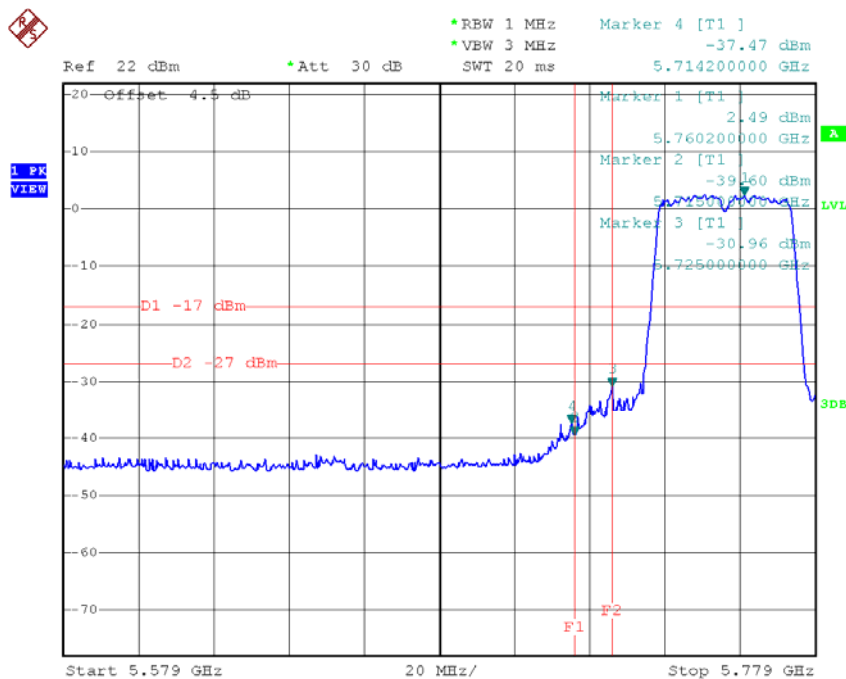
### X HT20 mode CH165



Date: 21.DEC.2015 14:39:06

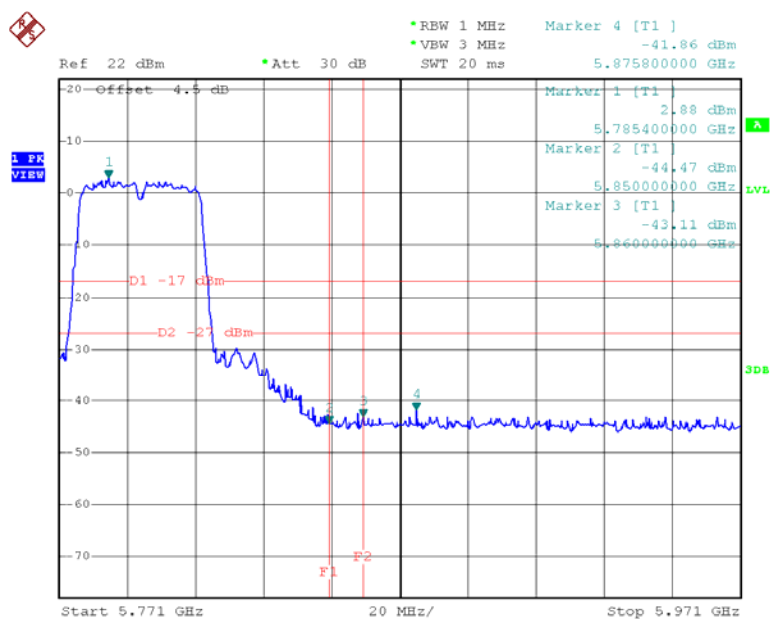
Test Mode: UNII-3/TX N40 Mode\_ANT 1

### UNII-3/TX HT40 mode CH151



Date: 21.DEC.2015 15:00:45

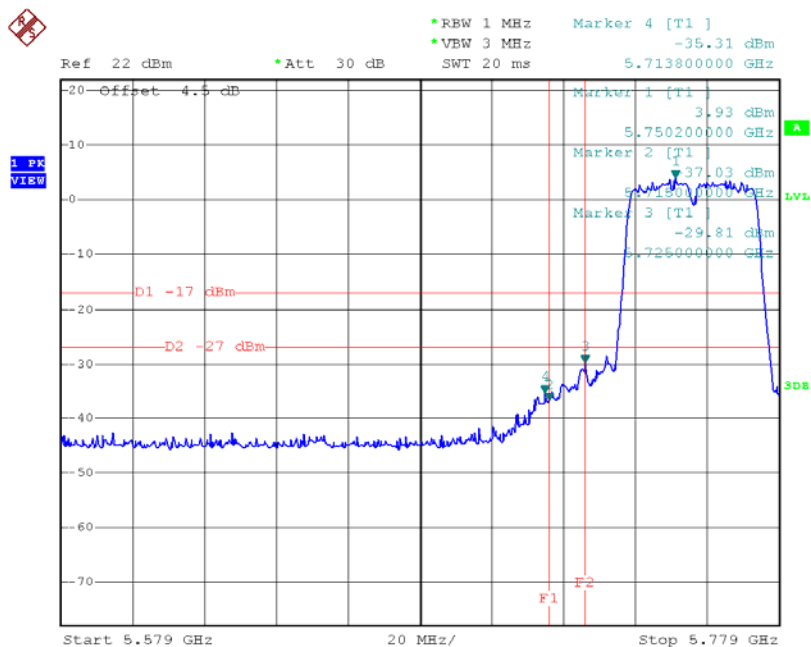
### UNII-3/TX HT40 mode CH159



Date: 21.DEC.2015 15:01:49

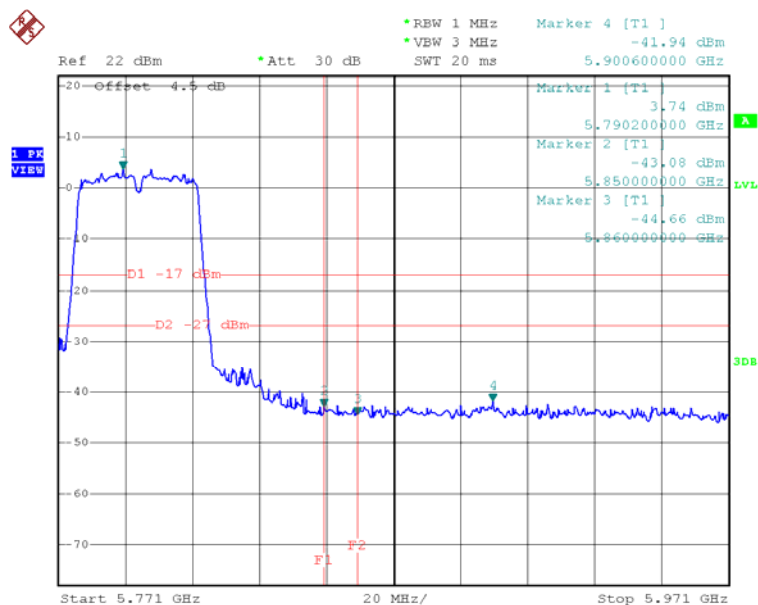
Test Mode: UNII-3/TX N40 Mode\_ANT 2

### TX HT40 mode CH151



Date: 21.DEC.2015 14:42:35

### HT40 mode CH159



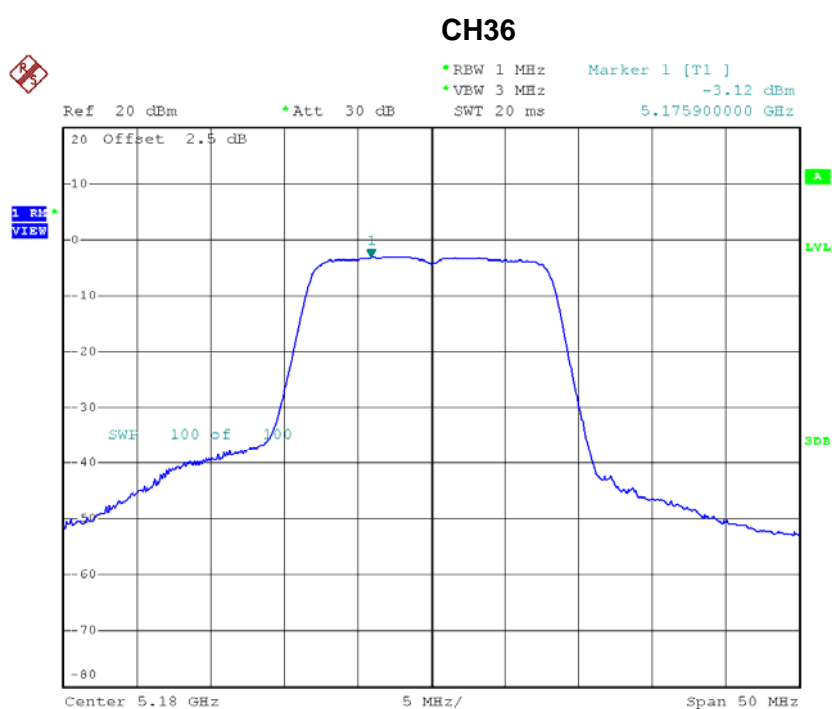
Date: 21.DEC.2015 14:43:34



## **ATTACHMENT H - POWER SPECTRAL DENSITY**

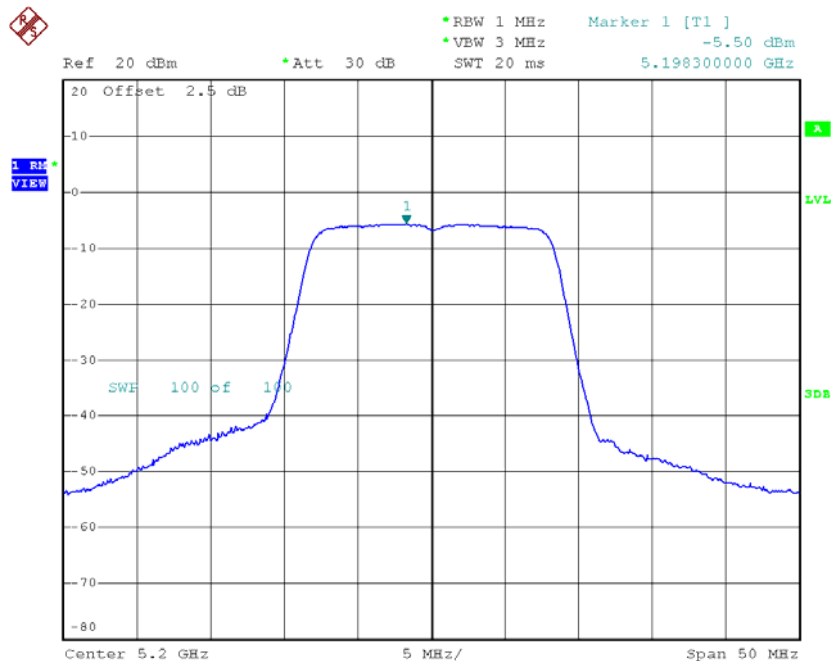
**Test Mode: UNII-1/ TX A Mode\_CH36/CH40/CH48\_ANT 1**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-3.12	0.62	-2.50	11.00
CH40	5200	-5.50	0.62	-4.88	11.00
CH48	5240	-4.56	0.62	-3.94	11.00



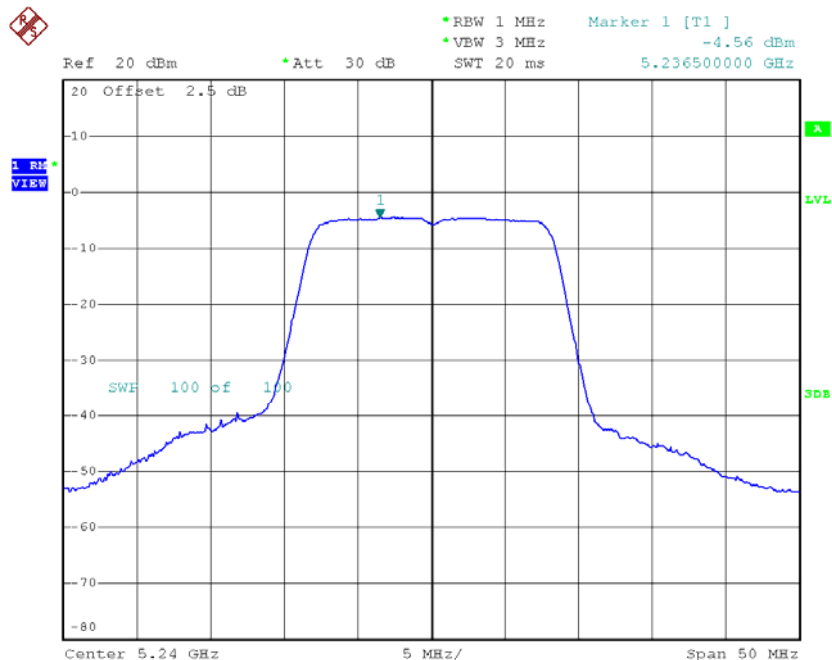
Date: 21.DEC.2015 11:12:07

# CH40



Date: 21.DEC.2015 11:25:11

# CH48

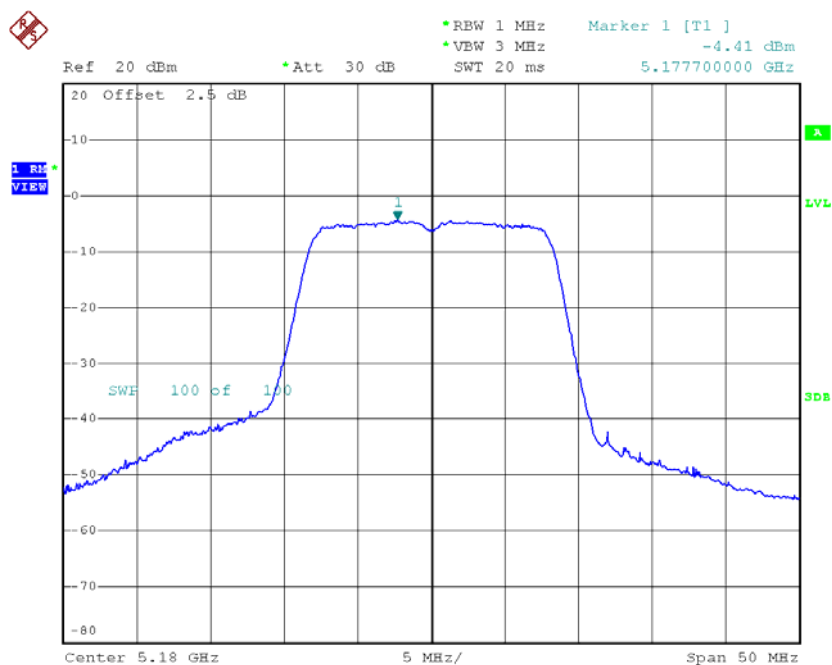


Date: 21.DEC.2015 11:26:14

**Test Mode: UNII-1/ TX A Mode\_CH36/CH40/CH48\_ANT 2**

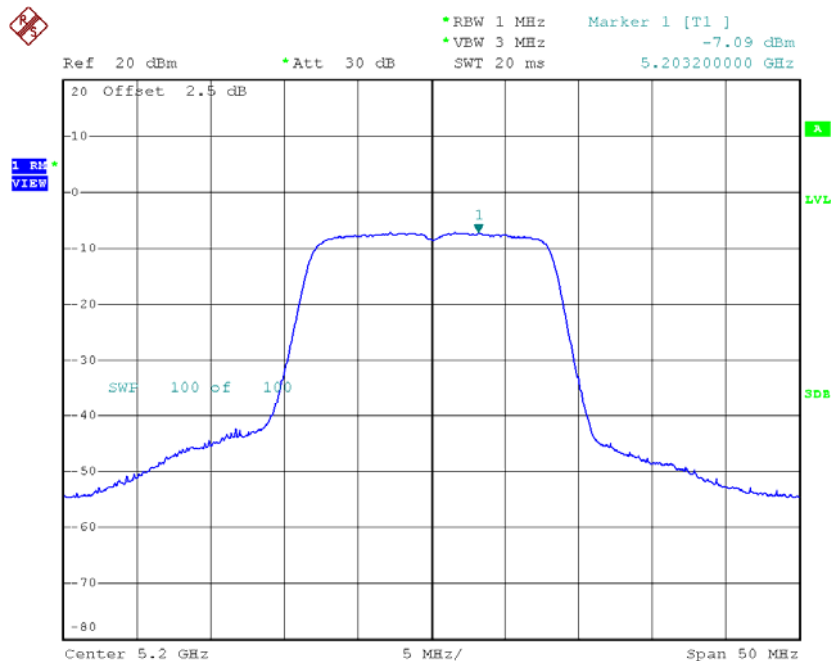
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-4.41	0.62	-3.79	11.00
CH40	5200	-7.09	0.62	-6.47	11.00
CH48	5240	-5.09	0.62	-4.47	11.00

**CH36**



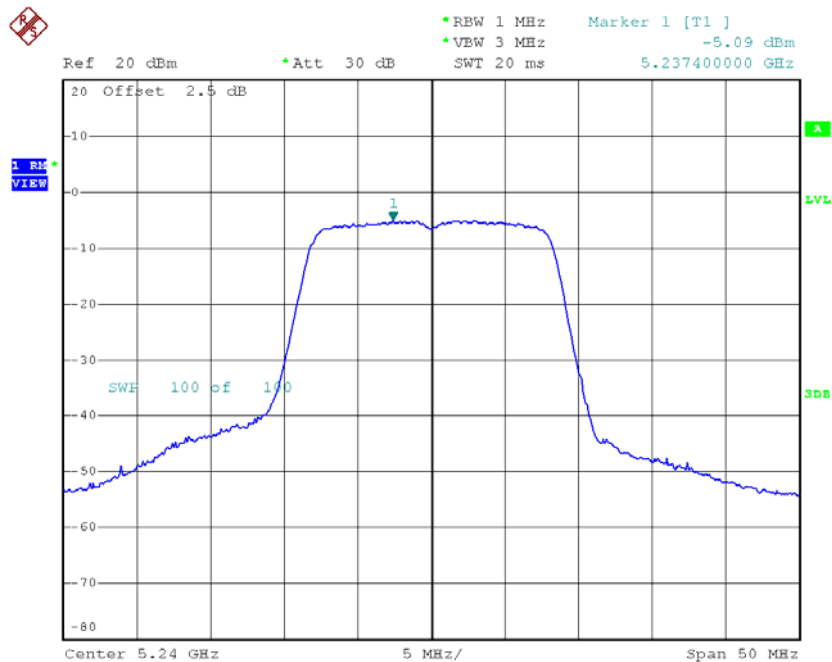
Date: 21.DEC.2015 14:22:11

# CH40



Date: 21.DEC.2015 14:26:31

# CH48



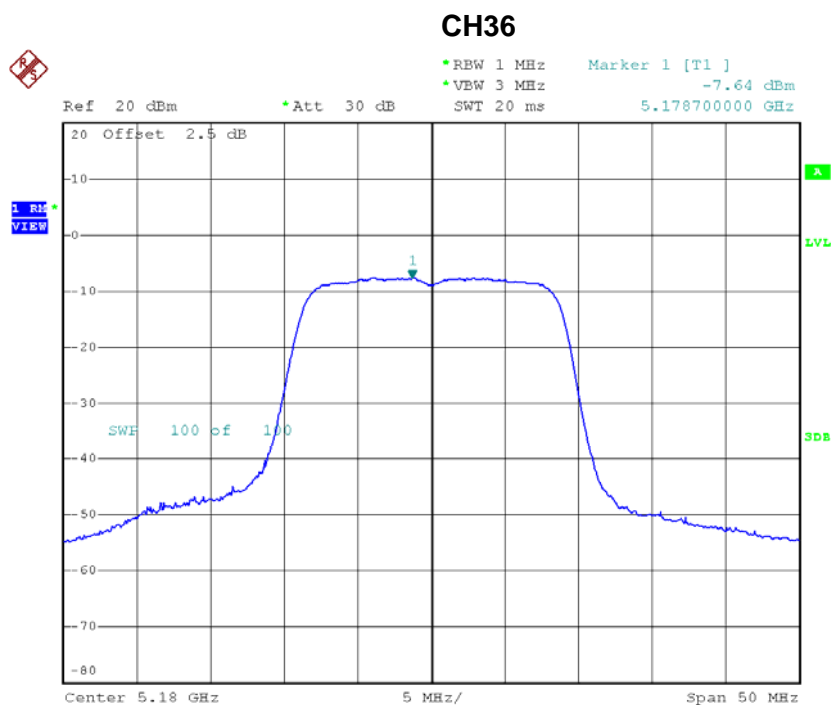
Date: 21.DEC.2015 14:27:27

**Test Mode: UNII-1/ TX A Mode\_CH36/CH40/CH48\_Total**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-0.09	11.00
CH40	5200	-2.59	11.00
CH48	5240	-1.19	11.00

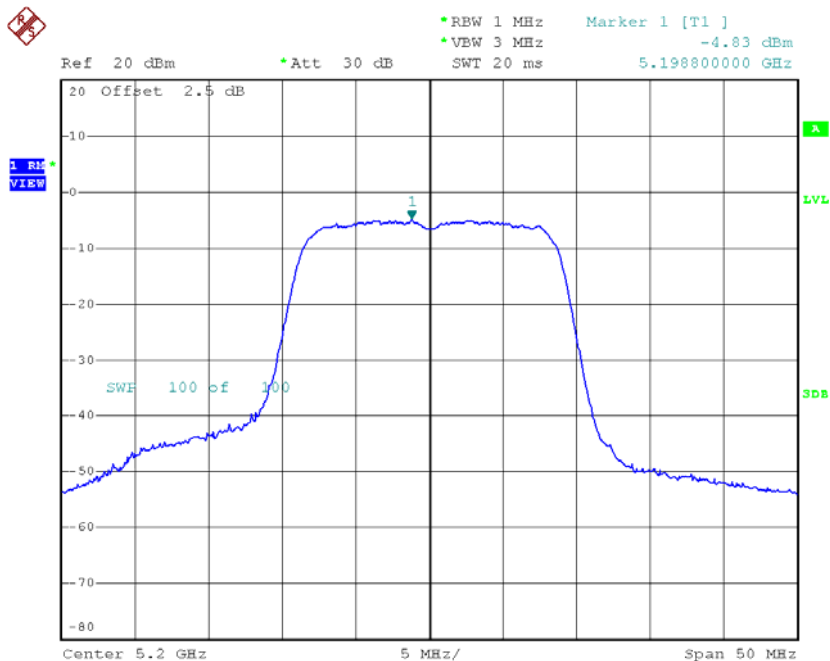
**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48\_ANT 1**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-7.64	1.22	-6.42	11.00
CH40	5200	-4.83	1.22	-3.61	11.00
CH48	5240	-4.43	1.22	-3.21	11.00



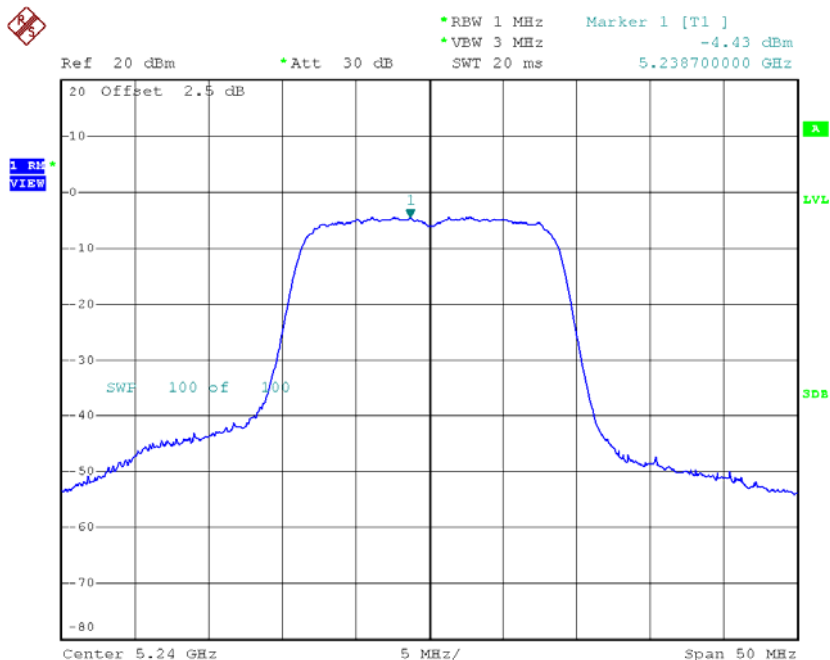
Date: 21.DEC.2015 14:52:25

# CH40



Date: 21.DEC.2015 14:53:21

# CH48



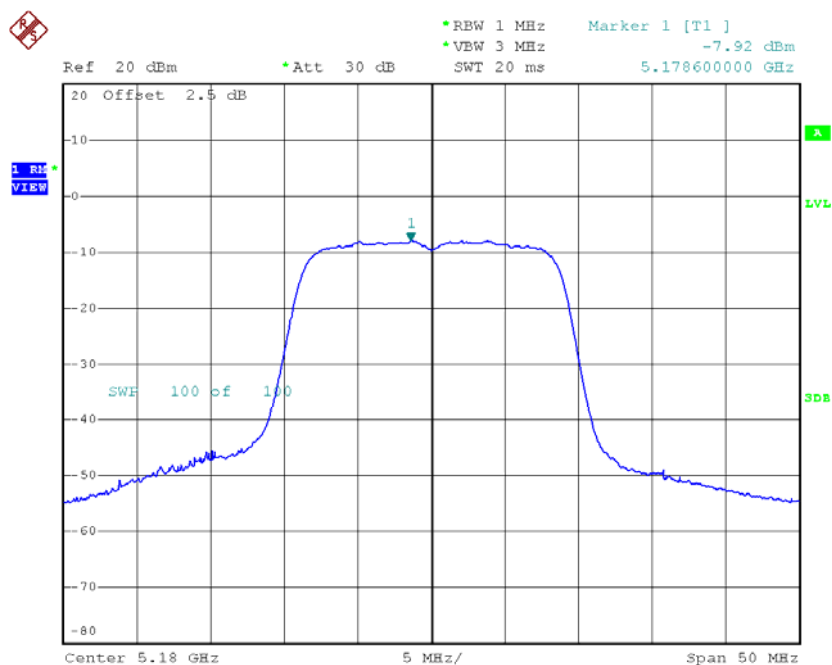
Date: 21.DEC.2015 14:54:12



**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48\_ANT 2**

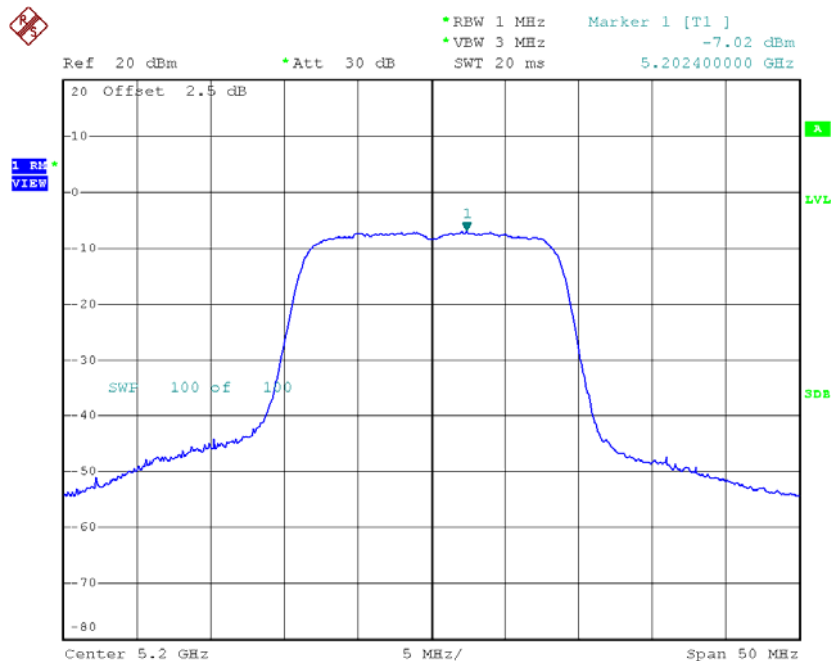
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-7.92	1.22	-6.70	11.00
CH40	5200	-7.02	1.22	-5.80	11.00
CH48	5240	-5.37	1.22	-4.15	11.00

**CH36**



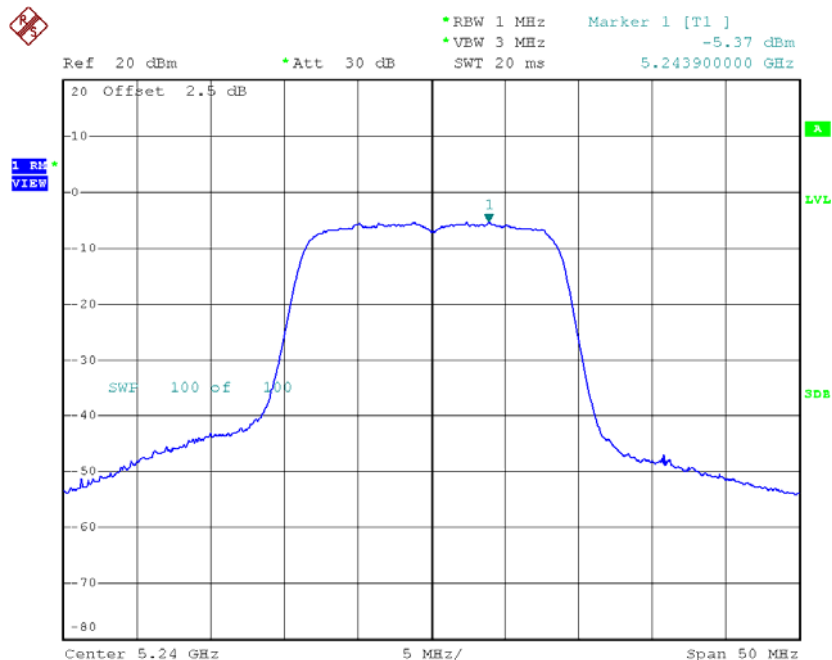
Date: 21.DEC.2015 14:33:23

# CH40



Date: 21.DEC.2015 14:34:22

# CH48



Date: 21.DEC.2015 14:35:15

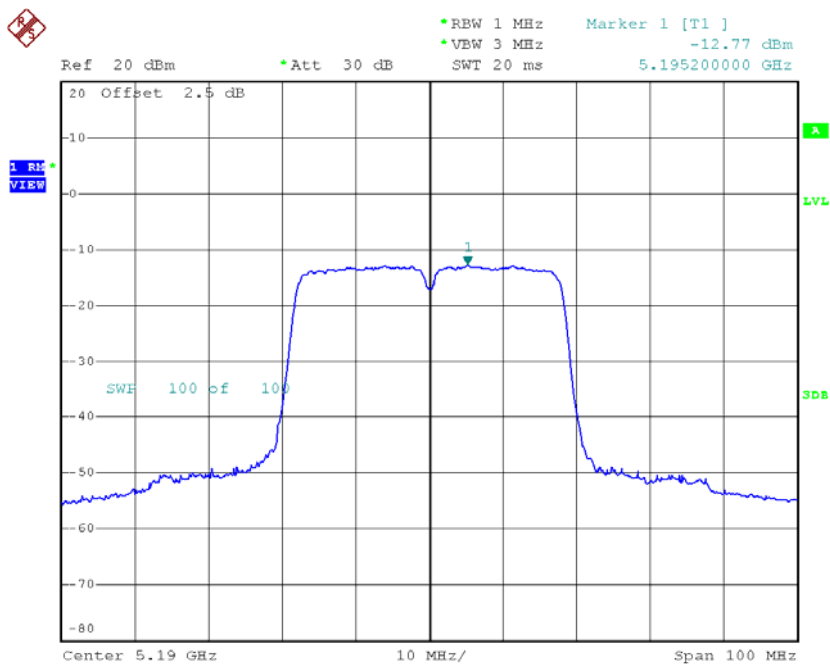
**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48\_Total**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-3.55	11.00
CH40	5200	-1.56	11.00
CH48	5240	-0.64	11.00

**Test Mode: UNII-1/TX N40 Mode\_CH38/CH46\_ANT 1**

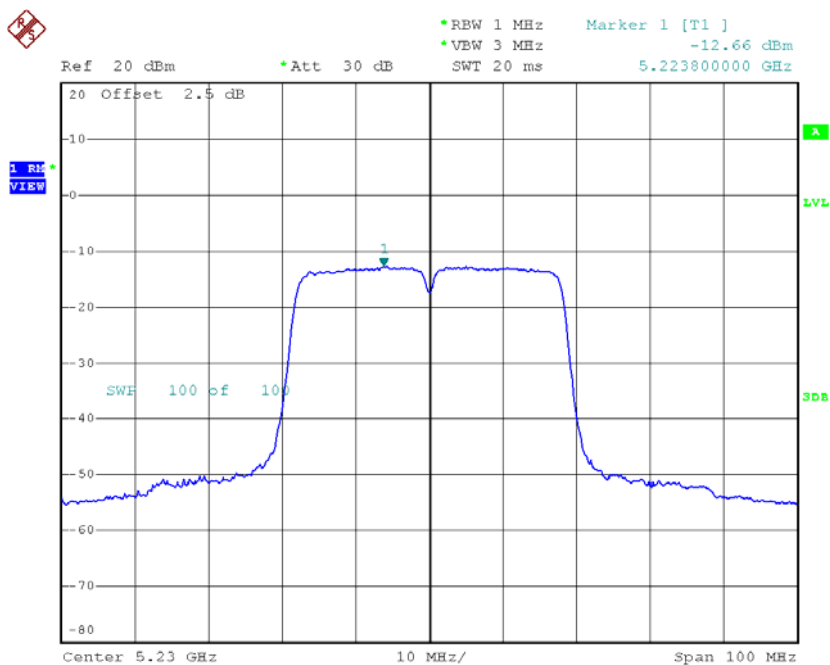
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-12.77	2.09	-10.68	11.00
CH46	5230	-12.66	2.09	-10.57	11.00

### CH38



Date: 21.DEC.2015 14:58:30

### CH46

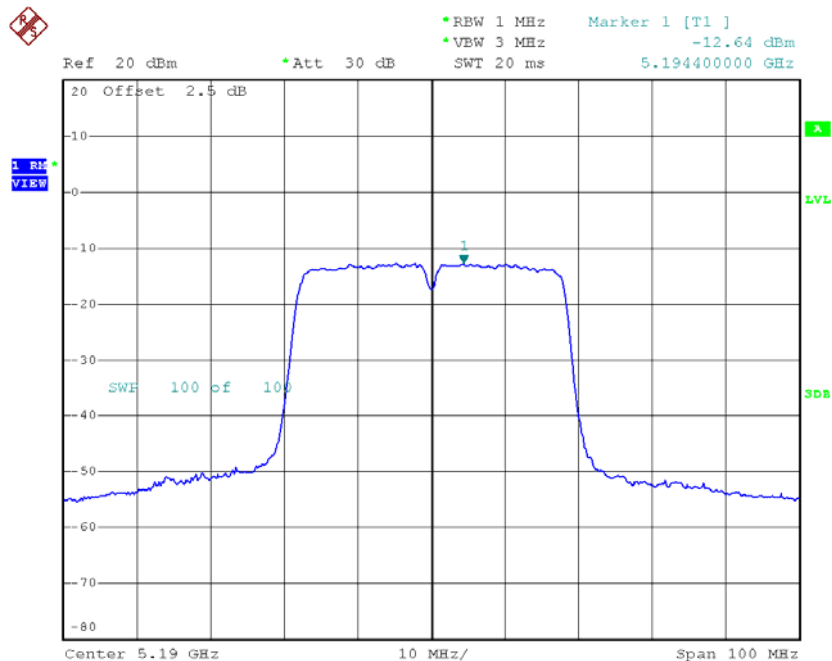


Date: 21.DEC.2015 14:59:29

**Test Mode: UNII-1/TX N40 Mode\_CH38/CH46\_ANT 2**

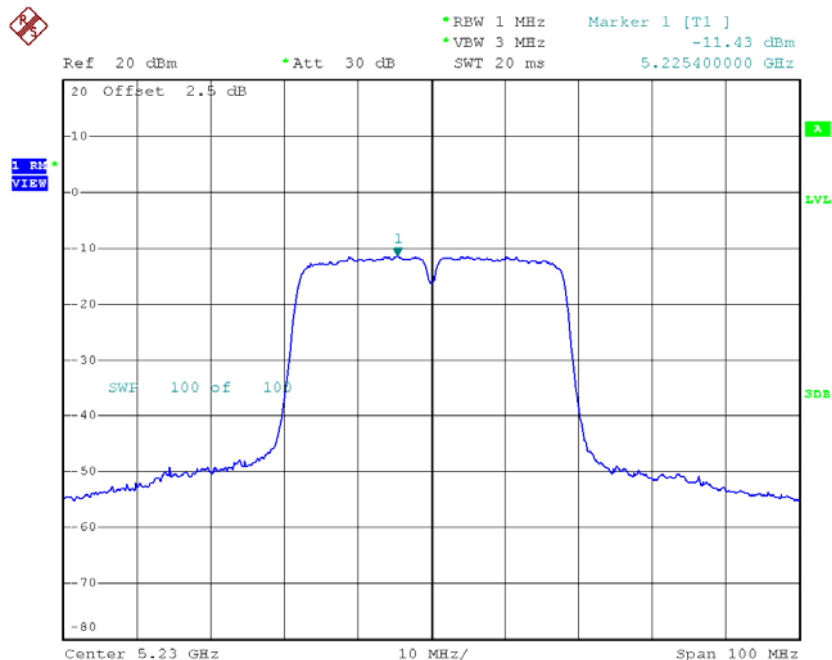
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-12.64	2.09	-10.55	11.00
CH46	5230	-11.43	2.09	-9.34	11.00

# CH38



Date: 21.DEC.2015 14:40:12

# CH46



Date: 21.DEC.2015 14:41:14

**Test Mode: UNII-1/TX N40 Mode\_CH38/CH46\_Total**

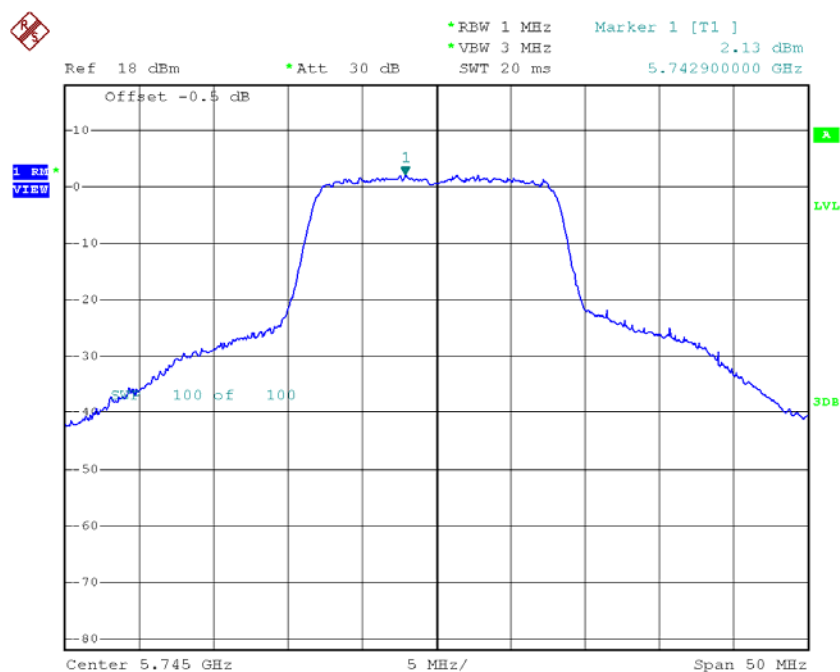
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-7.60	11.00
CH46	5230	-6.90	11.00



**Test Mode: UNII-3/TX A Mode\_CH149/CH157/CH165\_ANT 1**

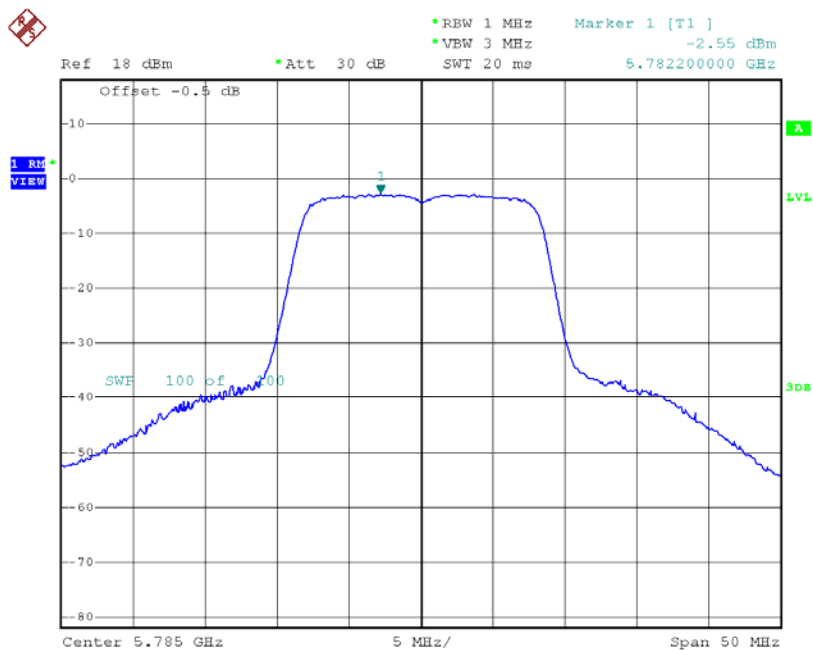
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	2.13	0.62	2.75	30.00
CH157	5785	-2.55	0.62	-1.93	30.00
CH165	5825	-2.74	0.62	-2.12	30.00

**TX CH149**



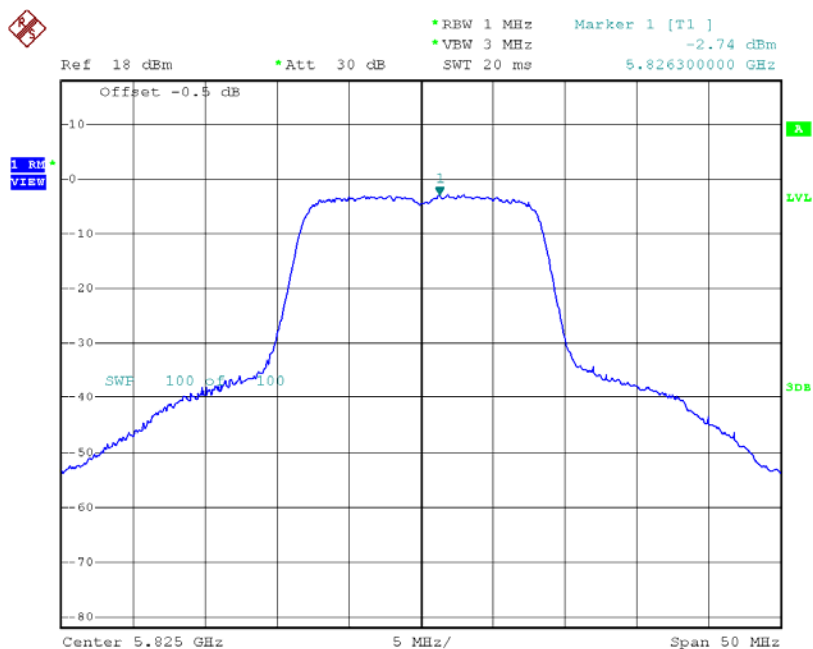
Date: 21.DEC.2015 15:02:53

### TX CH157



Date: 21.DEC.2015 14:49:47

### TX CH165

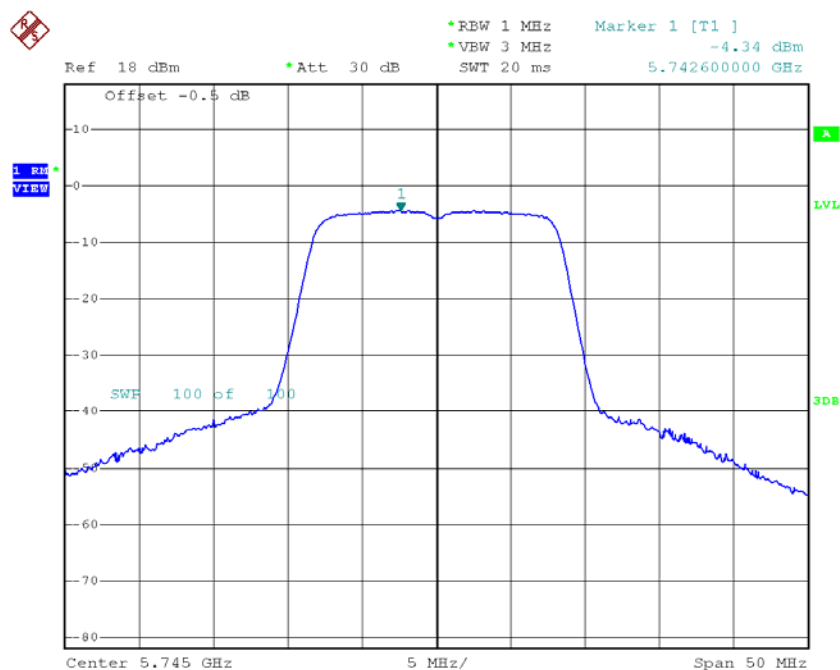


Date: 21.DEC.2015 14:51:08

**Test Mode: UNII-3/TX A Mode\_CH149/CH157/CH165\_ANT 2**

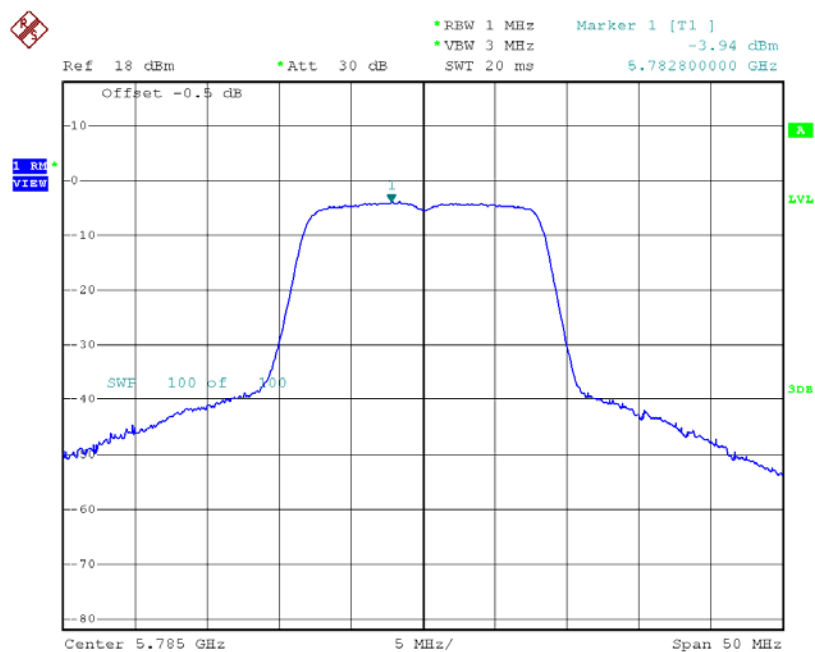
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	-4.34	0.62	-3.72	30.00
CH157	5785	-3.94	0.62	-3.32	30.00
CH165	5825	-2.88	0.62	-2.26	30.00

**TX CH149**



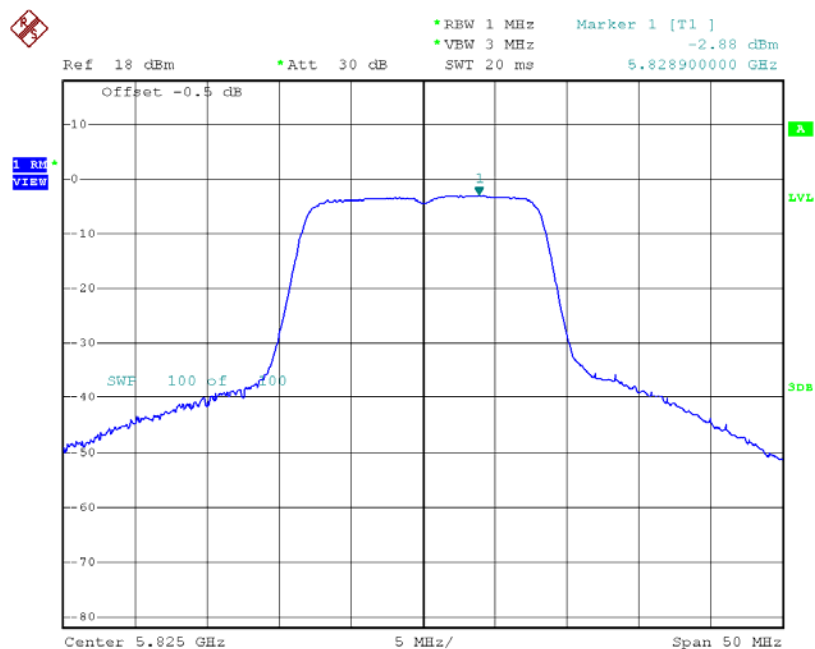
Date: 21.DEC.2015 14:28:02

## TX CH157



Date: 21.DEC.2015 14:31:21

## TX CH165



Date: 21.DEC.2015 14:32:14

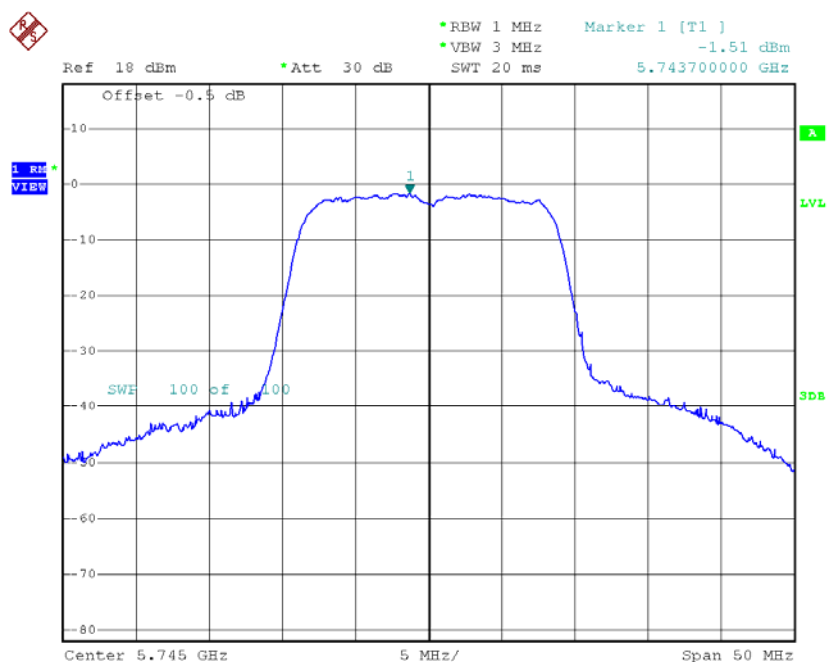
**Test Mode: UNII-3/TX A Mode\_CH149/CH157/CH165\_Total**

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	3.63	30.00
CH157	5785	0.44	30.00
CH165	5825	0.82	30.00

Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_ANT 1

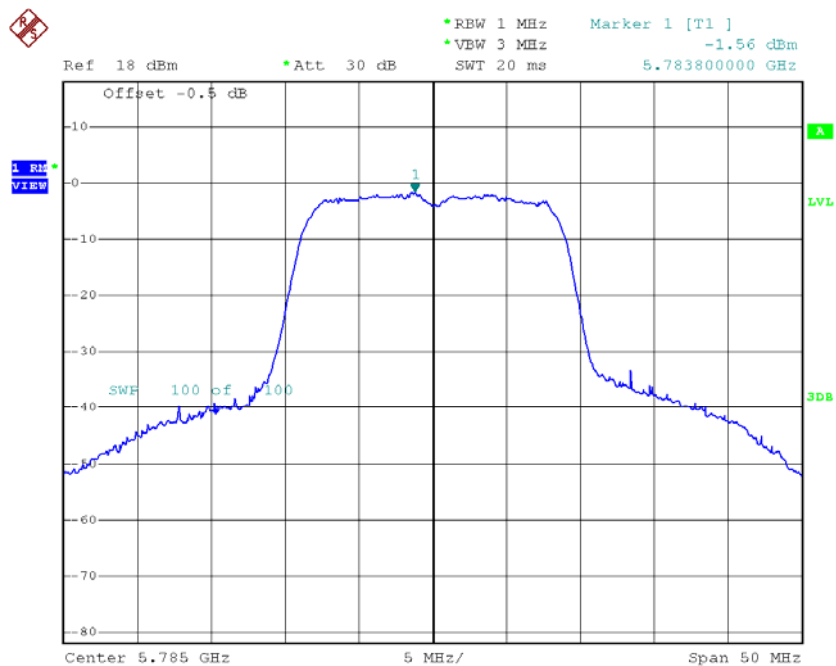
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	-1.51	1.22	-0.29	30.00
CH157	5785	-1.56	1.22	-0.34	30.00
CH165	5825	-2.41	1.22	-1.19	30.00

TX CH149



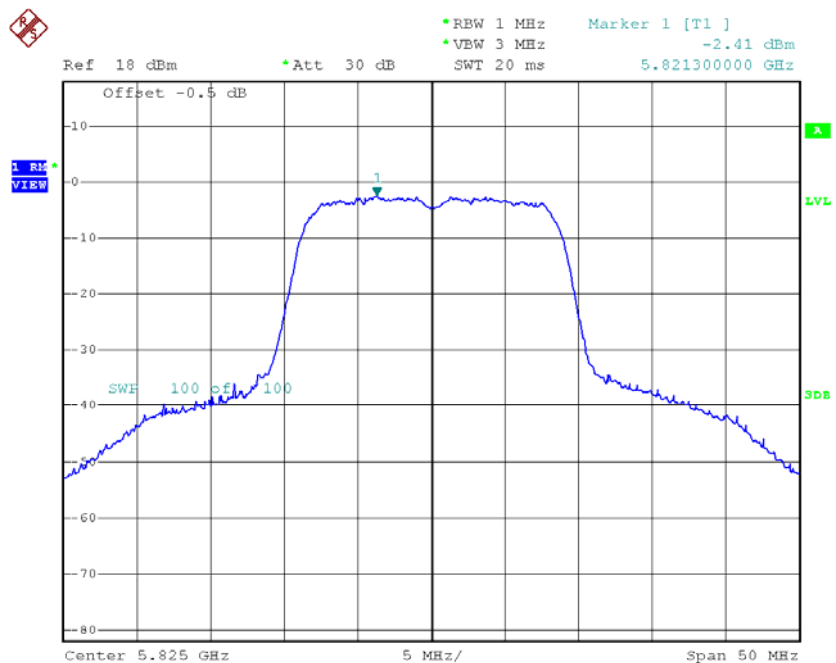
Date: 21.DEC.2015 14:55:15

# TX CH157



Date: 21.DEC.2015 14:56:22

# TX CH165

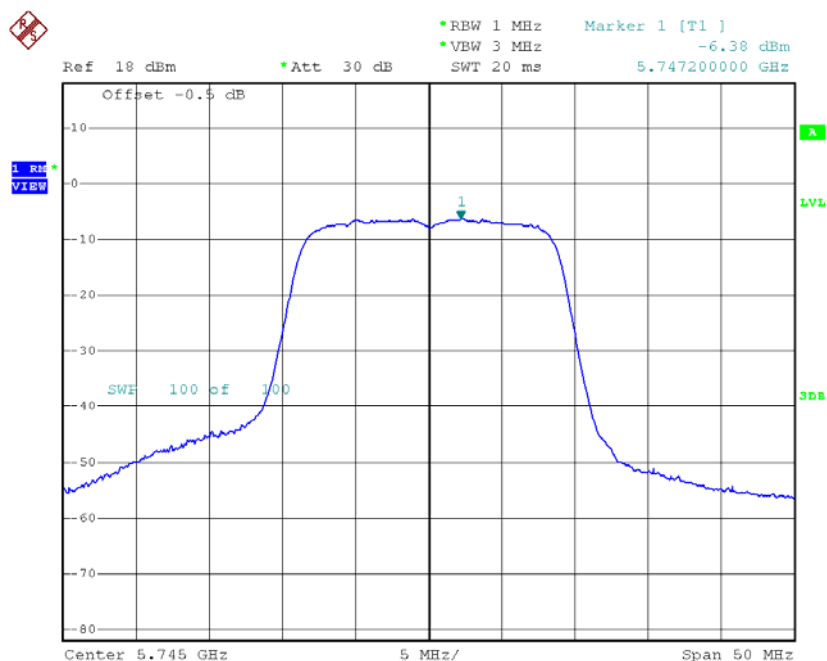


Date: 21.DEC.2015 14:57:24

**Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_ANT 2**

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	-6.38	1.22	-5.16	30.00
CH157	5785	-3.78	1.22	-2.56	30.00
CH165	5825	-3.04	1.22	-1.82	30.00

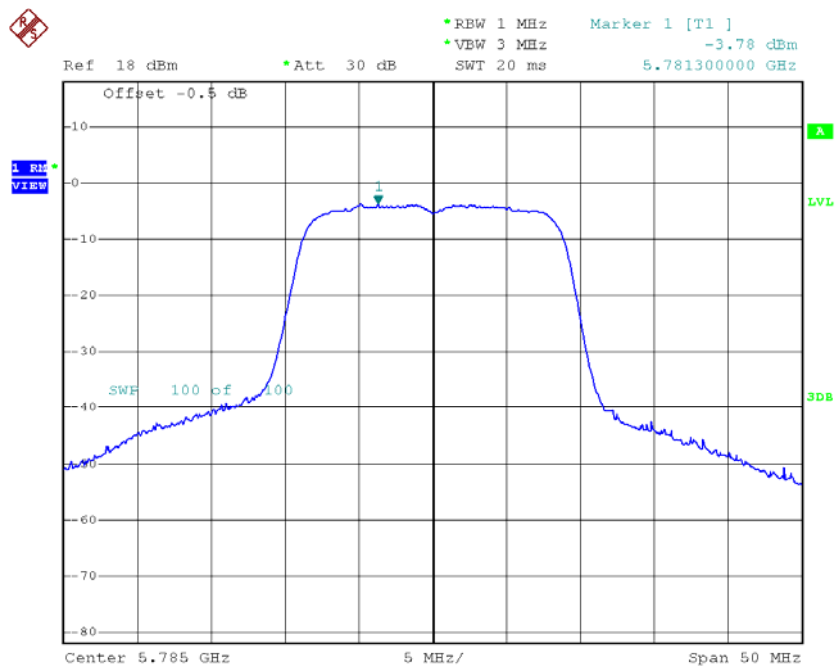
**TX CH149**



Date: 21.DEC.2015 14:36:26

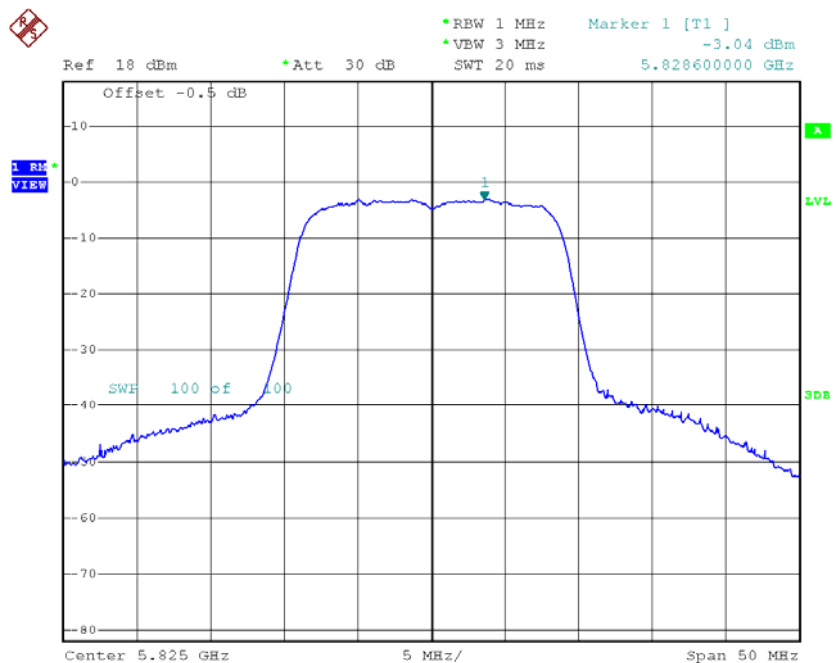


# TX CH157



Date: 21.DEC.2015 14:37:35

# TX CH165



Date: 21.DEC.2015 14:38:58

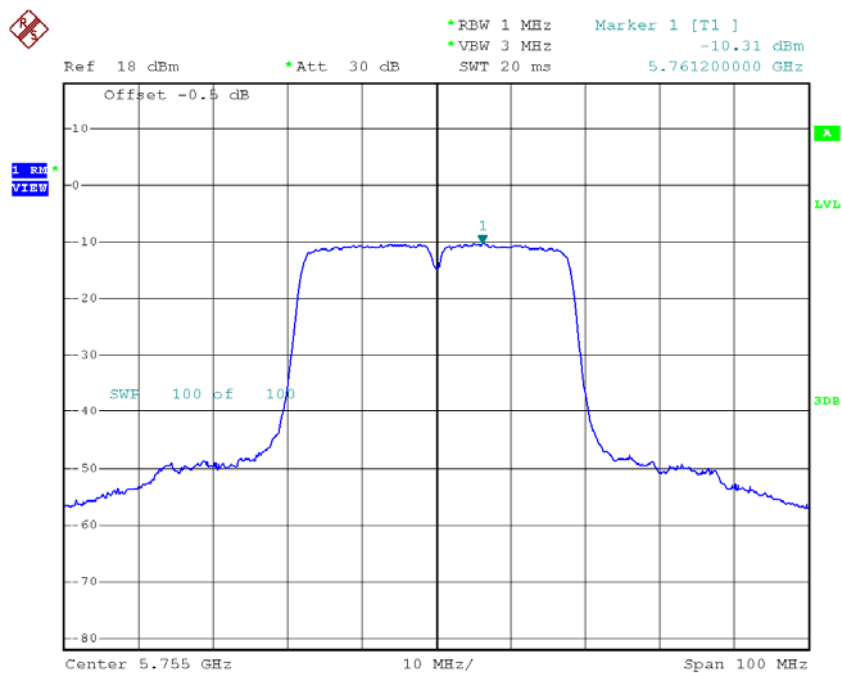
**Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_Total**

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Limit (dBm/500kHz)
CH149	5745	0.93	30.00
CH157	5785	1.70	30.00
CH165	5825	1.52	30.00

**Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_ANT 1**

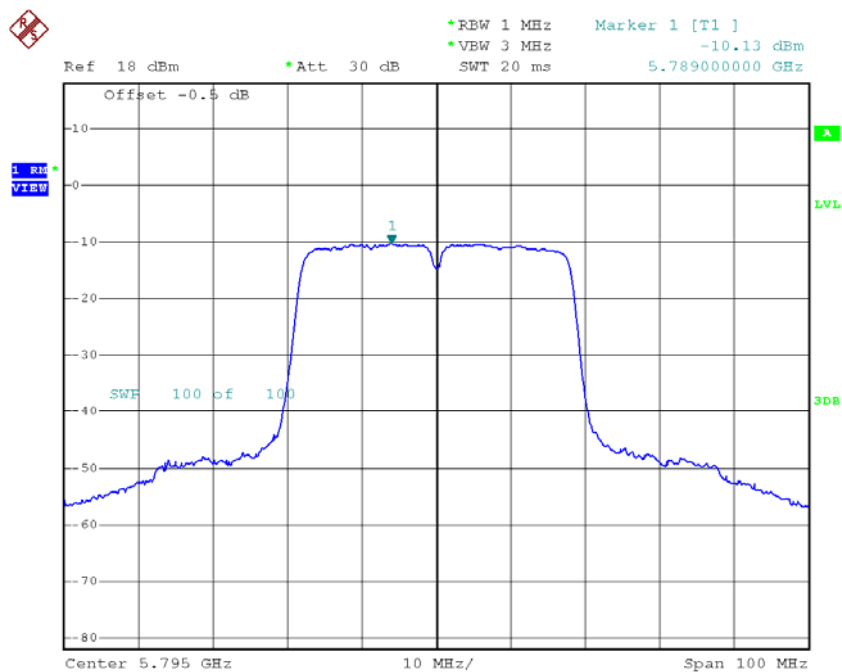
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-10.31	2.09	-8.22	30.00
CH159	5795	-10.13	2.09	-8.04	30.00

# TX CH151



Date: 21.DEC.2015 15:00:37

# TX CH159

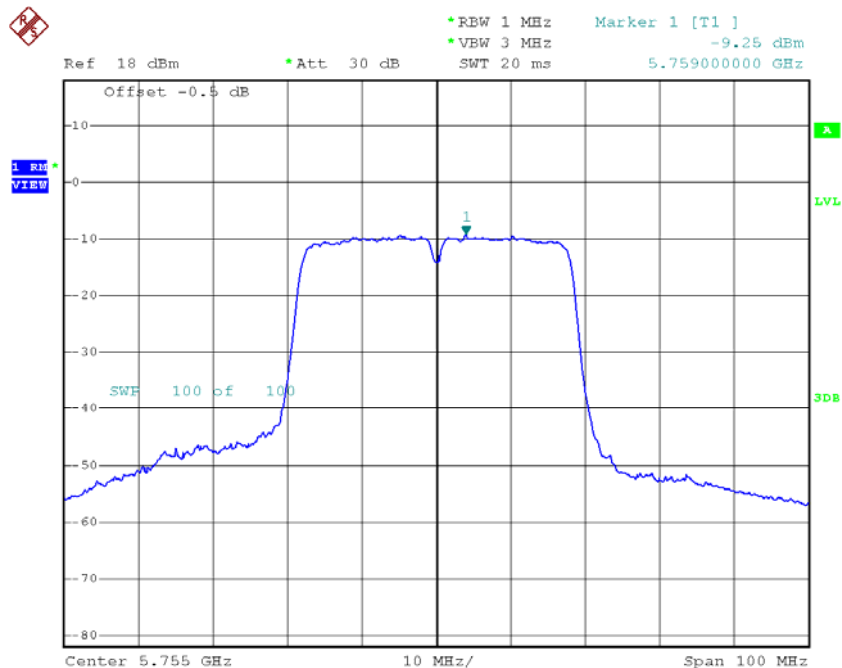


Date: 21.DEC.2015 15:01:41

**Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_ANT 2**

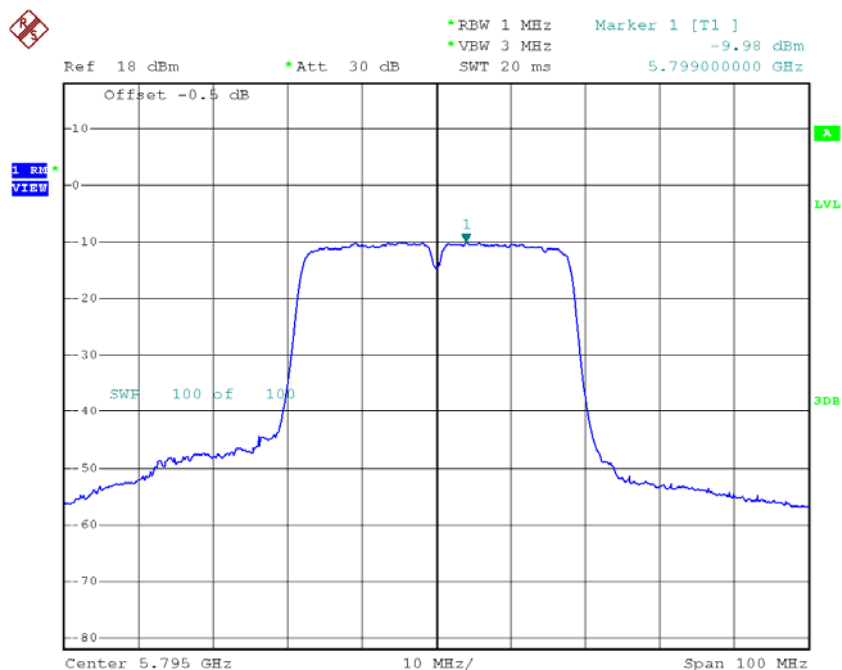
Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Duty Factor (dBm/MHz)	Power Density + Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-9.25	2.09	-7.16	30.00
CH159	5795	-9.98	2.09	-7.89	30.00

# TX CH151



Date: 21.DEC.2015 14:42:27

# TX CH159



Date: 21.DEC.2015 14:43:26

**Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_Total**

Channel	Frequency (MHz)	Power Density (dBm/500kHz)	Limit (dBm/500kHz)
CH151	5755	-4.65	30.00
CH159	5795	-4.95	30.00

## **ATTACHMENT I - FREQUENCY STABILITY**



<b>Test Mode:</b>	<b>UNII-1</b>
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### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180.0000
132	5180.0112
120	5180.0128
108	5180.0152
Max. Deviation (MHz)	0.0152
Max. Deviation (ppm)	2.9344

### Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5180.0000
0	5180.0164
5	5180.0184
15	5180.0208
25	5180.0228
35	5180.0252
40	5180.0268
Max. Deviation (MHz)	0.0296
Max. Deviation (ppm)	5.7143

<b>Test Mode:</b>	<b>UNII-3</b>
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### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5745.0000
132	5745.0588
120	5745.0608
108	5745.0628
Max. Deviation (MHz)	0.0628
Max. Deviation (ppm)	10.9312

### Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5745.0000
0	5745.0644
5	5745.0652
15	5745.0656
25	5745.0668
35	5745.0676
40	5745.0684
Max. Deviation (MHz)	0.0692
Max. Deviation (ppm)	12.0453