

# FCC Radio Test Report

## FCC ID: TVE-24100045

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

**Project No.** : 1611C131  
**Equipment** : Wireless Access Point  
**Model Name** : FAP-C24JE  
**Series Model** : FORTIAP-C24JExxxxxx, FortiAP C24JEXXXXXX,  
FAP-C24JExxxxxx(where "x" can be used as "A-Z", or  
"0-9", or "-", or blank for software changes or marketing  
purposes only)  
**Applicant** : Fortinet, Inc.  
**Address** : 899 Kifer Road, Sunnyvale, CA 94086 USA

**Date of Receipt** : Nov. 18, 2016  
**Date of Test** : Nov. 18, 2016 ~ Feb. 20, 2017  
**Issued Date** : Feb. 21, 2017  
**Tested by** : BTL Inc.

**Testing Engineer** : Shawn Xiao  
(Shawn Xiao)

**Technical Manager** : David Mao  
(David Mao)

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

# **B T L I N C .**

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan,  
Guangdong, China.

TEL: +86-769-8318-3000 FAX: +86-769-8319-6000

## 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 standards traceable to international standard(s) and/or national standard(s).

**BTL's** reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

**BTL's** report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **BTL-self**, extracts from the test report shall not be reproduced except in full with **BTL's** authorized written approval.

**BTL's** laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

## Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Table of Contents	Page
<b>1 . CERTIFICATION</b>	<b>6</b>
<b>2 . SUMMARY OF TEST RESULTS</b>	<b>7</b>
2.1 TEST FACILITY	8
2.2 MEASUREMENT UNCERTAINTY	8
<b>3 . GENERAL INFORMATION</b>	<b>9</b>
3.1 GENERAL DESCRIPTION OF EUT	9
3.2 DESCRIPTION OF TEST MODES	11
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING	13
3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	14
3.5 DESCRIPTION OF SUPPORT UNITS	14
<b>4 . EMC EMISSION TEST</b>	<b>15</b>
4.1 CONDUCTED EMISSION MEASUREMENT	15
4.1.1 POWER LINE CONDUCTED EMISSION	15
4.1.2 TEST PROCEDURE	15
4.1.3 DEVIATION FROM TEST STANDARD	15
4.1.4 TEST SETUP	16
4.1.5 EUT OPERATING CONDITIONS	16
4.1.6 EUT TEST CONDITIONS	16
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	17
4.2.1 RADIATED EMISSION LIMITS	17
4.2.2 TEST PROCEDURE	18
4.2.3 DEVIATION FROM TEST STANDARD	18
4.2.4 TEST SETUP	18
4.2.5 EUT OPERATING CONDITIONS	19
4.2.6 EUT TEST CONDITIONS	19
4.2.7 TEST RESULTS (9 KHz TO 30 MHz)	20
4.2.8 TEST RESULTS (30 MHz TO 1000 MHz)	20
4.2.9 TEST RESULTS (ABOVE 1000 MHz)	20
<b>5 . SPECTRUM BANDWIDTH</b>	<b>21</b>
5.1 APPLIED PROCEDURES / LIMIT	21
5.1.1 TEST PROCEDURE	21
5.1.2 DEVIATION FROM STANDARD	21
5.1.3 TEST SETUP	21
5.1.4 EUT OPERATION CONDITIONS	21
5.1.5 EUT TEST CONDITIONS	22
5.1.6 TEST RESULTS	22
<b>6 . MAXIMUM CONDUCTED OUTPUT POWER</b>	<b>23</b>

<b>Table of Contents</b>	<b>Page</b>
<b>6.1 APPLIED PROCEDURES / LIMIT</b>	<b>23</b>
6.1.1 TEST PROCEDURE	23
6.1.2 DEVIATION FROM STANDARD	24
6.1.3 TEST SETUP	24
6.1.4 EUT OPERATION CONDITIONS	24
6.1.5 EUT TEST CONDITIONS	24
6.1.6 TEST RESULTS	24
<b>7 . POWER SPECTRAL DENSITY TEST</b>	<b>25</b>
7.1 APPLIED PROCEDURES / LIMIT	25
8.1.1 TEST PROCEDURE	25
7.1.1 DEVIATION FROM STANDARD	26
7.1.2 TEST SETUP	26
7.1.3 EUT OPERATION CONDITIONS	26
7.1.4 EUT TEST CONDITIONS	26
7.1.5 TEST RESULTS	26
<b>8 . FREQUENCY STABILITY MEASUREMENT</b>	<b>27</b>
8.1 APPLIED PROCEDURES / LIMIT	27
8.1.1 TEST PROCEDURE	27
8.1.2 DEVIATION FROM STANDARD	27
8.1.3 TEST SETUP	28
8.1.4 EUT OPERATION CONDITIONS	28
8.1.5 EUT TEST CONDITIONS	28
8.1.6 TEST RESULTS	28
<b>9 . MEASUREMENT INSTRUMENTS LIST</b>	<b>29</b>
<b>10 . EUT TEST PHOTOS</b>	<b>31</b>
<b>ATTACHMENT A - CONDUCTED EMISSION</b>	<b>35</b>
<b>ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)</b>	<b>38</b>
<b>ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)</b>	<b>43</b>
<b>ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)</b>	<b>56</b>
<b>ATTACHMENT E - BANDWIDTH</b>	<b>175</b>
<b>ATTACHMENT F - MAXIMUM OUTPUT POWER</b>	<b>198</b>
<b>ATTACHMENT G - POWER SPECTRAL DENSITY</b>	<b>211</b>
<b>ATTACHMENT H - FREQUENCY STABILITY</b>	<b>268</b>

**REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FCCP-2-1611C131	Original Issue.	Feb. 21, 2017

## 1. CERTIFICATION

Equipment : Wireless Access Point  
Brand Name : FORTINET  
Model Name : FAP-C24JE  
Series Model : FORTIAP-C24JExxxxxx, FortiAP C24JEXXXXXX, FAP-C24JExxxxxx (where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)  
Applicant : Fortinet, Inc.  
Manufacturer : Shenzhen Netcore Industrial Ltd.  
Address : 4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China.  
Factory : Dongguan City Netcore Network Technology Co., Ltd.  
Address : No.10-1, Sankeng Road, Qinghutou, Tangxia Town, Dongguan City  
Date of Test : Nov. 18, 2016 ~ Feb. 20, 2017  
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-2-1611C131) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.407(a)	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	

### NOTE:

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

## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is 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	1.94

### B. Radiated Measurement:

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

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



### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless Access Point	
Brand Name	FORTINET	
Model Name	FAP-C24JE	
Series Model	FORTIAP-C24JExxxxxx, FortiAP C24JEXXXXXX, FAP-C24JExxxxxx	
Model Difference	Where “x” can be used as “A-Z”, or “0-9”, or “-“, or blank for software changes or marketing purposes only.	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	867Mbps
Power Source	1# DC voltage supplied from AC/DC adapter. (support unit) 2# PoE supplied.	
Power Rating	1# EUT I/P: 12Vdc 1A 2# 48Vdc 0.32A(PoE)	
Output Power	Output Power (Max.)for UNII-1	802.11a: 13.82dBm 802.11n (20M): 14.92dBm 802.11n (40M): 14.77dBm 802.11ac (20M): 14.89dBm 802.11ac (40M): 14.68dBm 802.11ac (80M): 14.74dBm
	Output Power (Max.)for UNII-3	802.11a: 13.80dBm 802.11n (20M): 14.84dBm 802.11n (40M): 14.78dBm 802.11ac (20M): 14.86dBm 802.11ac (40M): 14.80dBm 802.11ac (80M): 14.74dBm

Note:

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

## 2. Channel List:

UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

## 3. Antenna Specification:

Ant.	Brand / Mfr	Model Name	Antenna Type	Connector	Gain (dBi)
1	ACX	AT3216-A5R5HAAT/LF	Chip	N/A	2
2	ACX	AT3216-A5R5HAAT/LF	Chip	N/A	2

Note: The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R).

## 4.

Operating Mode	2TX
TX Mode	
802.11a	V (ANT 1+ANT 2)
802.11n (20MHz)	V (ANT 1+ANT 2)
802.11n (40MHz)	V (ANT 1+ANT 2)
802.11ac (20MHz)	V (ANT 1+ANT 2)
802.11ac (40MHz)	V (ANT 1+ANT 2)
802.11ac (80MHz)	V (ANT 1+ANT 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 AC20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149, CH157, CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151, CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149, CH157, CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151, CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)
Mode 13	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 13	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 AC20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)

Note:

(1) For radiated below 1GHz test, the 802.11a mode is found to be the worst case and recorded.

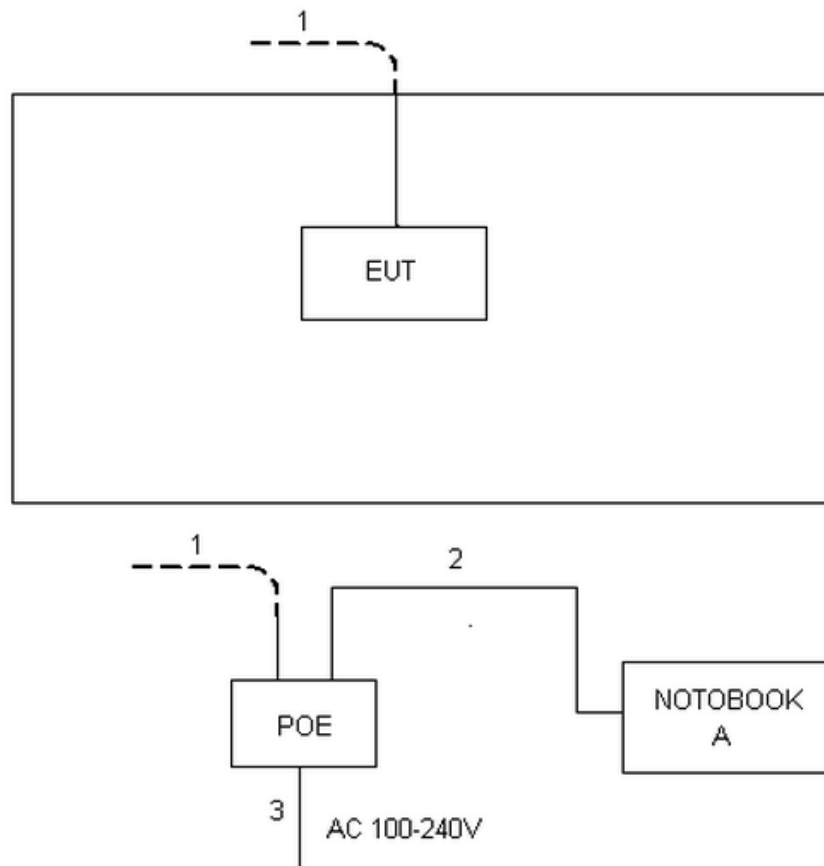
### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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	MPTOOL		
Frequency (MHz)	5180	5200	5240
A Mode	25	27	25
N20 Mode	28	25	24
AC20 Mode	28	27	25
Frequency (MHz)	5190	5230	
N40 Mode	25	24	
AC40 Mode	26	24	
Frequency (MHz)	5210		
AC80 Mode	26		

UNII-3			
Test Software Version	MPTOOL		
Frequency (MHz)	5745	5785	5825
A Mode	23	21	21
N20 Mode	17	17	19
AC20 Mode	17	18	20
Frequency (MHz)	5755	5795	
N40 Mode	17	17	
AC40 Mode	17	18	
Frequency (MHz)	5775		
AC80 Mode	21		

### 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 745	DCSM	DOC	G7K832X

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	10m	RJ45 Cable
2	NO	NO	1m	RJ45 Cable
3	NO	NO	1.5m	AC Cable

## 4. EMC EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

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

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

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

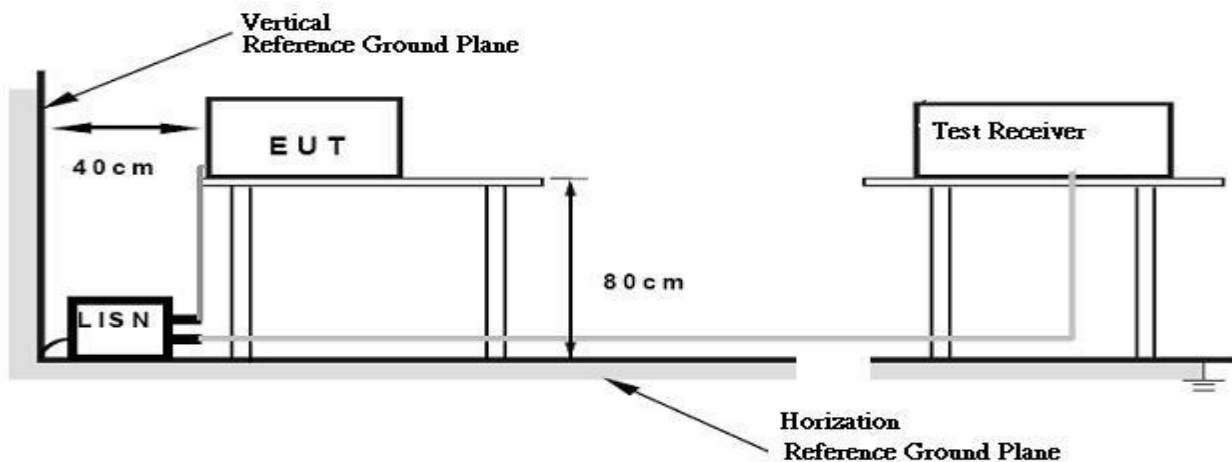
#### 4.1.2 TEST PROCEDURE

- 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



#### 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.

#### 4.1.6 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 53%    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

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(Note 2)	68.3
	10(Note 2)	105.3
	15.6(Note 2)	110.9
	27(Note 2)	122.3

Note:

1. The following formula is used to convert the equipment isotropic radiated power (eirp) to

field strength:  $E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m}$ , where P is the eirp (Watts)

2. According to FCC 16-24, All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.

#### 4.2.2 TEST PROCEDURE

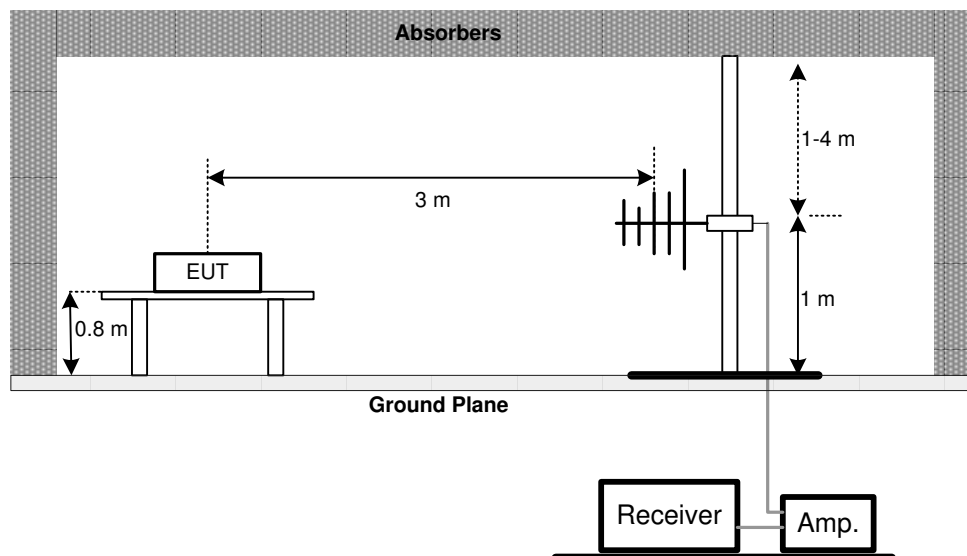
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 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 0.8m 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.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- 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

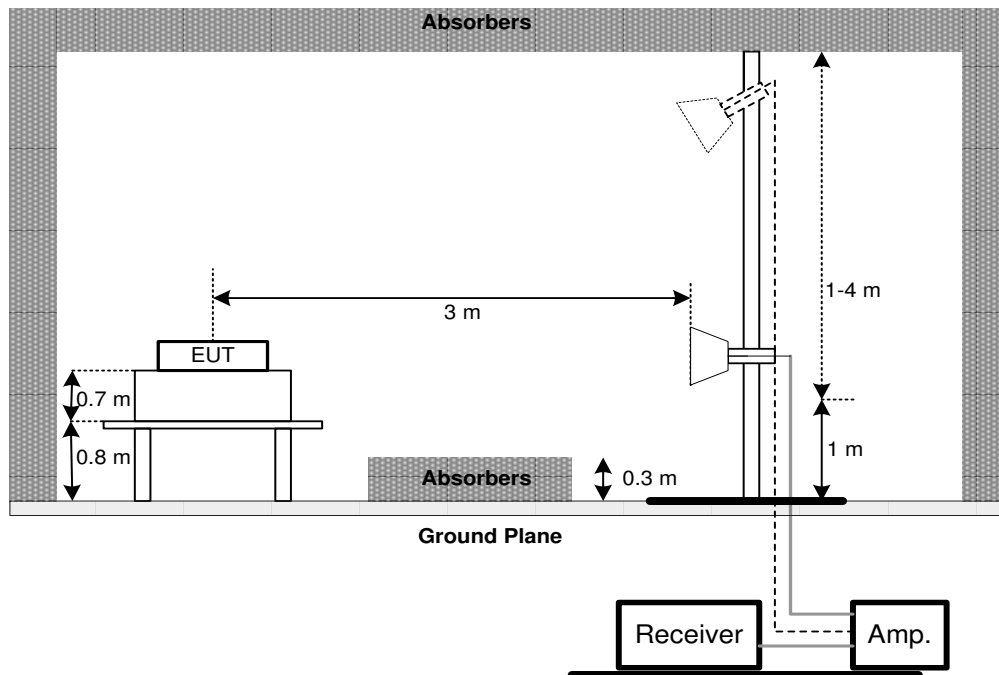
No deviation

#### 4.2.4 TEST SETUP

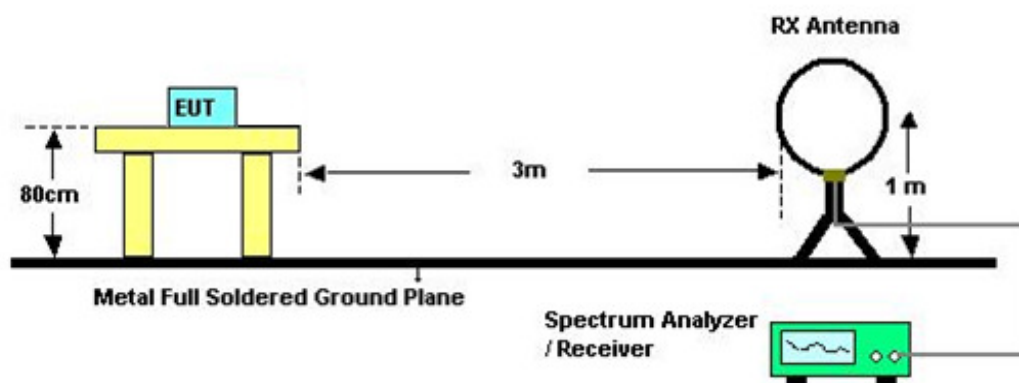
(A)Radiated Emission Test Set-Up Frequency Below 1GHz



(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.

#### 4.2.6 EUT TEST CONDITIONS

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

#### **4.2.7 TEST RESULTS (9 KHz TO 30 MHz)**

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 (30 MHz 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) No limit: This is fundamental signal, the judgment is not applicable.  
For fundamental signal judgment was referred to Peak output test.

## 5. 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.

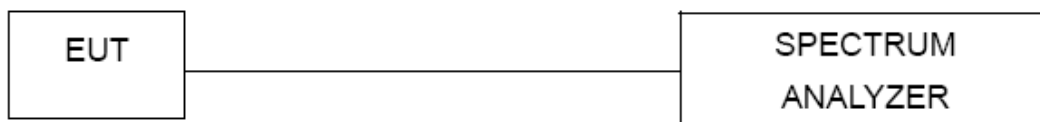
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	300 kHz(Bandwidth 20MHz) 1MHz(Bandwidth 40MHz and 80MHz)
VBW	1MHz(Bandwidth 20MHz) 3MHz(Bandwidth 40MHz and 80MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

- 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: 25°C    Relative Humidity: 60%    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 any elevation 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: 25°C    Relative Humidity: 60%    Test Voltage: AC 120V/60Hz

### 6.1.6 TEST RESULTS

Please refer to the Attachment F.



## 7. POWER SPECTRAL DENSITY TEST

### 7.1 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 average	100 trace
Sweep Time	Auto

Note:

- For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01r02, 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.

### 7.1.1 DEVIATION FROM STANDARD

No deviation.

### 7.1.2 TEST SETUP



### 7.1.3 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.

### 7.1.4 EUT TEST CONDITIONS

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

### 7.1.5 TEST RESULTS

Please refer to the Attachment G.

## 8. FREQUENCY STABILITY MEASUREMENT

### 8.1 APPLIED PROCEDURES / LIMIT

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

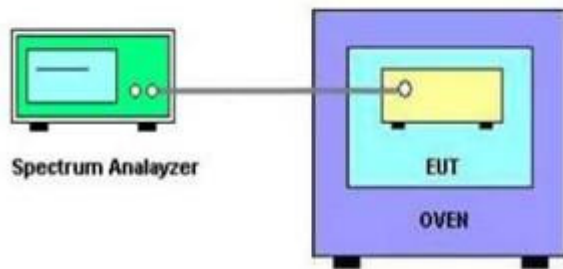
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- 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 0°C~40°C.

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

### 8.1.3 TEST SETUP



### 8.1.4 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.

### 8.1.5 EUT TEST CONDITIONS

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

### 8.1.6 TEST RESULTS

Please refer to the Attachment H.

## 9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 27, 2017
2	LISN	EMCO	3816/2	52765	Mar. 27, 2017
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 27, 2017
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 27, 2017
5	Cable	emci	RG223(9KHz-30 MHz)(5m)	N/A	Mar. 10, 2017
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. 27, 2017
2	Amplifier	HP	8447D	2944A09673	Oct. 20, 2017
3	Receiver	Agilent	N9038A	MY52130039	Sep. 04, 2017
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	Jun. 27, 2017
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 27, 2017
9	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 23, 2017
10	Amplifier	Agilent	8449B	3008A02274	Mar. 10, 2017
11	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 27, 2017
12	Antenna	EM	EM-6876-1	230	Jul. 08, 2017
13	Controller	CT	SC100	N/A	N/A
14	Controller	MF	MF-7802	MF780208416	N/A
15	Cable	emci	EMC104-SM-SM-12000(12m)	N/A	Jul. 06, 2017

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017
2	Test Cable	emci	EMC104-SM-SM-9000(0.01GHz-26.5GHz)	C-100	N/A

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 27, 2017
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 27, 2017

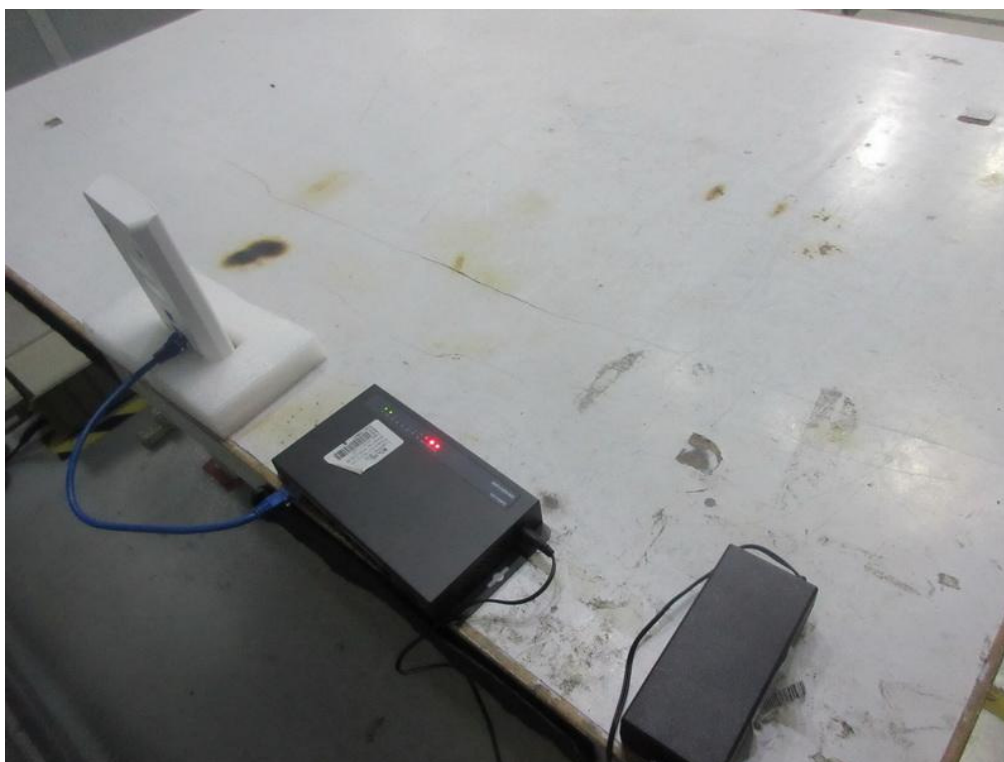
Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 04, 2017
2	Test Cable	emci	EMC104-SM-SM-9000(0.01GHz-26.5GHz)	C-100	N/A

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Feb. 26, 2017
2	Test Cable	N/A	RG316(0.3m)	N/A	Jul. 06, 2017
3	Const Temp. & Humidity Chamber	GIANT FORCE	ITH-225-20-S	IAB0309-001	Sep. 04, 2017
4	DC power supply	GW Instek	GPC-3030DN	EK880675	Oct. 13, 2017

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

## 10. EUT TEST PHOTOS

### Conducted Measurement Photos



## Radiated Measurement Photos

9kHz to 30MHz





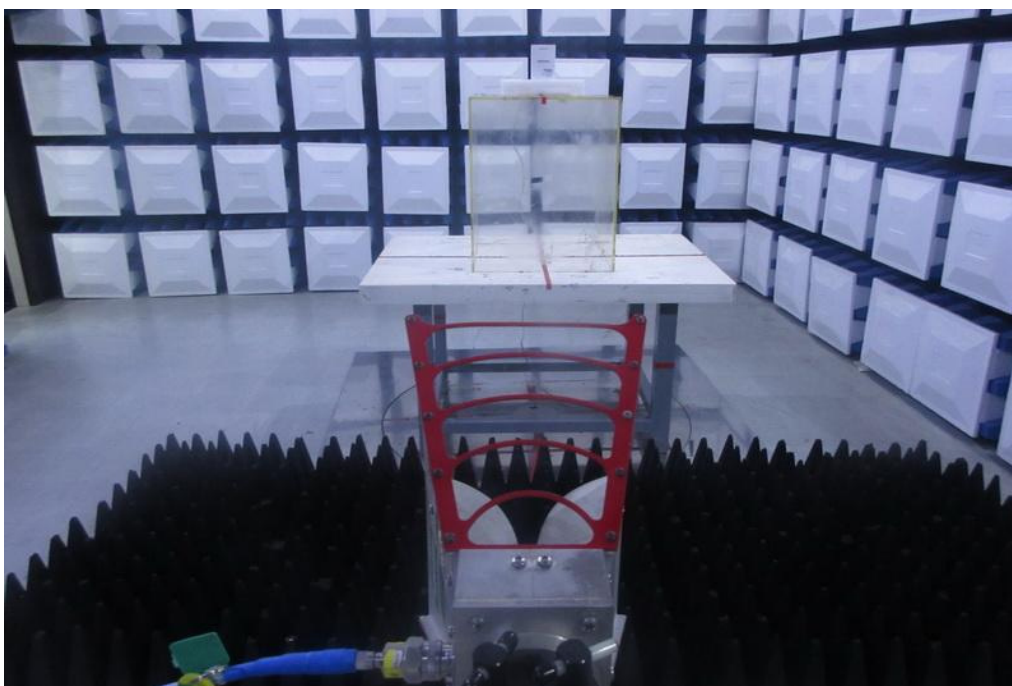
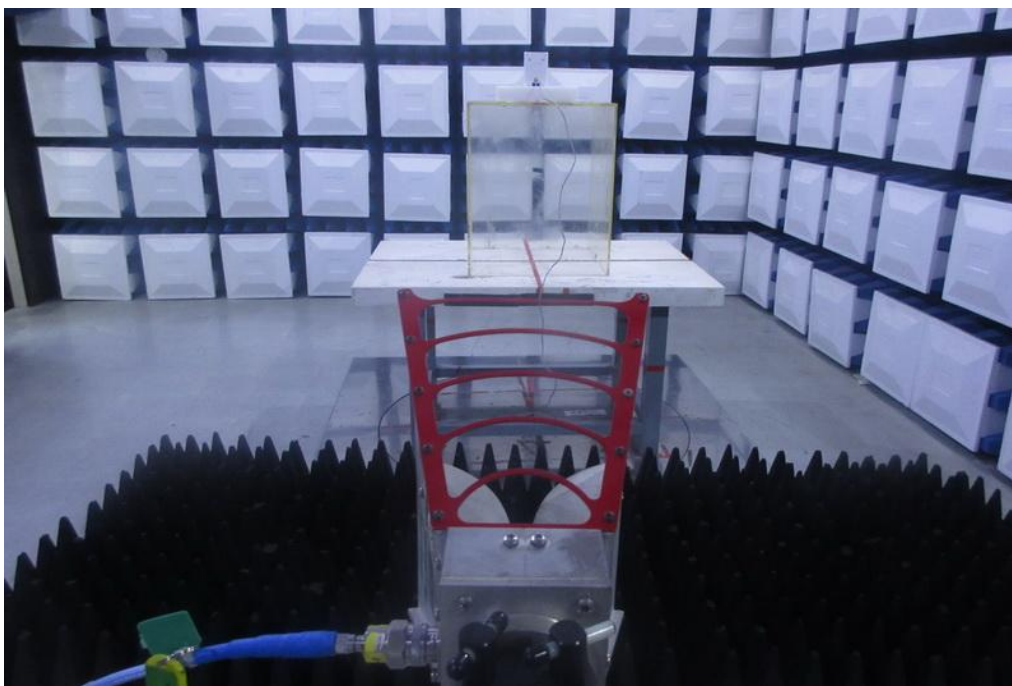
## Radiated Measurement Photos

30MHz to 1000MHz



## Radiated Measurement Photos

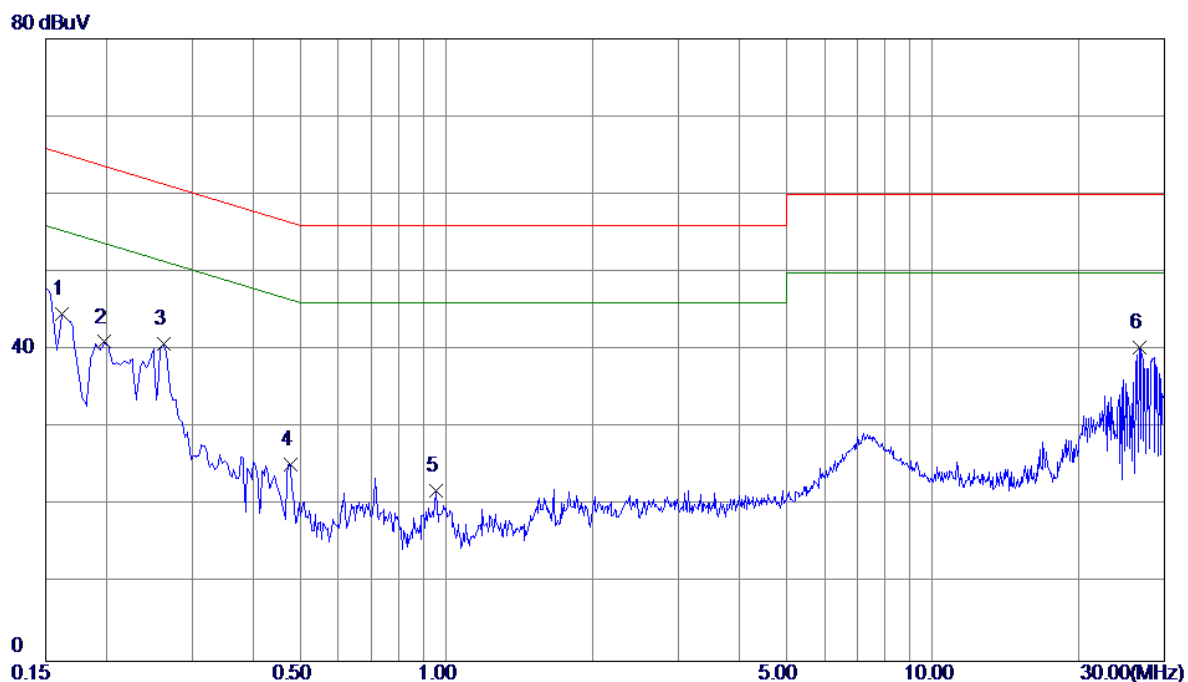
Above 1000MHz



## ATTACHMENT A - CONDUCTED EMISSION

Test Mode: TX MODE.

# Line

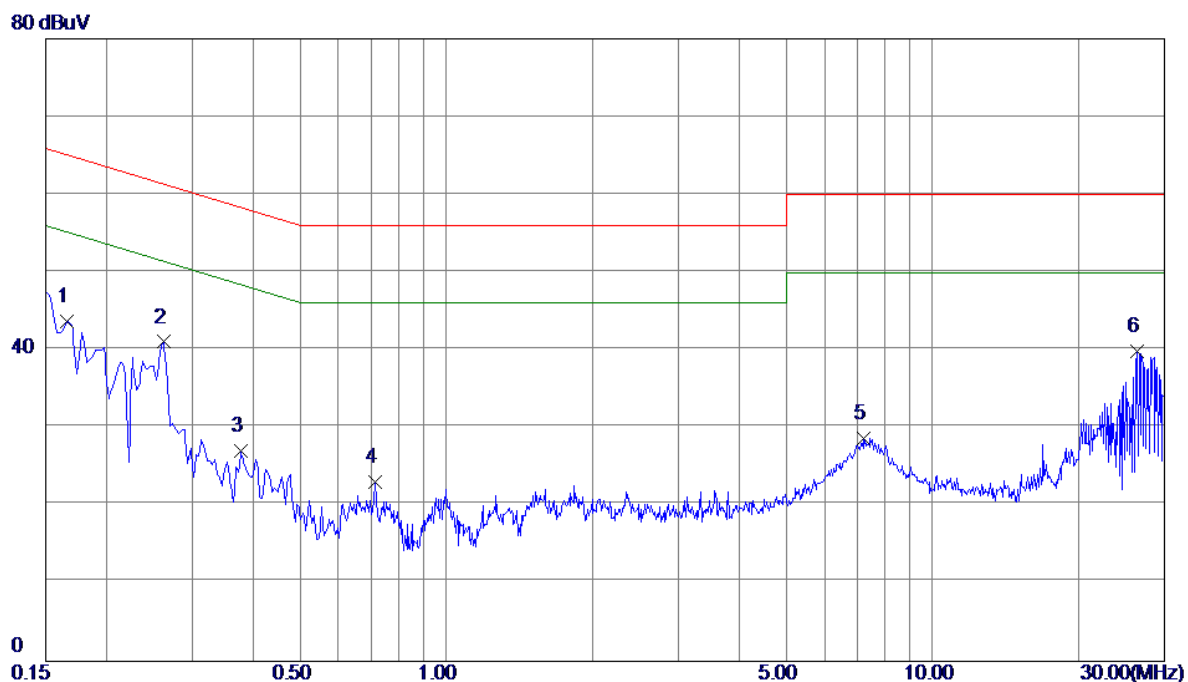


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1620	35.14	9.52	44.66	65.36	-20.70	Peak	
2	0.1980	31.51	9.53	41.04	63.69	-22.65	Peak	
3	0.2620	31.33	9.53	40.86	61.37	-20.51	Peak	
4	0.4780	15.66	9.62	25.28	56.37	-31.09	Peak	
5	0.9500	12.10	9.76	21.86	56.00	-34.14	Peak	
6 *	26.6340	29.95	10.39	40.34	60.00	-19.66	Peak	

Note: The test result has included the cable loss.

Test Mode: TX MODE.

### Neutral



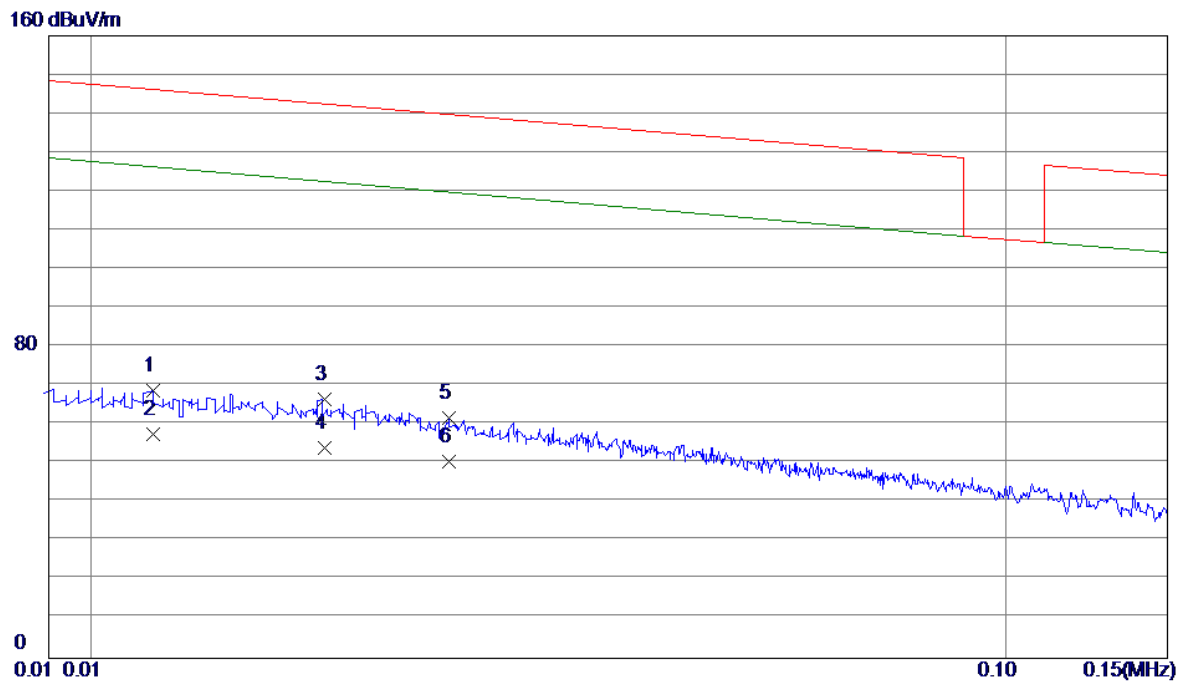
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1660	34.25	9.44	43.69	65.16	-21.47	Peak	
2	0.2620	31.51	9.53	41.04	61.37	-20.33	Peak	
3	0.3780	17.58	9.48	27.06	58.32	-31.26	Peak	
4	0.7140	13.56	9.46	23.02	56.00	-32.98	Peak	
5	7.2100	18.67	9.98	28.65	60.00	-31.35	Peak	
6 *	26.4020	29.22	10.55	39.77	60.00	-20.23	Peak	

Note: The test result has included the cable loss.

## ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode: TX MODE.

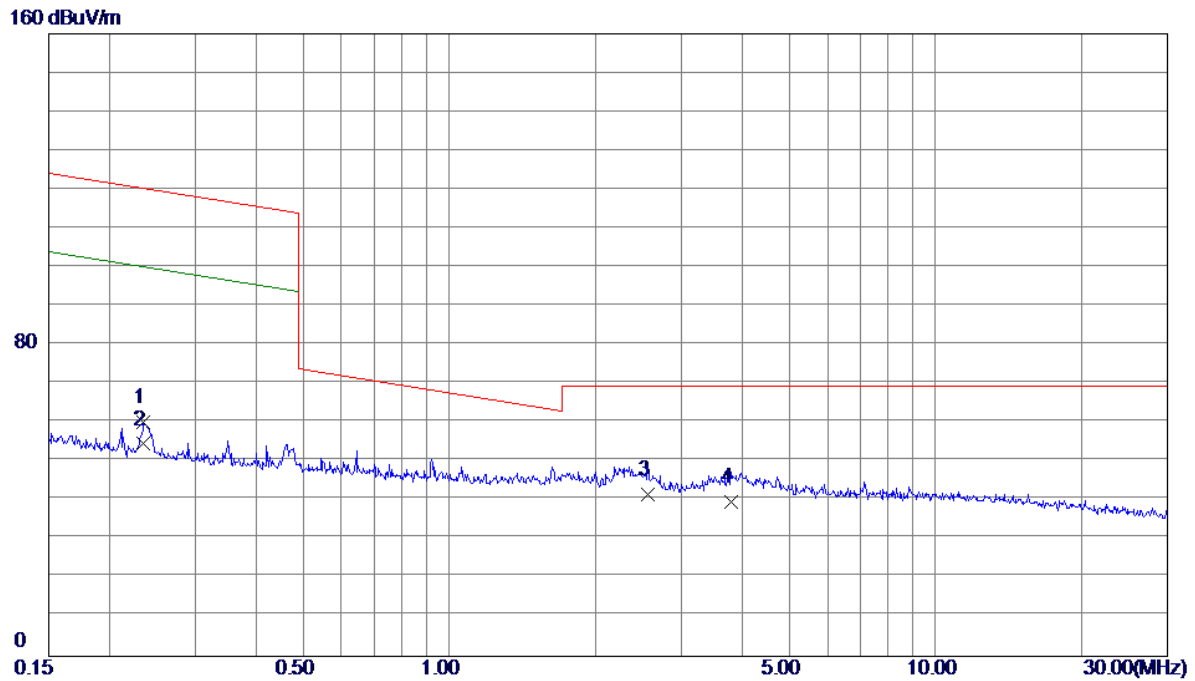
Ant 0°



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.0117	44.76	24.02	68.78	147.83	-79.05	Peak	
2 *	0.0117	33.60	24.02	57.62	127.83	-70.21	AVG	
3	0.0180	42.85	23.64	66.49	146.27	-79.78	Peak	
4	0.0180	30.51	23.64	54.15	126.27	-72.12	AVG	
5	0.0246	38.80	22.95	61.75	144.64	-82.89	Peak	
6	0.0246	27.50	22.95	50.45	124.64	-74.19	AVG	

Test Mode: TX MODE.

Ant 0°

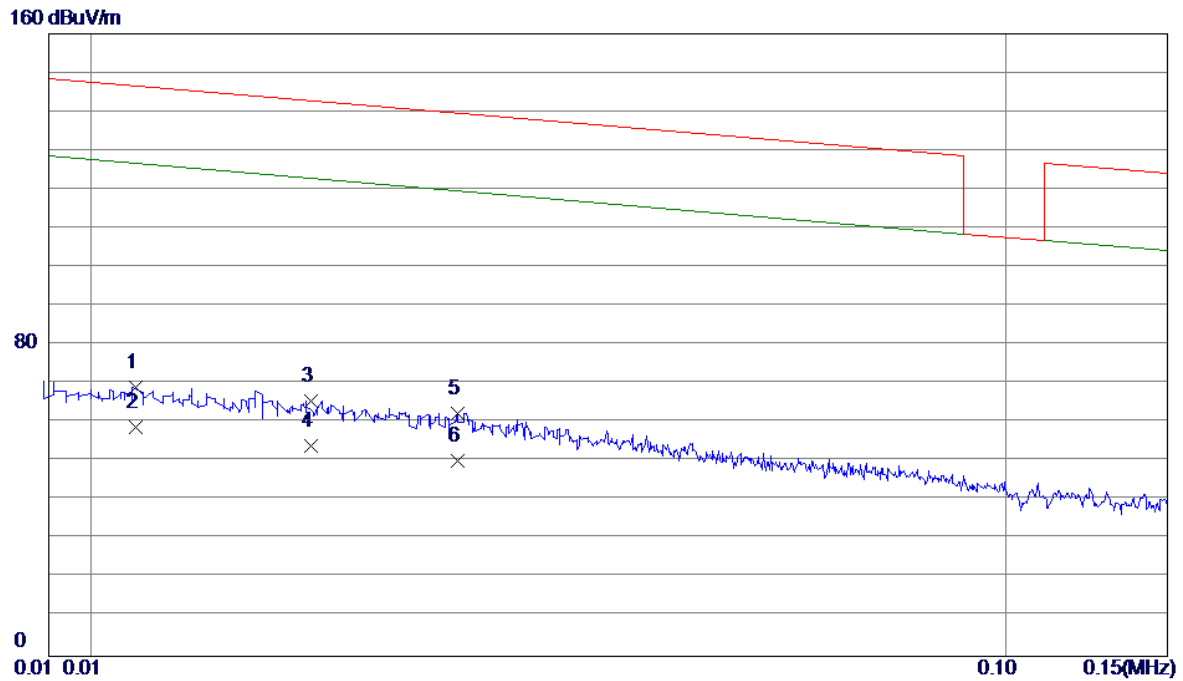


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.2353	41.51	18.66	60.17	122.50	-62.33	Peak	
2	0.2353	35.90	18.66	54.56	102.50	-47.94	AVG	
3 *	2.5671	24.50	17.18	41.68	69.54	-27.86	QP	
4	3.7994	21.40	18.33	39.73	69.54	-29.81	QP	



Test Mode: TX MODE.

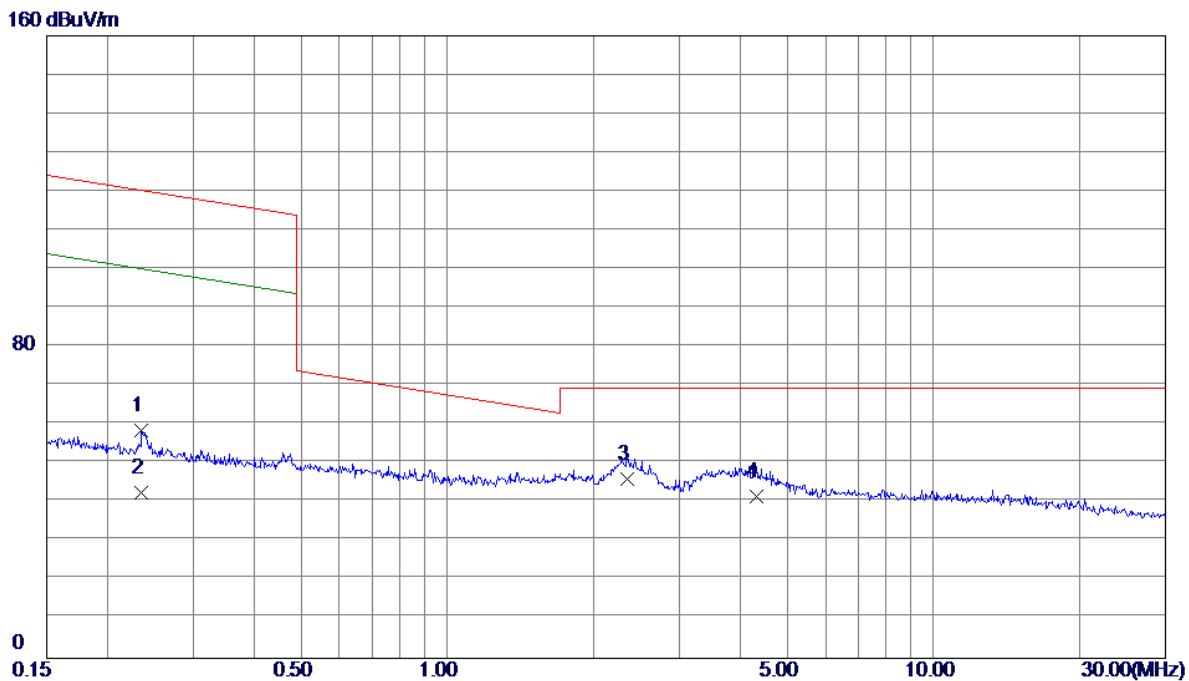
Ant 90°



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.0112	45.04	24.05	69.09	147.95	-78.86	Peak	
2 *	0.0112	34.70	24.05	58.75	127.95	-69.20	AVG	
3	0.0174	41.89	23.68	65.57	146.42	-80.85	Peak	
4	0.0174	30.40	23.68	54.08	126.42	-72.34	AVG	
5	0.0252	39.55	22.88	62.43	144.50	-82.07	Peak	
6	0.0252	27.30	22.88	50.18	124.50	-74.32	AVG	

Test Mode: TX MODE.

Ant 90°

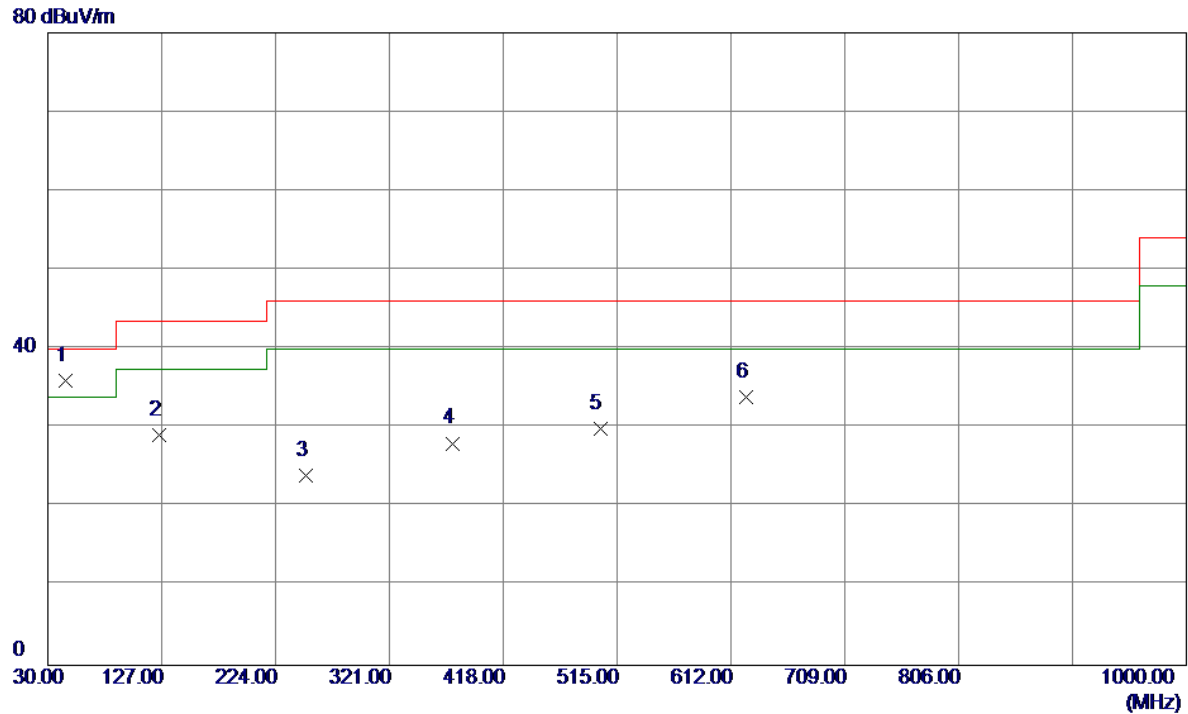


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.2353	40.04	18.66	58.70	122.50	-63.80	Peak	
2	0.2353	23.80	18.66	42.46	102.50	-60.04	AVG	
3 *	2.3460	28.50	17.46	45.96	69.54	-23.58	QP	
4	4.3146	23.50	18.10	41.60	69.54	-27.94	QP	

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

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

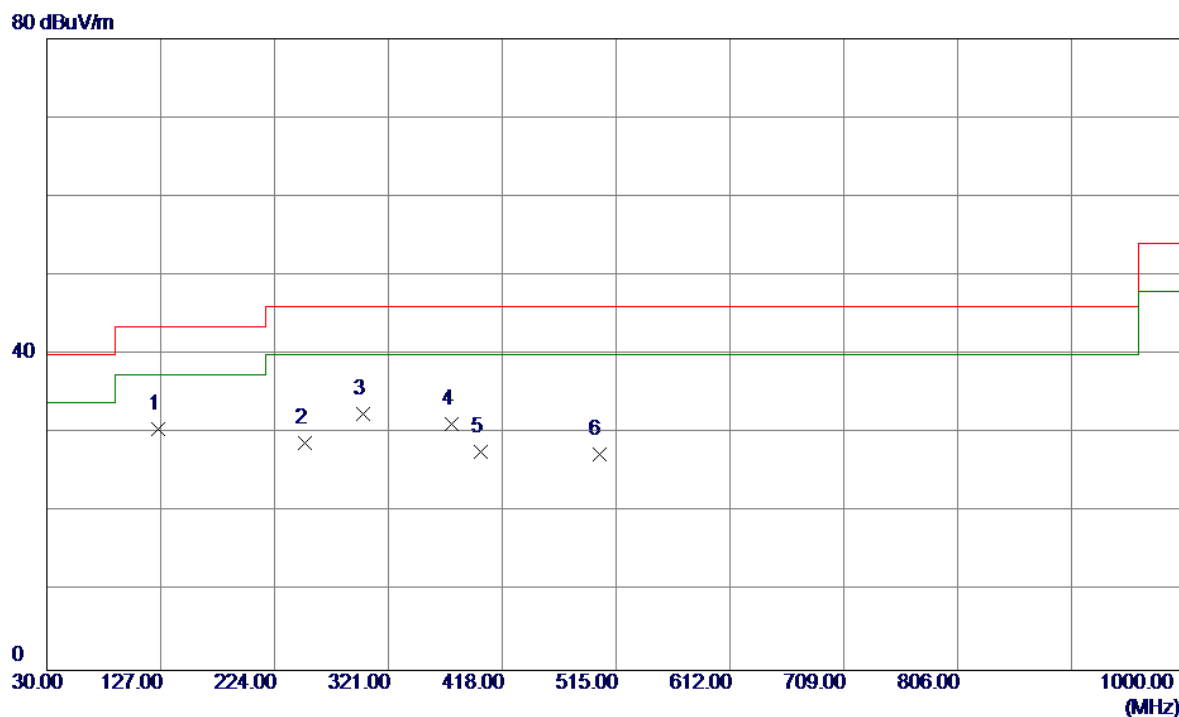
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	45.5200	48.66	-12.60	36.06	40.00	-3.94	Peak	
2	125.0600	42.01	-12.90	29.11	43.50	-14.39	Peak	
3	250.1900	38.13	-14.20	23.93	46.00	-22.07	Peak	
4	375.3200	37.56	-9.48	28.08	46.00	-17.92	Peak	
5	500.4500	39.57	-9.67	29.90	46.00	-16.10	Peak	
6	624.6100	39.59	-5.64	33.95	46.00	-12.05	Peak	

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

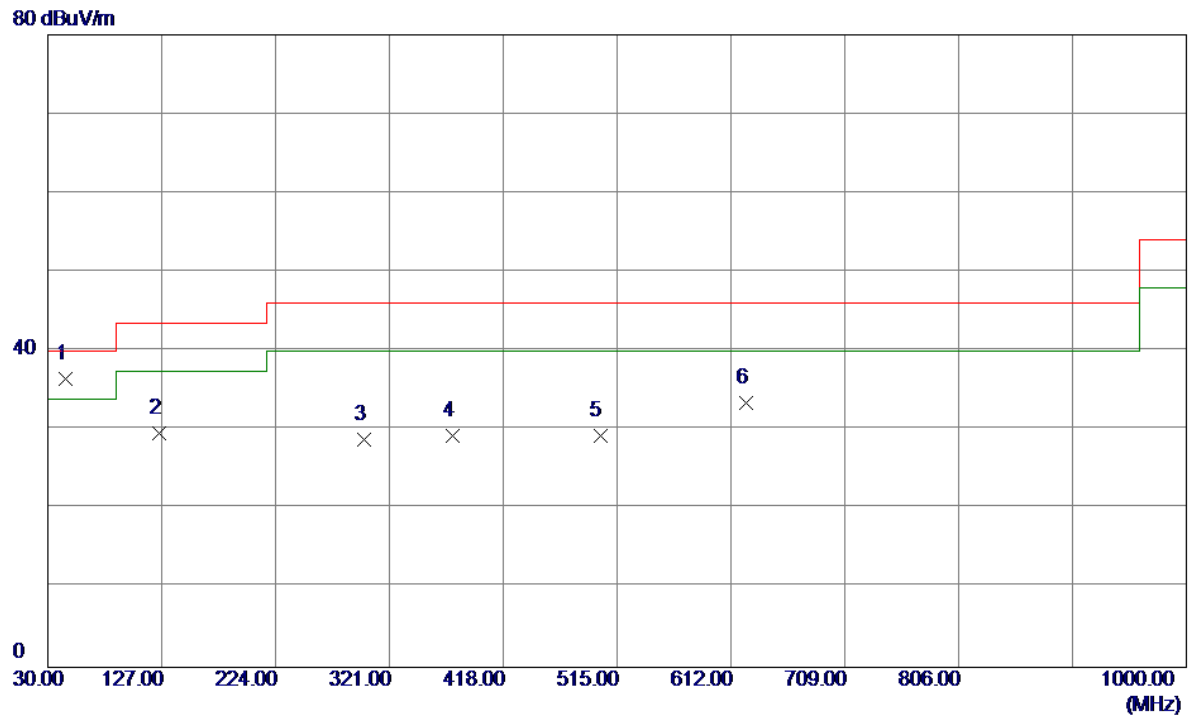
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	125.0600	43.53	-12.90	30.63	43.50	-12.87	Peak	
2	250.1900	42.95	-14.20	28.75	46.00	-17.25	Peak	
3	299.6600	42.65	-10.20	32.45	46.00	-13.55	Peak	
4	375.3200	40.73	-9.48	31.25	46.00	-14.75	Peak	
5	399.5700	35.53	-7.81	27.72	46.00	-18.28	Peak	
6	500.4500	37.05	-9.67	27.38	46.00	-18.62	Peak	

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

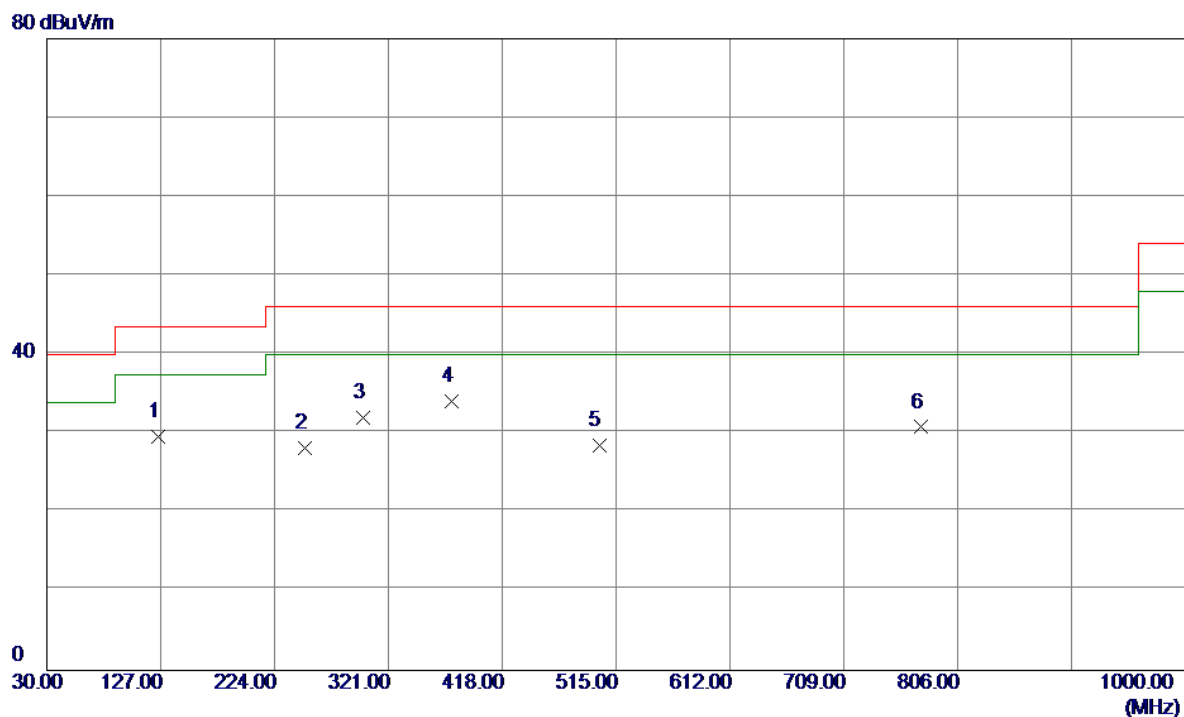
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	45.5200	49.06	-12.60	36.46	40.00	-3.54	Peak	
2	125.0600	42.46	-12.90	29.56	43.50	-13.94	Peak	
3	299.6600	38.97	-10.20	28.77	46.00	-17.23	Peak	
4	375.3200	38.74	-9.48	29.26	46.00	-16.74	Peak	
5	500.4500	38.92	-9.67	29.25	46.00	-16.75	Peak	
6	624.6100	39.11	-5.64	33.47	46.00	-12.53	Peak	

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

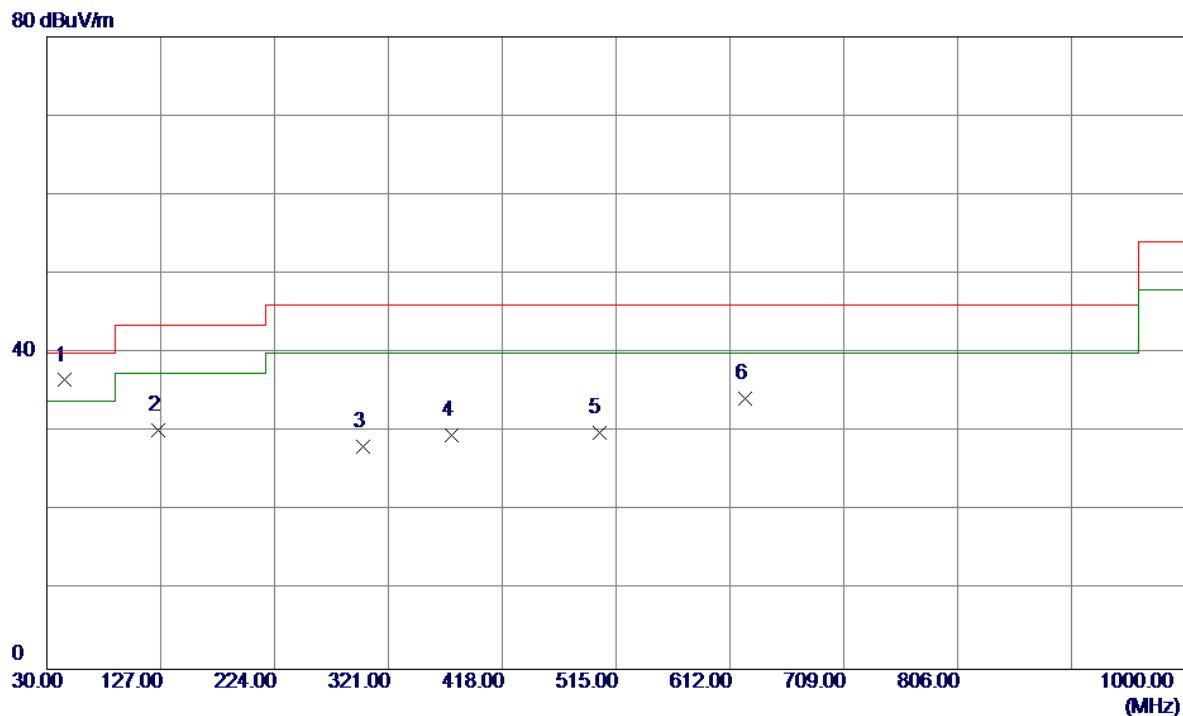
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	125.0600	42.53	-12.90	29.63	43.50	-13.87	Peak	
2	250.1900	42.35	-14.20	28.15	46.00	-17.85	Peak	
3	299.6600	42.13	-10.20	31.93	46.00	-14.07	Peak	
4 *	375.3200	43.52	-9.48	34.04	46.00	-11.96	Peak	
5	500.4500	38.20	-9.67	28.53	46.00	-17.47	Peak	
6	774.9600	31.66	-0.86	30.80	46.00	-15.20	Peak	

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

# Vertical

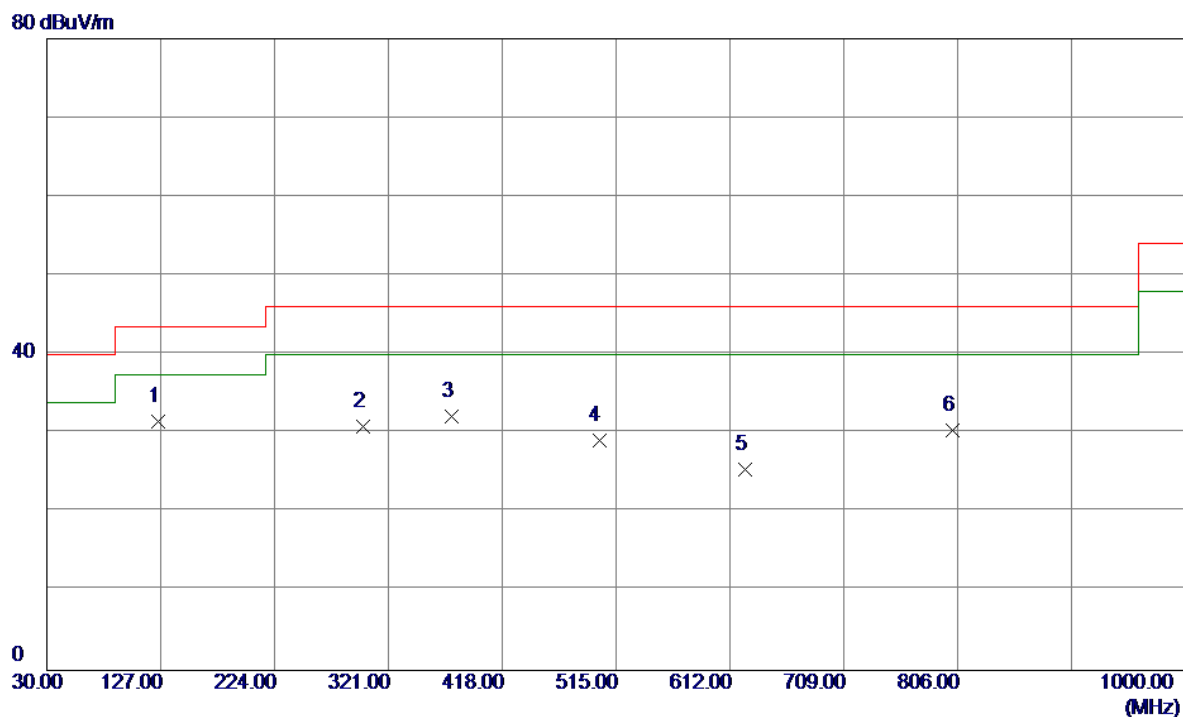


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	45.5200	49.16	-12.60	36.56	40.00	-3.44	Peak	
2	125.0600	43.16	-12.90	30.26	43.50	-13.24	Peak	
3	299.6600	38.37	-10.20	28.17	46.00	-17.83	Peak	
4	375.3200	39.06	-9.48	29.58	46.00	-16.42	Peak	
5	500.4500	39.55	-9.67	29.88	46.00	-16.12	Peak	
6	624.6100	39.85	-5.64	34.21	46.00	-11.79	Peak	



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

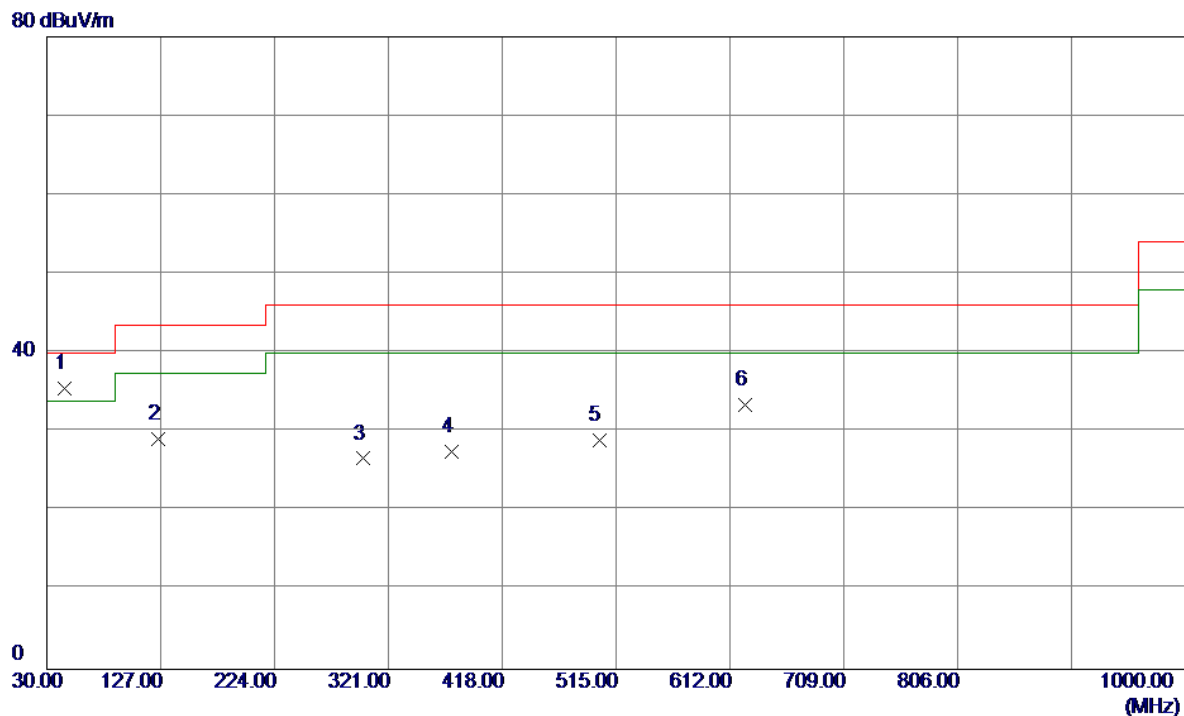
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	125.0600	44.44	-12.90	31.54	43.50	-11.96	Peak	
2	299.6600	41.12	-10.20	30.92	46.00	-15.08	Peak	
3	375.3200	41.57	-9.48	32.09	46.00	-13.91	Peak	
4	500.4500	38.78	-9.67	29.11	46.00	-16.89	Peak	
5	624.6100	31.03	-5.64	25.39	46.00	-20.61	Peak	
6	802.1200	30.24	0.20	30.44	46.00	-15.56	Peak	

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

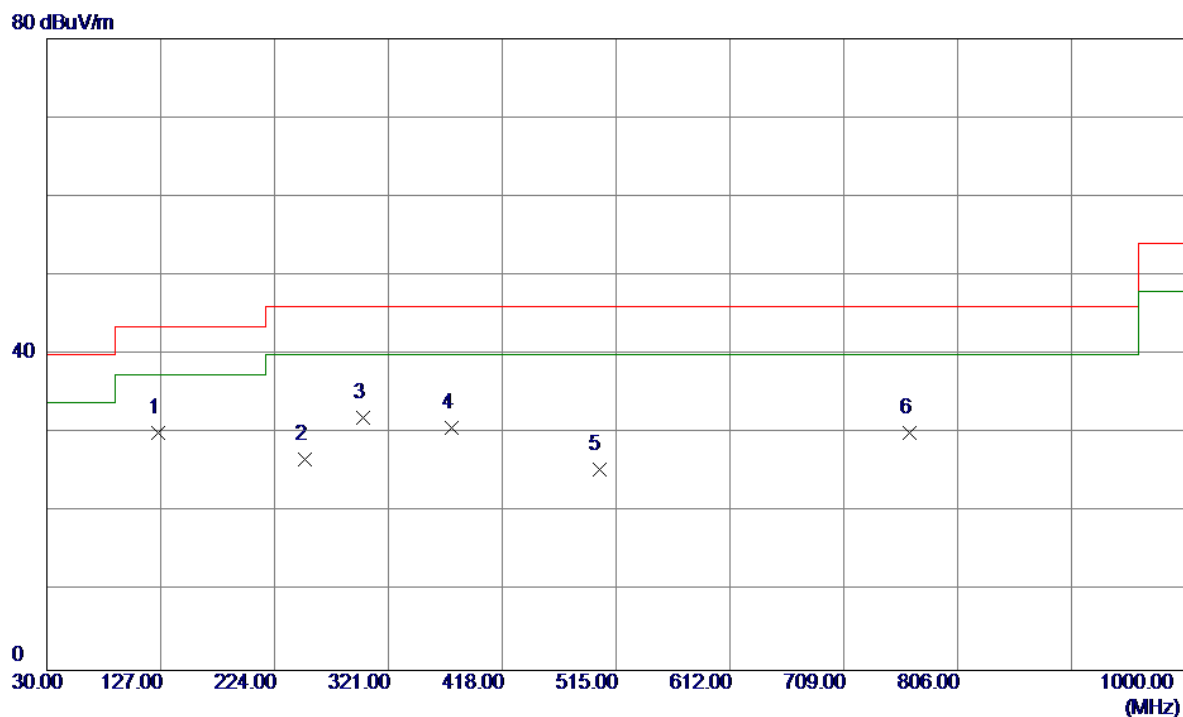
# Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1 *	45.5200	48.16	-12.60	35.56	40.00	-4.44	Peak	
2	125.0600	42.01	-12.90	29.11	43.50	-14.39	Peak	
3	299.6600	36.84	-10.20	26.64	46.00	-19.36	Peak	
4	375.3200	37.06	-9.48	27.58	46.00	-18.42	Peak	
5	500.4500	38.57	-9.67	28.90	46.00	-17.10	Peak	
6	624.6100	39.09	-5.64	33.45	46.00	-12.55	Peak	

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

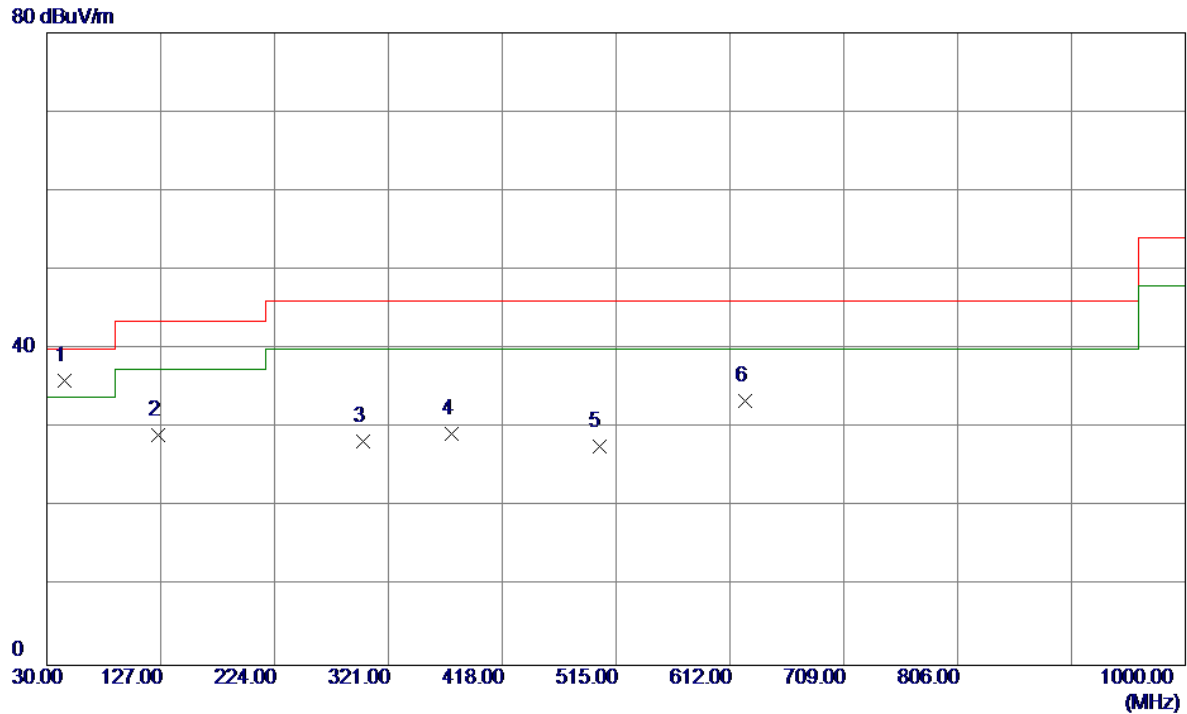
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	125.0600	43.03	-12.90	30.13	43.50	-13.37	Peak	
2	250.1900	40.95	-14.20	26.75	46.00	-19.25	Peak	
3	299.6600	42.15	-10.20	31.95	46.00	-14.05	Peak	
4	375.3200	40.23	-9.48	30.75	46.00	-15.25	Peak	
5	500.4500	35.05	-9.67	25.38	46.00	-20.62	Peak	
6	765.2600	31.43	-1.29	30.14	46.00	-15.86	Peak	

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

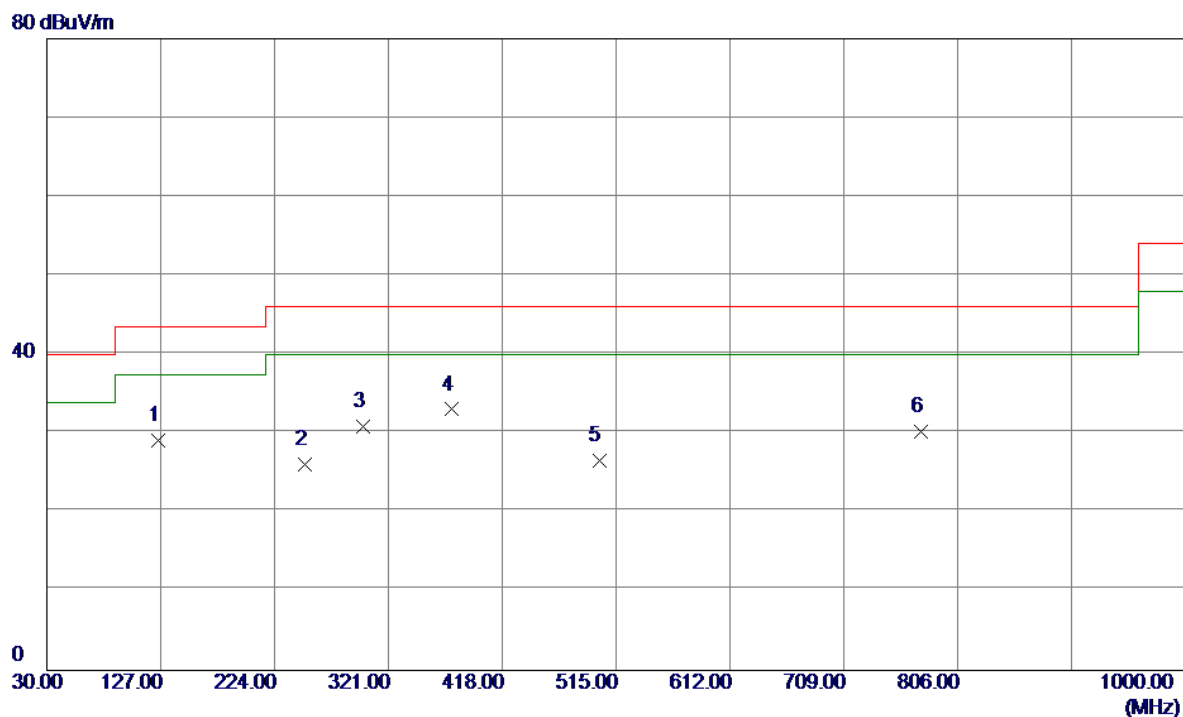
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	45.5200	48.56	-12.60	35.96	40.00	-4.04	Peak	
2	125.0600	41.96	-12.90	29.06	43.50	-14.44	Peak	
3	299.6600	38.47	-10.20	28.27	46.00	-17.73	Peak	
4	375.3200	38.74	-9.48	29.26	46.00	-16.74	Peak	
5	500.4500	37.42	-9.67	27.75	46.00	-18.25	Peak	
6	624.6100	39.11	-5.64	33.47	46.00	-12.53	Peak	

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

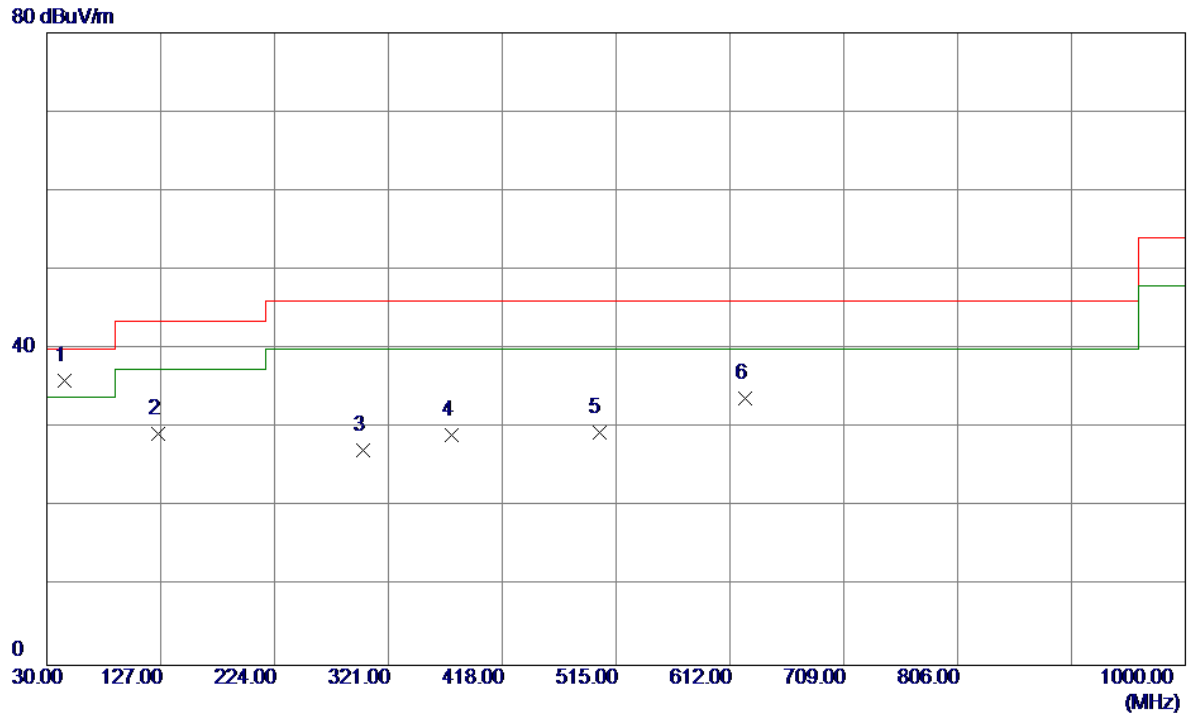
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	125.0600	42.03	-12.90	29.13	43.50	-14.37	Peak	
2	250.1900	40.35	-14.20	26.15	46.00	-19.85	Peak	
3	299.6600	41.13	-10.20	30.93	46.00	-15.07	Peak	
4 *	375.3200	42.52	-9.48	33.04	46.00	-12.96	Peak	
5	500.4500	36.20	-9.67	26.53	46.00	-19.47	Peak	
6	774.9600	31.16	-0.86	30.30	46.00	-15.70	Peak	

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

Vertical

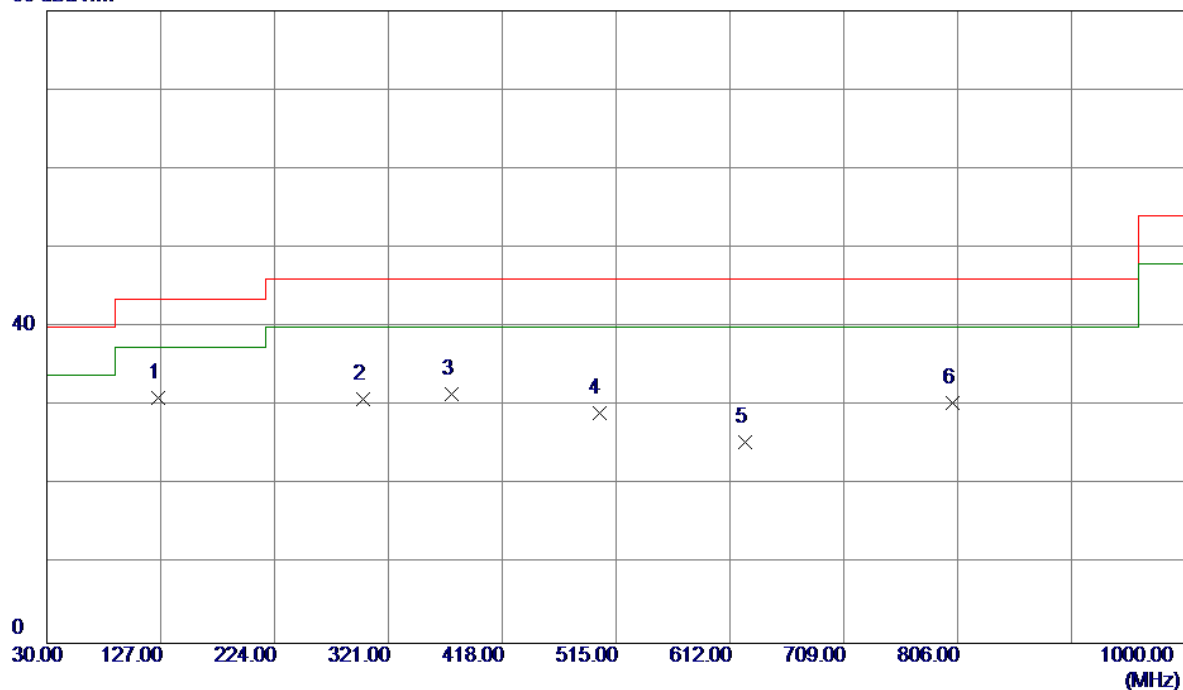


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	45.5200	48.66	-12.60	36.06	40.00	-3.94	Peak	
2	125.0600	42.16	-12.90	29.26	43.50	-14.24	Peak	
3	299.6600	37.37	-10.20	27.17	46.00	-18.83	Peak	
4	375.3200	38.56	-9.48	29.08	46.00	-16.92	Peak	
5	500.4500	39.05	-9.67	29.38	46.00	-16.62	Peak	
6	624.6100	39.35	-5.64	33.71	46.00	-12.29	Peak	

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

### Horizontal

80 dBuV/m



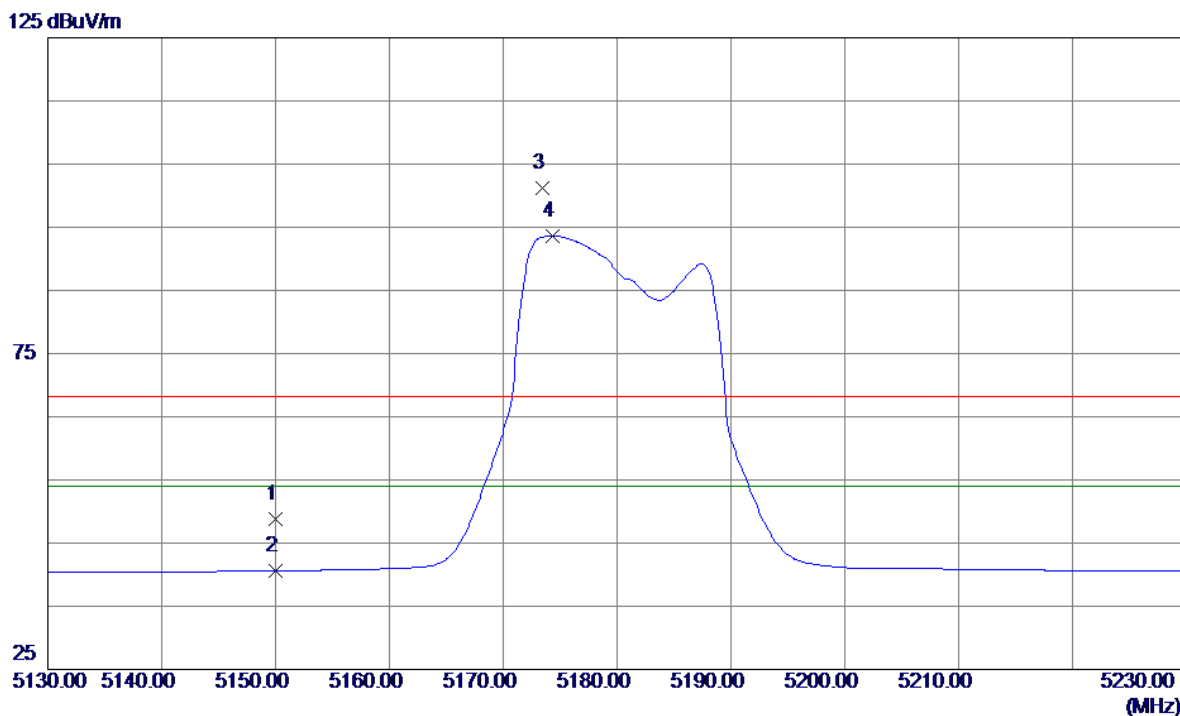
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	125.0600	43.94	-12.90	31.04	43.50	-12.46	Peak	
2	299.6600	41.12	-10.20	30.92	46.00	-15.08	Peak	
3	375.3200	41.07	-9.48	31.59	46.00	-14.41	Peak	
4	500.4500	38.78	-9.67	29.11	46.00	-16.89	Peak	
5	624.6100	31.03	-5.64	25.39	46.00	-20.61	Peak	
6	802.1200	30.24	0.20	30.44	46.00	-15.56	Peak	

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



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

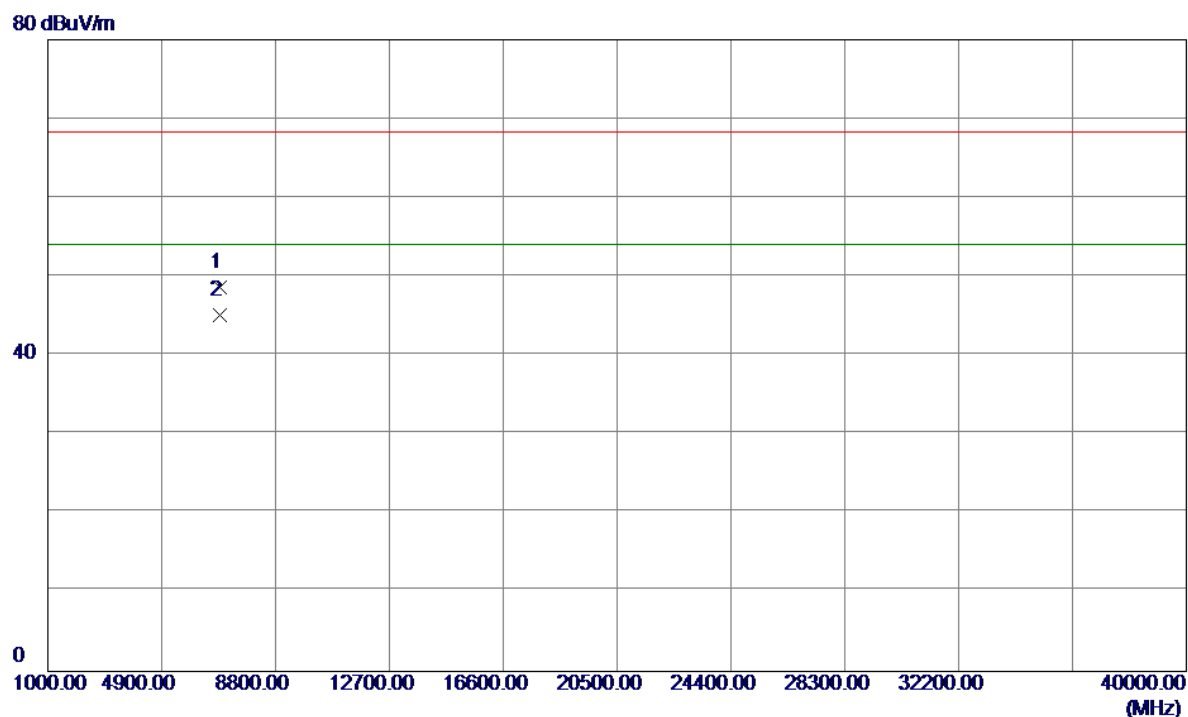
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	8.13	40.62	48.75	68.30	-19.55	Peak	
2	5150.0000	-0.09	40.62	40.53	54.00	-13.47	AVG	
3	5173.4500	60.55	40.70	101.25	68.30	32.95	Peak	No Limit
4 *	5174.3000	52.90	40.71	93.61	54.00	39.61	AVG	No Limit

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

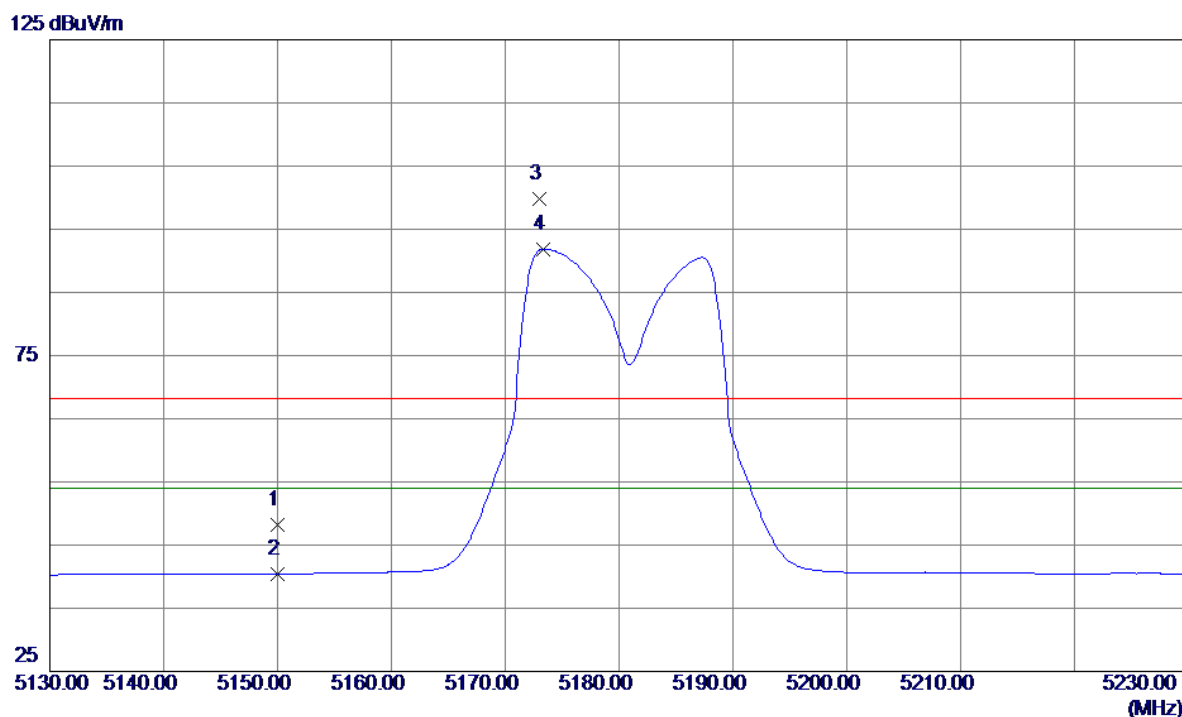
# Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6906.8100	37.91	10.78	48.69	68.30	-19.61	Peak	
2 *	6906.8750	34.30	10.78	45.08	54.00	-8.92	AVG	

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

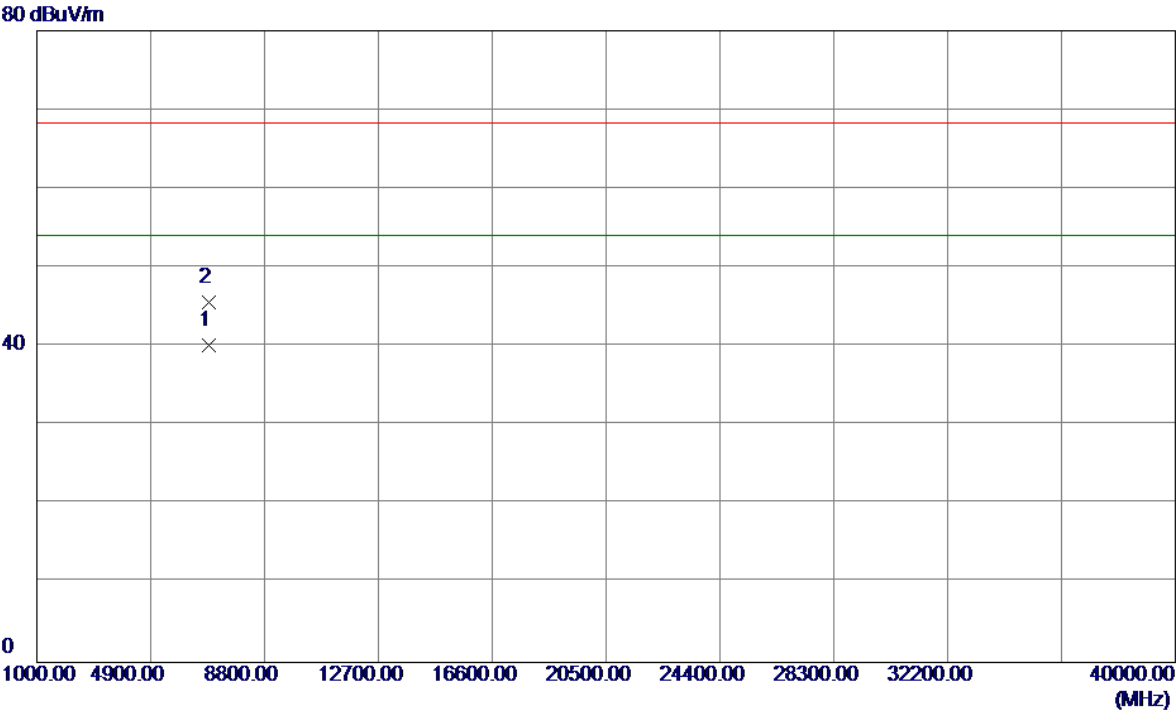
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	7.59	40.62	48.21	68.30	-20.09	Peak	
2	5150.0000	-0.21	40.62	40.41	54.00	-13.59	AVG	
3	5173.0500	59.01	40.70	99.71	68.30	31.41	Peak	No Limit
4 *	5173.3500	51.16	40.70	91.86	54.00	37.86	AVG	No Limit

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

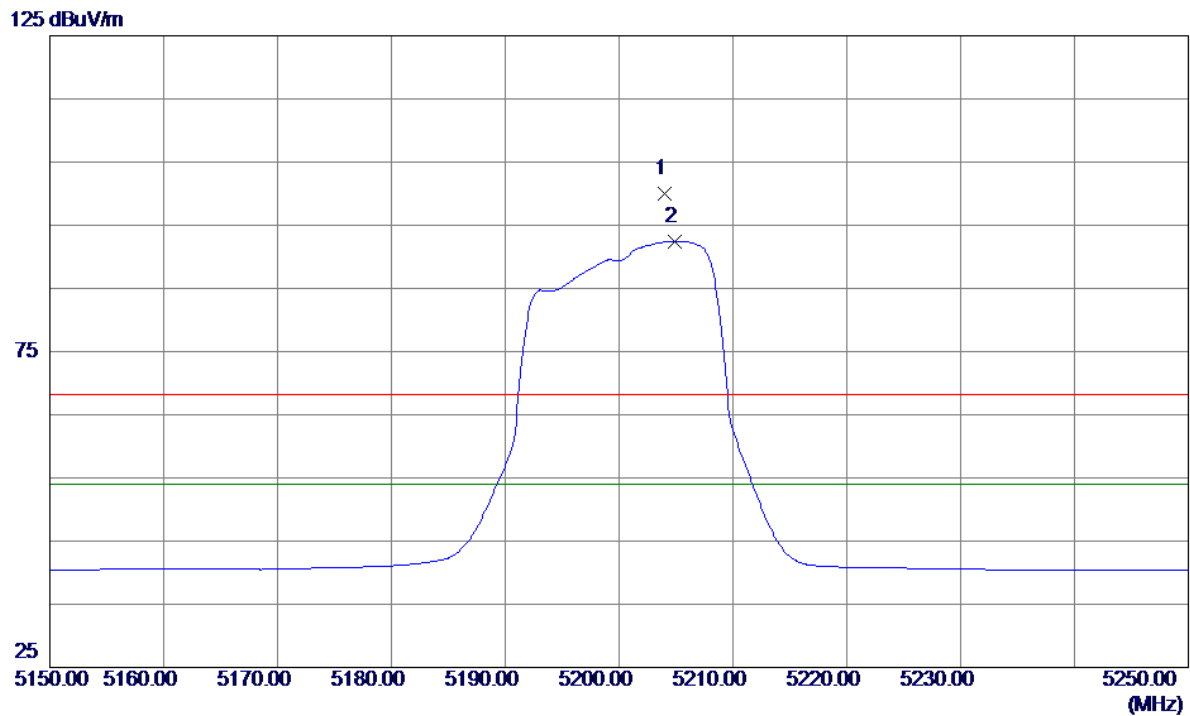
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6906.3250	29.33	10.78	40.11	54.00	-13.89	AVG	
2	6906.8550	34.74	10.78	45.52	68.30	-22.78	Peak	

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

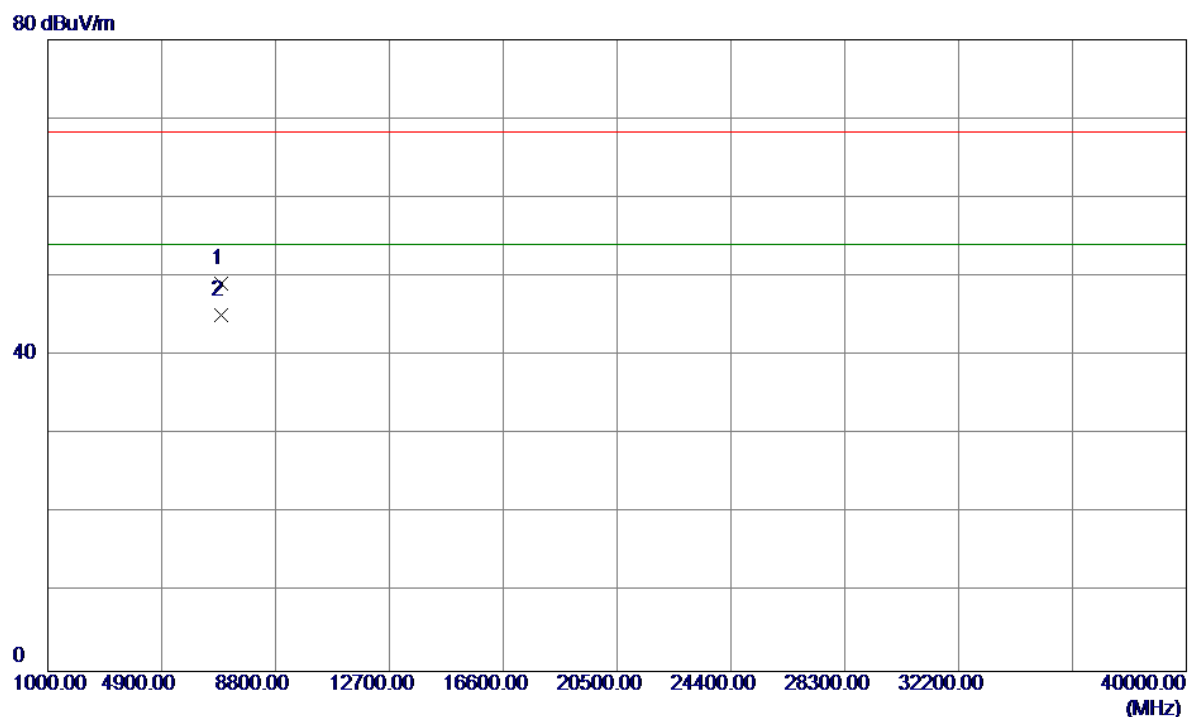
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5203.9500	59.10	40.80	99.90	68.30	31.60	Peak	No Limit
2 *	5204.9000	51.67	40.81	92.48	54.00	38.48	AVG	No Limit

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

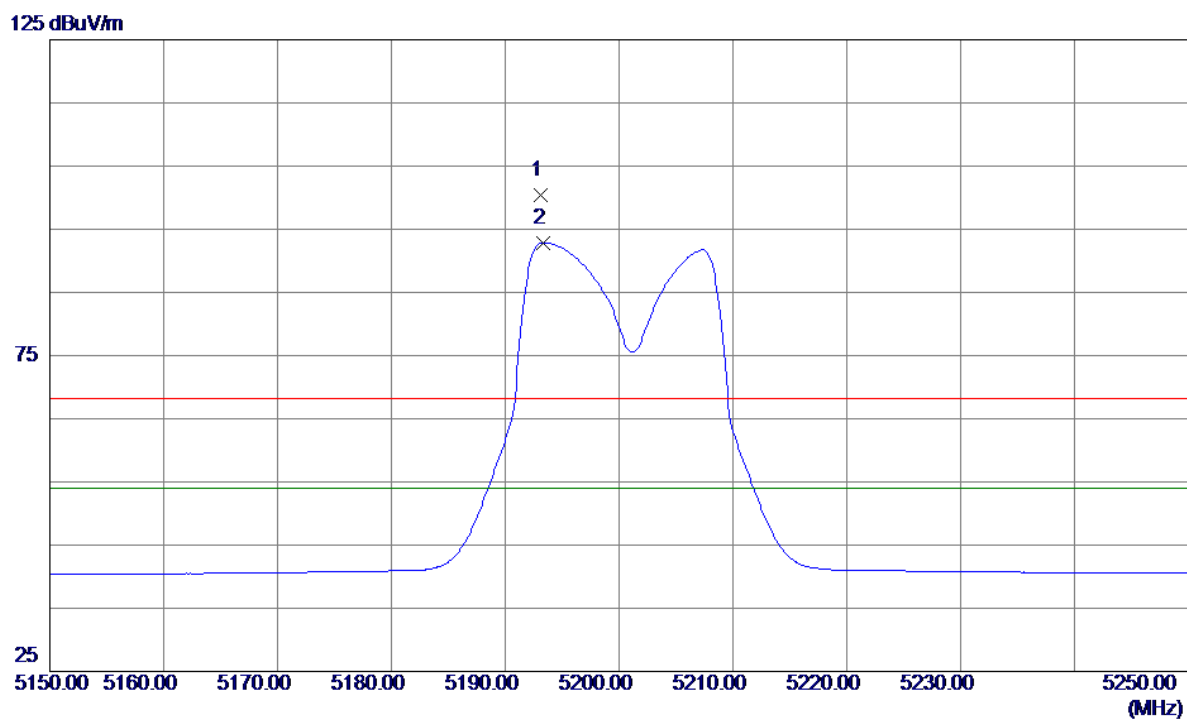
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6933.5250	38.36	10.77	49.13	68.30	-19.17	Peak	
2 *	6933.5350	34.40	10.77	45.17	54.00	-8.83	AVG	

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

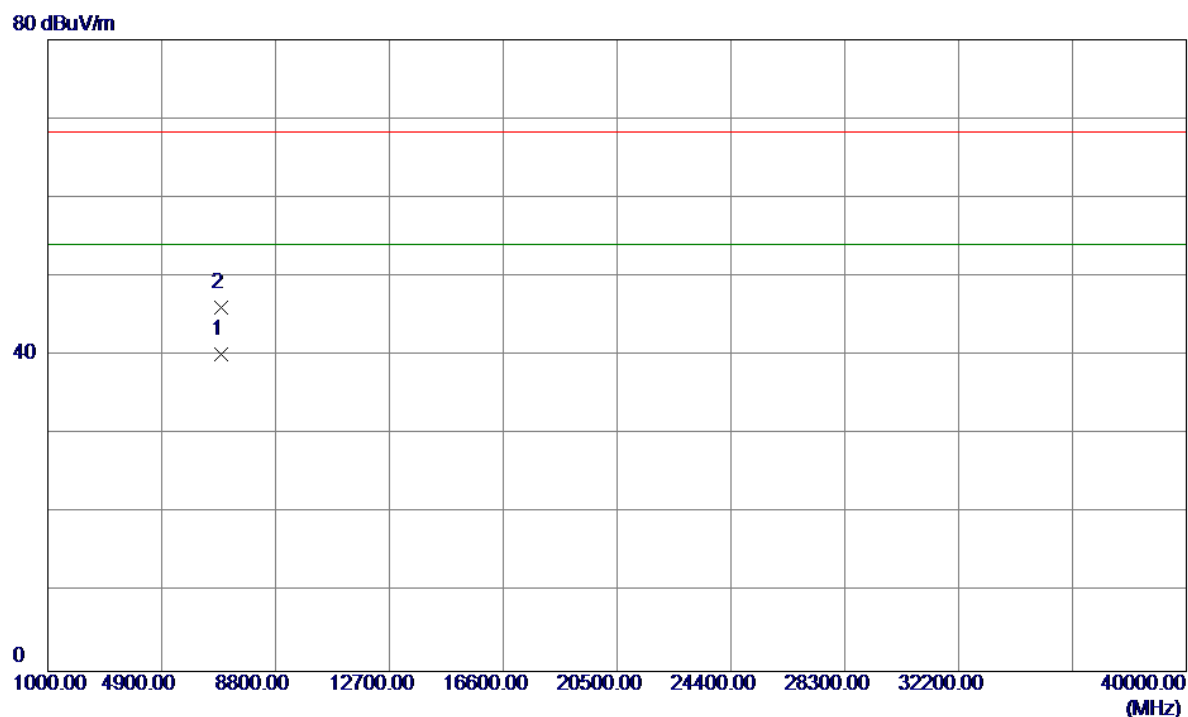
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5193.1500	59.67	40.77	100.44	68.30	32.14	Peak	No Limit
2 *	5193.3000	52.10	40.77	92.87	54.00	38.87	AVG	No Limit

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

# Horizontal

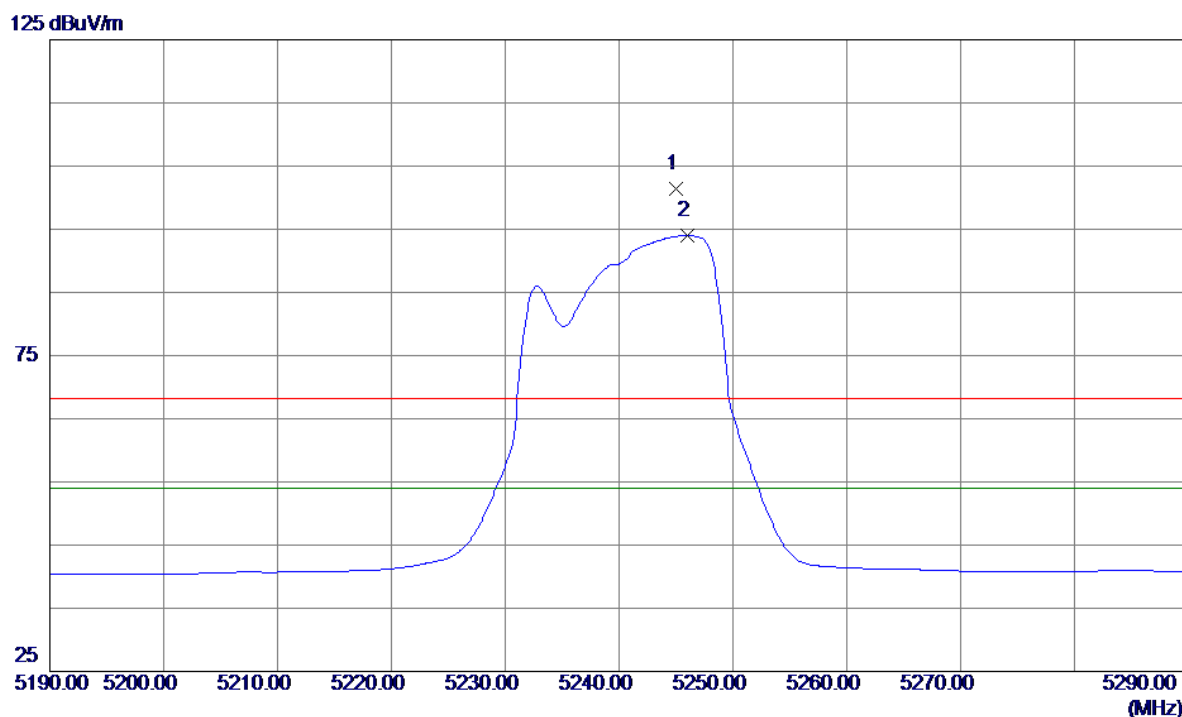


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6933.3550	29.32	10.77	40.09	54.00	-13.91	AVG	
2	6933.4250	35.38	10.77	46.15	68.30	-22.15	Peak	



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

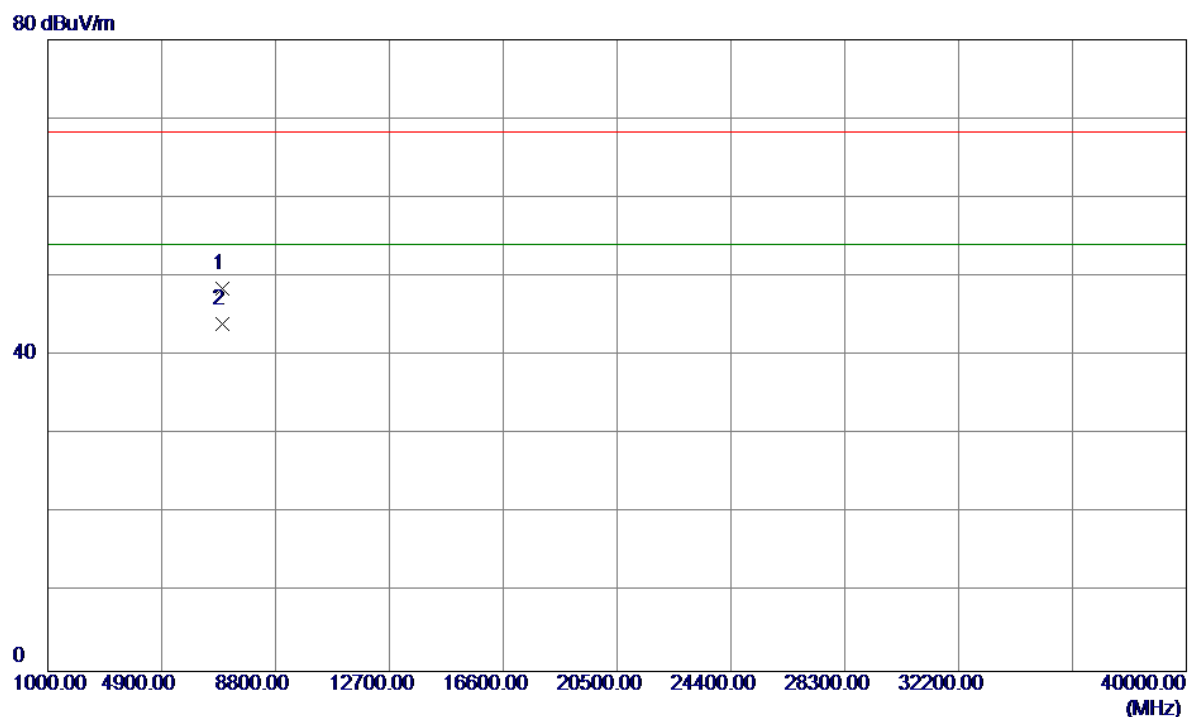
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5245.0500	60.37	40.94	101.31	68.30	33.01	Peak	No Limit
2 *	5245.9500	53.07	40.94	94.01	54.00	40.01	AVG	No Limit

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

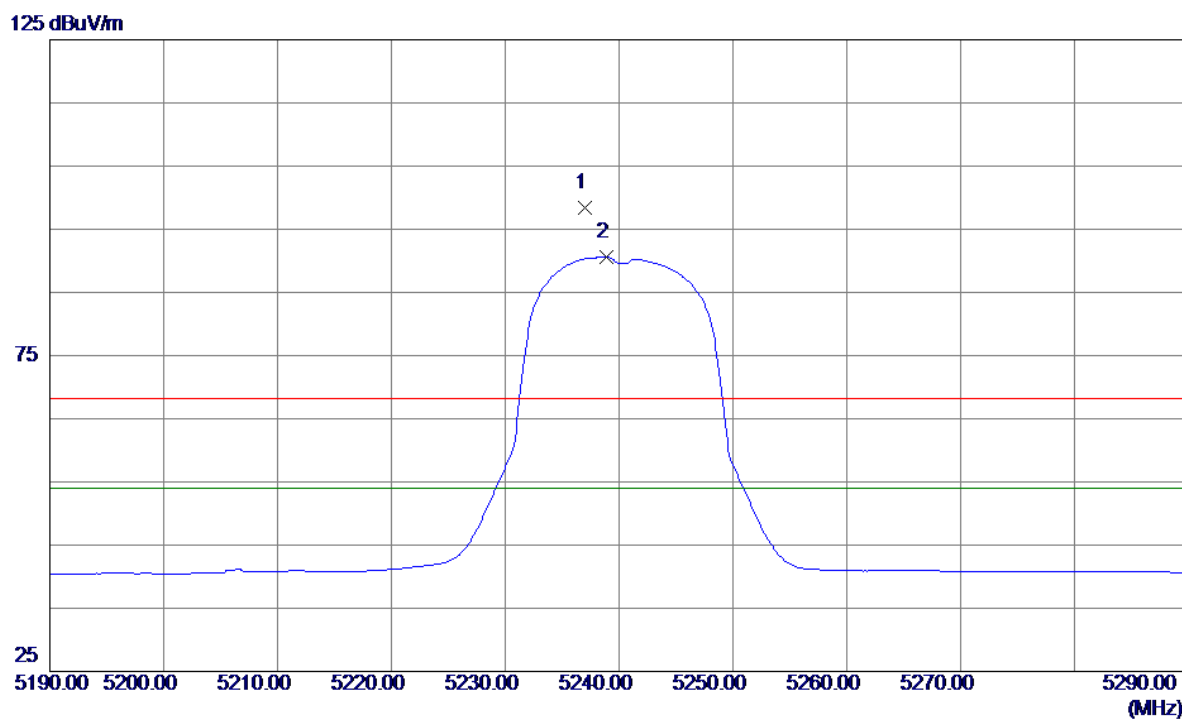
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6986.8100	37.75	10.75	48.50	68.30	-19.80	Peak	
2 *	6986.8800	33.27	10.75	44.02	54.00	-9.98	AVG	

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

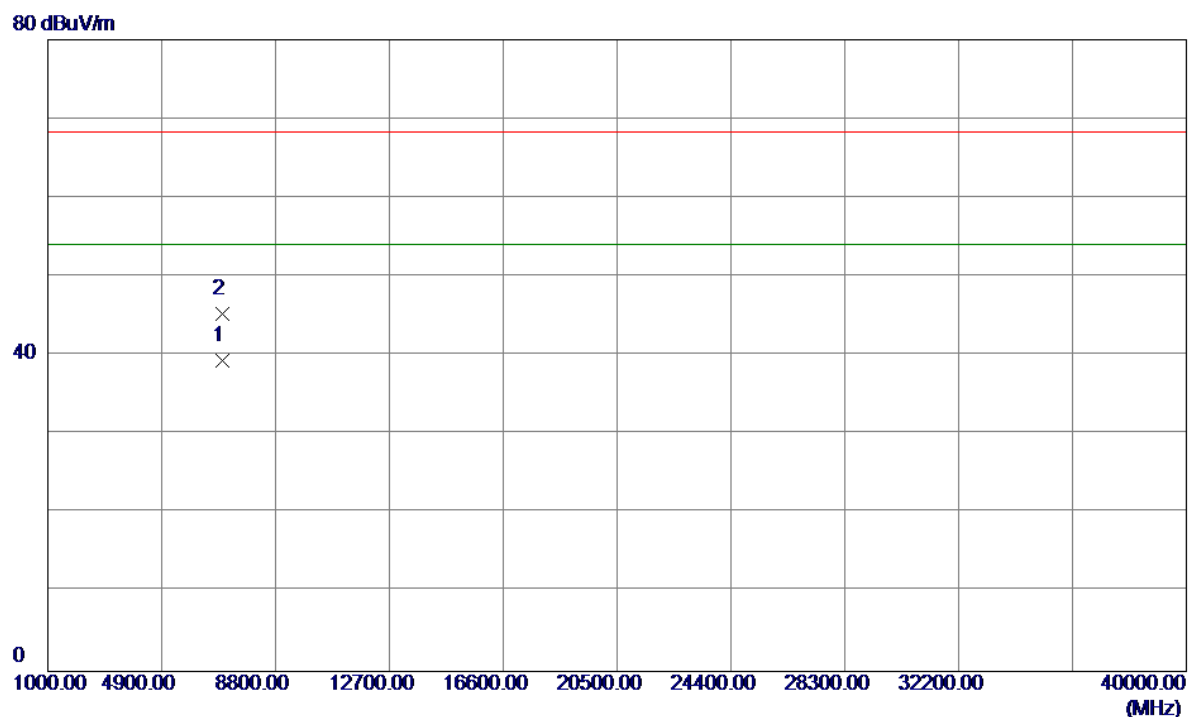
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5237.0000	57.52	40.91	98.43	68.30	30.13	Peak	No Limit
2 *	5238.9000	49.67	40.92	90.59	54.00	36.59	AVG	No Limit

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

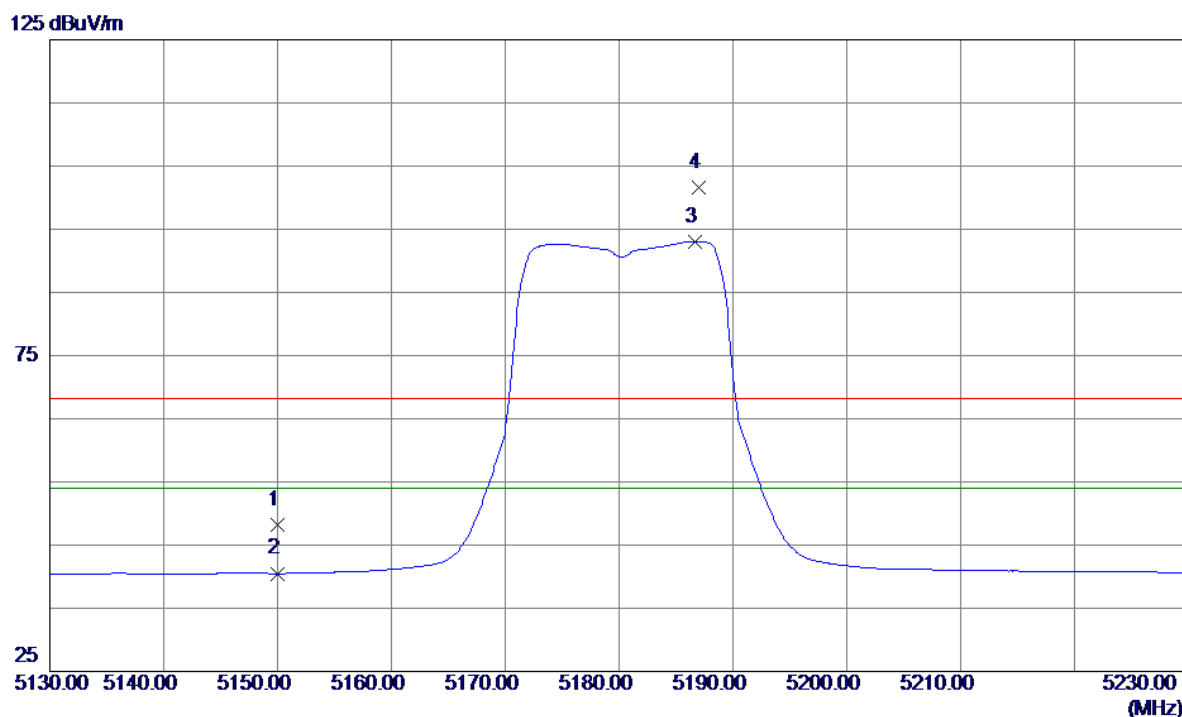
# Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6986.7500	28.54	10.75	39.29	54.00	-14.71	AVG	
2	6986.8500	34.58	10.75	45.33	68.30	-22.97	Peak	

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

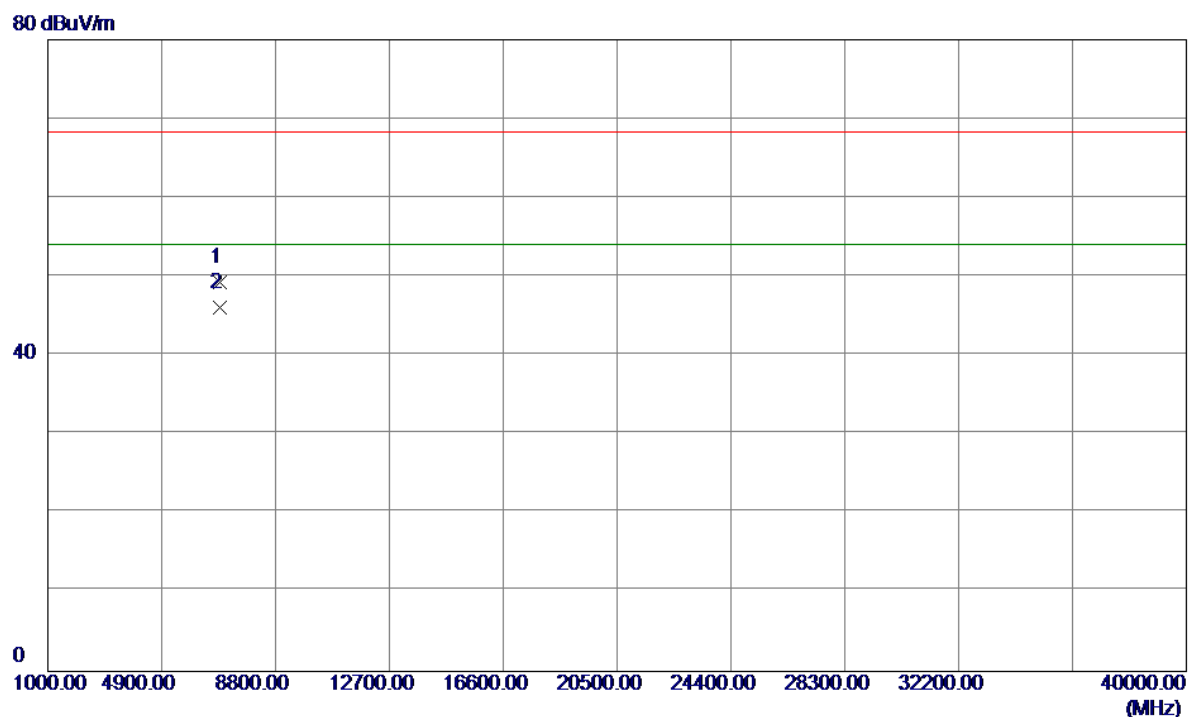
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	7.53	40.62	48.15	68.30	-20.15	Peak	
2	5150.0000	-0.12	40.62	40.50	54.00	-13.50	AVG	
3 *	5186.7000	52.25	40.75	93.00	54.00	39.00	AVG	No Limit
4	5187.0000	60.92	40.75	101.67	68.30	33.37	Peak	No Limit

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

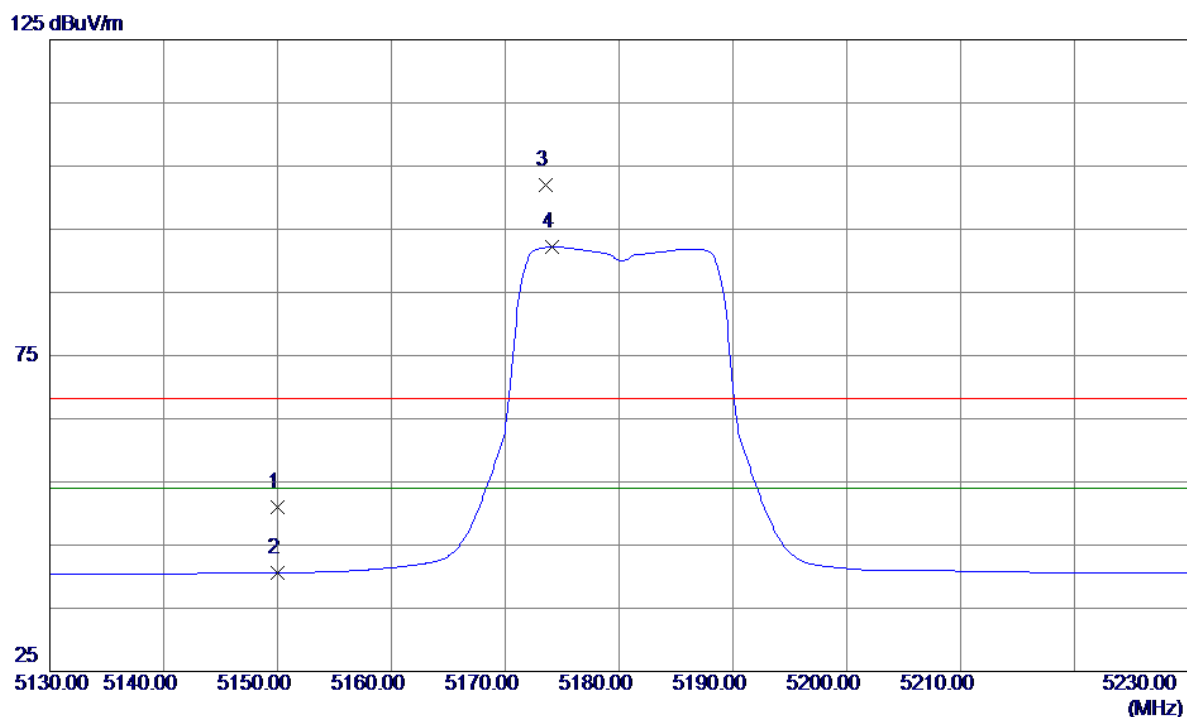
# Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6906.8650	38.50	10.78	49.28	68.30	-19.02	Peak	
2 *	6906.8700	35.28	10.78	46.06	54.00	-7.94	AVG	

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

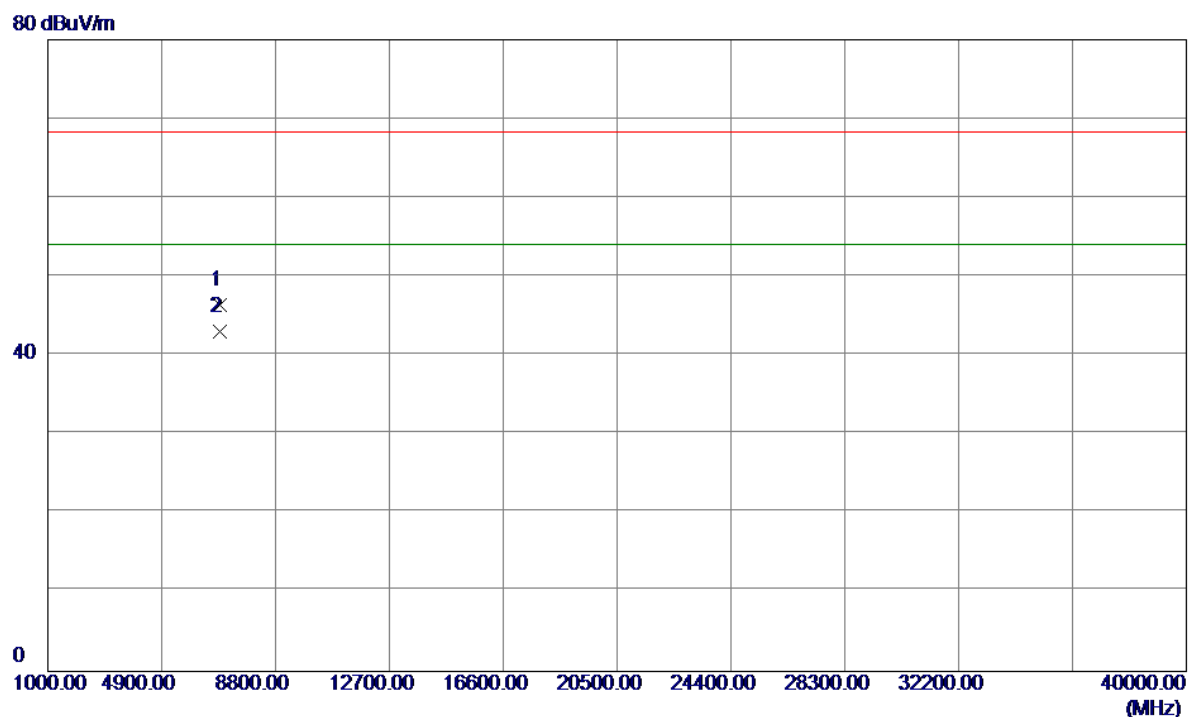
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	10.29	40.62	50.91	68.30	-17.39	Peak	
2	5150.0000	-0.05	40.62	40.57	54.00	-13.43	AVG	
3	5173.5500	61.34	40.70	102.04	68.30	33.74	Peak	No Limit
4 *	5174.1500	51.46	40.70	92.16	54.00	38.16	AVG	No Limit

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

# Horizontal

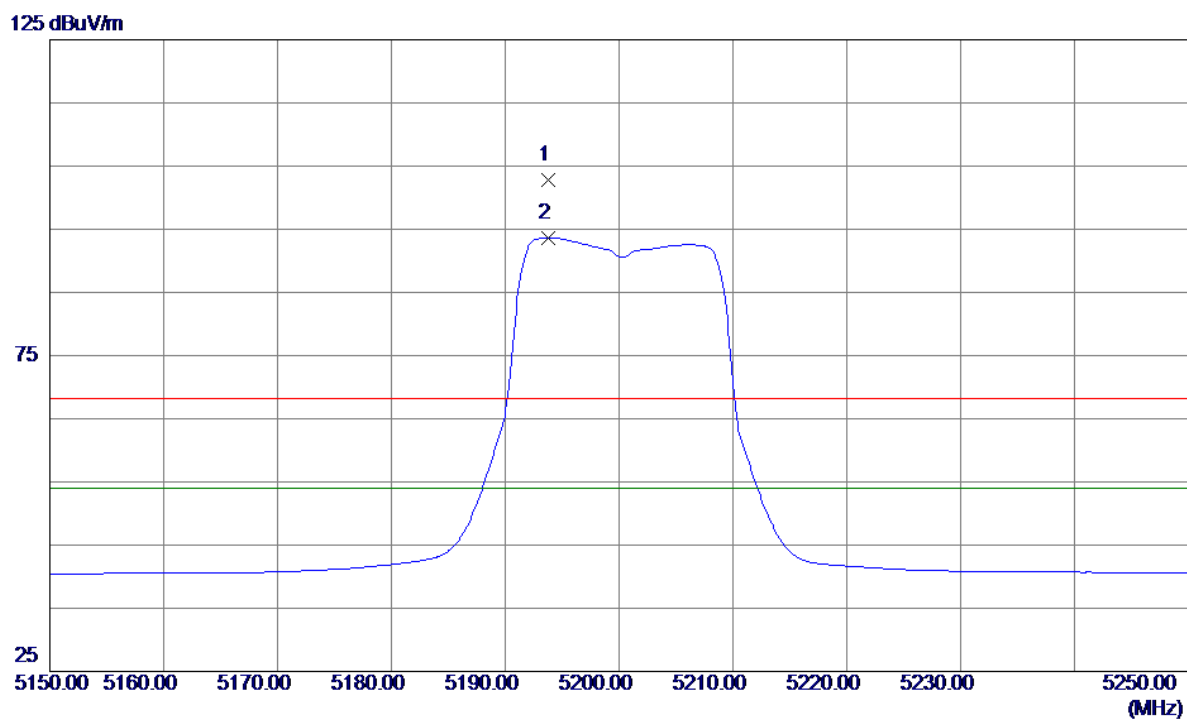


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6906.7550	35.55	10.78	46.33	68.30	-21.97	Peak	
2 *	6906.8000	32.33	10.78	43.11	54.00	-10.89	AVG	



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

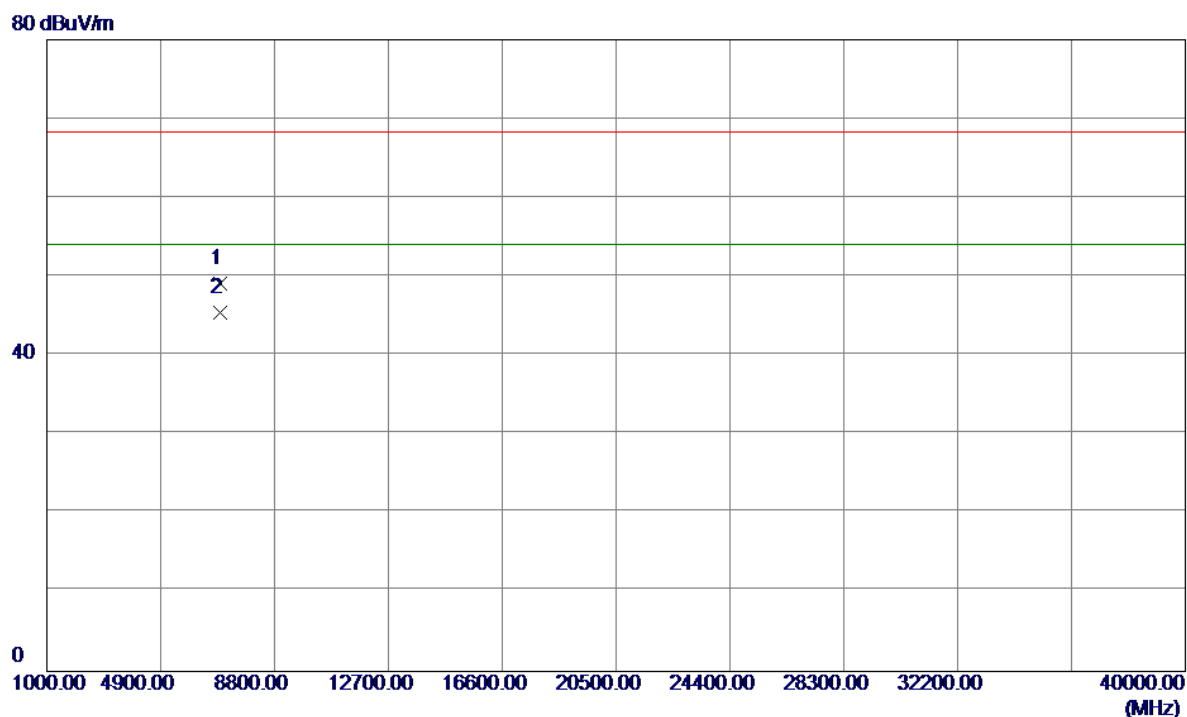
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5193.7500	61.97	40.77	102.74	68.30	34.44	Peak	No Limit
2 *	5193.8000	52.89	40.77	93.66	54.00	39.66	AVG	No Limit

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

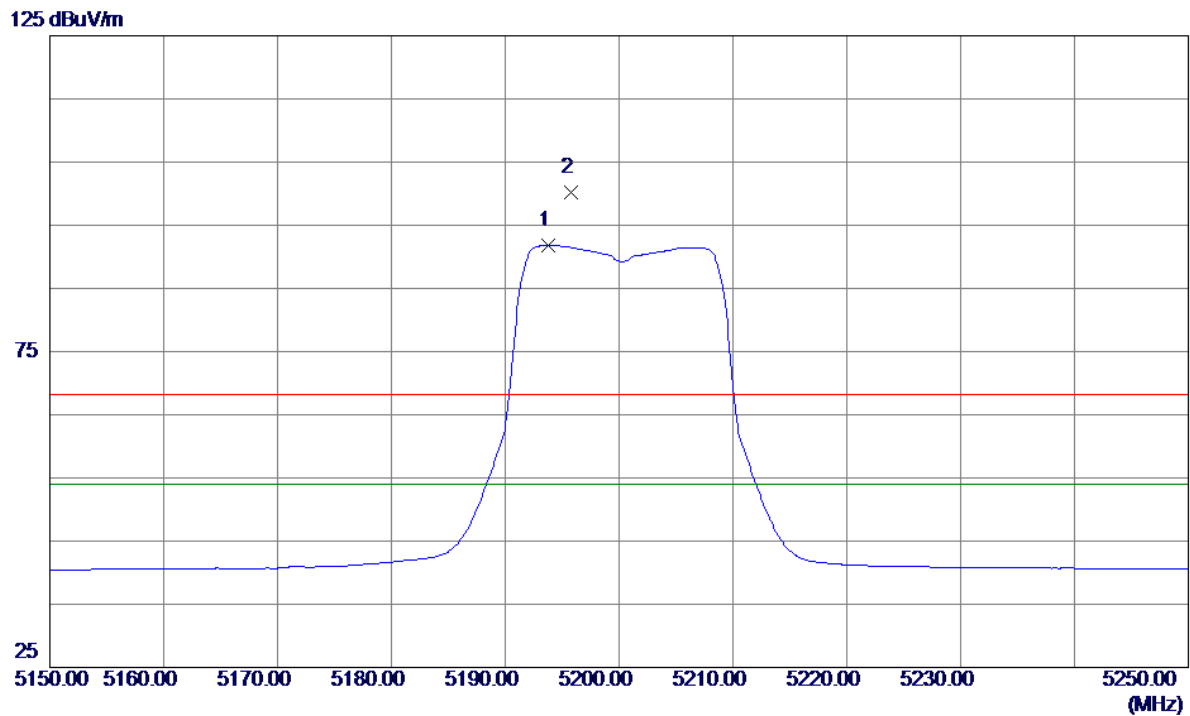
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6933.5100	38.36	10.77	49.13	68.30	-19.17	Peak	
2 *	6933.5600	34.73	10.77	45.50	54.00	-8.50	AVG	

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

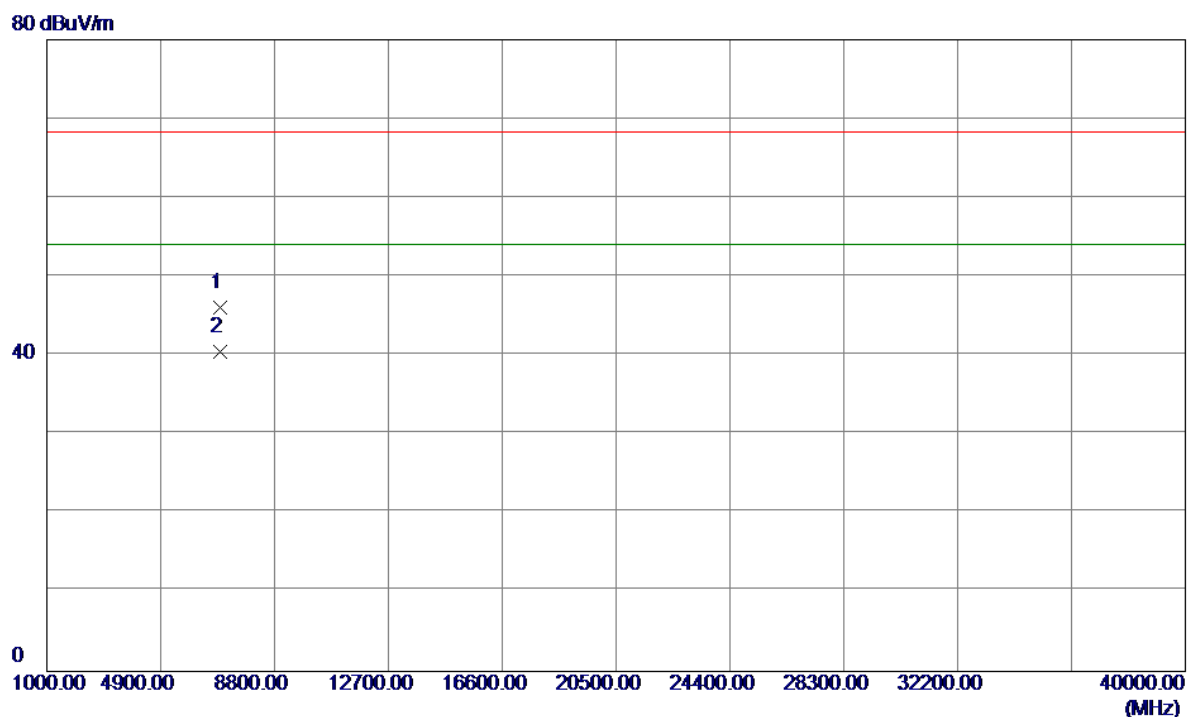
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5193.8000	51.04	40.77	91.81	54.00	37.81	AVG	No Limit
2	5195.7500	59.42	40.78	100.20	68.30	31.90	Peak	No Limit

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

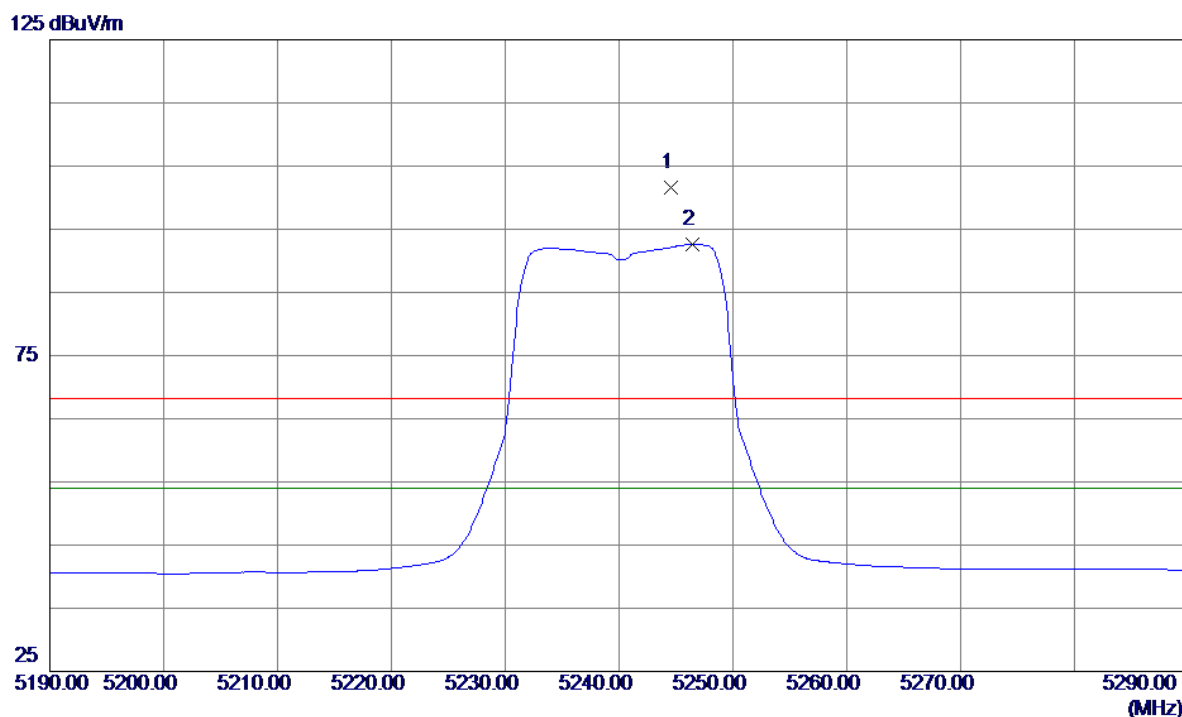
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6933.5500	35.32	10.77	46.09	68.30	-22.21	Peak	
2 *	6933.5800	29.75	10.77	40.52	54.00	-13.48	AVG	

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

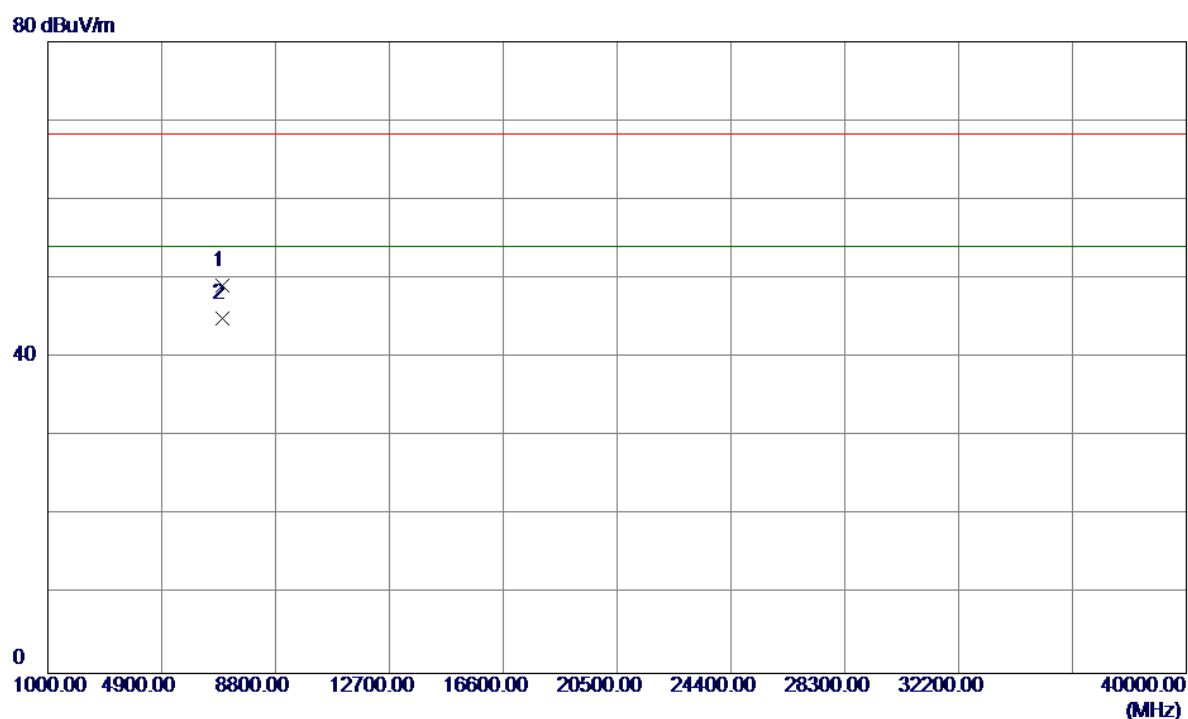
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5244.5500	60.58	40.94	101.52	68.30	33.22	Peak	No Limit
2 *	5246.4500	51.61	40.94	92.55	54.00	38.55	AVG	No Limit

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

# Vertical

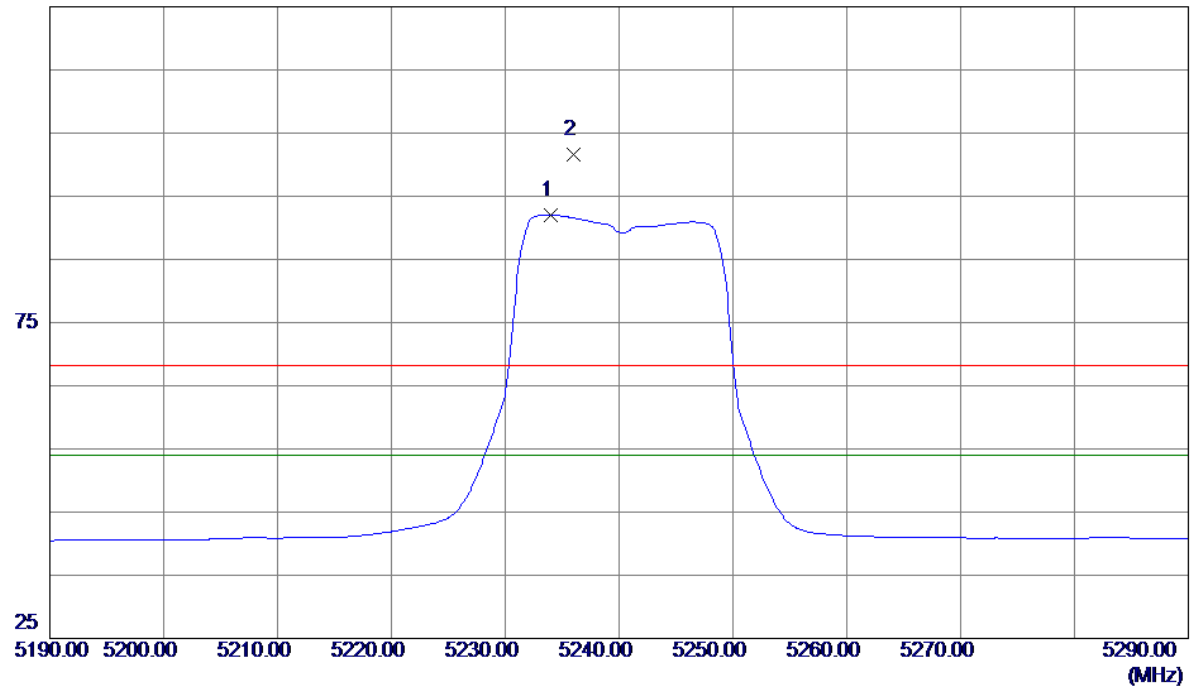


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6986.8900	38.35	10.75	49.10	68.30	-19.20	Peak	
2 *	6986.9200	34.24	10.75	44.99	54.00	-9.01	AVG	

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

### Horizontal

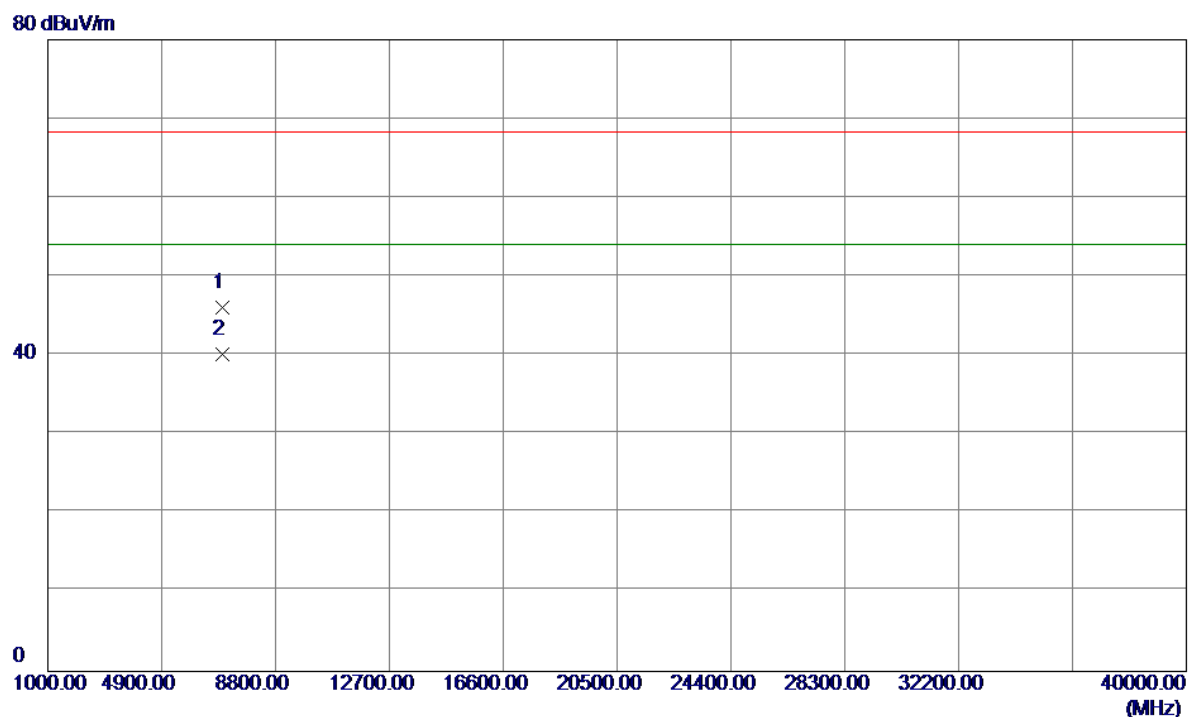
125 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5233.9500	51.14	40.90	92.04	54.00	38.04	AVG	No Limit
2	5236.0500	60.71	40.91	101.62	68.30	33.32	Peak	No Limit

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

# Horizontal

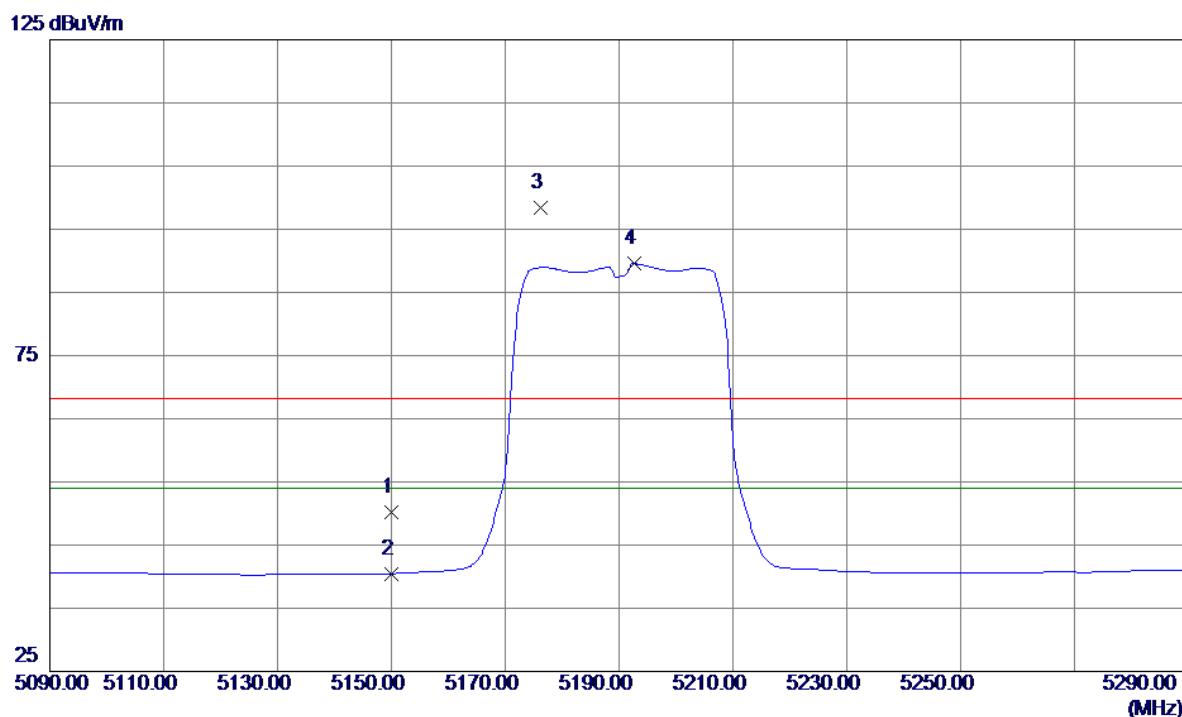


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6986.7800	35.34	10.75	46.09	68.30	-22.21	Peak	
2 *	6986.8900	29.44	10.75	40.19	54.00	-13.81	AVG	



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

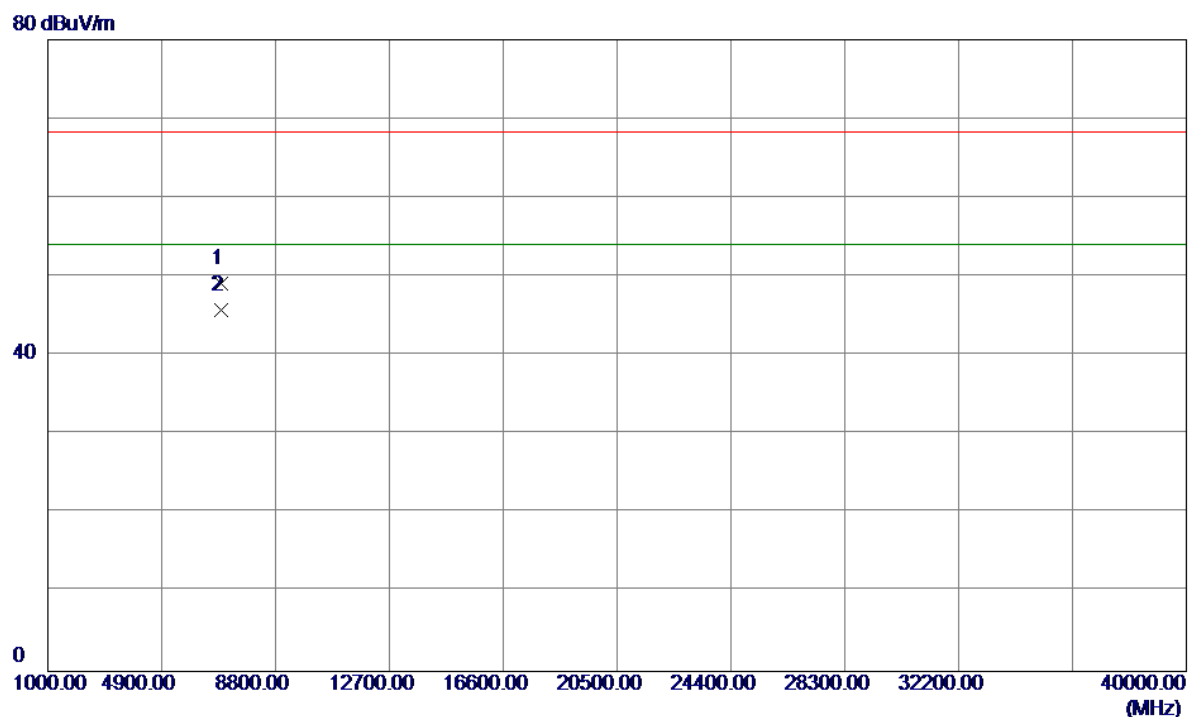
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	9.59	40.62	50.21	68.30	-18.09	Peak	
2	5150.0000	-0.14	40.62	40.48	54.00	-13.52	AVG	
3	5176.2000	57.62	40.71	98.33	68.30	30.03	Peak	No Limit
4 *	5192.6000	48.78	40.77	89.55	54.00	35.55	AVG	No Limit

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

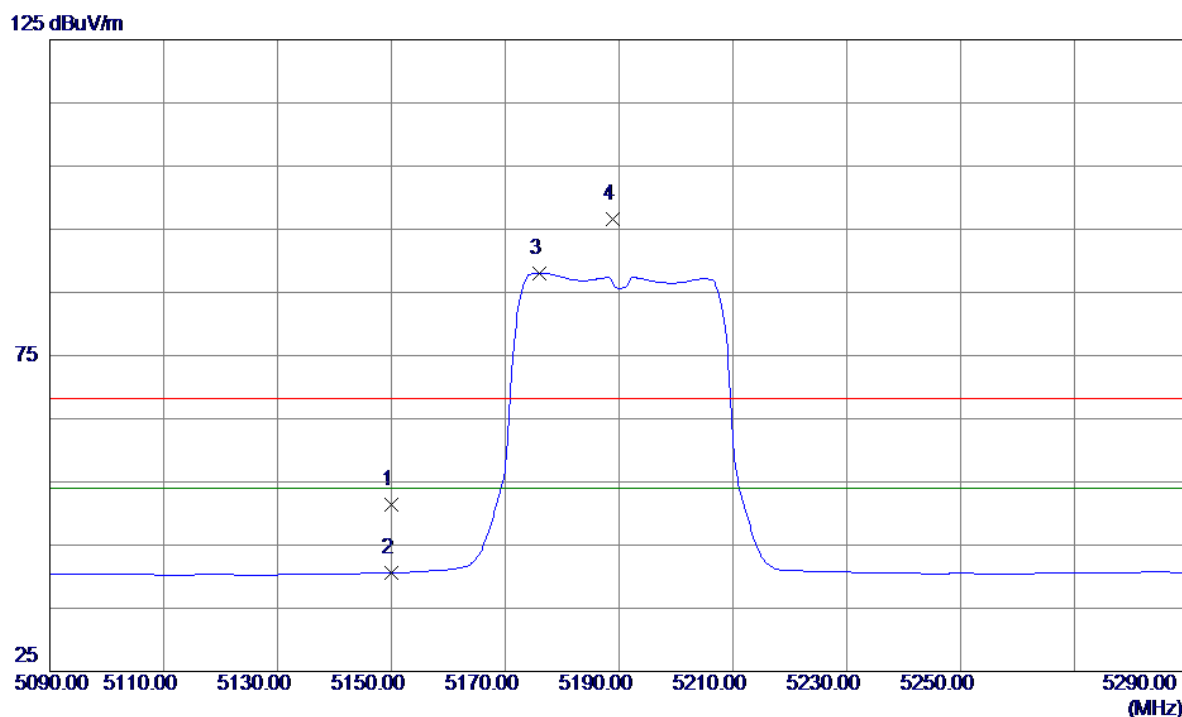
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6920.1900	38.34	10.77	49.11	68.30	-19.19	Peak	
2 *	6920.2050	35.03	10.77	45.80	54.00	-8.20	AVG	

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

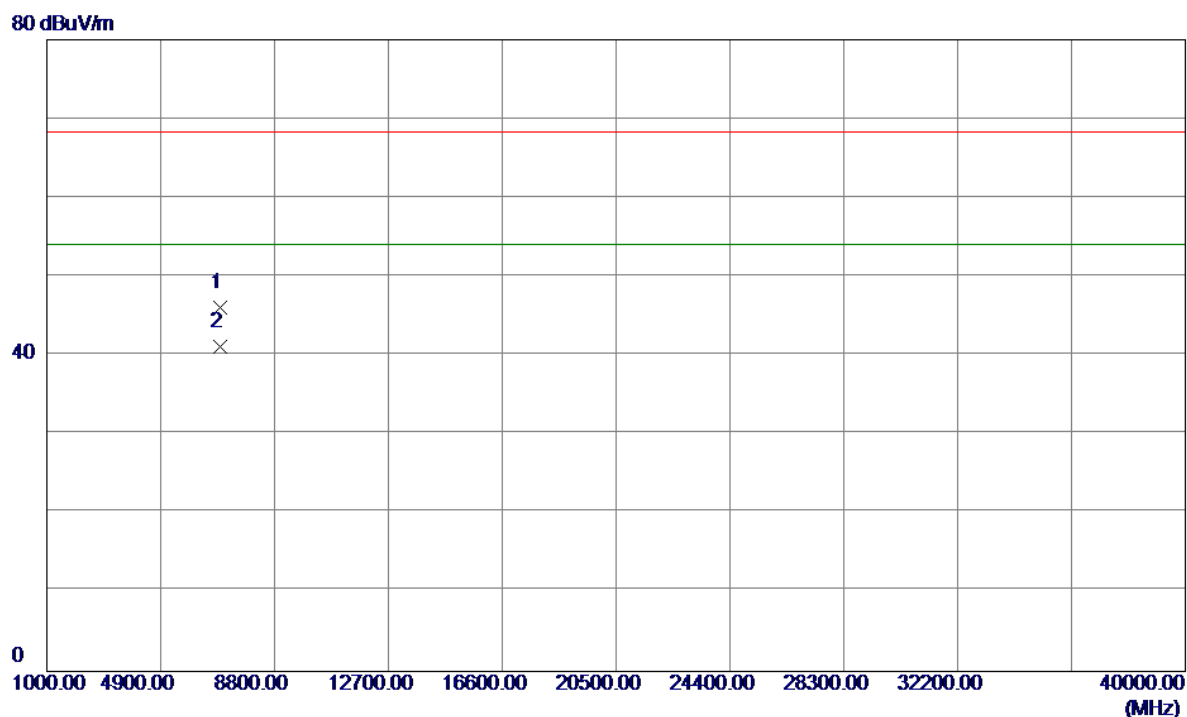
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	10.78	40.62	51.40	68.30	-16.90	Peak	
2	5150.0000	-0.05	40.62	40.57	54.00	-13.43	AVG	
3 *	5176.0000	47.39	40.71	88.10	54.00	34.10	AVG	No Limit
4	5188.9000	55.85	40.75	96.60	68.30	28.30	Peak	No Limit

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

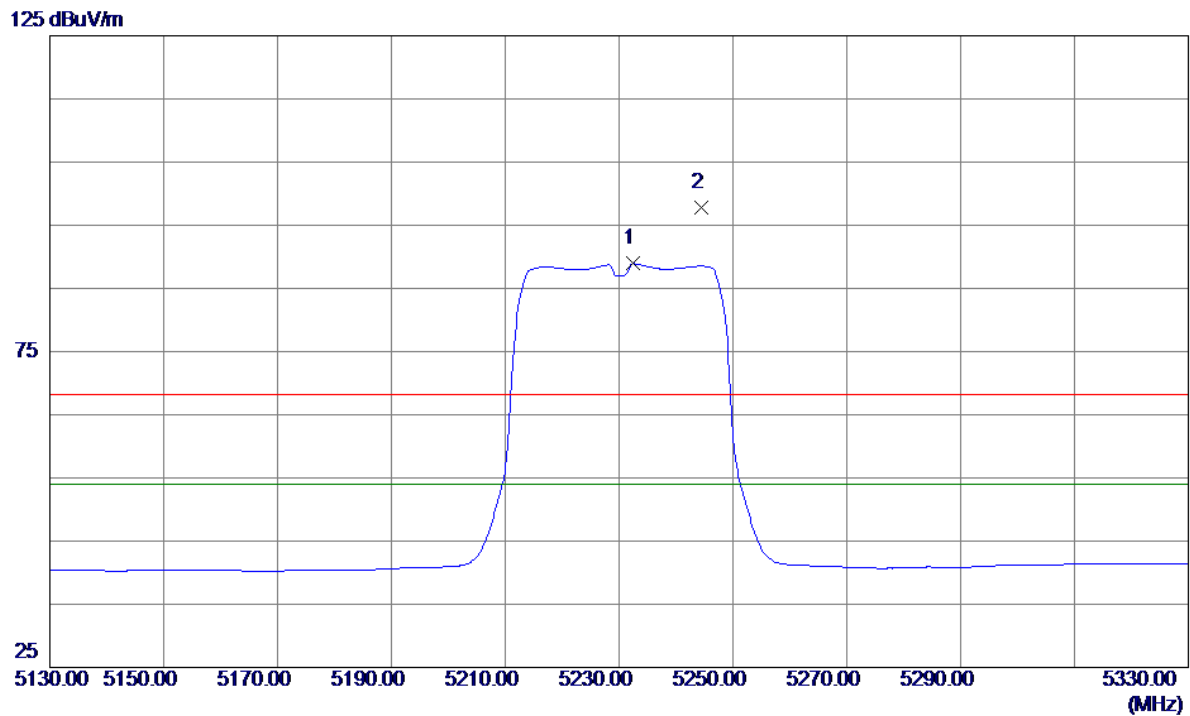
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6920.2250	35.35	10.77	46.12	68.30	-22.18	Peak	
2 *	6920.2500	30.33	10.77	41.10	54.00	-12.90	AVG	

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

### Vertical

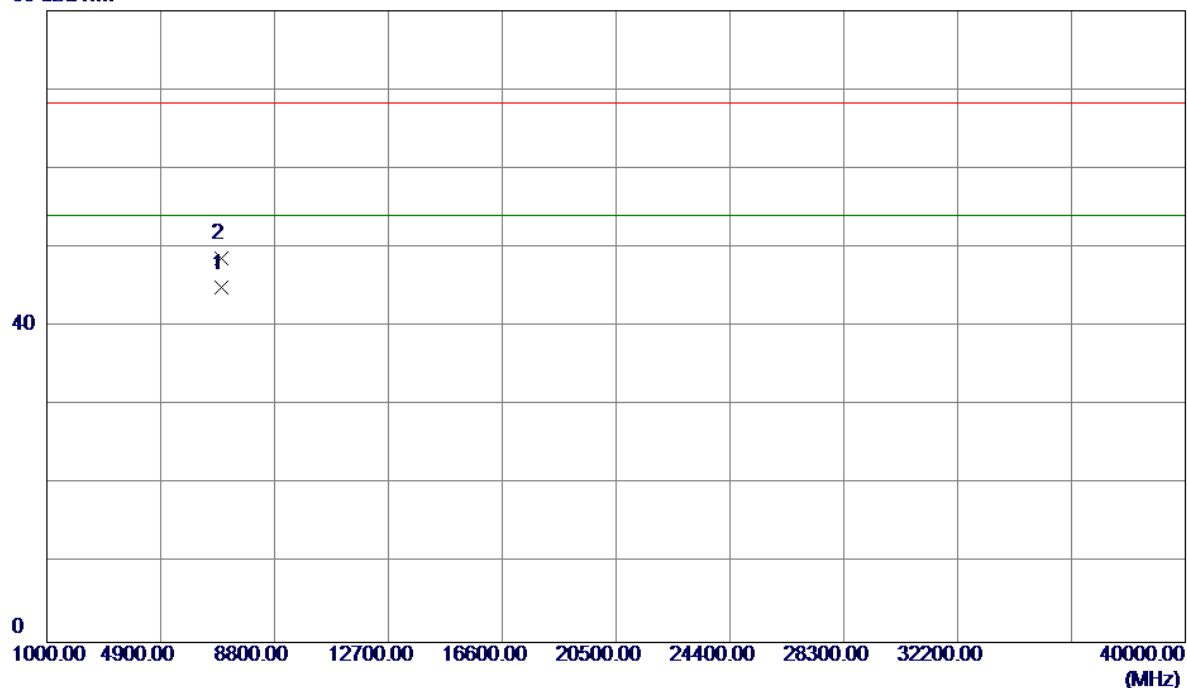


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5232.5000	48.02	40.90	88.92	54.00	34.92	AVG	No Limit
2	5244.5000	56.77	40.94	97.71	68.30	29.41	Peak	No Limit

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

### Vertical

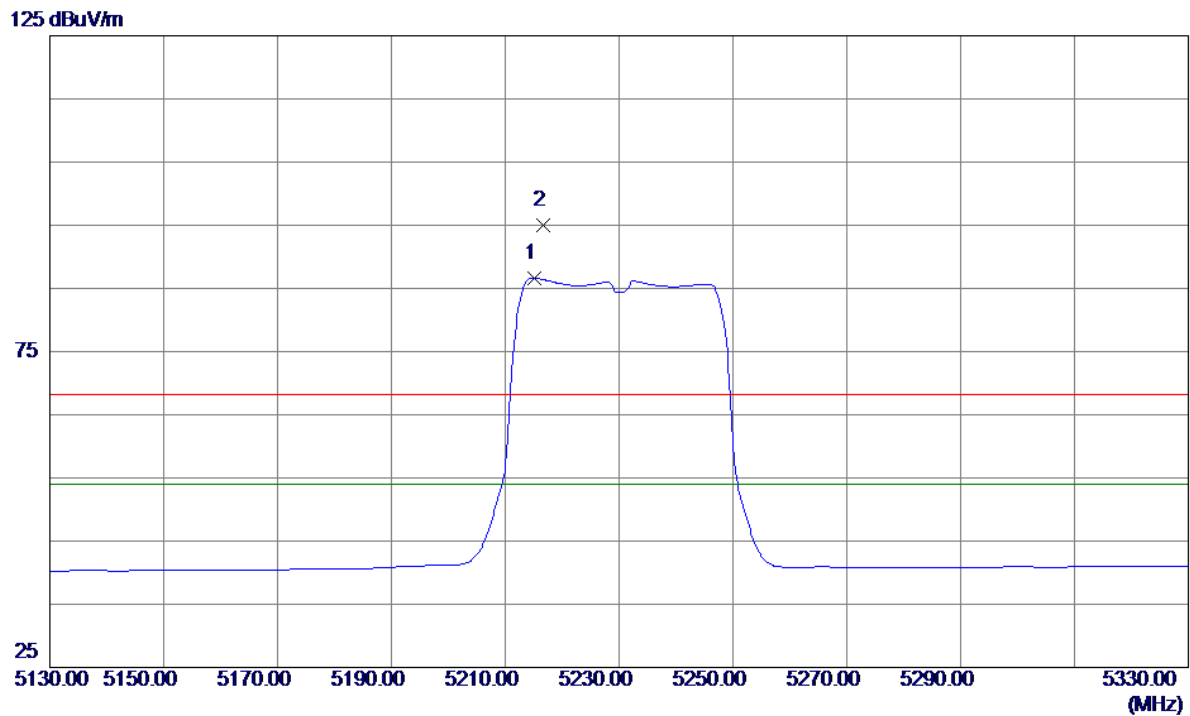
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6973.5850	34.12	10.76	44.88	54.00	-9.12	AVG	
2	6973.5950	37.91	10.76	48.67	68.30	-19.63	Peak	

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

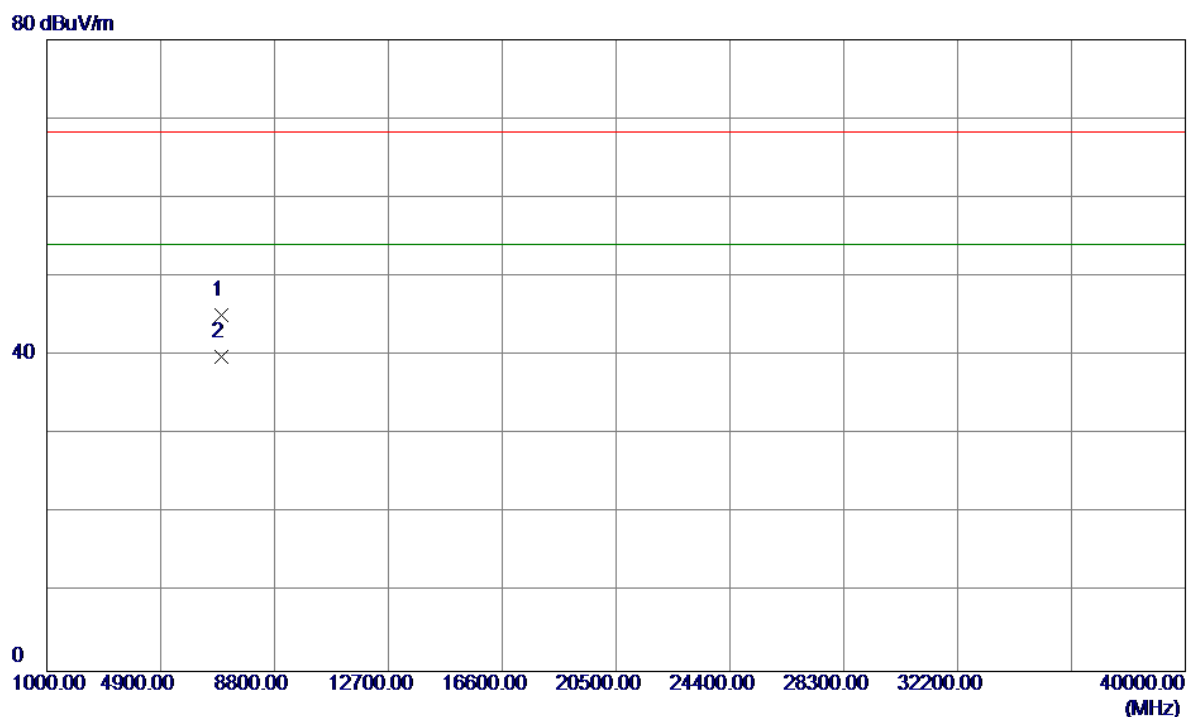
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5215.1000	45.78	40.84	86.62	54.00	32.62	AVG	No Limit
2	5216.7000	54.22	40.85	95.07	68.30	26.77	Peak	No Limit

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

### Horizontal

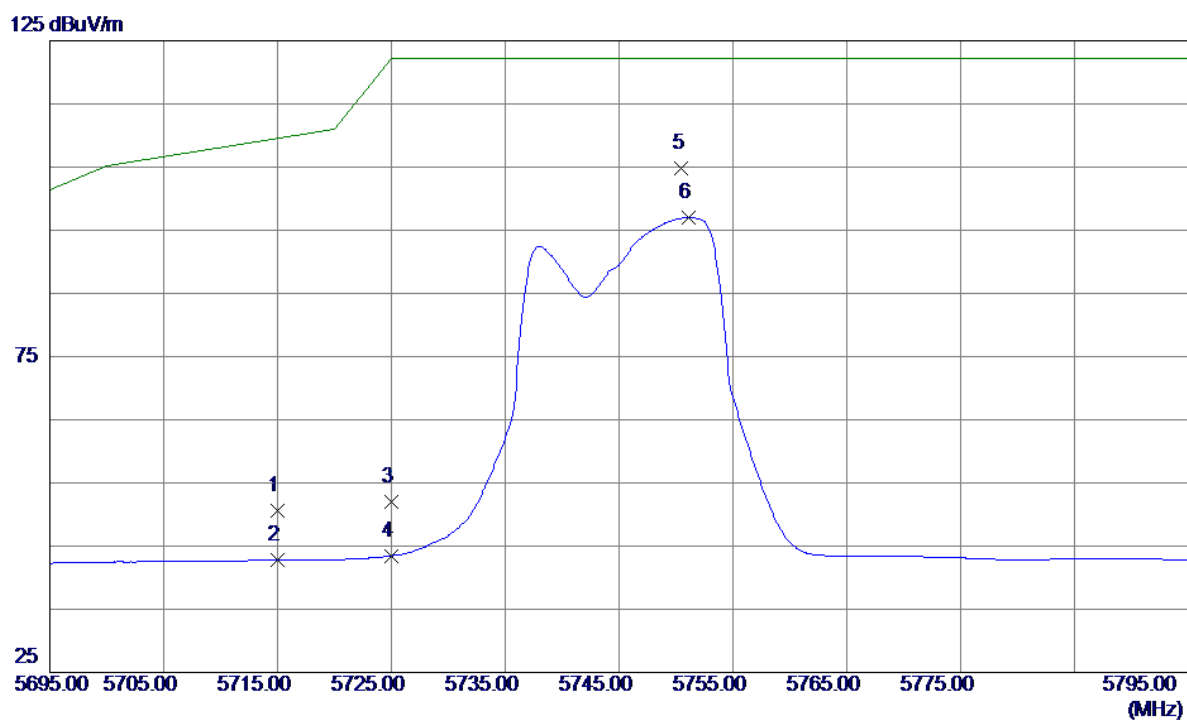


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6973.5650	34.39	10.76	45.15	68.30	-23.15	Peak	
2 *	6973.5750	29.15	10.76	39.91	54.00	-14.09	AVG	



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

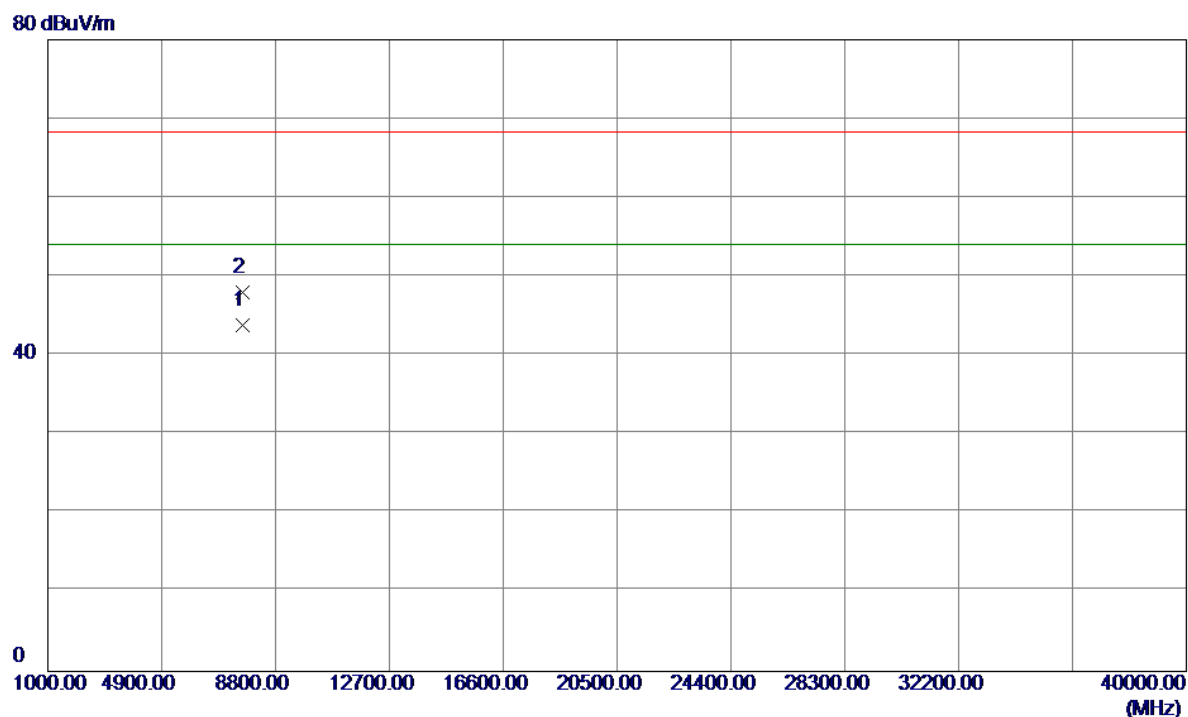
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	8.01	42.55	50.56	109.50	-58.94	Peak	
2	5715.0000	0.25	42.55	42.80	109.50	-66.70	AVG	
3	5725.0000	9.47	42.58	52.05	122.30	-70.25	Peak	
4	5725.0000	0.87	42.58	43.45	122.30	-78.85	AVG	
5 *	5750.5000	62.18	42.67	104.85	122.30	-17.45	Peak	
6	5751.1000	54.35	42.67	97.02	122.30	-25.28	AVG	

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

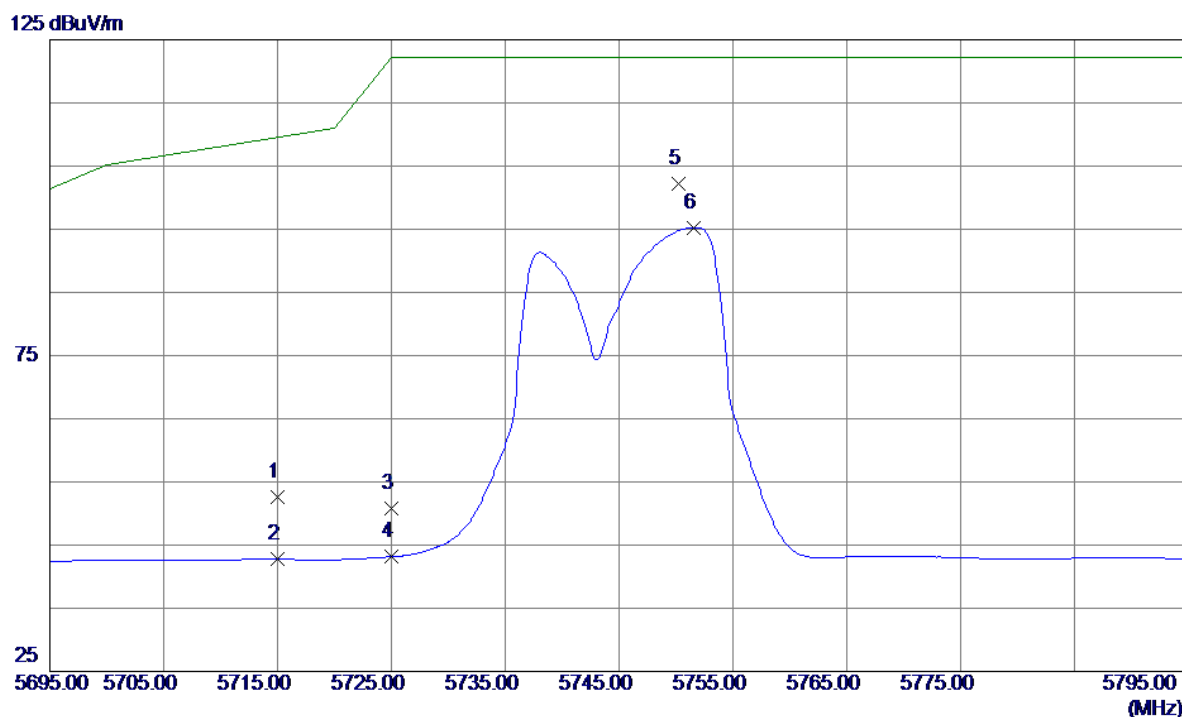
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7660.2550	32.17	11.74	43.91	54.00	-10.09	AVG	
2	7660.3900	36.19	11.74	47.93	68.30	-20.37	Peak	

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

### Horizontal

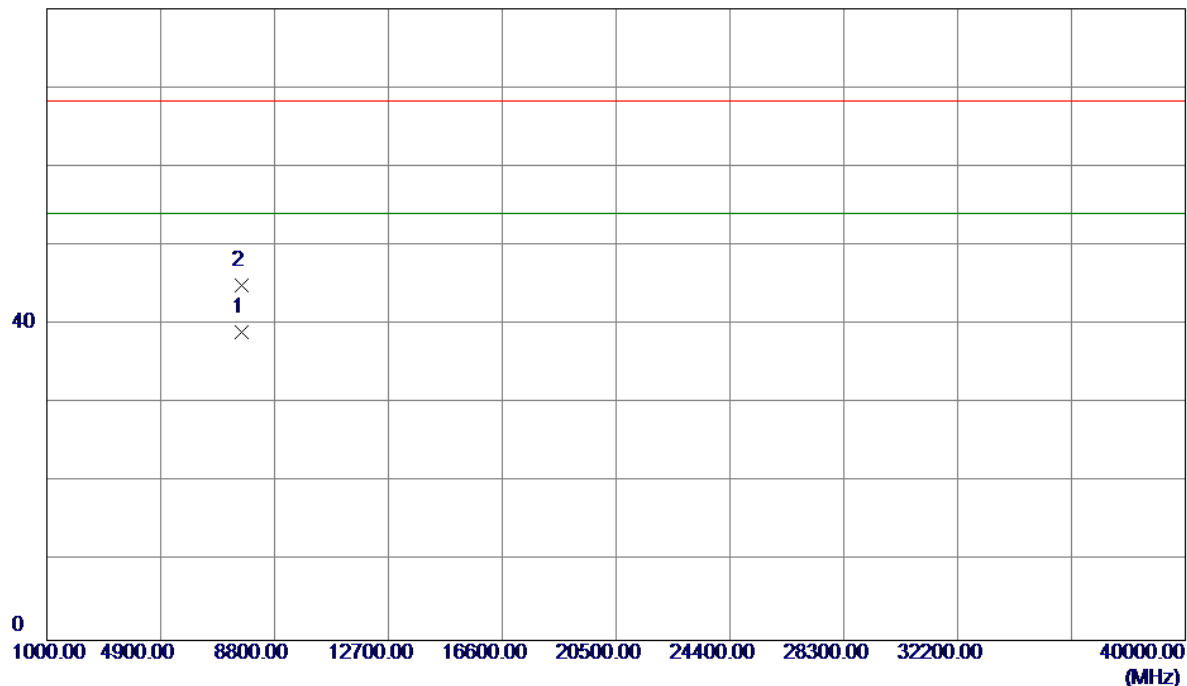


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	10.02	42.55	52.57	109.50	-56.93	Peak	
2	5715.0000	0.19	42.55	42.74	109.50	-66.76	AVG	
3	5725.0000	8.18	42.58	50.76	122.30	-71.54	Peak	
4	5725.0000	0.59	42.58	43.17	122.30	-79.13	AVG	
5 *	5750.2500	59.49	42.67	102.16	122.30	-20.14	Peak	
6	5751.6000	52.59	42.68	95.27	122.30	-27.03	AVG	

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

### Horizontal

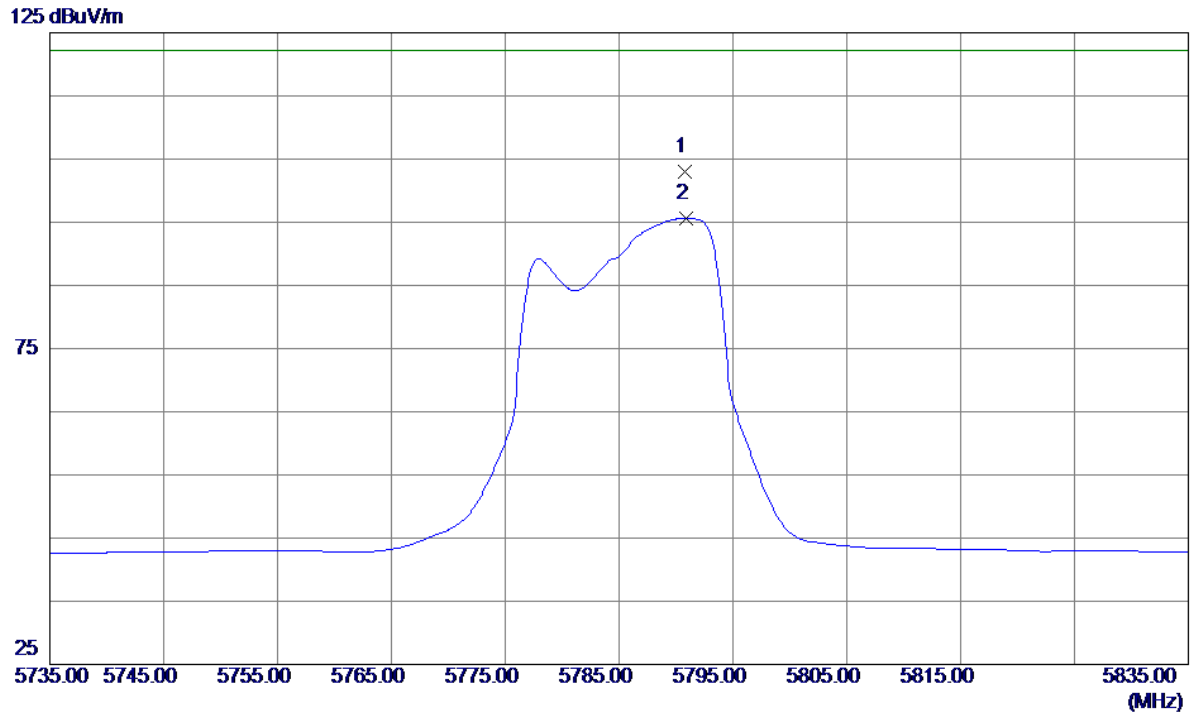
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7660.2500	27.33	11.74	39.07	54.00	-14.93	AVG	
2	7660.3700	33.28	11.74	45.02	68.30	-23.28	Peak	

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

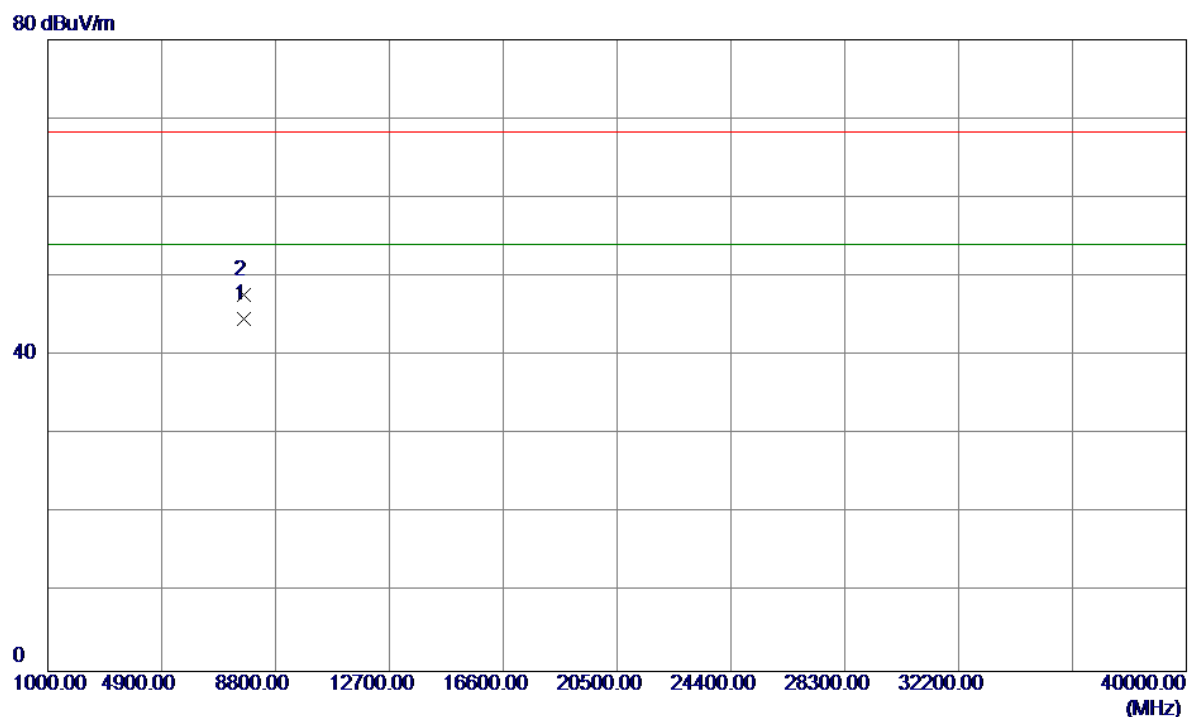
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5790.8000	60.27	42.82	103.09	122.30	-19.21	Peak	
2	5790.9000	52.85	42.82	95.67	122.30	-26.63	AVG	

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

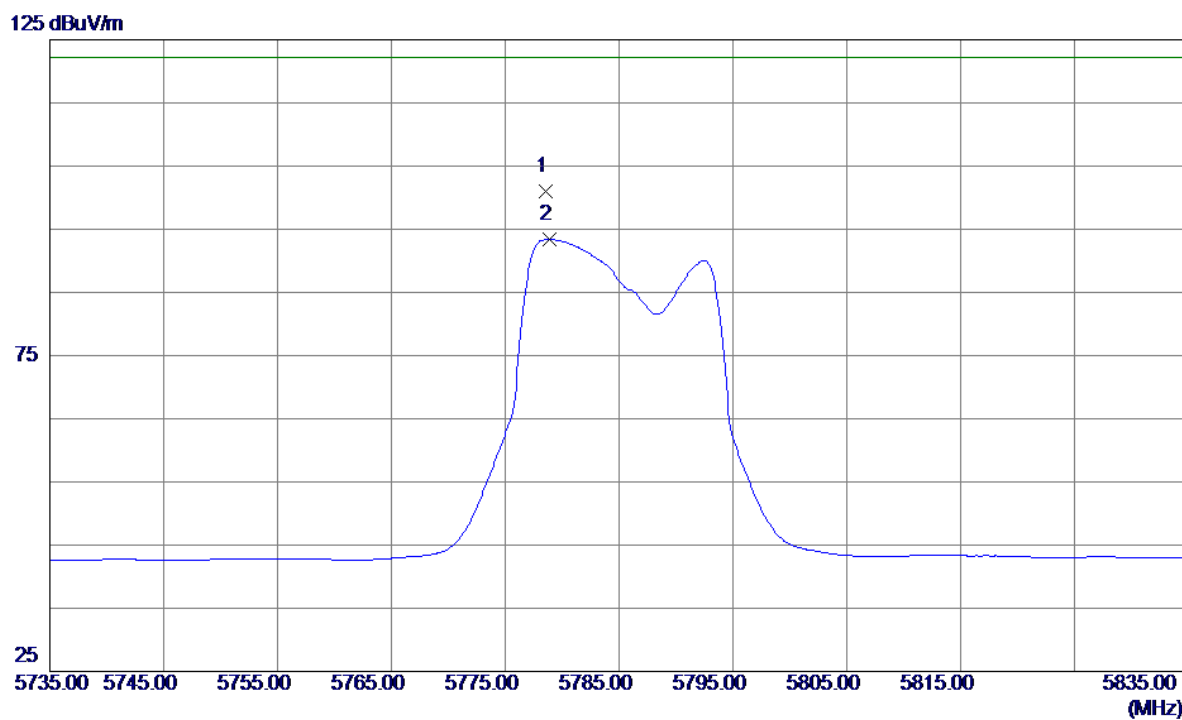
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7713.6000	32.86	11.74	44.60	54.00	-9.40	AVG	
2	7713.6900	35.98	11.74	47.72	68.30	-20.58	Peak	

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

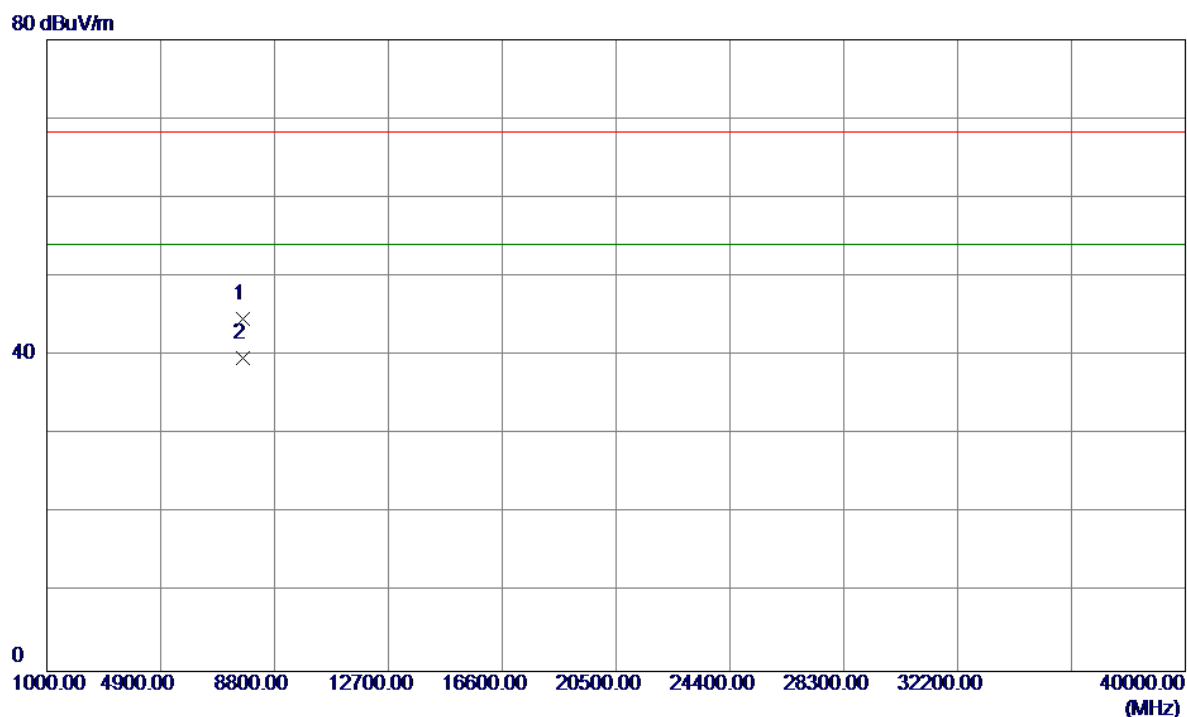
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5778.5500	58.27	42.77	101.04	122.30	-21.26	Peak	
2	5778.8500	50.59	42.77	93.36	122.30	-28.94	AVG	

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

### Horizontal

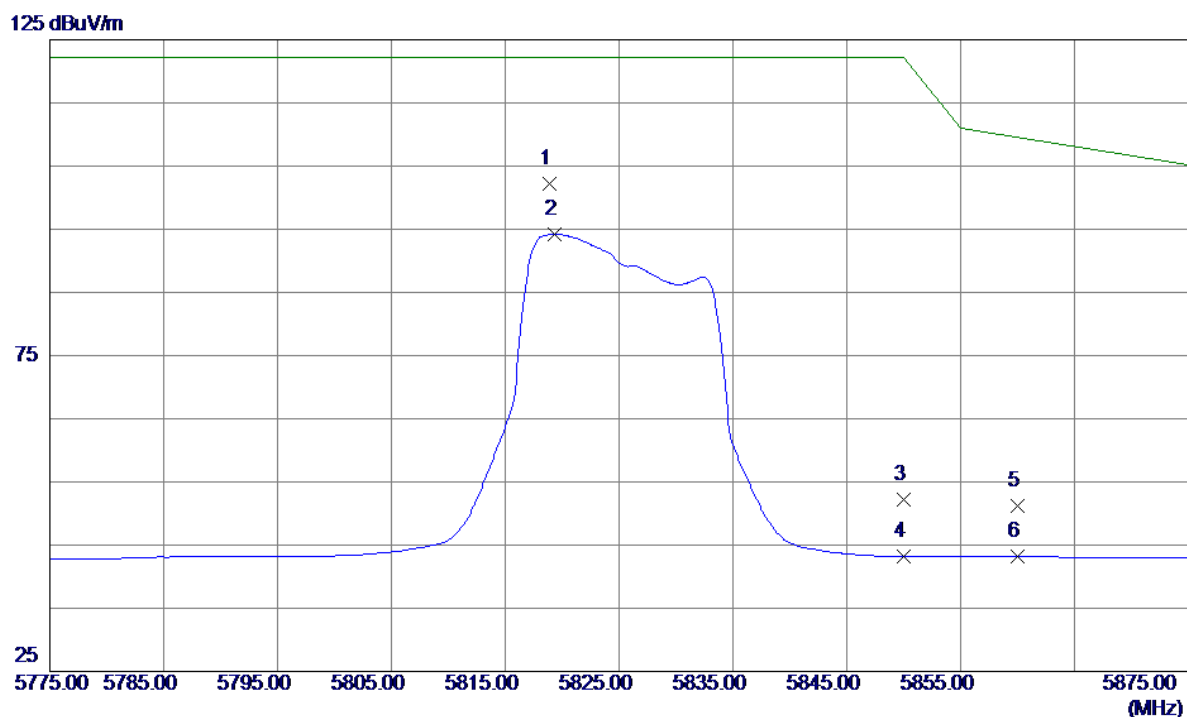


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7713.6500	32.88	11.74	44.62	68.30	-23.68	Peak	
2 *	7713.7000	27.88	11.74	39.62	54.00	-14.38	AVG	



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

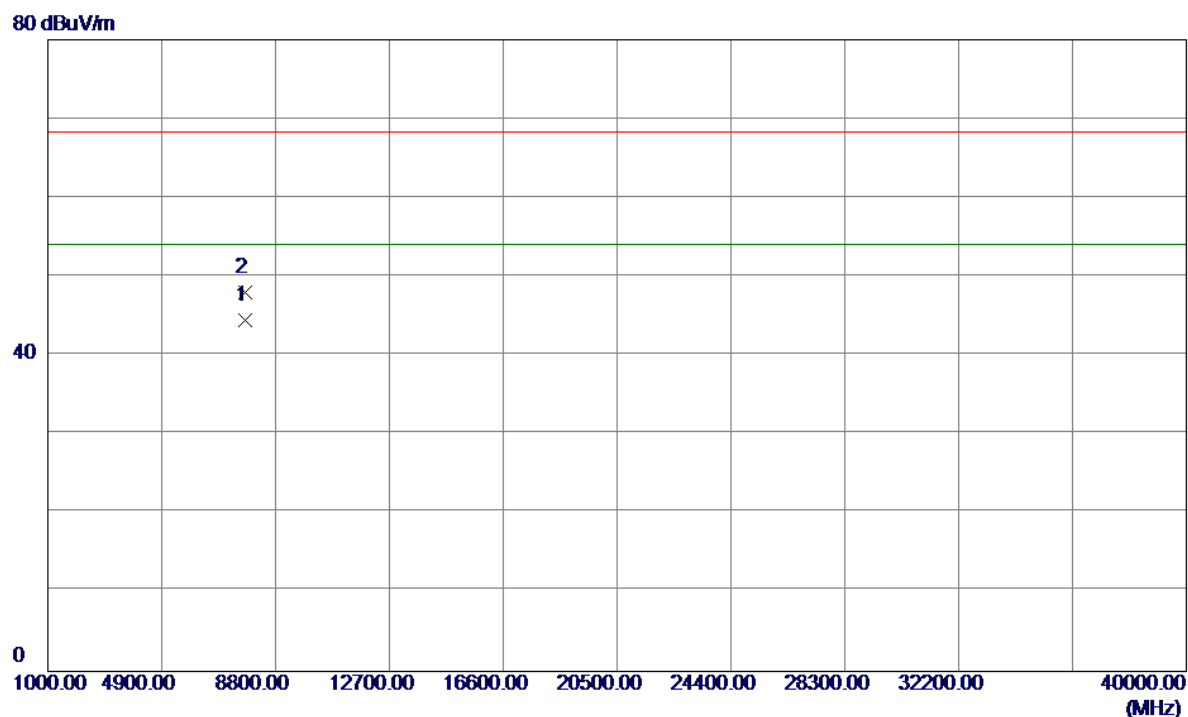
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5818.9000	59.27	42.92	102.19	122.30	-20.11	Peak	
2	5819.3500	51.30	42.92	94.22	122.30	-28.08	AVG	
3	5850.0000	9.15	43.03	52.18	122.30	-70.12	Peak	
4	5850.0000	0.15	43.03	43.18	122.30	-79.12	AVG	
5	5860.0000	8.16	43.06	51.22	109.50	-58.28	Peak	
6	5860.0000	0.12	43.06	43.18	109.50	-66.32	AVG	

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

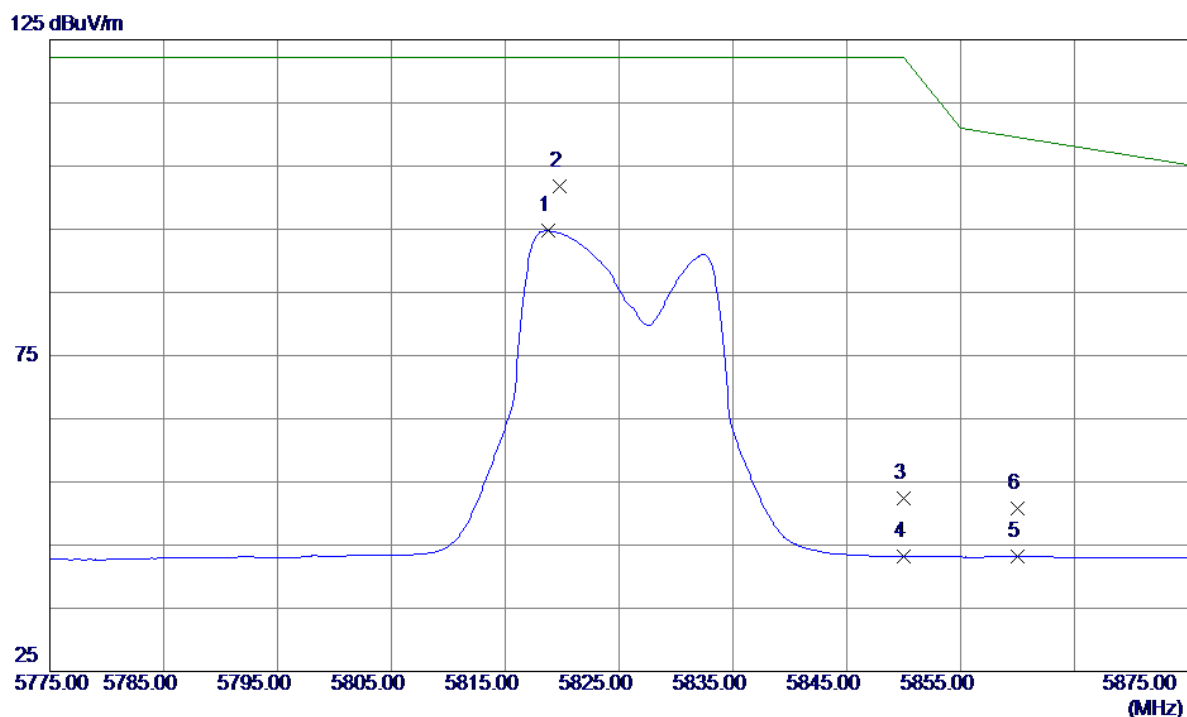
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7766.9350	32.79	11.73	44.52	54.00	-9.48	AVG	
2	7767.0600	36.27	11.73	48.00	68.30	-20.30	Peak	

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

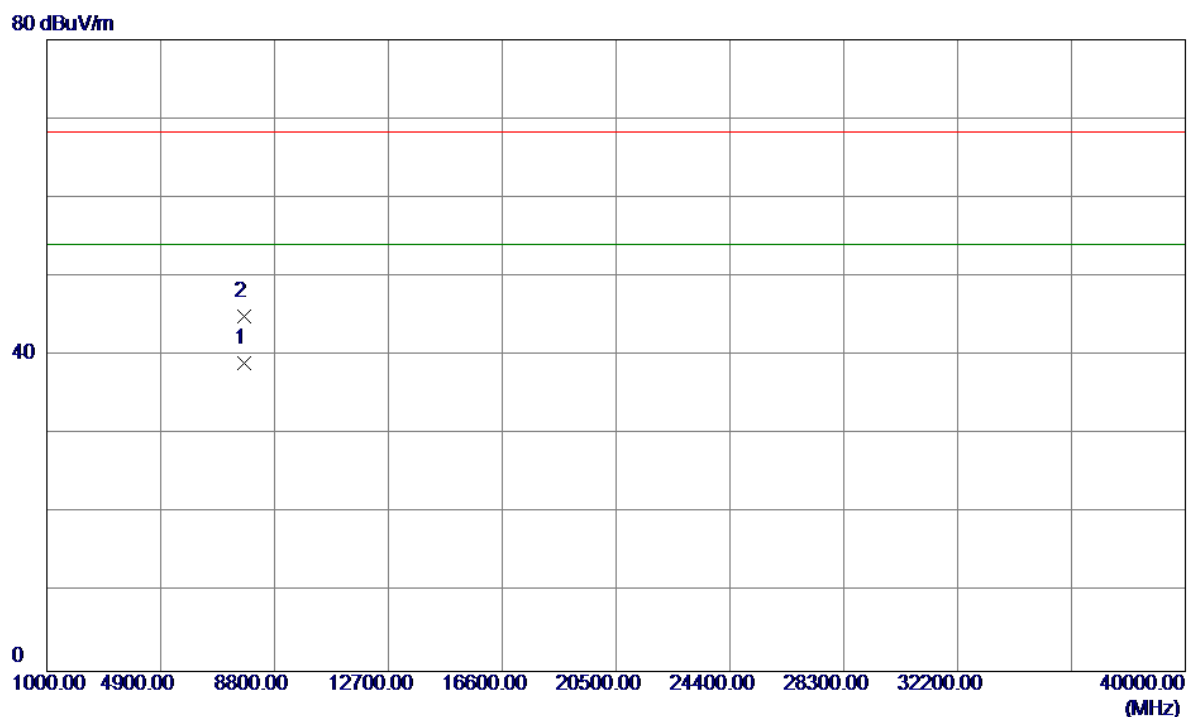
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5818.8000	51.81	42.91	94.72	122.30	-27.58	AVG	
2 *	5819.7500	58.79	42.92	101.71	122.30	-20.59	AVG	
3	5850.0000	9.41	43.03	52.44	122.30	-69.86	Peak	
4	5850.0000	0.11	43.03	43.14	122.30	-79.16	AVG	
5	5860.0000	0.09	43.06	43.15	109.50	-66.35	AVG	
6	5860.0000	7.72	43.06	50.78	109.50	-58.72	AVG	

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

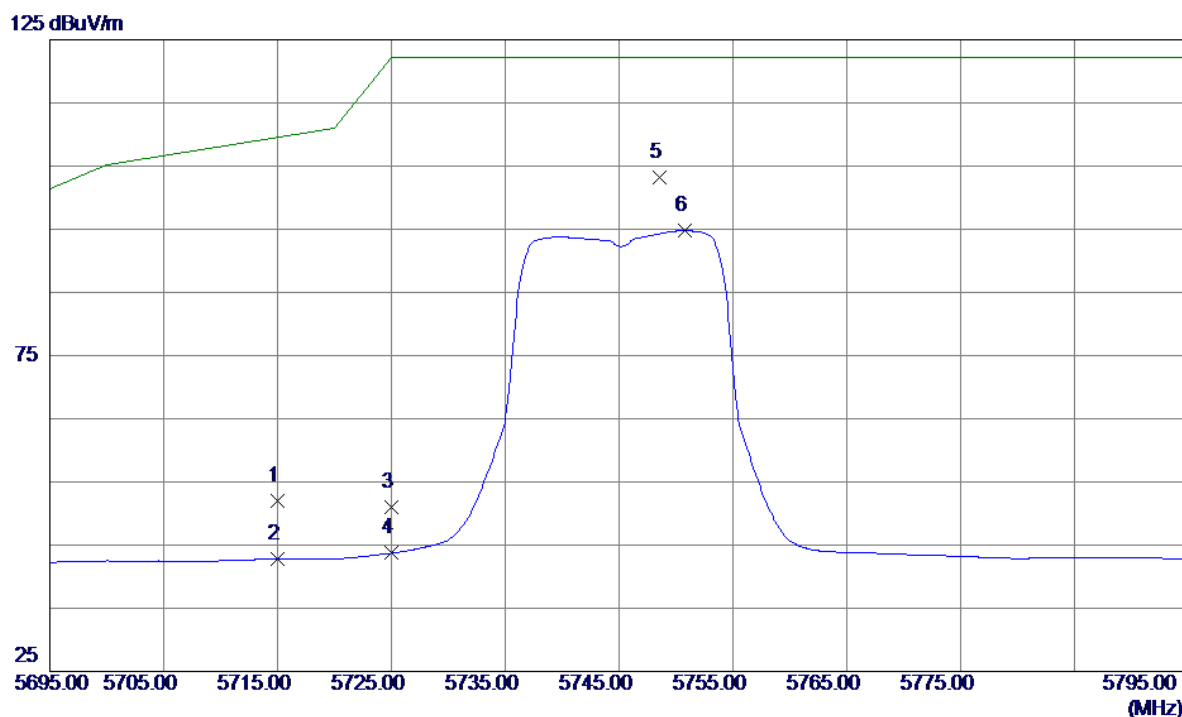
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7766.8550	27.34	11.73	39.07	54.00	-14.93	AVG	
2	7767.0700	33.26	11.73	44.99	68.30	-23.31	Peak	

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

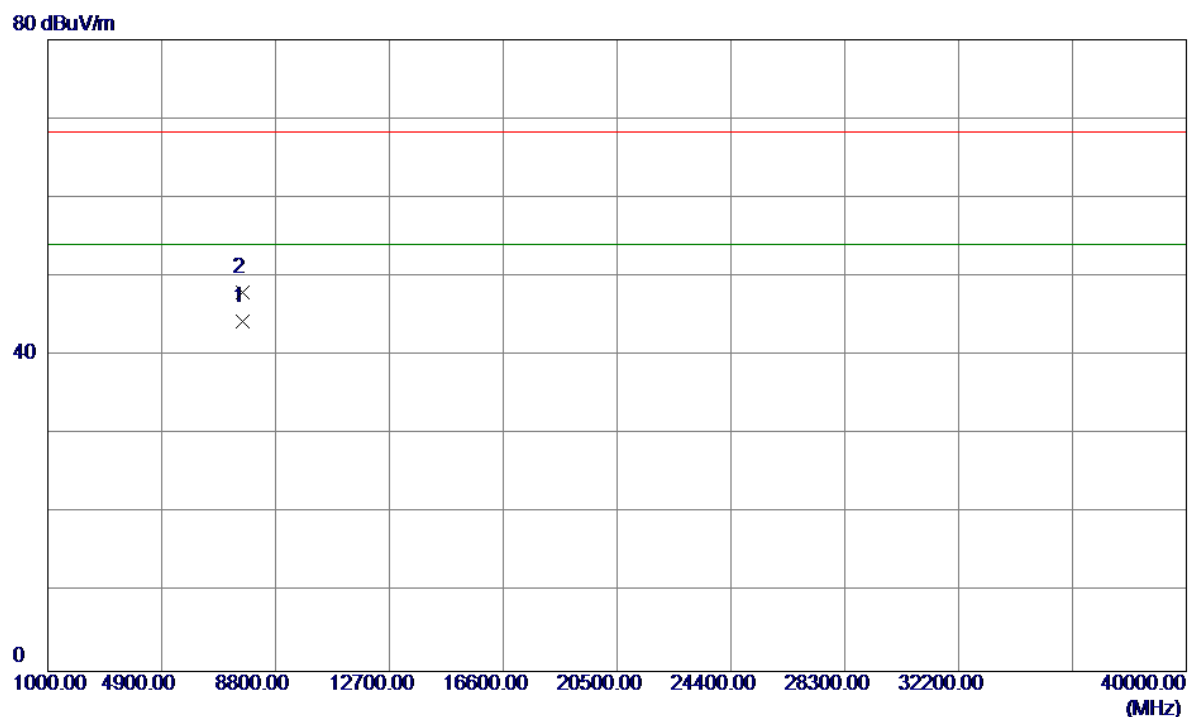
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	9.36	42.55	51.91	109.50	-57.59	Peak	
2	5715.0000	0.22	42.55	42.77	109.50	-66.73	AVG	
3	5725.0000	8.49	42.58	51.07	122.30	-71.23	Peak	
4	5725.0000	1.17	42.58	43.75	122.30	-78.55	AVG	
5 *	5748.5500	60.46	42.66	103.12	122.30	-19.18	Peak	
6	5750.7500	52.10	42.67	94.77	122.30	-27.53	AVG	

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

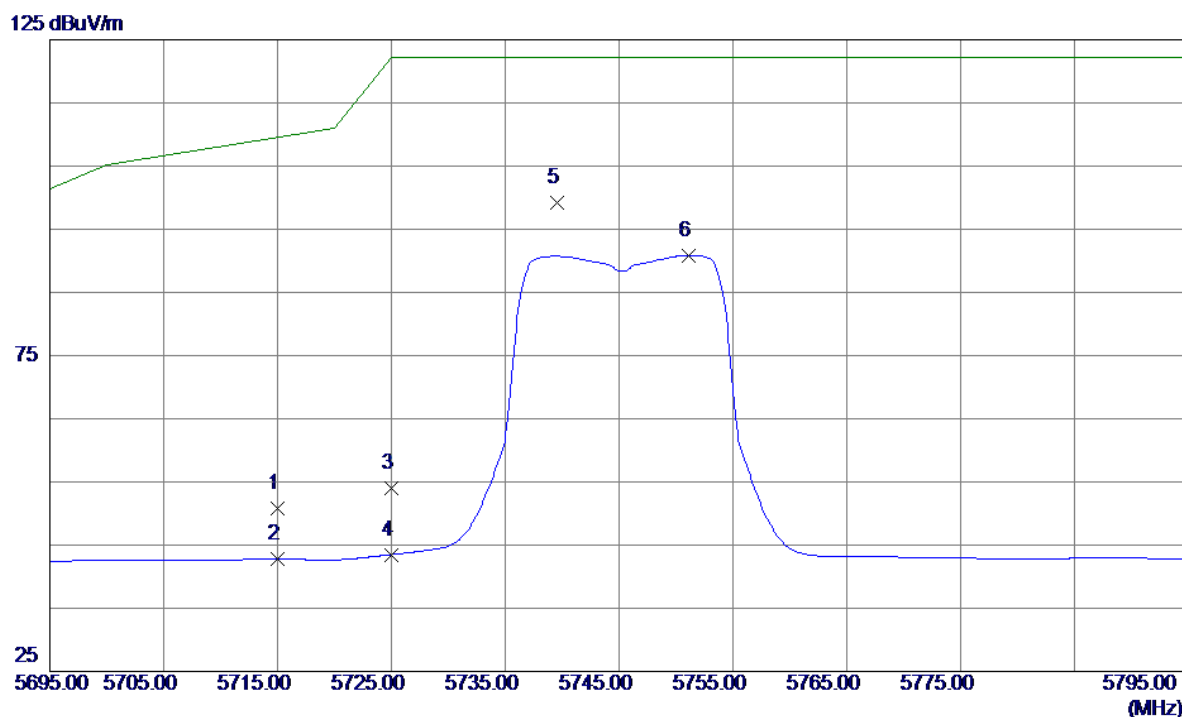
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7660.2250	32.62	11.74	44.36	54.00	-9.64	AVG	
2	7660.3700	36.33	11.74	48.07	68.30	-20.23	Peak	

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

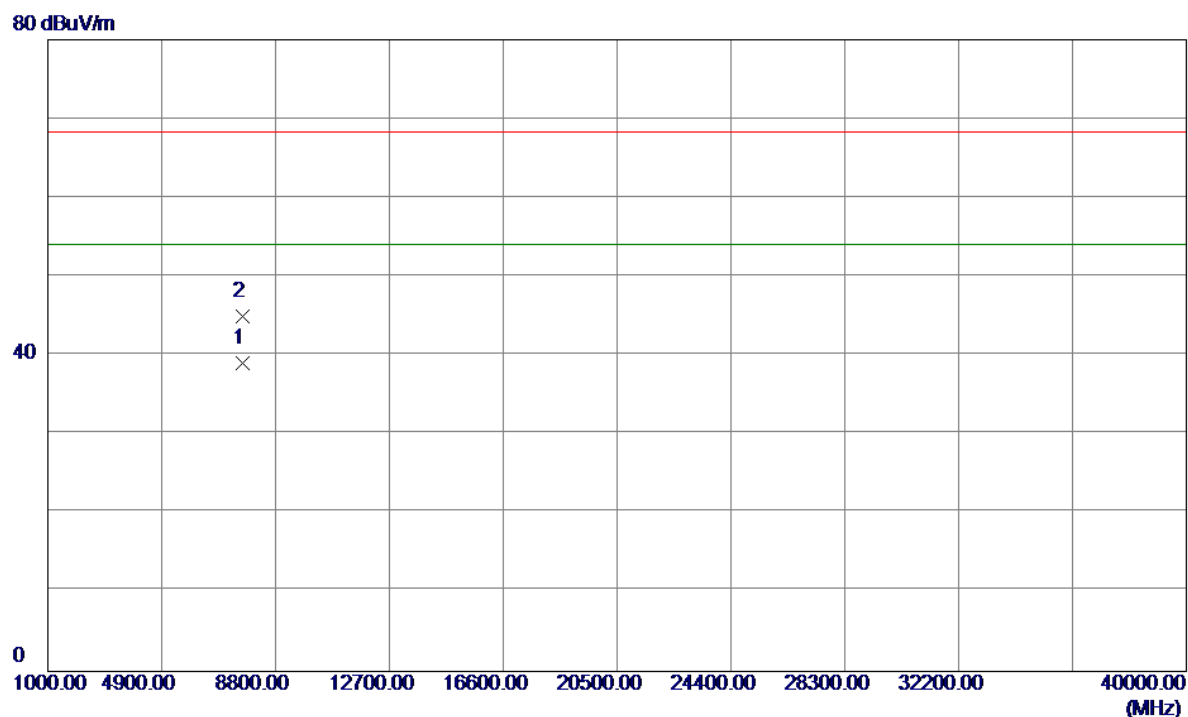
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	8.25	42.55	50.80	109.50	-58.70	Peak	
2	5715.0000	0.24	42.55	42.79	109.50	-66.71	AVG	
3	5725.0000	11.42	42.58	54.00	122.30	-68.30	Peak	
4	5725.0000	0.91	42.58	43.49	122.30	-78.81	AVG	
5 *	5739.6000	56.52	42.63	99.15	122.30	-23.15	Peak	
6	5751.1500	48.21	42.67	90.88	122.30	-31.42	AVG	

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

# Horizontal

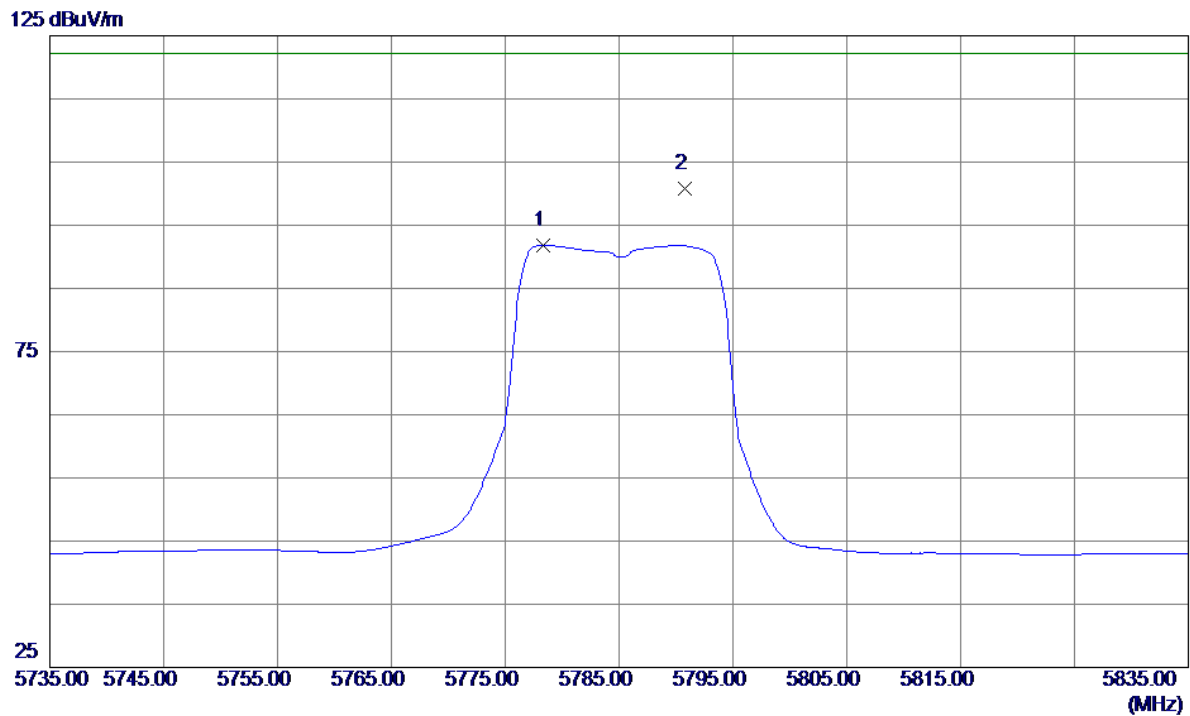


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7660.1250	27.33	11.74	39.07	54.00	-14.93	AVG	
2	7660.4500	33.25	11.74	44.99	68.30	-23.31	Peak	



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

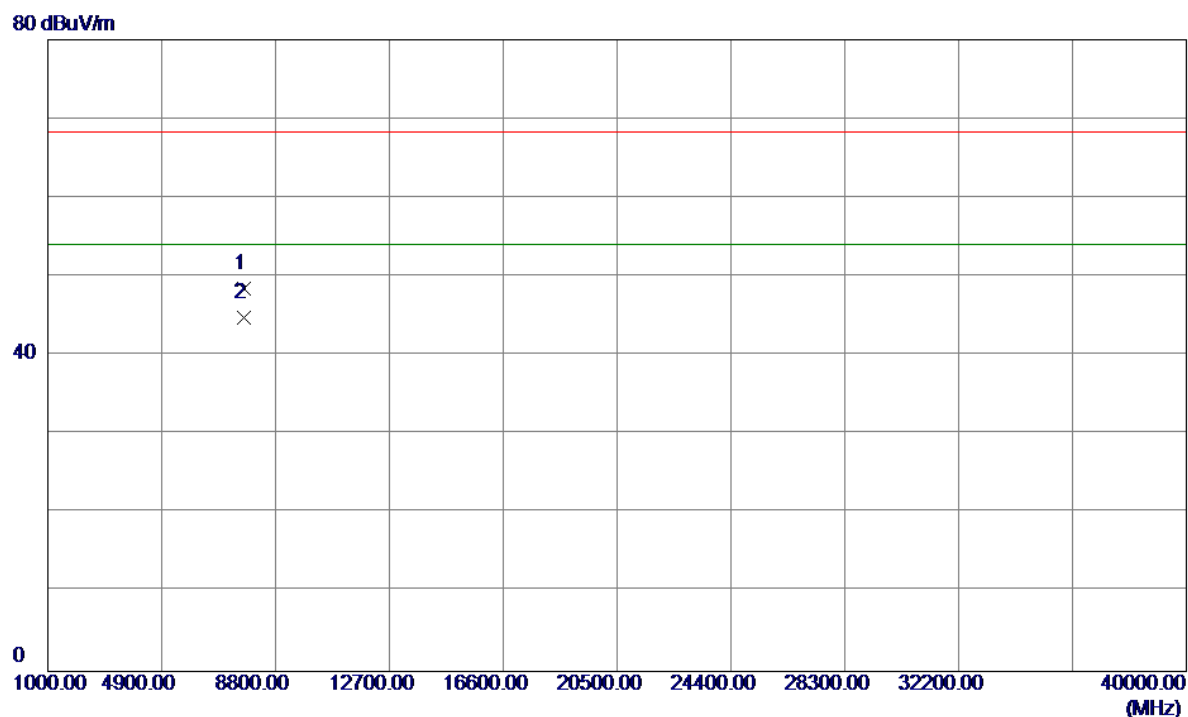
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5778.3500	49.04	42.77	91.81	122.30	-30.49	AVG	
2 *	5790.7500	58.07	42.81	100.88	122.30	-21.42	Peak	

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

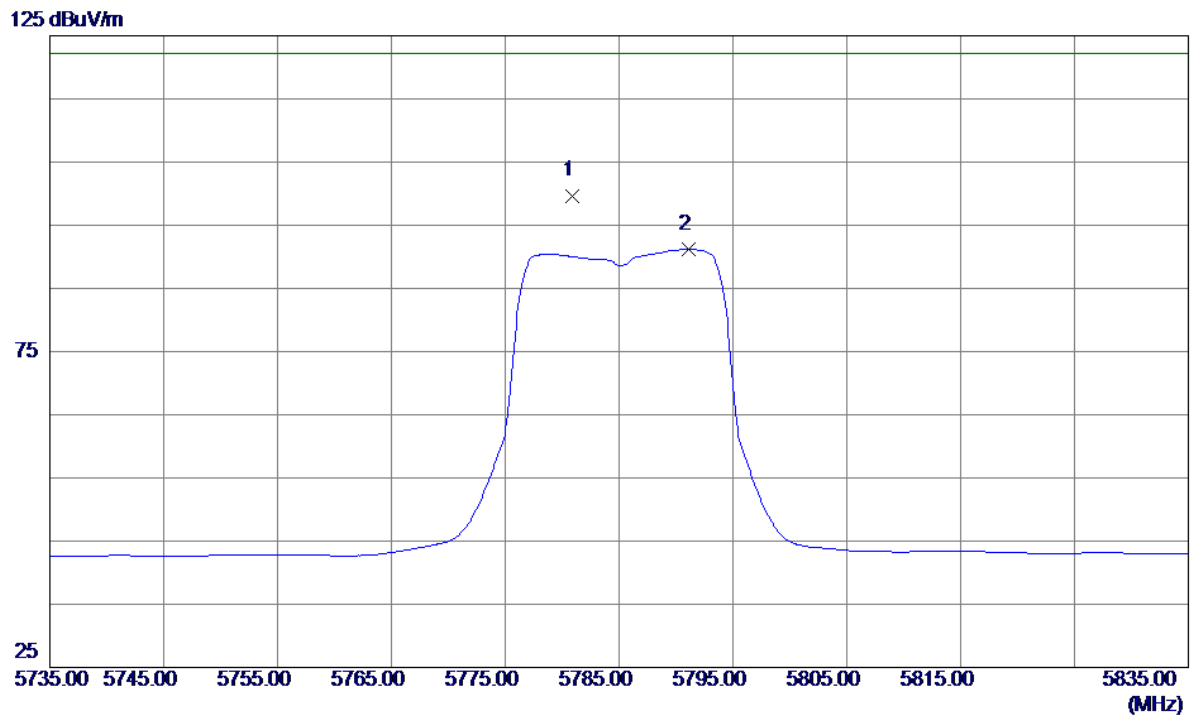
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7713.5500	36.71	11.74	48.45	68.30	-19.85	Peak	
2 *	7713.5850	33.05	11.74	44.79	54.00	-9.21	AVG	

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

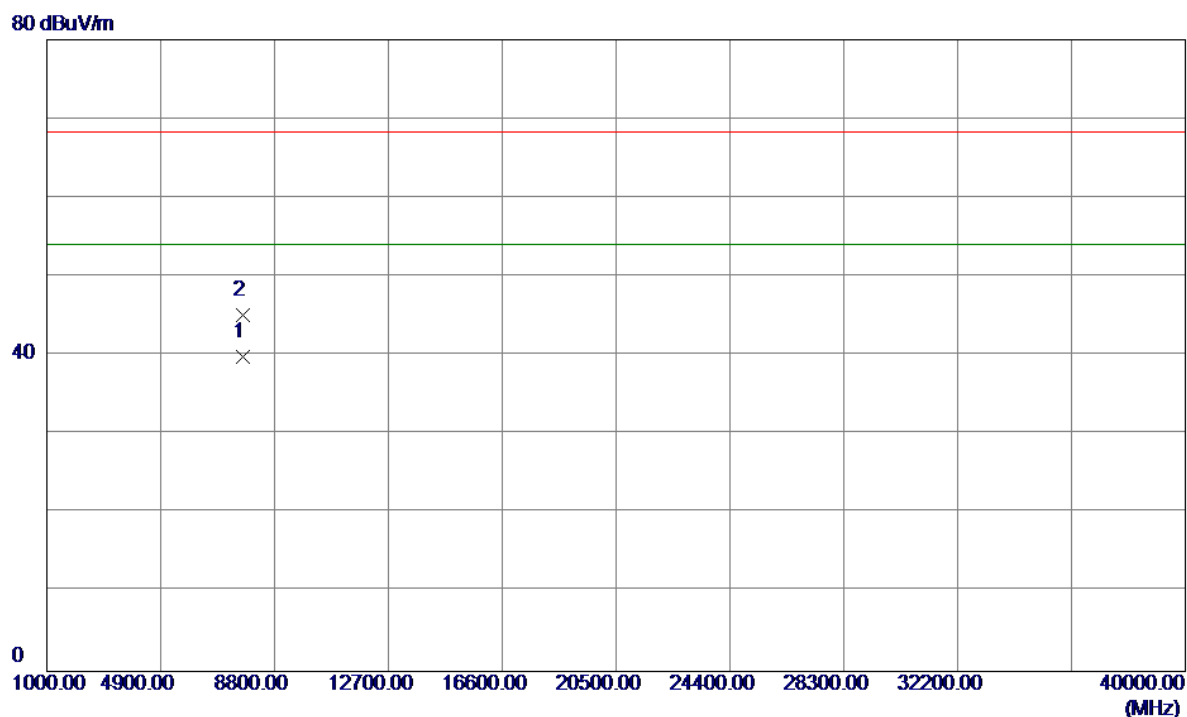
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5780.9000	56.92	42.78	99.70	122.30	-22.60	Peak	
2	5791.1000	48.35	42.82	91.17	122.30	-31.13	AVG	

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

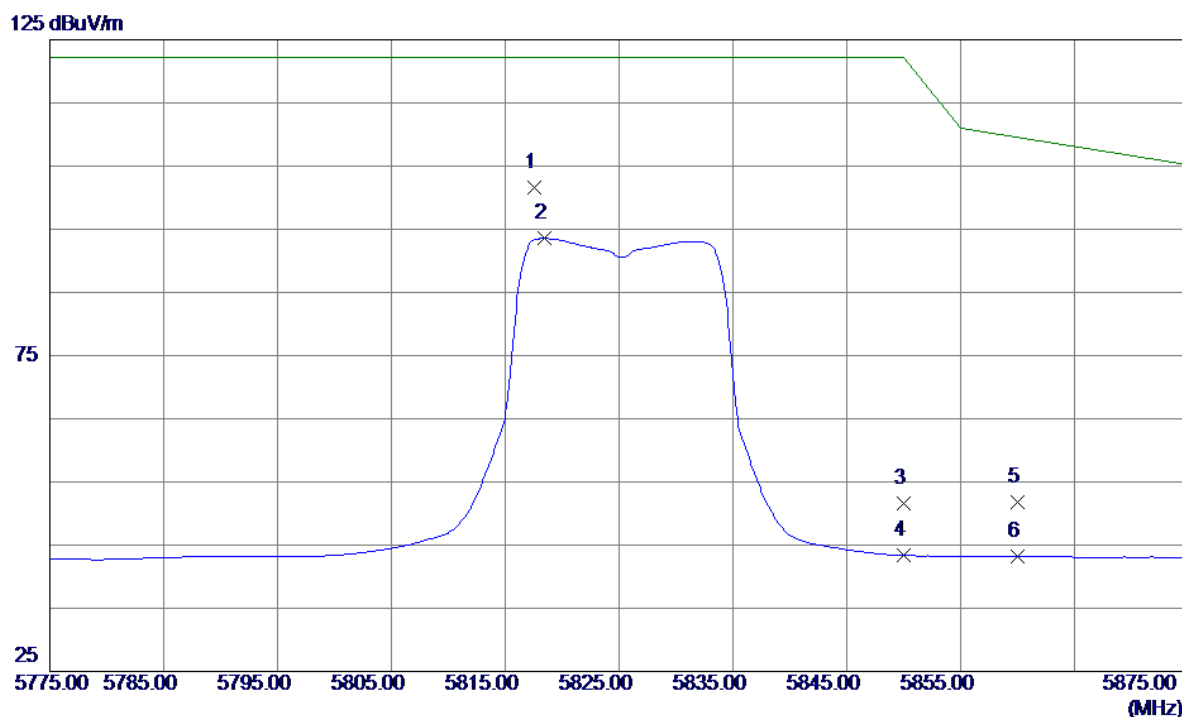
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7713.5650	28.12	11.74	39.86	54.00	-14.14	AVG	
2	7713.5800	33.45	11.74	45.19	68.30	-23.11	Peak	

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

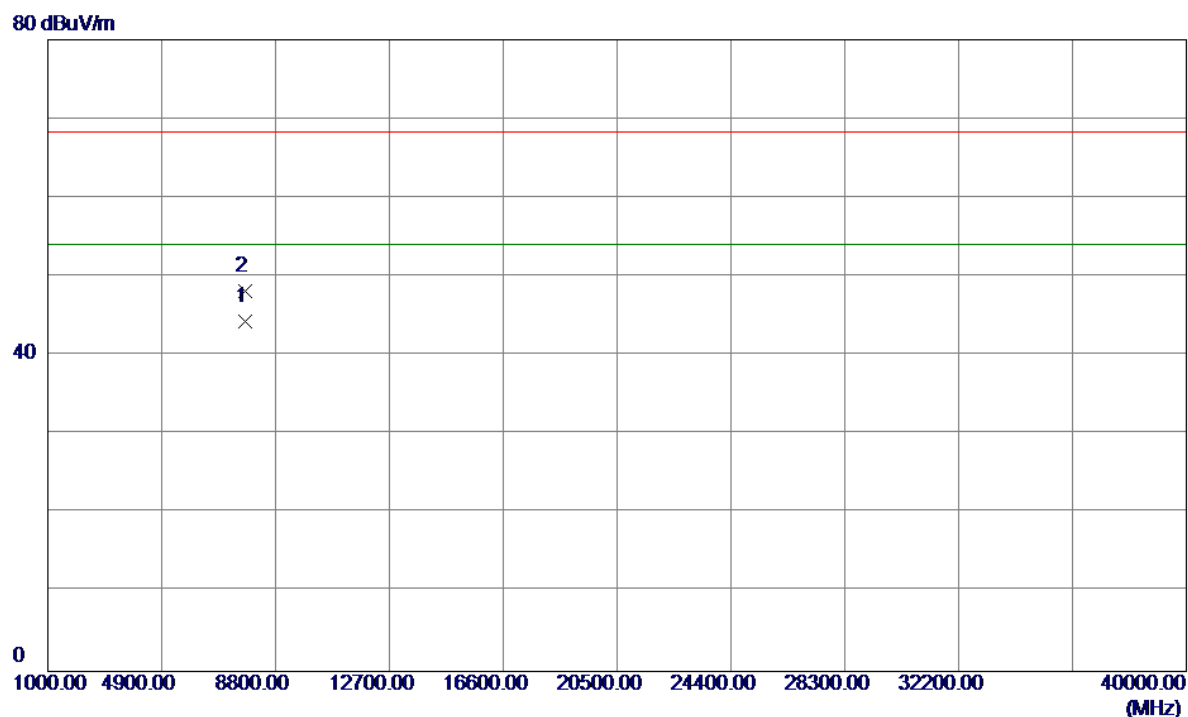
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5817.6000	58.70	42.91	101.61	122.30	-20.69	Peak	
2	5818.4000	50.62	42.91	93.53	122.30	-28.77	AVG	
3	5850.0000	8.53	43.03	51.56	122.30	-70.74	Peak	
4	5850.0000	0.31	43.03	43.34	122.30	-78.96	AVG	
5	5860.0000	8.68	43.06	51.74	109.50	-57.76	Peak	
6	5860.0000	0.18	43.06	43.24	109.50	-66.26	AVG	

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

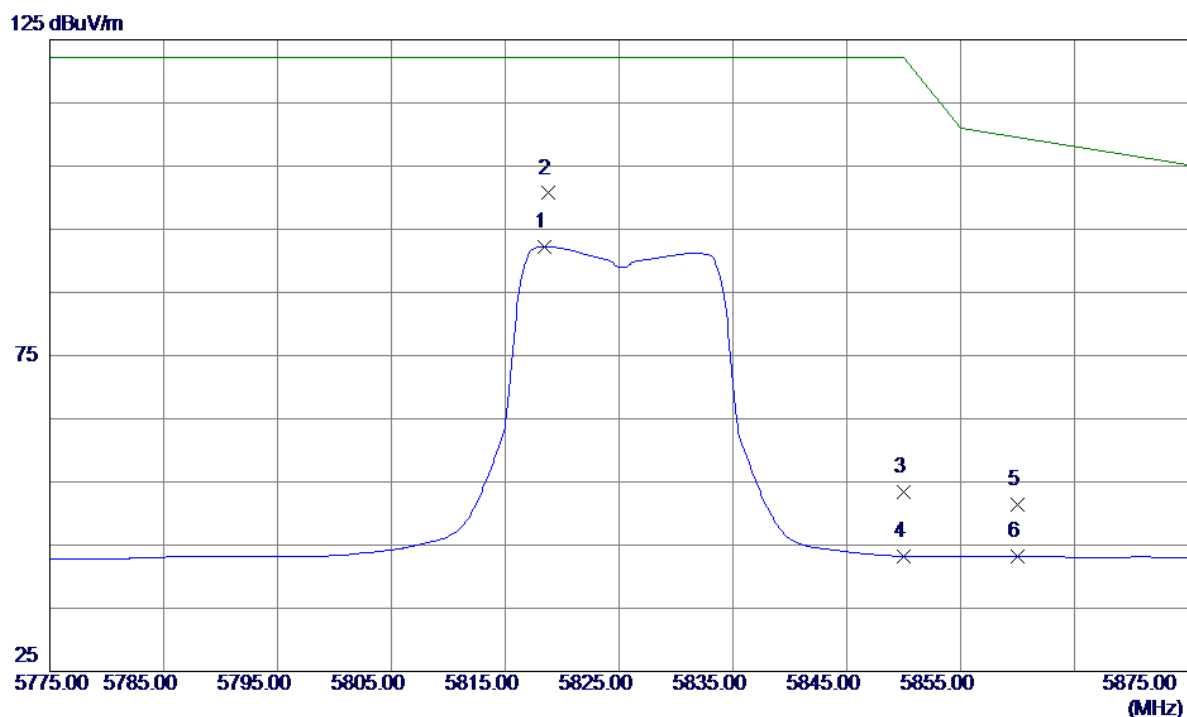
# Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7766.9000	32.56	11.73	44.29	54.00	-9.71	AVG	
2	7766.9600	36.39	11.73	48.12	68.30	-20.18	Peak	

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

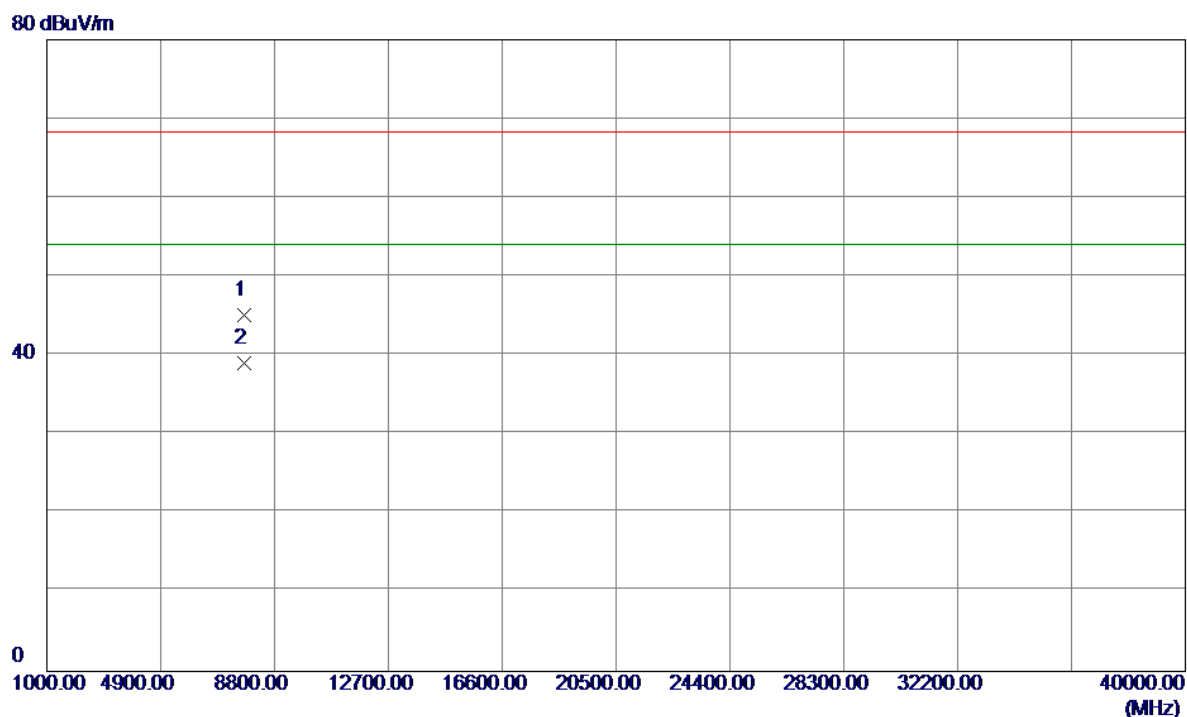
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5818.4500	49.36	42.91	92.27	122.30	-30.03	AVG	
2 *	5818.7500	57.79	42.91	100.70	122.30	-21.60	Peak	
3	5850.0000	10.28	43.03	53.31	122.30	-68.99	Peak	
4	5850.0000	0.20	43.03	43.23	122.30	-79.07	AVG	
5	5860.0000	8.42	43.06	51.48	109.50	-58.02	Peak	
6	5860.0000	0.15	43.06	43.21	109.50	-66.29	AVG	

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

### Horizontal

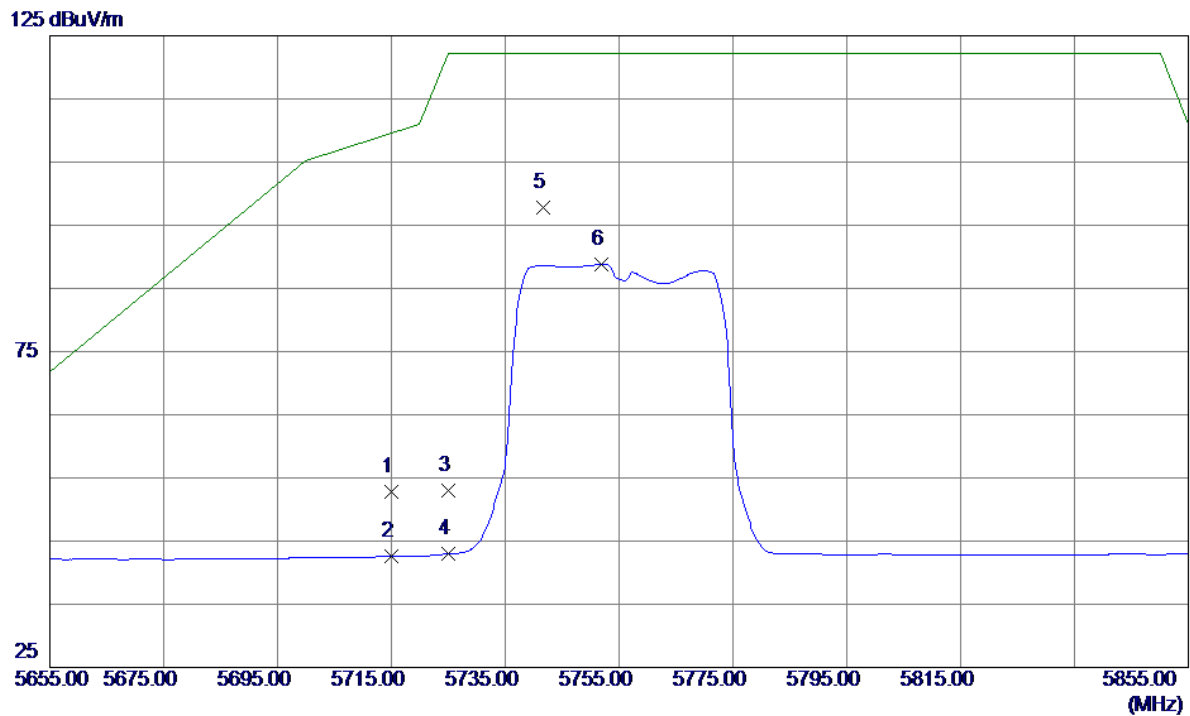


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7766.9250	33.36	11.73	45.09	68.30	-23.21	Peak	
2 *	7766.9800	27.36	11.73	39.09	54.00	-14.91	AVG	



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

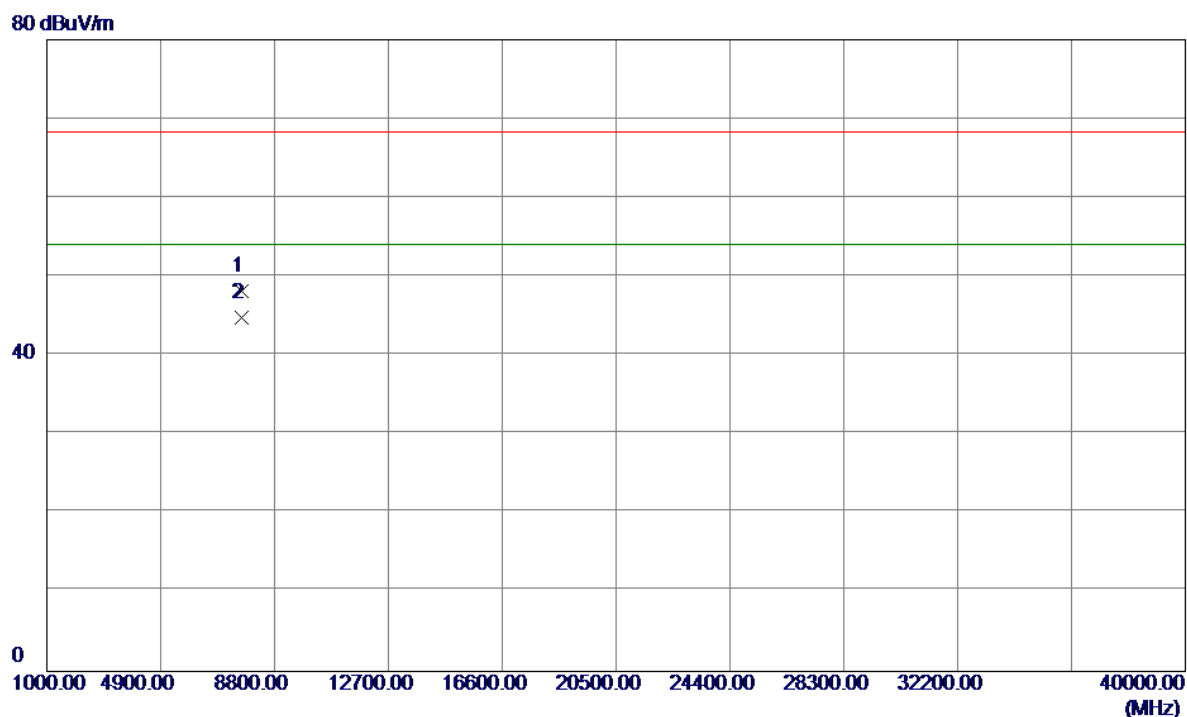
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	10.17	42.55	52.72	109.50	-56.78	Peak	
2	5715.0000	0.09	42.55	42.64	109.50	-66.86	AVG	
3	5725.0000	10.47	42.58	53.05	122.30	-69.25	Peak	
4	5725.0000	0.46	42.58	43.04	122.30	-79.26	AVG	
5 *	5741.6000	55.25	42.64	97.89	122.30	-24.41	Peak	
6	5751.9000	46.08	42.68	88.76	122.30	-33.54	AVG	

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

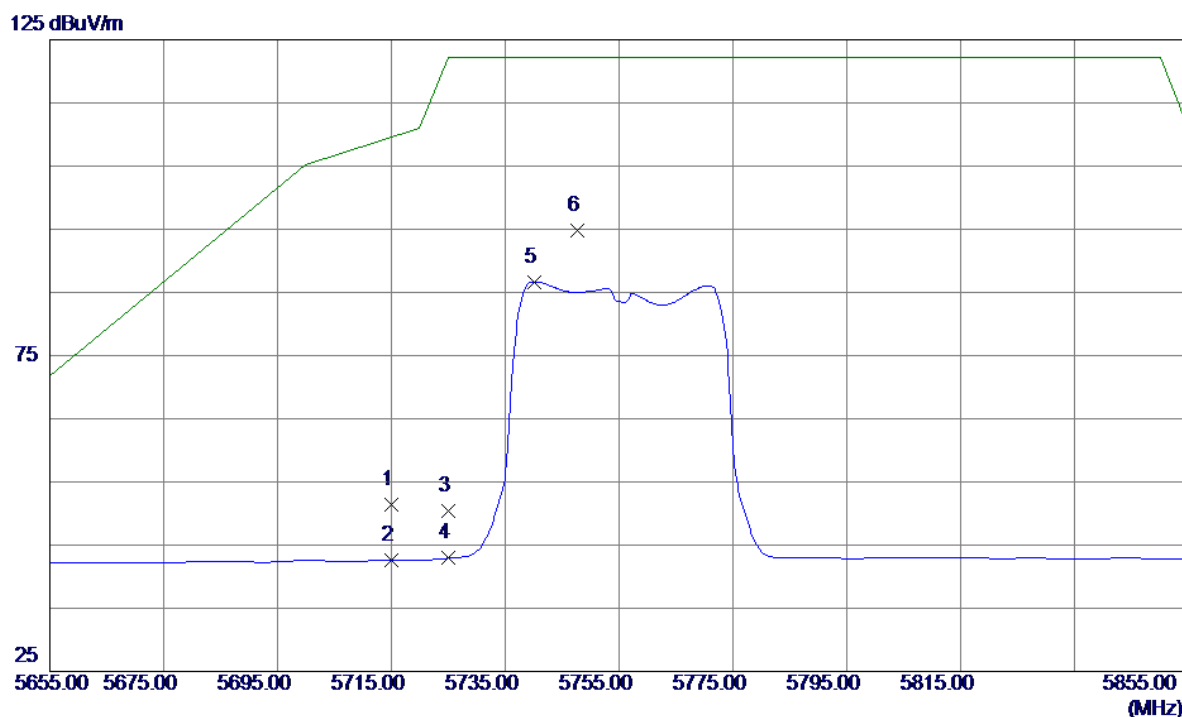
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7673.4150	36.43	11.74	48.17	68.30	-20.13	Peak	
2 *	7673.5600	32.99	11.74	44.73	54.00	-9.27	AVG	

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

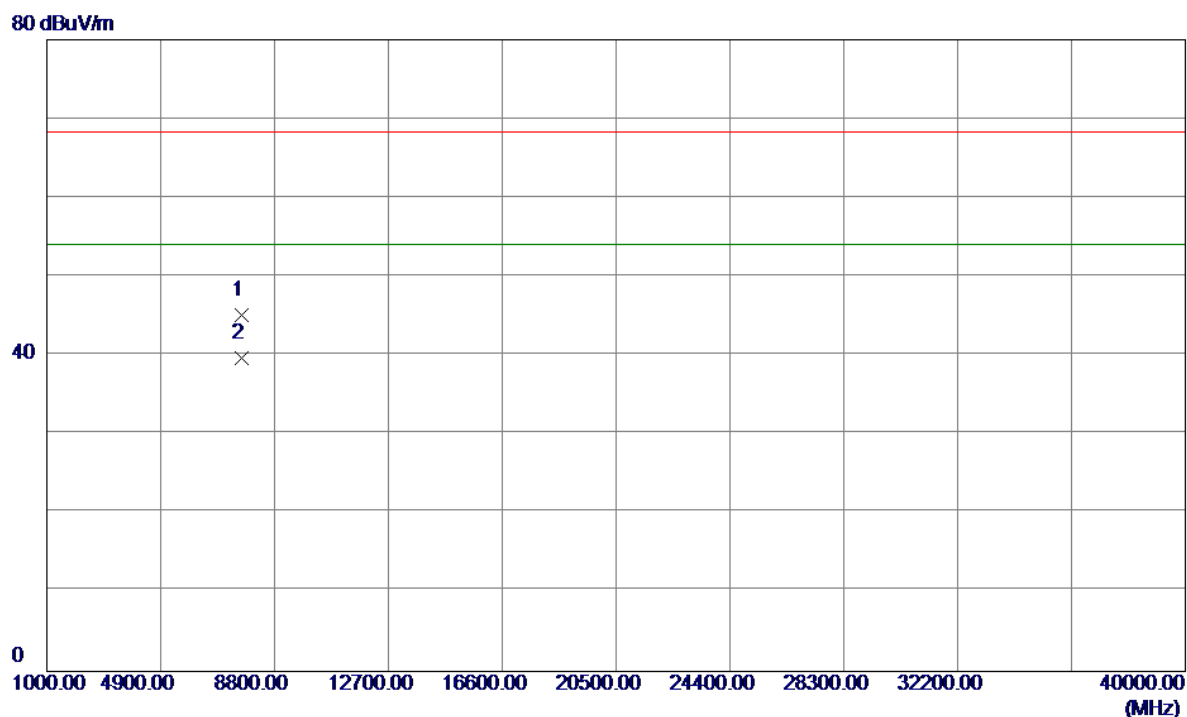
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	8.88	42.55	51.43	109.50	-58.07	Peak	
2	5715.0000	0.11	42.55	42.66	109.50	-66.84	AVG	
3	5725.0000	7.85	42.58	50.43	122.30	-71.87	Peak	
4	5725.0000	0.35	42.58	42.93	122.30	-79.37	AVG	
5	5740.1000	44.05	42.63	86.68	122.30	-35.62	AVG	
6 *	5747.7000	52.17	42.66	94.83	122.30	-27.47	Peak	

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

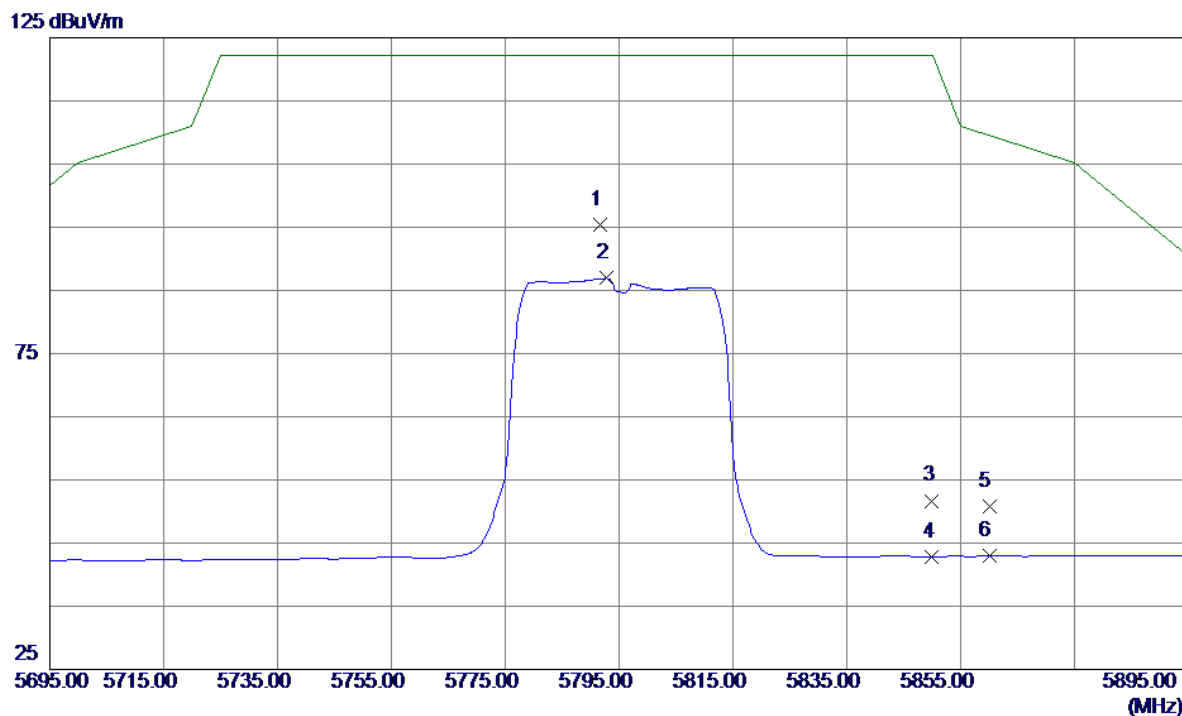
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7673.3450	33.35	11.74	45.09	68.30	-23.21	Peak	
2 *	7673.6500	27.88	11.74	39.62	54.00	-14.38	AVG	

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

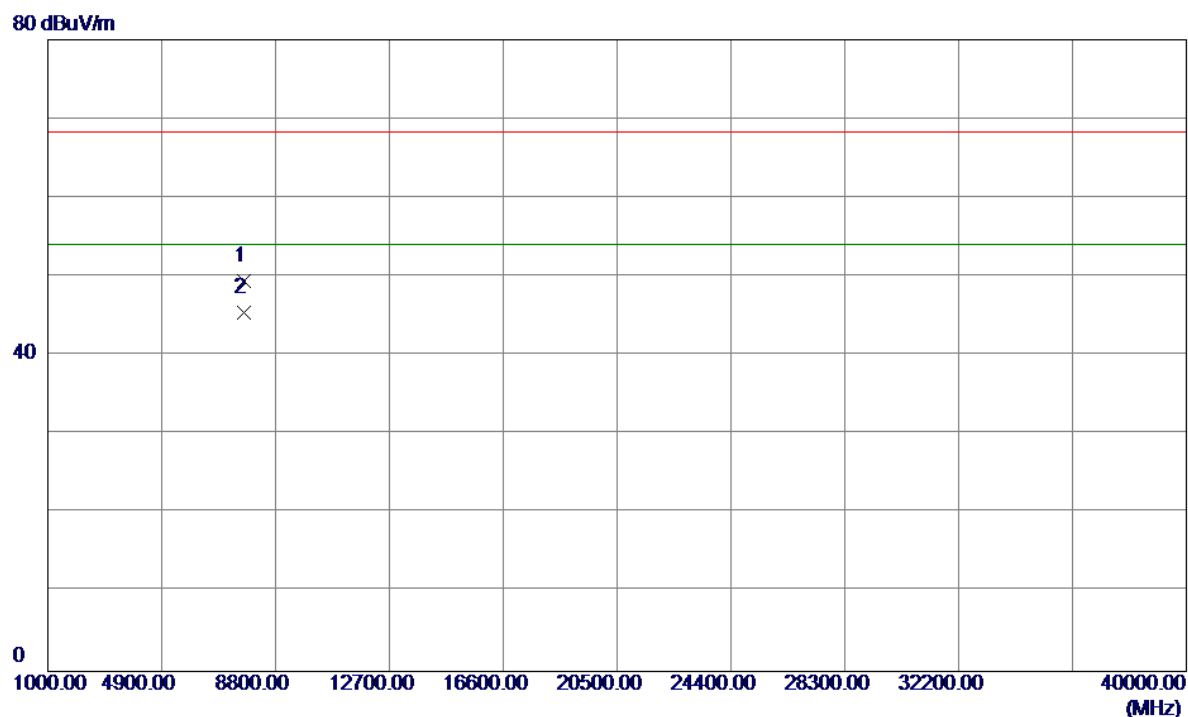
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5791.6000	52.58	42.82	95.40	122.30	-26.90	Peak	
2	5792.8000	44.09	42.82	86.91	122.30	-35.39	AVG	
3	5850.0000	8.67	43.03	51.70	122.30	-70.60	Peak	
4	5850.0000	-0.20	43.03	42.83	122.30	-79.47	AVG	
5	5860.0000	7.80	43.06	50.86	109.50	-58.64	Peak	
6	5860.0000	-0.07	43.06	42.99	109.50	-66.51	AVG	

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

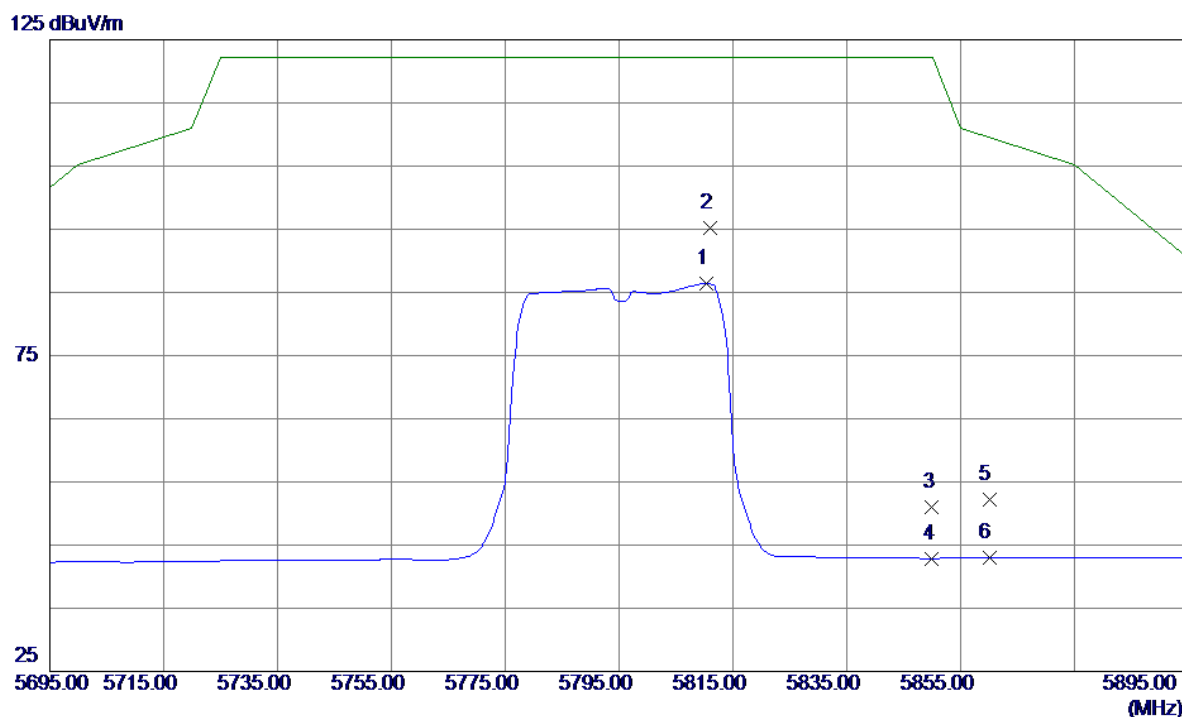
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7726.9200	37.63	11.74	49.37	68.30	-18.93	Peak	
2 *	7726.9500	33.70	11.74	45.44	54.00	-8.56	AVG	

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

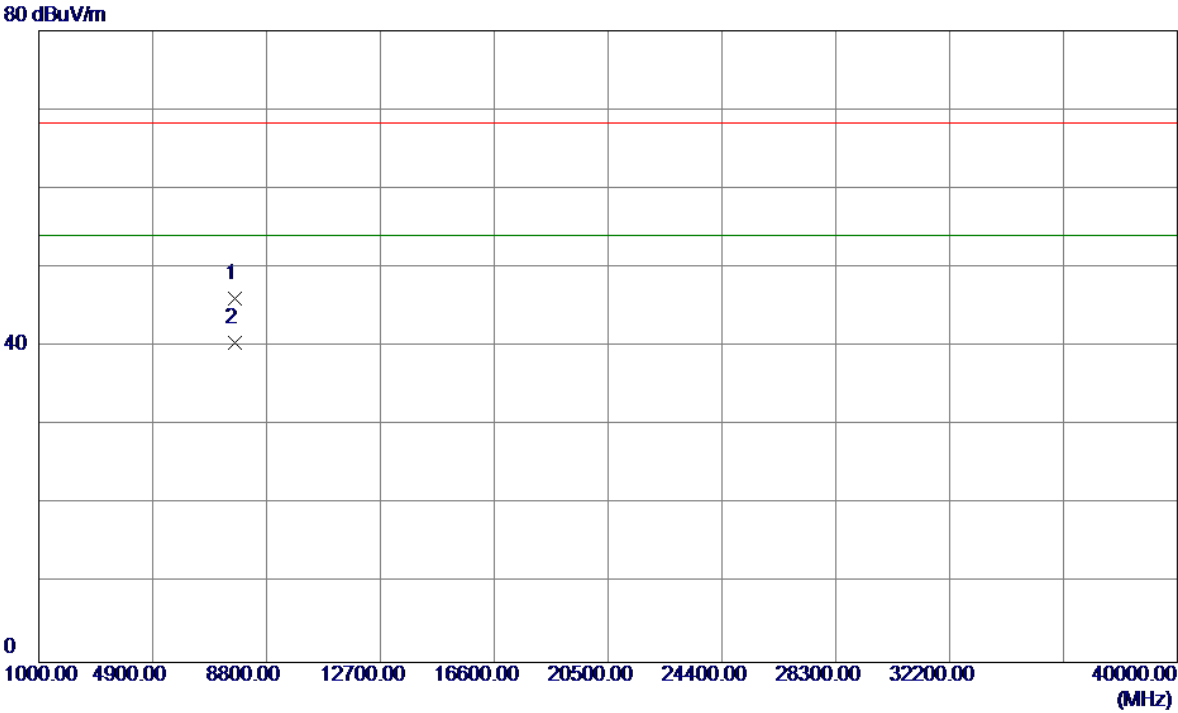
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5810.3000	43.52	42.88	86.40	122.30	-35.90	AVG	
2 *	5810.9000	52.32	42.89	95.21	122.30	-27.09	Peak	
3	5850.0000	8.05	43.03	51.08	122.30	-71.22	Peak	
4	5850.0000	-0.16	43.03	42.87	122.30	-79.43	AVG	
5	5860.0000	9.09	43.06	52.15	109.50	-57.35	Peak	
6	5860.0000	-0.09	43.06	42.97	109.50	-66.53	AVG	

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

Horizontal

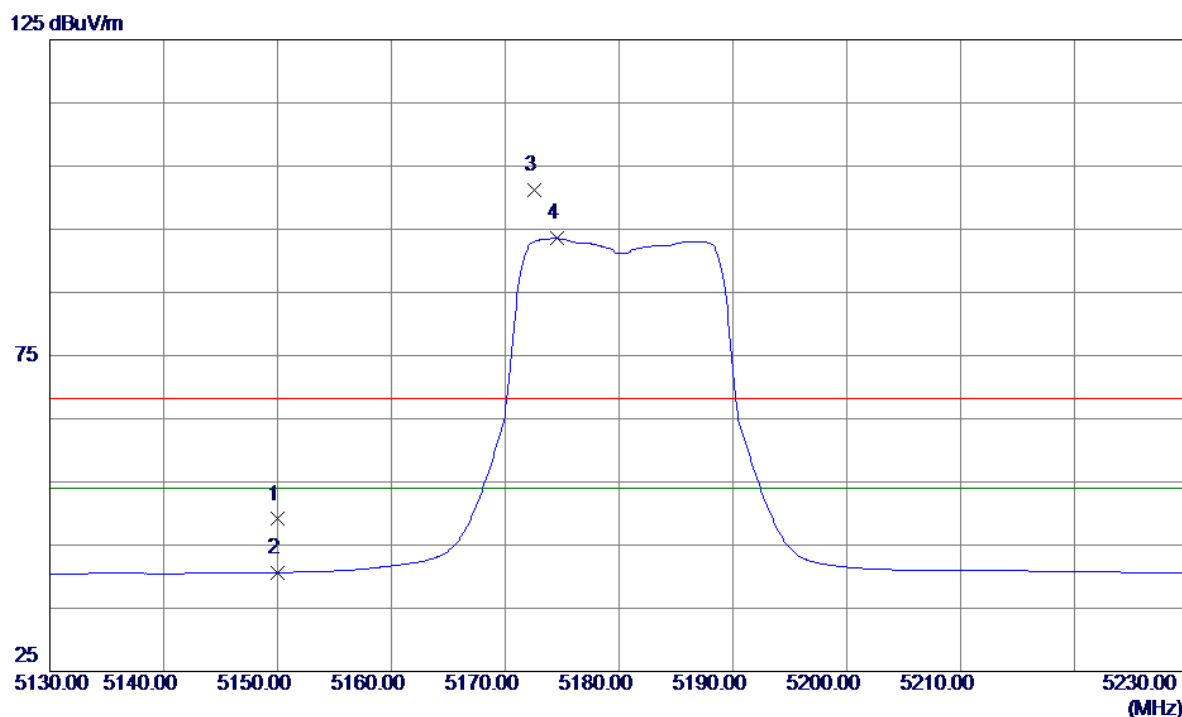


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7726.8500	34.33	11.74	46.07	68.30	-22.23	Peak	
2 *	7726.9450	28.75	11.74	40.49	54.00	-13.51	AVG	



Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

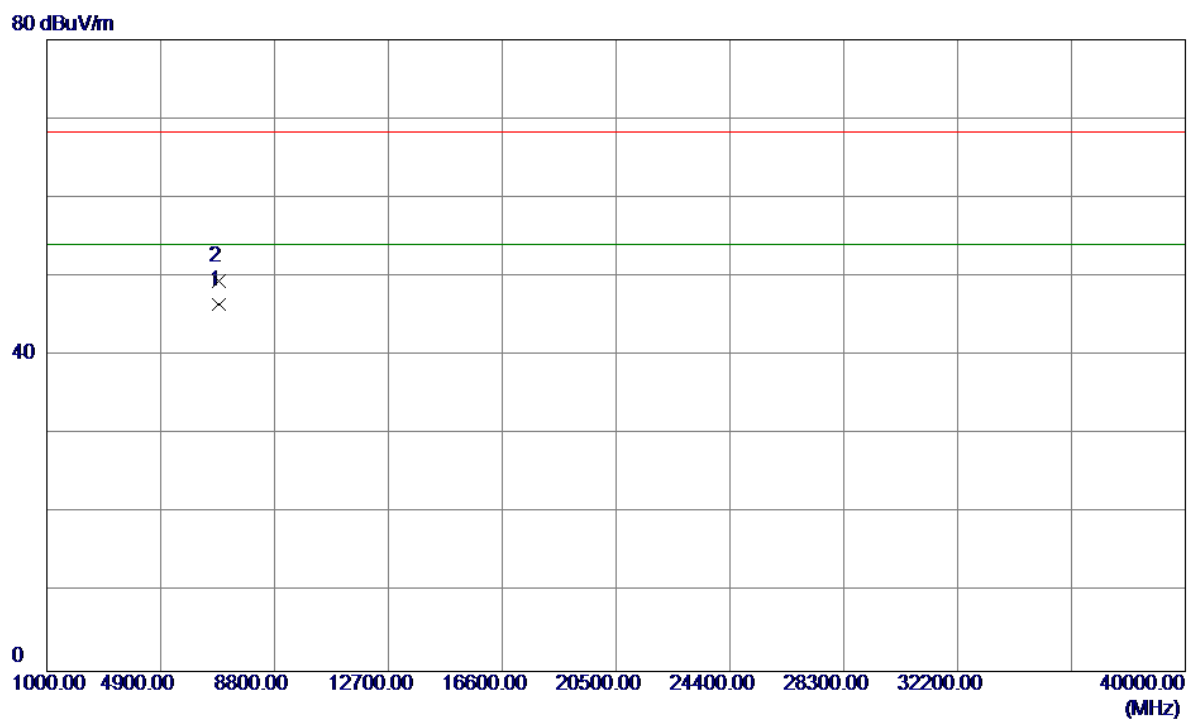
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	8.48	40.62	49.10	68.30	-19.20	Peak	
2	5150.0000	0.04	40.62	40.66	54.00	-13.34	AVG	
3	5172.5500	60.48	40.70	101.18	68.30	32.88	Peak	No Limit
4 *	5174.5500	52.82	40.71	93.53	54.00	39.53	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

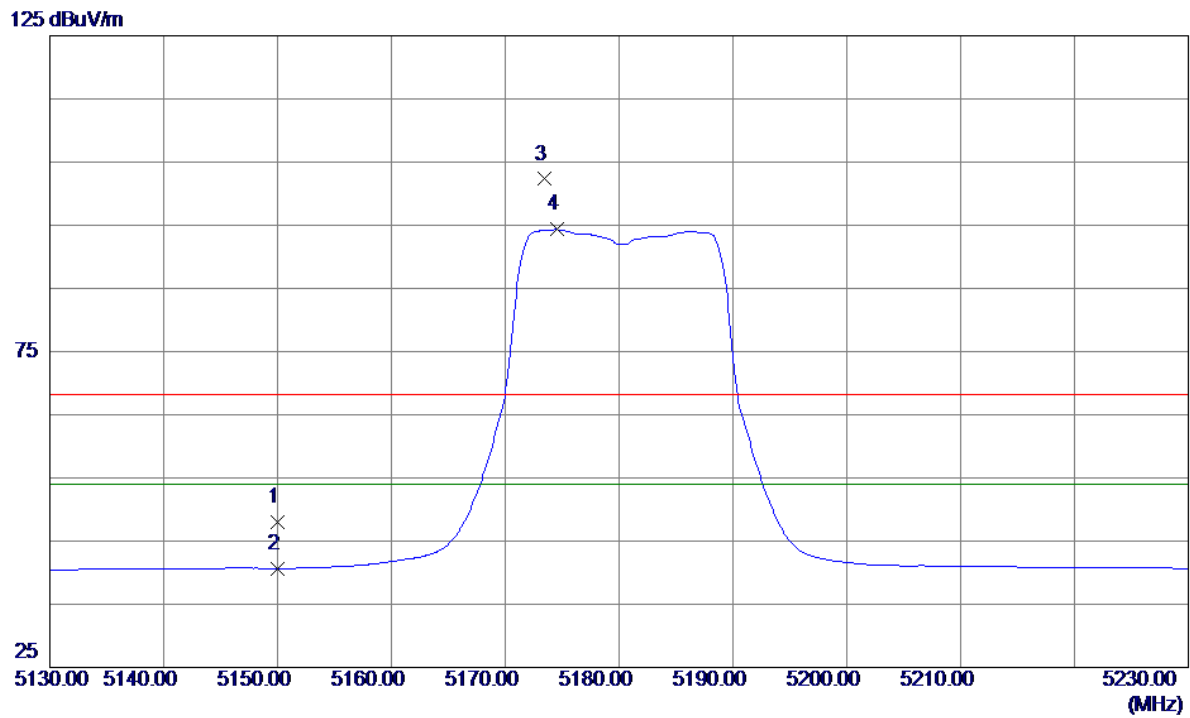
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6906.8650	35.70	10.78	46.48	54.00	-7.52	AVG	
2	6906.9100	38.67	10.78	49.45	68.30	-18.85	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

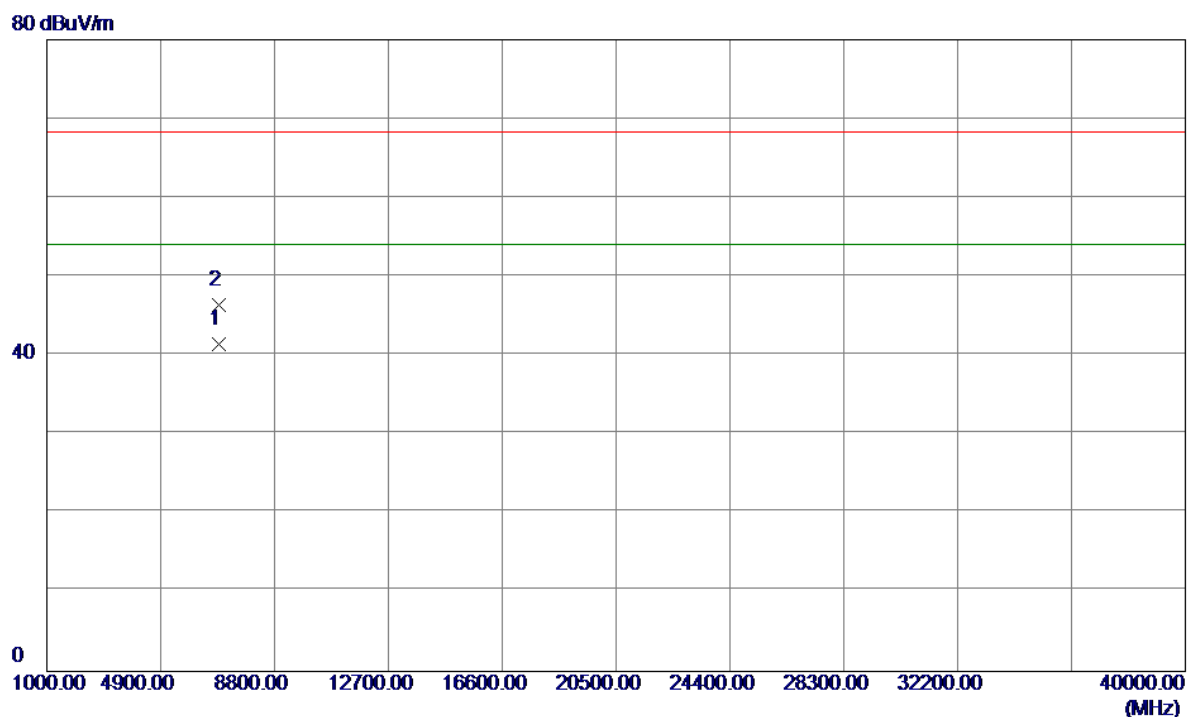
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	7.45	40.62	48.07	68.30	-20.23	Peak	
2	5150.0000	0.04	40.62	40.66	54.00	-13.34	AVG	
3	5173.4500	61.60	40.70	102.30	68.30	34.00	Peak	No Limit
4 *	5174.5500	53.60	40.71	94.31	54.00	40.31	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

### Horizontal

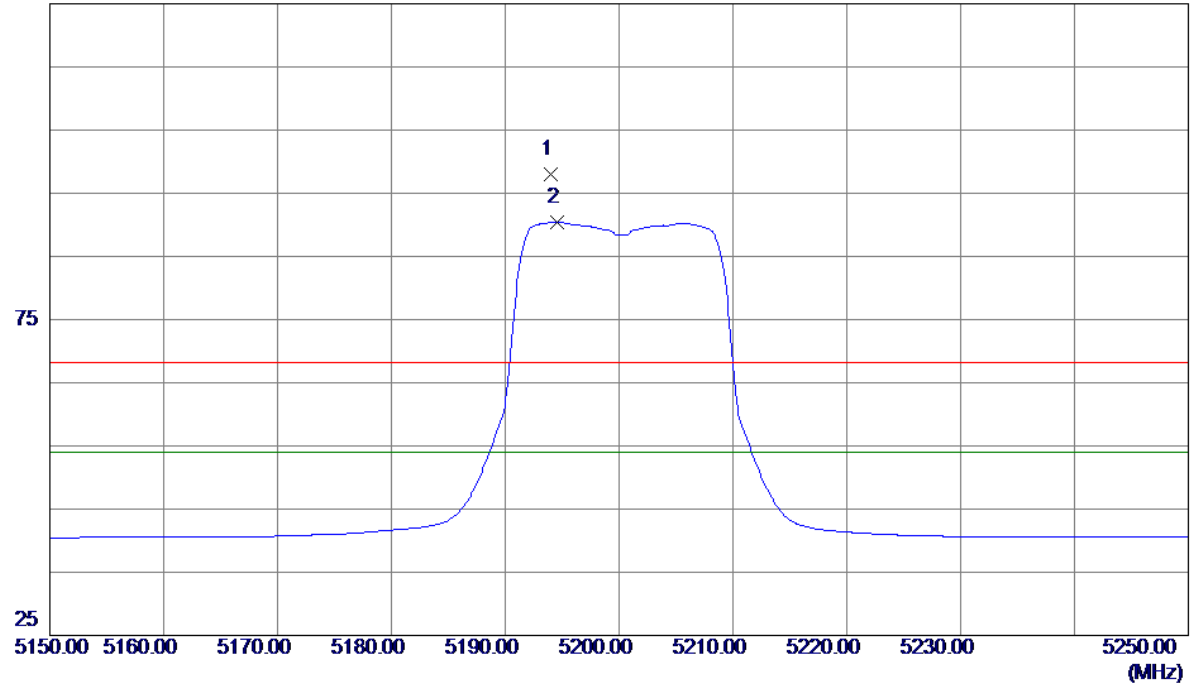


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6906.7550	30.72	10.78	41.50	54.00	-12.50	AVG	
2	6906.8500	35.55	10.78	46.33	68.30	-21.97	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

### Vertical

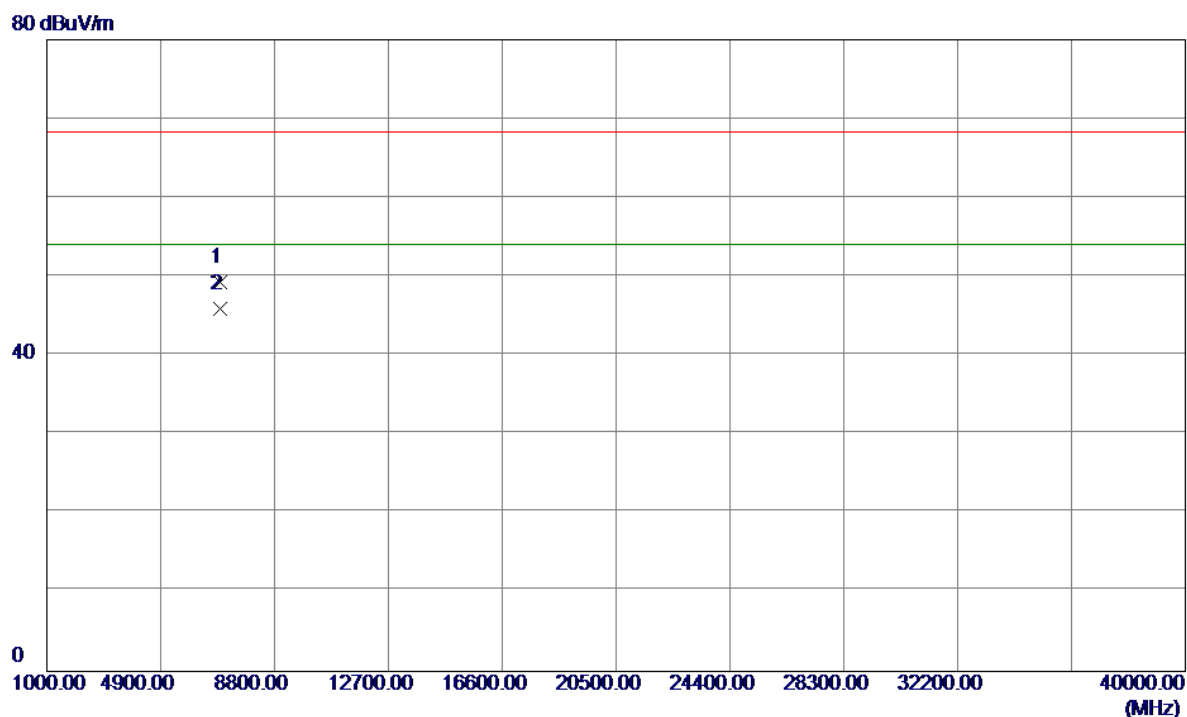
125 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5194.0000	57.13	40.77	97.90	68.30	29.60	Peak	No Limit
2 *	5194.6000	49.66	40.77	90.43	54.00	36.43	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

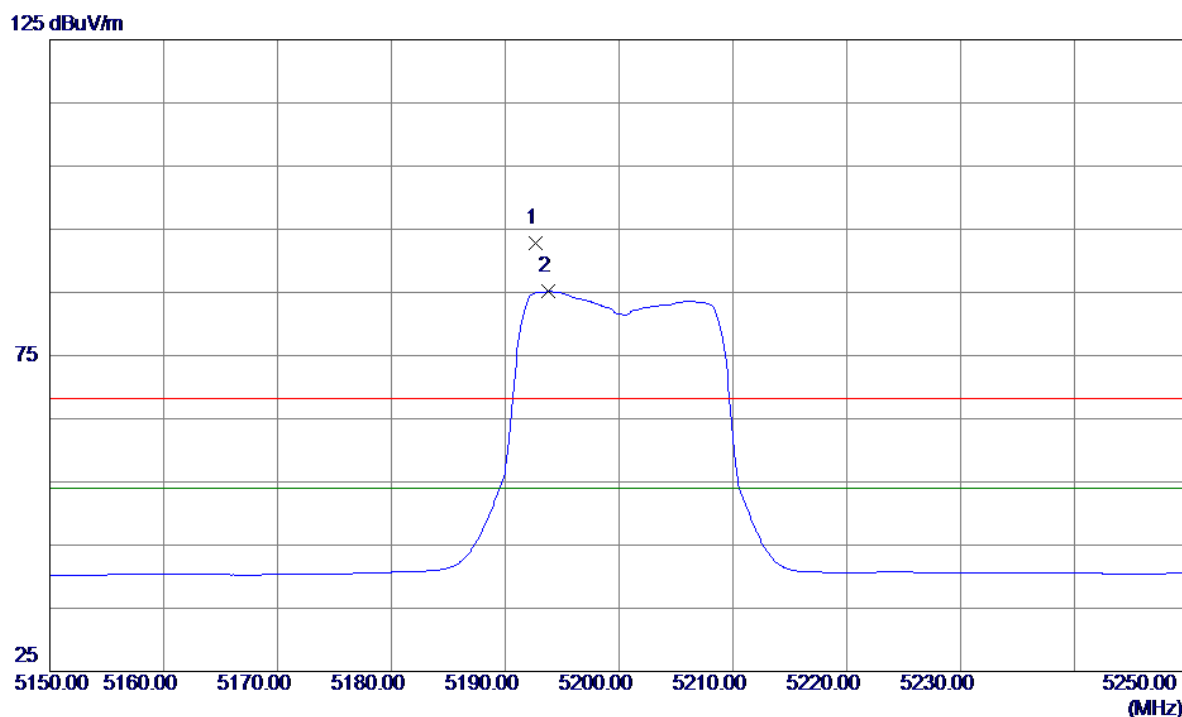
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6933.3800	38.54	10.77	49.31	68.30	-18.99	Peak	
2 *	6933.5800	35.16	10.77	45.93	54.00	-8.07	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

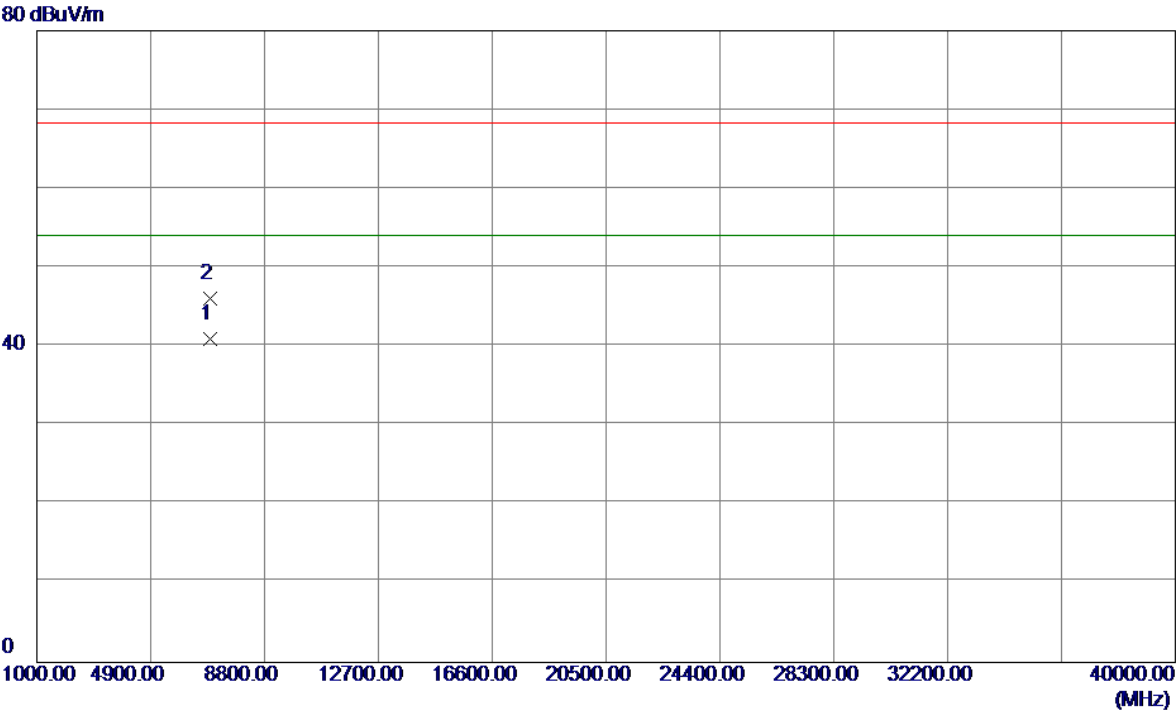
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5192.6500	52.07	40.77	92.84	68.30	24.54	Peak	No Limit
2 *	5193.8000	44.36	40.77	85.13	54.00	31.13	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

Horizontal

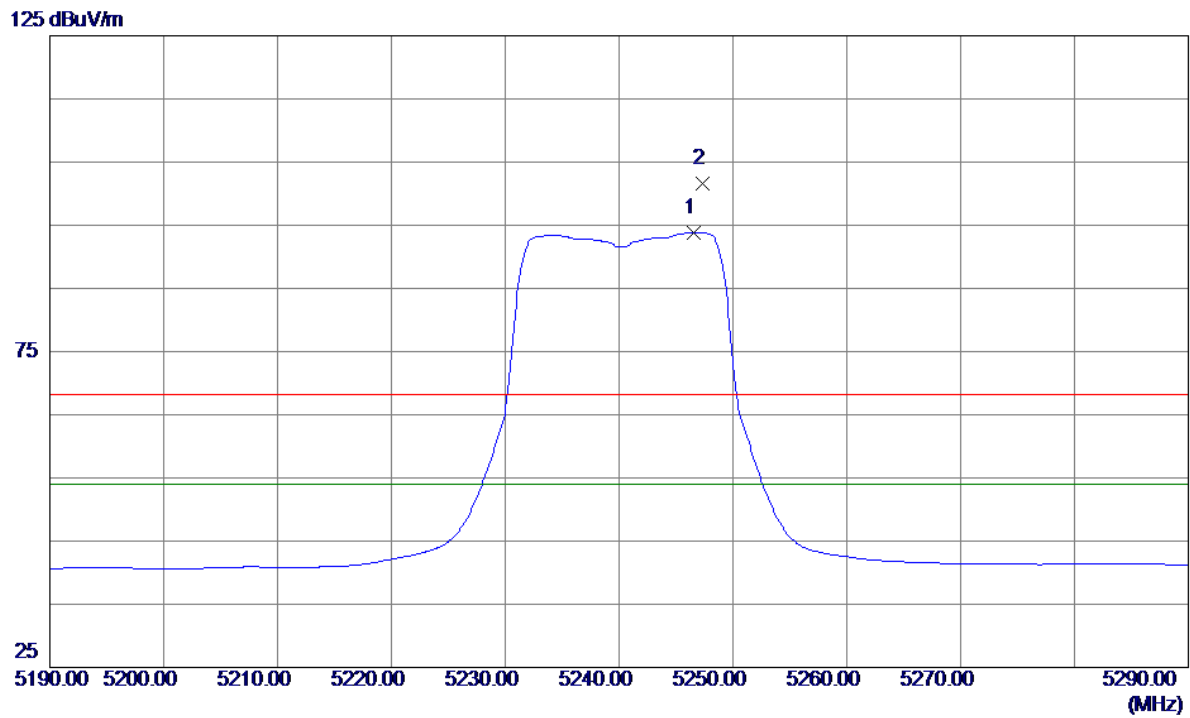


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6933.3250	30.12	10.77	40.89	54.00	-13.11	AVG	
2	6933.4250	35.33	10.77	46.10	68.30	-22.20	Peak	



Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz

### Vertical

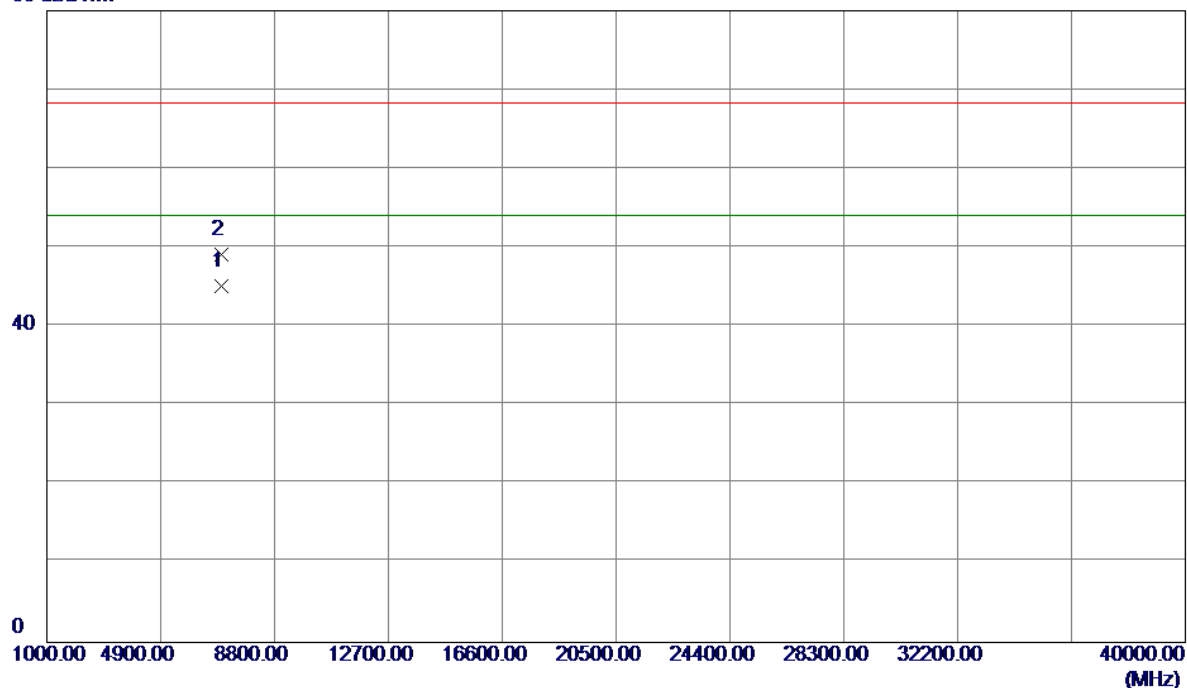


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5246.6000	52.84	40.94	93.78	54.00	39.78	AVG	No Limit
2	5247.3000	60.69	40.95	101.64	68.30	33.34	Peak	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz

### Vertical

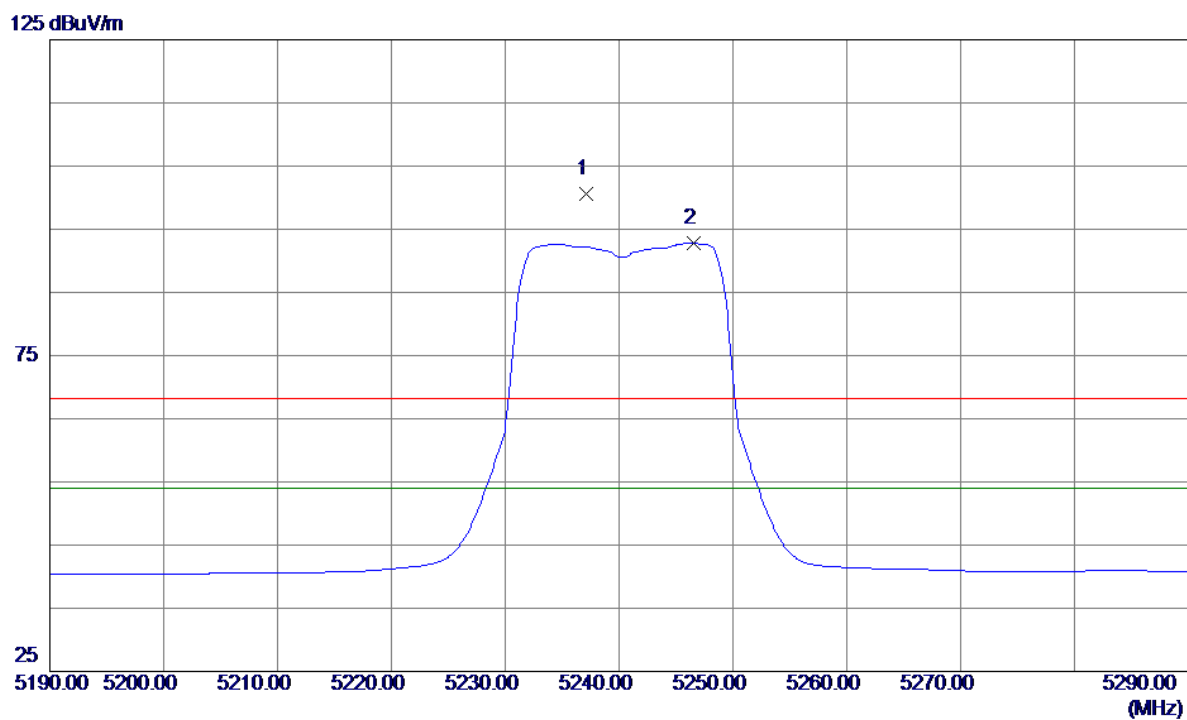
80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6986.8800	34.40	10.75	45.15	54.00	-8.85	AVG	
2	6987.0500	38.34	10.75	49.09	68.30	-19.21	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz

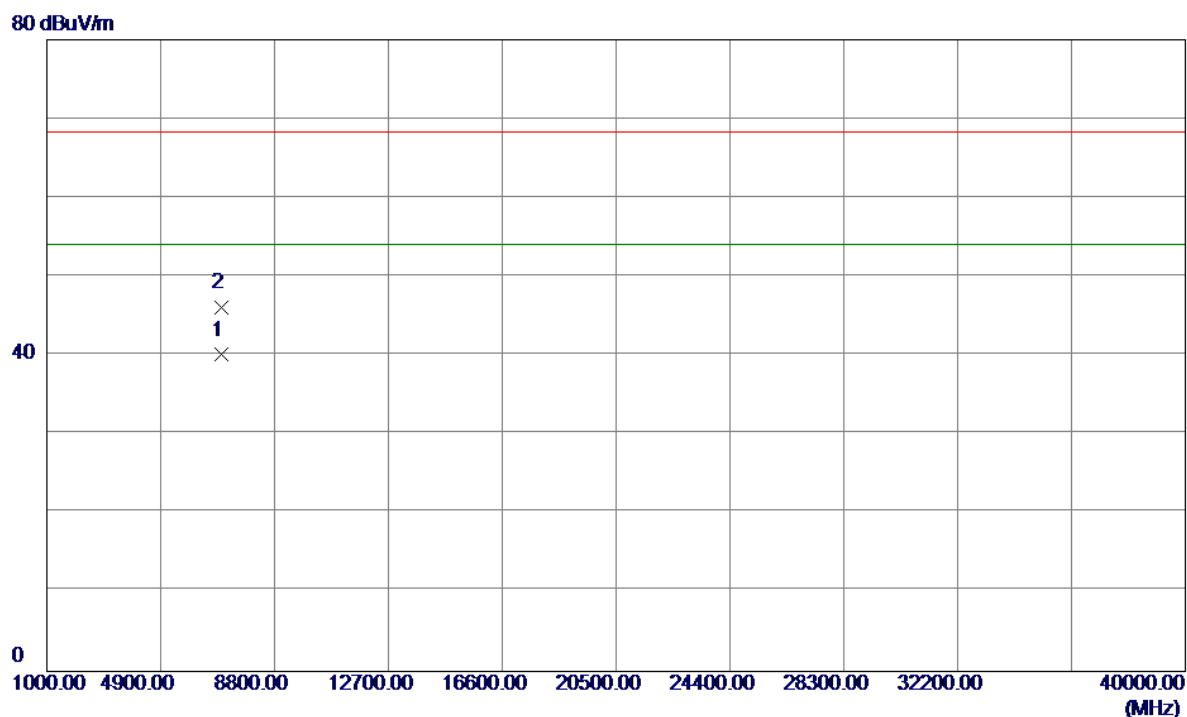
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5237.1500	59.73	40.91	100.64	68.30	32.34	Peak	No Limit
2 *	5246.5500	51.83	40.94	92.77	54.00	38.77	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz

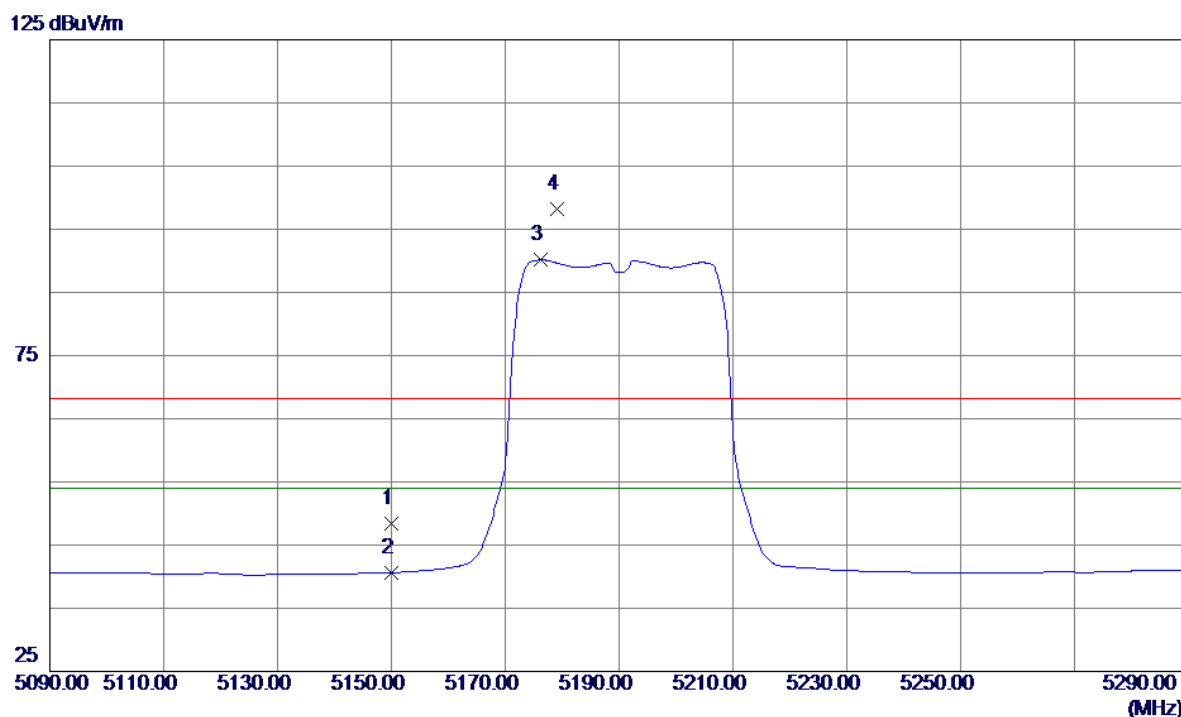
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	6986.8750	29.33	10.75	40.08	54.00	-13.92	AVG	
2	6987.1500	35.33	10.75	46.08	68.30	-22.22	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC40 Mode 5190MHz

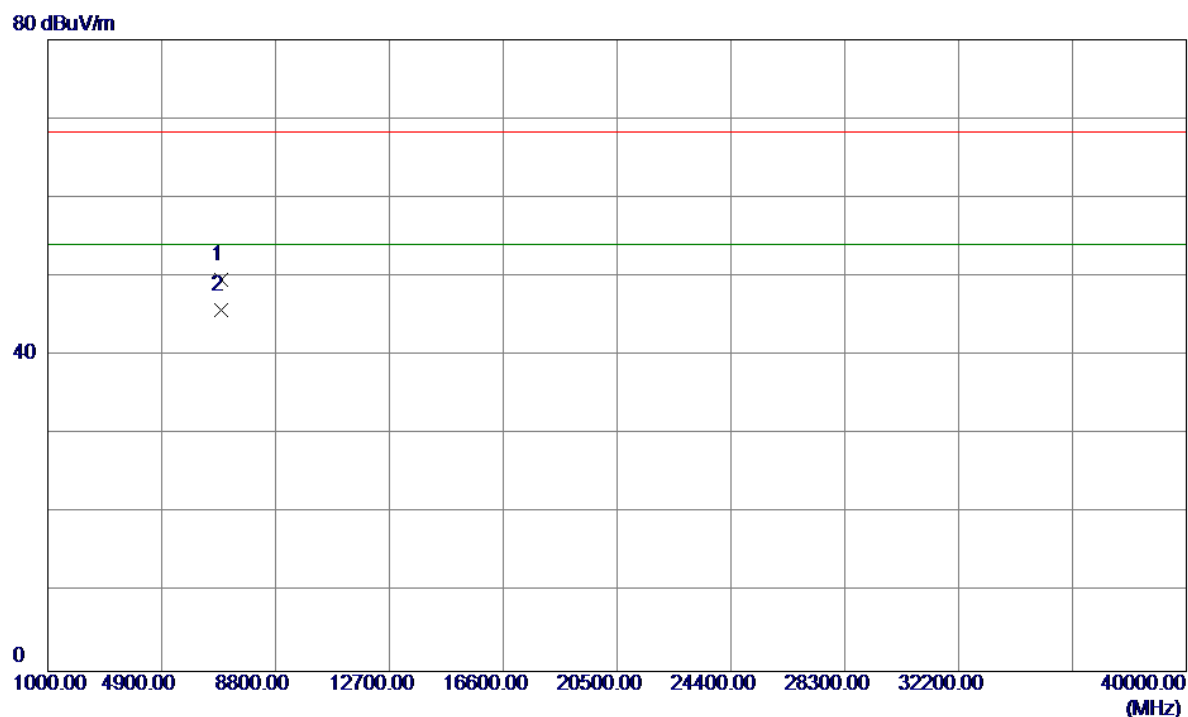
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	7.87	40.62	48.49	68.30	-19.81	Peak	
2	5150.0000	0.00	40.62	40.62	54.00	-13.38	AVG	
3 *	5176.2000	49.45	40.71	90.16	54.00	36.16	AVG	No Limit
4	5179.2000	57.47	40.72	98.19	68.30	29.89	Peak	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC40 Mode 5190MHz

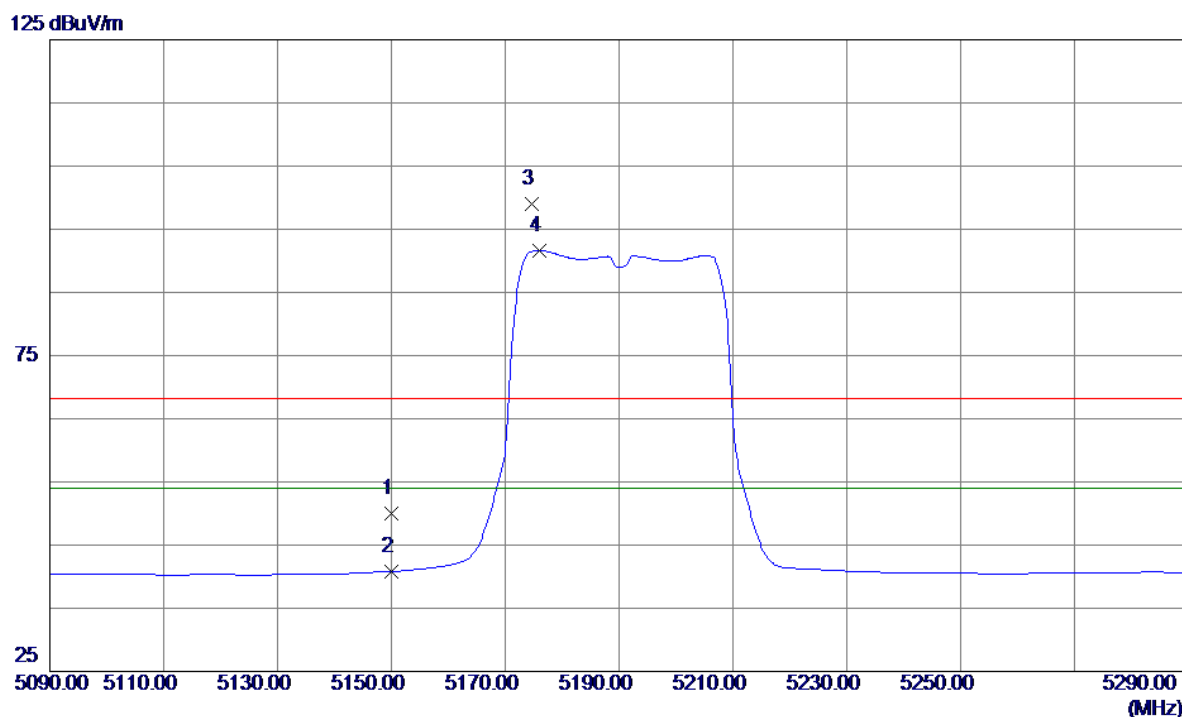
# Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6920.1550	38.76	10.77	49.53	68.30	-18.77	Peak	
2 *	6920.2400	35.04	10.77	45.81	54.00	-8.19	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC40 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	9.46	40.62	50.08	68.30	-18.22	Peak	
2	5150.0000	0.17	40.62	40.79	54.00	-13.21	AVG	
3	5174.7000	58.28	40.71	98.99	68.30	30.69	Peak	No Limit
4 *	5176.0000	50.93	40.71	91.64	54.00	37.64	AVG	No Limit