

FCCRadio Test Report

FCC ID:2AEU7-LONDON

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

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

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

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Declaration

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REPORT ISSUED HISTORY

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

1. CERTIFICATION

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

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

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

NOTE:

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

2.1 TEST FACILITY

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

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been 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_{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)	Note
DG-C02	CISPR	150 KHz~30MHz	1.94	

B. Radiated Measurement :

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

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

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

Note:

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

2. Channel List:

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

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

3. Antenna Specification:

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

3.2 DESCRIPTION OF TEST MODES

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

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

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

For Conducted Test	
Final Test Mode	Description
Mode 7	TX Mode

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

Note:

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

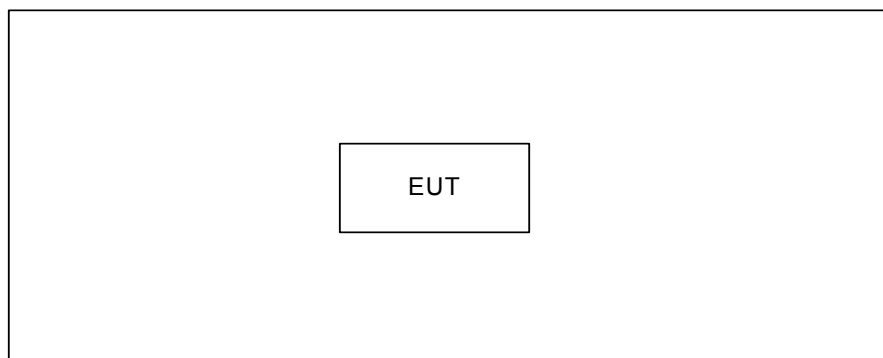
3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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

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

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

3.4 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.	Note
-	-	-	-	-	-	

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
 Margin Level = Measurement Value - Limit Value

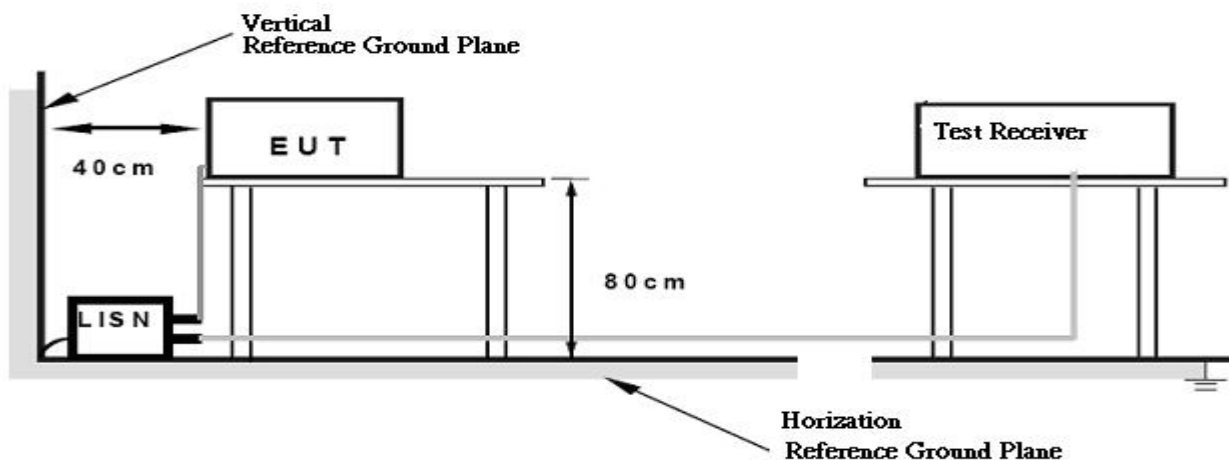
4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support 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 groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TESTSETUP



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

N/A

4.1.7 TEST RESULTS

Please refer to the Attachment A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “*” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150kHz to 30MHz.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

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

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

Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
 Margin Level = Measurement Value - Limit Value

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

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

4.2.2 TESTPROCEDURE

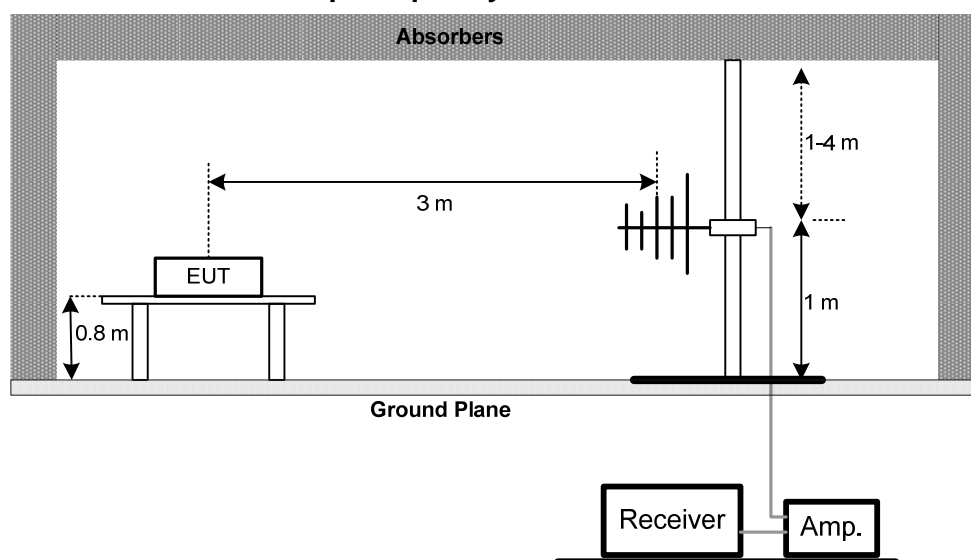
- The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated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

4.2.3 DEVIATION FROM TEST STANDARD

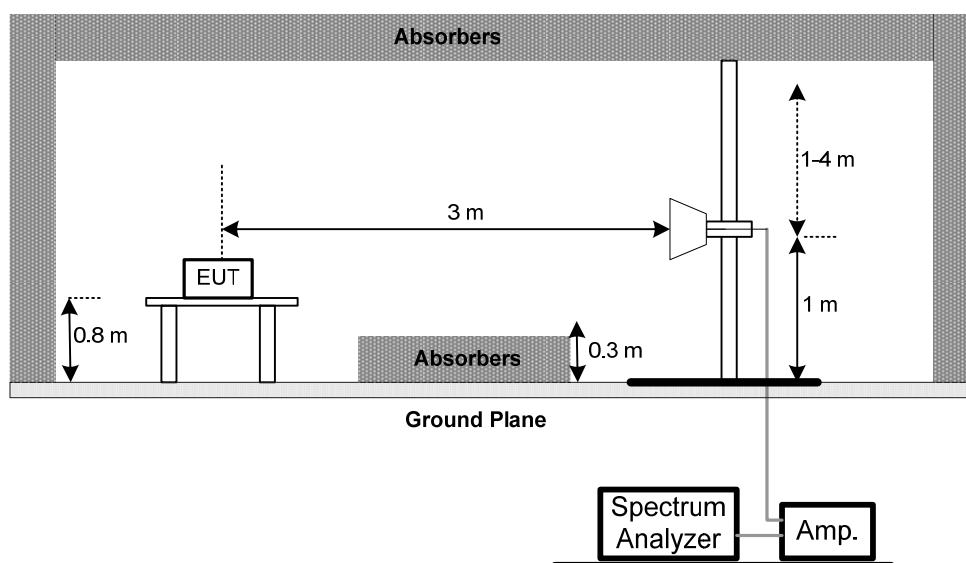
Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

4.2.4 TESTSETUP

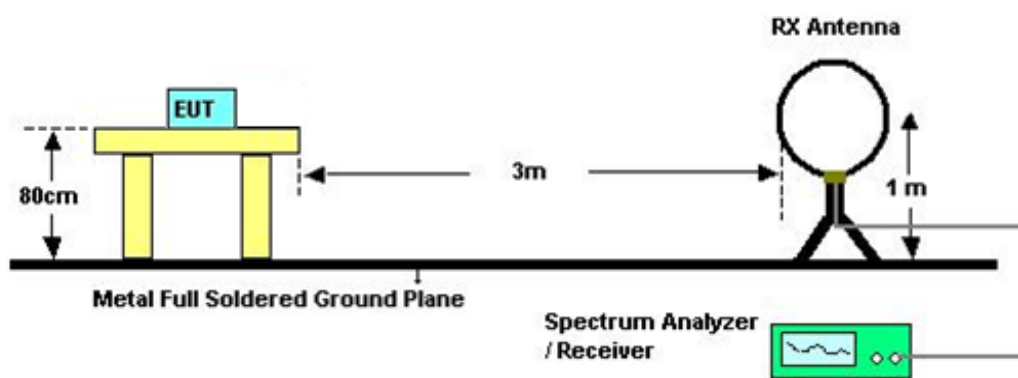
(A) Radiated Emission Test Set-Up Frequency Below 1GHz



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



(C) Radiated emissions below 30MHz



4.2.5 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: 28°C Relative Humidity: 60% Test Voltage: DC 3.8V

4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Attachment B

Remark:

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

4.2.8 TEST RESULTS(30 TO 1000 MHz)

Please refer to the Attachment C.

Remark:

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

4.2.9 TEST RESULTS (ABOVE1000 MHz)

Please refer to the Attachment D.

Remark:

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

5.26dB SPECTRUM BANDWIDTH

5.1 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.

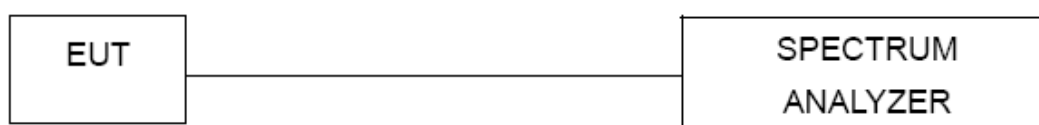
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	300 kHz
VBW	1000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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.

5.1.5EUT TEST CONDITIONS

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

5.1.6TEST RESULTS

Please refer to the Attachment E.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 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

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

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

- c. 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: 28°C Relative Humidity: 60% Test Voltage: DC 3.8V

6.1.6 TEST RESULTS

Please refer to the Attachment F.

7.ANTENNA CONDUCTED SPURIOUS EMISSION

7.1APPLIED PROCEDURES / LIMIT

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

7.1.1TEST PROCEDURE

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

b.

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

7.1.2DEVIATION FROM STANDARD

No deviation.

7.1.3TEST SETUP



7.1.4EUT OPERATION CONDITIONS

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

7.1.5EUT TEST CONDITIONS

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

7.1.6TEST 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

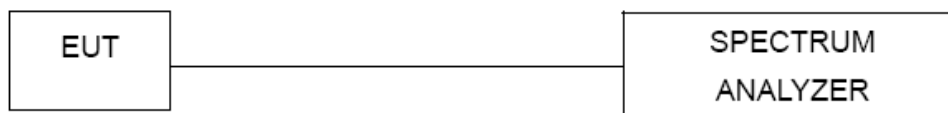
Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.
2. The value measured with RBW=1MHz is to be added with $10\log(500\text{kHz}/1\text{MHz})$ 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: 28°C Relative Humidity: 60% Test Voltage: DC 3.8V

8.1.5 TEST RESULTS

Please refer to the Attachment H.

9.FREQUENCY STABILITY MEASUREMENT

9.1APPLIED PROCEDURES / LIMIT

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

9.1.1TEST PROCEDURE

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

b.

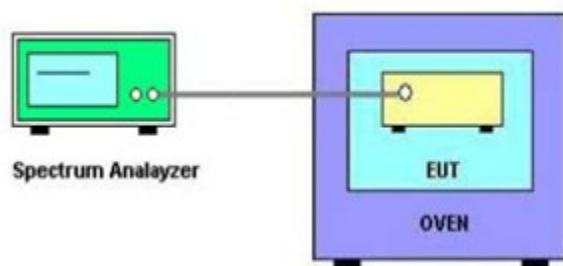
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissionsbandwidth
RBW	10 kHz
VBW	10kHz
Sweep Time	Auto

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- d. User manual temperature is -10°C~55°C.

9.1.2DEVIATION FROM STANDARD

No deviation.

9.1.3 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	00052765	Mar. 28, 2016
2	LISN	R&S	ENV216	101447	Mar. 28, 2016
3	Test Cable	N/A	C_17	N/A	Mar. 13, 2016
4	EMI TEST RECEIVER	R&S	ESCS30	833364/017	Mar. 28, 2016
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 28, 2016
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-0 1	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 28, 2016
2	Amplifier	HP	8447D	2944A09673	Nov. 17, 2015
3	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 28, 2016
7	Amplifier	Agilent	8449B	3008A02274	Nov. 02, 2015
8	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
9	Test Cable	N/A	C-68	N/A	Jul. 01, 2015
10	Controller	CT	SC100	N/A	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Mar. 28, 2016
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 28, 2016
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 16, 2015
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-0 1	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	Nov. 02, 2015

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

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

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

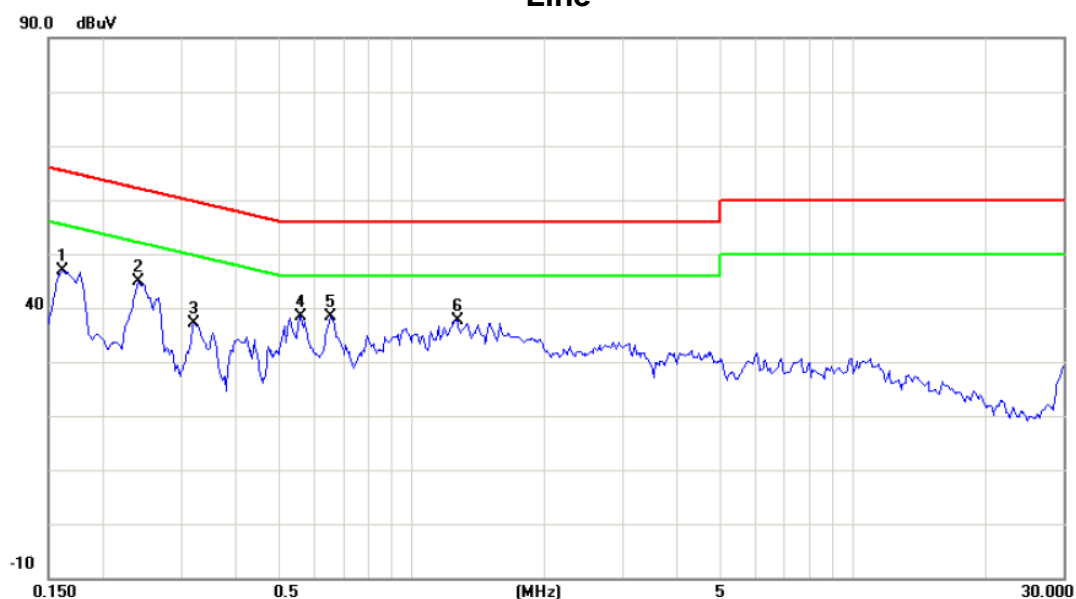
Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015

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

ATTACHMENT A -CONDUCTED EMISSION

Test Mode : TX MODE

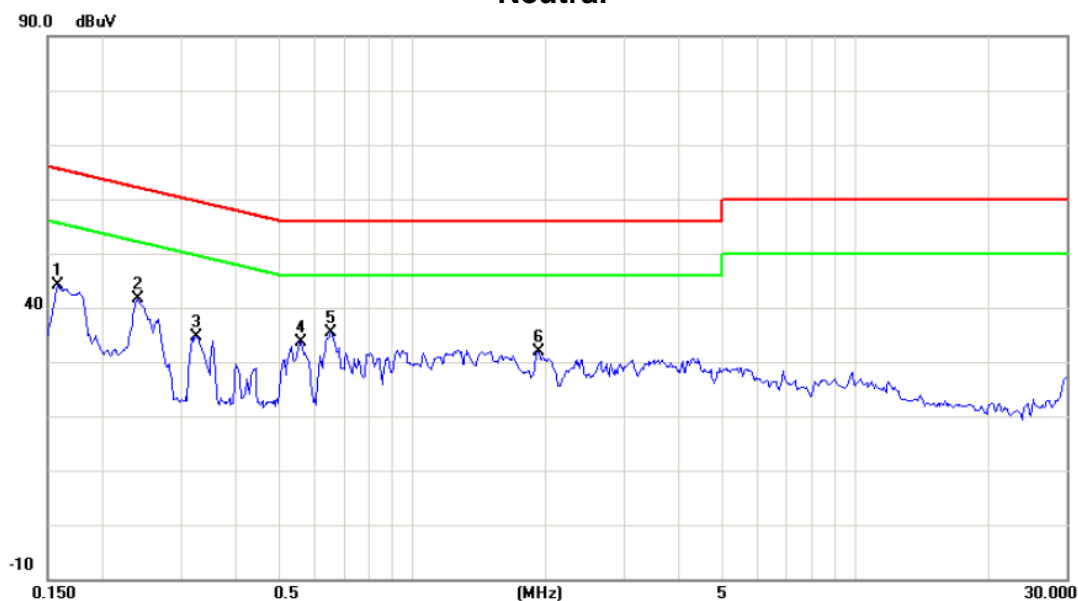
Line



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

Test Mode : TX MODE

Neutral



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

ATTACHMENTB -RADIATED EMISSION (9KHZ TO 30MHZ)

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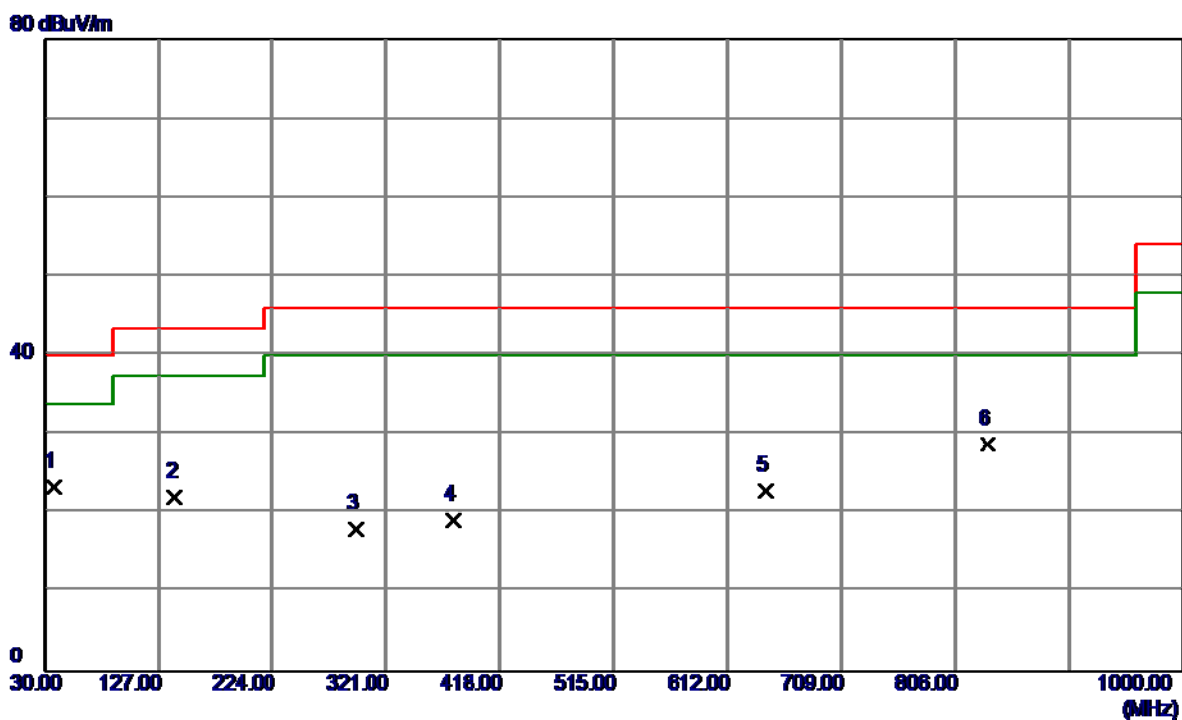
Frequency (MHz)	Ant 0°/90°	Read level dBuV/m	Factor (dB)	Measured(FS) (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
0.0085	0°	12.86	25.0283	37.8883	129.0158	-91.1275	AVG
0.0085	0°	14.39	25.0283	39.4183	149.0158	-109.5975	PEAK
0.0236	0°	8.03	24.0720	32.1020	120.1460	-88.0440	AVG
0.0236	0°	10.85	24.0720	34.9220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

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

ATTACHMENTC -RADIATED EMISSION (30MHZ TO 1000MHZ)

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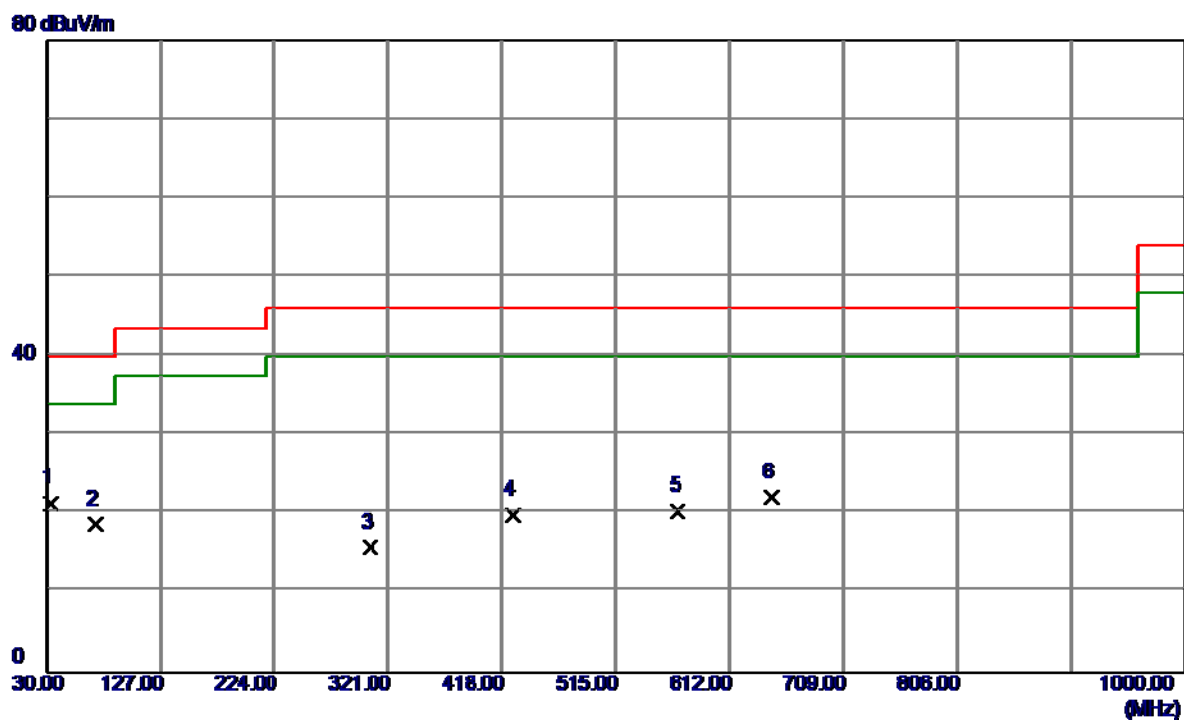
Vertical



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

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

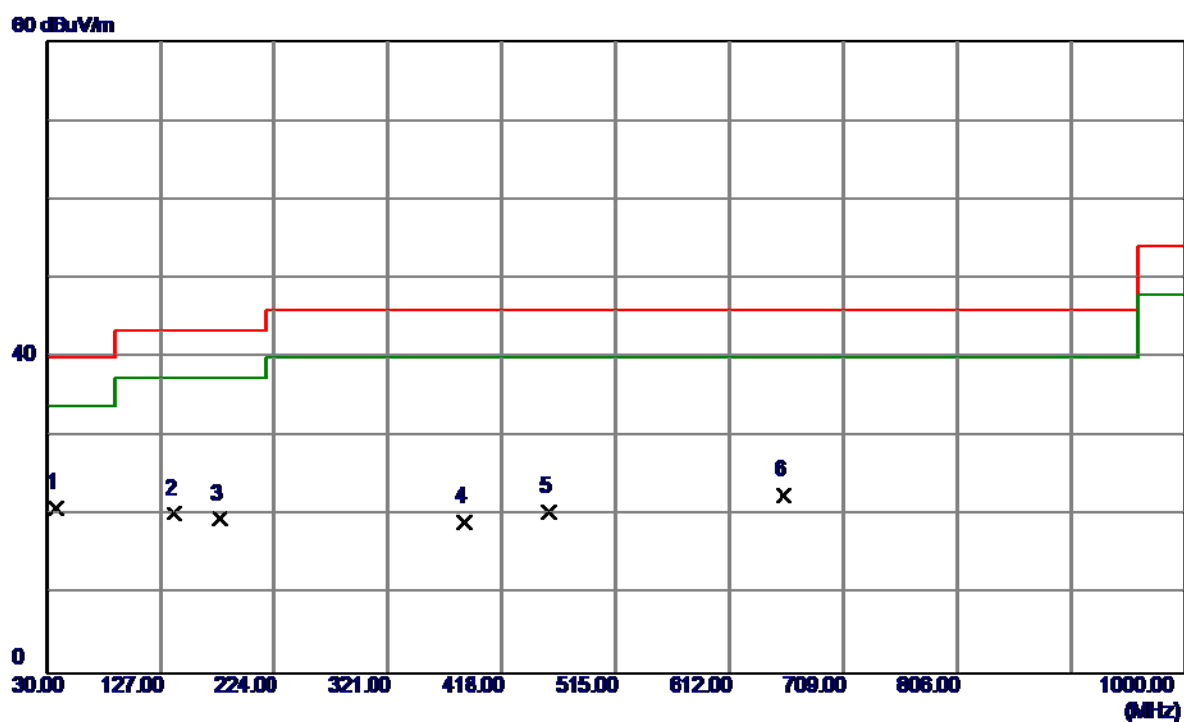
Horizontal



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

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

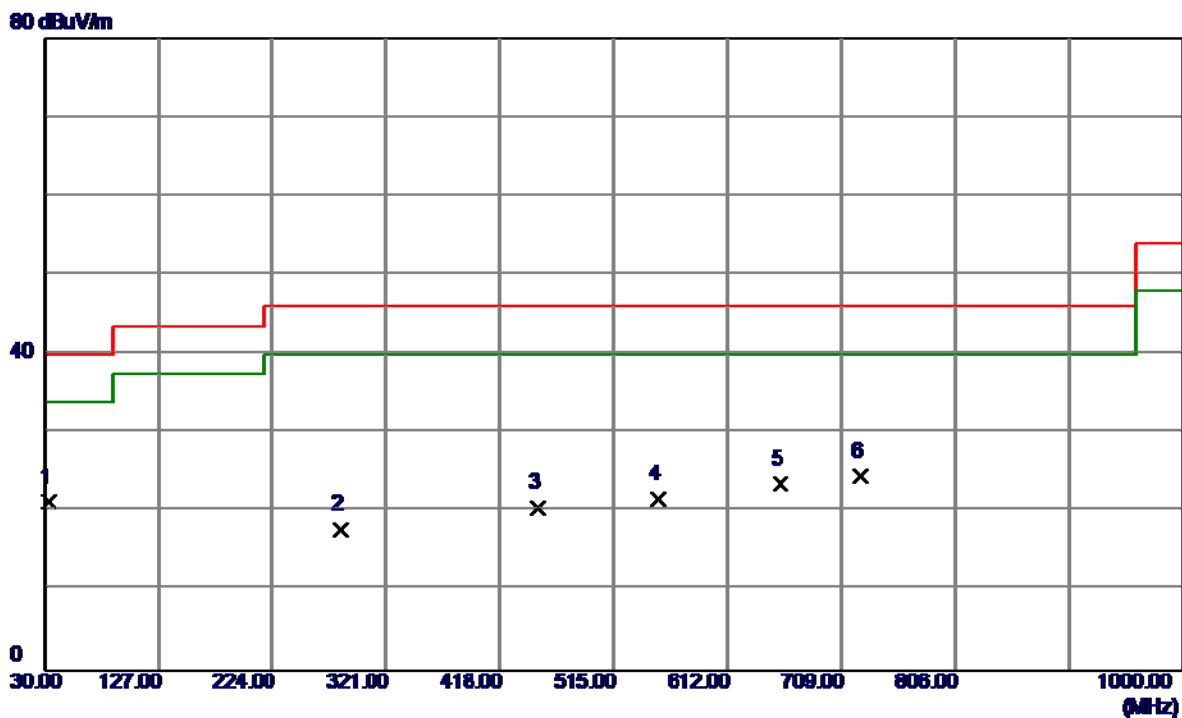
Vertical



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

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

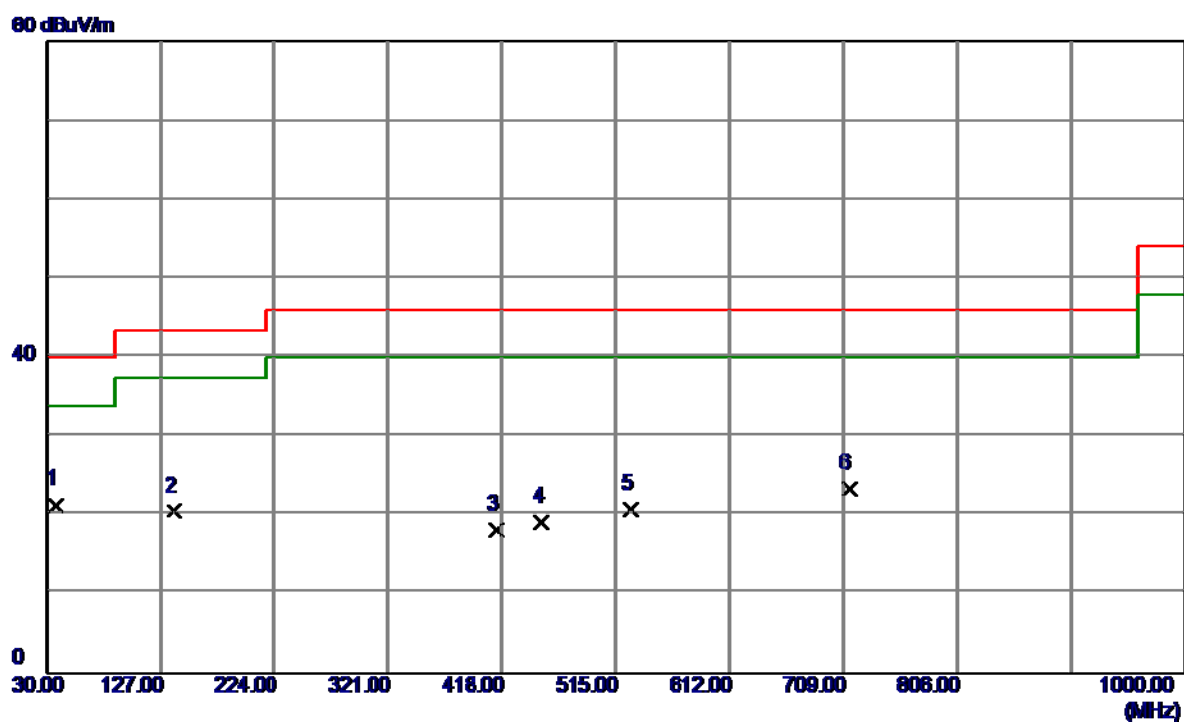
Horizontal



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

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

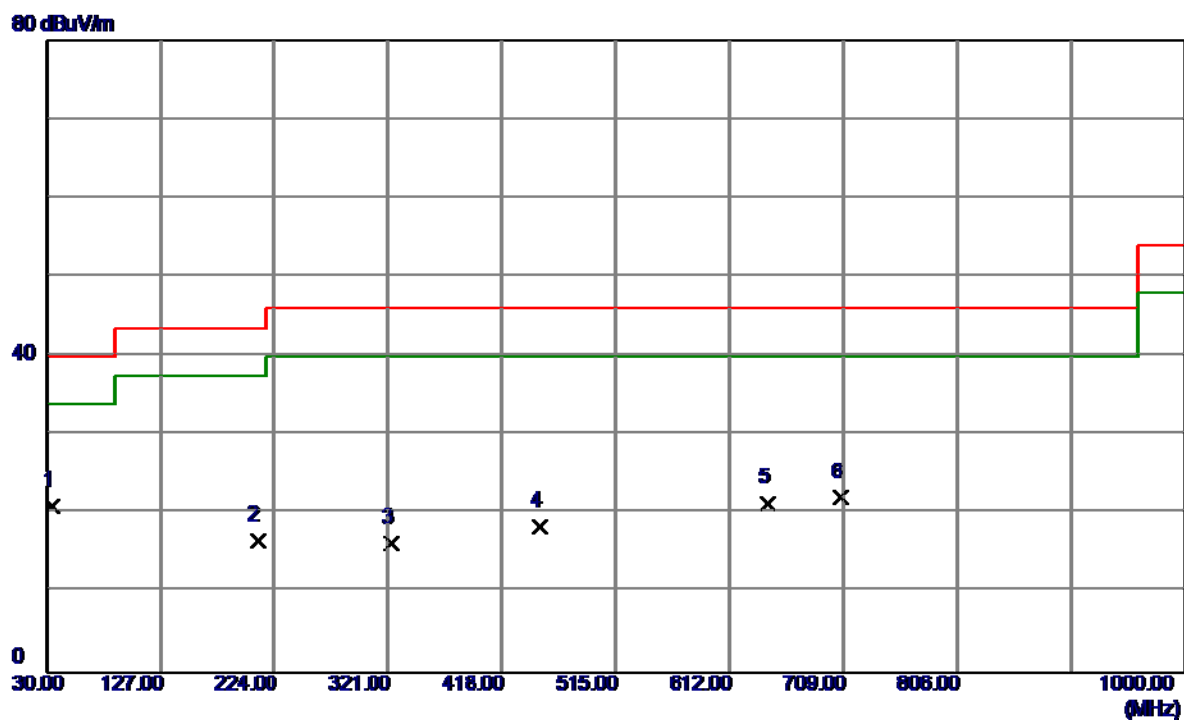
Vertical



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

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

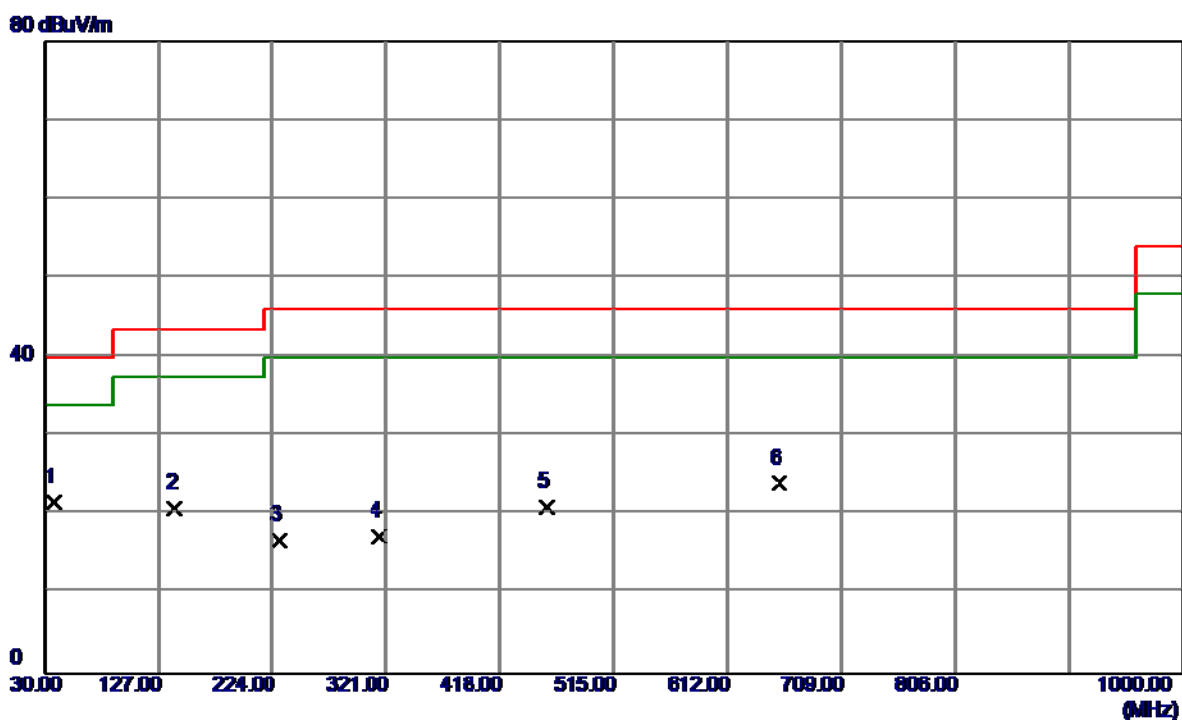
Horizontal



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

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

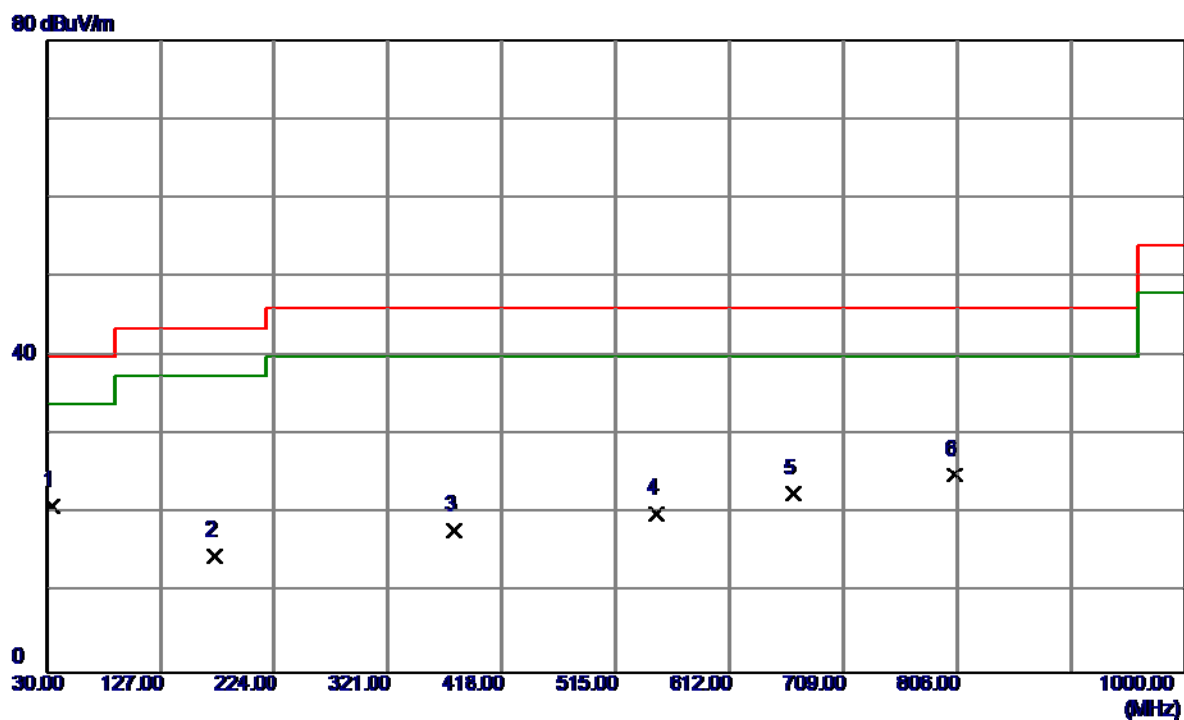
Vertical



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

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

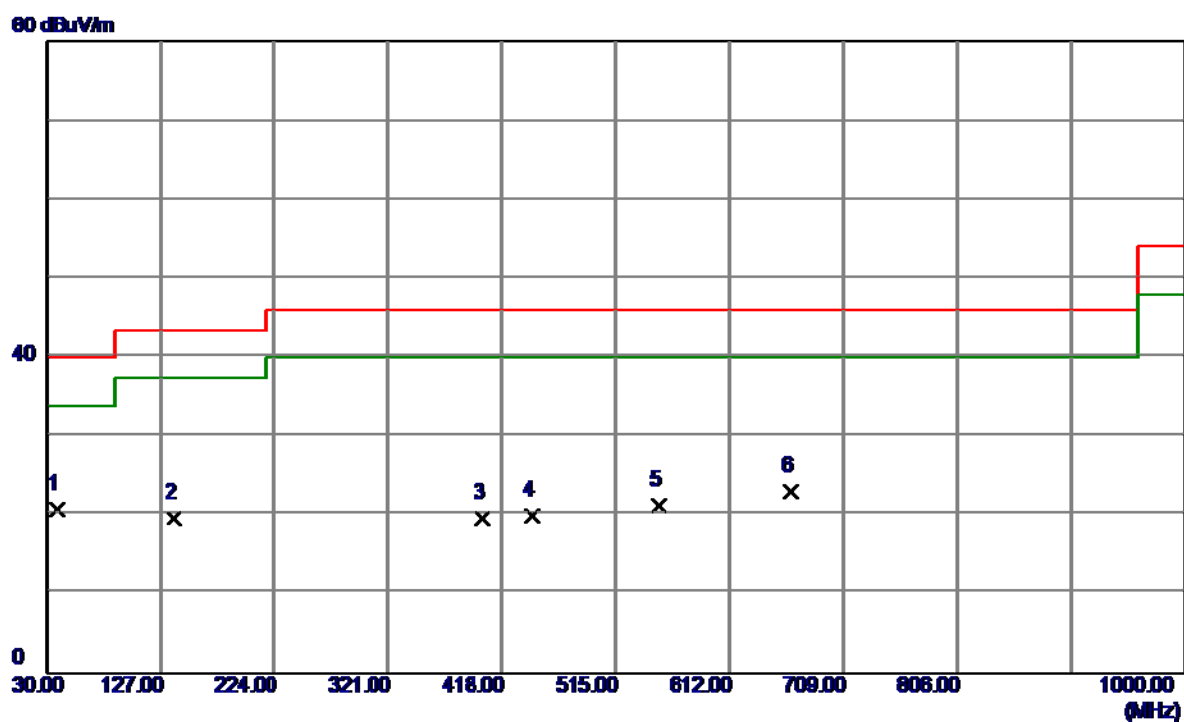
Horizontal



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

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

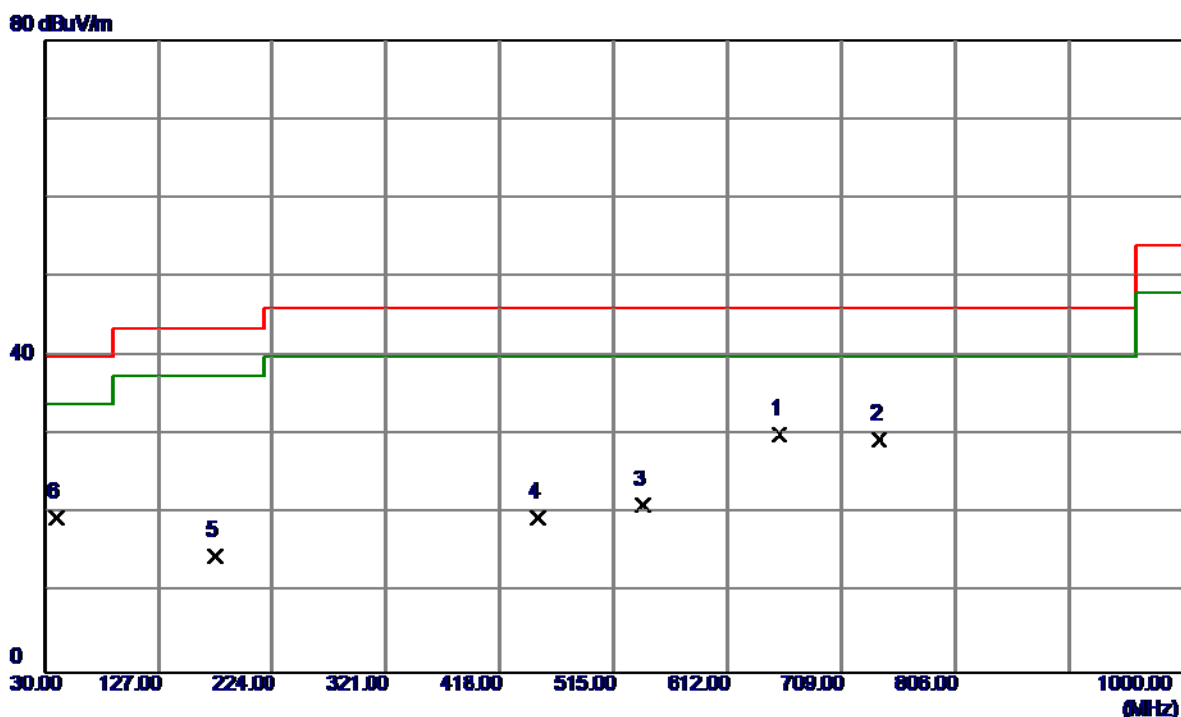
Vertical



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

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

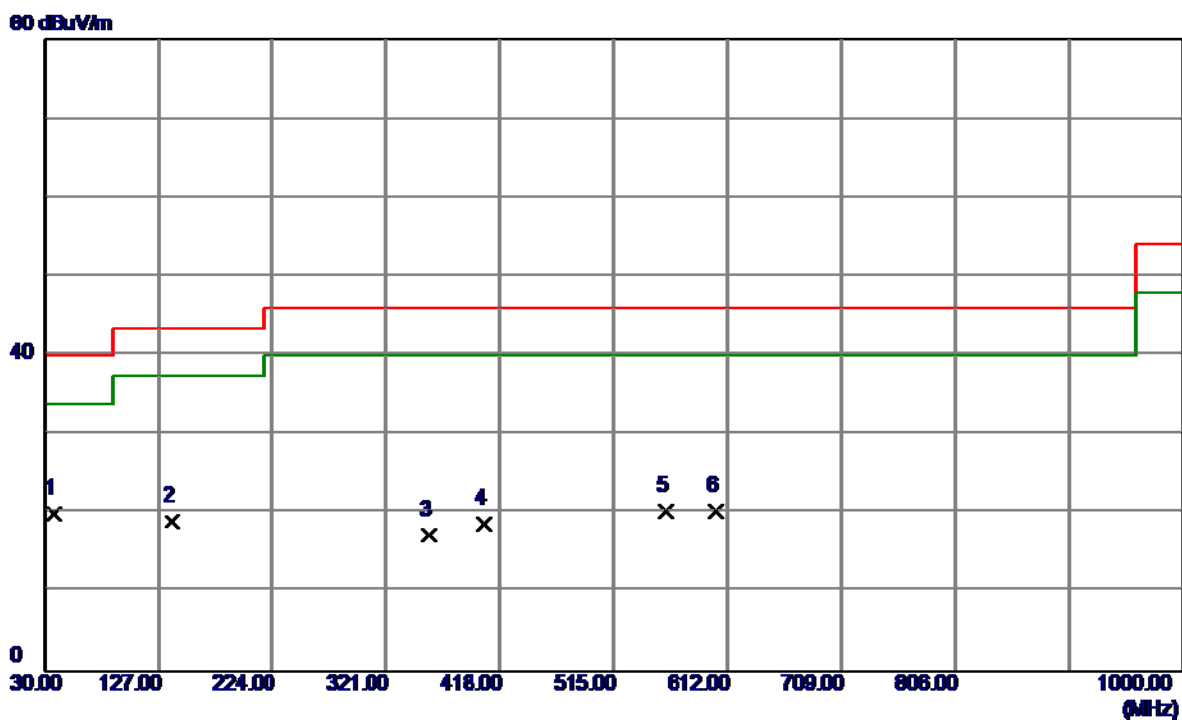
Horizontal



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

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

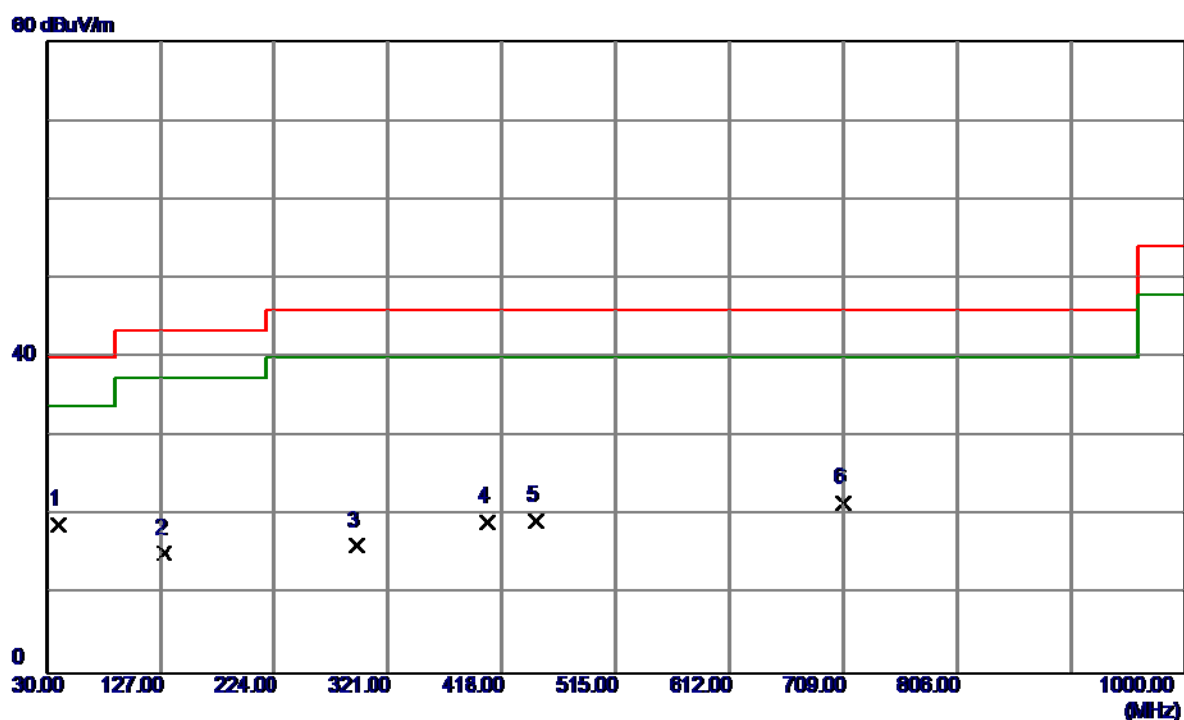
Vertical



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

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

Horizontal



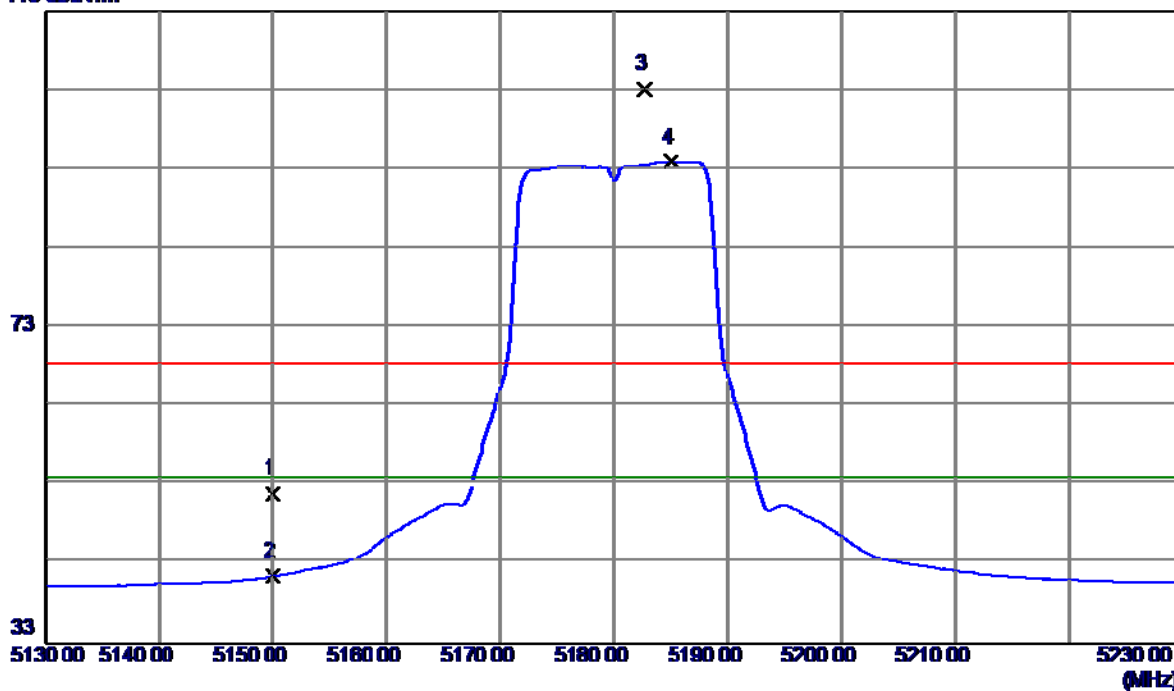
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	39.7000	32.83	-14.00	18.83	40.00	-21.17	Peak	
2	129.9100	27.84	-12.69	15.15	43.50	-28.35	Peak	
3	293.8400	26.90	-10.69	16.21	46.00	-29.79	Peak	
4	406.3599	27.88	-8.71	19.17	46.00	-26.83	Peak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

ATTACHMENTD -RADIATED EMISSION (ABOVE 1000MHZ)

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

Vertical

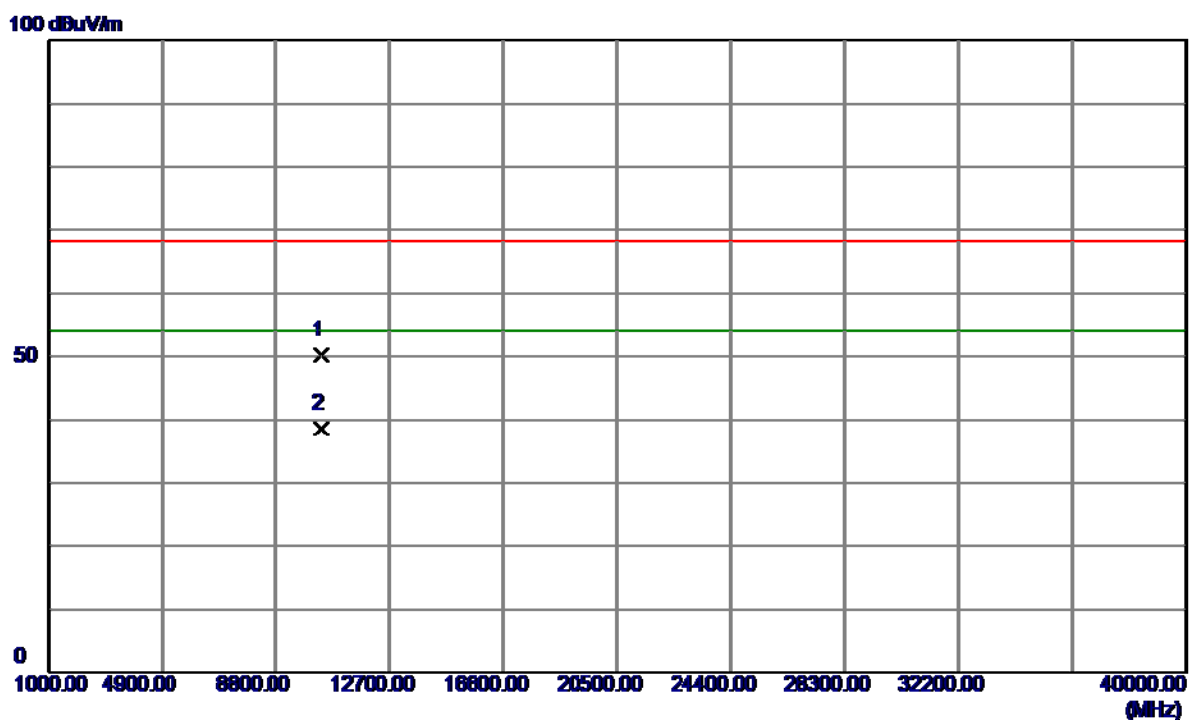
113 dBuV/m



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

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

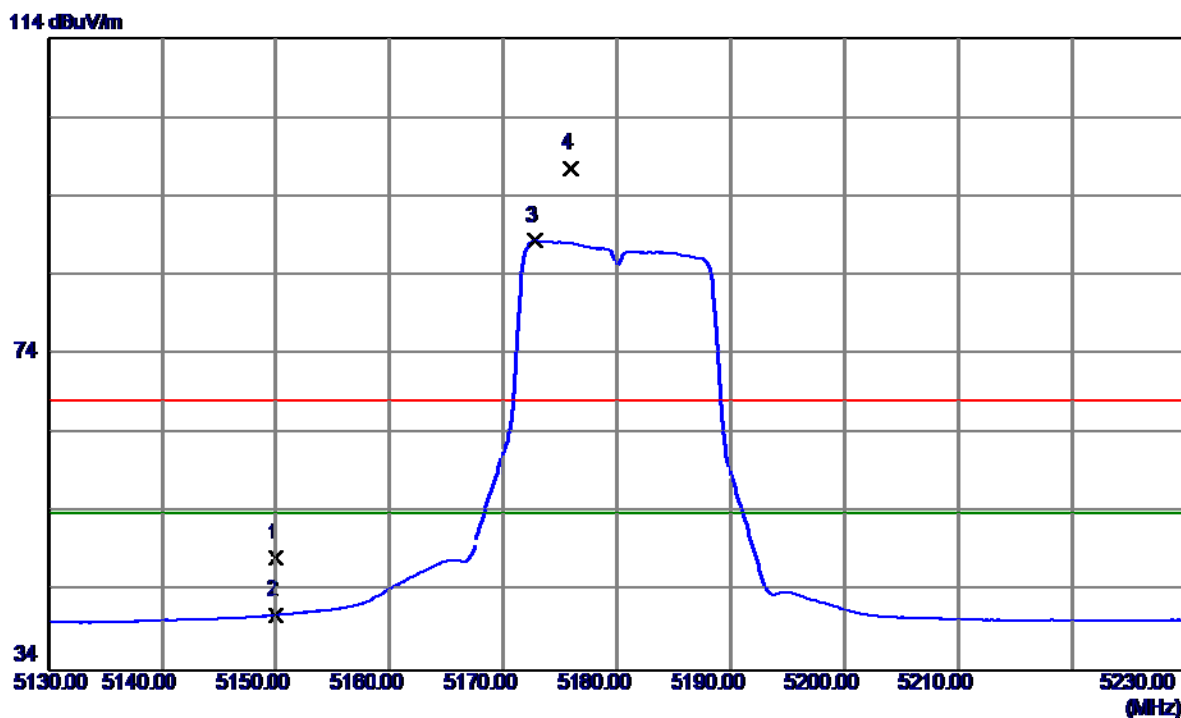
Vertical



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

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

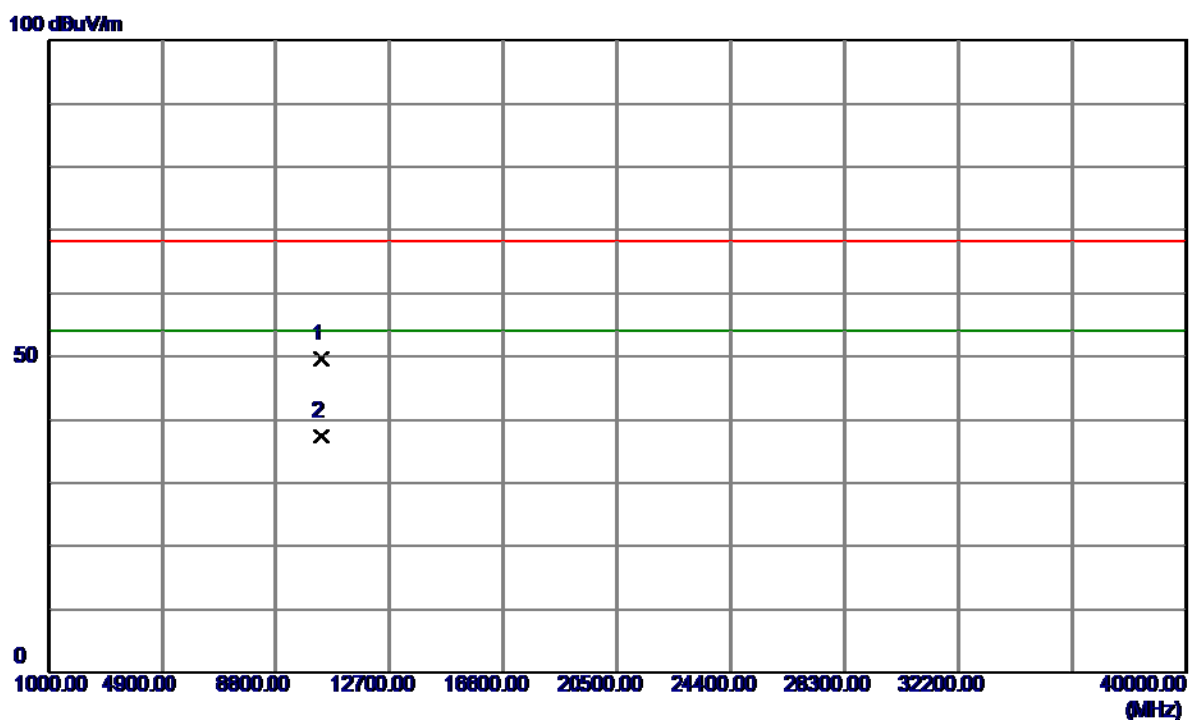
Horizontal



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

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

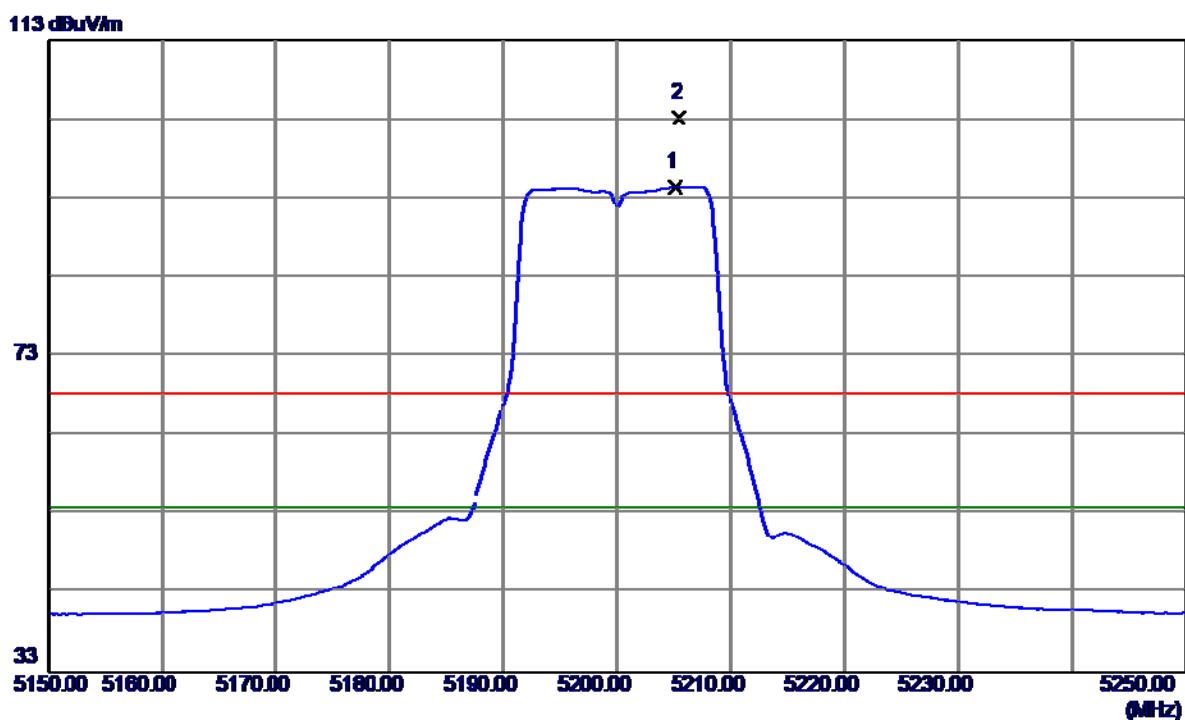
Horizontal



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

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

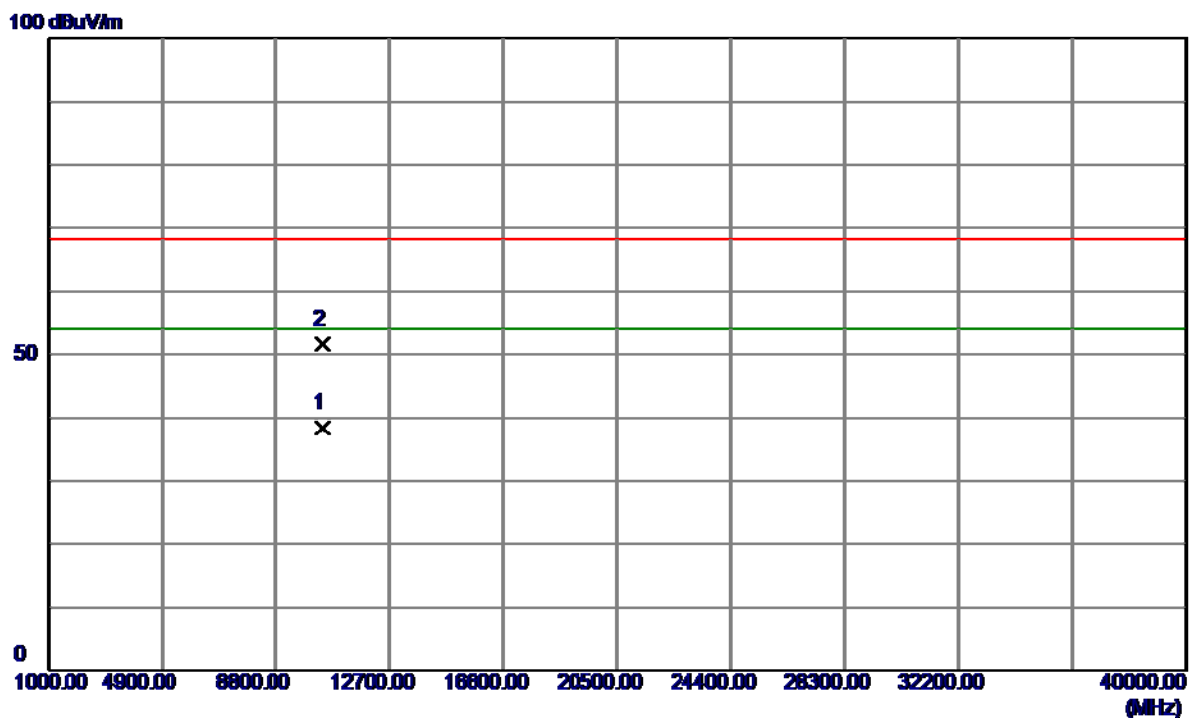
Vertical



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

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

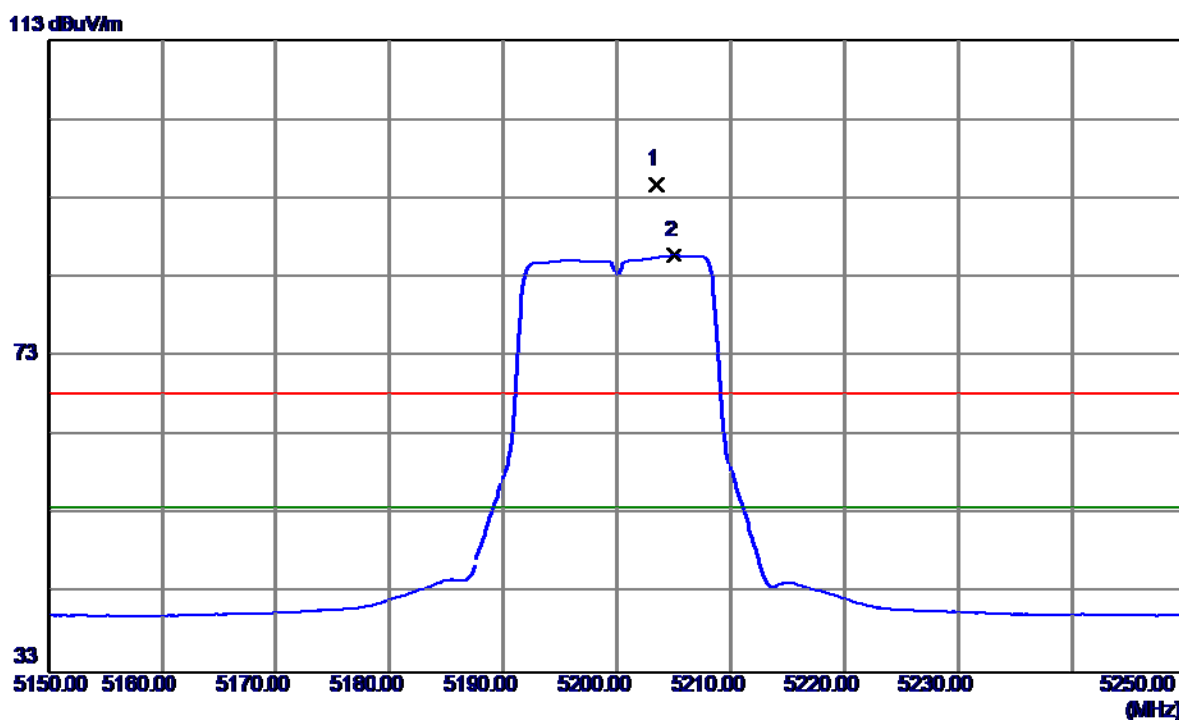
Vertical



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

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

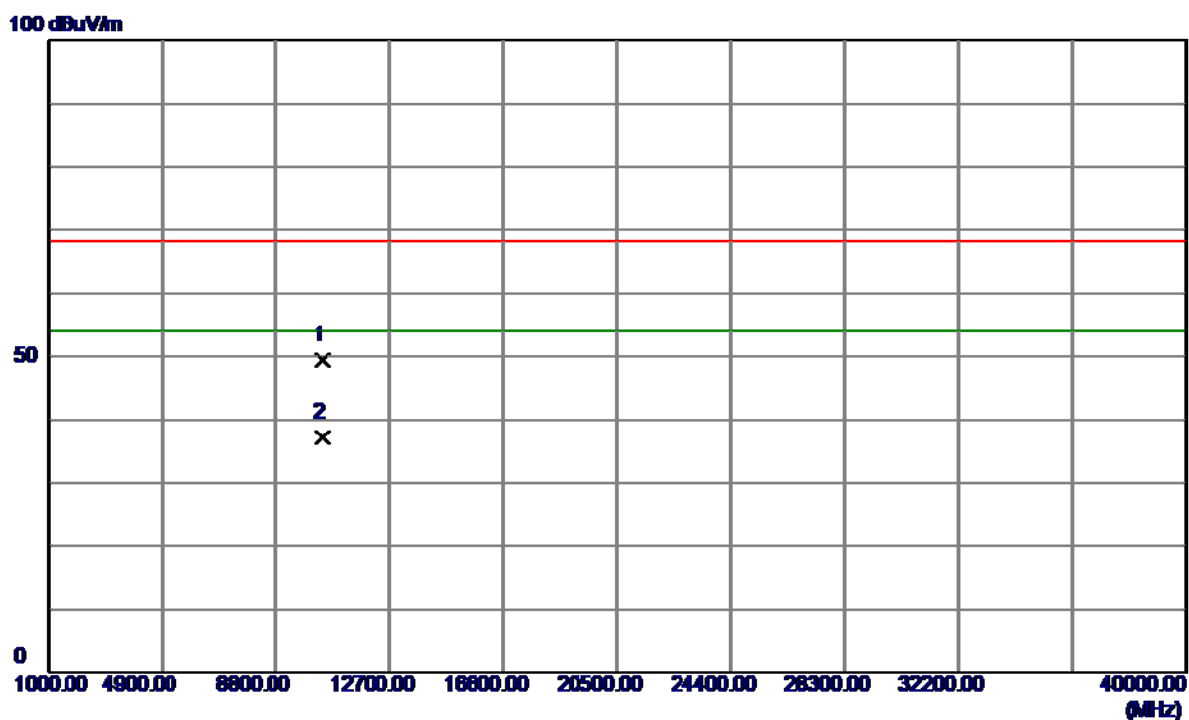
Horizontal



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

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

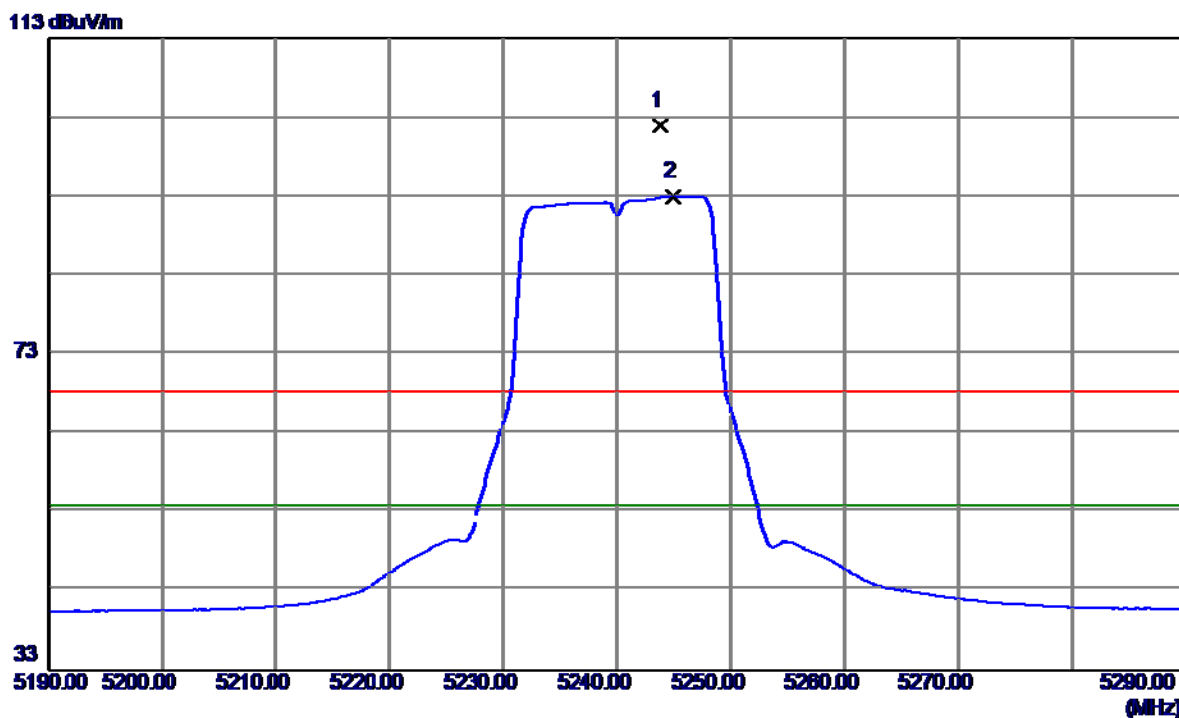
Horizontal



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

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

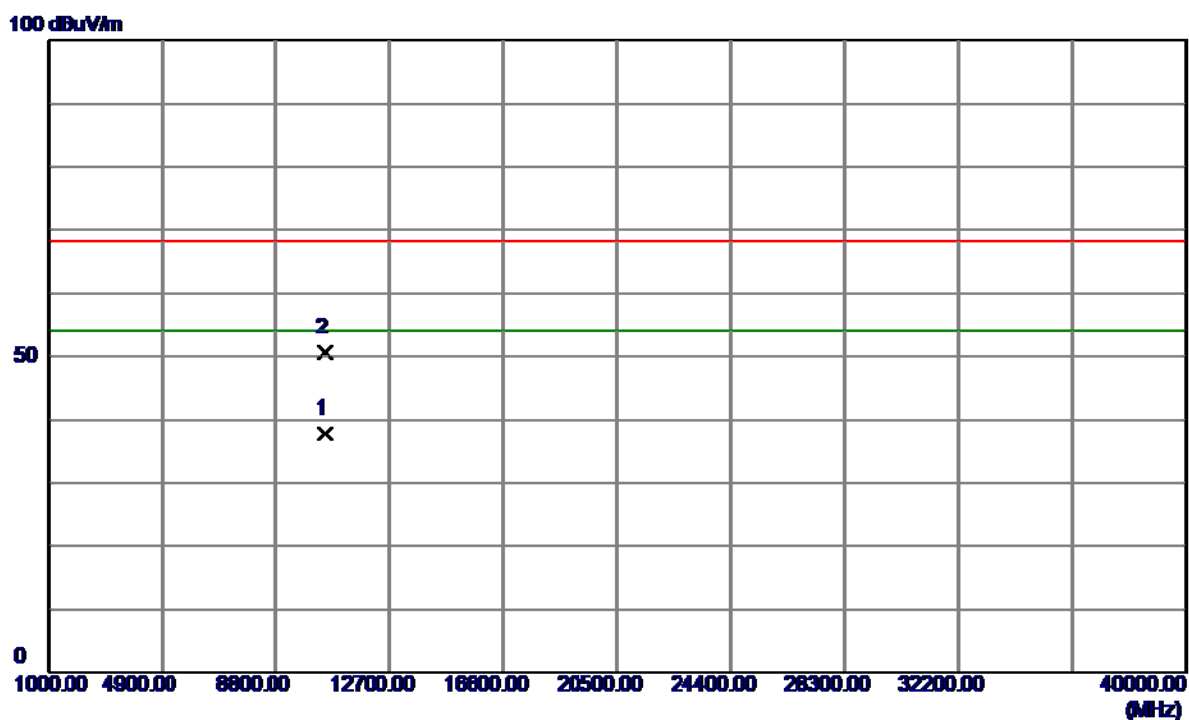
Vertical



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

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

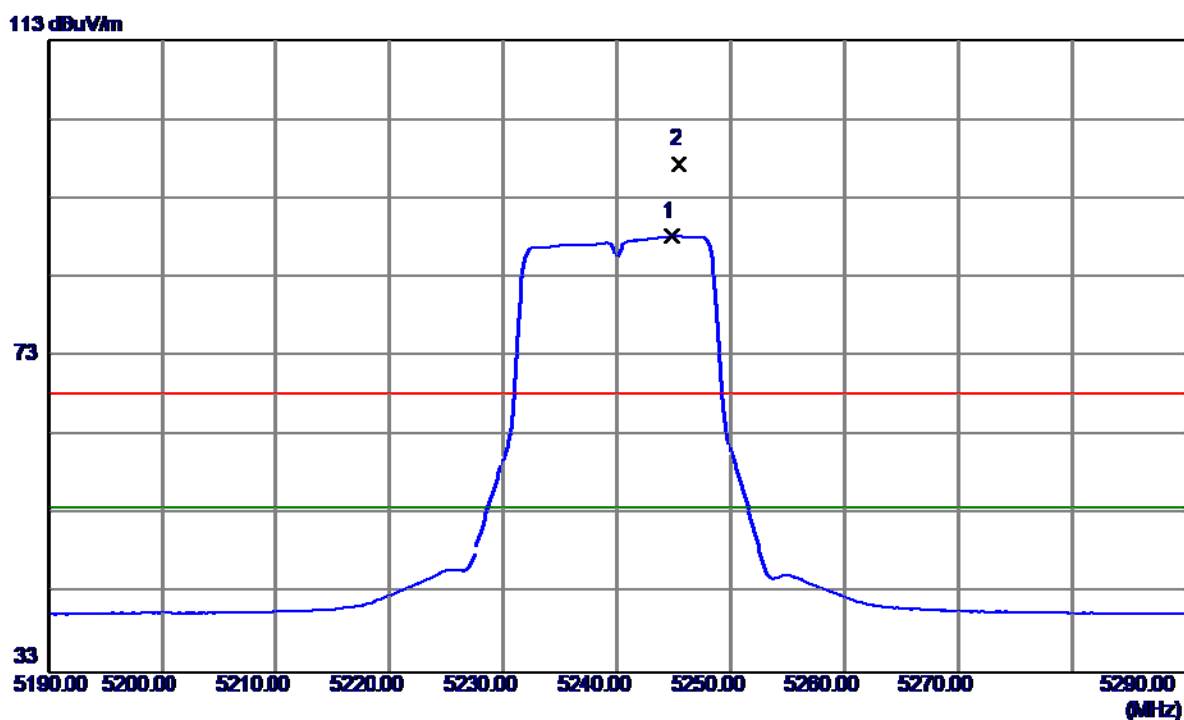
Vertical



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

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

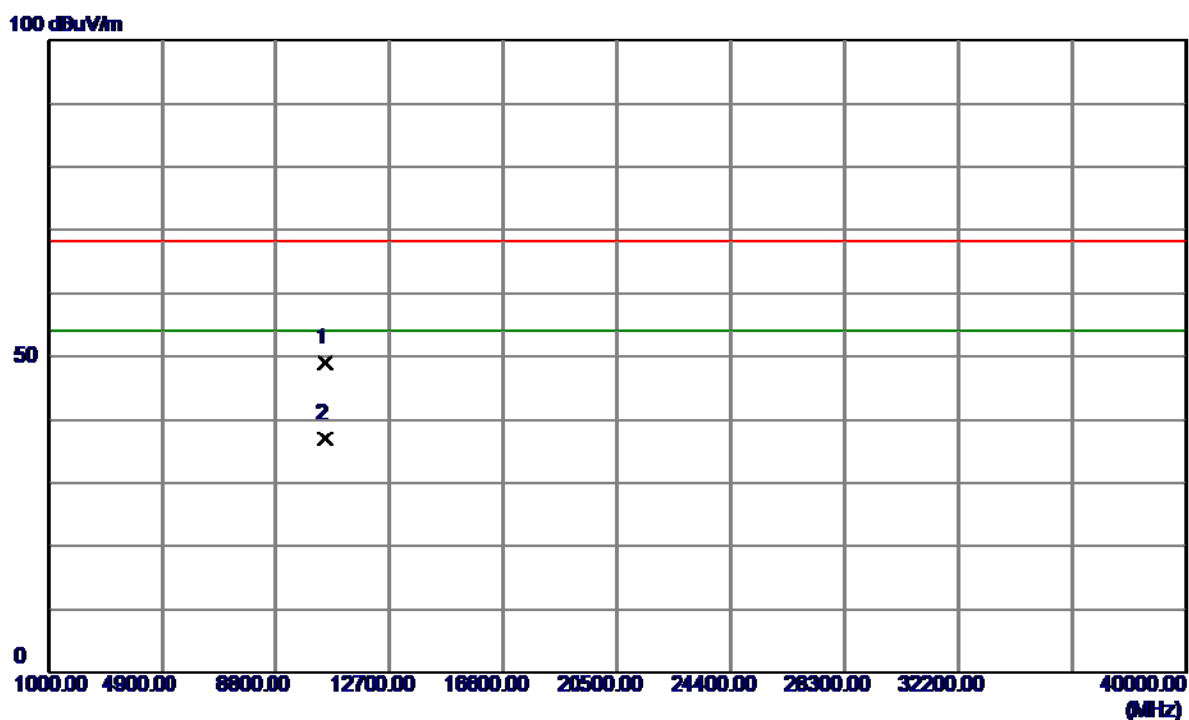
Horizontal



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

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

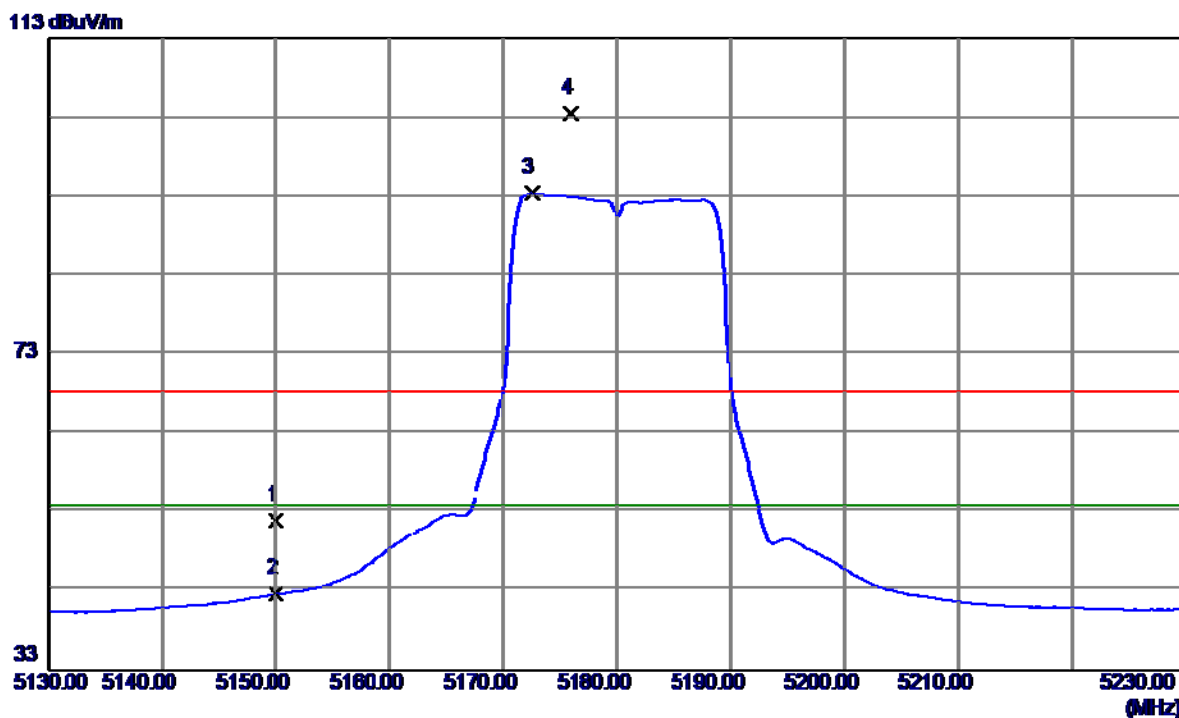
Horizontal



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

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

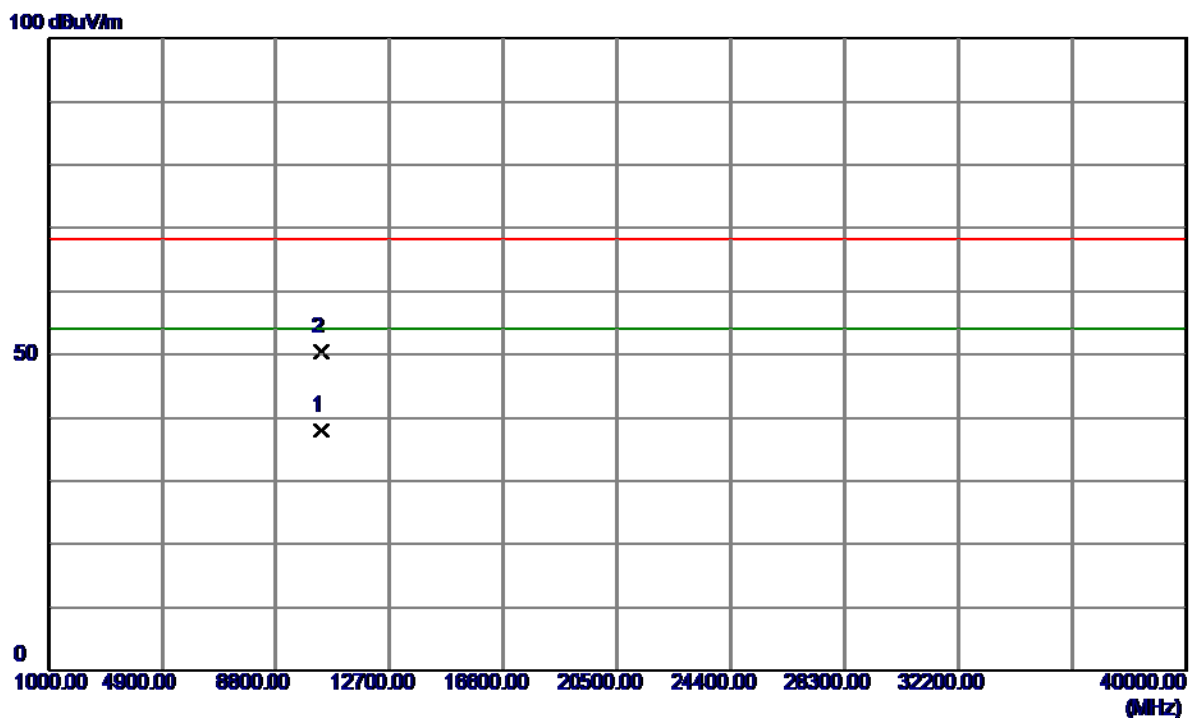
Vertical



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

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

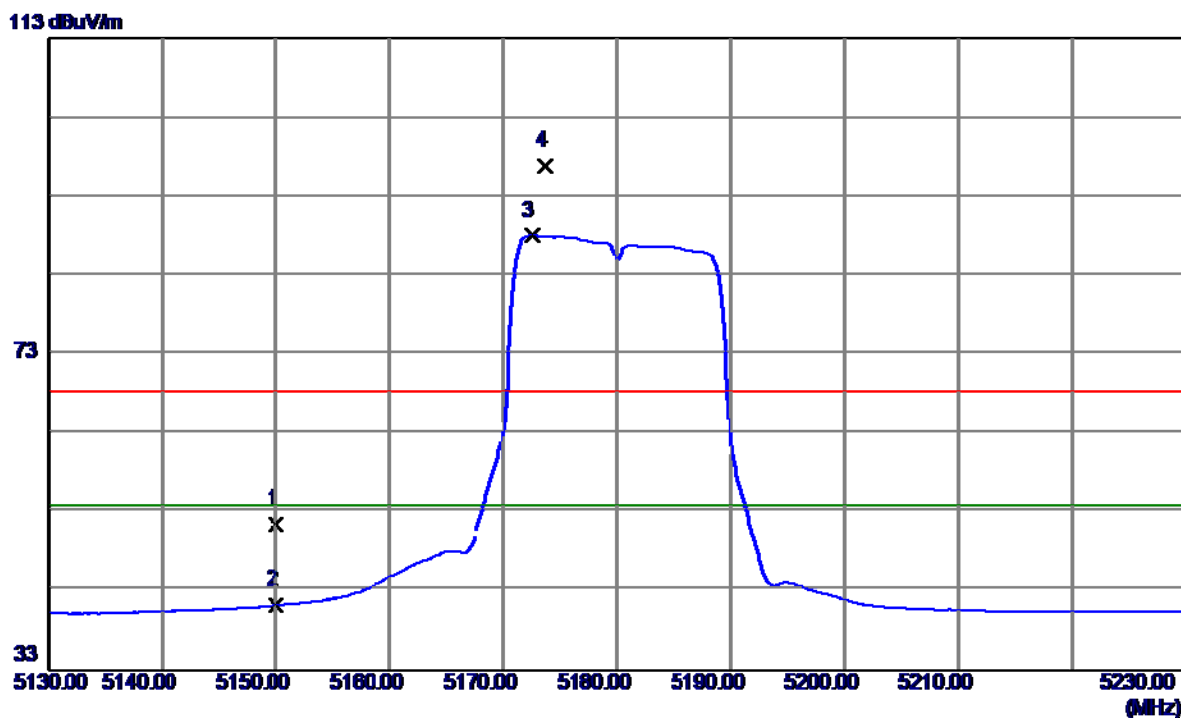
Vertical



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

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

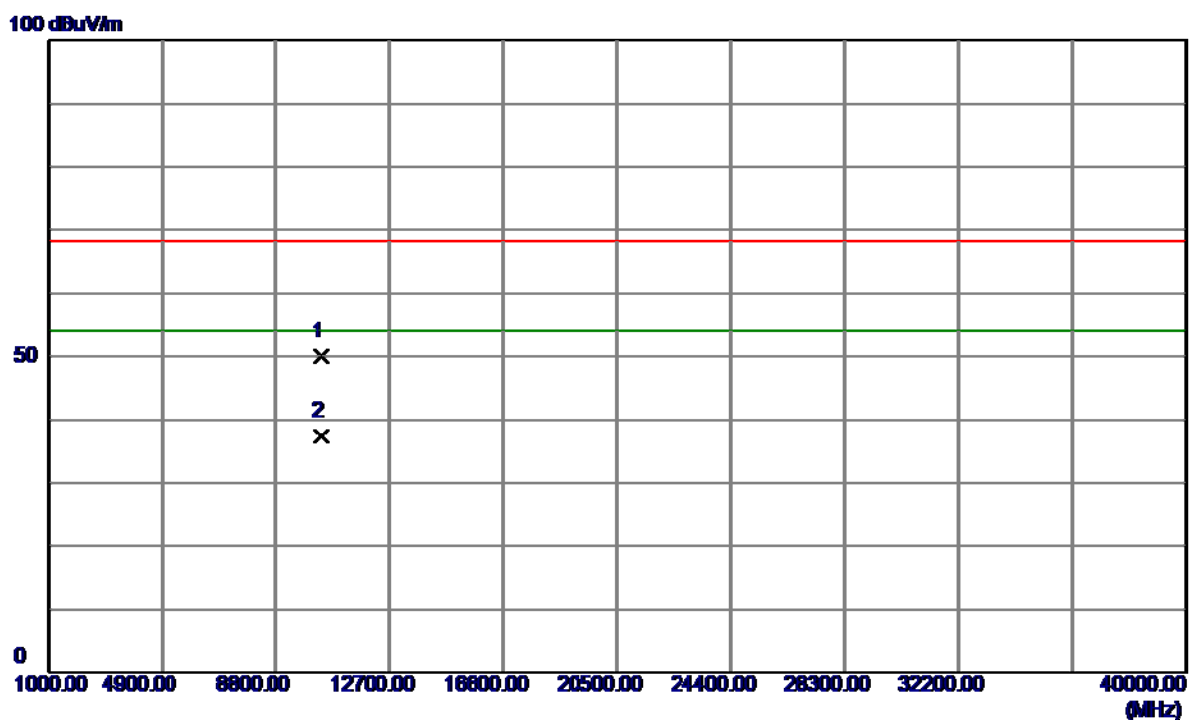
Horizontal



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

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

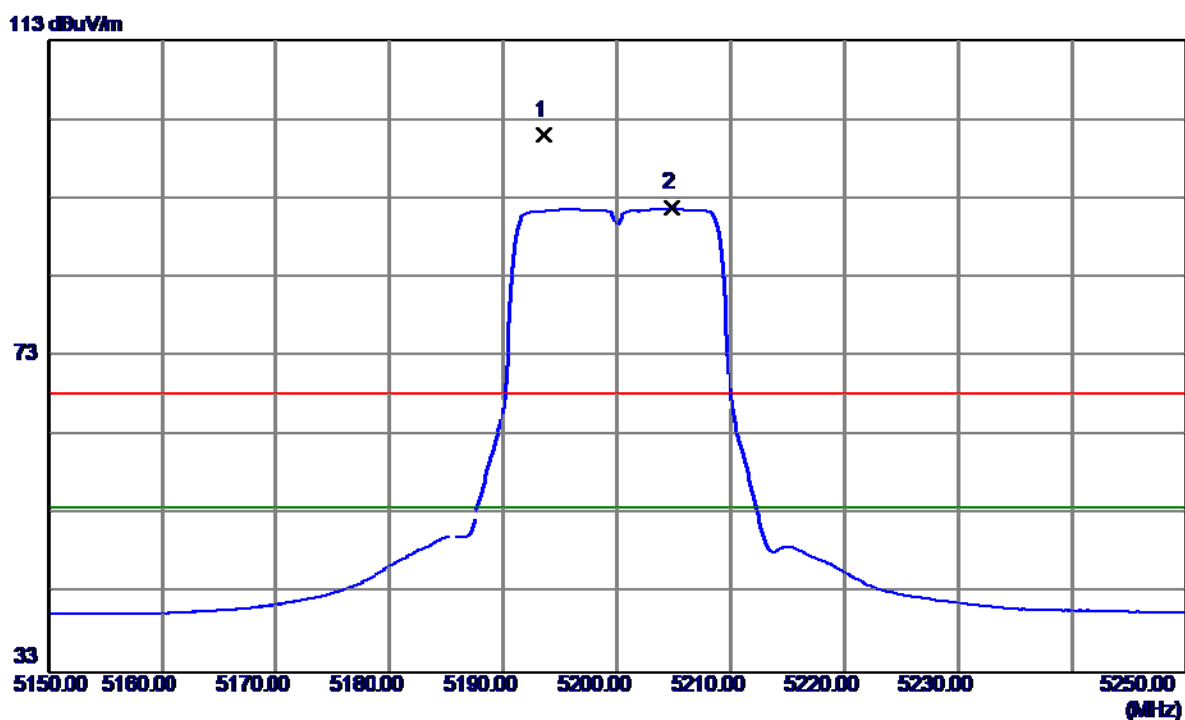
Horizontal



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

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

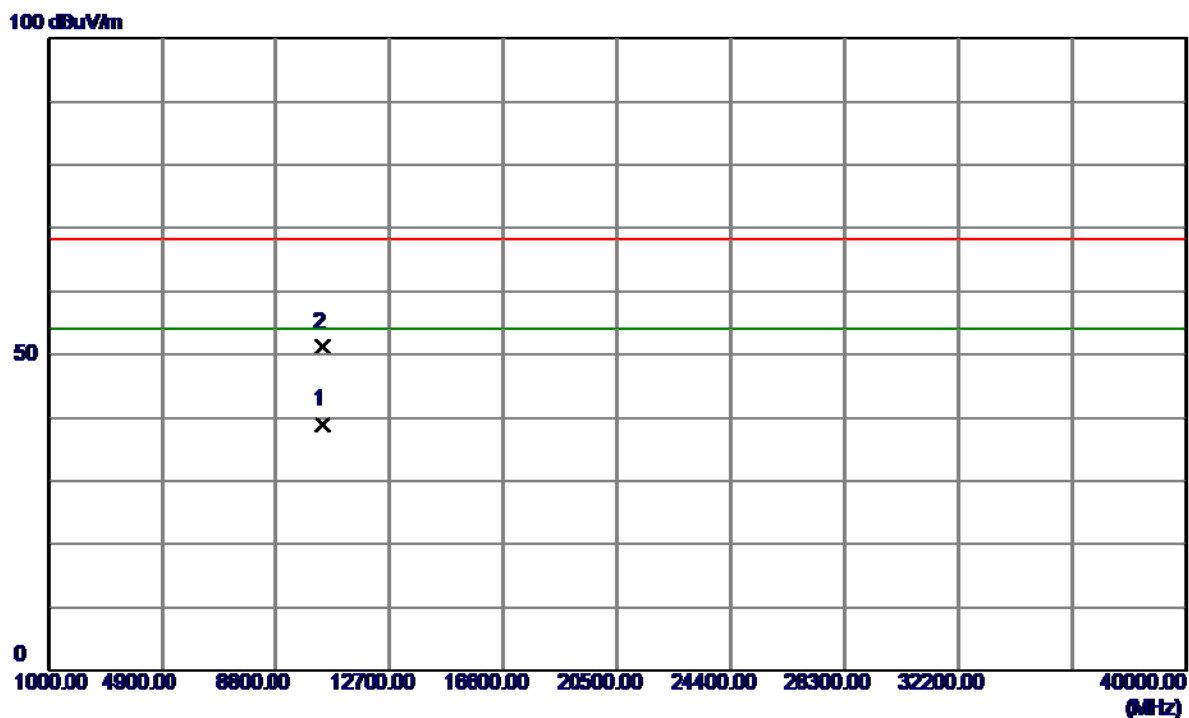
Vertical



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

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

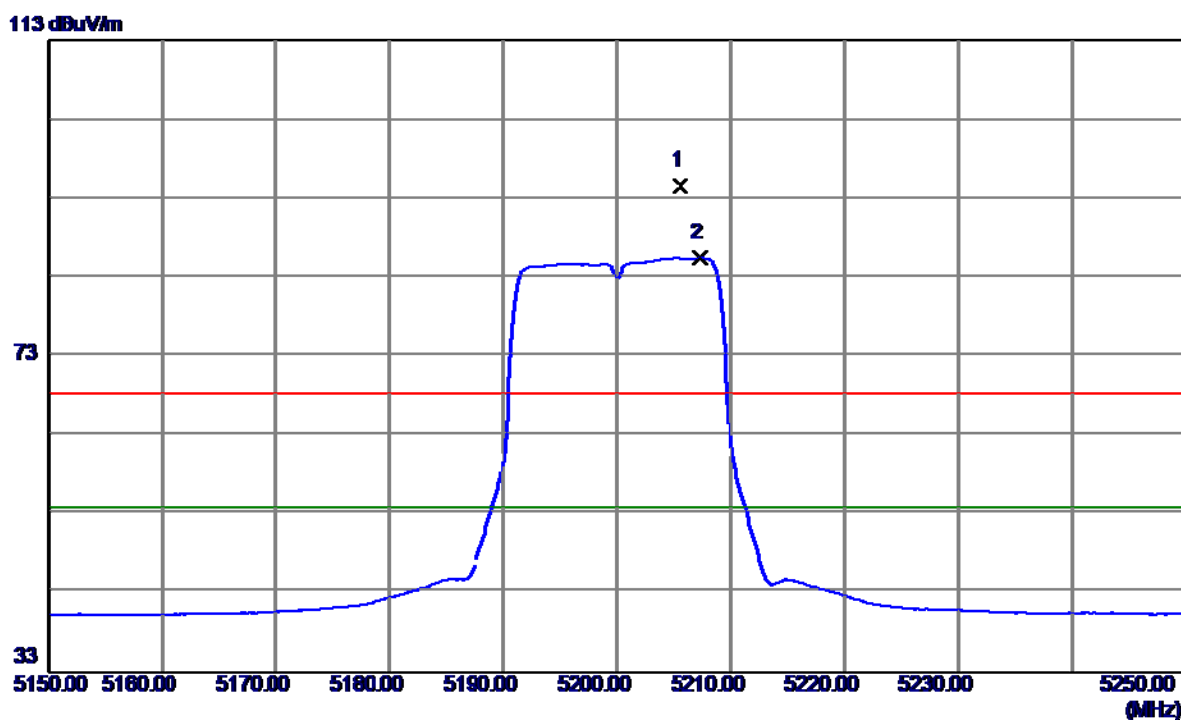
Vertical



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

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

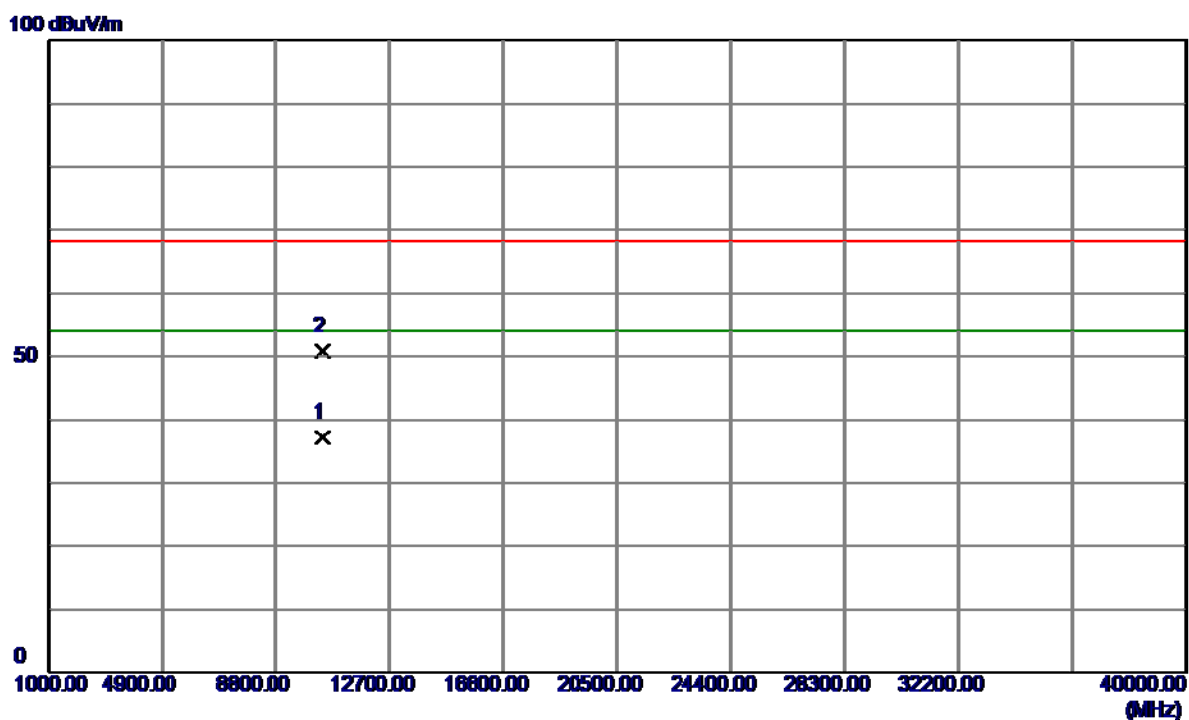
Horizontal



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

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

Horizontal

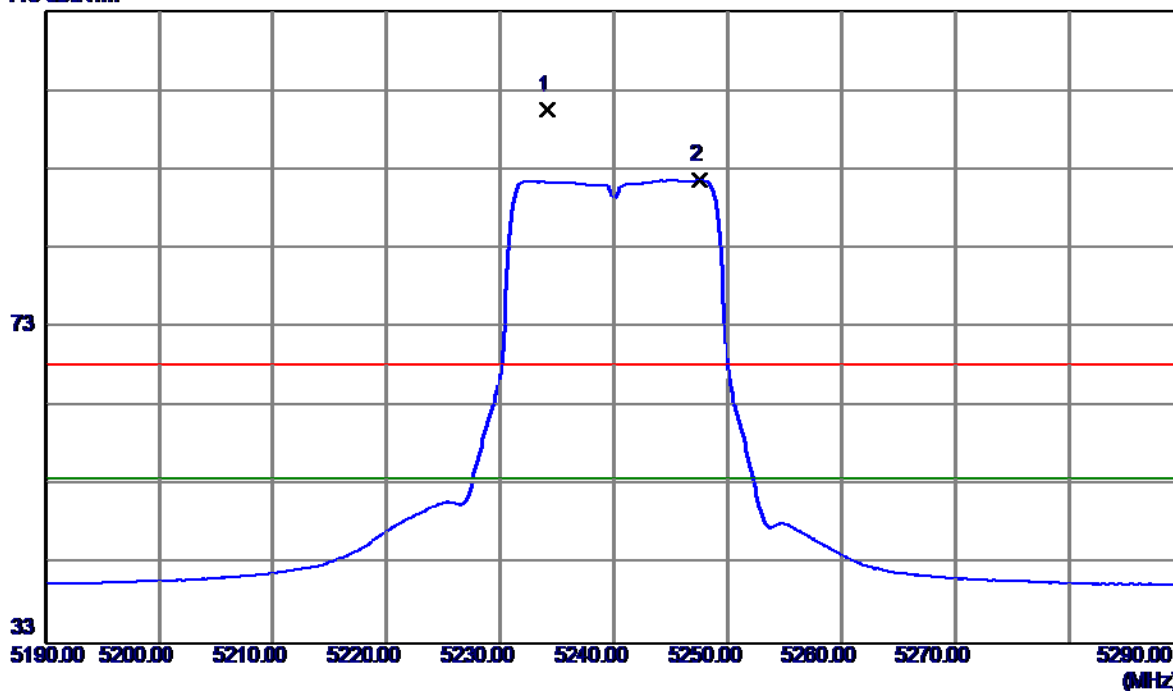


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	10400.6400	23.42	13.80	37.22	54.00	-16.78	AVG	
2	10400.8700	36.94	13.80	50.74	68.30	-17.56	Peak	

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

Vertical

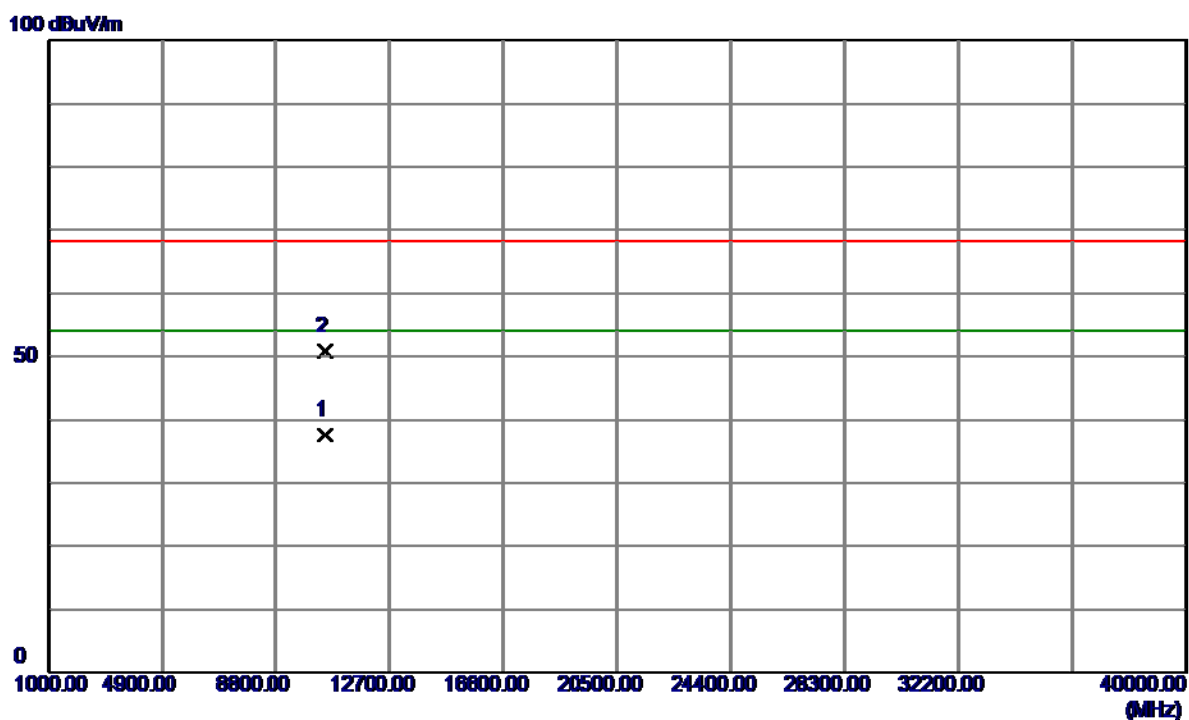
113 dBuV/m



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

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

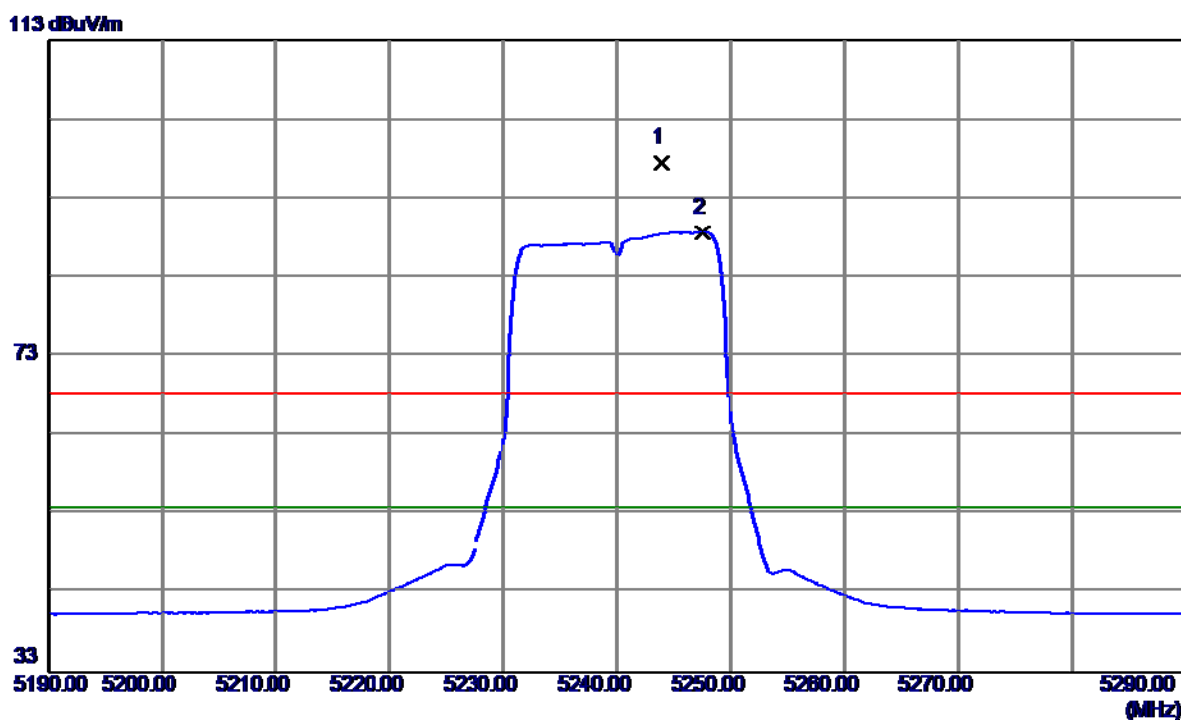
Vertical



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

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

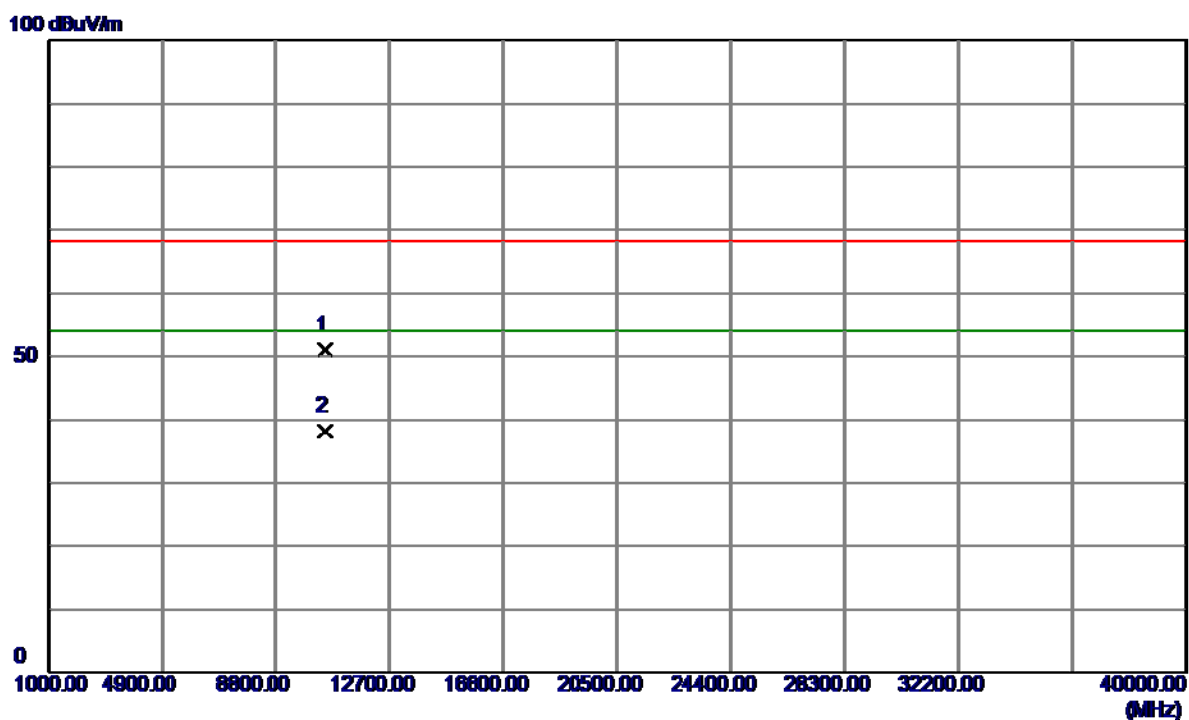
Horizontal



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

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

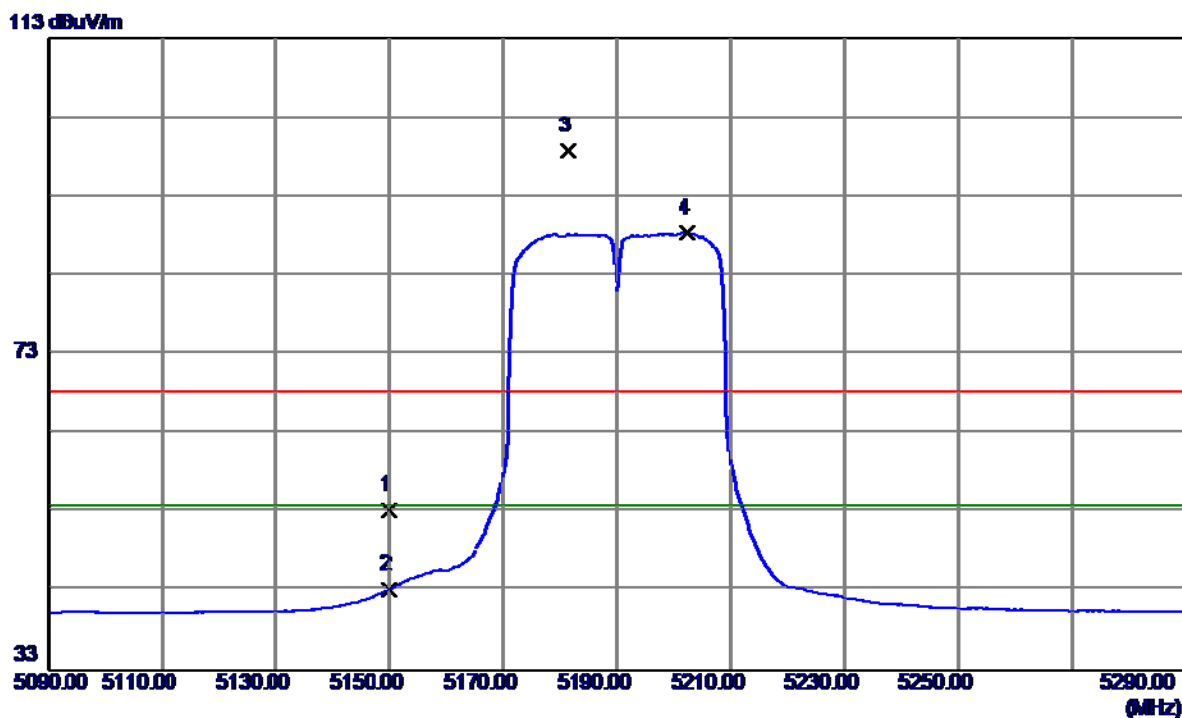
Horizontal



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

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

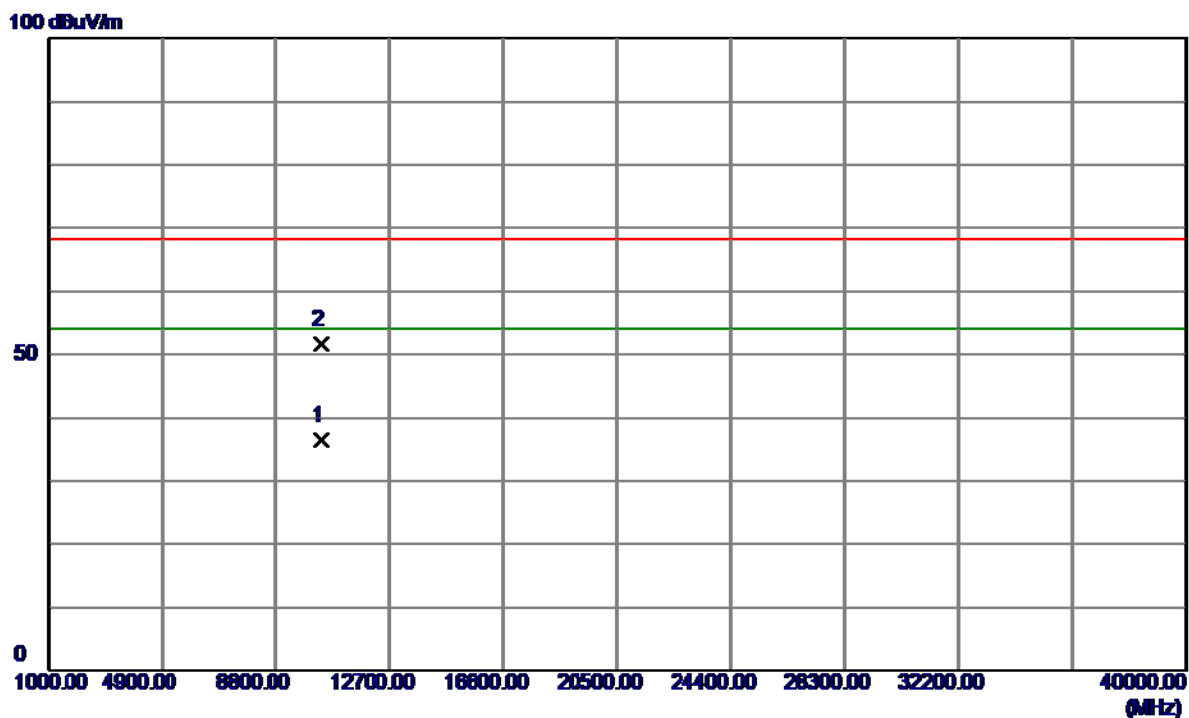
Vertical



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

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

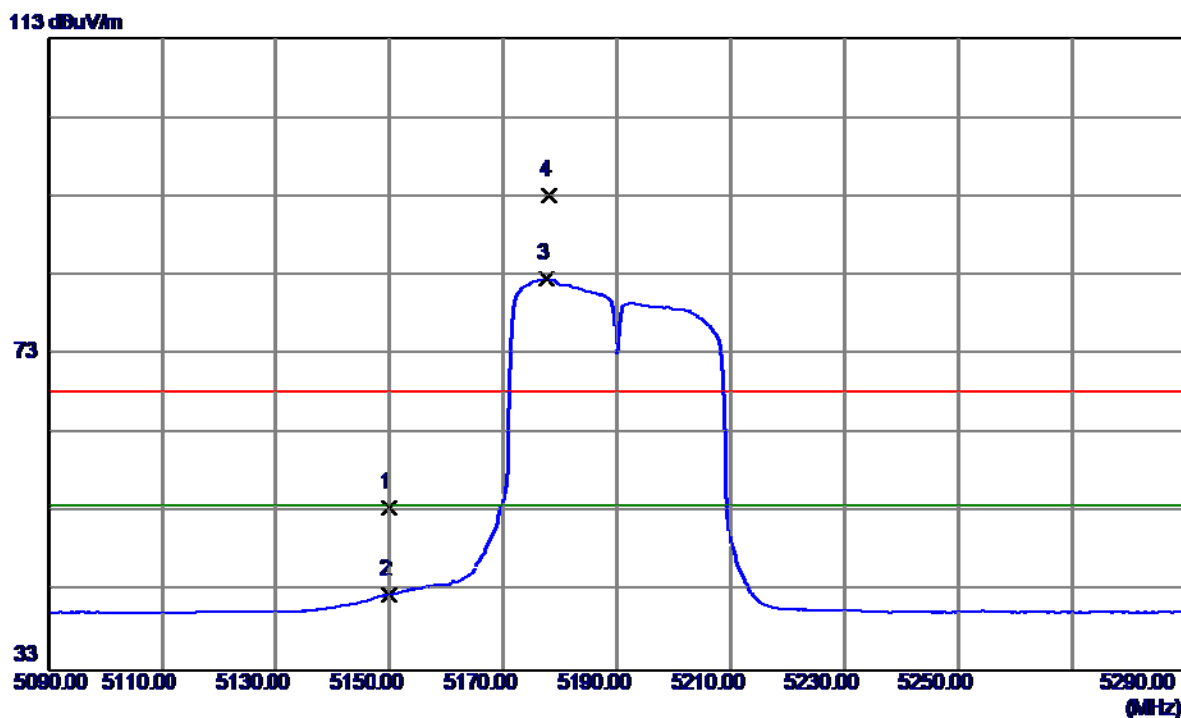
Vertical



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

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

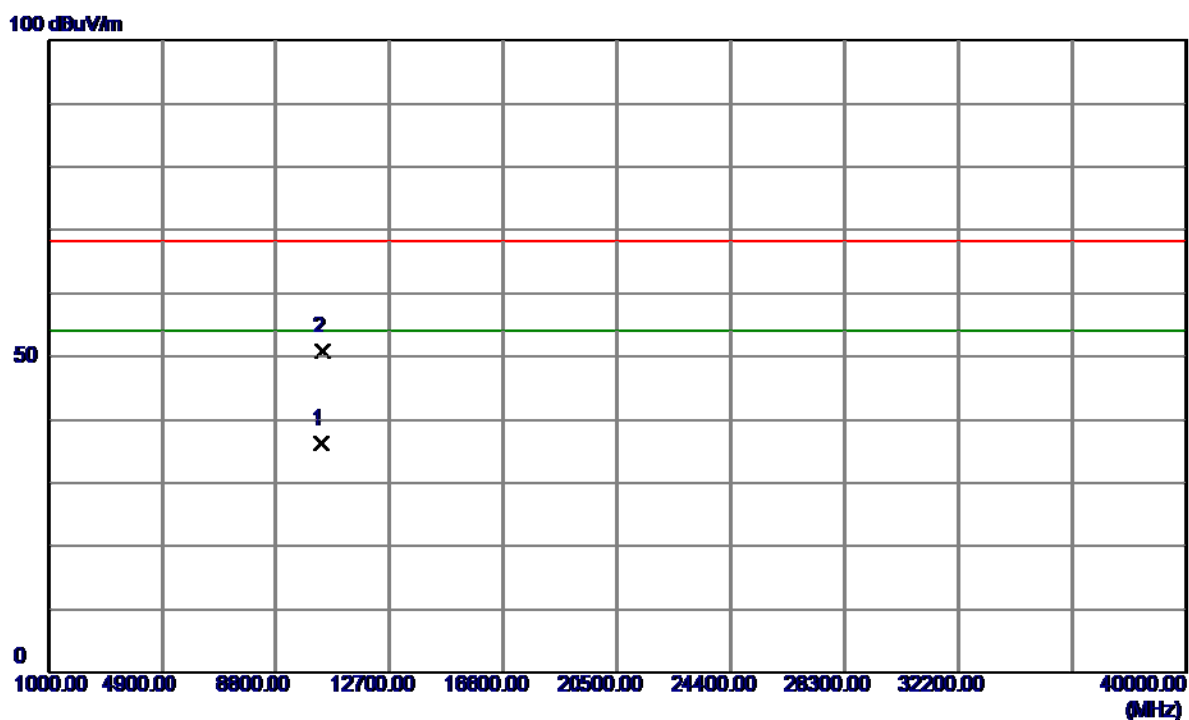
Horizontal



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

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

Horizontal

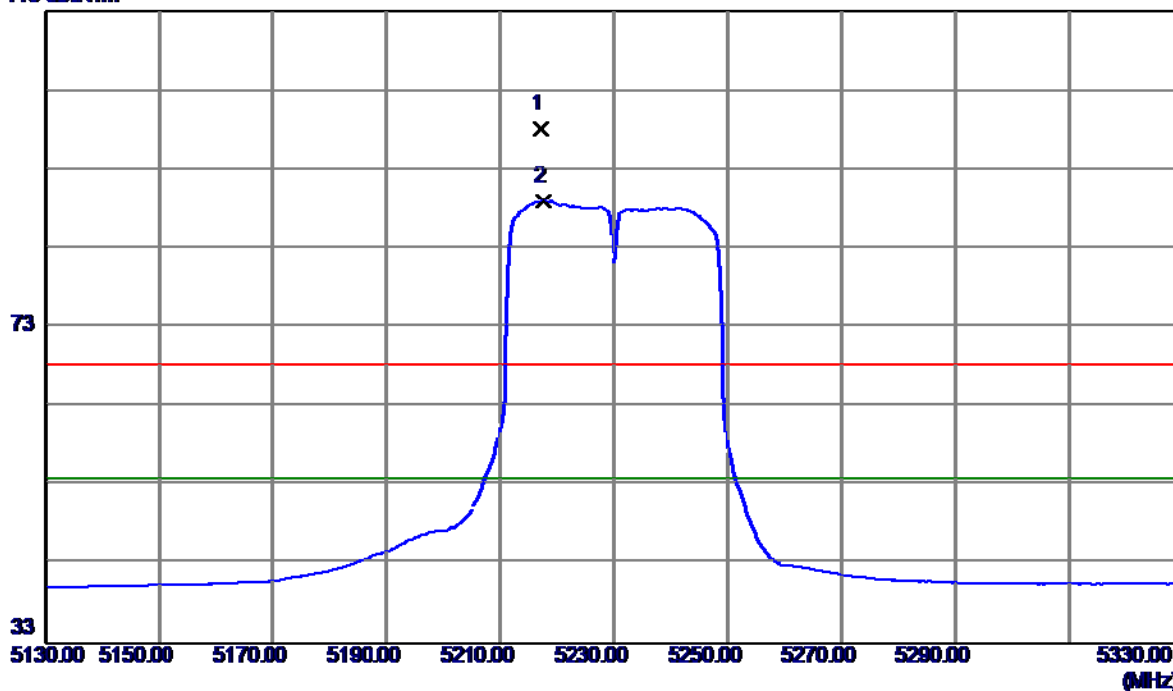


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	10381.5800	22.42	13.83	36.25	54.00	-17.75	AVG	
2	10382.1600	37.05	13.83	50.88	68.30	-17.42	Peak	

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

Vertical

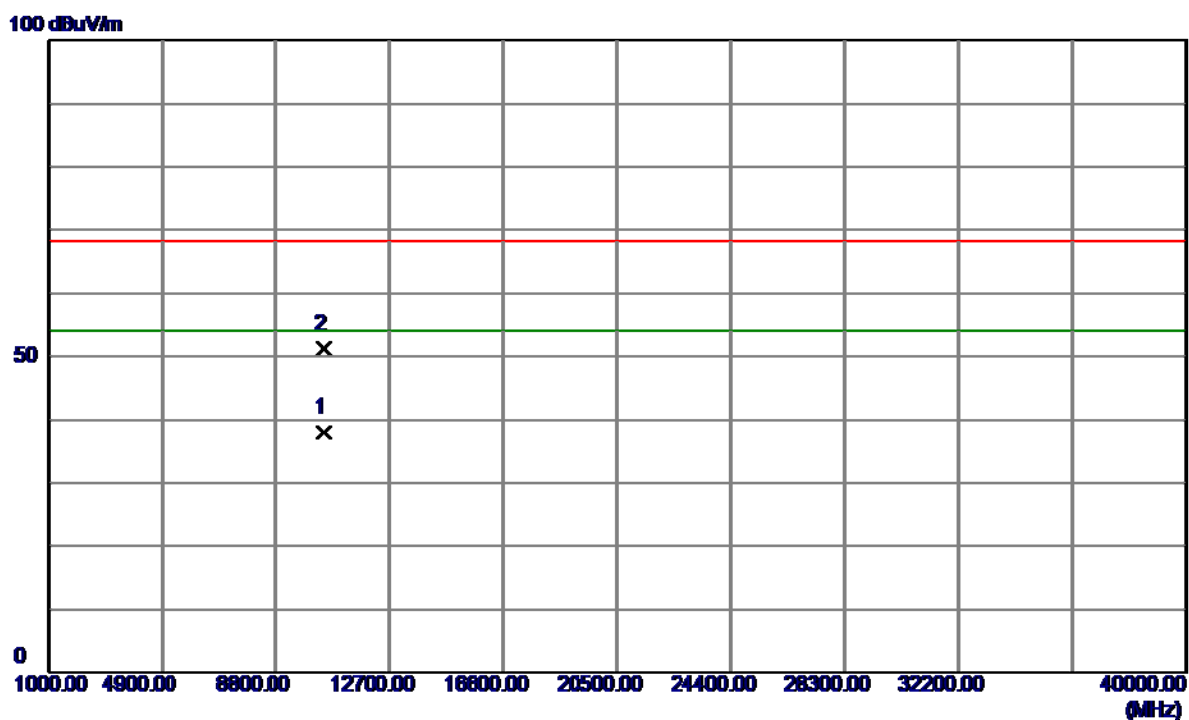
113 dBuV/m



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

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

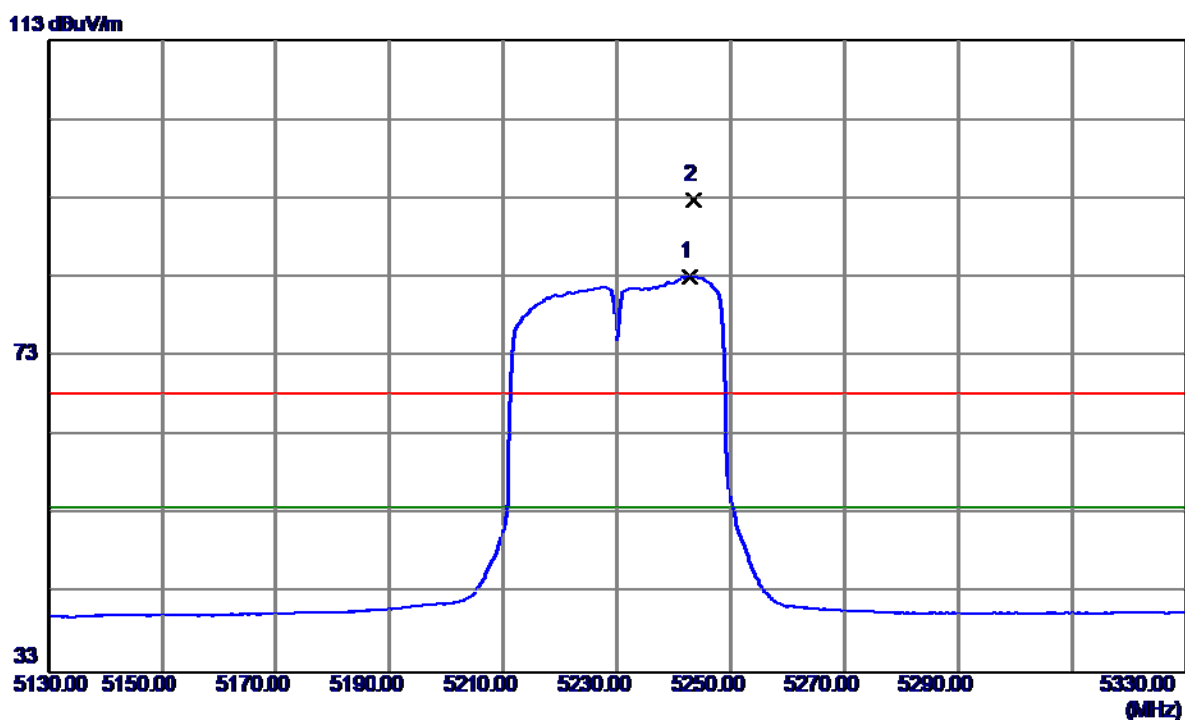
Vertical



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

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

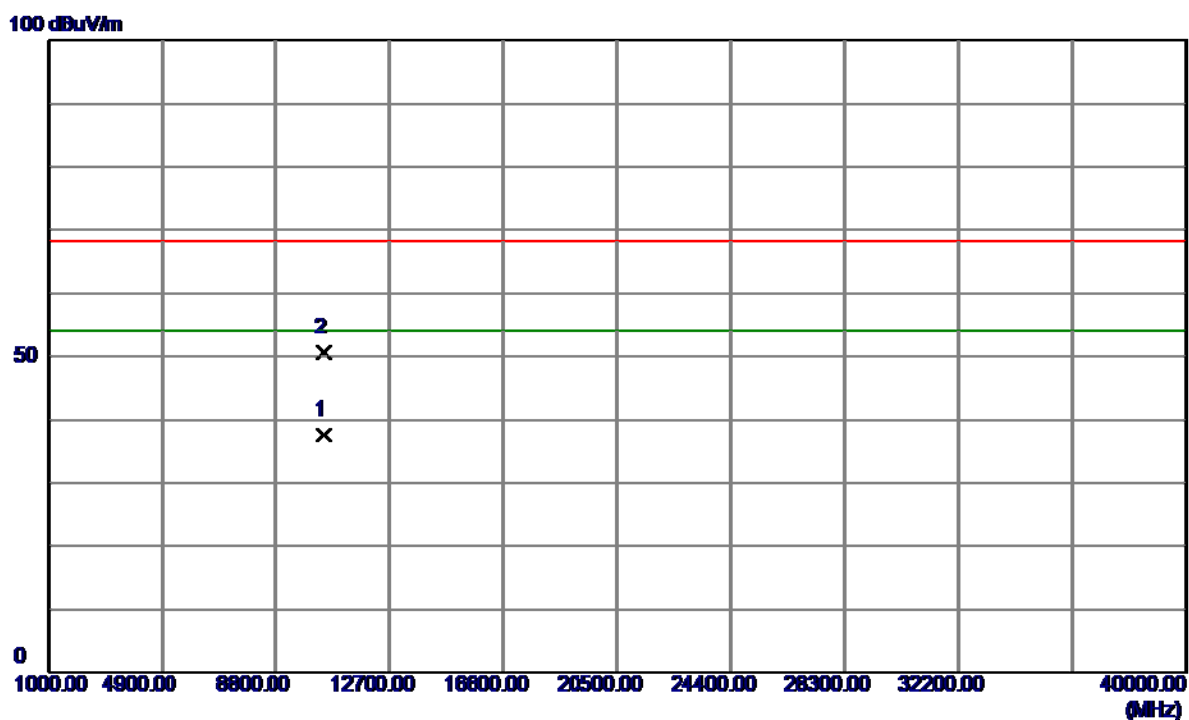
Horizontal



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

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

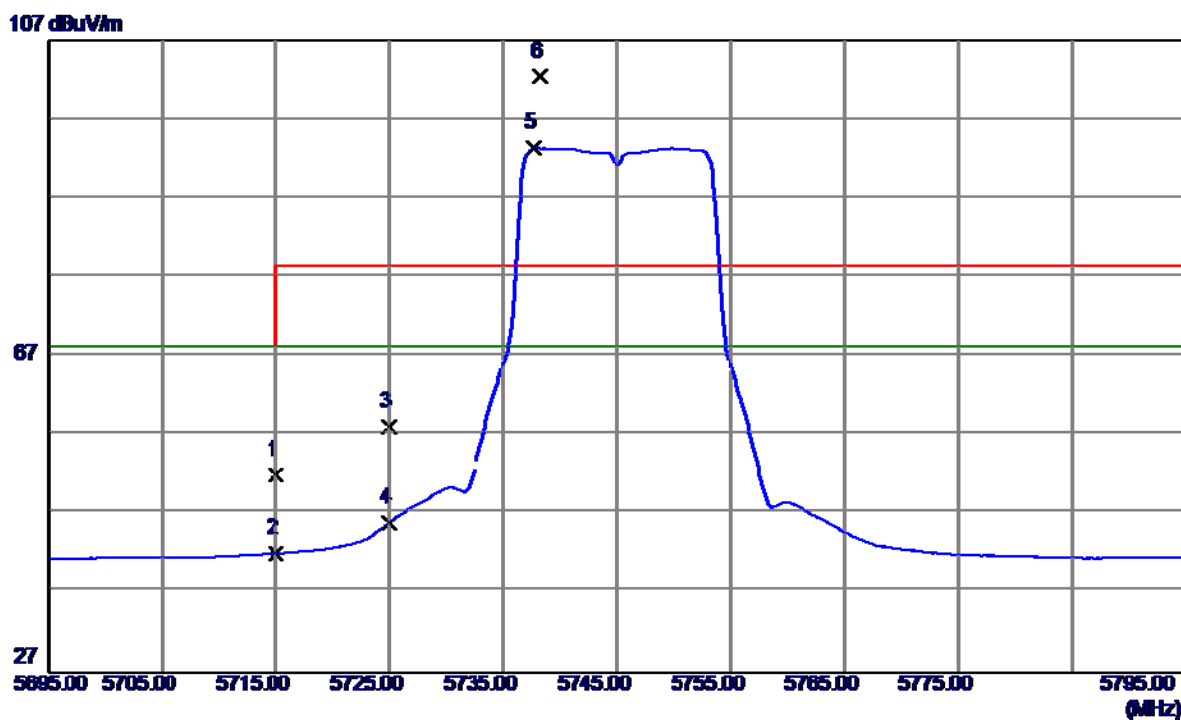
Horizontal



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

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

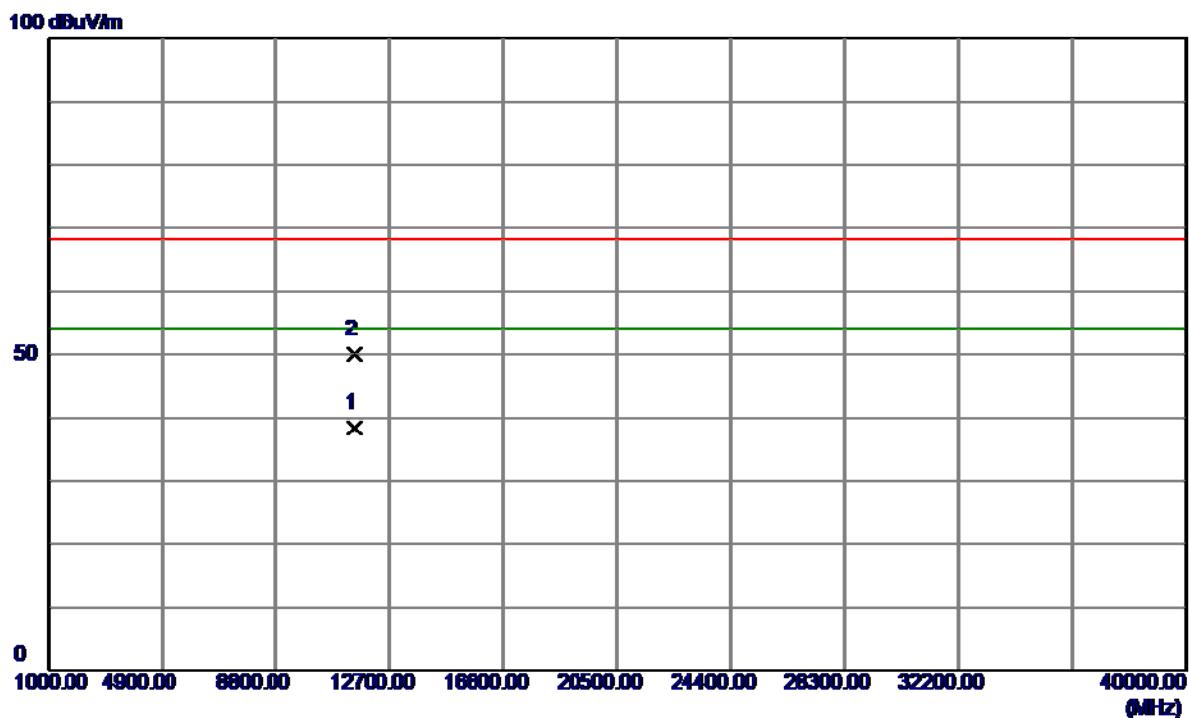
Vertical



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

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

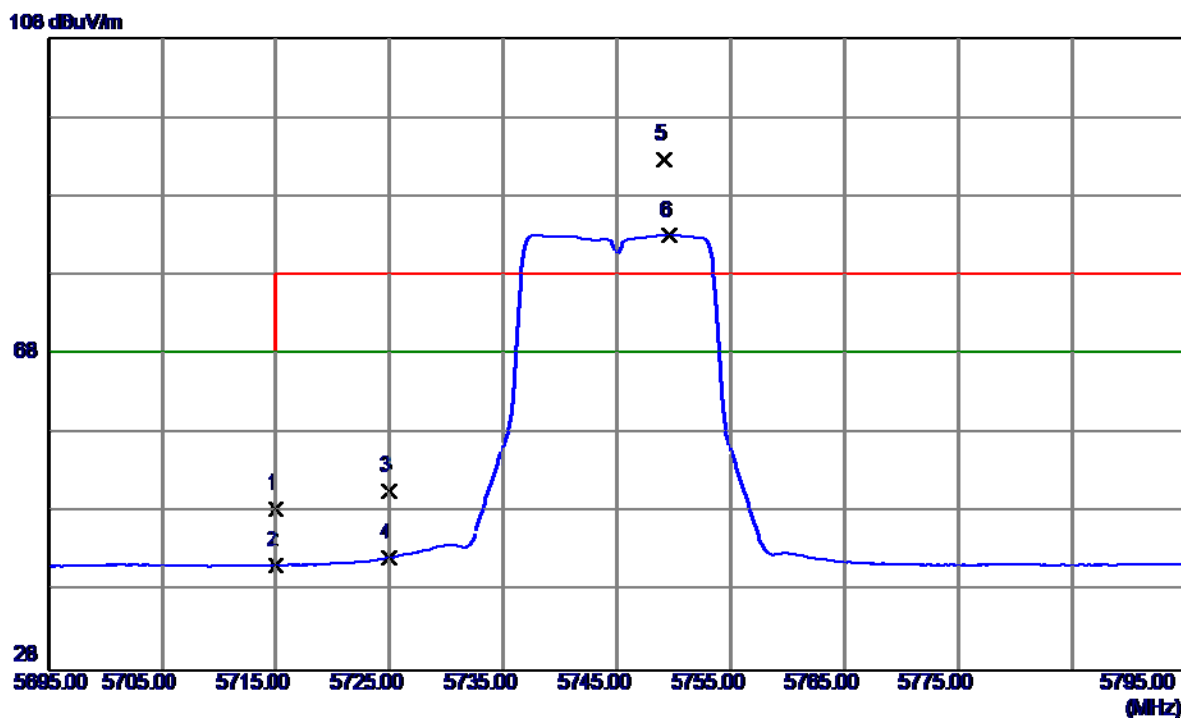
Vertical



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

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

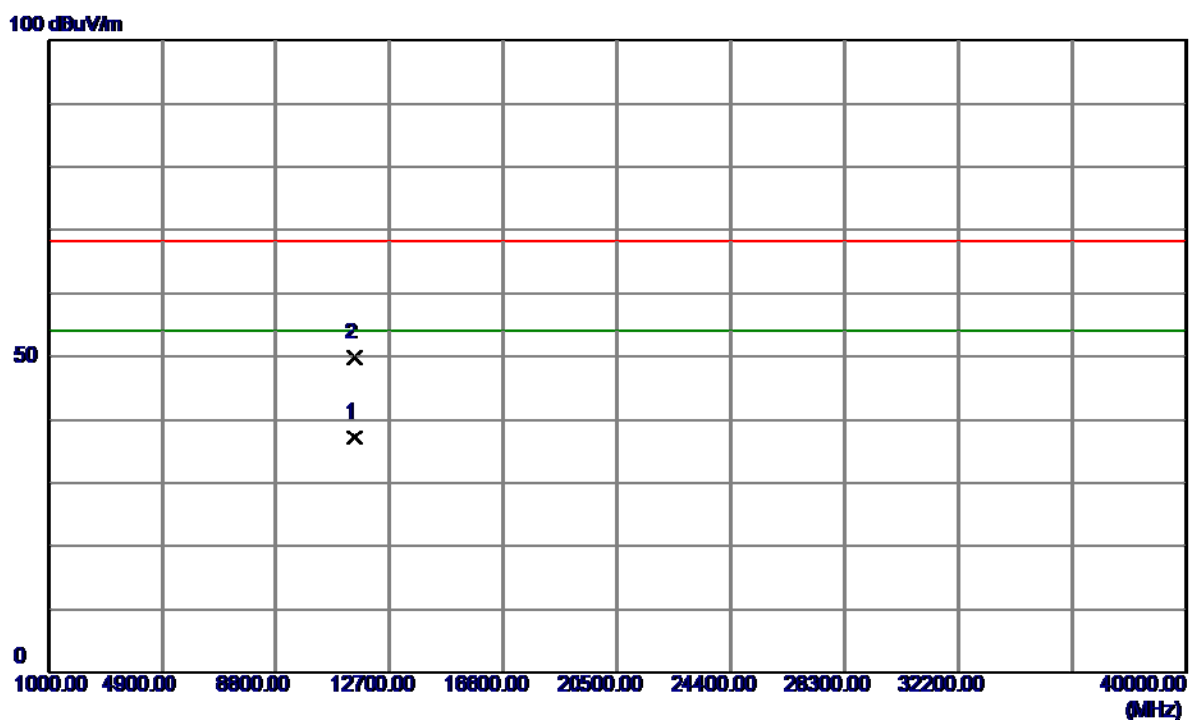
Horizontal



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

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

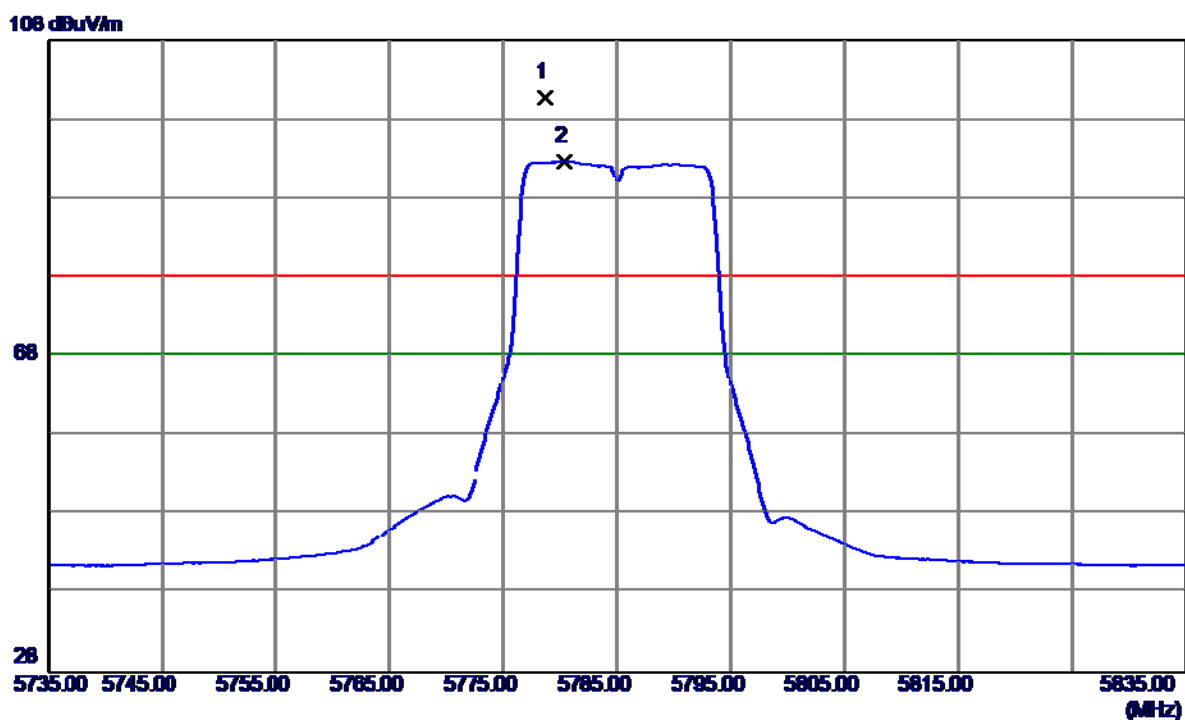
Horizontal



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

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

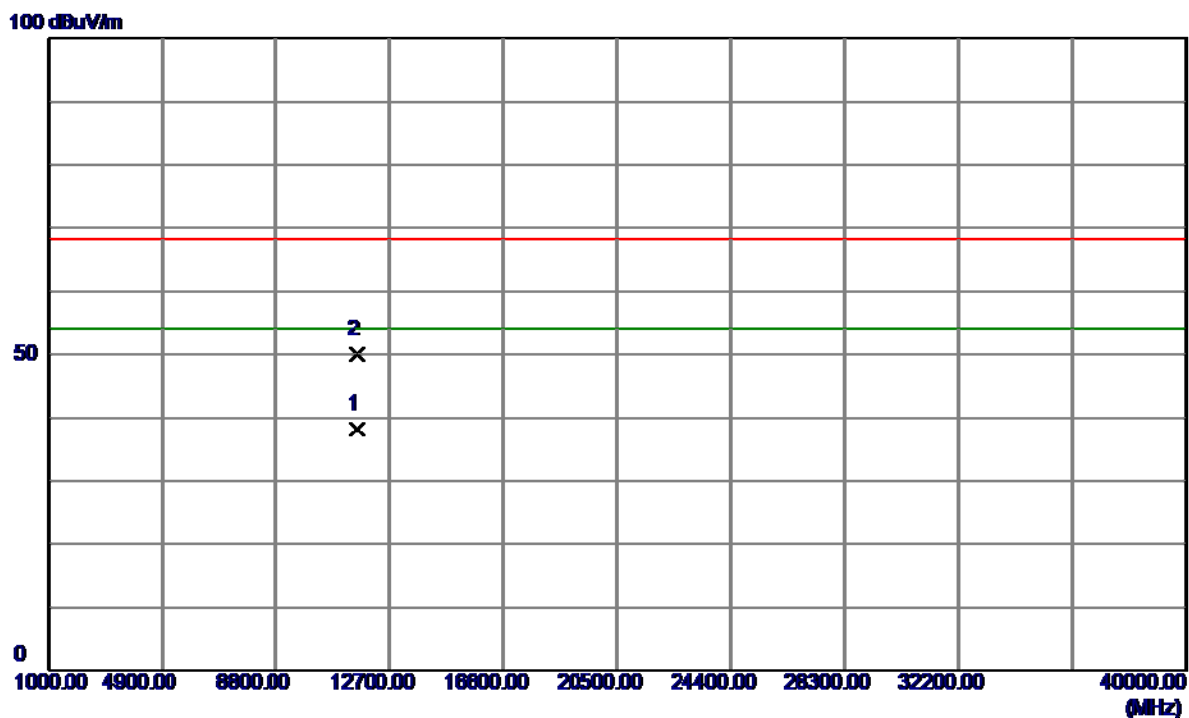
Vertical



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

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

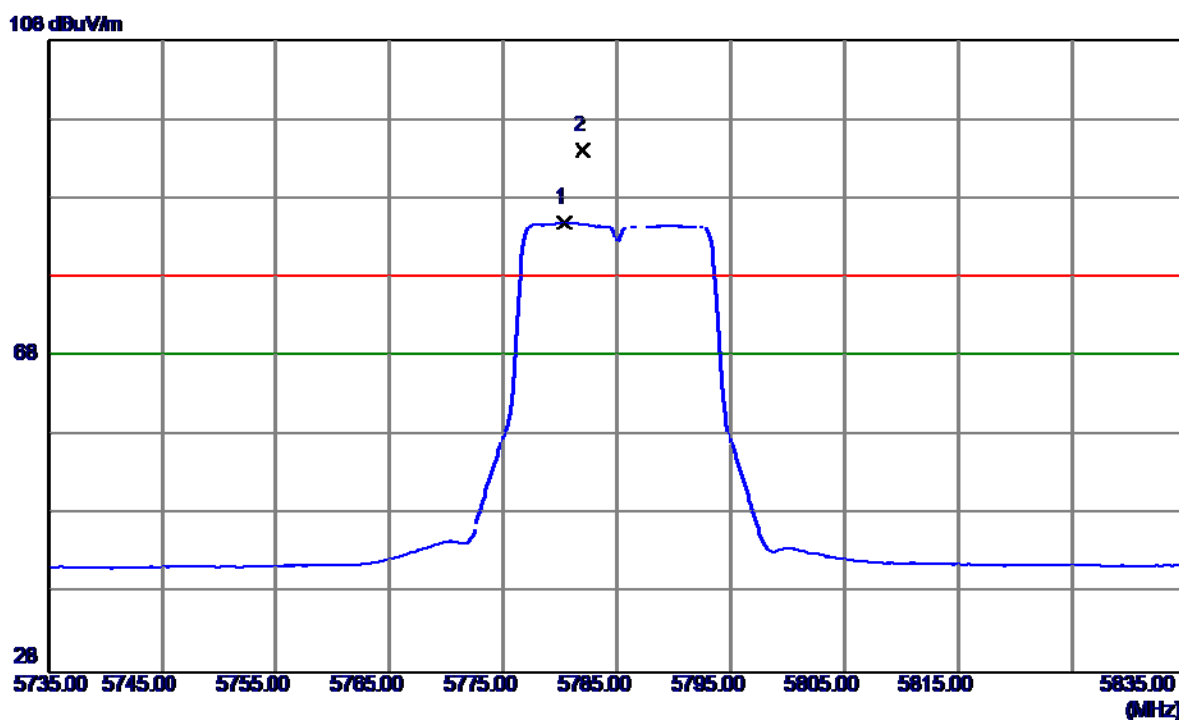
Vertical



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

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

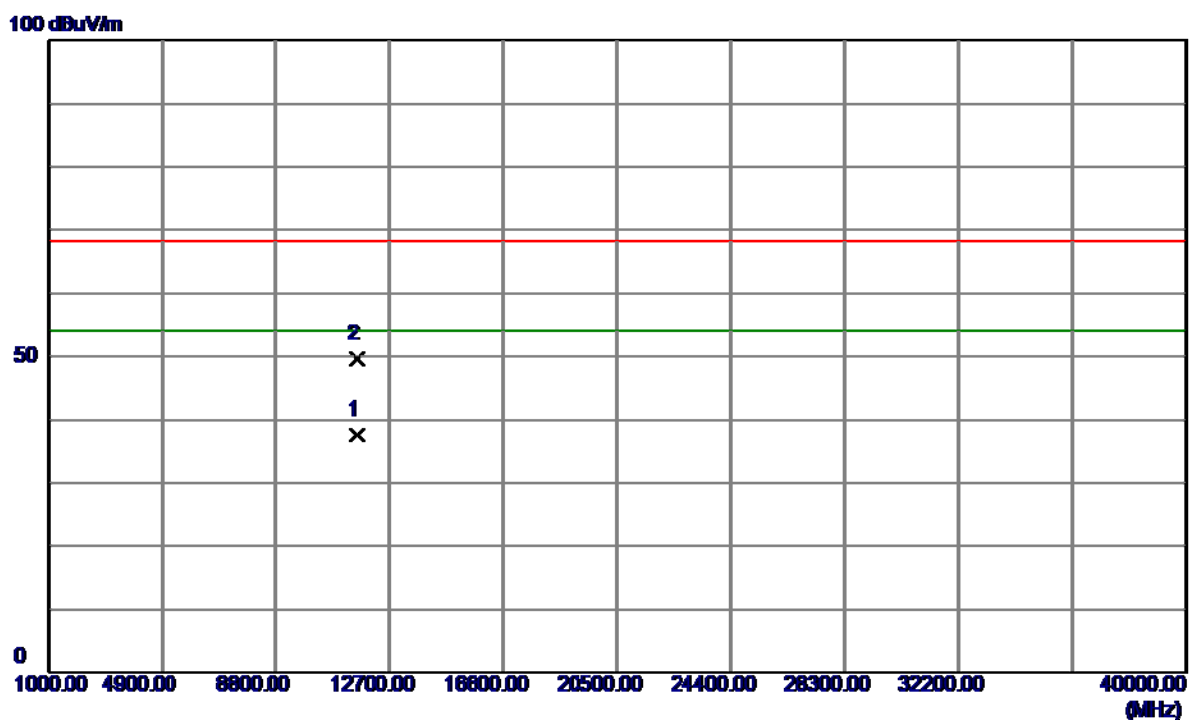
Horizontal



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

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

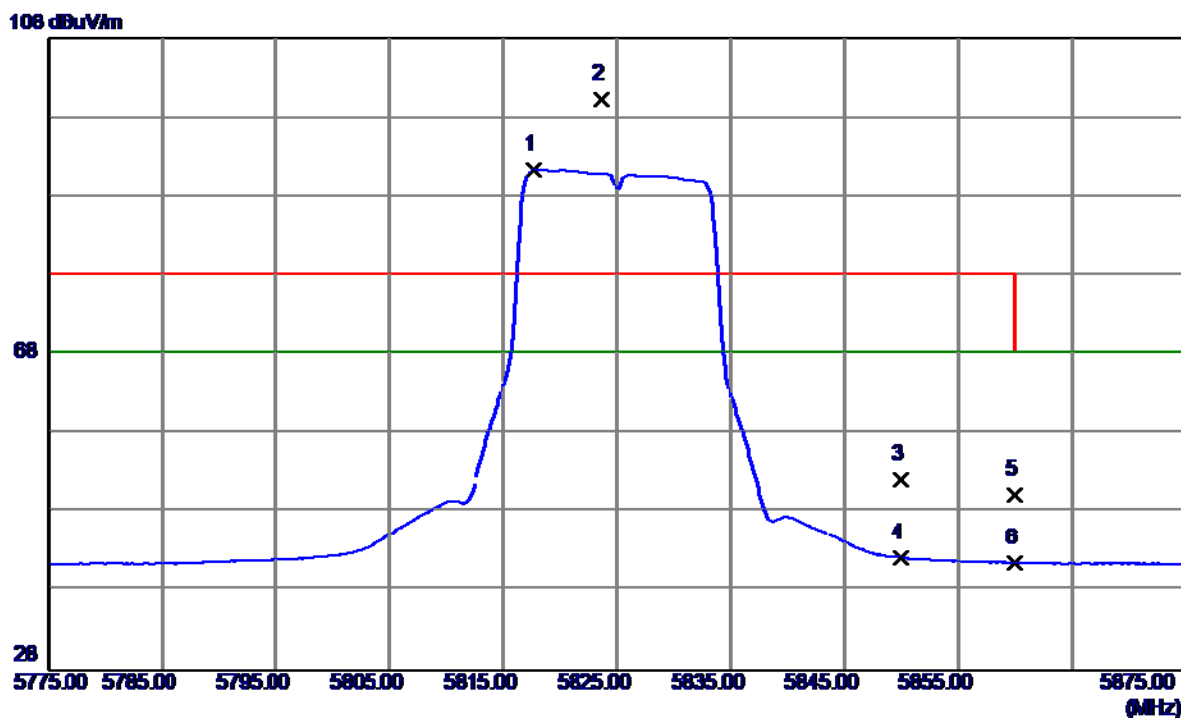
Horizontal



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

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

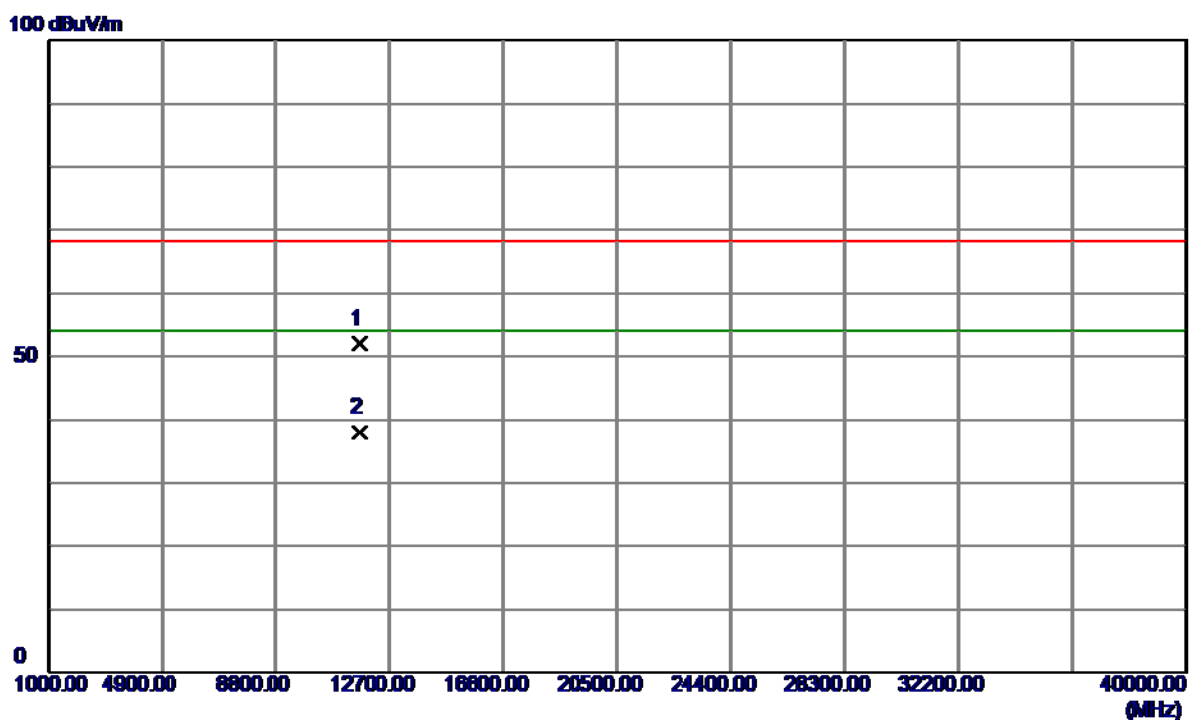
Vertical



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

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

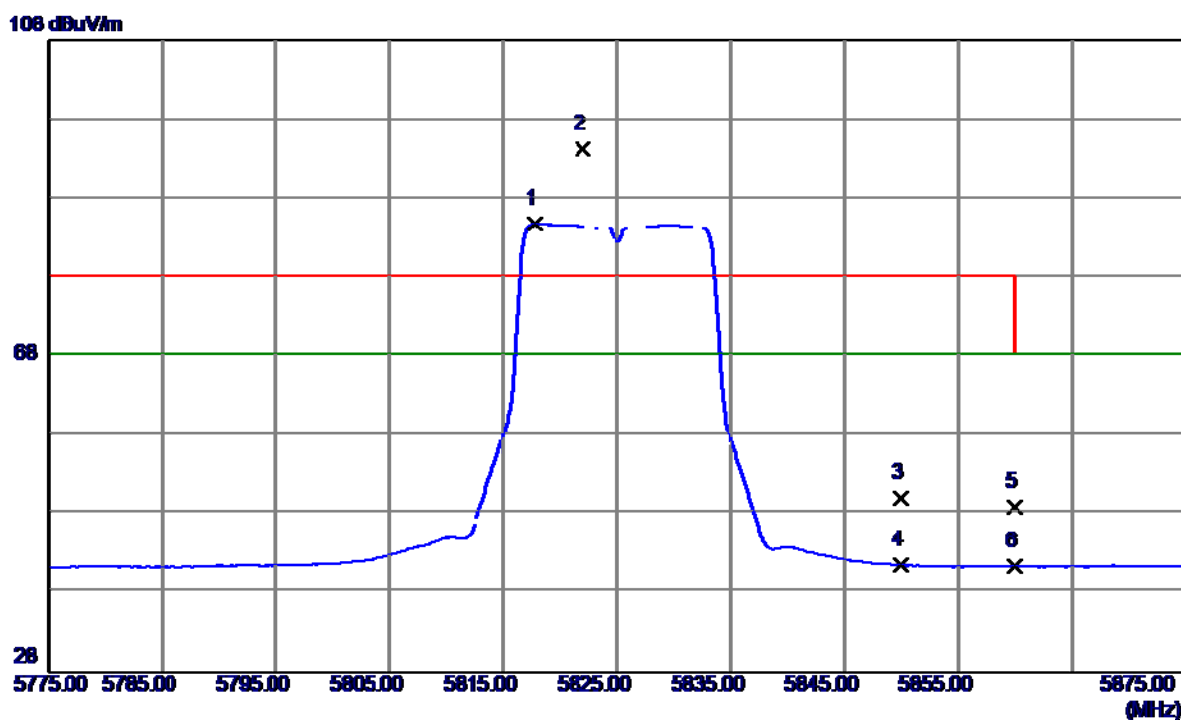
Vertical



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

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

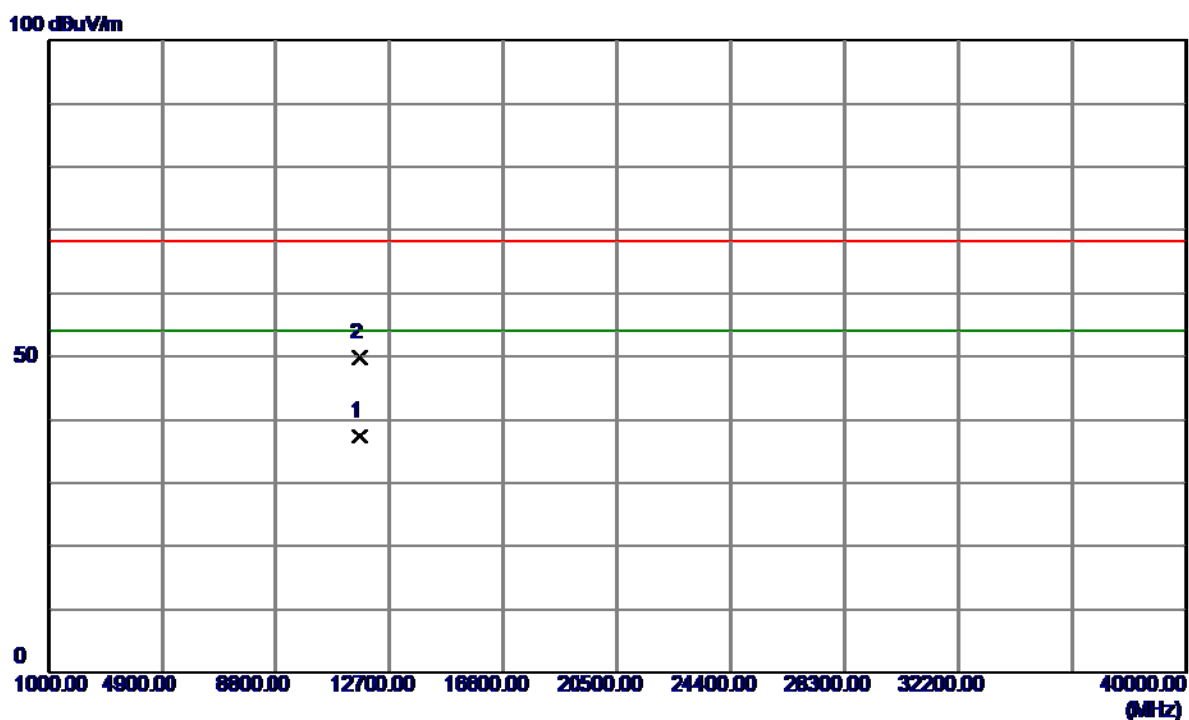
Horizontal



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

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

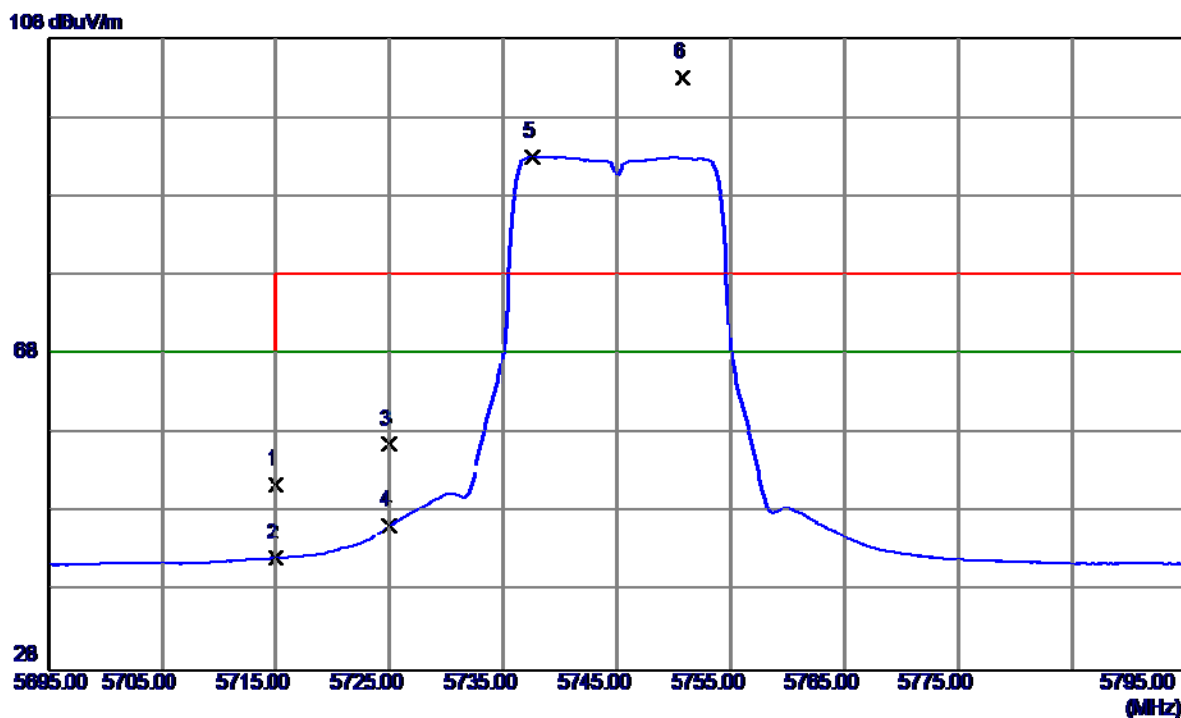
Horizontal



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

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

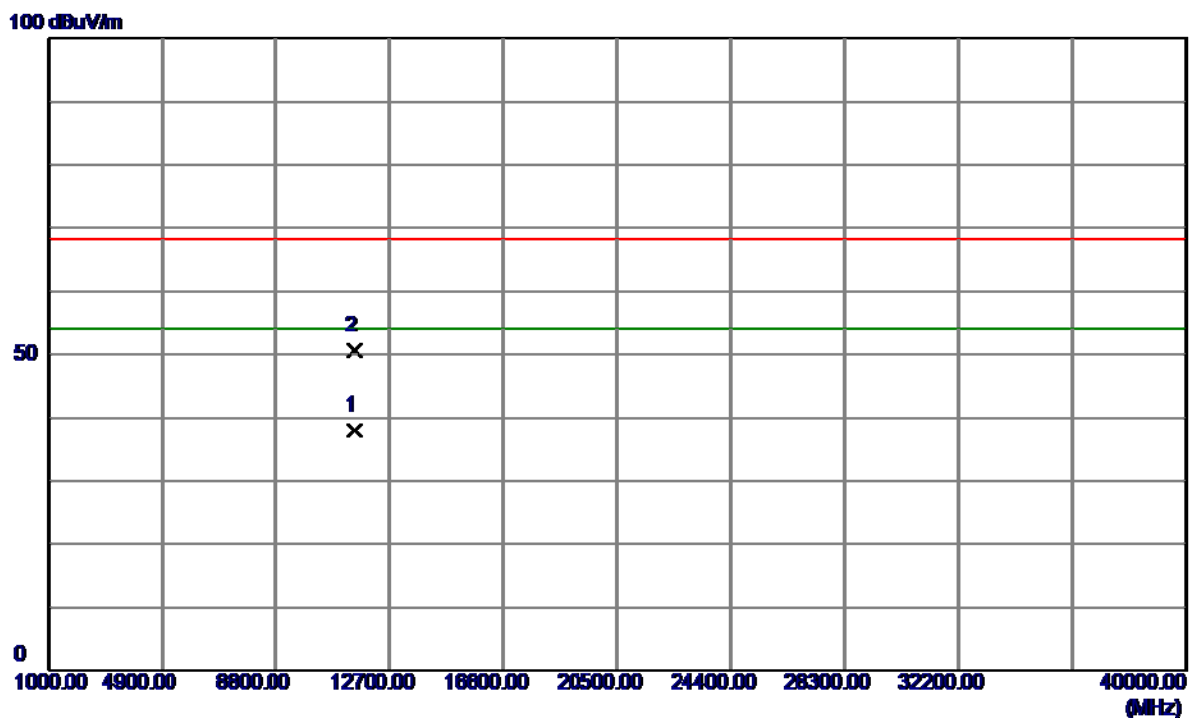
Vertical



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

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

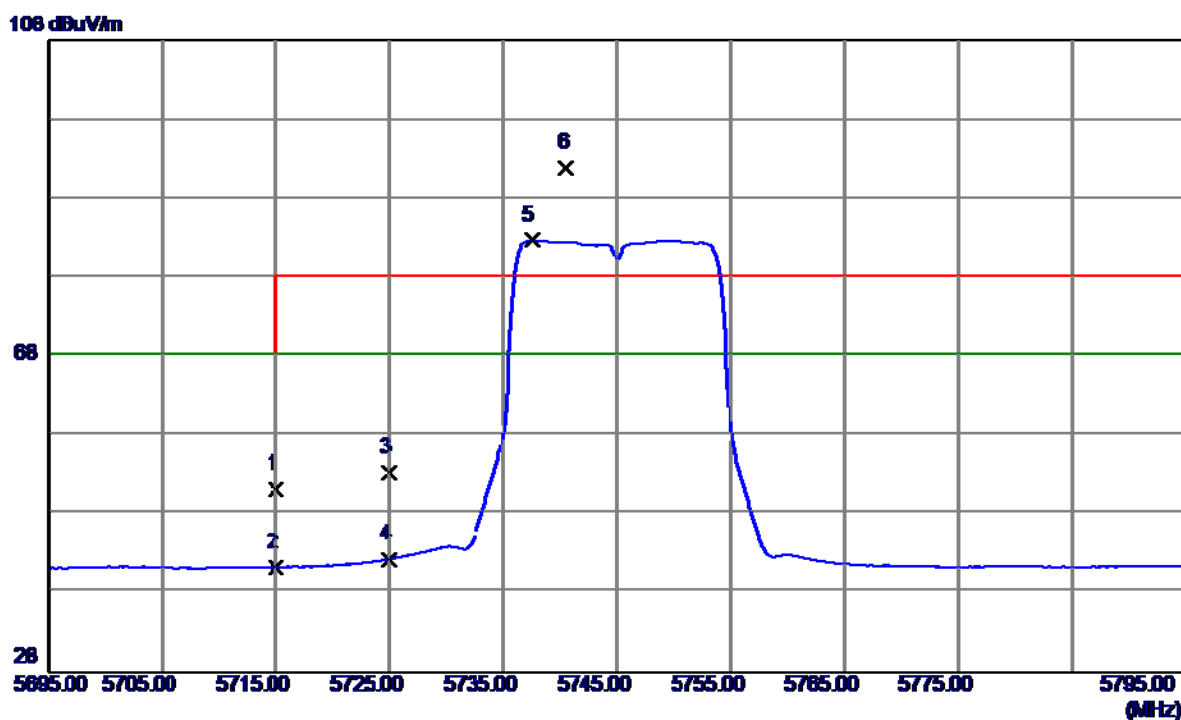
Vertical



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

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

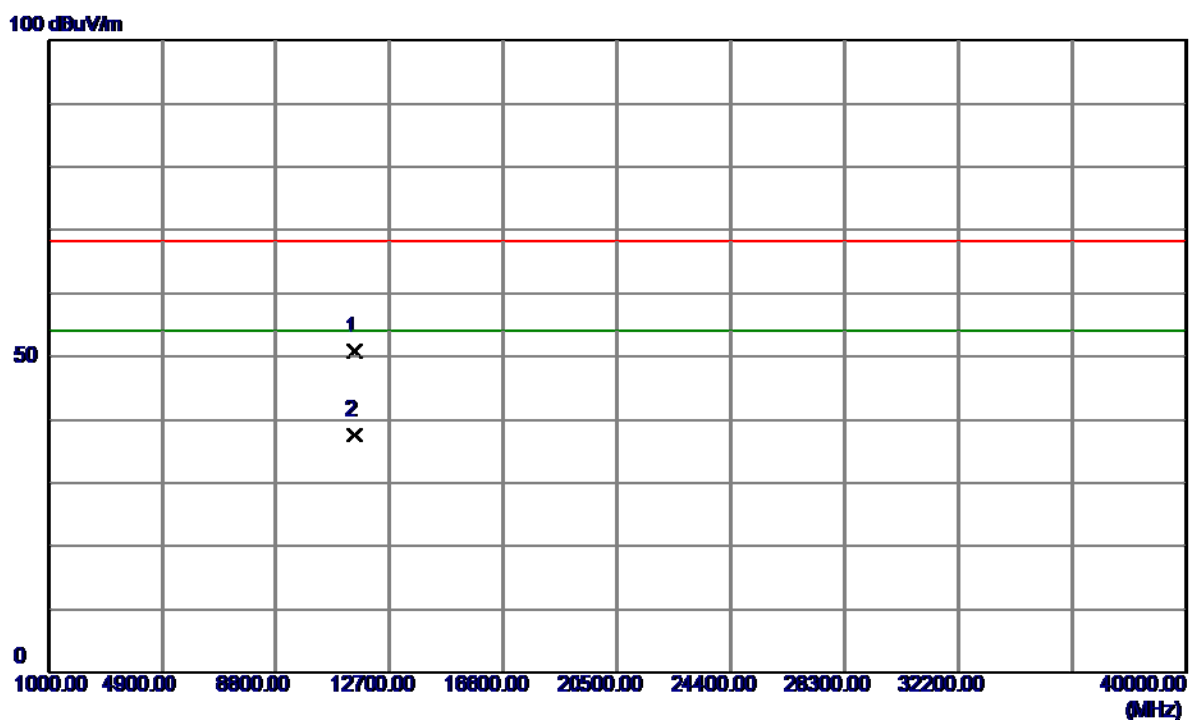
Horizontal



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

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

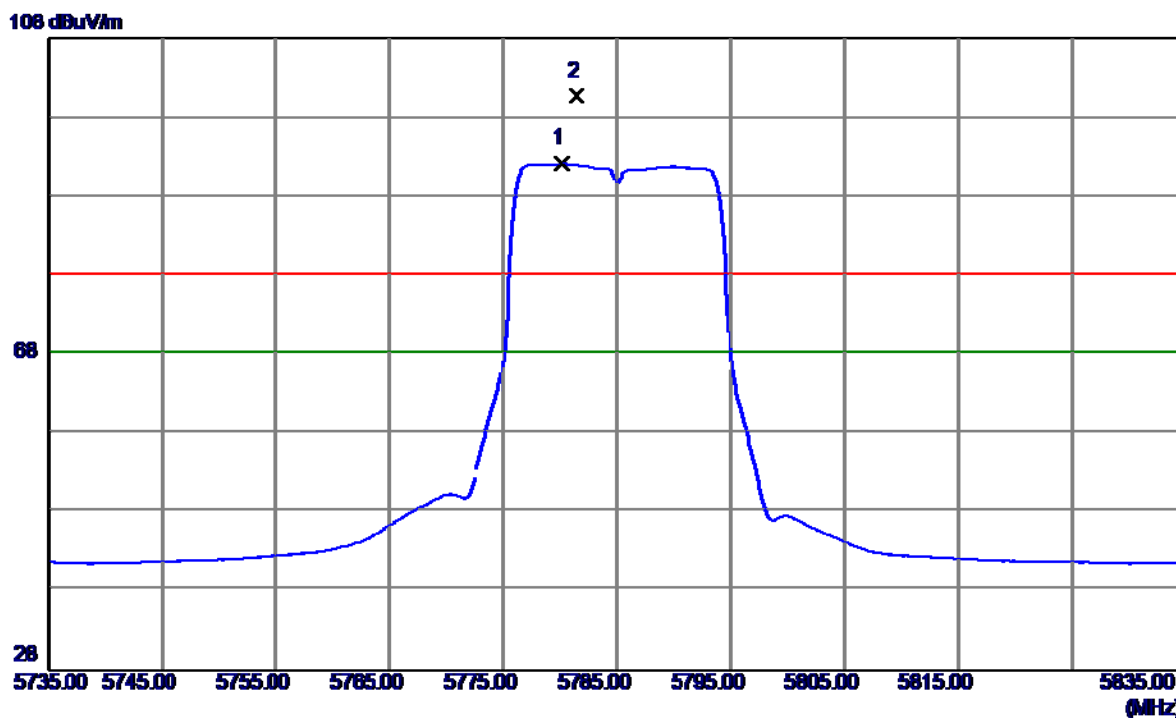
Horizontal



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

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

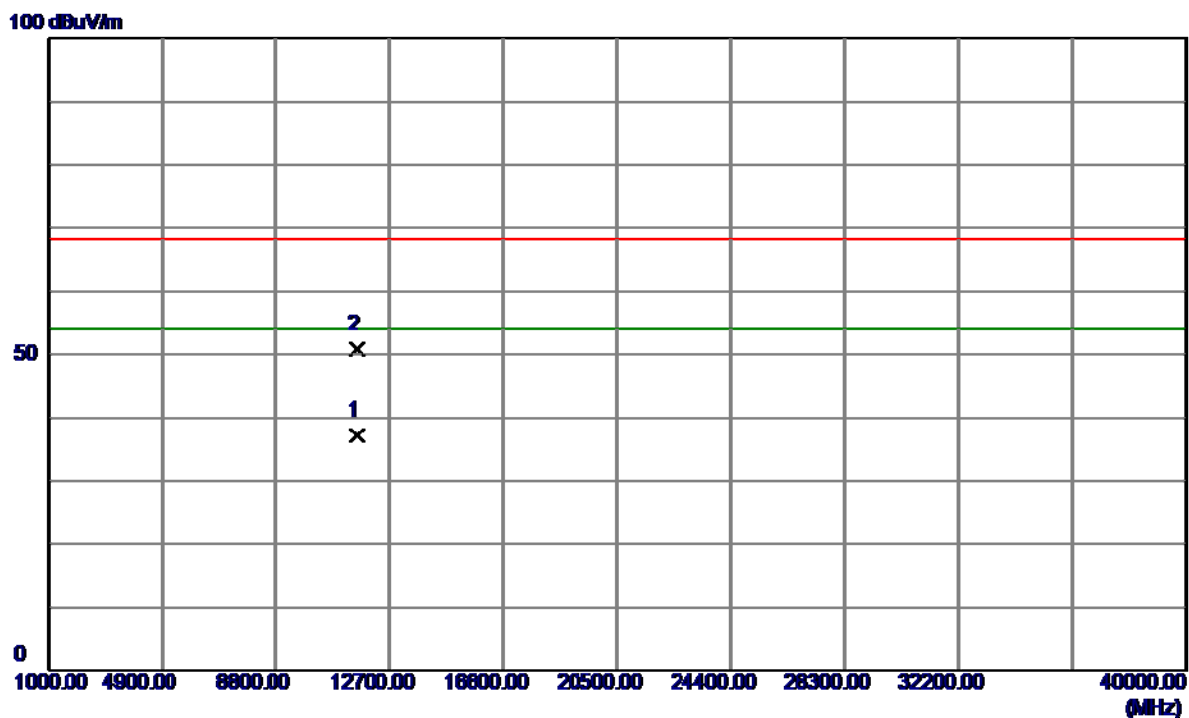
Vertical



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

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

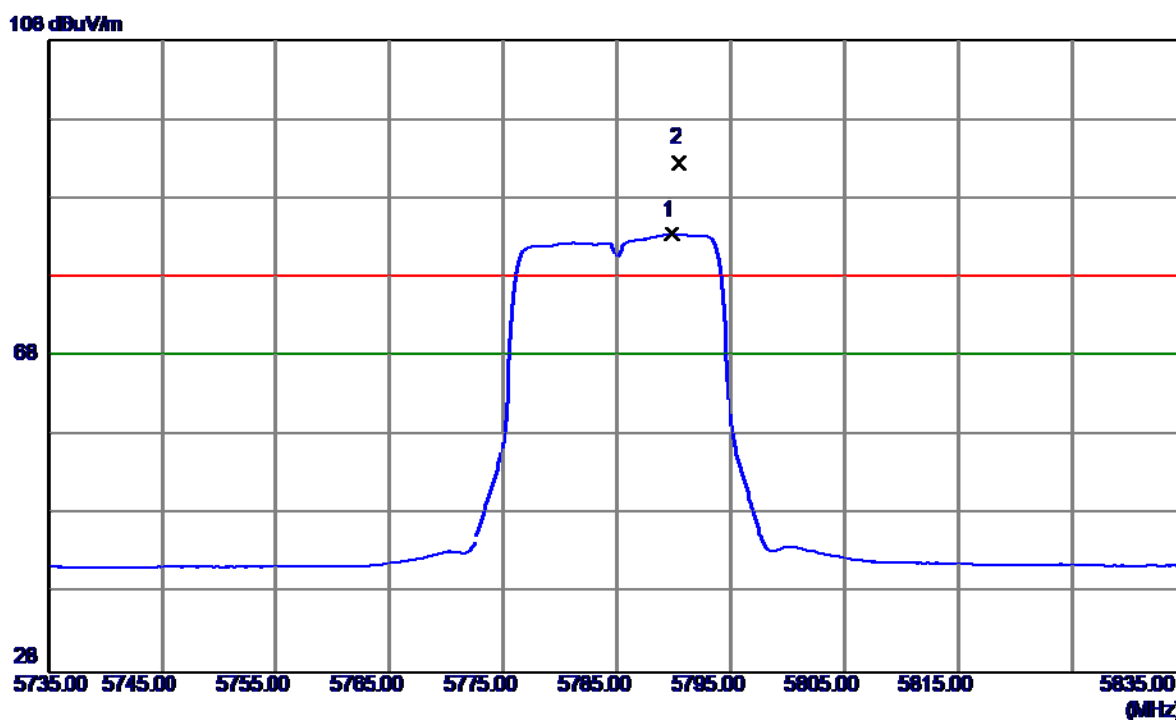
Vertical



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

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

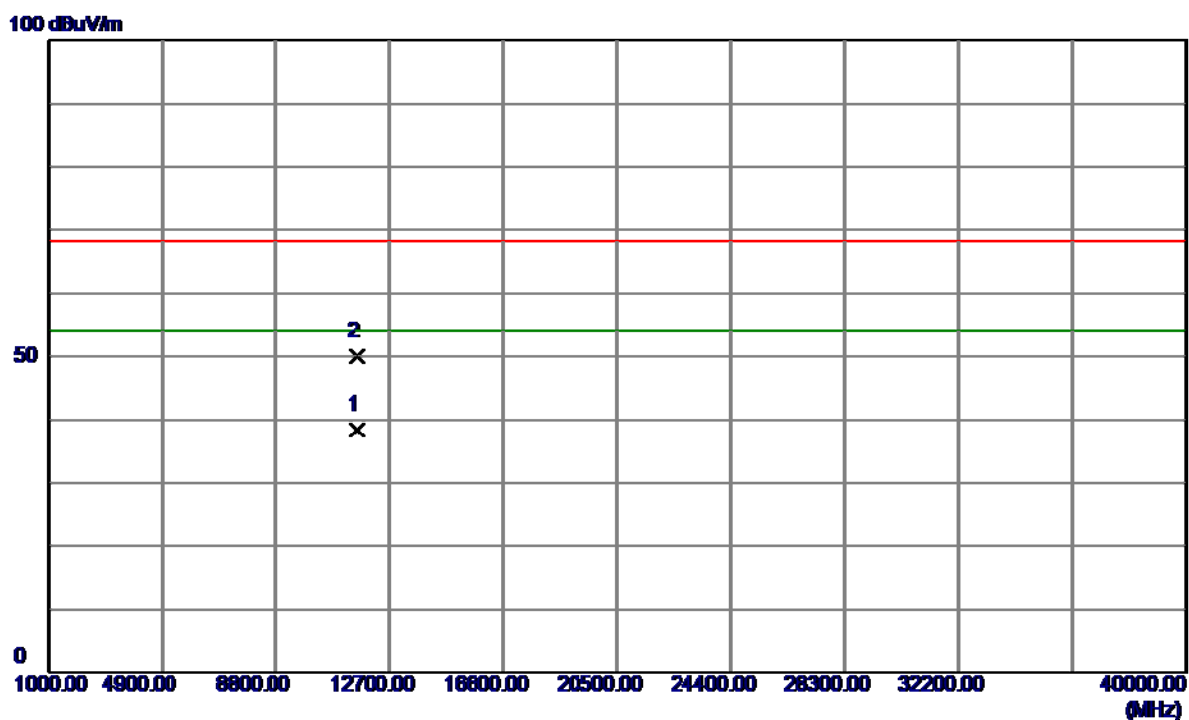
Horizontal



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

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

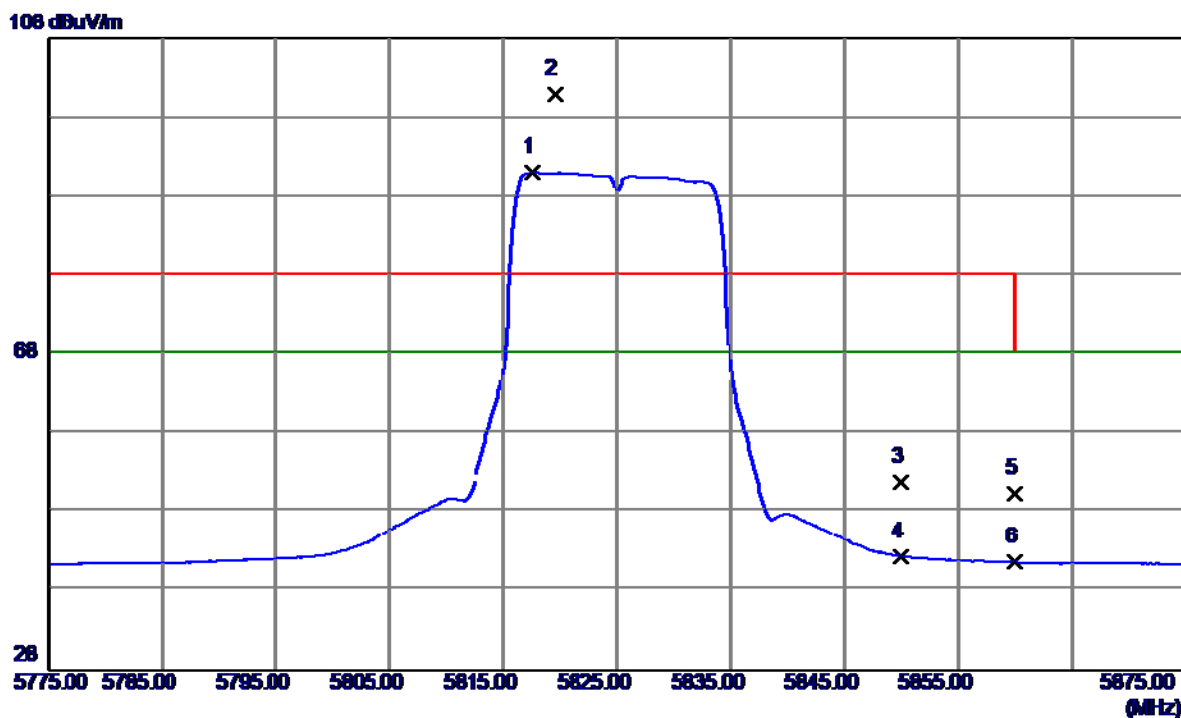
Horizontal



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

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

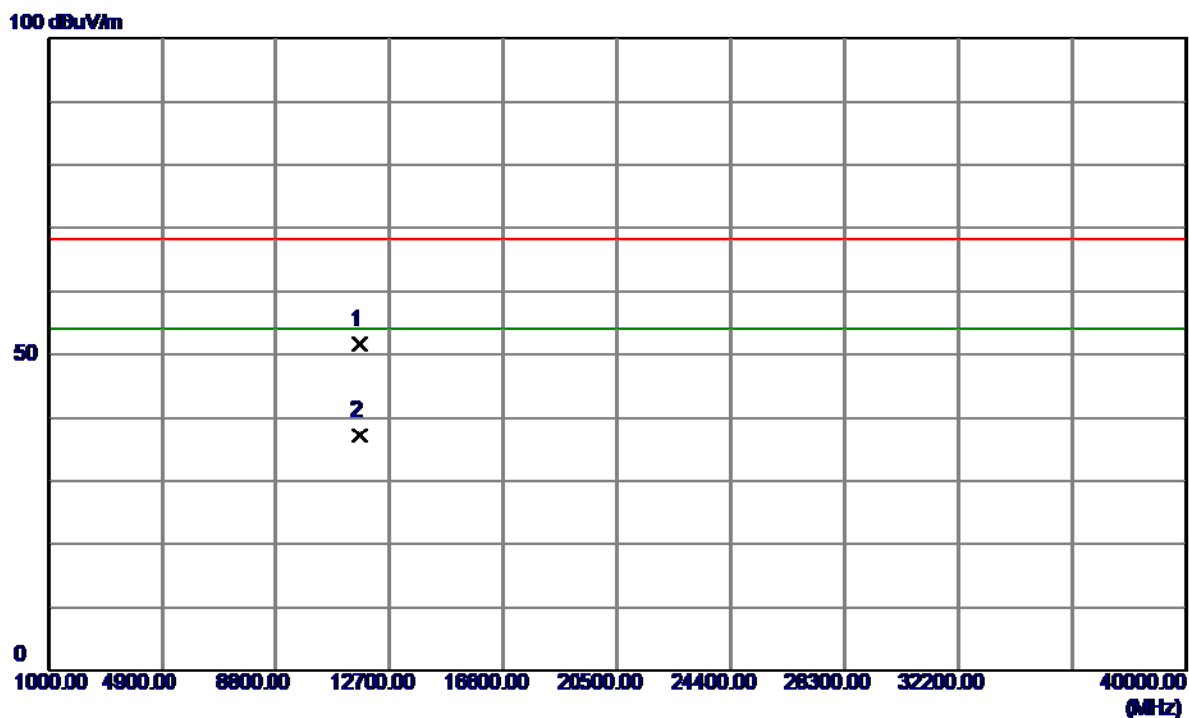
Vertical



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

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

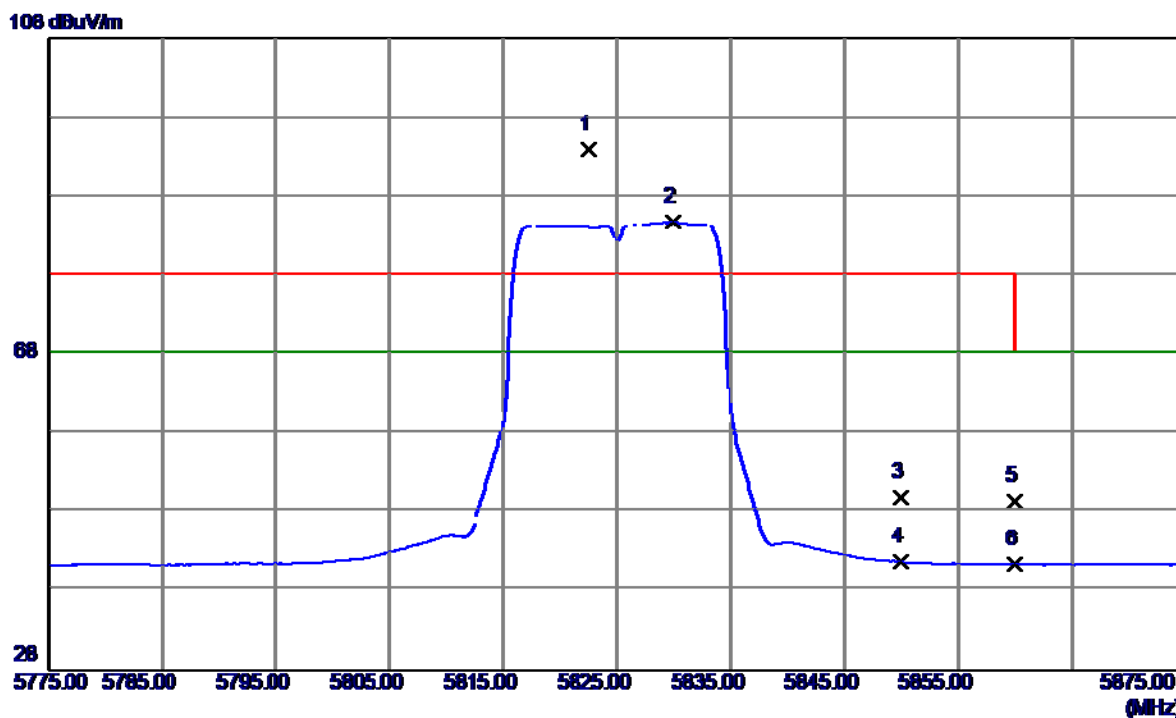
Vertical



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

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

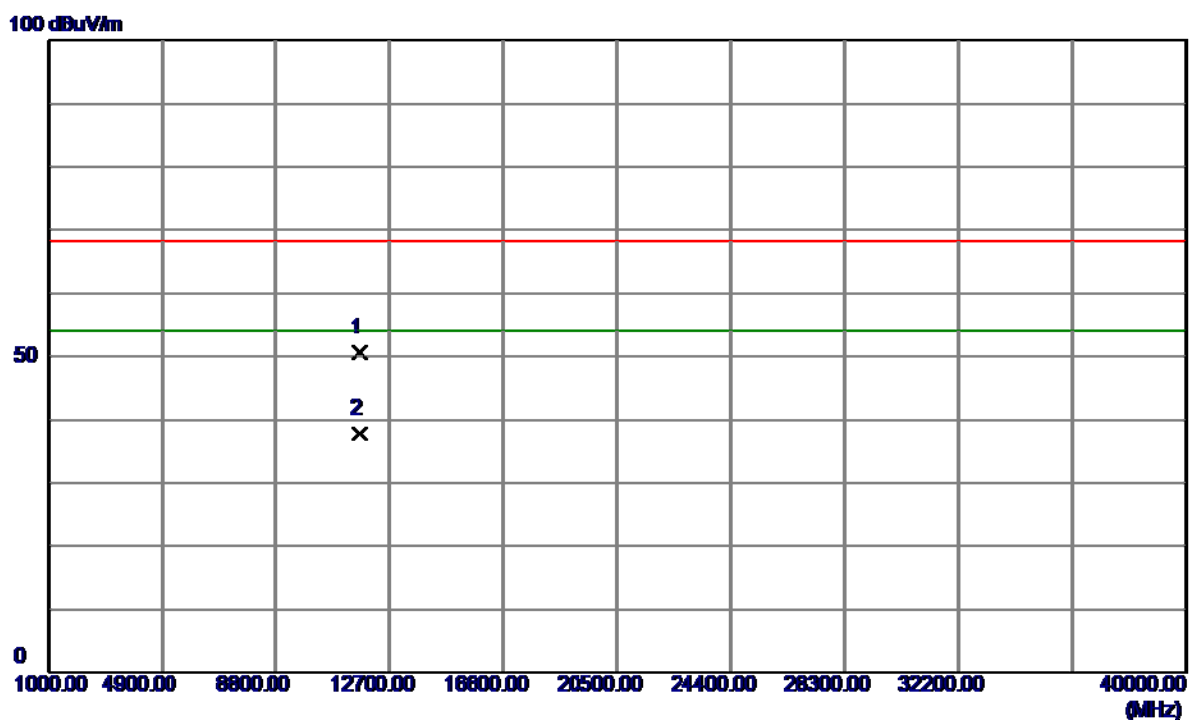
Horizontal



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

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

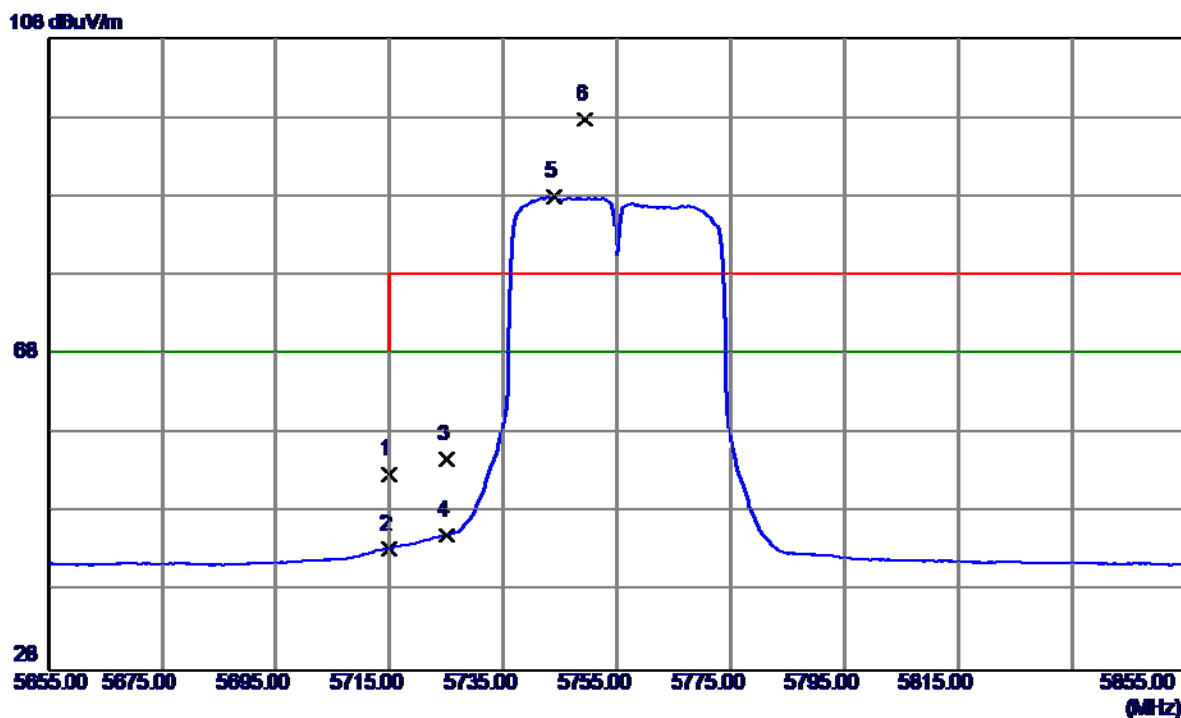
Horizontal



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

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

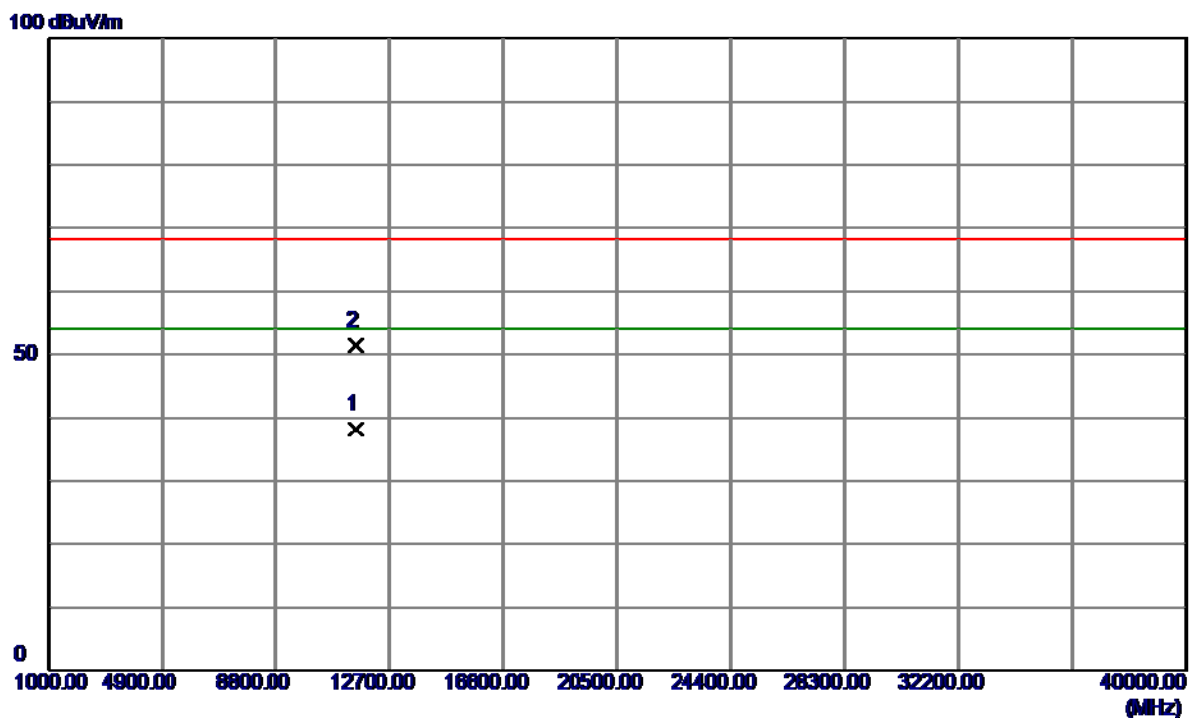
Vertical



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

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

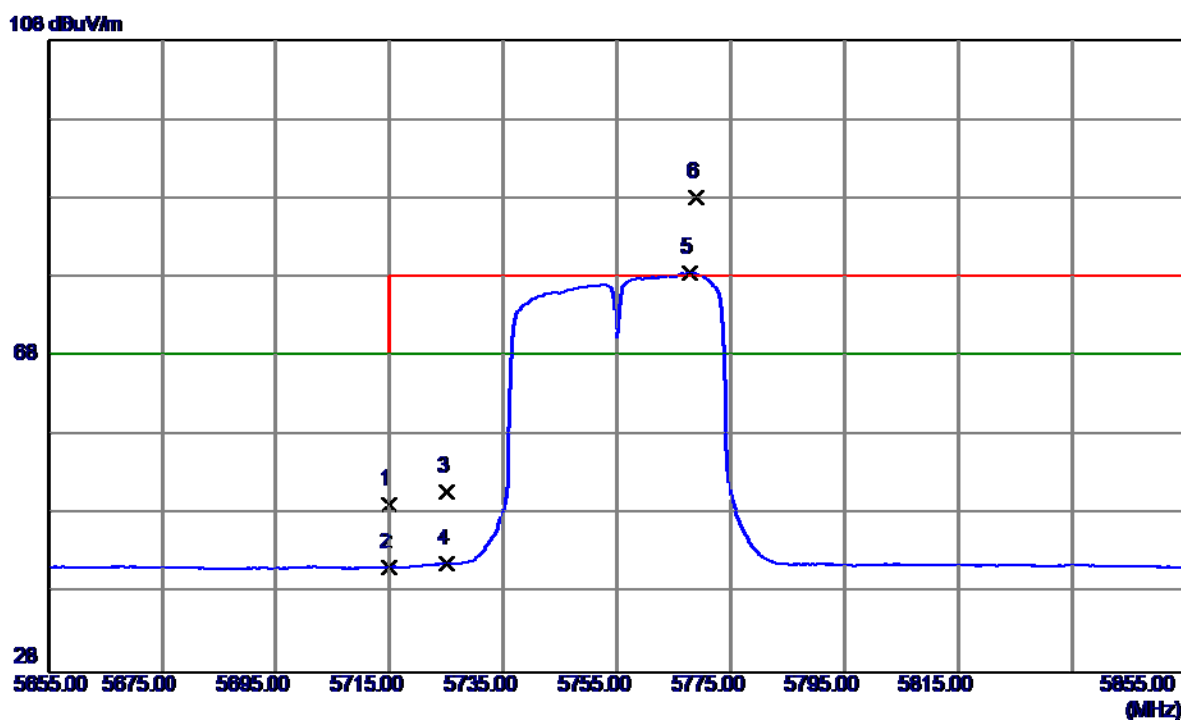
Vertical



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

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

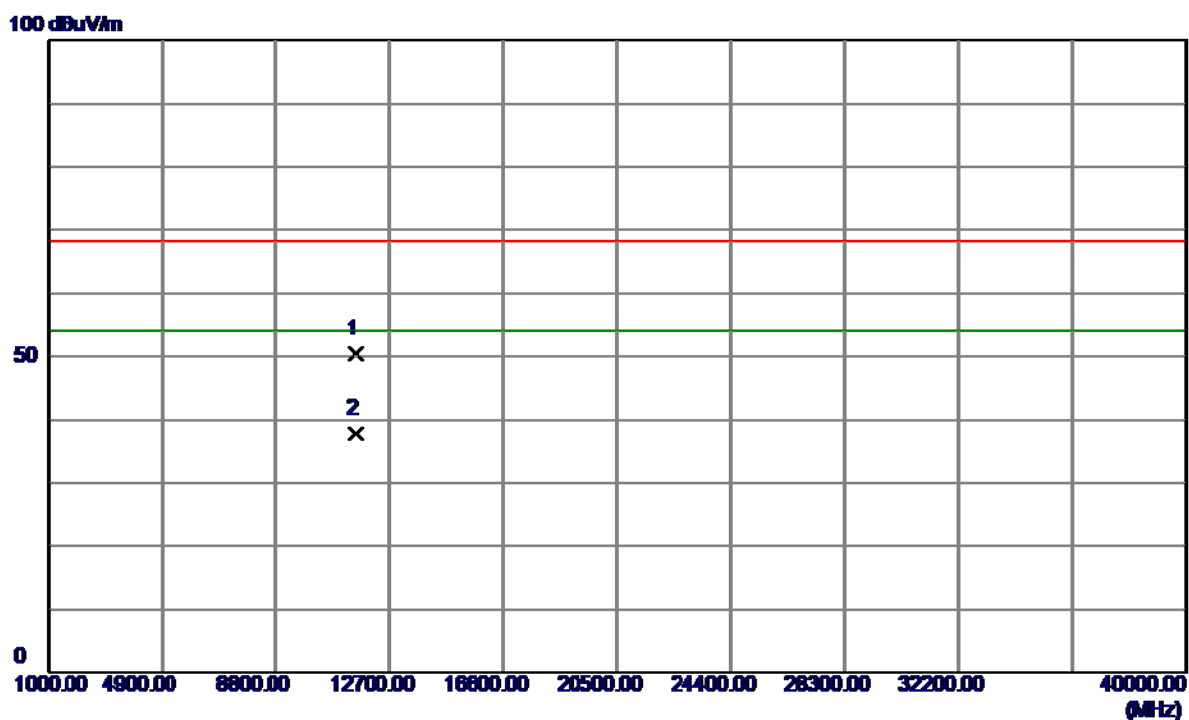
Horizontal



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

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

Horizontal

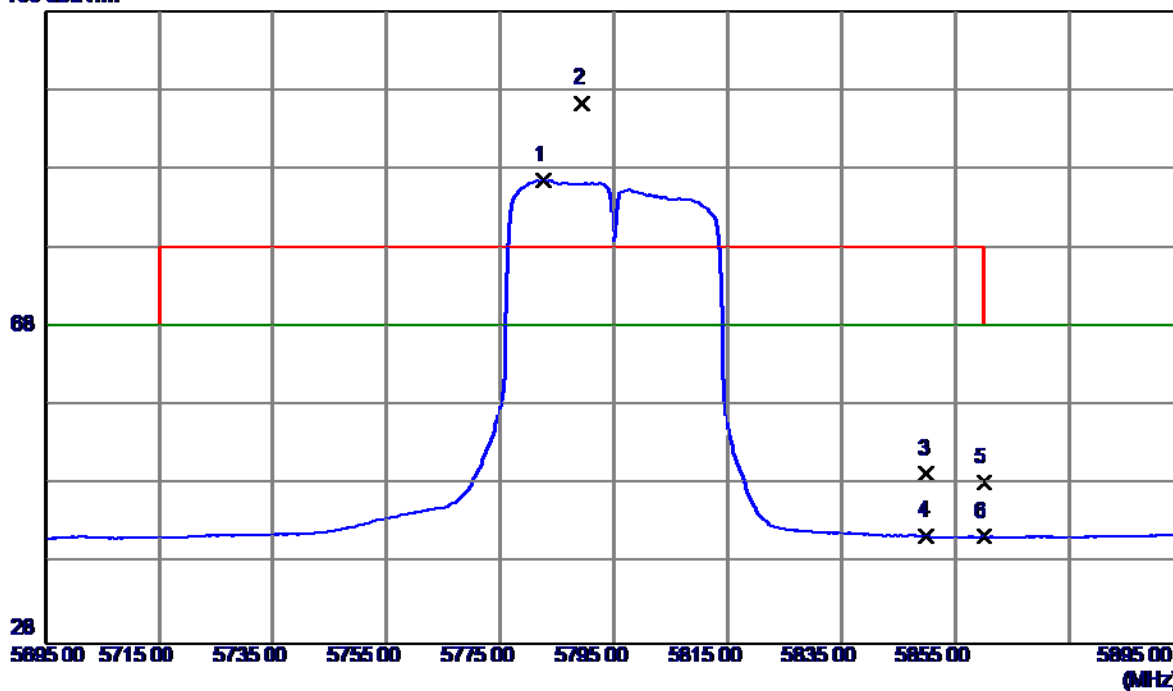


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	11509.2500	33.41	16.95	50.36	68.30	-17.94	Peak	
2	11510.0300	20.86	16.95	37.81	54.00	-16.19	AVG	

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

Vertical

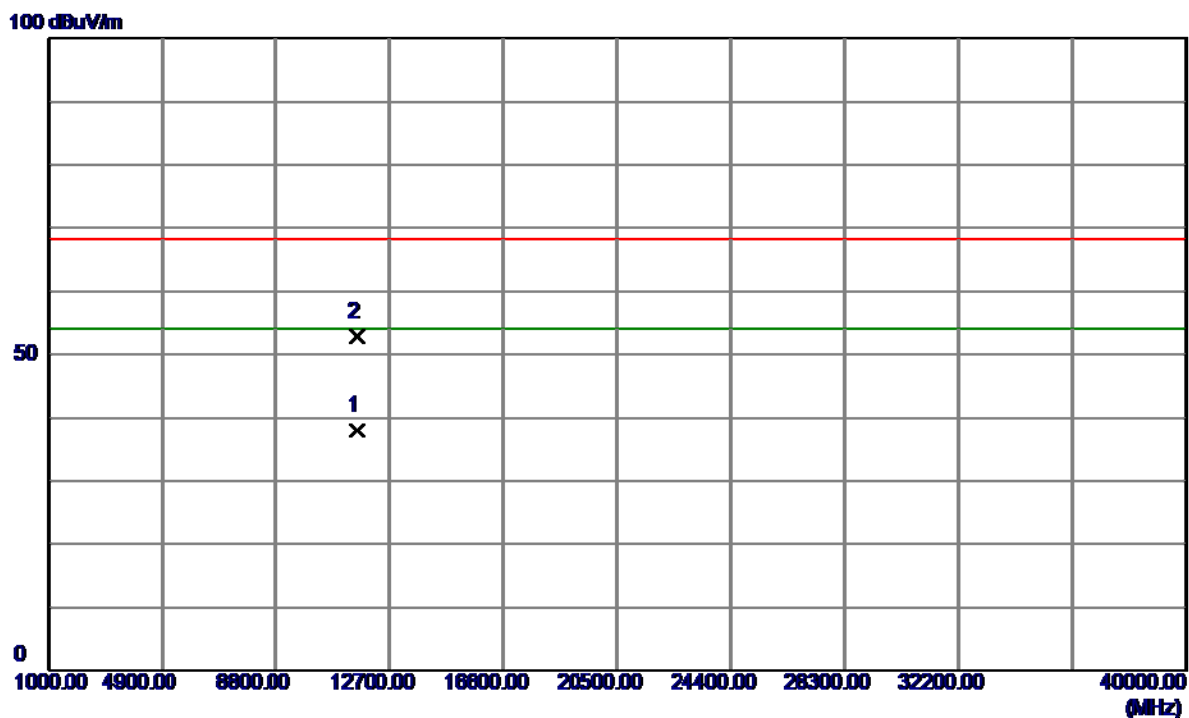
108 dBuV/m



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

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

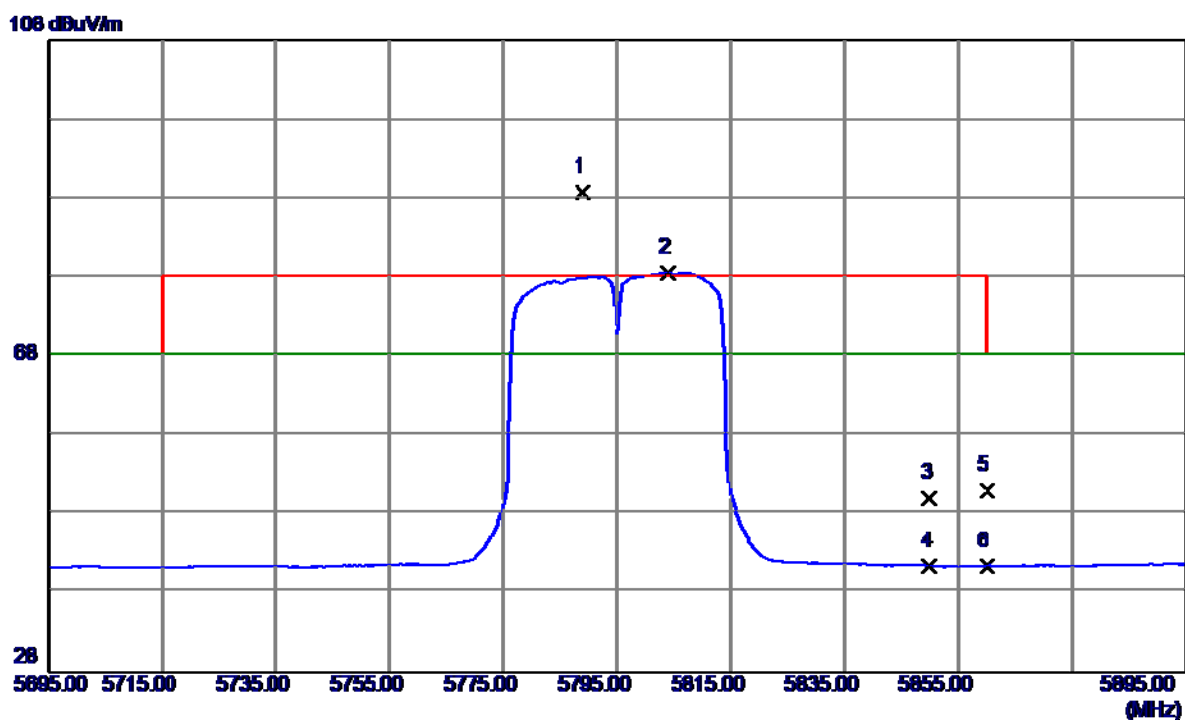
Vertical



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

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

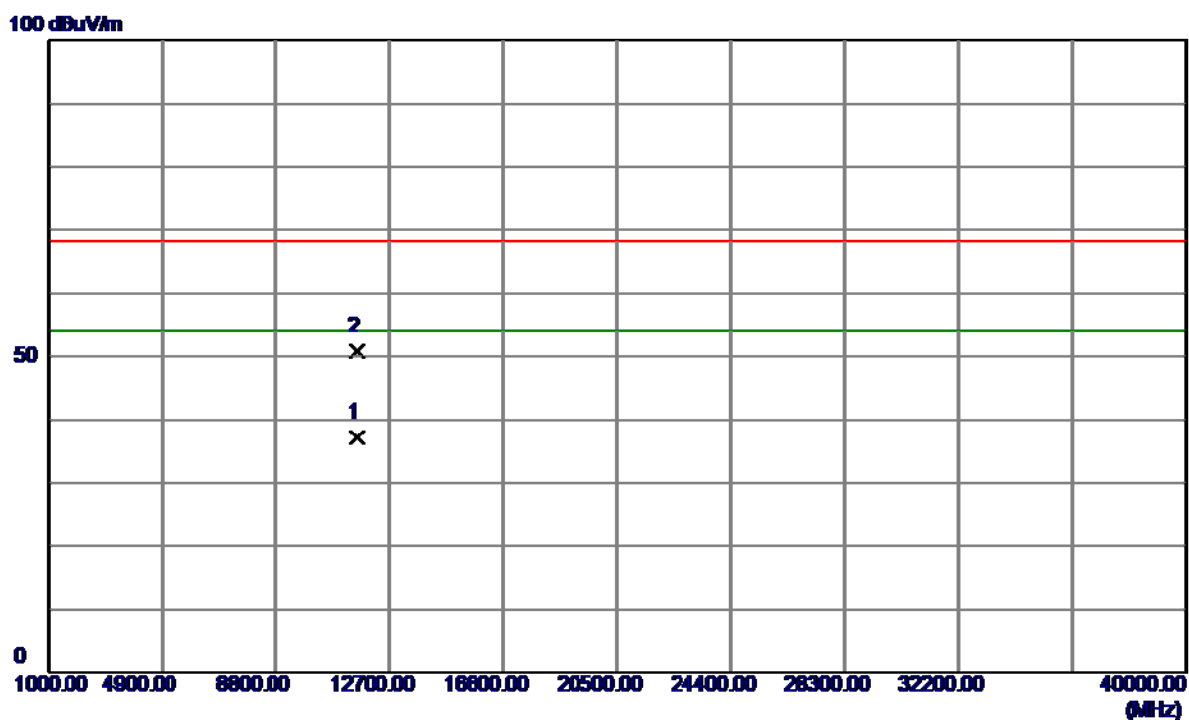
Horizontal



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

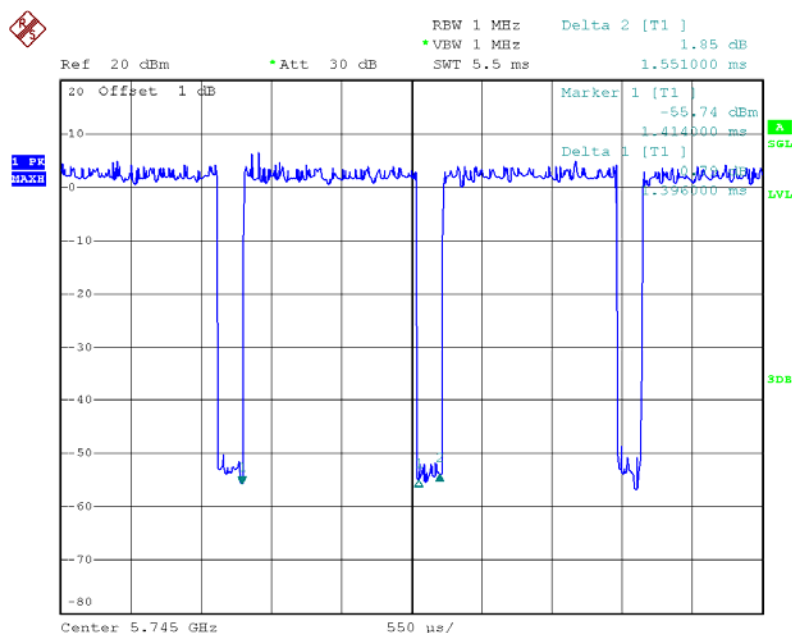
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

Horizontal



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

TX A Mode_DUTY CYCLE



Date: 5.MAY.2015 14:58:52

Duty cycle: TX DUTYMHZ

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

T_{ON} :1.40msec

T_{Total} :1.55msec

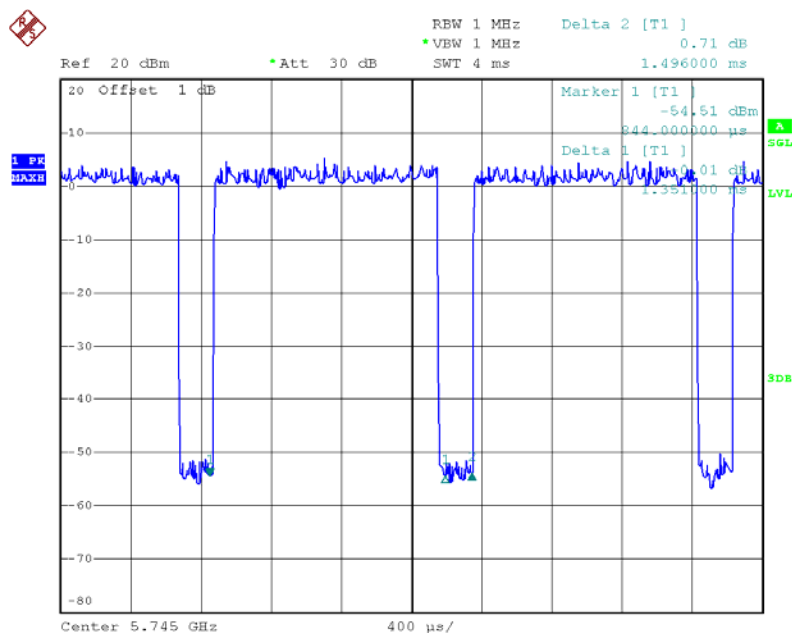
Duty cycle: 90.32%

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

Duty Factor =0.44

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

TX N20 Mode_DUTY CYCLE



Date: 5.MAY.2015 15:05:17

Duty cycle: TX DUTYMHz

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

T_{ON} :1.35msec

T_{Total} :1.50msec

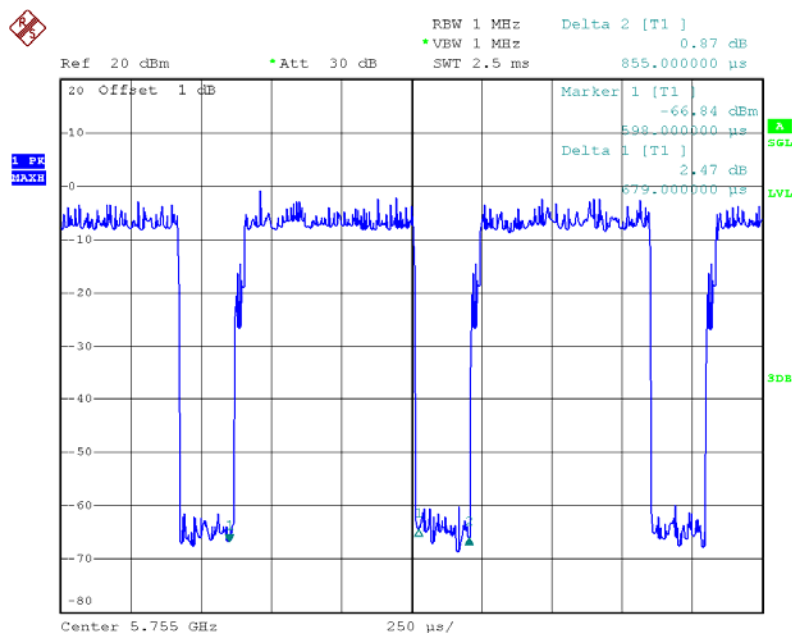
Duty cycle: 90.00%

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

Duty Factor =0.46

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

TX N40 Mode_DUTY CYCLE



Date: 5.MAY.2015 15:10:24

Duty cycle: TX DUTYMHz

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

T_{ON} :0.68msec

T_{Total} :0.86msec

Duty cycle: 79.07%

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

Duty Factor =1.02

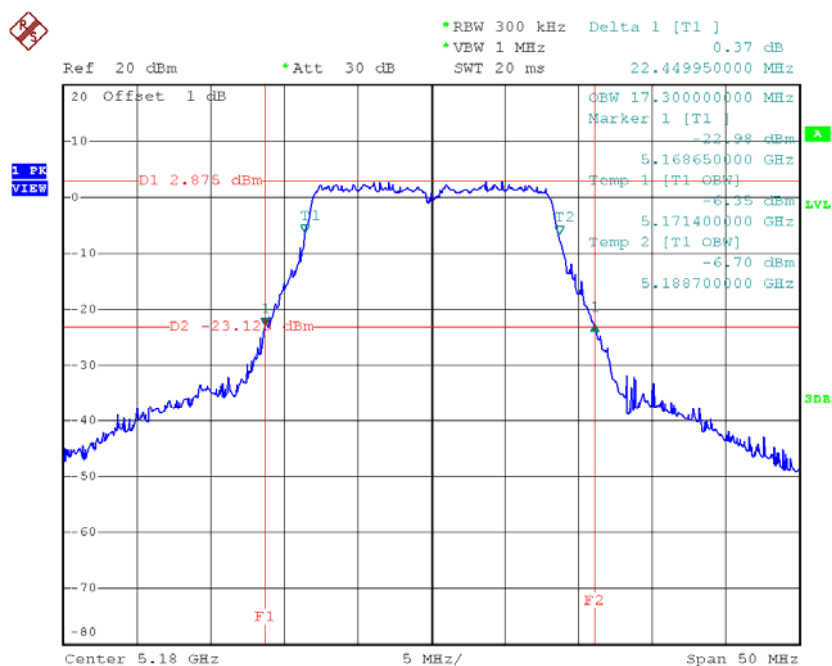
Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be caculated as
 asOutput Power = Measured power + Ducus factor
 Power Spectral Density = Measured density + Duty factor

ATTACHMENTE -BANDWIDTH

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

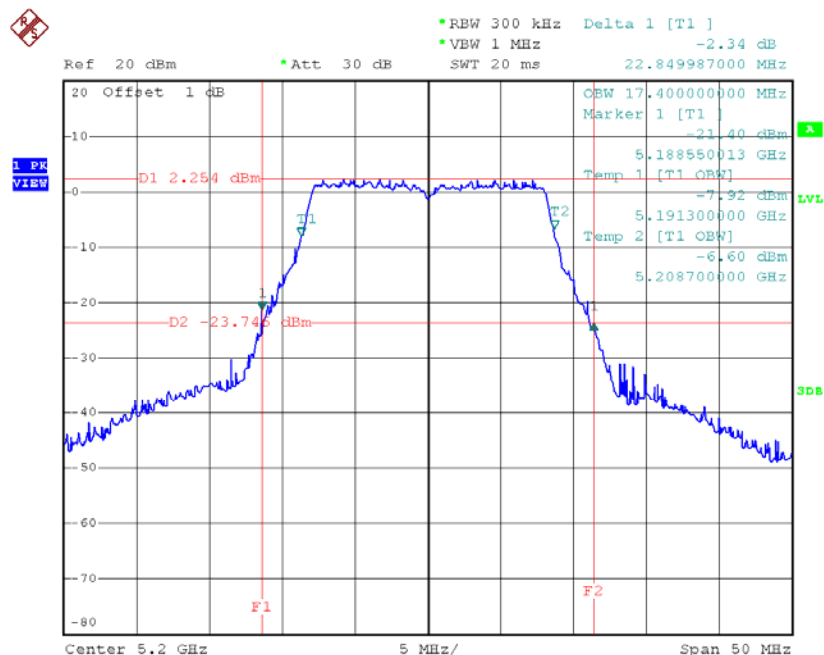
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	22.45	17.30
CH40	5200	22.85	17.40
CH48	5240	22.24	17.30

TX CH36



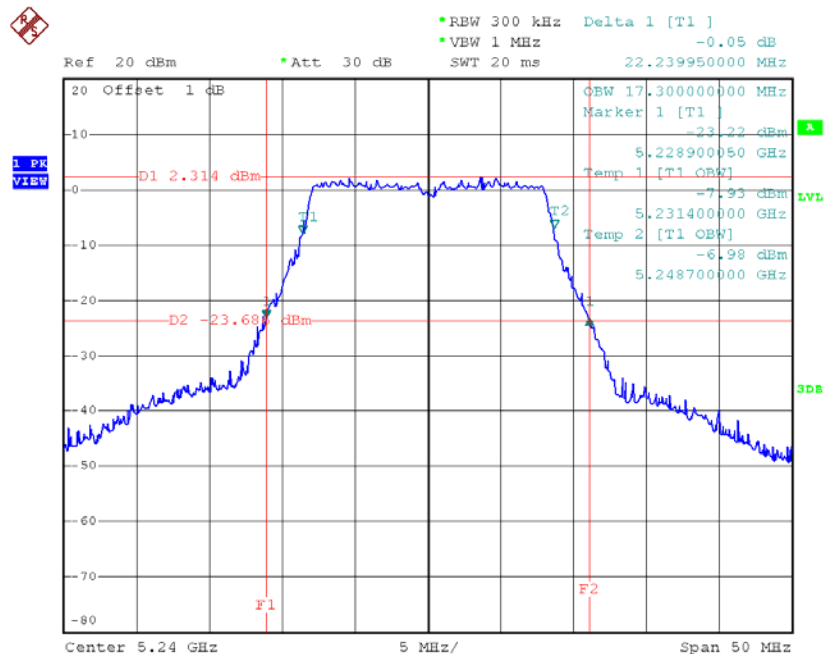
Date: 5.MAY.2015 14:54:36

TX CH40



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

TX CH48

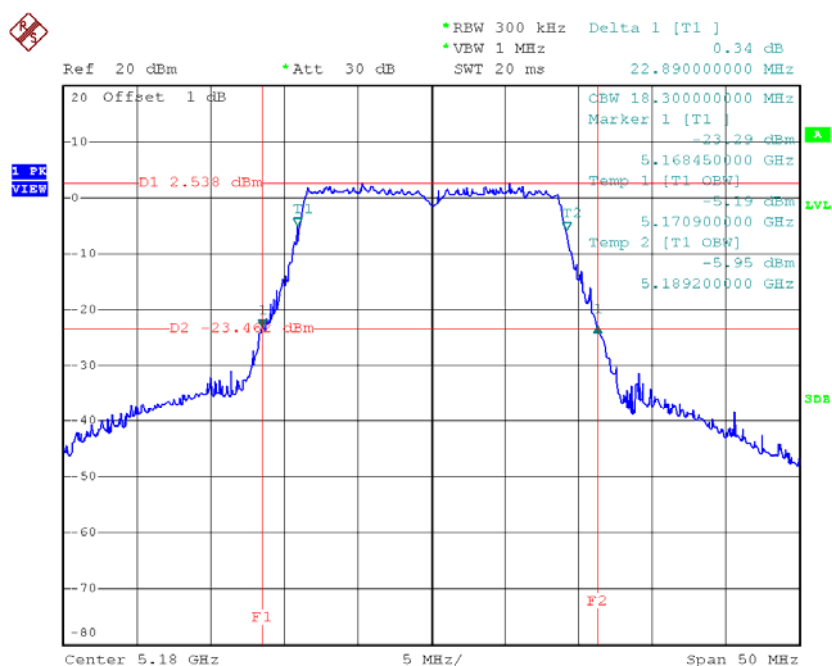


Date: 5.MAY.2015 14:57:07

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

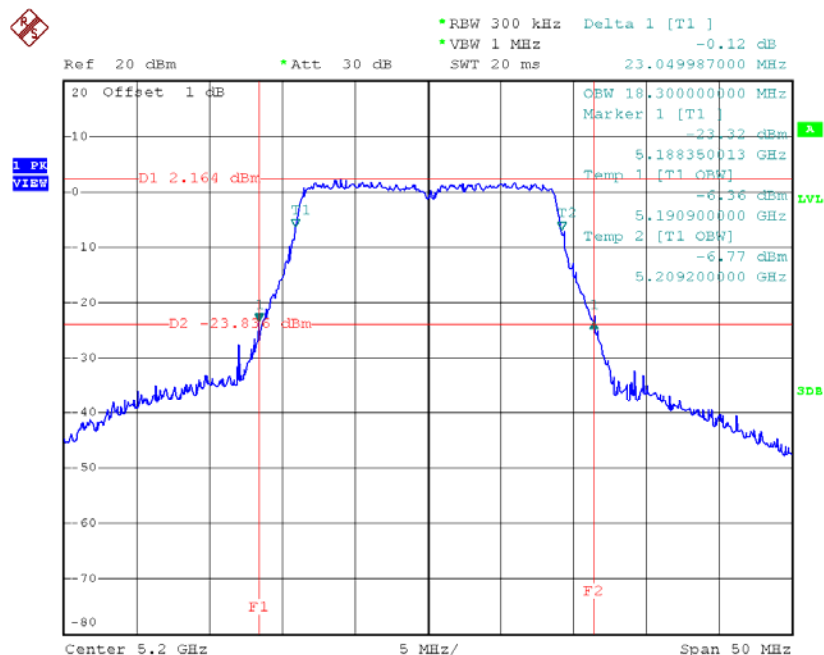
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	22.89	18.30
CH40	5200	23.05	18.30
CH48	5240	22.85	18.30

TX CH36



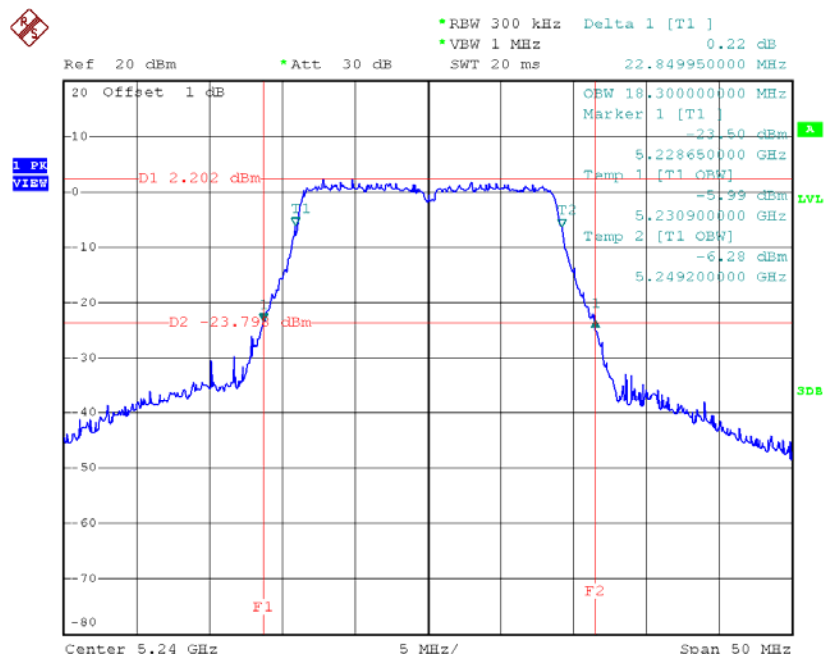
Date: 5.MAY.2015 15:01:57

TX CH40



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

TX CH48

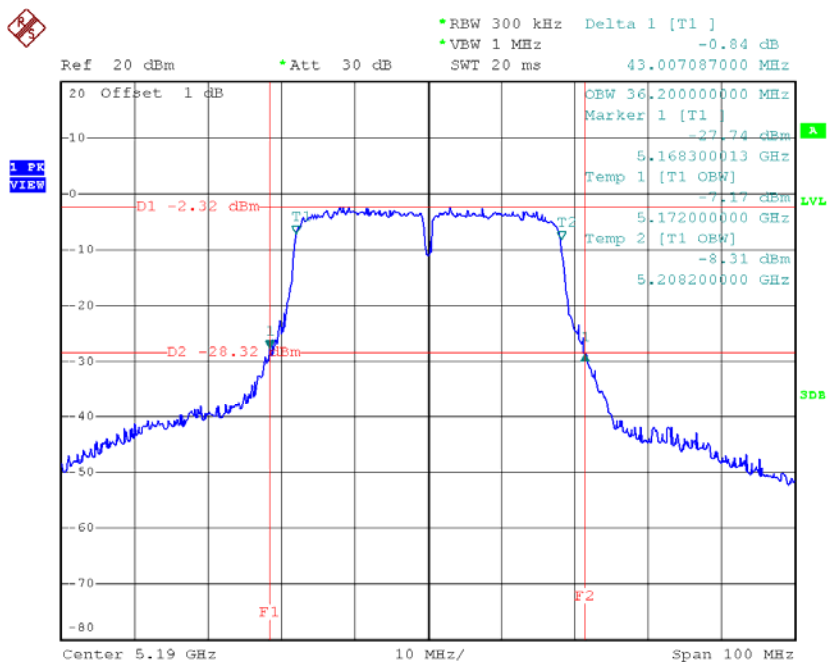


Date: 5.MAY.2015 15:03:59

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

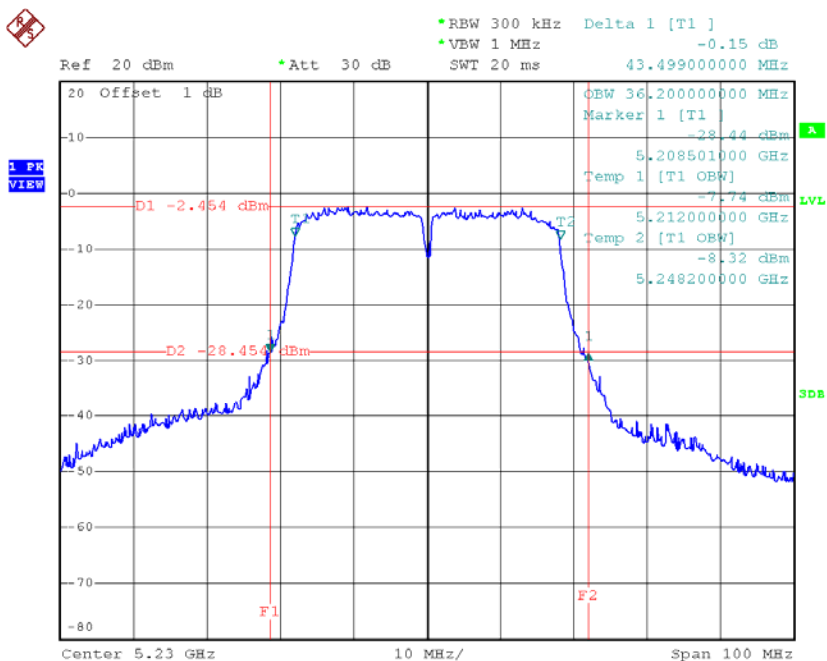
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	43.01	36.20
CH46	5230	43.50	36.20

TX CH38



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

TX CH46

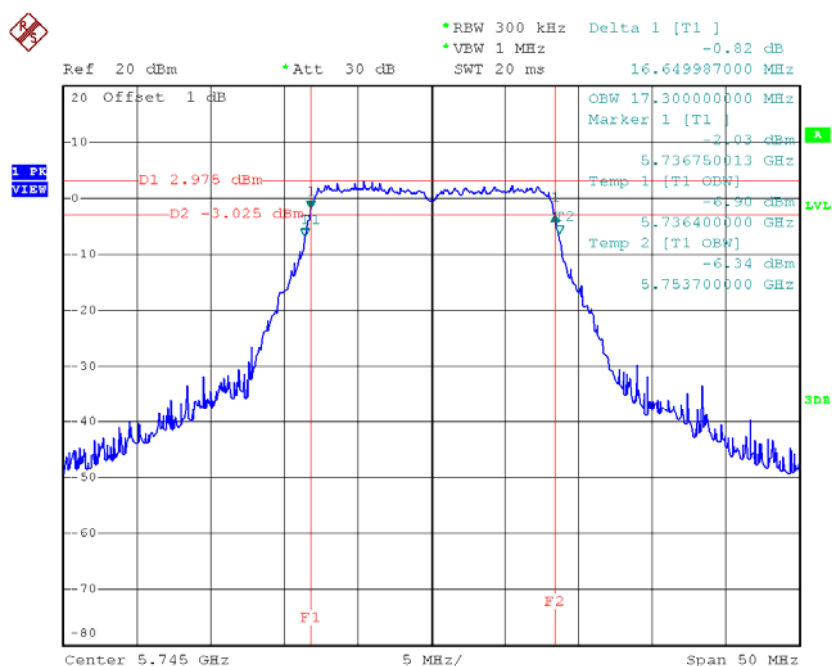


Date: 5.MAY.2015 15:09:13

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

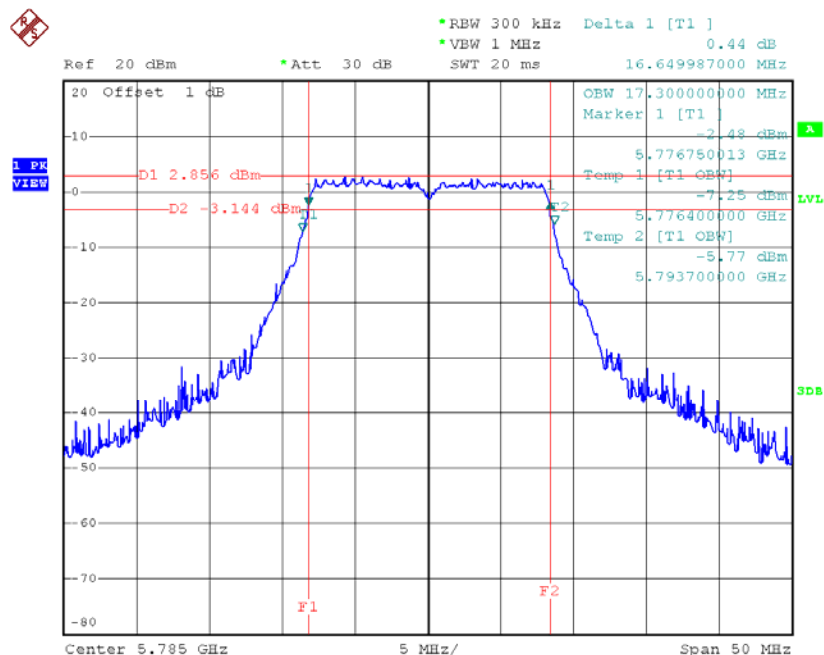
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.65	17.30	>=500
CH157	5785	16.65	17.30	>=500
CH165	5825	16.75	17.40	>=500

TX CH 149



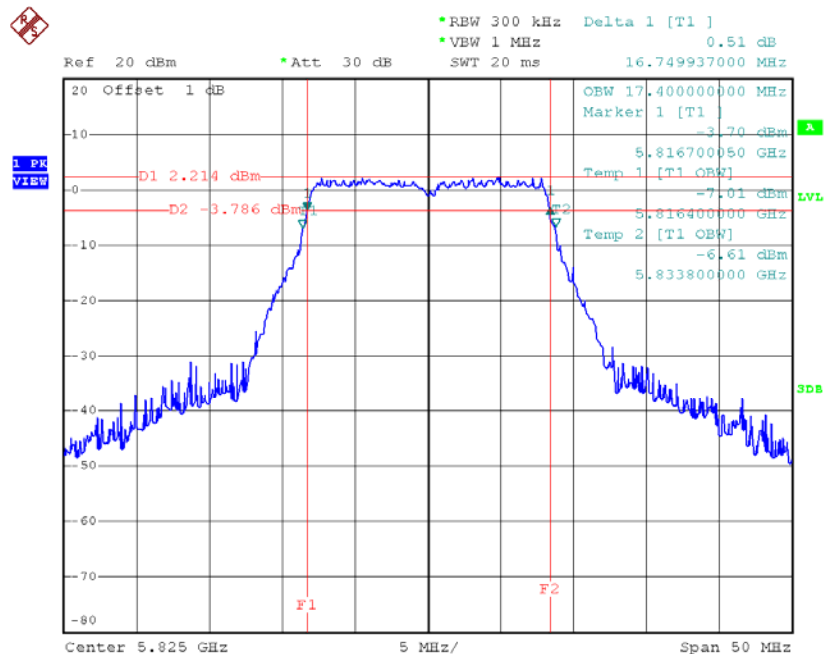
Date: 5.MAY.2015 14:58:12

TX CH 157



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

TX CH 165

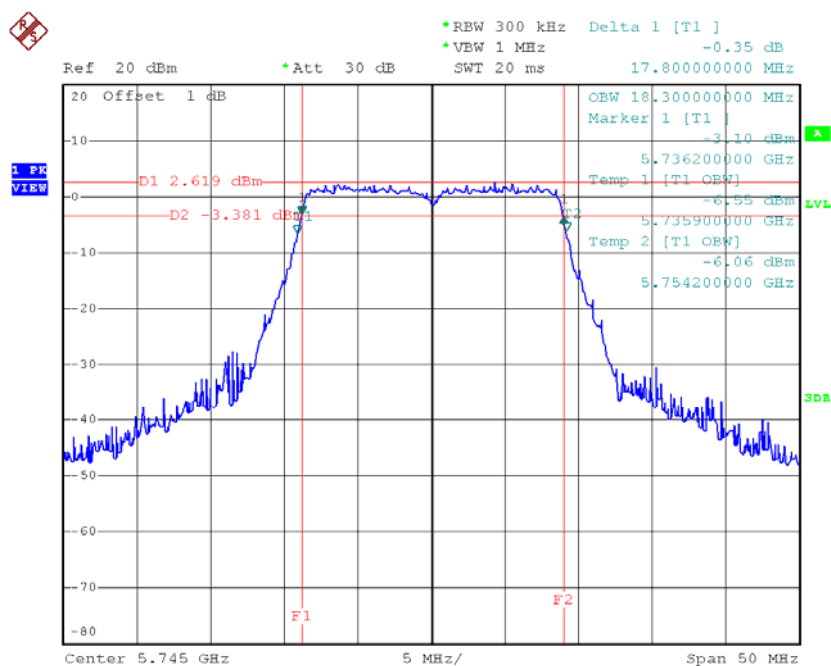


Date: 5.MAY.2015 15:00:36

Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

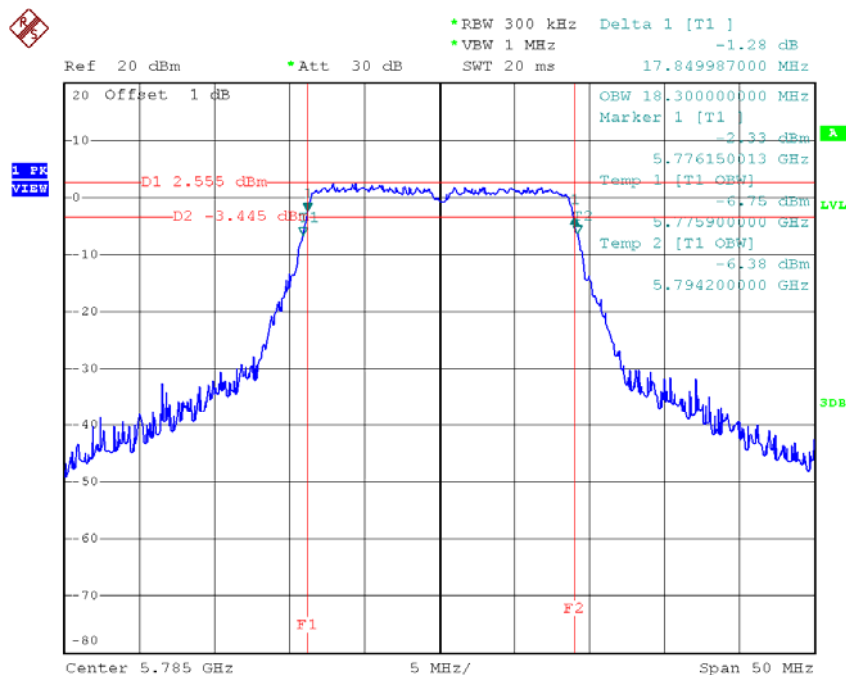
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	17.80	18.30	>=500
CH157	5785	17.85	18.30	>=500
CH165	5825	17.75	18.30	>=500

TX CH 149



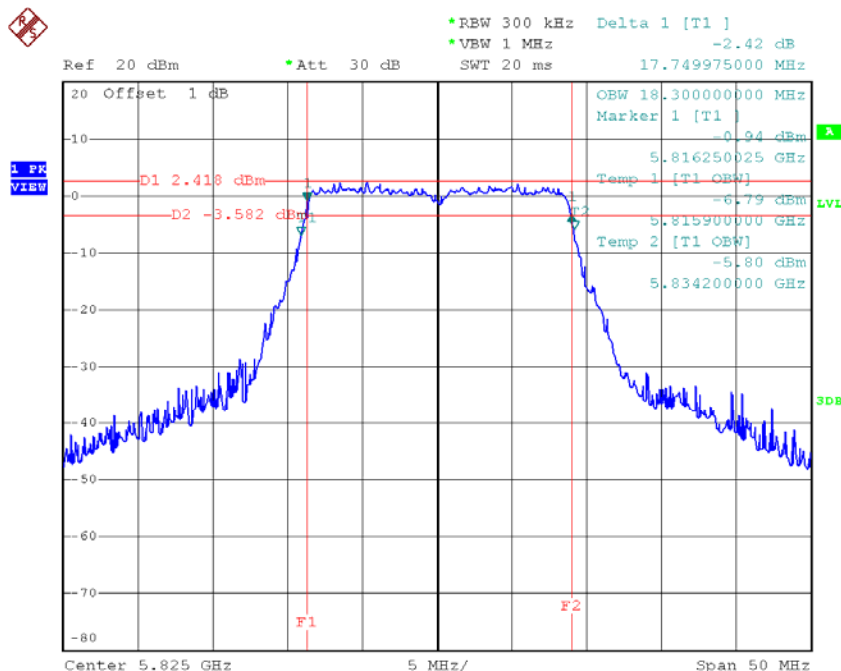
Date: 5.MAY.2015 15:04:42

TX CH 157



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

TX CH 165

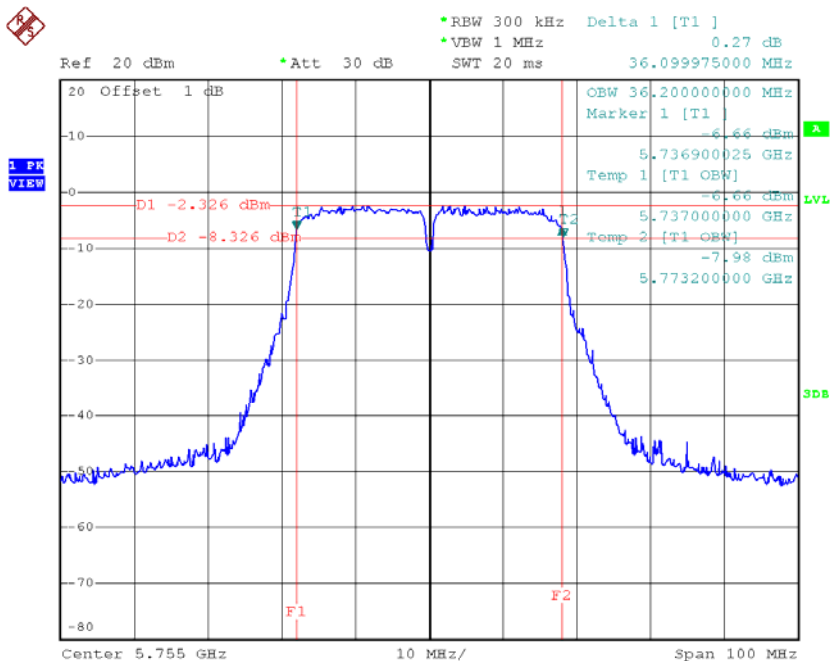


Date: 5.MAY.2015 15:06:23

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

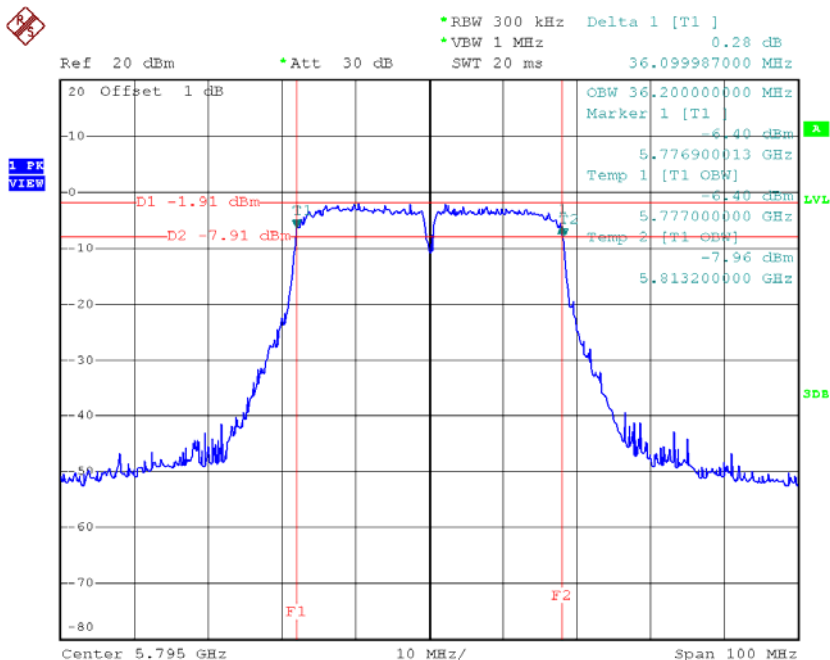
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	36.10	36.20	>=500
CH159	5795	36.10	36.20	>=500

TX CH 151



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

TX CH 159



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

ATTACHMENTF - MAXIMUM OUTPUT POWER

Test Mode: UNII-1/TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	11.72	0.44	12.16	24.00	0.25
CH40	5200	11.35	0.44	11.79	24.00	0.25
CH48	5240	11.12	0.44	11.56	24.00	0.25

Test Mode: UNII-1/TX N20 Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	11.71	0.46	12.17	24.00	0.25
CH40	5200	11.47	0.46	11.93	24.00	0.25
CH48	5240	11.14	0.46	11.60	24.00	0.25

Test Mode: UNII-1/TX N40 Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH38	5190	11.18	1.02	12.20	24.00	0.25
CH46	5230	11.17	1.02	12.19	24.00	0.25

Test Mode: UNII-3/ TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	11.25	0.44	11.69	30.00	1.00
CH157	5785	11.52	0.44	11.96	30.00	1.00
CH165	5825	11.22	0.44	11.66	30.00	1.00

Test Mode: UNII-3/TX N20 Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	11.15	0.46	11.61	30.00	1.00
CH157	5785	11.49	0.46	11.95	30.00	1.00
CH165	5825	11.30	0.46	11.76	30.00	1.00

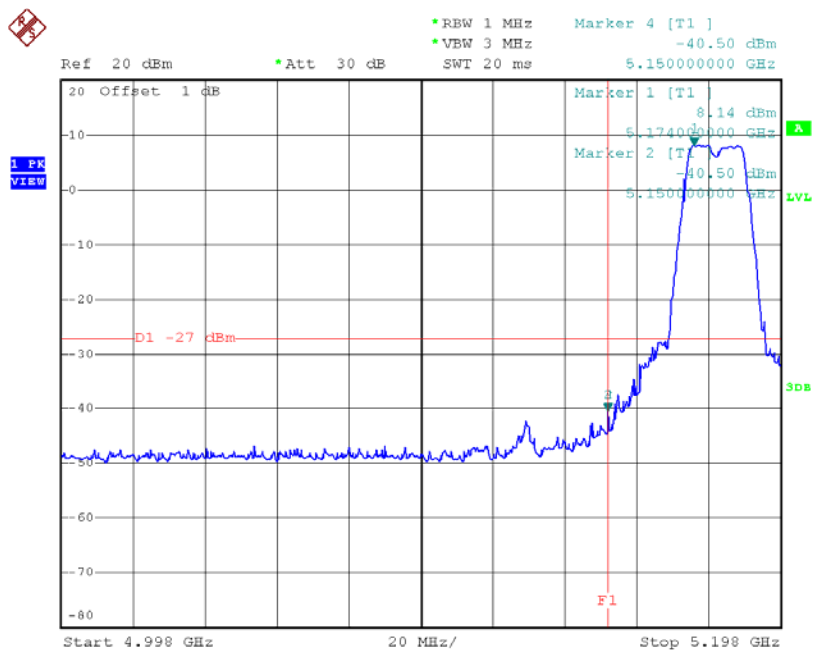
Test Mode: UNII-3/ TX N40 Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor (dBm)	Output Power+Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	11.08	1.02	12.10	30.00	1.00
CH159	5795	11.23	1.02	12.25	30.00	1.00

ATTACHMENTG - ANTENNA CONDUCTED SPURIOUS EMISSION

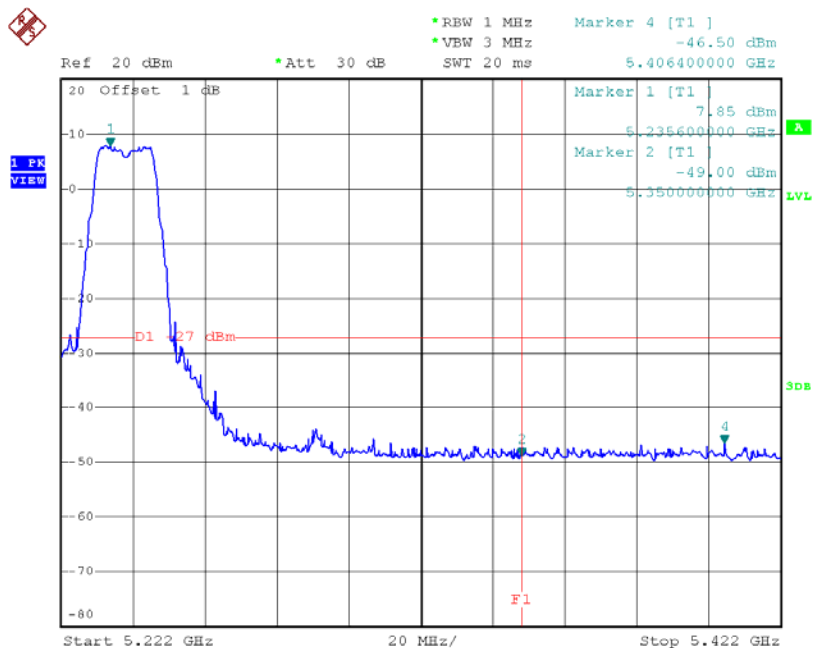
Test Mode: UNII-1/TX A Mode

TX mode CH36



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

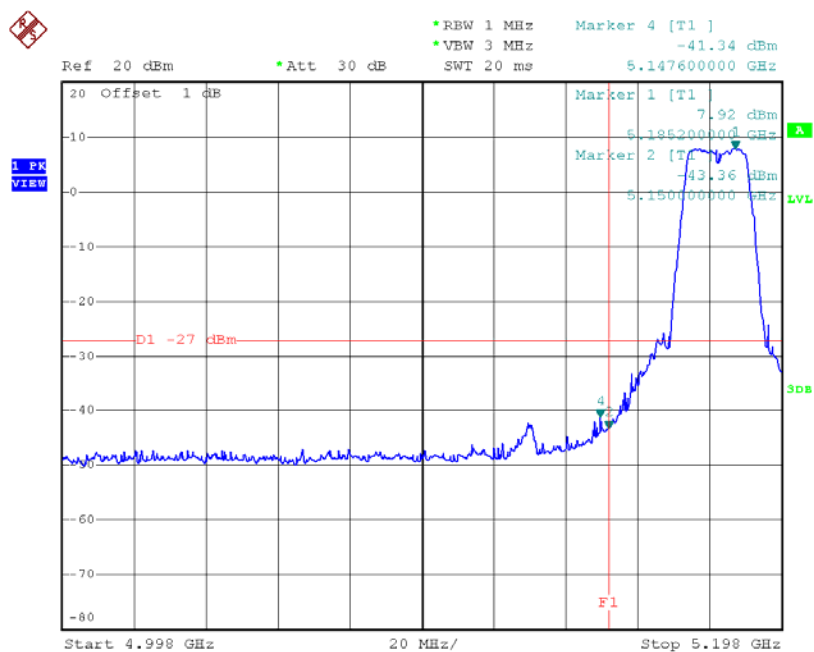
TX mode CH48



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

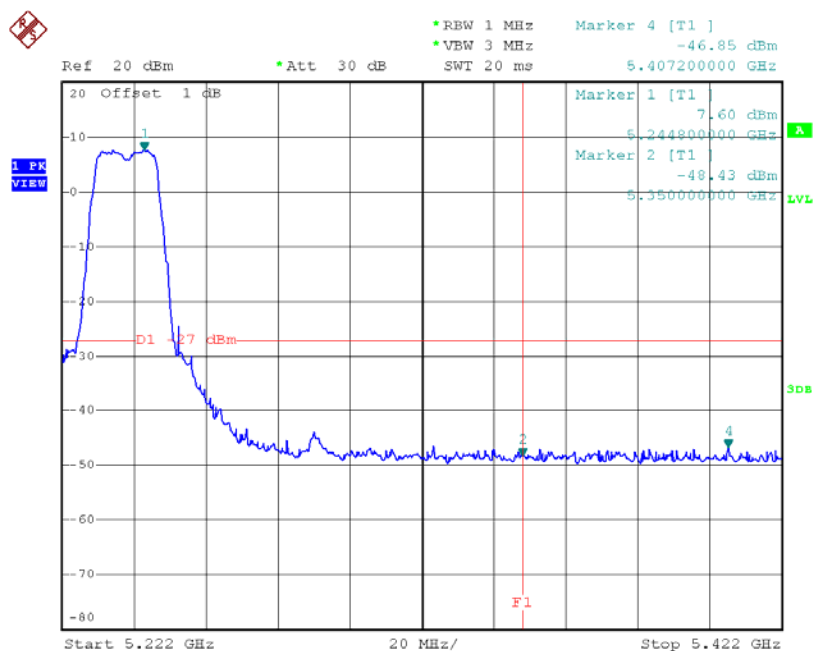
Test Mode: UNII-1/TX N20 Mode

TX mode CH36



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

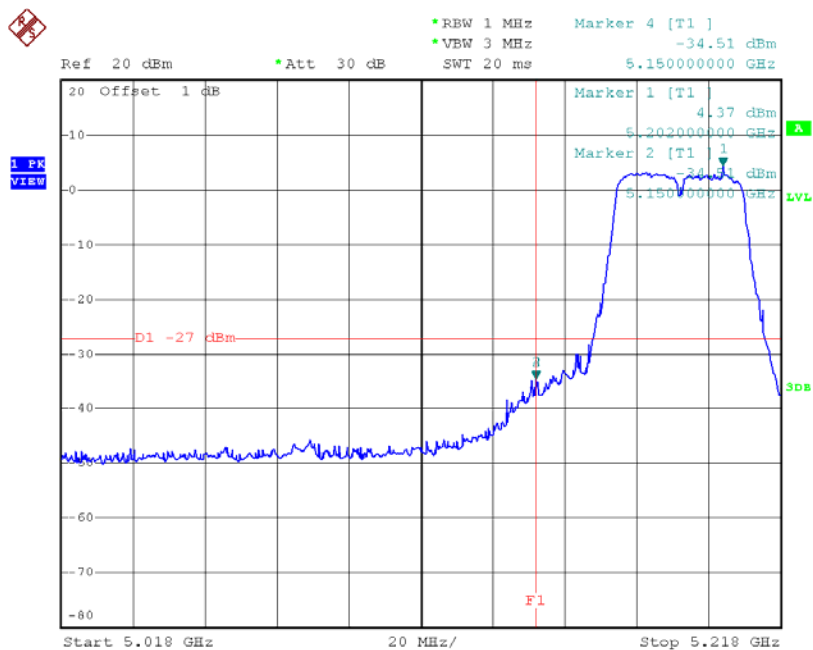
TX mode CH48



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

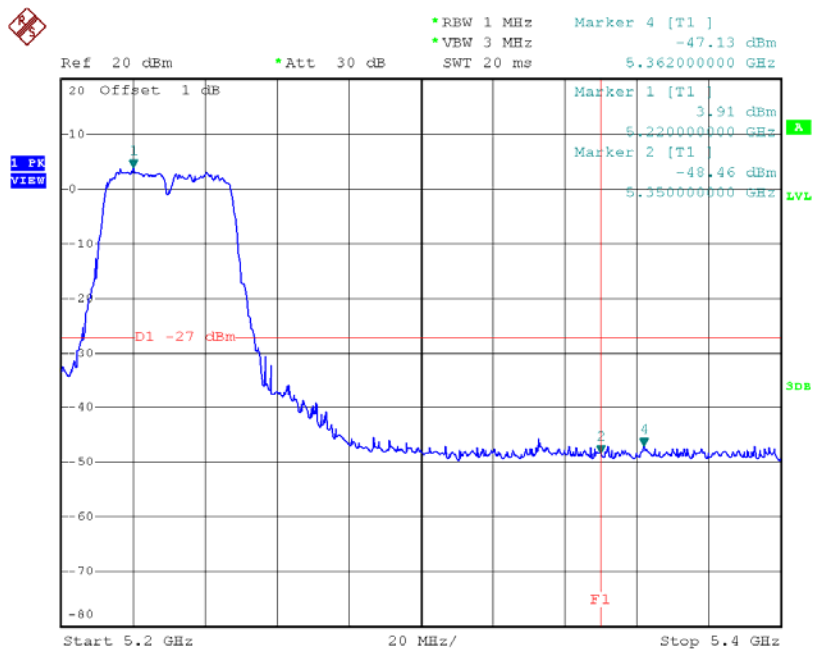
Test Mode: UNII-1/TX N40 Mode

TX mode CH38



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

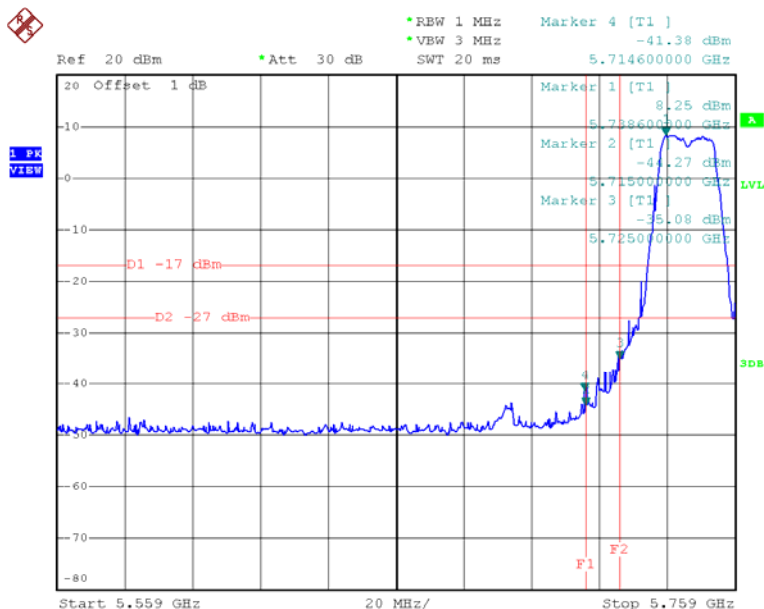
TX mode CH46



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

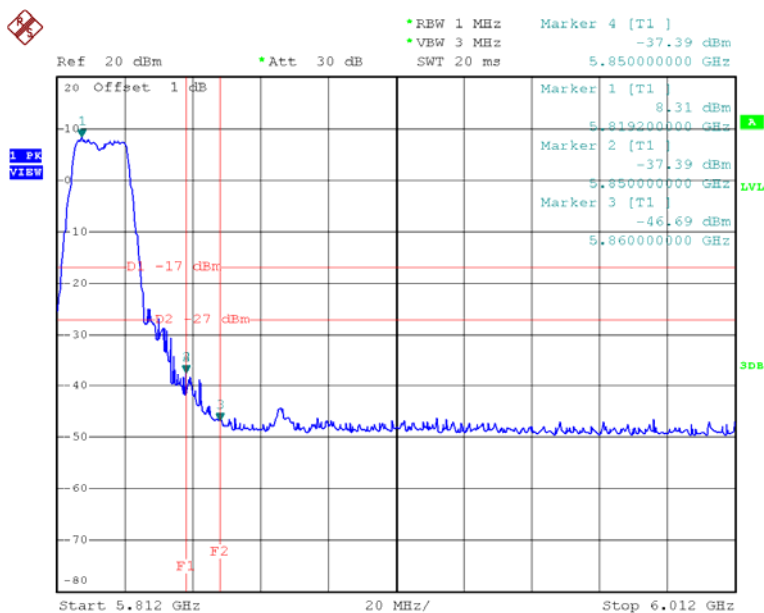
Test Mode: UNII-3/TX A Mode

TX A Mode CH149



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

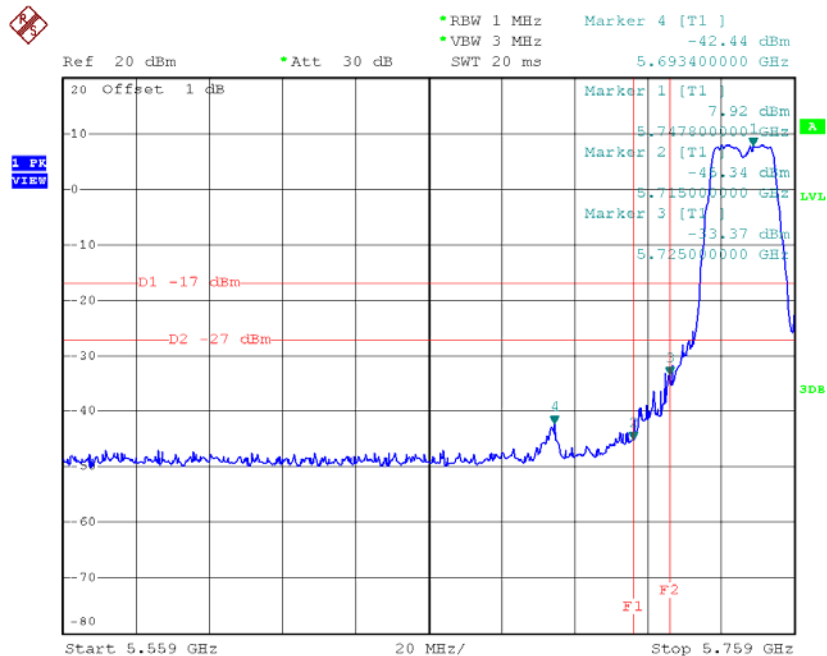
TX A Mode CH165



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

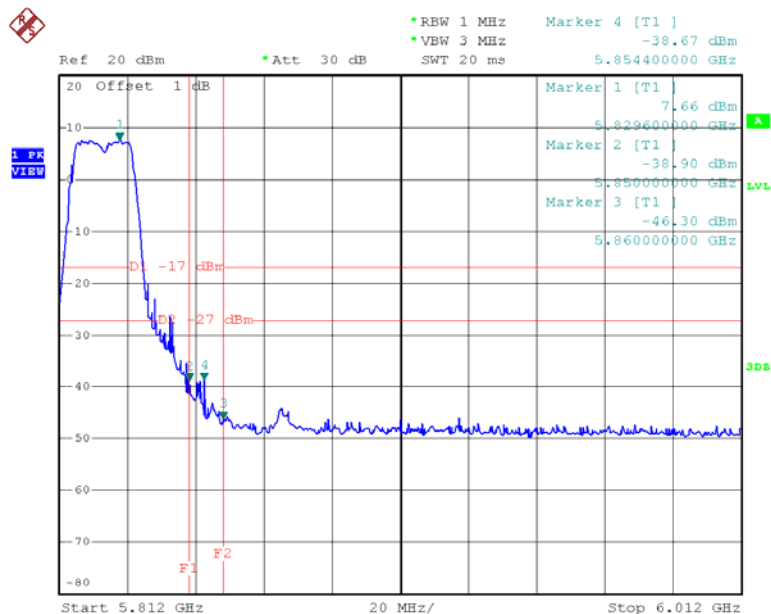
Test Mode: UNII-3/TX N20 Mode

TX HT20 mode CH149



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

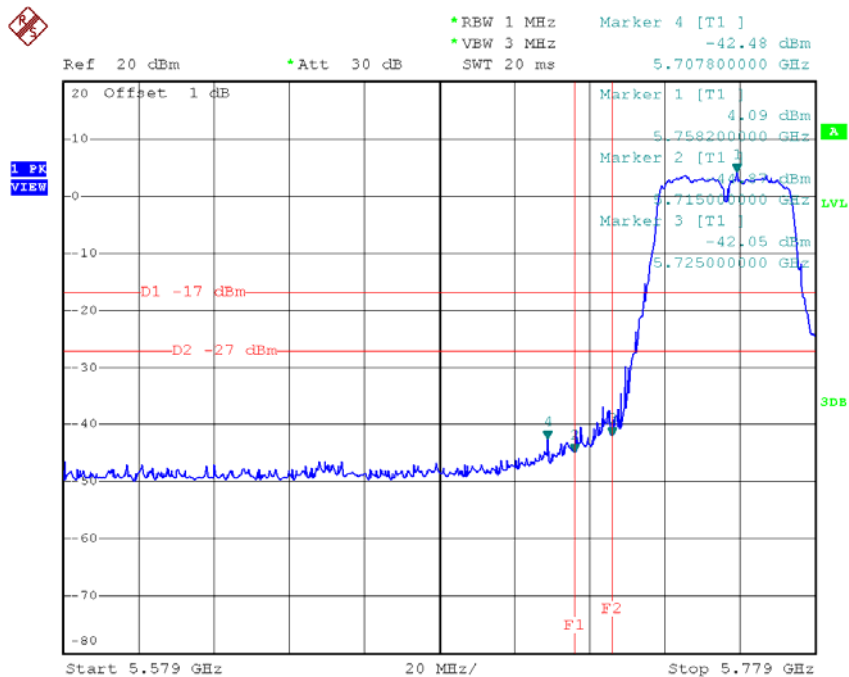
TX HT20 mode CH165



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

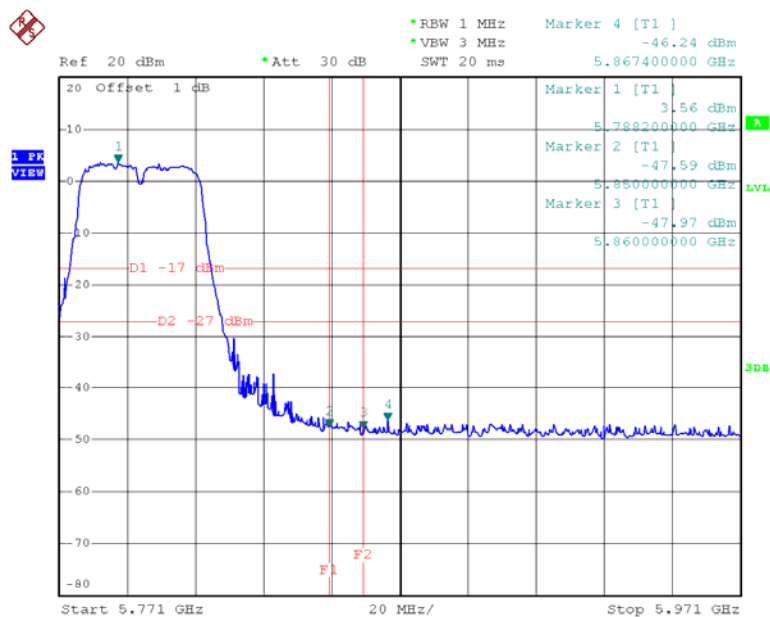
Test Mode: UNII-3/TX N40 Mode

UNII-3/TX HT40 mode CH151



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

UNII-3/TX HT40 mode CH159

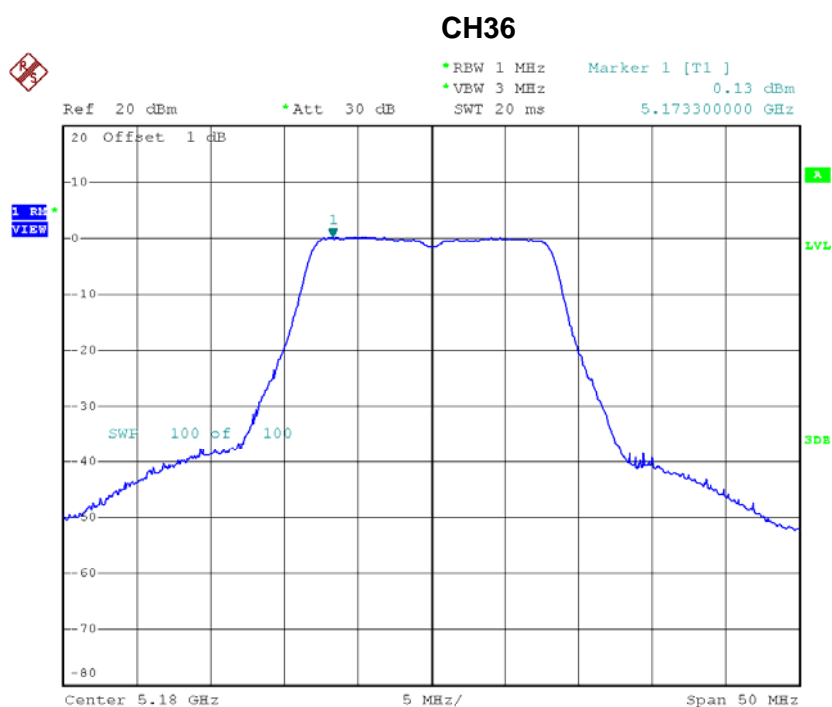


Date: 5.MAY.2015 15:11:06

ATTACHMENTH - POWER SPECTRAL DENSITY

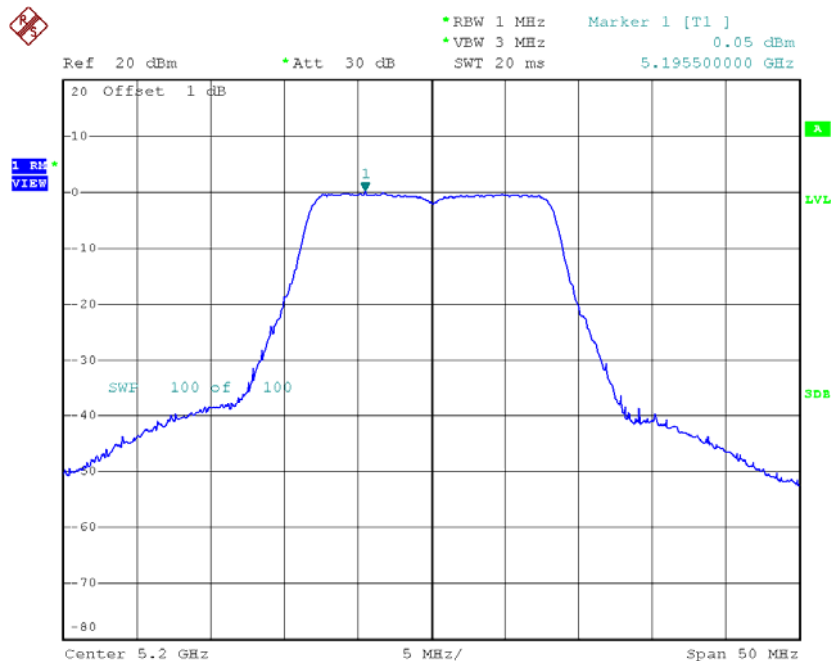
Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48

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



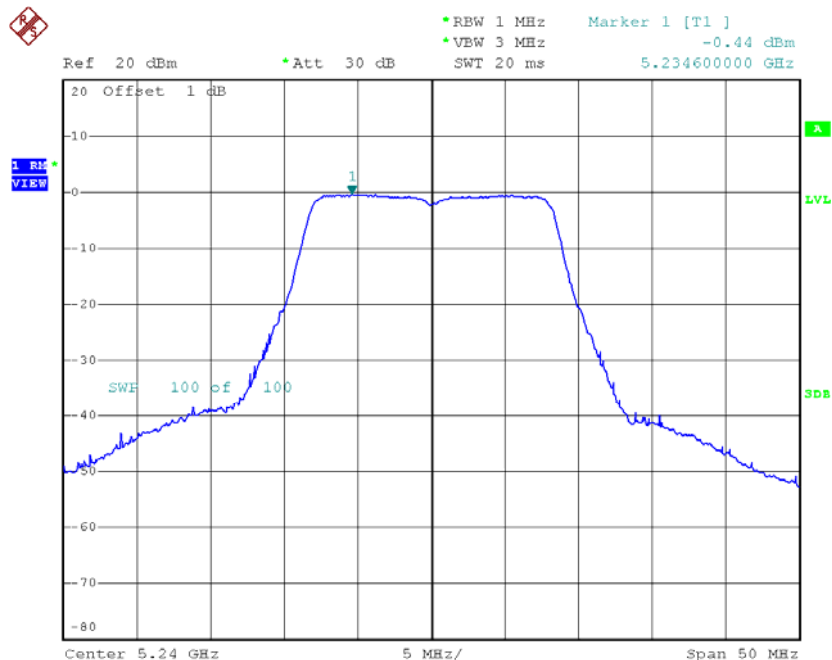
Date: 5.MAY.2015 14:54:46

CH40



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

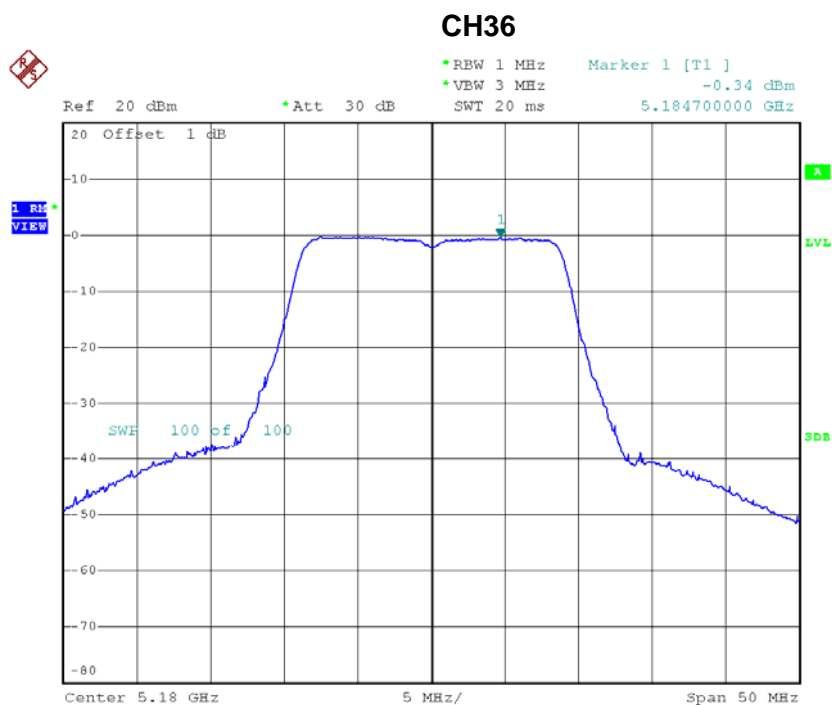
CH48



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

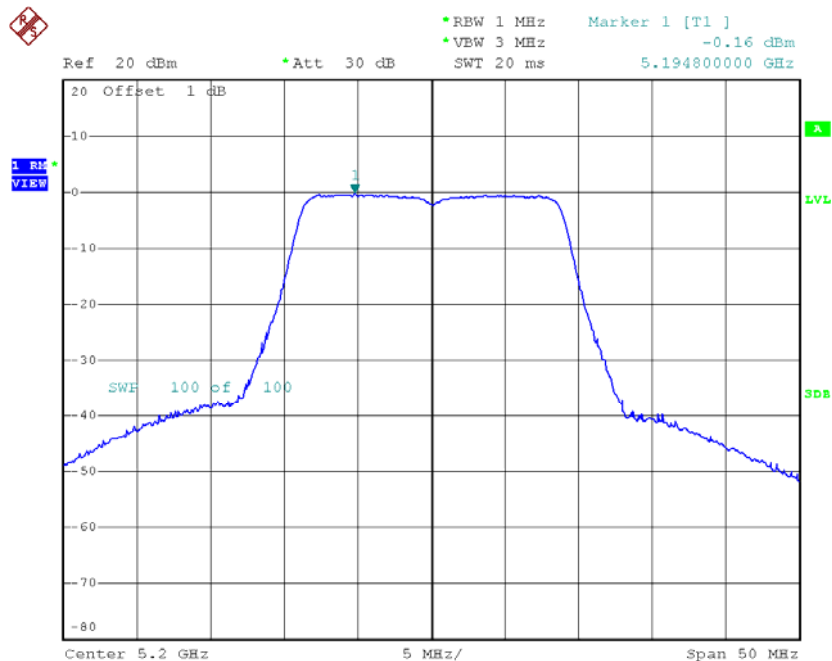
Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48

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



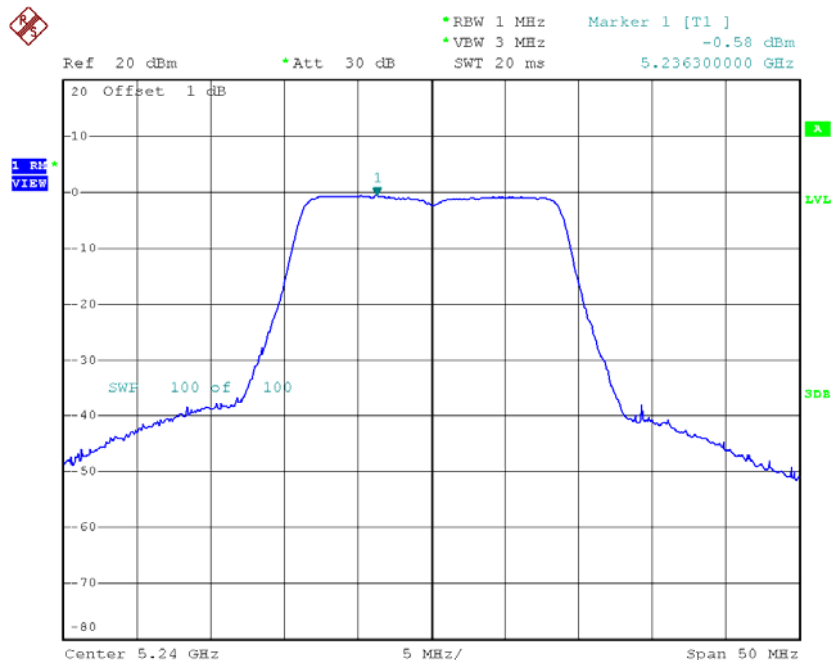
Date: 5.MAY.2015 15:02:07

CH40



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

CH48

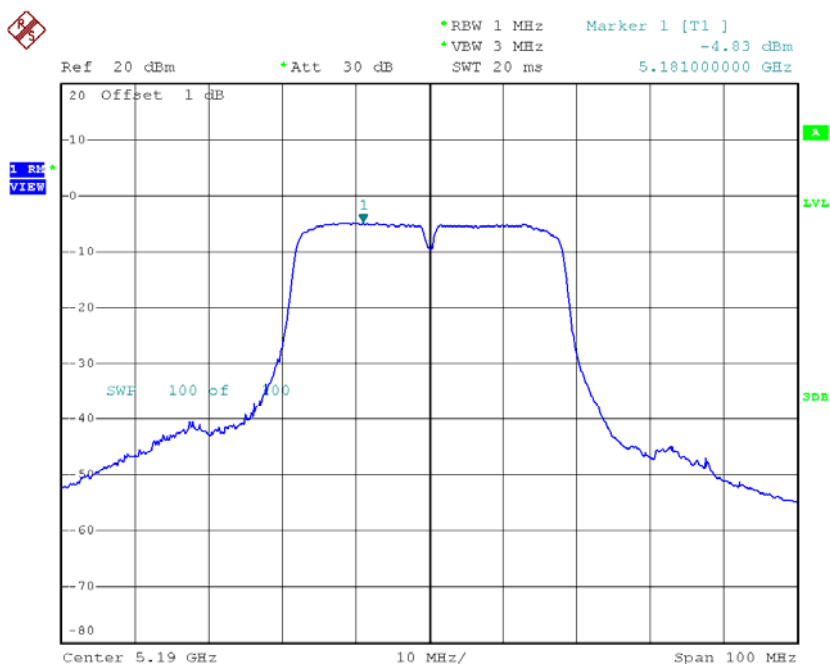


Date: 5.MAY.2015 15:04:09

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

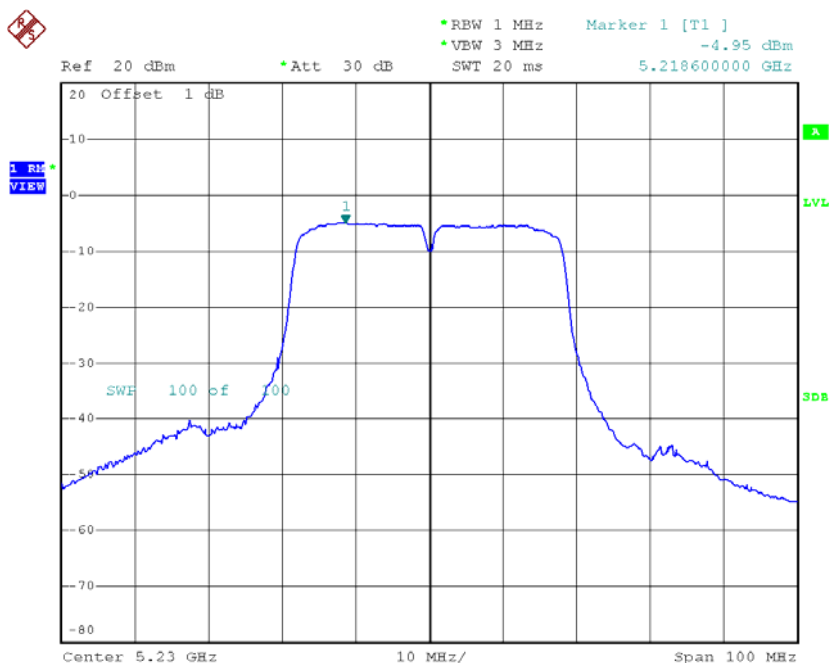
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density+Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH38	5190	-4.83	1.02	-3.81	11.00
CH46	5230	-4.95	1.02	-3.93	11.00

CH38



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

CH46

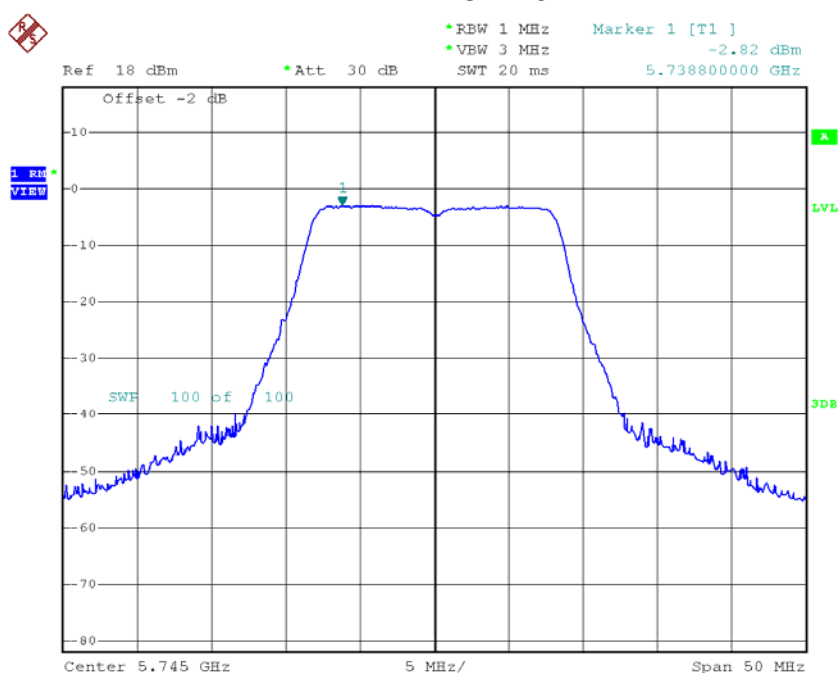


Date: 5.MAY.2015 15:09:23

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

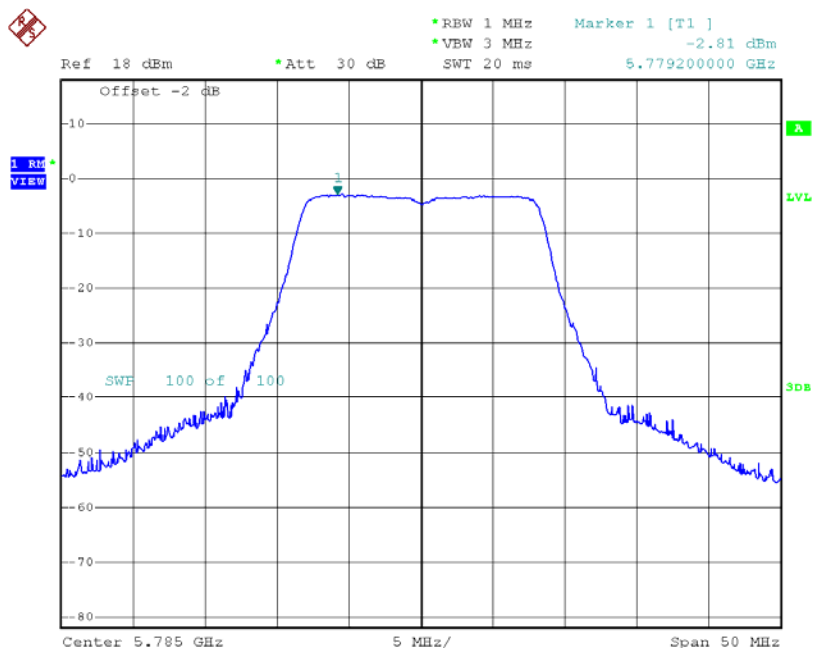
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density+Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH149	5745	-2.82	0.44	-2.38	30.00
CH157	5785	-2.81	0.44	-2.37	30.00
CH165	5825	-3.21	0.44	-2.77	30.00

TX CH149



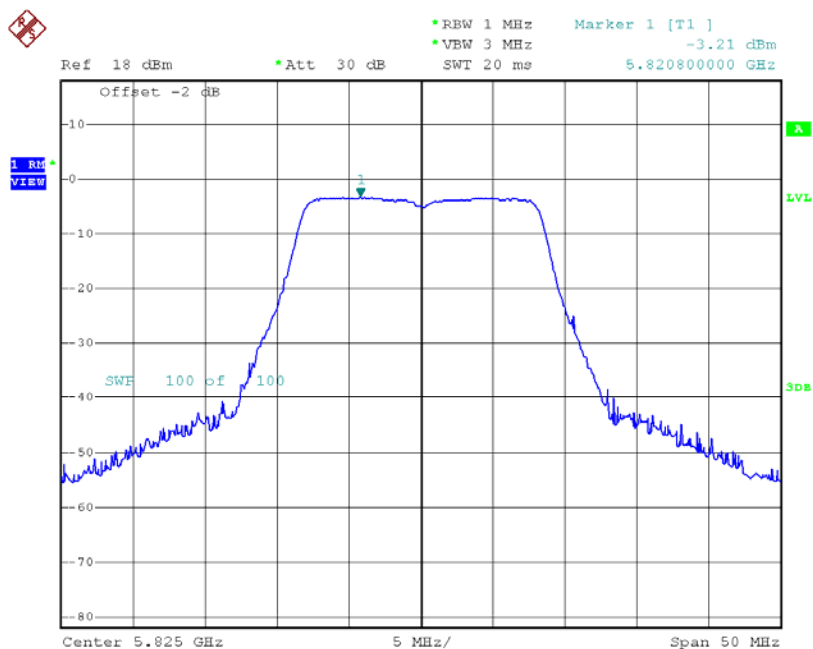
Date: 5.MAY.2015 14:58:21

TX CH157



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

TX CH165

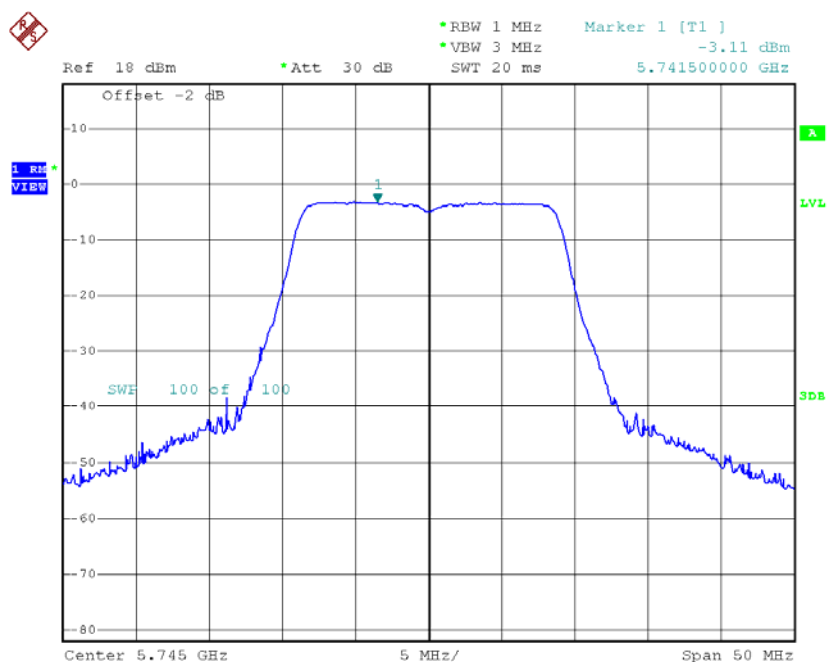


Date: 5.MAY.2015 15:00:45

Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

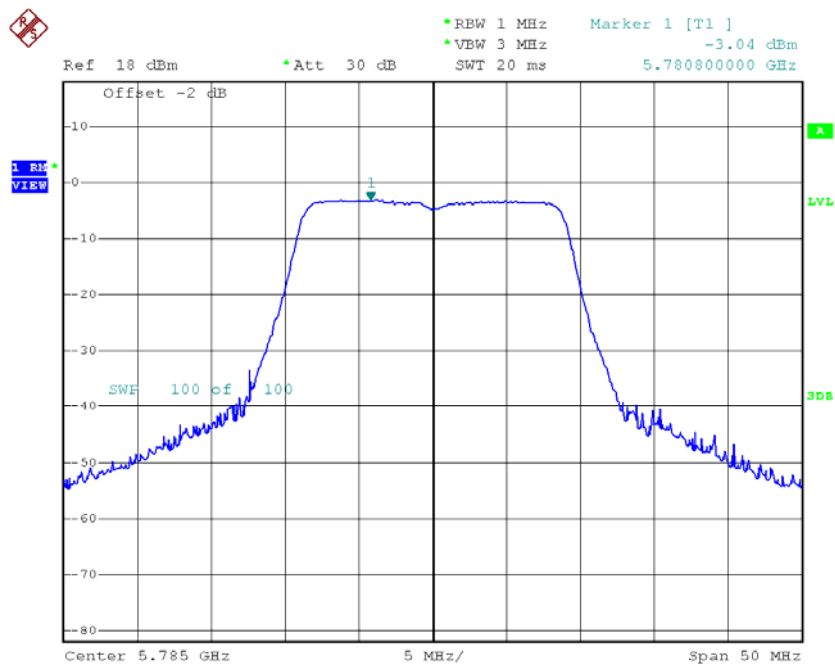
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density+Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH149	5745	-3.11	0.46	-2.65	30.00
CH157	5785	-3.04	0.46	-2.58	30.00
CH165	5825	-3.48	0.46	-3.02	30.00

TX CH149



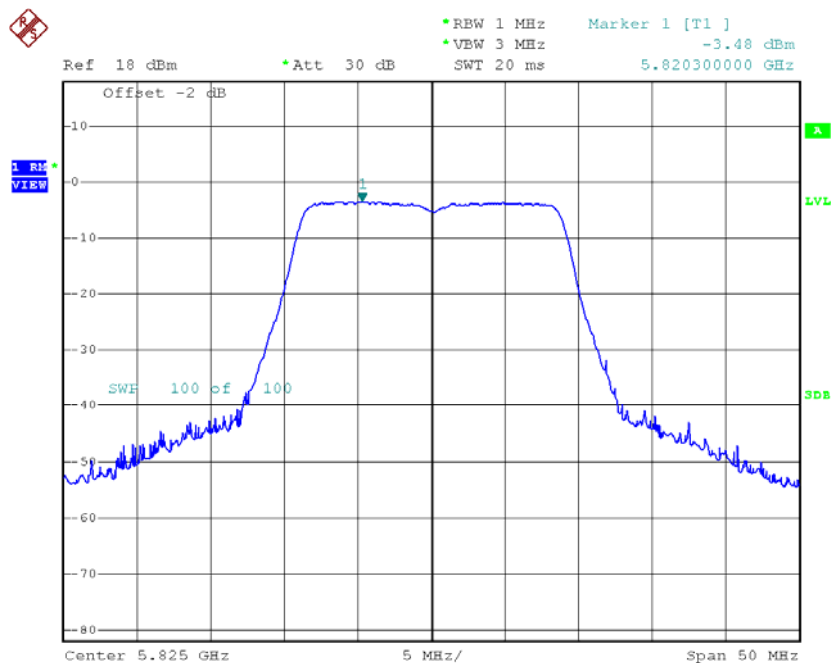
Date: 5.MAY.2015 15:04:51

TX CH157



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

TX CH165

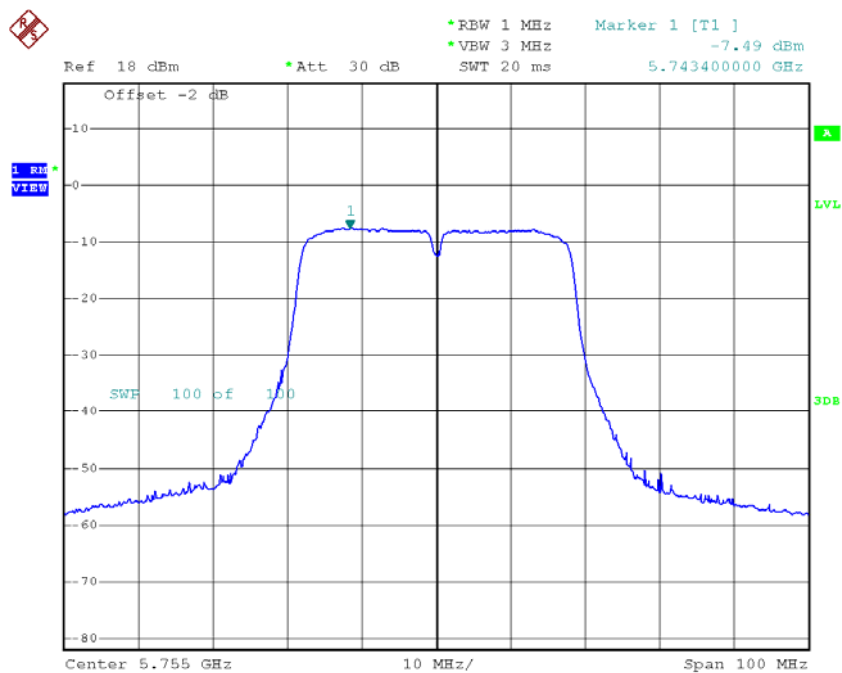


Date: 5.MAY.2015 15:06:32

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

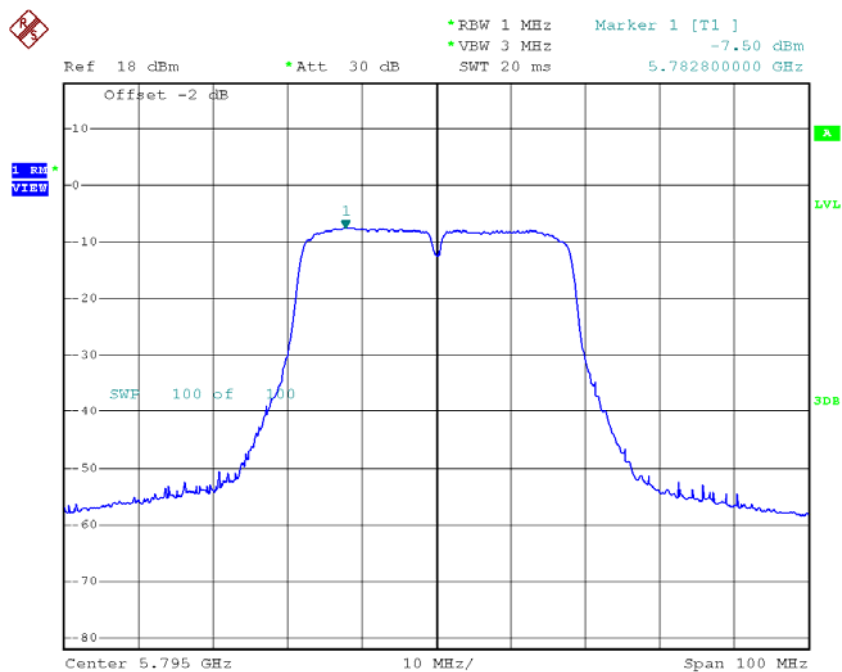
Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor (dBm/MHz)	Power Density+Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH151	5755	-7.49	1.02	-6.47	30.00
CH159	5795	-7.50	1.02	-6.48	30.00

TX CH151



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

TX CH159



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

ATTACHMENTI-FREQUENCY STABILITY

Test Mode:	UNII-1
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Voltage vs. Frequency Stability

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

Temperature vs. Frequency Stability

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

Test Mode:	UNII-3
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Voltage vs. Frequency Stability

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

Temperature vs. Frequency Stability

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