

FCC Radio Test Report

FCC ID: V7TMESH5S

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

Project No. : 1806C124
Equipment : AC1200 Whole Home Mesh WiFi System
Model Name : Mesh5s
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Date of Receipt : Jun. 21, 2018
Date of Test : Jun. 25, 2018 ~ Jul. 07, 2018
Issued Date : Jul. 17, 2018
Tested by : BTL Inc.

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Declaration

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

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BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements in all the possible configurations as representative of its intended use.

Limitation

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-3-1806C124	Original Issue.	Jul. 13, 2018
MDG1807016	Change the applicant and manufacturer.	Jul. 17, 2018

1. CERTIFICATION

Equipment : AC1200 Whole Home Mesh WiFi System
Brand Name : Tenda
Model Name : Mesh5s
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District,
Shenzhen, China. 518052
Date of Test : Jun. 25, 2018 ~ Jul. 07, 2018
Test Sample : ENGINEERING SAMPLE No.: D180605169
Standard(s) : FCC Part15, Subpart E(15.407) / ANSI C63.10-2013

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-3-1806C124) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP according to the ISO-17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the WIFI 5GHz UNII-1 and UNII-3 part.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.407(a)	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 at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 854385

BTL's designation number for FCC: CN5020

2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) $k=1.96$ or $k=2$ (which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Measurement Uncertainty for a Level of Confidence of 95 %, $U=2xUc(y)$.

The BTL measurement uncertainty as below table:

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 KHz ~ 30MHz	2.32

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	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	AC1200 Whole Home Mesh WiFi System	
Brand Name	Tenda	
Model Name	Mesh5s	
Mode Difference(s)	N/A	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	1200Mbps
Power Source	AC Mains.	
Power Rating	AC100-240V 0.3A 50/60Hz	
Output Power -Non Beamforming	Output Power (Max.)for UNII-1	802.11a: 16.08dBm 802.11n (20M): 19.25dBm 802.11n (40M): 21.22dBm 802.11ac (80M): 13.35dBm
	Output Power (Max.)for UNII-3	802.11a: 16.68dBm 802.11n (20M): 18.96dBm 802.11n (40M): 21.45dBm 802.11ac (80M): 21.68dBm
Output Power -With Beamforming	Output Power (Max.)for UNII-1	802.11n (20M): 19.02dBm 802.11n (40M): 21.01dBm 802.11ac (80M): 13.09dBm
	Output Power (Max.)for UNII-3	802.11n (20M): 18.70dBm 802.11n (40M): 21.23dBm 802.11ac (80M): 21.44dBm

Note:

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

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	N/A	N/A	PCB	IPEX	3	UNII-1
1	N/A	N/A	PCB	IPEX	4	UNII-3
2	N/A	N/A	PCB	IPEX	3	UNII-1
2	N/A	N/A	PCB	IPEX	4	UNII-3

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R), all transmit signals are completely correlated, then,

for Non-beamforming function,

Direction gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2/N]$, that are

UNII-1 Directional gain = $10 \log[(10^{3/20} + 10^{3/20})^2/2] = 6.01\text{dBi}$

UNII-3 Directional gain = $10 \log[(10^{4/20} + 10^{4/20})^2/2] = 7.01\text{dBi}$

The UNII-1 Output Power limit is $30-6.01+6=29.99\text{ dBm}$

The UNII-3 Output Power limit is $30-7.01+6=28.99\text{ dBm}$

The UNII-1 PSD limit is $17-6.01+6=16.99\text{ dBm/MHz}$

The UNII-3 PSD limit is $30-7.01+6=28.99\text{ dBm/500kHz}$.

for beamforming function,

Beamforming Gain = 3 dBi,

UNII-1 Directional gain = 6.01dBi

UNII-3 Directional gain = 7.01dBi

So, UNII-1, the out power limit is $30-6.01-3+6=26.99$

UNII-3 the out power limit is $30-7.01-3+6=25.99$,

UNII-1 the power density limit is $17-6.01-3+6=13.99$,

UNII-3 the power density limit is $30-7.01-3+6=25.99$.

4.

Operating Mode	1TX	2TX
TX Mode		
802.11a	V (ANT 2)	-
802.11n (20MHz)	-	V (ANT 1+ANT 2)
802.11n (40MHz)	-	V (ANT 1+ANT 2)
802.11ac (80MHz)	-	V (ANT 1+ANT 2)

ANT 2 for 1TX was found to be the worst case and recorded

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 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 AC80 Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC80 Mode / CH155 (UNII-3)
Mode 9	TX Mode

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

For Conducted Test	
Final Test Mode	Description
Mode 13	TX Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC80 Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC80 Mode / CH155 (UNII-3)

Note:

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

3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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

Non Beamforming

UNII-1			
Test Software Version	MP_TEST		
Frequency (MHz)	5180	5200	5240
A Mode	50	50	46
N20 Mode	52/52	51/51	50/50
Frequency (MHz)	5190	5230	
N40 Mode	43/43	55/55	
Frequency (MHz)	5210		
AC80 Mode	40/40		

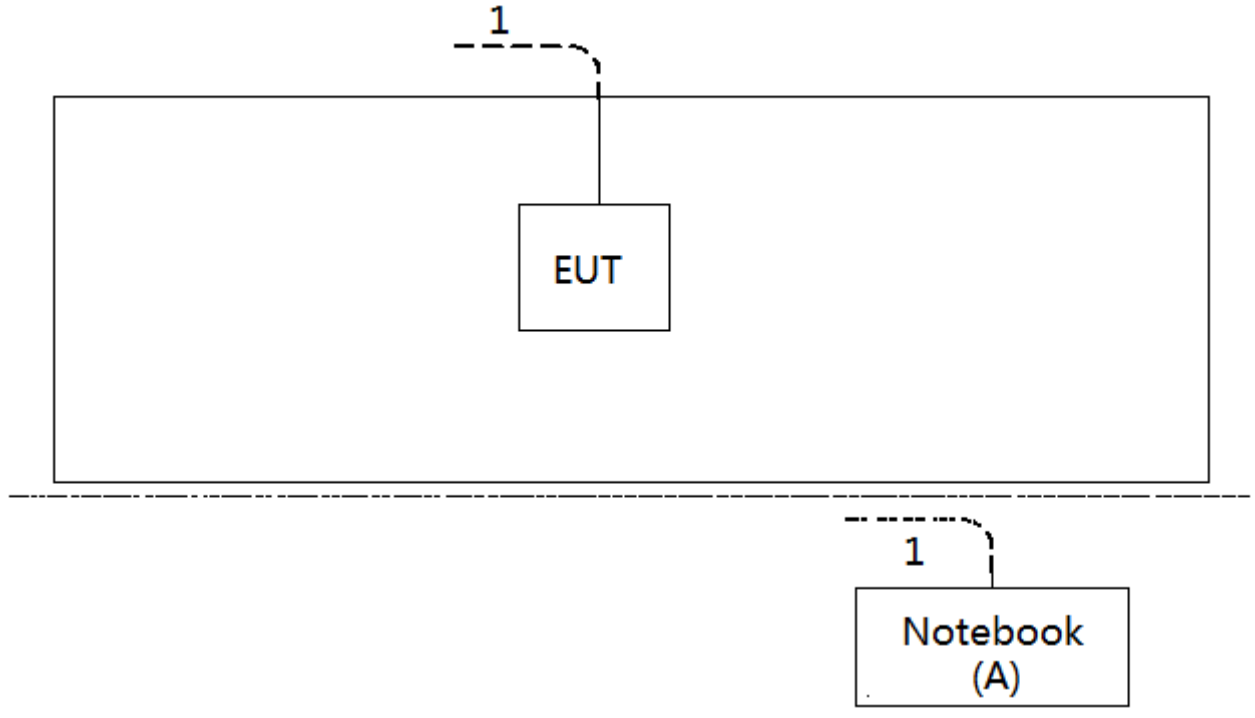
UNII-3			
Test Software Version	MP_TEST		
Frequency (MHz)	5745	5785	5825
A Mode	51	51	51
N20 Mode	51/51	50/50	50/50
Frequency (MHz)	5755	5795	
N40 Mode	57/57	57/57	
Frequency (MHz)	5775		
AC80 Mode	59/59		

With Beamforming

UNII-1			
Test Software Version	MP_TEST		
Frequency (MHz)	5180	5200	5240
N20 Mode	52/52	51/51	50/50
Frequency (MHz)	5190	5230	
N40 Mode	43/43	55/43	
Frequency (MHz)	5210		
AC80 Mode	40/40		

UNII-3			
Test Software Version	MP_TEST		
Frequency (MHz)	5745	5785	5825
N20 Mode	51/51	50/50	50/50
Frequency (MHz)	5755	5795	
N40 Mode	57/57	57/57	
Frequency (MHz)	5775		
AC80 Mode	59/59		

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	NOTEBOOK	DELL	INSPIRON 1420	N/A	JX193A01SDC2

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	10m	RJ45

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

Note:

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

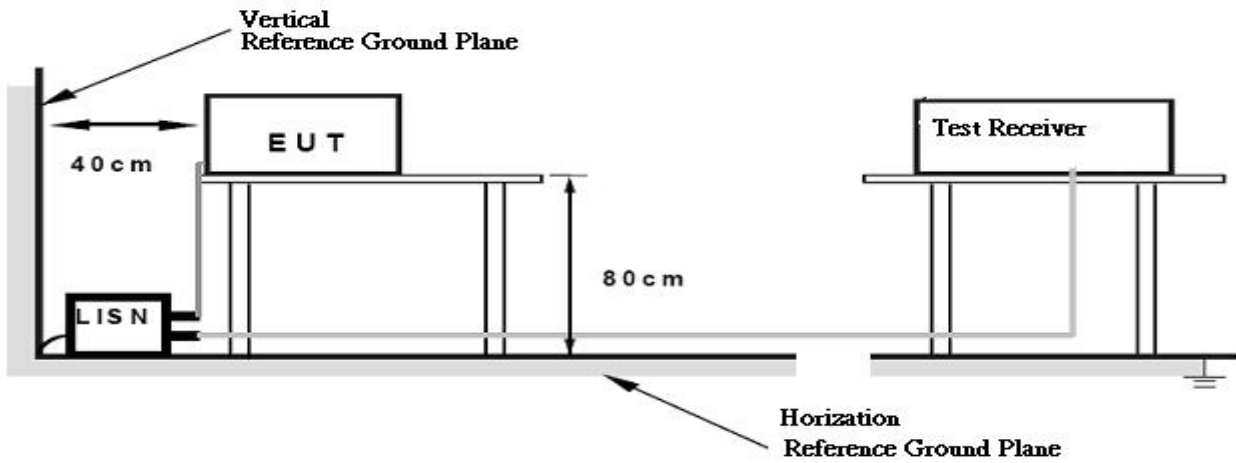
4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



4.1.5 EUT OPERATING CONDITIONS

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

The EUT was programmed to be in continuously transmitting/TX Mode mode.

4.1.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Appendix A.

Remark:

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

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5725-5850	-27(Note 2)	68.3
	10(Note 2)	105.3
	15.6(Note 2)	110.9
	27(Note 2)	122.3

Note:

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

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

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

4.2.2 TEST PROCEDURE

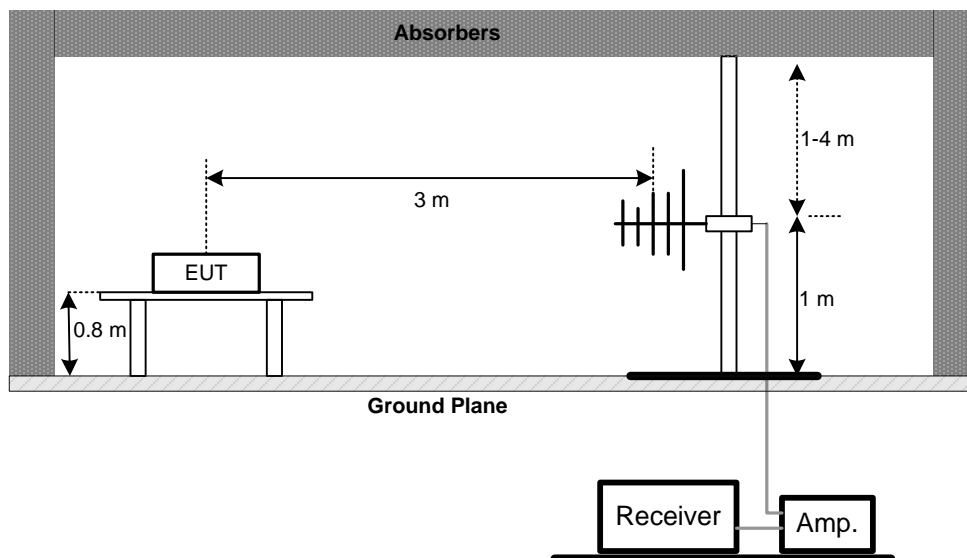
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

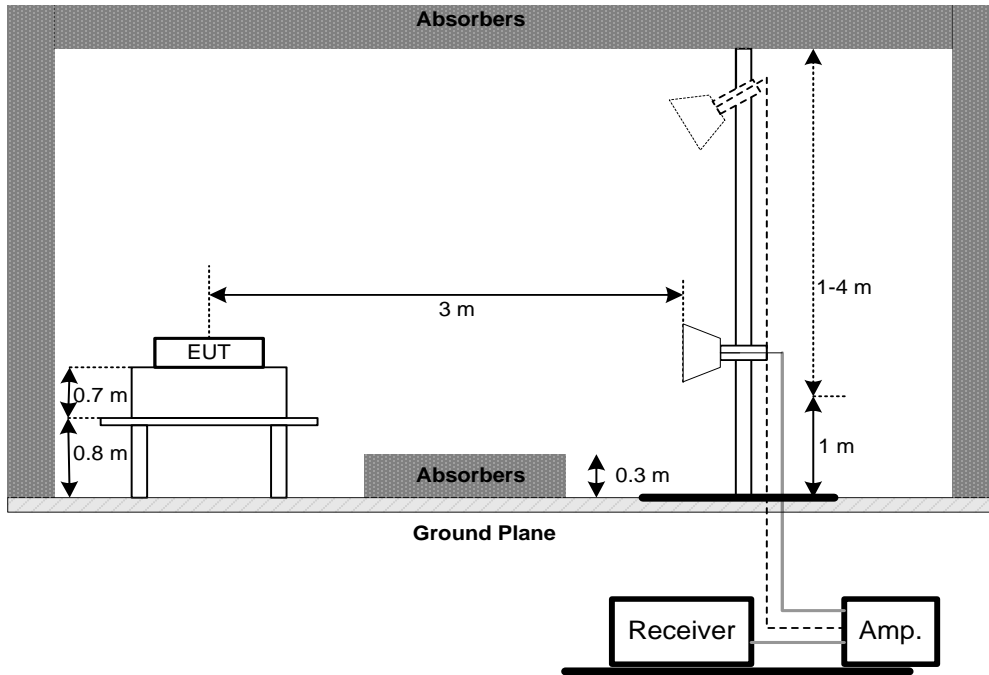
No deviation

4.2.4 TEST SETUP

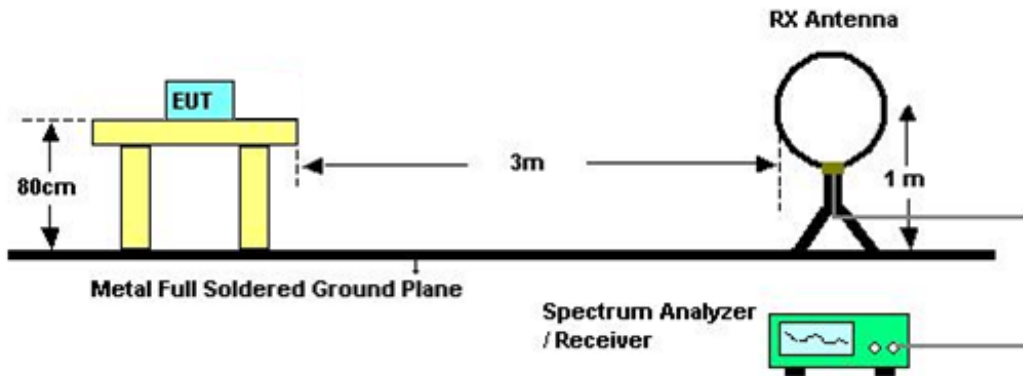
(A)Radiated Emission Test Set-Up Frequency Below 1GHz



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



(C) Radiated emissions below 30MHz



4.2.5 EUT OPERATING CONDITIONS

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

4.2.6 EUT TEST CONDITIONS

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

4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Appendix B

Remark:

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

4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Appendix D.

Remark:

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

5. 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(Bandwidth 20MHz) 1MHz(Bandwidth 40MHz and 80MHz)
VBW	1MHz(Bandwidth 20MHz) 3MHz(Bandwidth 40MHz and 80MHz)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

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

5.1.5 EUT TEST CONDITIONS

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

5.1.6 TEST RESULTS

Please refer to the Appendix E.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

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

6.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Used spectrum analyzer band power measurement function.
-

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Sweep points	≥2 x span / RBW
Detector	RMS
Trace	Trace average at least 100 traces in power averaging(rms) mode.
Sweep Time	auto

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

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

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

6.1.5 EUT TEST CONDITIONS

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

6.1.6 TEST RESULTS

Please refer to the Appendix F.

7. POWER SPECTRAL DENSITY TEST

7.1 APPLIED PROCEDURES / LIMIT

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

8.1.1 TEST PROCEDURE

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

b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Detector	RMS
Trace average	100 trace
Sweep Time	Auto

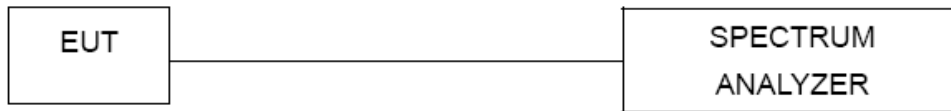
Note:

- For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01r02, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.
- The value measured with RBW=1MHz is to be added with $10\log(500\text{kHz}/1\text{MHz})$ which is -3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is +10dBm/MHz), then the converted value will be +7dBm/500kHz.

7.1.1 DEVIATION FROM STANDARD

No deviation.

7.1.2 TEST SETUP



7.1.3 EUT OPERATION CONDITIONS

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

7.1.4 EUT TEST CONDITIONS

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

7.1.5 TEST RESULTS

Please refer to the Appendix H.

8. FREQUENCY STABILITY MEASUREMENT

8.1 APPLIED PROCEDURES / LIMIT

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

8.1.1 TEST PROCEDURE

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

b.

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

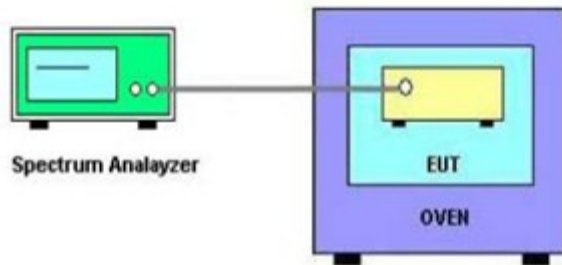
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is 0°C~40°C.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

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

8.1.5 EUT TEST CONDITIONS

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

8.1.6 TEST RESULTS

Please refer to the Appendix I.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019
2	LISN	EMCO	3816/2	52765	Mar. 11, 2019
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 11, 2019
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 11, 2019
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Oct. 19, 2018

Radiated Emission Measurement - Below 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 11, 2019
2	Amplifier	HP	8447D	2944A09673	Oct. 19, 2018
3	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	Jun. 26, 2019
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	Antenna	EM	EM-6876-1	230	Feb. 07, 2019

Radiated Emission Measurement - Above 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 11, 2019
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2019
3	Amplifier	Agilent	8449B	3008A02274	Mar. 11, 2019
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 11, 2019
5	Receiver	Agilent	N9038A	MY52130039	Aug. 20, 2018
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	emci	EMC104-SM-SM-1 2000(12m)	N/A	Jun. 26, 2019
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 20, 2018
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 11, 2019

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

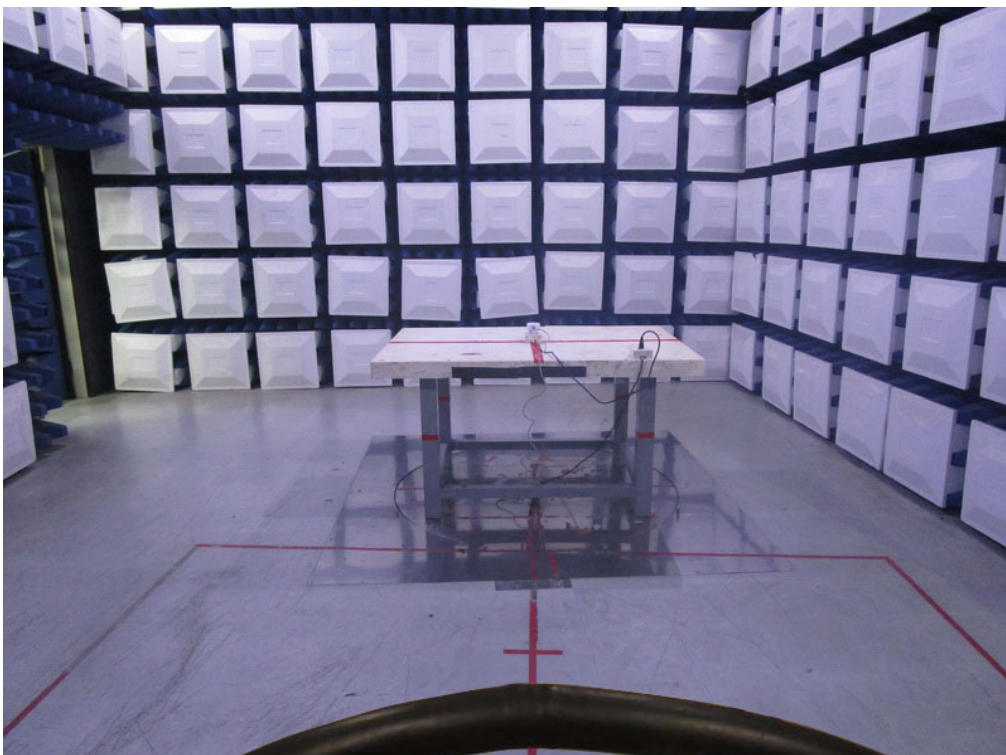
10. EUT TEST PHOTOS

Conducted Measurement Photos



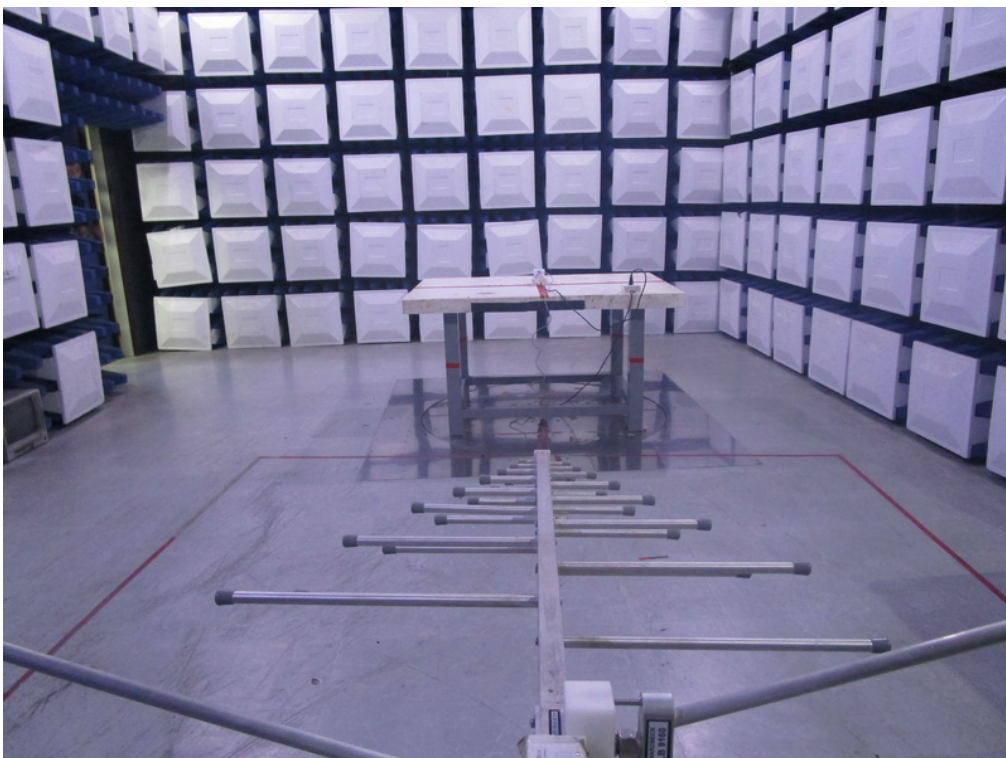
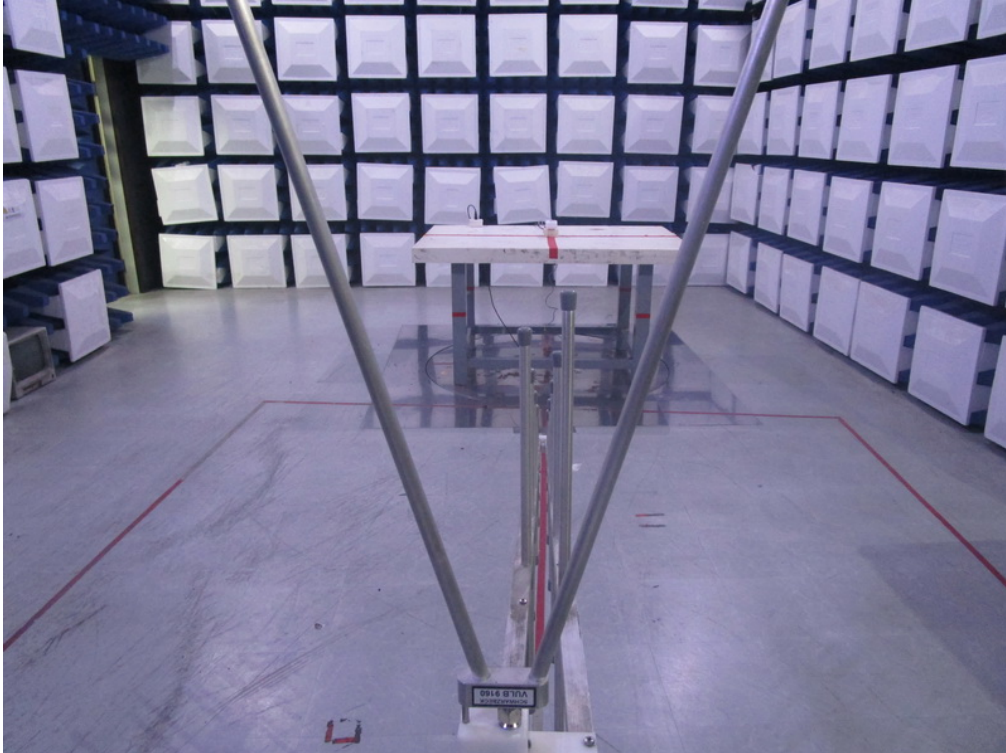
Radiated Measurement Photos

9kHz to 30MHz



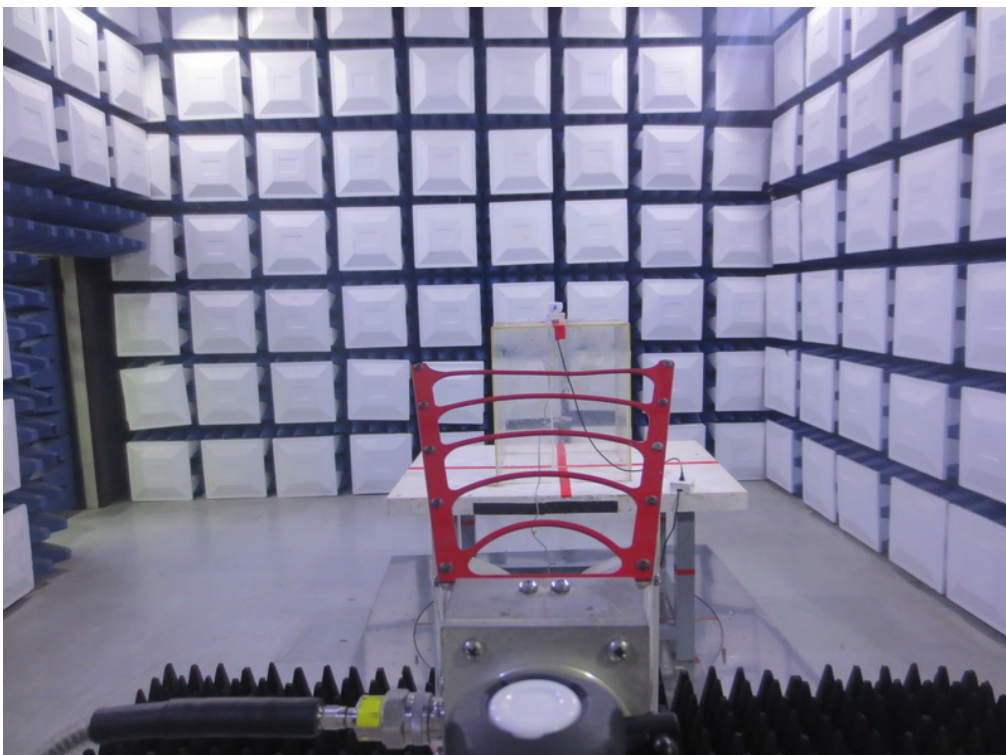
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

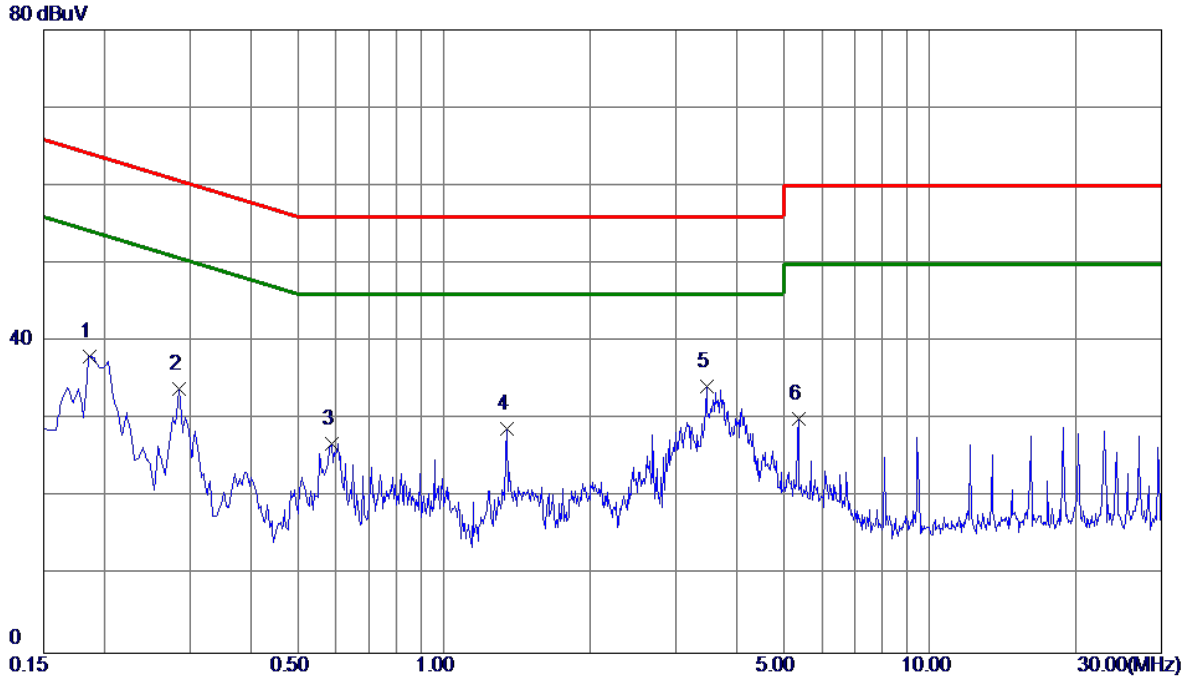
Above 1000MHz



APPENDIX A - CONDUCTED EMISSION

Test Mode: TX MODE

Line

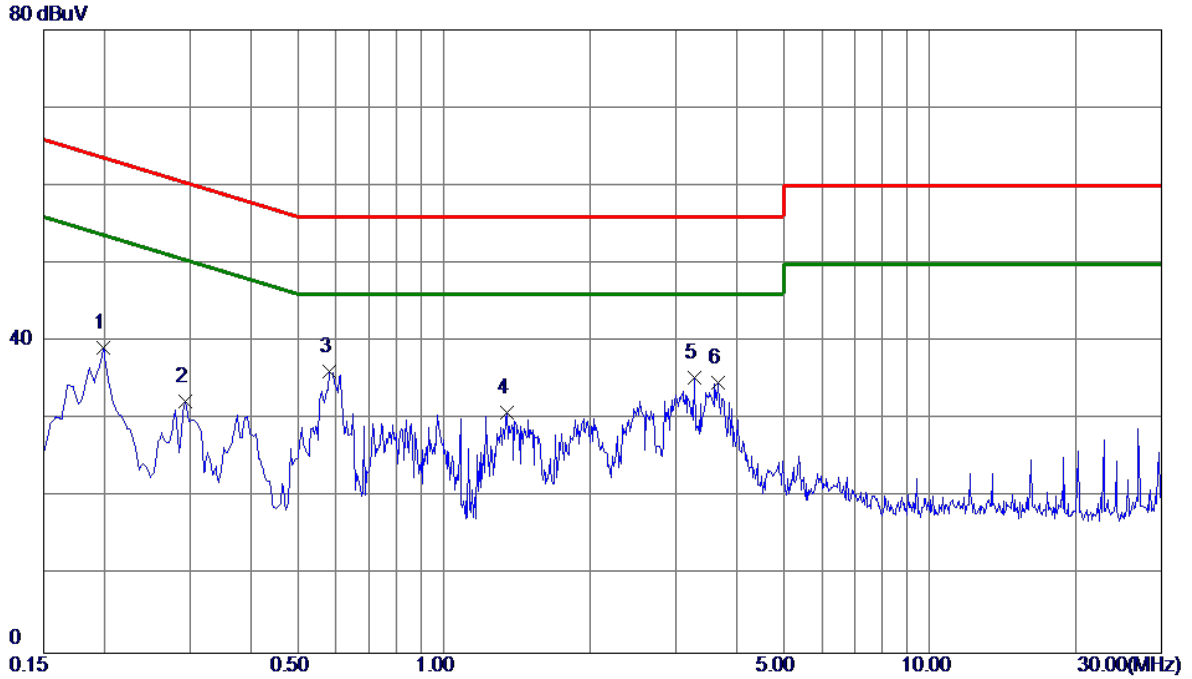


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1860	28.32	9.82	38.14	64.21	-26.07	Peak	
2	0.2850	24.11	9.82	33.93	60.67	-26.74	Peak	
3	0.5865	17.05	9.82	26.87	56.00	-29.13	Peak	
4	1.3470	18.83	9.94	28.77	56.00	-27.23	Peak	
5 *	3.4710	24.21	10.09	34.30	56.00	-21.70	Peak	
6	5.3835	19.80	10.22	30.02	60.00	-29.98	Peak	

Note : The test result has included the cable loss.

Test Mode: TX MODE

Neutral



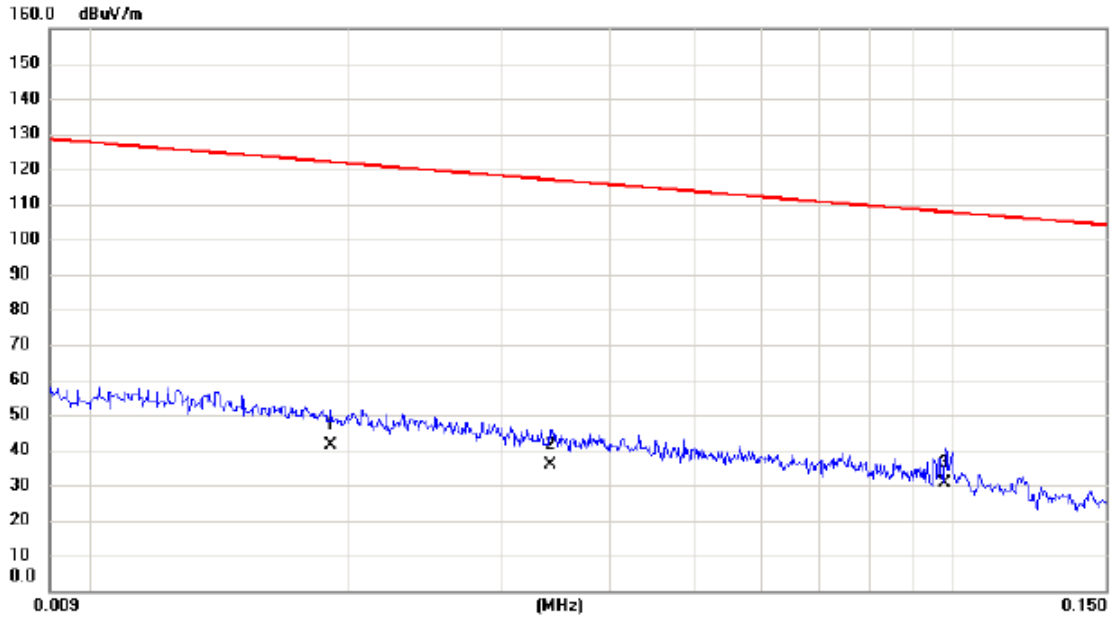
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1995	29.27	9.91	39.18	63.63	-24.45	Peak	
2	0.2940	22.43	9.93	32.36	60.41	-28.05	Peak	
3 *	0.5820	26.20	9.97	36.17	56.00	-19.83	Peak	
4	1.3470	20.67	10.14	30.81	56.00	-25.19	Peak	
5	3.2775	25.11	10.26	35.37	56.00	-20.63	Peak	
6	3.6645	24.47	10.29	34.76	56.00	-21.24	Peak	

Note : The test result has included the cable loss.

APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode: TX MODE

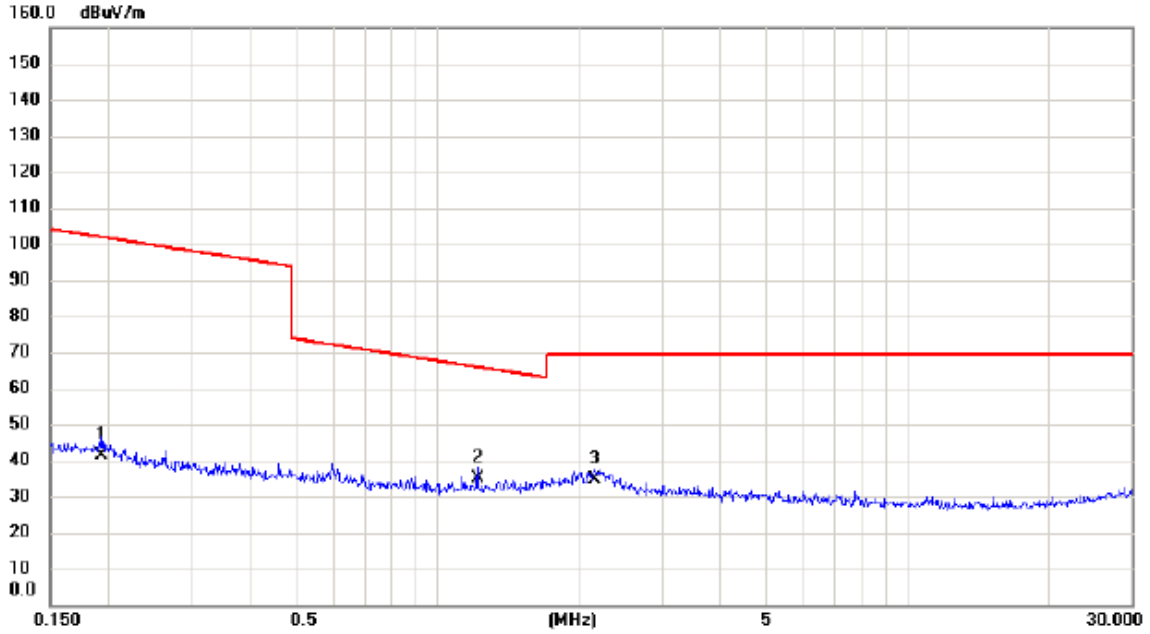
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		0.0190	21.43	20.16	41.59	122.03	-80.44	AVG	
2		0.0342	16.06	19.78	35.84	116.92	-81.08	AVG	
3	*	0.0978	12.03	18.48	30.51	107.80	-77.29	QP	

Test Mode: TX MODE

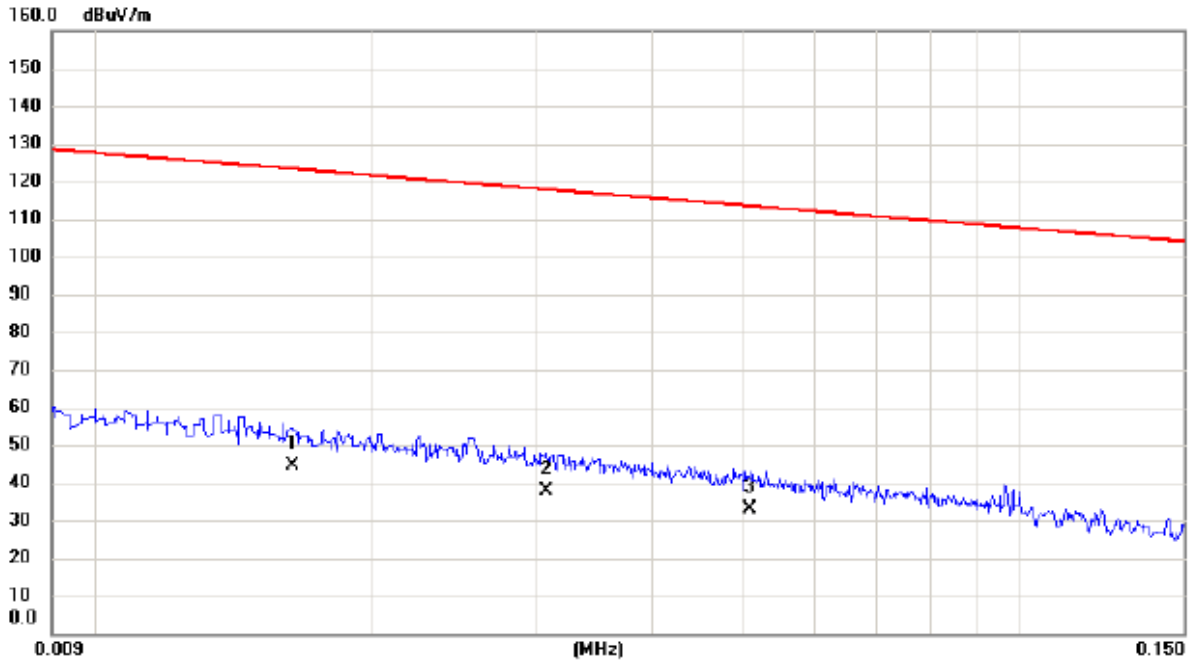
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.1934	24.33	17.16	41.49	101.88	-60.39	AVG	
2	*	1.2162	18.34	16.70	35.04	65.90	-30.86	QP	
3		2.1552	17.44	17.02	34.46	69.54	-35.08	QP	

Test Mode: TX MODE

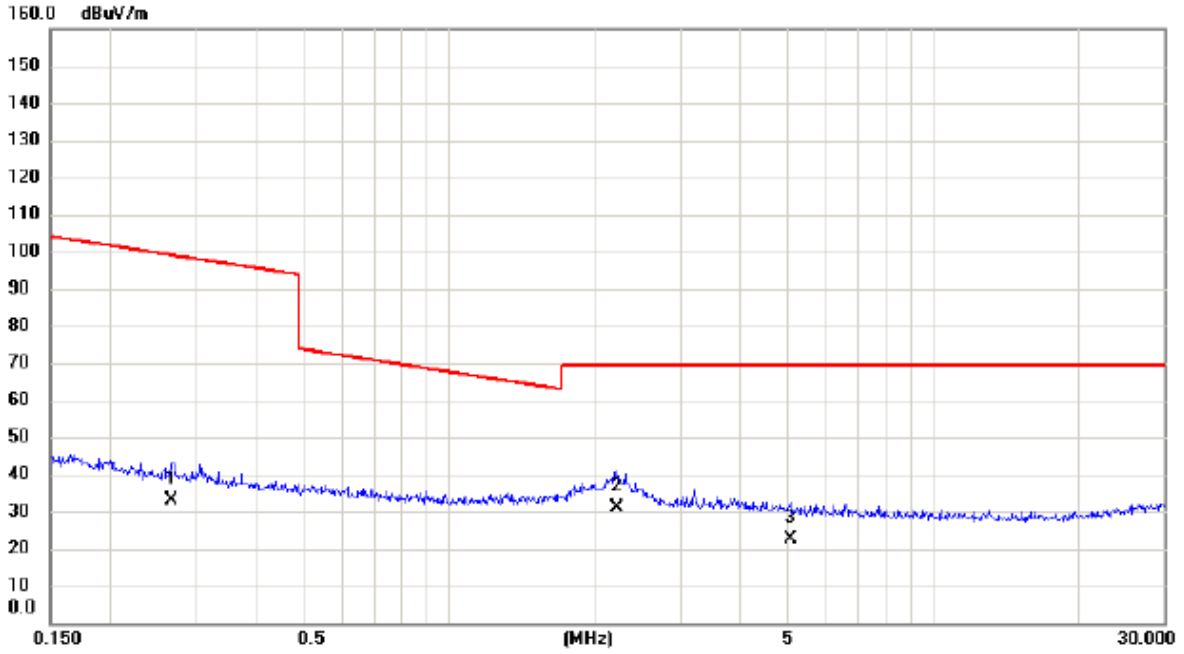
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0164	24.04	20.52	44.56	123.31	-78.75	AVG	
2		0.0308	17.85	19.84	37.69	117.83	-80.14	AVG	
3		0.0511	13.49	19.50	32.99	113.44	-80.45	AVG	

Test Mode: TX MODE

Ant 90°

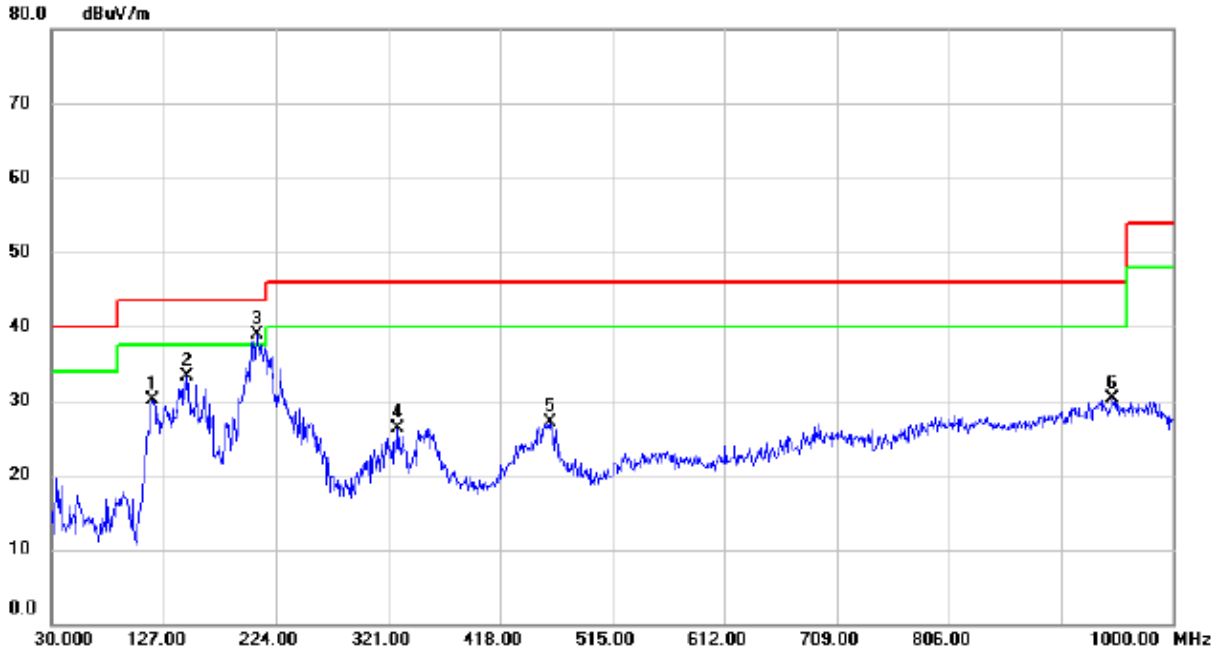


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2672	16.11	17.05	33.16	99.07	-65.91	AVG	
2	*	2.2250	14.14	16.97	31.11	69.54	-38.43	QP	
3		5.0580	7.50	15.16	22.66	69.54	-46.88	QP	

APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)

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

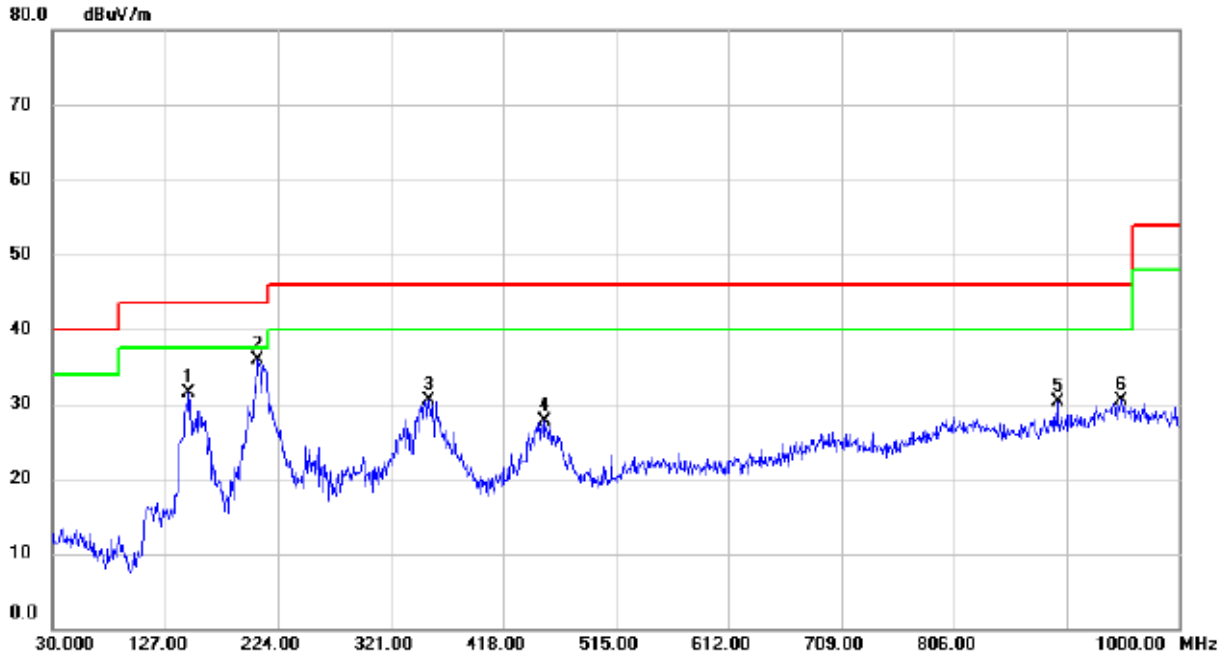
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		117.3000	45.17	-15.12	30.05	43.50	-13.45	peak	
2		147.3700	44.99	-11.65	33.34	43.50	-10.16	peak	
3	*	207.5100	54.19	-15.23	38.96	43.50	-4.54	peak	
4		329.7300	37.11	-10.80	26.31	46.00	-19.69	peak	
5		461.6500	34.74	-7.67	27.07	46.00	-18.93	peak	
6		947.6200	29.01	1.32	30.33	46.00	-15.67	peak	

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

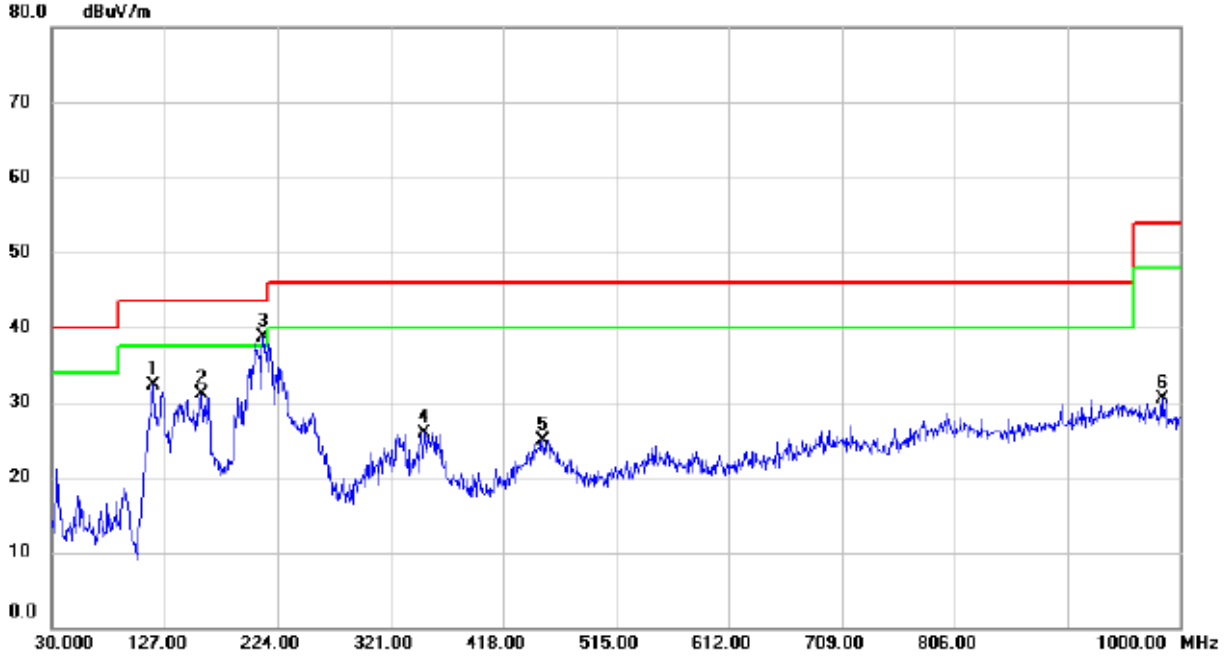
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		147.3700	43.13	-11.65	31.48	43.50	-12.02	peak	
2	*	206.5400	51.21	-15.22	35.99	43.50	-7.51	peak	
3		353.9800	41.42	-10.94	30.48	46.00	-15.52	peak	
4		452.9200	35.18	-7.46	27.72	46.00	-18.28	peak	
5		895.2400	31.00	-0.72	30.28	46.00	-15.72	peak	
6		949.5600	29.13	1.39	30.52	46.00	-15.48	peak	

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

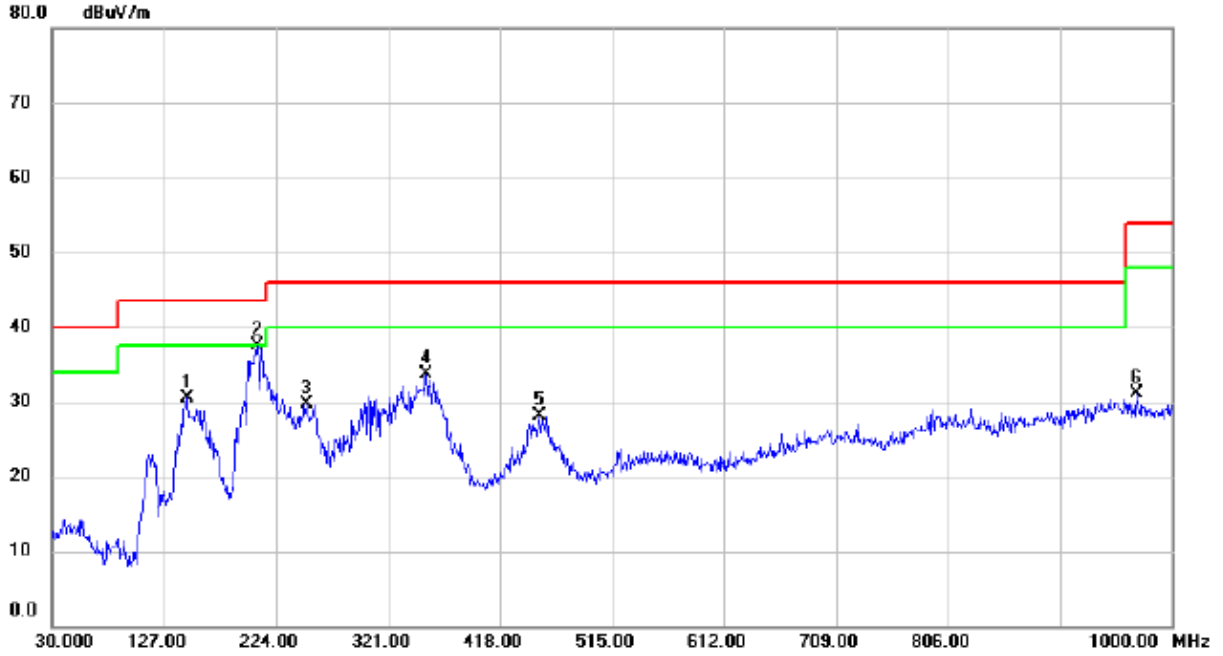
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		117.3000	47.38	-15.12	32.26	43.50	-11.24	peak	
2		159.0100	41.70	-10.68	31.02	43.50	-12.48	peak	
3	*	211.3900	53.87	-15.18	38.69	43.50	-4.81	peak	
4		350.1000	37.03	-11.08	25.95	46.00	-20.05	peak	
5		451.9500	32.34	-7.45	24.89	46.00	-21.11	peak	
6		984.4800	29.94	0.59	30.53	54.00	-23.47	peak	

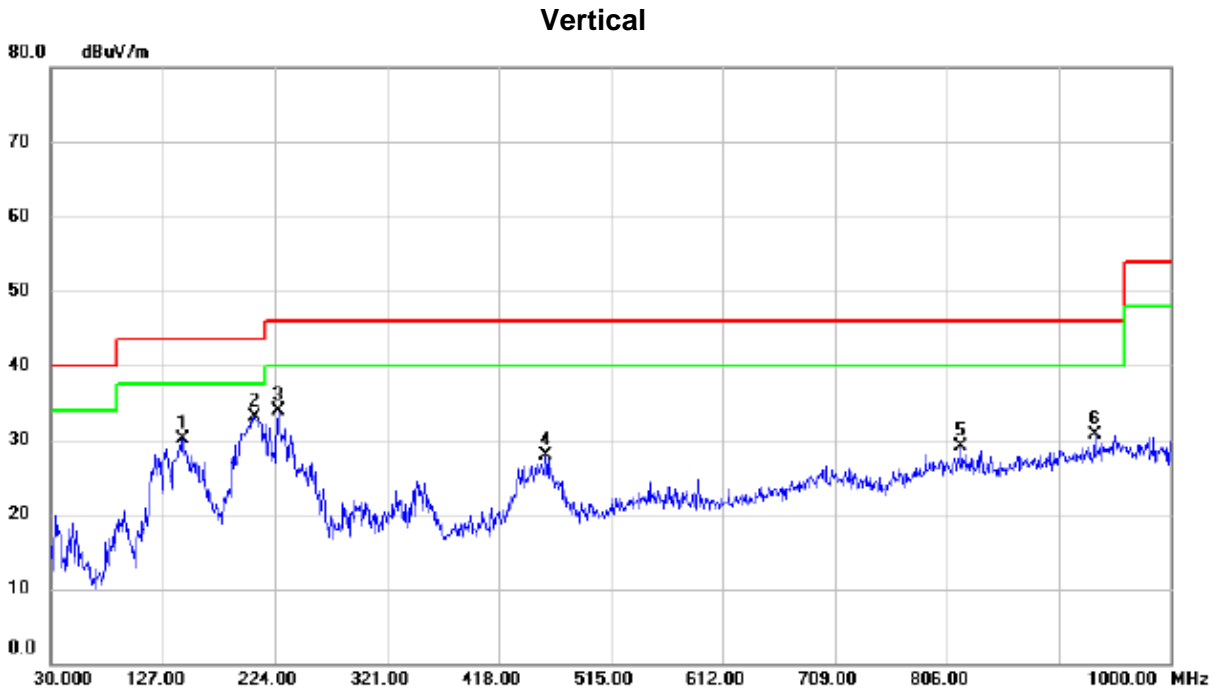
Test Mode: UNII-1/TX A Mode 5200MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		146.4000	42.27	-11.71	30.56	43.50	-12.94	peak	
2	*	207.5100	52.72	-15.23	37.49	43.50	-6.01	peak	
3		250.1900	43.89	-14.28	29.61	46.00	-16.39	peak	
4		353.9800	44.60	-10.94	33.66	46.00	-12.34	peak	
5		451.9500	35.62	-7.45	28.17	46.00	-17.83	peak	
6		968.9600	30.16	0.96	31.12	54.00	-22.88	peak	

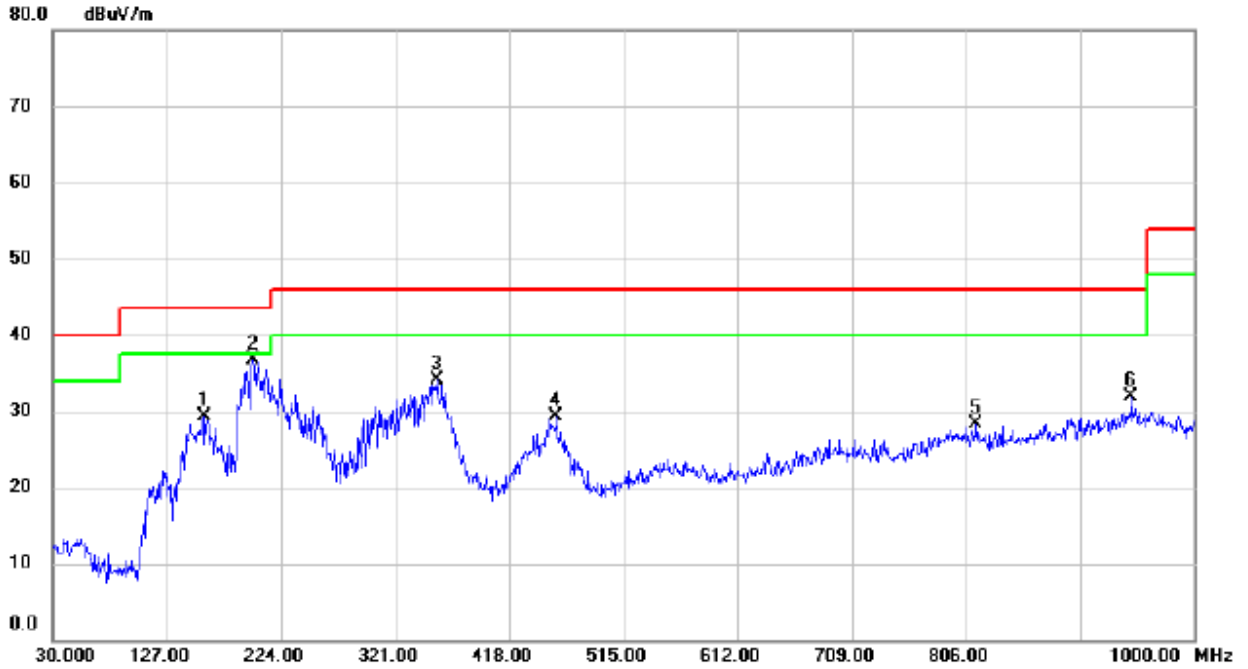
Test Mode: UNII-1/TX A Mode 5240MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		144.4600	41.96	-11.83	30.13	43.50	-13.37	peak	
2	*	206.5400	48.27	-15.22	33.05	43.50	-10.45	peak	
3		226.9100	48.80	-14.92	33.88	46.00	-12.12	peak	
4		458.7400	35.49	-7.60	27.89	46.00	-18.11	peak	
5		818.6100	30.38	-1.33	29.05	46.00	-16.95	peak	
6		934.0400	29.96	0.78	30.74	46.00	-15.26	peak	

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

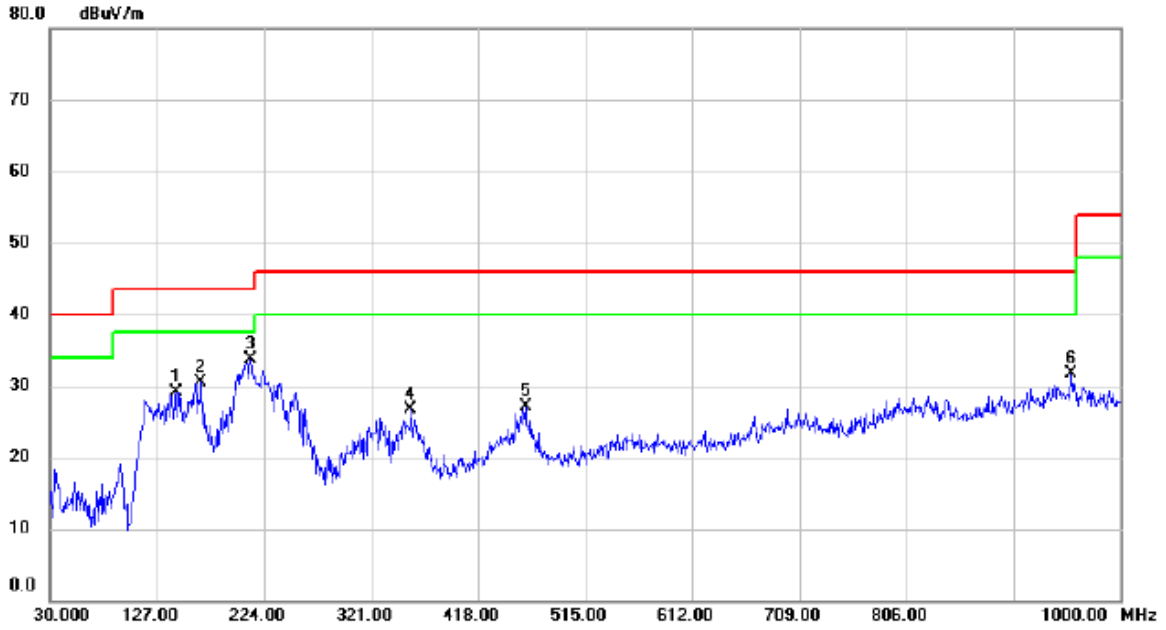
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		158.0400	40.01	-10.78	29.23	43.50	-14.27	peak	
2	*	199.7500	51.93	-15.18	36.75	43.50	-6.75	peak	
3		356.8900	44.89	-10.85	34.04	46.00	-11.96	peak	
4		457.7700	36.82	-7.58	29.24	46.00	-16.76	peak	
5		814.7300	29.65	-1.26	28.39	46.00	-17.61	peak	
6		946.6500	30.56	1.28	31.84	46.00	-14.16	peak	

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

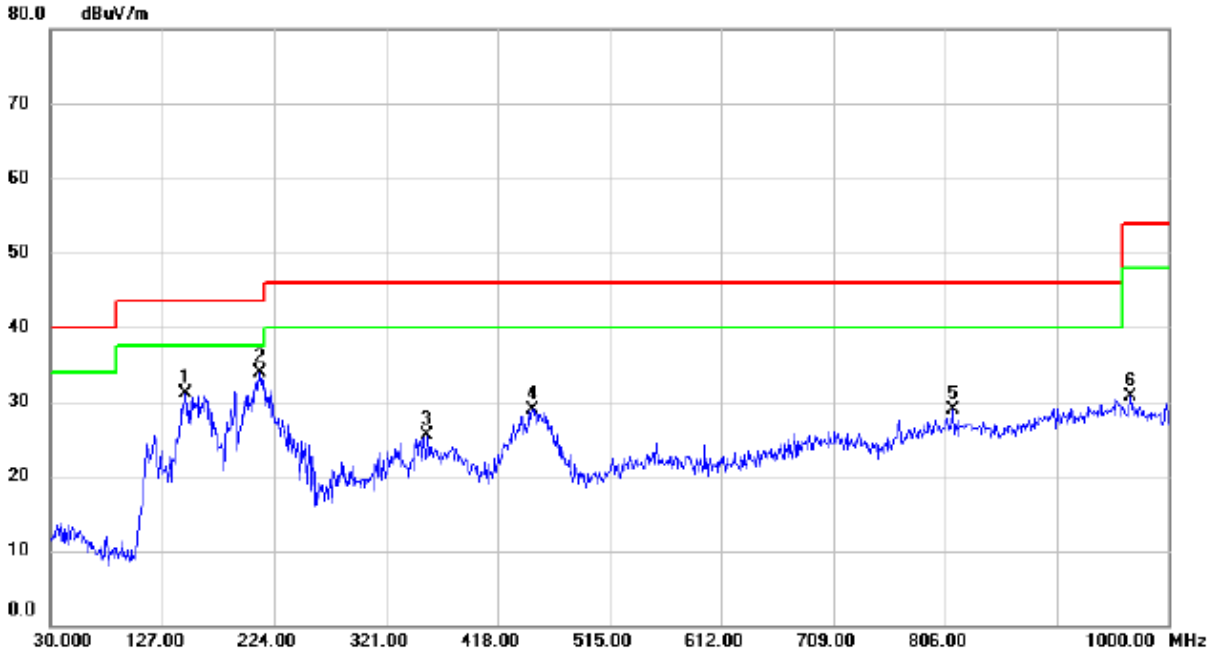
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		144.4600	40.98	-11.83	29.15	43.50	-14.35	peak	
2		166.7700	41.49	-11.00	30.49	43.50	-13.01	peak	
3	*	211.3900	48.92	-15.18	33.74	43.50	-9.76	peak	
4		356.8900	37.50	-10.85	26.65	46.00	-19.35	peak	
5		460.6800	34.72	-7.64	27.08	46.00	-18.92	peak	
6		955.3800	30.40	1.28	31.68	46.00	-14.32	peak	

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

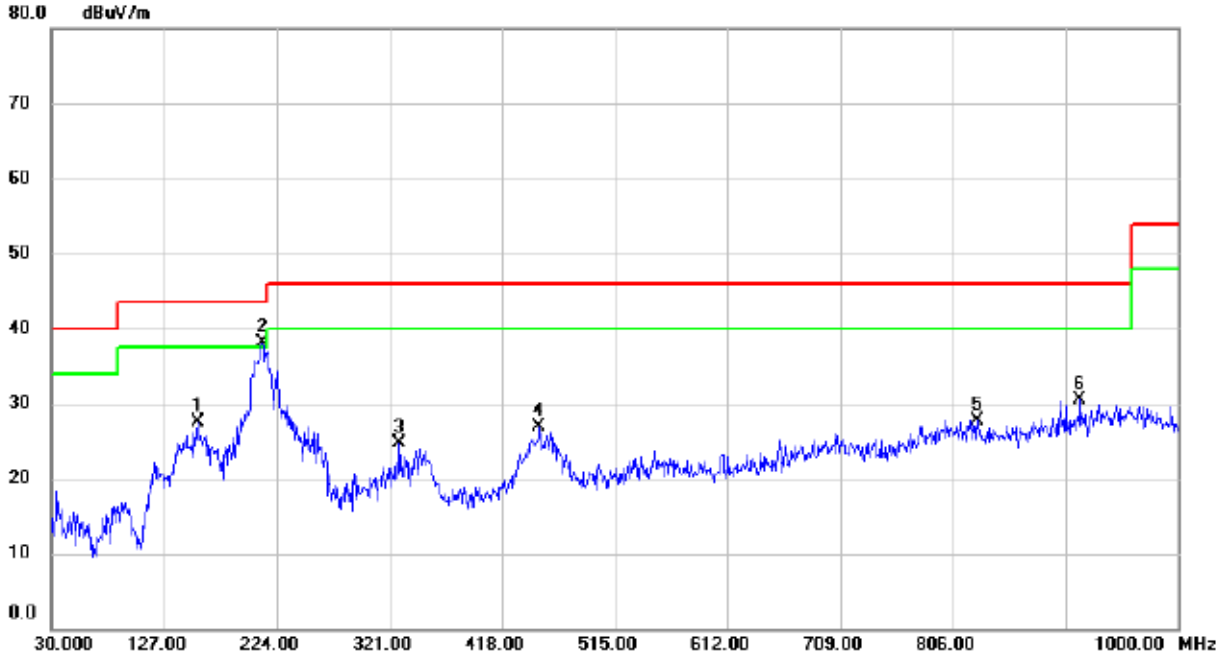
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		146.4000	42.72	-11.71	31.01	43.50	-12.49	peak	
2	*	211.3900	49.06	-15.18	33.88	43.50	-9.62	peak	
3		356.8900	36.40	-10.85	25.55	46.00	-20.45	peak	
4		448.0700	36.43	-7.48	28.95	46.00	-17.05	peak	
5		812.7900	30.14	-1.24	28.90	46.00	-17.10	peak	
6		967.0200	29.69	1.01	30.70	54.00	-23.30	peak	

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

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		156.1000	38.39	-10.94	27.45	43.50	-16.05	peak	
2	*	211.3900	53.29	-15.18	38.11	43.50	-5.39	peak	
3		329.7300	35.49	-10.80	24.69	46.00	-21.31	peak	
4		450.0100	34.24	-7.40	26.84	46.00	-19.16	peak	
5		827.3400	29.19	-1.46	27.73	46.00	-18.27	peak	
6		915.6100	30.45	0.03	30.48	46.00	-15.52	peak	

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

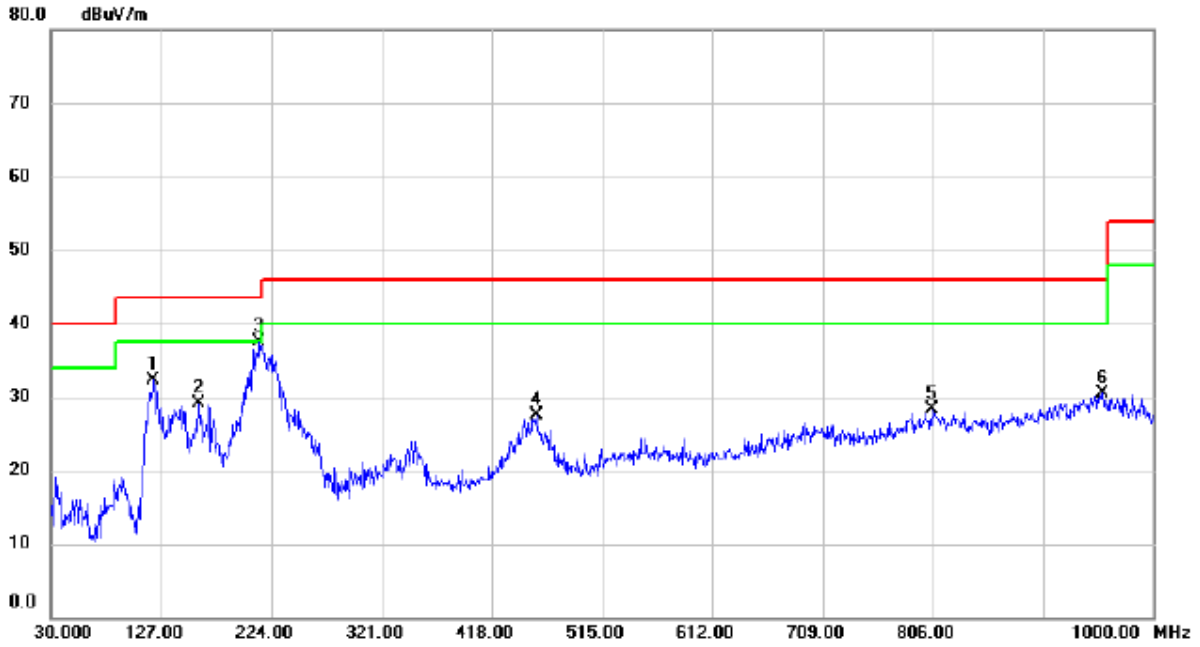
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		157.0700	44.17	-10.86	33.31	43.50	-10.19	peak	
2	*	207.5100	52.98	-15.23	37.75	43.50	-5.75	peak	
3		254.0700	43.85	-13.98	29.87	46.00	-16.13	peak	
4		360.7700	41.96	-10.71	31.25	46.00	-14.75	peak	
5		452.9200	37.54	-7.46	30.08	46.00	-15.92	peak	
6		890.3900	30.91	-0.83	30.08	46.00	-15.92	peak	

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

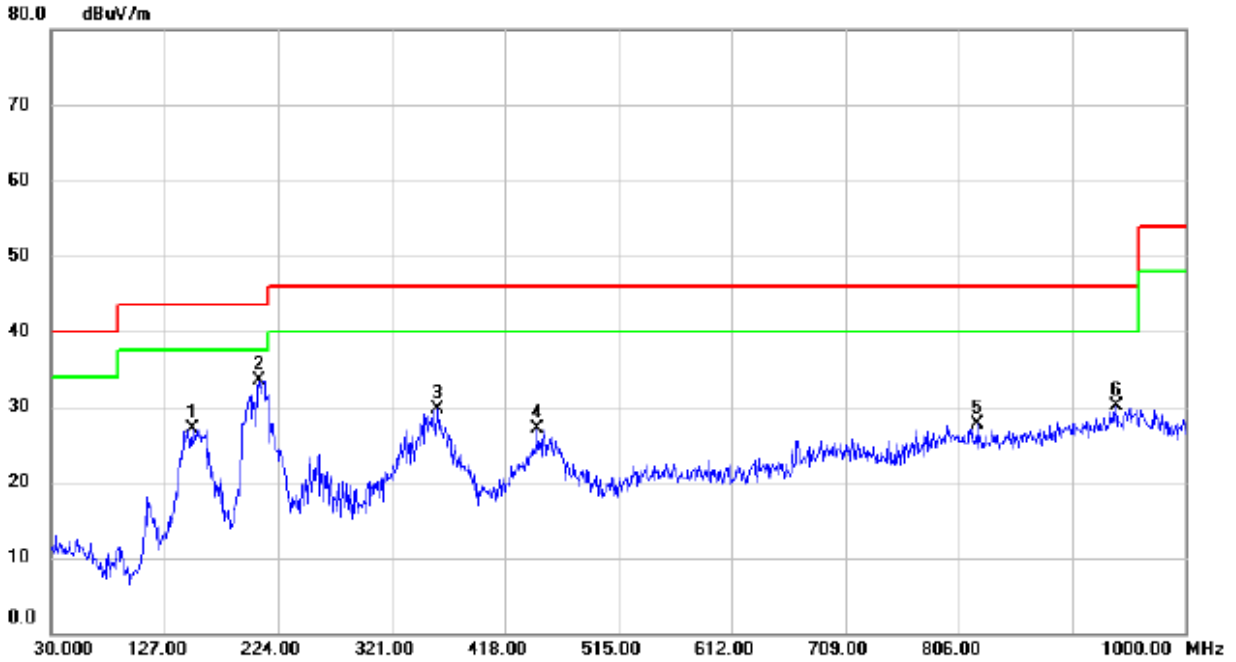
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		120.2100	46.92	-14.65	32.27	43.50	-11.23	peak	
2		159.9800	39.70	-10.60	29.10	43.50	-14.40	peak	
3	*	213.3300	52.54	-15.10	37.44	43.50	-6.06	peak	
4		456.8000	35.13	-7.55	27.58	46.00	-18.42	peak	
5		805.0300	29.40	-1.12	28.28	46.00	-17.72	peak	
6		955.3800	29.15	1.28	30.43	46.00	-15.57	peak	

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

Horizontal



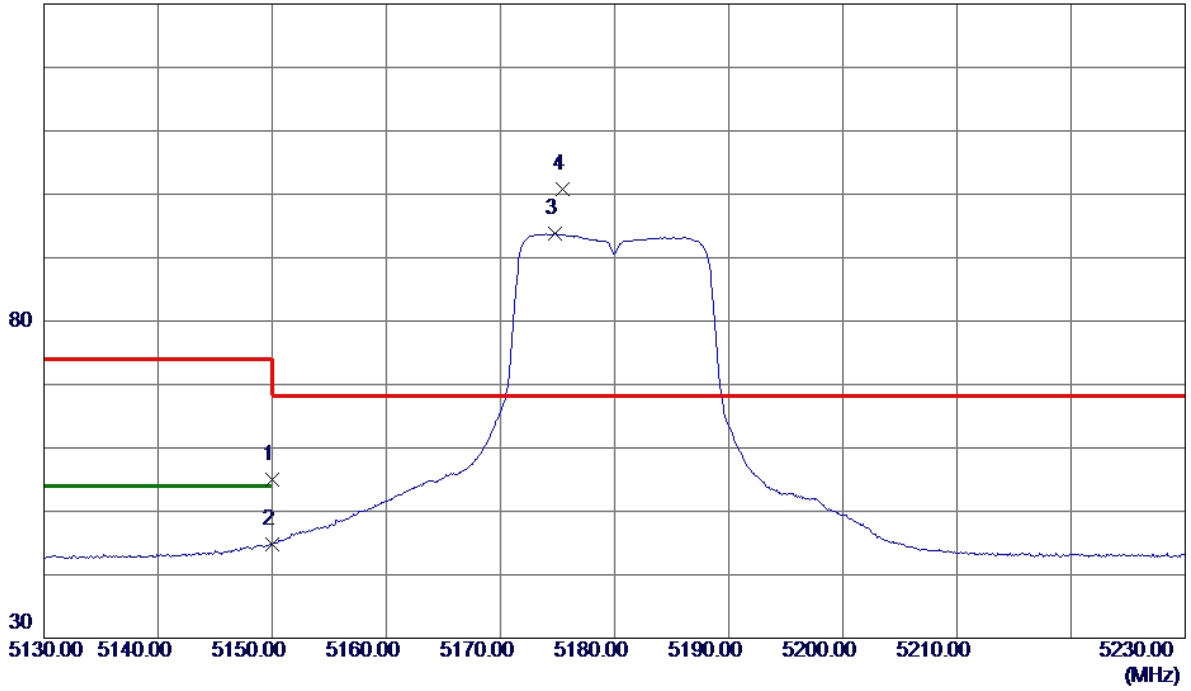
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		150.2800	38.66	-11.47	27.19	43.50	-16.31	peak	
2	*	207.5100	48.79	-15.23	33.56	43.50	-9.94	peak	
3		360.7700	40.37	-10.71	29.66	46.00	-16.34	peak	
4		446.1300	34.56	-7.55	27.01	46.00	-18.99	peak	
5		822.4900	29.15	-1.38	27.77	46.00	-18.23	peak	
6		940.8300	29.08	1.04	30.12	46.00	-15.88	peak	

APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

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

Vertical

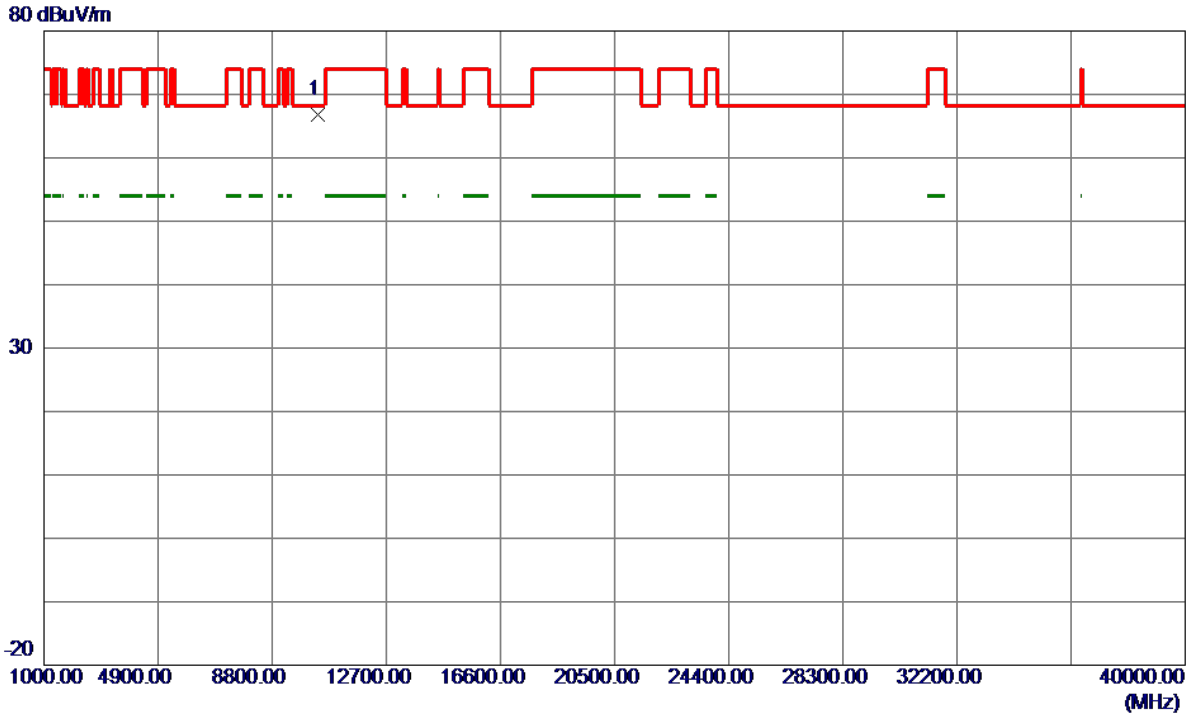
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	33.96	21.03	54.99	74.00	-19.01	Peak	
2	5150.0000	23.73	21.03	44.76	54.00	-9.24	AVG	
3	5174.8000	72.64	21.12	93.76	999.00	-905.24	AVG	No Limit
4 *	5175.4000	79.72	21.12	100.84	68.30	32.54	Peak	No Limit

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

Vertical

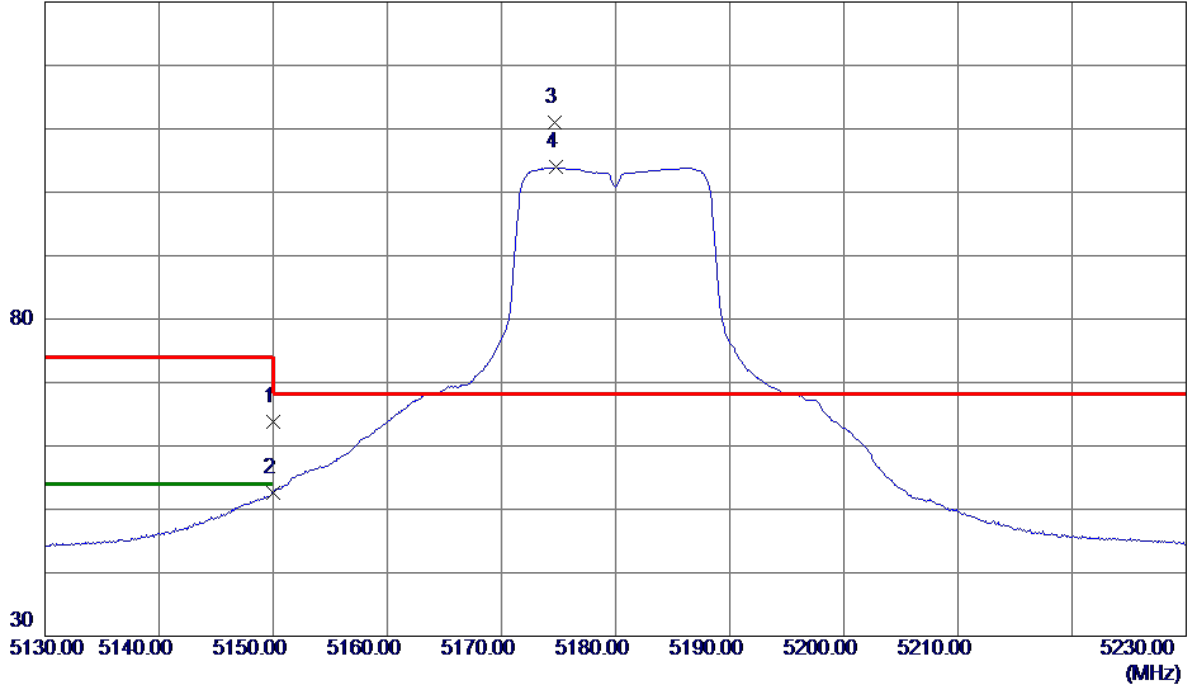


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10361.7200	46.54	20.28	66.82	68.30	-1.48	Peak	

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

Horizontal

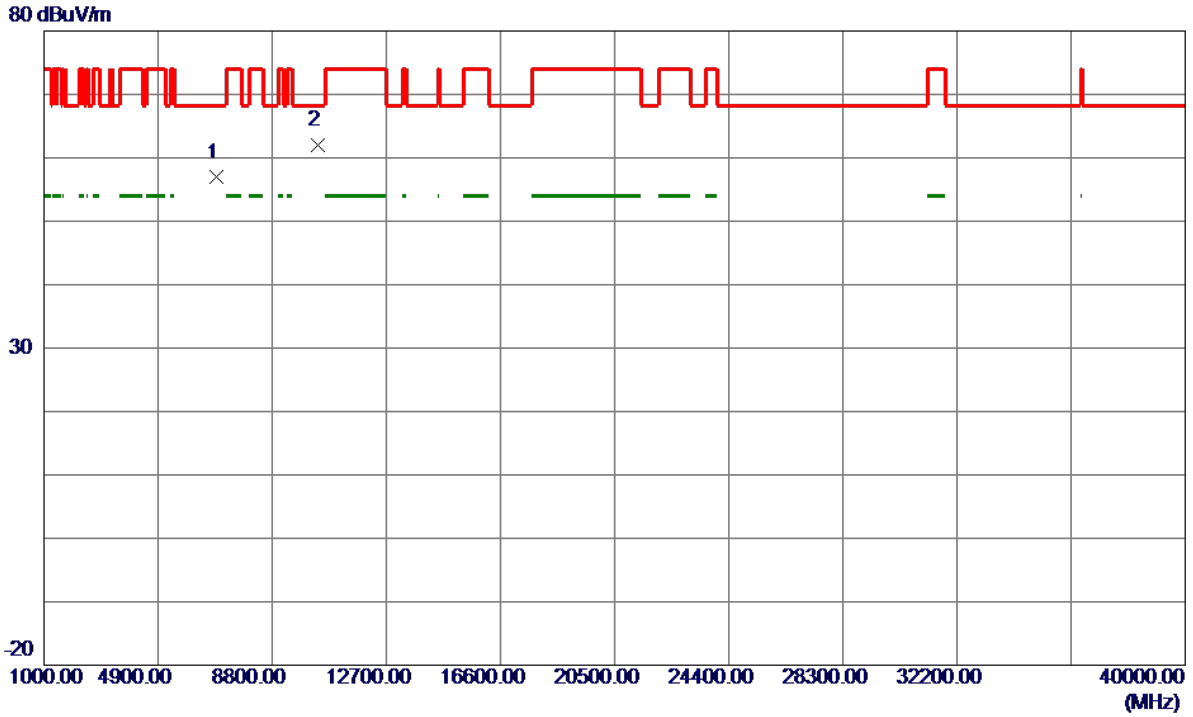
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	42.70	21.03	63.73	74.00	-10.27	Peak	
2	5150.0000	31.53	21.03	52.56	54.00	-1.44	AVG	
3 *	5174.7000	89.89	21.12	111.01	68.30	42.71	Peak	No Limit
4	5174.8000	82.80	21.12	103.92	999.00	-895.08	AVG	No Limit

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

Horizontal

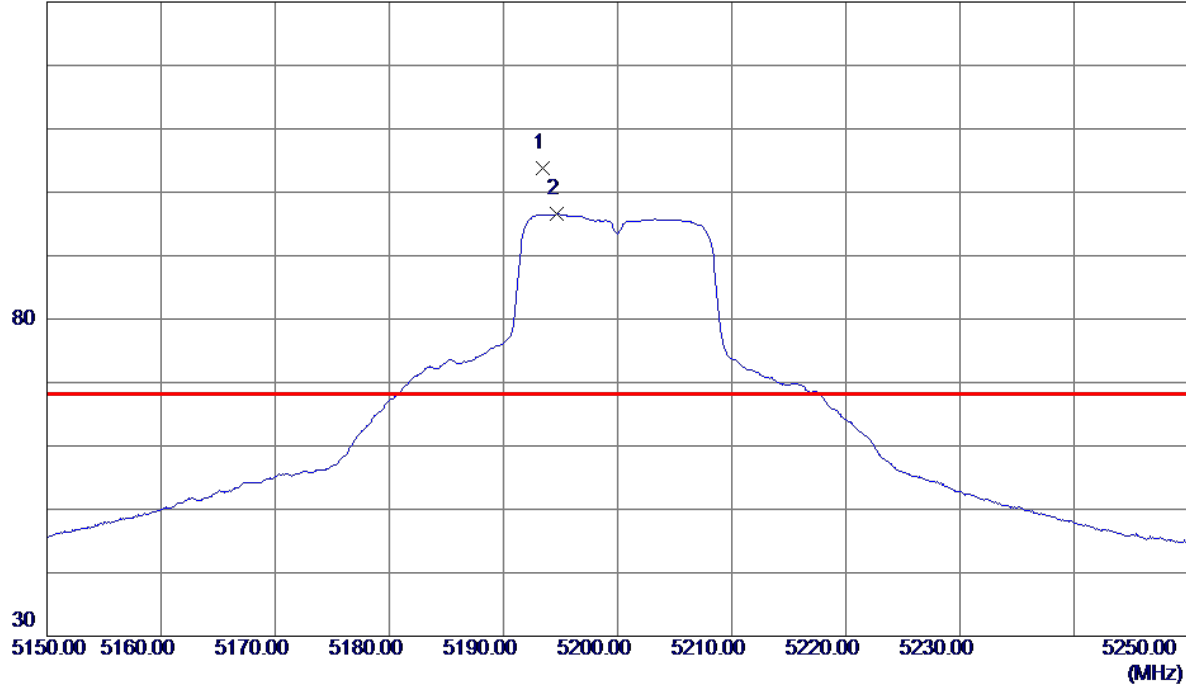


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	6906.6480	40.72	16.18	56.90	68.30	-11.40	Peak	
2 *	10362.2400	41.73	20.28	62.01	68.30	-6.29	Peak	

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

Vertical

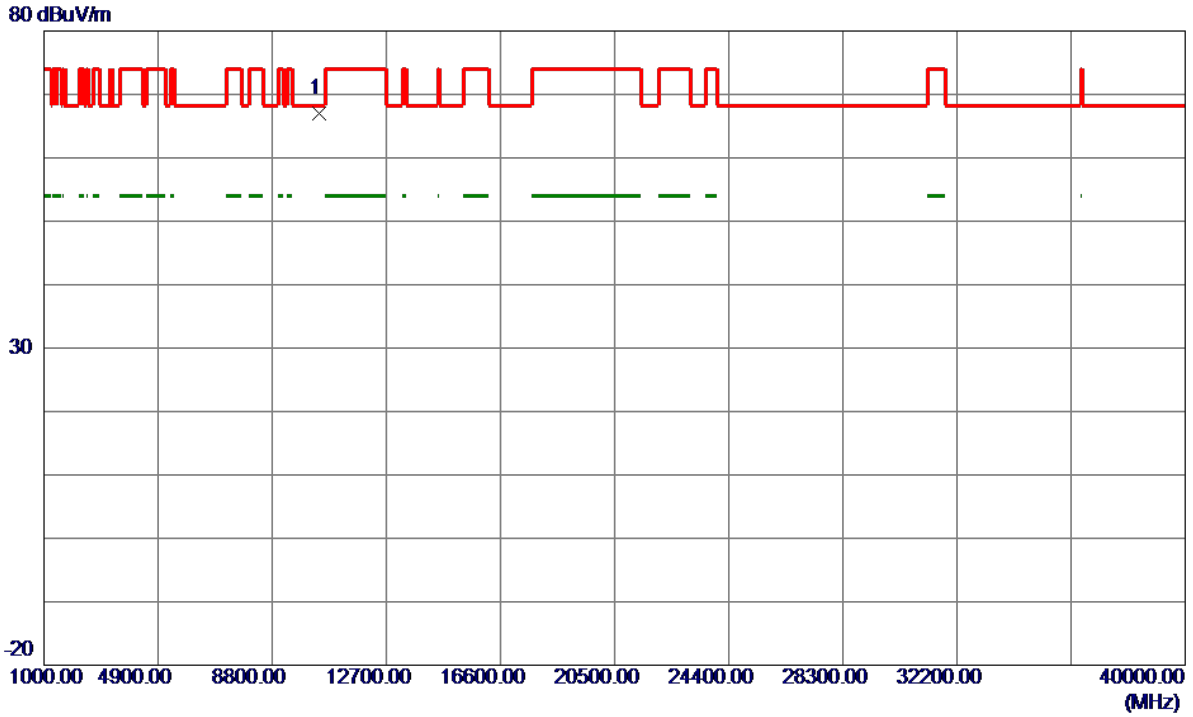
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5193.4000	82.52	21.19	103.71	68.30	35.41	Peak	No Limit
2	5194.7000	75.39	21.19	96.58	999.00	-902.42	AVG	No Limit

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

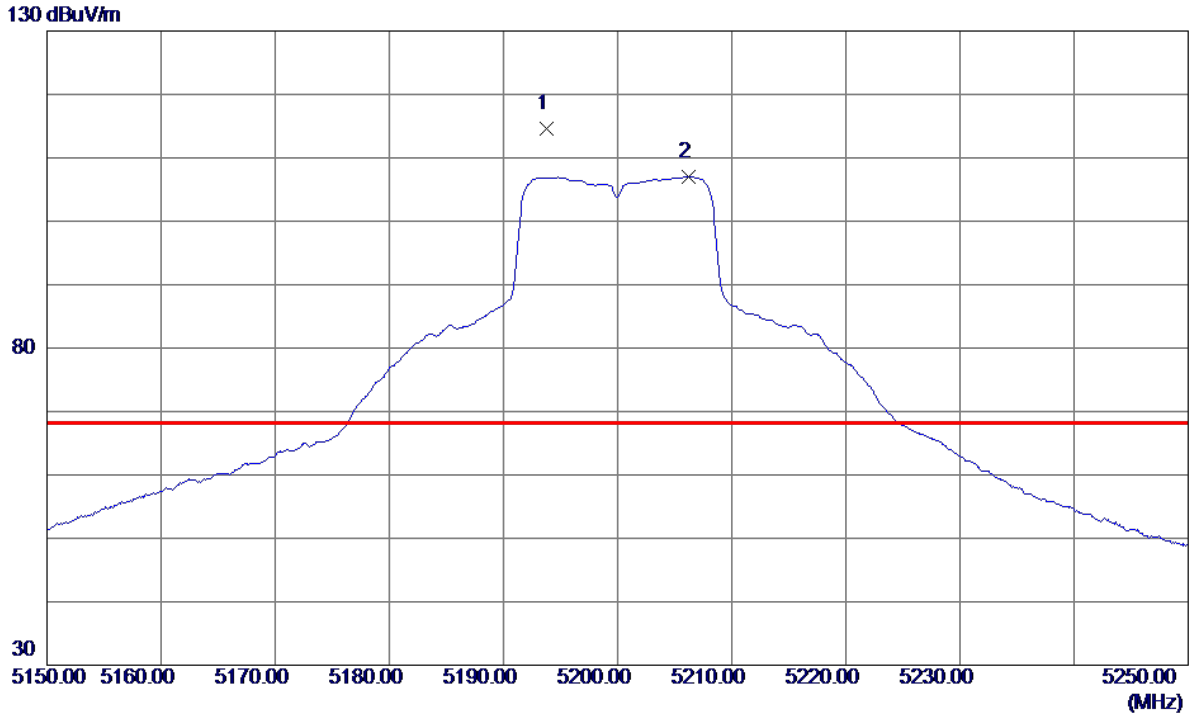
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10401.7400	46.57	20.33	66.90	68.30	-1.40	Peak	

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

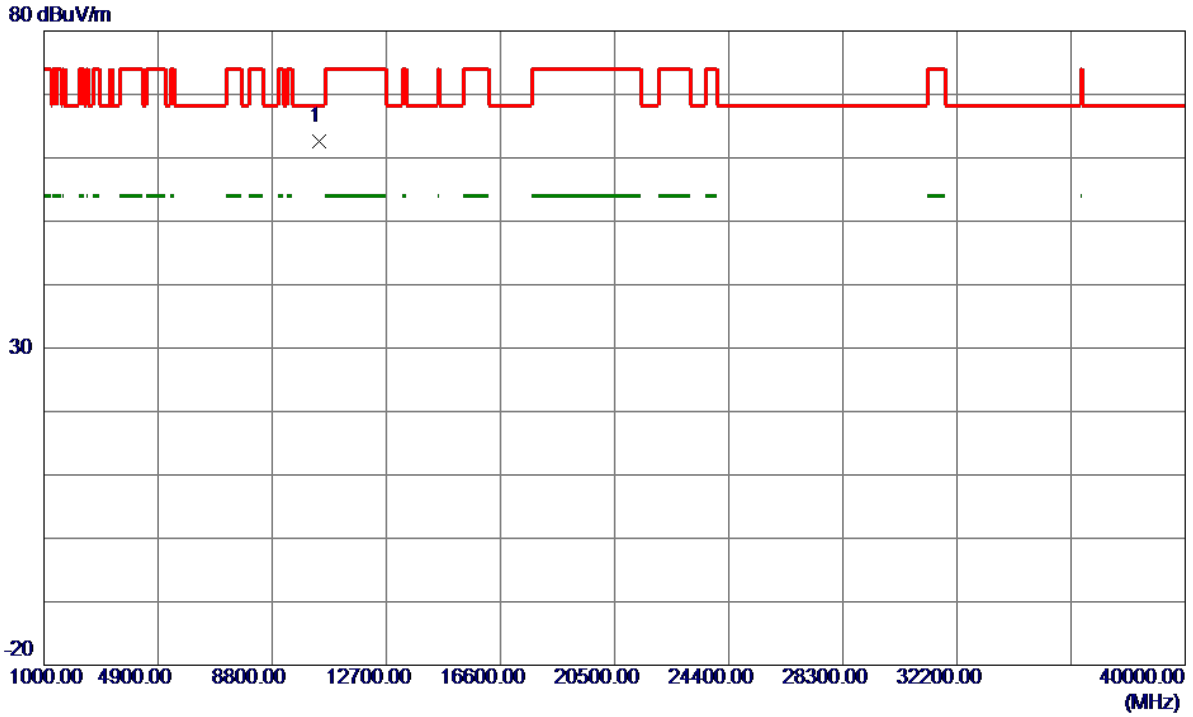
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5193.8000	93.33	21.19	114.52	68.30	46.22	Peak	No Limit
2	5206.2000	85.77	21.24	107.01	999.00	-891.99	AVG	No Limit

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

Horizontal

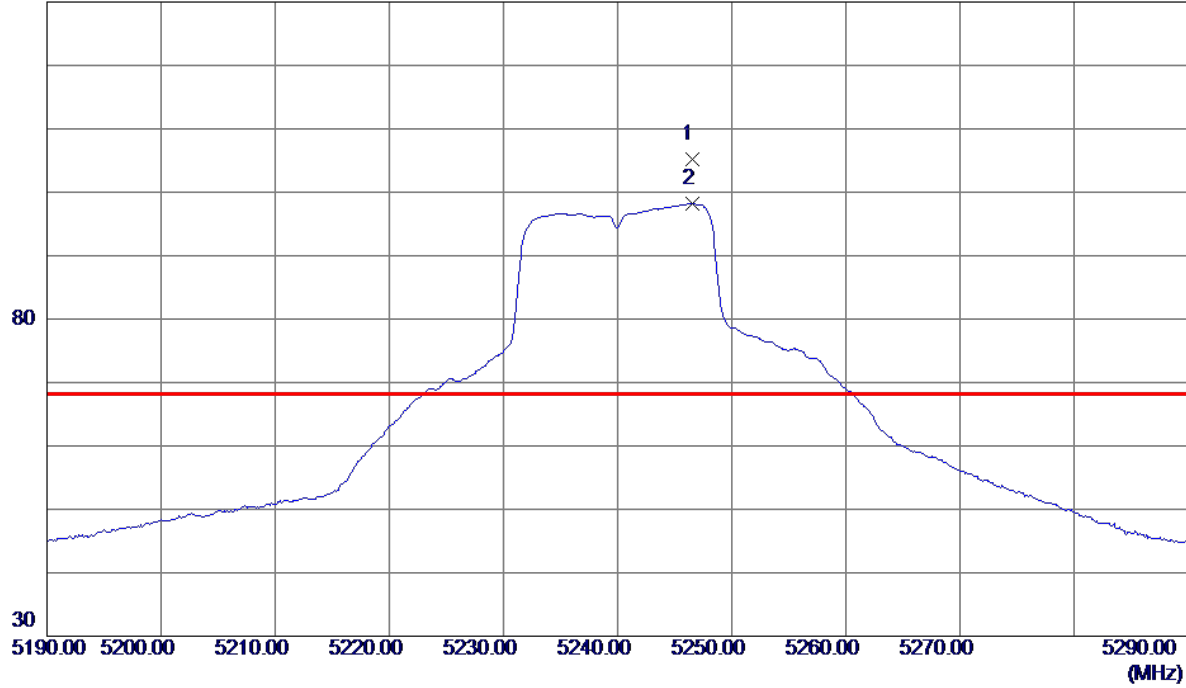


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10401.7000	42.36	20.33	62.69	68.30	-5.61	Peak	

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

Vertical

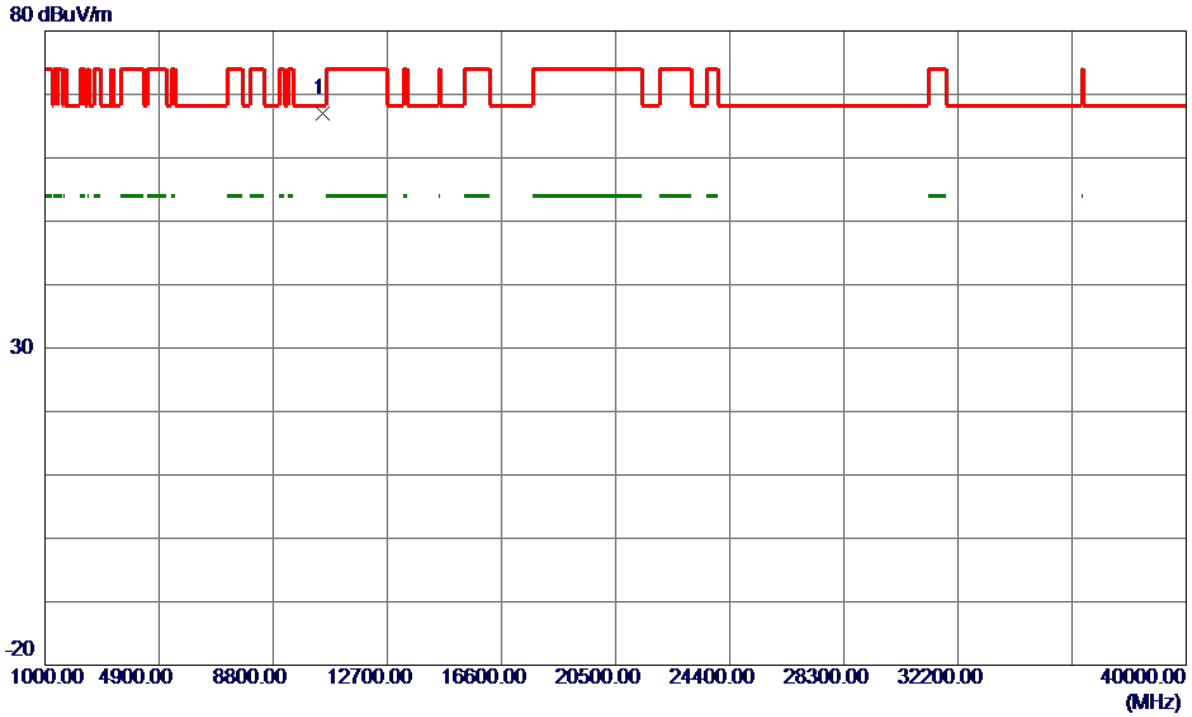
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5246.5000	83.89	21.38	105.27	68.30	36.97	Peak	No Limit
2	5246.6000	76.79	21.38	98.17	999.00	-900.83	AVG	No Limit

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

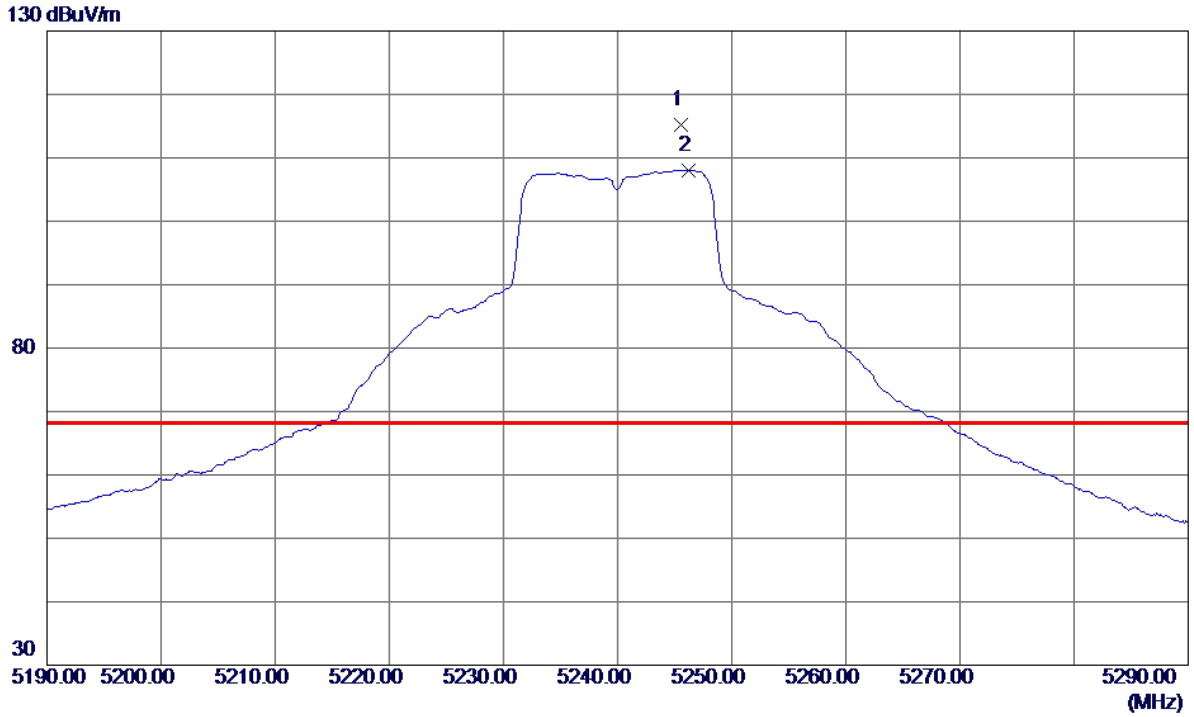
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10482.2800	46.53	20.44	66.97	68.30	-1.33	Peak	

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

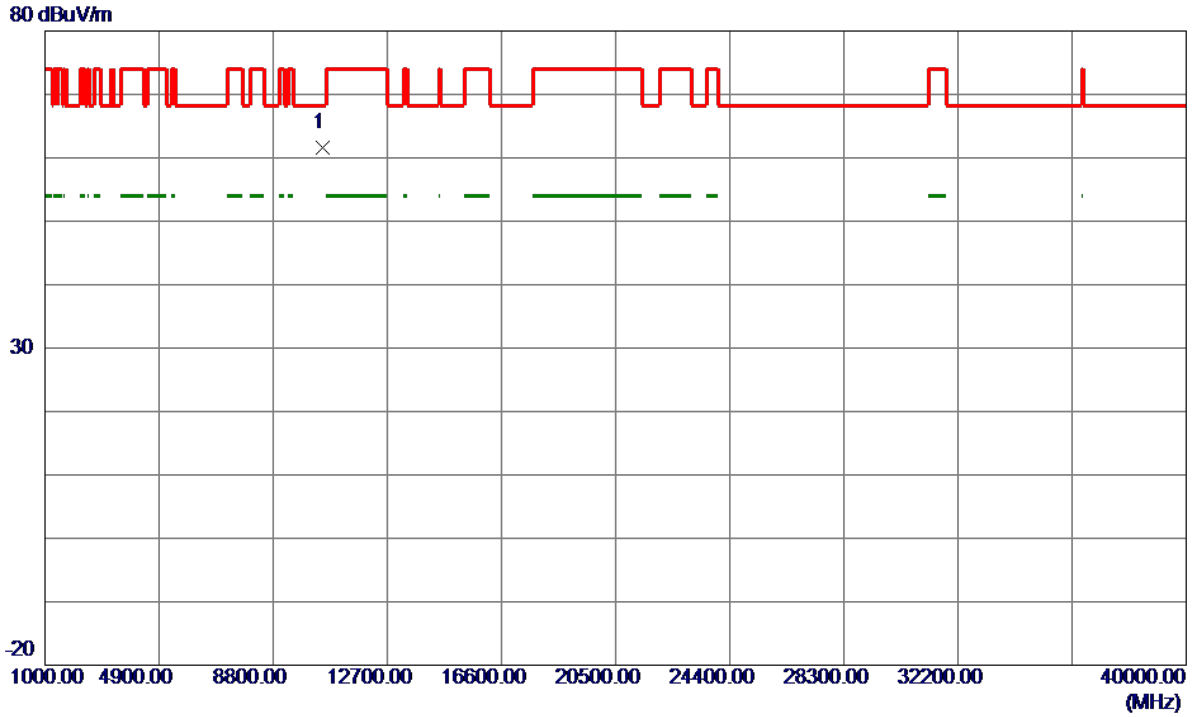
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5245.6000	93.90	21.38	115.28	68.30	46.98	Peak	No Limit
2	5246.2000	86.68	21.38	108.06	999.00	-890.94	AVG	No Limit

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

Horizontal

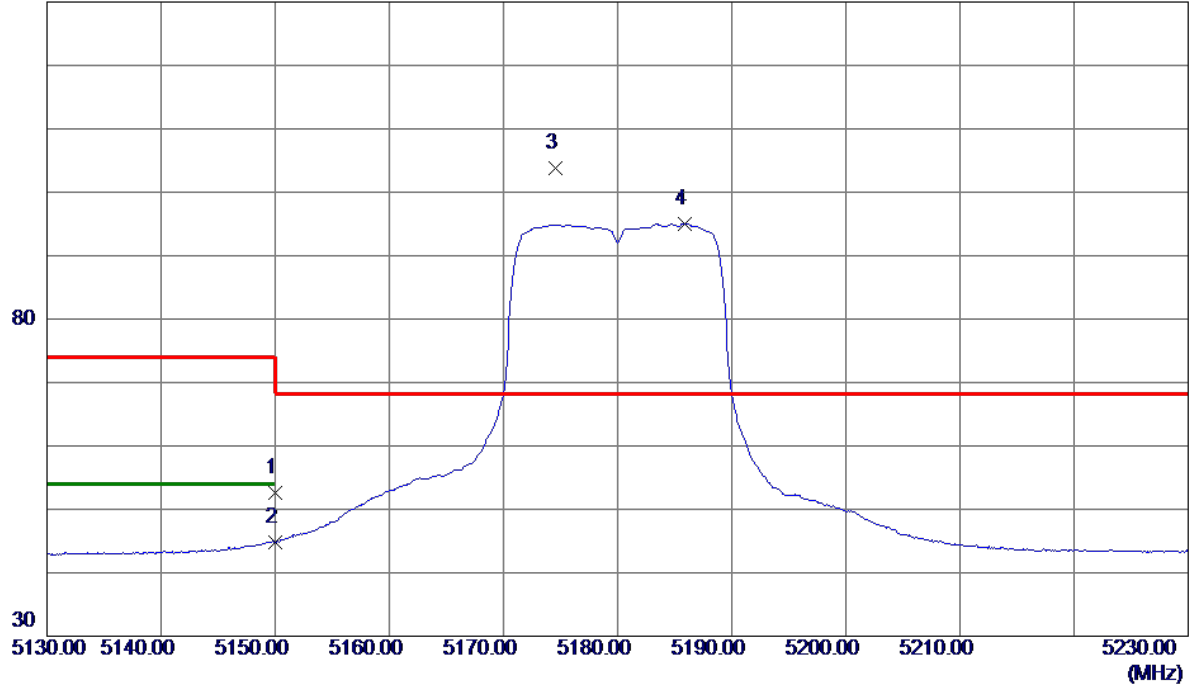


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10482.1400	41.25	20.44	61.69	68.30	-6.61	Peak	

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

Vertical

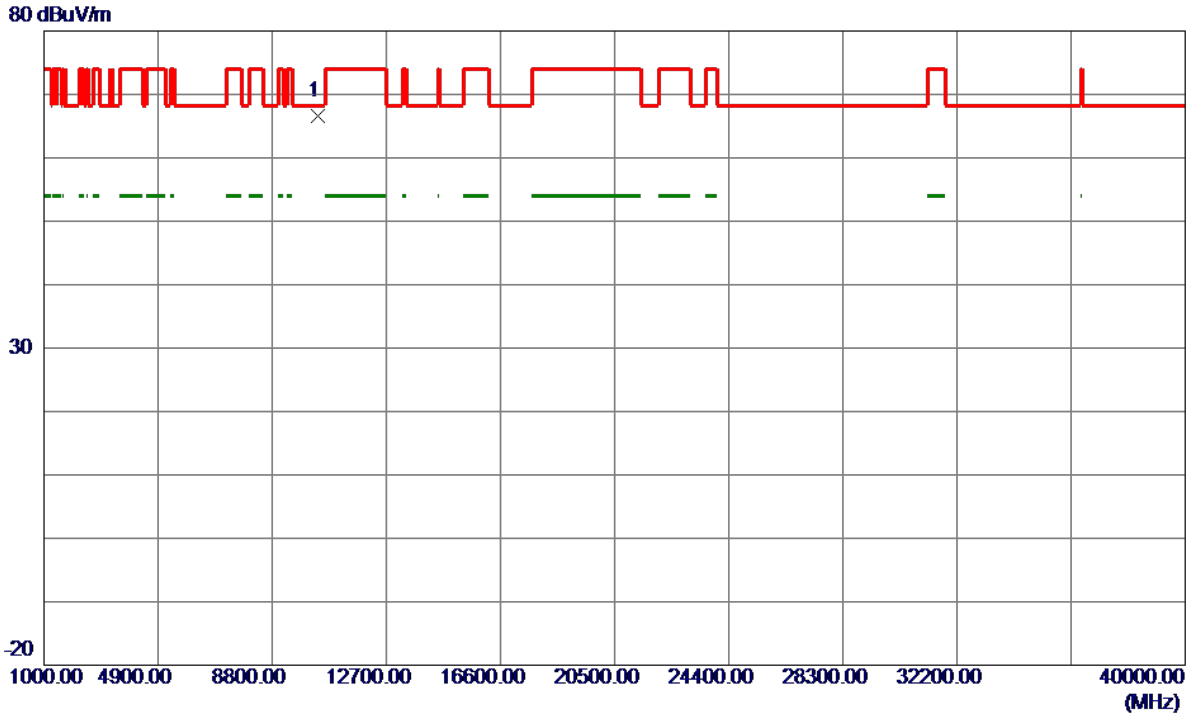
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	31.66	21.03	52.69	74.00	-21.31	Peak	
2	5150.0000	23.83	21.03	44.86	54.00	-9.14	AVG	
3 *	5174.6000	82.72	21.12	103.84	68.30	35.54	Peak	No Limit
4	5185.9000	73.91	21.16	95.07	999.00	-903.93	AVG	No Limit

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

Vertical

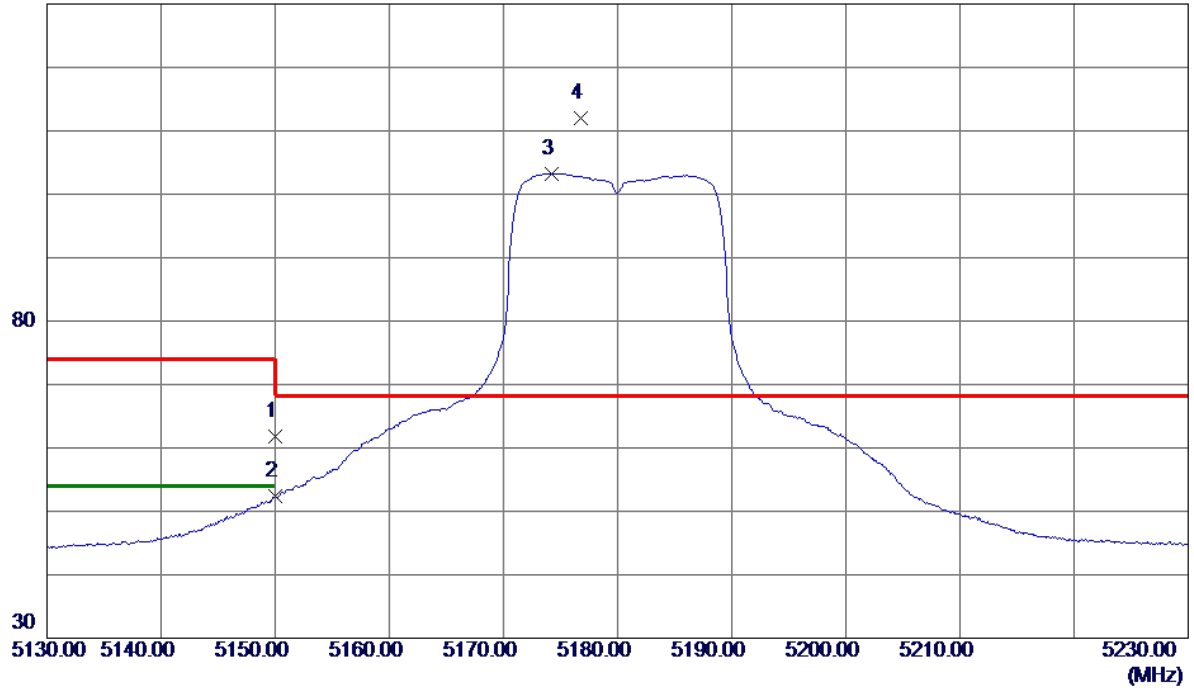


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10357.7500	46.28	20.28	66.56	68.30	-1.74	Peak	

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

Horizontal

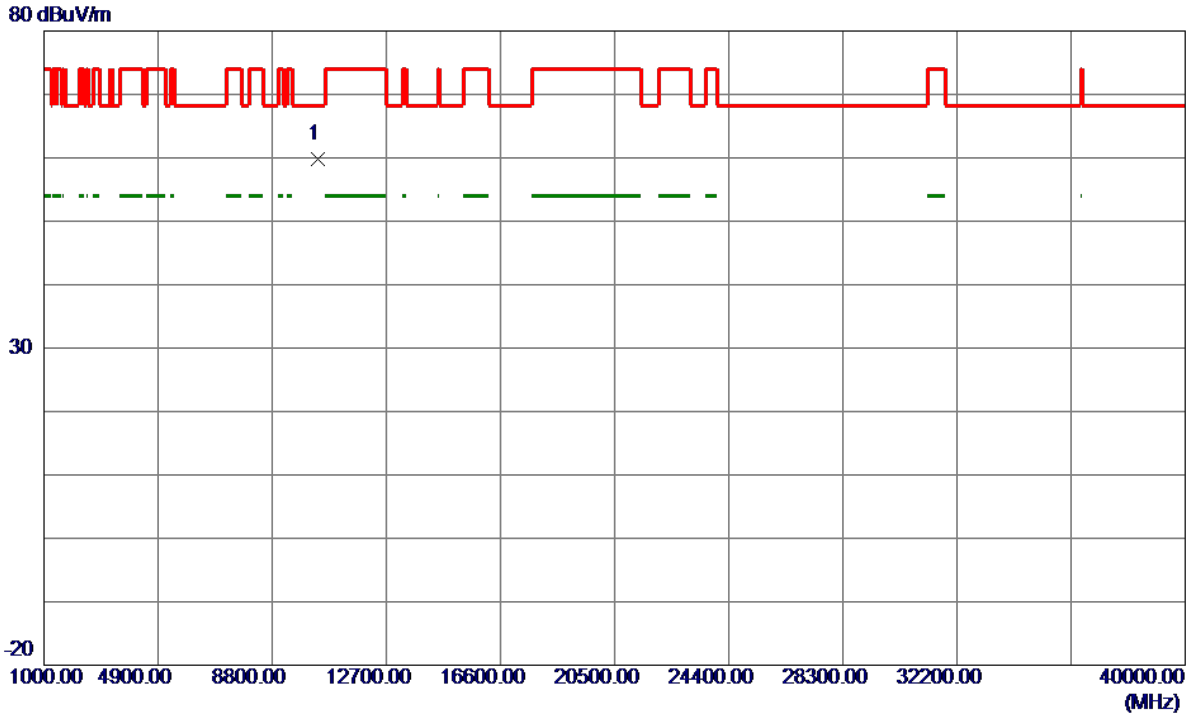
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	40.75	21.03	61.78	74.00	-12.22	Peak	
2	5150.0000	31.34	21.03	52.37	54.00	-1.63	AVG	
3	5174.2000	82.13	21.12	103.25	999.00	-895.75	AVG	No Limit
4 *	5176.8000	90.78	21.13	111.91	68.30	43.61	Peak	No Limit

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

Horizontal

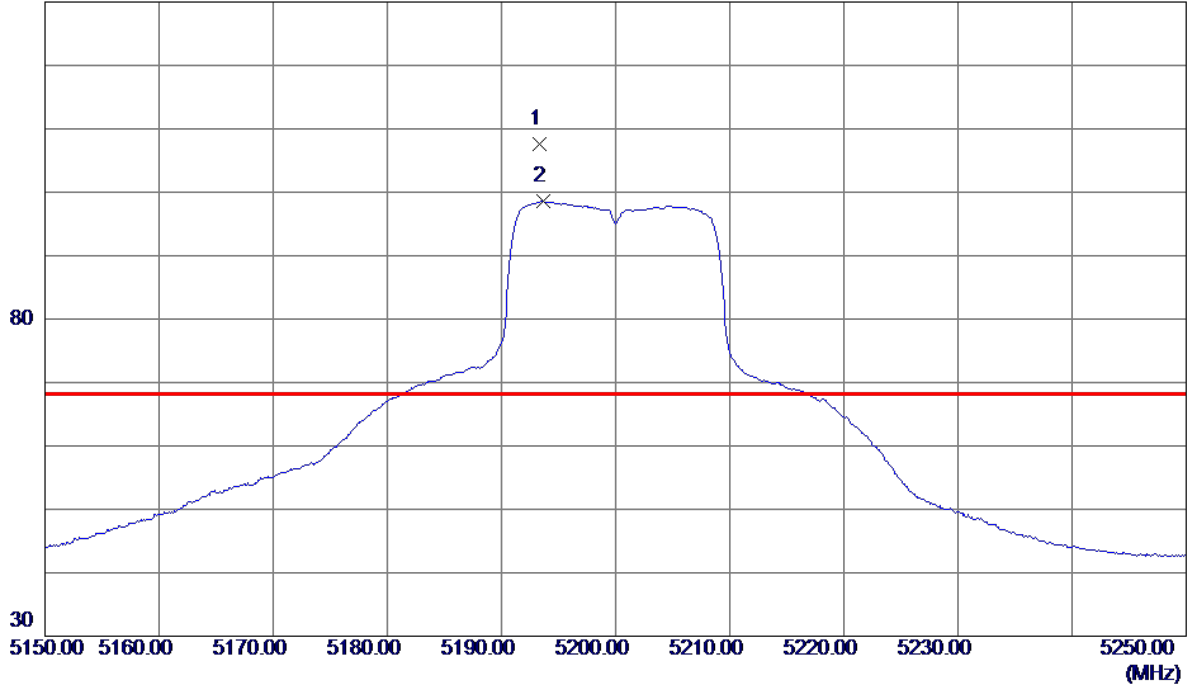


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10360.1000	39.47	20.28	59.75	68.30	-8.55	Peak	

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

Vertical

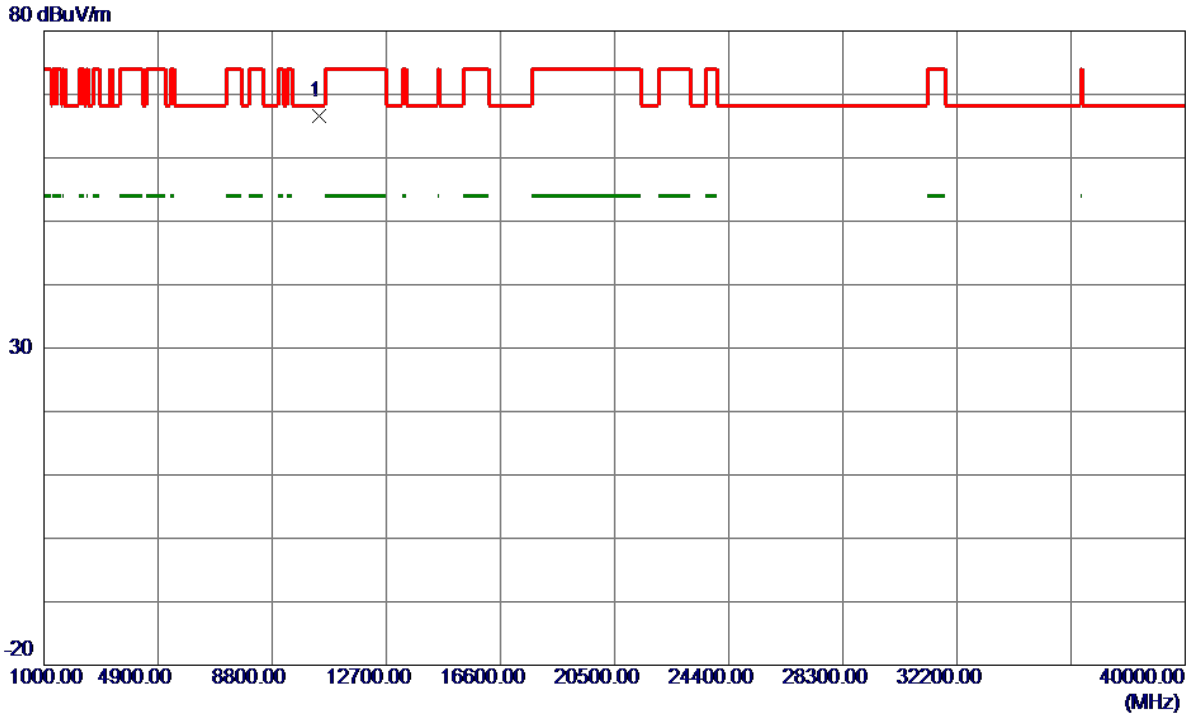
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5193.3000	86.50	21.19	107.69	68.30	39.39	Peak	No Limit
2	5193.7000	77.39	21.19	98.58	999.00	-900.42	AVG	No Limit

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

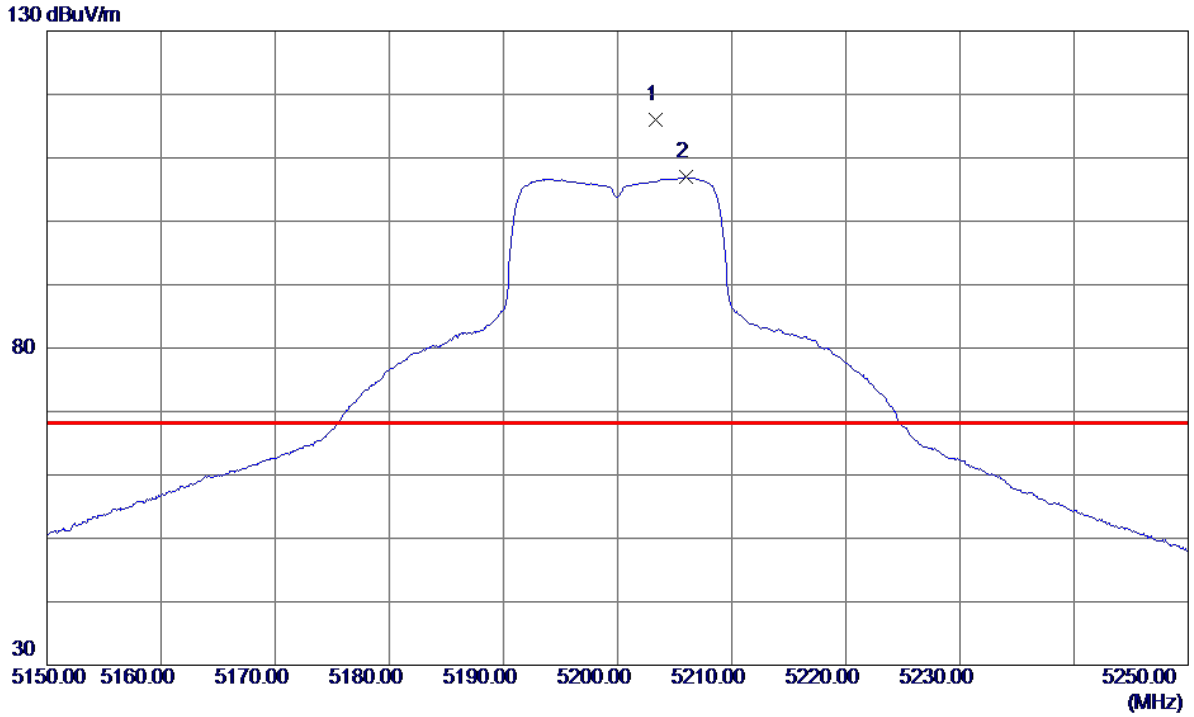
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10400.6000	46.24	20.33	66.57	68.30	-1.73	Peak	

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

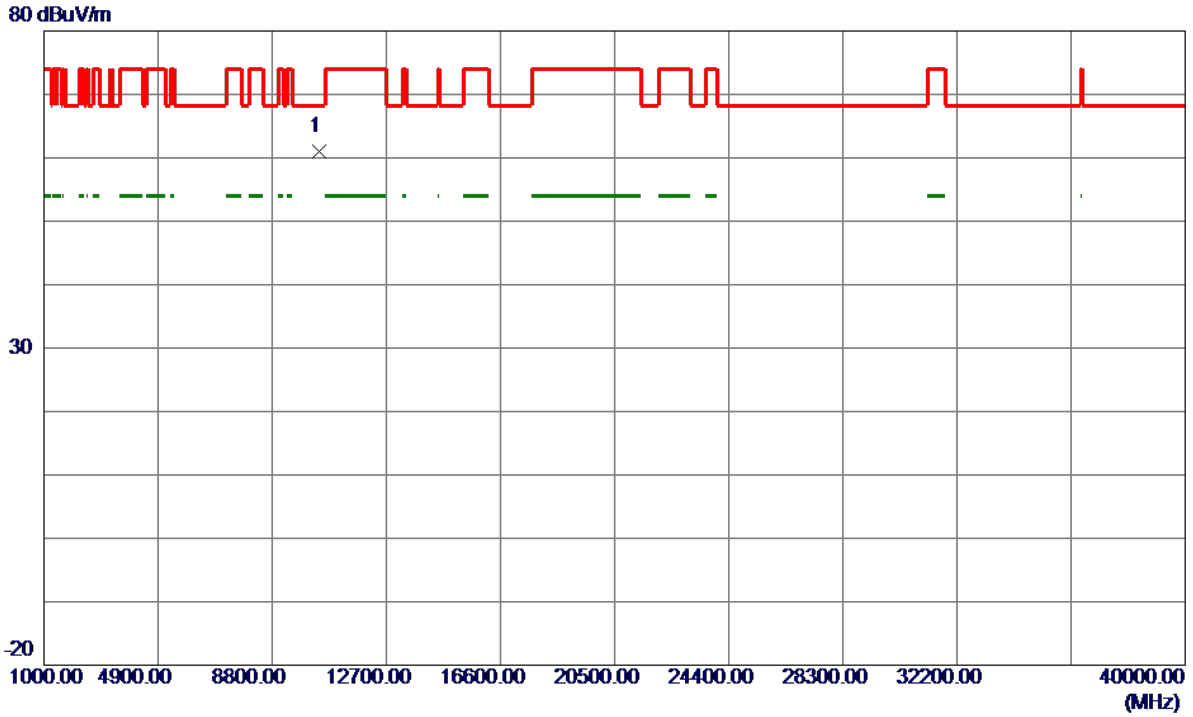
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5203.3000	94.74	21.23	115.97	68.30	47.67	Peak	No Limit
2	5206.0000	85.71	21.24	106.95	999.00	-892.05	AVG	No Limit

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

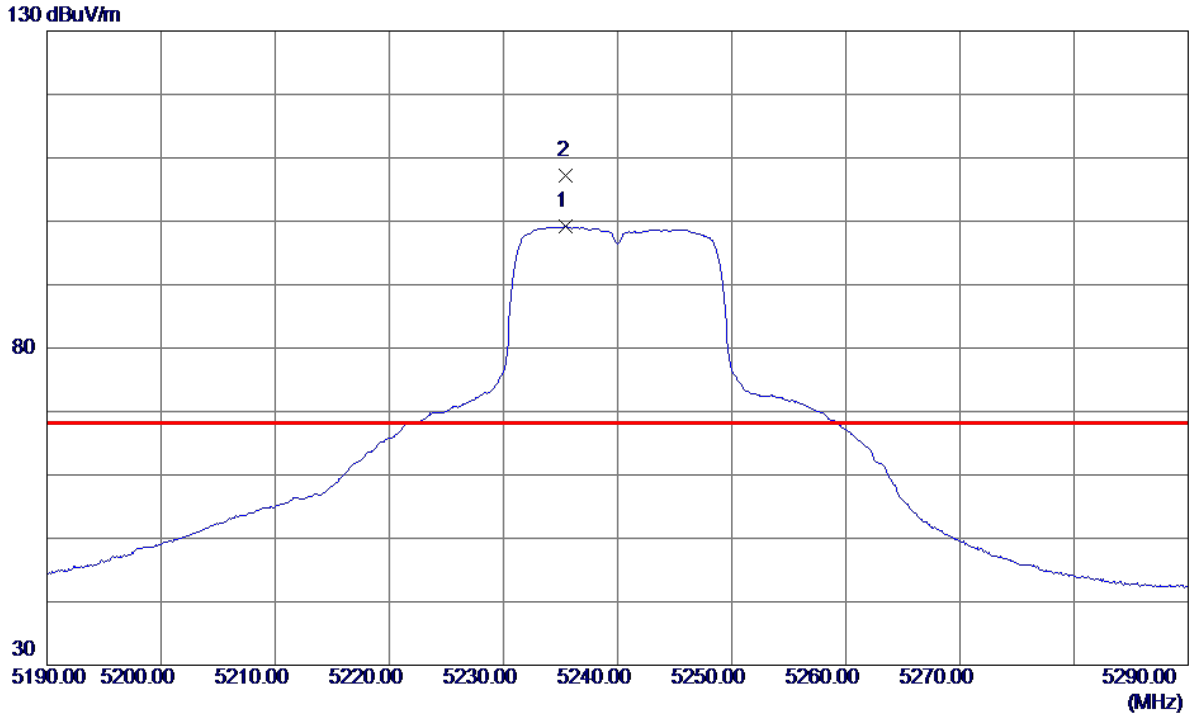
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10400.8000	40.61	20.33	60.94	68.30	-7.36	Peak	

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

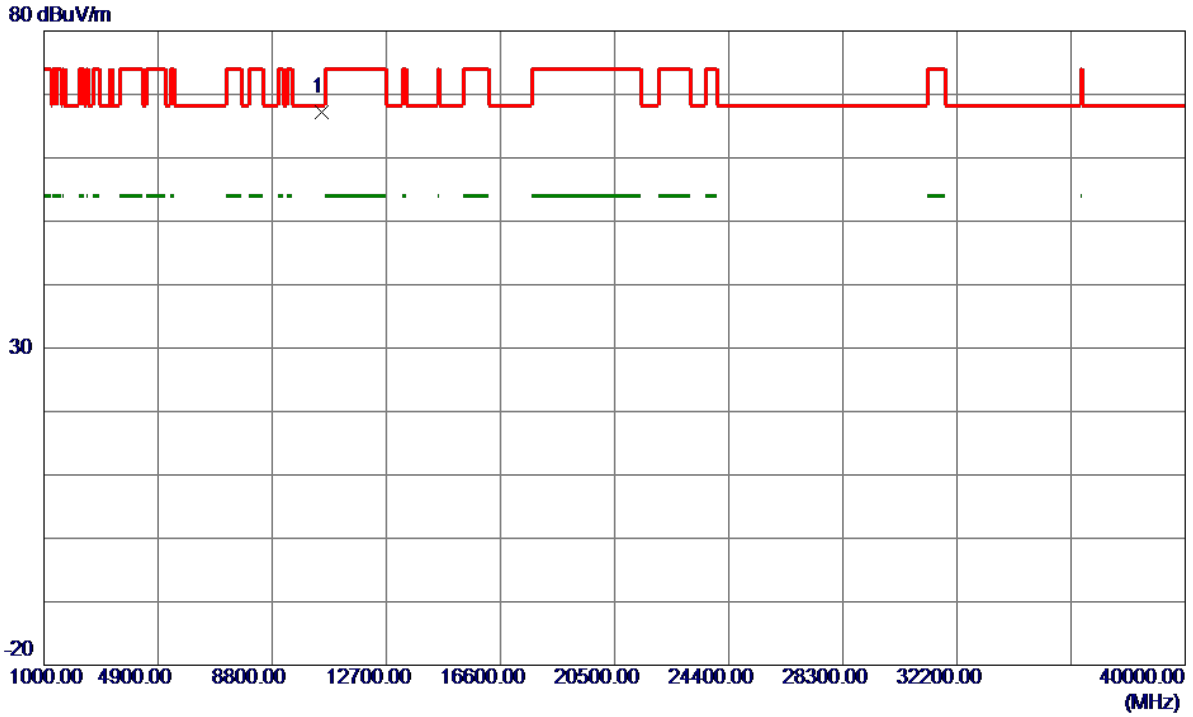
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5235.4000	77.86	21.34	99.20	999.00	-899.80	AVG	No Limit
2 *	5235.5000	85.88	21.34	107.22	68.30	38.92	Peak	No Limit

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

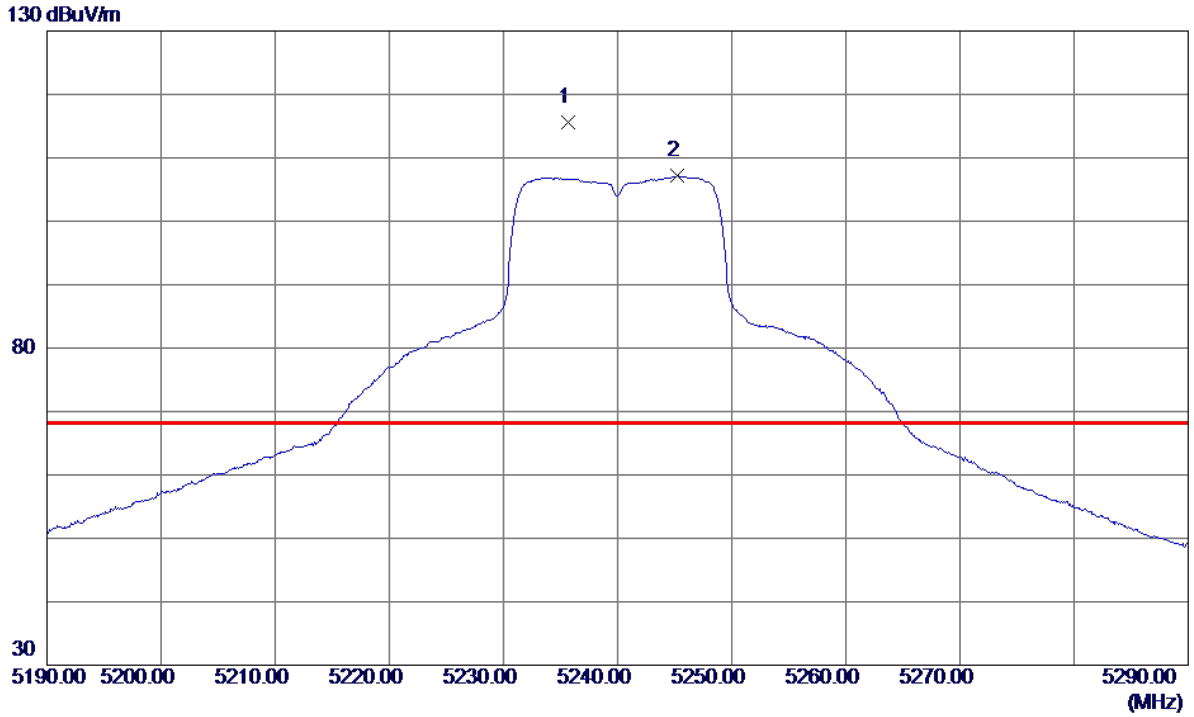
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10477.9000	46.78	20.44	67.22	68.30	-1.08	Peak	

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

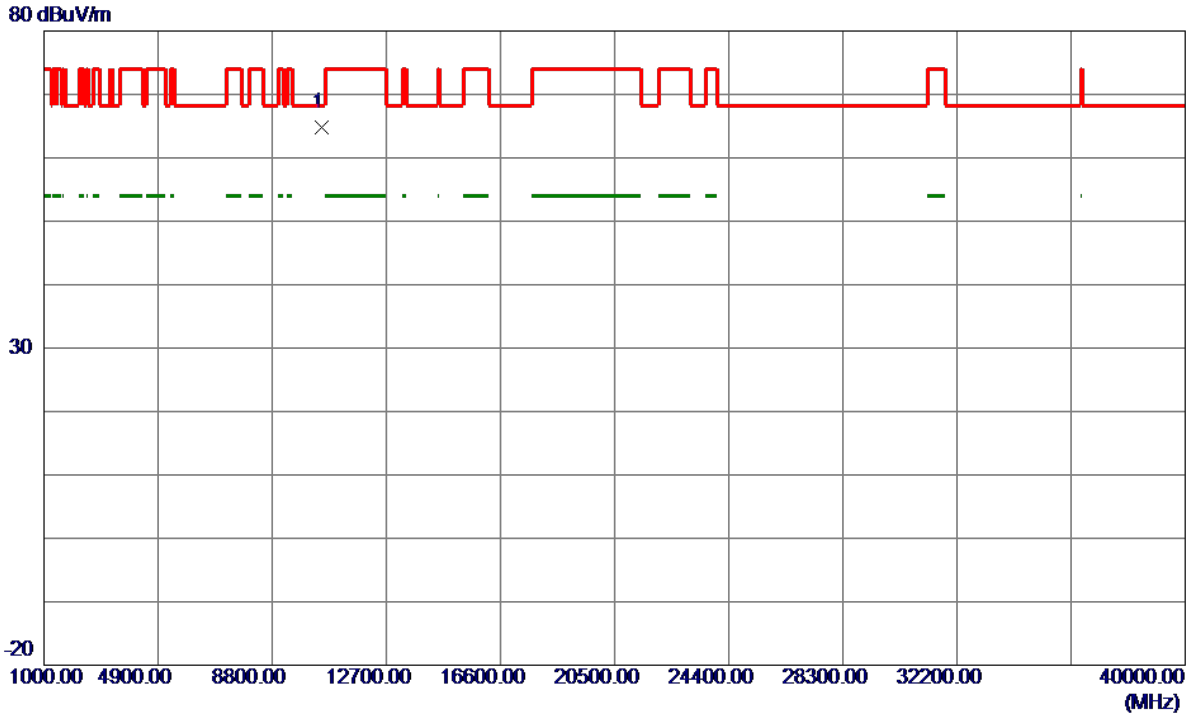
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5235.7000	94.35	21.34	115.69	68.30	47.39	Peak	No Limit
2	5245.2000	85.75	21.38	107.13	999.00	-891.87	AVG	No Limit

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

Horizontal

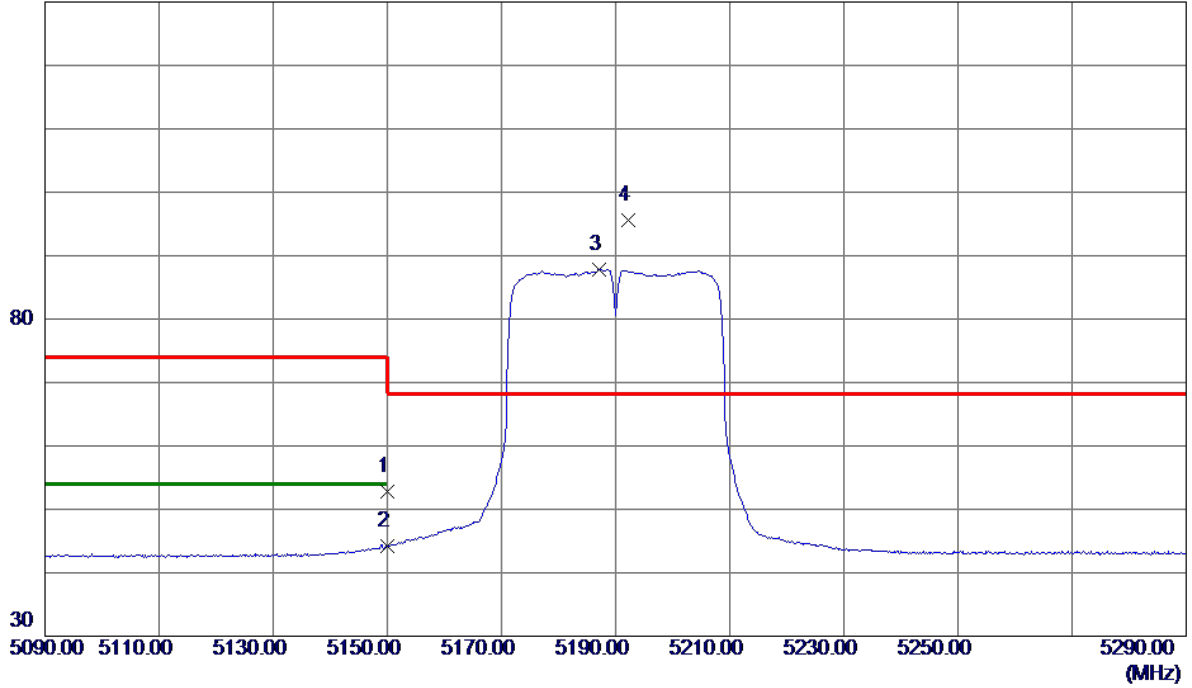


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10480.7000	44.45	20.44	64.89	68.30	-3.41	Peak	

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

Vertical

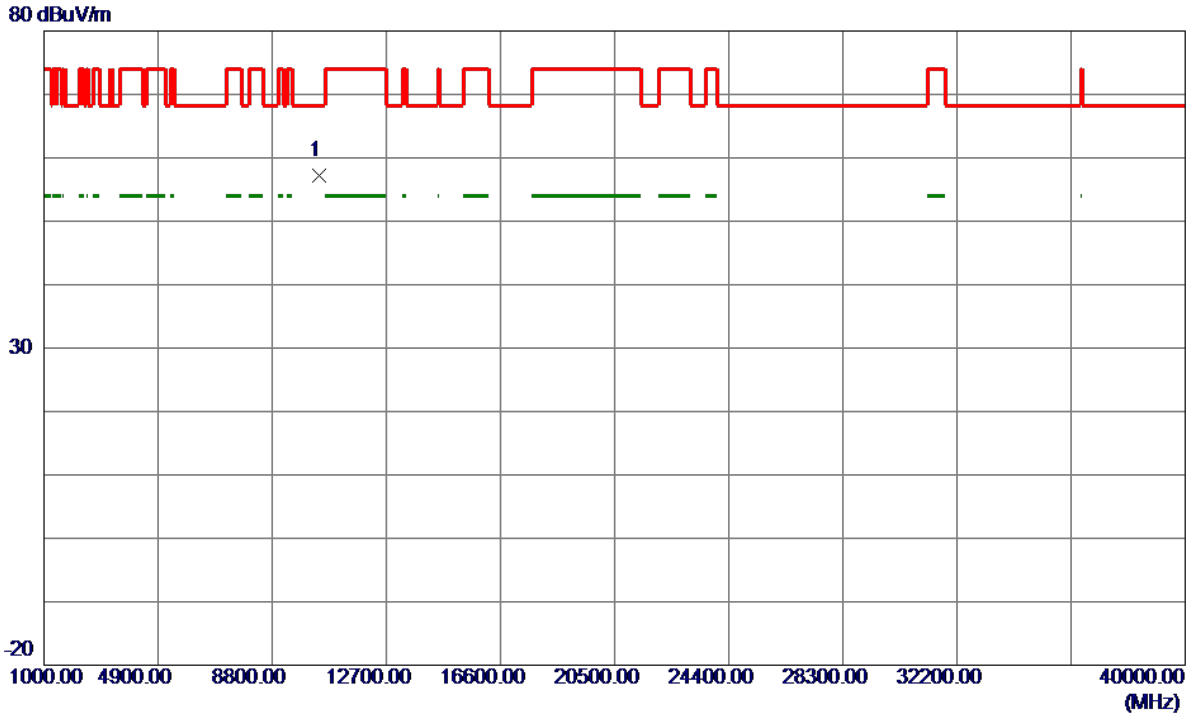
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	31.75	21.03	52.78	74.00	-21.22	Peak	
2	5150.0000	23.11	21.03	44.14	54.00	-9.86	AVG	
3	5187.2000	66.72	21.17	87.89	999.00	-911.11	AVG	No Limit
4 *	5192.2000	74.49	21.19	95.68	68.30	27.38	Peak	No Limit

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

Vertical

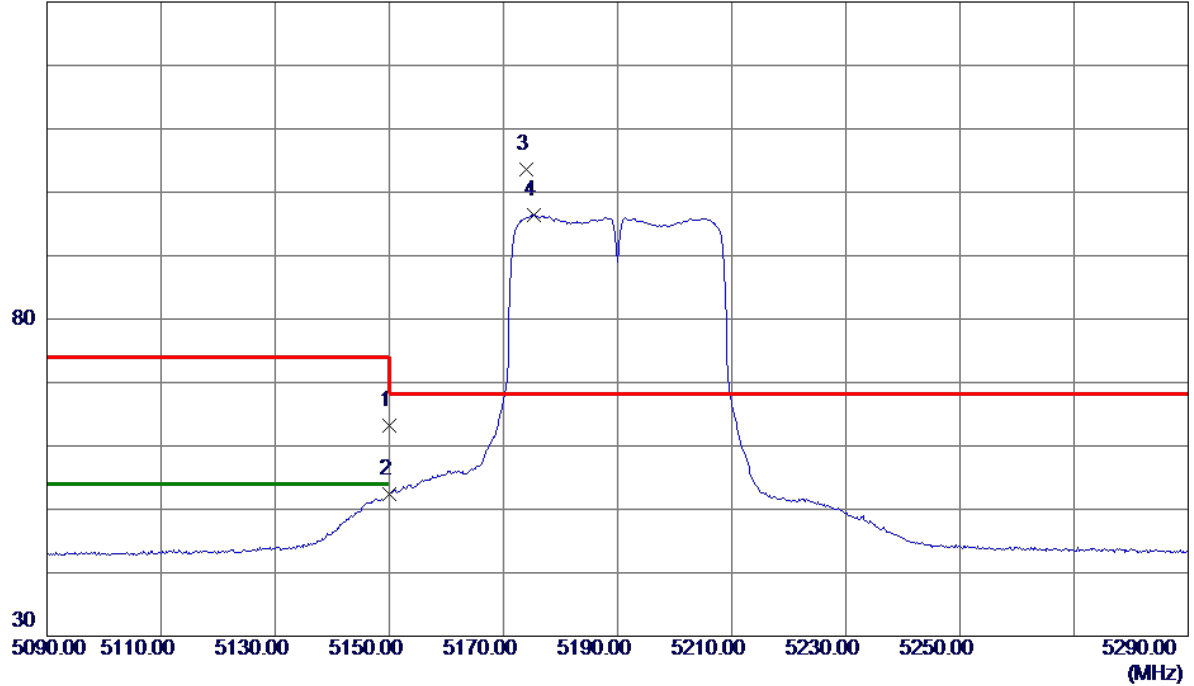


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10382.1500	36.98	20.31	57.29	68.30	-11.01	Peak	

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

Horizontal

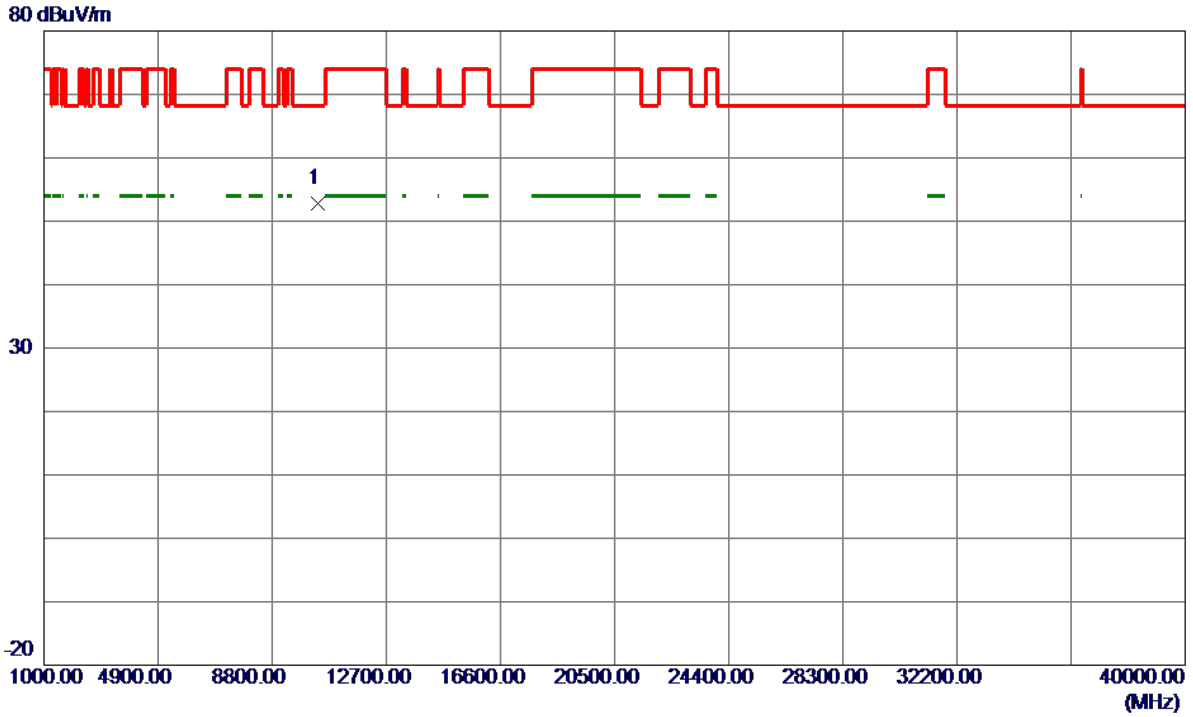
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	42.21	21.03	63.24	74.00	-10.76	Peak	
2	5150.0000	31.42	21.03	52.45	54.00	-1.55	AVG	
3 *	5174.0000	82.47	21.12	103.59	68.30	35.29	Peak	No Limit
4	5175.4000	75.29	21.12	96.41	999.00	-902.59	AVG	No Limit

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

Horizontal

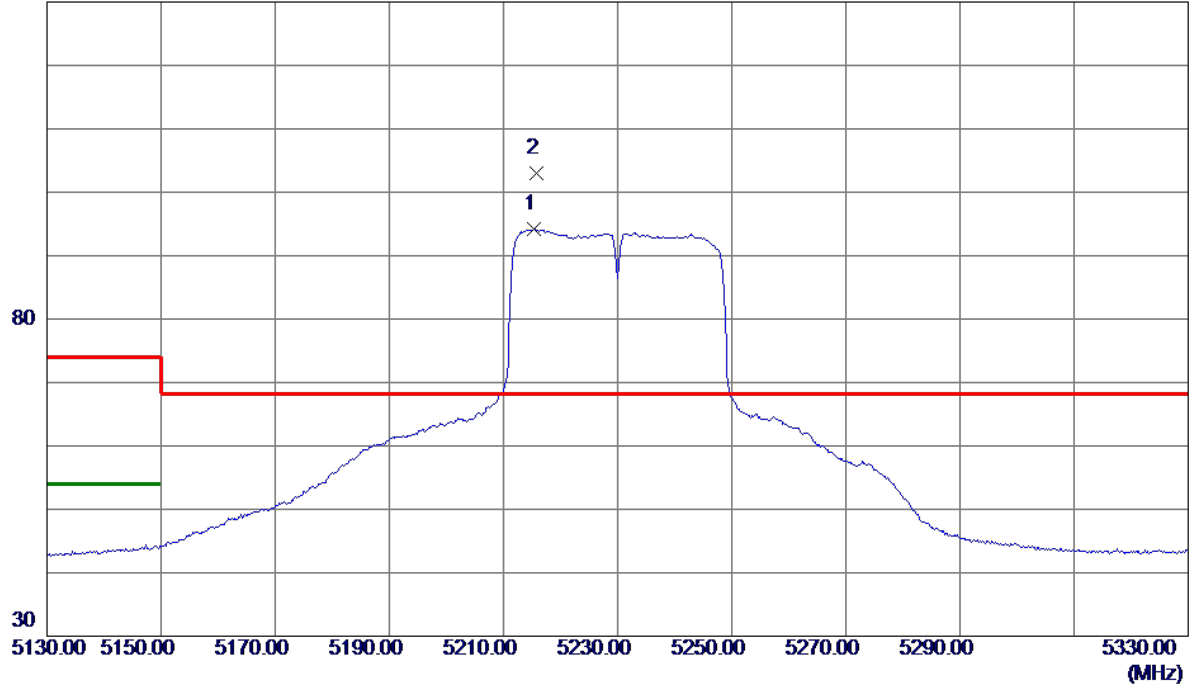


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10375.7500	32.44	20.30	52.74	68.30	-15.56	Peak	

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

Vertical

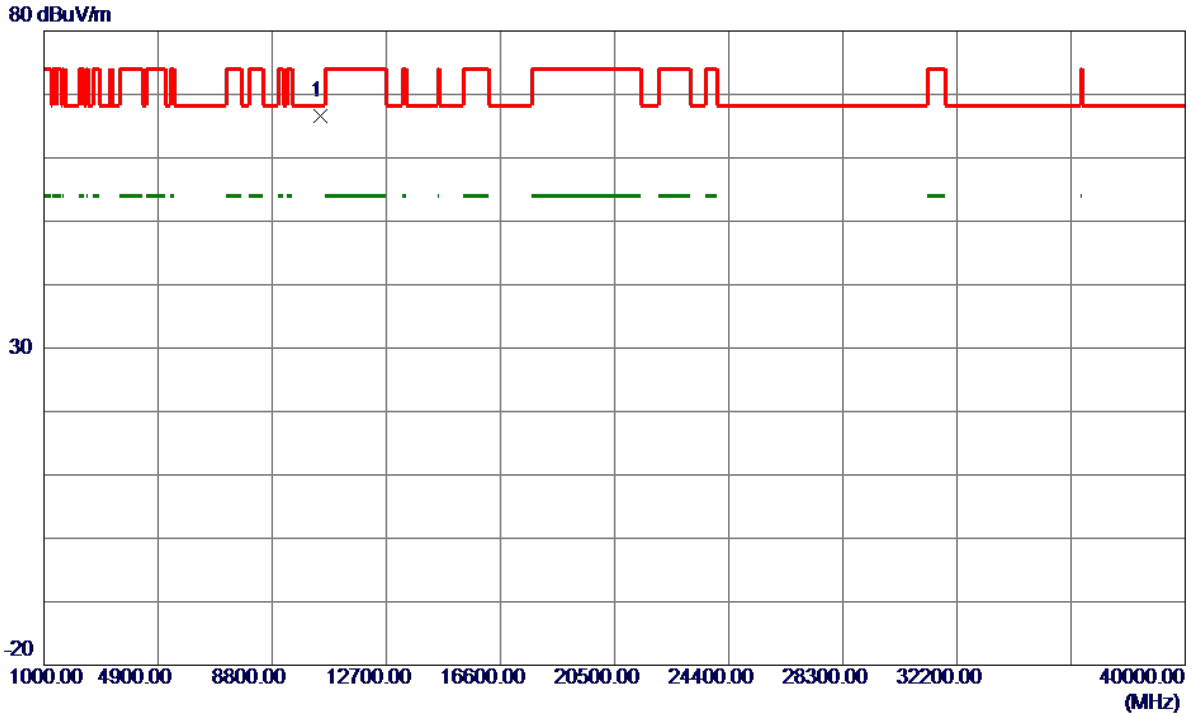
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5215.4000	72.93	21.27	94.20	999.00	-904.80	AVG	No Limit
2 *	5215.8000	81.66	21.27	102.93	68.30	34.63	Peak	No Limit

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

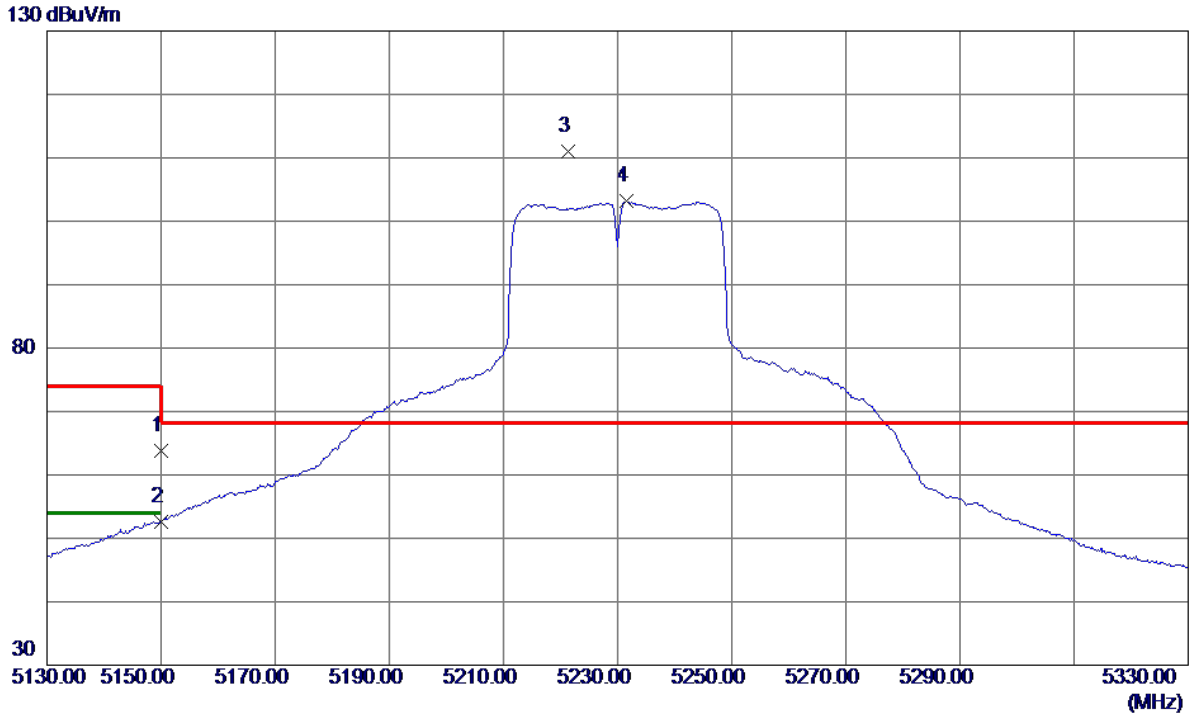
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10463.6000	46.13	20.42	66.55	68.30	-1.75	Peak	

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

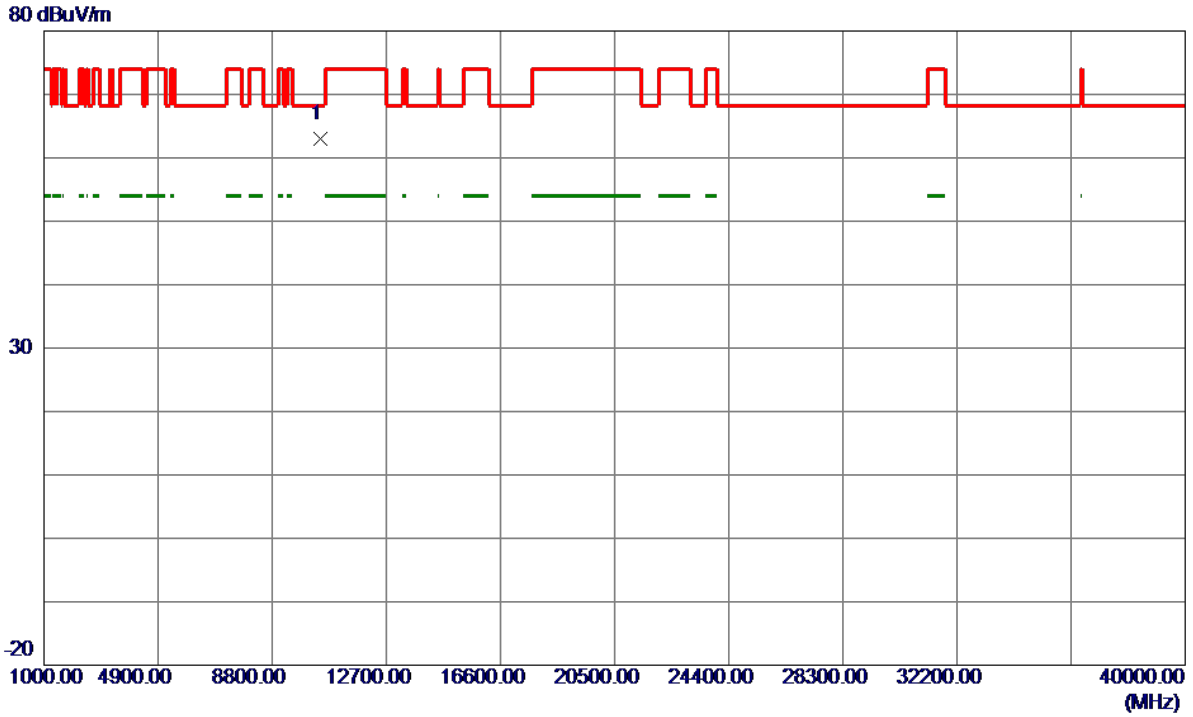
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	42.71	21.03	63.74	74.00	-10.26	Peak	
2	5150.0000	31.64	21.03	52.67	54.00	-1.33	AVG	
3 *	5221.4000	89.80	21.29	111.09	68.30	42.79	Peak	No Limit
4	5231.6000	81.82	21.33	103.15	999.00	-895.85	AVG	No Limit

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

Horizontal

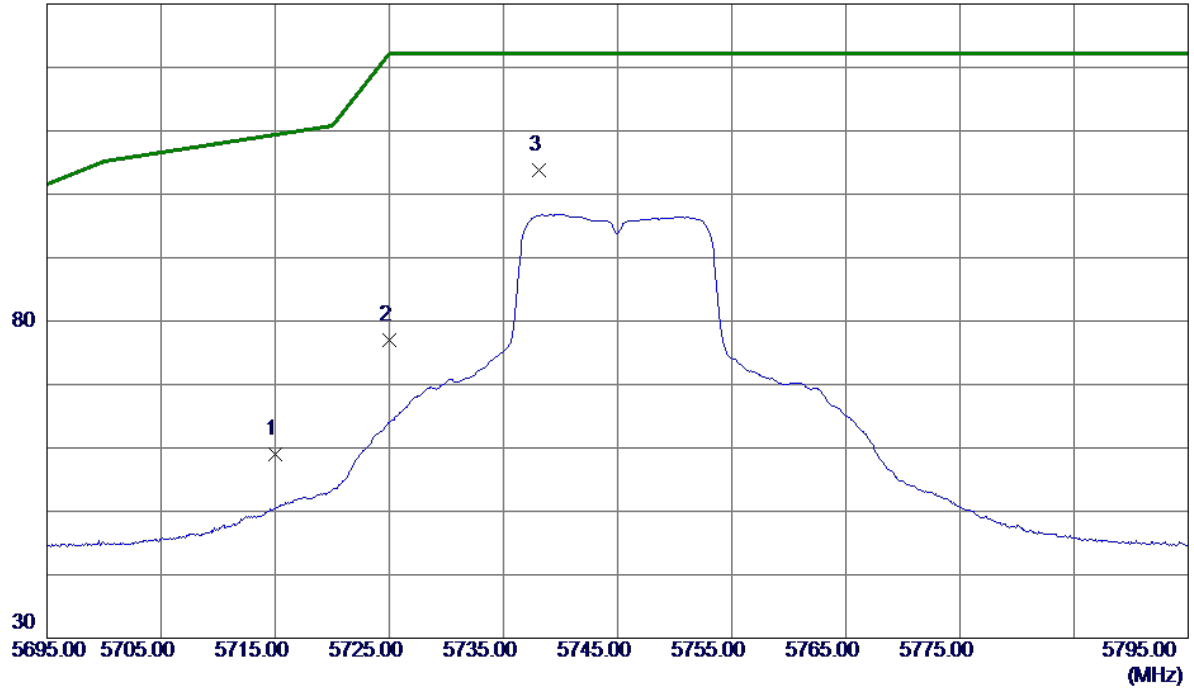


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10460.4500	42.63	20.41	63.04	68.30	-5.26	Peak	

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

Vertical

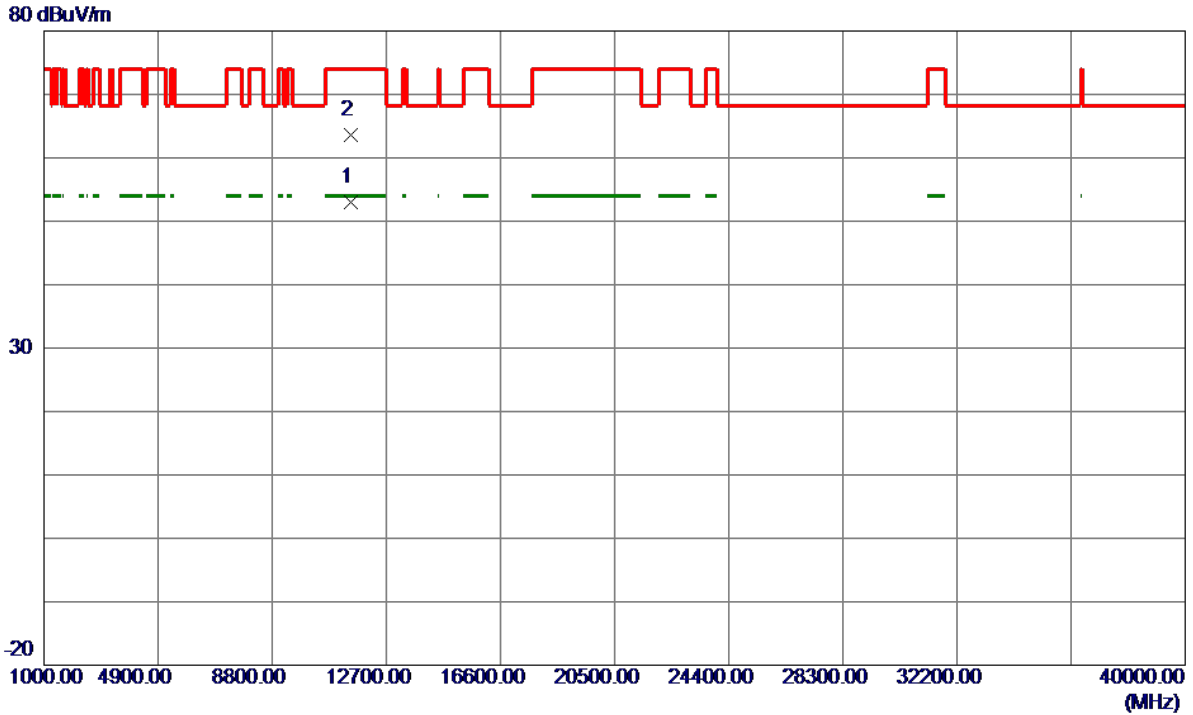
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	35.91	23.16	59.07	109.40	-50.33	Peak	
2	5725.0000	53.88	23.20	77.08	122.20	-45.12	Peak	
3 *	5738.1000	80.62	23.25	103.87	122.20	-18.33	Peak	

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

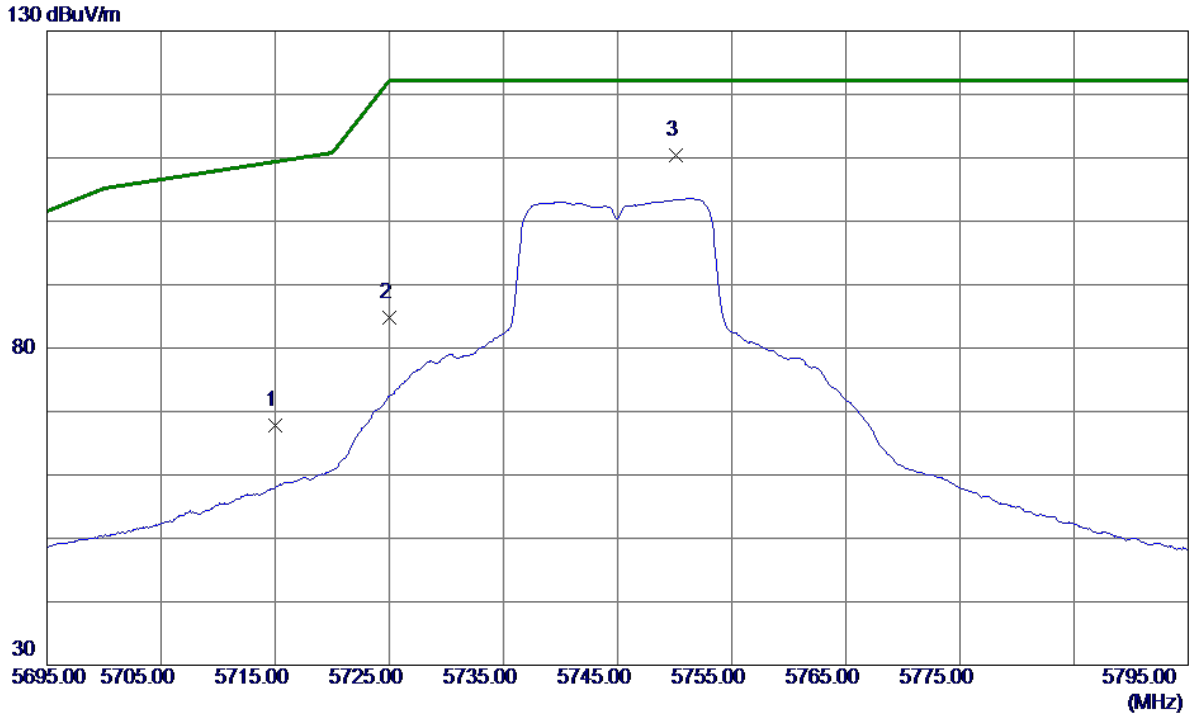
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11489.8990	31.77	21.18	52.95	54.00	-1.05	AVG	
2	11491.5960	42.46	21.18	63.64	74.00	-10.36	Peak	

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

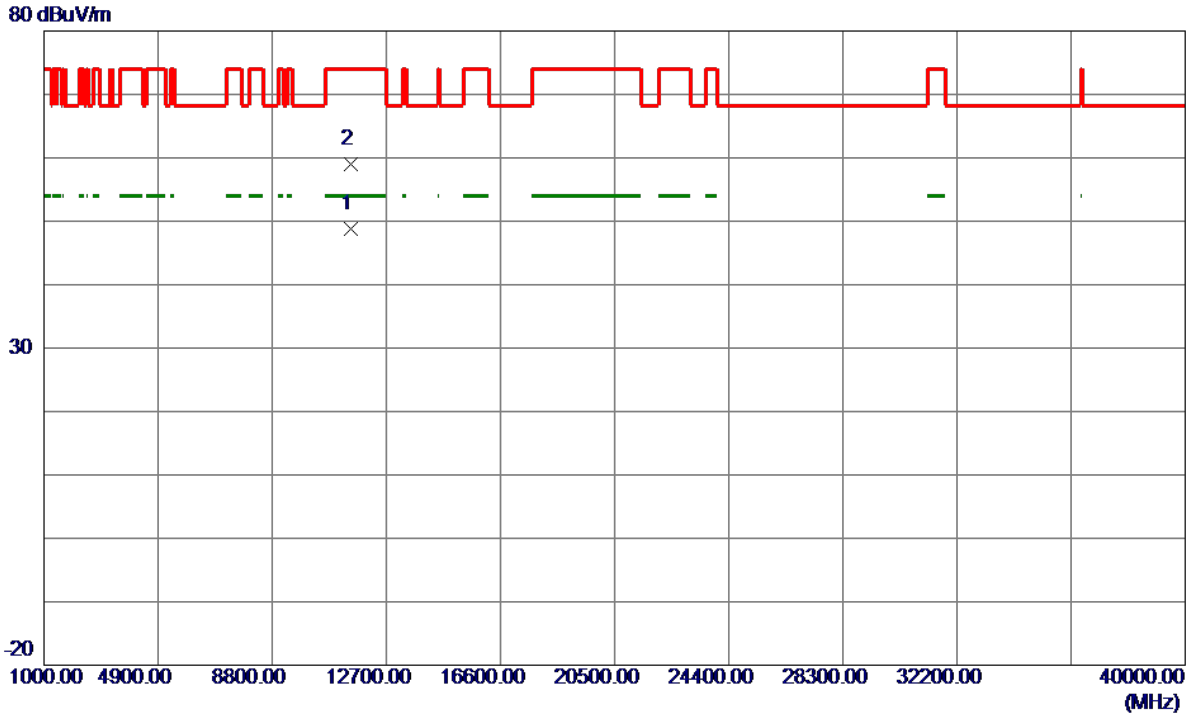
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	44.62	23.16	67.78	109.40	-41.62	Peak	
2	5725.0000	61.63	23.20	84.83	122.20	-37.37	Peak	
3 *	5750.1000	87.19	23.30	110.49	122.20	-11.71	Peak	

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

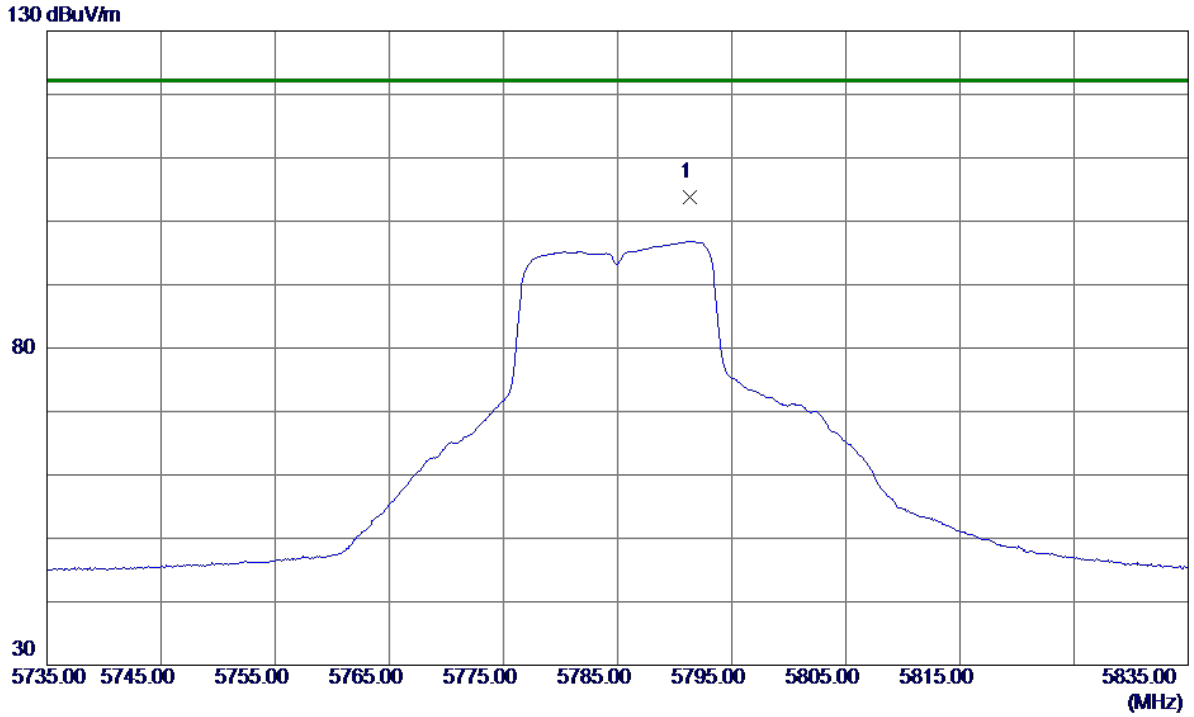
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11489.7170	27.66	21.18	48.84	54.00	-5.16	AVG	
2	11491.8789	37.90	21.18	59.08	74.00	-14.92	Peak	

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

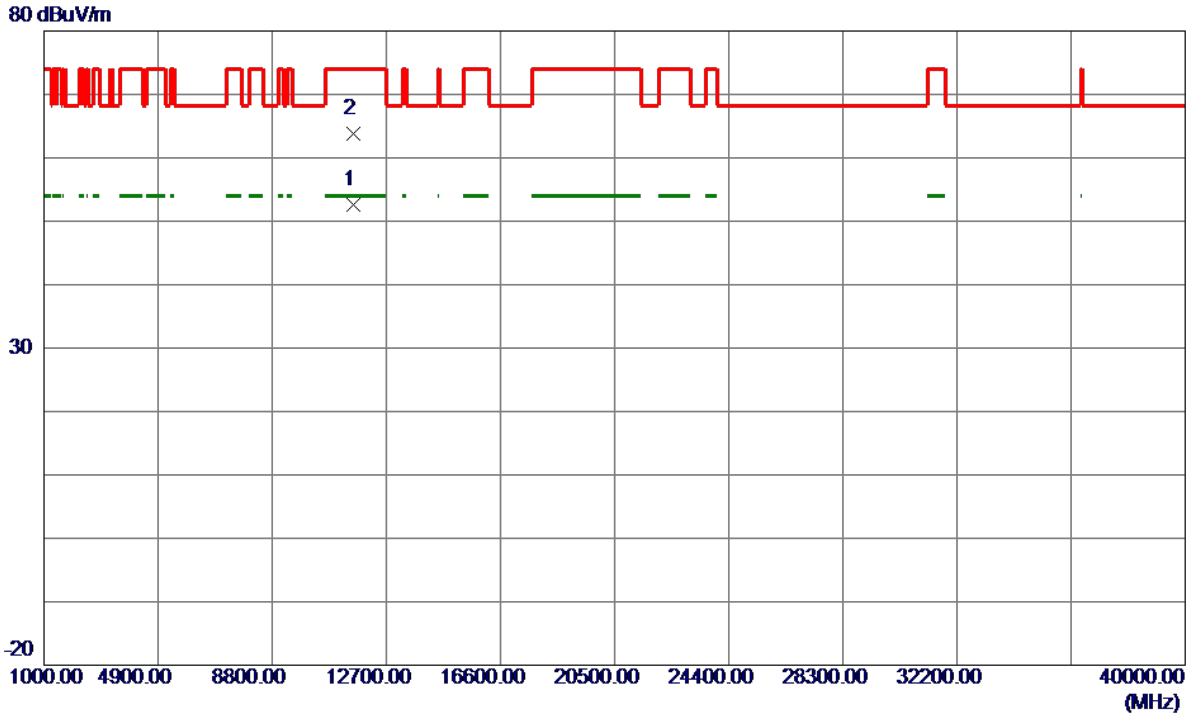
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5791.3000	80.38	23.46	103.84	122.20	-18.36	Peak	

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

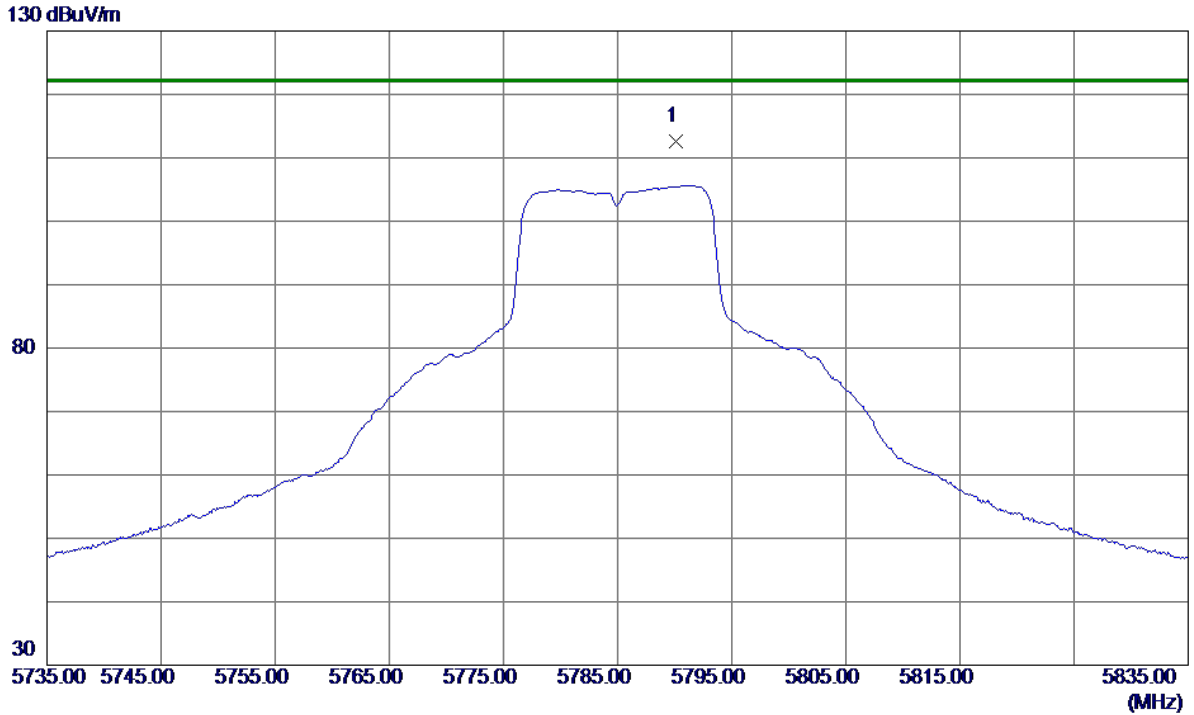
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11569.8789	31.39	21.22	52.61	54.00	-1.39	AVG	
2	11572.1609	42.55	21.22	63.77	74.00	-10.23	Peak	

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

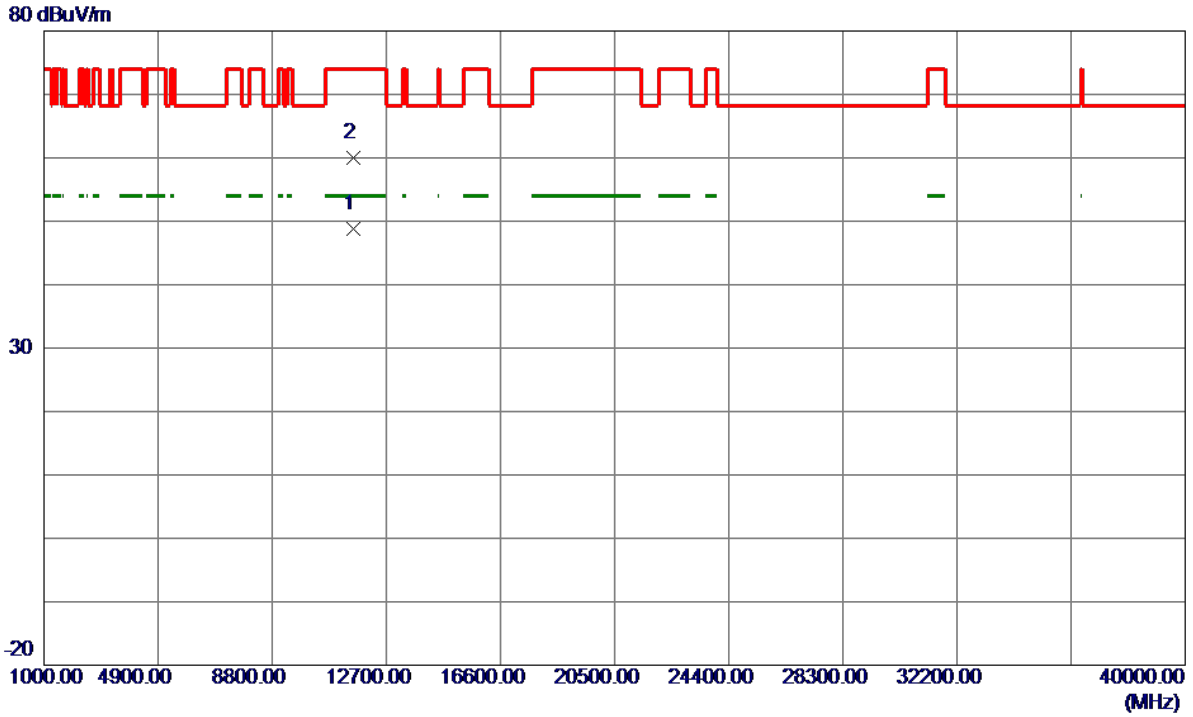
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5790.1000	89.16	23.45	112.61	122.20	-9.59	Peak	

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

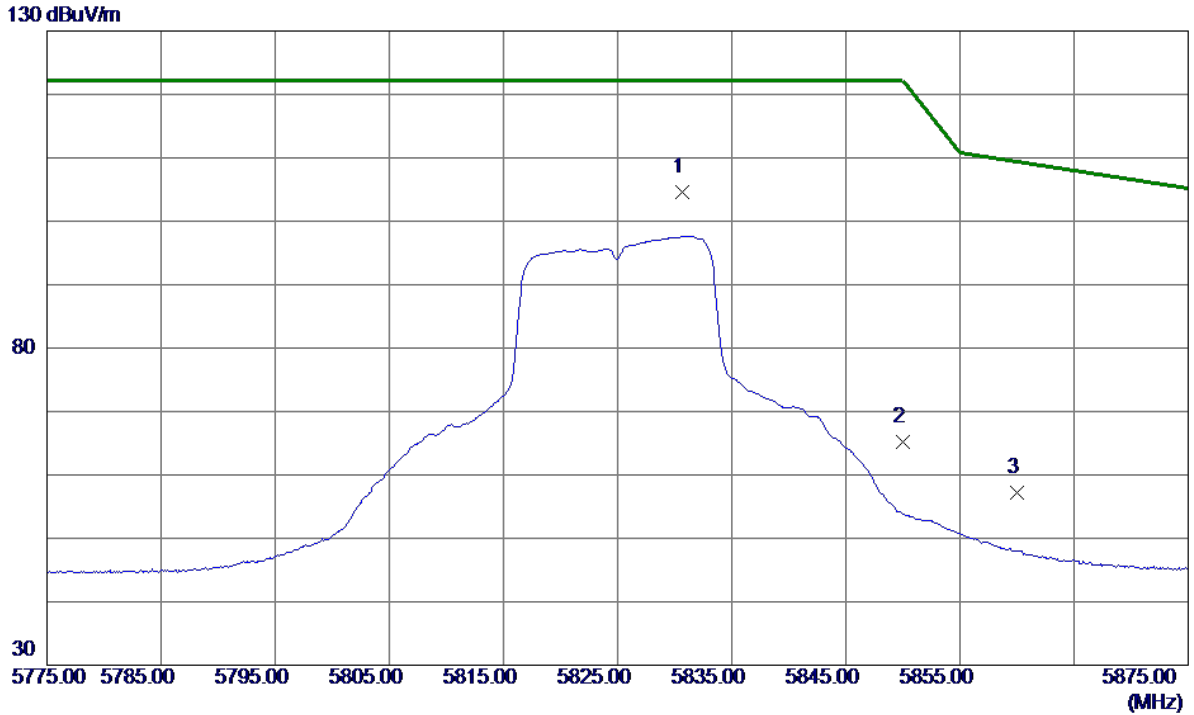
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11569.9600	27.51	21.22	48.73	54.00	-5.27	AVG	
2	11571.6160	38.73	21.22	59.95	74.00	-14.05	Peak	

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

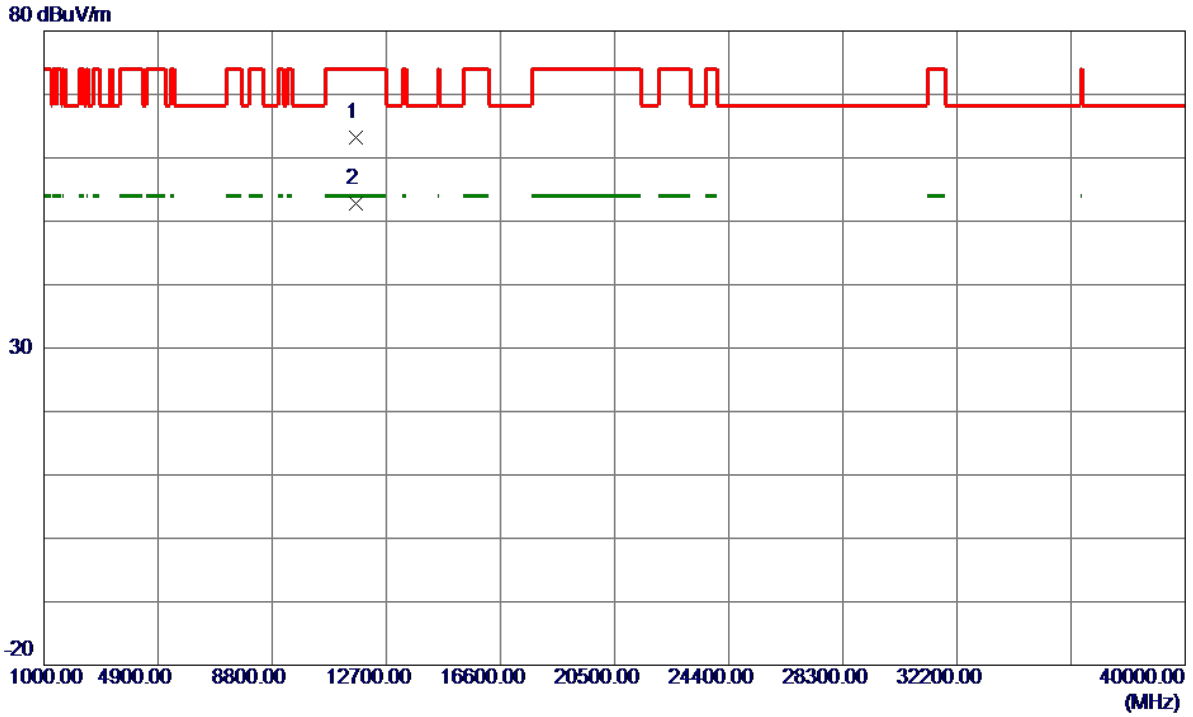
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5830.7000	80.99	23.62	104.61	122.20	-17.59	Peak	
2	5850.0000	41.45	23.69	65.14	122.20	-57.06	Peak	
3	5860.0000	33.48	23.73	57.21	109.40	-52.19	Peak	

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

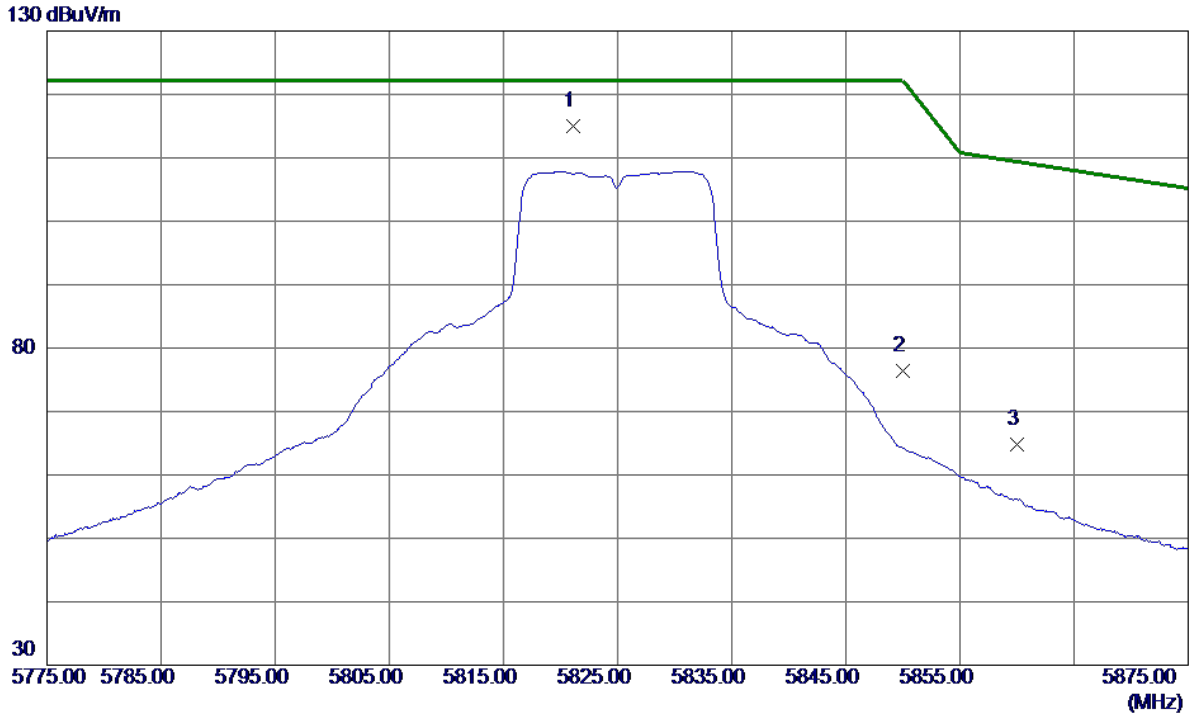
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11646.3030	41.93	21.27	63.20	74.00	-10.80	Peak	
2 *	11649.8789	31.47	21.27	52.74	54.00	-1.26	AVG	

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

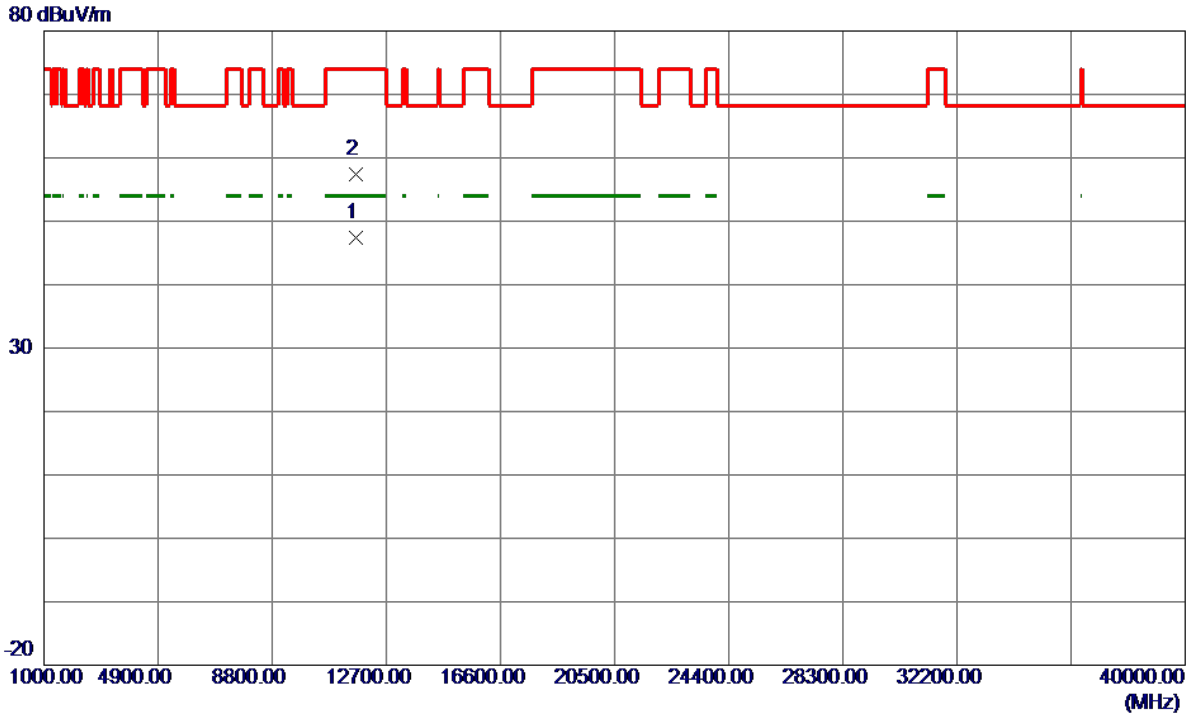
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5821.1000	91.46	23.58	115.04	122.20	-7.16	Peak	
2	5850.0000	52.71	23.69	76.40	122.20	-45.80	Peak	
3	5860.0000	40.98	23.73	64.71	109.40	-44.69	Peak	

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

Horizontal

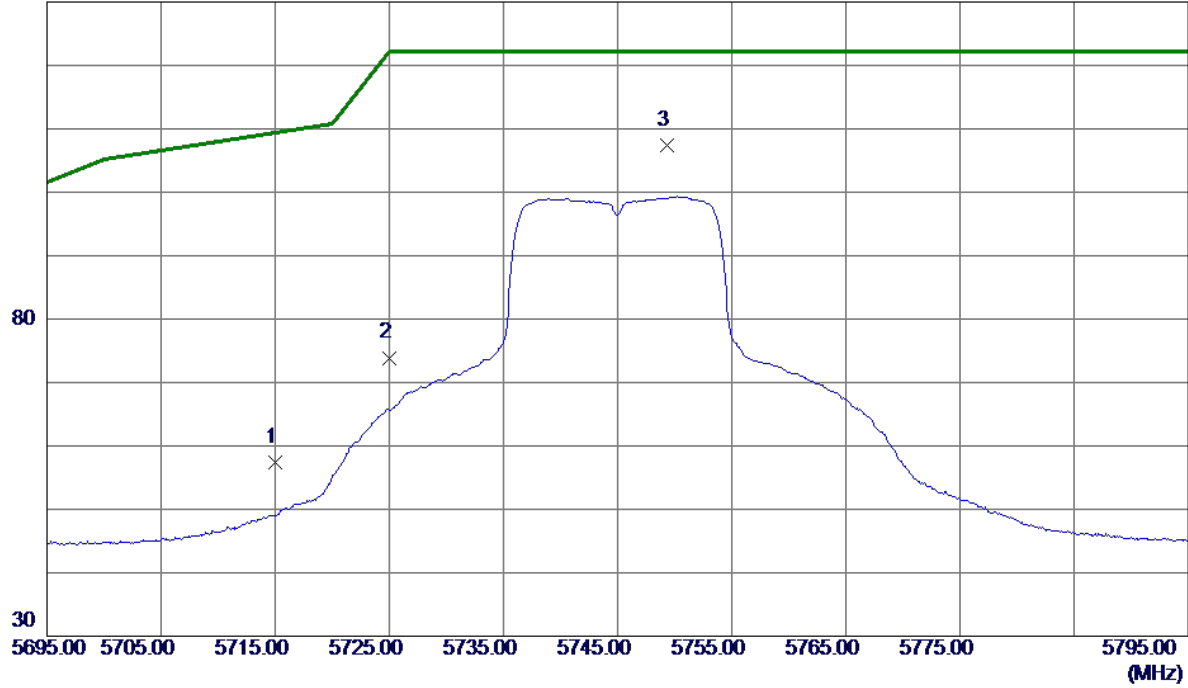


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11649.8990	26.04	21.27	47.31	54.00	-6.69	AVG	
2	11651.4540	36.21	21.27	57.48	74.00	-16.52	Peak	

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

Vertical

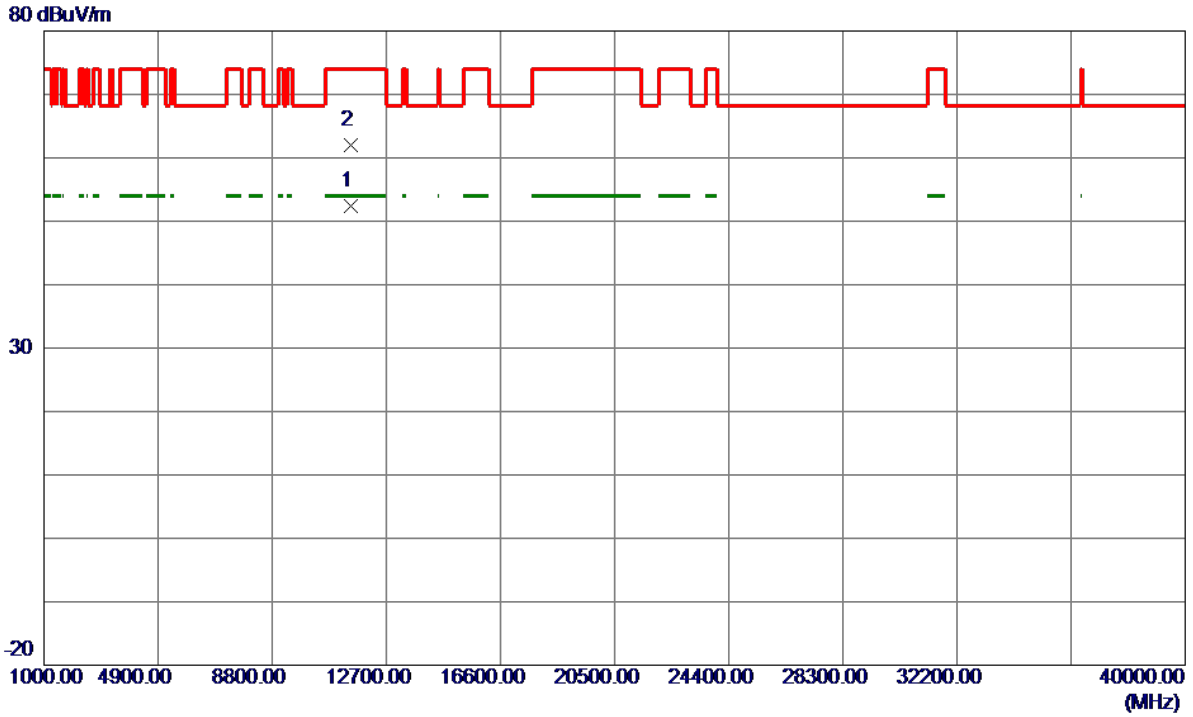
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	34.23	23.16	57.39	109.40	-52.01	Peak	
2	5725.0000	50.70	23.20	73.90	122.20	-48.30	Peak	
3 *	5749.3000	84.04	23.29	107.33	122.20	-14.87	Peak	

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

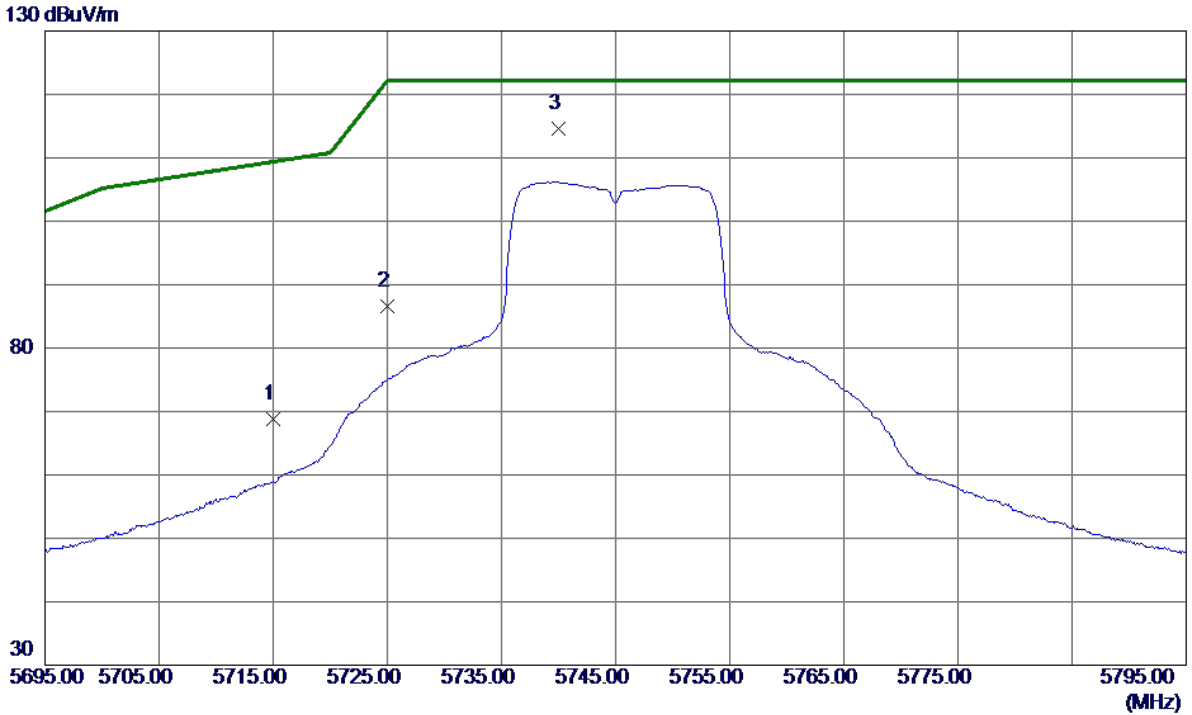
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11489.3740	31.22	21.18	52.40	54.00	-1.60	AVG	
2	11491.2120	40.88	21.18	62.06	74.00	-11.94	Peak	

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

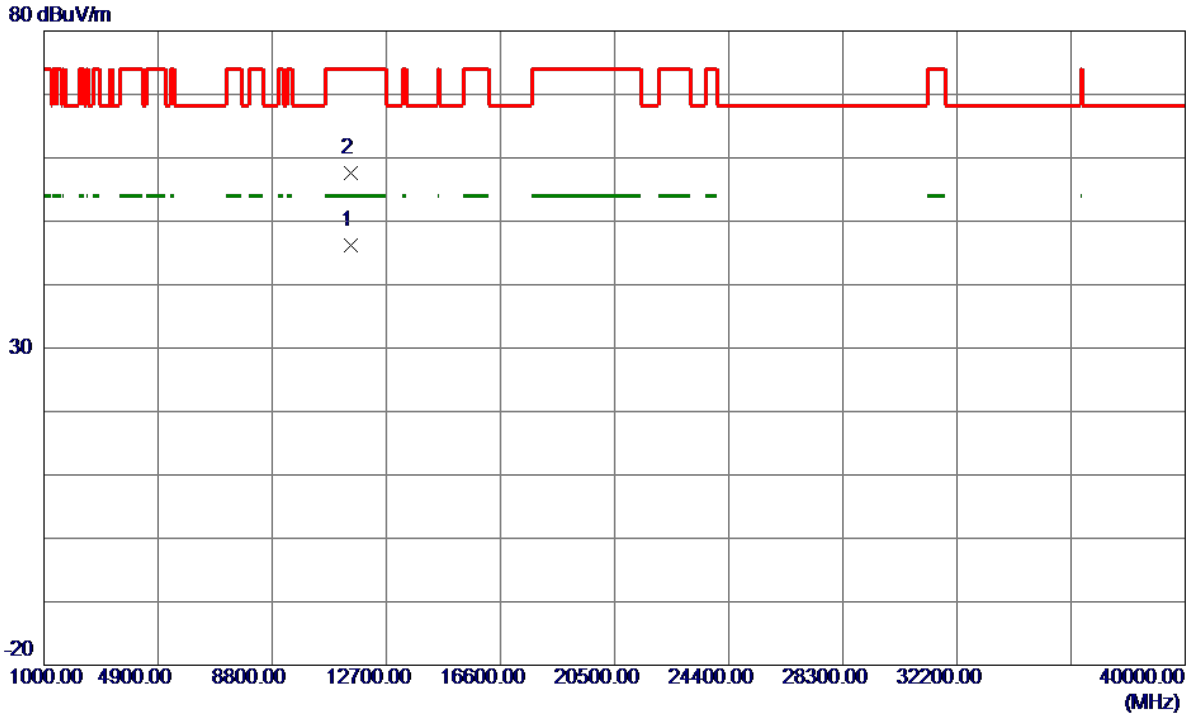
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	45.64	23.16	68.80	109.40	-40.60	Peak	
2	5725.0000	63.40	23.20	86.60	122.20	-35.60	Peak	
3 *	5740.0000	91.26	23.26	114.52	122.20	-7.68	Peak	

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

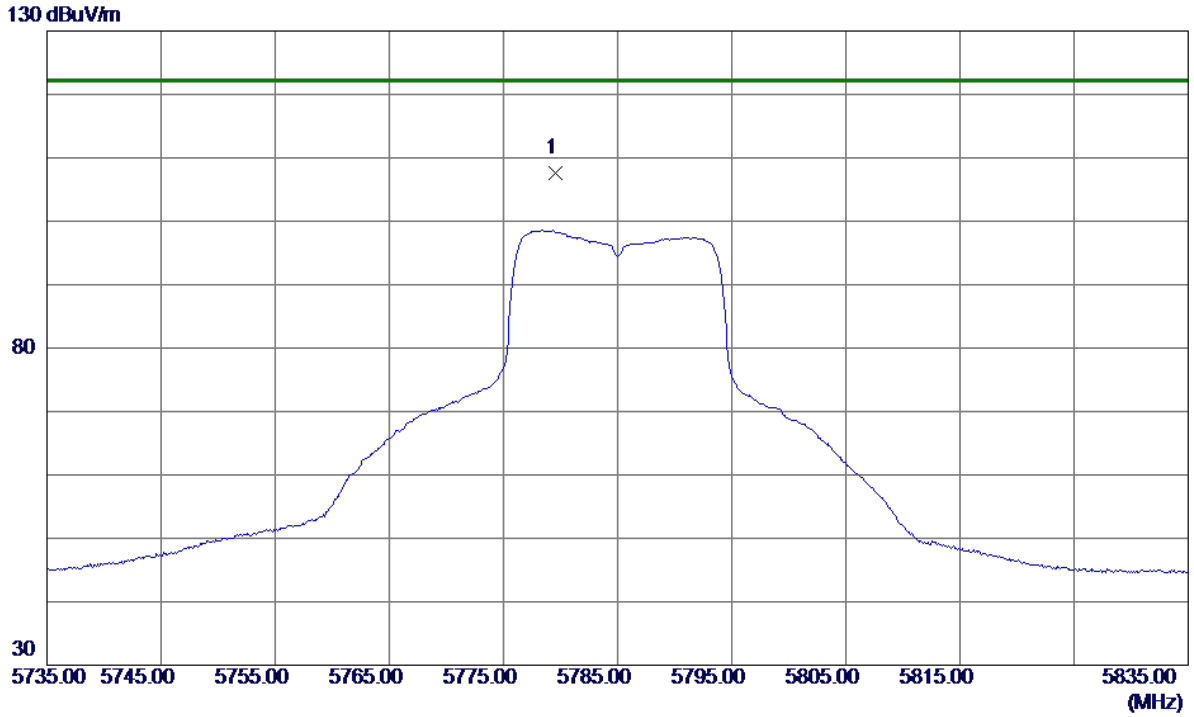
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11489.4950	25.03	21.18	46.21	54.00	-7.79	AVG	
2	11493.1310	36.37	21.18	57.55	74.00	-16.45	Peak	

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

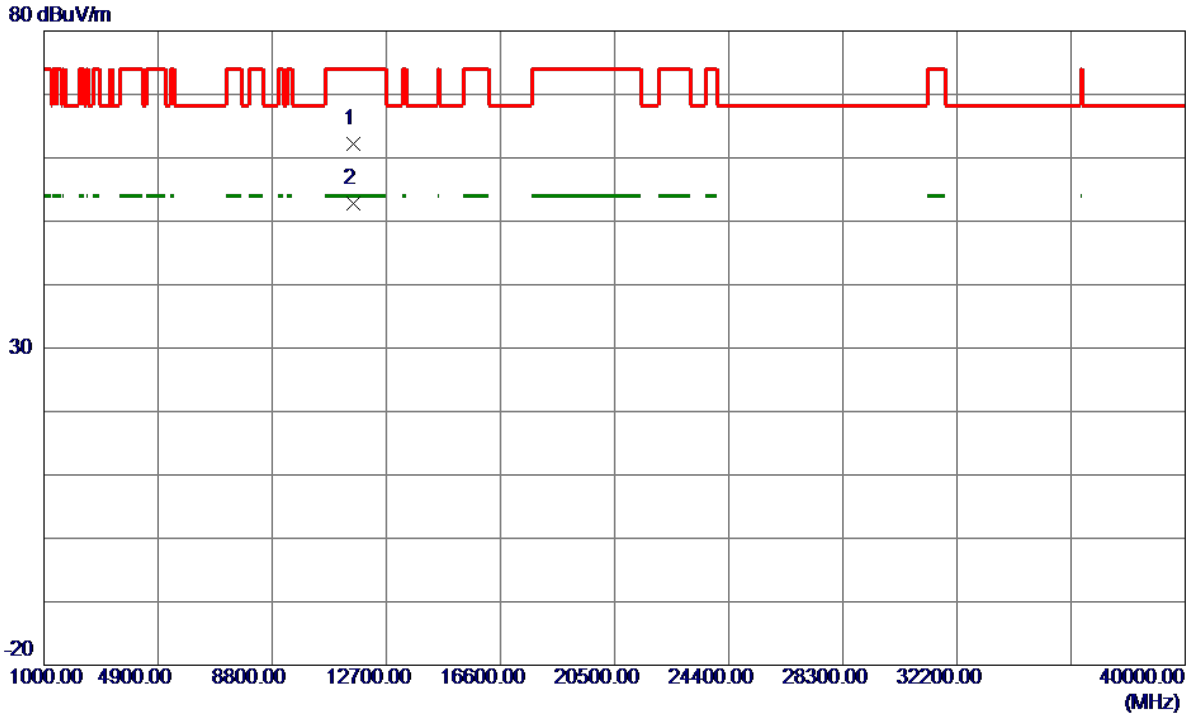
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5779.6000	84.19	23.41	107.60	122.20	-14.60	Peak	

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

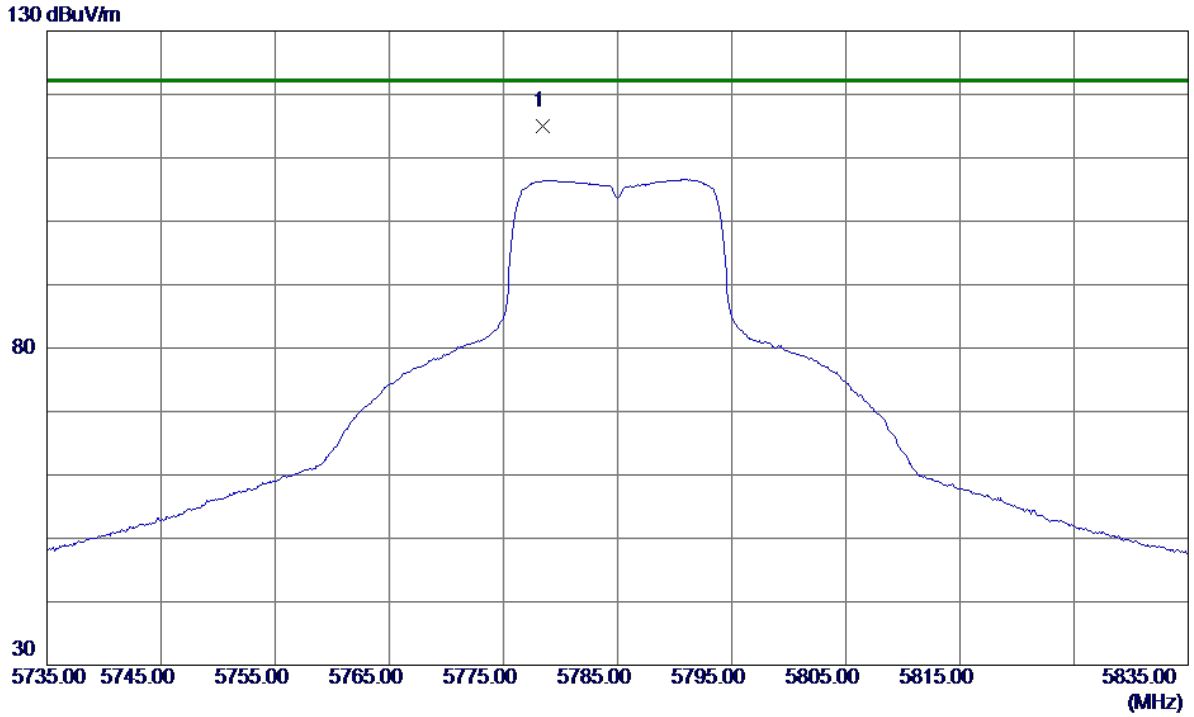
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11568.7880	40.92	21.22	62.14	74.00	-11.86	Peak	
2 *	11569.8380	31.51	21.22	52.73	54.00	-1.27	AVG	

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

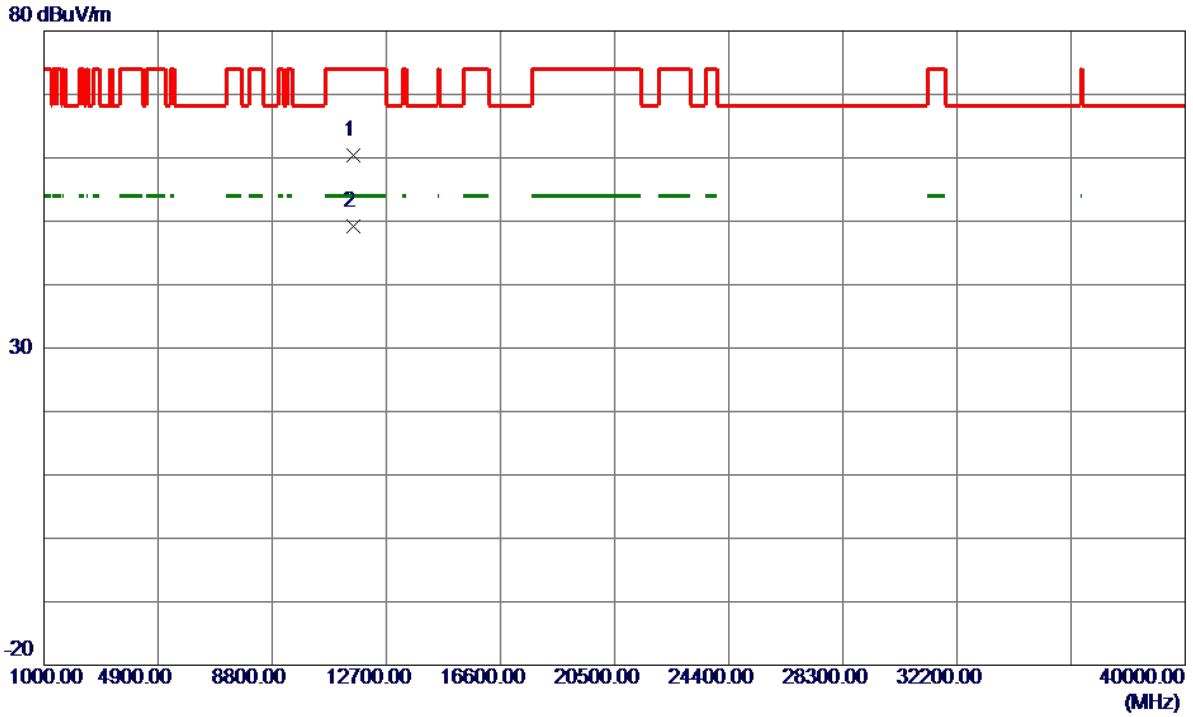
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5778.4000	91.66	23.41	115.07	122.20	-7.13	Peak	

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

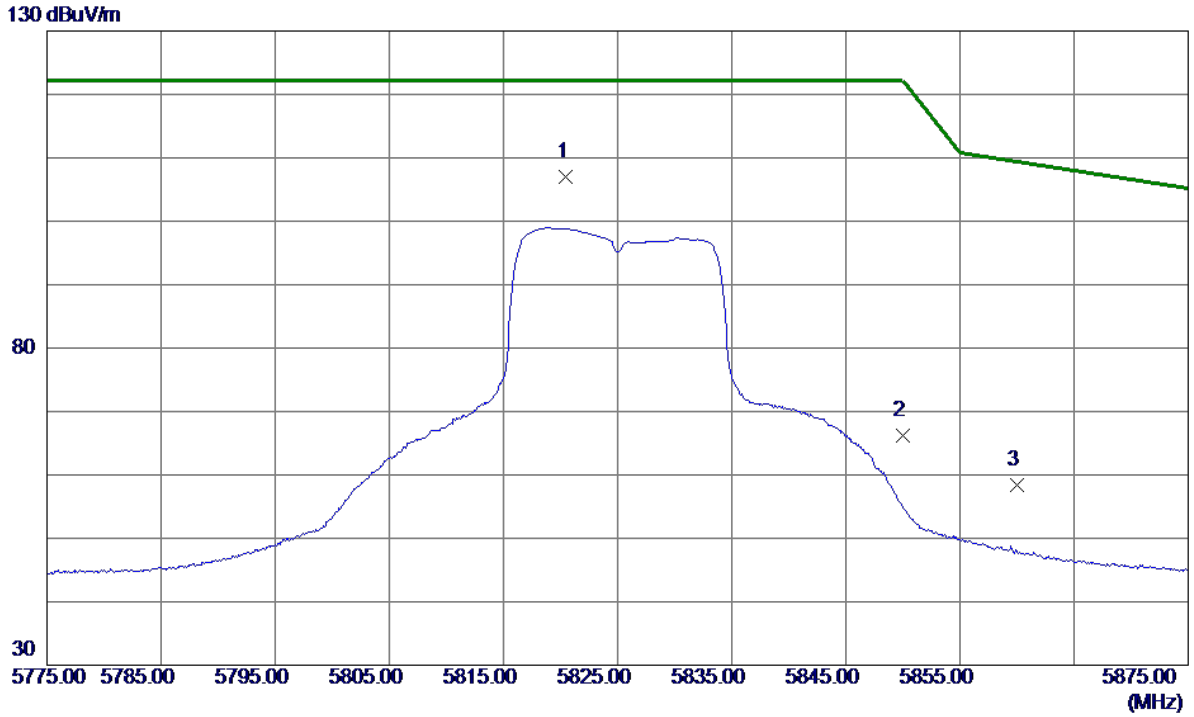
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11568.1420	39.11	21.22	60.33	74.00	-13.67	Peak	
2 *	11569.4550	27.97	21.22	49.19	54.00	-4.81	AVG	

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

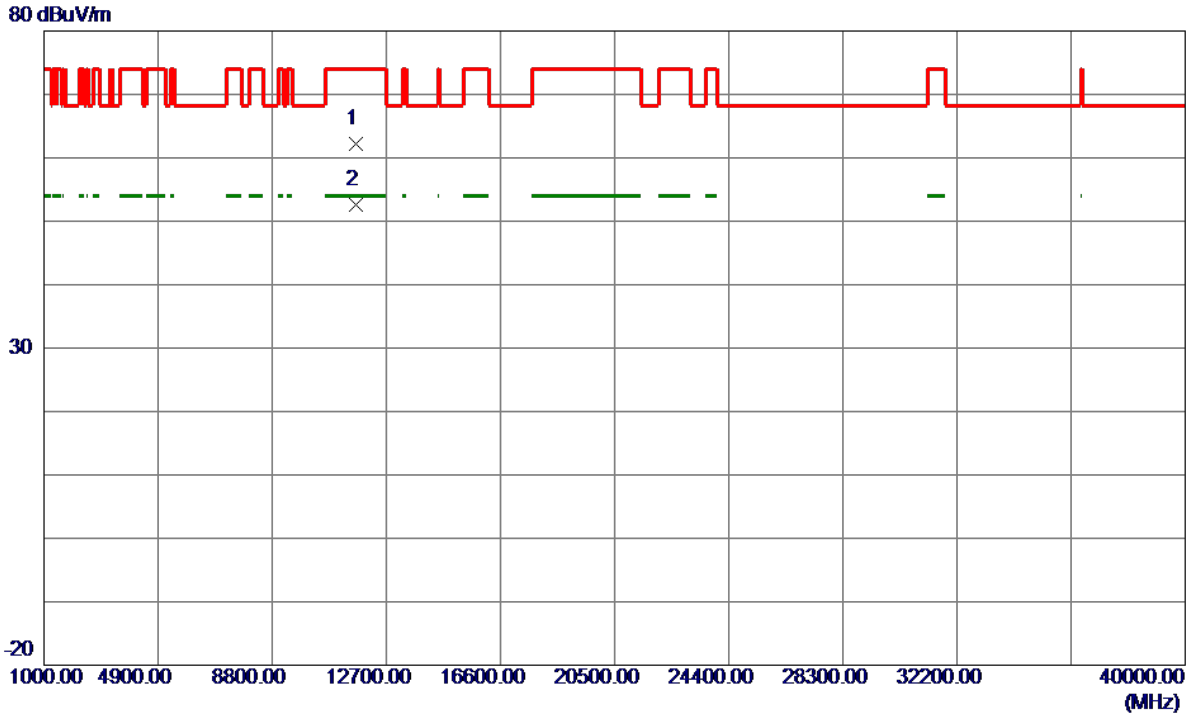
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5820.5000	83.48	23.58	107.06	122.20	-15.14	Peak	
2	5850.0000	42.48	23.69	66.17	122.20	-56.03	Peak	
3	5860.0000	34.71	23.73	58.44	109.40	-50.96	Peak	

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

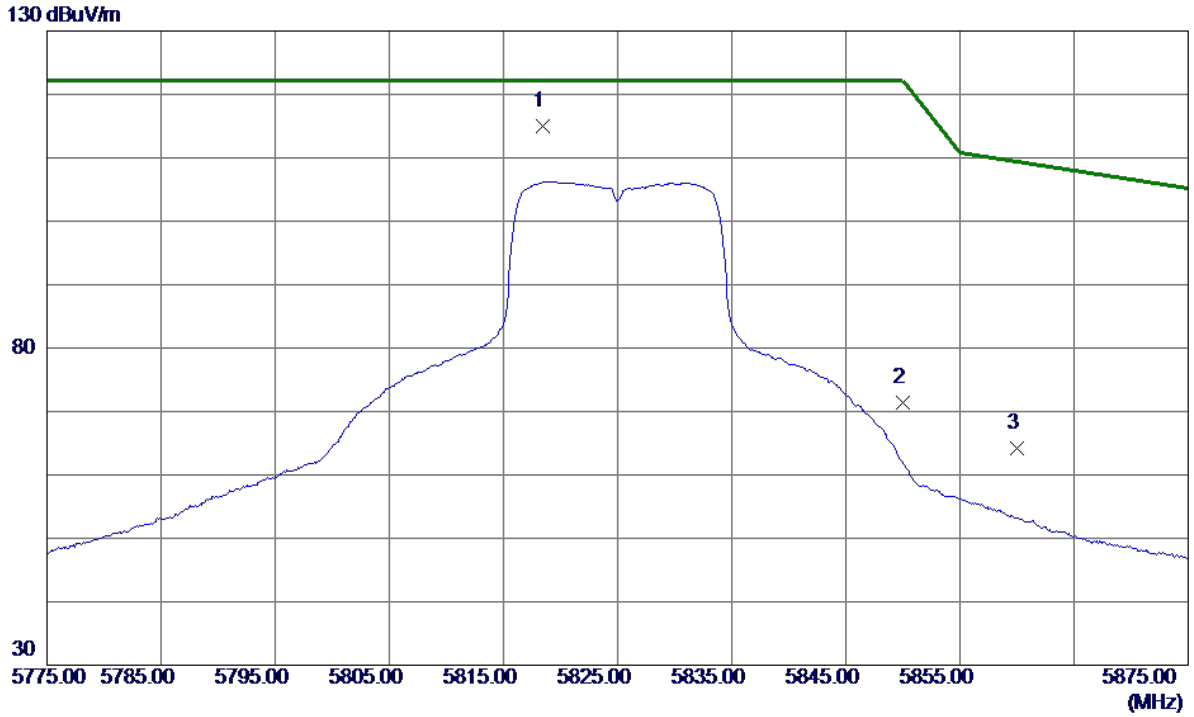
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11642.6470	40.91	21.26	62.17	74.00	-11.83	Peak	
2 *	11649.7370	31.32	21.27	52.59	54.00	-1.41	AVG	

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

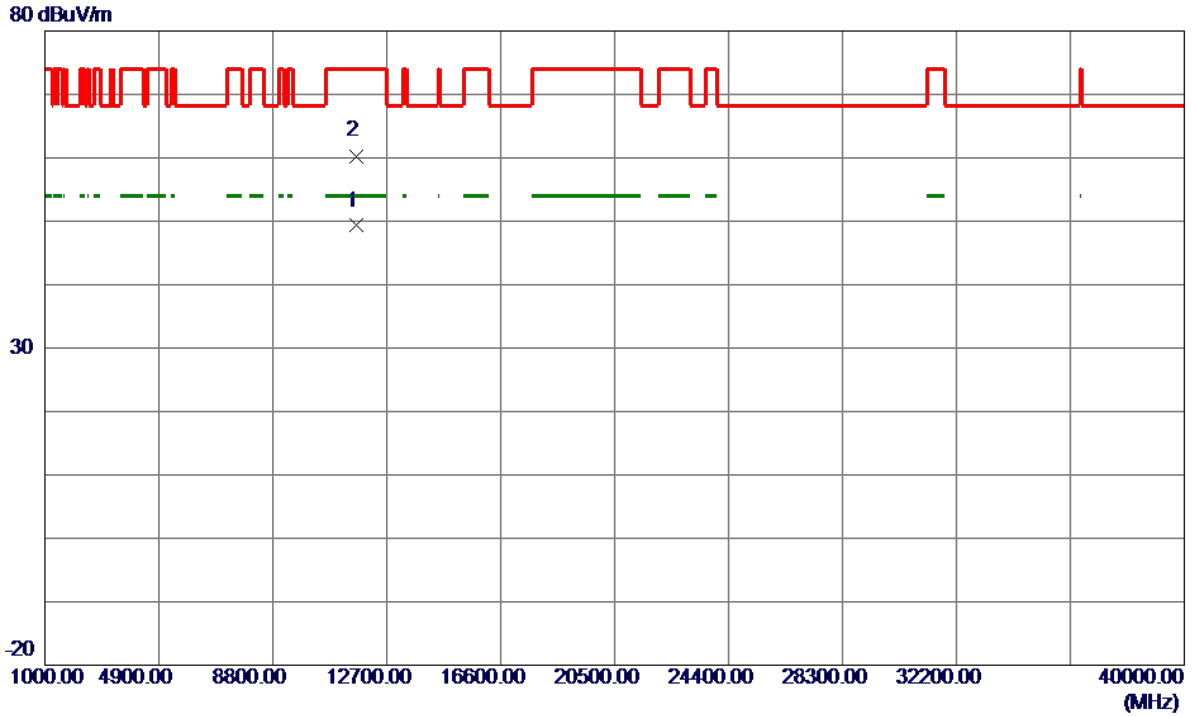
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5818.4000	91.34	23.57	114.91	122.20	-7.29	Peak	
2	5850.0000	47.70	23.69	71.39	122.20	-50.81	Peak	
3	5860.0000	40.55	23.73	64.28	109.40	-45.12	Peak	

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

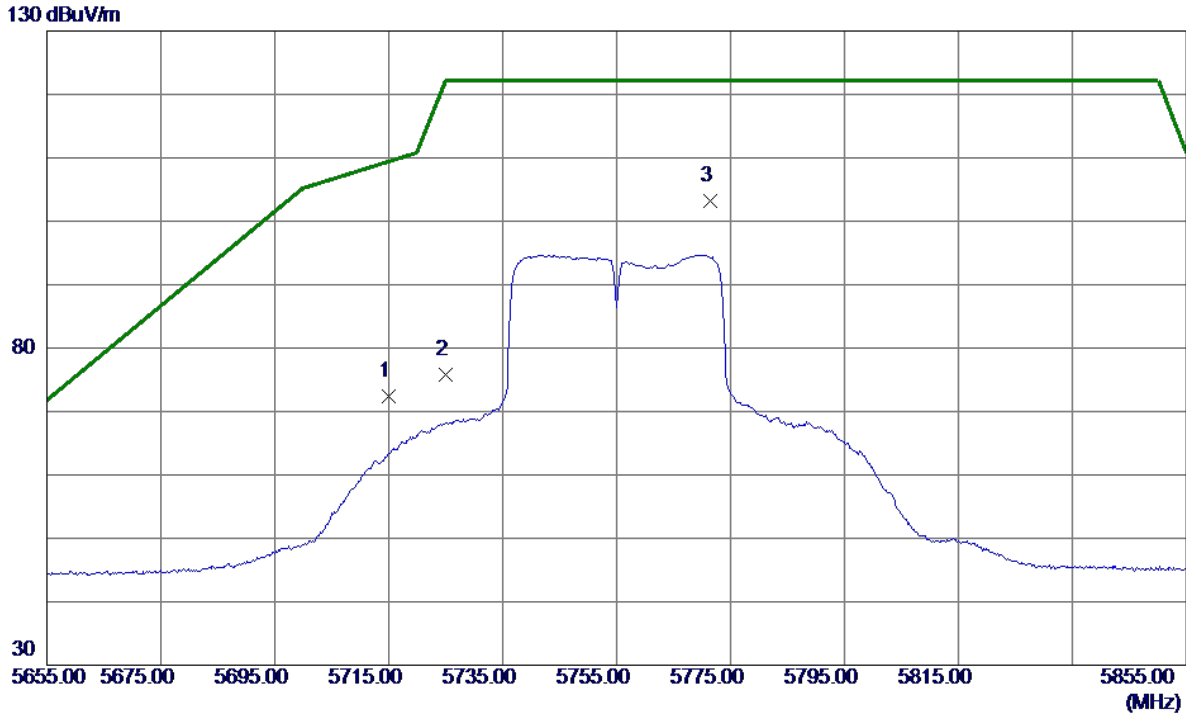
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11649.6360	28.03	21.27	49.30	54.00	-4.70	AVG	
2	11650.6870	39.03	21.27	60.30	74.00	-13.70	Peak	

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

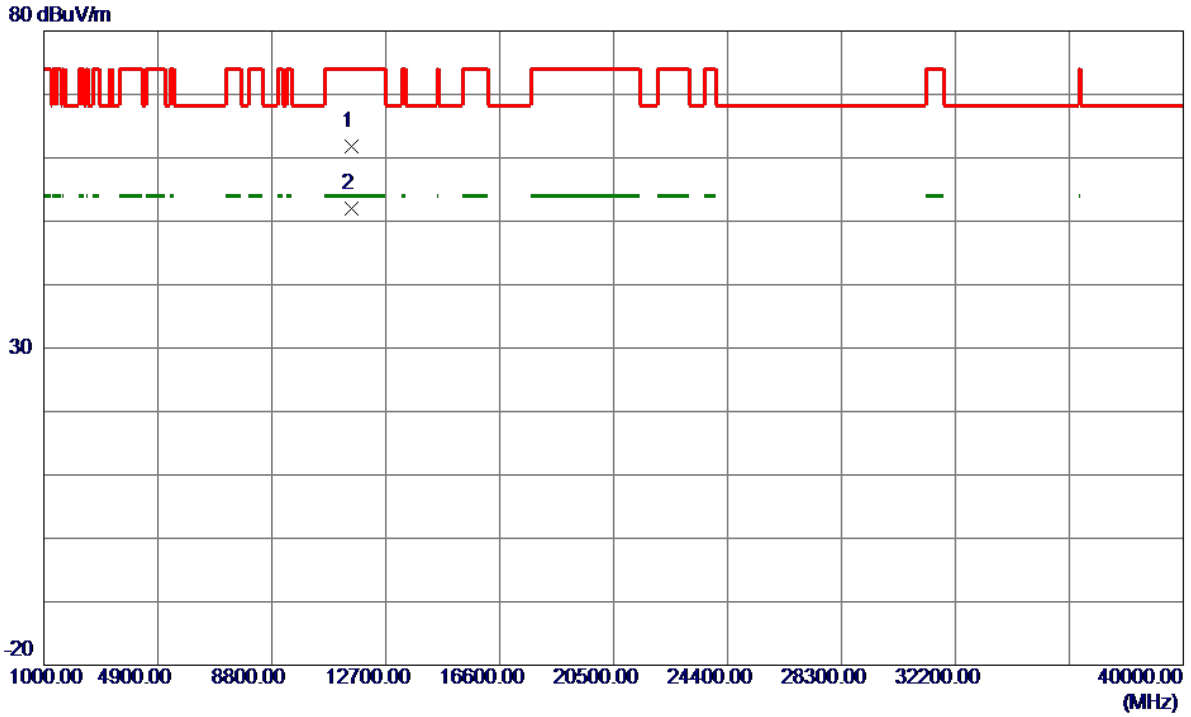
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	49.17	23.16	72.33	109.40	-37.07	Peak	
2	5725.0000	52.53	23.20	75.73	122.20	-46.47	Peak	
3 *	5771.4000	79.75	23.38	103.13	122.20	-19.07	Peak	

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

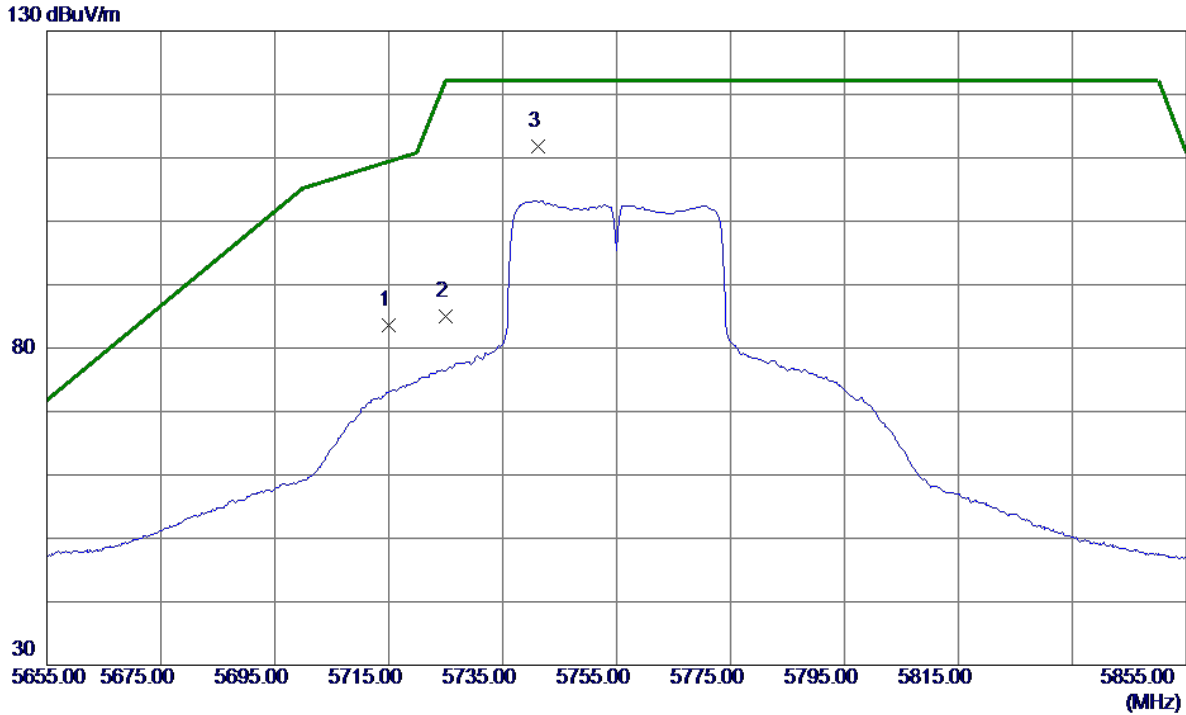
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11512.2000	40.59	21.19	61.78	74.00	-12.22	Peak	
2 *	11512.9000	30.86	21.19	52.05	54.00	-1.95	AVG	

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

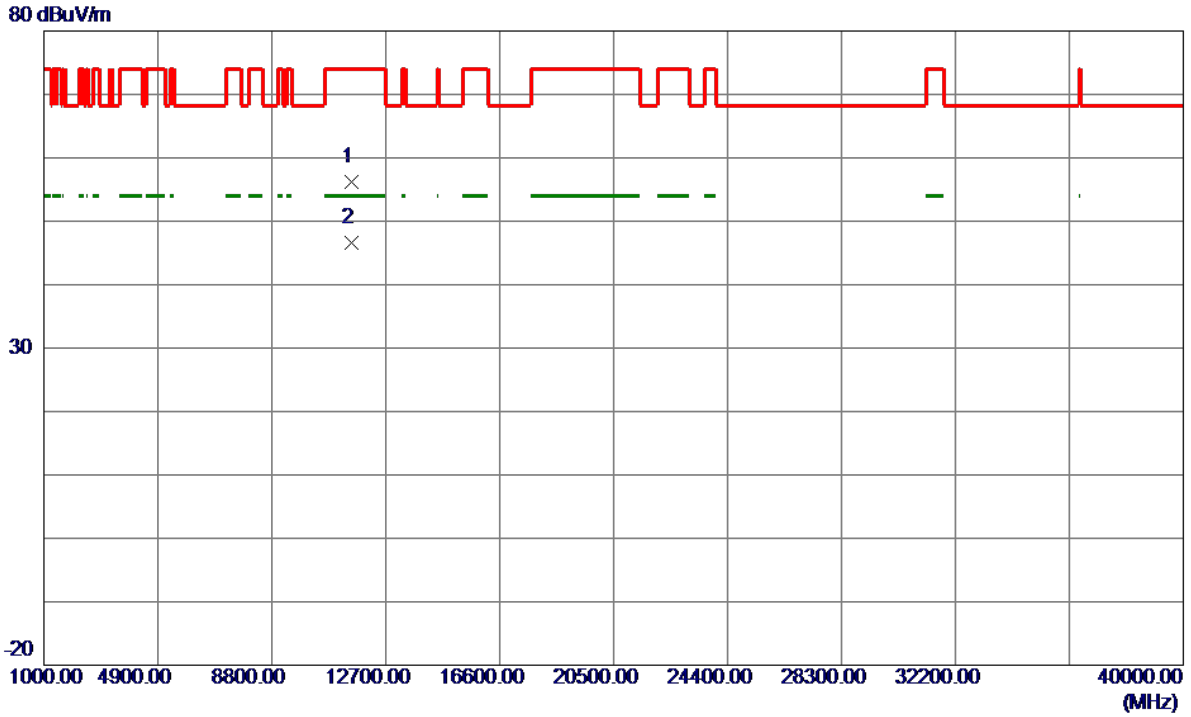
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	60.39	23.16	83.55	109.40	-25.85	Peak	
2	5725.0000	61.80	23.20	85.00	122.20	-37.20	Peak	
3 *	5741.2000	88.60	23.26	111.86	122.20	-10.34	Peak	

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

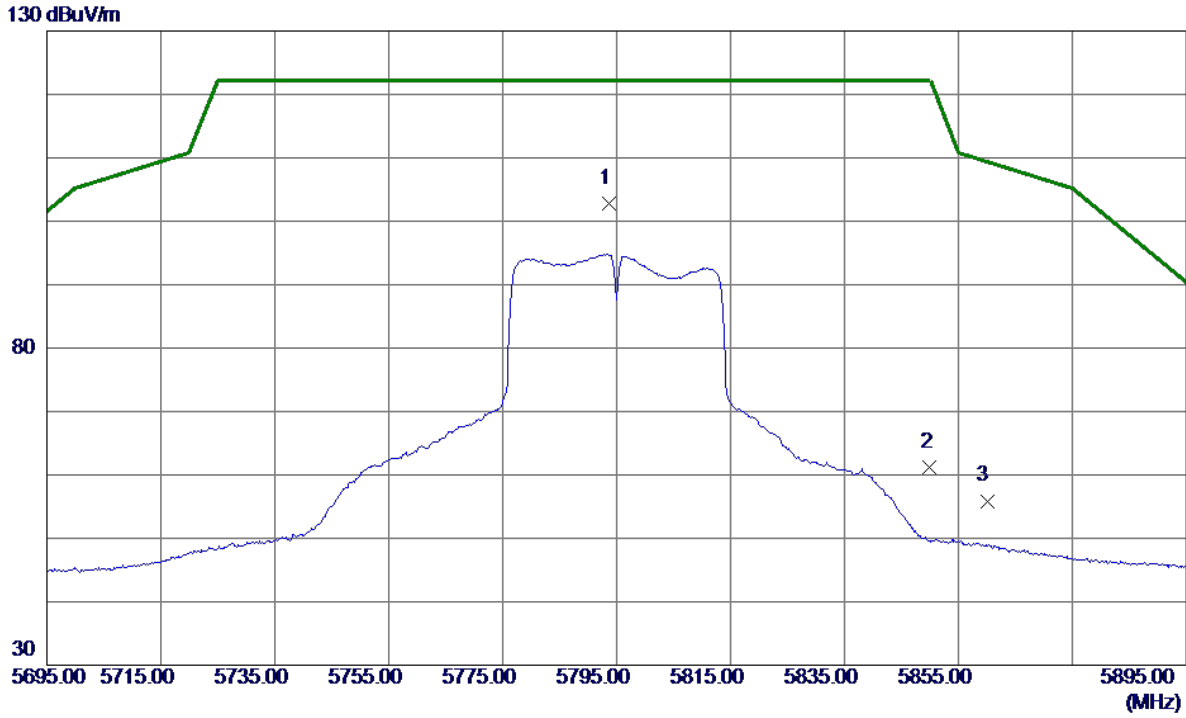
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11510.7000	34.99	21.19	56.18	74.00	-17.82	Peak	
2 *	11514.1000	25.48	21.19	46.67	54.00	-7.33	AVG	

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

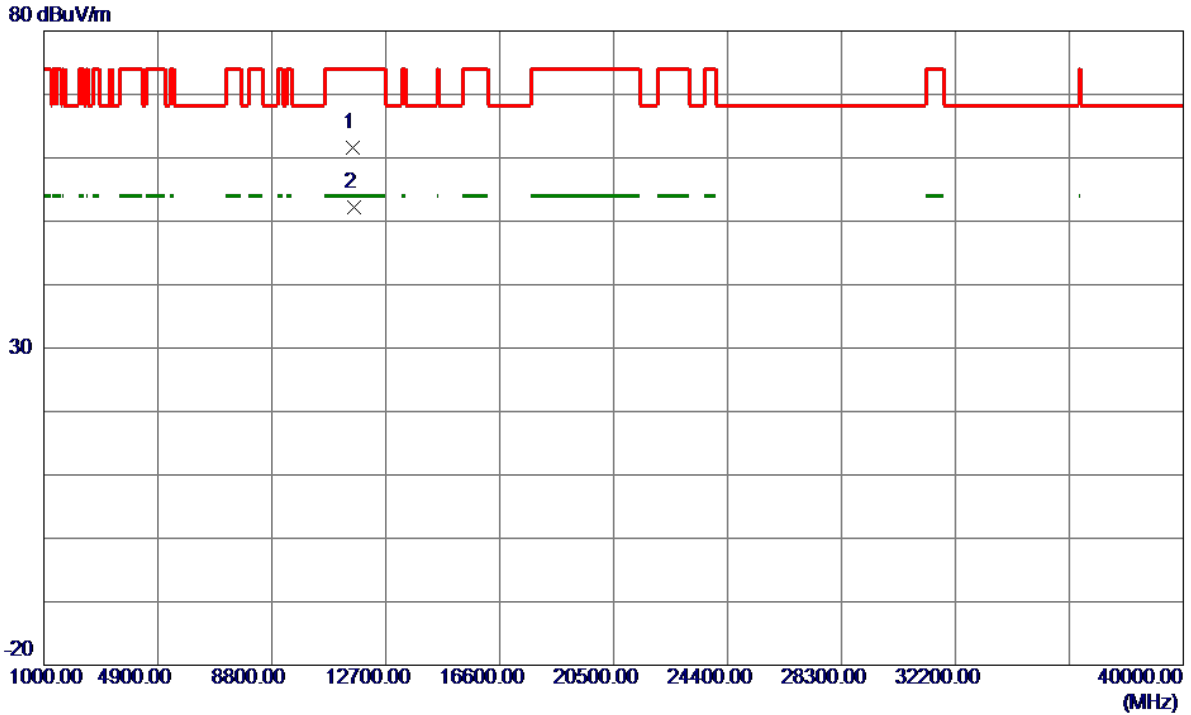
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5793.6000	79.29	23.47	102.76	122.20	-19.44	Peak	
2	5850.0000	37.47	23.69	61.16	122.20	-61.04	Peak	
3	5860.0000	32.17	23.73	55.90	109.40	-53.50	Peak	

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

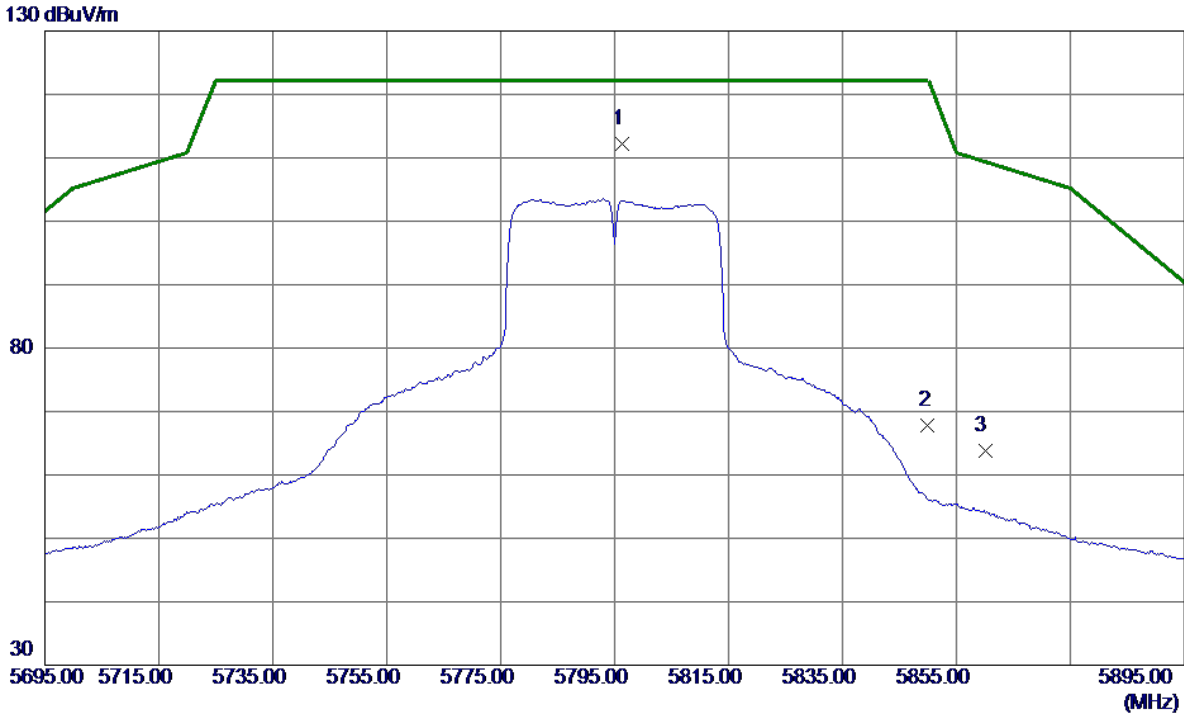
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11590.2000	40.40	21.23	61.63	74.00	-12.37	Peak	
2 *	11596.7000	30.98	21.24	52.22	54.00	-1.78	AVG	

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

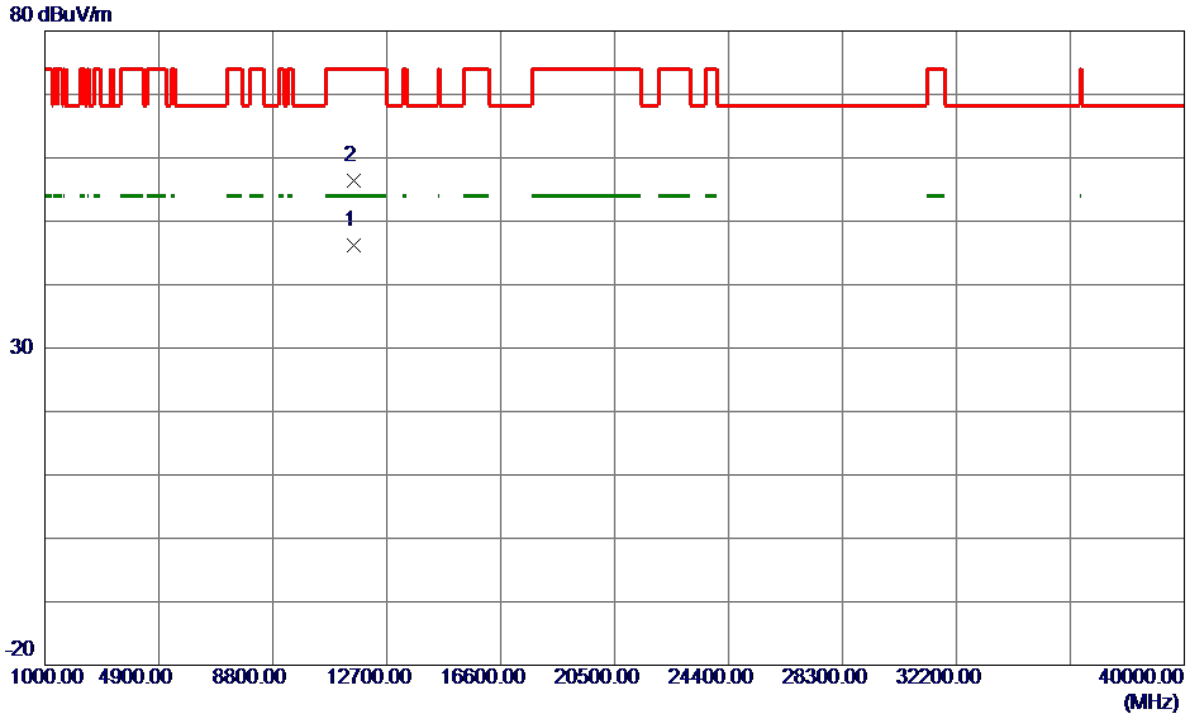
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5796.4000	88.80	23.48	112.28	122.20	-9.92	Peak	
2	5850.0000	44.20	23.69	67.89	122.20	-54.31	Peak	
3	5860.0000	40.08	23.73	63.81	109.40	-45.59	Peak	

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

Horizontal

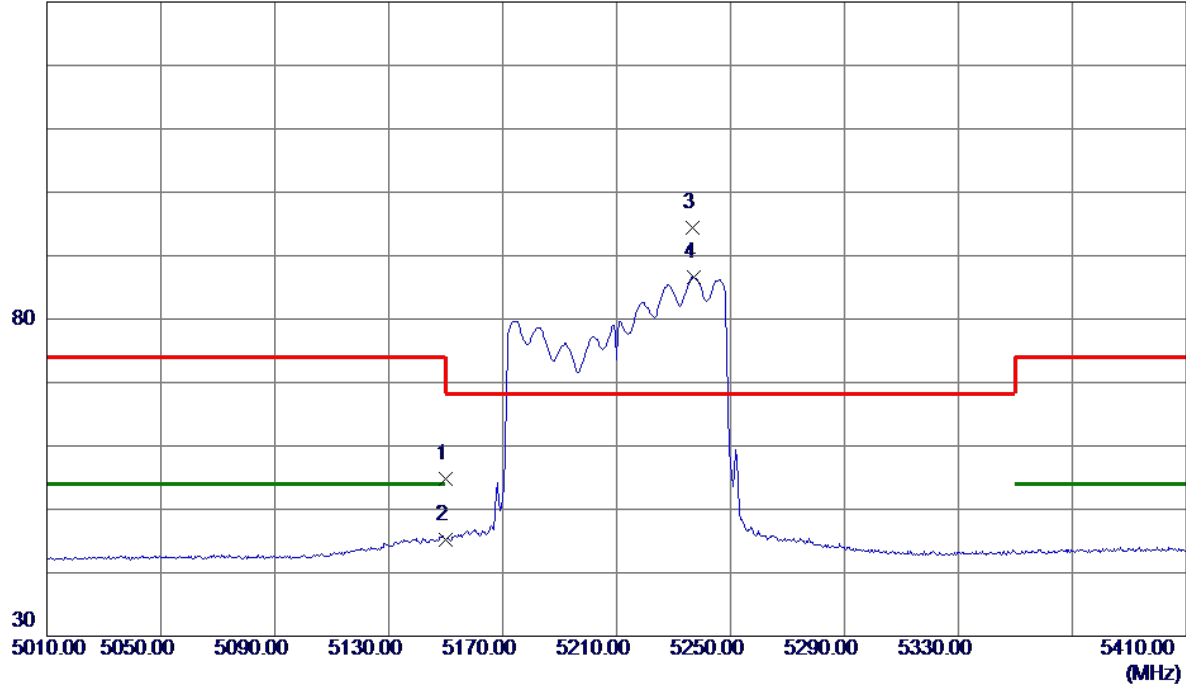


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11585.8000	25.04	21.23	46.27	54.00	-7.73	AVG	
2	11593.8000	35.15	21.24	56.39	74.00	-17.61	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC80 Mode 5210MHz

Vertical

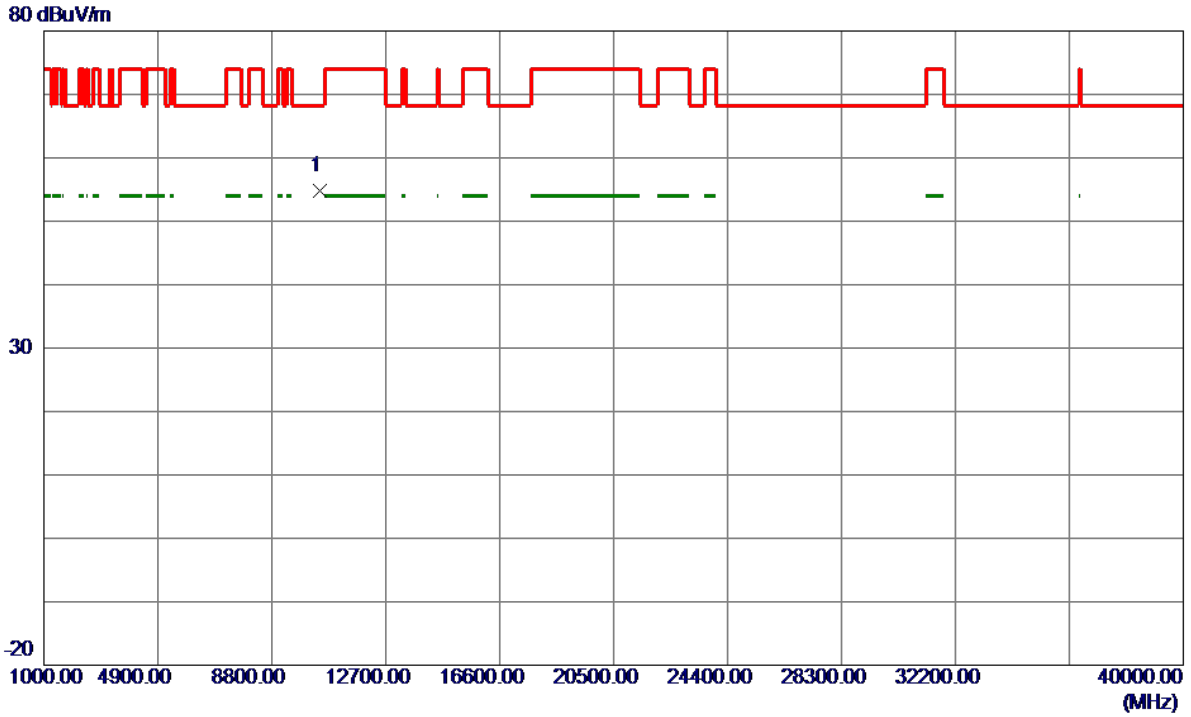
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	33.86	21.03	54.89	74.00	-19.11	Peak	
2	5150.0000	24.20	21.03	45.23	54.00	-8.77	AVG	
3 *	5236.8000	73.13	21.35	94.48	68.30	26.18	Peak	No Limit
4	5237.2000	65.28	21.35	86.63	999.00	-912.37	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC80 Mode 5210MHz

Vertical

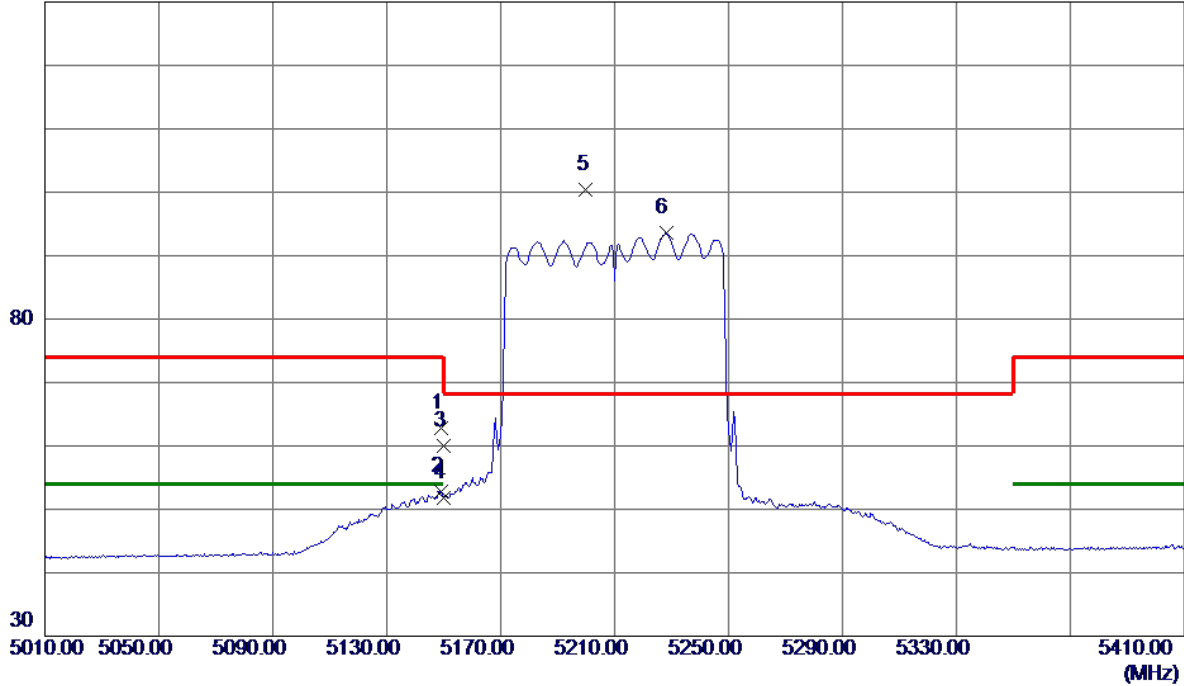


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10436.2000	34.43	20.38	54.81	68.30	-13.49	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC80 Mode 5210MHz

Horizontal

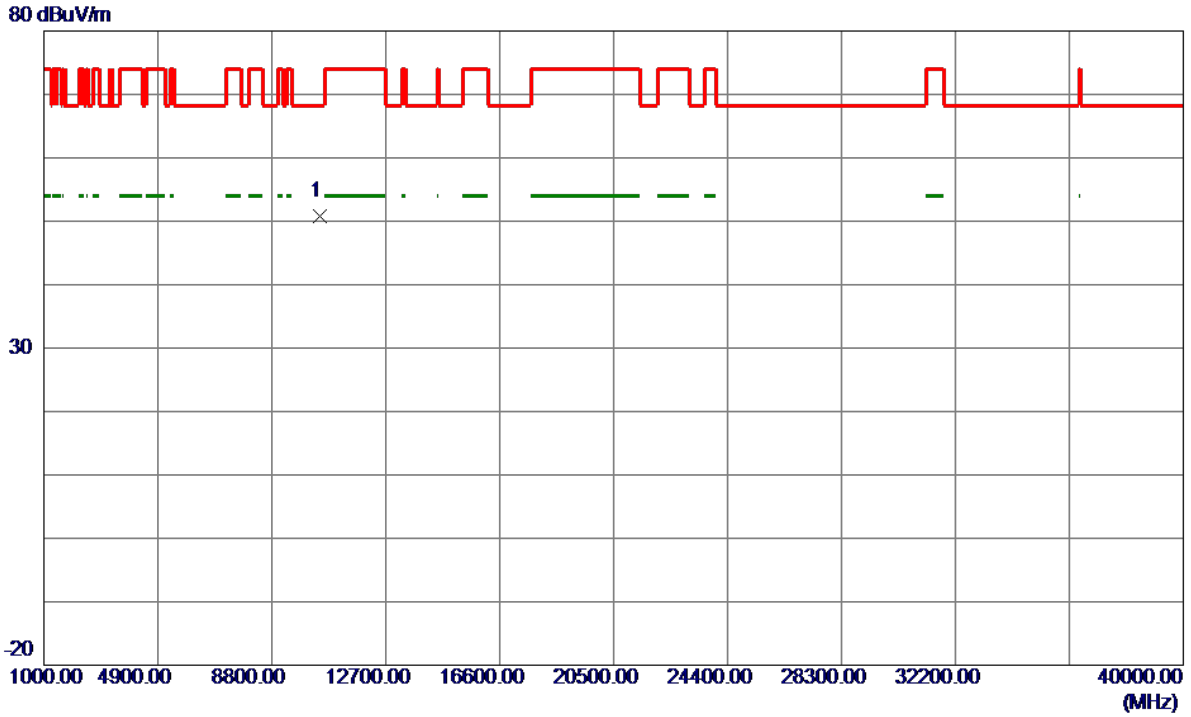
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5149.2000	41.74	21.03	62.77	74.00	-11.23	Peak	
2	5149.2000	31.76	21.03	52.79	54.00	-1.21	AVG	
3	5150.0000	39.01	21.03	60.04	74.00	-13.96	Peak	
4	5150.0000	30.86	21.03	51.89	54.00	-2.11	AVG	
5 *	5200.0000	79.22	21.21	100.43	68.30	32.13	Peak	No Limit
6	5228.0000	72.20	21.32	93.52	999.00	-905.48	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC80 Mode 5210MHz

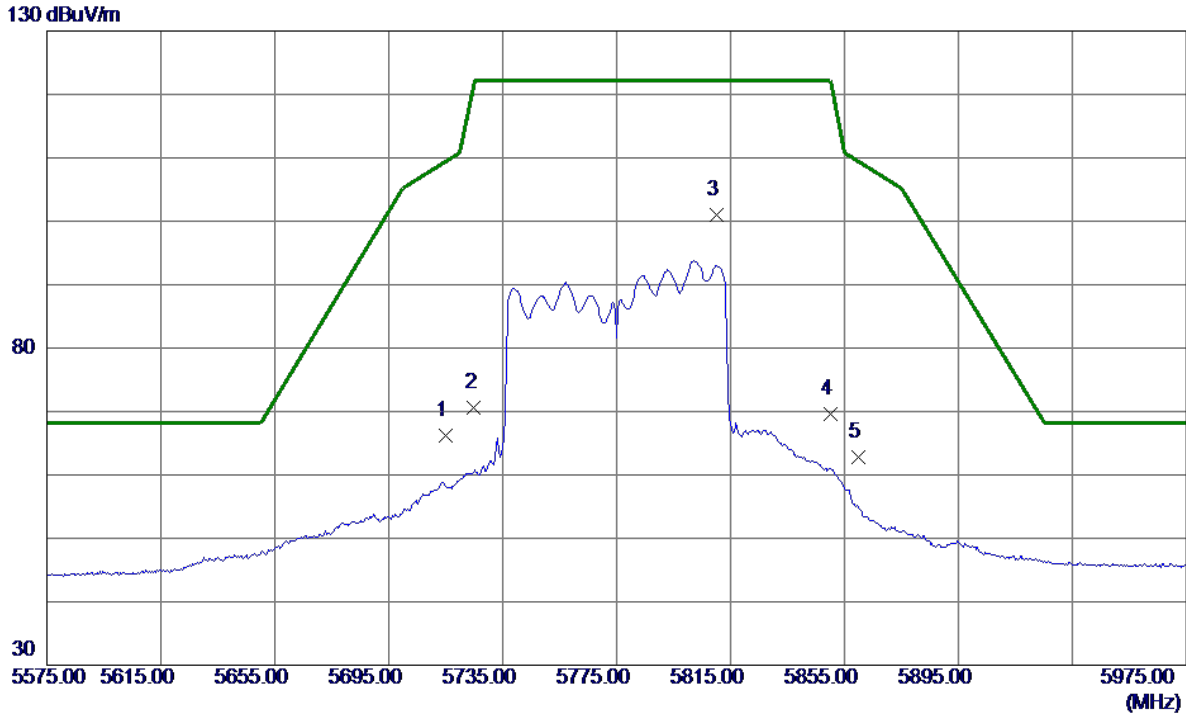
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10426.8000	30.48	20.37	50.85	68.30	-17.45	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX AC80 Mode 5775MHz

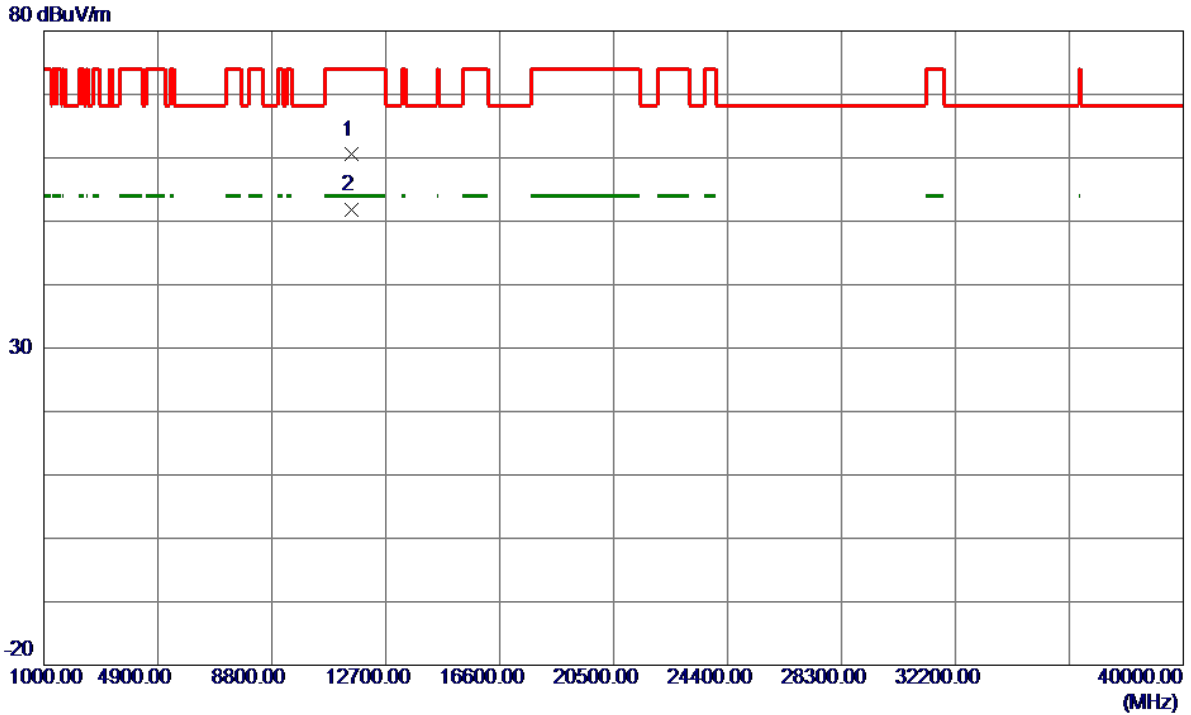
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	43.11	23.16	66.27	109.40	-43.13	Peak	
2	5725.0000	47.32	23.20	70.52	122.20	-51.68	Peak	
3 *	5810.2000	77.45	23.53	100.98	122.20	-21.22	Peak	
4	5850.0000	46.00	23.69	69.69	122.20	-52.51	Peak	
5	5860.0000	39.11	23.73	62.84	109.40	-46.56	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX AC80 Mode 5775MHz

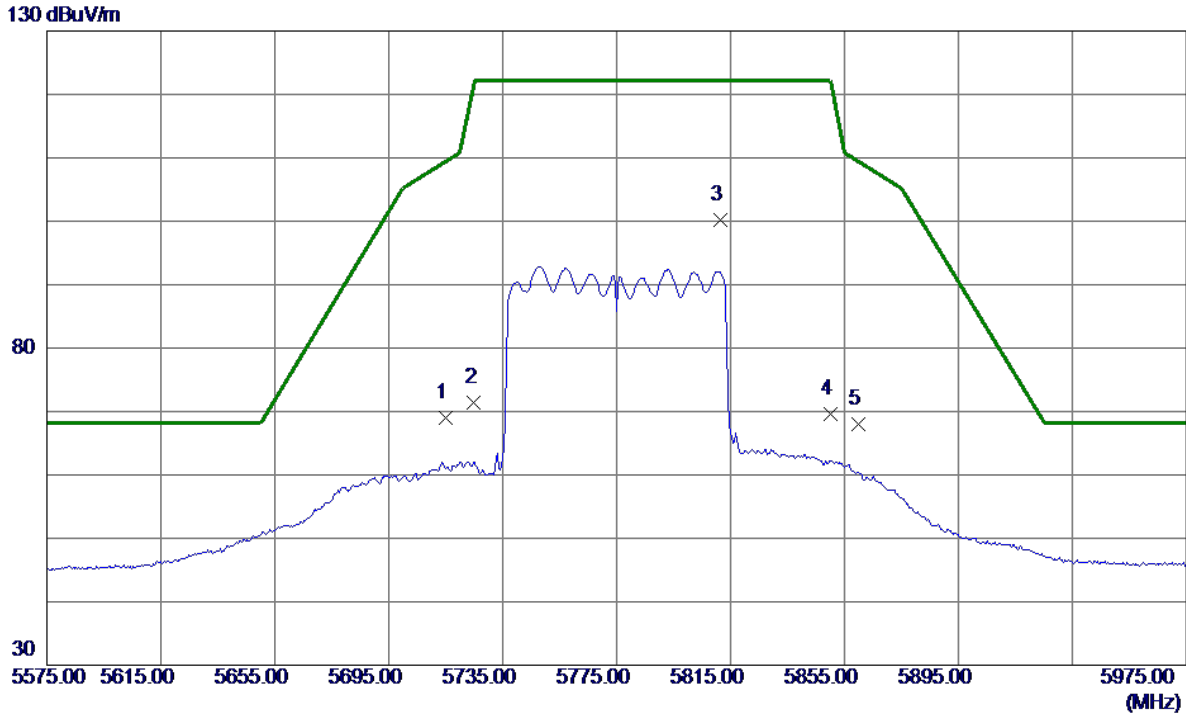
Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11547.1000	39.29	21.21	60.50	74.00	-13.50	Peak	
2 *	11550.3000	30.54	21.21	51.75	54.00	-2.25	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX AC80 Mode 5775MHz

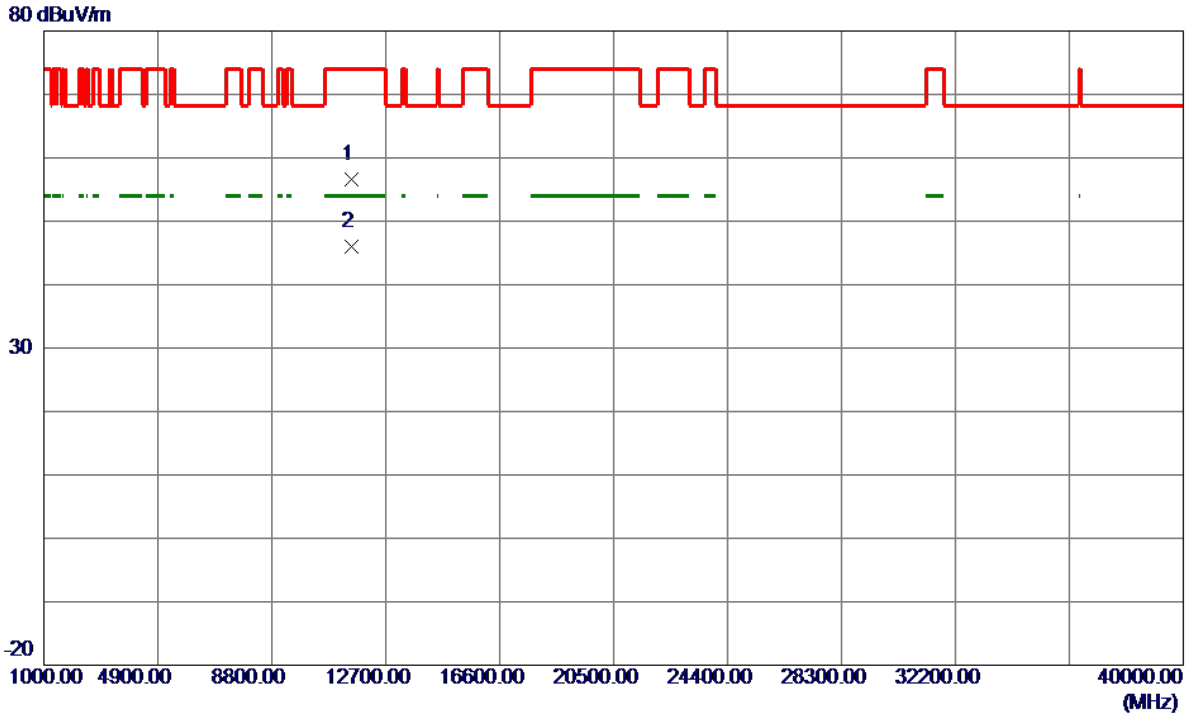
Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	45.87	23.16	69.03	109.40	-40.37	Peak	
2	5725.0000	48.14	23.20	71.34	122.20	-50.86	Peak	
3 *	5811.4000	76.61	23.54	100.15	122.20	-22.05	Peak	
4	5850.0000	45.90	23.69	69.59	122.20	-52.61	Peak	
5	5860.0000	44.27	23.73	68.00	109.40	-41.40	Peak	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX AC80 Mode 5775MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11543.2000	35.35	21.21	56.56	74.00	-17.44	Peak	
2 *	11550.4000	24.88	21.21	46.09	54.00	-7.91	AVG	

TX A Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

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

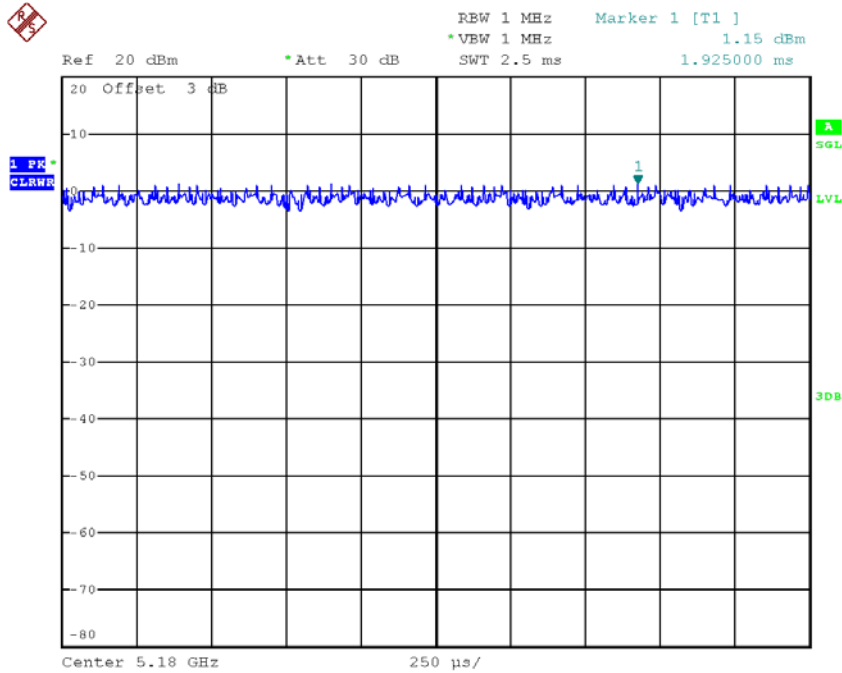
T_{ON} : 100000.000 msec

T_{Total} : 100000.000 msec

Duty cycle: 100.000%

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

Duty Factor = 0.00



Date: 1.JAN.2003 14:22:01

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

TX N20 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

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

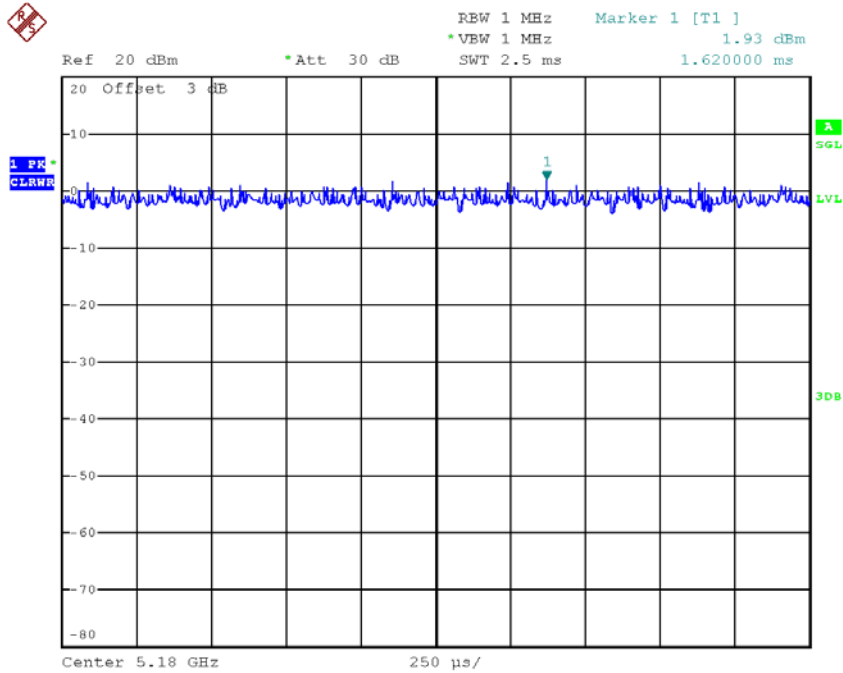
T_{ON} : 100000.000 msec

T_{Total} : 100000.000 msec

Duty cycle: 100.000%

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

Duty Factor = 0.00



Date: 1.JAN.2003 14:22:15

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

TX N40 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHz

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

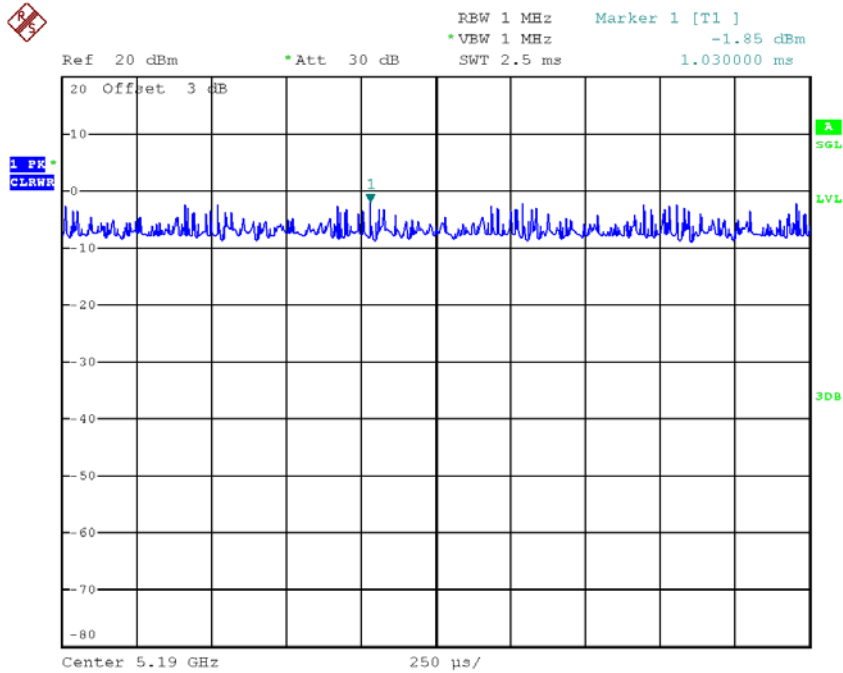
T_{ON} : 100000.000 msec

T_{Total} : 100000.000 msec

Duty cycle: 100.000%

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

Duty Factor = 0.00



Date: 1.JAN.2003 14:23:09

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

TX AC80 Mode_DUTY CYCLE

Duty cycle: TX DUTYMHZ

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

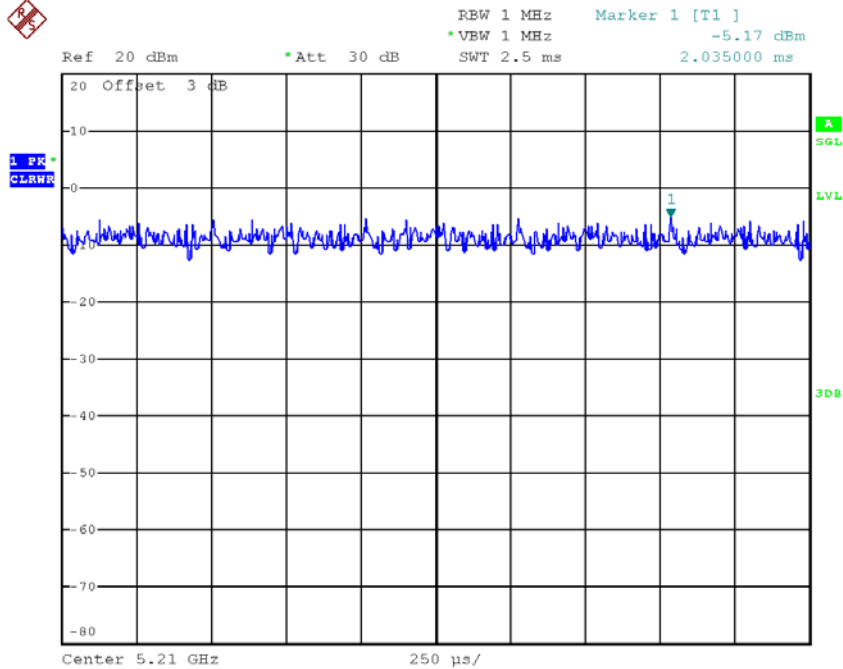
T_{ON} : 100000.000 msec

T_{Total} : 100000.000 msec

Duty cycle: 100.000%

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

Duty Factor = 0.00



Date: 1.JAN.2003 14:23:40

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

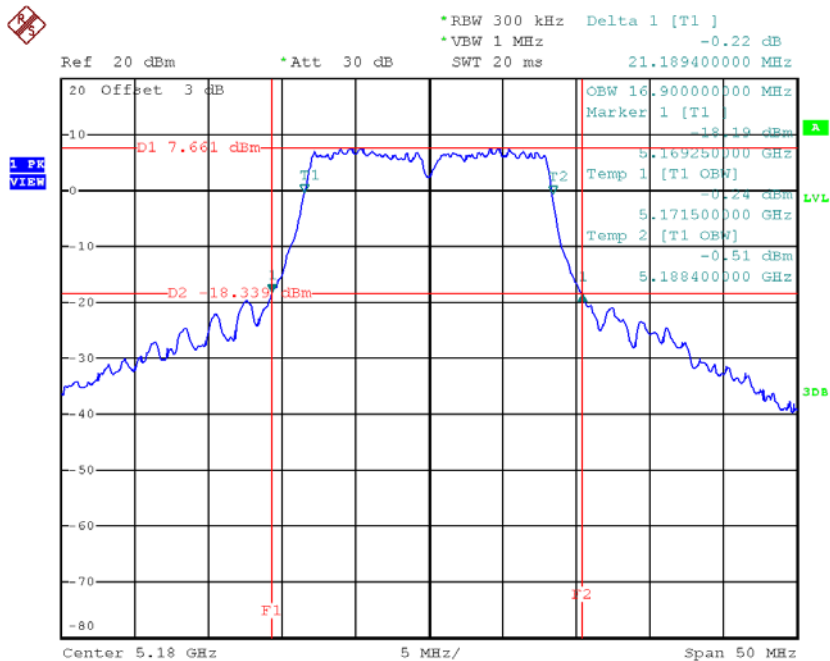
APPENDIX E - BANDWIDTH

Non Beamforming

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

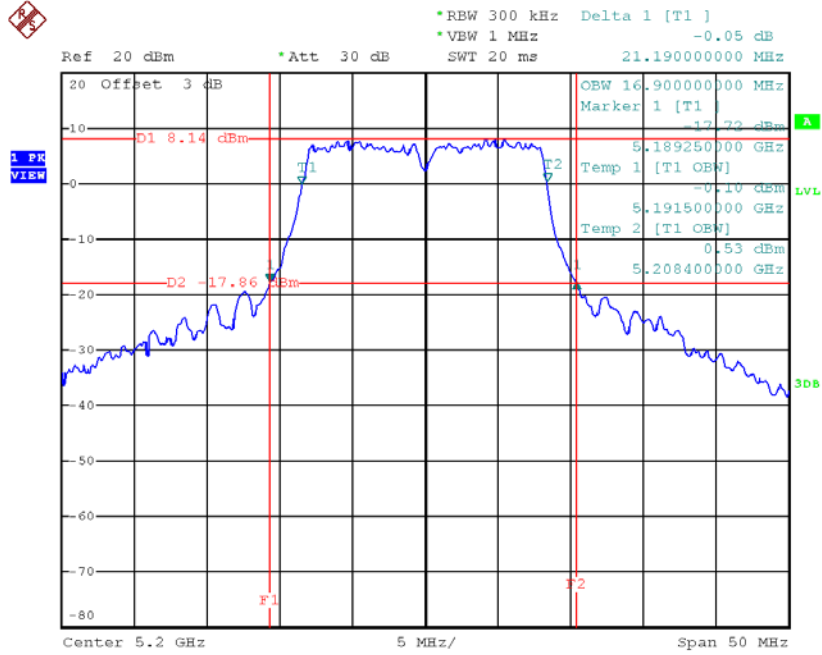
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	21.19	16.90
CH40	5200	21.19	16.90
CH48	5240	21.05	16.90

TX CH36



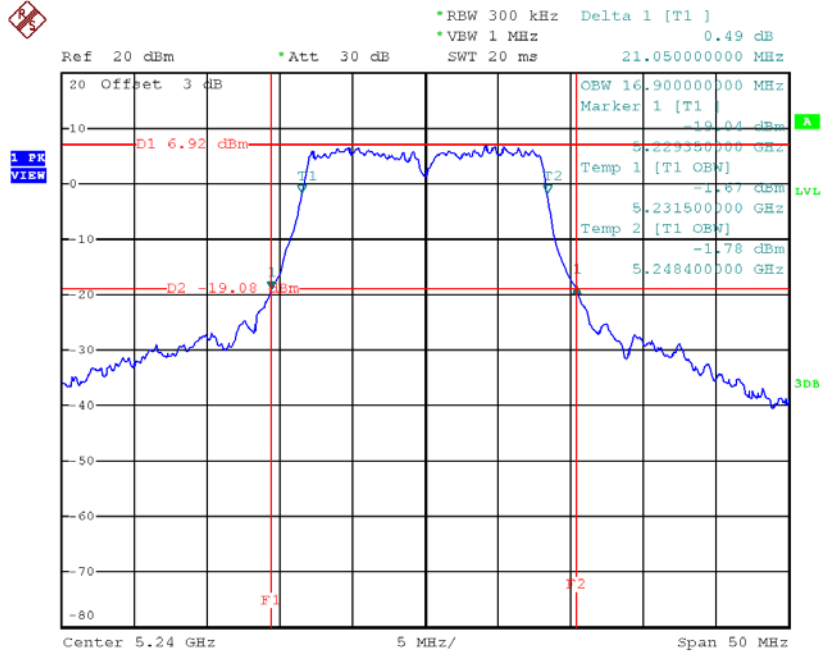
Date: 29.JUN.2018 15:11:34

TX CH40



Date: 29.JUN.2018 15:13:02

TX CH48

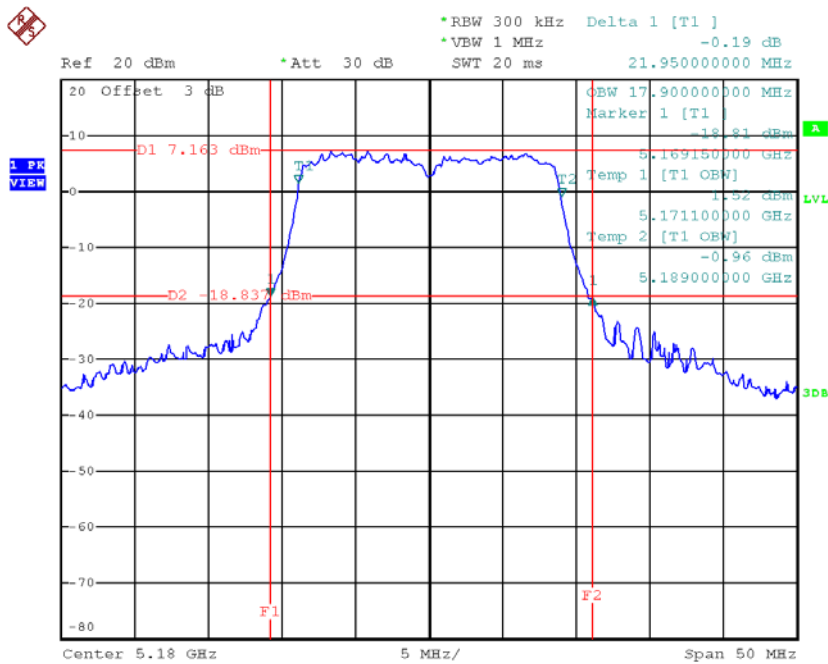


Date: 29.JUN.2018 15:14:21

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

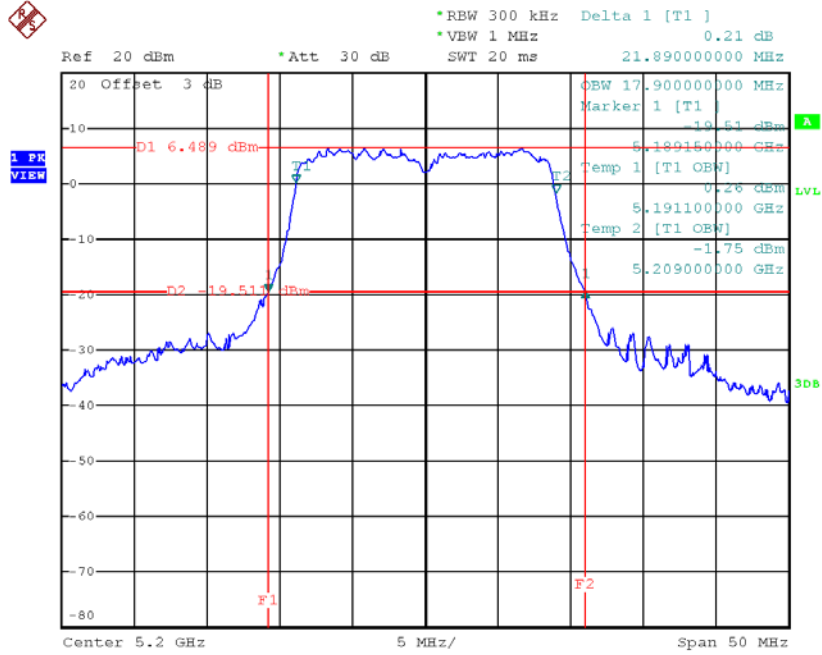
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	21.95	17.90
CH40	5200	21.89	17.90
CH48	5240	21.79	17.90

TX CH36



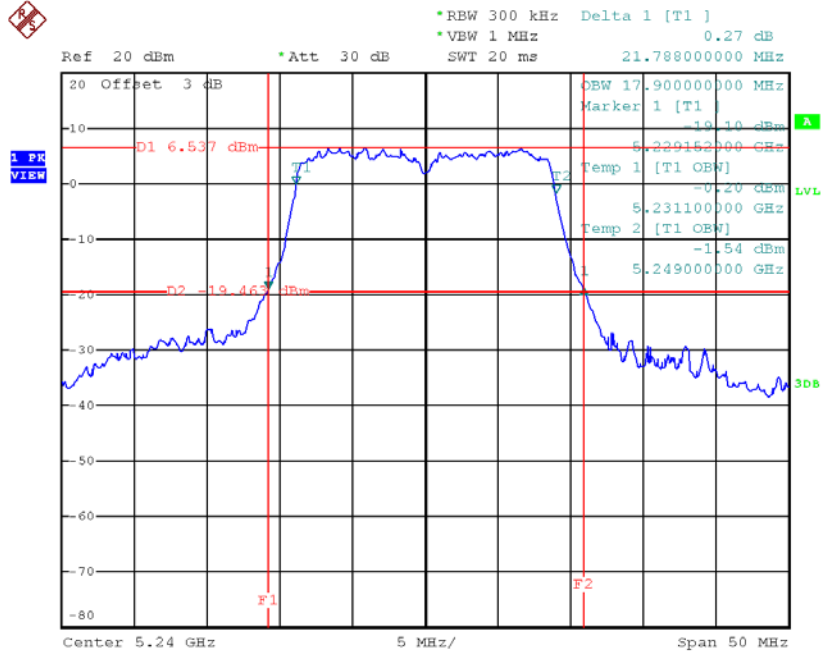
Date: 29.JUN.2018 16:26:35

TX CH40



Date: 29.JUN.2018 16:27:54

TX CH48

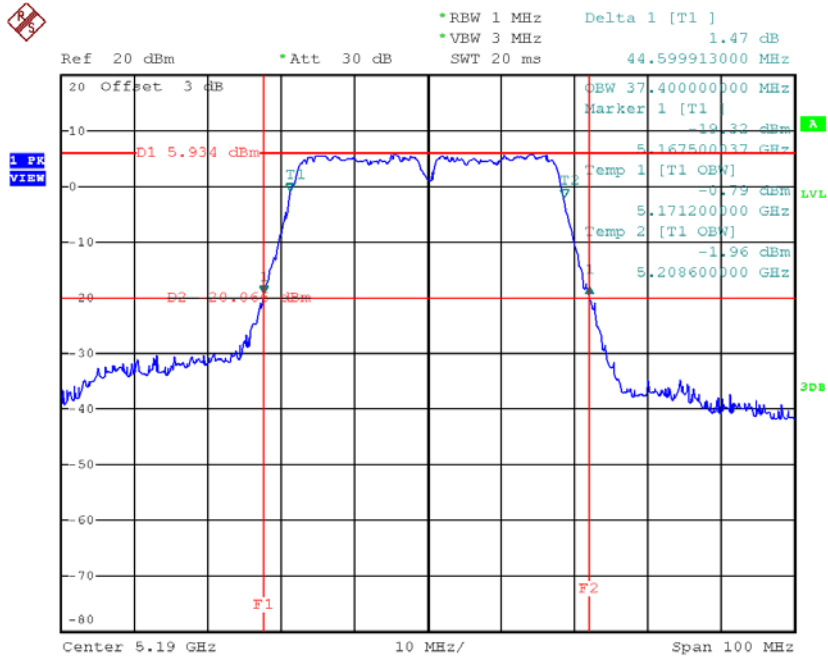


Date: 29.JUN.2018 16:29:14

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

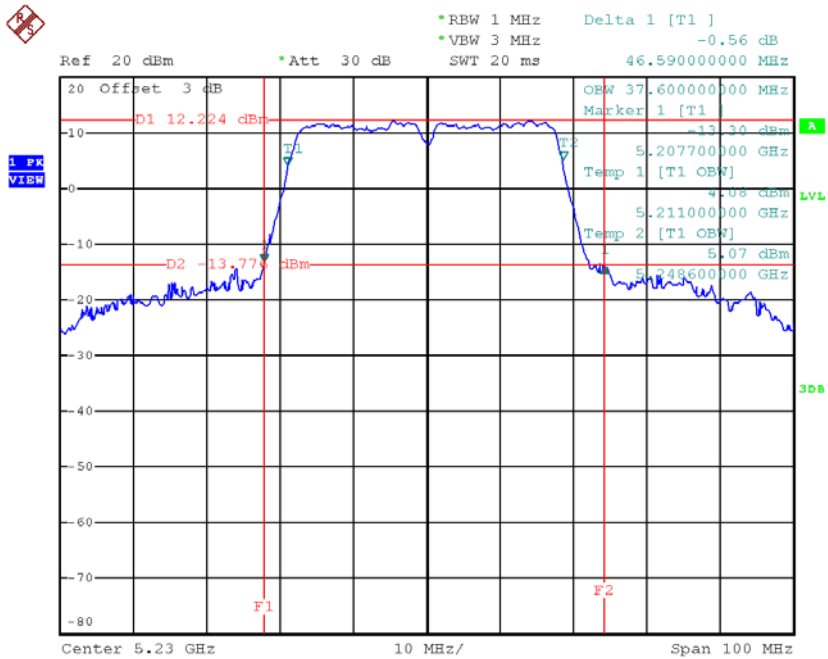
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH38	5190	44.60	37.40
CH46	5230	46.59	37.60

TX CH38



Date: 29.JUN.2018 16:45:22

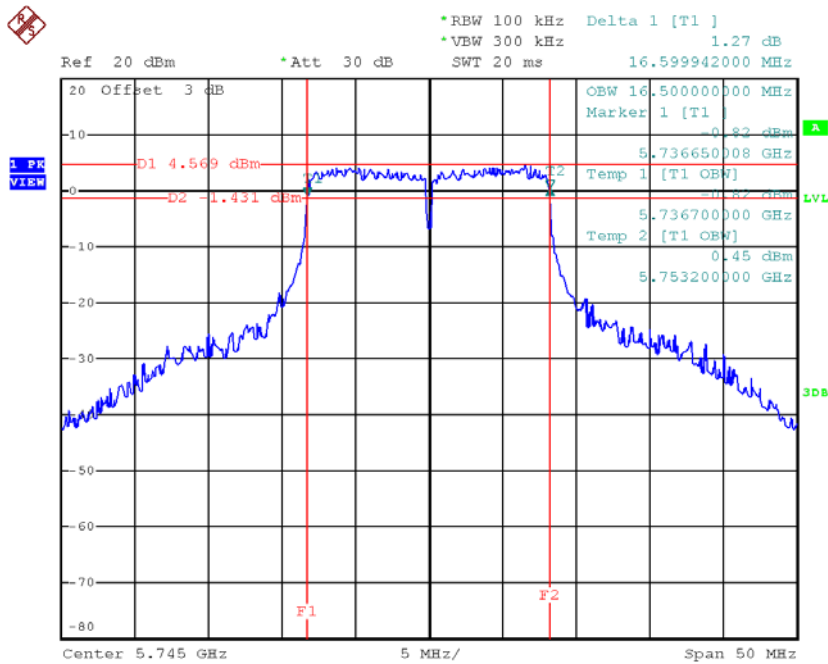
TX CH46



Date: 29.JUN.2018 16:46:56

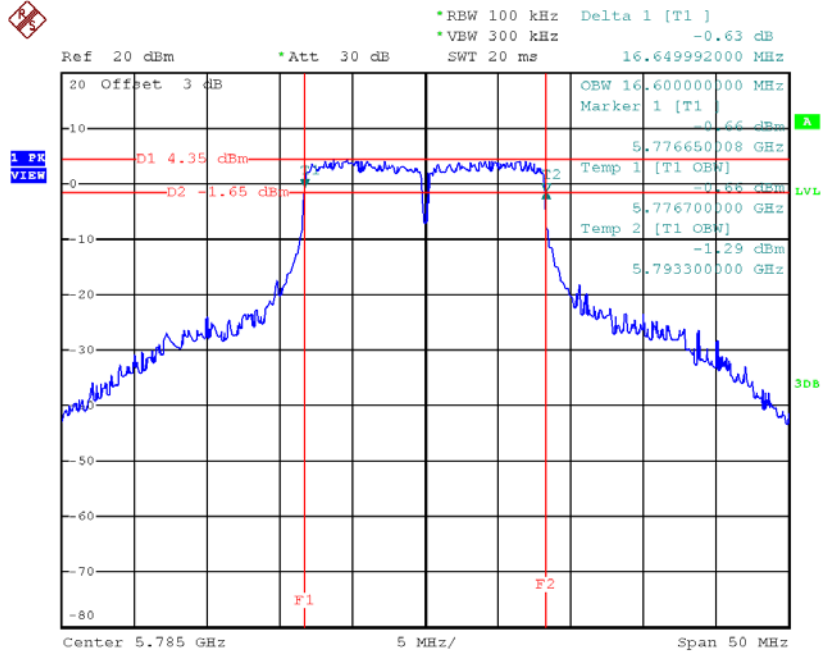
Test Mode: UNII-3/ TX A Mode_CH149/CH157/CH165

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	16.60	16.50	>=500
CH157	5785	16.65	16.60	>=500
CH165	5825	16.60	16.50	>=500

TX CH 149


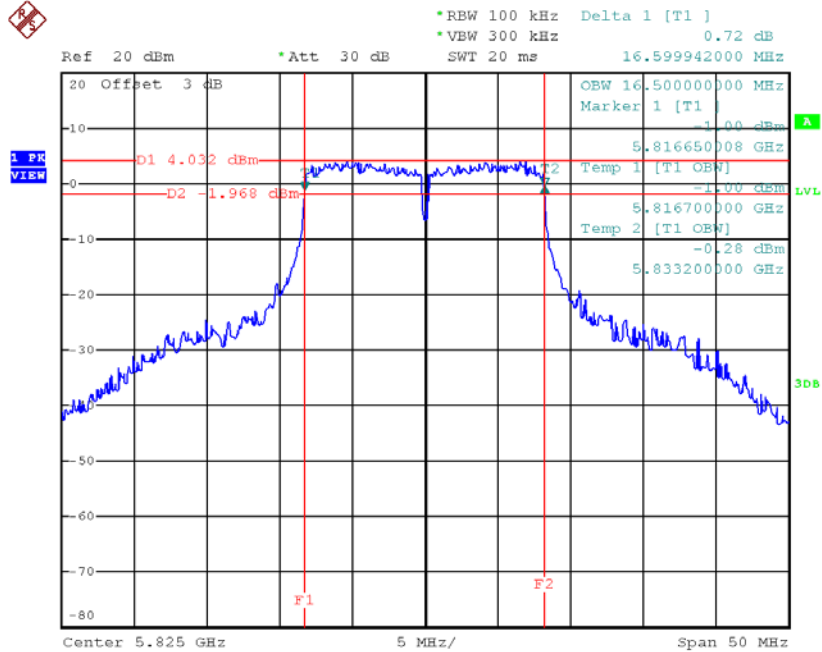
Date: 29.JUN.2018 15:32:38

TX CH 157



Date: 29.JUN.2018 15:34:42

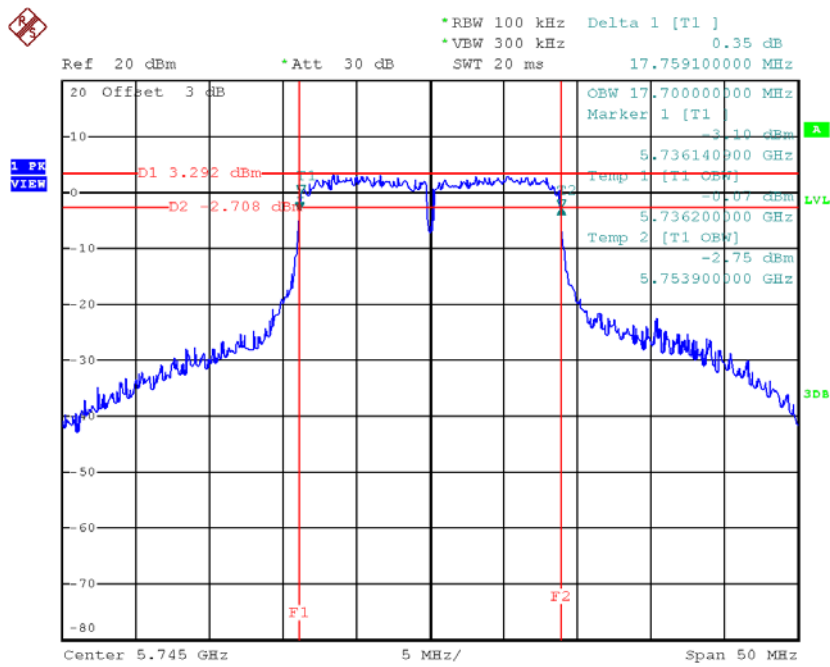
TX CH 165



Date: 29.JUN.2018 15:36:00

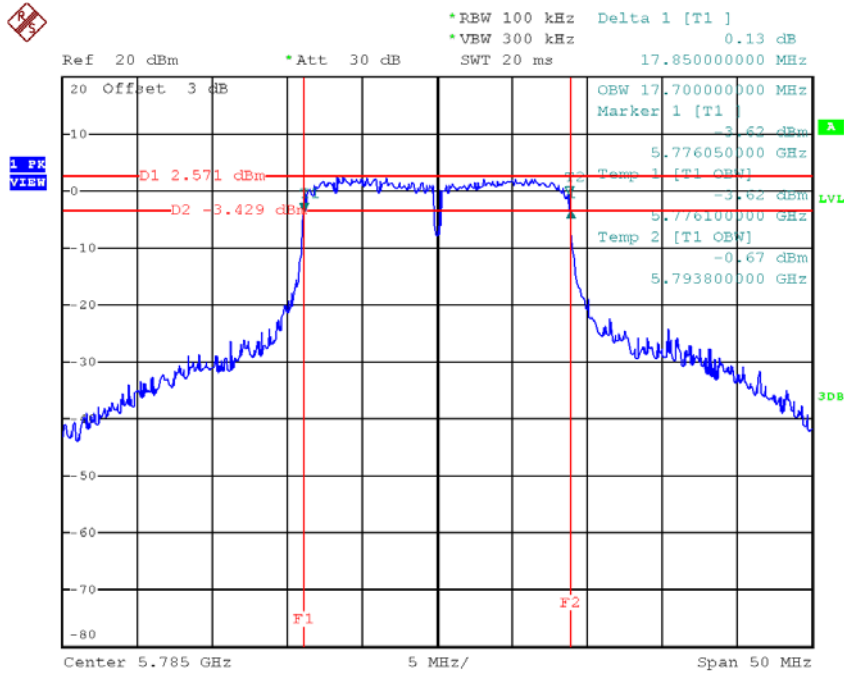
Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH149	5745	17.76	17.70	>=500
CH157	5785	17.85	17.70	>=500
CH165	5825	17.80	17.70	>=500

TX CH 149


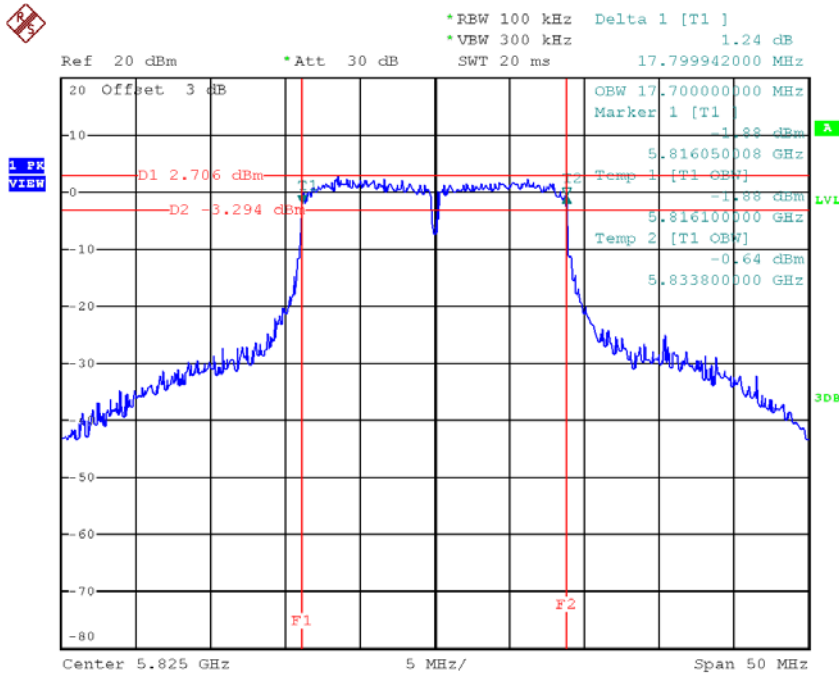
Date: 29.JUN.2018 16:30:34

TX CH 157



Date: 29.JUN.2018 16:32:14

TX CH 165

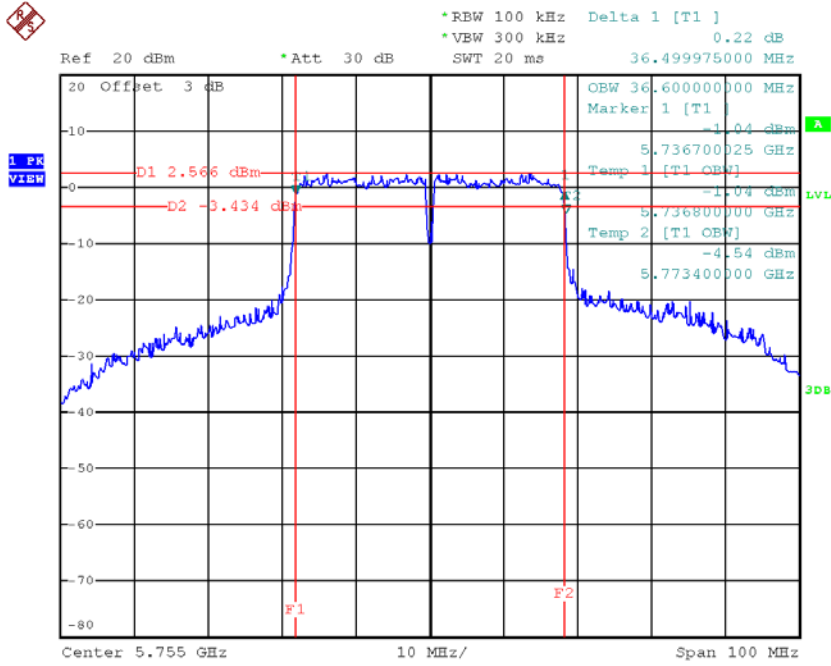


Date: 29.JUN.2018 16:33:38

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

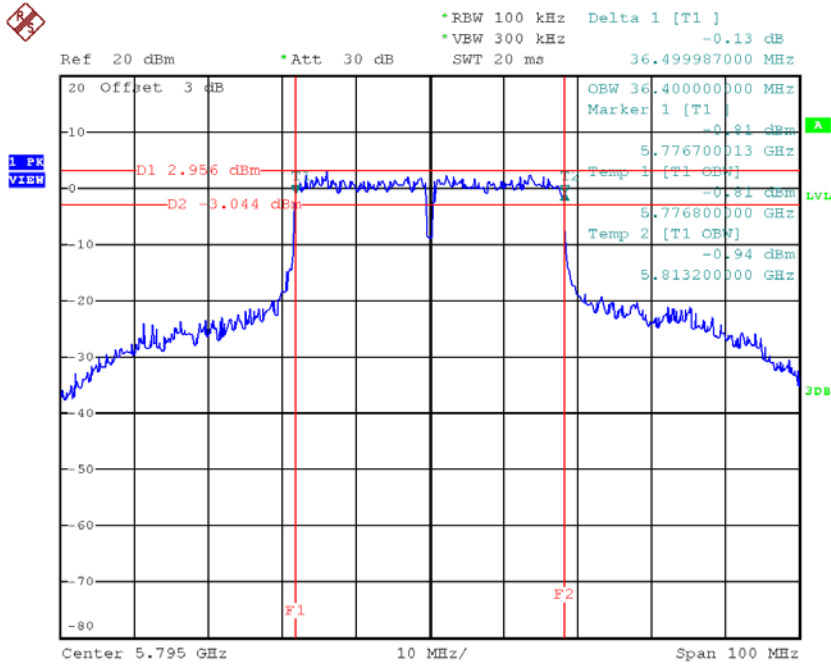
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH151	5755	36.50	36.60	≥ 500
CH159	5795	36.50	36.40	≥ 500

TX CH 151



Date: 29.JUN.2018 16:49:09

TX CH 159

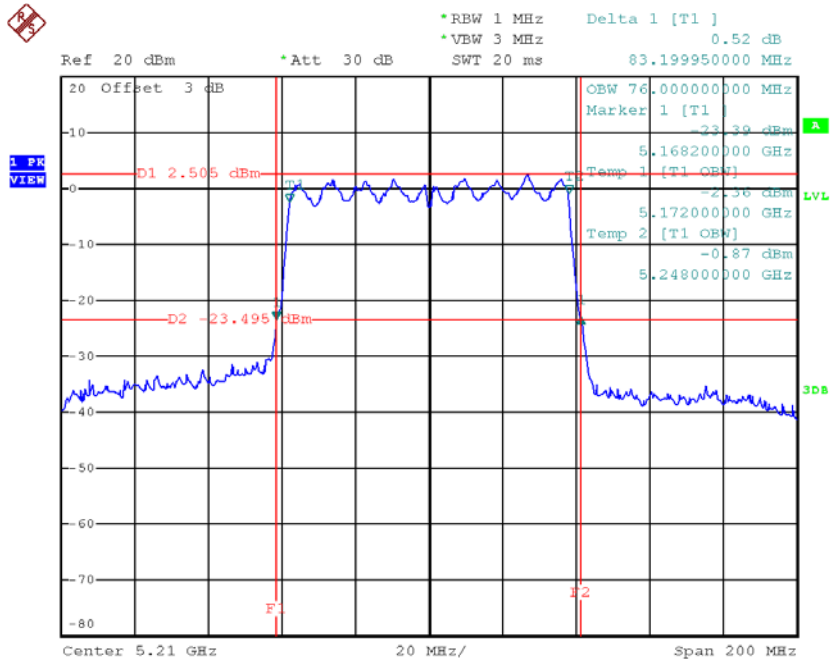


Date: 29.JUN.2018 16:50:46

Test Mode: UNII-1/TX AC80 Mode_CH42

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH42	5210	83.20	76.00

TX CH42

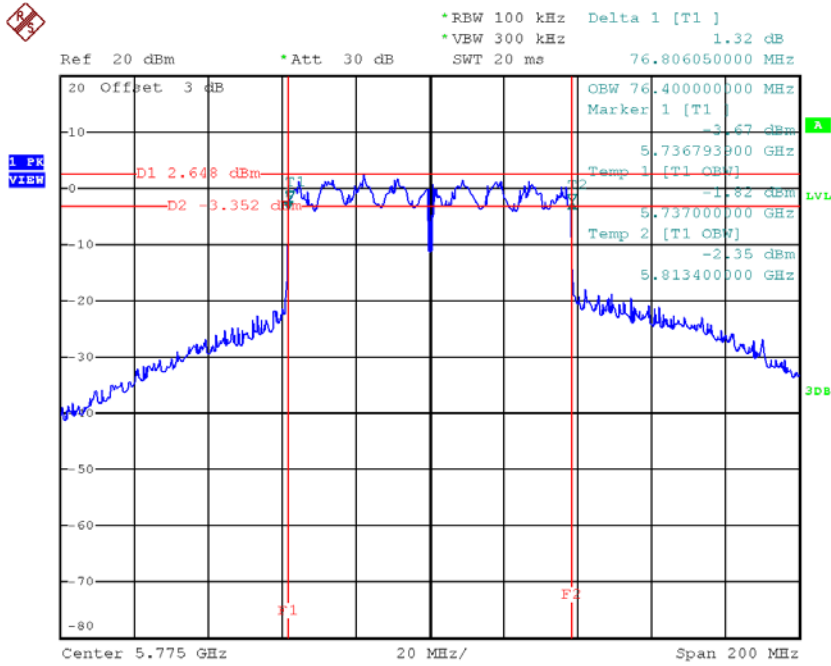


Date: 29.JUN.2018 17:00:41

Test Mode: UNII-3/ TX AC80 Mode_CH155

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (kHz)
CH155	5775	76.81	76.40	>=500

TX CH 155



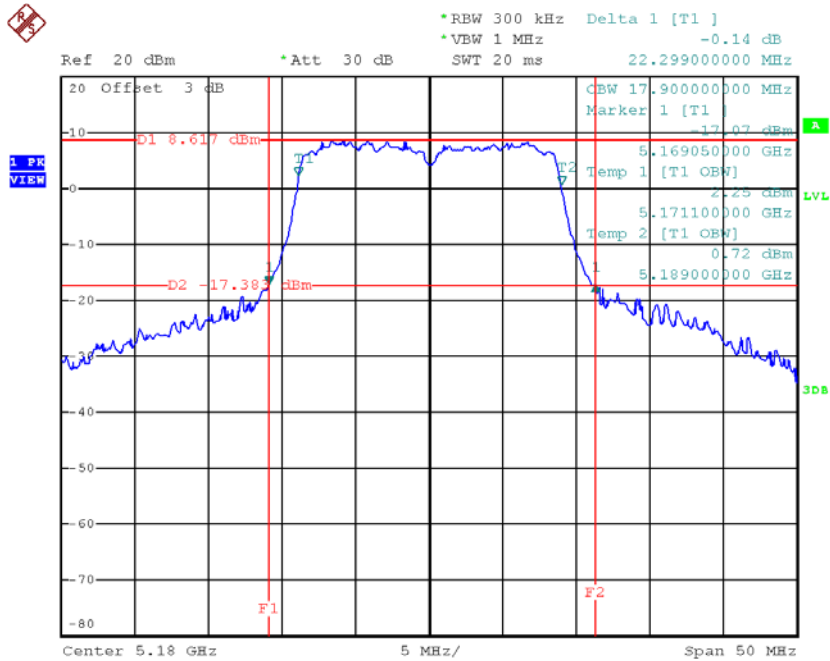
Date: 29.JUN.2018 17:02:09

With Beamforming

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

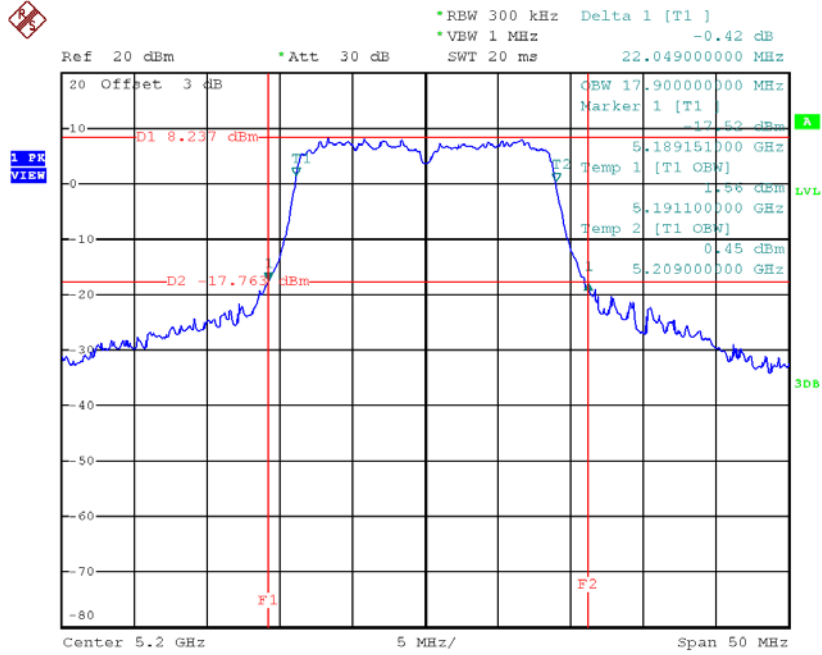
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	22.30	17.90
CH40	5200	22.05	17.90
CH48	5240	22.05	17.90

TX CH36



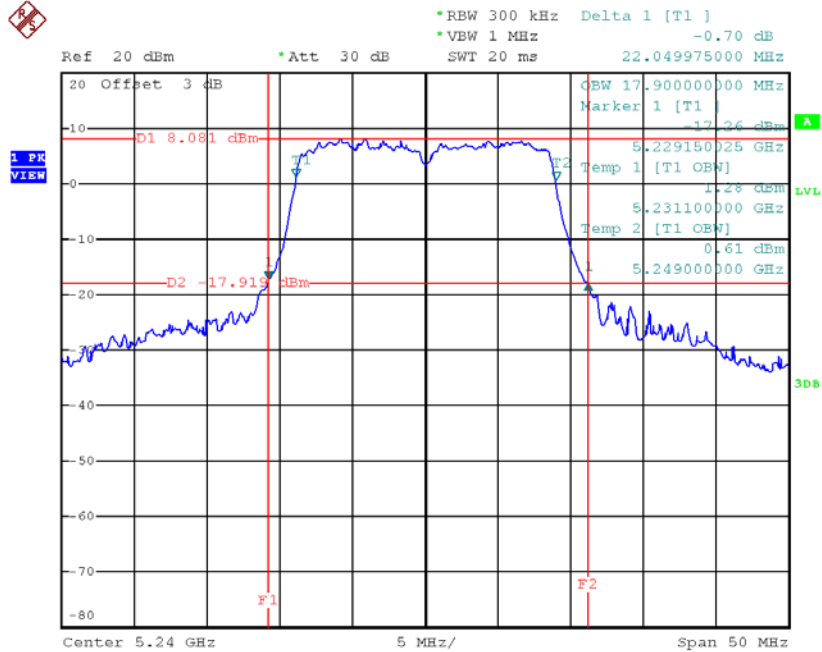
Date: 29.JUN.2018 18:04:05

TX CH40



Date: 29.JUN.2018 18:05:16

TX CH48



Date: 29.JUN.2018 18:06:25