FCC Radio Test Report

FCC ID: RWO-RZ040291

This report concerns: Original Grant

Project No.	:	1903C142
Equipment	:	Gaming Headset
Test Model	:	RZ04-0291
Series Model	:	RZ04-0291XXXX-XXXX (X: Can be 0-9, A-Z)
Applicant	:	Razer Inc.
Address	:	201 3rd Street, Suite 900, San Francisco, CA 94103 USA

Date of Receipt	:	Apr. 12, 2019
Date of Test	:	Apr. 13, 2019 ~ Jun. 26, 2019
Issued Date	:	Jul. 19, 2019
Tested by	:	BTL Inc.

Testing Engineer : Welly Zhou
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Certificate #5123.02

Declaration

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The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and 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.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 19, 2019

1. GENERAL SUMMARY

Equipment	:	Gaming Headset
Brand Name	:	RAZER
Test Model	:	RZ04-0291
Series Model	:	RZ04-0291XXXX-XXXX (X: Can be 0-9, A-Z)
Applicant	:	Razer Inc.
Manufacturer	:	Razer (Asia-Pacific) Pte.,Ltd.
Address	:	514 Chai Chee Lane, #07-01-06,Singapore 469029
Factory	:	RAZER TECHNOLOGY AND DEVELOPMENT (SHENZHEN) CO., LTD
Address	:	East Wing, 3rd Floor, Block 2, Phase 1 of Vision Shenzhen Business Park Keji South Road, Hi-Tech Industrial Park, Shenzhen 518057, China
Date of Test	:	Apr. 13, 2019 ~ Jun. 26, 2019
Test Sample	:	Engineering Sample No.: D190403813 for conducted, D190403814 for radiated.
Standard(s)	:	FCC Part15, Subpart E (15.407) ANSI C63.10-2013 FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc..
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-2-1903C142) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

Test results included in this report are only for the UNII-1, UNII-2A, UNII-2C 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**	**Test Result**	**Judgement**	**Remark**
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS	------
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	------
15.407(a) 15.407(e)	Spectrum Bandwidth	APPENDIX E	PASS	------
15.407(a)	Maximum Output Power	APPENDIX F	PASS	------
15.407(a)	Power Spectral Density	APPENDIX G	PASS	------
15.407(g)	Frequency Stability	APPENDIX H	PASS	------
15.203	Antenna Requirements	------	PASS	Note (4)
15.407(c)	Automatically Discontinue Transmission	------	PASS	Note (2)

Note:

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

(2) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

(3) For UNII-1 this device was functioned as a
☐ Access point device ☒ Client device

(4) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

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 Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))
The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

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

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9 kHz~30 MHz	V	3.79
		9 kHz~30 MHz	H	3.57
		30 MHz~200 MHz	V	3.82
		30 MHz~200 MHz	H	3.60
		200 MHz~1,000 MHz	V	3.86
		200 MHz~1,000 MHz	H	3.94
		1 GHz~18 GHz	V	3.12
		1 GHz~18 GHz	H	3.68
		18 GHz~40 GHz	V	4.15
		18 GHz~40 GHz	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	Gaming Headset
Brand Name	RAZER
Test Model	RZ04-0291
Series Model	RZ04-0291XXXX-XXXX (X: Can be 0-9, A-Z)
Model Difference(s)	It is the same as the basic model and X is used to define which country it is for under the same family series.
Hardware Version	DVT
Software Version	V1.0.11.99
Power Source	1# Supplied from USB port. 2# Supplied from battery. Brand / Model: Grand-Pro / PL503450-3.7V-1200mAh 1S1P
Power Rating	1# DC 5V 500mA 2# DC 3.7V 1200mA
Operation Frequency	UNII-1: 5150 MHz ~ 5250 MHz UNII-2A: 5250 MHz ~ 5350 MHz UNII-2C: 5470 MHz ~ 5600 MHz & 5650 MHz ~ 5725 MHz UNII-3: 5725 MHz ~ 5850 MHz
Modulation Type	OFDM
Bit Rate of Transmitter	Up to 65 Mbps
Maximum Output Power for UNII-1	IEEE 802.11a: -2.03 dBm (0.0006 W) IEEE 802.11n (HT20): -2.13 dBm (0.0006 W)
Maximum Output Power for UNII-2A	IEEE 802.11a: 0.21 dBm (0.0010 W) IEEE 802.11n (HT20): 0.18 dBm (0.0010 W)
Maximum Output Power for UNII-2C	IEEE 802.11a: 1.68 dBm (0.0015 W) IEEE 802.11n (HT20): 1.50 dBm (0.0014 W)
Maximum Output Power for UNII-3	IEEE 802.11a: -7.76 dBm (0.0002 W) IEEE 802.11n (HT20): -7.88 dBm (0.0002 W)

Note:

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

2. Channel List:

IEEE 802.11a IEEE 802.11n (HT20)			
UNII-1		UNII-2A	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	52	5260
40	5200	56	5280
44	5220	60	5300
48	5240	64	5320

IEEE 802.11a IEEE 802.11n (HT20)			
UNII-2C		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	149	5745
104	5520	153	5765
108	5540	157	5785
112	5560	161	5805
116	5580	165	5825
132	5660		
136	5680		
140	5700		

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Printed	N/A	3.92

3.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 4	TX N (HT20) Mode / CH52, CH60, CH64 (UNII-2A)
Mode 5	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 6	TX N (HT20) Mode / CH100, CH116, CH140 (UNII-2C)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX A Mode / CH100 (UNII-2C)

Following mode(s) as (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode	Description
Mode 9	TX A Mode / CH100 (UNII-2C)

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 9	TX A Mode / CH100 (UNII-2C)

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 4	TX N (HT20) Mode / CH52, CH60, CH64 (UNII-2A)
Mode 5	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 6	TX N (HT20) Mode / CH100, CH116, CH140 (UNII-2C)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)

Conducted test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 4	TX N (HT20) Mode / CH52, CH60, CH64 (UNII-2A)
Mode 5	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 6	TX N (HT20) Mode / CH100, CH116, CH140 (UNII-2C)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)

Note:
(1) For radiated emission below 1 GHz test, the IEEE 802.11a channel 100 is found to be the worst case and recorded.
(2) For radiated emission above 1 GHz test, 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

3.3 PARAMETERS OF TEST SOFTWARE

UNII-1			
Test Software	artgui		
Test Frequency (MHz)	5180	5200	5240
IEEE 802.11a	8dBm	8dBm	8dBm
IEEE 802.11n (HT20)	8dBm	8dBm	8dBm

UNII-2A			
Test Software	artgui		
Test Frequency (MHz)	5260	5300	5320
IEEE 802.11a	8dBm	8dBm	8dBm
IEEE 802.11n (HT20)	8dBm	8dBm	8dBm

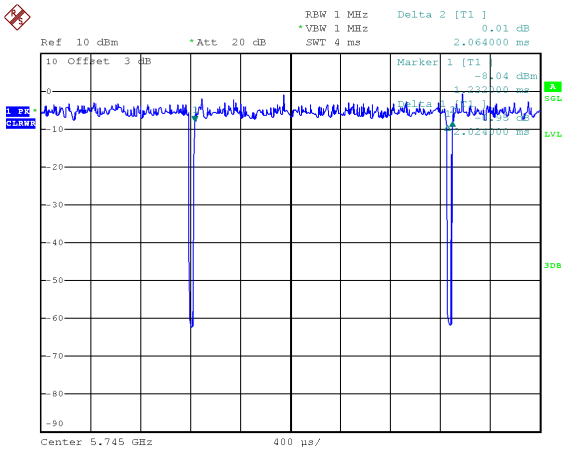
UNII-2C			
Test Software	artgui		
Test Frequency (MHz)	5500	5580	5700
IEEE 802.11a	8dBm	8dBm	8dBm
IEEE 802.11n (HT20)	8dBm	8dBm	8dBm

UNII-3			
Test Software	artgui		
Test Frequency (MHz)	5745	5785	5825
IEEE 802.11a	8dBm	8dBm	8dBm
IEEE 802.11n (HT20)	8dBm	8dBm	8dBm

3.4 DUTY CYCLE

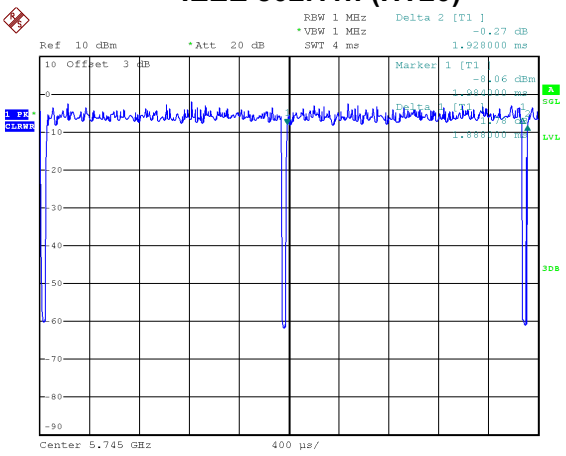
If duty cycle is ≥ 98 %, duty factor is not required.
If duty cycle is < 98 %, duty factor shall be considered.

IEEE 802.11a



Duty cycle = 2.024 ms / 2.064 ms = 98.06%
Duty Factor = 10 * log(1 / 98.06%) = 0.00 dB

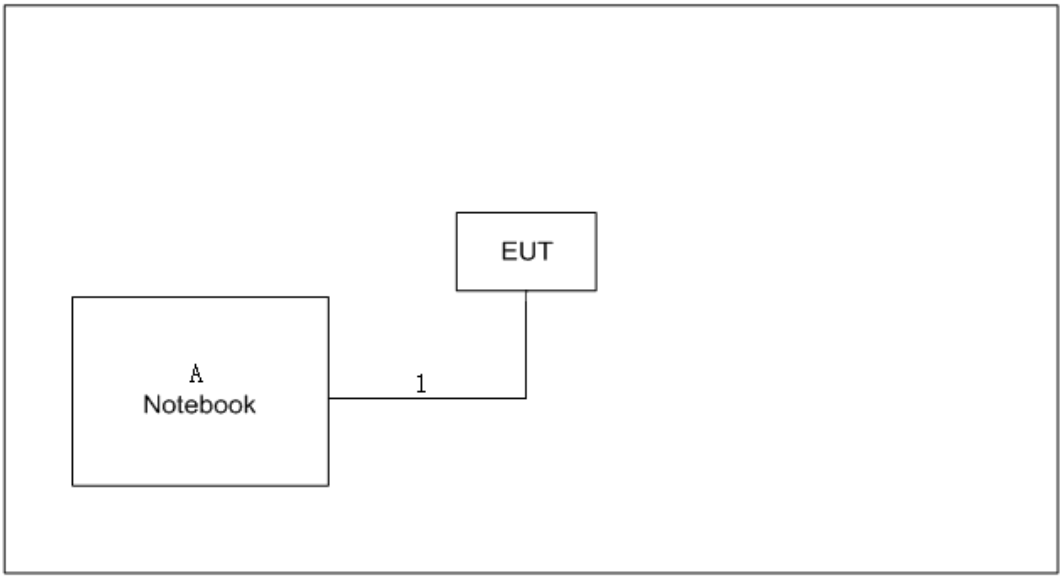
IEEE 802.11n (HT20)



Duty cycle = 1.888 ms / 1.928 ms = 97.93%
Duty Factor = 10 * log(1 / 97.93%) = 0.09 dB

NOTE:
For IEEE 802.11a and IEEE 802.11n (HT20):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Lenovo	G410	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	NO	NO	1.5m

4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 46*
0.50 - 5.0	56	46
5.0 - 30.0	60	50

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.

The following table is the setting of the receiver

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

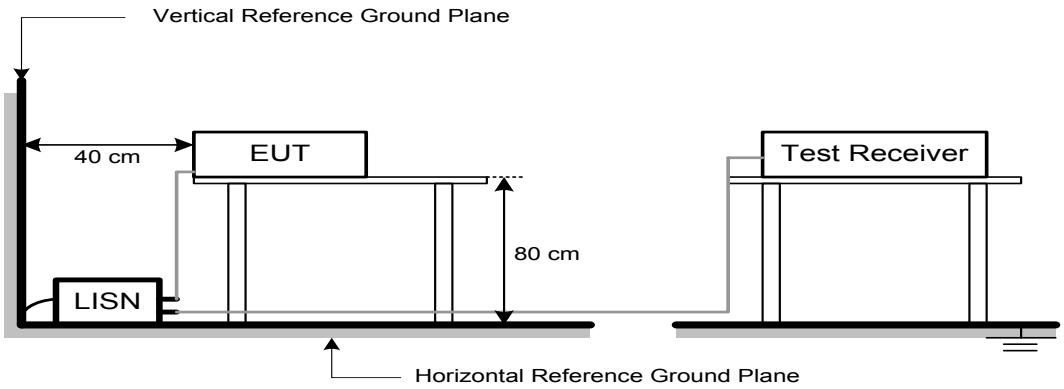
4.2 TEST PROCEDURE

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 equipment 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.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION 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.

4.6 EUT TEST CONDITIONS

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

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 LIMIT

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.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency (MHz)	Field Strength (microvolts/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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5600 5650-5725	-27	68.3
5725-5850	-27 NOTE (2)	68.3
	10 NOTE (2)	105.3
	15.6 NOTE (2)	110.9
	27 NOTE (2)	122.3

NOTE:

(1) The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E = \frac{1000000\sqrt{30P}}{3}$ μV/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 25 MHz 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 27 dBm/MHz at the band edge.

5.2 TEST PROCEDURE

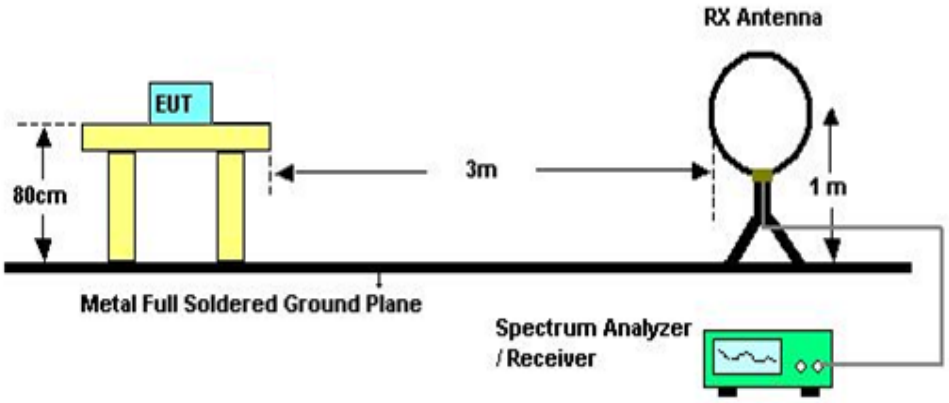
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
b. The measuring distance 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 1 GHz.
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 1 GHz)
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 1 GHz)
i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

5.3 DEVIATION FROM TEST STANDARD

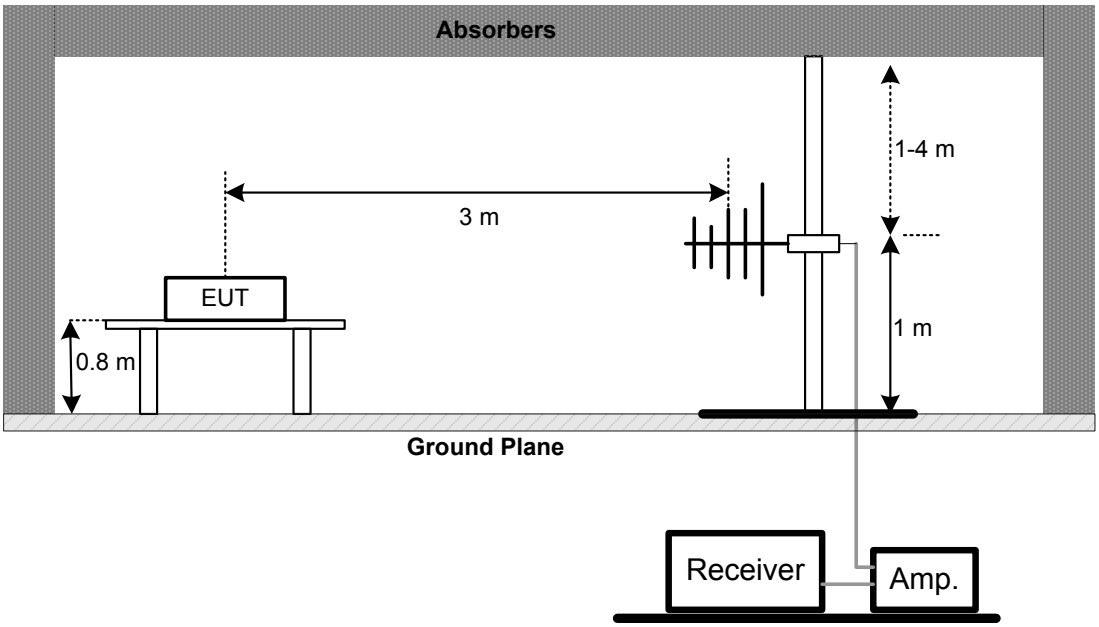
No deviation

5.4 TEST SETUP

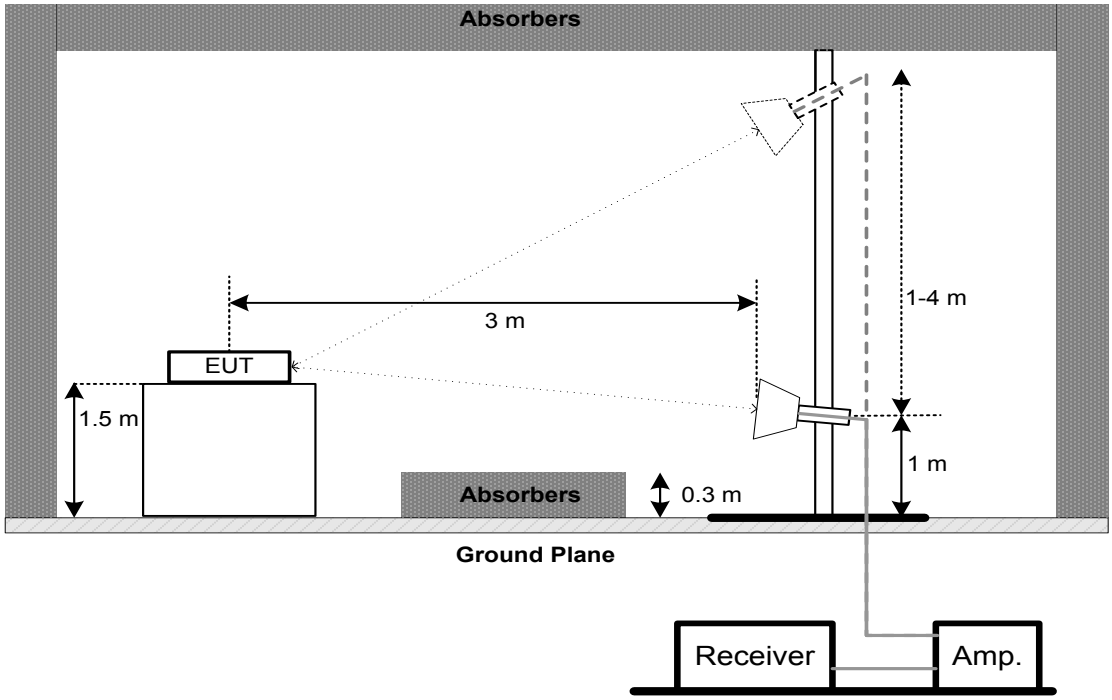
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz



5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.5 unless otherwise a special operating condition is specified in the follows during the testing.

5.6 EUT TEST CONDITIONS

Temperature: 24°C Relative Humidity: 68% Test Voltage: DC 5V

5.7 TEST RESULTS - 9 KHZ to 30 MHZ

Please refer to the APPENDIX B

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBuV) + distance extrapolation factor.

5.8 TEST RESULTS - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

5.9 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.

6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a) 15.407(e)	26 dB Bandwidth	-	5150-5250
	26 dB Bandwidth	-	5250-5350
	26 dB Bandwidth	-	5470-5600 5650-5725
	6 dB Bandwidth	Minimum 500 kHz	5725-5850

6.2 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 Setting:

For UNII-1, UNII-2A, UNII-2C:

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

For UNII-3:

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	6 dB Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

c. Measured the spectrum width with power higher than 26 dB / 6dB below carrier

6.3 TEST PROCEDURE

No deviation.

6.4 TEST SETUP

6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 60% Test Voltage: DC 5V

6.7 TEST RESULTS

Please refer to the APPENDIX E.

7. MAXIMUM OUTPUT POWER TEST

7.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Maximum Output Power	AP device: 1 Watt (30 dBm) Client device: 250 mW (24 dBm)	5150-5250
		250 mW (24 dBm)	5250-5350
		250 mW (24 dBm)	5470-5600 5650-5725
		1 Watt (30dBm)	5725-5850

Note:

a. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

b. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

7.2 TEST PROCEDURE

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

b. Used spectrum analyzer band power measurement function.

c. Spectrum Setting

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

d. Test test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP

7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 60% Test Voltage: DC 5V

7.7 TEST RESULTS

Please refer to the APPENDIX F.

8. POWER SPECTRAL DENSITY TEST

8.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(a)	Power Spectral Density	AP device: 17 dBm/MHz Client device: 11 dBm/MHz	5150-5250
		11 dBm/MHz	5250-5350
		11 dBm/MHz	5470-5600 5650-5725
		30 dBm/500 kHz	5725-5850

8.2 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 Setting

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

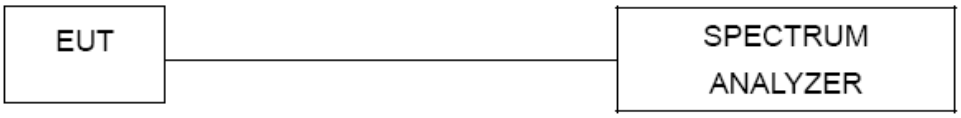
Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 1 MHz and VBW at 3 MHz if the spectrum analyzer does not have 500 kHz RBW.
2. The value measured with RBW=1 MHz is to be added with 10log(500 kHz/1 MHz) which is -3 dB. For example, if the measured value is +10dBm using RBW=1 MHz (that is +10 dBm/MHz), then the converted value will be +7dBm/500kHz.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 UT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 60% Test Voltage: DC 5V

8.7 TEST RESULTS

Please refer to the APPENDIX H.

9. FREQUENCY STABILITY MEASUREMENT

9.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(g)	Frequency Stability	Specified in the user's manual	5150-5250
			5250-5350
			5470-5600 5650-5725
			5725-5850

9.2 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 Setting:

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

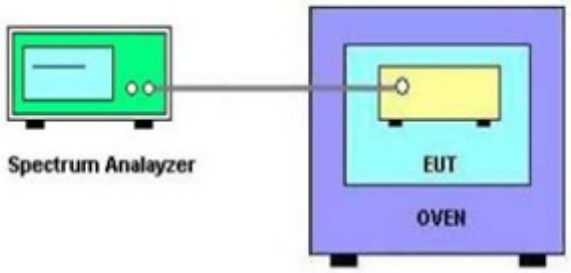
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is 0°C~45°C.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.6 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 60% Test Voltage: DC 5V

9.7 TEST RESULTS

Please refer to the APPENDIX I.

10. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 10, 2020
2	TWO-LINE V-NETWORK	R&S	ENV216	100526	Mar. 10, 2020
3	EMI Test Receiver	R&S	ESR3	101862	Aug. 11, 2019
4	Artificial-Mains Network	SCHWARZBECK	NSLK 8127	8127685	Mar. 10, 2020
5	TRANSIENT LIMITER	EM	EM-7600	772	Mar. 10, 2020
6	Cable	N/A	N/A(6m)	N/A	Mar. 12, 2020
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2020
2	Cable	N/A	RG 213/U	C-102	May 31, 2020
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 24, 2020
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

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2019
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
5	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jul. 30, 2019
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

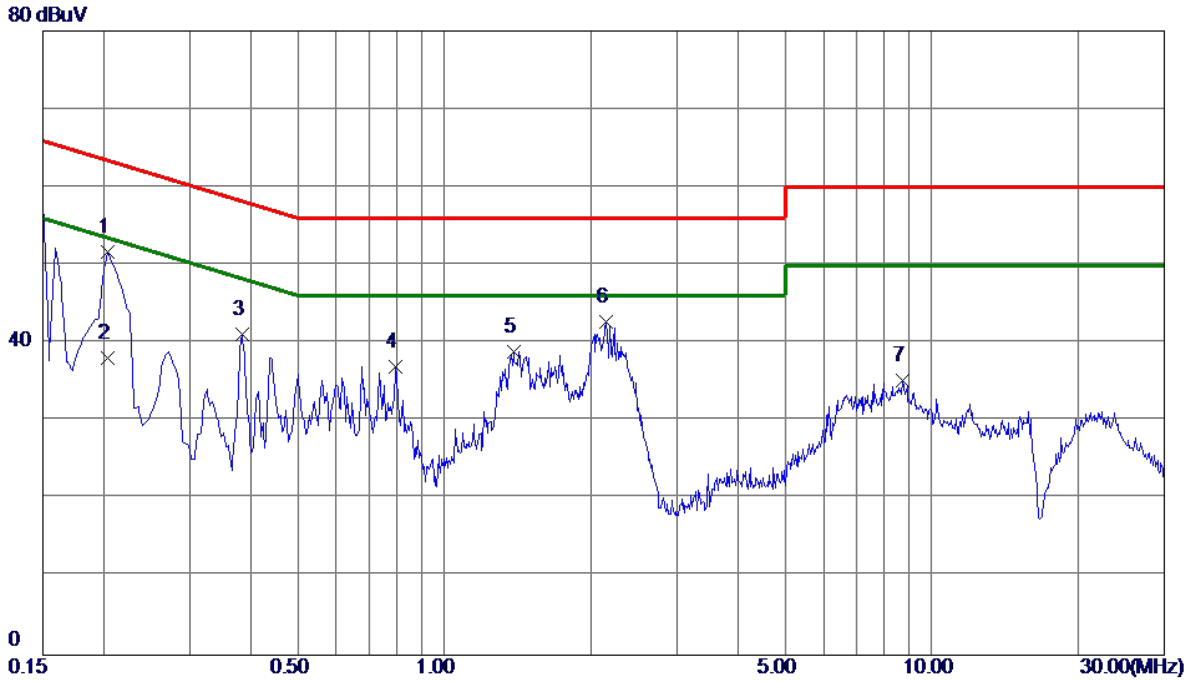
Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 10, 2020

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

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode:	TX A Mode Channel 100

Line

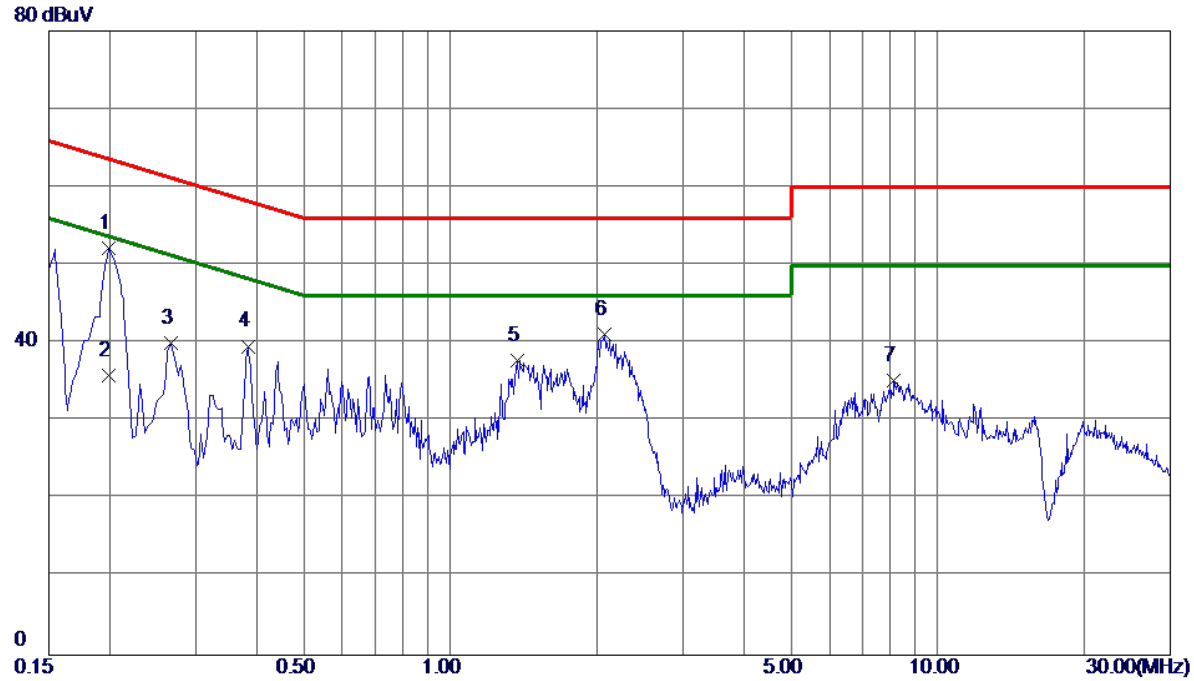


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.2040	41.14	10.48	51.62	63.45	-11.83	Peak	
2	0.2040	27.60	10.48	38.08	53.45	-15.37	AVG	
3	0.3840	30.69	10.49	41.18	58.19	-17.01	Peak	
4	0.7935	26.47	10.53	37.00	56.00	-19.00	Peak	
5	1.3875	28.30	10.59	38.89	56.00	-17.11	Peak	
6	2.1480	32.09	10.65	42.74	56.00	-13.26	Peak	
7	8.7180	24.34	10.90	35.24	60.00	-24.76	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) The test result has included the cable loss.

Test Mode:	TX A Mode Channel 100

Neutral



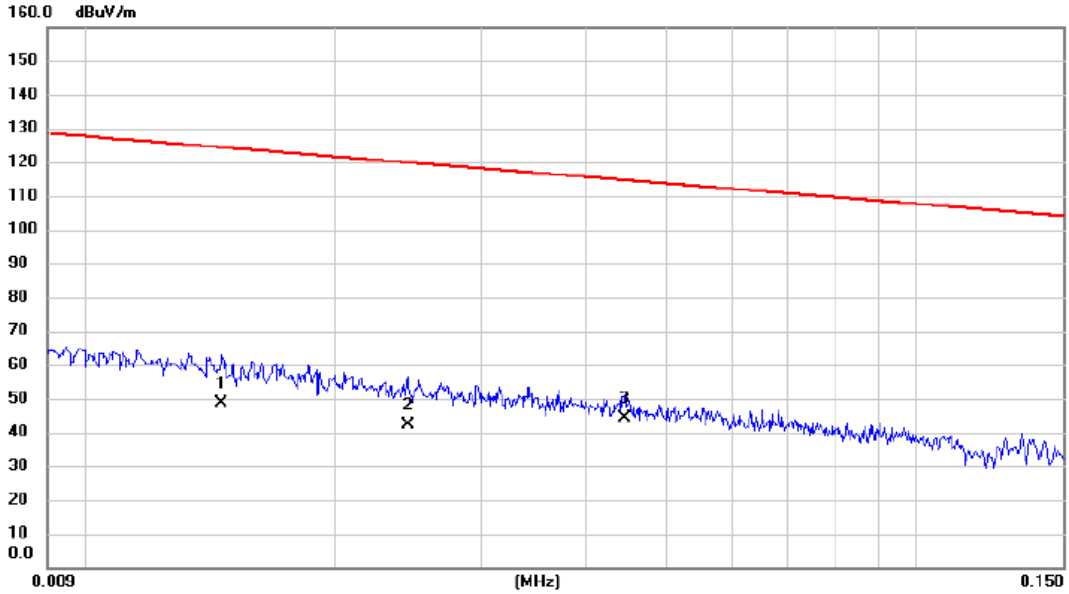
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1995	41.75	10.45	52.20	63.63	-11.43	Peak	
2	0.1995	25.40	10.45	35.85	53.63	-17.78	AVG	
3	0.2670	29.58	10.46	40.04	61.21	-21.17	Peak	
4	0.3840	29.14	10.46	39.60	58.19	-18.59	Peak	
5	1.3695	27.29	10.54	37.83	56.00	-18.17	Peak	
6	2.0715	30.55	10.60	41.15	56.00	-14.85	Peak	
7	8.1375	24.30	10.84	35.14	60.00	-24.86	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) The test result has included the cable loss.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode:	TX A Mode Channel 100

Ant 0°

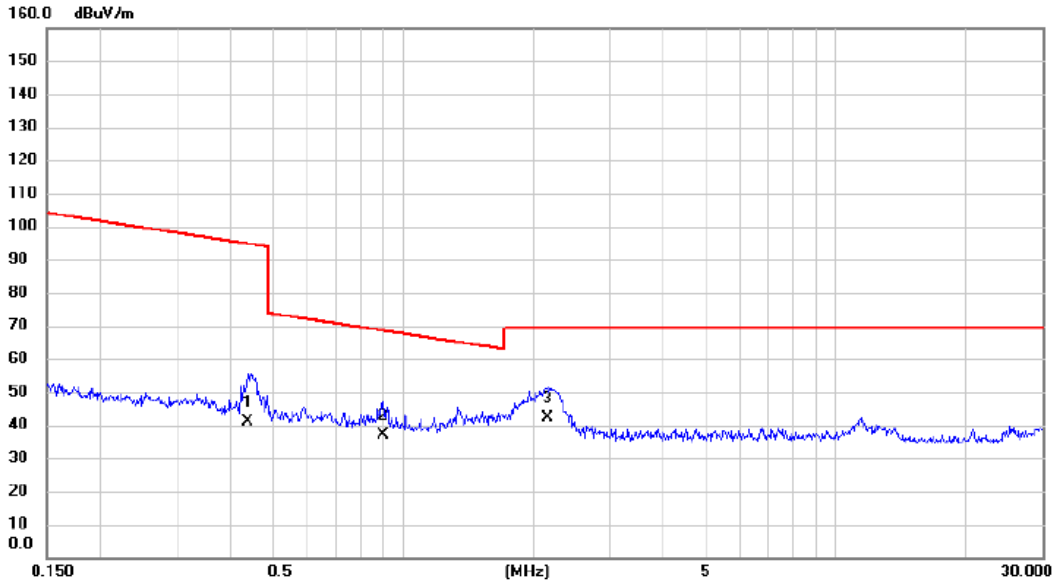


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.015	33.20	15.44	48.64	124.32	-75.68	AVG	
2		0.025	28.50	13.84	42.34	119.82	-77.48	AVG	
3	*	0.045	30.10	13.91	44.01	114.62	-70.61	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX A Mode Channel 100

Ant 0°

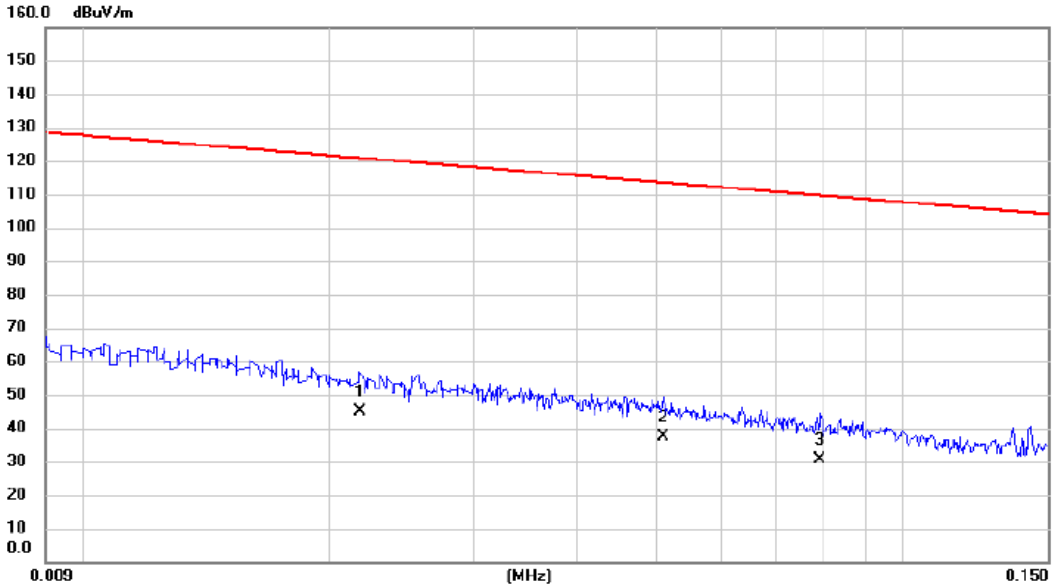


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.437	27.80	13.21	41.01	94.79	-53.78	AVG	
2		0.899	24.30	12.53	36.83	68.53	-31.70	QP	
3	*	2.155	30.60	11.73	42.33	69.54	-27.21	QP	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX A Mode Channel 100

Ant 90°

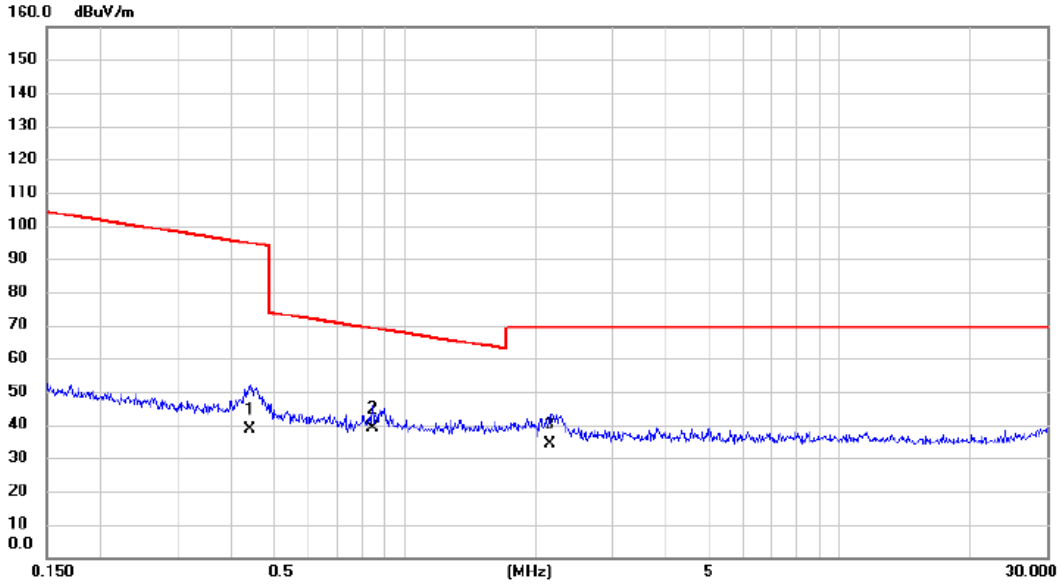


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.022	31.10	13.83	44.93	120.84	-75.91	AVG	
2		0.051	23.30	13.91	37.21	113.45	-76.24	AVG	
3		0.079	16.90	13.54	30.44	109.63	-79.19	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX A Mode Channel 100

Ant 90°



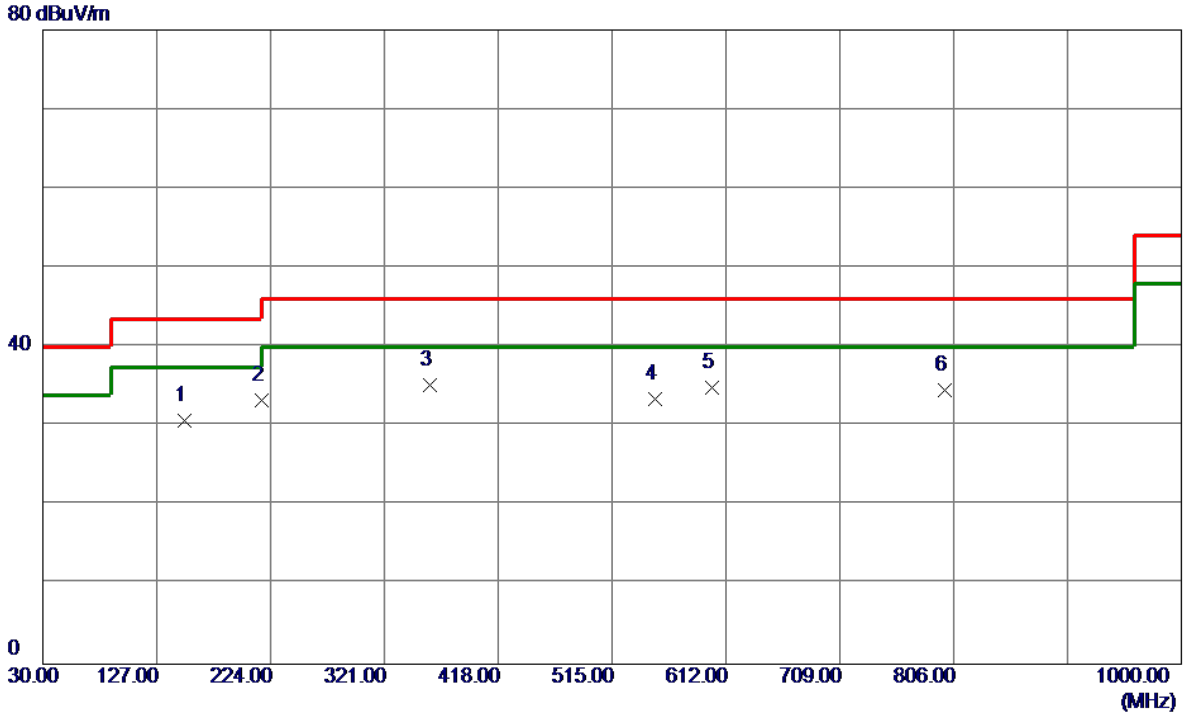
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.440	25.30	13.20	38.50	94.74	-56.24	AVG	
2	*	0.844	26.50	12.55	39.05	69.08	-30.03	QP	
3		2.155	22.40	11.73	34.13	69.54	-35.41	QP	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1 GHZ

Test Mode:	TX A Mode Channel 100

Vertical

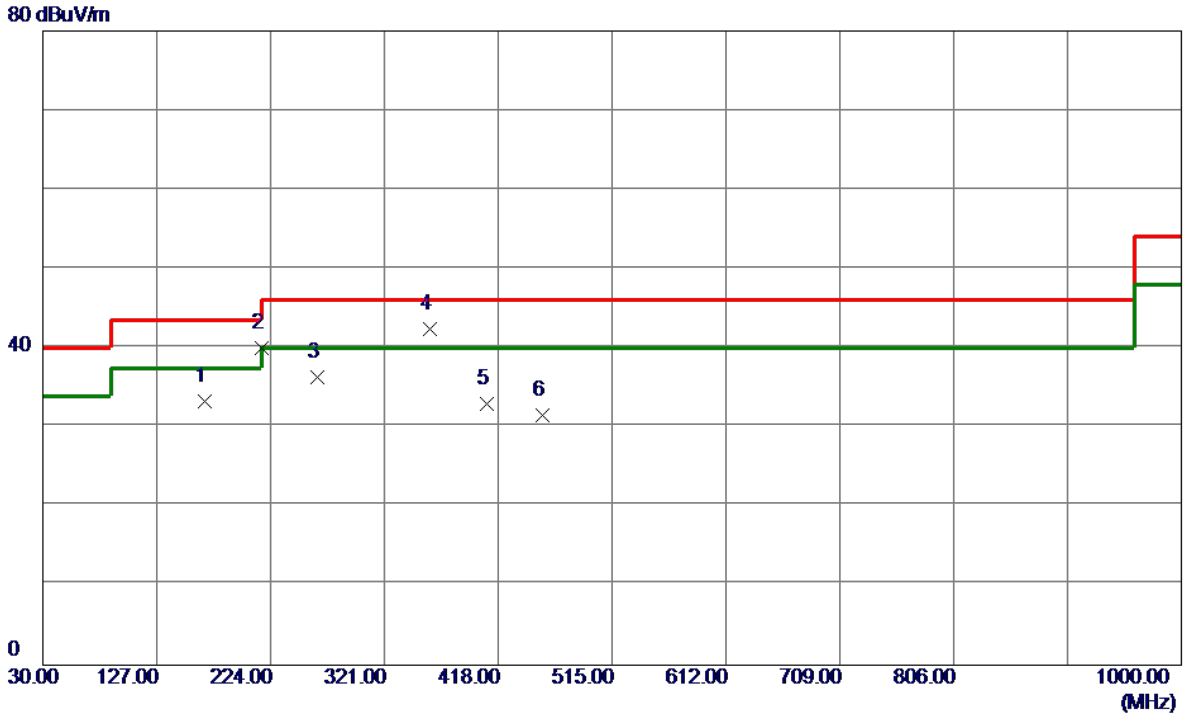


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	150.7650	42.84	-12.19	30.65	43.50	-12.85	Peak	
2	216.2400	48.34	-15.00	33.34	46.00	-12.66	Peak	
3 *	359.8000	45.63	-10.42	35.21	46.00	-10.79	Peak	
4	551.8600	40.63	-7.15	33.48	46.00	-12.52	Peak	
5	599.8750	40.62	-5.74	34.88	46.00	-11.12	Peak	
6	798.7250	37.57	-3.02	34.55	46.00	-11.45	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX A Mode Channel 100

Horizontal



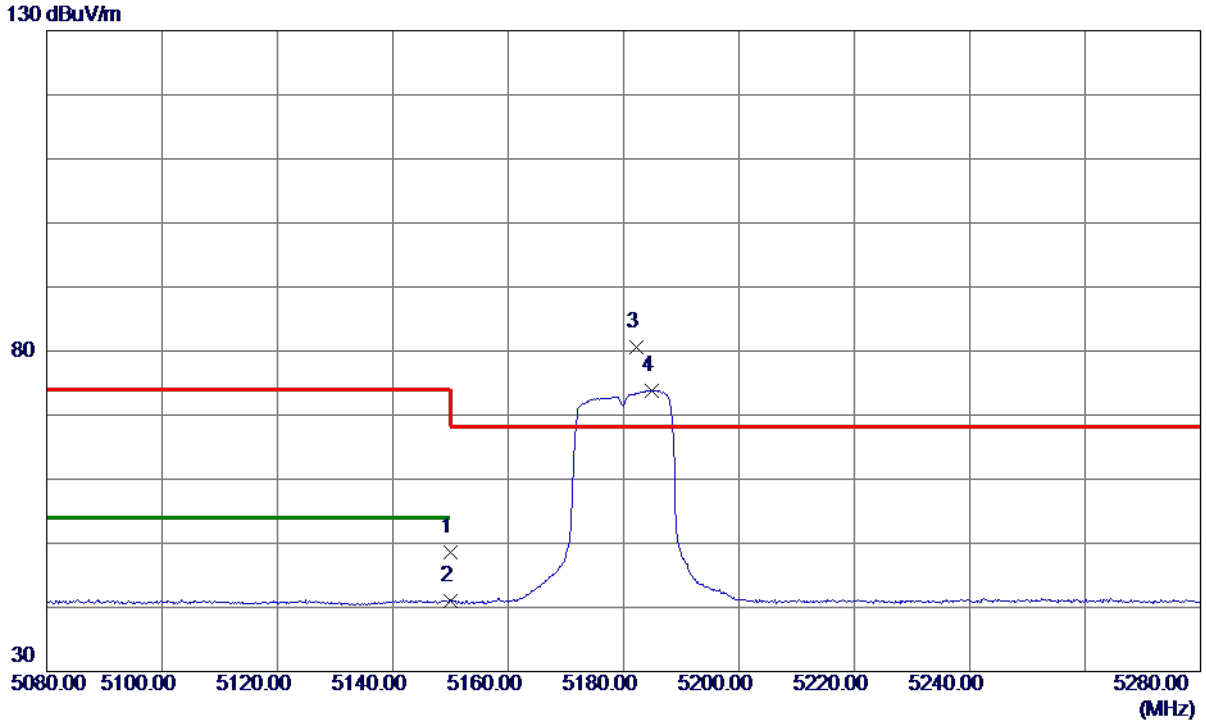
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	168.2250	45.52	-12.17	33.35	43.50	-10.15	Peak	
2	216.2400	55.04	-15.00	40.04	46.00	-5.96	Peak	
3	263.7700	49.15	-12.81	36.34	46.00	-9.66	Peak	
4 *	359.8000	52.88	-10.42	42.46	46.00	-3.54	Peak	
5	407.8150	42.25	-9.25	33.00	46.00	-13.00	Peak	
6	455.8300	39.55	-8.03	31.52	46.00	-14.48	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5180 MHz

Vertical

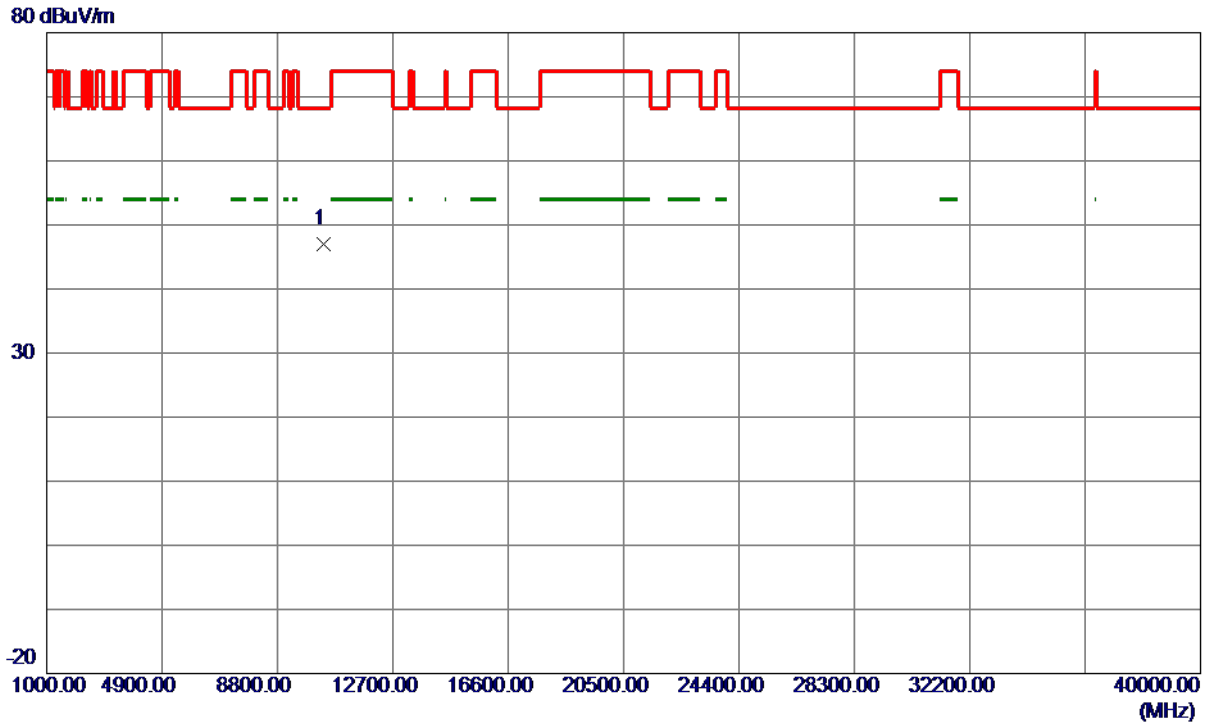


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	34.32	14.32	48.64	74.00	-25.36	Peak	
2	5150.0000	26.75	14.32	41.07	54.00	-12.93	AVG	
3 *	5182.3000	66.25	14.39	80.64	68.30	12.34	Peak	No Limit
4	5184.9000	59.47	14.40	73.87	999.00	-925.13	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5180 MHz

Vertical

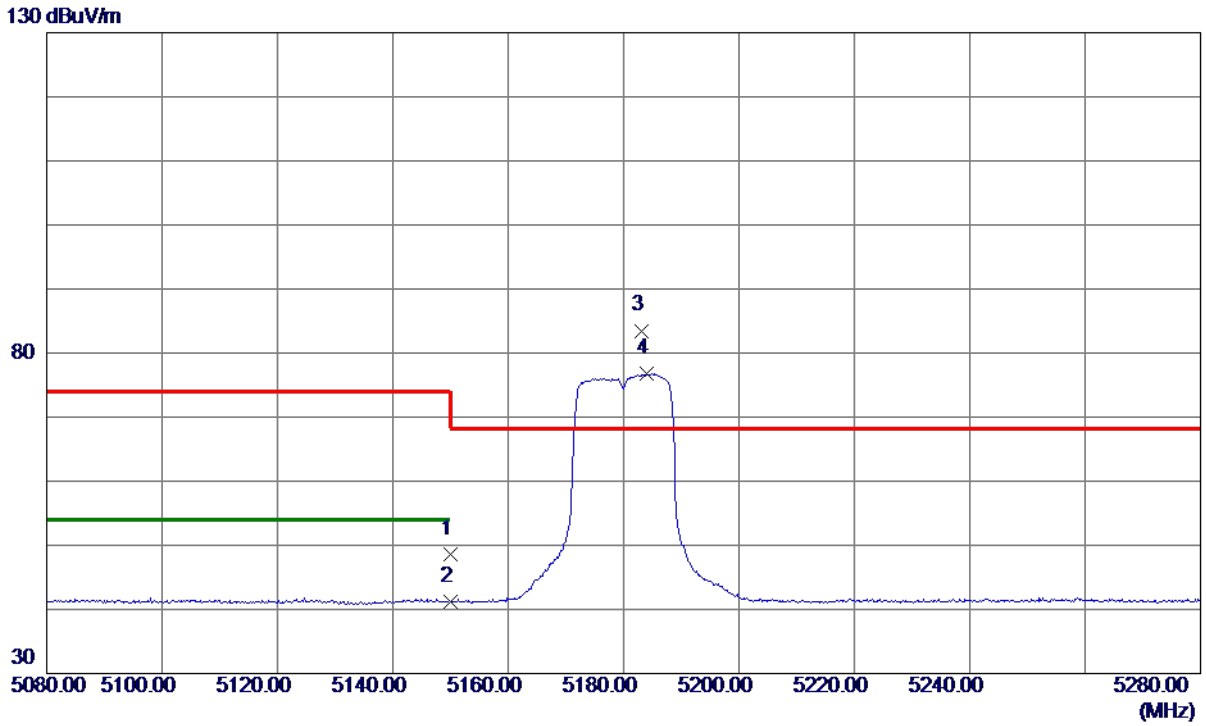


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10362.4780	35.70	11.30	47.00	68.30	-21.30	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5180 MHz

Horizontal

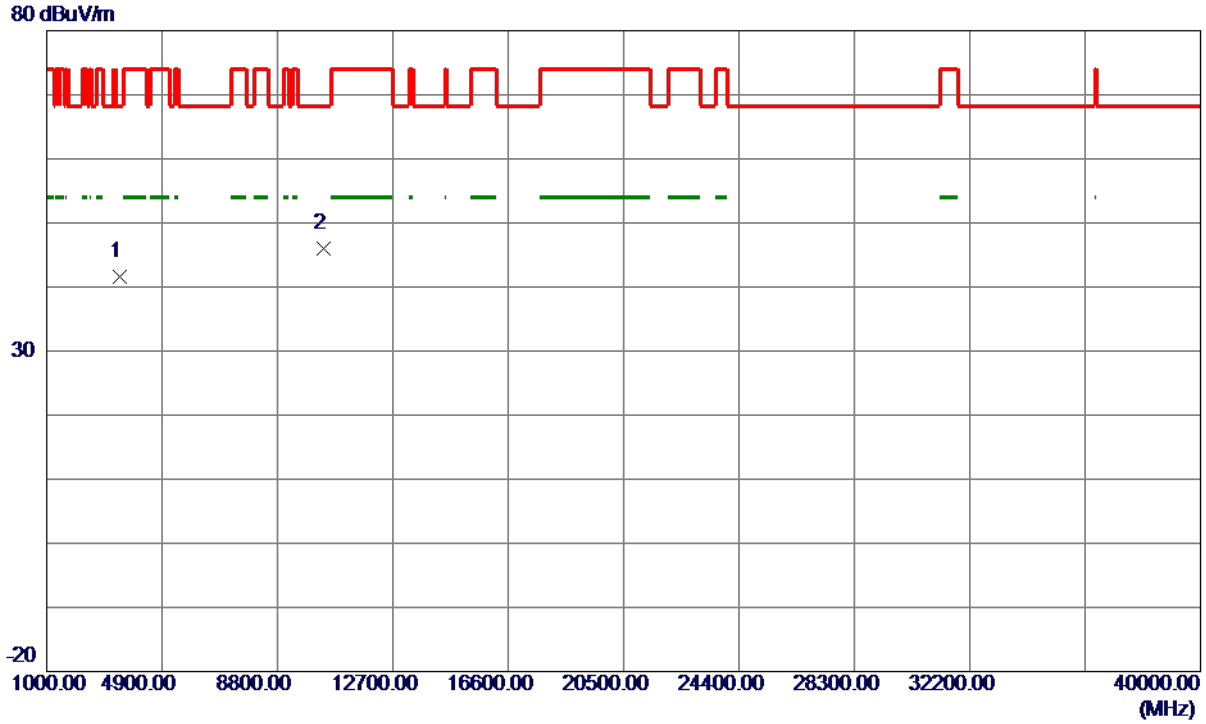


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	34.20	14.32	48.52	74.00	-25.48	Peak	
2	5150.0000	26.95	14.32	41.27	54.00	-12.73	AVG	
3 *	5183.2000	69.11	14.39	83.50	68.30	15.20	Peak	No Limit
4	5183.9000	62.41	14.40	76.81	999.00	-922.19	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5180 MHz

Horizontal

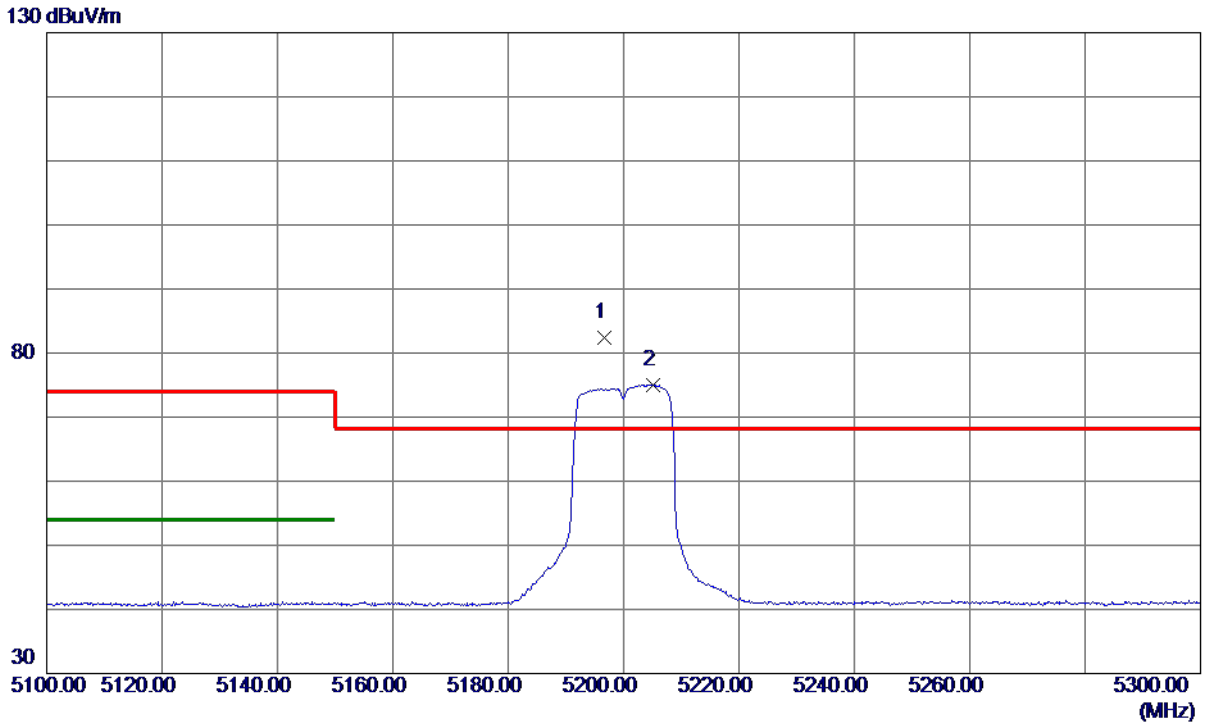


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	3453.4050	40.78	0.91	41.69	68.30	-26.61	Peak	
2 *	10362.2000	34.79	11.30	46.09	68.30	-22.21	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5200 MHz

Vertical

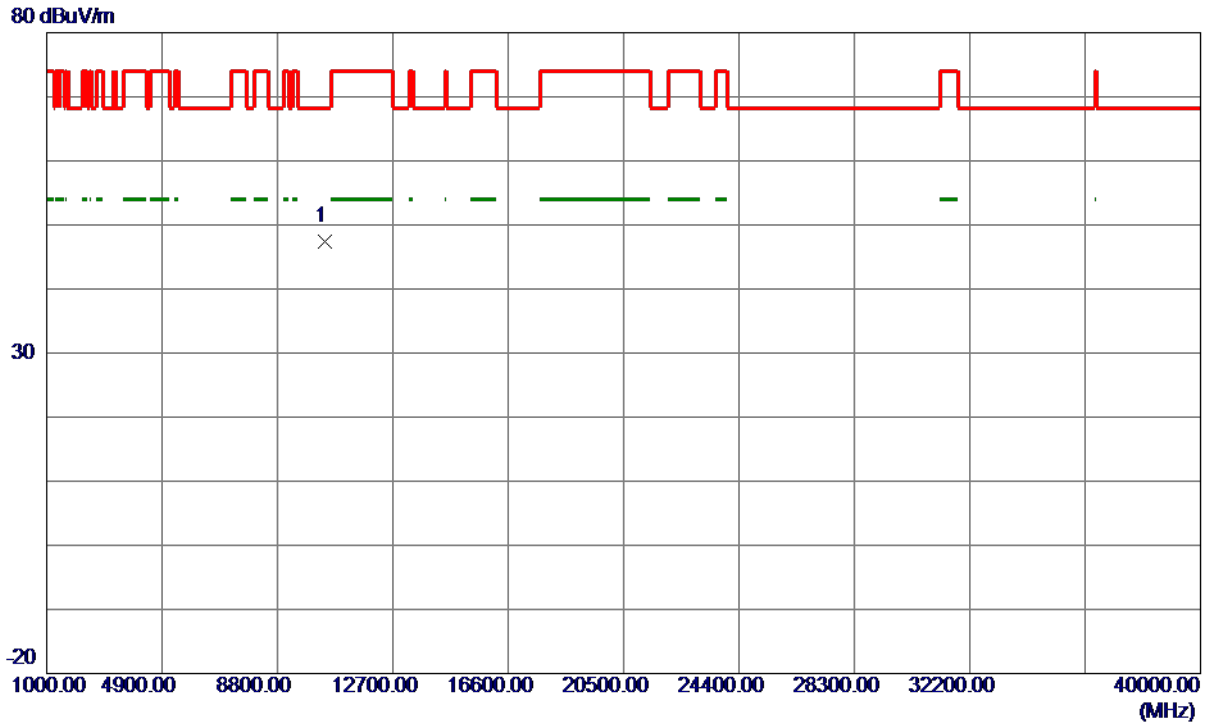


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5196.7000	67.92	14.43	82.35	68.30	14.05	Peak	No Limit
2	5205.1000	60.62	14.45	75.07	999.00	-923.93	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5200 MHz

Vertical

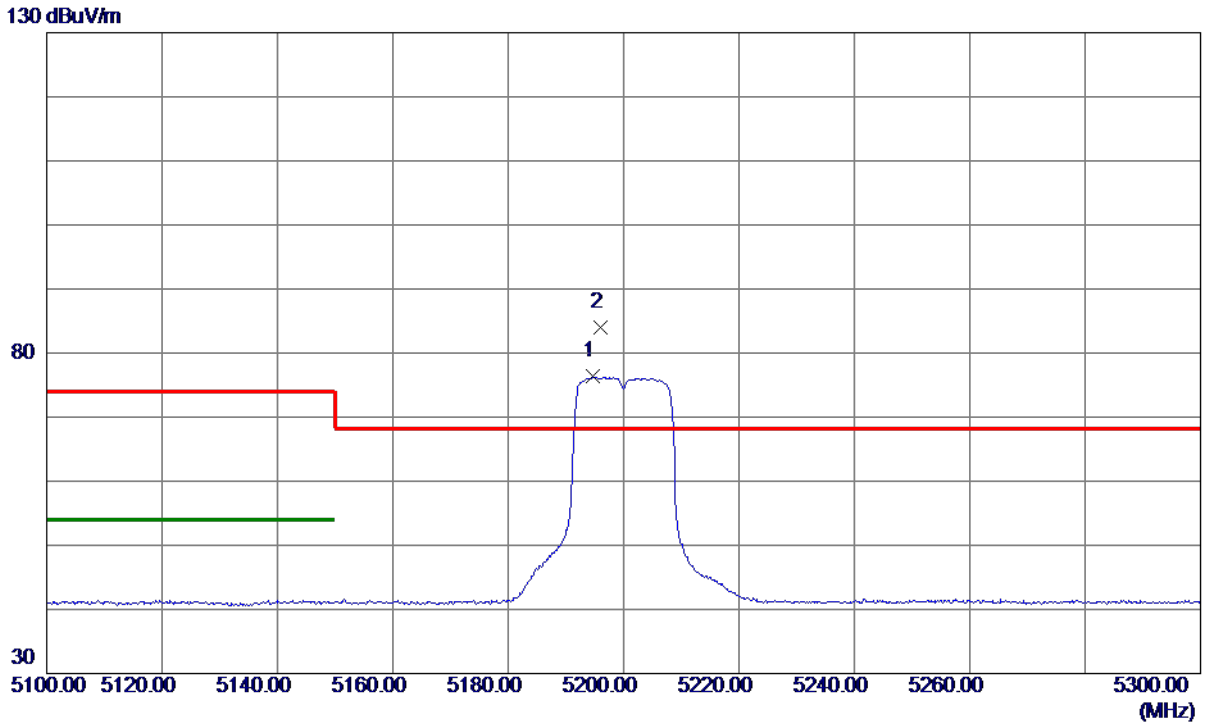


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10400.0800	35.95	11.37	47.32	68.30	-20.98	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5200 MHz

Horizontal

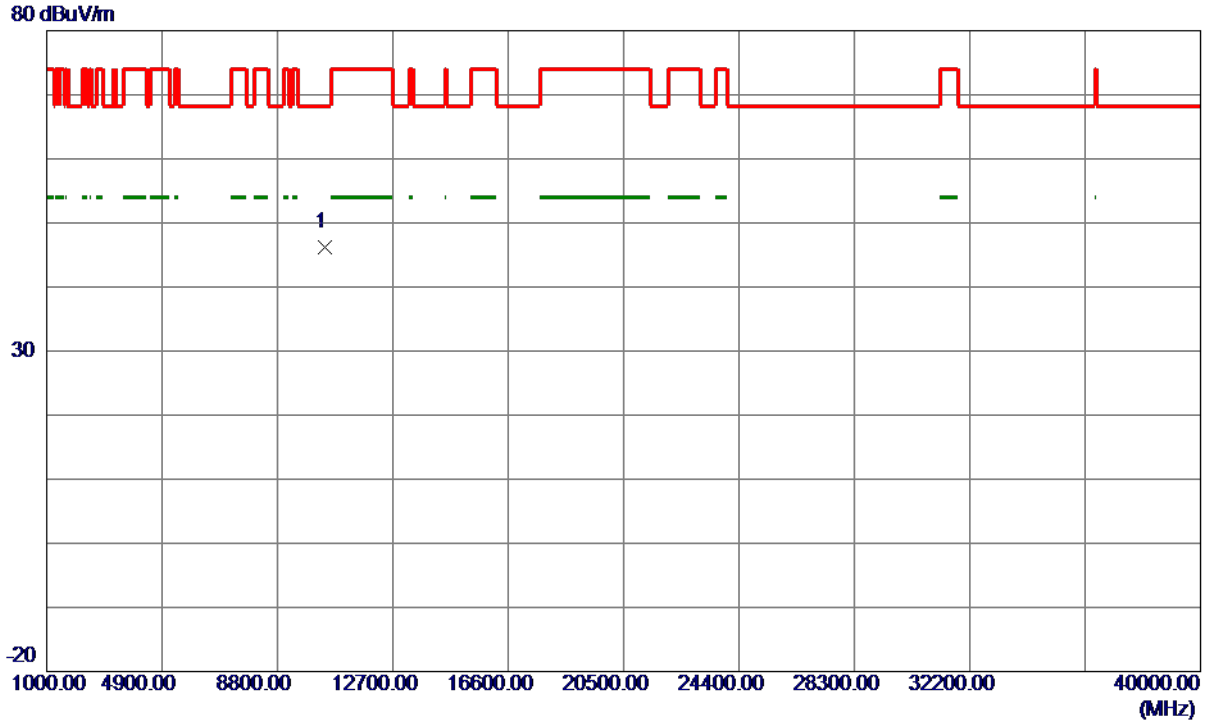


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5194.7000	61.96	14.42	76.38	999.00	-922.62	AVG	No Limit
2 *	5196.0000	69.65	14.42	84.07	68.30	15.77	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5200 MHz

Horizontal

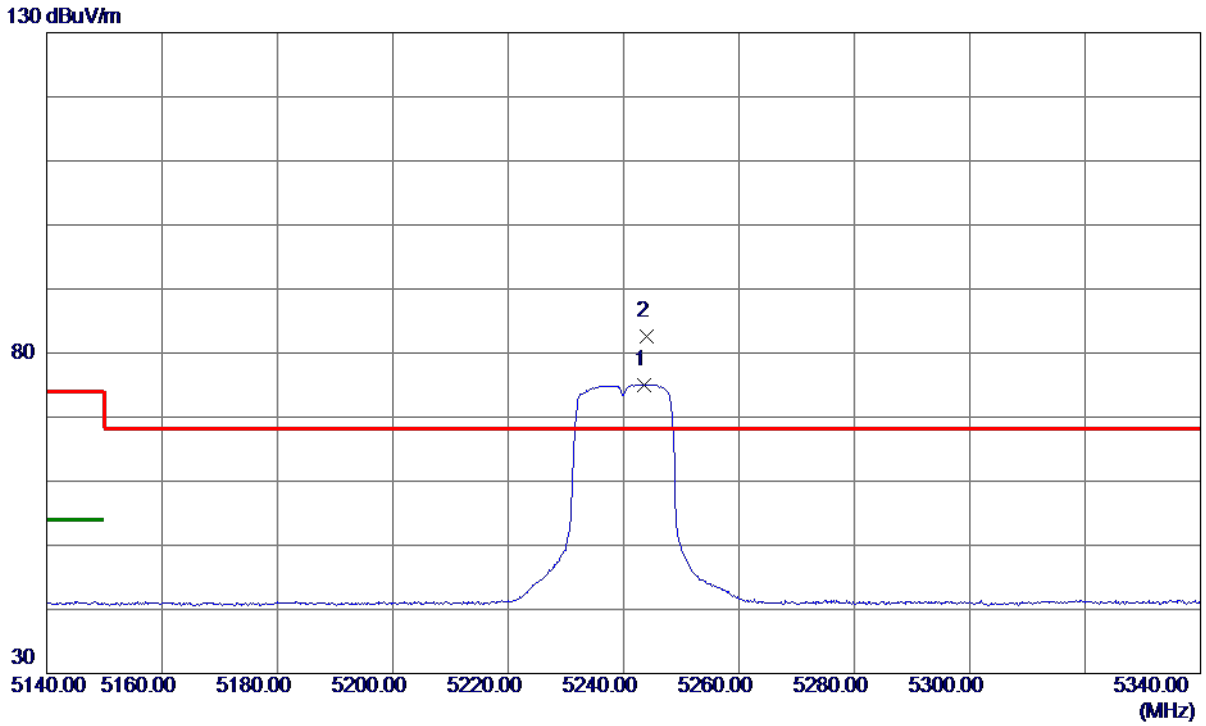


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10402.1550	34.89	11.37	46.26	68.30	-22.04	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5240 MHz

Vertical

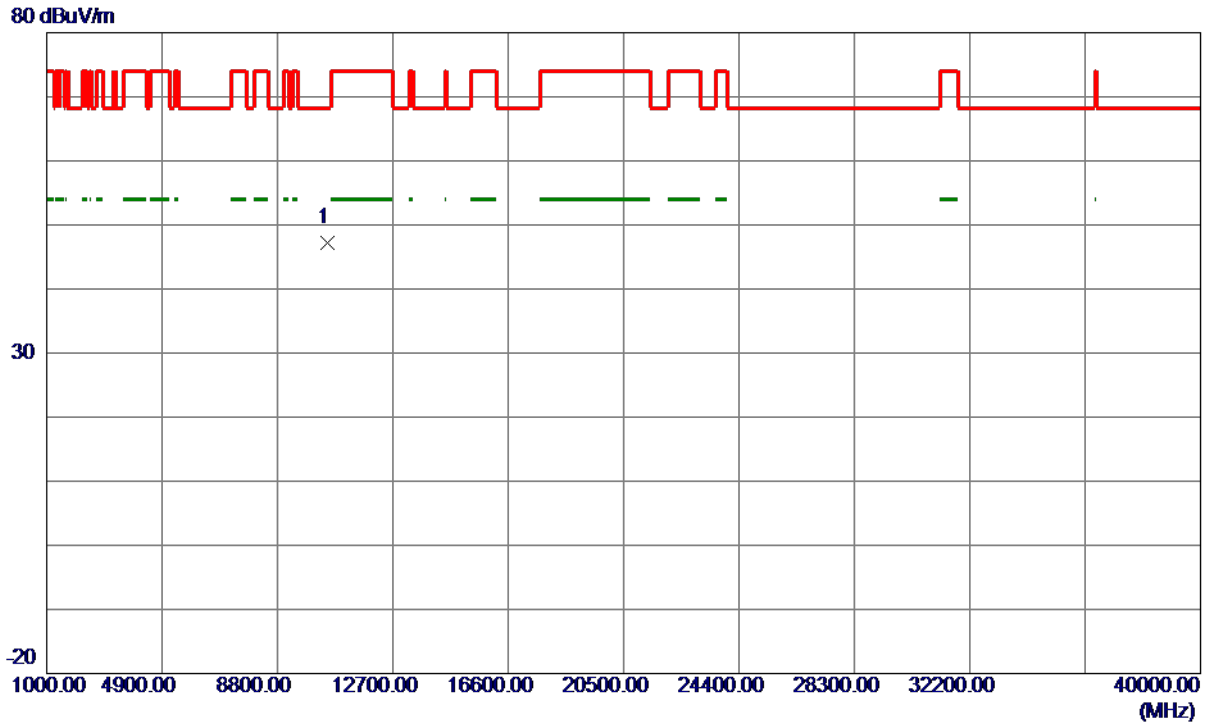


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5243.5000	60.55	14.54	75.09	999.00	-923.91	AVG	No Limit
2 *	5243.9000	68.15	14.54	82.69	68.30	14.39	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5240 MHz

Vertical

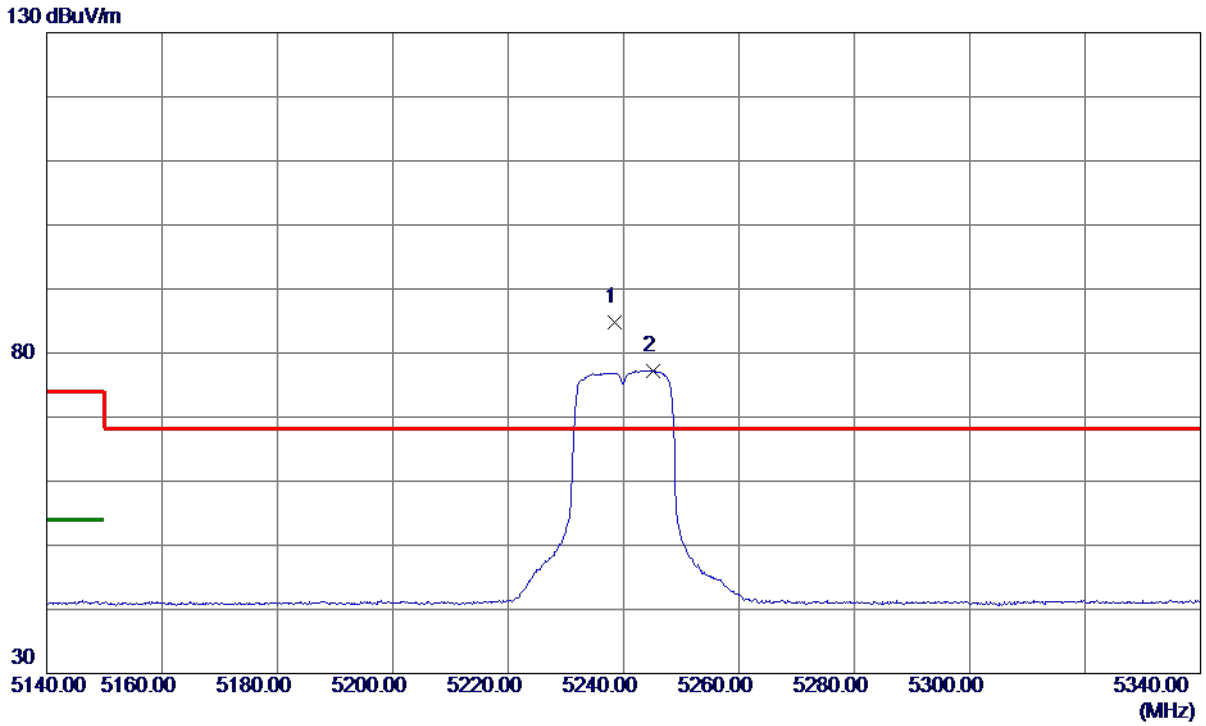


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10482.1500	35.75	11.50	47.25	68.30	-21.05	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5240 MHz

Horizontal

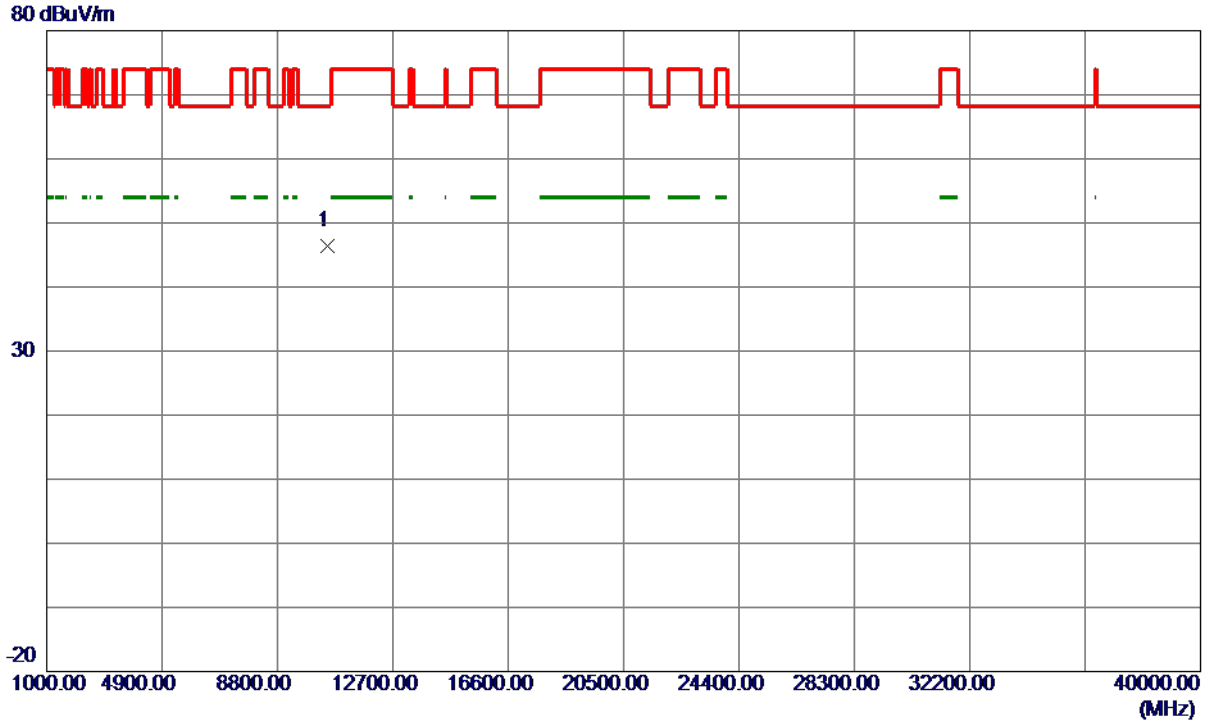


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5238.5000	70.36	14.53	84.89	68.30	16.59	Peak	No Limit
2	5245.2000	62.73	14.54	77.27	999.00	-921.73	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX A Mode 5240 MHz

Horizontal

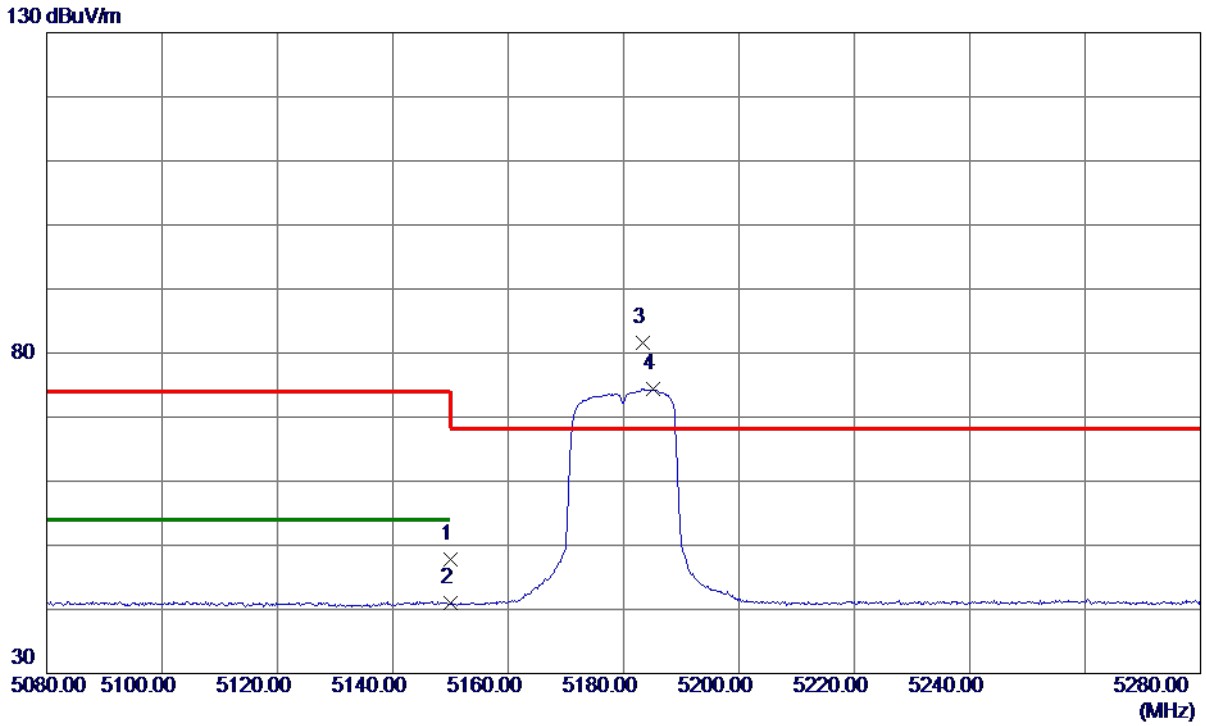


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10479.0300	34.93	11.50	46.43	68.30	-21.87	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5180 MHz

Vertical

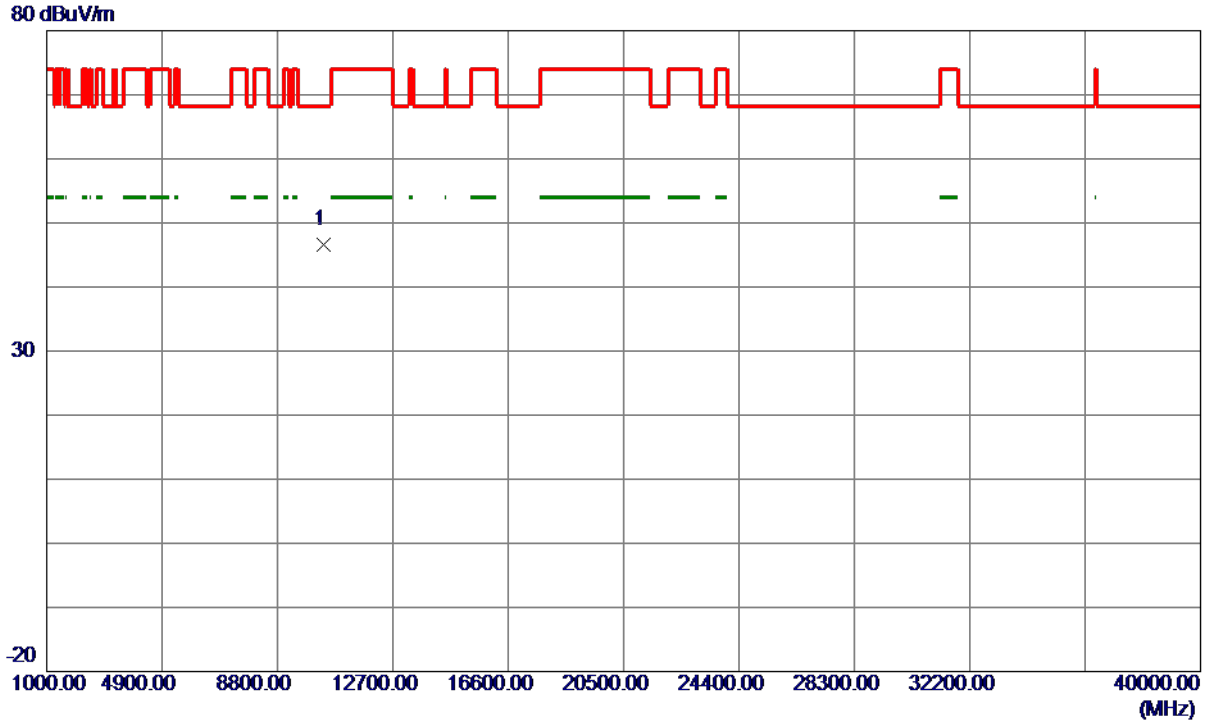


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	33.49	14.32	47.81	74.00	-26.19	Peak	
2	5150.0000	26.59	14.32	40.91	54.00	-13.09	AVG	
3 *	5183.4000	67.15	14.39	81.54	68.30	13.24	Peak	No Limit
4	5185.1000	59.92	14.40	74.32	999.00	-924.68	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5180 MHz

Vertical

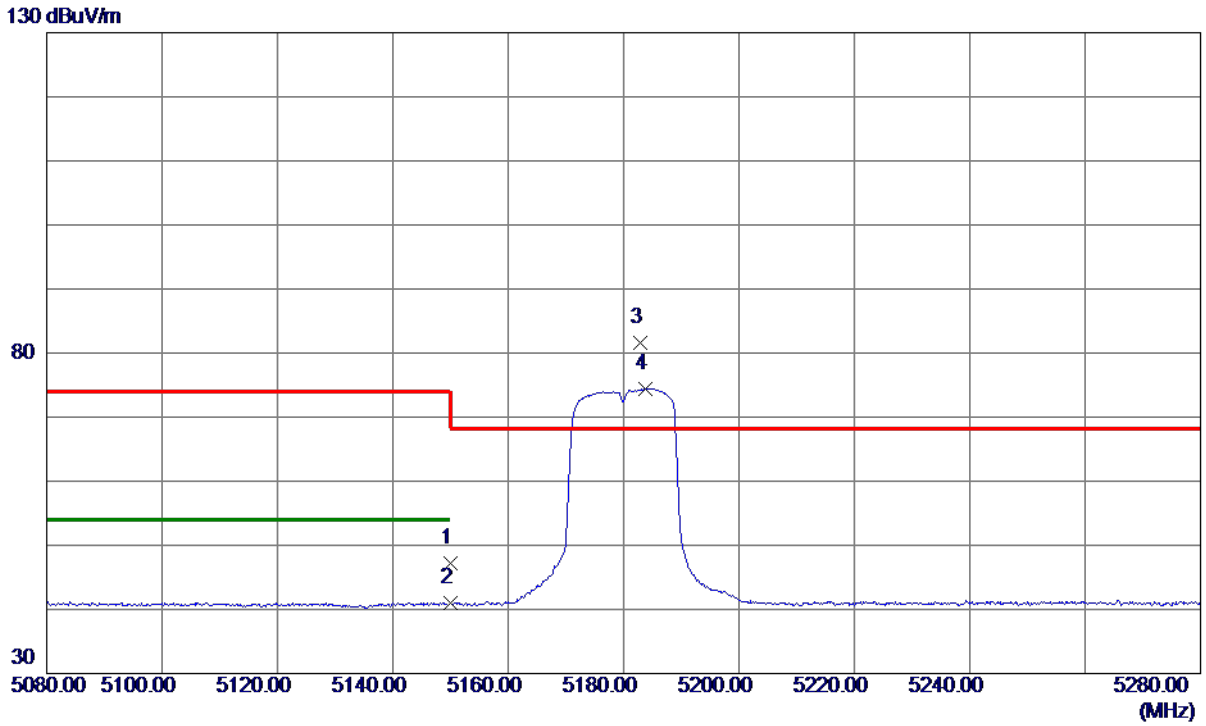


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10358.9250	35.22	11.30	46.52	68.30	-21.78	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5180 MHz

Horizontal

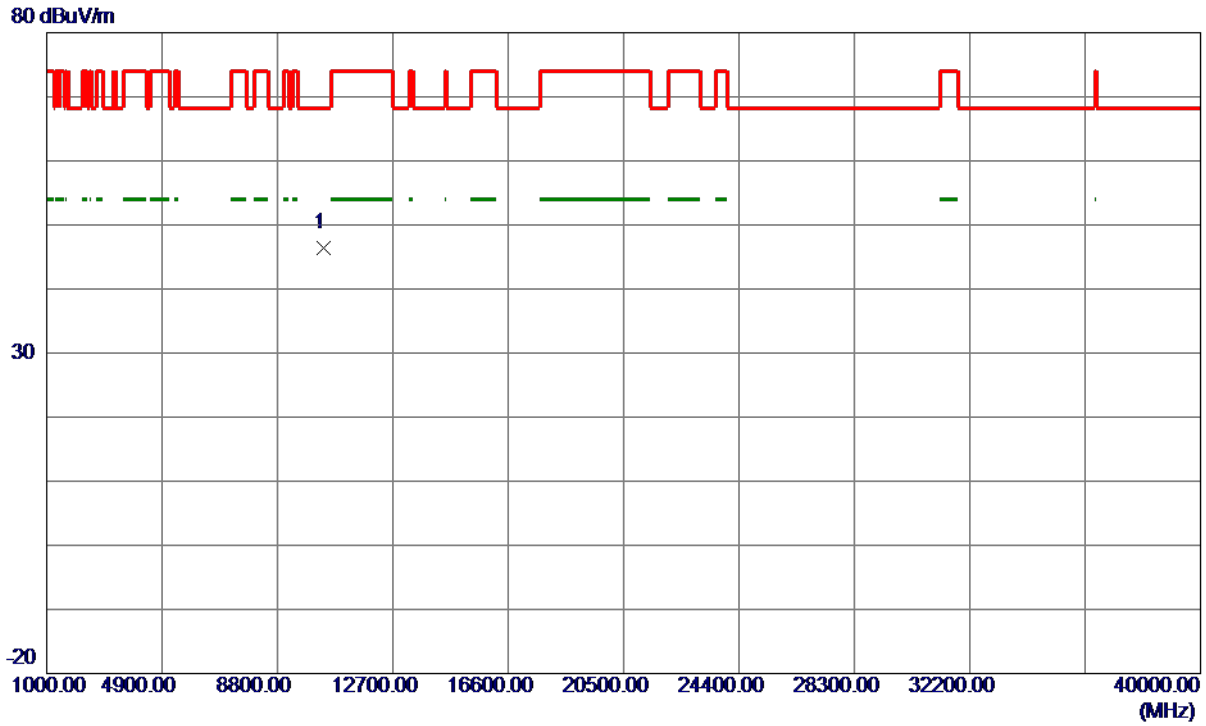


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.88	14.32	47.20	74.00	-26.80	Peak	
2	5150.0000	26.66	14.32	40.98	54.00	-13.02	AVG	
3 *	5182.8000	67.21	14.39	81.60	68.30	13.30	Peak	No Limit
4	5183.7000	60.05	14.40	74.45	999.00	-924.55	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5180 MHz

Horizontal

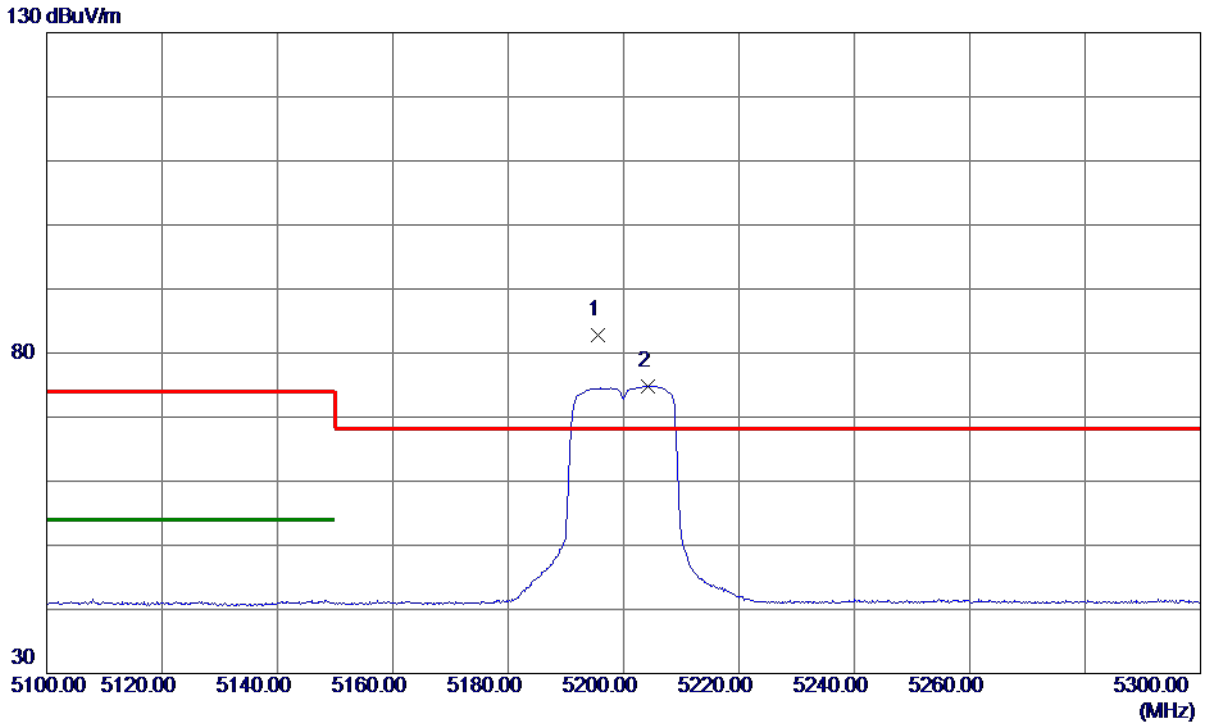


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10360.6600	35.02	11.30	46.32	68.30	-21.98	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5200 MHz

Vertical

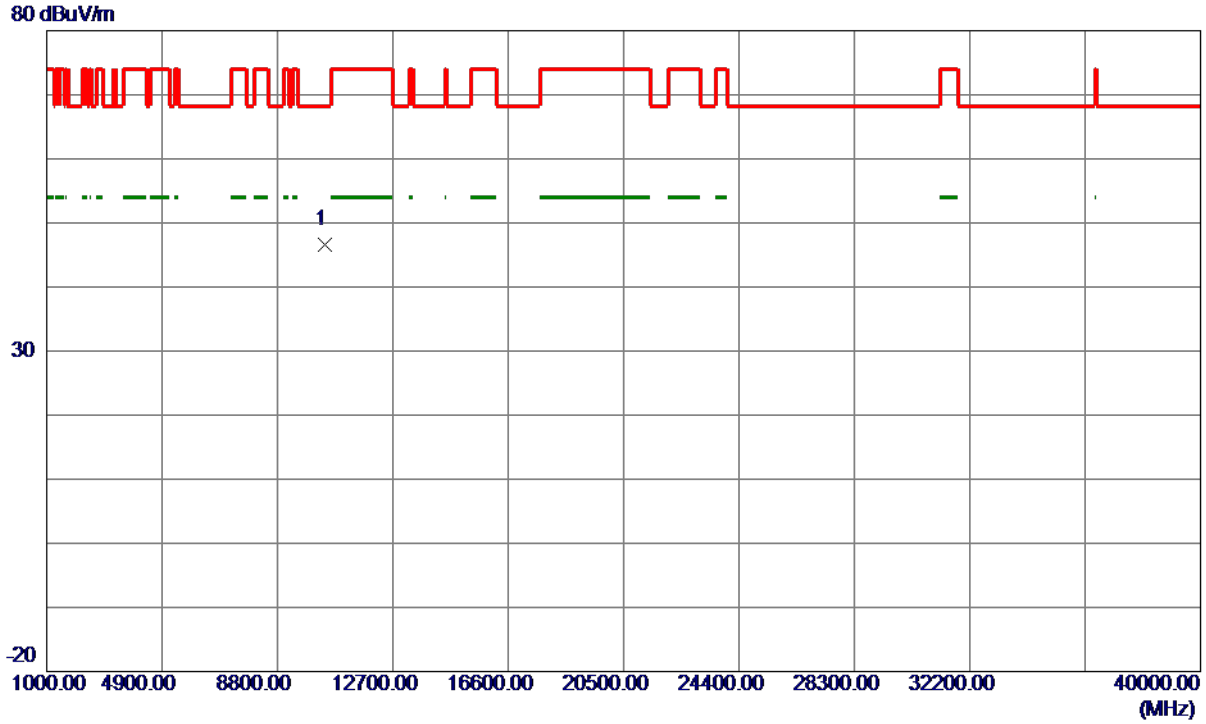


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5195.5000	68.39	14.42	82.81	68.30	14.51	Peak	No Limit
2	5204.2000	60.45	14.44	74.89	999.00	-924.11	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5200 MHz

Vertical

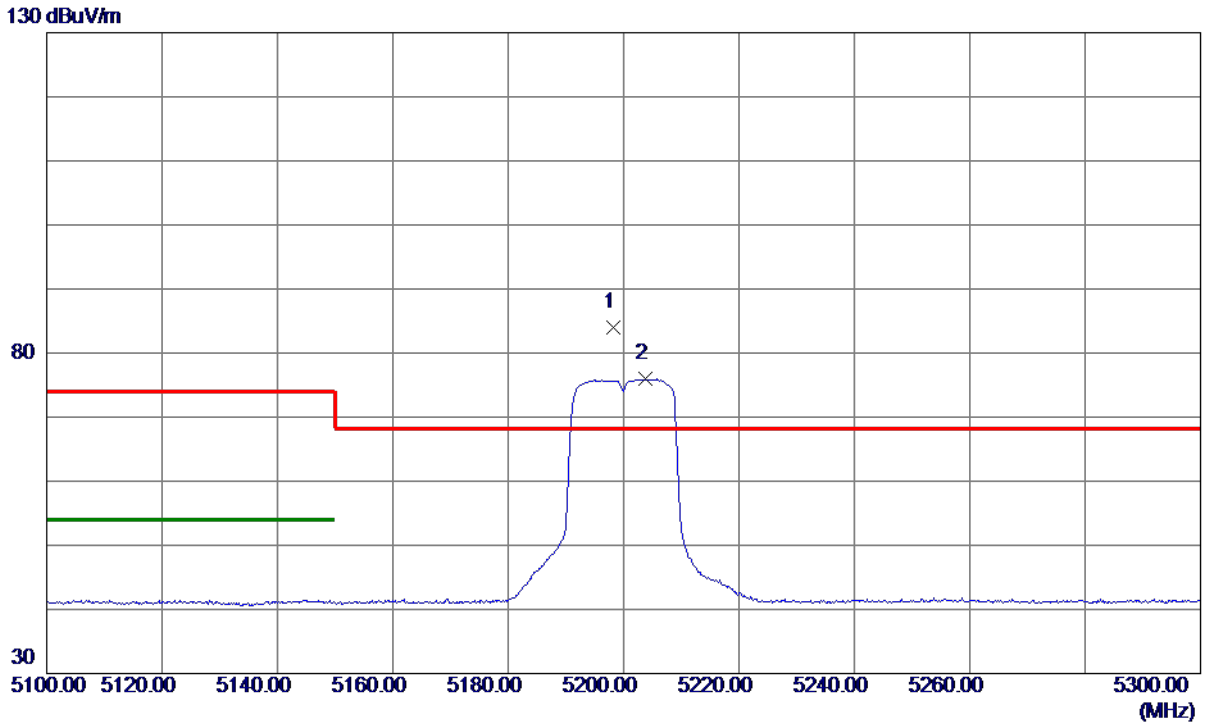


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10398.9950	35.26	11.36	46.62	68.30	-21.68	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5200 MHz

Horizontal

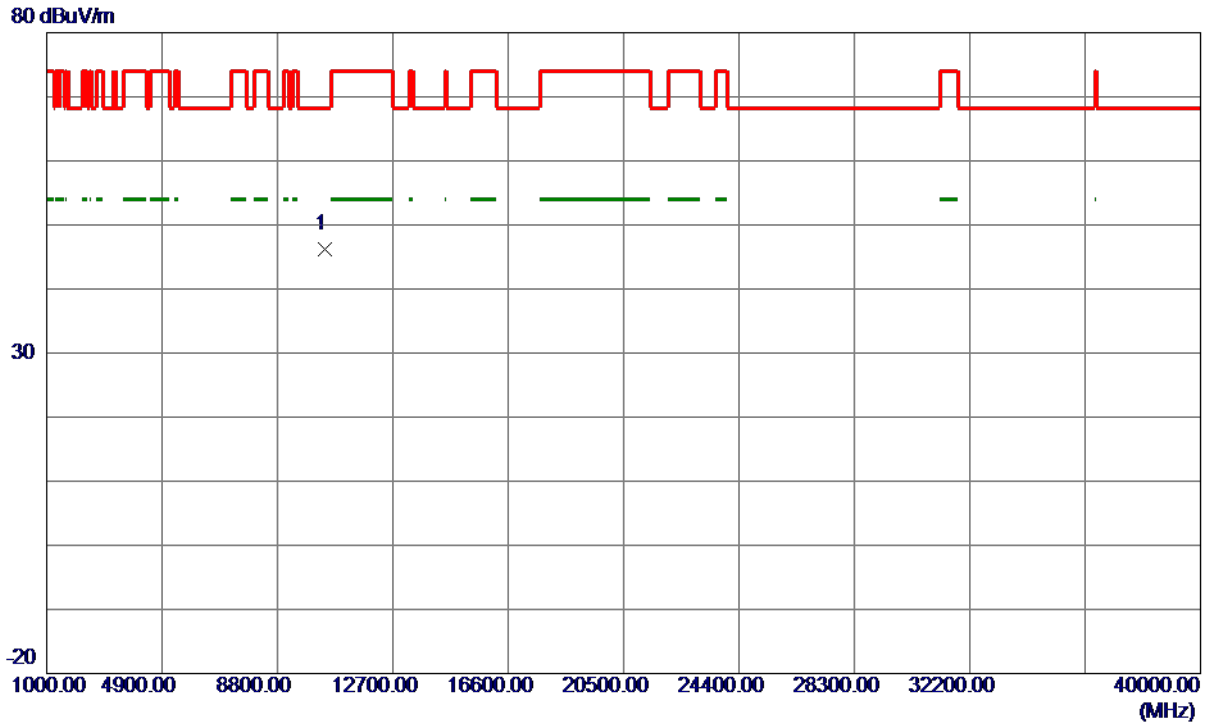


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5198.3000	69.53	14.43	83.96	68.30	15.66	Peak	No Limit
2	5203.7000	61.49	14.44	75.93	999.00	-923.07	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5200 MHz

Horizontal

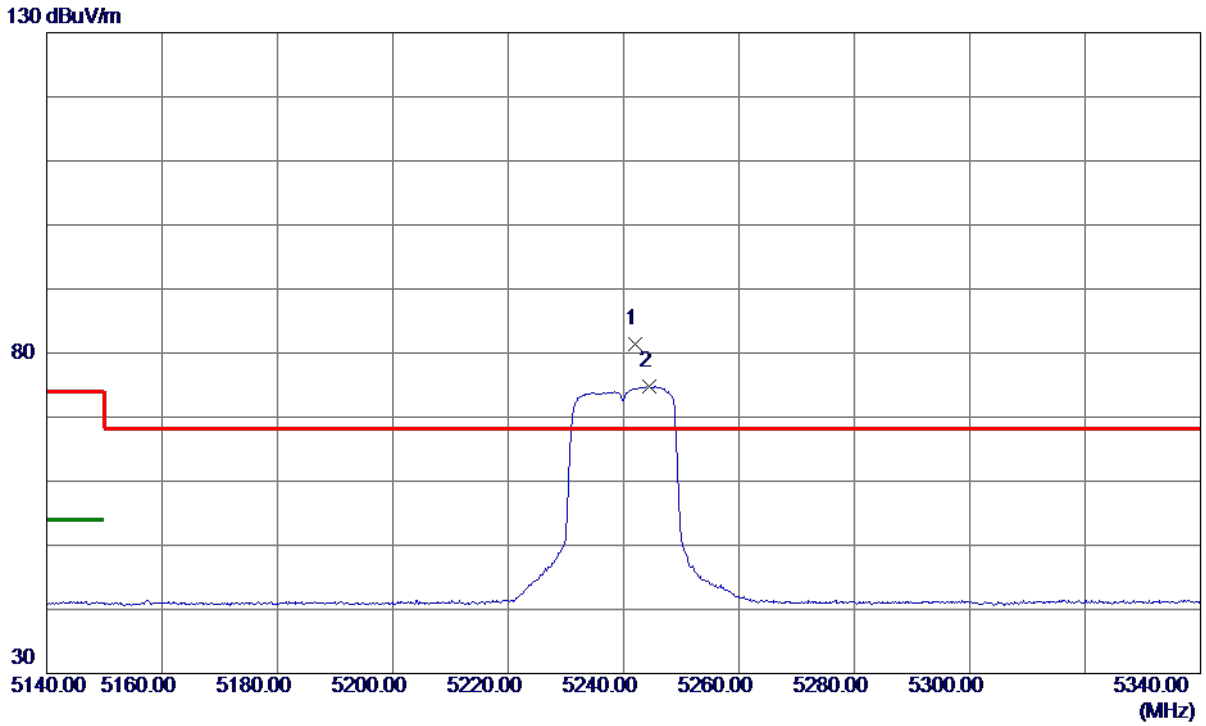


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10399.6200	34.85	11.37	46.22	68.30	-22.08	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5240 MHz

Vertical

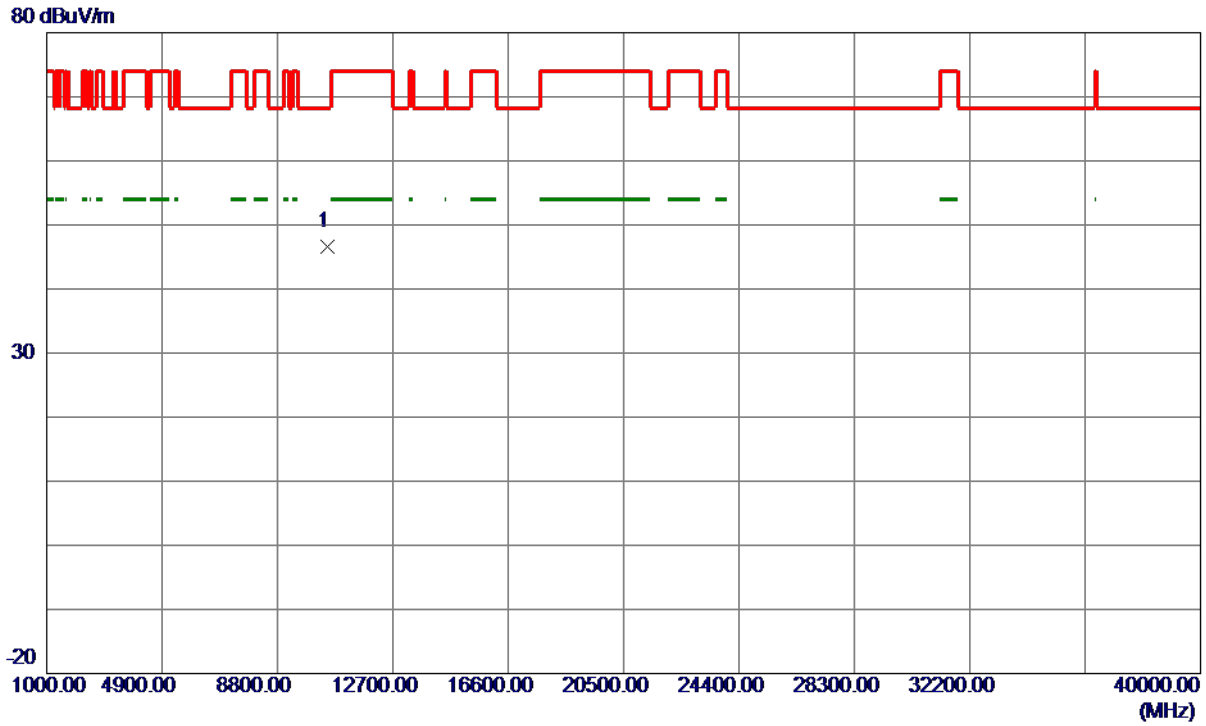


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5242.1000	66.93	14.53	81.46	68.30	13.16	Peak	No Limit
2	5244.4000	60.23	14.54	74.77	999.00	-924.23	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5240 MHz

Vertical

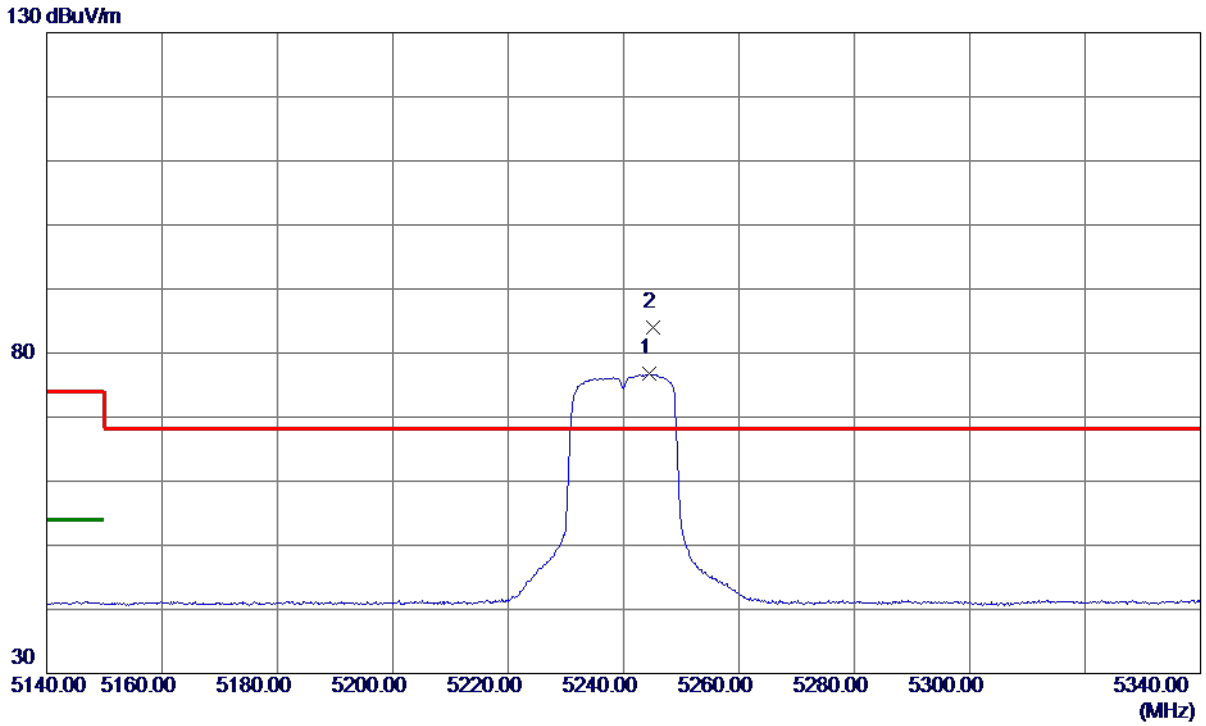


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10481.2150	35.16	11.50	46.66	68.30	-21.64	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5240 MHz

Horizontal

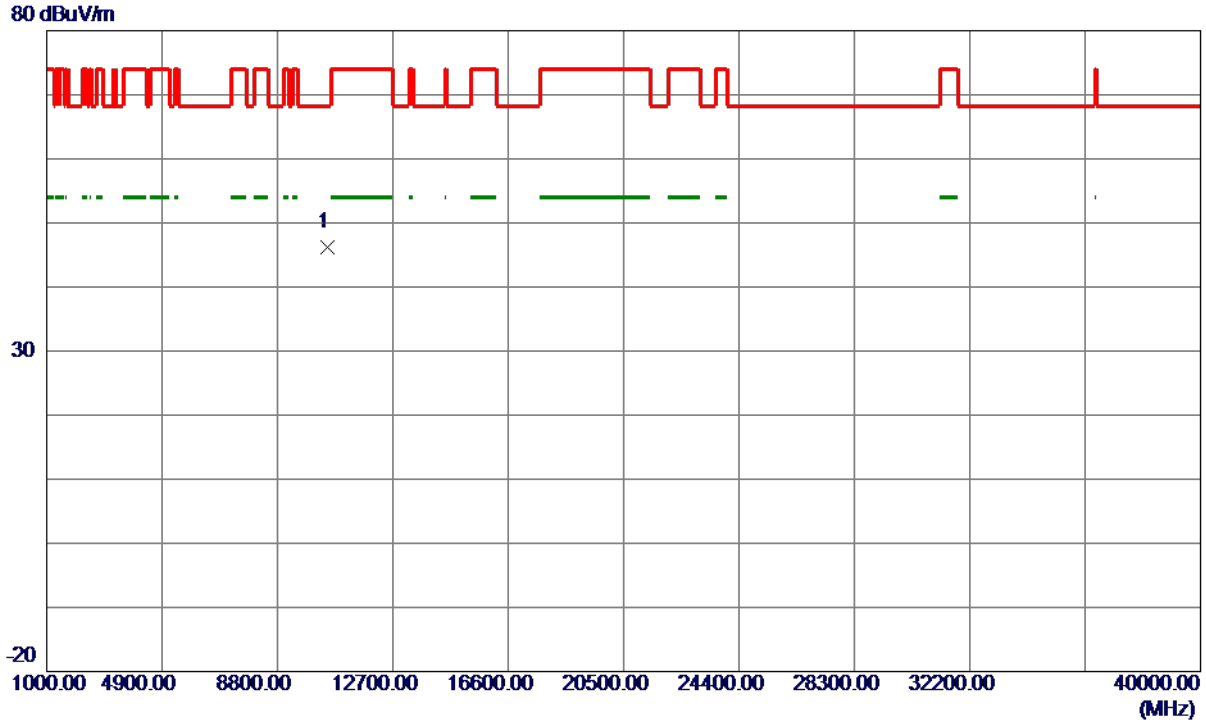


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5244.4000	62.19	14.54	76.73	999.00	-922.27	AVG	No Limit
2 *	5245.1000	69.52	14.54	84.06	68.30	15.76	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT20) Mode 5240 MHz

Horizontal

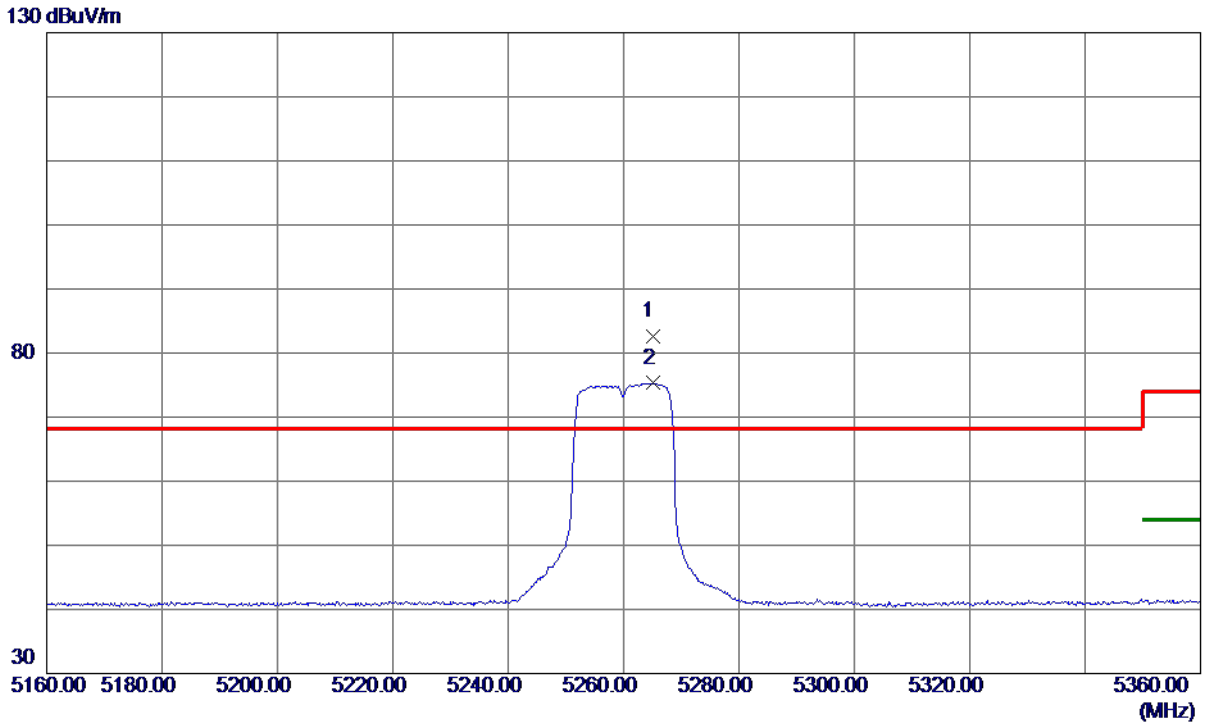


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10477.5220	34.77	11.50	46.27	68.30	-22.03	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5260 MHz

Vertical

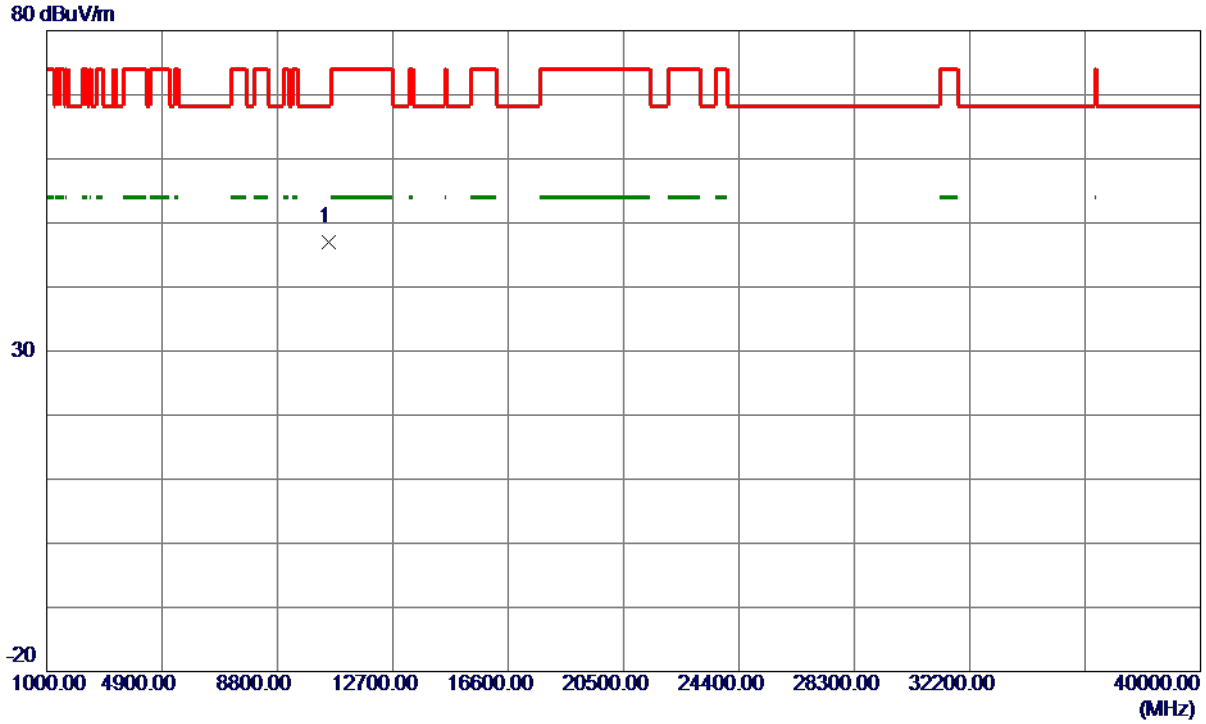


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5265.0000	68.07	14.59	82.66	68.30	14.36	Peak	No Limit
2	5265.2000	60.71	14.59	75.30	999.00	-923.70	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5260 MHz

Vertical

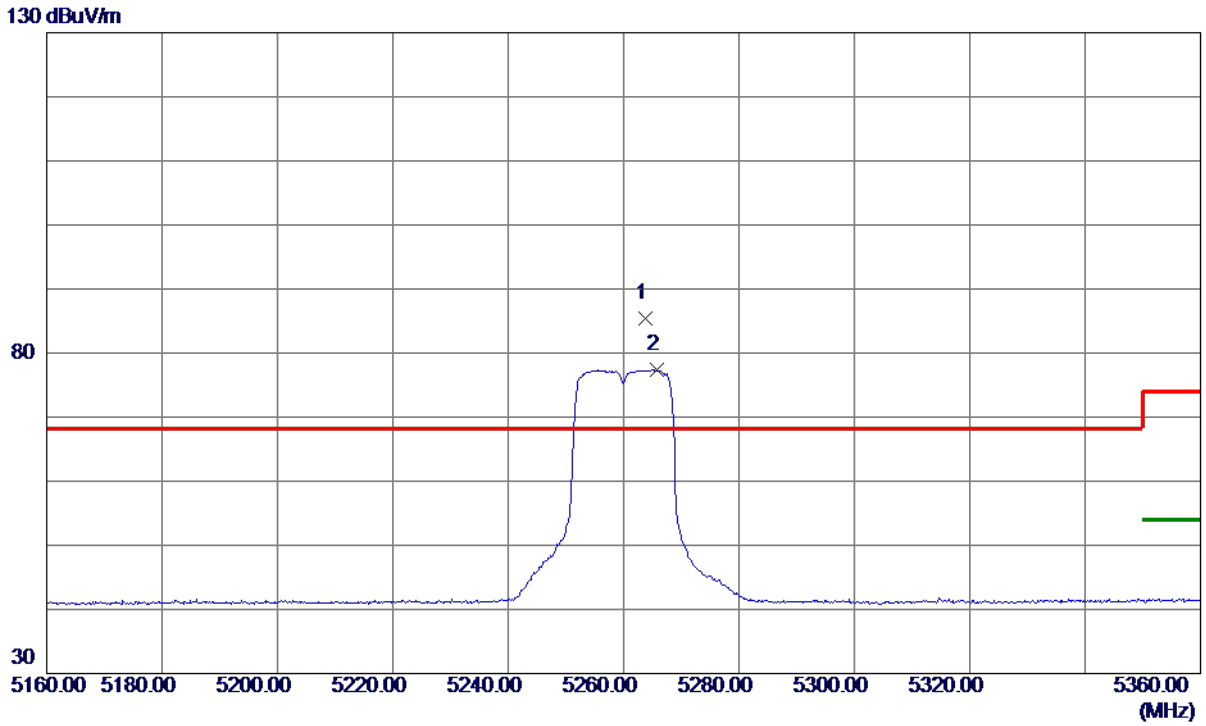


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10521.4480	35.49	11.54	47.03	68.30	-21.27	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5260 MHz

Horizontal

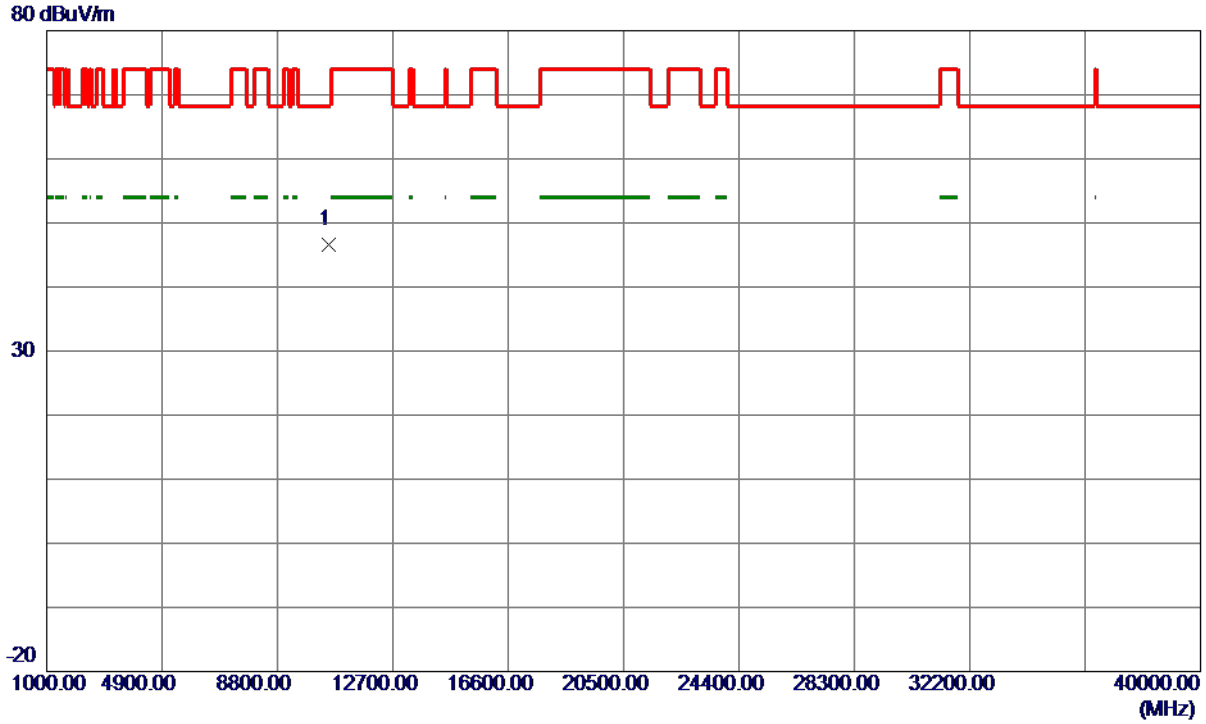


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5263.7000	70.79	14.58	85.37	68.30	17.07	Peak	No Limit
2	5265.7000	62.73	14.59	77.32	999.00	-921.68	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5260 MHz

Horizontal

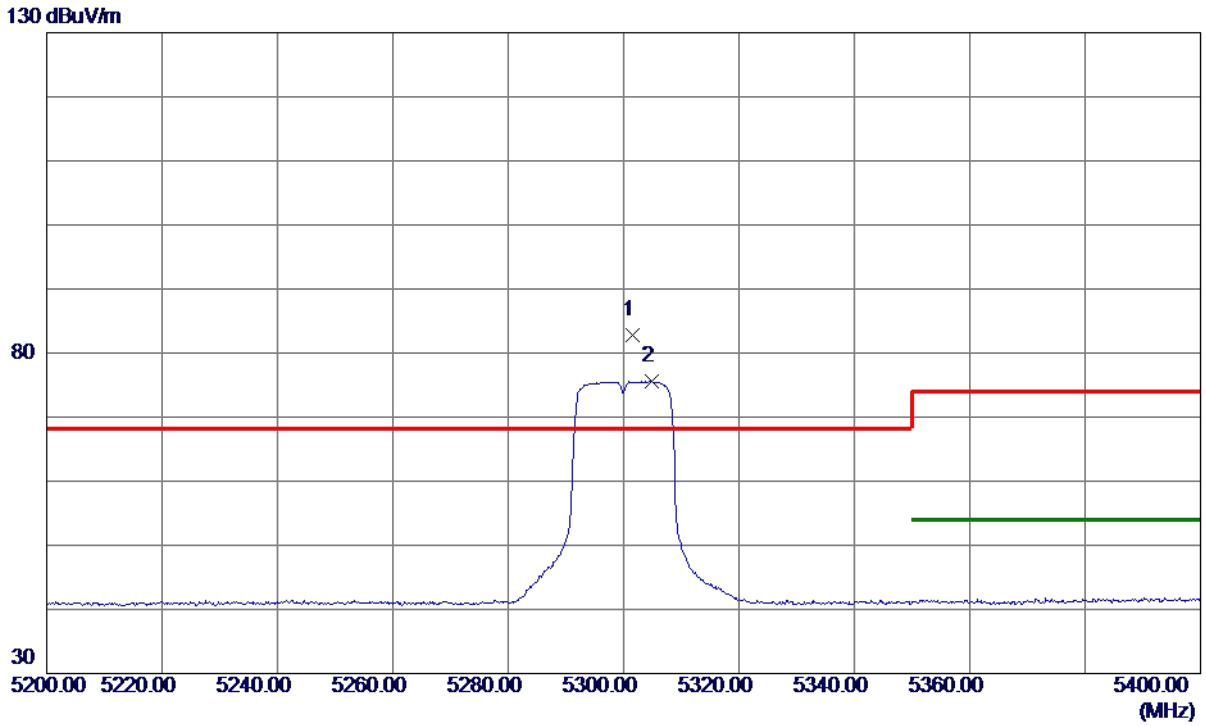


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10517.9830	34.98	11.54	46.52	68.30	-21.78	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5300 MHz

Vertical

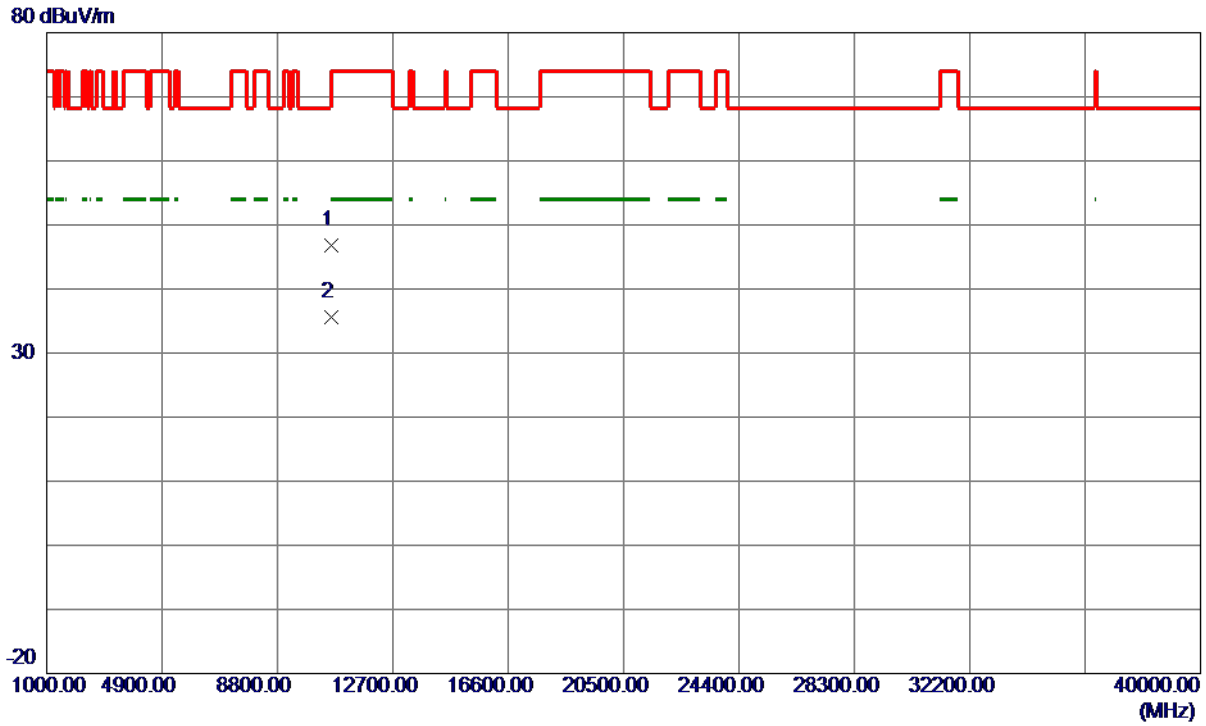


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5301.6000	68.10	14.67	82.77	68.30	14.47	Peak	No Limit
2	5304.9000	60.92	14.68	75.60	999.00	-923.40	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5300 MHz

Vertical

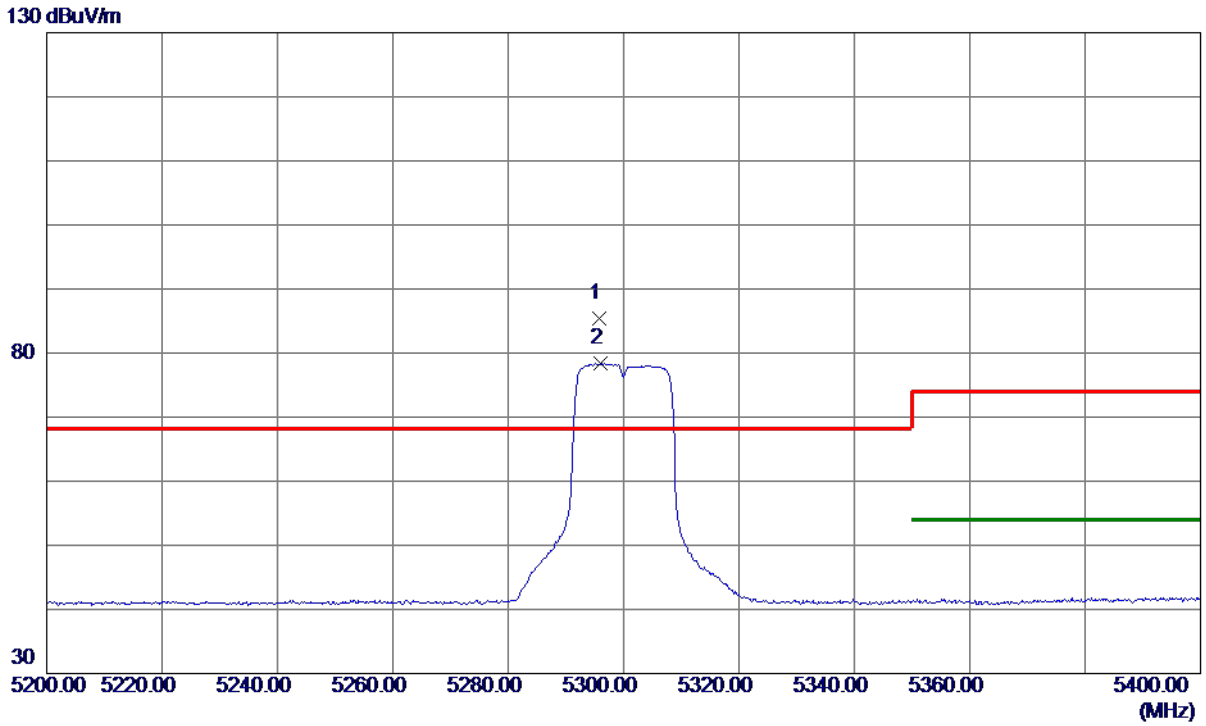


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10602.2080	35.34	11.55	46.89	74.00	-27.11	Peak	
2 *	10602.2820	23.96	11.55	35.51	54.00	-18.49	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5300 MHz

Horizontal

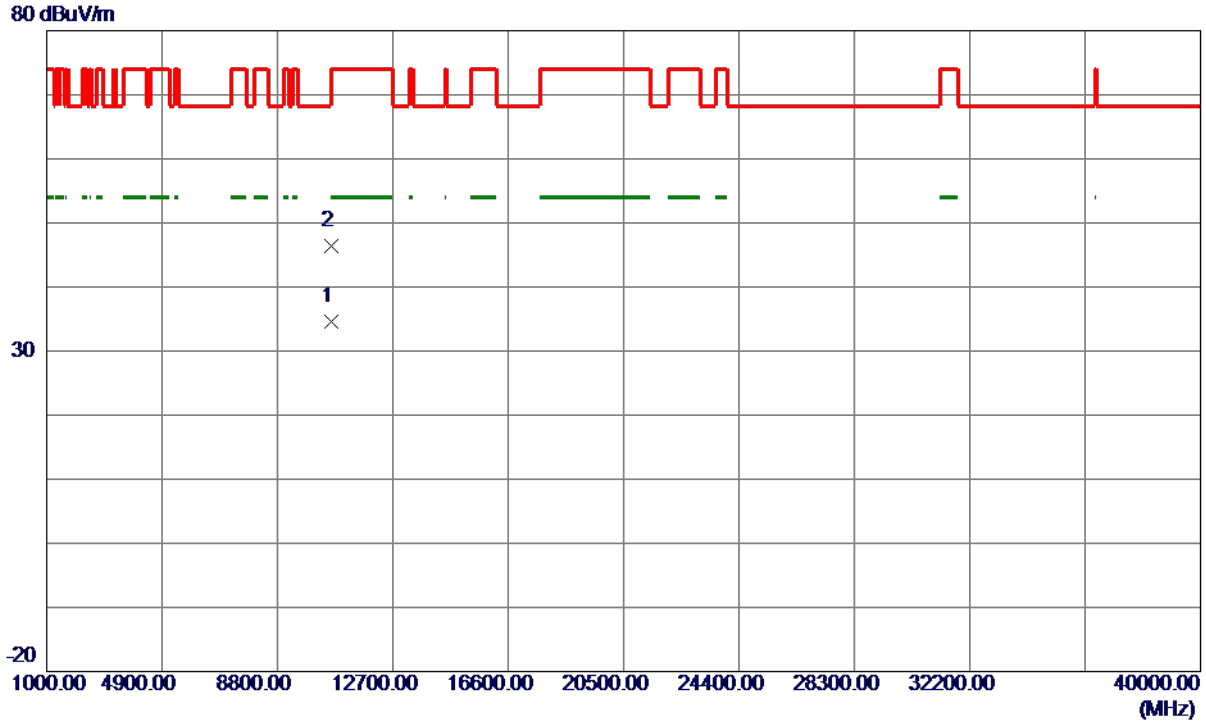


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5295.7000	70.65	14.66	85.31	68.30	17.01	Peak	No Limit
2	5296.1000	63.65	14.66	78.31	999.00	-920.69	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5300 MHz

Horizontal

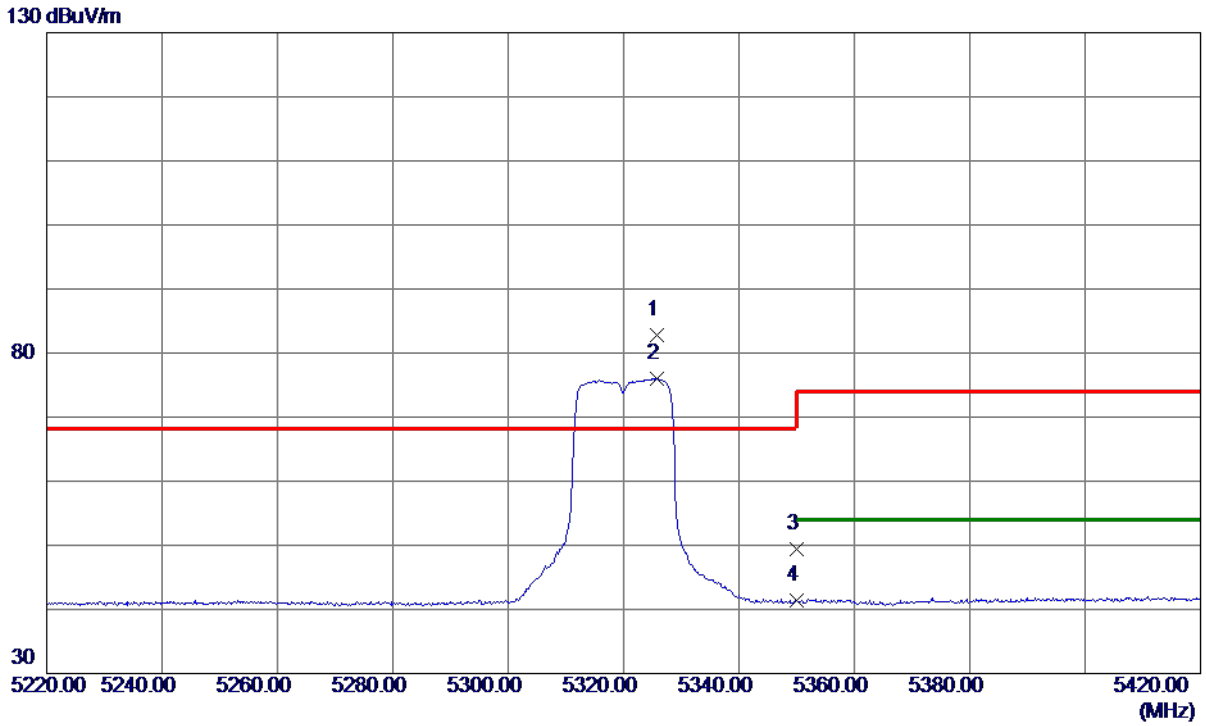


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10600.3019	22.98	11.55	34.53	54.00	-19.47	AVG	
2	10602.0220	34.82	11.55	46.37	74.00	-27.63	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5320 MHz

Vertical

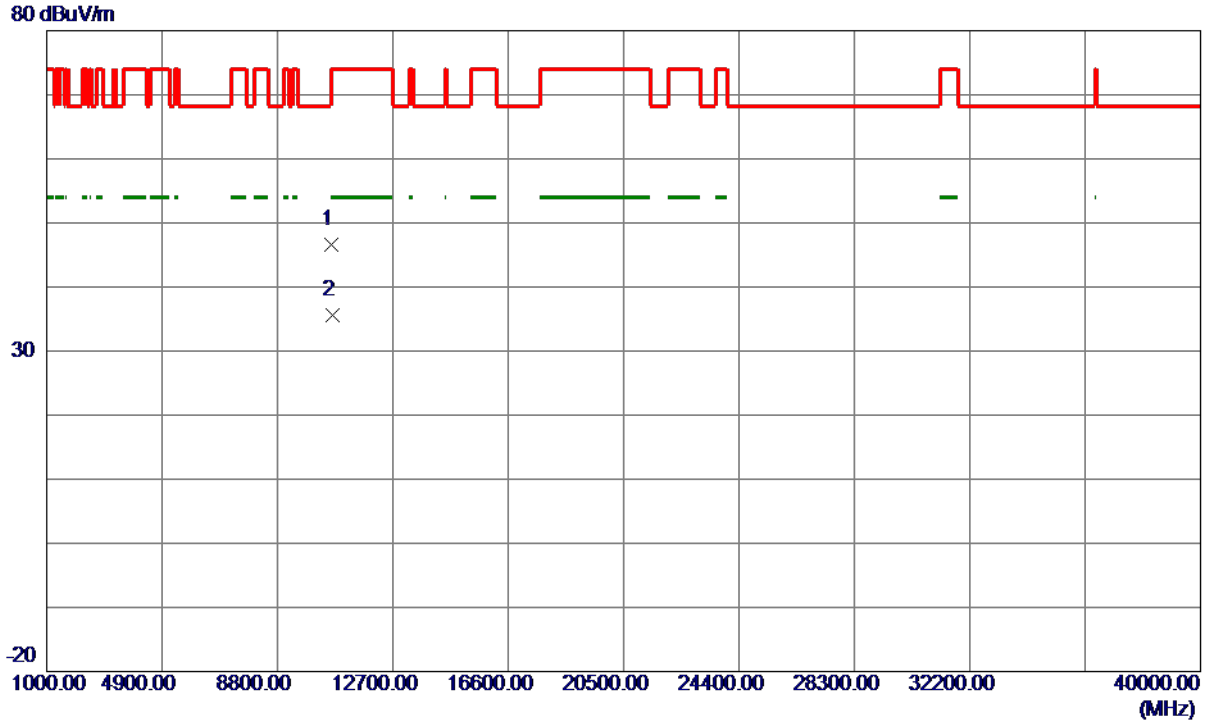


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5325.7000	67.99	14.73	82.72	68.30	14.42	Peak	No Limit
2	5325.7000	61.24	14.73	75.97	999.00	-923.03	AVG	No Limit
3	5350.0000	34.67	14.79	49.46	74.00	-24.54	Peak	
4	5350.0000	26.63	14.79	41.42	54.00	-12.58	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5320 MHz

Vertical

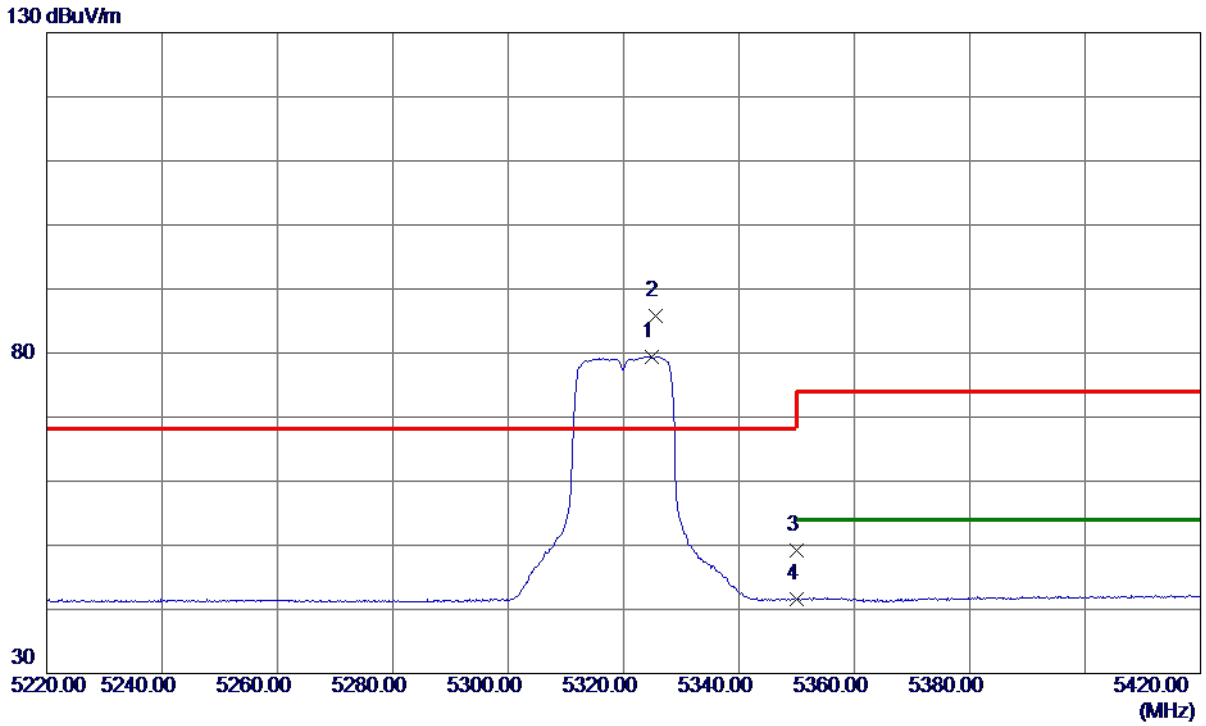


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10639.8400	35.10	11.56	46.66	74.00	-27.34	Peak	
2 *	10641.6769	24.07	11.56	35.63	54.00	-18.37	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5320 MHz

Horizontal

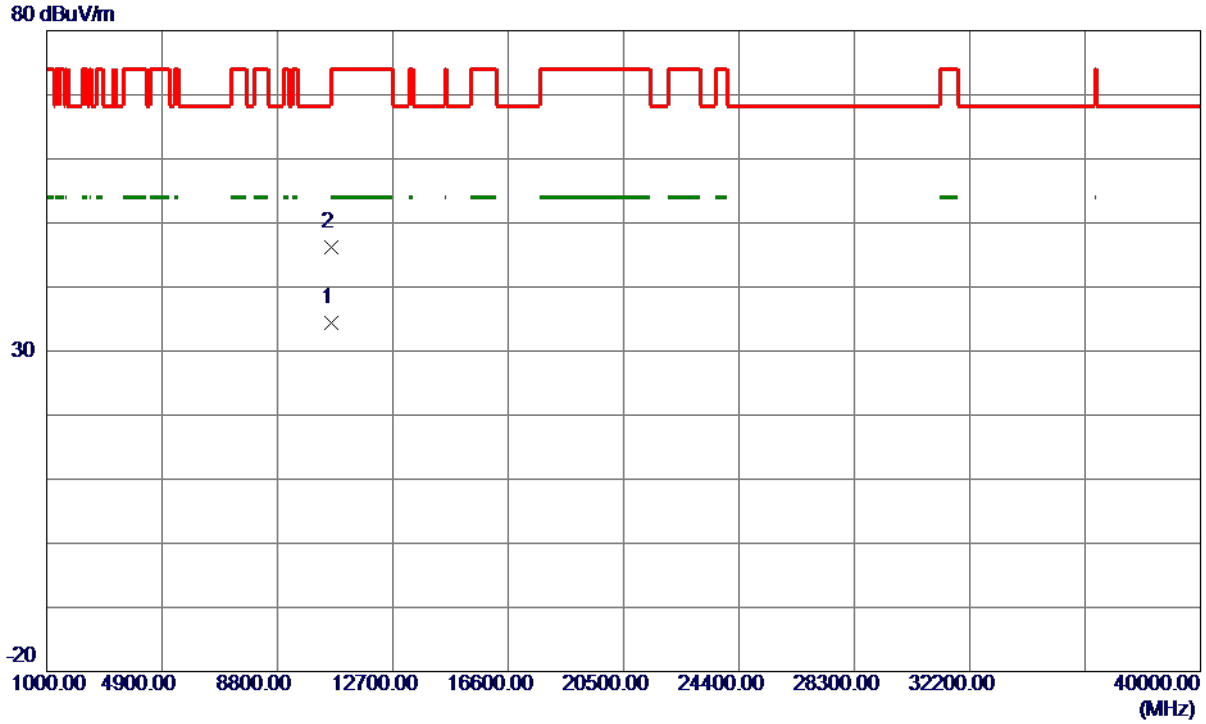


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5324.8000	64.75	14.73	79.48	999.00	-919.52	AVG	No Limit
2 *	5325.5000	71.11	14.73	85.84	68.30	17.54	Peak	No Limit
3	5350.0000	34.34	14.79	49.13	74.00	-24.87	Peak	
4	5350.0000	26.76	14.79	41.55	54.00	-12.45	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX A Mode 5320 MHz

Horizontal

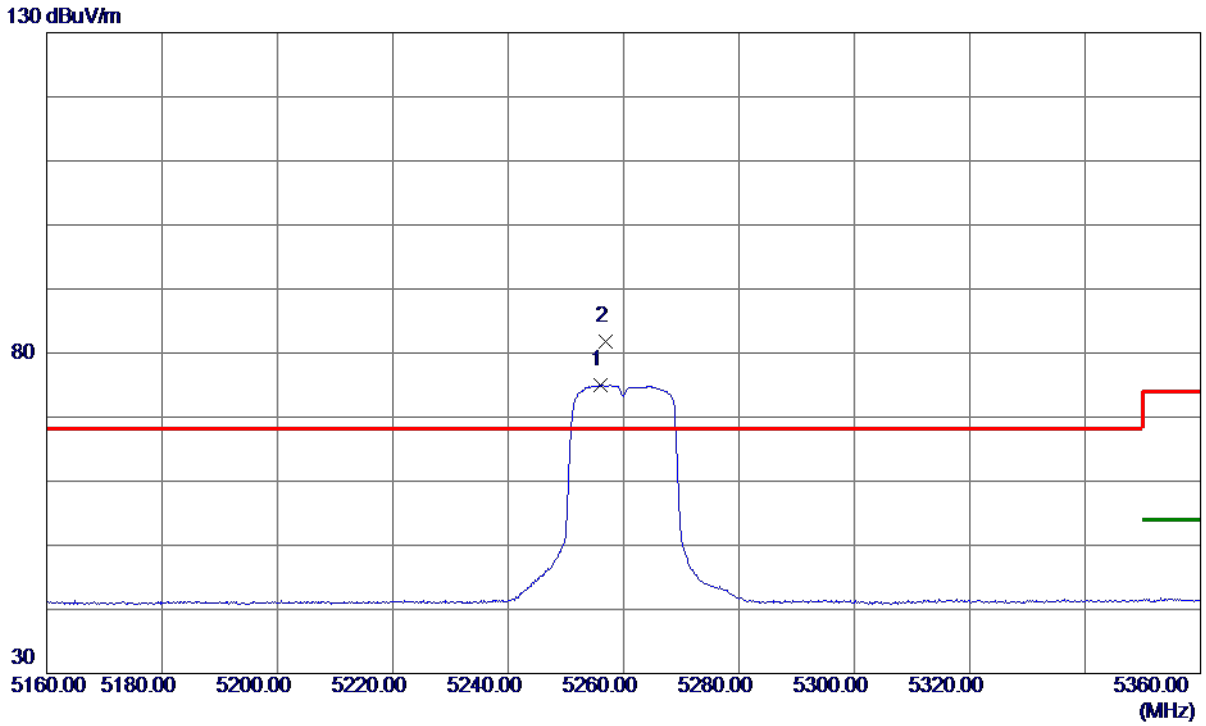


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10639.7080	22.91	11.56	34.47	54.00	-19.53	AVG	
2	10640.2500	34.65	11.56	46.21	74.00	-27.79	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5260 MHz

Vertical

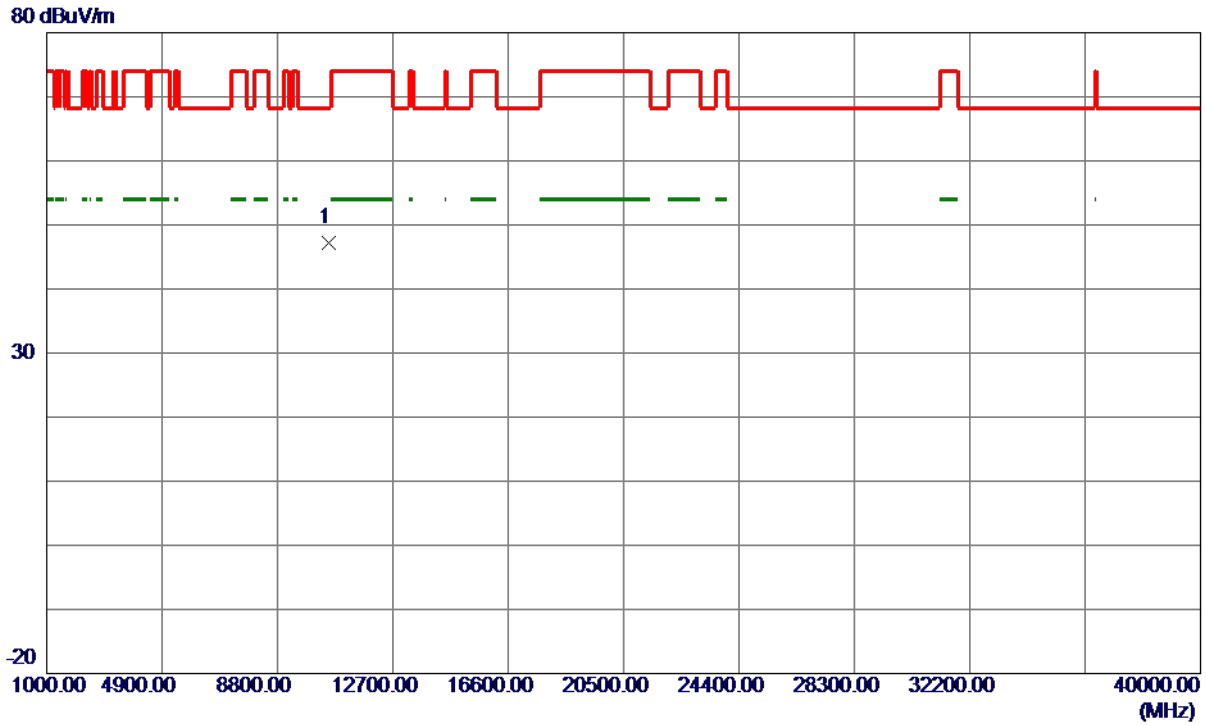


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5255.9000	60.48	14.57	75.05	999.00	-923.95	AVG	No Limit
2 *	5256.9000	67.24	14.57	81.81	68.30	13.51	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5260 MHz

Vertical

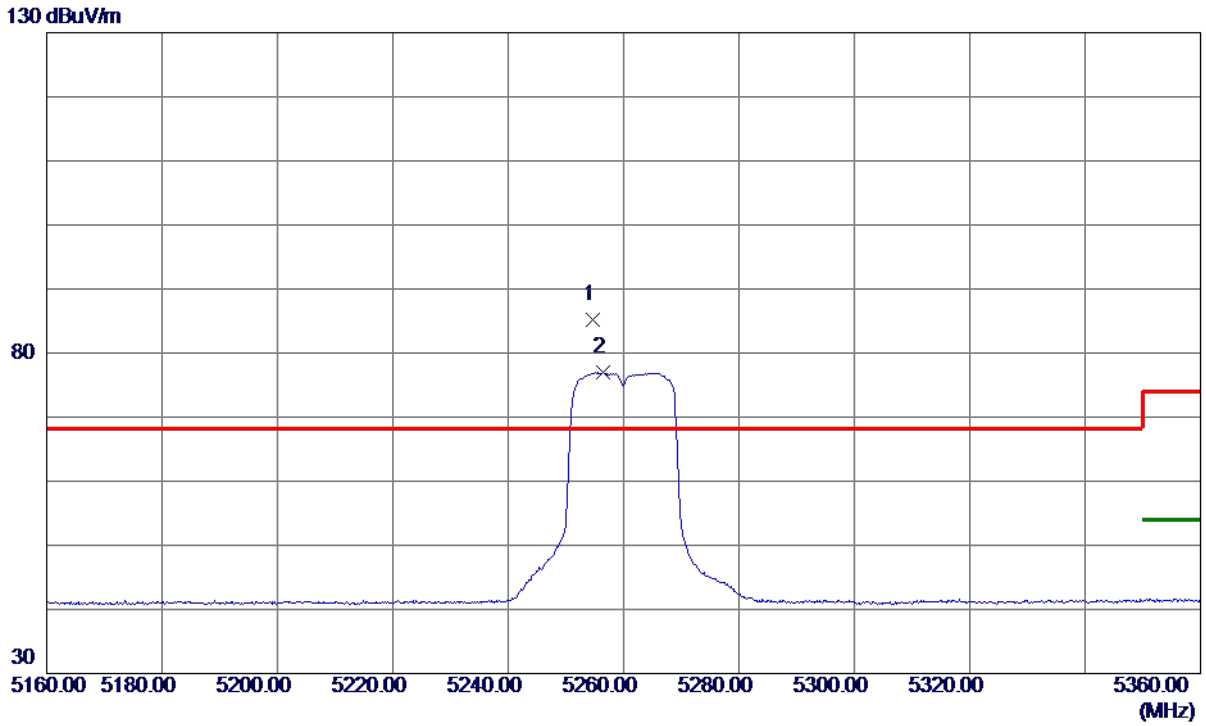


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10518.3700	35.70	11.54	47.24	68.30	-21.06	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5260 MHz

Horizontal

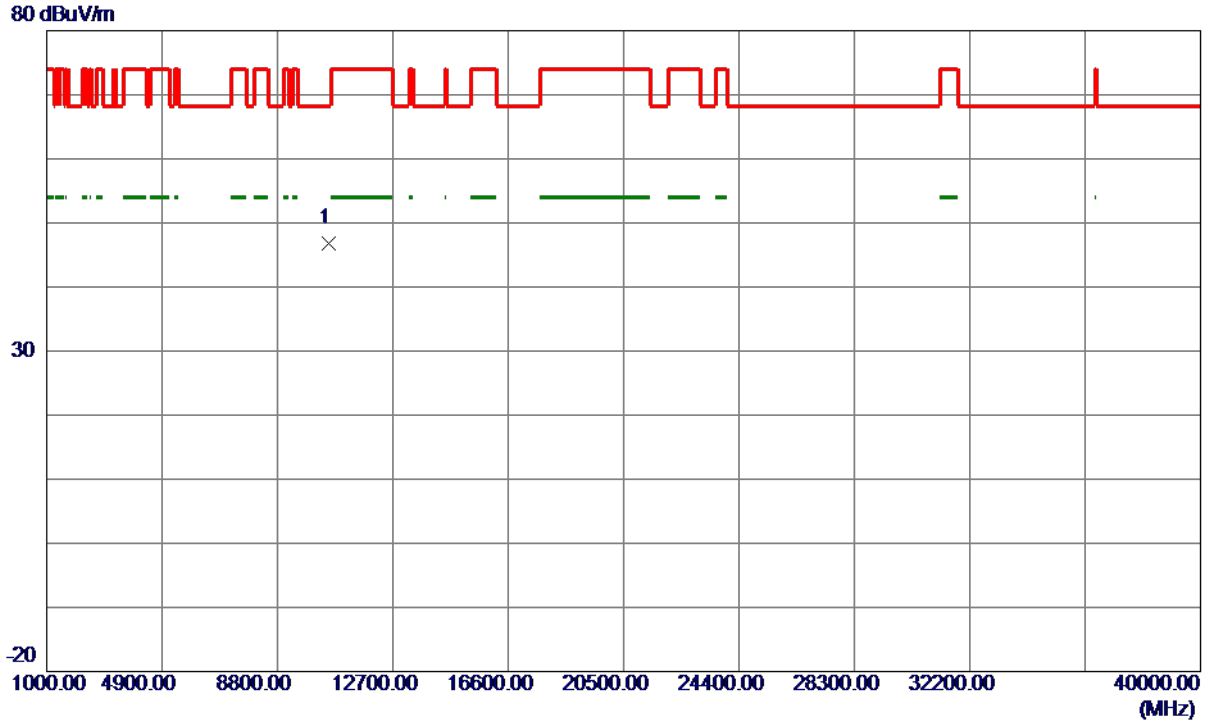


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5254.6000	70.55	14.56	85.11	68.30	16.81	Peak	No Limit
2	5256.4000	62.36	14.57	76.93	999.00	-922.07	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5260 MHz

Horizontal

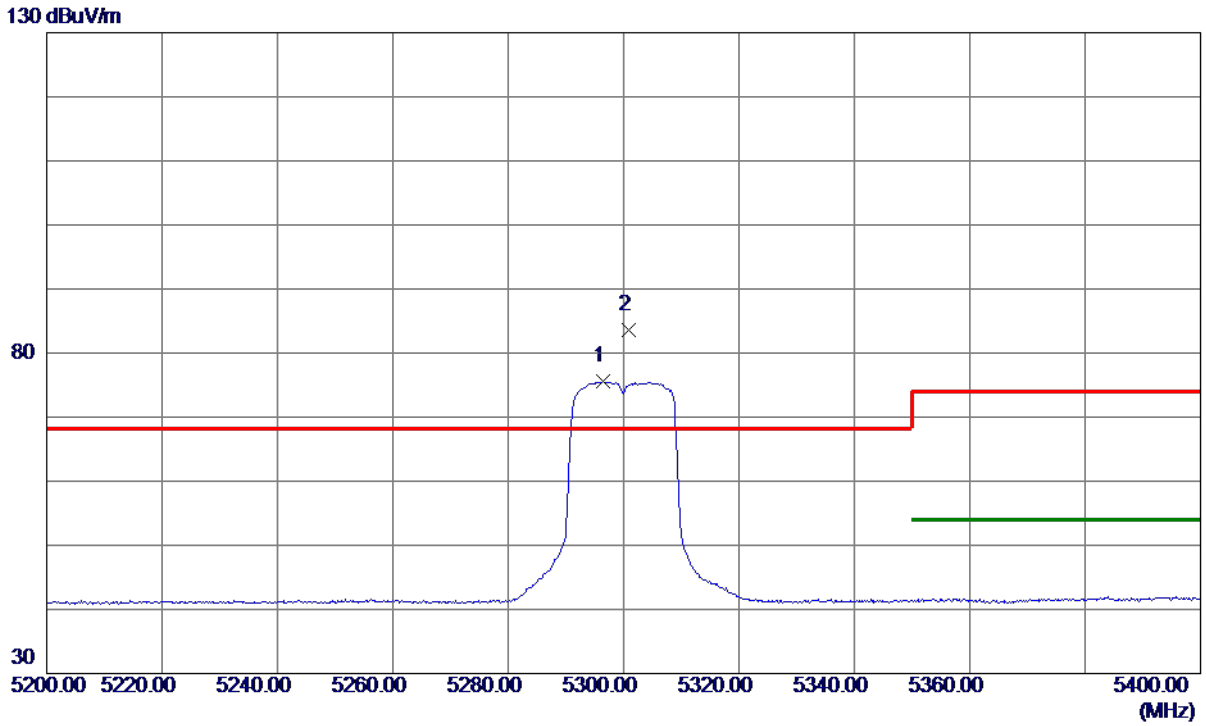


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10518.8250	35.24	11.54	46.78	68.30	-21.52	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5300 MHz

Vertical

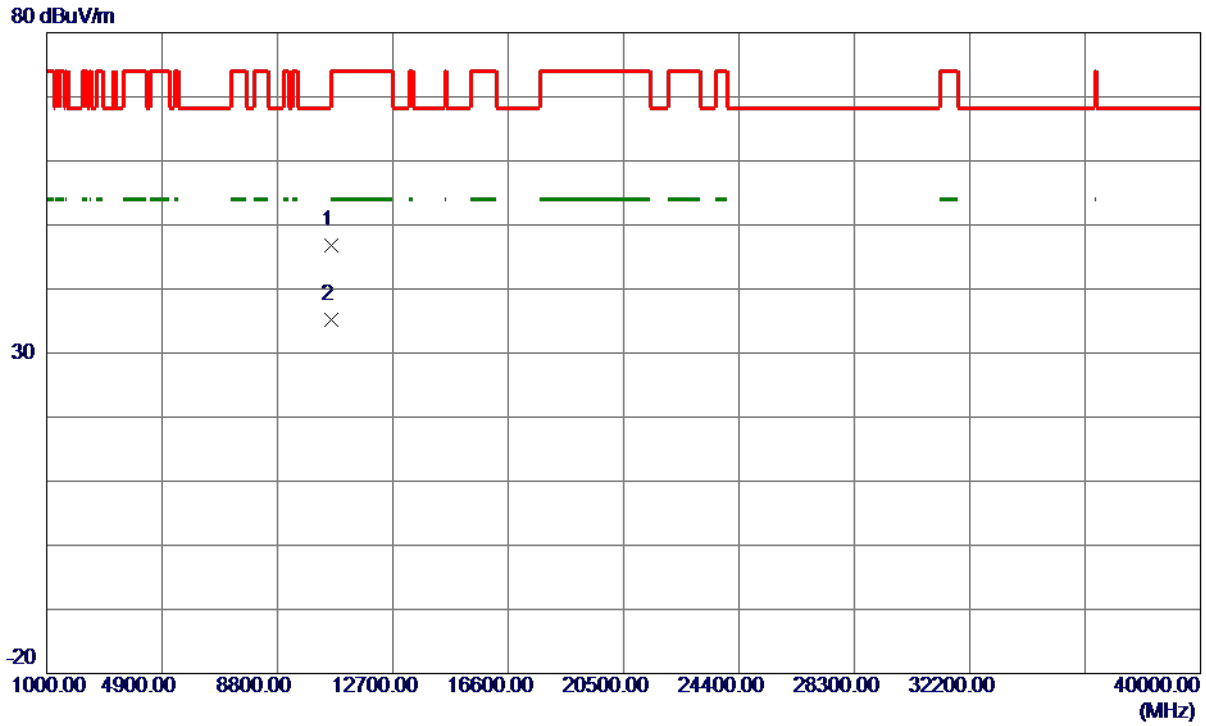


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5296.4000	60.92	14.66	75.58	999.00	-923.42	AVG	No Limit
2 *	5300.8000	68.88	14.67	83.55	68.30	15.25	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5300 MHz

Vertical

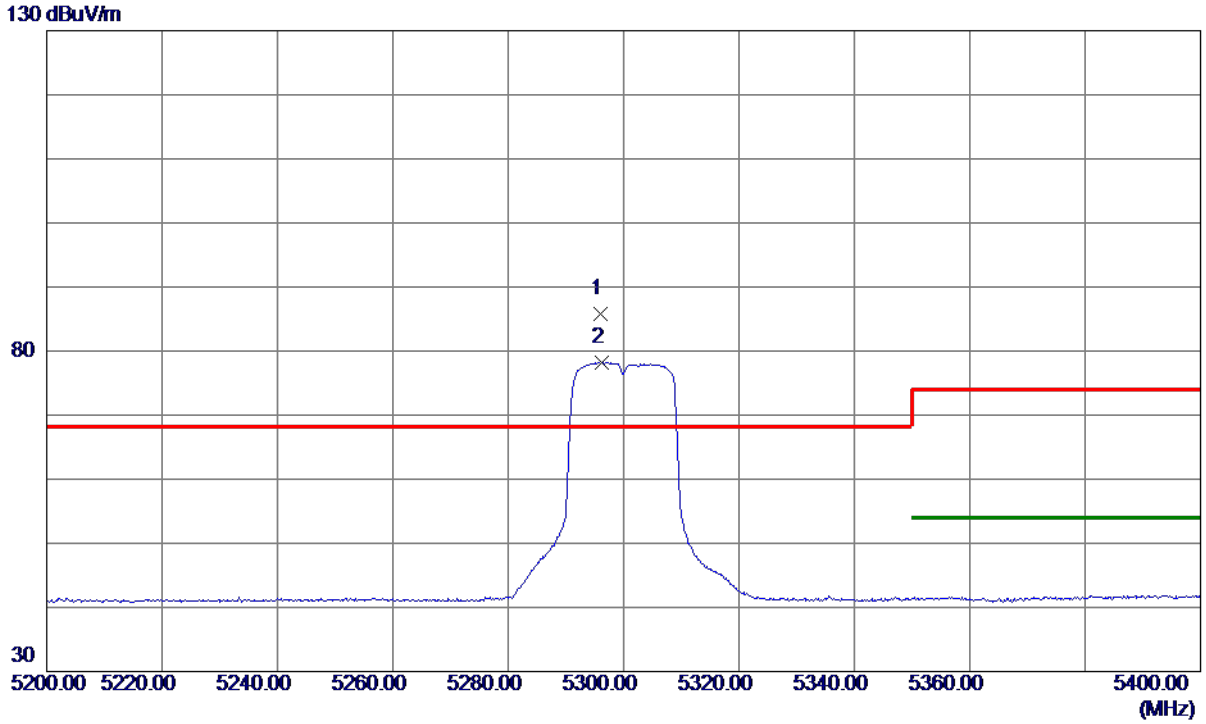


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10600.2550	35.22	11.55	46.77	74.00	-27.23	Peak	
2 *	10602.4349	23.73	11.55	35.28	54.00	-18.72	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5300 MHz

Horizontal

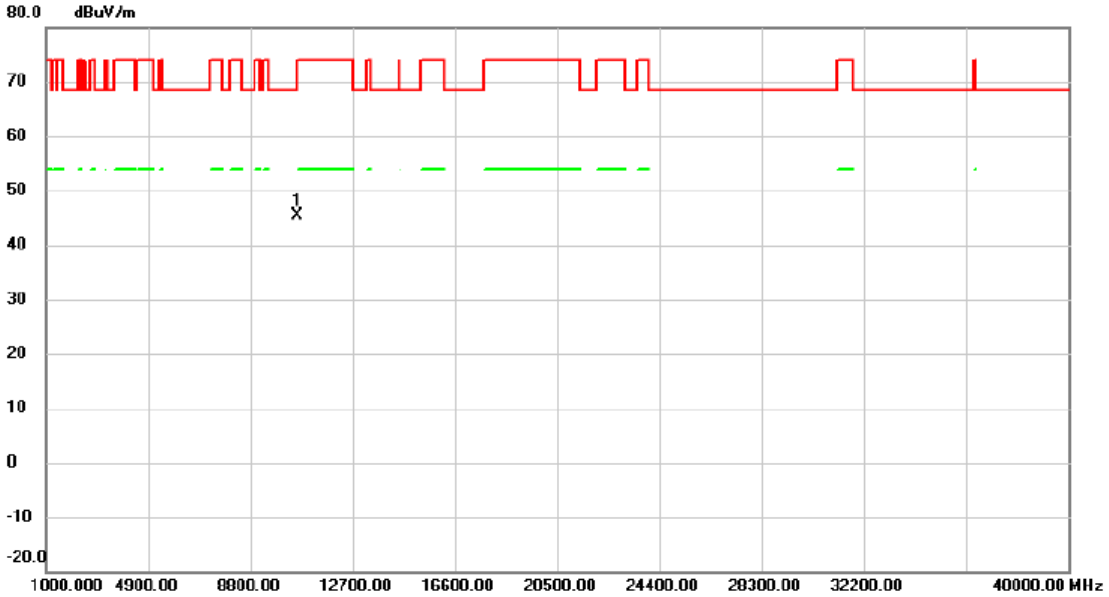


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5296.1000	71.17	14.66	85.83	68.30	17.53	Peak	No Limit
2	5296.2000	63.57	14.66	78.23	999.00	-920.77	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5300 MHz

Horizontal

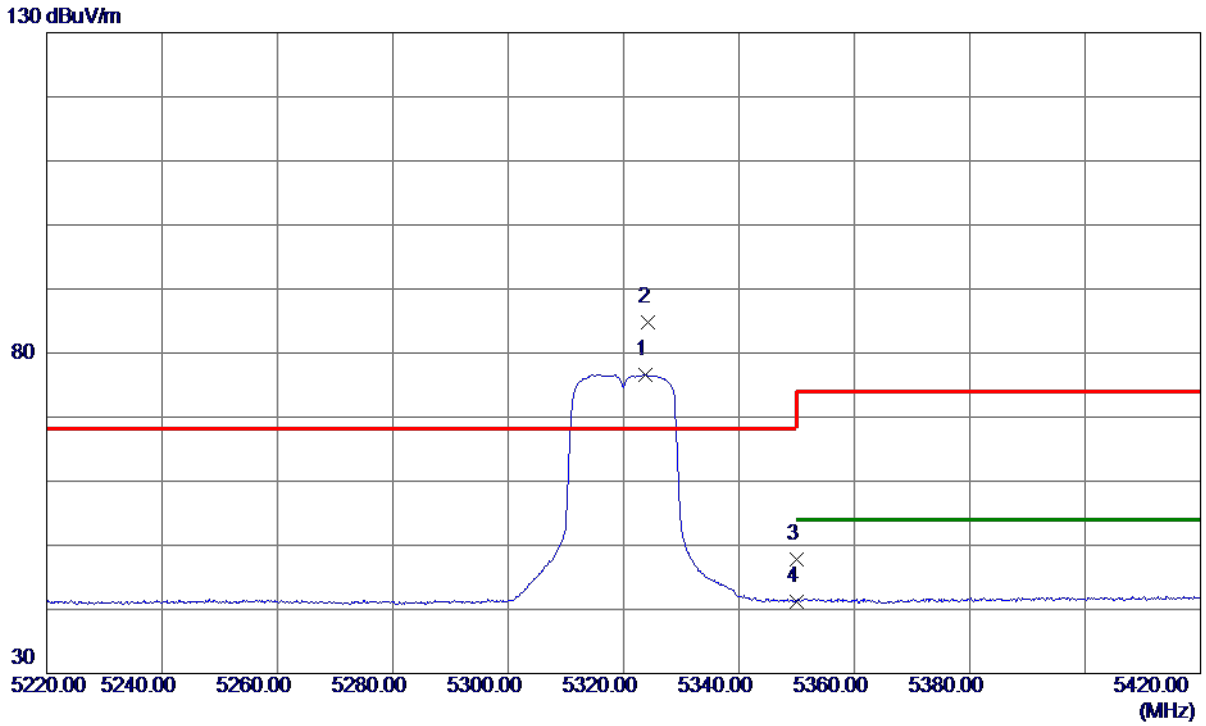


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10598.843	33.93	11.55	45.48	68.30	-22.82	peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5320 MHz

Vertical

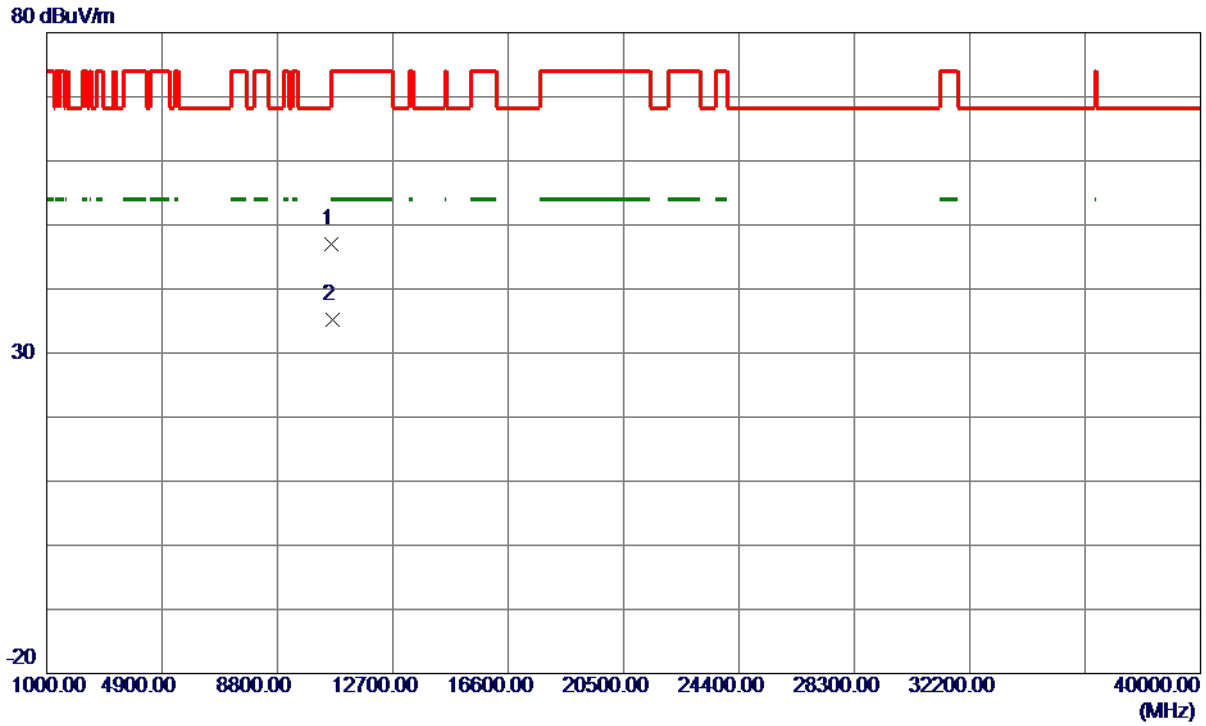


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5323.8000	61.90	14.73	76.63	999.00	-922.37	AVG	No Limit
2 *	5324.2000	70.11	14.73	84.84	68.30	16.54	Peak	No Limit
3	5350.0000	33.09	14.79	47.88	74.00	-26.12	Peak	
4	5350.0000	26.50	14.79	41.29	54.00	-12.71	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5320 MHz

Vertical

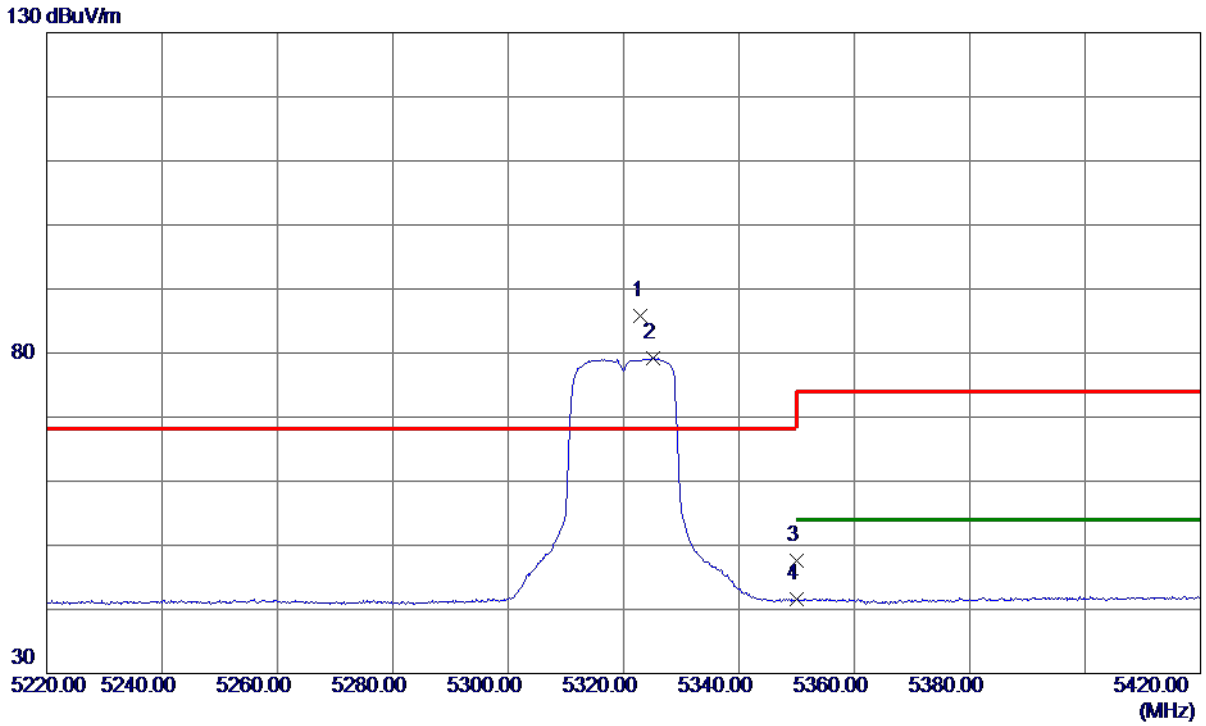


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10641.5050	35.49	11.56	47.05	74.00	-26.95	Peak	
2 *	10641.9850	23.72	11.56	35.28	54.00	-18.72	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5320 MHz

Horizontal

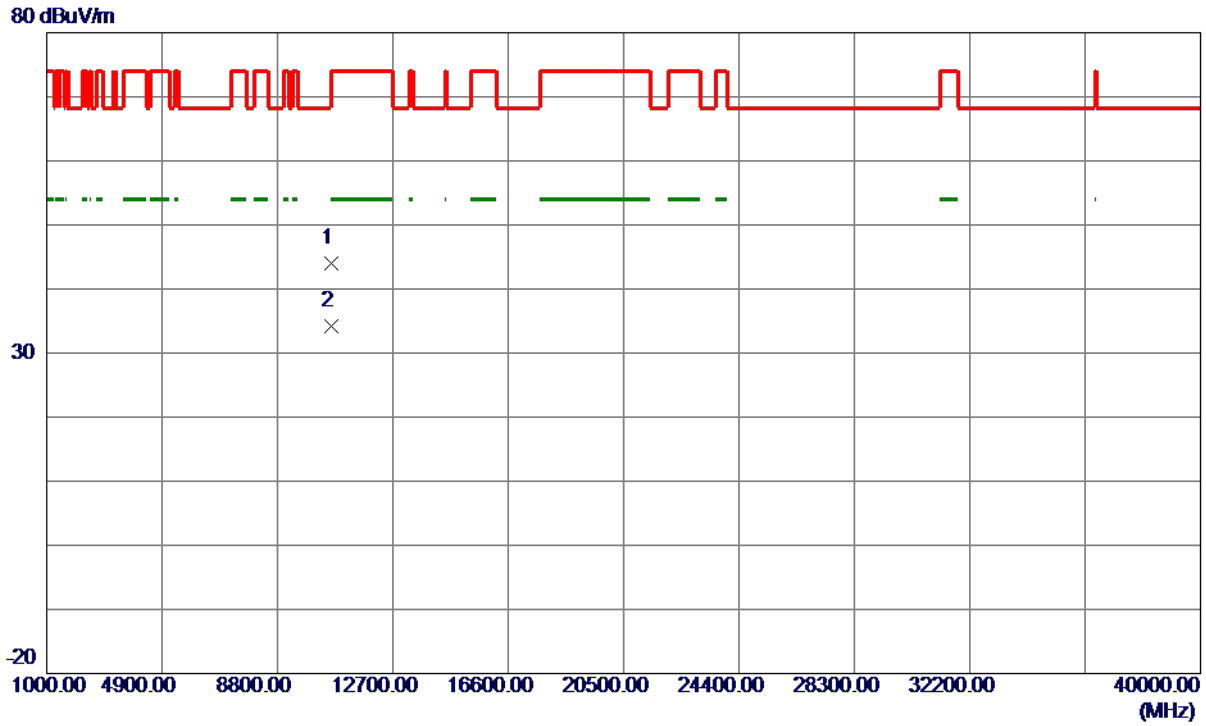


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5323.0000	70.99	14.73	85.72	68.30	17.42	Peak	No Limit
2	5325.2000	64.45	14.73	79.18	999.00	-919.82	AVG	No Limit
3	5350.0000	32.85	14.79	47.64	74.00	-26.36	Peak	
4	5350.0000	26.89	14.79	41.68	54.00	-12.32	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2A_TX N (HT20) Mode 5320 MHz

Horizontal

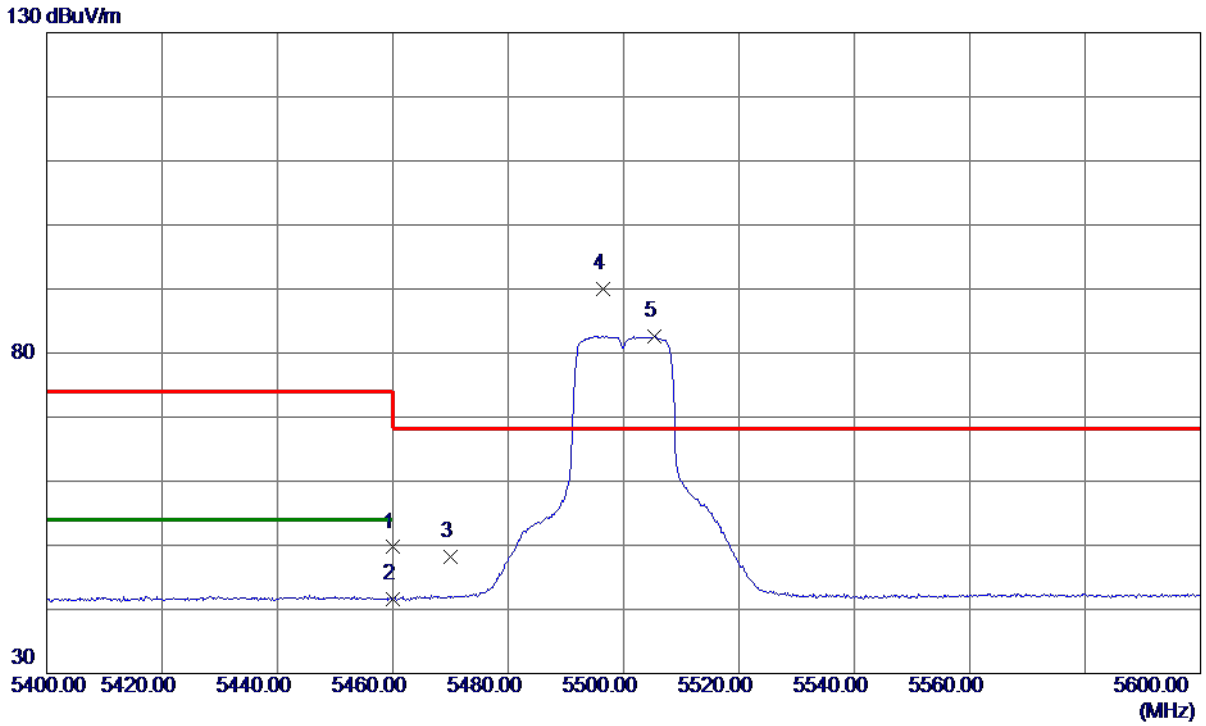


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10638.0770	32.39	11.56	43.95	74.00	-30.05	Peak	
2 *	10639.2330	22.70	11.56	34.26	54.00	-19.74	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5500 MHz

Vertical

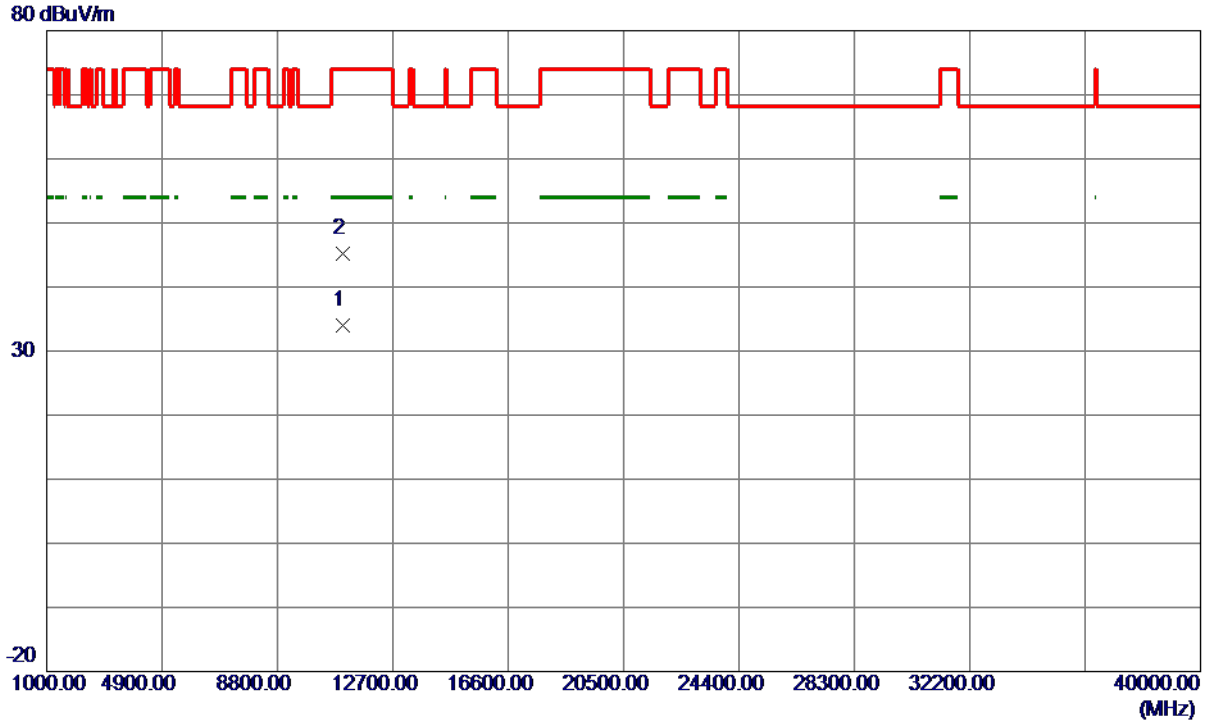


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	34.65	15.05	49.70	74.00	-24.30	Peak	
2	5460.0000	26.58	15.05	41.63	54.00	-12.37	AVG	
3	5470.0000	33.18	15.07	48.25	68.30	-20.05	Peak	
4 *	5496.4000	74.87	15.14	90.01	68.30	21.71	Peak	No Limit
5	5505.3000	67.46	15.16	82.62	999.00	-916.38	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5500 MHz

Vertical

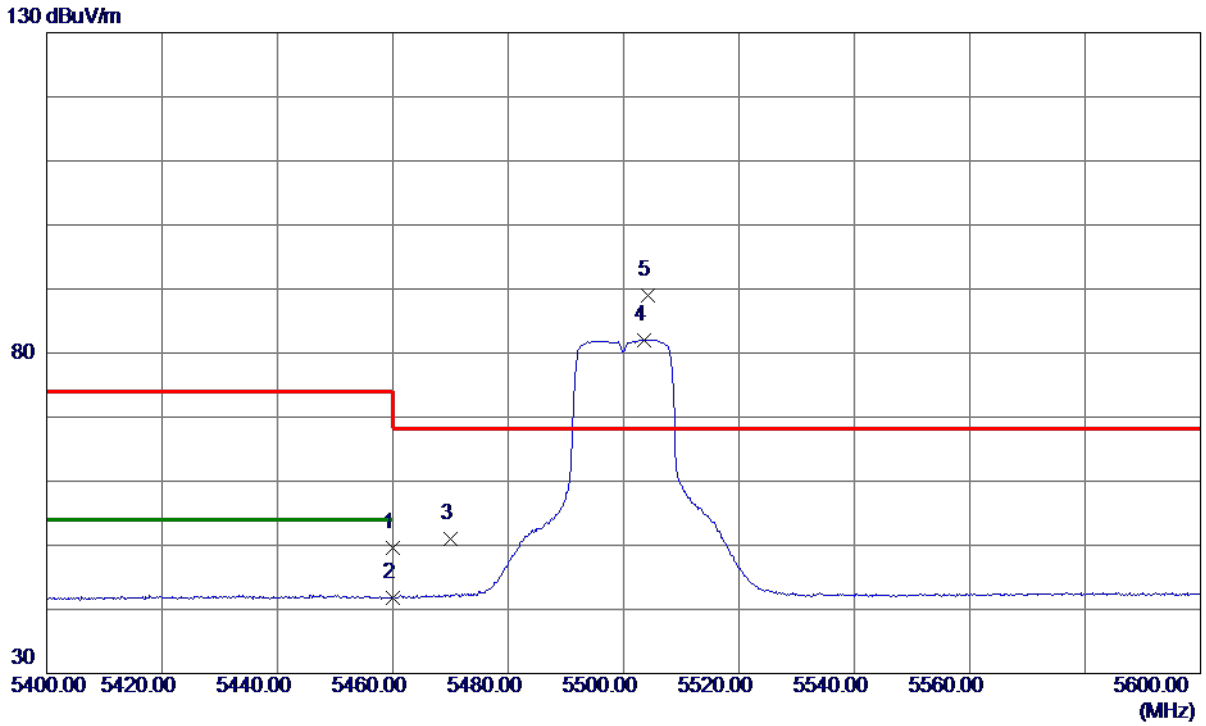


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10999.9029	22.44	11.62	34.06	54.00	-19.94	AVG	
2	11001.5870	33.49	11.62	45.11	74.00	-28.89	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5500 MHz

Horizontal

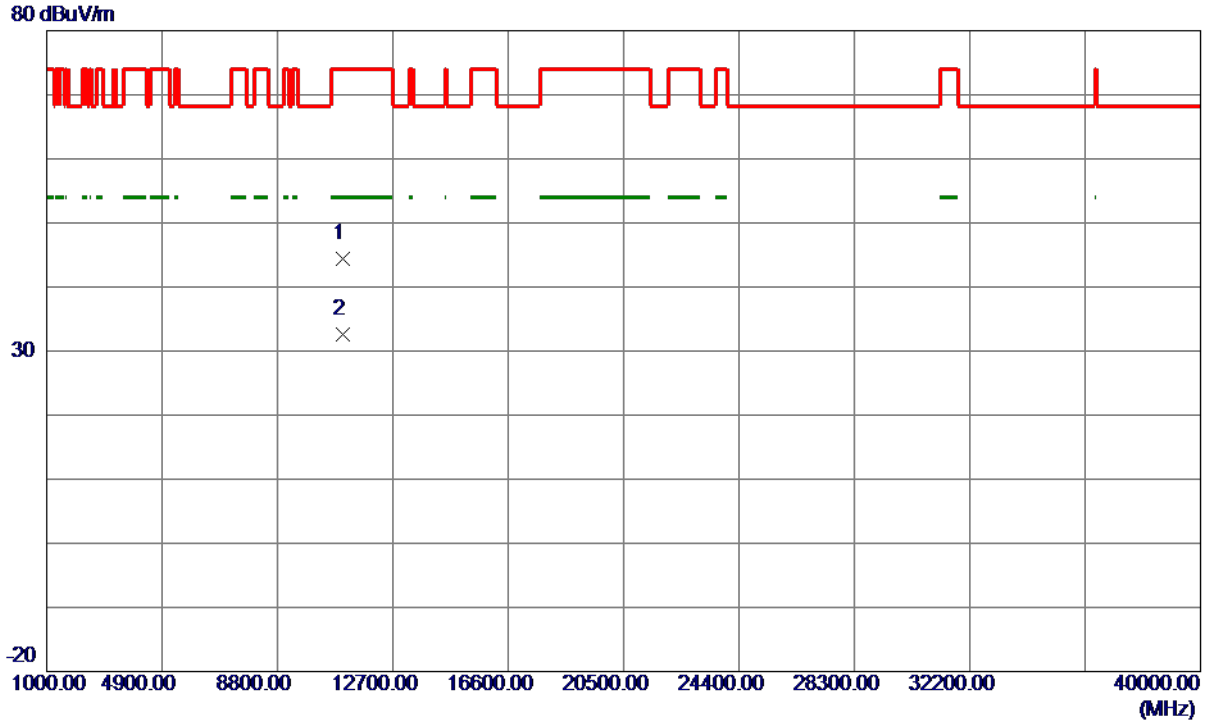


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	34.54	15.05	49.59	74.00	-24.41	Peak	
2	5460.0000	26.69	15.05	41.74	54.00	-12.26	AVG	
3	5470.0000	35.90	15.07	50.97	68.30	-17.33	Peak	
4	5503.5000	66.93	15.15	82.08	999.00	-916.92	AVG	No Limit
5 *	5504.3000	73.92	15.16	89.08	68.30	20.78	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5500 MHz

Horizontal

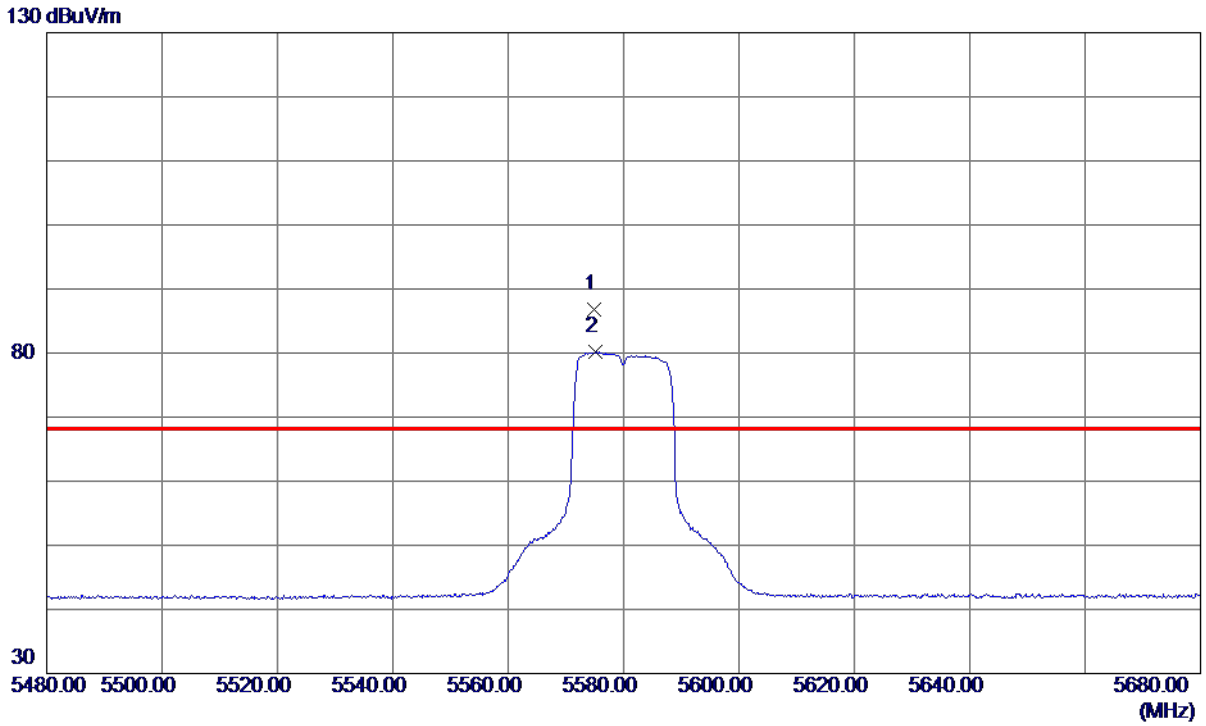


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10997.7500	32.71	11.62	44.33	74.00	-29.67	Peak	
2 *	10999.1730	21.00	11.62	32.62	54.00	-21.38	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5580 MHz

Vertical

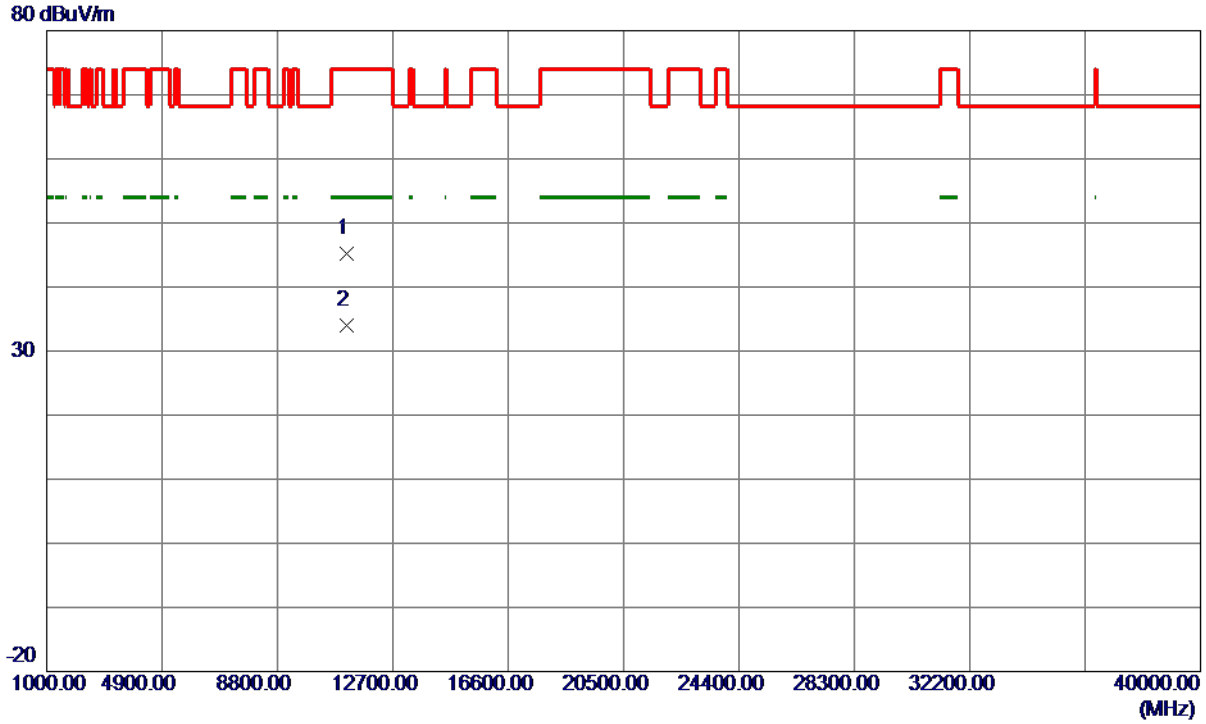


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5574.8000	71.51	15.32	86.83	68.30	18.53	Peak	No Limit
2	5575.2000	64.86	15.32	80.18	999.00	-918.82	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5580 MHz

Vertical

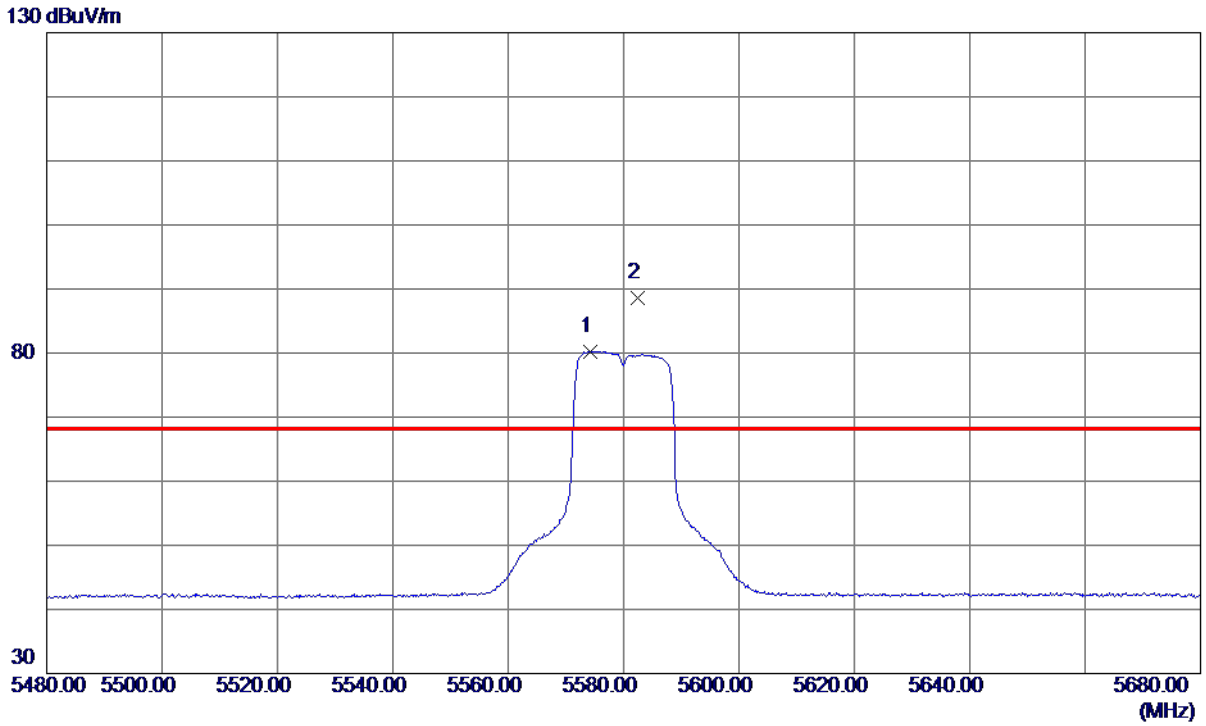


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11158.2920	33.39	11.76	45.15	74.00	-28.85	Peak	
2 *	11159.0870	22.19	11.76	33.95	54.00	-20.05	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5580 MHz

Horizontal

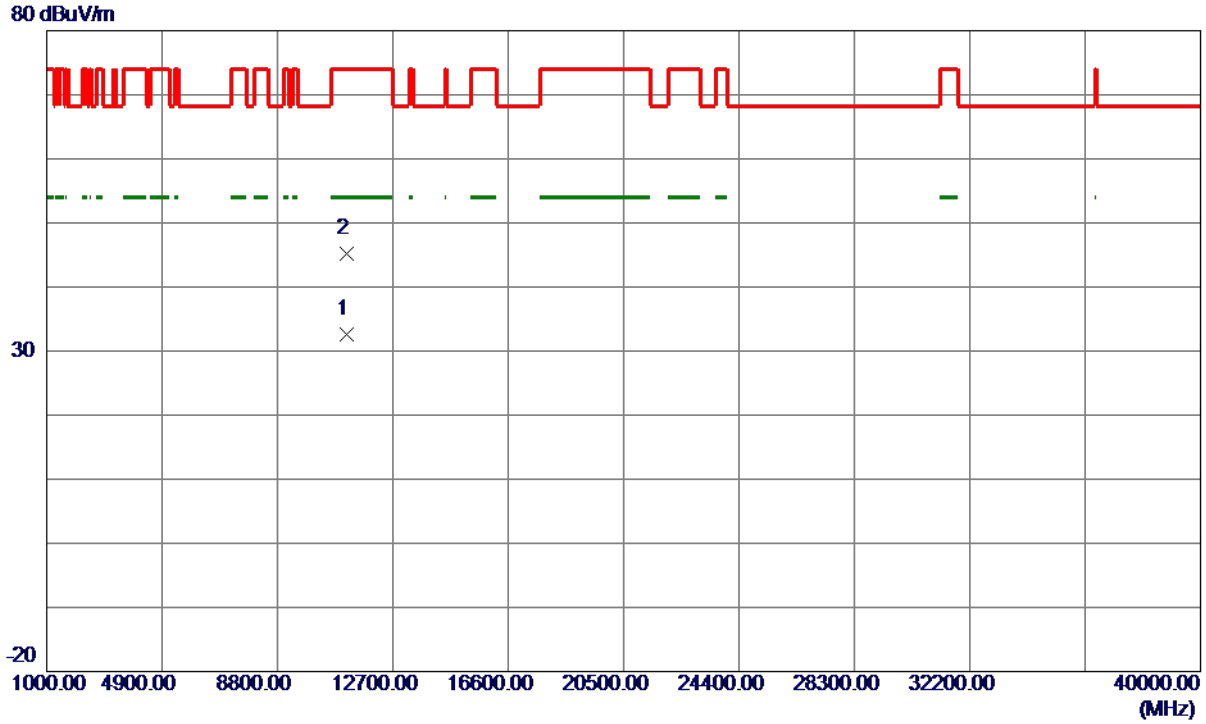


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5574.2000	64.96	15.32	80.28	999.00	-918.72	AVG	No Limit
2 *	5582.4000	73.35	15.34	88.69	68.30	20.39	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5580 MHz

Horizontal

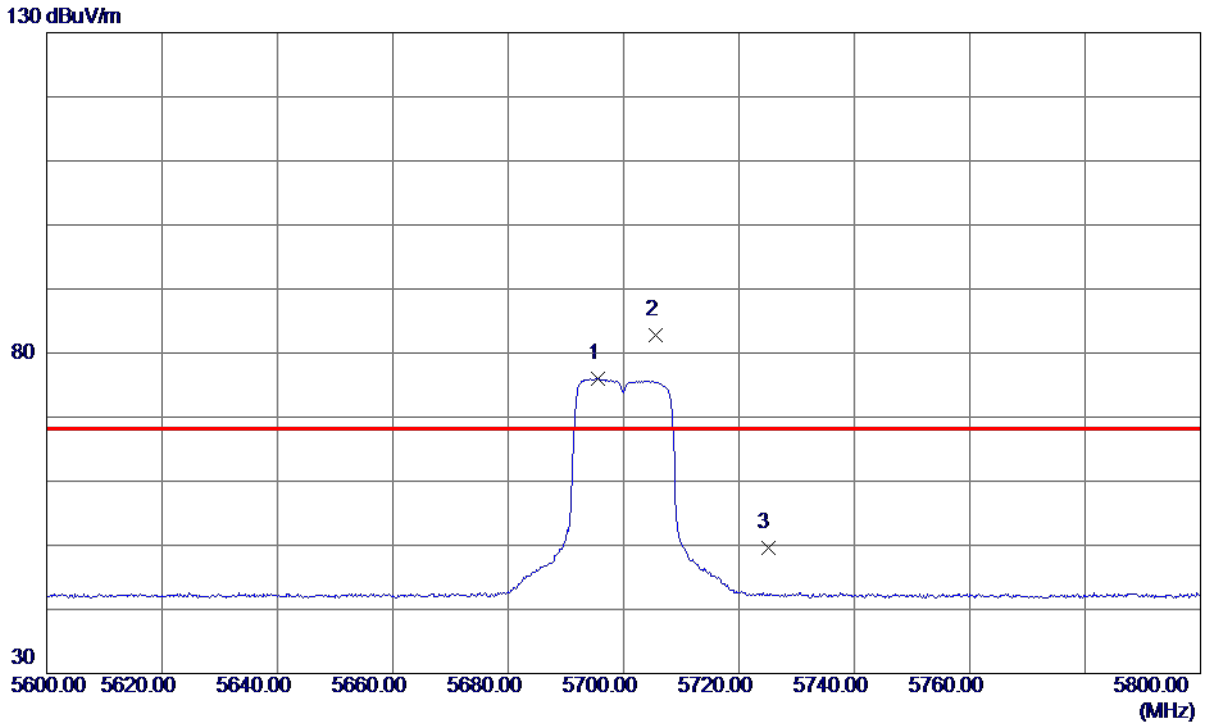


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11159.7500	20.89	11.77	32.66	54.00	-21.34	AVG	
2	11161.0630	33.52	11.77	45.29	74.00	-28.71	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5700 MHz

Vertical

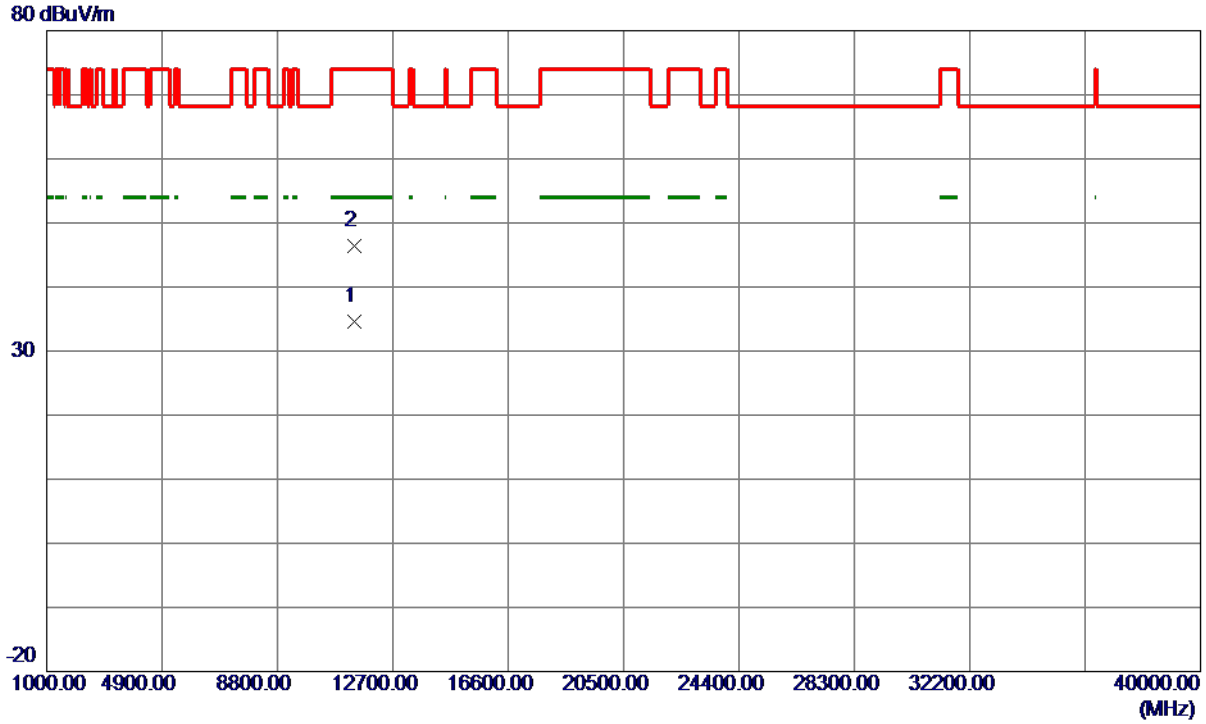


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5695.5000	60.45	15.61	76.06	999.00	-922.94	AVG	No Limit
2 *	5705.5000	67.26	15.63	82.89	68.30	14.59	Peak	No Limit
3	5725.0000	33.95	15.68	49.63	68.30	-18.67	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5700 MHz

Vertical

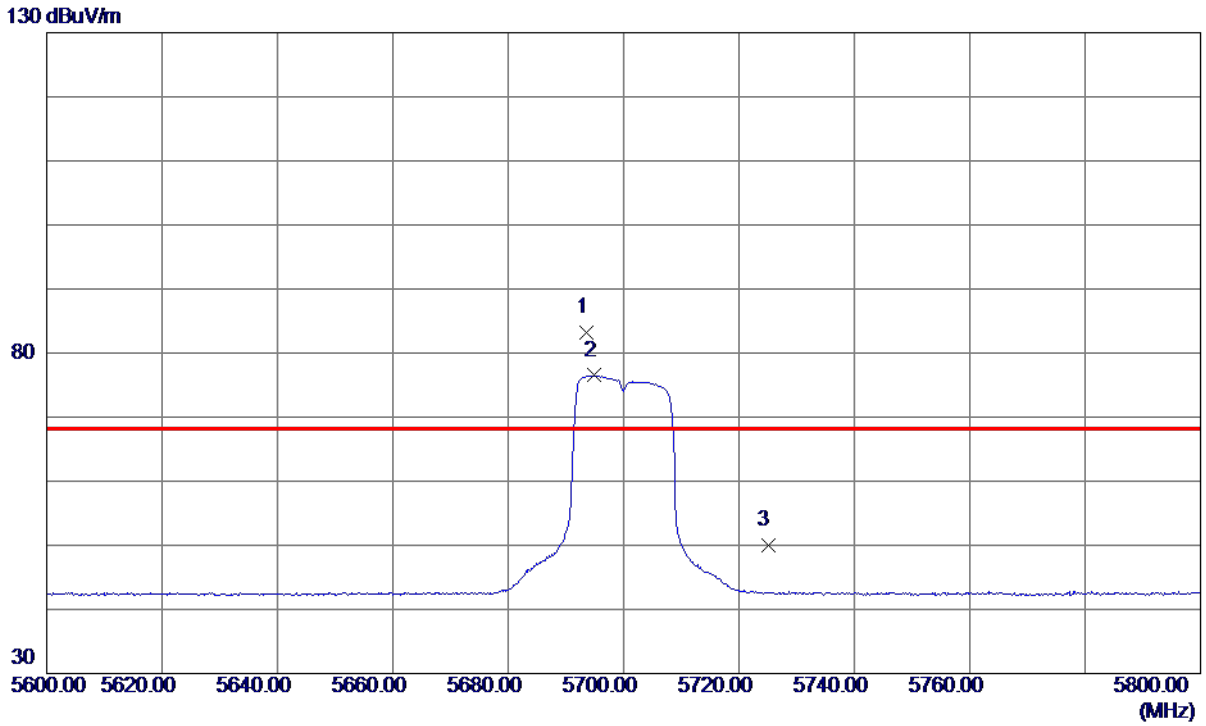


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11398.2050	22.54	11.98	34.52	54.00	-19.48	AVG	
2	11398.9800	34.37	11.98	46.35	74.00	-27.65	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5700 MHz

Horizontal

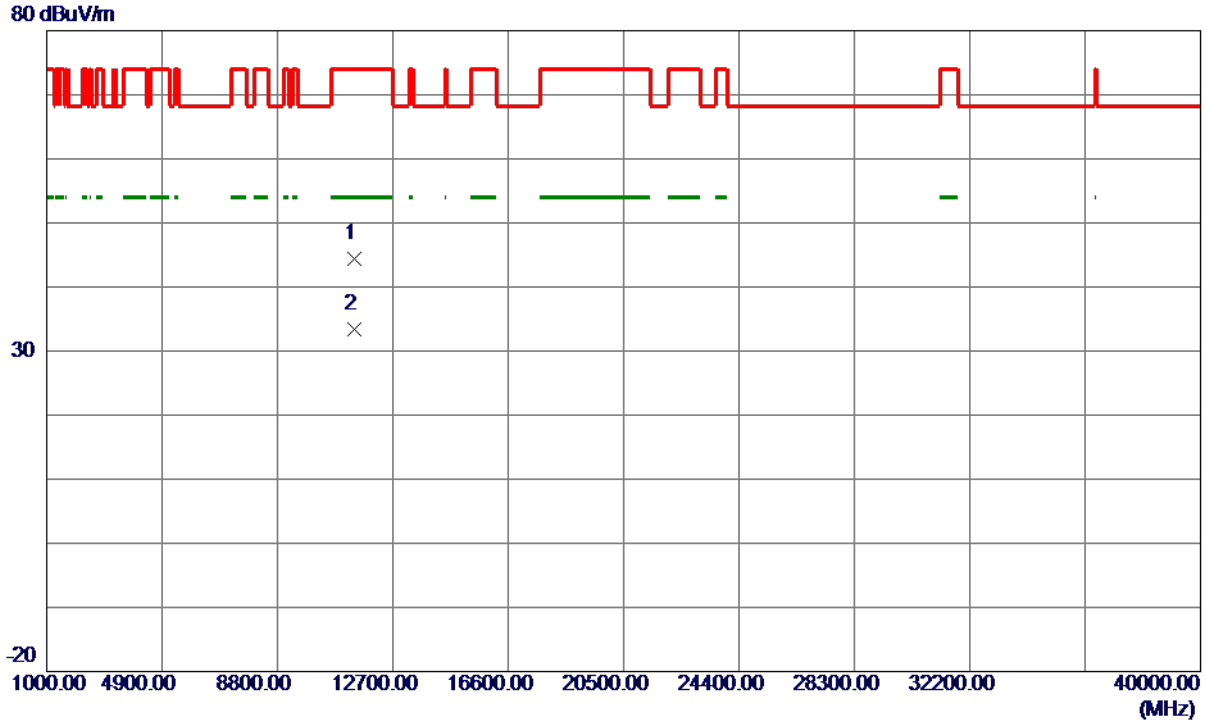


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5693.5000	67.56	15.60	83.16	68.30	14.86	Peak	No Limit
2	5694.9000	60.89	15.61	76.50	999.00	-922.50	AVG	No Limit
3	5725.0000	34.38	15.68	50.06	68.30	-18.24	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX A Mode 5700 MHz

Horizontal

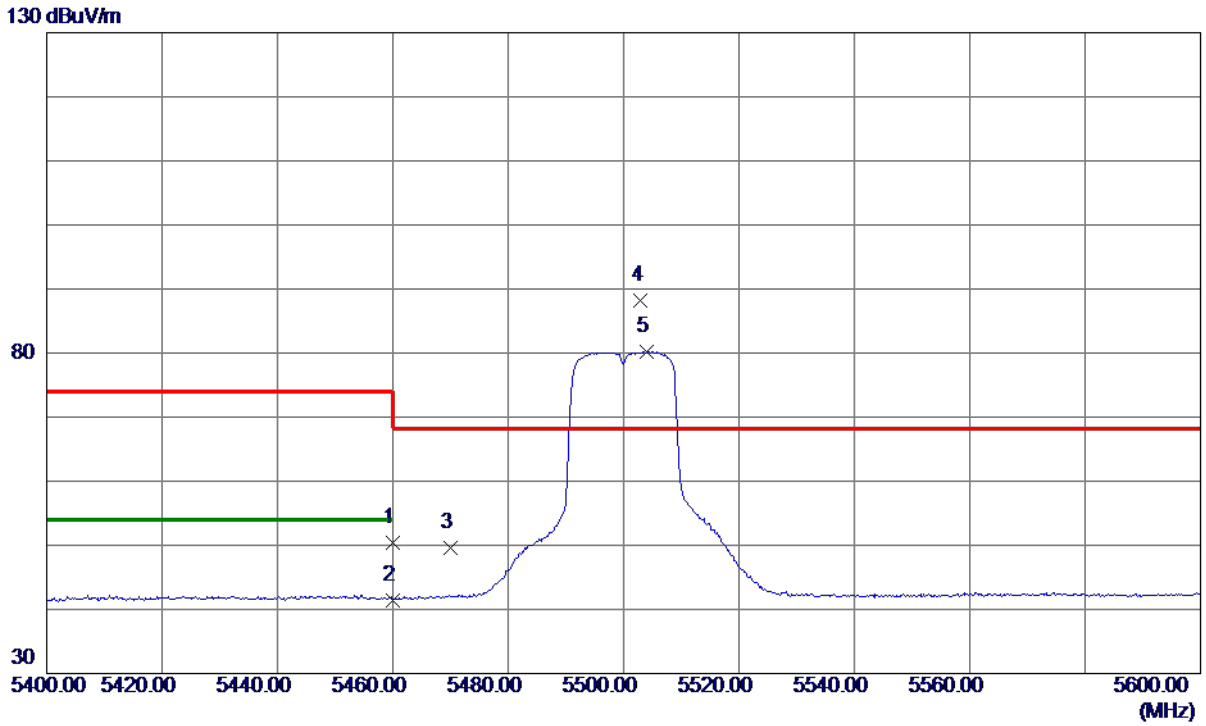


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11400.8170	32.46	11.98	44.44	74.00	-29.56	Peak	
2 *	11402.2330	21.49	11.99	33.48	54.00	-20.52	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5500 MHz

Vertical

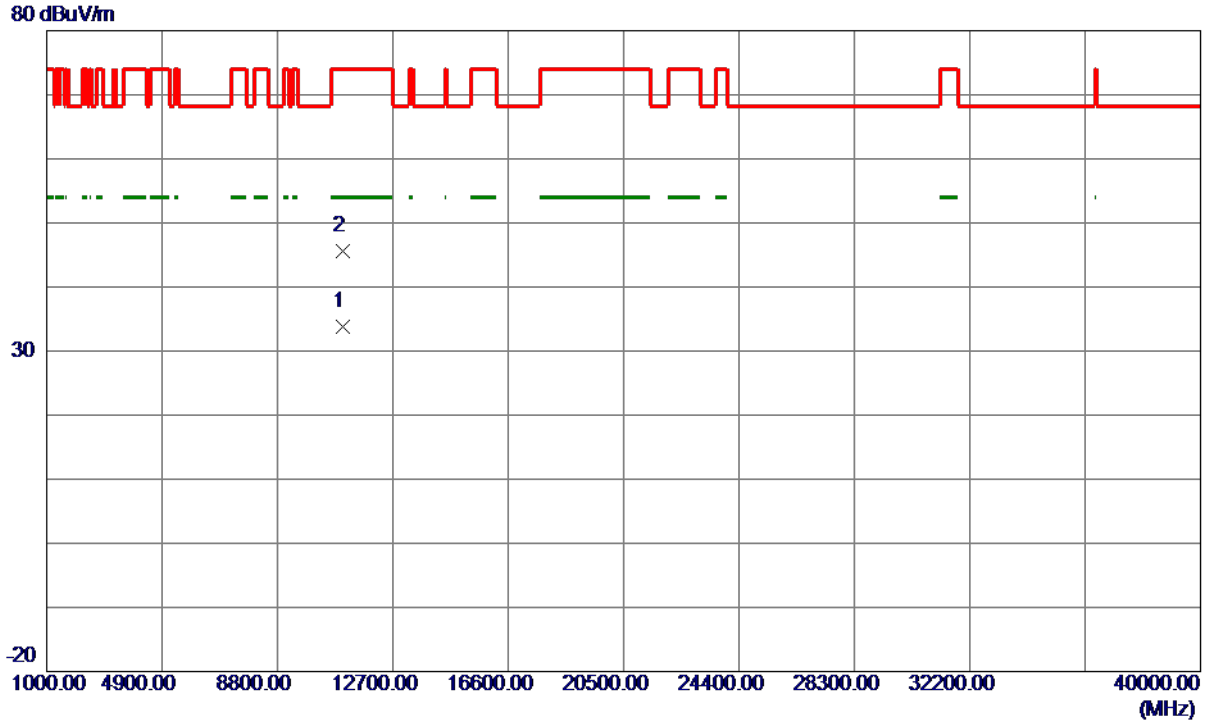


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	35.29	15.05	50.34	74.00	-23.66	Peak	
2	5460.0000	26.41	15.05	41.46	54.00	-12.54	AVG	
3	5470.0000	34.54	15.07	49.61	68.30	-18.69	Peak	
4 *	5503.0000	73.01	15.15	88.16	68.30	19.86	Peak	No Limit
5	5504.1000	65.08	15.15	80.23	999.00	-918.77	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5500 MHz

Vertical

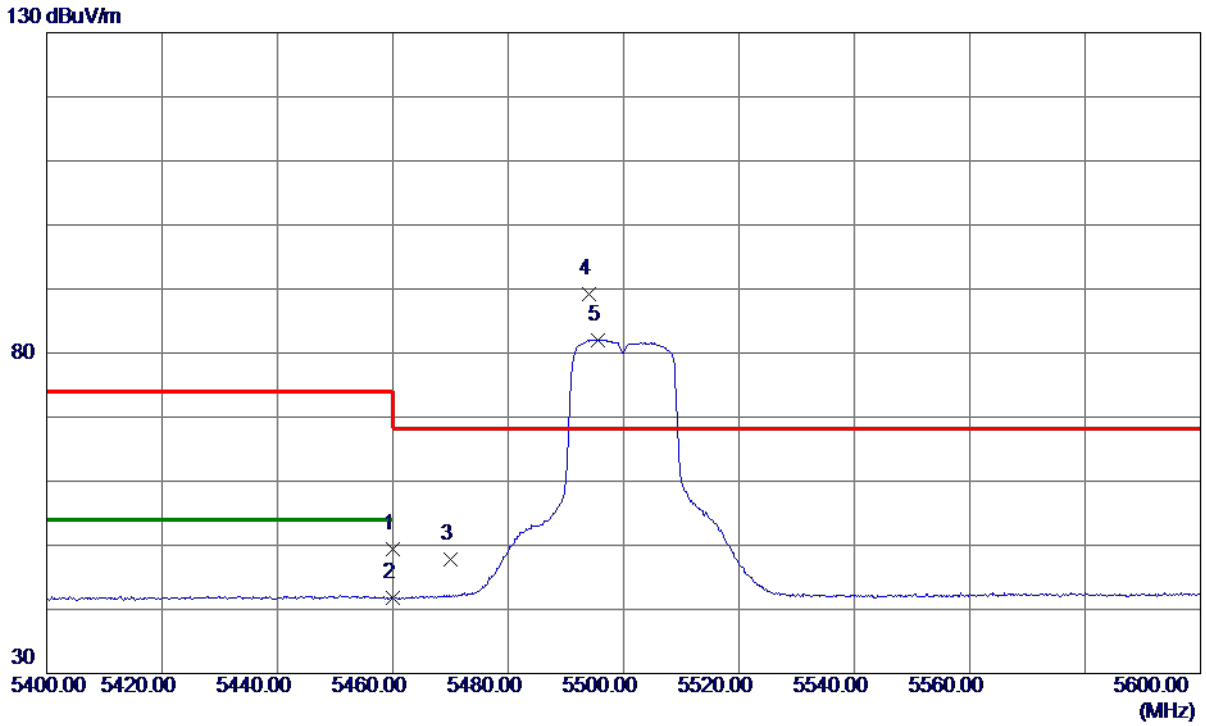


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10998.5500	22.23	11.62	33.85	54.00	-20.15	AVG	
2	11000.0770	34.01	11.62	45.63	74.00	-28.37	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5500 MHz

Horizontal

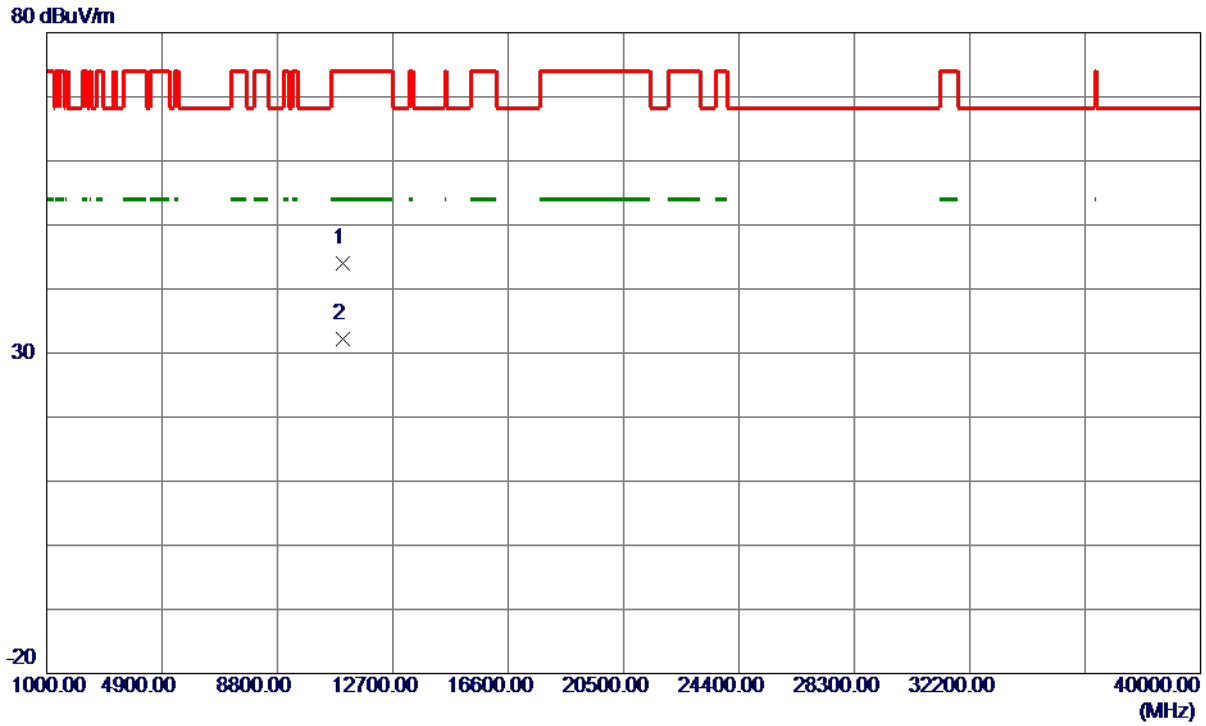


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	34.39	15.05	49.44	74.00	-24.56	Peak	
2	5460.0000	26.79	15.05	41.84	54.00	-12.16	AVG	
3	5470.0000	32.78	15.07	47.85	68.30	-20.45	Peak	
4 *	5493.9000	74.09	15.13	89.22	68.30	20.92	Peak	No Limit
5	5495.6000	66.94	15.13	82.07	999.00	-916.93	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5500 MHz

Horizontal

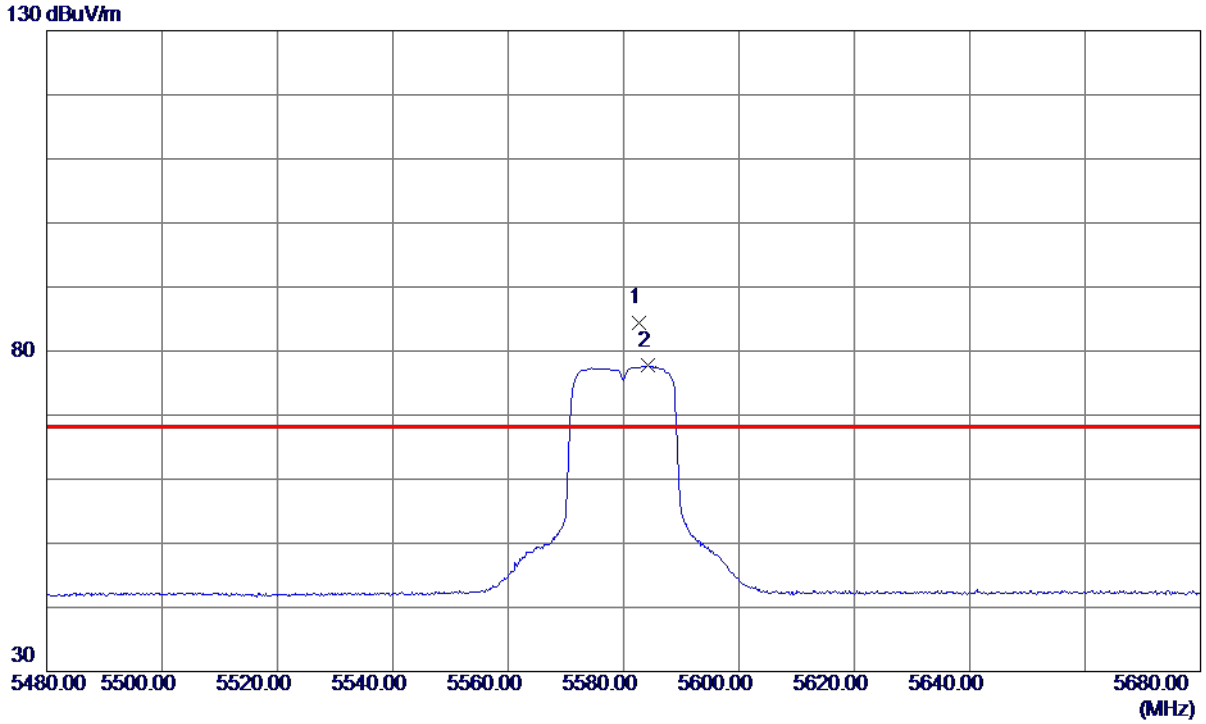


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10997.9680	32.35	11.62	43.97	74.00	-30.03	Peak	
2 *	10999.4070	20.58	11.62	32.20	54.00	-21.80	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5580 MHz

Vertical

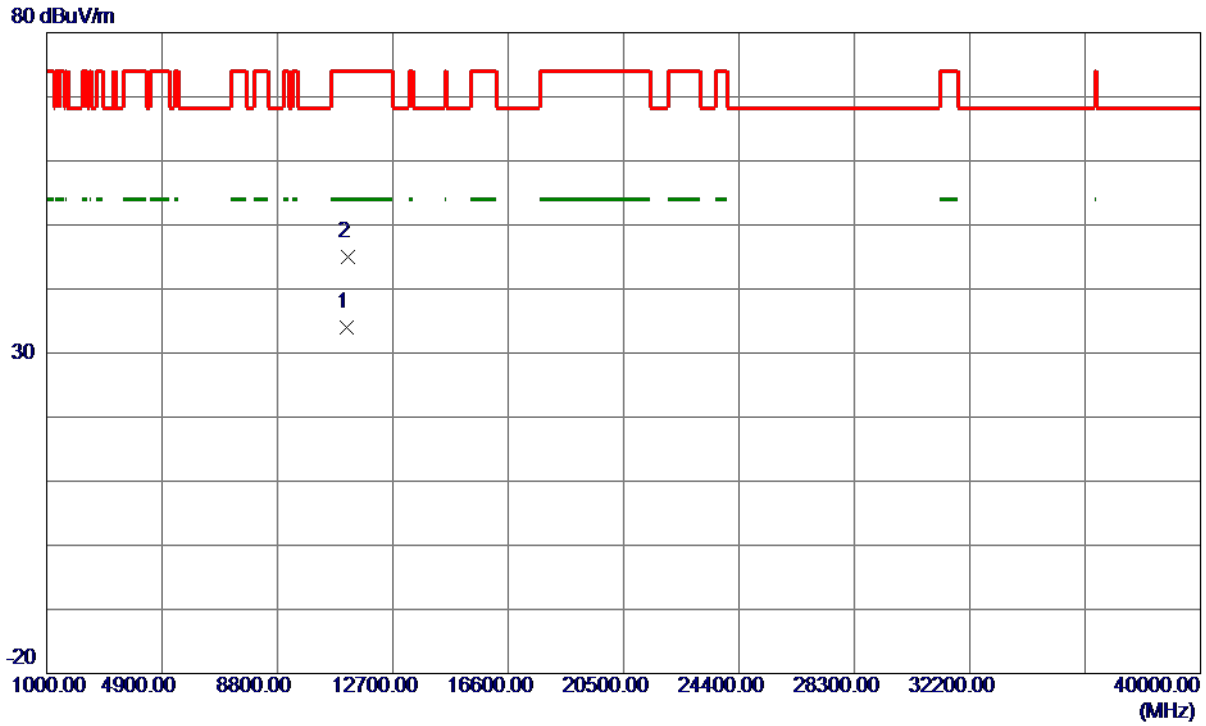


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5582.6000	69.01	15.34	84.35	68.30	16.05	Peak	No Limit
2	5584.2000	62.36	15.34	77.70	999.00	-921.30	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5580 MHz

Vertical

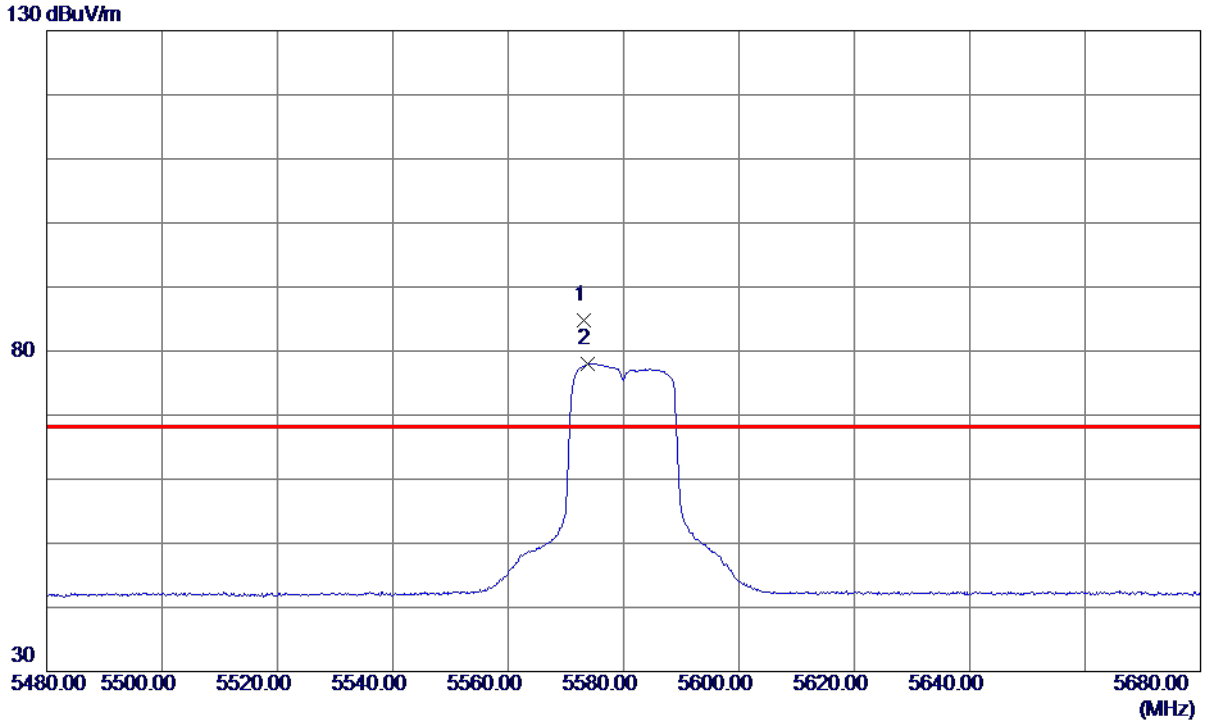


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11158.2920	22.15	11.76	33.91	54.00	-20.09	AVG	
2	11162.2080	33.31	11.77	45.08	74.00	-28.92	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5580 MHz

Horizontal

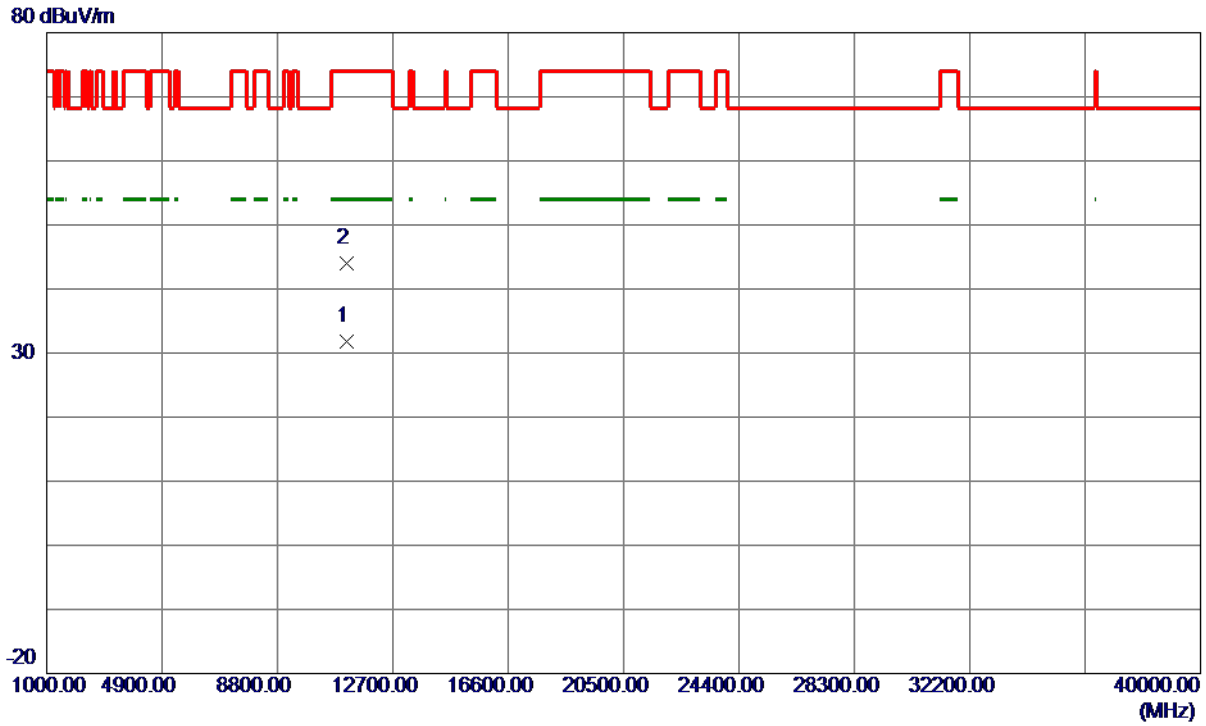


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5573.1000	69.48	15.32	84.80	68.30	16.50	Peak	No Limit
2	5573.7000	62.71	15.32	78.03	999.00	-920.97	AVG	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5580 MHz

Horizontal

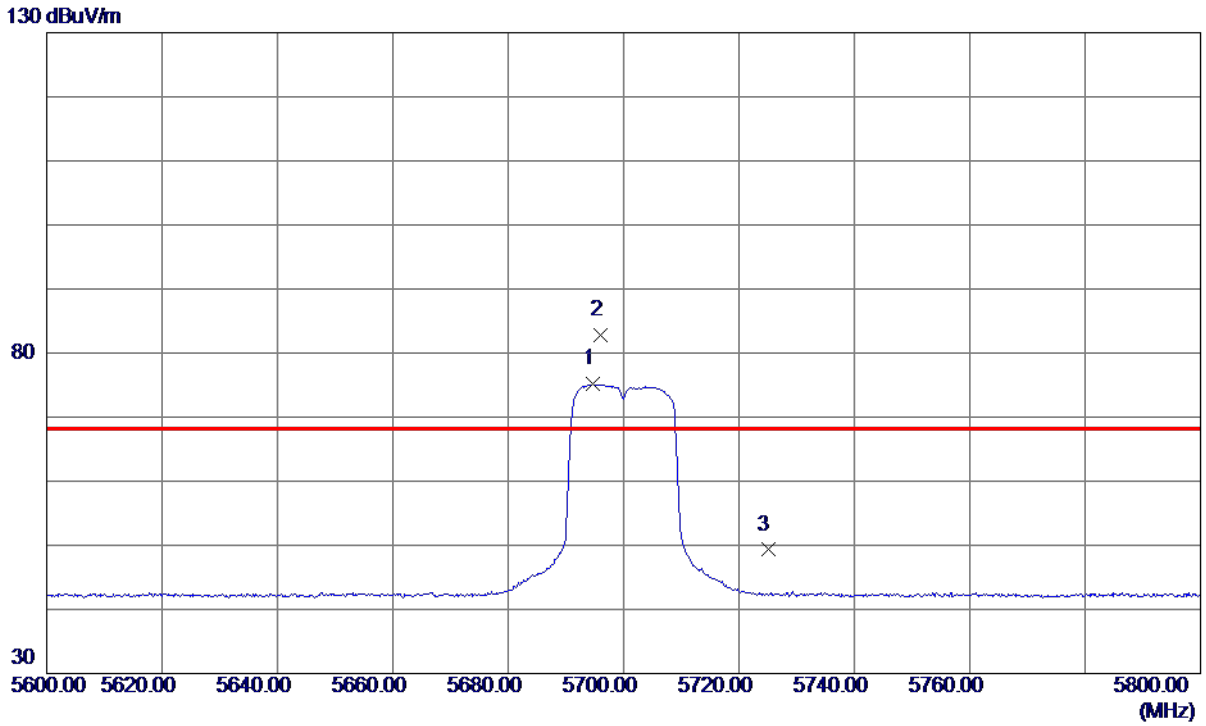


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11160.1900	20.03	11.77	31.80	54.00	-22.20	AVG	
2	11161.0519	32.16	11.77	43.93	74.00	-30.07	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5700 MHz

Vertical

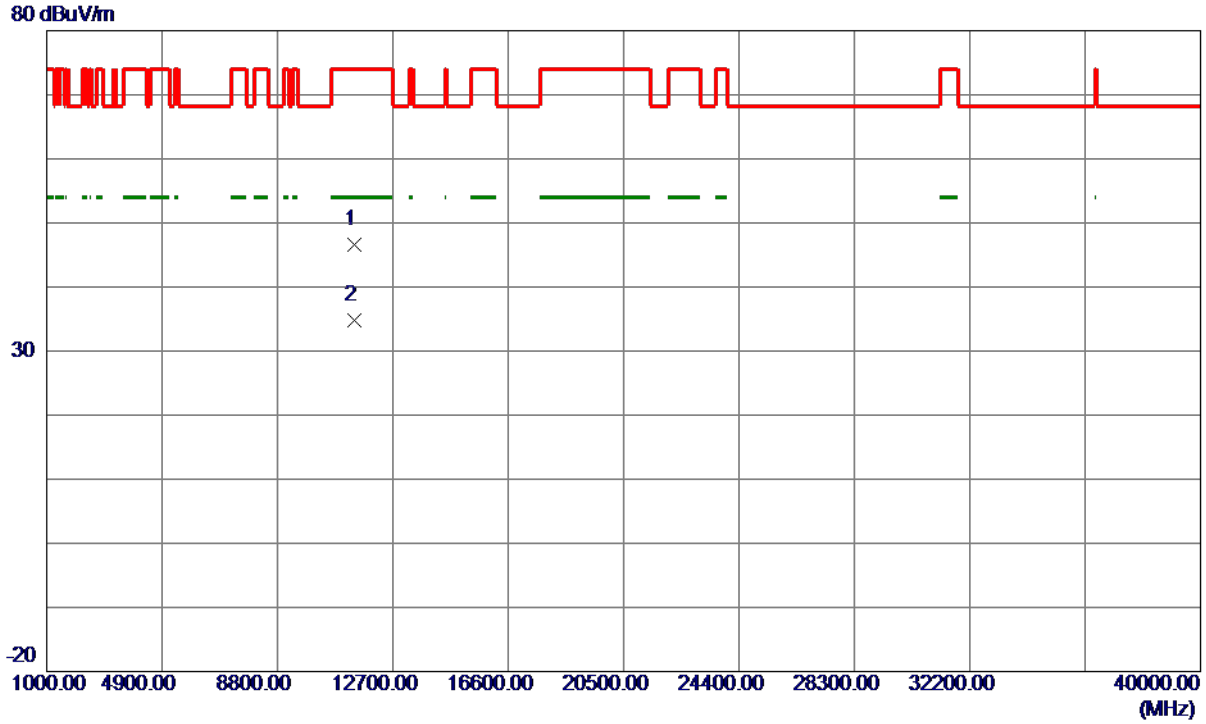


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5694.6000	59.54	15.61	75.15	999.00	-923.85	AVG	No Limit
2 *	5696.0000	67.25	15.61	82.86	68.30	14.56	Peak	No Limit
3	5725.0000	33.62	15.68	49.30	68.30	-19.00	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5700 MHz

Vertical

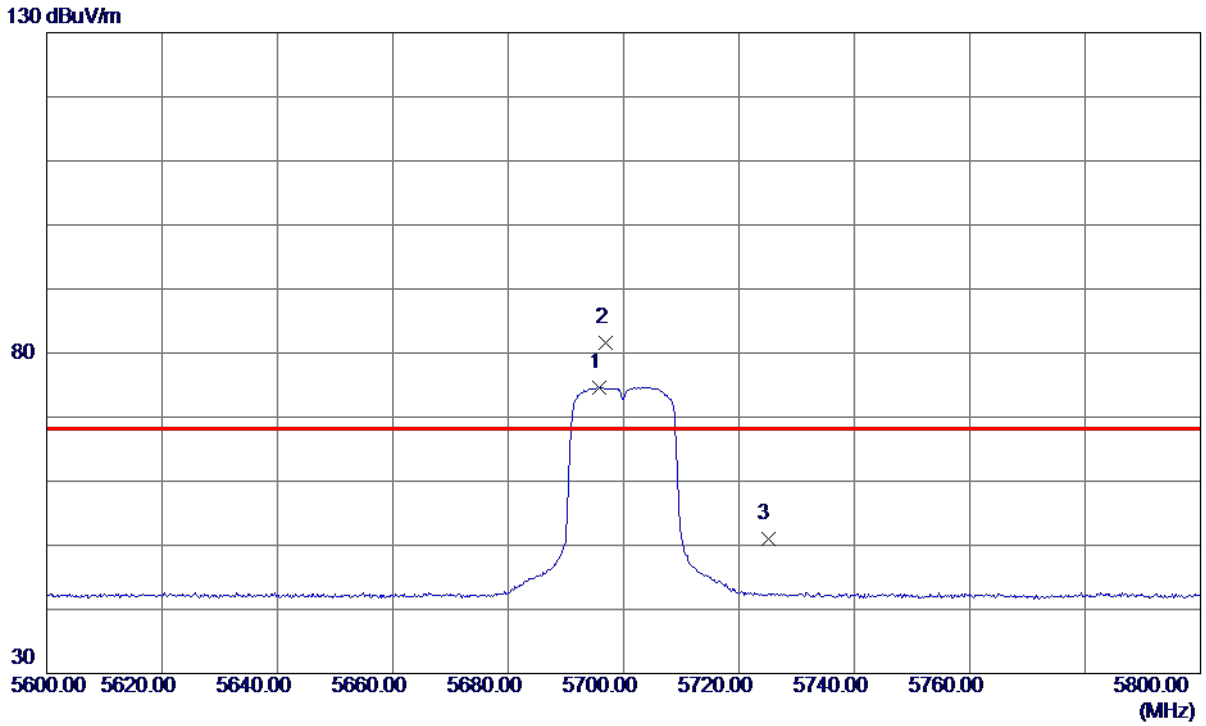


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11400.3170	34.71	11.98	46.69	74.00	-27.31	Peak	
2 *	11400.7200	22.77	11.98	34.75	54.00	-19.25	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5700 MHz

Horizontal

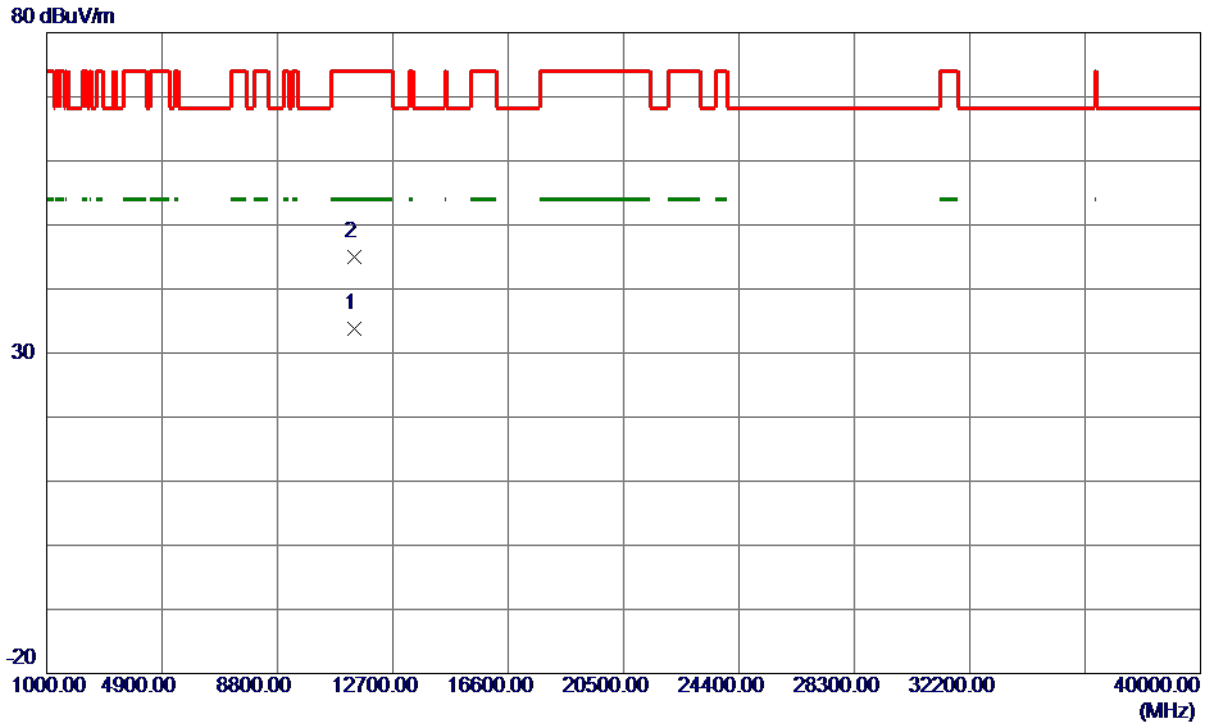


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5695.7000	59.05	15.61	74.66	999.00	-924.34	AVG	No Limit
2 *	5696.8000	65.91	15.61	81.52	68.30	13.22	Peak	No Limit
3	5725.0000	35.39	15.68	51.07	68.30	-17.23	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-2C_TX N (HT20) Mode 5700 MHz

Horizontal

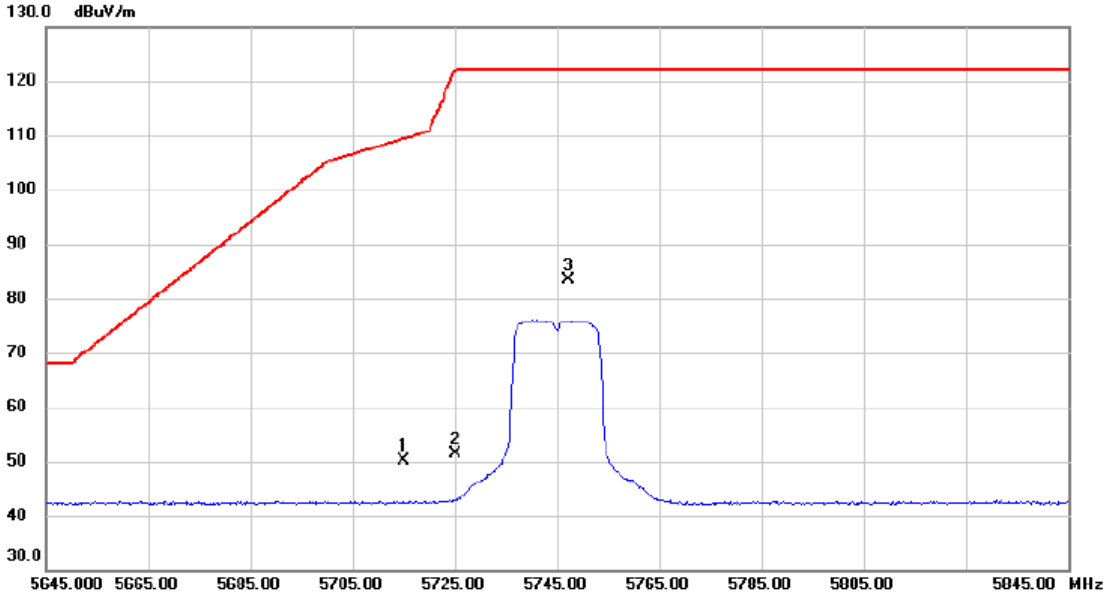


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11400.5100	21.78	11.98	33.76	54.00	-20.24	AVG	
2	11400.7850	33.10	11.98	45.08	74.00	-28.92	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5745 MHz

Vertical

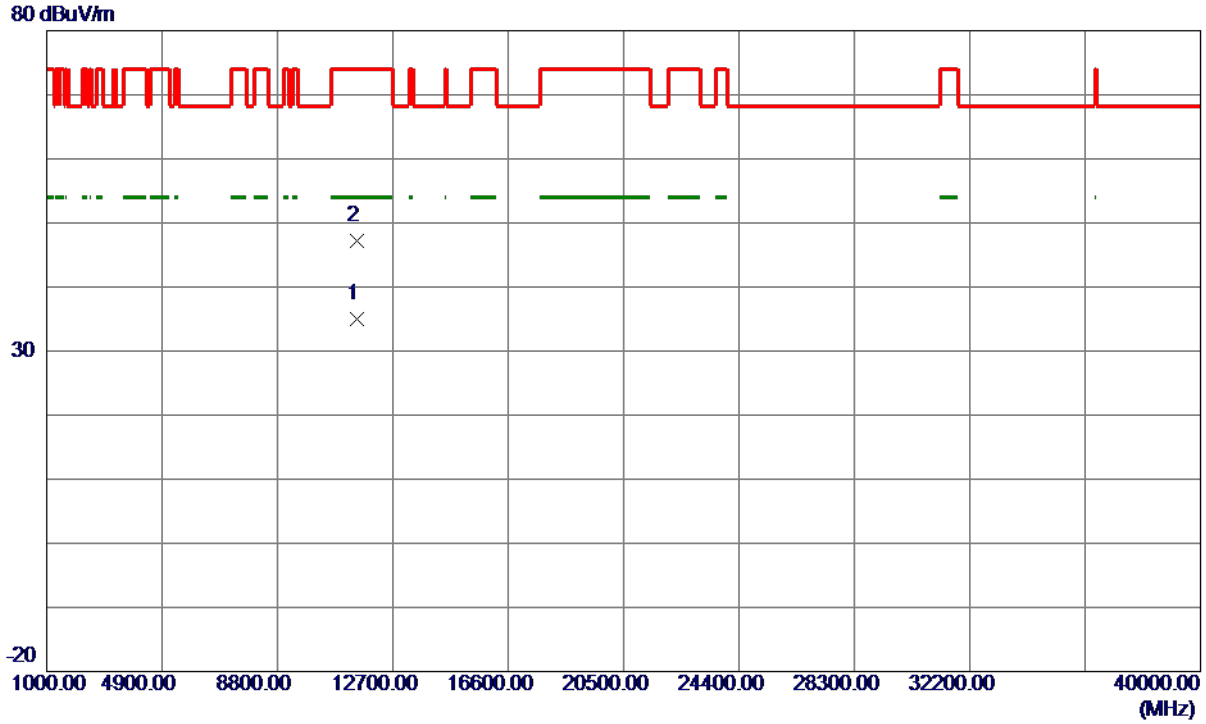


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	34.37	15.65	50.02	109.40	-59.38	peak	
2		5725.000	35.82	15.67	51.49	122.20	-70.71	peak	
3	*	5747.200	67.75	15.72	83.47	122.20	-38.73	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5745 MHz

Vertical

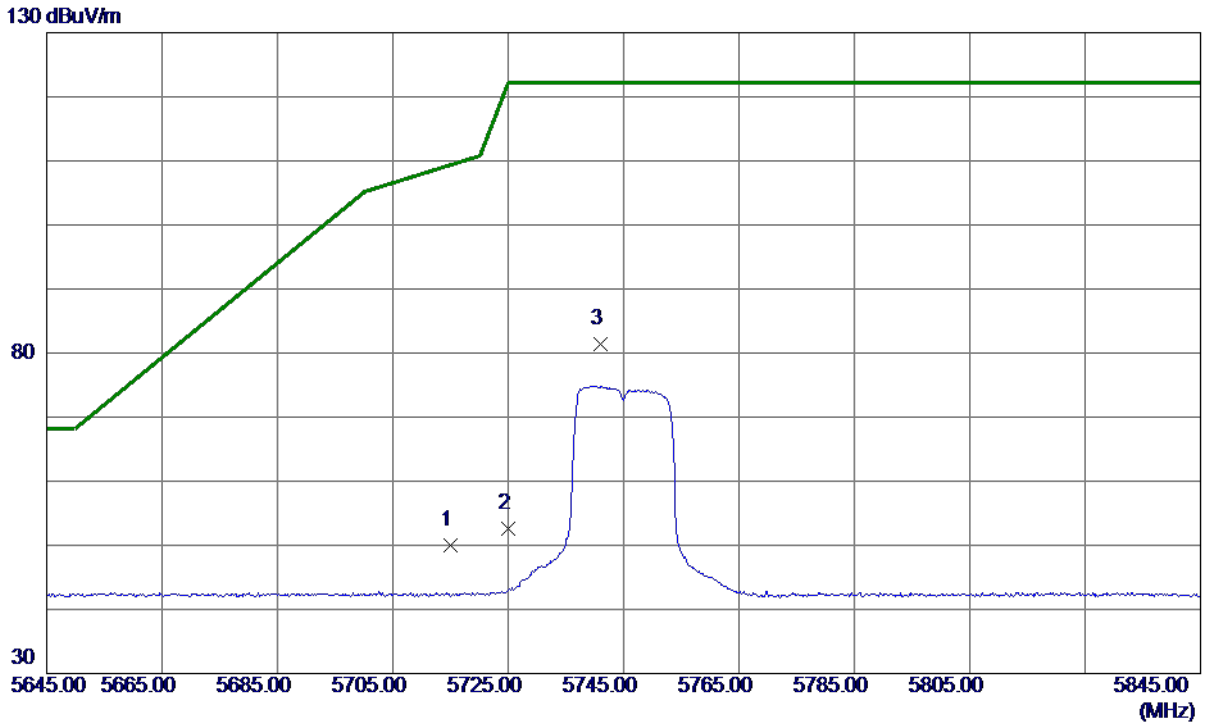


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11489.0830	22.85	12.07	34.92	54.00	-19.08	AVG	
2	11490.1300	35.22	12.07	47.29	74.00	-26.71	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5745 MHz

Horizontal

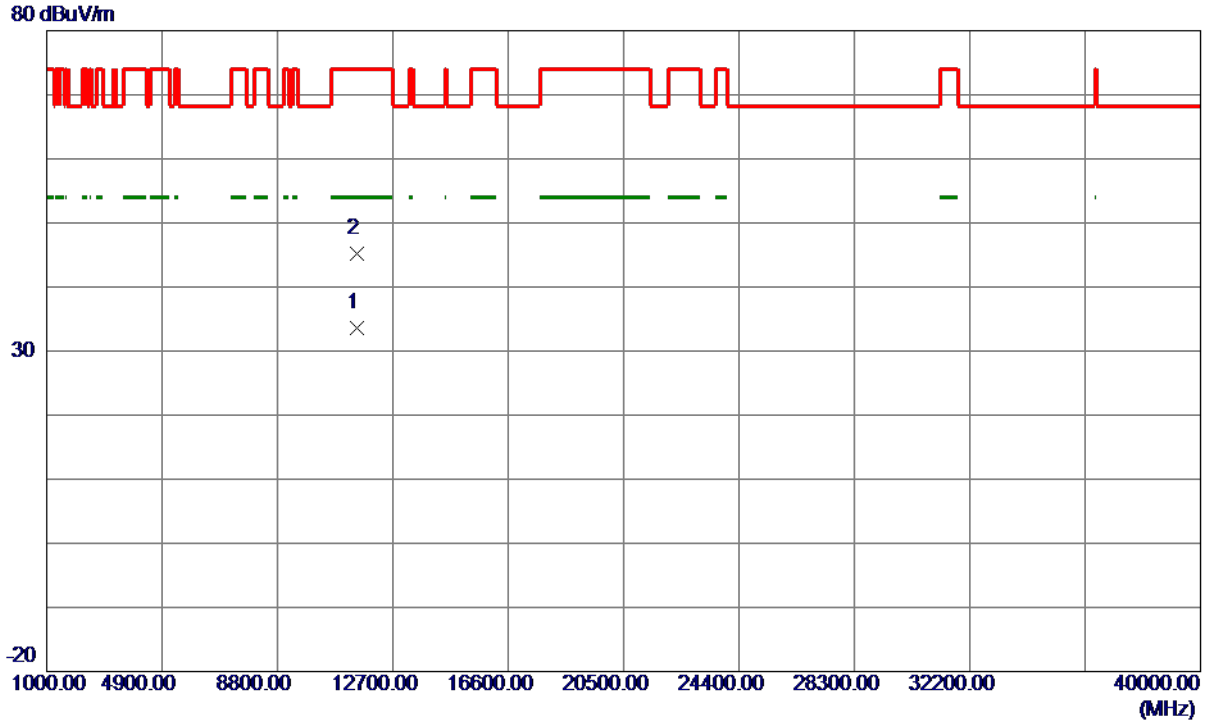


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	34.27	15.65	49.92	109.40	-59.48	Peak	
2	5725.0000	36.87	15.68	52.55	122.20	-69.65	Peak	
3 *	5741.1000	65.68	15.72	81.40	122.20	-40.80	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5745 MHz

Horizontal

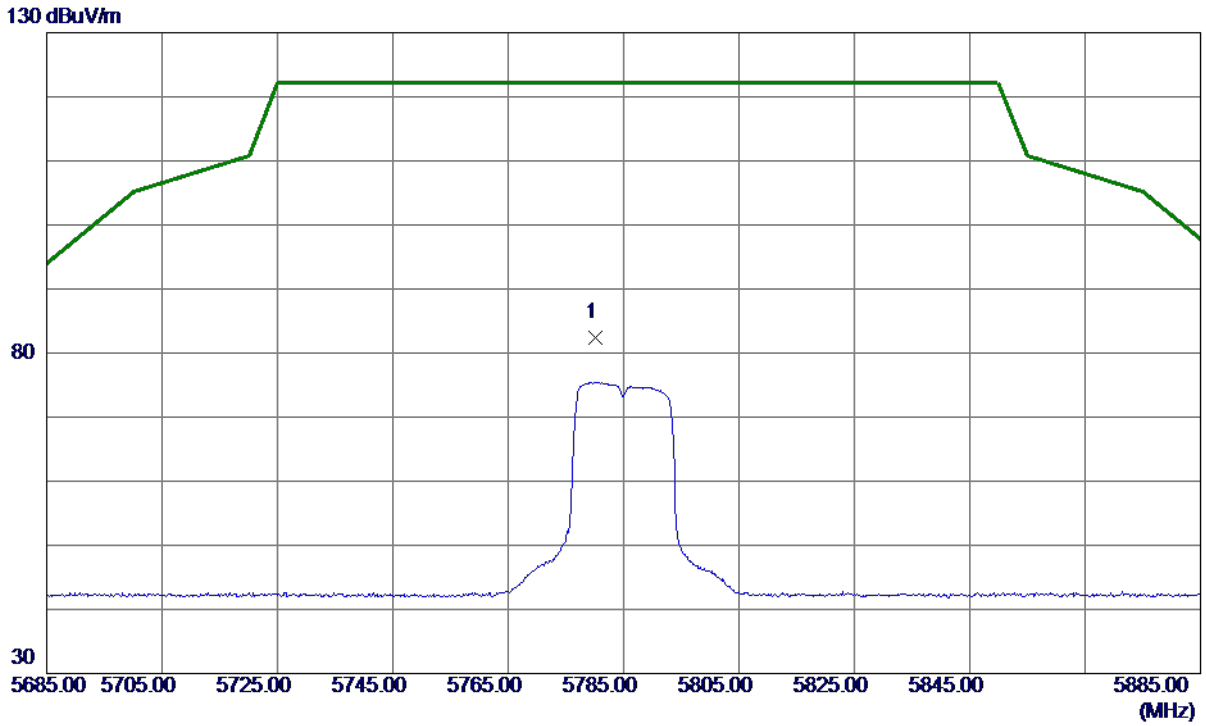


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11488.1220	21.63	12.06	33.69	54.00	-20.31	AVG	
2	11488.3949	33.15	12.06	45.21	74.00	-28.79	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5785 MHz

Vertical

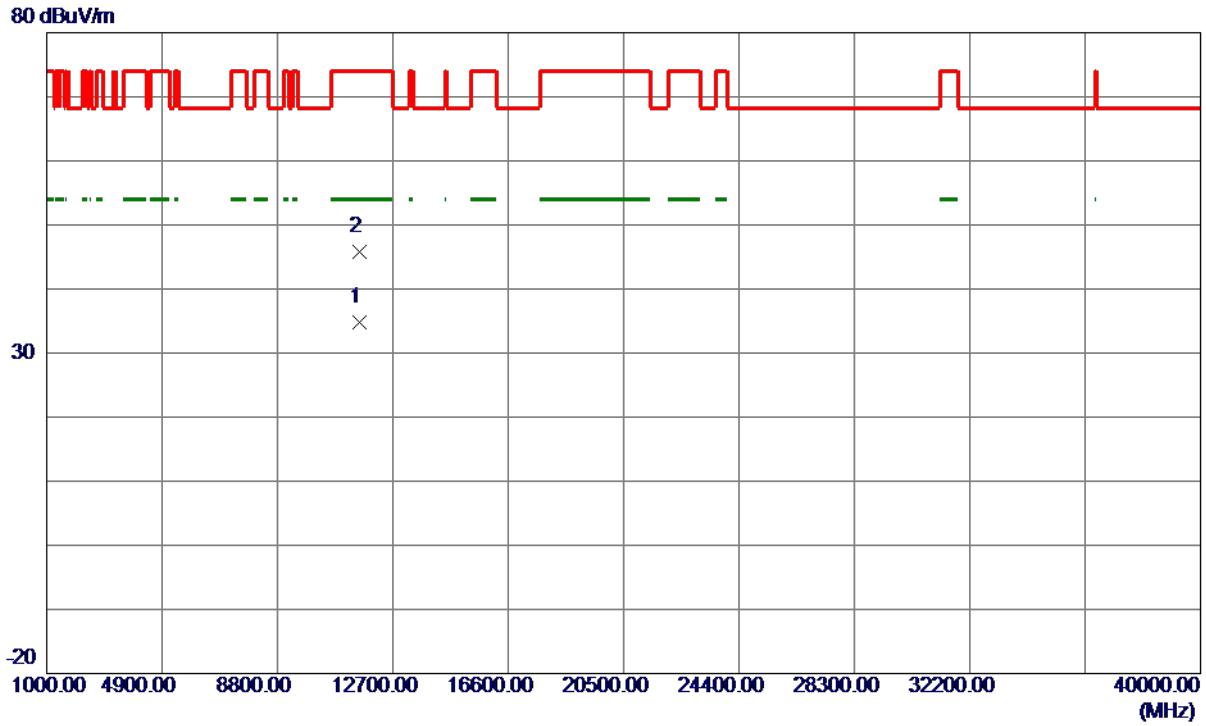


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5780.2000	66.61	15.81	82.42	122.20	-39.78	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5785 MHz

Vertical

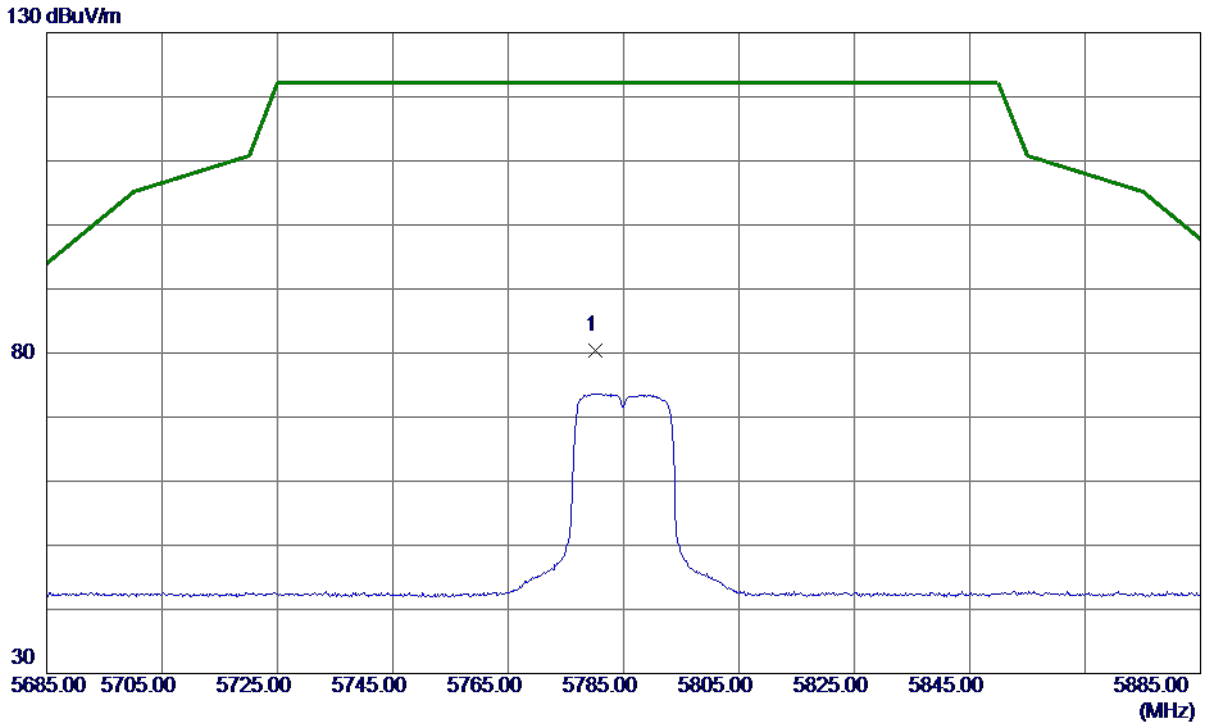


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11568.6950	22.60	12.14	34.74	54.00	-19.26	AVG	
2	11570.5970	33.65	12.15	45.80	74.00	-28.20	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5785 MHz

Horizontal

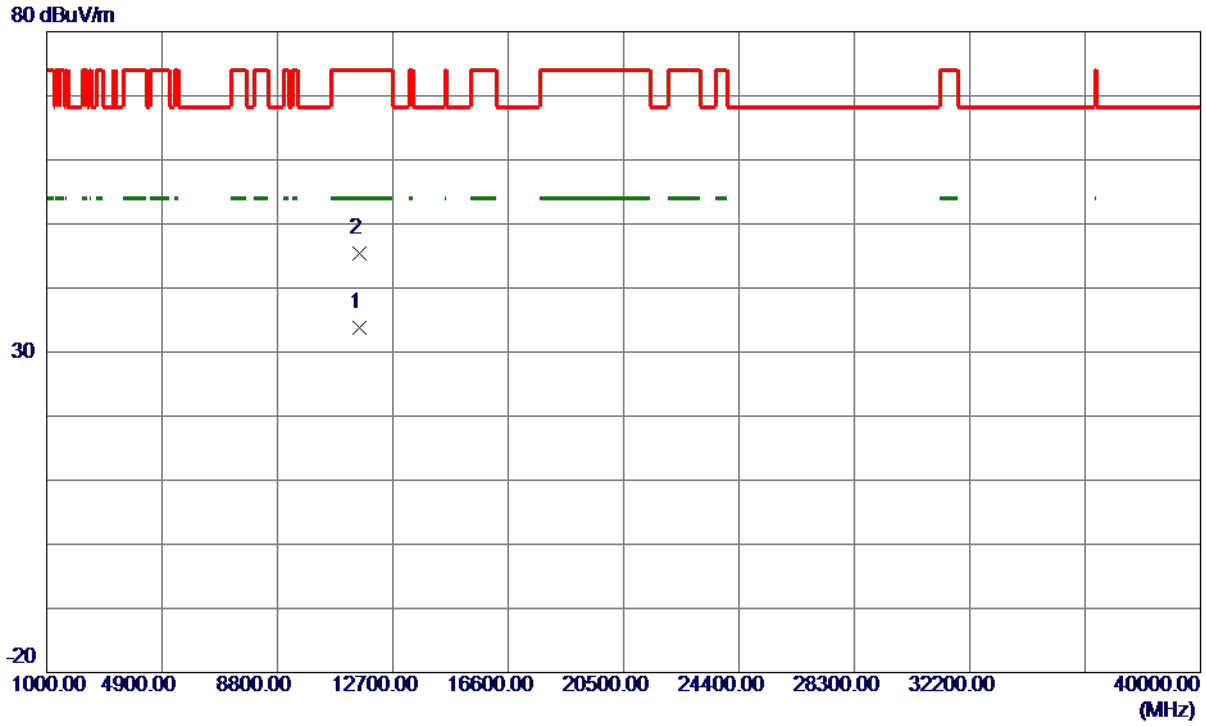


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5780.2000	64.62	15.81	80.43	122.20	-41.77	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5785 MHz

Horizontal

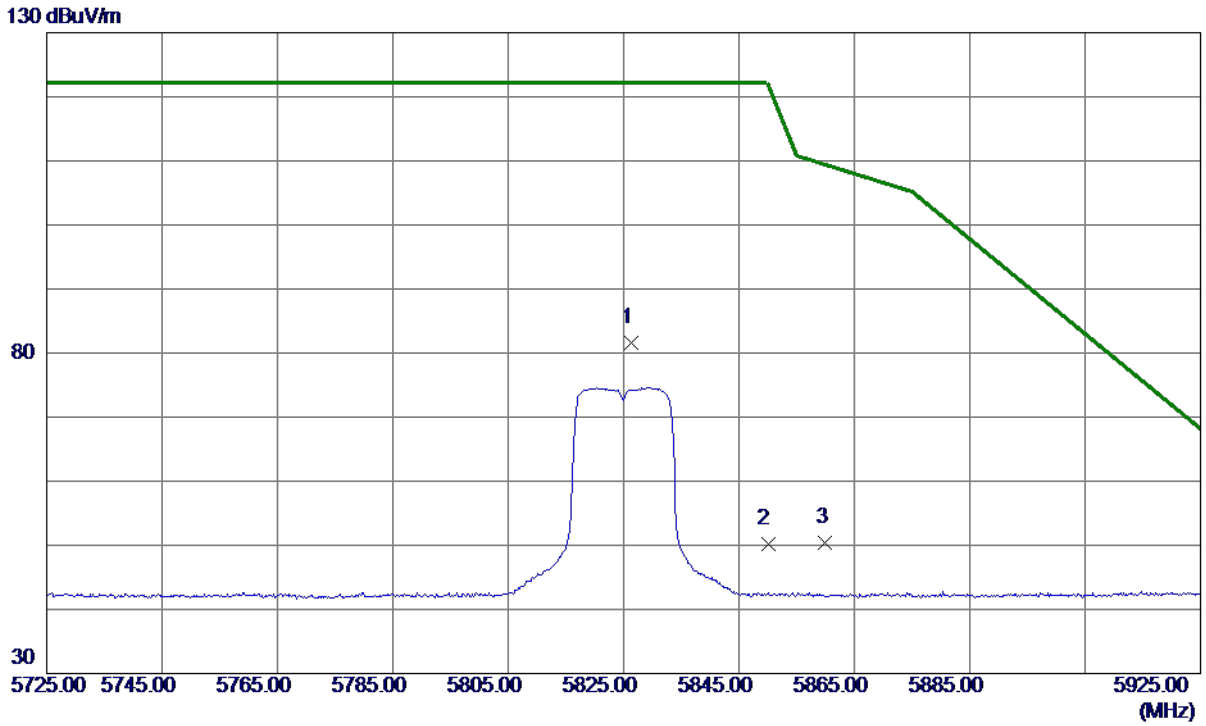


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11570.9950	21.57	12.15	33.72	54.00	-20.28	AVG	
2	11572.0070	33.22	12.15	45.37	74.00	-28.63	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5825 MHz

Vertical

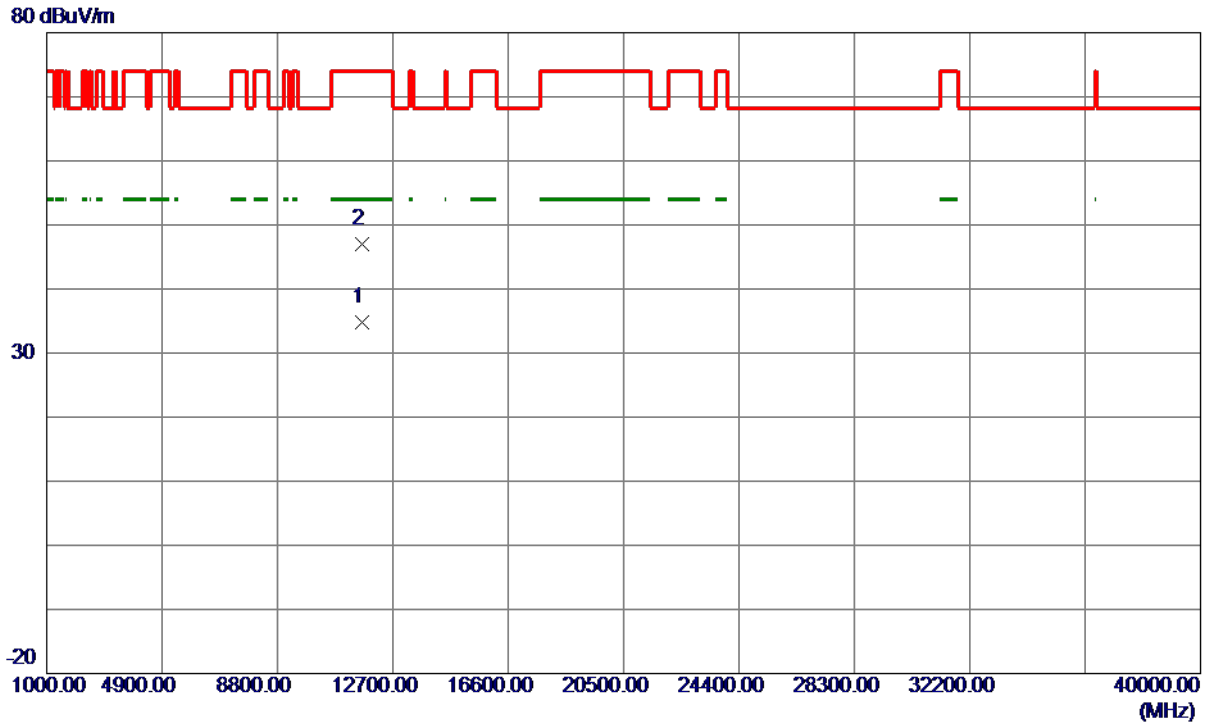


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5826.3000	65.65	15.92	81.57	122.20	-40.63	Peak	No Limit
2	5850.0000	34.23	15.97	50.20	122.20	-72.00	Peak	
3	5860.0000	34.48	16.00	50.48	109.40	-58.92	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5825 MHz

Vertical

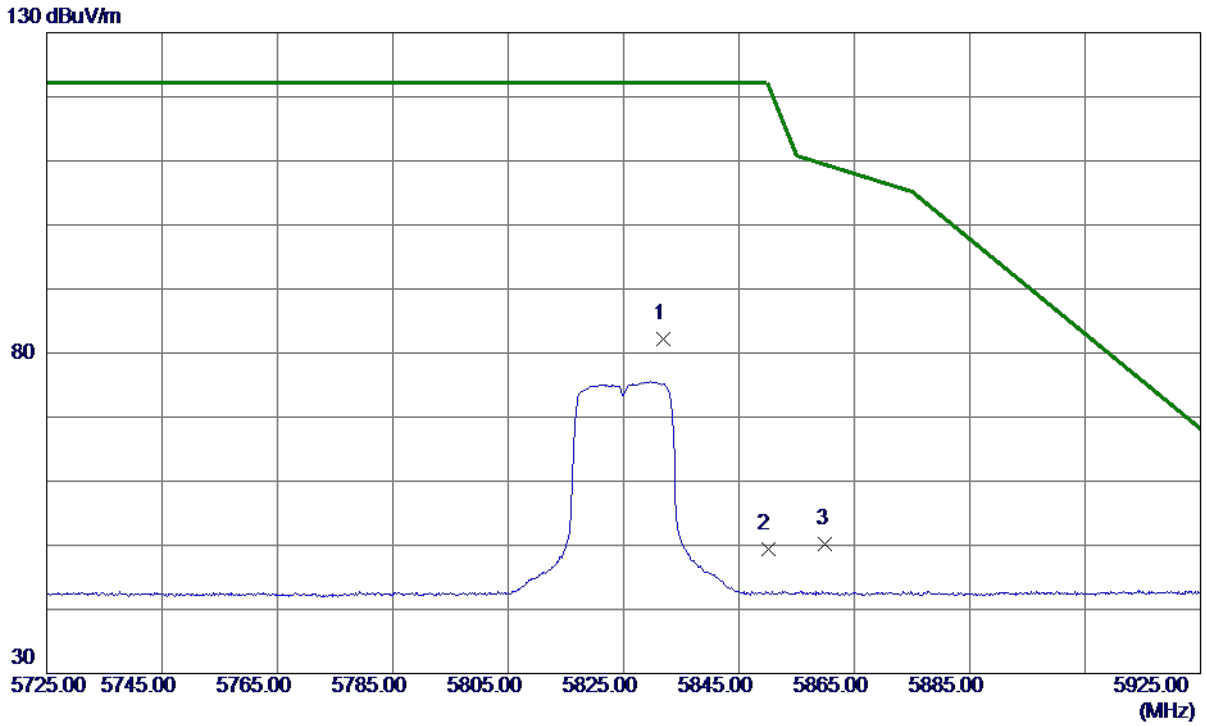


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11649.7430	22.61	12.23	34.84	54.00	-19.16	AVG	
2	11651.8550	34.71	12.23	46.94	74.00	-27.06	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5825 MHz

Horizontal

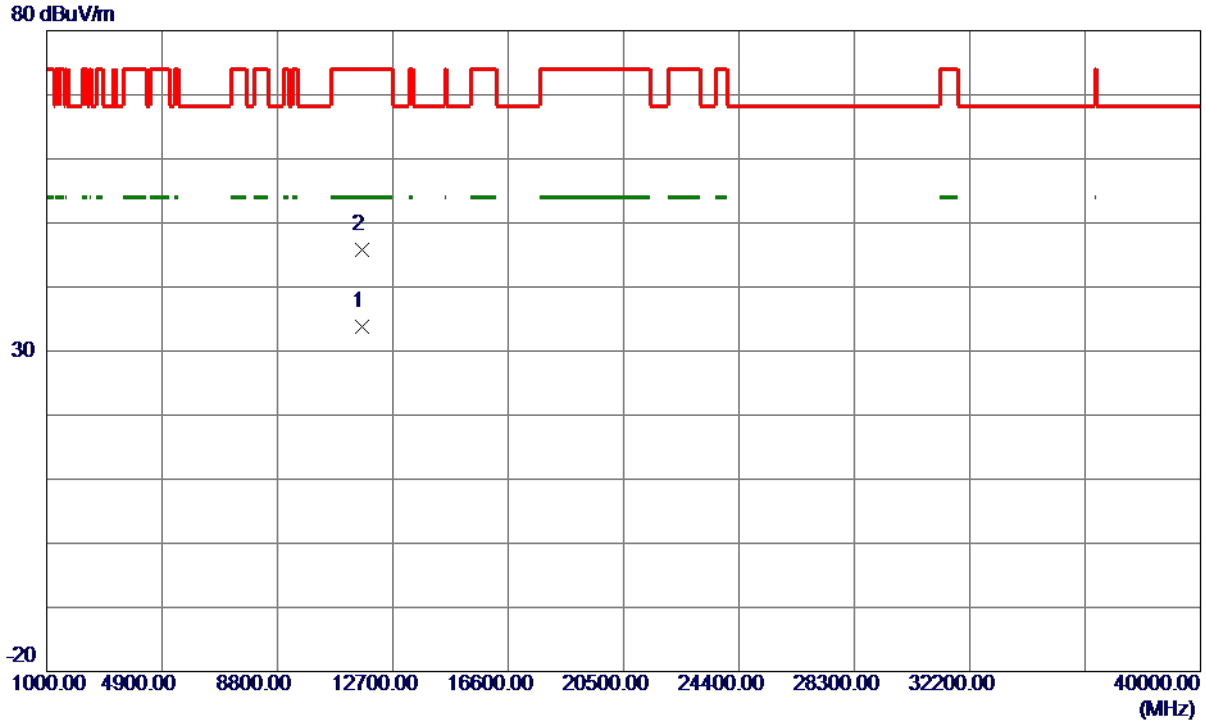


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5831.8000	66.32	15.93	82.25	122.20	-39.95	Peak	No Limit
2	5850.0000	33.37	15.97	49.34	122.20	-72.86	Peak	
3	5860.0000	34.14	16.00	50.14	109.40	-59.26	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX A Mode 5825 MHz

Horizontal

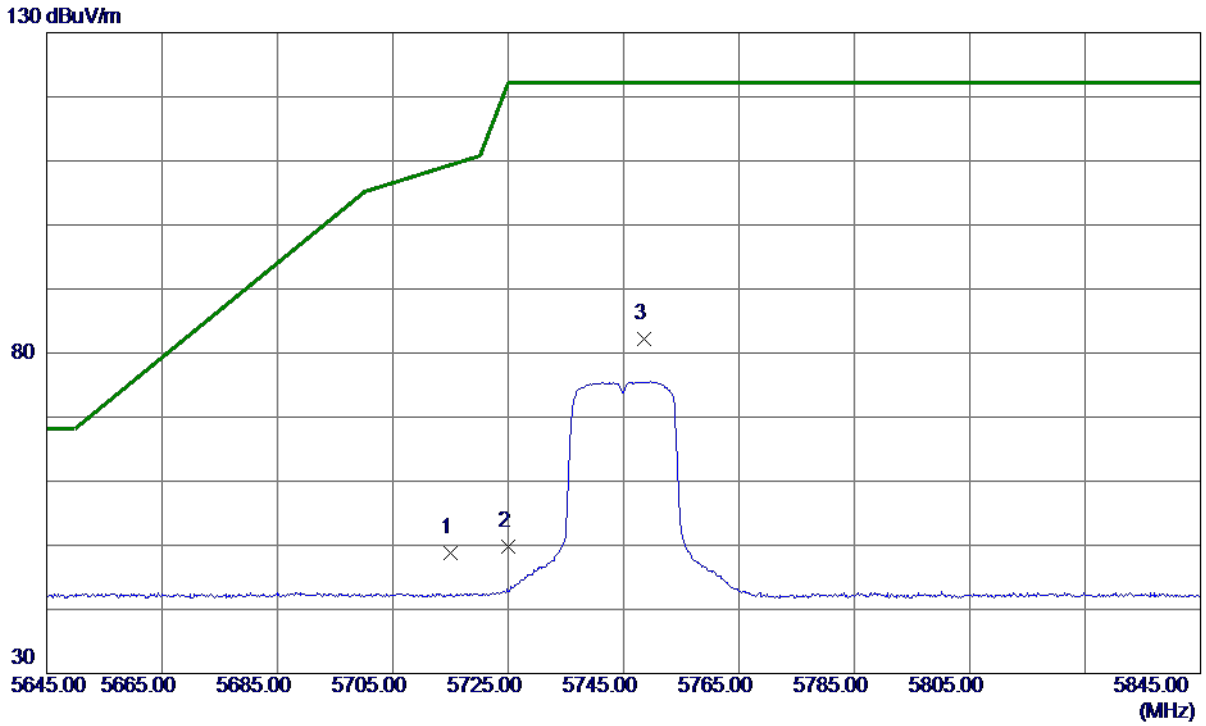


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11650.2250	21.59	12.23	33.82	54.00	-20.18	AVG	
2	11652.1100	33.65	12.23	45.88	74.00	-28.12	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5745 MHz

Vertical

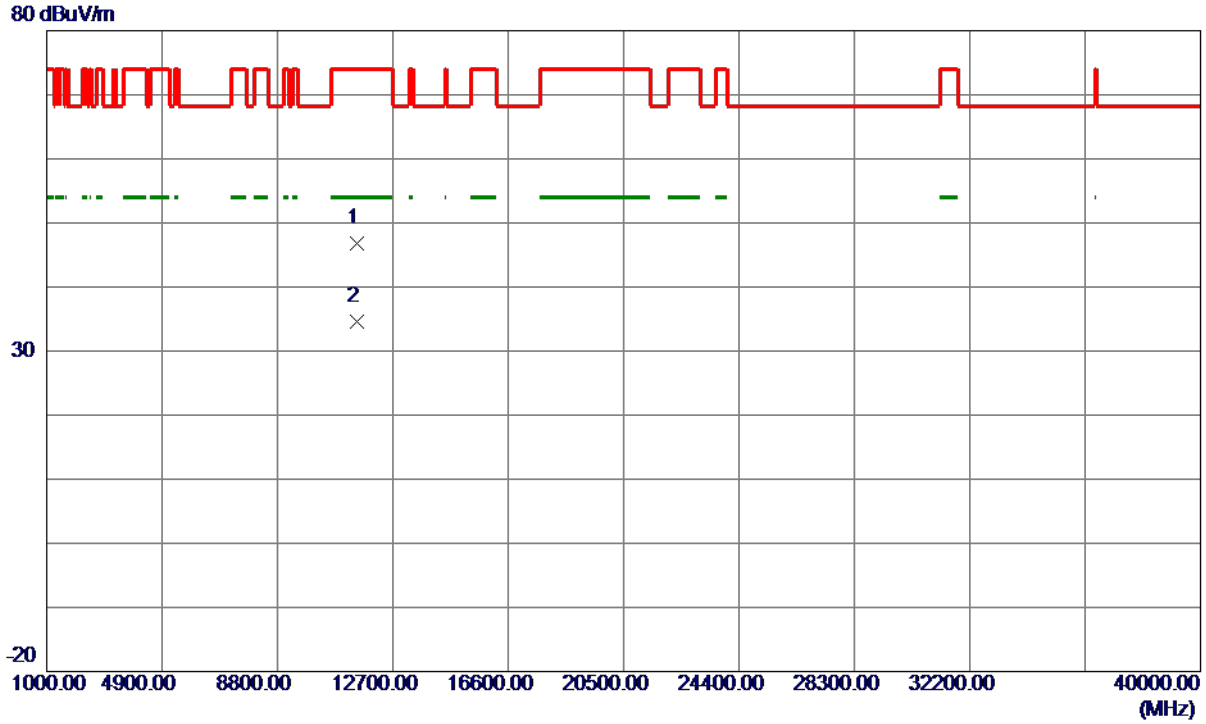


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	33.14	15.65	48.79	109.40	-60.61	Peak	
2	5725.0000	34.20	15.68	49.88	122.20	-72.32	Peak	
3 *	5748.6000	66.38	15.73	82.11	122.20	-40.09	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5745 MHz

Vertical

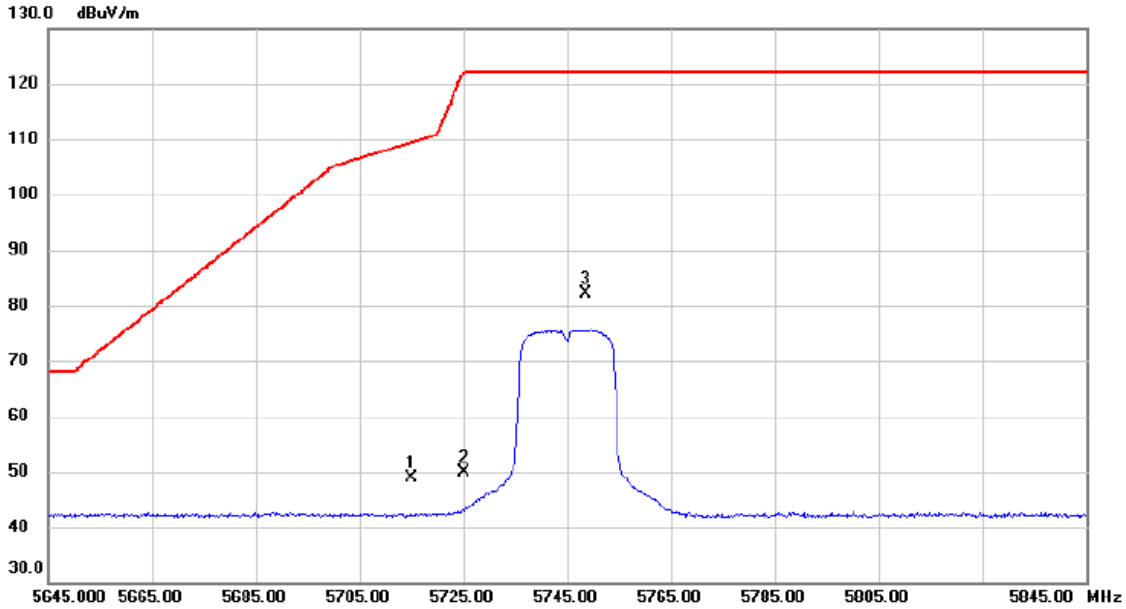


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11487.7080	34.80	12.06	46.86	74.00	-27.14	Peak	
2 *	11489.2150	22.49	12.07	34.56	54.00	-19.44	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5745 MHz

Horizontal

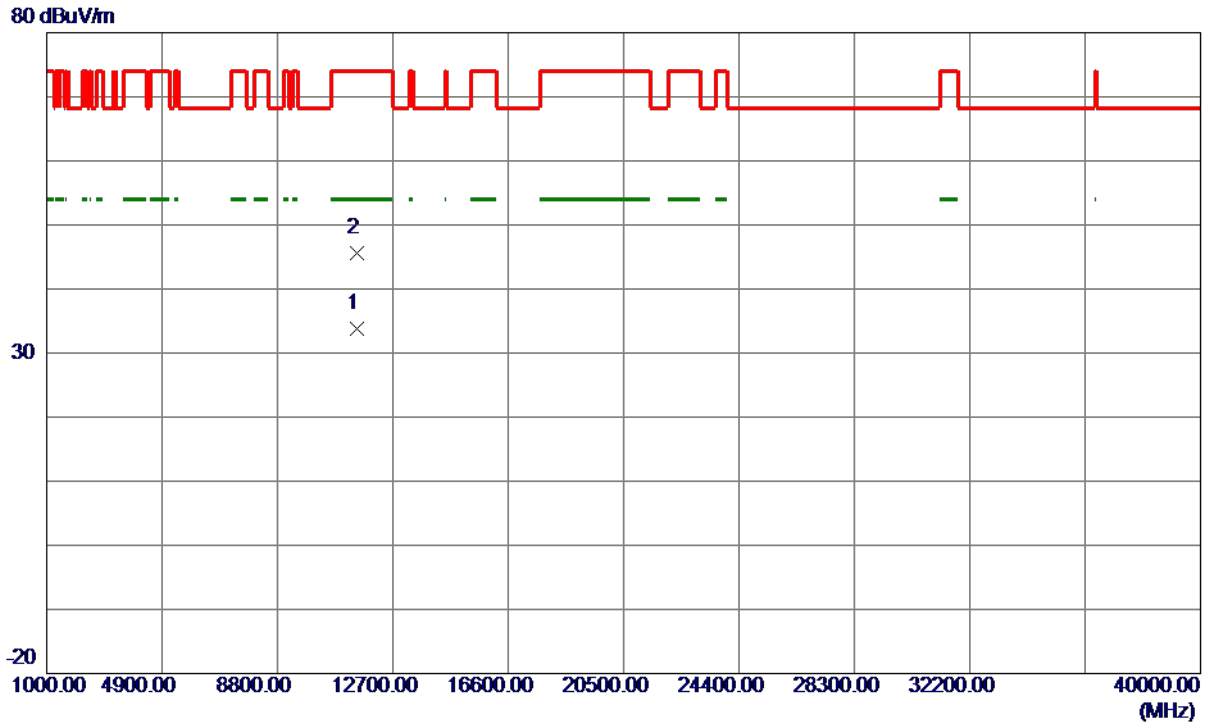


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	33.14	15.65	48.79	109.40	-60.61	peak	
2		5725.000	34.21	15.67	49.88	122.20	-72.32	peak	
3	*	5748.600	66.38	15.73	82.11	122.20	-40.09	peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5745 MHz

Horizontal

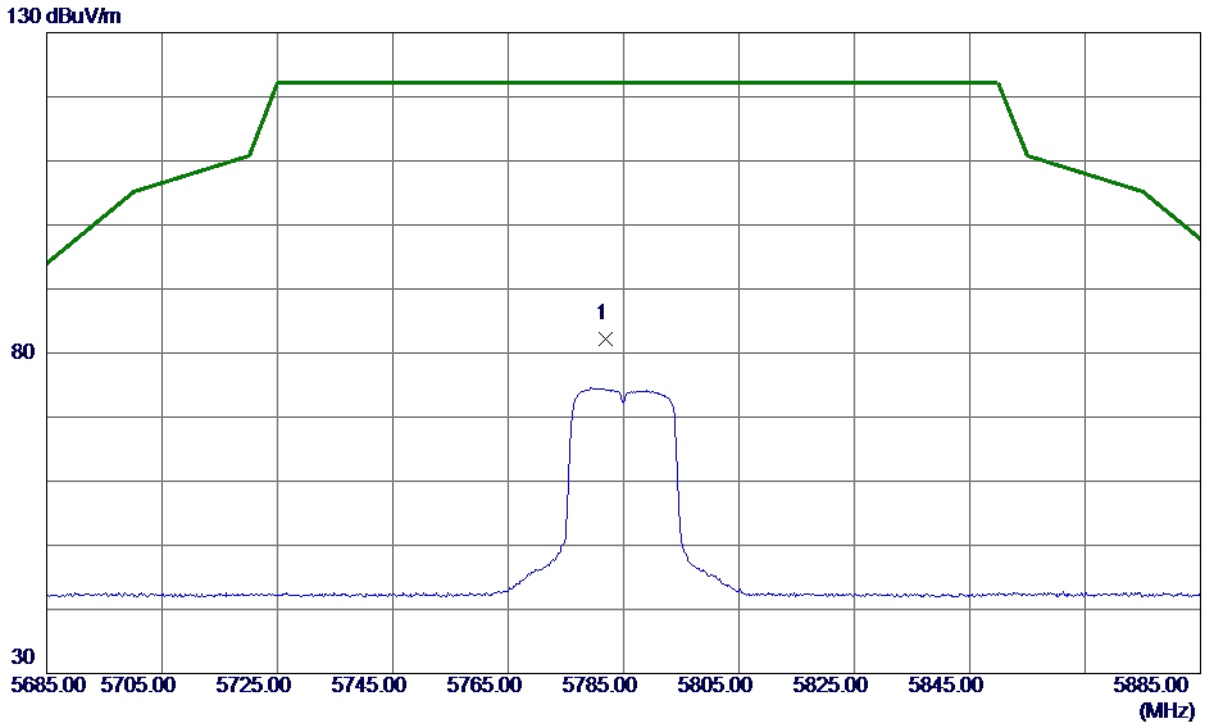


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11489.8200	21.65	12.07	33.72	54.00	-20.28	AVG	
2	11489.8700	33.53	12.07	45.60	74.00	-28.40	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5785 MHz

Vertical

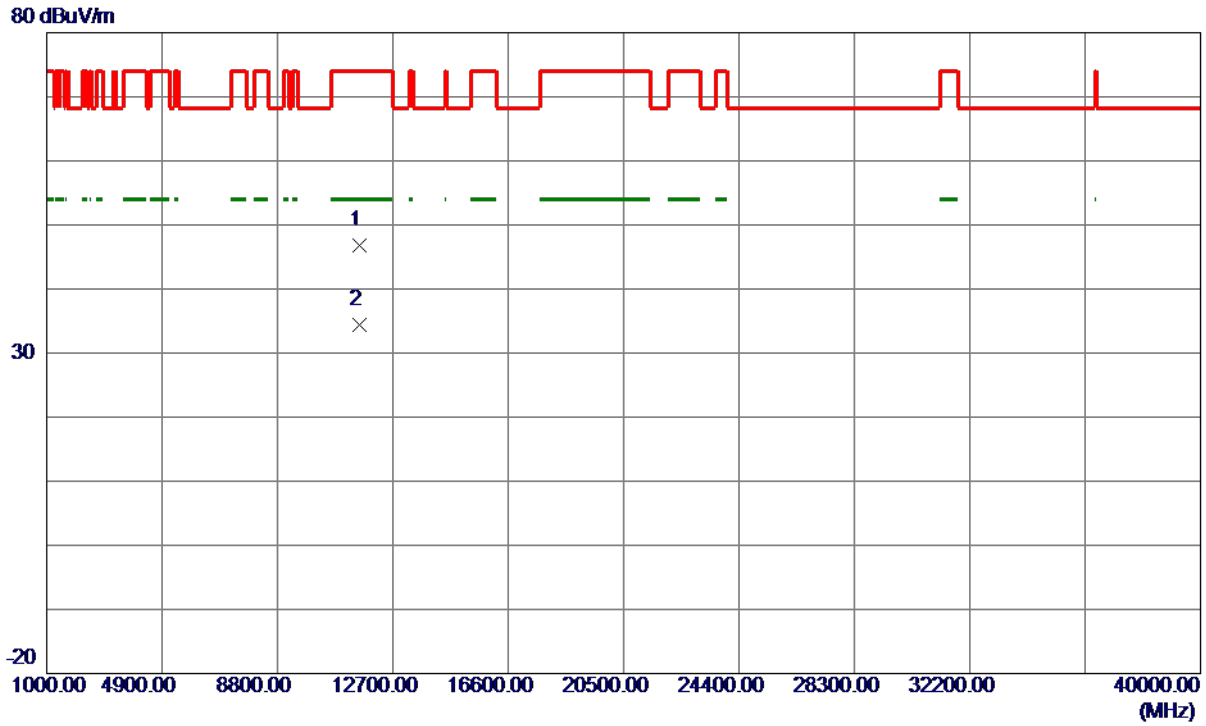


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5781.9000	66.45	15.81	82.26	122.20	-39.94	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5785 MHz

Vertical

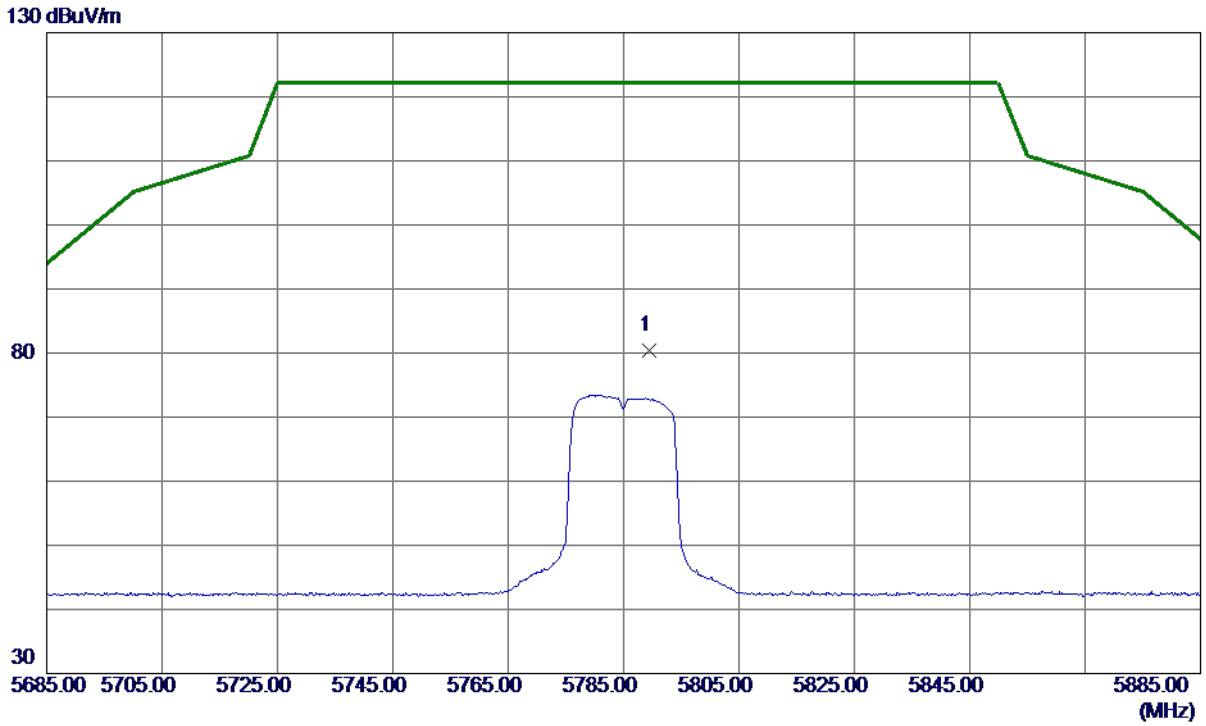


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11569.1000	34.60	12.14	46.74	74.00	-27.26	Peak	
2 *	11570.3680	22.21	12.15	34.36	54.00	-19.64	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5785 MHz

Horizontal

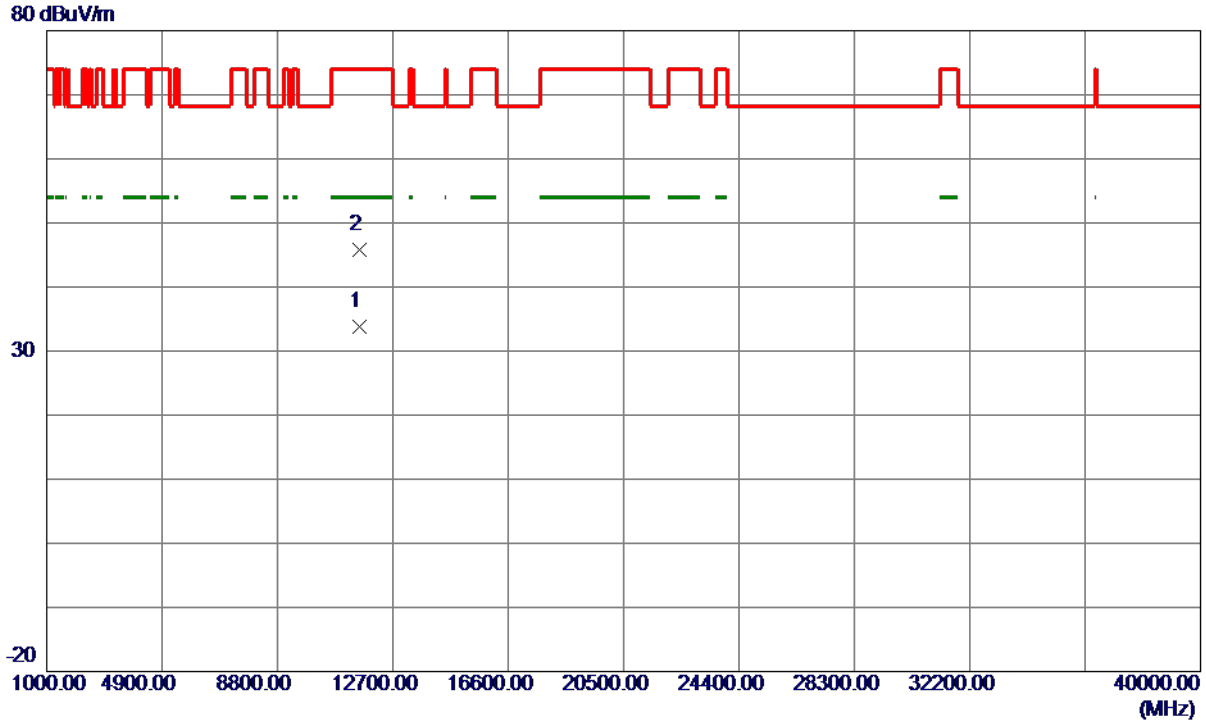


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5789.4000	64.55	15.83	80.38	122.20	-41.82	Peak	No Limit

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5785 MHz

Horizontal

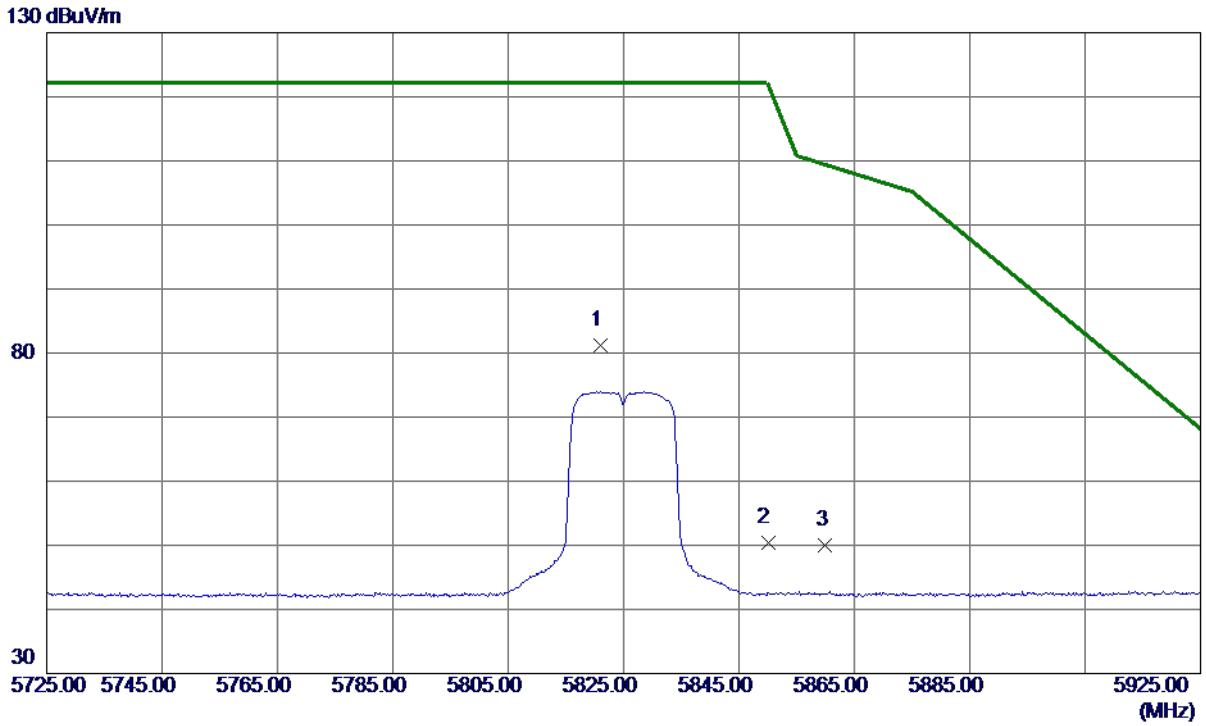


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11568.1200	21.63	12.14	33.77	54.00	-20.23	AVG	
2	11569.5100	33.60	12.15	45.75	74.00	-28.25	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5825 MHz

Vertical

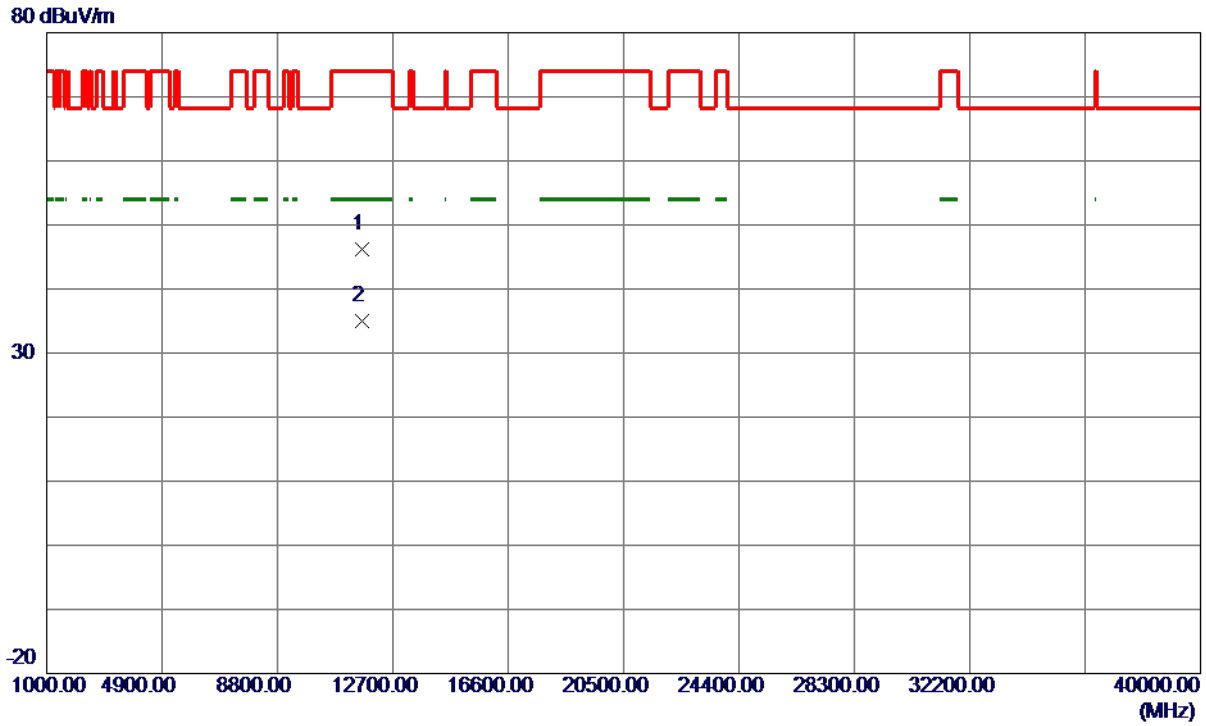


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5821.0000	65.29	15.91	81.20	122.20	-41.00	Peak	No Limit
2	5850.0000	34.36	15.97	50.33	122.20	-71.87	Peak	
3	5860.0000	33.94	16.00	49.94	109.40	-59.46	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5825 MHz

Vertical

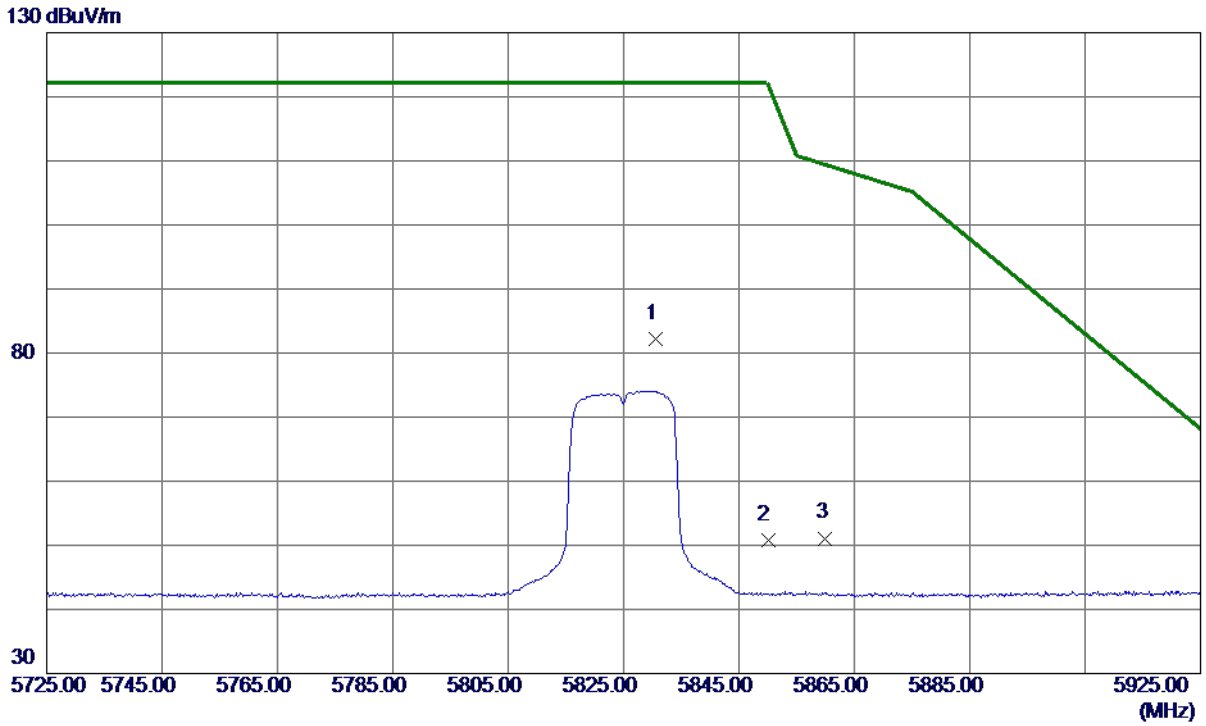


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11647.6380	34.00	12.22	46.22	74.00	-27.78	Peak	
2 *	11650.1600	22.69	12.23	34.92	54.00	-19.08	AVG	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5825 MHz

Horizontal

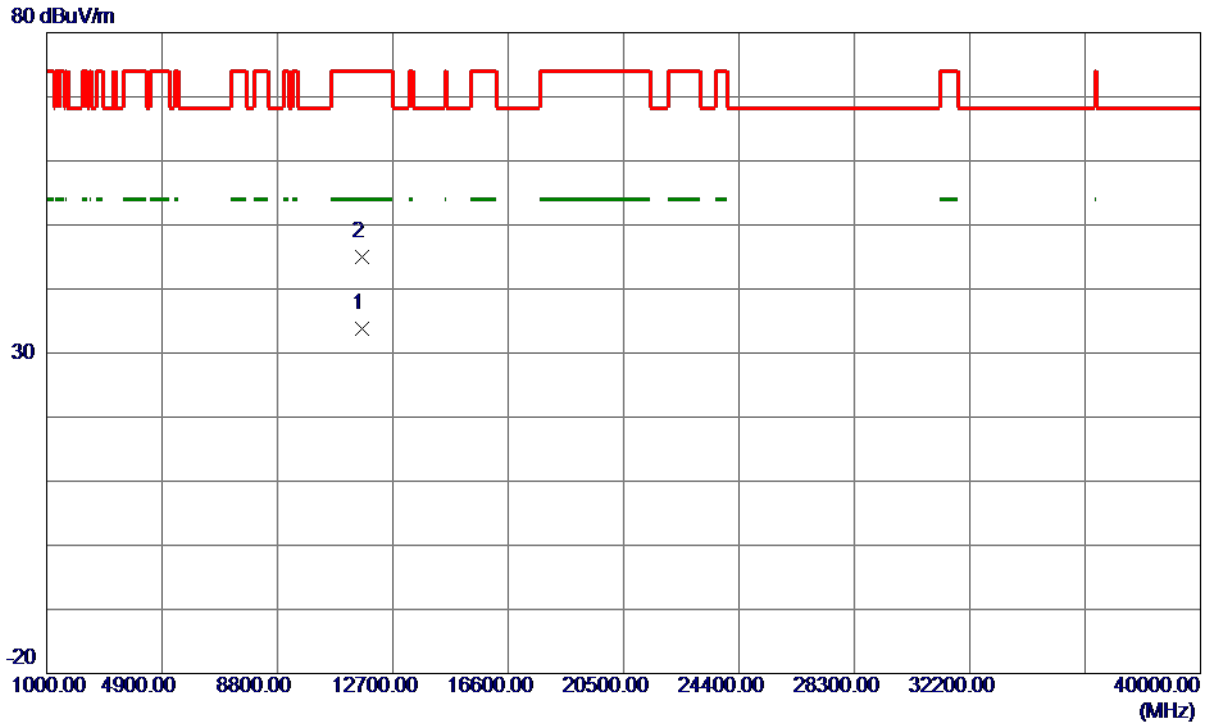


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5830.5000	66.31	15.93	82.24	122.20	-39.96	Peak	No Limit
2	5850.0000	34.78	15.97	50.75	122.20	-71.45	Peak	
3	5860.0000	35.10	16.00	51.10	109.40	-58.30	Peak	

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT20) Mode 5825 MHz

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11652.0070	21.50	12.23	33.73	54.00	-20.27	AVG	
2	11652.0800	32.77	12.23	45.00	74.00	-29.00	Peak	

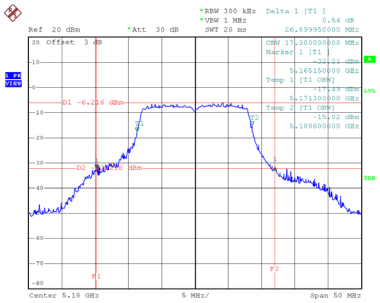
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	UNII-1_TX A Mode

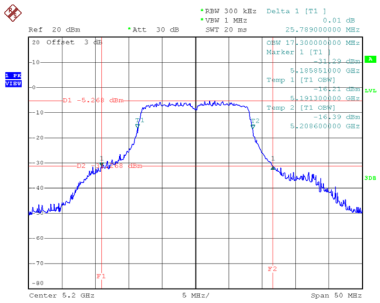
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	26.90	17.30
40	5200	25.79	17.30
48	5240	25.59	17.30

CH36



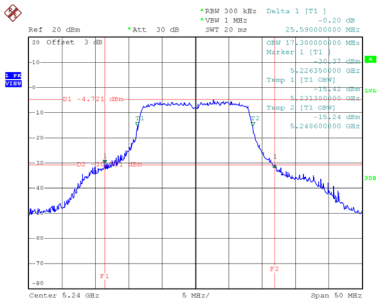
Date: 13.MAY.2019 15:50:32

CH40



Date: 13.MAY.2019 15:52:27

CH48

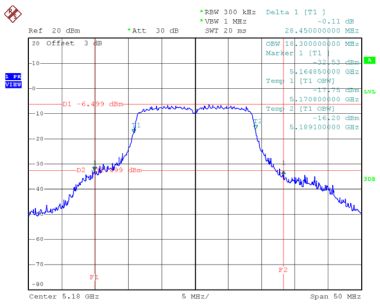


Date: 13.MAY.2019 15:53:33

Test Mode	UNII-1_TX N (HT20) Mode

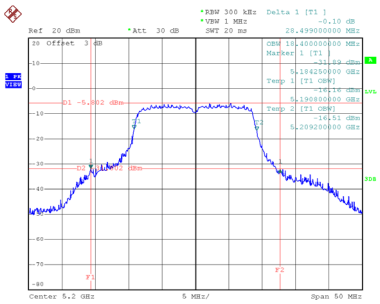
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	28.45	18.30
40	5200	28.50	18.40
48	5240	28.15	18.30

CH36



Date: 13.MAY.2019 16:08:54

CH40



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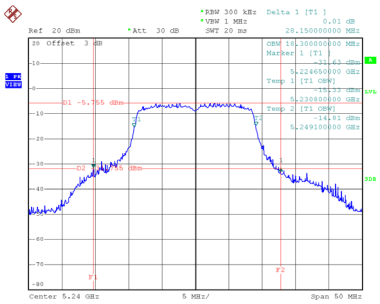
CH48

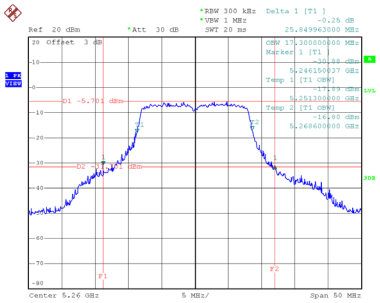


Date: 13.MAY.2019 16:15:20

Test Mode	UNII-2A_TX A Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
52	5260	25.85	17.30
60	5300	24.49	17.20
64	5320	24.15	17.20

CH52



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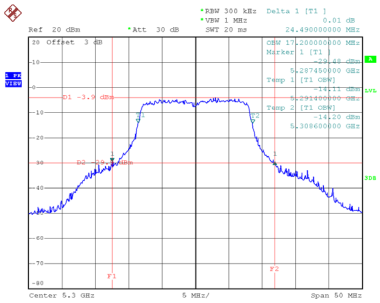
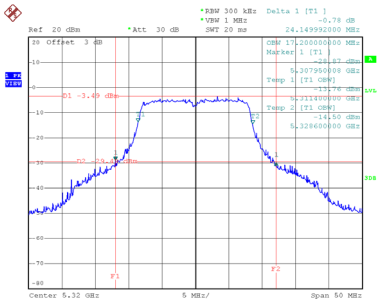
CH60



Date: 13.MAY.2019 15:57:30

CH64

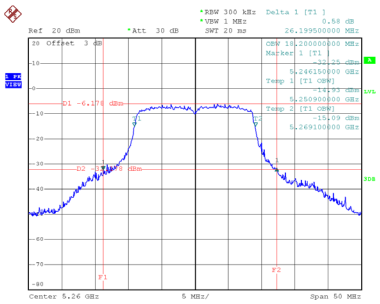


Date: 13.MAY.2019 15:58:28

Test Mode	UNII-2A_TX N (HT20) Mode

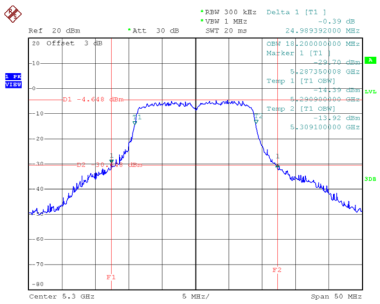
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
52	5260	26.20	18.20
60	5300	24.99	18.20
64	5320	24.99	18.20

CH52



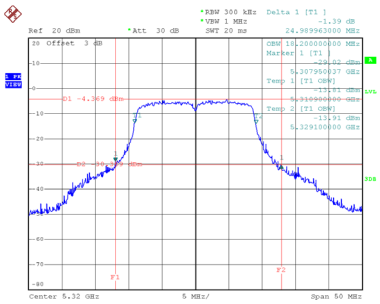
Date: 13.MAY.2019 16:16:12

CH60



Date: 13.MAY.2019 16:17:23

CH64

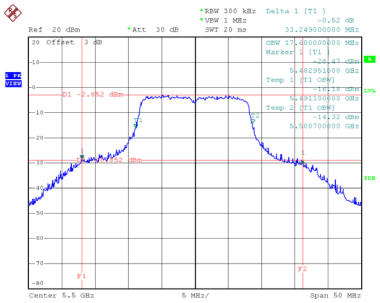


Date: 13.MAY.2019 16:19:21

Test Mode	UNII-2C_TX A Mode

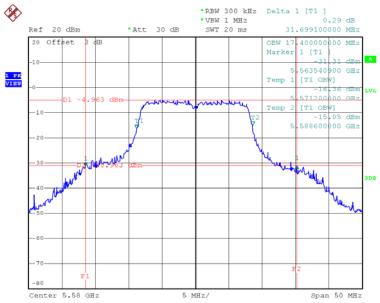
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
100	5500	33.25	17.60
116	5580	31.70	17.40
140	5700	31.35	17.20

CH100



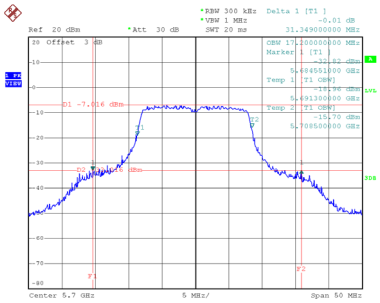
Date: 13.MAY.2019 15:59:42

CH116



Date: 13.MAY.2019 16:01:00

CH140

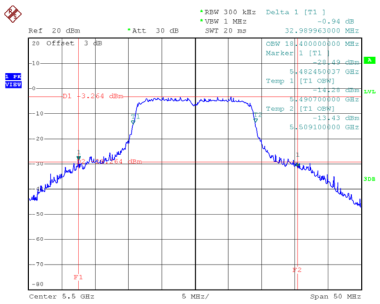


Date: 13.MAY.2019 16:01:57

Test Mode	UNII-2C_TX N (HT20) Mode

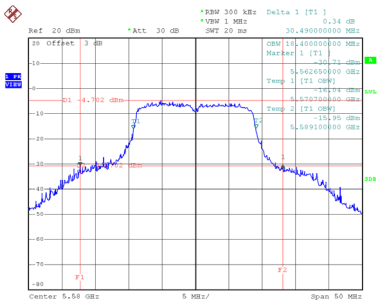
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
100	5500	32.99	18.40
116	5580	30.49	18.40
140	5700	29.25	18.20

CH100



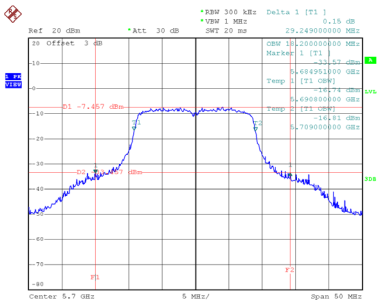
Date: 13.MAY.2019 16:20:42

CH116



Date: 13.MAY.2019 16:22:16

CH140

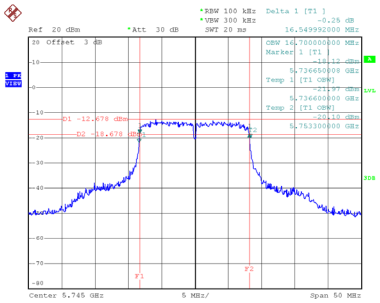


Date: 13.MAY.2019 16:23:06

Test Mode	UNII-3_TX A Mode

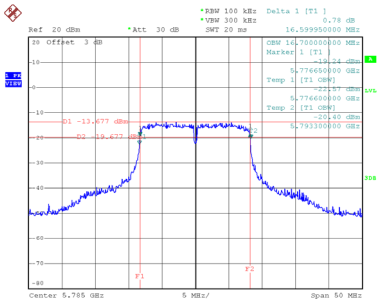
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
149	5745	16.55	16.70	500	Complies
157	5785	16.60	16.70	500	Complies
165	5825	16.65	16.70	500	Complies

CH149



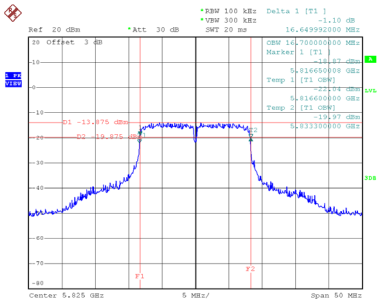
Date: 13.MAY.2019 16:03:08

CH157



Date: 13.MAY.2019 16:04:18

CH165

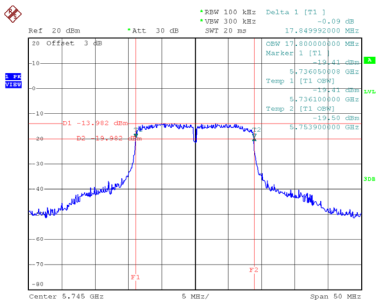


Date: 13.MAY.2019 16:05:31

Test Mode	UNII-3_TX N (HT20) Mode

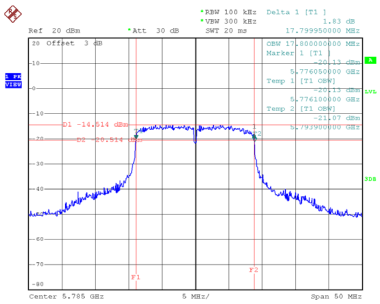
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
149	5745	17.85	17.80	500	Complies
157	5785	17.80	17.80	500	Complies
165	5825	17.80	17.80	500	Complies

CH149



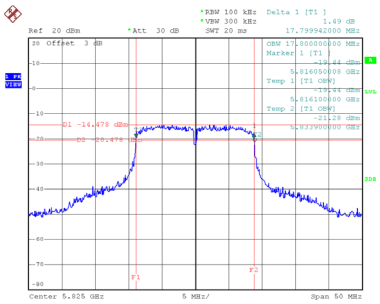
Date: 13.MAY.2019 16:24:43

CH157



Date: 13.MAY.2019 16:25:51

CH165



Date: 13.MAY.2019 16:27:45

APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode	UNII-1_TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	-3.38	0.00	-3.38	24.00	0.25	Complies
40	5200	-2.93	0.00	-2.93	24.00	0.25	Complies
48	5240	-2.03	0.00	-2.03	24.00	0.25	Complies

Test Mode	UNII-1_TX N (HT20) Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	-3.56	0.09	-3.47	24.00	0.25	Complies
40	5200	-3.14	0.09	-3.05	24.00	0.25	Complies
48	5240	-2.22	0.09	-2.13	24.00	0.25	Complies

Test Mode	UNII-2A_TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
52	5260	-2.24	0.00	-2.24	24.00	0.25	Complies
60	5300	-0.34	0.00	-0.34	24.00	0.25	Complies
64	5320	0.21	0.00	0.21	24.00	0.25	Complies

Test Mode	UNII-2A_TX N (HT20) Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
52	5260	-2.37	0.09	-2.28	24.00	0.25	Complies
60	5300	-0.53	0.09	-0.44	24.00	0.25	Complies
64	5320	0.09	0.09	0.18	24.00	0.25	Complies

Test Mode	UNII-2C_TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
100	5500	1.68	0.00	1.68	24.00	0.25	Complies
116	5580	-0.21	0.00	-0.21	24.00	0.25	Complies
140	5700	-6.06	0.00	-6.06	24.00	0.25	Complies

Test Mode	UNII-2C_TX N (HT20) Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
100	5500	1.41	0.09	1.50	24.00	0.25	Complies
116	5580	-0.24	0.09	-0.15	24.00	0.25	Complies
140	5700	-3.27	0.09	-3.18	24.00	0.25	Complies

Test Mode	UNII-3_TX A Mode

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	-7.76	0.00	-7.76	30.00	1.00	Complies
157	5785	-9.21	0.00	-9.21	30.00	1.00	Complies
165	5825	-9.56	0.00	-9.56	30.00	1.00	Complies

Test Mode	UNII-3_TX N (HT20) Mode

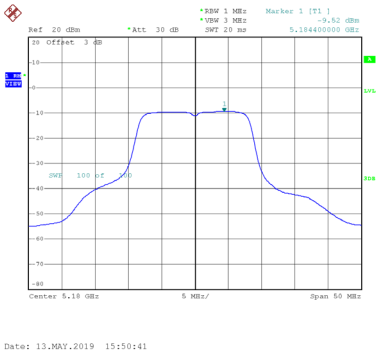
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	-7.97	0.09	-7.88	30.00	1.00	Complies
157	5785	-9.44	0.09	-9.35	30.00	1.00	Complies
165	5825	-9.76	0.09	-9.67	30.00	1.00	Complies

APPENDIX G - POWER SPECTRAL DENSITY

Test Mode	UNII-1_TX A Mode

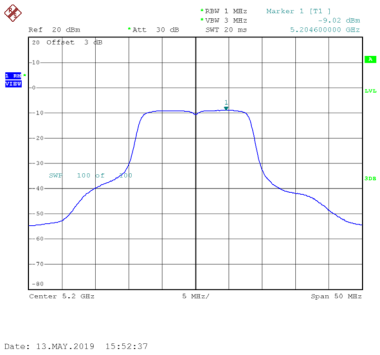
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180	-9.52	0.00	-9.52	11.00	Complies
40	5200	-9.02	0.00	-9.02	11.00	Complies
48	5240	-8.63	0.00	-8.63	11.00	Complies

CH36



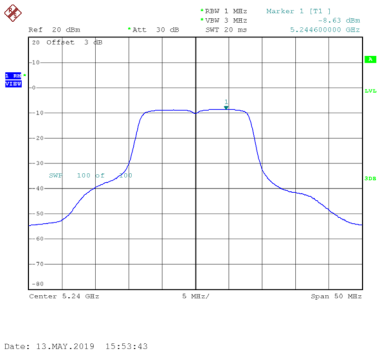
Date: 13.MAY.2019 15:50:41

CH40



Date: 13.MAY.2019 15:52:37

CH48

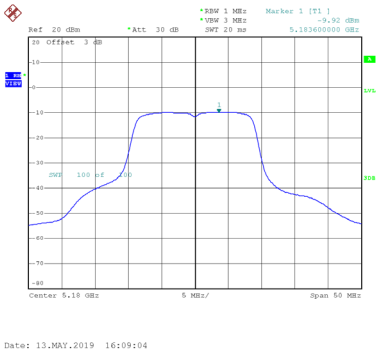


Date: 13.MAY.2019 15:53:43

Test Mode	UNII-1_TX N (HT20) Mode

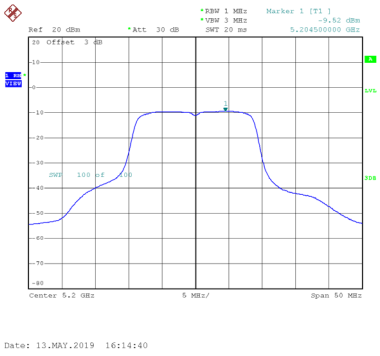
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180	-9.92	0.09	-9.83	11.00	Complies
40	5200	-9.52	0.09	-9.43	11.00	Complies
48	5240	-9.06	0.09	-8.97	11.00	Complies

CH36



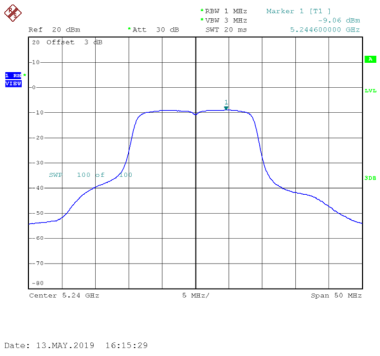
Date: 13.MAY.2019 16:09:04

CH40



Date: 13.MAY.2019 16:14:40

CH48

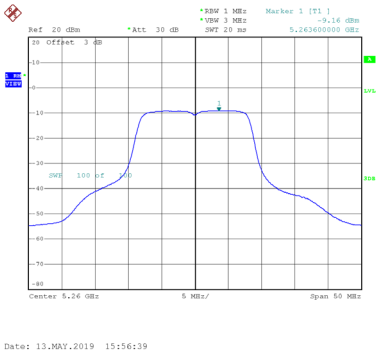


Date: 13.MAY.2019 16:15:29

Test Mode	UNII-2A_TX A Mode

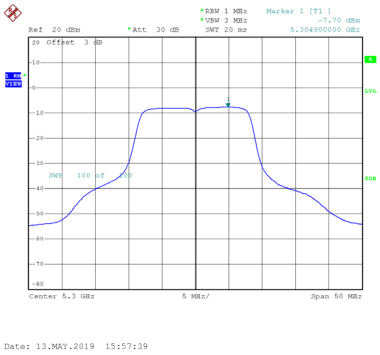
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
52	5260	-9.16	0.00	-9.16	11.00	Complies
60	5300	-7.70	0.00	-7.70	11.00	Complies
64	5320	-7.42	0.00	-7.42	11.00	Complies

CH52



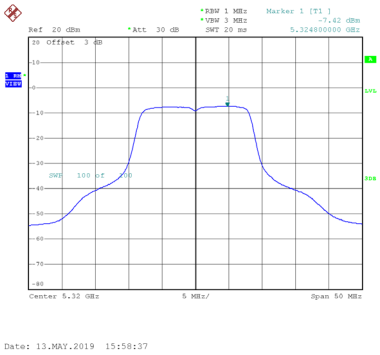
Date: 13.MAY.2019 15:56:39

CH60



Date: 13.MAY.2019 15:57:39

CH64

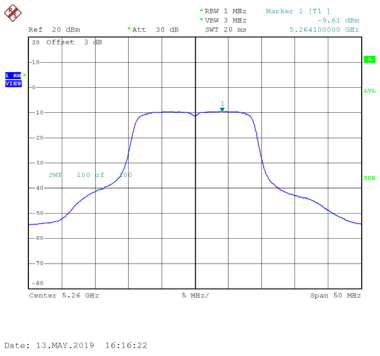


Date: 13.MAY.2019 15:58:37

Test Mode	UNII-2A_TX N (HT20) Mode

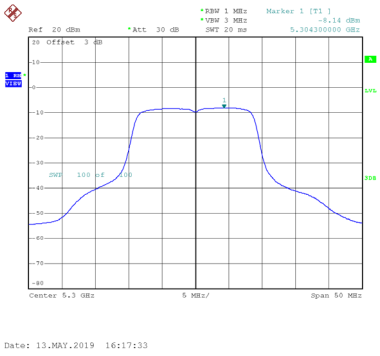
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
52	5260	-9.61	0.09	-9.52	11.00	Complies
60	5300	-8.14	0.09	-8.05	11.00	Complies
64	5320	-7.85	0.09	-7.76	11.00	Complies

CH52



Date: 13.MAY.2019 16:16:22

CH60



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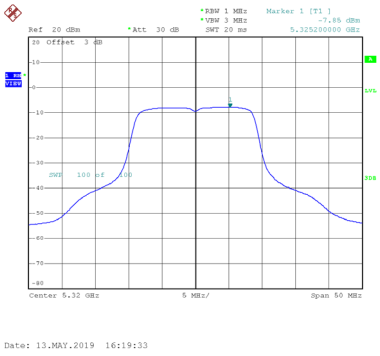
CH64

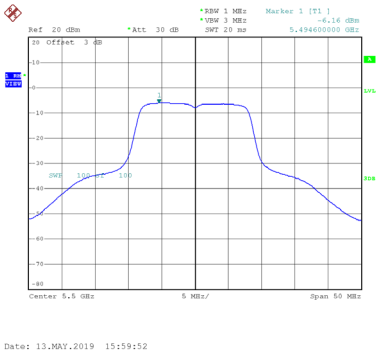


Date: 13.MAY.2019 16:19:33

Test Mode	UNII-2C_TX A Mode

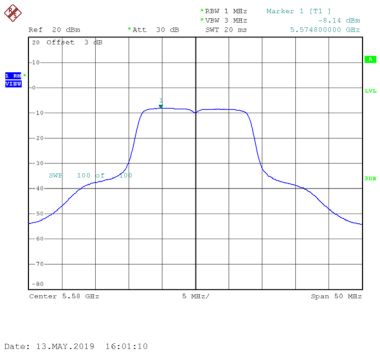
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
100	5500	-6.16	0.00	-6.16	11.00	Complies
116	5580	-8.14	0.00	-8.14	11.00	Complies
140	5700	-10.24	0.00	-10.24	11.00	Complies

CH100



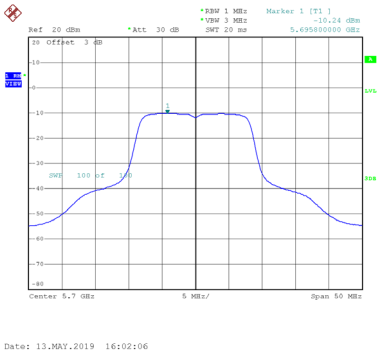
Date: 13.MAY.2019 15:59:52

CH116



Date: 13.MAY.2019 16:01:10

CH140

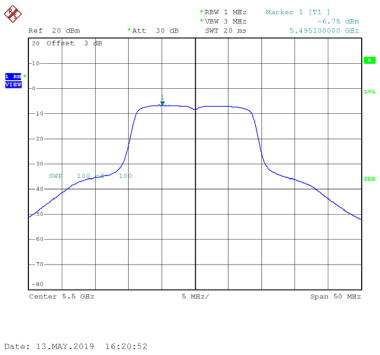


Date: 13.MAY.2019 16:02:06

Test Mode	UNII-2C_TX N (HT20) Mode

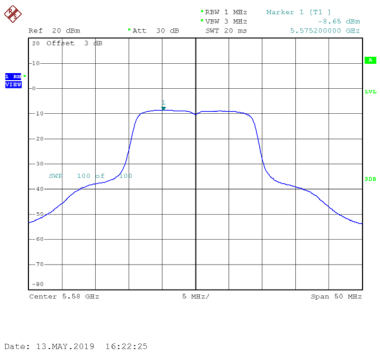
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
100	5500	-6.75	0.09	-6.66	11.00	Complies
116	5580	-8.65	0.09	-8.56	11.00	Complies
140	5700	-10.67	0.09	-10.58	11.00	Complies

CH100



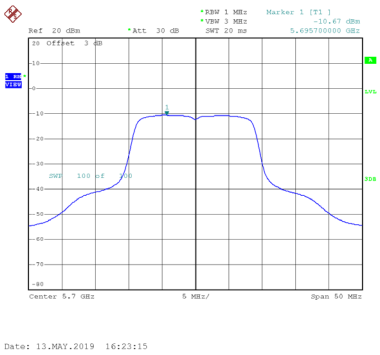
Date: 13.MAY.2019 16:20:52

CH116



Date: 13.MAY.2019 16:22:25

CH140

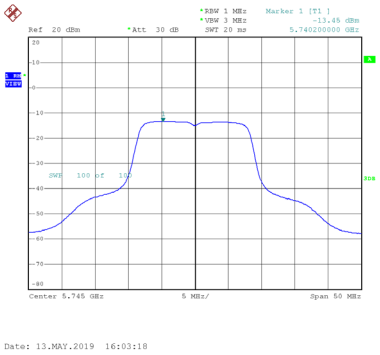


Date: 13.MAY.2019 16:23:15

Test Mode	UNII-3_TX A Mode

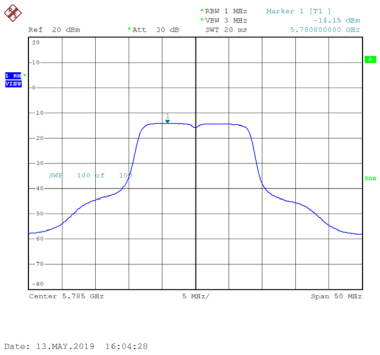
Channel	Frequency (MHz)	Power Spectral Density (dBm/500 kHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/500 kHz)	Max. Limit (dBm/500 kHz)	Result
149	5745	-13.45	0.00	-13.45	30.00	Complies
157	5785	-14.15	0.00	-14.15	30.00	Complies
165	5825	-14.25	0.00	-14.25	30.00	Complies

CH149



Date: 13.MAY.2019 16:03:18

CH157



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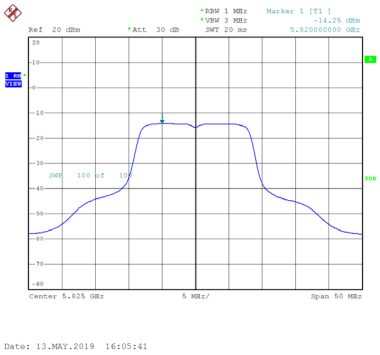
CH165

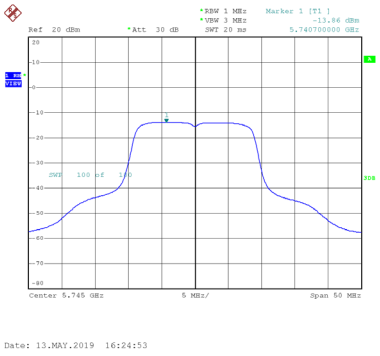


Date: 13.MAY.2019 16:05:41

Test Mode	UNII-3_TX N (HT20) Mode

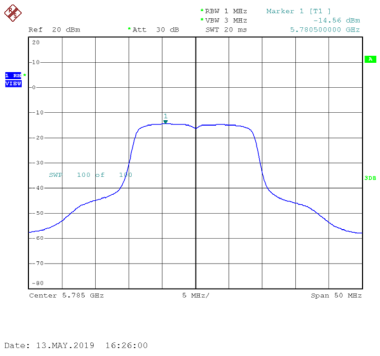
Channel	Frequency (MHz)	Power Spectral Density (dBm/500 kHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/500 kHz)	Max. Limit (dBm/500 kHz)	Result
149	5745	-13.86	0.09	-13.77	30.00	Complies
157	5785	-14.56	0.09	-14.47	30.00	Complies
165	5825	-14.82	0.09	-14.73	30.00	Complies

CH149



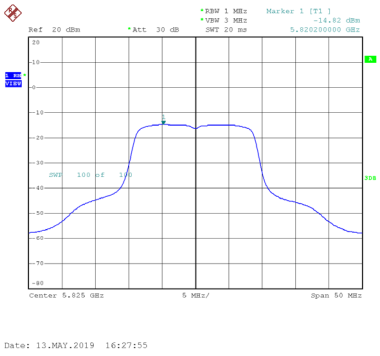
Date: 13.MAY.2019 16:24:53

CH157



Date: 13.MAY.2019 16:26:00

CH165



Date: 13.MAY.2019 16:27:55

APPENDIX H - FREQUENCY STABILITY

Test Mode	UNII-1

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180.0000
5.75	5179.9600
5	5179.9604
4.25	5179.9600
Maximum Deviation (MHz)	0.0400
Maximum Deviation (ppm)	7.7220

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	5180.0000
0	5179.9600
10	5179.9604
20	5179.9600
30	5179.9604
40	5179.9600
45	5179.9600
Maximum Deviation (MHz)	0.0400
Maximum Deviation (ppm)	7.7220

Test Mode	UNII-2A

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5260.0000
5.75	5259.9608
5	5259.9604
4.25	5259.9600
Maximum Deviation (MHz)	0.0400
Maximum Deviation (ppm)	7.6046

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	5260.0000
0	5259.9604
10	5259.9604
20	5259.9604
30	5259.9604
40	5259.9600
45	5259.9604
Maximum Deviation (MHz)	0.0400
Maximum Deviation (ppm)	7.6046

Test Mode	UNII-2C

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5500.0000
5.75	5499.9588
5	5499.9584
4.25	5499.9588
Maximum Deviation (MHz)	0.0416
Maximum Deviation (ppm)	7.5636

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	5500.0000
0	5499.9584
10	5499.9580
20	5499.9580
30	5499.9584
40	5499.9580
45	5499.9580
Maximum Deviation (MHz)	0.0420
Maximum Deviation (ppm)	7.6364

Test Mode	UNII-3

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5745.0000
5.75	5744.9572
5	5744.9576
4.25	5744.9572
Maximum Deviation (MHz)	0.0428
Maximum Deviation (ppm)	7.4500

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(°C)	5745.0000
0	5744.9564
10	5744.9576
20	5744.9576
30	5744.9600
40	5744.9576
45	5744.9600
Maximum Deviation (MHz)	0.0436
Maximum Deviation (ppm)	7.5892

End of Test Report