

FCC Radio Test Report

FCC ID: TE7X20

This report concerns: Original Grant

Project No. : 1910C060
Equipment : AX1800 Whole Home Mesh Wi-Fi System
Brand Name : tp-link
Test Model : Deco X20
Series Model : Deco W3600
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Receipt : Oct. 14, 2019
Date of Test : Oct. 15, 2019 ~ Nov. 15, 2019
Issued Date : Jan. 02, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG2019101528 for conducted, DG2019101529 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
FCC KDB 662911 D01 Multiple Transmitter Output v02r01

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

Vincent Tan

Prepared by : Vincent Tan

Ethan Ma

Approved by : Ethan Ma



Certificate #5123.02

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

Tel: +86-769-8318-3000

Web: www.newbtl.com

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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.	Jan. 02, 2020

1. 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 (3)
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) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (4) For UNII-1 this device was functioned as a
☒ Access point device ☐ Client device

1.1 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

1.2 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	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	V	3.79
		9kHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	4.88
		30MHz ~ 200MHz	H	4.14
		200MHz ~ 1,000MHz	V	4.62
		200MHz ~ 1,000MHz	H	4.80
		1GHz ~ 6GHz	-	4.58
		6GHz ~ 18GHz	-	5.18
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Laughing Zhang
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Laughing Zhang
Radiated Emissions-30 MHz to 1GHz	24°C	68%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-Above 1000 MHz	26°C	65%	AC 120V/60Hz	Berton Luo
Spectrum Bandwidth	24°C	55%	AC 120V/60Hz	Jonas Chen
Maximum Output Power	24°C	55%	AC 120V/60Hz	Laughing Zhang
Power Spectral Density	24°C	55%	AC 120V/60Hz	Jonas Chen
Frequency Stability	Normal&Extreme	55%	Normal&Extreme	Jonas Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AX1800 Whole Home Mesh Wi-Fi System
Brand Name	tp-link
Test Model	Deco X20
Series Model	Deco W3600
Model Difference(s)	Only differ in model name.
Power Source	DC Voltage supplied from AC/DC adapter. Model: T120150-2B4
Power Rating	I/P: 100-240V~ 50/60Hz 0.6A O/P:12V  1.5A
Operation Frequency Bands	UNII-1: 5150 MHz~5250 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA
Bit Rate of Transmitter	Up to 1201 Mbps
Maximum Conducted Output Power for UNII-1	IEEE 802.11a: 27.12 dBm (0.5152 W) IEEE 802.11n (HT20): 26.39 dBm (0.4355 W) IEEE 802.11n (HT40): 26.07 dBm (0.4046 W) IEEE 802.11ac (VHT20): 27.75 dBm (0.5957 W) IEEE 802.11ac (VHT40): 26.07 dBm (0.4046 W) IEEE 802.11ac (VHT80): 22.38 dBm (0.4355 W) IEEE 802.11ax (HEW20): 27.30 dBm (0.5370 W) IEEE 802.11ax (HEW40): 25.99 dBm (0.3972 W) IEEE 802.11ax (HEW80): 22.54 dBm (0.1795 W)

Note:

- 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) IEEE 802.11ac (VHT20) IEEE 802.11ax (HEW20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40) IEEE 802.11ax (HEW40)		IEEE 802.11ac (VHT80) IEEE 802.11ax (HEW80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	TP-LINK®	3101502754	PCB	I-PEX	0.76
2	TP-LINK®	3101502755	PCB	I-PEX	0.80

Note:

This EUT supports CDD, any transmit signals are correlated with each other, so Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N]$ dBi, that is Directional gain = $10\log[(10^{0.76/20} + 10^{0.80/20})^2 / 2]$ dBi = 3.79.

4. Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
IEEE 802.11a		V (Ant. 1 + Ant. 2)
IEEE 802.11n (HT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11n (HT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac (VHT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac (VHT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac (VHT80)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HEW20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HEW40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax (HEW80)		V (Ant. 1 + Ant. 2)

2.2 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 N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 7	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 8	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)
Mode 9	TX AX (HEW80) Mode / CH42 (UNII-1)
Mode 10	TX AC(VHT20) Mode / CH40 (UNII-1)

Following mode(s) was (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 10	TX AC(VHT20) Mode / CH40 (UNII-1)

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 10	TX AC(VHT20) Mode / CH40 (UNII-1)

Radiated emissions 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 N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 7	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 8	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)
Mode 9	TX AX (HEW80) Mode / CH42 (UNII-1)

Conducted test	
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 N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC (VHT40) Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 7	TX AX (HEW20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 8	TX AX (HEW40) Mode / CH38, CH46 (UNII-1)
Mode 9	TX AX (HEW80) Mode / CH42 (UNII-1)

Note:

- (1) For radiated emission below 1 GHz test, the IEEE 802.11ac20 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) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.

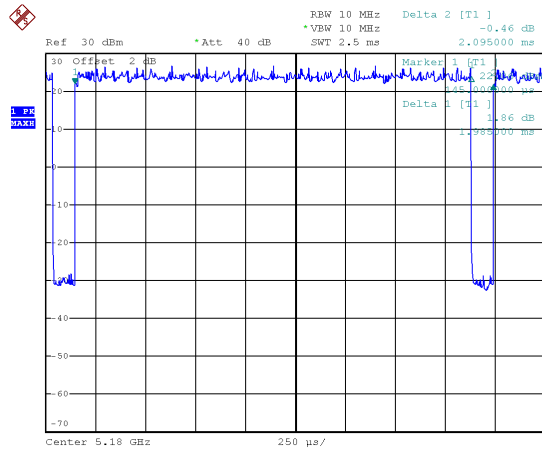
2.3 PARAMETERS OF TEST SOFTWARE

UNII-1			
Test Software	QSPR		
Test Frequency (MHz)	5180	5200	5240
IEEE 802.11a	19.5	22	24
IEEE 802.11n (HT20)	23.5	24	24
IEEE 802.11ac (VHT20)	23.5	25	25
IEEE 802.11ax (HEW20)	22	24.5	25
Test Frequency (MHz)	5190	5230	
IEEE 802.11n (HT40)	19.5	22	
IEEE 802.11ac (VHT40)	19.5	22.5	
IEEE 802.11ax (HEW40)	19.5	22.5	
Test Frequency (MHz)	5210		
IEEE 802.11ac (VHT80)	19		
IEEE 802.11ax (HEW80)	19		

2.4 DUTY CYCLE

If duty cycle is $\geq 98\%$, duty factor is not required.
 If duty cycle is $< 98\%$, duty factor shall be considered.
 The output power = measured power + duty factor.

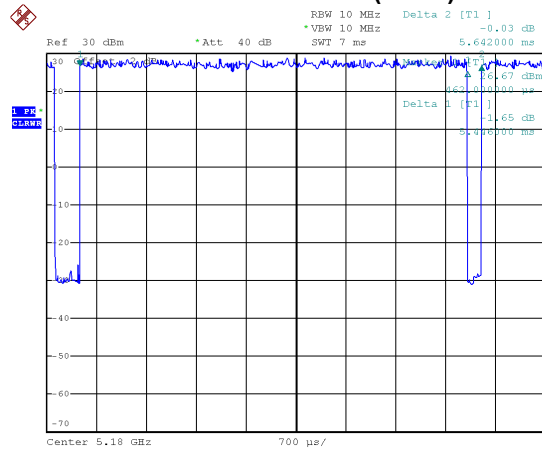
IEEE 802.11a



Date: 31.OCT.2019 16:27:54

Duty cycle = $1.985 \text{ ms} / 2.095 \text{ ms} = 94.75\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.23$

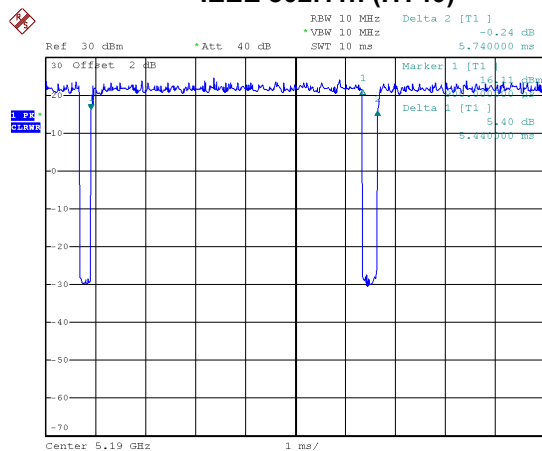
IEEE 802.11n (HT20)



Date: 31.OCT.2019 16:28:46

Duty cycle = $5.446 \text{ ms} / 5.642 \text{ ms} = 96.53\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.15$

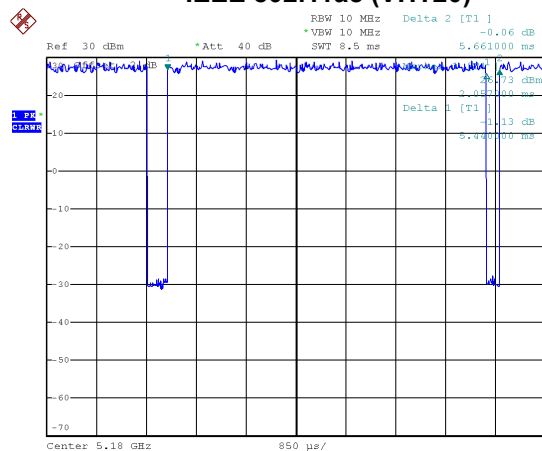
IEEE 802.11n (HT40)



Date: 31.OCT.2019 16:30:21

Duty cycle = $5.440 \text{ ms} / 5.740 \text{ ms} = 94.77\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.23$

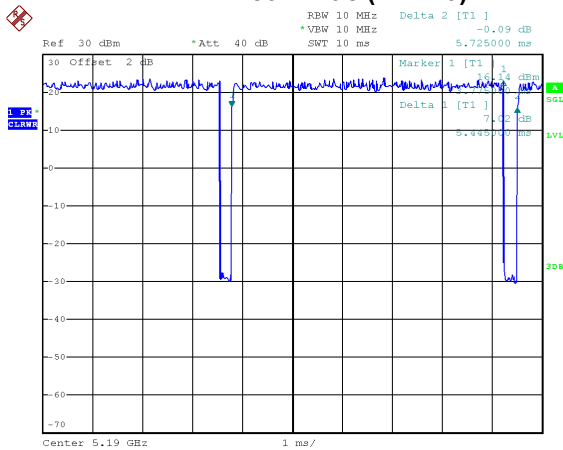
IEEE 802.11ac (VHT20)



Date: 31.OCT.2019 16:29:27

Duty cycle = $5.440 \text{ ms} / 5.661 \text{ ms} = 96.10\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.17$

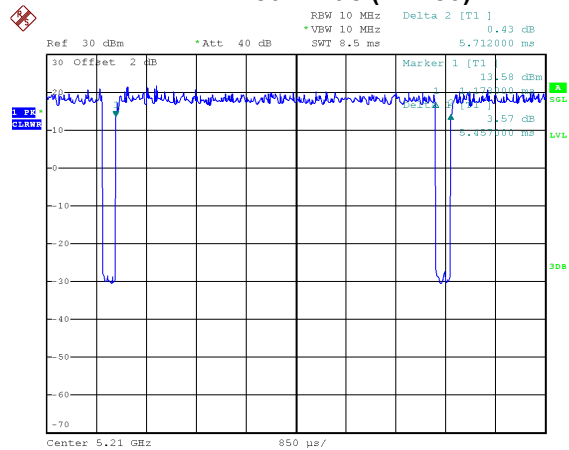
IEEE 802.11ac (VHT40)



Date: 31.OCT.2019 16:33:17

Duty cycle = 5.445 ms / 5.725 ms = 95.11%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.22$

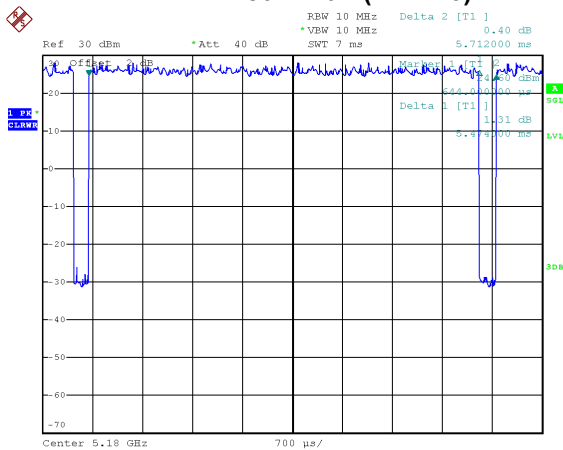
IEEE 802.11ac (VHT80)



Date: 31.OCT.2019 16:34:12

Duty cycle = 5.457 ms / 5.712 ms = 95.54%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.20$

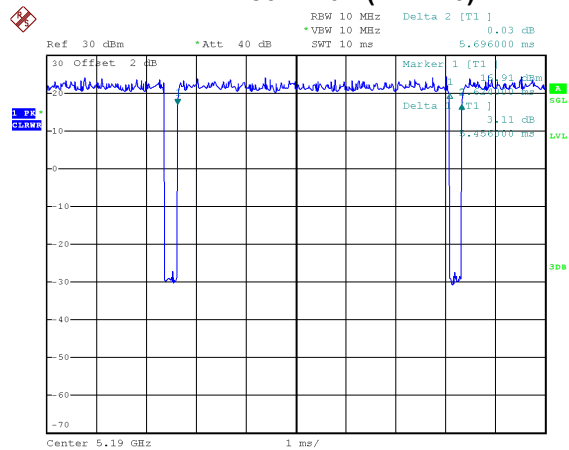
IEEE 802.11ax (HEW20)



Date: 31.OCT.2019 16:35:19

Duty cycle = 5.474 ms / 5.712 ms = 95.83%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.18$

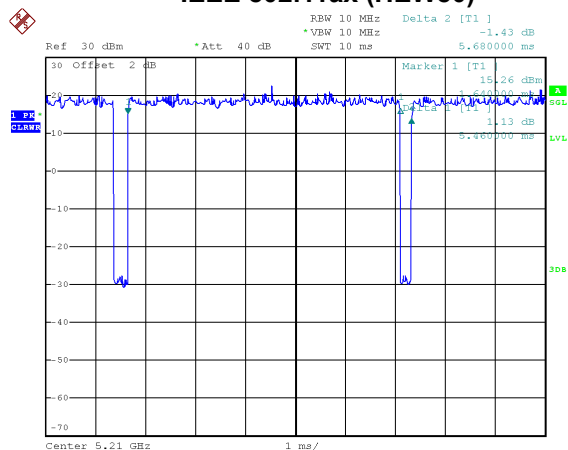
IEEE 802.11ax (HEW40)



Date: 31.OCT.2019 16:36:49

Duty cycle = 5.456 ms / 5.696 ms = 95.79%
Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.19$

IEEE 802.11ax (HEW80)



Date: 31.OCT.2019 16:37:49

Duty cycle = 5.460 ms / 5.680 ms = 96.13%

Duty Factor = 10 log(1 / Duty cycle) = 0.17

NOTE:

For IEEE 802.11a, IEEE 802.11n (HT20), IEEE 802.11ac (VHT20) and IEEE 802.11ax (HEW20):

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%).

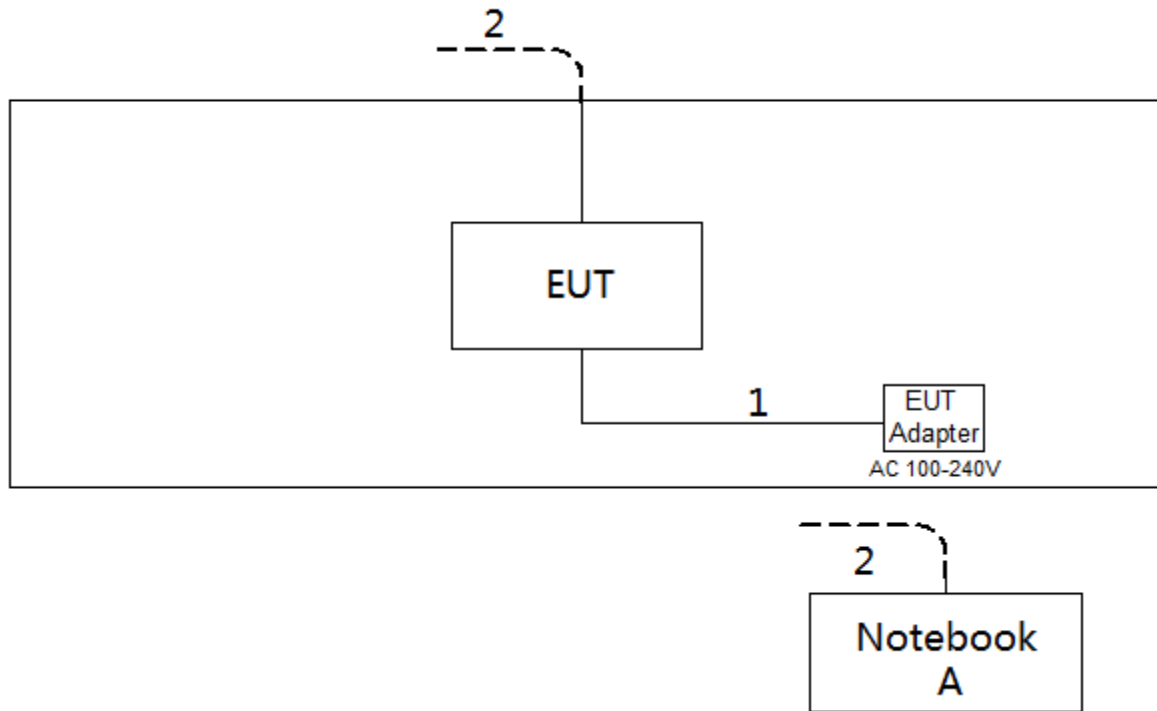
For IEEE 802.11n (HT40) , IEEE 802.11ac (VHT40) and IEEE 802.11ax (HEW40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).

For IEEE 802.11ac (VHT80) and IEEE 802.11ax (HEW80):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 kHz (Duty cycle < 98%).

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m
2	RJ45 Cable	NO	NO	10m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency (MHz)	Limit (dB μ V)	
	Quasi-pea	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

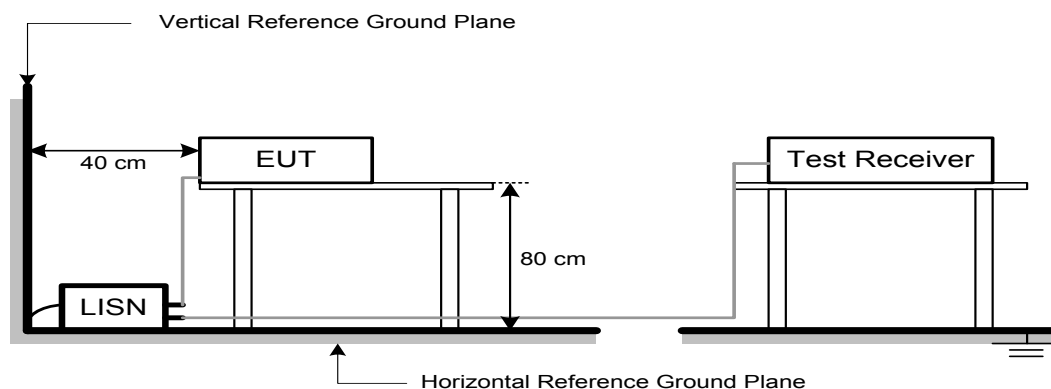
3.2 TEST PROCEDURE

- 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.

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 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.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 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

NOTE:

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

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

(2) According to 15.407(b)(4)(i), 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.

4.2 TEST PROCEDURE

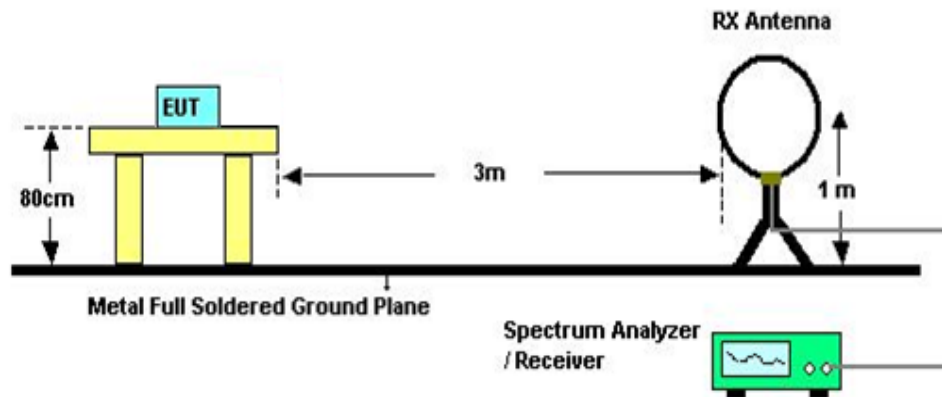
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance 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.

4.3 DEVIATION FROM TEST STANDARD

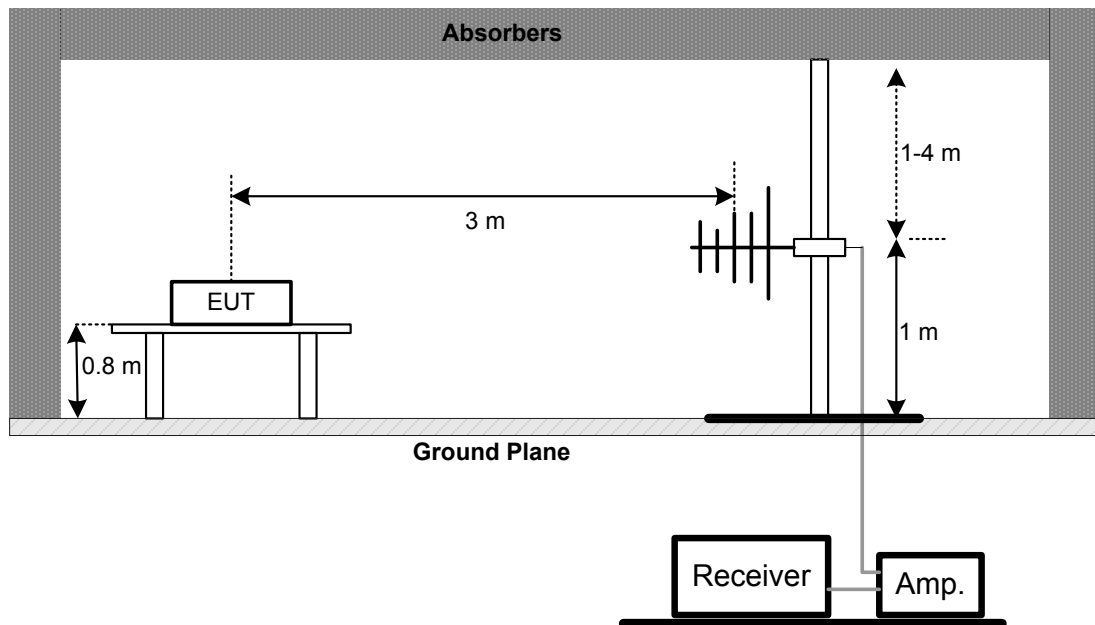
No deviation

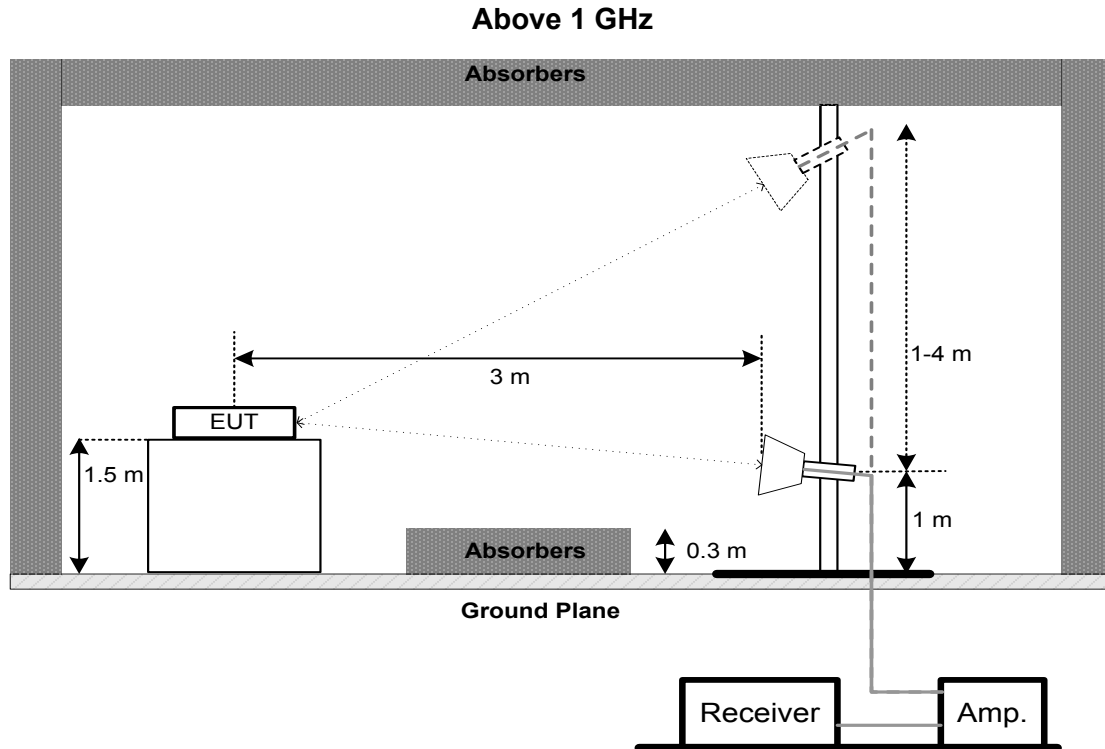
4.4 TEST SETUP

9 kHz to 30 MHz



30 MHz to 1 GHz





4.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.6 TEST RESULTS - 9 KHZ to 30 MHZ

Please refer to the APPENDIX B

Remark:

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

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

5. BANDWIDTH TEST

5.1 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

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below
- Spectrum Setting:
For UNII-1:

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

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

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER TEST

6.1 LIMIT

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

Note:

- For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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.

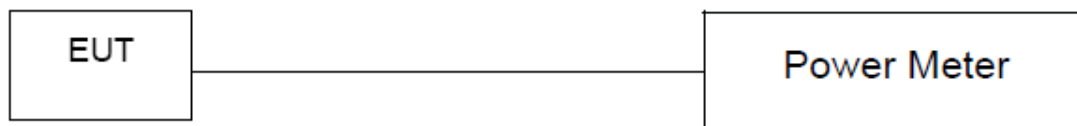
6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- Test test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. POWER SPECTRAL DENSITY TEST

7.1 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

7.2 TEST PROCEDURE

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

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

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 TEST RESULTS

Please refer to the APPENDIX G.

8. FREQUENCY STABILITY MEASUREMENT

8.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(g)	Frequency Stability	An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.	5150-5250

8.2 TEST PROCEDURE

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

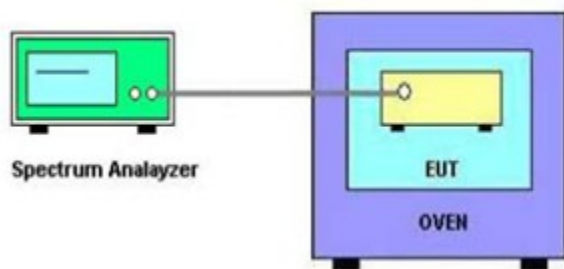
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- User manual temperature is 0°C~40°C.

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 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May. 19, 2020
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 12, 2020

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, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1 GHz)(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. 23, 2020
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. 03, 2020
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 03, 2020
2	Wideband power sensor	Keysight	N1923A	MY58310004	Aug. 03, 2020

Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 10, 2020

Remark: "N/A" denotes no model name, serial no. or calibration specified.

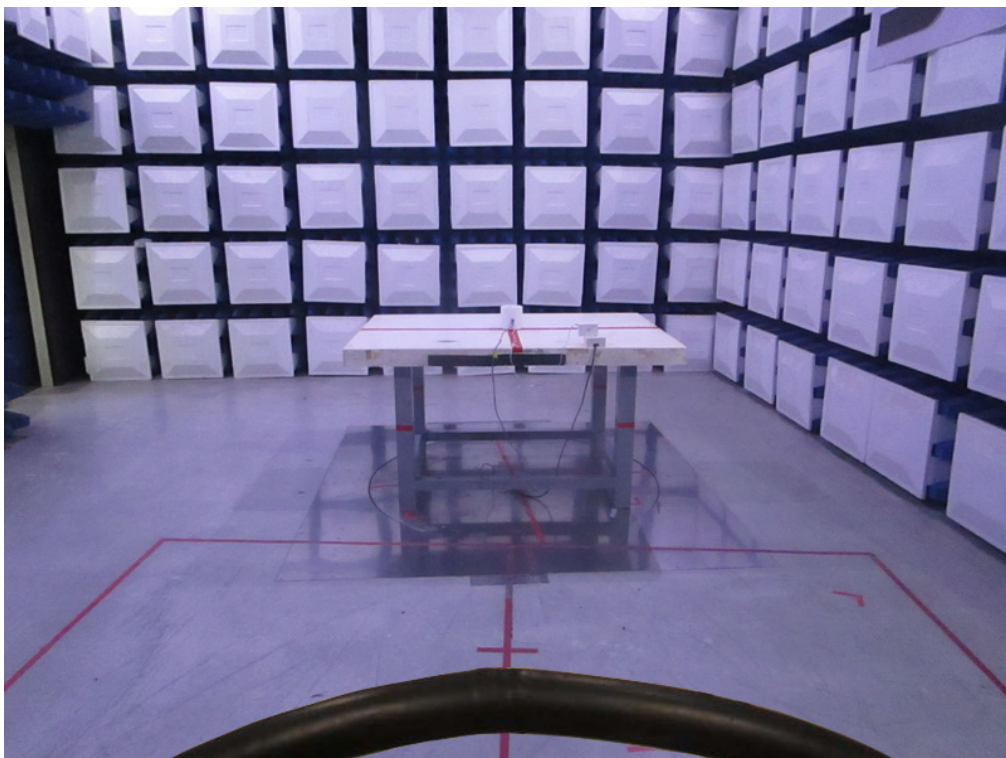
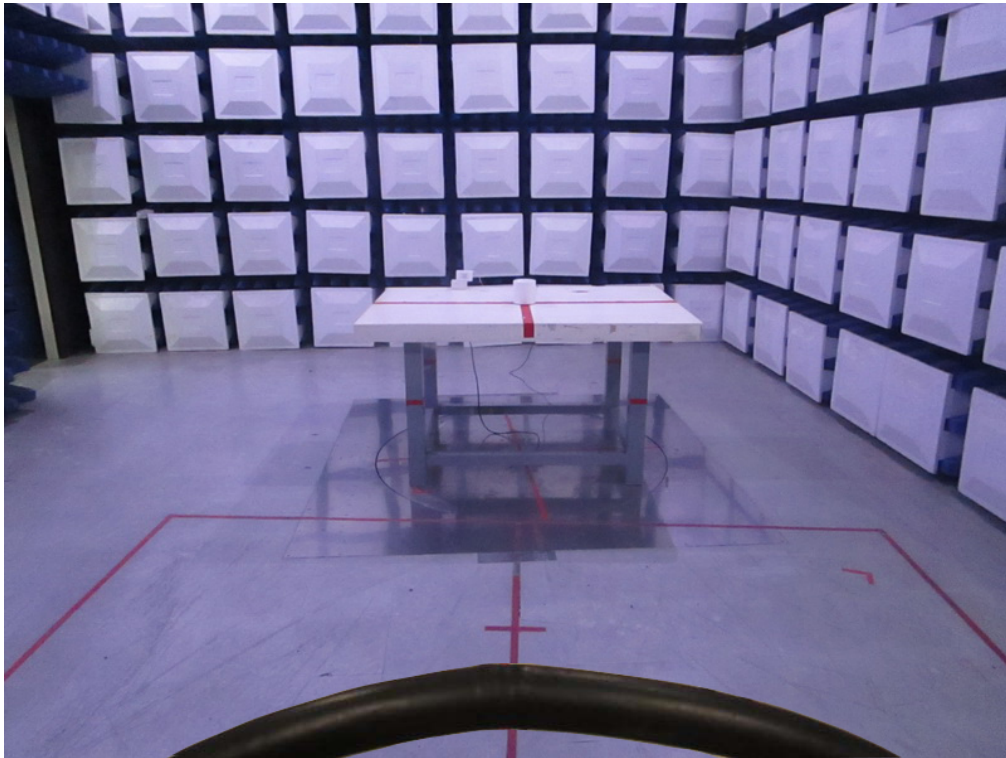
"*" calibration period of equipment list is three year.

Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTOS

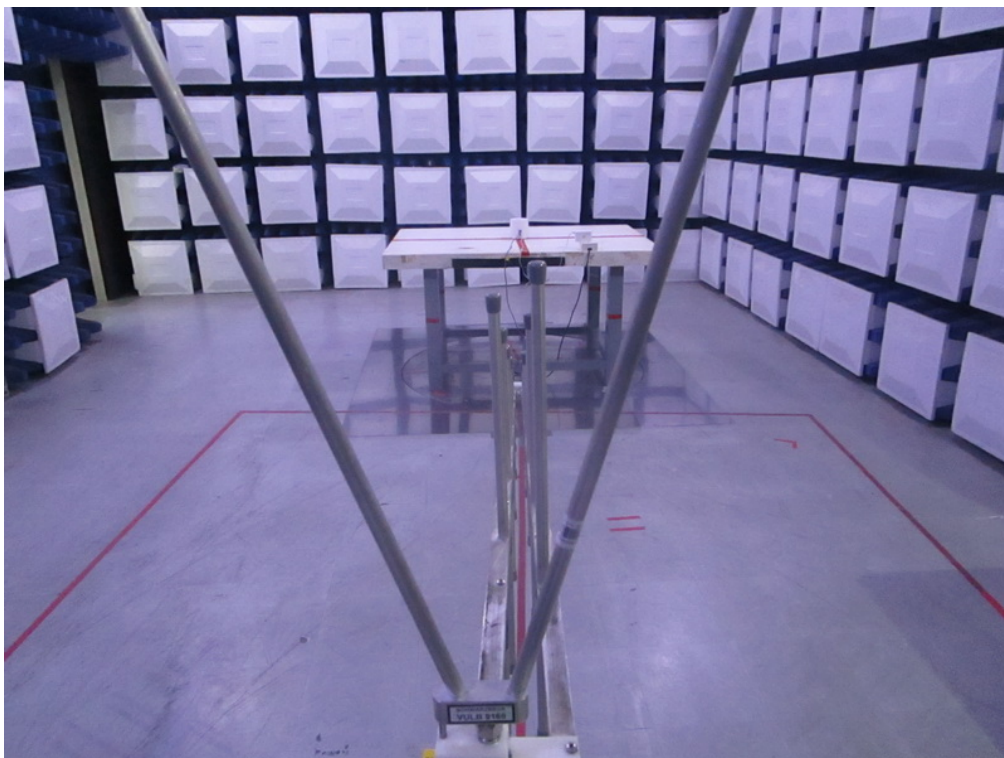
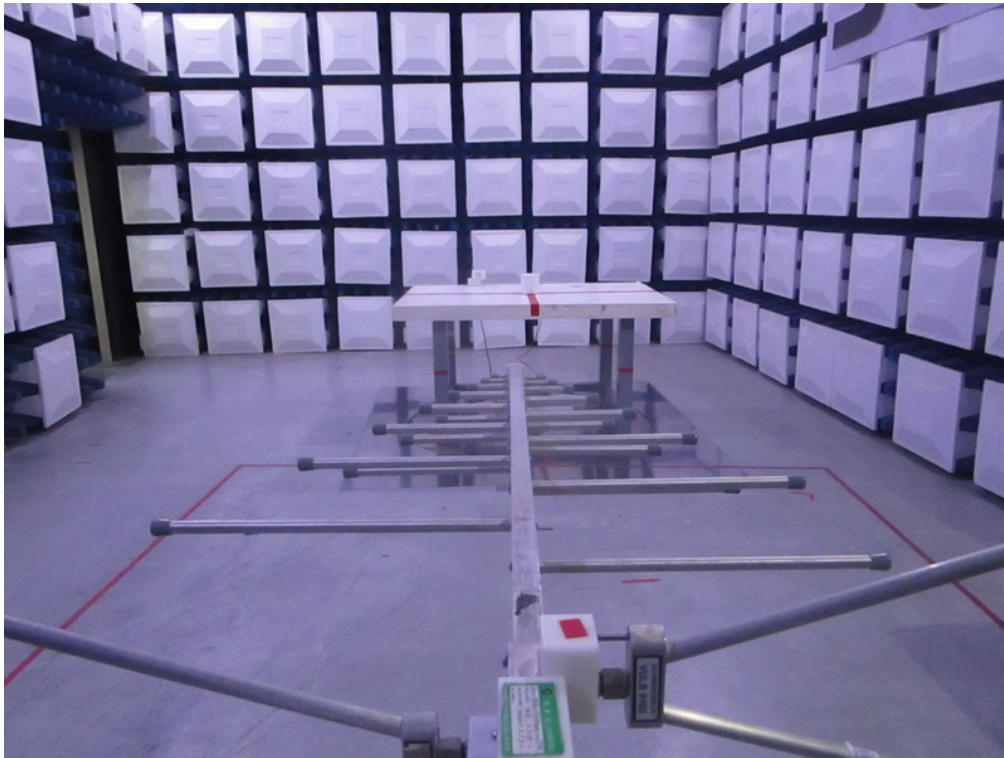
AC Power Line Conducted Emissions Test Photos



Radiated Emissions Test Photos**9 kHz to 30 MHz**

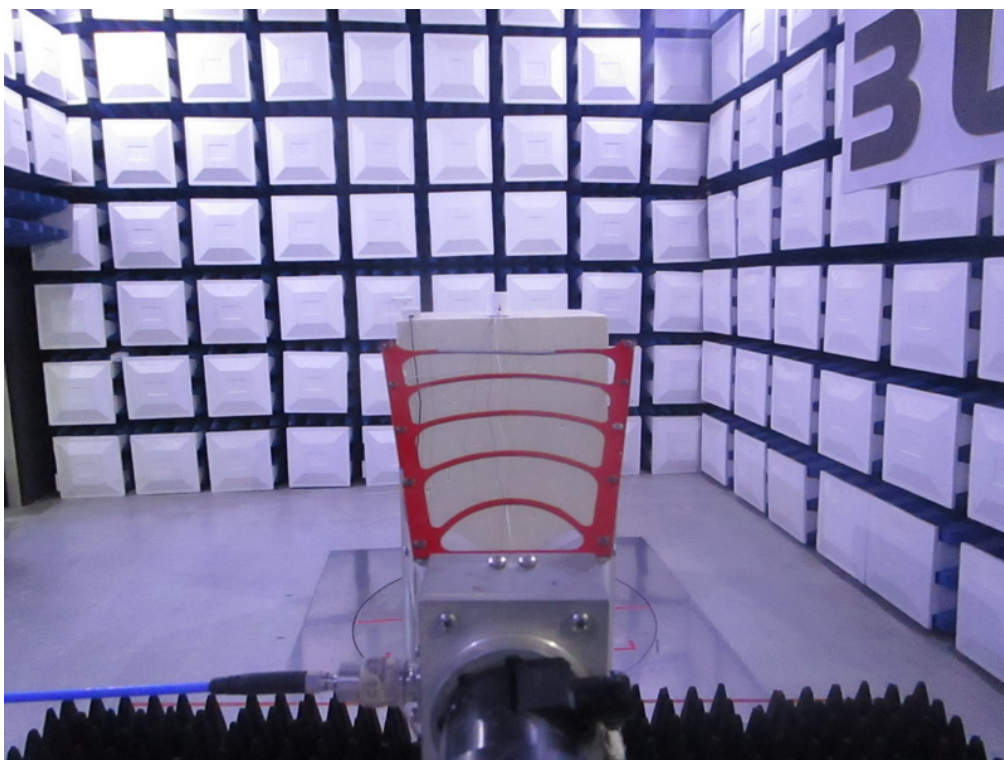
Radiated Emissions Test Photos

30 MHz to 1 GHz



Radiated Emissions Test Photos

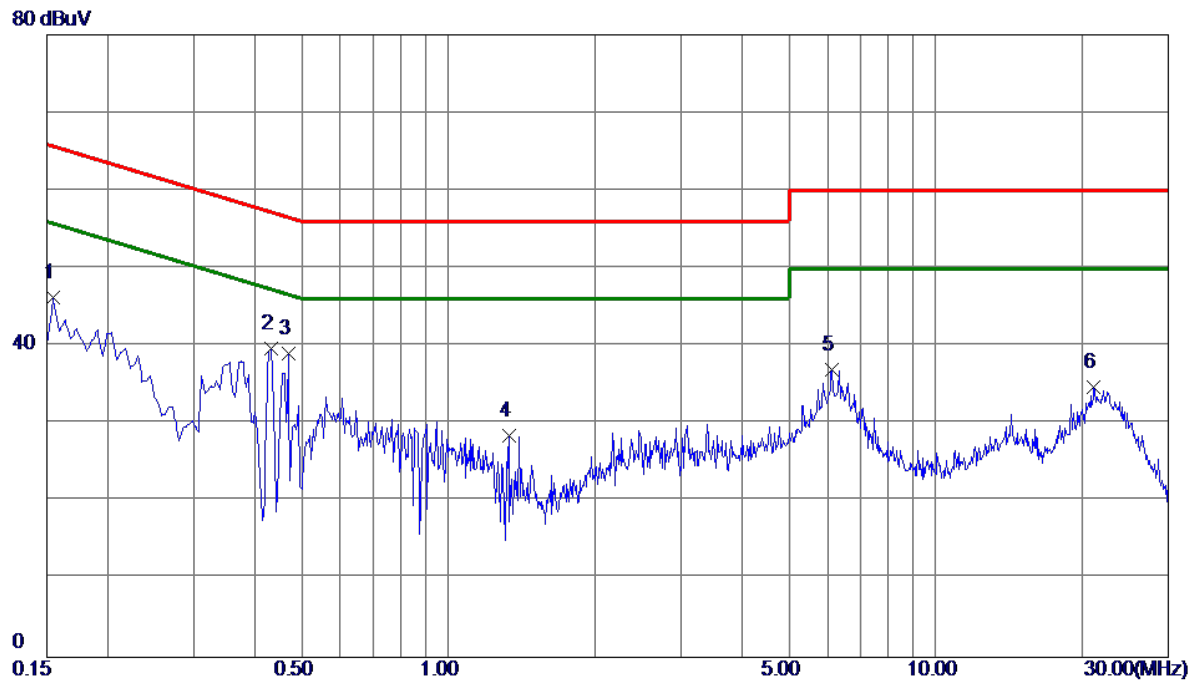
Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX AC20 Mode Channel 40

Line



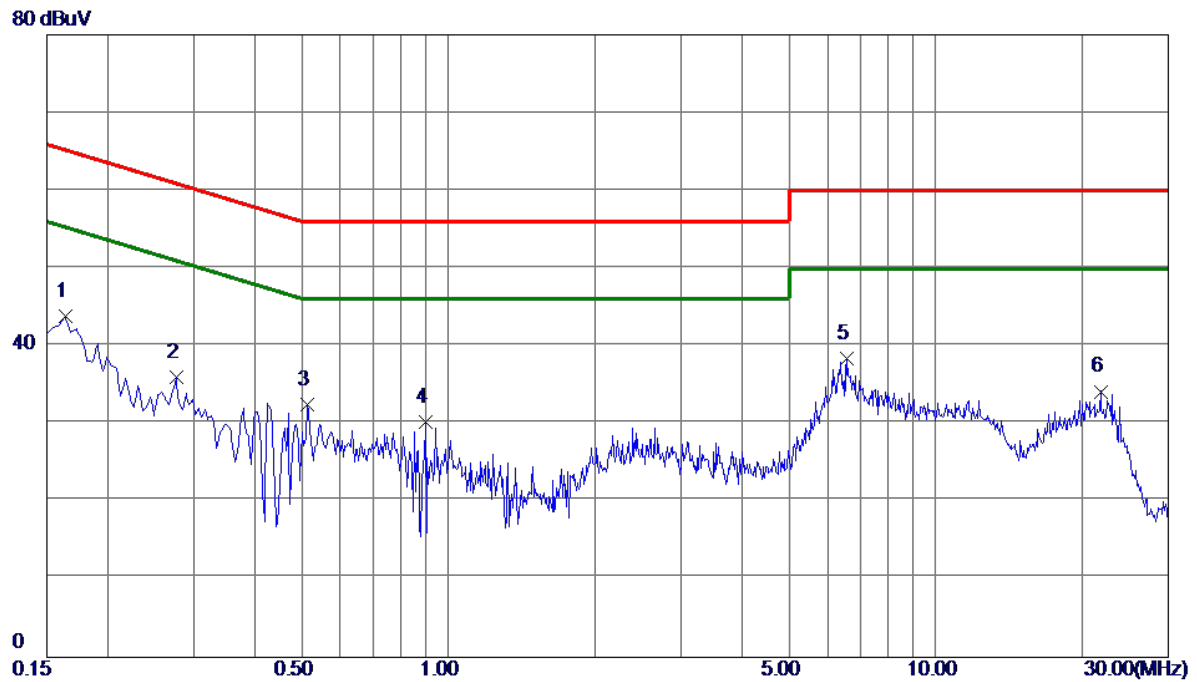
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1545	36.39	9.82	46.21	65.75	-19.54	Peak	
2	0.4335	29.76	9.87	39.63	57.19	-17.56	Peak	
3 *	0.4695	29.10	9.88	38.98	56.52	-17.54	Peak	
4	1.3290	18.61	9.94	28.55	56.00	-27.45	Peak	
5	6.1350	26.70	10.27	36.97	60.00	-23.03	Peak	
6	21.1110	23.54	11.18	34.72	60.00	-25.28	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 AC20 Mode Channel 40

Neutral



No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1635	33.89	9.91	43.80	65.28	-21.48	Peak	
2	0.2760	26.01	9.94	35.95	60.94	-24.99	Peak	
3	0.5144	22.42	10.03	32.45	56.00	-23.55	Peak	
4	0.8970	20.16	10.09	30.25	56.00	-25.75	Peak	
5	6.5670	27.90	10.55	38.45	60.00	-21.55	Peak	
6	21.8085	22.68	11.48	34.16	60.00	-25.84	Peak	

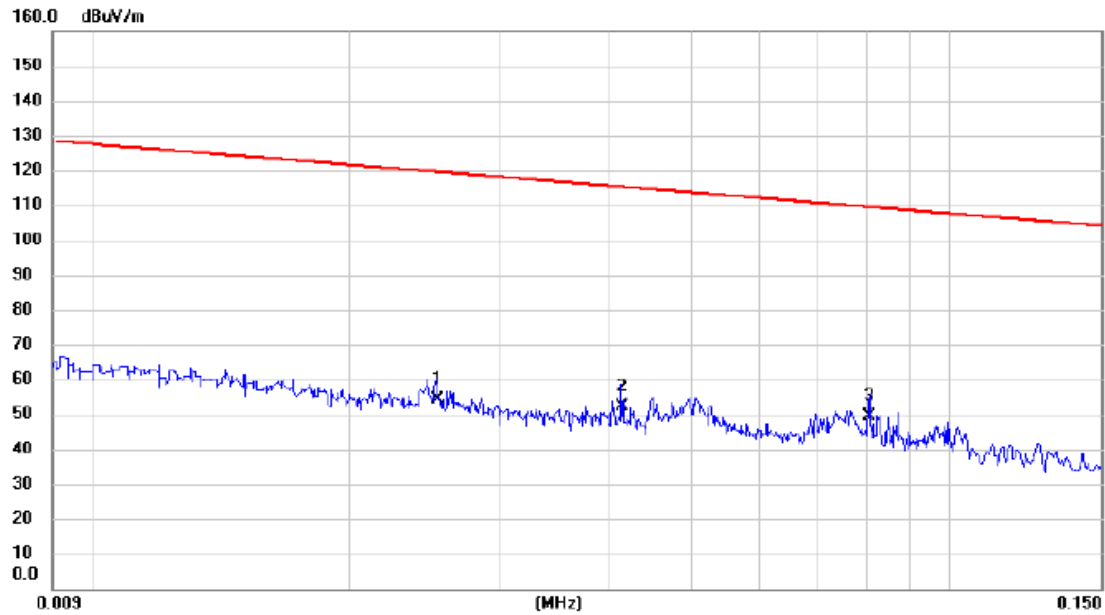
REMARKS:

- (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 AC20 Mode Channel 40

Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0253	40.36	13.84	54.20	119.54	-65.34	AVG	
2		0.0415	38.41	13.90	52.31	115.24	-62.93	AVG	
3	*	0.0805	35.69	13.54	49.23	109.49	-60.26	AVG	

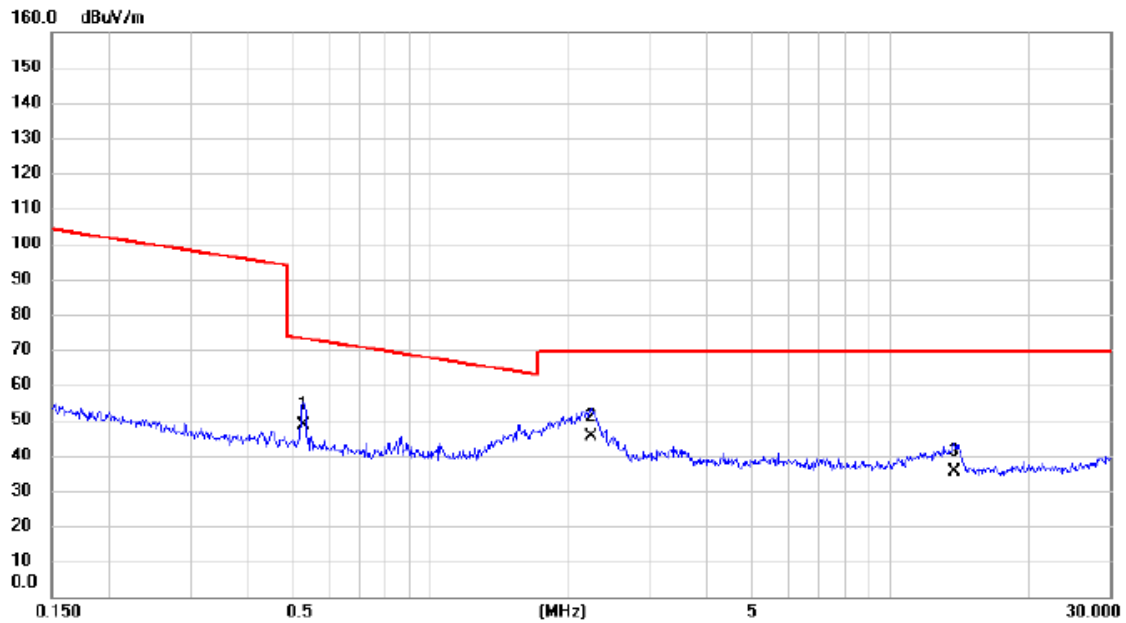
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX AC20 Mode Channel 40

Ant 0°



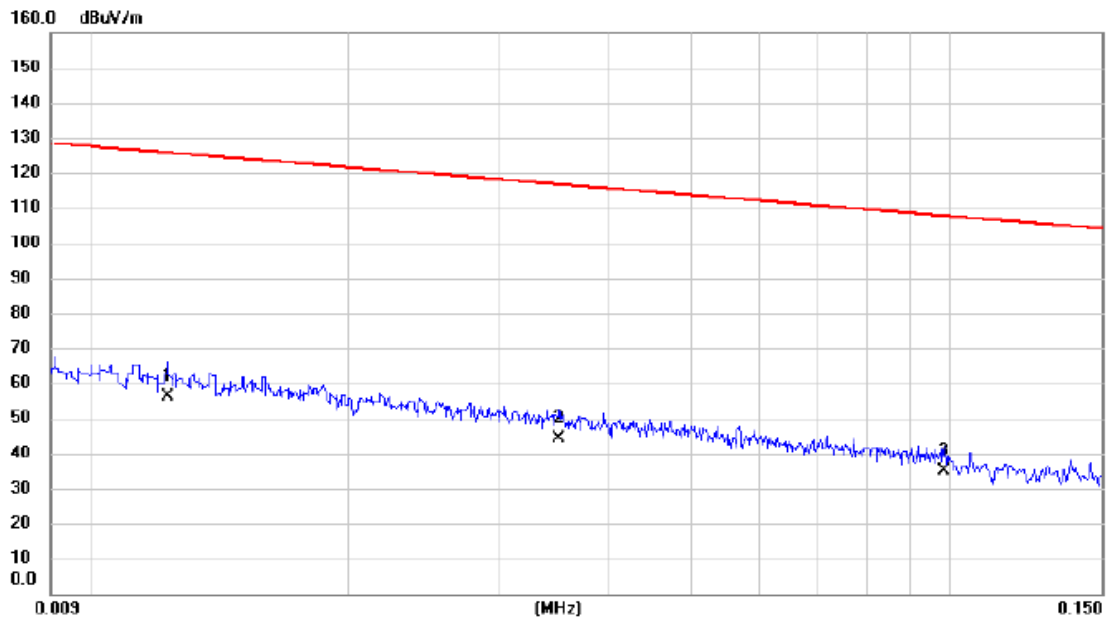
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.5293	35.64	13.00	48.64	73.13	-24.49	QP	
2	*	2.2367	33.56	11.68	45.24	69.54	-24.30	QP	
3		13.7680	23.67	11.58	35.25	69.54	-34.29	QP	

REMARKS:

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

Test Mode: TX AC20 Mode Channel 40

Ant 90°



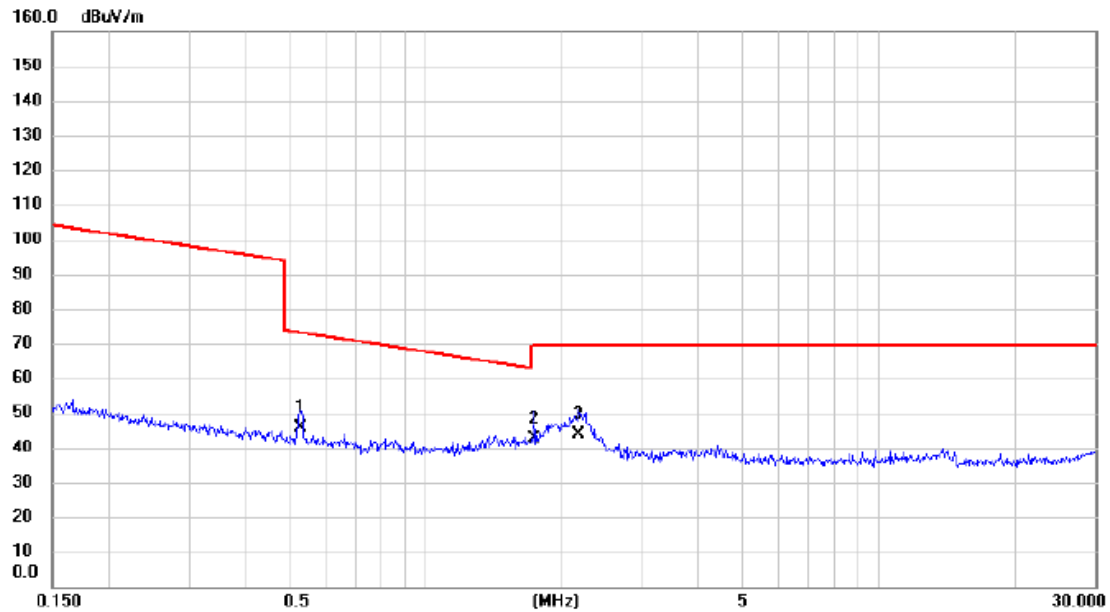
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment				
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0123	40.21	16.13	56.34	125.81	-69.47	AVG	
2		0.0350	30.45	13.88	44.33	116.72	-72.39	AVG	
3		0.0984	21.64	13.54	35.18	107.75	-72.57	QP	

REMARKS:

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

Test Mode: TX AC20 Mode Channel 40

Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.5293	32.65	13.00	45.65	73.13	-27.48	QP	
2		1.7345	30.45	12.00	42.45	69.54	-27.09	QP	
3	*	2.1783	31.98	11.71	43.69	69.54	-25.85	QP	

REMARKS:

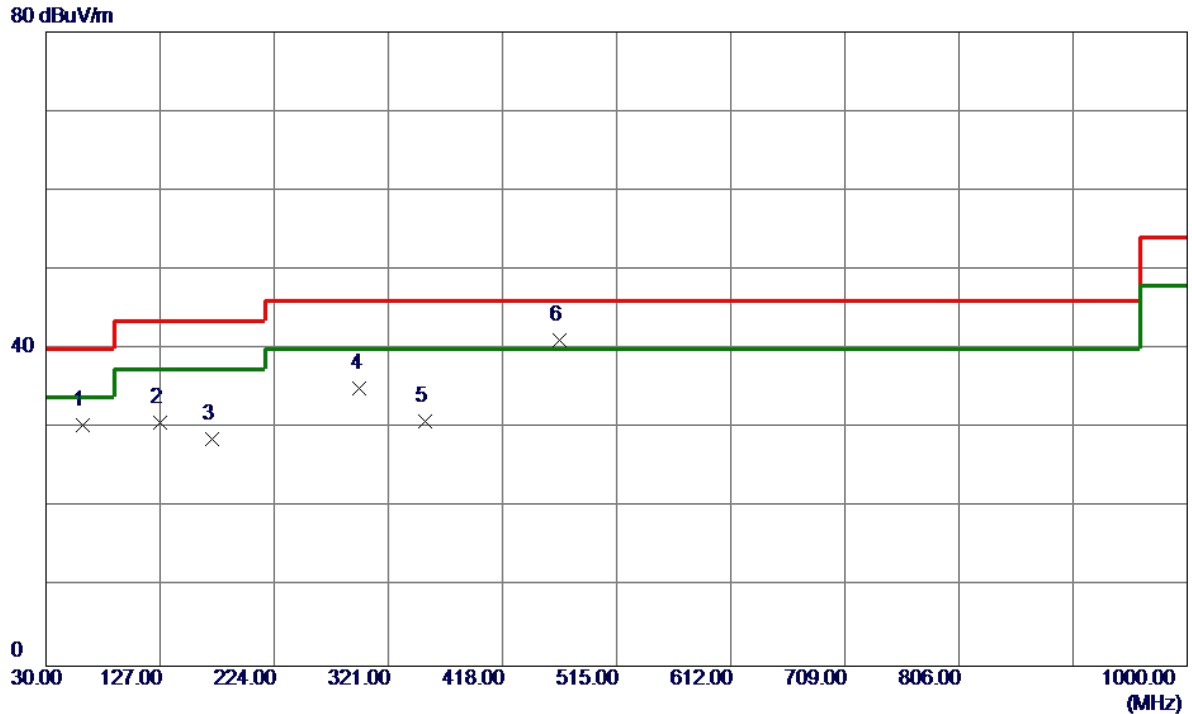
(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1 GHZ

Test Mode: TX AC20 Mode Channel 40

Vertical



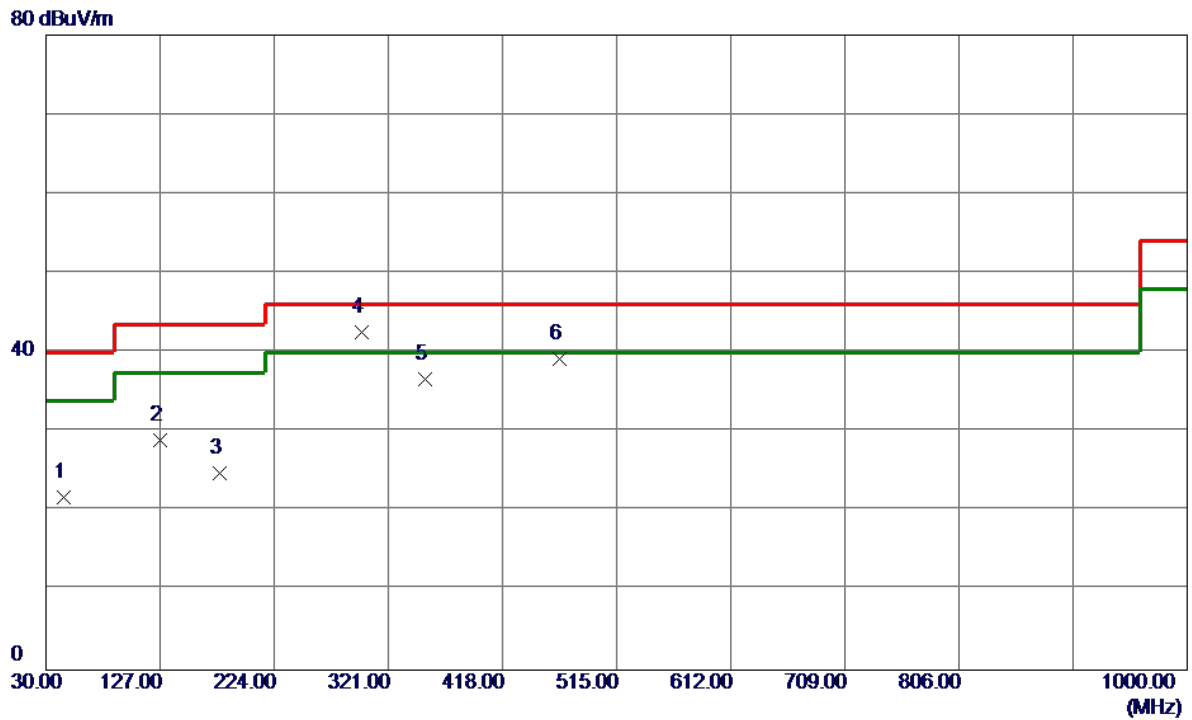
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	61.0400	45.34	-14.92	30.42	40.00	-9.58	Peak	
2	126.5150	43.83	-13.11	30.72	43.50	-12.78	Peak	
3	171.1350	41.27	-12.57	28.70	43.50	-14.80	Peak	
4	296.7500	46.79	-11.70	35.09	46.00	-10.91	Peak	
5	352.0400	41.57	-10.69	30.88	46.00	-15.12	Peak	
6 *	466.5000	49.11	-8.02	41.09	46.00	-4.91	Peak	

REMARKS:

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

Test Mode: TX AC20 Mode Channel 40

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	45.5200	36.12	-14.39	21.73	40.00	-18.27	Peak	
2	126.5150	42.12	-13.11	29.01	43.50	-14.49	Peak	
3	177.4400	37.87	-13.02	24.85	43.50	-18.65	Peak	
4 *	298.6900	54.14	-11.61	42.53	46.00	-3.47	Peak	
5	352.0400	47.32	-10.69	36.63	46.00	-9.37	Peak	
6	466.0150	47.27	-8.02	39.25	46.00	-6.75	Peak	

REMARKS:

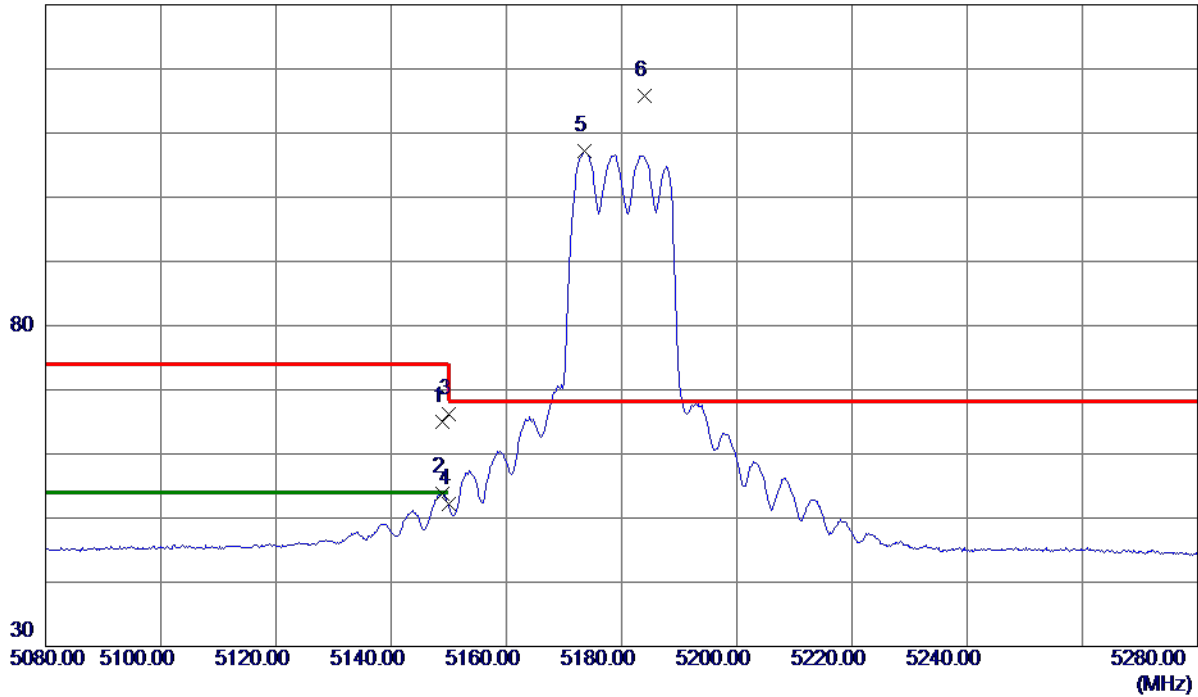
- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5148.8000	50.02	15.01	65.03	74.00	-8.97	Peak	
2	5148.8000	38.89	15.01	53.90	54.00	-0.10	AVG	
3	5150.0000	51.11	15.02	66.13	74.00	-7.87	Peak	
4	5150.0000	37.14	15.02	52.16	54.00	-1.84	AVG	
5	5173.6000	92.09	15.03	107.12	999.00	-891.88	AVG	No Limit
6 *	5183.9000	100.71	15.04	115.75	68.30	47.45	Peak	No Limit

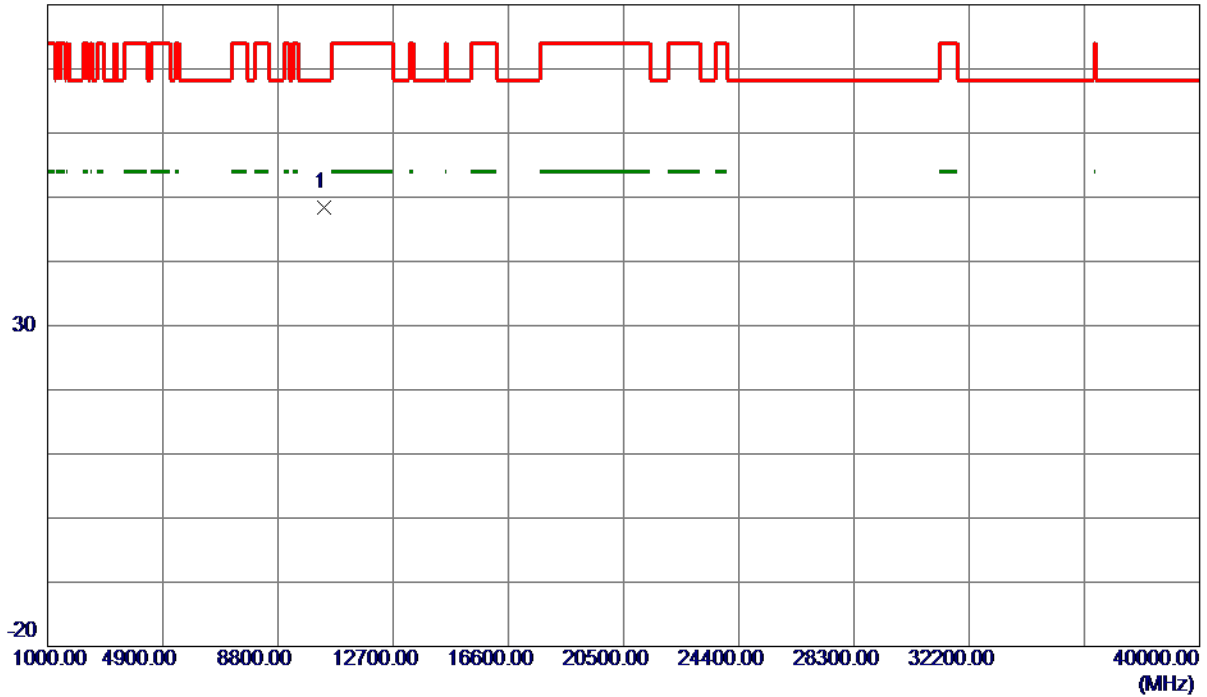
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10359.8259	39.68	8.77	48.45	68.30	-19.85	Peak	

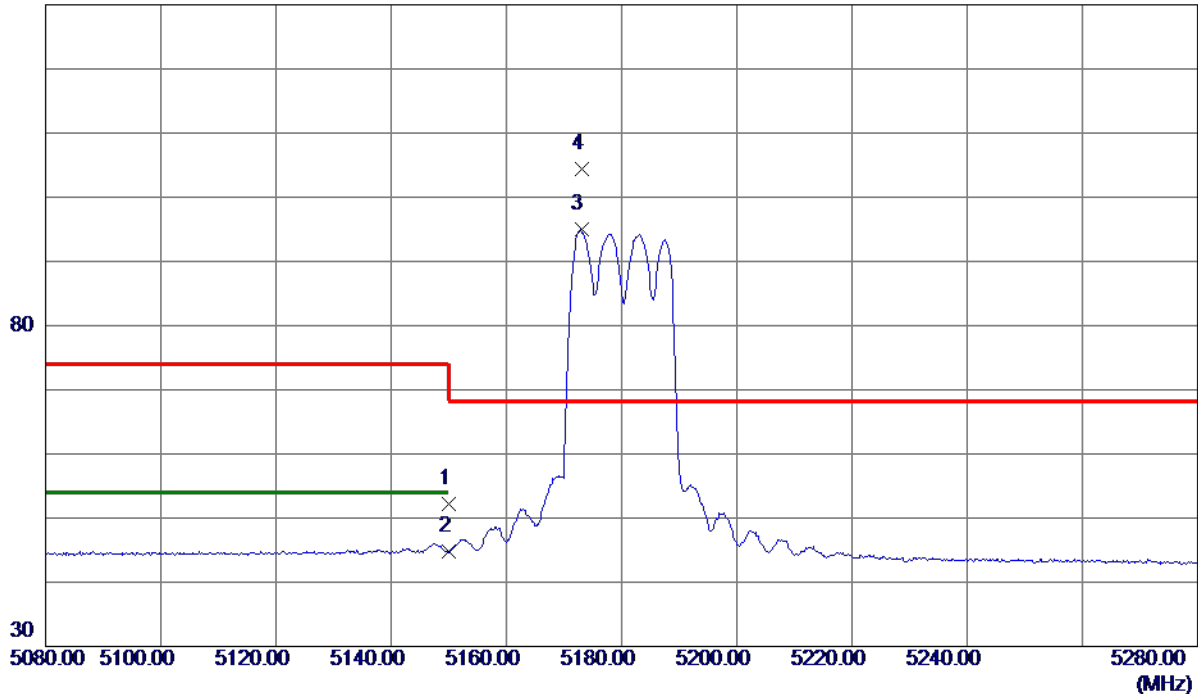
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	37.11	15.02	52.13	74.00	-21.87	Peak	
2	5150.0000	29.76	15.02	44.78	54.00	-9.22	AVG	
3	5173.0000	79.88	15.03	94.91	999.00	-904.09	AVG	No Limit
4 *	5173.2000	89.29	15.03	104.32	68.30	36.02	Peak	No Limit

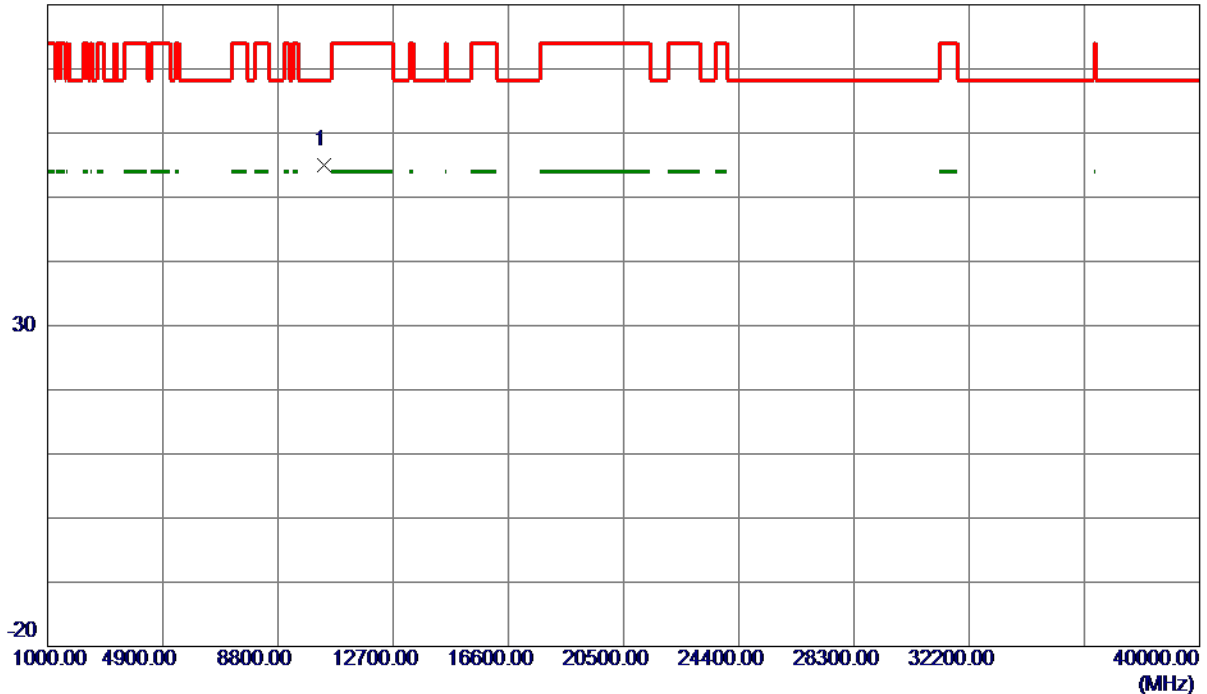
REMARKS:

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

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

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10359.8970	46.20	8.77	54.97	68.30	-13.33	Peak	

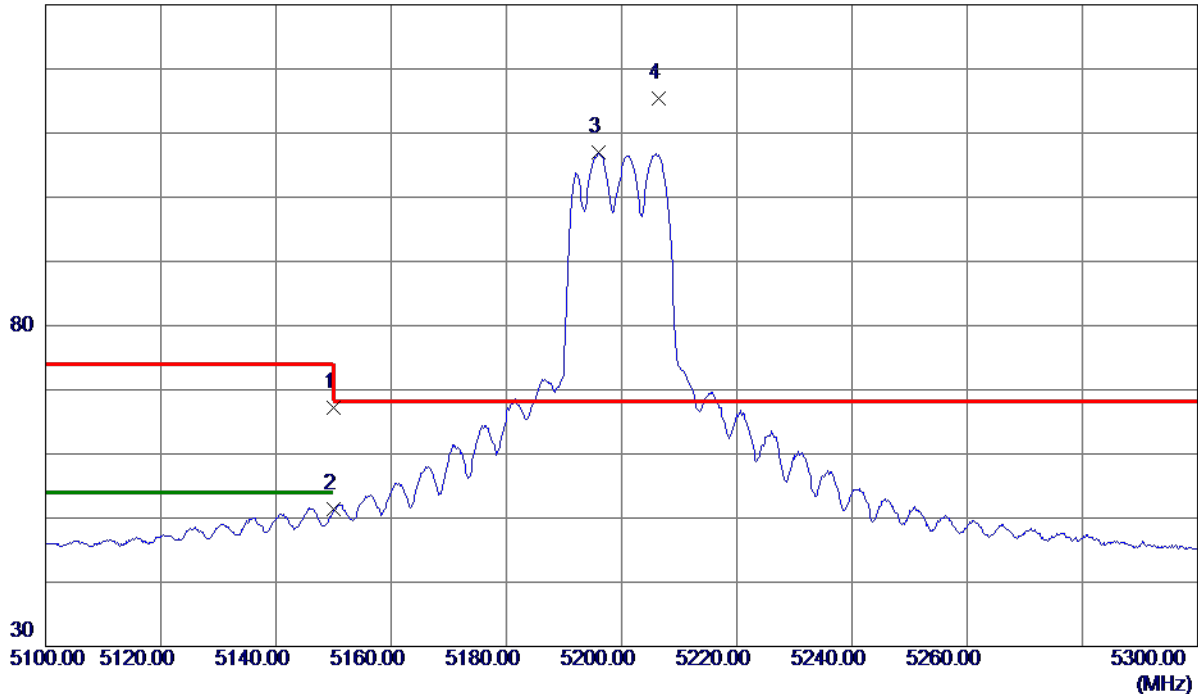
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	52.23	15.02	67.25	74.00	-6.75	Peak	
2	5150.0000	36.29	15.02	51.31	54.00	-2.69	AVG	
3	5195.9000	91.85	15.05	106.90	999.00	-892.10	AVG	No Limit
4 *	5206.4000	100.41	15.05	115.46	68.30	47.16	Peak	No Limit

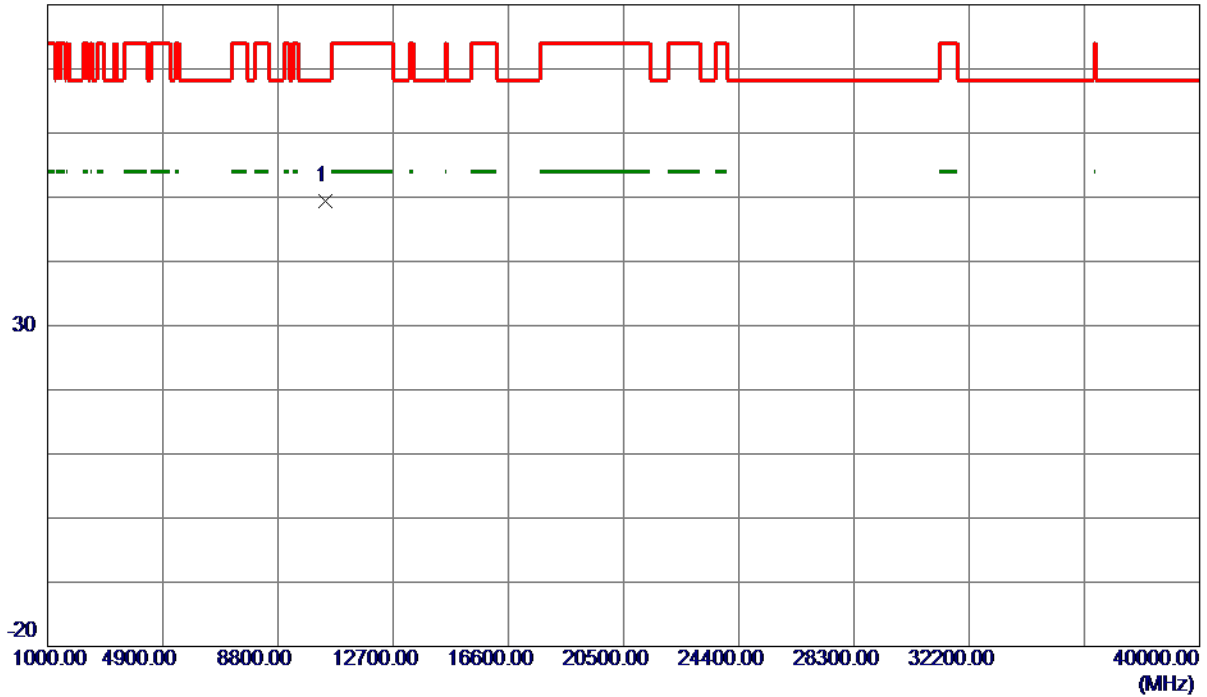
REMARKS:

- (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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10399.7440	40.57	8.85	49.42	68.30	-18.88	Peak	

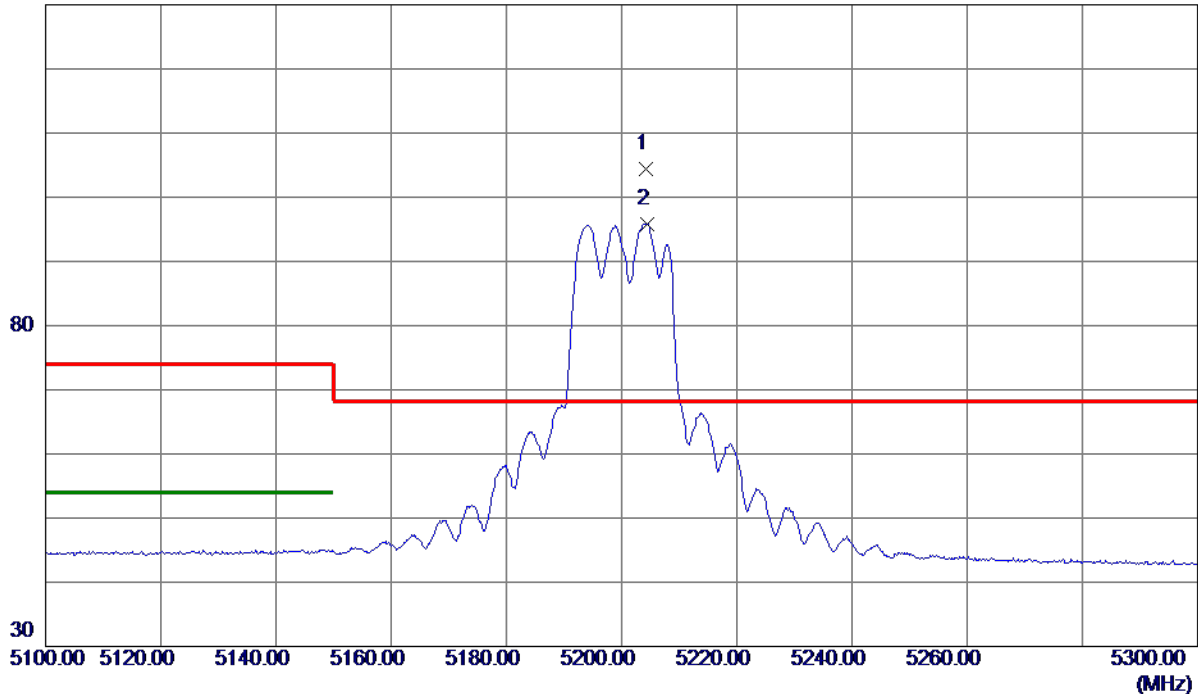
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5204.2000	89.41	15.05	104.46	68.30	36.16	Peak	No Limit
2	5204.4000	80.84	15.05	95.89	999.00	-903.11	AVG	No Limit

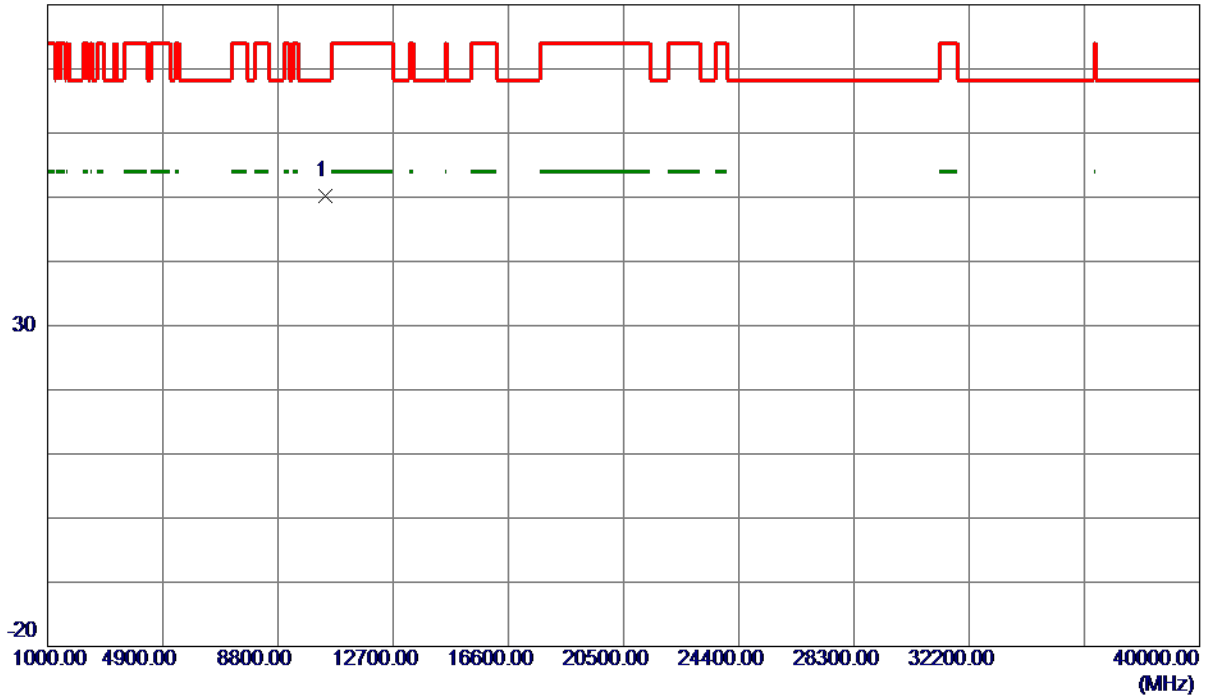
REMARKS:

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

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

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10399.9920	41.28	8.85	50.13	68.30	-18.17	Peak	

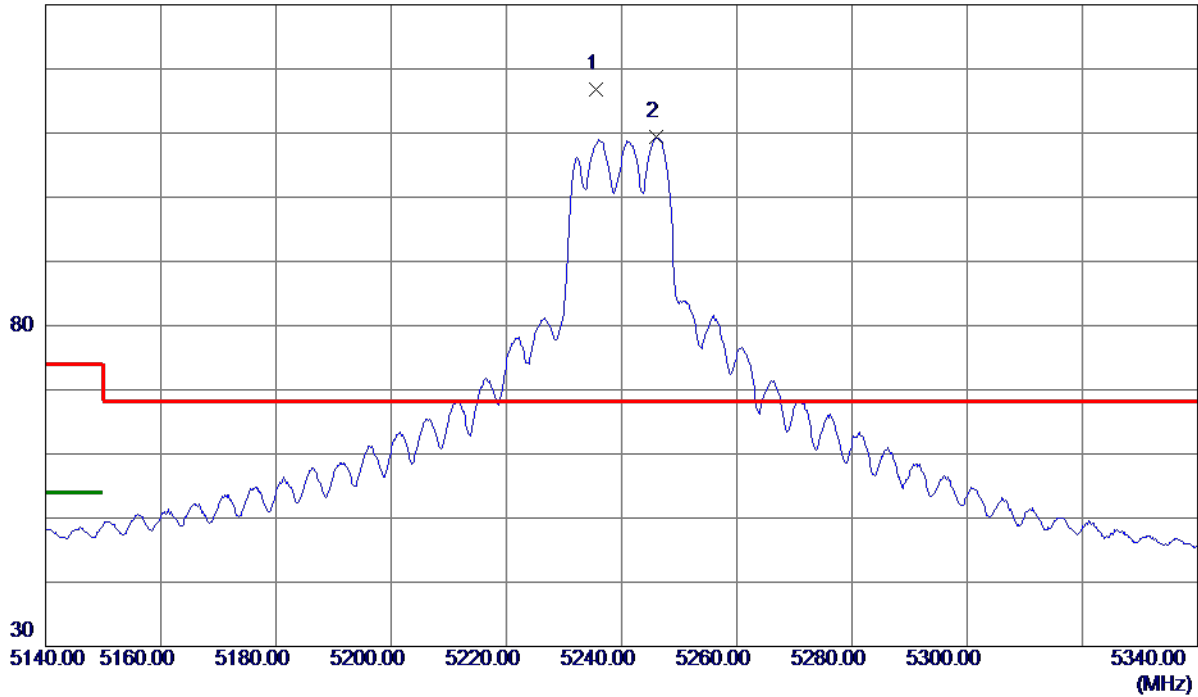
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5235.5000	101.81	15.07	116.88	68.30	48.58	Peak	No Limit
2	5246.1000	94.29	15.08	109.37	999.00	-889.63	AVG	No Limit

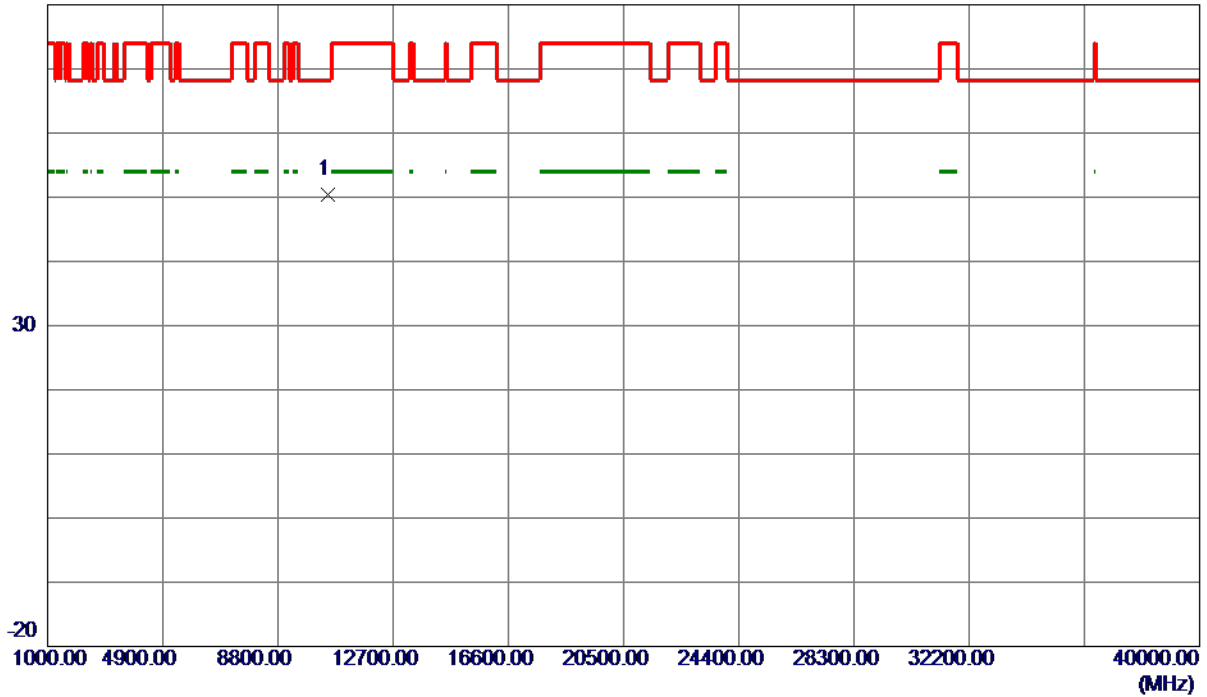
REMARKS:

- (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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.8850	41.31	9.02	50.33	68.30	-17.97	Peak	

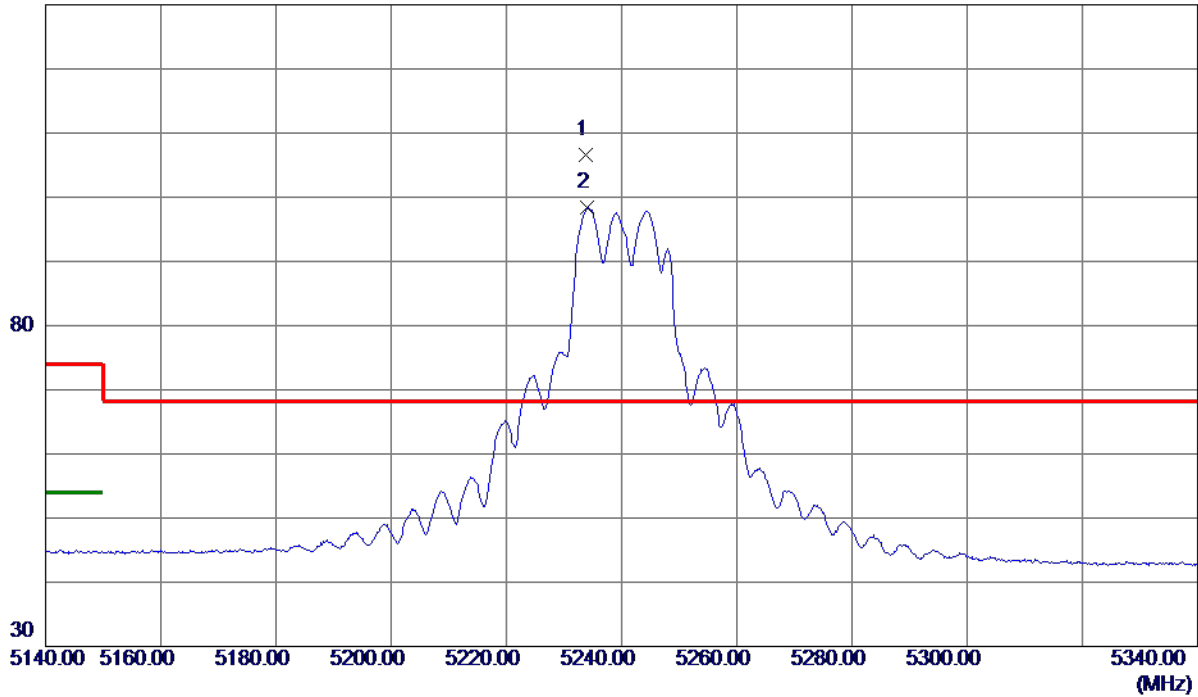
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5233.7000	91.54	15.07	106.61	68.30	38.31	Peak	No Limit
2	5234.1000	83.42	15.07	98.49	999.00	-900.51	AVG	No Limit

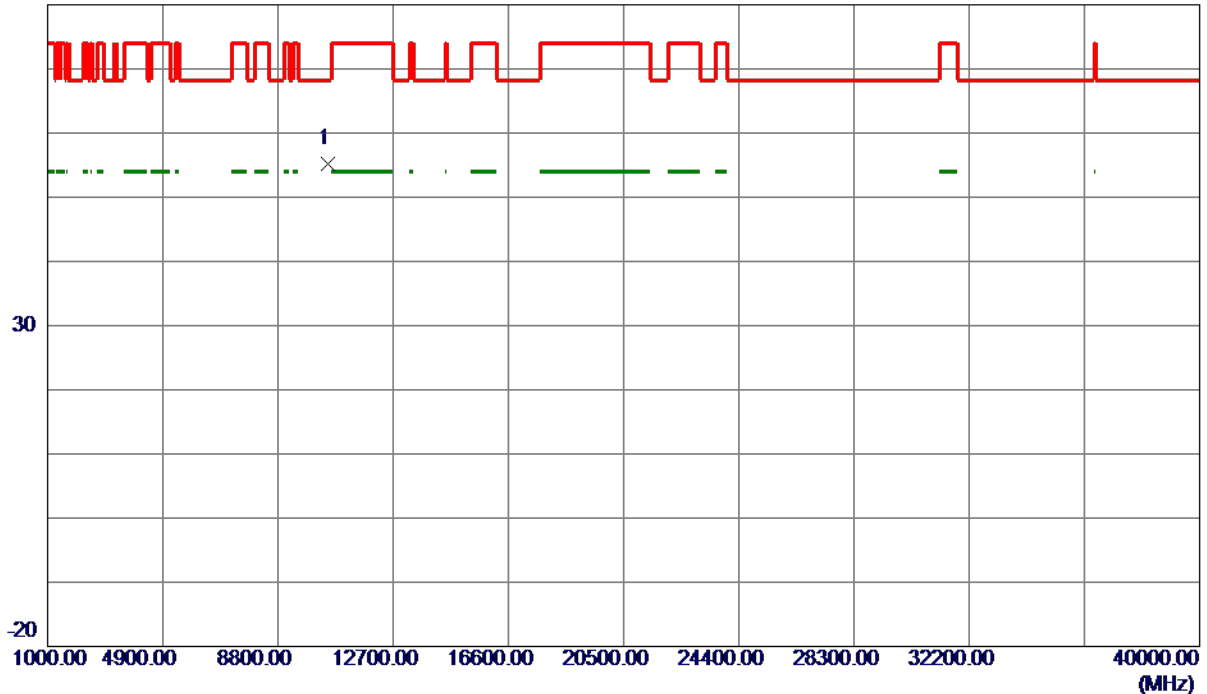
REMARKS:

- (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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.9950	46.24	9.02	55.26	68.30	-13.04	Peak	

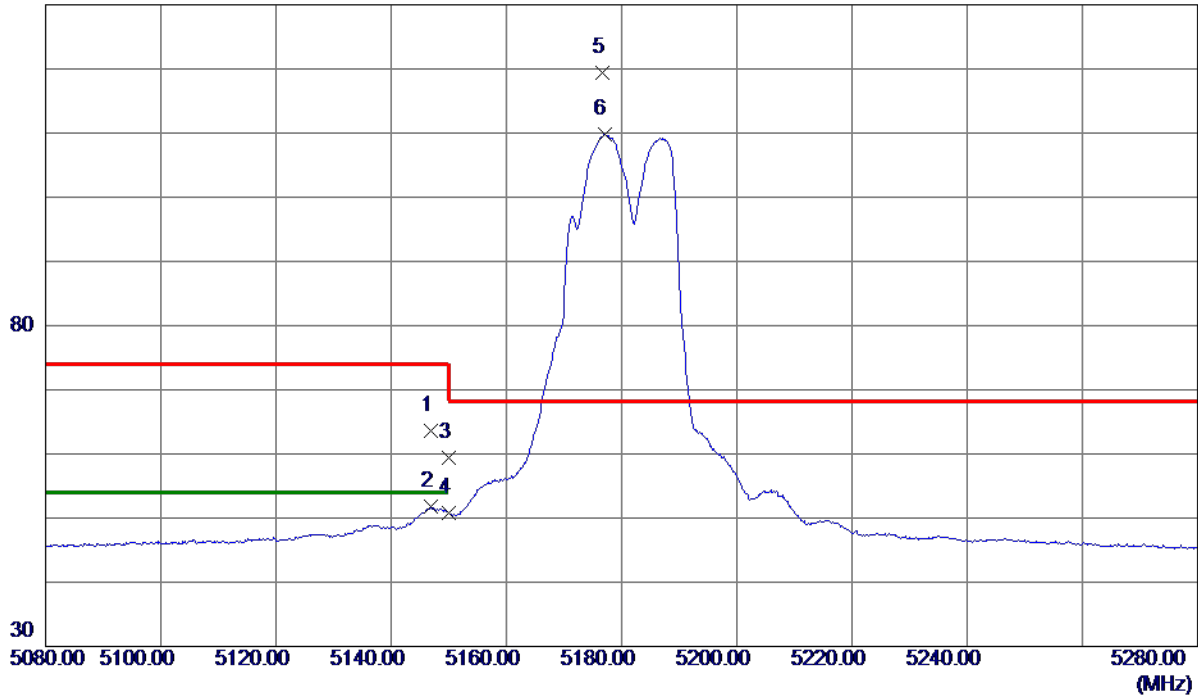
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5146.9000	48.56	15.01	63.57	74.00	-10.43	Peak	
2	5146.9000	36.80	15.01	51.81	54.00	-2.19	AVG	
3	5150.0000	44.37	15.02	59.39	74.00	-14.61	Peak	
4	5150.0000	35.79	15.02	50.81	54.00	-3.19	AVG	
5 *	5176.7000	104.34	15.03	119.37	68.30	51.07	Peak	No Limit
6	5177.0000	94.77	15.03	109.80	999.00	-889.20	AVG	No Limit

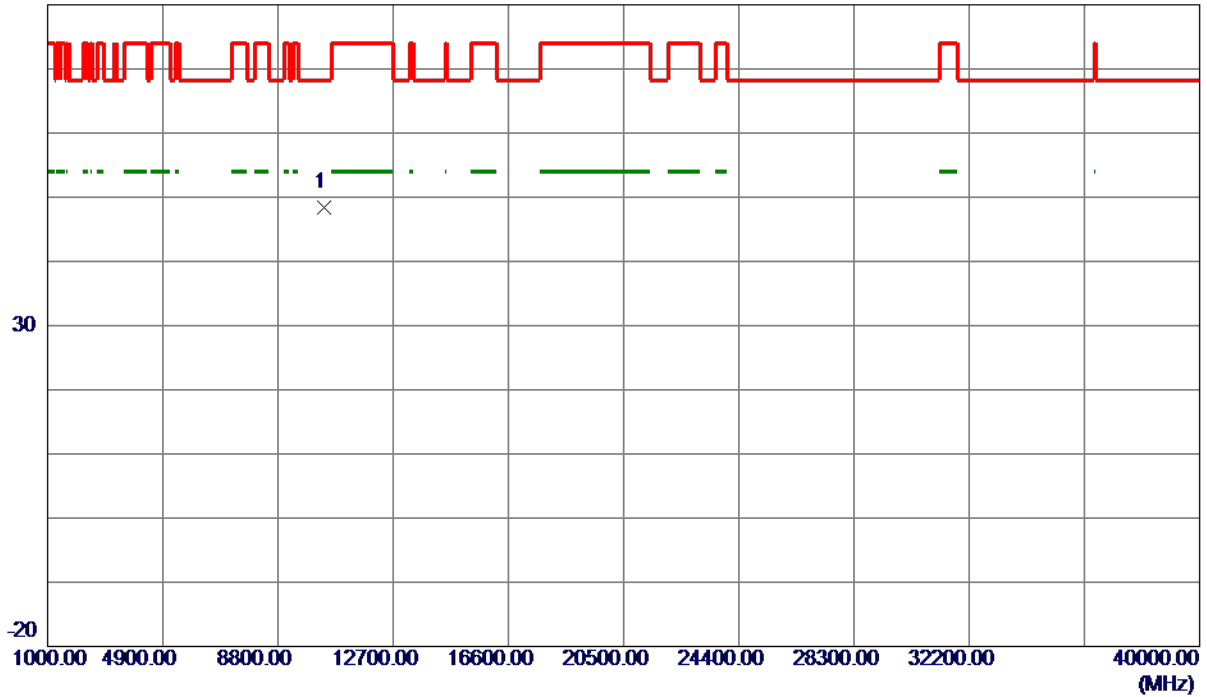
REMARKS:

- (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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10360.0900	39.69	8.77	48.46	68.30	-19.84	Peak	

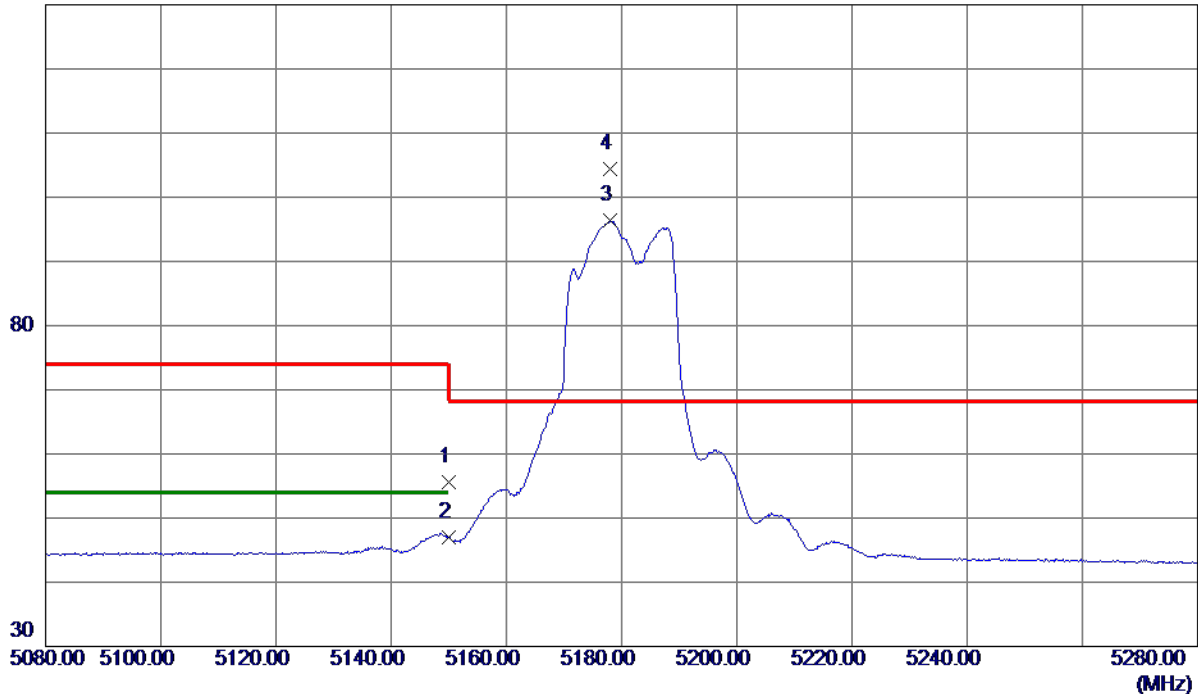
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	40.51	15.02	55.53	74.00	-18.47	Peak	
2	5150.0000	31.99	15.02	47.01	54.00	-6.99	AVG	
3	5177.9000	81.35	15.03	96.38	999.00	-902.62	AVG	No Limit
4 *	5178.1000	89.34	15.03	104.37	68.30	36.07	Peak	No Limit

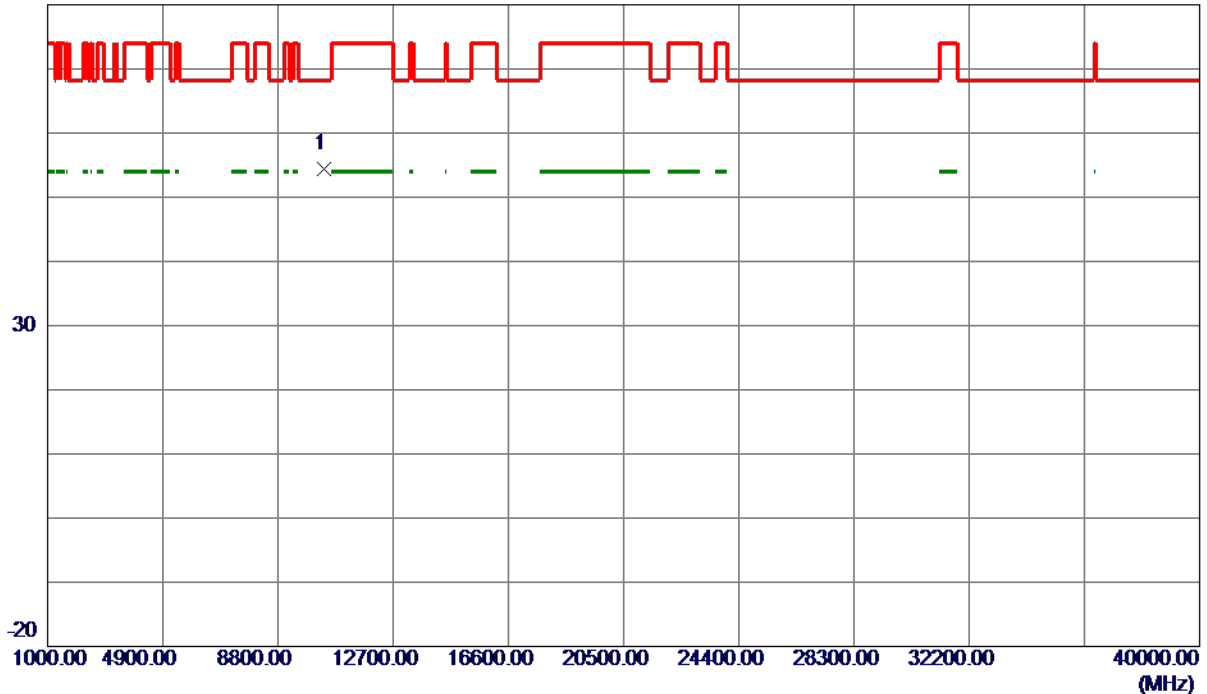
REMARKS:

- (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 5180 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10359.8730	45.59	8.77	54.36	68.30	-13.94	Peak	

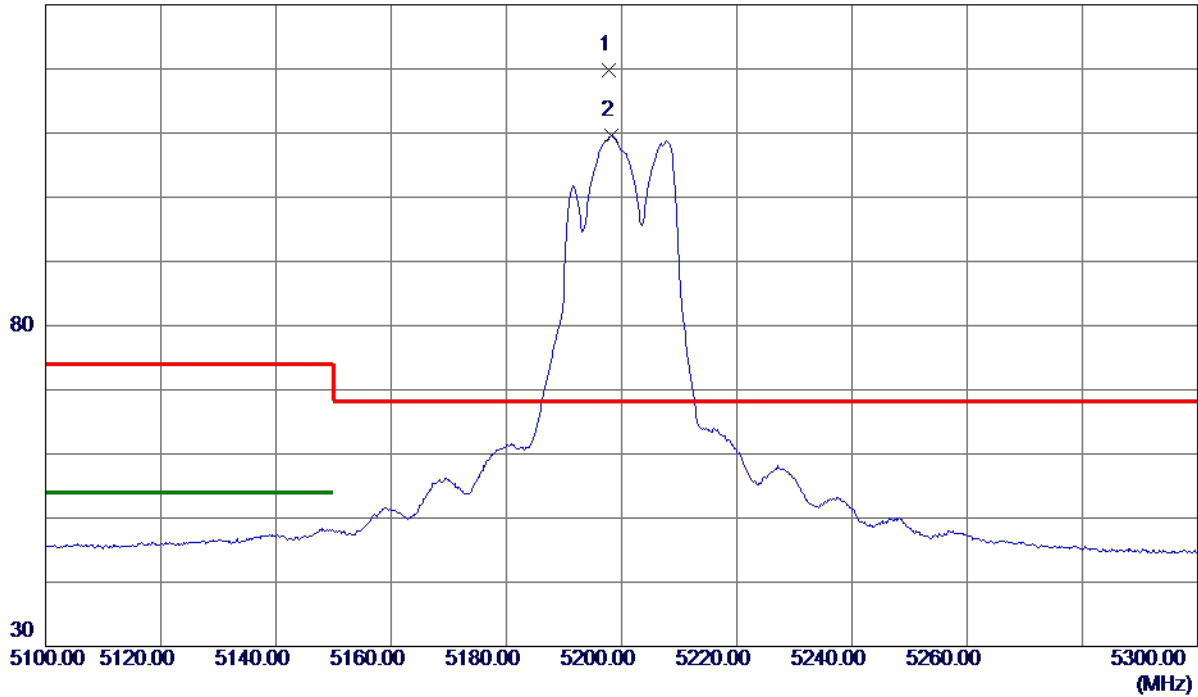
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5197.8000	104.81	15.05	119.86	68.30	51.56	Peak	No Limit
2	5198.3000	94.54	15.05	109.59	999.00	-889.41	AVG	No Limit

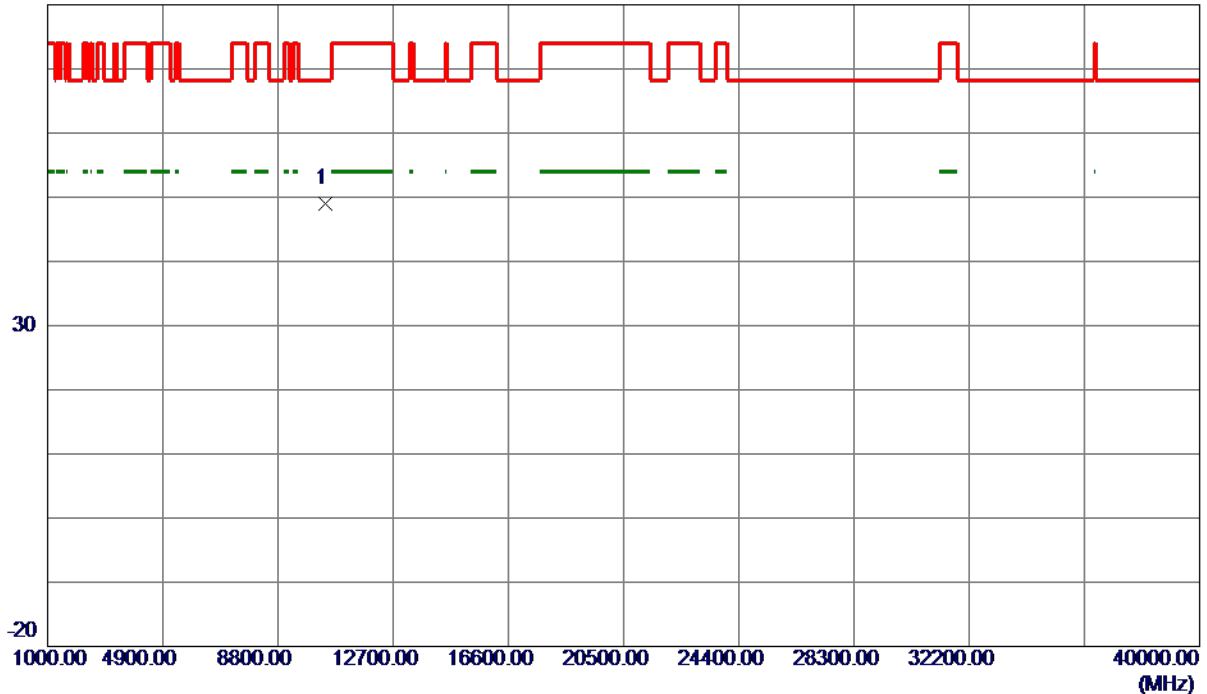
REMARKS:

- (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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10399.9990	40.16	8.85	49.01	68.30	-19.29	Peak	

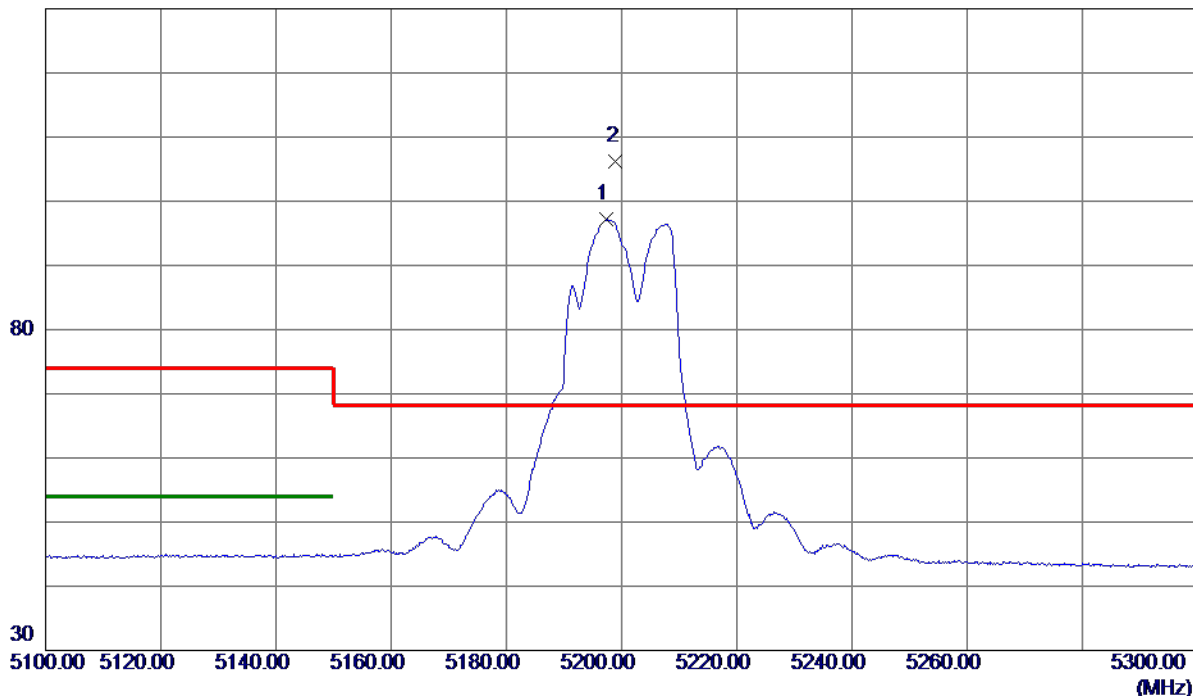
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5197.4000	82.20	15.05	97.25	999.00	-901.75	AVG	No Limit
2 *	5199.0000	91.16	15.05	106.21	68.30	37.91	Peak	No Limit

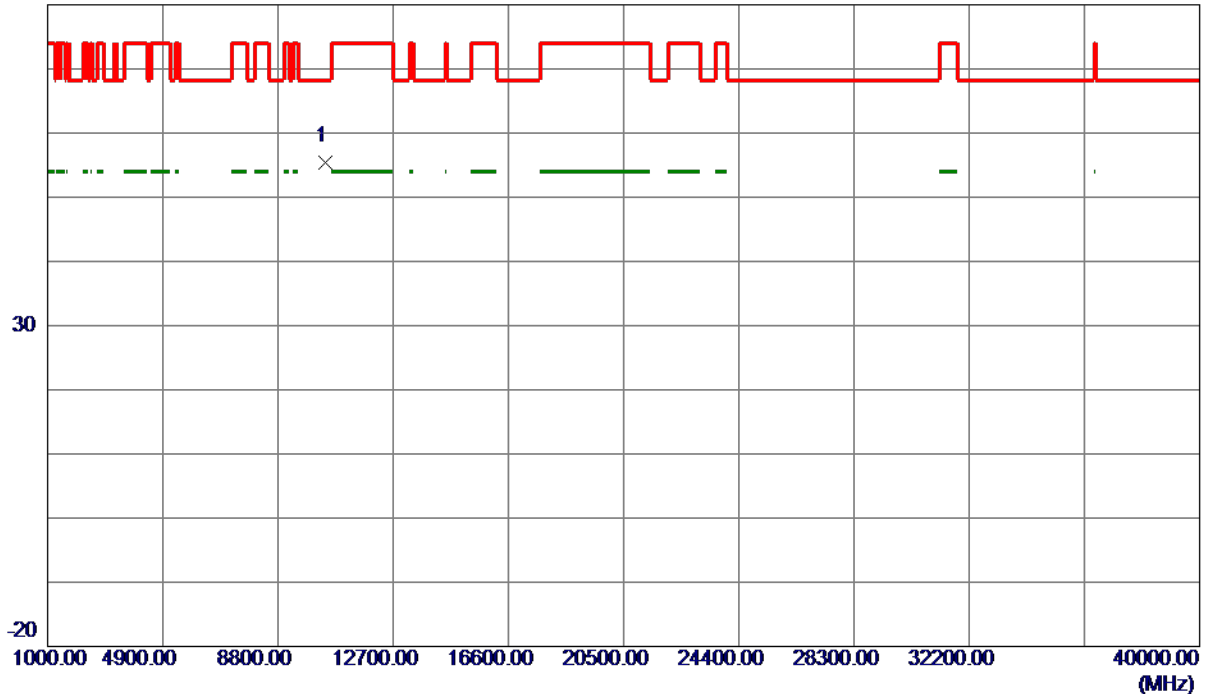
REMARKS:

- (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 5200 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10400.1060	46.65	8.85	55.50	68.30	-12.80	Peak	

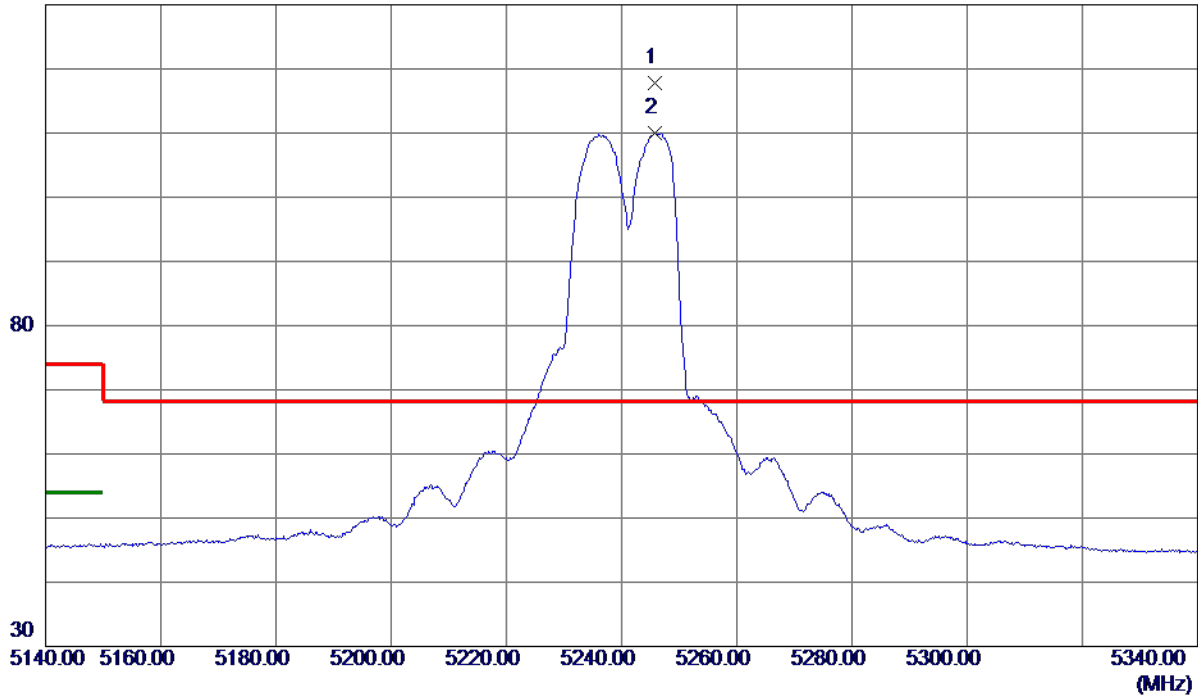
REMARKS:

- (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

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5245.8000	102.62	15.08	117.70	68.30	49.40	Peak	No Limit
2	5245.8000	94.89	15.08	109.97	999.00	-889.03	AVG	No Limit

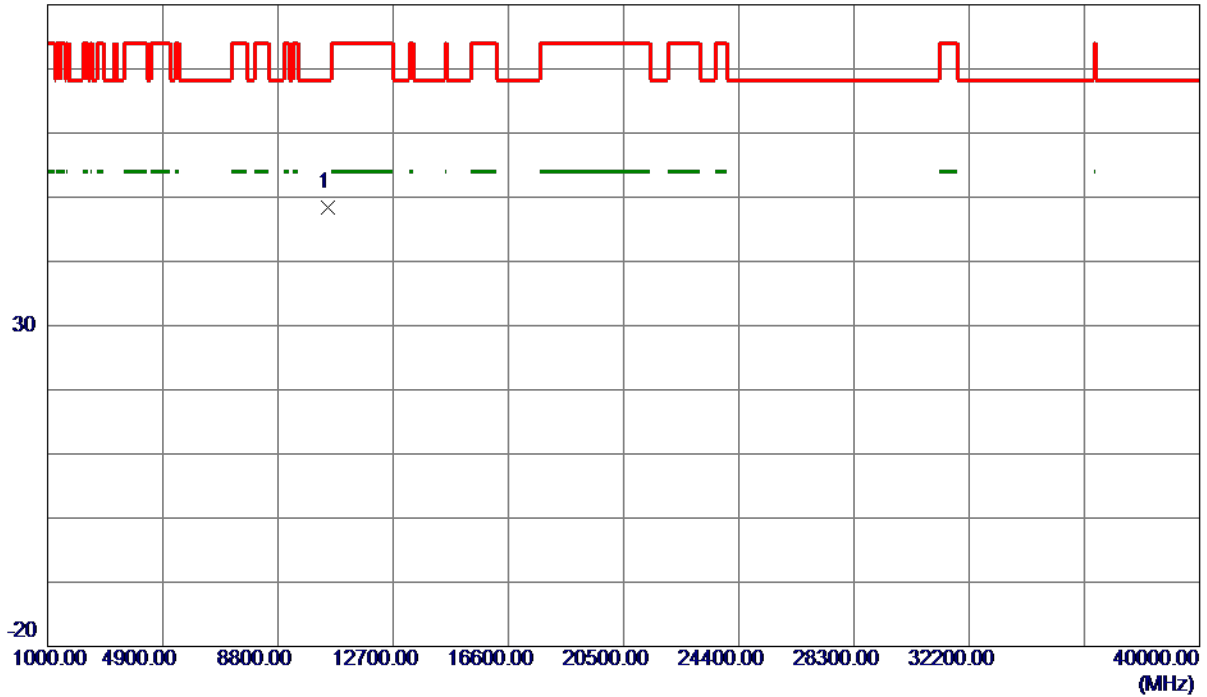
REMARKS:

- (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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.8570	39.41	9.02	48.43	68.30	-19.87	Peak	

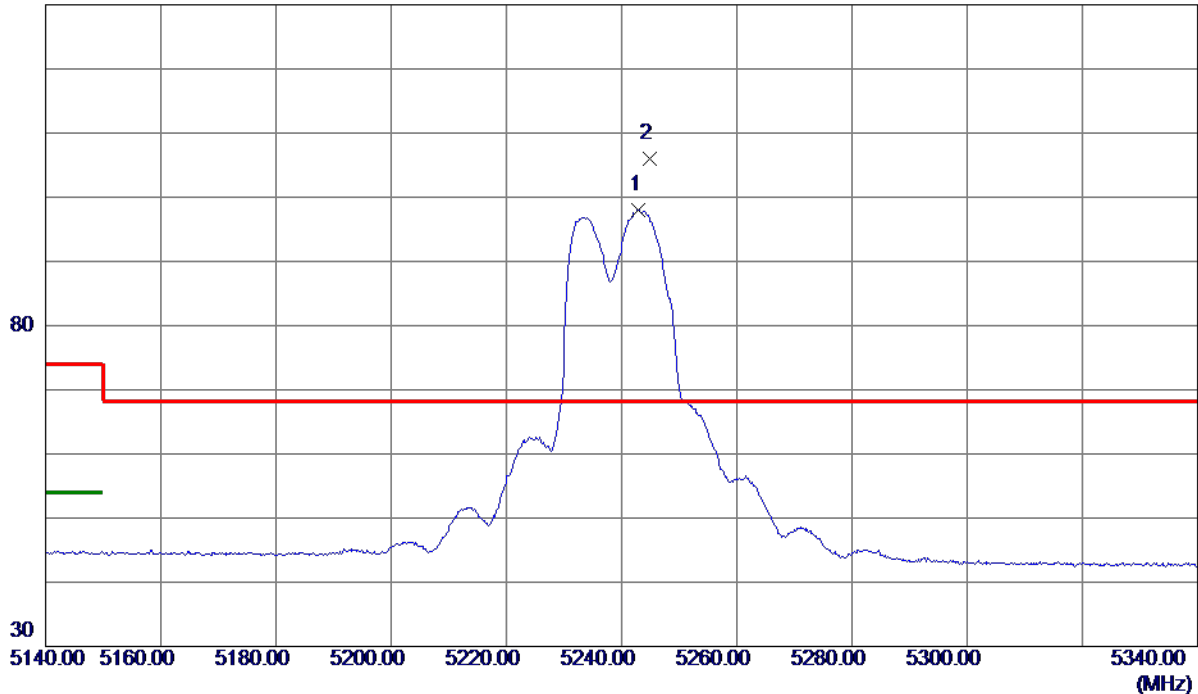
REMARKS:

- (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 5240 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5243.0000	83.01	15.08	98.09	999.00	-900.91	AVG	No Limit
2 *	5244.8000	90.97	15.08	106.05	68.30	37.75	Peak	No Limit

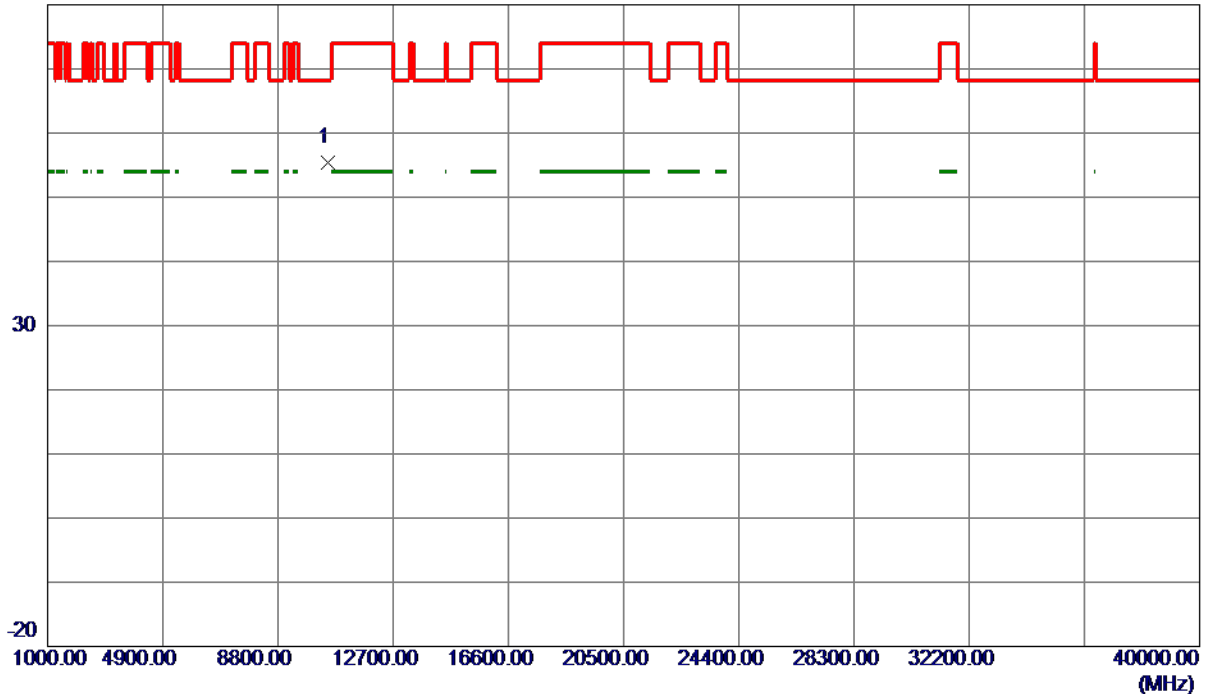
REMARKS:

- (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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.8630	46.38	9.02	55.40	68.30	-12.90	Peak	

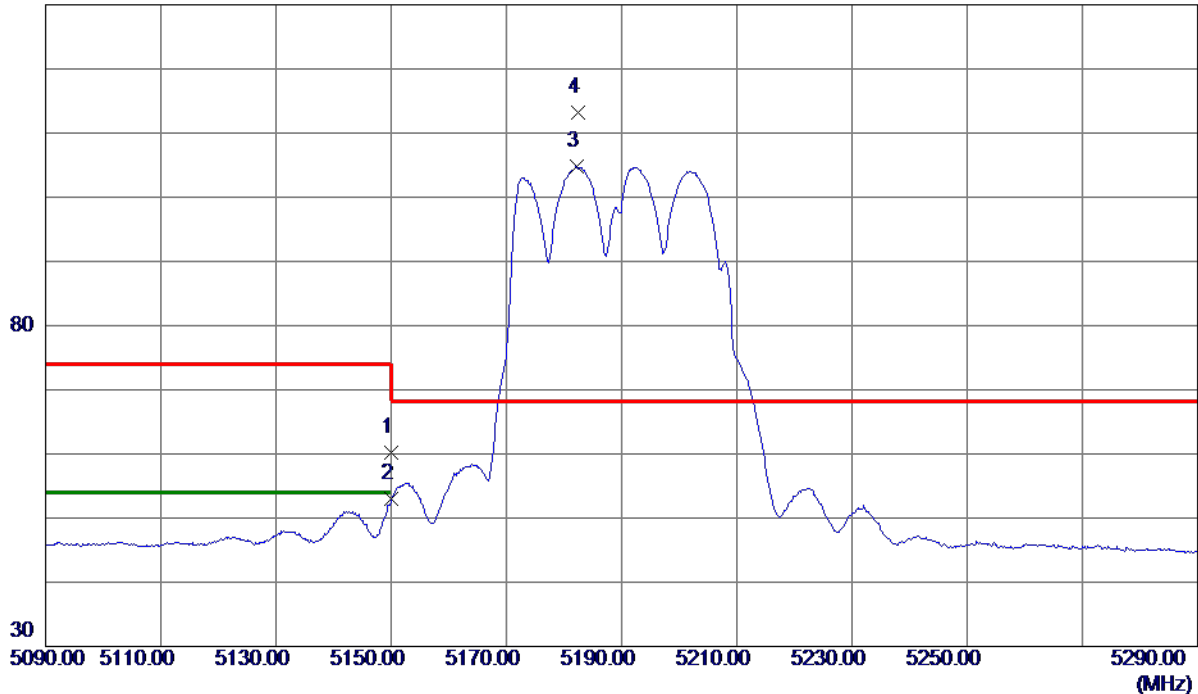
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5190 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	45.12	15.02	60.14	74.00	-13.86	Peak	
2	5150.0000	38.01	15.02	53.03	54.00	-0.97	AVG	
3	5182.2000	89.77	15.04	104.81	999.00	-894.19	AVG	No Limit
4 *	5182.4000	98.22	15.04	113.26	68.30	44.96	Peak	No Limit

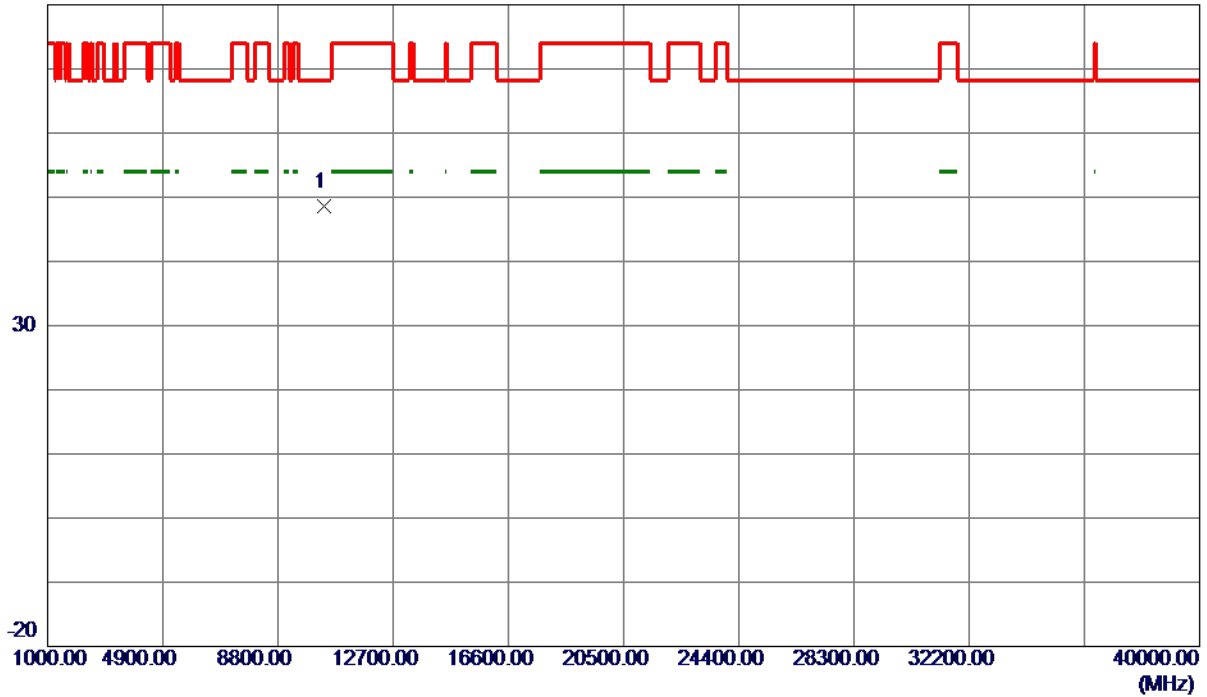
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5190 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10379.6929	39.69	8.81	48.50	68.30	-19.80	Peak	

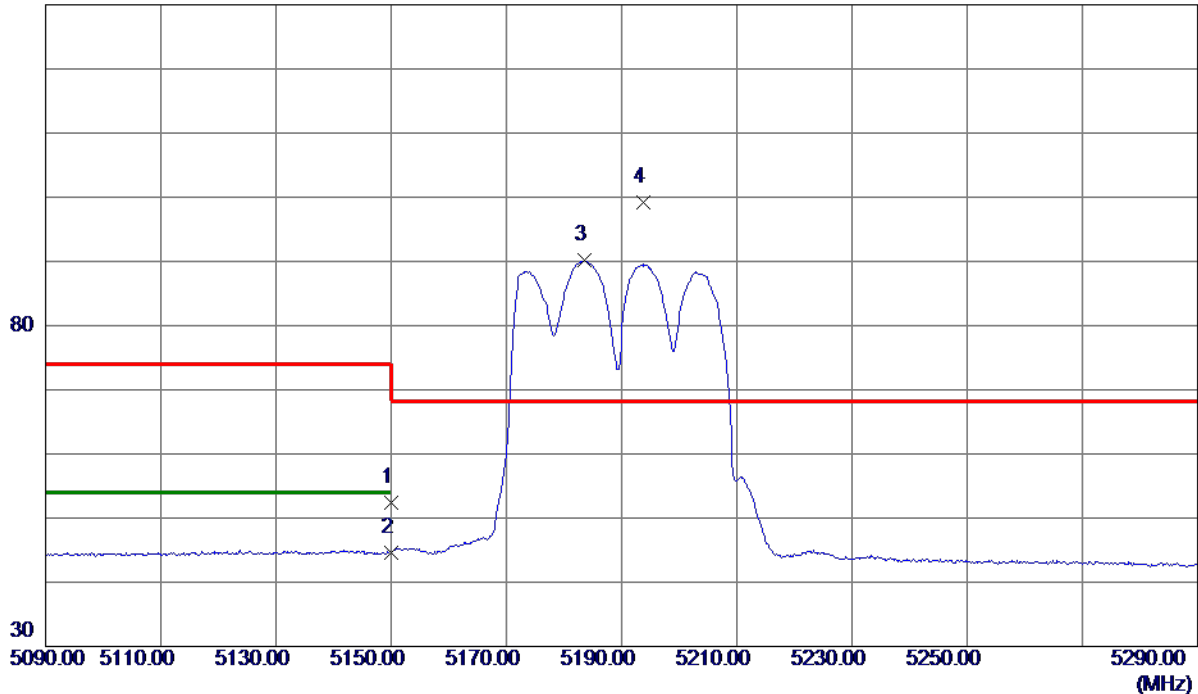
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5190 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	37.43	15.02	52.45	74.00	-21.55	Peak	
2	5150.0000	29.61	15.02	44.63	54.00	-9.37	AVG	
3	5183.5000	75.20	15.04	90.24	999.00	-908.76	AVG	No Limit
4 *	5193.7000	84.15	15.05	99.20	68.30	30.90	Peak	No Limit

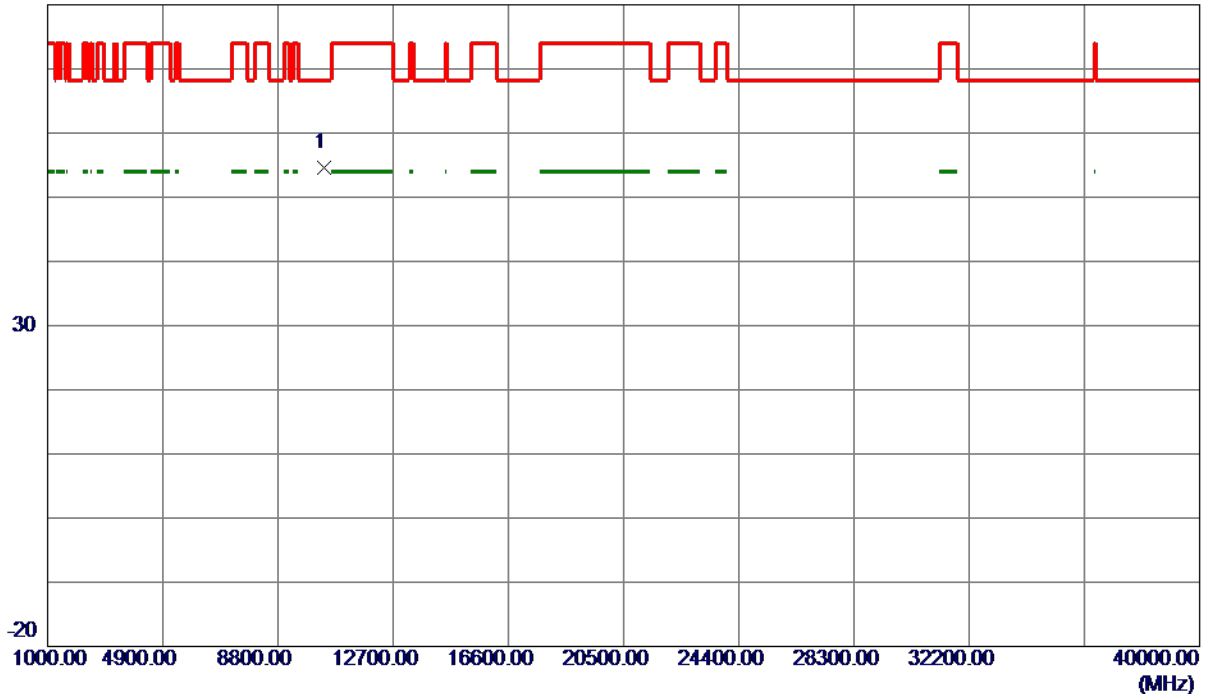
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5190 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10379.9250	45.83	8.81	54.64	68.30	-13.66	Peak	

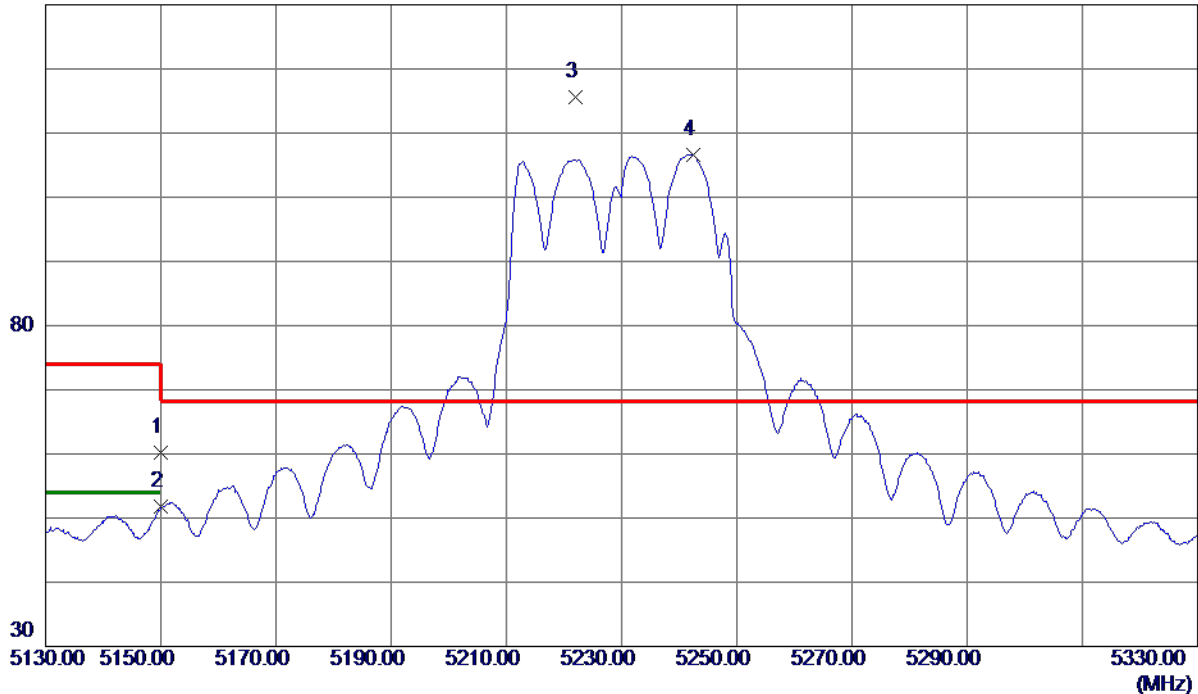
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5230 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	45.14	15.02	60.16	74.00	-13.84	Peak	
2	5150.0000	36.70	15.02	51.72	54.00	-2.28	AVG	
3 *	5222.1000	100.52	15.07	115.59	68.30	47.29	Peak	No Limit
4	5242.5000	91.61	15.08	106.69	999.00	-892.31	AVG	No Limit

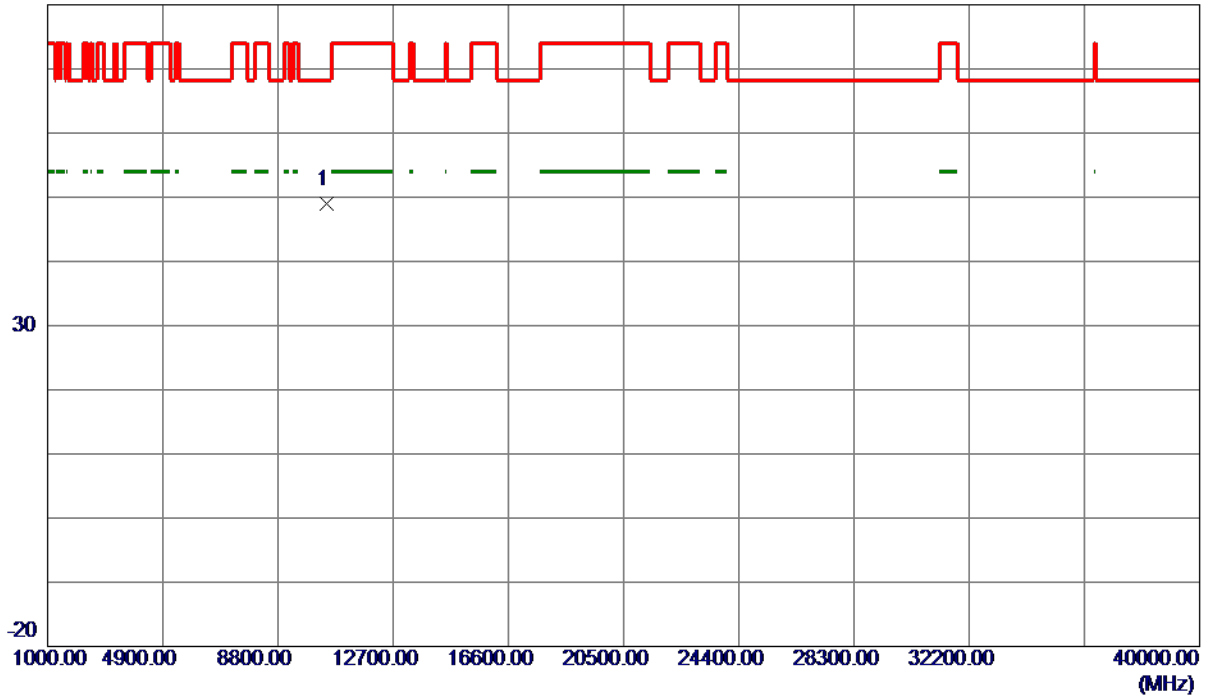
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5230 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10459.8370	39.92	8.98	48.90	68.30	-19.40	Peak	

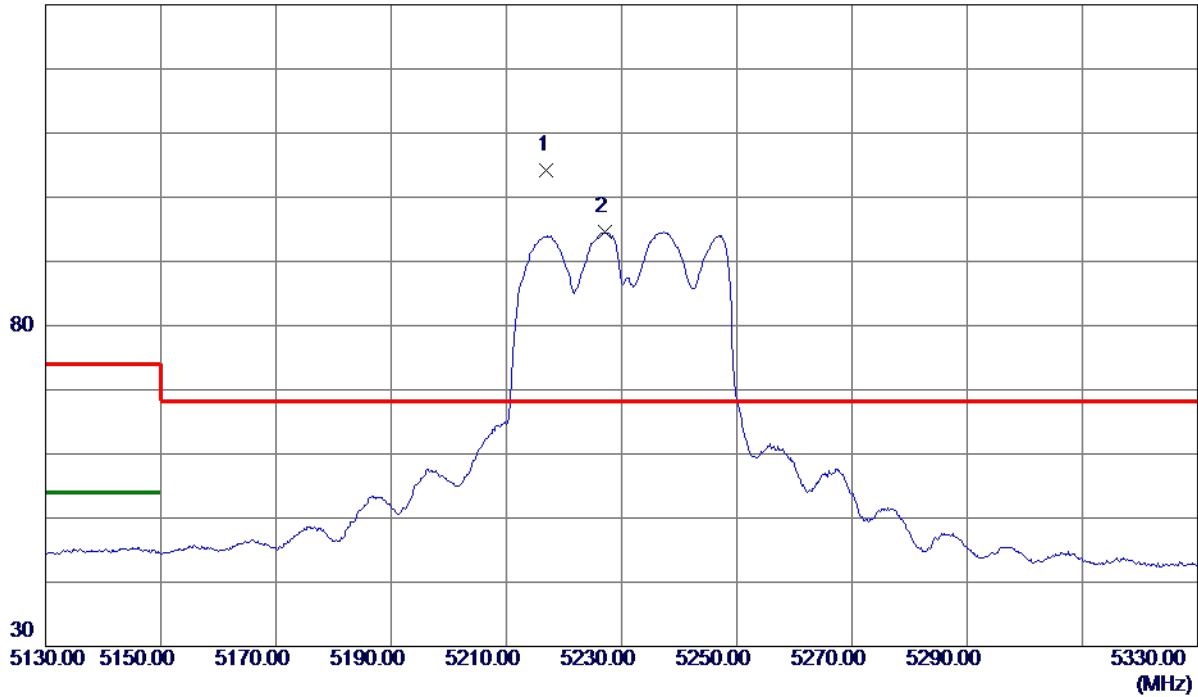
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5230 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5217.0000	89.16	15.06	104.22	68.30	35.92	Peak	No Limit
2	5227.1000	79.50	15.07	94.57	999.00	-904.43	AVG	No Limit

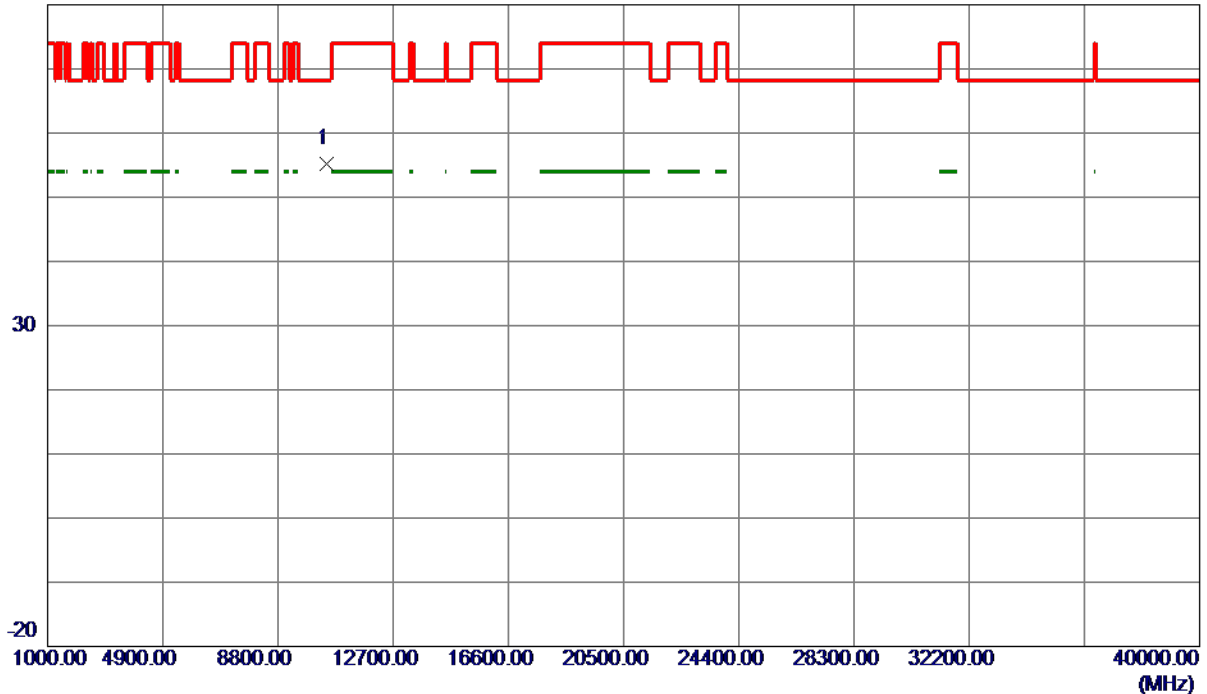
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX N (HT40) Mode 5230 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10460.0350	46.31	8.98	55.29	68.30	-13.01	Peak	

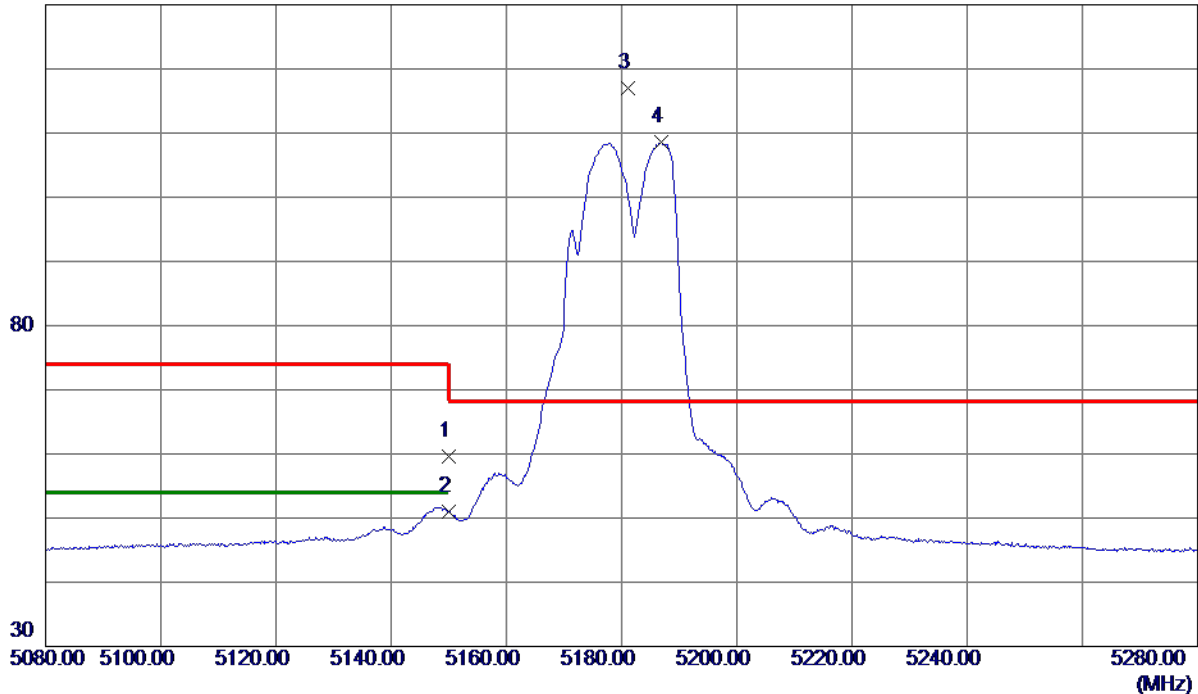
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5180 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	44.50	15.02	59.52	74.00	-14.48	Peak	
2	5150.0000	36.04	15.02	51.06	54.00	-2.94	AVG	
3 *	5181.1000	102.05	15.04	117.09	68.30	48.79	Peak	No Limit
4	5186.8000	93.50	15.04	108.54	999.00	-890.46	AVG	No Limit

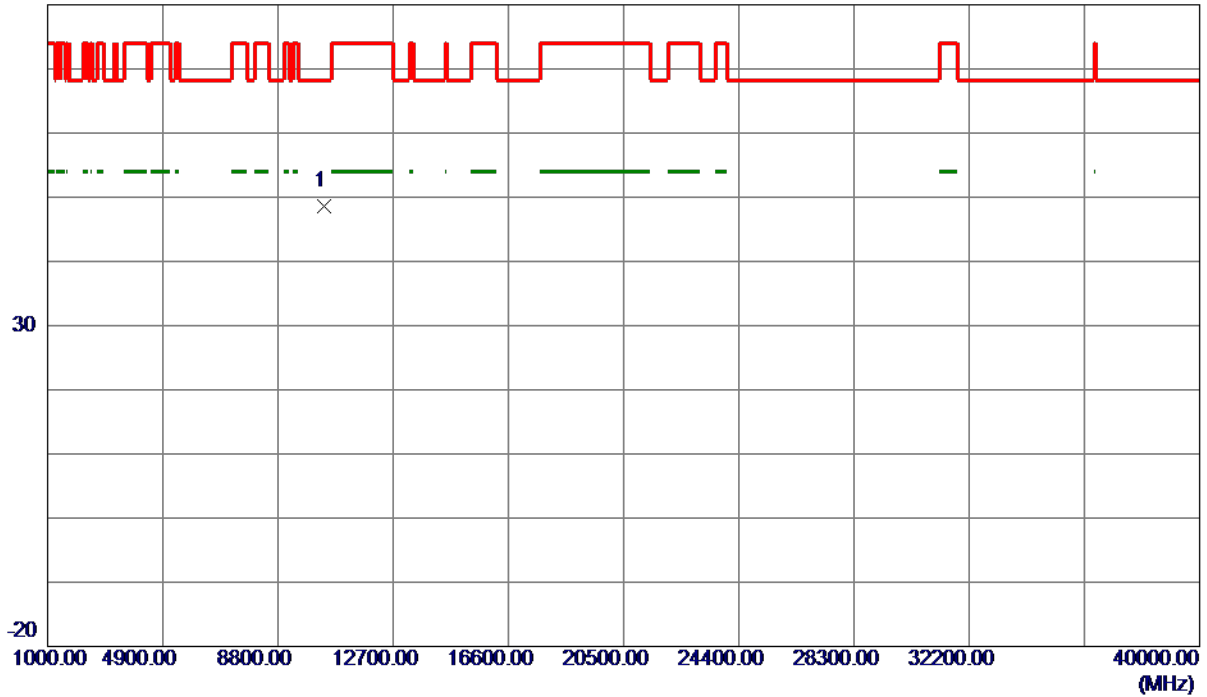
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5180 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10360.0980	39.86	8.77	48.63	68.30	-19.67	Peak	

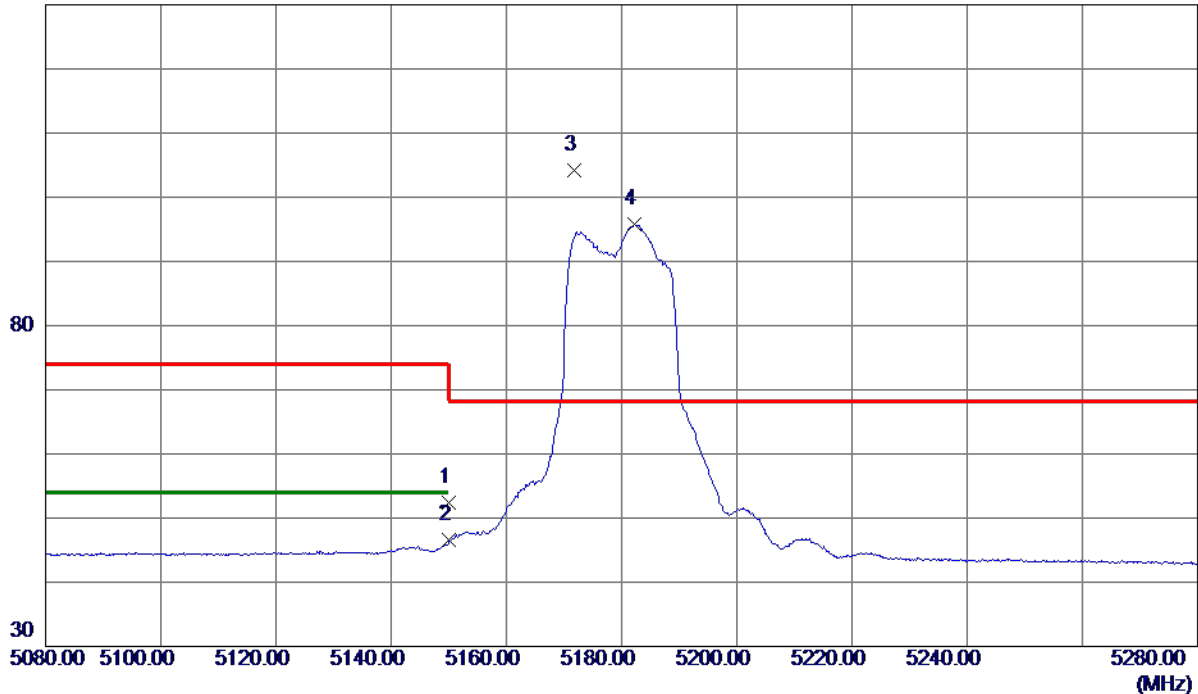
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5180 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	37.39	15.02	52.41	74.00	-21.59	Peak	
2	5150.0000	31.49	15.02	46.51	54.00	-7.49	AVG	
3 *	5171.8000	89.25	15.03	104.28	68.30	35.98	Peak	No Limit
4	5182.2000	80.67	15.04	95.71	999.00	-903.29	AVG	No Limit

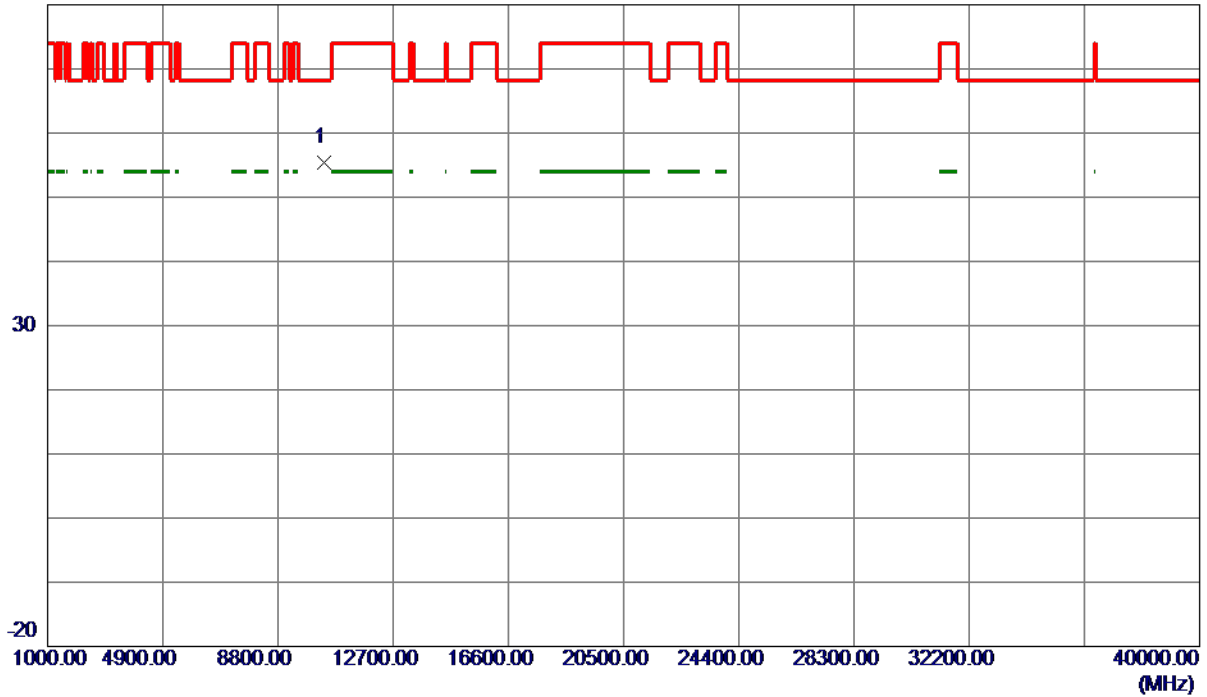
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5180 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10360.0480	46.63	8.77	55.40	68.30	-12.90	Peak	

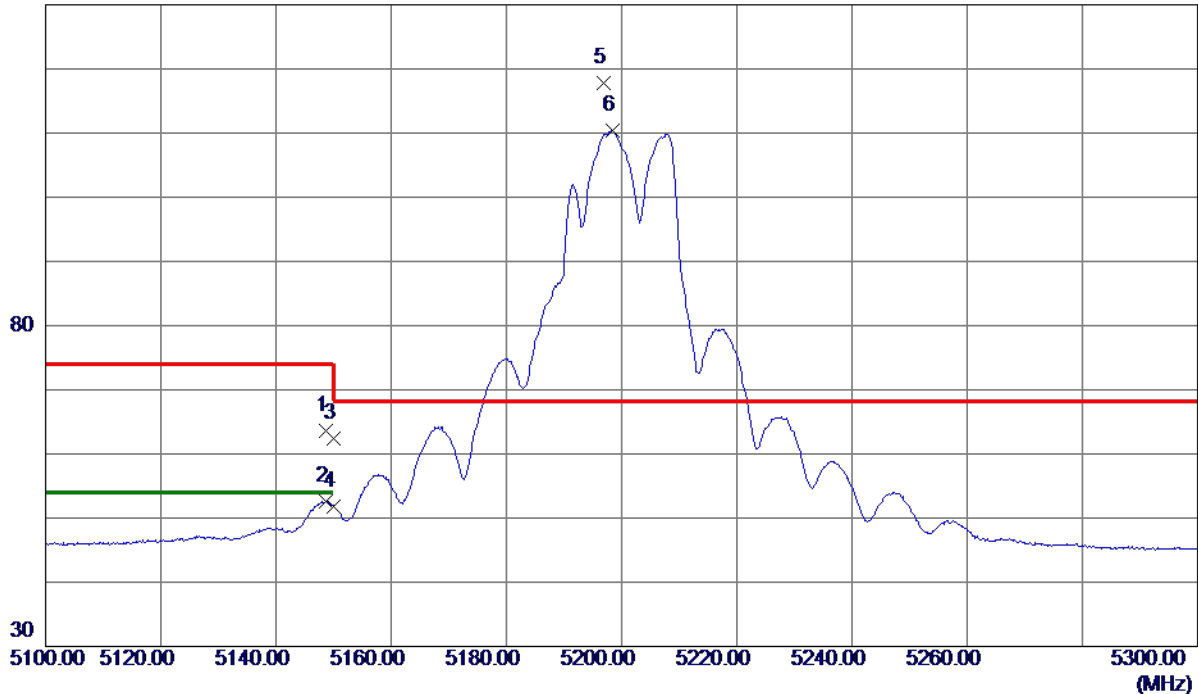
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5200 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5148.7000	48.66	15.01	63.67	74.00	-10.33	Peak	
2	5148.7000	37.66	15.01	52.67	54.00	-1.33	AVG	
3	5150.0000	47.32	15.02	62.34	74.00	-11.66	Peak	
4	5150.0000	36.83	15.02	51.85	54.00	-2.15	AVG	
5 *	5196.8000	102.78	15.05	117.83	68.30	49.53	Peak	No Limit
6	5198.4000	95.28	15.05	110.33	999.00	-888.67	AVG	No Limit

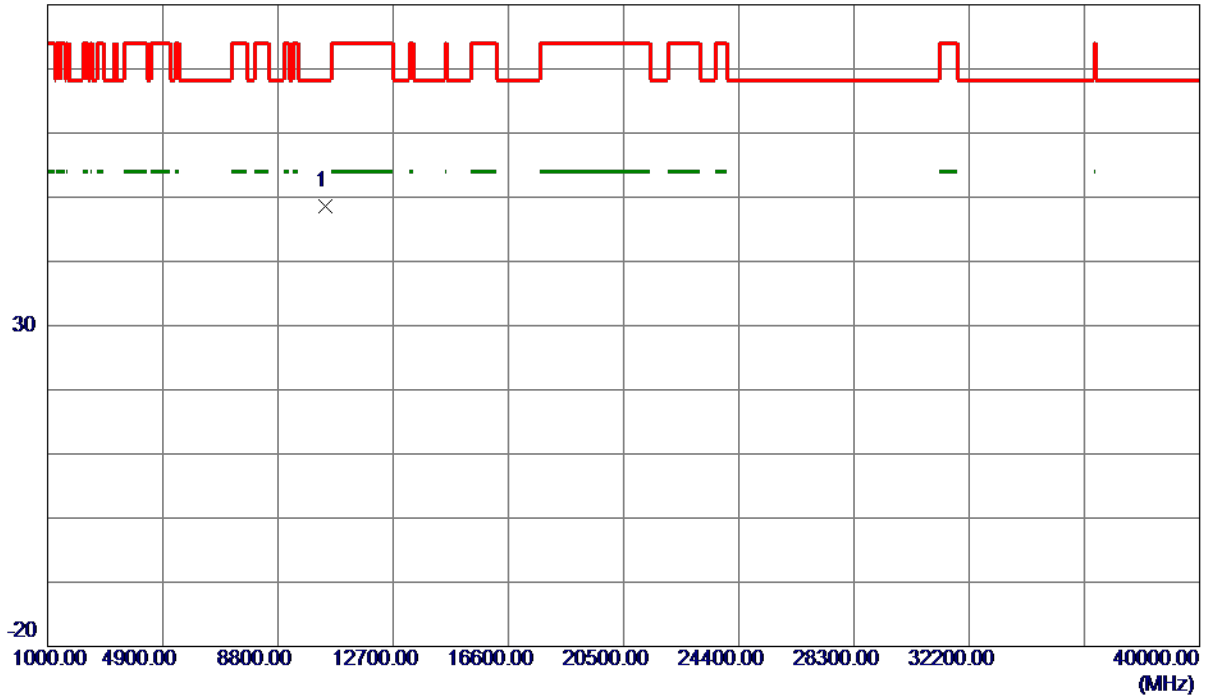
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5200 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10400.0590	39.70	8.85	48.55	68.30	-19.75	Peak	

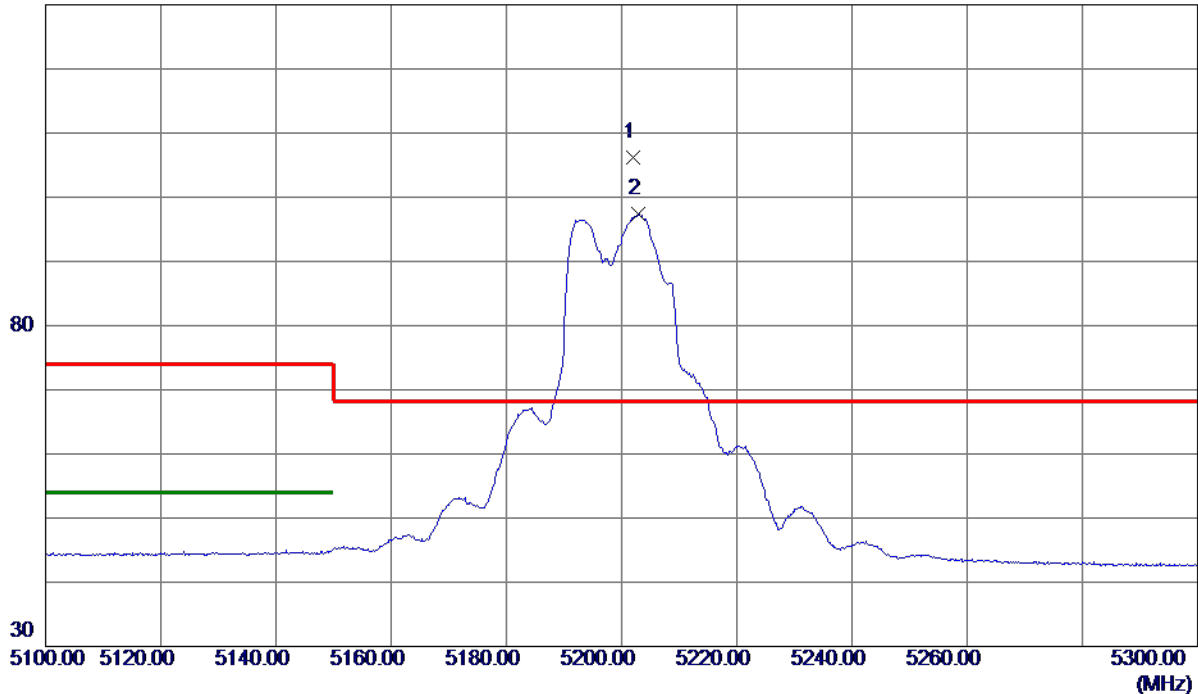
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5200 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5202.0000	91.23	15.05	106.28	68.30	37.98	Peak	No Limit
2	5202.9000	82.38	15.05	97.43	999.00	-901.57	AVG	No Limit

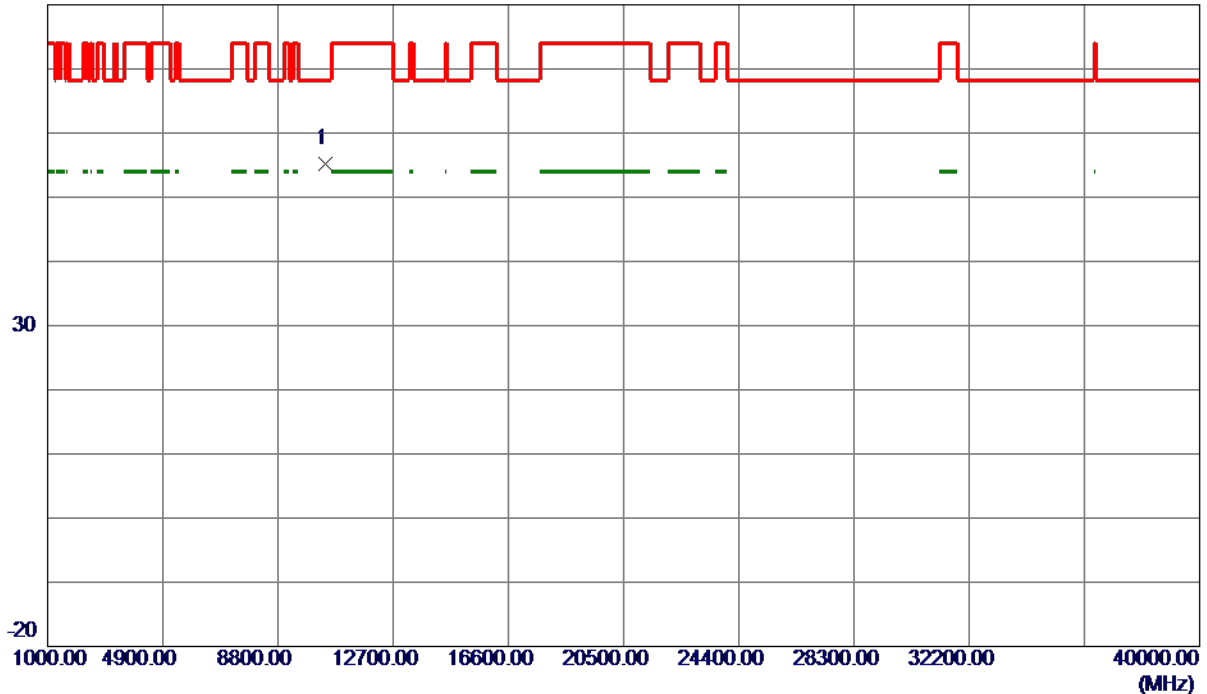
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5200 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10399.8670	46.28	8.85	55.13	68.30	-13.17	Peak	

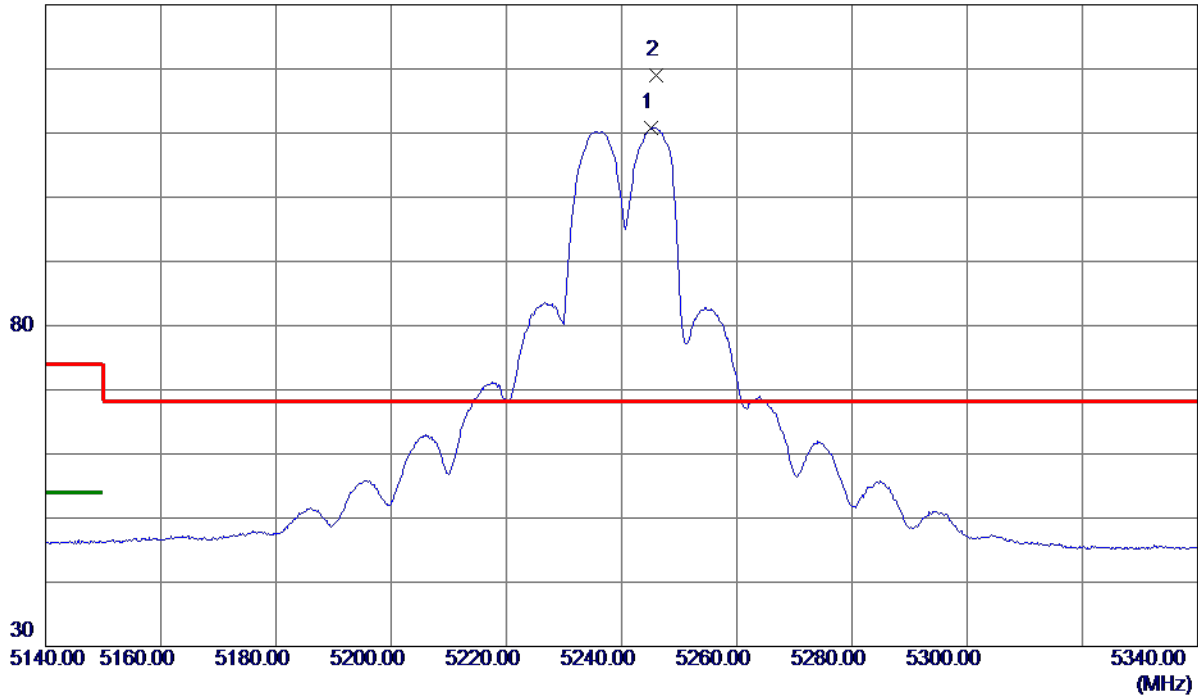
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5240 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5245.2000	95.80	15.08	110.88	999.00	-888.12	AVG	No Limit
2 *	5245.9000	103.82	15.08	118.90	68.30	50.60	Peak	No Limit

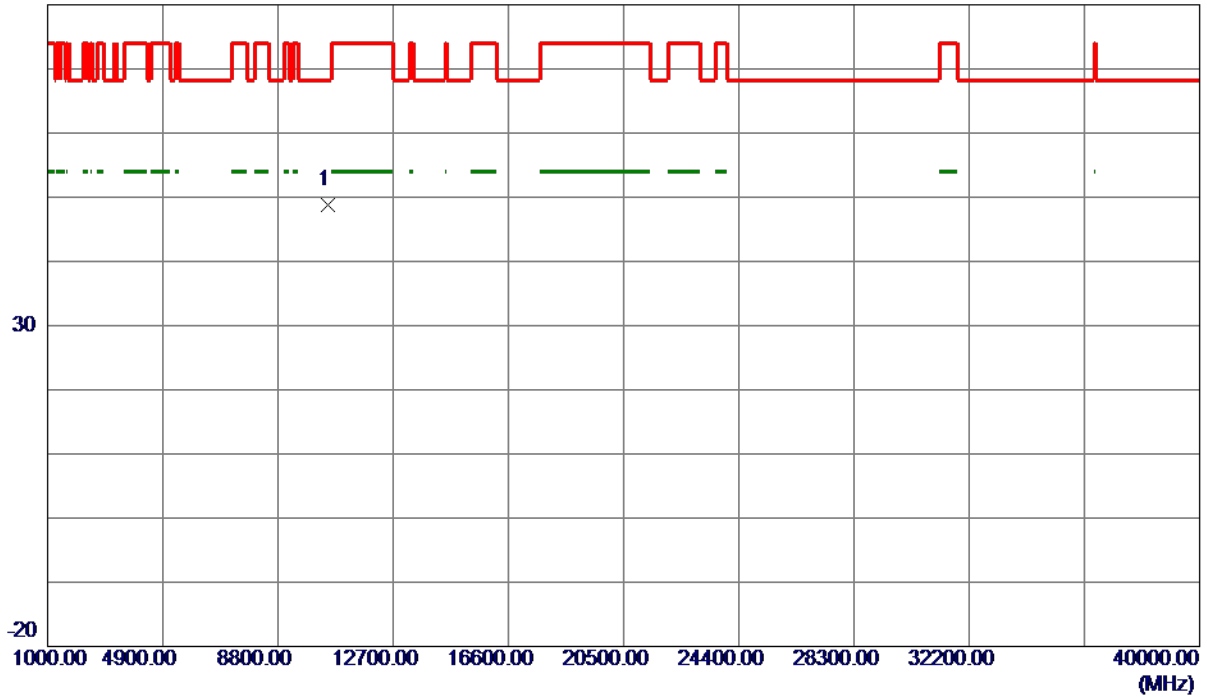
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5240 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.9630	39.77	9.02	48.79	68.30	-19.51	Peak	

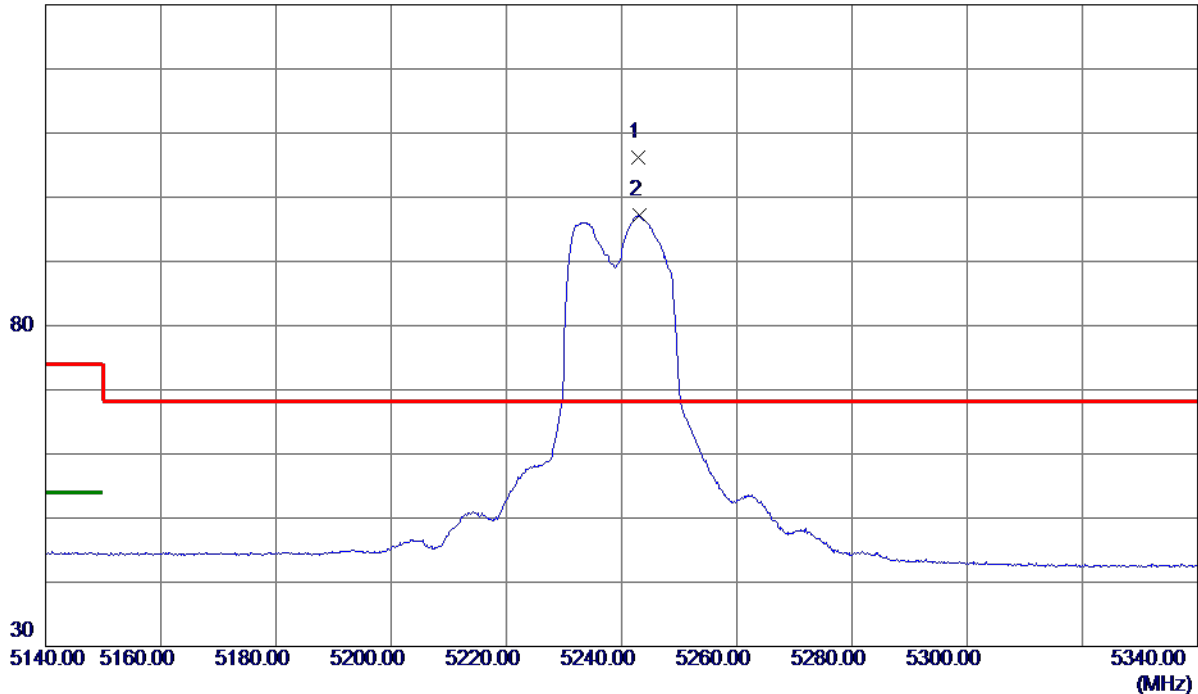
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5240 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5242.8000	91.21	15.08	106.29	68.30	37.99	Peak	No Limit
2	5243.1000	82.15	15.08	97.23	999.00	-901.77	AVG	No Limit

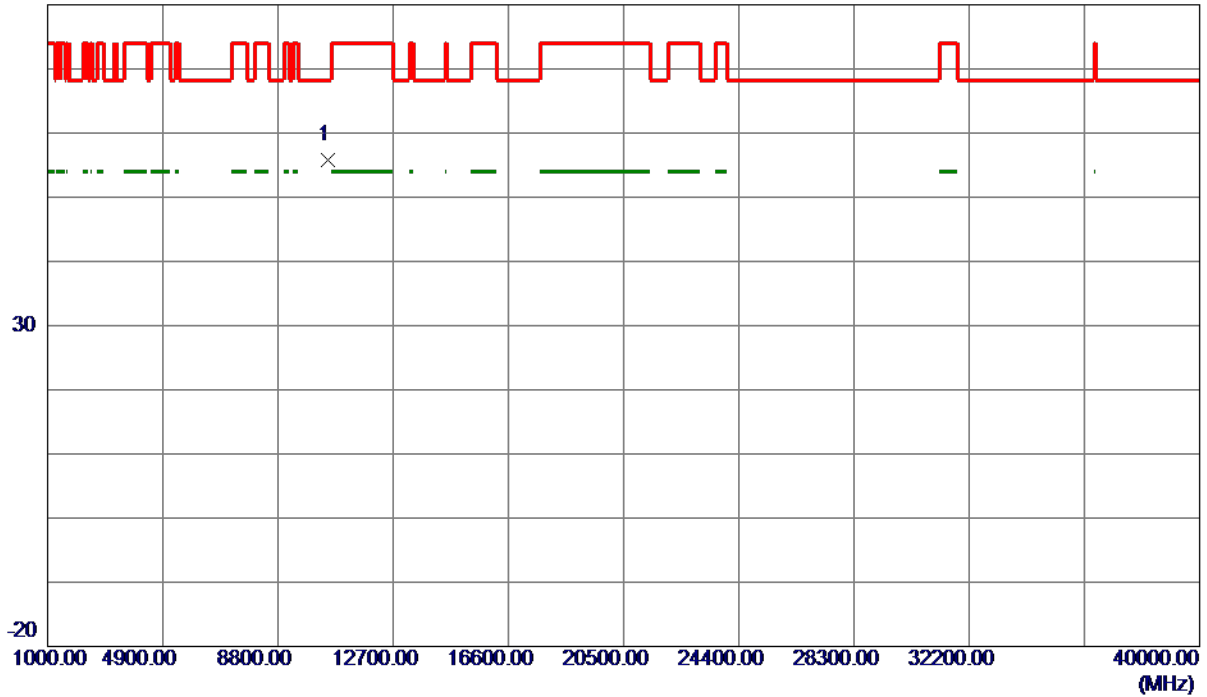
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT20) Mode 5240 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10480.0100	46.71	9.02	55.73	68.30	-12.57	Peak	

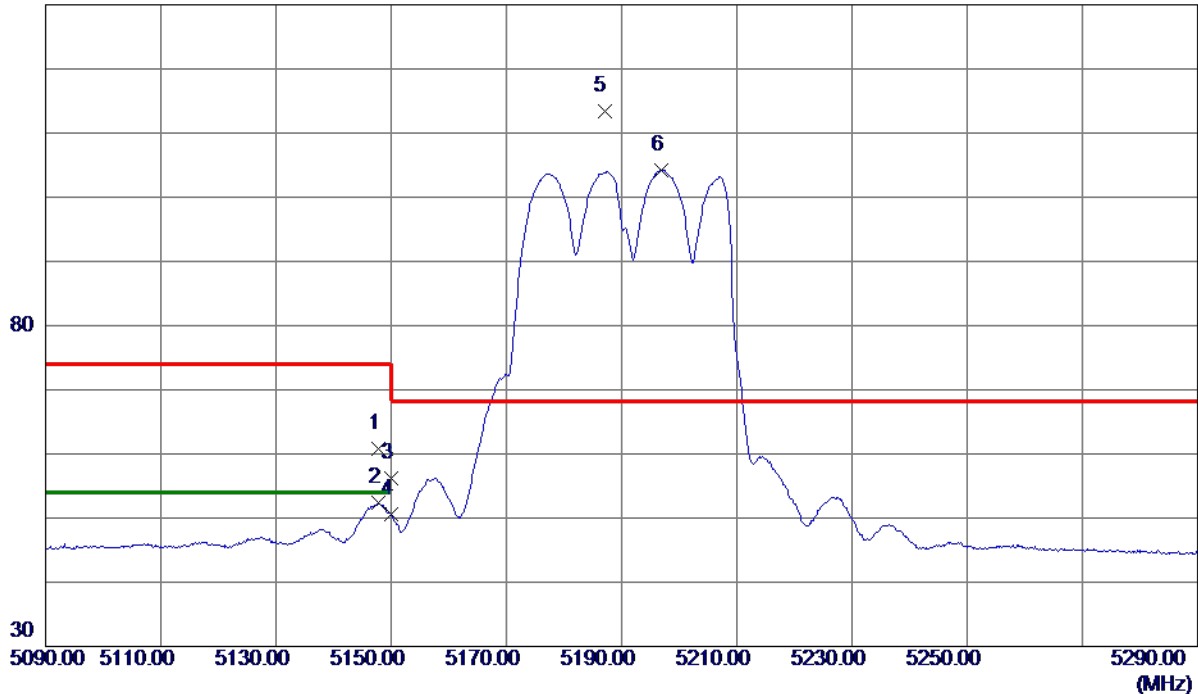
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5190 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5147.7000	45.81	15.01	60.82	74.00	-13.18	Peak	
2	5147.7000	37.35	15.01	52.36	54.00	-1.64	AVG	
3	5150.0000	41.11	15.02	56.13	74.00	-17.87	Peak	
4	5150.0000	35.49	15.02	50.51	54.00	-3.49	AVG	
5 *	5187.0000	98.42	15.04	113.46	68.30	45.16	Peak	No Limit
6	5196.8000	89.20	15.05	104.25	999.00	-894.75	AVG	No Limit

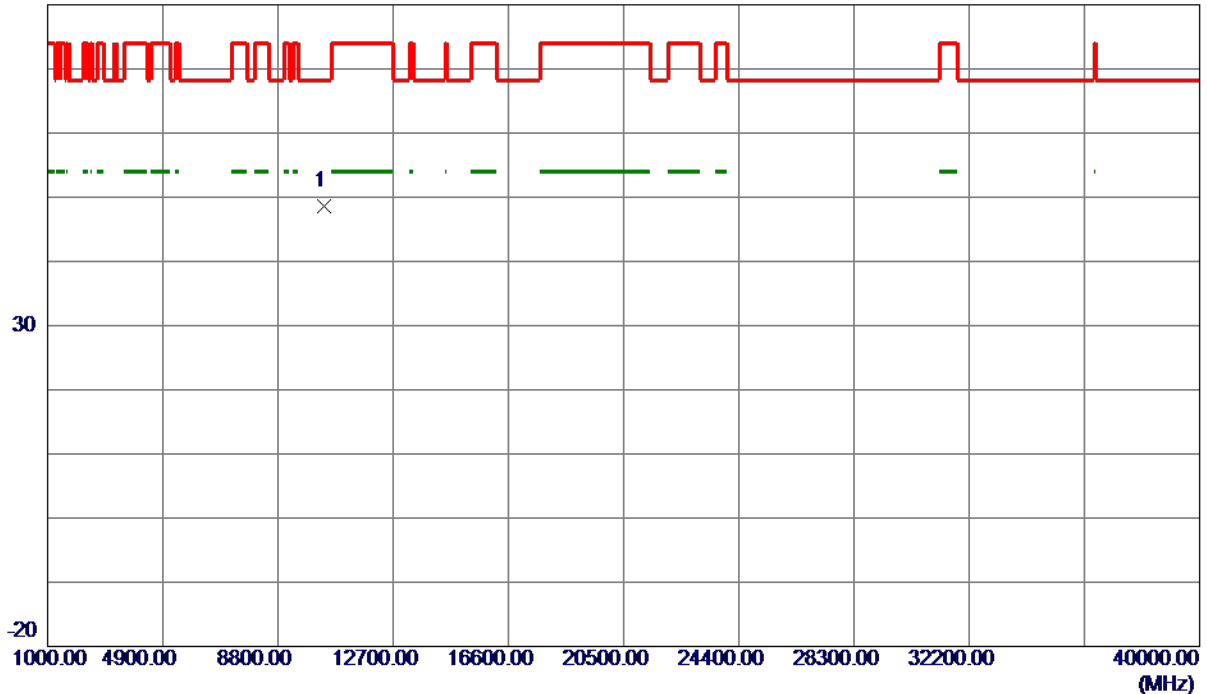
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5190 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10379.9700	39.86	8.81	48.67	68.30	-19.63	Peak	

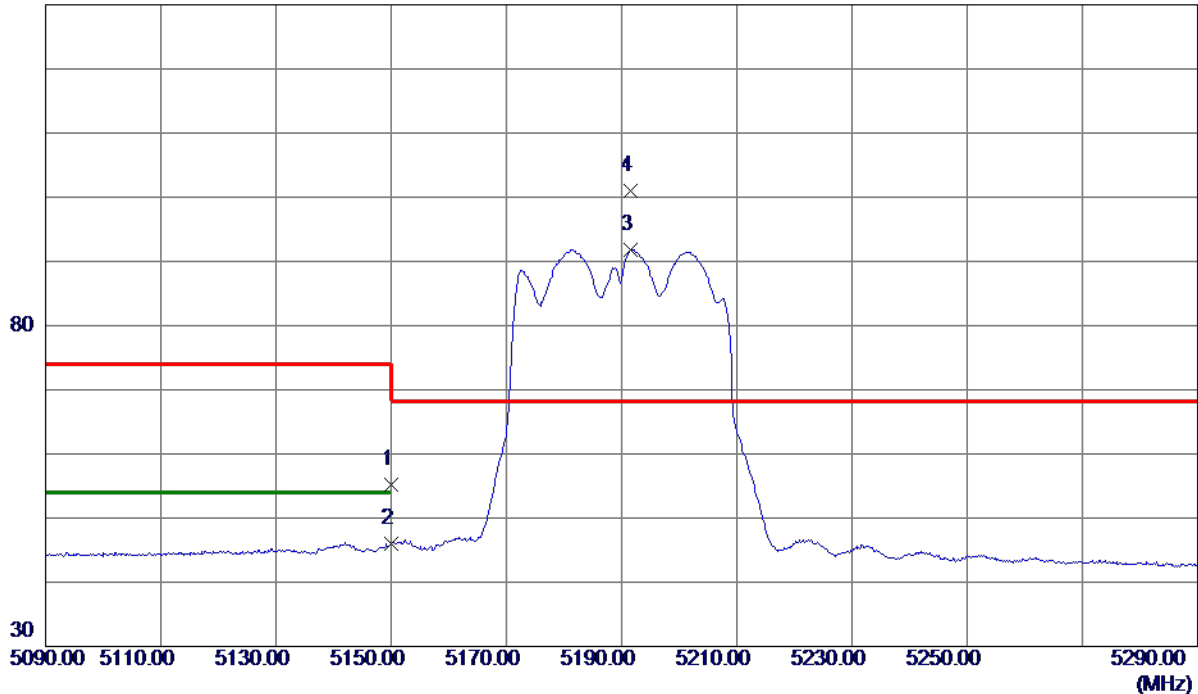
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5190 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	40.23	15.02	55.25	74.00	-18.75	Peak	
2	5150.0000	30.96	15.02	45.98	54.00	-8.02	AVG	
3	5191.5000	76.76	15.04	91.80	999.00	-907.20	AVG	No Limit
4 *	5191.6000	85.94	15.04	100.98	68.30	32.68	Peak	No Limit

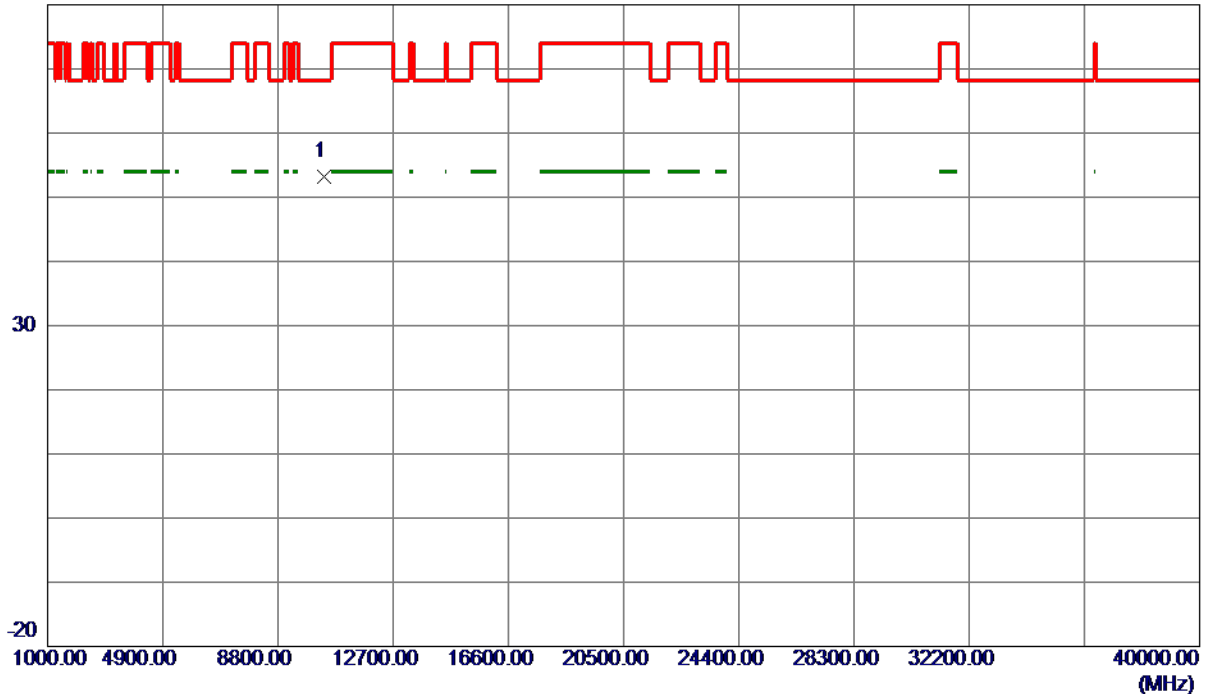
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5190 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10379.8650	44.36	8.81	53.17	68.30	-15.13	Peak	

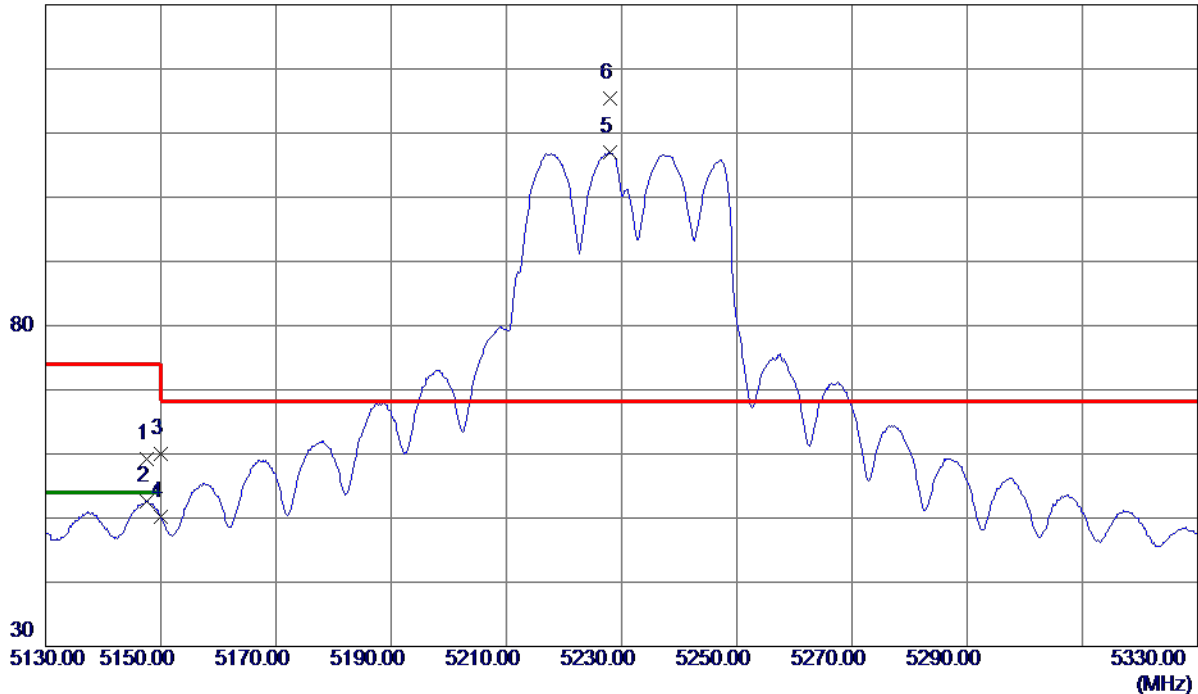
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5230 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5147.5000	44.12	15.01	59.13	74.00	-14.87	Peak	
2	5147.5000	37.61	15.01	52.62	54.00	-1.38	AVG	
3	5150.0000	45.03	15.02	60.05	74.00	-13.95	Peak	
4	5150.0000	35.26	15.02	50.28	54.00	-3.72	AVG	
5	5227.9000	91.87	15.07	106.94	999.00	-892.06	AVG	No Limit
6 *	5228.0000	100.42	15.07	115.49	68.30	47.19	Peak	No Limit

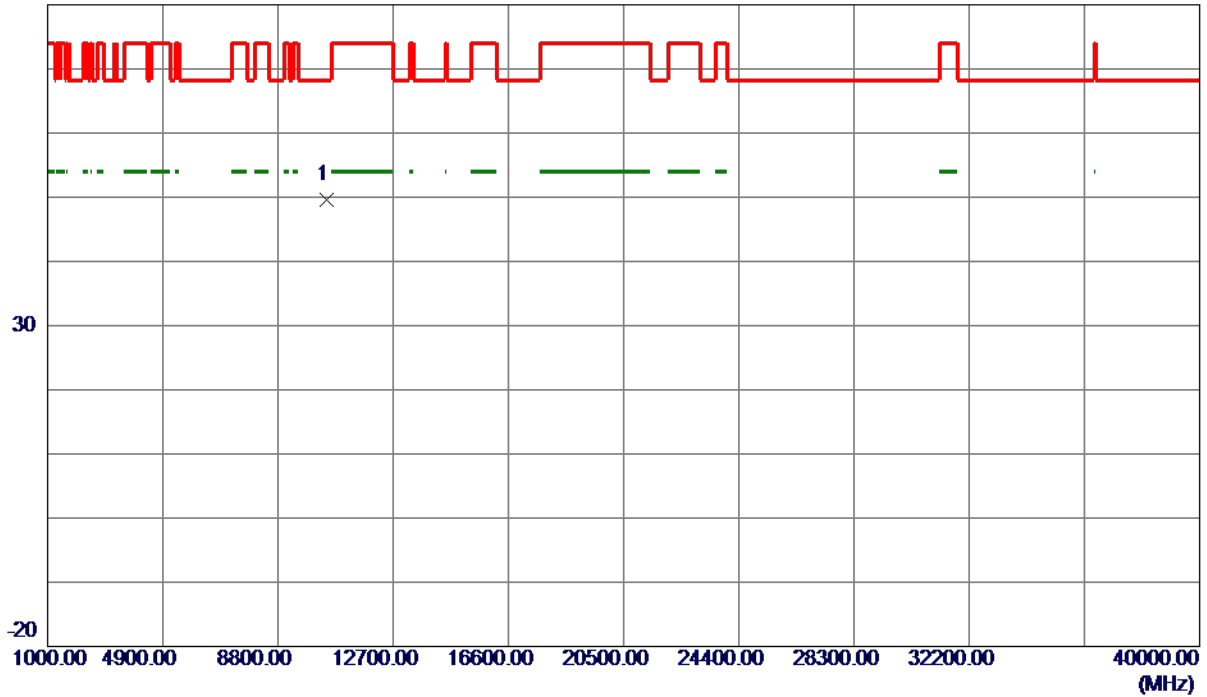
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5230 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10459.9189	40.55	8.98	49.53	68.30	-18.77	Peak	

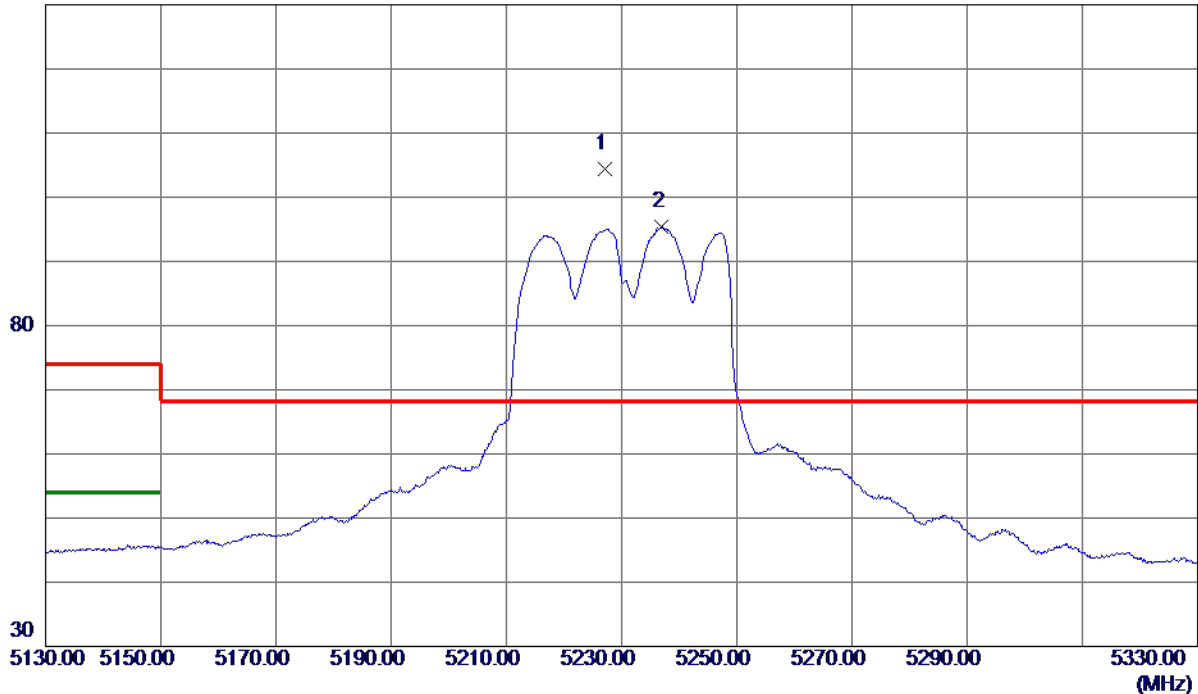
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5230 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5227.1000	89.40	15.07	104.47	68.30	36.17	Peak	No Limit
2	5237.0000	80.28	15.08	95.36	999.00	-903.64	AVG	No Limit

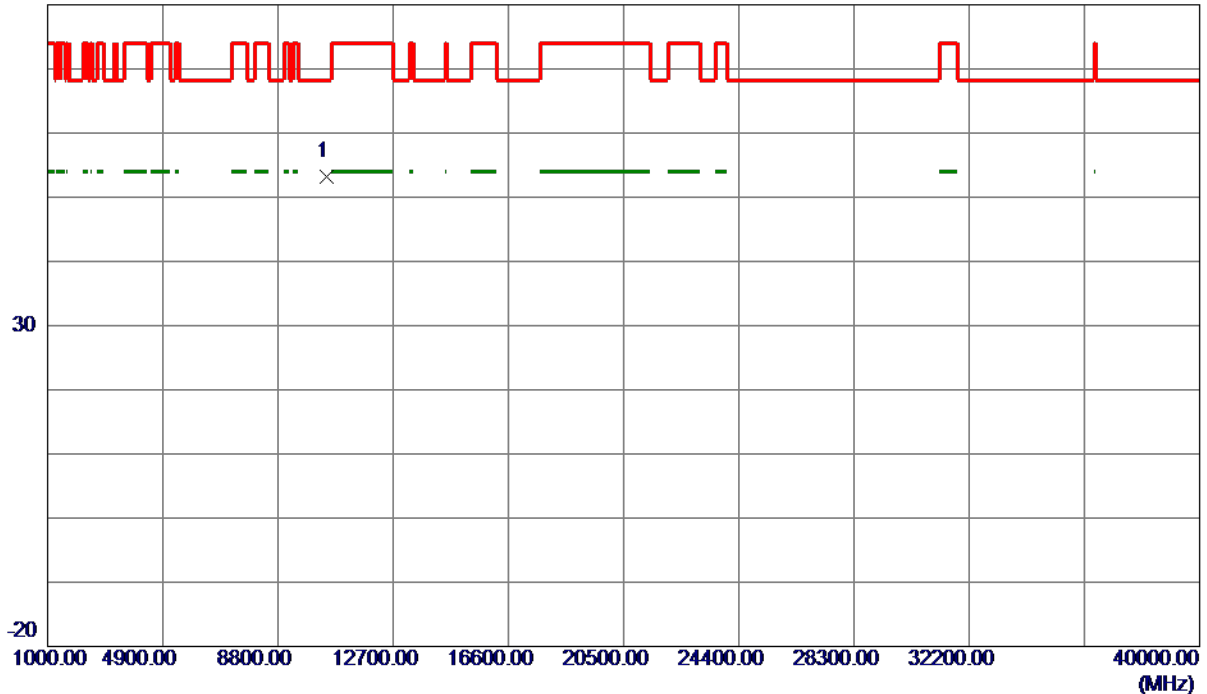
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT40) Mode 5230 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10459.9050	44.18	8.98	53.16	68.30	-15.14	Peak	

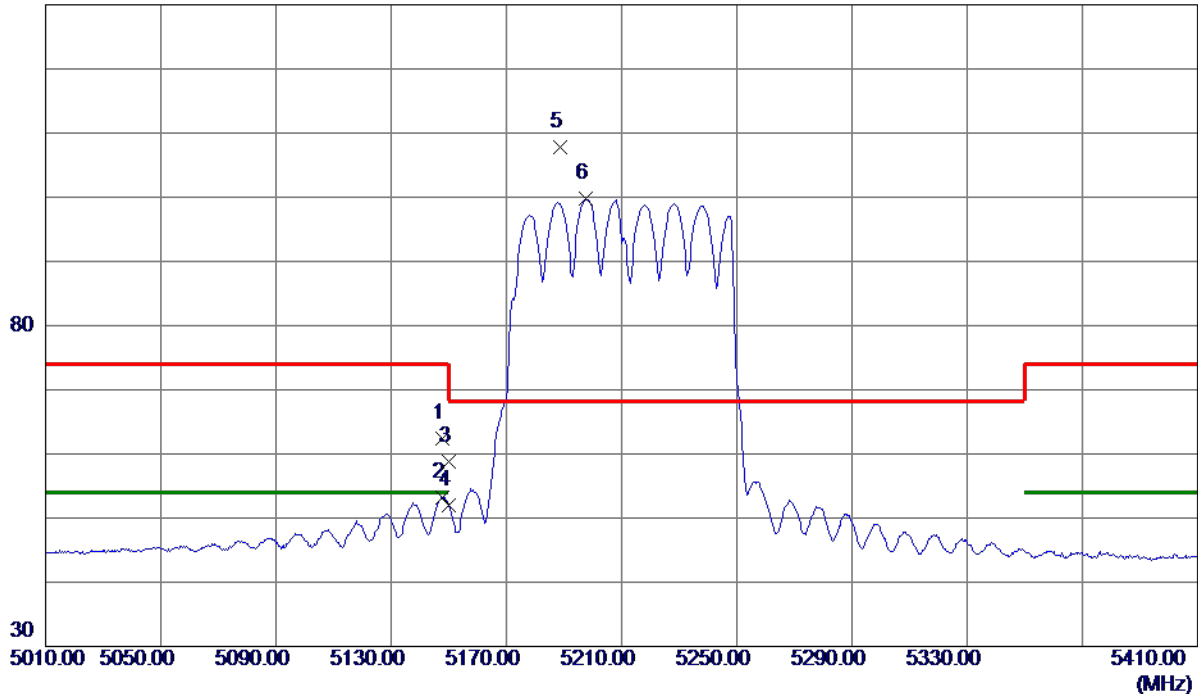
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT80) Mode 5210 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5147.6000	47.34	15.01	62.35	74.00	-11.65	Peak	
2	5147.6000	38.26	15.01	53.27	54.00	-0.73	AVG	
3	5150.0000	43.75	15.02	58.77	74.00	-15.23	Peak	
4	5150.0000	36.98	15.02	52.00	54.00	-2.00	AVG	
5 *	5188.8000	92.84	15.04	107.88	68.30	39.58	Peak	No Limit
6	5197.6000	84.68	15.05	99.73	999.00	-899.27	AVG	No Limit

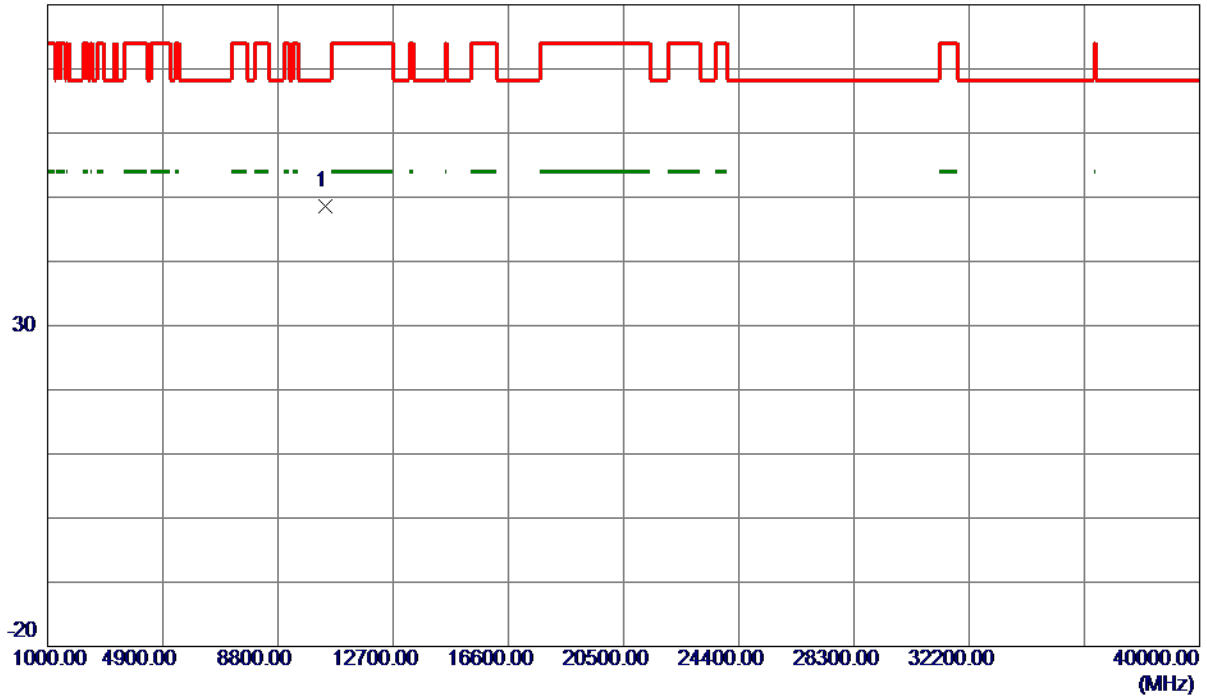
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT80) Mode 5210 MHz

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10419.9189	39.72	8.89	48.61	68.30	-19.69	Peak	

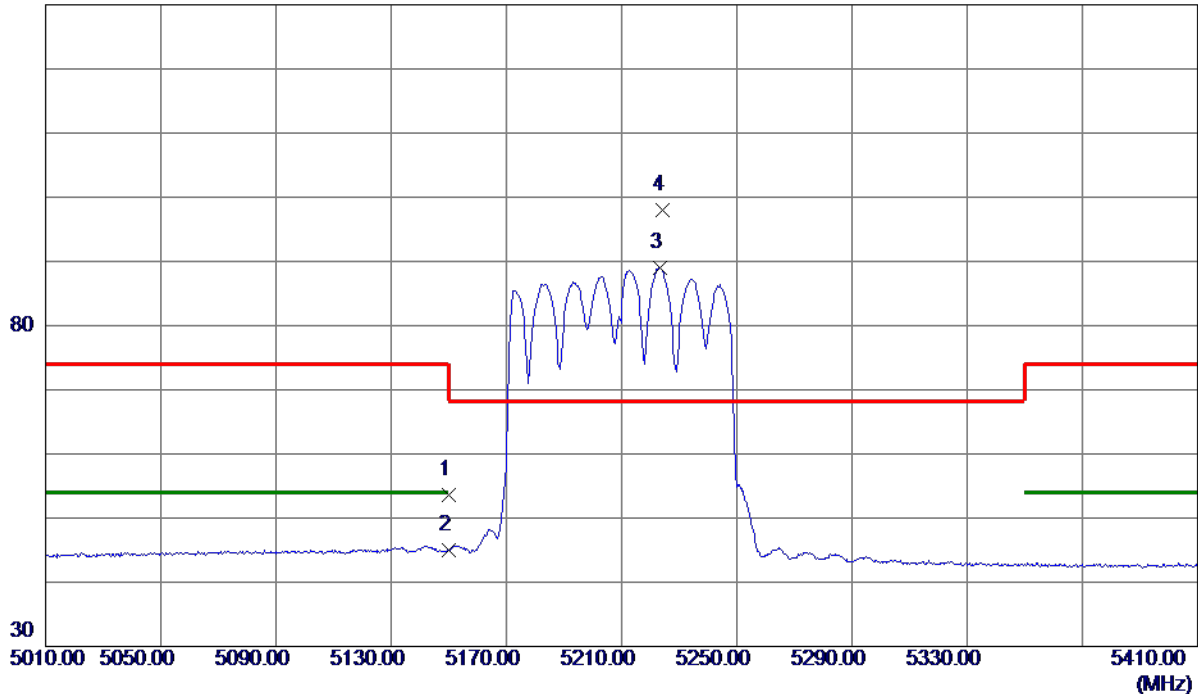
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT80) Mode 5210 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	38.57	15.02	53.59	74.00	-20.41	Peak	
2	5150.0000	30.02	15.02	45.04	54.00	-8.96	AVG	
3	5223.2000	73.92	15.07	88.99	999.00	-910.01	AVG	No Limit
4 *	5224.2000	83.02	15.07	98.09	68.30	29.79	Peak	No Limit

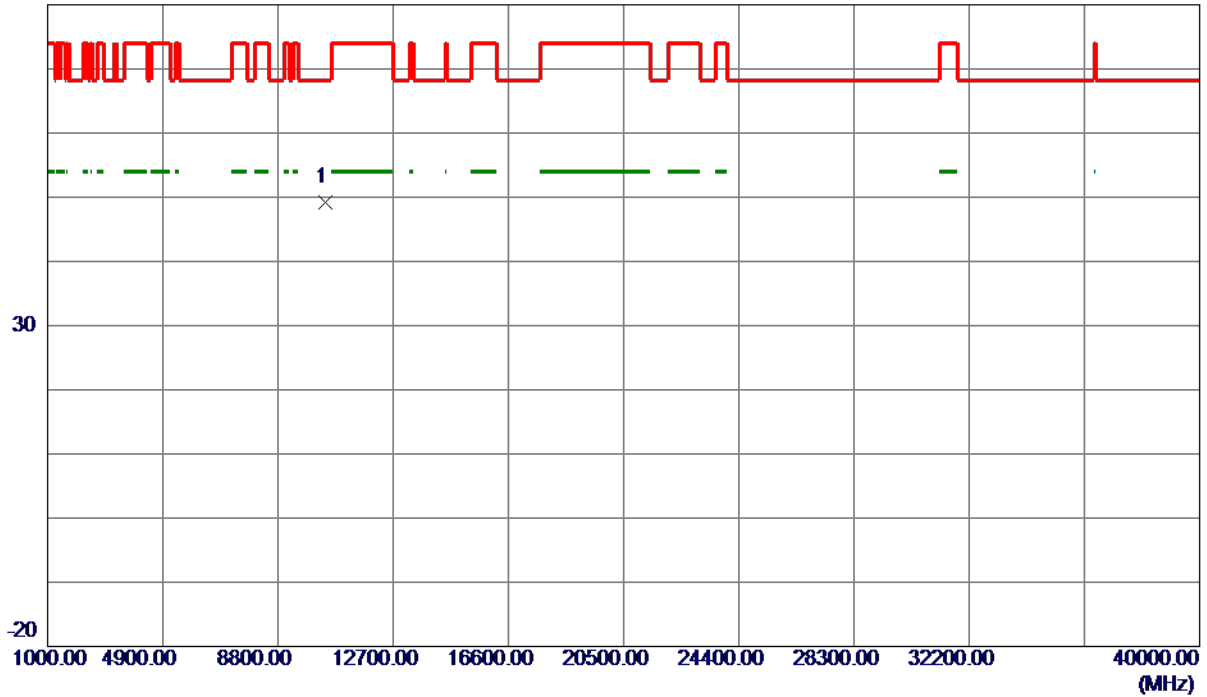
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AC (VHT80) Mode 5210 MHz

Horizontal

80 dBuV/m

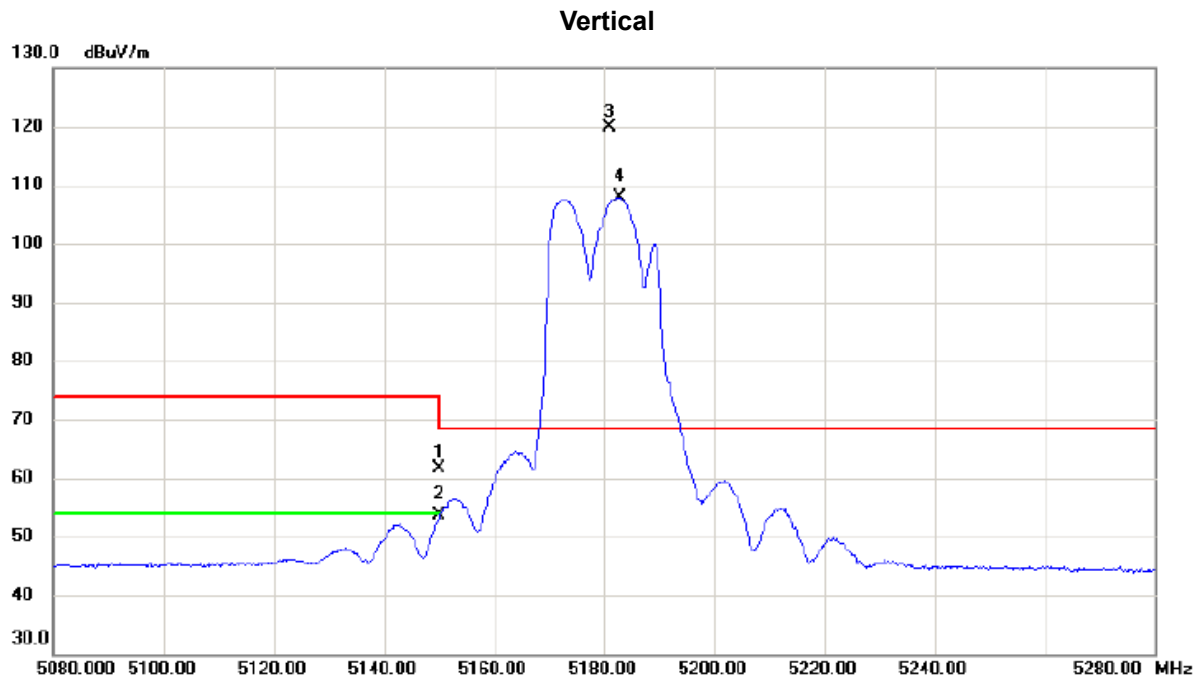


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10419.9189	40.38	8.89	49.27	68.30	-19.03	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5180 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	46.60	15.02	61.62	74.00	-12.38	peak	
2		5150.000	38.51	15.02	53.53	54.00	-0.47	AVG	
3	*	5180.900	104.96	15.04	120.00	68.30	51.70	peak	No Limit
4	X	5182.800	92.93	15.04	107.97	68.30	39.67	AVG	No Limit

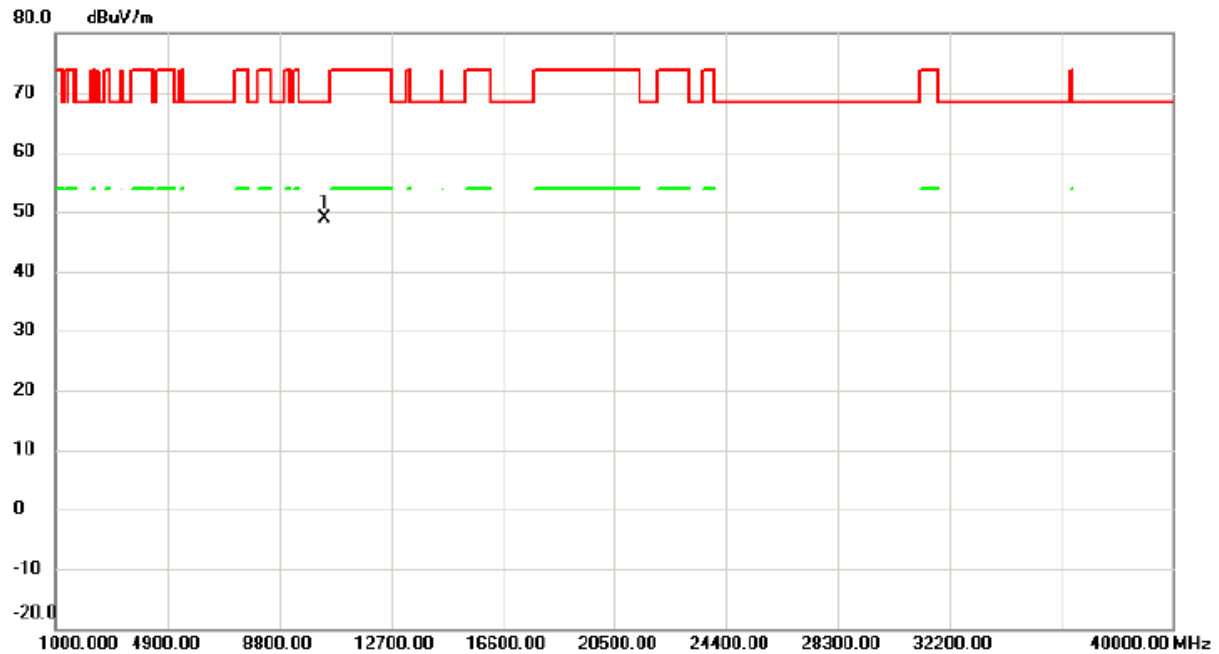
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5180 MHz

Vertical



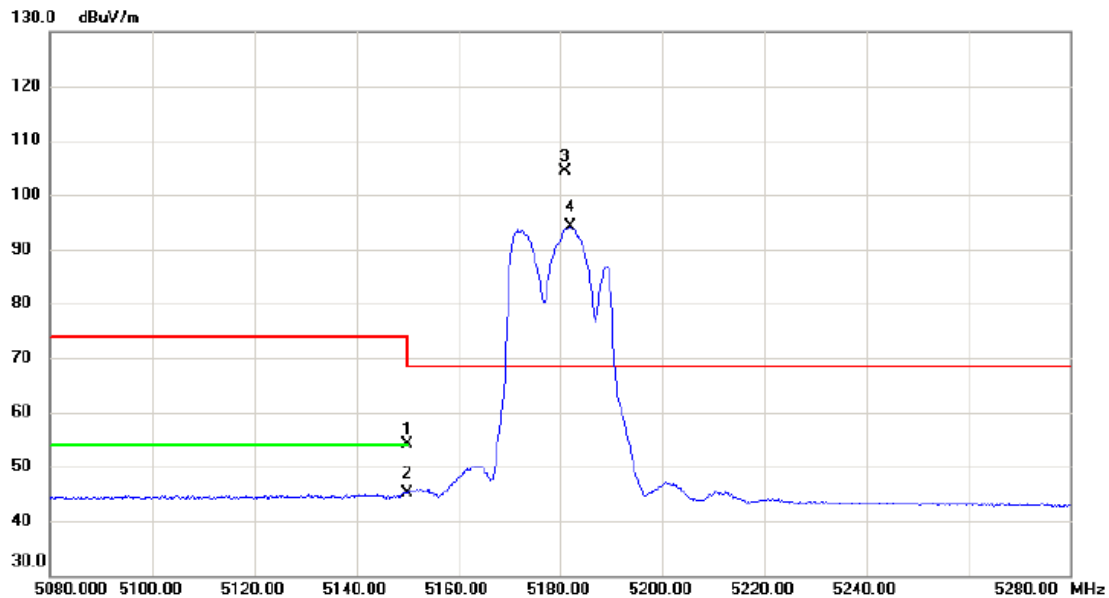
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.042	40.02	8.77	48.79	68.30	-19.51	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5180 MHz

Horizontal



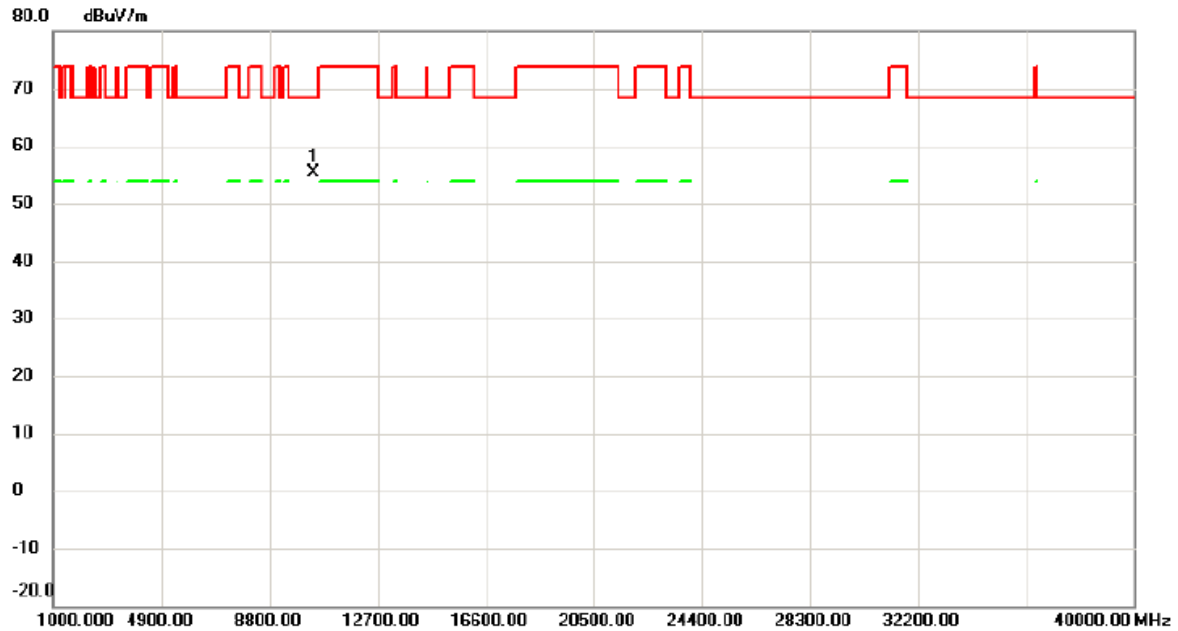
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	39.03	15.02	54.05	74.00	-19.95	peak	
2		5150.000	30.19	15.02	45.21	54.00	-8.79	AVG	
3	*	5180.900	89.28	15.04	104.32	68.30	36.02	peak	No Limit
4	X	5182.000	79.00	15.04	94.04	68.30	25.74	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 AX (HEW20) Mode 5180 MHz

Horizontal

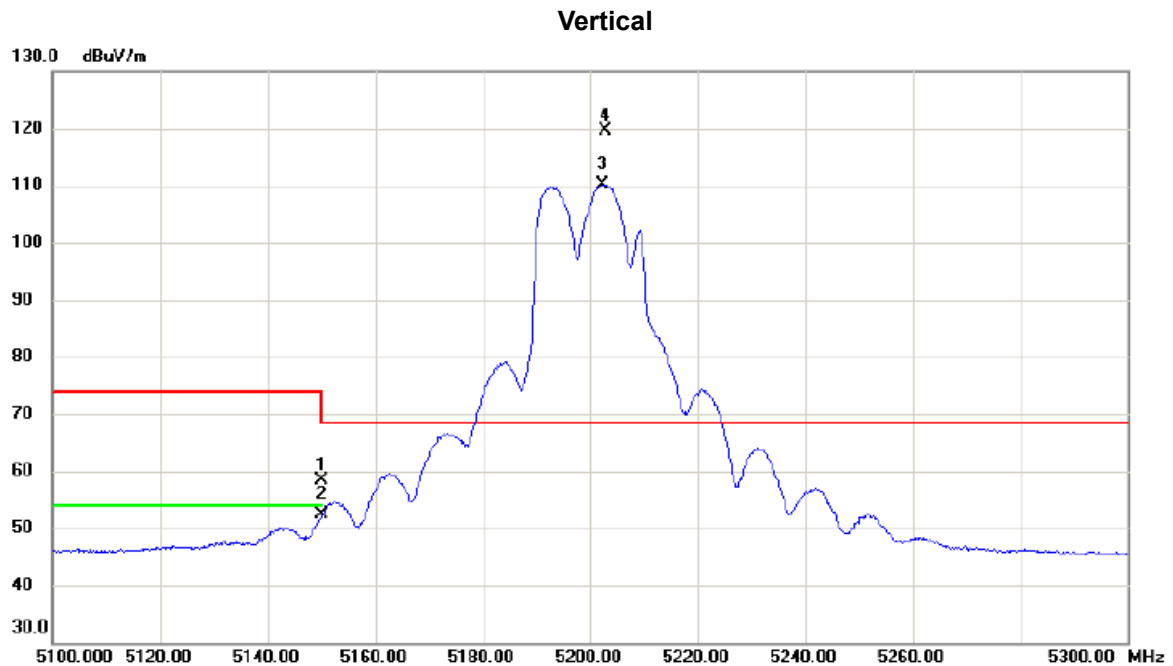


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.025	46.72	8.77	55.49	68.30	-12.81	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5200 MHz



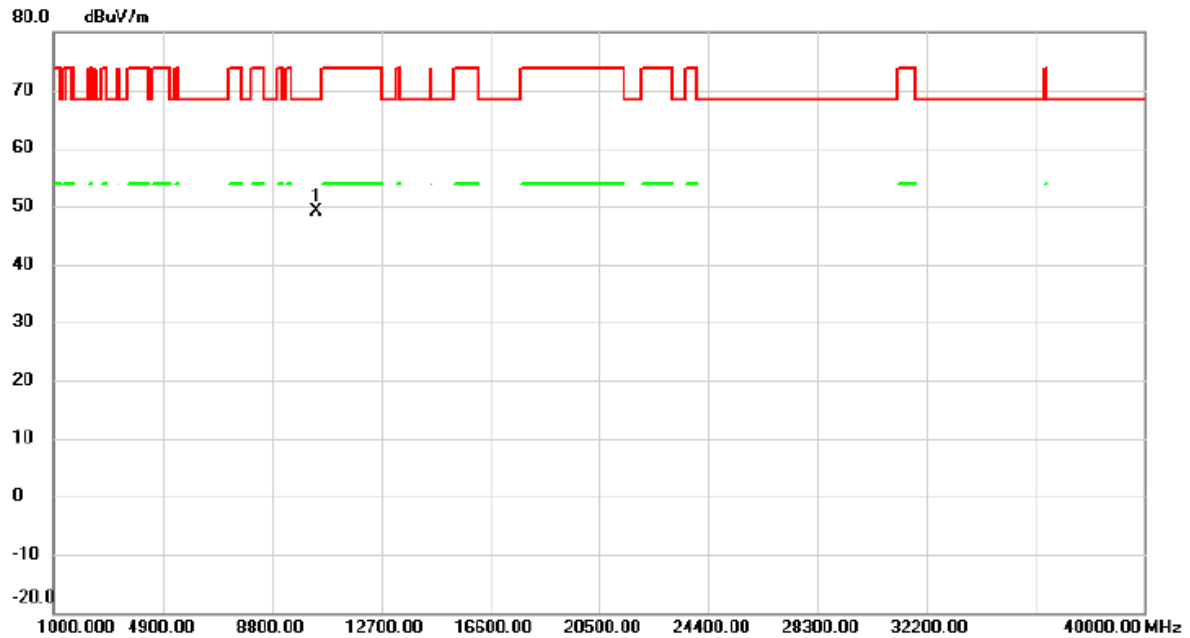
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	43.40	15.02	58.42	74.00	-15.58	peak	
2		5150.000	37.34	15.02	52.36	54.00	-1.64	AVG	
3	X	5202.400	95.09	15.05	110.14	68.30	41.84	AVG	No Limit
4	*	5202.800	104.56	15.05	119.61	68.30	51.31	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 AX (HEW20) Mode 5200 MHz

Vertical

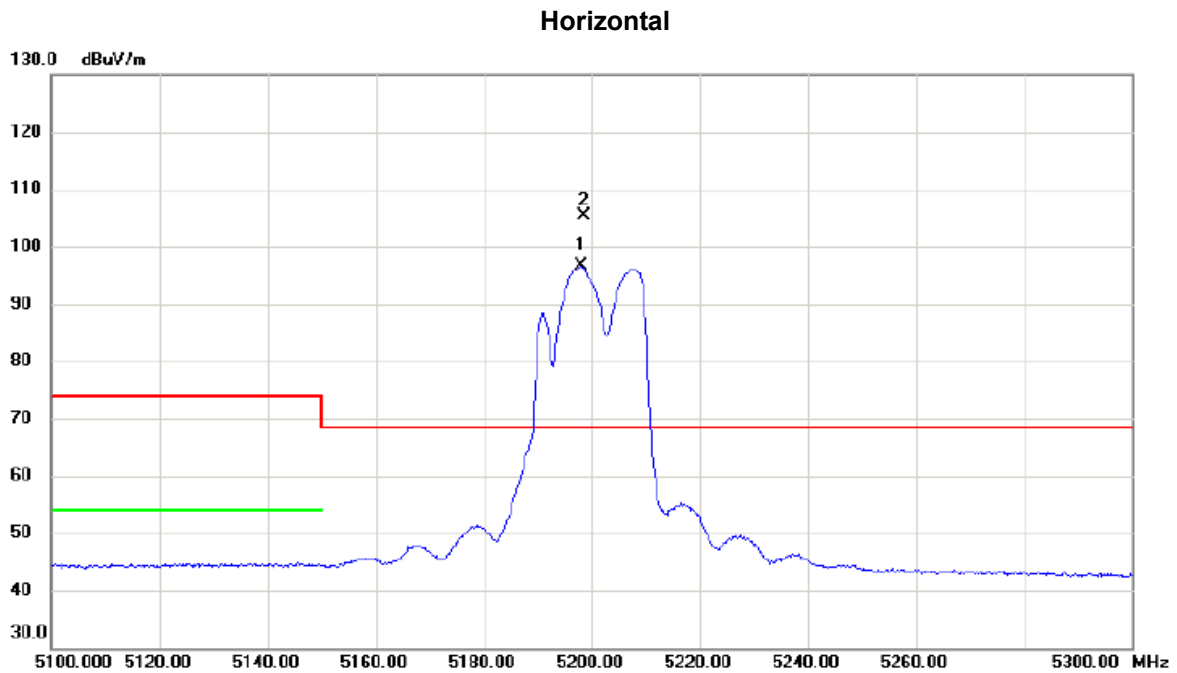


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10400.023	40.20	8.85	49.05	68.30	-19.25	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5200 MHz



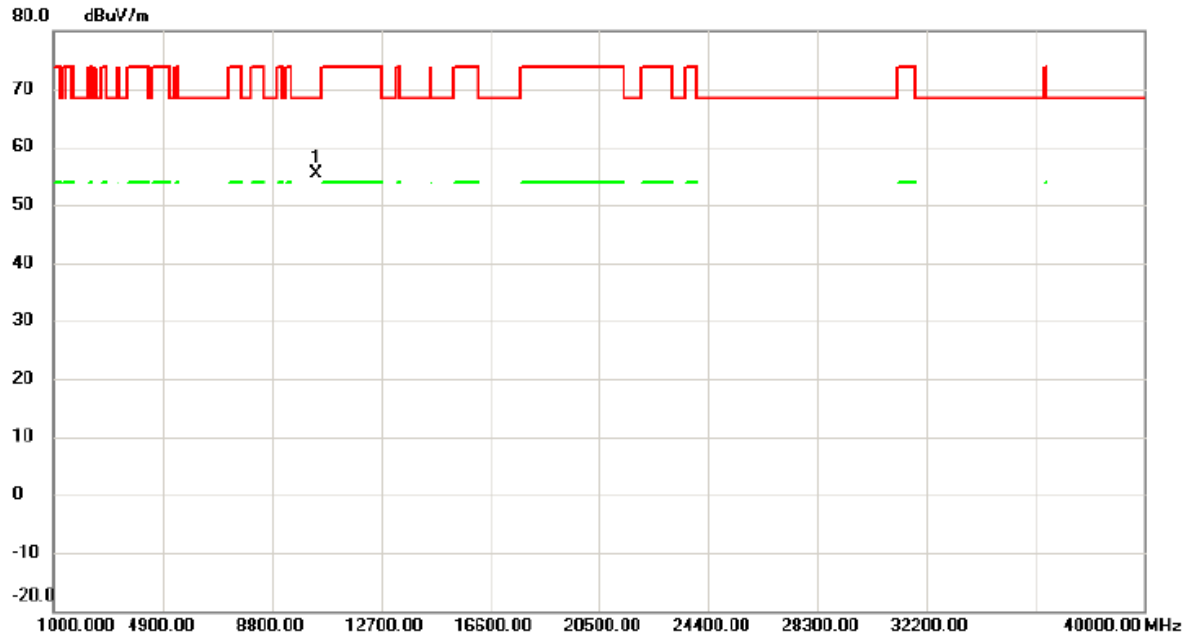
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5197.900	81.55	15.05	96.60	68.30	28.30	AVG	No Limit
2	*	5198.500	90.37	15.05	105.42	68.30	37.12	peak	No Limit

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5200 MHz

Horizontal

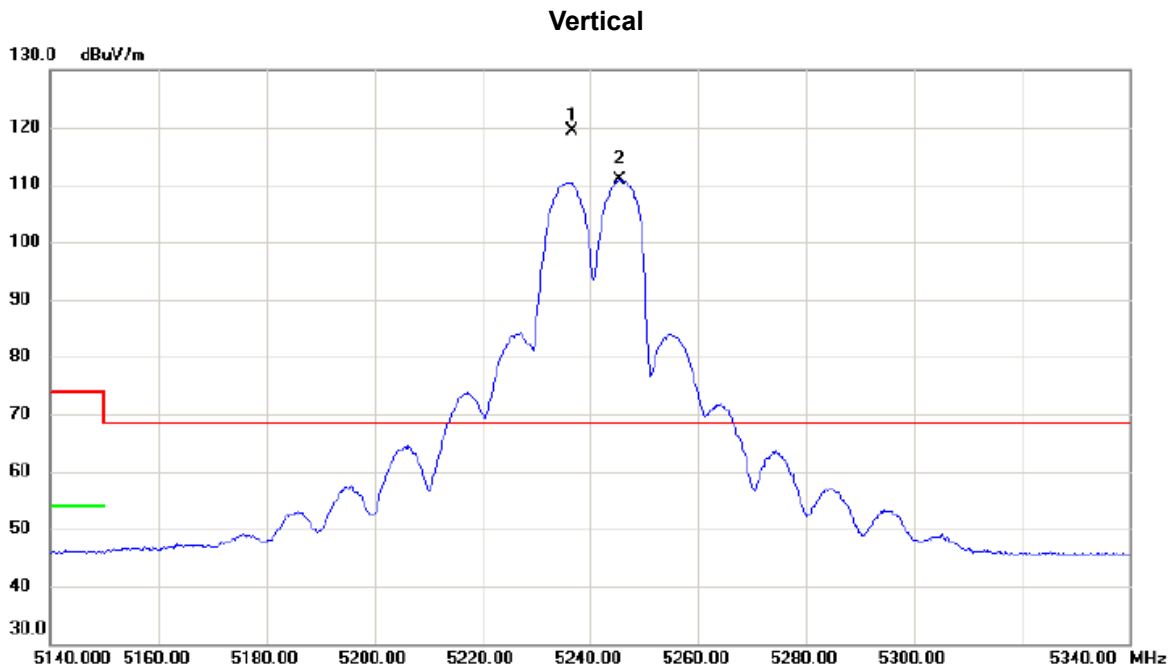


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10400.230	46.47	8.85	55.32	68.30	-12.98	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5240 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5236.700	104.34	15.08	119.42	68.30	51.12	peak	No Limit
2	X	5245.500	95.70	15.09	110.79	68.30	42.49	AVG	No Limit

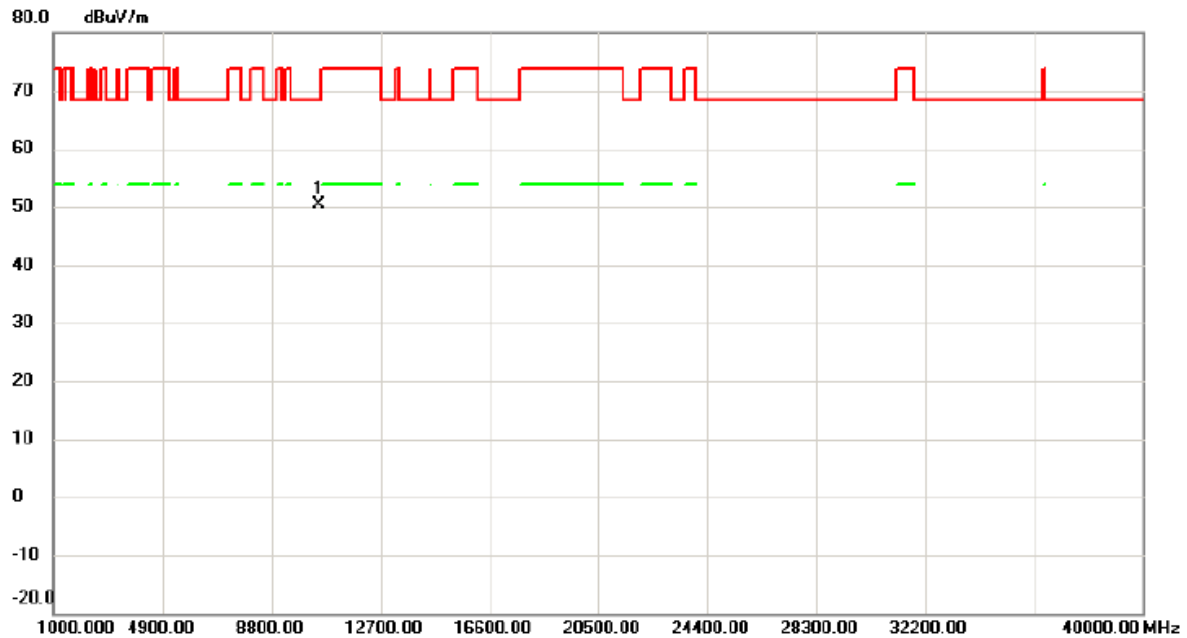
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5240 MHz

Vertical

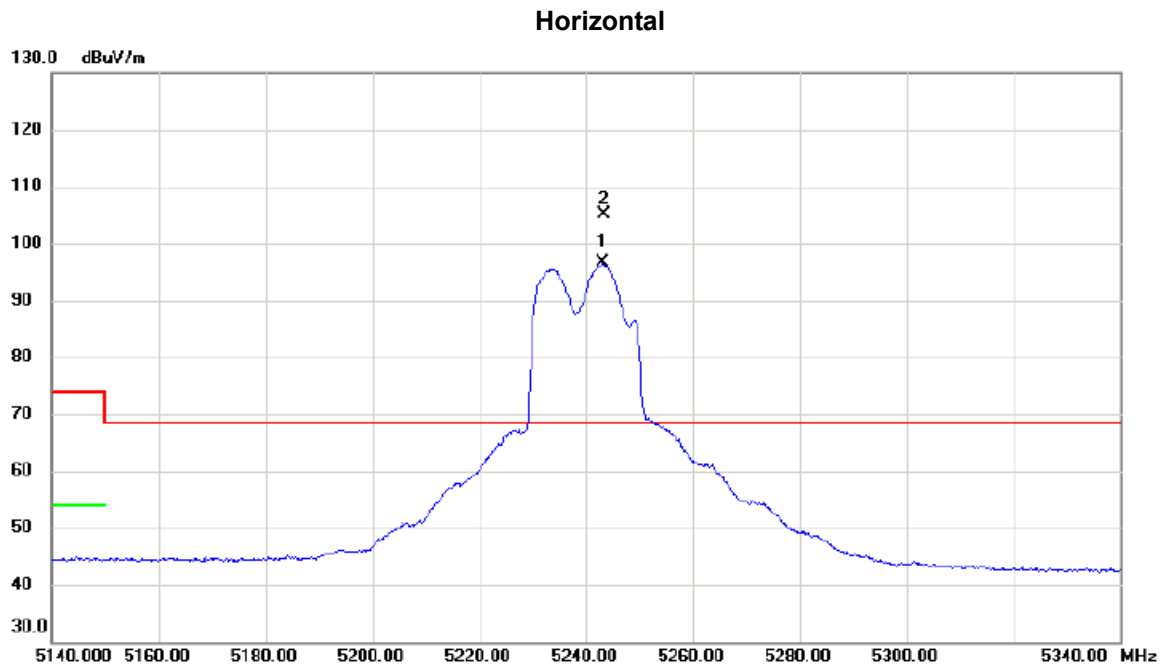


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10479.896	41.46	9.01	50.47	68.30	-17.83	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5240 MHz



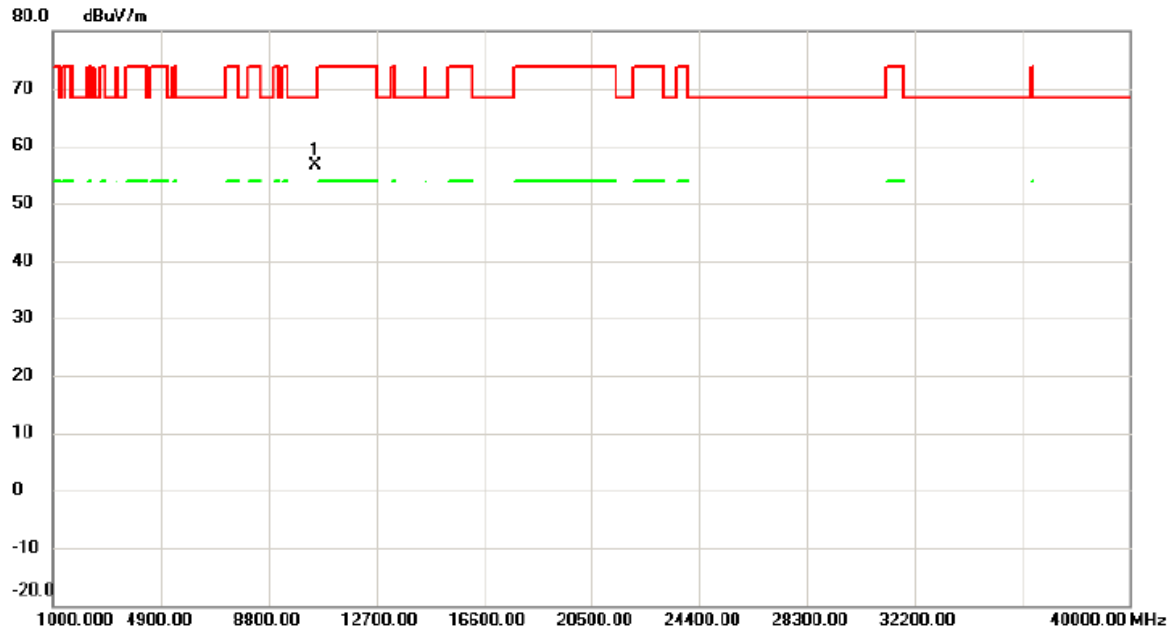
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5243.200	81.43	15.08	96.51	68.30	28.21	AVG	No Limit
2	*	5243.400	90.09	15.08	105.17	68.30	36.87	peak	No Limit

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW20) Mode 5240 MHz

Horizontal

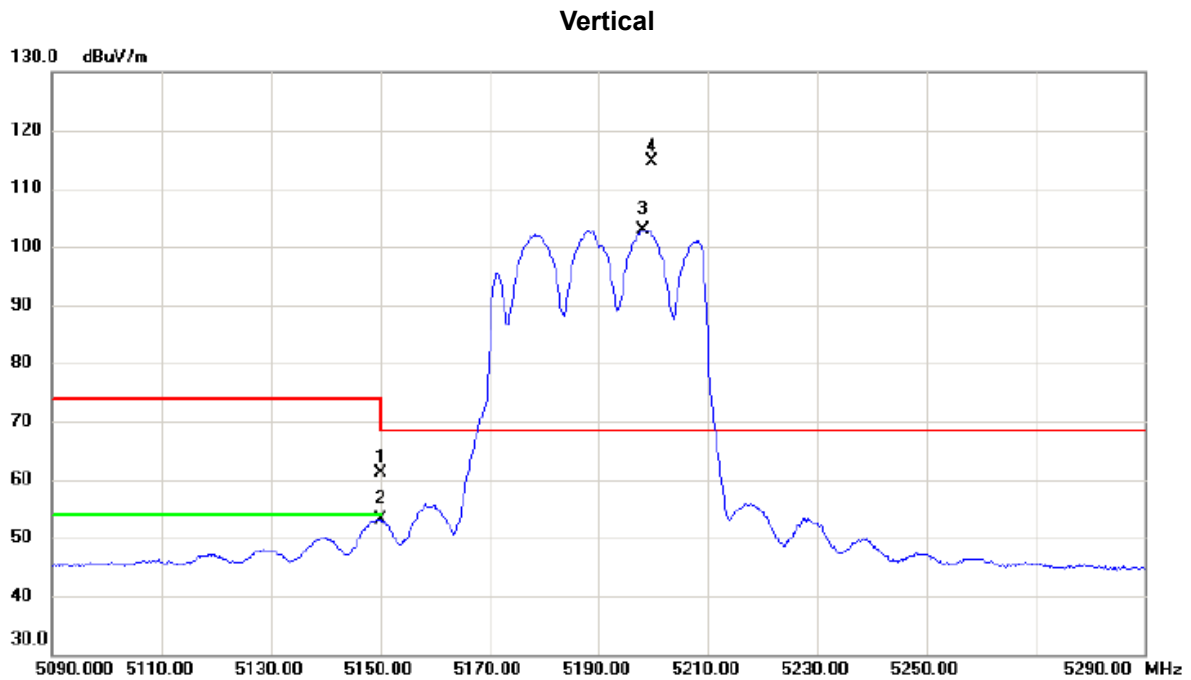


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector Comment
1	*	10479.935	47.65	9.01	56.66	68.30	-11.64	peak

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5190 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	46.08	15.02	61.10	74.00	-12.90	peak	
2		5150.000	38.09	15.02	53.11	54.00	-0.89	AVG	
3	X	5198.000	87.92	15.05	102.97	68.30	34.67	AVG	No Limit
4	*	5199.700	99.46	15.05	114.51	68.30	46.21	peak	No Limit

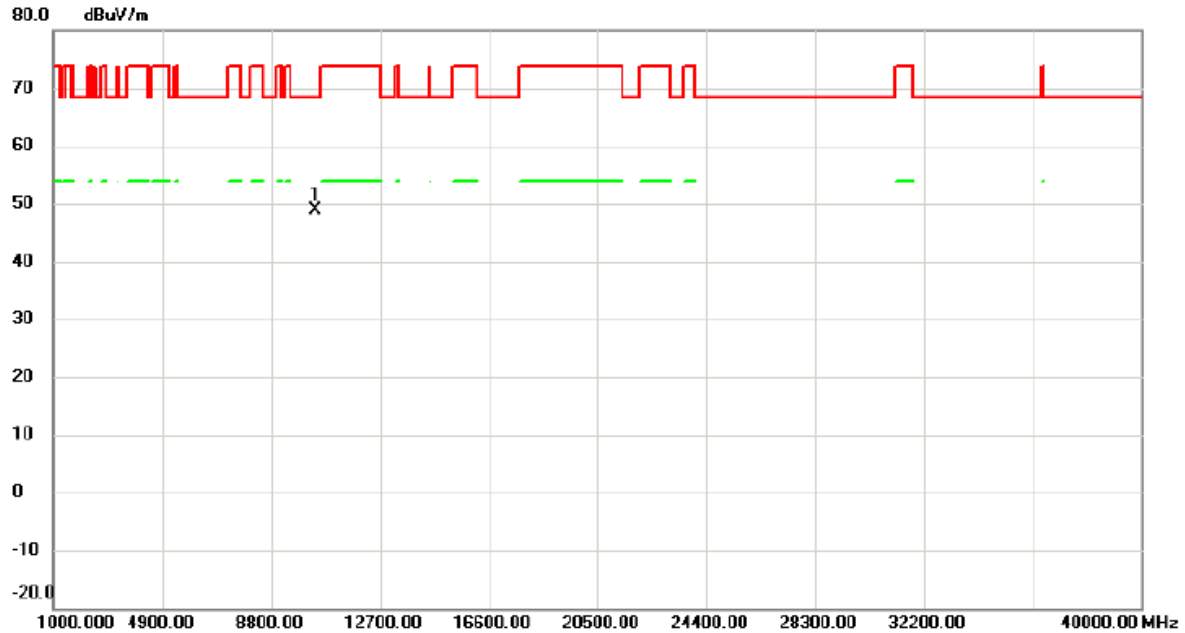
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5190 MHz

Vertical



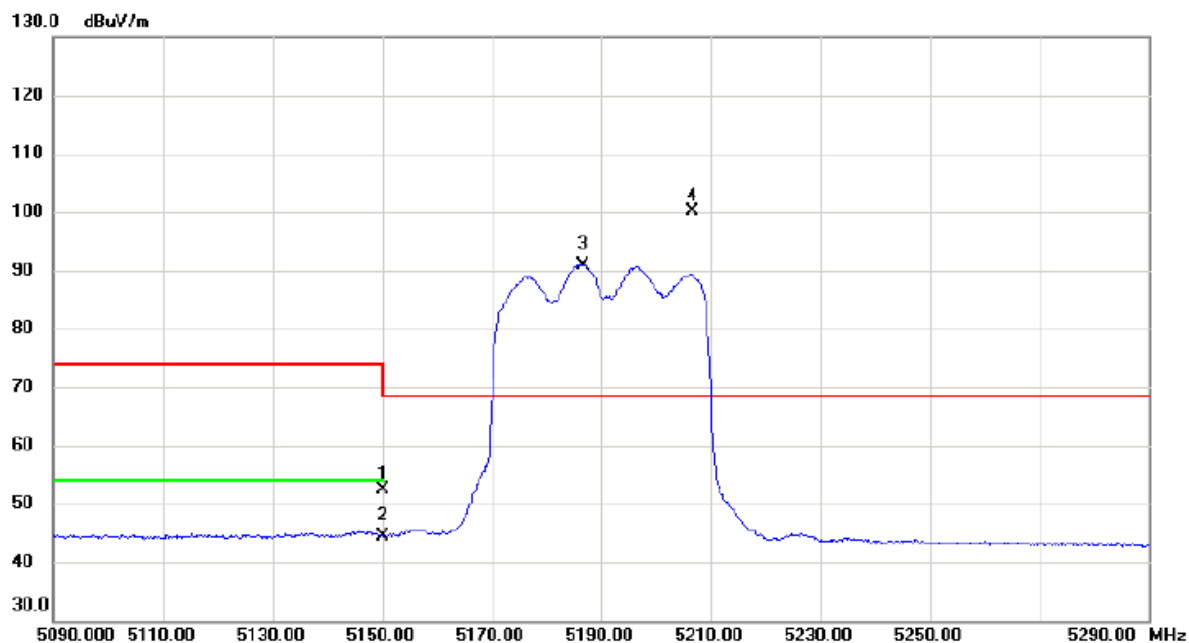
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10379.984	40.10	8.80	48.90	68.30	-19.40	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5190 MHz

Horizontal



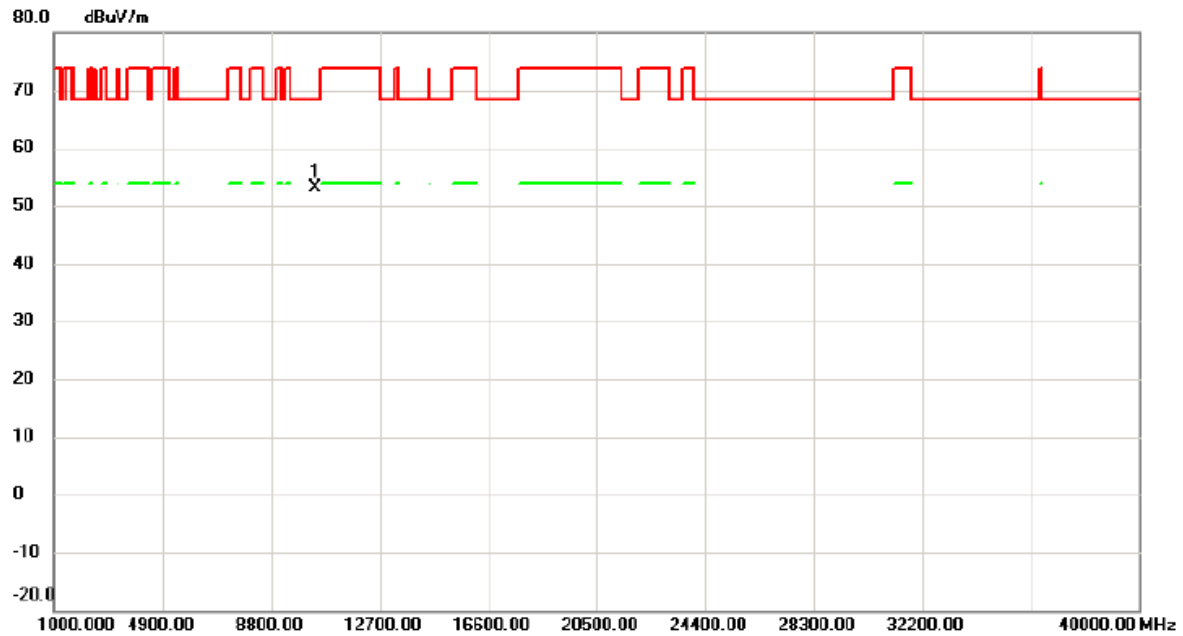
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	37.37	15.02	52.39	74.00	-21.61	peak	
2		5150.000	29.33	15.02	44.35	54.00	-9.65	AVG	
3	X	5186.600	75.94	15.04	90.98	68.30	22.68	AVG	No Limit
4	*	5206.700	85.12	15.05	100.17	68.30	31.87	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 AX (HEW40) Mode 5190 MHz

Horizontal



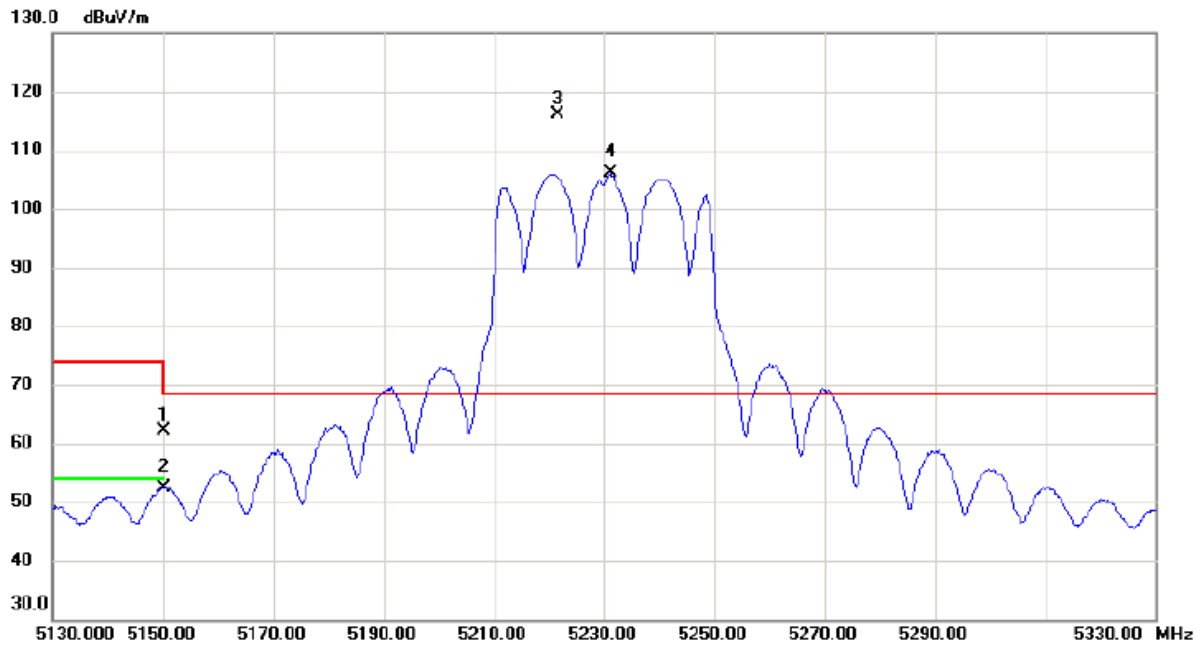
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10379.939	44.37	8.80	53.17	68.30	-15.13	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5230 MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	47.09	15.02	62.11	74.00	-11.89	peak	
2		5150.000	37.31	15.02	52.33	54.00	-1.67	AVG	
3	*	5221.600	101.02	15.06	116.08	68.30	47.78	peak	No Limit
4	X	5231.100	91.00	15.07	106.07	68.30	37.77	AVG	No Limit

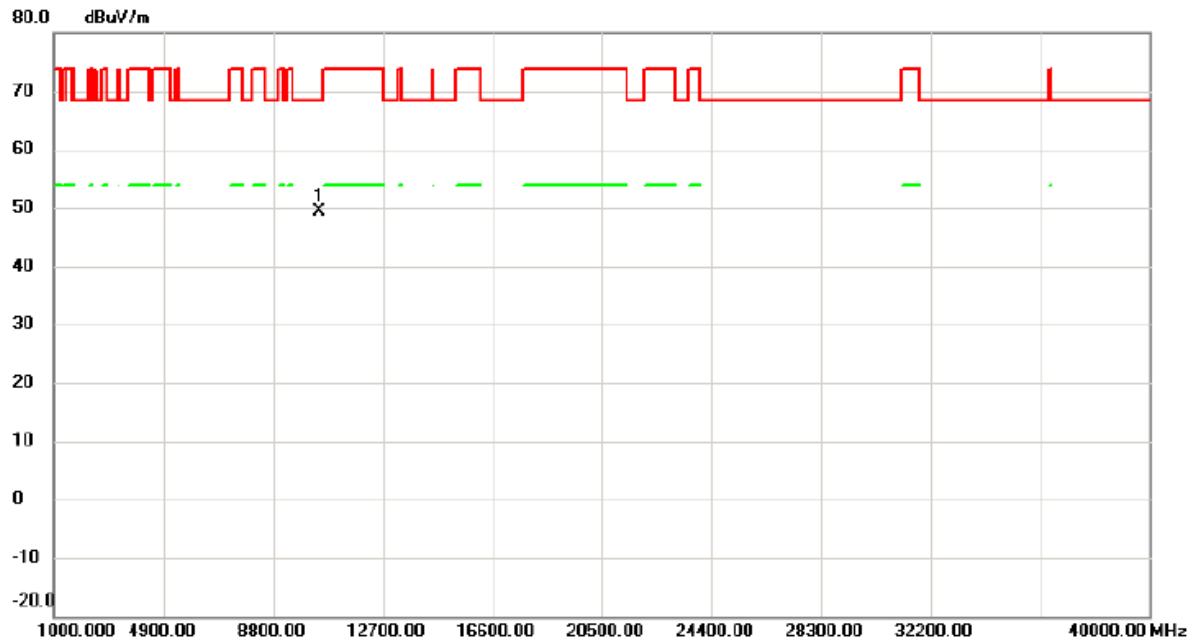
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5230 MHz

Vertical

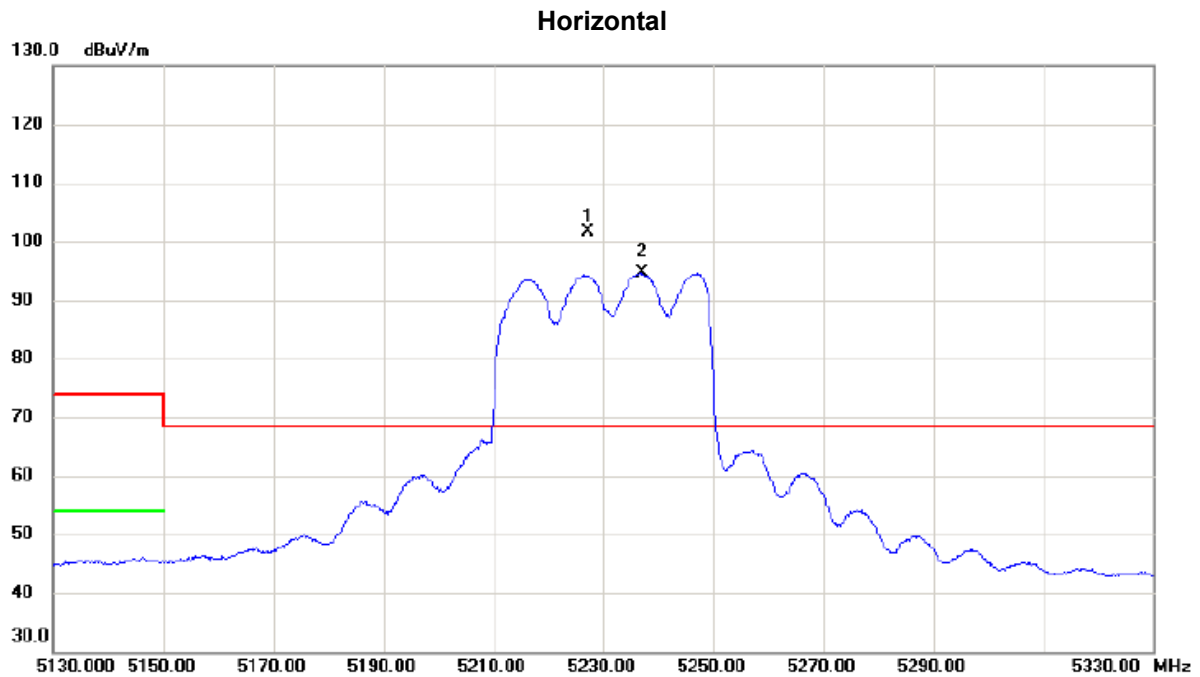


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10460.031	40.49	8.98	49.47	68.30	-18.83	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5230 MHz



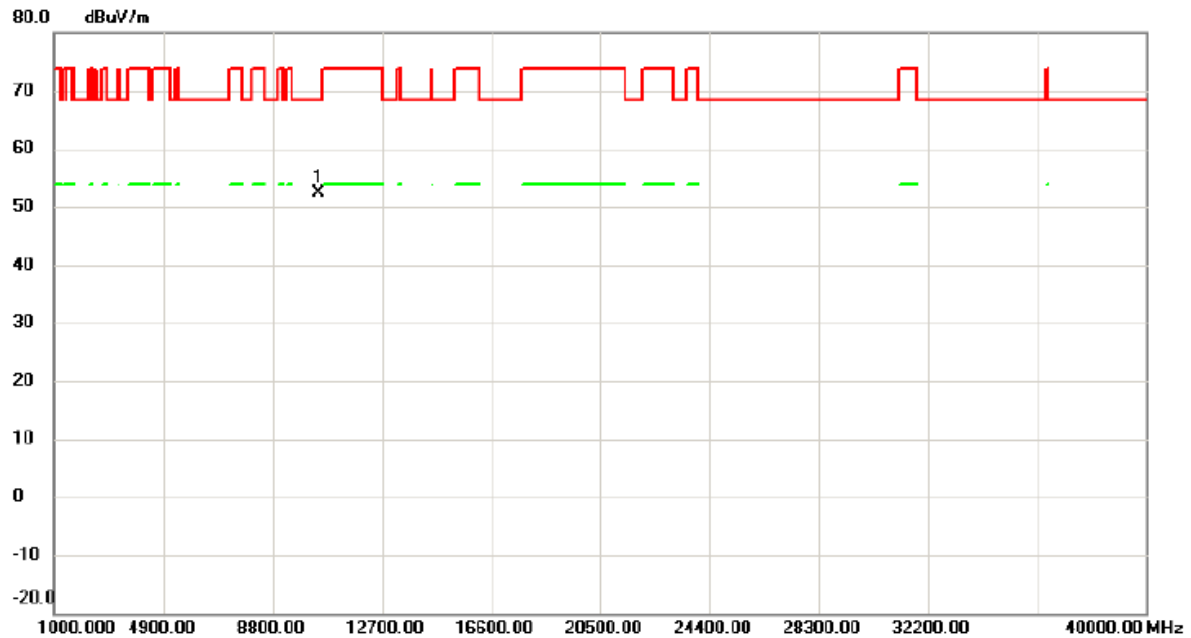
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	5227.100	86.67	15.08	101.75	68.30	33.45	peak	No Limit
2	X	5237.000	79.57	15.08	94.65	68.30	26.35	AVG	No Limit

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW40) Mode 5230 MHz

Horizontal



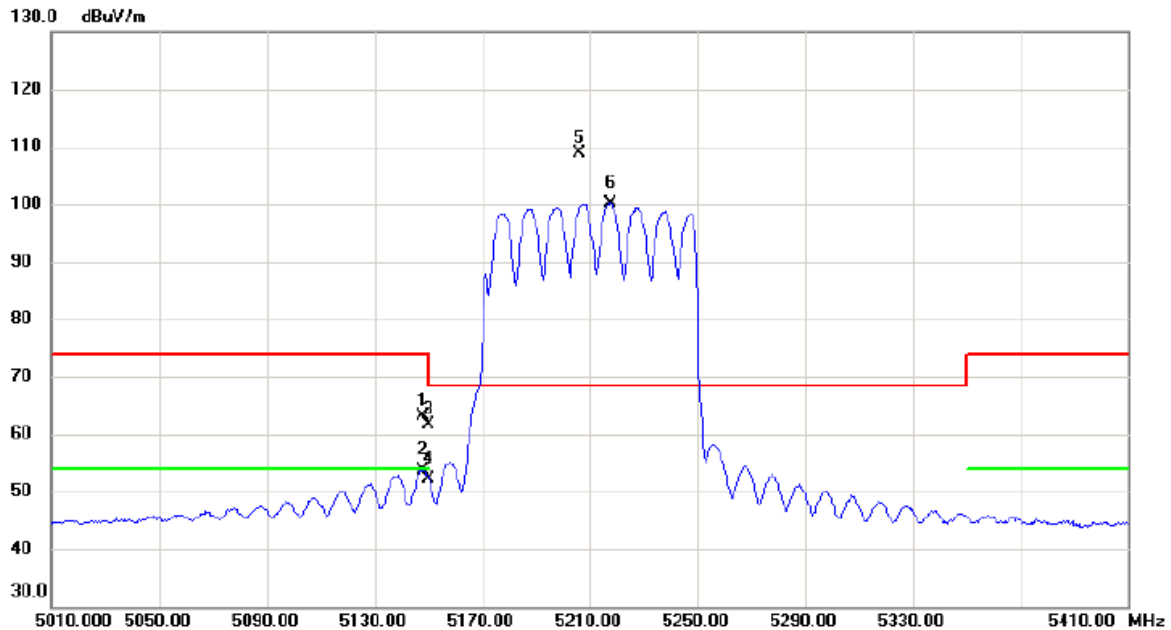
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10459.847	43.28	8.98	52.26	68.30	-16.04	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW80) Mode 5210 MHz

Vertical



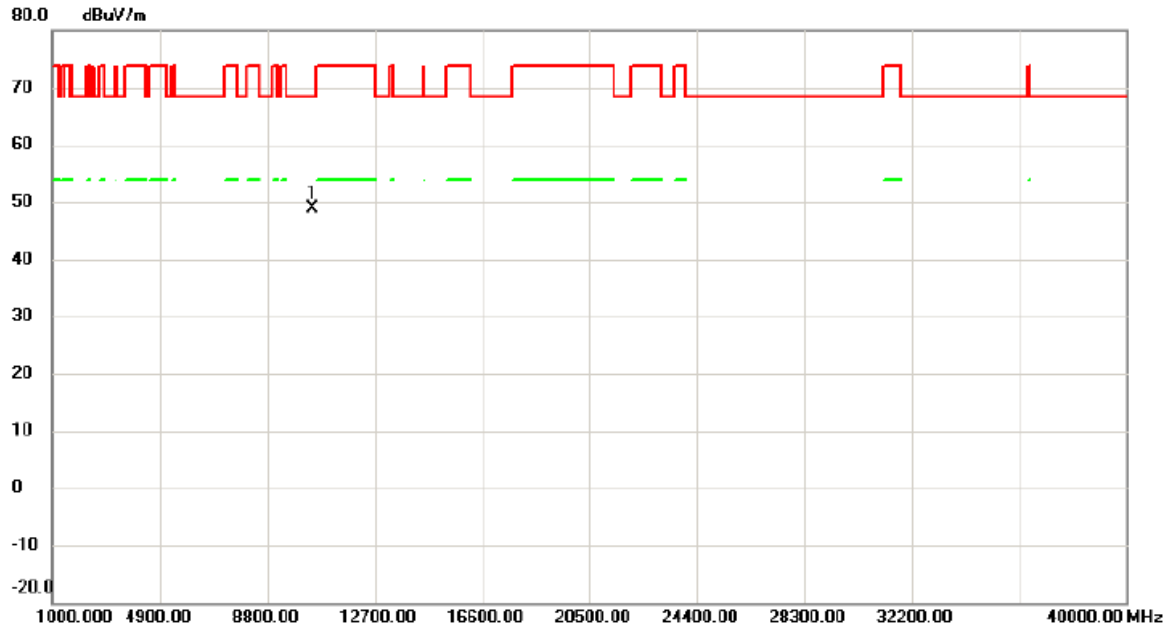
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5148.000	48.09	15.02	63.11	74.00	-10.89	peak	
2		5148.000	38.69	15.02	53.71	54.00	-0.29	AVG	
3		5150.000	46.66	15.02	61.68	74.00	-12.32	peak	
4		5150.000	37.18	15.02	52.20	54.00	-1.80	AVG	
5	*	5205.800	93.82	15.05	108.87	68.30	40.57	peak	No Limit
6	X	5217.800	85.01	15.06	100.07	68.30	31.77	AVG	No Limit

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW80) Mode 5210 MHz

Vertical

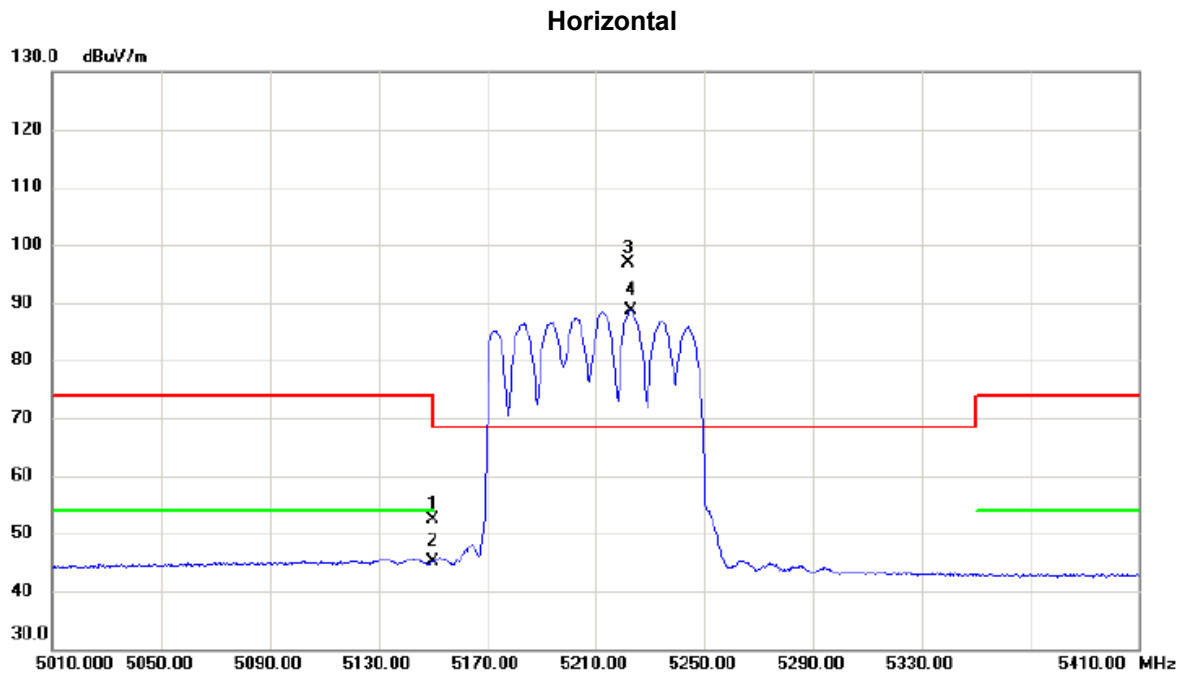


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10419.954	39.98	8.90	48.88	68.30	-19.42	peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-1_TX AX (HEW80) Mode 5210 MHz



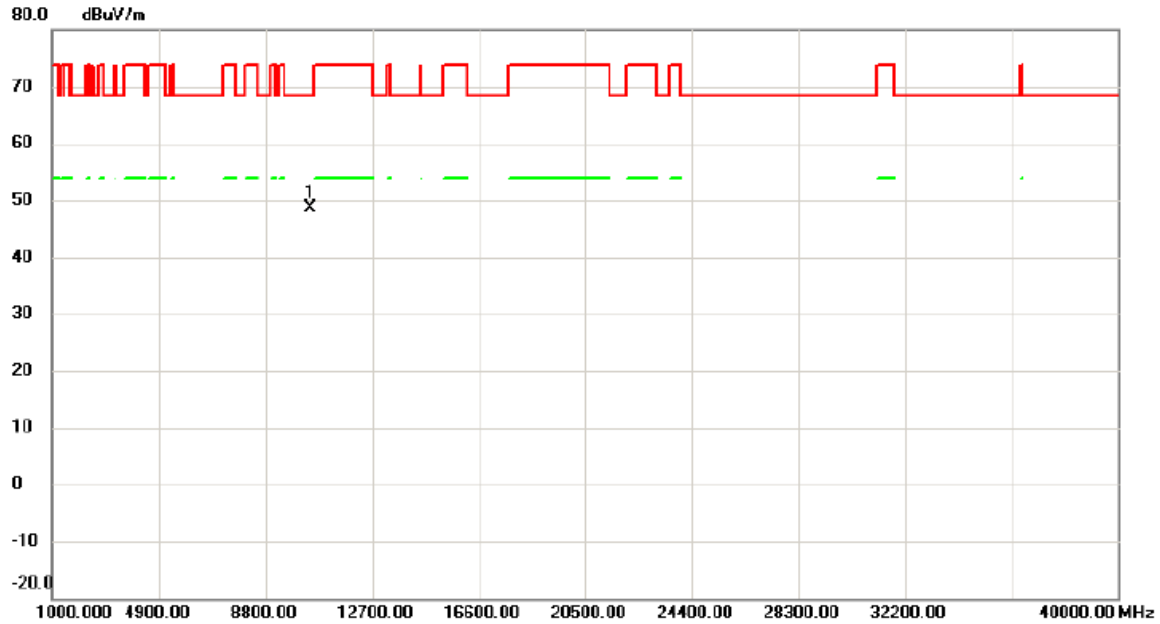
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	37.39	15.02	52.41	74.00	-21.59	peak	
2		5150.000	30.09	15.02	45.11	54.00	-8.89	AVG	
3	*	5222.000	81.72	15.06	96.78	68.30	28.48	peak	No Limit
4	X	5223.000	73.63	15.06	88.69	68.30	20.39	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 AX (HEW80) Mode 5210 MHz

Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10419.736	39.76	8.90	48.66	68.30	-19.64	peak	

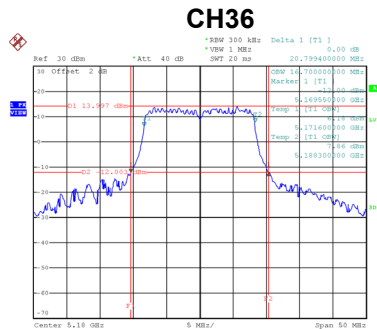
REMARKS:

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

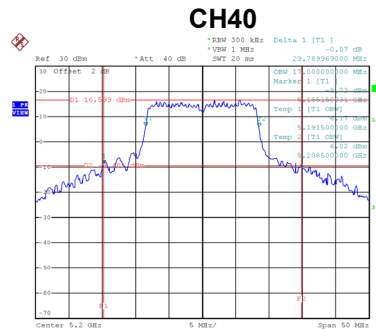
APPENDIX E - BANDWIDTH

Test Mode	UNII-1_TX A Mode
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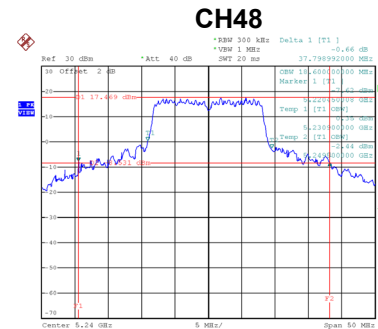
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	20.80	16.70
40	5200	29.79	17.00
48	5240	37.80	18.60



Date: 31.OCT.2019 16:46:11



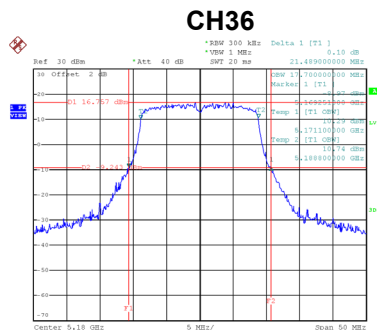
Date: 31.OCT.2019 16:47:13



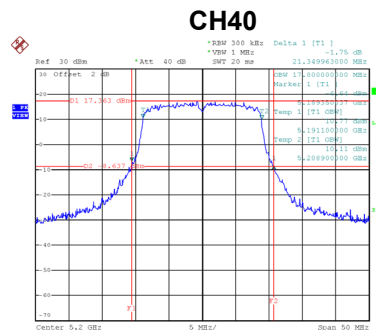
Date: 31.OCT.2019 16:49:12

Test Mode	UNII-1_TX N (HT20) Mode
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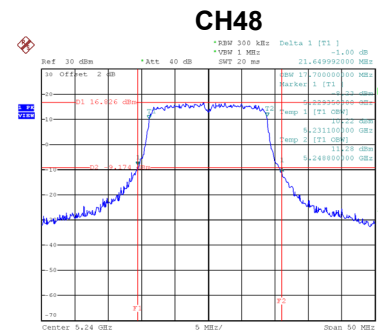
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	21.49	17.70
40	5200	21.35	17.80
48	5240	21.65	17.70



Date: 31.OCT.2019 16:50:12



Date: 31.OCT.2019 16:51:13

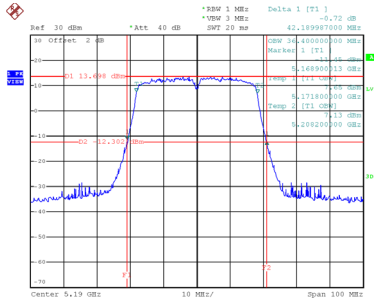


Date: 31.OCT.2019 16:52:10

Test Mode	UNII-1_TX N (HT40) Mode
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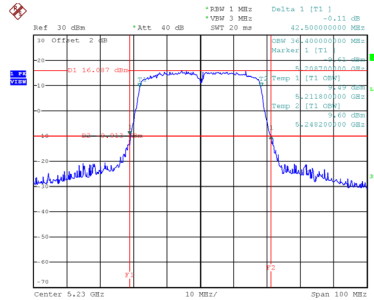
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
38	5190	42.19	36.40
46	5230	42.50	36.40

CH38



Date: 31.OCT.2019 18:43:47

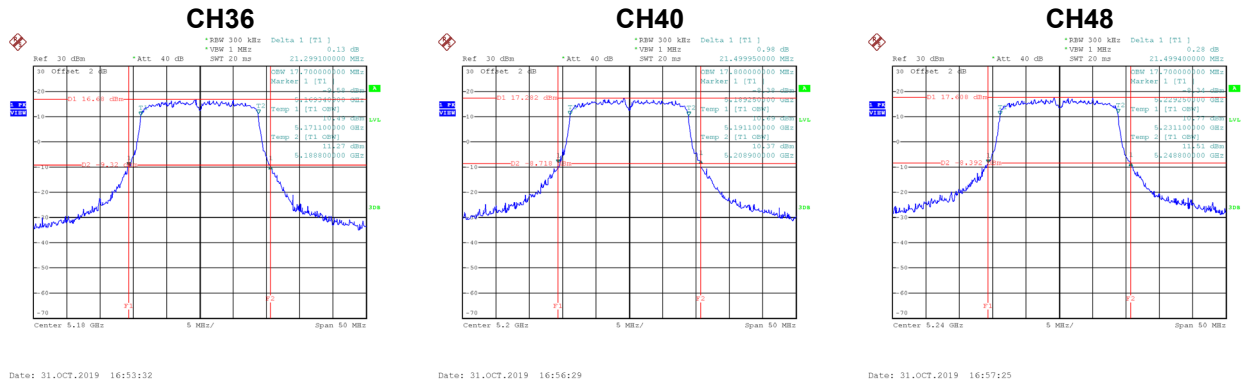
CH46



Date: 31.OCT.2019 18:44:33

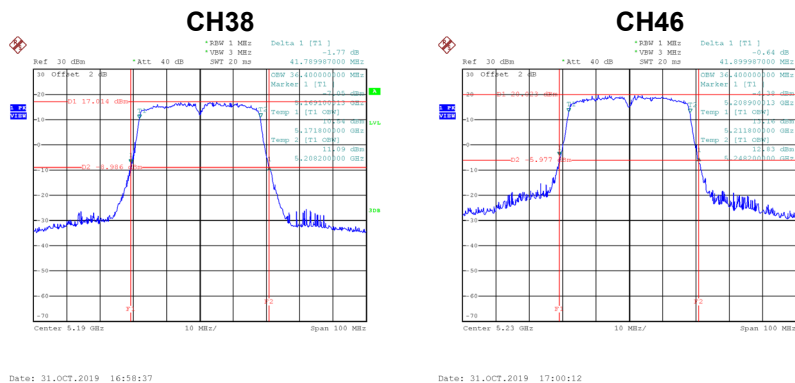
Test Mode	UNII-1_TX AC (VHT20) Mode
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Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	21.30	17.70
40	5200	21.50	17.80
48	5240	21.50	17.70



Test Mode	UNII-1_TX AC (VHT40) Mode
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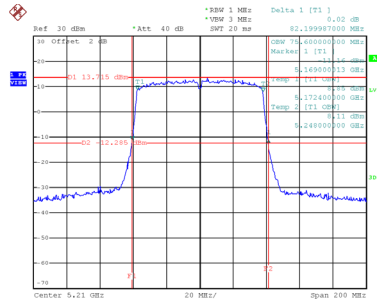
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
38	5190	41.79	36.40
46	5230	41.90	36.40



Test Mode	UNII-1_TX AC (VHT80) Mode
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Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
42	5210	82.20	75.60

CH42



Date: 31.OCT.2019 17:01:21

APPENDIX F - CONDUCTED OUTPUT POWER

Test Mode	UNII-1_TX A Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	19.91	0.23	20.14	30.00	1.00	Complies
40	5200	21.98	0.23	22.21	30.00	1.00	Complies
48	5240	23.69	0.23	23.92	30.00	1.00	Complies

Test Mode	UNII-1_TX A Mode_Ant. 2
-----------	-------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	20.48	0.23	20.71	30.00	1.00	Complies
40	5200	22.49	0.23	22.72	30.00	1.00	Complies
48	5240	24.05	0.23	24.28	30.00	1.00	Complies

Test Mode	UNII-1_TX A Mode_Total
-----------	------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	23.45	30.00	1.00	Complies
40	5200	25.49	30.00	1.00	Complies
48	5240	27.12	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Ant. 1
-----------	--------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.33	0.15	22.48	30.00	1.00	Complies
40	5200	22.92	0.15	23.07	30.00	1.00	Complies
48	5240	22.98	0.15	23.13	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Ant. 2
-----------	--------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.72	0.15	22.87	30.00	1.00	Complies
40	5200	23.51	0.15	23.66	30.00	1.00	Complies
48	5240	23.36	0.15	23.51	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Total
-----------	-------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	25.69	30.00	1.00	Complies
40	5200	26.39	30.00	1.00	Complies
48	5240	26.34	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT40) Mode_Ant. 1
-----------	--------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	20.58	0.23	20.81	30.00	1.00	Complies
46	5230	22.68	0.23	22.91	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT40) Mode_Ant. 2
-----------	--------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	20.82	0.23	21.05	30.00	1.00	Complies
46	5230	22.96	0.23	23.19	30.00	1.00	Complies

Test Mode	UNII-1_TX N (HT40) Mode_Total
-----------	-------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	23.95	30.00	1.00	Complies
46	5230	26.07	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT20) Mode_Ant. 1
-----------	----------------------------------

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.87	0.17	23.04	30.00	1.00	Complies
40	5200	24.36	0.17	24.53	30.00	1.00	Complies
48	5240	23.97	0.17	24.14	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT20) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	23.04	0.17	23.21	30.00	1.00	Complies
40	5200	24.77	0.17	24.94	30.00	1.00	Complies
48	5240	24.36	0.17	24.53	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT20) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	26.14	30.00	1.00	Complies
40	5200	27.75	30.00	1.00	Complies
48	5240	27.35	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT40) Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	19.92	0.22	20.14	30.00	1.00	Complies
46	5230	22.64	0.22	22.86	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT40) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	20.26	0.22	20.48	30.00	1.00	Complies
46	5230	23.03	0.22	23.25	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT40) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	23.32	30.00	1.00	Complies
46	5230	26.07	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	18.94	0.20	19.14	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	19.39	0.20	19.59	30.00	1.00	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	22.38	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW20) Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	21.39	0.18	21.57	30.00	1.00	Complies
40	5200	23.69	0.18	23.87	30.00	1.00	Complies
48	5240	23.87	0.18	24.05	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW20) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	21.41	0.18	21.59	30.00	1.00	Complies
40	5200	23.98	0.18	24.16	30.00	1.00	Complies
48	5240	24.33	0.18	24.51	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW20) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	24.60	30.00	1.00	Complies
40	5200	27.03	30.00	1.00	Complies
48	5240	27.30	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW40) Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	19.74	0.19	19.93	30.00	1.00	Complies
46	5230	22.59	0.19	22.78	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW40) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	19.96	0.19	20.15	30.00	1.00	Complies
46	5230	22.98	0.19	23.17	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW40) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	23.05	30.00	1.00	Complies
46	5230	25.99	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW80) Mode_Ant. 1
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	19.07	0.17	19.24	30.00	1.00	Complies

Test Mode	UNII-1_TX AX (HEW80) Mode_Ant. 2
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Duty Factor	Conducted Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	19.63	0.17	19.80	30.00	1.00	Complies

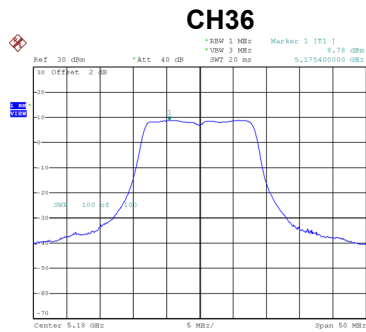
Test Mode	UNII-1_TX AX (HEW80) Mode_Total
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Channel	Frequency (MHz)	Conducted Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	22.54	30.00	1.00	Complies

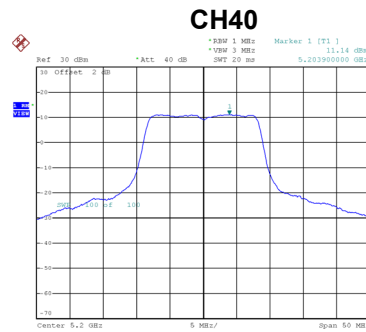
APPENDIX G - POWER SPECTRAL DENSITY

Test Mode	UNII-1_TX A Mode_Ant. 1
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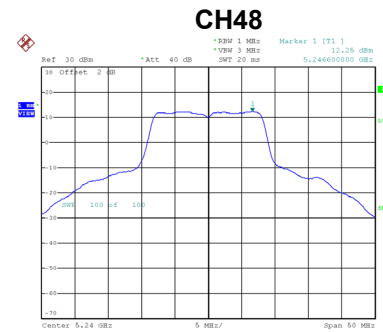
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180	8.78	0.23	9.01	17.00	Complies
40	5200	11.14	0.23	11.37	17.00	Complies
48	5240	12.25	0.23	12.48	17.00	Complies



Date: 31.OCT.2019 17:13:22



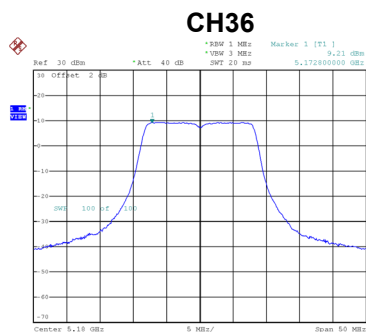
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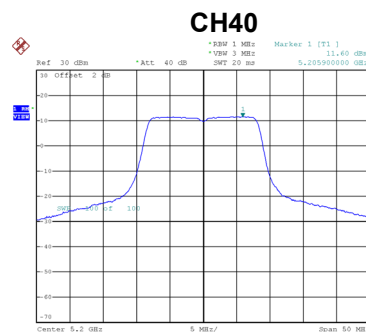
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Test Mode	UNII-1_TX A Mode_Ant. 2
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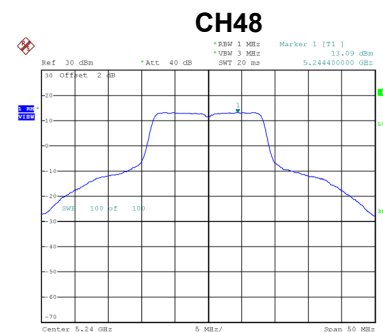
Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Duty Factor	Power Spectral Density + Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180	9.21	0.23	9.44	17.00	Complies
40	5200	11.60	0.23	11.83	17.00	Complies
48	5240	13.09	0.23	13.32	17.00	Complies



Date: 31.OCT.2019 17:41:29



Date: 31.OCT.2019 17:42:12



Date: 31.OCT.2019 18:49:26

Test Mode	UNII-1_TX A Mode_Total
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Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180	12.24	17.00	Complies
40	5200	14.62	17.00	Complies
48	5240	15.93	17.00	Complies