FCC Radio Test Report

FCC ID: 2AXJ4EAP225V4

This report concerns: Original Grant

Project No.	:	2108C221A
Equipment	:	AC1350 Wireless Dual Band Gigabit Ceiling Mount Access Point
Brand Name	:	tp-link
Test Model	:	EAP225
Series Model	:	N/A
Applicant	:	TP-Link Corporation Limited
Address	:	Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer	:	TP-Link Corporation Limited
Address	:	Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hong Kong
Date of Receipt	:	Jan. 04, 2022
Date of Test	:	Jan. 05, 2022 ~ Feb. 23, 2022
Issued Date	:	Mar. 16, 2022
Report Version	:	R01
Test Sample	:	Engineering Sample No.: DG2022010453 for conducted, DG2022010454 for radiated
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart E FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01 ANSI C63.10-2013

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

Prepared by : Antony Liang

Approved by : Chay Cai

TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China

Tel: +86-769-8318-3000

Web: www.newbtl.com

Declaration

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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.	Mar. 08, 2022
R01	Revised the product name.	Mar. 16, 2022

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart E				
Standard(s) Section	**Test Item**	**Test Result**	**Judgment**	**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)	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 (2)**
15.407(c)	Automatically Discontinue Transmission	------	PASS	**NOTE (3)**

Note:
(1) "N/A" denotes test is not applicable in this test report.
(2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
(3) 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.
(4) For UNII-1 this device was functioned as a
☐ Outdoor access point device
☒ Indoor access point device
☐ Fixed point-to-point access points 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 Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.
BTL's 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	U,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	30MHz ~ 200MHz	V	4.36
		30MHz ~ 200MHz	H	3.32
		200MHz ~ 1,000MHz	V	4.08
		200MHz ~ 1,000MHz	H	3.96

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	3.80
		6GHz ~ 18GHz	4.82

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (1m)	CISPR	18 ~ 26.5 GHz	3.62
		26.5 ~ 40 GHz	4.00

C. Other Measurement test:

Test Item	Uncertainty
Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Power Spectral Density	±0.86 dB
Frequency Stability	±0.16 dB
Temperature	±0.08 °C
Humidity	±1.5%

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	23°C	61%	AC 120V/60Hz	Rod Tang
Radiated Emissions-9kHz to 30MHz	19°C	49%	POE 24V	Torocat Yuan
Radiated Emissions-30MHz to 1000MHz	21°C	53%	POE 24V	Kwok Guo
Radiated Emissions-Above 1000 MHz	21°C	53%	POE 24V	Kwok Guo
Bandwidth	21°C	45%	POE 24V	Longdage Feng
Maximum Output Power	23.6°C - 24.6°C	47.5% - 57.5%	POE 24V	Longdage Feng
Power Spectral Density	21°C	45%	POE 24V	Longdage Feng
Frequency Stability	Normal & Extreme	45%	Normal & Extreme	Longdage Feng

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1350 Wireless Dual Band Gigabit Ceiling Mount Access Point
Brand Name	tp-link
Test Model	EAP225
Series Model	N/A
Model Difference(s)	N/A
HVIN	EAP225V4
Power Source	1# DC voltage supplied from PoE adapter. 2# Supplied from PoE switch.
Power Rating	1# Power: 24V ⎓ 0.5A Passive PoE 2# PoE: 36-57V ⎓ 0.36A 802.3af
Operation Frequency Band(s)	UNII-1: 5150 MHz ~ 5250 MHz UNII-3: 5725 MHz ~ 5850 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM
Bit Rate of Transmitter	IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps IEEE 802.11ac: up to 866.7 Mbps
Maximum Output Power _UNII-1 Non Beamforming	IEEE 802.11a: 22.41 dBm (0.1742 W)
Maximum Output Power _UNII-3 Non Beamforming	IEEE 802.11a: 22.55 dBm (0.1799 W)
Maximum Output Power _UNII-1 Beamforming	IEEE 802.11ac(VHT20): 21.61 dBm (0.1449 W)
Maximum Output Power _UNII-3 Beamforming	IEEE 802.11ac(VHT20): 21.71 dBm (0.1483 W)

Note:

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

2. Channel List:

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40)		IEEE 802.11ac(VHT80)	
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				

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40)		IEEE 802.11ac(VHT80)	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	tp-link	EAP225 4.0	PIFA	N/A	4.95
2	tp-link	EAP225 4.0	PIFA	N/A	4.87

Note:

1) This EUT supports CDD, and all antennas are not equal, Directional gain = G_{ANT}+Array Gain.
For power measurements, Array Gain=0dB ($N_{ANT} \leqslant 4$), so the Directional gain=4.95.
For power spectral density measurements, N_{ANT}=2, N_{SS} = 1.
So the Directional gain=G_{ANT}+Array Gain=G_{ANT}+10log(N_{ANT}/ N_{SS})dBi=4.95+10log(2/1)dBi=7.96.
Then, the UNII-1 power spectral density limit is 17-(7.96-6)=15.04, the UNII-3 power spectral density limit is 30-(7.96-6)=28.04.
2) Beamforming gain = 3 dB. Then, Directional gain=3+4.95=7.95.
Then, the Output Power limit is 30-(7.95-6)=28.05.
3) The antenna gain and beamforming gain are provided by the manufacturer.

4. Table for Antenna Configuration:

For Non Beamforming:

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)

For Beamforming:

Operating Mode / TX Mode	2TX
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)

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 Channel 36/40/48 (UNII-1)
Mode 2	TX N(HT20) Mode Channel 36/40/48 (UNII-1)
Mode 3	TX N(HT40) Mode Channel 38/46 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX A Mode Channel 149/157/165 (UNII-3)
Mode 8	TX N(HT20) Mode Channel 149/157/165 (UNII-3)
Mode 9	TX N(HT40) Mode Channel 151/159 (UNII-3)
Mode 10	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 11	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 12	TX AC(VHT80) Mode Channel 155 (UNII-3)
Mode 13	TX A Mode Channel 165 (UNII-3)

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

AC power line conducted emissions test_ Non Beamforming	
Final Test Mode	Description
Mode 13	TX A Mode Channel 165 (UNII-3)

Radiated Emissions Test - Below 1GHz_ Non Beamforming	
Final Test Mode	Description
Mode 13	TX A Mode Channel 165 (UNII-3)

Radiated Emissions Test - Above 1GHz_ Non Beamforming	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX A Mode Channel 149/157/165 (UNII-3)
Mode 10	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 11	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 12	TX AC(VHT80) Mode Channel 155 (UNII-3)

Maximum Output Power Test_ Non Beamforming	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX A Mode Channel 149/157/165 (UNII-3)
Mode 10	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 11	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 12	TX AC(VHT80) Mode Channel 155 (UNII-3)

Maximum Output Power Test_ Beamforming	
Final Test Mode	Description
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 10	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 11	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 12	TX AC(VHT80) Mode Channel 155 (UNII-3)

Other Conducted Test_ Non Beamforming	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX AC(VHT40) Mode Channel 38/46 (UNII-1)
Mode 6	TX AC(VHT80) Mode Channel 42 (UNII-1)
Mode 7	TX A Mode Channel 149/157/165 (UNII-3)
Mode 10	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 11	TX AC(VHT40) Mode Channel 151/159 (UNII-3)
Mode 12	TX AC(VHT80) Mode Channel 155 (UNII-3)

Note:
(1) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX A Mode Channel 165 (UNII-3) is found to be the worst case and recorded.
(2) For radiated emission above 1 GHz test, the spurious points of 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.
(4) VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
(5) The measurements for Output Power are tested, the Non Beamforming and Beamforming are recorded in the report. The worst case is Non Beamforming and only the worst case is documented for other test items.
(6) For radiated emission test, every axis (X, Y, Z) are verified. The test results shown in the following sections represent the worst case emissions.

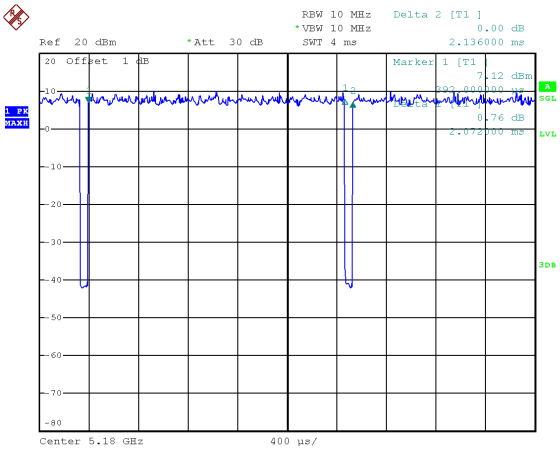
2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	QCARCT v 3.0-00233

2.4 DUTY CYCLE

If duty cycle is ≥ 98 %, duty factor is not required.
If duty cycle is < 98 %, duty factor shall be considered.
The output power = measured power + duty factor.
The power spectral density = measured power spectral density + duty factor.

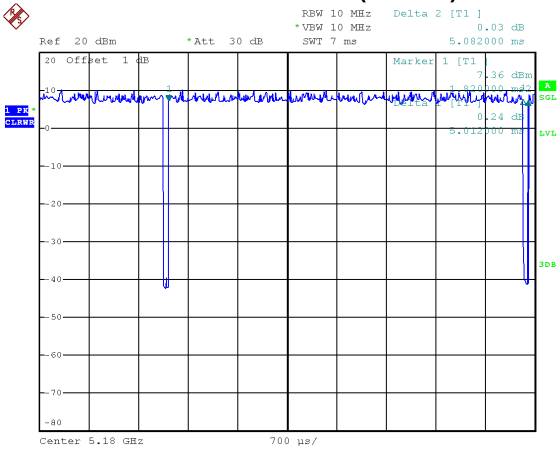
IEEE 802.11a



Date: 18.JAN.2022 16:32:04

Duty cycle = 2.072 ms / 2.136 ms = 97.00%
Duty Factor = 10 log(1 / Duty cycle) = 0.13

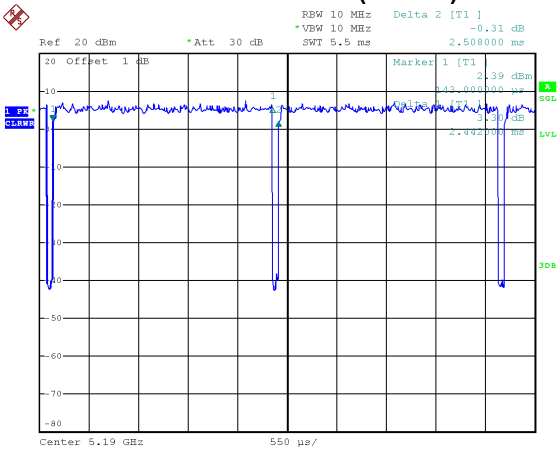
IEEE 802.11ac(VHT20)



Date: 18.JAN.2022 16:36:56

Duty cycle = 5.012 ms / 5.082 ms = 98.62%
Duty Factor = 10 log(1 / Duty cycle) = 0.00

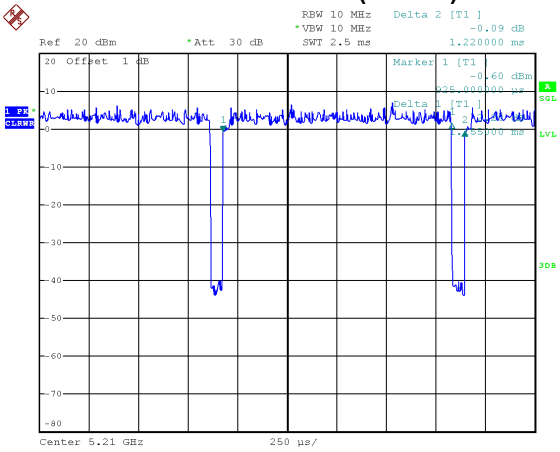
IEEE 802.11ac(VHT40)



Date: 18.JAN.2022 16:37:47

Duty cycle = 2.442 ms / 2.508 ms = 97.37%
Duty Factor = 10 log(1 / Duty cycle) = 0.12

IEEE 802.11ac(VHT80)



Date: 18.JAN.2022 16:38:17

Duty cycle = 1.155 ms / 1.220 ms = 94.67%
Duty Factor = 10 log(1 / Duty cycle) = 0.24

NOTE:
For IEEE 802.11a:
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 483 Hz (Duty cycle < 98%).

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

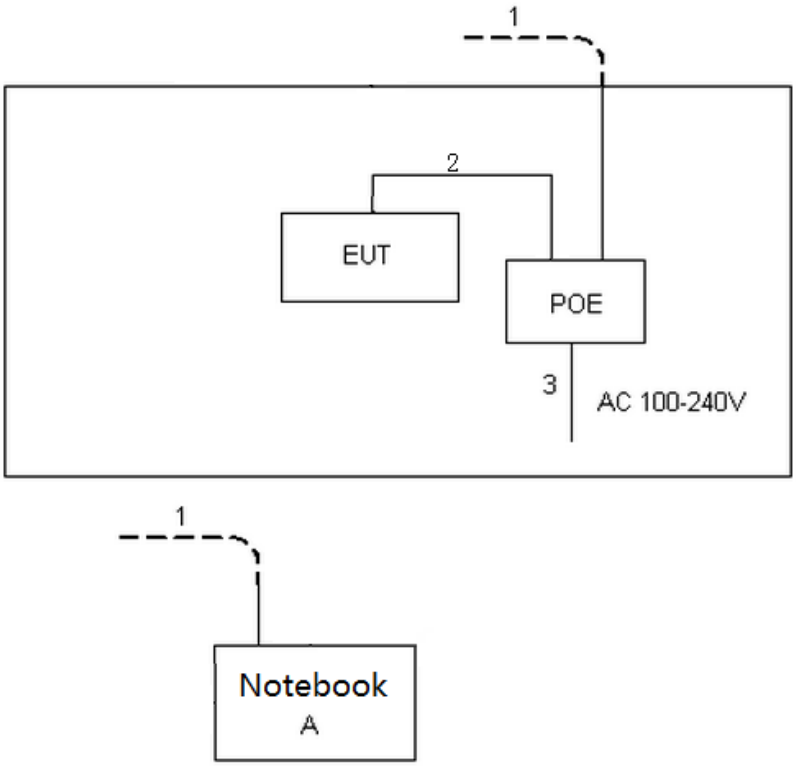
For IEEE 802.11n(HT40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).

For IEEE 802.11ac(VHT20):
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 802.11ac(VHT40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 410 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT80):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 866 Hz (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	RJ45 Cable	NO	NO	10m
2	RJ45 Cable	NO	NO	1m
3	AC Cable	NO	NO	0.4m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 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.

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.

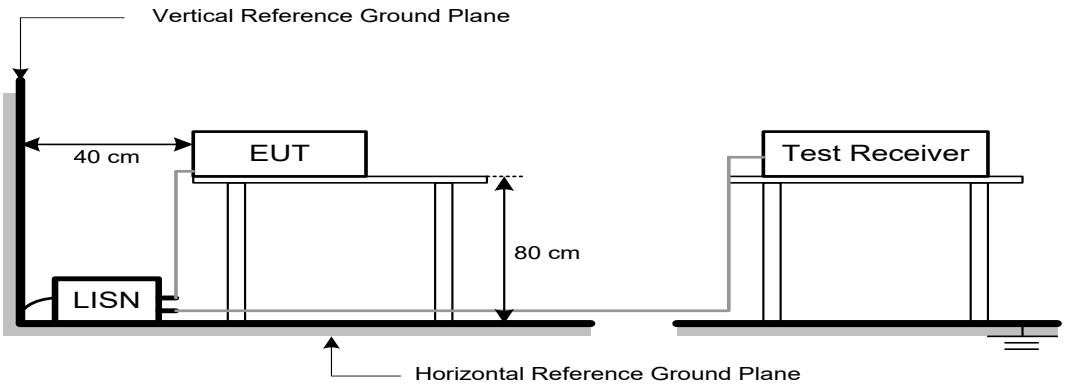
The following table is the setting of the receiver:

Receiver Parameter	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

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

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 (Above 1000 MHz)

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.2
5725-5850 **NOTE (2)**	-27	68.2
	10	105.2
	15.6	110.8
	27	122.2

NOTE:

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

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

(2) According to 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.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic or 40 GHz, whichever is lower
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

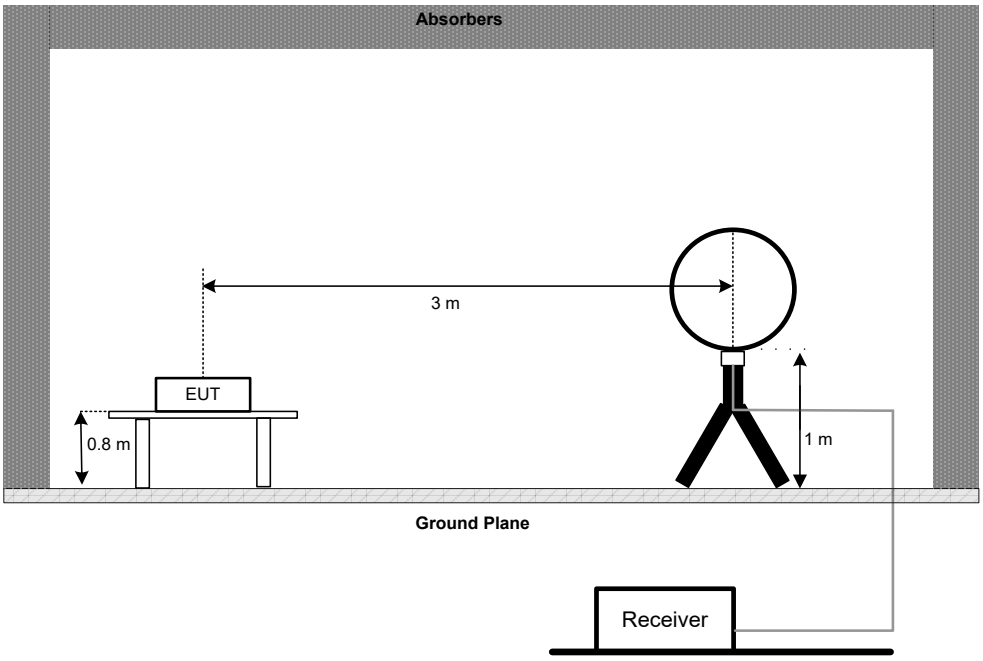
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~40 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

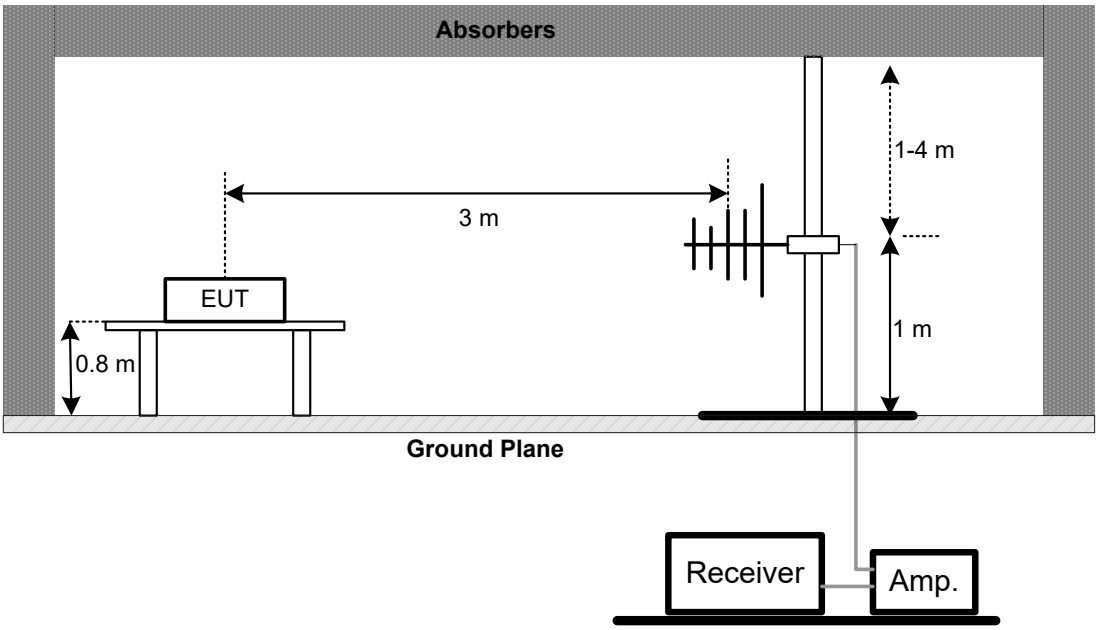
No deviation.

4.4 TEST SETUP

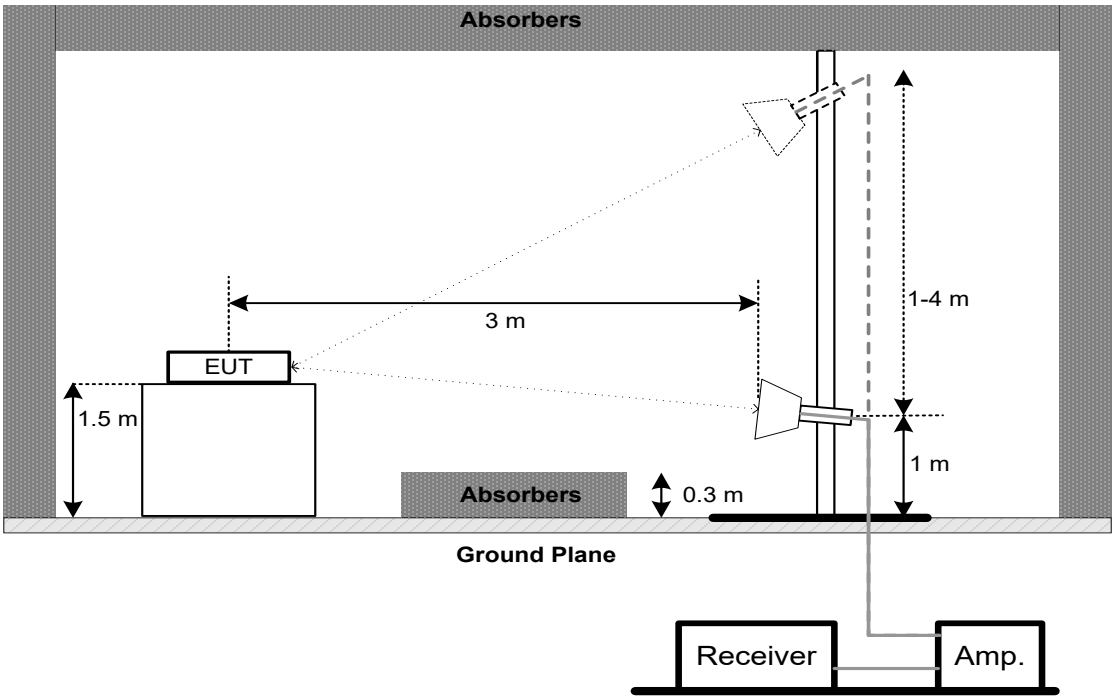
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 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 (specific distance / 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

5.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	26 dB Bandwidth	-	5150-5250
FCC 15.407(e)	6 dB Bandwidth	Minimum 500 kHz	5725-5850

5.2 TEST PROCEDURE

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

b. Spectrum Setting:

For UNII-1:

Spectrum Parameter	Setting
Span Frequency	> 26 dB Bandwidth
RBW	Appromiximately 1% of the emission bandwidth
VBW	> RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For UNII-3:

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

For 99% Occupied Bandwidth:

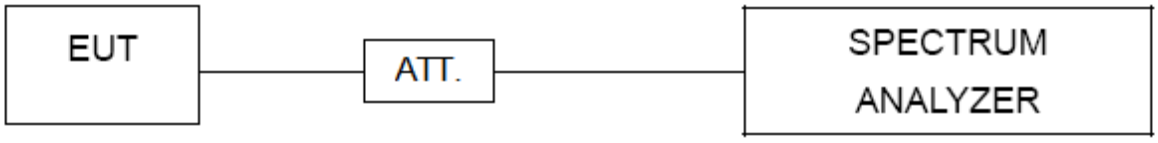
Spectrum Parameter	Setting
Span Frequency	1.5 times to 5 times the OBW
RBW	1% to 5% of the OBW
VBW	≥3*RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

6.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Maximum Output Power	AP device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm)	5150-5250
		1 Watt (30dBm)	5725-5850

Note:

a. 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.

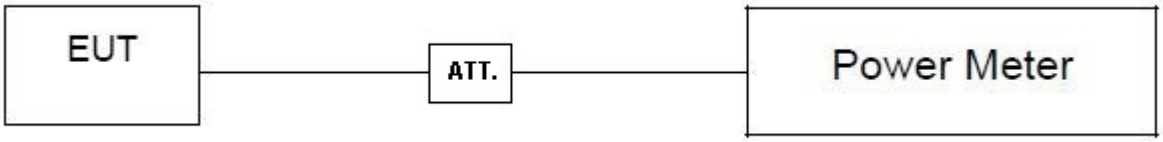
6.2 TEST PROCEDURE

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

7.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Power Spectral Density	AP device: 17 dBm/MHz Client device: 11 dBm/MHz	5150-5250
		30 dBm/500 kHz	5725-5850

7.2 TEST PROCEDURE

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

b. Spectrum Setting:

For UNII-1:

Spectrum Parameter	Setting
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

For UNII-3:

Spectrum Parameter	Setting
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	100 kHz.
VBW	300 kHz.
Detector	RMS
Trace average	100 trace
Sweep Time	Auto

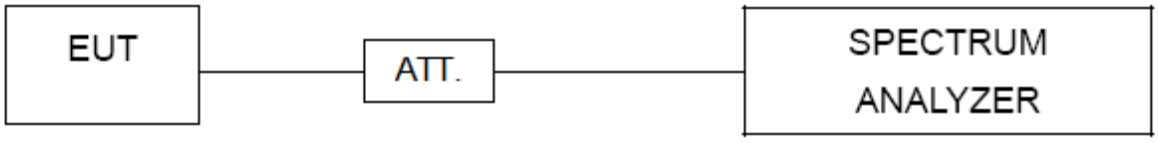
Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 100kHz and VBW at 300kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add 10 log (500 kHz/100 kHz) to the measured result, i.e. 7 dB.
2. During the test of U-NII 3 PSD, the measurement result with RBW=100kHz has been added 7 dB by compensating offset. For example, the cable loss is 13 dB, and the final offset is 13 + 7 = 20 dB when RBW=100kHz is used.

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

8.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 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
			5725-5850

8.2 TEST PROCEDURE

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

b. Spectrum Setting:

Spectrum Parameter	Setting
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

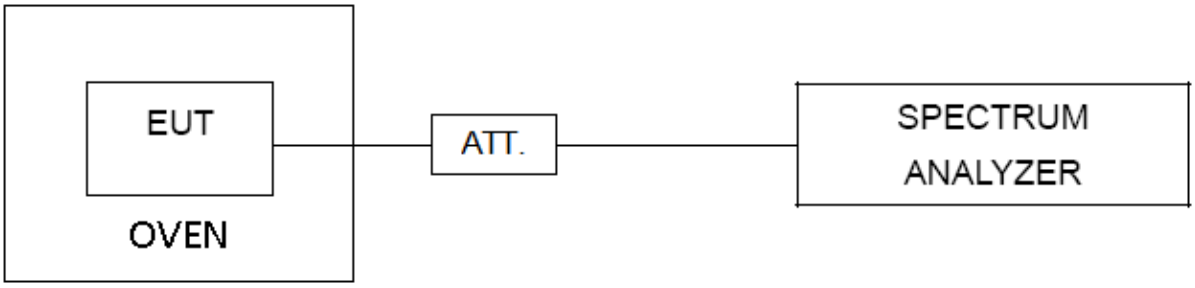
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

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

8.3 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	Feb. 28, 2022
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 27, 2022
4	50Ω Terminator	SHX	TF5-3	15041305	Feb. 27, 2022
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 09, 2022
7	643 Shield Room	ETS	6*4*3	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY56400091	Feb. 27, 2022
2*	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 23, 2024
3	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	May 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chamber Room	ETS	9*6*6	N/A	Jul. 17, 2022

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. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022
3	Cable	emci	LMR-400	N/A	Nov. 30, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Horn Antenna	ARA	DRG-118A	16554	Apr. 21, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
7	EXA Spectrum Analyzer	Keysight	N9010A	MY56480488	Feb. 28, 2022
8	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330 -K	619413	Jul. 16, 2022
9	Cable	N/A	A81-SMAMSMAM-12.5M	N/A	Oct. 15, 2022
10	Cable	Talent microwave	A40-2.92M2.92M-2.5M	N/A	Nov. 30, 2022
11	Band Reject Filter	Micro-Tronics	BRC50703-01	7	Feb. 27, 2022
12	Band Reject Filter	Micro-Tronics	BRC50704-01	8	Feb. 27, 2022
13	Band Reject Filter	Micro-Tronics	BRC50705-01	10	Feb. 27, 2022
14	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
15	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

Bandwidth & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Jul. 10, 2022
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 10, 2022
3	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Precision Oven Tester	CEPREI	CEEC-M64T-40	15-008	Feb. 27, 2022
3	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
4	RF Cable	Tongkaichuan	N/A	N/A	N/A
5	DC Block	Mini	N/A	N/A	N/A

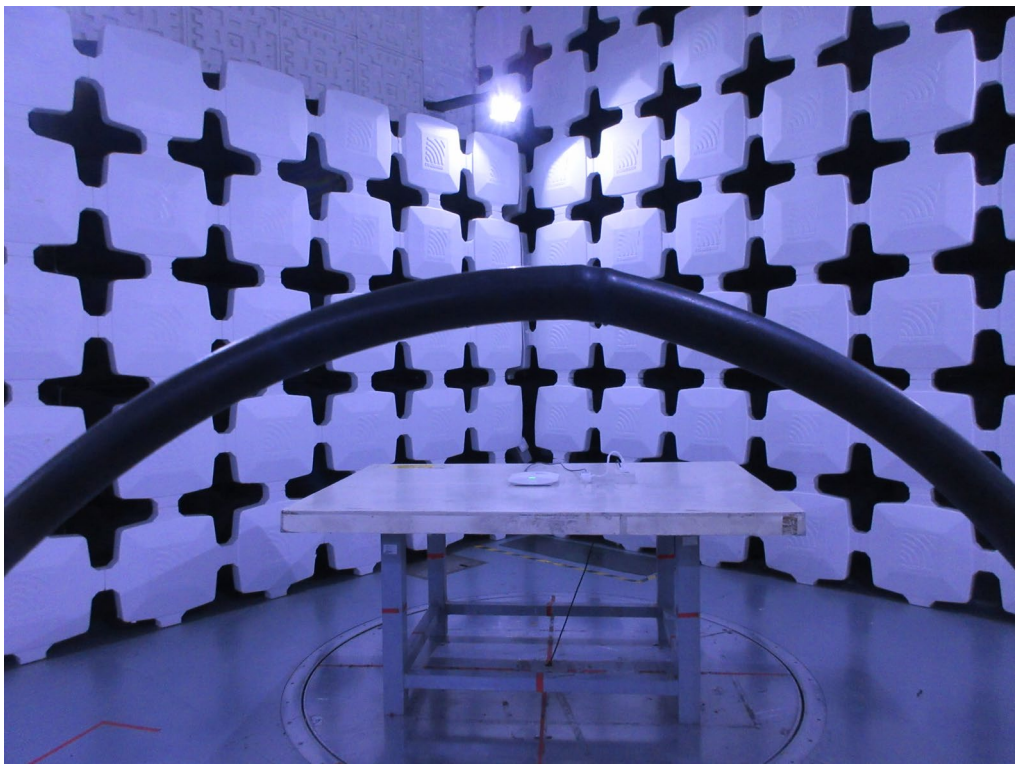
Remark: “N/A” denotes no model name, serial no. or calibration specified.
“*” calibration period of equipment list is three year.
Except * item, all calibration period of equipment list is one year.

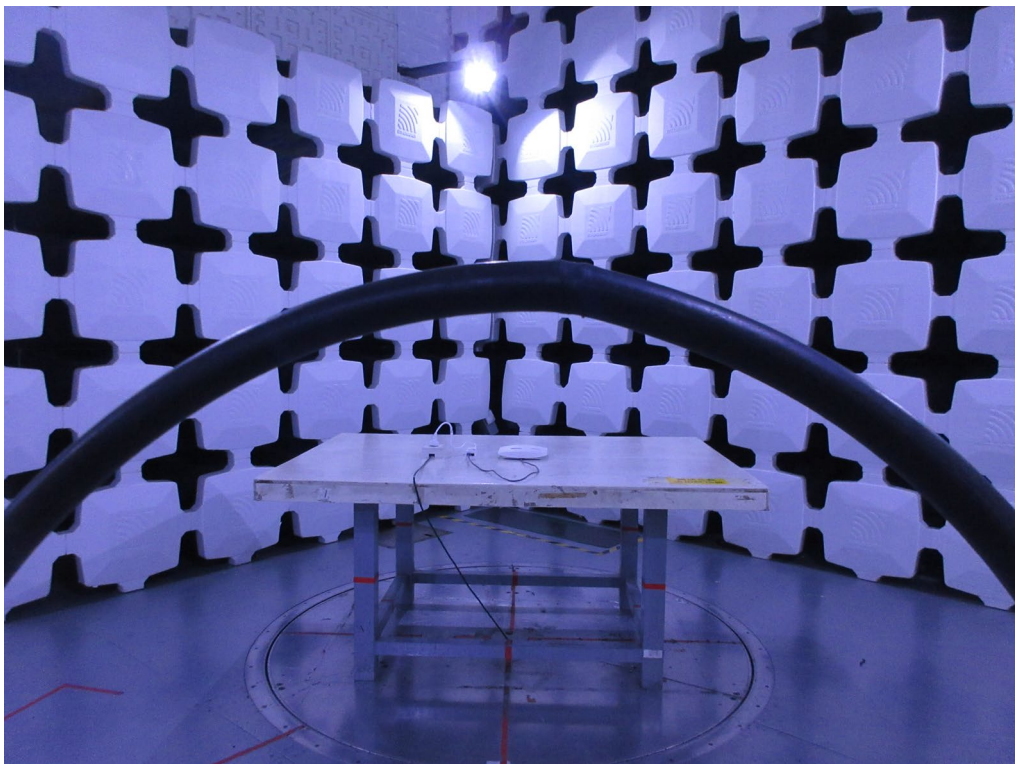
10. EUT TEST PHOTOS

AC Power Line Conducted Emissions Test Photos

Radiated Emissions Test Photos

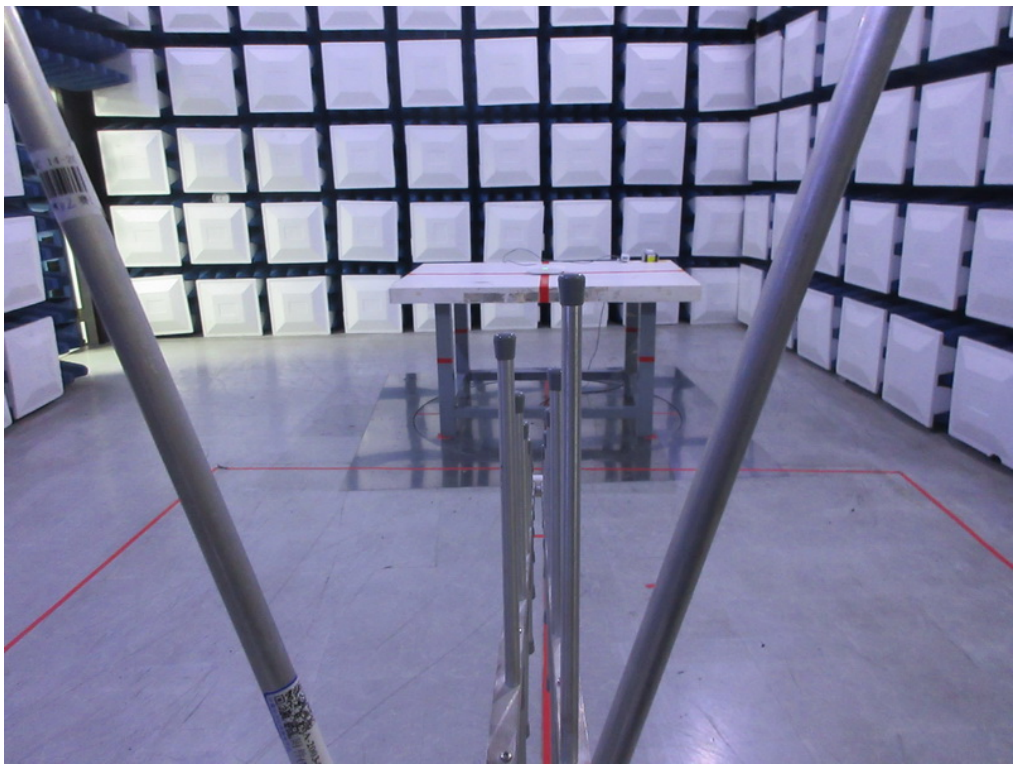
9 kHz to 30 MHz

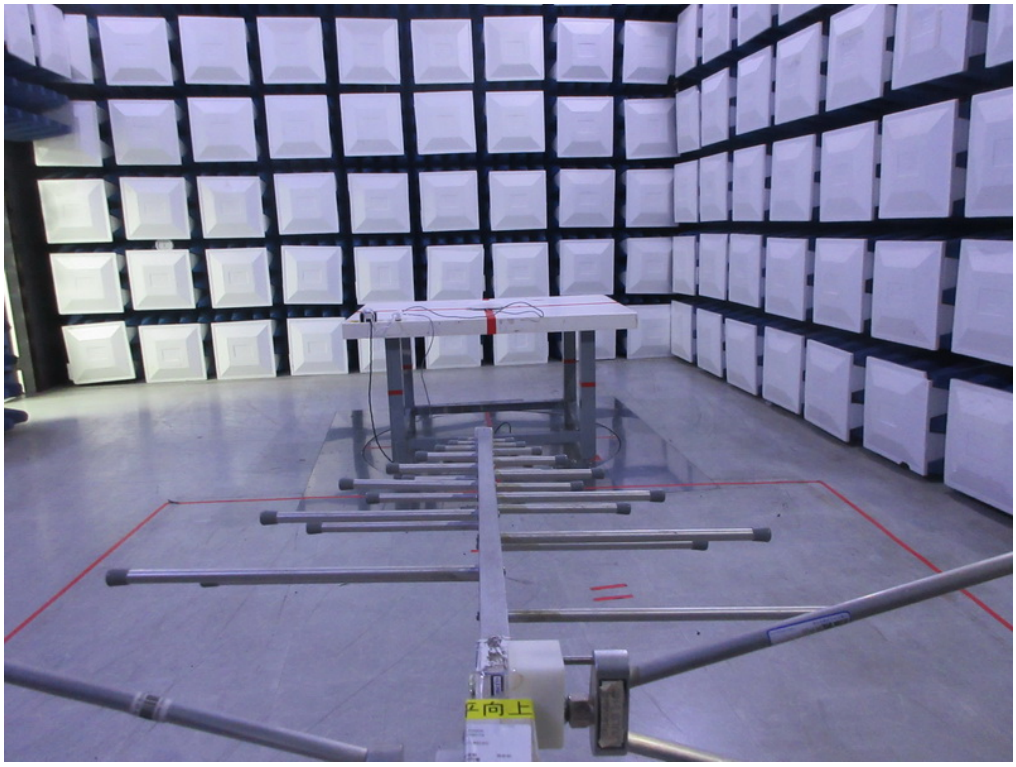




Radiated Emissions Test Photos

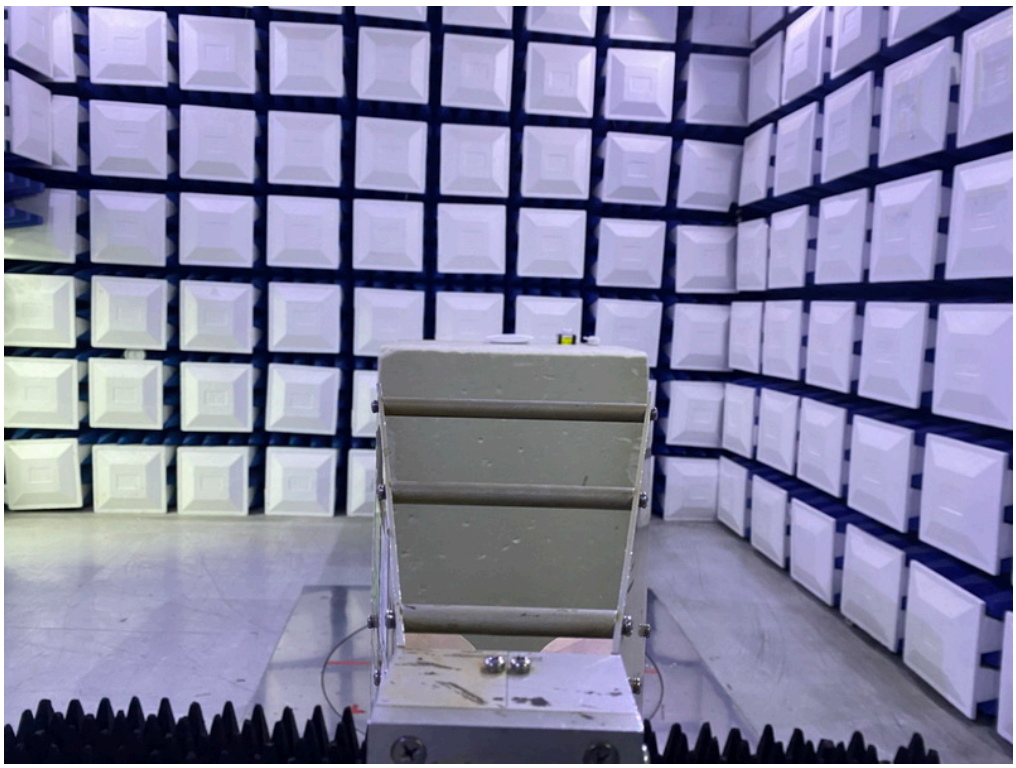
30 MHz to 1 GHz

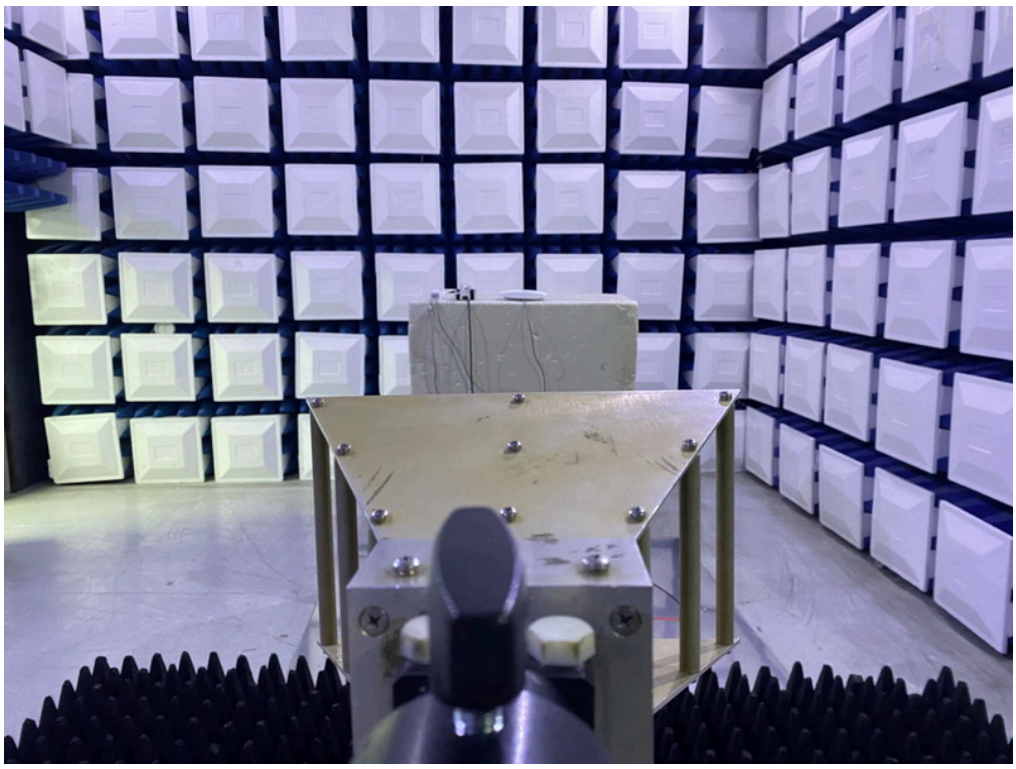




Radiated Emissions Test Photos

Above 1 GHz

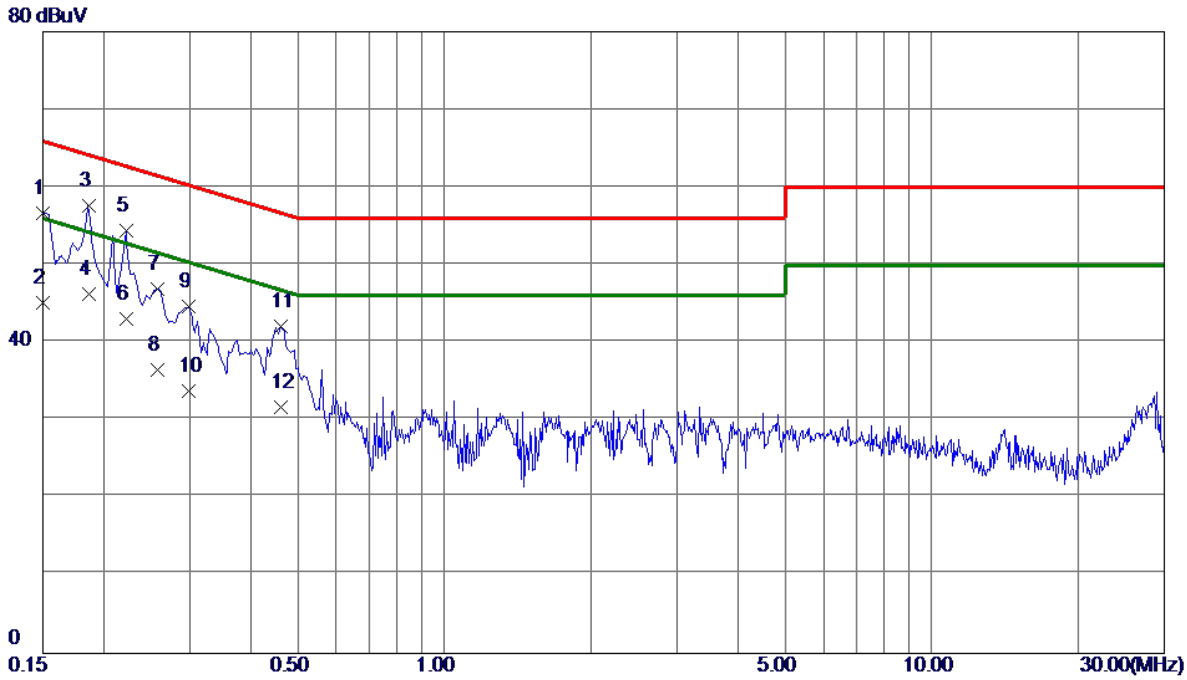




Conducted Test Photos

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

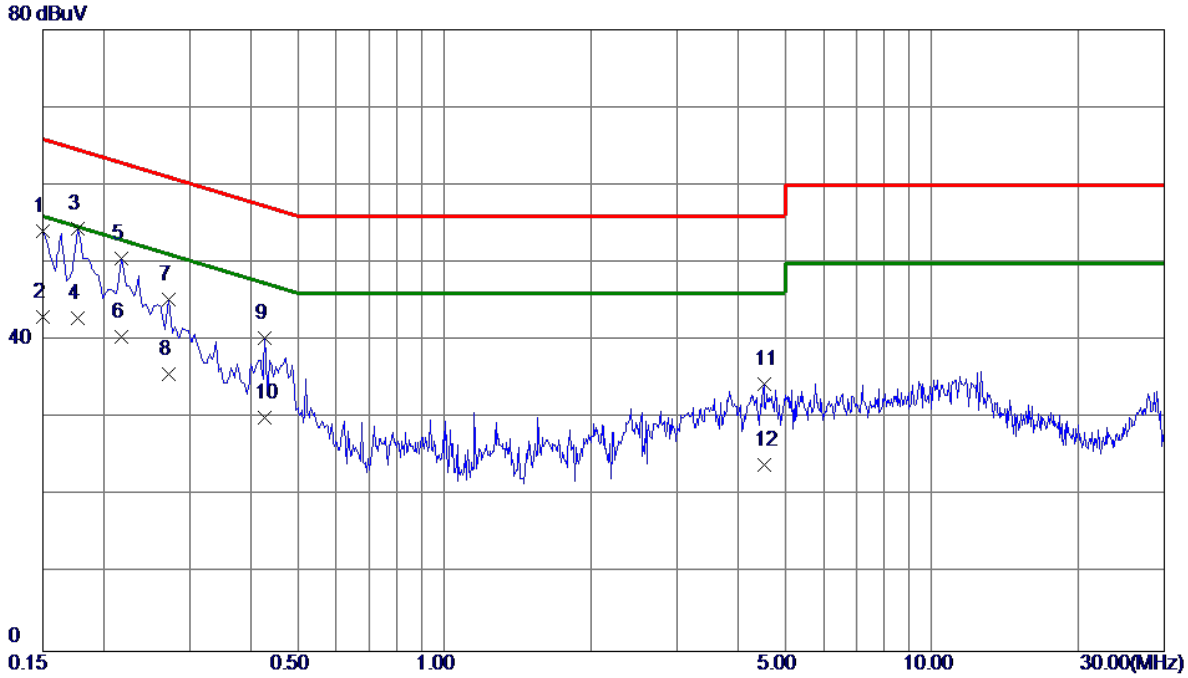
Test Mode	TX A Mode Channel 165 (UNII-3)	Phase	Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	46.88	9.78	56.66	66.00	-9.34	QP	
2	0.1500	35.40	9.78	45.18	56.00	-10.82	AVG	
3 *	0.1860	47.75	9.81	57.56	64.21	-6.65	QP	
4	0.1860	36.49	9.81	46.30	54.21	-7.91	AVG	
5	0.2220	44.53	9.82	54.35	62.74	-8.39	QP	
6	0.2220	33.20	9.82	43.02	52.74	-9.72	AVG	
7	0.2580	37.06	9.82	46.88	61.50	-14.62	QP	
8	0.2580	26.70	9.82	36.52	51.50	-14.98	AVG	
9	0.2985	34.80	9.83	44.63	60.28	-15.65	QP	
10	0.2985	23.90	9.83	33.73	50.28	-16.55	AVG	
11	0.4605	32.23	9.86	42.09	56.68	-14.59	QP	
12	0.4605	21.80	9.86	31.66	46.68	-15.02	AVG	

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

Test Mode	TX A Mode Channel 165 (UNII-3)	Phase	Neutral

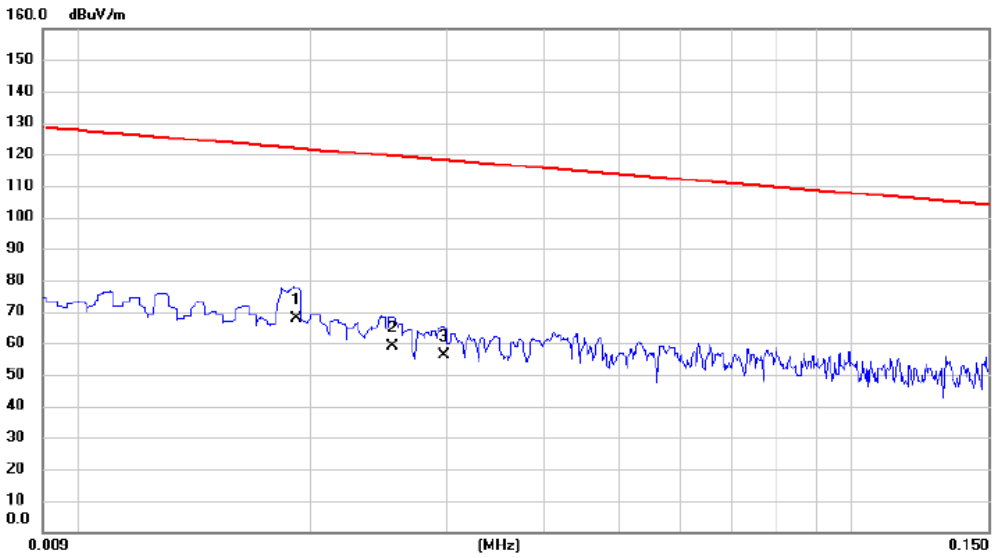


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	44.34	9.82	54.16	66.00	-11.84	QP	
2	0.1500	33.20	9.82	43.02	56.00	-12.98	AVG	
3 *	0.1770	44.50	9.84	54.34	64.63	-10.29	QP	
4	0.1770	33.10	9.84	42.94	54.63	-11.69	AVG	
5	0.2175	40.75	9.85	50.60	62.91	-12.31	QP	
6	0.2175	30.60	9.85	40.45	52.91	-12.46	AVG	
7	0.2714	35.39	9.87	45.26	61.07	-15.81	QP	
8	0.2714	25.80	9.87	35.67	51.07	-15.40	AVG	
9	0.4290	30.34	9.93	40.27	57.27	-17.00	QP	
10	0.4290	20.09	9.93	30.02	47.27	-17.25	AVG	
11	4.5240	24.13	10.34	34.47	56.00	-21.53	QP	
12	4.5240	13.60	10.34	23.94	46.00	-22.06	AVG	

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

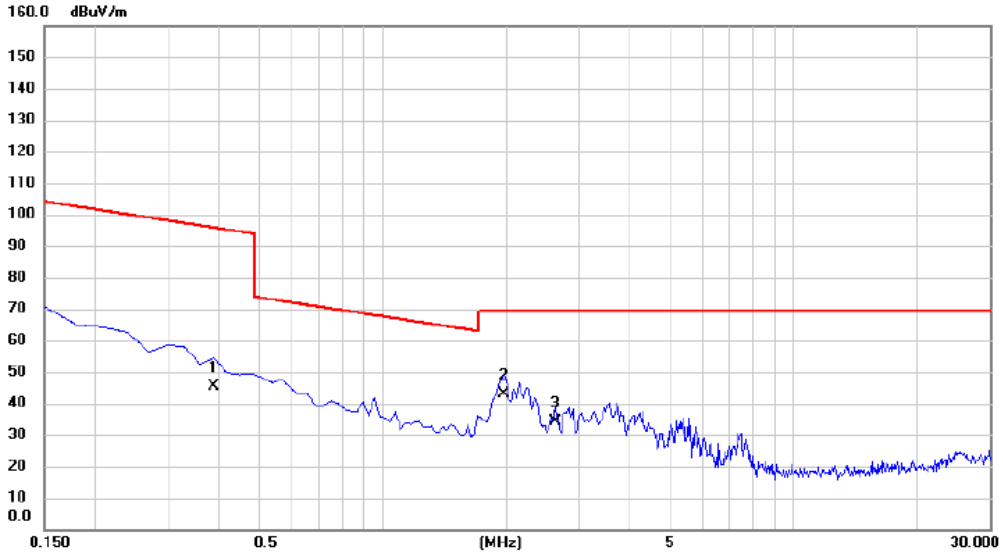
Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0192	53.12	14.54	67.66	121.94	-54.28	AVG	
2		0.0255	44.85	14.16	59.01	119.47	-60.46	AVG	
3		0.0297	41.96	14.07	56.03	118.15	-62.12	AVG	

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

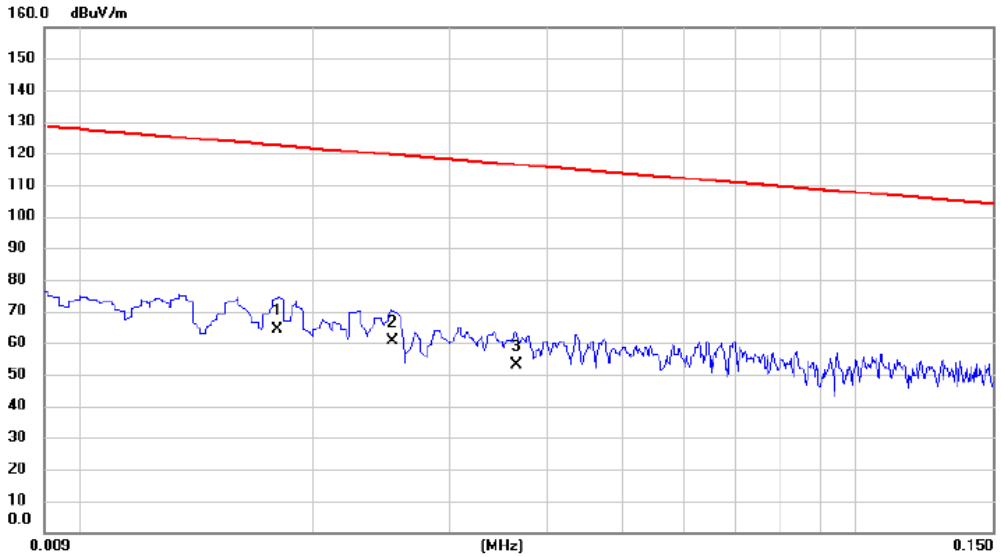
Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.3888	31.85	13.47	45.32	95.81	-50.49	AVG	
2	*	1.9708	30.96	12.11	43.07	69.54	-26.47	QP	
3		2.6275	22.18	11.86	34.04	69.54	-35.50	QP	

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

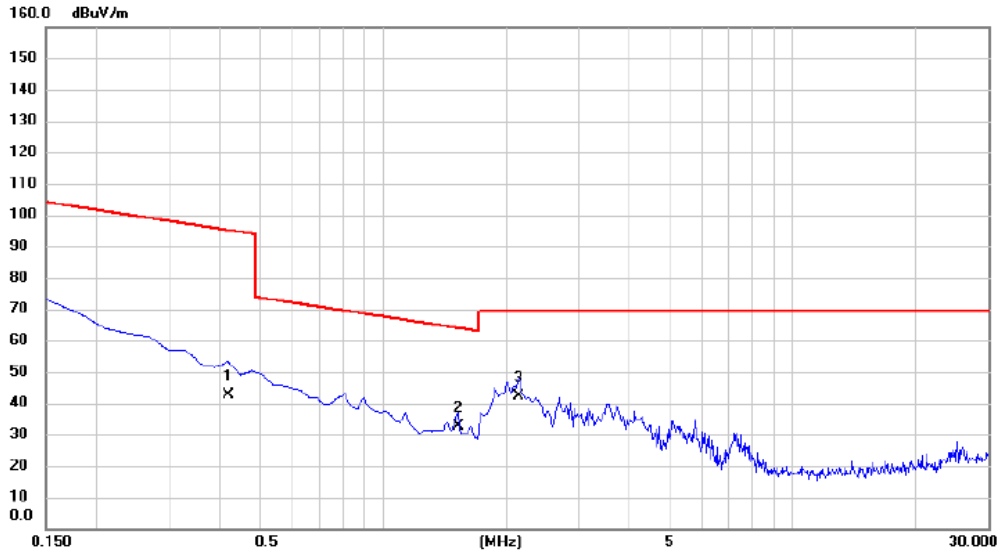
Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0180	49.21	14.92	64.13	122.50	-58.37	AVG	
2		0.0253	46.33	14.17	60.50	119.54	-59.04	AVG	
3		0.0365	39.15	13.91	53.06	116.36	-63.30	AVG	

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

Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Ant 90°

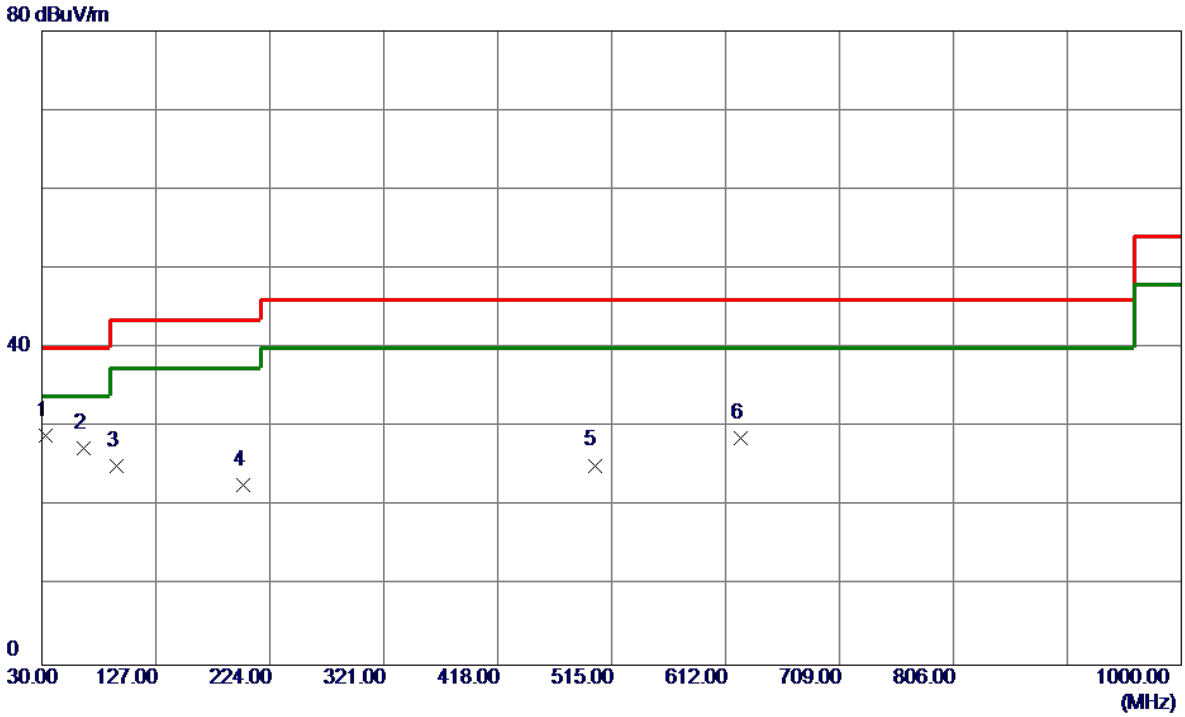


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.4187	29.15	13.43	42.58	95.17	-52.59	AVG	
2		1.5231	20.11	12.44	32.55	63.95	-31.40	QP	
3	*	2.1500	30.18	12.03	42.21	69.54	-27.33	QP	

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

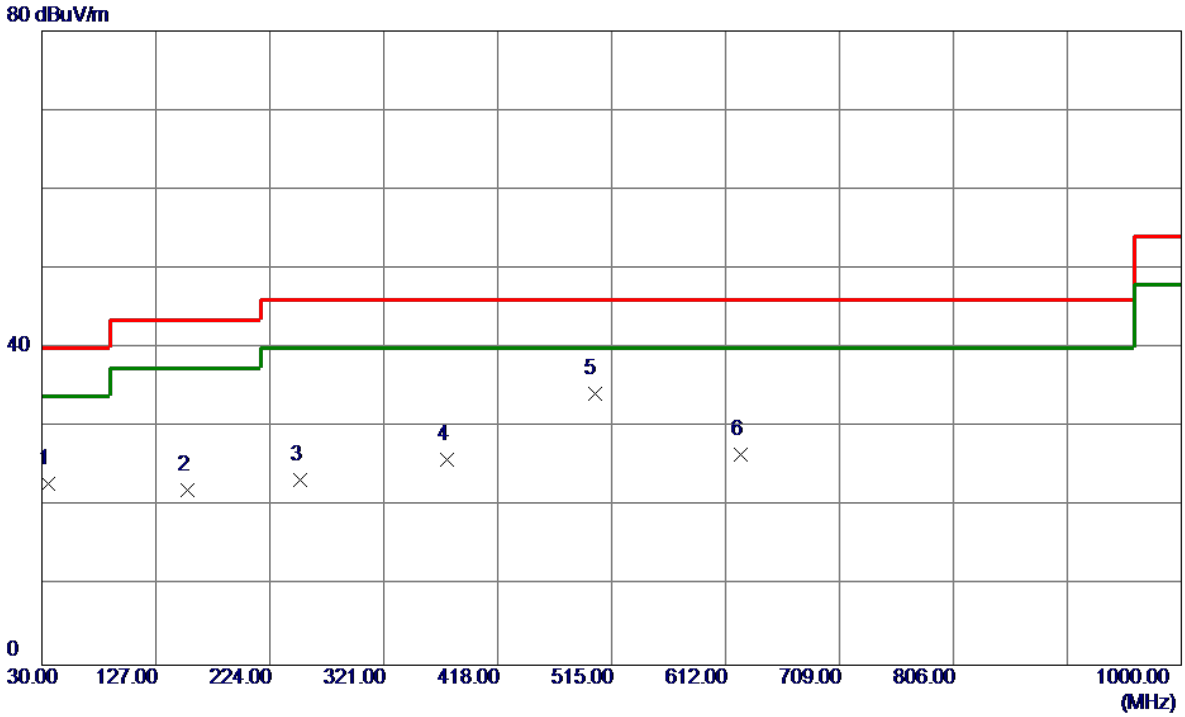
Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	32.9100	44.10	-15.20	28.90	40.00	-11.10	Peak	
2	65.8900	42.75	-15.40	27.35	40.00	-12.65	Peak	
3	94.0199	42.92	-17.74	25.18	43.50	-18.32	Peak	
4	201.6900	38.25	-15.46	22.79	43.50	-20.71	Peak	
5	500.4500	31.97	-6.77	25.20	46.00	-20.80	Peak	
6	624.6100	33.04	-4.43	28.61	46.00	-17.39	Peak	

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

Test Mode	TX A Mode Channel 165 (UNII-3)	Polarization	Horizontal

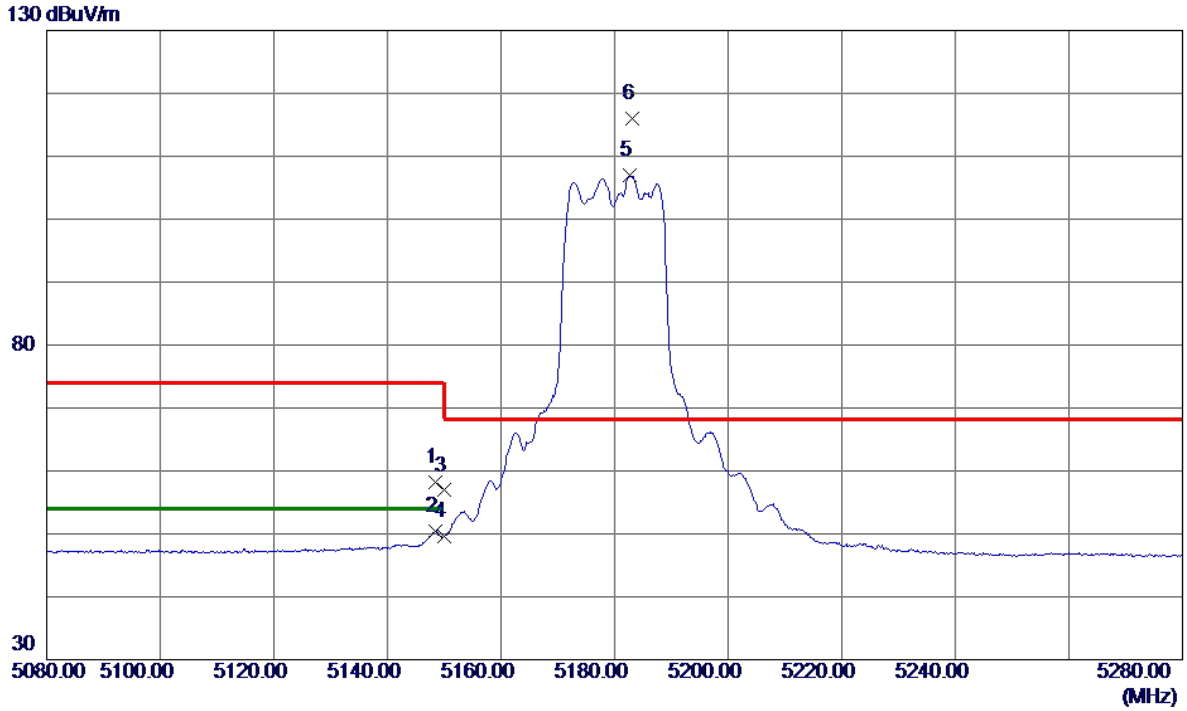


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	37.72	-14.86	22.86	40.00	-17.14	Peak	
2	154.1600	34.69	-12.58	22.11	43.50	-21.39	Peak	
3	250.1900	36.40	-13.02	23.38	46.00	-22.62	Peak	
4	375.3200	35.40	-9.52	25.88	46.00	-20.12	Peak	
5 *	500.4500	41.04	-6.77	34.27	46.00	-11.73	Peak	
6	624.6100	30.94	-4.43	26.51	46.00	-19.49	Peak	

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

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

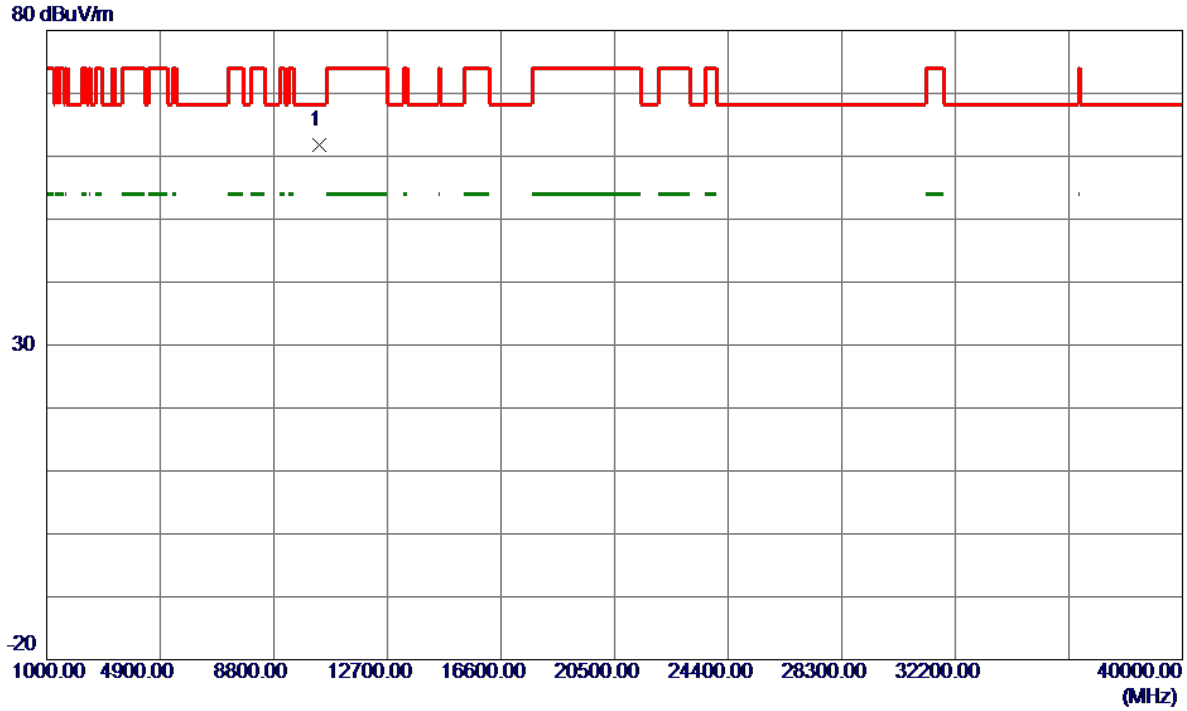
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5148.5000	40.11	18.04	58.15	74.00	-15.85	Peak	
2	5148.5000	32.34	18.04	50.38	54.00	-3.62	AVG	
3	5150.0000	38.85	18.05	56.90	74.00	-17.10	Peak	
4	5150.0000	31.48	18.05	49.53	54.00	-4.47	AVG	
5	5182.7000	88.80	18.15	106.95	999.00	-892.05	AVG	No Limit
6 *	5183.2000	97.81	18.15	115.96	68.20	47.76	Peak	No Limit

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

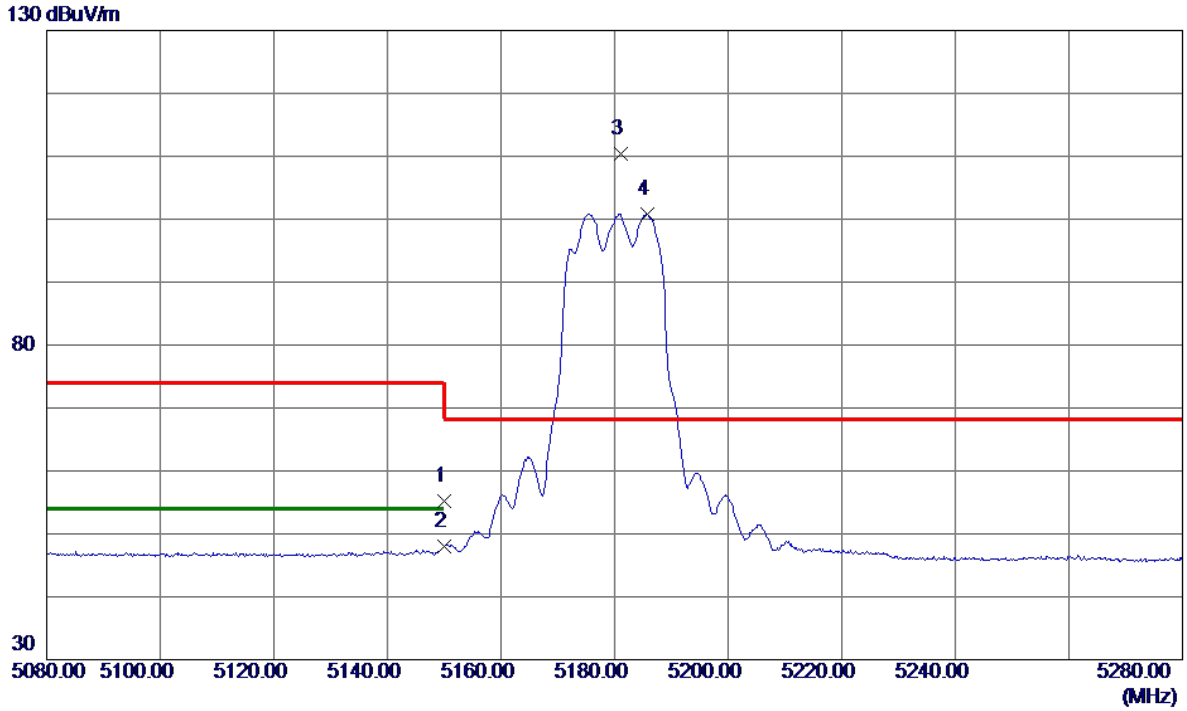
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10360.4600	46.27	15.58	61.85	68.30	-6.45	Peak	

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

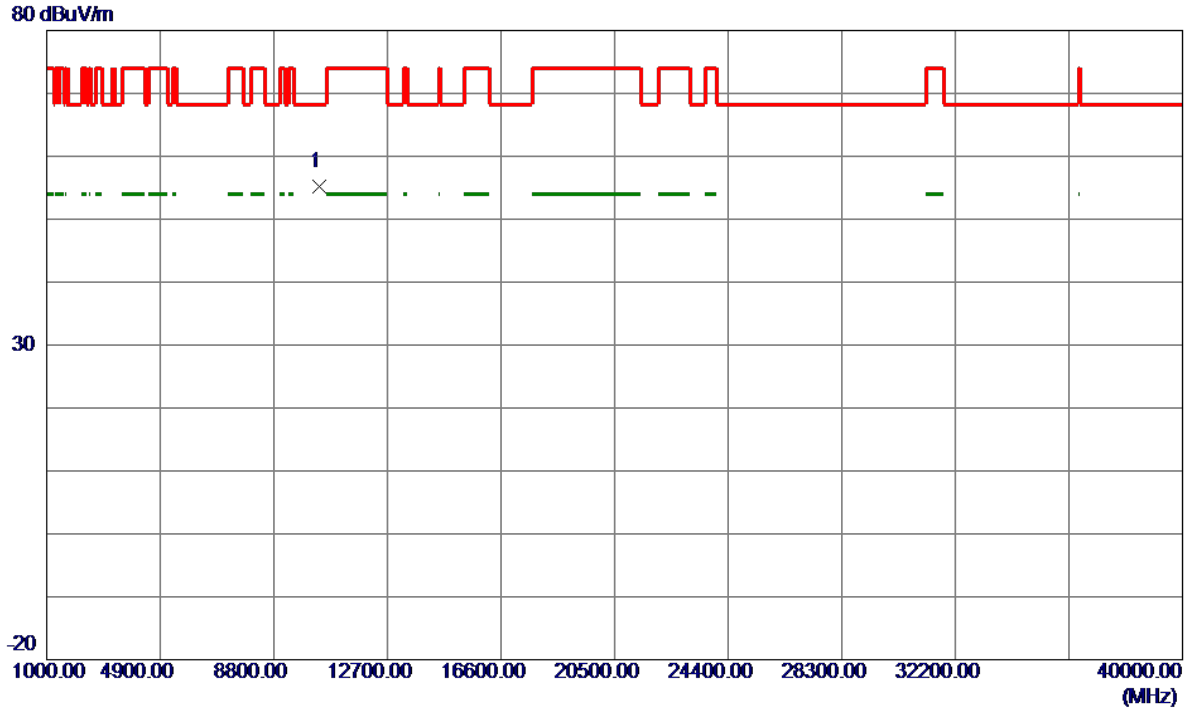
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	37.19	18.05	55.24	74.00	-18.76	Peak	
2	5150.0000	29.90	18.05	47.95	54.00	-6.05	AVG	
3 *	5181.2000	92.21	18.14	110.35	68.20	42.15	Peak	No Limit
4	5185.7000	82.70	18.16	100.86	999.00	-898.14	AVG	No Limit

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

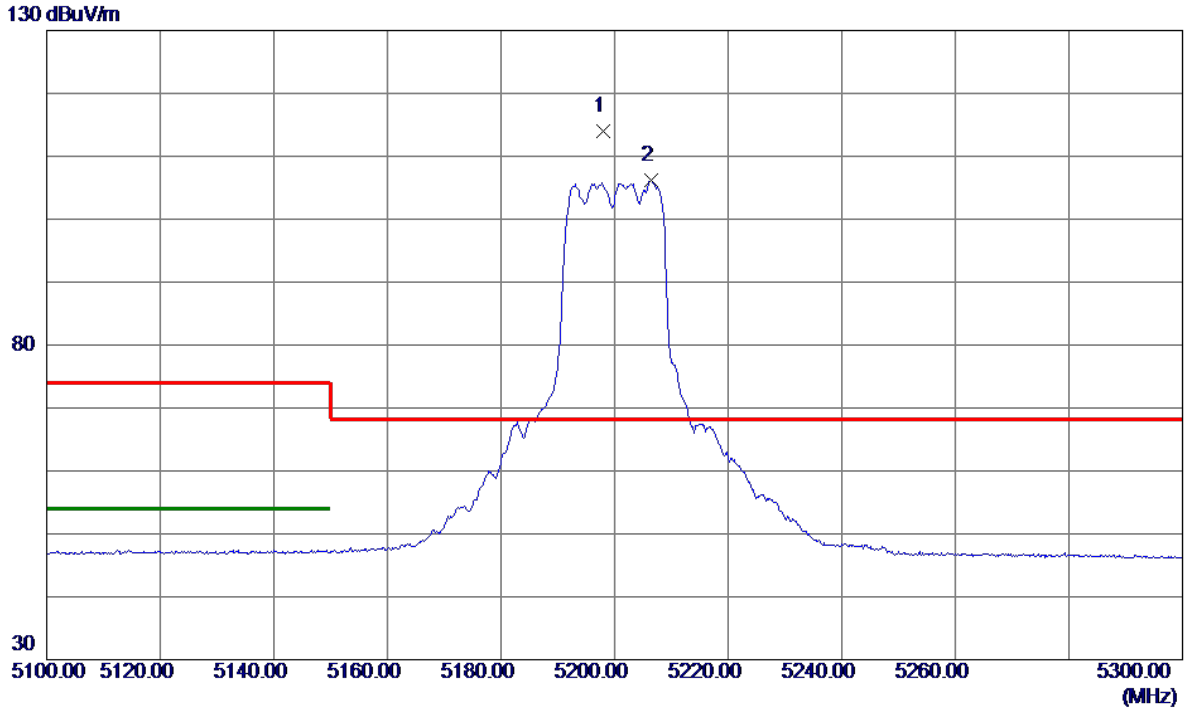
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10361.6200	39.58	15.58	55.16	68.30	-13.14	Peak	

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

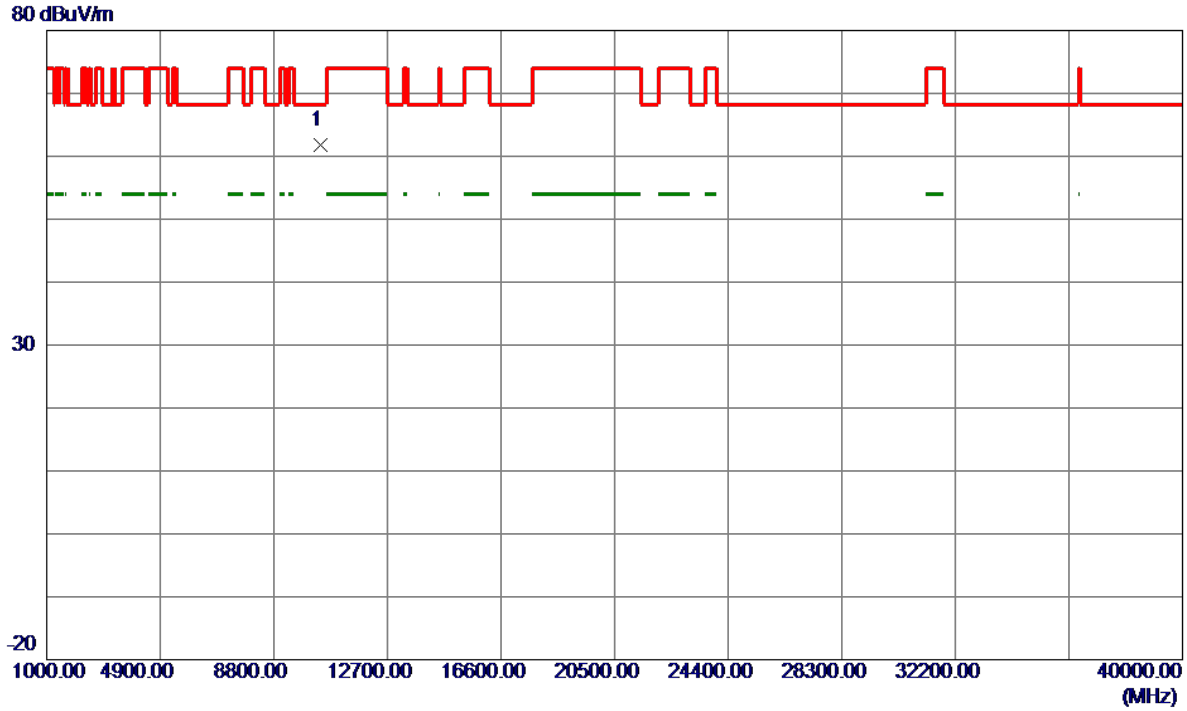
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5198.0000	95.74	18.19	113.93	68.20	45.73	Peak	No Limit
2	5206.4000	88.02	18.22	106.24	999.00	-892.76	AVG	No Limit

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

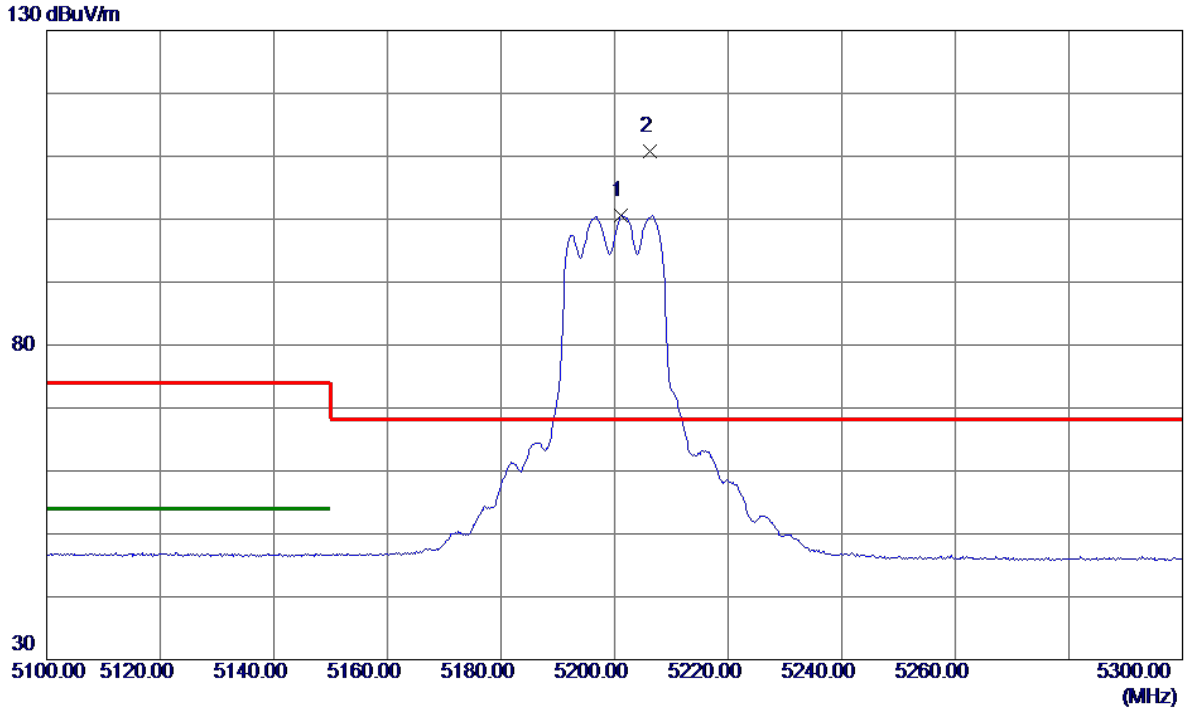
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10401.2400	46.15	15.64	61.79	68.30	-6.51	Peak	

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

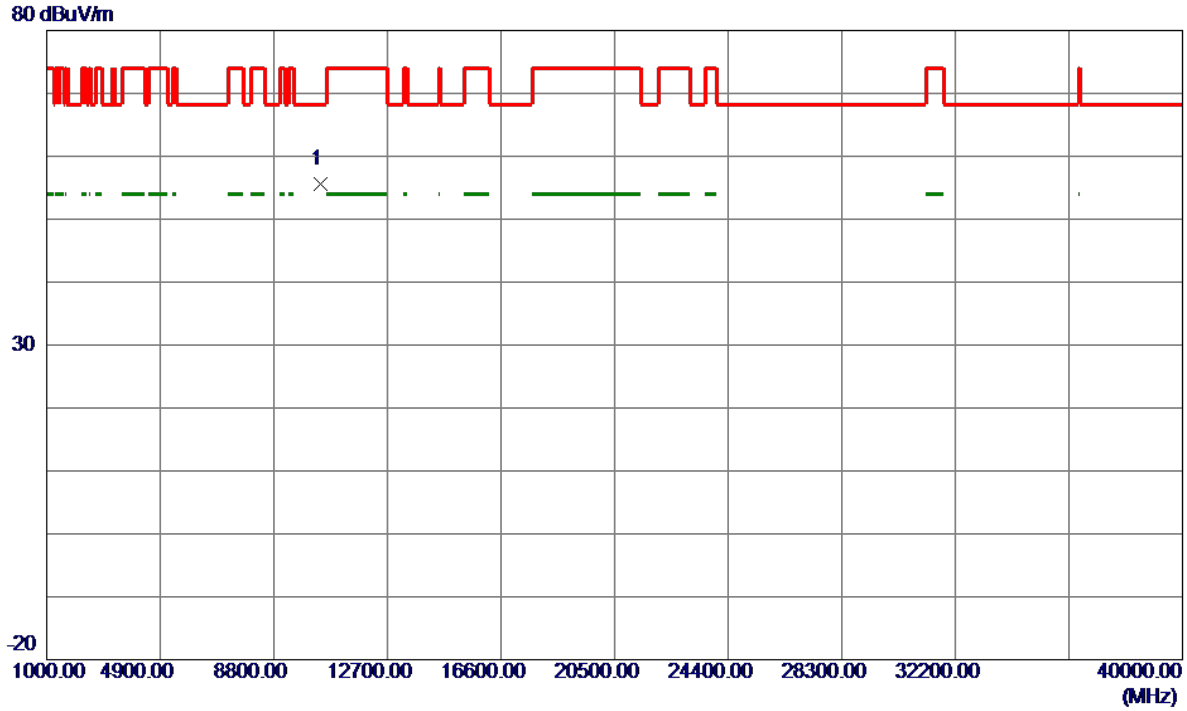
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5201.2000	82.48	18.10	100.58	999.00	-898.42	AVG	No Limit
2 *	5206.2000	92.70	18.12	110.82	68.20	42.62	Peak	No Limit

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

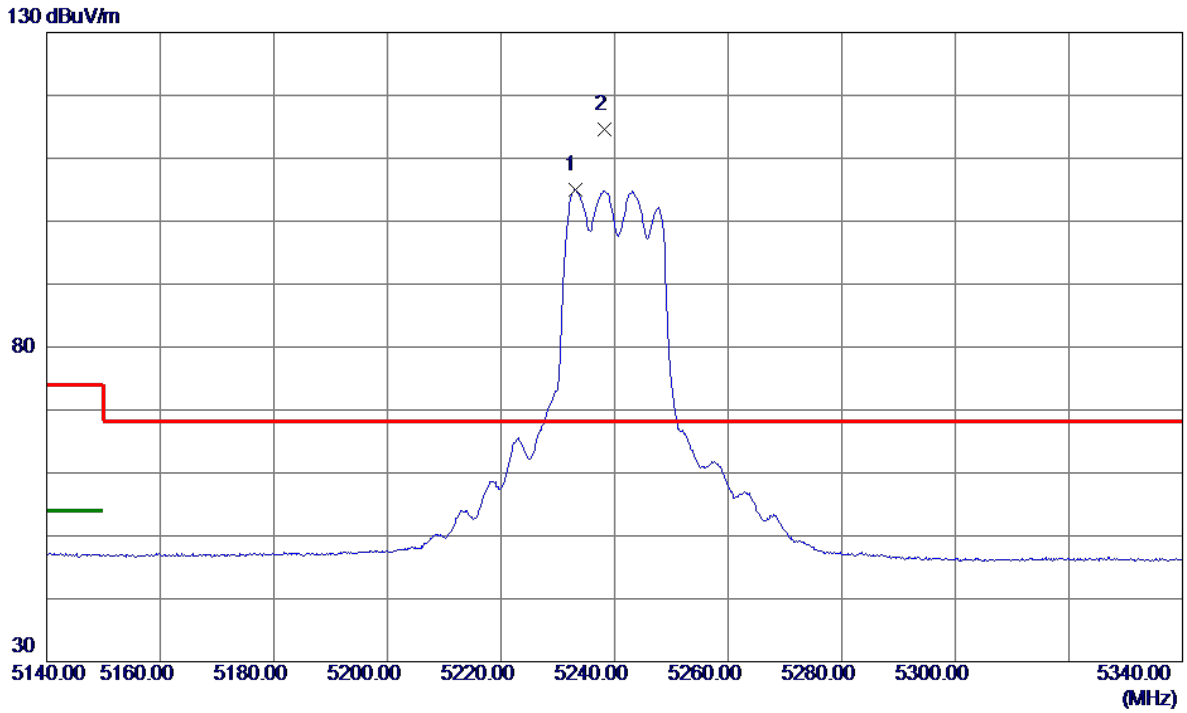
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10401.4200	39.96	15.64	55.60	68.30	-12.70	Peak	

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

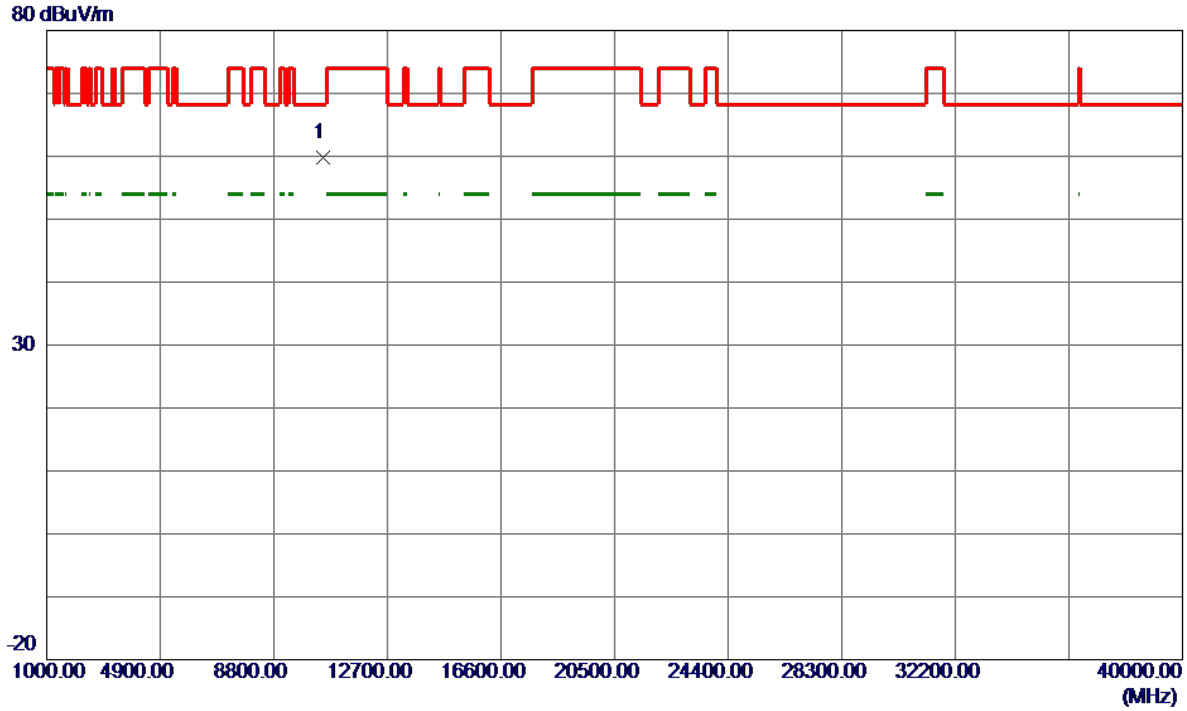
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5233.0000	86.72	18.30	105.02	999.00	-893.98	AVG	No Limit
2 *	5238.3000	96.20	18.32	114.52	68.20	46.32	Peak	No Limit

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

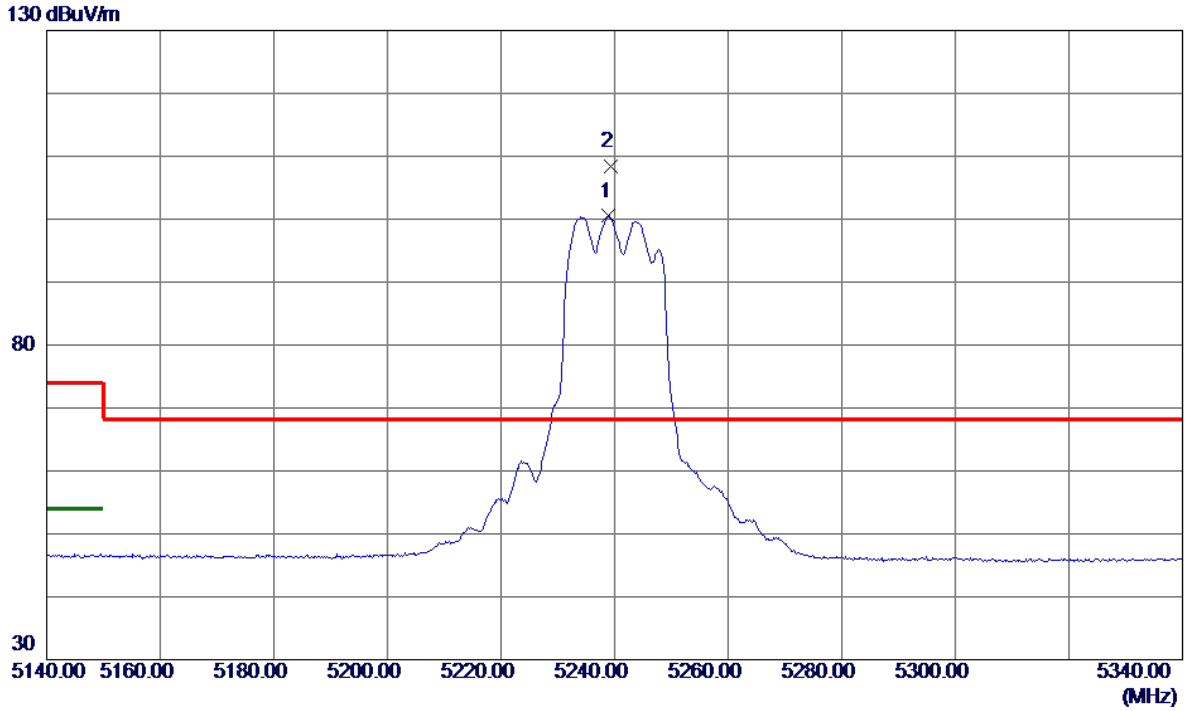
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10480.5500	44.04	15.74	59.78	68.30	-8.52	Peak	

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

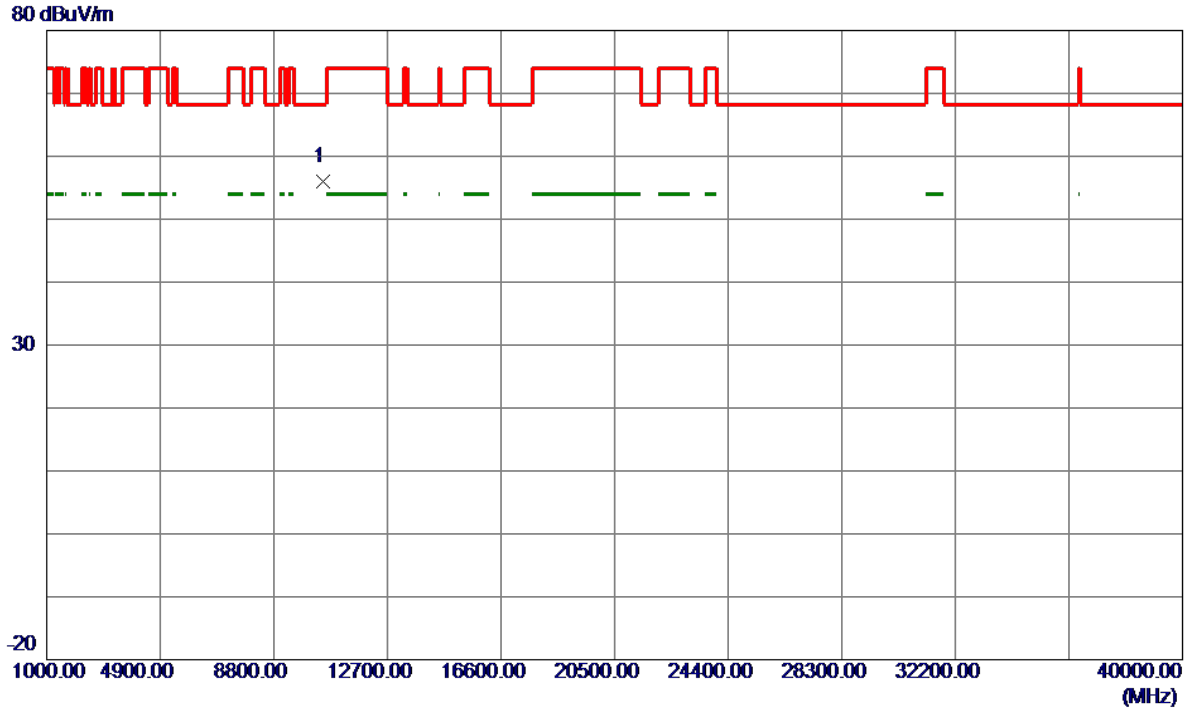
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5239.0000	82.25	18.25	100.50	999.00	-898.50	AVG	No Limit
2 *	5239.4000	90.14	18.25	108.39	68.20	40.19	Peak	No Limit

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

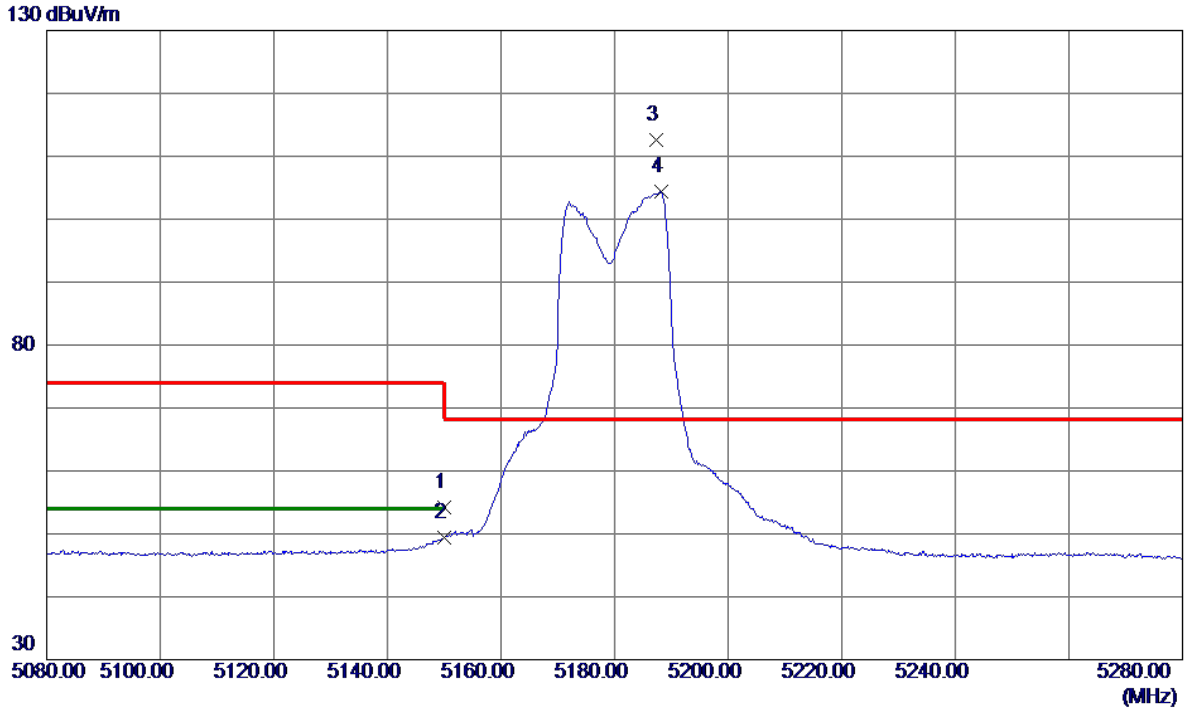
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10481.1500	40.31	15.74	56.05	68.30	-12.25	Peak	

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

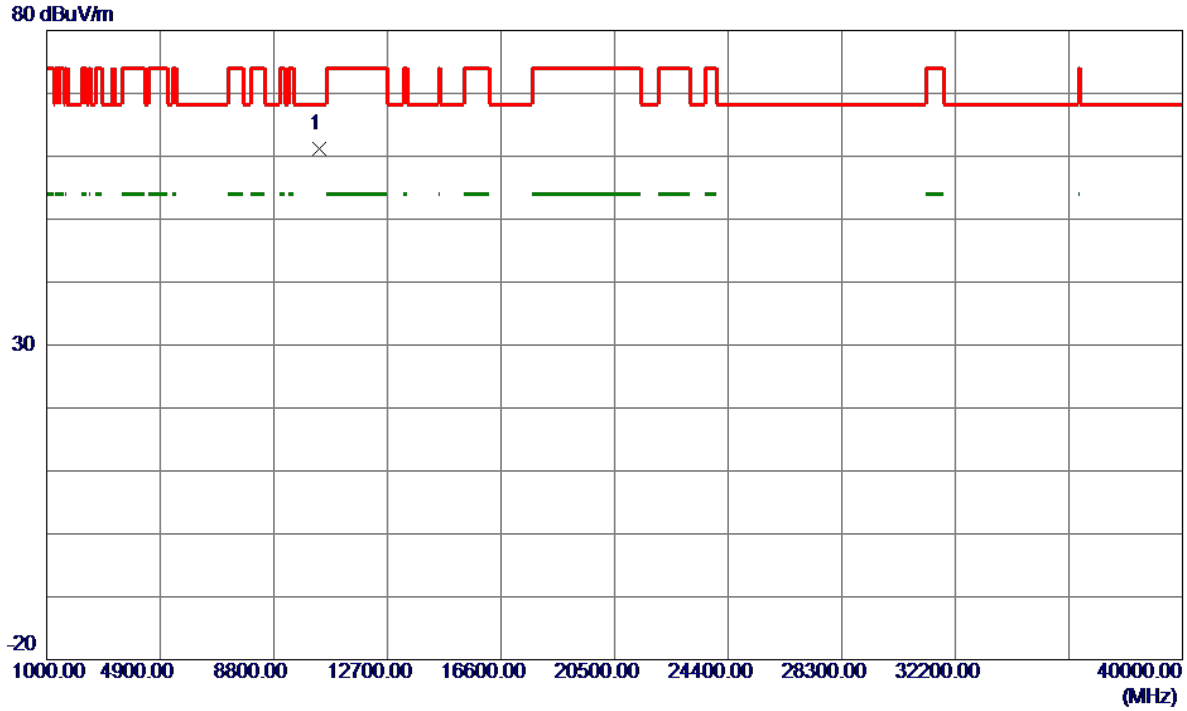
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	36.24	18.05	54.29	74.00	-19.71	Peak	
2	5150.0000	31.32	18.05	49.37	54.00	-4.63	AVG	
3 *	5187.3000	94.36	18.16	112.52	68.20	44.32	Peak	No Limit
4	5188.2000	86.32	18.16	104.48	999.00	-894.52	AVG	No Limit

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

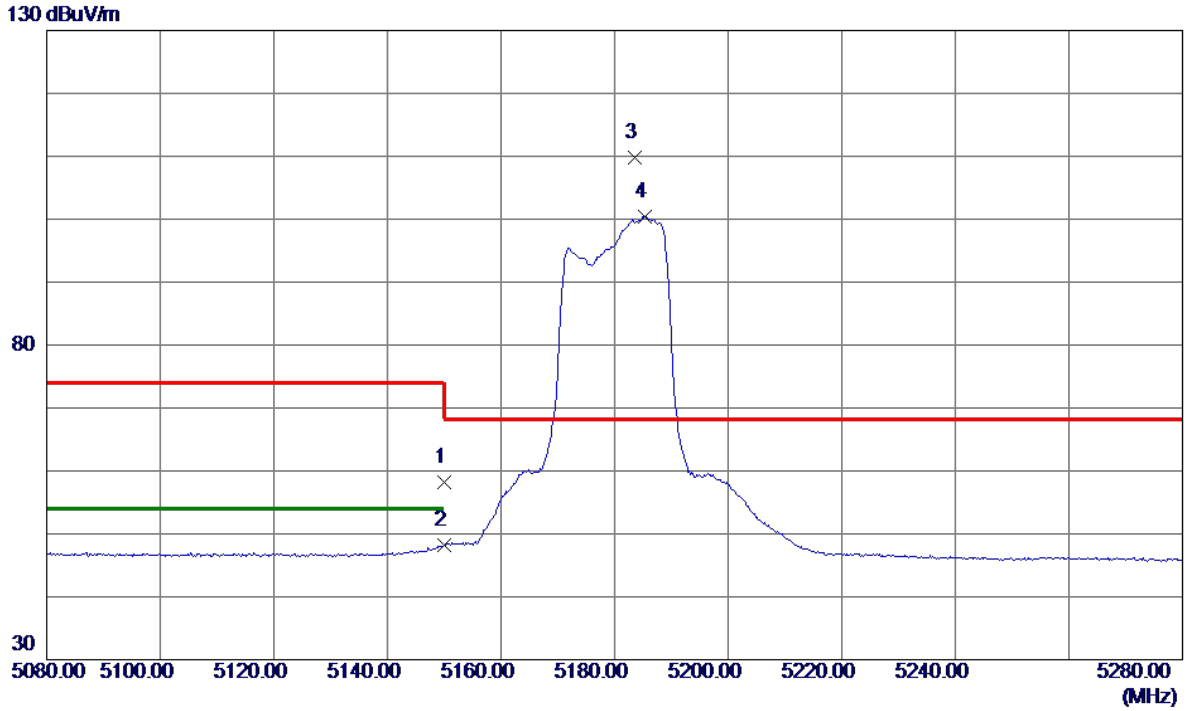
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10358.0599	45.68	15.58	61.26	68.30	-7.04	Peak	

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

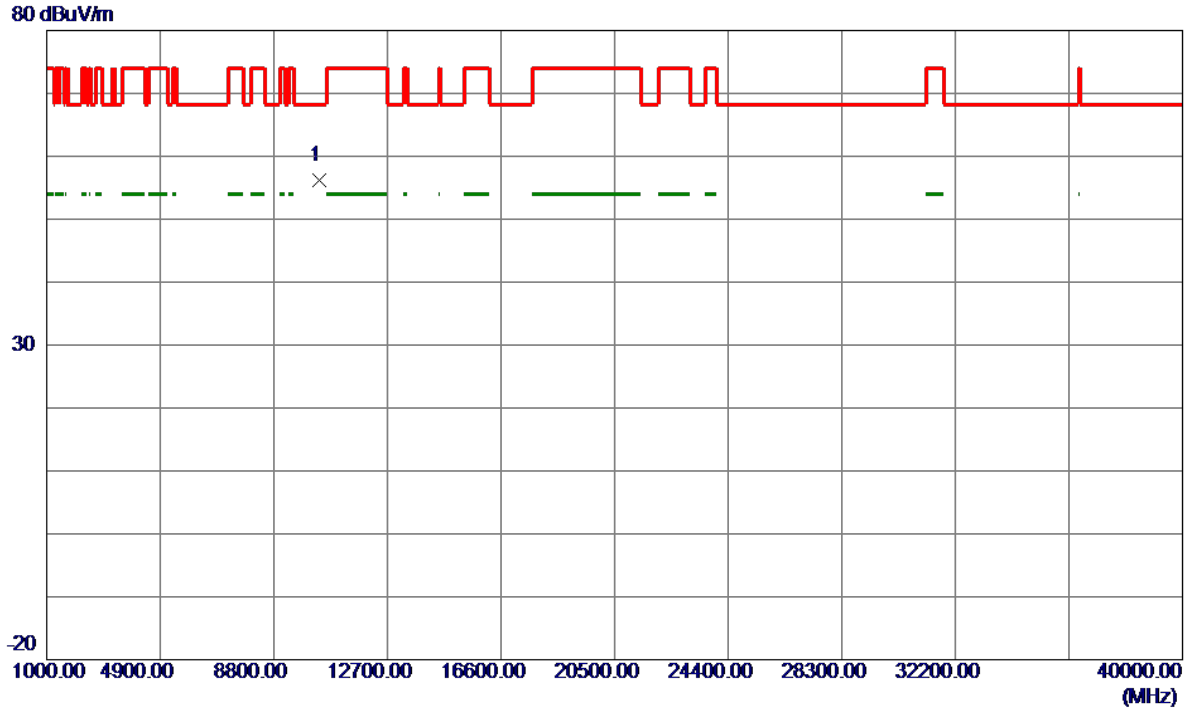
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	40.24	17.90	58.14	74.00	-15.86	Peak	
2	5150.0000	30.21	17.90	48.11	54.00	-5.89	AVG	
3 *	5183.6000	91.76	18.03	109.79	68.20	41.59	Peak	No Limit
4	5185.4000	82.42	18.04	100.46	999.00	-898.54	AVG	No Limit

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

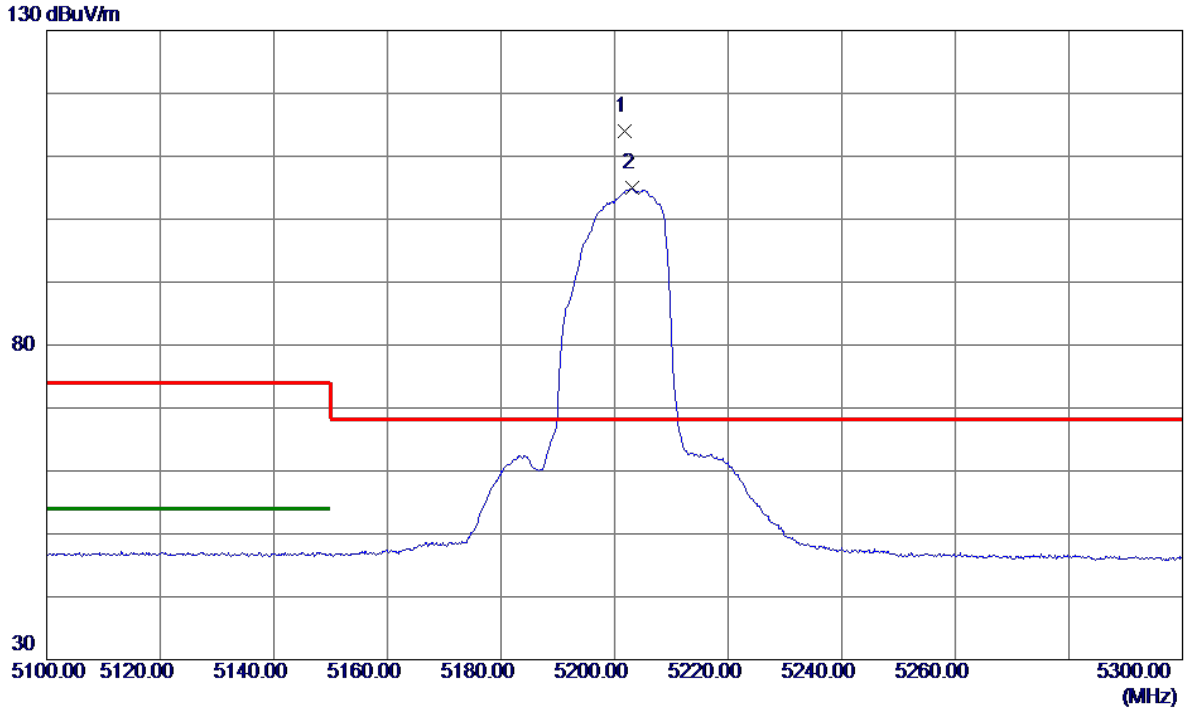
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10357.7699	40.57	15.58	56.15	68.30	-12.15	Peak	

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

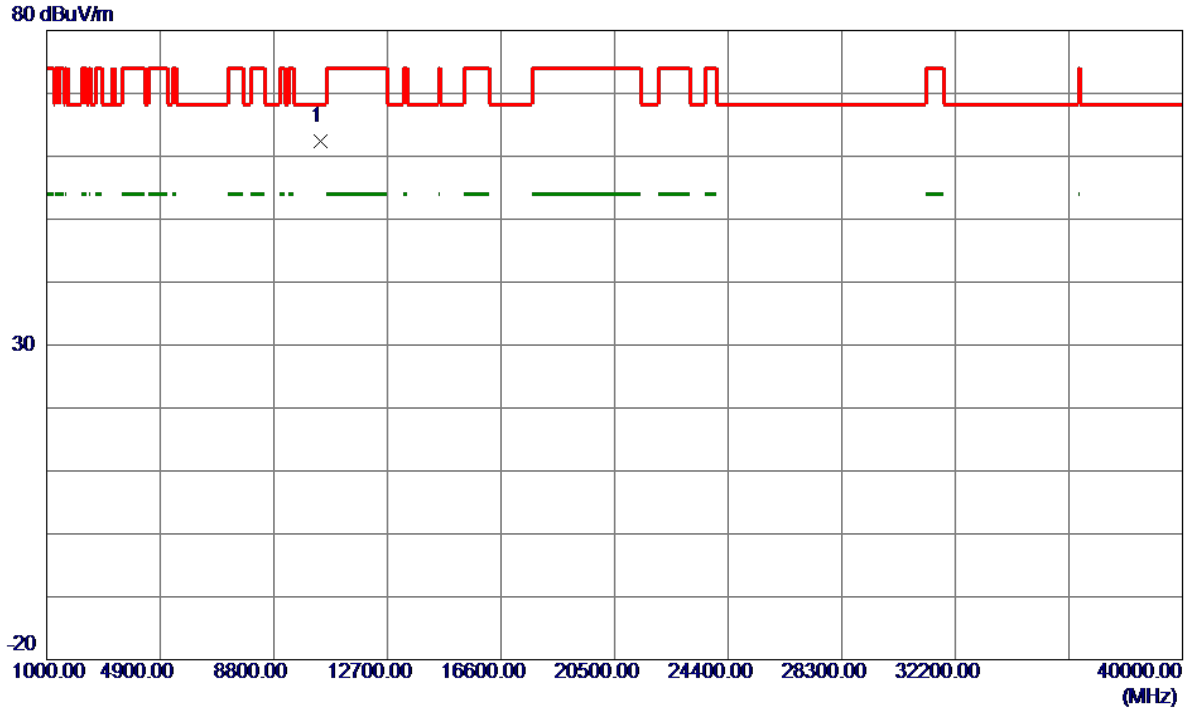
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5201.8000	95.80	18.21	114.01	68.20	45.81	Peak	No Limit
2	5203.2000	86.69	18.21	104.90	999.00	-894.10	AVG	No Limit

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

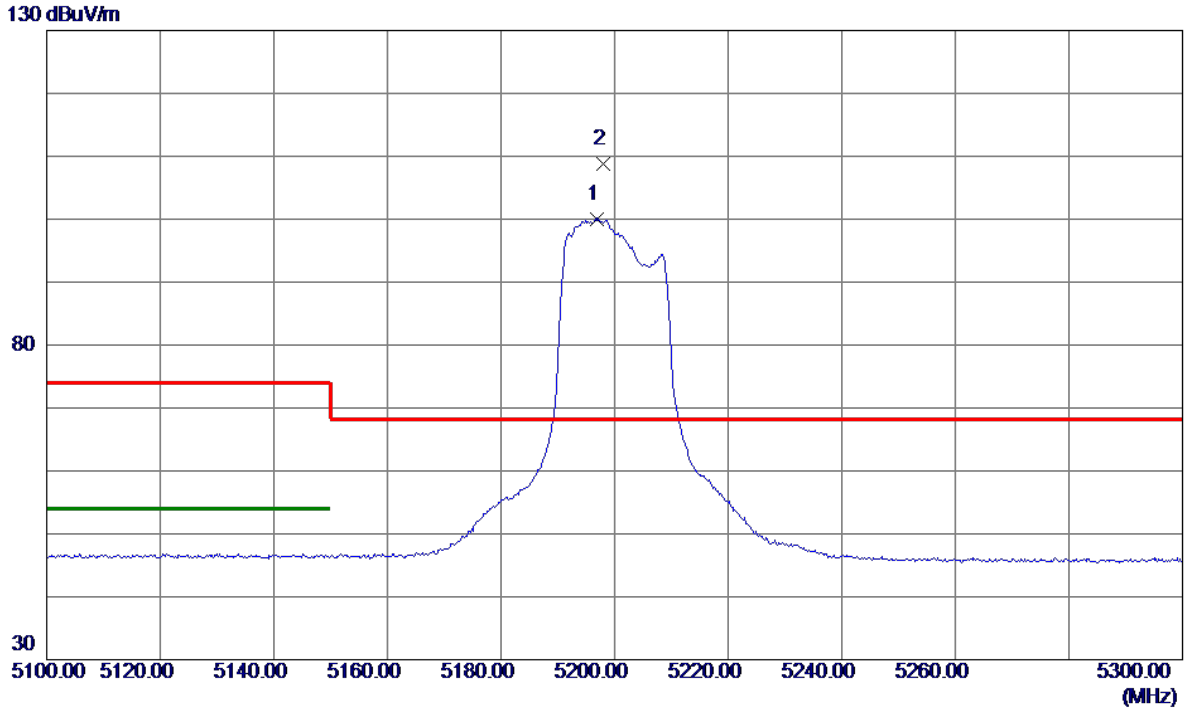
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10397.7200	46.77	15.63	62.40	68.30	-5.90	Peak	

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

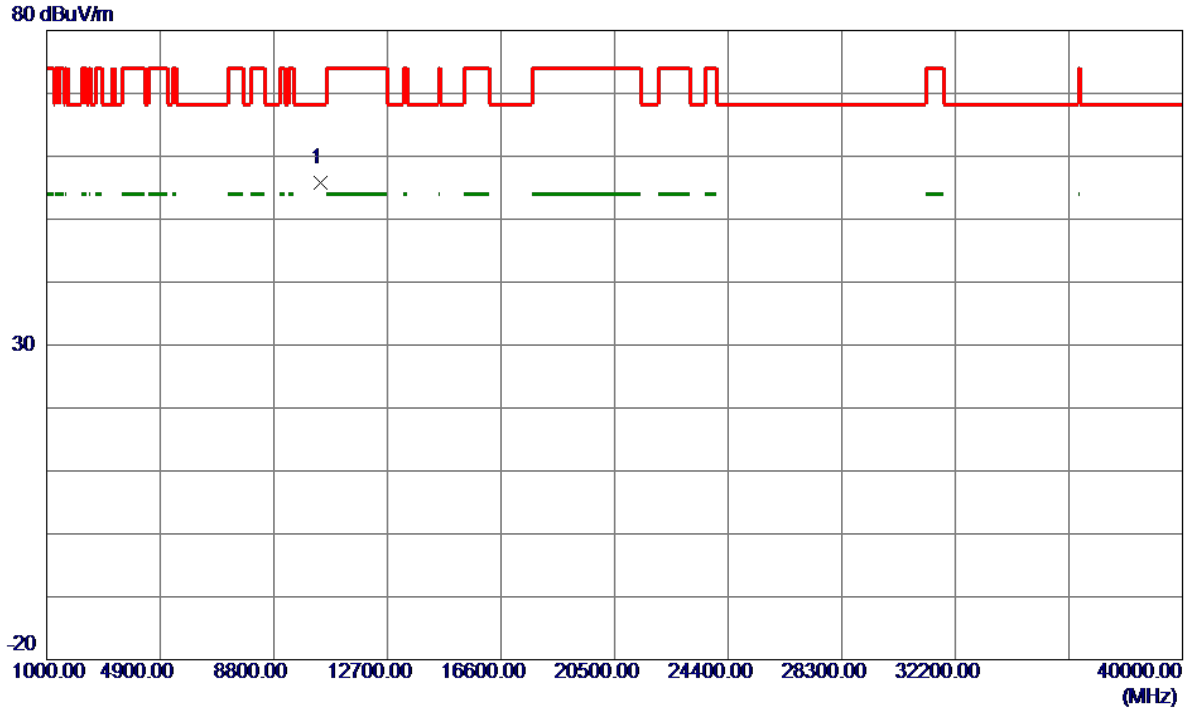
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5196.8000	82.02	18.08	100.10	999.00	-898.90	AVG	No Limit
2 *	5198.0000	90.68	18.09	108.77	68.20	40.57	Peak	No Limit

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

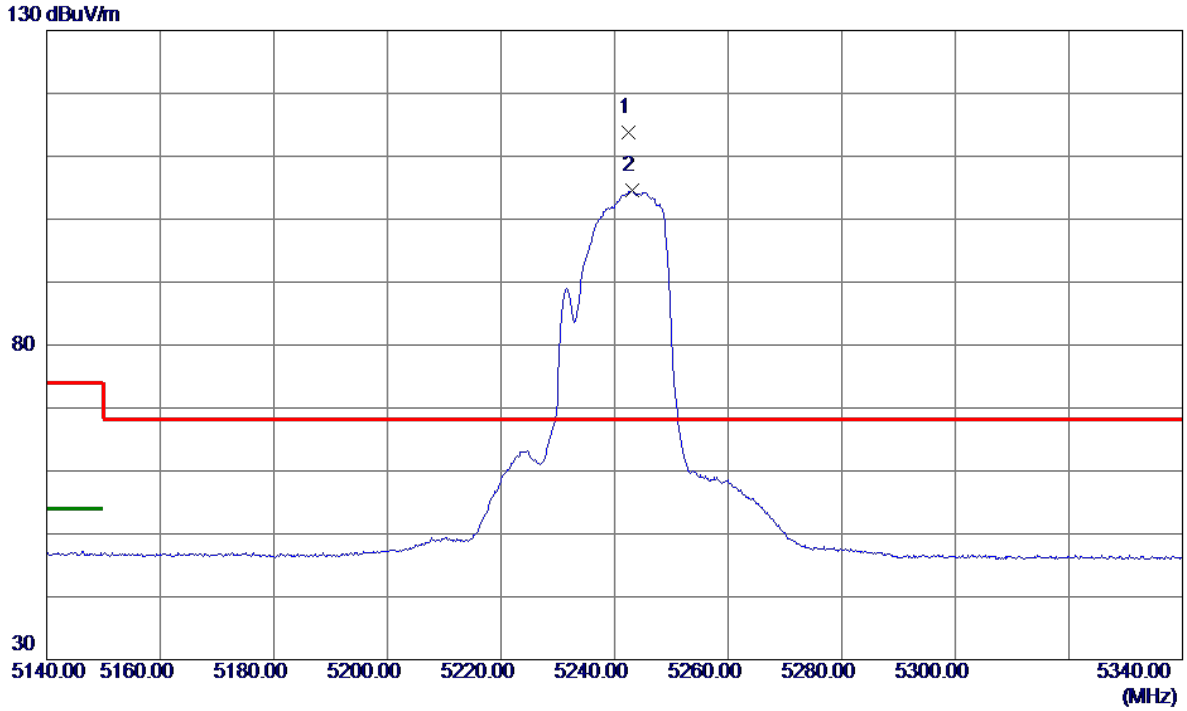
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10398.8700	40.21	15.63	55.84	68.30	-12.46	Peak	

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

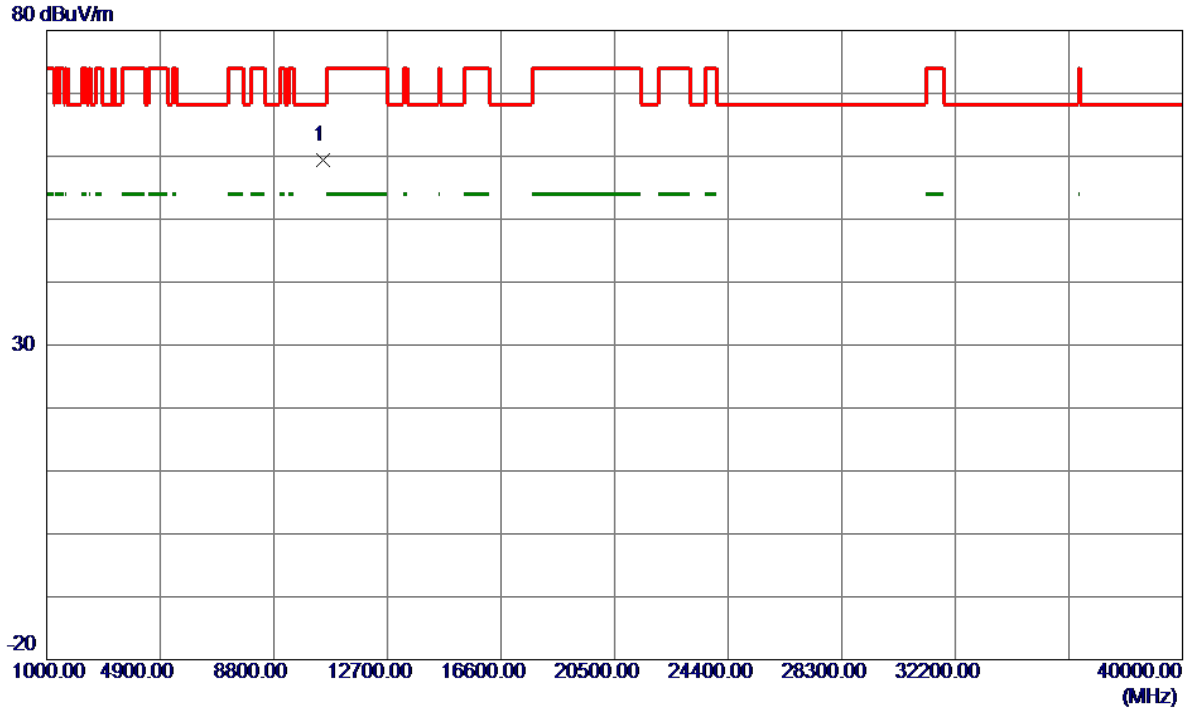
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5242.4000	95.37	18.33	113.70	68.20	45.50	Peak	No Limit
2	5243.1000	86.28	18.33	104.61	999.00	-894.39	AVG	No Limit

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

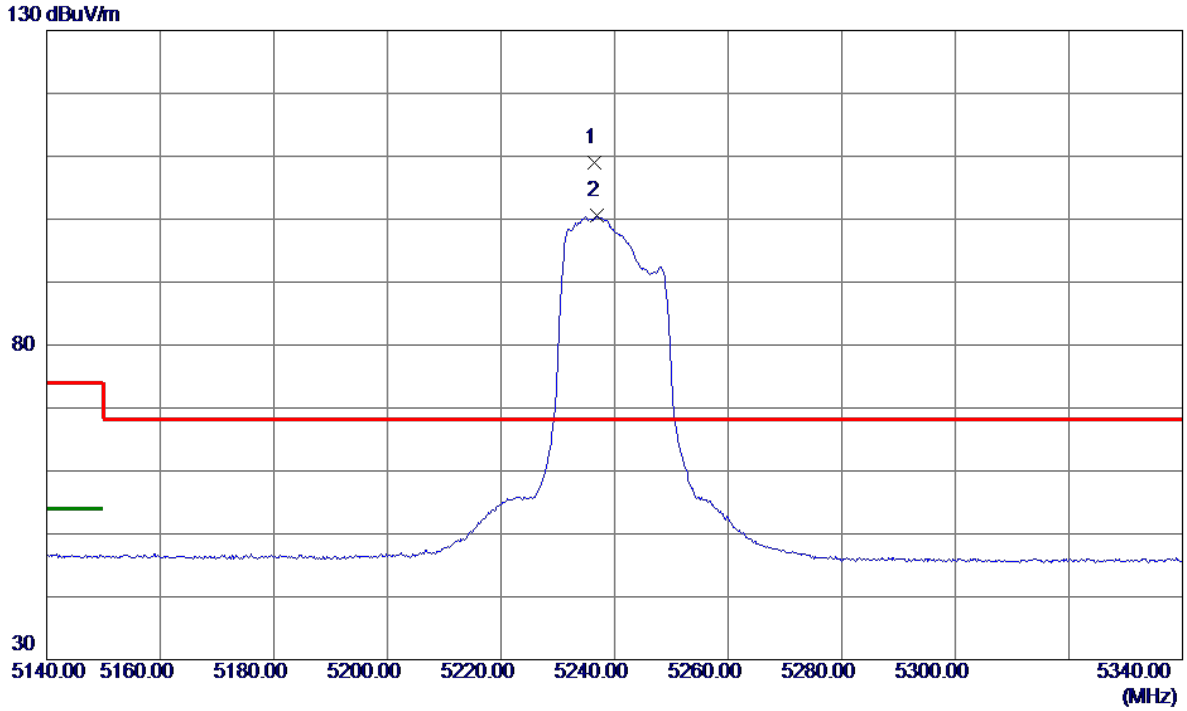
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10480.4400	43.60	15.74	59.34	68.30	-8.96	Peak	

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

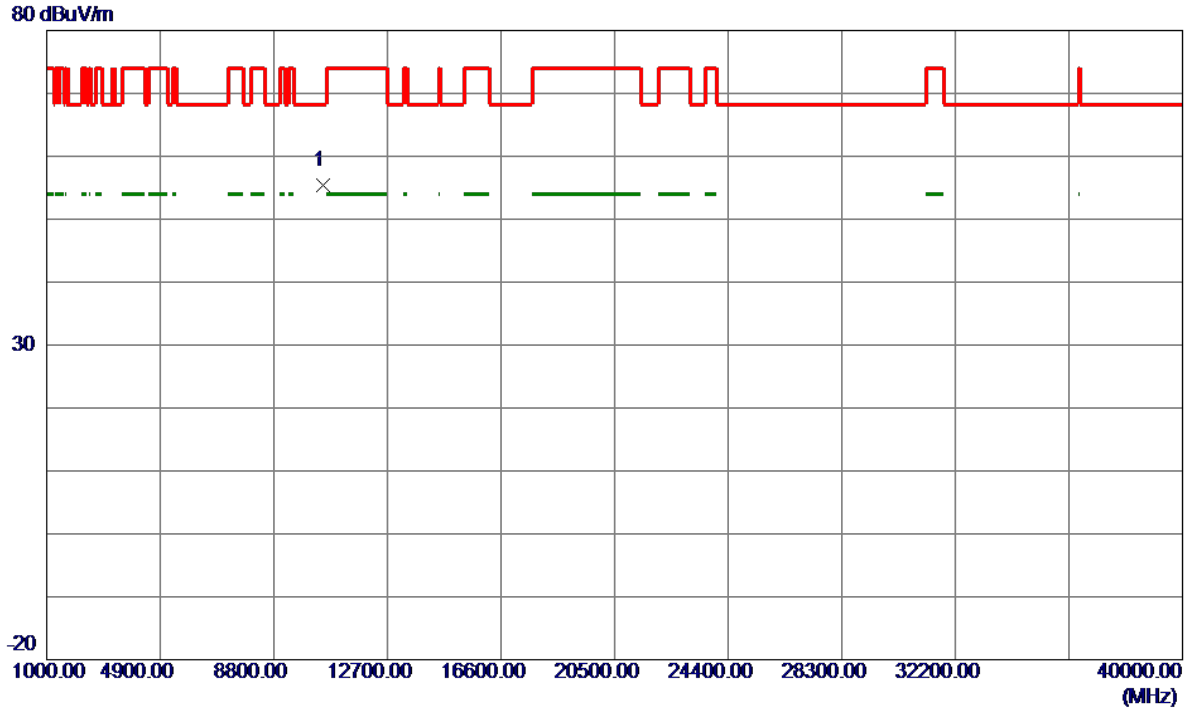
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5236.4000	90.81	18.24	109.05	68.20	40.85	Peak	No Limit
2	5236.8000	82.43	18.24	100.67	999.00	-898.33	AVG	No Limit

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

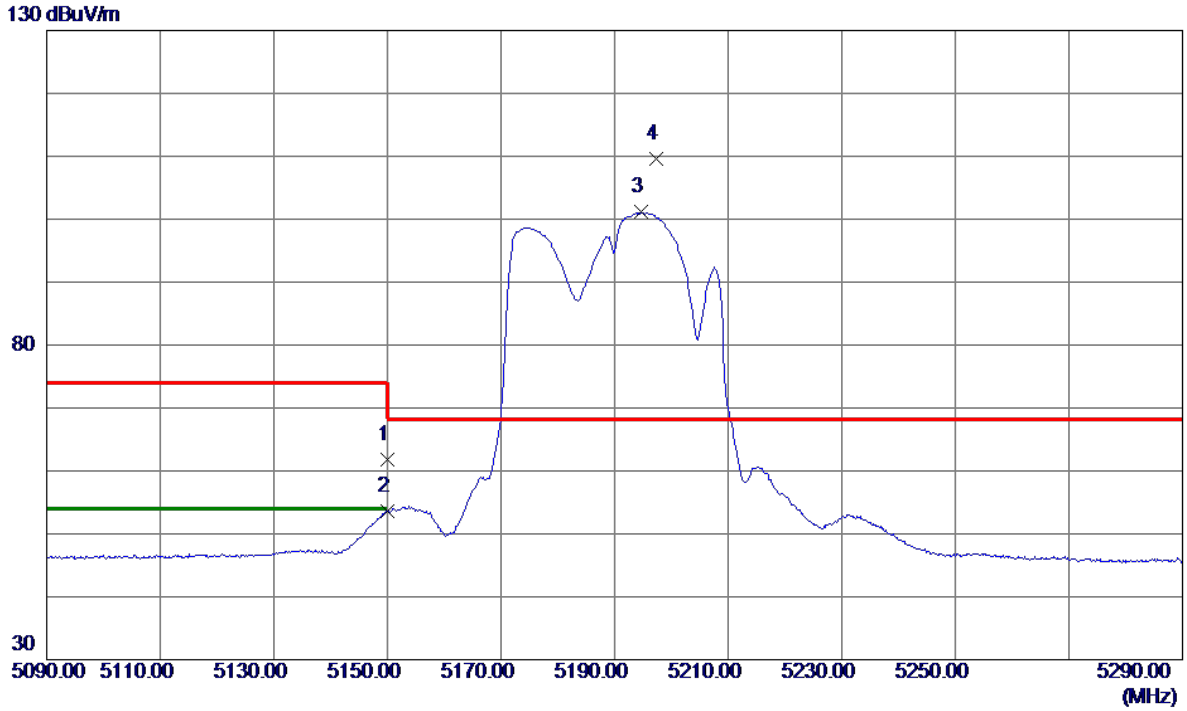
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10478.0400	39.60	15.74	55.34	68.30	-12.96	Peak	

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

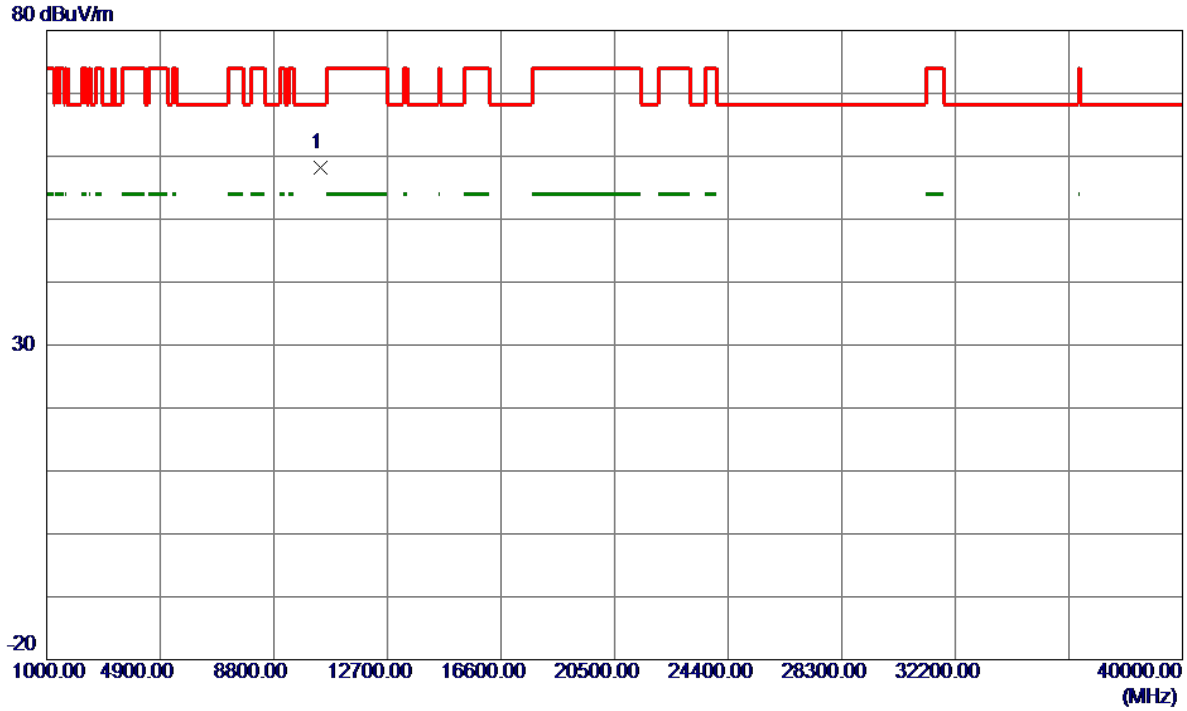
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	43.68	18.05	61.73	74.00	-12.27	Peak	
2	5150.0000	35.63	18.05	53.68	54.00	-0.32	AVG	
3	5194.7000	83.04	18.18	101.22	999.00	-897.78	AVG	No Limit
4 *	5197.3000	91.35	18.19	109.54	68.20	41.34	Peak	No Limit

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

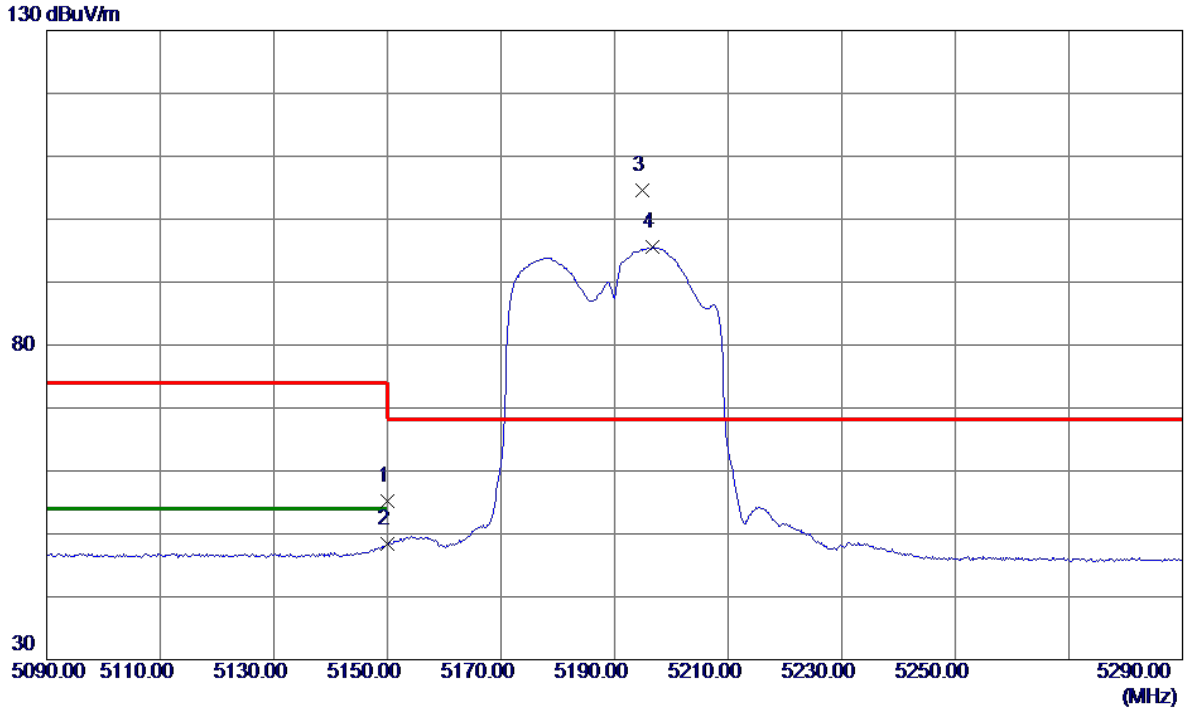
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10384.6600	42.59	15.62	58.21	68.30	-10.09	Peak	

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

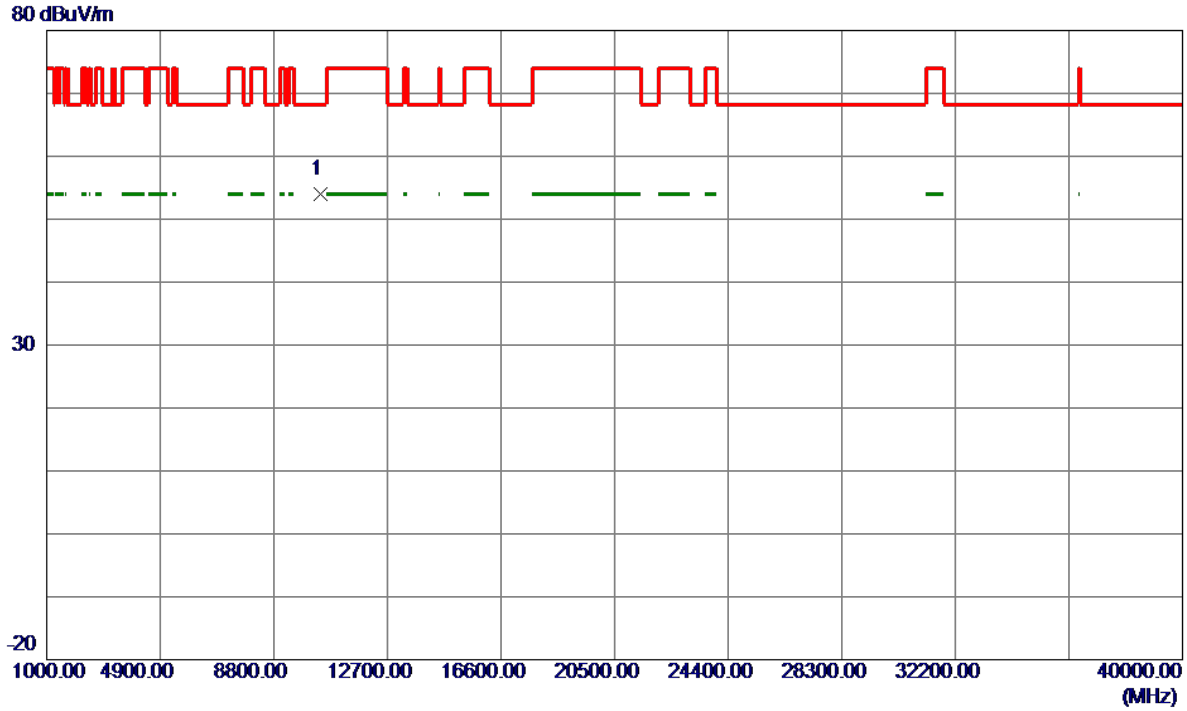
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	37.27	17.90	55.17	74.00	-18.83	Peak	
2	5150.0000	30.49	17.90	48.39	54.00	-5.61	AVG	
3 *	5194.8000	86.53	18.08	104.61	68.20	36.41	Peak	No Limit
4	5196.6000	77.47	18.08	95.55	999.00	-903.45	AVG	No Limit

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

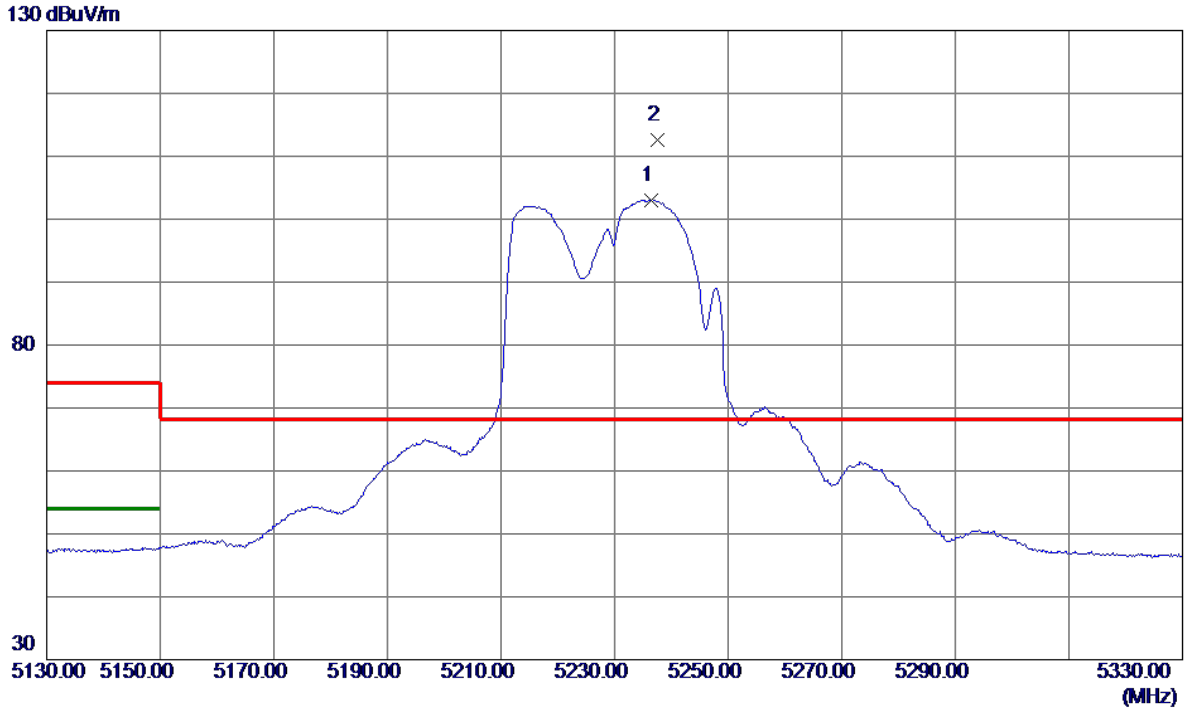
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10384.6600	38.34	15.62	53.96	68.30	-14.34	Peak	

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

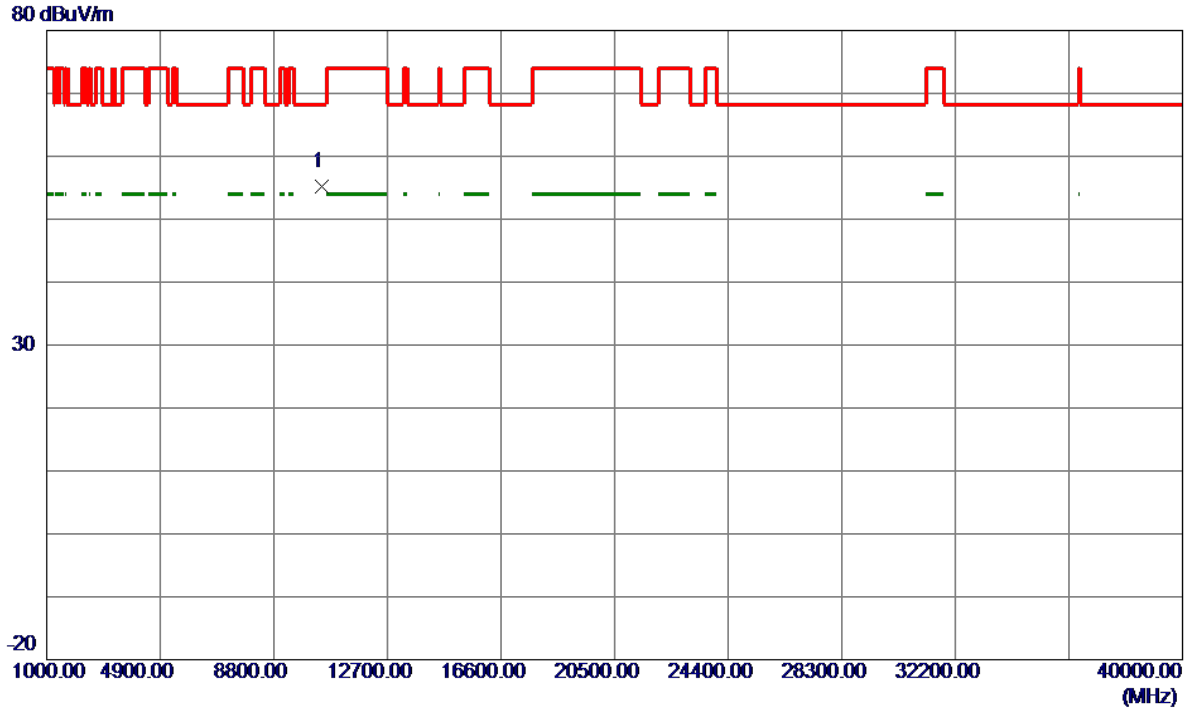
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5236.4000	84.71	18.31	103.02	999.00	-895.98	AVG	No Limit
2 *	5237.6000	94.22	18.32	112.54	68.20	44.34	Peak	No Limit

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

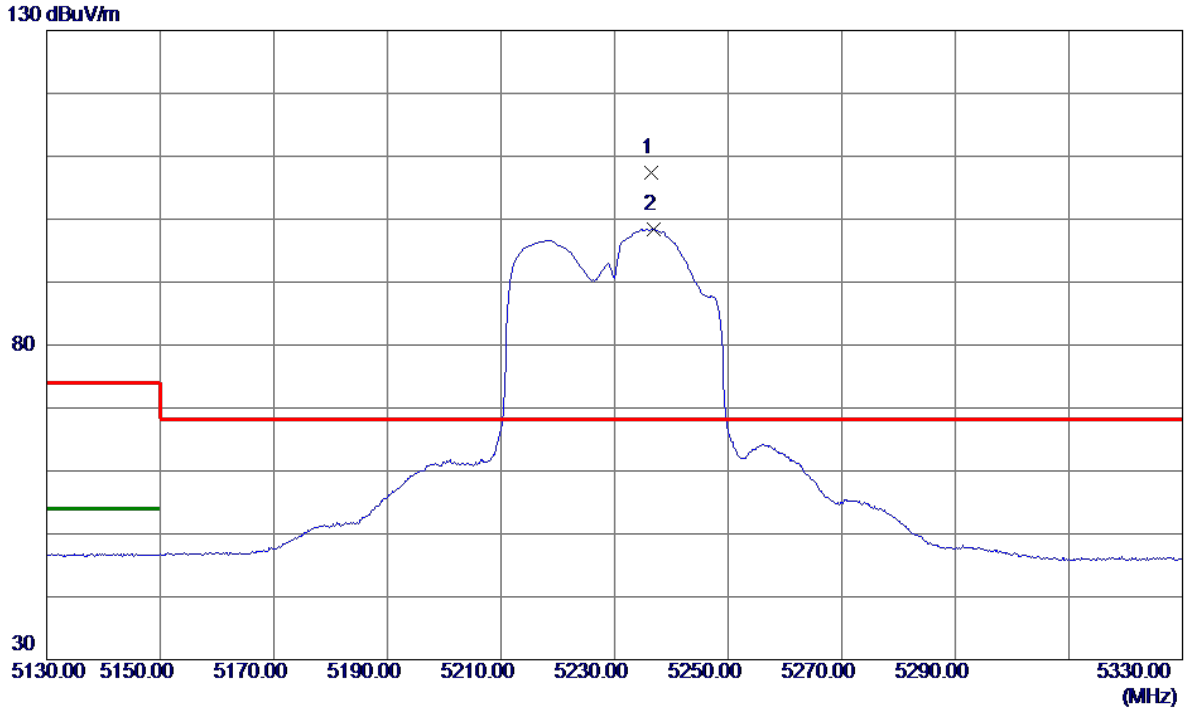
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10463.9800	39.40	15.72	55.12	68.30	-13.18	Peak	

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

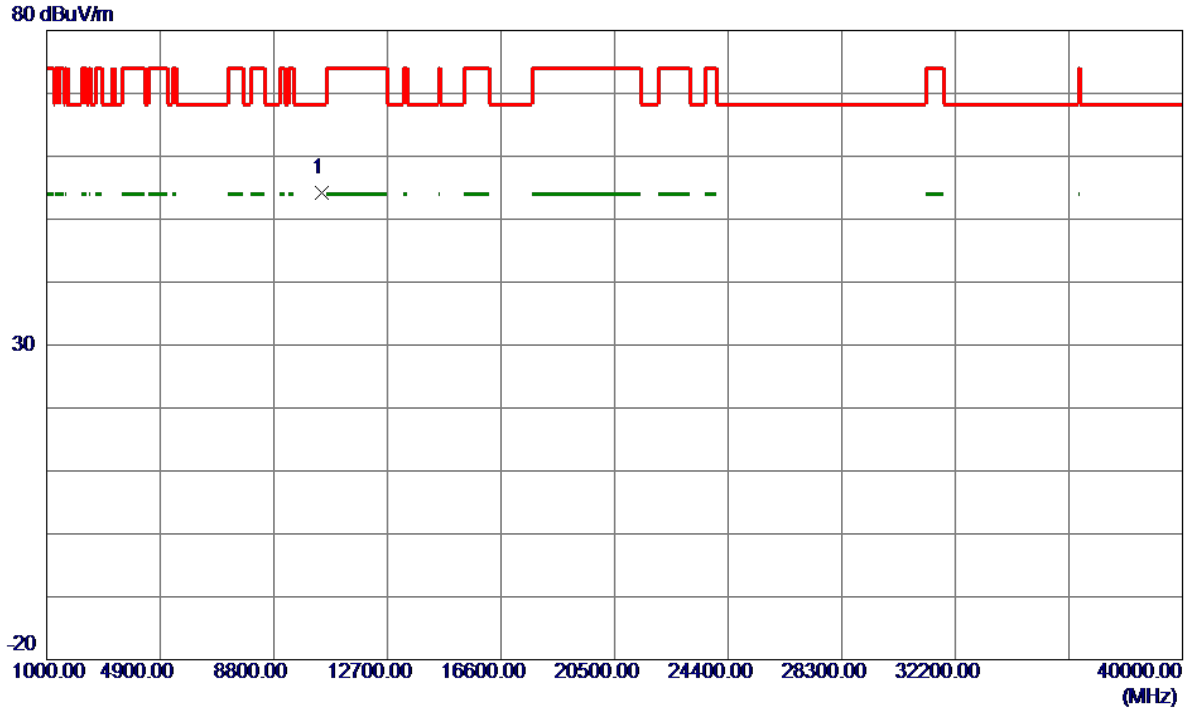
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5236.4000	89.19	18.24	107.43	68.20	39.23	Peak	No Limit
2	5236.8000	80.18	18.24	98.42	999.00	-900.58	AVG	No Limit

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

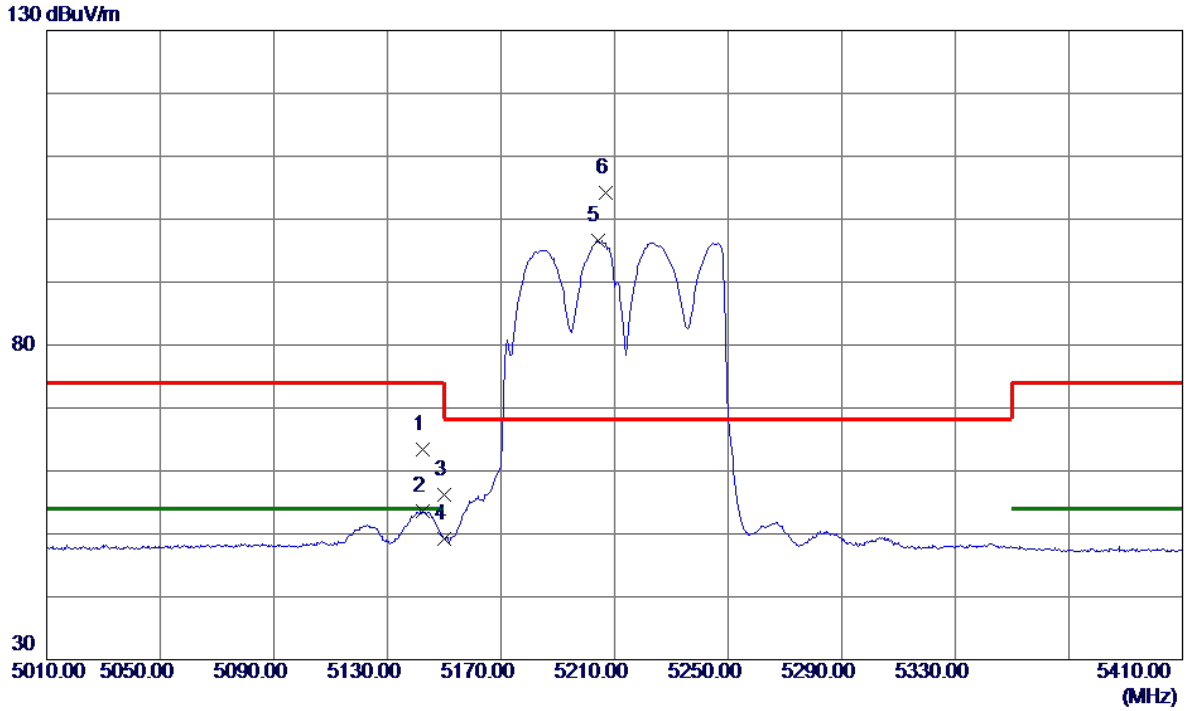
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10463.5700	38.49	15.72	54.21	68.30	-14.09	Peak	

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

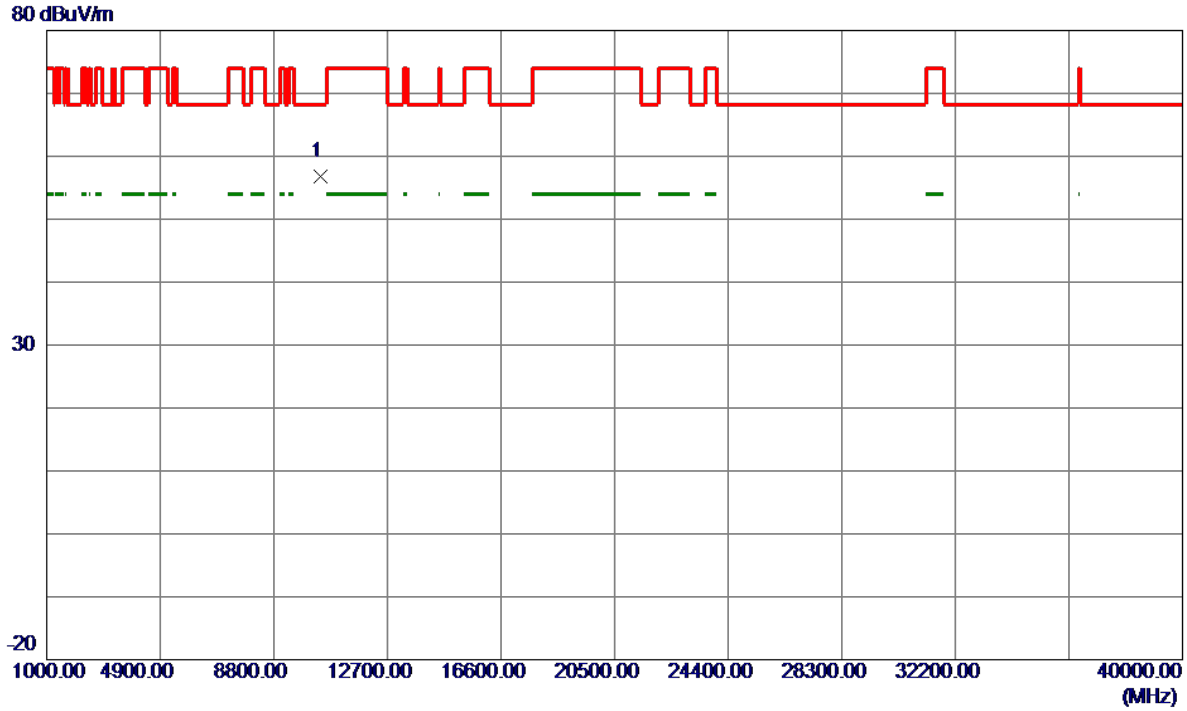
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5142.4000	45.30	18.02	63.32	74.00	-10.68	Peak	
2	5142.4000	35.61	18.02	53.63	54.00	-0.37	AVG	
3	5150.0000	38.11	18.05	56.16	74.00	-17.84	Peak	
4	5150.0000	31.21	18.05	49.26	54.00	-4.74	AVG	
5	5204.0000	78.37	18.21	96.58	999.00	-902.42	AVG	No Limit
6 *	5206.8000	85.97	18.22	104.19	68.20	35.99	Peak	No Limit

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

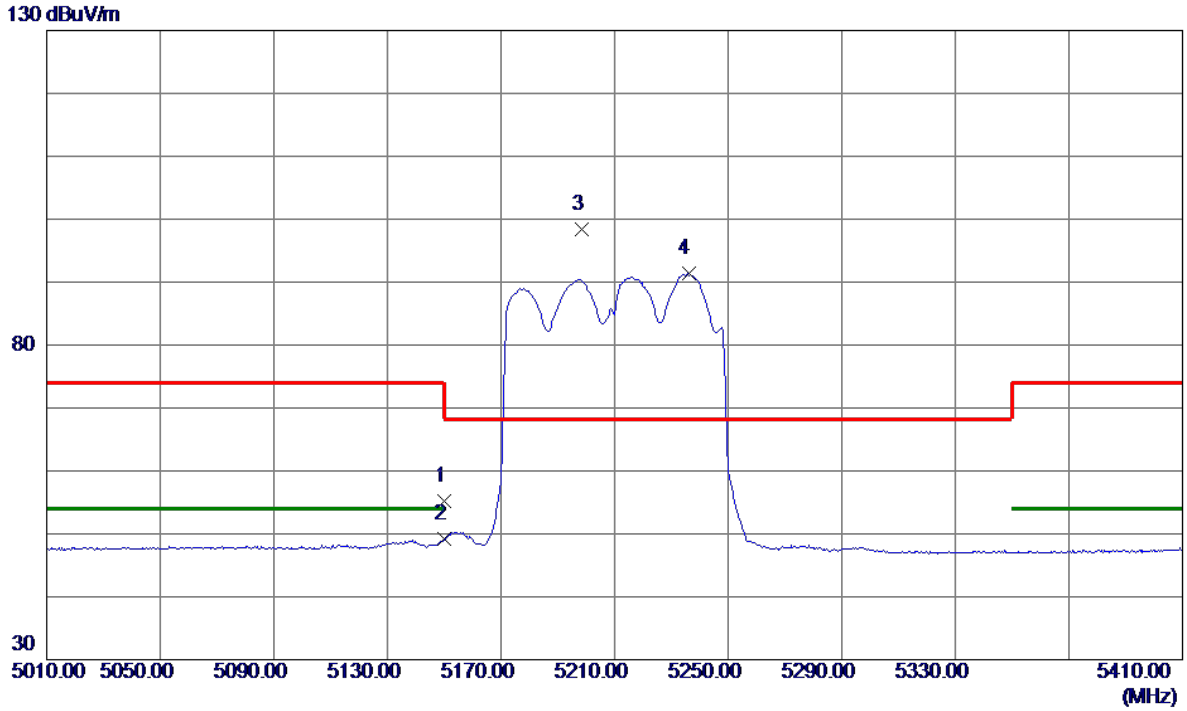
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10420.7200	41.21	15.66	56.87	68.30	-11.43	Peak	

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

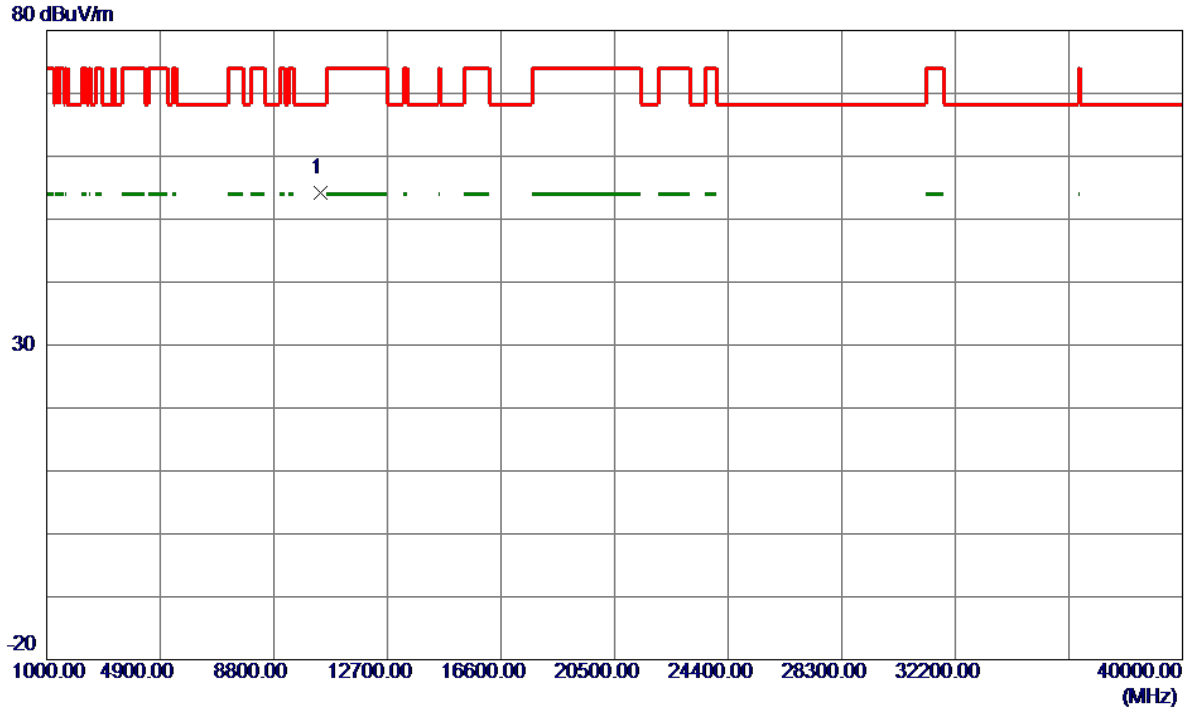
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	37.26	17.90	55.16	74.00	-18.84	Peak	
2	5150.0000	31.31	17.90	49.21	54.00	-4.79	AVG	
3 *	5198.4000	80.32	18.09	98.41	68.20	30.21	Peak	No Limit
4	5236.0000	73.08	18.23	91.31	999.00	-907.69	AVG	No Limit

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

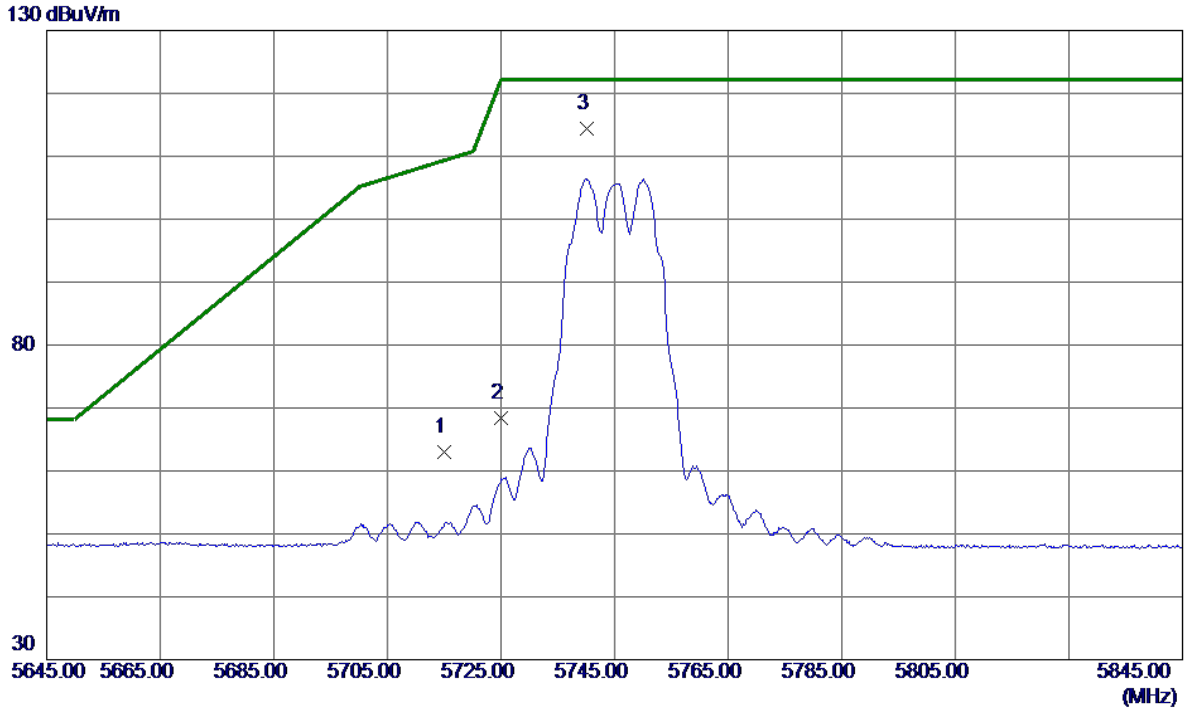
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10420.7100	38.57	15.66	54.23	68.30	-14.07	Peak	

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

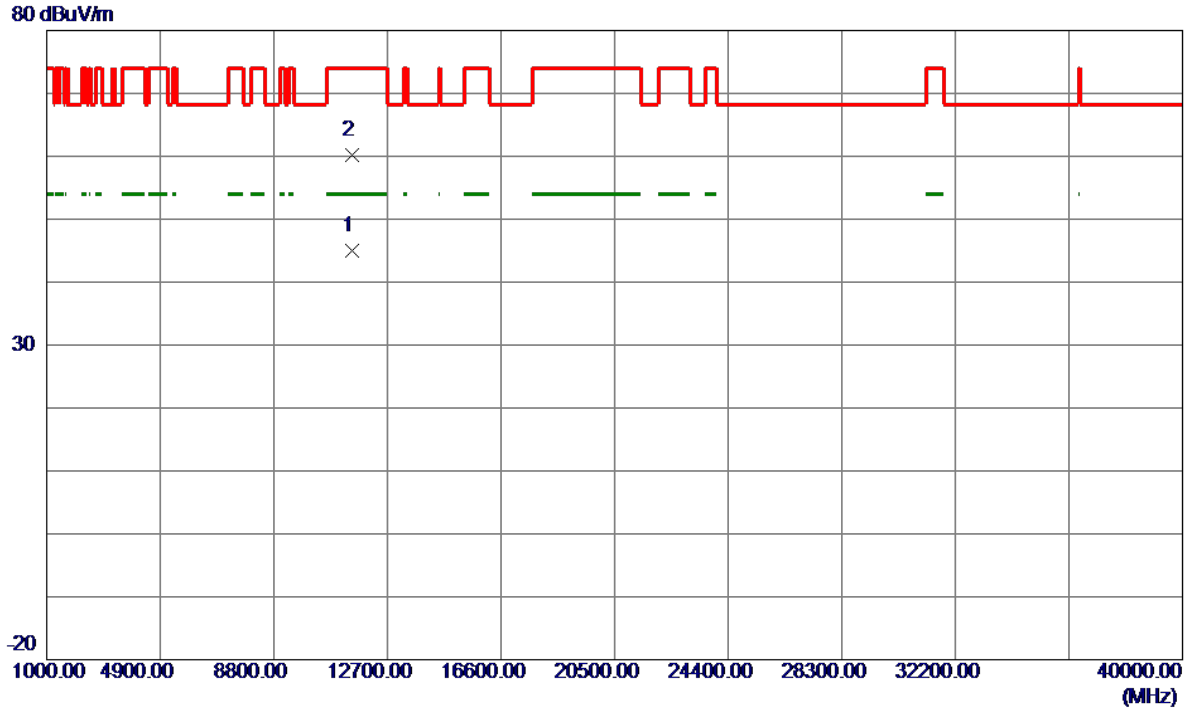
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	43.36	19.72	63.08	109.40	-46.32	Peak	
2	5725.0000	48.63	19.75	68.38	122.20	-53.82	Peak	
3 *	5740.2000	94.56	19.79	114.35	122.20	-7.85	Peak	No Limit

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

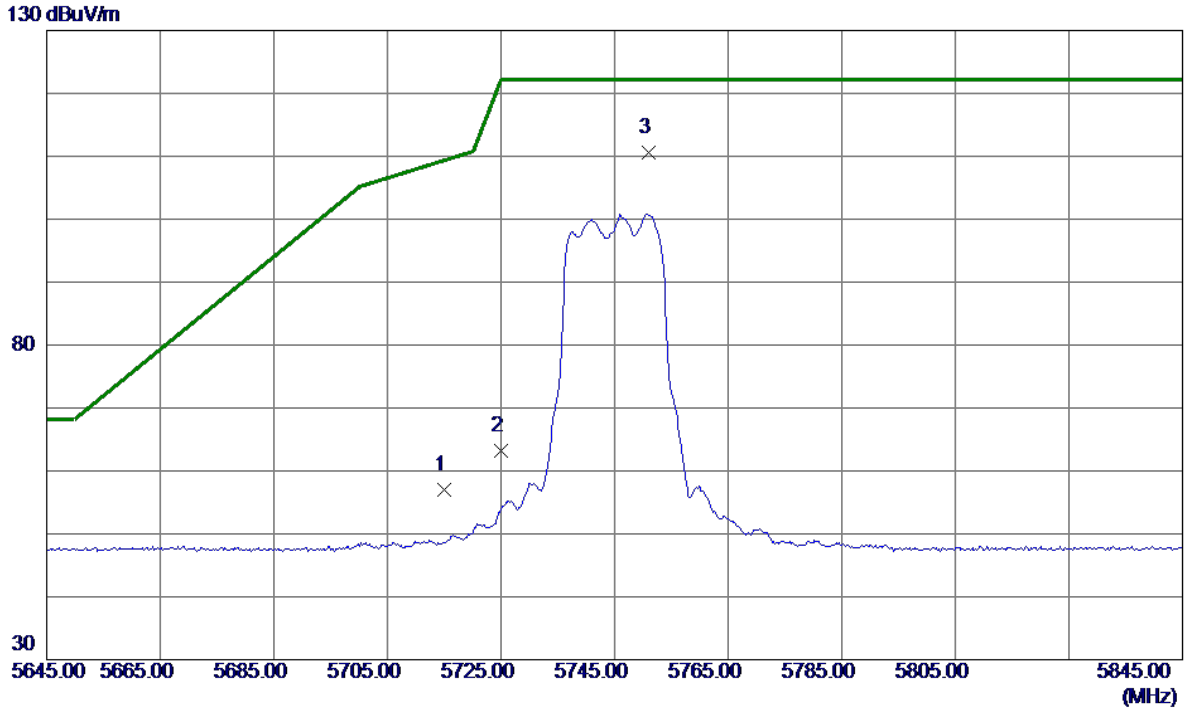
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11490.5700	28.35	16.65	45.00	54.00	-9.00	AVG	
2	11491.1449	43.51	16.65	60.16	74.00	-13.84	Peak	

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

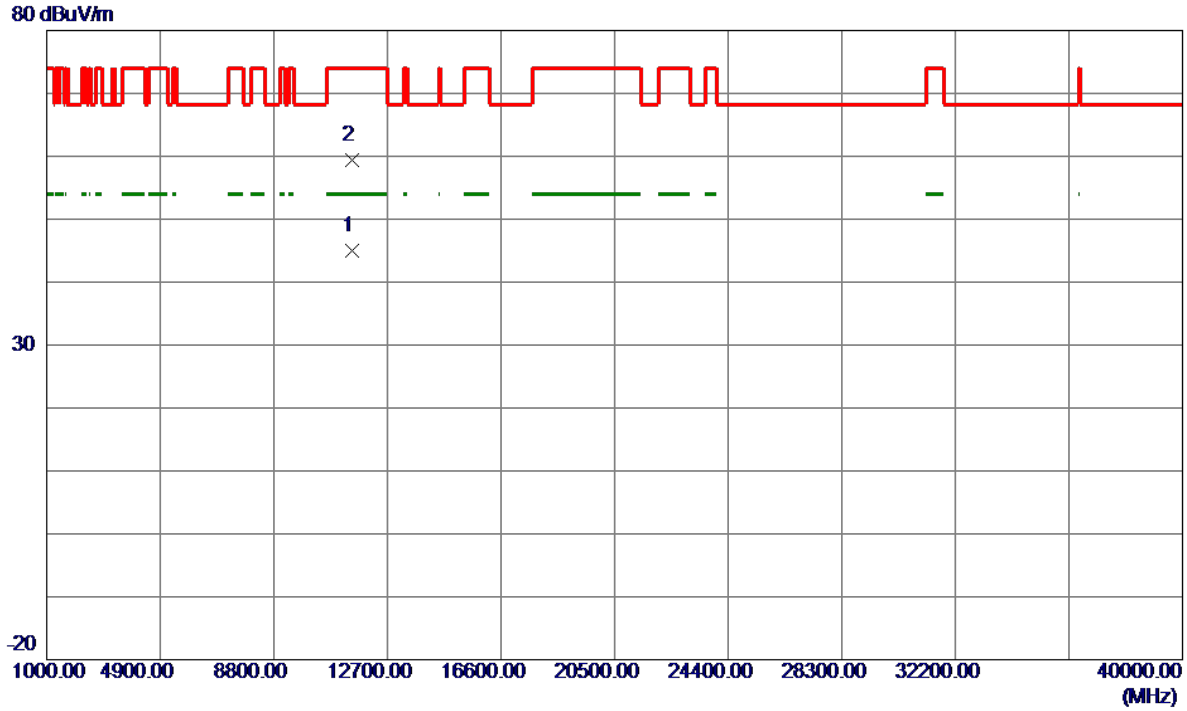
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	37.17	19.85	57.02	109.40	-52.38	Peak	
2	5725.0000	43.31	19.88	63.19	122.20	-59.01	Peak	
3 *	5751.0000	90.69	19.95	110.64	122.20	-11.56	Peak	No Limit

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

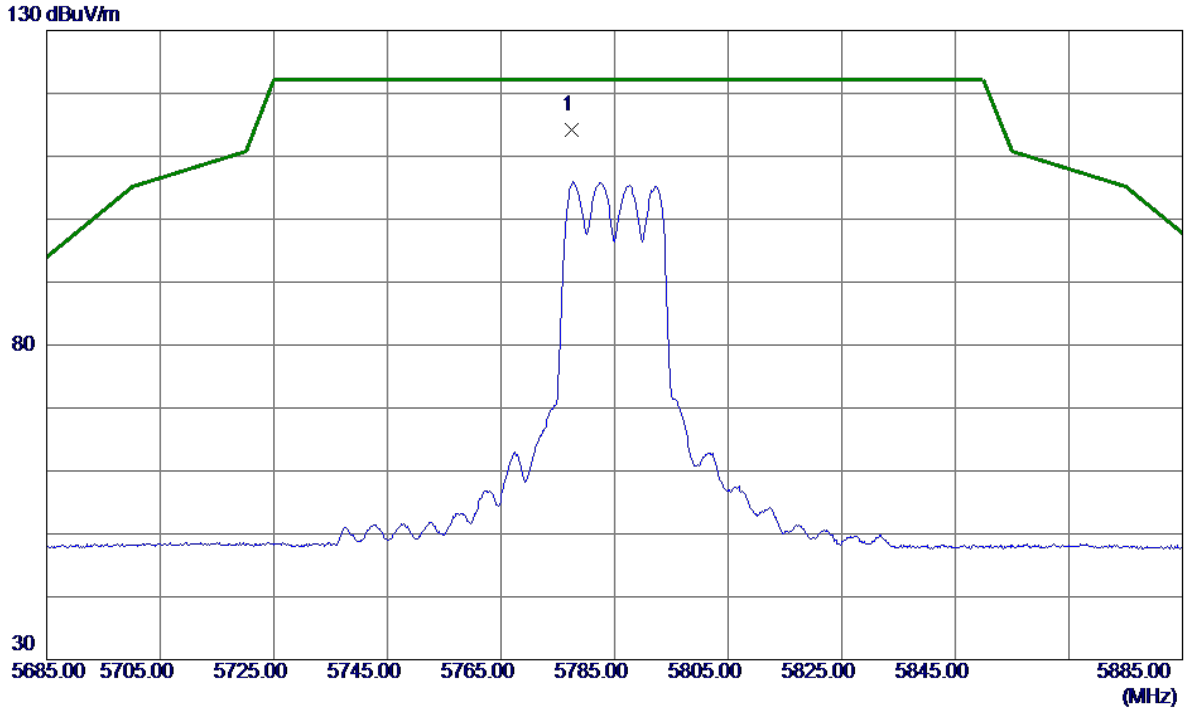
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11491.1900	28.27	16.65	44.92	54.00	-9.08	AVG	
2	11491.3300	42.68	16.65	59.33	74.00	-14.67	Peak	

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

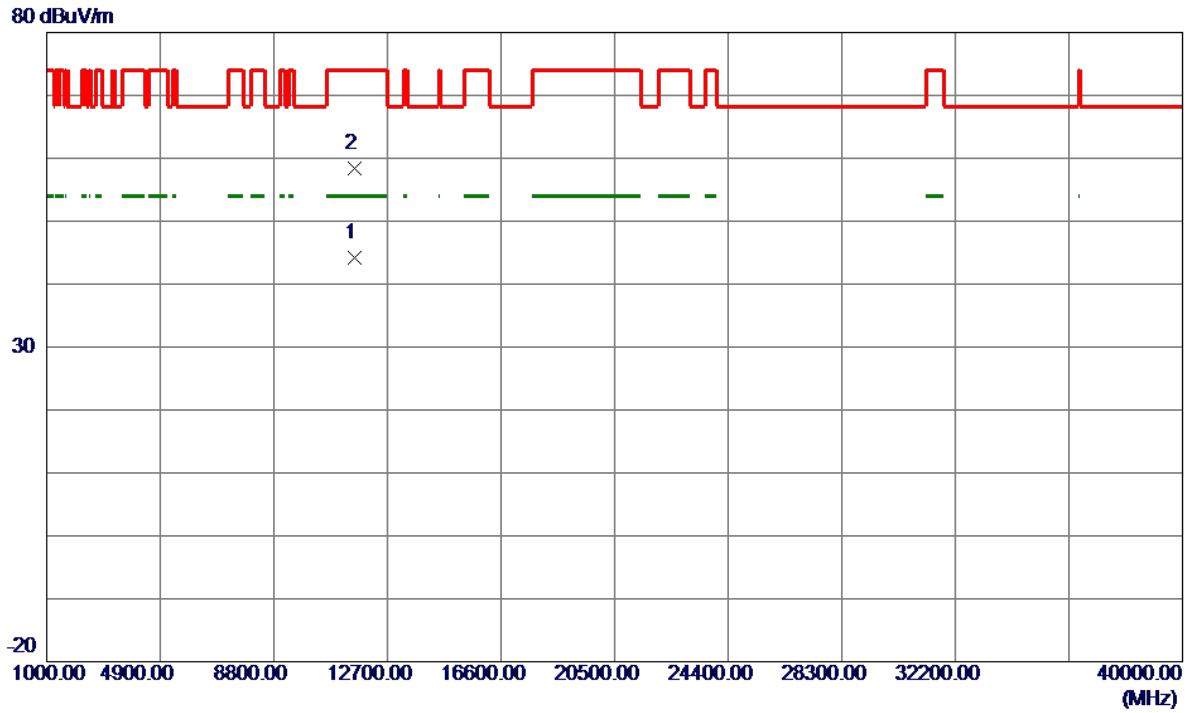
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5777.5000	94.35	19.90	114.25	122.20	-7.95	Peak	No Limit

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

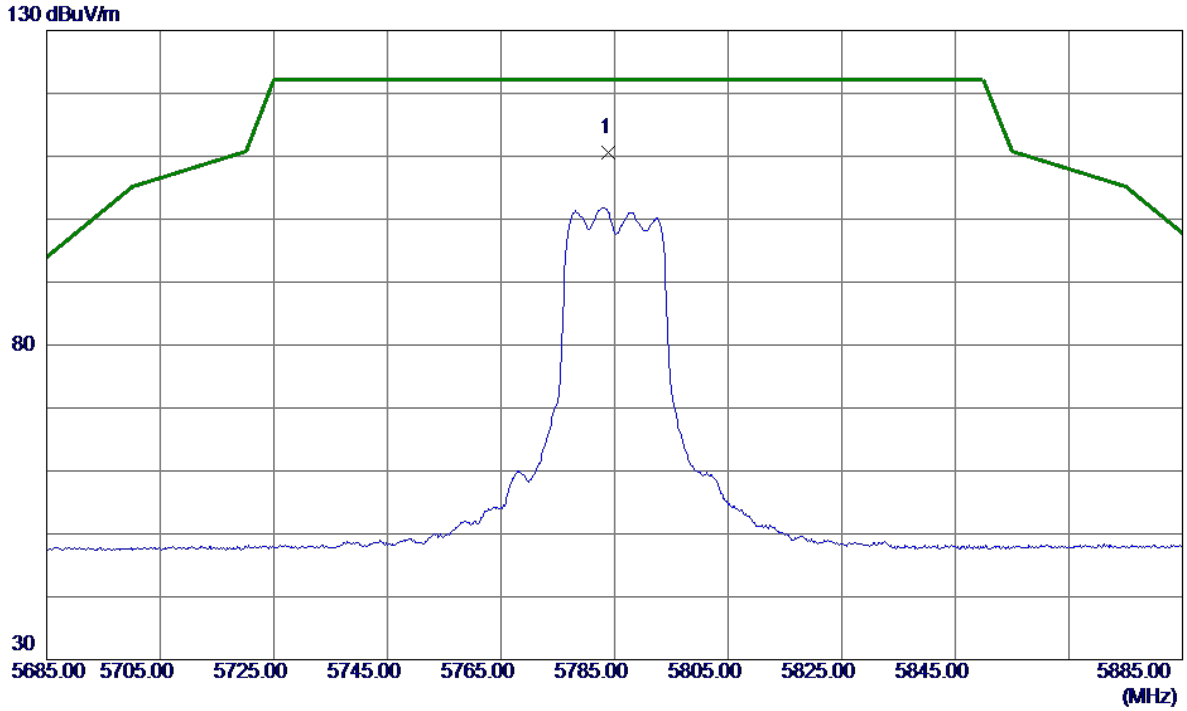
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11570.2850	27.54	16.73	44.27	54.00	-9.73	AVG	
2	11570.9200	41.69	16.73	58.42	74.00	-15.58	Peak	

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

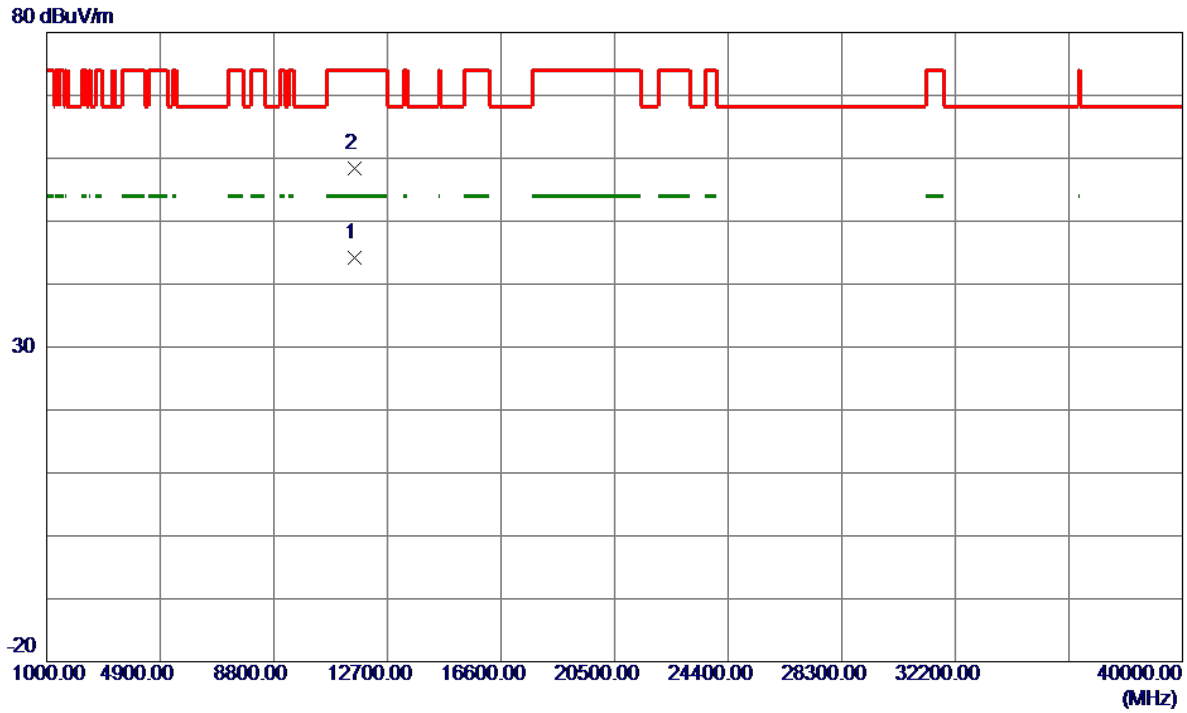
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5784.0000	90.61	20.05	110.66	122.20	-11.54	Peak	No Limit

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

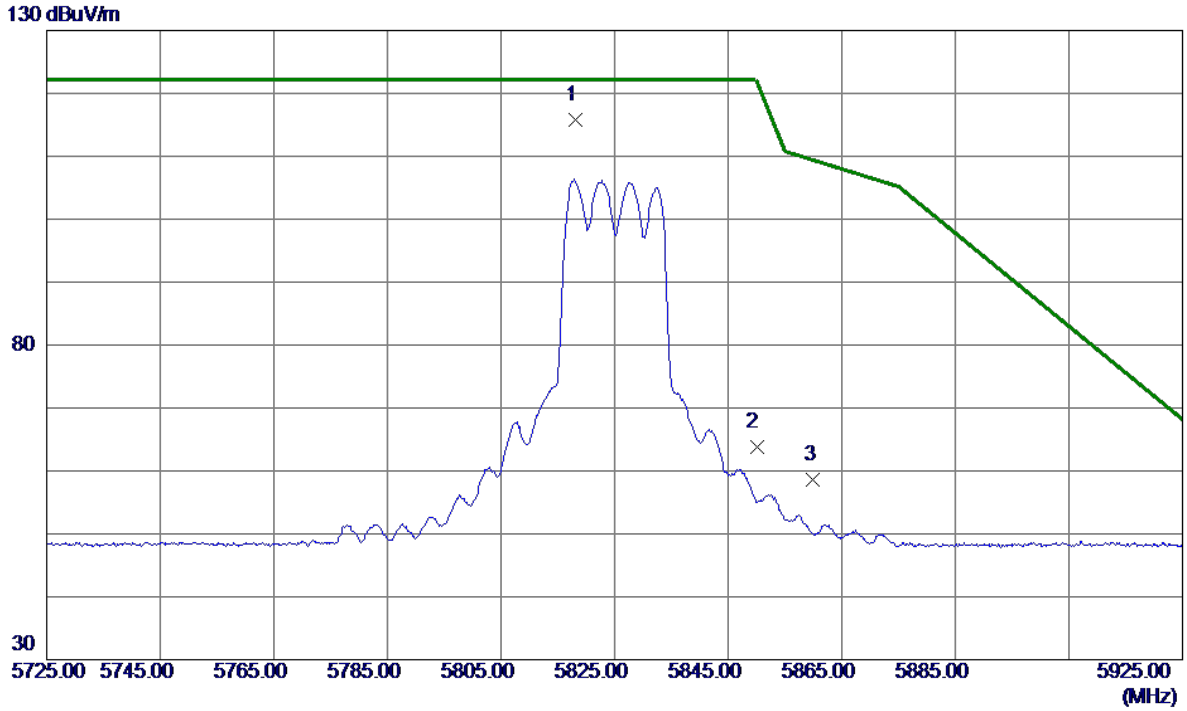
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11570.3700	27.44	16.73	44.17	54.00	-9.83	AVG	
2	11570.6400	41.64	16.73	58.37	74.00	-15.63	Peak	

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

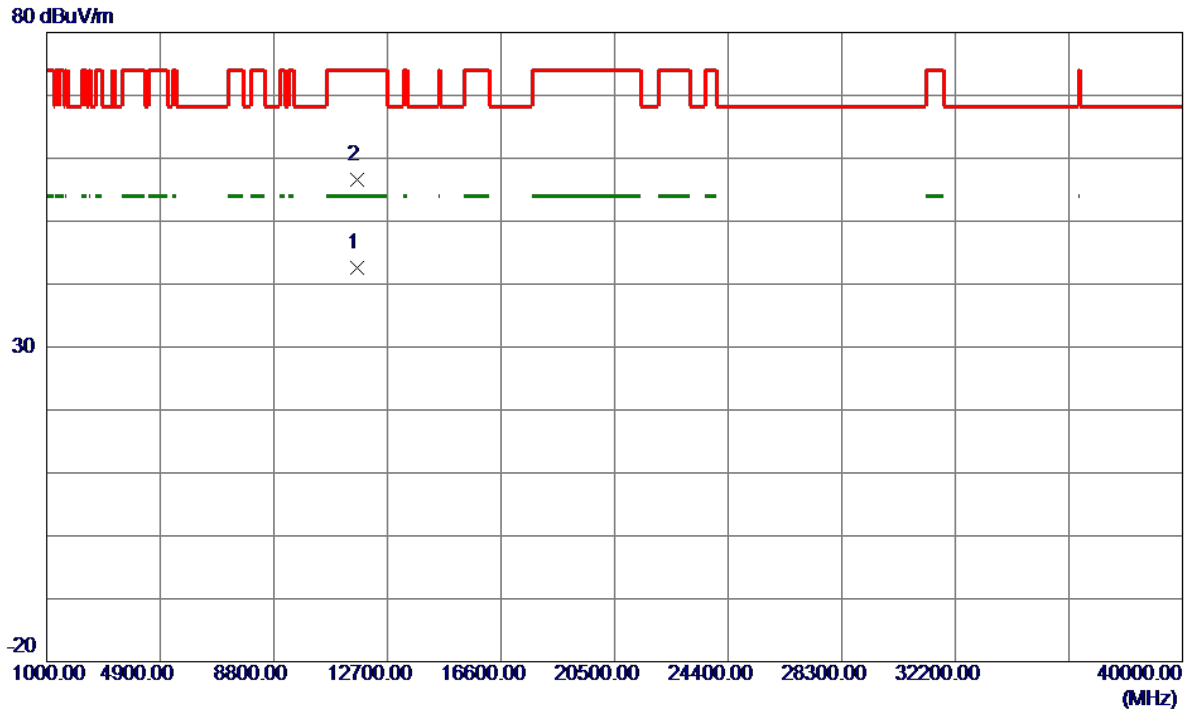
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5818.2000	95.78	20.01	115.79	122.20	-6.41	Peak	No Limit
2	5850.0000	43.78	20.10	63.88	122.20	-58.32	Peak	
3	5860.0000	38.41	20.13	58.54	109.40	-50.86	Peak	

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

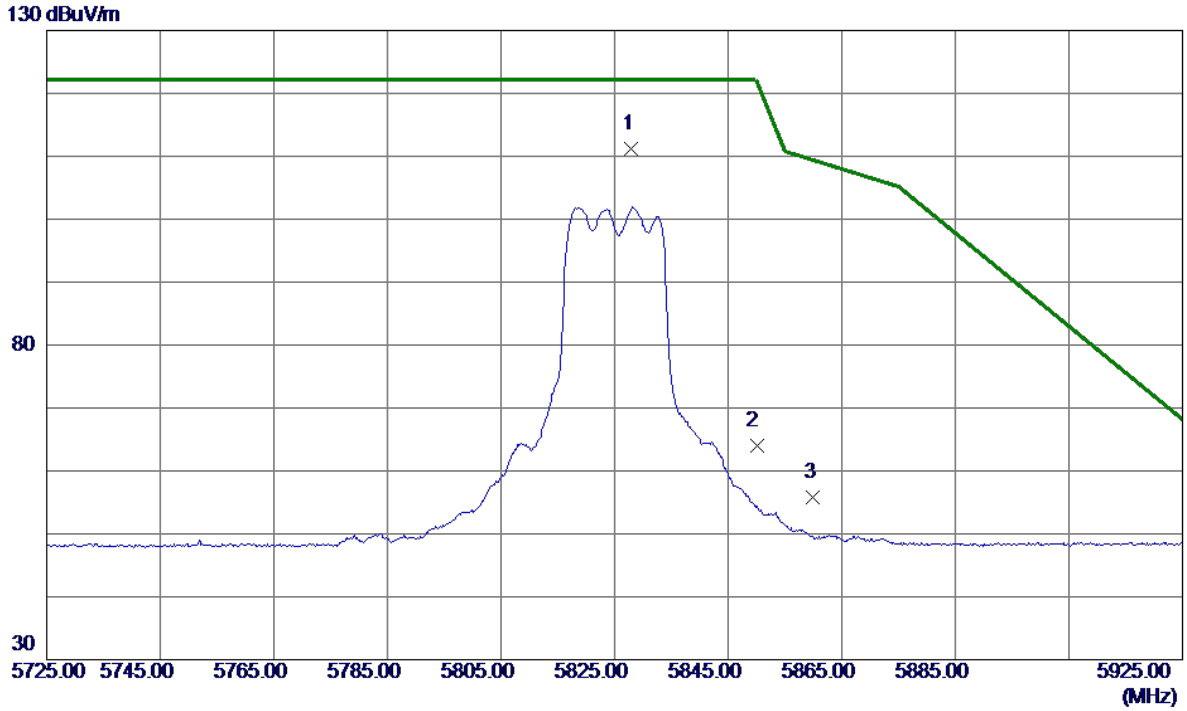
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11650.2850	25.85	16.81	42.66	54.00	-11.34	AVG	
2	11650.7900	39.83	16.81	56.64	74.00	-17.36	Peak	

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

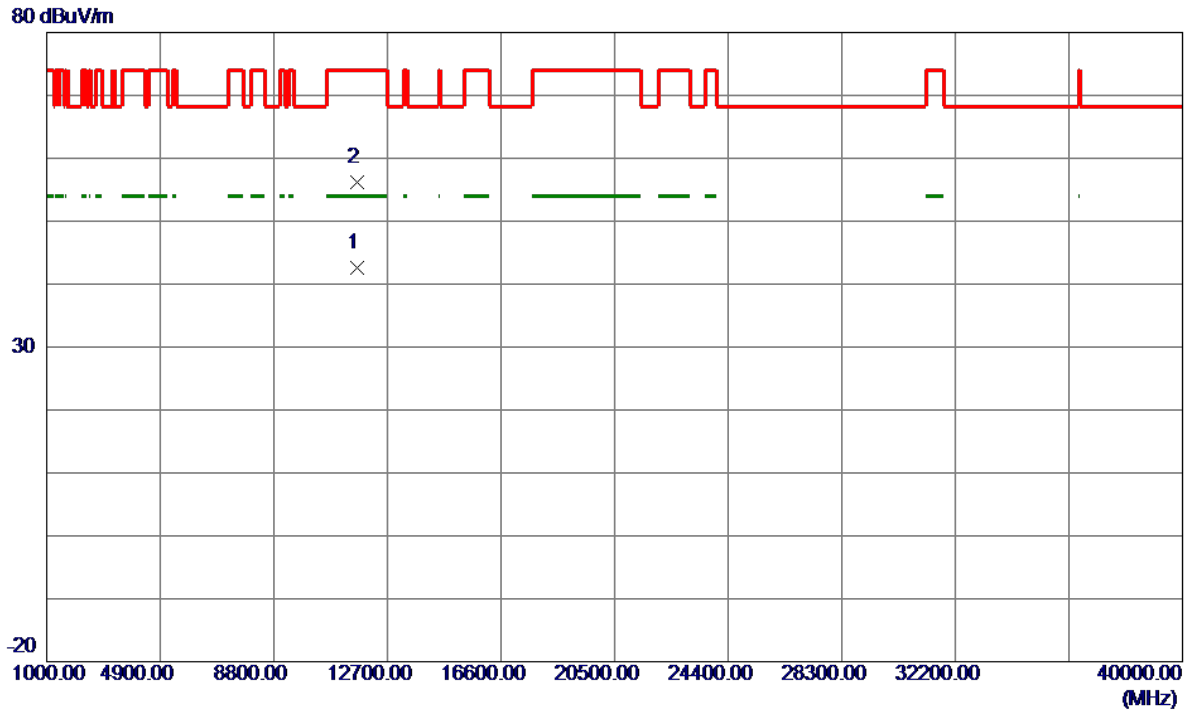
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5828.0000	91.06	20.17	111.23	122.20	-10.97	Peak	No Limit
2	5850.0000	43.72	20.23	63.95	122.20	-58.25	Peak	
3	5860.0000	35.54	20.26	55.80	109.40	-53.60	Peak	

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

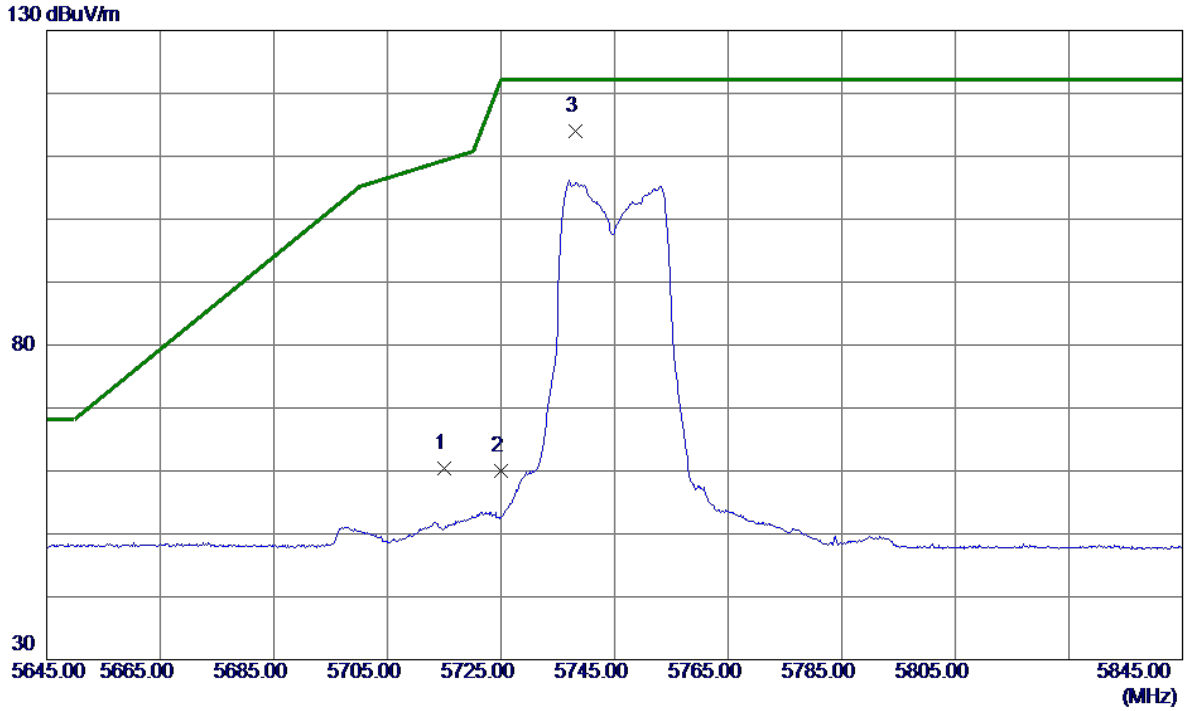
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11650.3850	25.77	16.81	42.58	54.00	-11.42	AVG	
2	11650.6800	39.43	16.81	56.24	74.00	-17.76	Peak	

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

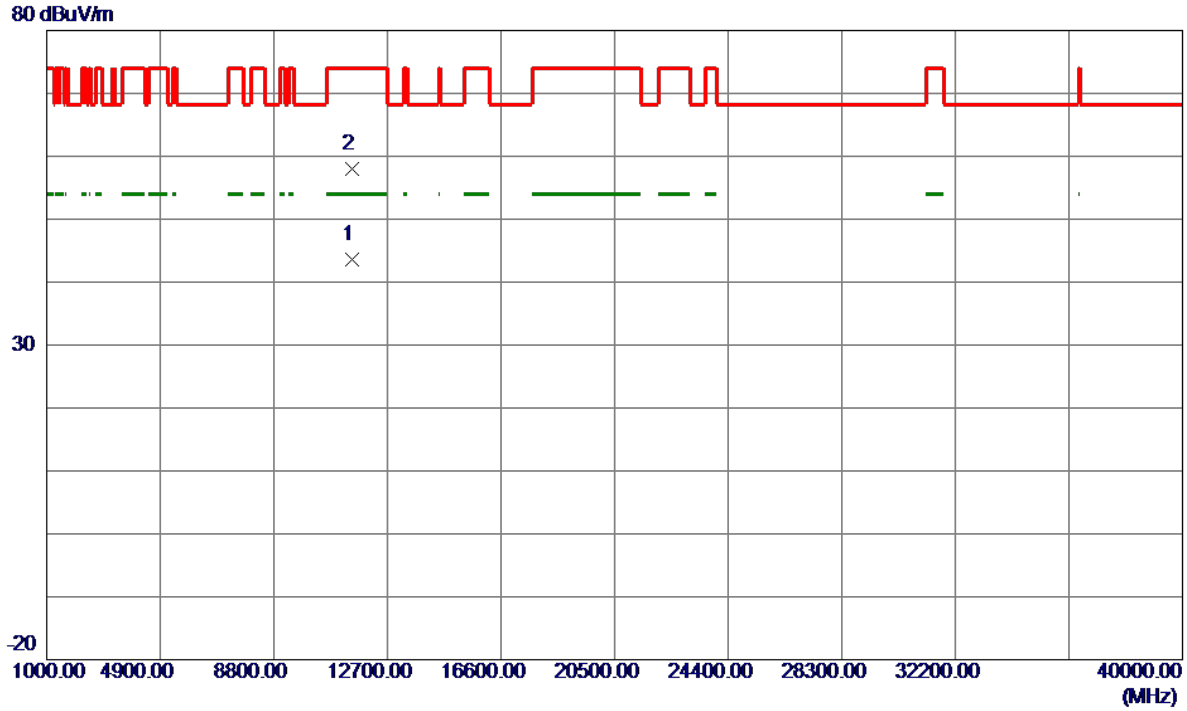
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	40.67	19.72	60.39	109.40	-49.01	Peak	
2	5725.0000	40.26	19.75	60.01	122.20	-62.19	Peak	
3 *	5738.1000	94.11	19.79	113.90	122.20	-8.30	Peak	No Limit

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

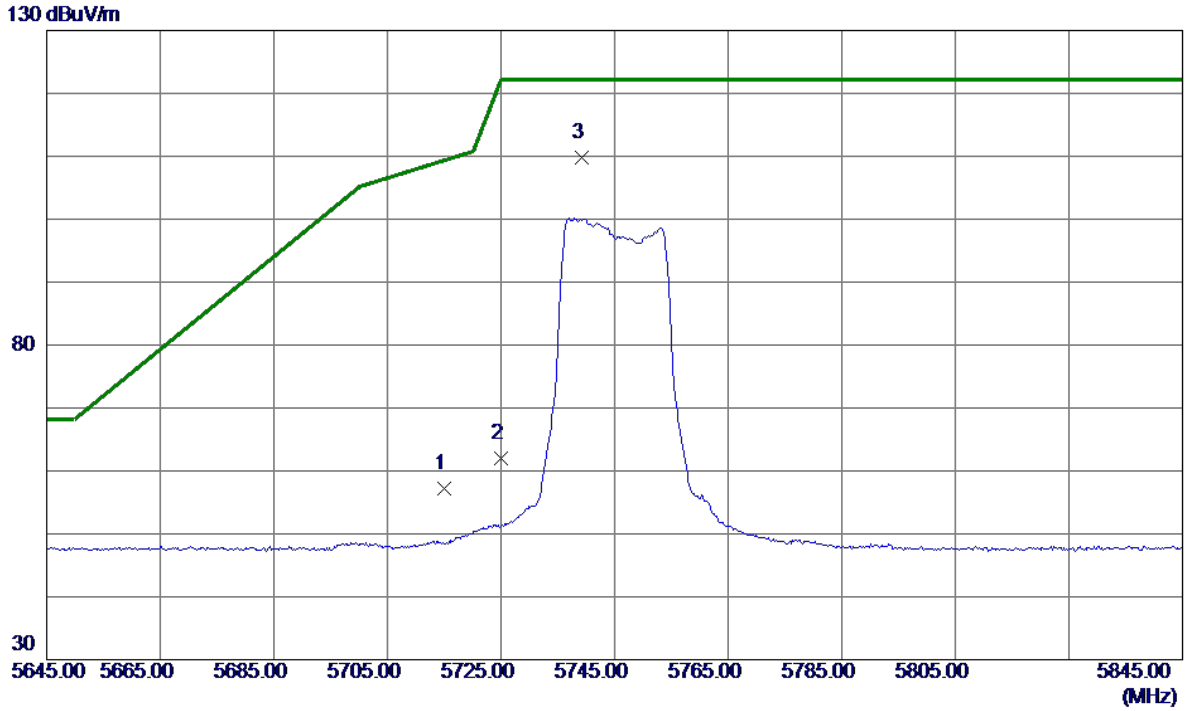
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11490.2000	26.98	16.65	43.63	54.00	-10.37	AVG	
2	11490.7900	41.37	16.65	58.02	74.00	-15.98	Peak	

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

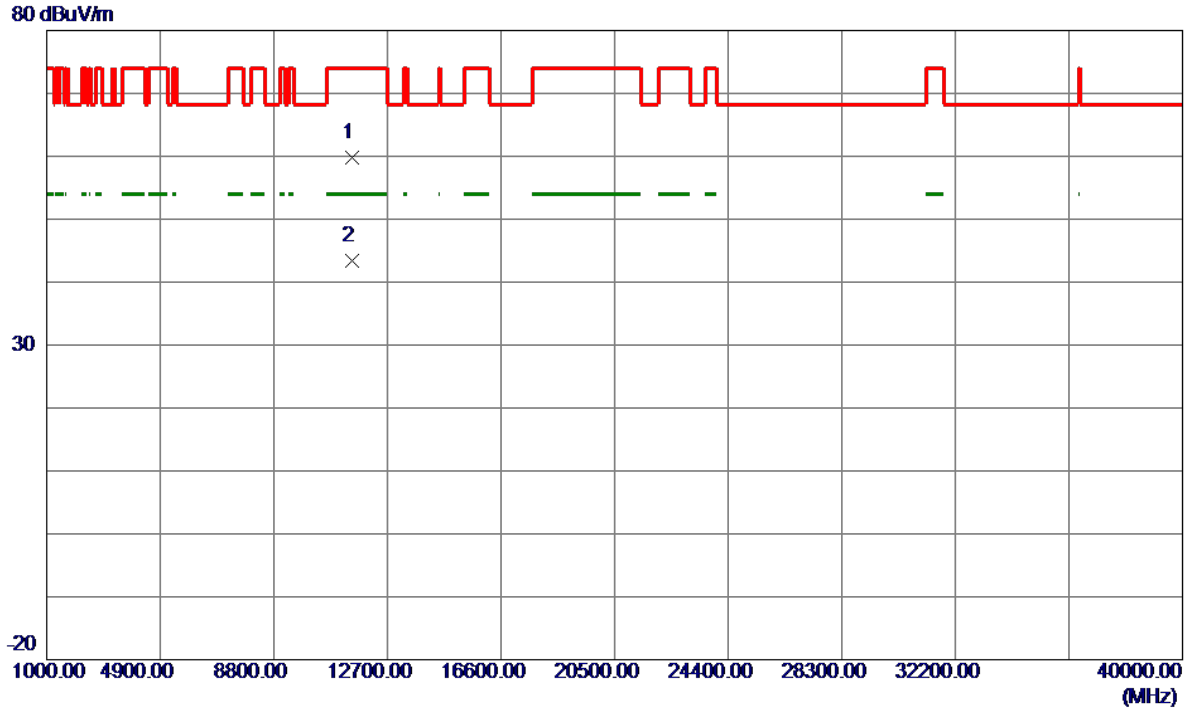
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	37.27	19.85	57.12	109.40	-52.28	Peak	
2	5725.0000	42.09	19.88	61.97	122.20	-60.23	Peak	
3 *	5739.2000	89.95	19.92	109.87	122.20	-12.33	Peak	No Limit

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

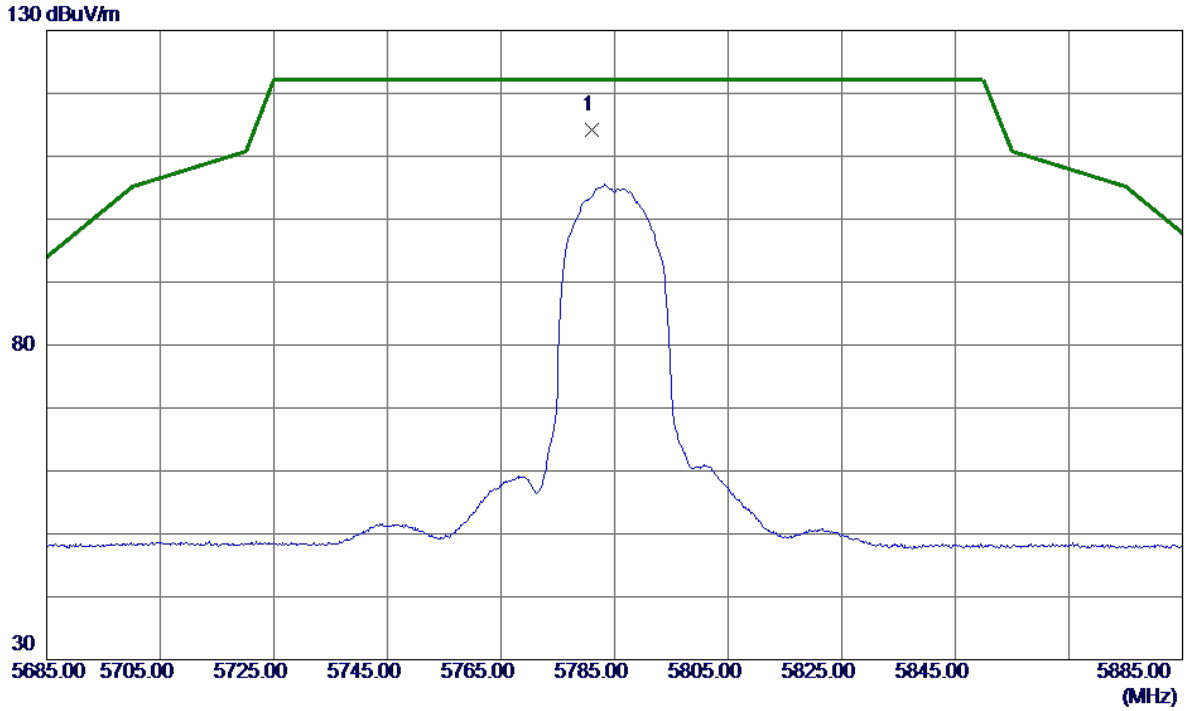
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11490.3600	43.07	16.65	59.72	74.00	-14.28	Peak	
2 *	11492.4300	26.72	16.65	43.37	54.00	-10.63	AVG	

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

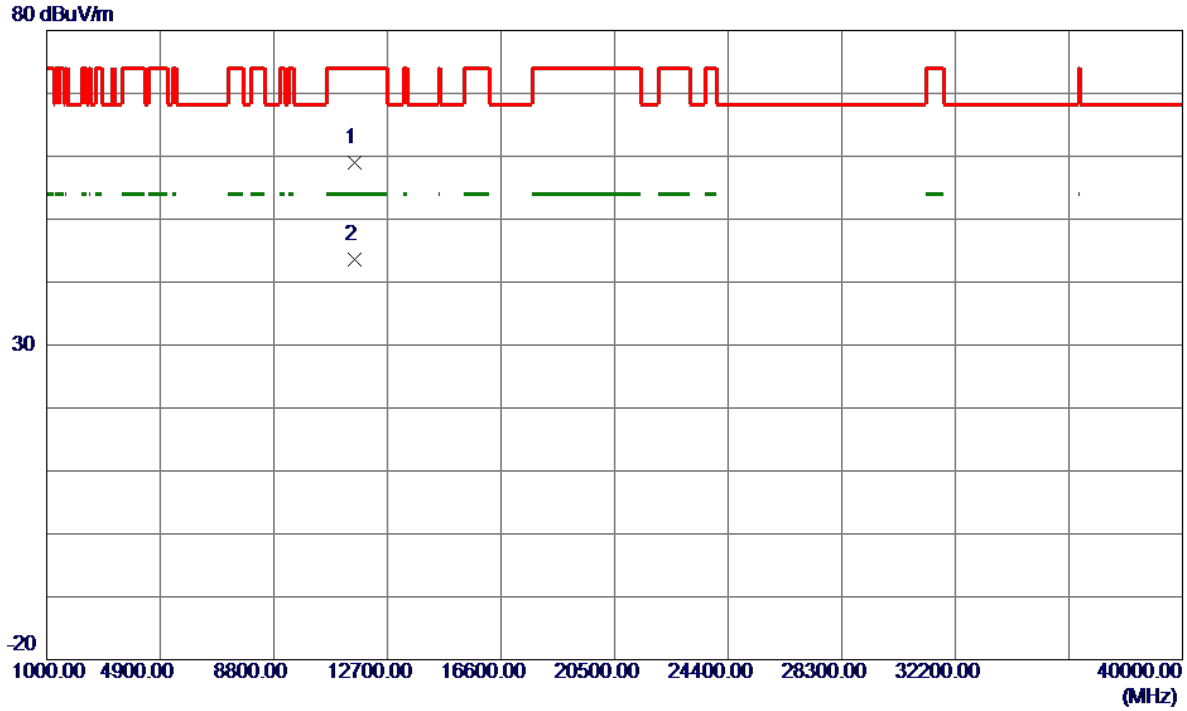
Test Mode	UNII-3_TX AC(VHT20) Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5781.1000	94.30	19.91	114.21	122.20	-7.99	Peak	No Limit

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

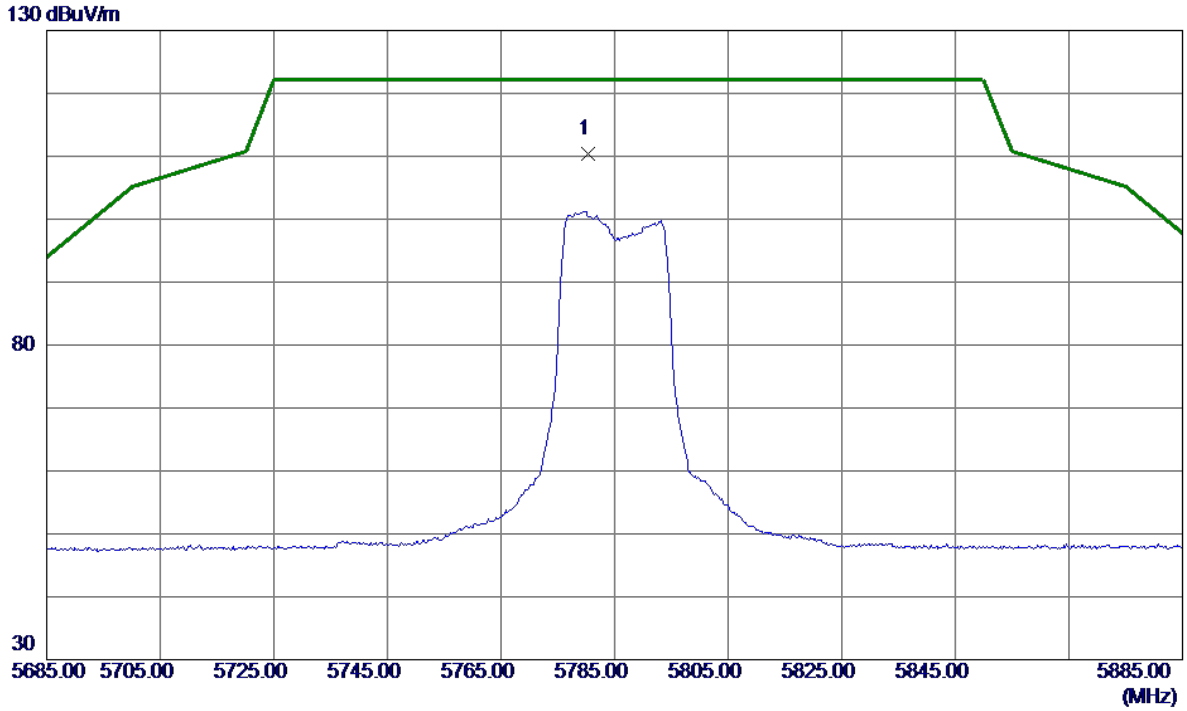
Test Mode	UNII-3_TX AC(VHT20) Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11570.6650	42.36	16.73	59.09	74.00	-14.91	Peak	
2 *	11572.4700	26.86	16.73	43.59	54.00	-10.41	AVG	

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

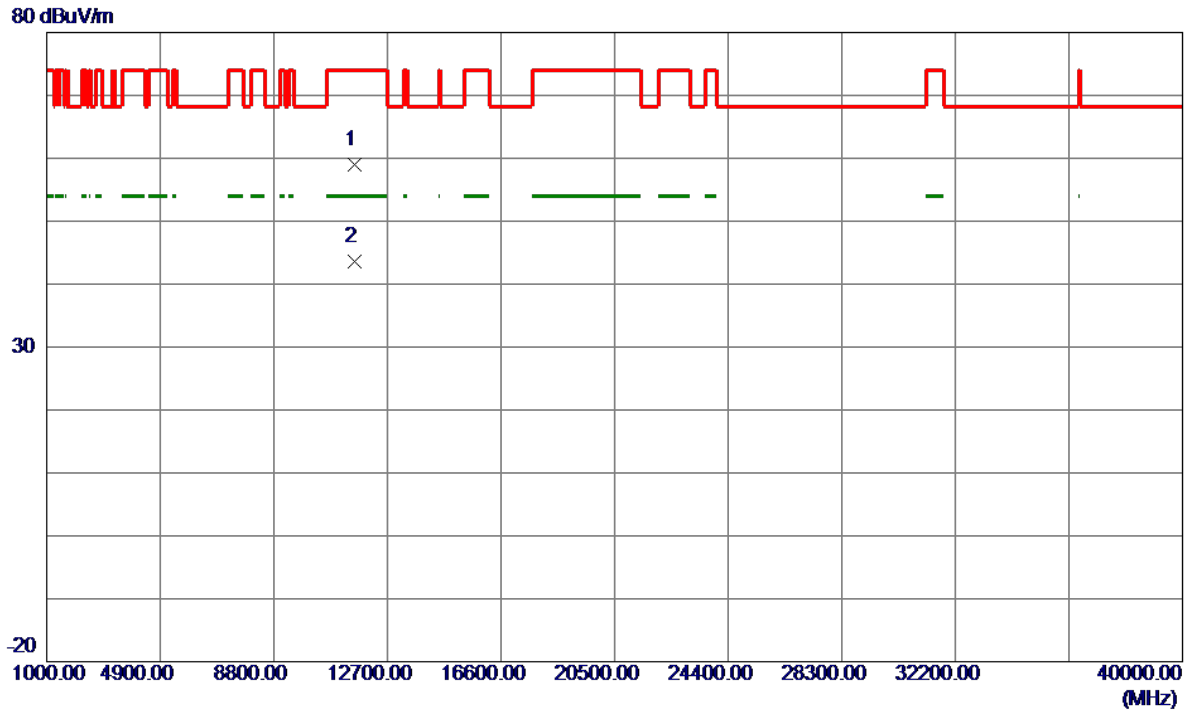
Test Mode	UNII-3_TX AC(VHT20) Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5780.4000	90.38	20.04	110.42	122.20	-11.78	Peak	No Limit

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

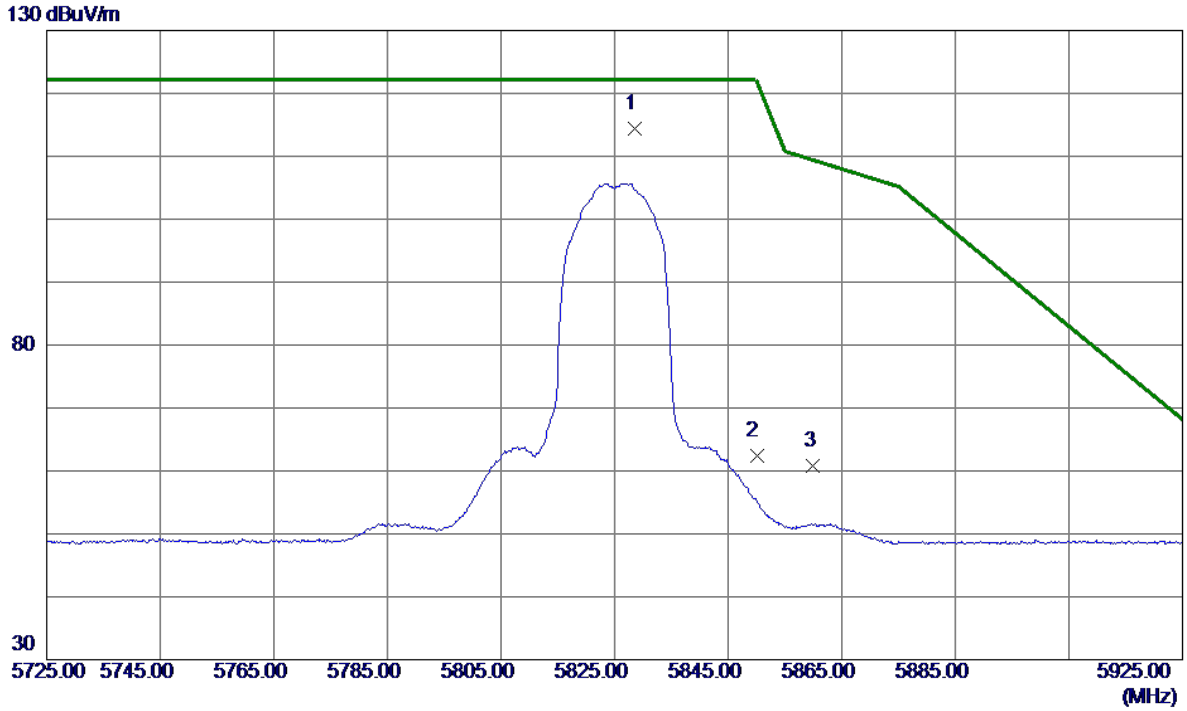
Test Mode	UNII-3_TX AC(VHT20) Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11571.1600	42.35	16.73	59.08	74.00	-14.92	Peak	
2 *	11572.2699	26.80	16.73	43.53	54.00	-10.47	AVG	

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

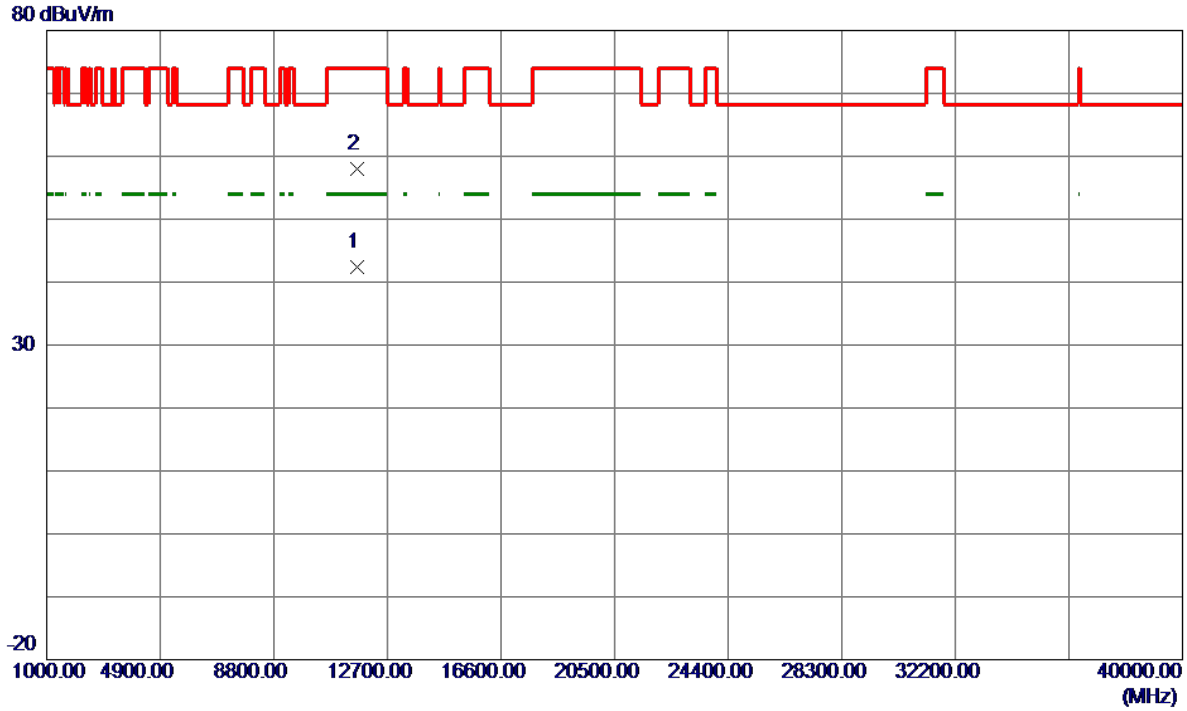
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5828.6000	94.40	20.04	114.44	122.20	-7.76	Peak	No Limit
2	5850.0000	42.26	20.10	62.36	122.20	-59.84	Peak	
3	5860.0000	40.65	20.13	60.78	109.40	-48.62	Peak	

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

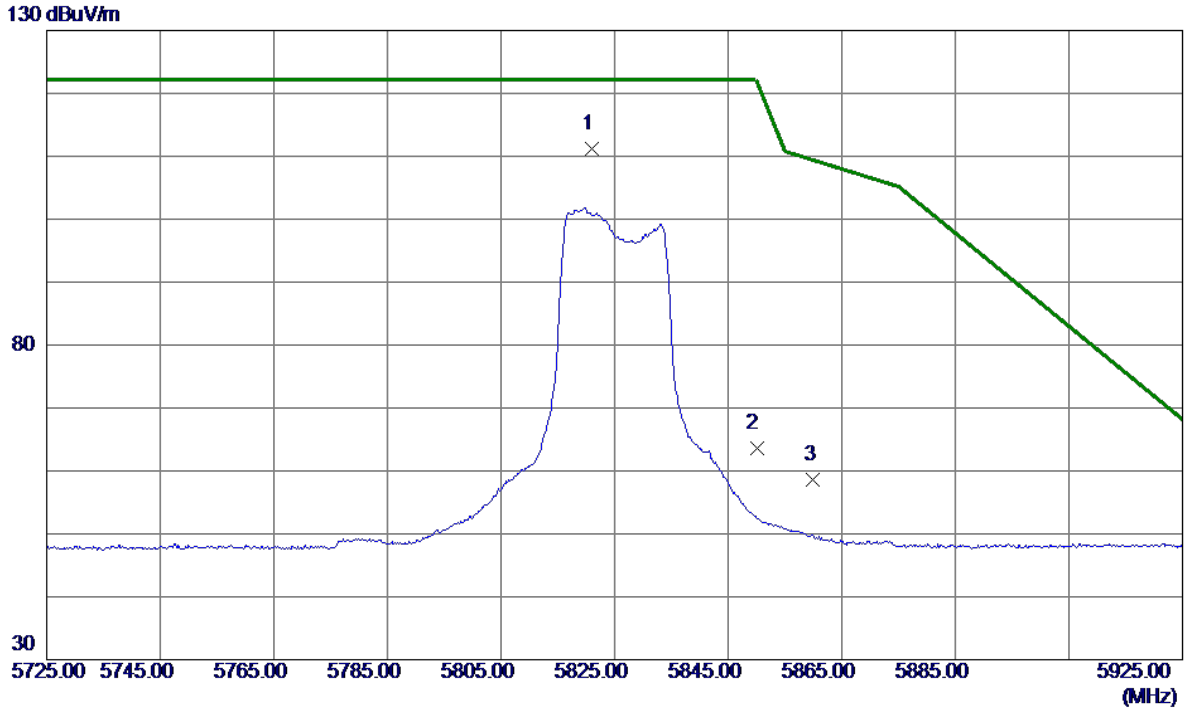
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11648.5100	25.54	16.81	42.35	54.00	-11.65	AVG	
2	11648.5300	41.11	16.81	57.92	74.00	-16.08	Peak	

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

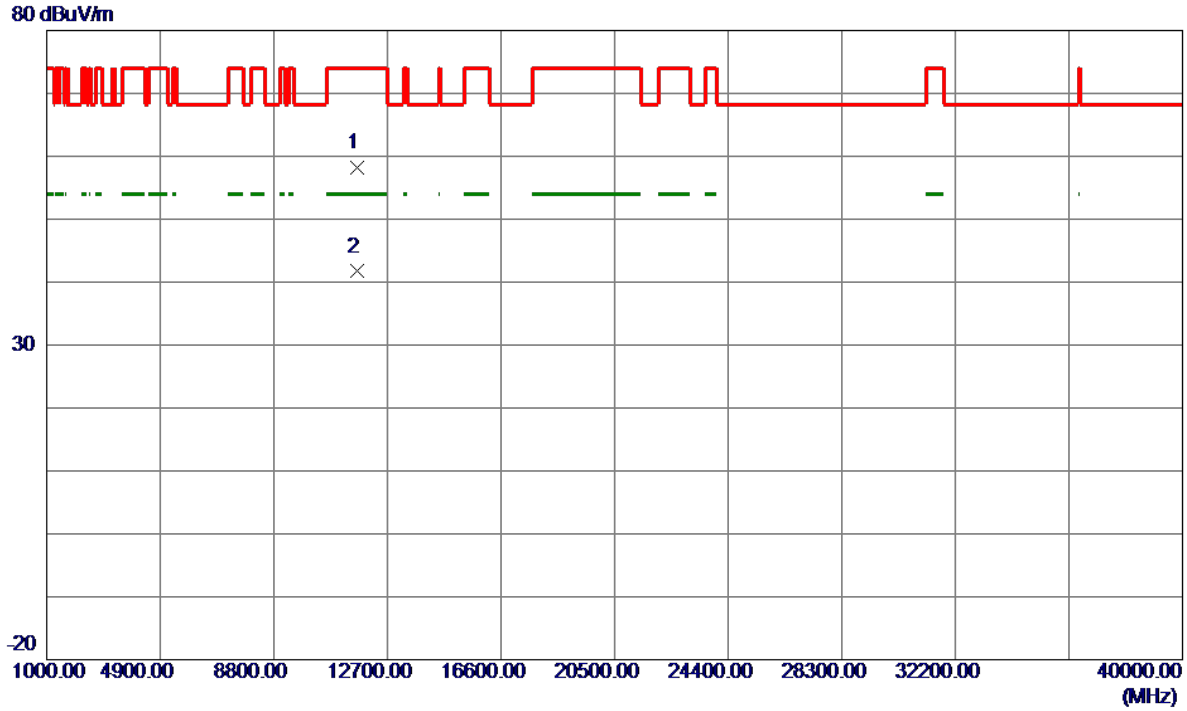
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5821.0000	91.14	20.15	111.29	122.20	-10.91	Peak	No Limit
2	5850.0000	43.37	20.23	63.60	122.20	-58.60	Peak	
3	5860.0000	38.28	20.26	58.54	109.40	-50.86	Peak	

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

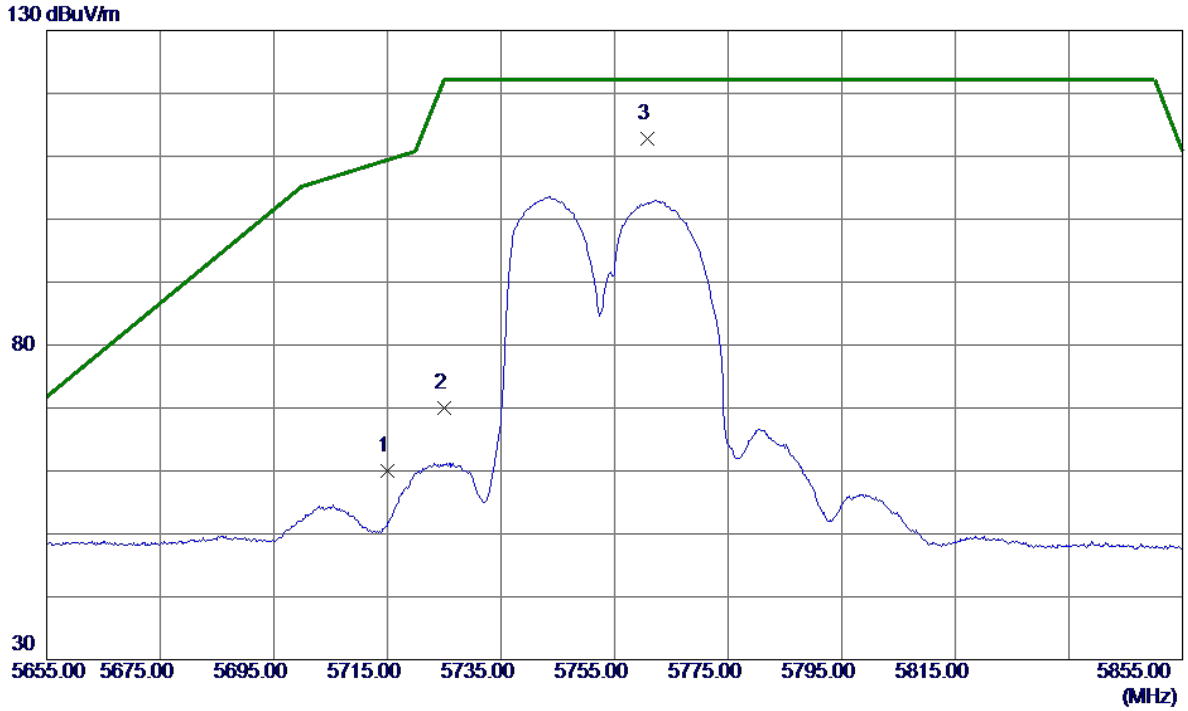
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11648.1449	41.33	16.81	58.14	74.00	-15.86	Peak	
2 *	11652.4450	24.88	16.82	41.70	54.00	-12.30	AVG	

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

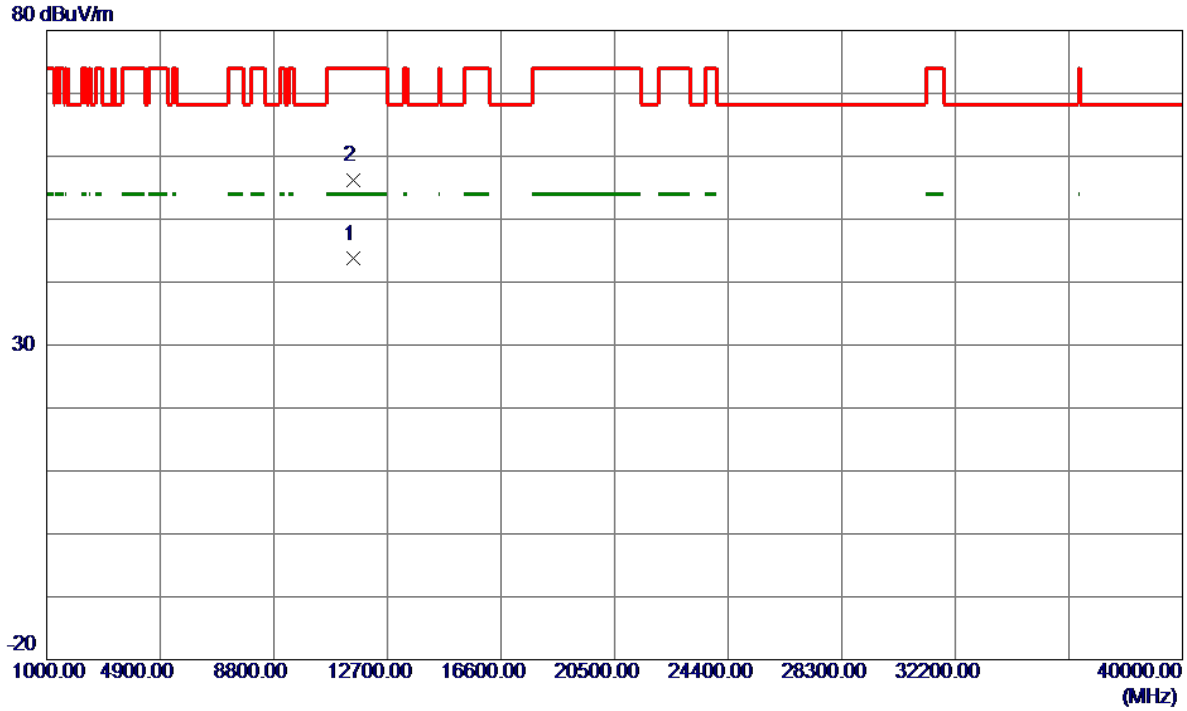
Test Mode	UNII-3_TX AC(VHT40) Mode 5755 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	40.23	19.72	59.95	109.40	-49.45	Peak	
2	5725.0000	50.29	19.75	70.04	122.20	-52.16	Peak	
3 *	5760.8000	93.00	19.85	112.85	122.20	-9.35	Peak	No Limit

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

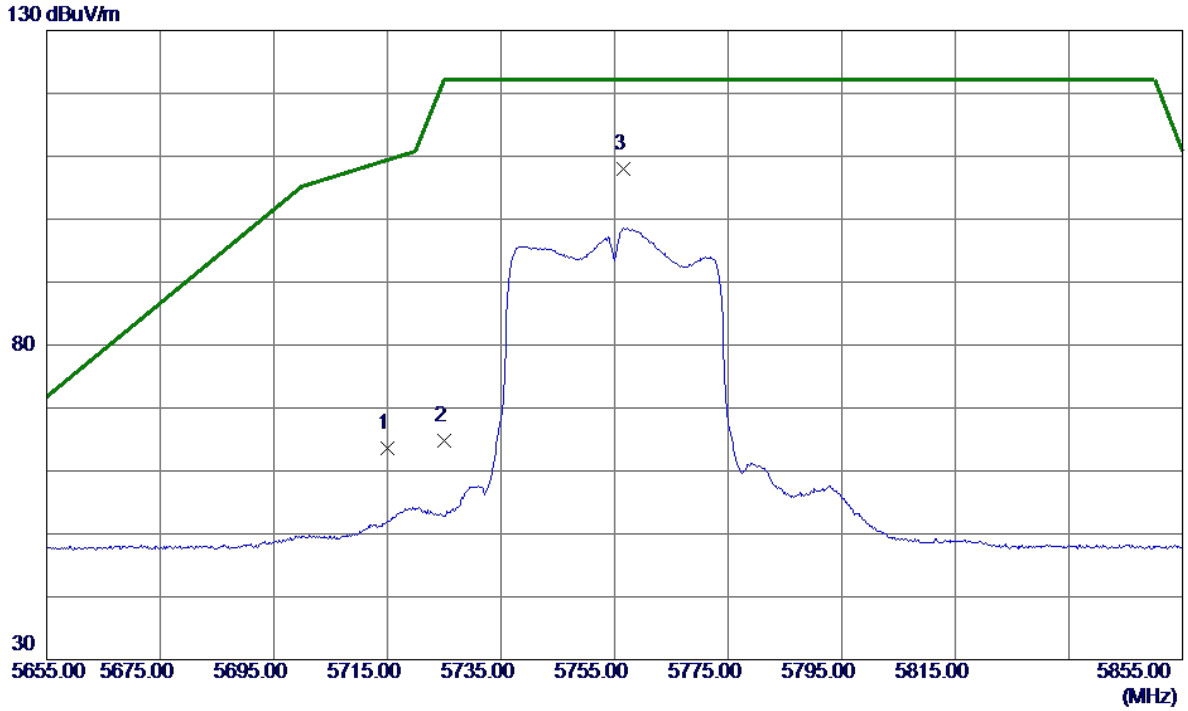
Test Mode	UNII-3_TX AC(VHT40) Mode 5755 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11509.8750	27.03	16.67	43.70	54.00	-10.30	AVG	
2	11509.9550	39.56	16.67	56.23	74.00	-17.77	Peak	

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

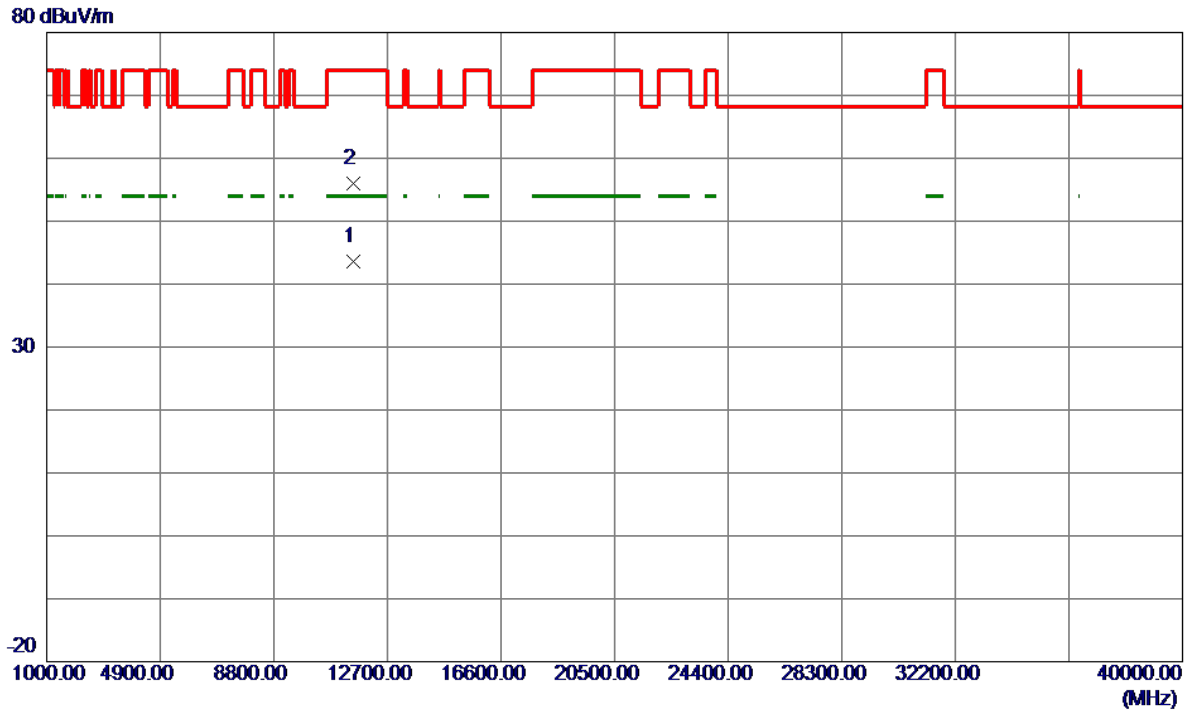
Test Mode	UNII-3_TX AC(VHT40) Mode 5755 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	43.68	19.85	63.53	109.40	-45.87	Peak	
2	5725.0000	44.98	19.88	64.86	122.20	-57.34	Peak	
3 *	5756.6000	88.12	19.97	108.09	122.20	-14.11	Peak	No Limit

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

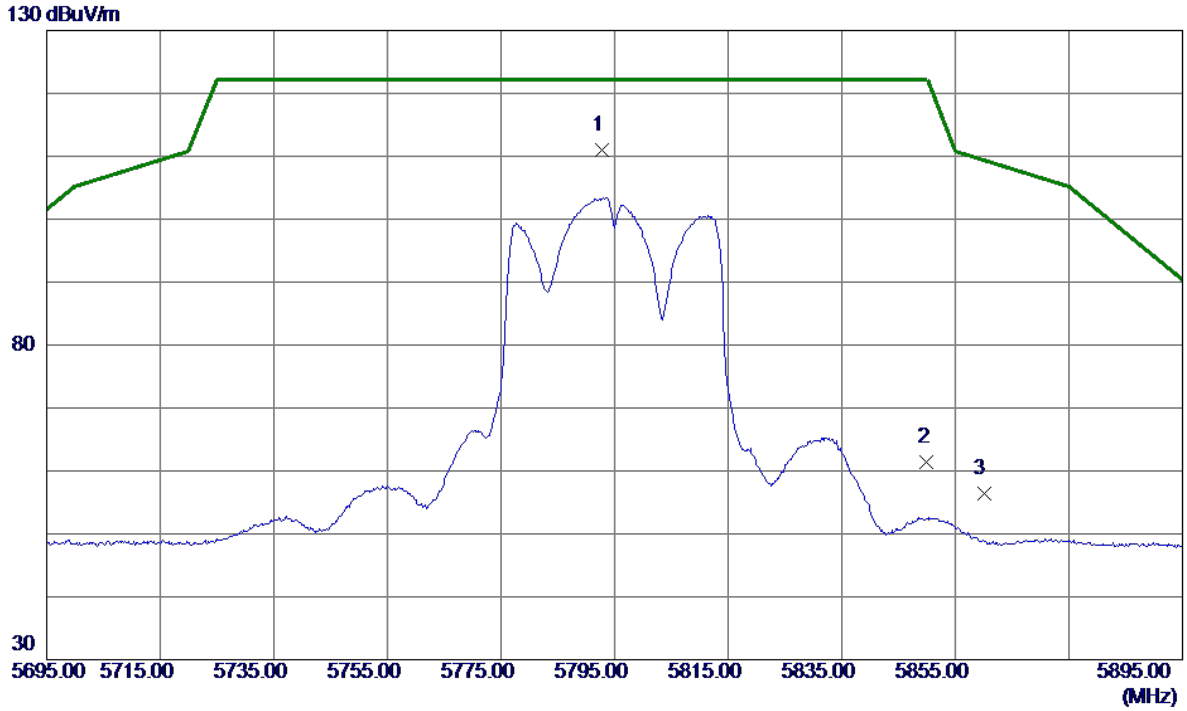
Test Mode	UNII-3_TX AC(VHT40) Mode 5755 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11510.3050	27.01	16.67	43.68	54.00	-10.32	AVG	
2	11510.7950	39.42	16.67	56.09	74.00	-17.91	Peak	

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

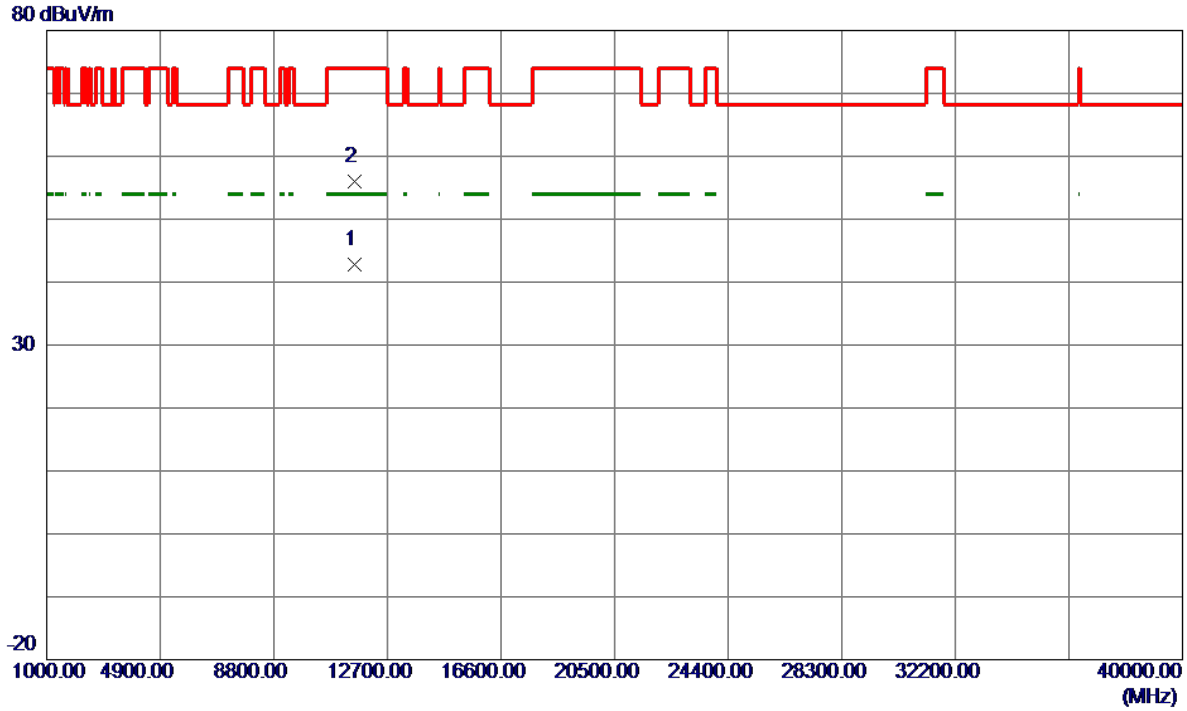
Test Mode	UNII-3_TX AC(VHT40) Mode 5795 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5792.8000	91.03	19.94	110.97	122.20	-11.23	Peak	No Limit
2	5850.0000	41.29	20.10	61.39	122.20	-60.81	Peak	
3	5860.0000	36.20	20.13	56.33	109.40	-53.07	Peak	

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

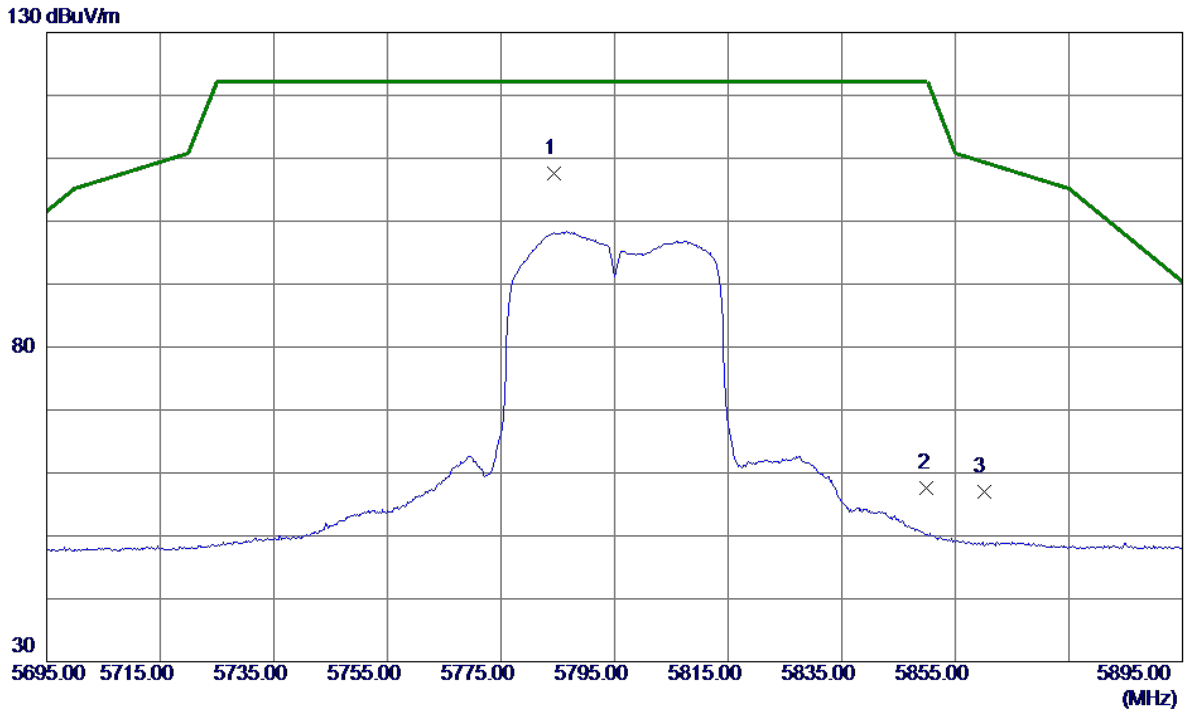
Test Mode	UNII-3_TX AC(VHT40) Mode 5795 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11590.1150	26.11	16.75	42.86	54.00	-11.14	AVG	
2	11590.4100	39.21	16.75	55.96	74.00	-18.04	Peak	

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

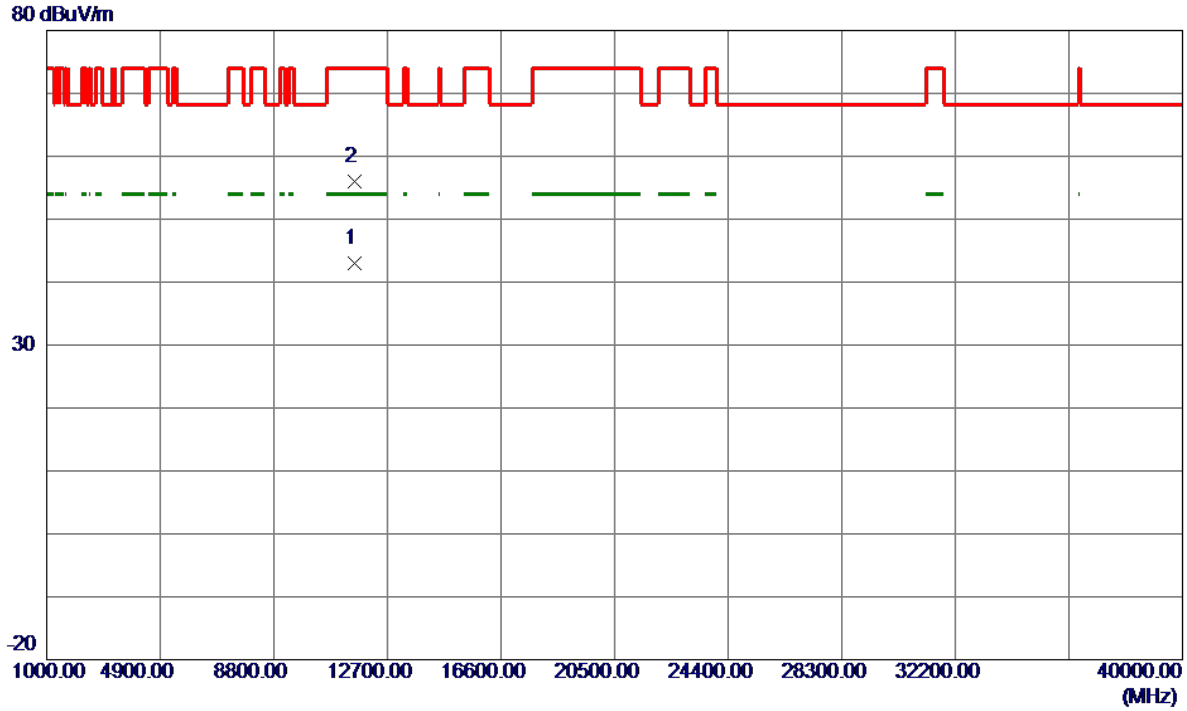
Test Mode	UNII-3_TX AC(VHT40) Mode 5795 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5784.4000	87.47	20.05	107.52	122.20	-14.68	Peak	No Limit
2	5850.0000	37.45	20.23	57.68	122.20	-64.52	Peak	
3	5860.0000	36.80	20.26	57.06	109.40	-52.34	Peak	

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

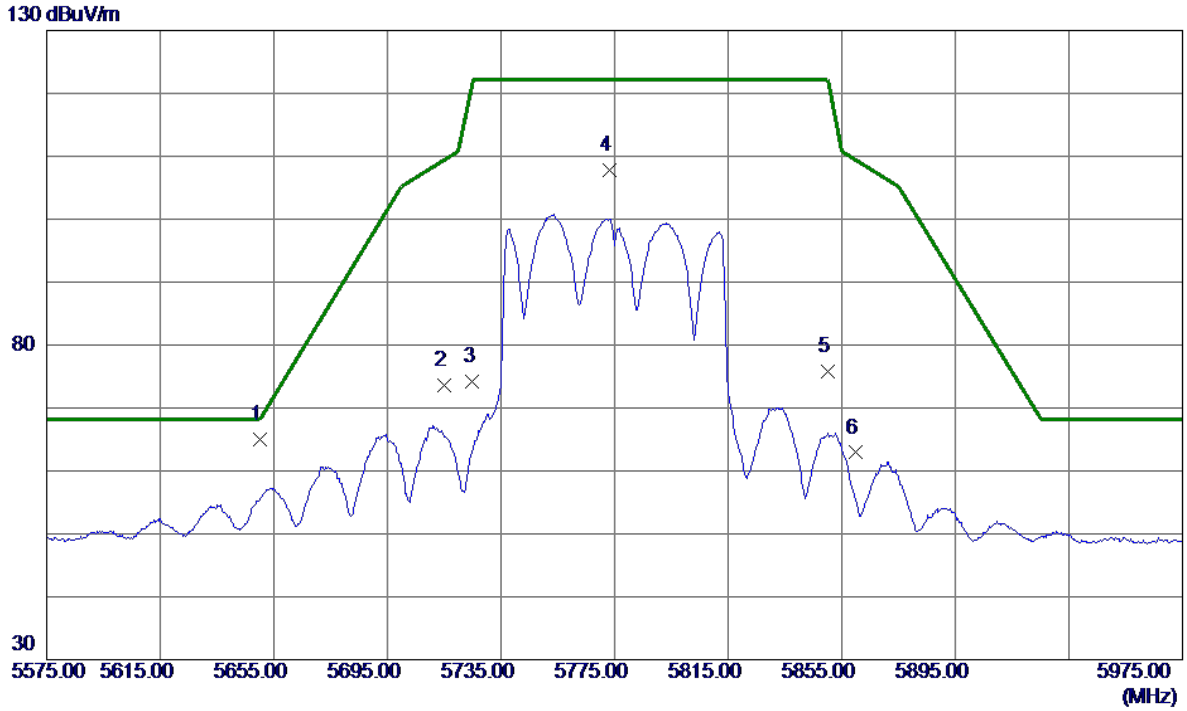
Test Mode	UNII-3_TX AC(VHT40) Mode 5795 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11589.9750	26.34	16.75	43.09	54.00	-10.91	AVG	
2	11590.1000	39.32	16.75	56.07	74.00	-17.93	Peak	

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

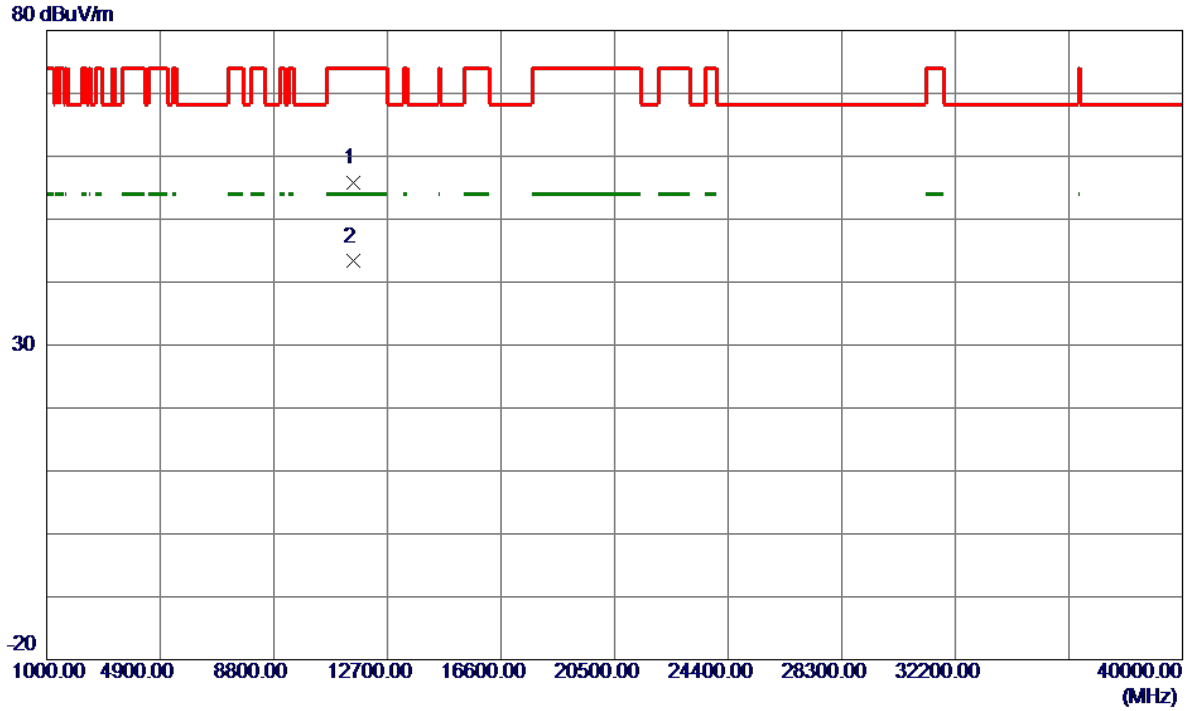
Test Mode	UNII-3_TX AC(VHT80) Mode 5775 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5650.0000	45.54	19.54	65.08	68.20	-3.12	Peak	
2	5715.0000	53.94	19.72	73.66	109.40	-35.74	Peak	
3	5725.0000	54.45	19.75	74.20	122.20	-48.00	Peak	
4	5773.4000	87.99	19.89	107.88	122.20	-14.32	Peak	No Limit
5	5850.0000	55.69	20.10	75.79	122.20	-46.41	Peak	
6	5860.0000	42.77	20.13	62.90	109.40	-46.50	Peak	

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

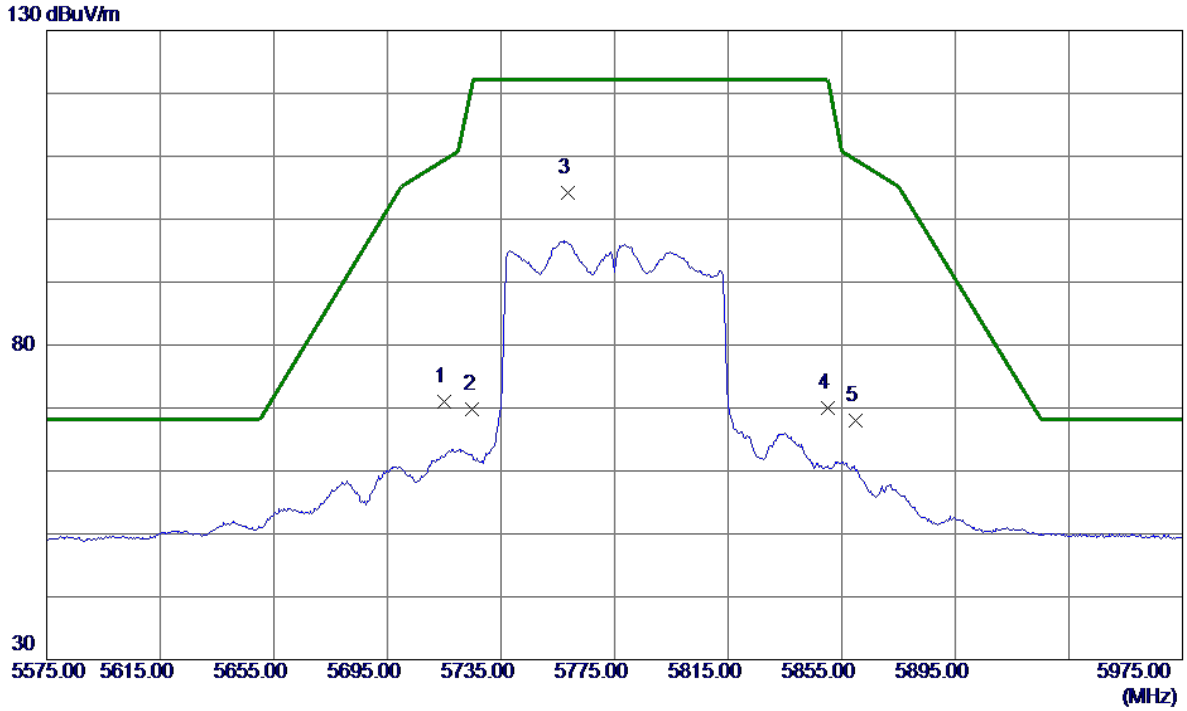
Test Mode	UNII-3_TX AC(VHT80) Mode 5775 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11550.1100	39.08	16.71	55.79	74.00	-18.21	Peak	
2 *	11550.2900	26.59	16.71	43.30	54.00	-10.70	AVG	

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

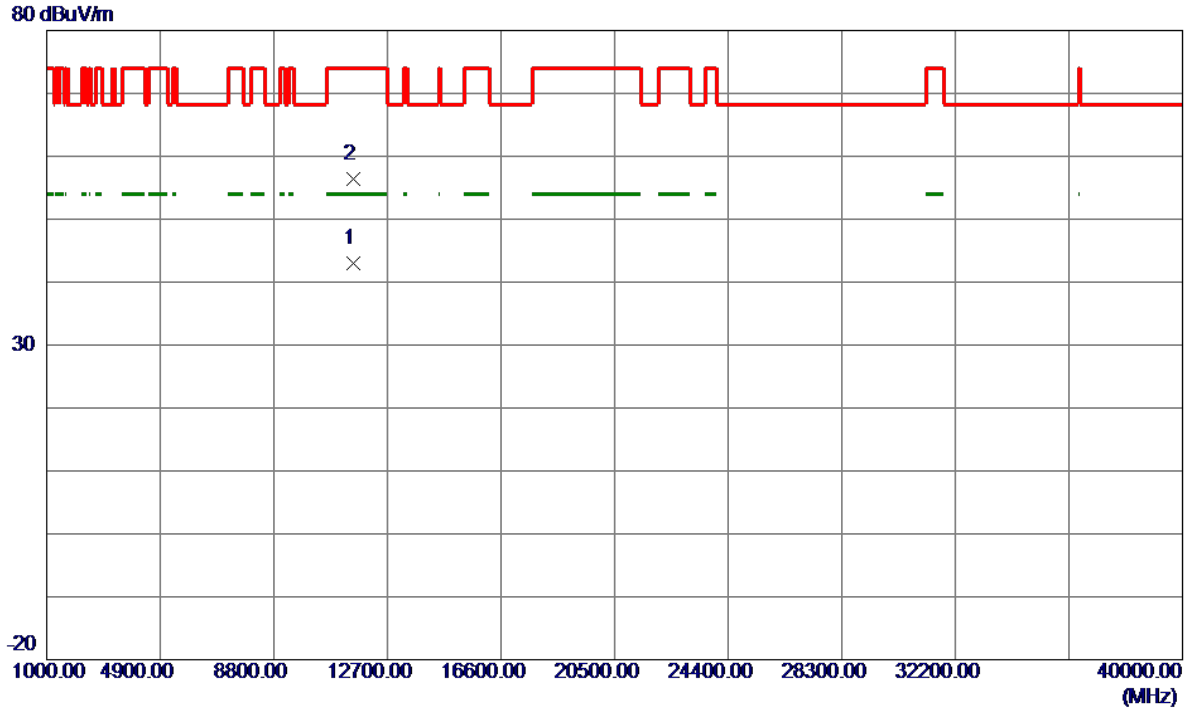
Test Mode	UNII-3_TX AC(VHT80) Mode 5775 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	51.19	19.85	71.04	109.40	-38.36	Peak	
2	5725.0000	49.86	19.88	69.74	122.20	-52.46	Peak	
3 *	5758.6000	84.17	19.98	104.15	122.20	-18.05	Peak	No Limit
4	5850.0000	49.70	20.23	69.93	122.20	-52.27	Peak	
5	5860.0000	47.79	20.26	68.05	109.40	-41.35	Peak	

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

Test Mode	UNII-3_TX AC(VHT80) Mode 5775 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11549.8800	26.37	16.71	43.08	54.00	-10.92	AVG	
2	11550.1300	39.68	16.71	56.39	74.00	-17.61	Peak	

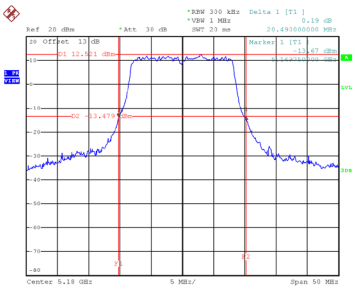
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	UNII-1_TX A Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
36	5180	20.490	16.600
40	5200	20.349	16.600
48	5240	20.550	16.600

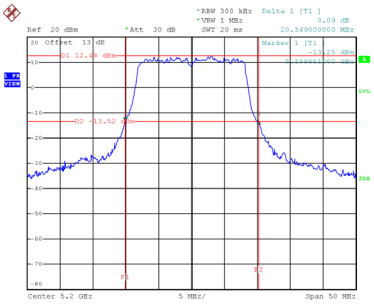
CH36



Date: 18.JAN.2022 16:57:35

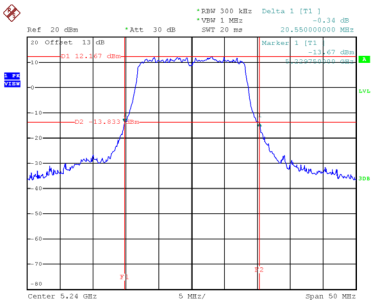
CH40

26 dB Bandwidth

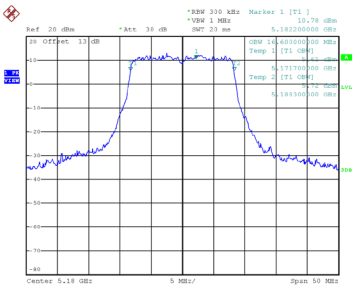


Date: 18.JAN.2022 16:59:36

CH48

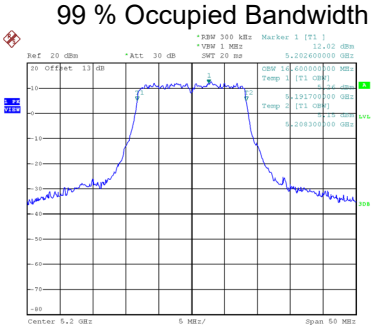


Date: 18.JAN.2022 17:00:37

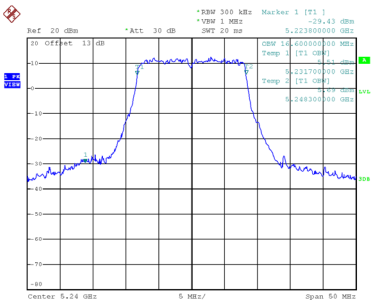


Date: 18.JAN.2022 16:57:12

99 % Occupied Bandwidth



Date: 18.JAN.2022 16:59:11

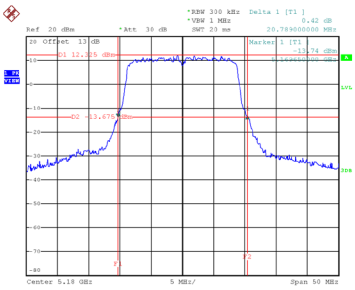


Date: 18.JAN.2022 17:00:15

Test Mode	UNII-1_TX AC(VHT20) Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
36	5180	20.789	17.800
40	5200	21.100	17.800
48	5240	21.000	17.800

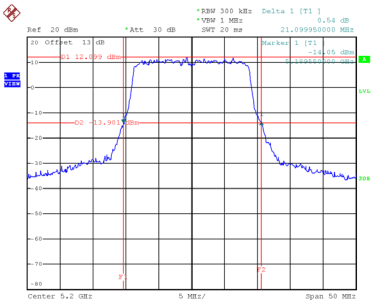
CH36



Date: 18.JAN.2022 17:07:42

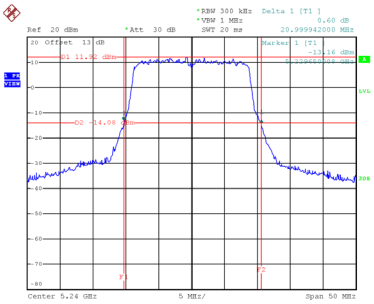
CH40

26 dB Bandwidth

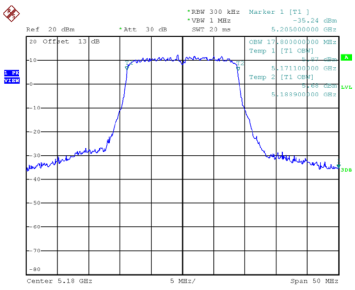


Date: 18.JAN.2022 17:08:48

CH48

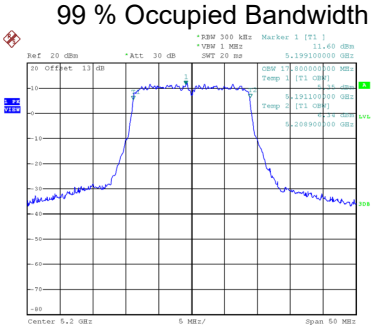


Date: 18.JAN.2022 17:09:43

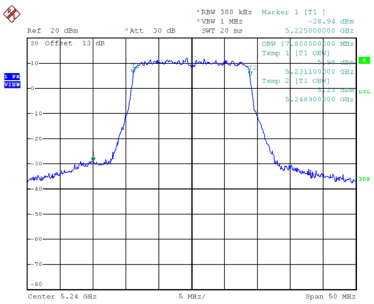


Date: 18.JAN.2022 17:07:19

99 % Occupied Bandwidth



Date: 18.JAN.2022 17:08:18

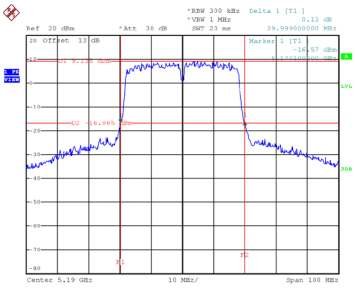


Date: 18.JAN.2022 17:09:20

Test Mode	UNII-1_TX AC(VHT40) Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
38	5190	39.999	36.400
46	5230	39.700	36.200

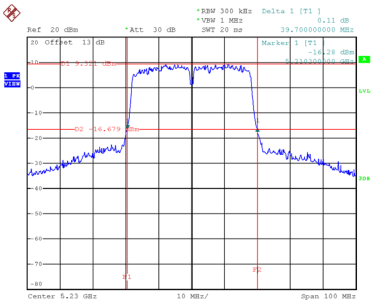
CH38



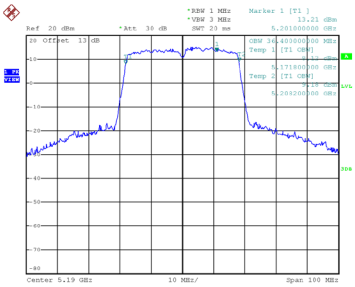
Date: 18.JAN.2022 17:17:34

CH46

26 dB Bandwidth

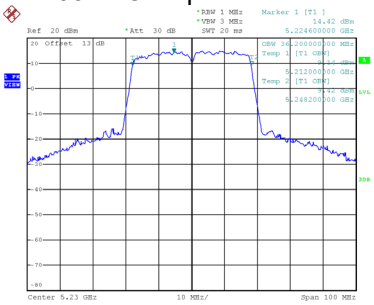


Date: 18.JAN.2022 17:18:33



Date: 18.JAN.2022 17:16:51

99 % Occupied Bandwidth



Date: 18.JAN.2022 17:18:09