FCC Radio Test Report

FCC ID: KR5-BSRFV1RW0

This report concerns: Original Grant

Project No.	:	2106C224
Equipment	:	Intelligent Antenna Module
Brand Name	:	Continental
Test Model	:	BSRF-V1RWHIGH.0
Series Model	:	N/A
Applicant	:	Continental Automotive GmbH
Address	:	Siemensstrasse 12 SV C TS RBG EMC-Laboratory Regensburg Germany 93055
Manufacturer	:	Continental Automotive GmbH
Address	:	Siemensstrasse 12, 93055 Regensburg, Germany
Factory	:	Continental Automotive Systems S.R.L.
Address	:	Strada Salzburg 8, 550018 Sibiu, Romania
Date of Receipt	:	Jul. 19, 2021
Date of Test	:	Jul. 20, 2021 ~ Aug. 18, 2021
Issued Date	:	Jan. 12, 2022
Report Version	:	R01
Test Sample	:	SN(radiated): 213310001BS SN(conducted): 213310000FS
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart E FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 ANSI C63.10-2013

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

Vegeta Li

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TESTING CERT #5123.02

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Declaration

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

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Sep. 30, 2021
R01	Modified the comments of TCB.	Jan. 12, 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**
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX A APPENDIX B APPENDIX C	PASS	------
15.407(a) 15.407(e)	Bandwidth	APPENDIX D	PASS	------
15.407(a)	Maximum Output Power & e.i.r.p.	APPENDIX E	PASS	------
15.407(a)	Power Spectral Density	APPENDIX F	PASS	------
15.407(g)	Frequency Stability	APPENDIX G	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, People's Republic of China.
BTL's Test Firm Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

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

A. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	-	3.02
		30MHz ~ 200MHz	V	4.26
		30MHz ~ 200MHz	H	3.38
		200MHz ~ 1,000MHz	V	3.98
		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	3.96
		6GHz ~ 18GHz	-	5.24
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

B. 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
Radiated Emissions-9kHz to 30MHz	25°C	60%	DC 12V	Kwok Guo
Radiated Emissions-30MHz to 1000MHz	25°C	60%	DC 12V	Kwok Guo
Radiated Emissions-Above 1000 MHz	25°C	60%	DC 12V	Kwok Guo
Bandwidth	23°C	46%	DC 12V	Jesse Wang
Maximum Output Power & e.i.r.p.	23°C	46%	DC 12V	Laughing Zhang
Power Spectral Density	23°C	46%	DC 12V	Jesse Wang
Frequency Stability	Normal & Extreme	46%	Normal & Extreme	Jesse Wang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Intelligent Antenna Module
Brand Name	Continental
Test Model	BSRF-V1RWHIGH.0
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	D5
Software Version	V15_1.15.1.21.10.30
Power Source	Supplied from battery.
Power Rating	DC 12V
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 72.2 Mbps IEEE 802.11ac: up to 433.3 Mbps
Maximum Output Power_UNII-1	IEEE 802.11ac(VHT40): 4.36 dBm (0.0027 W)
Maximum e.i.r.p._UNII-1	IEEE 802.11ac(VHT40): 10.36 dBm (0.0109 W)
Maximum Output Power_UNII-3	IEEE 802.11n(HT40): 1.40 dBm (0.0014 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)	Note
1	N/A	N/A	PCB	N/A	6	UNII-1
					9	UNII-3

Note:

1. This EUT supports SISO, so the Directional gain=Peak Gain. So the UNII-3 output power limit is 30-(9-6)=27, the UNII-3 power spectral density limit is 30-(9-6)=27.
2. The antenna gain is provided by the manufacturer.

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 AC(VHT40) Mode Channel 46 (UNII-1)

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

Radiated Emissions Test - Below 1GHz	
Final Test Mode	Description
Mode 13	TX AC(VHT40) Mode Channel 46 (UNII-1)

Radiated Emissions Test - Above 1GHz	
Final Test 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)

Conducted Test	
Final Test 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)

Note:
(1) For radiated emission below 1 GHz test, the TX AC(VHT40) Mode Channel 46 (UNII-1) 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.

2.3 PARAMETERS OF TEST SOFTWARE

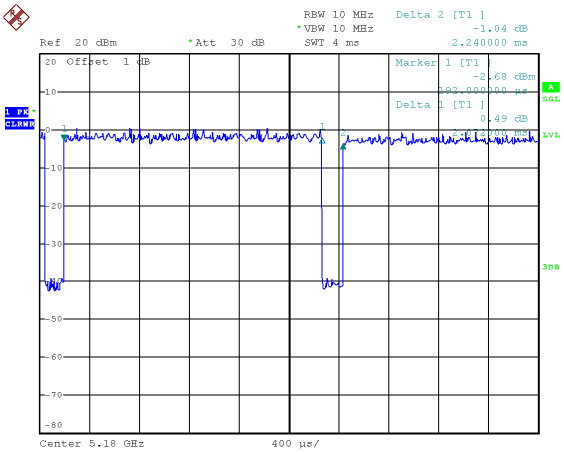
UNII-1			
Test Software Version	QRCT		
Frequency (MHz)	5180	5200	5240
IEEE 802.11a	4	4	4
IEEE 802.11n(HT20)	4	4	4
IEEE 802.11ac(VHT20)	4	4	4
Frequency (MHz)	5190	5230	
IEEE 802.11n(HT40)	4	4	
IEEE 802.11ac(VHT40)	4	4	
Frequency (MHz)	5210		
IEEE 802.11ac(VHT80)	4		

UNII-3			
Test Software Version	QRCT		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	1	1	1
IEEE 802.11n(HT20)	1	1	1
IEEE 802.11ac(VHT20)	1	1	1
Frequency (MHz)	5755	5795	
IEEE 802.11n(HT40)	1	1	
IEEE 802.11ac(VHT40)	1	1	
Frequency (MHz)	5775		
IEEE 802.11ac(VHT80)	1		

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.

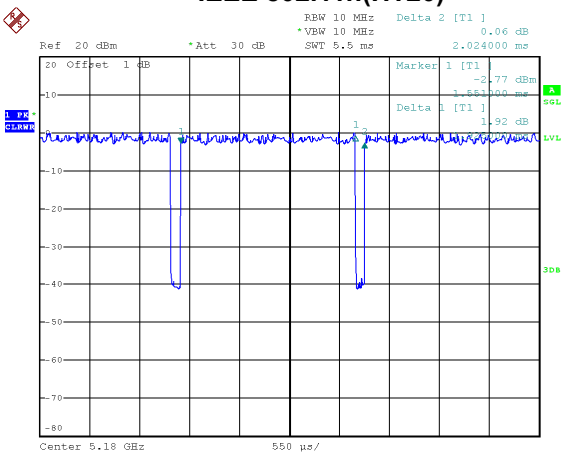
IEEE 802.11a



Date: 29.JUL.2021 10:21:36

Duty cycle = 2.072 ms / 2.240 ms = 92.50%
Duty Factor = 10 log(1 / Duty cycle) = 0.34

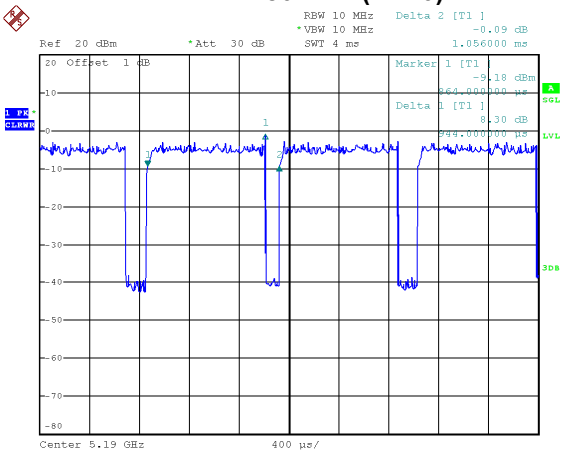
IEEE 802.11n(HT20)



Date: 29.JUL.2021 10:22:16

Duty cycle = 1.925 ms / 2.024 ms = 95.11%
Duty Factor = 10 log(1 / Duty cycle) = 0.22

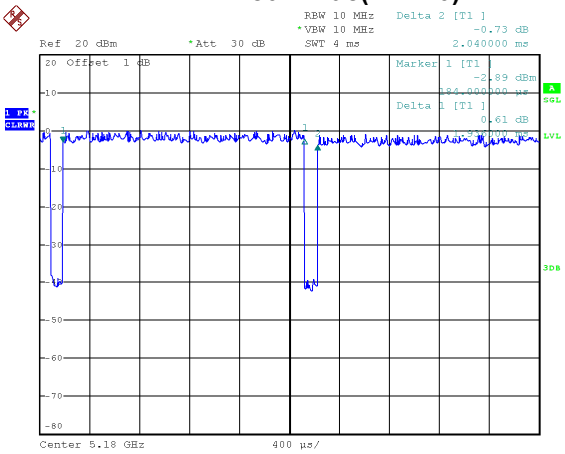
IEEE 802.11n(HT40)



Date: 29.JUL.2021 10:23:01

Duty cycle = 0.944 ms / 1.056 ms = 89.39%
Duty Factor = 10 log(1 / Duty cycle) = 0.49

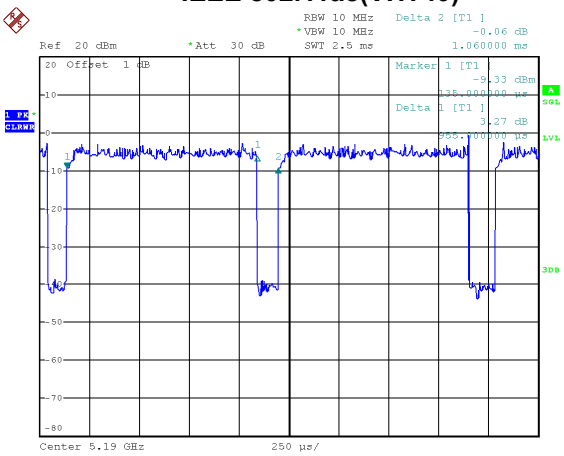
IEEE 802.11ac(VHT20)



Date: 29.JUL.2021 10:24:12

Duty cycle = 1.936 ms / 2.040 ms = 94.90%
Duty Factor = 10 log(1 / Duty cycle) = 0.23

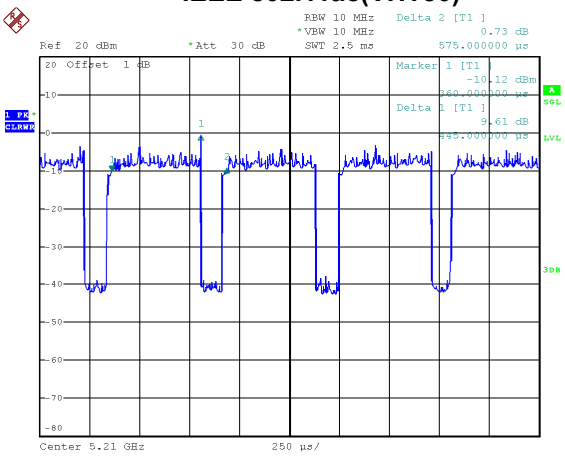
IEEE 802.11ac(VHT40)



Date: 29.JUL.2021 10:25:38

Duty cycle = 0.955 ms / 1.060 ms = 90.09%
Duty Factor = 10 log(1 / Duty cycle) = 0.45

IEEE 802.11ac(VHT80)



Date: 29.JUL.2021 10:27:36

Duty cycle = 0.445 ms / 0.575 ms = 77.39%
Duty Factor = 10 log(1 / Duty cycle) = 1.11

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 519 Hz (Duty cycle < 98%).

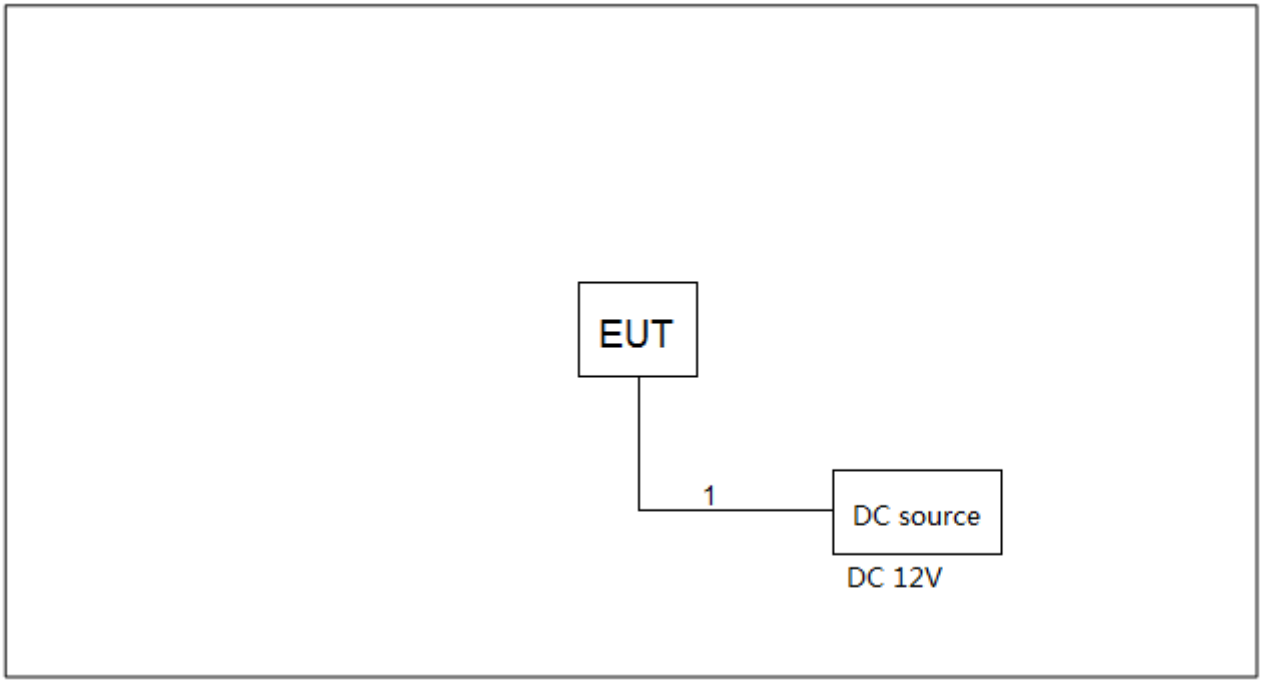
For IEEE 802.11n(HT40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1059 Hz (Duty cycle < 98%).

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 517 Hz (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 1047 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 2247 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	DC Source	TRUE-POWER	GPC30300N	N/A

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

3. RADIATED EMISSIONS

3.1 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)	Band edge at 3m (dBμV/m)	Harmonic at 1.5m (dBμV/m)
5150-5250	-27	68.2	74.2 (Note 3)
5250-5350	-27	68.2	74.2 (Note 3)
5470-5725	-27	68.2	74.2 (Note 3)
5725-5850 **NOTE (2)**	-27	68.2	74.2 (Note 3)
	10	105.2	111.2 (Note 3)
	15.6	110.8	116.8 (Note 3)
	27	122.2	128.2 (Note 3)

NOTE:

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

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

(2) According to 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.

(3)

$$FS_{\text{limit}} = FS_{\max} - 20\log\left(\frac{d_{\text{limit}}}{d_{\text{measure}}}\right)$$

20log ($d_{limit}/d_{measure}$)=20log (3/1.5)=6 dB.

3.2 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 or 1.5m 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

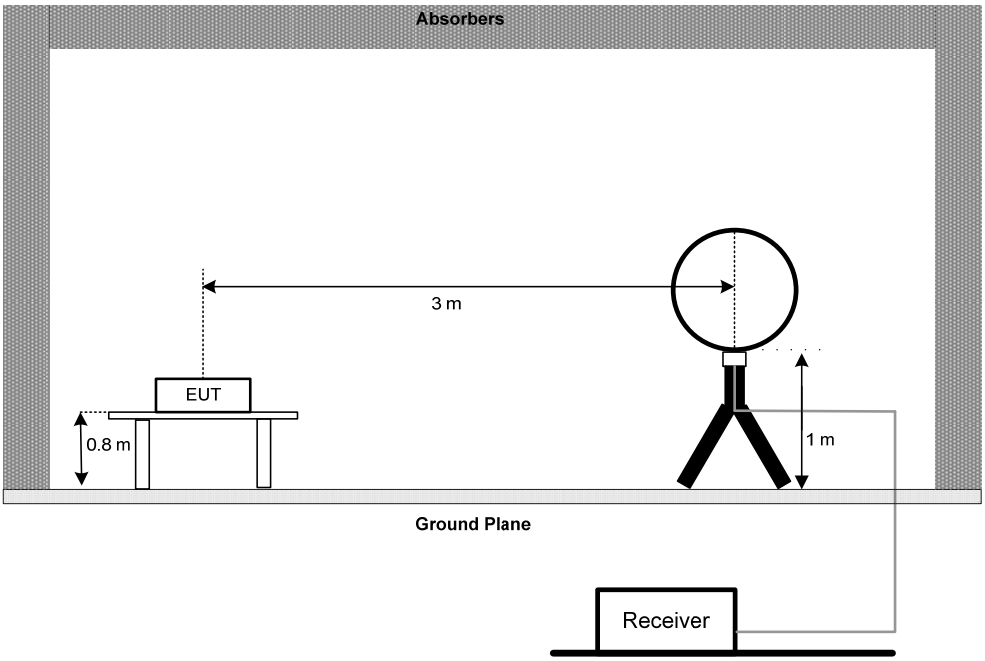
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

3.3 DEVIATION FROM TEST STANDARD

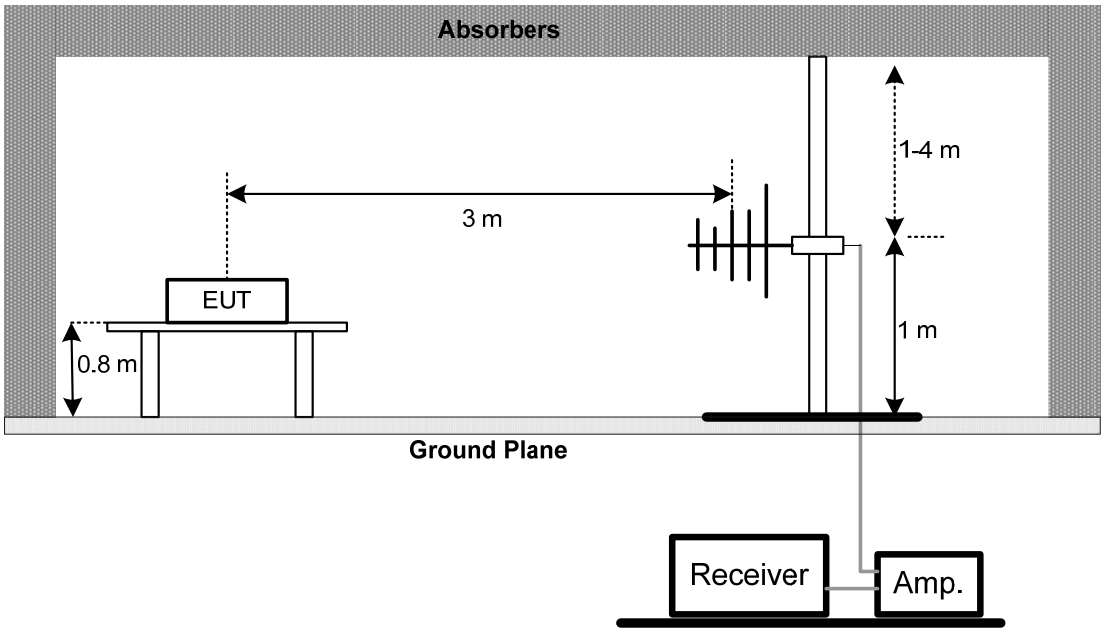
No deviation.

3.4 TEST SETUP

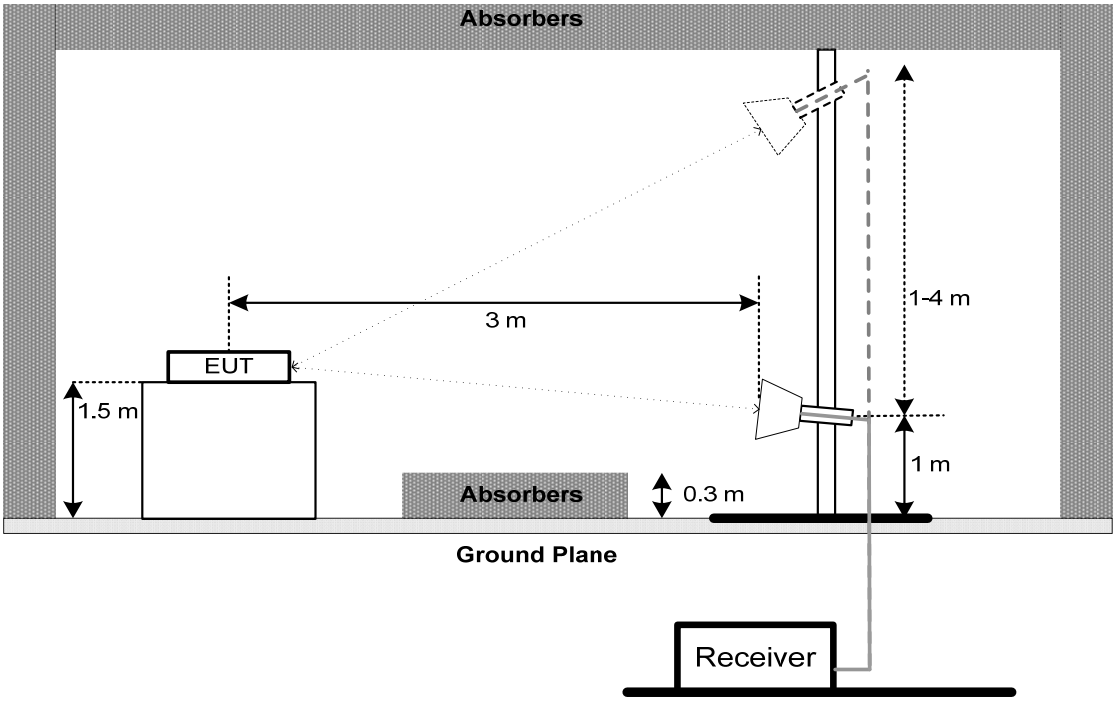
9 kHz to 30 MHz



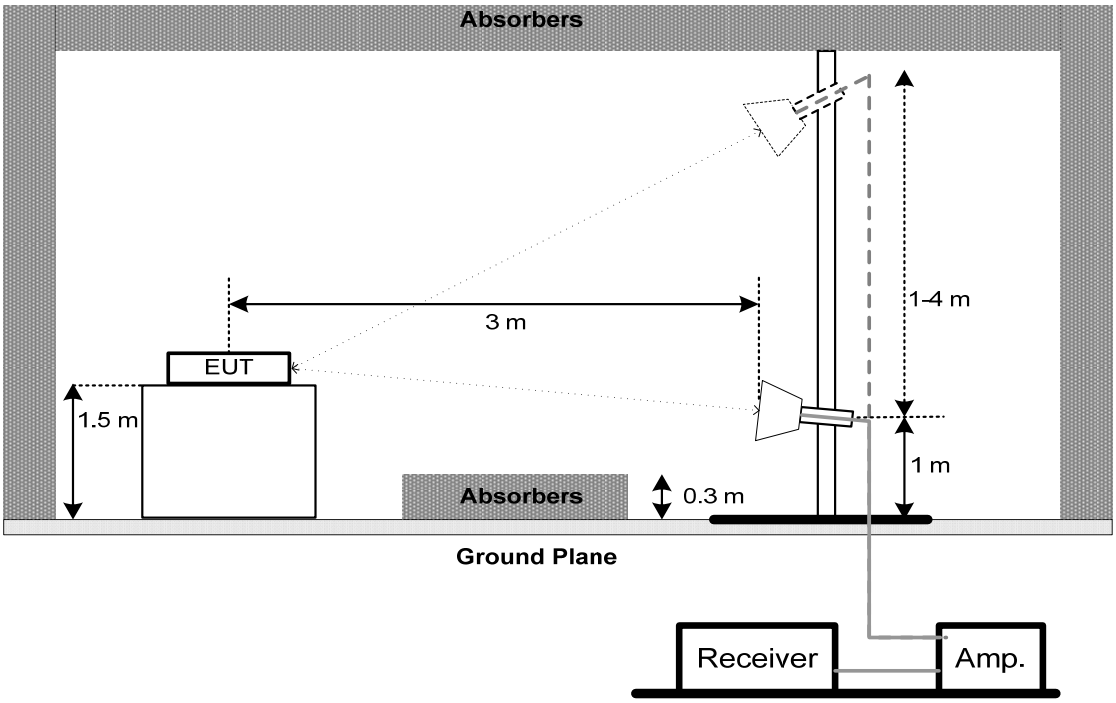
30 MHz to 1 GHz



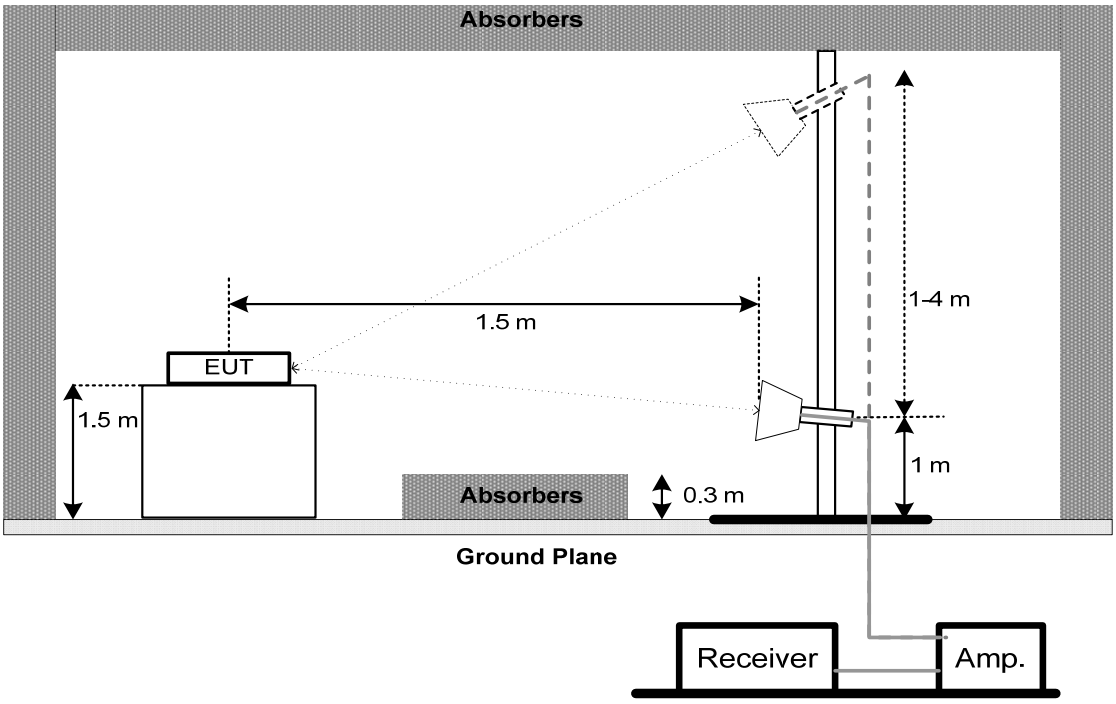
Above 1 GHz
Band edge



Harmonic (1 GHz to 18 GHz)



Harmonic (18 GHz to 40 GHz)



3.5 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.

3.6 TEST RESULTS - 9 KHZ TO 30 MHZ

PLEASE REFER TO THE APPENDIX A.

Remark:

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

3.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

PLEASE REFER TO THE APPENDIX B.

3.8 TEST RESULTS - ABOVE 1000 MHZ

PLEASE REFER TO THE APPENDIX C.

Remark:

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

4. BANDWIDTH

4.1 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

4.2 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:

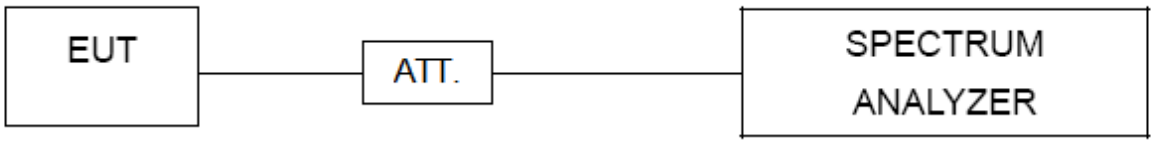
Spectrum Parameter	Setting
Span Frequency	> 6 dB Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS

Please refer to the Appendix D.

5. MAXIMUM OUTPUT POWER & E.I.R.P.

5.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Maximum Output Power	AP device: 1 Watt (30dBm) Client device: 250 mW (23.98 dBm)	5150-5250
		1 Watt (30dBm)	5725-5850
	Maximum e.i.r.p.	Outdoor AP device: 0.125 Watt (21 dBm)	5150-5250

Note:
For an outdoor 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. The maximum e.i.r.p.at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

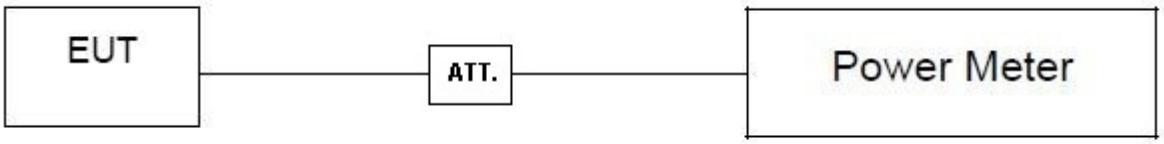
5.2 TEST PROCEDURE

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.

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. POWER SPECTRAL DENSITY

6.1 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

6.2 TEST PROCEDURE

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

b. Spectrum Setting:

For UNII-1:

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

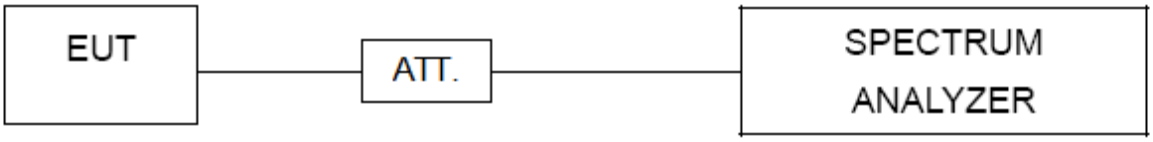
Note:

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.

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. FREQUENCY STABILITY

7.1 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

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:

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

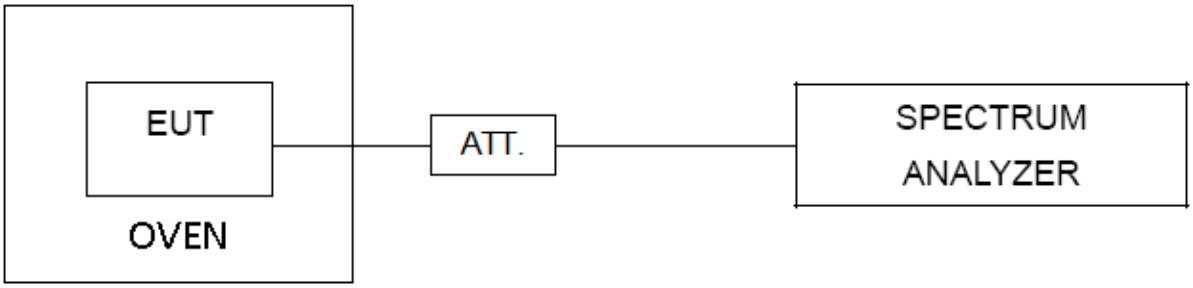
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is -40°C~80°C.

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. MEASUREMENT INSTRUMENTS LIST

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Apr. 28, 2022
2	Cable	N/A	RG 213/U	N/A	May 27, 2022
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 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	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 20, 2022
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022
5	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Band Reject Filter	Micro-Tronics	BRC50705-01	10	Feb. 27, 2022
11	Band Reject Filter	Micro-Tronics	BRC50704-01	8	Feb. 27, 2022
12	Band Reject Filter	Micro-Tronics	BRC50703-01	7	Feb. 27, 2022
13	966 Chambe Room	RM	9*6*6m	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	Feb. 07, 2022
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	Feb. 07, 2022
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

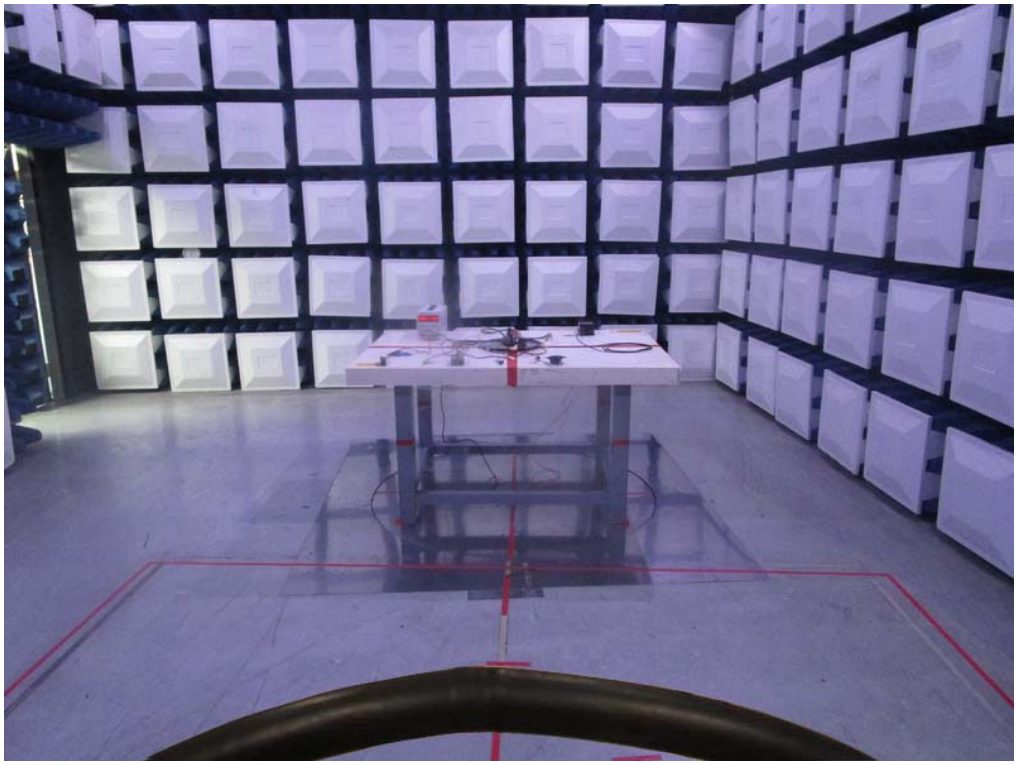
Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Precision Oven Tester	CEPREI	CEEC-M64T-40	15-008	Feb. 27, 2022
3	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 07, 2022
4	RF Cable	Tongkaichuan	N/A	N/A	N/A
5	DC Block	Mini	N/A	N/A	N/A

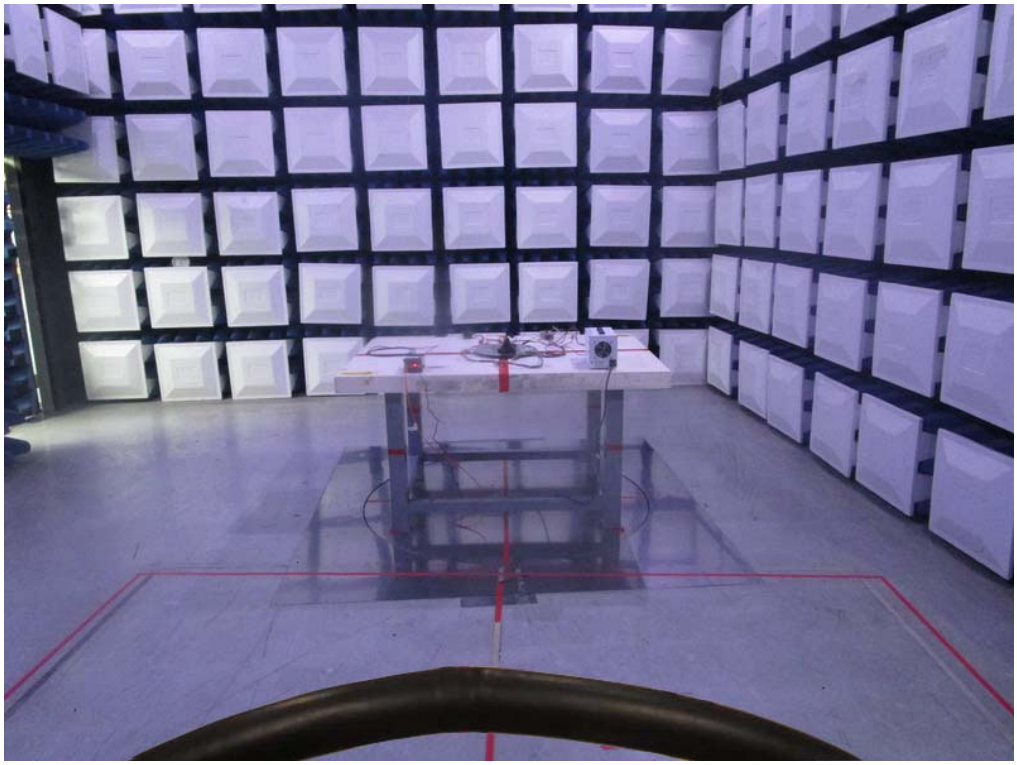
Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

9. EUT TEST PHOTOS

Radiated Emissions Test Photos

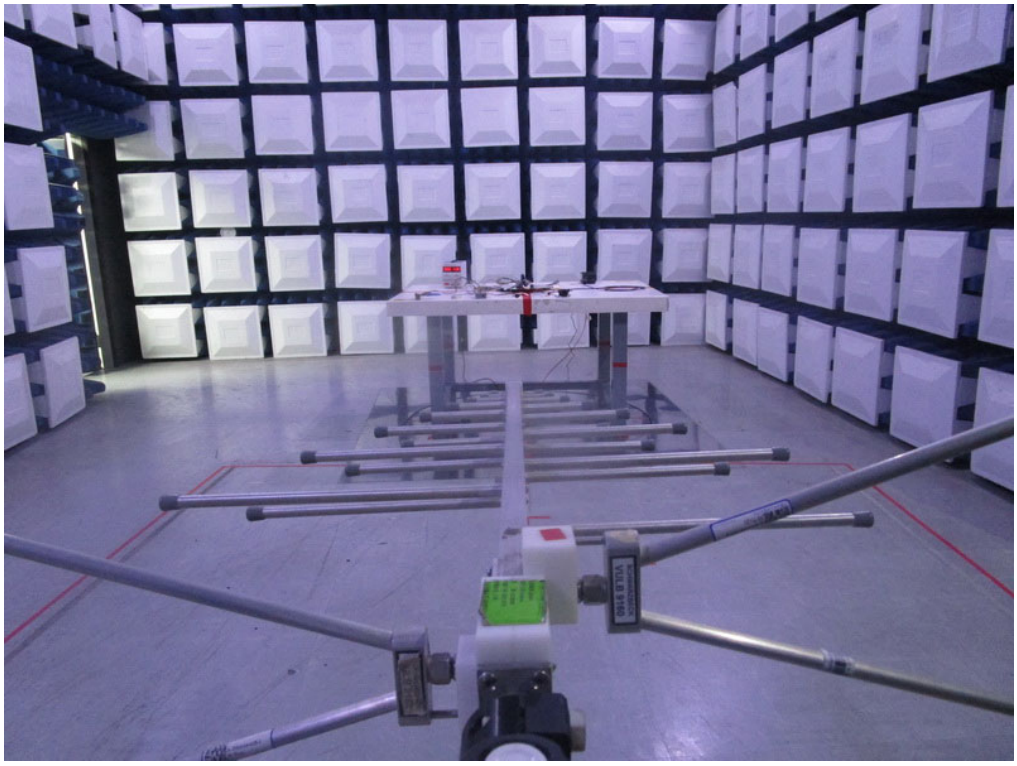
9 kHz to 30 MHz

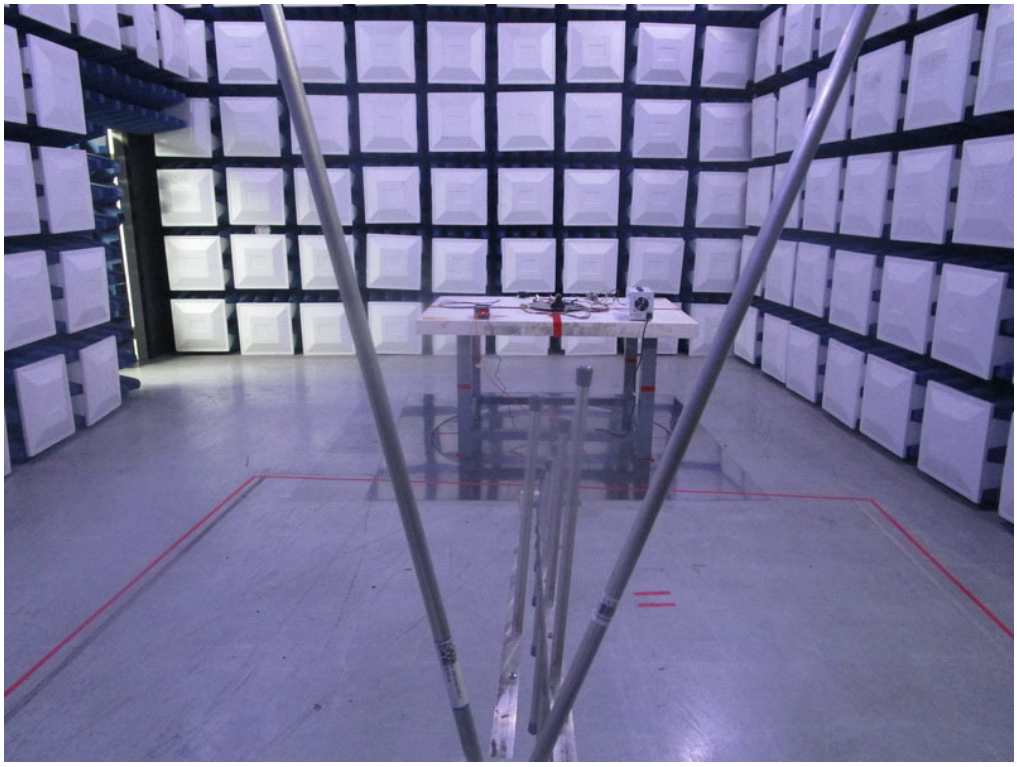




Radiated Emissions Test Photos

30 MHz to 1 GHz



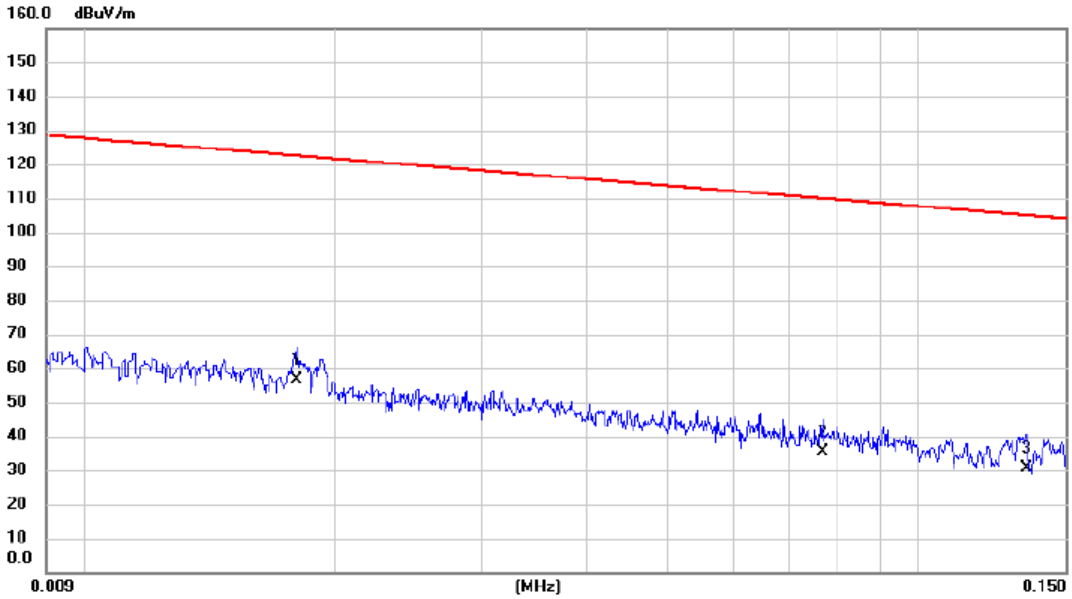


Radiated Emissions Test Photos

Above 1 GHz

APPENDIX A - RADIATED EMISSION - 9 KHZ TO 30 MHZ

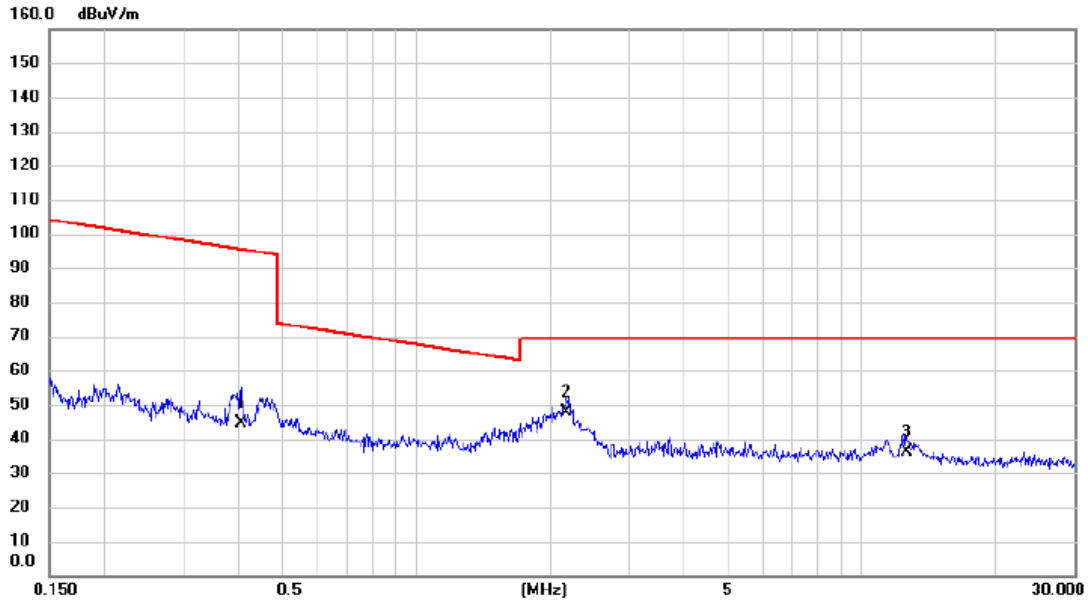
Test Mode	TX AC(VHT40) Mode Channel 46	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	0.0180	42.59	13.84	56.43	122.50	-66.07	AVG			
2		0.0768	22.76	12.58	35.34	109.90	-74.56	AVG			
3		0.1348	17.83	12.73	30.56	105.01	-74.45	AVG			

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

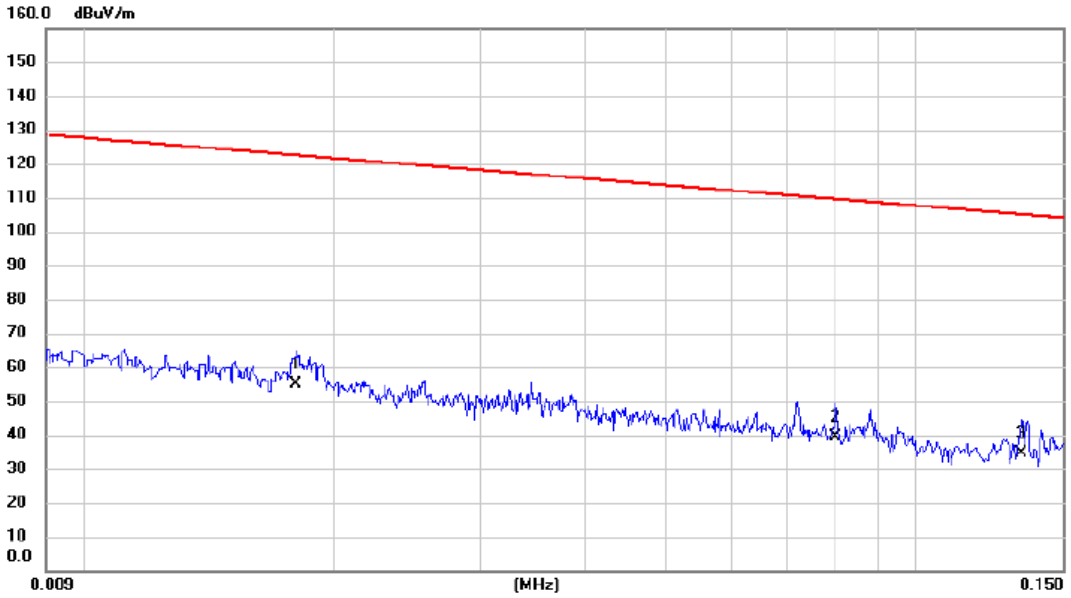
Test Mode	TX AC(VHT40) Mode Channel 46	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.4040	32.47	12.25	44.72	95.48	-50.76	AVG			
2	*	2.1668	36.58	11.22	47.80	69.54	-21.74	QP			
3		12.5821	24.76	11.55	36.31	69.54	-33.23	QP			

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

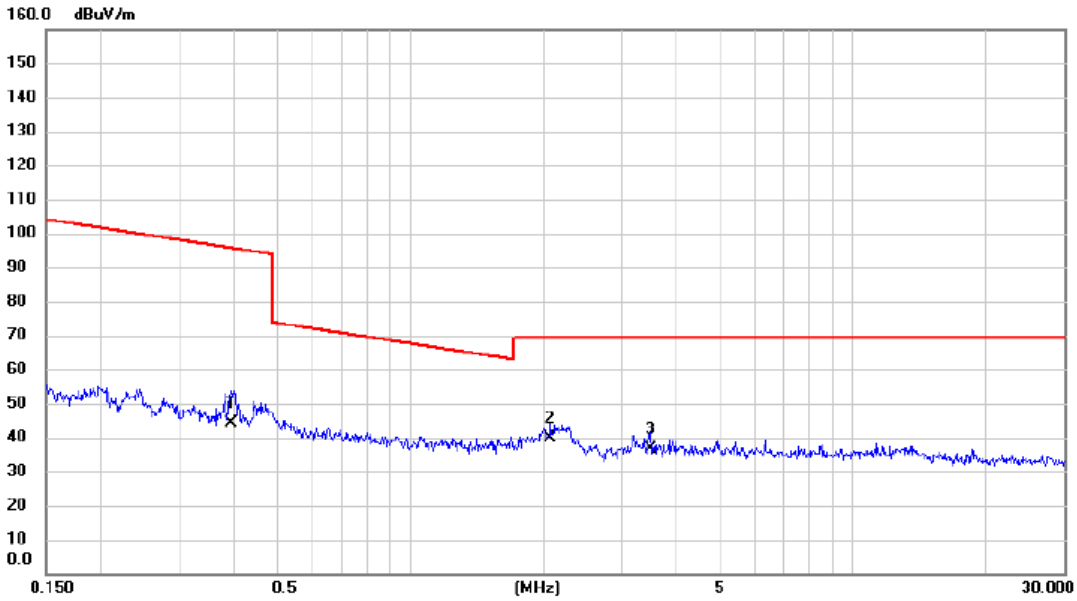
Test Mode	TX AC(VHT40) Mode Channel 46	Polarization	Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	0.0180	41.25	13.84	55.09	122.50	-67.41	AVG			
2		0.0801	26.79	12.60	39.39	109.53	-70.14	AVG			
3		0.1340	21.84	12.73	34.57	105.07	-70.50	AVG			

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

Test Mode	TX AC(VHT40) Mode Channel 46	Polarization	Ant 90°

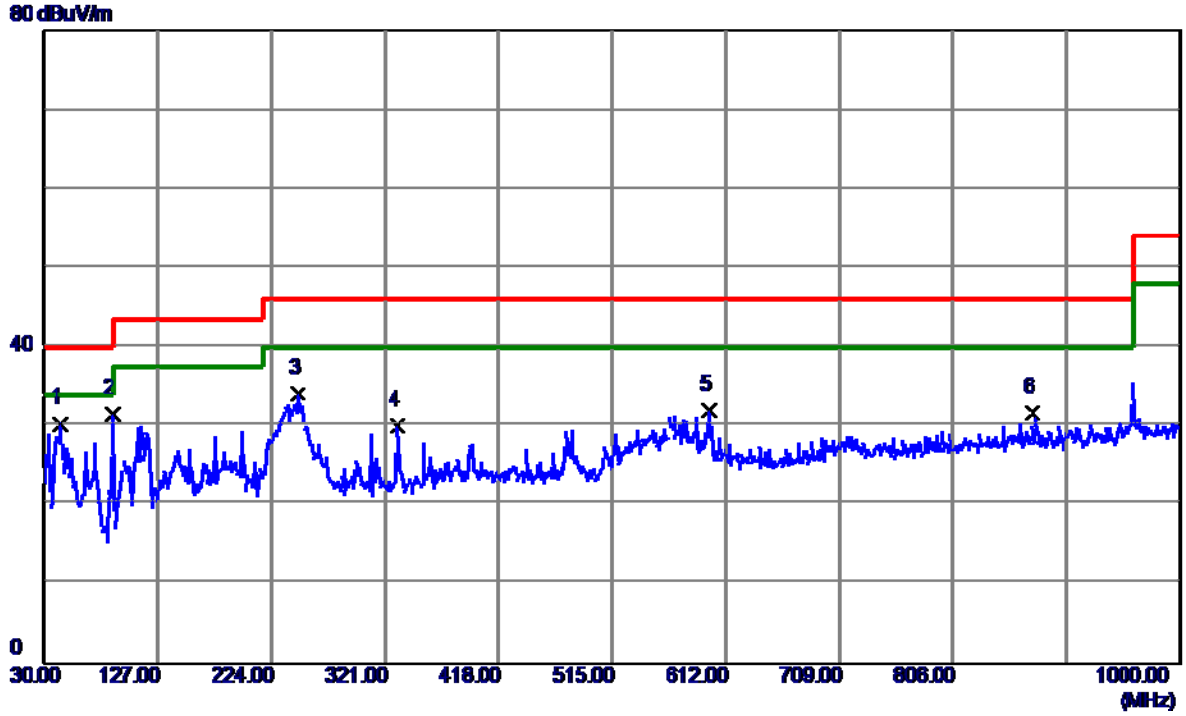


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.3933	31.85	12.28	44.13	95.71	-51.58	AVG			
2	*	2.0768	28.43	11.26	39.69	69.54	-29.85	QP			
3		3.4906	25.67	10.88	36.55	69.54	-32.99	QP			

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

APPENDIX B - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

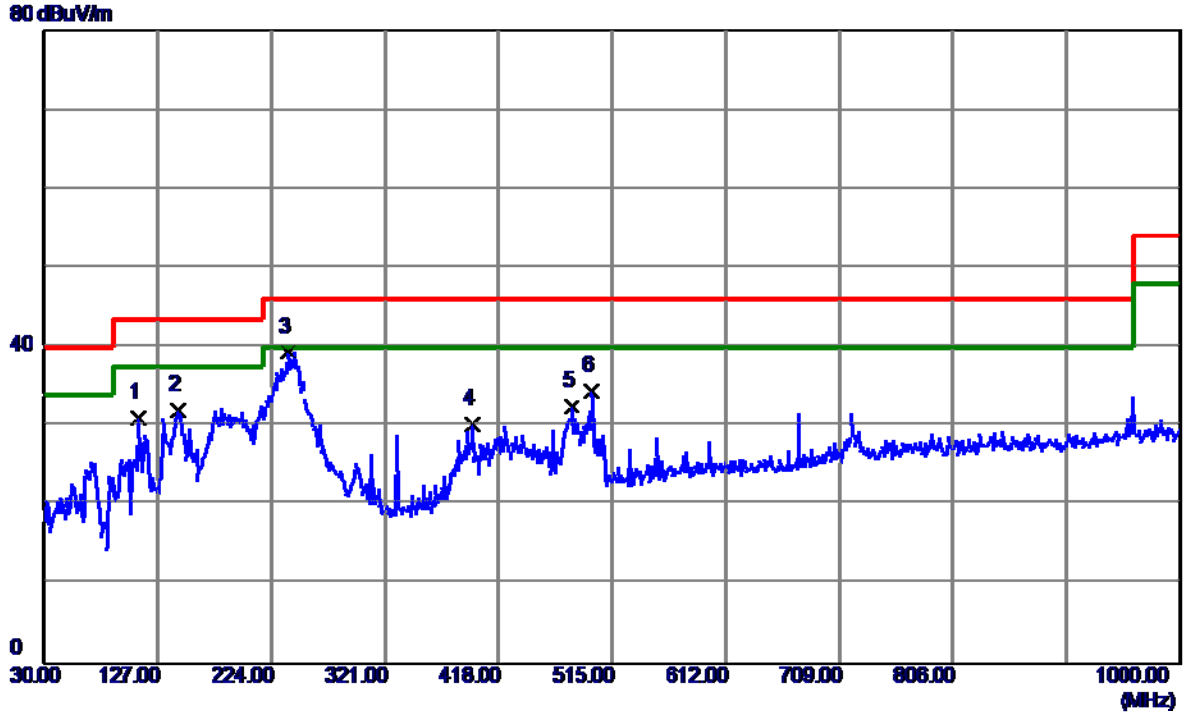
Test Mode	TX AC(VHT40) Mode Channel 46 (UNII-1)	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	44.0650	44.61	-14.29	30.32	40.00	-9.68	Peak	
2	88.2000	47.68	-16.09	31.59	43.50	-11.91	Peak	
3	246.3100	47.49	-13.41	34.08	46.00	-11.92	Peak	
4	331.6700	40.56	-10.50	30.06	46.00	-15.94	Peak	
5	597.4500	37.37	-5.42	31.95	46.00	-14.05	Peak	
6	873.9000	33.15	-1.46	31.69	46.00	-14.31	Peak	

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

Test Mode	TX AC(VHT40) Mode Channel 46 (UNII-1)	Polarization	Horizontal

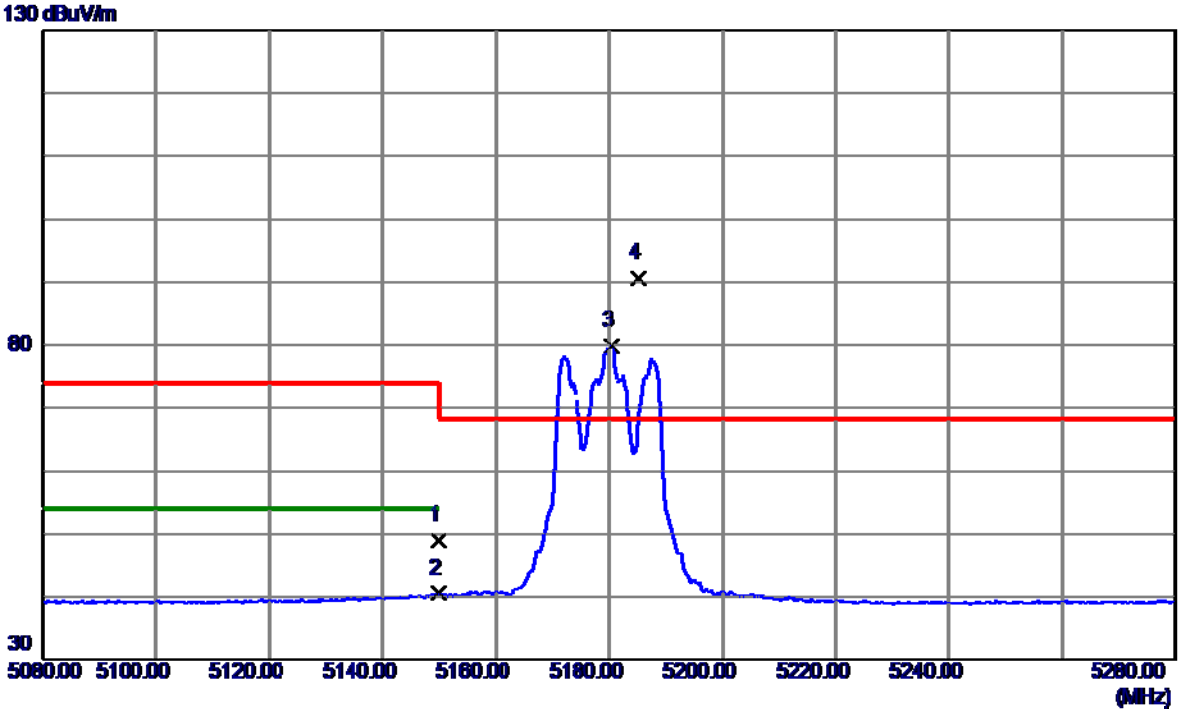


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	110.5100	45.23	-14.15	31.08	43.50	-12.42	Peak	
2	144.4600	44.27	-12.29	31.98	43.50	-11.52	Peak	
3 *	238.0650	52.98	-13.64	39.34	46.00	-6.66	Peak	
4	395.6900	39.28	-9.11	30.17	46.00	-15.83	Peak	
5	480.0800	39.84	-7.41	32.43	46.00	-13.57	Peak	
6	498.0250	41.74	-7.28	34.46	46.00	-11.54	Peak	

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

APPENDIX C - RADIATED EMISSION - ABOVE 1000 MHZ

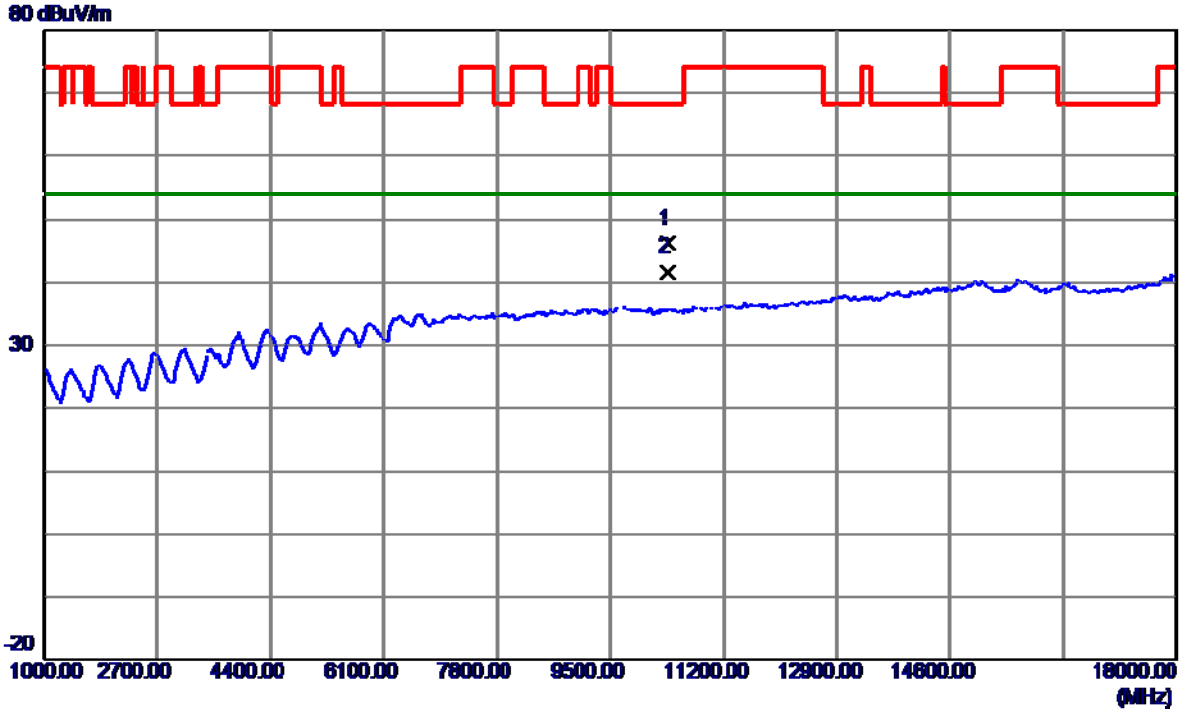
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.66	16.28	48.94	74.00	-25.06	Peak	
2	5150.0000	24.22	16.28	40.50	54.00	-13.50	AVG	
3	5180.4000	63.56	16.32	79.88	999.00	-919.12	AVG	
4 *	5185.1000	74.37	16.32	90.69	68.20	22.49	Peak	

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

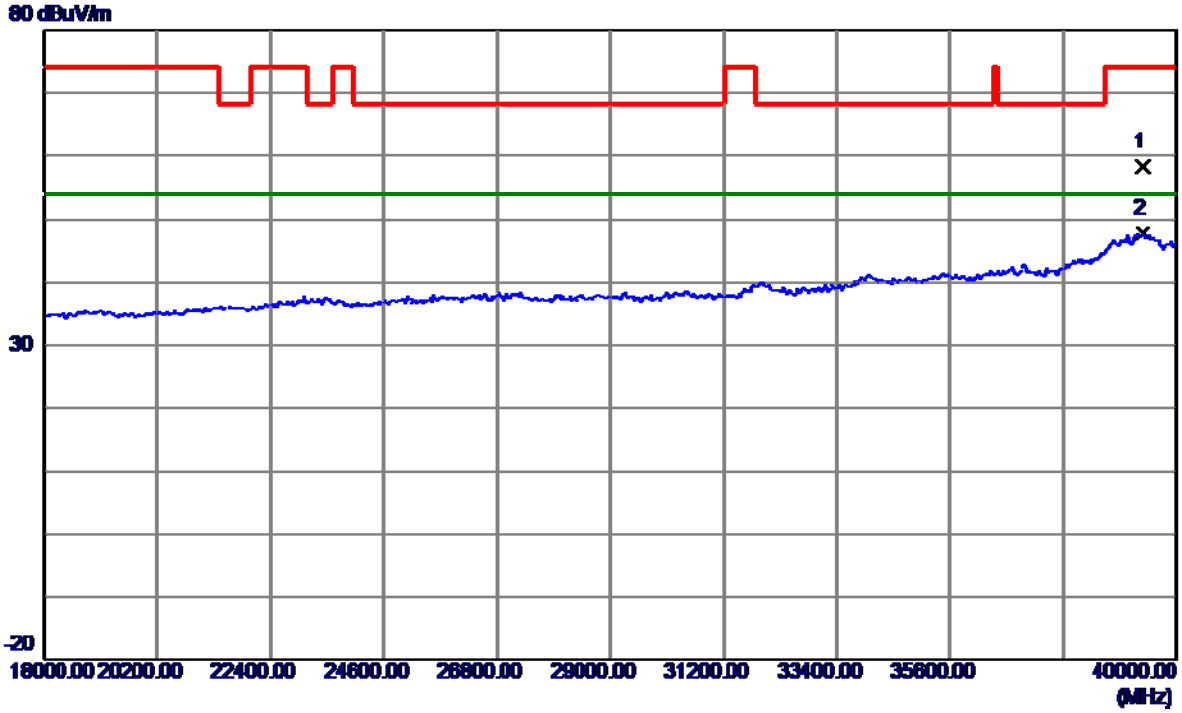
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10359.8240	32.81	13.46	46.27	68.20	-21.93	Peak	
2 *	10360.3960	28.05	13.46	41.51	54.00	-12.49	AVG	

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

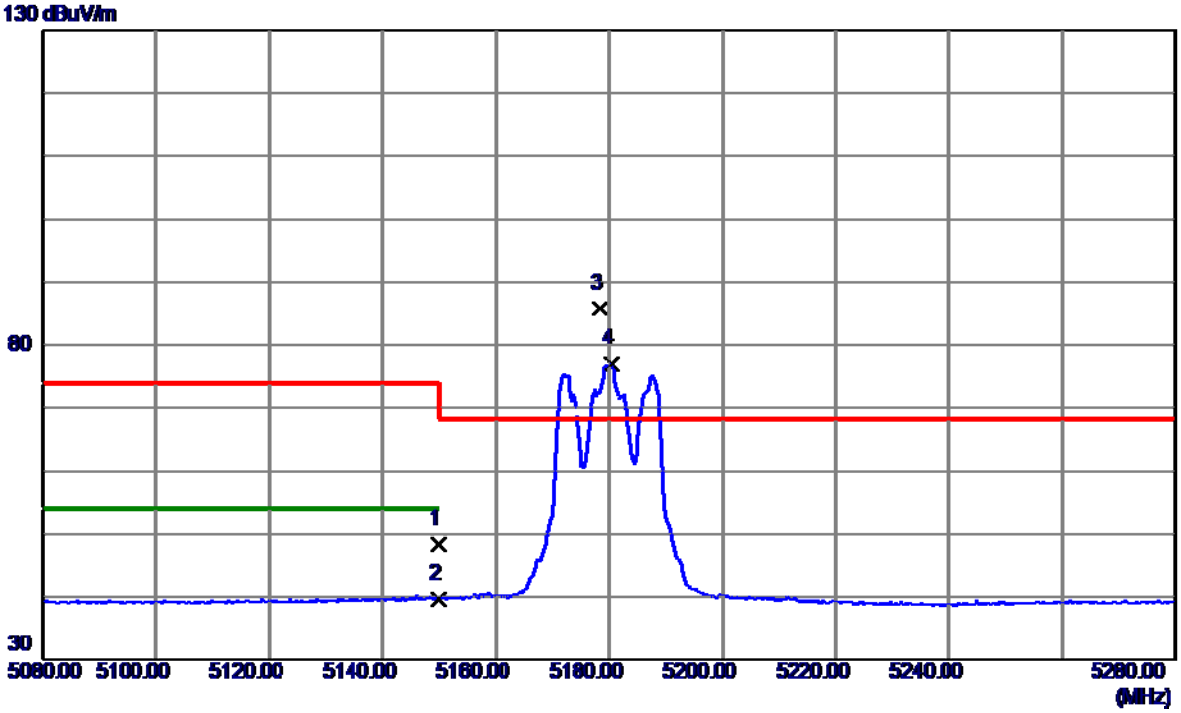
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39340.0000	40.59	17.62	58.21	74.00	-15.79	Peak	
2 *	39340.0000	30.18	17.62	47.80	54.00	-6.20	AVG	

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

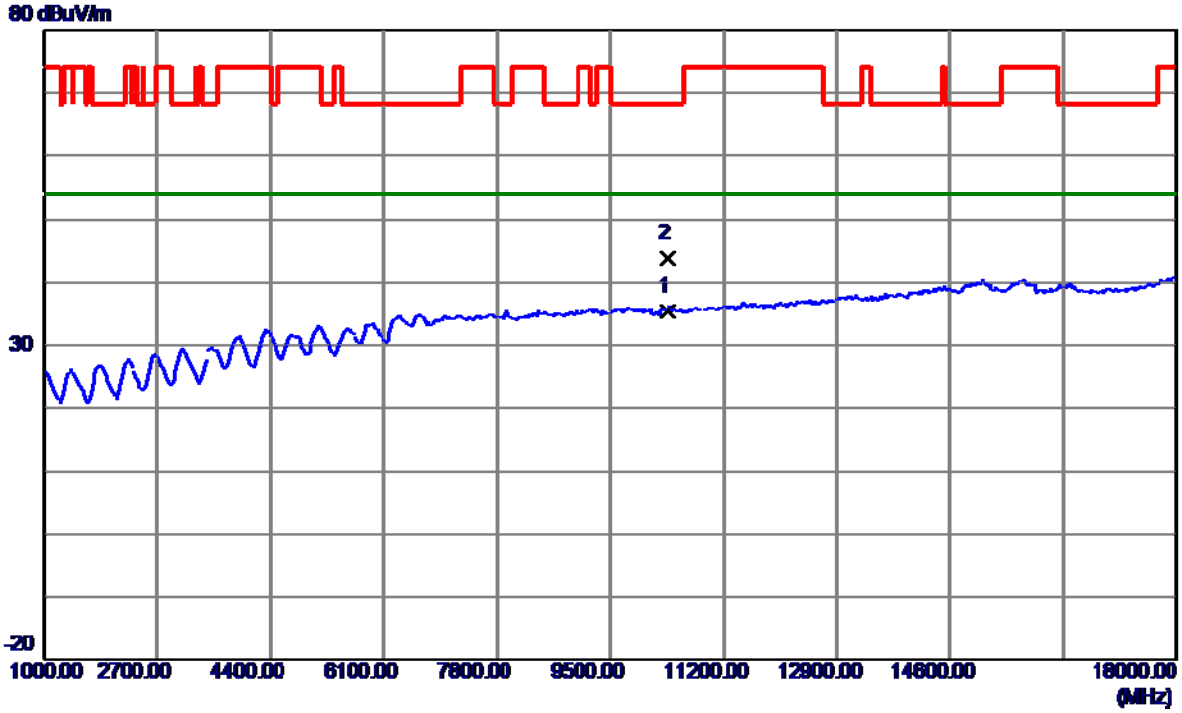
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.18	16.28	48.46	74.00	-25.54	Peak	
2	5150.0000	23.37	16.28	39.65	54.00	-14.35	AVG	
3 *	5178.5000	69.47	16.31	85.78	68.20	17.58	Peak	
4	5180.4000	60.72	16.32	77.04	999.00	-921.96	AVG	

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

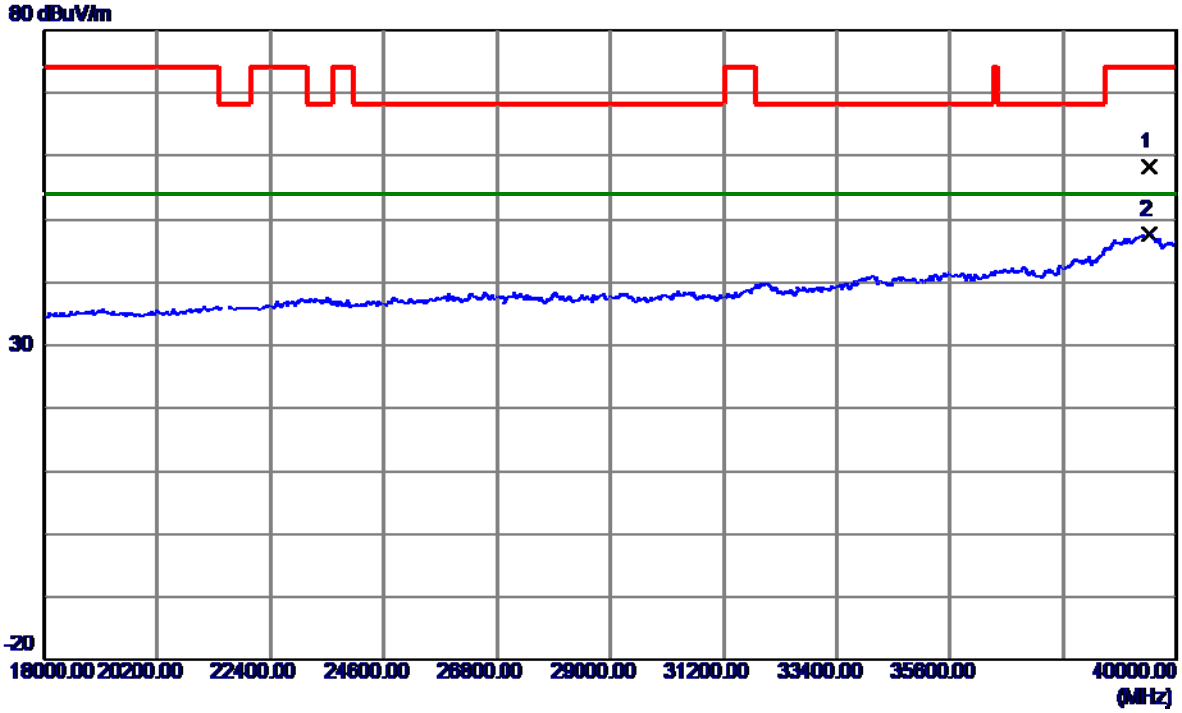


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10360.1790	21.88	13.46	35.34	54.00	-18.66	AVG	
2	10360.3490	30.37	13.46	43.83	68.20	-24.37	Peak	

※※※

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

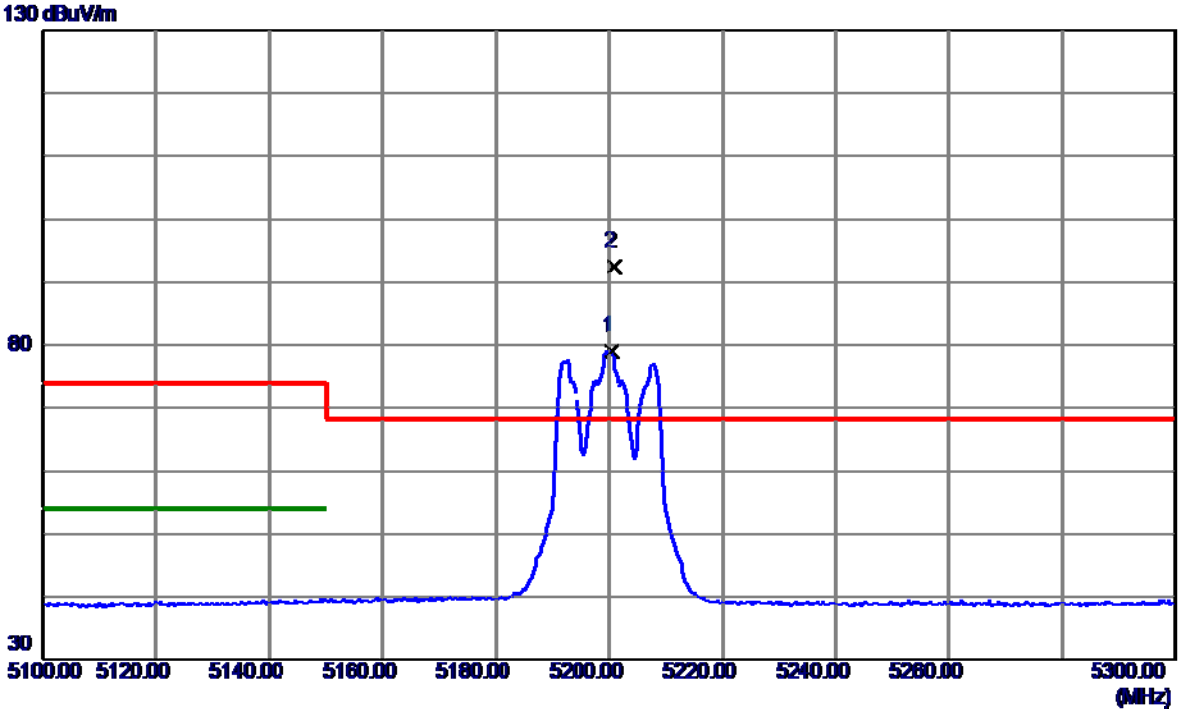


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	40.33	17.86	58.19	74.00	-15.81	Peak	
2 *	39472.0000	29.76	17.86	47.62	54.00	-6.38	AVG	

※※※

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

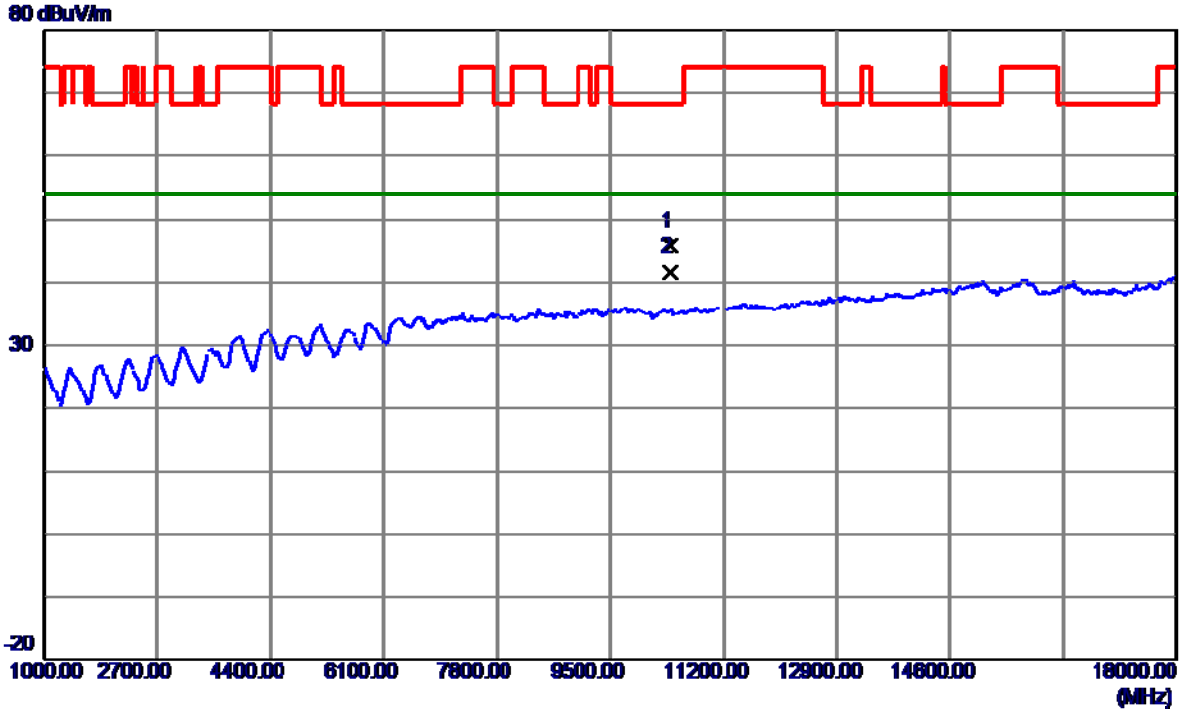
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5200.4000	62.62	16.34	78.96	999.00	-920.04	AVG	
2 *	5200.8000	75.98	16.34	92.32	68.20	24.12	Peak	

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

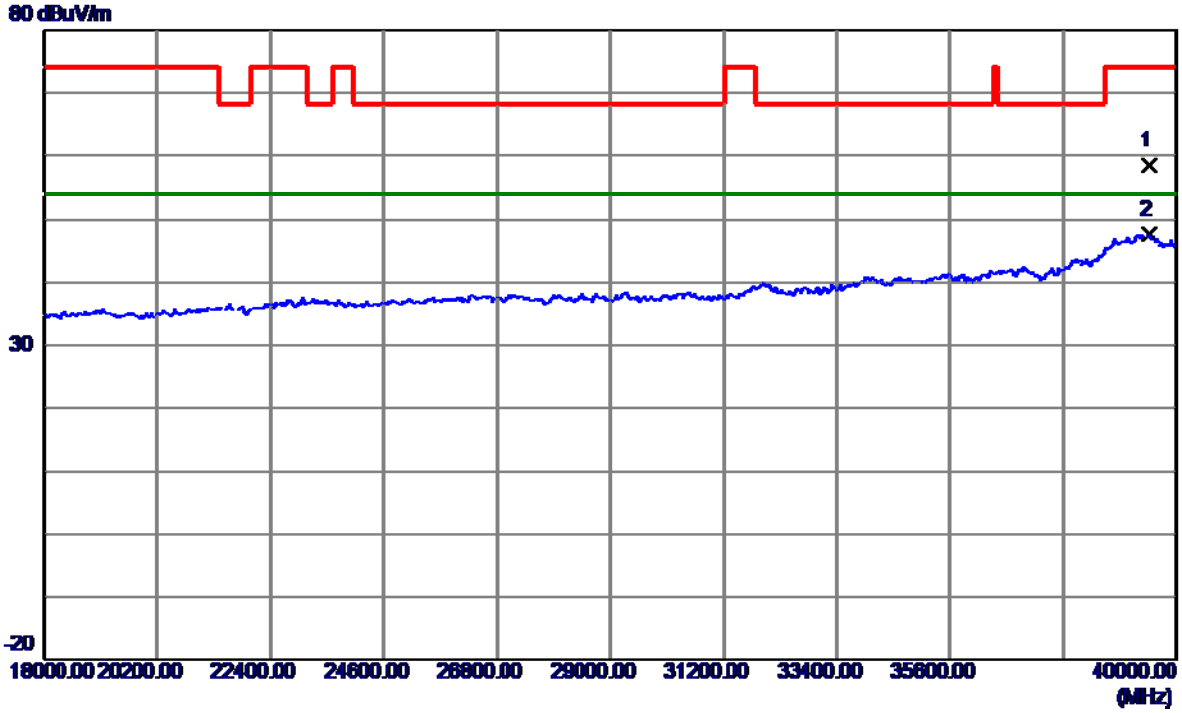
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10399.8770	32.36	13.49	45.85	68.20	-22.35	Peak	
2 *	10400.0039	28.02	13.49	41.51	54.00	-12.49	AVG	

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

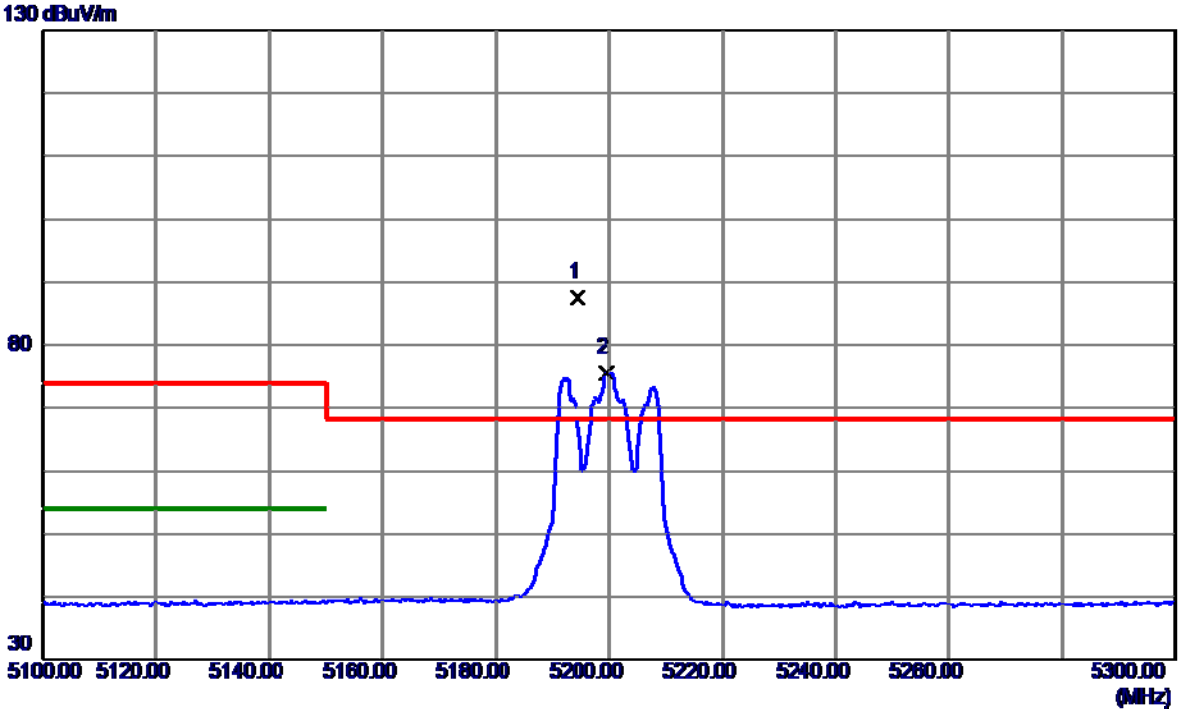
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39461.0000	40.49	17.84	58.33	74.00	-15.67	Peak	
2 *	39461.0000	29.85	17.84	47.69	54.00	-6.31	AVG	

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

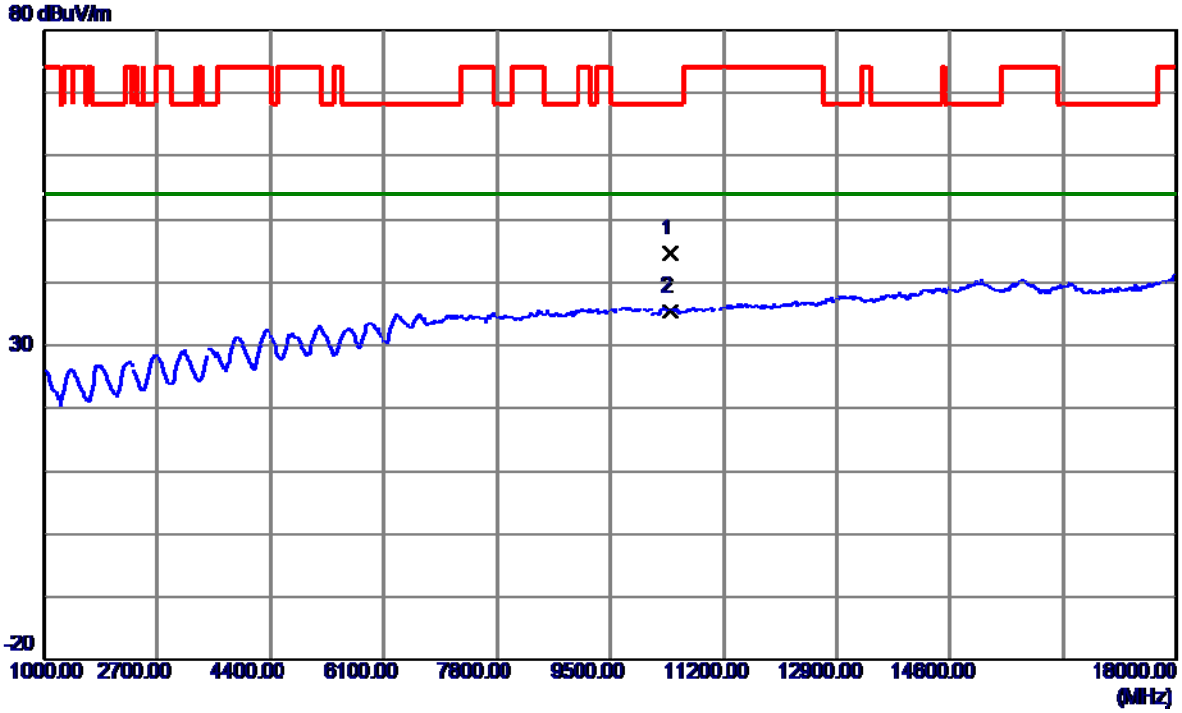
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5194.5000	71.35	16.33	87.68	68.20	19.48	Peak	
2	5199.5000	59.26	16.34	75.60	999.00	-923.40	AVG	

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

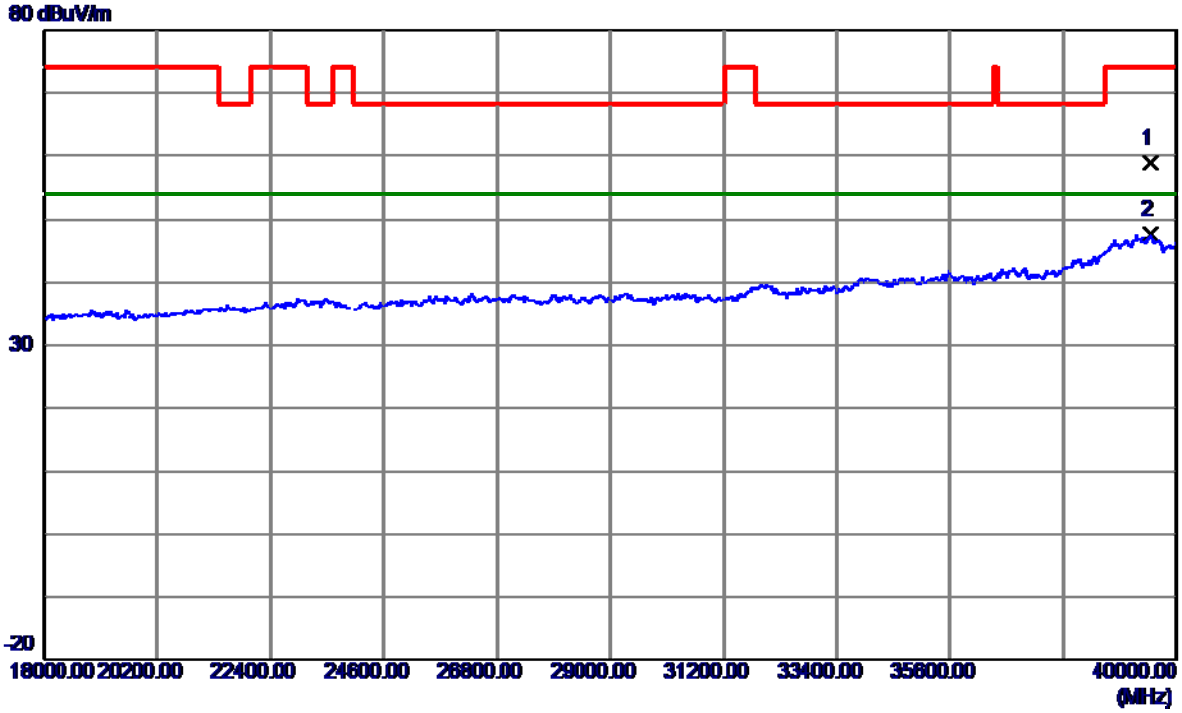
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10399.5140	31.07	13.49	44.56	68.20	-23.64	Peak	
2 *	10400.2810	21.89	13.49	35.38	54.00	-18.62	AVG	

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

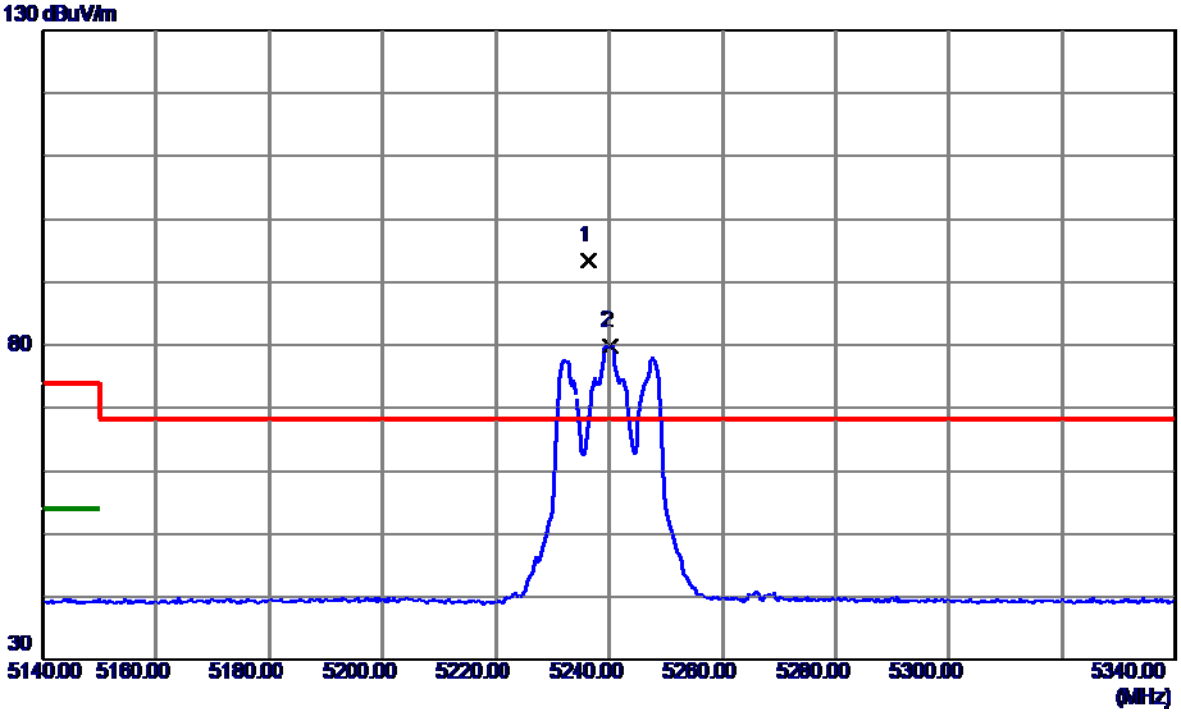
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39494.0000	40.82	17.90	58.72	74.00	-15.28	Peak	
2 *	39494.0000	29.64	17.90	47.54	54.00	-6.46	AVG	

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

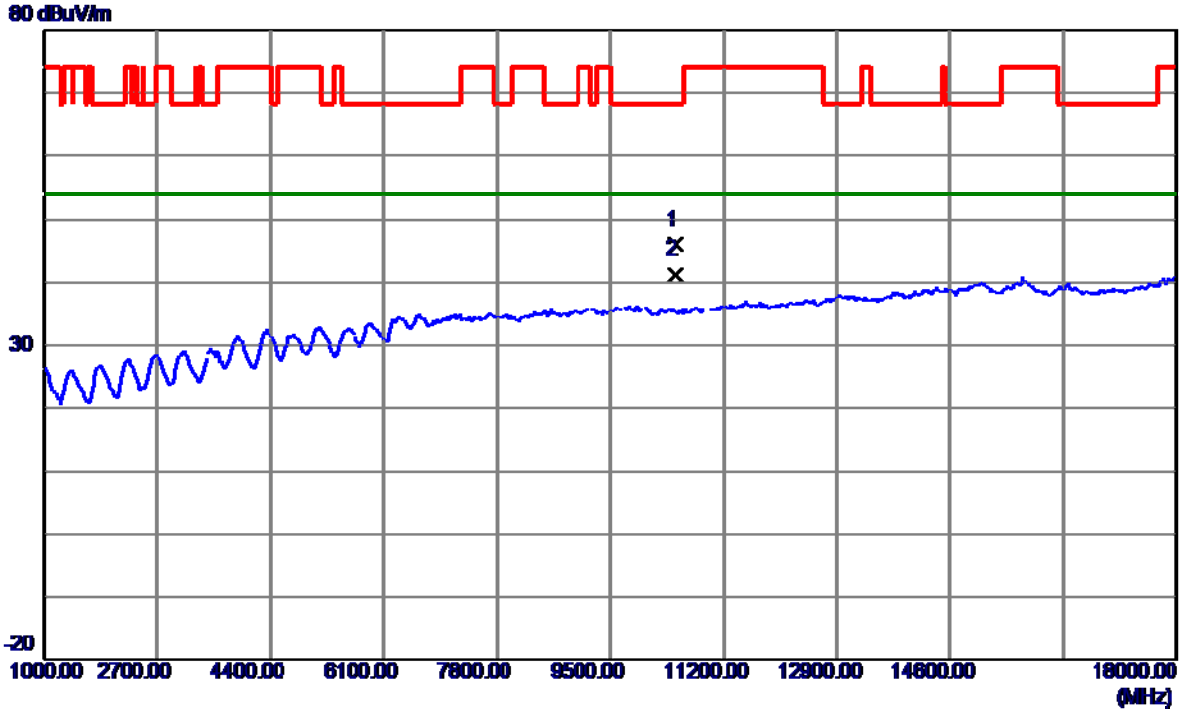
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5236.5000	76.93	16.38	93.31	68.20	25.11	Peak	
2	5240.3000	63.43	16.38	79.81	999.00	-919.19	AVG	

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

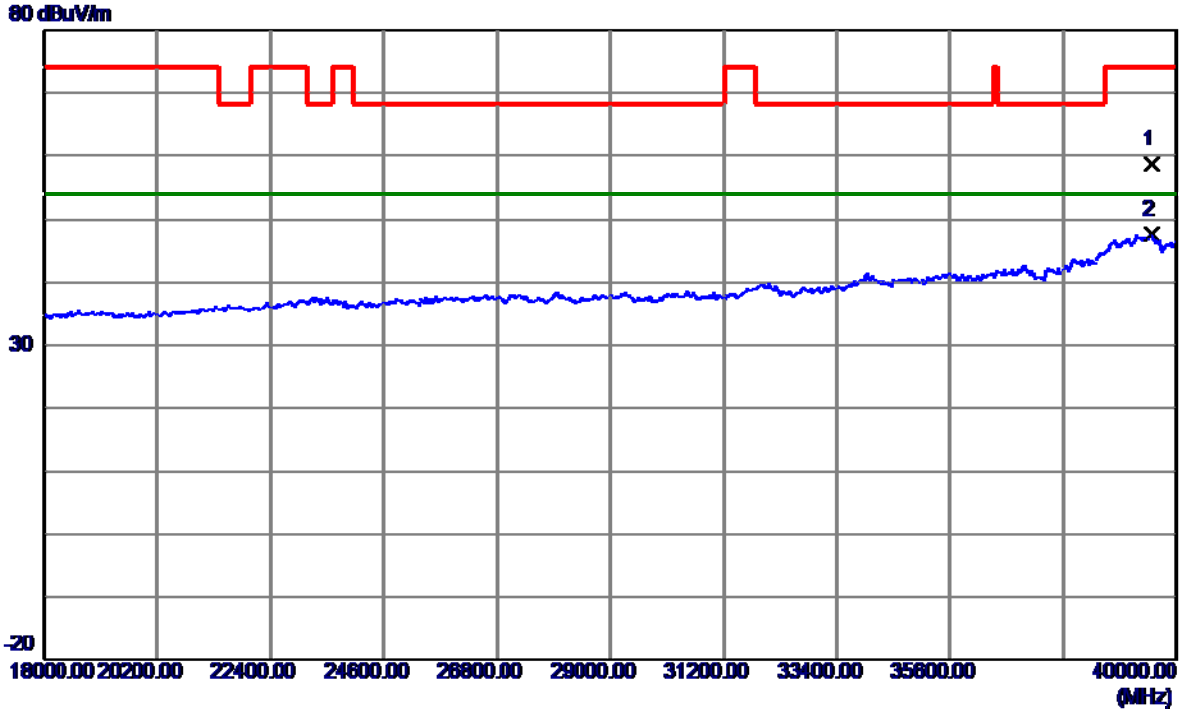
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10479.7250	32.48	13.56	46.04	68.20	-22.16	Peak	
2 *	10480.4320	27.69	13.56	41.25	54.00	-12.75	AVG	

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

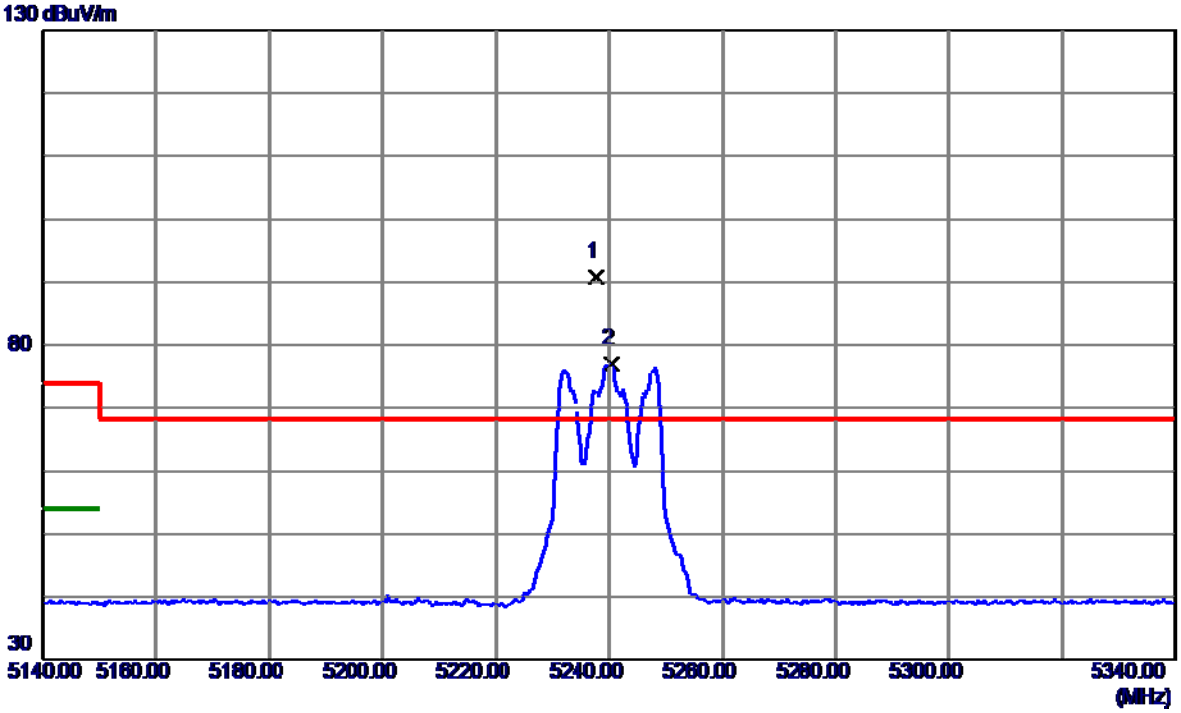
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39516.0000	40.65	17.91	58.56	74.00	-15.44	Peak	
2 *	39516.0000	29.64	17.91	47.55	54.00	-6.45	AVG	

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

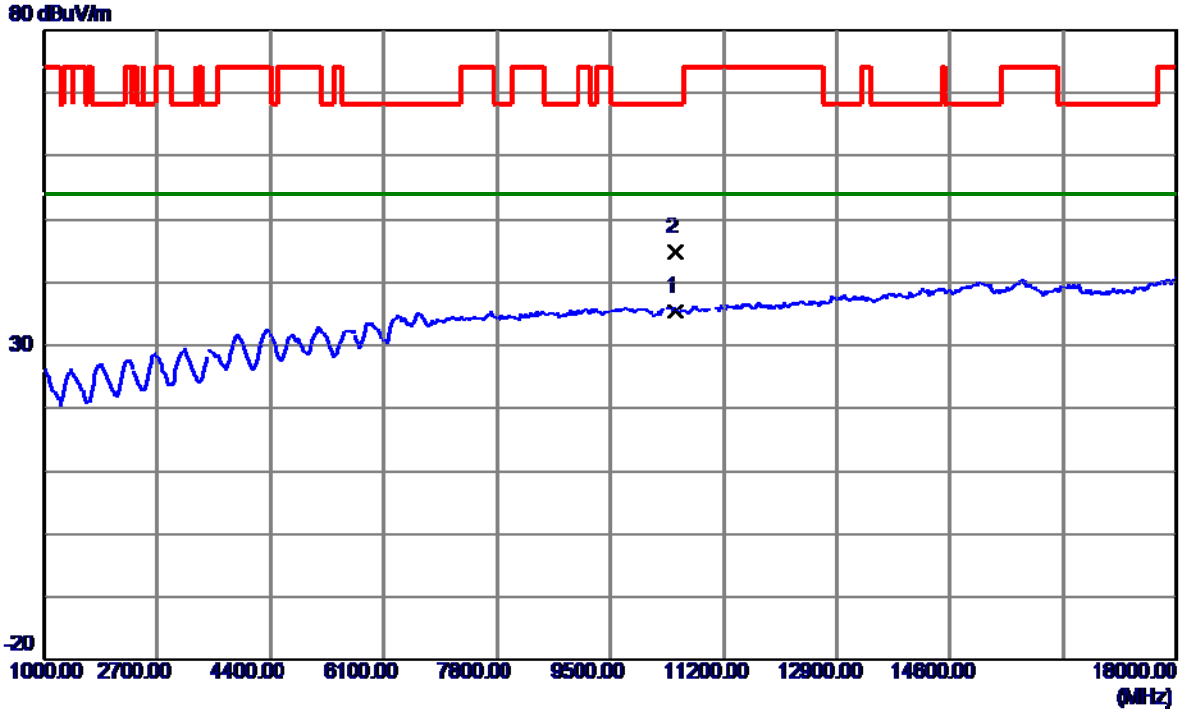
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5237.7000	74.42	16.38	90.80	68.20	22.60	Peak	
2	5240.5000	60.67	16.38	77.05	999.00	-921.95	AVG	

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

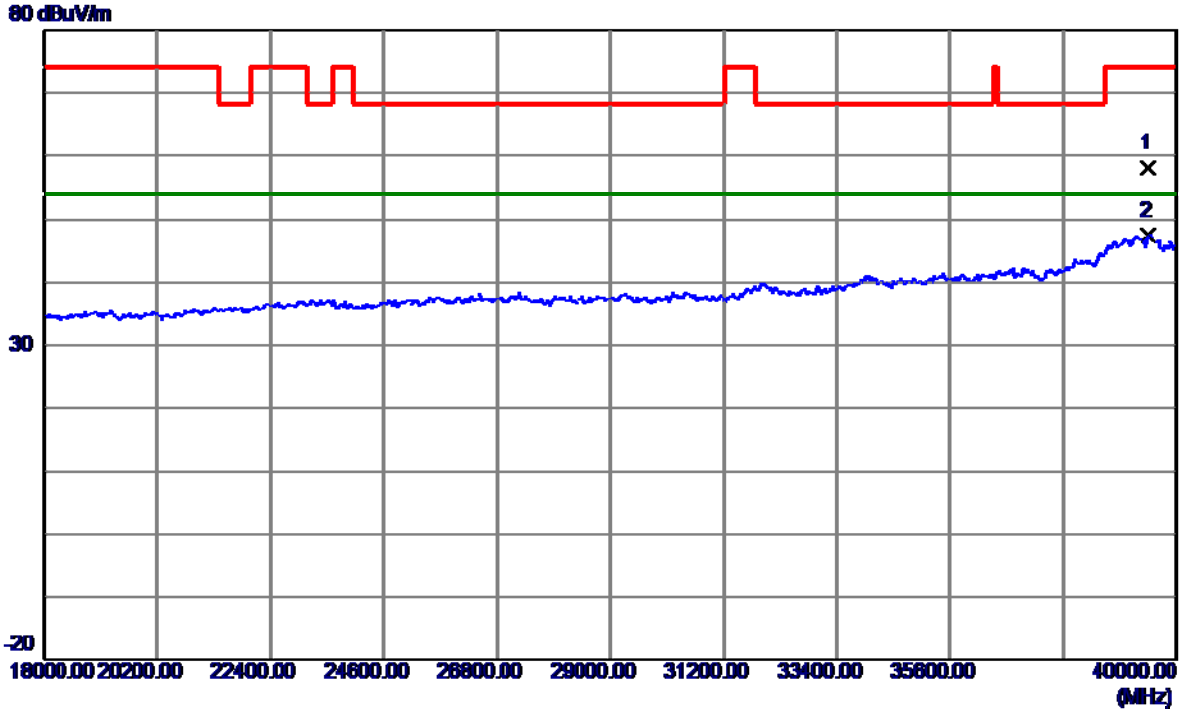
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10479.6810	21.76	13.56	35.32	54.00	-18.68	AVG	
2	10479.7270	31.16	13.56	44.72	68.20	-23.48	Peak	

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

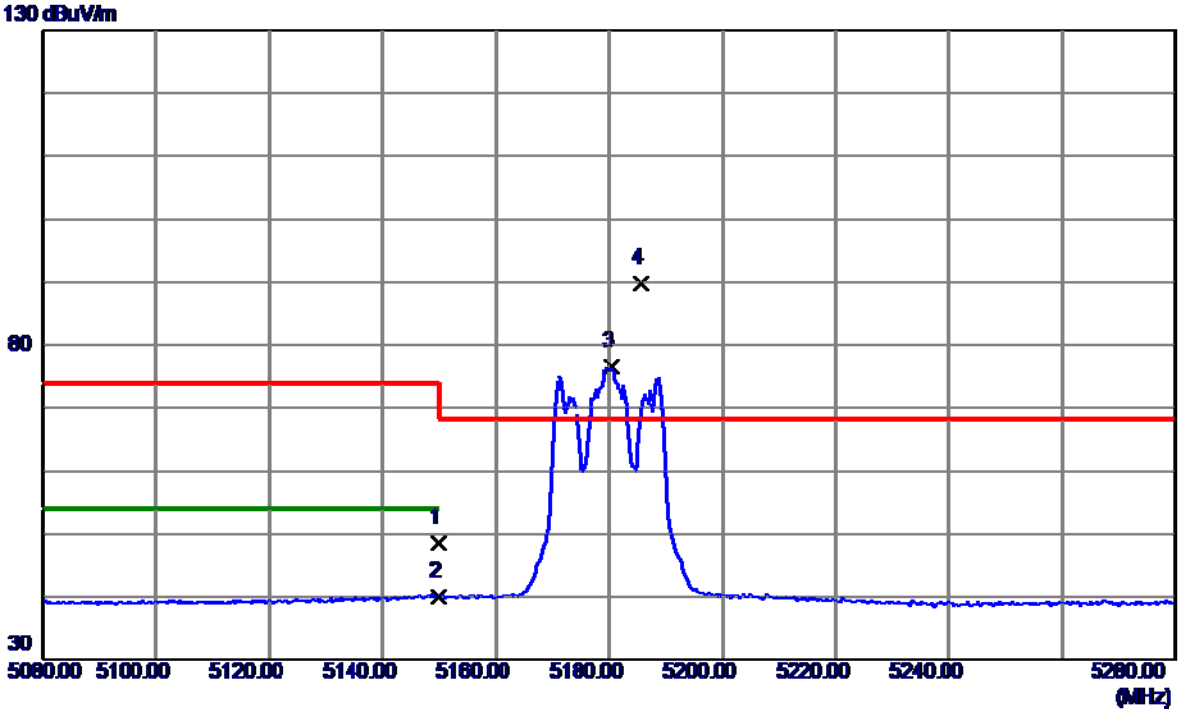
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39450.0000	40.20	17.82	58.02	74.00	-15.98	Peak	
2 *	39450.0000	29.66	17.82	47.48	54.00	-6.52	AVG	

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

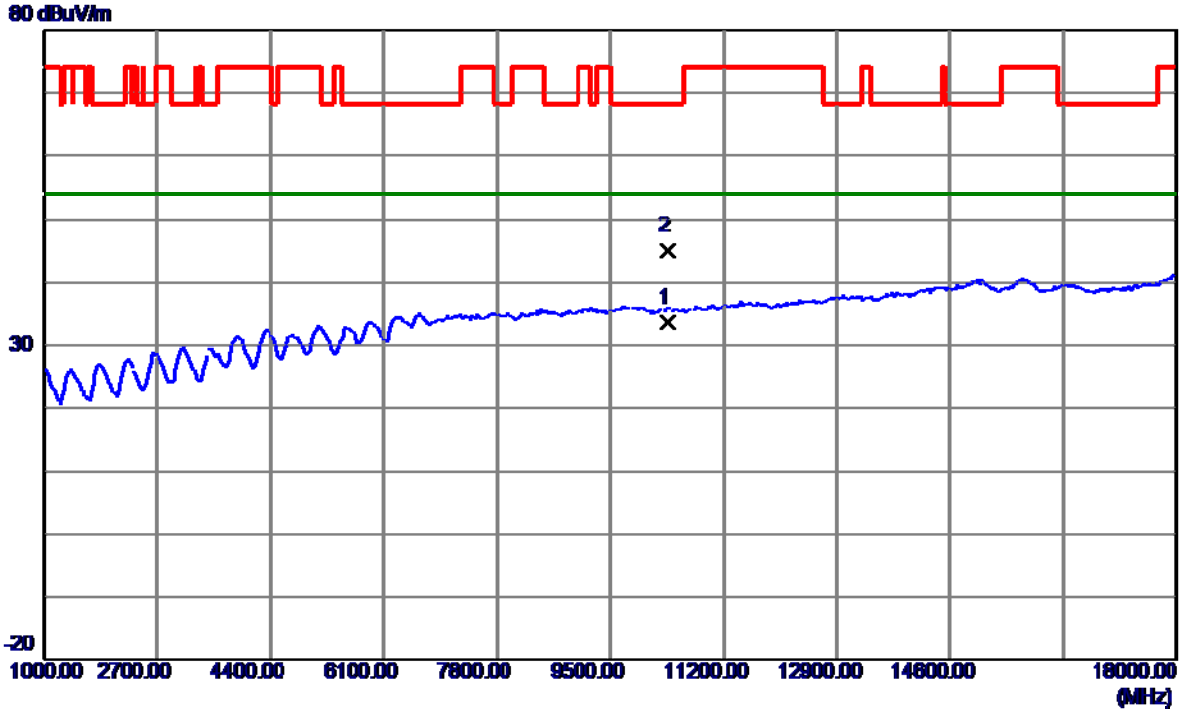
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.27	16.28	48.55	74.00	-25.45	Peak	
2	5150.0000	23.67	16.28	39.95	54.00	-14.05	AVG	
3	5180.5000	60.25	16.32	76.57	999.00	-922.43	AVG	
4 *	5185.6000	73.52	16.32	89.84	68.20	21.64	Peak	

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

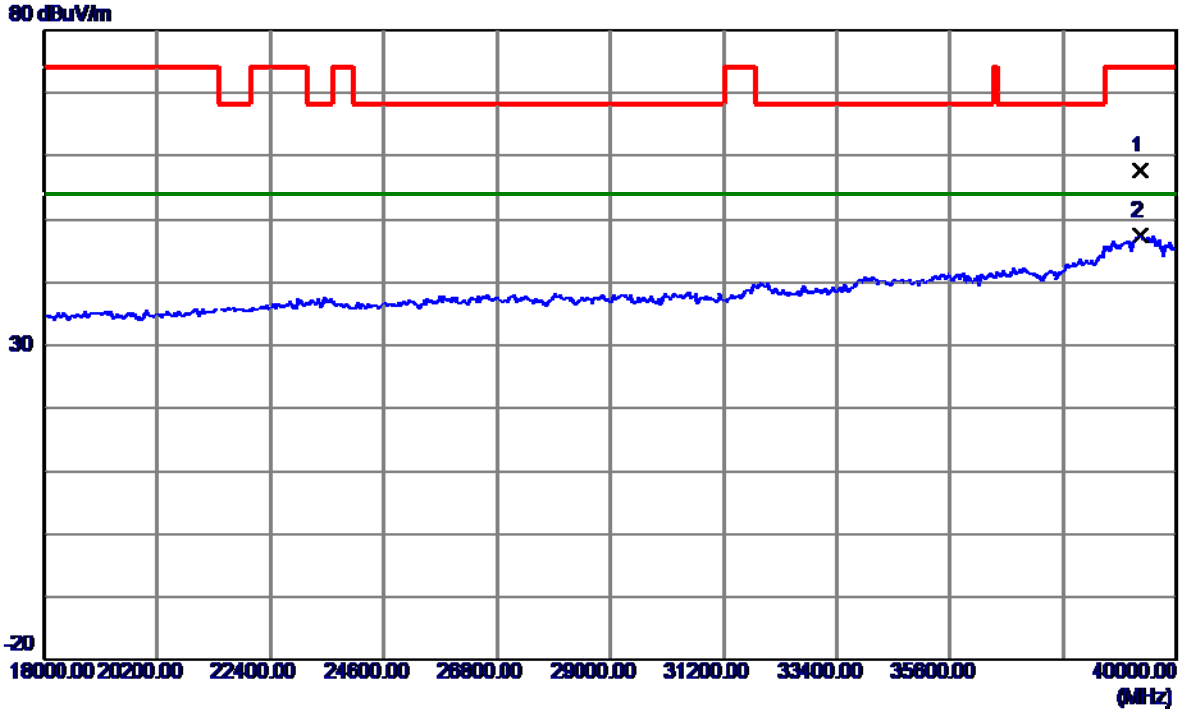
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10359.7130	20.05	13.46	33.51	54.00	-20.49	AVG	
2	10360.1440	31.50	13.46	44.96	68.20	-23.24	Peak	

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

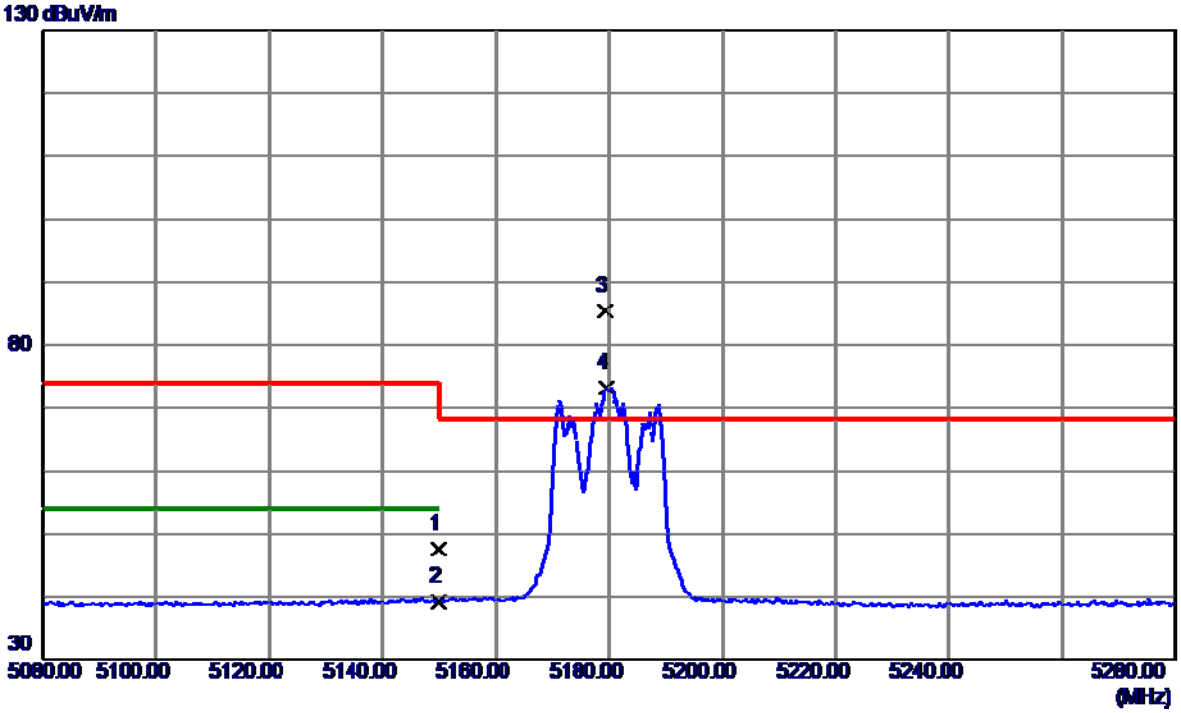
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39296.0000	40.01	17.53	57.54	74.00	-16.46	Peak	
2 *	39296.0000	29.83	17.53	47.36	54.00	-6.64	AVG	

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

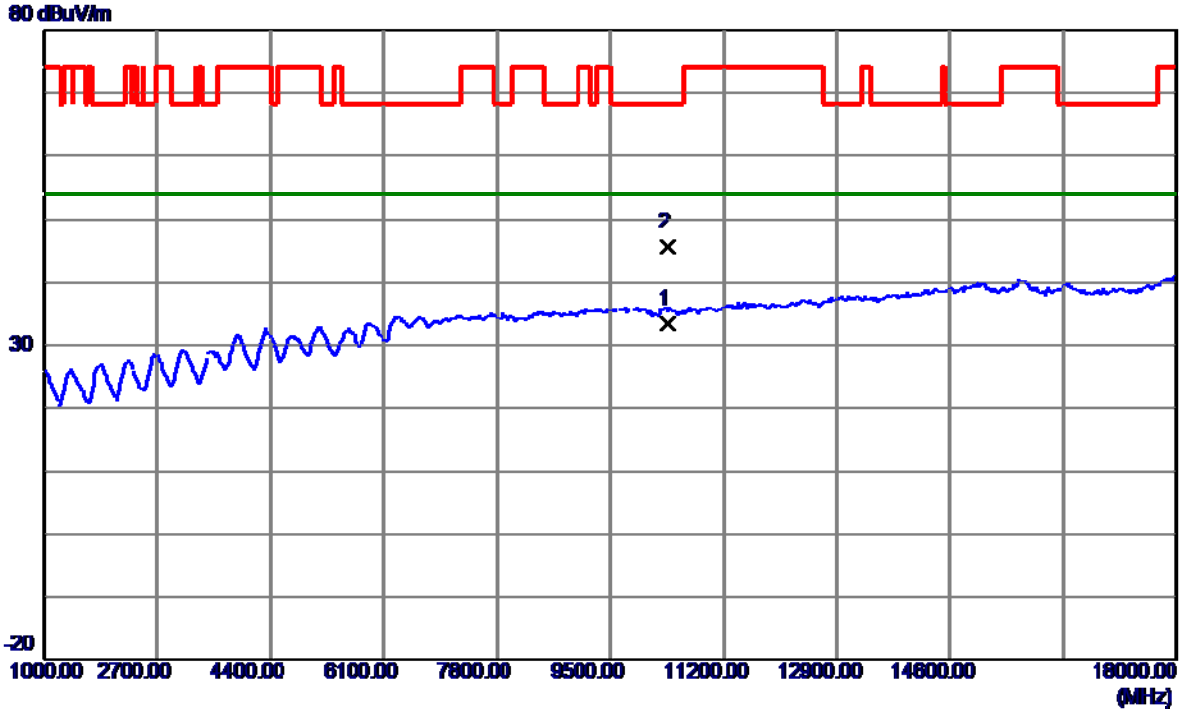
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	31.31	16.28	47.59	74.00	-26.41	Peak	
2	5150.0000	22.94	16.28	39.22	54.00	-14.78	AVG	
3 *	5179.3000	69.07	16.32	85.39	68.20	17.19	Peak	
4	5179.5000	56.93	16.32	73.25	999.00	-925.75	AVG	

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

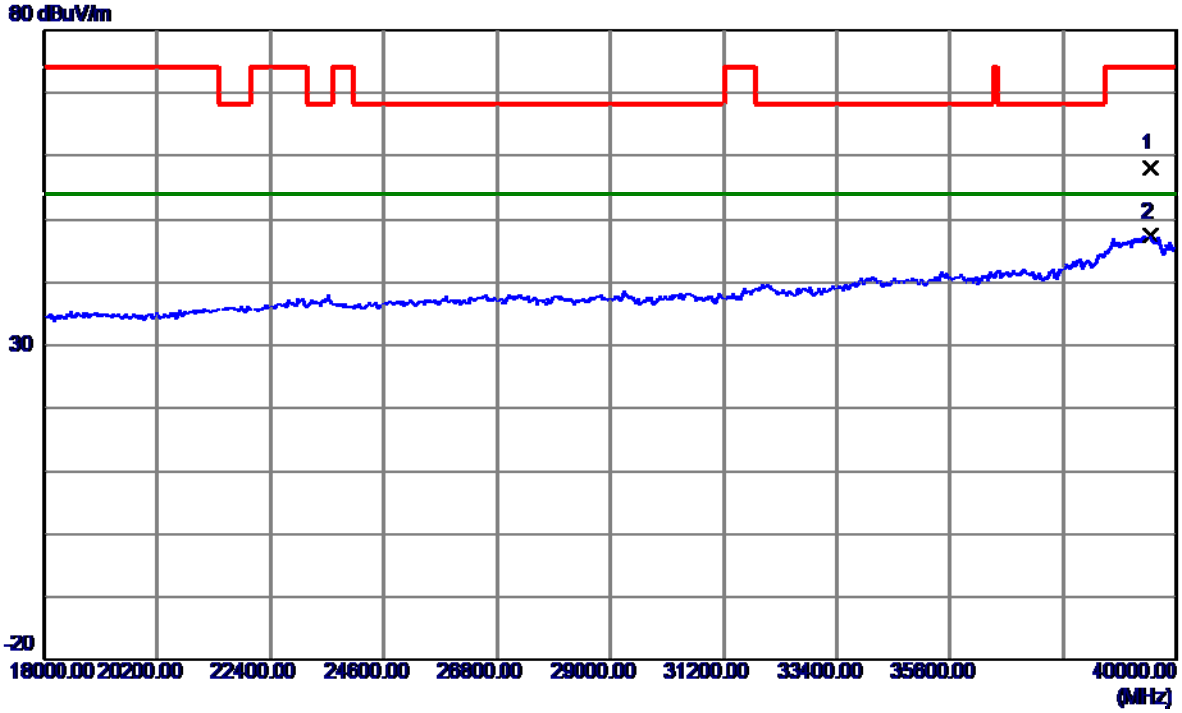
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10359.5990	19.96	13.46	33.42	54.00	-20.58	AVG	
2	10360.3690	32.22	13.46	45.68	68.20	-22.52	Peak	

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

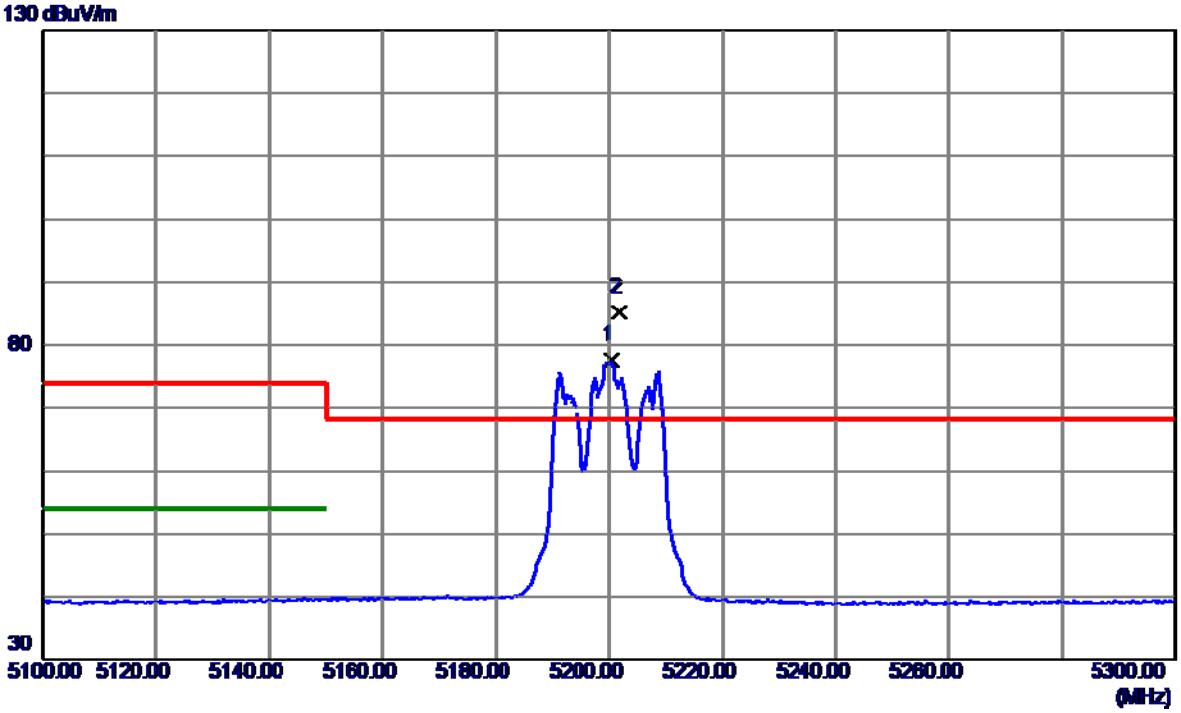
Test Mode	UNII-1_TX N(HT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39483.0000	40.03	17.88	57.91	74.00	-16.09	Peak	
2 *	39483.0000	29.42	17.88	47.30	54.00	-6.70	AVG	

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

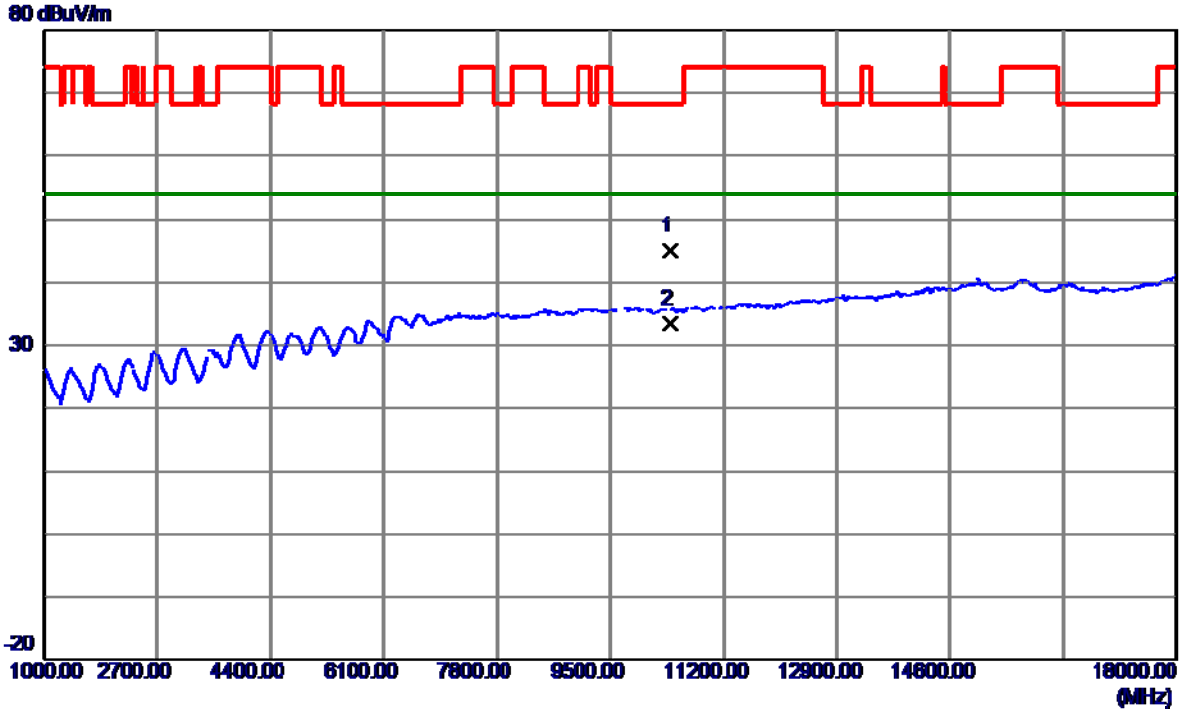
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5200.5000	61.18	16.34	77.52	999.00	-921.48	AVG	
2 *	5201.8000	68.91	16.34	85.25	68.20	17.05	Peak	

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

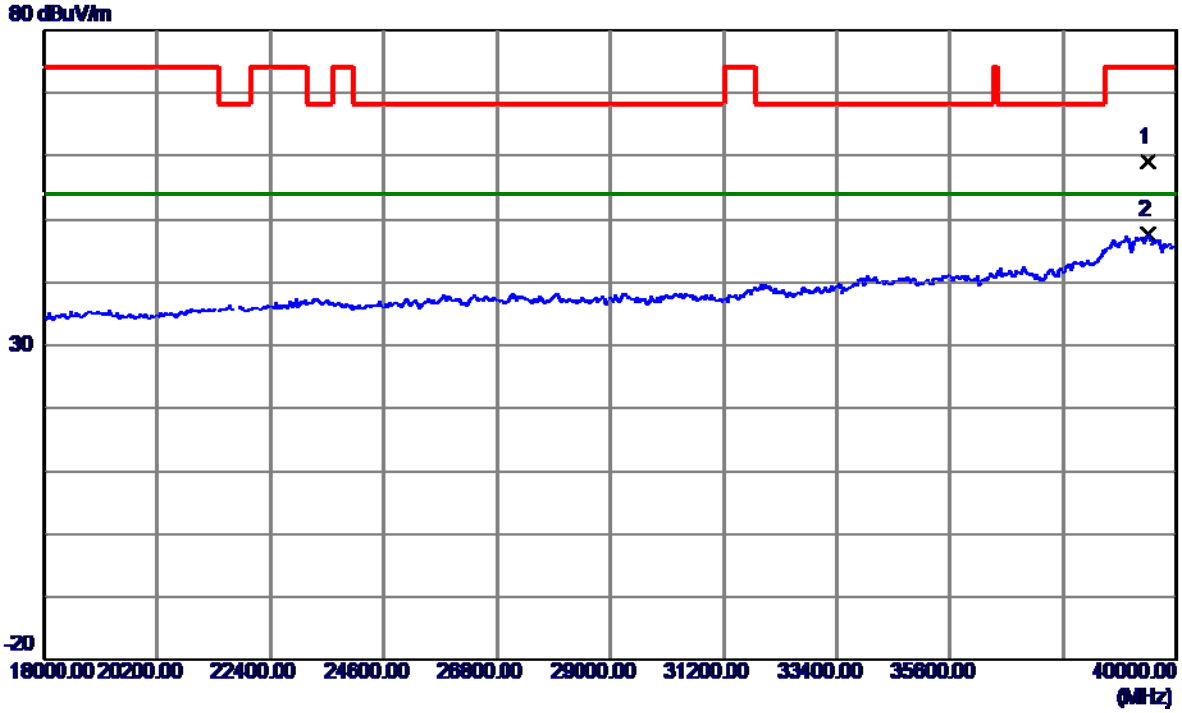
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10400.0400	31.53	13.49	45.02	68.20	-23.18	Peak	
2 *	10400.4600	19.93	13.49	33.42	54.00	-20.58	AVG	

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

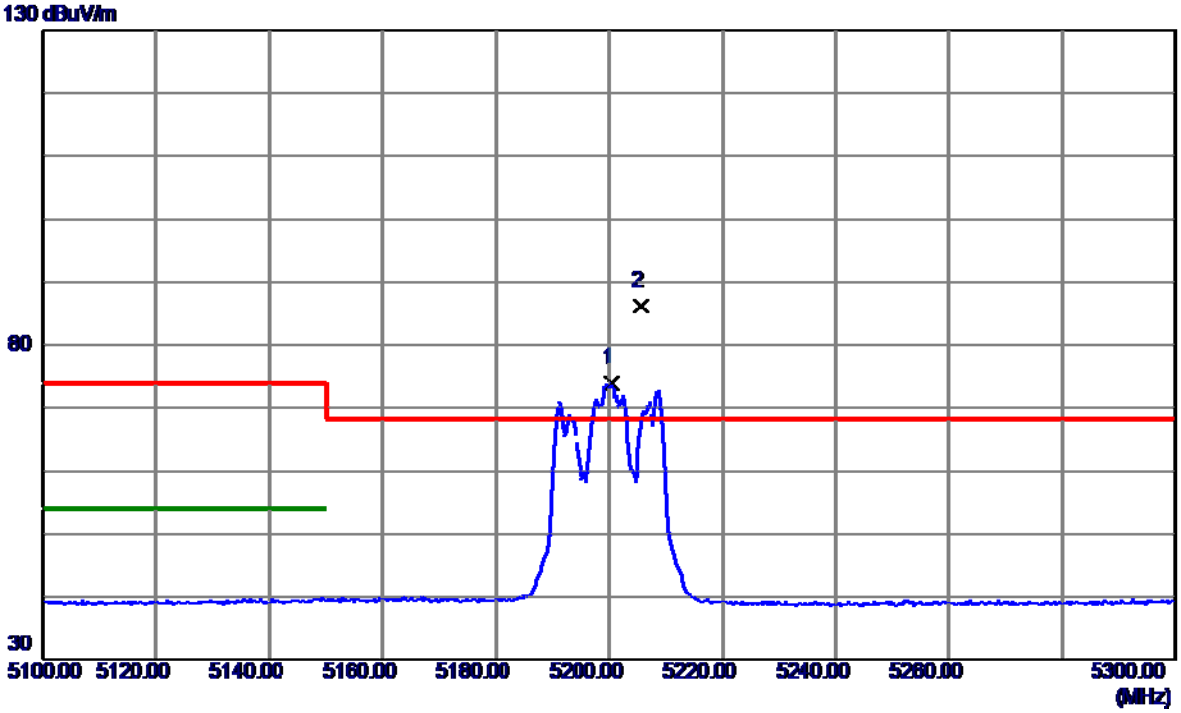
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39428.0000	41.26	17.78	59.04	74.00	-14.96	Peak	
2 *	39428.0000	29.79	17.78	47.57	54.00	-6.43	AVG	

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

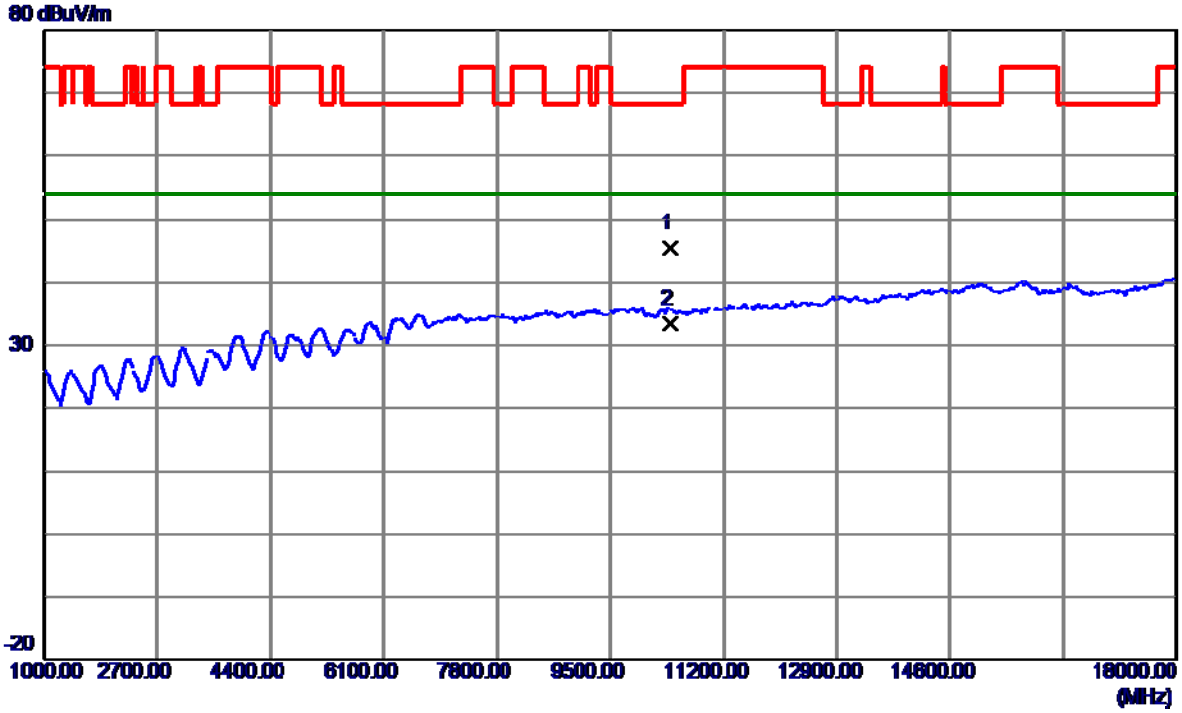
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5200.5000	57.64	16.34	73.98	999.00	-925.02	AVG	
2 *	5205.6000	69.81	16.34	86.15	68.20	17.95	Peak	

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

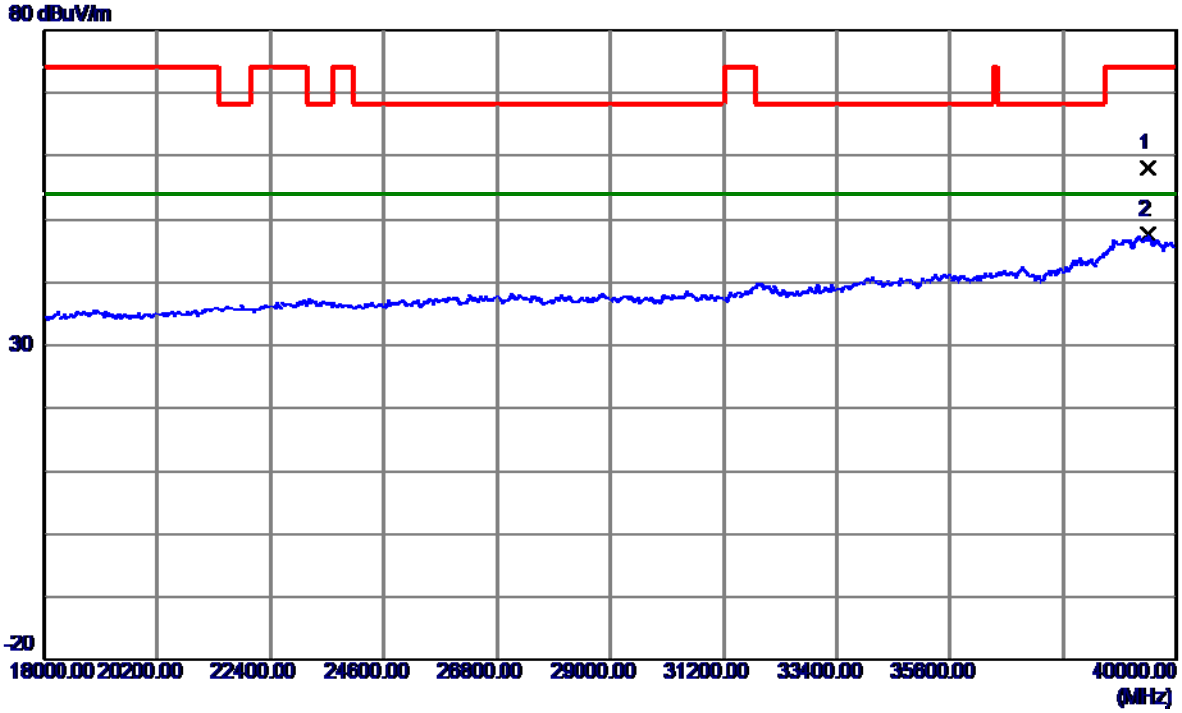
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10400.1060	31.89	13.49	45.38	68.20	-22.82	Peak	
2 *	10400.1810	19.88	13.49	33.37	54.00	-20.63	AVG	

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

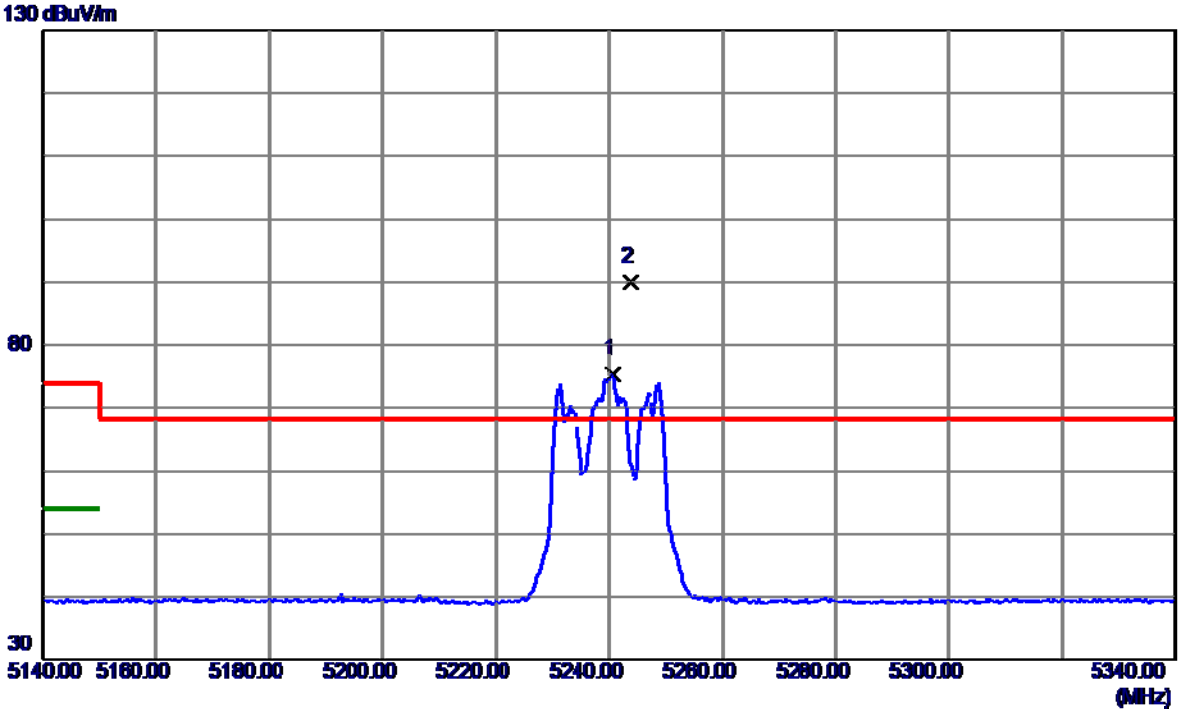
Test Mode	UNII-1_TX N(HT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39439.0000	40.21	17.80	58.01	74.00	-15.99	Peak	
2 *	39439.0000	29.72	17.80	47.52	54.00	-6.48	AVG	

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

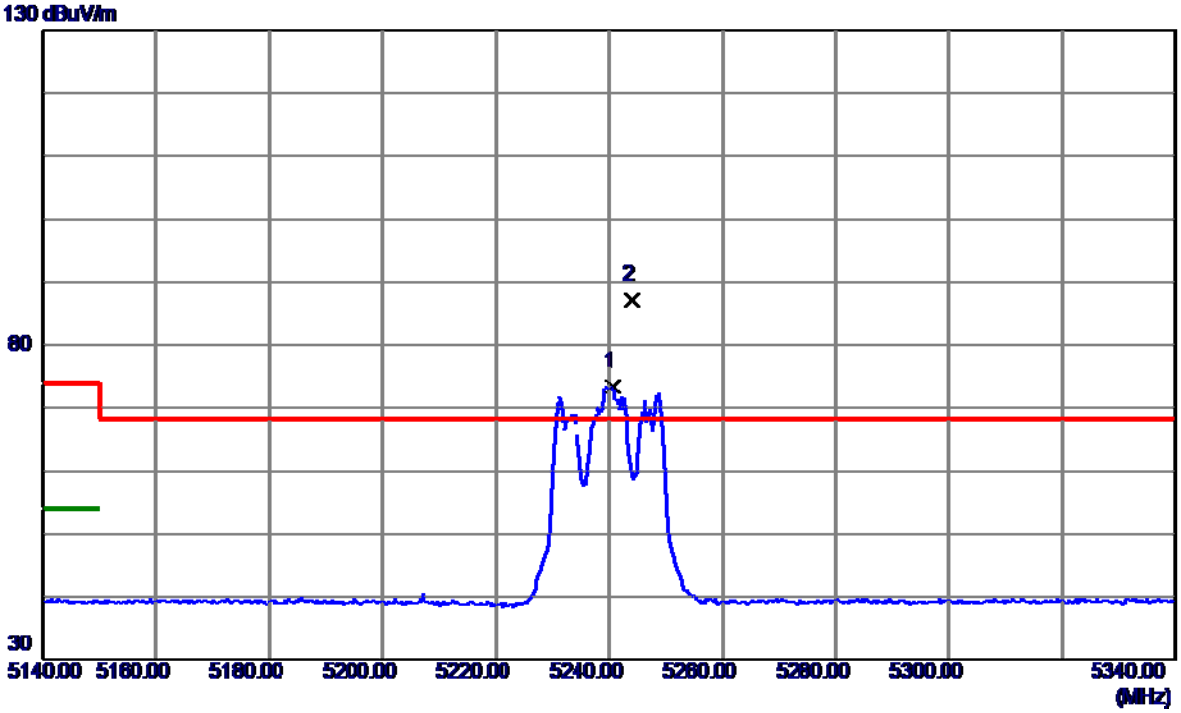
Test Mode	UNII-1_TX N(HT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5240.6000	59.03	16.38	75.41	999.00	-923.59	AVG	
2 *	5243.8000	73.64	16.39	90.03	68.20	21.83	Peak	

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

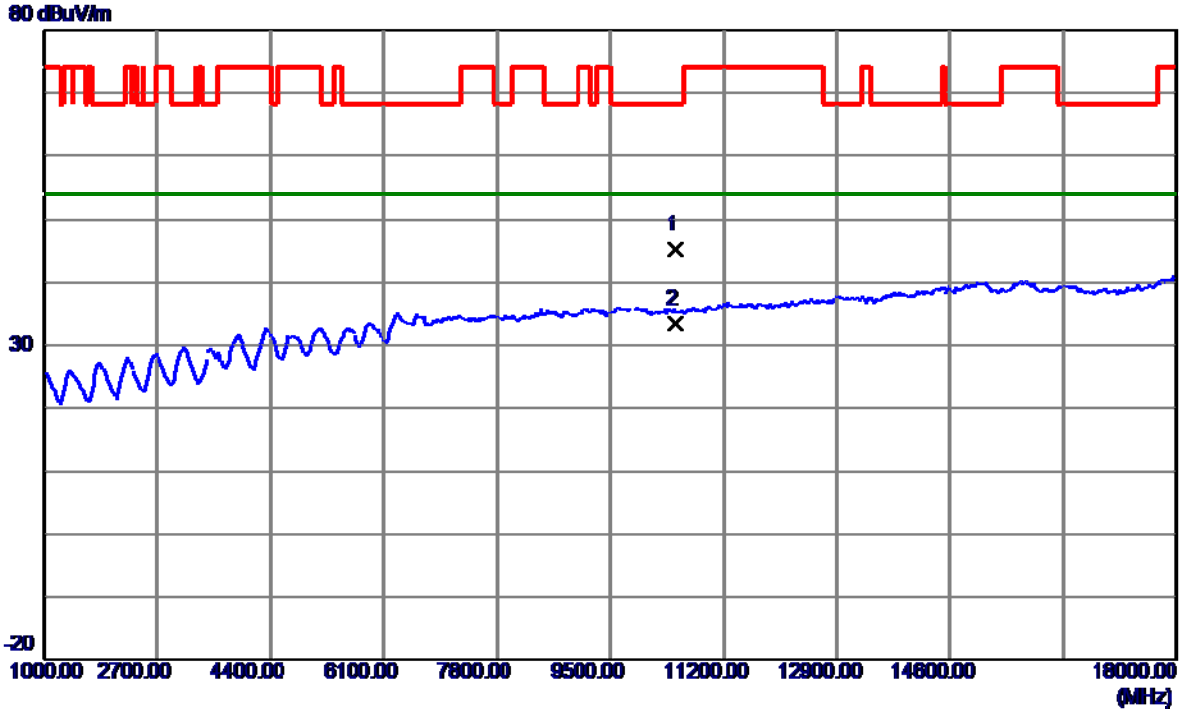
Test Mode	UNII-1_TX N(HT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5240.6000	56.97	16.38	73.35	999.00	-925.65	AVG	
2 *	5244.1000	70.75	16.39	87.14	68.20	18.94	Peak	

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

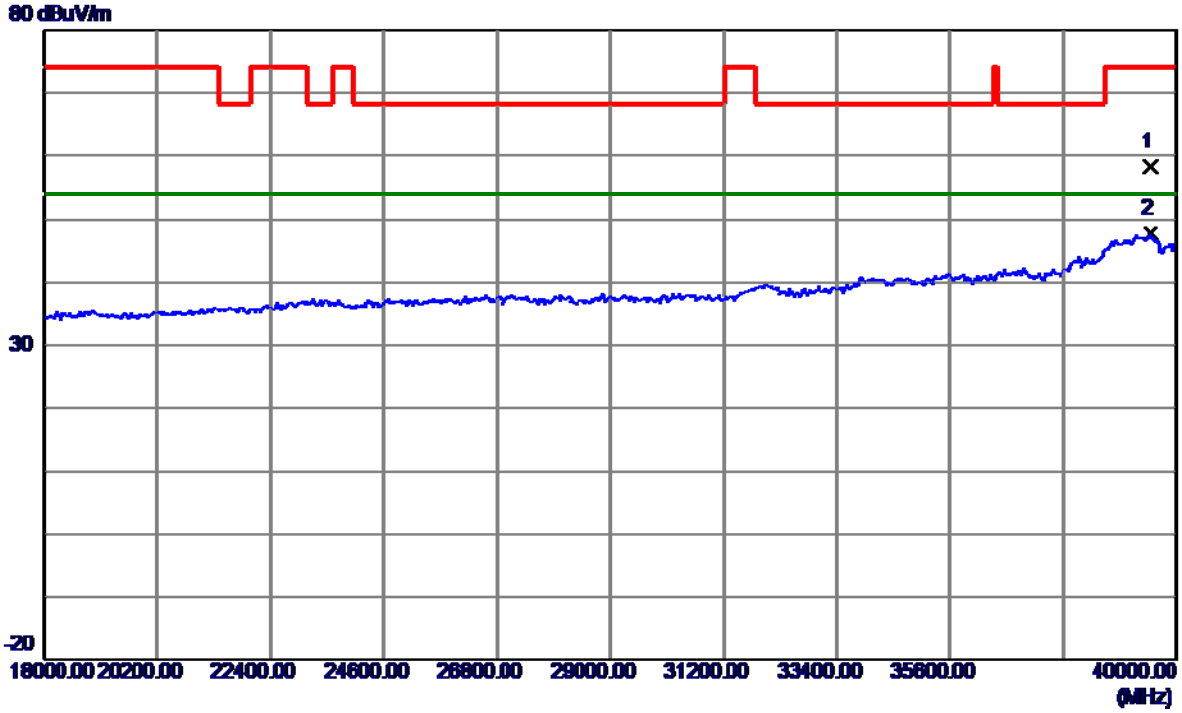
Test Mode	UNII-1_TX N(HT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10479.9850	31.62	13.56	45.18	68.20	-23.02	Peak	
2 *	10480.3869	19.86	13.56	33.42	54.00	-20.58	AVG	

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

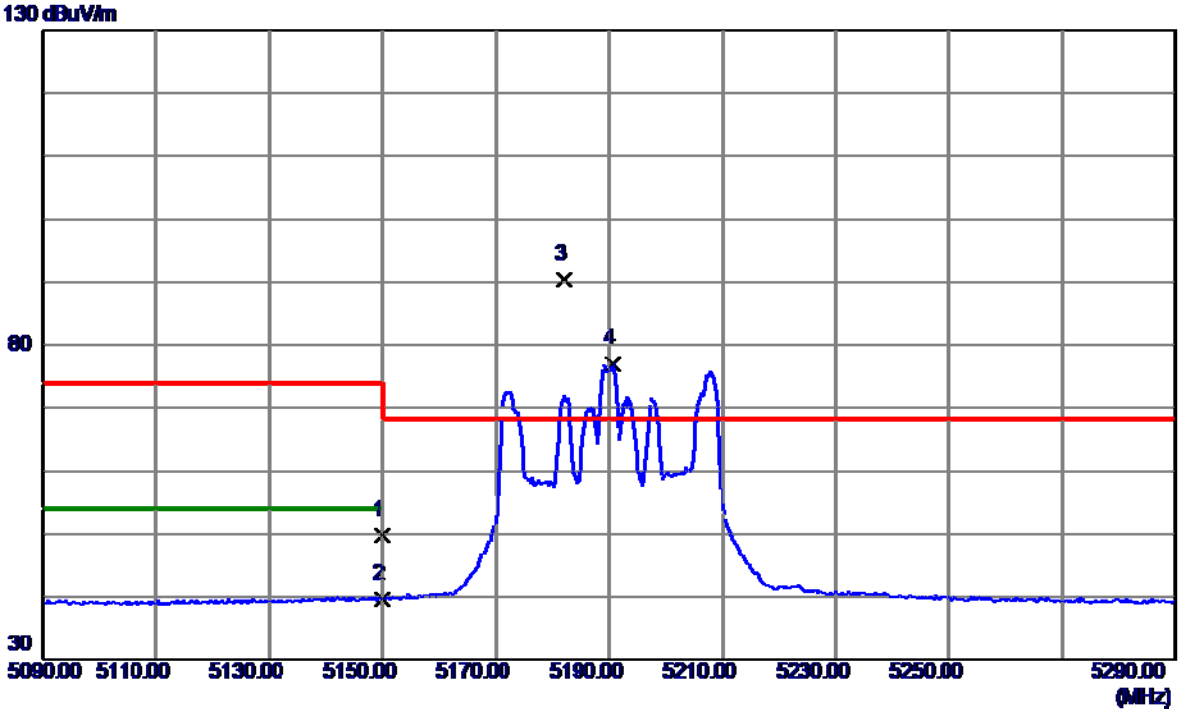
Test Mode	UNII-1_TX N(HT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39483.0000	40.32	17.88	58.20	74.00	-15.80	Peak	
2 *	39483.0000	29.90	17.88	47.78	54.00	-6.22	AVG	

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

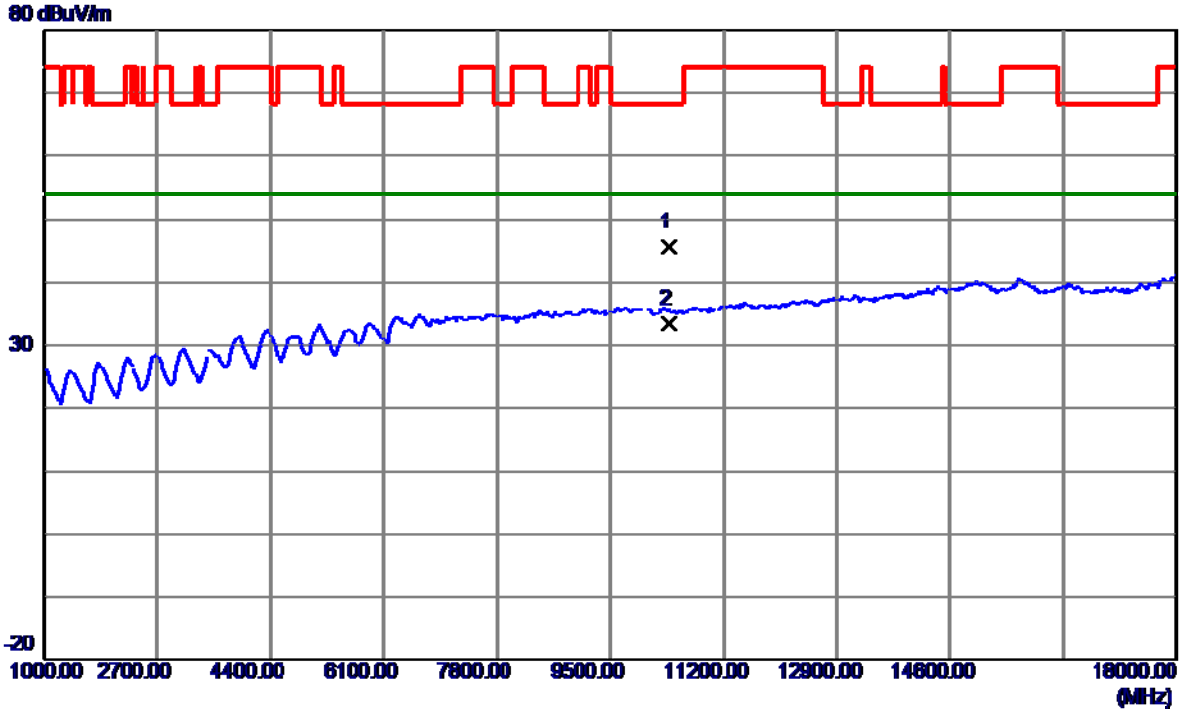
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	33.43	16.28	49.71	74.00	-24.29	Peak	
2	5150.0000	23.33	16.28	39.61	54.00	-14.39	AVG	
3 *	5182.0000	74.06	16.32	90.38	68.20	22.18	Peak	
4	5190.7000	60.72	16.33	77.05	999.00	-921.95	AVG	

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

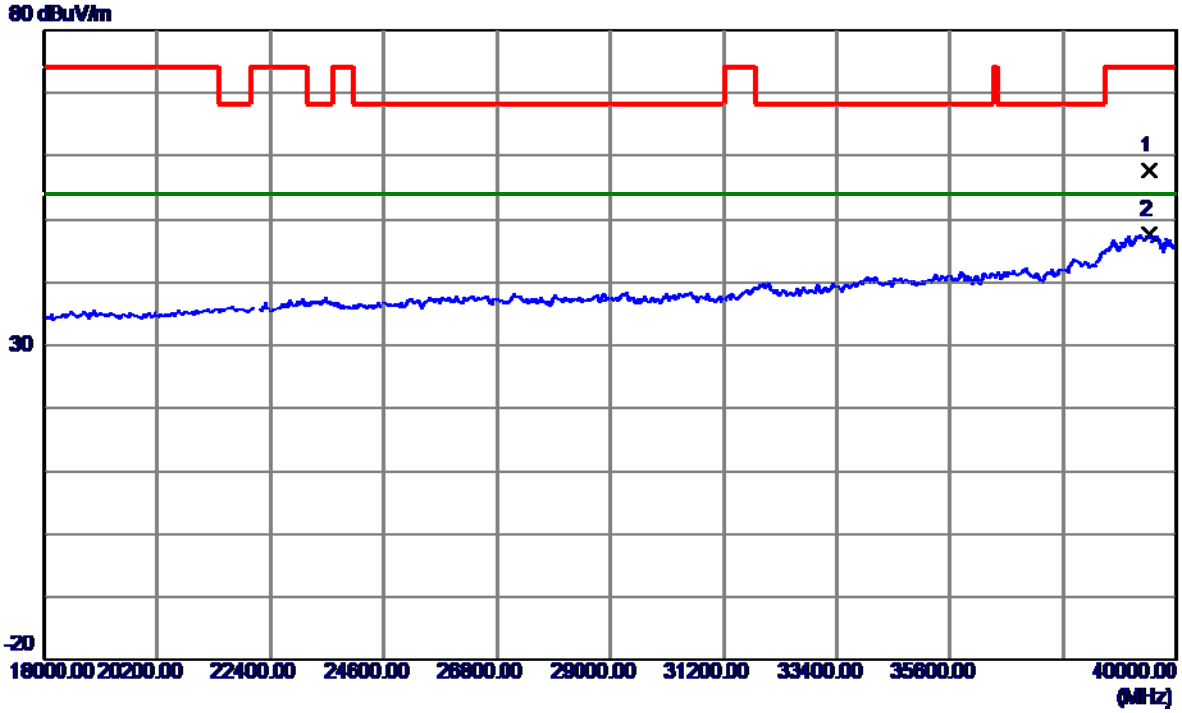
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10379.7250	32.03	13.48	45.51	68.20	-22.69	Peak	
2 *	10380.4230	19.93	13.48	33.41	54.00	-20.59	AVG	

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

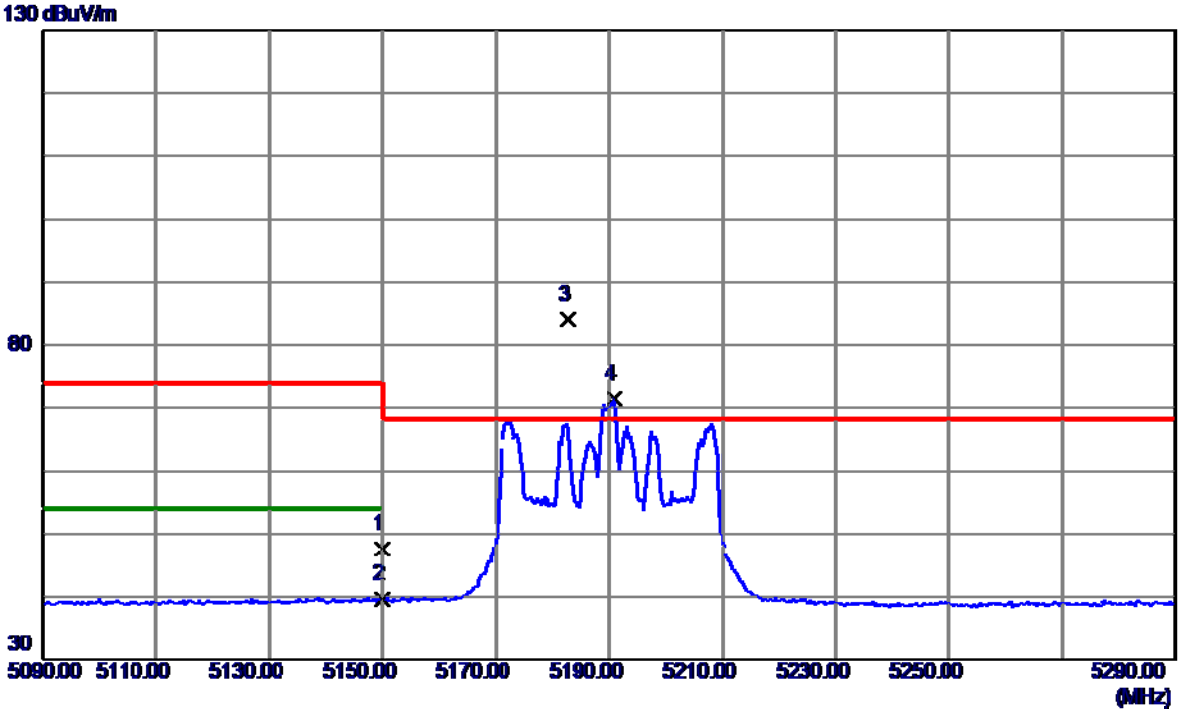
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	39.71	17.86	57.57	74.00	-16.43	Peak	
2 *	39472.0000	29.79	17.86	47.65	54.00	-6.35	AVG	

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

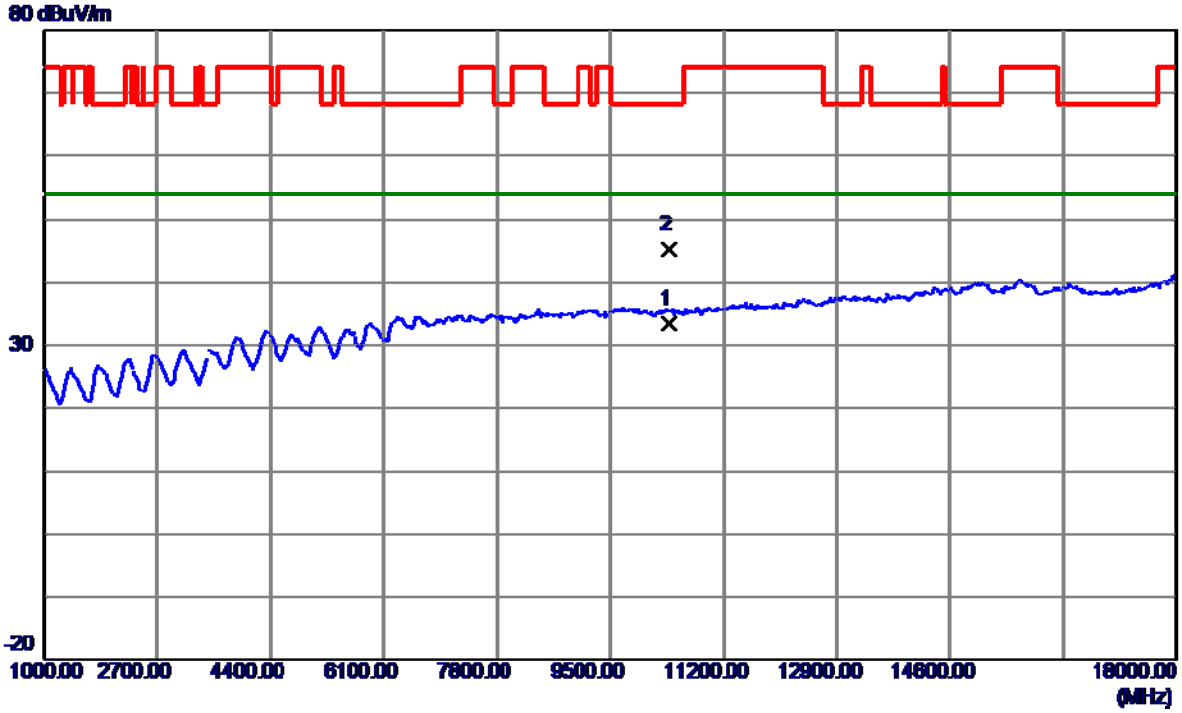
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	31.34	16.28	47.62	74.00	-26.38	Peak	
2	5150.0000	23.23	16.28	39.51	54.00	-14.49	AVG	
3 *	5182.7000	67.60	16.32	83.92	68.20	15.72	Peak	
4	5190.8000	55.00	16.33	71.33	999.00	-927.67	AVG	

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

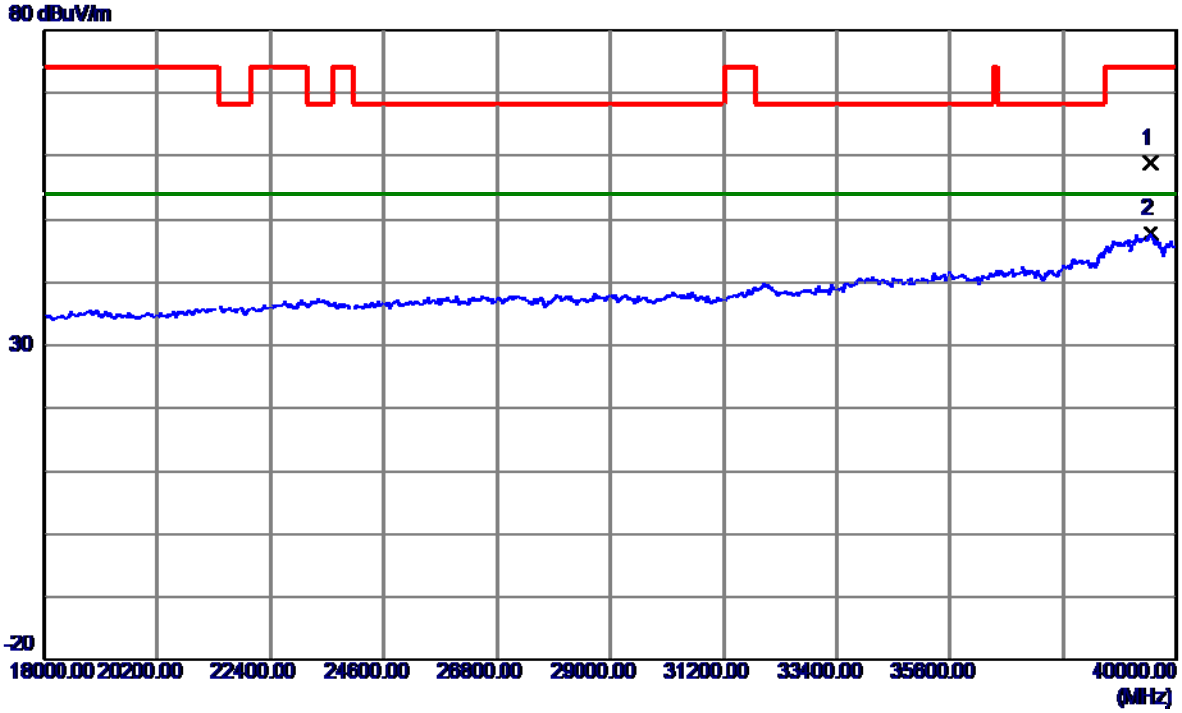
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10379.6810	19.95	13.48	33.43	54.00	-20.57	AVG	
2	10379.7009	31.72	13.48	45.20	68.20	-23.00	Peak	

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

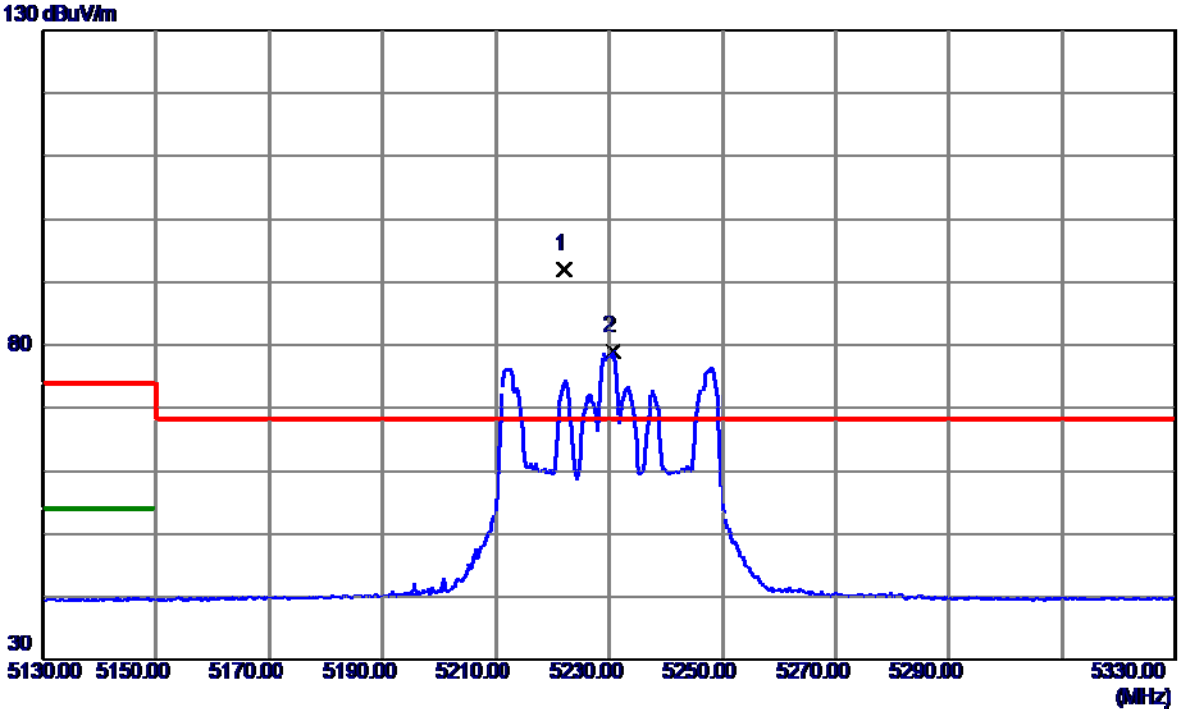
Test Mode	UNII-1_TX N(HT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39494.0000	40.83	17.90	58.73	74.00	-15.27	Peak	
2 *	39494.0000	29.99	17.90	47.89	54.00	-6.11	AVG	

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

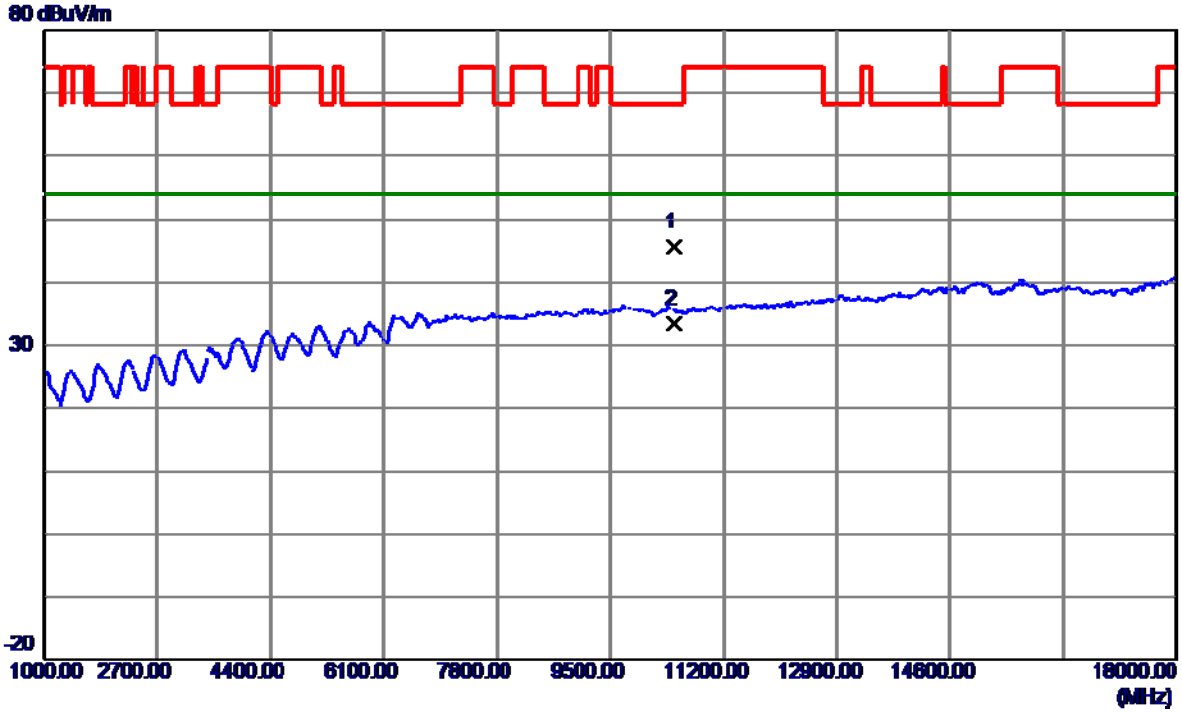
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5222.0000	75.55	16.36	91.91	68.20	23.71	Peak	
2	5230.7000	62.61	16.37	78.98	999.00	-920.02	AVG	

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

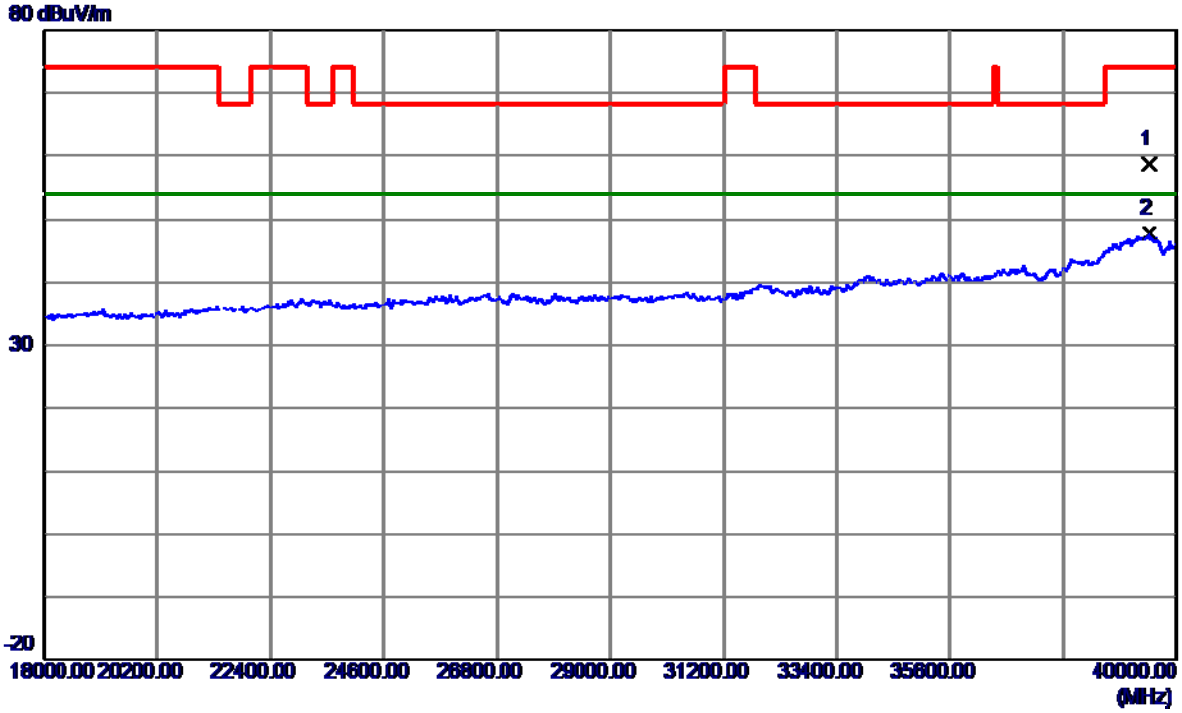
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10459.6270	32.08	13.54	45.62	68.20	-22.58	Peak	
2 *	10460.0920	19.80	13.54	33.34	54.00	-20.66	AVG	

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

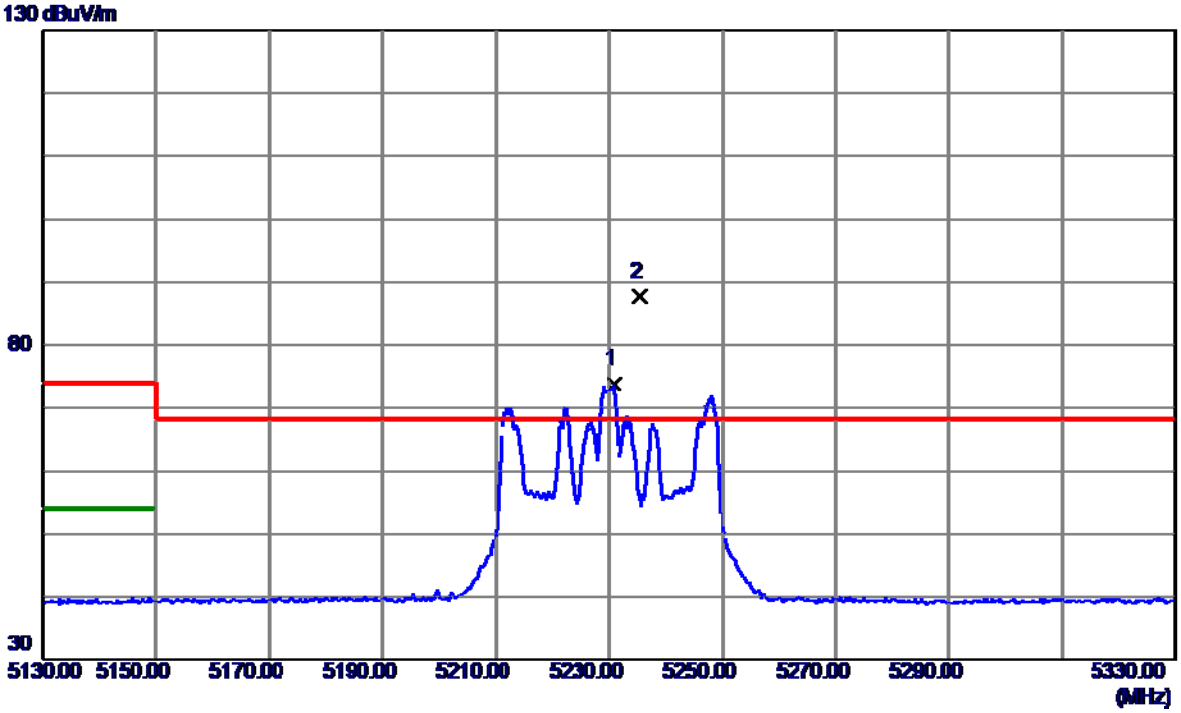
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	40.82	17.86	58.68	74.00	-15.32	Peak	
2 *	39472.0000	29.93	17.86	47.79	54.00	-6.21	AVG	

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

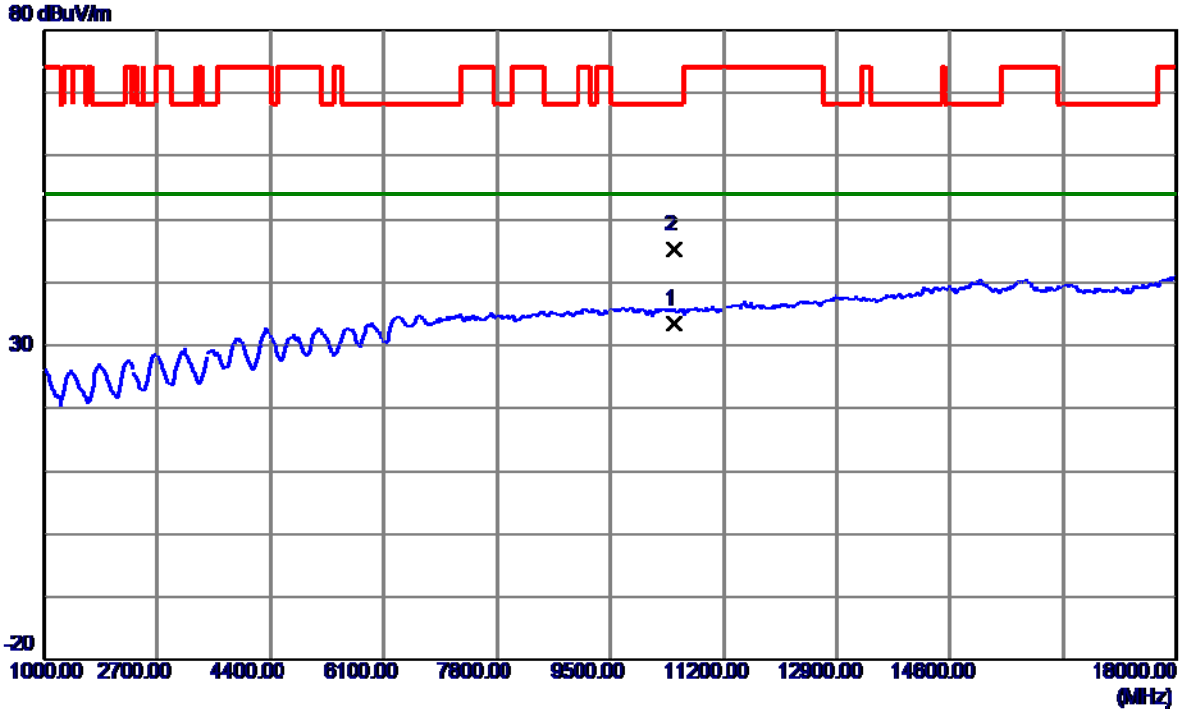
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5230.8000	57.52	16.37	73.89	999.00	-925.11	AVG	
2 *	5235.3000	71.32	16.38	87.70	68.20	19.50	Peak	

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

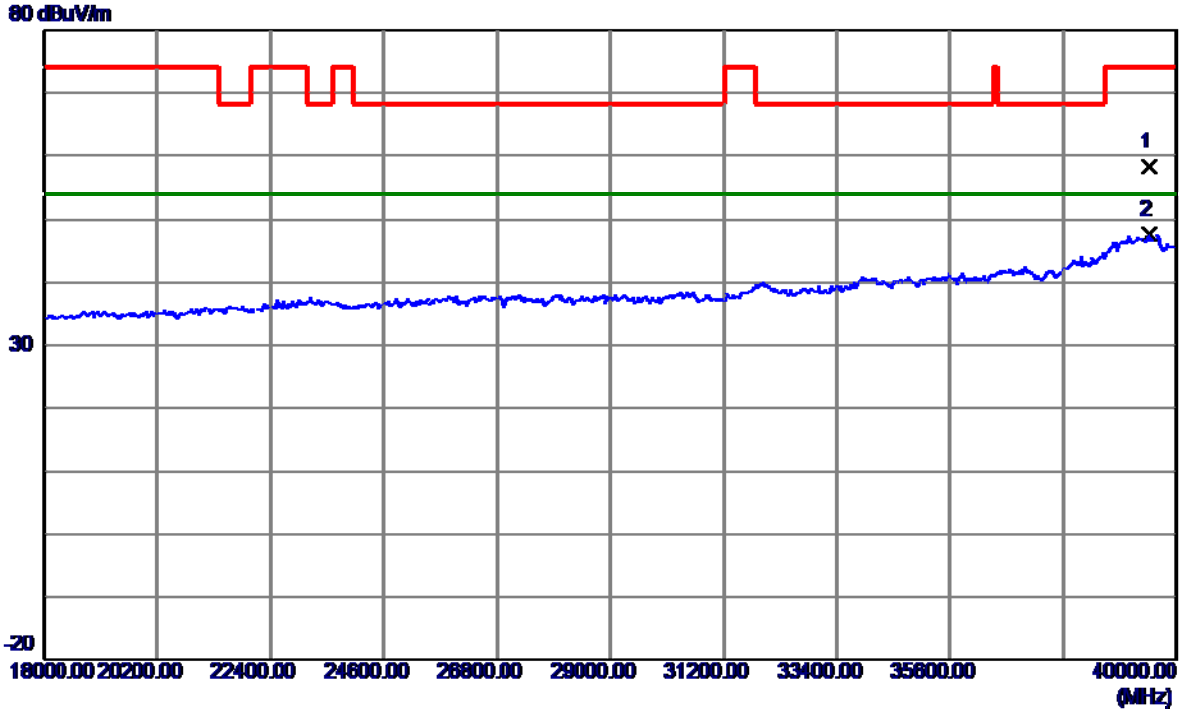
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10460.2440	19.79	13.54	33.33	54.00	-20.67	AVG	
2	10460.3240	31.75	13.54	45.29	68.20	-22.91	Peak	

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

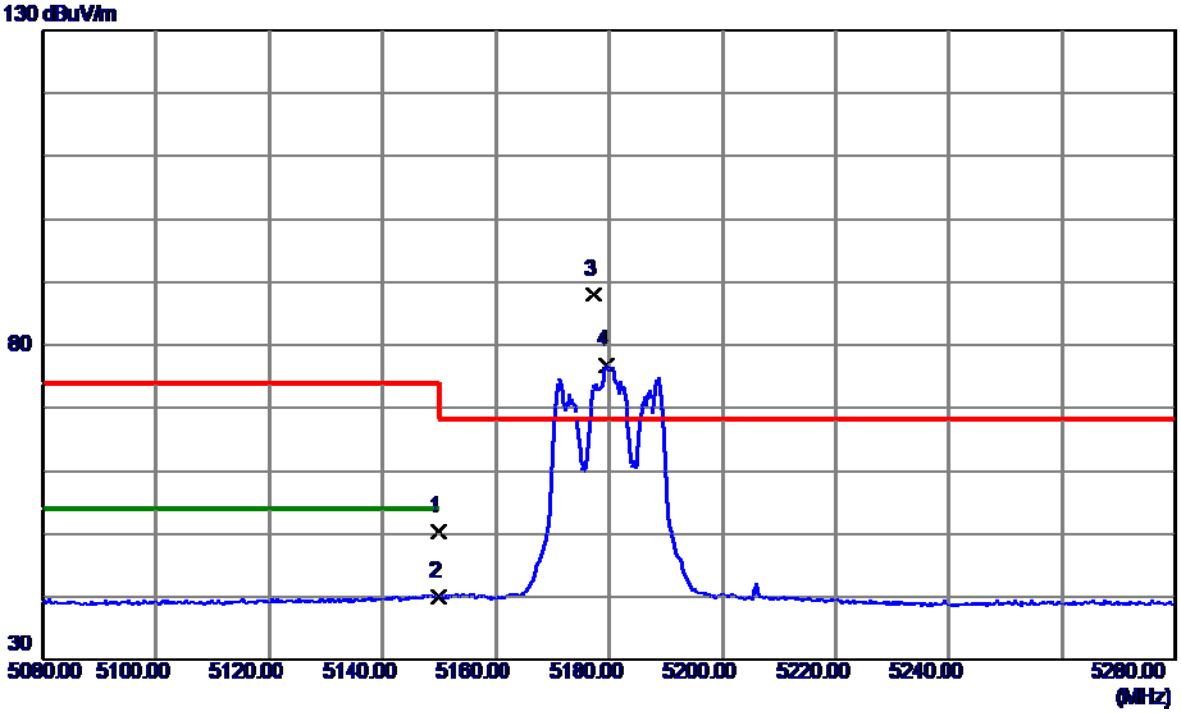
Test Mode	UNII-1_TX N(HT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	40.30	17.86	58.16	74.00	-15.84	Peak	
2 *	39472.0000	29.65	17.86	47.51	54.00	-6.49	AVG	

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

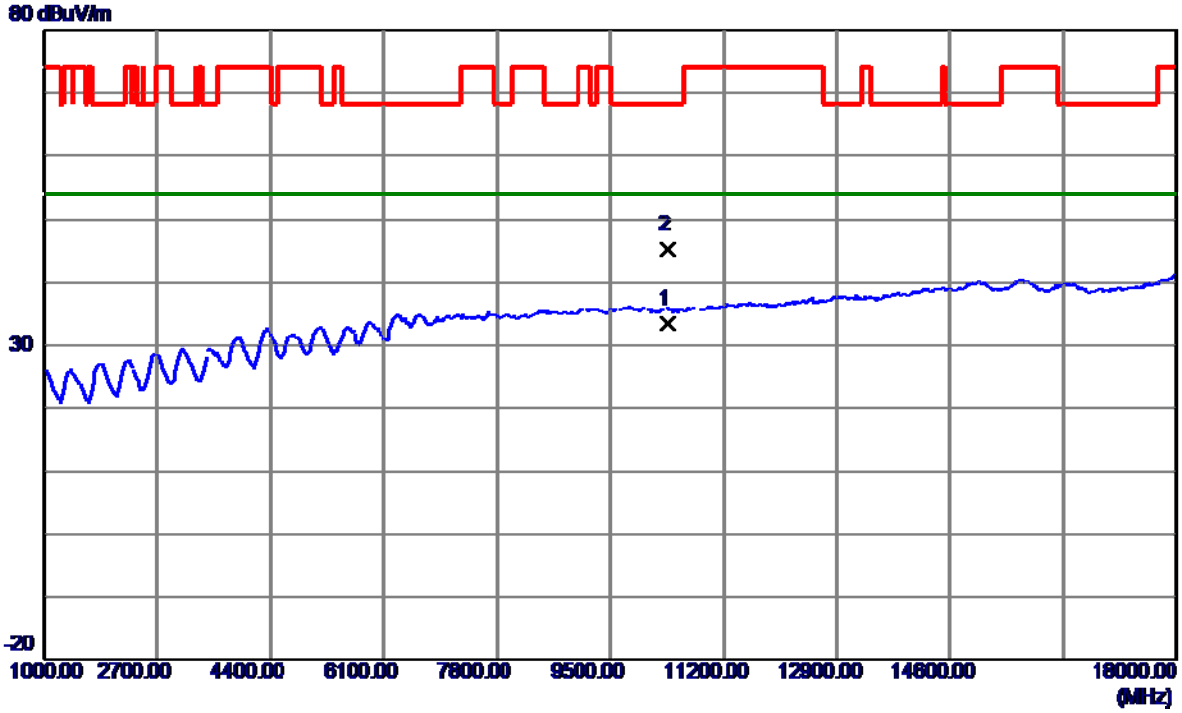
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	34.19	16.28	50.47	74.00	-23.53	Peak	
2	5150.0000	23.78	16.28	40.06	54.00	-13.94	AVG	
3 *	5177.3000	71.79	16.31	88.10	68.20	19.90	Peak	
4	5179.5000	60.42	16.32	76.74	999.00	-922.26	AVG	

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

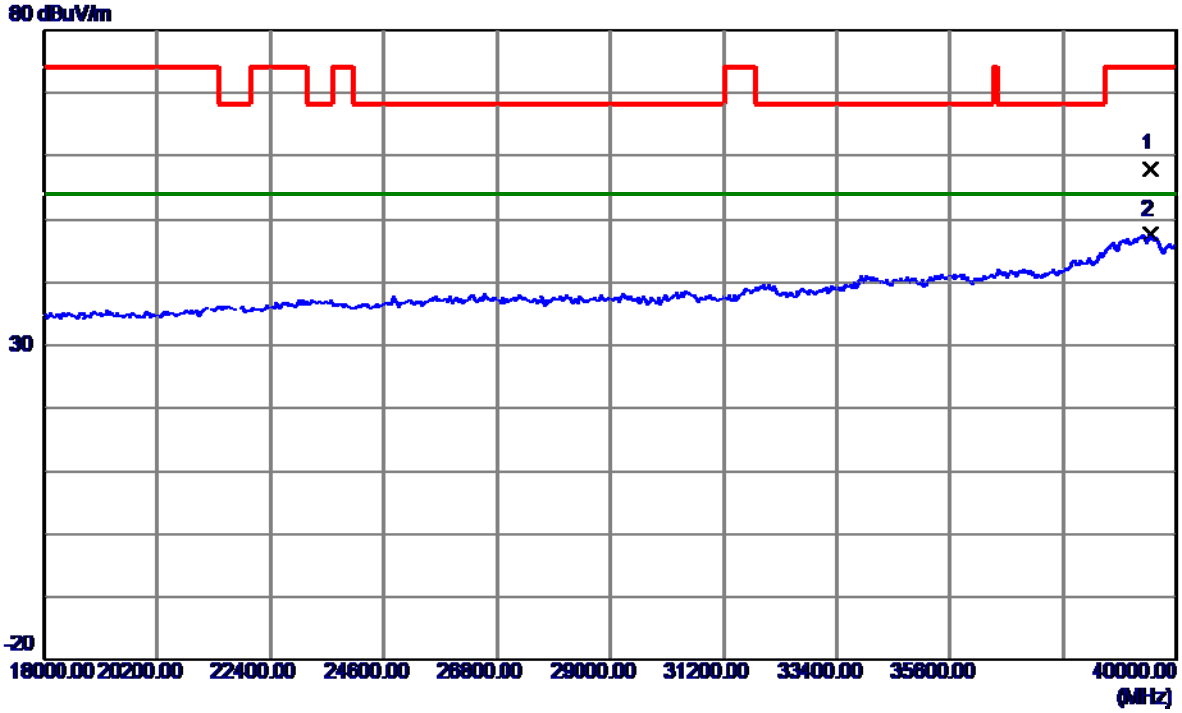
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10359.7240	20.00	13.46	33.46	54.00	-20.54	AVG	
2	10359.7520	31.72	13.46	45.18	68.20	-23.02	Peak	

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

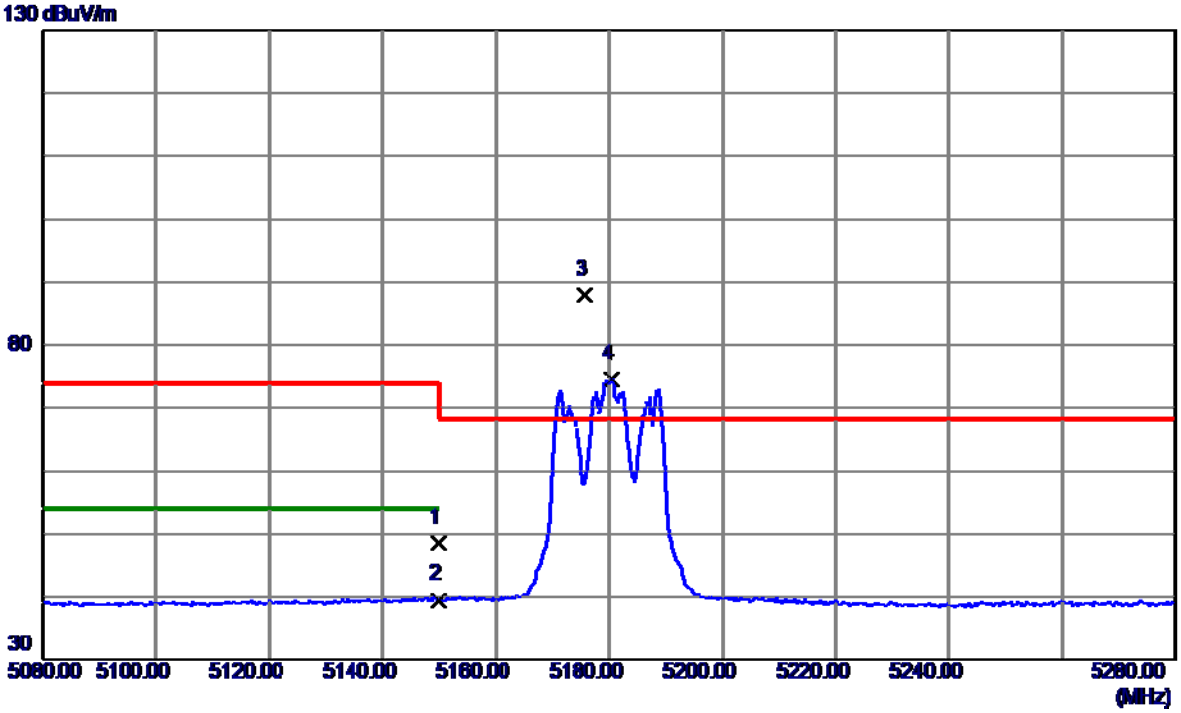
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39483.0000	40.02	17.88	57.90	74.00	-16.10	Peak	
2 *	39483.0000	29.76	17.88	47.64	54.00	-6.36	AVG	

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

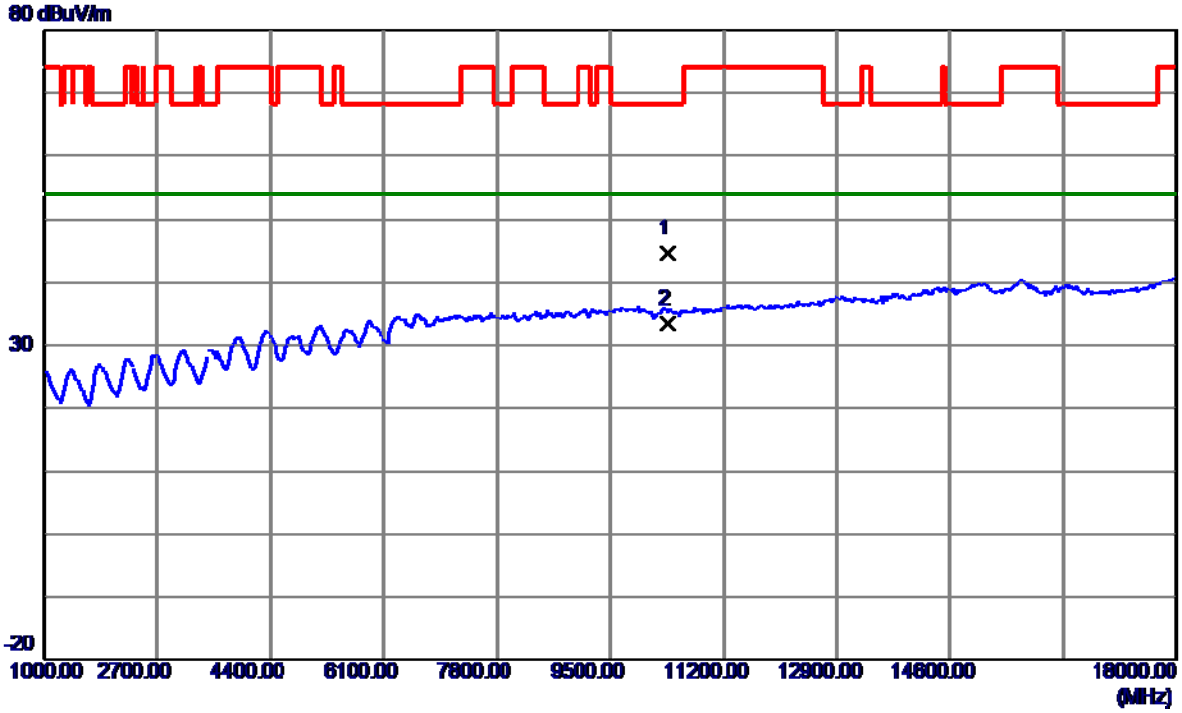
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.23	16.28	48.51	74.00	-25.49	Peak	
2	5150.0000	23.22	16.28	39.50	54.00	-14.50	AVG	
3 *	5175.7000	71.76	16.31	88.07	68.20	19.87	Peak	
4	5180.4000	58.30	16.32	74.62	999.00	-924.38	AVG	

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

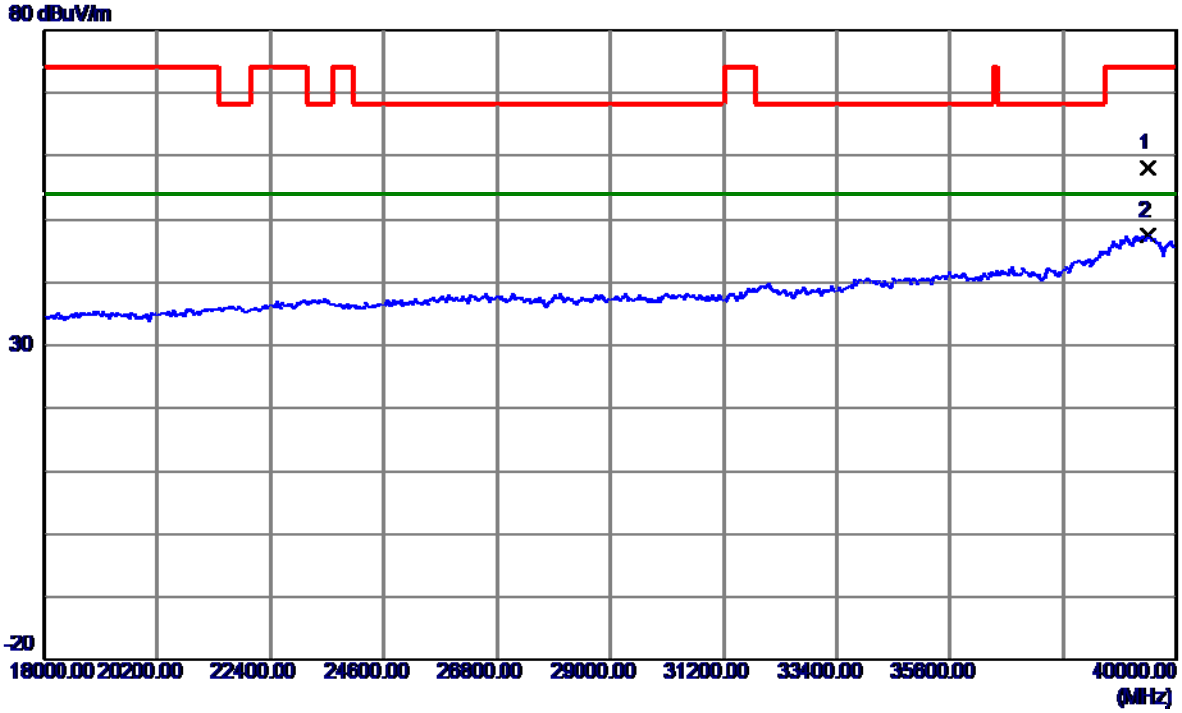
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10360.1320	31.15	13.46	44.61	68.20	-23.59	Peak	
2 *	10360.1460	20.03	13.46	33.49	54.00	-20.51	AVG	

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

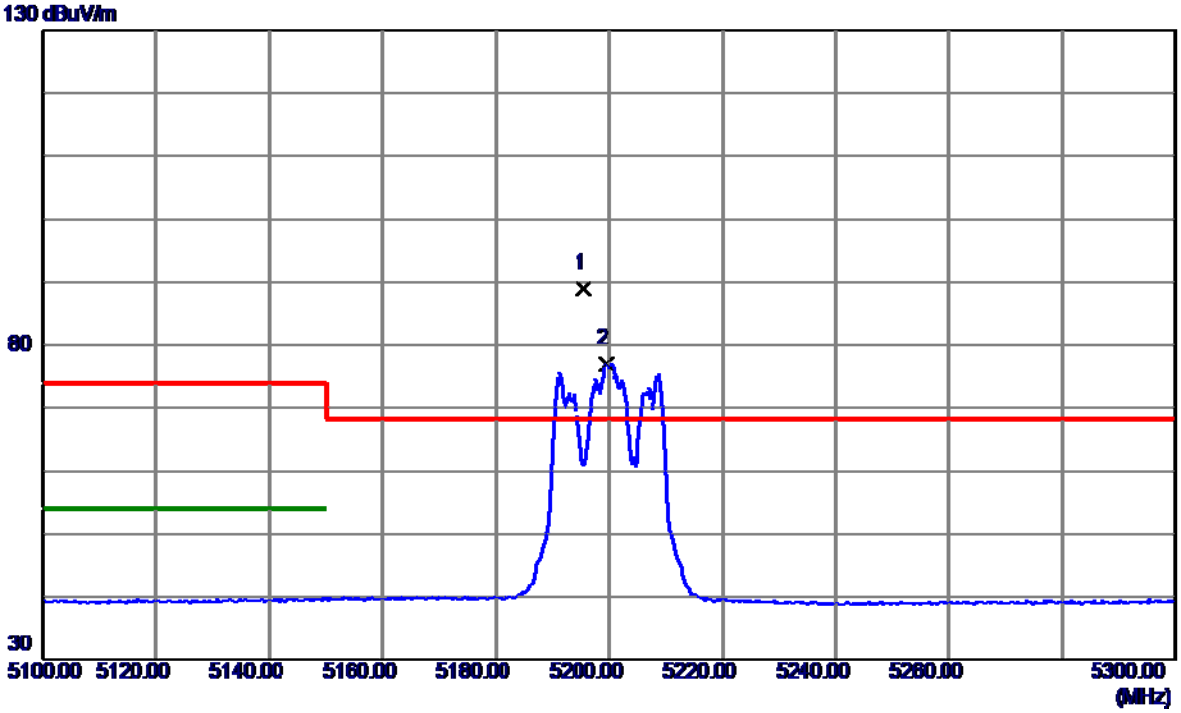
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39439.0000	40.17	17.80	57.97	74.00	-16.03	Peak	
2 *	39439.0000	29.66	17.80	47.46	54.00	-6.54	AVG	

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

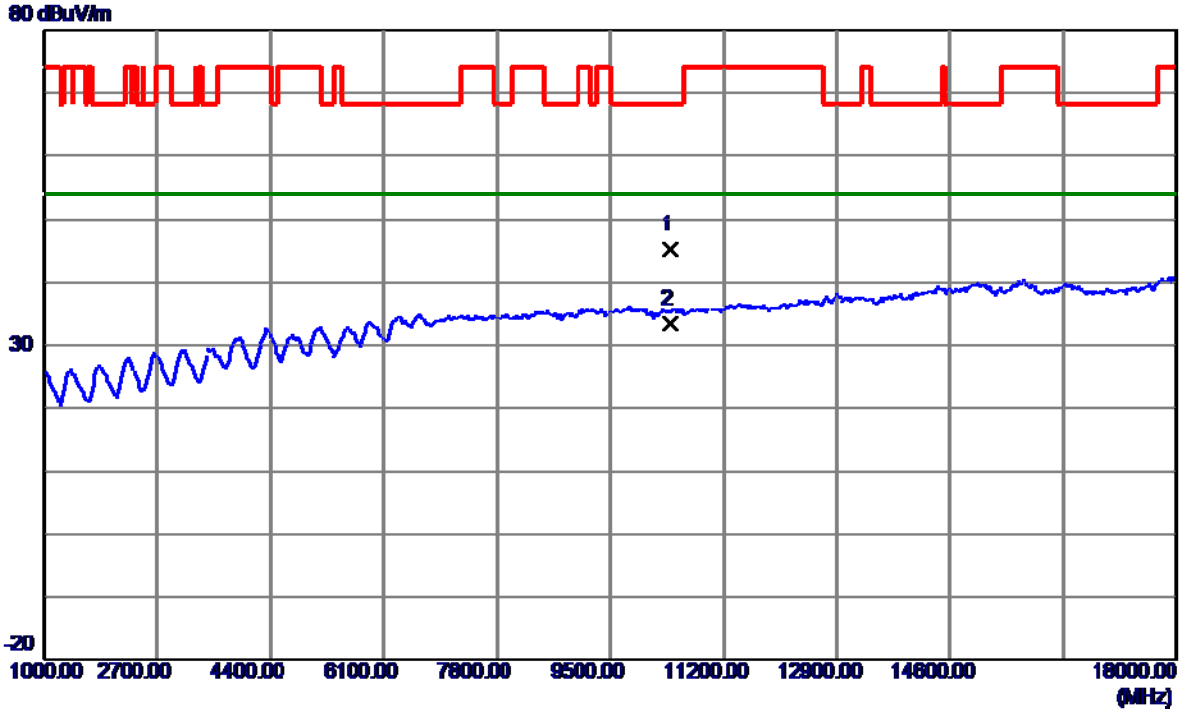
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5195.6000	72.64	16.33	88.97	68.20	20.77	Peak	
2	5199.5000	60.74	16.34	77.08	999.00	-921.92	AVG	

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

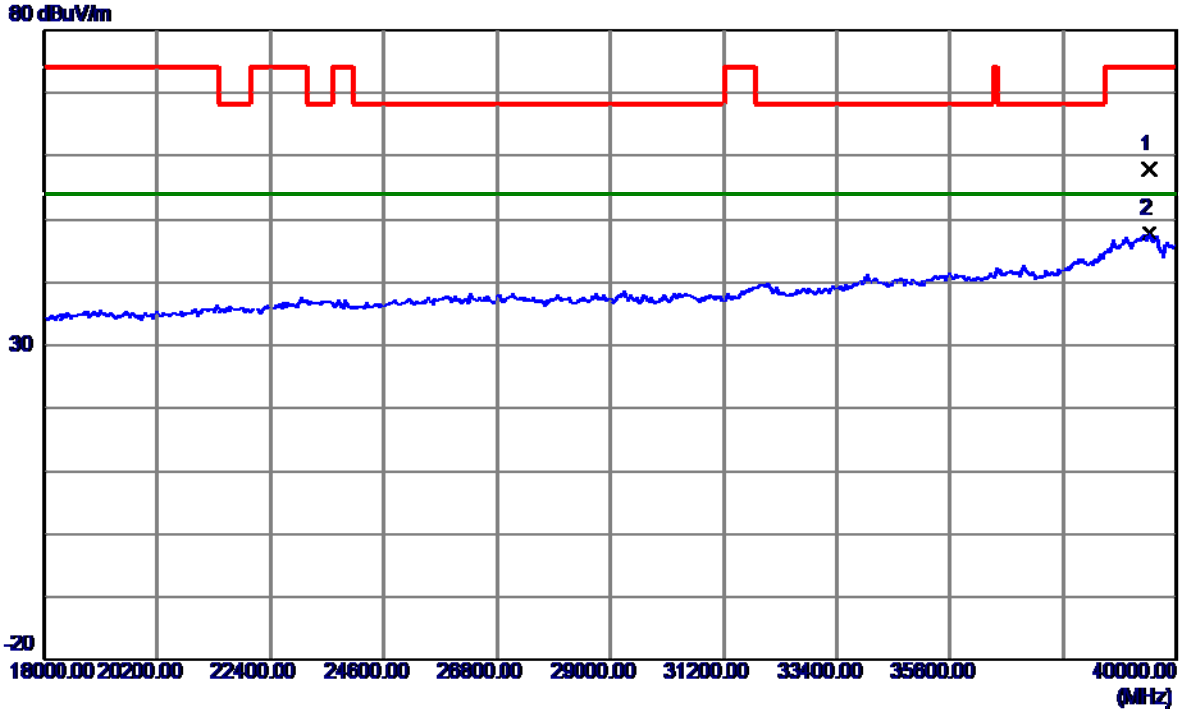
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10400.1130	31.71	13.49	45.20	68.20	-23.00	Peak	
2 *	10400.3080	19.94	13.49	33.43	54.00	-20.57	AVG	

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

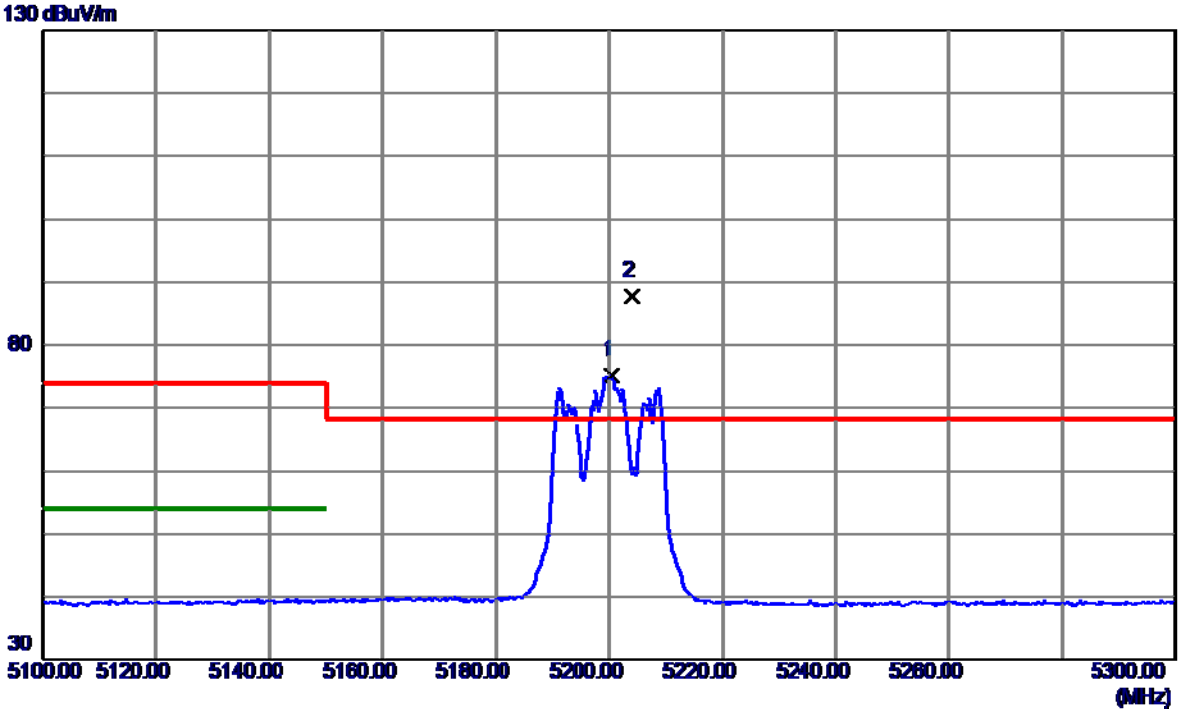
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	39.86	17.86	57.72	74.00	-16.28	Peak	
2 *	39472.0000	29.90	17.86	47.76	54.00	-6.24	AVG	

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

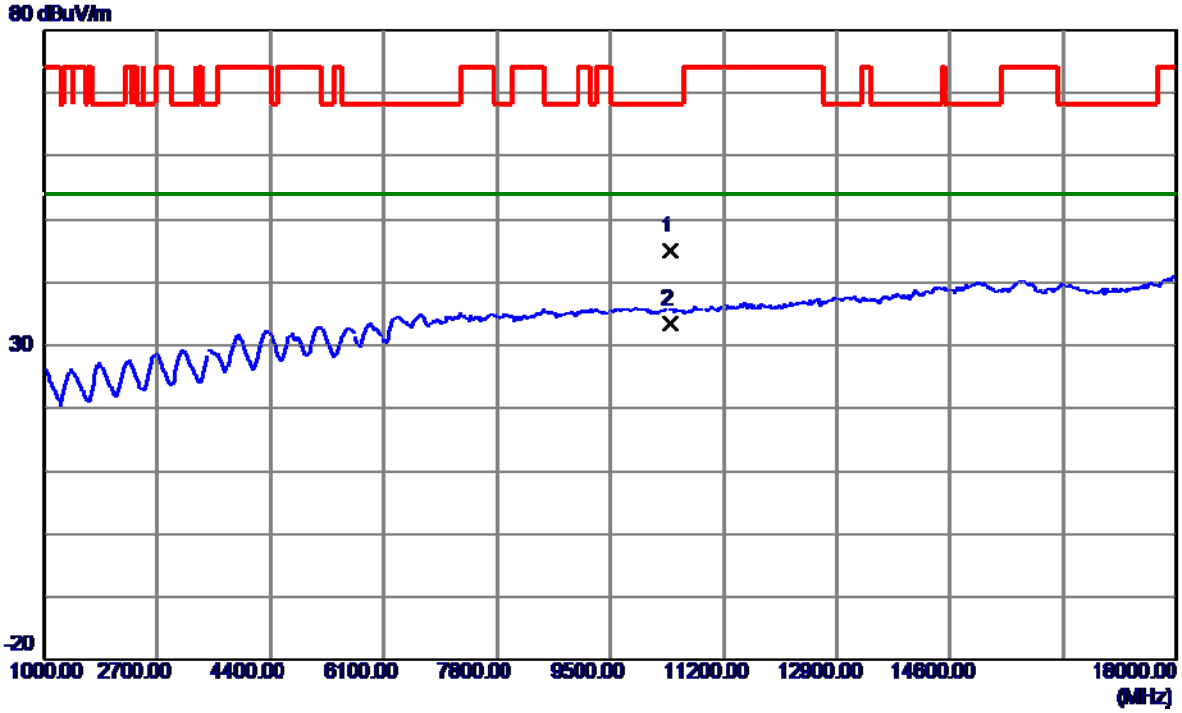
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5200.4000	58.87	16.34	75.21	999.00	-923.79	AVG	
2 *	5203.9000	71.55	16.34	87.89	68.20	19.69	Peak	

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

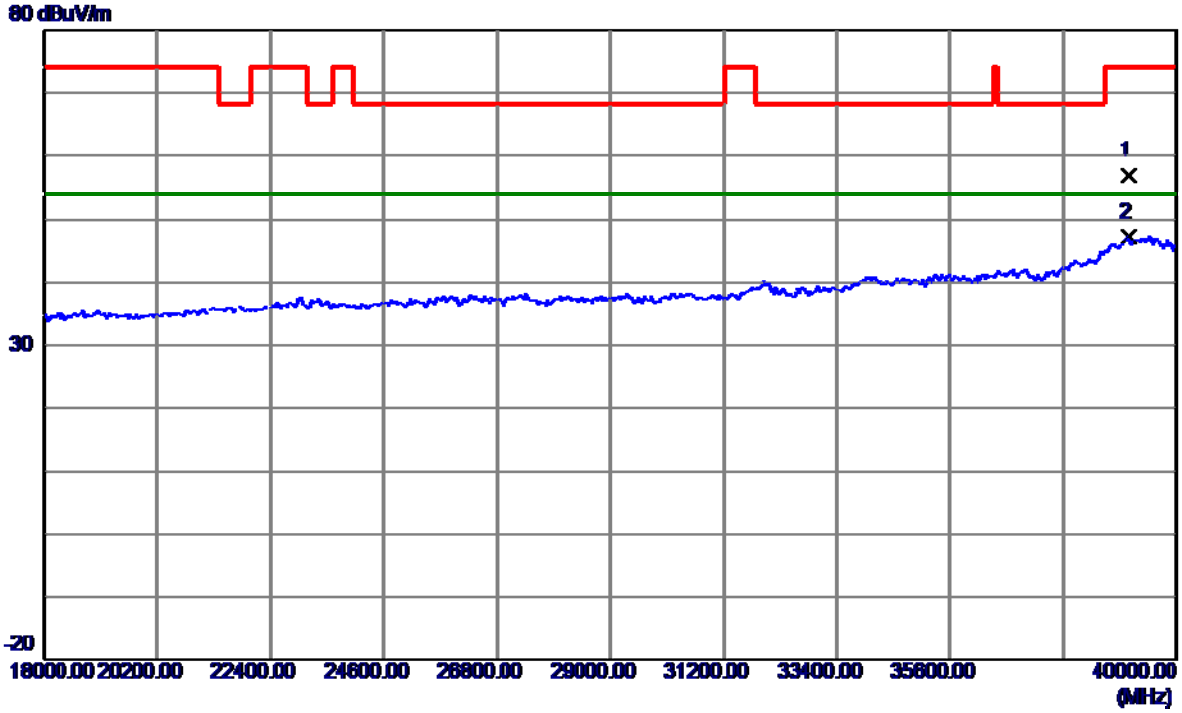
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10399.7790	31.59	13.49	45.08	68.20	-23.12	Peak	
2 *	10399.7990	19.97	13.49	33.46	54.00	-20.54	AVG	

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

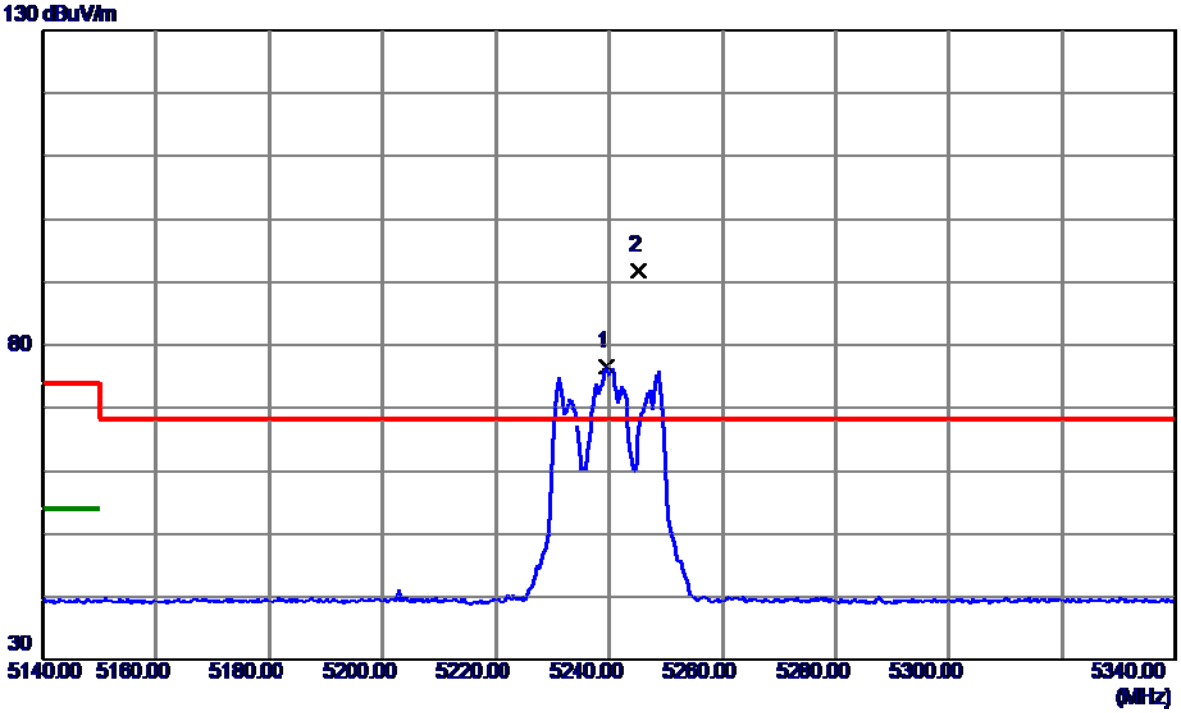
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39065.0000	39.63	17.11	56.74	74.00	-17.26	Peak	
2 *	39065.0000	30.15	17.11	47.26	54.00	-6.74	AVG	

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

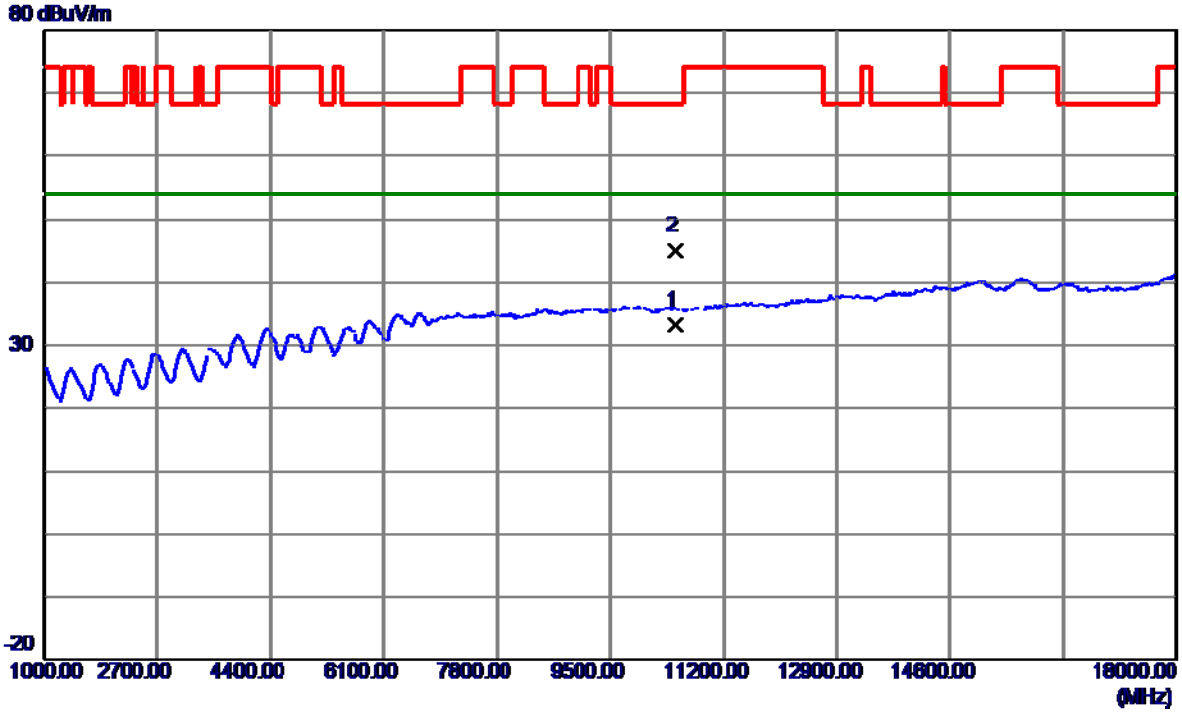
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5239.6000	60.29	16.38	76.67	999.00	-922.33	AVG	
2 *	5245.2000	75.41	16.39	91.80	68.20	23.60	Peak	

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

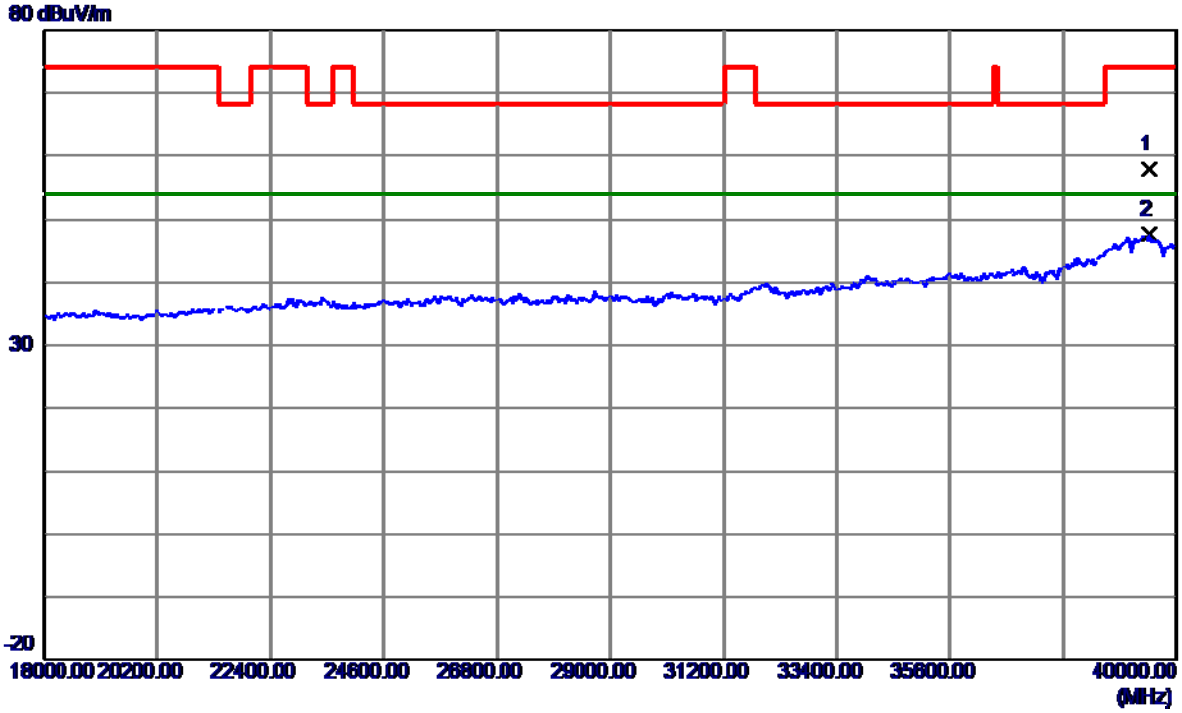
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10479.5100	19.67	13.56	33.23	54.00	-20.77	AVG	
2	10480.2120	31.40	13.56	44.96	68.20	-23.24	Peak	

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

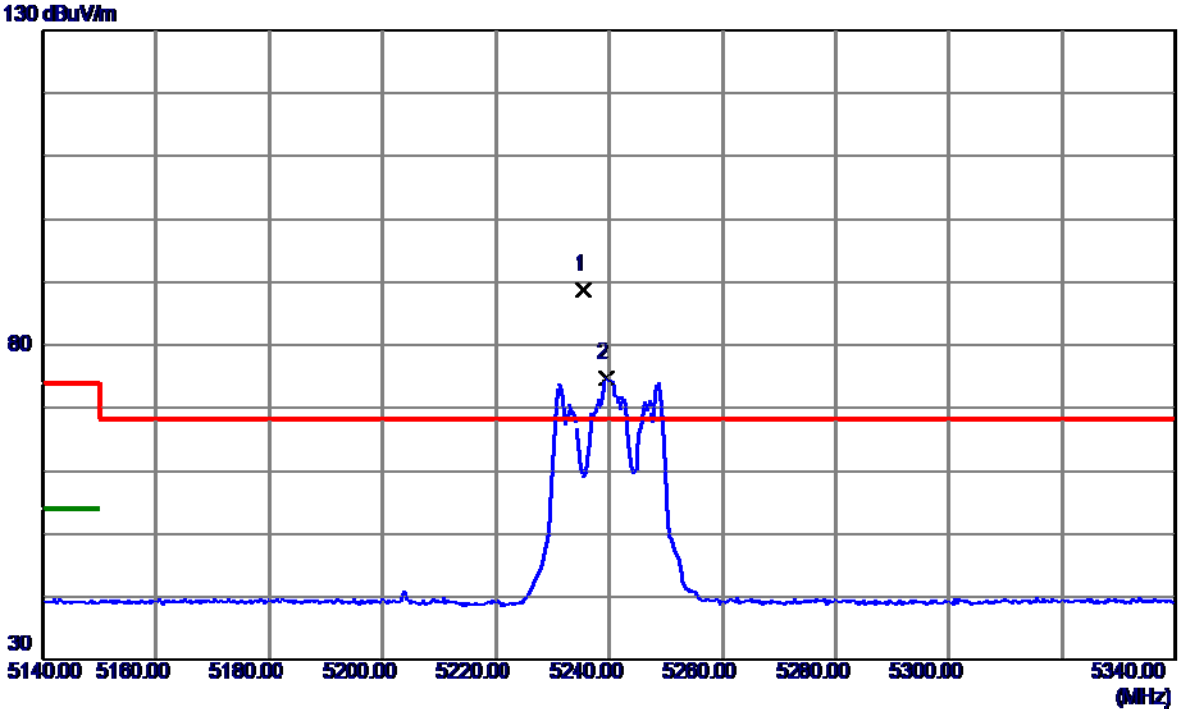
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39461.0000	40.03	17.84	57.87	74.00	-16.13	Peak	
2 *	39461.0000	29.69	17.84	47.53	54.00	-6.47	AVG	

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

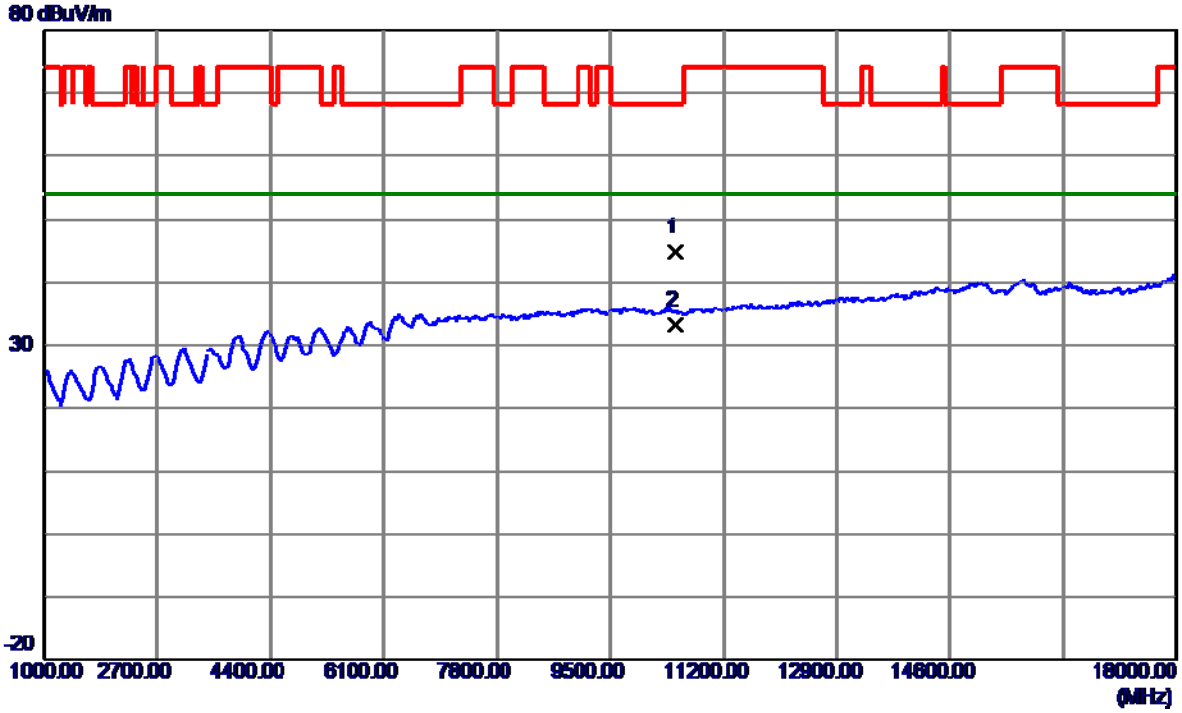
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5235.6000	72.37	16.38	88.75	68.20	20.55	Peak	
2	5239.5000	58.45	16.38	74.83	999.00	-924.17	AVG	

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

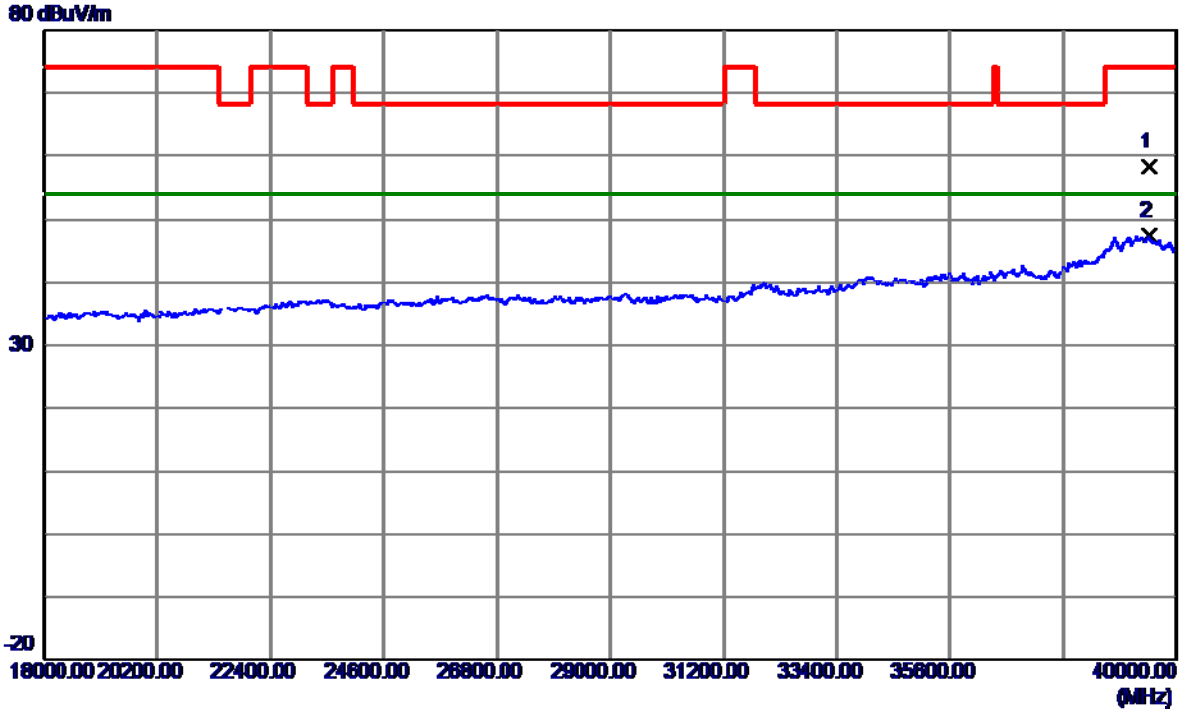
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10480.1150	31.21	13.56	44.77	68.20	-23.43	Peak	
2 *	10480.4990	19.66	13.56	33.22	54.00	-20.78	AVG	

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

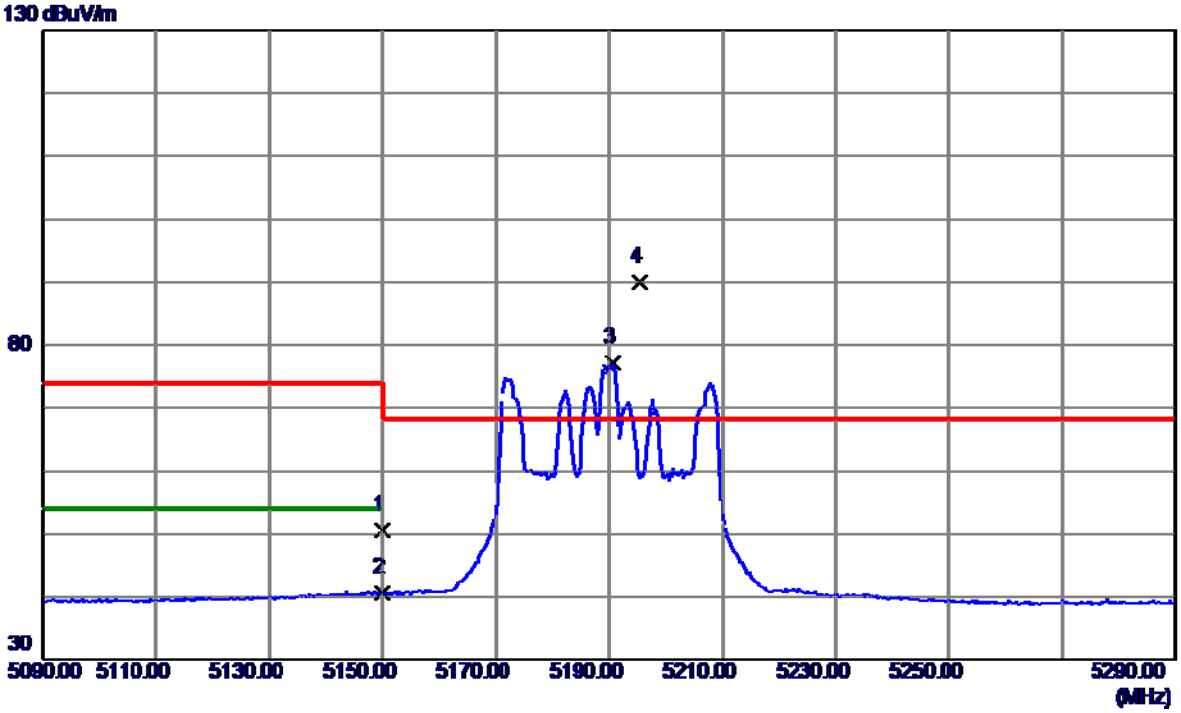
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39461.0000	40.31	17.84	58.15	74.00	-15.85	Peak	
2 *	39461.0000	29.53	17.84	47.37	54.00	-6.63	AVG	

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

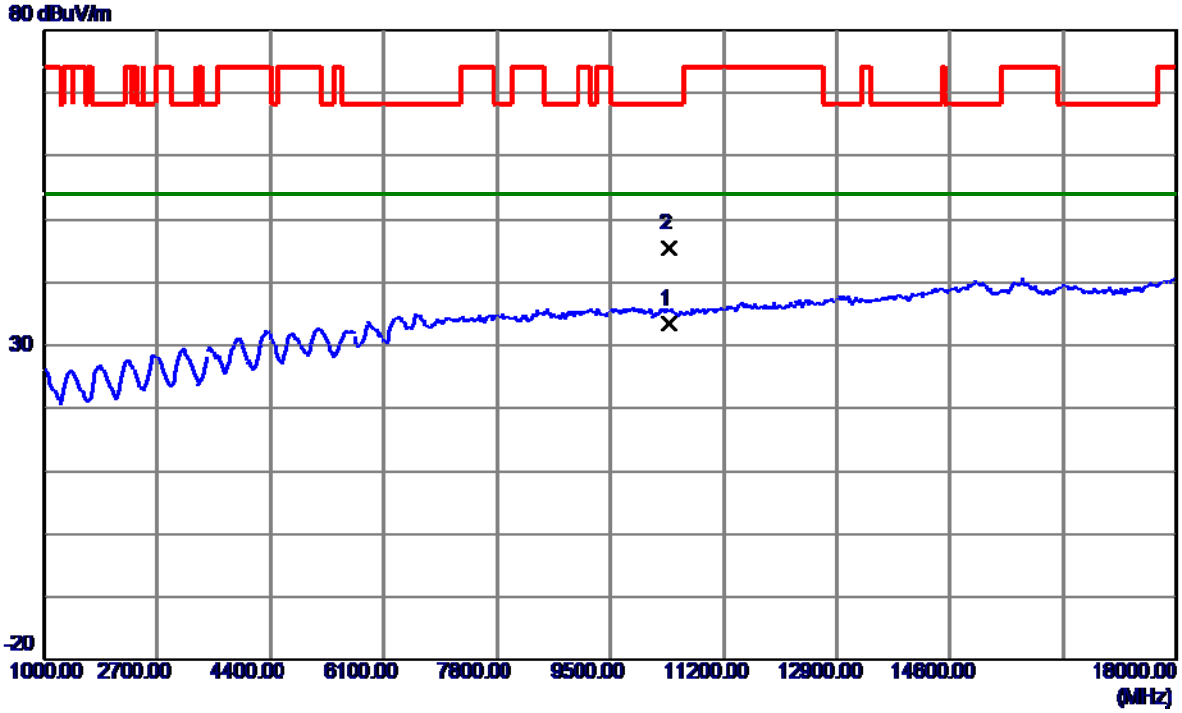
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	34.24	16.28	50.52	74.00	-23.48	Peak	
2	5150.0000	24.29	16.28	40.57	54.00	-13.43	AVG	
3	5190.7000	60.88	16.33	77.21	999.00	-921.79	AVG	
4 *	5195.3000	73.65	16.33	89.98	68.20	21.78	Peak	

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

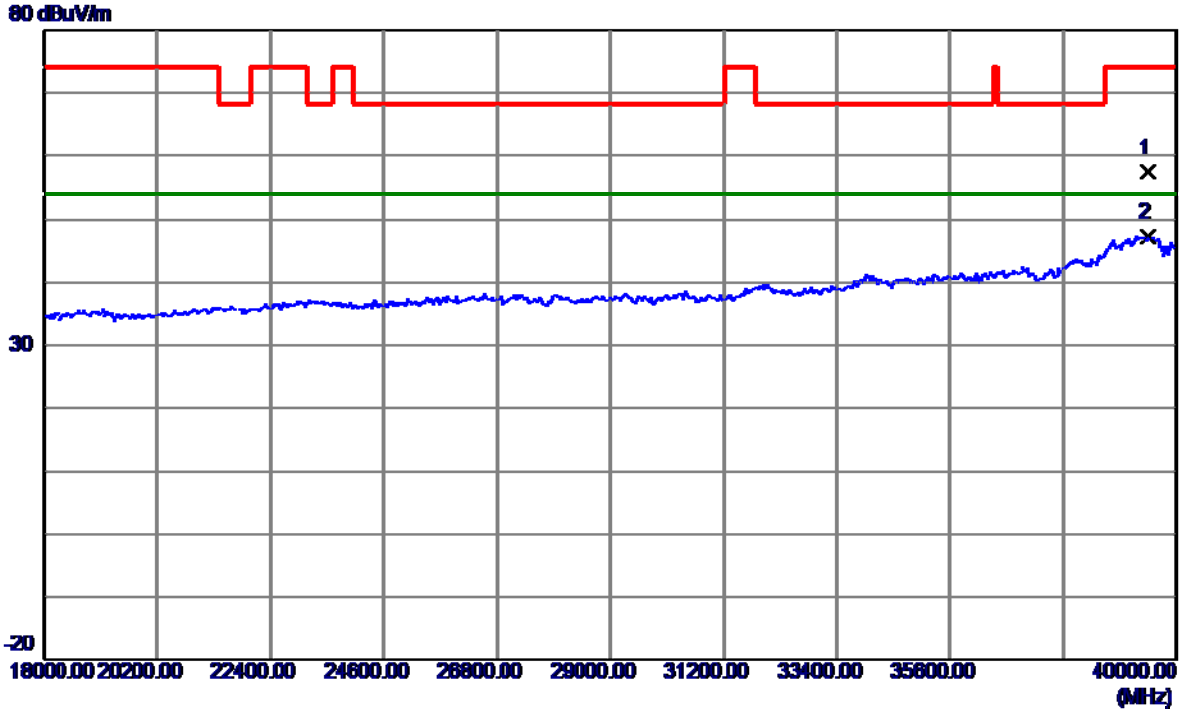
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10379.8800	20.00	13.48	33.48	54.00	-20.52	AVG	
2	10380.1180	31.97	13.48	45.45	68.20	-22.75	Peak	

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

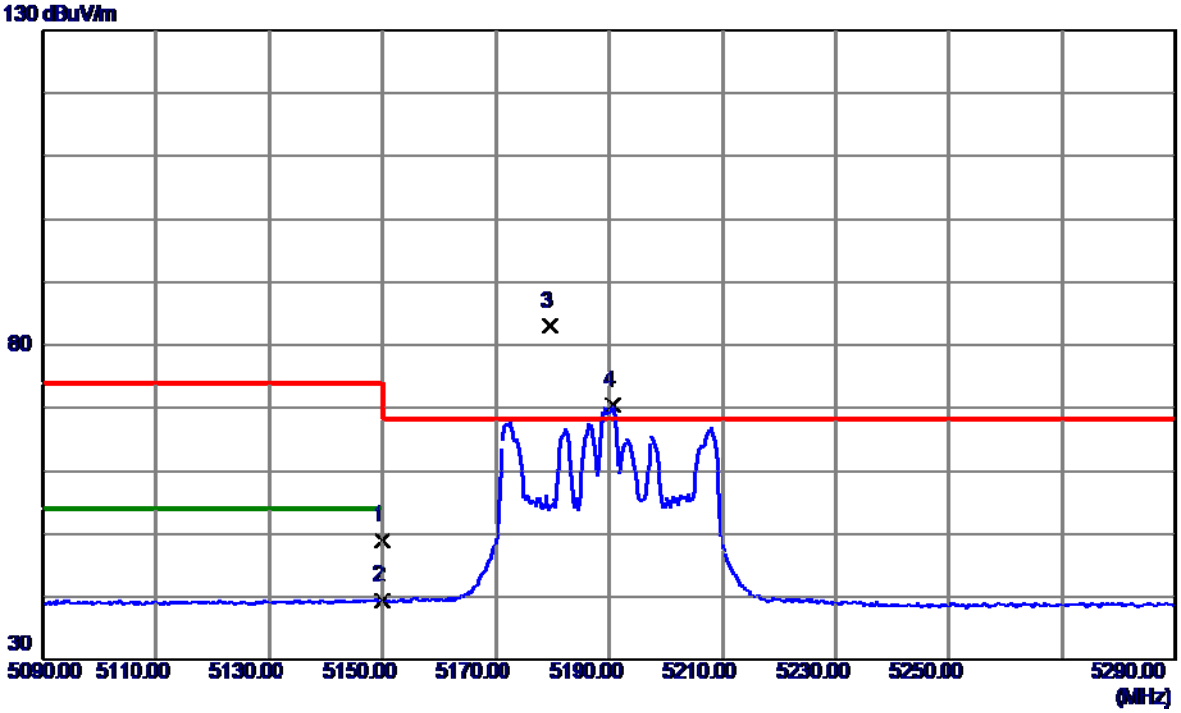
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39439.0000	39.50	17.80	57.30	74.00	-16.70	Peak	
2 *	39439.0000	29.46	17.80	47.26	54.00	-6.74	AVG	

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

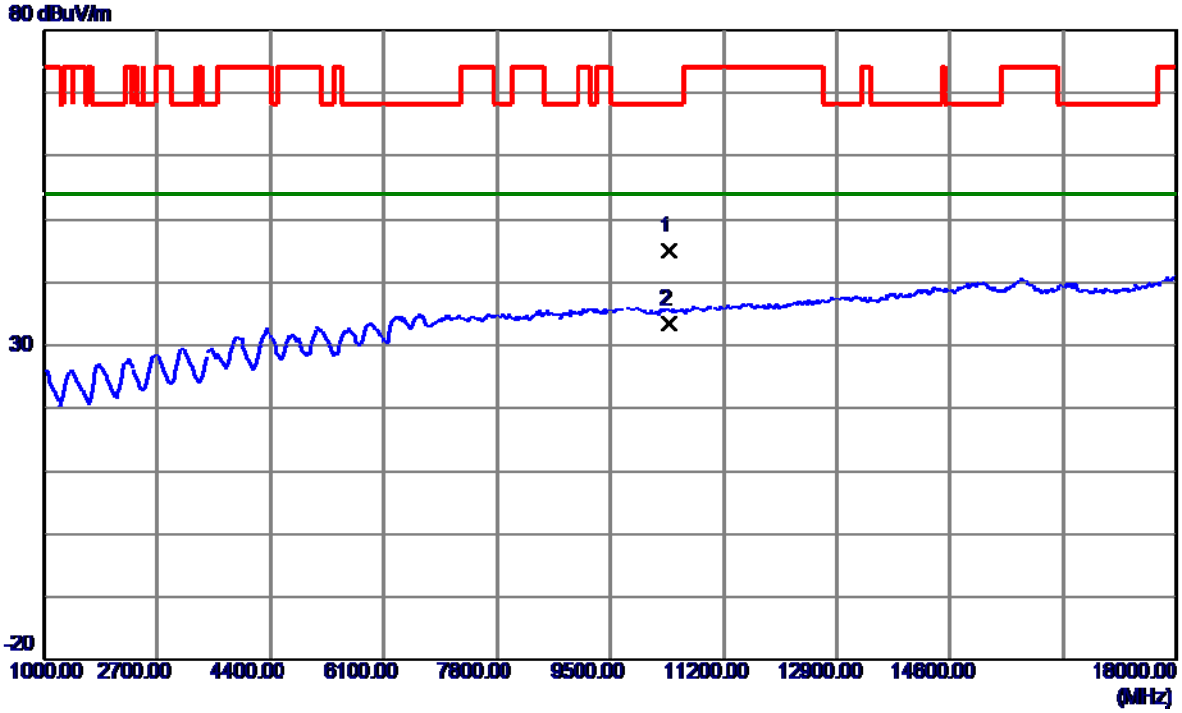
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.74	16.28	49.02	74.00	-24.98	Peak	
2	5150.0000	23.19	16.28	39.47	54.00	-14.53	AVG	
3 *	5179.5000	66.71	16.32	83.03	68.20	14.83	Peak	
4	5190.7000	54.02	16.33	70.35	999.00	-928.65	AVG	

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

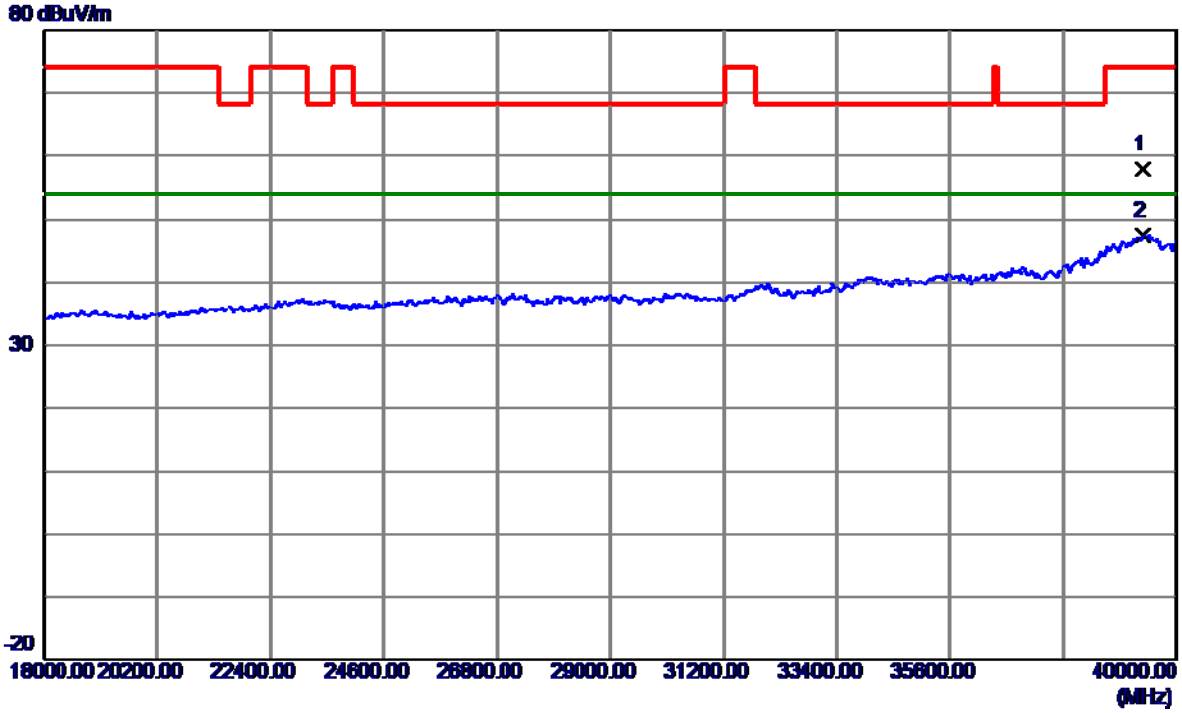
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10379.6060	31.48	13.48	44.96	68.20	-23.24	Peak	
2 *	10380.2460	19.92	13.48	33.40	54.00	-20.60	AVG	

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

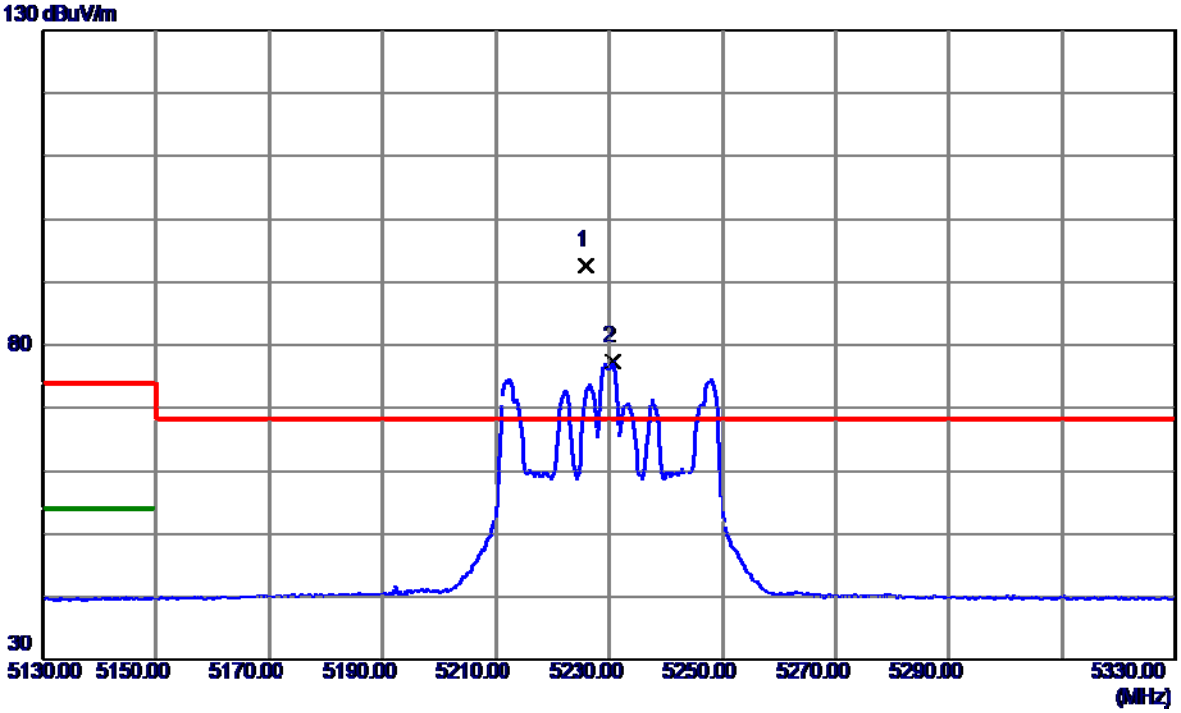
Test Mode	UNII-1_TX AC(VHT40) Mode 5190 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39351.0000	40.09	17.64	57.73	74.00	-16.27	Peak	
2 *	39351.0000	29.80	17.64	47.44	54.00	-6.56	AVG	

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

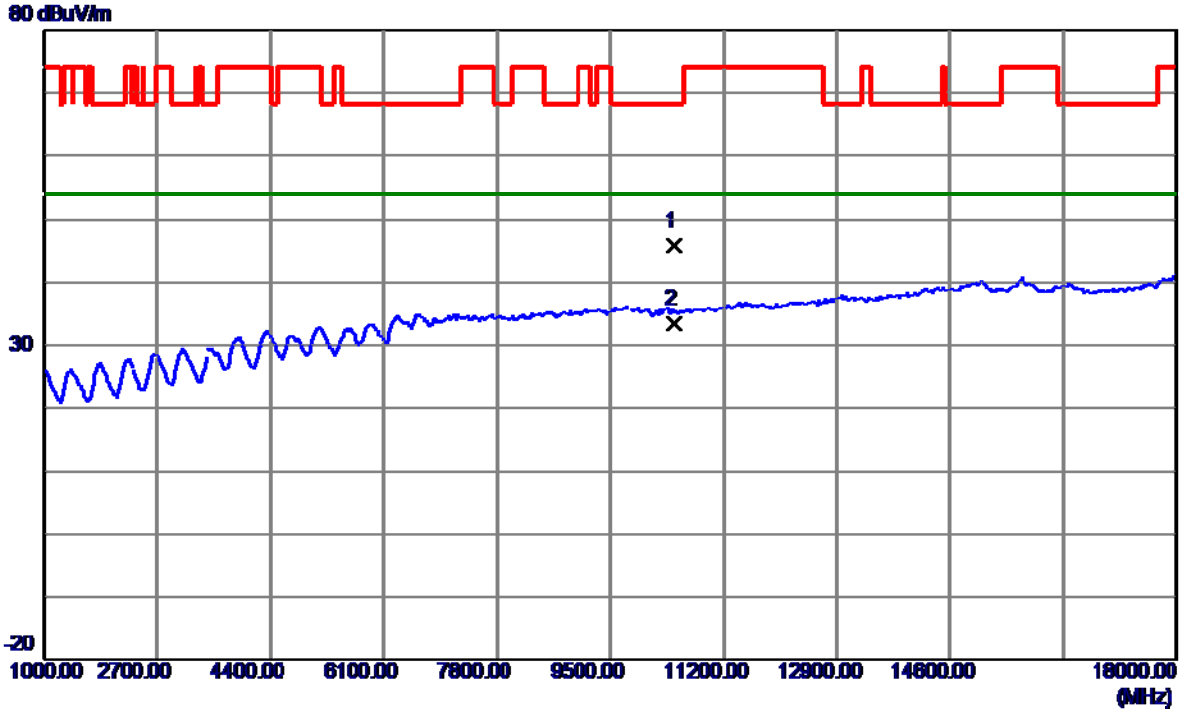
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5226.0000	76.15	16.37	92.52	68.20	24.32	Peak	
2	5230.6000	61.00	16.37	77.37	999.00	-921.63	AVG	

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

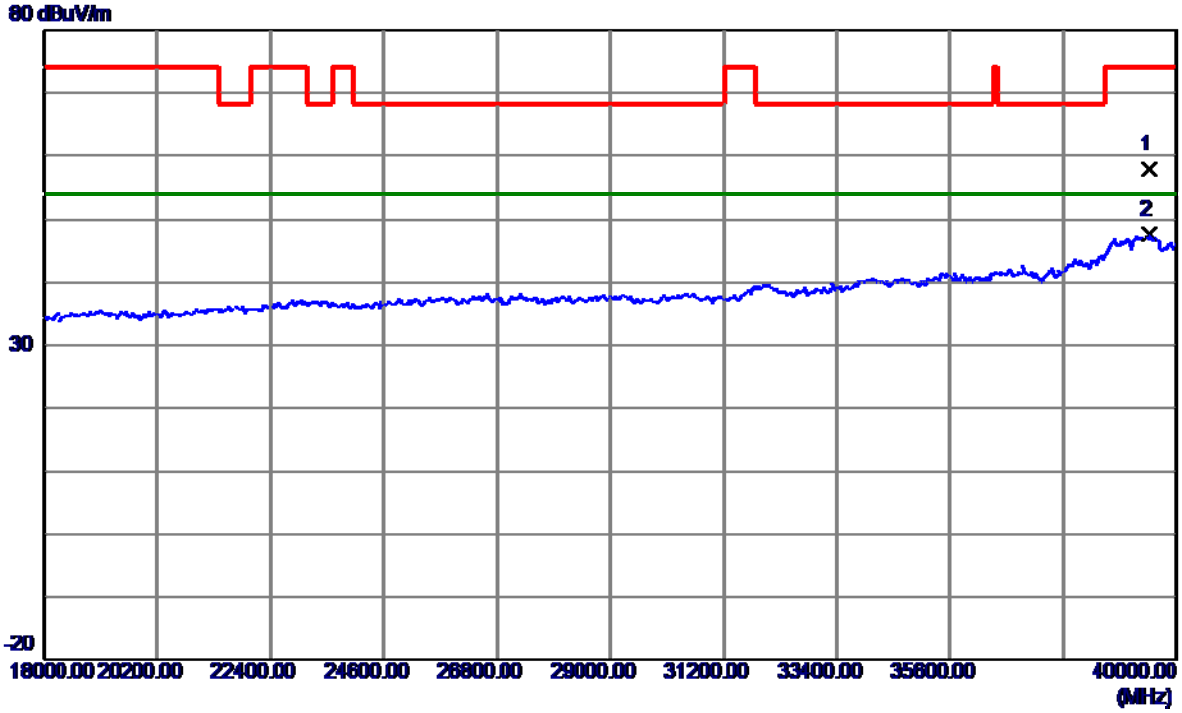
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10460.0580	32.21	13.54	45.75	68.20	-22.45	Peak	
2 *	10460.0580	19.83	13.54	33.37	54.00	-20.63	AVG	

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

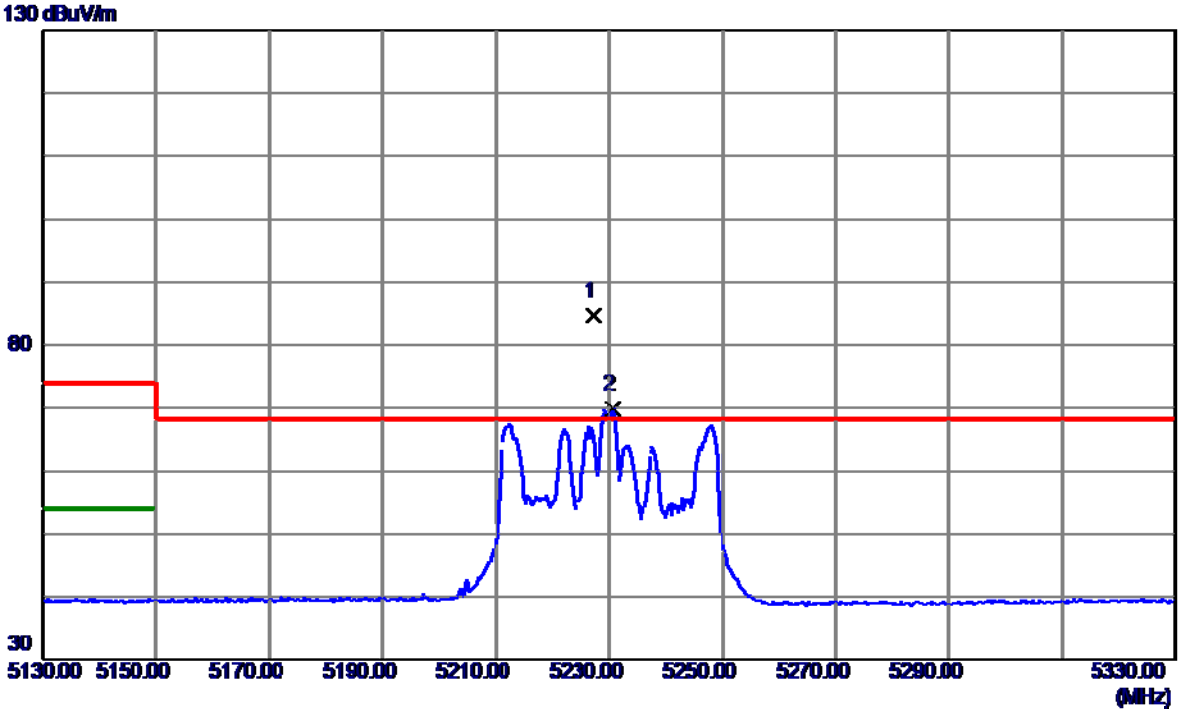
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	39.86	17.86	57.72	74.00	-16.28	Peak	
2 *	39472.0000	29.70	17.86	47.56	54.00	-6.44	AVG	

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

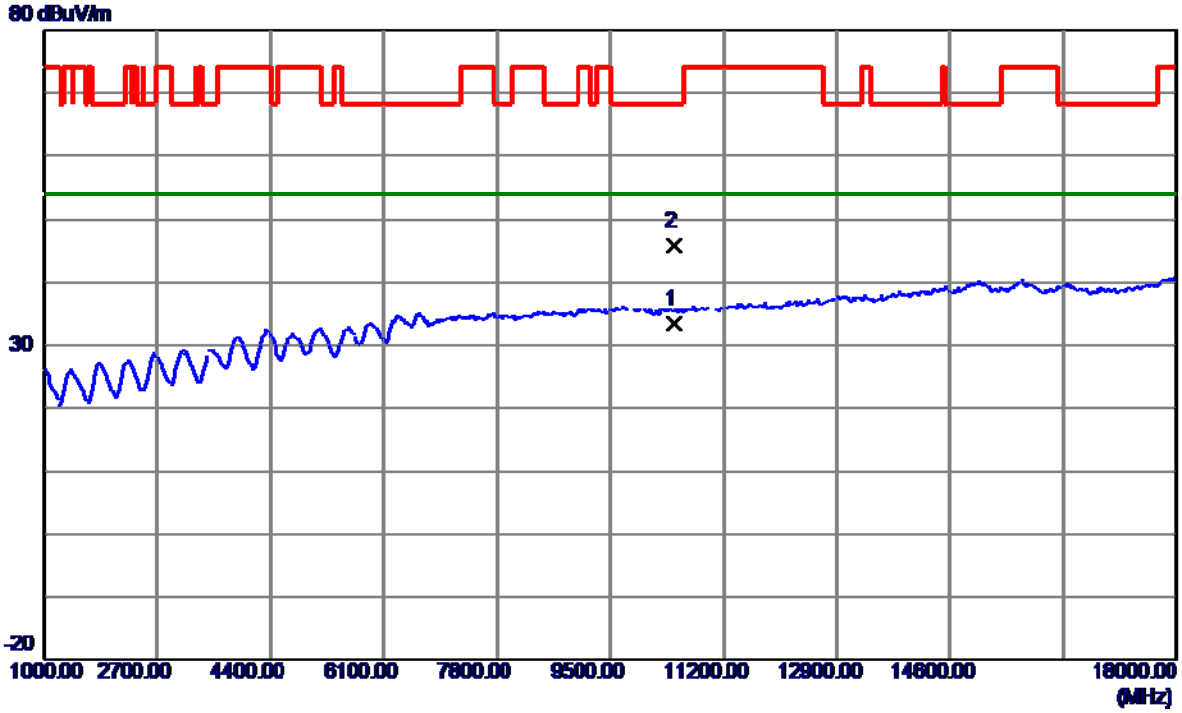
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5227.4000	68.17	16.37	84.54	68.20	16.34	Peak	
2	5230.7000	53.52	16.37	69.89	999.00	-929.11	AVG	

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

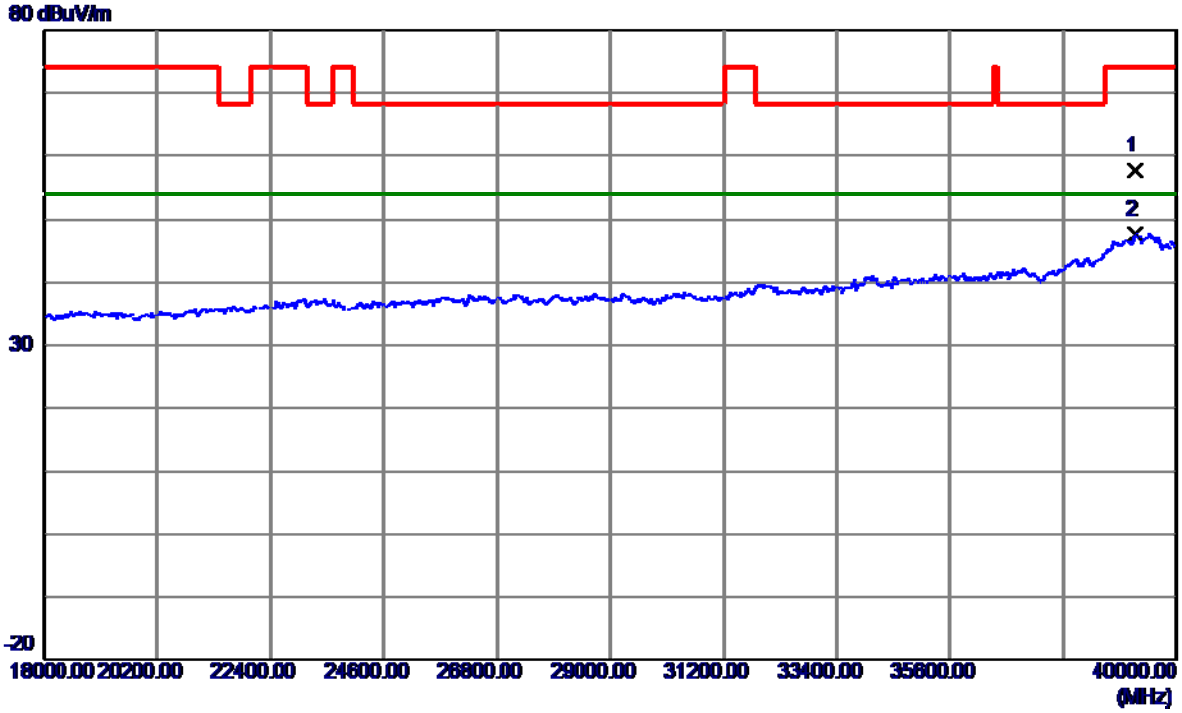
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10459.6050	19.85	13.54	33.39	54.00	-20.61	AVG	
2	10460.4750	32.20	13.54	45.74	68.20	-22.46	Peak	

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

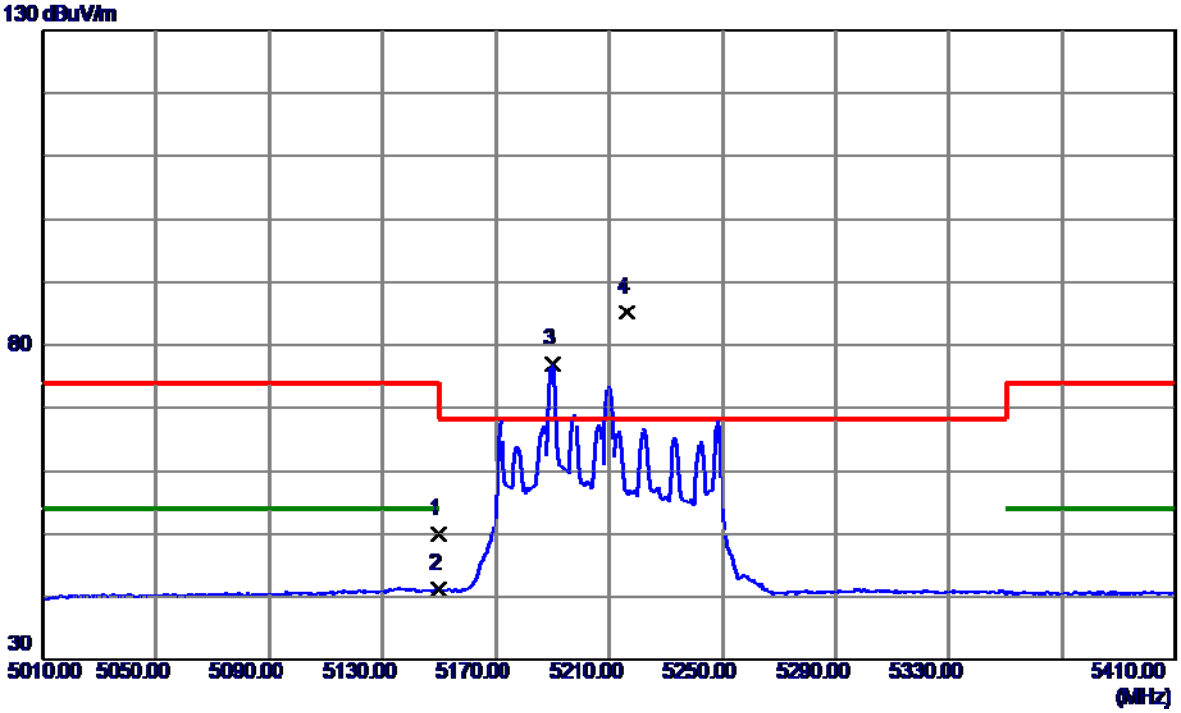
Test Mode	UNII-1_TX AC(VHT40) Mode 5230 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39197.0000	40.16	17.35	57.51	74.00	-16.49	Peak	
2 *	39197.0000	30.31	17.35	47.66	54.00	-6.34	AVG	

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

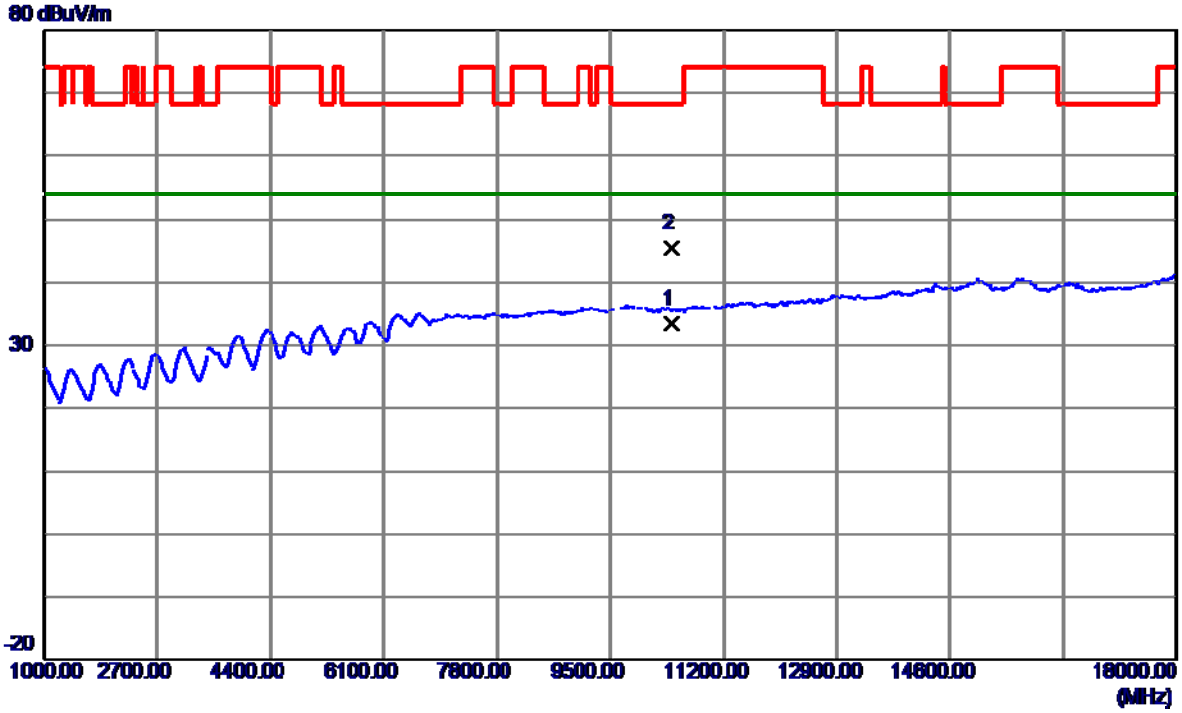
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	33.75	16.28	50.03	74.00	-23.97	Peak	
2	5150.0000	24.86	16.28	41.14	54.00	-12.86	AVG	
3	5190.0000	60.72	16.33	77.05	999.00	-921.95	AVG	
4 *	5216.2000	68.91	16.36	85.27	68.20	17.07	Peak	

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

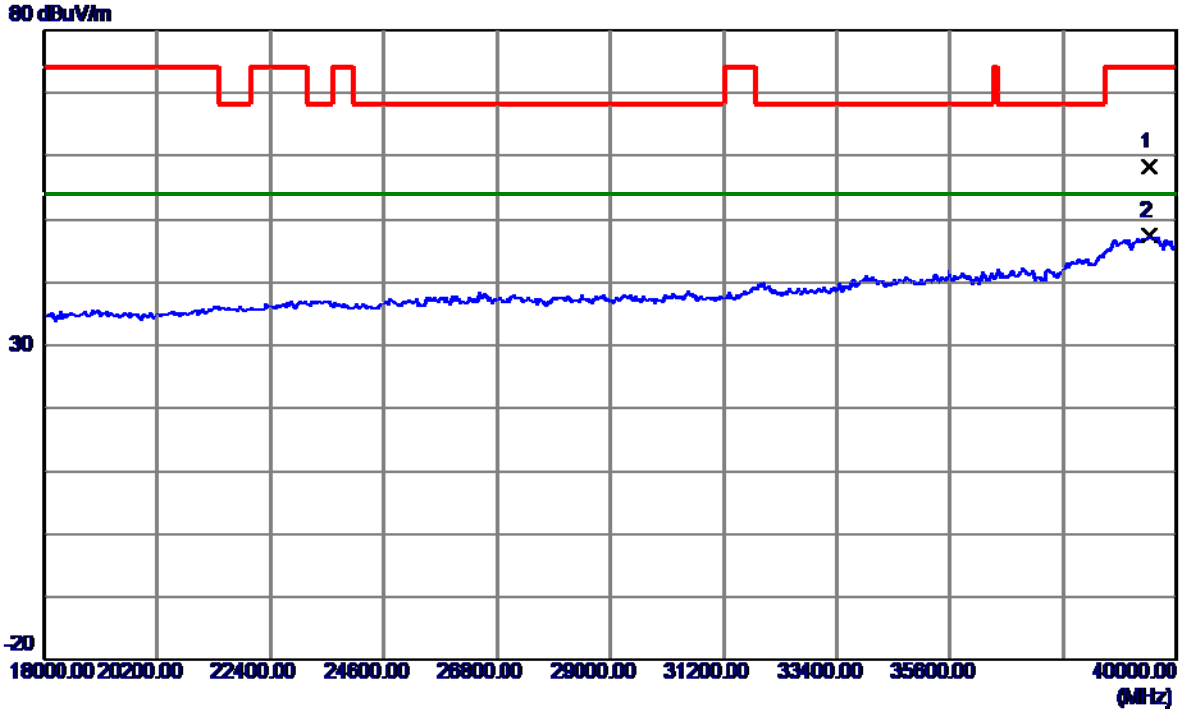
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10419.6480	19.97	13.51	33.48	54.00	-20.52	AVG	
2	10419.8949	31.95	13.51	45.46	68.20	-22.74	Peak	

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

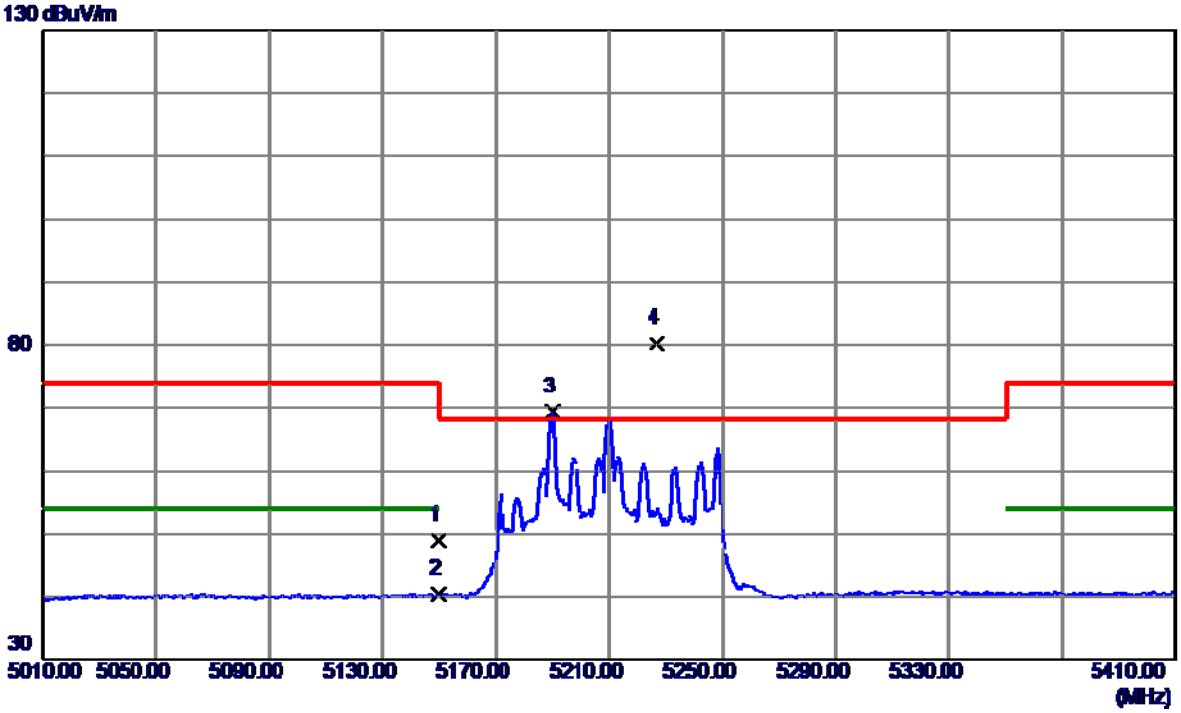
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39461.0000	40.31	17.84	58.15	74.00	-15.85	Peak	
2 *	39461.0000	29.57	17.84	47.41	54.00	-6.59	AVG	

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

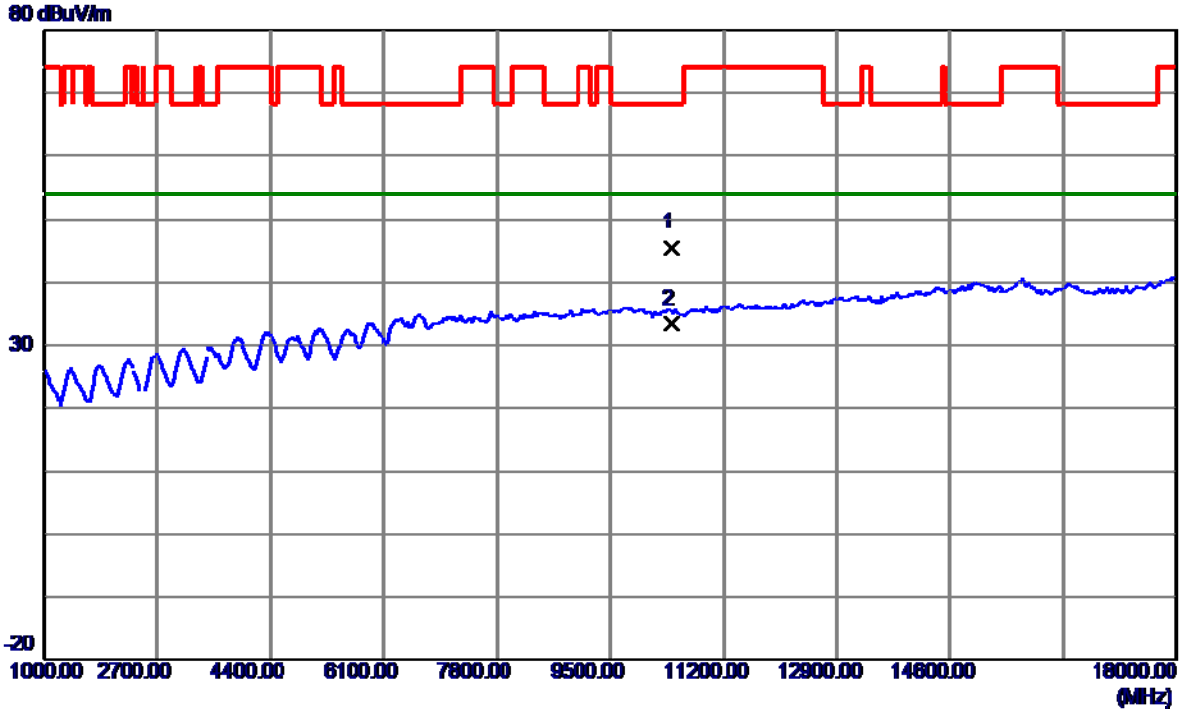
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	32.66	16.28	48.94	74.00	-25.06	Peak	
2	5150.0000	24.06	16.28	40.34	54.00	-13.66	AVG	
3	5190.0000	53.14	16.33	69.47	999.00	-929.53	AVG	
4 *	5226.8000	63.87	16.37	80.24	68.20	12.04	Peak	

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

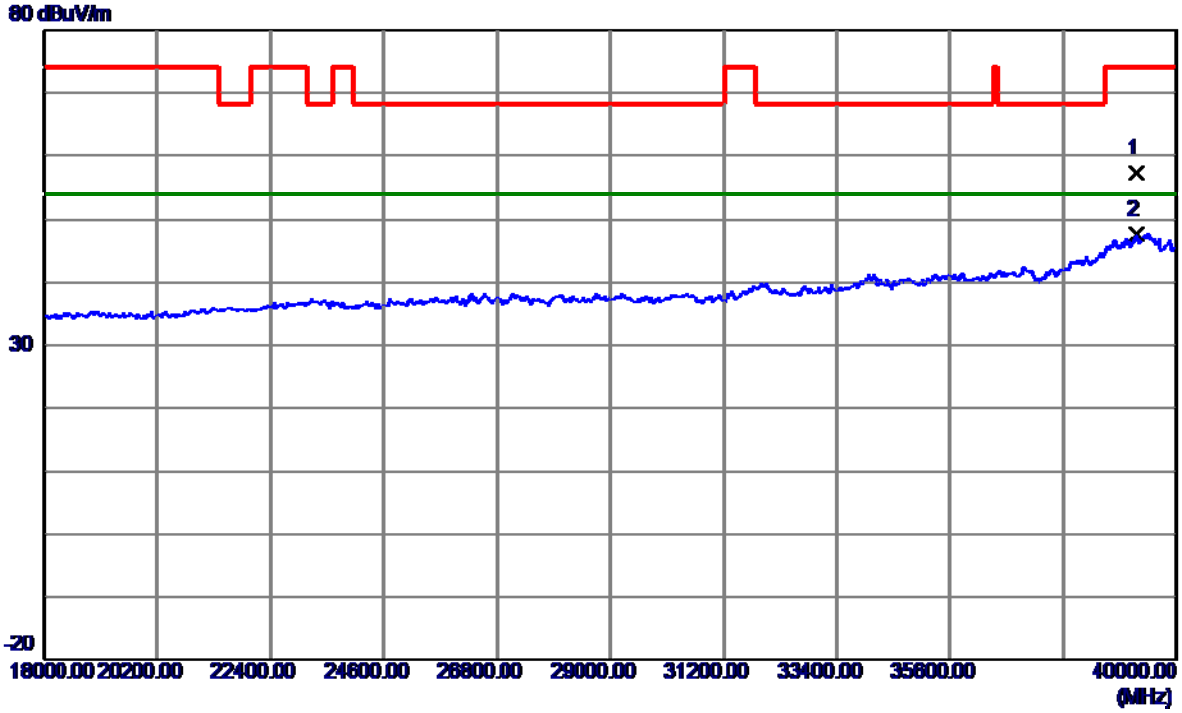
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10420.0400	31.99	13.51	45.50	68.20	-22.70	Peak	
2 *	10420.1540	19.89	13.51	33.40	54.00	-20.60	AVG	

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

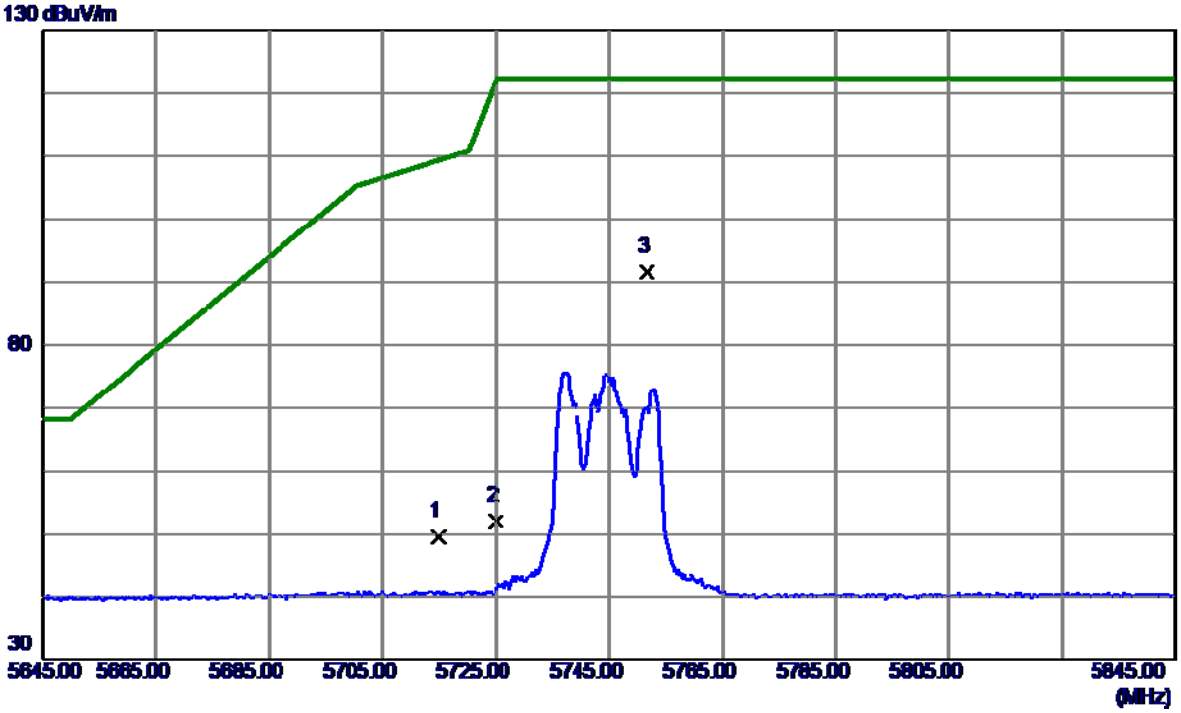
Test Mode	UNII-1_TX AC(VHT80) Mode 5210 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39219.0000	39.88	17.39	57.27	74.00	-16.73	Peak	
2 *	39219.0000	30.21	17.39	47.60	54.00	-6.40	AVG	

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

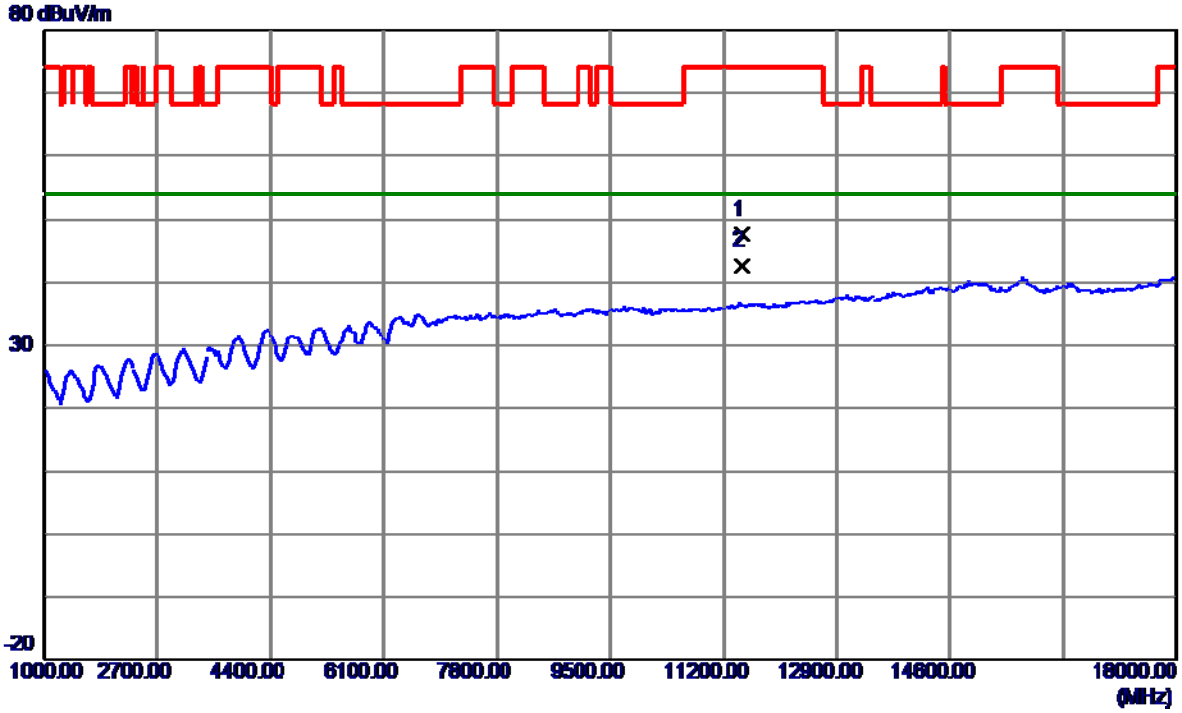
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	32.79	16.79	49.58	109.40	-59.82	Peak	
2	5725.0000	35.27	16.80	52.07	122.20	-70.13	Peak	
3 *	5751.7000	74.77	16.81	91.58	122.20	-30.62	Peak	

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

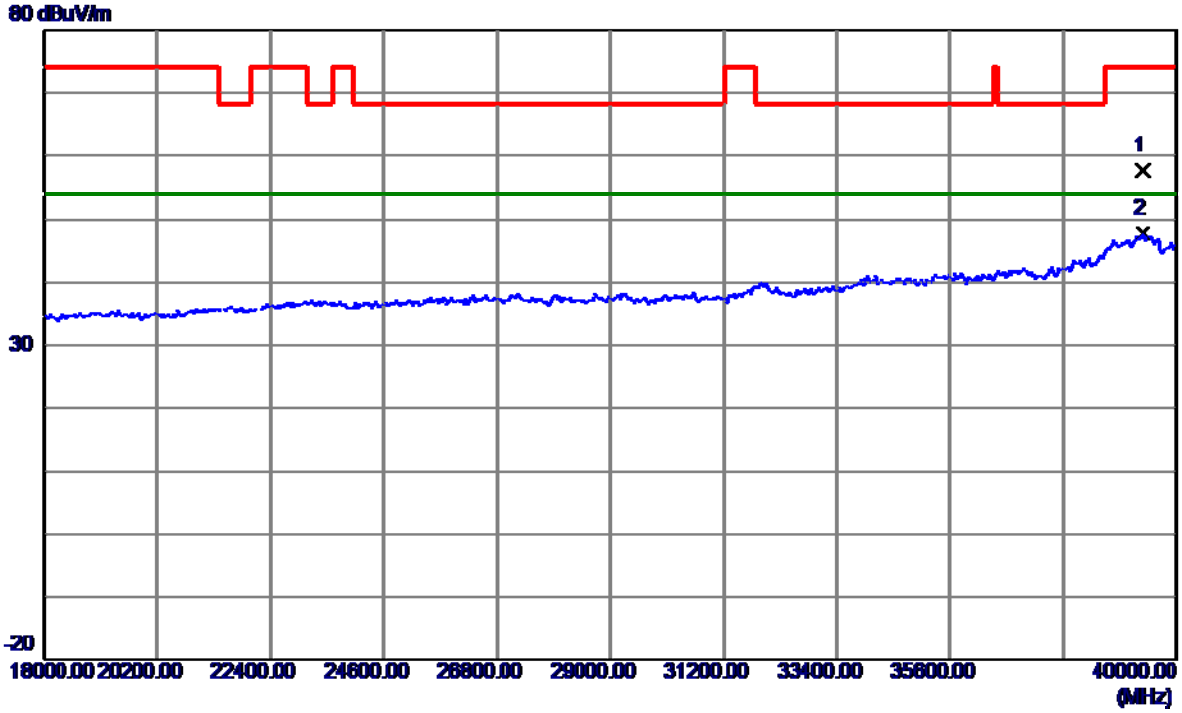
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11489.6670	32.87	14.64	47.51	74.00	-26.49	Peak	
2 *	11490.1750	27.95	14.64	42.59	54.00	-11.41	AVG	

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

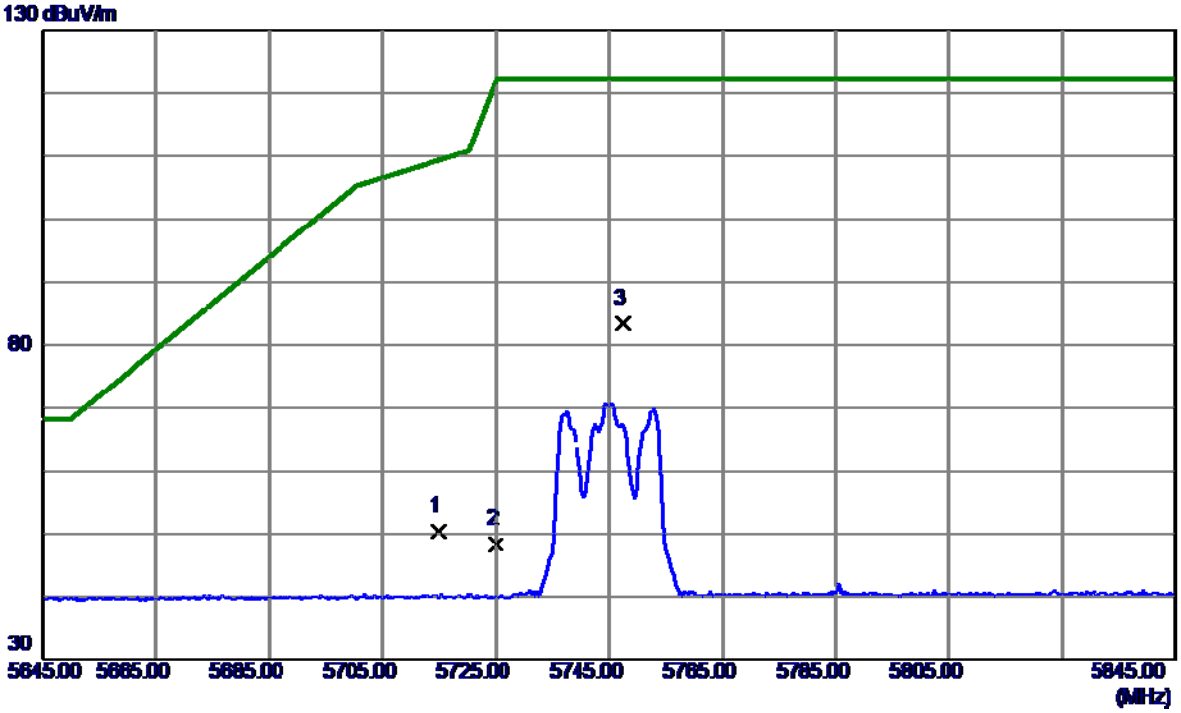
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39340.0000	40.01	17.62	57.63	74.00	-16.37	Peak	
2 *	39340.0000	30.10	17.62	47.72	54.00	-6.28	AVG	

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

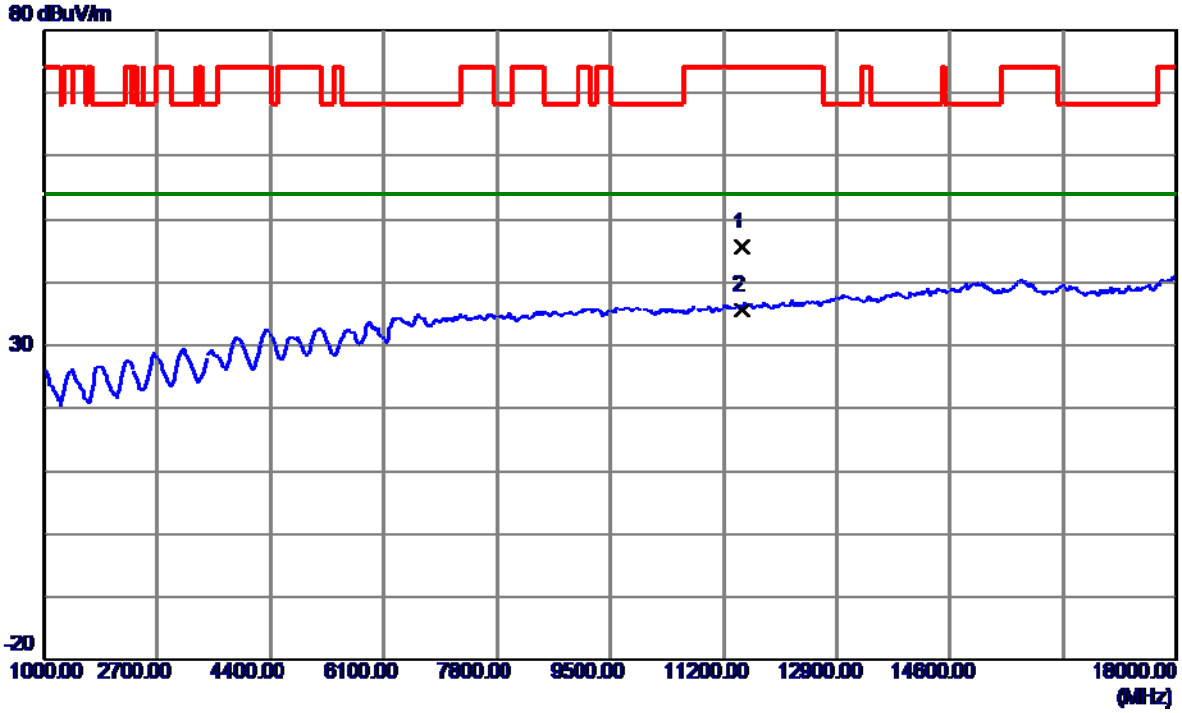
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	33.55	16.79	50.34	109.40	-59.06	Peak	
2	5725.0000	31.53	16.80	48.33	122.20	-73.87	Peak	
3 *	5747.5000	66.51	16.81	83.32	122.20	-38.88	Peak	

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

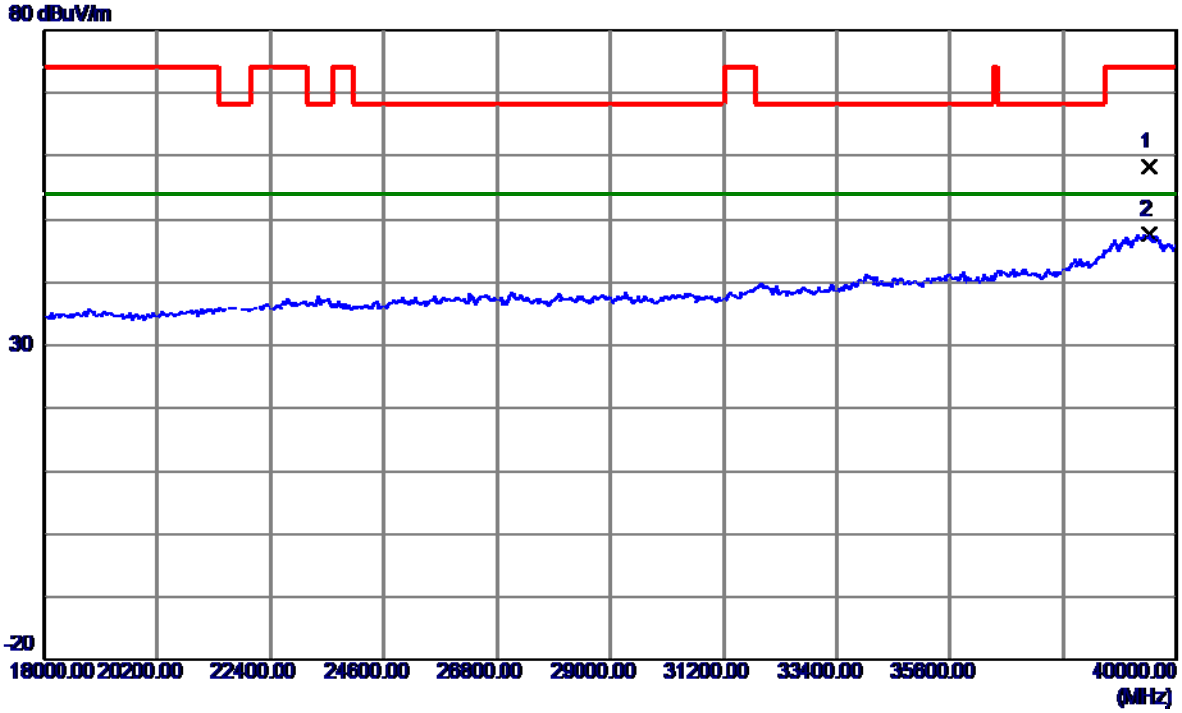
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11489.7330	30.93	14.64	45.57	74.00	-28.43	Peak	
2 *	11490.4310	21.03	14.64	35.67	54.00	-18.33	AVG	

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

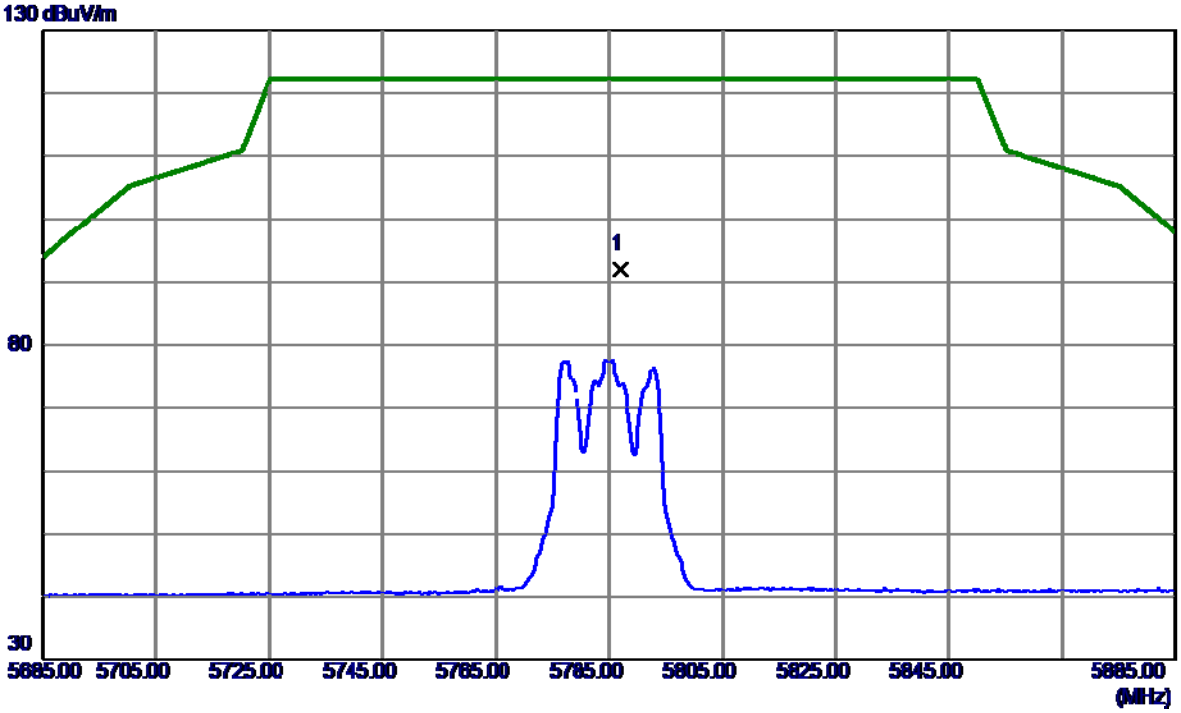
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39472.0000	40.33	17.86	58.19	74.00	-15.81	Peak	
2 *	39472.0000	29.77	17.86	47.63	54.00	-6.37	AVG	

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

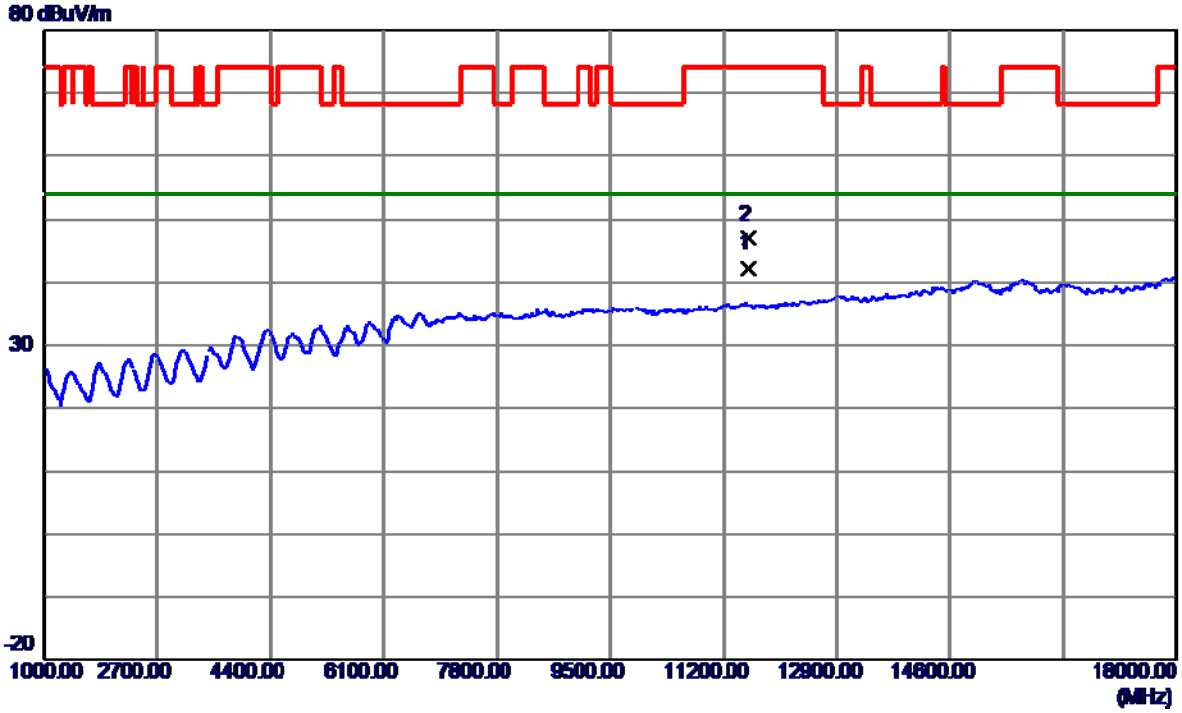
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5787.0000	75.22	16.83	92.05	122.20	-30.15	Peak	

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

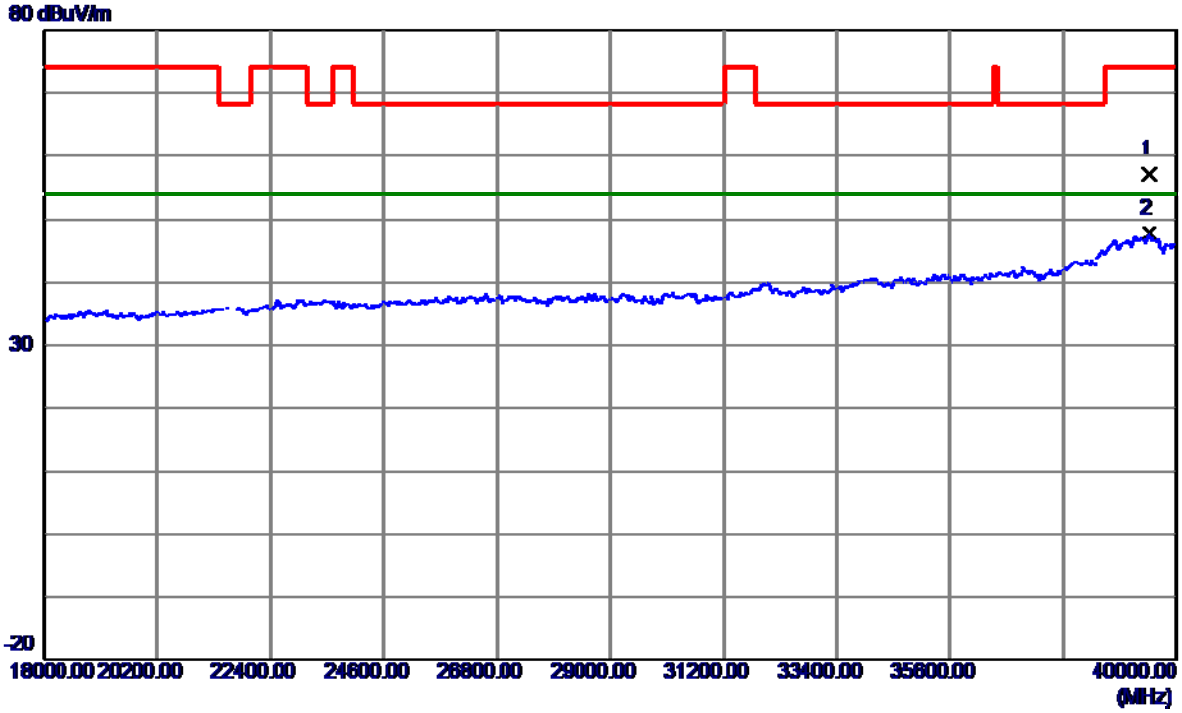
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11569.5890	27.52	14.71	42.23	54.00	-11.77	AVG	
2	11570.2240	32.19	14.71	46.90	74.00	-27.10	Peak	

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

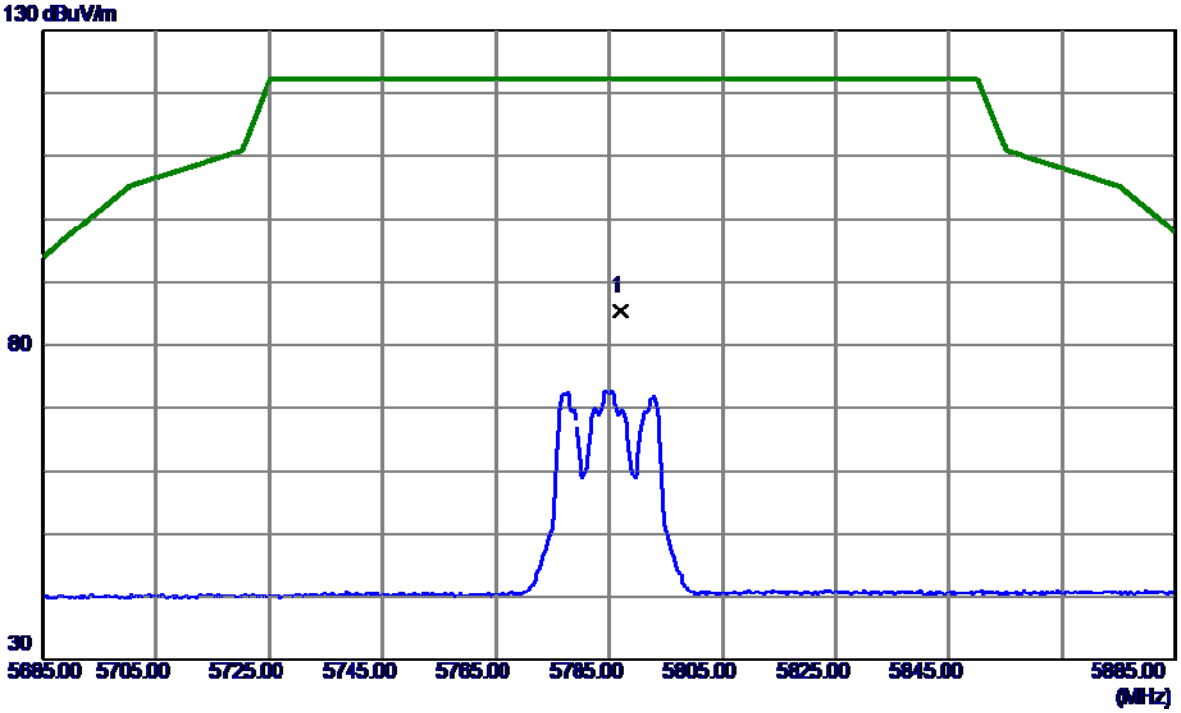
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	39461.0000	39.24	17.84	57.08	74.00	-16.92	Peak	
2 *	39461.0000	29.87	17.84	47.71	54.00	-6.29	AVG	

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

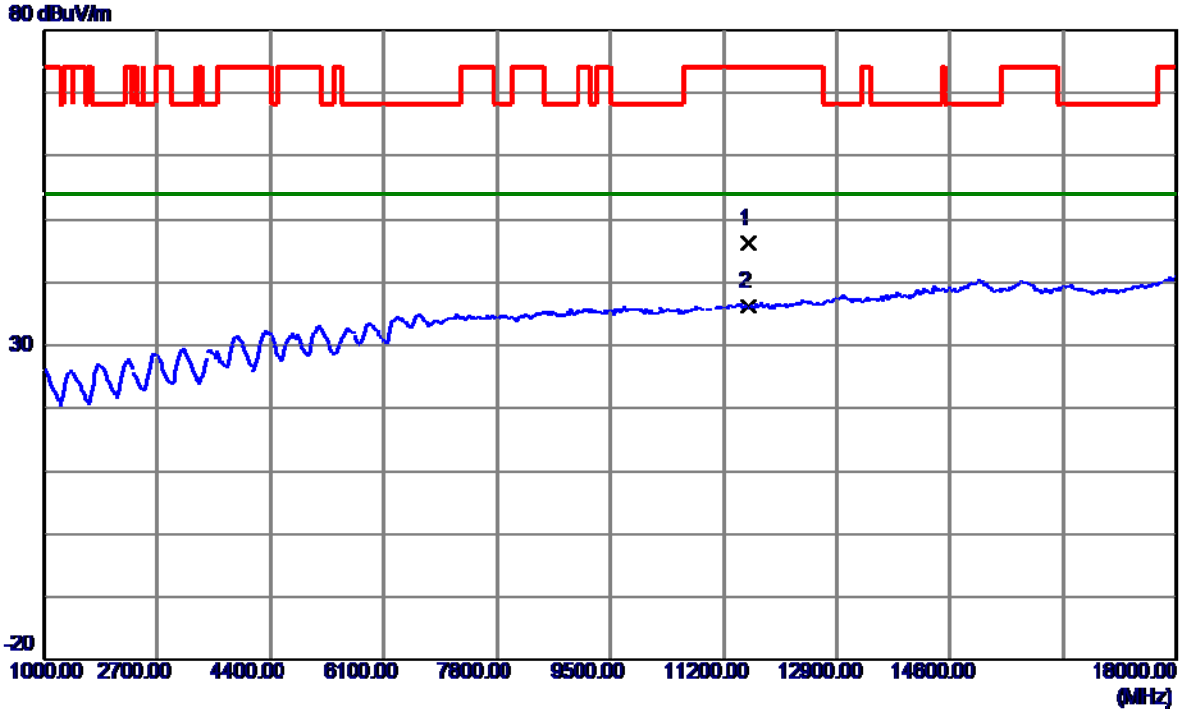
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5787.1000	68.57	16.83	85.40	122.20	-36.80	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	11569.5230	31.44	14.71	46.15	74.00	-27.85	Peak	
2 *	11570.2200	21.57	14.71	36.28	54.00	-17.72	AVG	

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