Certificate #7130.01

FCC Radio Test Report

FCC ID: 2AJYB-S210

This report concerns: Original Grant

Project No.	:	2403C219
Equipment	:	Network Audio Streaming Module
Brand Name	:	StreamUnlimited
Test Model	:	Stream210
Series Model	:	N/A
Applicant	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna A1100, Austria
Manufacturer	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna A1100, Austria
Factory	:	StreamUnlimited Engineering GmbH
Address	:	StreamUnlimited Engineering GmbH, Gutheil Schoder Gasse 10, Vienna A1100, Austria
Date of Receipt	:	May 30, 2024
Date of Test	:	May 31, 2024 ~ Aug. 14, 2024
Issued Date	:	Aug. 26, 2024
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG202405304 for power, DG202405302 for others.
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart E

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

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

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

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

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

The information, data and test plan are provided by manufacturer 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 No.	Version	Description	Issued Date	Note
BTL-FCCP-4-2403C219	R00	Original Report.	Aug. 26, 2024	Valid

1. APPLICABLE STANDARDS

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:
ANSI C63.10-2013
The following reference test guidance is not within the scope of accreditation of A2LA:
KDB 789033 D02 General UNII Test Procedures New Rules v02r01

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart E				
Standard(s) Section	**Test Item**	**Test Result**	**Judgment**	**Remark**
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS	------
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	------
15.407(a) 15.407(e)	Bandwidth	APPENDIX E	PASS	------
15.407(a)	Maximum Output Power	APPENDIX F	PASS	------
15.407(a)	Power Spectral Density	APPENDIX G	PASS	------
15.407(g)	Frequency Stability	APPENDIX H	PASS	------
15.203	Antenna Requirements	------	PASS	**NOTE (2)**
15.407(c)	Automatically Discontinue Transmission	------	PASS	**NOTE (3)**

Note:
(1) "N/A" denotes test is not applicable in this test report.
(2) The device what use a non-standard antenna jack 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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of
For Radiated Emission 1-18GHz:
Room 102 & Room 701, Building 3, No.9, Jinshagang 1st Road, Dalang, Dongguan City, Guangdong People's Republic of China.
For Power:
Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.
For others:
No.3, Jinshagang 1st Road, Dalang, Dongguan City, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969
BTL's Designation Number for FCC: CN1377

2.2 MEASUREMENT UNCERTAINTY

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

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	*U*,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.88

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	*U*,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	*U*,(dB)
DG-CB03 (3m)	CISPR	30MHz ~ 200MHz	V	4.40
		30MHz ~ 200MHz	H	3.62
		200MHz ~ 1,000MHz	V	4.58
		200MHz ~ 1,000MHz	H	3.98

Test Site	Method	Measurement Frequency Range	*U*,(dB)
DG-CB18 (3m)	CISPR	1GHz ~ 6GHz	4.48
		6GHz ~ 18GHz	3.88

Test Site	Method	Measurement Frequency Range	*U*,(dB)
DG-CB03 (1m)	CISPR	18 ~ 26.5 GHz	3.36
		26.5 ~ 40 GHz	3.58

C. Other Measurement test:

Test Item	Uncertainty
Bandwidth	0.90 %
Maximum Output Power	1.3 dB
Power Spectral Density	1.4 dB
Frequency Stability	2.7 ppm
Temperature	0.8 °C
Humidity	2.2 %

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

2.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
AC Power Line Conducted Emissions	25°C	60%	AC 120V/60Hz	Hayden Chen	Jun. 03, 2024
Radiated Emissions-9kHz to 30MHz	26°C	47%	DC 3.3V	Hayden Chen	Jun. 18, 2024
Radiated Emissions-30MHz to 1000MHz	24°C	56%	DC 3.3V	Allen Tong	Jun. 20, 2024
Radiated Emissions-Above 1000 MHz	23°C	53%	DC 3.3V	Jensen Zhou	Jun. 13, 2024-Jun. 14, 2024
	24°C	46%	DC 3.3V	Allen Tong	Jun. 12, 2024
Bandwidth	20°C	55%	DC 3.3V	Arvin Tong	Jun. 26, 2024
Maximum Output Power	24°C	46%	DC 3.3V	Brand Duan	Jun. 04, 2024
Power Spectral Density	20°C	55%	DC 3.3V	Arvin Tong	Jun. 26, 2024
Frequency Stability	Normal & Extreme	51%	Normal & Extreme	Arvin Tong	Jun. 29, 2024

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Network Audio Streaming Module
Brand Name	StreamUnlimited
Test Model	Stream210
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	L3
Software Version	V3
Power Source	DC voltage supplied from external power supply.
Power Rating	DC 3.3V
Operation Frequency Band(s)	UNII-1: 5150 MHz ~ 5250 MHz UNII-2A: 5250 MHz ~ 5350 MHz UNII-2C: 5470 MHz ~ 5725 MHz UNII-3: 5725 MHz ~ 5850 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM IEEE 802.11ax: OFDMA
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 86.7 Mbps IEEE 802.11ax: up to 143.4 Mbps
Maximum Output Power_UNII-1	IEEE 802.11ac(VHT20): 15.13 dBm (0.0326 W)
Maximum Output Power_UNII-2A	IEEE 802.11ax(HE20): 15.16 dBm (0.0328 W)
Maximum Output Power_UNII-2C	IEEE 802.11ac(VHT20): 15.24 dBm (0.0334 W)
Maximum Output Power_UNII-3	IEEE 802.11ac(VHT20): 15.28 dBm (0.0337 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 802.11ax(HE20)	
UNII-1	
Channel	Frequency (MHz)
36	5180
40	5200
44	5220
48	5240

IEEE 802.11a, IEEE 802.11n(HT20), IEEE 802.11ac(VHT20), IEEE 802.11ax(HE20)	
UNII-2A	
Channel	Frequency (MHz)
52	5260
56	5280
60	5300
64	5320

IEEE 802.11a, IEEE 802.11n(HT20), IEEE 802.11ac(VHT20), IEEE 802.11ax(HE20)	
UNII-2C	
Channel	Frequency (MHz)
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700

IEEE 802.11a, IEEE 802.11n(HT20), IEEE 802.11ac(VHT20), IEEE 802.11ax(HE20)	
UNII-3	
Channel	Frequency (MHz)
149	5745
153	5765
157	5785
161	5805
165	5825

3. Table for Filed Antenna:

Group 1:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	StreamUnlimited	N/A	FPC	MHF4	4

Group 2:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	2J antenna conceptor	2JF0102P	FPC	Most RF Connectors	3.8

3.2 TEST MODES

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

Pretest Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 2	TX N(HT20) Mode Channel 36/40/48 (UNII-1)
Mode 3	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 6	TX N(HT20) Mode Channel 52/60/64 (UNII-2A)
Mode 7	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 8	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 9	TX A Mode Channel 100/116/140 (UNII-2C)
Mode 10	TX N(HT20) Mode Channel 100/116/140 (UNII-2C)
Mode 11	TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C)
Mode 12	TX AX(HE20) Mode Channel 100/116/140 (UNII-2C)
Mode 13	TX A Mode Channel 149/157/165 (UNII-3)
Mode 14	TX N(HT20) Mode Channel 149/157/165 (UNII-3)
Mode 15	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 16	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)
Mode 17	TX AC(VHT20) Mode Channel 165 (UNII-3)

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 17	TX AC(VHT20) Mode Channel 165 (UNII-3)

Radiated Emissions Test - Below 1GHz	
Final Test Mode	Description
Mode 17	TX AC(VHT20) Mode Channel 165 (UNII-3)

Radiated Emissions Test - Above 1GHz	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 3	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 7	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 8	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 9	TX A Mode Channel 100/116/140 (UNII-2C)
Mode 11	TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C)
Mode 12	TX AX(HE20) Mode Channel 100/116/140 (UNII-2C)
Mode 13	TX A Mode Channel 149/157/165 (UNII-3)
Mode 15	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 16	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)

Maximum Output Power 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 AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 6	TX N(HT20) Mode Channel 52/60/64 (UNII-2A)
Mode 7	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 8	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 9	TX A Mode Channel 100/116/140 (UNII-2C)
Mode 10	TX N(HT20) Mode Channel 100/116/140 (UNII-2C)
Mode 11	TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C)
Mode 12	TX AX(HE20) Mode Channel 100/116/140 (UNII-2C)
Mode 13	TX A Mode Channel 149/157/165 (UNII-3)
Mode 14	TX N(HT20) Mode Channel 149/157/165 (UNII-3)
Mode 15	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 16	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)

Other Conducted Test	
Final Test Mode	Description
Mode 1	TX A Mode Channel 36/40/48 (UNII-1)
Mode 3	TX AC(VHT20) Mode Channel 36/40/48 (UNII-1)
Mode 4	TX AX(HE20) Mode Channel 36/40/48 (UNII-1)
Mode 5	TX A Mode Channel 52/60/64 (UNII-2A)
Mode 7	TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A)
Mode 8	TX AX(HE20) Mode Channel 52/60/64 (UNII-2A)
Mode 9	TX A Mode Channel 100/116/140 (UNII-2C)
Mode 11	TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C)
Mode 12	TX AX(HE20) Mode Channel 100/116/140 (UNII-2C)
Mode 13	TX A Mode Channel 149/157/165 (UNII-3)
Mode 15	TX AC(VHT20) Mode Channel 149/157/165 (UNII-3)
Mode 16	TX AX(HE20) Mode Channel 149/157/165 (UNII-3)

Note:
(1) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX AC(VHT20) Mode Channel 165 (UNII-3) is found to be the worst case and recorded.
(2) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
(3) For radiated emission Harmonic 18-40GHz test, only tested the worst case and recorded.
(4) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
(5) The measurements for Output Power are tested, the worst case are IEEE 802.11a mode, IEEE 802.11ac(VHT20) mode and IEEE 802.11ax(HE20) mode, only the worst cases are documented for other test items.
(6) For radiated emission above 1GHz test, both Vertical and Horizontal are evaluated, only the worst case (Horizontal) is recorded.
(7) IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report.
(8) There are two antenna groups for this Network Audio Streaming Module which are only differ in gain. Only tested with the max gain's antenna group and recorded.

3.3 PARAMETERS OF TEST SOFTWARE

UNII-1			
Test Software Version	IPOP V4.1		
Frequency (MHz)	5180	5200	5240
IEEE 802.11a	16	16	16
IEEE 802.11n(HT20)	16	16	16
IEEE 802.11ac(VHT20)	16	16	16
IEEE 802.11ax(HE20)	16	16	16

UNII-2A			
Test Software Version	IPOP V4.1		
Frequency (MHz)	5260	5300	5320
IEEE 802.11a	13.5	11	11
IEEE 802.11n(HT20)	13.5	11	11
IEEE 802.11ac(VHT20)	13.5	11	11
IEEE 802.11ax(HE20)	13.5	11	11

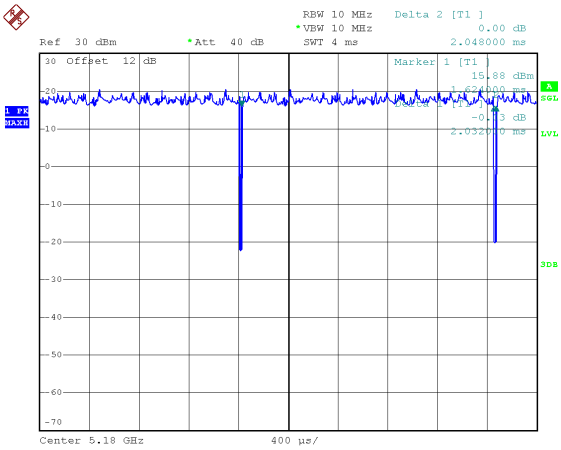
UNII-2C			
Test Software Version	IPOP V4.1		
Frequency (MHz)	5500	5580	5700
IEEE 802.11a	14	13.5	13.5
IEEE 802.11n(HT20)	14	13.5	13.5
IEEE 802.11ac(VHT20)	14	13.5	13.5
IEEE 802.11ax(HE20)	14	13.5	13.5

UNII-3			
Test Software Version	IPOP V4.1		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	15	15	15.5
IEEE 802.11n(HT20)	15	15	15.5
IEEE 802.11ac(VHT20)	15	15	15.5
IEEE 802.11ax(HE20)	15	15	15.5

3.4 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.

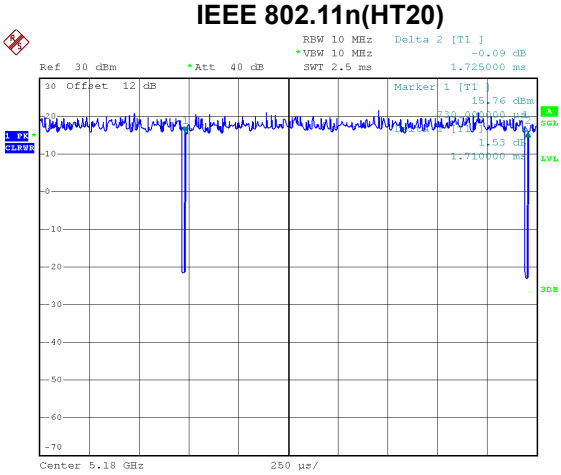
IEEE 802.11a



Date: 26.JUN.2024 16:50:16

Duty cycle = 2.032 ms / 2.048 ms = 99.22%
Duty Factor = 10 log(1 / Duty cycle) = 0.00

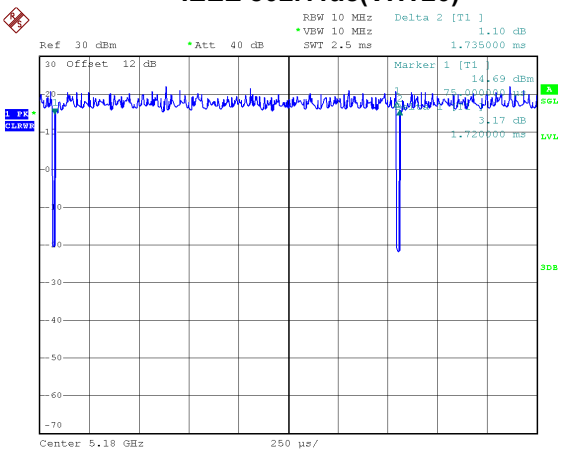
IEEE 802.11n(HT20)



Date: 26.JUN.2024 16:50:43

Duty cycle = 1.710 ms / 1.725 ms = 99.13%
Duty Factor = 10 log(1 / Duty cycle) = 0.00

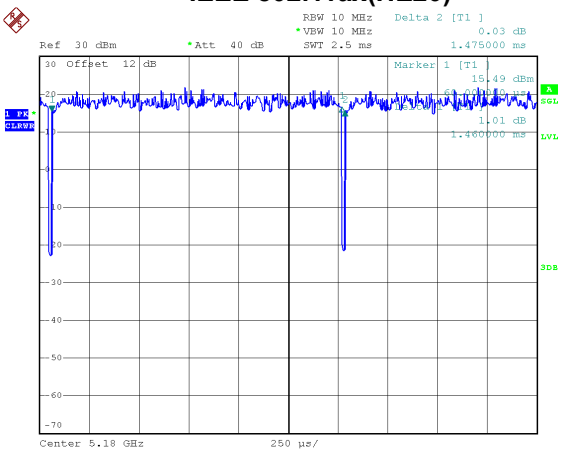
IEEE 802.11ac(VHT20)



Date: 26.JUN.2024 16:51:05

Duty cycle = 1.720 ms / 1.735 ms = 99.14%
Duty Factor = 10 log(1 / Duty cycle) = 0.00

IEEE 802.11ax(HE20)



Date: 26.JUN.2024 16:51:16

Duty cycle = 1.460 ms / 1.475 ms = 98.98%
Duty Factor = 10 log(1 / Duty cycle) = 0.00

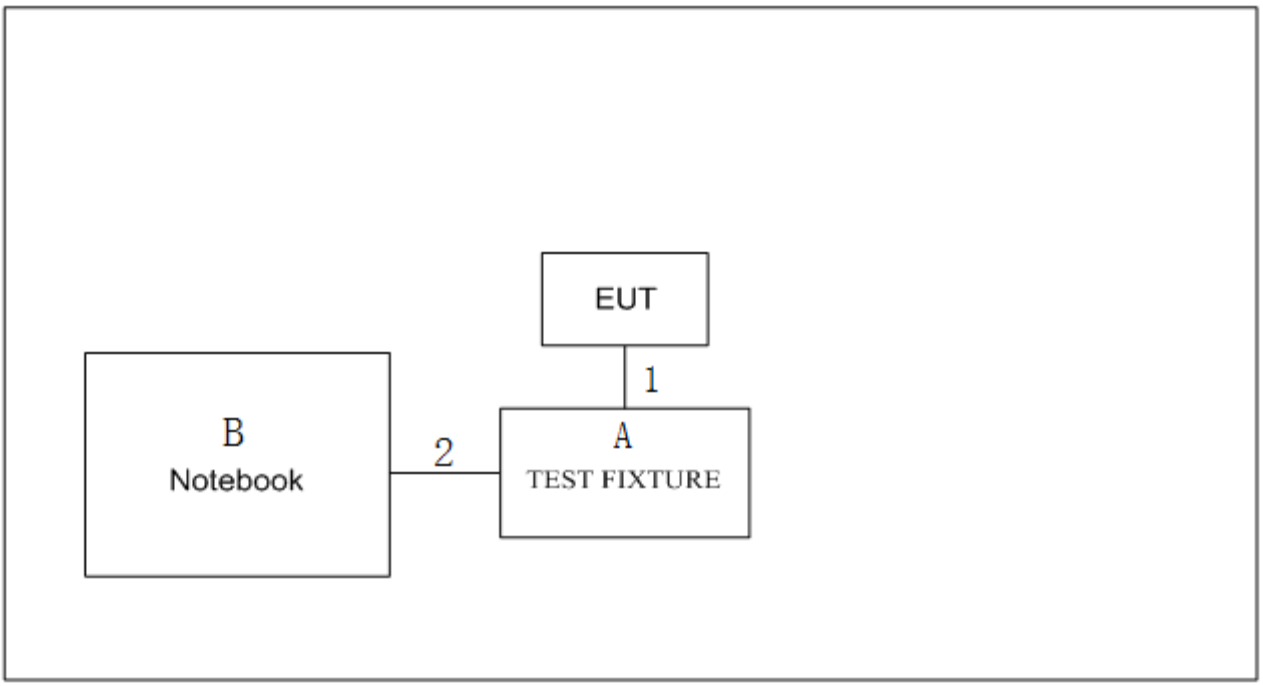
NOTE:
For IEEE 802.11a:
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle ≥ 98%).

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

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

For IEEE 802.11ax(HE20):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle ≥ 98%).

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Test Fixture	N/A	N/A	N/A
B	Notebook	Dell	INSPIRON 5493	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	Data Cable	NO	NO	0.15m
2	USB Cable	NO	NO	1m

3.7 CUSTOMER INFORMATION DESCRIPTION

1) The antenna gain is provided by the manufacturer.
2) Except for AC power line conducted emissions and radiated emissions, the results of all test items include cable losses. All cable losses are provided by the testing laboratory.

4. AC POWER LINE CONDUCTED EMISSIONS

4.1 LIMIT

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

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

4.2 TEST PROCEDURE

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

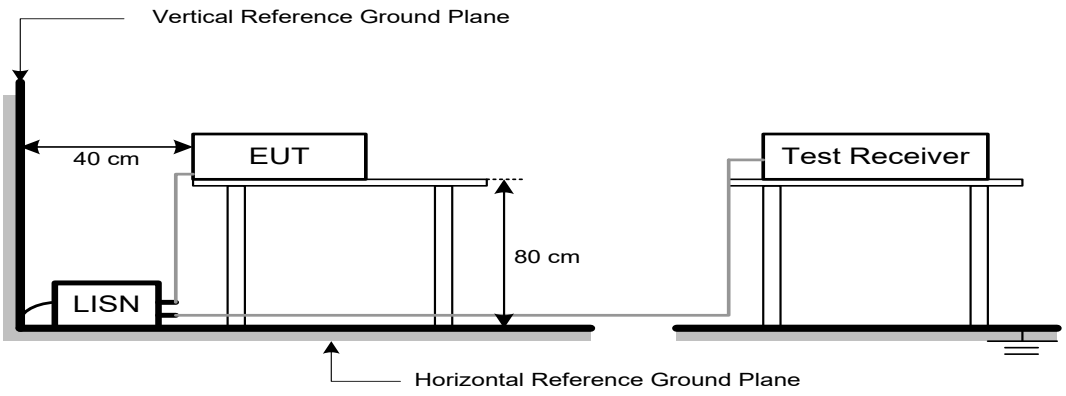
The following table is the setting of the receiver:

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

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

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

4.6 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS

5.1 LIMIT

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

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

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS (Above 1000 MHz)

Frequency (MHz)	EIRP Limit (dBm/MHz)	Band edge at 3m (dBμV/m)	Harmonic at 1m (dBμV/m)
5150-5250	-27	68.2	77.7 (Note 3)
5250-5350	-27	68.2	77.7 (Note 3)
5470-5725	-27	68.2	77.7 (Note 3)
5725-5850 **NOTE (2)**	-27	68.2	77.7 (Note 3)
	10	105.2	114.7 (Note 3)
	15.6	110.8	120.3 (Note 3)
	27	122.2	131.7 (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)=9.5 dB.

FS_{limit}: Harmonic at 3m Peak and Average limit.

FS_{max}: Harmonic at 1m Peak and Average Maximum value.

d_{limit}: Harmonic at 3m test distance.

$d_{measure}$: Harmonic Actual test distance.

5.2 TEST PROCEDURE

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

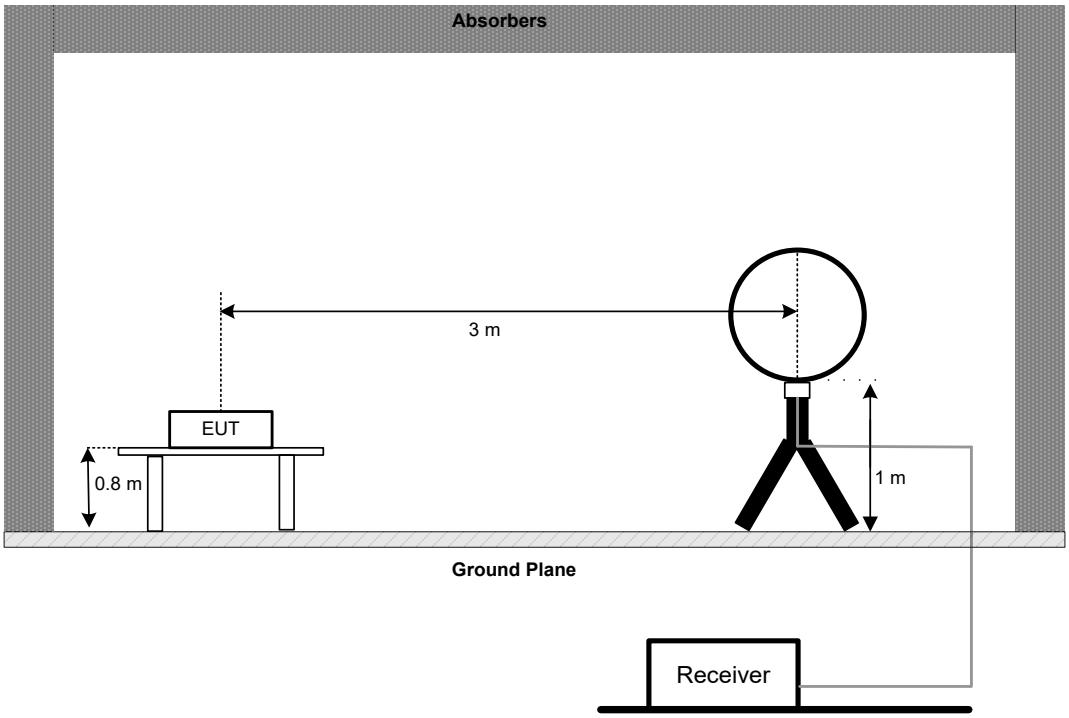
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

5.3 DEVIATION FROM TEST STANDARD

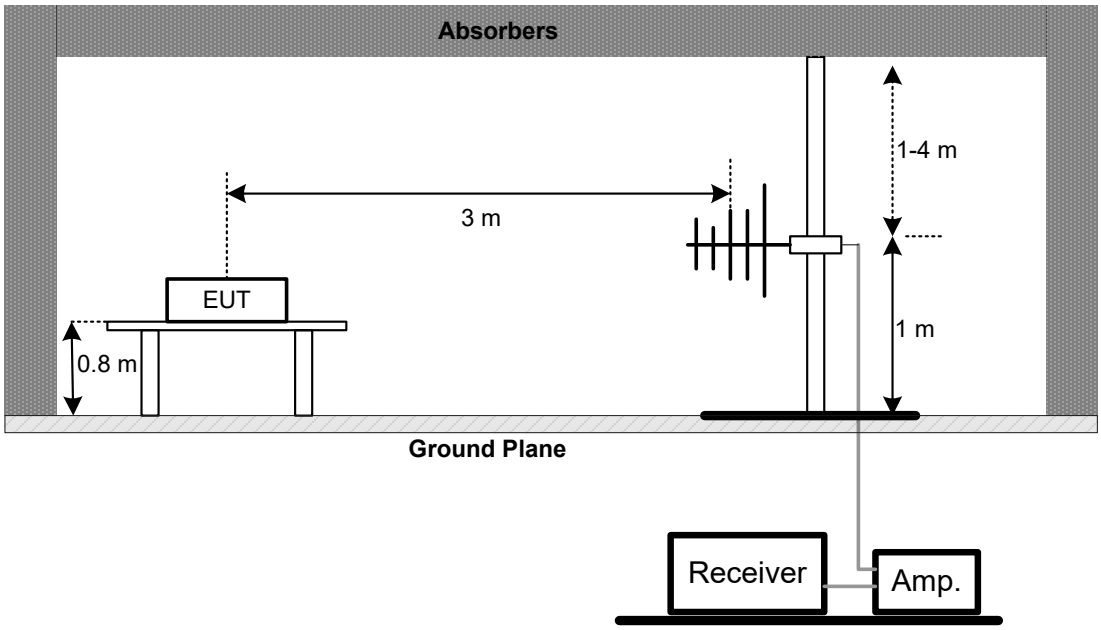
No deviation.

5.4 TEST SETUP

9 kHz to 30 MHz

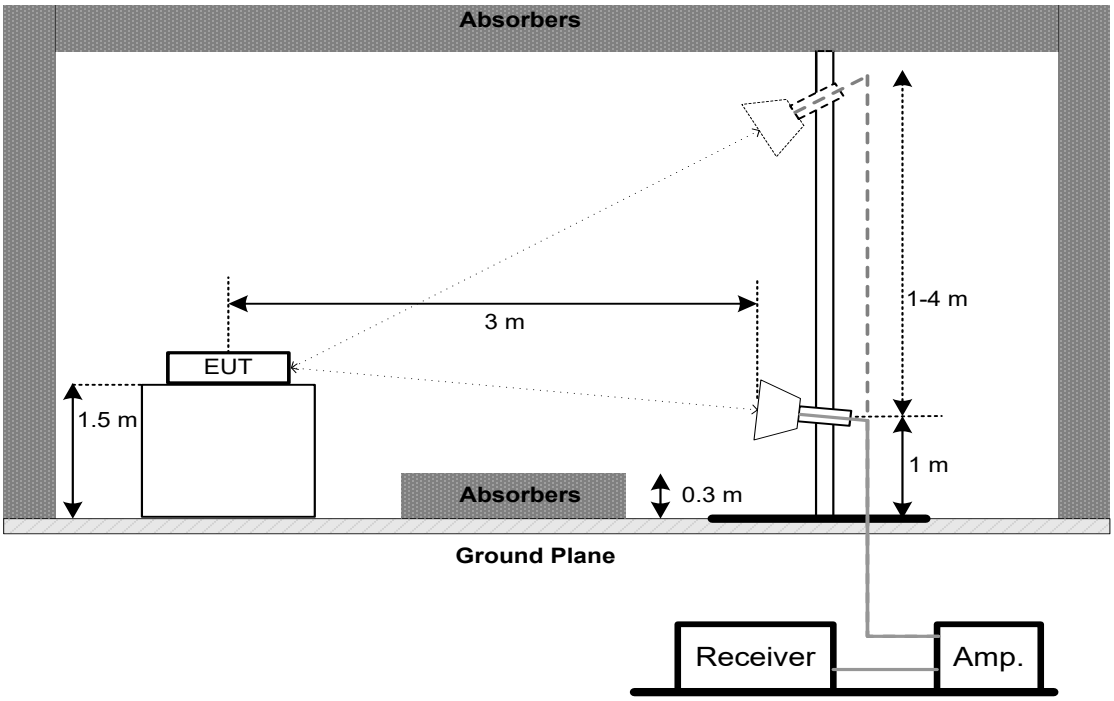


30 MHz to 1 GHz

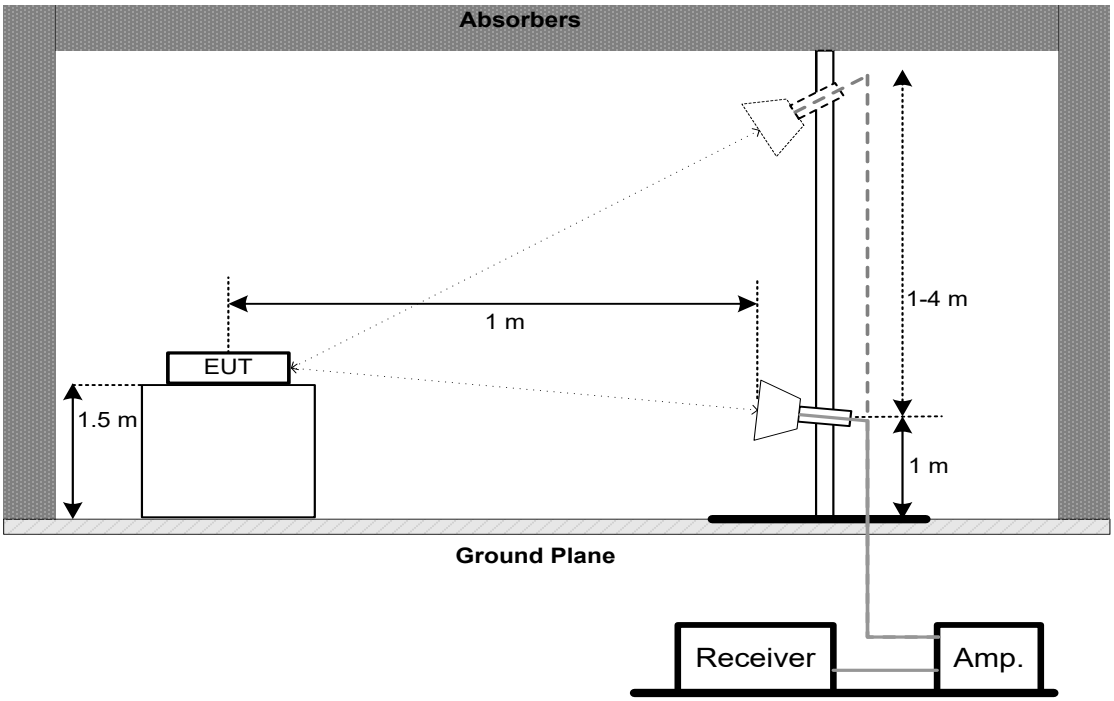


Above 1 GHz

Band edge & Harmonic (1 GHz to 18 GHz)



Harmonic (18 GHz to 26.5 GHz)



5.5 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.

5.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

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

5.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

5.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

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

6. BANDWIDTH

6.1 LIMIT

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

6.2 TEST PROCEDURE

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

b. Spectrum Setting:

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

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

For UNII-3:

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

For 99% Occupied Bandwidth:

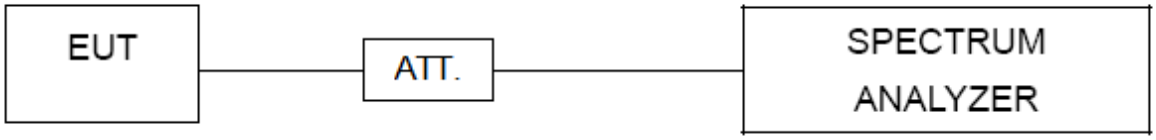
Spectrum Parameter	Setting
Span Frequency	1.5 times to 5 times the OBW
RBW	1% to 5% of the OBW
VBW	≥3*RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

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 E.

7. MAXIMUM OUTPUT POWER

7.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)
FCC 15.407(a)	Maximum Output Power	AP device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm)	5150-5250
		250 mW (23.98 dBm)	5250-5350
		250 mW (23.98 dBm)	5470-5725
		1 Watt (30dBm)	5725-5850

Note:

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

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

7.2 TEST PROCEDURE

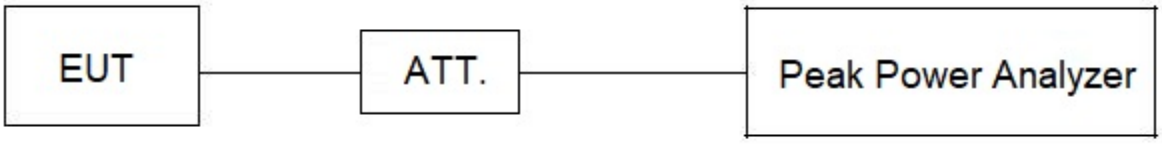
a. The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX F.

8. POWER SPECTRAL DENSITY

8.1 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
		11 dBm/MHz	5250-5350
		11 dBm/MHz	5470-5725
		30 dBm/500 kHz	5725-5850

8.2 TEST PROCEDURE

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

b. Spectrum Setting:

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

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

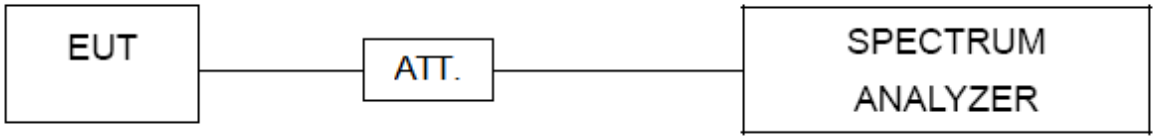
Note:

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 12 dB, and the final offset is 12 + 7 = 19 dB when RBW=100kHz is used.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX G.

9. FREQUENCY STABILITY

9.1 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
			5250-5350
			5470-5725
			5725-5850

9.2 TEST PROCEDURE

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

b. Spectrum Setting:

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

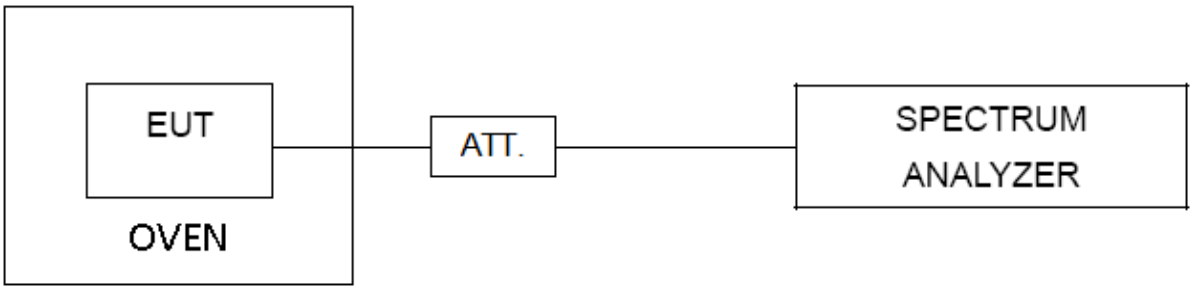
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is 0°C~65°C.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.6 TEST RESULTS

Please refer to the APPENDIX H.

10. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESR3	103027	Jun. 16, 2024
2	TWO-LINE V-NETWORK	R&S	ENV216	101447	Dec. 22, 2024
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
4	Cable	N/A	SFT205-NMNM-9M-001	9M	Nov. 27, 2024
5	643 Shield Room	ETS	6*4*3	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Active Loop Antenna	Schwarzbeck	FMZB 1513-60B	1513-60 B-034	Mar. 30, 2025
2	MXE EMI Receiver	Keysight	N9038A	MY56400091	Dec. 22, 2024
3	Cable	N/A	RW2350-3.8A-NMBM-1.5M	N/A	Jun. 09, 2025
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chamber room	ETS	9*6*6	N/A	Jul. 11, 2024

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	1462	Dec. 13, 2024
2	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AT-06009	Dec. 13, 2024
3	Preamplifier	EMC INSTRUMENT	EMC001330	980863	Apr. 07, 2025
4	Cable	RegalWay	LMR400-NMNM-12.5m	N/A	Jun. 06, 2025
5	Cable	RegalWay	LMR400-NMNM-3m	N/A	Jun. 06, 2025
6	Cable	RegalWay	LMR400-NMNM-0.5m	N/A	Jun. 06, 2025
7	Receiver	Agilent	N9038A	MY52130039	Dec. 22, 2024
8	Positioning Controller	MF	MF-7802	N/A	N/A
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	966 Chamber room	CM	9*6*6	N/A	May 16, 2025

Radiated Emissions - 1 GHz to 18 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Multi-Device Controller	ETS-Lindgren	N/A	N/A	N/A
2	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
3	MXA Signal Analyzer	KEYSIGHT	N9020B	MY63380204	Nov. 17, 2024
4	Cable	RegalWay	RWLP50-4.0A-SMS M-1.3M	N/A	Jan. 09, 2025
5	Cable	RegalWay	RWLP50-2.6A-3.5 M2.92MRA-3M	N/A	Jan. 09, 2025
6	Cable	RegalWay	RWLP50-4.0A-SMS M-9M	N/A	Jan. 09, 2025
7	966 Chamber room	ETS	RFD-100（SVSWR）	Q2179	Jan. 09, 2025
8	Double Ridged Horn Antenna	EMC INSTRUMENT	DRH18-E	210509A18ES	Aug. 08, 2024
9	Preamplifier	EMC INSTRUMENT	EMC118A45SE	981001	May 31, 2025
10	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A
11	Filter	STI	STI15-9969	N/A	Nov. 17, 2024

Radiated Emissions - Above 18 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EXA Spectrum Analyzer	Keysight	N9010A	MY55150209	May 31, 2025
2	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330 -K	619413	Jul. 06, 2024
3	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-1.1M	N/A	Jul. 26, 2024
4	Cable	Tonscend	HF160-KMKM-3M	N/A	Jul. 26, 2024
5	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	1227	Oct. 10, 2024
6	966 Chamber room	CM	9*6*6	N/A	May 19, 2025
7	Positioning Controller	MF	MF-7802	N/A	N/A
8	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	May 31, 2025
2	Attenuator	Talent Microwave	TA10A0-S-26.5	N/A	N/A
3	DC Block	N/A	N/A	N/A	N/A
4	Measurement Software	BTL	BTL Conducted Test	N/A	N/A

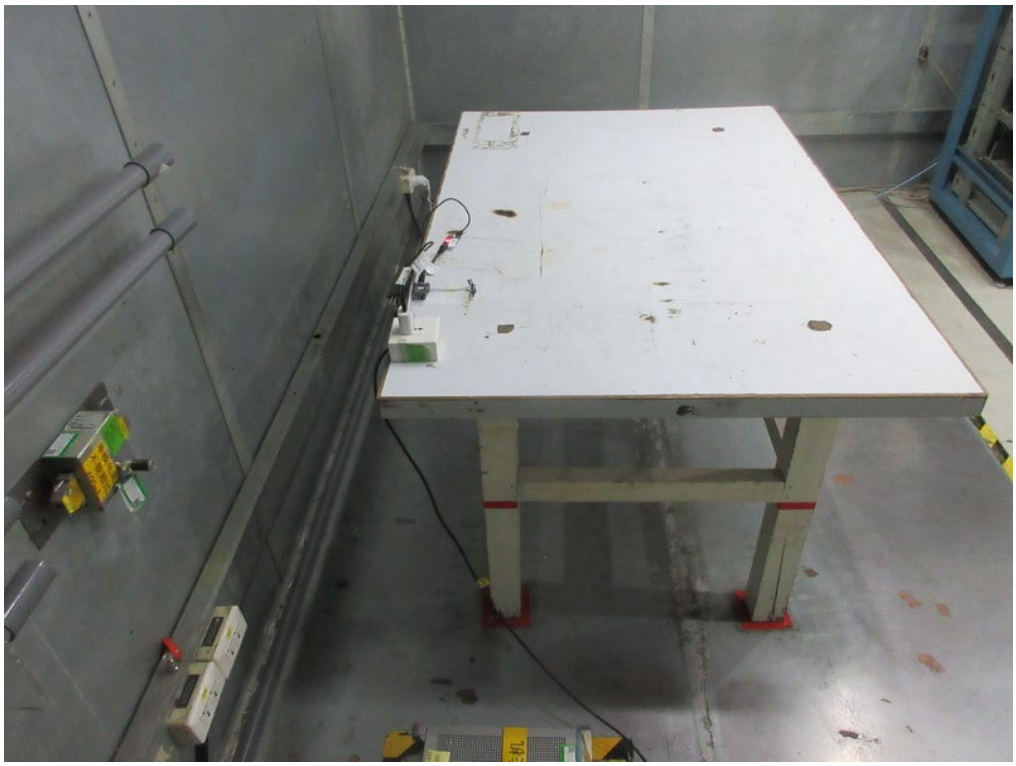
Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Attenuator	RegalWay	RWA-201-S-10	NA	Sep. 26, 2024
2	Power sensors	MA24408A	12592	NA	Dec. 22, 2024
3	MA24400A PEAK POWER ANALYZER	VERSION 1.1.0.0	N/A	N/A	N/A

Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	May 31, 2025
2	Attenuator	Talent Microwave	TA10A0-S-26.5	N/A	N/A
3	DC Block	N/A	N/A	N/A	N/A
4	Measurement Software	BTL	BTL Conducted Test	N/A	N/A
5	Desktop Constant Temperature Chamber	BELL	BTH-50C	20170306001	Jan. 19, 2025
6	DC power supply	UNI-T	UDP6721	AWP7224050031	Mar. 20, 2025
7	Cable	Woke	S02-190515-03	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.

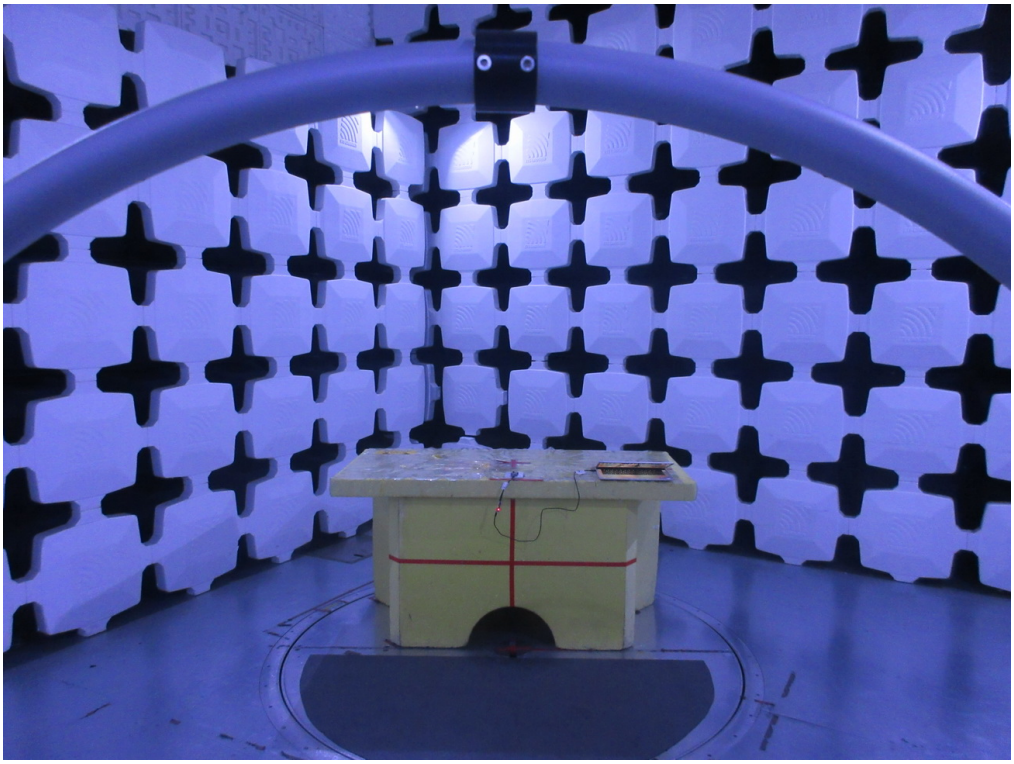
11. EUT TEST PHOTOS

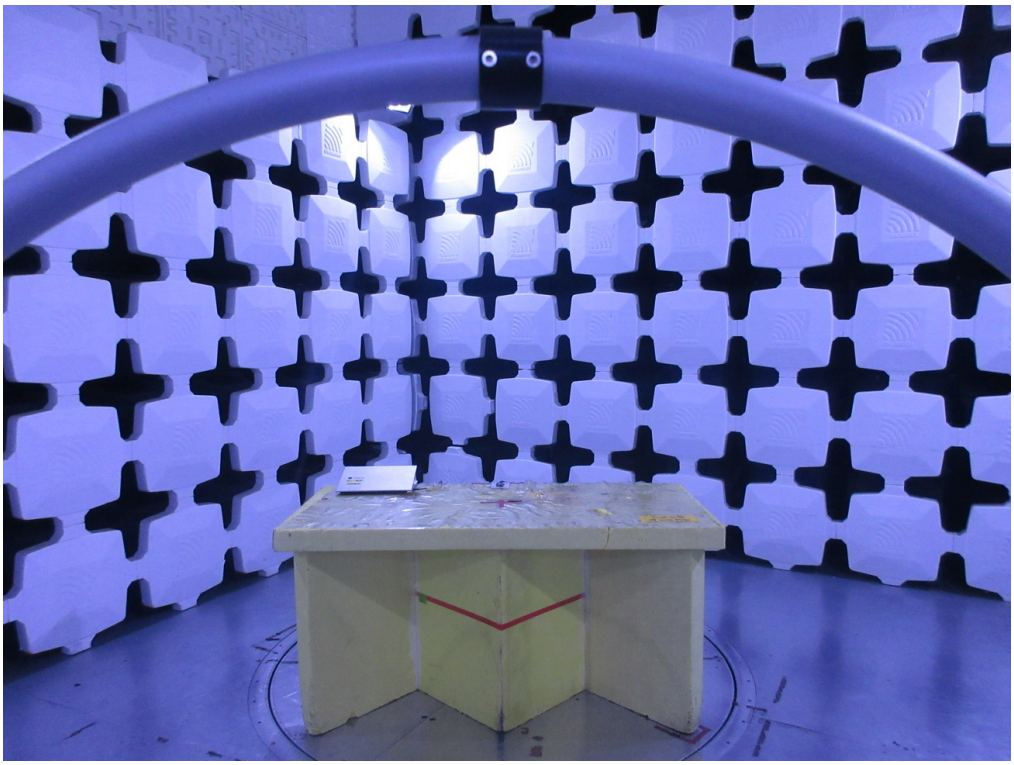
AC Power Line Conducted Emissions Test Photos



Radiated Emissions Test Photos

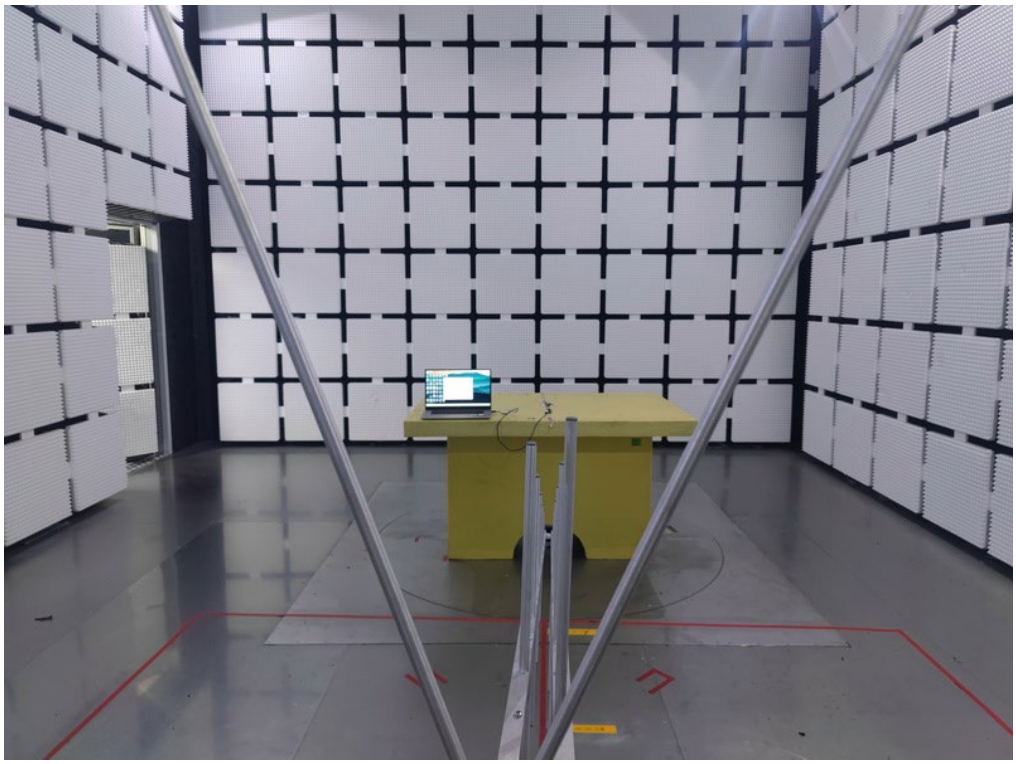
9 kHz to 30 MHz

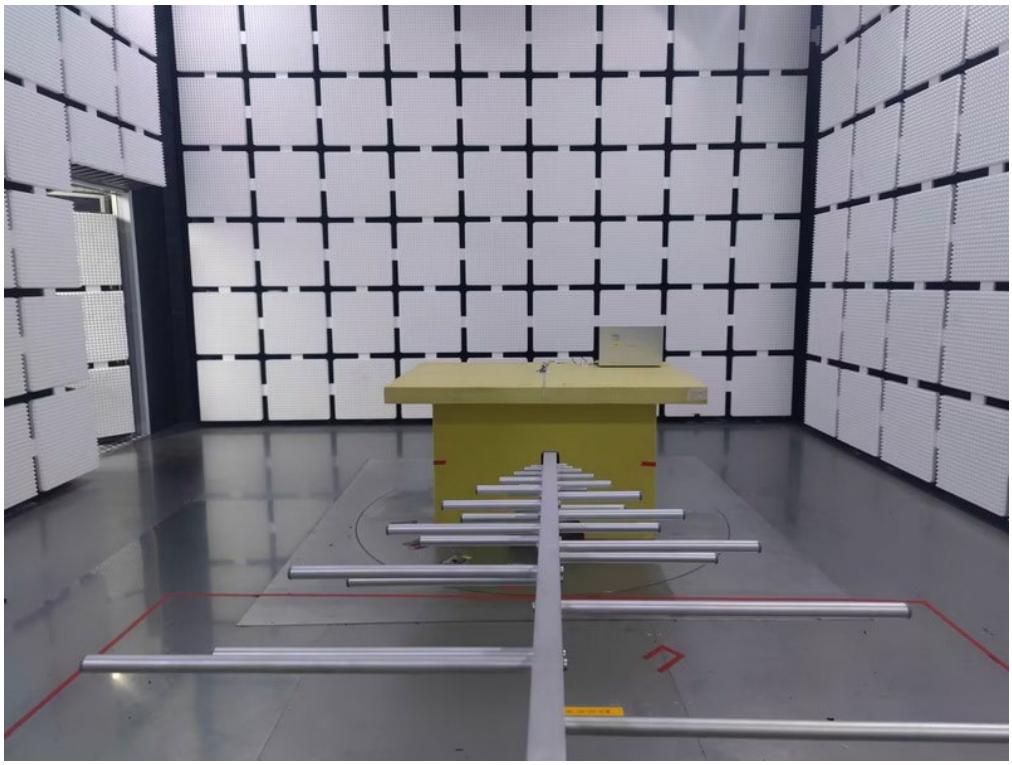




Radiated Emissions Test Photos

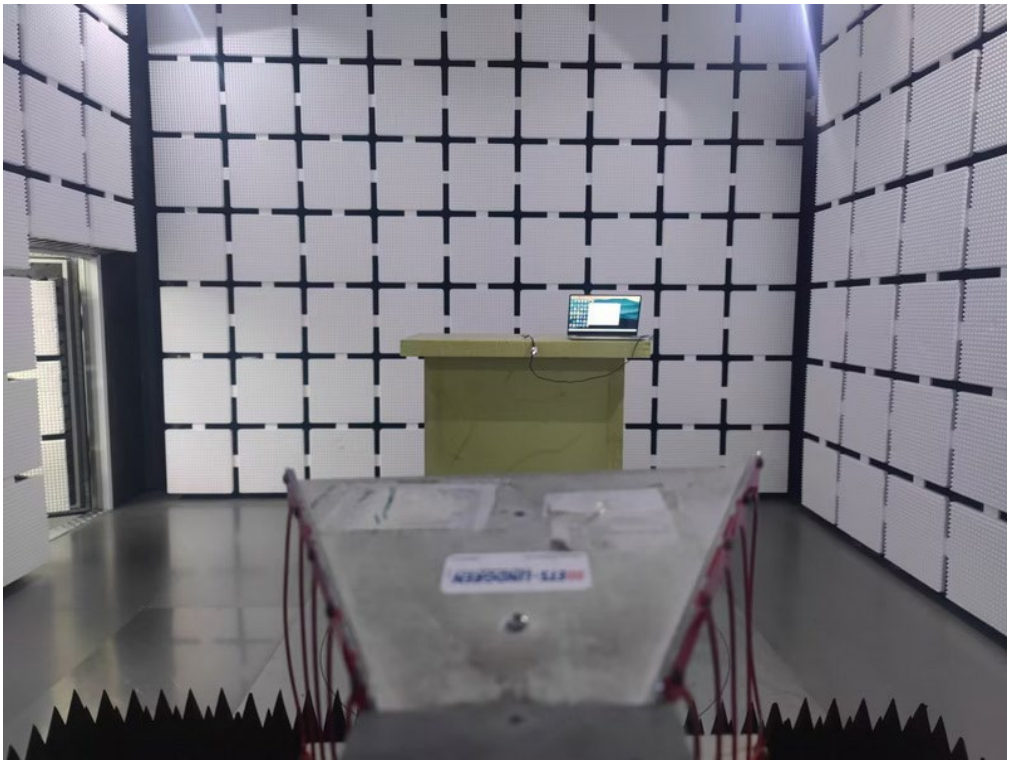
30 MHz to 1000 MHz

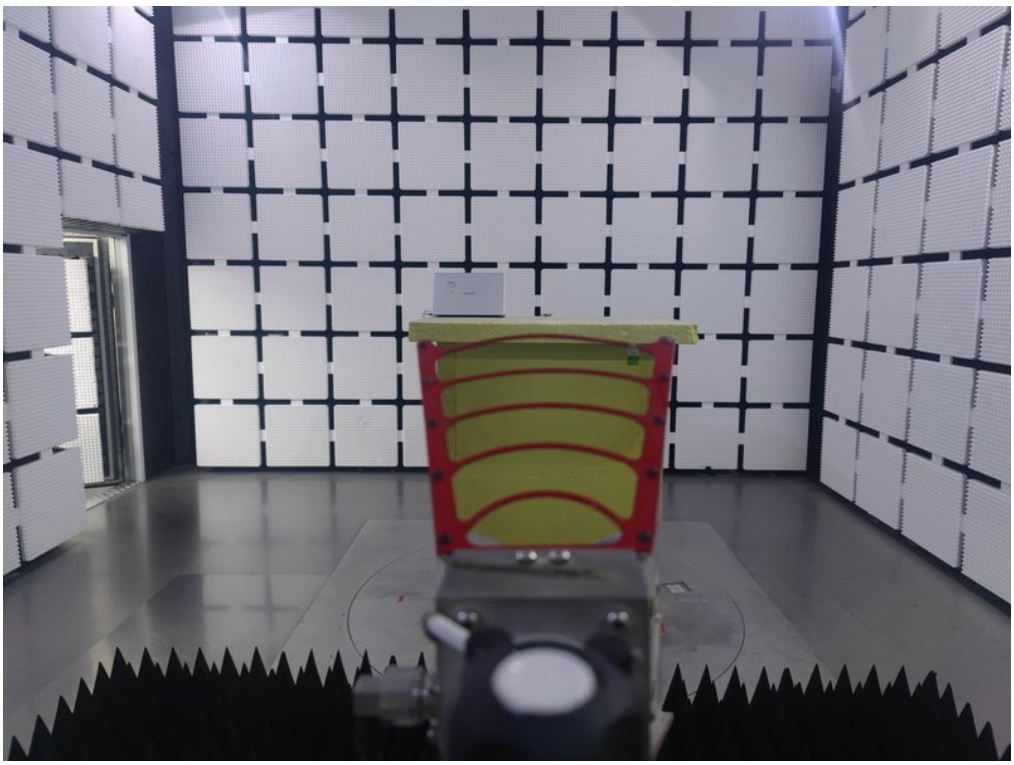




Radiated Emissions Test Photos

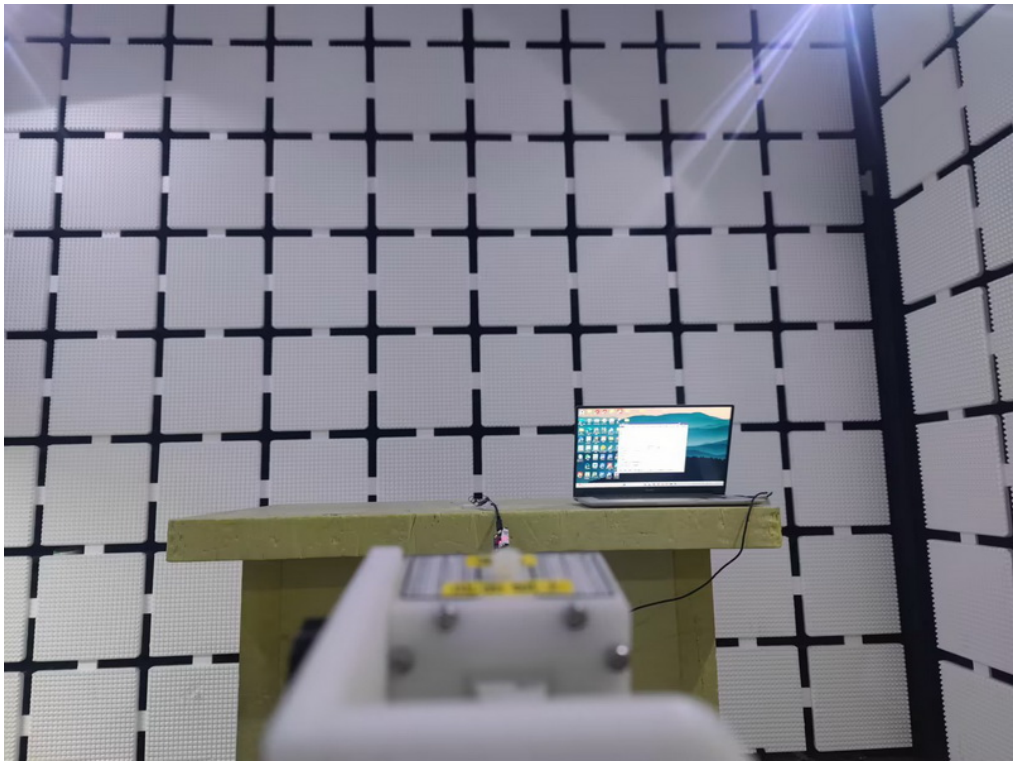
Above 1 GHz_Band edge & Harmonic (1 GHz to 18 GHz)

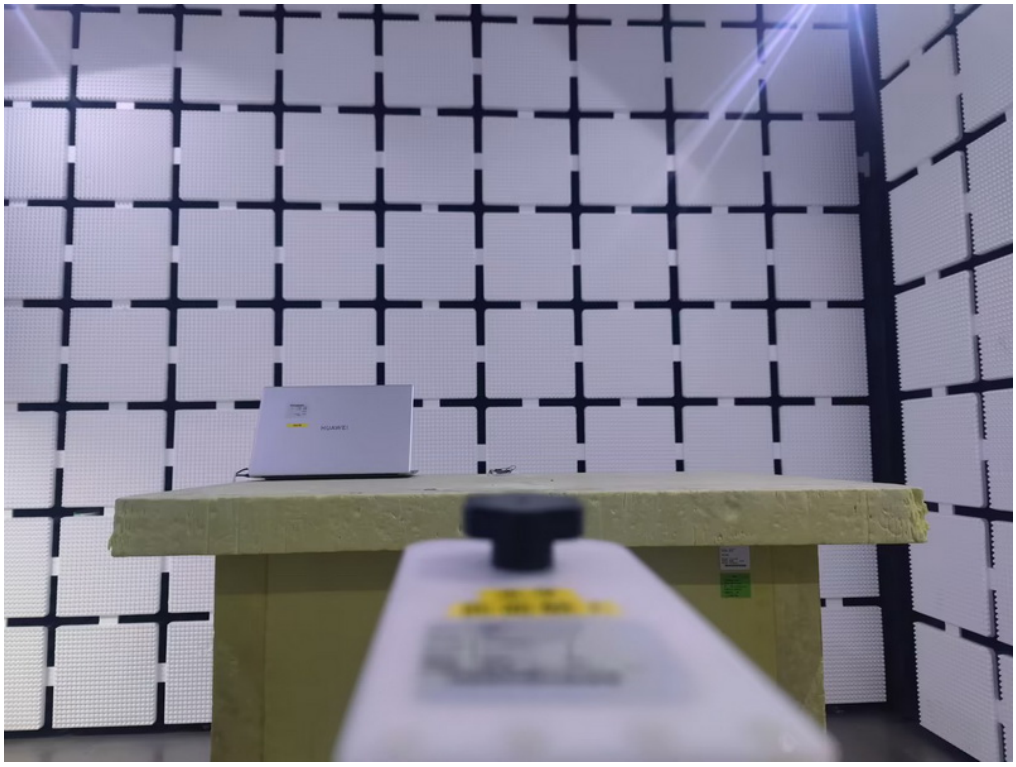




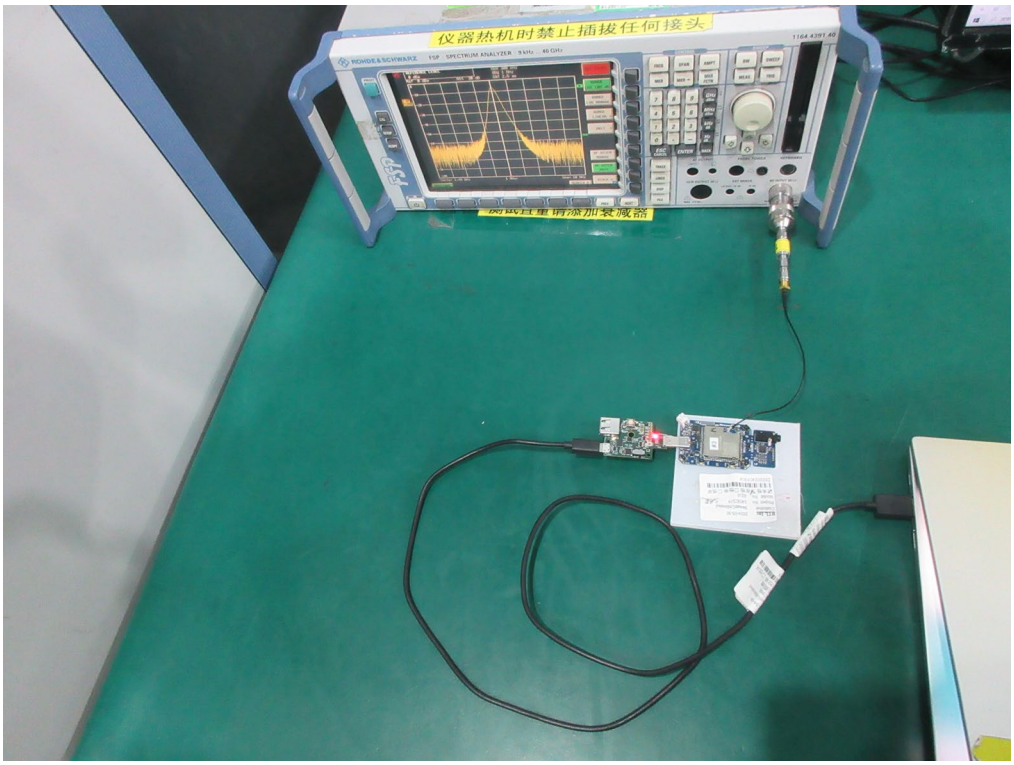
Radiated Emissions Test Photos

Above 1 GHz_Harmonic (18 GHz to 26.5 GHz)



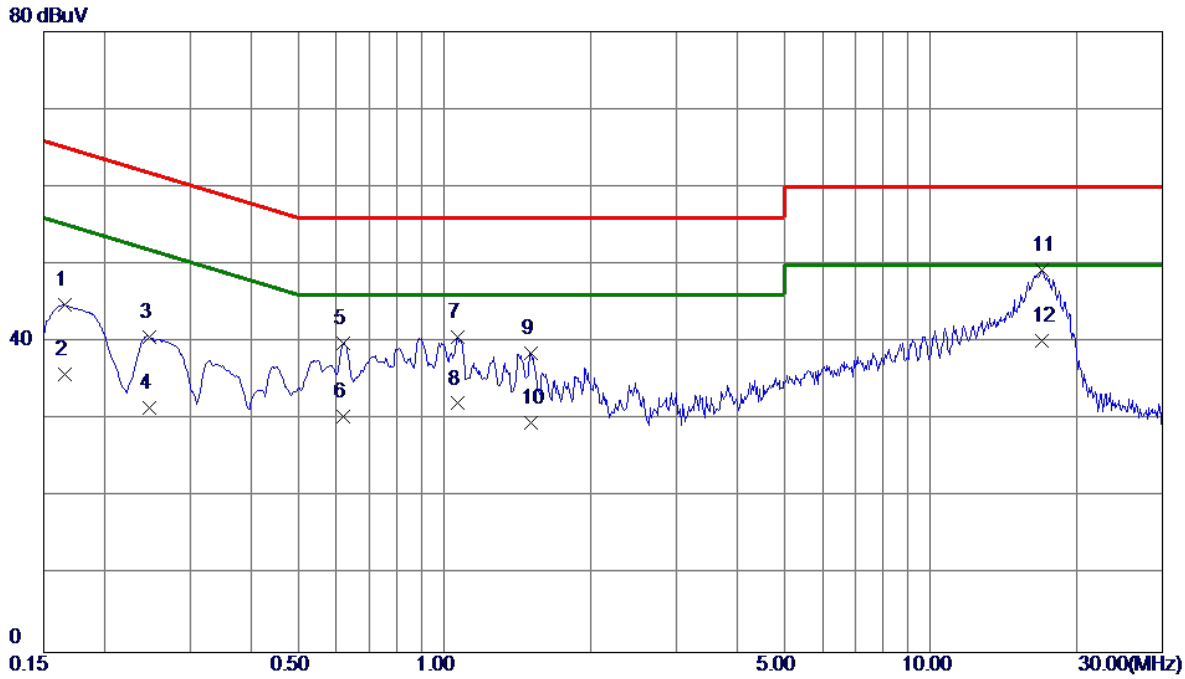


Conducted Test Photos



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

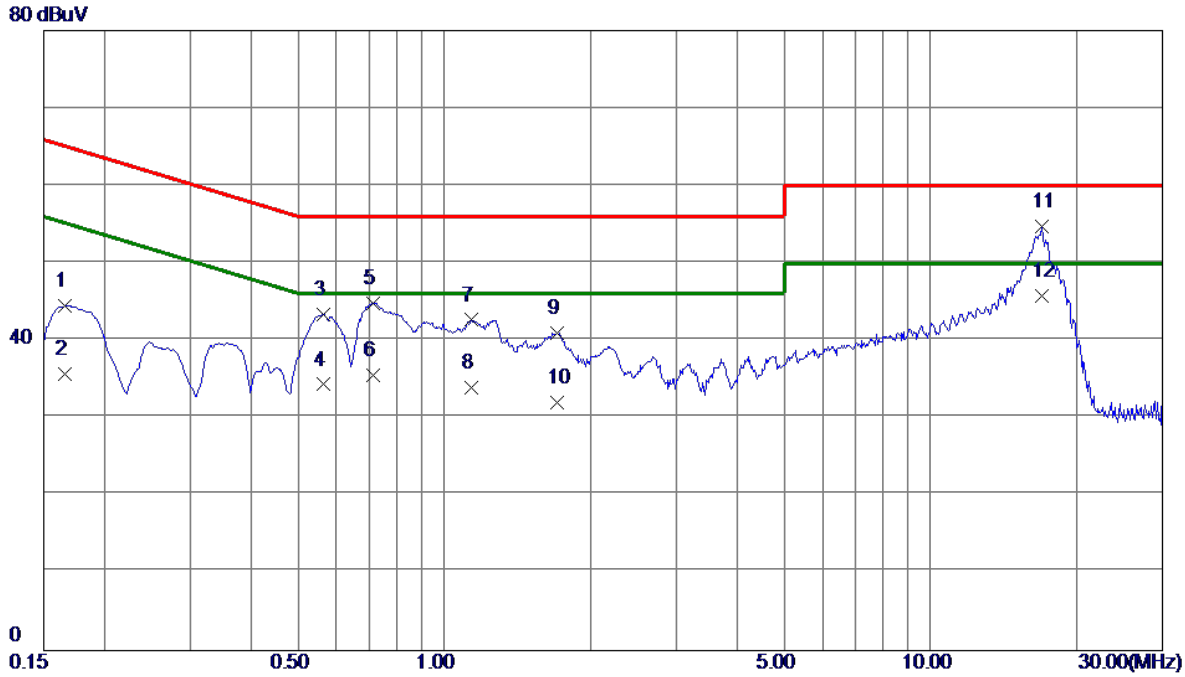
Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Phase	Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1658	34.77	9.97	44.74	65.17	-20.43	QP	
2	0.1658	25.90	9.97	35.87	55.17	-19.30	AVG	
3	0.2468	30.63	10.06	40.69	61.86	-21.17	QP	
4	0.2468	21.39	10.06	31.45	51.86	-20.41	AVG	
5	0.6202	28.99	10.86	39.85	56.00	-16.15	QP	
6	0.6202	19.50	10.86	30.36	46.00	-15.64	AVG	
7	1.0635	29.41	11.28	40.69	56.00	-15.31	QP	
8	1.0635	20.80	11.28	32.08	46.00	-13.92	AVG	
9	1.5045	27.28	11.26	38.54	56.00	-17.46	QP	
10	1.5045	18.31	11.26	29.57	46.00	-16.43	AVG	
11	16.9035	35.74	13.50	49.24	60.00	-10.76	QP	
12 *	16.9035	26.61	13.50	40.11	50.00	-9.89	AVG	

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

Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Phase	Neutral

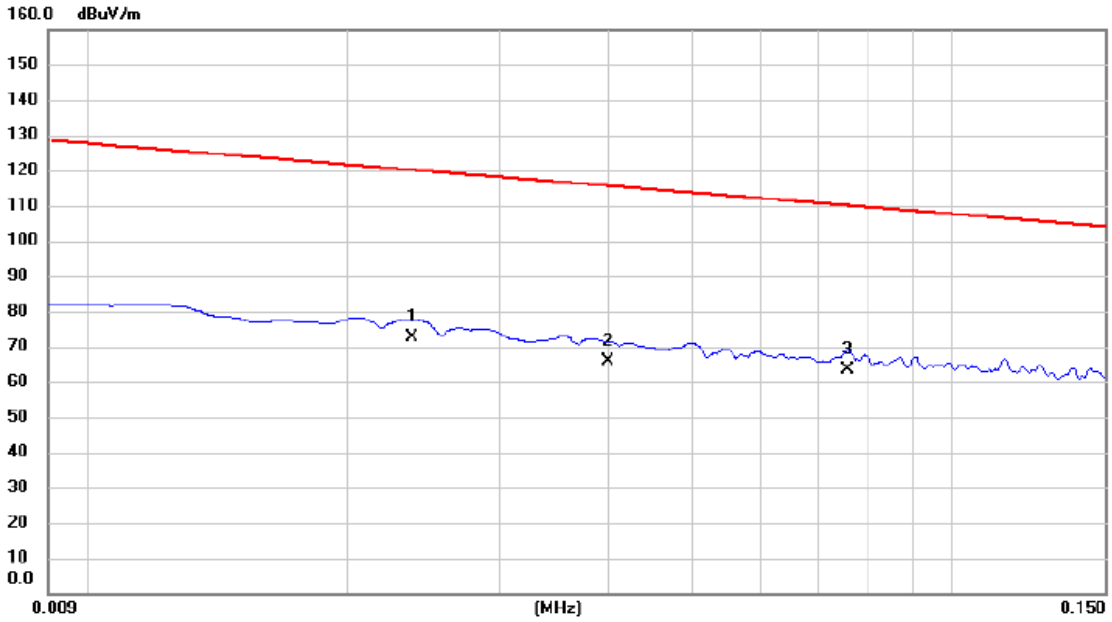


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1658	34.58	9.93	44.51	65.17	-20.66	QP	
2	0.1658	25.80	9.93	35.73	55.17	-19.44	AVG	
3	0.5639	32.67	10.72	43.39	56.00	-12.61	QP	
4	0.5639	23.60	10.72	34.32	46.00	-11.68	AVG	
5	0.7125	33.87	10.96	44.83	56.00	-11.17	QP	
6	0.7125	24.50	10.96	35.46	46.00	-10.54	AVG	
7	1.1377	31.38	11.26	42.64	56.00	-13.36	QP	
8	1.1377	22.69	11.26	33.95	46.00	-12.05	AVG	
9	1.7070	29.92	11.09	41.01	56.00	-14.99	QP	
10	1.7070	20.90	11.09	31.99	46.00	-14.01	AVG	
11	16.9440	41.25	13.46	54.71	60.00	-5.29	QP	
12 *	16.9440	32.30	13.46	45.76	50.00	-4.24	AVG	

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

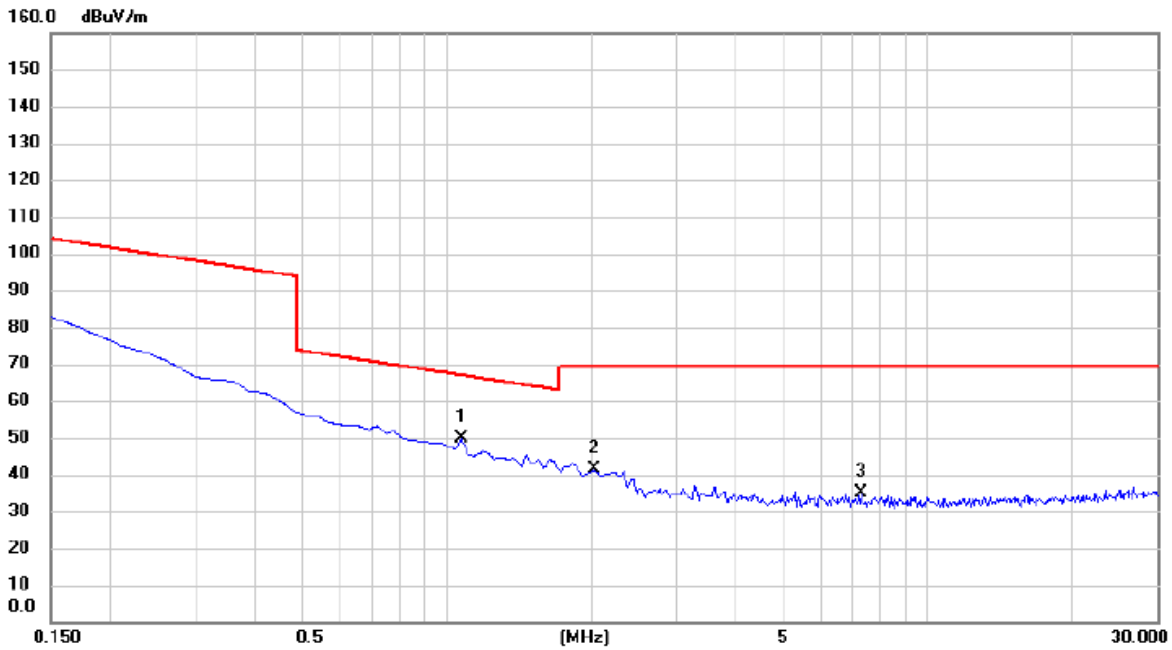
Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0237	51.72	20.91	72.63	120.11	-47.48	AVG	
2		0.0400	44.76	21.15	65.91	115.56	-49.65	AVG	
3	*	0.0757	42.14	21.29	63.43	110.02	-46.59	AVG	

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

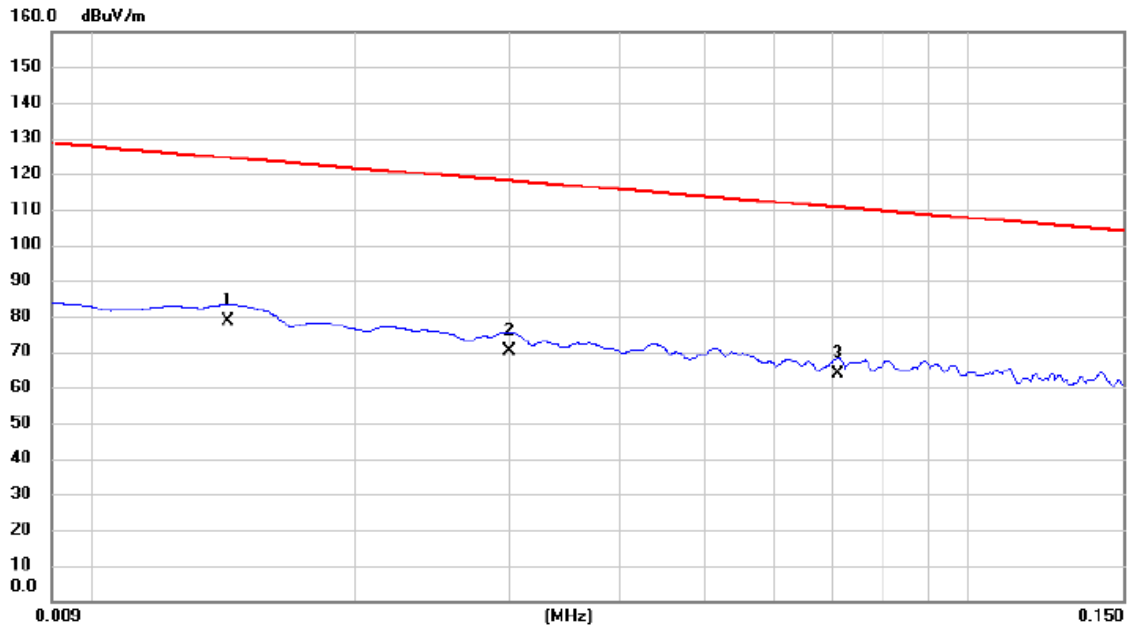
Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	1.0754	28.53	21.16	49.69	66.97	-17.28	QP	
2		2.0305	20.13	21.09	41.22	69.54	-28.32	QP	
3		7.2842	13.64	21.17	34.81	69.54	-34.73	QP	

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

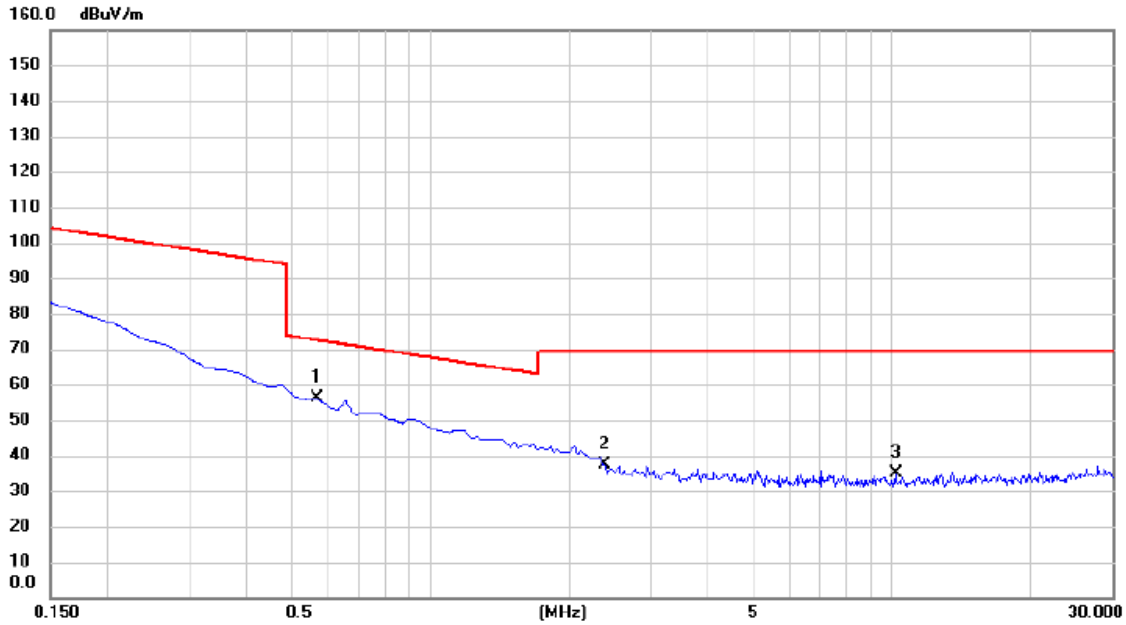
Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0143	58.03	20.63	78.66	124.50	-45.84	AVG	
2		0.0300	49.03	21.10	70.13	118.06	-47.93	AVG	
3		0.0710	42.36	21.27	63.63	110.58	-46.95	AVG	

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

Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Ant 90°

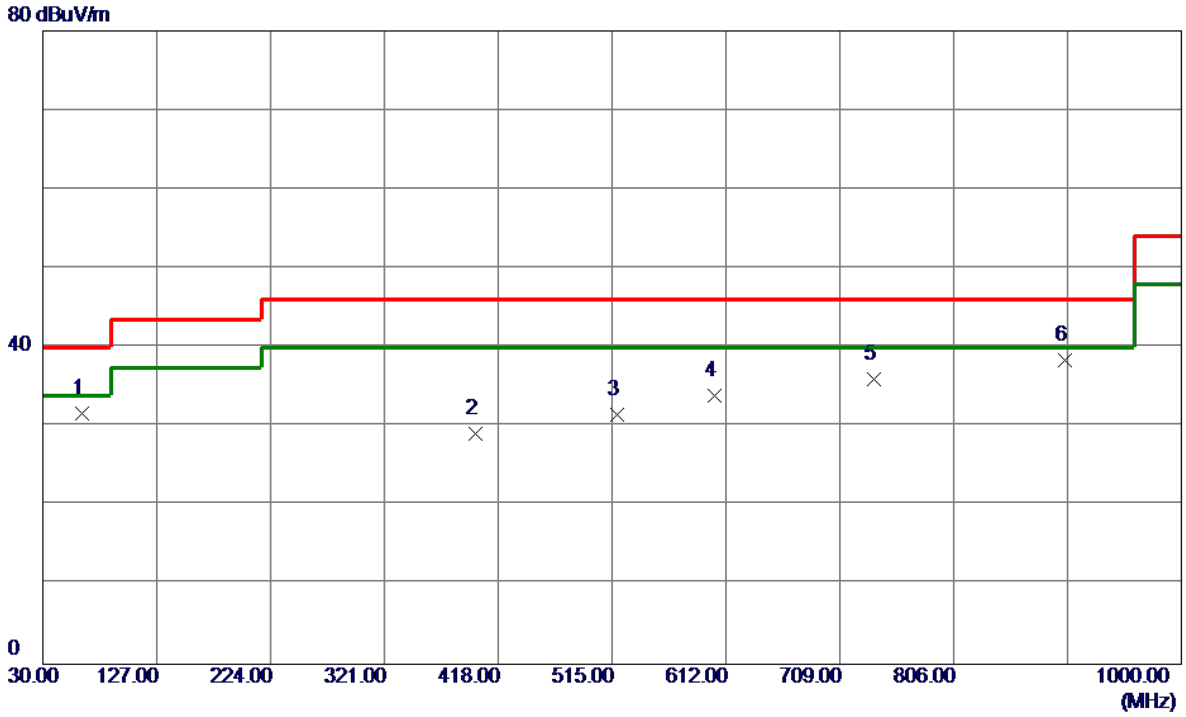


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.5680	35.08	21.07	56.15	72.52	-16.37	QP	
2		2.3887	16.29	21.10	37.39	69.54	-32.15	QP	
3		10.2094	13.94	21.20	35.14	69.54	-34.40	QP	

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

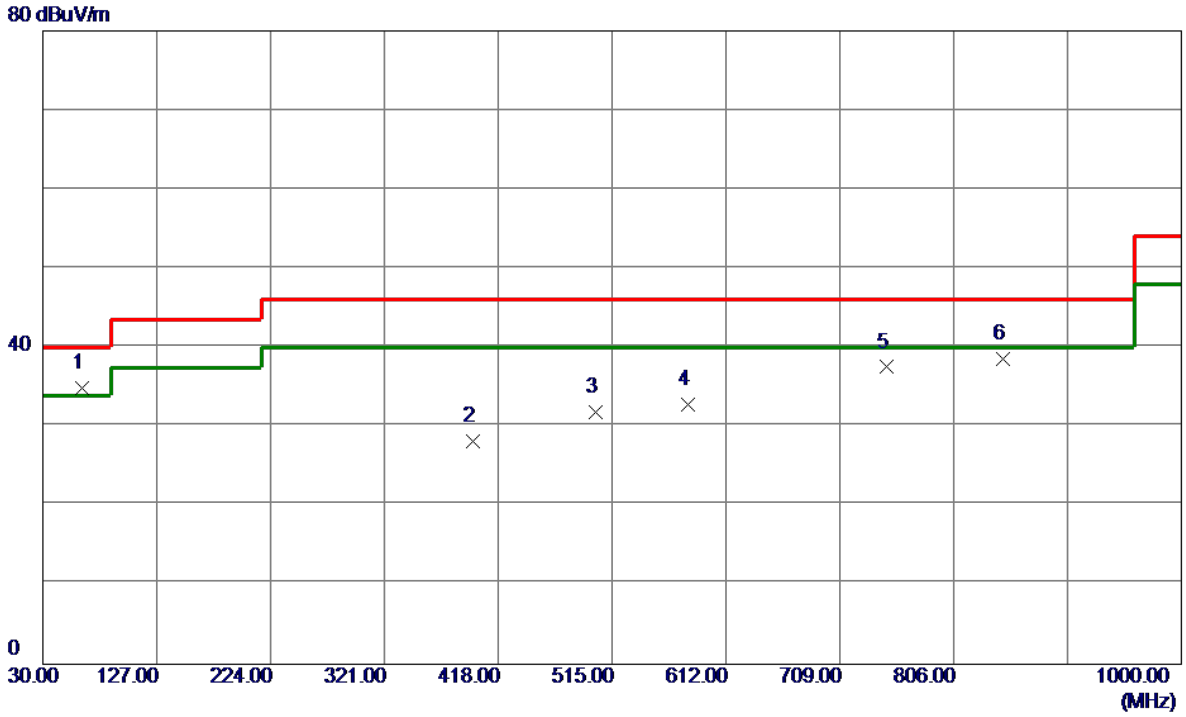
Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	62.9800	44.13	-12.38	31.75	40.00	-8.25	Peak	
2	399.0850	37.00	-7.90	29.10	46.00	-16.90	Peak	
3	518.8800	36.94	-5.45	31.49	46.00	-14.51	Peak	
4	602.3000	37.31	-3.40	33.91	46.00	-12.09	Peak	
5	737.6150	37.27	-1.24	36.03	46.00	-9.97	Peak	
6 *	900.5750	38.00	0.38	38.38	46.00	-7.62	Peak	

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

Test Mode	TX AC(VHT20) Mode Channel 165 (UNII-3)	Polarization	Horizontal

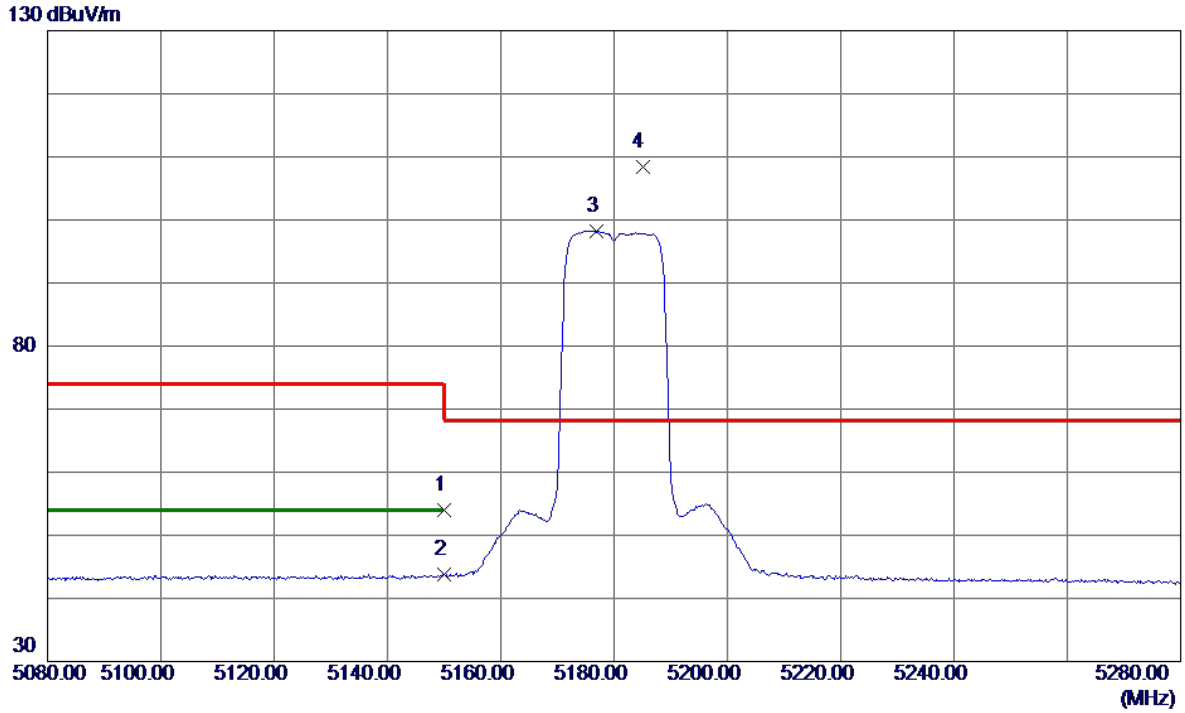


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	62.9800	47.29	-12.38	34.91	40.00	-5.09	Peak	
2	396.1750	36.11	-7.96	28.15	46.00	-17.85	Peak	
3	501.4200	37.68	-5.80	31.88	46.00	-14.12	Peak	
4	579.5050	36.75	-4.00	32.75	46.00	-13.25	Peak	
5	749.2550	38.47	-0.95	37.52	46.00	-8.48	Peak	
6	848.1950	38.82	-0.32	38.50	46.00	-7.50	Peak	

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

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

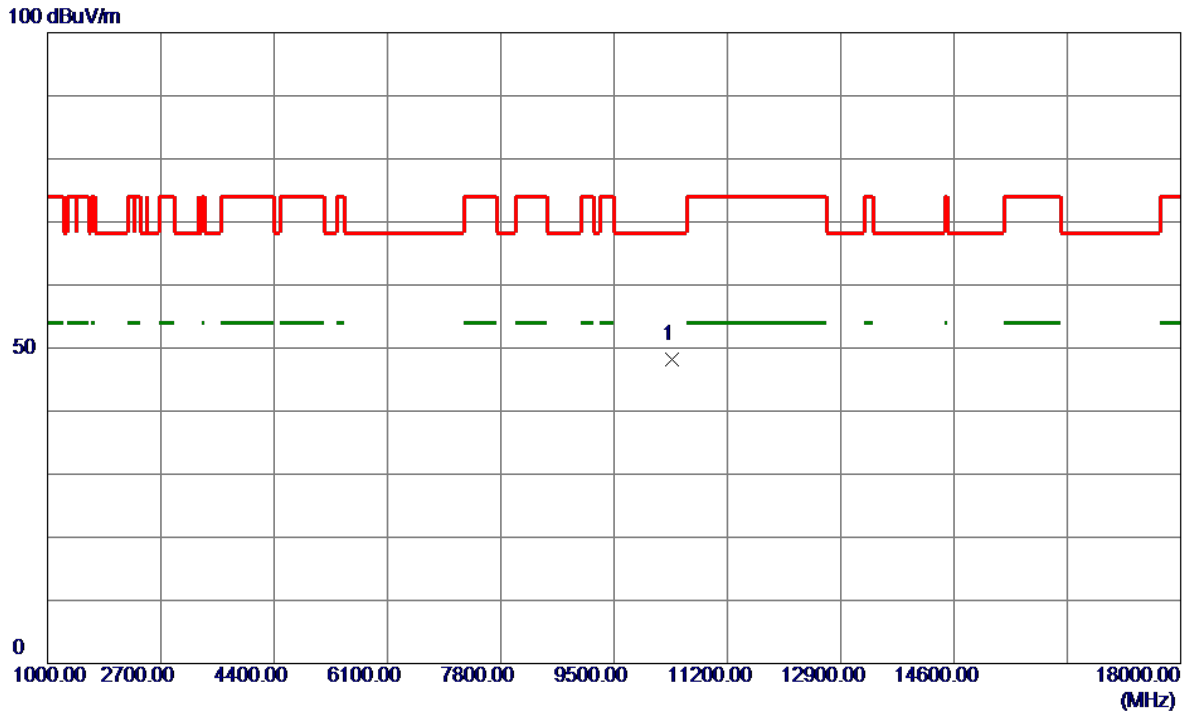
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	39.72	14.21	53.93	74.00	-20.07	Peak	
2	5150.0000	29.51	14.21	43.72	54.00	-10.28	AVG	
3	5176.8000	84.06	14.22	98.28	999.00	-900.72	AVG	No Limit
4 *	5185.0000	94.25	14.22	108.47	68.20	40.27	Peak	No Limit

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

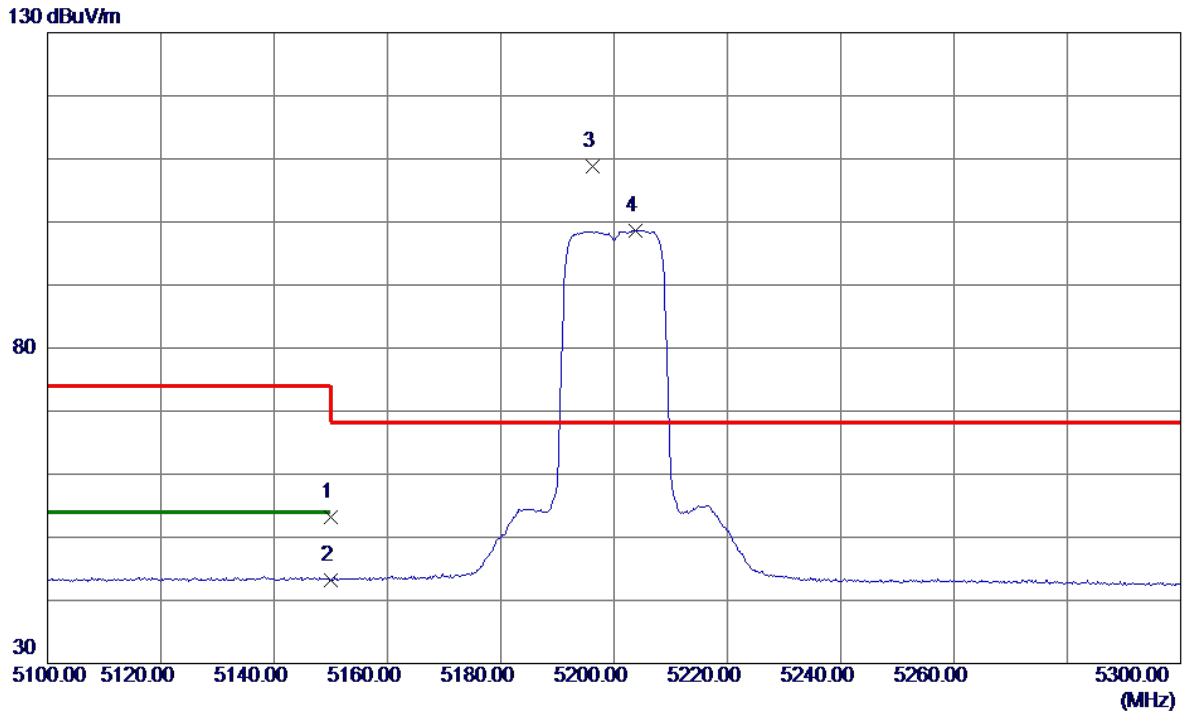
Test Mode	UNII-1_TX A Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10360.0000	38.12	10.05	48.17	68.20	-20.03	Peak	

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

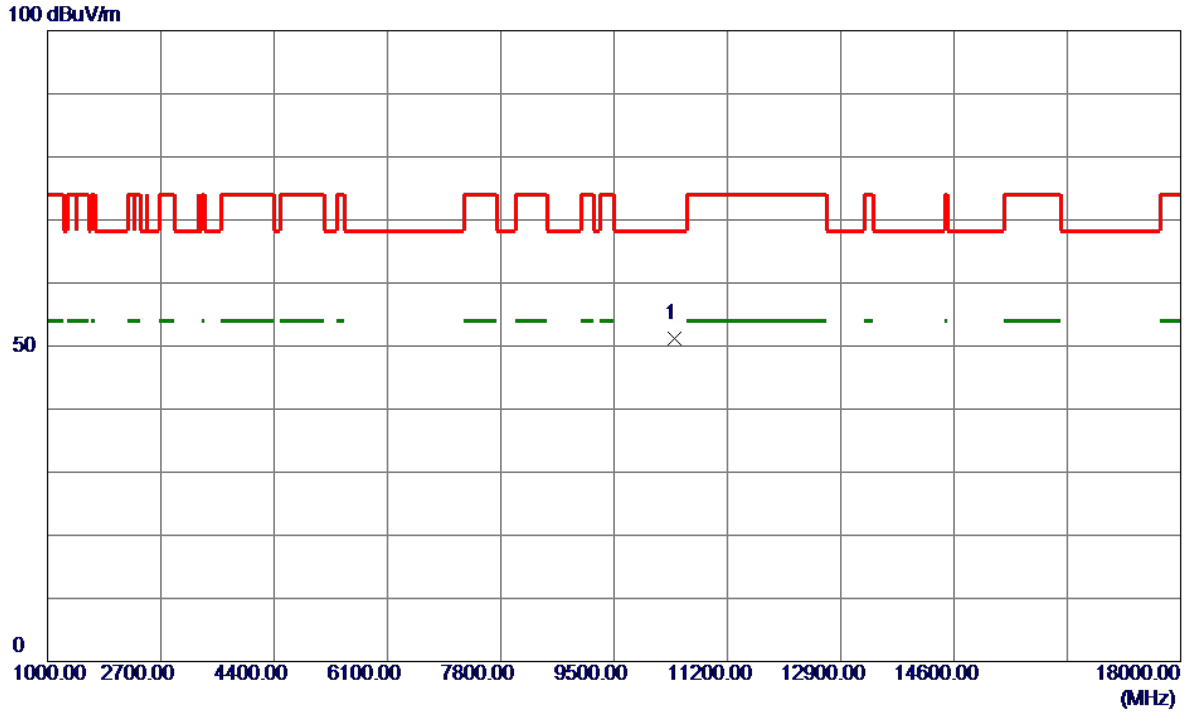
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	38.97	14.21	53.18	74.00	-20.82	Peak	
2	5150.0000	29.06	14.21	43.27	54.00	-10.73	AVG	
3 *	5196.2000	94.65	14.23	108.88	68.20	40.68	Peak	No Limit
4	5203.8000	84.45	14.23	98.68	999.00	-900.32	AVG	No Limit

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

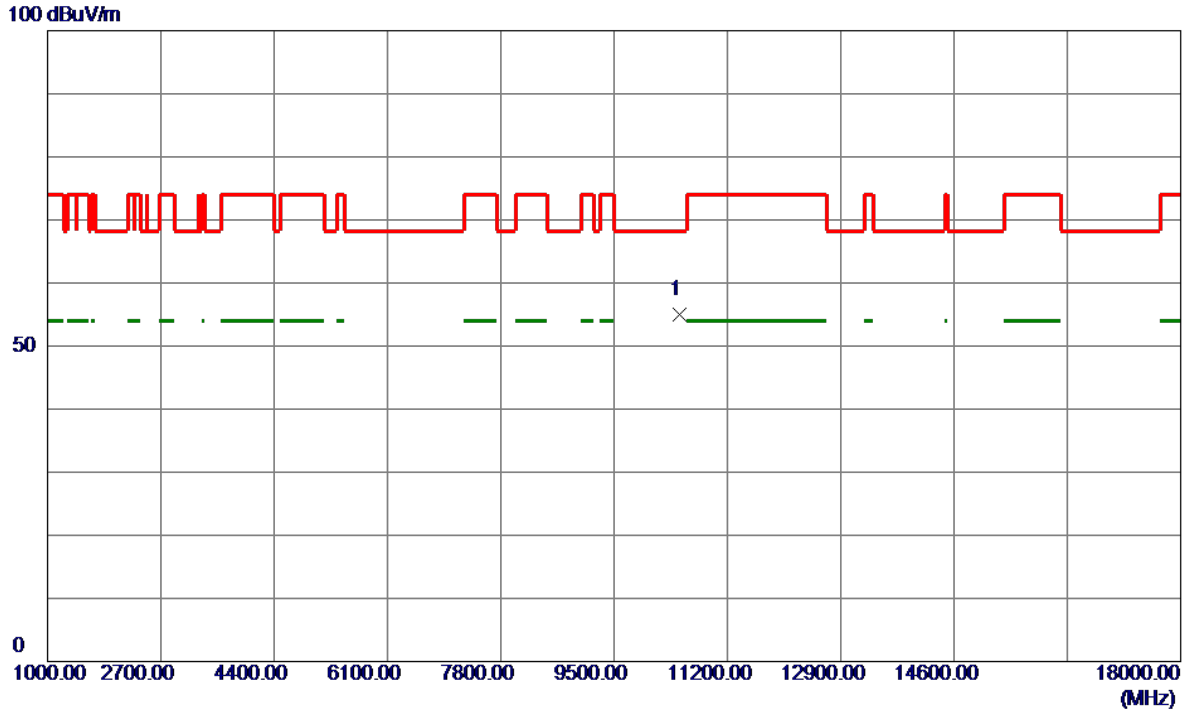
Test Mode	UNII-1_TX A Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10400.0000	41.13	10.02	51.15	68.20	-17.05	Peak	

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

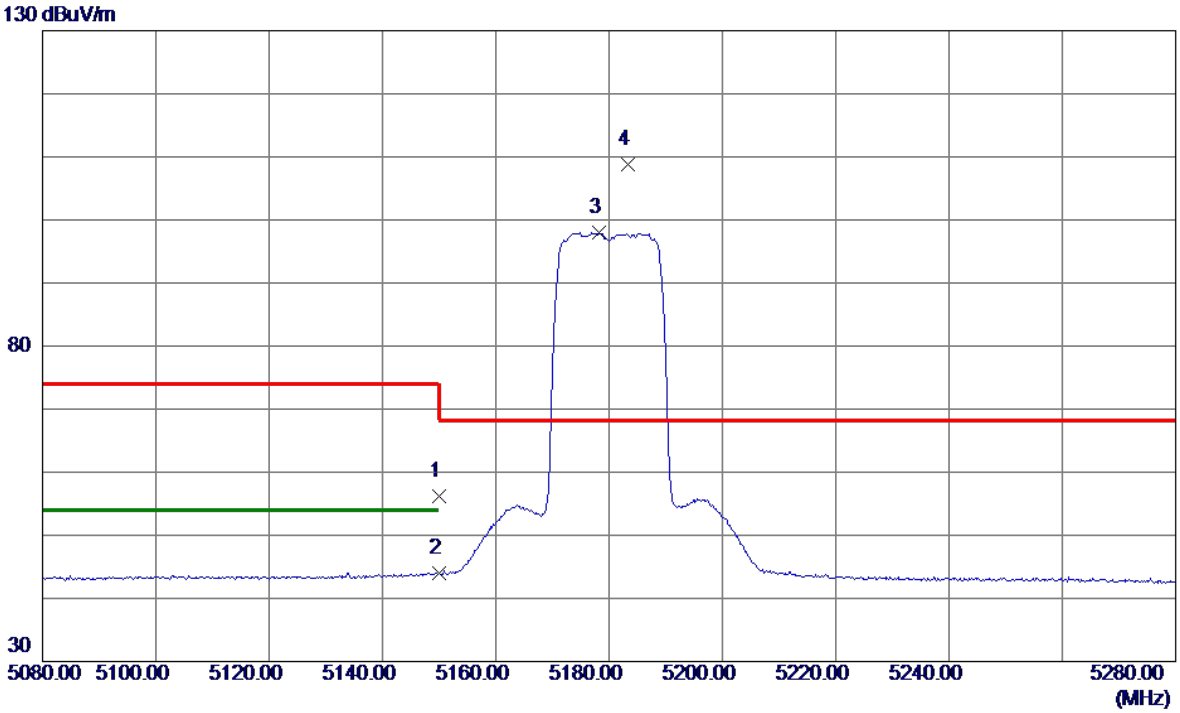
Test Mode	UNII-1_TX A Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10479.9000	45.04	9.97	55.01	68.20	-13.19	Peak	

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

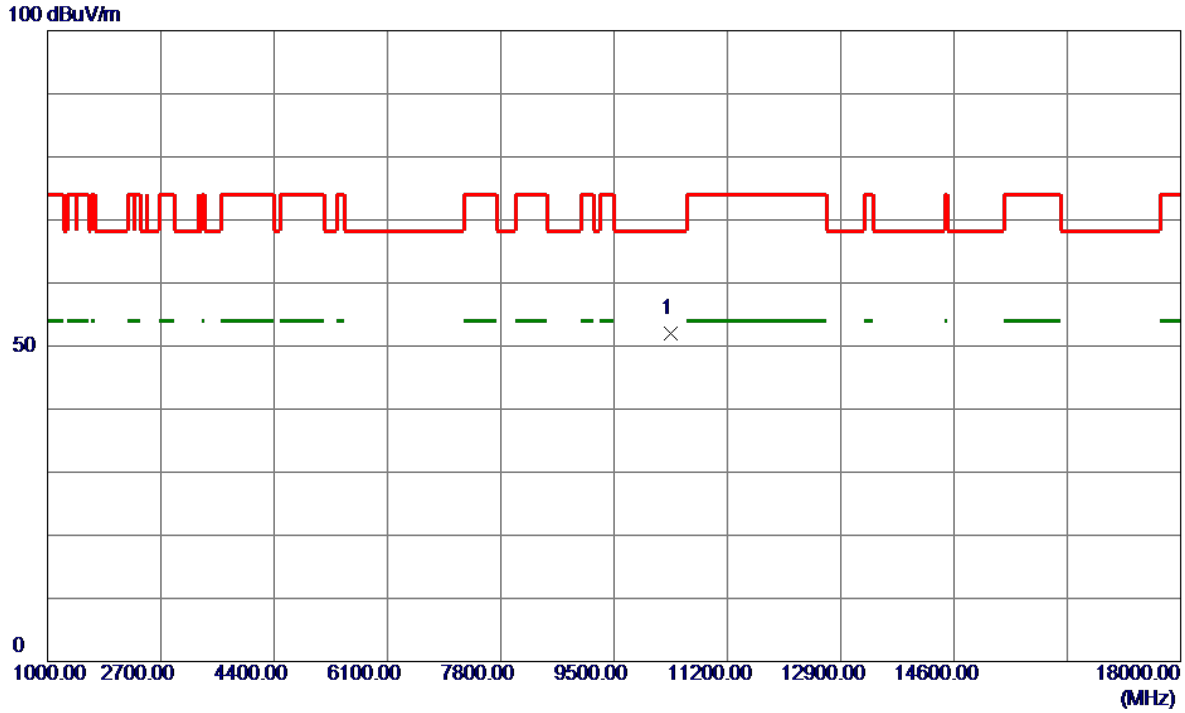
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	41.96	14.21	56.17	74.00	-17.83	Peak	
2	5150.0000	29.75	14.21	43.96	54.00	-10.04	AVG	
3	5178.2000	83.69	14.22	97.91	999.00	-901.09	AVG	No Limit
4 *	5183.4000	94.58	14.22	108.80	68.20	40.60	Peak	No Limit

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

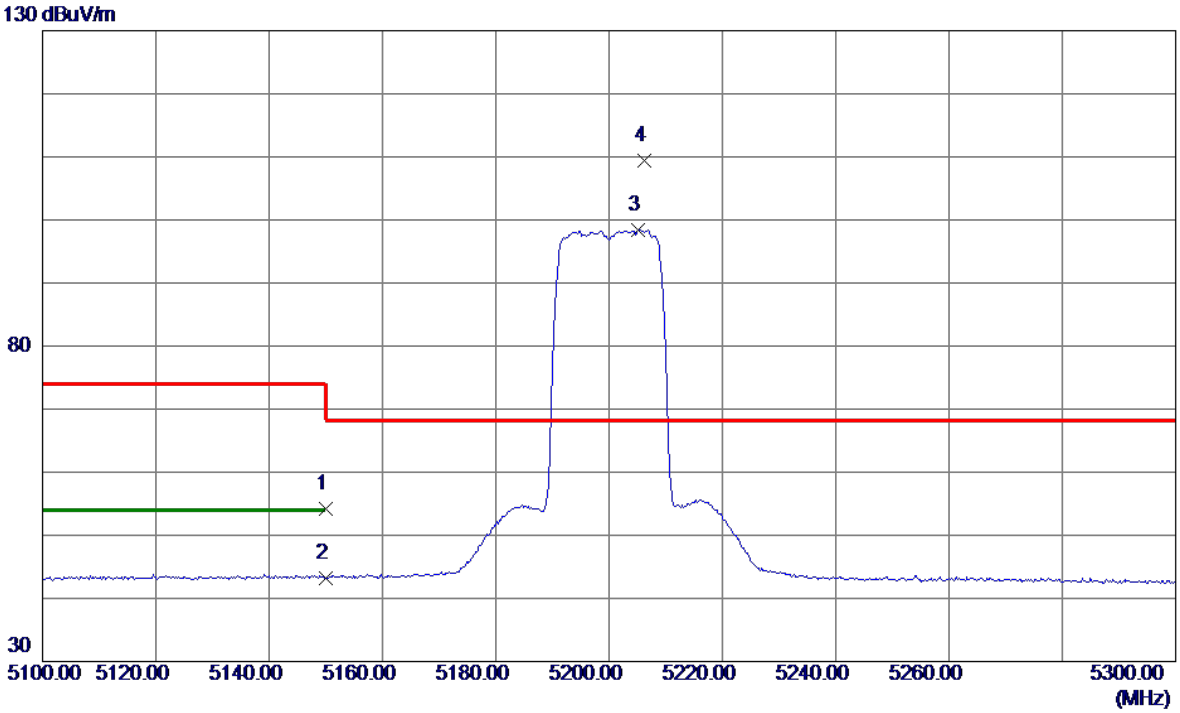
Test Mode	UNII-1_TX AC(VHT20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10358.6500	42.04	10.05	52.09	68.20	-16.11	Peak	

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

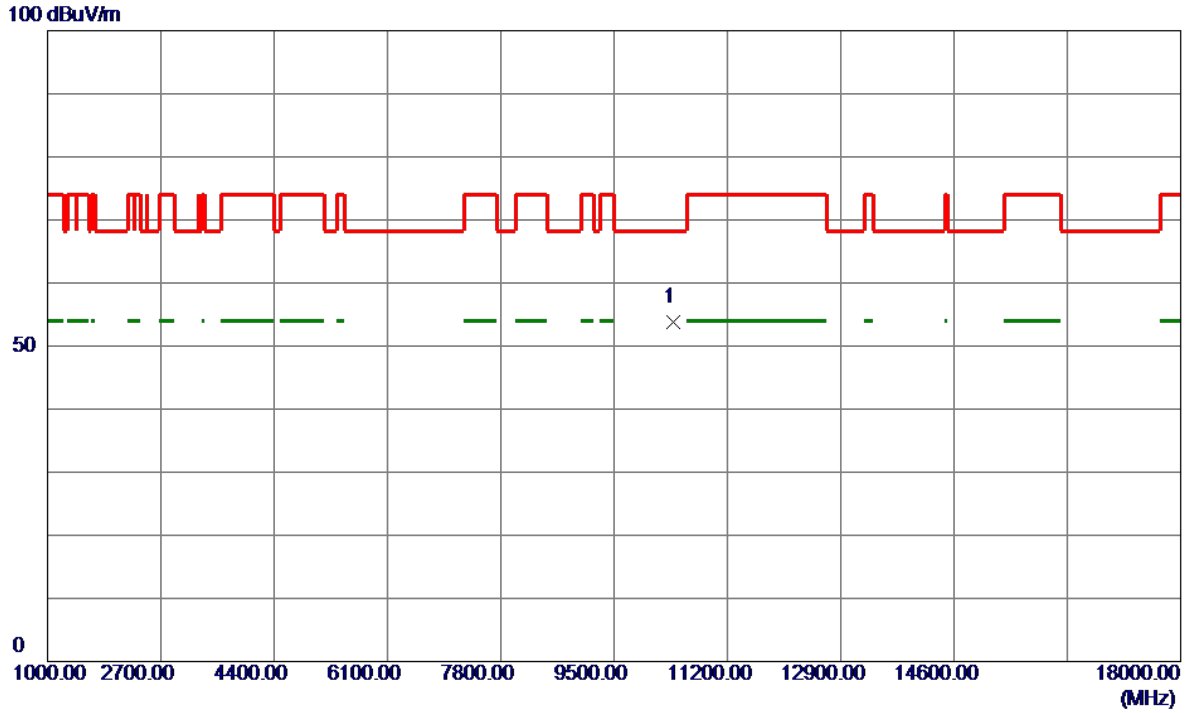
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	39.95	14.21	54.16	74.00	-19.84	Peak	
2	5150.0000	29.03	14.21	43.24	54.00	-10.76	AVG	
3	5205.2000	84.18	14.23	98.41	999.00	-900.59	AVG	No Limit
4 *	5206.2000	95.08	14.23	109.31	68.20	41.11	Peak	No Limit

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

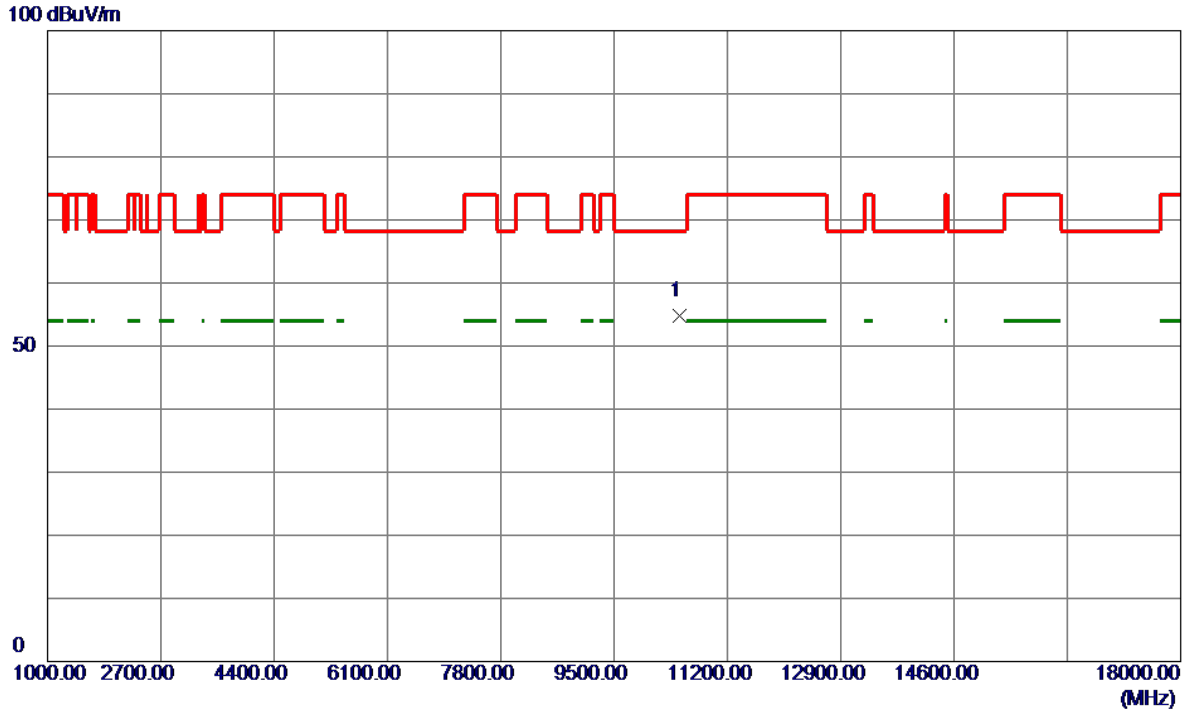
Test Mode	UNII-1_TX AC(VHT20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10396.4000	43.74	10.02	53.76	68.20	-14.44	Peak	

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

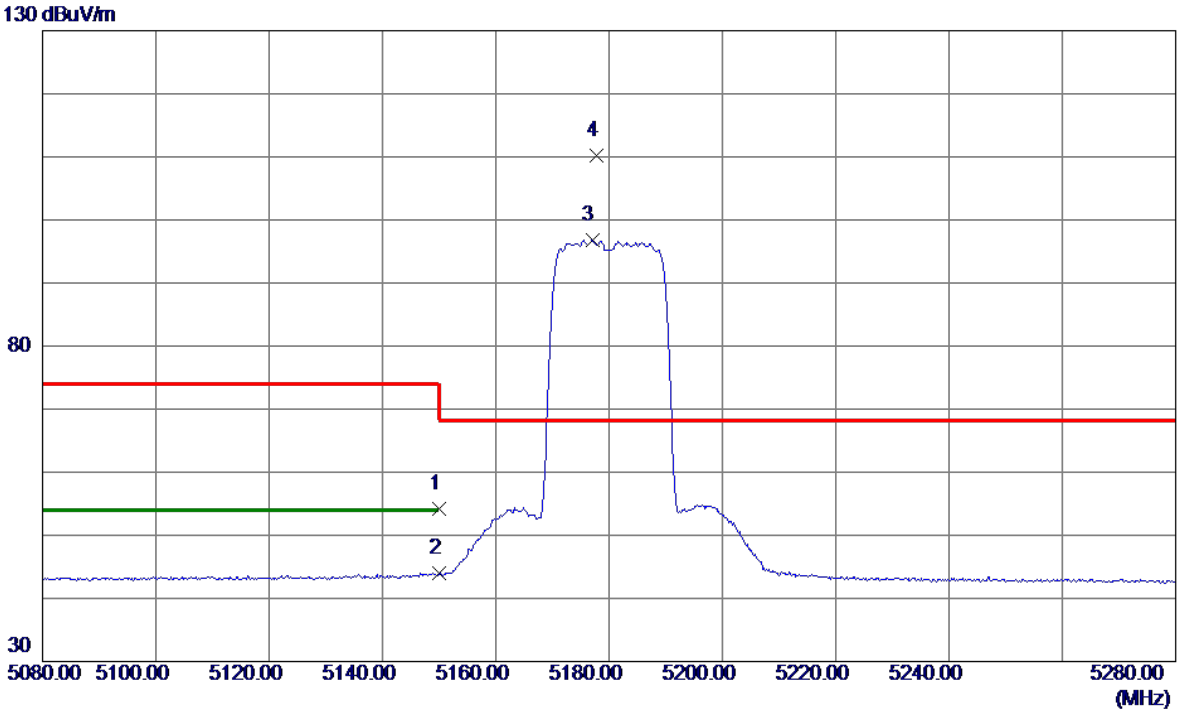
Test Mode	UNII-1_TX AC(VHT20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10480.4500	44.91	9.97	54.88	68.20	-13.32	Peak	

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

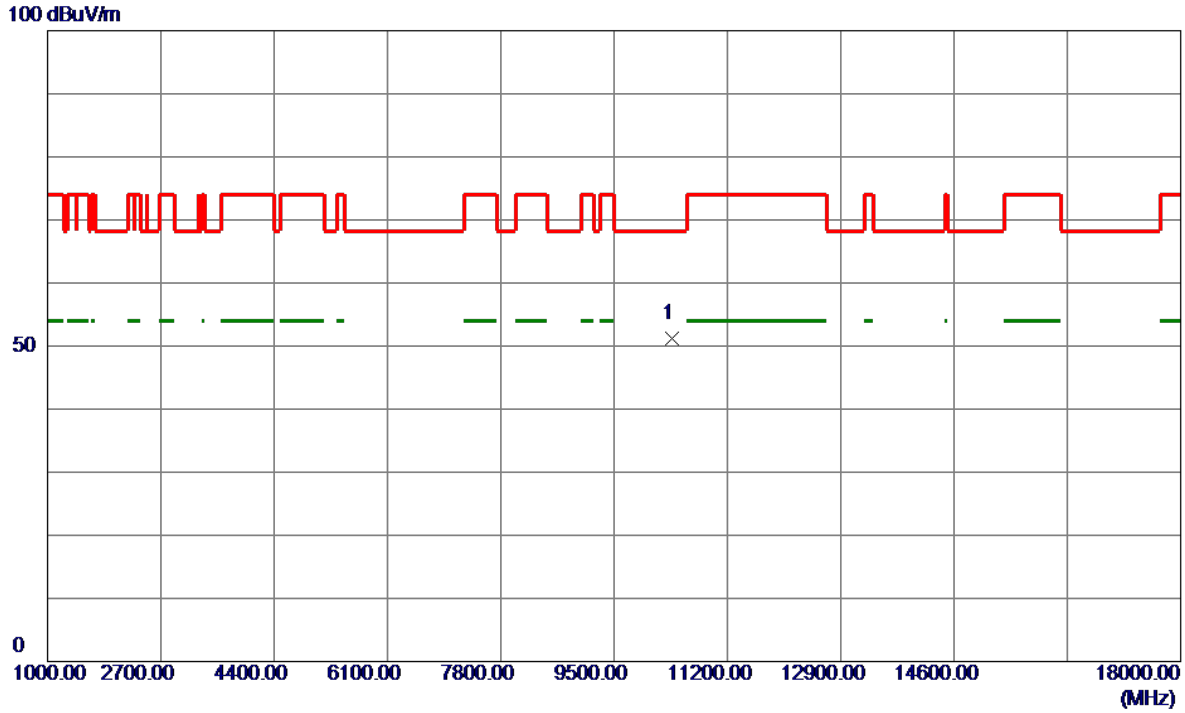
Test Mode	UNII-1_TX AX(HE20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	40.06	14.21	54.27	74.00	-19.73	Peak	
2	5150.0000	29.76	14.21	43.97	54.00	-10.03	AVG	
3	5177.0000	82.52	14.22	96.74	999.00	-902.26	AVG	No Limit
4 *	5177.8000	96.00	14.22	110.22	68.20	42.02	Peak	No Limit

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

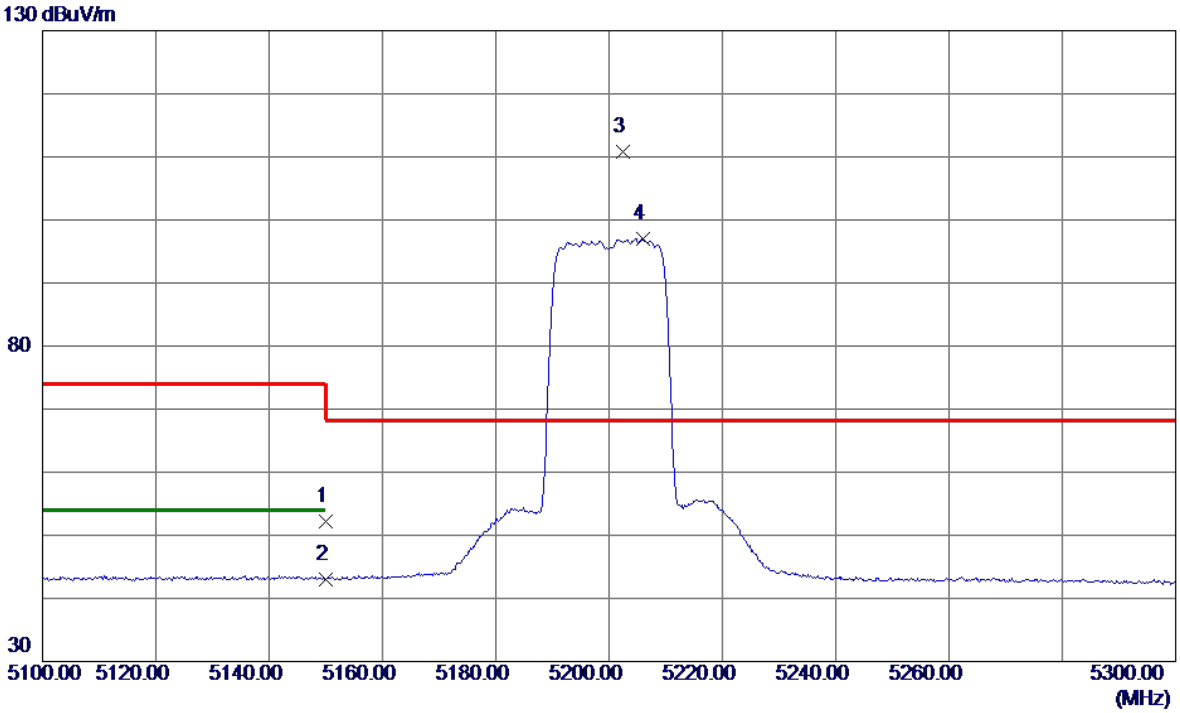
Test Mode	UNII-1_TX AX(HE20) Mode 5180 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10363.3000	41.20	10.04	51.24	68.20	-16.96	Peak	

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

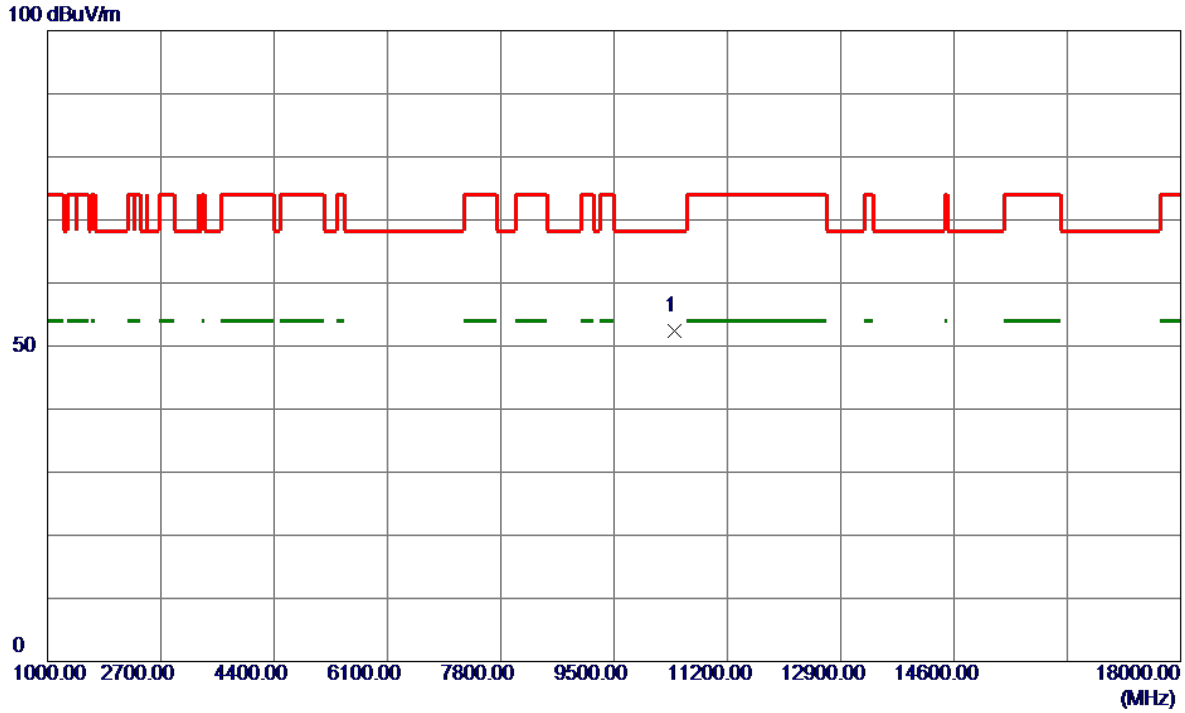
Test Mode	UNII-1_TX AX(HE20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5150.0000	37.90	14.21	52.11	74.00	-21.89	Peak	
2	5150.0000	28.75	14.21	42.96	54.00	-11.04	AVG	
3 *	5202.4000	96.64	14.23	110.87	68.20	42.67	Peak	No Limit
4	5206.0000	82.77	14.23	97.00	999.00	-902.00	AVG	No Limit

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

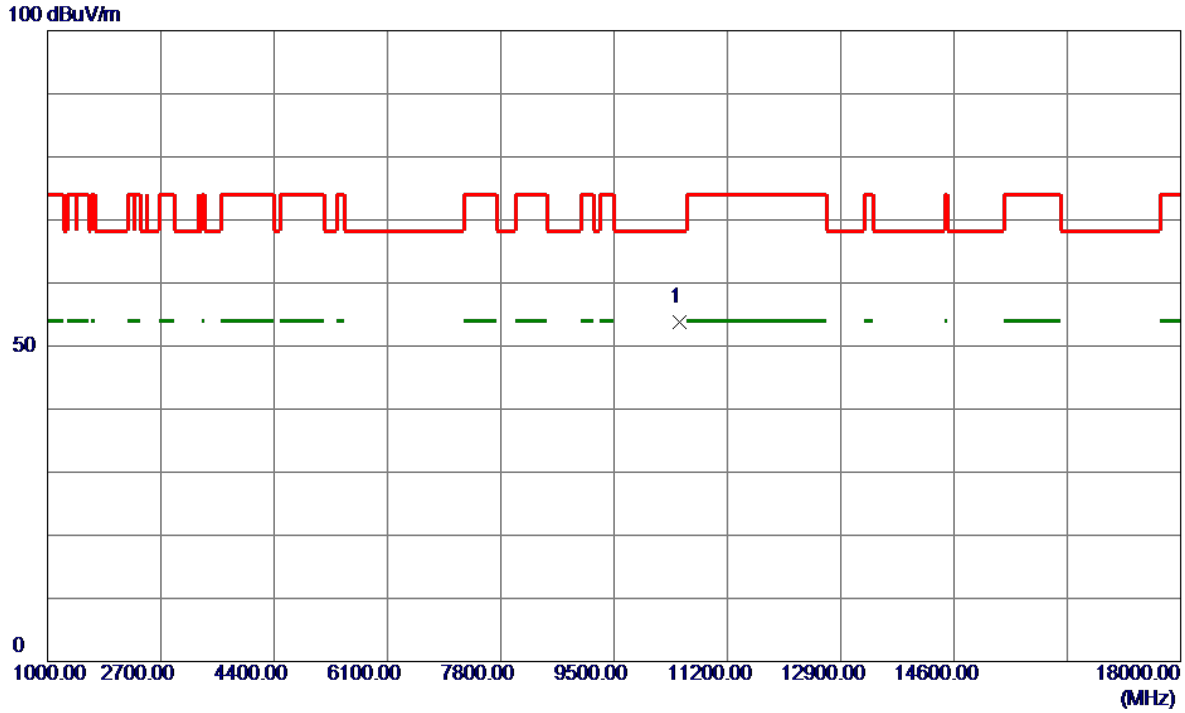
Test Mode	UNII-1_TX AX(HE20) Mode 5200 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10399.6500	42.36	10.02	52.38	68.20	-15.82	Peak	

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

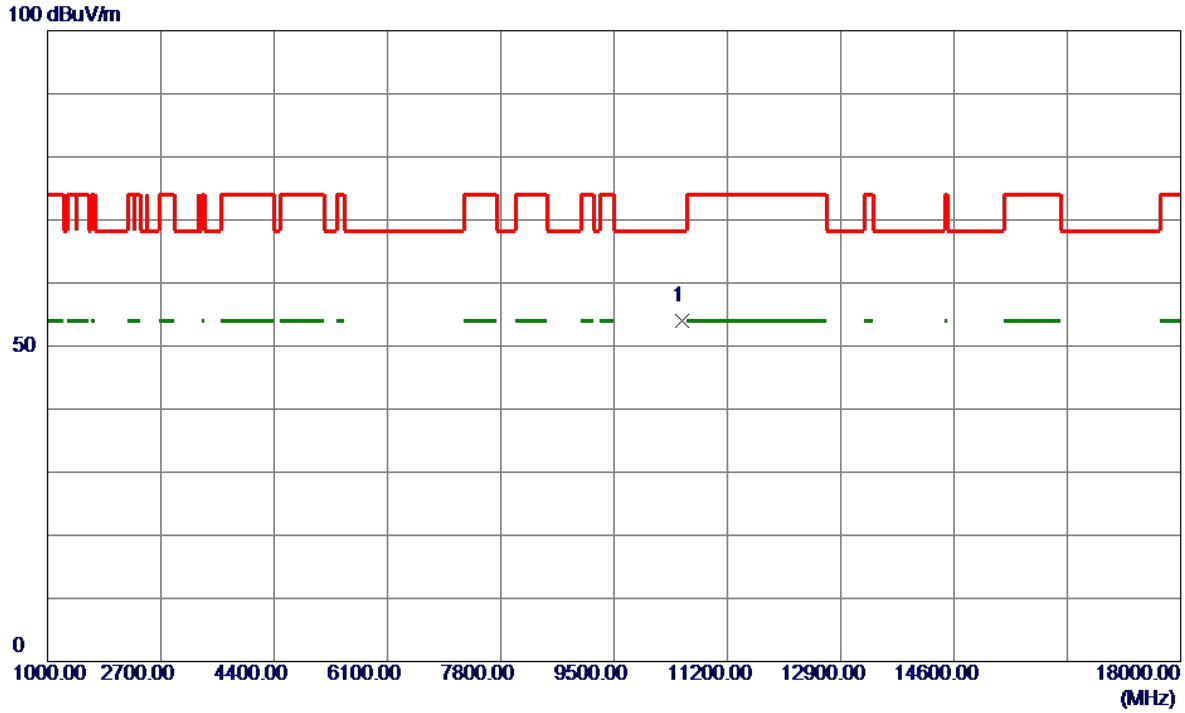
Test Mode	UNII-1_TX AX(HE20) Mode 5240 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10476.3500	43.81	9.97	53.78	68.20	-14.42	Peak	

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

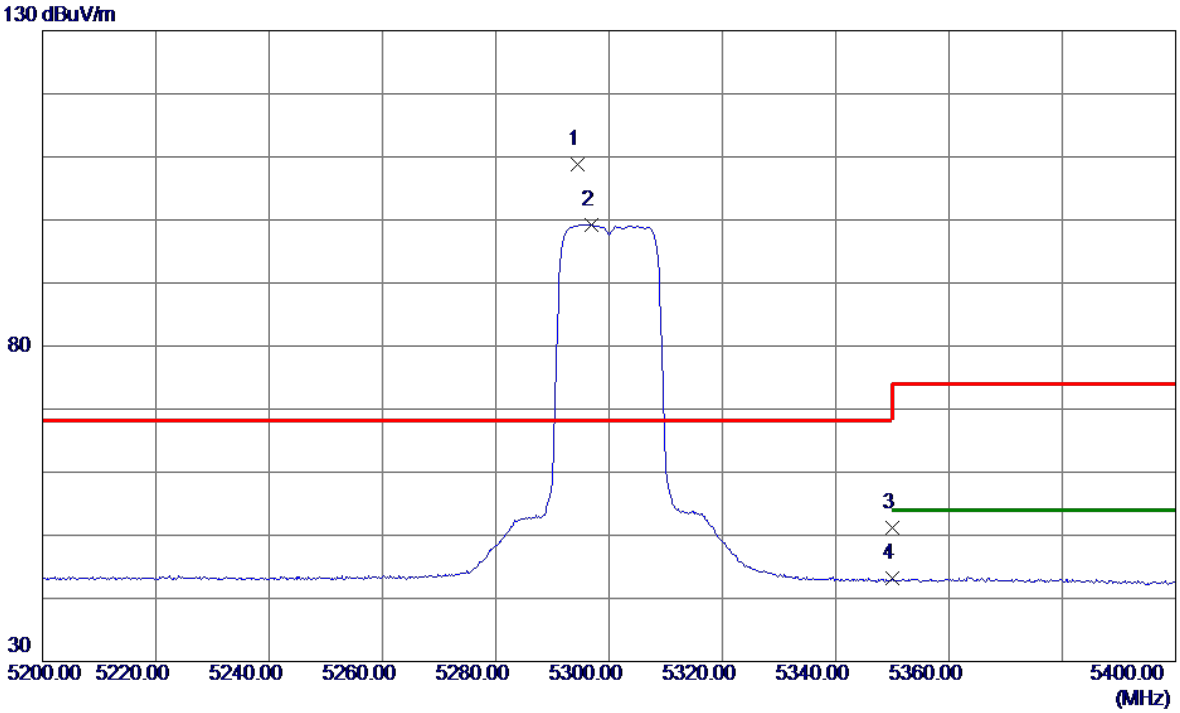
Test Mode	UNII-2A_TX A Mode 5260 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10521.9500	43.95	9.97	53.92	68.20	-14.28	Peak	

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

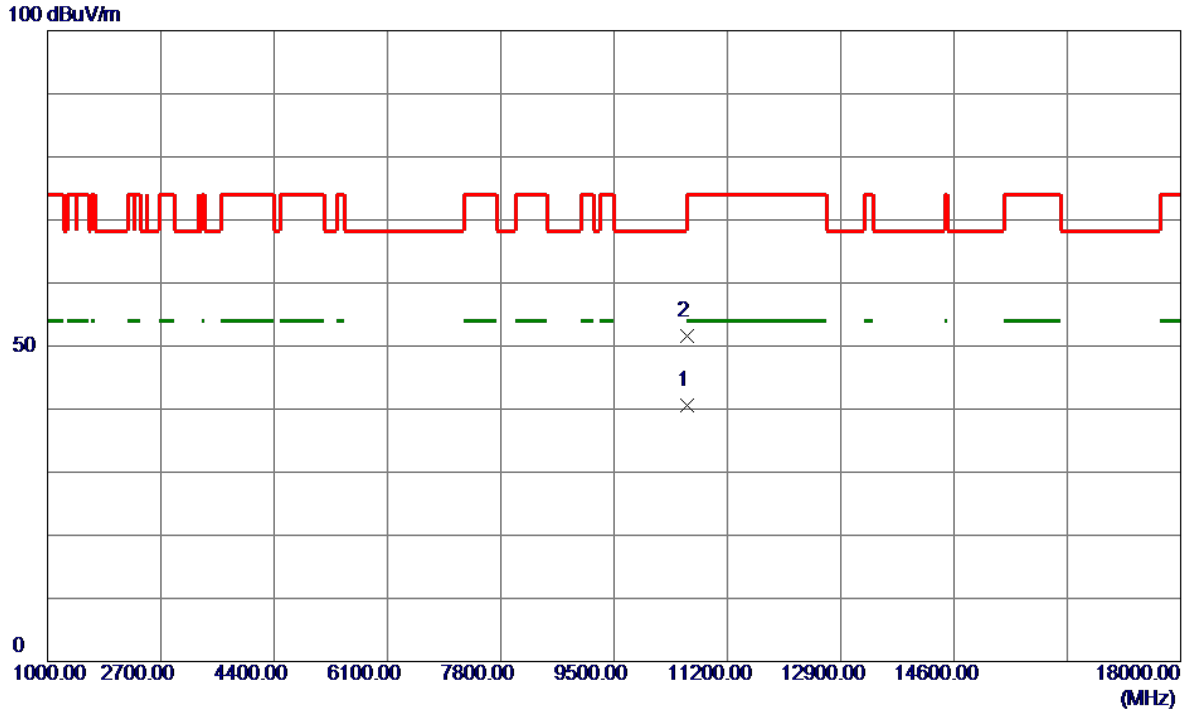
Test Mode	UNII-2A_TX A Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5294.4000	94.53	14.27	108.80	68.20	40.60	Peak	No Limit
2	5296.8000	84.99	14.27	99.26	999.00	-899.74	AVG	No Limit
3	5350.0000	36.90	14.29	51.19	74.00	-22.81	Peak	
4	5350.0000	28.87	14.29	43.16	54.00	-10.84	AVG	

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

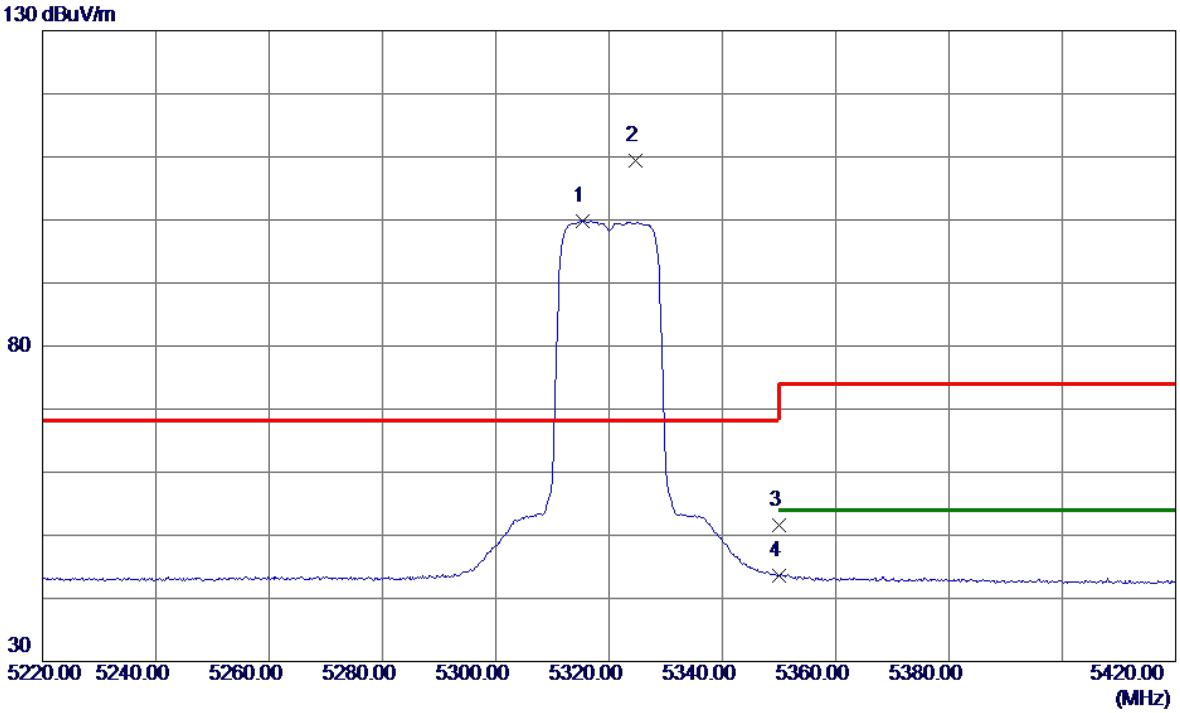
Test Mode	UNII-2A_TX A Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10600.3500	30.51	10.00	40.51	54.00	-13.49	AVG	
2	10602.6000	41.64	10.01	51.65	74.00	-22.35	Peak	

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

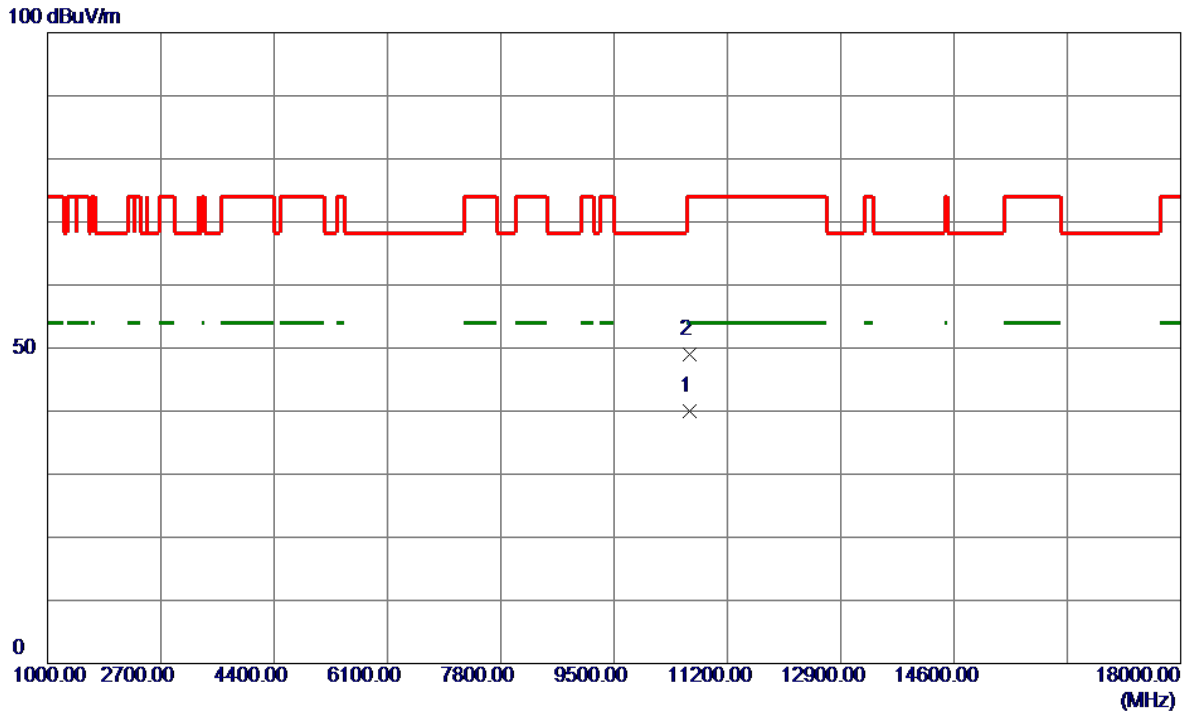
Test Mode	UNII-2A_TX A Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5315.4000	85.49	14.28	99.77	999.00	-899.23	AVG	No Limit
2 *	5324.6000	95.03	14.28	109.31	68.20	41.11	Peak	No Limit
3	5350.0000	37.40	14.29	51.69	74.00	-22.31	Peak	
4	5350.0000	29.27	14.29	43.56	54.00	-10.44	AVG	

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

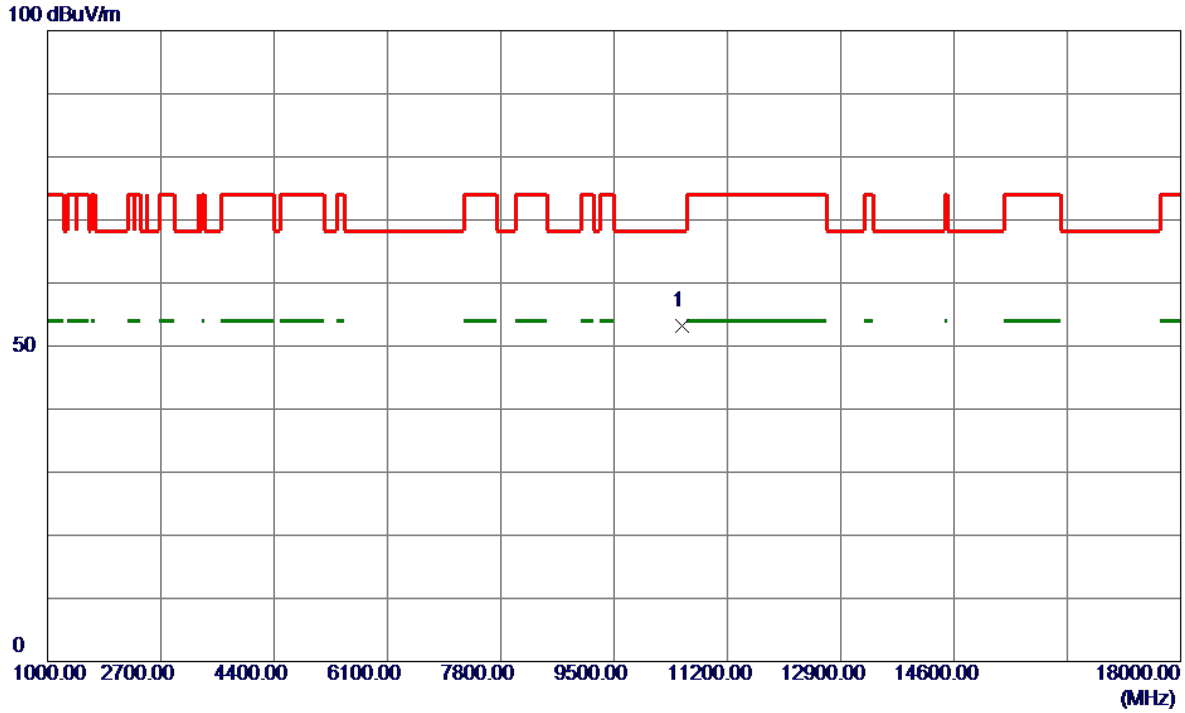
Test Mode	UNII-2A_TX A Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10640.4500	30.04	10.02	40.06	54.00	-13.94	AVG	
2	10640.9500	38.92	10.02	48.94	74.00	-25.06	Peak	

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

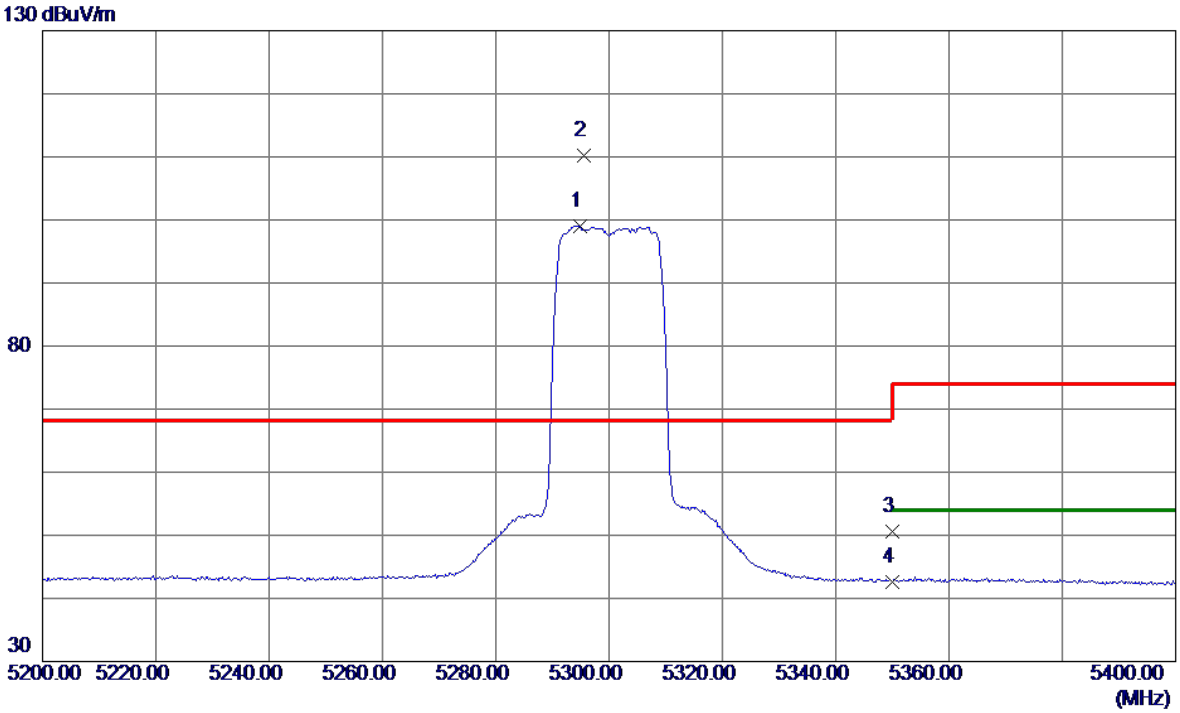
Test Mode	UNII-2A_TX AC(VHT20) Mode 5260 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10515.2000	43.21	9.97	53.18	68.20	-15.02	Peak	

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

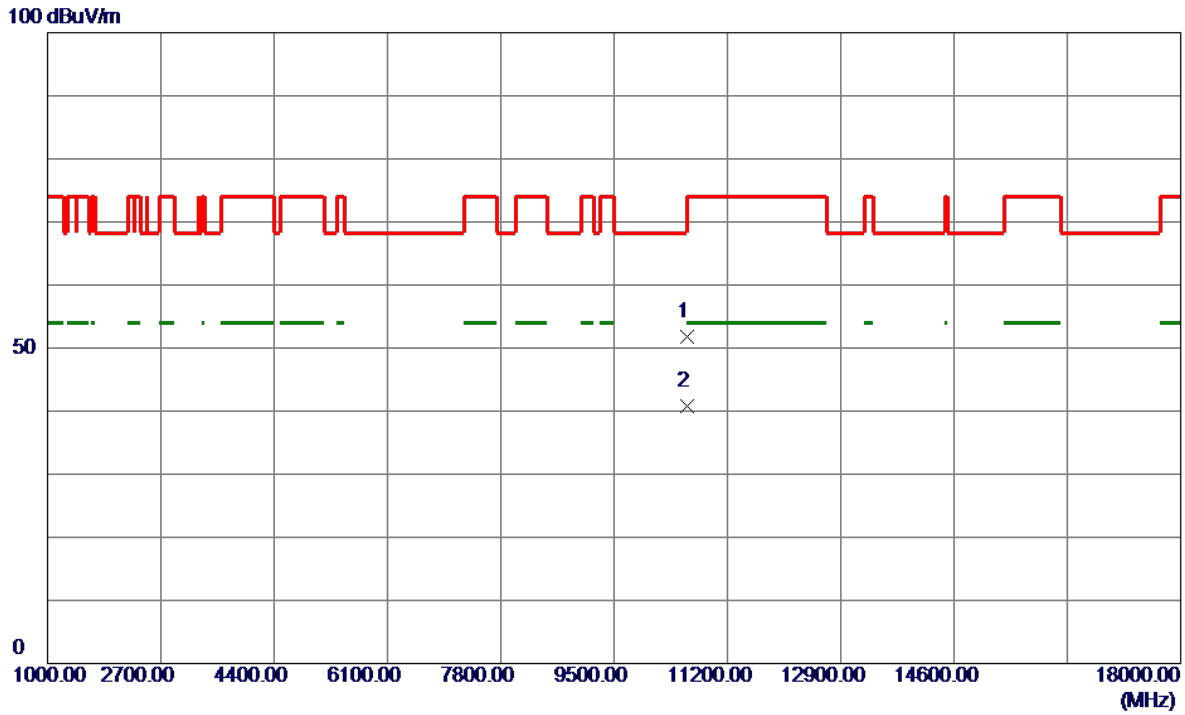
Test Mode	UNII-2A_TX AC(VHT20) Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5294.8000	84.78	14.27	99.05	999.00	-899.95	AVG	No Limit
2 *	5295.6000	95.86	14.27	110.13	68.20	41.93	Peak	No Limit
3	5350.0000	36.26	14.29	50.55	74.00	-23.45	Peak	
4	5350.0000	28.38	14.29	42.67	54.00	-11.33	AVG	

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

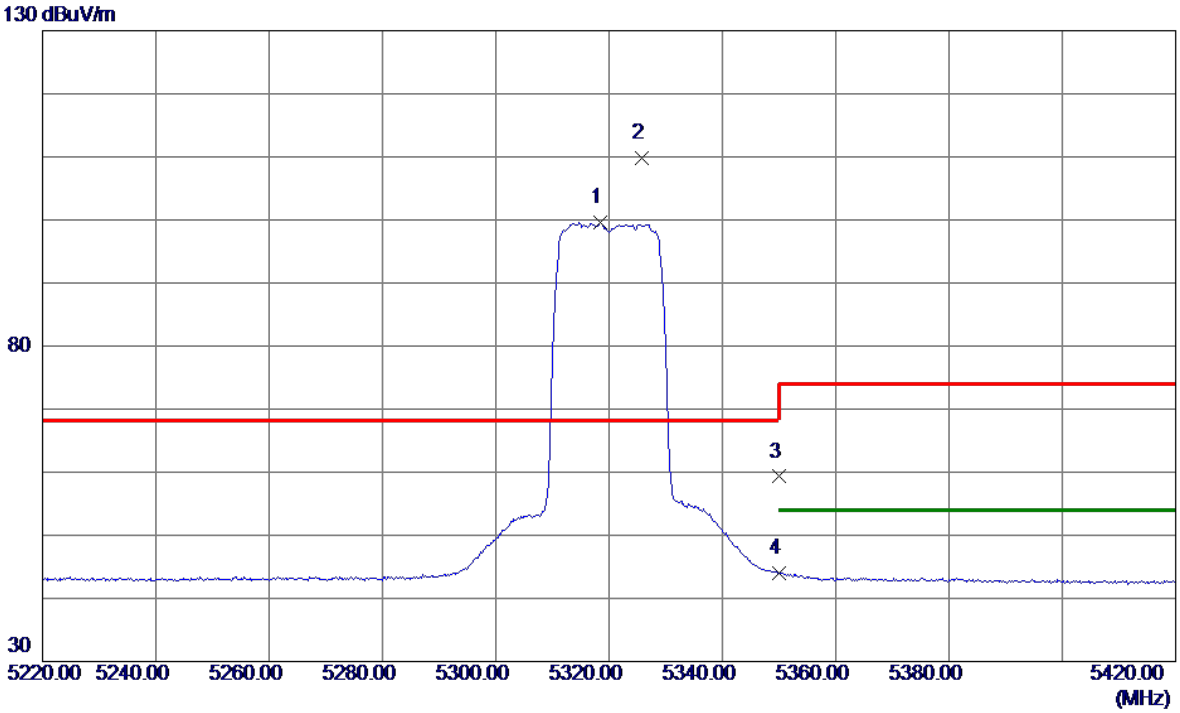
Test Mode	UNII-2A_TX AC(VHT20) Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10600.0500	41.77	10.00	51.77	74.00	-22.23	Peak	
2 *	10600.1500	30.88	10.00	40.88	54.00	-13.12	AVG	

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

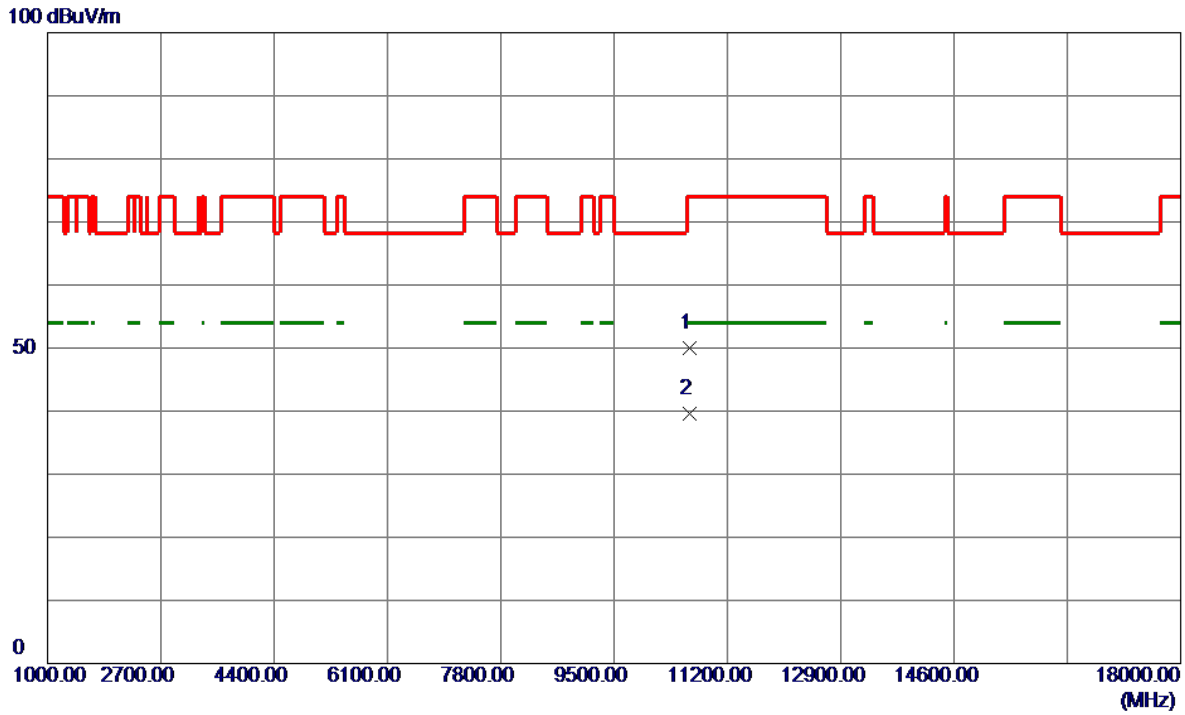
Test Mode	UNII-2A_TX AC(VHT20) Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5318.4000	85.32	14.28	99.60	999.00	-899.40	AVG	No Limit
2 *	5325.8000	95.48	14.28	109.76	68.20	41.56	Peak	No Limit
3	5350.0000	45.01	14.29	59.30	74.00	-14.70	Peak	
4	5350.0000	29.80	14.29	44.09	54.00	-9.91	AVG	

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

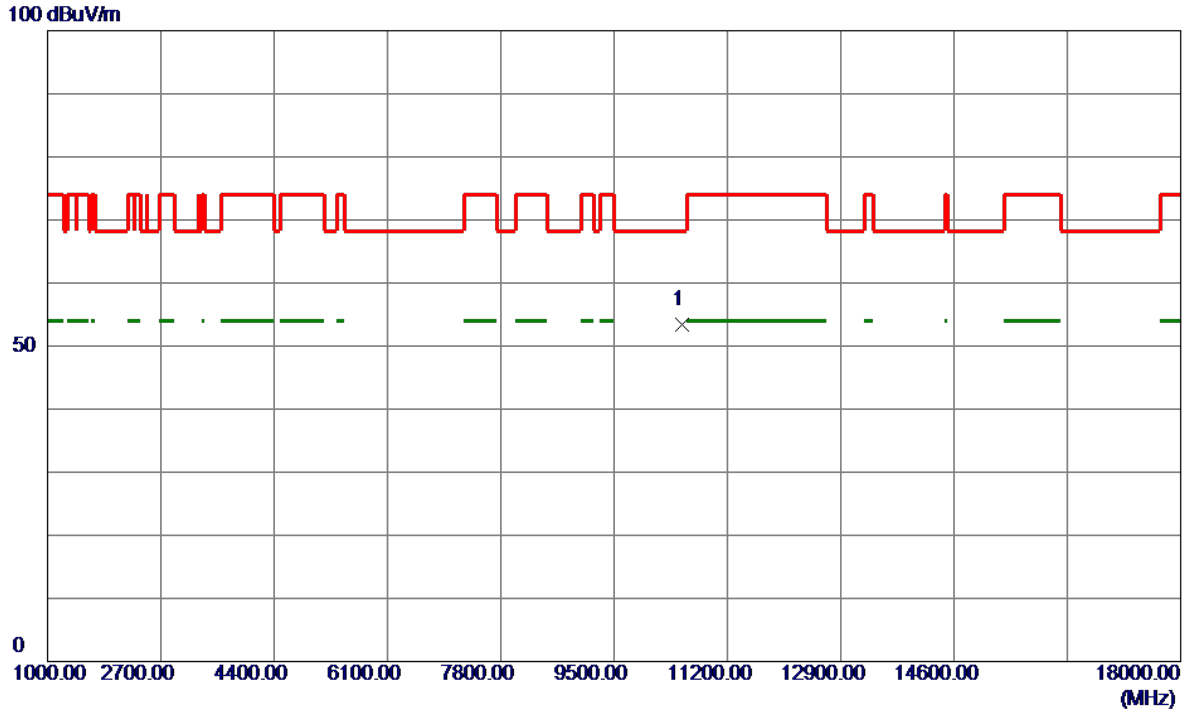
Test Mode	UNII-2A_TX AC(VHT20) Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10638.1000	40.05	10.02	50.07	74.00	-23.93	Peak	
2 *	10639.9000	29.49	10.02	39.51	54.00	-14.49	AVG	

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

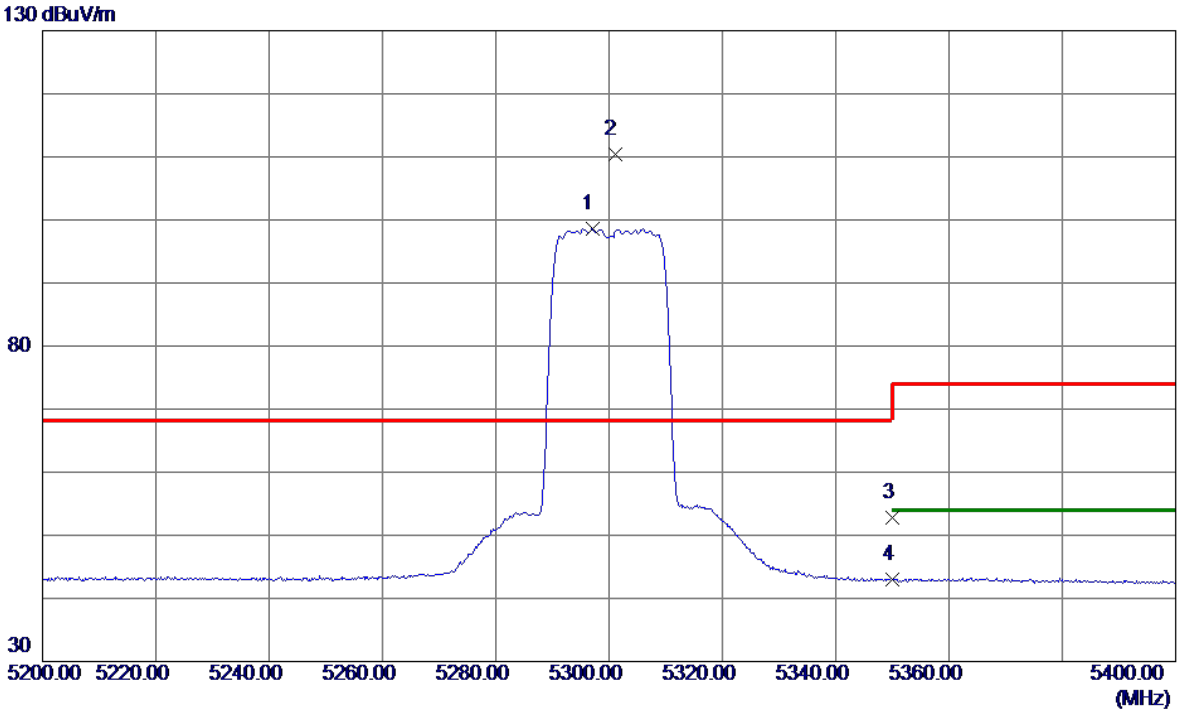
Test Mode	UNII-2A_TX AX(HE20) Mode 5260 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10515.8000	43.47	9.97	53.44	68.20	-14.76	Peak	

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

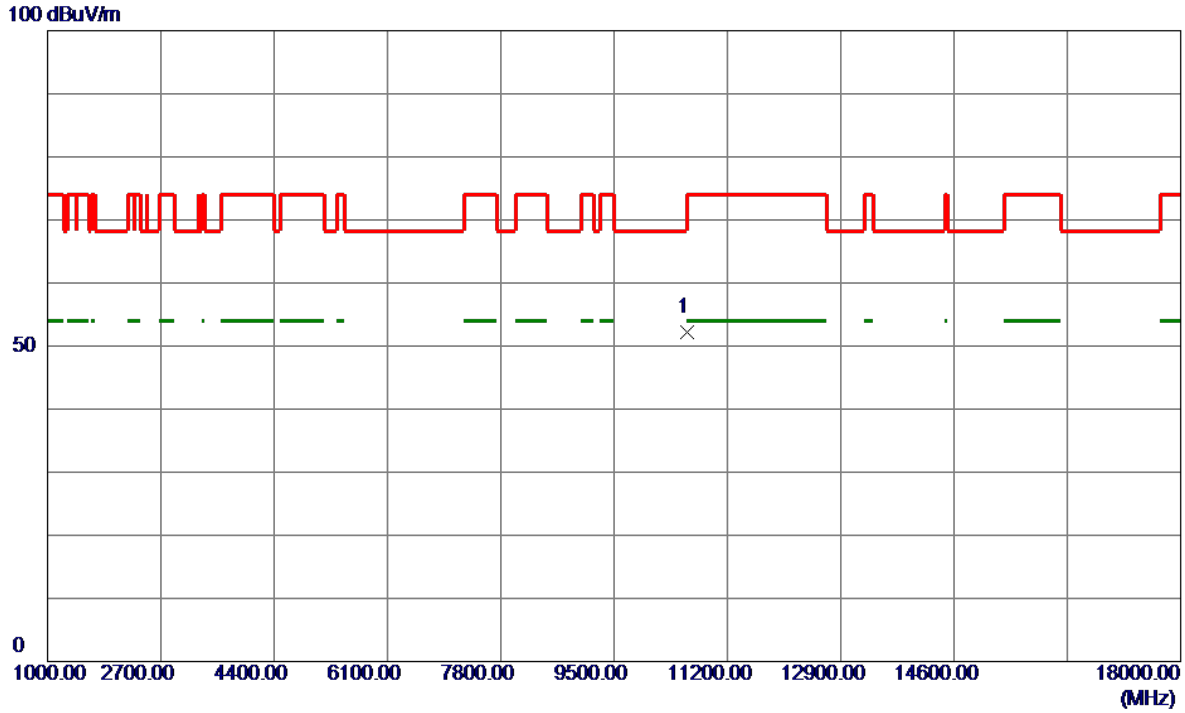
Test Mode	UNII-2A_TX AX(HE20) Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5297.0000	84.35	14.27	98.62	999.00	-900.38	AVG	No Limit
2 *	5301.0000	96.18	14.27	110.45	68.20	42.25	Peak	No Limit
3	5350.0000	38.43	14.29	52.72	74.00	-21.28	Peak	
4	5350.0000	28.64	14.29	42.93	54.00	-11.07	AVG	

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

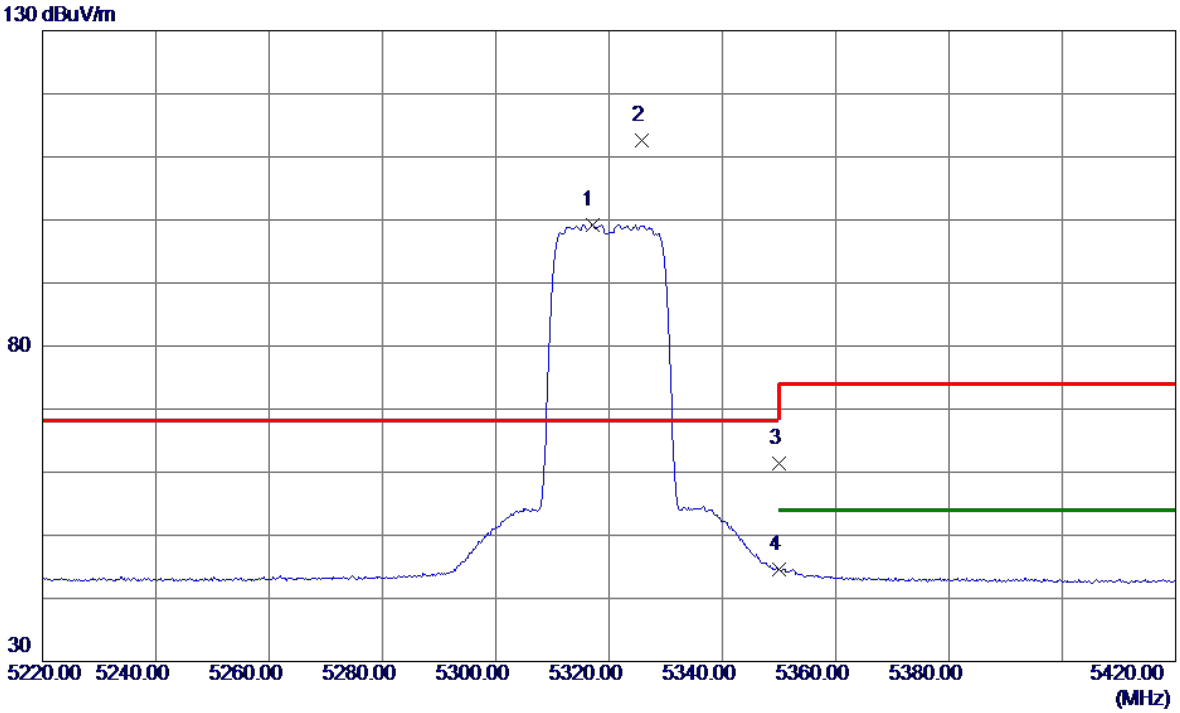
Test Mode	UNII-2A_TX AX(HE20) Mode 5300 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10599.9000	42.13	10.00	52.13	68.20	-16.07	Peak	

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

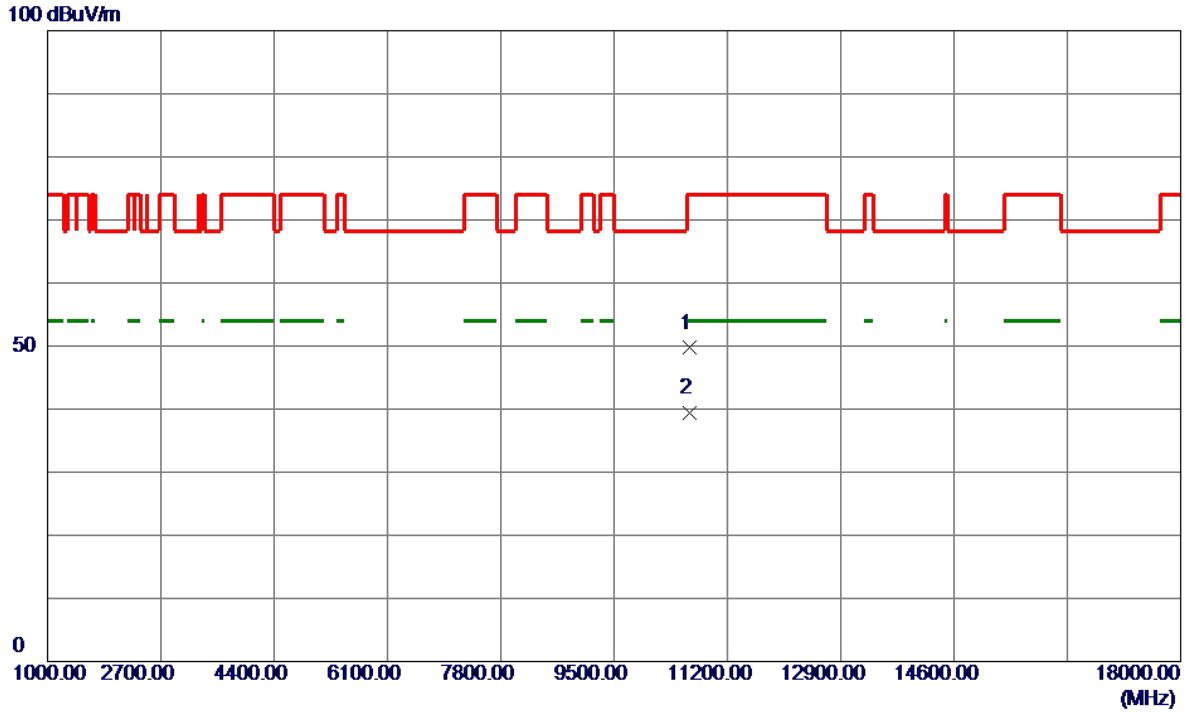
Test Mode	UNII-2A_TX AX(HE20) Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5317.0000	85.00	14.28	99.28	999.00	-899.72	AVG	No Limit
2 *	5325.8000	98.32	14.28	112.60	68.20	44.40	Peak	No Limit
3	5350.0000	47.07	14.29	61.36	74.00	-12.64	Peak	
4	5350.0000	30.34	14.29	44.63	54.00	-9.37	AVG	

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

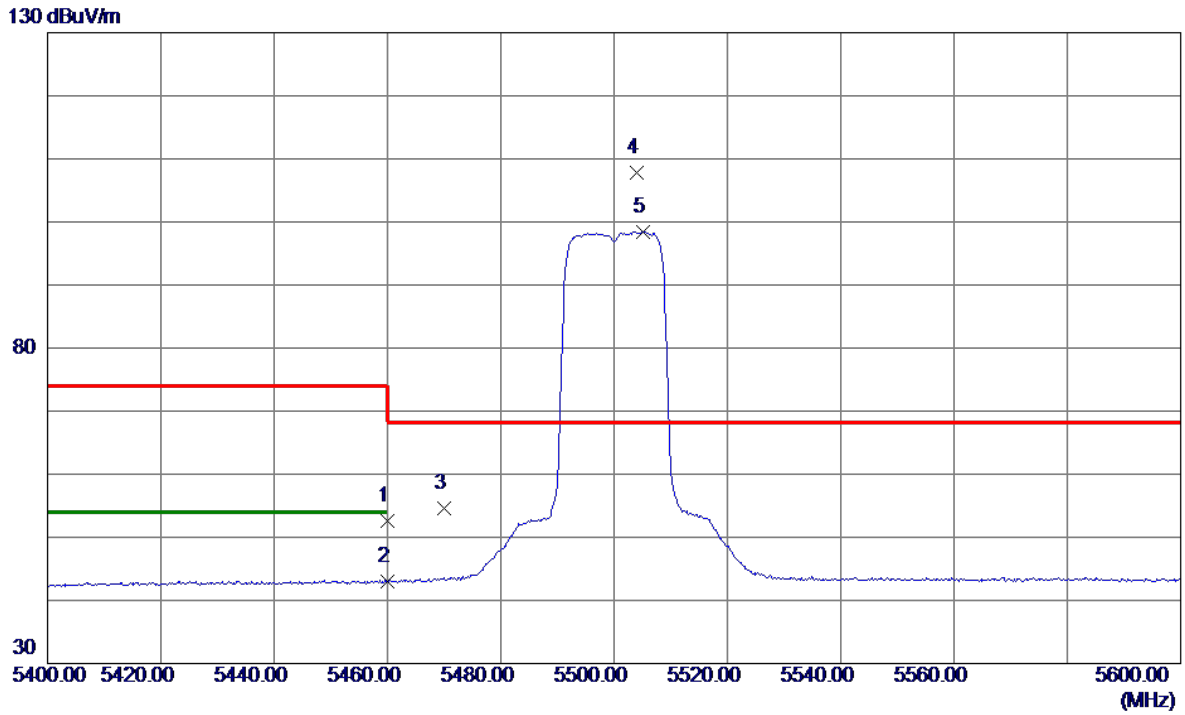
Test Mode	UNII-2A_TX AX(HE20) Mode 5320 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10633.8000	39.68	10.02	49.70	74.00	-24.30	Peak	
2 *	10640.4000	29.30	10.02	39.32	54.00	-14.68	AVG	

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

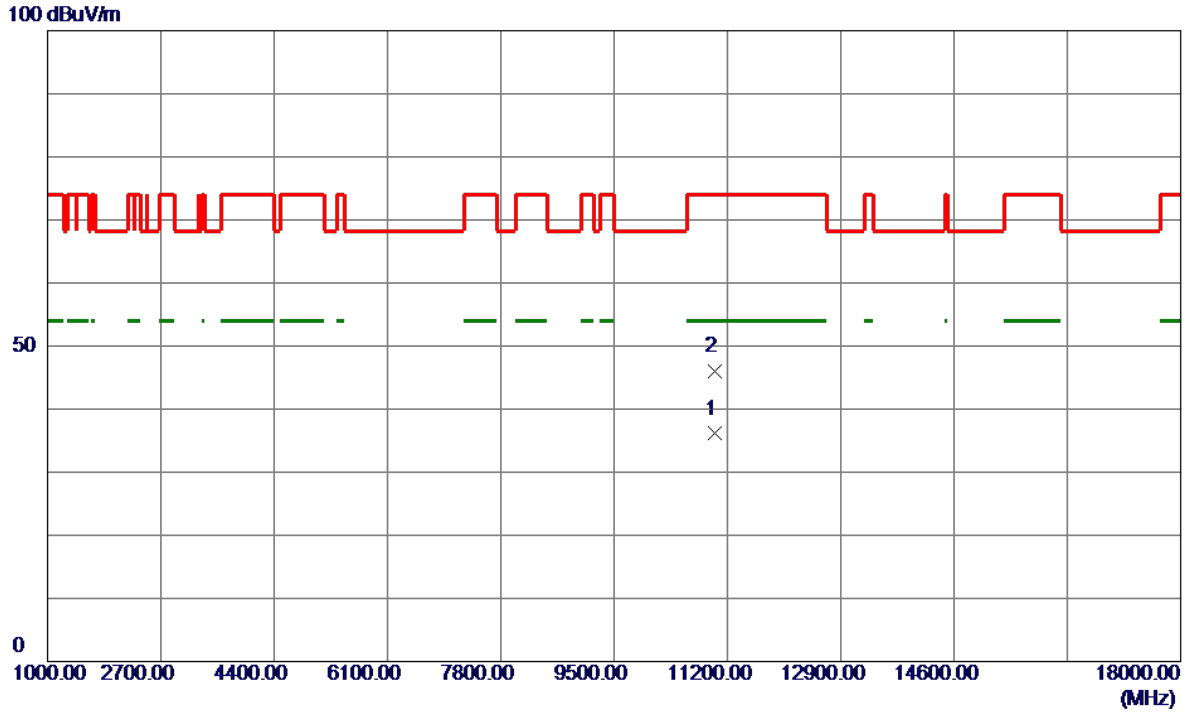
Test Mode	UNII-2C_TX A Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	38.29	14.33	52.62	74.00	-21.38	Peak	
2	5460.0000	28.76	14.33	43.09	54.00	-10.91	AVG	
3	5470.0000	40.18	14.34	54.52	68.20	-13.68	Peak	
4 *	5504.0000	93.50	14.36	107.86	68.20	39.66	Peak	No Limit
5	5505.2000	84.04	14.36	98.40	999.00	-900.60	AVG	No Limit

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

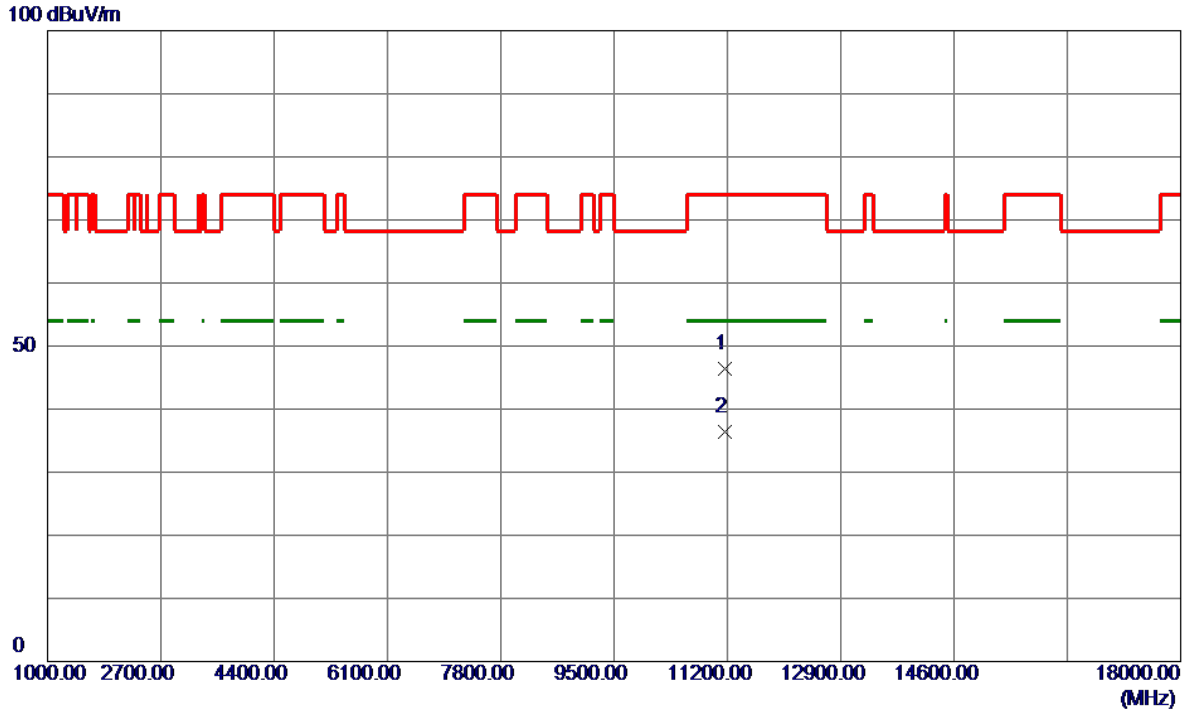
Test Mode	UNII-2C_TX A Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11001.7500	25.92	10.18	36.10	54.00	-17.90	AVG	
2	11018.9500	35.72	10.22	45.94	74.00	-28.06	Peak	

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

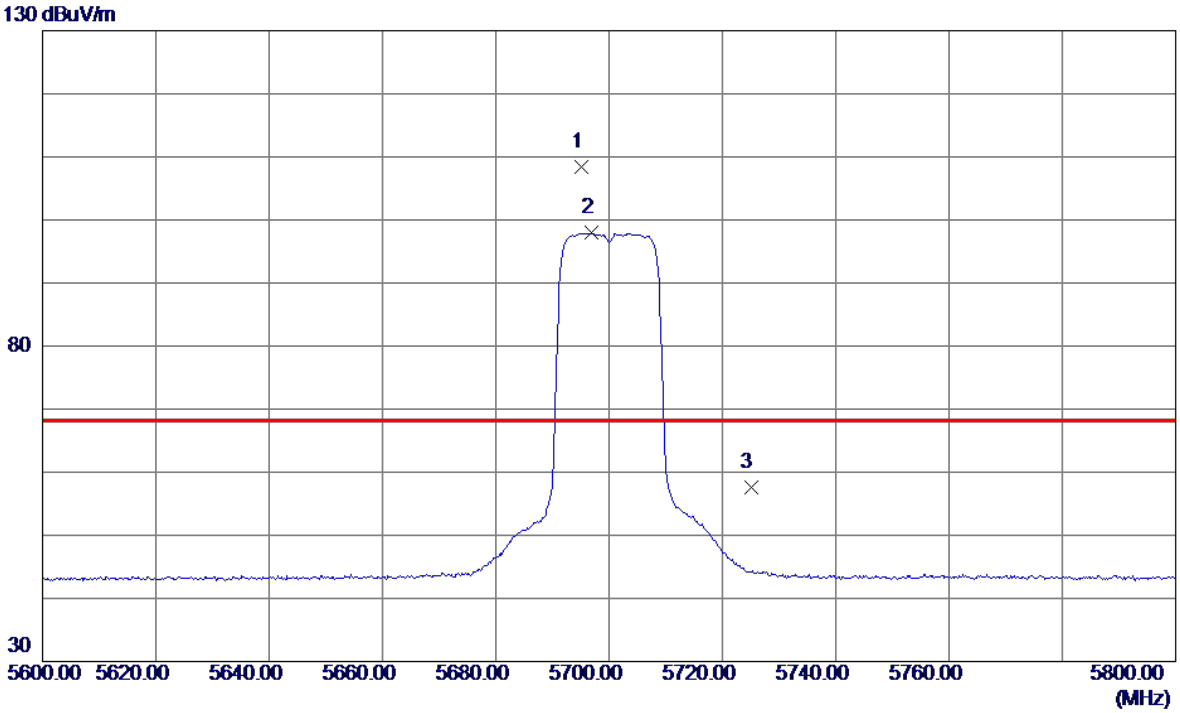
Test Mode	UNII-2C_TX A Mode 5580 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11153.1000	35.84	10.49	46.33	74.00	-27.67	Peak	
2 *	11158.9000	25.81	10.50	36.31	54.00	-17.69	AVG	

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

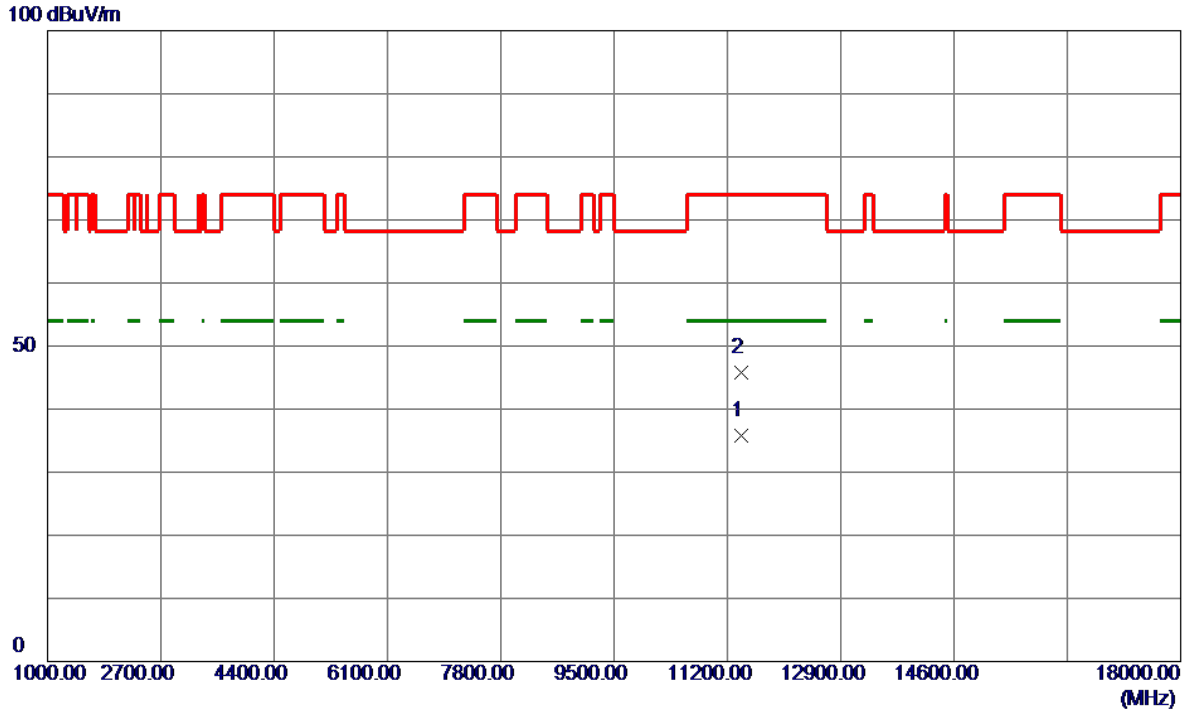
Test Mode	UNII-2C_TX A Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5695.2000	93.70	14.79	108.49	68.20	40.29	Peak	No Limit
2	5696.8000	83.14	14.79	97.93	999.00	-901.07	AVG	No Limit
3	5725.0000	42.80	14.86	57.66	68.20	-10.54	Peak	

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

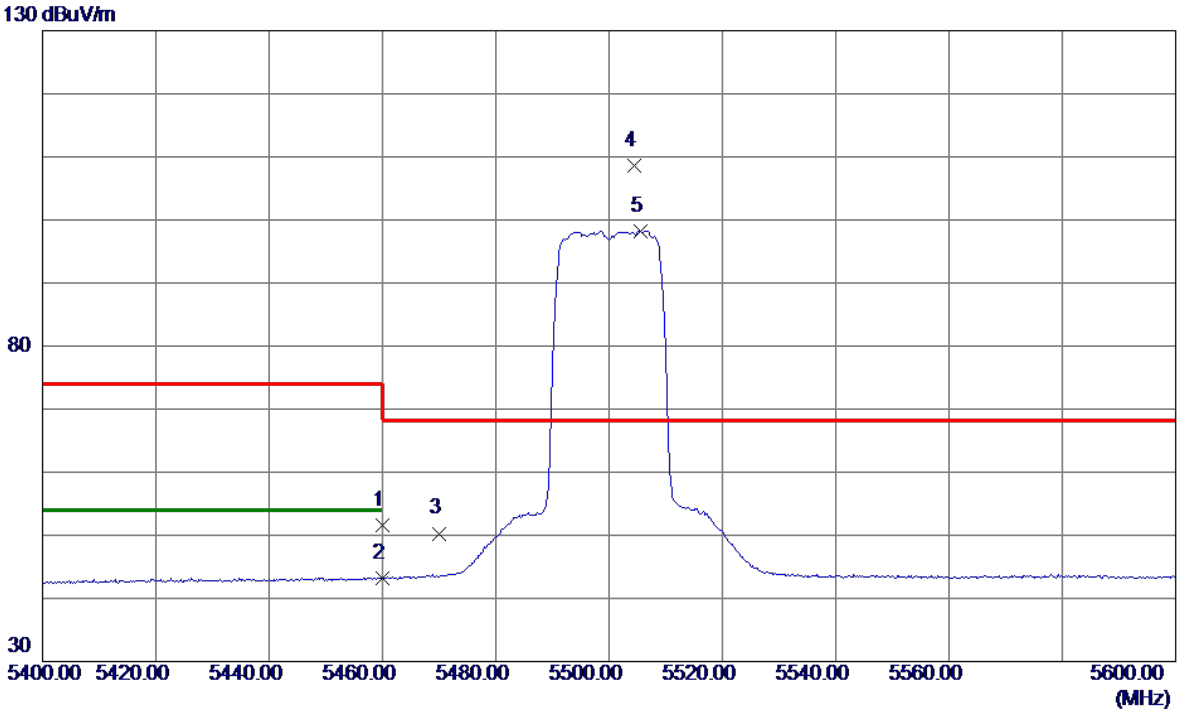
Test Mode	UNII-2C_TX A Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11399.7500	24.83	11.00	35.83	54.00	-18.17	AVG	
2	11400.6000	34.76	11.00	45.76	74.00	-28.24	Peak	

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

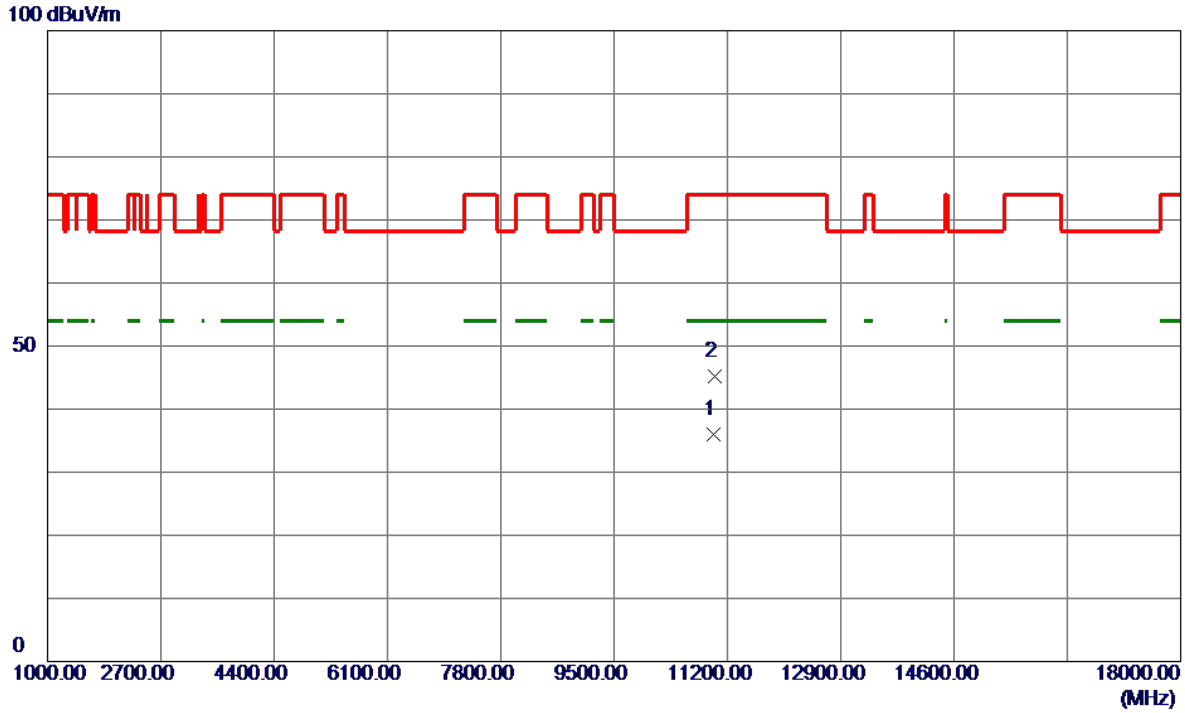
Test Mode	UNII-2C_TX AC(VHT20) Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	37.28	14.33	51.61	74.00	-22.39	Peak	
2	5460.0000	28.81	14.33	43.14	54.00	-10.86	AVG	
3	5470.0000	35.96	14.34	50.30	68.20	-17.90	Peak	
4 *	5504.4000	94.19	14.36	108.55	68.20	40.35	Peak	No Limit
5	5505.6000	83.89	14.36	98.25	999.00	-900.75	AVG	No Limit

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

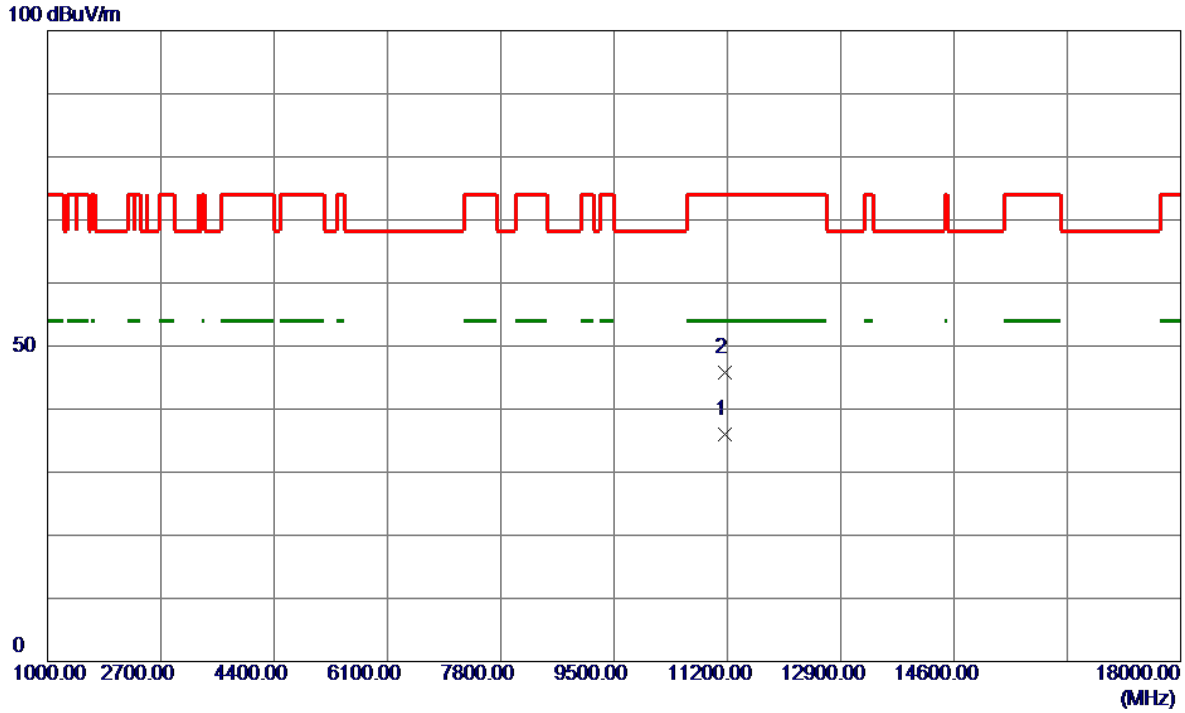
Test Mode	UNII-2C_TX AC(VHT20) Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11000.4500	25.90	10.18	36.08	54.00	-17.92	AVG	
2	11019.1000	34.94	10.22	45.16	74.00	-28.84	Peak	

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

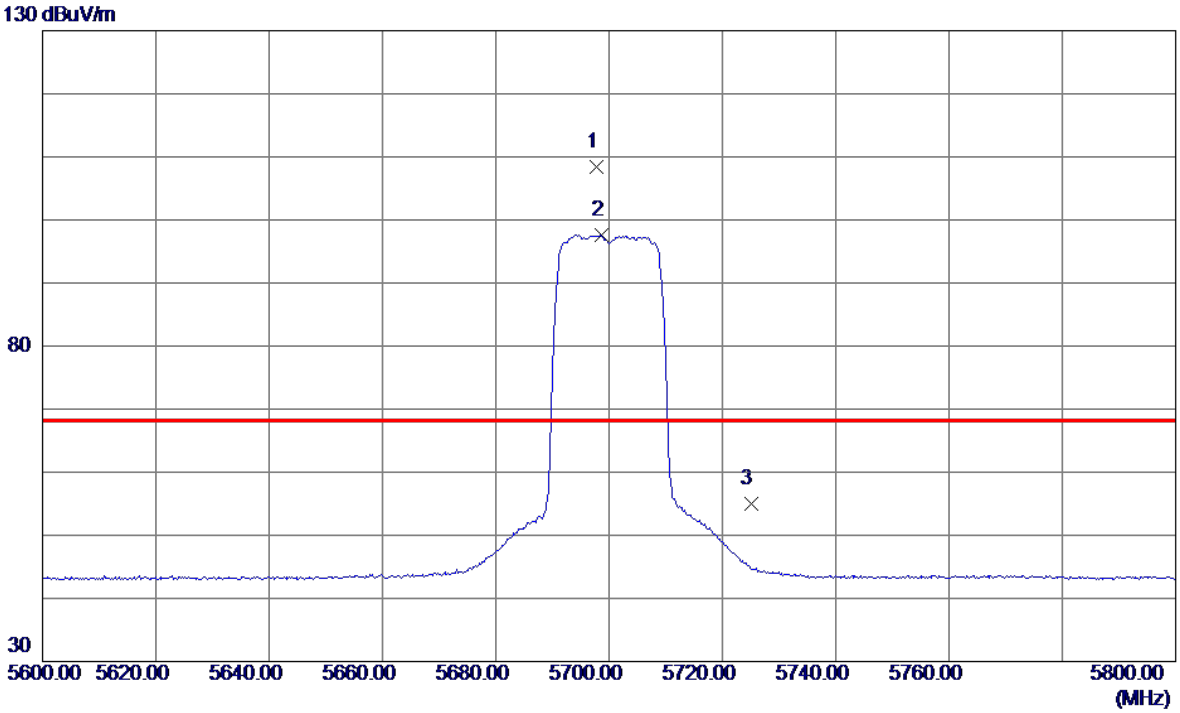
Test Mode	UNII-2C_TX AC(VHT20) Mode 5580 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11157.9000	25.59	10.50	36.09	54.00	-17.91	AVG	
2	11166.5500	35.27	10.52	45.79	74.00	-28.21	Peak	

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

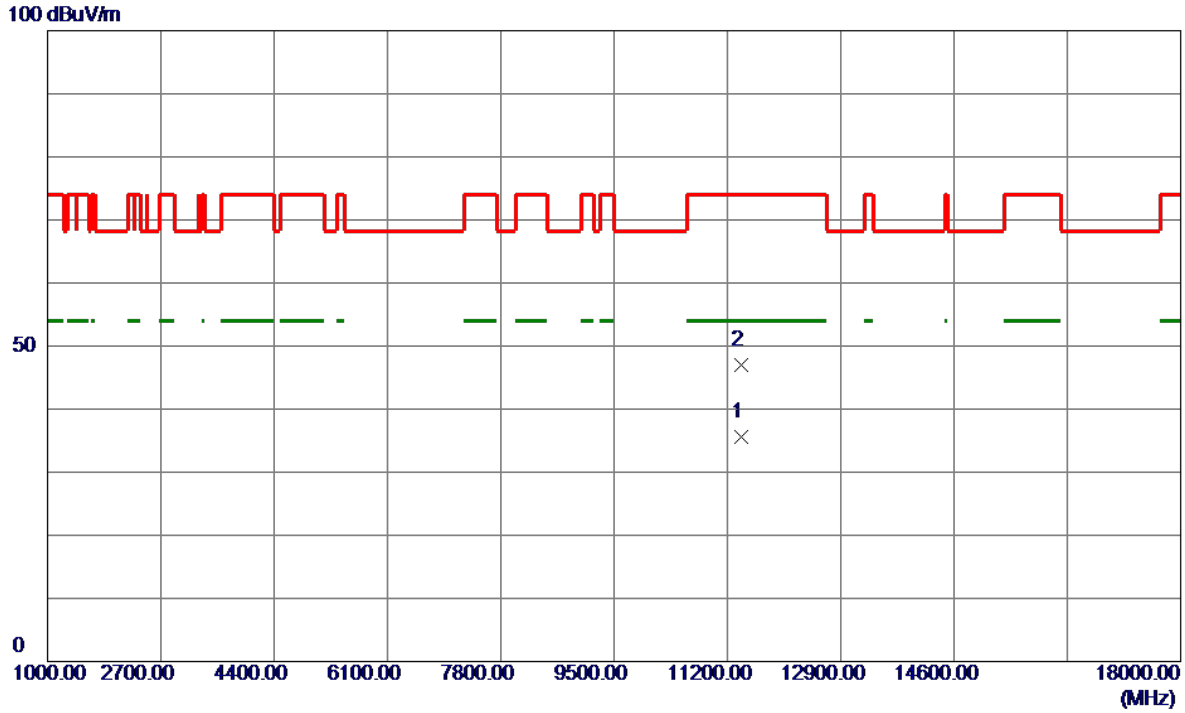
Test Mode	UNII-2C_TX AC(VHT20) Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5697.8000	93.69	14.80	108.49	68.20	40.29	Peak	No Limit
2	5698.6000	82.89	14.80	97.69	999.00	-901.31	AVG	No Limit
3	5725.0000	40.20	14.86	55.06	68.20	-13.14	Peak	

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

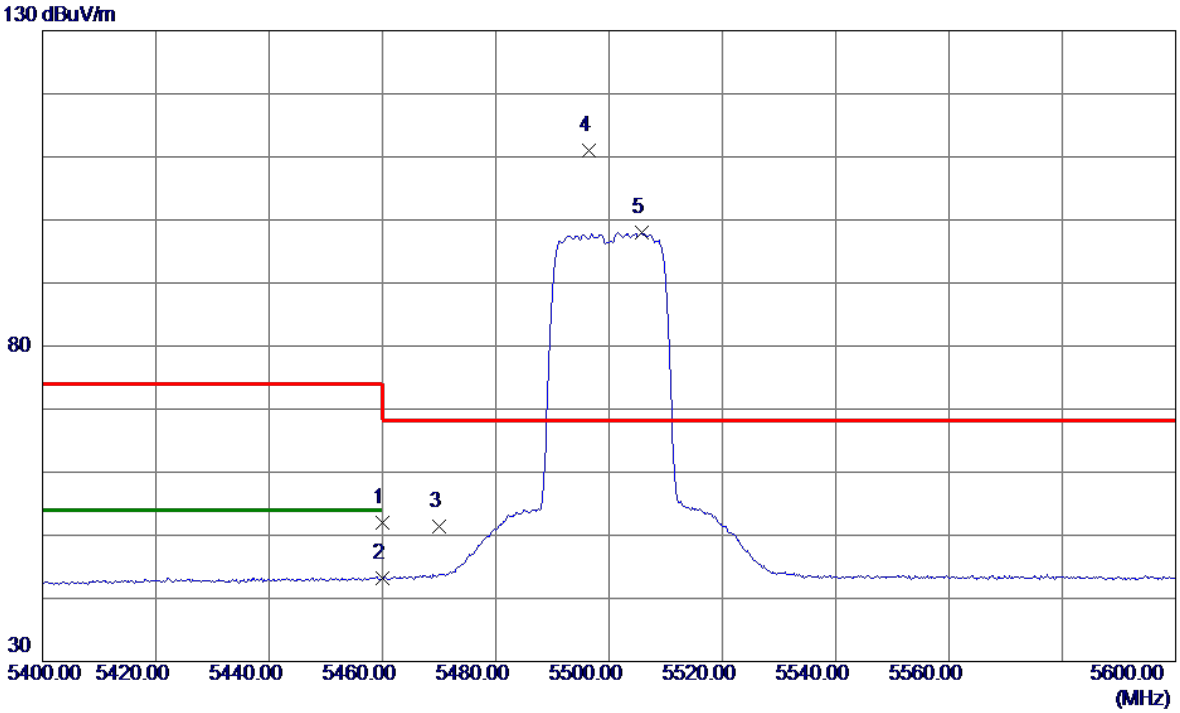
Test Mode	UNII-2C_TX AC(VHT20) Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11409.2500	24.64	11.01	35.65	54.00	-18.35	AVG	
2	11416.6000	35.90	11.03	46.93	74.00	-27.07	Peak	

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

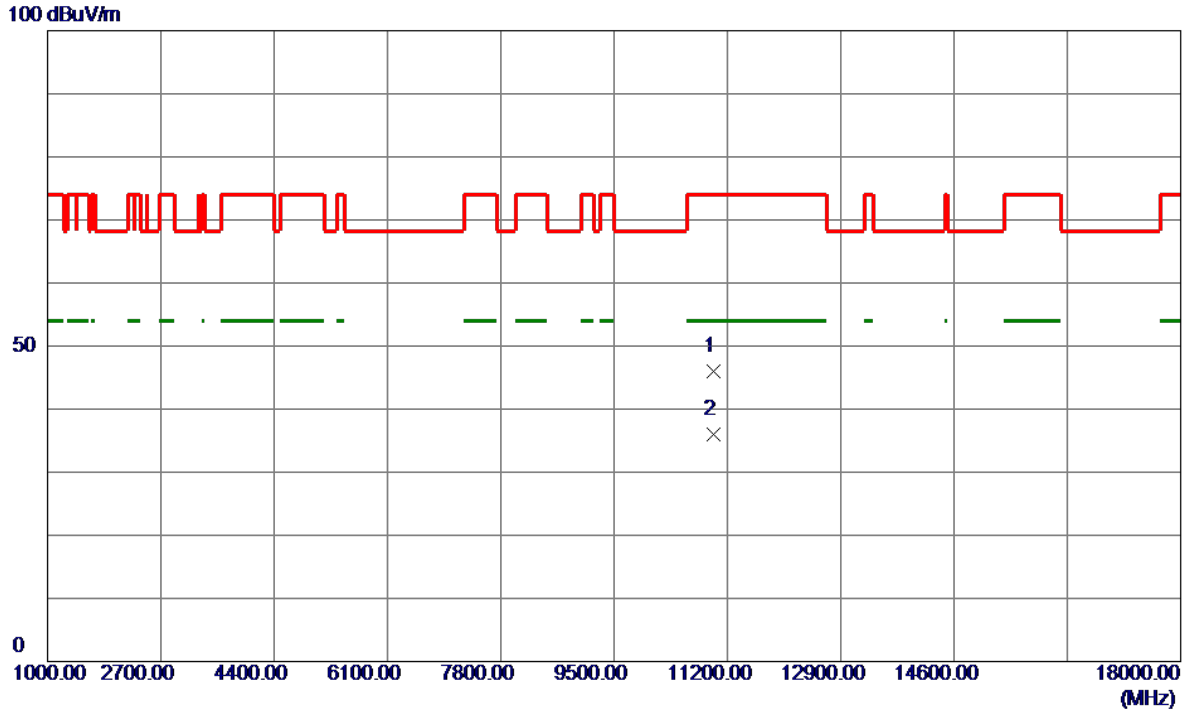
Test Mode	UNII-2C_TX AX(HE20) Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5460.0000	37.68	14.33	52.01	74.00	-21.99	Peak	
2	5460.0000	28.78	14.33	43.11	54.00	-10.89	AVG	
3	5470.0000	37.10	14.34	51.44	68.20	-16.76	Peak	
4 *	5496.4000	96.72	14.35	111.07	68.20	42.87	Peak	No Limit
5	5505.8000	83.62	14.36	97.98	999.00	-901.02	AVG	No Limit

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

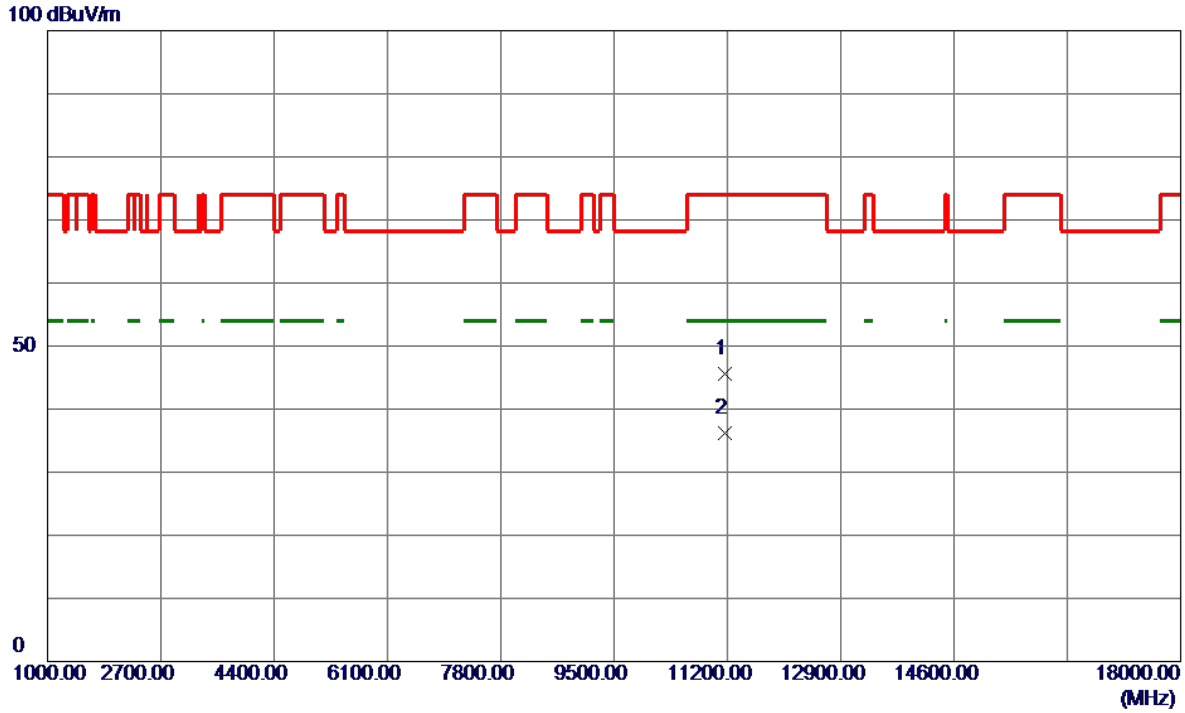
Test Mode	UNII-2C_TX AX(HE20) Mode 5500 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	10999.2000	35.74	10.18	45.92	74.00	-28.08	Peak	
2 *	10999.9500	25.88	10.18	36.06	54.00	-17.94	AVG	

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

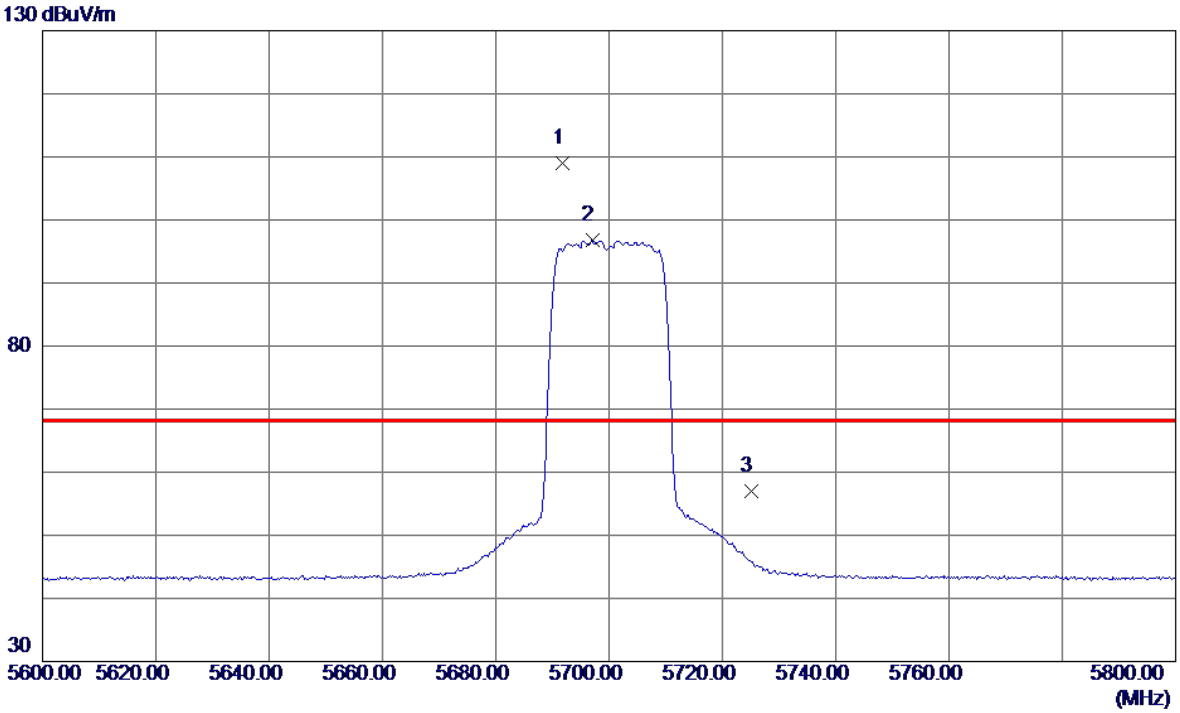
Test Mode	UNII-2C_TX AX(HE20) Mode 5580 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11159.9000	35.16	10.51	45.67	74.00	-28.33	Peak	
2 *	11160.1000	25.65	10.51	36.16	54.00	-17.84	AVG	

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

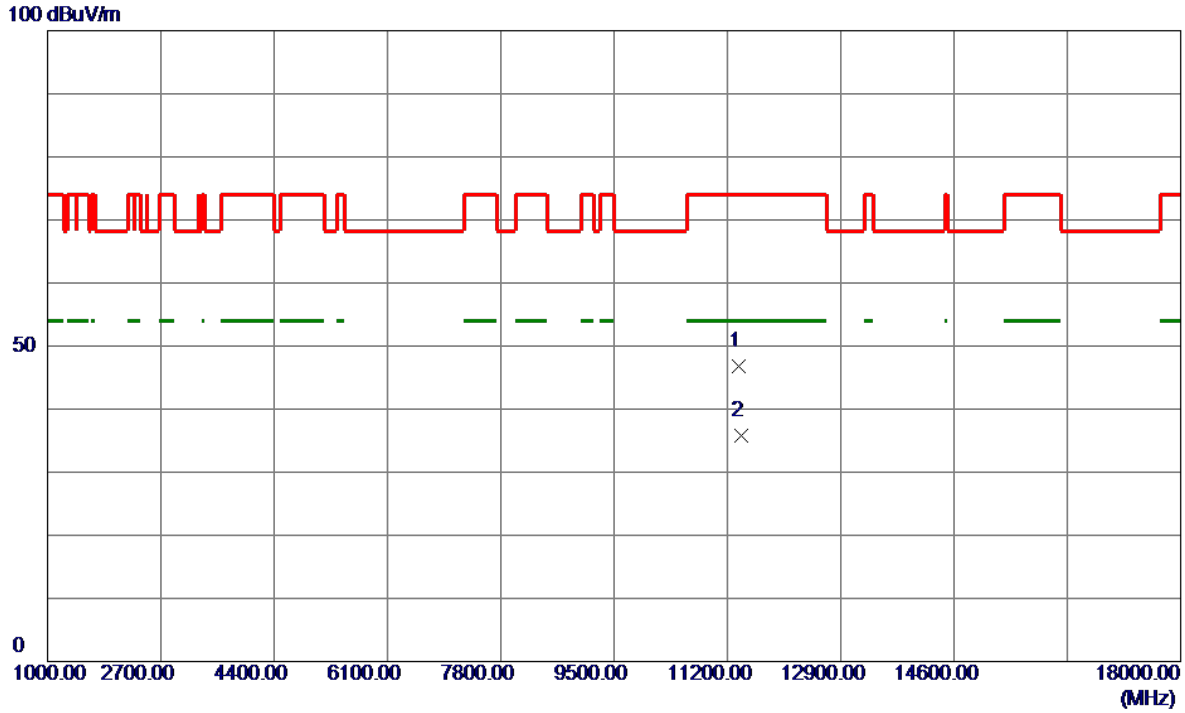
Test Mode	UNII-2C_TX AX(HE20) Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5691.8000	94.25	14.78	109.03	68.20	40.83	Peak	No Limit
2	5697.0000	81.91	14.80	96.71	999.00	-902.29	AVG	No Limit
3	5725.0000	42.12	14.86	56.98	68.20	-11.22	Peak	

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

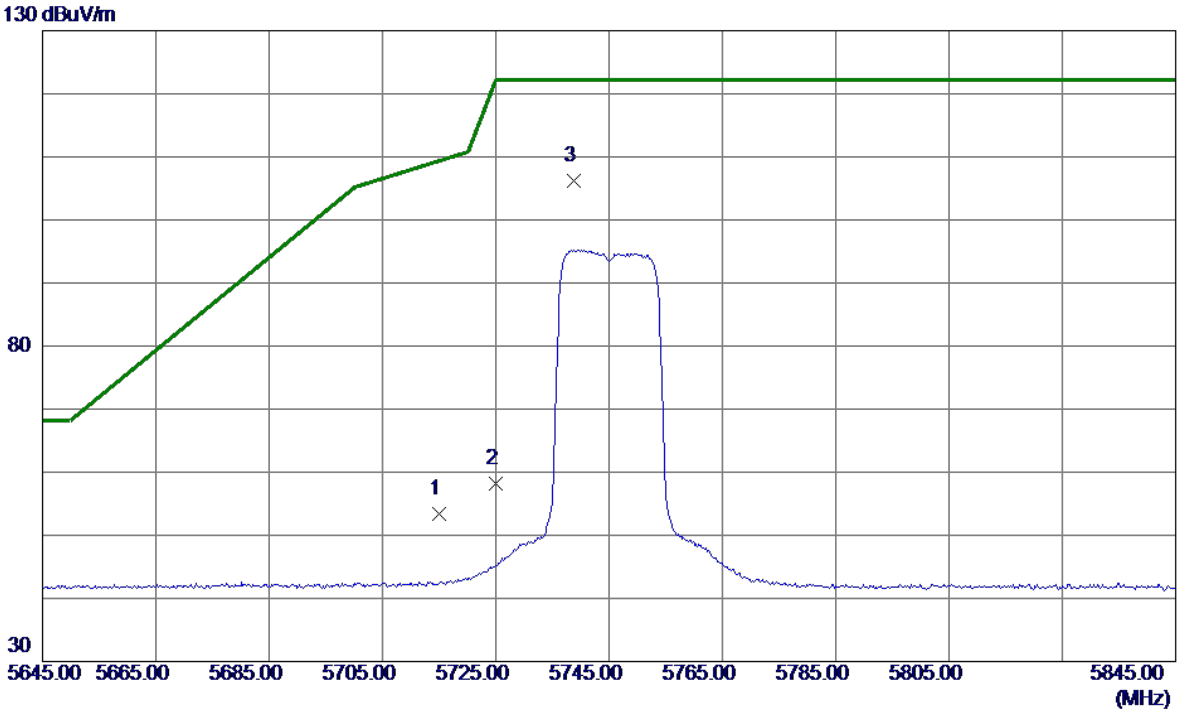
Test Mode	UNII-2C_TX AX(HE20) Mode 5700 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11377.5000	35.80	10.95	46.75	74.00	-27.25	Peak	
2 *	11400.7500	24.82	11.00	35.82	54.00	-18.18	AVG	

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

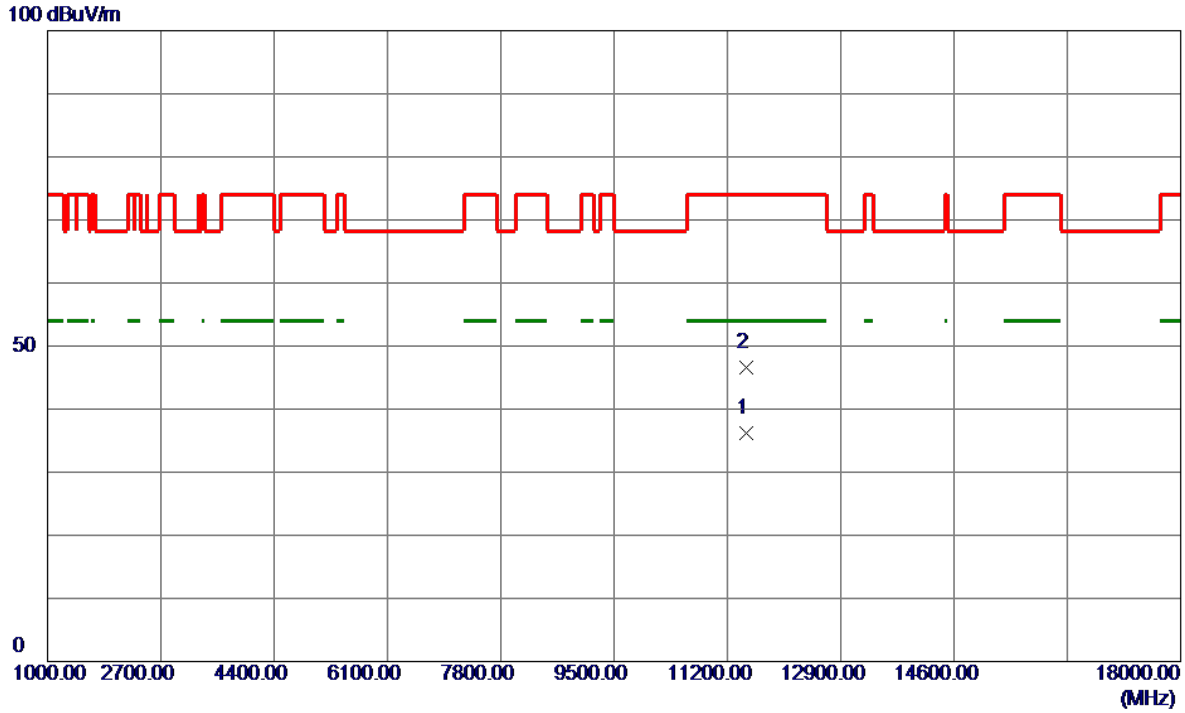
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	38.55	14.84	53.39	109.40	-56.01	Peak	
2	5725.0000	43.37	14.86	58.23	122.20	-63.97	Peak	
3 *	5738.8000	91.29	14.89	106.18	122.20	-16.02	Peak	No Limit

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

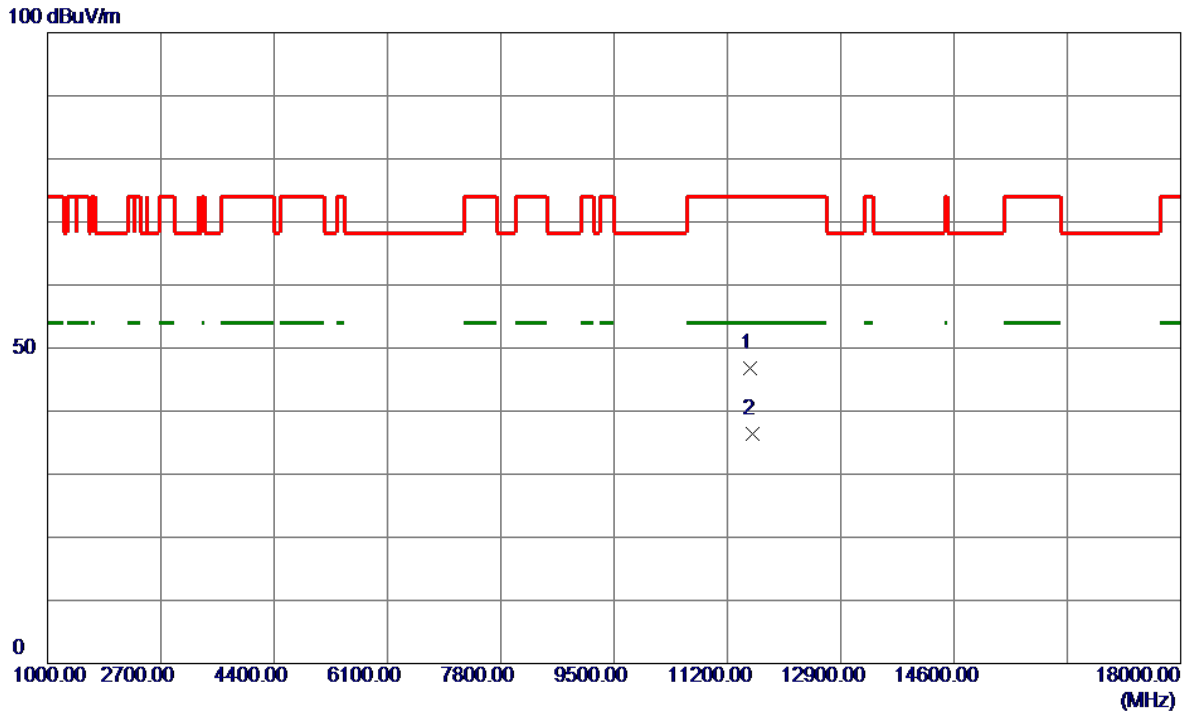
Test Mode	UNII-3_TX A Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11487.4500	25.12	11.17	36.29	54.00	-17.71	AVG	
2	11492.5000	35.46	11.18	46.64	74.00	-27.36	Peak	

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

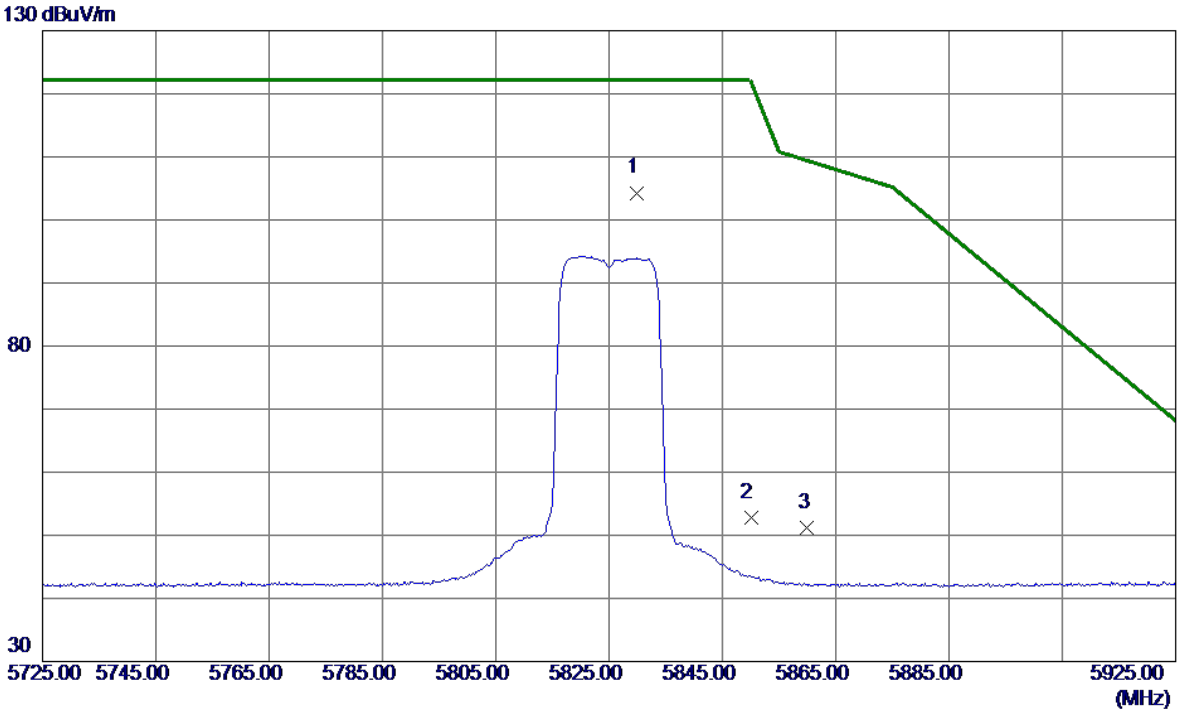
Test Mode	UNII-3_TX A Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11544.6500	35.51	11.21	46.72	74.00	-27.28	Peak	
2 *	11577.3000	25.14	11.22	36.36	54.00	-17.64	AVG	

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

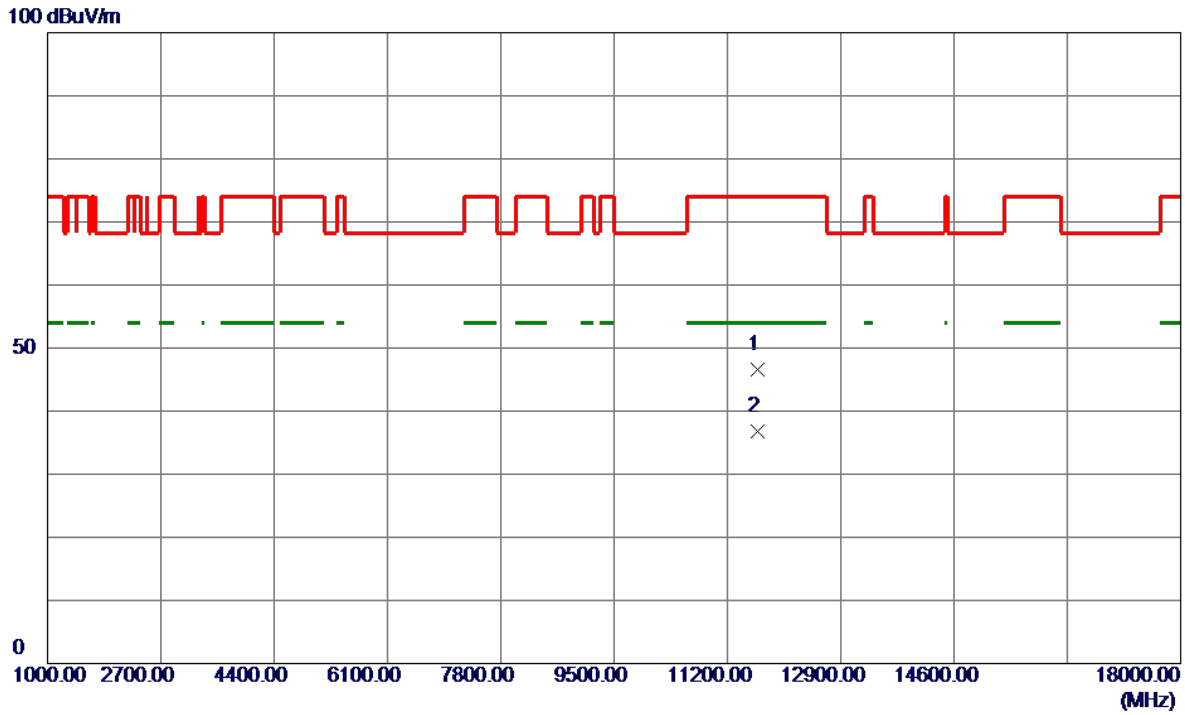
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5829.8000	89.20	15.10	104.30	122.20	-17.90	Peak	No Limit
2	5850.0000	37.64	15.14	52.78	122.20	-69.42	Peak	
3	5860.0000	35.97	15.16	51.13	109.40	-58.27	Peak	

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

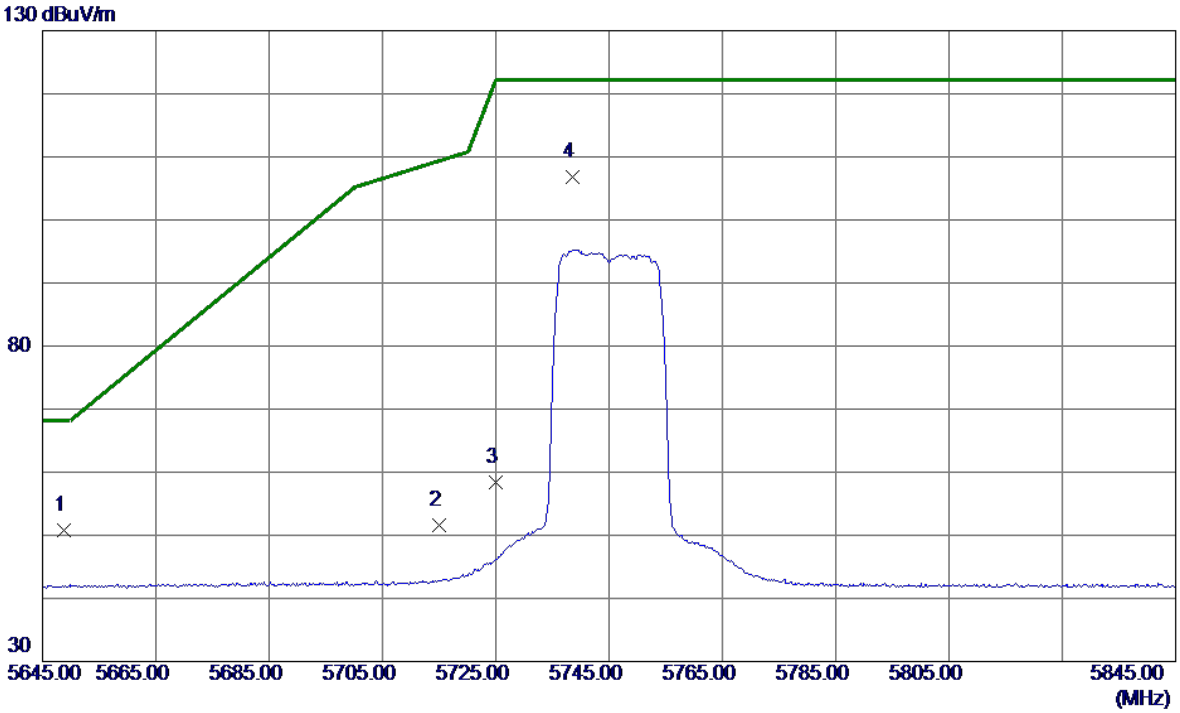
Test Mode	UNII-3_TX A Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11644.4500	35.33	11.23	46.56	74.00	-27.44	Peak	
2 *	11650.0500	25.58	11.23	36.81	54.00	-17.19	AVG	

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

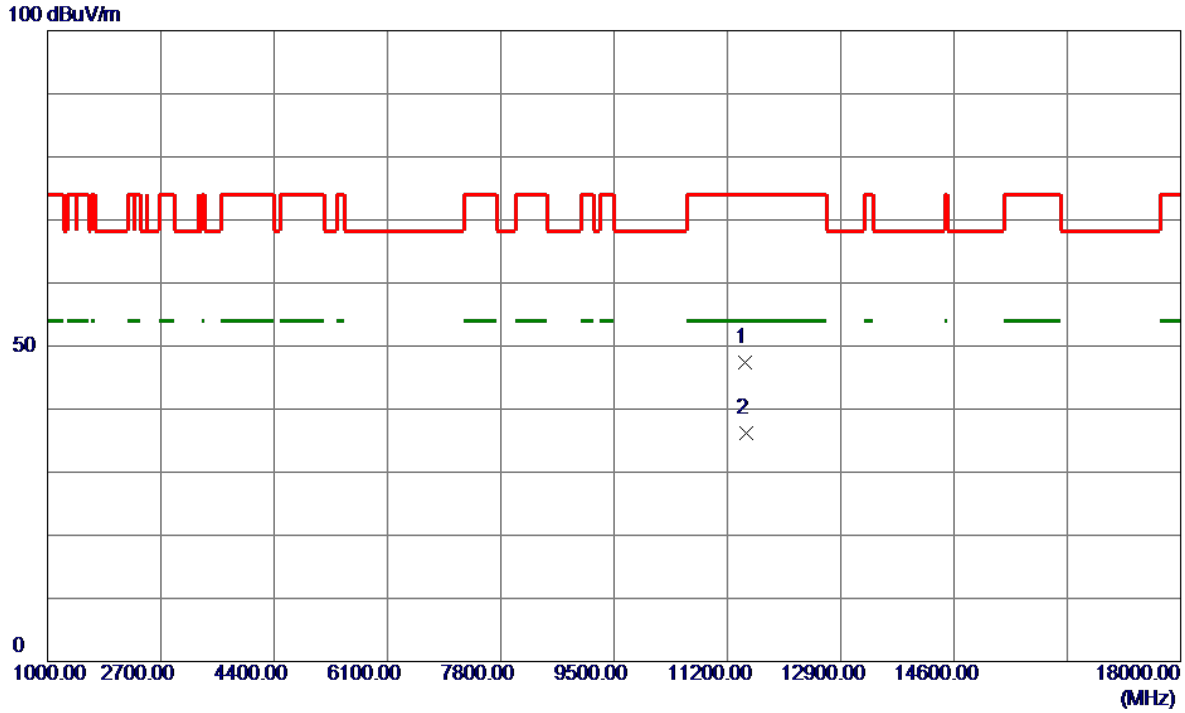
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5648.8000	36.04	14.69	50.73	68.20	-17.47	Peak	
2	5715.0000	36.85	14.84	51.69	109.40	-57.71	Peak	
3	5725.0000	43.63	14.86	58.49	122.20	-63.71	Peak	
4 *	5738.6000	91.94	14.89	106.83	122.20	-15.37	Peak	No Limit

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

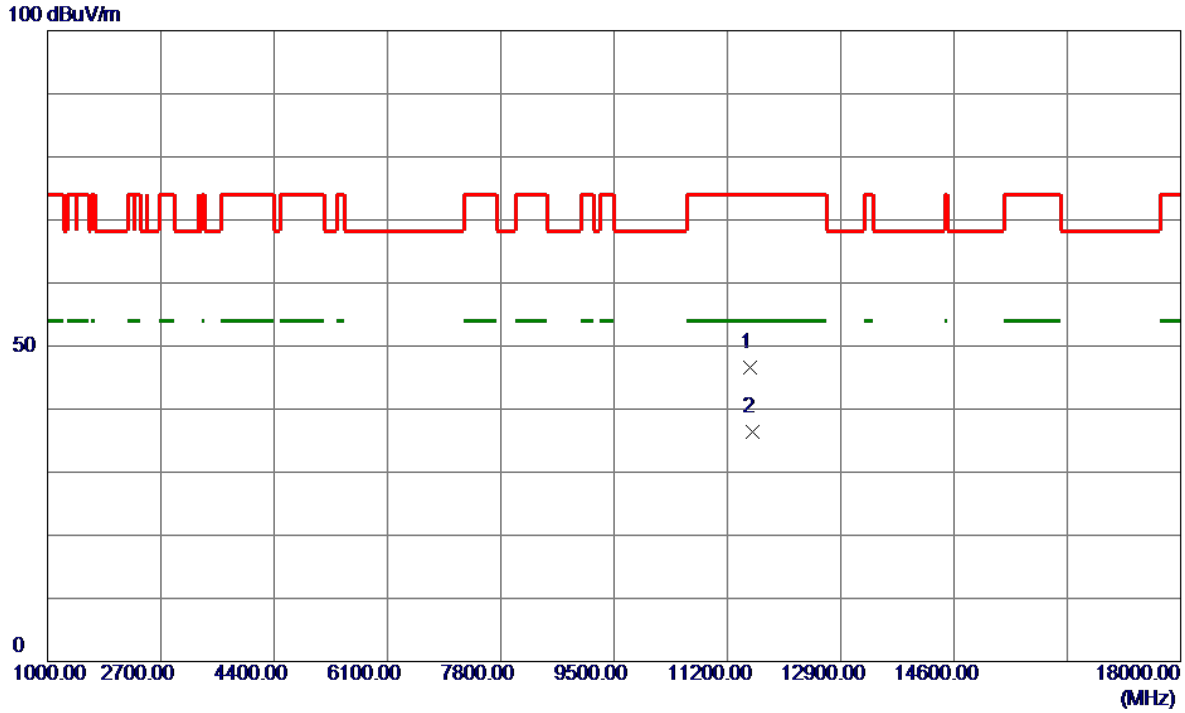
Test Mode	UNII-3_TX AC(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11465.0500	36.18	11.13	47.31	74.00	-26.69	Peak	
2 *	11491.0000	25.08	11.18	36.26	54.00	-17.74	AVG	

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

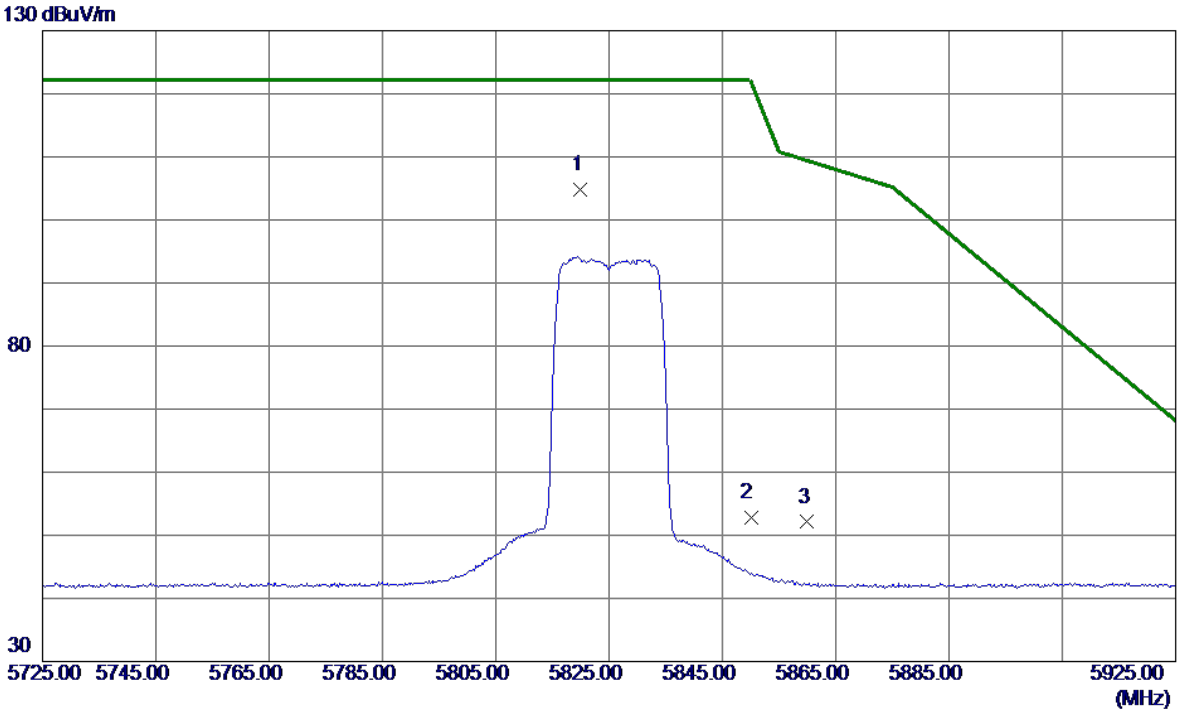
Test Mode	UNII-3_TX AC(VHT20) Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	11545.9500	35.47	11.21	46.68	74.00	-27.32	Peak	
2 *	11582.6000	25.23	11.22	36.45	54.00	-17.55	AVG	

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

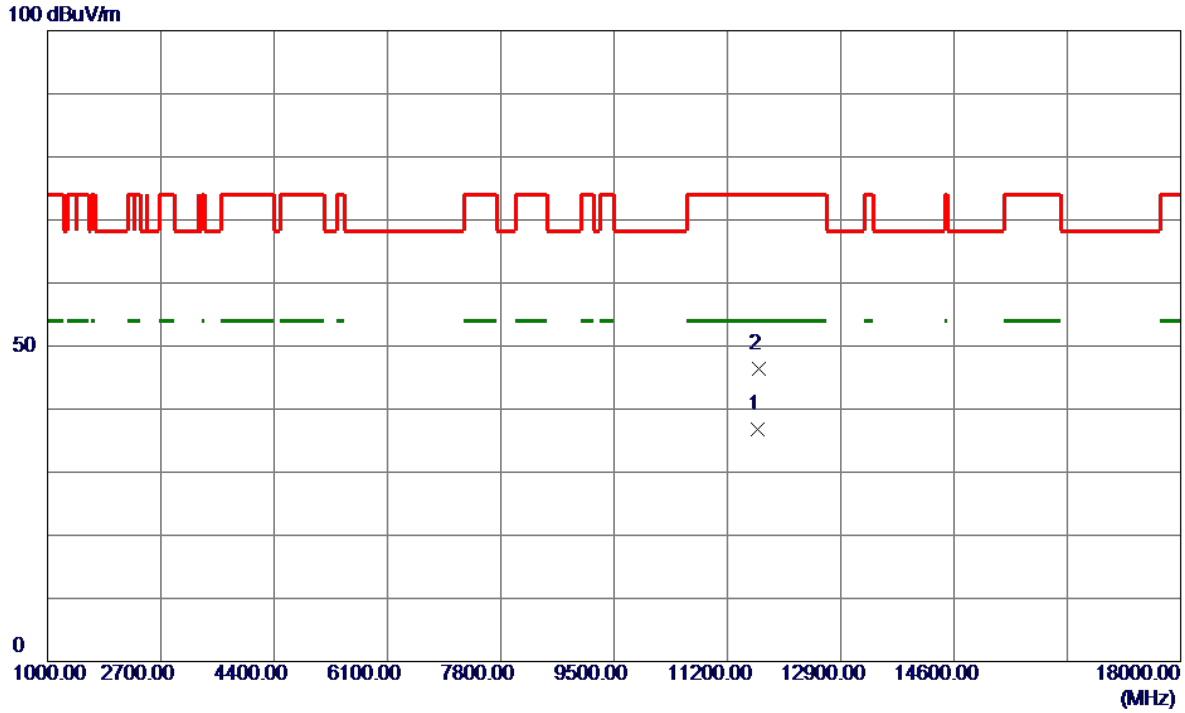
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5820.0000	89.81	15.07	104.88	122.20	-17.32	Peak	No Limit
2	5850.0000	37.57	15.14	52.71	122.20	-69.49	Peak	
3	5860.0000	36.94	15.16	52.10	109.40	-57.30	Peak	

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

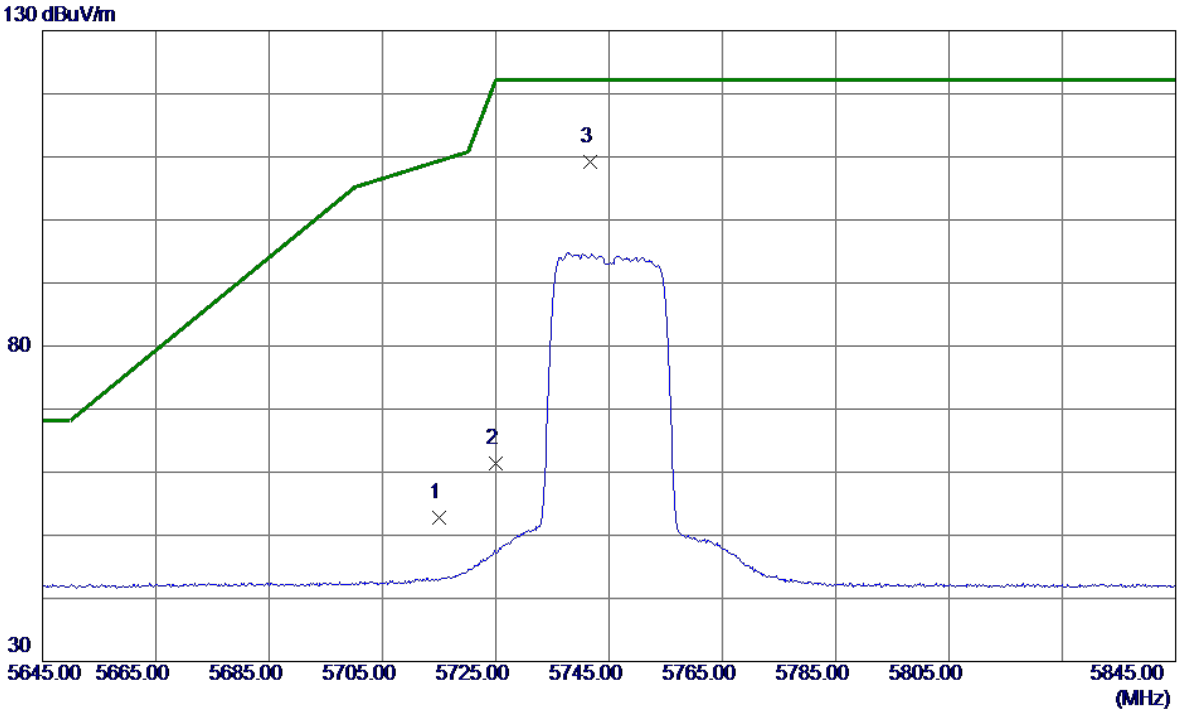
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11657.0500	25.52	11.23	36.75	54.00	-17.25	AVG	
2	11666.5000	35.17	11.24	46.41	74.00	-27.59	Peak	

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

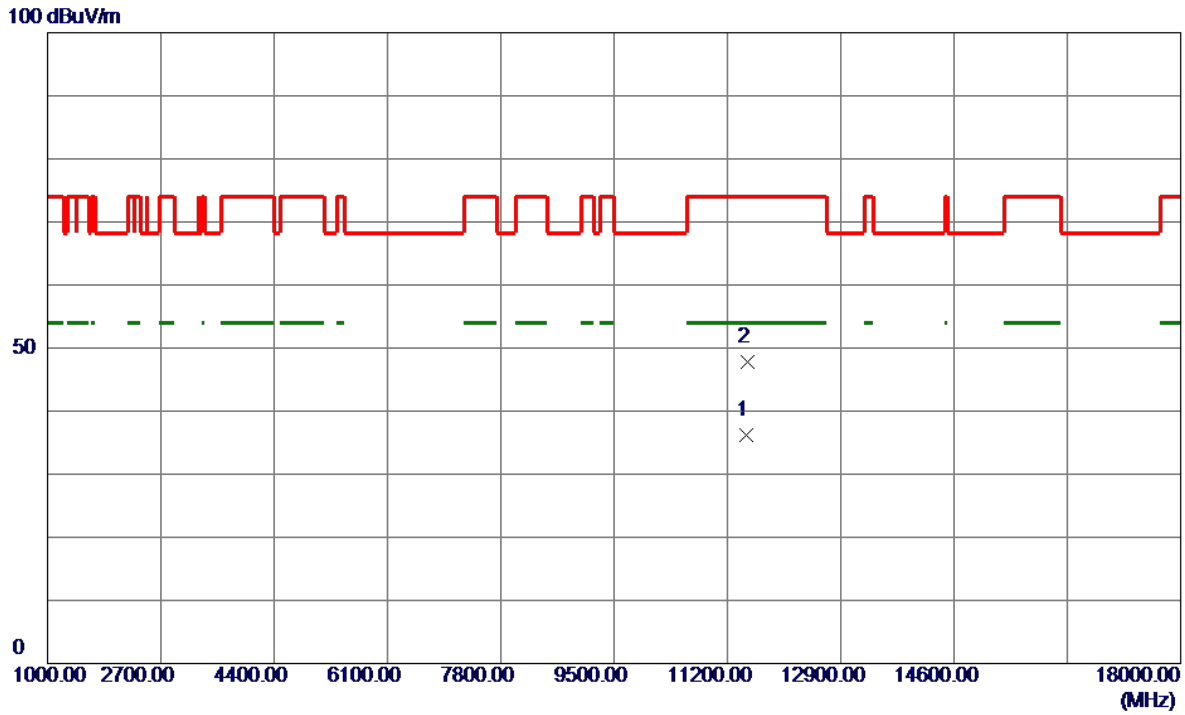
Test Mode	UNII-3_TX AX(HE20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	5715.0000	38.03	14.84	52.87	109.40	-56.53	Peak	
2	5725.0000	46.55	14.86	61.41	122.20	-60.79	Peak	
3 *	5741.6000	94.24	14.90	109.14	122.20	-13.06	Peak	No Limit

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

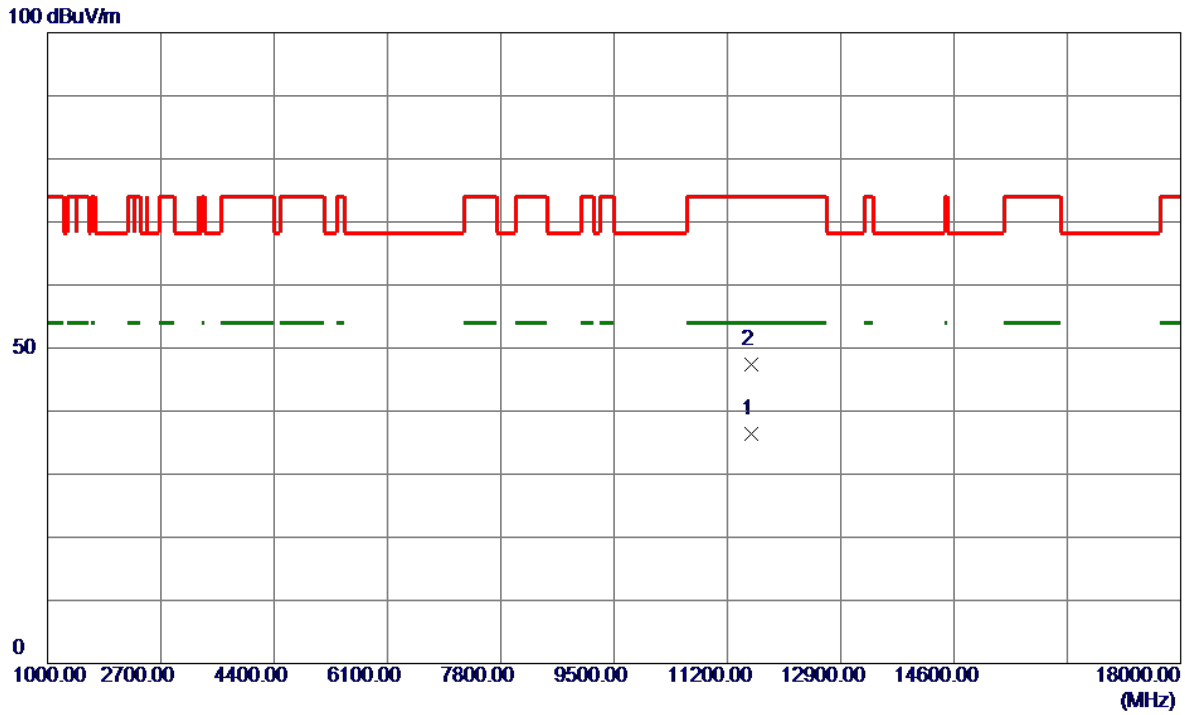
Test Mode	UNII-3_TX AX(HE20) Mode 5745 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11483.6500	24.99	11.17	36.16	54.00	-17.84	AVG	
2	11511.5500	36.53	11.20	47.73	74.00	-26.27	Peak	

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

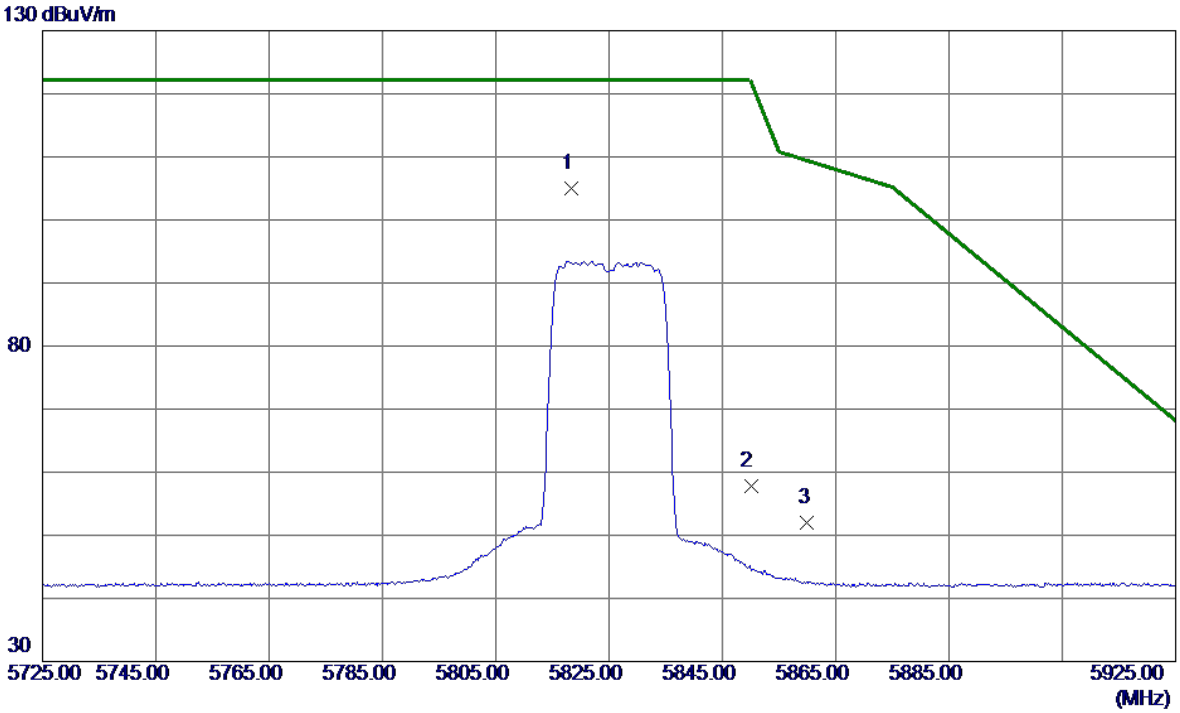
Test Mode	UNII-3_TX AX(HE20) Mode 5785 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11551.2500	25.15	11.21	36.36	54.00	-17.64	AVG	
2	11553.8000	36.20	11.21	47.41	74.00	-26.59	Peak	

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

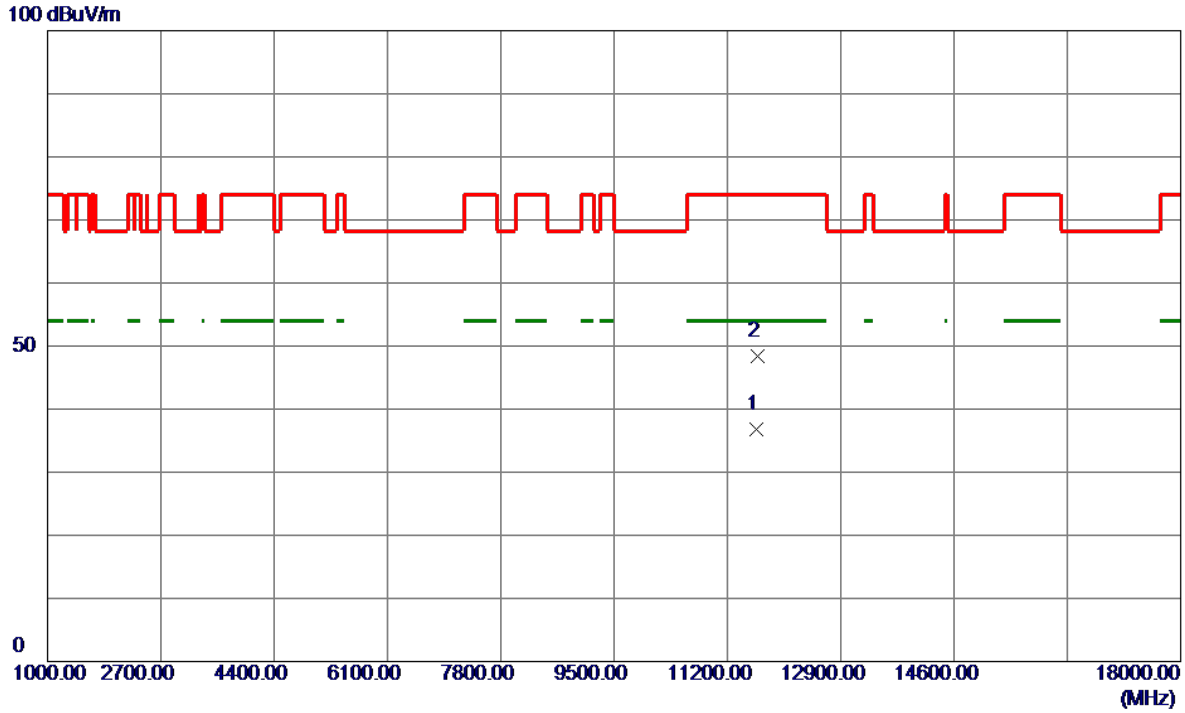
Test Mode	UNII-3_TX AX(HE20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	5818.4000	89.97	15.07	105.04	122.20	-17.16	Peak	No Limit
2	5850.0000	42.57	15.14	57.71	122.20	-64.49	Peak	
3	5860.0000	36.80	15.16	51.96	109.40	-57.44	Peak	

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

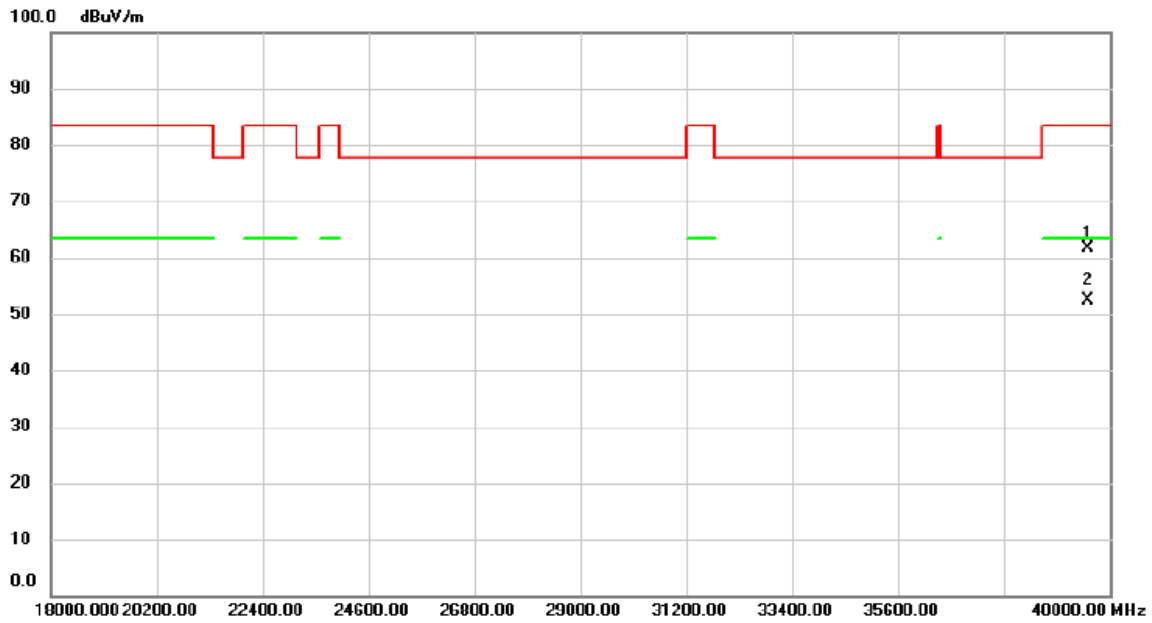
Test Mode	UNII-3_TX AX(HE20) Mode 5825 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	11643.1500	25.57	11.23	36.80	54.00	-17.20	AVG	
2	11658.3000	37.13	11.23	48.36	74.00	-25.64	Peak	

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

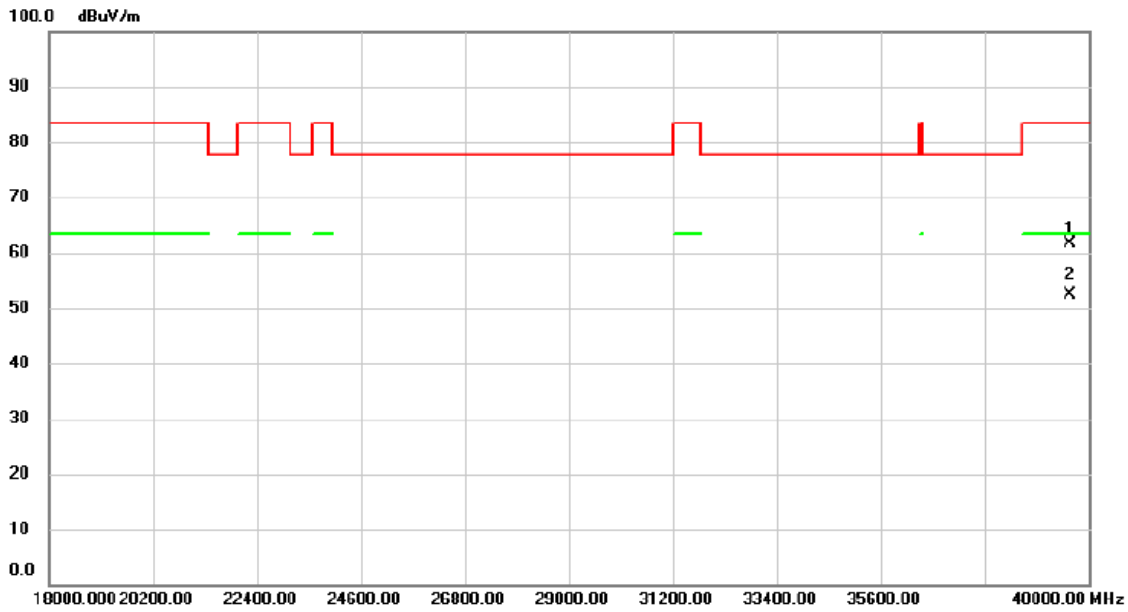
Test Mode	UNII-3_TX AC(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		39549.00	49.28	12.24	61.52	83.50	-21.98	peak	
2	*	39549.00	40.08	12.24	52.32	63.50	-11.18	AVG	

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

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



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		39615.00	49.30	12.27	61.57	83.50	-21.93	peak	
2	*	39615.00	40.18	12.27	52.45	63.50	-11.05	AVG	

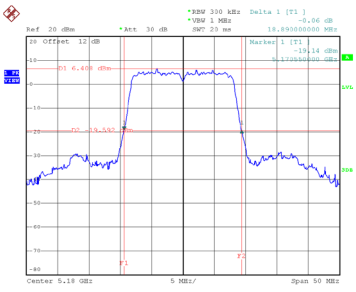
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	UNII-1_TX A Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
36	5180	18.890	16.600
40	5200	18.889	16.600
48	5240	18.850	16.500

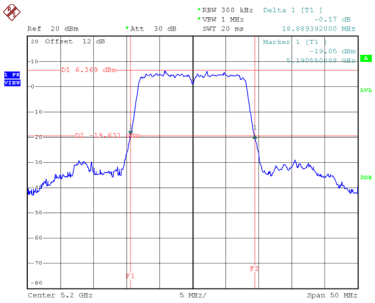
CH36



Date: 26.JUN.2024 17:03:02

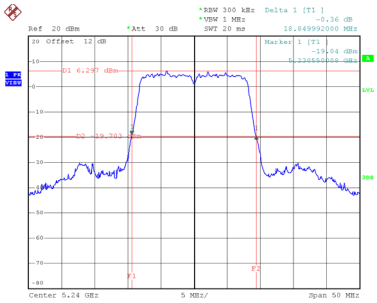
CH40

26 dB Bandwidth



Date: 26.JUN.2024 17:04:17

CH48



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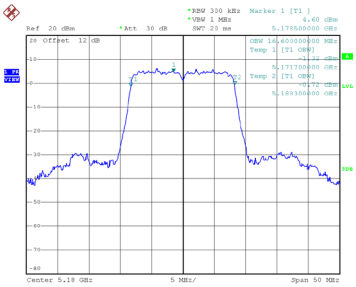
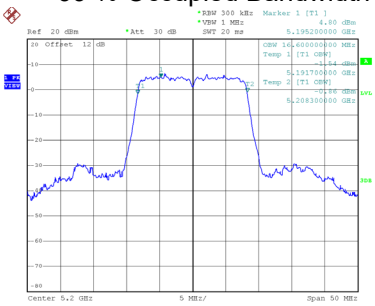
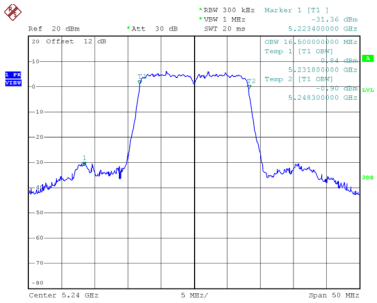


Date: 26.JUN.2024 17:02:24

99 % Occupied Bandwidth



Date: 26.JUN.2024 17:03:39



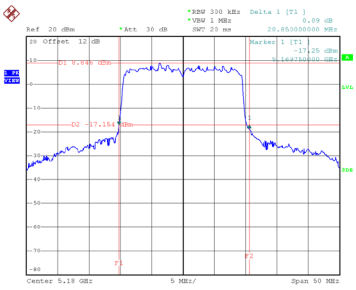
Date: 26.JUN.2024 17:04:49

Test Mode	UNII-1_TX AC(VHT20) Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
36	5180	20.850	18.900
40	5200	20.508	18.900
48	5240	19.709	17.600

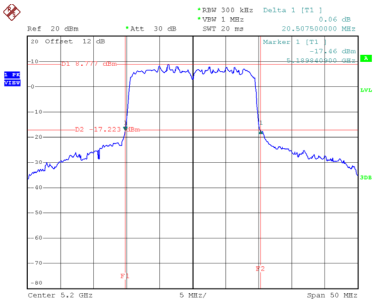
CH36

26 dB Bandwidth



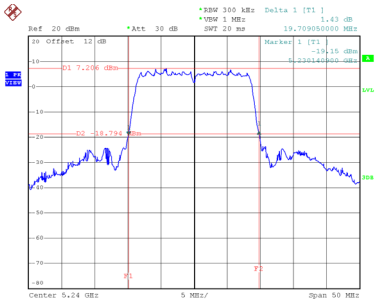
Date: 26.JUN.2024 17:58:34

CH40



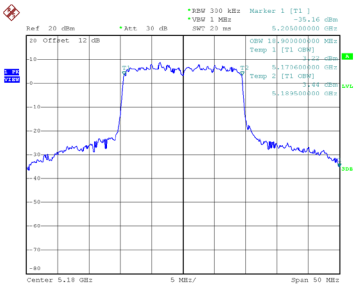
Date: 26.JUN.2024 17:59:38

CH48



Date: 26.JUN.2024 17:41:09

99 % Occupied Bandwidth



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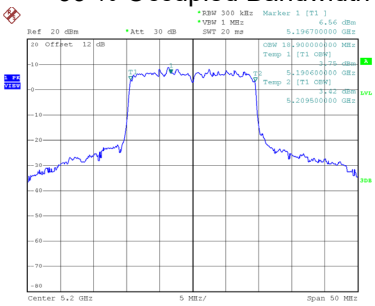
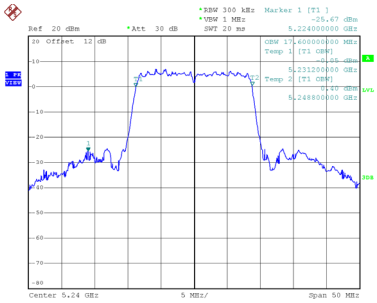


Date: 26.JUN.2024 17:59:02

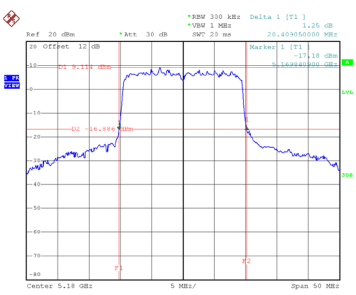


Date: 26.JUN.2024 17:40:33

Test Mode	UNII-1_TX AX(HE20) Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
36	5180	20.409	18.900
40	5200	20.499	18.900
48	5240	20.400	18.900

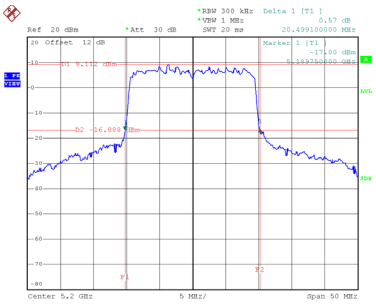
CH36



Date: 26.JUN.2024 18:31:57

CH40

26 dB Bandwidth



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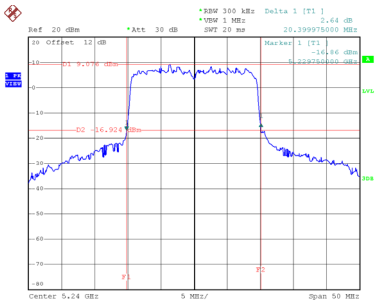
CH48



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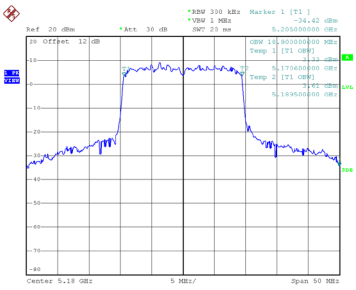
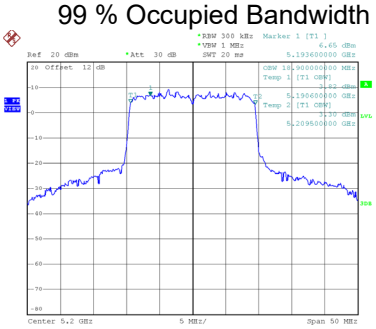


Date: 26.JUN.2024 18:31:18

99 % Occupied Bandwidth



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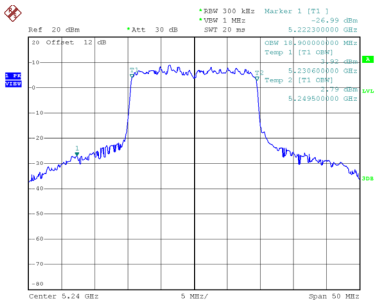
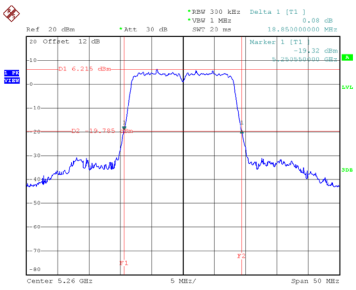


Date: 26.JUN.2024 18:34:03

Test Mode	UNII-2A_TX A Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
52	5260	18.850	16.600
60	5300	18.850	16.600
64	5320	18.909	16.600

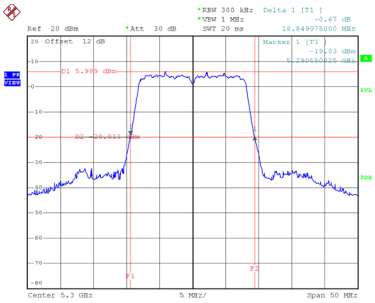
CH52



Date: 26.JUN.2024 17:07:03

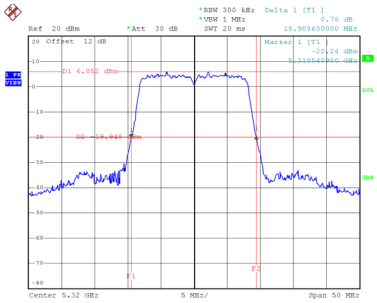
CH60

26 dB Bandwidth



Date: 26.JUN.2024 17:08:27

CH64



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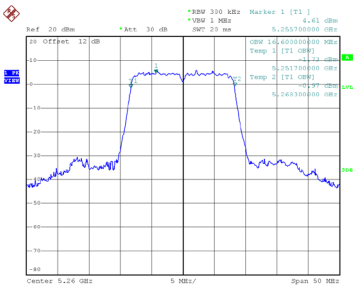
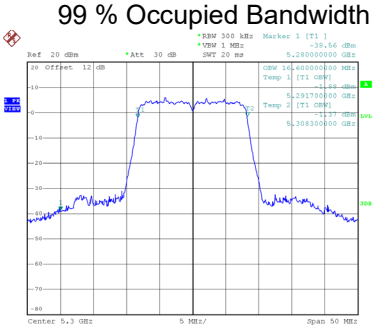


Date: 26.JUN.2024 17:06:26

99 % Occupied Bandwidth



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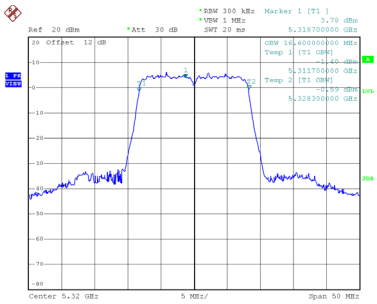
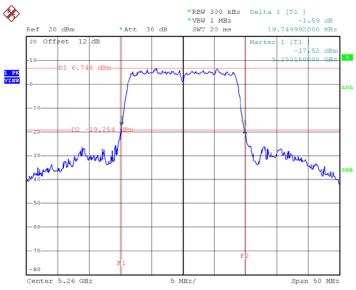


Date: 26.JUN.2024 17:08:54

Test Mode	UNII-2A_TX AC(VHT20) Mode

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)
52	5260	19.750	17.600
60	5300	19.750	17.600
64	5320	19.750	17.600

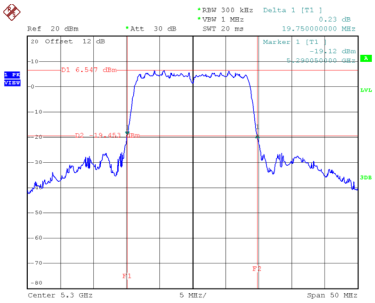
CH52



Date: 26.JUN.2024 17:42:33

CH60

26 dB Bandwidth



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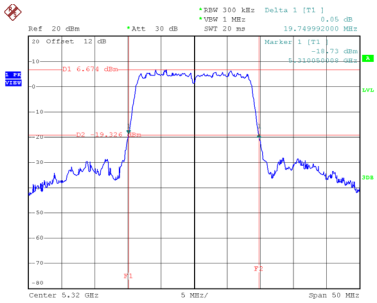
CH64



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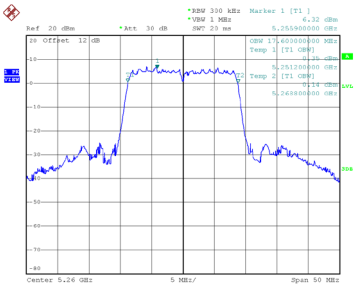

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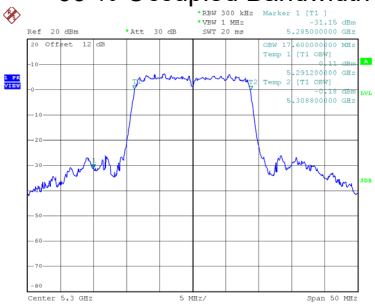
99 % Occupied Bandwidth



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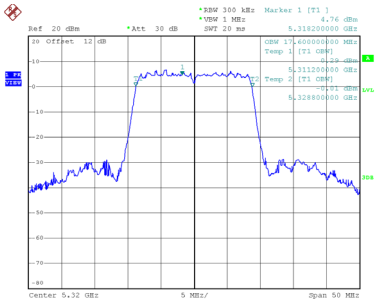

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