

FCC Radio Test Report

FCC ID: TE7CPE710

This report concerns: **Original Grant**

Project No. : 1912C049
Equipment : 5GHz 867Mbps 23dBi Outdoor CPE
Brand Name : tp-link
Test Model : CPE710
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
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Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Scienceand
Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Receipt : Dec. 10, 2019
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Issued Date : Feb. 14, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG2019121142
Standard(s) : FCC Part15, Subpart E(15.407)
ANSI C63.10-2013
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01

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

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Declaration

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

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Feb. 14, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)				
Standard(s) Section	Test Item	Test Result	Judgement	Remark
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.407(b) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.407(a) 15.407(e)	Spectrum Bandwidth	APPENDIX E	PASS	-----
15.407(a)	Maximum Output Power	APPENDIX F	PASS	-----
15.407(a)	Power Spectral Density	APPENDIX G	PASS	-----
15.407(g)	Frequency Stability	APPENDIX H	PASS	-----
15.203	Antenna Requirements	-----	PASS	NOTE (3)
15.407(c)	Automatically Discontinue Transmission	-----	PASS	NOTE (3)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
- (3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.
- (4) For UNII-1 this device was functioned as a
 Access point device Client device

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

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

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

1.3 TEST ENVIRONMENT CONDITIONS

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	5GHz 867Mbps 23dBi Outdoor CPE
Brand Name	tp-link
Test Model	CPE710
Series Model	N/A
Model Difference(s)	N/A
Power Source	Supplied from PoE Adapter. Model: TL-POE2412G
Power Rating	I/P: 100-240V~ 50/60Hz 0.4A O/P: 24V $\overline{=}$ 0.5A
Operation Frequency Bands	UNII-1: 5150 MHz~5250 MHz UNII-3: 5725 MHz~5850 MHz
Modulation Type	OFDM
Bit Rate of Transmitter	Up to 866.7 Mbps
Maximum Output Power for UNII-1	Group 1 Antenna: IEEE 802.11a: 27.77 dBm (0.5984 W) IEEE 802.11n (HT20): 27.72 dBm (0.5916 W) IEEE 802.11n (HT40): 24.32 dBm (0.2704 W) IEEE 802.11ac (VHT80): 17.92 dBm (0.0619 W) Group 2 Antenna: IEEE 802.11a: 27.88 dBm (0.6138 W) IEEE 802.11n (HT20): 27.72 dBm (0.5916 W) IEEE 802.11n (HT40): 27.98 dBm (0.6281 W) IEEE 802.11ac (VHT80): 18.63 dBm (0.0729 W)
Maximum Output Power for UNII-3	Group 1 Antenna: IEEE 802.11a: 23.49 dBm (0.2234 W) IEEE 802.11n (HT20): 24.47 dBm (0.2799 W) IEEE 802.11n (HT40): 27.92 dBm (0.6194 W) IEEE 802.11ac (VHT80): 25.61 dBm (0.3639 W) Group 2 Antenna: IEEE 802.11a: 27.97 dBm (0.6266 W) IEEE 802.11n (HT20): 27.88 dBm (0.6138 W) IEEE 802.11n (HT40): 27.97 dBm (0.6266 W) IEEE 802.11ac (VHT80): 27.99 dBm (0.6295 W)

Note:

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

2. Channel List:

IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

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

3. Antenna Specification:

Group 1 Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	PCB	I-PEX	20.8
2		N/A	PCB	I-PEX	20.8

Note:

This EUT supports CDD, and antenna gains are equal, so Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=20.8.

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log(N_{ANT}/N_{SS})$ dB = $20.8 + 10 \log(2/1)$ dBi = 23.81.

For fixed point-to-point operation,

- 1) For UNII-1: The directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. So the power spectral density limit is $17 - (23.81 - 23) = 16.19$.
- 2) For UNII-3: The devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. So the power spectral density limit $30 - (23.81 - 6) = 12.19$.

Group 2 Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	PCB	I-PEX	6.95
2		N/A	PCB	I-PEX	6.95

Note:

This EUT supports CDD, and antenna gains are equal, so Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain=6.95.

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$. So Directional gain = $G_{ANT} + \text{Array Gain} = 10 \log(N_{ANT}/N_{SS})$ dB = $6.95 + 10 \log(2/1)$ dBi = 9.96.

For fixed point-to-point operation,

- 1) For UNII-1: The directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. So the output power and power spectral density limit are not reduced.
- 2) For UNII-3: The devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. So the power spectral density limit $30 - (9.96 - 6) = 26.04$.

4. Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
	IEEE 802.11a	V (Ant. 1 + Ant. 2)
IEEE 802.11ac (VHT20)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ac (VHT40)	V (Ant. 1 + Ant. 2)	
IEEE 802.11ac (VHT80)	V (Ant. 1 + Ant. 2)	

2.2 TEST MODES

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

Pretest Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N (HT40) Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC (VHT80) Mode / CH155 (UNII-3)
Mode 9	TX N(HT40) Mode / CH151 (UNII-3)

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 9	TX N(HT40) Mode / CH151 (UNII-3)

Radiated emissions test – Below 1GHz	
Final Test Mode	Description
Mode 9	TX N(HT40) Mode / CH151 (UNII-3)

Radiated emissions test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N (HT40) Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC (VHT80) Mode / CH155 (UNII-3)

Conducted test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N (HT20) Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N (HT40) Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC (VHT80) Mode / CH42 (UNII-1)
Mode 5	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 6	TX N (HT20) Mode / CH149,CH157,CH165 (UNII-3)
Mode 7	TX N (HT40) Mode / CH151,CH159 (UNII-3)
Mode 8	TX AC (VHT80) Mode / CH155 (UNII-3)

Note:

- (1) For radiated emission below 1 GHz test, the IEEE 802.11n40 channel 151 is found to be the worst case and recorded.
- (2) For radiated emission above 1 GHz test, 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (3) HT20/HT40 covers VHT20/VHT40, due to same modulation. The power setting for 802.11ac VHT20 and VHT40 are the same or lower than 802.11n HT20 and HT40.
- (4) The measurements for Power and power spectral density were tested during on Group 1 Antenna and Goup 2 Antenna, the worst case was Group 1 Antenna, only the worst case were documented for other test items.

2.3 PARAMETERS OF TEST SOFTWARE

Group 1 Antenna

UNII-1			
Test Software	QSPR		
Test Frequency (MHz)	5180	5200	5240
IEEE 802.11a	14.5	23	24.5
IEEE 802.11n (HT20)	13	23	24.5
Test Frequency (MHz)	5190	5230	
IEEE 802.11n (HT40)	12	21	
Test Frequency (MHz)	5210		
IEEE 802.11ac (VHT80)	14.5		

UNII-3			
Test Software	QSPR		
Test Frequency (MHz)	5745	5785	5825
IEEE 802.11a	20	20	20
IEEE 802.11n (HT20)	21	21	20
Test Frequency (MHz)	5755	5795	
IEEE 802.11n (HT40)	24.5	22	
Test Frequency (MHz)	5775		
IEEE 802.11ac (VHT80)	22.5		

Group 2 Antenna

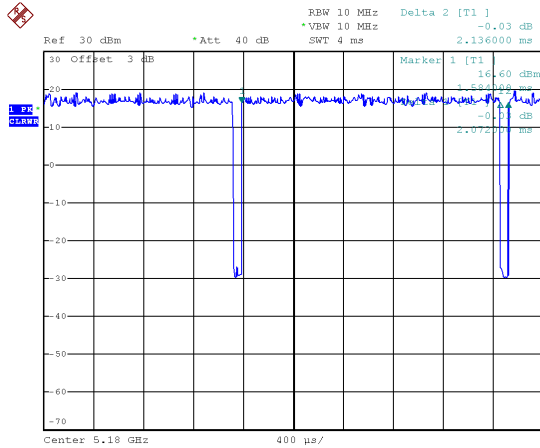
UNII-1			
Test Software	QSPR		
Test Frequency (MHz)	5180	5200	5240
IEEE 802.11a	22.5	24.5	24.5
IEEE 802.11n (HT20)	22.5	24.5	24.5
Test Frequency (MHz)	5190	5230	
IEEE 802.11n (HT40)	17	24.5	
Test Frequency (MHz)	5210		
IEEE 802.11ac (VHT80)	15		

UNII-3			
Test Software	QSPR		
Test Frequency (MHz)	5745	5785	5825
IEEE 802.11a	24.5	25	25
IEEE 802.11n (HT20)	24.5	25	25.5
Test Frequency (MHz)	5755	5795	
IEEE 802.11n (HT40)	24.5	24.5	
Test Frequency (MHz)	5775		
IEEE 802.11ac (VHT80)	24.5		

2.4 DUTY CYCLE

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

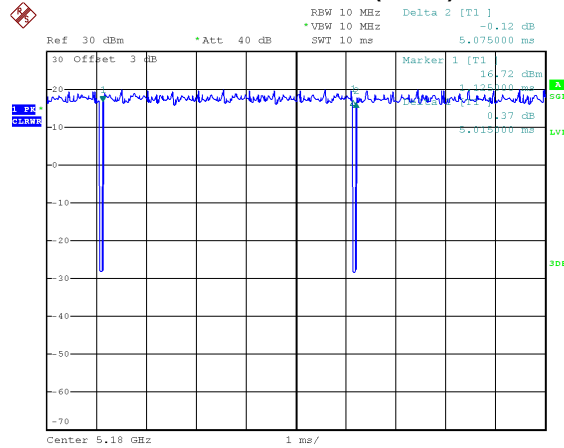
IEEE 802.11a



Date: 16.DEC.2019 10:49:58

Duty cycle = $2.072 \text{ ms} / 2.136 \text{ ms} = 97.00\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.13$

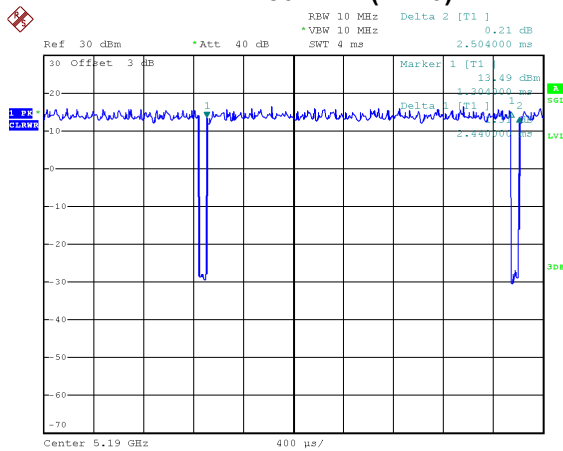
IEEE 802.11n (HT20)



Date: 16.DEC.2019 10:51:53

Duty cycle = $5.015 \text{ ms} / 5.075 \text{ ms} = 98.82\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.00$

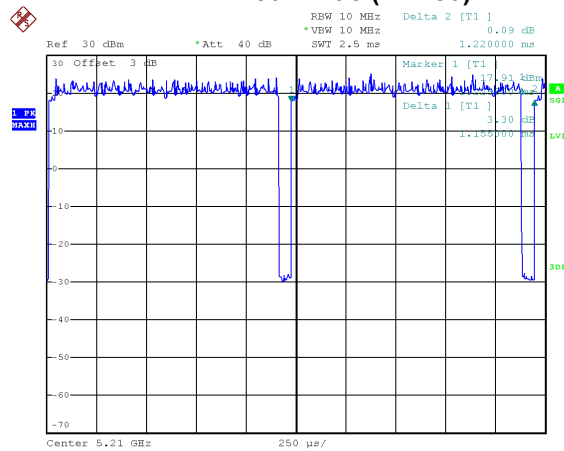
IEEE 802.11n (HT40)



Date: 16.DEC.2019 10:54:03

Duty cycle = $2.440 \text{ ms} / 2.504 \text{ ms} = 97.44\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.11$

IEEE 802.11ac (VHT80)



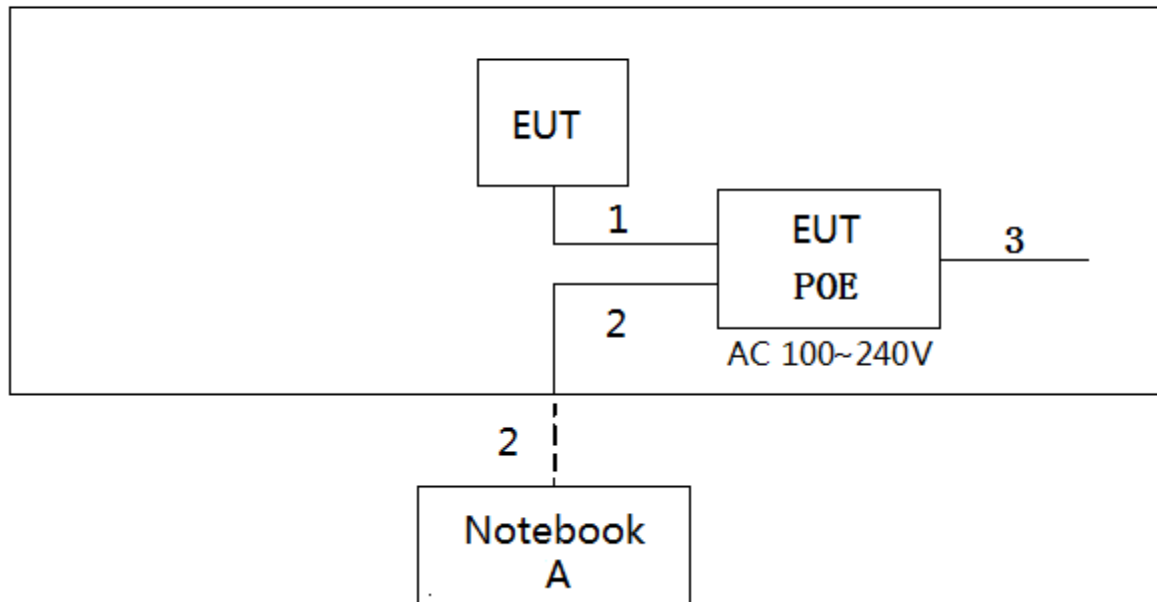
Date: 18.DEC.2019 09:18:32

Duty cycle = $1.155 \text{ ms} / 1.220 \text{ ms} = 94.67\%$
 Duty Factor = $10 \log(1 / \text{Duty cycle}) = 0.24$

NOTE:

- For IEEE 802.11a, IEEE 802.11n (HT20):
 For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle $< 98\%$).
- For IEEE 802.11n (HT40):
 For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle $< 98\%$).
- For IEEE 802.11ac (VHT80):
 For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 kHz (Duty cycle $< 98\%$).

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

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

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

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency (MHz)	Limit (dB μ V)	
	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.

The following table is the setting of the receiver

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

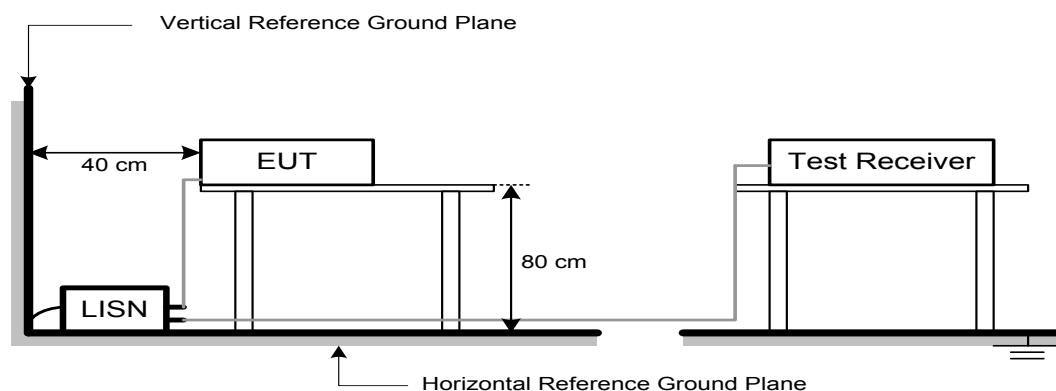
3.2 TEST PROCEDURE

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

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

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

The EUT was programmed to be in continuously transmitting/TX mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 LIMIT

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

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

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

NOTE:

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

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

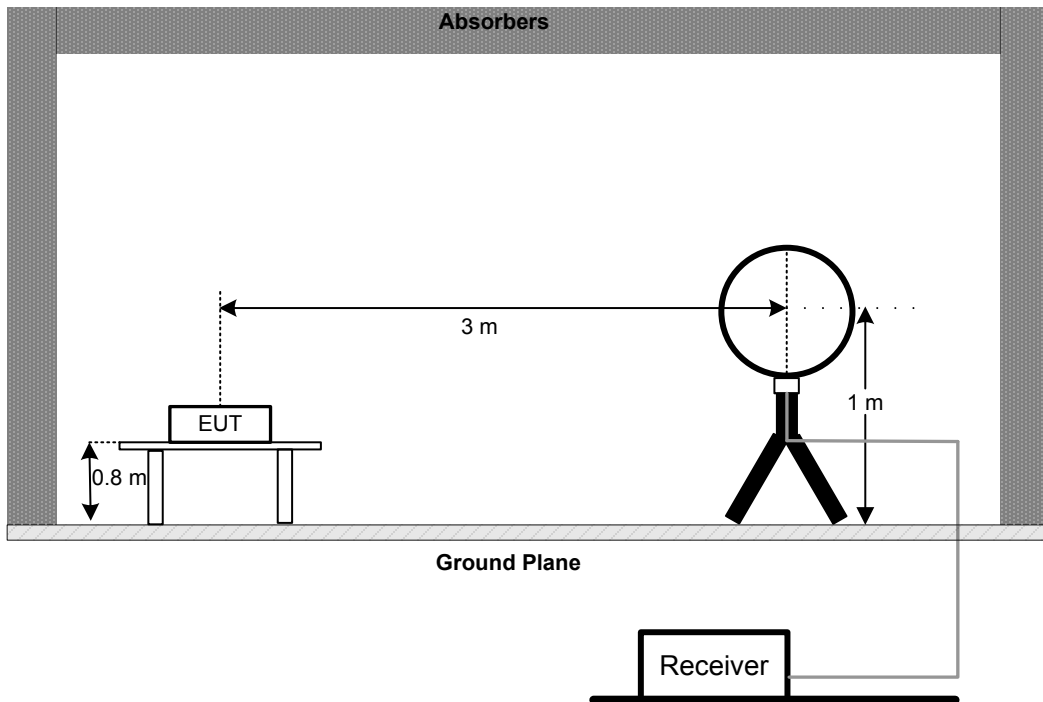
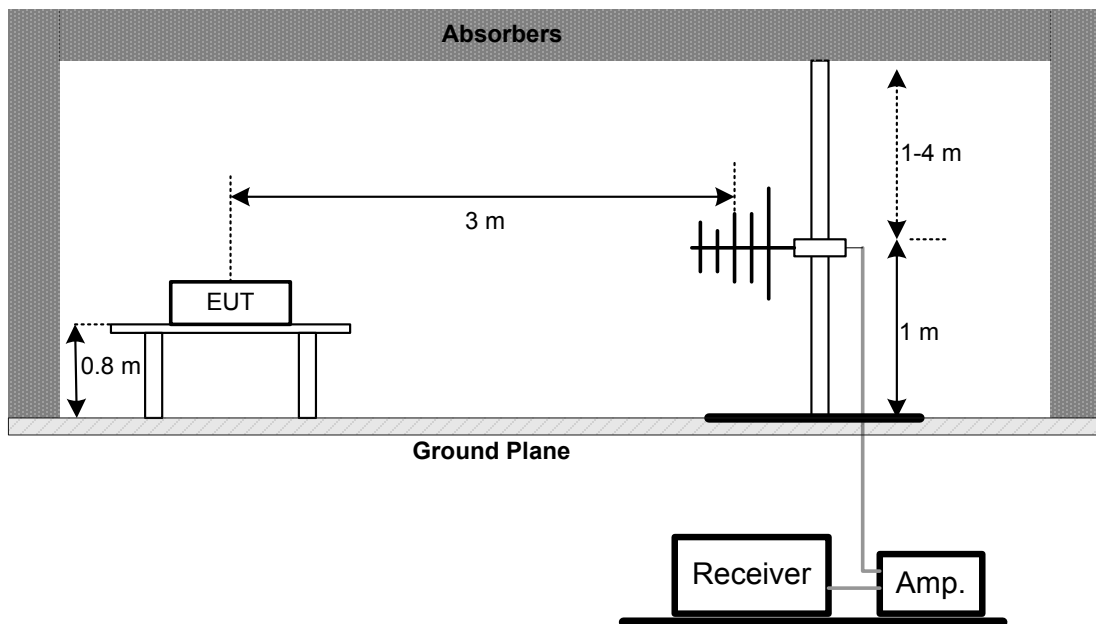
- (2) According to 15.407(b)(4)(i), all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

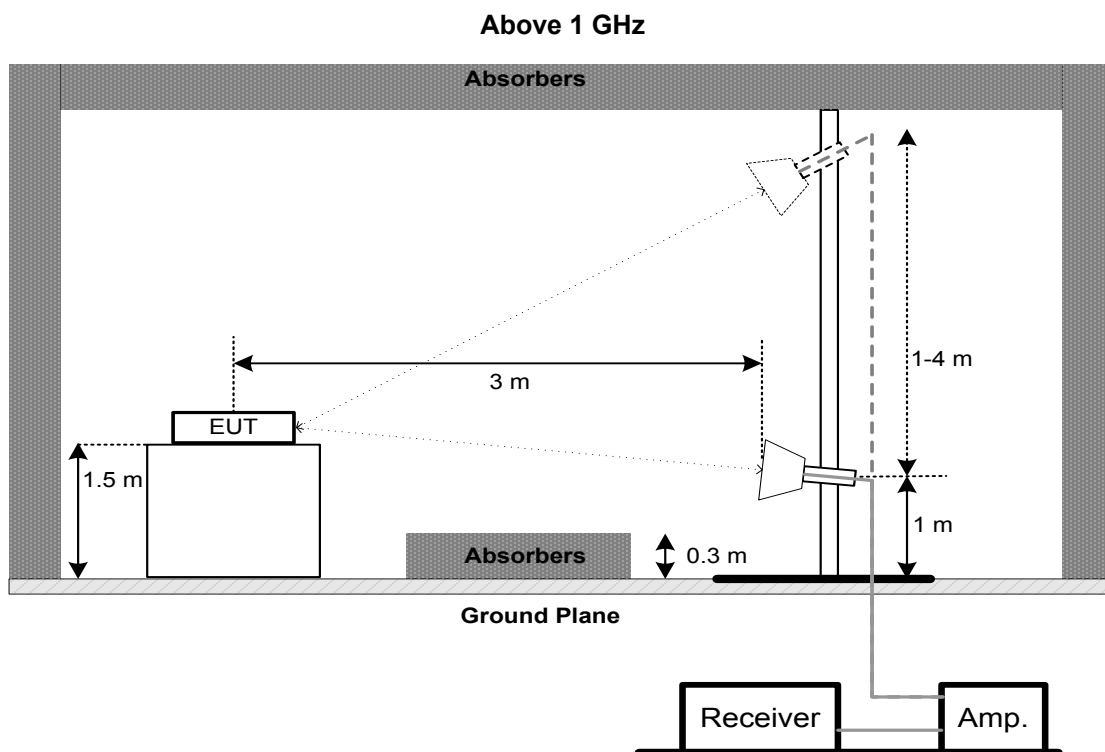
4.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP**9 kHz to 30 MHz****30 MHz to 1 GHz**



4.5 EUT OPERATION CONDITIONS

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

4.6 TEST RESULTS - 9 KHZ to 30 MHZ

Please refer to the APPENDIX B

Remark:

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

4.7 TEST RESULTS - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

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

5. BANDWIDTH TEST

5.1 LIMIT

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

5.2 TEST PROCEDURE

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

For UNII-1:

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

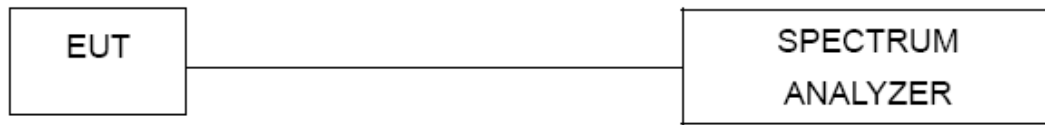
For UNII-3:

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

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

5.3 DEVIATION FROM TEST STANDARD

No deviation.

5.4 TEST SETUP**5.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER TEST

6.1 LIMIT

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

Note:

- a. For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

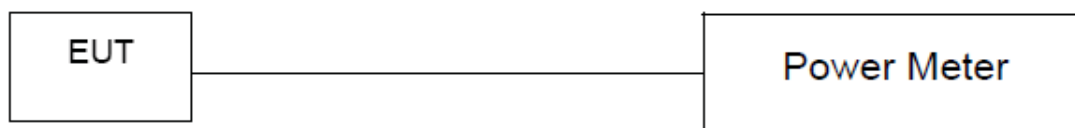
6.2 TEST PROCEDURE

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

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. POWER SPECTRAL DENSITY TEST

7.1 LIMIT

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

7.2 TEST PROCEDURE

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

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

Note:

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. FREQUENCY STABILITY MEASUREMENT

8.1 LIMIT

FCC Part15, Subpart E (15.407)			
Section	Test Item	Limit	Frequency Range (MHz)
15.407(g)	Frequency Stability	An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.	5150-5250
			5725-5850

8.2 TEST PROCEDURE

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

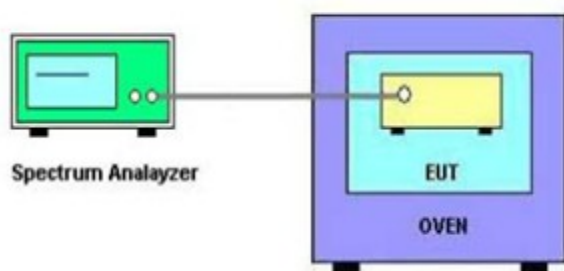
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- d. The test extreme temperature is -40°C~70°C.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

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

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

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 24, 2020
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
5	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

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

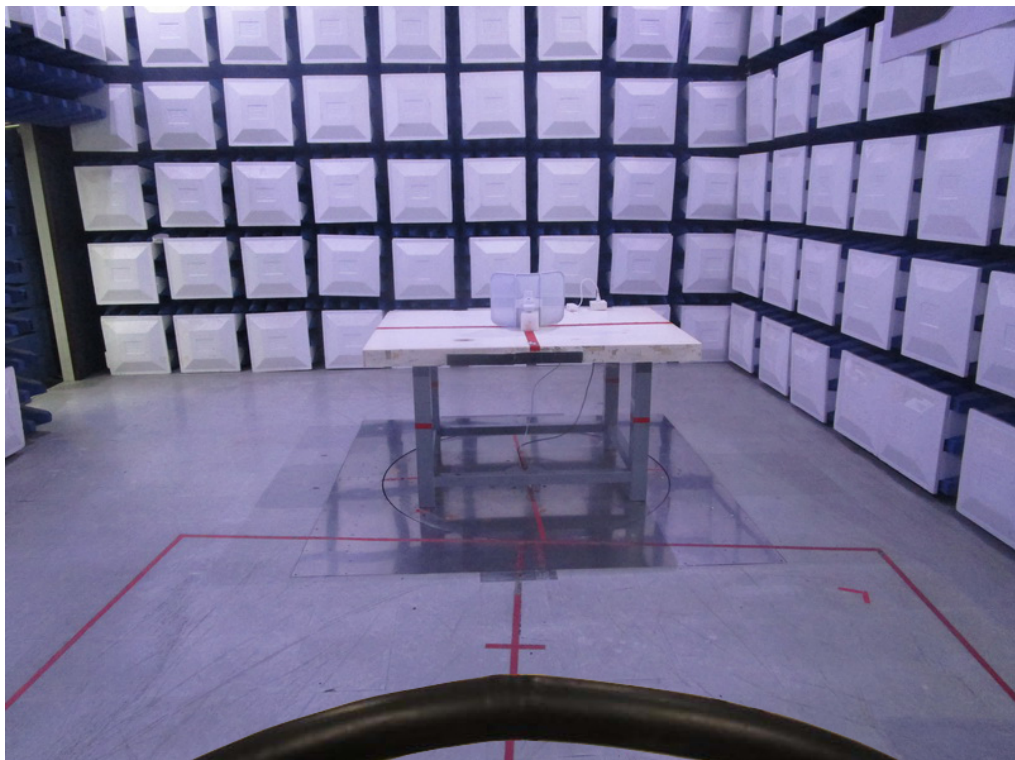
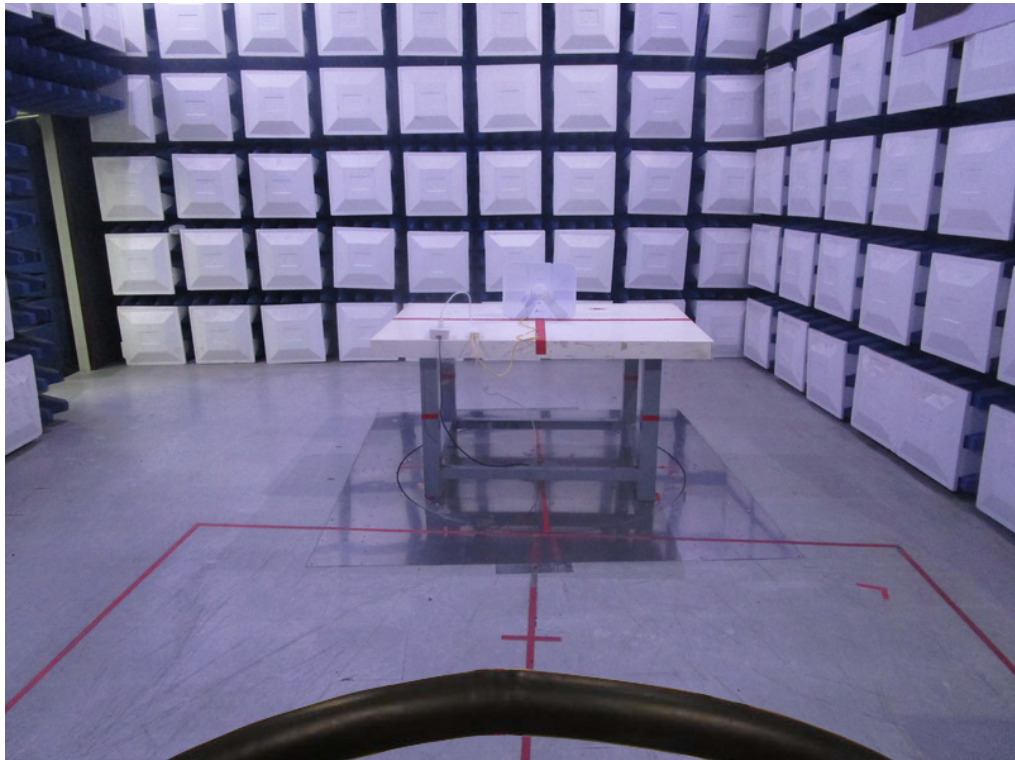
Frequency Stability					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020
2	Precision Oven Tester	Bell	BTH-50C	20170306001	Mar. 10, 2020

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

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

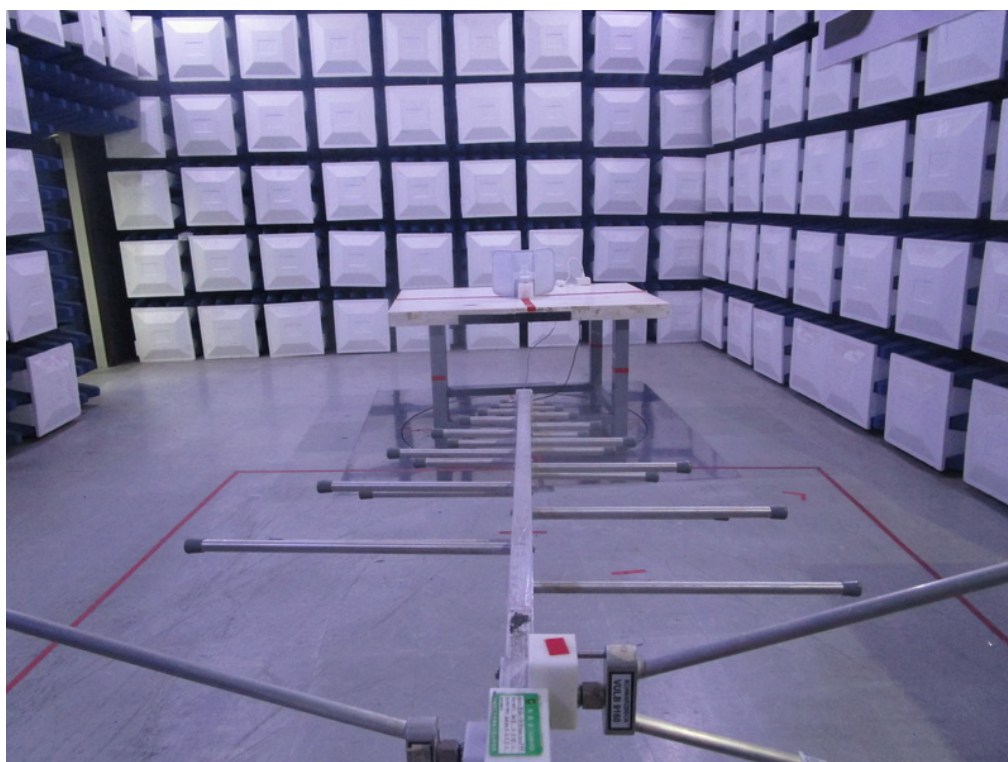
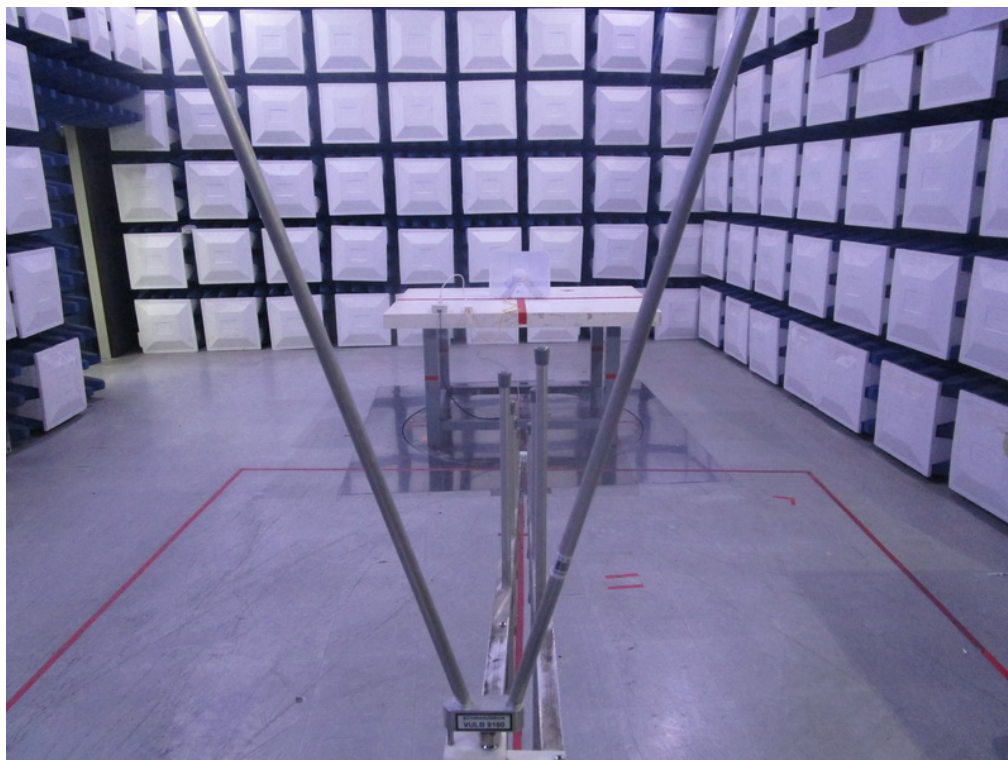
Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTOS**AC Power Line Conducted Emissions Test Photos**

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

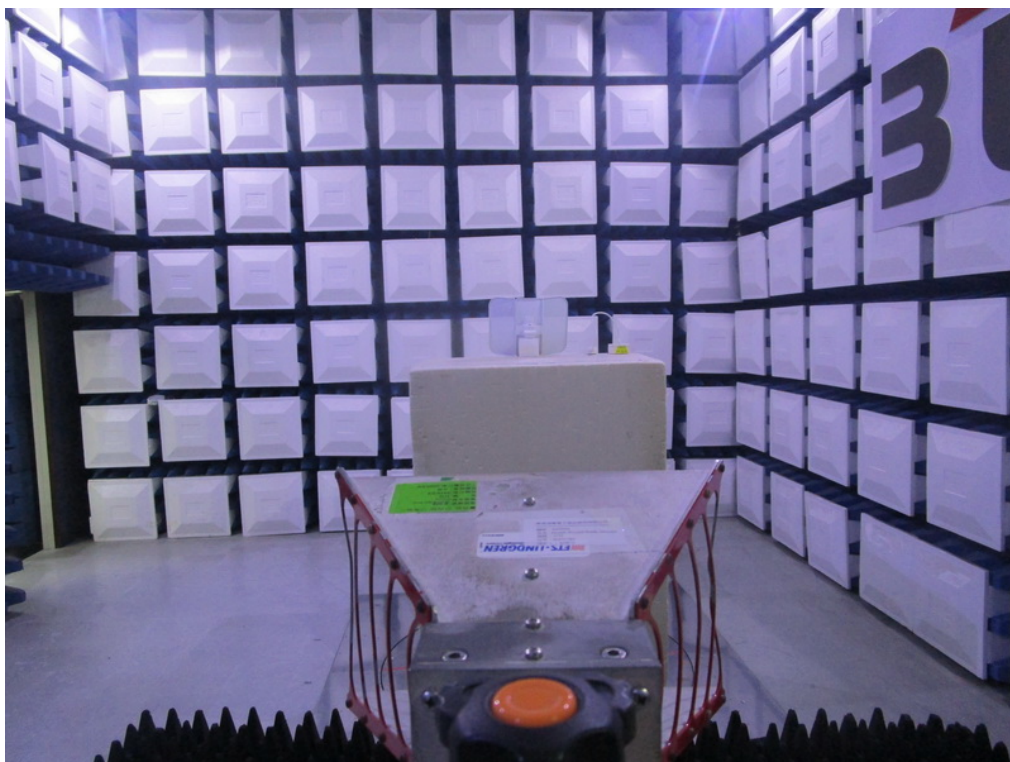
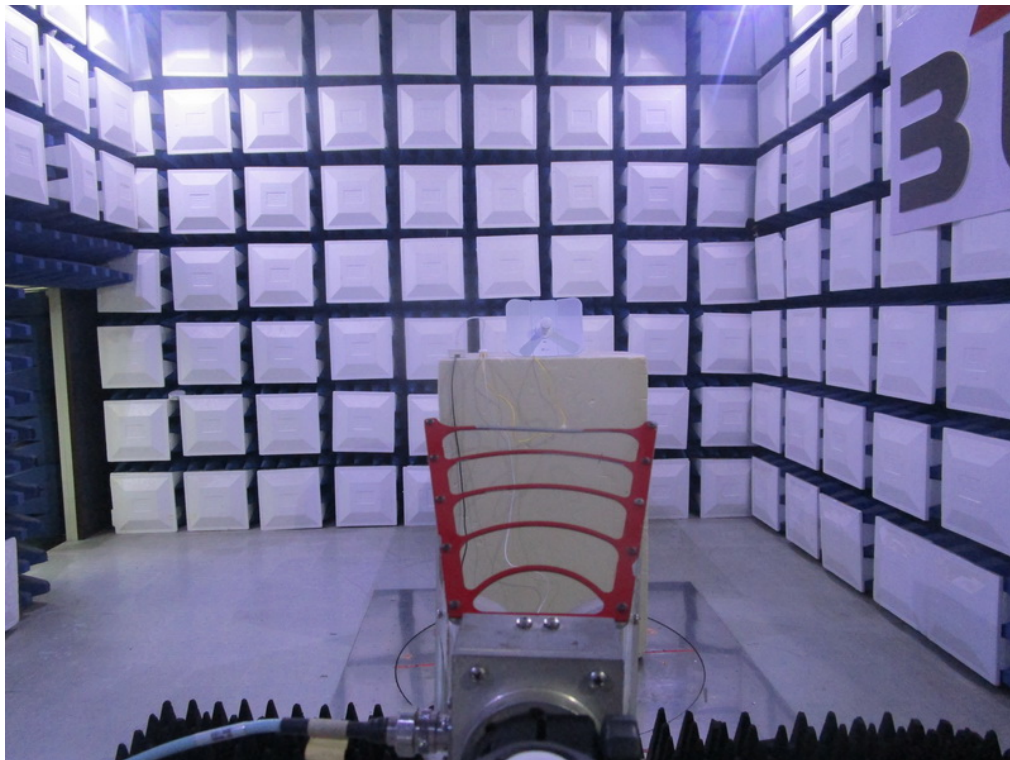
Radiated Emissions Test Photos

30 MHz to 1 GHz



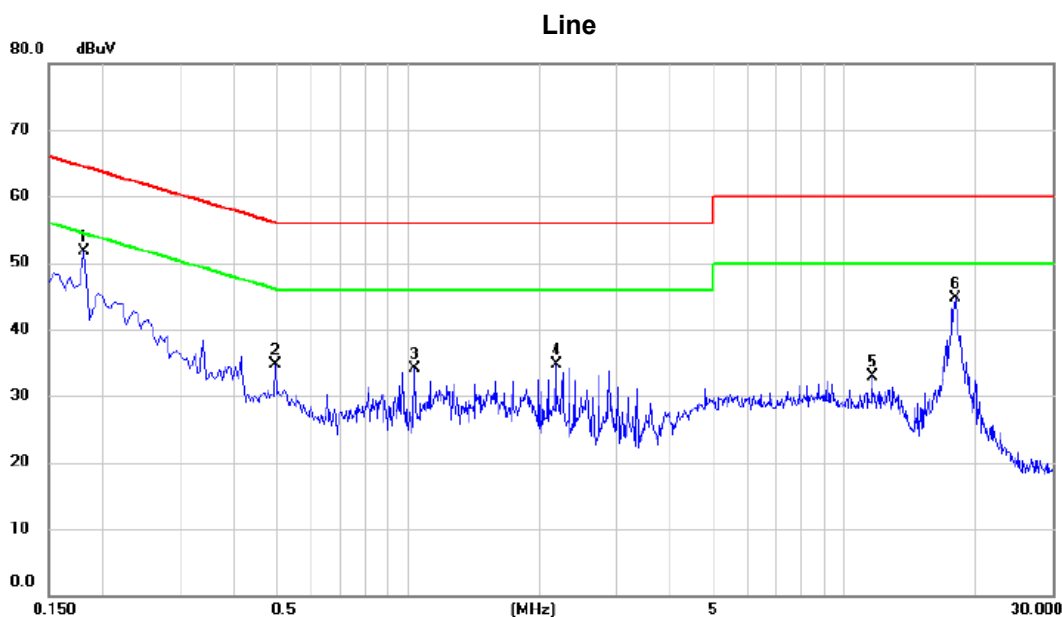
Radiated Emissions Test Photos

Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX N40 MODE CHANNEL 151



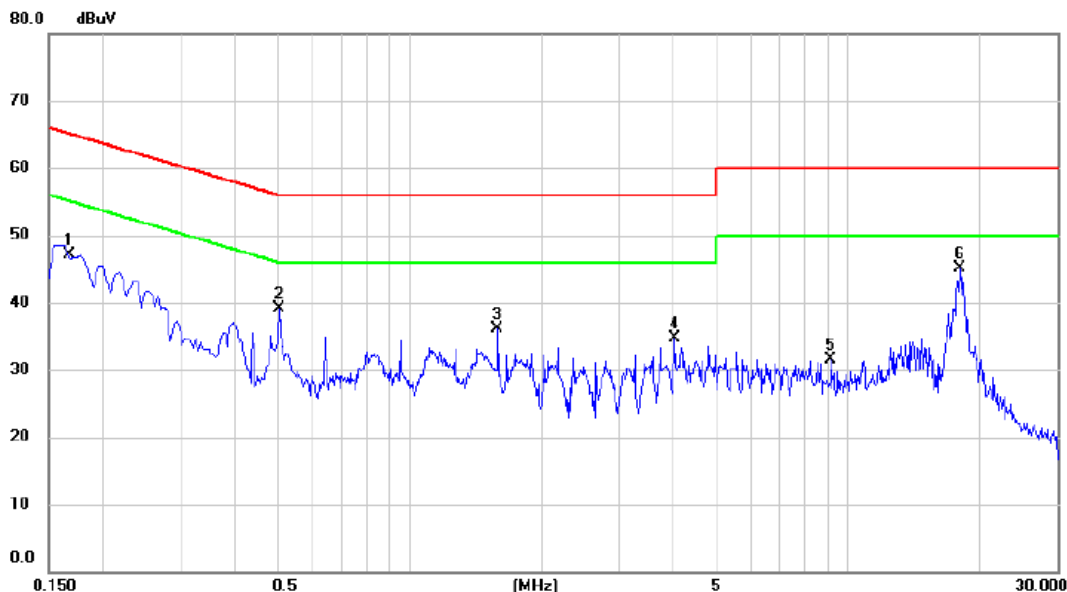
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1815	41.91	9.82	51.73	64.42	-12.69	peak	
2		0.4965	24.88	9.88	34.76	56.06	-21.30	peak	
3		1.0365	24.11	9.92	34.03	56.00	-21.97	peak	
4		2.1840	24.78	10.01	34.79	56.00	-21.21	peak	
5		11.5800	22.41	10.57	32.98	60.00	-27.02	peak	
6		17.9250	33.75	11.00	44.75	60.00	-15.25	peak	

REMARKS:

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

Test Mode: TX N40 MODE CHANNEL 151

Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1668	37.20	9.91	47.11	65.12	-18.01	peak	
2		0.5055	29.15	10.03	39.18	56.00	-16.82	peak	
3		1.5855	25.92	10.16	36.08	56.00	-19.92	peak	
4		4.0245	24.35	10.32	34.67	56.00	-21.33	peak	
5		9.1320	20.82	10.70	31.52	60.00	-28.48	peak	
6	*	17.9565	33.81	11.32	45.13	60.00	-14.87	peak	

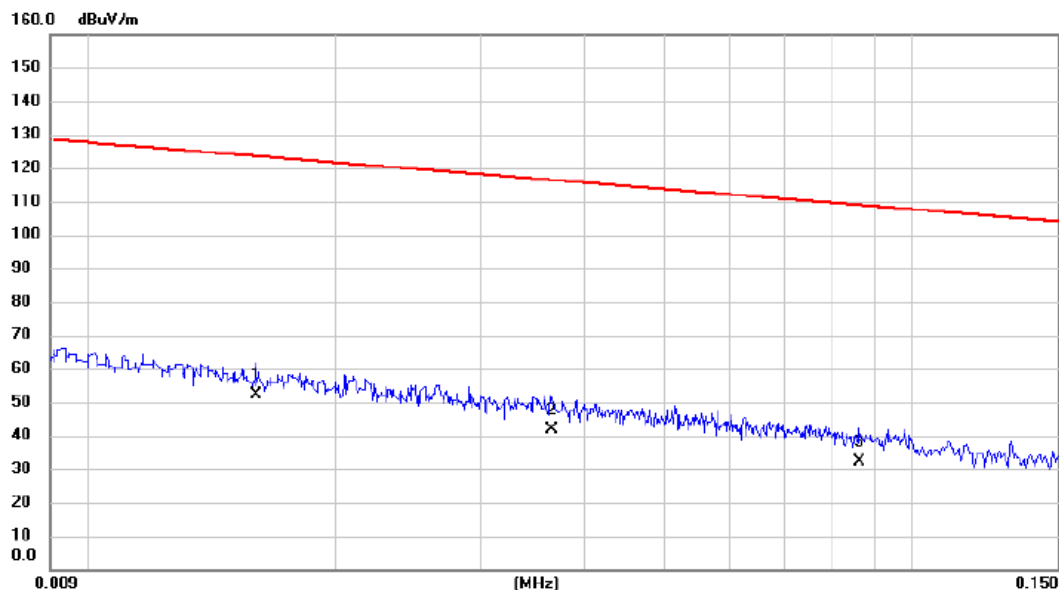
REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX N40 MODE CHANNEL 151

Ant 0°



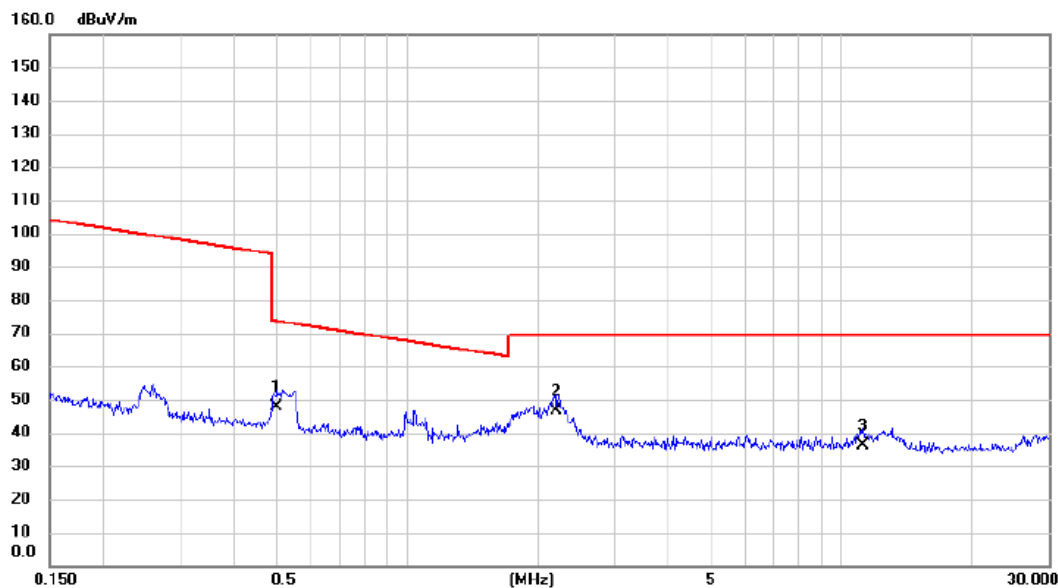
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	0.0160	37.11	15.02	52.13	123.52	-71.39	AVG	
2		0.0365	27.84	13.89	41.73	116.36	-74.63	AVG	
3		0.0862	18.69	13.54	32.23	108.89	-76.66	AVG	

REMARKS:

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

Test Mode: TX N40 MODE CHANNEL 151

Ant 0°



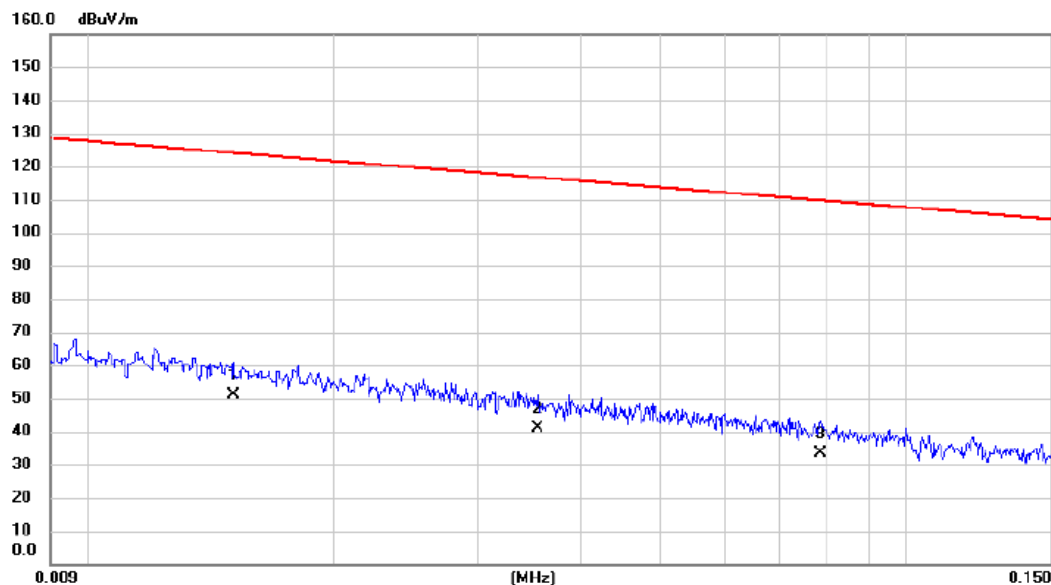
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.5020	34.87	13.06	47.93	73.59	-25.66	QP	
2	*	2.2015	34.79	11.70	46.49	69.54	-23.05	QP	
3		11.1977	24.61	11.62	36.23	69.54	-33.31	QP	

REMARKS:

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

Test Mode: TX N40 MODE CHANNEL 151

Ant 90°

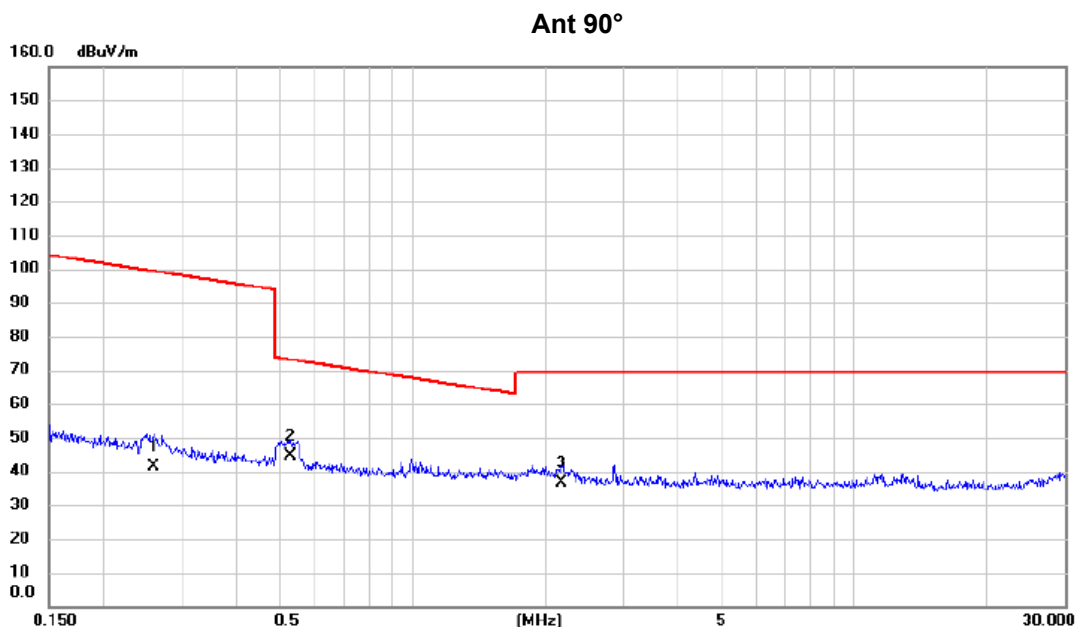


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0151	35.58	15.29	50.87	124.03	-73.16	AVG	
2		0.0354	26.97	13.88	40.85	116.62	-75.77	AVG	
3		0.0785	19.86	13.54	33.40	109.71	-76.31	AVG	

REMARKS:

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

Test Mode: TX N40 MODE CHANNEL 151



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2590	27.63	13.64	41.27	99.34	-58.07	AVG	
2	*	0.5293	31.42	13.00	44.42	73.13	-28.71	QP	
3		2.1668	24.94	11.72	36.66	69.54	-32.88	QP	

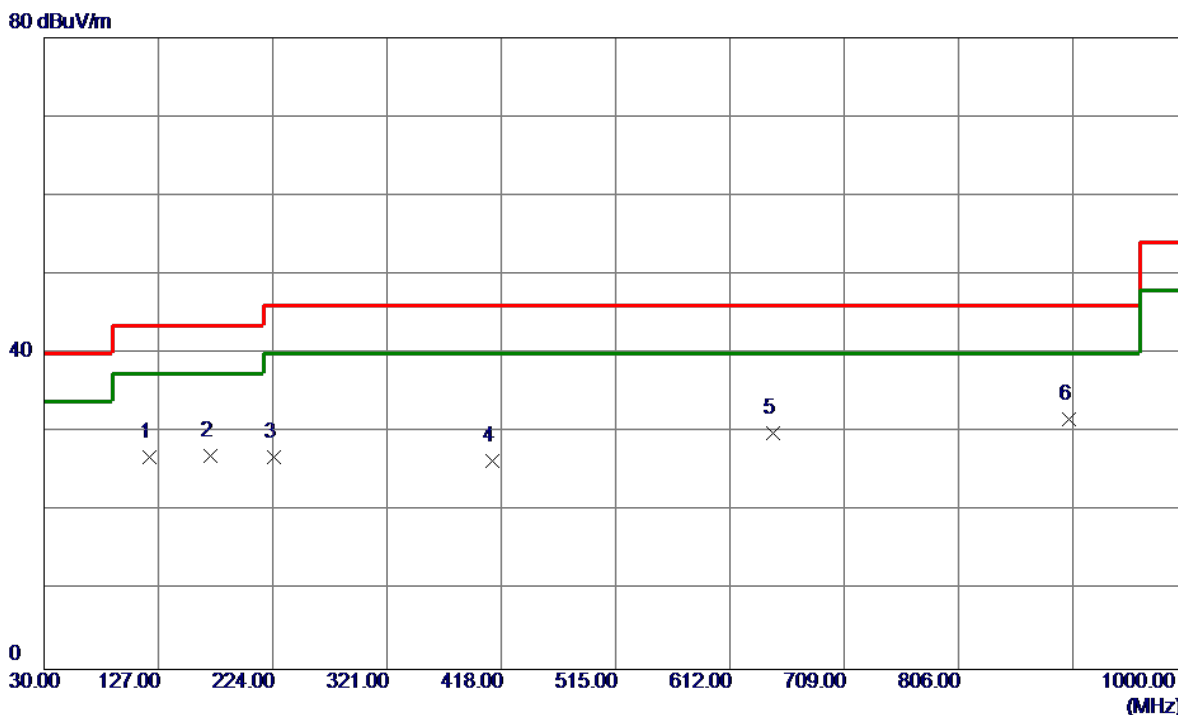
REMARKS:

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1 GHZ

Test Mode: TX N40 MODE CHANNEL 151

Vertical



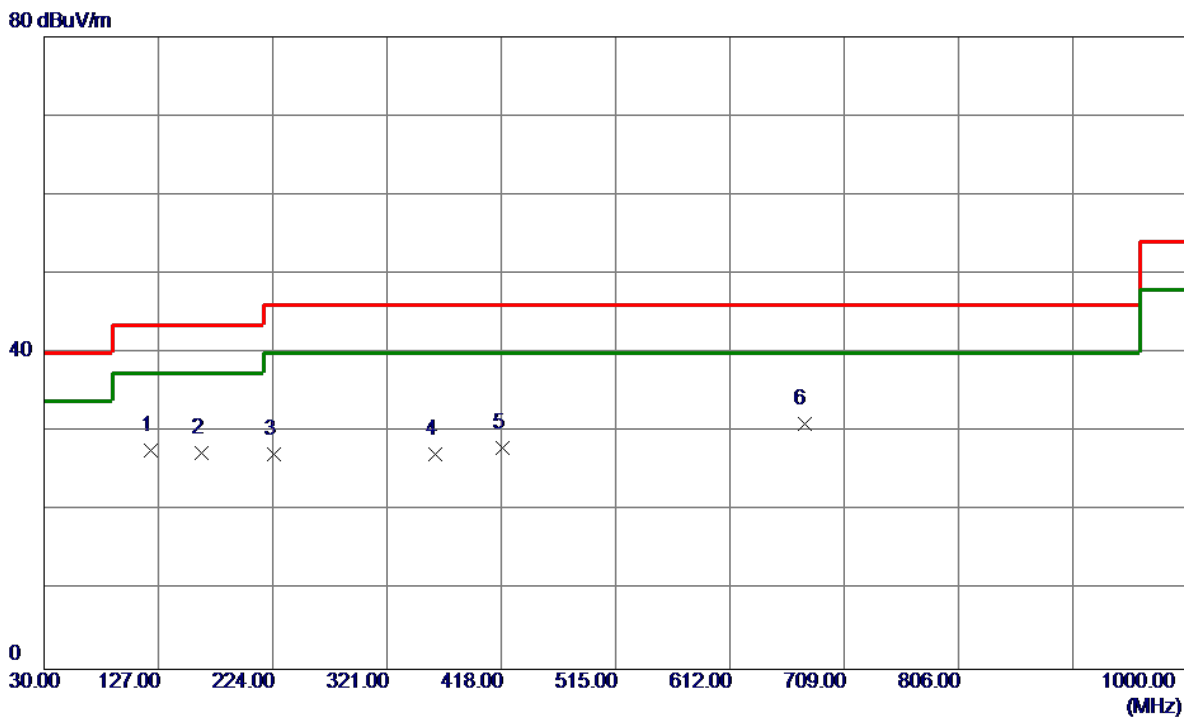
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	119.2400	41.70	-14.81	26.89	43.50	-16.61	Peak	
2	171.1350	38.36	-11.38	26.98	43.50	-16.52	Peak	
3	224.9700	41.77	-14.90	26.87	46.00	-19.13	Peak	
4	410.2400	35.34	-8.98	26.36	46.00	-19.64	Peak	
5	648.3750	35.17	-5.21	29.96	46.00	-16.04	Peak	
6 *	900.0900	32.35	-0.60	31.75	46.00	-14.25	Peak	

REMARKS:

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

Test Mode: TX N40 MODE CHANNEL 151

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	120.2100	42.30	-14.66	27.64	43.50	-15.86	Peak	
2	163.8600	38.16	-10.83	27.33	43.50	-16.17	Peak	
3	224.9700	42.04	-14.90	27.14	46.00	-18.86	Peak	
4	362.2250	37.91	-10.66	27.25	46.00	-18.75	Peak	
5	418.9700	36.61	-8.63	27.98	46.00	-18.02	Peak	
6 *	675.0500	35.04	-3.96	31.08	46.00	-14.92	Peak	

REMARKS:

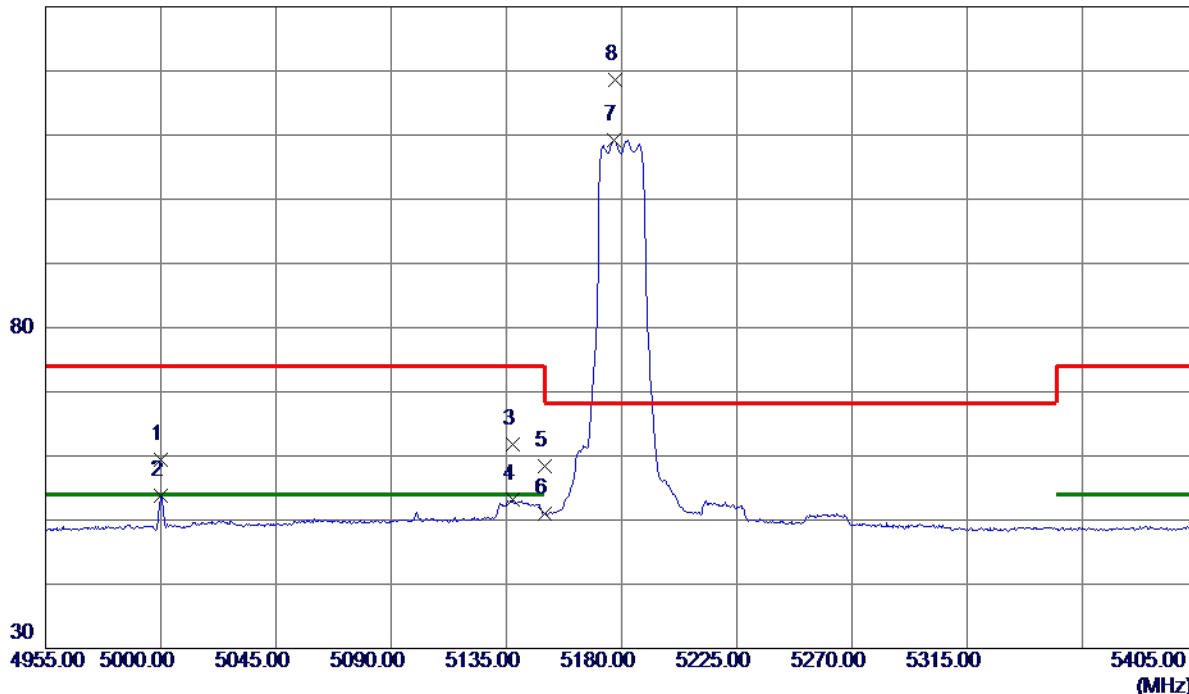
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	41.00	18.41	59.41	74.00	-14.59	Peak	
2	5000.0000	35.48	18.41	53.89	54.00	-0.11	AVG	
3	5137.4750	43.34	18.55	61.89	74.00	-12.11	Peak	
4	5137.4750	34.57	18.55	53.12	54.00	-0.88	AVG	
5	5150.0000	39.87	18.57	58.44	74.00	-15.56	Peak	
6	5150.0000	32.40	18.57	50.97	54.00	-3.03	AVG	
7	5176.8500	90.68	18.59	109.27	999.00	-889.73	AVG	No Limit
8 *	5177.5250	100.01	18.59	118.60	68.30	50.30	Peak	No Limit

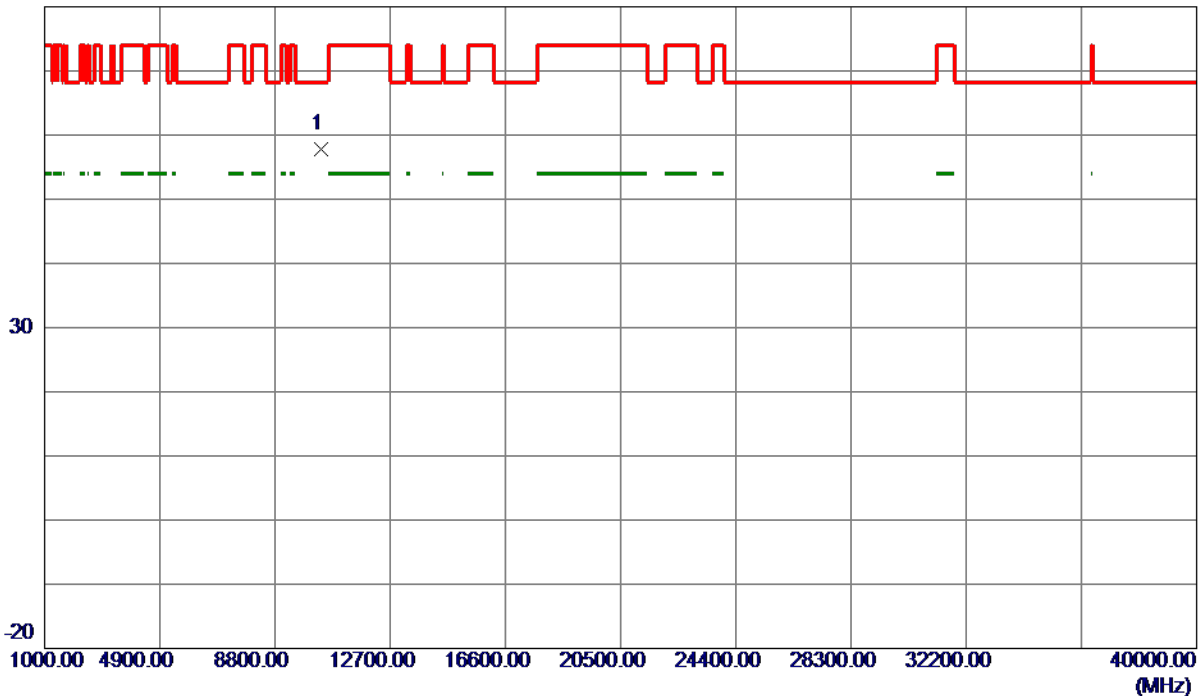
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10362.1500	44.03	13.81	57.84	68.30	-10.46	Peak	

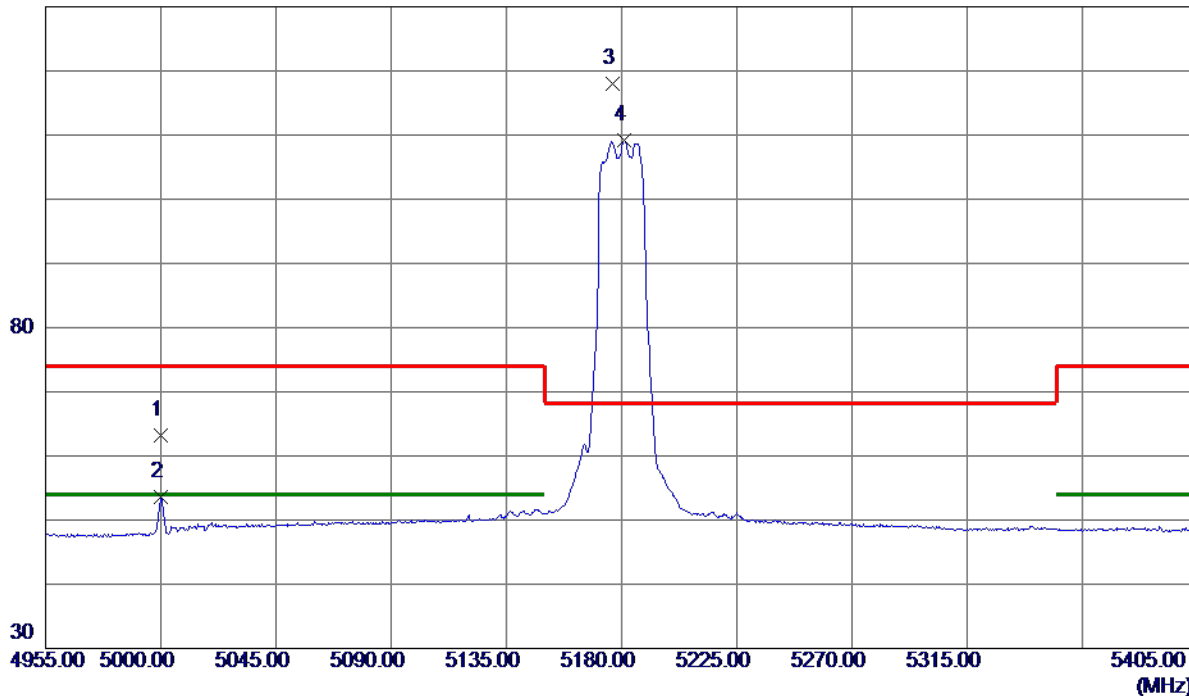
REMARKS:

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

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

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	44.73	18.41	63.14	74.00	-10.86	Peak	
2	5000.0000	35.28	18.41	53.69	54.00	-0.31	AVG	
3 *	5176.6250	99.41	18.59	118.00	68.30	49.70	Peak	No Limit
4	5180.9000	90.66	18.60	109.26	999.00	-889.74	AVG	No Limit

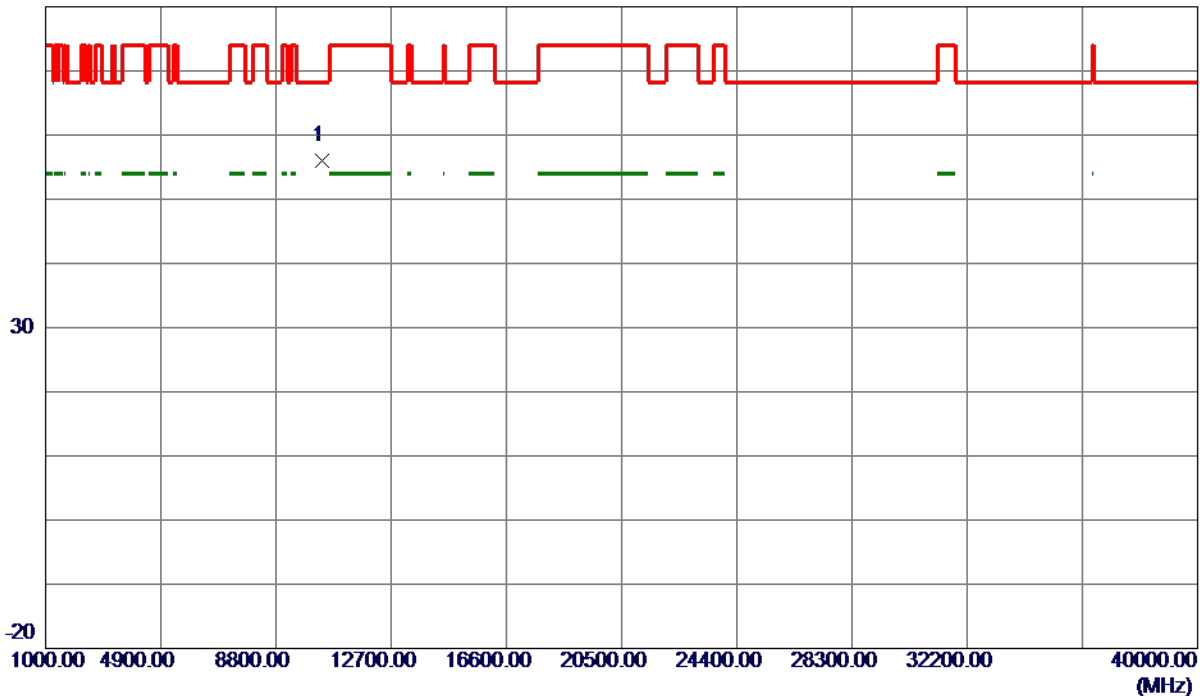
REMARKS:

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

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

Horizontal

80 dBuV/m



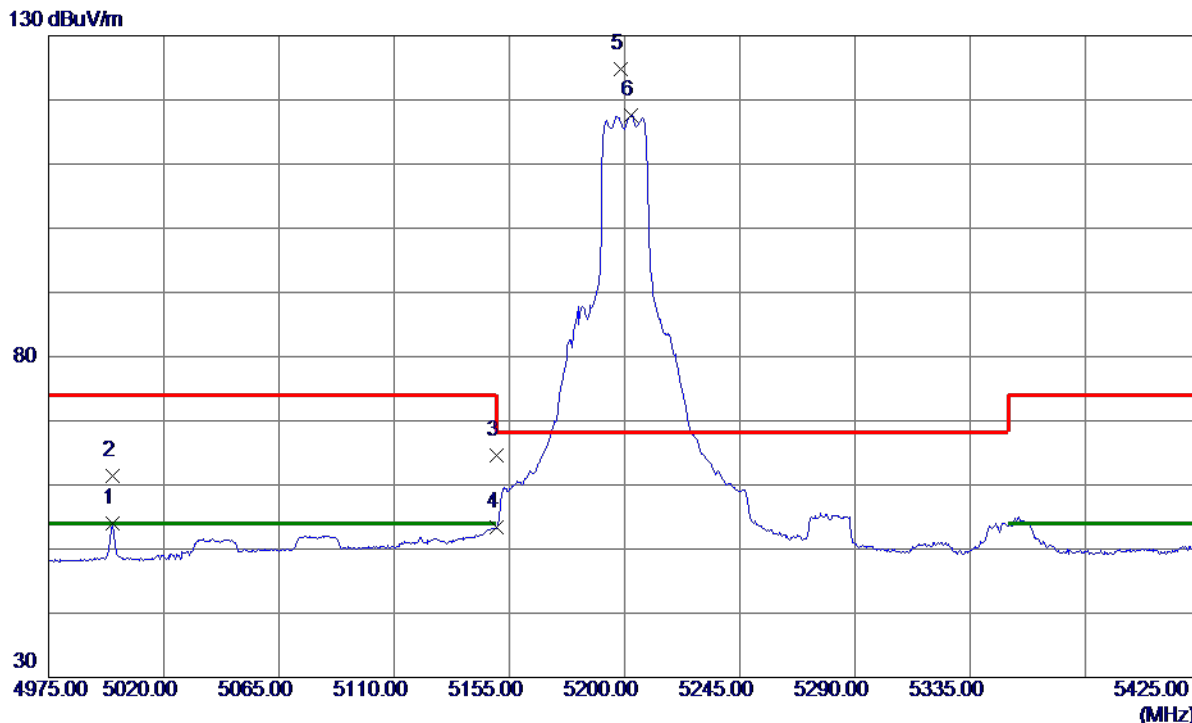
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10364.8750	42.13	13.81	55.94	68.30	-12.36	Peak	

REMARKS:

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

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

Vertical



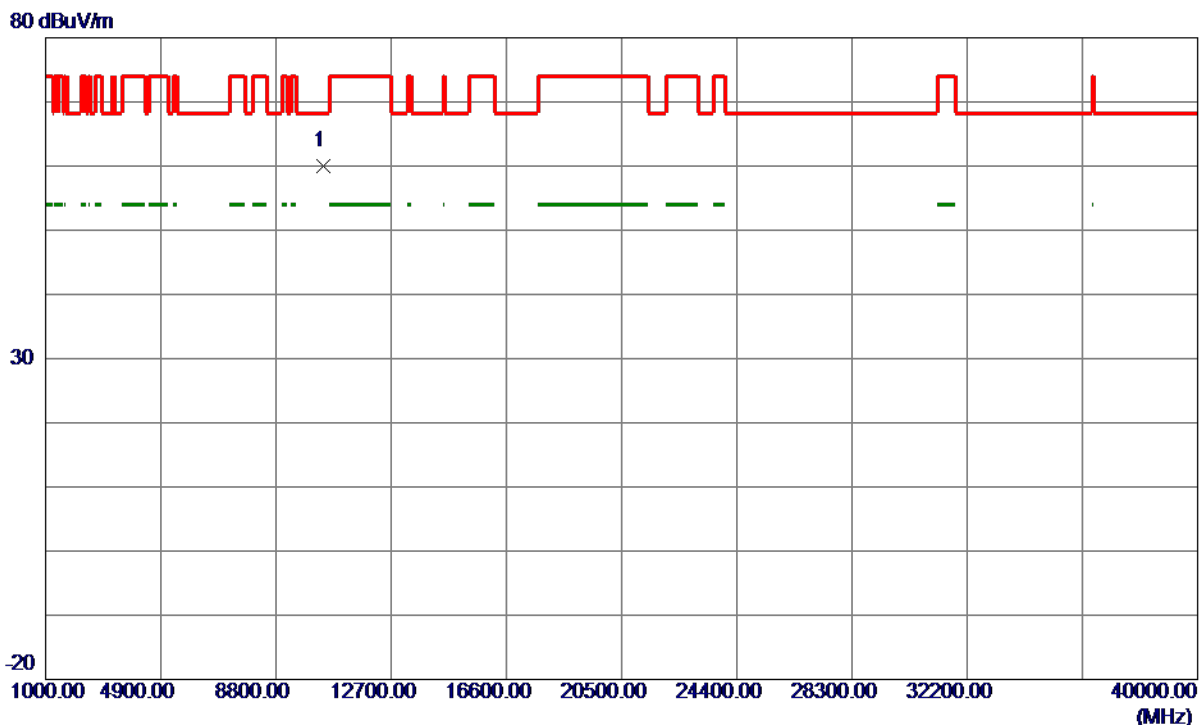
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4999.9750	35.50	18.41	53.91	54.00	-0.09	AVG	
2	5000.0000	43.02	18.41	61.43	74.00	-12.57	Peak	
3	5150.0000	46.03	18.57	64.60	74.00	-9.40	Peak	
4	5150.0000	34.78	18.57	53.35	54.00	-0.65	AVG	
5 *	5198.6500	106.20	18.62	124.82	68.30	56.52	Peak	No Limit
6	5202.7000	98.98	18.62	117.60	999.00	-881.40	AVG	No Limit

REMARKS:

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

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

Vertical



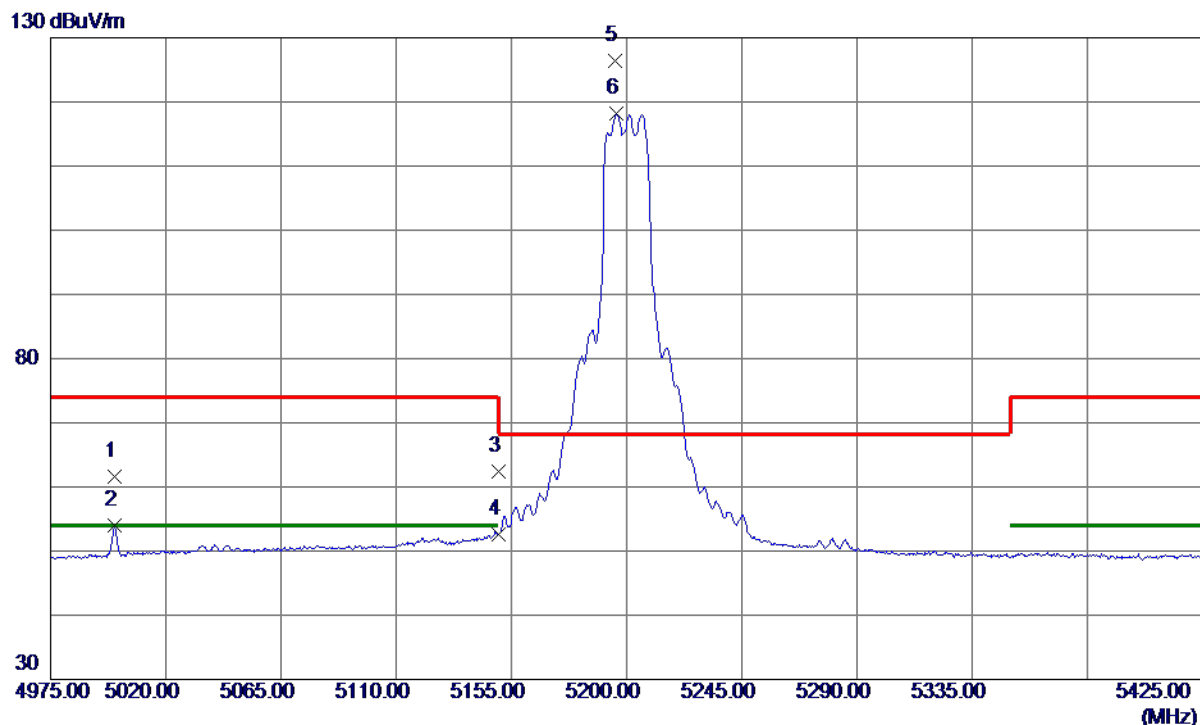
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10401.8250	46.05	13.89	59.94	68.30	-8.36	Peak	

REMARKS:

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

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

Horizontal



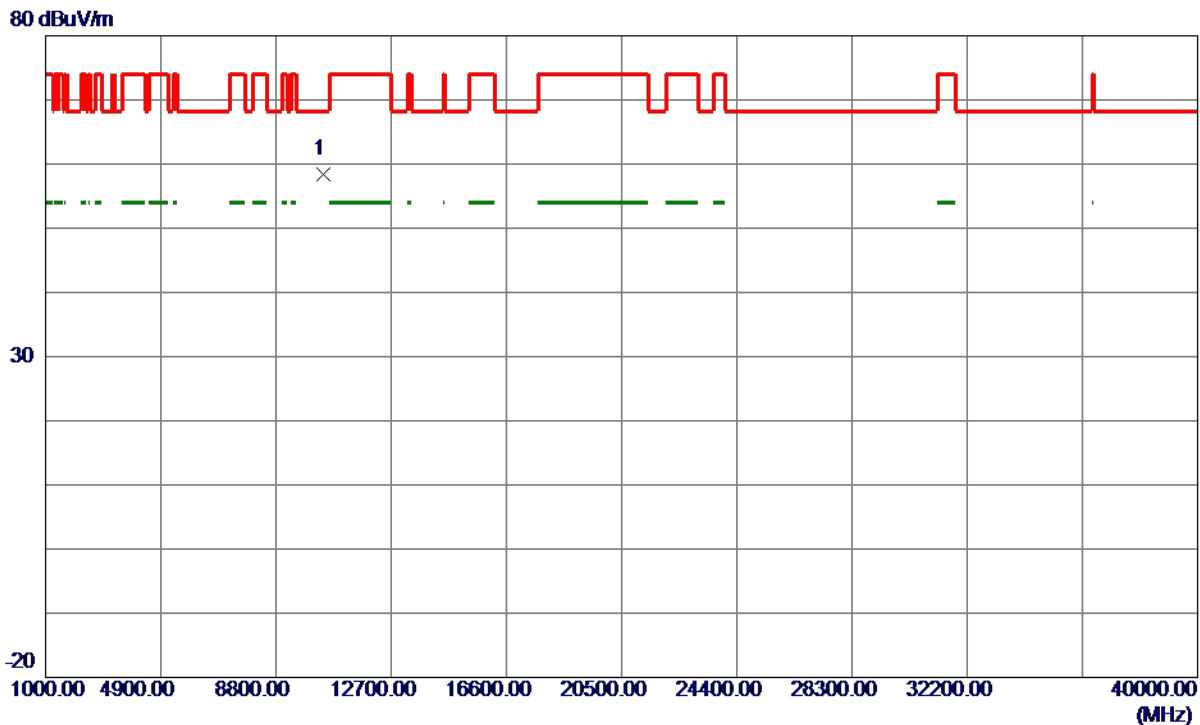
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	43.13	18.41	61.54	74.00	-12.46	Peak	
2	5000.2000	35.54	18.41	53.95	54.00	-0.05	AVG	
3	5150.0000	43.74	18.57	62.31	74.00	-11.69	Peak	
4	5150.0000	34.00	18.57	52.57	54.00	-1.43	AVG	
5 *	5195.2750	107.85	18.61	126.46	68.30	58.16	Peak	No Limit
6	5195.9500	99.53	18.61	118.14	999.00	-880.86	AVG	No Limit

REMARKS:

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

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

Horizontal



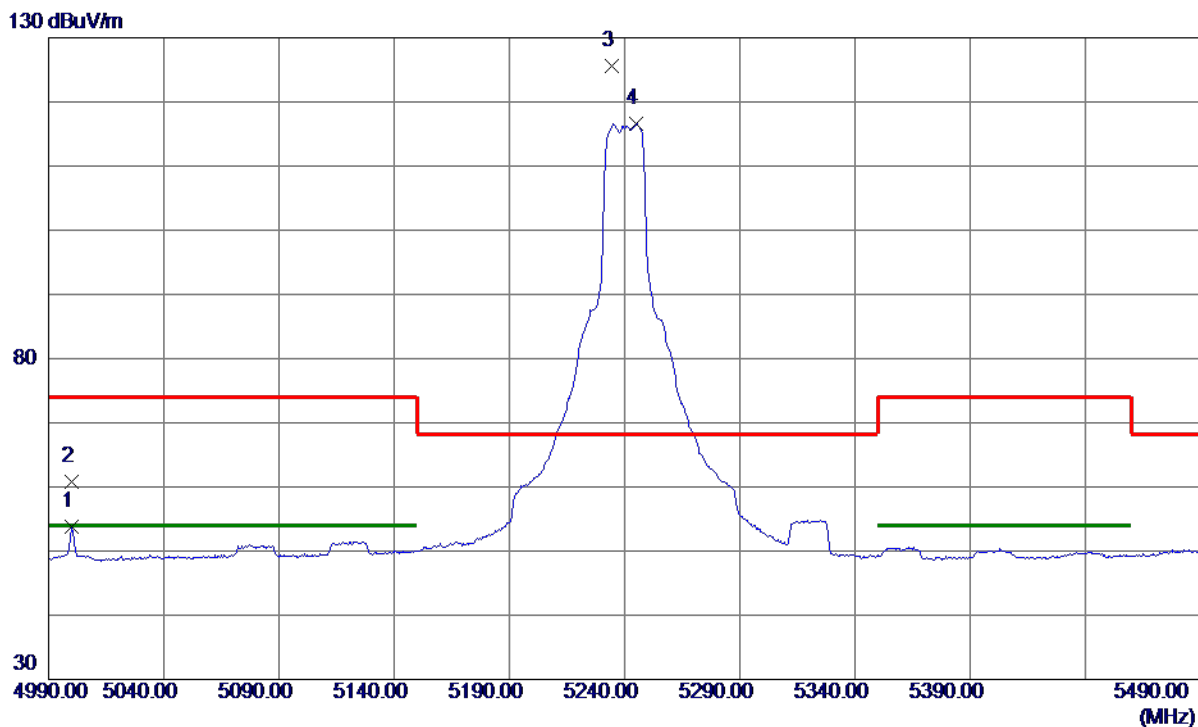
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10404.6500	44.49	13.90	58.39	68.30	-9.91	Peak	

REMARKS:

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

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

Vertical



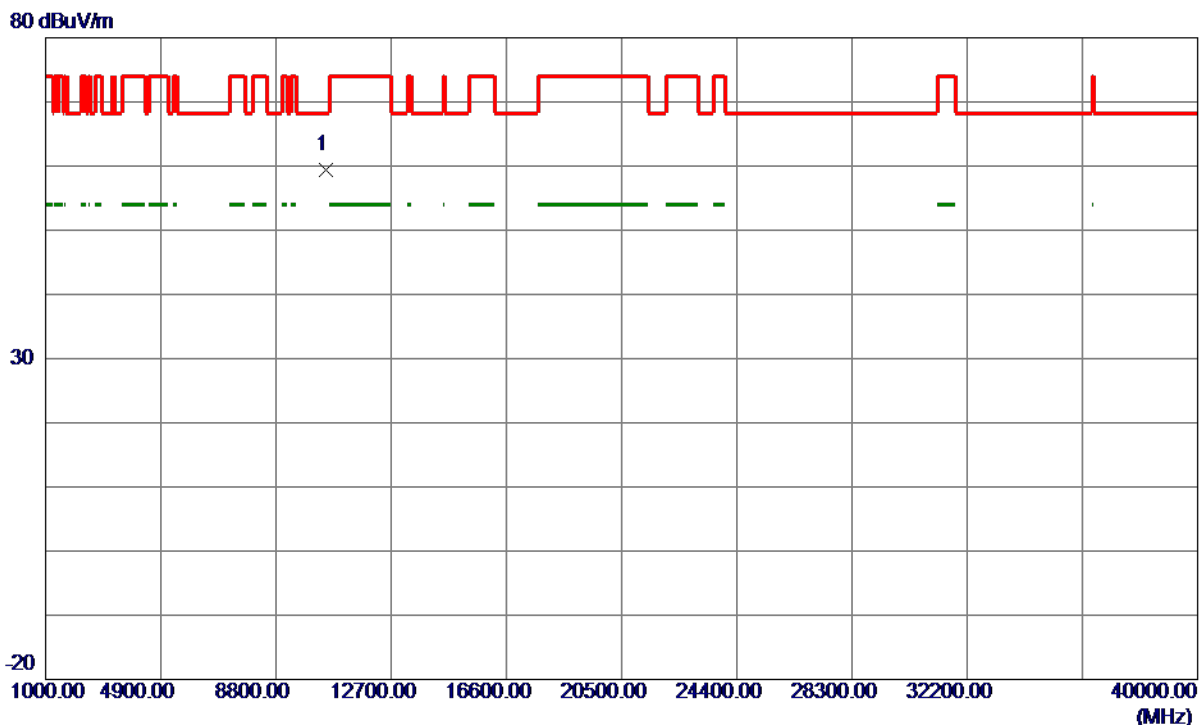
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4999.7500	35.40	18.41	53.81	54.00	-0.19	AVG	
2	5000.0000	42.45	18.41	60.86	74.00	-13.14	Peak	
3 *	5234.2500	106.89	18.65	125.54	68.30	57.24	Peak	No Limit
4	5245.2500	98.00	18.67	116.67	999.00	-882.33	AVG	No Limit

REMARKS:

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

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

Vertical



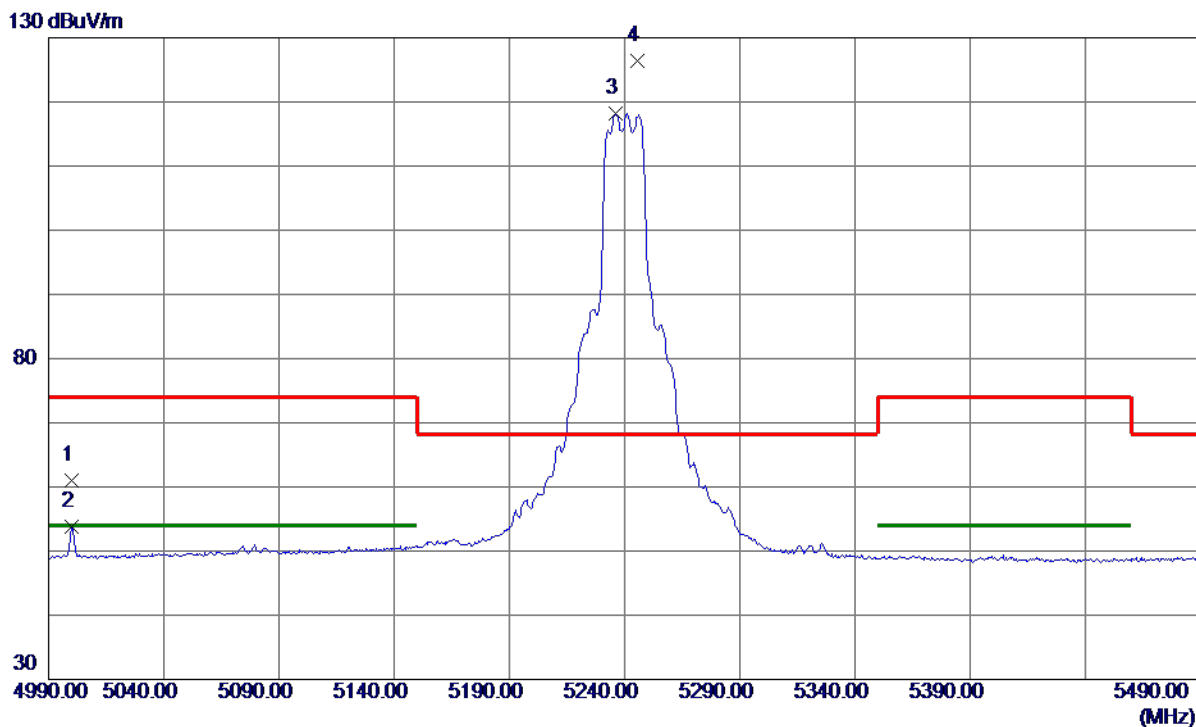
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10483.3000	45.26	14.07	59.33	68.30	-8.97	Peak	

REMARKS:

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

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

Horizontal



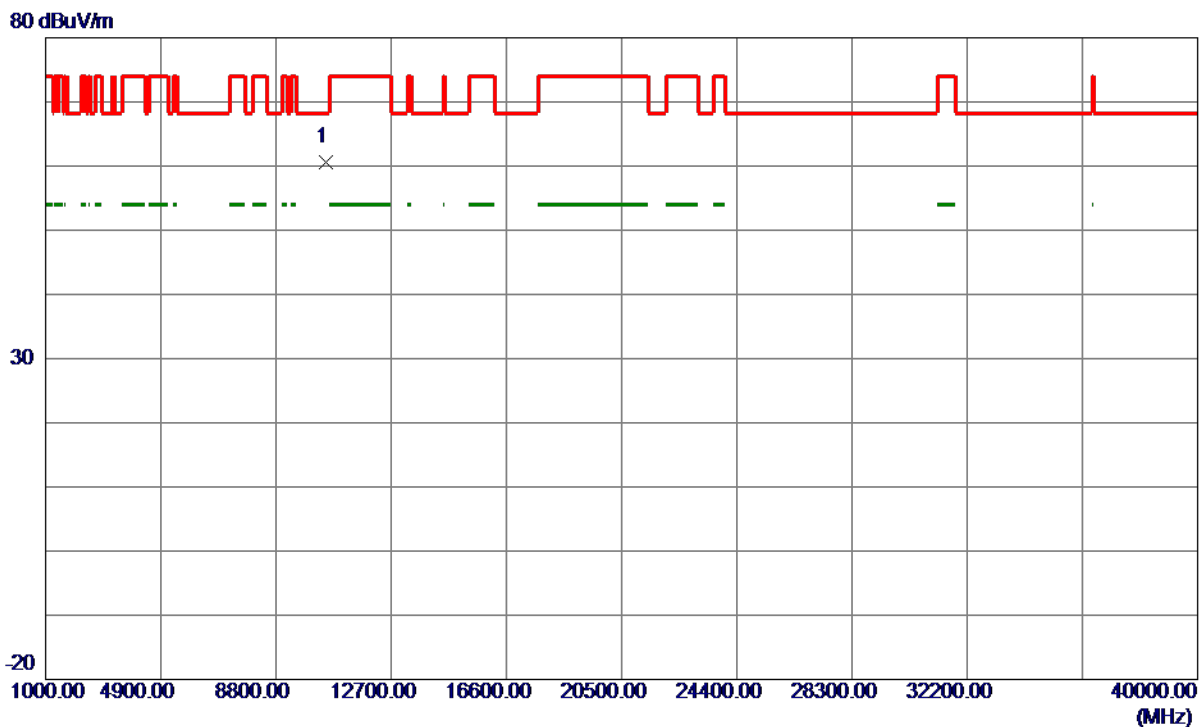
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	42.62	18.41	61.03	74.00	-12.97	Peak	
2	5000.0000	35.43	18.41	53.84	54.00	-0.16	AVG	
3	5236.2500	99.63	18.66	118.29	999.00	-880.71	AVG	No Limit
4 *	5245.5000	107.66	18.67	126.33	68.30	58.03	Peak	No Limit

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10480.7250	46.52	14.07	60.59	68.30	-7.71	Peak	

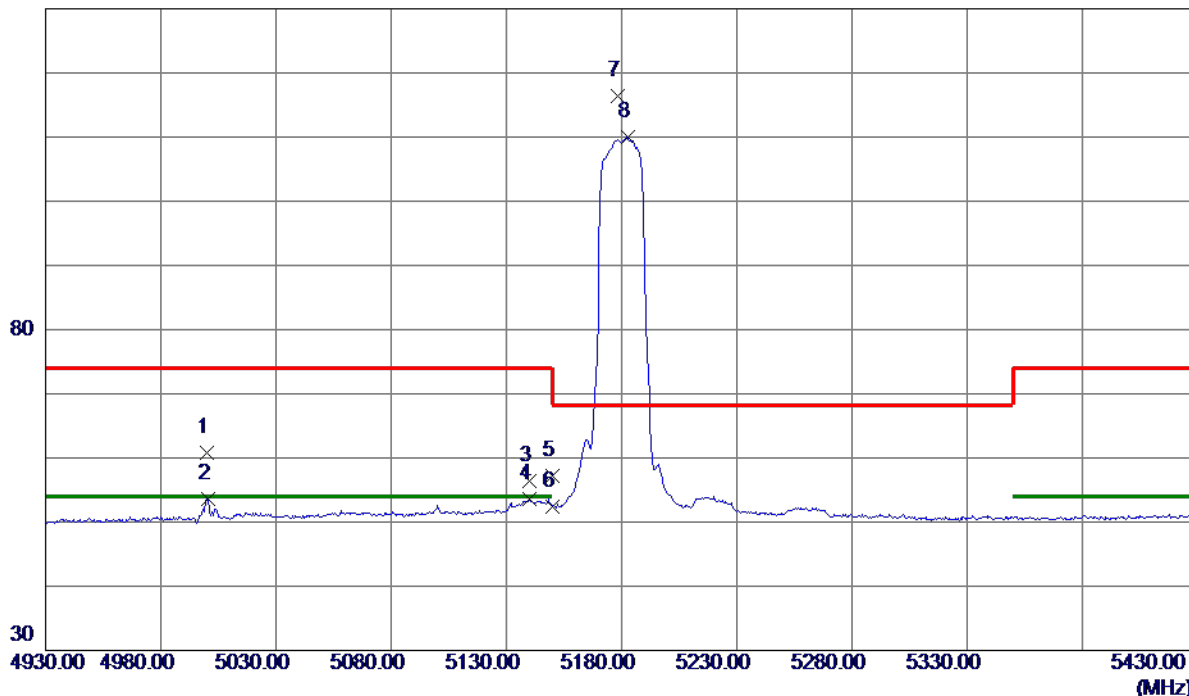
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	42.37	18.41	60.78	74.00	-13.22	Peak	
2	5000.5000	35.15	18.41	53.56	54.00	-0.44	AVG	
3	5140.2500	37.89	18.56	56.45	74.00	-17.55	Peak	
4	5140.2500	34.95	18.56	53.51	54.00	-0.49	AVG	
5	5150.0000	38.63	18.57	57.20	74.00	-16.80	Peak	
6	5150.0000	33.87	18.57	52.44	54.00	-1.56	AVG	
7 *	5178.5000	97.86	18.60	116.46	68.30	48.16	Peak	No Limit
8	5182.7500	91.43	18.60	110.03	999.00	-888.97	AVG	No Limit

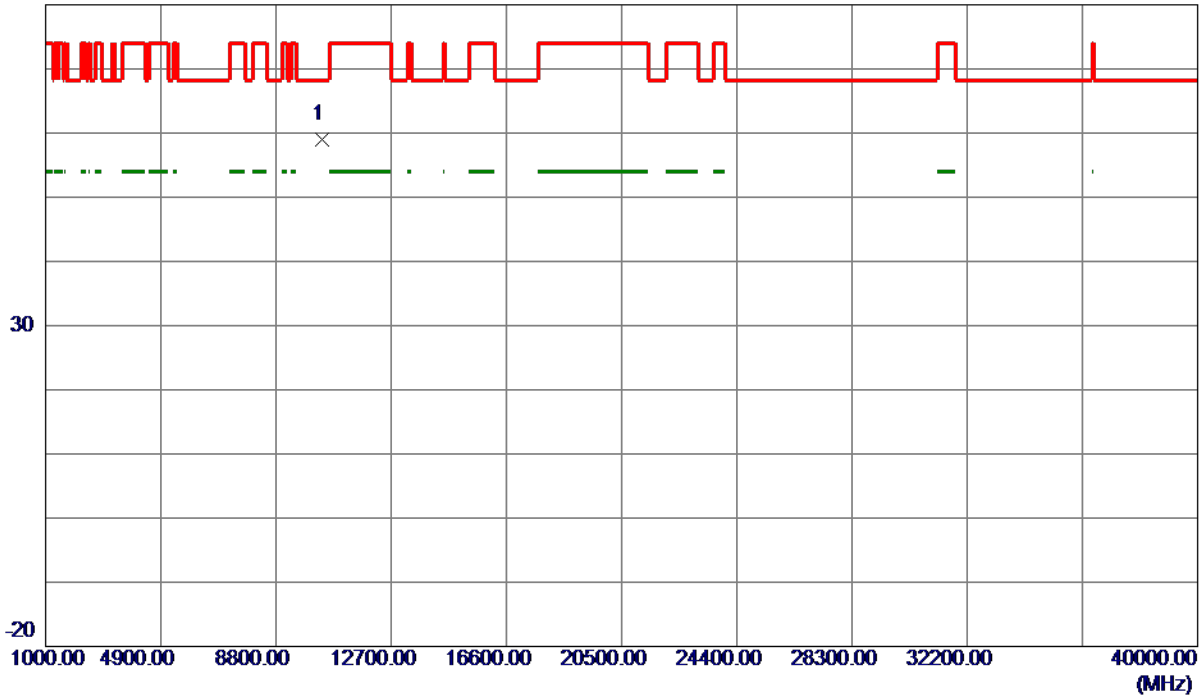
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10352.7250	45.15	13.79	58.94	68.30	-9.36	Peak	

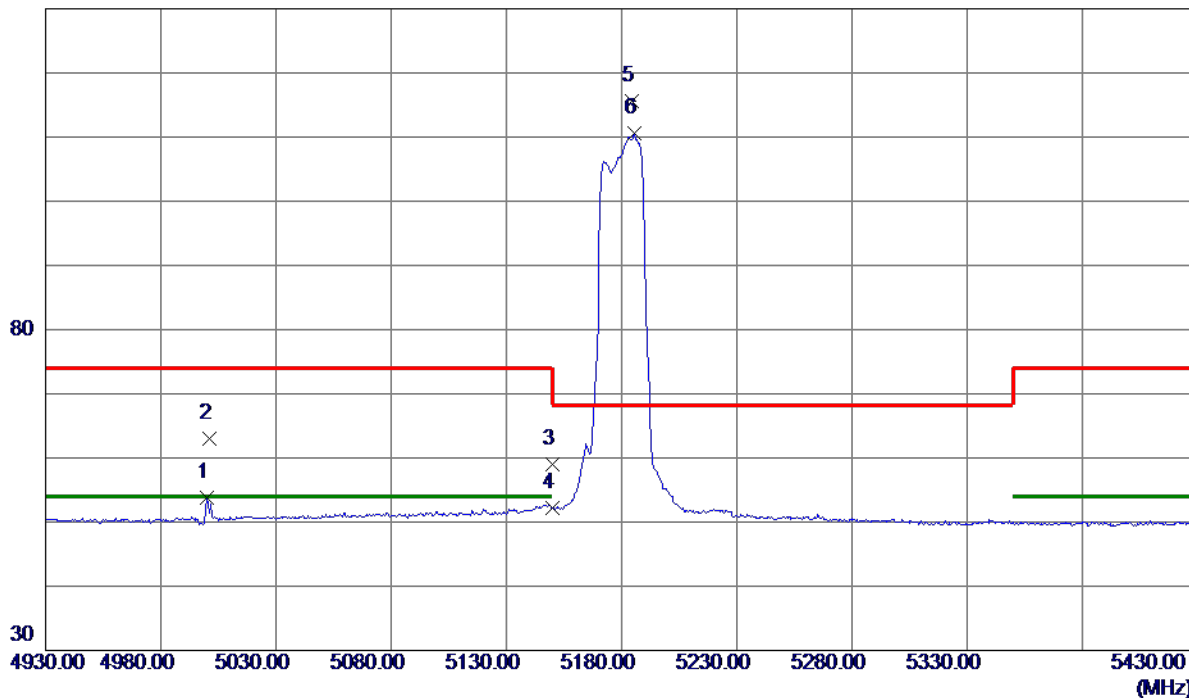
REMARKS:

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

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

Horizontal

130 dBuV/m



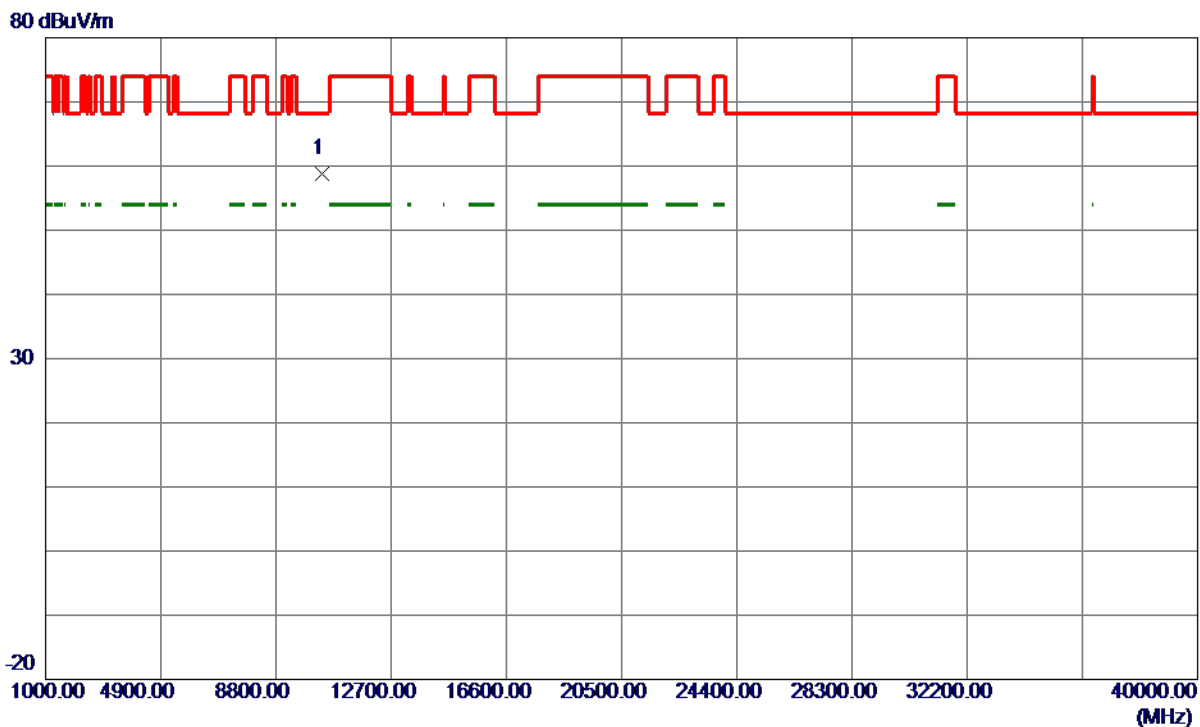
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	35.31	18.41	53.72	54.00	-0.28	AVG	
2	5001.0000	44.59	18.41	63.00	74.00	-11.00	Peak	
3	5150.0000	40.52	18.57	59.09	74.00	-14.91	Peak	
4	5150.0000	33.60	18.57	52.17	54.00	-1.83	AVG	
5 *	5184.2500	96.99	18.60	115.59	68.30	47.29	Peak	No Limit
6	5185.5000	92.00	18.60	110.60	999.00	-888.40	AVG	No Limit

REMARKS:

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

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

Horizontal



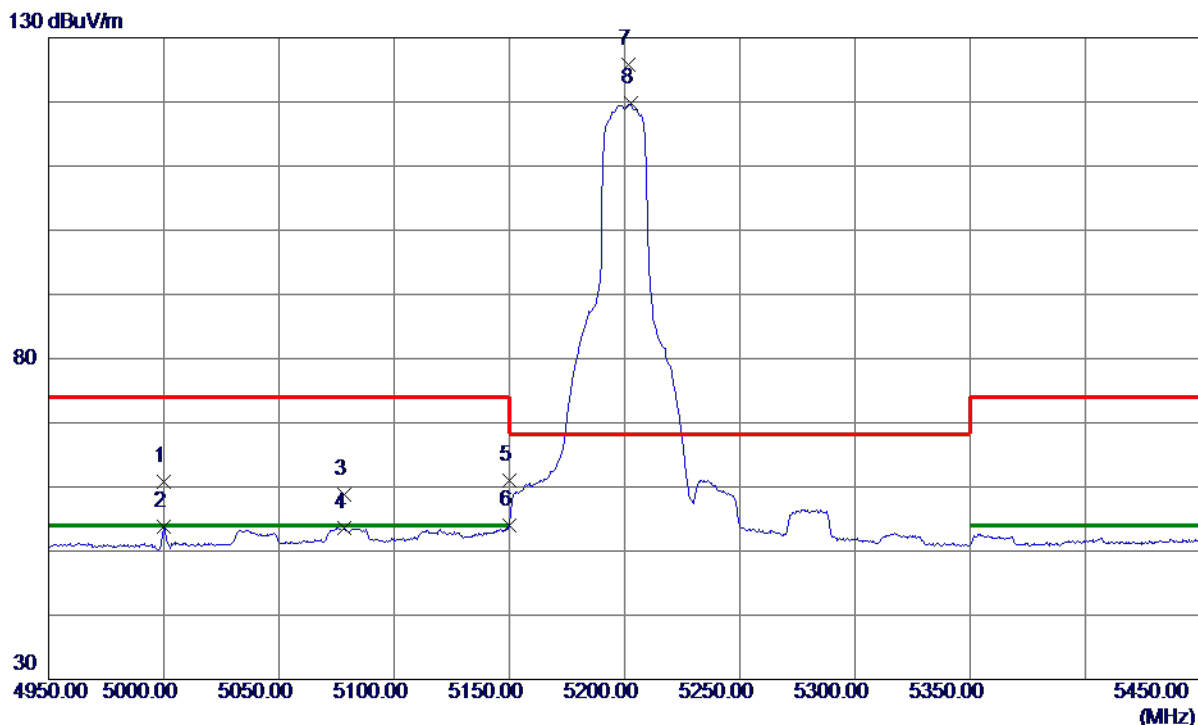
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10358.3750	44.98	13.80	58.78	68.30	-9.52	Peak	

REMARKS:

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

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

Vertical



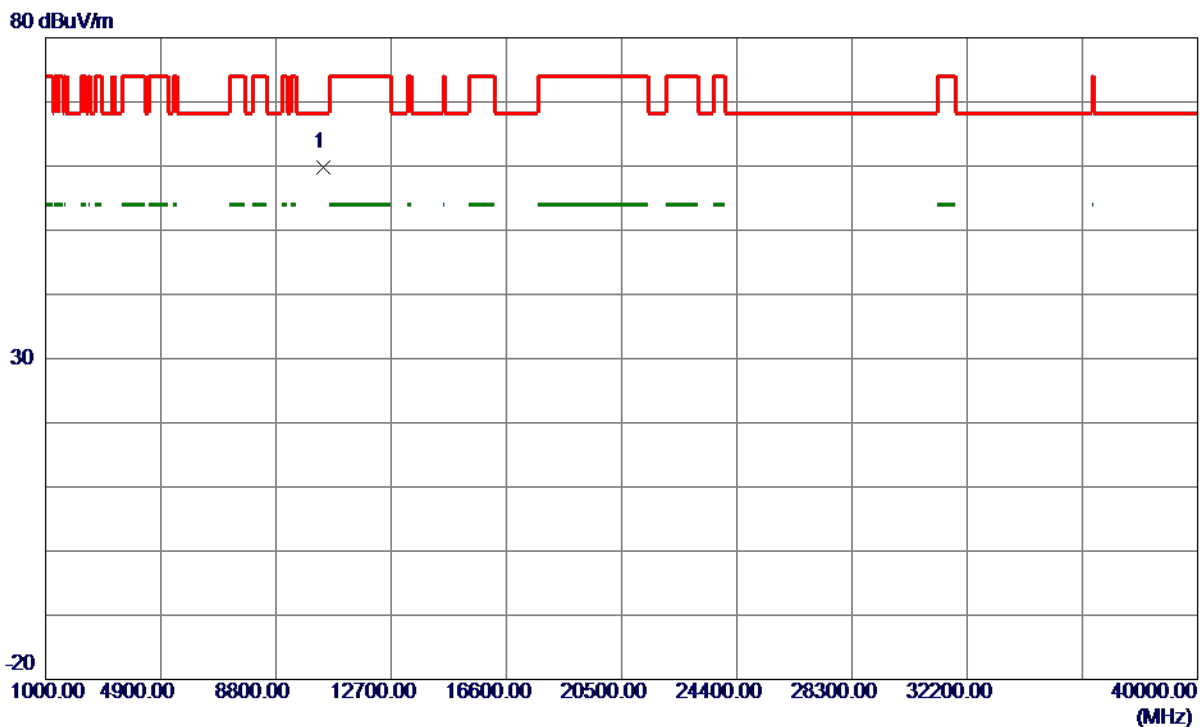
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	42.37	18.41	60.78	74.00	-13.22	Peak	
2	5000.0000	35.39	18.41	53.80	54.00	-0.20	AVG	
3	5078.5000	40.39	18.49	58.88	74.00	-15.12	Peak	
4	5078.5000	35.11	18.49	53.60	54.00	-0.40	AVG	
5	5150.0000	42.44	18.57	61.01	74.00	-12.99	Peak	
6	5150.0000	35.42	18.57	53.99	54.00	-0.01	AVG	
7 *	5201.5000	107.17	18.62	125.79	68.30	57.49	Peak	No Limit
8	5203.0000	101.16	18.62	119.78	999.00	-879.22	AVG	No Limit

REMARKS:

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

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

Vertical



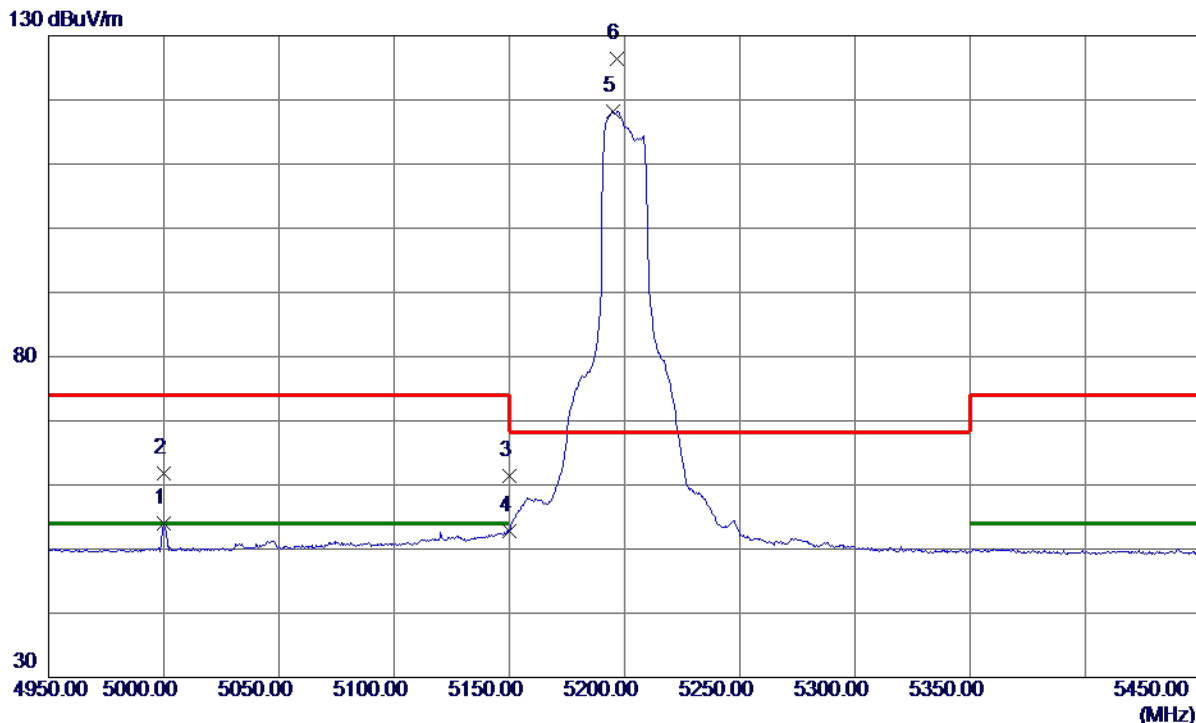
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10393.5750	45.83	13.88	59.71	68.30	-8.59	Peak	

REMARKS:

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

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

Horizontal



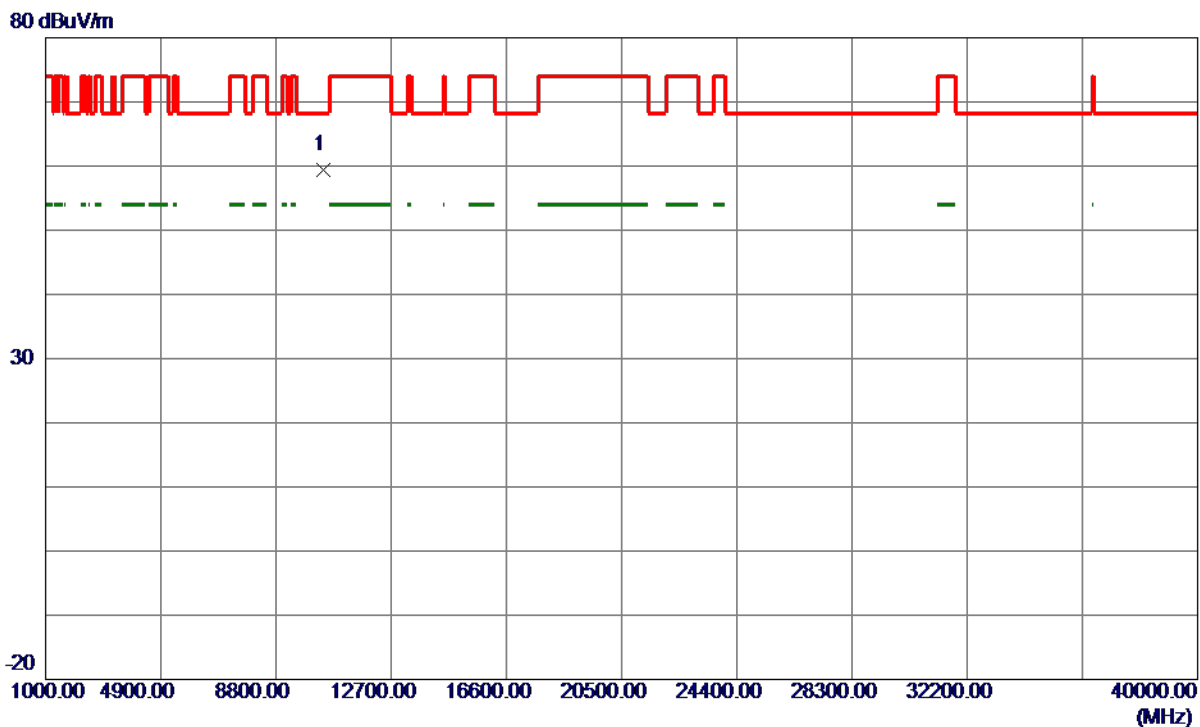
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4999.7500	35.58	18.41	53.99	54.00	-0.01	AVG	
2	5000.2500	43.45	18.41	61.86	74.00	-12.14	Peak	
3	5150.0000	42.75	18.57	61.32	74.00	-12.68	Peak	
4	5150.0000	34.30	18.57	52.87	54.00	-1.13	AVG	
5	5194.7500	99.69	18.61	118.30	999.00	-880.70	AVG	No Limit
6 *	5196.7500	107.77	18.61	126.38	68.30	58.08	Peak	No Limit

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10398.3250	45.59	13.89	59.48	68.30	-8.82	Peak	

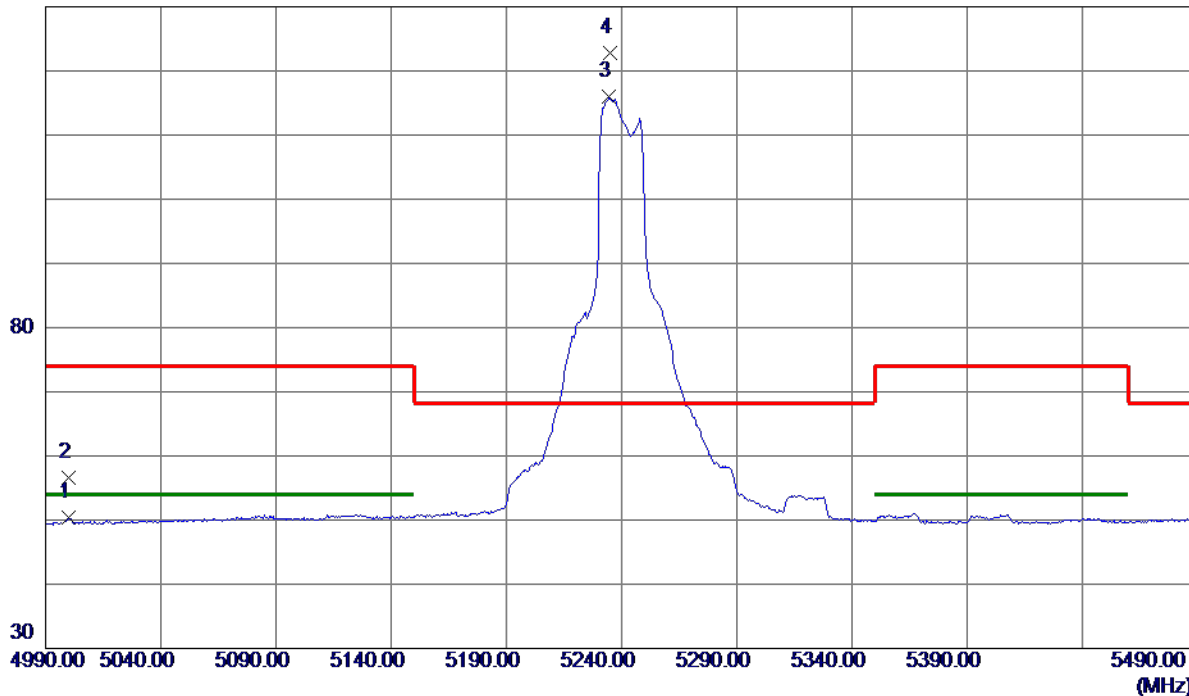
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4999.7500	32.06	18.41	50.47	54.00	-3.53	AVG	
2	5000.0000	38.20	18.41	56.61	74.00	-17.39	Peak	
3	5234.5000	97.29	18.65	115.94	999.00	-883.06	AVG	No Limit
4 *	5234.7500	104.11	18.65	122.76	68.30	54.46	Peak	No Limit

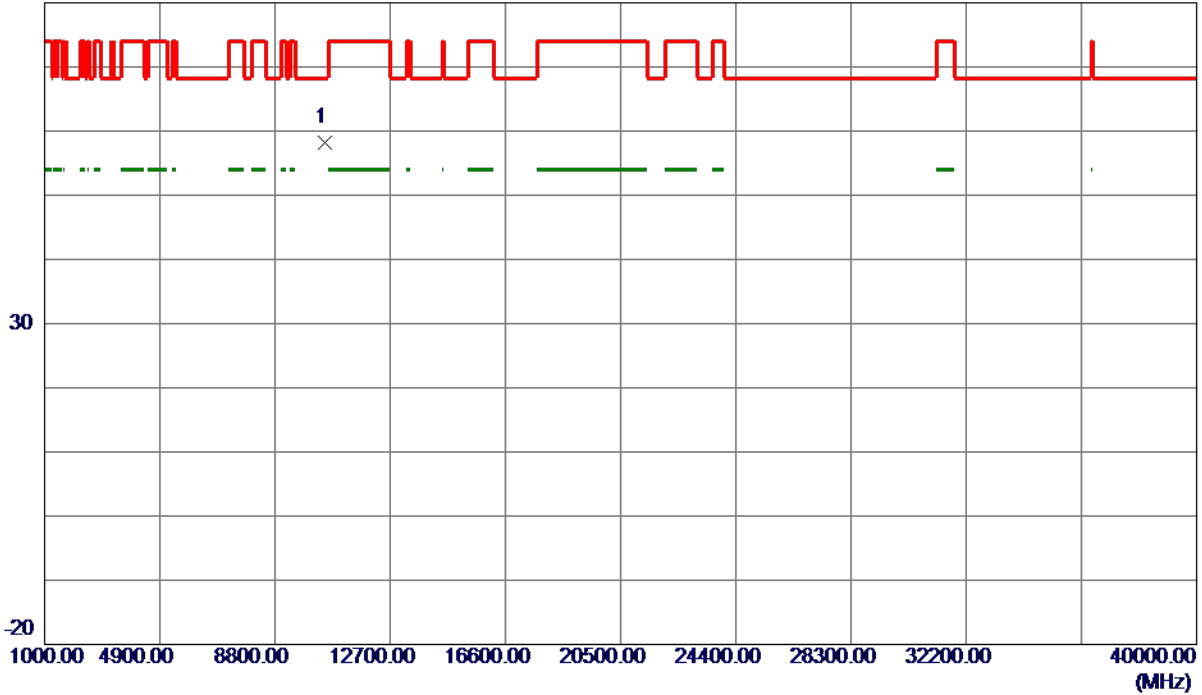
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10474.8750	44.23	14.05	58.28	68.30	-10.02	Peak	

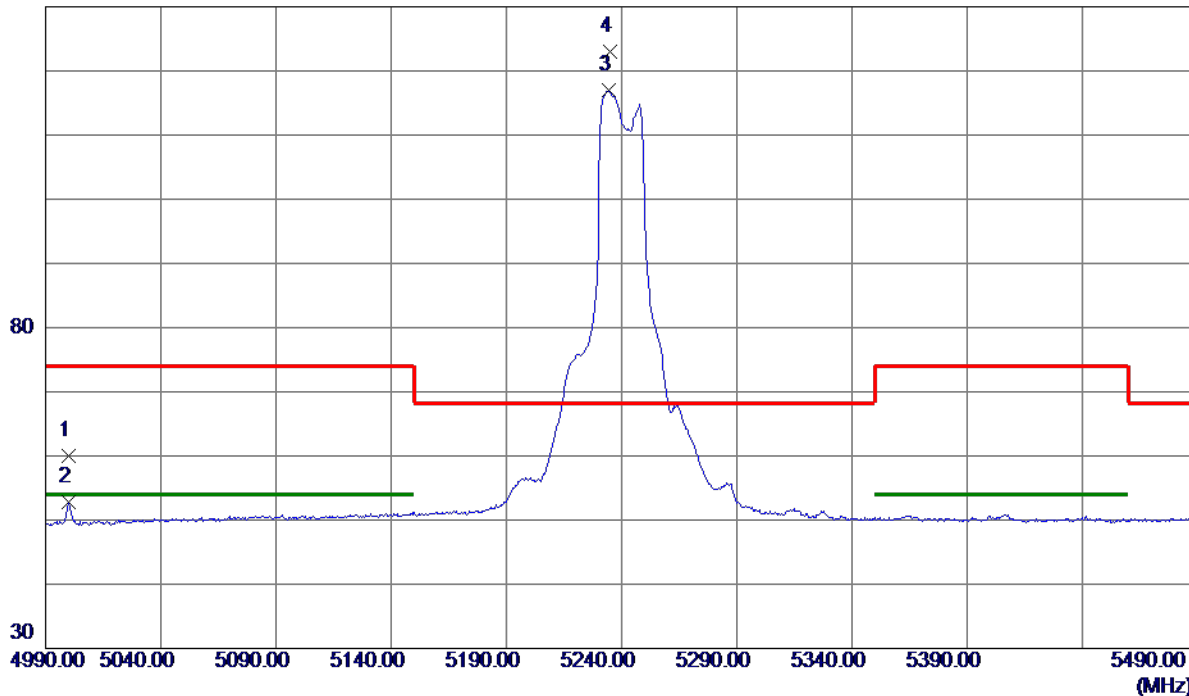
REMARKS:

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

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

Horizontal

130 dBuV/m



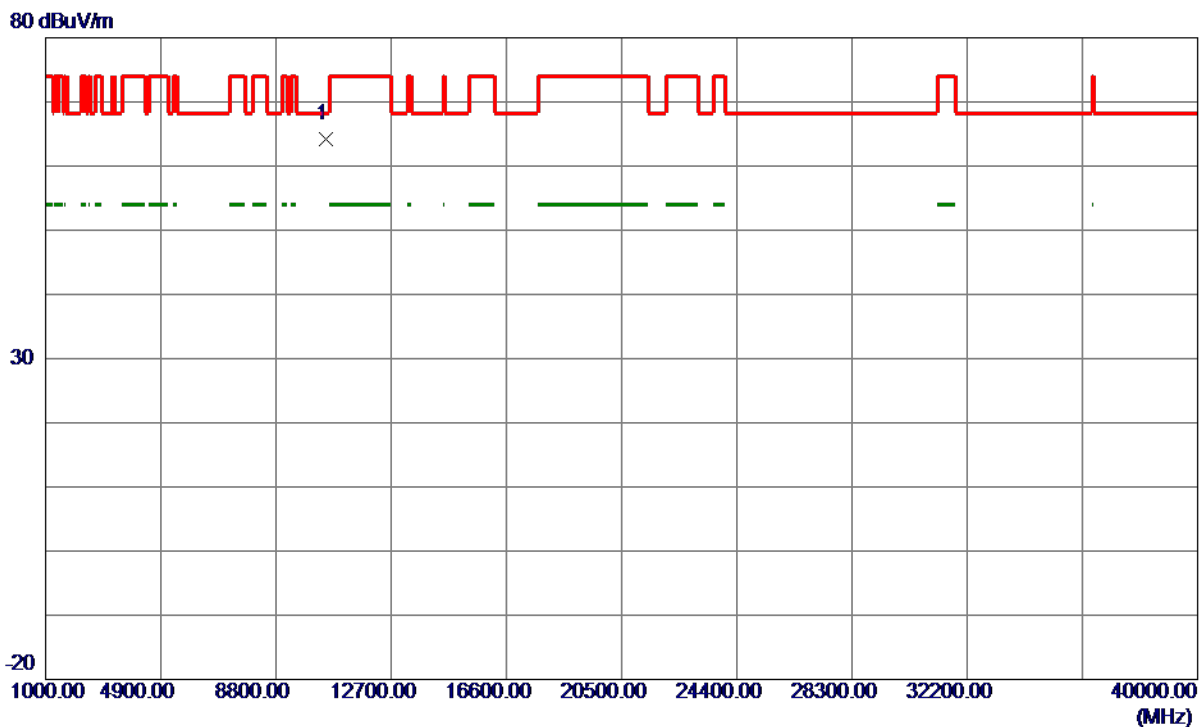
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	41.55	18.41	59.96	74.00	-14.04	Peak	
2	5000.0000	34.48	18.41	52.89	54.00	-1.11	AVG	
3	5234.5000	98.31	18.65	116.96	999.00	-882.04	AVG	No Limit
4 *	5235.2500	104.42	18.65	123.07	68.30	54.77	Peak	No Limit

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10478.3000	50.15	14.06	64.21	68.30	-4.09	Peak	

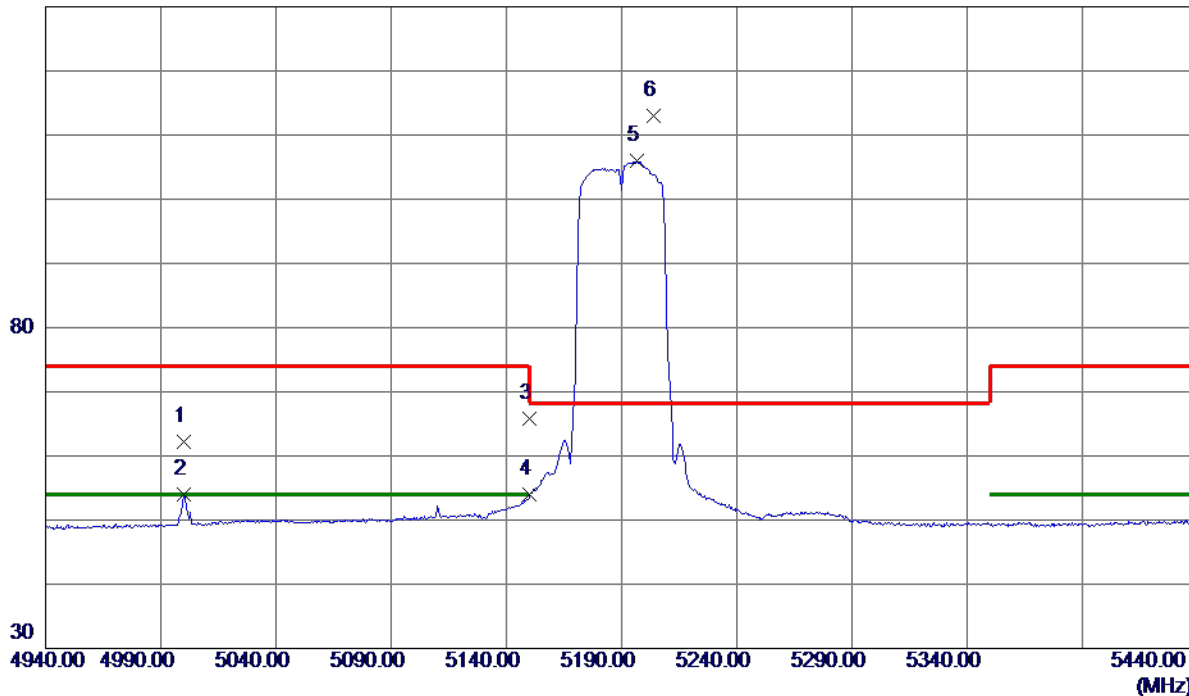
REMARKS:

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

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

Vertical

130 dBuV/m



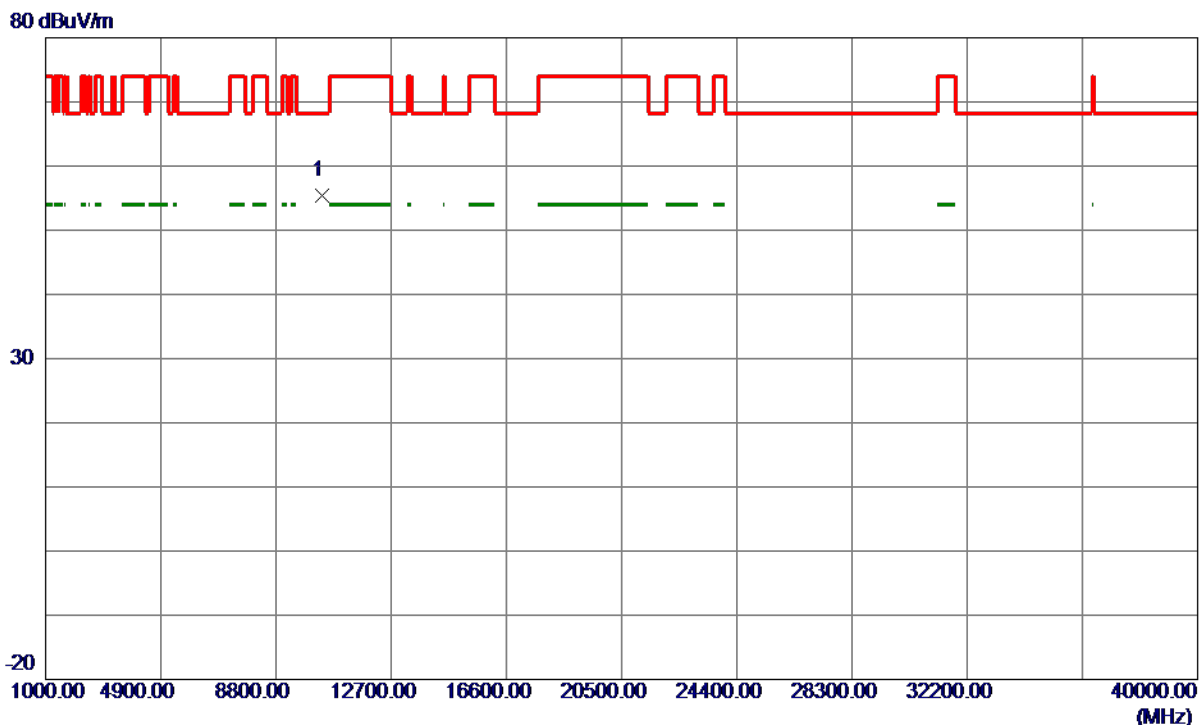
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	43.71	18.41	62.12	74.00	-11.88	Peak	
2	5000.0000	35.53	18.41	53.94	54.00	-0.06	AVG	
3	5150.0000	47.18	18.57	65.75	74.00	-8.25	Peak	
4	5150.0000	35.38	18.57	53.95	54.00	-0.05	AVG	
5	5196.7500	87.35	18.61	105.96	999.00	-893.04	AVG	No Limit
6 *	5204.0000	94.45	18.62	113.07	68.30	44.77	Peak	No Limit

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10376.1500	41.48	13.84	55.32	68.30	-12.98	Peak	

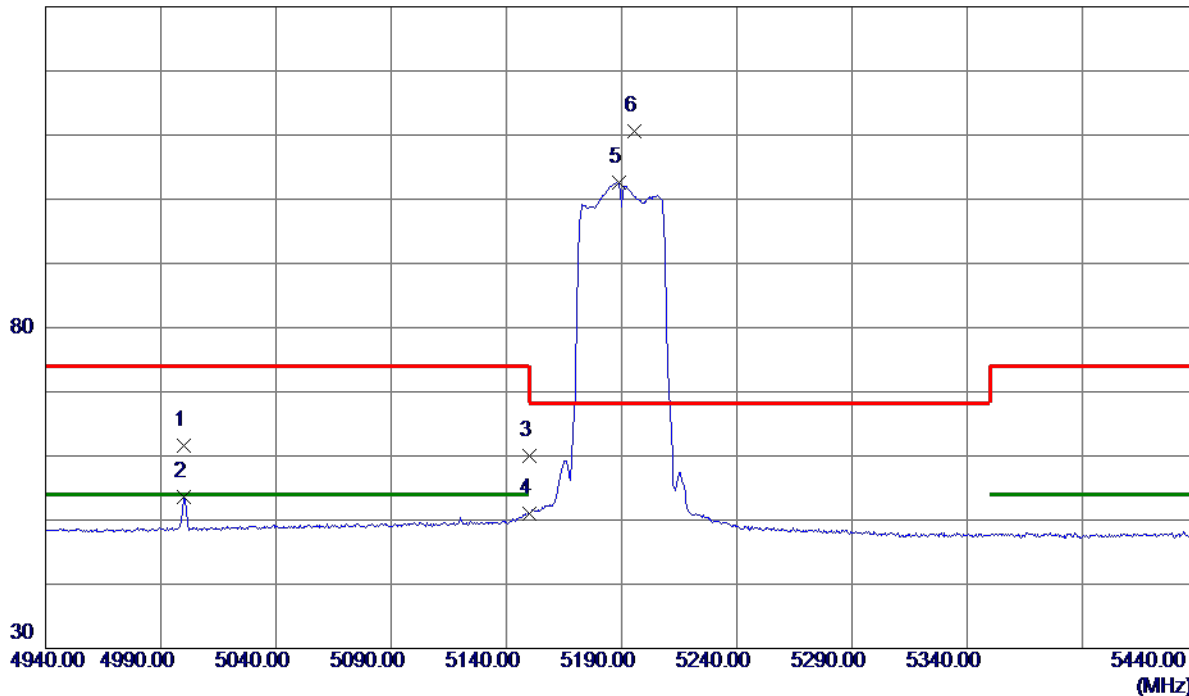
REMARKS:

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

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

Horizontal

130 dBuV/m



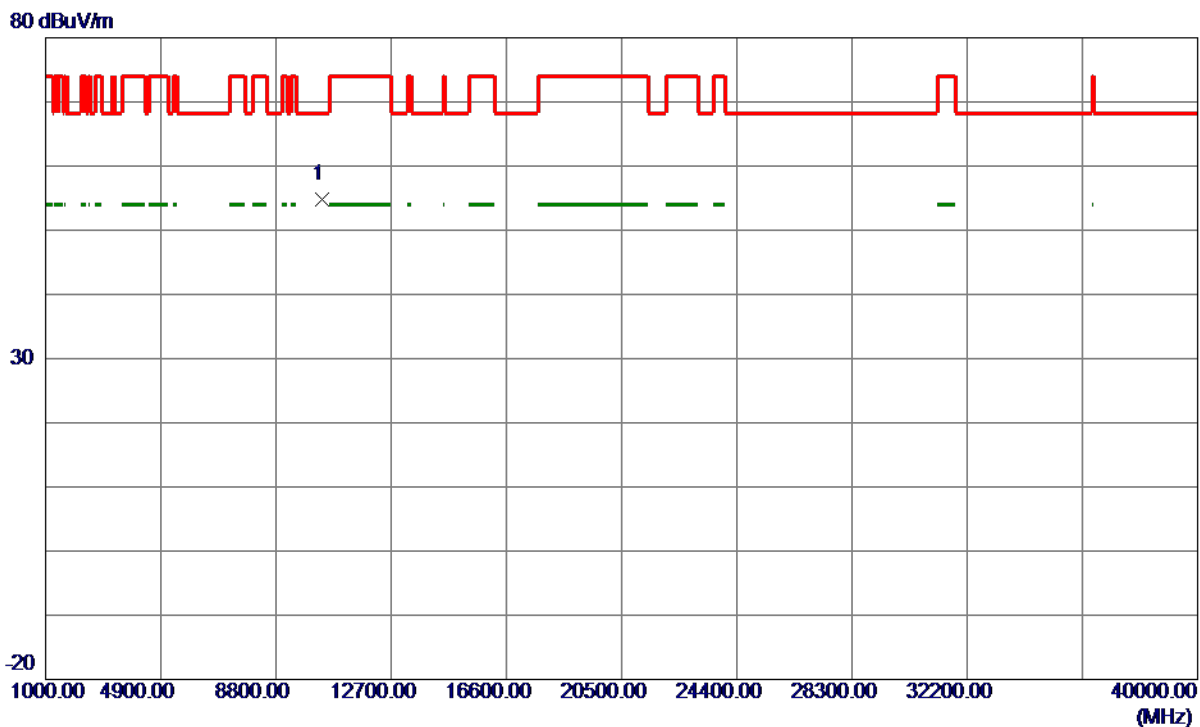
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.2500	43.22	18.41	61.63	74.00	-12.37	Peak	
2	5000.2500	35.28	18.41	53.69	54.00	-0.31	AVG	
3	5150.0000	41.34	18.57	59.91	74.00	-14.09	Peak	
4	5150.0000	32.40	18.57	50.97	54.00	-3.03	AVG	
5	5189.0000	83.94	18.61	102.55	999.00	-896.45	AVG	No Limit
6 *	5195.5000	92.02	18.61	110.63	68.30	42.33	Peak	No Limit

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10380.0250	41.03	13.85	54.88	68.30	-13.42	Peak	

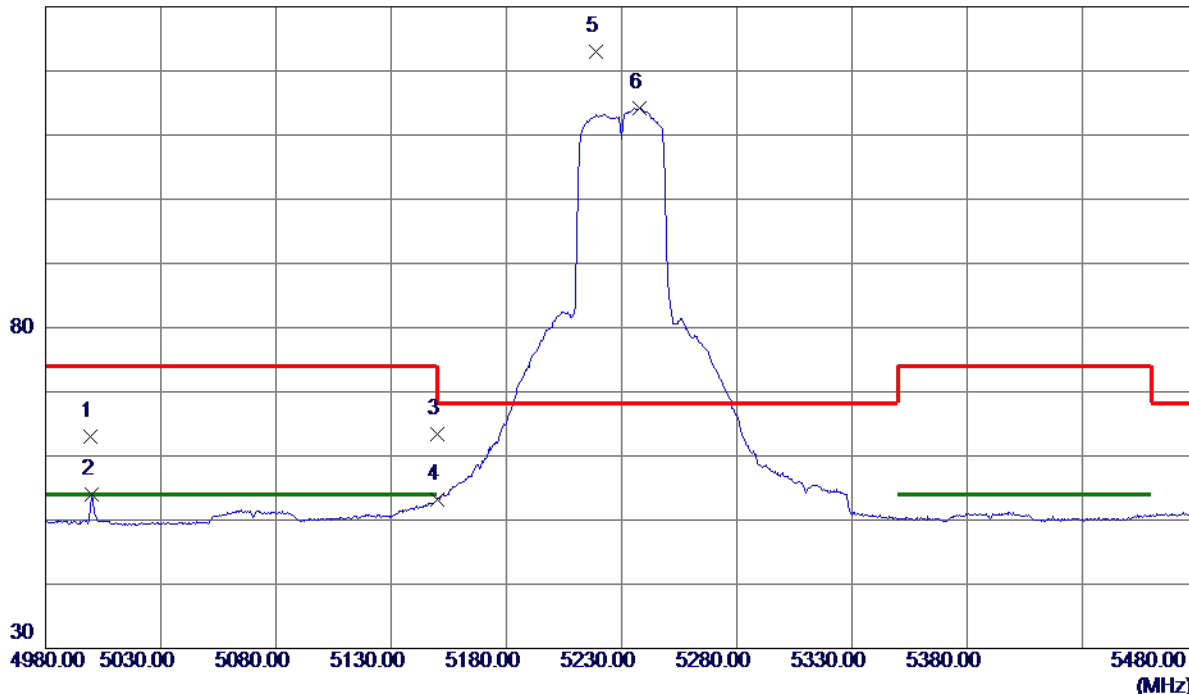
REMARKS:

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

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

Vertical

130 dBuV/m



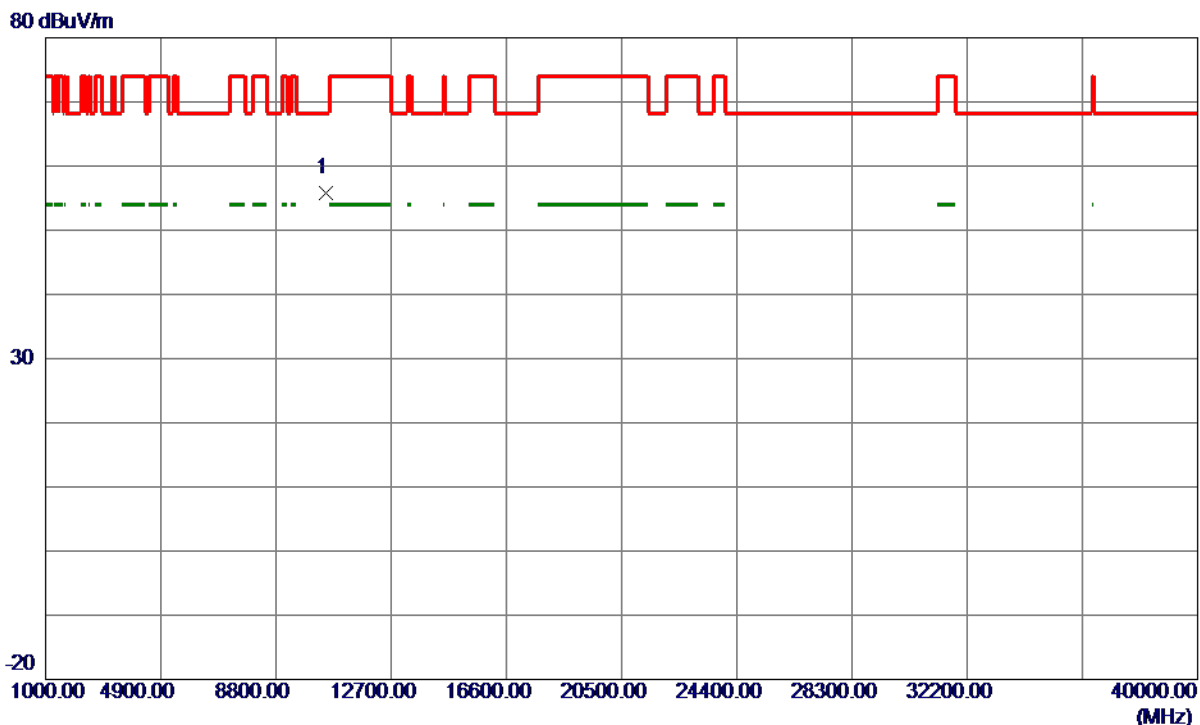
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4999.5000	44.51	18.41	62.92	74.00	-11.08	Peak	
2	5000.0000	35.58	18.41	53.99	54.00	-0.01	AVG	
3	5150.0000	44.81	18.57	63.38	74.00	-10.62	Peak	
4	5150.0000	34.65	18.57	53.22	54.00	-0.78	AVG	
5 *	5218.7500	104.31	18.64	122.95	68.30	54.65	Peak	No Limit
6	5238.0000	95.50	18.66	114.16	999.00	-884.84	AVG	No Limit

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10474.1000	41.66	14.05	55.71	68.30	-12.59	Peak	

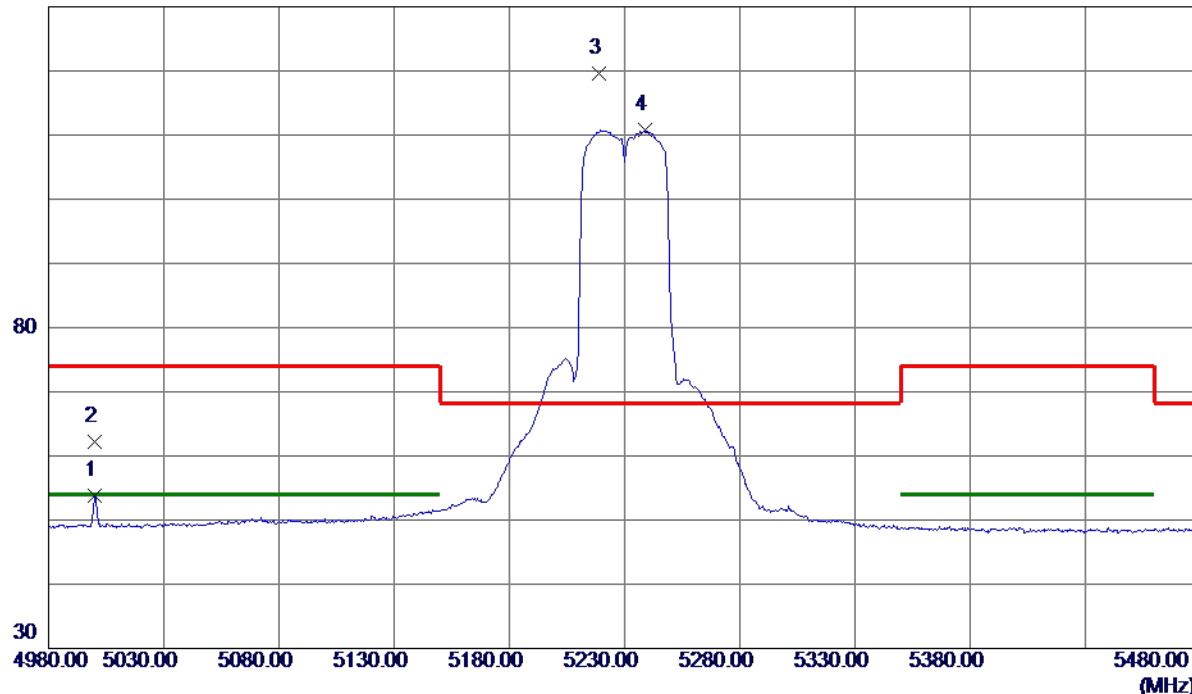
REMARKS:

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

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

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5000.0000	35.36	18.41	53.77	54.00	-0.23	AVG	
2	5000.2500	43.73	18.41	62.14	74.00	-11.86	Peak	
3 *	5219.0000	101.00	18.64	119.64	68.30	51.34	Peak	No Limit
4	5238.7500	92.17	18.66	110.83	999.00	-888.17	AVG	No Limit

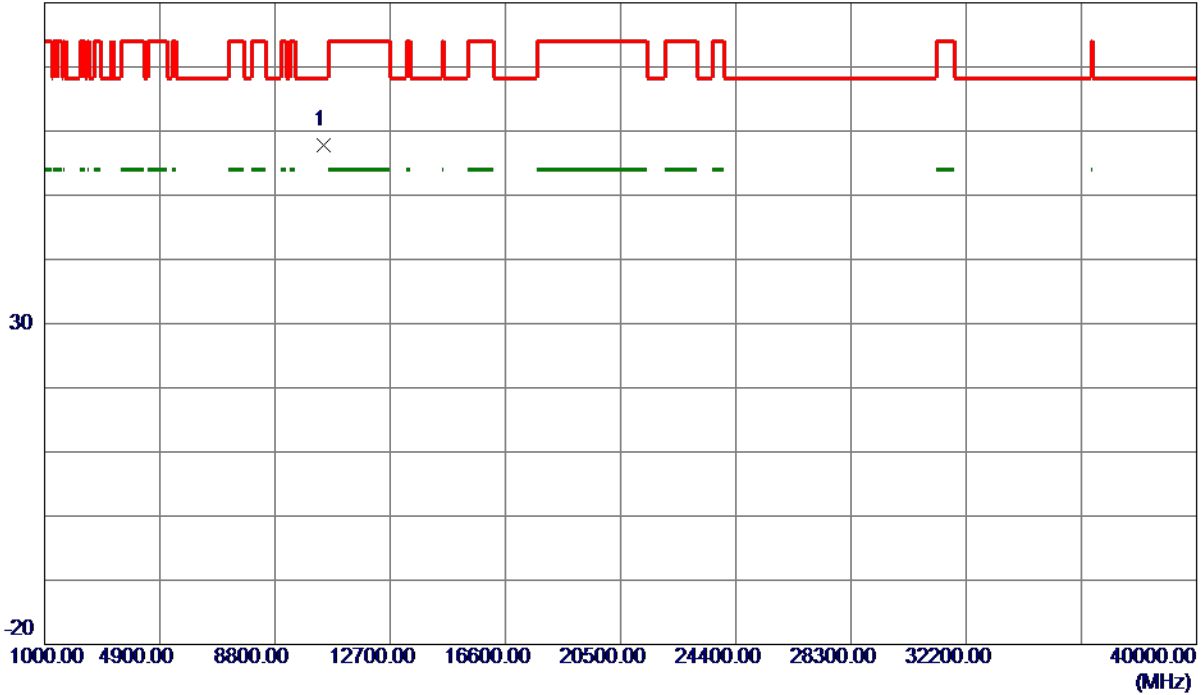
REMARKS:

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

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

Horizontal

80 dBuV/m

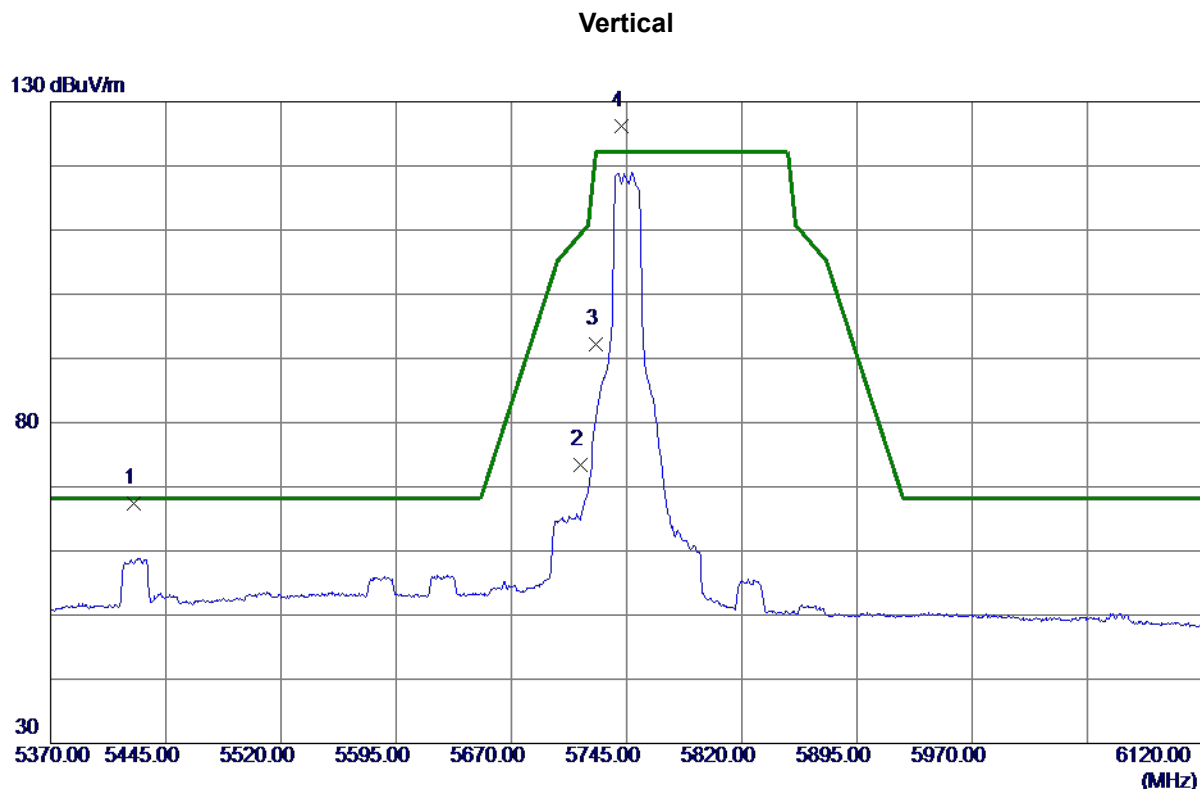


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10460.4000	43.76	14.02	57.78	68.30	-10.52	Peak	

REMARKS:

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

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



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5424.3750	48.56	18.85	67.41	68.20	-0.79	Peak	
2	5715.0000	54.00	19.42	73.42	109.40	-35.98	Peak	
3	5725.0000	72.74	19.45	92.19	122.20	-30.01	Peak	
4 *	5741.6250	106.71	19.49	126.20	122.20	4.00	Peak	No Limit

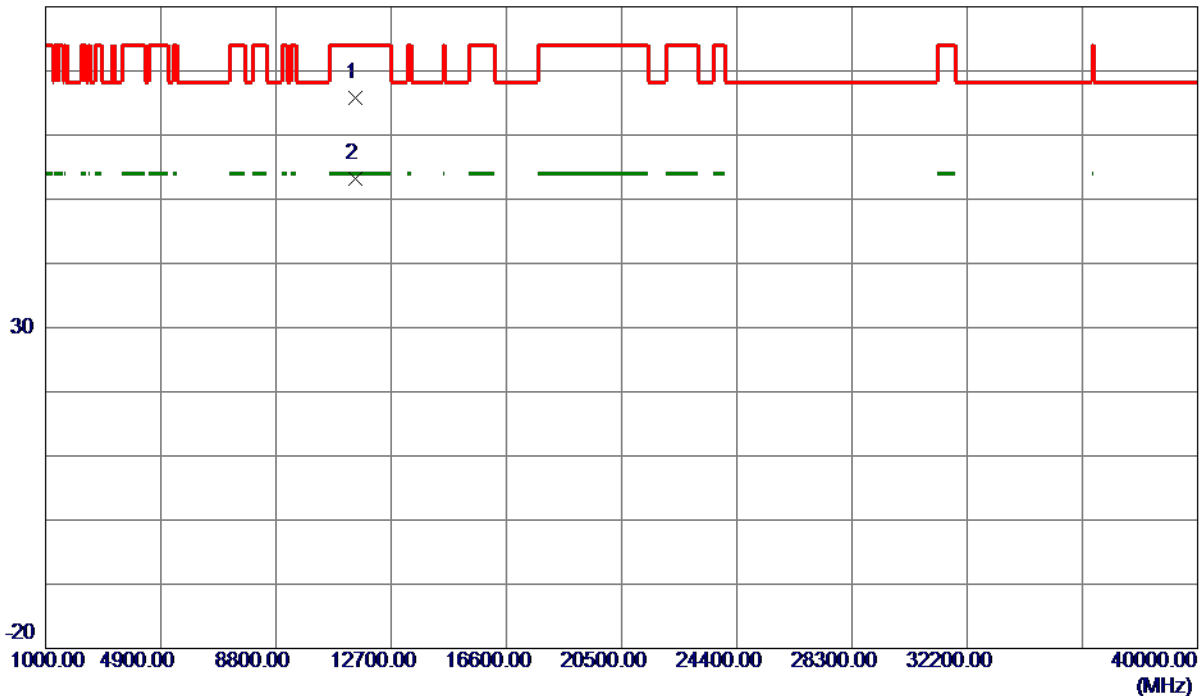
REMARKS:

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

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

Vertical

80 dBuV/m



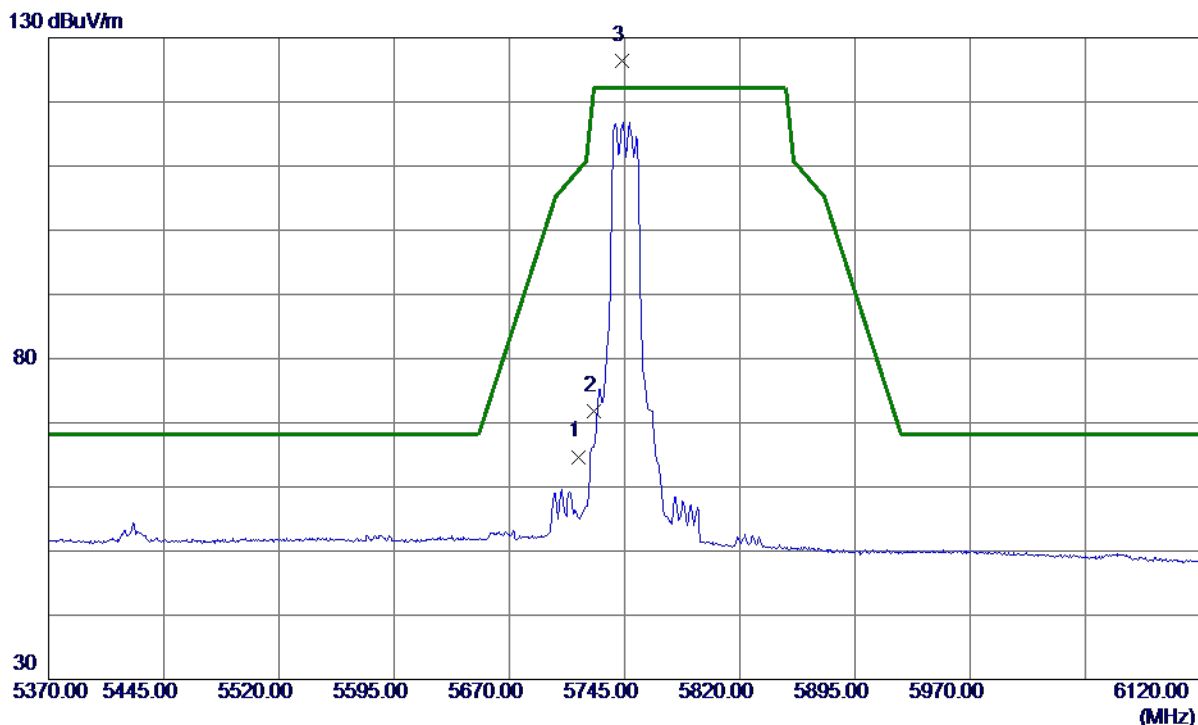
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11484.7000	48.93	16.93	65.86	74.00	-8.14	Peak	
2 *	11490.0750	36.19	16.95	53.14	54.00	-0.86	AVG	

REMARKS:

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

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

Horizontal



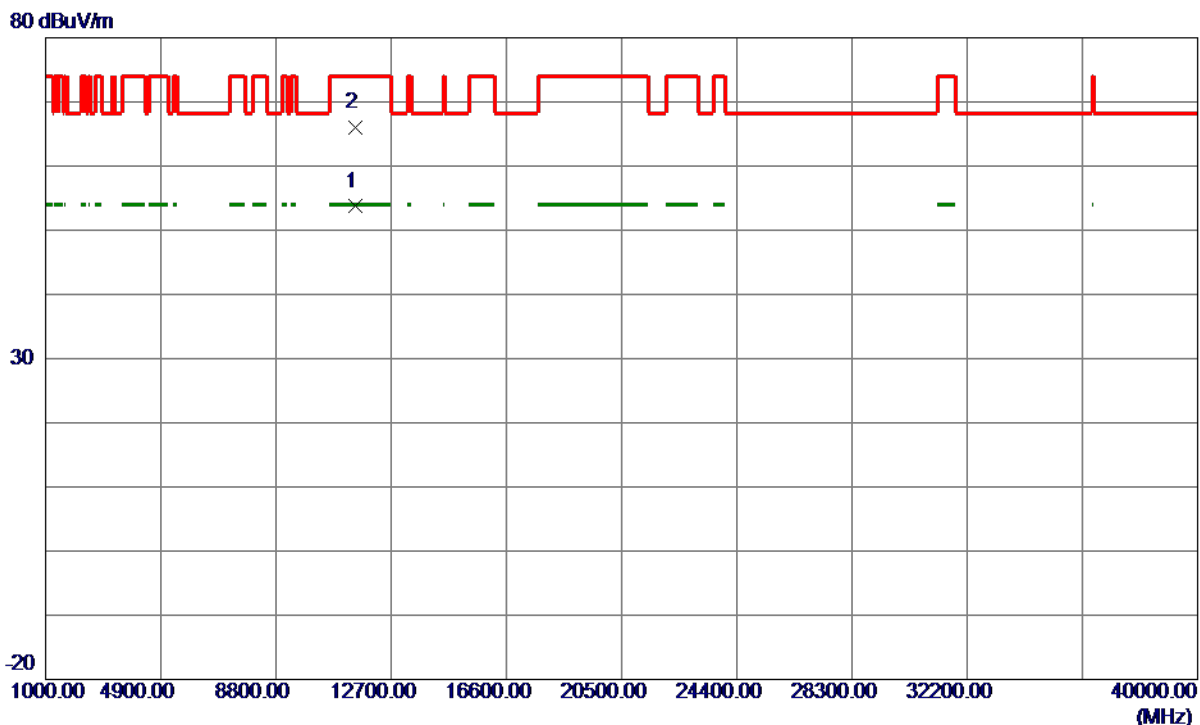
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5715.0000	45.28	19.42	64.70	109.40	-44.70	Peak	
2	5725.0000	52.43	19.45	71.88	122.20	-50.32	Peak	
3 *	5743.5000	106.82	19.49	126.31	122.20	4.11	Peak	No Limit

REMARKS:

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

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

Horizontal



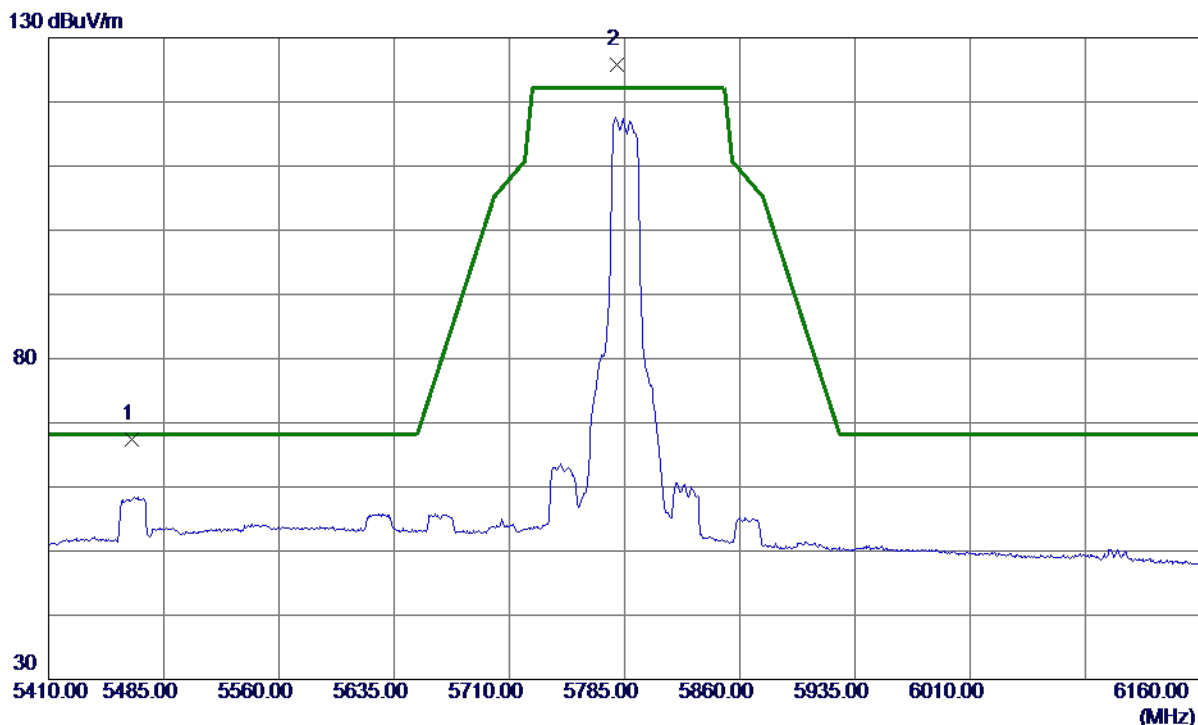
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11488.4750	36.75	16.95	53.70	54.00	-0.30	AVG	
2	11491.8500	49.09	16.96	66.05	74.00	-7.95	Peak	

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5464.0000	48.46	18.89	67.35	68.20	-0.85	Peak	
2 *	5780.1250	106.23	19.57	125.80	122.20	3.60	Peak	No Limit

REMARKS:

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

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

Vertical

80 dBuV/m



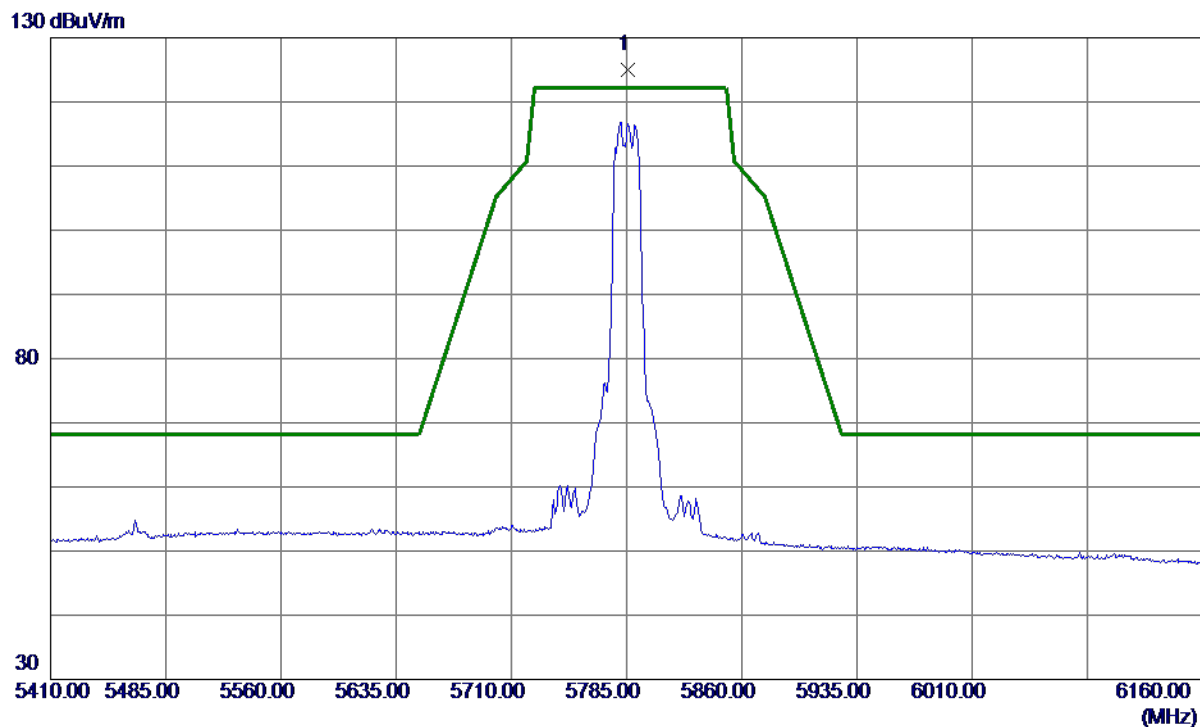
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11569.1250	35.63	17.04	52.67	54.00	-1.33	AVG	
2	11569.2250	46.12	17.04	63.16	74.00	-10.84	Peak	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5785.7500	105.51	19.59	125.10	122.20	2.90	Peak	No Limit

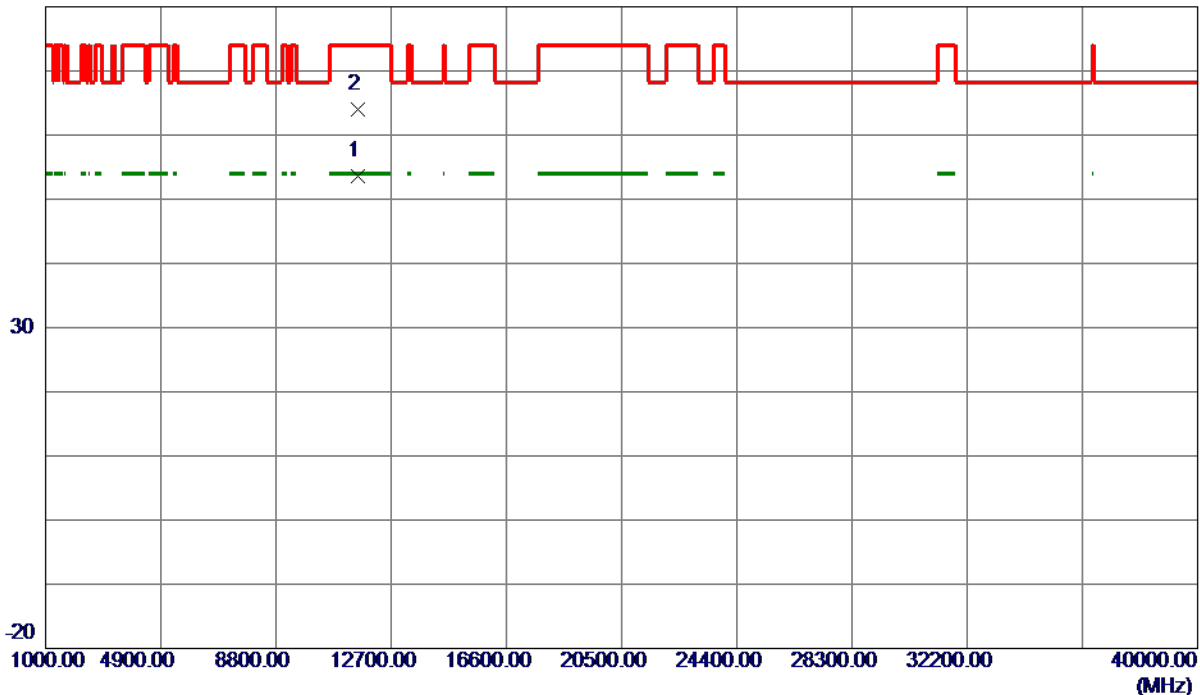
REMARKS:

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

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

Horizontal

80 dBuV/m



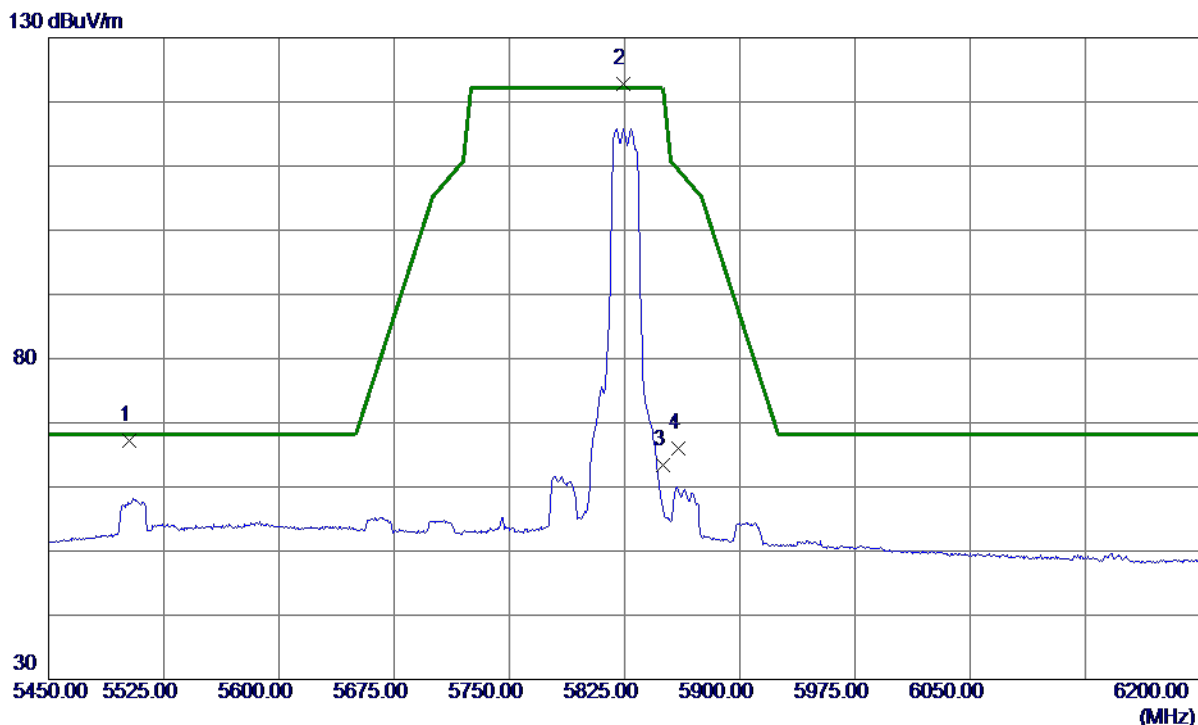
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11570.3500	36.63	17.04	53.67	54.00	-0.33	AVG	
2	11562.4750	46.92	17.04	63.96	74.00	-10.04	Peak	

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5502.1250	48.33	18.93	67.26	68.20	-0.94	Peak	
2 *	5823.8750	103.03	19.67	122.70	122.20	0.50	Peak	No Limit
3	5850.0000	43.63	19.74	63.37	122.20	-58.83	Peak	
4	5860.0000	46.16	19.76	65.92	109.40	-43.48	Peak	

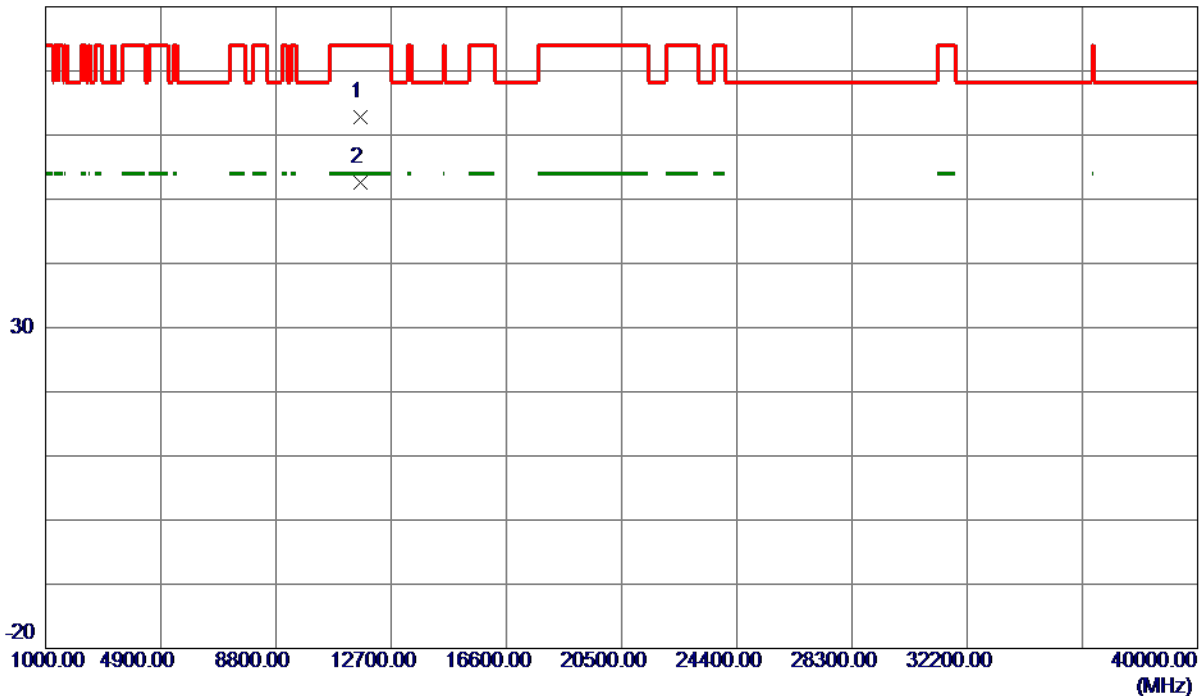
REMARKS:

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

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

Vertical

80 dBuV/m



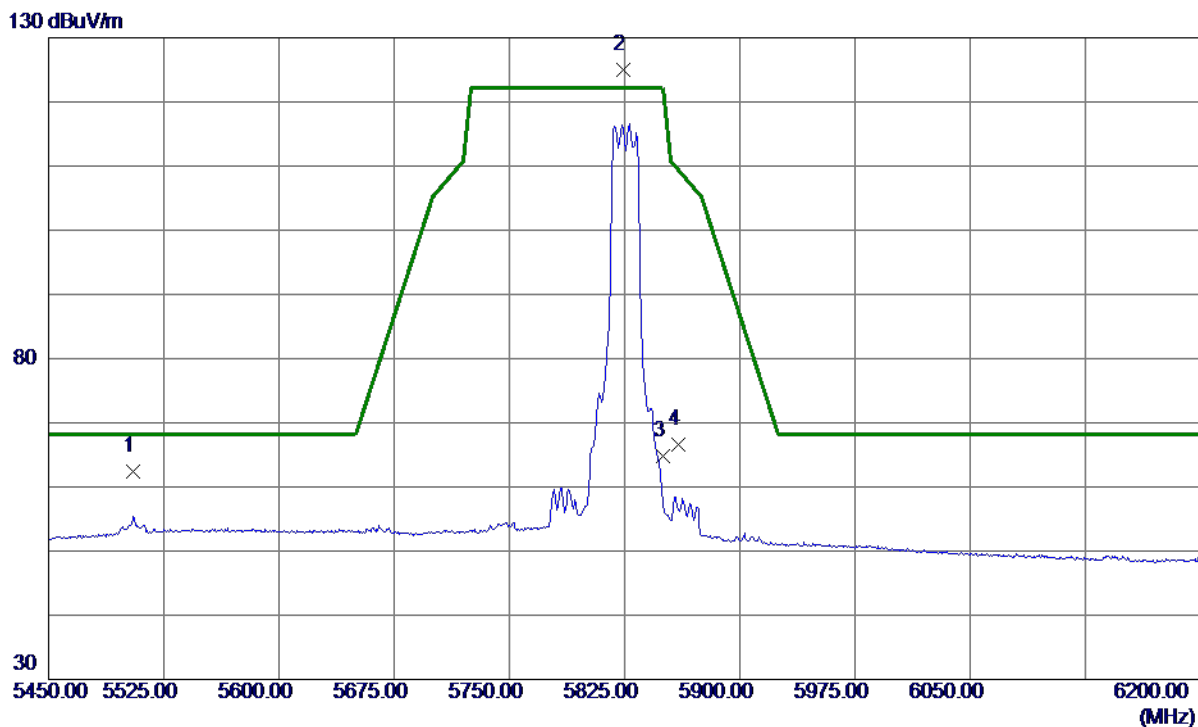
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11644.8000	45.70	17.11	62.81	74.00	-11.19	Peak	
2 *	11649.9500	35.53	17.12	52.65	54.00	-1.35	AVG	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5505.0000	43.55	18.94	62.49	68.20	-5.71	Peak	
2 *	5823.8750	105.40	19.67	125.07	122.20	2.87	Peak	No Limit
3	5850.0000	45.14	19.74	64.88	122.20	-57.32	Peak	
4	5860.0000	46.82	19.76	66.58	109.40	-42.82	Peak	

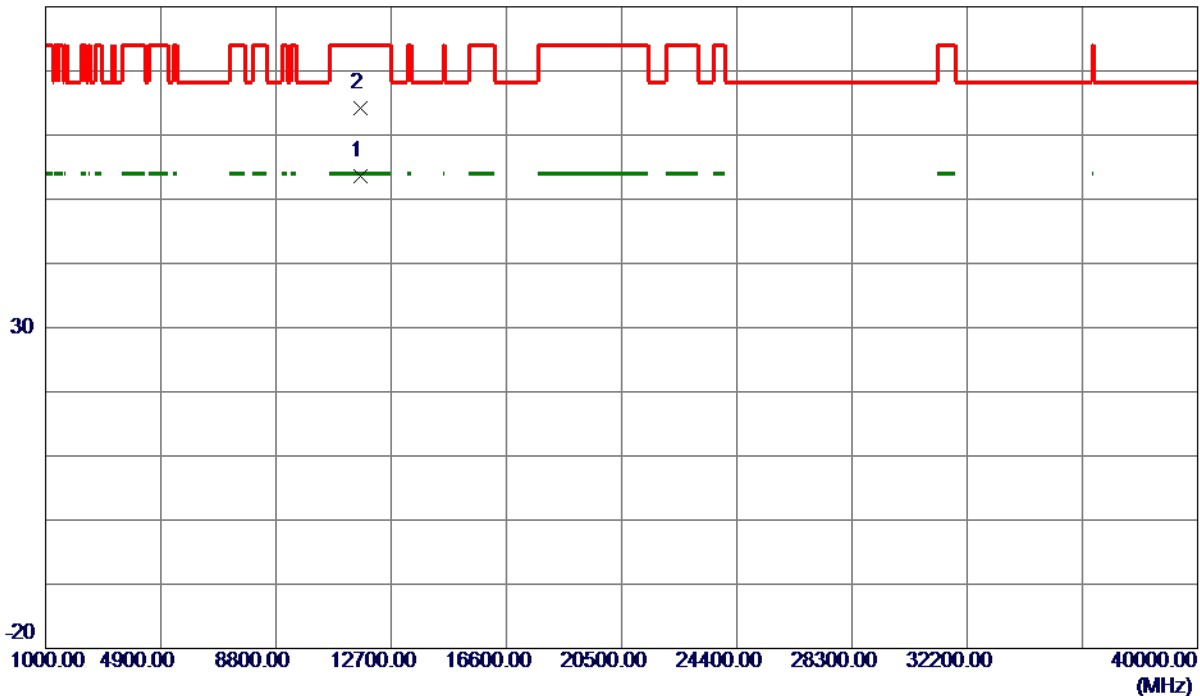
REMARKS:

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

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

Horizontal

80 dBuV/m



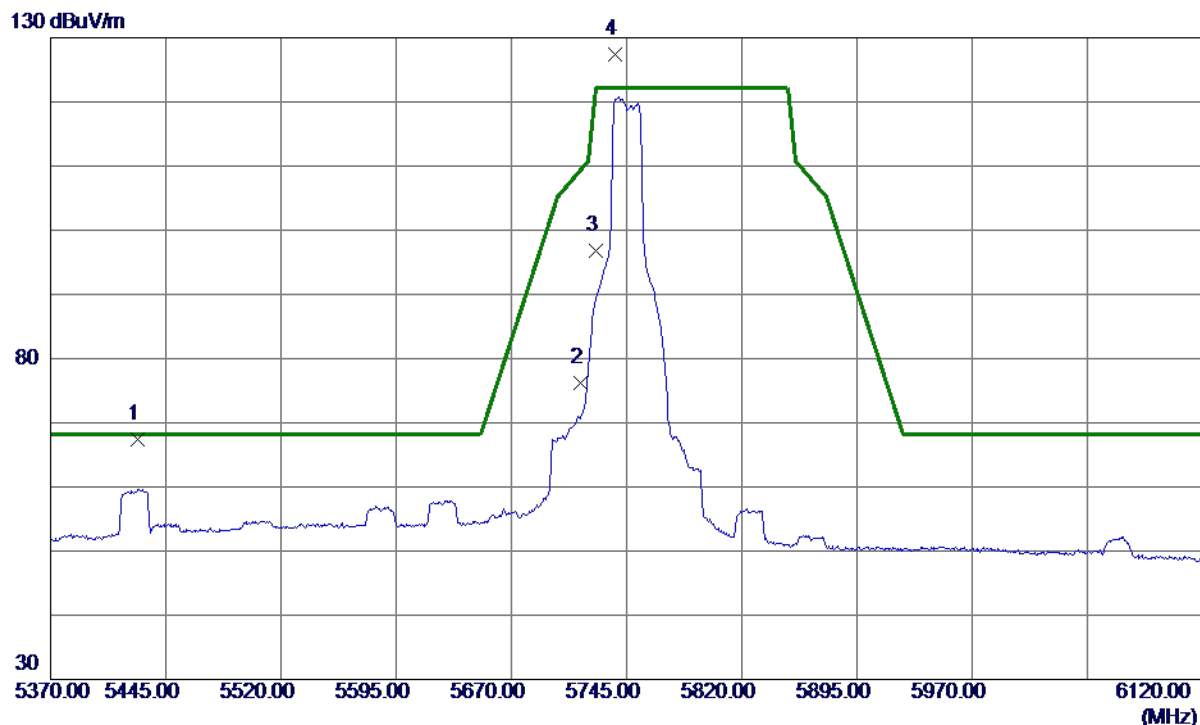
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11649.8250	36.55	17.12	53.67	54.00	-0.33	AVG	
2	11643.9250	47.02	17.11	64.13	74.00	-9.87	Peak	

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5427.0000	48.55	18.85	67.40	68.20	-0.80	Peak	
2	5715.0000	56.71	19.42	76.13	109.40	-33.27	Peak	
3	5725.0000	77.30	19.45	96.75	122.20	-25.45	Peak	
4 *	5737.5000	107.83	19.48	127.31	122.20	5.11	Peak	No Limit

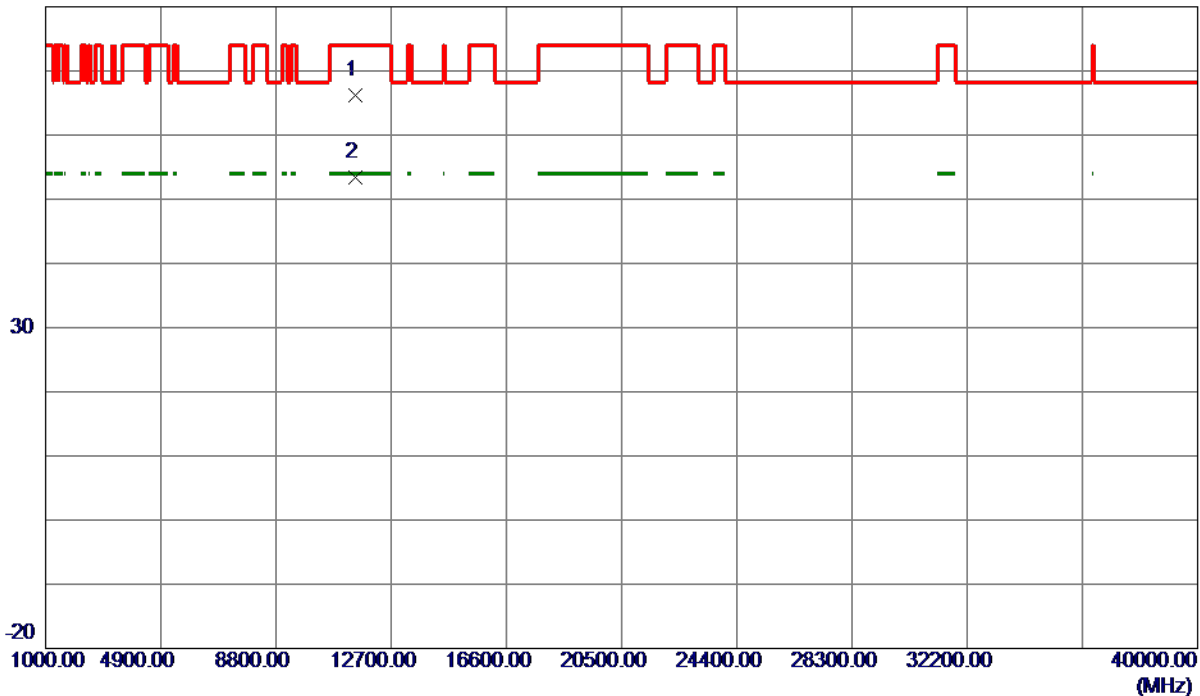
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11486.4500	49.25	16.94	66.19	74.00	-7.81	Peak	
2 *	11487.0000	36.46	16.94	53.40	54.00	-0.60	AVG	

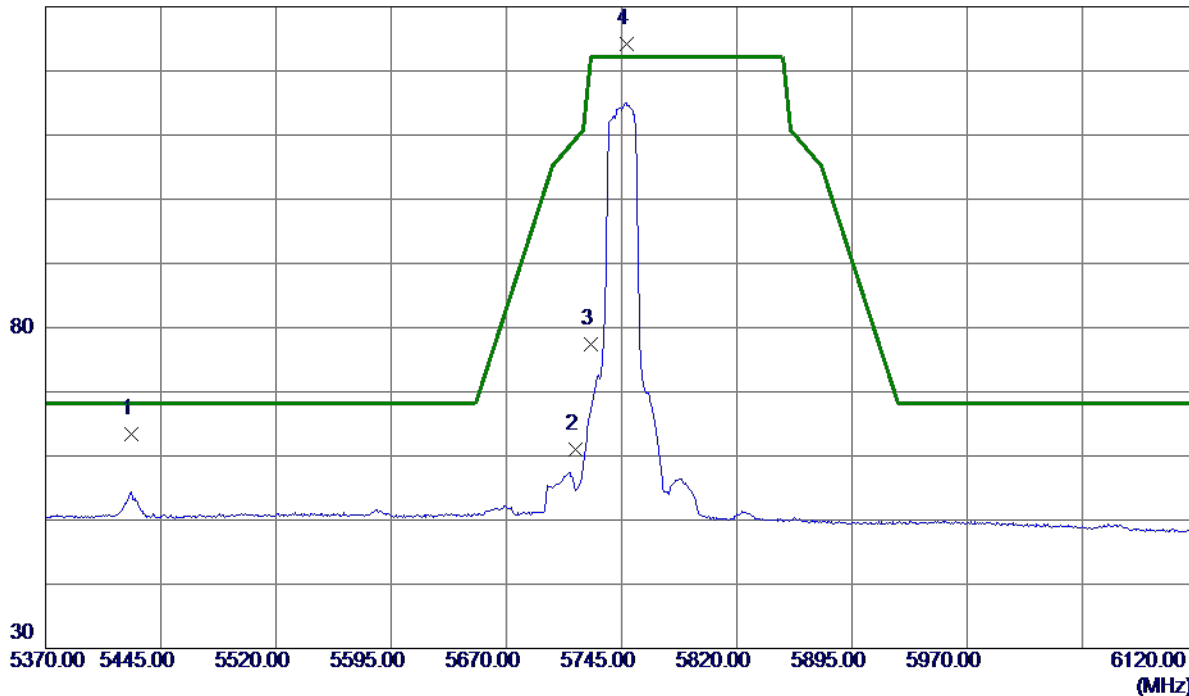
REMARKS:

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

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

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5425.8750	44.55	18.85	63.40	68.20	-4.80	Peak	
2	5715.0000	41.53	19.42	60.95	109.40	-48.45	Peak	
3	5725.0000	58.01	19.45	77.46	122.20	-44.74	Peak	
4 *	5748.0000	104.63	19.50	124.13	122.20	1.93	Peak	No Limit

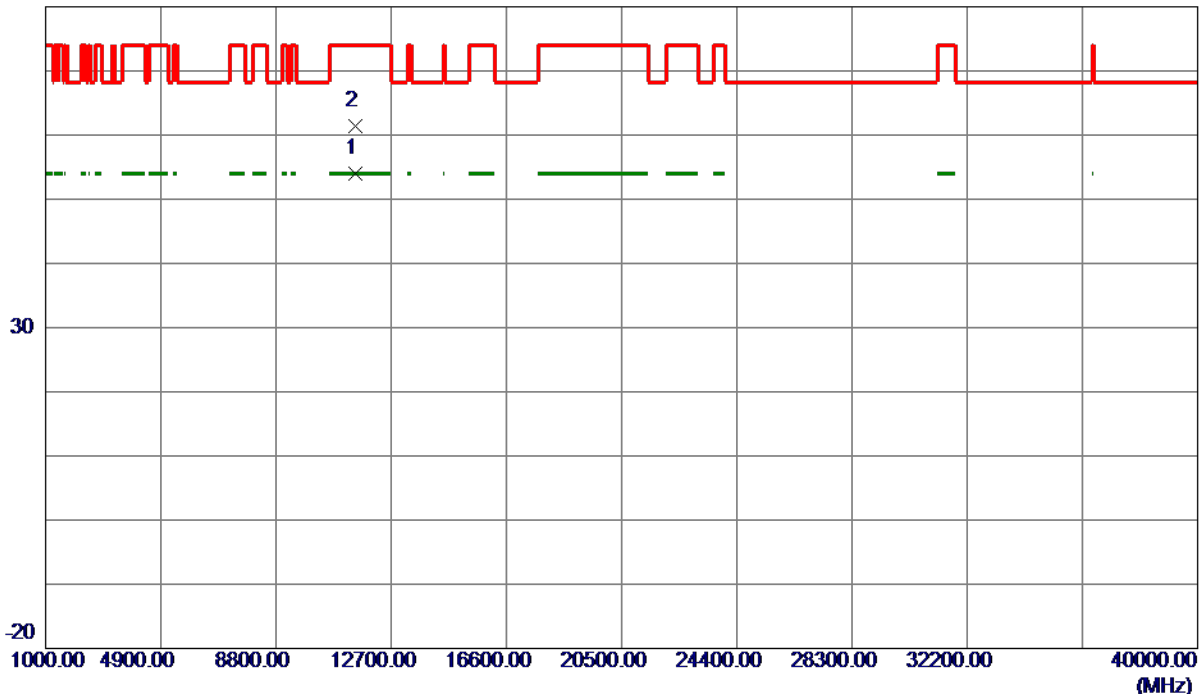
REMARKS:

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

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

Horizontal

80 dBuV/m



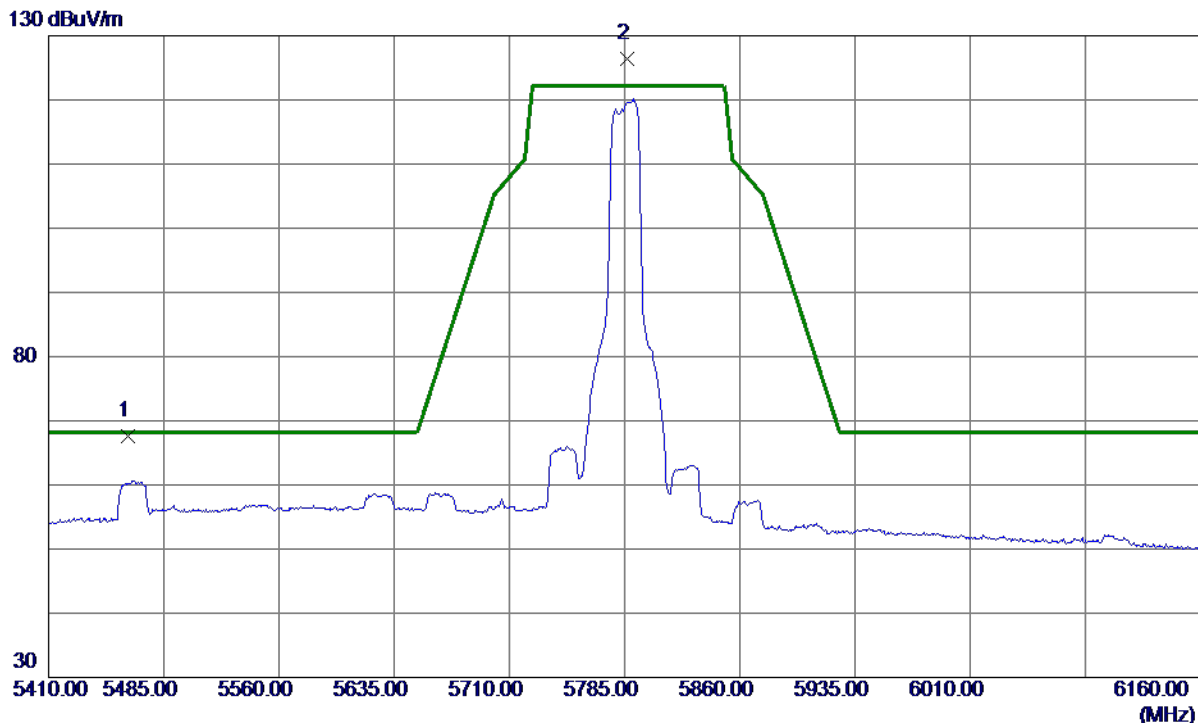
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11482.8500	37.00	16.93	53.93	54.00	-0.07	AVG	
2	11484.4500	44.52	16.93	61.45	74.00	-12.55	Peak	

REMARKS:

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

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

Vertical



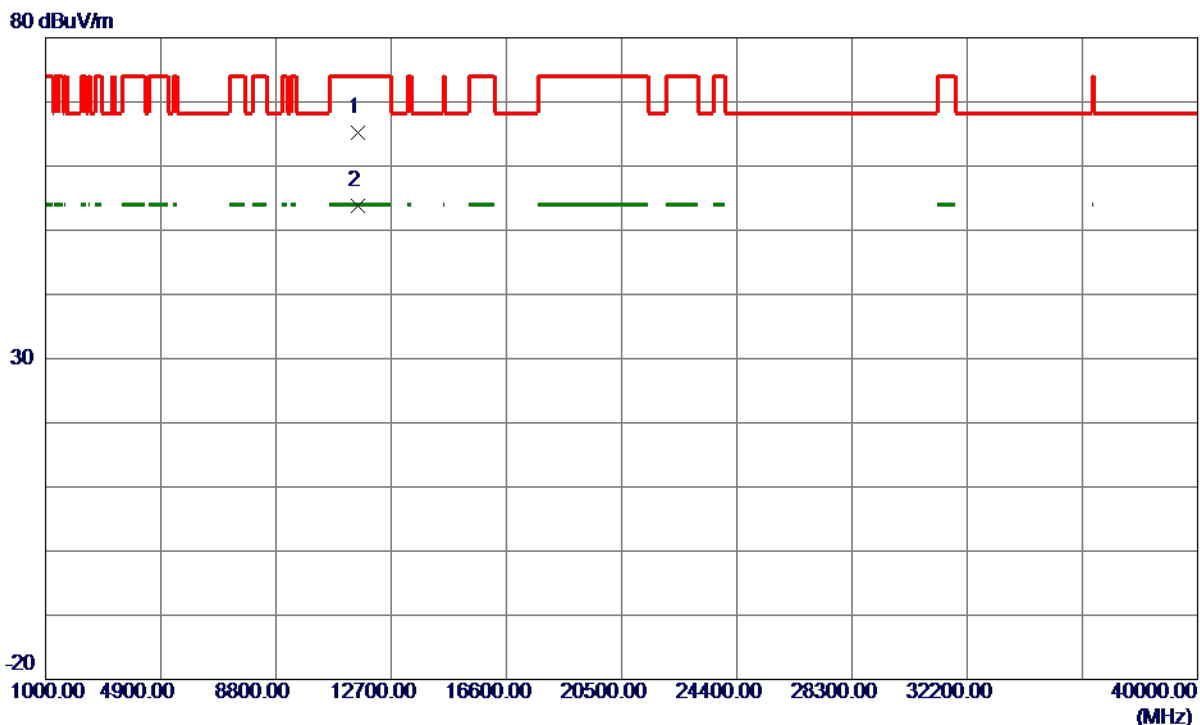
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5461.3750	48.76	18.89	67.65	68.20	-0.55	Peak	
2 *	5786.5000	106.87	19.59	126.46	122.20	4.26	Peak	No Limit

REMARKS:

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

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

Vertical



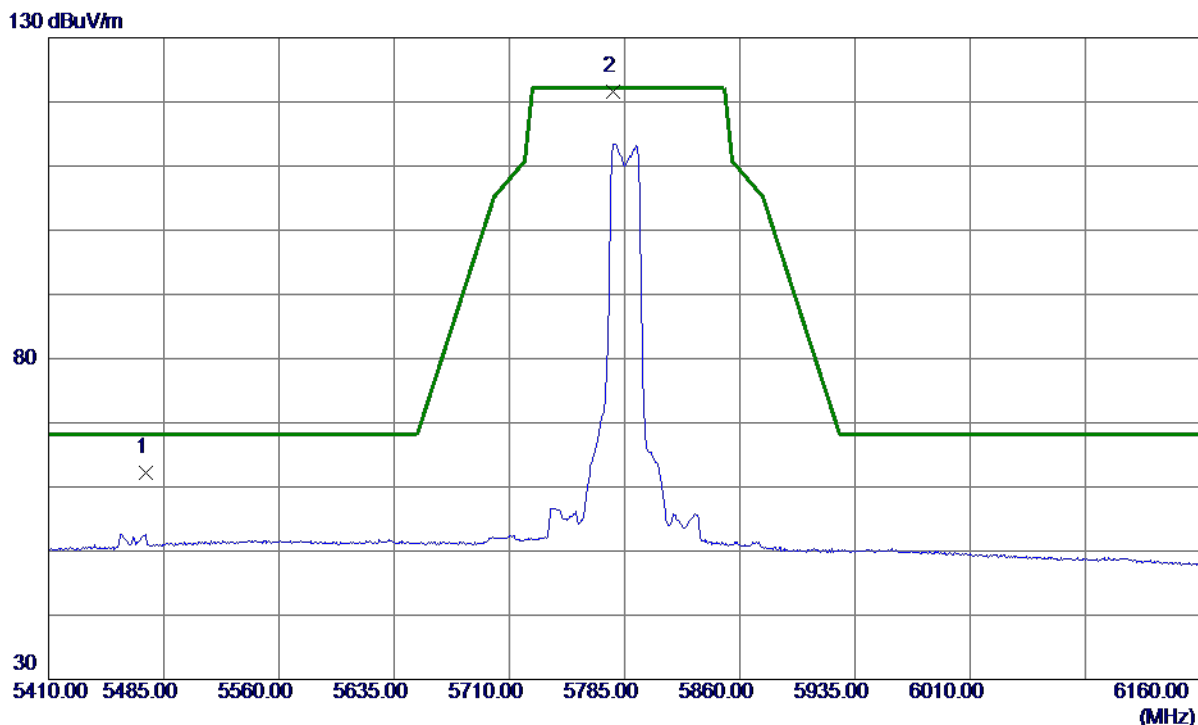
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11564.7000	48.12	17.04	65.16	74.00	-8.84	Peak	
2 *	11567.1250	36.82	17.04	53.86	54.00	-0.14	AVG	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5473.3750	43.33	18.90	62.23	68.20	-5.97	Peak	
2 *	5777.5000	102.12	19.57	121.69	122.20	-0.51	Peak	No Limit

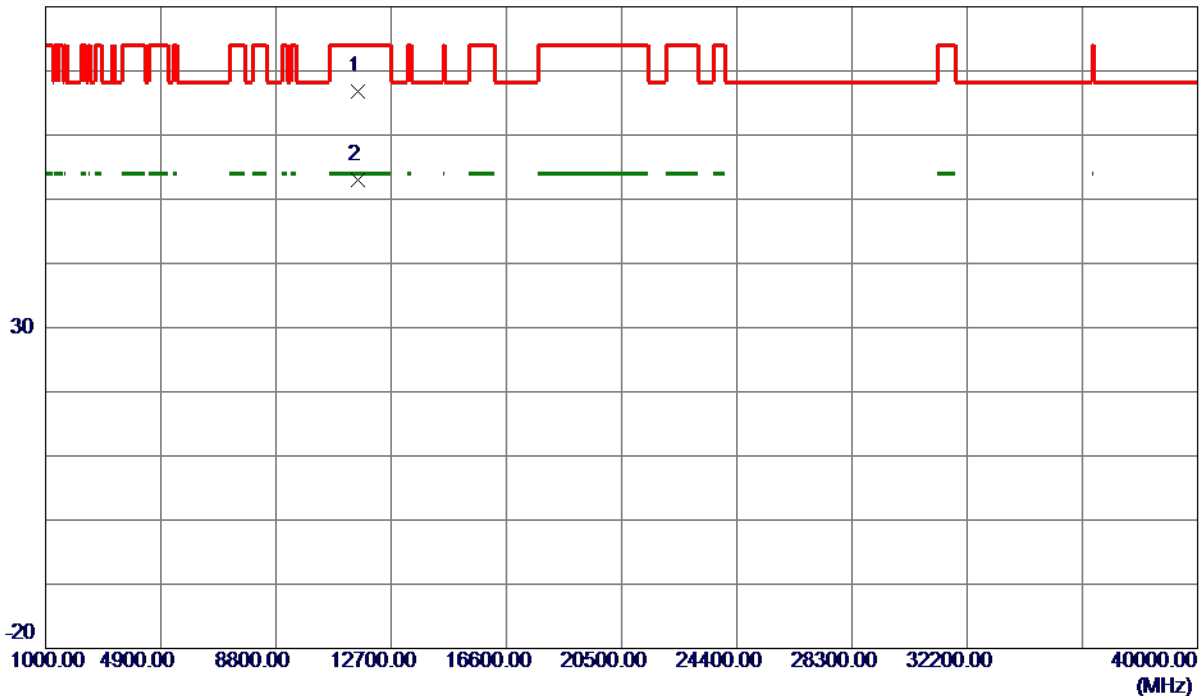
REMARKS:

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

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

Horizontal

80 dBuV/m



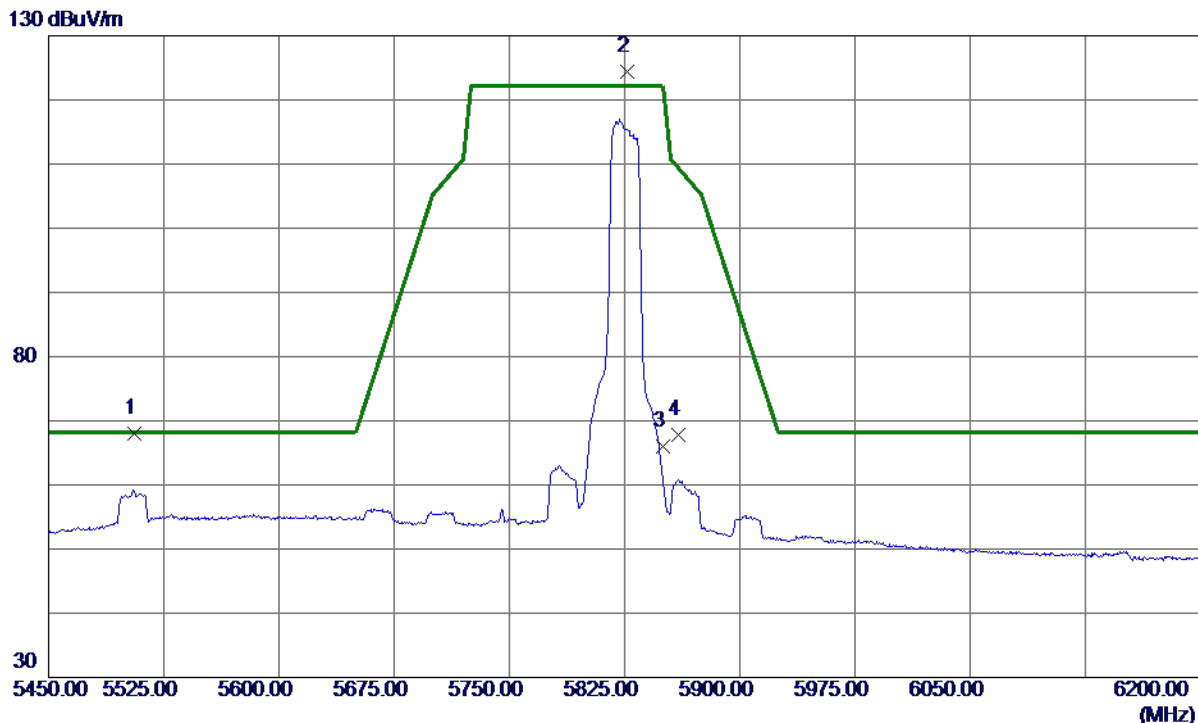
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11568.5000	49.69	17.04	66.73	74.00	-7.27	Peak	
2 *	11573.5750	35.98	17.05	53.03	54.00	-0.97	AVG	

REMARKS:

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

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

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5505.8750	49.06	18.94	68.00	68.20	-0.20	Peak	
2 *	5826.5000	104.70	19.68	124.38	122.20	2.18	Peak	No Limit
3	5850.0000	46.27	19.74	66.01	122.20	-56.19	Peak	
4	5860.0000	47.99	19.76	67.75	109.40	-41.65	Peak	

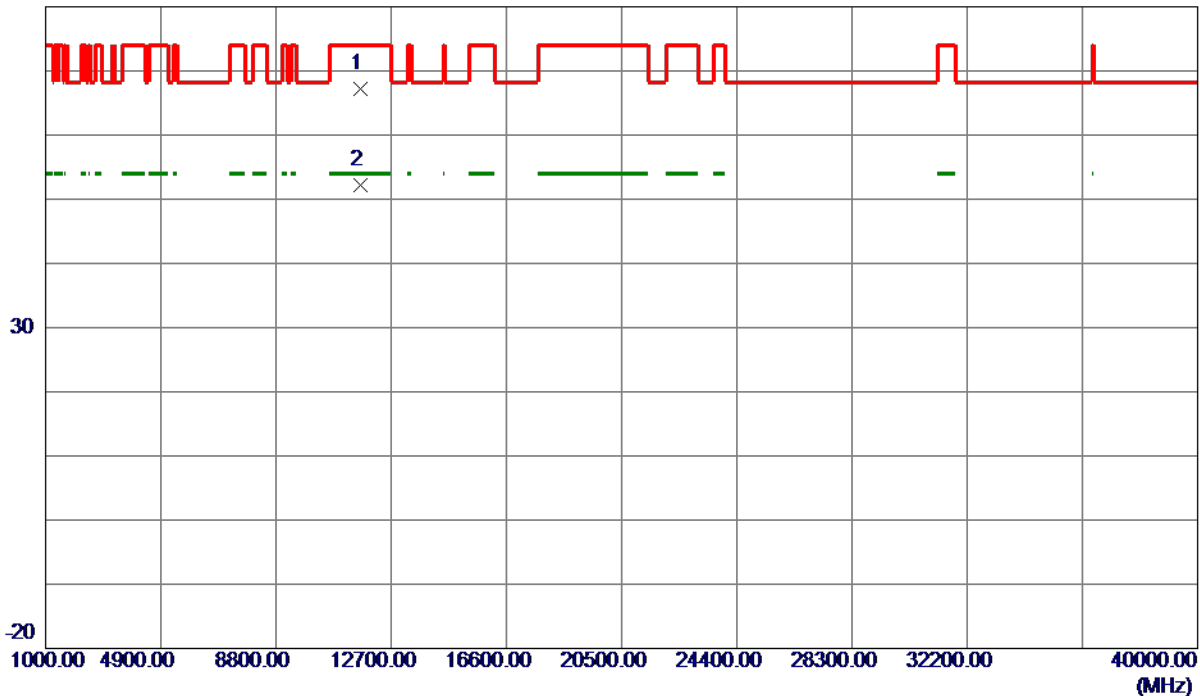
REMARKS:

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

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

Vertical

80 dBuV/m



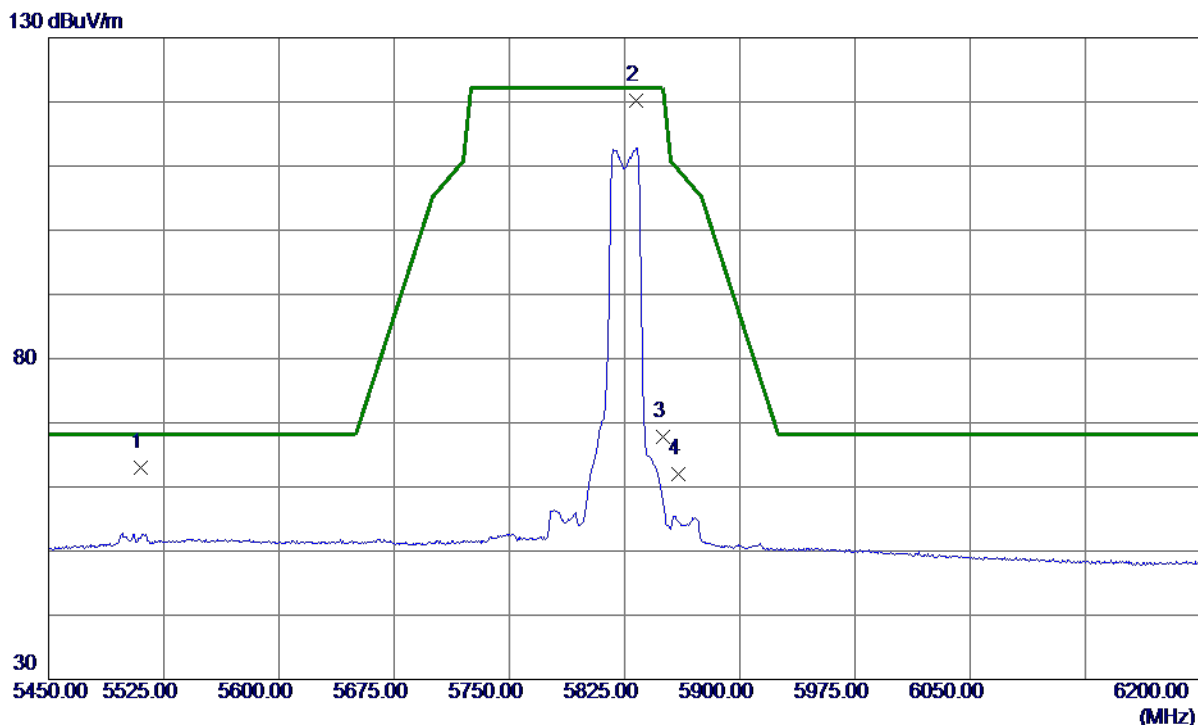
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11647.9250	50.02	17.12	67.14	74.00	-6.86	Peak	
2 *	11648.7250	35.10	17.12	52.22	54.00	-1.78	AVG	

REMARKS:

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

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

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5509.6250	44.04	18.95	62.99	68.20	-5.21	Peak	
2 *	5832.8750	100.47	19.70	120.17	122.20	-2.03	Peak	No Limit
3	5850.0000	47.98	19.74	67.72	122.20	-54.48	Peak	
4	5860.0000	42.18	19.76	61.94	109.40	-47.46	Peak	

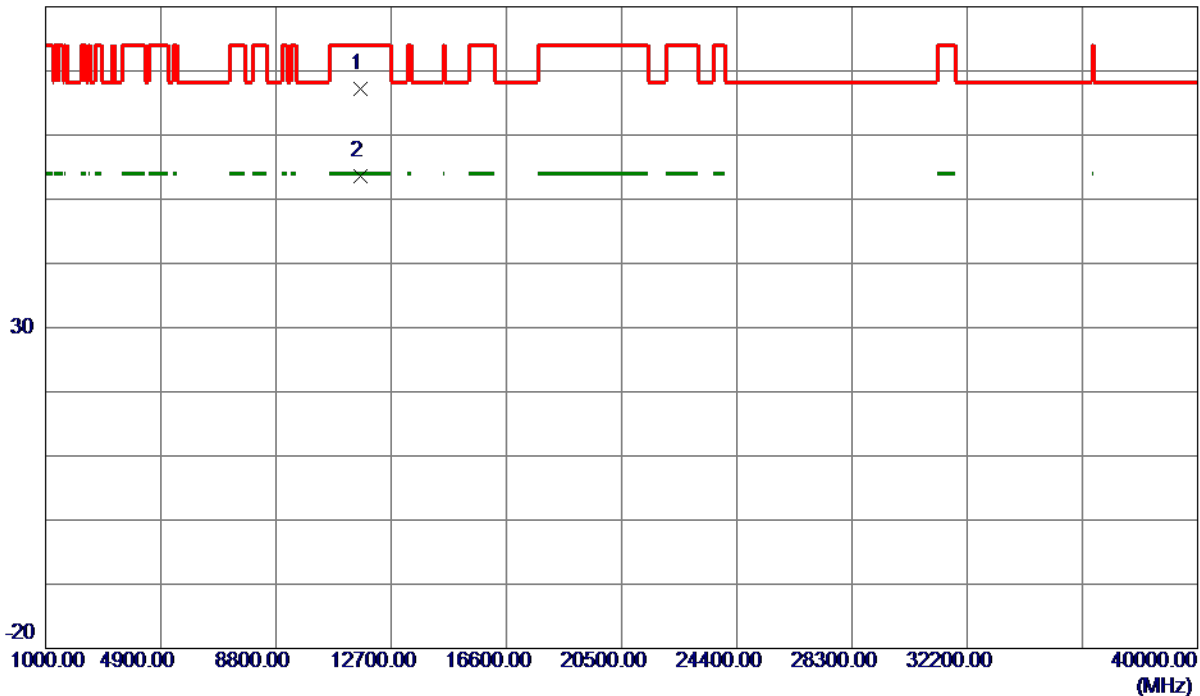
REMARKS:

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

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

Horizontal

80 dBuV/m

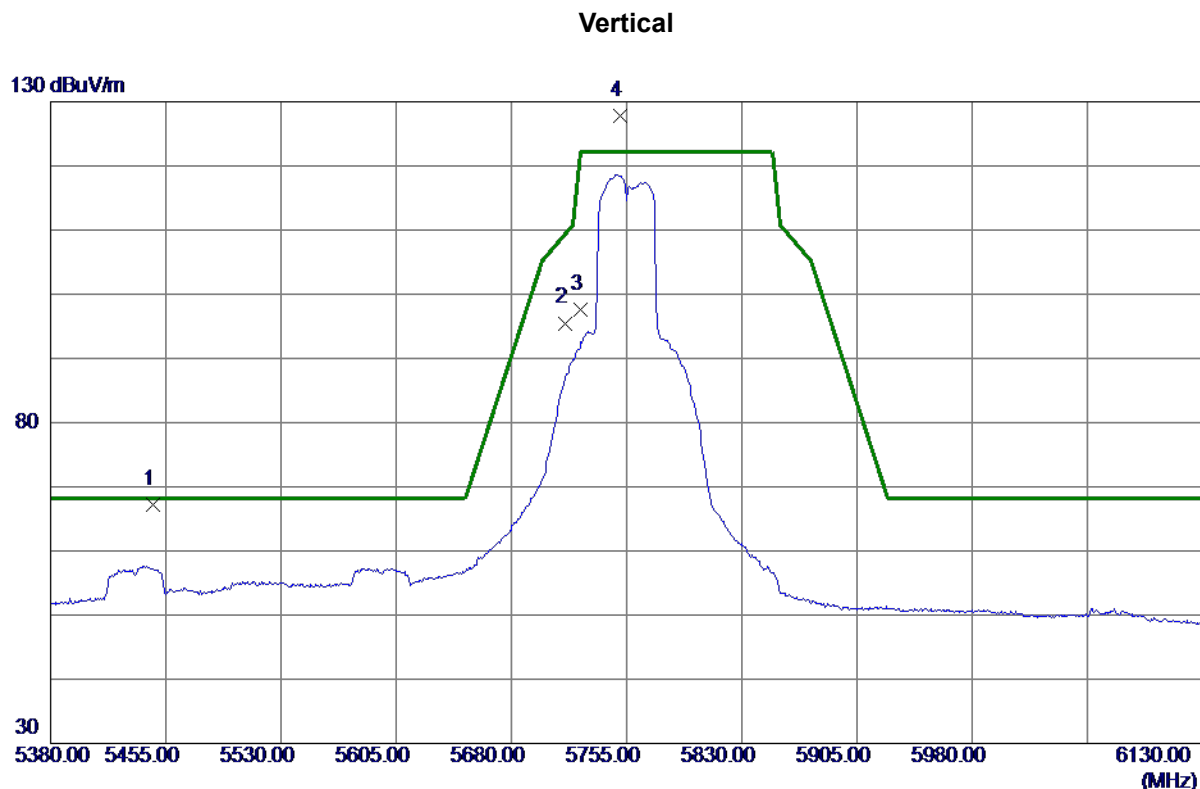


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11649.6500	50.09	17.12	67.21	74.00	-6.79	Peak	
2 *	11653.2500	36.57	17.12	53.69	54.00	-0.31	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5755 MHz



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5446.7500	48.28	18.87	67.15	68.20	-1.05	Peak	
2	5715.0000	76.08	19.42	95.50	109.40	-13.90	Peak	
3	5725.0000	78.07	19.45	97.52	122.20	-24.68	Peak	
4 *	5755.5000	108.23	19.51	127.74	122.20	5.54	Peak	No Limit

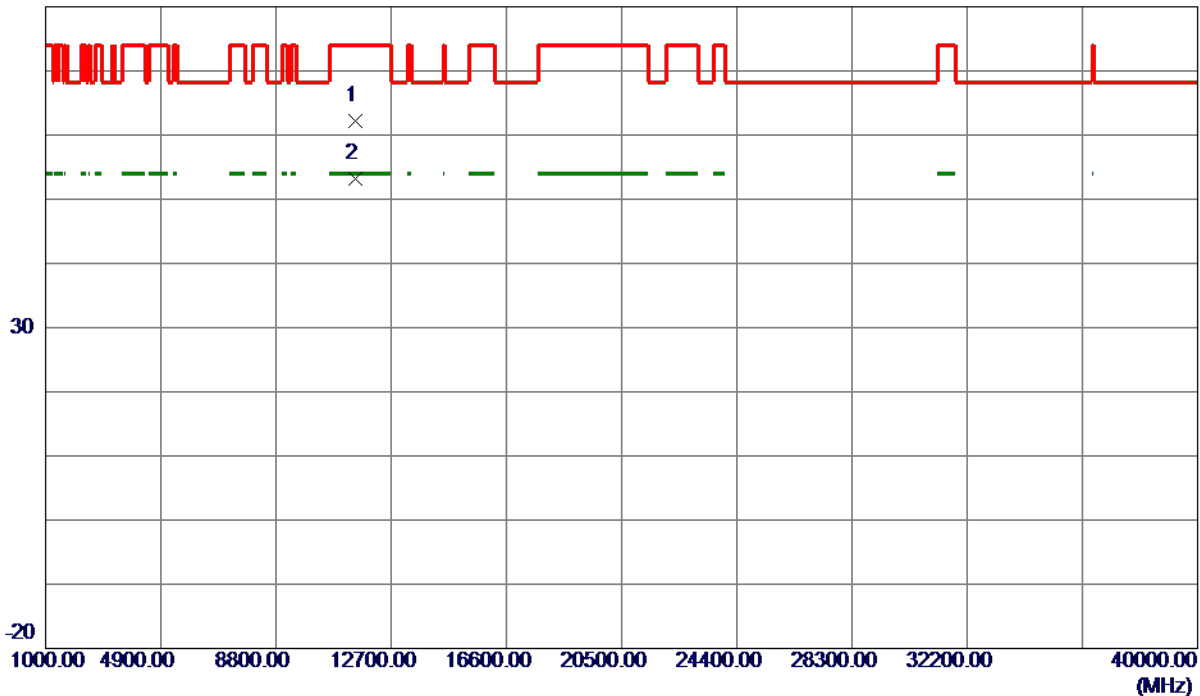
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5755 MHz

Vertical

80 dBuV/m



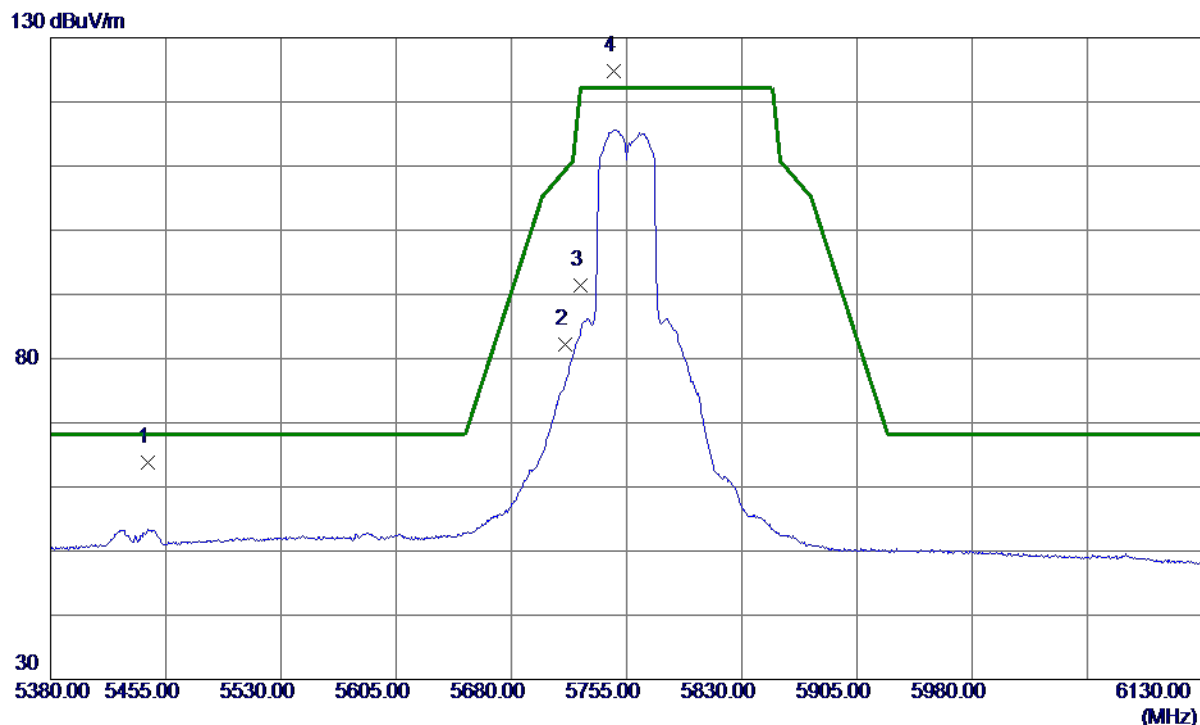
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11505.0750	45.20	16.98	62.18	74.00	-11.82	Peak	
2 *	11506.2250	36.22	16.99	53.21	54.00	-0.79	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5755 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5443.0000	44.98	18.87	63.85	68.20	-4.35	Peak	
2	5715.0000	62.86	19.42	82.28	109.40	-27.12	Peak	
3	5725.0000	71.87	19.45	91.32	122.20	-30.88	Peak	
4 *	5746.3750	105.36	19.50	124.86	122.20	2.66	Peak	No Limit

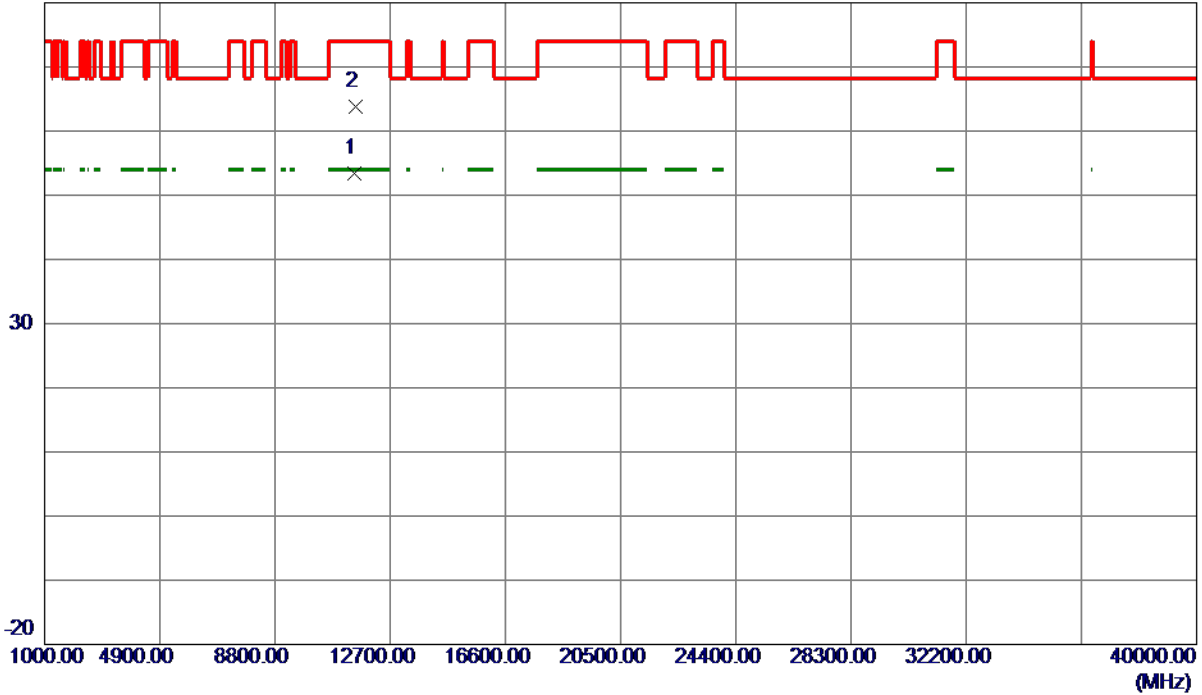
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5755 MHz

Horizontal

80 dBuV/m

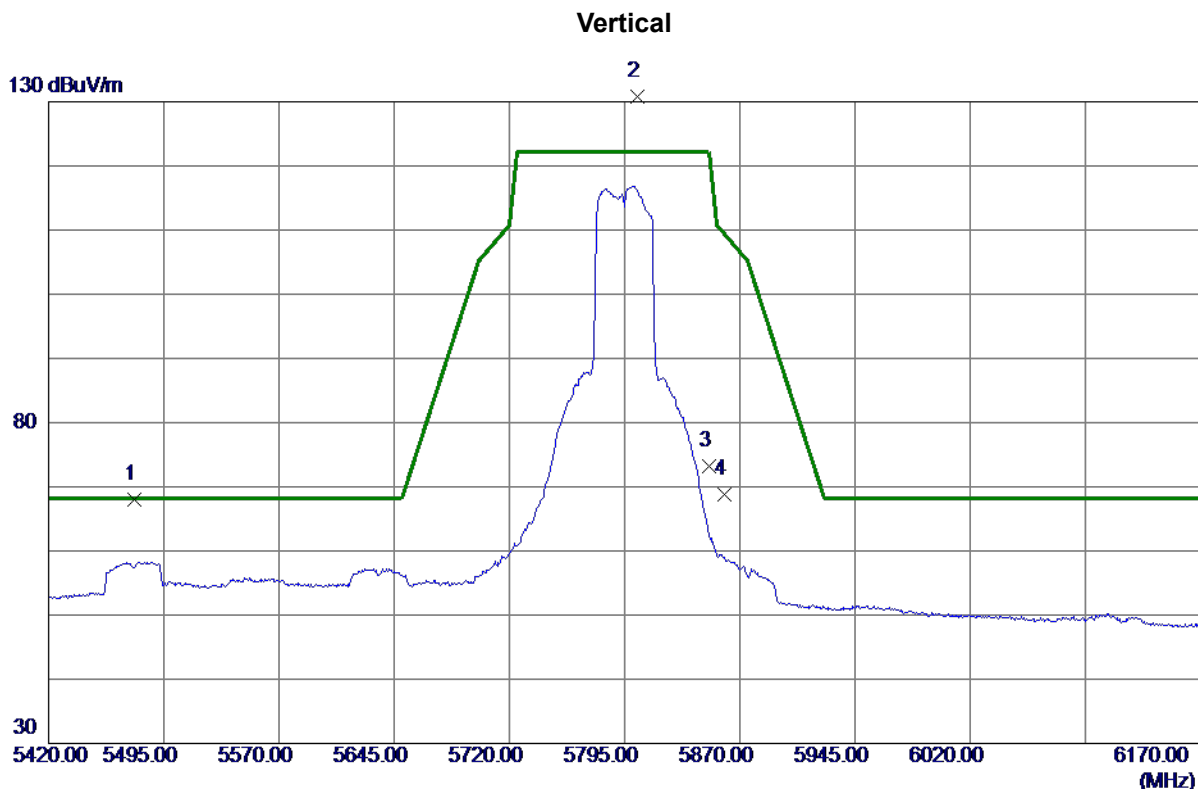


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11502.6500	36.43	16.98	53.41	54.00	-0.59	AVG	
2	11521.3750	46.78	17.00	63.78	74.00	-10.22	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5795 MHz



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5475.8750	49.10	18.90	68.00	68.20	-0.20	Peak	
2 *	5803.6250	111.23	19.63	130.86	122.20	8.66	Peak	No Limit
3	5850.0000	53.37	19.74	73.11	122.20	-49.09	Peak	
4	5860.0000	49.09	19.76	68.85	109.40	-40.55	Peak	

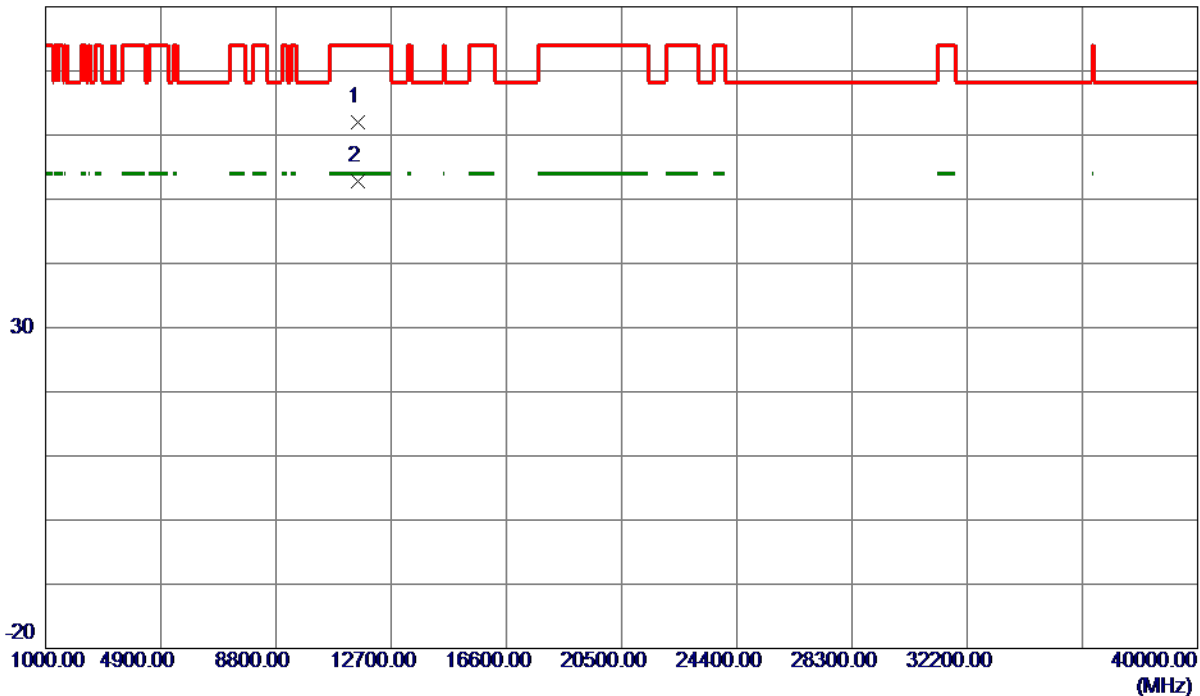
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5795 MHz

Vertical

80 dBuV/m



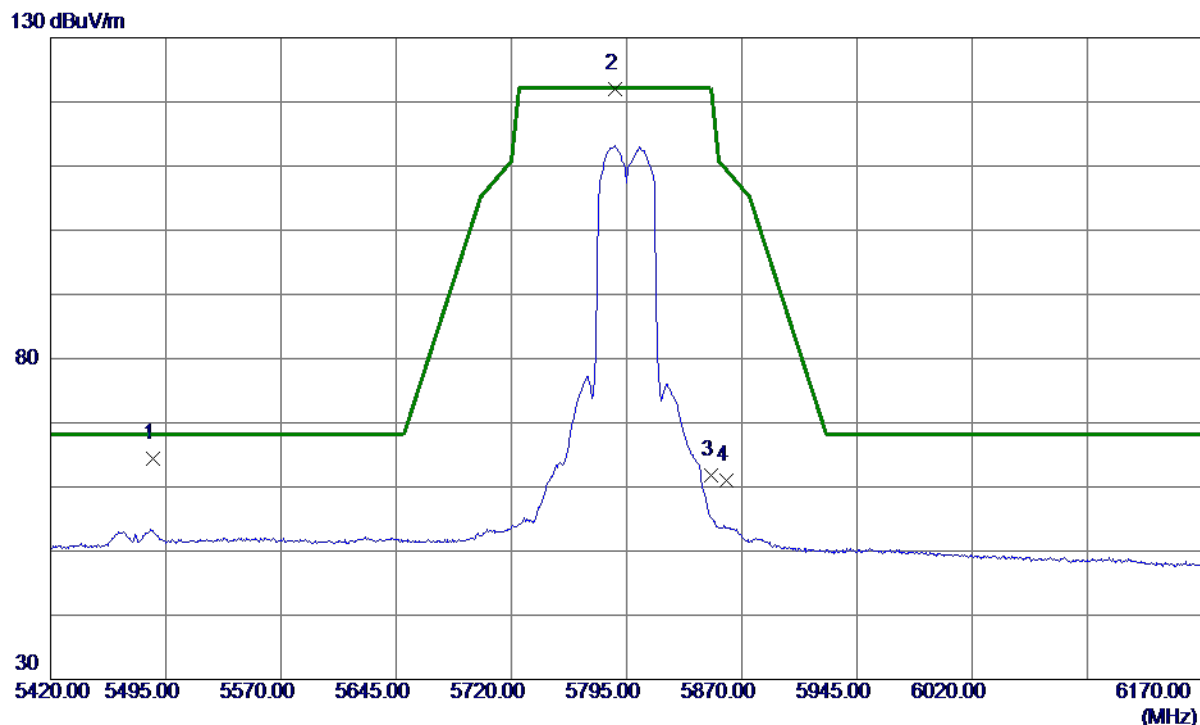
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11587.0250	44.90	17.06	61.96	74.00	-12.04	Peak	
2 *	11589.9500	35.74	17.06	52.80	54.00	-1.20	AVG	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5795 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5486.3750	45.44	18.92	64.36	68.20	-3.84	Peak	
2 *	5787.1250	102.50	19.59	122.09	122.20	-0.11	Peak	No Limit
3	5850.0000	41.99	19.74	61.73	122.20	-60.47	Peak	
4	5860.0000	41.31	19.76	61.07	109.40	-48.33	Peak	

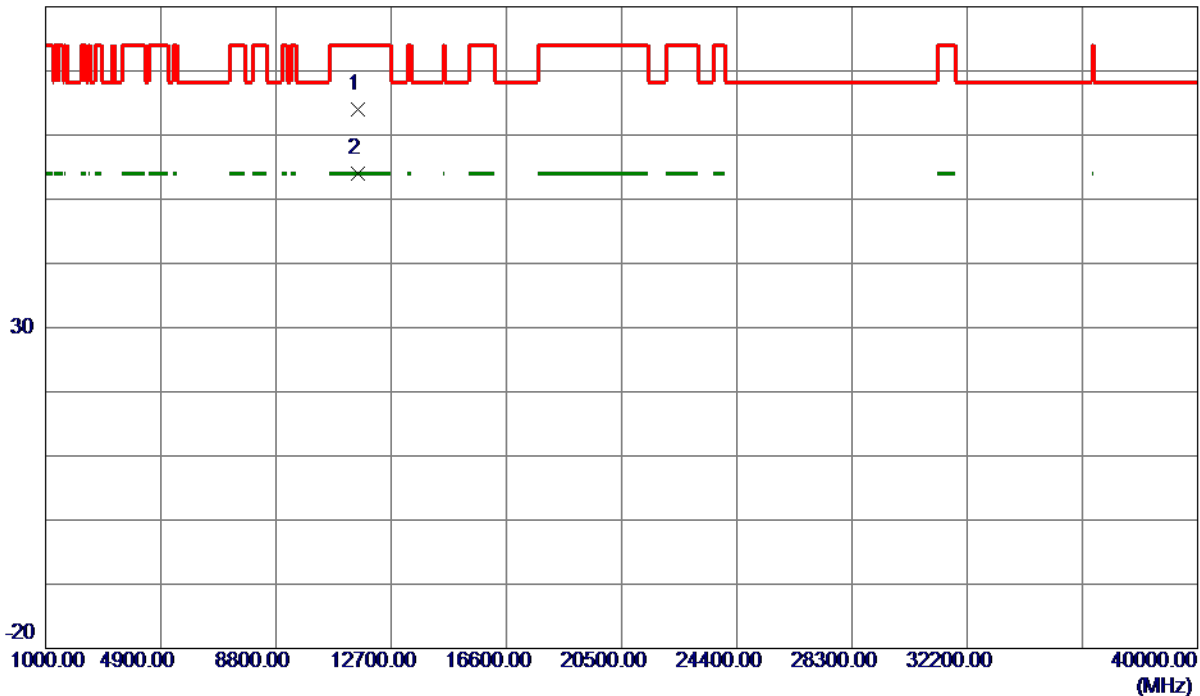
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX N (HT40) Mode 5795 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	11582.5250	46.92	17.06	63.98	74.00	-10.02	Peak	
2 *	11590.3750	36.89	17.06	53.95	54.00	-0.05	AVG	

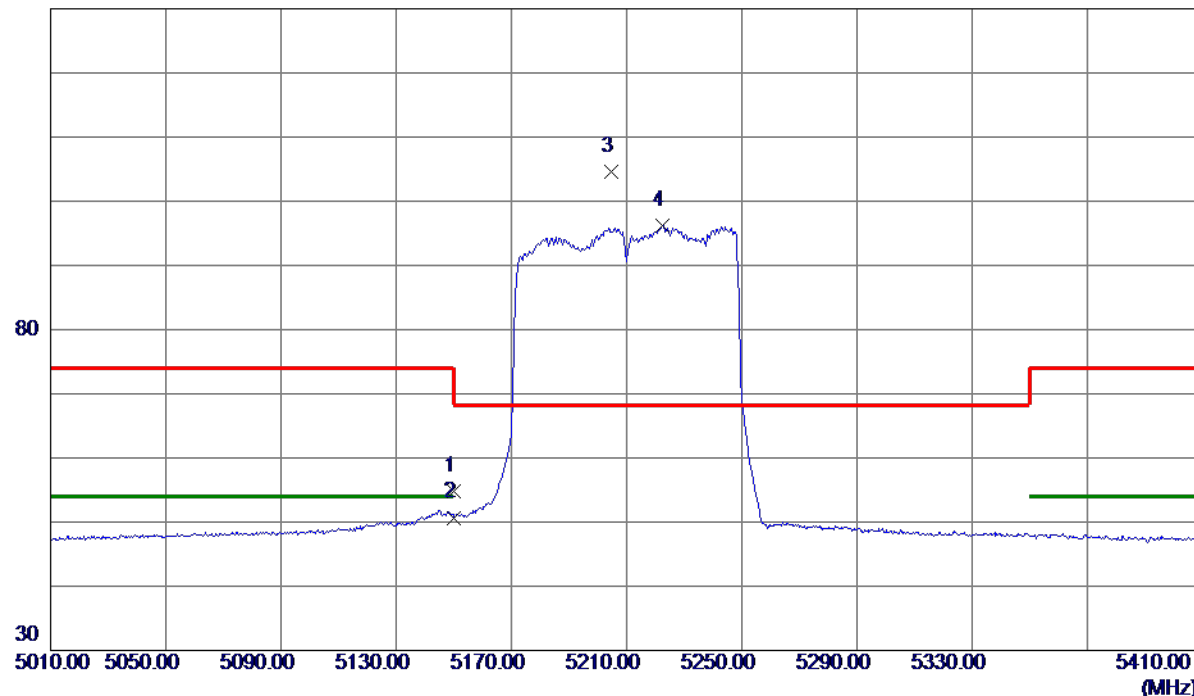
REMARKS:

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

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

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	36.27	18.57	54.84	74.00	-19.16	Peak	
2	5150.0000	32.13	18.57	50.70	54.00	-3.30	AVG	
3 *	5204.8000	86.04	18.62	104.66	68.30	36.36	Peak	No Limit
4	5222.4000	77.49	18.64	96.13	999.00	-902.87	AVG	No Limit

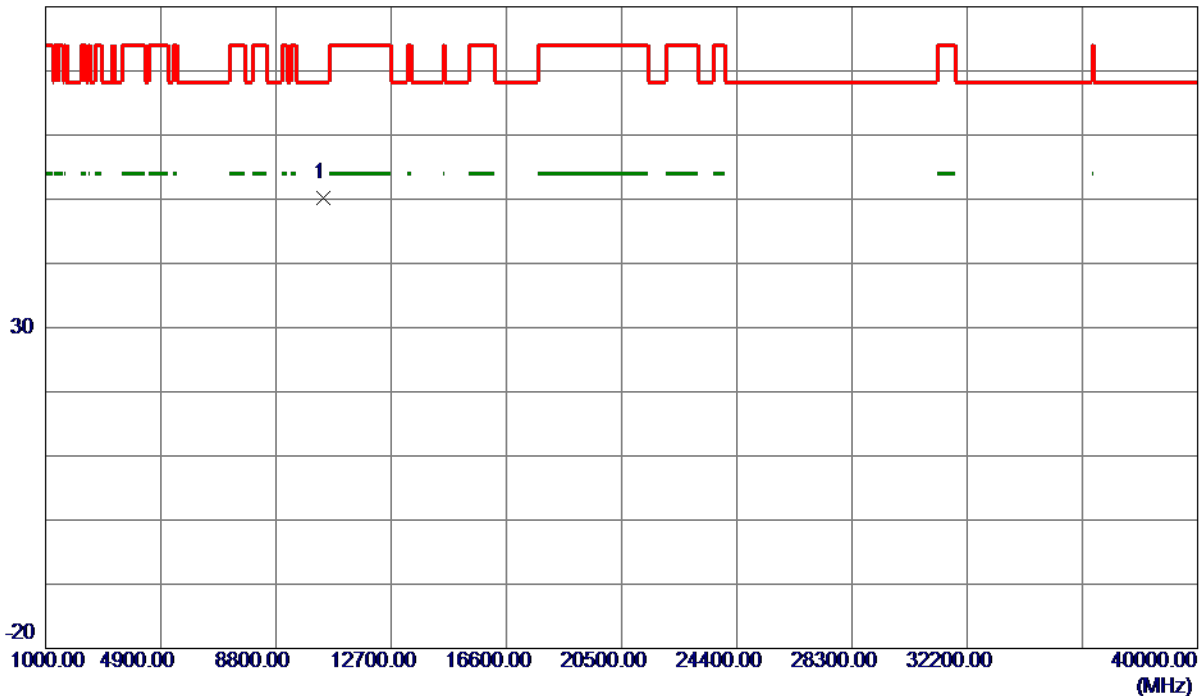
REMARKS:

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

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

Vertical

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10419.9400	36.24	13.93	50.17	68.30	-18.13	Peak	

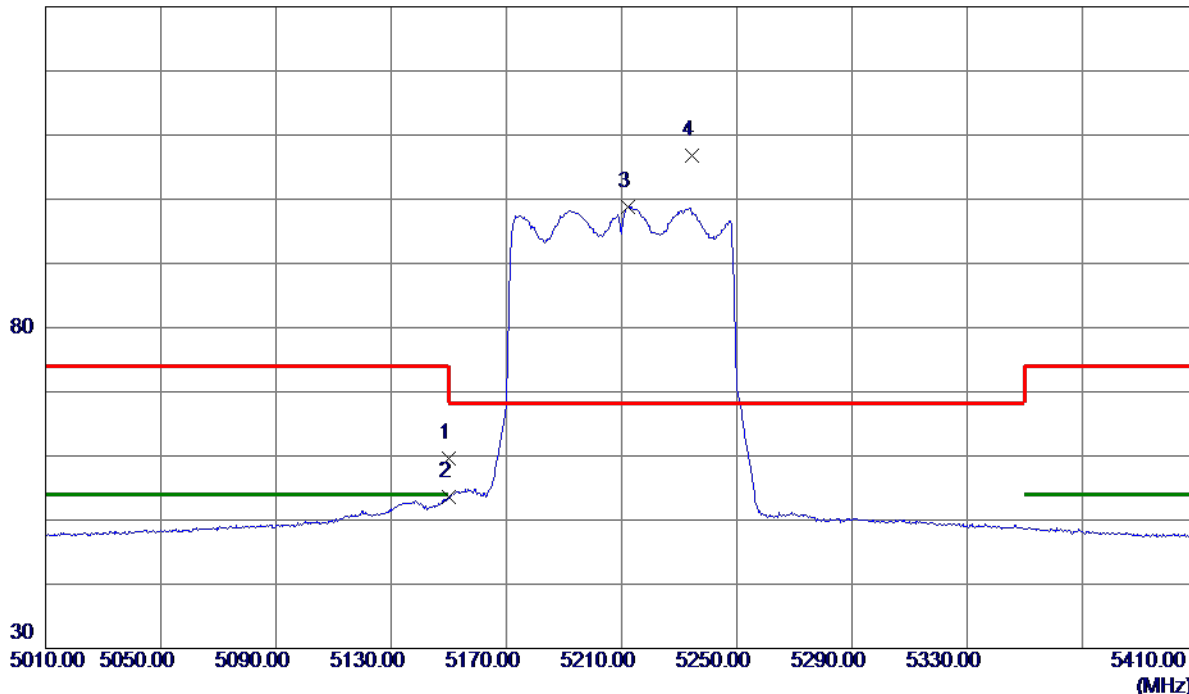
REMARKS:

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

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

Horizontal

130 dBuV/m



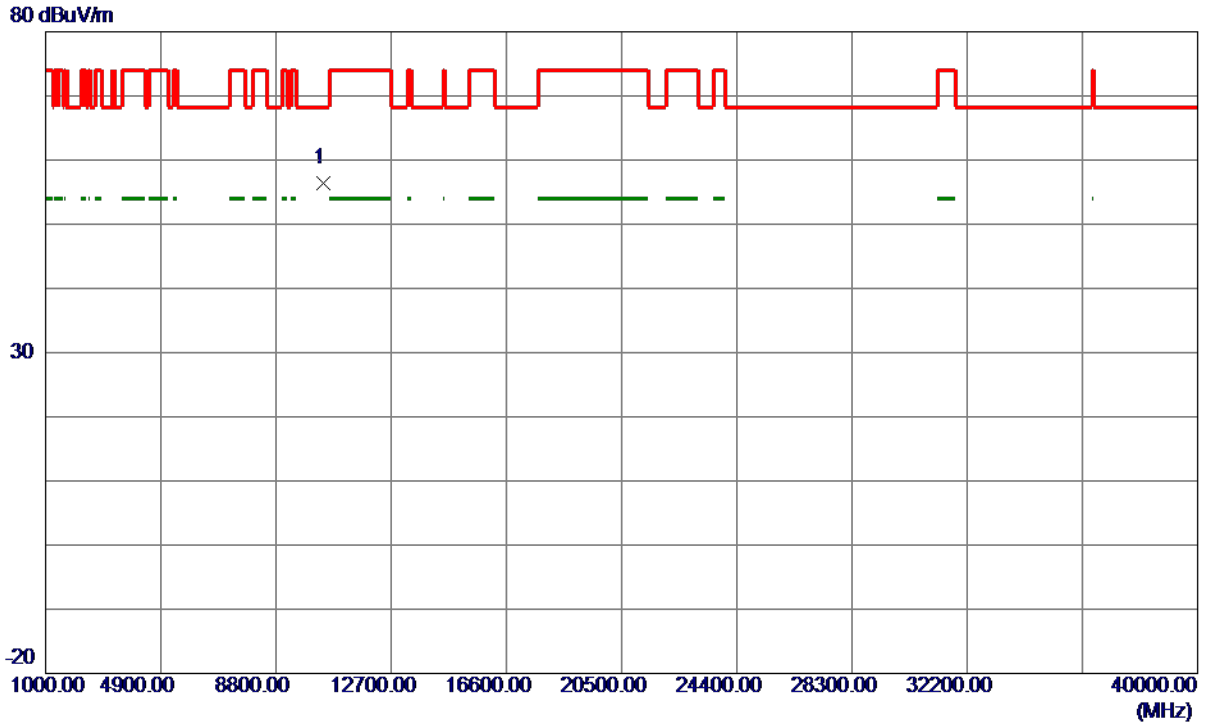
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	40.97	18.57	59.54	74.00	-14.46	Peak	
2	5150.0000	35.06	18.57	53.63	54.00	-0.37	AVG	
3	5212.2000	80.12	18.63	98.75	999.00	-900.25	AVG	No Limit
4 *	5234.6000	88.22	18.65	106.87	68.30	38.57	Peak	No Limit

REMARKS:

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

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

Horizontal



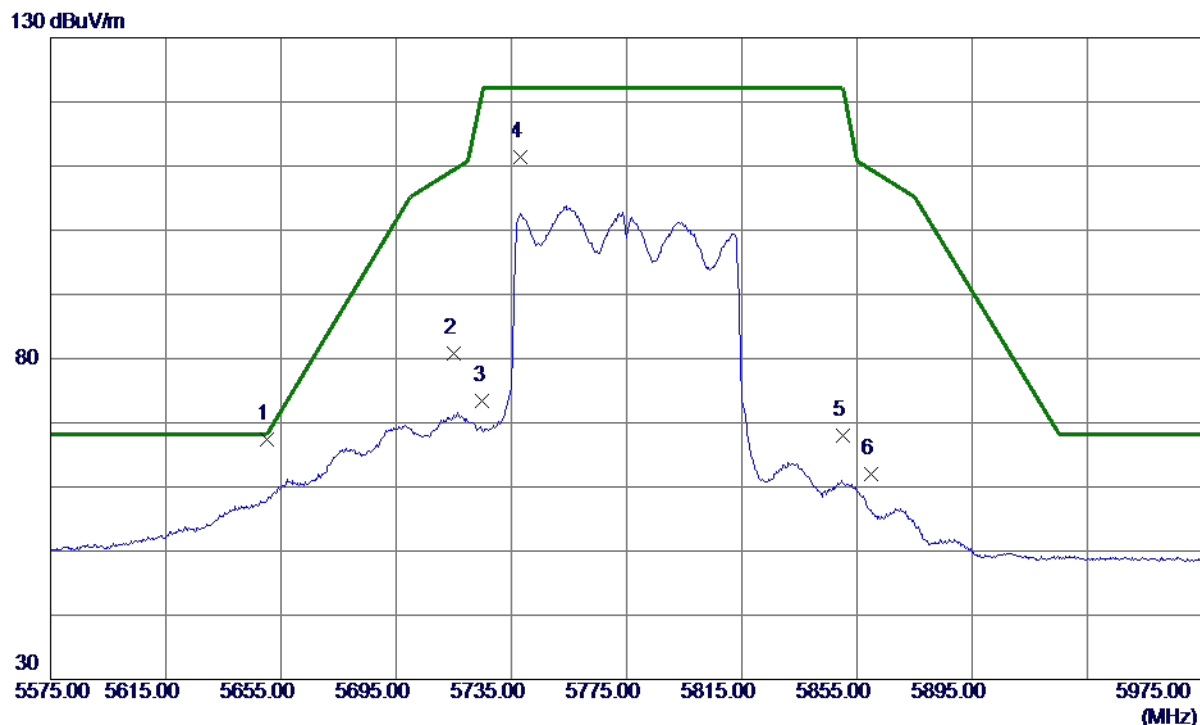
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10420.1750	42.38	13.93	56.31	68.30	-11.99	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX AC (VHT80) Mode 5775 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5650.0000	48.05	19.27	67.32	68.20	-0.88	Peak	
2	5715.0000	61.31	19.42	80.73	109.40	-28.67	Peak	
3	5725.0000	53.98	19.45	73.43	122.20	-48.77	Peak	
4	5738.0000	91.98	19.48	111.46	122.20	-10.74	Peak	No Limit
5	5850.0000	48.33	19.74	68.07	122.20	-54.13	Peak	
6	5860.0000	42.33	19.76	62.09	109.40	-47.31	Peak	

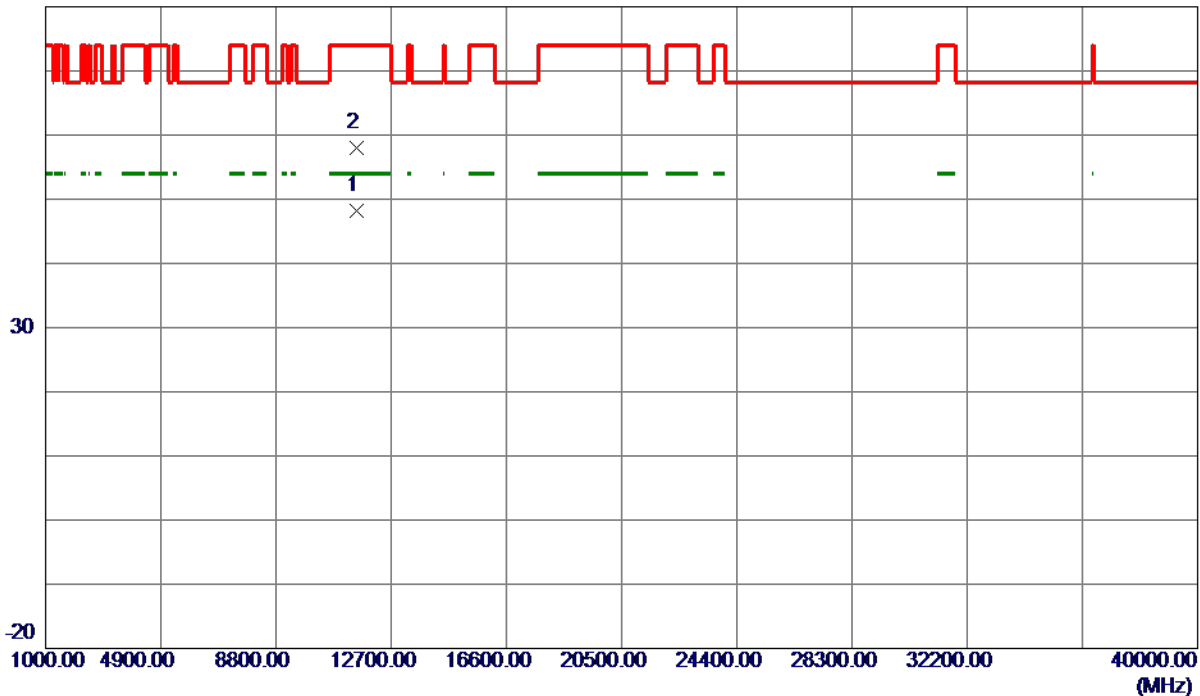
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX AC (VHT80) Mode 5775 MHz

Vertical

80 dBuV/m



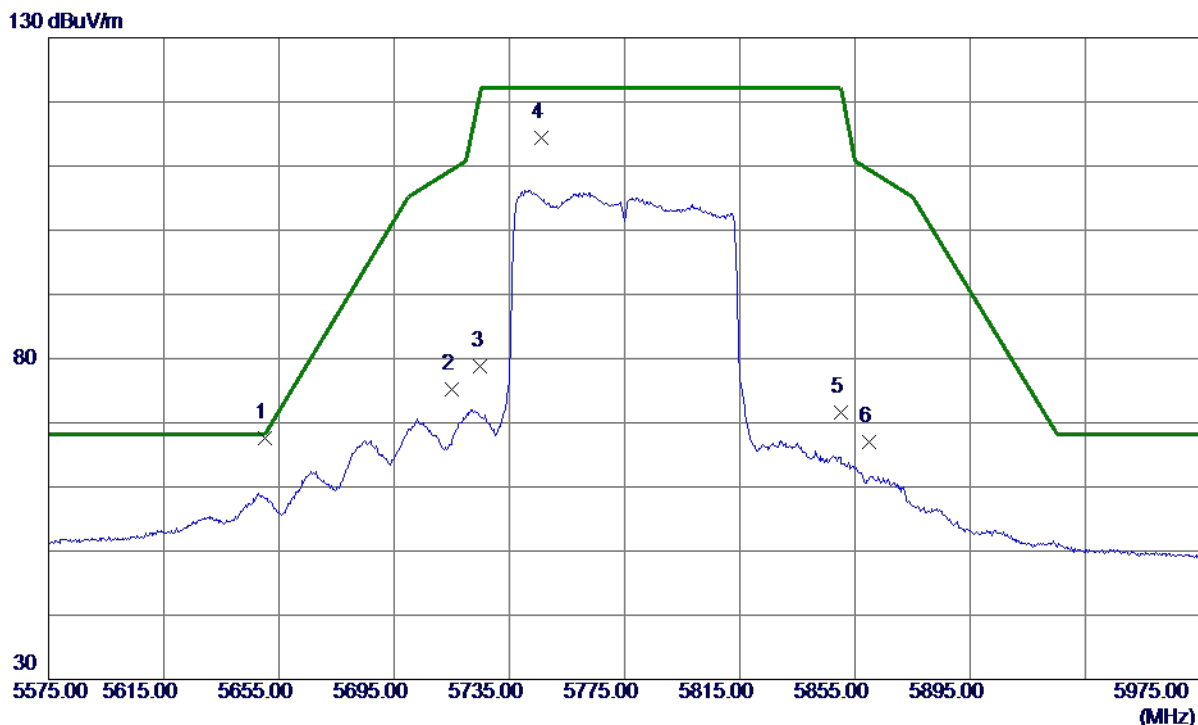
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11544.4250	31.21	17.02	48.23	54.00	-5.77	AVG	
2	11548.7250	40.94	17.02	57.96	74.00	-16.04	Peak	

REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX AC (VHT80) Mode 5775 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5650.2000	48.25	19.28	67.53	68.35	-0.82	Peak	
2	5715.0000	55.69	19.42	75.11	109.40	-34.29	Peak	
3	5725.0000	59.38	19.45	78.83	122.20	-43.37	Peak	
4	5746.2000	94.98	19.50	114.48	122.20	-7.72	Peak	No Limit
5	5850.0000	51.91	19.74	71.65	122.20	-50.55	Peak	
6	5860.0000	47.21	19.76	66.97	109.40	-42.43	Peak	

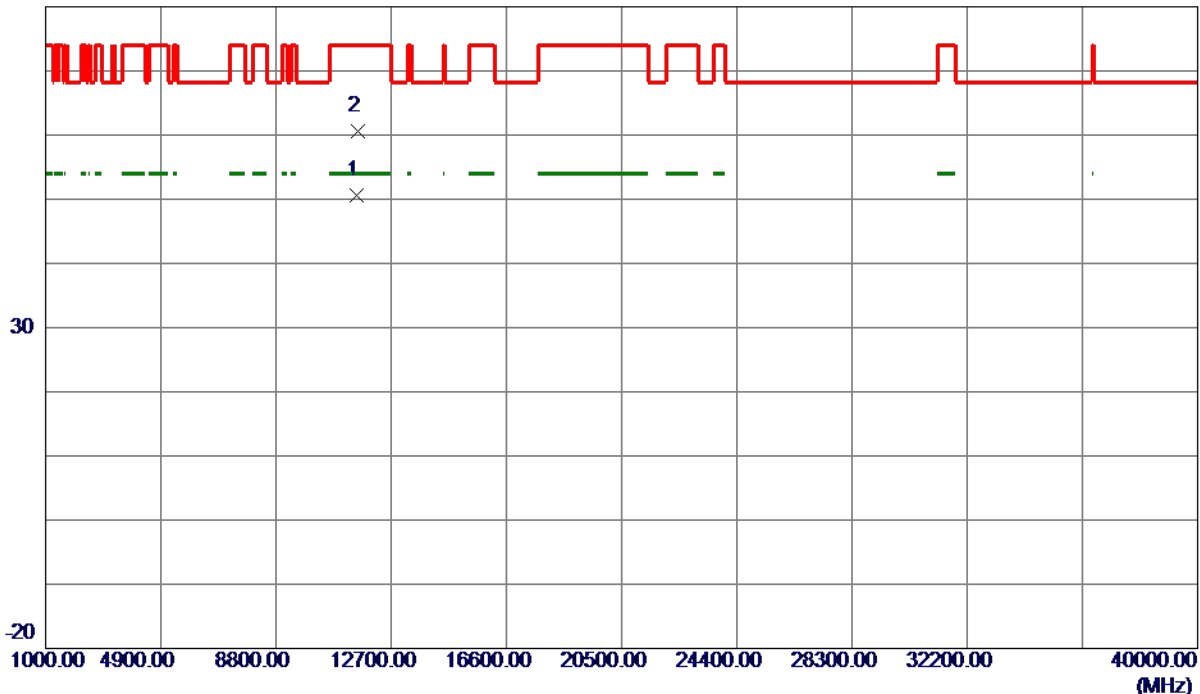
REMARKS:

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

Orthogonal Axis	X
Test Mode	UNII-3_TX AC (VHT80) Mode 5775 MHz

Horizontal

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	11549.2500	33.51	17.03	50.54	54.00	-3.46	AVG	
2	11567.2000	43.62	17.04	60.66	74.00	-13.34	Peak	

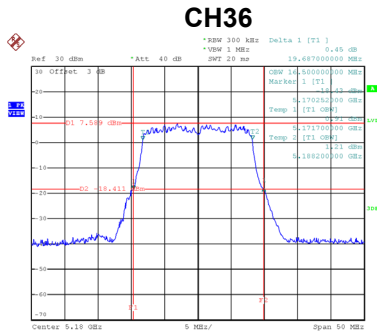
REMARKS:

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

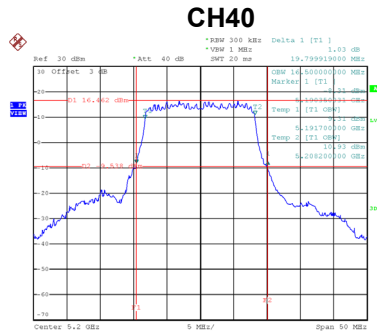
APPENDIX E - BANDWIDTH

Test Mode	UNII-1_TX A Mode
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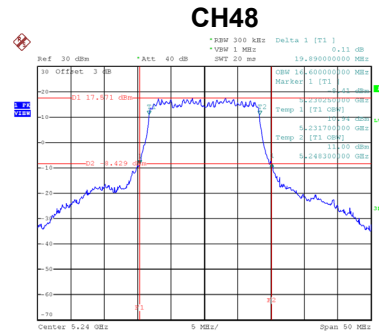
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	19.69	16.50
40	5200	19.80	16.50
48	5240	19.89	16.60



Date: 16.DEC.2019 13:35:29



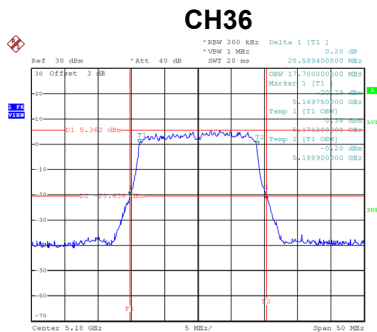
Date: 16.DEC.2019 13:36:24



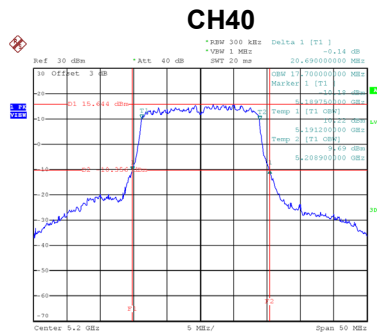
Date: 16.DEC.2019 13:37:06

Test Mode	UNII-1_TX N (HT20) Mode
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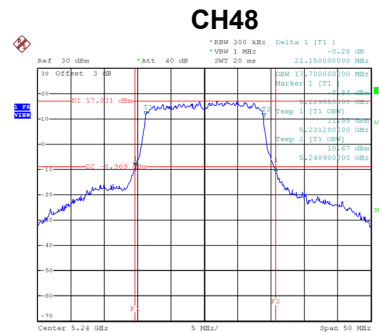
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
36	5180	20.59	17.70
40	5200	20.69	17.70
48	5240	21.15	17.70



Date: 16.DEC.2019 13:49:50



Date: 16.DEC.2019 13:51:05

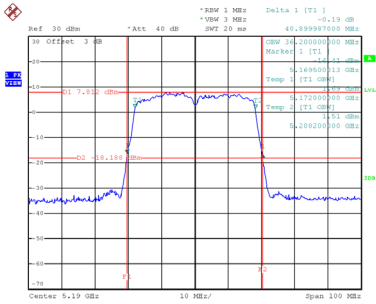


Date: 16.DEC.2019 13:51:55

Test Mode	UNII-1_TX N (HT40) Mode
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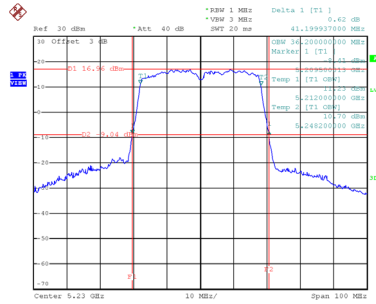
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	99 % Emission Bandwidth (MHz)
38	5190	40.90	36.20
46	5230	41.20	36.20

CH38



Date: 16.DEC.2019 13:59:51

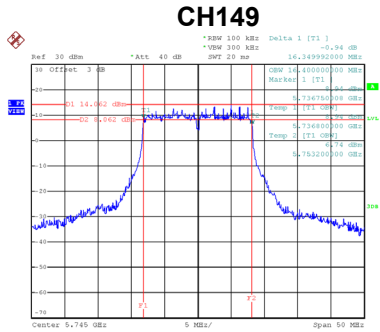
CH46



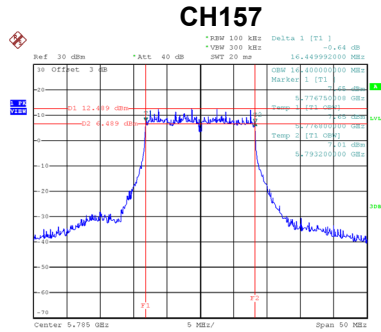
Date: 16.DEC.2019 14:00:44

Test Mode	UNII-3_TX A Mode
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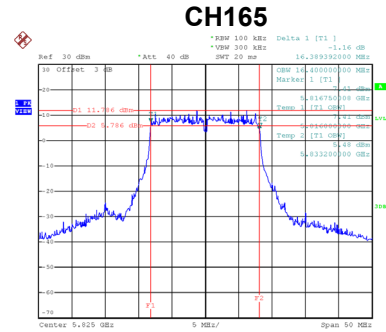
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
149	5745	16.35	500	Complies
157	5785	16.45	500	Complies
165	5825	16.39	500	Complies



Date: 16.DEC.2019 13:49:57

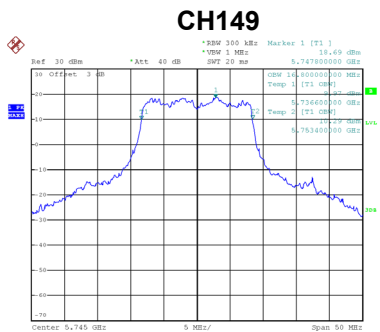


Date: 16.DEC.2019 13:47:03

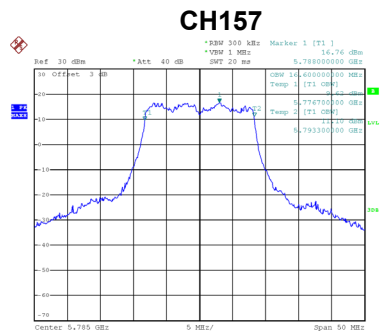


Date: 16.DEC.2019 13:47:50

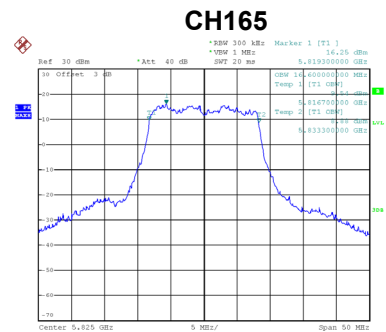
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
149	5745	16.80	Complies
157	5785	16.60	Complies
165	5825	16.60	Complies



Date: 16.DEC.2019 11:23:12



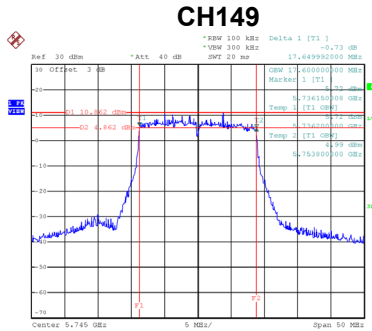
Date: 16.DEC.2019 11:23:31



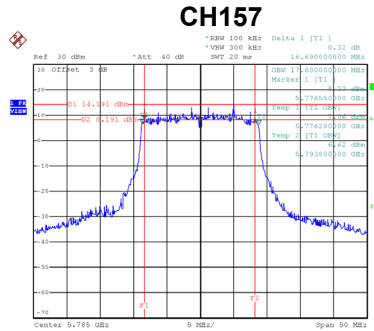
Date: 16.DEC.2019 11:24:01

Test Mode	UNII-3_TX N (HT20) Mode
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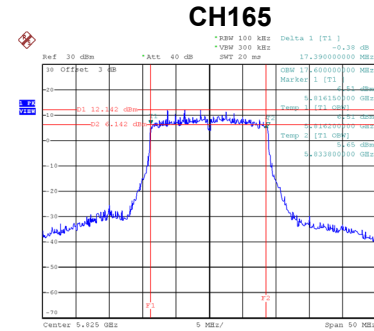
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
149	5745	17.65	500	Complies
157	5785	16.69	500	Complies
165	5825	17.39	500	Complies



Date: 16.DEC.2019 13:56:57

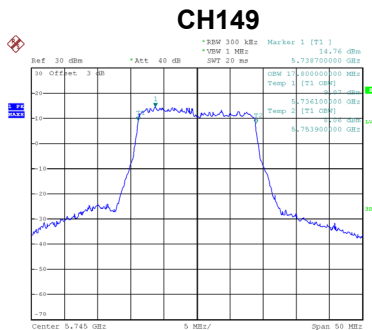


Date: 16.DEC.2019 13:57:43

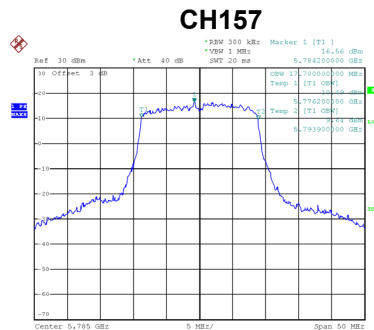


Date: 16.DEC.2019 13:58:28

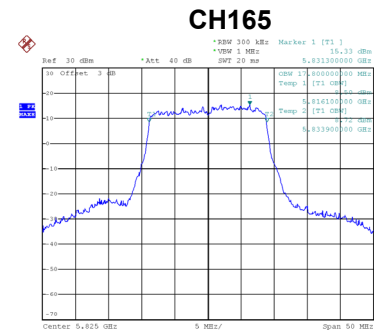
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
149	5745	17.80	Complies
157	5785	17.70	Complies
165	5825	17.80	Complies



Date: 16.DEC.2019 11:28:42



Date: 16.DEC.2019 11:29:03

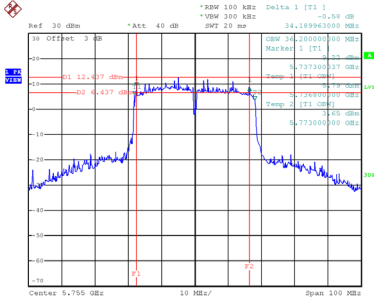


Date: 16.DEC.2019 11:30:29

Test Mode	UNII-3_TX N (HT40) Mode
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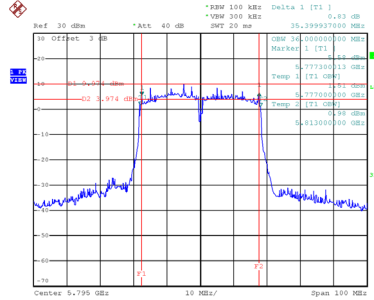
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
151	5755	34.19	500	Complies
159	5795	35.40	500	Complies

CH151



Date: 16.DEC.2019 14:01:51

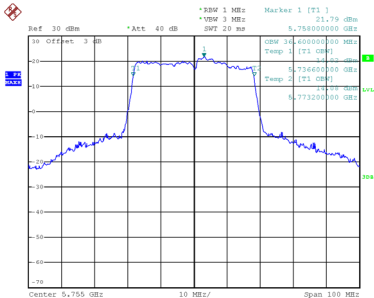
CH159



Date: 16.DEC.2019 14:02:43

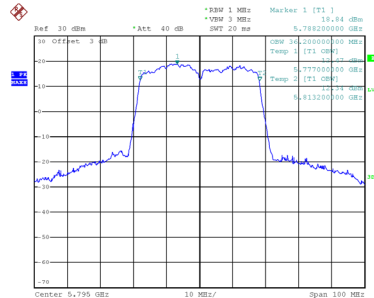
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
151	5755	36.60	Complies
159	5795	36.20	Complies

CH151



Date: 16.DEC.2019 11:32:45

CH159

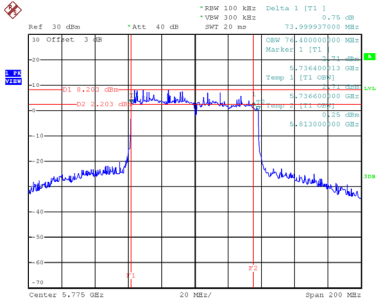


Date: 16.DEC.2019 11:33:08

Test Mode	UNII-3_TX AC (VHT80)
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
155	5775	74.00	500	Complies

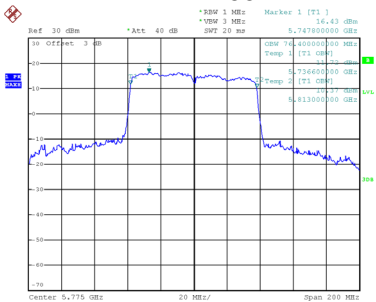
CH155



Date: 10_DEC.2019 09:24:03

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
155	5775	76.40	Complies

CH155



Date: 10_DEC.2019 09:24:52

APPENDIX F - MAXIMUM OUTPUT POWER

Group 1 Antenna

Test Mode	UNII-1_TX A Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	14.62	0.13	14.75	30.00	1.0000	Complies
40	5200	23.23	0.13	23.36	30.00	1.0000	Complies
48	5240	24.58	0.13	24.71	30.00	1.0000	Complies

Test Mode	UNII-1_TX A Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	14.77	0.13	14.90	30.00	1.0000	Complies
40	5200	23.12	0.13	23.25	30.00	1.0000	Complies
48	5240	24.67	0.13	24.80	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	17.84	30.00	1.0000	Complies
40	5200	26.32	30.00	1.0000	Complies
48	5240	27.77	30.00	1.0000	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	13.46	0.00	13.46	30.00	1.0000	Complies
40	5200	23.09	0.00	23.09	30.00	1.0000	Complies
48	5240	24.76	0.00	24.76	30.00	1.0000	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	13.52	0.00	13.52	30.00	1.0000	Complies
40	5200	23.15	0.00	23.15	30.00	1.0000	Complies
48	5240	24.65	0.00	24.65	30.00	1.0000	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	16.50	30.00	1.0000	Complies
40	5200	26.13	30.00	1.0000	Complies
48	5240	27.72	30.00	1.0000	Complies

Test Mode	UNII-1_TX N (HT40) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	12.08	0.11	12.19	30.00	1.0000	Complies
46	5230	21.23	0.11	21.34	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	12.14	0.11	12.25	30.00	1.0000	Complies
46	5230	21.17	0.11	21.28	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	15.23	30.00	1.0000	Complies
46	5230	24.32	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Ant. 1
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	20.21	0.13	20.34	30.00	1.0000	Complies
157	5785	20.12	0.13	20.25	30.00	1.0000	Complies
165	5825	20.26	0.13	20.39	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	20.43	0.13	20.56	30.00	1.0000	Complies
157	5785	20.37	0.13	20.50	30.00	1.0000	Complies
165	5825	20.43	0.13	20.56	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Total
-----------	------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	23.46	30.00	1.0000	Complies
157	5785	23.39	30.00	1.0000	Complies
165	5825	23.49	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	21.12	0.00	21.12	30.00	1.0000	Complies
157	5785	21.34	0.00	21.34	30.00	1.0000	Complies
165	5825	20.43	0.00	20.43	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Ant. 2
-----------	--------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	21.34	0.00	21.34	30.00	1.0000	Complies
157	5785	21.58	0.00	21.58	30.00	1.0000	Complies
165	5825	20.57	0.00	20.57	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	24.24	30.00	1.0000	Complies
157	5785	24.47	30.00	1.0000	Complies
165	5825	23.51	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	24.74	0.11	24.85	30.00	1.0000	Complies
159	5795	22.33	0.11	22.44	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Ant. 2
-----------	--------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	24.85	0.11	24.96	30.00	1.0000	Complies
159	5795	22.34	0.11	22.45	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Total
-----------	-------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	27.92	30.00	1.0000	Complies
159	5795	25.46	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	14.68	0.24	14.92	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 2
-----------	----------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	14.67	0.24	14.91	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Total
-----------	---------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	17.92	30.00	1.0000	Complies

Test Mode	UNII-3_TX AC (VHT80) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
155	5775	22.48	0.24	22.72	30.00	1.0000	Complies

Test Mode	UNII-3_TX AC (VHT80) Mode_Ant. 2
-----------	----------------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
155	5775	22.24	0.24	22.48	30.00	1.0000	Complies

Test Mode	UNII-3_TX AC (VHT80) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
155	5775	25.61	30.00	1.0000	Complies

Group 2 Antenna

Test Mode	UNII-1_TX A Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.06	0.13	22.19	30.00	1.0000	Complies
40	5200	24.51	0.13	24.64	30.00	1.0000	Complies
48	5240	24.62	0.13	24.75	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.28	0.13	22.41	30.00	1.0000	Complies
40	5200	24.64	0.13	24.77	30.00	1.0000	Complies
48	5240	24.86	0.13	24.99	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	25.31	30.00	1.0000	Complies
40	5200	27.72	30.00	1.0000	Complies
48	5240	27.88	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.17	0.00	22.17	30.00	1.0000	Complies
40	5200	24.57	0.00	24.57	30.00	1.0000	Complies
48	5240	24.76	0.00	24.76	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	22.36	0.00	22.36	30.00	1.0000	Complies
40	5200	24.65	0.00	24.65	30.00	1.0000	Complies
48	5240	24.65	0.00	24.65	30.00	1.0000	Complies

Test Mode	UNII-1_TX N (HT20) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
36	5180	25.28	30.00	1.0000	Complies
40	5200	27.62	30.00	1.0000	Complies
48	5240	27.72	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	17.28	0.11	17.39	30.00	1.0000	Complies
46	5230	24.75	0.11	24.86	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	17.43	0.11	17.54	30.00	1.0000	Complies
46	5230	24.97	0.11	25.08	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
38	5190	20.48	30.00	1.0000	Complies
46	5230	27.98	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Ant. 1
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	24.57	0.13	24.70	30.00	1.0000	Complies
157	5785	24.86	0.13	24.99	30.00	1.0000	Complies
165	5825	24.42	0.13	24.55	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Ant. 2
-----------	-------------------------

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	24.46	0.13	24.59	30.00	1.0000	Complies
157	5785	24.79	0.13	24.92	30.00	1.0000	Complies
165	5825	24.56	0.13	24.69	30.00	1.0000	Complies

Test Mode	UNII-3_TX A Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	27.66	30.00	1.0000	Complies
157	5785	27.97	30.00	1.0000	Complies
165	5825	27.63	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	24.84	0.00	24.84	30.00	1.0000	Complies
157	5785	24.83	0.00	24.83	30.00	1.0000	Complies
165	5825	24.84	0.00	24.84	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	24.89	0.00	24.89	30.00	1.0000	Complies
157	5785	24.81	0.00	24.81	30.00	1.0000	Complies
165	5825	24.86	0.00	24.86	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT20) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
149	5745	27.88	30.00	1.0000	Complies
157	5785	27.83	30.00	1.0000	Complies
165	5825	27.86	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	24.94	0.11	25.05	30.00	1.0000	Complies
159	5795	24.54	0.11	24.65	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	24.75	0.11	24.86	30.00	1.0000	Complies
159	5795	24.48	0.11	24.59	30.00	1.0000	Complies

Test Mode	UNII-3_TX N (HT40) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
151	5755	27.97	30.00	1.0000	Complies
159	5795	27.63	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 1
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	15.29	0.24	15.53	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Ant. 2
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	15.47	0.24	15.71	30.00	1.0000	Complies

Test Mode	UNII-1_TX AC (VHT80) Mode_Total
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Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
42	5210	18.63	30.00	1.0000	Complies