

FCC Radio Test Report

FCC ID: MCLCS-E340W

This report concerns (check one): Original Grant Class I Change Class II Change

Project No. : 1308C100E
Equipment : Cisco Edge 340
Model Name : CS-E340W
Applicant : HON HAI Precision Ind. Co., Ltd.
Address : 5F-1, 5, Hsin-An Road, Hsinchu Science-Based
Industrial Park, Hsinchu, Taiwan

Date of Receipt : Apr. 08, 2016
Date of Test : Apr. 08, 2016 ~ Jul. 19, 2016
Issued Date : Jul. 20, 2016
Tested by : BTL Inc.

B T L I N C .

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Declaration

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Limitation

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

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
NEI-FCCP-4-1308C100	Original Report.	Sep. 12, 2013
BTL-FCCP-1-1308C100E	Compared with the previous report (NEI-FCCP-4-1308C100), the standards are updated to the latest and the adapter model has changed, radiated emission has been re-evaluated and recorded in the test report. In this test report only records the radiated emission test results, other items' test results please refer to original report. This test report only in valid when be combined with previous test report(s).	Jul. 20, 2016

1. CERTIFICATION

Equipment : Cisco Edge 340
Brand Name : Cisco
Model Name : CS-E340W
Applicant : HON HAI Precision Ind. Co., Ltd.
Manufacturer : Hon Hai Precision Ind Co., Ltd
Address : Hsinchu Science Park Branch Office 5F-1 5, Hsin-an Rd Hsinchu Science Based Industrial Park Hsinchu, Taiwan
Factory : HONG FU JIN PRECISION INDUSTRY (SHEN ZHEN) CO LTD
Address : Bldg D10, F21, No 2, 2 nd DONGGUAN RD, 10 th YOUSONG INDUSTRIAL DISTRICT, LONGHUA TOWN, BAOAN, SHENZHEN, GUANGDONG, CHINA.
Date of Test : Apr. 08, 2016 ~ Jul. 19, 2016
Test Sample : Engineering Sample
Standard(s) : FCC Part15, Subpart E(15.407) / ANSI C63.10-2013

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

This test report consists of 82 pages in total.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1308C100E) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the 5G Band 1 WiFi part.

Testing Engineer : Rush Kao
(Rush Kao)

Technical Manager : Jeff Yang
(Jeff Yang)

Authorized Signatory : Andy Chiu
(Andy Chiu)

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E			
Standard(s) Section	Test Item	Judgment	Remark
15.407(a)	Radiated Emissions	PASS	
15.407(b)	Band Edge Emissions	PASS	

NOTE:

(1) "N/A" denotes test is not applicable in this test report.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

Radiated emission Test (Above 1 GHz):

CB11: (VCCI RN: G-868; FCC RN:949005; FCC DN:TW1082; IC Assigned Code:20088)
No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{CISPR} requirement.

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

A. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
CB11 (3m)	CISPR	1GHz ~ 6GHz	V	4.14
		1GHz ~ 6GHz	H	4.14
		6GHz ~ 18GHz	V	5.34
		6GHz ~ 18GHz	H	5.34

Test Site	Method	Measurement Frequency Range	U, (dB)
CB11 (3m)	CISPR	18 ~ 26.5 GHz	4.66
		26.5 ~ 40 GHz	4.74

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Cisco Edge 340	
Brand Name	Cisco	
Model Name	CS-E340W	
Mode Different	N/A	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz
	Modulation Type	802.11a/n:OFDM
	Bit Rate of Transmitter	300Mbps
Power Source	DC voltage supplied from AC/DC adapter #1 Brand /Model name: LITEON /PA-1660-2SA1 #2 Brand /Model name: DELTA /ADP-66CR B #3 PoE	
Power Rating	#1 I/P 100-240V~50-60Hz 2A O/P 12V 5.5A #2 I/P 100-240V~50-60Hz 2A O/P 12V 5.5A #3 DC 48V	
Connecting I/O Port(s)	USB port*4 IR Extension port Console port RS232 port Audio out port Audio in port HDMI port VGA port Gigabit Ethernet port Power SD card 802.11a/b/g/n Bluetooth	

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- Channel List:

UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220		
48	5240		

3.

Group 1

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	FOXCONN	FX01G64-0G-EF	Integral Antenna	N/A	3.7
2	FOXCONN	FX01G65-0G-EF	Integral Antenna	N/A	2.3

Group 2

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
3	FOXCONN	FX01G67-0G-EF	Dipole Antenna	SMA Connector	3.59
4	FOXCONN	FX01G67-0G-EF	Dipole Antenna	SMA Connector	3.59

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=3.59 for Dipole antenna and Directional gain=3.7 for Integral Antenna.

This external dipole antenna can be connected to the EUT either directly or by a external cable, after assessing it is the worst case when the antenna is connected to the EUT by the external cable.

4.

Operating Mode / TX Mode	2TX
802.11a	V (Ant 1 & Ant 2 or Ant 3 & Ant 4)
802.11n(20MHz)	V (Ant 1 & Ant 2 or Ant 3 & Ant 4)
802.11n(40MHz)	V (Ant 1 & Ant 2 or Ant 3 & Ant 4)

3.2 DESCRIPTION OF TEST MODES

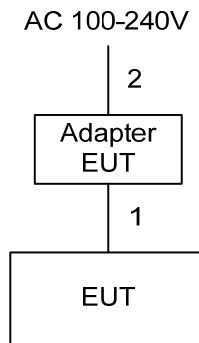
To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Radiated Test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)

3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.5m	Power Cable

4. EMC EMISSION TEST

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 RADIATED EMISSION LIMITS

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.

Frequencies (MHz)	Field Strength (micovolts/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

Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3

Note:

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

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

4.1.2 TEST PROCEDURE

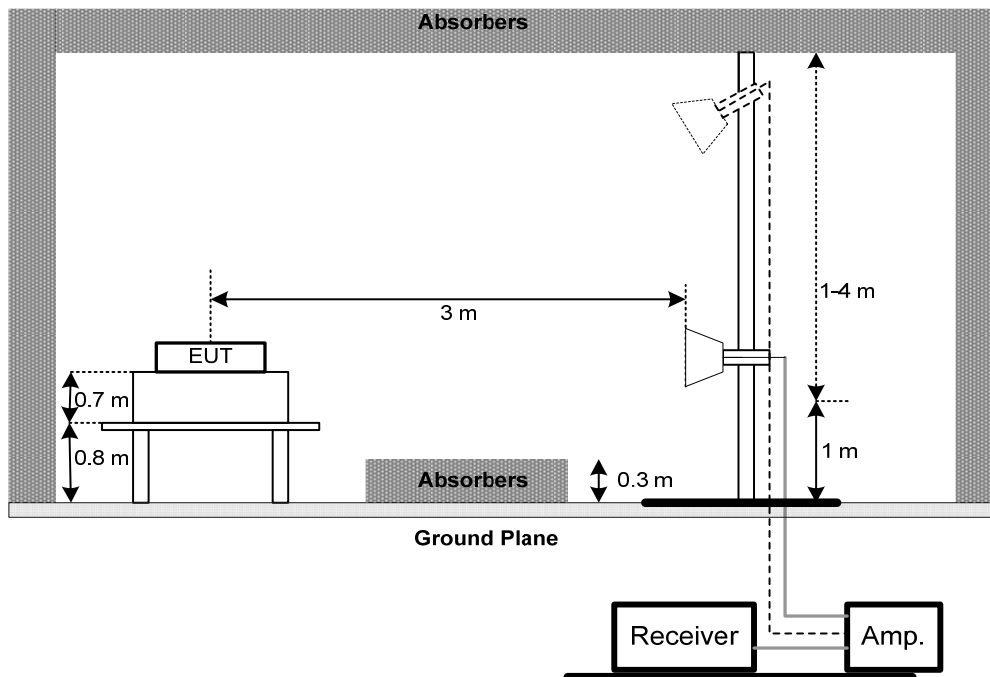
- a. The measuring distance of at 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- b. The height of the 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.
- c. 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).
- d. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.
- e. The initial step in collecting conducted 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.
- f. 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 1GHz)
- g. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP

Radiated Emission Test Set-Up Frequency Above 1 GHz



4.1.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

4.1.6 EUT TEST CONDITIONS

Temperature: 24°C Relative Humidity: 52% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Attachment A.

Remark:

- (1) Spectrum Setting: 30MHz – 1000MHz , RBW= 100kHz, VBW=100kHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated AV in column of 『Note』 . Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦
- (4) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axes:
“X” - denotes Laid on Table ; “Y” - denotes Vertical Stand ; “Z” - denotes Side Stand
- (7) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.
- (8) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. MEASUREMENT INSTRUMENTS LIST

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Horn Antenna	Schwarzbeck	BBHA 9120	D-546	Nov. 05, 2017
2	Pre-Amplifier	HP	8447D	2944A08891	Mar. 09, 2017
3	Pre-Amplifier	Agilent	8449B	3008A02331	Jan. 24, 2017
4	Test Cable	EMCI	EMC8D-NM-NM-8000	150301	Mar. 09, 2017
5	Test Cable	EMCI	EMC104-SM-SM-2500	150303	Mar. 09, 2017
6	Test Cable	EMCI	EMC104-NM-SM-1000	150304	Mar. 09, 2017
7	Test Cable	EMCI	EMC104-SM-SM-5000	150302	Mar. 29, 2017
8	Test Cable	EMCI	EMC104-SM-SM-800	150305	Mar. 29, 2017
9	EXA Spectrum Analyzer	Agilent	N9010A	MY52220990	Feb. 24, 2017
10	EMI Test Receiver	Agilent	N9038A	MY51210215	Jan. 08, 2017

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

6. EUT TEST PHOTOS

Radiated Measurement Photos

Above 1000MHz Dipole Antenna



Radiated Measurement Photos

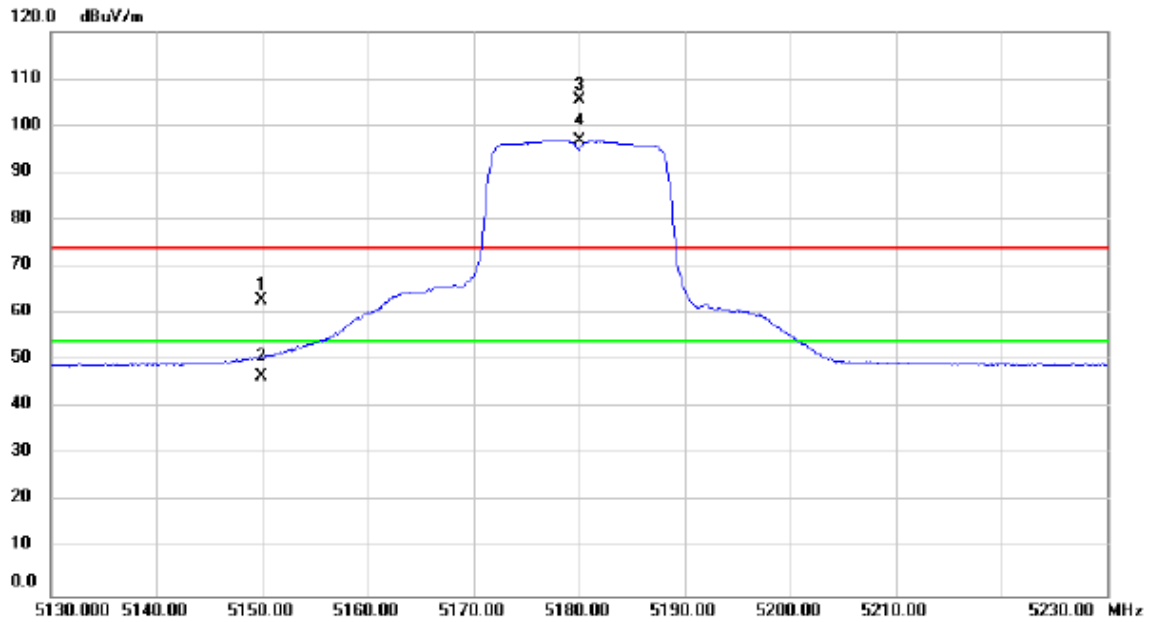
Above 1000MHz Integral Antenna



ATTACHMENT A - RADIATED EMISSION (ABOVE 1000MHZ)

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Dipole Antenna

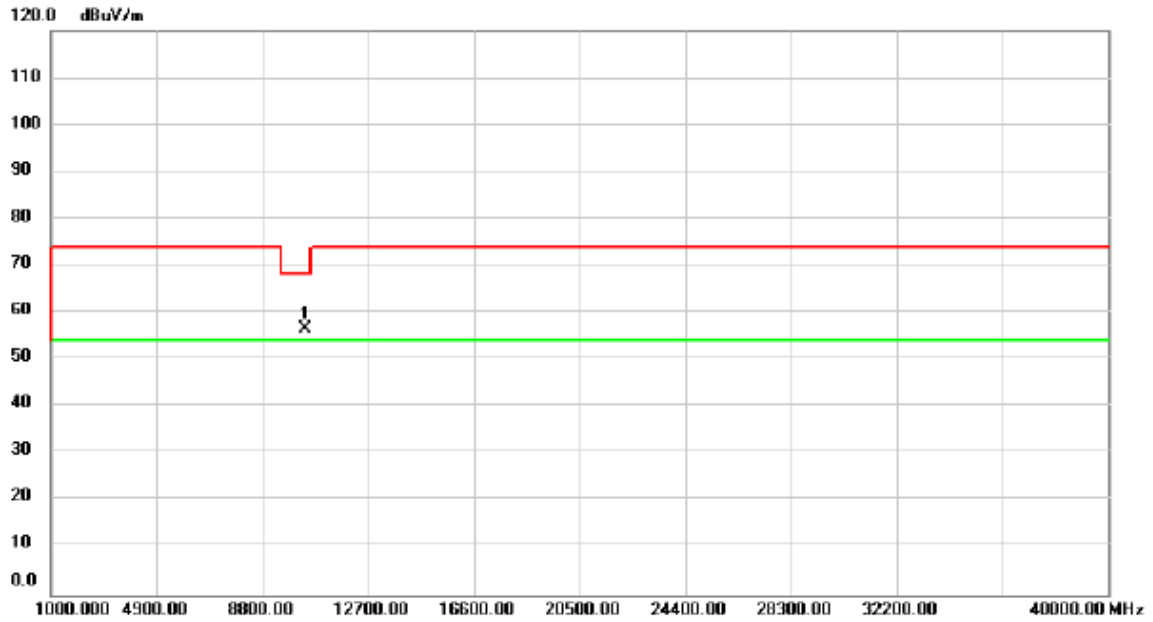
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		5149.960	24.26	38.45	62.71	74.00	-11.29	peak	
2		5149.960	8.23	38.45	46.68	54.00	-7.32	AVG	
3	X	5180.000	66.92	38.48	105.40	74.00	31.40	peak	No Limit
4	*	5180.000	58.29	38.48	96.77	54.00	42.77	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Dipole Antenna

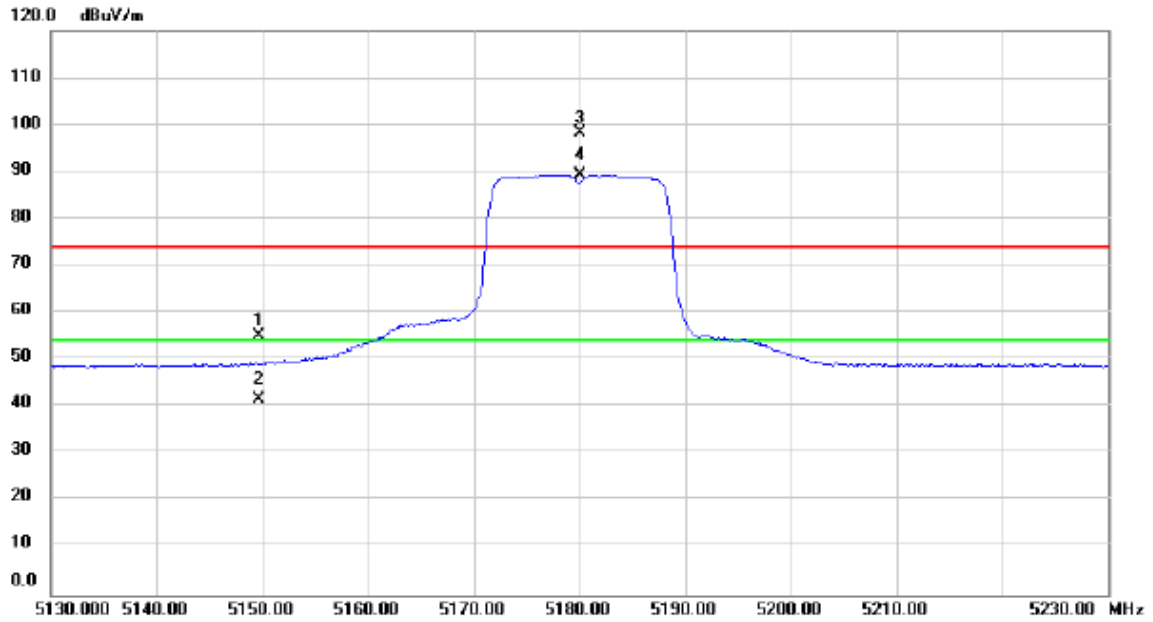
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.00	53.24	3.21	56.45	68.20	-11.75	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Dipole Antenna

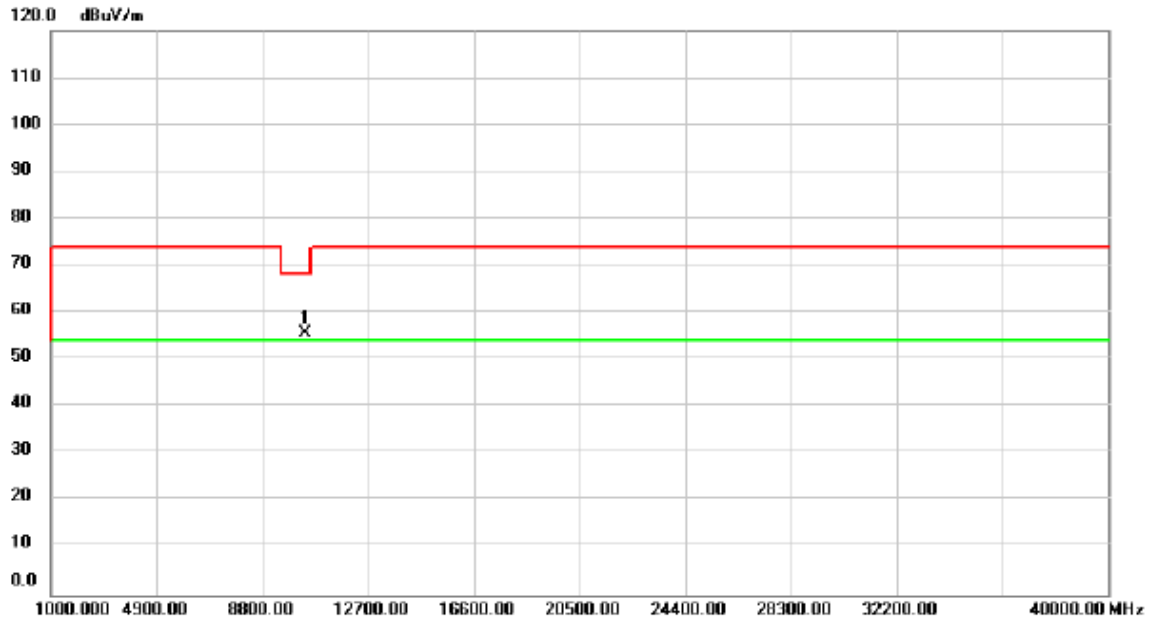
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.714	16.62	38.45	55.07	74.00	-18.93	peak	
2		5149.714	3.03	38.45	41.48	54.00	-12.52	AVG	
3	X	5180.000	59.71	38.48	98.19	74.00	24.19	peak	No Limit
4	*	5180.000	50.84	38.48	89.32	54.00	35.32	AVG	No Limit

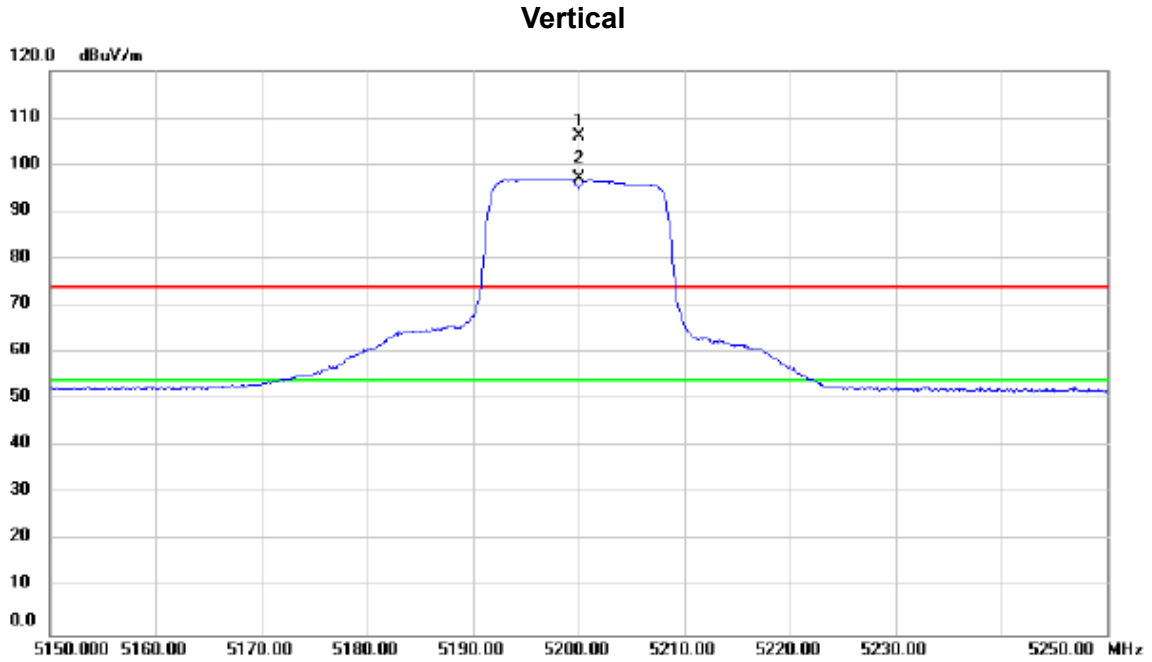
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.00	52.36	3.21	55.57	68.20	-12.63	peak	

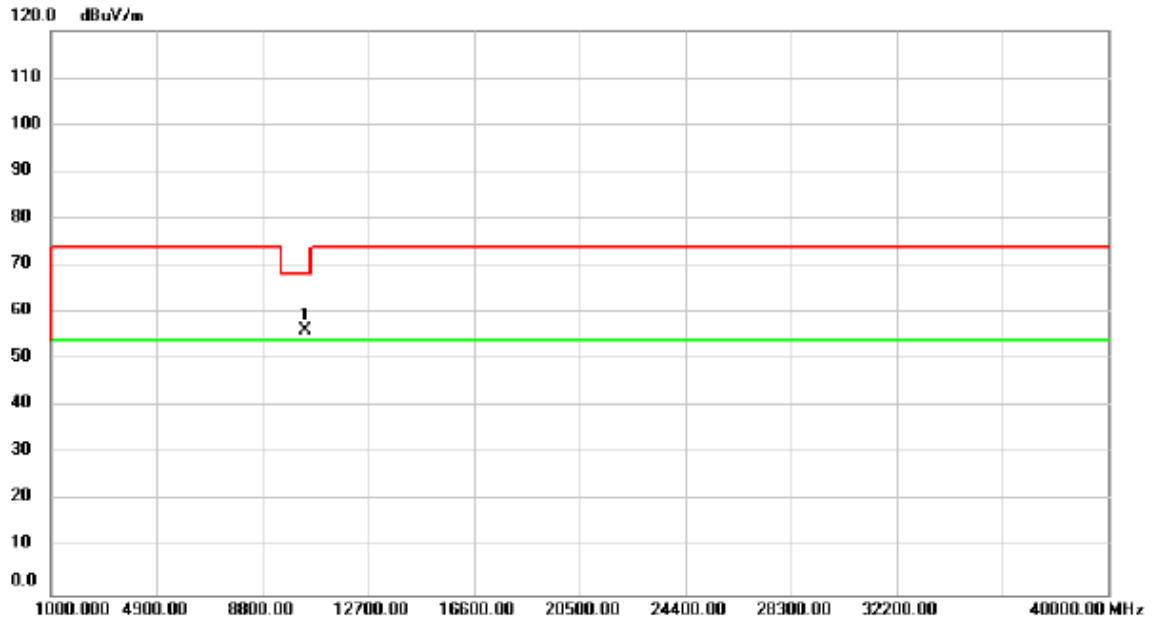
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz _Dipole Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	67.50	38.51	106.01	74.00	32.01	peak	No Limit
2	*	5200.000	58.53	38.51	97.04	54.00	43.04	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz_Dipole Antenna

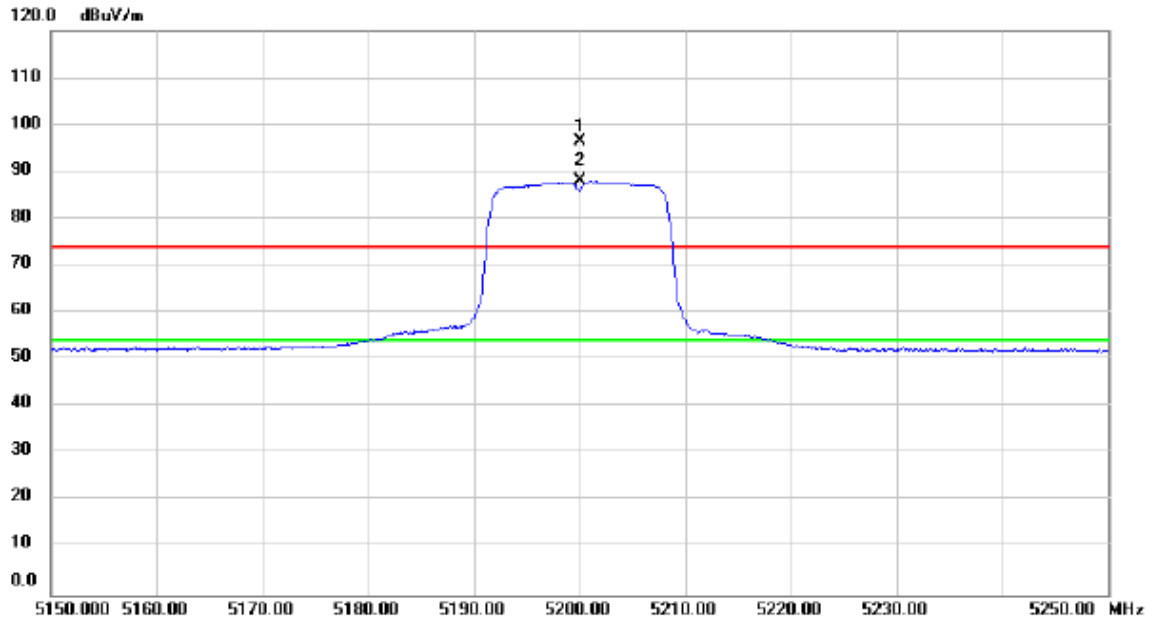
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	53.16	3.22	56.38	68.20	-11.82	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz _Dipole Antenna

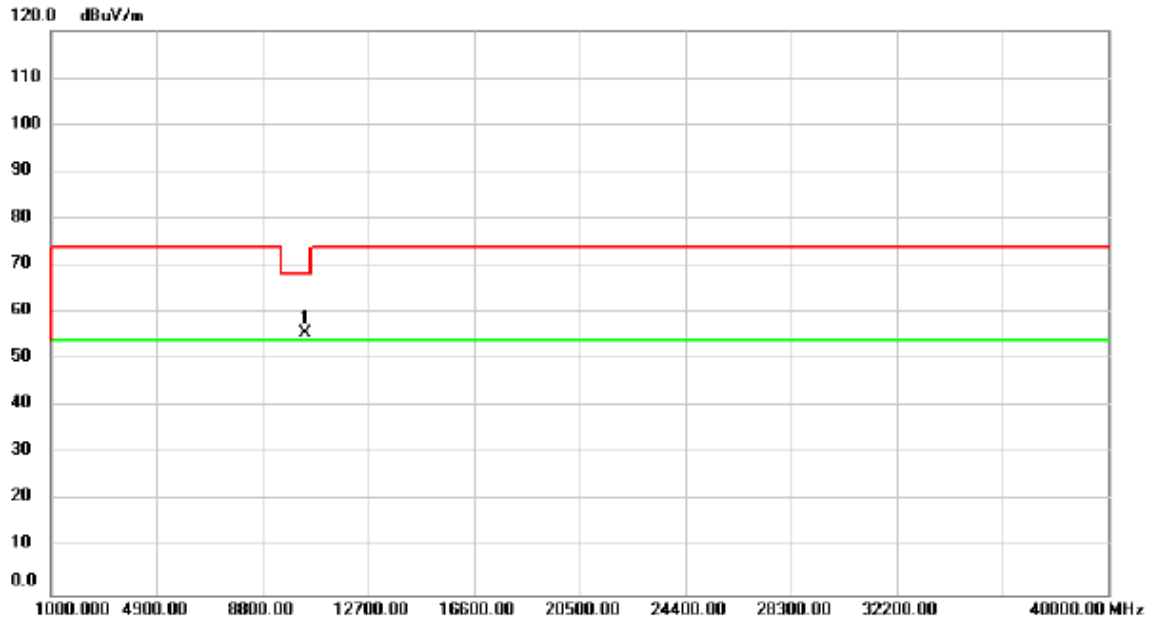
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	57.96	38.51	96.47	74.00	22.47	peak	No Limit
2	*	5200.000	49.48	38.51	87.99	54.00	33.99	AVG	No Limit

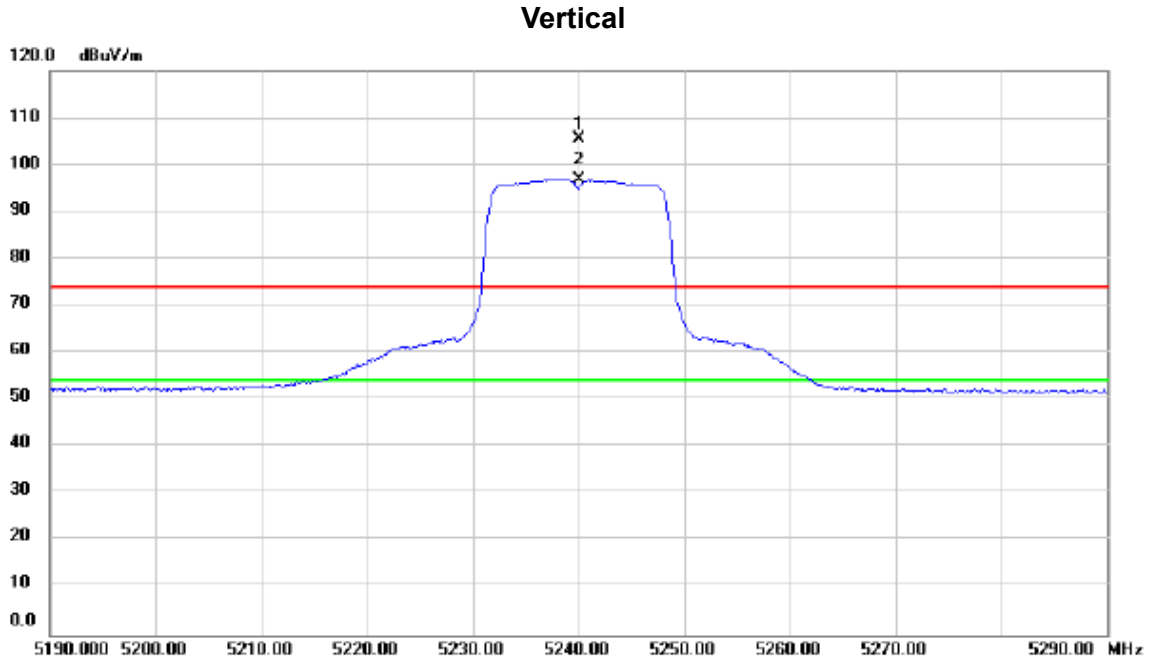
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz_Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	52.40	3.22	55.62	68.20	-12.58	peak	

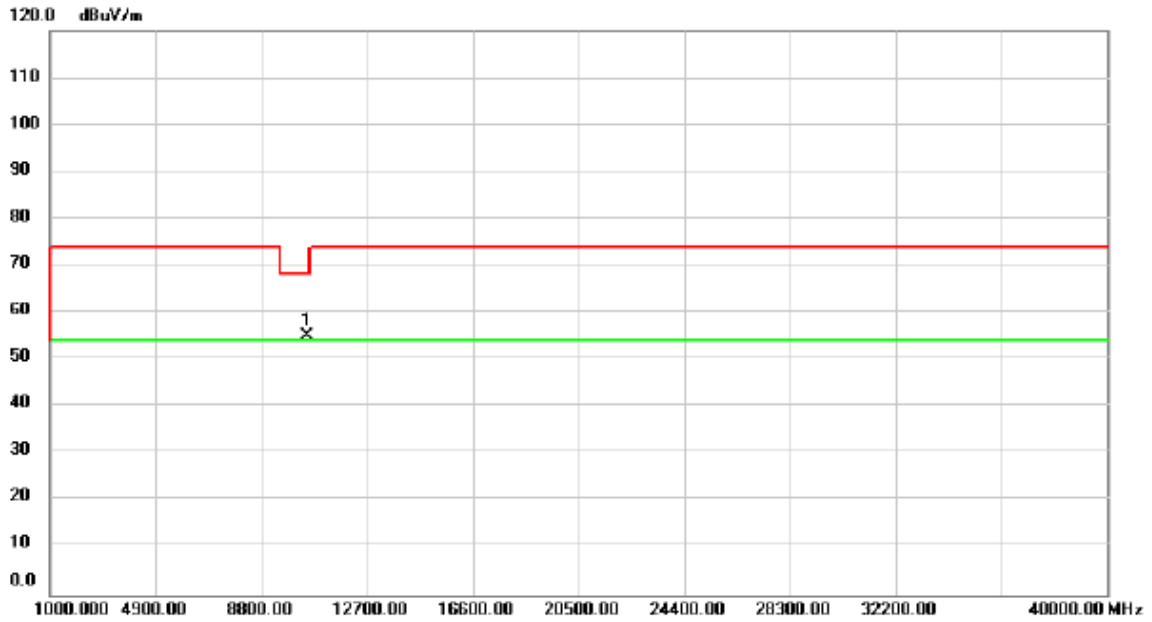
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Dipole Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	66.99	38.56	105.55	74.00	31.55	peak	No Limit
2	*	5240.000	58.23	38.56	96.79	54.00	42.79	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Dipole Antenna

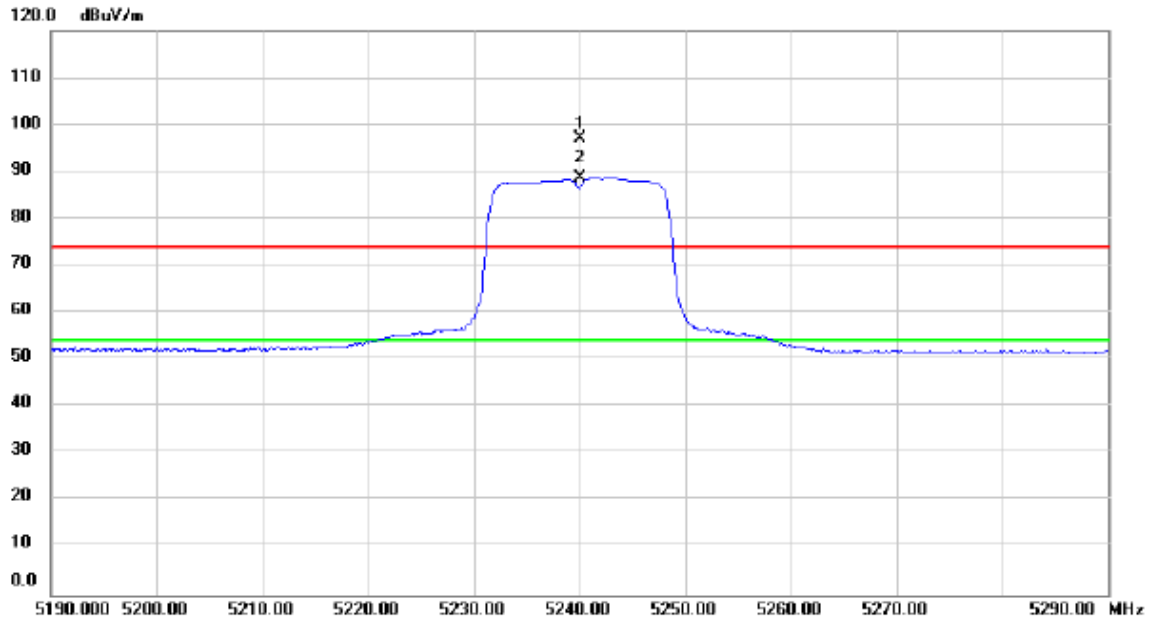
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	51.98	3.21	55.19	68.20	-13.01	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Dipole Antenna

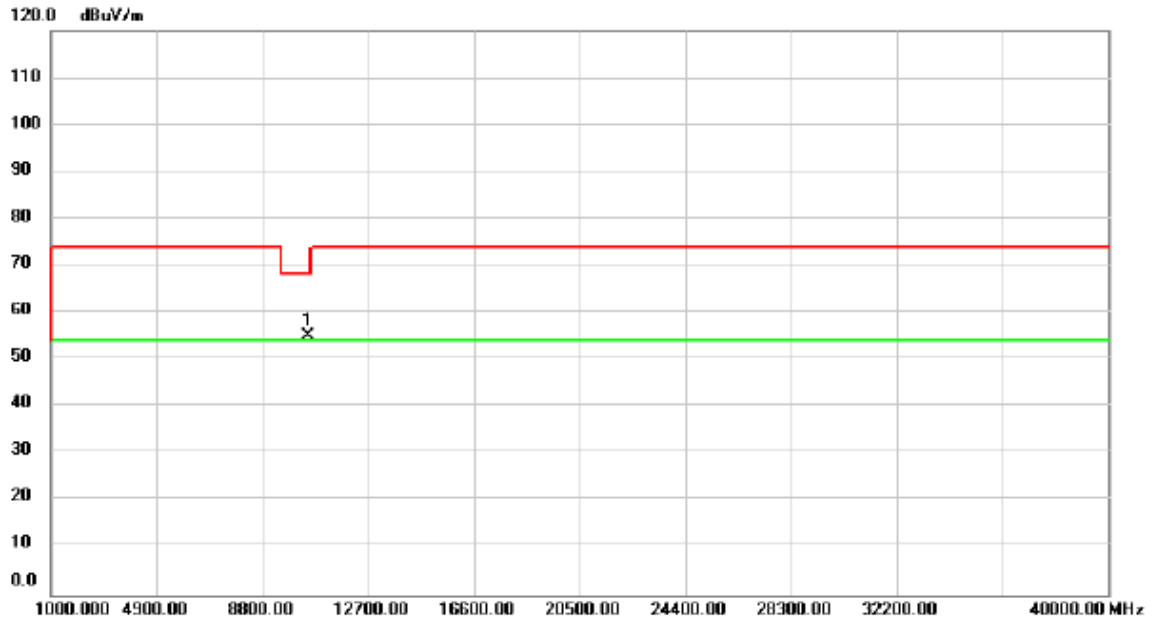
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	58.46	38.56	97.02	74.00	23.02	peak	No Limit
2	*	5240.000	50.15	38.56	88.71	54.00	34.71	AVG	No Limit

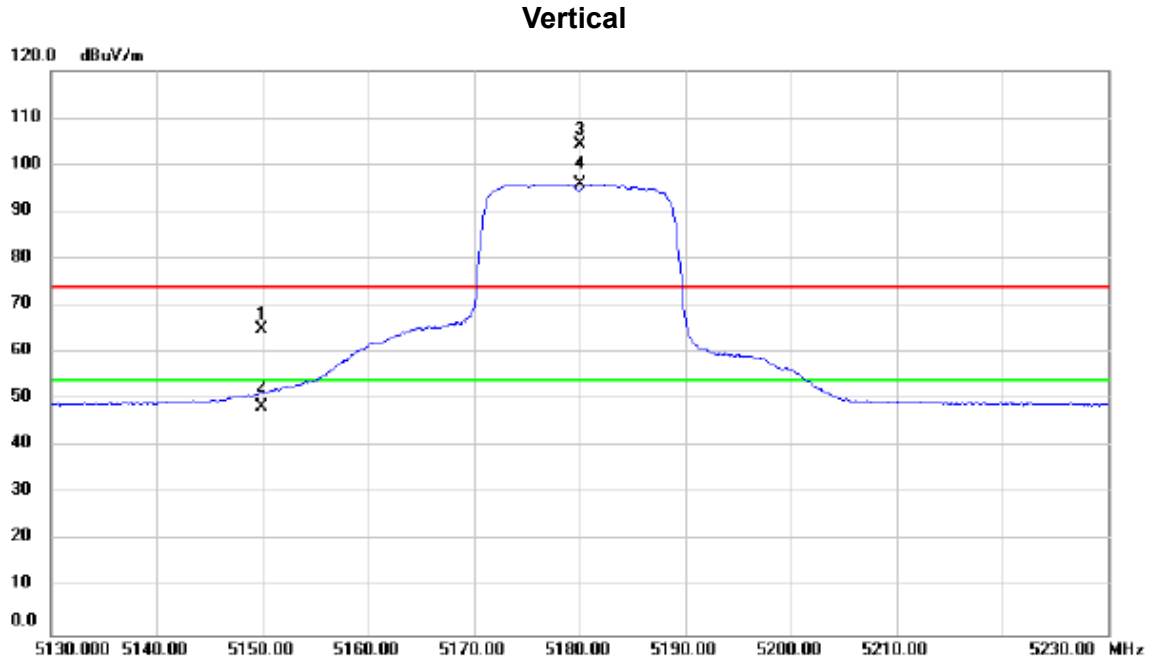
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	51.78	3.21	54.99	68.20	-13.21	peak	

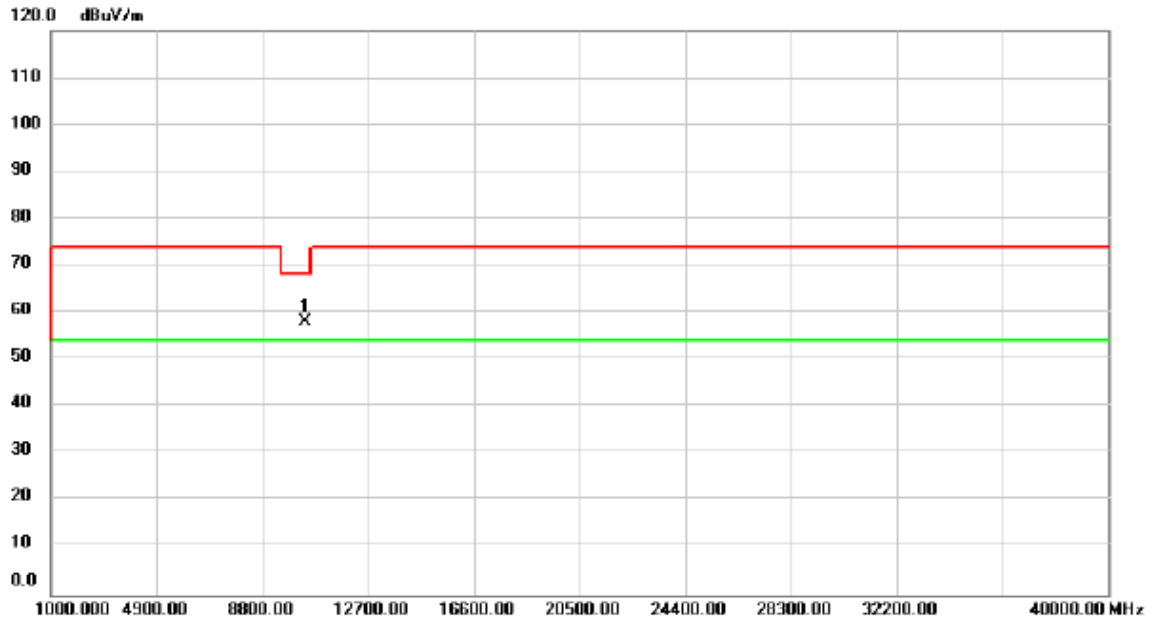
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Dipole Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.980	26.61	38.45	65.06	74.00	-8.94	peak	
2		5149.980	9.86	38.45	48.31	54.00	-5.69	AVG	
3	X	5180.000	65.68	38.48	104.16	74.00	30.16	peak	No Limit
4	*	5180.000	57.47	38.48	95.95	54.00	41.95	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Dipole Antenna

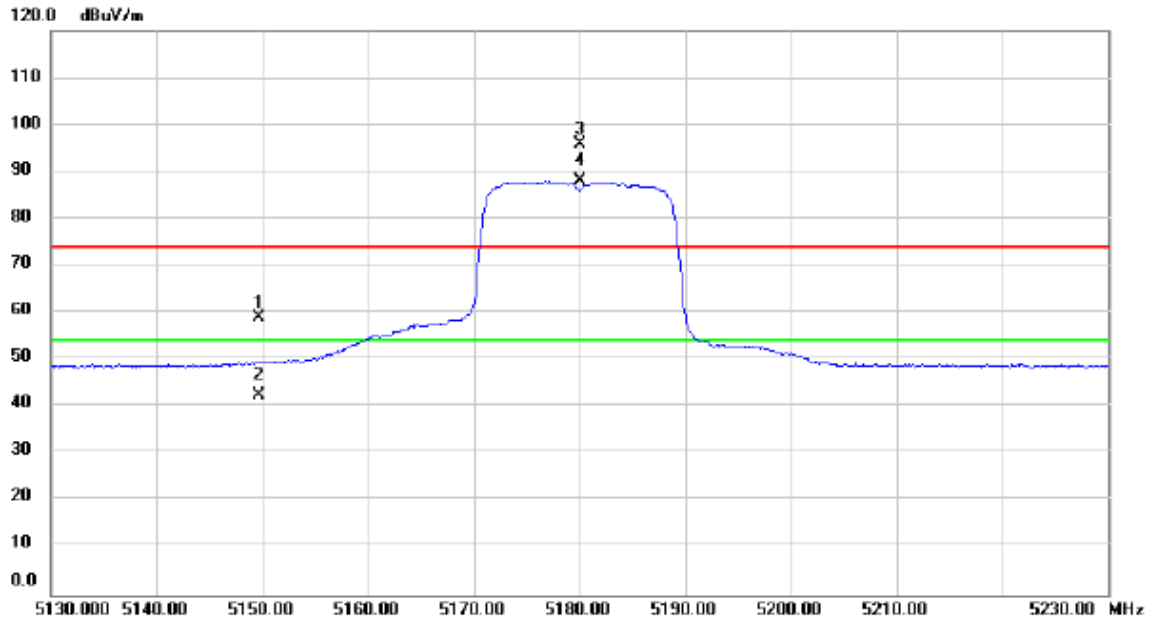
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10360.00	54.96	3.21	58.17	68.20	-10.03	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Dipole Antenna

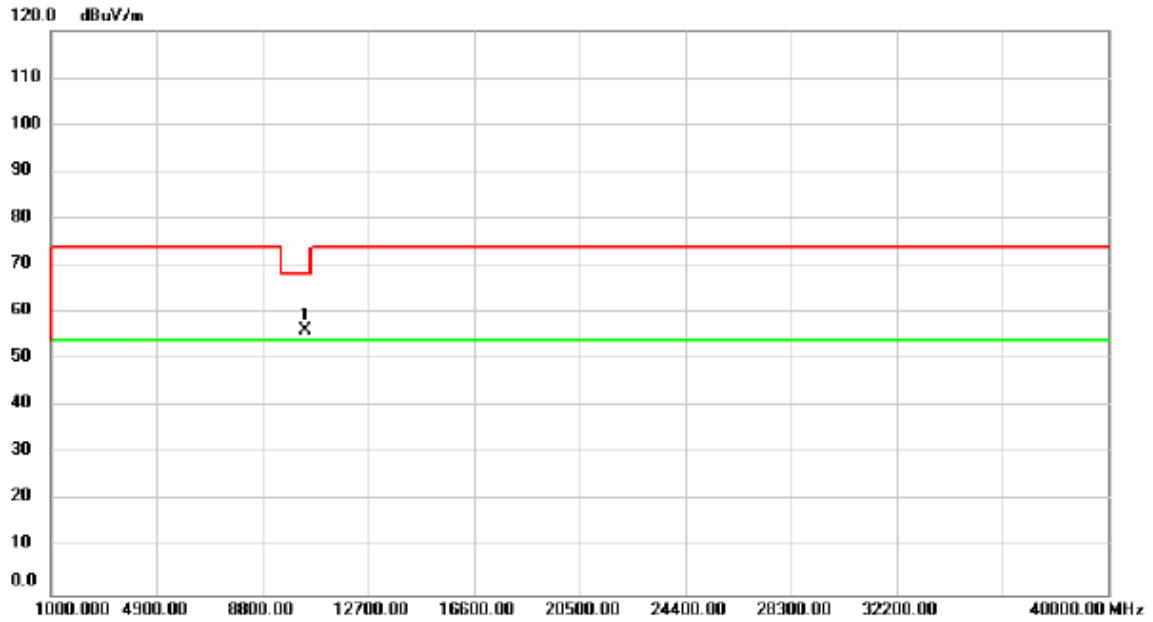
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.700	20.52	38.45	58.97	74.00	-15.03	peak	
2		5149.700	3.92	38.45	42.37	54.00	-11.63	AVG	
3	X	5180.000	57.27	38.48	95.75	74.00	21.75	peak	No Limit
4	*	5180.000	49.45	38.48	87.93	54.00	33.93	AVG	No Limit

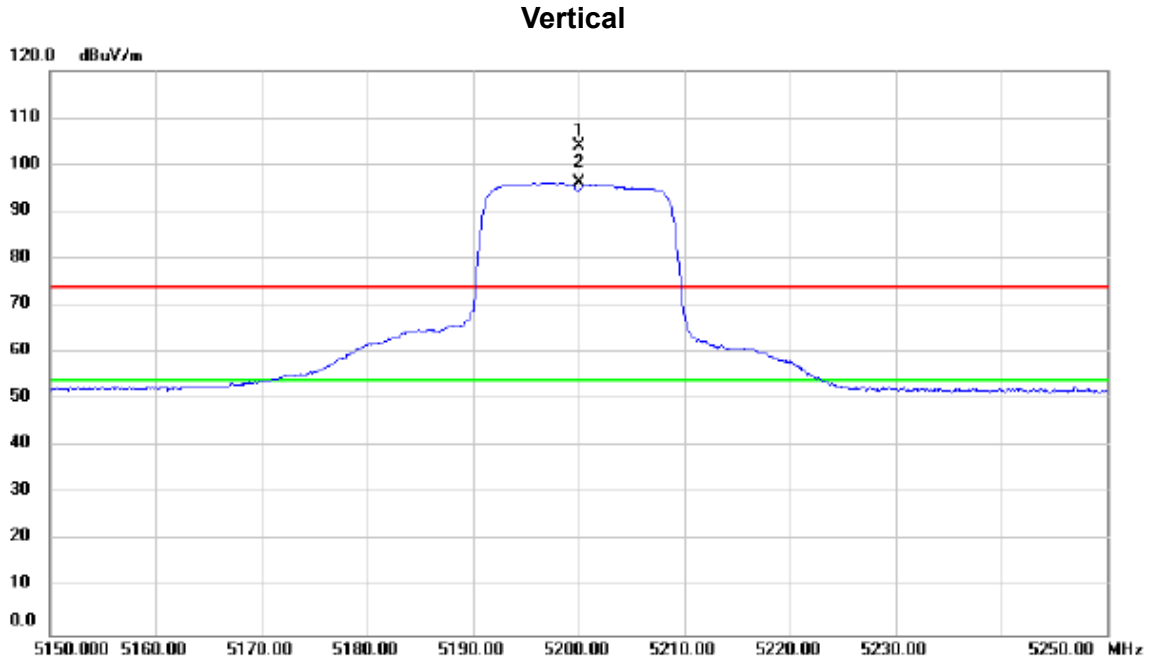
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.00	53.02	3.21	56.23	68.20	-11.97	peak	

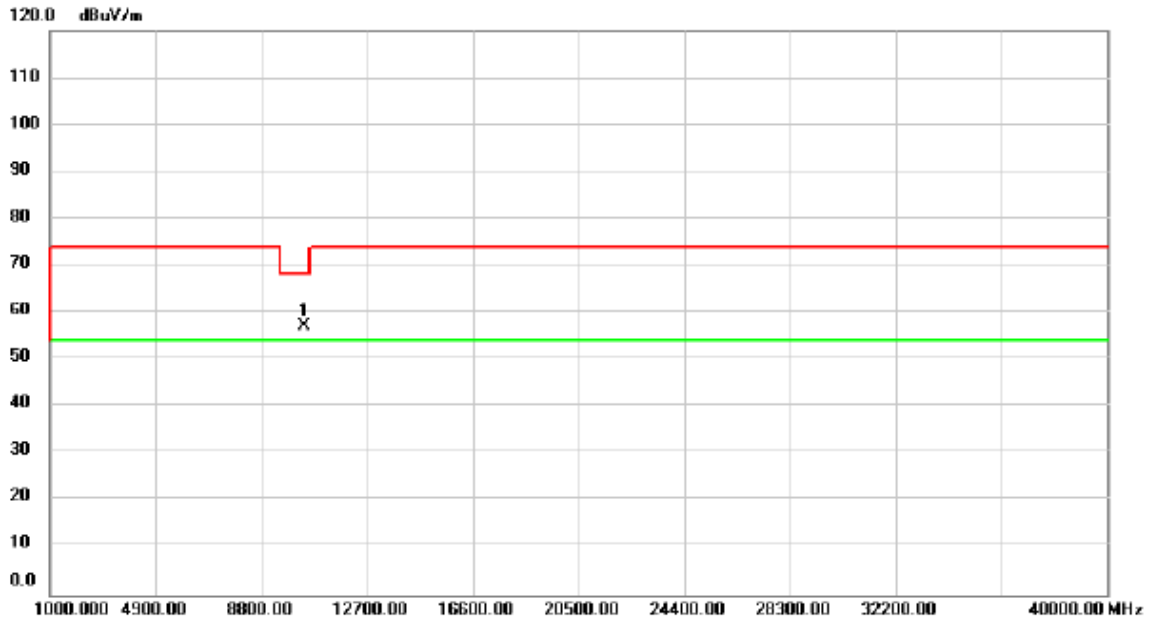
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz _Dipole Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	65.54	38.51	104.05	74.00	30.05	peak	No Limit
2	*	5200.000	57.78	38.51	96.29	54.00	42.29	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz _Dipole Antenna

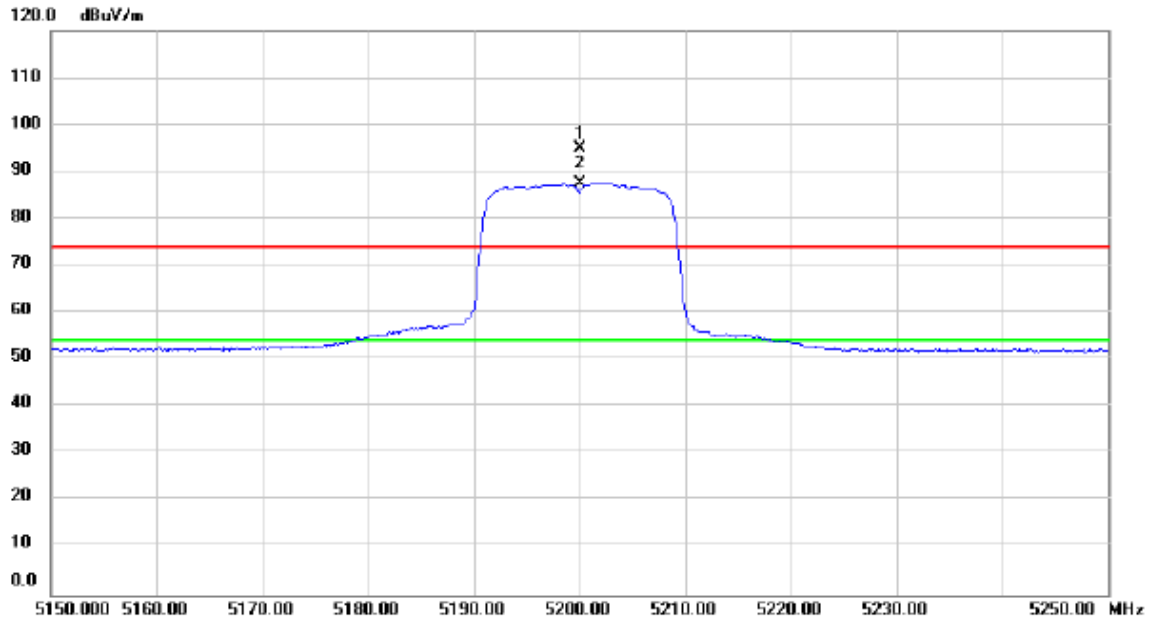
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	53.99	3.22	57.21	68.20	-10.99	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz _Dipole Antenna

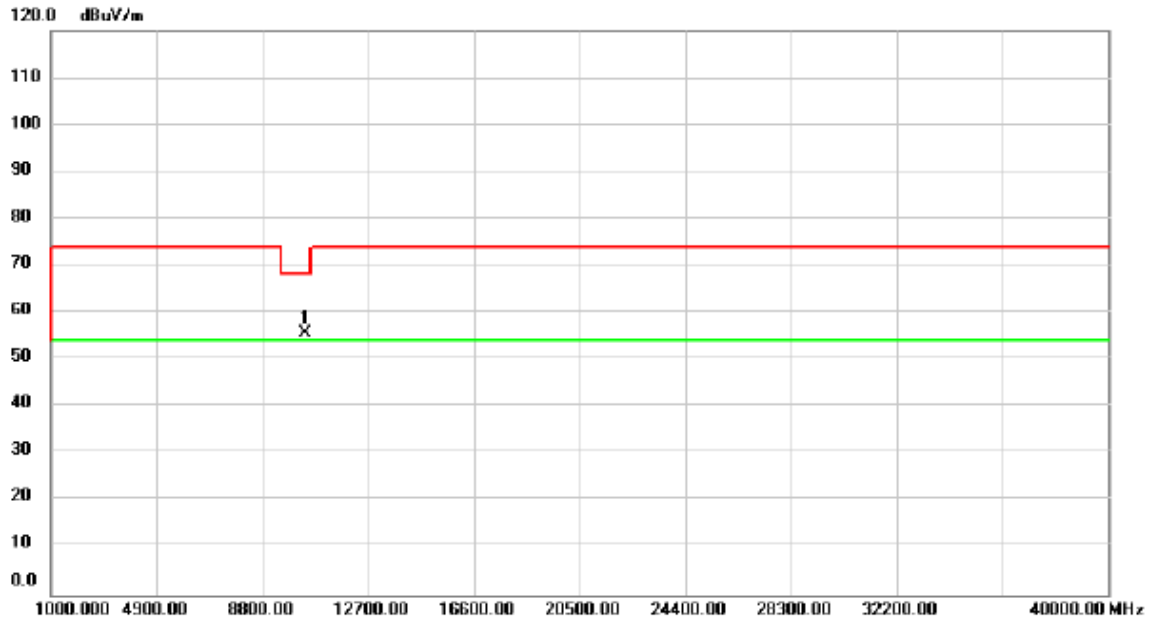
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	56.37	38.51	94.88	74.00	20.88	peak	No Limit
2	*	5200.000	49.08	38.51	87.59	54.00	33.59	AVG	No Limit

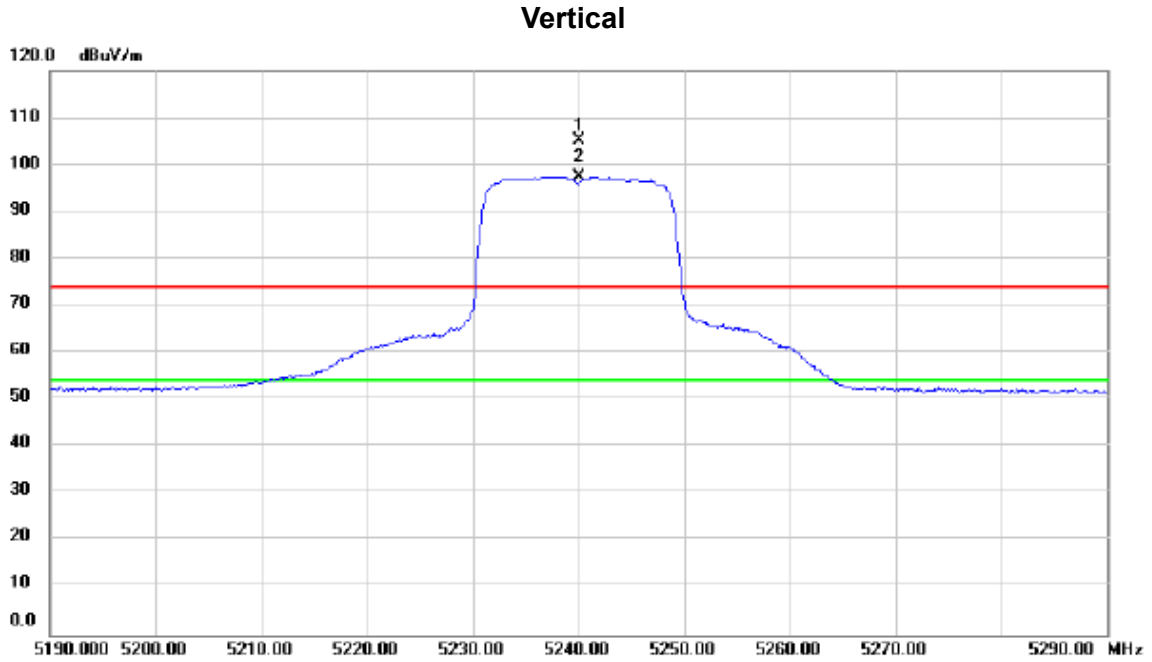
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz _Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	52.55	3.22	55.77	68.20	-12.43	peak	

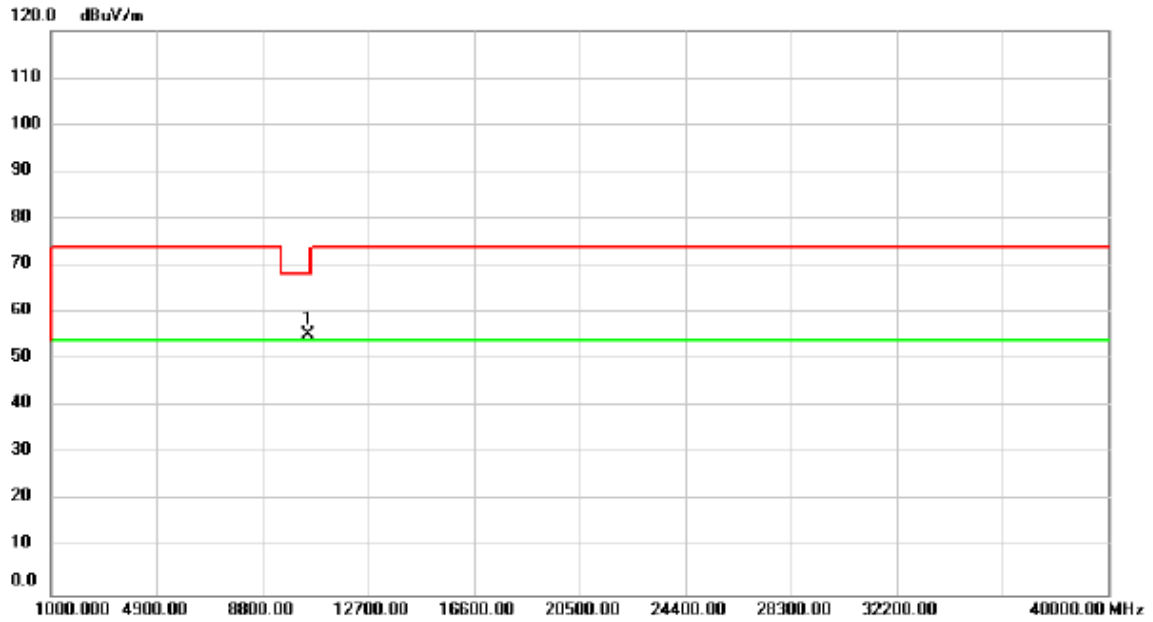
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Dipole Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	66.58	38.56	105.14	74.00	31.14	peak	No Limit
2	*	5240.000	58.94	38.56	97.50	54.00	43.50	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Dipole Antenna

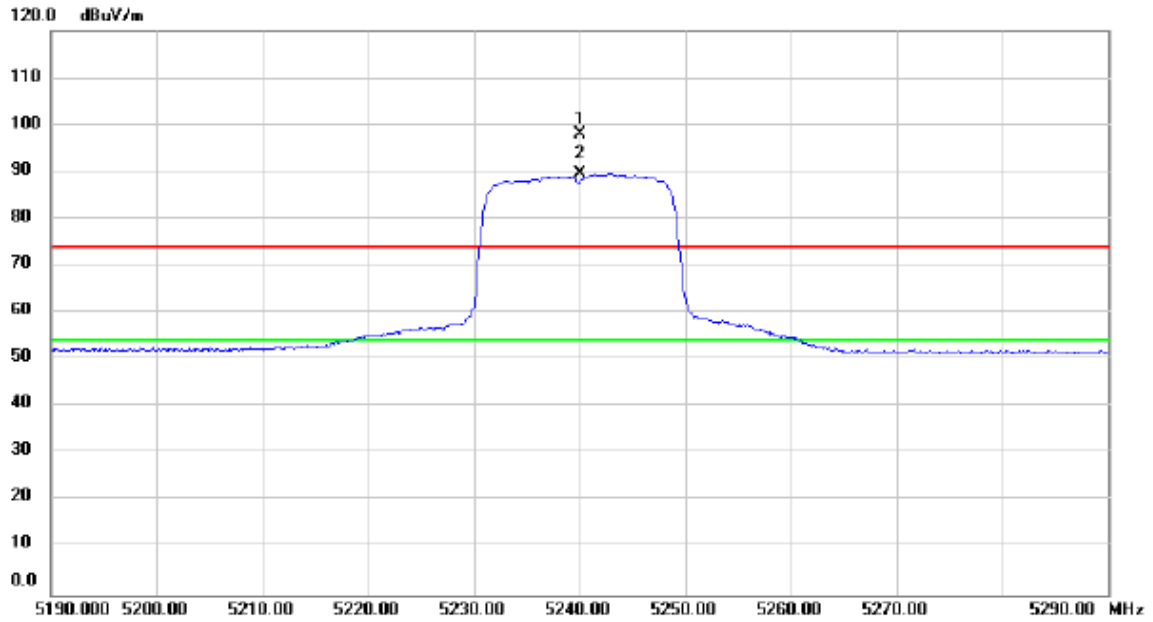
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	52.22	3.21	55.43	68.20	-12.77	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Dipole Antenna

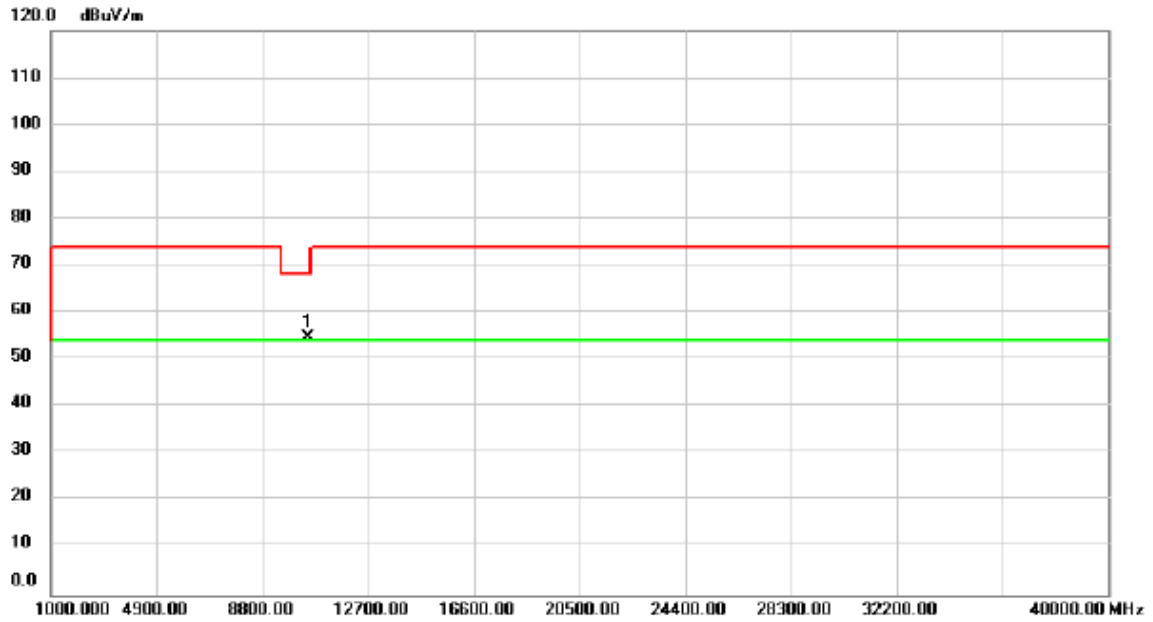
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	59.30	38.56	97.86	74.00	23.86	peak	No Limit
2	*	5240.000	50.95	38.56	89.51	54.00	35.51	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Dipole Antenna

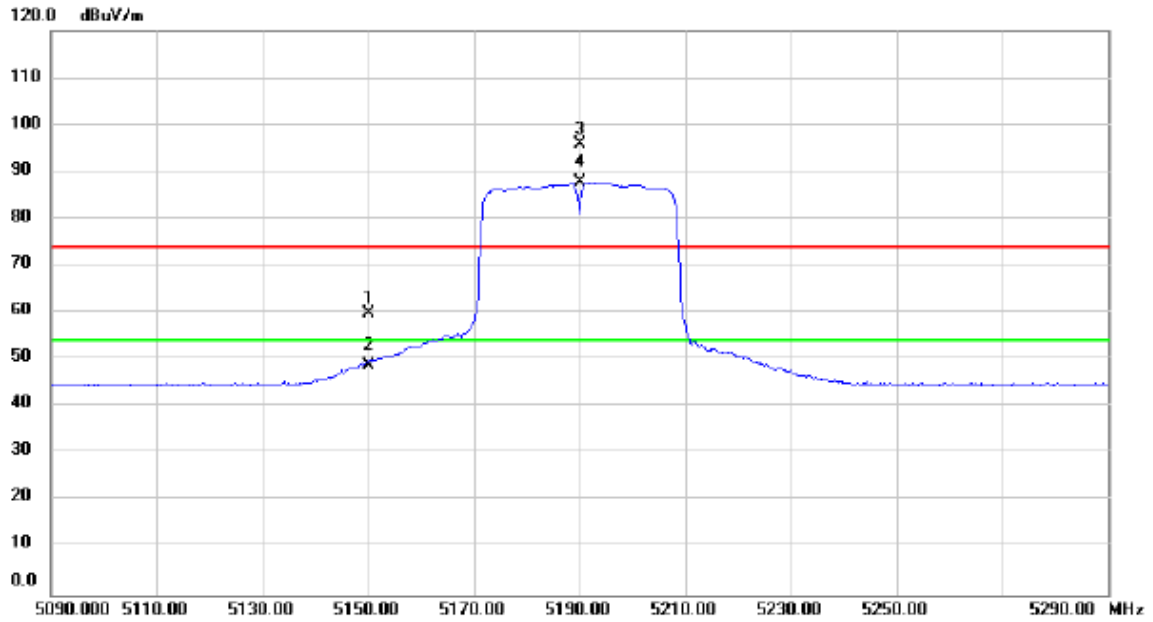
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	51.67	3.21	54.88	68.20	-13.32	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz _Dipole Antenna

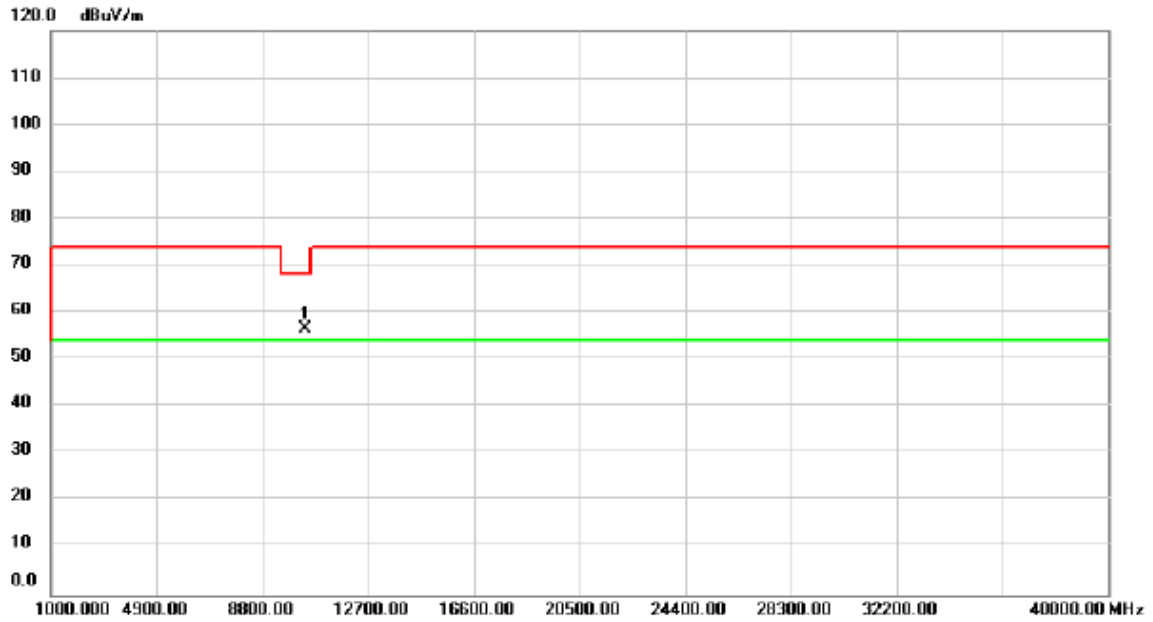
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	21.50	38.45	59.95	74.00	-14.05	peak	
2		5150.000	10.32	38.45	48.77	54.00	-5.23	AVG	
3	X	5190.000	57.31	38.50	95.81	74.00	21.81	peak	No Limit
4	*	5190.000	49.20	38.50	87.70	54.00	33.70	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Dipole Antenna

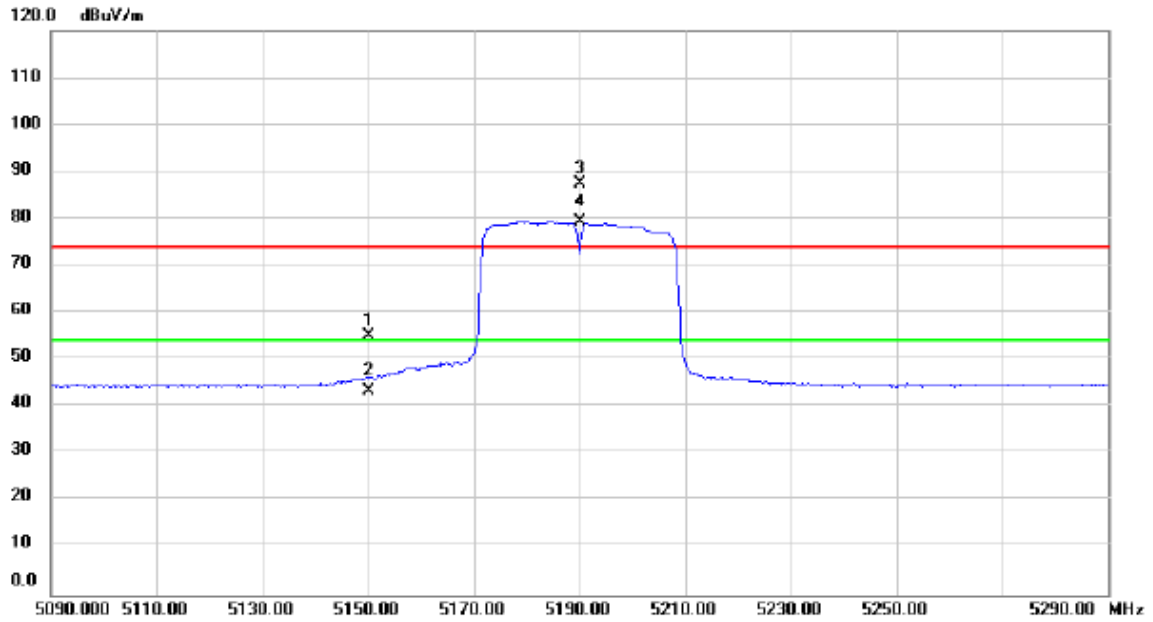
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10380.00	53.42	3.22	56.64	68.20	-11.56	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Dipole Antenna

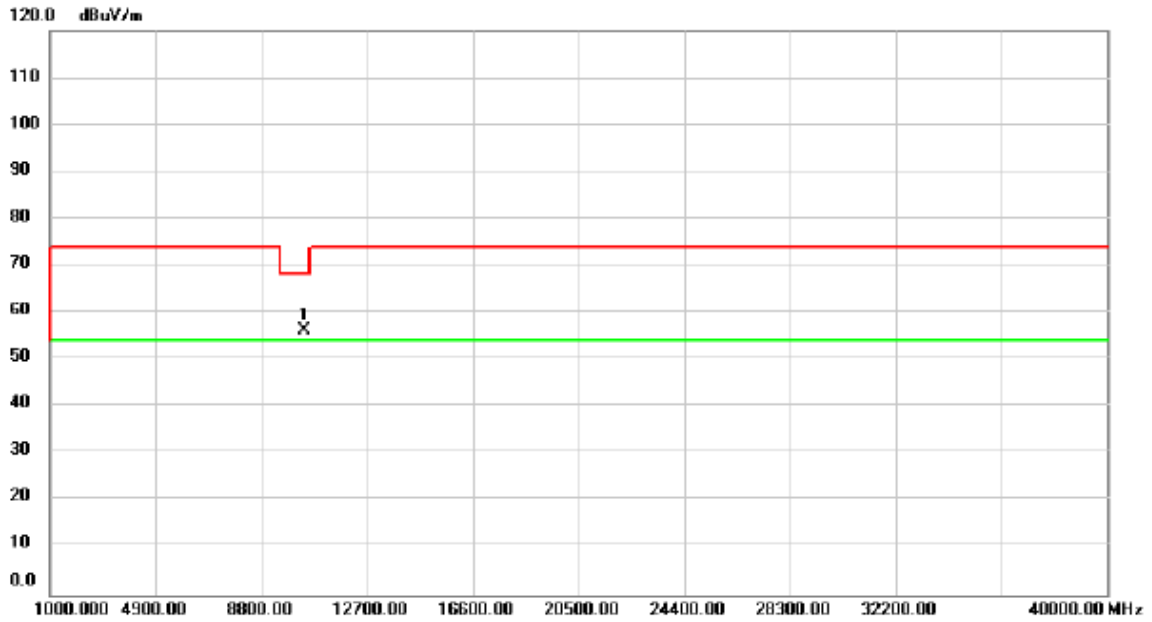
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	16.53	38.45	54.98	74.00	-19.02	peak	
2		5150.000	4.76	38.45	43.21	54.00	-10.79	AVG	
3	X	5190.000	48.88	38.50	87.38	74.00	13.38	peak	No Limit
4	*	5190.000	40.97	38.50	79.47	54.00	25.47	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Dipole Antenna

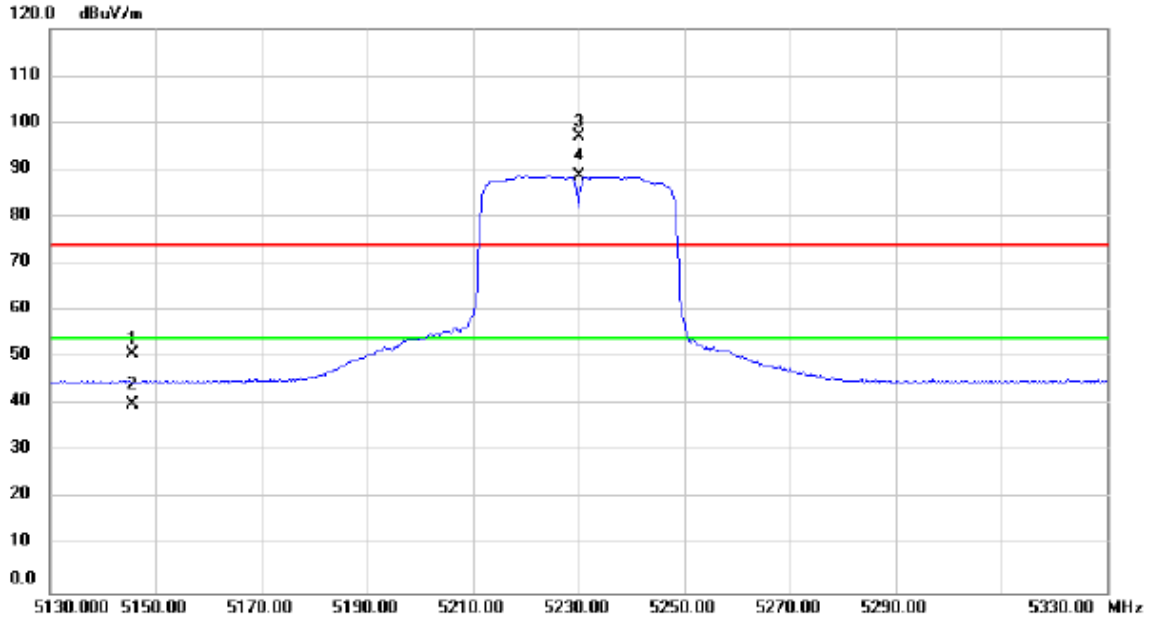
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10380.00	53.14	3.22	56.36	68.20	-11.84	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Dipole Antenna

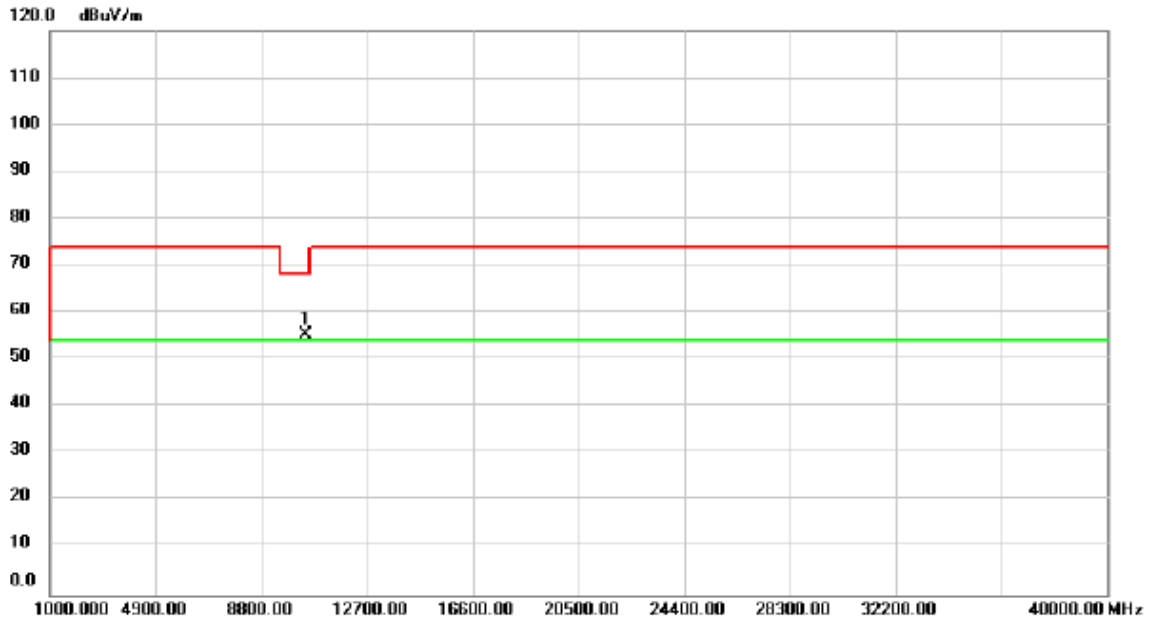
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5145.540	12.27	38.45	50.72	74.00	-23.28	peak	
2		5145.540	1.58	38.45	40.03	54.00	-13.97	AVG	
3	X	5230.000	58.46	38.54	97.00	74.00	23.00	peak	No Limit
4	*	5230.000	50.04	38.54	88.58	54.00	34.58	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Dipole Antenna

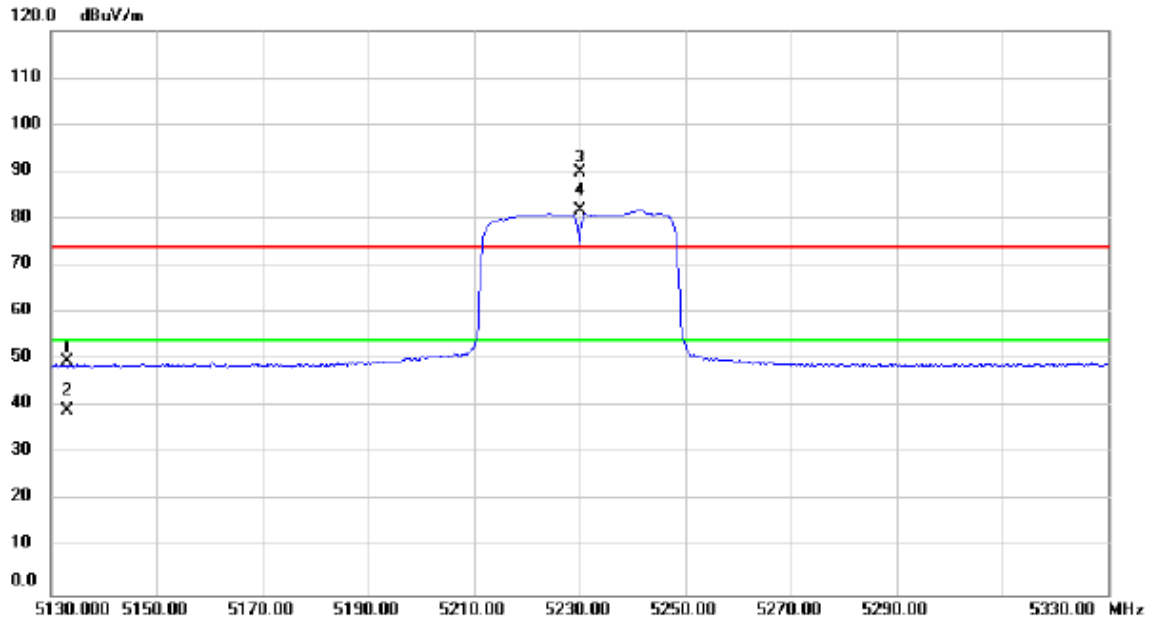
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10460.00	52.11	3.21	55.32	68.20	-12.88	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Dipole Antenna

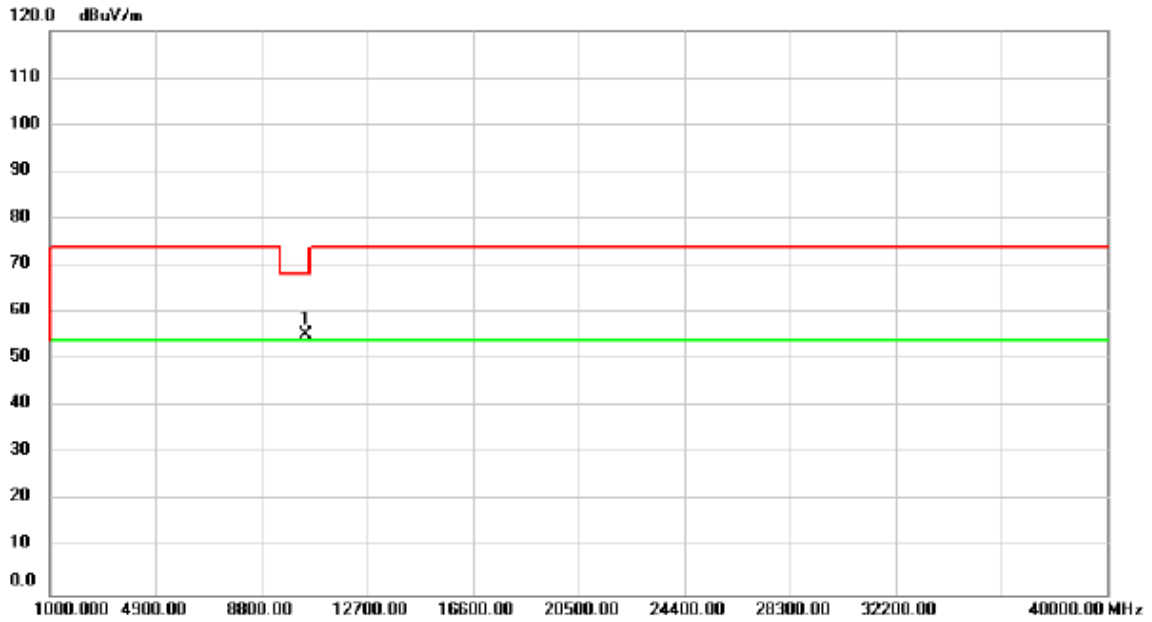
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5132.940	11.29	38.43	49.72	74.00	-24.28	peak	
2		5132.940	0.73	38.43	39.16	54.00	-14.84	AVG	
3	X	5230.000	51.22	38.54	89.76	74.00	15.76	peak	No Limit
4	*	5230.000	43.19	38.54	81.73	54.00	27.73	AVG	No Limit

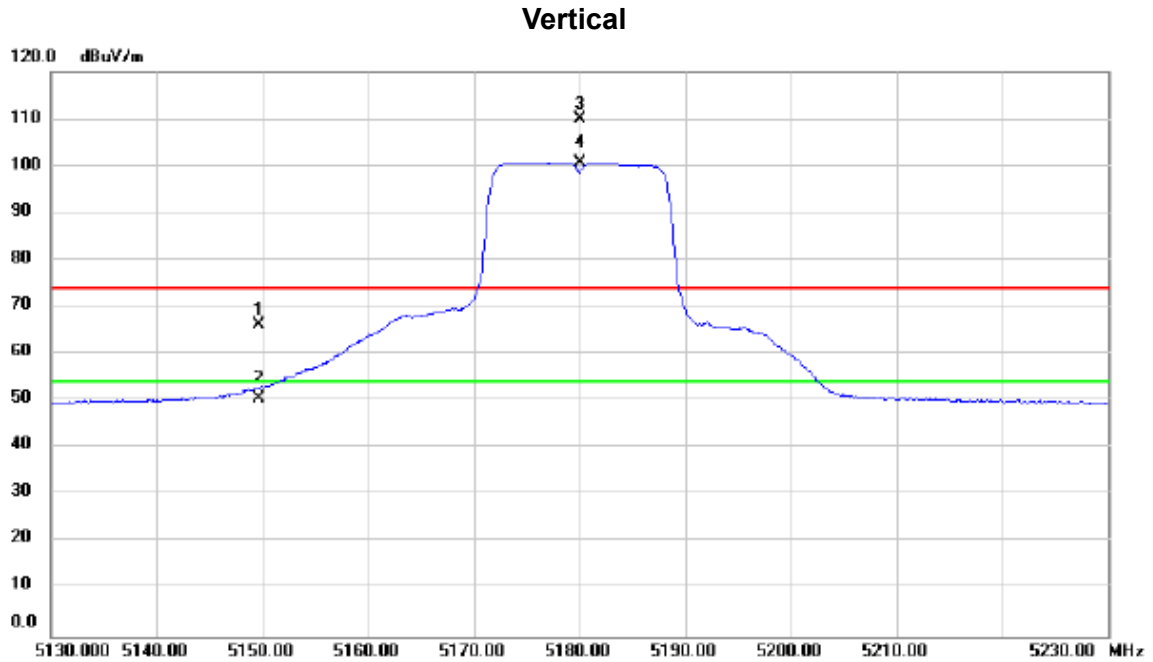
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Dipole Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10460.00	52.11	3.21	55.32	68.20	-12.88	peak	

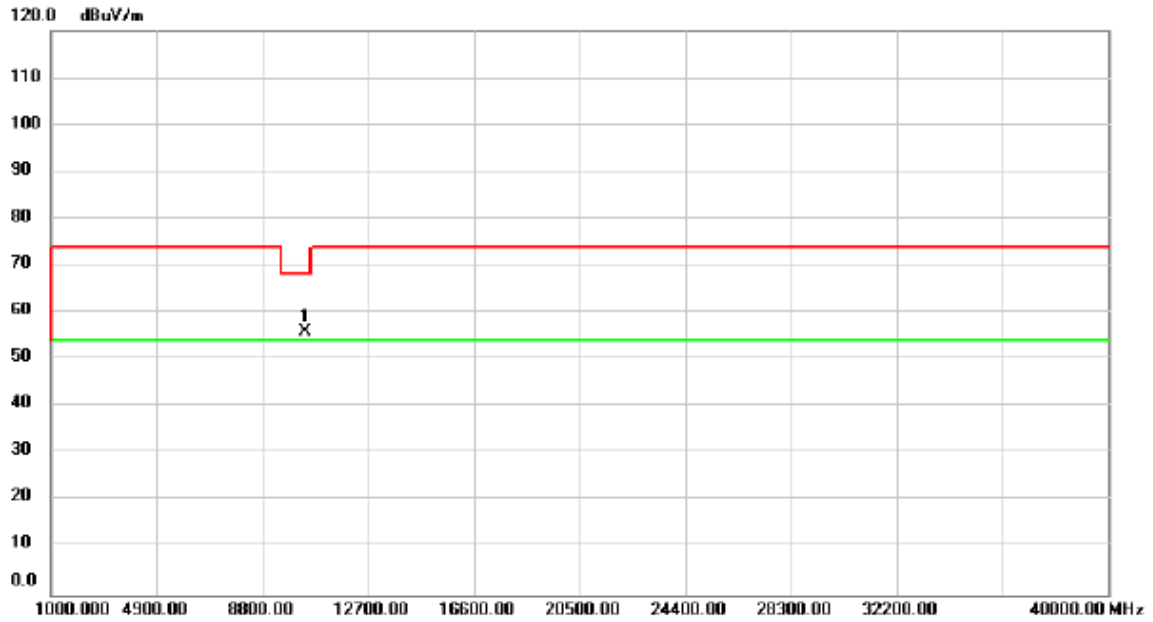
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.700	27.66	38.45	66.11	74.00	-7.89	peak	
2		5149.700	12.22	38.45	50.67	54.00	-3.33	AVG	
3	X	5180.000	71.58	38.48	110.06	74.00	36.06	peak	No Limit
4	*	5180.000	62.05	38.48	100.53	54.00	46.53	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Integral Antenna

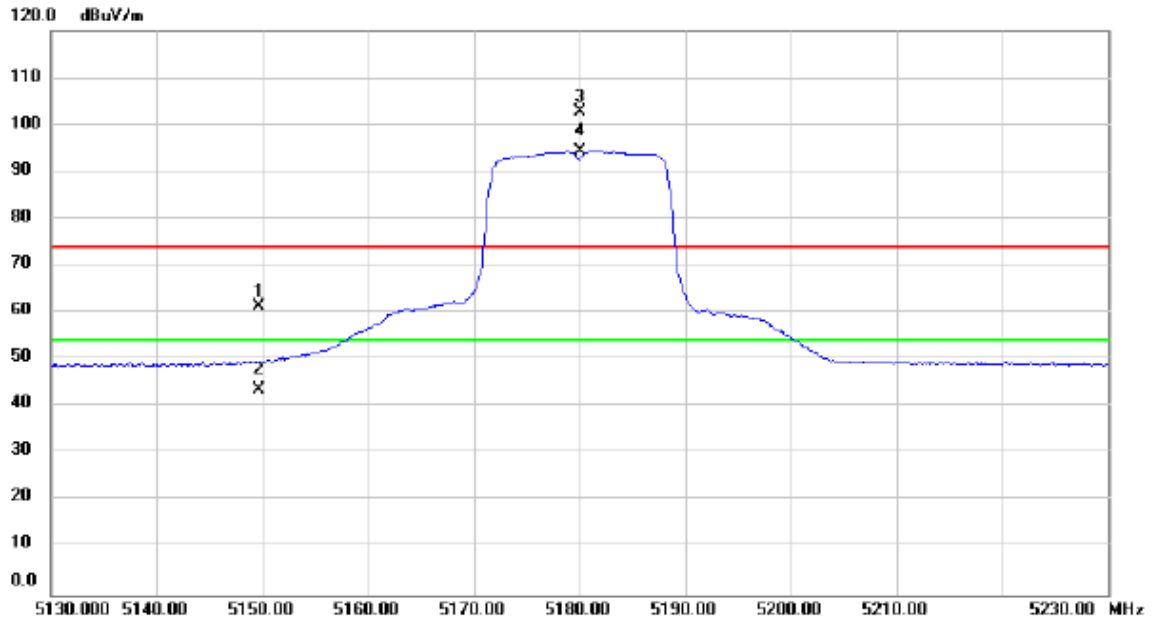
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.00	52.69	3.21	55.90	68.20	-12.30	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Integral Antenna

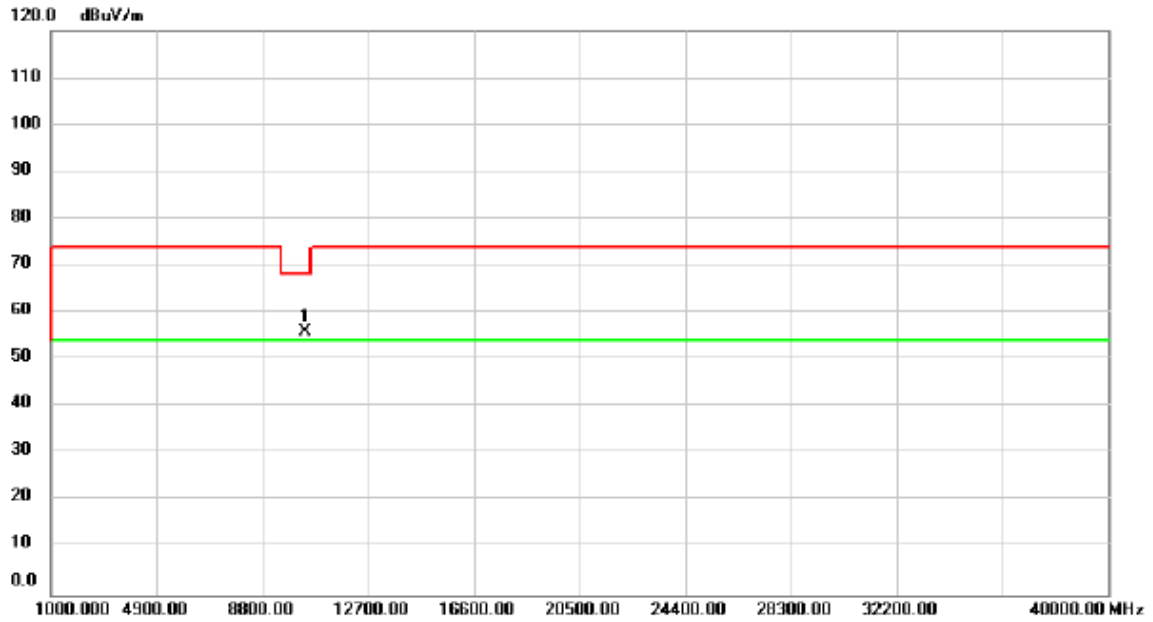
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.600	22.75	38.45	61.20	74.00	-12.80	peak	
2		5149.600	5.18	38.45	43.63	54.00	-10.37	AVG	
3	X	5180.000	64.17	38.48	102.65	74.00	28.65	peak	No Limit
4	*	5180.000	55.86	38.48	94.34	54.00	40.34	AVG	No Limit

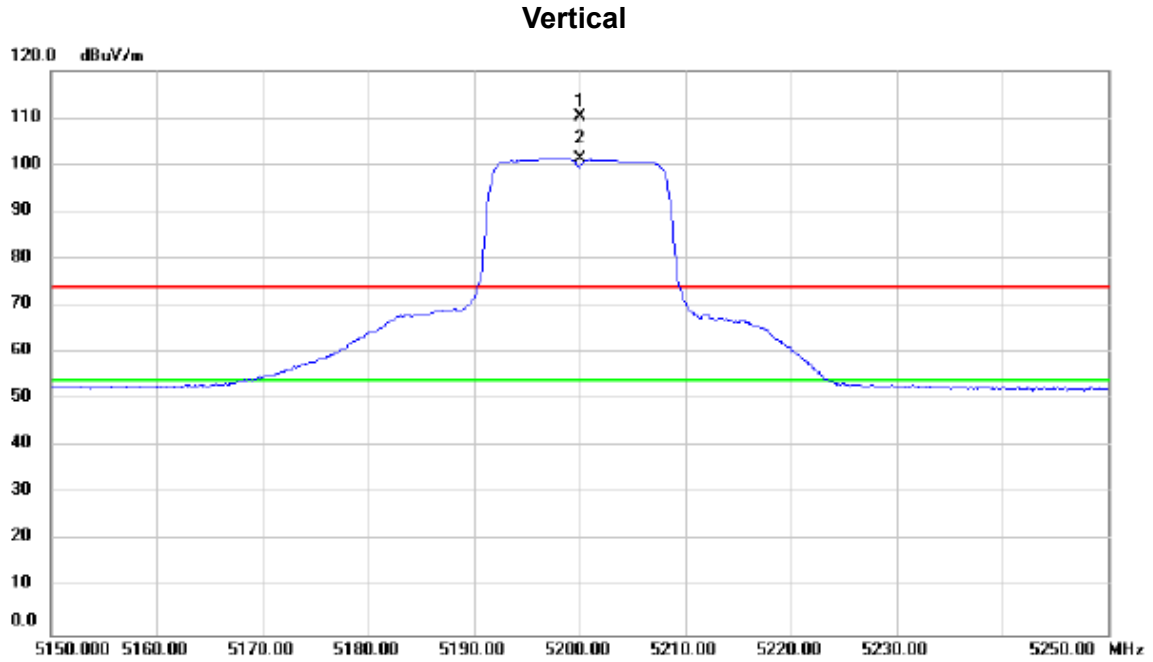
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5180MHz_Integral Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10360.00	52.65	3.21	55.86	68.20	-12.34	peak	

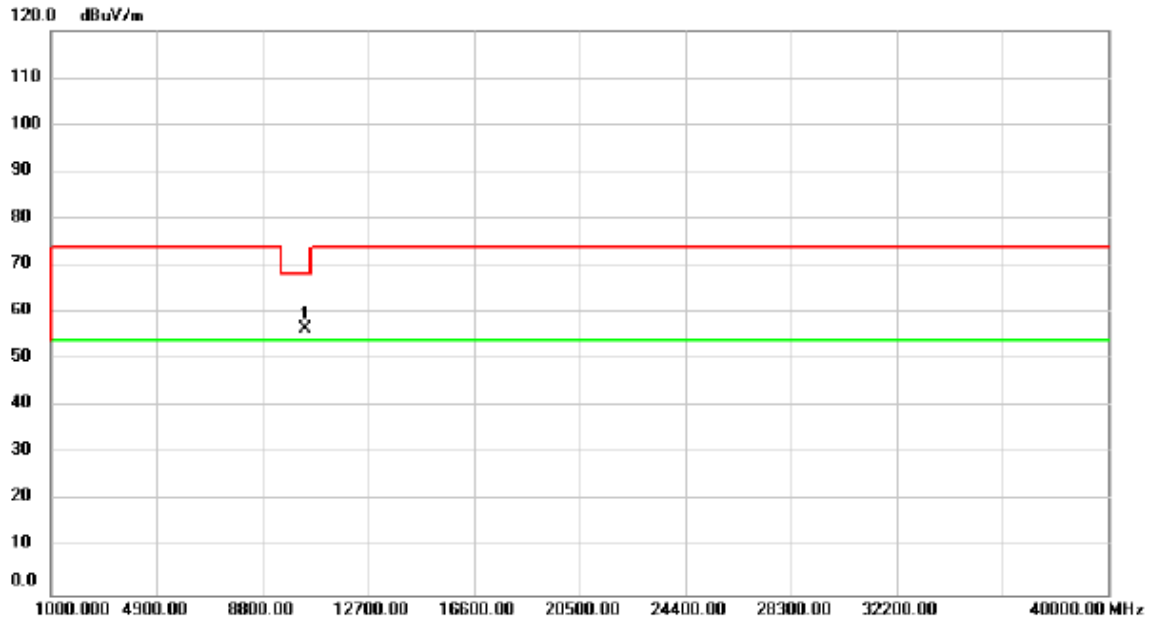
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz _Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	71.82	38.51	110.33	74.00	36.33	peak	No Limit
2	*	5200.000	62.76	38.51	101.27	54.00	47.27	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz_Integral Antenna

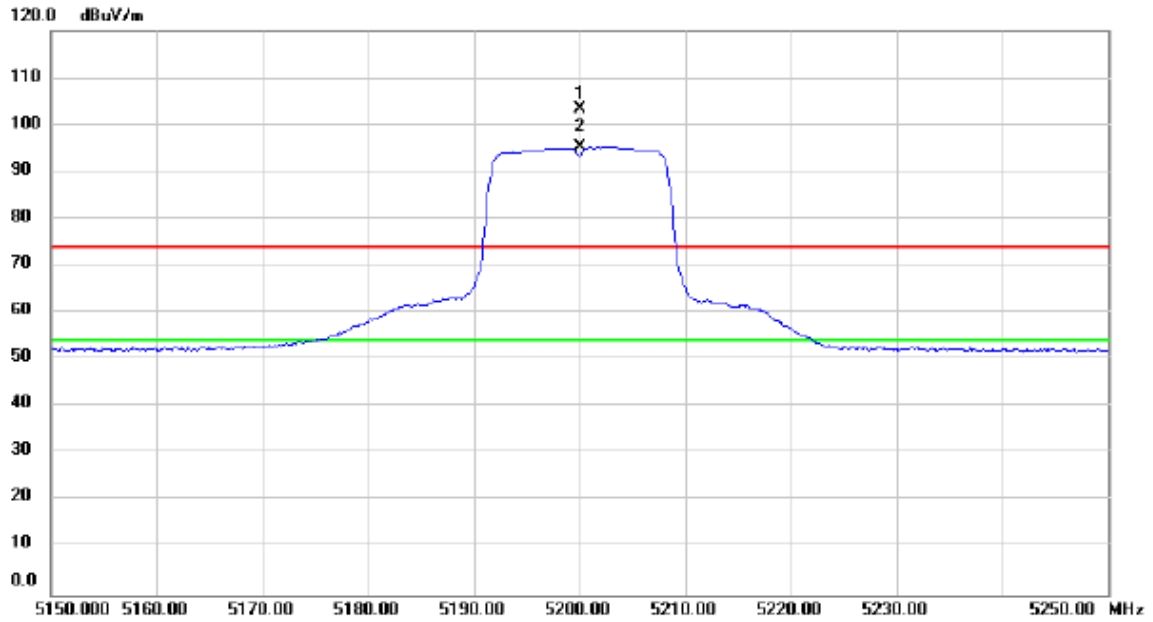
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	53.22	3.22	56.44	68.20	-11.76	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz_Integral Antenna

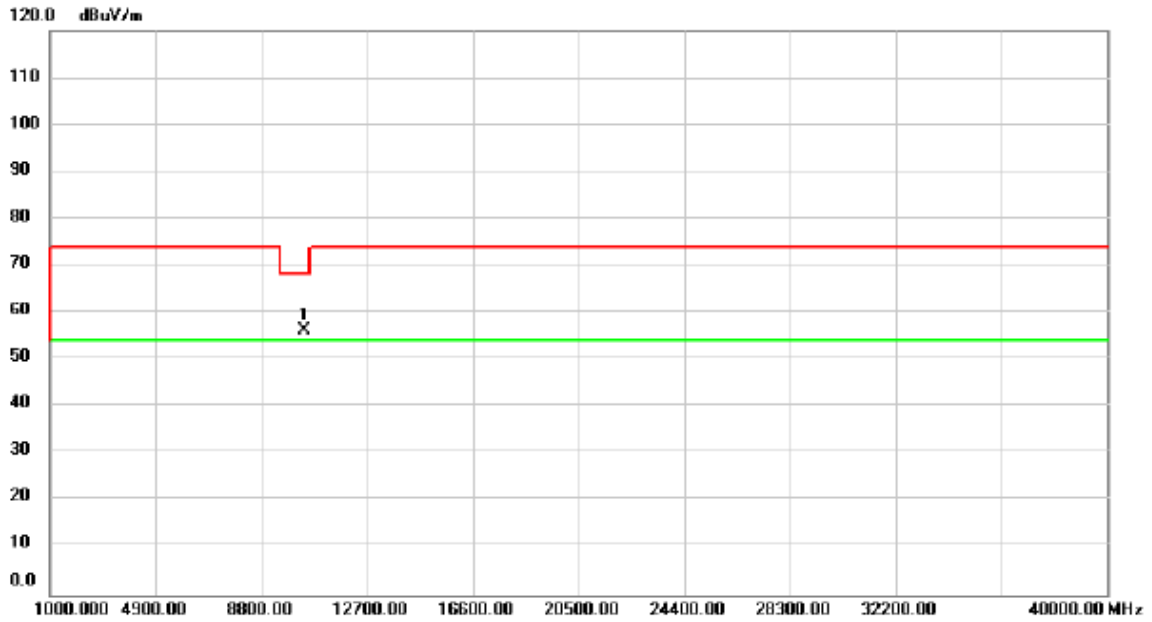
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	64.93	38.51	103.44	74.00	29.44	peak	No Limit
2	*	5200.000	56.74	38.51	95.25	54.00	41.25	AVG	No Limit

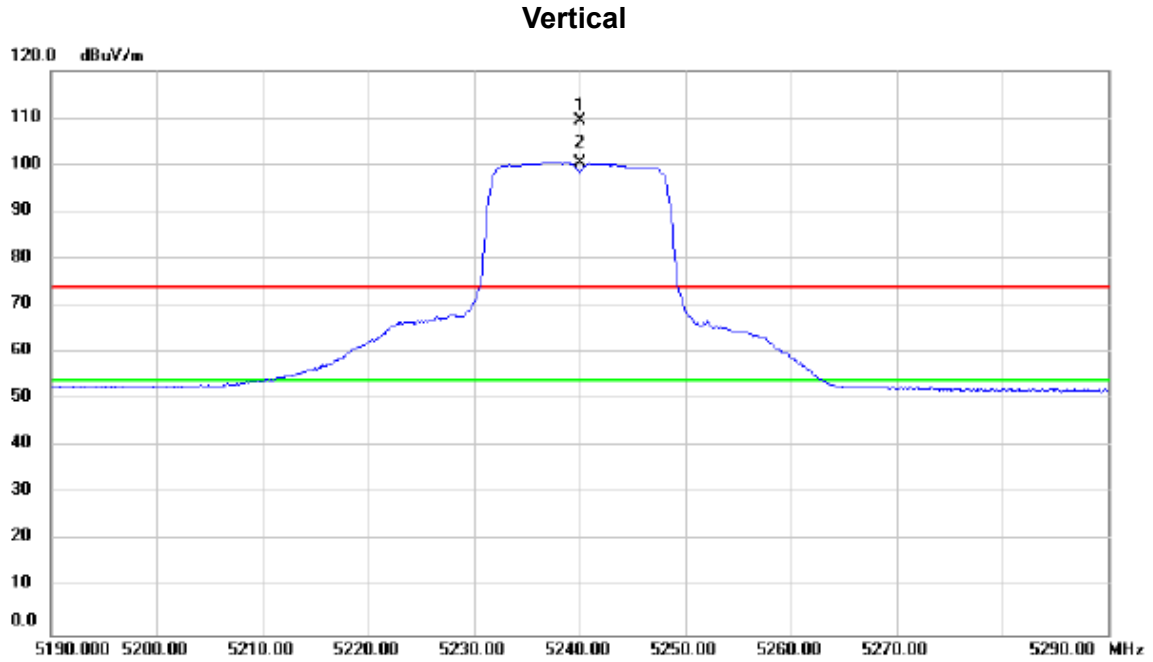
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5200MHz_Integral Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	52.90	3.22	56.12	68.20	-12.08	peak	

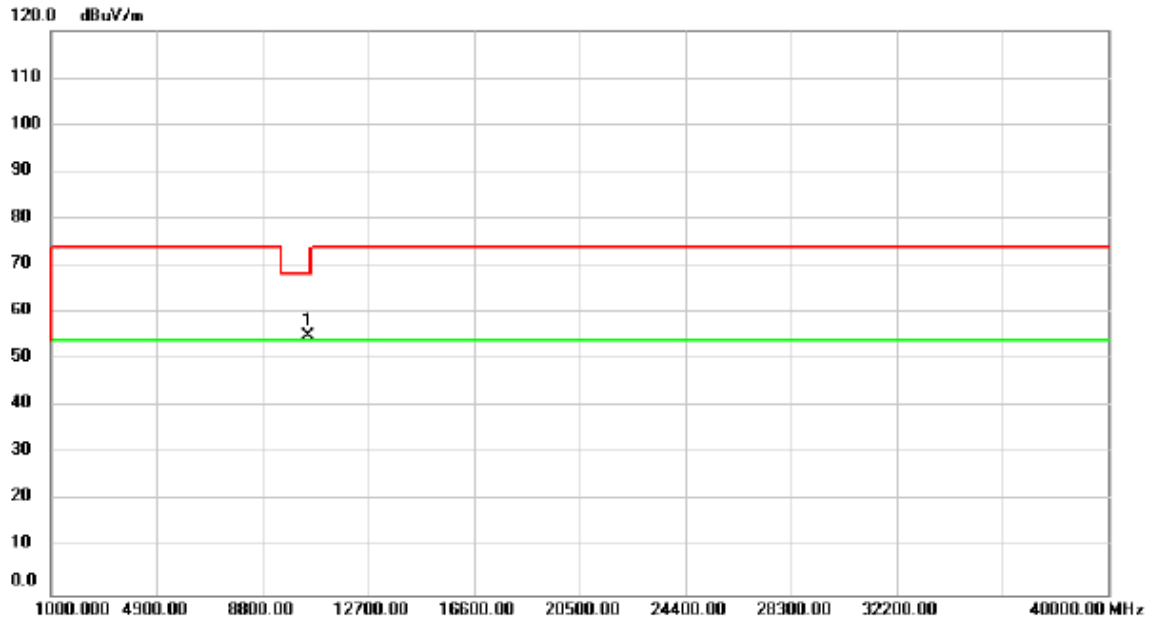
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	70.83	38.56	109.39	74.00	35.39	peak	No Limit
2	*	5240.000	61.79	38.56	100.35	54.00	46.35	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Integral Antenna

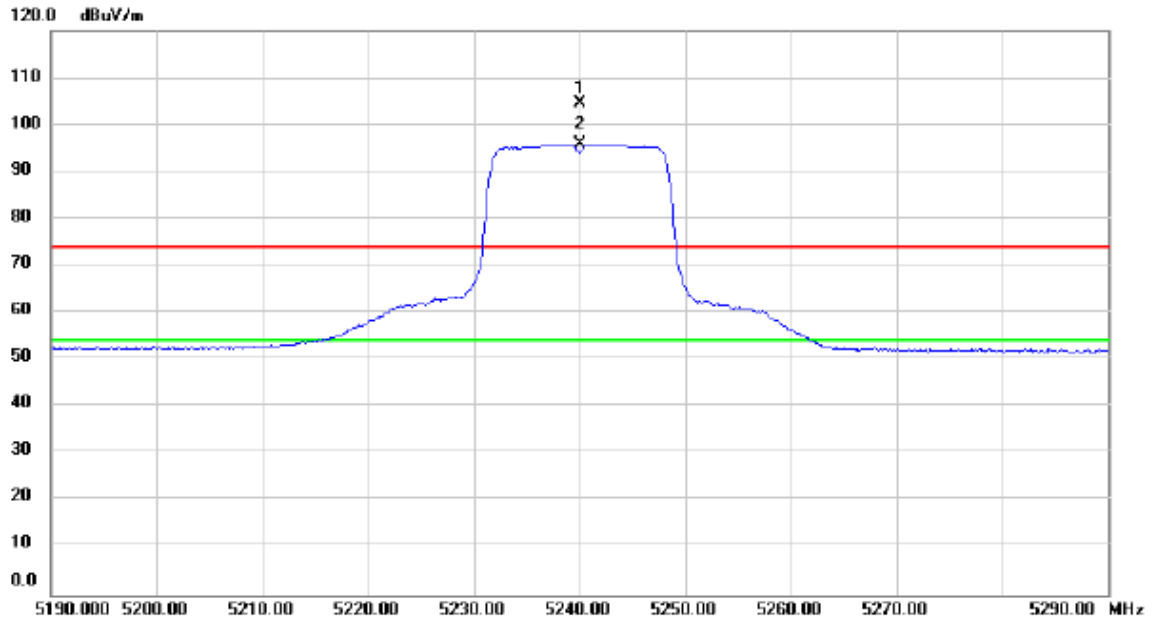
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	51.89	3.21	55.10	68.20	-13.10	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz _Integral Antenna

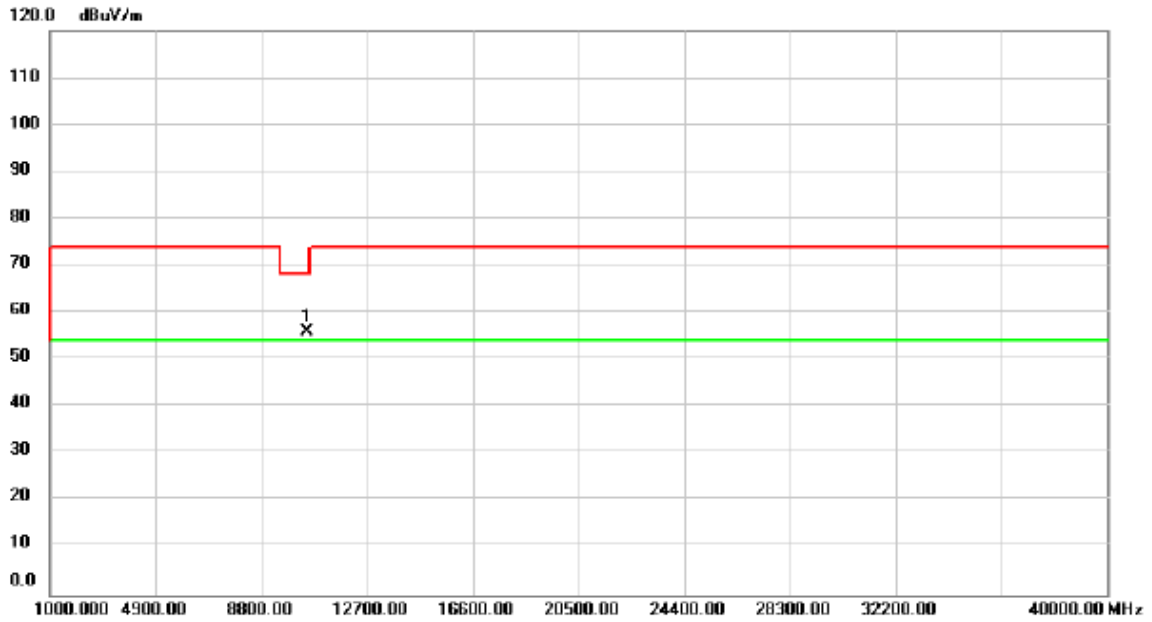
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	65.97	38.56	104.53	74.00	30.53	peak	No Limit
2	*	5240.000	57.40	38.56	95.96	54.00	41.96	AVG	No Limit

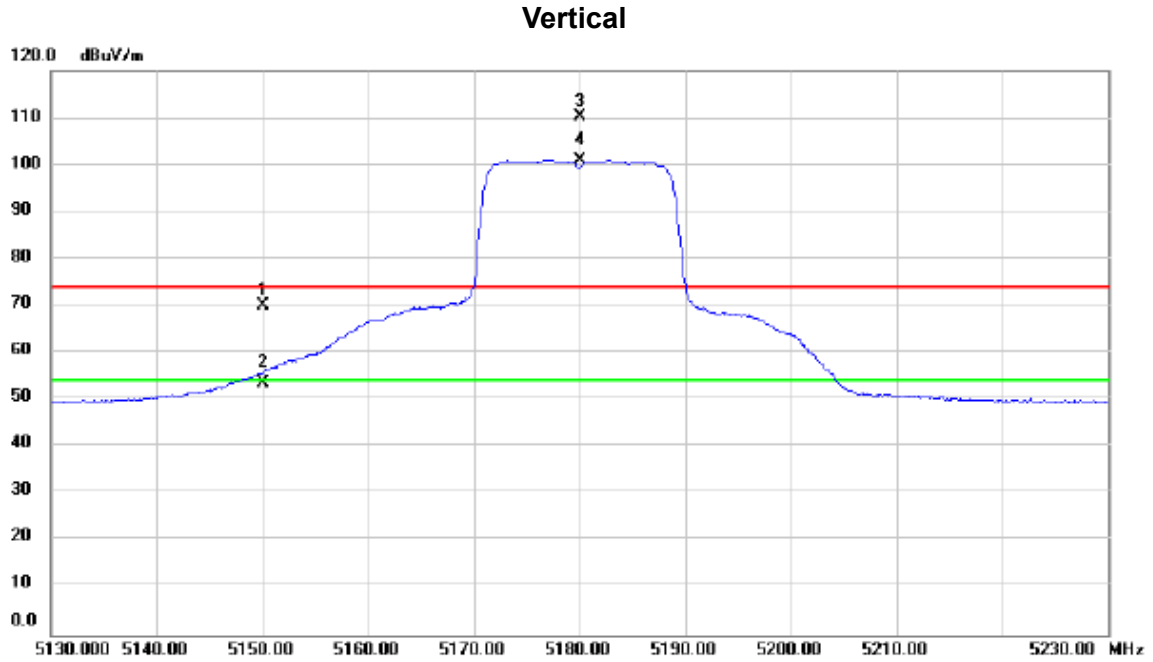
Orthogonal Axis:	X
Test Mode:	UNII-1/TX A Mode 5240MHz_Integral Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	52.71	3.21	55.92	68.20	-12.28	peak	

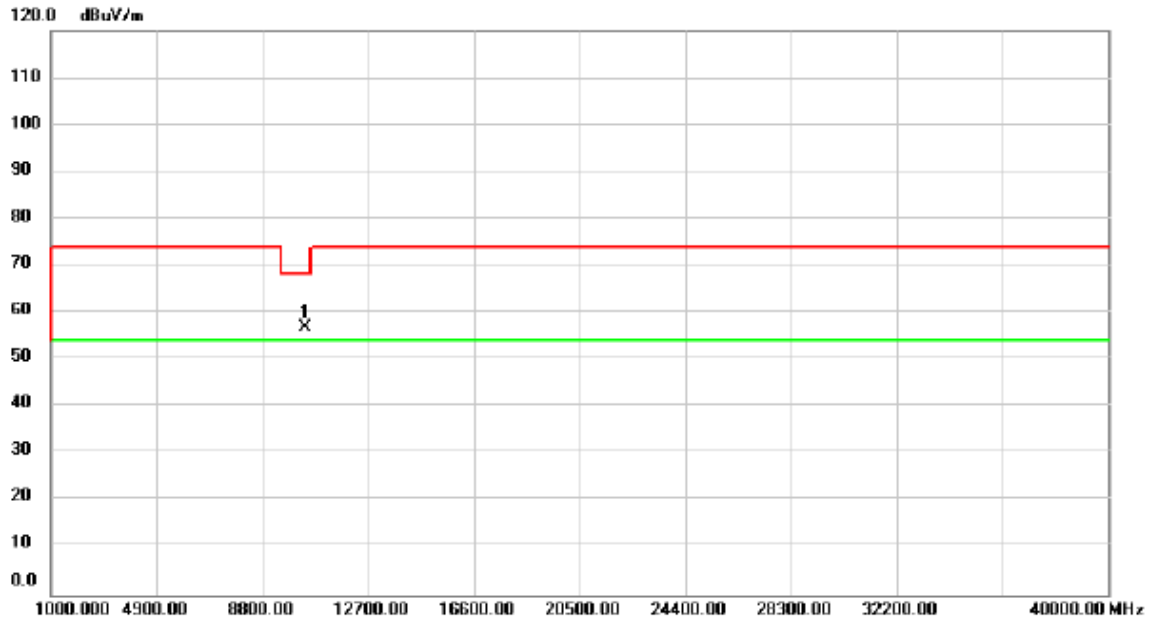
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	31.63	38.45	70.08	74.00	-3.92	peak	
2		5150.000	15.21	38.45	53.66	54.00	-0.34	AVG	
3	X	5180.000	71.63	38.48	110.11	74.00	36.11	peak	No Limit
4	*	5180.000	62.51	38.48	100.99	54.00	46.99	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Integral Antenna

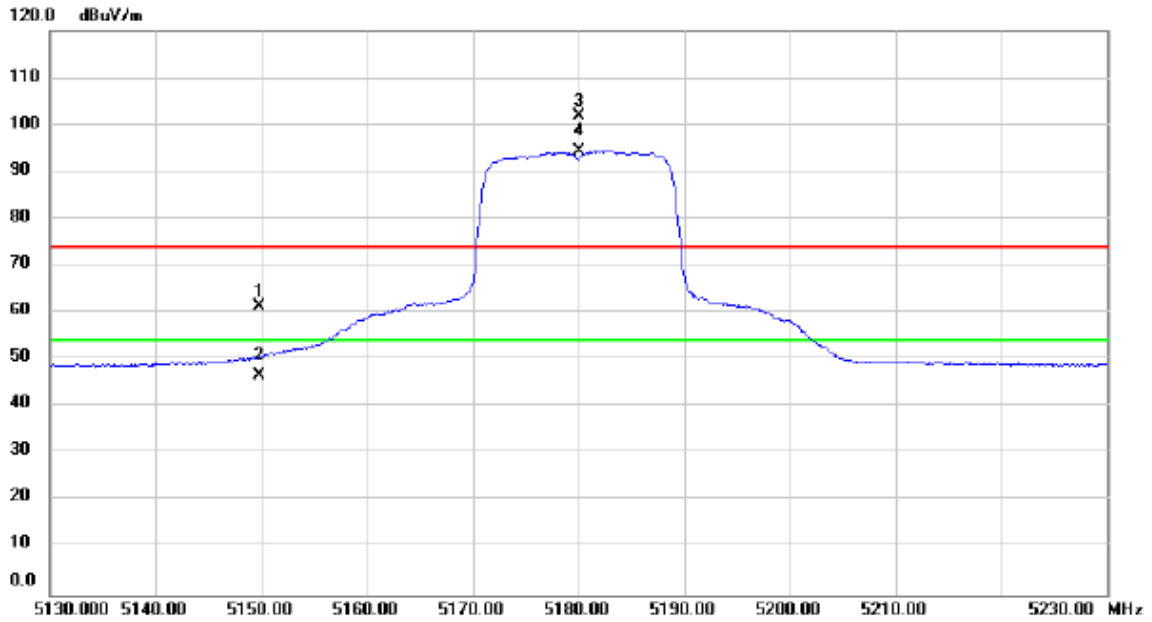
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10360.00	53.79	3.21	57.00	68.20	-11.20	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Integral Antenna

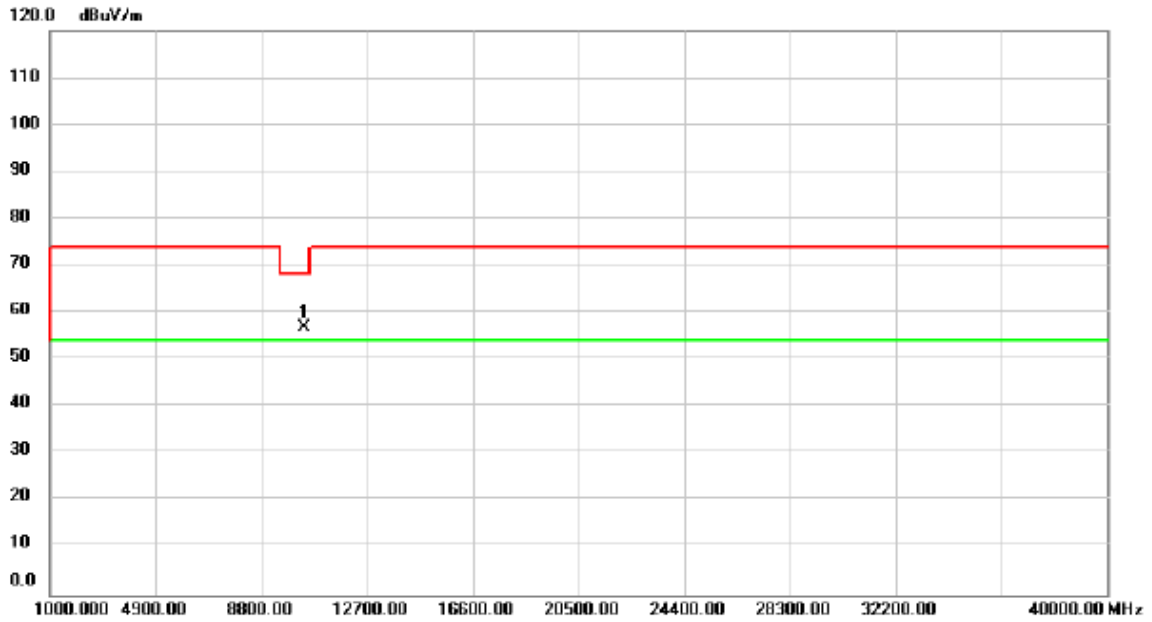
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.760	22.89	38.45	61.34	74.00	-12.66	peak	
2		5149.760	8.19	38.45	46.64	54.00	-7.36	AVG	
3	X	5180.000	63.48	38.48	101.96	74.00	27.96	peak	No Limit
4	*	5180.000	55.92	38.48	94.40	54.00	40.40	AVG	No Limit

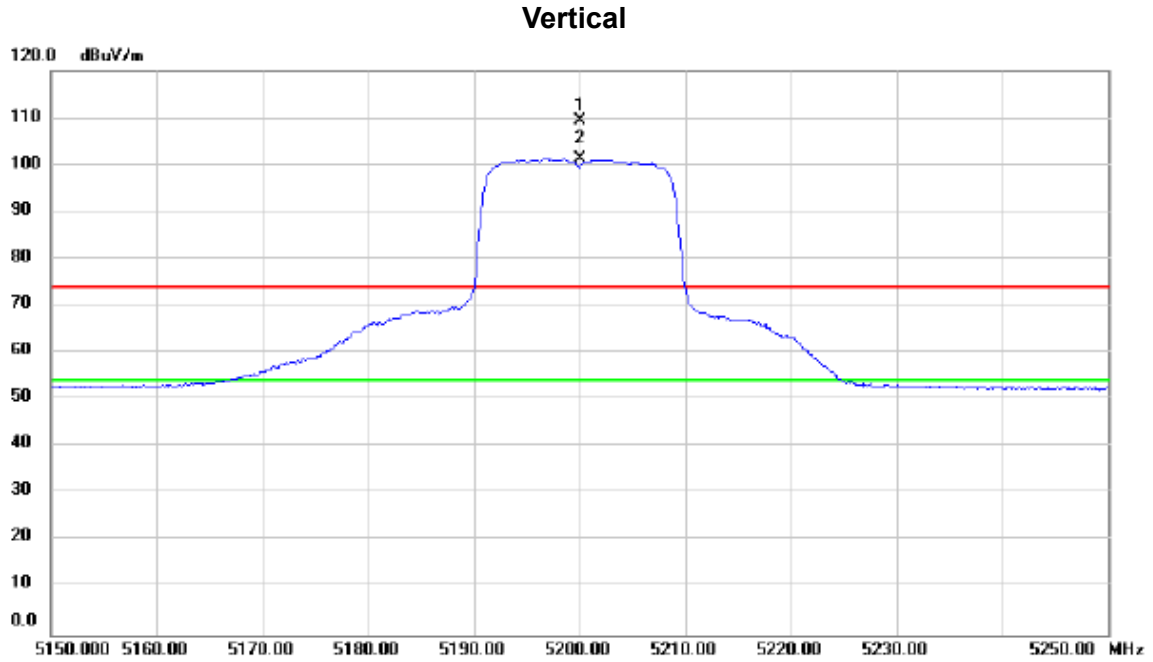
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5180MHz_Integral Antenna

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10360.00	53.62	3.21	56.83	68.20	-11.37	peak	

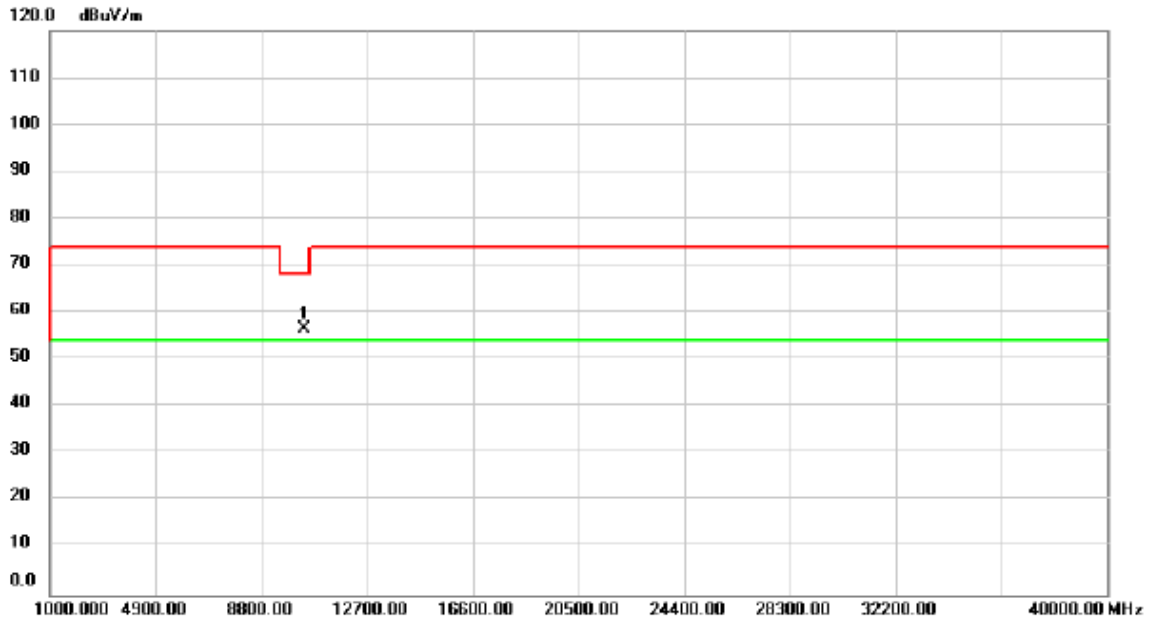
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz_Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	70.85	38.51	109.36	74.00	35.36	peak	No Limit
2	*	5200.000	62.74	38.51	101.25	54.00	47.25	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz_Integral Antenna

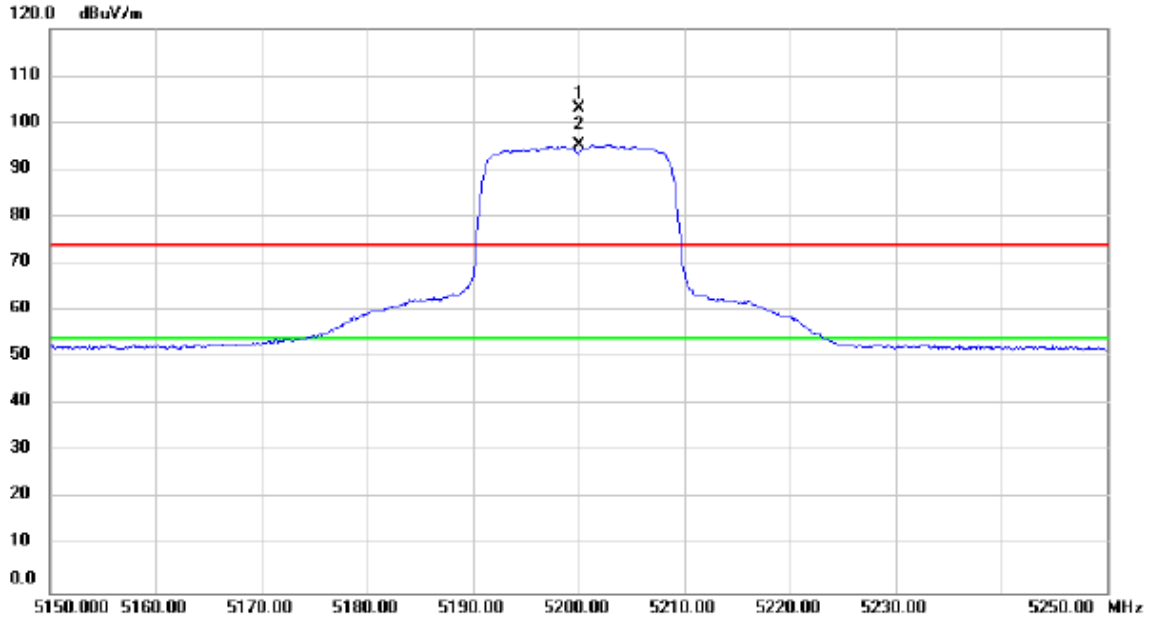
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	53.46	3.22	56.68	68.20	-11.52	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz _Integral Antenna

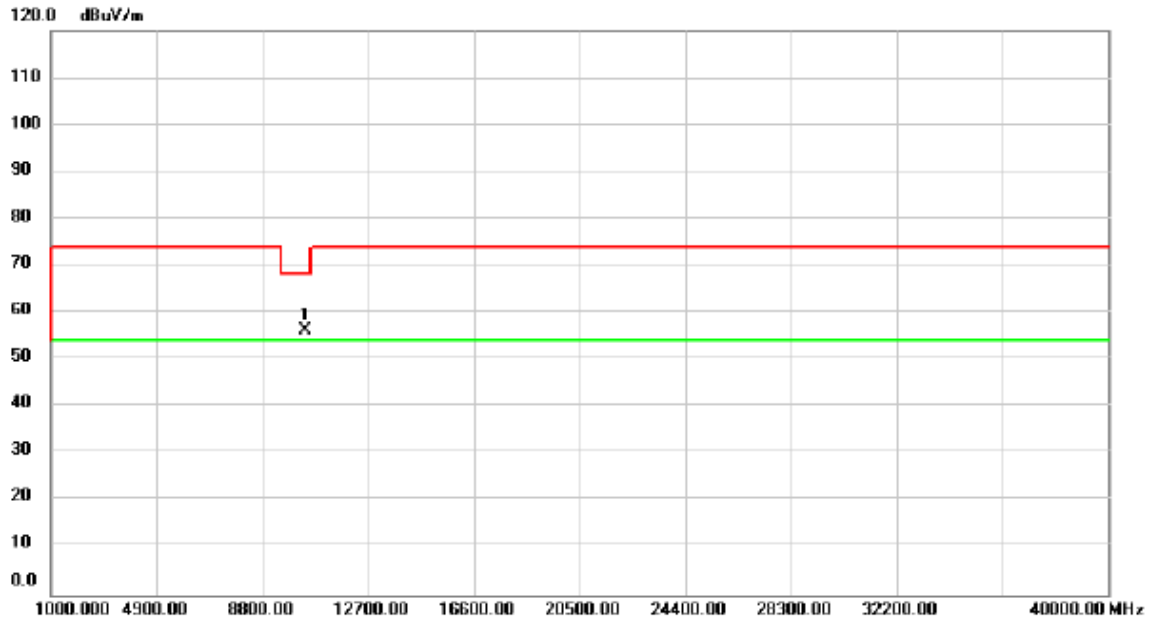
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5200.000	64.50	38.51	103.01	74.00	29.01	peak	No Limit
2	*	5200.000	56.68	38.51	95.19	54.00	41.19	AVG	No Limit

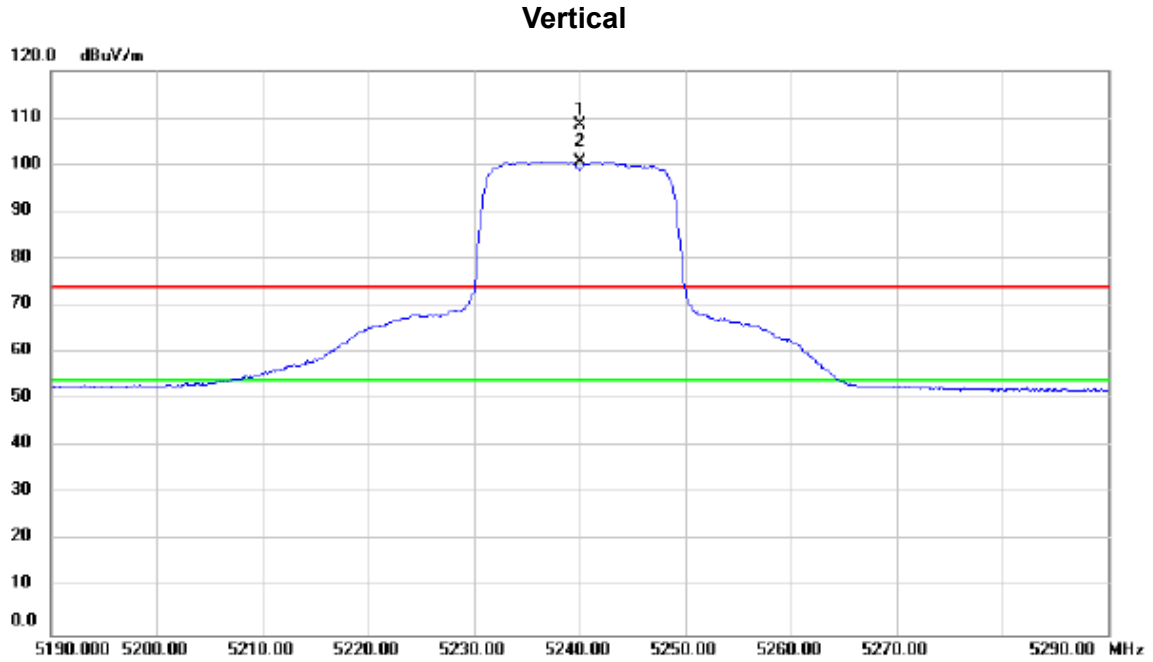
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5200MHz_Integral Antenna

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10400.00	53.08	3.22	56.30	68.20	-11.90	peak	

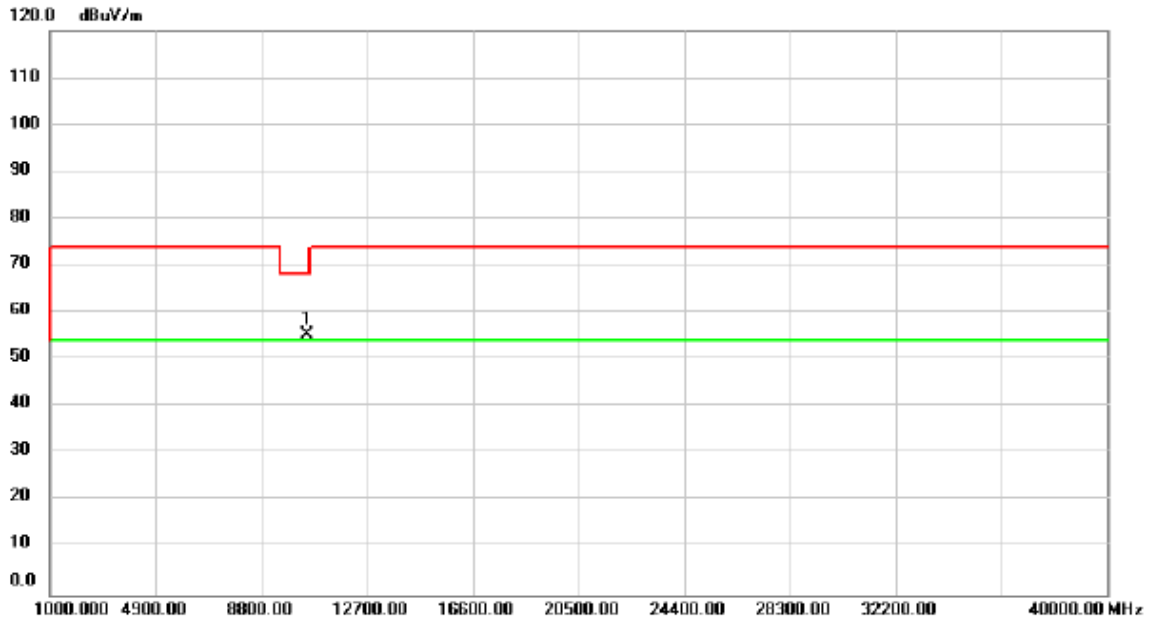
Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Integral Antenna



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	69.97	38.56	108.53	74.00	34.53	peak	No Limit
2	*	5240.000	62.22	38.56	100.78	54.00	46.78	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz_Integral Antenna

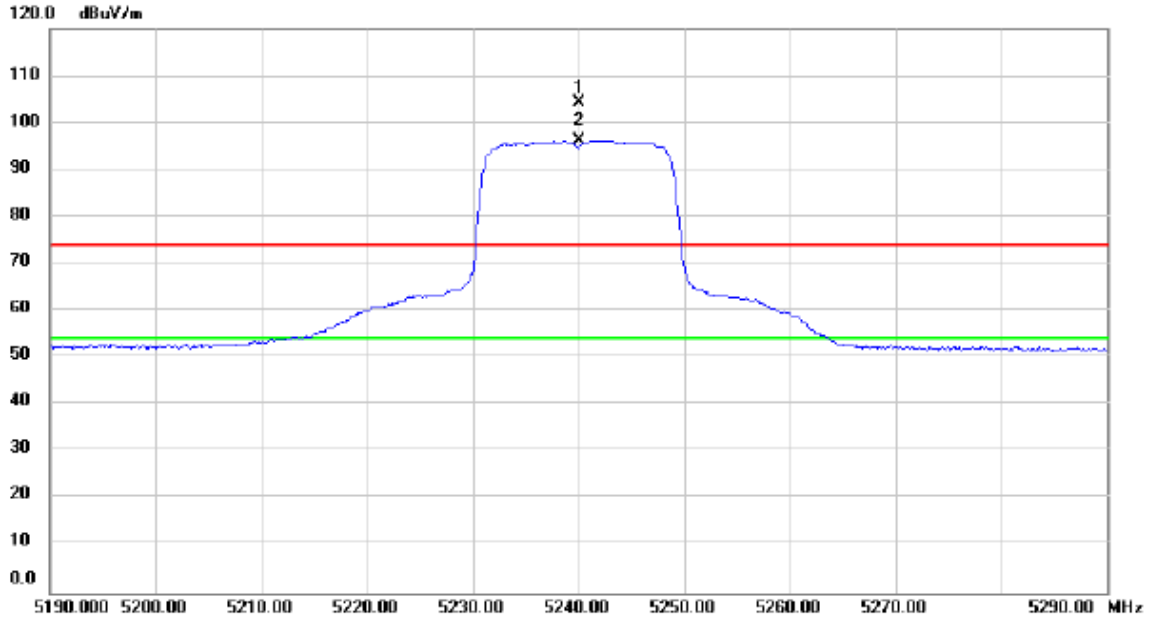
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	52.13	3.21	55.34	68.20	-12.86	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Integral Antenna

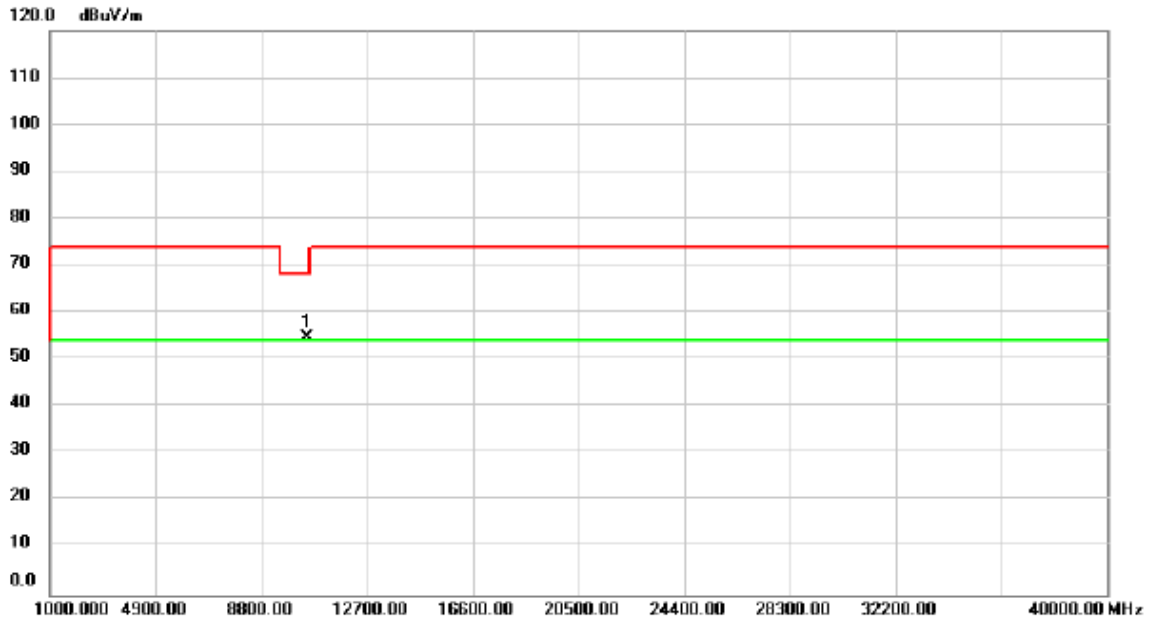
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	5240.000	65.69	38.56	104.25	74.00	30.25	peak	No Limit
2	*	5240.000	57.74	38.56	96.30	54.00	42.30	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N20 Mode 5240MHz _Integral Antenna

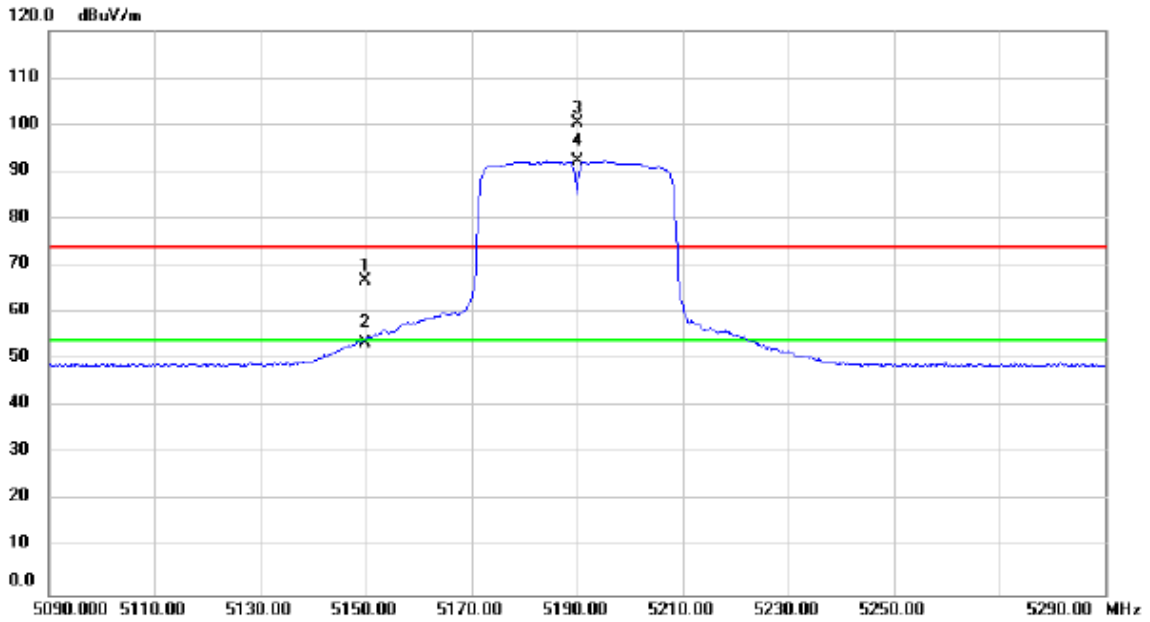
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10480.00	51.62	3.21	54.83	68.20	-13.37	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Integral Antenna

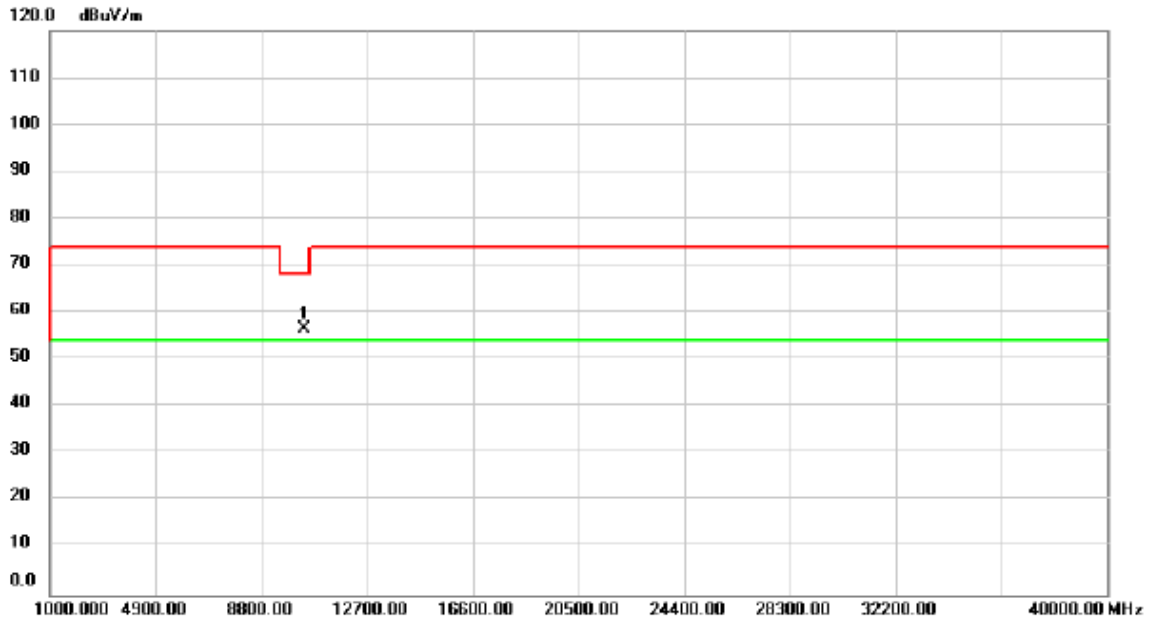
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5149.940	28.42	38.45	66.87	74.00	-7.13	peak	
2		5149.940	15.05	38.45	53.50	54.00	-0.50	AVG	
3	X	5190.000	61.84	38.50	100.34	74.00	26.34	peak	No Limit
4	*	5190.000	53.65	38.50	92.15	54.00	38.15	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Integral Antenna

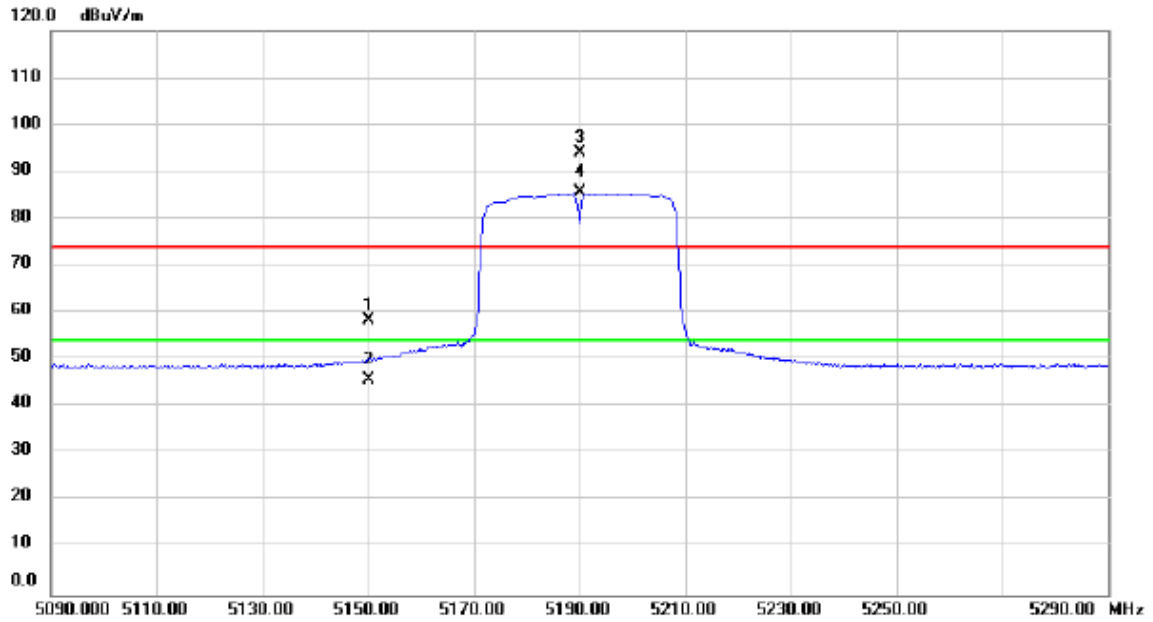
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10380.00	53.40	3.22	56.62	68.20	-11.58	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Integral Antenna

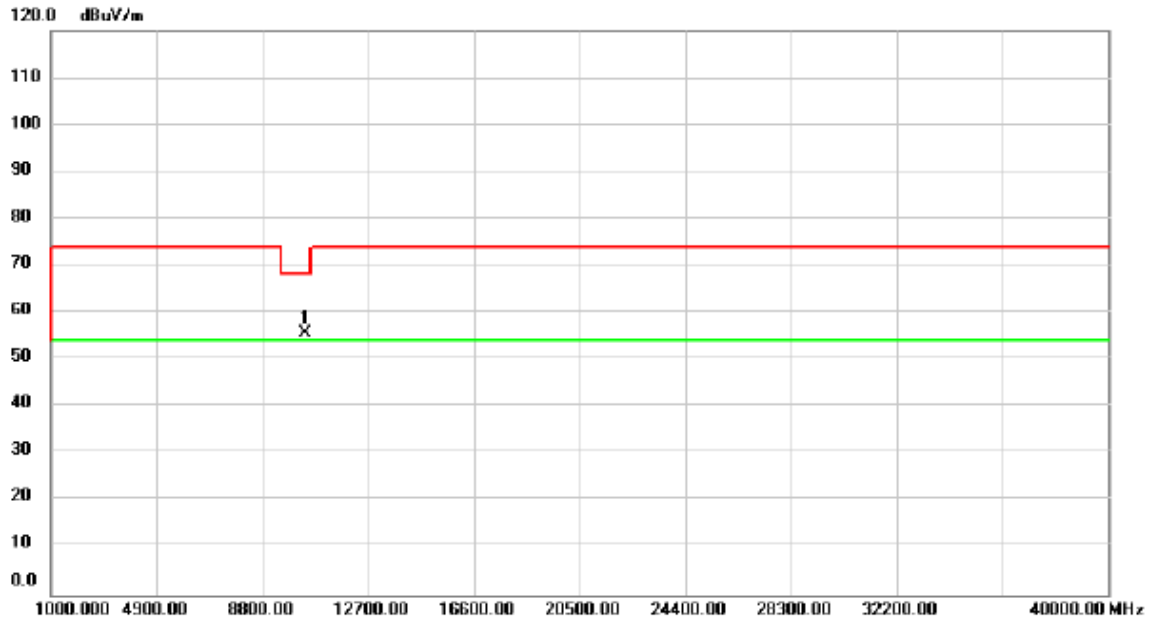
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5150.000	20.02	38.45	58.47	74.00	-15.53	peak	
2		5150.000	7.25	38.45	45.70	54.00	-8.30	AVG	
3	X	5190.000	55.65	38.50	94.15	74.00	20.15	peak	No Limit
4	*	5190.000	47.01	38.50	85.51	54.00	31.51	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5190MHz_Integral Antenna

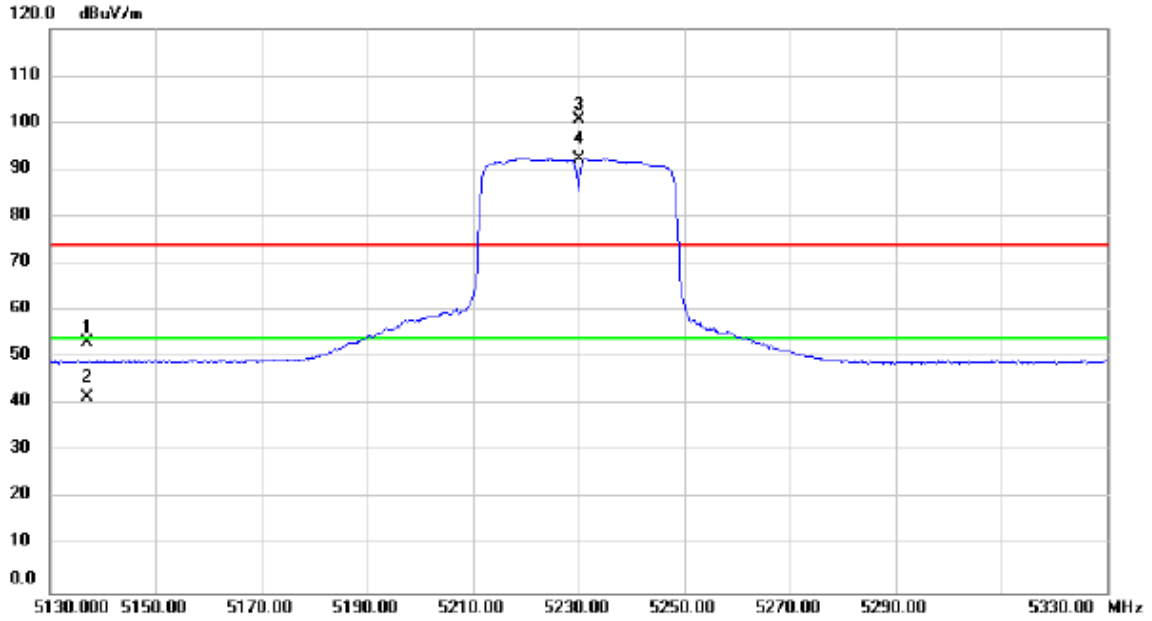
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10380.00	52.44	3.22	55.66	68.20	-12.54	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_ Integral Antenna

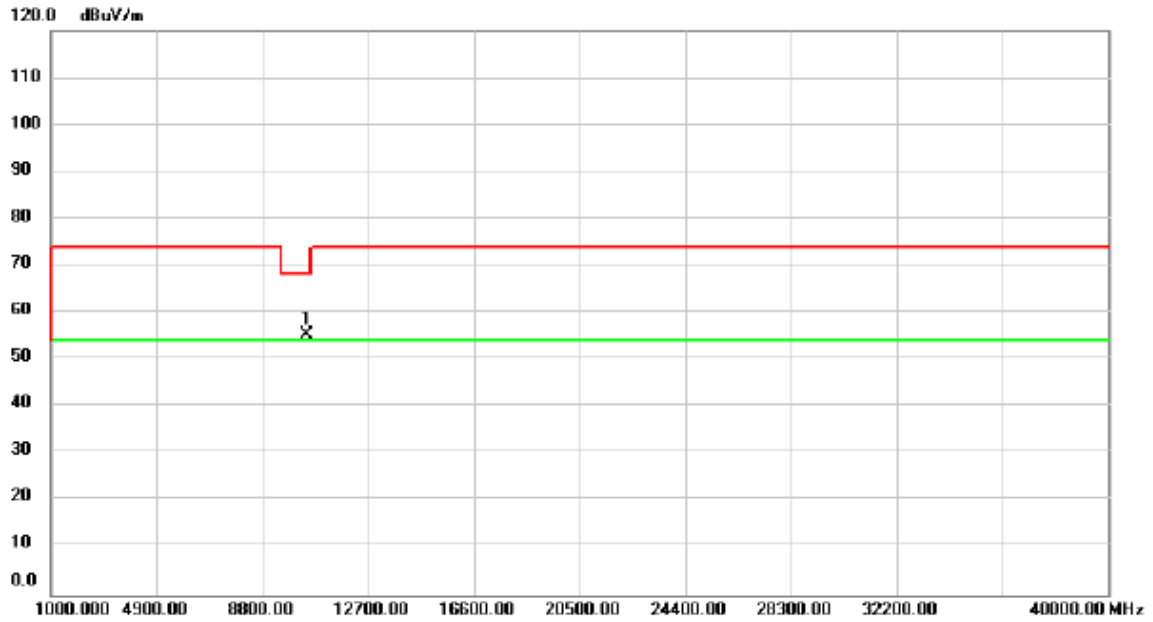
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5137.060	14.81	38.43	53.24	74.00	-20.76	peak	
2		5137.060	3.24	38.43	41.67	54.00	-12.33	AVG	
3	X	5230.000	62.15	38.54	100.69	74.00	26.69	peak	No Limit
4	*	5230.000	53.79	38.54	92.33	54.00	38.33	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Integral Antenna

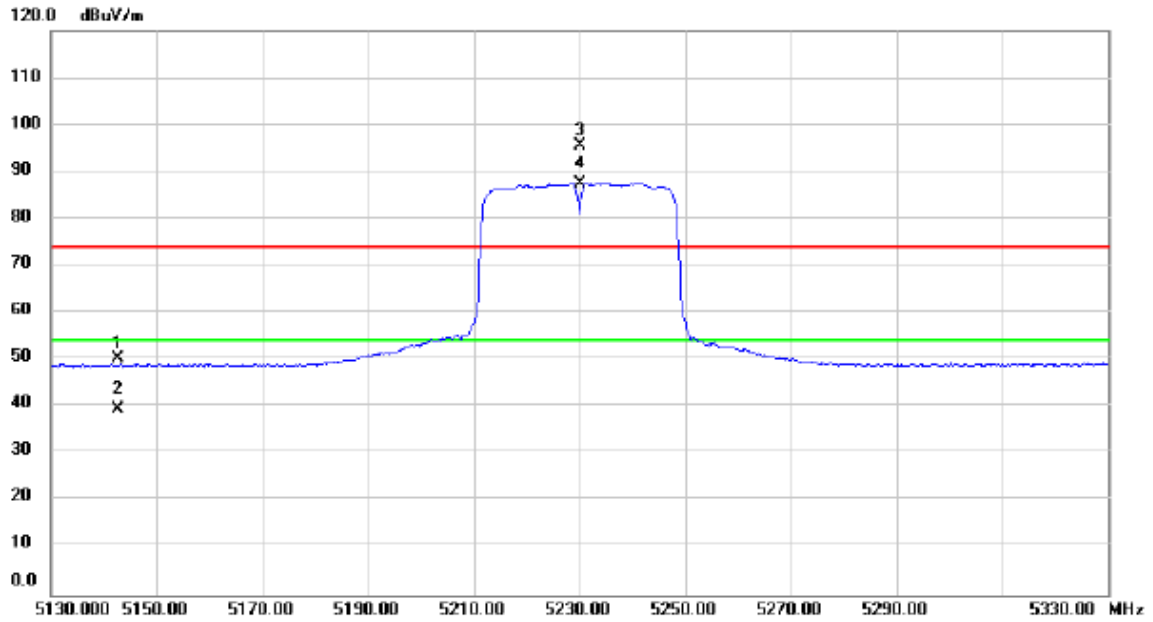
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	10460.00	52.06	3.21	55.27	68.20	-12.93	peak	

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Integral Antenna

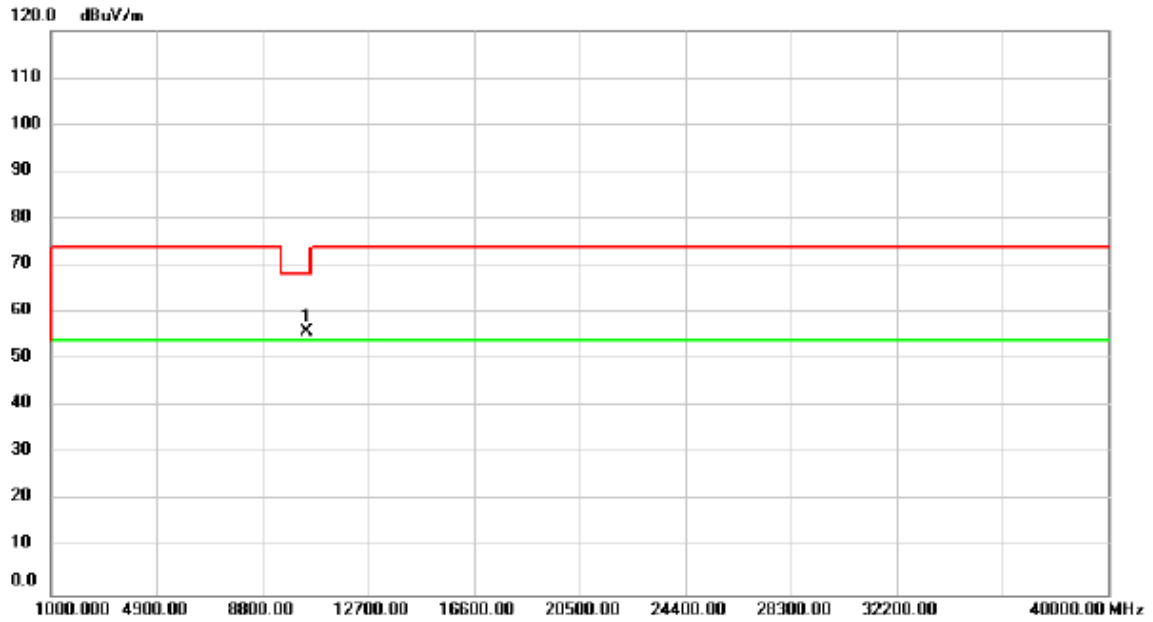
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		5142.760	11.71	38.44	50.15	74.00	-23.85	peak	
2		5142.760	1.05	38.44	39.49	54.00	-14.51	AVG	
3	X	5230.000	56.92	38.54	95.46	74.00	21.46	peak	No Limit
4	*	5230.000	49.04	38.54	87.58	54.00	33.58	AVG	No Limit

Orthogonal Axis:	X
Test Mode:	UNII-1/TX N40 Mode 5230MHz_Integral Antenna

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	10460.00	52.76	3.21	55.97	68.20	-12.23	peak	