

# FCC Radio Test Report

**FCC ID: 2AHKA-CAPRI125P**

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

**Project No.** : 1708C076  
**Equipment** : BT Speaker, Internet Radio  
**Test Model** : KAPSCH-H  
**Series Model** : KAPSCH CAPRI 125 PLUS  
**Applicant** : Guangzhou Rayer Acoustic Technology Co.,Ltd  
**Address** : 520.192 Kezhu Road,Guangzhou science park,  
Guangdong province

**Date of Receipt** : Aug. 04, 2017  
**Date of Test** : Aug. 04, 2017 ~ Sep. 22, 2017  
**Issued Date** : Sep. 25, 2017  
**Tested by** : BTL Inc.

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**NVLAP**  
Lab Code: 200788-0

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### REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-3-1708C076	Original Issue.	Sep. 25, 2017

## 1. CERTIFICATION

Equipment : BT Speaker, Internet Radio  
Brand Name : KAPSCH  
Test Model : KAPSCH-H  
Series Model : KAPSCH CAPRI 125 PLUS  
Applicant : Guangzhou Rayer Acoustic Technology Co.,Ltd  
Manufacturer : Guangzhou Rayer Acoustic Technology Co.,Ltd  
Address : 520.192 Kezhu Road,Guangzhou science park,Guangdong province  
Factory : 1# Guangzhou Singulargold Electronics Co.Ltd  
2# Dah Dyi Audio Equipment Co., Ltd.  
3# DongGuanHuaZhuang Electronics Co.,LTD  
Address : 1# NO.6 LianhuayanRoad,Sciencepark,guangZhou,China  
2# Jin San Jiao Ind. Zone, Shi Bu Village,Liao Bu Town, Dong Guan City,  
Guang Dong Province, China  
3# NO.3 Sanjiang Industrial Zone.HengliTown,DongguanCity,Guangdong  
Province, China  
Date of Test : Aug. 04, 2017 ~ Sep. 22, 2017  
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.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-3-1708C076) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP according to the ISO-17025 quality assessment standard and technical standard(s).

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)			
Standard(s) Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.407(a)	26dB Spectrum Bandwidth	PASS	
15.407(a)	Maximum Conducted Output Power	PASS	
15.407(a)	Power Spectral Density	PASS	
15.407(a)	Radiated Emissions	PASS	
15.407(b)	Band Edge Emissions	PASS	
15.407(g)	Frequency Stability	PASS	
15.203	Antenna Requirements	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 is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 854385

Designation number for FCC: CN5020

## 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  $U_{\text{CISPR}}$  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. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 KHz ~ 30MHz	1.94

### B. Radiated Measurement:

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	3.82
		30MHz ~ 200MHz	H	3.60
		200MHz ~ 1,000MHz	V	3.86
		200MHz ~ 1,000MHz	H	3.94
		1GHz~18GHz	V	3.12
		1GHz~18GHz	H	3.68
		18GHz~40GHz	V	4.15
		18GHz~40GHz	H	4.14

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	BT Speaker, Internet Radio	
Brand Name	KAPSCH	
Test Model	KAPSCH-H	
Series Model	KAPSCH CAPRI 125 PLUS	
Model Difference	Only differ in the model name and color.	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	150 Mbps
Power Source	DC Voltage supplied from AC/DC adapter. Brand / Model: FLYPOWER / PS30D180K1000UD	
Power Rating	I/P: 100-240V~ 50/60Hz 800mA    O/P: 18.0V --- 1000mA	
Output Power	Output Power (Max.)for UNII-1 (1TX)	802.11a: 5.20dBm 802.11n (20M): 4.24dBm

Note:

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

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

#### 3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	KAPSCH	N/A	PCB	N/A	5.5	N/A

### 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 Mode

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

For Conducted Test	
Final Test Mode	Description
Mode 3	TX Mode

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)

Note:

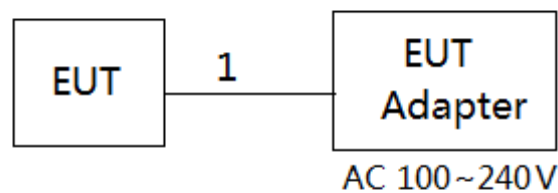
(1) For radiated below 1GHz test, the 802.11a mode is found to be the worst case and recorded.

### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

UNII-1 - 1TX			
Test Software Version	N/A		
Frequency (MHz)	5180	5200	5240
A Mode	N/A	N/A	N/A
Frequency (MHz)	5180	5200	5240
N20 Mode	N/A	N/A	N/A

### 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



### 3.5 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	YES	1.0M	DC CABLE

## 4. EMC EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150kHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

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

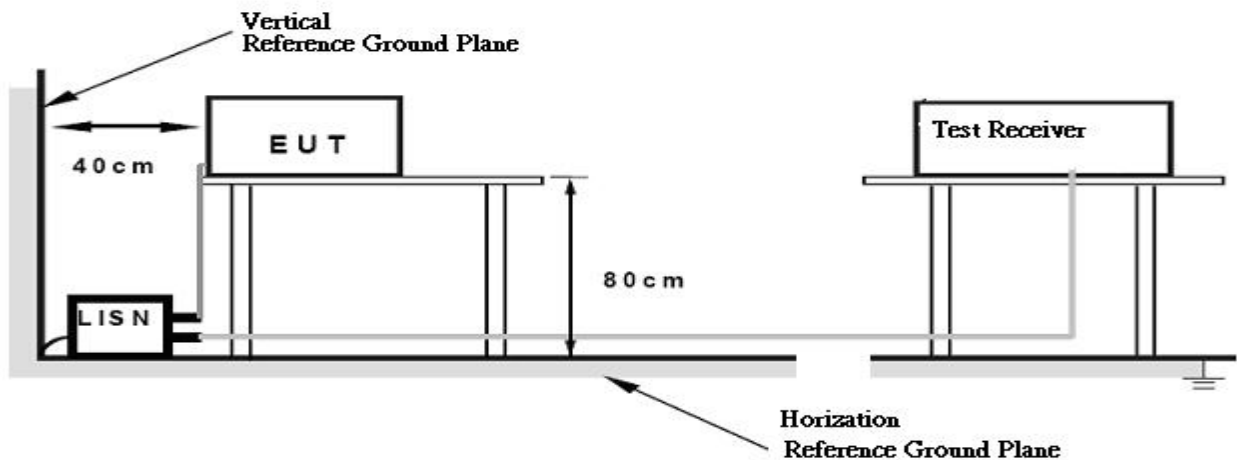
#### 4.1.2 TEST PROCEDURE

- 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 equipments 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.

#### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.1.4 TEST SETUP



#### 4.1.5 EUT OPERATING 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 mode.

#### 4.1.6 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 53%    Test Voltage: AC 120V/60Hz

#### 4.1.7 TEST RESULTS

Please refer to the Appendix A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “\*” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150kHz to 30MHz.

## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 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 (micorvolts/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

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5725	-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 FCC 16-24, 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 25MHz 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 27dBm/MHz at the band edge.

#### 4.2.2 TEST PROCEDURE

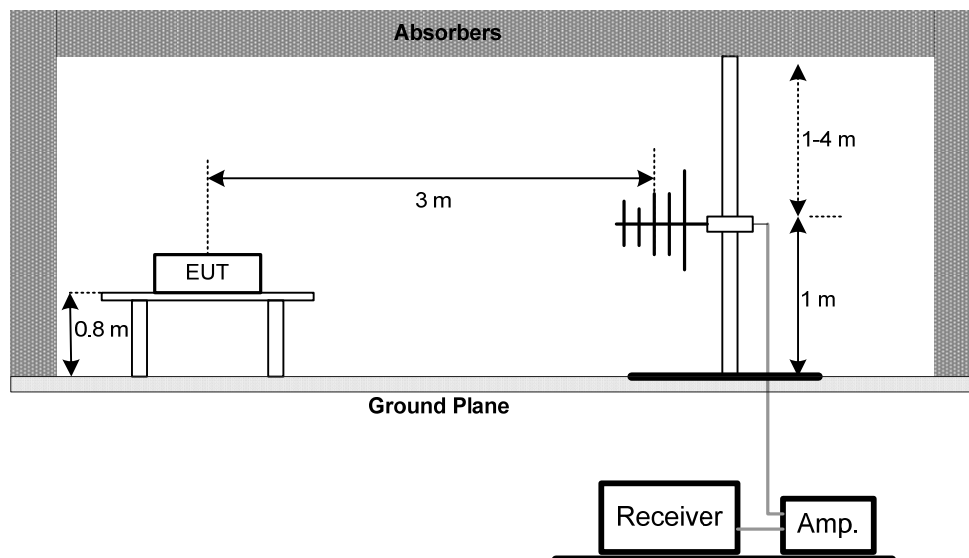
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of 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)
- 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.
- 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).
- 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.
- 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.
- 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 1GHz)
- 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)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

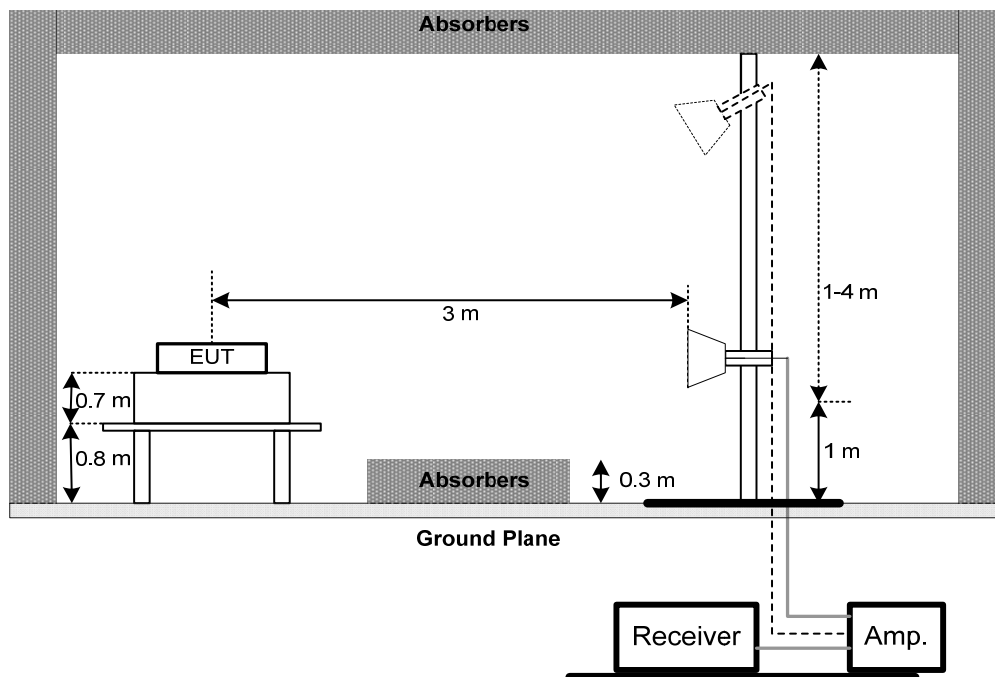
No deviation

#### 4.2.4 TEST SETUP

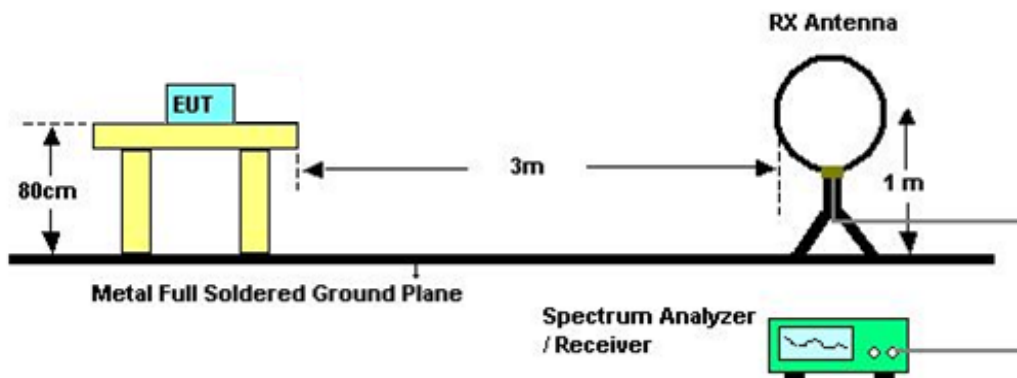
(A)Radiated Emission Test Set-Up Frequency Below 1GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(C) Radiated emissions below 30MHz



**4.2.5 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.

**4.2.6 EUT TEST CONDITIONS**

Temperature: 25°C    Relative Humidity: 60%    Test Voltage: AC 120V/60Hz



#### **4.2.7 TEST RESULTS (9K TO 30MHz)**

Please refer to the Appendix B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance})$  (dB);
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

#### **4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)**

Please refer to the Appendix C.

#### **4.2.9 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. 26dB SPECTRUM BANDWIDTH

### 5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Bandwidth	26 dB Bandwidth	5150-5250	PASS

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

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

#### 5.1.2 DEVIATION FROM STANDARD

No deviation.

#### 5.1.3 TEST SETUP



#### 5.1.4 EUT OPERATION 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.

#### 5.1.5 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 60%    Test Voltage: AC 120V/60Hz

#### 5.1.6 TEST RESULTS

Please refer to the Appendix E.

## 6. MAXIMUM CONDUCTED OUTPUT POWER

### 6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Conducted Output Power	Fixed:1 Watt (30dBm) Mobile and portable: 250mW (24dBm)	5150-5250	PASS
Note: The maximum e.i.r.p at anyelevation angle above 30 degrees as measured from the horizon must not exceed 125mW(21dBm)			

#### 6.1.1 TEST PROCEDURE

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	$\geq$ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

- c. Test was performed in accordance with method of KDB 789033 D02.

#### 6.1.2 DEVIATION FROM STANDARD

No deviation.

#### 6.1.3 TEST SETUP



#### 6.1.4 EUT OPERATION 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.

#### 6.1.5 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 60%    Test Voltage: AC 120V/60Hz

#### 6.1.6 TEST RESULTS

Please refer to the Appendix F.

## 7. POWER SPECTRAL DENSITY TEST

### 7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	Other then Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz	5150-5250	PASS

### 8.1.1 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 Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
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 v01r02, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.
- The value measured with RBW=1MHz is to be added with  $10\log(500\text{kHz}/1\text{MHz})$  which is -3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is

#### 7.1.1 DEVIATION FROM STANDARD

No deviation.

#### 7.1.2 TEST SETUP



#### 7.1.3 EUT OPERATION 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.

#### 7.1.4 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 60%    Test Voltage: AC 120V/60Hz

#### 7.1.5 TEST RESULTS

Please refer to the Appendix H.

## 8. FREQUENCY STABILITY MEASUREMENT

### 8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Frequency Stability	Specified in the user's manual	5150-5250	PASS

#### 8.1.1 TEST PROCEDURE

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

b.

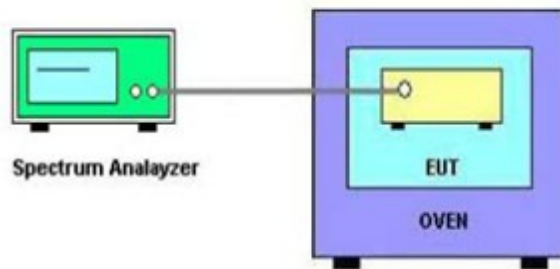
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.  
d. User manual temperature is 0°C~45°C.

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

### 8.1.3 TEST SETUP



### 8.1.4 EUT OPERATION 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.

### 8.1.5 EUT TEST CONDITIONS

Temperature: 25°C    Relative Humidity: 55%    Test Voltage: AC 120V/60Hz

### 8.1.6 TEST RESULTS

Please refer to the Appendix I.



## 9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	0052765	Mar. 26, 2018
2	LISN	R&S	ENV216	101447	Mar. 26, 2018
3	Test Cable	emci	RG223(9KHz-30 MHz)	C_17	Sep. 03, 2018
4	EMI Test Receiver	R&S	ESCI	100382	Sep. 03, 2018
5	50Ω Terminator	SHX	TF2-3G-A	08122901	Mar. 09, 2018
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 26, 2018
2	Amplifier	HP	8447D	2944A09673	Oct. 20, 2017
3	Receiver	Agilent	N9038A	MY52130039	Sep. 03, 2018
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	Jun. 26, 2018
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	Amplifier	Agilent	8449B	3008A02274	Mar. 09, 2018
9	Receiver	Agilent	N9038A	MY52130039	Sep. 03, 2018
10	Antenna	EM	EM-6876-1	230	Jul. 07, 2018
11	Controller	CT	SC100	N/A	N/A
12	Controller	MF	MF-7802	MF780208416	N/A
13	Cable	emci	EMC104-SM-S M-12000(12m)	N/A	Jul. 05, 2018
14	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Apr. 24, 2018
15	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018
16	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 26, 2018
17	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	ANRITSU	ML2495A	1128009	Mar. 26, 2018
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	Mar. 26, 2018

Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Sep. 03, 2018

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Sep. 03, 2018
2	Precision Oven Tester	HOLINK	H-T-1F-D	BA03101701	May 21, 2018

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

## 10. EUT TEST PHOTOS

### Conducted Measurement Photos



## Radiated Measurement Photos

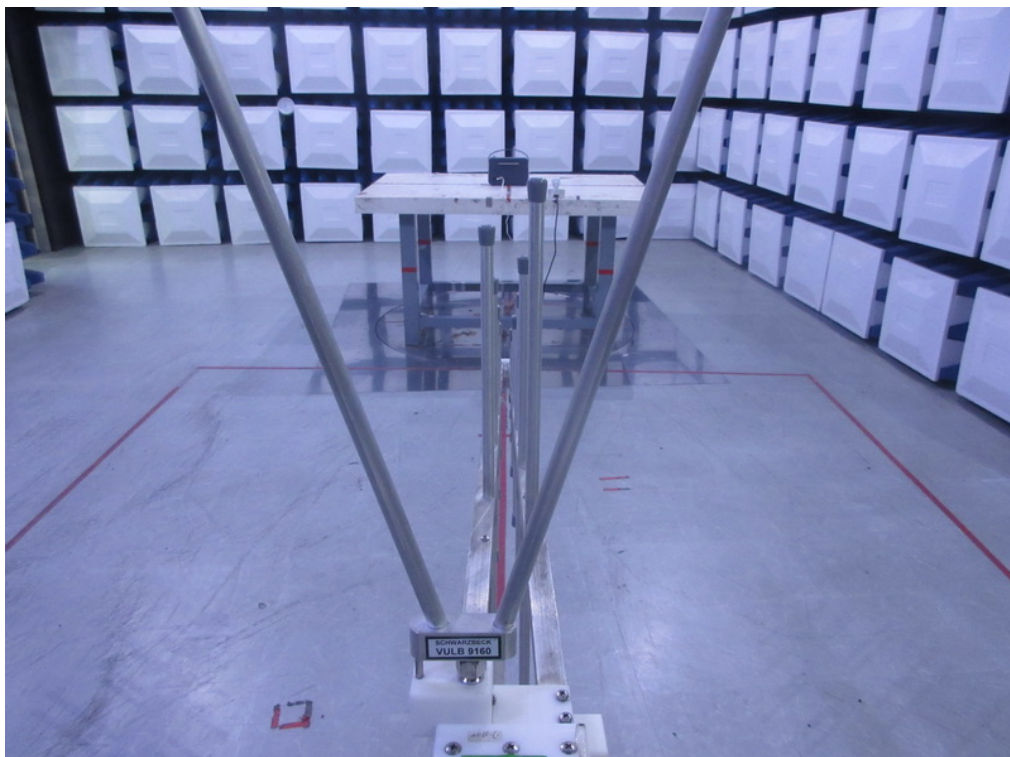
9kHz to 30MHz





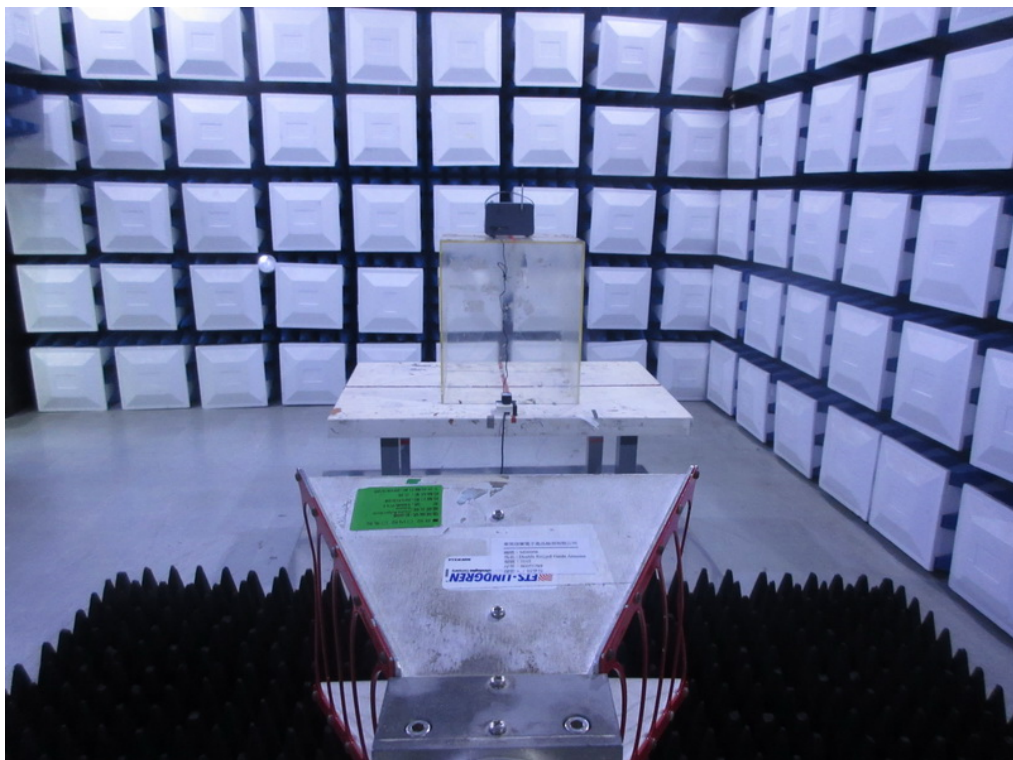
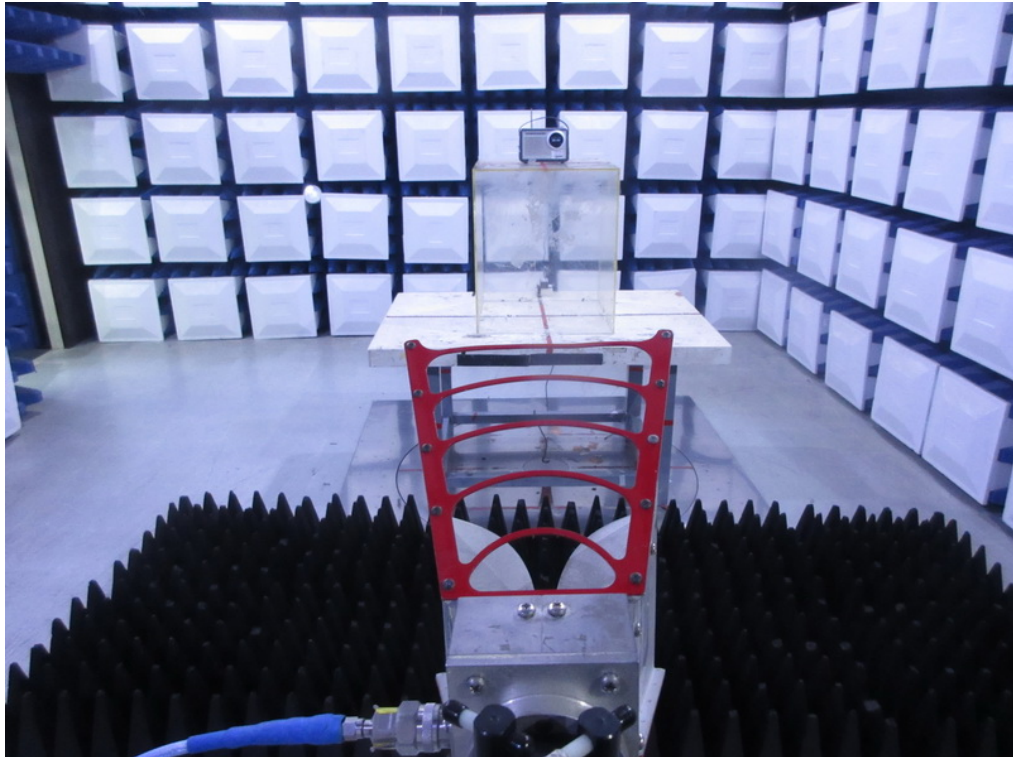
## Radiated Measurement Photos

30MHz to 1000MHz



## Radiated Measurement Photos

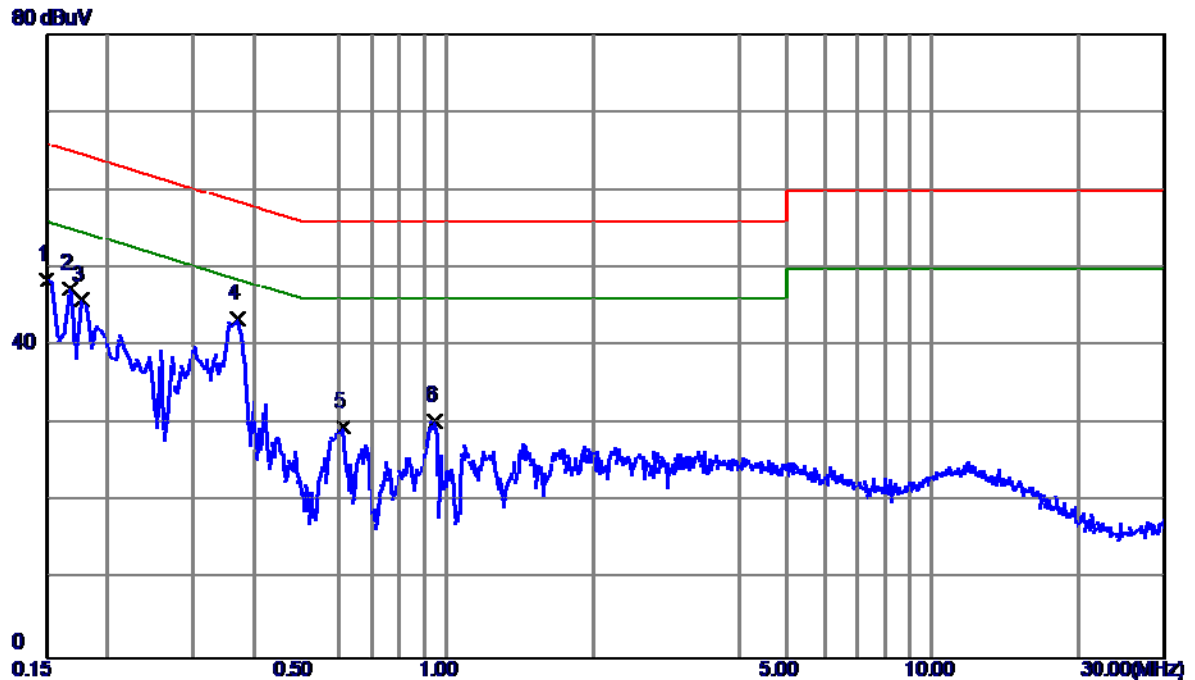
### Above 1000MHz



## APPENDIX A - CONDUCTED EMISSION

Test Mode: TX MODE (Adapter 1)

### Line



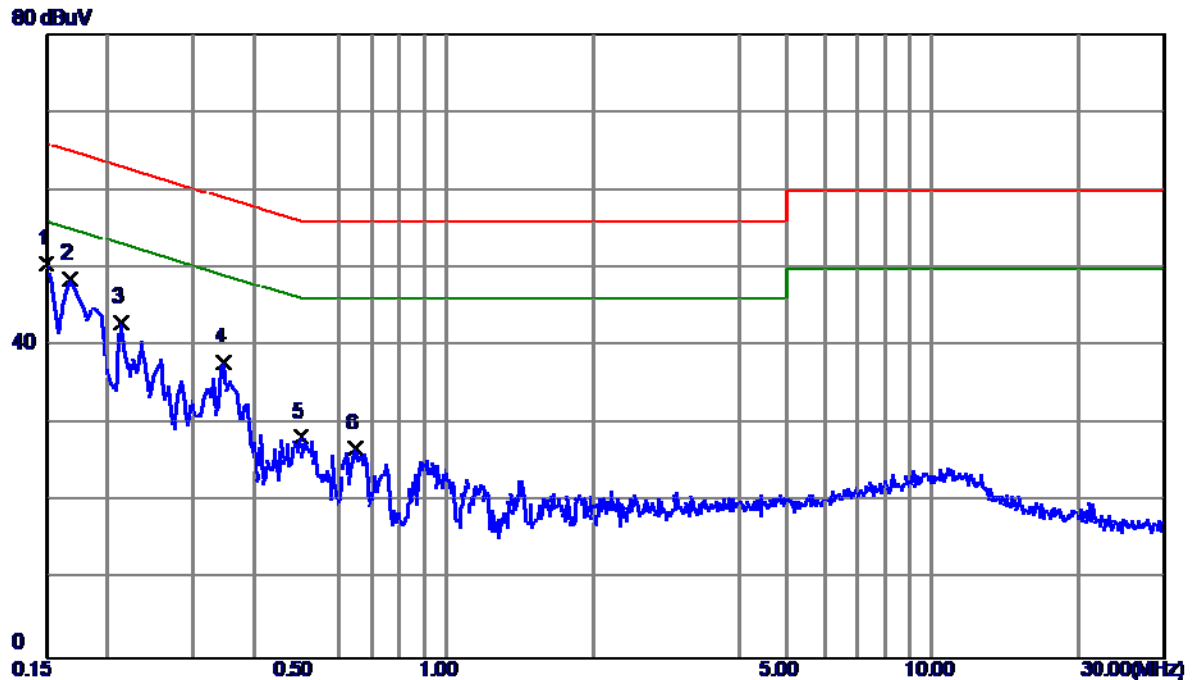
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1500	38.70	9.79	48.49	66.00	-17.51	Peak	
2	0.1680	37.52	9.78	47.30	65.06	-17.76	Peak	
3	0.1770	36.08	9.78	45.86	64.63	-18.77	Peak	
4 *	0.3704	33.67	9.79	43.46	58.49	-15.03	Peak	
5	0.6134	19.82	9.81	29.63	56.00	-26.37	Peak	
6	0.9465	20.61	9.85	30.46	56.00	-25.54	Peak	

Note : The test result has included the cable loss.



Test Mode: TX MODE (Adapter 1)

### Neutral



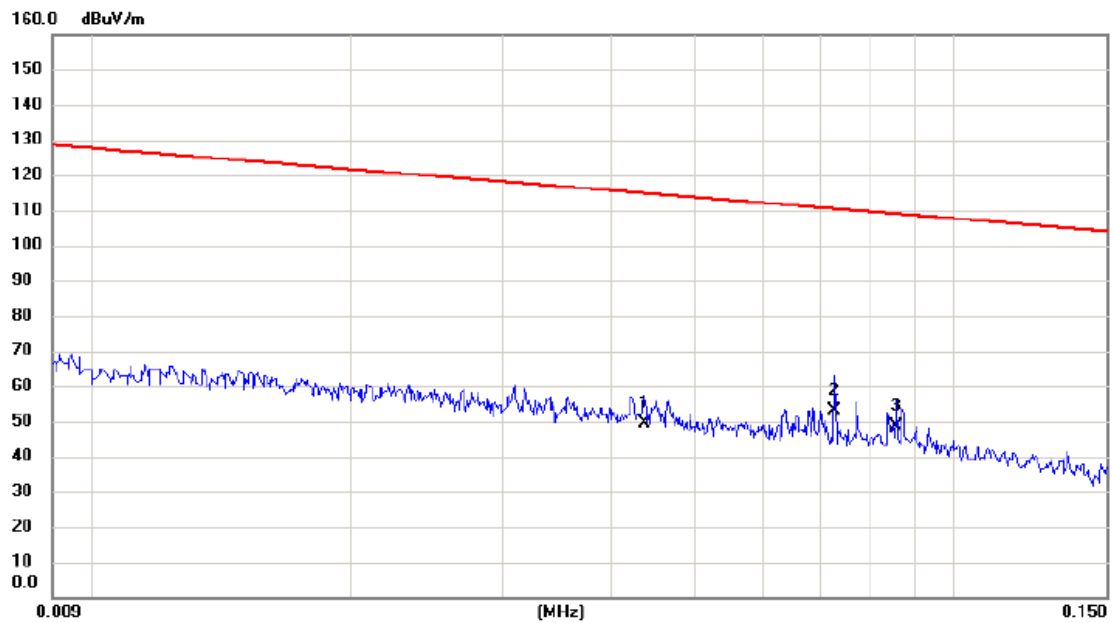
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1500	40.90	9.68	50.58	66.00	-15.42	Peak	
2	0.1680	38.91	9.68	48.59	65.06	-16.47	Peak	
3	0.2130	33.38	9.69	43.07	63.09	-20.02	Peak	
4	0.3480	28.22	9.70	37.92	59.01	-21.09	Peak	
5	0.5010	18.59	9.70	28.29	56.00	-27.71	Peak	
6	0.6495	17.11	9.71	26.82	56.00	-29.18	Peak	

Note : The test result has included the cable loss.

## APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode:	TX MODE (Adapter 1)
------------	---------------------

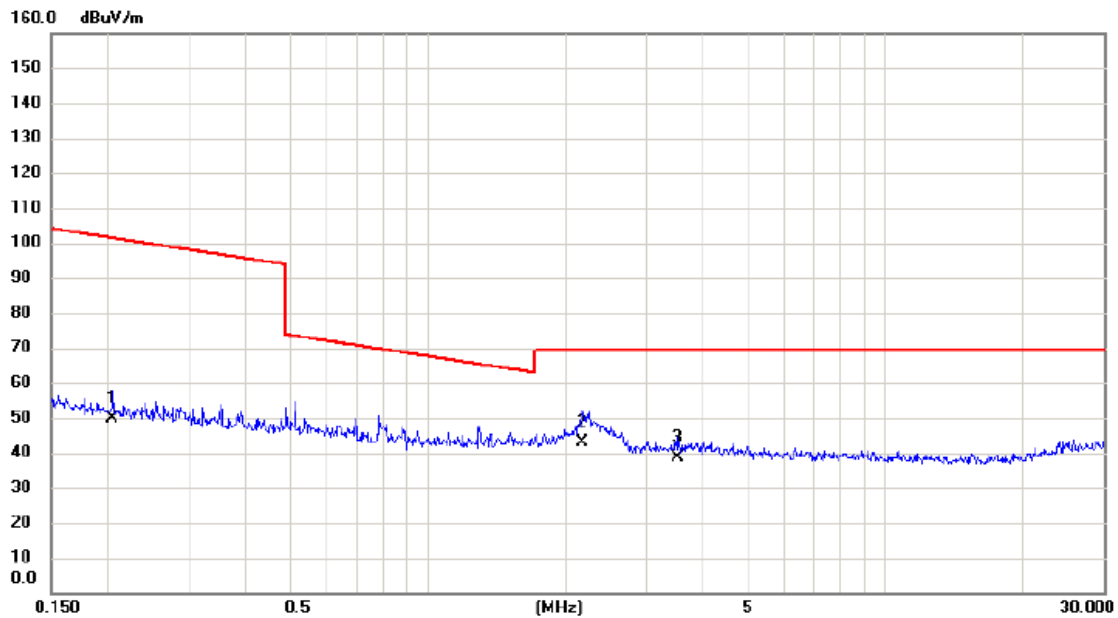
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0437	30.47	18.91	49.38	114.80	-65.42	AVG	
2	*	0.0726	34.86	18.28	53.14	110.39	-57.25	AVG	
3		0.0857	30.69	17.97	48.66	108.95	-60.29	AVG	

Test Mode: TX MODE (Adapter 1)

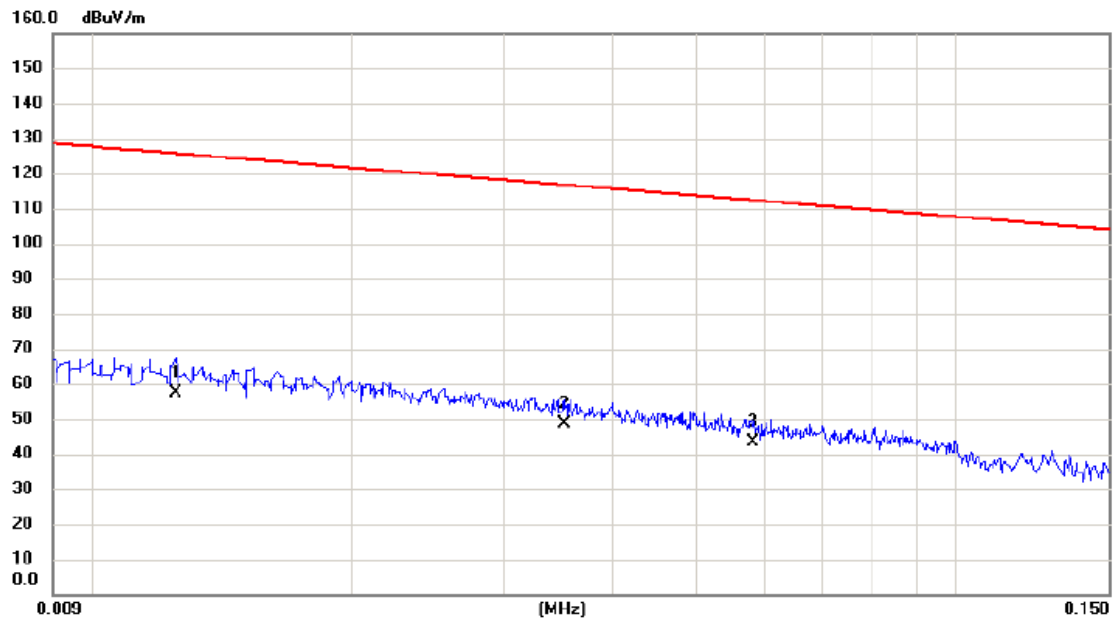
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2040	32.85	16.79	49.64	101.41	-51.77	AVG	
2	*	2.1783	27.45	15.46	42.91	69.54	-26.63	QP	
3		3.5278	23.69	15.08	38.77	69.54	-30.77	QP	

Test Mode: TX MODE (Adapter 1)

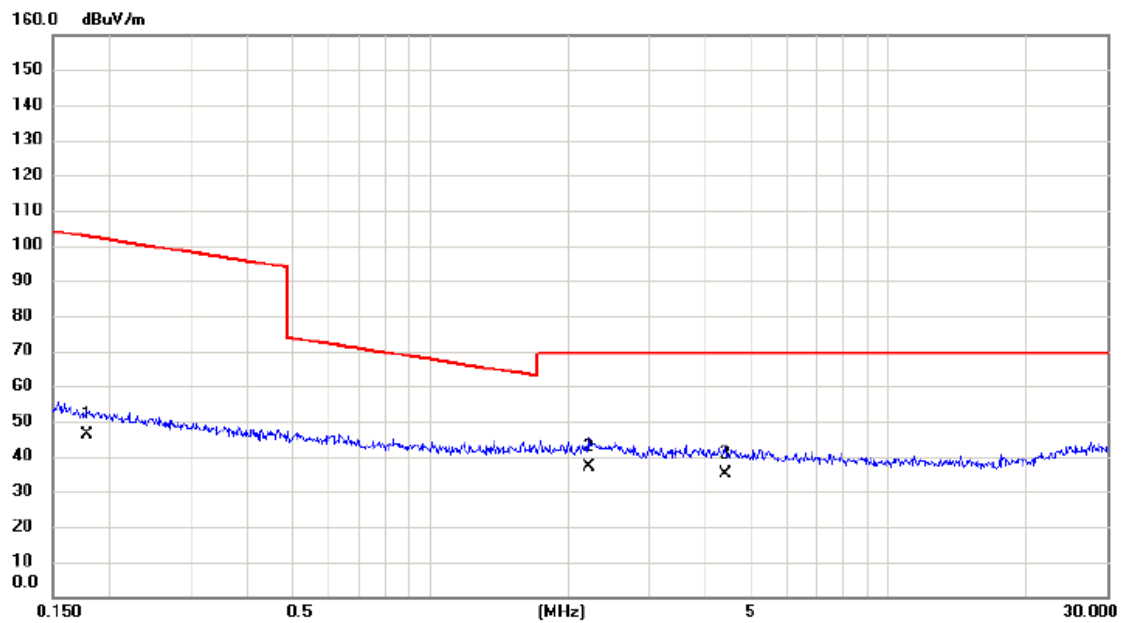
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0125	36.89	20.59	57.48	125.67	-68.19	AVG	
2	*	0.0352	29.35	19.16	48.51	116.67	-68.16	AVG	
3		0.0581	24.69	18.57	43.26	112.32	-69.06	AVG	

Test Mode: TX MODE (Adapter 1)

Ant 90°

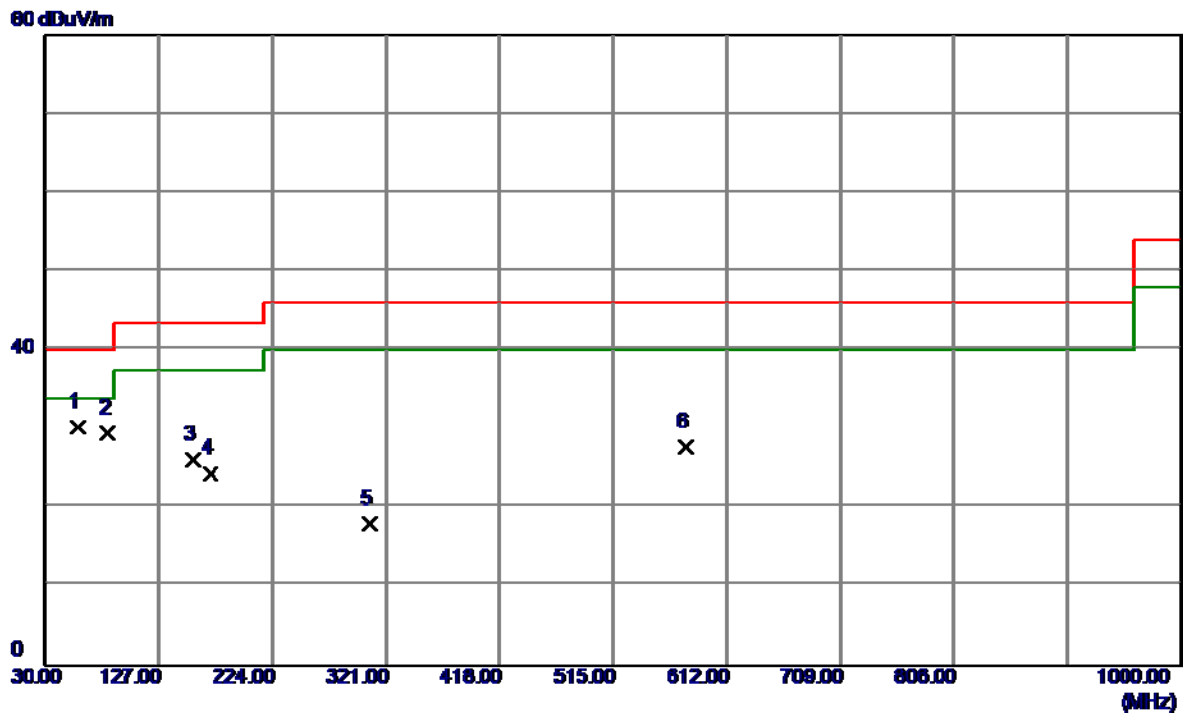


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.1787	29.45	16.86	46.31	102.56	-56.25	AVG	
2	*	2.2250	21.56	15.44	37.00	69.54	-32.54	QP	
3		4.4071	20.34	14.72	35.06	69.54	-34.48	QP	

## APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)

Test Mode: UNII-1/TX A Mode 5180MHz (Adapter 1)

Vertical

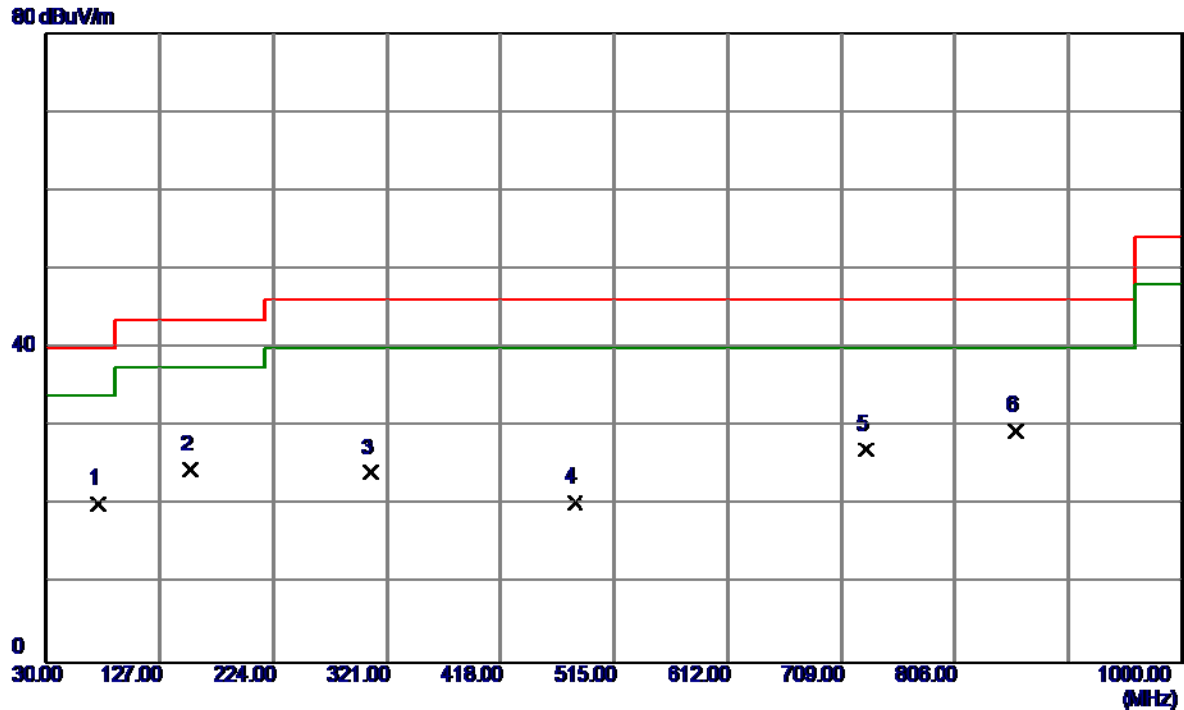


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	58.1300	44.41	-14.13	30.28	40.00	-9.72	Peak	
2	83.3500	47.84	-18.34	29.50	40.00	-10.50	Peak	
3	156.1000	39.26	-13.16	26.10	43.50	-17.40	Peak	
4	171.6200	36.67	-12.29	24.38	43.50	-19.12	Peak	
5	307.4200	30.65	-12.70	17.95	46.00	-28.05	Peak	
6	577.0800	34.64	-7.01	27.63	46.00	-18.37	Peak	



Test Mode: UNII-1/TX A Mode 5180MHz (Adapter 1)

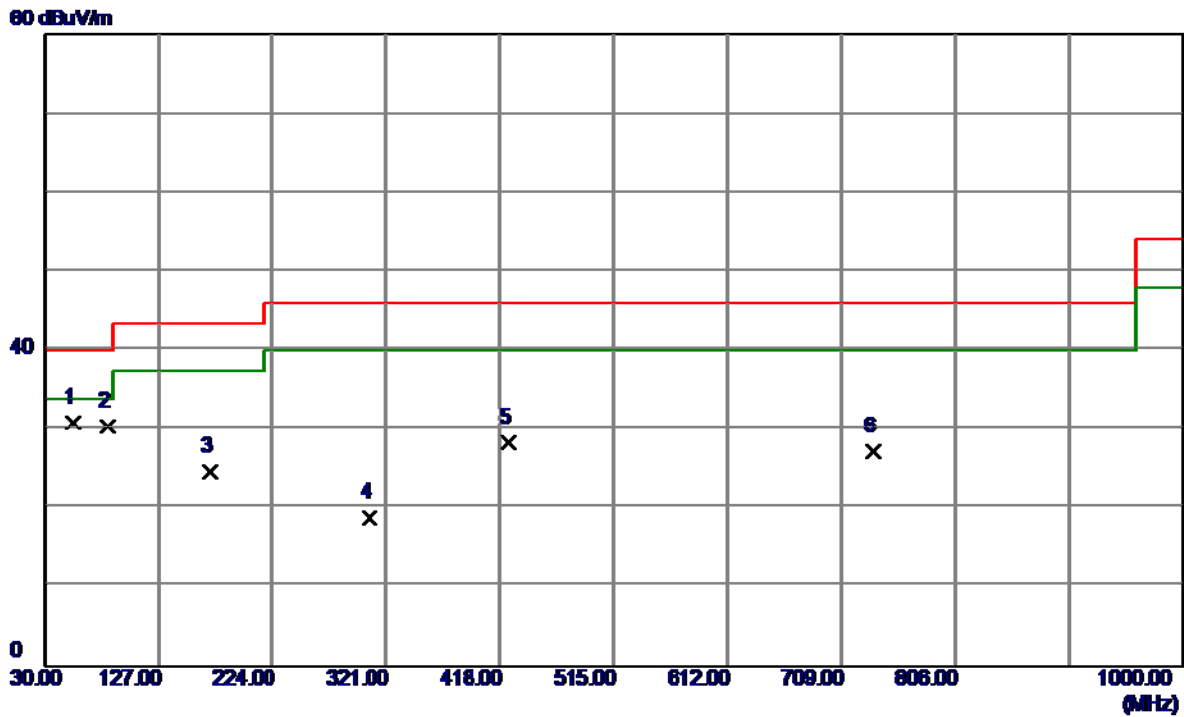
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	74.6200	37.21	-17.04	20.17	40.00	-19.83	Peak	
2	153.1900	37.77	-13.34	24.43	43.50	-19.07	Peak	
3	307.4200	36.78	-12.70	24.08	46.00	-21.92	Peak	
4	481.0500	29.52	-9.18	20.34	46.00	-25.66	Peak	
5	730.3400	30.06	-3.03	27.03	46.00	-18.97	Peak	
6 *	857.4100	29.29	0.15	29.44	46.00	-16.56	Peak	

Test Mode: UNII-1/TX A Mode 5200MHz (Adapter 1)

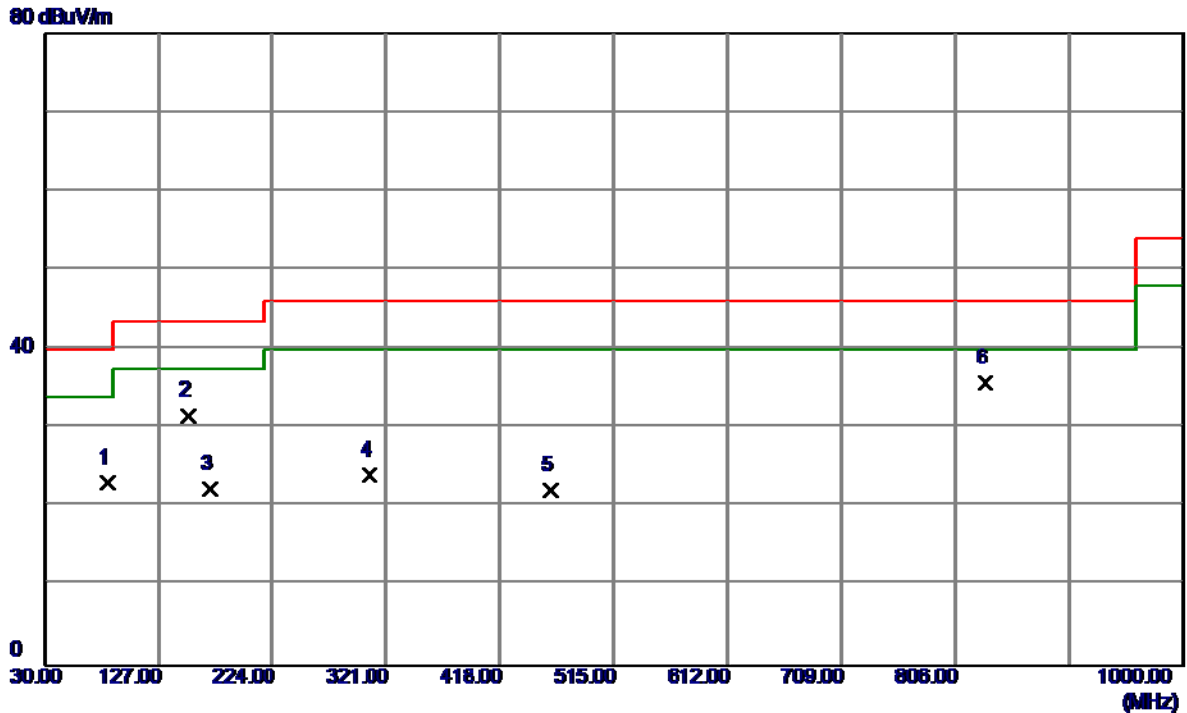
**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	55.2200	44.81	-13.94	30.87	40.00	-9.13	Peak	
2	84.3200	48.78	-18.37	30.41	40.00	-9.59	Peak	
3	171.6200	36.96	-12.29	24.67	43.50	-18.83	Peak	
4	307.4200	31.60	-12.70	18.90	46.00	-27.10	Peak	
5	425.7600	38.99	-10.63	28.36	46.00	-17.64	Peak	
6	736.1599	29.99	-2.86	27.13	46.00	-18.87	Peak	

Test Mode: UNII-1/TX A Mode 5200MHz (Adapter 1)

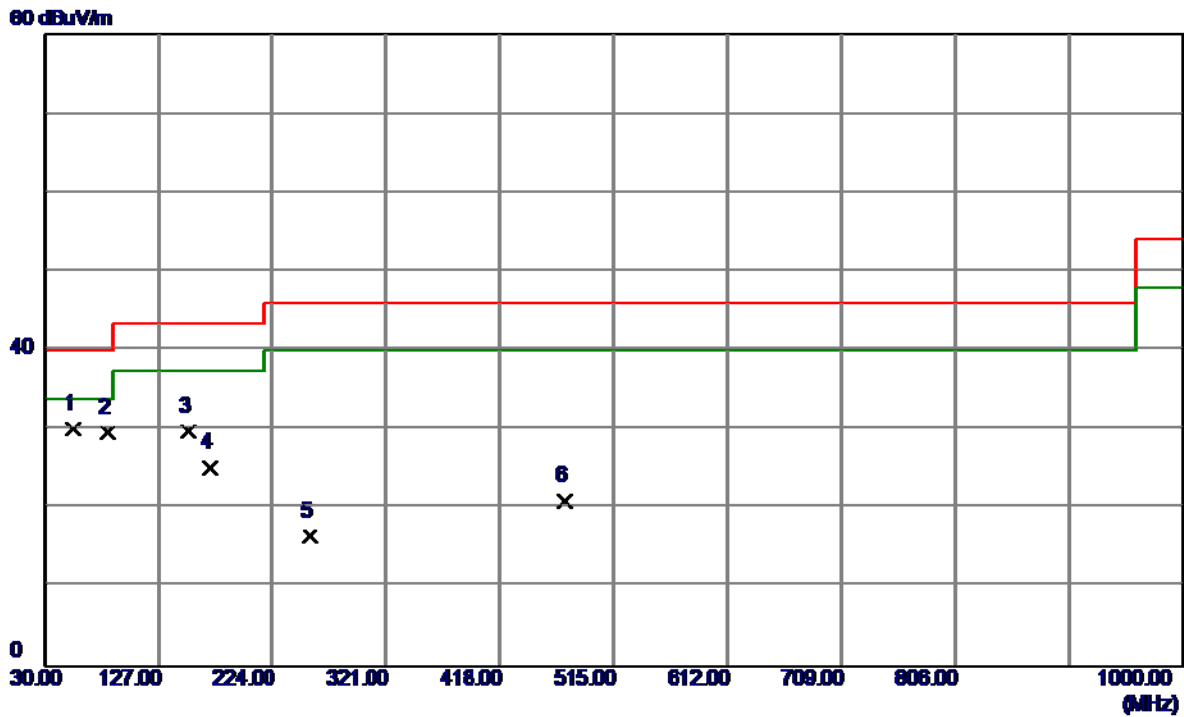
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	84.3200	41.43	-18.37	23.06	40.00	-16.94	Peak	
2	153.1900	44.79	-13.34	31.45	43.50	-12.05	Peak	
3	171.6200	34.60	-12.29	22.31	43.50	-21.19	Peak	
4	307.4200	36.69	-12.70	23.99	46.00	-22.01	Peak	
5	460.6800	31.70	-9.68	22.02	46.00	-23.98	Peak	
6 *	832.1900	36.11	-0.48	35.63	46.00	-10.37	Peak	

Test Mode: UNII-1/TX A Mode 5240MHz (Adapter 1)

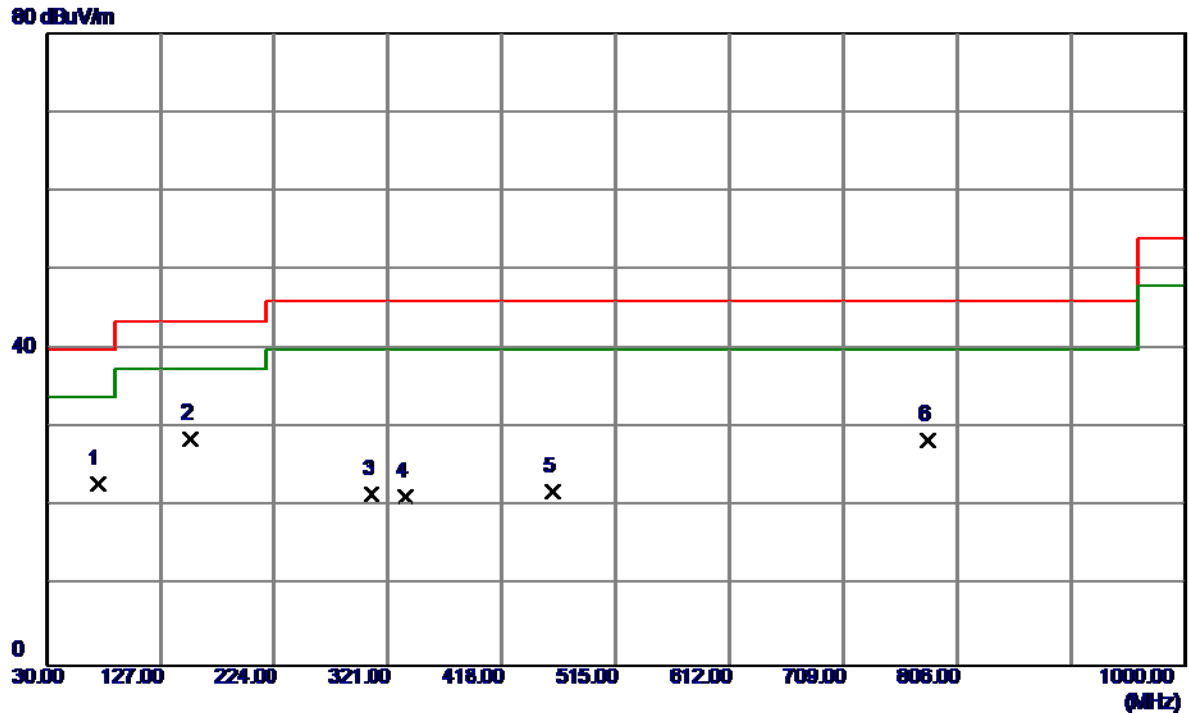
**Vertical**



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	55.2200	43.97	-13.94	30.03	40.00	-9.97	Peak	
2	84.3200	47.90	-18.37	29.53	40.00	-10.47	Peak	
3	153.1900	43.11	-13.34	29.77	43.50	-13.73	Peak	
4	171.6200	37.37	-12.29	25.08	43.50	-18.42	Peak	
5	256.0100	31.90	-15.38	16.52	46.00	-29.48	Peak	
6	473.2900	30.38	-9.37	21.01	46.00	-24.99	Peak	

Test Mode: UNII-1/TX A Mode 5240MHz (Adapter 1)

**Horizontal**

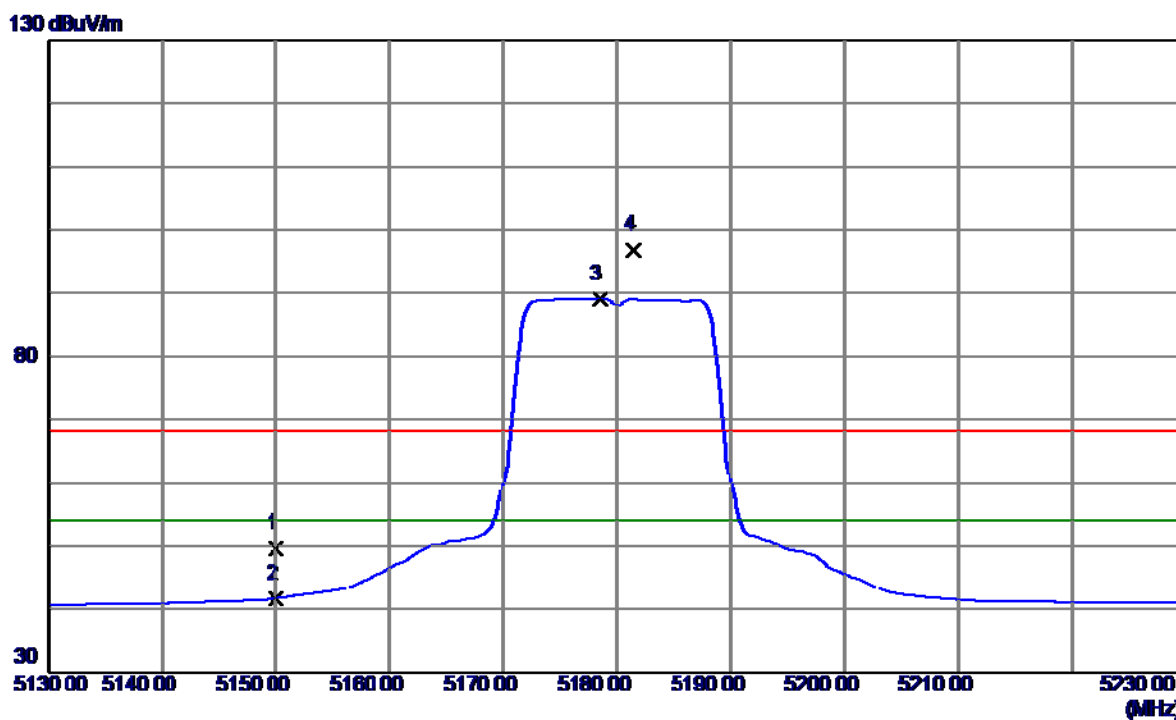


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	73.6500	39.84	-16.93	22.91	40.00	-17.09	Peak	
2 *	153.1900	41.93	-13.34	28.59	43.50	-14.91	Peak	
3	307.4200	34.26	-12.70	21.56	46.00	-24.44	Peak	
4	336.5200	33.49	-12.19	21.30	46.00	-24.70	Peak	
5	460.6800	31.67	-9.68	21.99	46.00	-24.01	Peak	
6	780.7800	30.22	-1.78	28.44	46.00	-17.56	Peak	

## APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

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

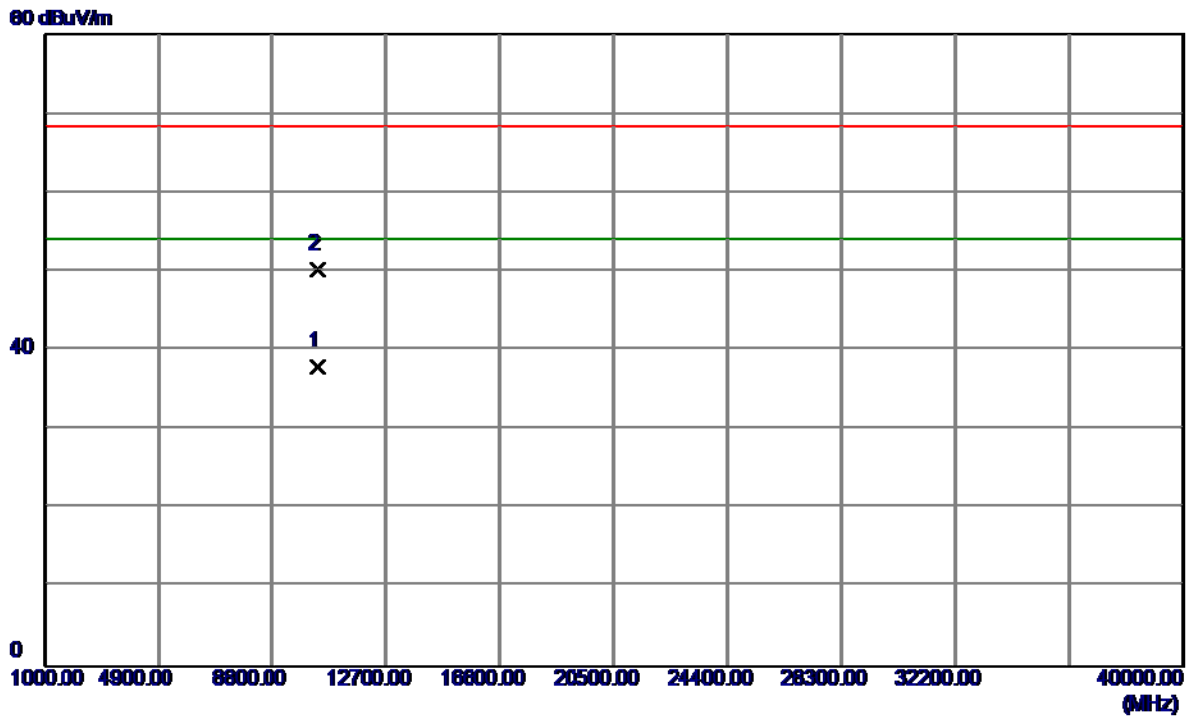
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	8.52	41.10	49.62	68.30	-18.68	Peak	
2	5150.0000	0.57	41.10	41.67	54.00	-12.33	AVG	
3 *	5178.5000	47.84	41.25	89.09	54.00	35.09	AVG	No Limit
4	5181.4000	55.45	41.26	96.71	68.30	28.41	Peak	No Limit

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

### Vertical

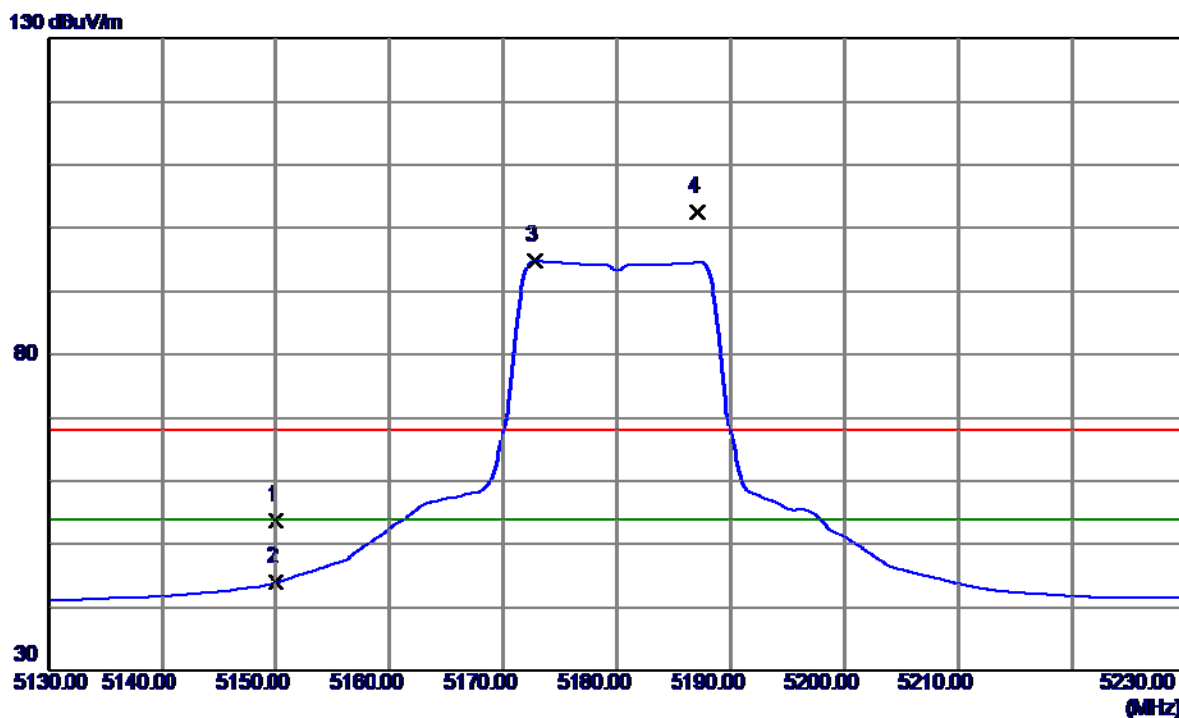


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10359.8099	20.82	17.10	37.92	54.00	-16.08	AVG	
2	10362.4100	33.16	17.11	50.27	68.30	-18.03	Peak	



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

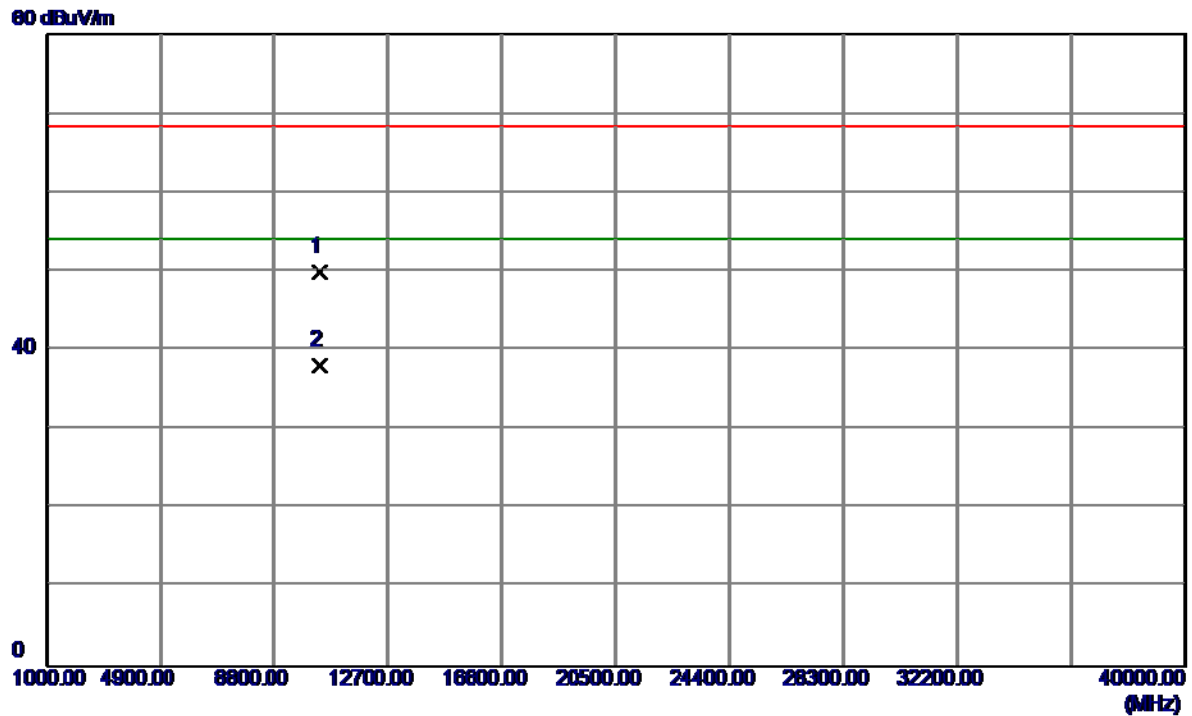
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	12.69	41.10	53.79	68.30	-14.51	Peak	
2	5150.0000	2.84	41.10	43.94	54.00	-10.06	AVG	
3 *	5172.8000	53.59	41.22	94.81	54.00	40.81	AVG	No Limit
4	5187.1000	61.24	41.29	102.53	68.30	34.23	Peak	No Limit

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

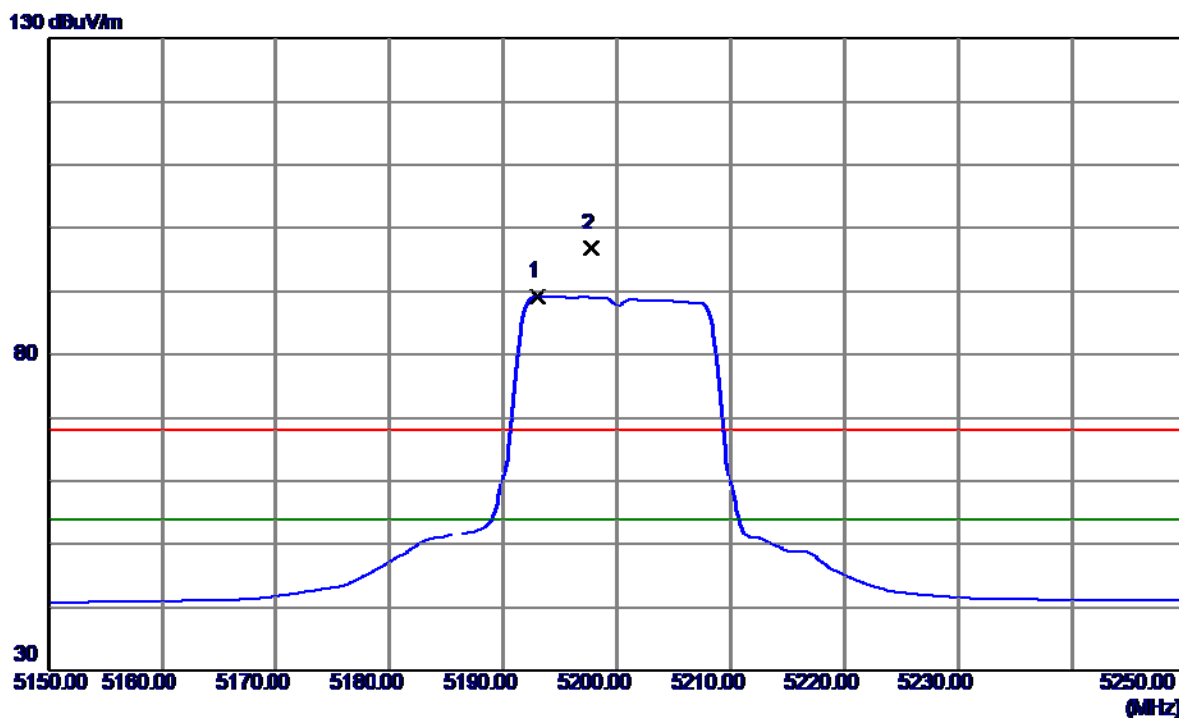
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10360.9150	32.77	17.11	49.88	68.30	-18.42	Peak	
2 *	10361.6350	21.03	17.11	38.14	54.00	-15.86	AVG	

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

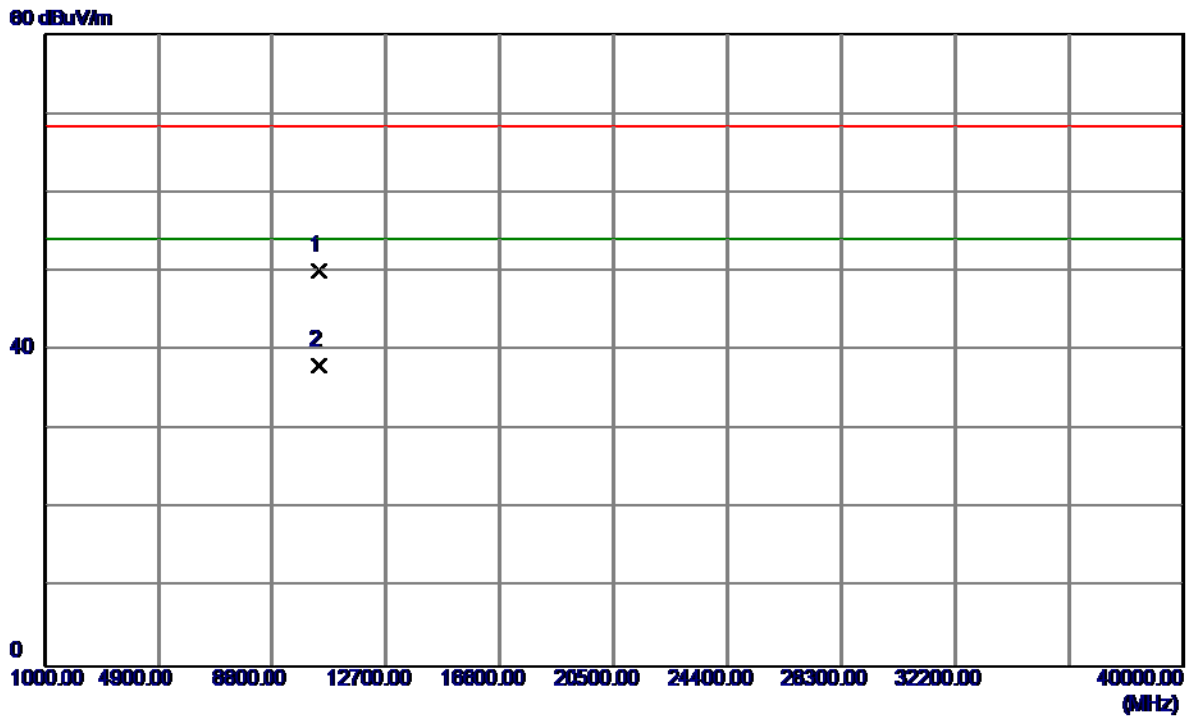
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5193.0000	47.90	41.32	89.22	54.00	35.22	AVG	No Limit
2	5197.8000	55.50	41.34	96.84	68.30	28.54	Peak	No Limit

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

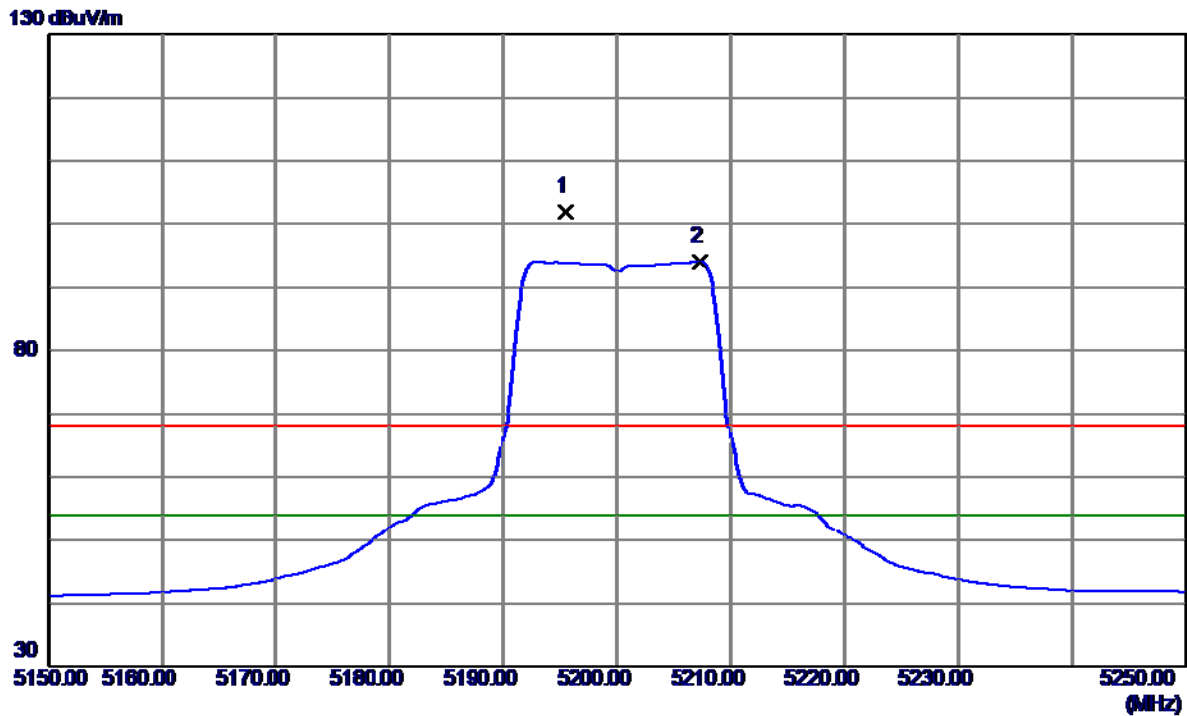
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10399.0199	32.87	17.22	50.09	68.30	-18.21	Peak	
2 *	10399.8900	20.84	17.22	38.06	54.00	-15.94	AVG	

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

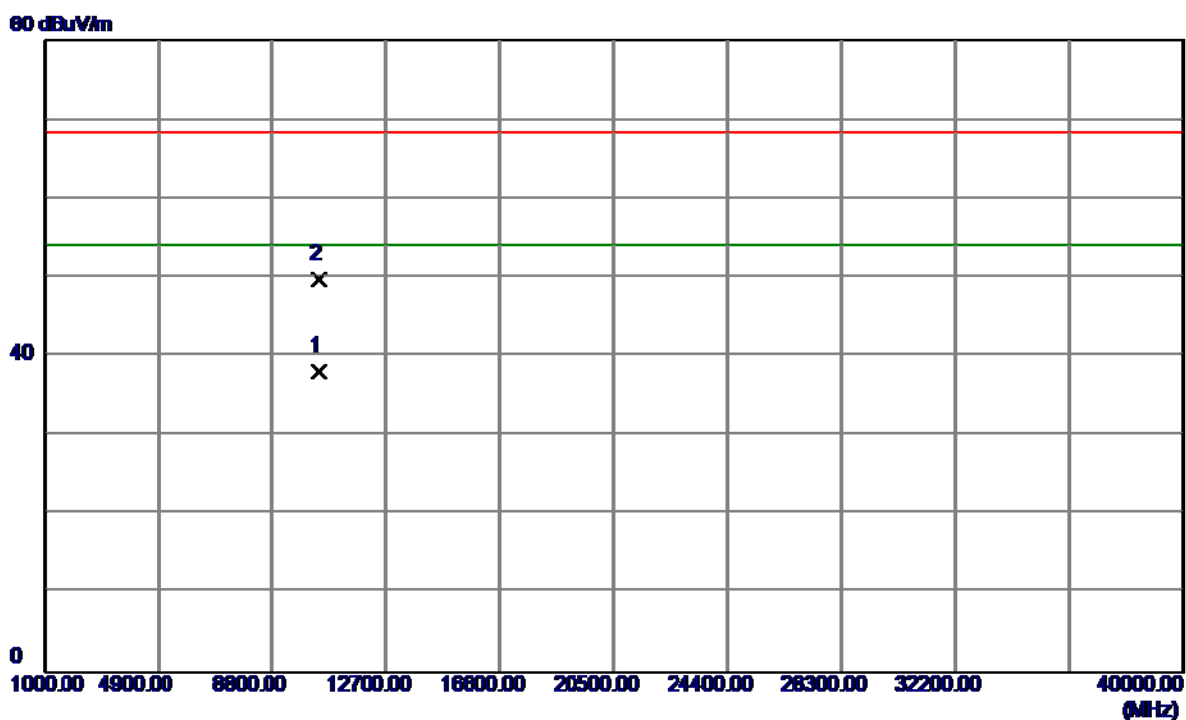
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5195.4000	60.69	41.33	102.02	68.30	33.72	Peak	No Limit
2 *	5207.3000	52.68	41.39	94.07	54.00	40.07	AVG	No Limit

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

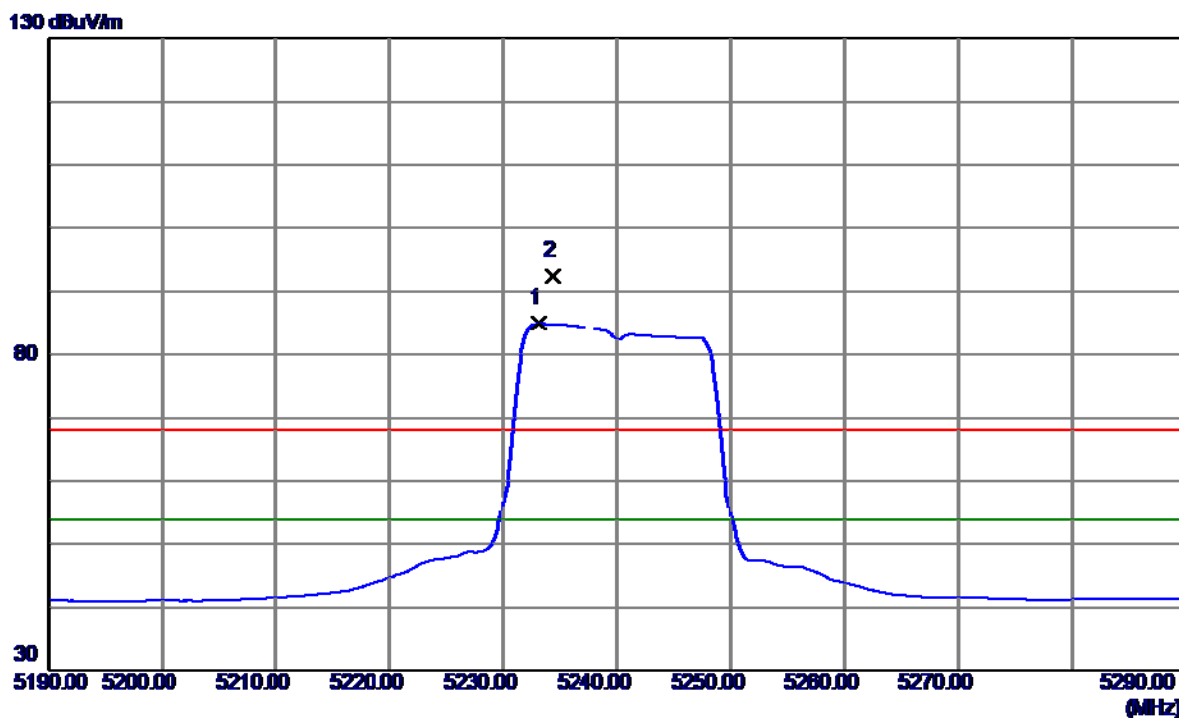
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10400.2699	20.79	17.22	38.01	68.30	-30.29	Peak	
2 *	10400.2950	32.54	17.22	49.76	68.30	-18.54	Peak	

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

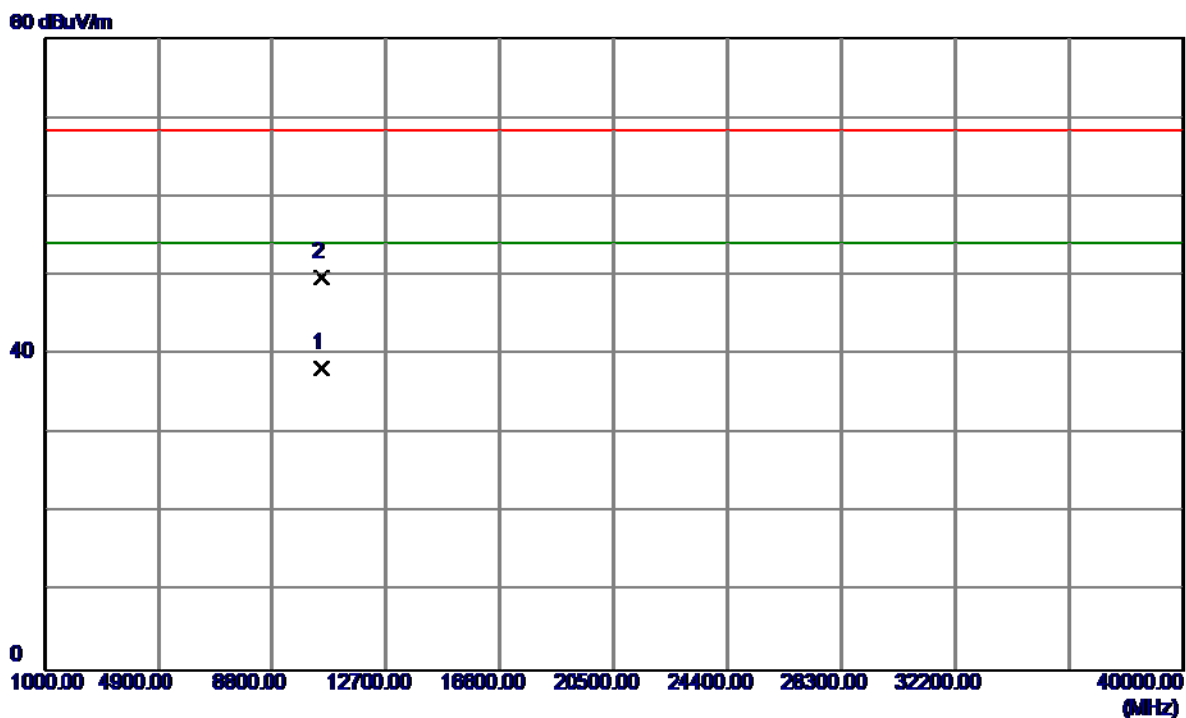
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5233.1000	43.41	41.52	84.93	54.00	30.93	AVG	No Limit
2	5234.3000	50.91	41.53	92.44	68.30	24.14	Peak	No Limit

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

### Vertical

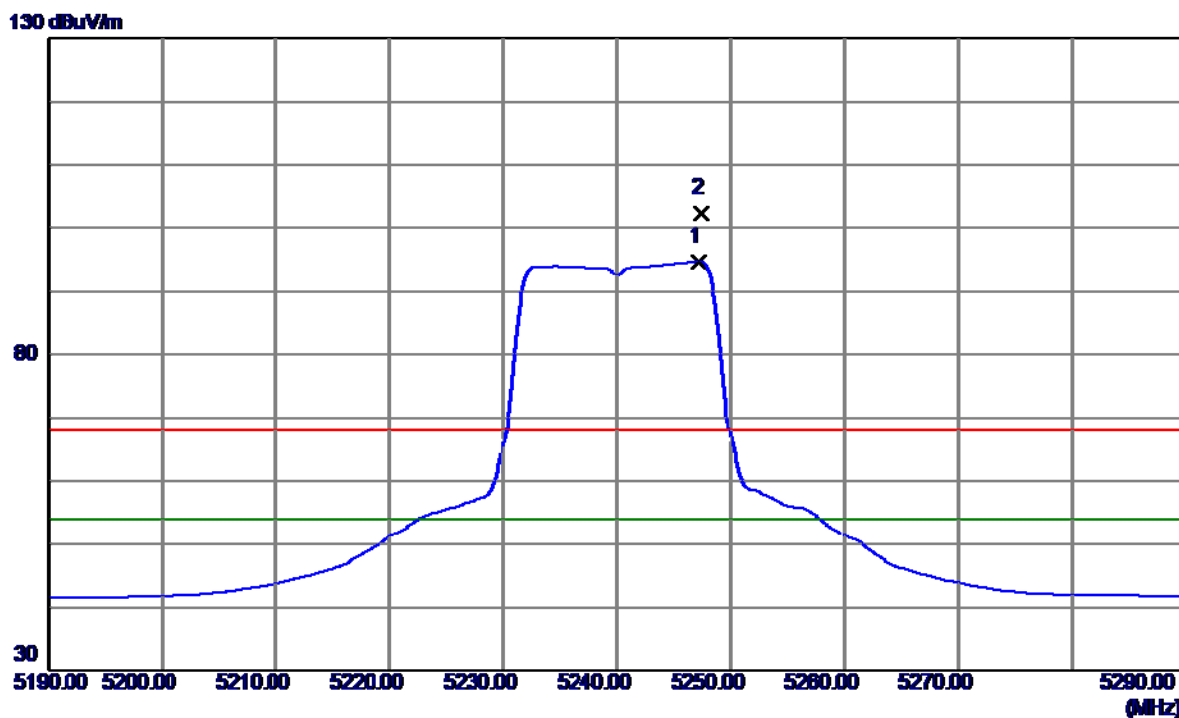


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10479.6449	20.82	17.44	38.26	54.00	-15.74	AVG	
2	10480.6650	32.32	17.45	49.77	68.30	-18.53	Peak	



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

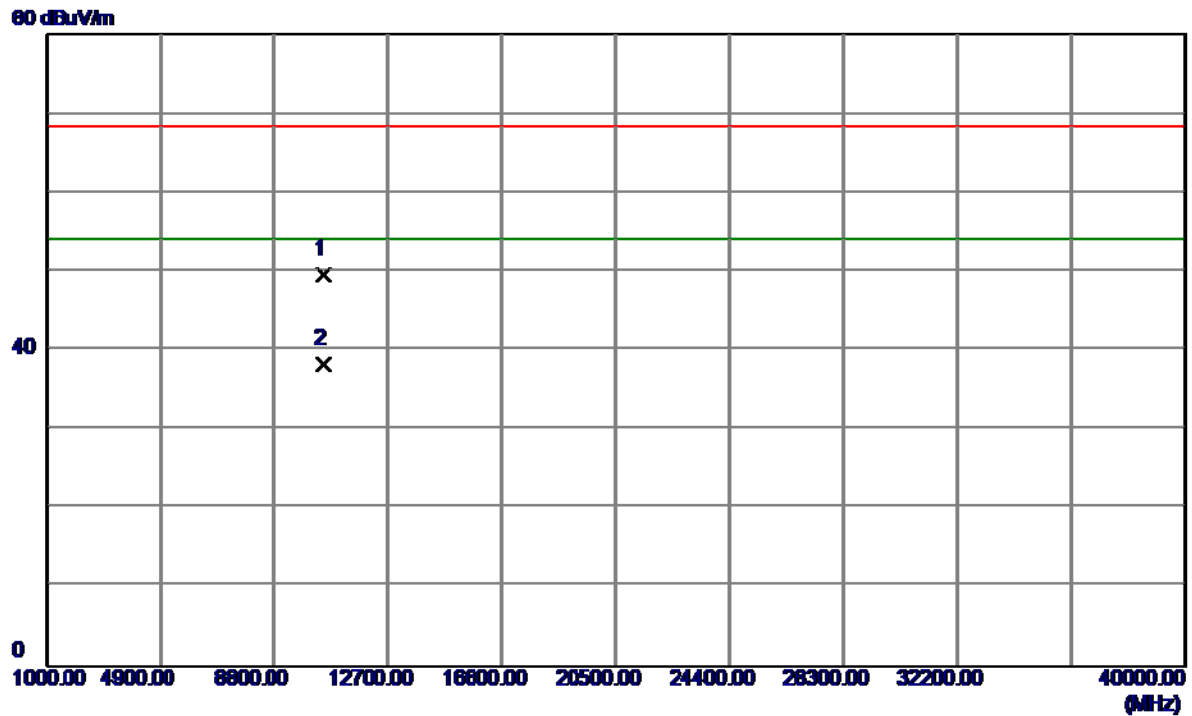
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5247.2000	53.00	41.60	94.60	54.00	40.60	AVG	No Limit
2	5247.4000	60.82	41.60	102.42	68.30	34.12	Peak	No Limit

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

### Horizontal

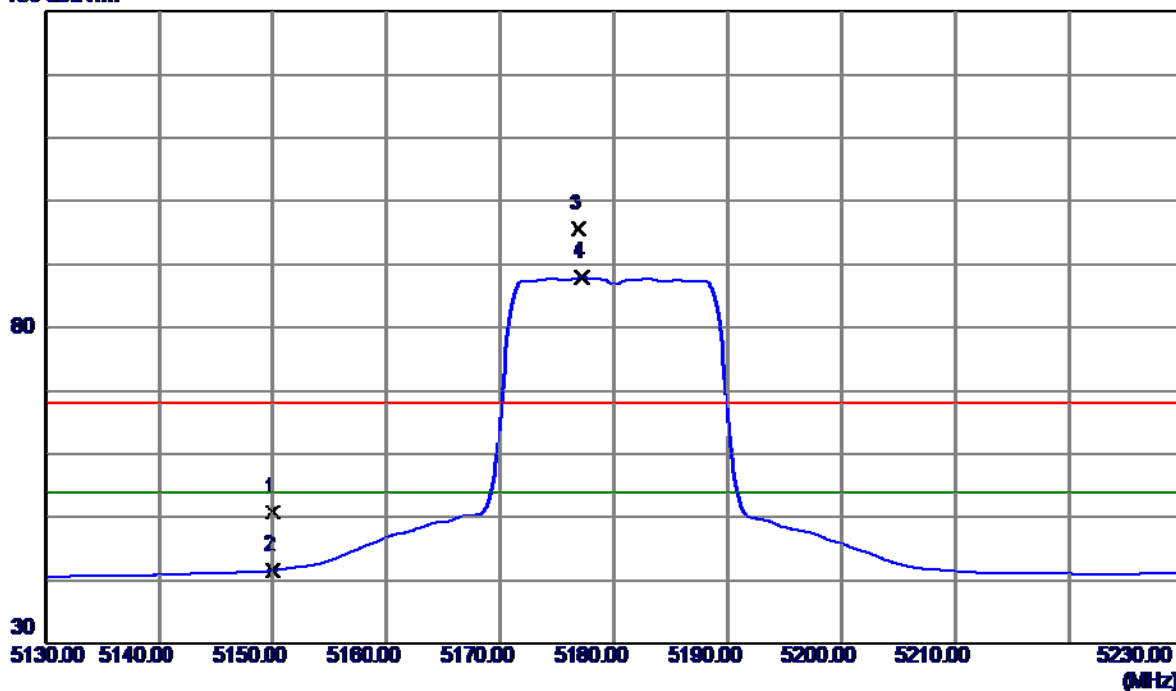


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1	10479.6849	32.13	17.44	49.57	68.30	-18.73	Peak	
2 *	10482.0350	20.82	17.45	38.27	54.00	-15.73	AVG	

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

### Vertical

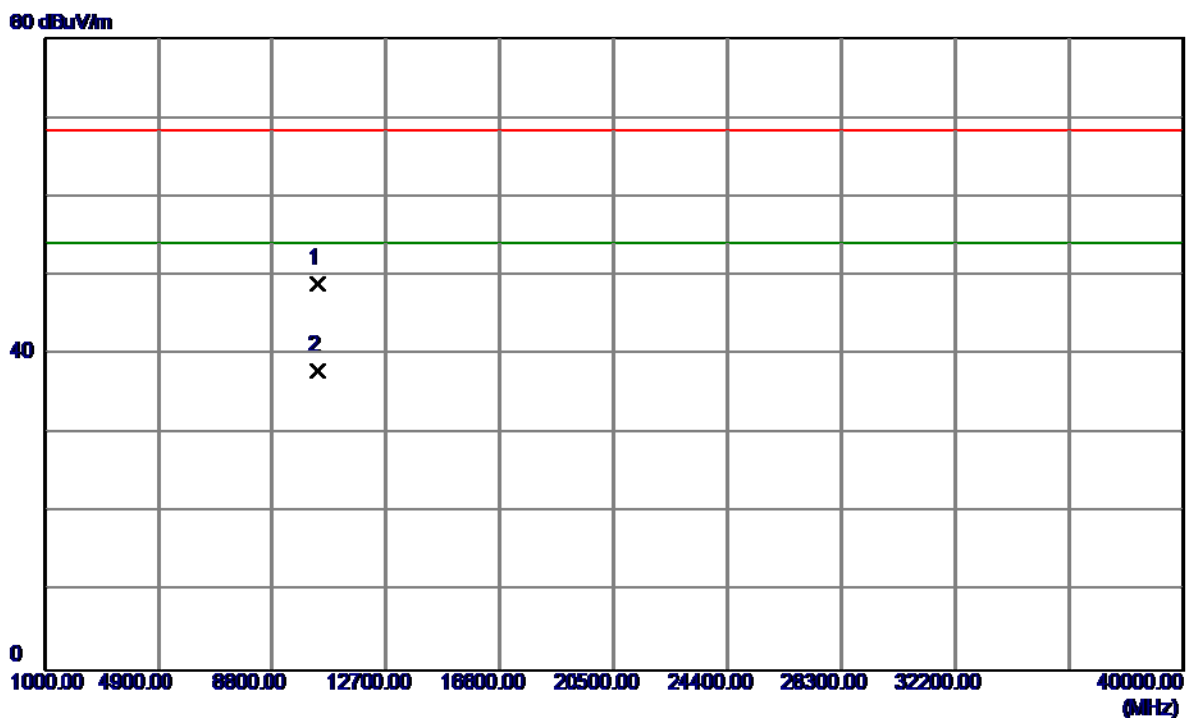
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	9.65	41.10	50.75	68.30	-17.55	Peak	
2	5150.0000	0.53	41.10	41.63	54.00	-12.37	AVG	
3	5176.9000	54.31	41.24	95.55	68.30	27.25	Peak	No Limit
4 *	5177.2000	46.71	41.24	87.95	54.00	33.95	AVG	No Limit

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

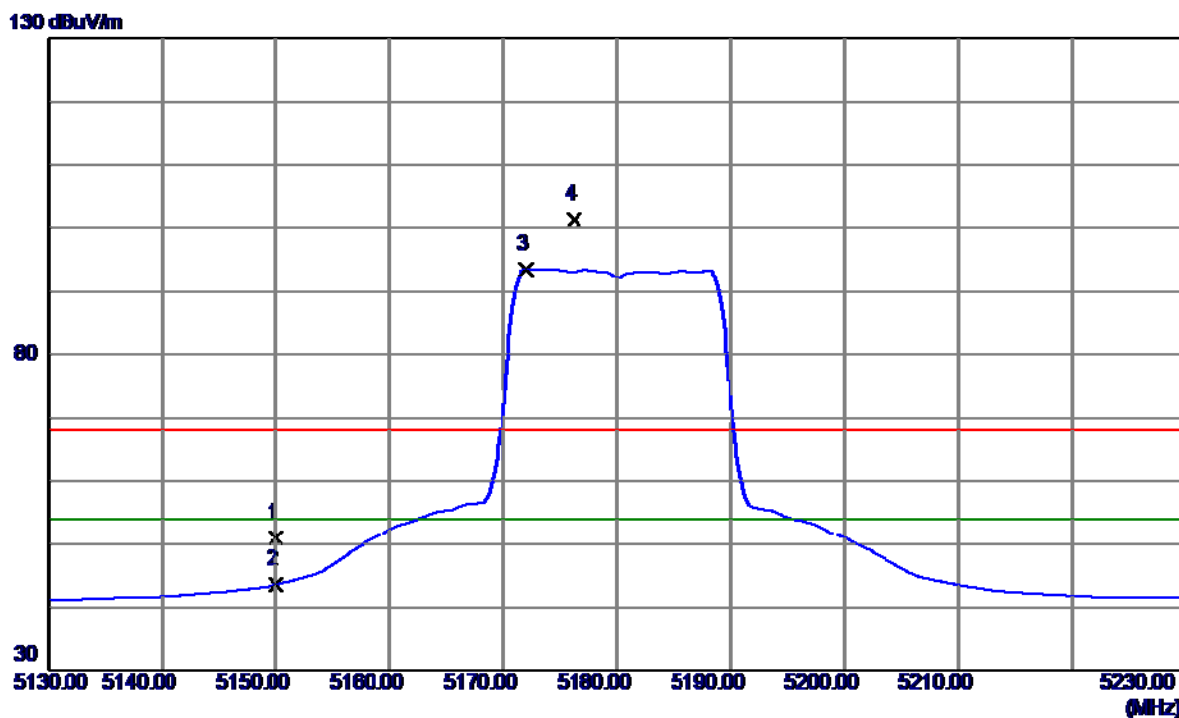
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10358.7450	31.90	17.10	49.00	68.30	-19.30	Peak	
2 *	10361.8800	20.74	17.11	37.85	54.00	-16.15	AVG	

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

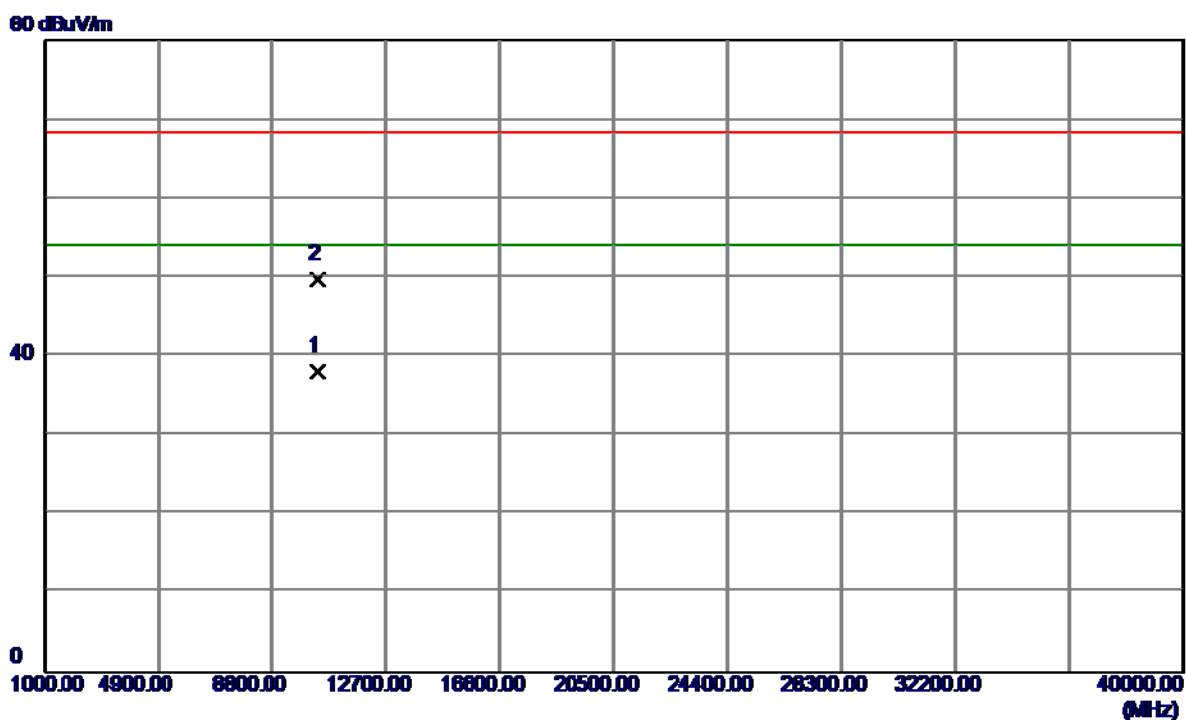
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5150.0000	9.89	41.10	50.99	68.30	-17.31	Peak	
2	5150.0000	2.51	41.10	43.61	54.00	-10.39	AVG	
3 *	5172.0000	52.26	41.21	93.47	54.00	39.47	AVG	No Limit
4	5176.2000	60.22	41.23	101.45	68.30	33.15	Peak	No Limit

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

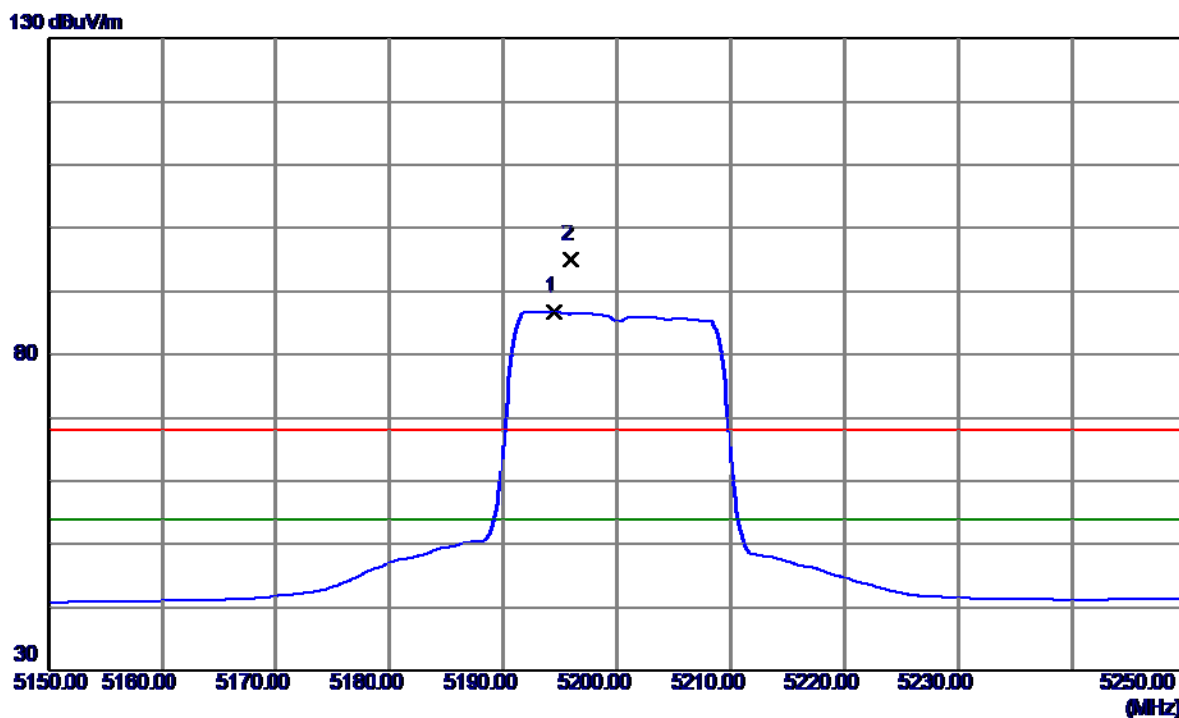
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	10357.9950	20.99	17.10	38.09	54.00	-15.91	AVG	
2	10361.8450	32.60	17.11	49.71	68.30	-18.59	Peak	

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

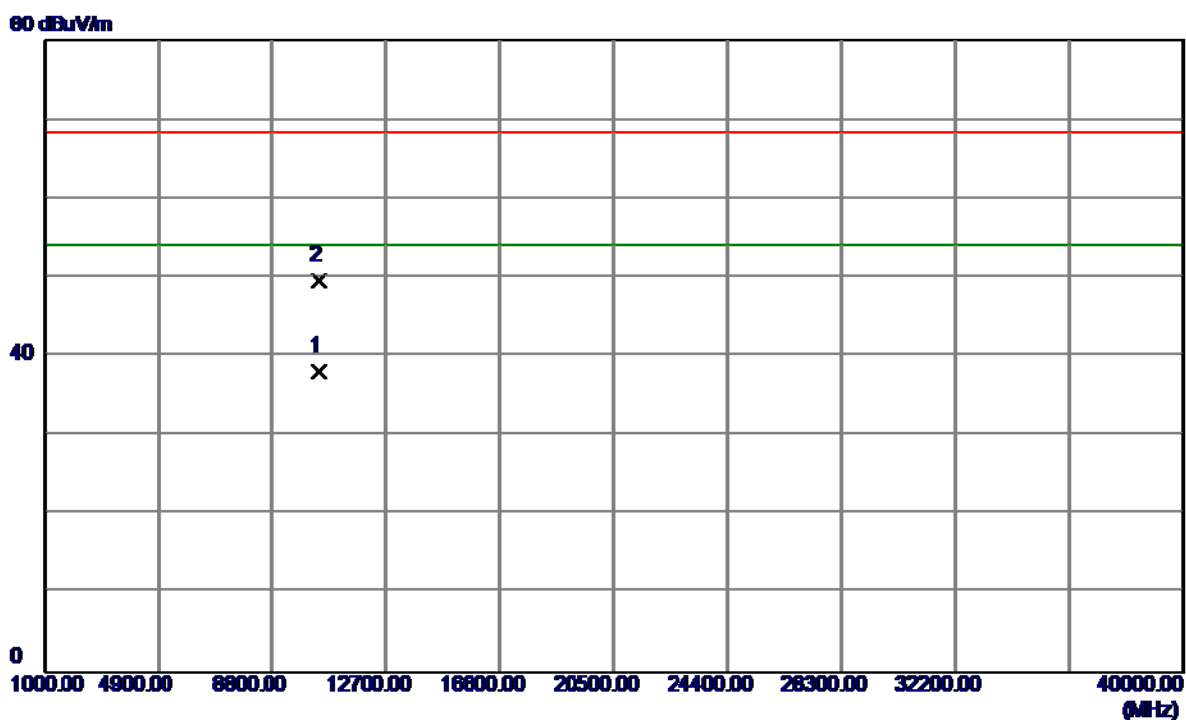
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5194.4000	45.55	41.33	86.88	54.00	32.88	AVG	No Limit
2	5195.9000	53.67	41.34	95.01	68.30	26.71	Peak	No Limit

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

### Vertical

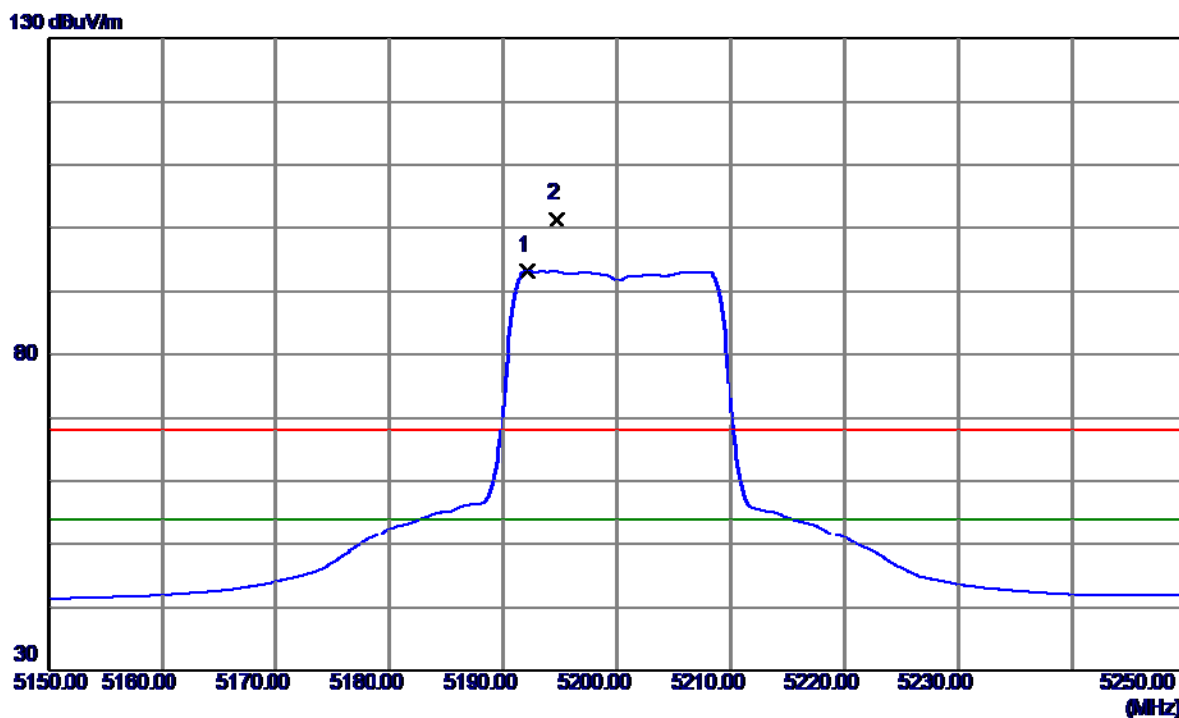


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	10400.1849	20.79	17.22	38.01	54.00	-15.99	AVG	
2	10401.3450	32.44	17.22	49.66	68.30	-18.64	Peak	



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

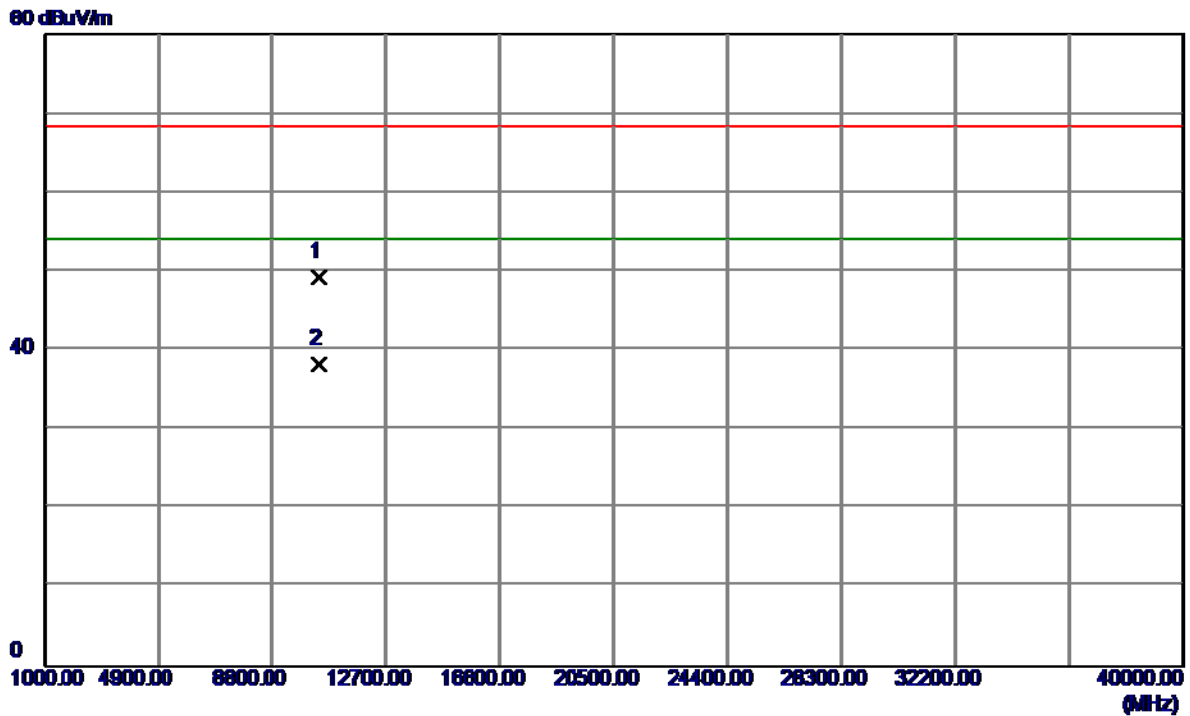
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	5192.1000	51.86	41.32	93.18	54.00	39.18	AVG	No Limit
2	5194.7000	60.17	41.33	101.50	68.30	33.20	Peak	No Limit

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

### Horizontal

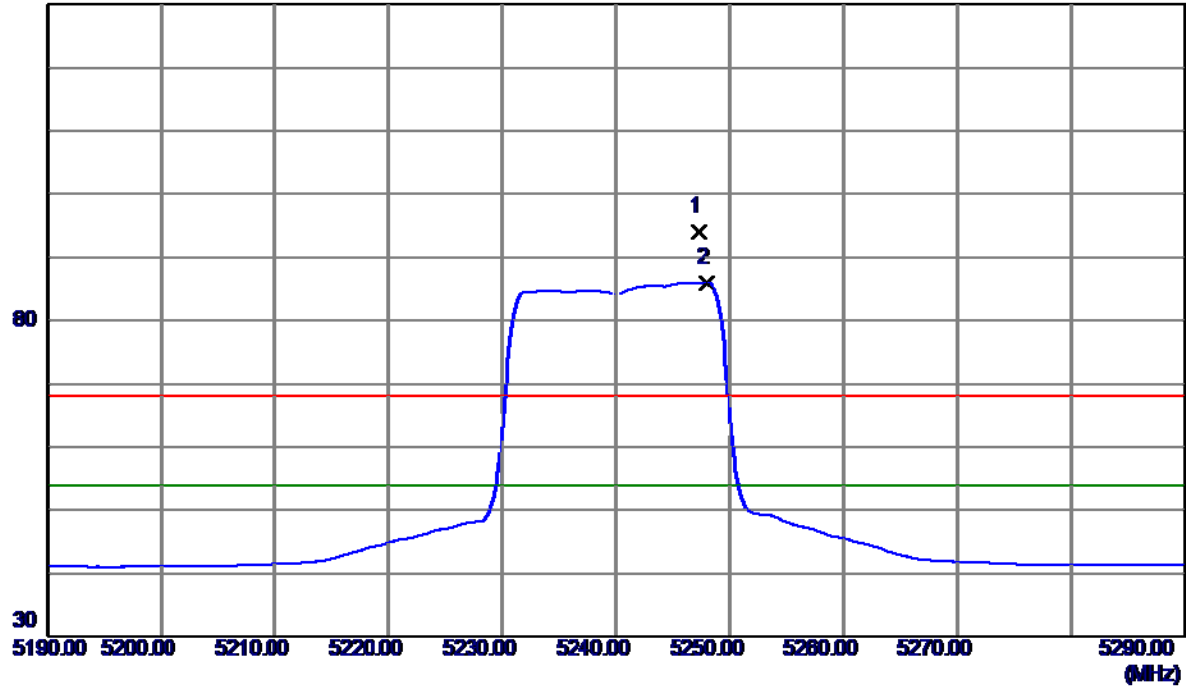


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10400.5300	32.03	17.22	49.25	68.30	-19.05	Peak	
2 *	10401.4650	21.09	17.22	38.31	54.00	-15.69	AVG	

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

### Vertical

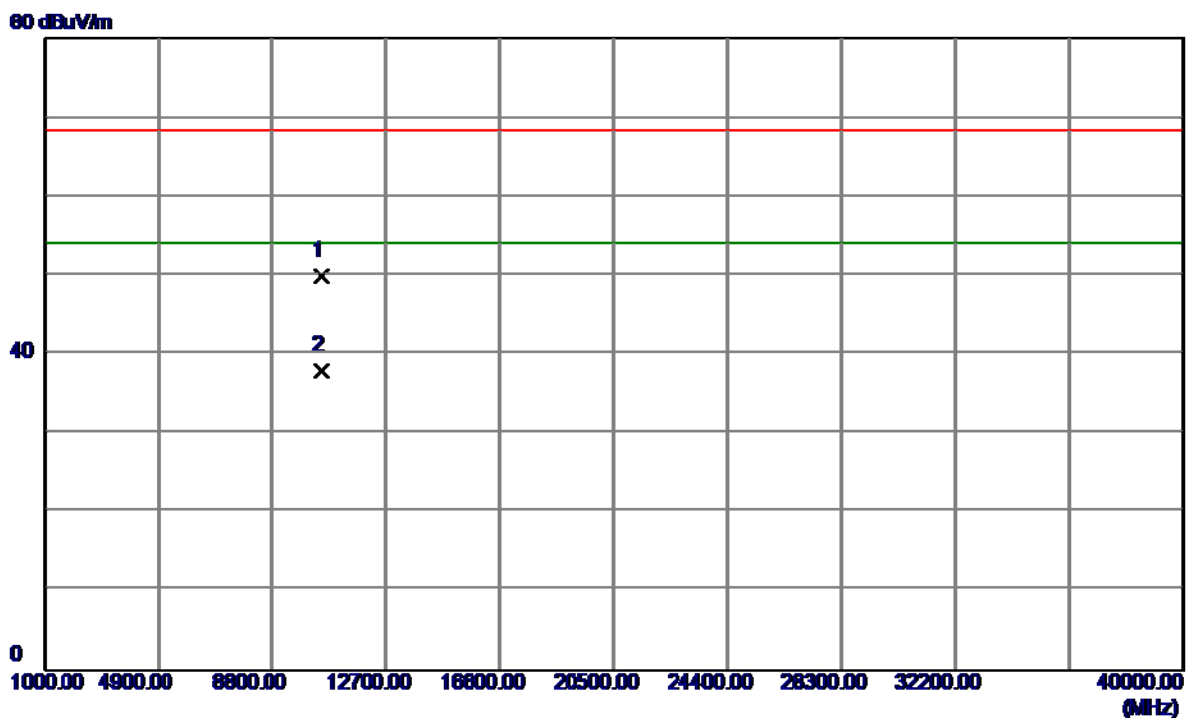
130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5247.3000	52.35	41.60	93.95	68.30	25.65	Peak	No Limit
2 *	5248.0000	44.47	41.60	86.07	54.00	32.07	AVG	No Limit

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

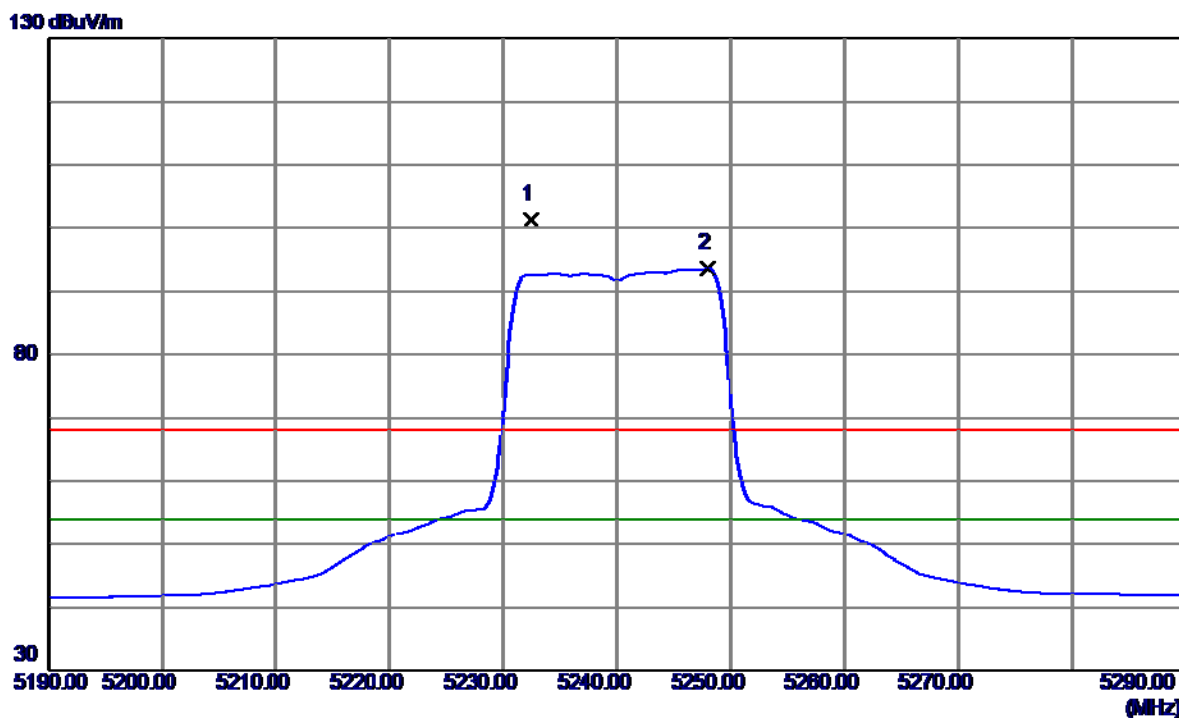
### Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10478.7450	32.45	17.44	49.89	68.30	-18.41	Peak	
2 *	10479.7450	20.47	17.44	37.91	54.00	-16.09	AVG	

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

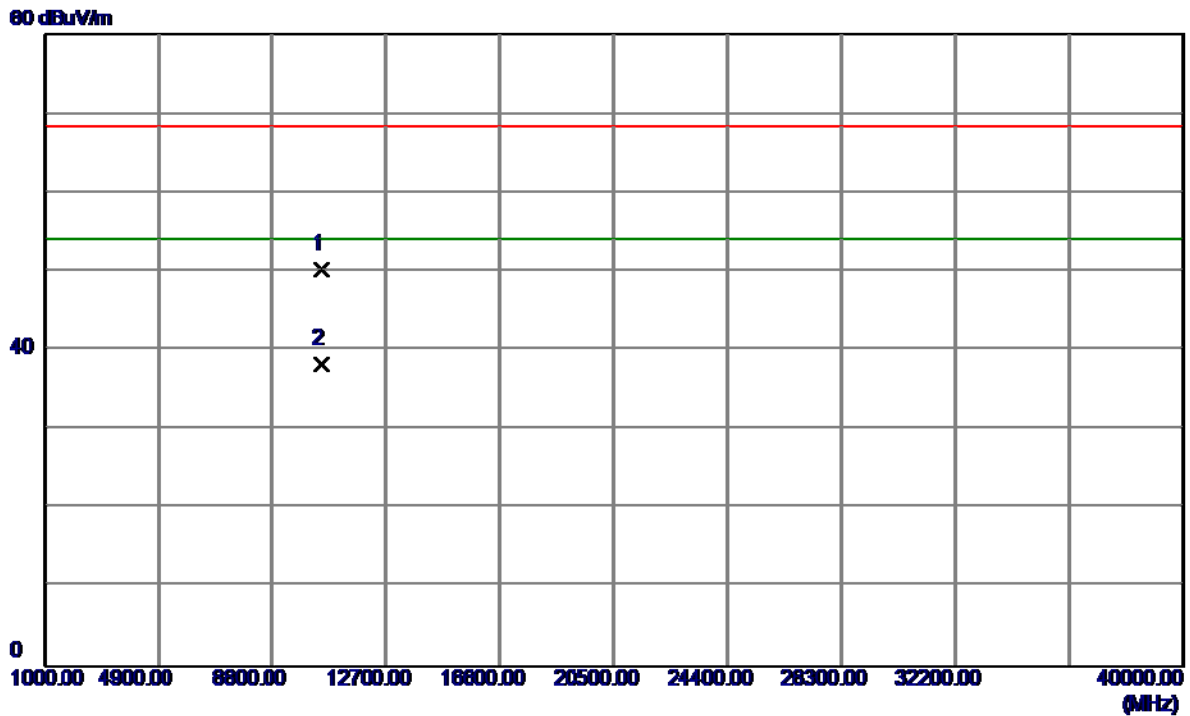
### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	5232.4000	59.84	41.52	101.36	68.30	33.06	Peak	No Limit
2 *	5248.0000	51.93	41.60	93.53	54.00	39.53	AVG	No Limit

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

### Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	10480.5050	32.82	17.44	50.26	68.30	-18.04	Peak	
2 *	10481.6150	20.83	17.45	38.28	54.00	-15.72	AVG	

### TX A Mode\_DUTY CYCLE

Duty cycle: TX DUTYMHz

Duty cycle =  $T_{ON} / T_{Total}$

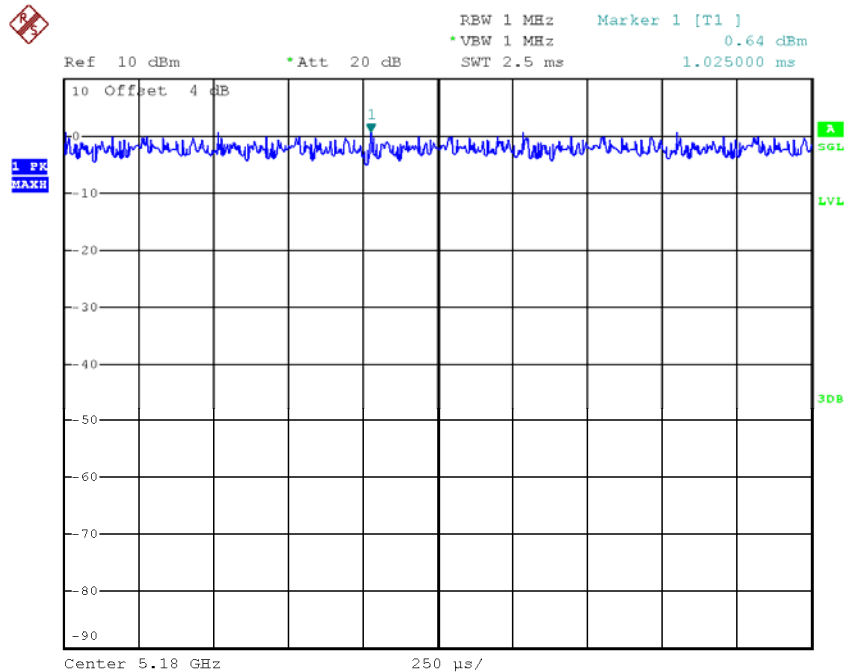
$T_{ON}$ : 100000.00 msec

$T_{Total}$ : 100000.00 msec

Duty cycle: 100.00%

Duty Factor =  $10 \log(1/\text{Duty cycle})$

Duty Factor = 0.00



Date: 16.SEP.2017 15:55:08

Note: The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be calculated as Output Power = Measured power + Duty factor  
 Power Spectral Density = Measured density + Duty factor

### TX N20 Mode\_DUTY CYCLE

Duty cycle: TX DUTYMHz

Duty cycle =  $T_{ON} / T_{Total}$

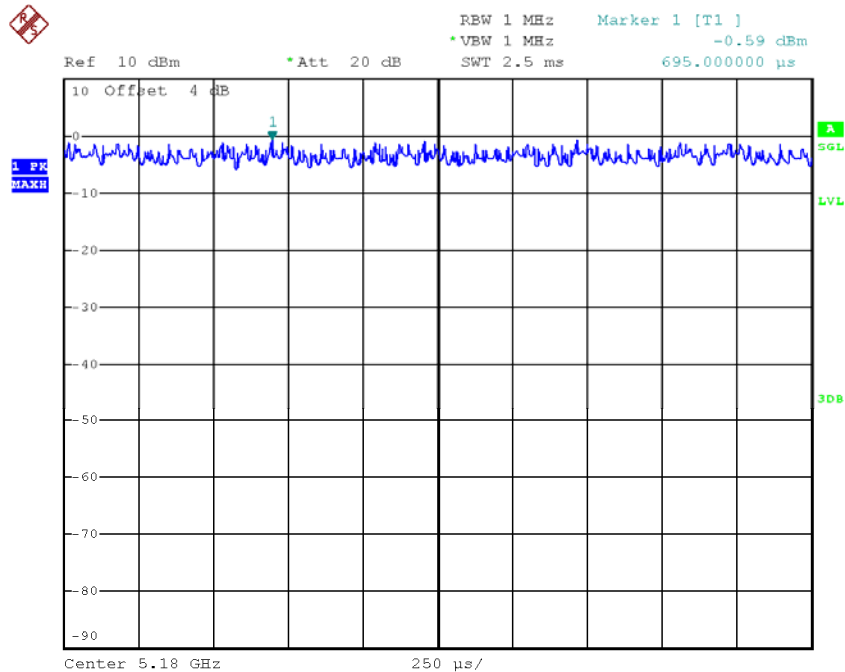
$T_{ON}$ : 100000.00 msec

$T_{Total}$ : 100000.00 msec

Duty cycle: 100.00%

Duty Factor =  $10 \log(1/\text{Duty cycle})$

Duty Factor = 0.00



Date: 16.SEP.2017 16:01:59

Note: The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be calculated as Output Power = Measured power + Duty factor  
 Power Spectral Density = Measured density + Duty factor

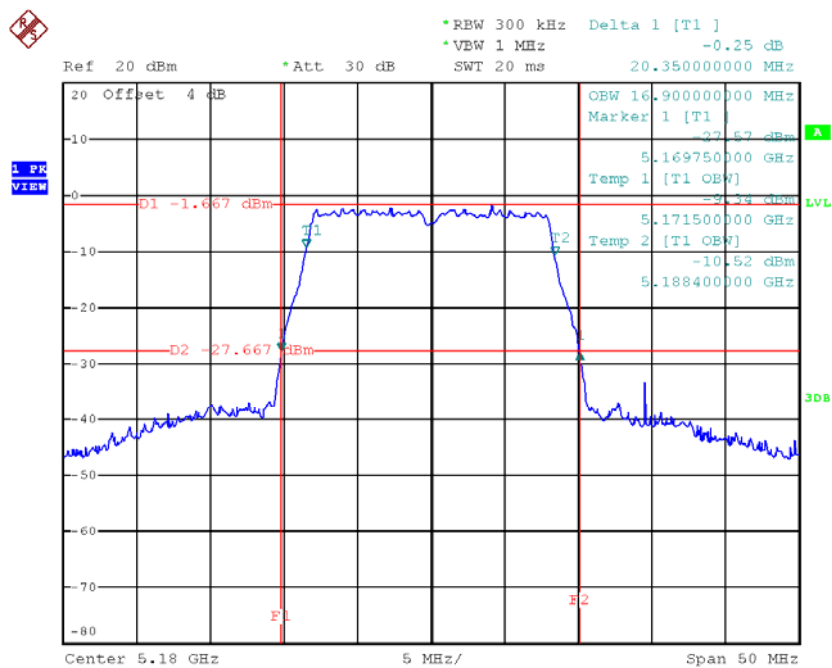


## APPENDIX E - BANDWIDTH

Test Mode: UNII-1/TX A Mode\_CH36/CH40/CH48

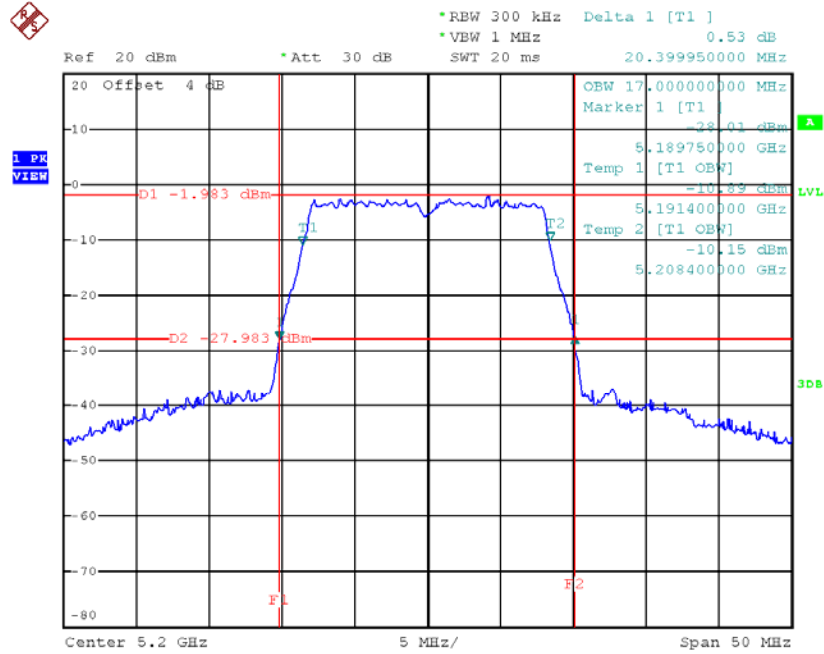
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	20.35	16.90
CH40	5200	20.40	17.00
CH48	5240	20.25	16.90

TX CH36



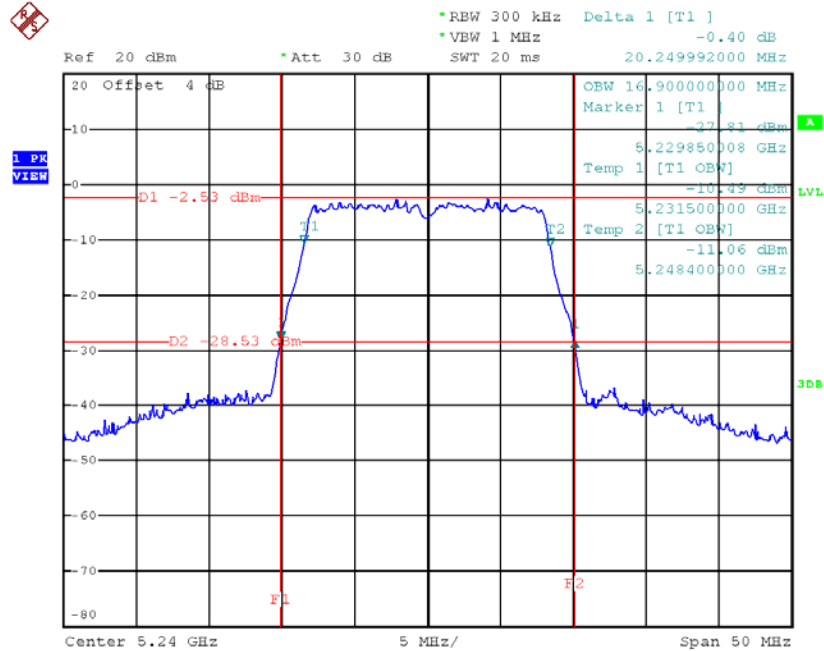
Date: 16.SEP.2017 15:54:55

### TX CH40



Date: 16.SEP.2017 15:59:38

### TX CH48

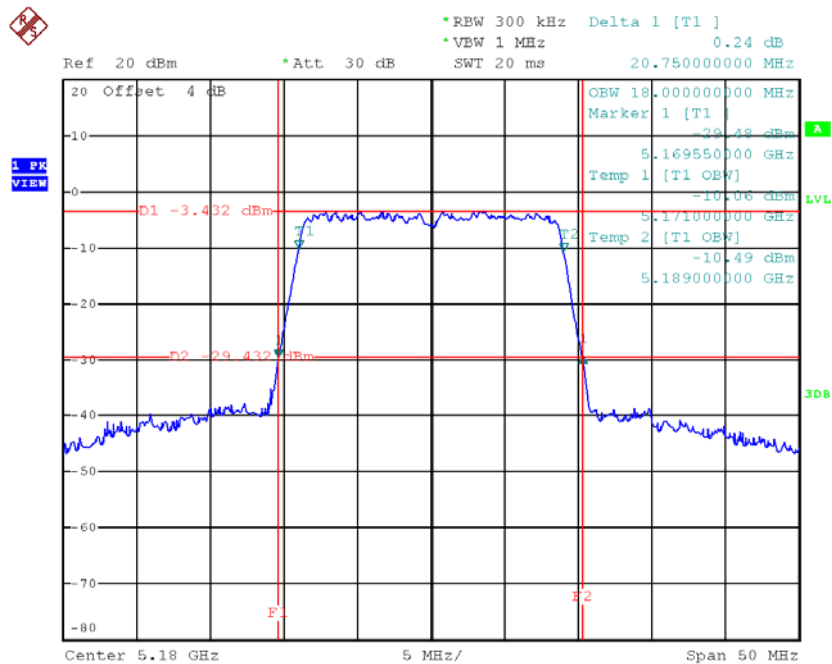


Date: 16.SEP.2017 16:00:46

**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48**

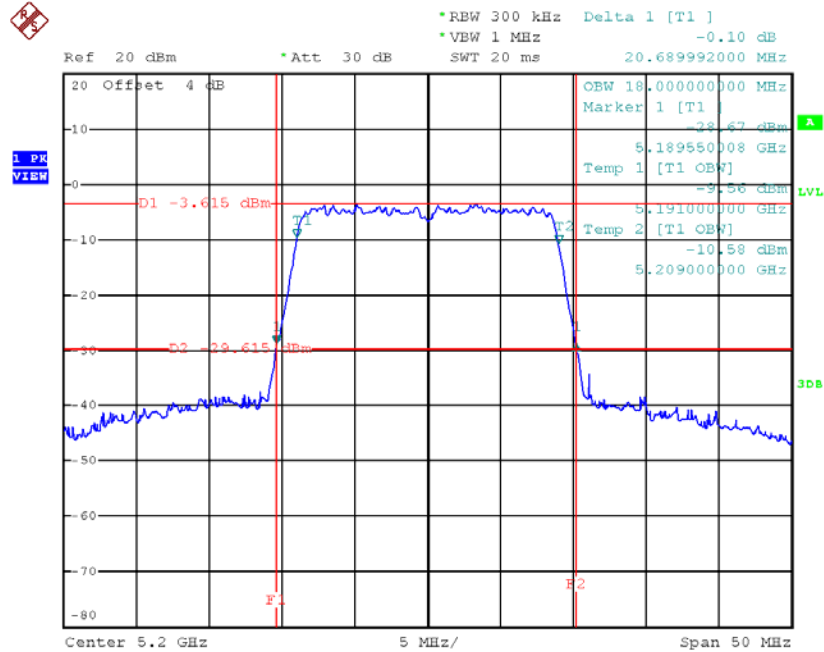
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH36	5180	20.75	18.00
CH40	5200	20.69	18.00
CH48	5240	20.79	18.00

**TX CH36**



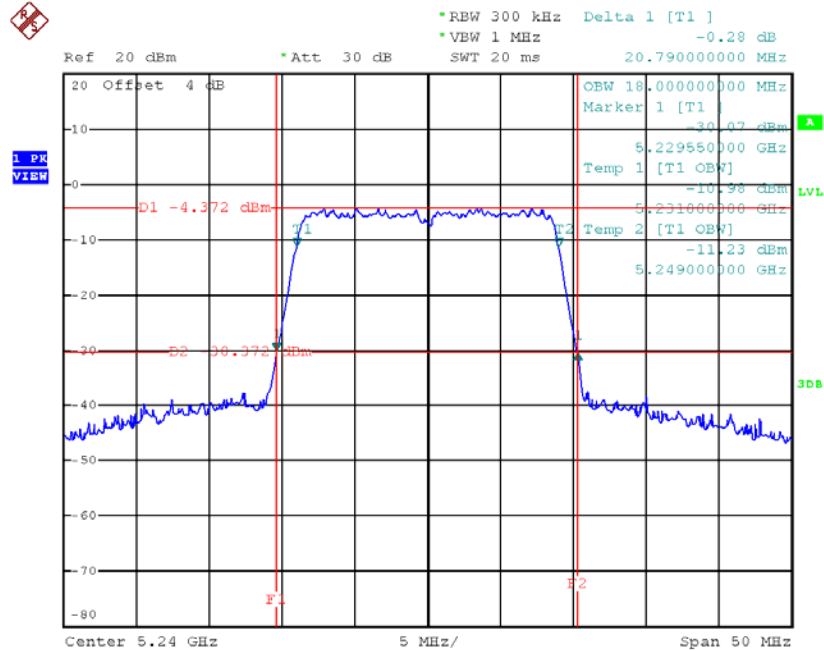
Date: 16.SEP.2017 16:01:47

### TX CH40



Date: 16.SEP.2017 16:02:44

### TX CH48



Date: 16.SEP.2017 16:03:58

## APPENDIX F - MAXIMUM OUTPUT POWER

**Test Mode: UNII-1/TX A Mode**

Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	5.20	0.00	5.20	24	0.25
CH40	5200	5.06	0.00	5.06	24	0.25
CH48	5240	4.92	0.00	4.92	24	0.25

**Test Mode: UNII-1/TX N20 Mode**

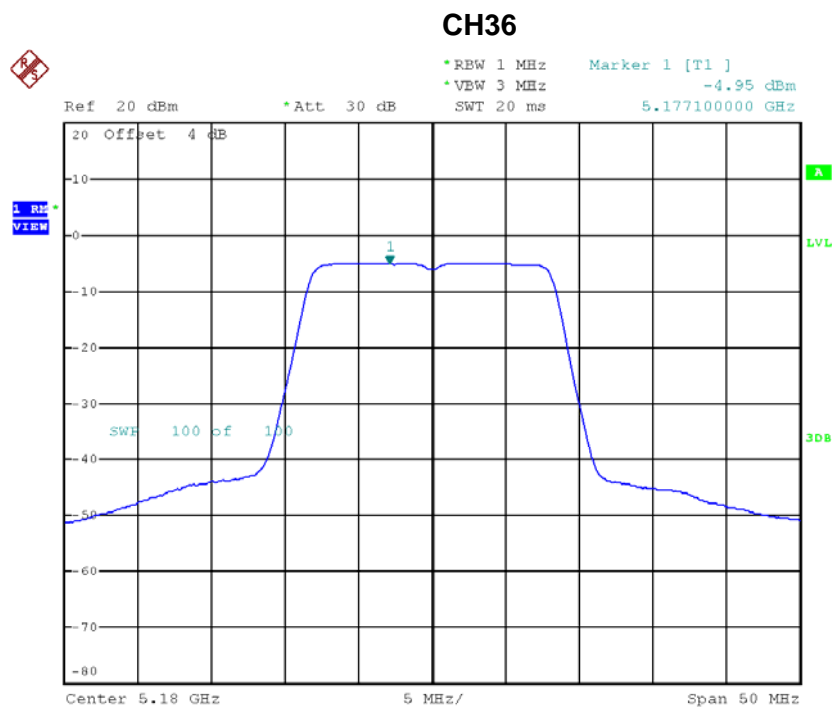
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Limit (dBm)	Limit (Watt)
CH36	5180	4.24	0.00	4.24	24	0.25
CH40	5200	4.21	0.00	4.21	24	0.25
CH48	5240	4.07	0.00	4.07	24	0.25

## APPENDIX G - POWER SPECTRAL DENSITY



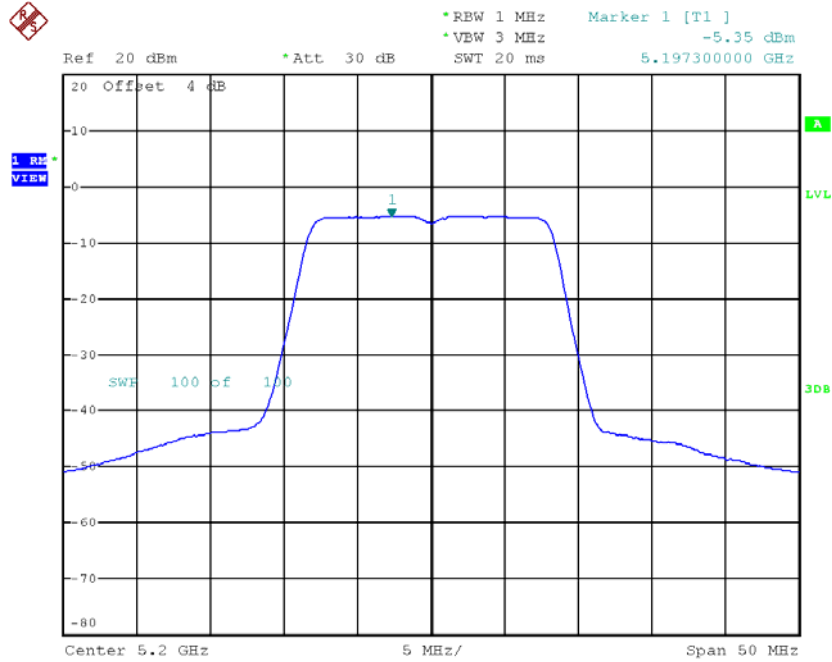
**Test Mode: UNII-1/ TX A Mode\_CH36/CH40/CH48**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-4.95	0.00	-4.95	11.00
CH40	5200	-5.35	0.00	-5.35	11.00
CH48	5240	-5.93	0.00	-5.93	11.00



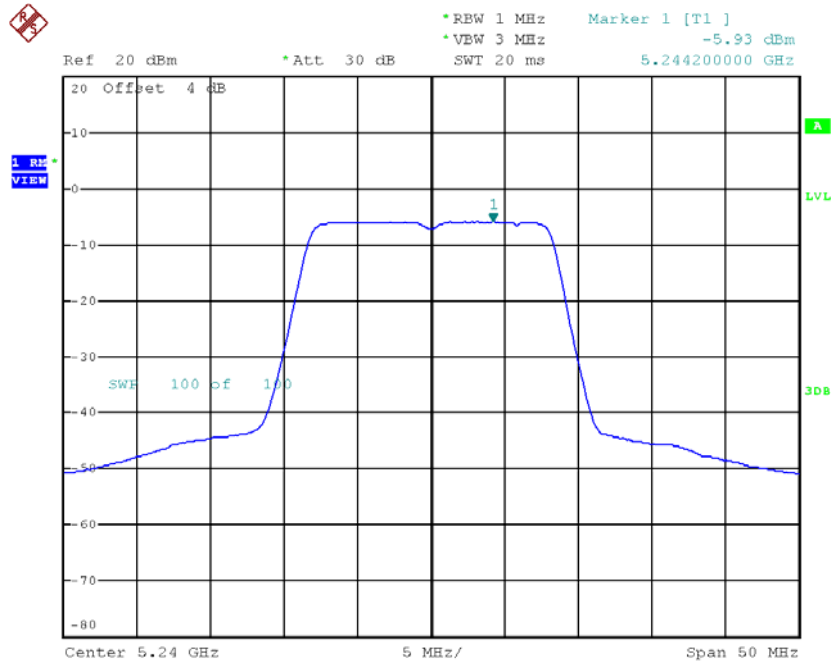
Date: 16.SEP.2017 15:55:04

### CH40



Date: 16.SEP.2017 15:59:47

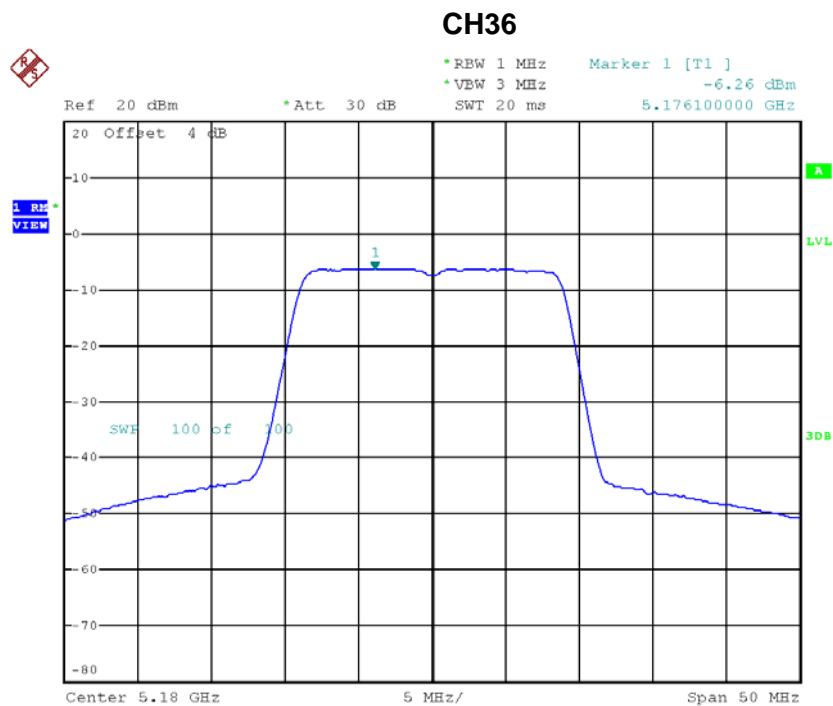
### CH48



Date: 16.SEP.2017 16:00:54

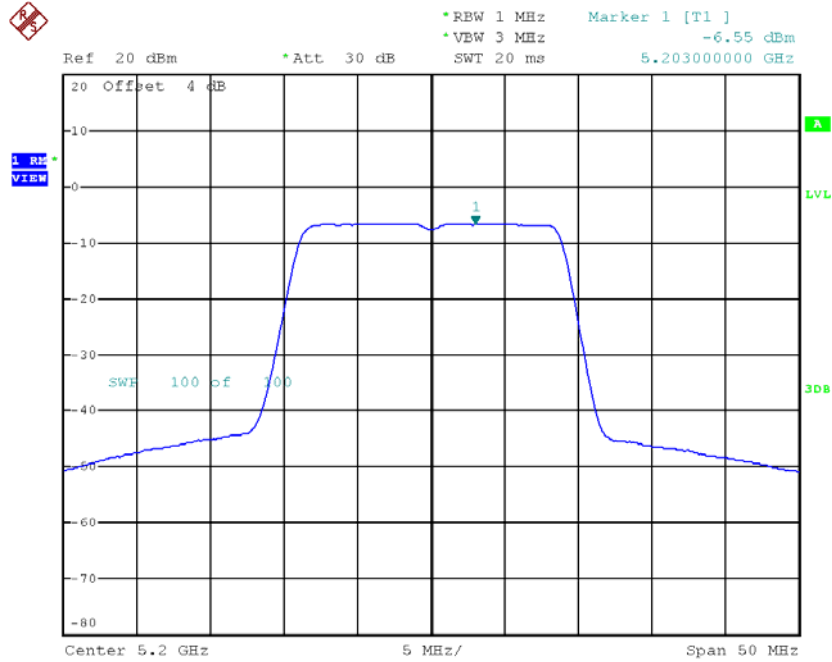
**Test Mode: UNII-1/TX N20 Mode\_CH36/CH40/CH48**

Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Factor	Power Density + Duty Factor (dBm/MHz)	Limit (dBm/MHz)
CH36	5180	-6.26	0.00	-6.26	11.00
CH40	5200	-6.55	0.00	-6.55	11.00
CH48	5240	-7.11	0.00	-7.11	11.00



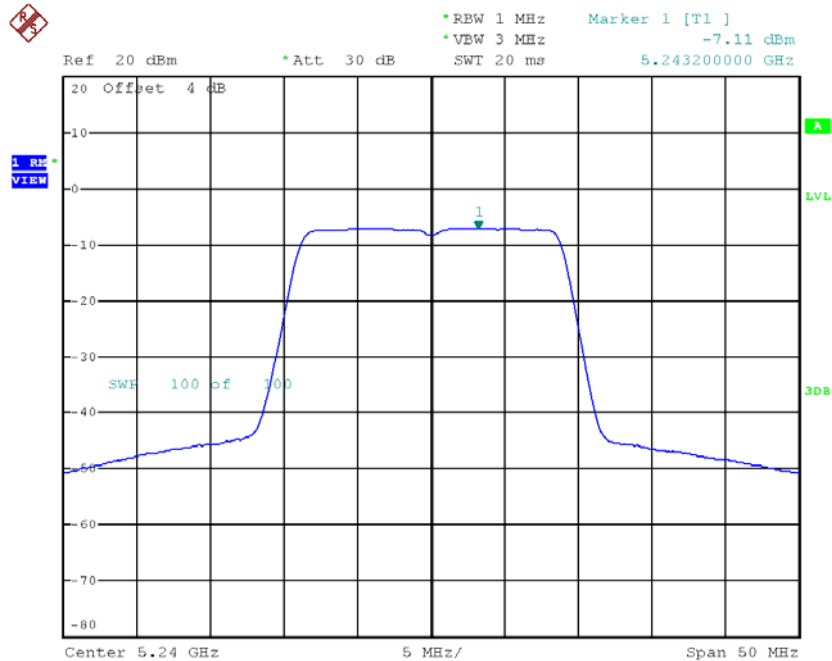
Date: 16.SEP.2017 16:01:55

### CH40



Date: 16.SEP.2017 16:02:52

### CH48



Date: 16.SEP.2017 16:04:07

## APPENDIX H - FREQUENCY STABILITY

Test Mode:	UNII-1
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### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180.0000
132	5179.9550
120	5179.9750
108	5179.9600
Max. Deviation (MHz)	0.0450
Max. Deviation (ppm)	8.6873

### Temperature vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(°C)	5180.0000
-5	5179.9550
5	5179.9550
15	5179.9550
25	5179.9550
35	5179.9550
45	5179.9550
50	5179.9600
Max. Deviation (MHz)	0.0450
Max. Deviation (ppm)	8.6873