FCC Radio Test Report

FCC ID: NDD9562881417

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

Project No.	:	1410C136
Equipment	:	AC600 Multi-Function Dual-Band Wi-Fi Router
Model Name	:	BR-6208ACL; BR-6288ACL
Applicant	:	EDIMAX TECHNOLOGY CO., LTD.
Address	:	No.3,Wu-Chuan 3rd Road, Wu-Ku Industrial Park, New Taipei City, Taiwan

Date of Receipt	:	Oct. 24, 2014
Date of Test	:	Oct. 24, 2014~Dec. 11, 2014
Issued Date	:	Dec. 12, 2014
Tested by	:	BTL Inc.

Testing Engineer : (Josh Lin)

Technical Manager : (Jeff Yang)

Authorized Signatory : (Andy Chiu)

BTL INC.

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

TEL: +86-769-8318-3000 FAX: +86-769-8319-6000

Declaration

BTLrepresents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**., or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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

BTL's reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **BTL-self**, extracts from the test report shall not be reproduced except in full with **BTL**'s authorized written approval.

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

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.

Table of Contents Page

REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-2-1410C136	Original Issue.	Dec. 12, 2014

1. CERTIFICATION

Equipment	:	AC600 Multi-Function Dual-Band Wi-Fi Router
Brand Name	:	EDIMAX
Model Name	:	BR-6208ACL; BR-6288ACL
Applicant	:	EDIMAX TECHNOLOGY CO., LTD.
Date of Test	:	Oct. 24, 2014~Dec. 11, 2014
Test Sample	:	ENGINEERING SAMPLE
Standard(s)	:	FCC Part15, Subpart E(15.407) / ANSI C63.4: 2009 FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

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-2-1410C136) 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).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E			
Standard(s) Section FCC	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) FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

2.1 TEST FACILITY

Conducted emission Test:
C02: 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

Radiated emission Test (Below 1 GHz):
CB08: 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

Radiated emission Test (Above 1 GHz):
CB08: 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended 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)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U，(B)	NOTE
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	

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	AC600 Multi-Function Dual-Band Wi-Fi Router	
Brand Name	EDIMAX	
Model Name	BR-6208ACL; BR-6288ACL	
Mode Different	Only differ in model name.	
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	300Mbps
	Output Power (Max.)for UNII-1	802.11a: 15.23dBm 802.11n (20M): 14.89dBm 802.11n (40M): 14.79dBm 802.11ac (20M): 16.91dBm 802.11ac (40M): 14.53dBm 802.11ac (80M): 13.91dBm
	Output Power (Max.)for UNII-3	802.11a: 15.30dBm 802.11n (20M): 14.32dBm 802.11n (40M): 14.81dBm 802.11ac (20M): 14.20dBm 802.11ac (40M): 14.20dBm 802.11ac (80M): 14.40dBm
Power Source	DC voltage supplied from AC/DC adapter. Brand/Model: AMIGO/ AMS47-0501200FU	
Power Rating	I/P: AC 100-240V~50/60Hz 0.2A O/P: DC 5V/1.2A	

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

2. Channel List:

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ac 80MHz	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Chann l	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	LYNwave	ALO140-221030 -000000	Printed	N/A	3.80	TX/RX

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 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)
Mode 4	TX AC20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)
Mode 13	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 13	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)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)

Note: For Radiated Below 1G test, the 802.11a mode is found to be the worst case and recorded.

3.3 TABLE OF PARAMETERS OF TEXT 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

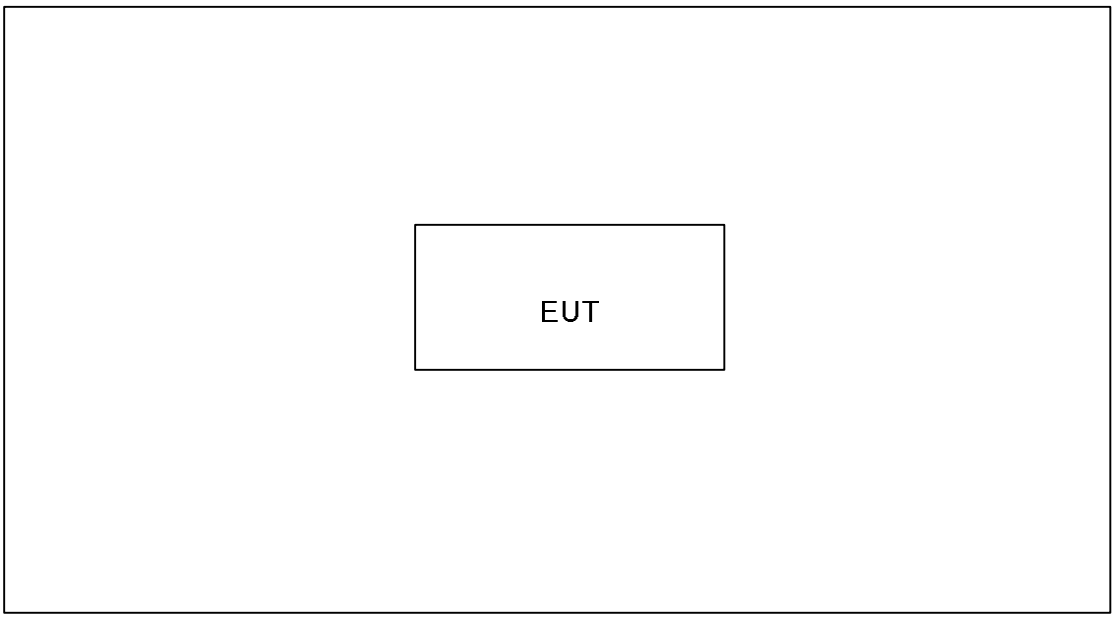
UNII-1			
Test Software Version	ART		
Frequency (MHz)	5180	5200	5240
A Mode	32	40	39
N20 Mode	36	40	39
Frequency (MHz)	5190	5230	
N40 Mode	38	40	

UNII-3			
Test Software Version	ART		
Frequency (MHz)	5745	5785	5825
A Mode	21	20	18
N20 Mode	22	21	21
Frequency (MHz)	5755	5795	
N40 Mode	23	21	

UNII-1			
Test Software Version	ART		
Frequency (MHz)	5180	5200	5240
AC20 Mode	32	40	39
Frequency (MHz)	5190	5230	
AC40 Mode	37	40	
Frequency (MHz)	5210		
AC80 Mode	34		

UNII-3			
Test Software Version	ART		
Frequency (MHz)	5745	5785	5825
AC20 Mode	21	20	18
Frequency (MHz)	5755	5795	
AC40 Mode	0	0	
Frequency (MHz)	5775		
AC80 Mode	20		

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.	Note
-	-	-	-	-	-	

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	

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.

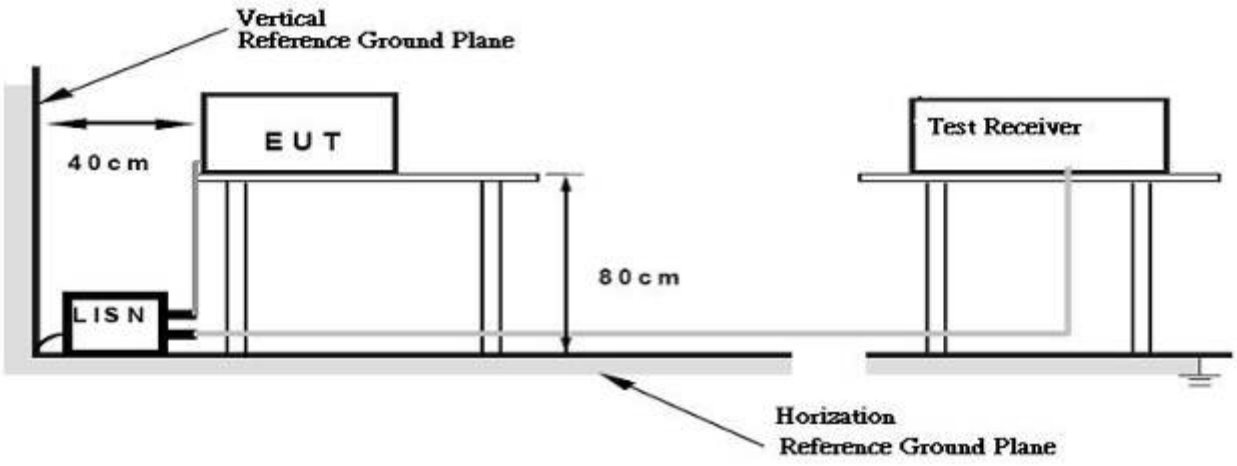
d. LISN at least 80 cm from nearest part of EUT chassis.

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: 55% Test Voltage: AC 120V/60Hz

4.1.7 TEST RESULTS

Please refer to the Attachment 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

20dBc in any 100 kHz bandwidth outside the operating frequency band. 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

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
5725-5850	-27 (beyond 10MHz of the band edge)	68.3
	-17 (within 10 MHz of band edge)	78.3

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts)

4.2.2 TEST PROCEDURE

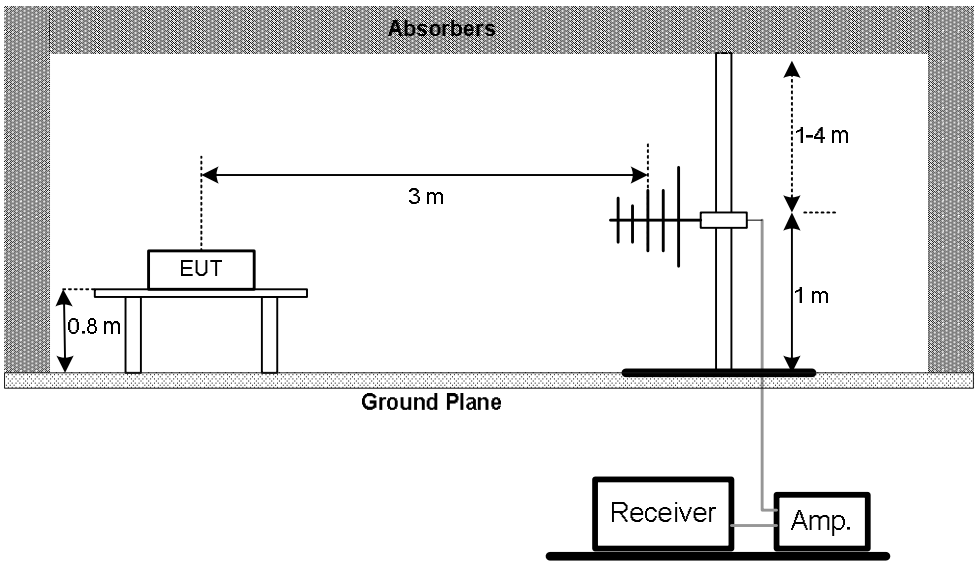
a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.3 DEVIATION FROM TEST STANDARD

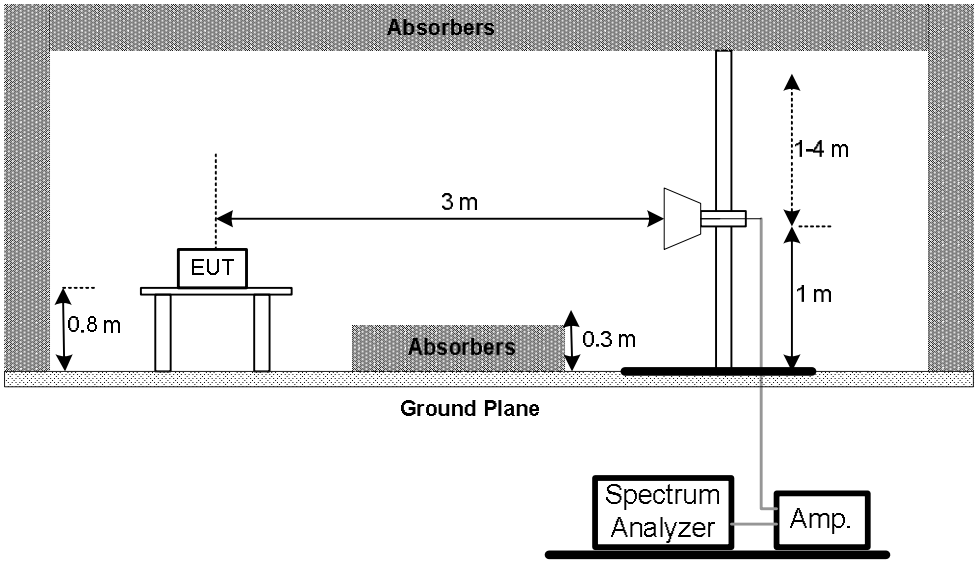
No deviation

4.2.4 TEST SETUP

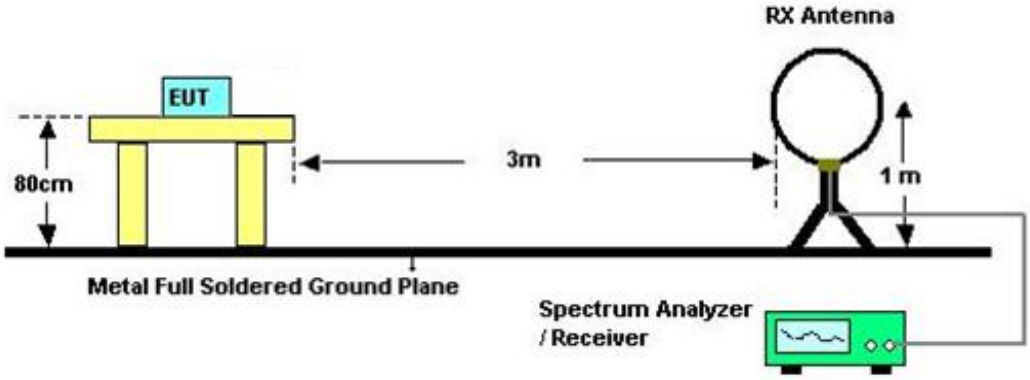
(A) Radiated Emission Test Set-Up Frequency30 - 1000MHz



(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: 55% Test Voltage: AC 120V/60Hz

4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Attachment 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 (specific distance / 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 Attachment C.

Remark:

(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz；SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz。
(2) 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。
(3) Measuring frequency range from 30MHz to 1000MHz。
(4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table。

4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Attachment D.

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. 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
	Minimum 500KHz 6dB Bandwidth	5725-5850	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.

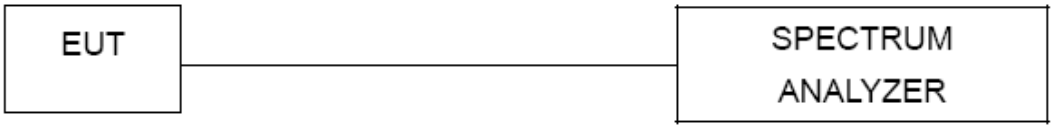
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	300 kHz
VBW	1000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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: 55% Test Voltage: AC 120V/60Hz

5.1.6 TEST RESULTS

Please refer to the Attachment 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
	1 Watt (30dBm)	5725-5850	PASS

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.

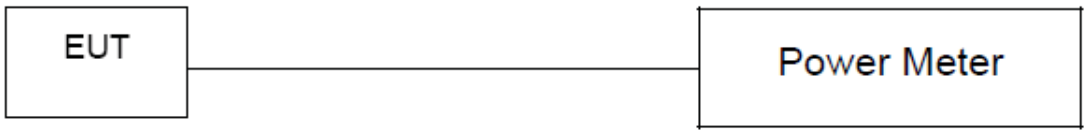
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1MHz.
VBW	≥ 3MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

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: 55% Test Voltage: AC 120V/60Hz

6.1.6 TEST RESULTS

Please refer to the Attachment F.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	-27dBm/MHz	5150-5250	PASS
	Below -17dBm/MHz within 10MHz of band edge, below -27dBm/MHz beyond 10MHz of the band edge	5725-5850	PASS

7.1.1 TEST PROCEDURE

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

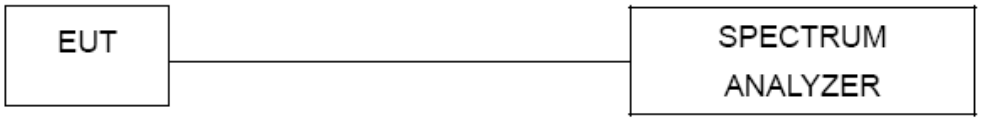
b.

Spectrum Parameter	Setting
Attenuation	Auto
RBW	1000kHz
VBW	1000kHz
Trace	Max Hold
Sweep Time	Auto

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 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.

7.1.5 EUT TEST CONDITIONS

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

7.1.6 TEST RESULTS

Please refer to the Attachment G.

8. POWER SPECTRAL DENSITY TEST

8.1 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
	30dBm/500KHz	5725-5850	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	Max Hold
Sweep Time	Auto

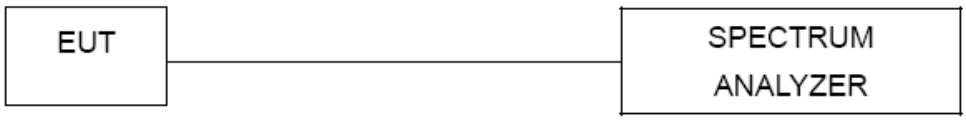
Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, 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.
2. The value measured with RBW=1MHz is to be added with 10log(500kHz/1MHz) which is -3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is +10dBm/MHz), then the converted value will be +7dBm/500kHz.

8.1.1 DEVIATION FROM STANDARD

No deviation.

8.1.2 TEST SETUP



8.1.3 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.

8.1.4 EUT TEST CONDITIONS

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

8.1.5 TEST RESULTS

Please refer to the Attachment H.

9. FREQUENCY STABILITY MEASUREMENT

9.1 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
		5725-5850	PASS

9.1.1 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

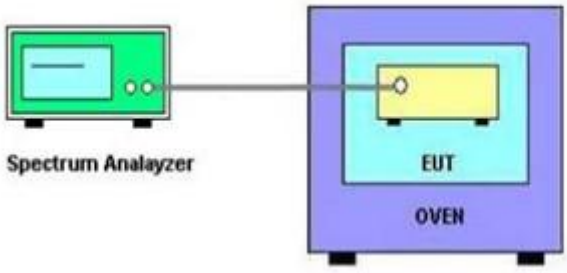
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is 0°C~50°C.

9.1.2 DEVIATION FROM STANDARD

No deviation.

9.1.3 TEST SETUP



9.1.4 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.

9.1.5 EUT TEST CONDITIONS

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

9.1.6 TEST RESULTS

Please refer to the Attachment I.

10. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	EMCO	3816/2	00052765	Mar. 29, 2015
2	LISN	R&S	ENV216	100087	Mar. 29, 2015
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	Mar. 29, 2015
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015
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. 29, 2015
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015
3	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 01, 2015
5	Controller	CT	SC100	N/A	N/A
6	Antenna	ETS	3115	00075789	Mar. 29, 2015
7	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015
8	Receiver	AGILENT	N9038A	MY52130039	Sep. 30, 2015
9	Test Cable	HUBER+SUHNER	C-48	N/A	Apr. 30, 2015
10	Controller	CT	SC100	N/A	N/A
11	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015
12	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 22, 2015
13	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015
14	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	FSP30	100854	Oct. 26, 2015

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series Power meter	Agilent	N1911A	MY45100473	Mar. 29, 2015
2	Wireband Power sensor	Agilent	N1921A	MY51100041	Mar. 29, 2015

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP30	100854	Oct. 26, 2015

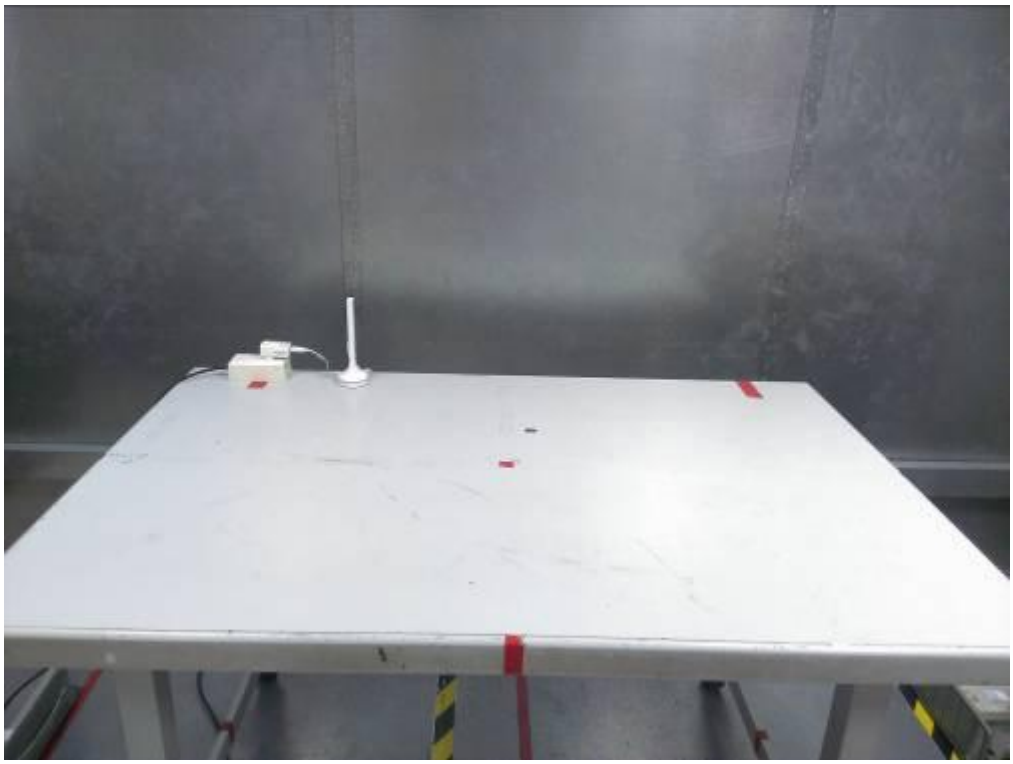
Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP30	100854	Oct. 26, 2015

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP30	100854	Oct. 26, 2015
2	Precision Oven Tester	HOLINK	H-T-1F-D	BA03101701	May. 24, 2015

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

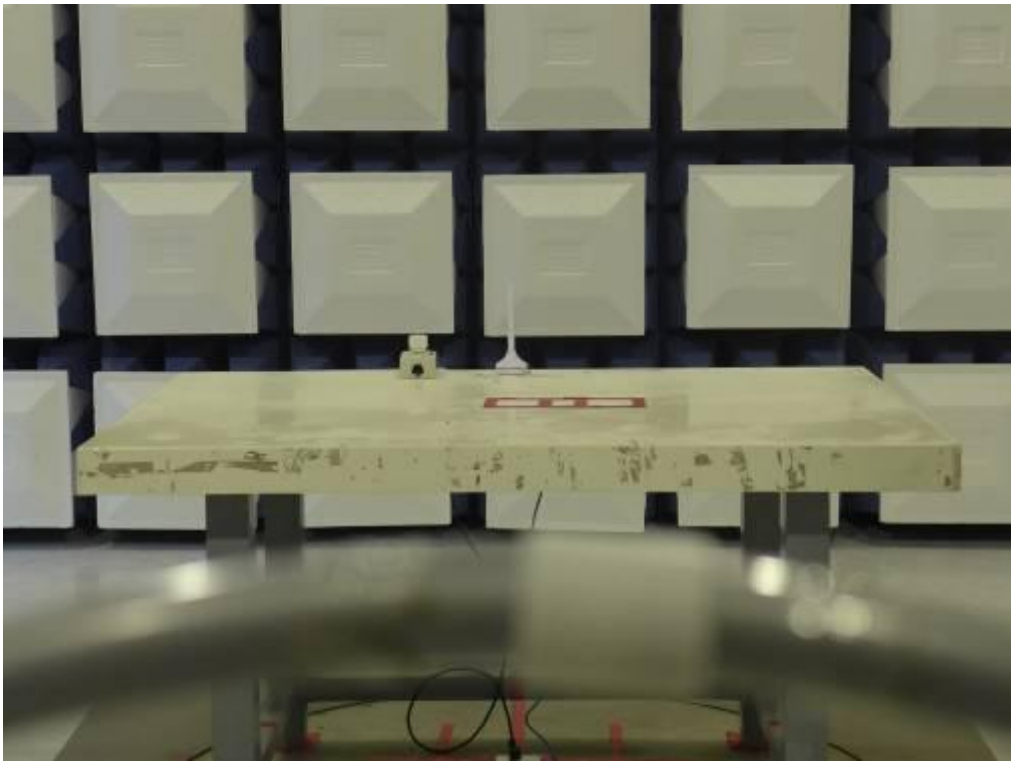
11. EUT TEST PHOTOS

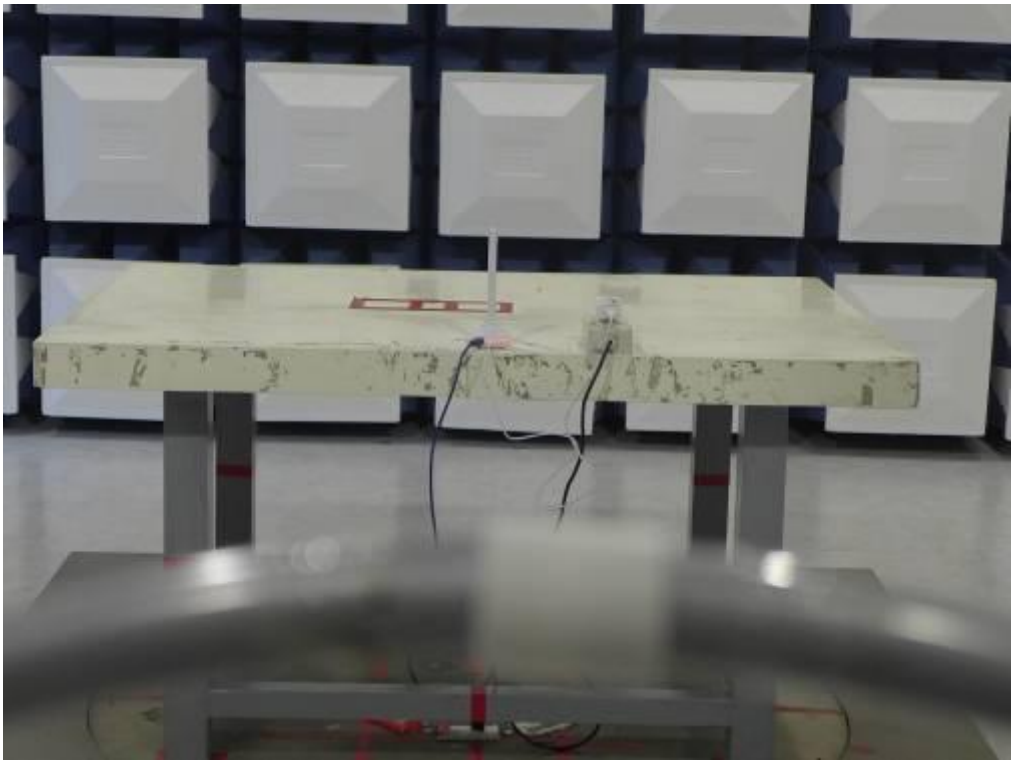
Conducted Measurement Photos



Radiated Measurement Photos

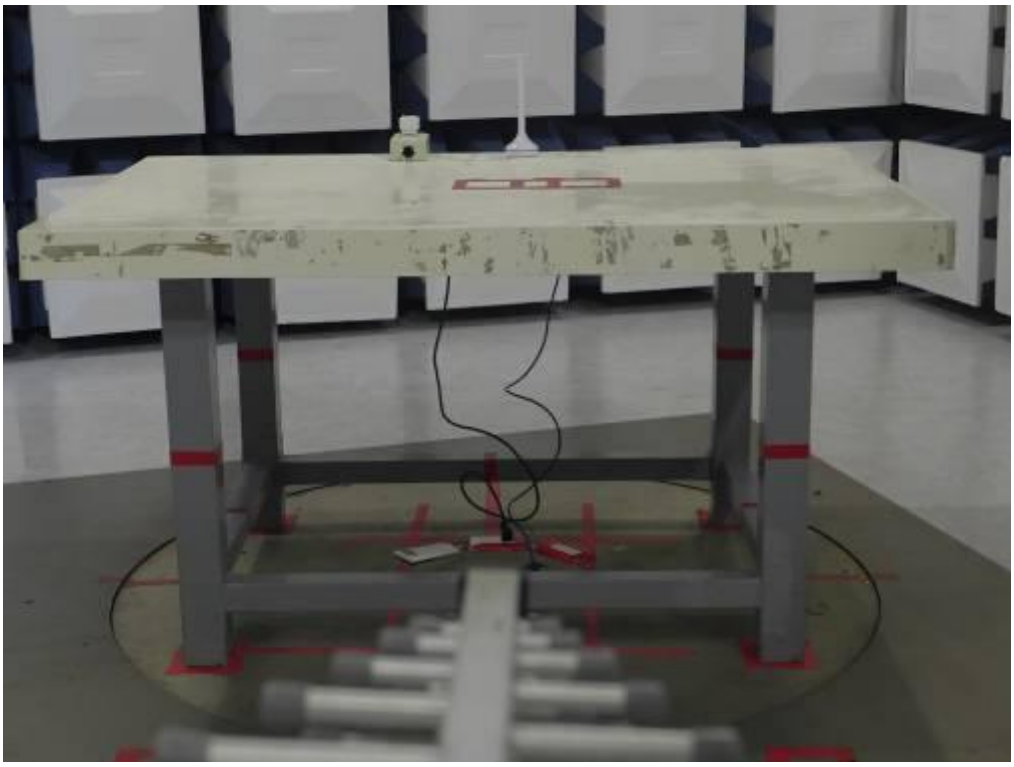
9KHz to 30MHz

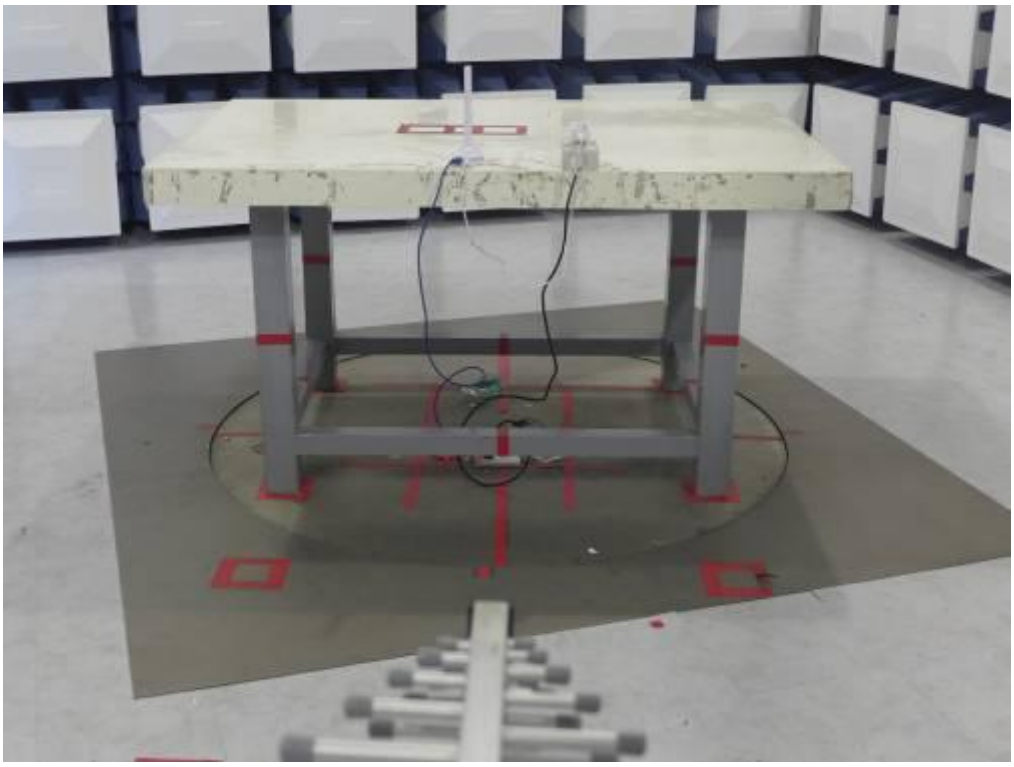




Radiated Measurement Photos

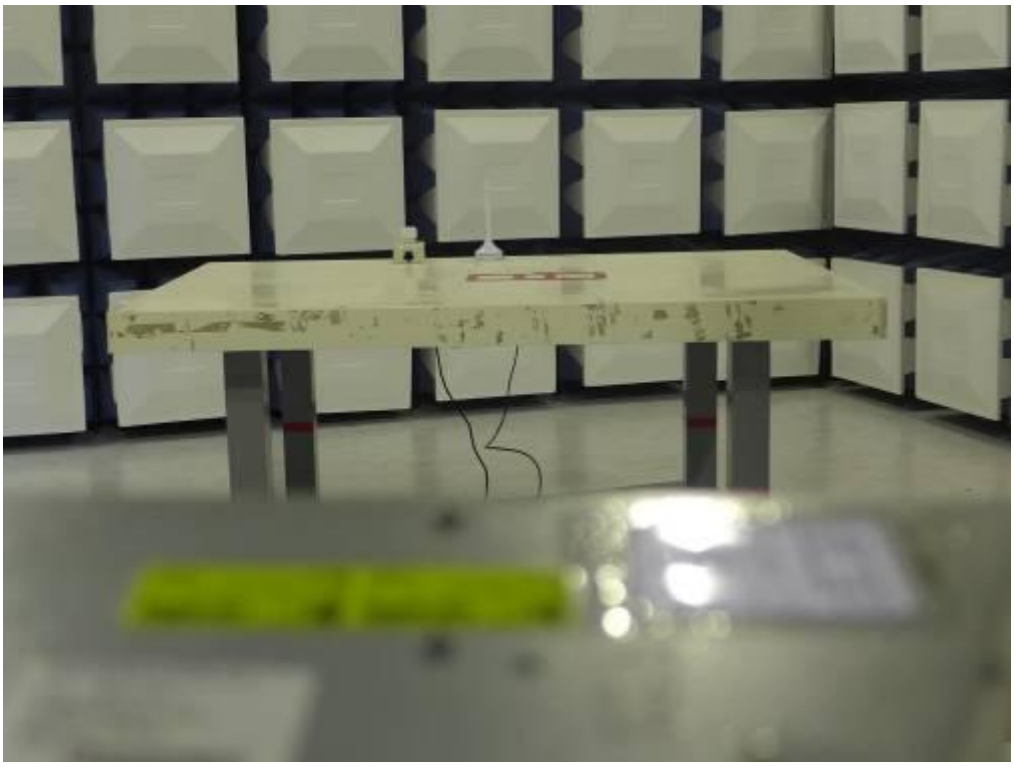
30MHz to 1000MHz

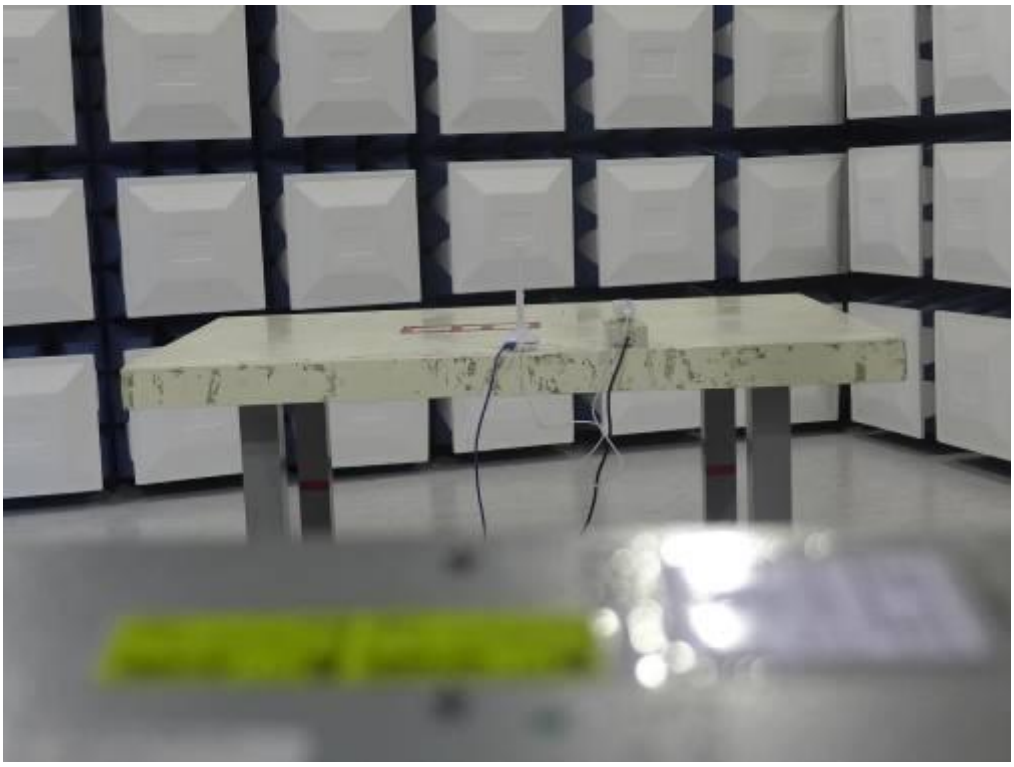




Radiated Measurement Photos

Above 1000MHz

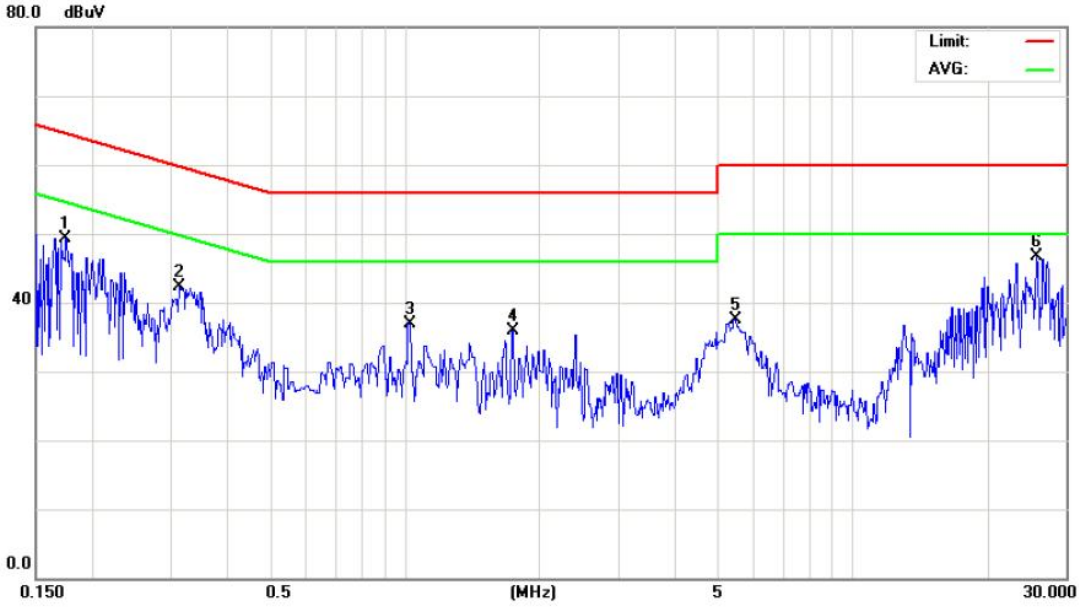




ATTACHMENT A - CONDUCTED EMISSION

Test Mode:	TX MODE

Line

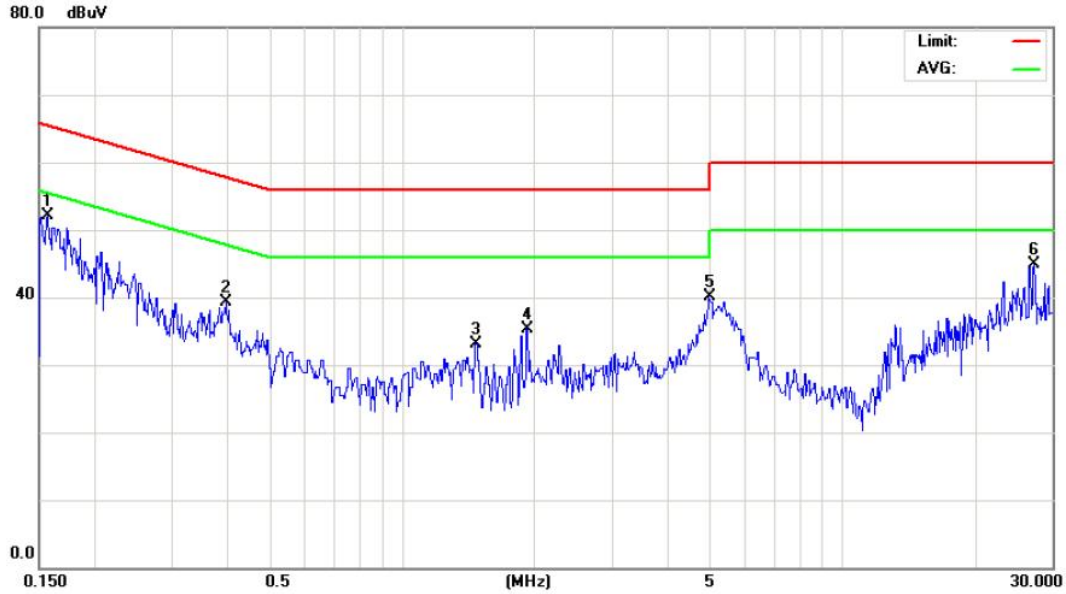


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1748	39.73	9.60	49.33	64.72	-15.39	peak	
2		0.3120	32.62	9.61	42.23	59.91	-17.68	peak	
3		1.0220	27.18	9.65	36.83	56.00	-19.17	peak	
4		1.7418	26.11	9.70	35.81	56.00	-20.19	peak	
5		5.4500	27.65	9.83	37.48	60.00	-22.52	peak	
6	*	25.6996	36.74	9.91	46.65	60.00	-13.35	peak	

Note：The test result has included the cable loss.

Test Mode:	TX MODE

Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1570	42.52	9.60	52.12	65.62	-13.50	peak	
2		0.3970	29.70	9.60	39.30	57.91	-18.61	peak	
3		1.4717	23.45	9.66	33.11	56.00	-22.89	peak	
4		1.9217	25.51	9.70	35.21	56.00	-20.79	peak	
5		5.0000	30.35	9.83	40.18	56.00	-15.82	peak	
6		27.1997	35.03	9.93	44.96	60.00	-15.04	peak	

Note：The test result has included the cable loss.

ATTACHMENT B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode:	TX MODE

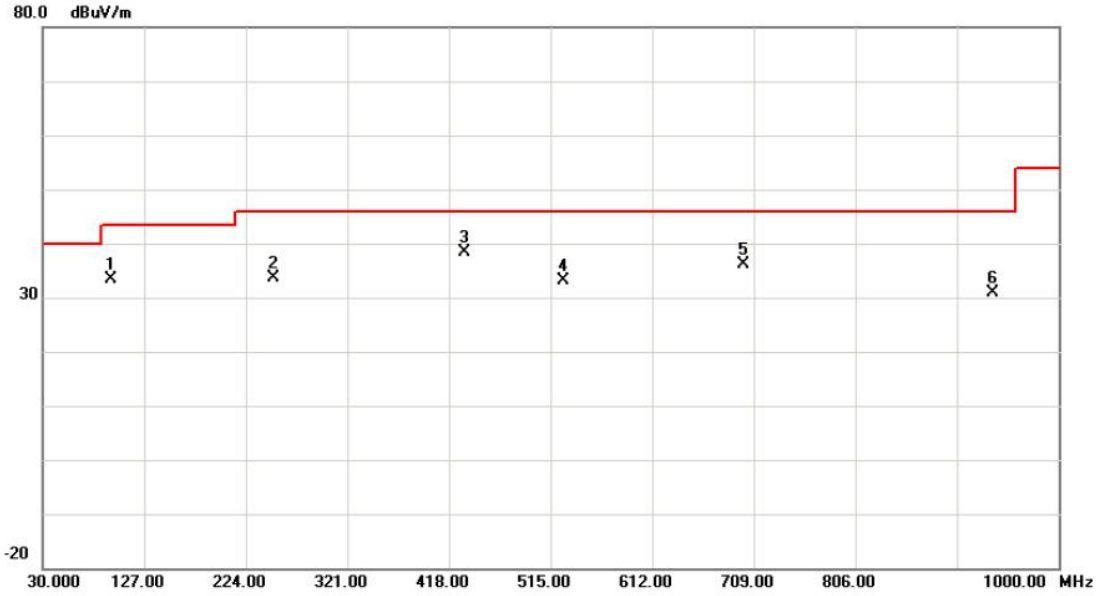
Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0140	0°	44.78	22.30	67.08	124.68	-57.60	PK
0.0140	0°	31.37	22.30	53.67	124.68	-71.01	AV
0.0257	0°	42.97	22.01	64.98	119.41	-54.43	PK
0.0257	0°	28.59	22.01	50.60	119.41	-68.81	AV
0.0392	0°	34.37	21.67	56.04	115.74	-59.70	PK
0.0392	0°	24.19	21.67	45.86	115.74	-69.88	AV
0.0623	0°	35.59	21.20	56.79	111.71	-54.92	PK
0.0623	0°	24.87	21.20	46.07	111.71	-65.64	AV
0.2557	0°	34.51	20.44	54.95	99.45	-44.50	PK
0.2557	0°	22.54	20.44	42.98	99.45	-56.47	AV

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0143	90°	45.54	22.29	67.83	124.50	-56.67	PK
0.0143	90°	32.28	22.29	54.57	124.50	-69.93	AV
0.0250	90°	43.41	22.03	65.44	119.65	-54.21	PK
0.0250	90°	31.61	22.03	53.64	119.65	-66.01	AV
0.0394	90°	33.84	21.67	55.51	115.69	-60.19	PK
0.0394	90°	22.75	21.67	44.42	115.69	-71.28	AV
0.0626	90°	36.66	21.20	57.86	111.67	-53.81	PK
0.0626	90°	22.54	21.20	43.74	111.67	-67.93	AV
0.2681	90°	32.51	20.43	52.94	99.04	-46.10	PK
0.2681	90°	22.38	20.43	42.81	99.04	-56.23	AV

ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)

Test Mode:	UNII-1/TX A Mode 5200MHz

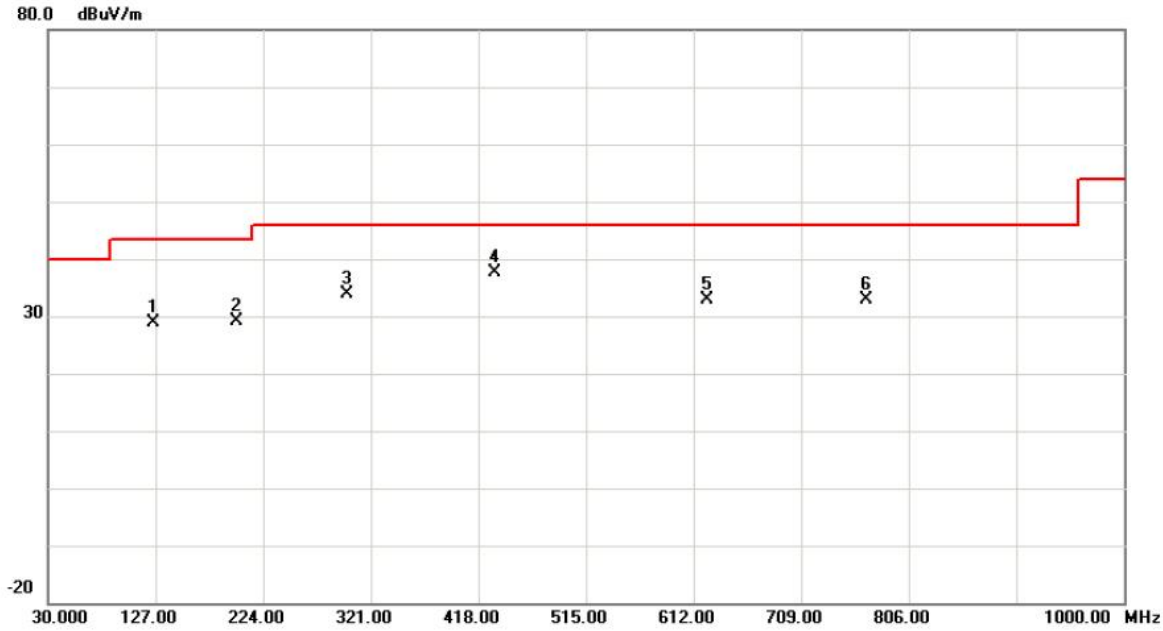
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		95.4750	52.93	-19.50	33.43	43.50	-10.07	peak	
2		250.6750	48.66	-15.10	33.56	46.00	-12.44	peak	
3	*	432.5500	48.46	-10.16	38.30	46.00	-7.70	peak	
4		527.1250	41.84	-8.59	33.25	46.00	-12.75	peak	
5		699.3000	41.60	-5.44	36.16	46.00	-9.84	peak	
6		936.9500	32.92	-2.03	30.89	46.00	-15.11	peak	

Test Mode:	UNII-1/TX A Mode 5200MHz

Horizontal

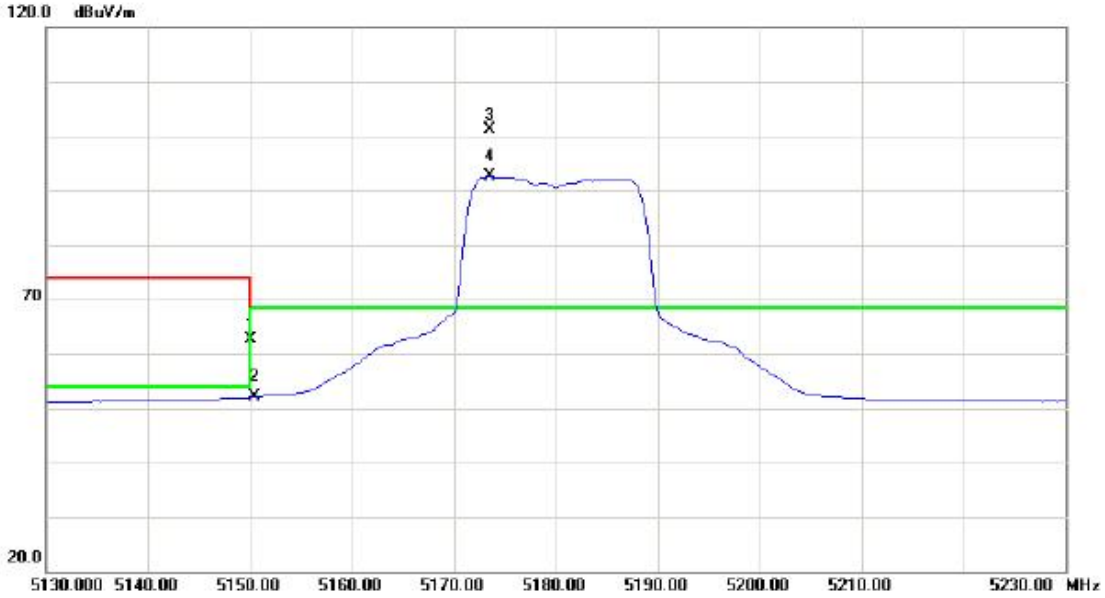


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		124.5750	44.62	-15.80	28.82	43.50	-14.68	peak	
2		199.7500	45.80	-16.72	29.08	43.50	-14.42	peak	
3		299.1750	47.42	-13.51	33.91	46.00	-12.09	peak	
4	*	432.5500	47.79	-10.16	37.63	46.00	-8.37	peak	
5		624.1250	40.05	-7.19	32.86	46.00	-13.14	peak	
6		767.2000	37.68	-4.91	32.77	46.00	-13.23	peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

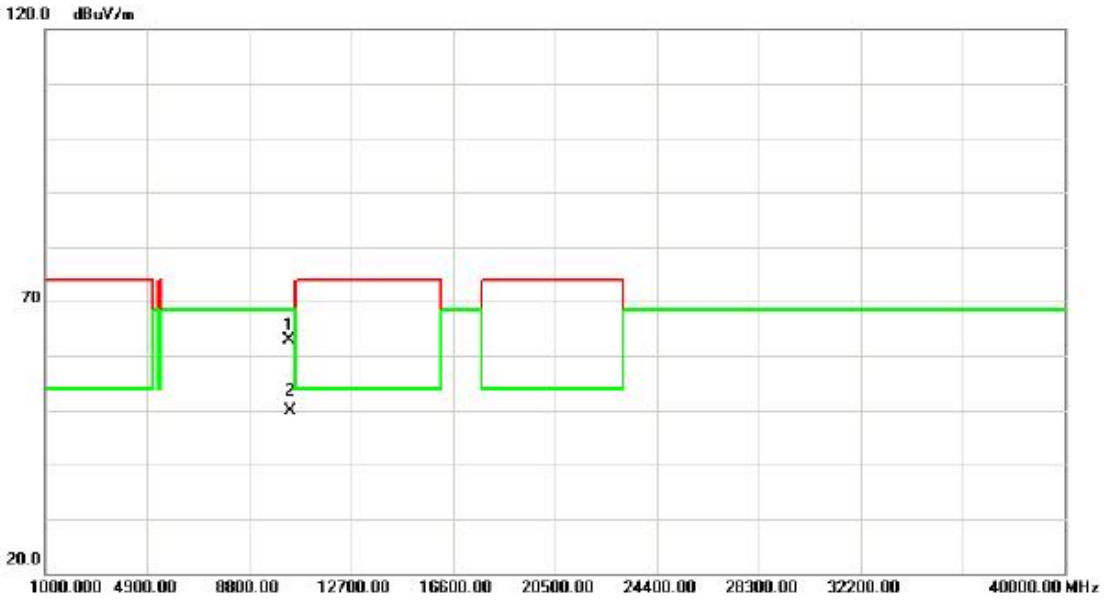
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	24.91	37.74	62.65	68.30	-5.65	peak	
2		5150.000	14.29	37.74	52.03	54.00	-1.97	AVG	
3	*	5173.500	63.24	37.82	101.06	68.30	32.76	peak	NO LIMIT
4	X	5173.500	54.71	37.82	92.53	68.30	24.23	AVG	NO LIMIT

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

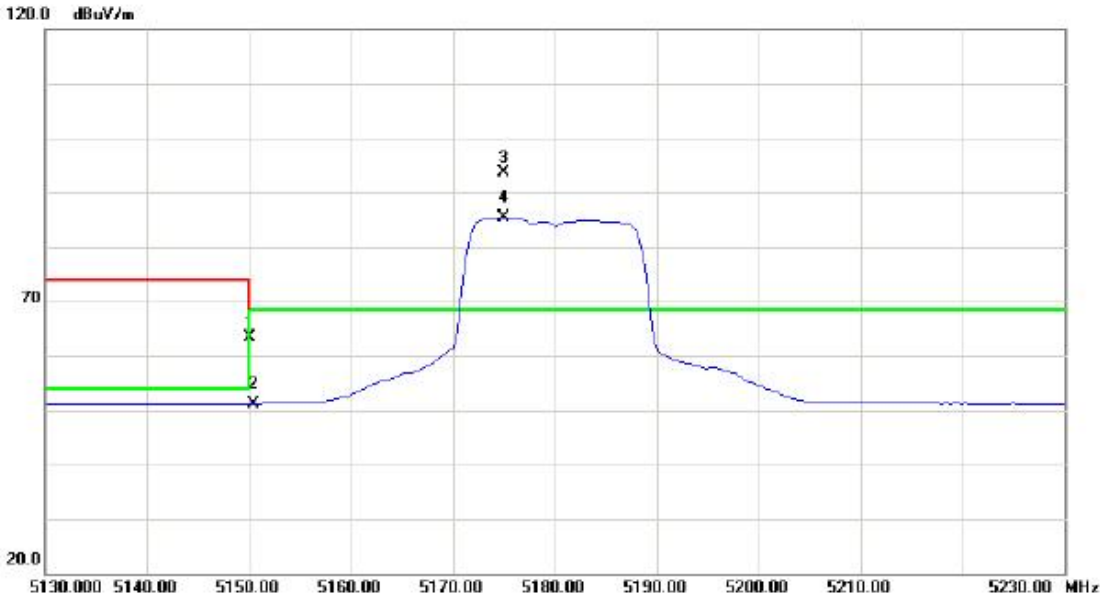
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10358.57	45.23	17.73	62.96	68.30	-5.34	peak	
2		10359.02	32.21	17.73	49.94	68.30	-18.36	AVG	

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

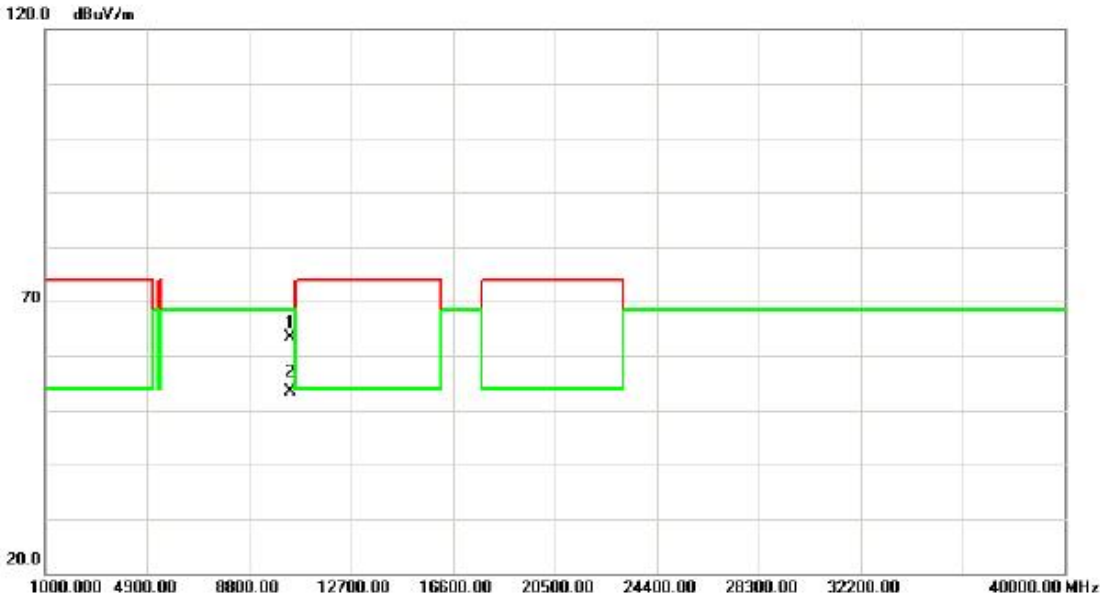
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	25.54	37.74	63.28	68.30	-5.02	peak	
2		5150.000	13.47	37.74	51.21	54.00	-2.79	AVG	
3	*	5175.000	55.74	37.83	93.57	68.30	25.27	peak	NO LIMIT
4	X	5175.000	47.51	37.83	85.34	68.30	17.04	AVG	NO LIMIT

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

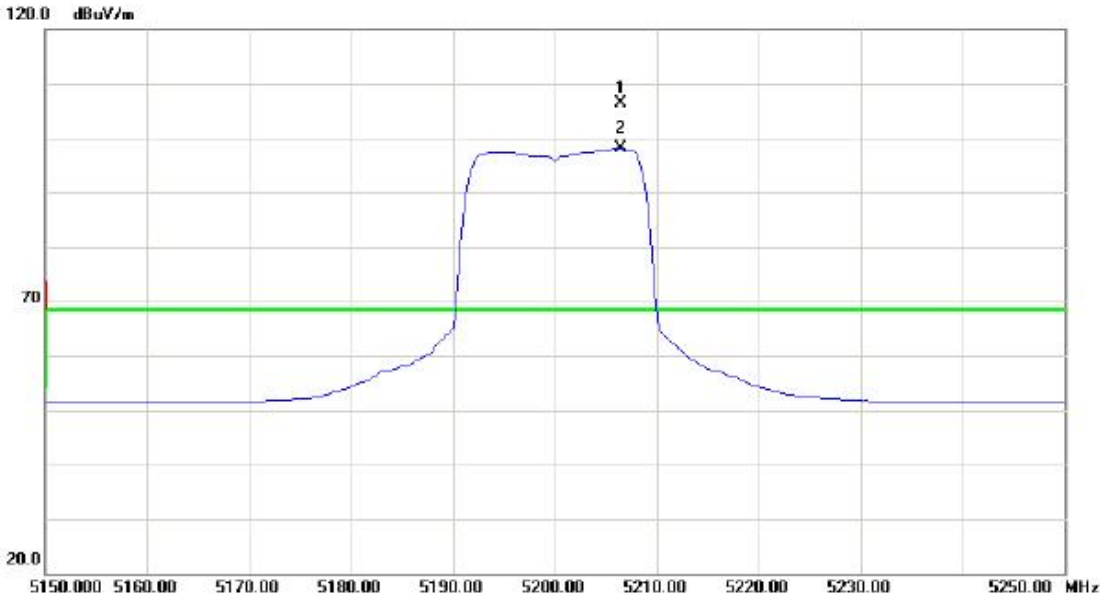
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10360.10	45.74	17.74	63.48	68.30	-4.82	peak	
2		10360.10	35.55	17.74	53.29	68.30	-15.01	AVG	

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

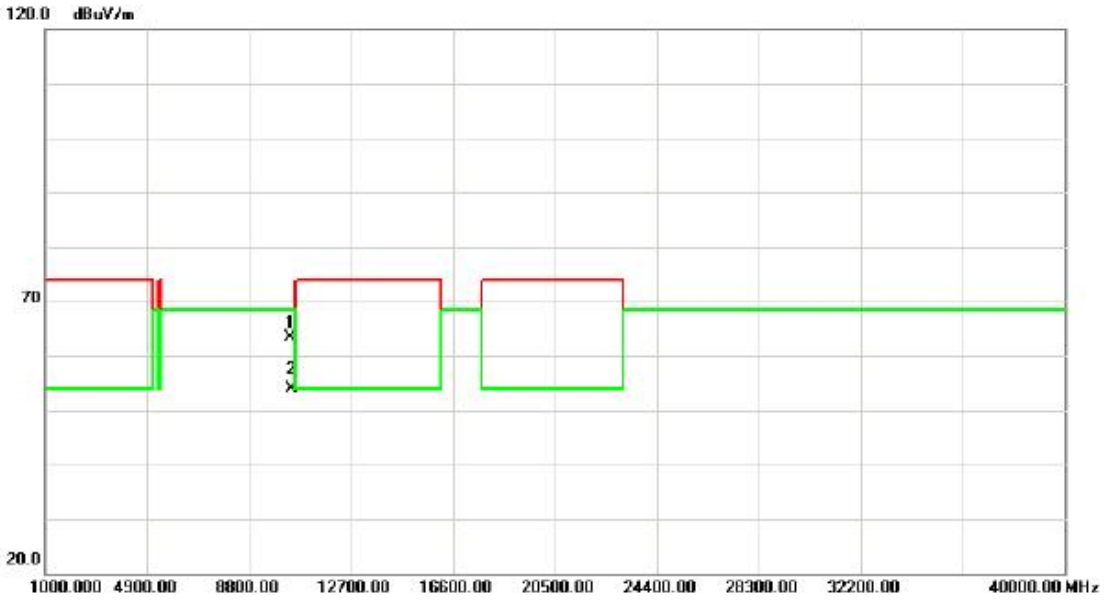
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5206.500	68.50	37.94	106.44	68.30	38.14	peak	NO LIMIT
2	X	5206.500	60.21	37.94	98.15	68.30	29.85	AVG	NO LIMIT

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

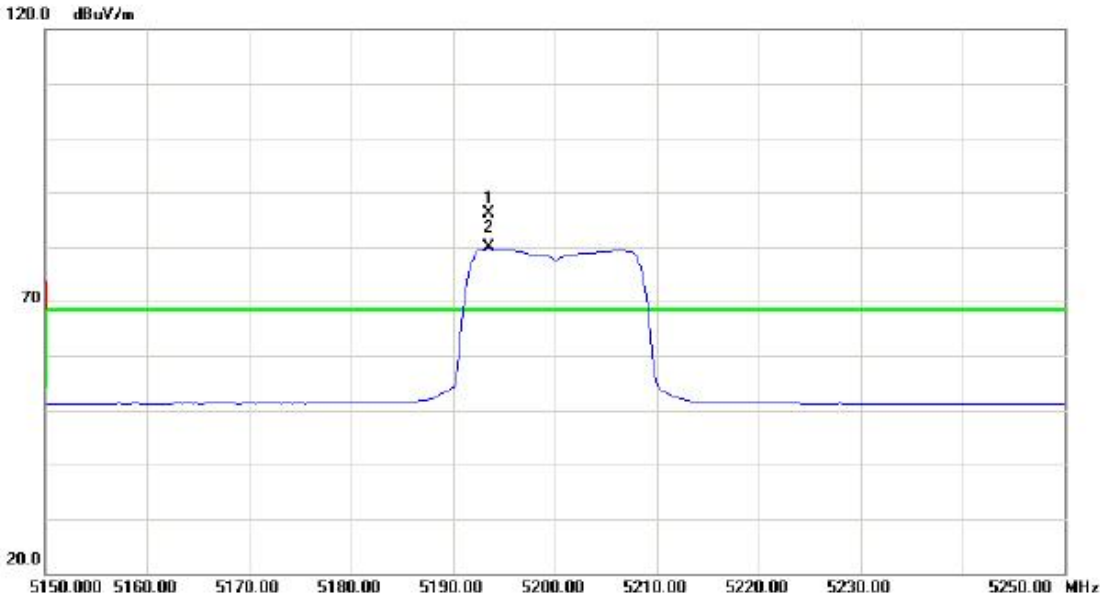
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10400.05	45.44	17.92	63.36	68.30	-4.94	peak	
2		10400.05	35.87	17.92	53.79	68.30	-14.51	AVG	

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

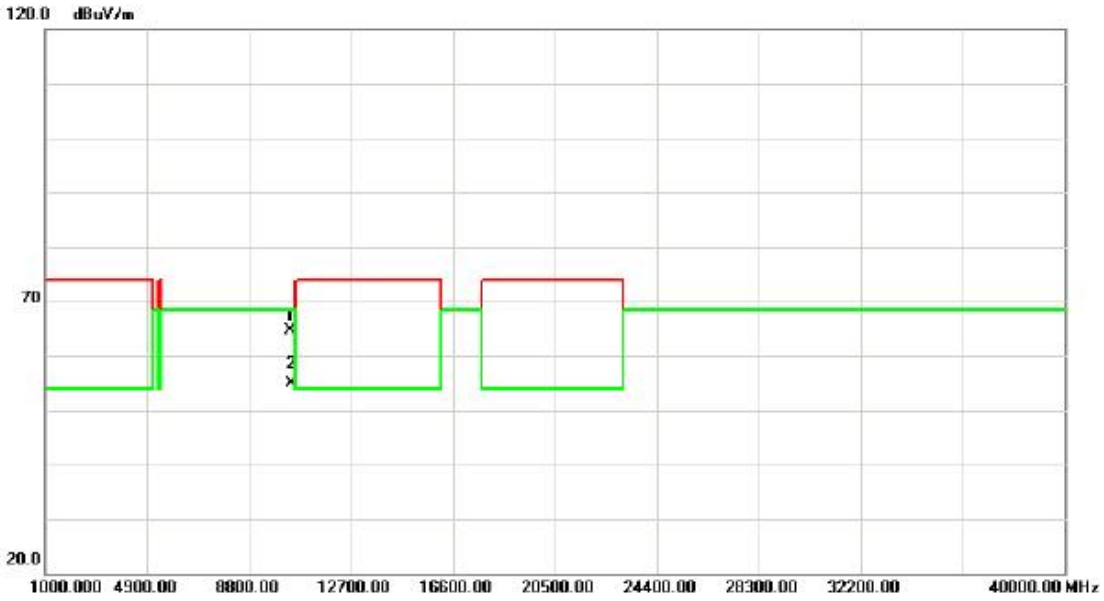
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5193.500	48.25	37.89	86.14	68.30	17.84	peak	NO LIMIT
2	X	5193.500	41.88	37.89	79.77	68.30	11.47	AVG	NO LIMIT

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

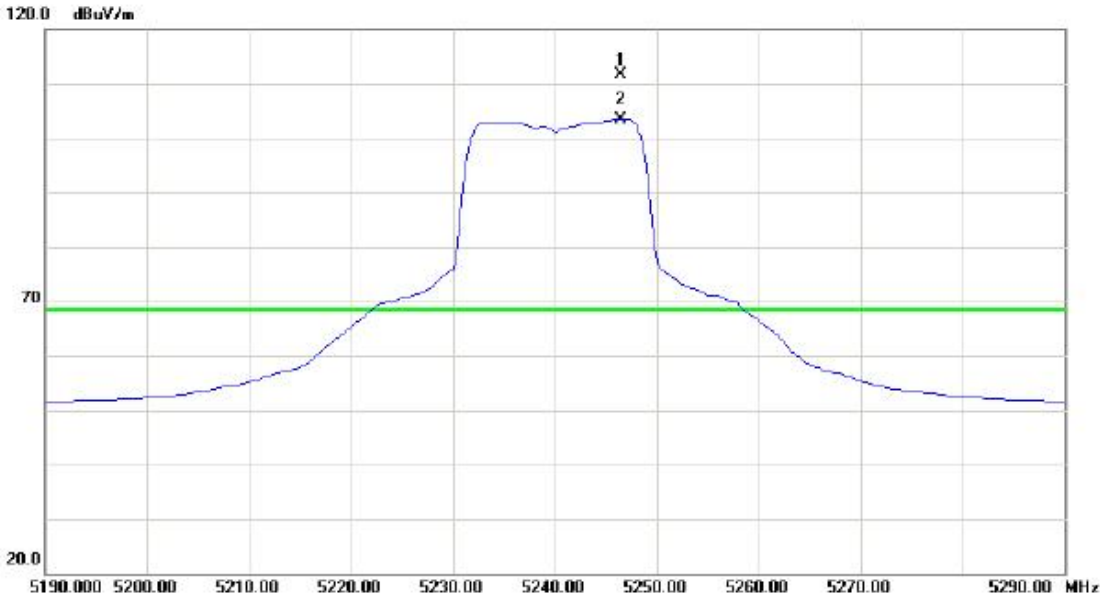
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10399.87	46.81	17.92	64.73	68.30	-3.57	peak	
2		10399.87	37.08	17.92	55.00	68.30	-13.30	AVG	

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

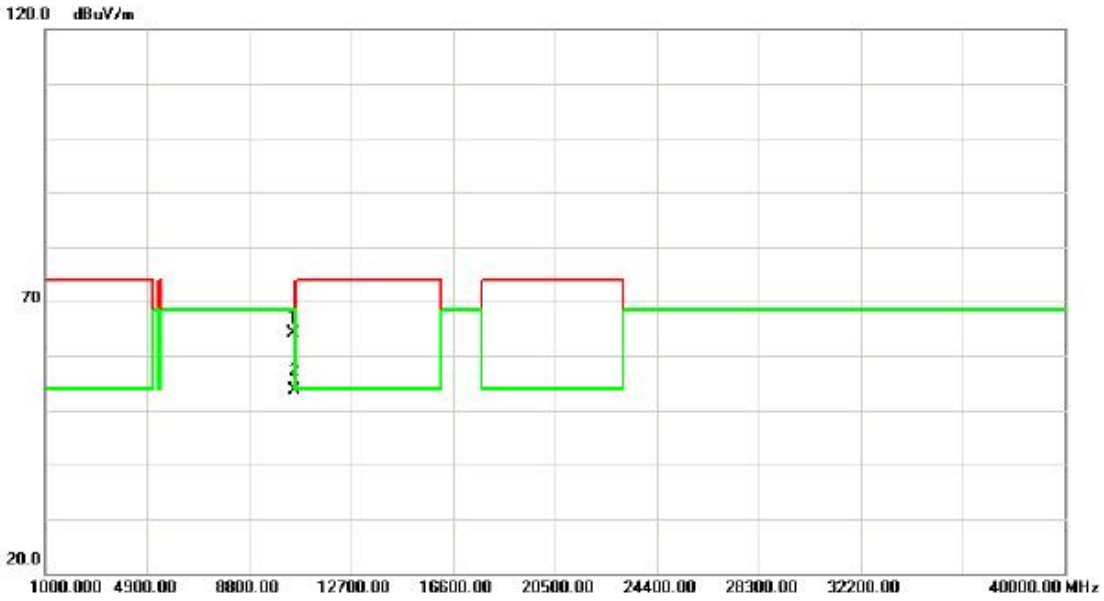
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5246.500	73.52	38.08	111.60	68.30	43.30	peak	NO LIMIT
2	X	5246.500	65.38	38.08	103.46	68.30	35.16	AVG	NO LIMIT

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

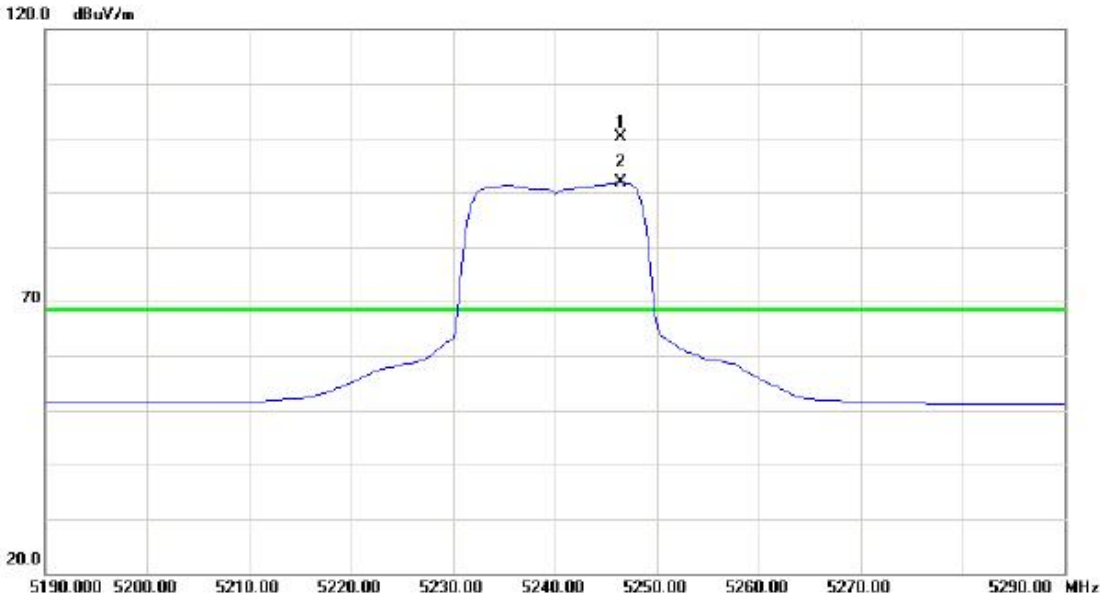
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10479.67	45.96	18.29	64.25	68.30	-4.05	peak	
2		10479.85	35.26	18.29	53.55	68.30	-14.75	AVG	

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

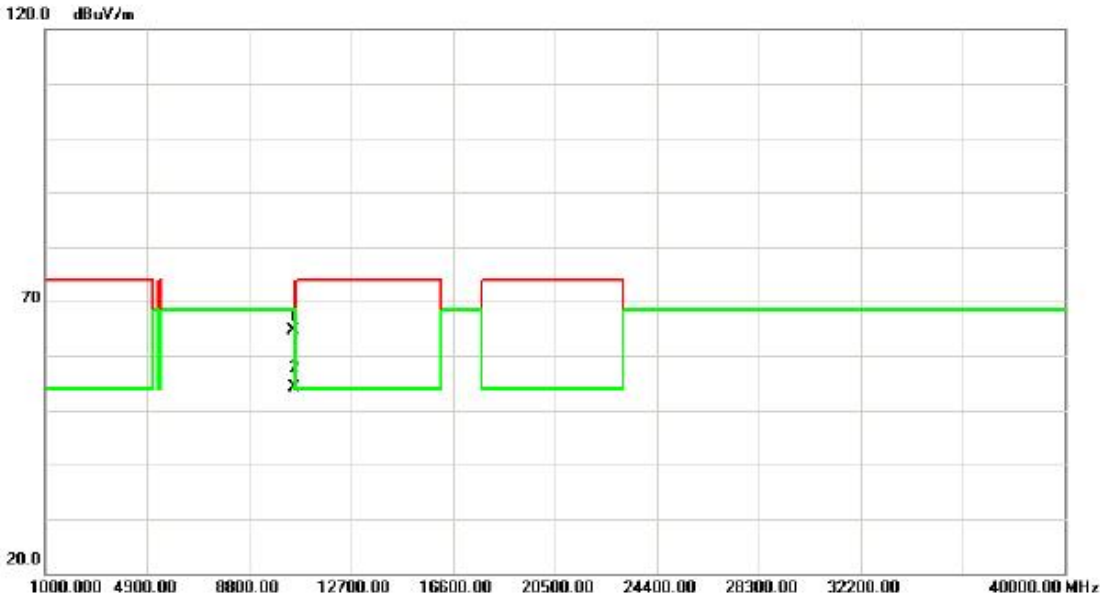
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5246.500	62.15	38.08	100.23	68.30	31.93	peak	NO LIMIT
2	X	5246.500	53.74	38.08	91.82	68.30	23.52	AVG	NO LIMIT

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

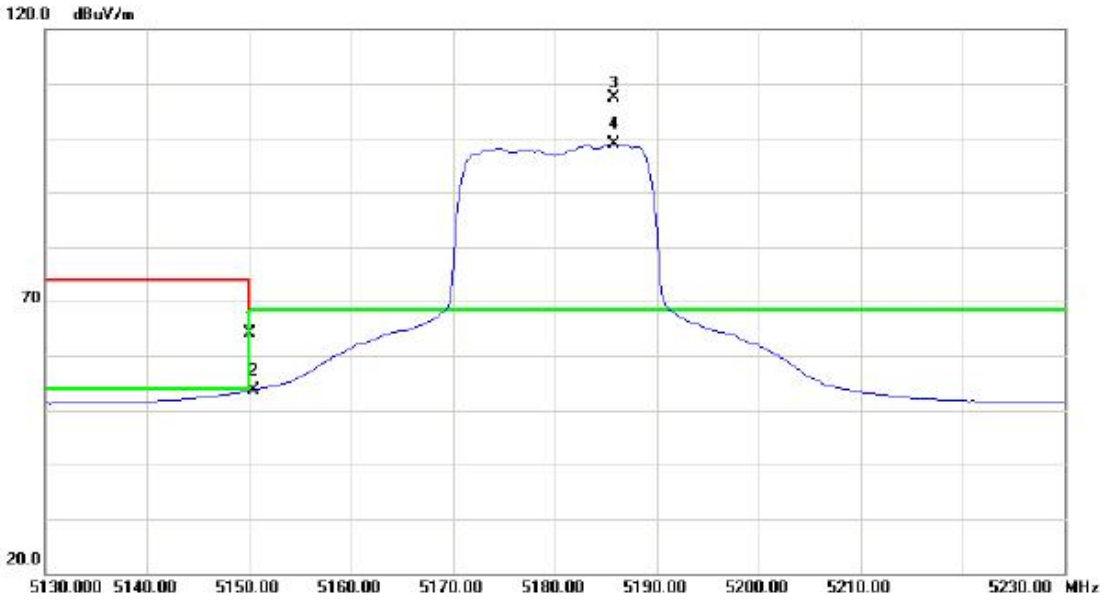
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10479.85	46.36	18.29	64.65	68.30	-3.65	peak	
2		10479.85	35.81	18.29	54.10	68.30	-14.20	AVG	

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

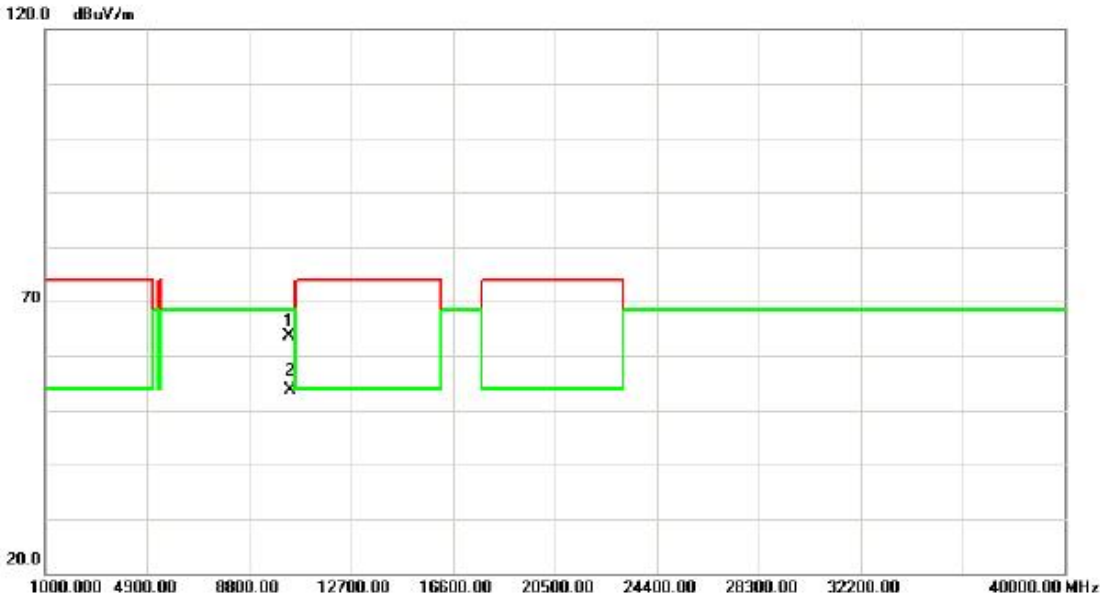
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	26.45	37.74	64.19	68.30	-4.11	peak	
2		5150.000	15.83	37.74	53.57	54.00	-0.43	AVG	
3	*	5185.750	69.40	37.86	107.26	68.30	38.96	peak	NO LIMIT
4	X	5185.750	61.14	37.86	99.00	68.30	30.70	AVG	NO LIMIT

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

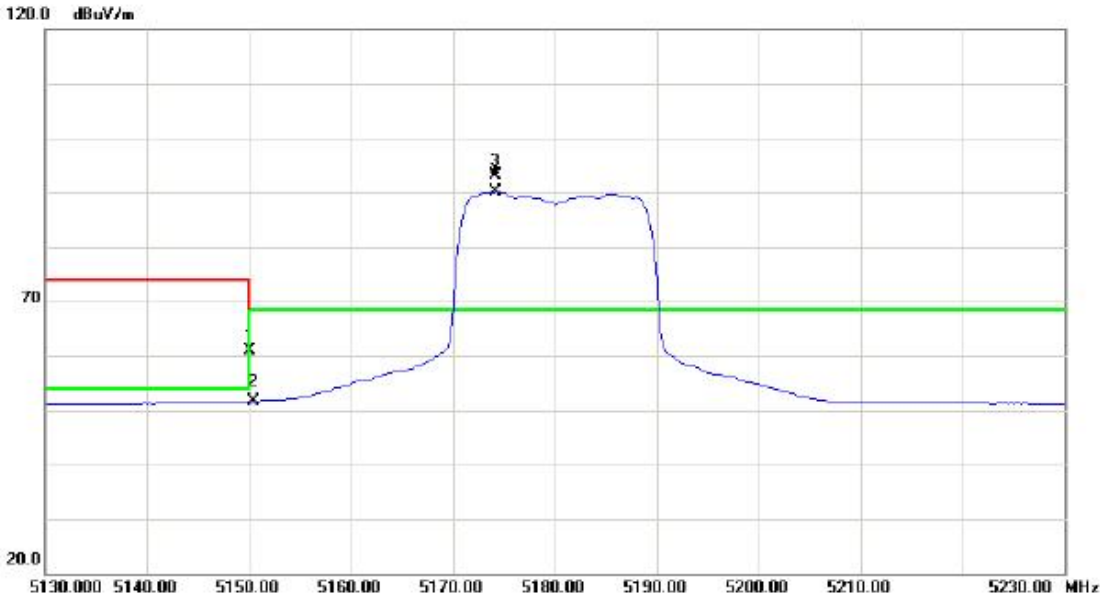
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10359.67	45.99	17.74	63.73	68.30	-4.57	peak	
2		10359.82	35.83	17.74	53.57	68.30	-14.73	AVG	

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

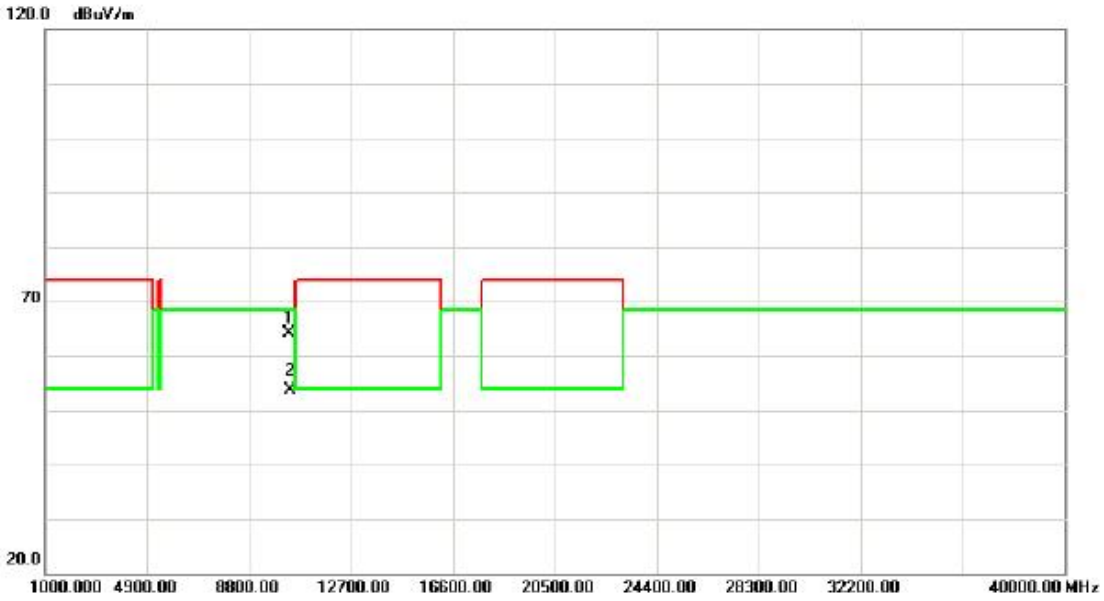
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	23.20	37.74	60.94	68.30	-7.36	peak	
2		5150.000	13.96	37.74	51.70	54.00	-2.30	AVG	
3	*	5174.250	55.35	37.82	93.17	68.30	24.87	peak	NO LIMIT
4	X	5174.250	52.20	37.82	90.02	68.30	21.72	AVG	NO LIMIT

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

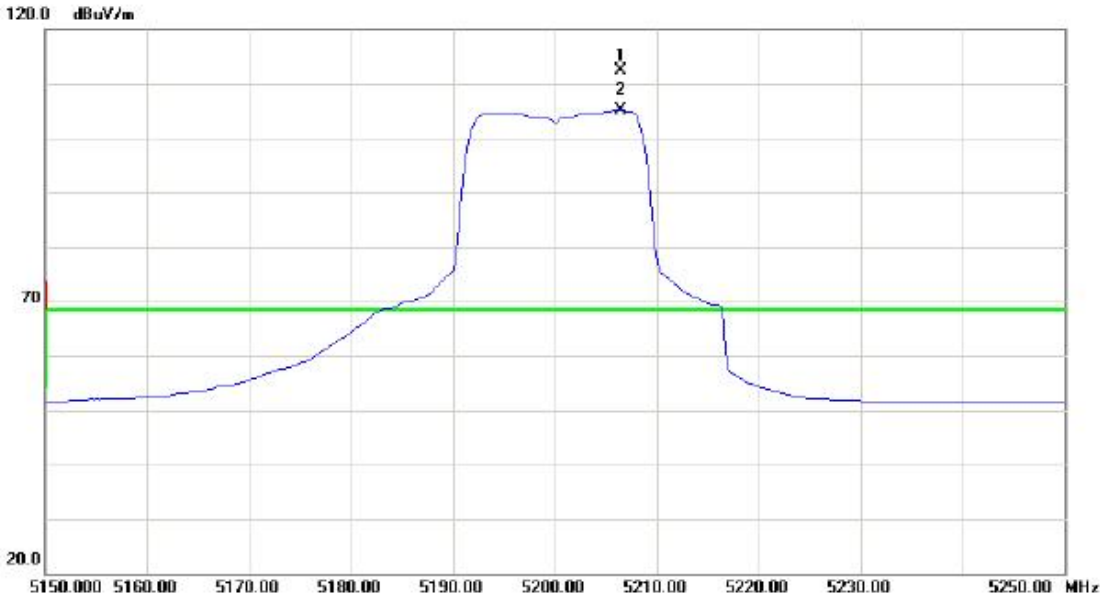
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10359.82	46.49	17.74	64.23	68.30	-4.07	peak	
2		10359.82	36.00	17.74	53.74	68.30	-14.56	AVG	

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

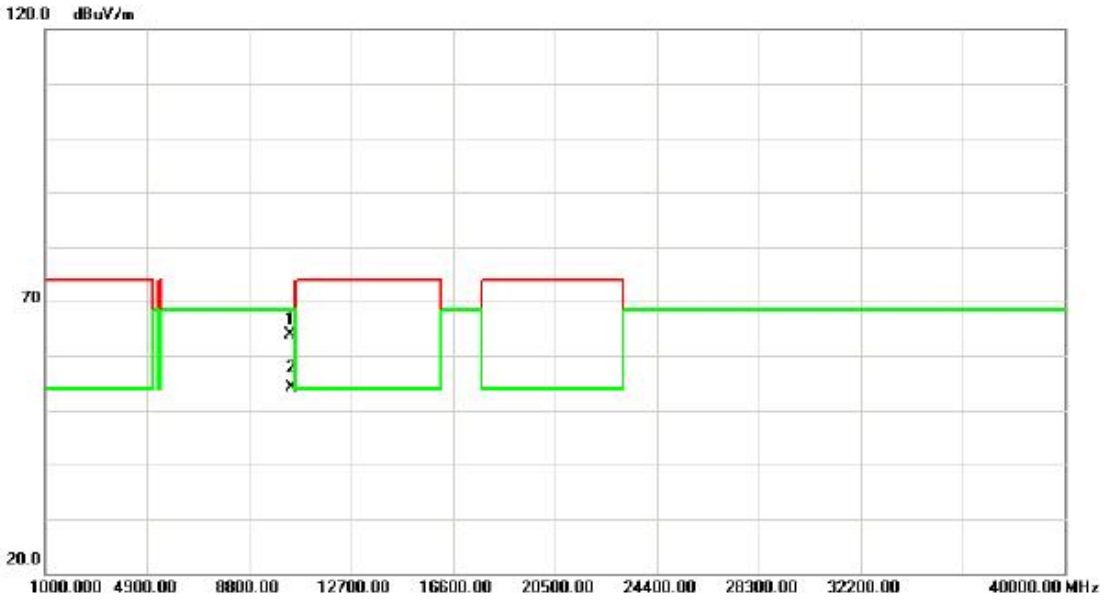
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5206.500	74.51	37.94	112.45	68.30	44.15	peak	NO LIMIT
2	X	5206.500	67.22	37.94	105.16	68.30	36.86	AVG	NO LIMIT

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

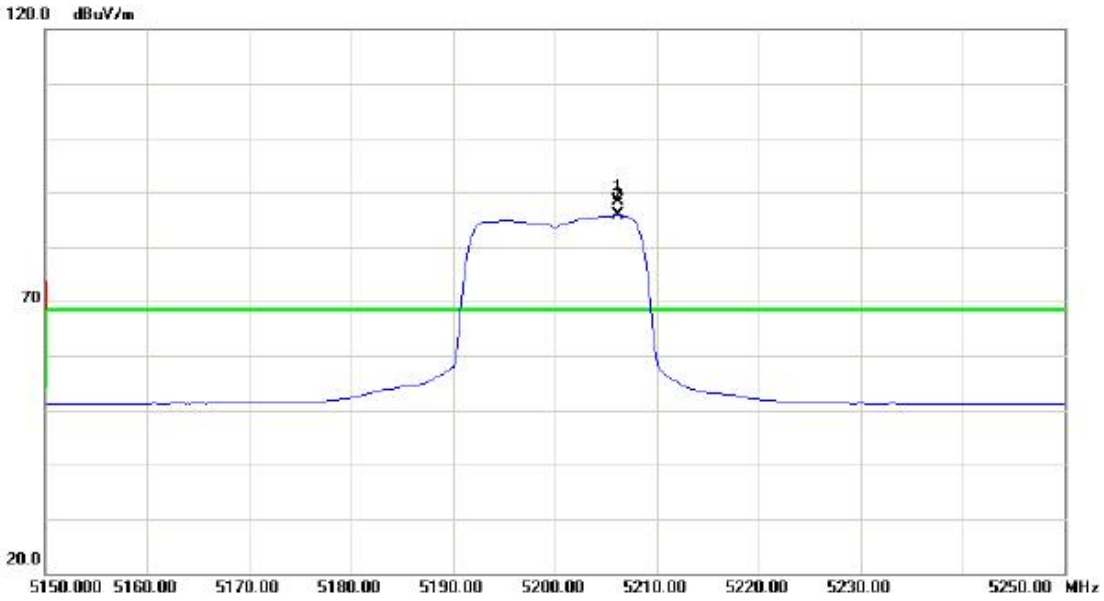
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10400.02	45.90	17.92	63.82	68.30	-4.48	peak	
2		10400.02	36.22	17.92	54.14	68.30	-14.16	AVG	

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

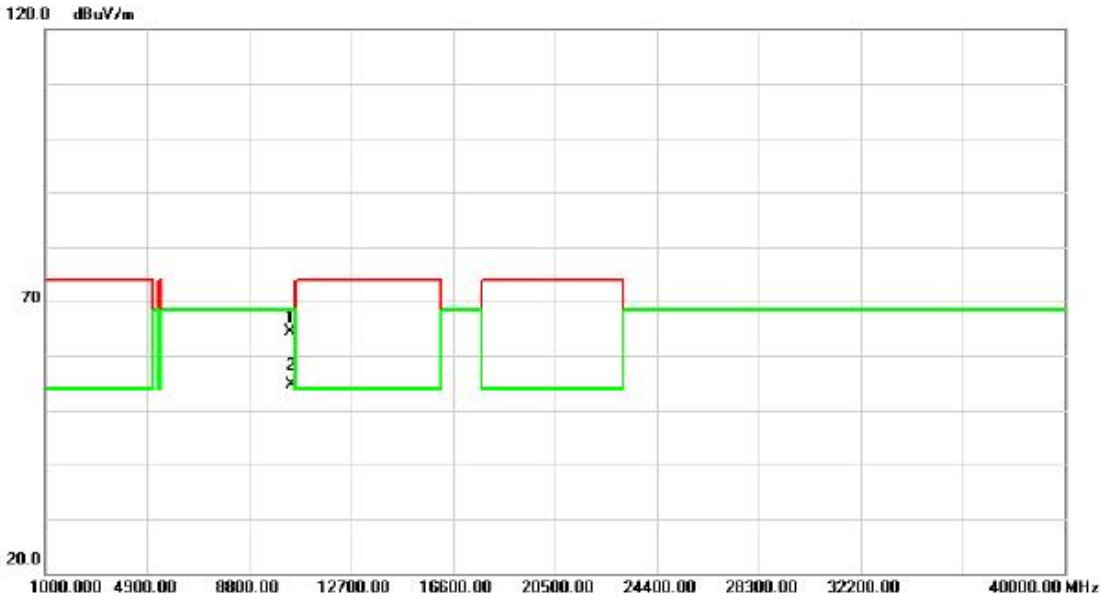
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5206.250	50.40	37.94	88.34	68.30	20.04	peak	NO LIMIT
2	X	5206.250	47.87	37.94	85.81	68.30	17.51	AVG	NO LIMIT

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

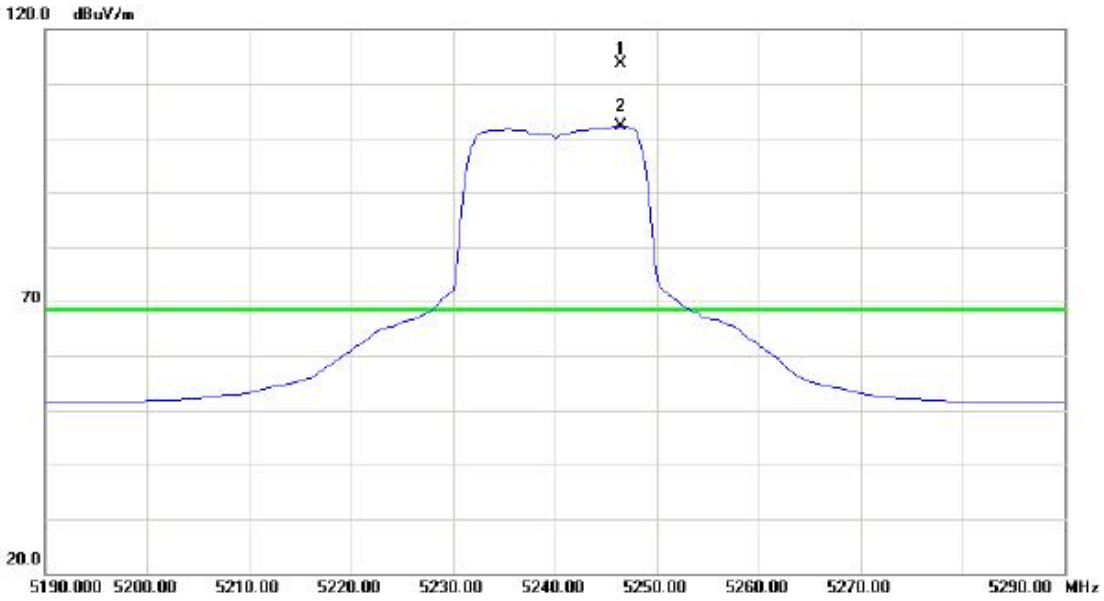
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10400.07	46.50	17.92	64.42	68.30	-3.88	peak	
2		10400.07	36.67	17.92	54.59	68.30	-13.71	AVG	

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

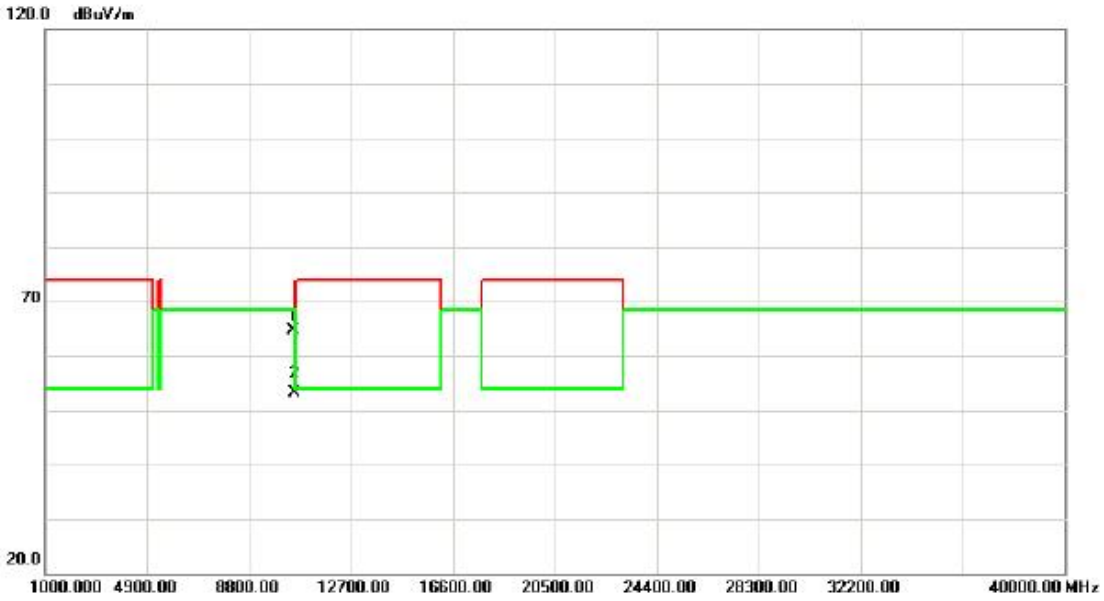
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5246.500	75.62	38.08	113.70	68.30	45.40	peak	NO LIMIT
2	X	5246.500	64.12	38.08	102.20	68.30	33.90	AVG	NO LIMIT

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

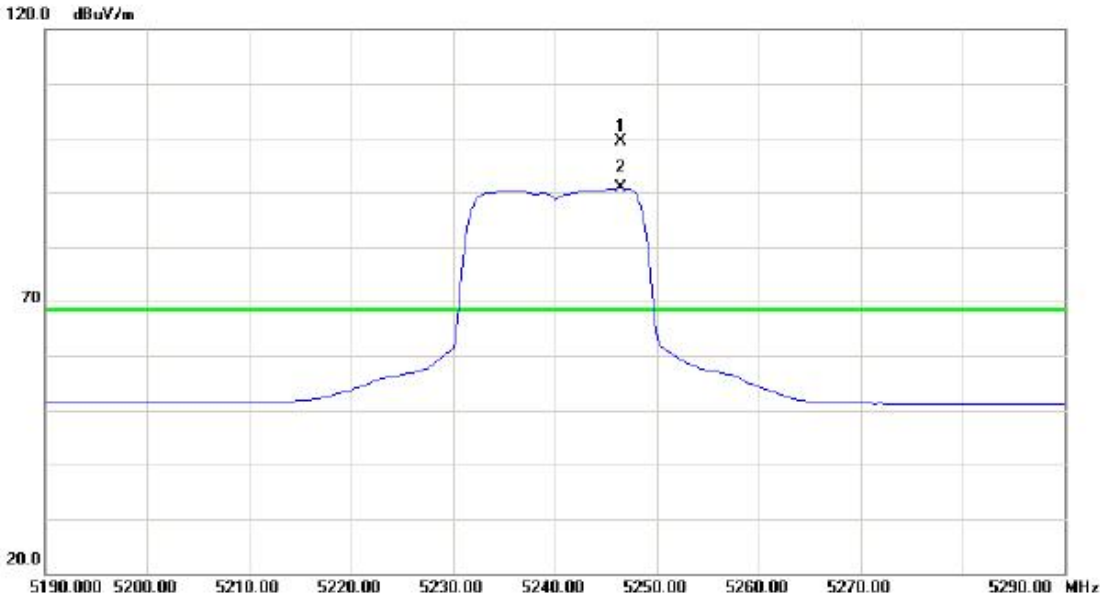
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10479.92	46.27	18.29	64.56	68.30	-3.74	peak	
2		10479.92	34.76	18.29	53.05	68.30	-15.25	AVG	

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

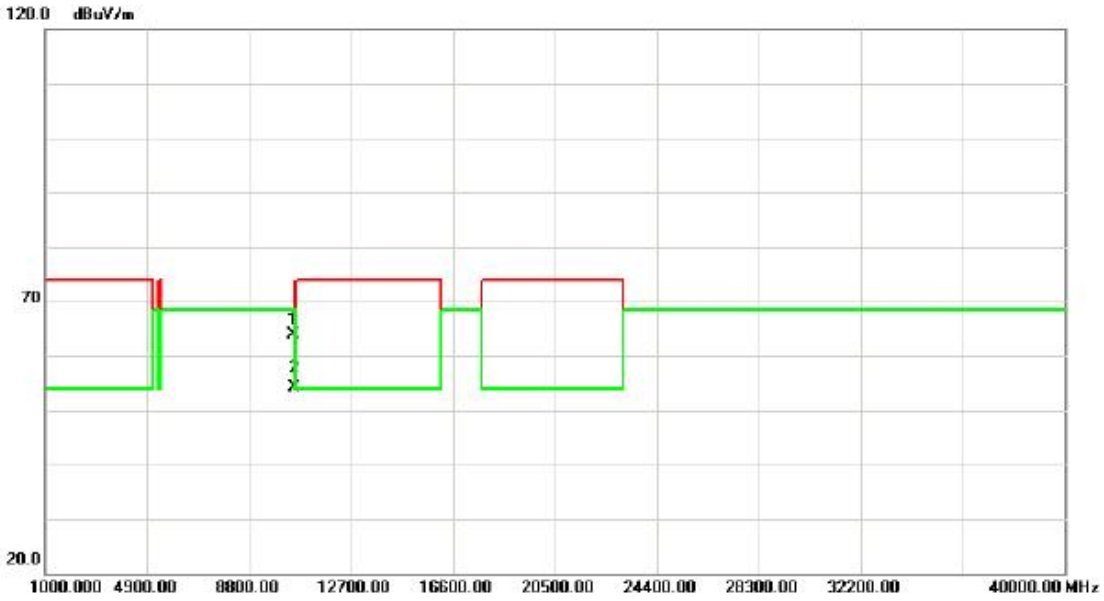
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5246.500	61.20	38.08	99.28	68.30	30.98	peak	NO LIMIT
2	X	5246.500	52.69	38.08	90.77	68.30	22.47	AVG	NO LIMIT

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

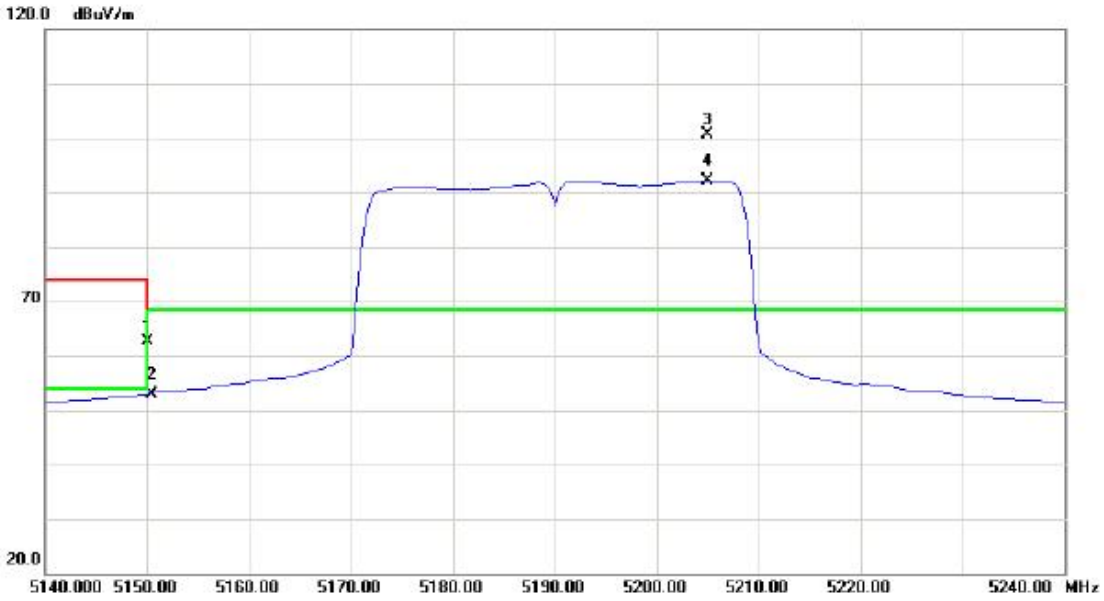
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10479.87	45.51	18.29	63.80	68.30	-4.50	peak	
2		10479.87	35.82	18.29	54.11	68.30	-14.19	AVG	

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

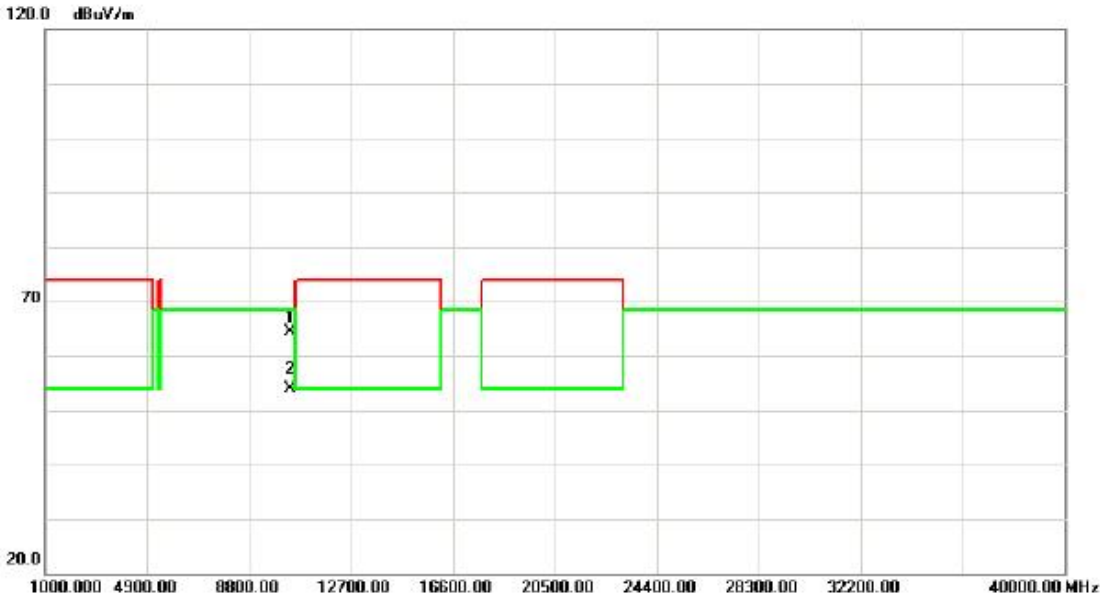
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	24.94	37.74	62.68	68.30	-5.62	peak	
2		5150.000	15.23	37.74	52.97	54.00	-1.03	AVG	
3	*	5205.000	62.62	37.93	100.55	68.30	32.25	peak	NO LIMIT
4	X	5205.000	54.29	37.93	92.22	68.30	23.92	AVG	NO LIMIT

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

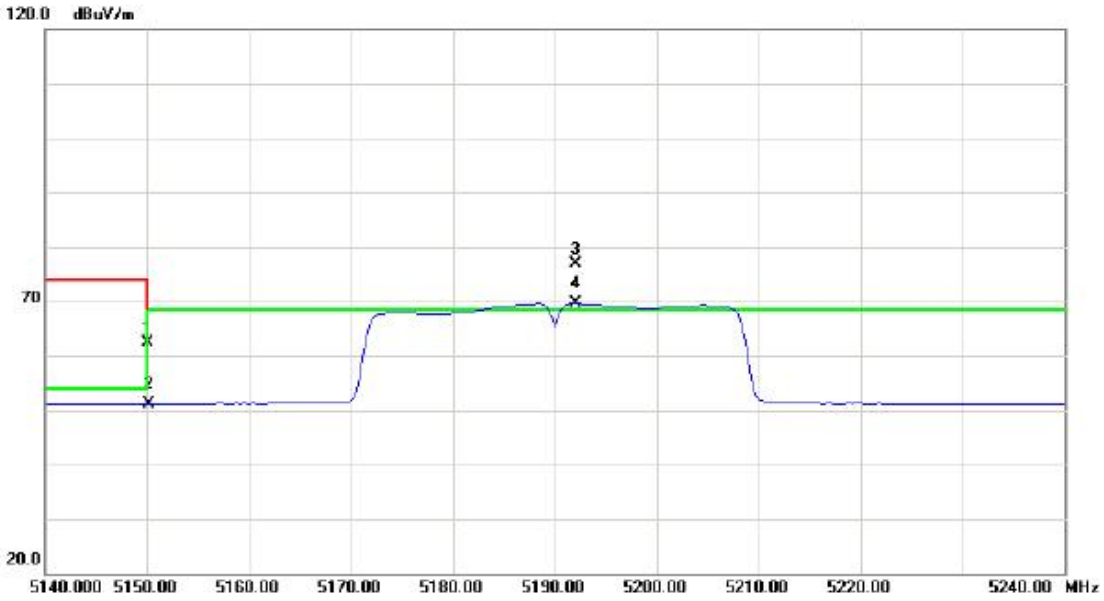
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10379.87	46.52	17.82	64.34	68.30	-3.96	peak	
2		10379.87	36.16	17.82	53.98	68.30	-14.32	AVG	

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

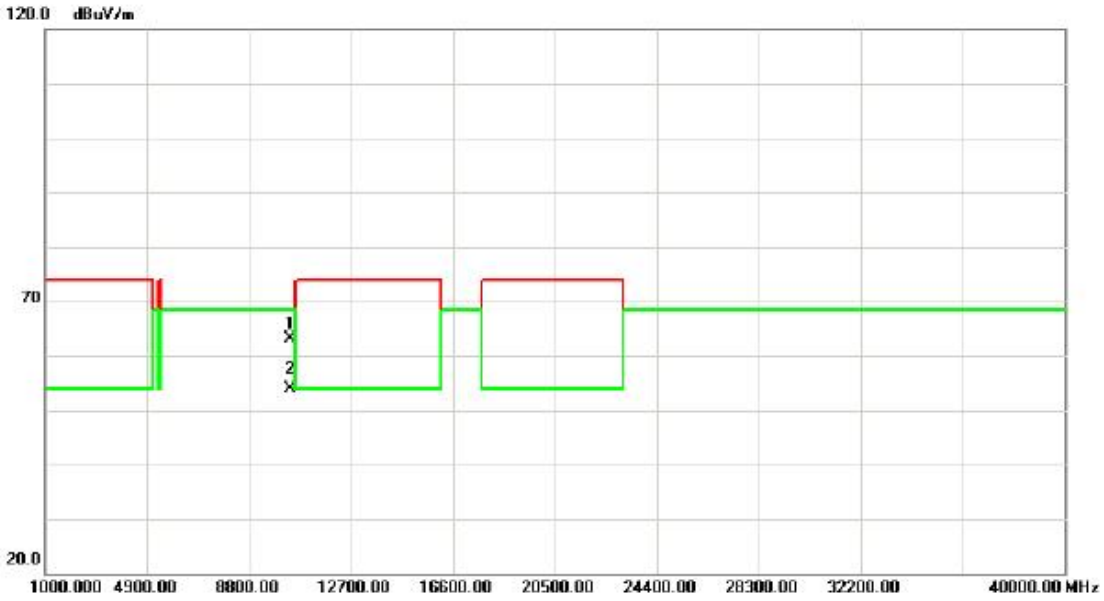
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	24.67	37.74	62.41	68.30	-5.89	peak	
2		5150.000	13.46	37.74	51.20	54.00	-2.80	AVG	
3	*	5192.000	38.90	37.88	76.78	68.30	8.48	peak	NO LIMIT
4	X	5192.000	31.69	37.88	69.57	68.30	1.27	AVG	NO LIMIT

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

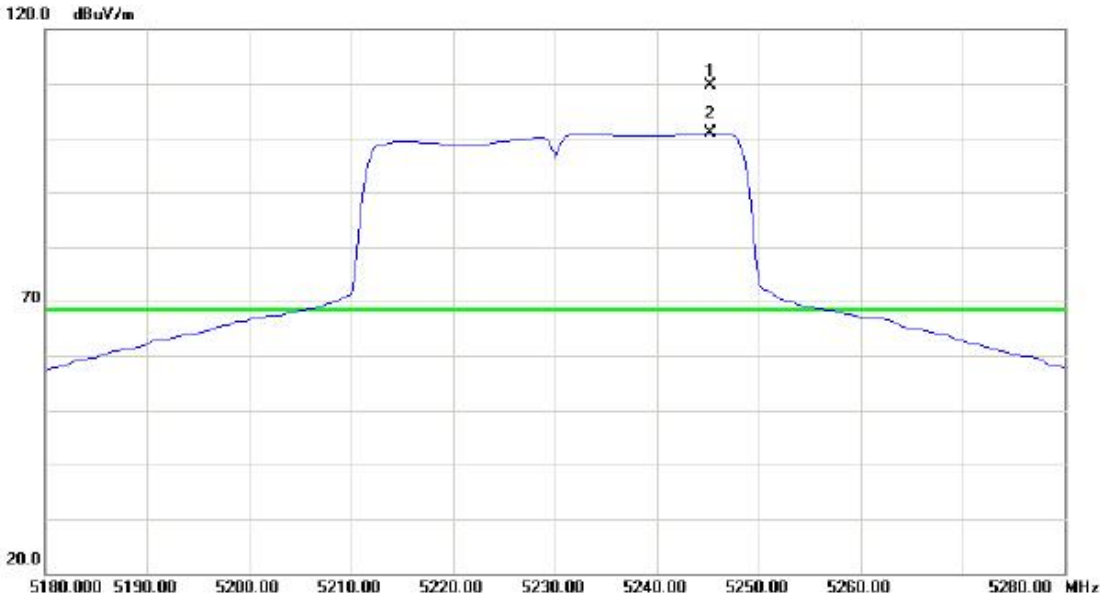
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10379.87	45.41	17.82	63.23	68.30	-5.07	peak	
2		10379.87	36.13	17.82	53.95	68.30	-14.35	AVG	

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

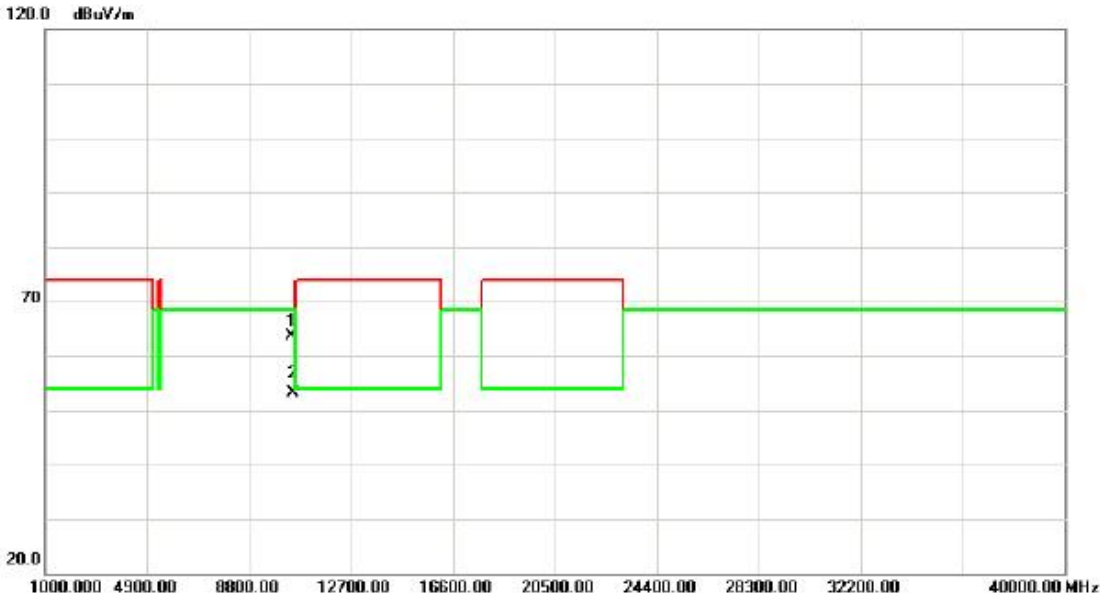
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5245.250	71.45	38.06	109.51	68.30	41.21	peak	NO LIMIT
2	X	5245.250	62.78	38.06	100.84	68.30	32.54	AVG	NO LIMIT

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

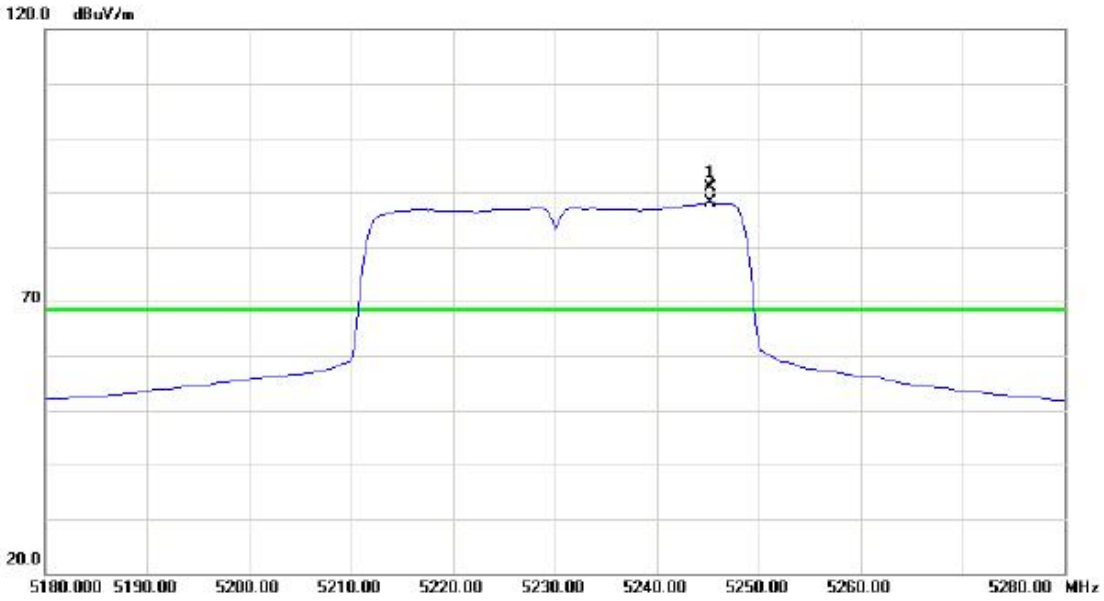
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10459.90	45.39	18.20	63.59	68.30	-4.71	peak	
2		10459.90	35.02	18.20	53.22	68.30	-15.08	AVG	

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

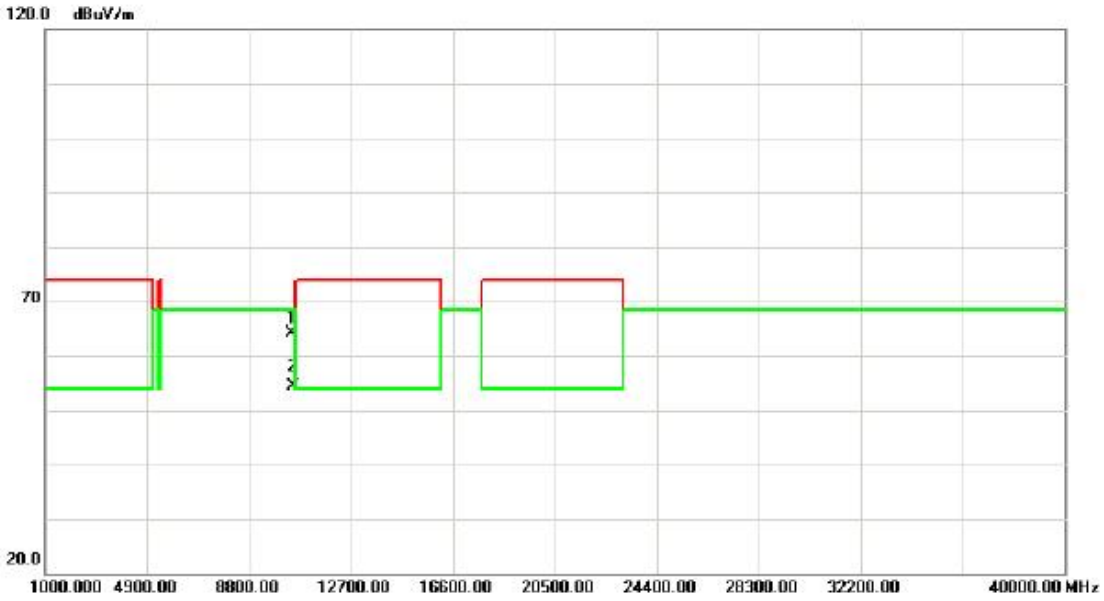
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5245.250	52.90	38.06	90.96	68.30	22.66	peak	NO LIMIT
2	X	5245.250	49.97	38.06	88.03	68.30	19.73	AVG	NO LIMIT

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

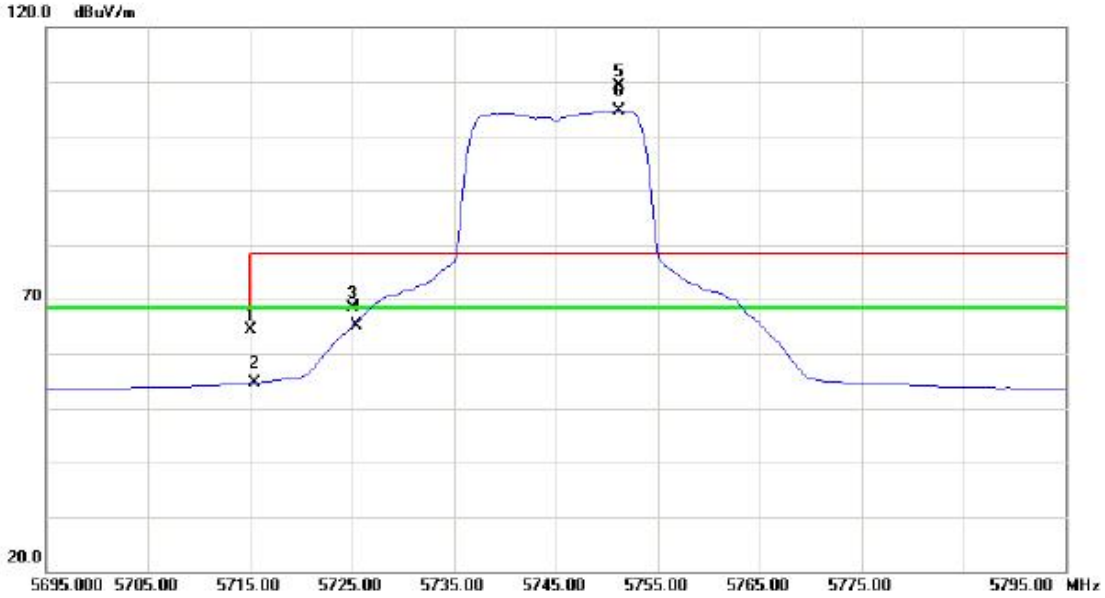
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	10460.02	45.93	18.20	64.13	68.30	-4.17	peak	
2		10460.02	36.07	18.20	54.27	68.30	-14.03	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5745MHz

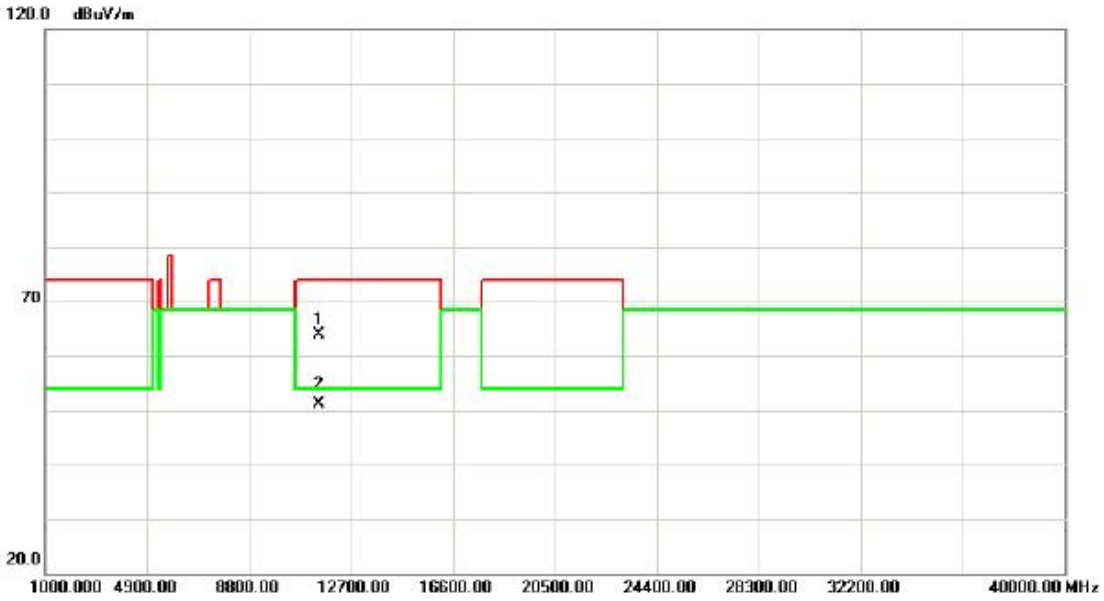
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	25.02	39.43	64.45	68.30	-3.85	peak	
2		5715.000	15.11	39.43	54.54	68.30	-13.76	AVG	
3		5725.000	28.89	39.45	68.34	78.30	-9.96	peak	
4		5725.000	25.76	39.45	65.21	68.30	-3.09	AVG	
5	X	5751.250	69.50	39.51	109.01	78.30	30.71	peak	NO LIMIT
6	*	5751.250	65.20	39.51	104.71	68.30	36.41	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5745MHz

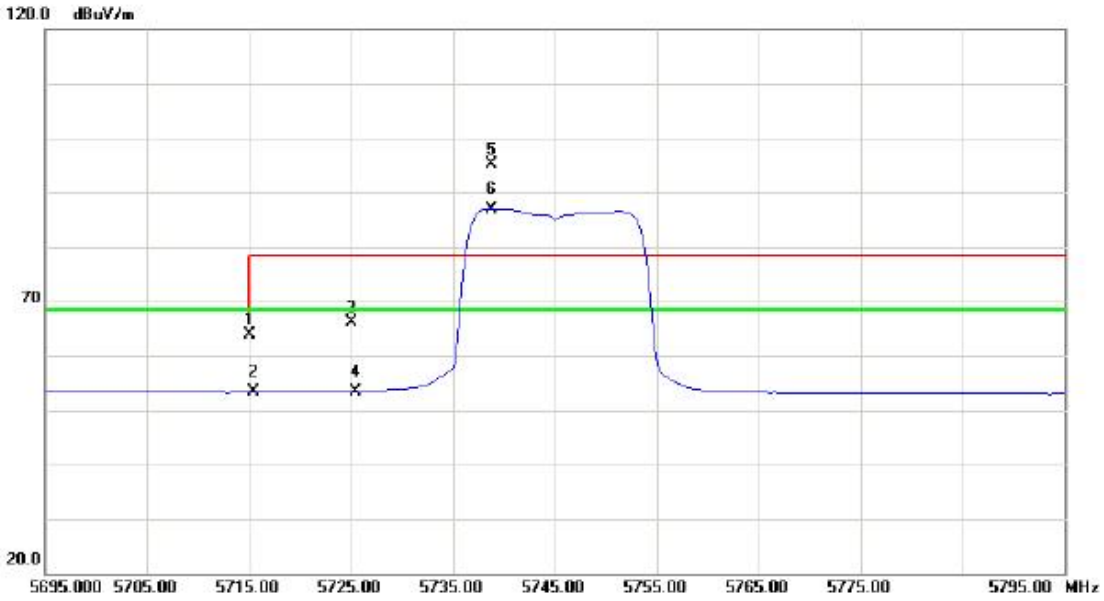
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11489.85	43.59	20.34	63.93	74.00	-10.07	peak	
2	*	11489.85	30.87	20.34	51.21	54.00	-2.79	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5745MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	24.53	39.43	63.96	68.30	-4.34	peak	
2		5715.000	13.87	39.43	53.30	68.30	-15.00	AVG	
3		5725.000	26.59	39.45	66.04	78.30	-12.26	peak	
4		5725.000	13.95	39.45	53.40	68.30	-14.90	AVG	
5	X	5738.750	55.76	39.49	95.25	78.30	16.95	peak	NO LIMIT
6	*	5738.750	47.40	39.49	86.89	68.30	18.59	AVG	NO LIMIT

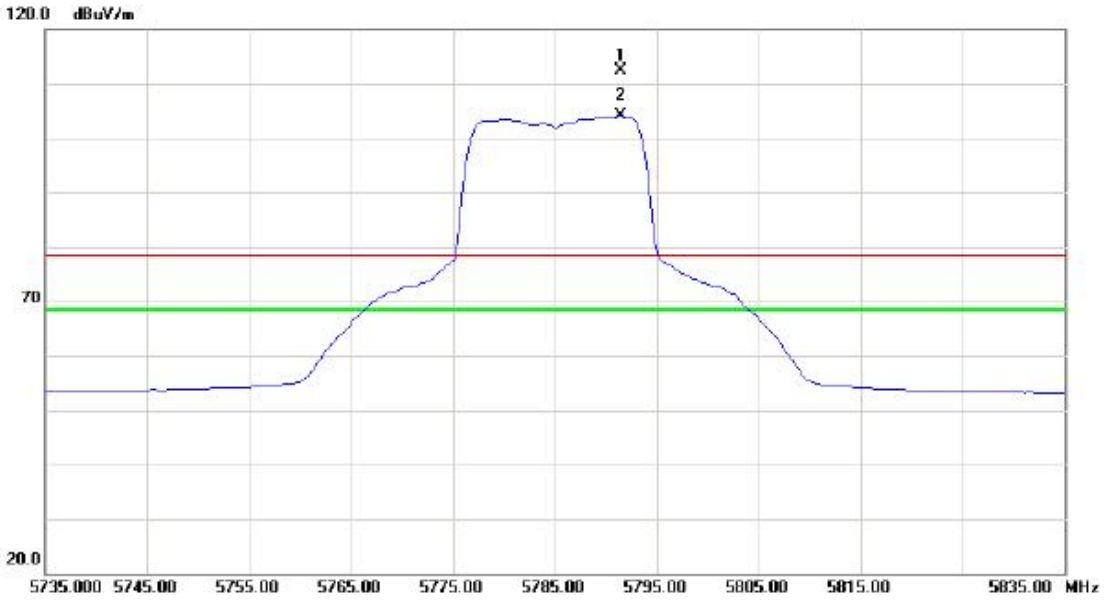
Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5745MHz

Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11490.07	43.74	20.34	64.08	74.00	-9.92	peak	
2	*	11490.07	30.98	20.34	51.32	54.00	-2.68	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5785MHz

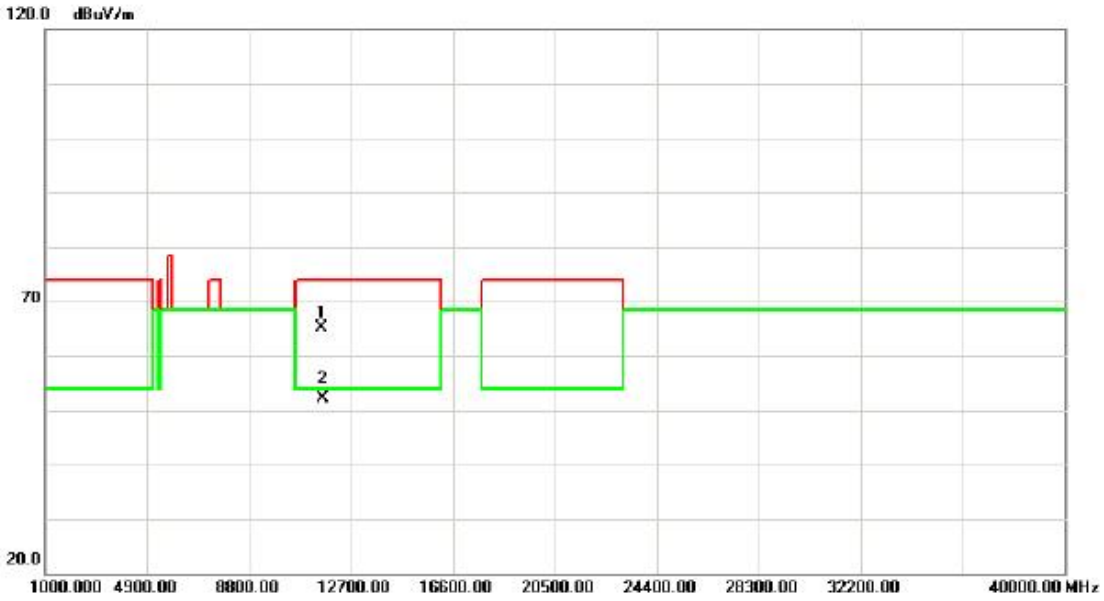
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5791.500	72.66	39.60	112.26	78.30	33.96	peak	NO LIMIT
2	*	5791.500	64.42	39.60	104.02	68.30	35.72	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5785MHz

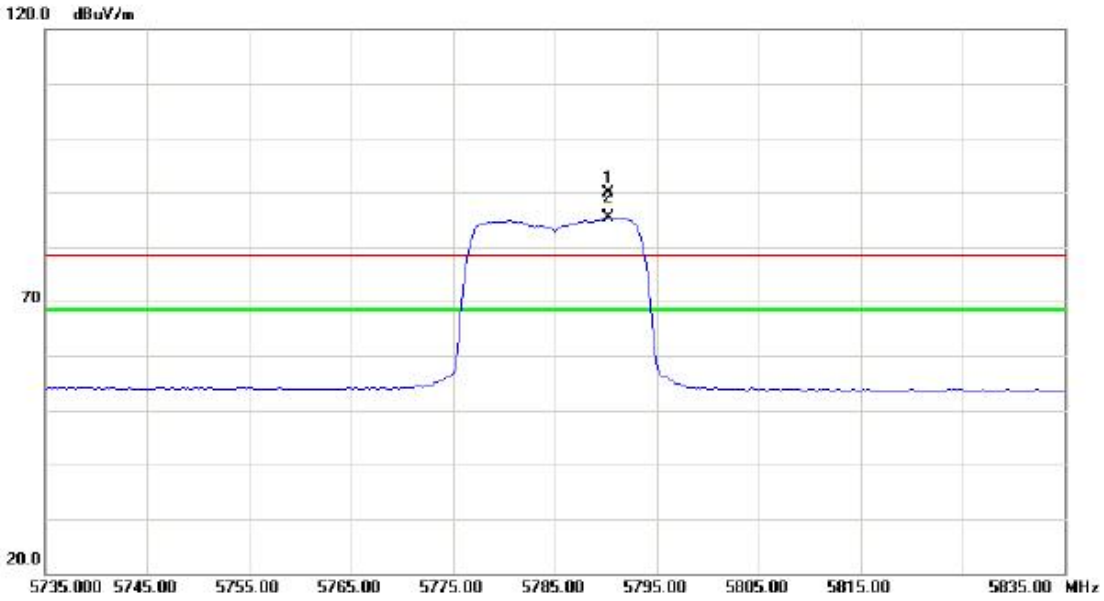
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11569.75	44.79	20.41	65.20	74.00	-8.80	peak	
2	*	11569.75	31.67	20.41	52.08	54.00	-1.92	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5785MHz

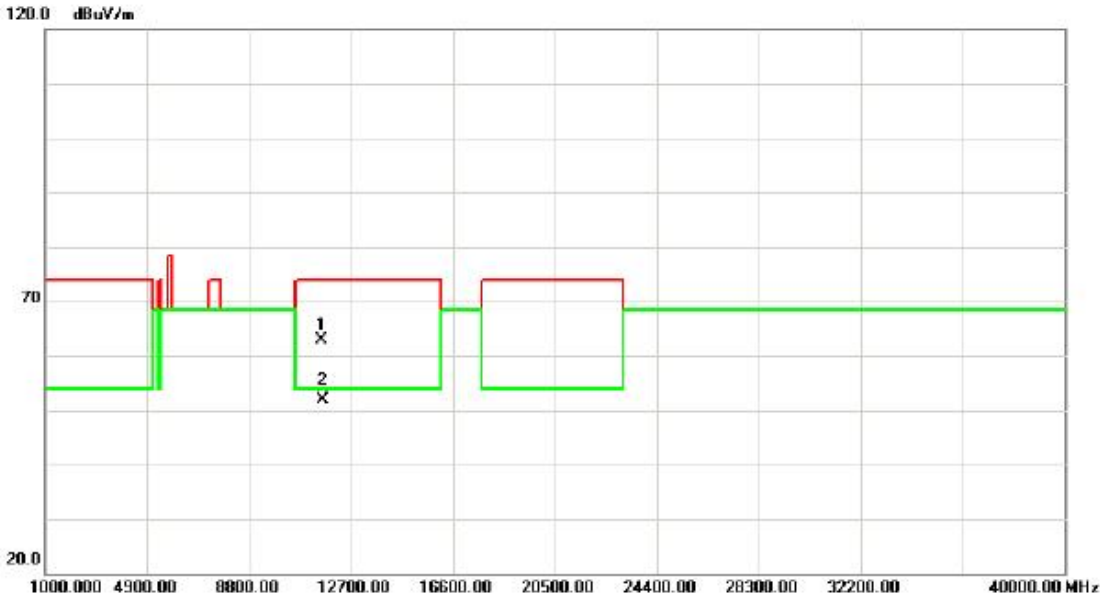
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5790.250	50.40	39.60	90.00	78.30	11.70	peak	NO LIMIT
2	*	5790.250	45.68	39.60	85.28	68.30	16.98	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5785MHz

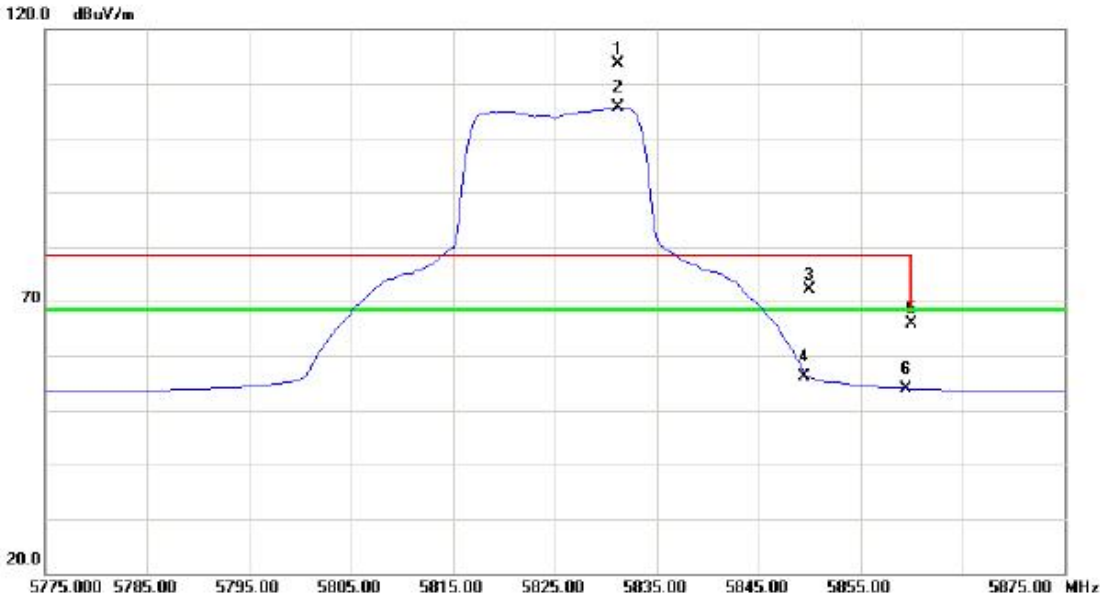
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11569.75	42.56	20.41	62.97	74.00	-11.03	peak	
2	*	11569.75	31.51	20.41	51.92	54.00	-2.08	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5825MHz

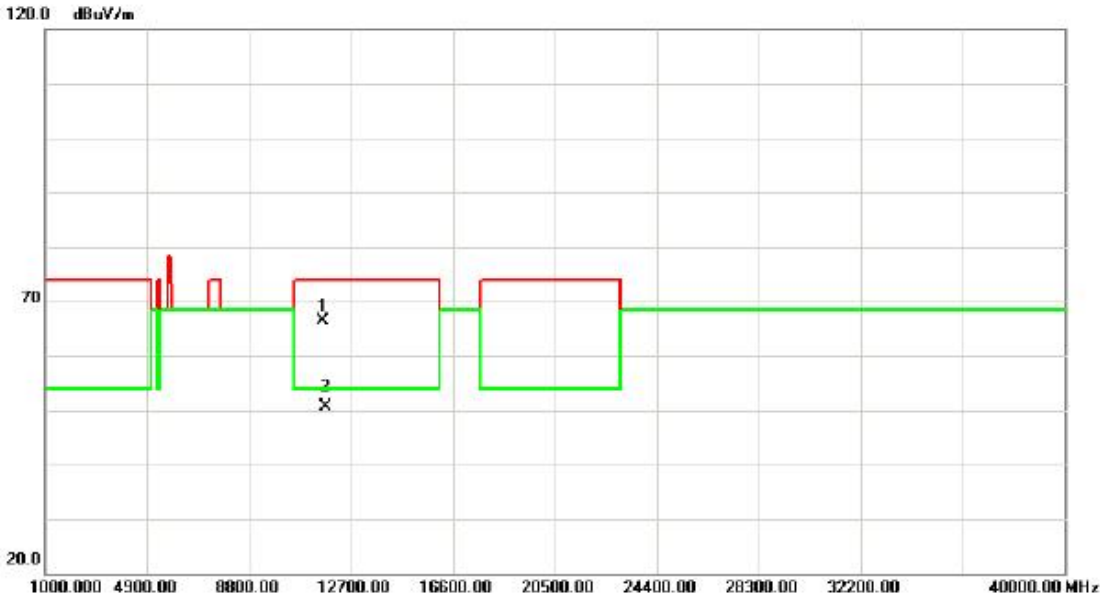
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5831.250	73.90	39.70	113.60	78.30	35.30	peak	NO LIMIT
2	*	5831.250	65.82	39.70	105.52	68.30	37.22	AVG	NO LIMIT
3		5850.000	32.45	39.73	72.18	78.30	-6.12	peak	
4		5850.000	16.29	39.73	56.02	68.30	-12.28	AVG	
5		5860.000	26.11	39.76	65.87	68.30	-2.43	peak	
6		5860.000	14.20	39.76	53.96	68.30	-14.34	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5825MHz

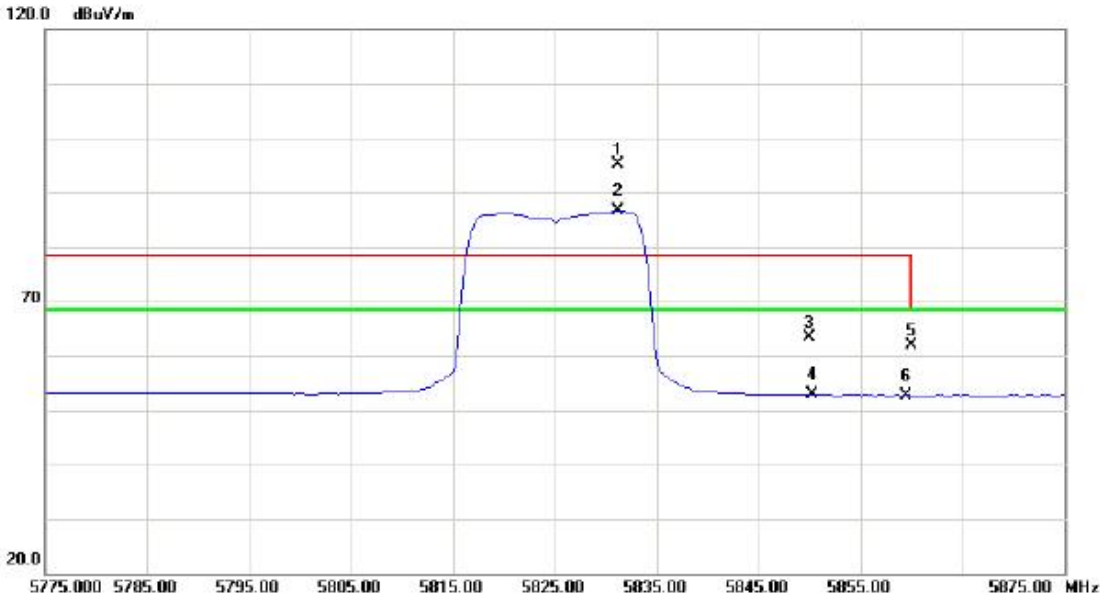
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.03	45.98	20.52	66.50	74.00	-7.50	peak	
2	*	11650.03	30.22	20.52	50.74	54.00	-3.26	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5825MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5831.250	55.50	39.70	95.20	78.30	16.90	peak	NO LIMIT
2	*	5831.250	47.01	39.70	86.71	68.30	18.41	AVG	NO LIMIT
3		5850.000	23.58	39.73	63.31	78.30	-14.99	peak	
4		5850.000	13.07	39.73	52.80	68.30	-15.50	AVG	
5		5860.000	22.24	39.76	62.00	68.30	-6.30	peak	
6		5860.000	12.98	39.76	52.74	68.30	-15.56	AVG	

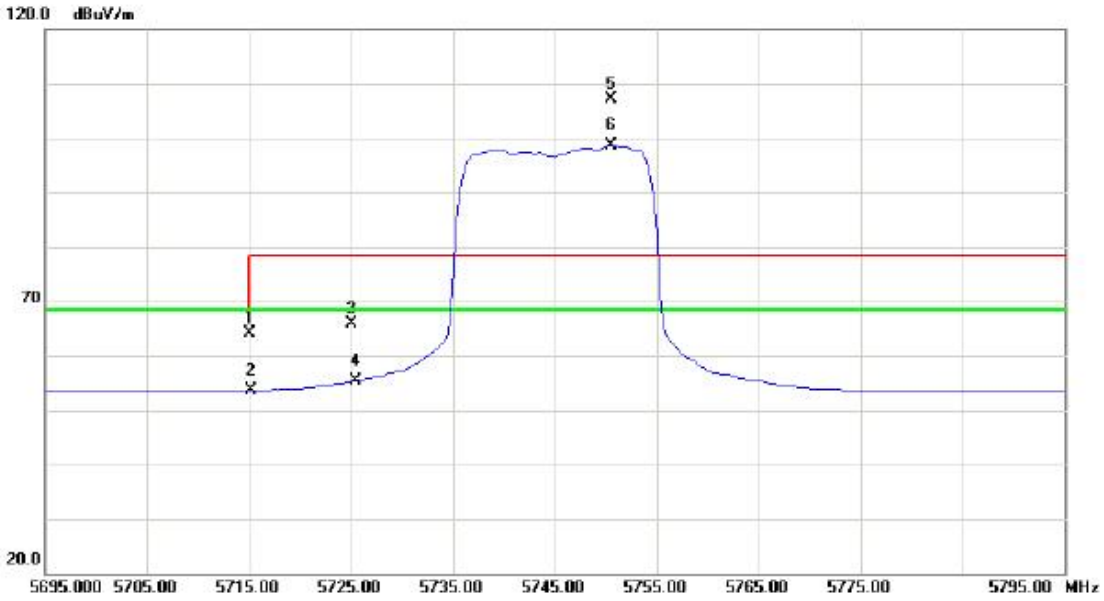
Orthogonal Axis:	X
Test Mode:	UNII-3/TX A Mode 5825MHz

Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.03	44.16	20.52	64.68	74.00	-9.32	peak	
2	*	11650.03	31.24	20.52	51.76	54.00	-2.24	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5745MHz

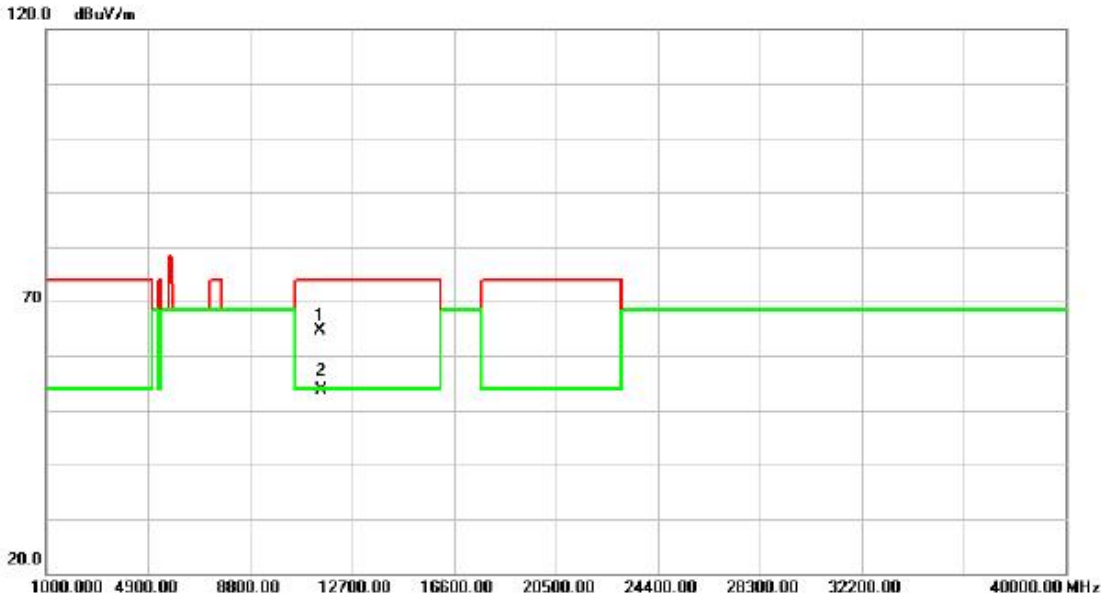
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	24.80	39.43	64.23	68.30	-4.07	peak	
2		5715.000	14.20	39.43	53.63	68.30	-14.67	AVG	
3		5725.000	26.55	39.45	66.00	78.30	-12.30	peak	
4		5725.000	15.85	39.45	55.30	68.30	-13.00	AVG	
5	X	5750.500	67.50	39.51	107.01	78.30	28.71	peak	NO LIMIT
6	*	5750.500	59.13	39.51	98.64	68.30	30.34	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5745MHz

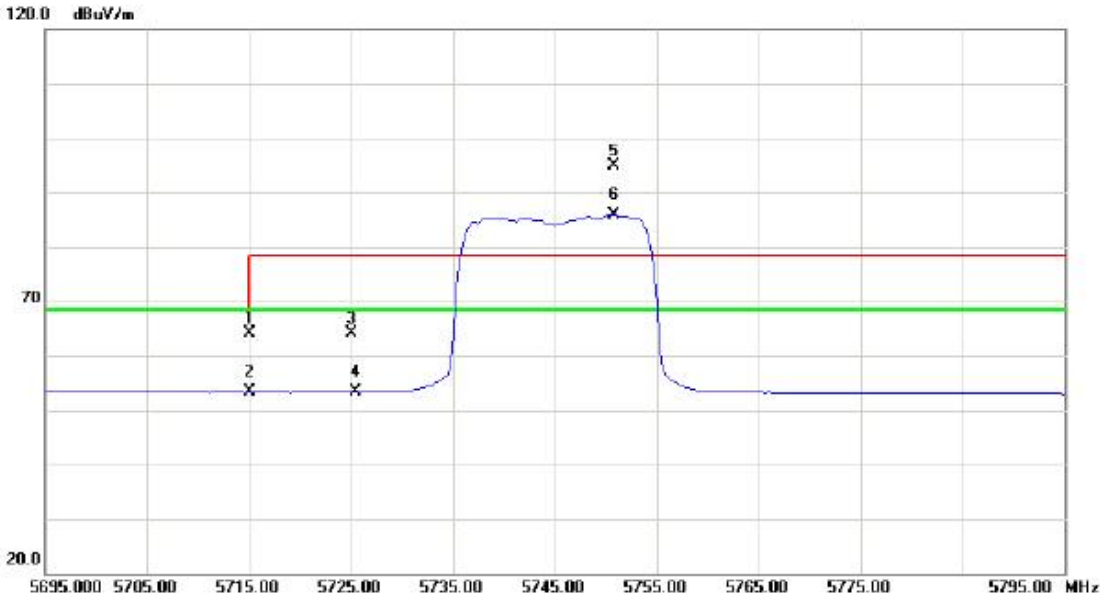
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11491.10	44.22	20.34	64.56	74.00	-9.44	peak	
2	*	11491.10	33.20	20.34	53.54	54.00	-0.46	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5745MHz

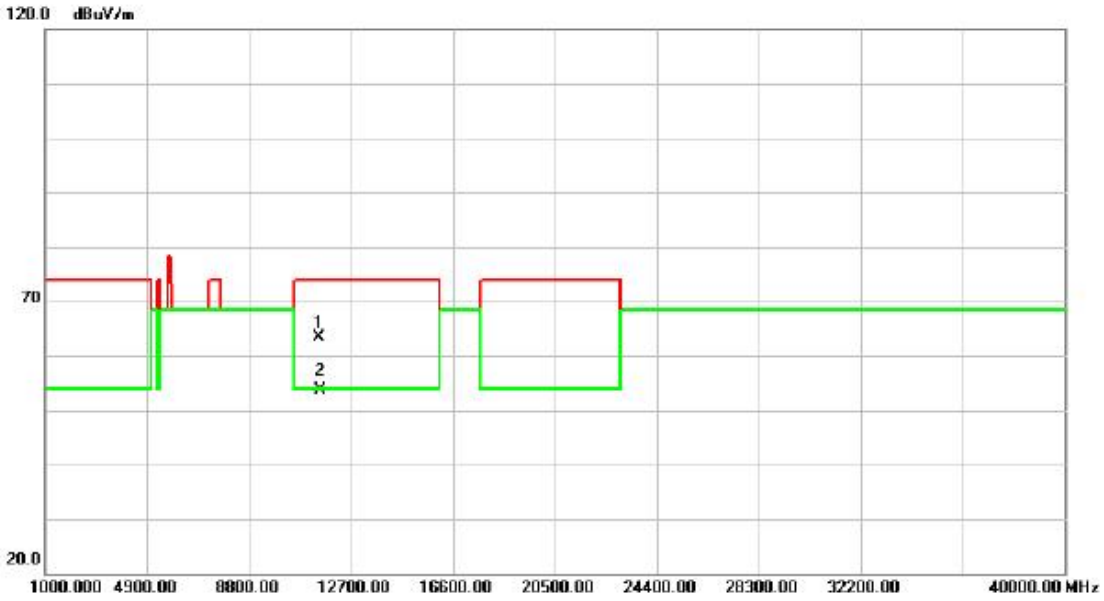
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	24.65	39.43	64.08	68.30	-4.22	peak	
2		5715.000	13.85	39.43	53.28	68.30	-15.02	AVG	
3		5725.000	24.59	39.45	64.04	78.30	-14.26	peak	
4		5725.000	13.94	39.45	53.39	68.30	-14.91	AVG	
5	X	5750.750	55.30	39.51	94.81	78.30	16.51	peak	NO LIMIT
6	*	5750.750	46.44	39.51	85.95	68.30	17.65	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5745MHz

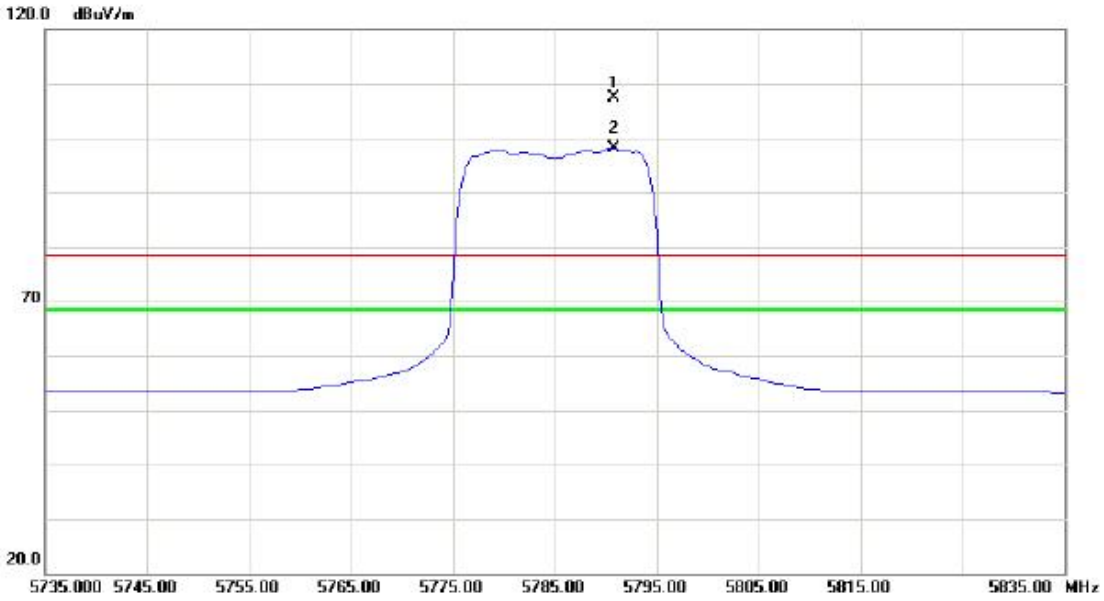
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11492.38	43.08	20.34	63.42	74.00	-10.58	peak	
2	*	11492.38	33.32	20.34	53.66	54.00	-0.34	AVG	

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5785MHz

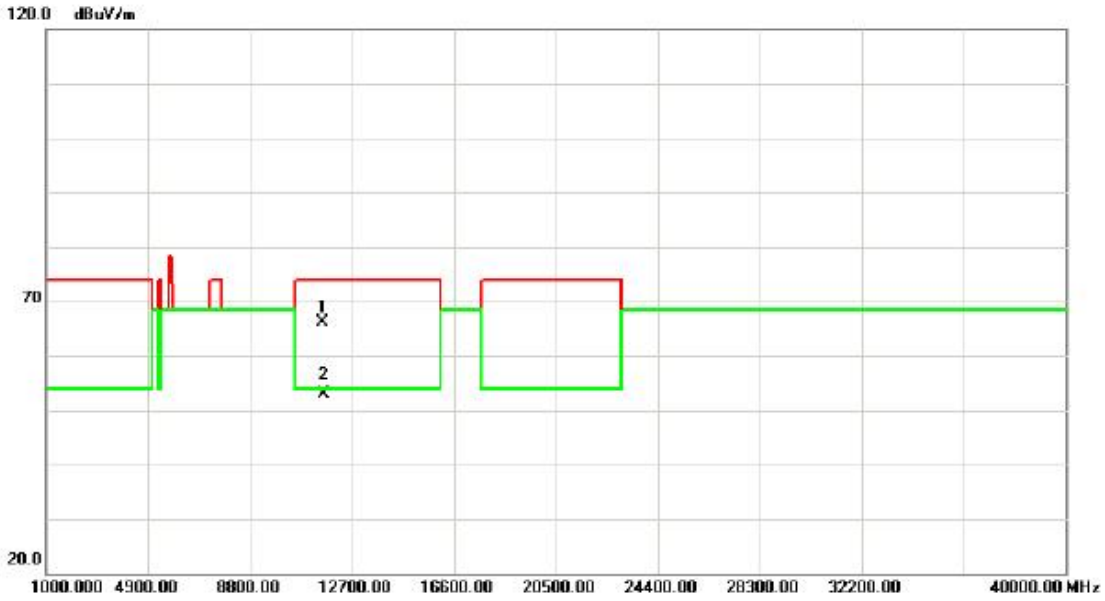
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5790.750	67.80	39.60	107.40	78.30	29.10	peak	NO LIMIT
2	*	5790.750	58.59	39.60	98.19	68.30	29.89	AVG	NO LIMIT

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5785MHz

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11570.13	45.64	20.42	66.06	74.00	-7.94	peak	
2	*	11570.13	32.45	20.42	52.87	54.00	-1.13	AVG	