

FCC Radio Test Report

FCC ID: QIS-IPP8950

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

Project No. : 1406C208
Equipment : IP Phone
Model Name : eSpace 8950
Applicant : Huawei Technologies Co.,Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District Shenzhen China

Date of Receipt : Jun. 26, 2014
Date of Test : Jun. 26, 2014 ~ Sep. 30, 2014
Issued Date : Oct. 06, 2014
Tested by : BTL Inc.

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Declaration

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1406C208	Original Issue.	Oct. 06, 2014

1. CERTIFICATION

Equipment : IP Phone
Brand Name : HUAWEI
Model Name : eSpace 8950
Applicant : Huawei Technologies Co.,Ltd.
Manufacturer: Huawei Technologies Co.,Ltd.
Address : Administration Building, Huawei Base, Bantian, Longgang District ,Shenzhen
518129, P.R.China
Factory : SHENZHEN ACT INDUSTRIAL CO.,LTD
Address : No.5 building,Beishan Industrial Park, Beishan Road,Yantian District,Shenzhen
Date of Test : Jun. 26, 2014 ~ Sep. 30, 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-1-1406C208) 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	Test Item	Judgment	Remark
FCC			
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

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03** at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China. 523792
BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

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)	NOTE
DG-C02	CISPR	150 KHz ~ 30MHz	3.40	

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	IP Phone	
Brand Name	HUAWEI	
Model Name	eSpace 8950	
Mode Different	N/A	
Product Description	Operation Frequency	UNII-1: 5150~5250MHz UNII-2A: 5250~5350MHz UNII-2C: 5470~5725MHz UNII-3: 5745~5825MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	300Mbps
	Output Power (Max.)for UNII-1	802.11a: 12.35dBm 802.11n (20M): 12.84dBm 802.11n (40M): 8.92dBm
	Output Power (Max.)for UNII-2A	802.11a: 10.73dBm 802.11n (20M): 11.03dBm 802.11n (40M): 8.30dBm
	Output Power (Max.)for UNII-2C	802.11a: 13.23dBm 802.11n (20M): 13.68dBm 802.11n (40M): 11.03dBm
	Output Power (Max.)for UNII-3	802.11a: 13.93dBm 802.11n (20M): 14.43dBm 802.11n (40M): 7.78dBm
Power Source	#1 DC voltage supplied from AC/DC adapter. Brand: HUAWEI Model: HW-120200U1W #2 Supplied from PoE.	
Power Rating	#1 I/P:100-240V~50/60Hz,0.8A O/P:12.0V/2.0A #2 DC -48V	

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		802.11n 40MHz	
UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220		
48	5240		

802.11a 802.11n 20MHz		802.11n 40MHz	
UNII-2A		UNII-2A	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	54	5270
56	5280	62	5310
60	5300		
64	5320		

802.11a 802.11n 20MHz		802.11n 40MHz	
UNII-2C		UNII-2C	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510
104	5520	110	5550
108	5540	118	5590
112	5560	126	5630
116	5580	134	5670
132	5660		
136	5680		
140	5700		

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

3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Shenzhen Sunway Communication Co.,Ltd	111003WS322A	Integral	N/A	4.6

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 A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 5	TX N20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 6	TX N40 Mode / CH54, CH62 (UNII-2A)
Mode 7	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 8	TX N20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 9	TX N40 Mode / CH102, CH110, CH134 (UNII-2C)
Mode 10	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 12	TX N40 Mode / CH151,CH159 (UNII-3)
Mode13	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 A Mode / CH52, CH60, CH64 (UNII-2A)
Mode 5	TX N20 Mode / CH52, CH60, CH64 (UNII-2A)
Mode 6	TX N40 Mode / CH54, CH62 (UNII-2A)
Mode 7	TX A Mode / CH100, CH116, CH140 (UNII-2C)
Mode 8	TX N20 Mode / CH100, CH116, CH140 (UNII-2C)
Mode 9	TX N40 Mode / CH102, CH110, CH134 (UNII-2C)
Mode 10	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 12	TX N40 Mode / CH151,CH159 (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

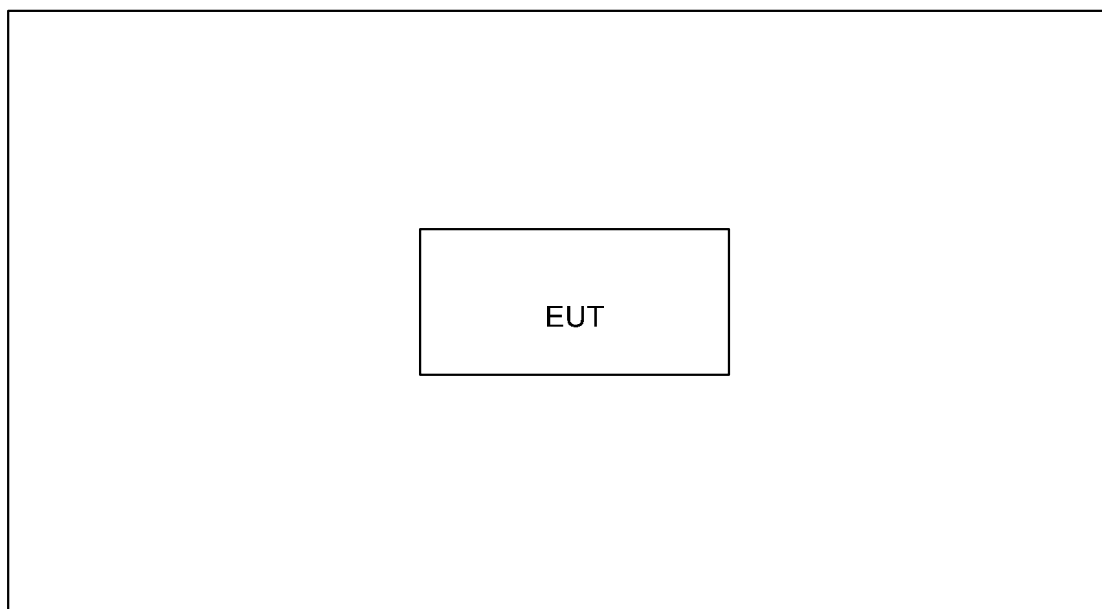
UNII-1			
Test Software Version	XSHELL		
Frequency (MHz)	5180	5200	5240
A Mode	18	20	20
N20 Mode	17	17	20
Frequency (MHz)	5190	5230	
N40 Mode	12	20	

UNII-2A			
Test Software Version	XSHELL		
Frequency (MHz)	5260	5300	5320
A Mode	20	20	18
N20 Mode	20	19	16
Frequency (MHz)	5270	5310	
N40 Mode	20	12	

UNII-2C			
Test Software Version	XSHELL		
Frequency (MHz)	5500	5580	5700
A Mode	17	20	17
N20 Mode	18	20	16
Frequency (MHz)	5510	5550	5670
N40 Mode	14	20	16

UNII-3			
Test Software Version	XSHELL		
Frequency (MHz)	5745	5785	5825
A Mode	15	20	17
N20 Mode	17	20	18
Frequency (MHz)	5755	5795	
N40 Mode	13	16	

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.

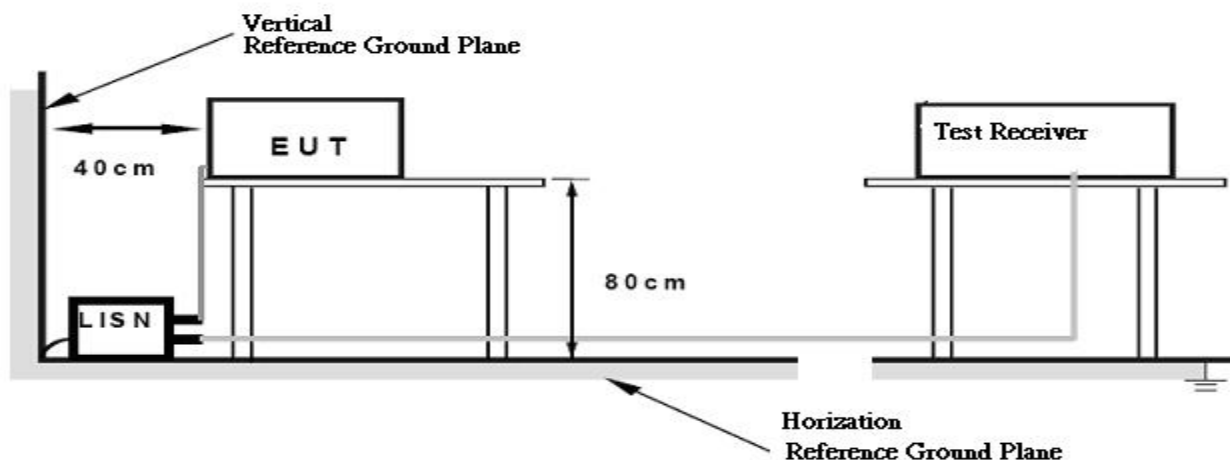
4.1.2 TEST PROCEDURE

- 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
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-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: $E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m}$, where P is the eirp (Watts)

4.2.2 TEST PROCEDURE

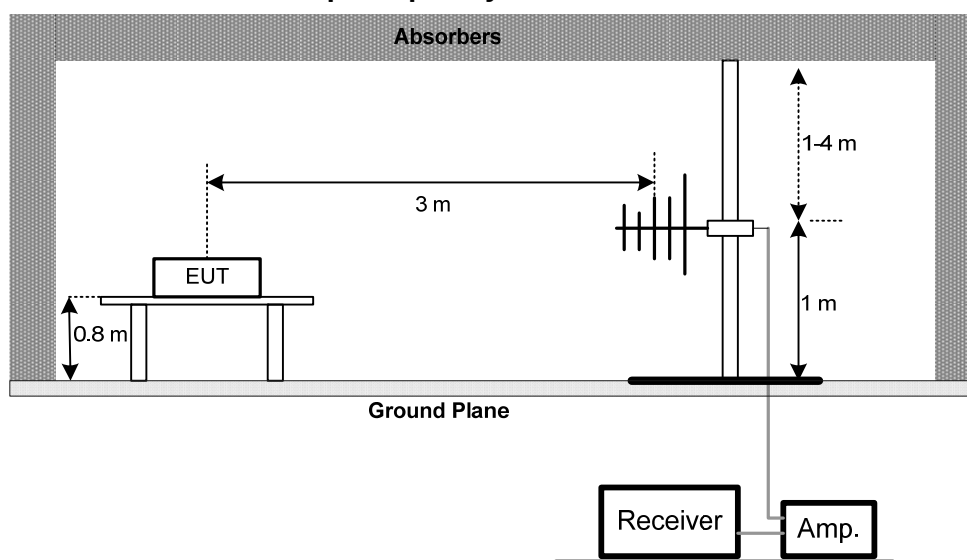
- The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated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

4.2.3 DEVIATION FROM TEST STANDARD

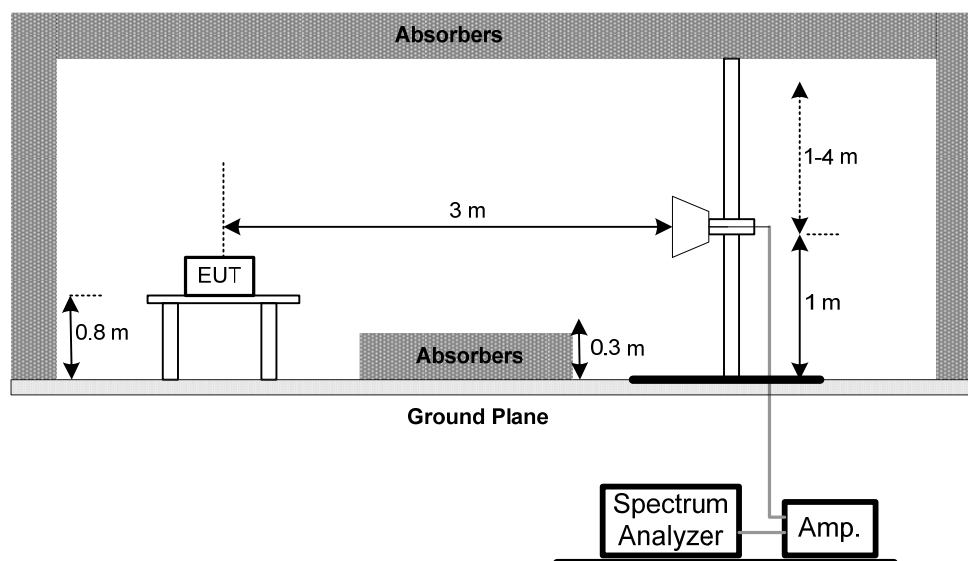
No deviation

4.2.4 TEST SETUP

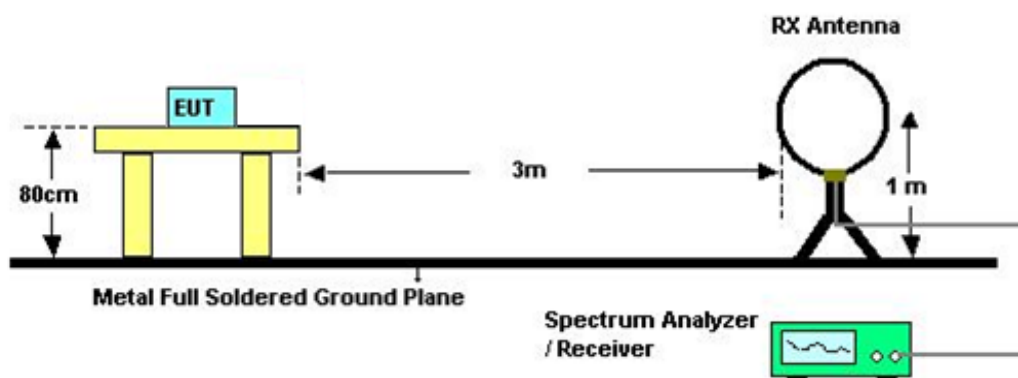
(A) Radiated Emission Test Set-Up Frequency 30 - 1000MHz



(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

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.

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
		5250~5350	PASS
		5470~5725	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
	250mW (24dBm)	5250~5350	PASS
		5470~5725	PASS
	1 Watt (30dBm)	5725~5850	PASS

6.1.1 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	$\geq$ 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: 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
		5250~5350	PASS
		5470~5725	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
	11dBm/MHz	5250~5350	PASS
		5470~5725	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:

- 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.
- 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 +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
		5250~5350	PASS
		5470~5725	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.

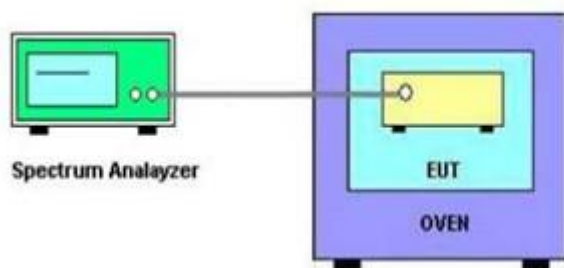
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

- 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~45°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

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	Test Receiver	R&S	ESCI	100382	Mar. 29, 2015
4	Test Cable	N/A	C-01_CB03	N/A	Jul. 02, 2015
5	Antenna	ETS	3115	00075789	Mar. 29, 2015
6	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015
7	Spectrum	Agilent	E4408B	US39240143	Nov. 09, 2014
8	Test Cable	HUBER+SUHNER	C-45	N/A	Mar. 29, 2015
9	Controller	CT	SC100	N/A	N/A
10	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015
12	Broad-Band Horn Antenna (40G)	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015

Spectrum Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

Maximum Conducted Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

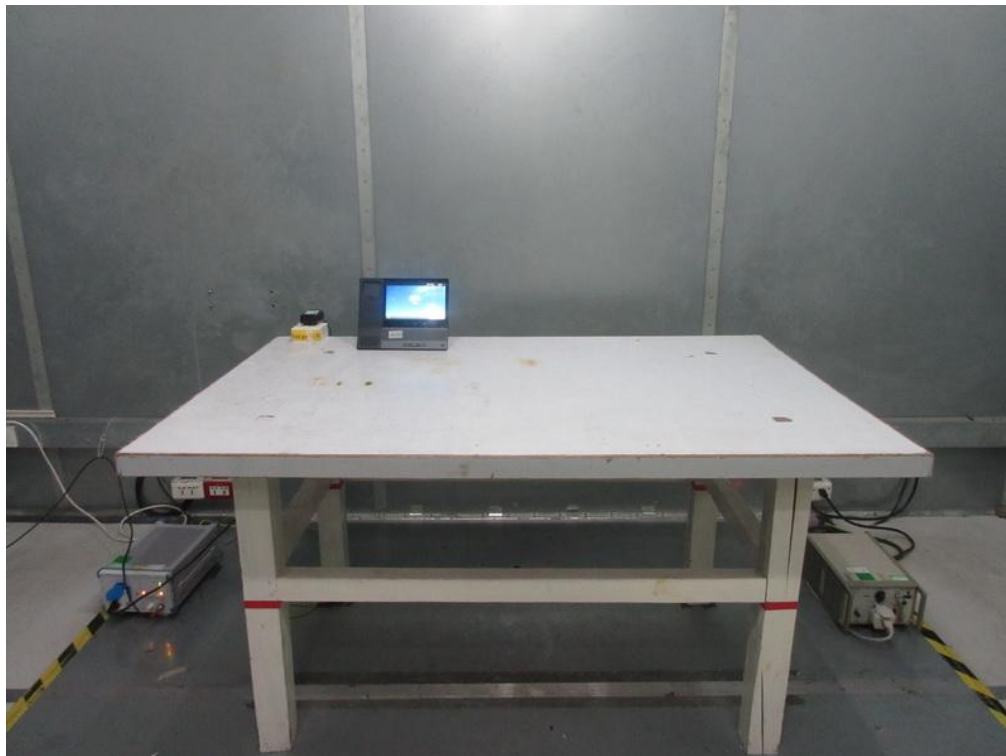
Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 11, 2014
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



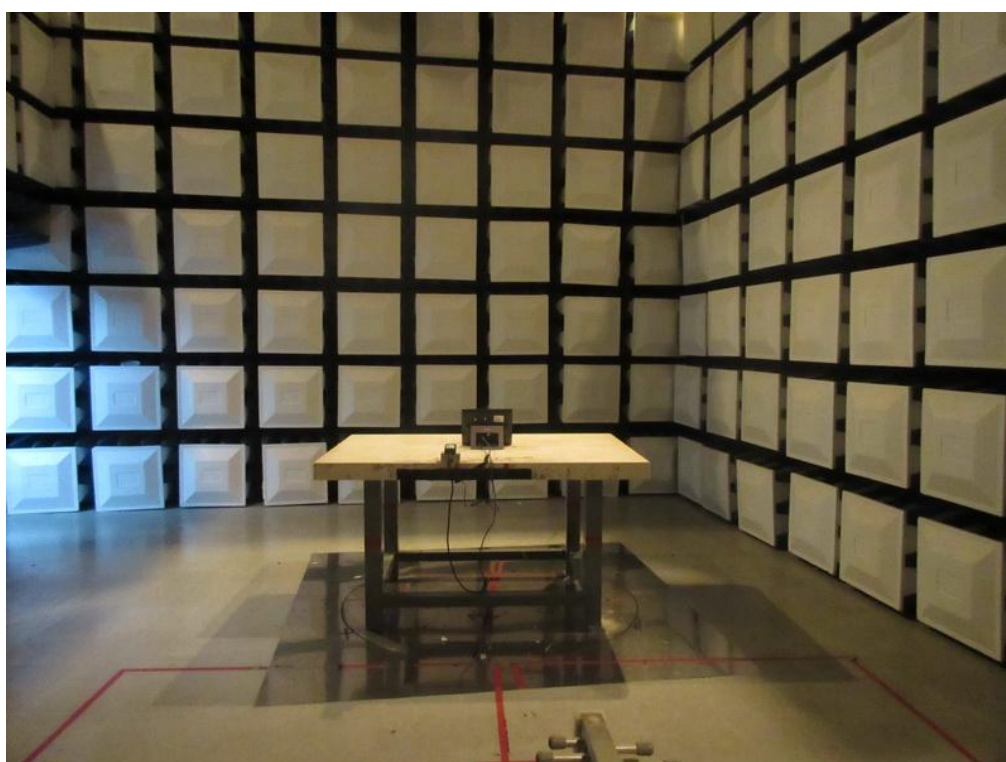
Radiated Measurement Photos

9KHz to 30MHz



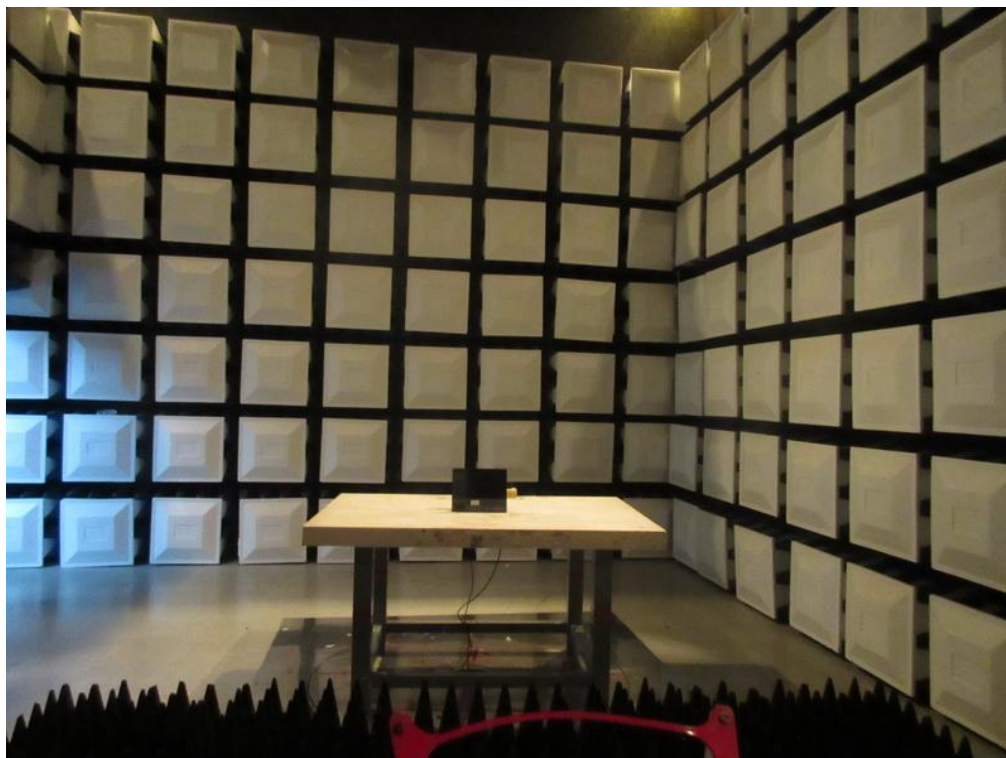
Radiated Measurement Photos

30MHz to 1000MHz



Radiated Measurement Photos

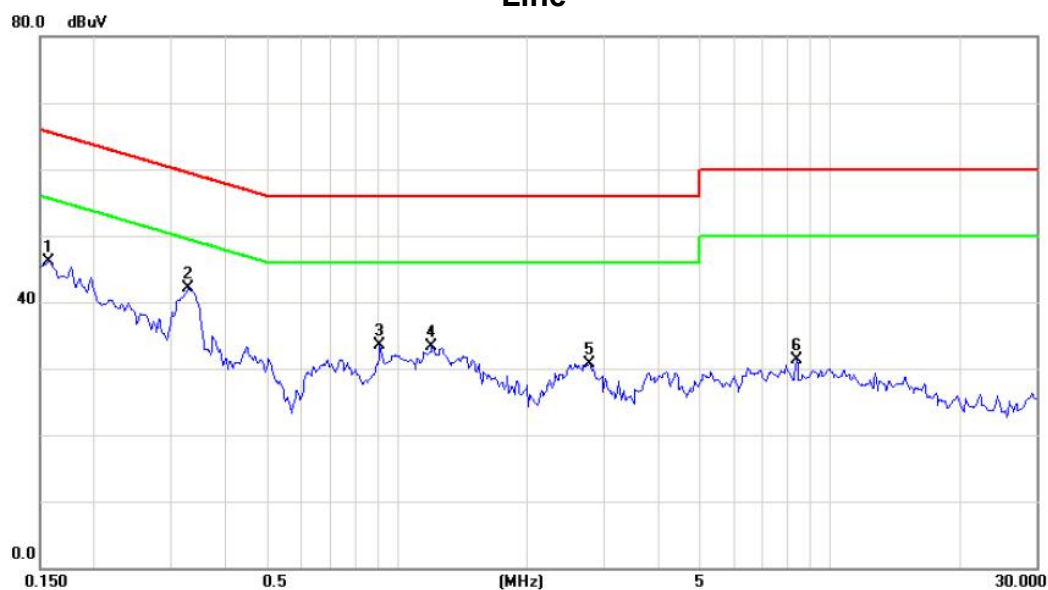
Above 1000MHz



ATTACHMENT A - CONDUCTED EMISSION

Test Mode: TX MODE

Line

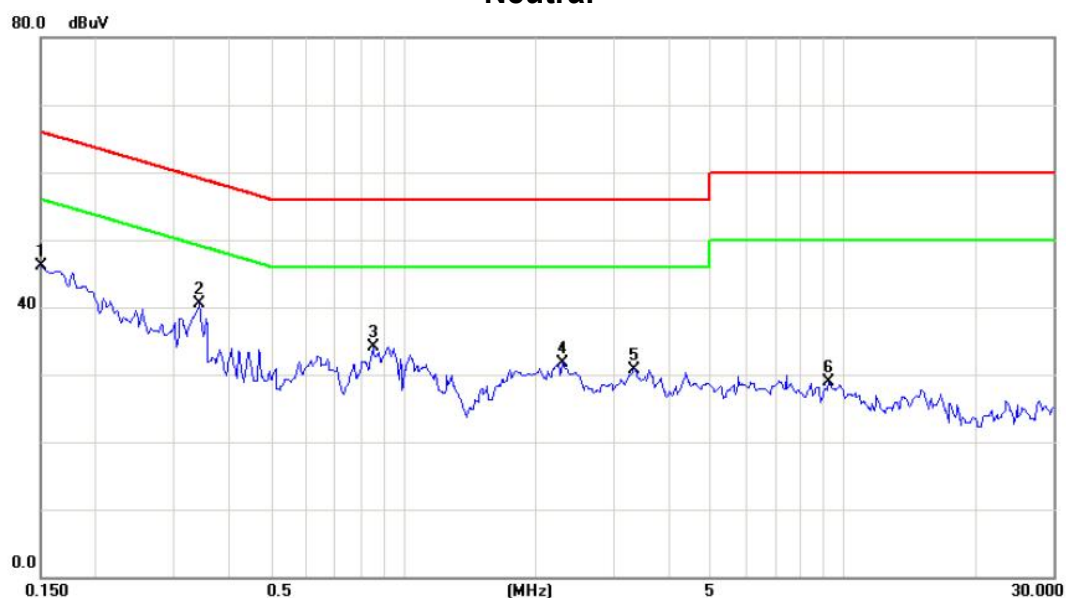


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1578	36.68	9.52	46.20	65.58	-19.38	peak	
2 *	0.3297	32.43	9.61	42.04	59.46	-17.42	peak	
3	0.9156	23.78	9.68	33.46	56.00	-22.54	peak	
4	1.2086	23.61	9.70	33.31	56.00	-22.69	peak	
5	2.7906	20.99	9.76	30.75	56.00	-25.25	peak	
6	8.3945	21.36	10.03	31.39	60.00	-28.61	peak	

Note : The test result has included the cable loss.

Test Mode: TX MODE

Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1500	36.56	9.63	46.19	66.00	-19.81	peak	
2	*	0.3453	30.93	9.62	40.55	59.07	-18.52	peak	
3		0.8531	24.45	9.67	34.12	56.00	-21.88	peak	
4		2.3062	21.91	9.75	31.66	56.00	-24.34	peak	
5		3.3555	21.00	9.80	30.80	56.00	-25.20	peak	
6		9.3008	18.75	10.06	28.81	60.00	-31.19	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
0.0826	0°	-2.04	21.75	19.71	89.26	-69.56	AVG
0.0826	0°	2.69	21.75	24.44	109.26	-84.83	PEAK
0.1034	0°	-3.25	21.35	18.10	87.31	-69.22	AVG
0.1034	0°	1.87	21.35	23.22	107.31	-84.10	PEAK
0.1278	0°	-3.98	20.96	16.98	85.47	-68.50	AVG
0.1278	0°	1.61	20.96	22.57	105.47	-82.91	PEAK
0.1569	0°	-1.23	20.59	19.36	83.69	-64.34	AVG
0.1569	0°	3.25	20.59	23.84	103.69	-79.86	PEAK
2.5971	0°	8.39	19.14	27.53	69.54	-42.01	QP
18.3670	0°	10.23	17.63	27.86	69.54	-41.68	QP

Freq. (MHz)	Ant. 0°/90°	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
0.0523	90°	-3.26	22.35	19.09	113.23	-94.14	AVG
0.0523	90°	1.23	22.35	23.58	133.23	-109.65	PEAK
0.1125	90°	-1.39	21.20	19.81	106.58	-86.77	AVG
0.1125	90°	0.63	21.20	21.83	126.58	-104.75	PEAK
0.1354	90°	-2.47	20.83	18.36	104.97	-86.61	AVG
0.1354	90°	1.24	20.83	22.07	124.97	-102.90	PEAK
0.2172	90°	-4.21	20.47	16.26	100.87	-84.61	AVG
0.2172	90°	0.69	20.47	21.16	120.87	-99.71	PEAK
3.6870	90°	6.97	18.97	25.94	69.54	-43.60	QP
17.6530	90°	9.36	17.73	27.09	69.54	-42.45	QP

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.

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

Test Mode: UNII-1/TX A Mode 5180MHz

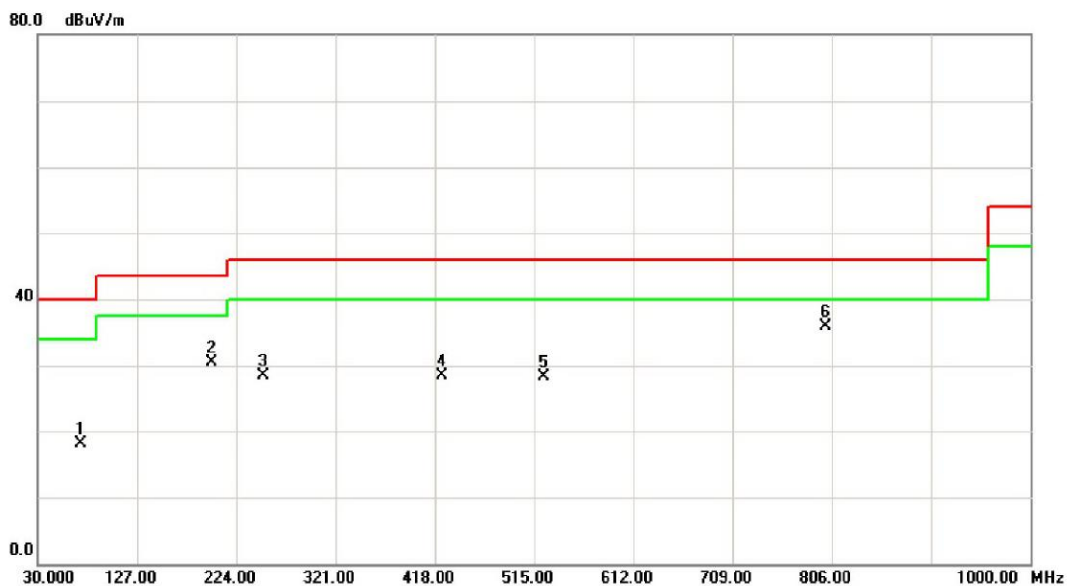
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		55.2200	38.81	-14.40	24.41	40.00	-15.59	peak	
2		98.8700	41.70	-16.55	25.15	43.50	-18.35	peak	
3	*	199.7500	46.37	-14.97	31.40	43.50	-12.10	peak	
4		524.7000	40.10	-9.24	30.86	46.00	-15.14	peak	
5		700.2700	34.76	-4.93	29.83	46.00	-16.17	peak	
6		749.7400	34.99	-4.63	30.36	46.00	-15.64	peak	

Test Mode: UNII-1/TX A Mode 5180MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		71.7100	34.58	-16.38	18.20	40.00	-21.80	peak	
2		199.7500	45.40	-14.97	30.43	43.50	-13.07	peak	
3		250.1900	42.57	-14.02	28.55	46.00	-17.45	peak	
4		424.7900	37.69	-9.09	28.60	46.00	-17.40	peak	
5		524.7000	37.47	-9.24	28.23	46.00	-17.77	peak	
6	*	800.1800	38.77	-2.89	35.88	46.00	-10.12	peak	

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

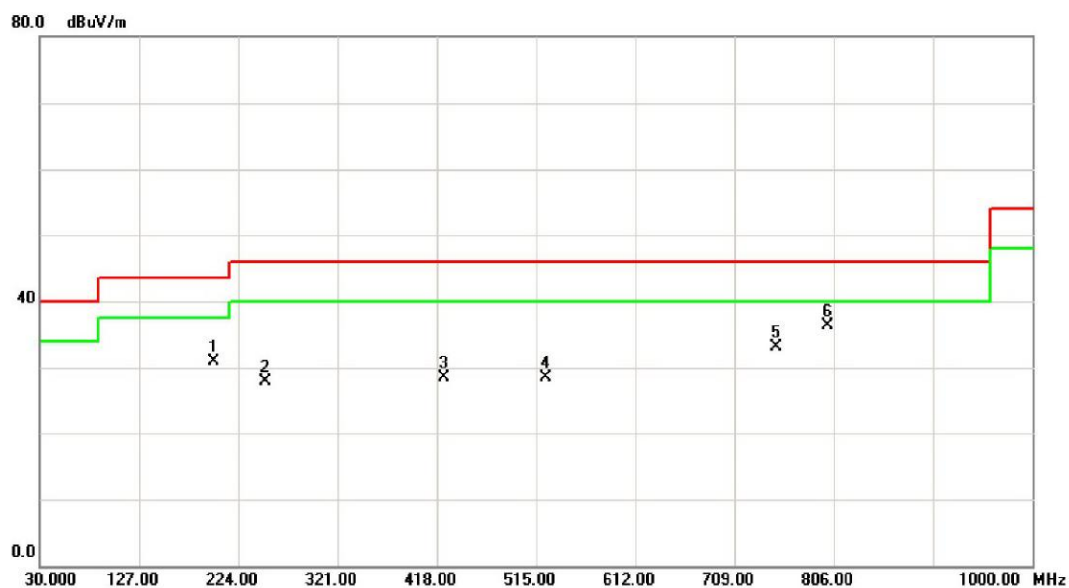
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		55.2200	38.06	-14.40	23.66	40.00	-16.34	peak	
2		98.8700	41.36	-16.55	24.81	43.50	-18.69	peak	
3		150.2800	36.01	-13.20	22.81	43.50	-20.69	peak	
4	*	199.7500	45.61	-14.97	30.64	43.50	-12.86	peak	
5		524.7000	39.04	-9.24	29.80	46.00	-16.20	peak	
6		700.2700	35.05	-4.93	30.12	46.00	-15.88	peak	

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

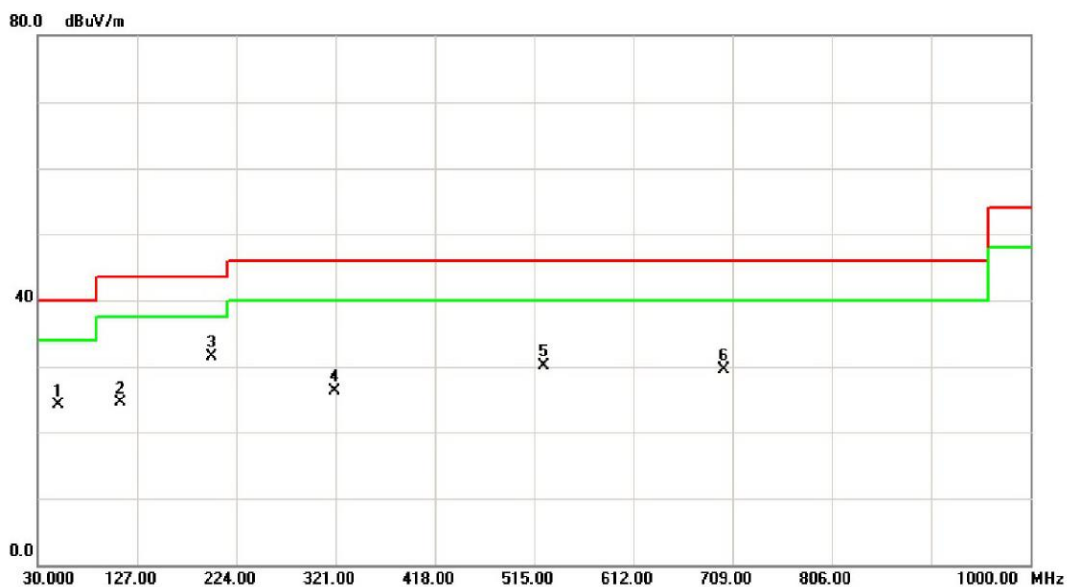
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		199.7500	45.80	-14.97	30.83	43.50	-12.67	peak	
2		250.1900	42.00	-14.02	27.98	46.00	-18.02	peak	
3		424.7900	37.56	-9.09	28.47	46.00	-17.53	peak	
4		524.7000	37.67	-9.24	28.43	46.00	-17.57	peak	
5		749.7400	37.75	-4.63	33.12	46.00	-12.88	peak	
6	*	800.1800	39.29	-2.89	36.40	46.00	-9.60	peak	

Test Mode: UNII-1/TX A Mode 5240MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		50.3700	38.17	-14.09	24.08	40.00	-15.92	peak	
2		110.5100	39.68	-15.22	24.46	43.50	-19.04	peak	
3	*	199.7500	46.39	-14.97	31.42	43.50	-12.08	peak	
4		320.0300	37.52	-11.31	26.21	46.00	-19.79	peak	
5		524.7000	39.32	-9.24	30.08	46.00	-15.92	peak	
6		700.2700	34.40	-4.93	29.47	46.00	-16.53	peak	

Test Mode: UNII-1/TX A Mode 5240MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		150.2800	34.10	-13.20	20.90	43.50	-22.60	peak	
2		199.7500	45.28	-14.97	30.31	43.50	-13.19	peak	
3		324.8800	39.76	-11.39	28.37	46.00	-17.63	peak	
4		424.7900	37.79	-9.09	28.70	46.00	-17.30	peak	
5		475.2300	38.42	-9.58	28.84	46.00	-17.16	peak	
6	*	800.1800	38.61	-2.89	35.72	46.00	-10.28	peak	

Test Mode: UNII-2A/TX A Mode 5260MHz

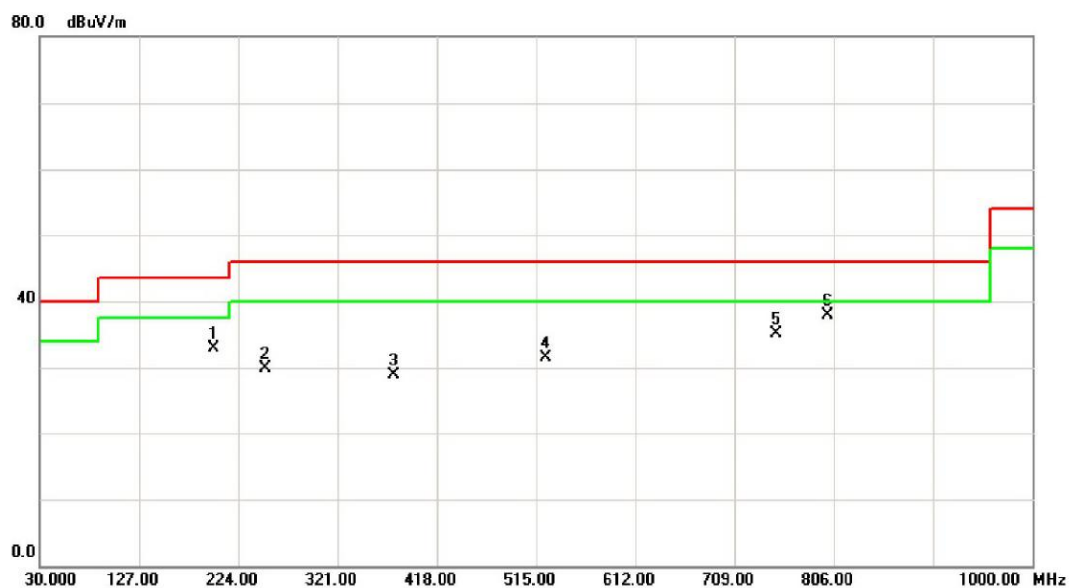
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		32.9100	38.98	-15.17	23.81	40.00	-16.19	peak	
2		110.5100	40.68	-15.22	25.46	43.50	-18.04	peak	
3	*	199.7500	47.89	-14.97	32.92	43.50	-10.58	peak	
4		320.0300	36.52	-11.31	25.21	46.00	-20.79	peak	
5		524.7000	40.32	-9.24	31.08	46.00	-14.92	peak	
6		700.2700	35.90	-4.93	30.97	46.00	-15.03	peak	

Test Mode: UNII-2A/TX A Mode 5260MHz

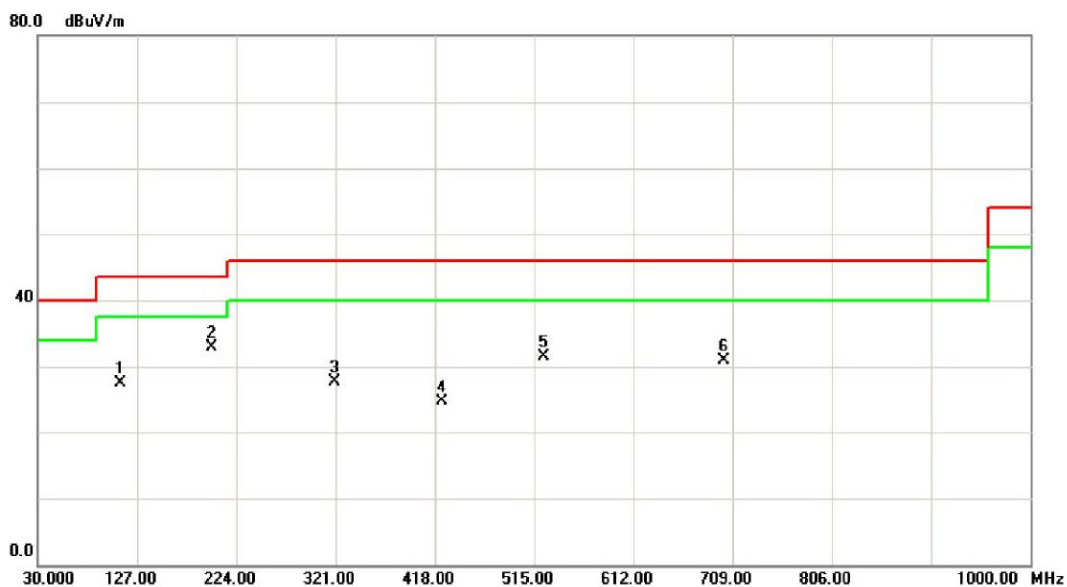
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		199.7500	47.80	-14.97	32.83	43.50	-10.67	peak	
2		250.1900	44.00	-14.02	29.98	46.00	-16.02	peak	
3		375.3200	39.48	-10.64	28.84	46.00	-17.16	peak	
4		524.7000	40.67	-9.24	31.43	46.00	-14.57	peak	
5		749.7400	39.75	-4.63	35.12	46.00	-10.88	peak	
6	*	800.1800	40.79	-2.89	37.90	46.00	-8.10	peak	

Test Mode: UNII-2A/TX A Mode 5300MHz

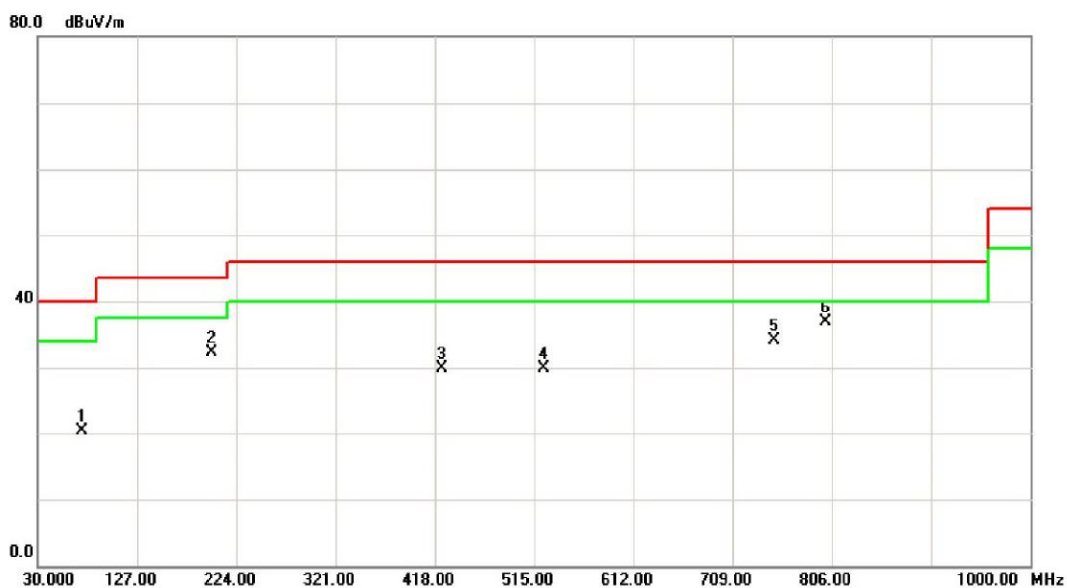
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		110.5100	42.68	-15.22	27.46	43.50	-16.04	peak	
2	*	199.7500	47.89	-14.97	32.92	43.50	-10.58	peak	
3		320.0300	39.02	-11.31	27.71	46.00	-18.29	peak	
4		424.7900	33.83	-9.09	24.74	46.00	-21.26	peak	
5		524.7000	40.82	-9.24	31.58	46.00	-14.42	peak	
6		700.2700	35.90	-4.93	30.97	46.00	-15.03	peak	

Test Mode: UNII-2A/TX A Mode 5300MHz

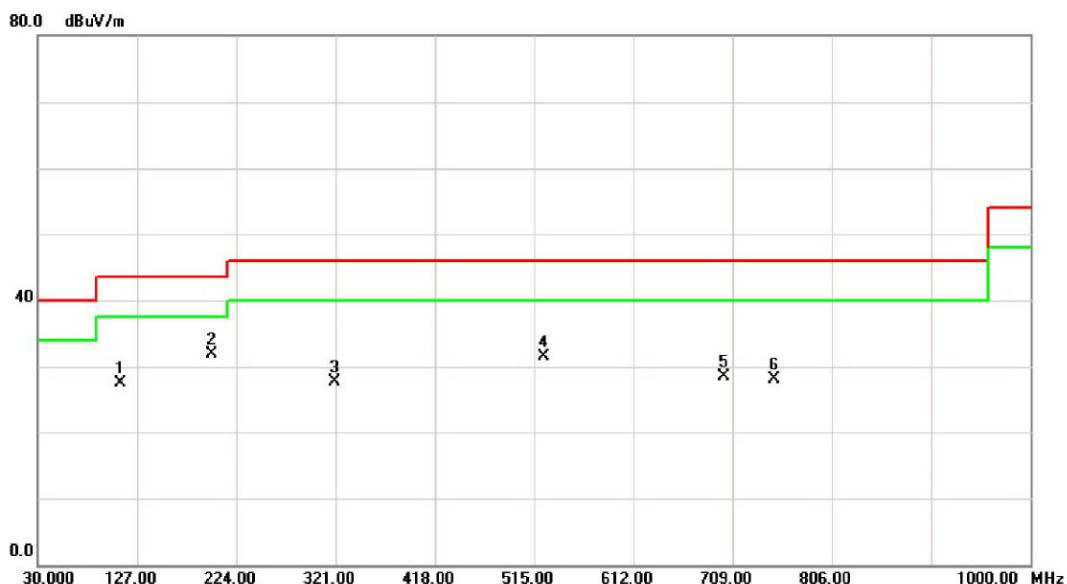
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		72.6800	36.74	-16.43	20.31	40.00	-19.69	peak	
2		199.7500	47.30	-14.97	32.33	43.50	-11.17	peak	
3		424.7900	39.06	-9.09	29.97	46.00	-16.03	peak	
4		524.7000	39.17	-9.24	29.93	46.00	-16.07	peak	
5		749.7400	38.75	-4.63	34.12	46.00	-11.88	peak	
6	*	800.1800	39.79	-2.89	36.90	46.00	-9.10	peak	

Test Mode: UNII-2A/TX A Mode 5320MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		110.5100	42.68	-15.22	27.46	43.50	-16.04	peak	
2	*	199.7500	46.89	-14.97	31.92	43.50	-11.58	peak	
3		320.0300	39.02	-11.31	27.71	46.00	-18.29	peak	
4		524.7000	40.82	-9.24	31.58	46.00	-14.42	peak	
5		700.2700	33.40	-4.93	28.47	46.00	-17.53	peak	
6		749.7400	32.80	-4.63	28.17	46.00	-17.83	peak	

Test Mode: UNII-2A/TX A Mode 5320MHz

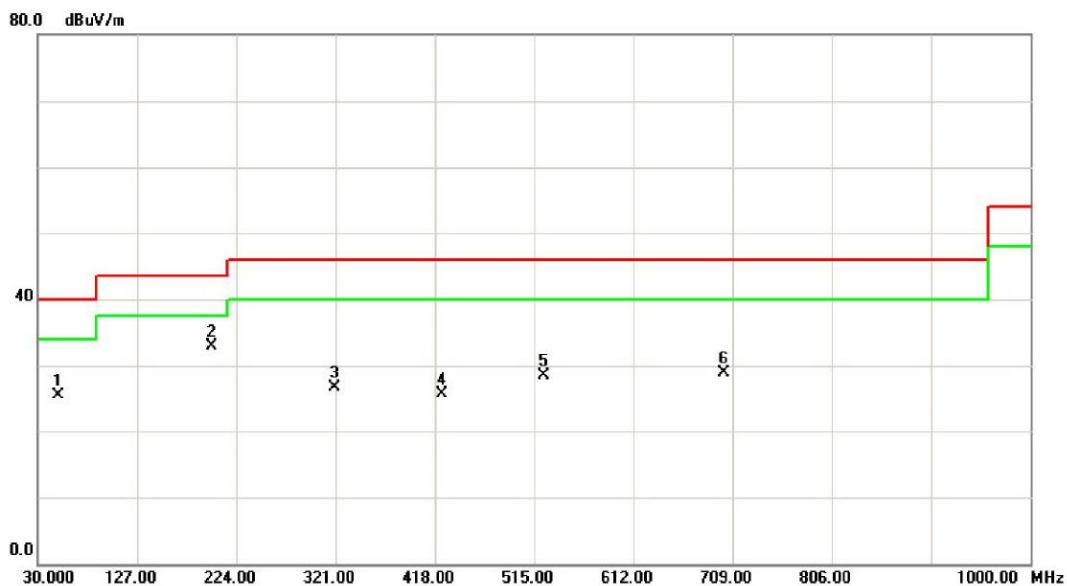
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		199.7500	48.30	-14.97	33.33	43.50	-10.17	peak	
2		250.1900	45.00	-14.02	30.98	46.00	-15.02	peak	
3		424.7900	39.06	-9.09	29.97	46.00	-16.03	peak	
4		475.2300	41.06	-9.58	31.48	46.00	-14.52	peak	
5		749.7400	36.75	-4.63	32.12	46.00	-13.88	peak	
6	*	800.1800	39.29	-2.89	36.40	46.00	-9.60	peak	

Test Mode: UNII-2C/TX A Mode 5500MHz

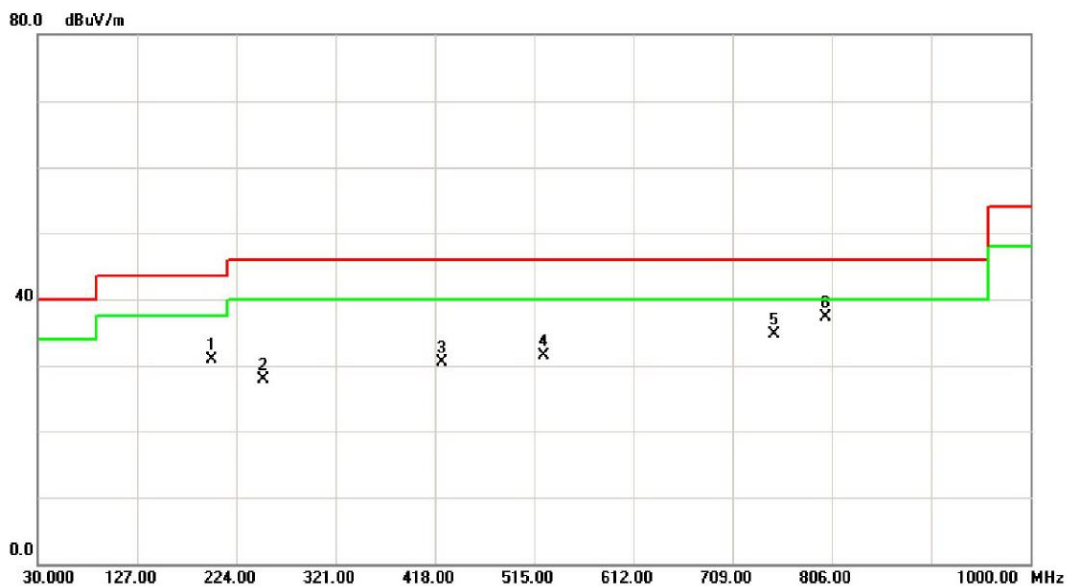
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		50.3700	39.67	-14.09	25.58	40.00	-14.42	peak	
2	*	199.7500	47.89	-14.97	32.92	43.50	-10.58	peak	
3		320.0300	38.02	-11.31	26.71	46.00	-19.29	peak	
4		424.7900	34.83	-9.09	25.74	46.00	-20.26	peak	
5		524.7000	37.82	-9.24	28.58	46.00	-17.42	peak	
6		700.2700	33.90	-4.93	28.97	46.00	-17.03	peak	

Test Mode: UNII-2C/TX A Mode 5500MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		199.7500	45.80	-14.97	30.83	43.50	-12.67	peak	
2		250.1900	42.00	-14.02	27.98	46.00	-18.02	peak	
3		424.7900	39.56	-9.09	30.47	46.00	-15.53	peak	
4		524.7000	40.67	-9.24	31.43	46.00	-14.57	peak	
5		749.7400	39.25	-4.63	34.62	46.00	-11.38	peak	
6	*	800.1800	40.29	-2.89	37.40	46.00	-8.60	peak	

Test Mode: UNII-2C/TX A Mode 5580MHz

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		110.5100	41.68	-15.22	26.46	43.50	-17.04	peak	
2	*	199.7500	47.39	-14.97	32.42	43.50	-11.08	peak	
3		320.0300	39.52	-11.31	28.21	46.00	-17.79	peak	
4		524.7000	41.82	-9.24	32.58	46.00	-13.42	peak	
5		700.2700	35.90	-4.93	30.97	46.00	-15.03	peak	
6		749.7400	35.80	-4.63	31.17	46.00	-14.83	peak	

Test Mode: UNII-2C/TX A Mode 5580MHz

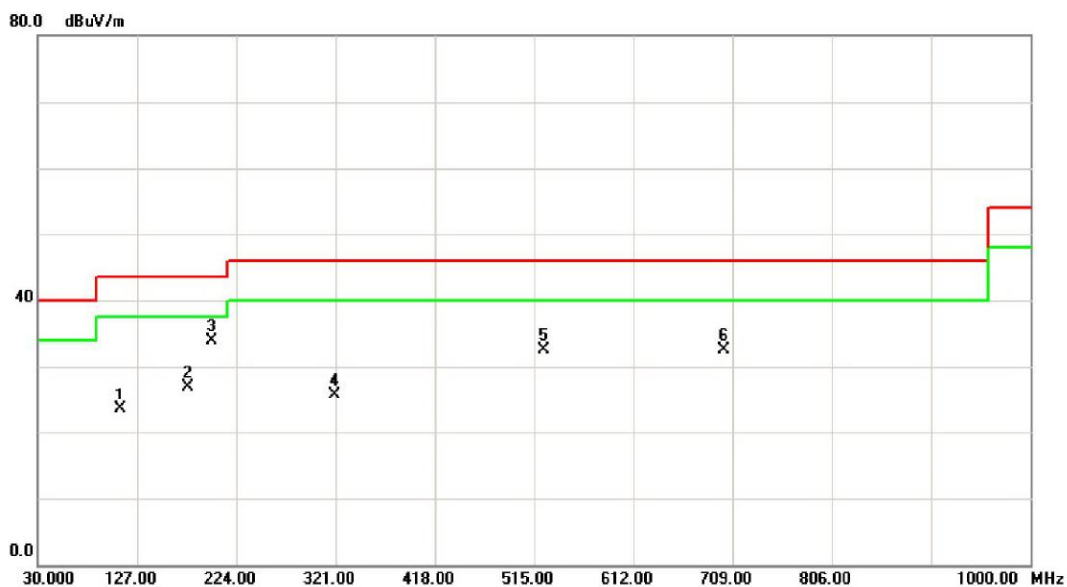
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		199.7500	47.30	-14.97	32.33	43.50	-11.17	peak	
2		250.1900	43.00	-14.02	28.98	46.00	-17.02	peak	
3		424.7900	38.56	-9.09	29.47	46.00	-16.53	peak	
4		524.7000	39.67	-9.24	30.43	46.00	-15.57	peak	
5		749.7400	40.75	-4.63	36.12	46.00	-9.88	peak	
6	*	800.1800	41.79	-2.89	38.90	46.00	-7.10	peak	

Test Mode: UNII-2C/TX A Mode 5700MHz

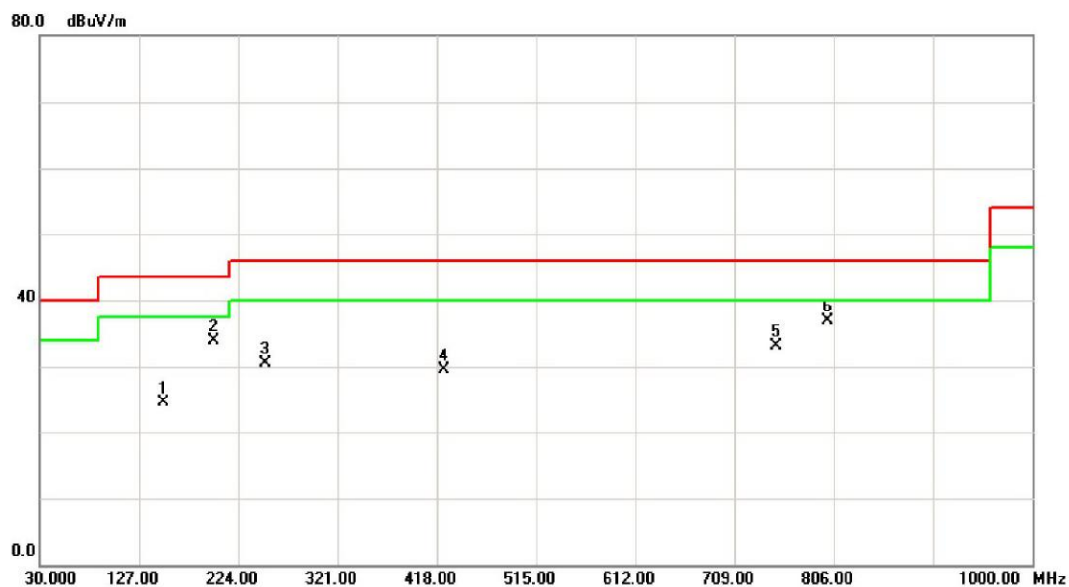
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		110.5100	38.68	-15.22	23.46	43.50	-20.04	peak	
2		176.4700	39.73	-12.90	26.83	43.50	-16.67	peak	
3	*	199.7500	48.89	-14.97	33.92	43.50	-9.58	peak	
4		320.0300	37.02	-11.31	25.71	46.00	-20.29	peak	
5		524.7000	41.82	-9.24	32.58	46.00	-13.42	peak	
6		700.2700	37.40	-4.93	32.47	46.00	-13.53	peak	

Test Mode: UNII-2C/TX A Mode 5700MHz

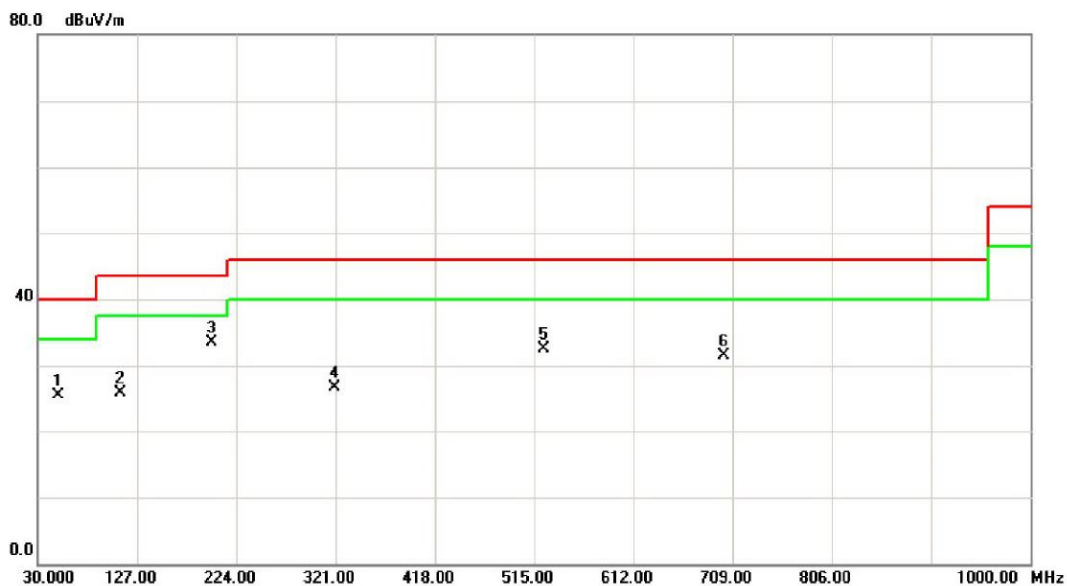
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		150.2800	37.76	-13.20	24.56	43.50	-18.94	peak	
2		199.7500	48.80	-14.97	33.83	43.50	-9.67	peak	
3		250.1900	44.50	-14.02	30.48	46.00	-15.52	peak	
4		424.7900	38.56	-9.09	29.47	46.00	-16.53	peak	
5		749.7400	37.75	-4.63	33.12	46.00	-12.88	peak	
6	*	800.1800	39.79	-2.89	36.90	46.00	-9.10	peak	

Test Mode: UNII-3/TX A Mode 5745MHz

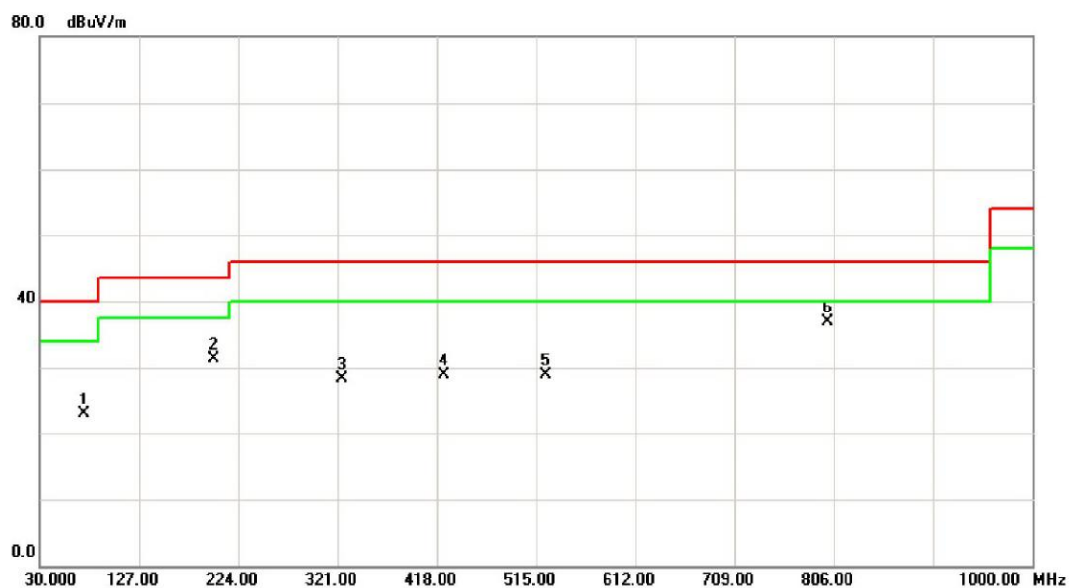
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		50.3700	39.67	-14.09	25.58	40.00	-14.42	peak	
2		110.5100	41.18	-15.22	25.96	43.50	-17.54	peak	
3	*	199.7500	48.39	-14.97	33.42	43.50	-10.08	peak	
4		320.0300	38.02	-11.31	26.71	46.00	-19.29	peak	
5		524.7000	41.82	-9.24	32.58	46.00	-13.42	peak	
6		700.2700	36.40	-4.93	31.47	46.00	-14.53	peak	

Test Mode: UNII-3/TX A Mode 5745MHz

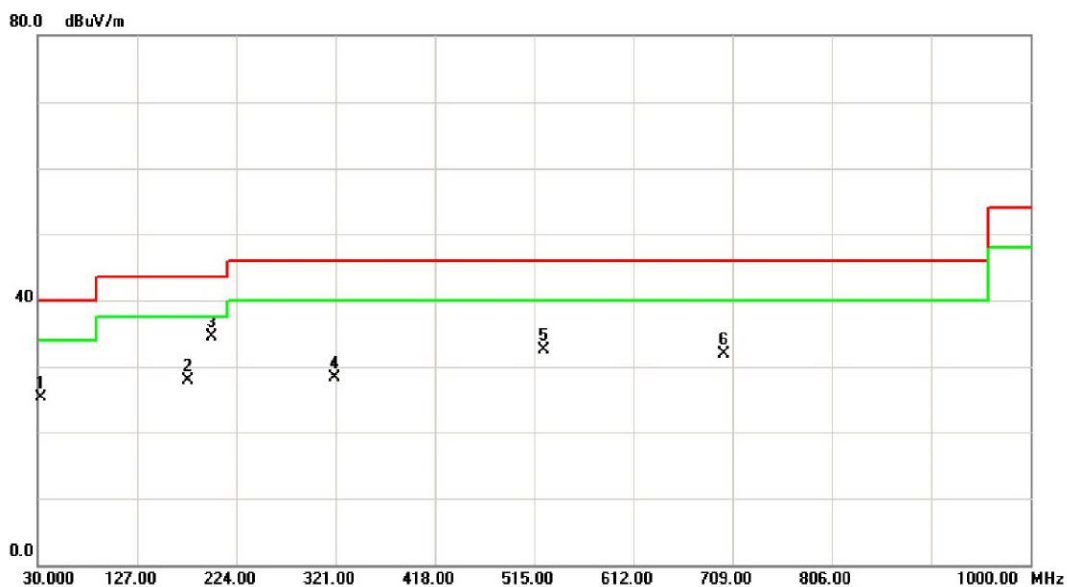
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		72.6800	39.24	-16.43	22.81	40.00	-17.19	peak	
2		199.7500	46.30	-14.97	31.33	43.50	-12.17	peak	
3		324.8800	39.74	-11.39	28.35	46.00	-17.65	peak	
4		424.7900	38.06	-9.09	28.97	46.00	-17.03	peak	
5		524.7000	38.17	-9.24	28.93	46.00	-17.07	peak	
6	*	800.1800	39.79	-2.89	36.90	46.00	-9.10	peak	

Test Mode: UNII-3/TX A Mode 5785MHz

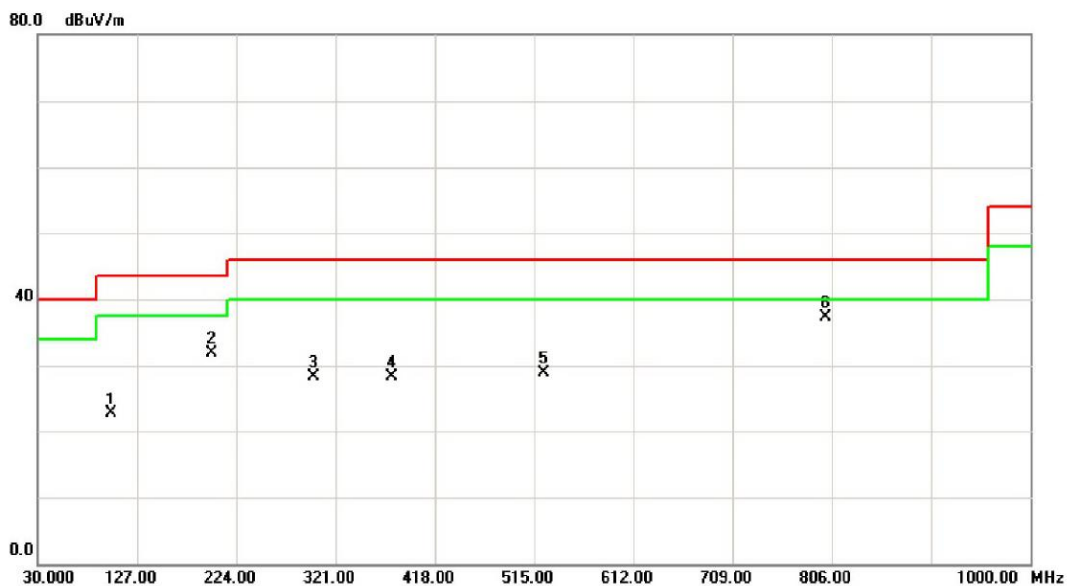
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		32.9100	40.48	-15.17	25.31	40.00	-14.69	peak	
2		176.4700	40.73	-12.90	27.83	43.50	-15.67	peak	
3	*	199.7500	49.39	-14.97	34.42	43.50	-9.08	peak	
4		320.0300	39.52	-11.31	28.21	46.00	-17.79	peak	
5		524.7000	41.82	-9.24	32.58	46.00	-13.42	peak	
6		700.2700	36.90	-4.93	31.97	46.00	-14.03	peak	

Test Mode: UNII-3/TX A Mode 5785MHz

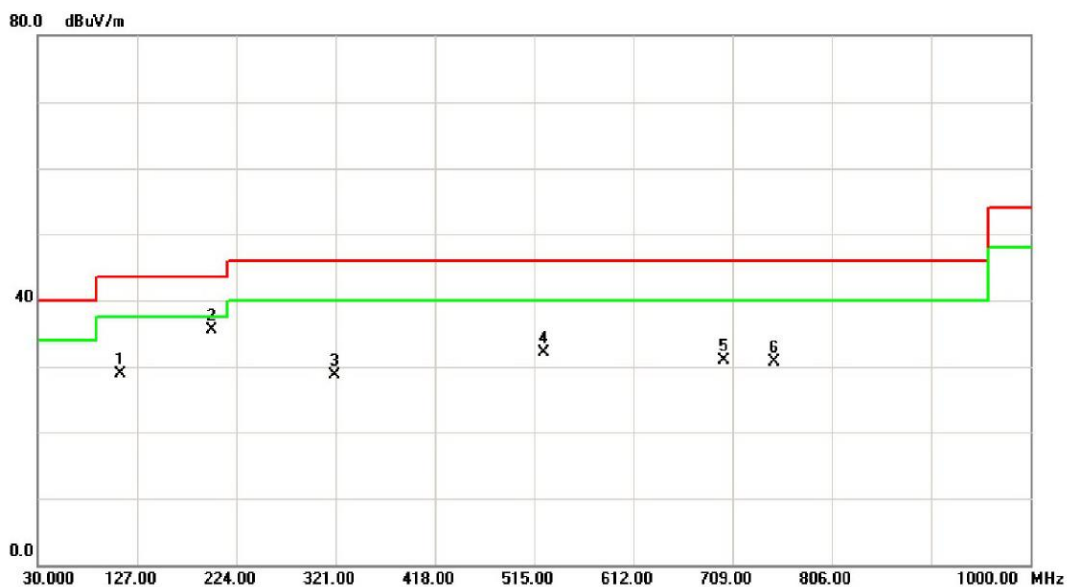
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		101.7800	38.86	-16.19	22.67	43.50	-20.83	peak	
2		199.7500	46.80	-14.97	31.83	43.50	-11.67	peak	
3		299.6600	39.24	-10.99	28.25	46.00	-17.75	peak	
4		375.3200	38.98	-10.64	28.34	46.00	-17.66	peak	
5		524.7000	38.17	-9.24	28.93	46.00	-17.07	peak	
6	*	800.1800	40.29	-2.89	37.40	46.00	-8.60	peak	

Test Mode: UNII-3/TX A Mode 5825MHz

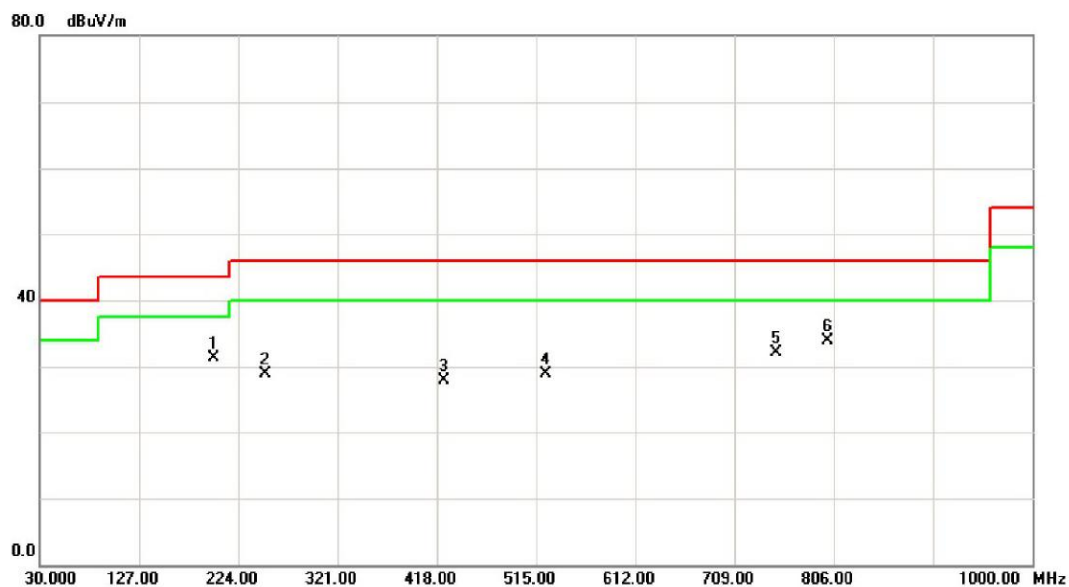
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		110.5100	44.18	-15.22	28.96	43.50	-14.54	peak	
2	*	199.7500	50.39	-14.97	35.42	43.50	-8.08	peak	
3		320.0300	40.02	-11.31	28.71	46.00	-17.29	peak	
4		524.7000	41.32	-9.24	32.08	46.00	-13.92	peak	
5		700.2700	35.90	-4.93	30.97	46.00	-15.03	peak	
6		749.7400	35.30	-4.63	30.67	46.00	-15.33	peak	

Test Mode: UNII-3/TX A Mode 5825MHz

Horizontal

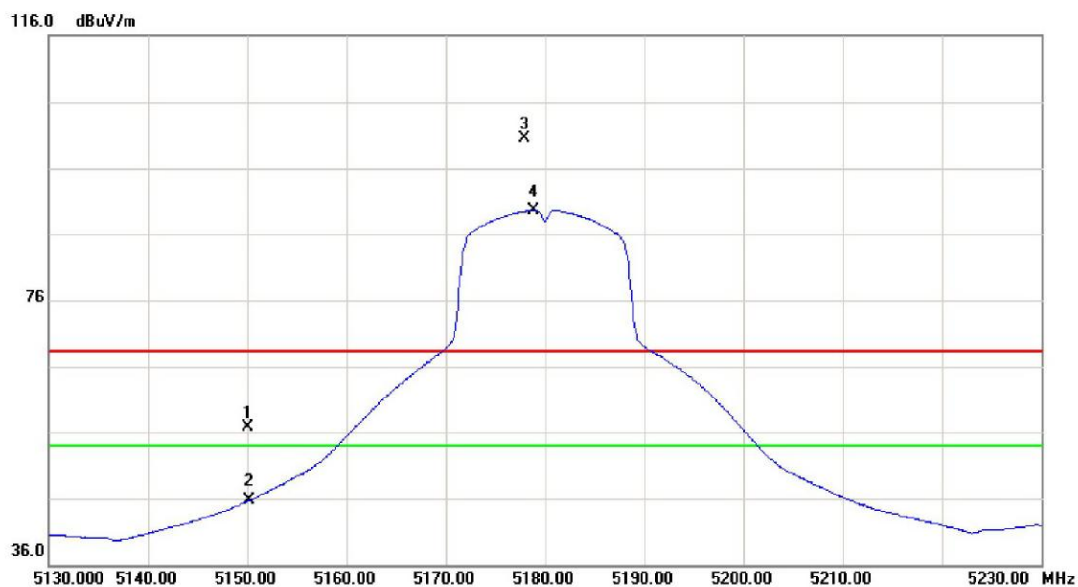


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		199.7500	46.30	-14.97	31.33	43.50	-12.17	peak	
2		250.1900	43.00	-14.02	28.98	46.00	-17.02	peak	
3		424.7900	37.06	-9.09	27.97	46.00	-18.03	peak	
4		524.7000	38.17	-9.24	28.93	46.00	-17.07	peak	
5		749.7400	36.75	-4.63	32.12	46.00	-13.88	peak	
6	*	800.1800	36.79	-2.89	33.90	46.00	-12.10	peak	

ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

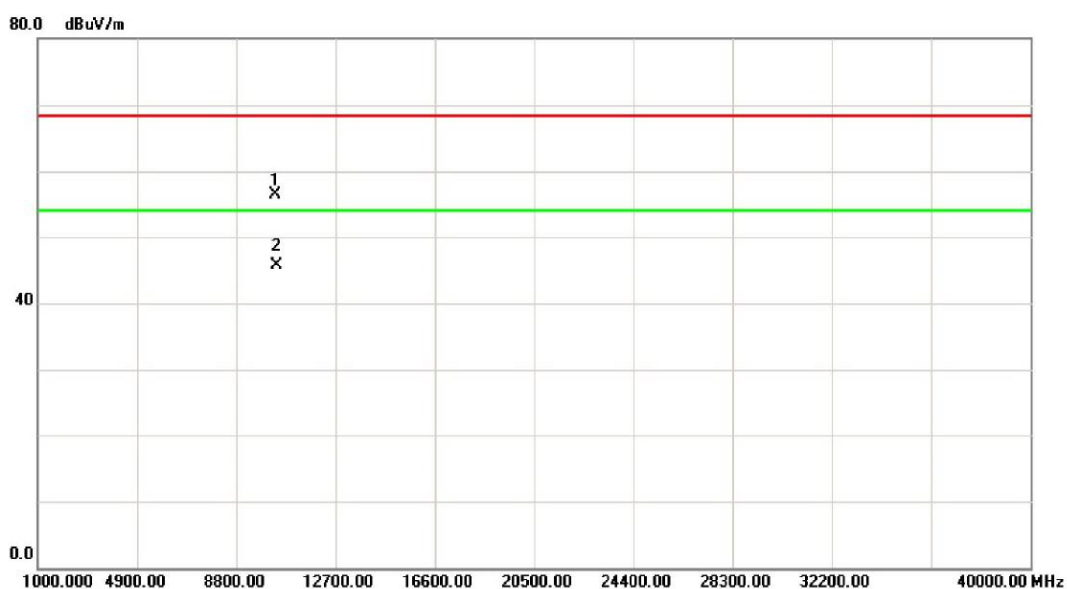
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		5150.000	17.74	39.00	56.74	68.30	-11.56	peak	
2		5150.000	6.61	39.00	45.61	54.00	-8.39	AVG	
3	X	5177.900	61.46	39.09	100.55	68.30	32.25	peak	no limit
4	*	5178.800	50.50	39.09	89.59	54.00	35.59	AVG	no limit

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

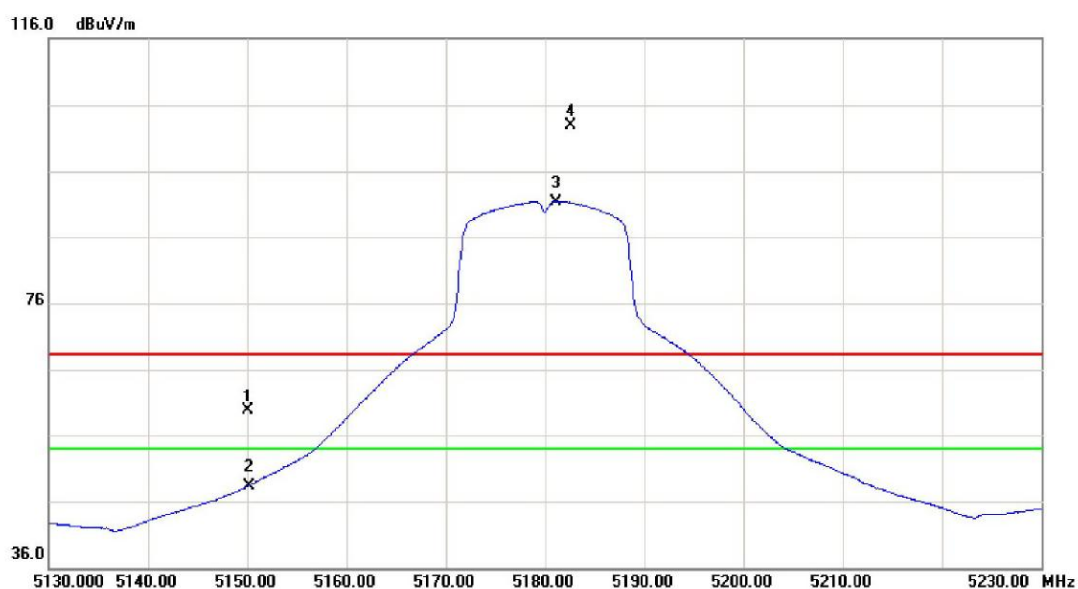
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10359.96	45.47	11.10	56.57	68.30	-11.73	peak	
2	*	10359.96	34.52	11.10	45.62	54.00	-8.38	AVG	

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

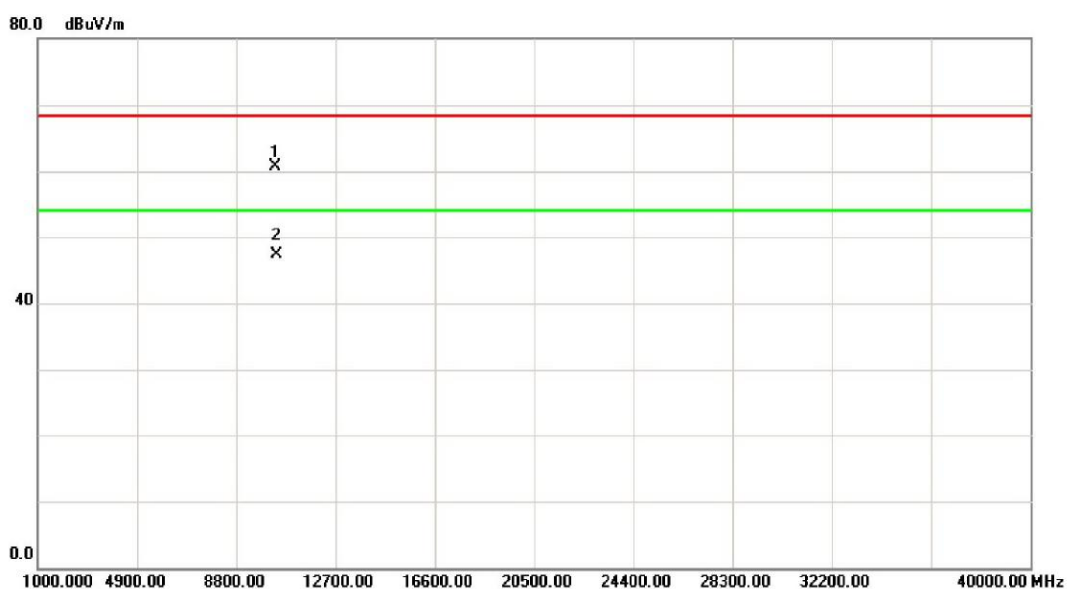
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		5150.000	20.61	39.00	59.61	68.30	-8.69	peak	
2		5150.000	9.27	39.00	48.27	54.00	-5.73	AVG	
3	*	5181.100	52.29	39.10	91.39	54.00	37.39	AVG	no limit
4	X	5182.600	63.70	39.11	102.81	68.30	34.51	peak	no limit

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

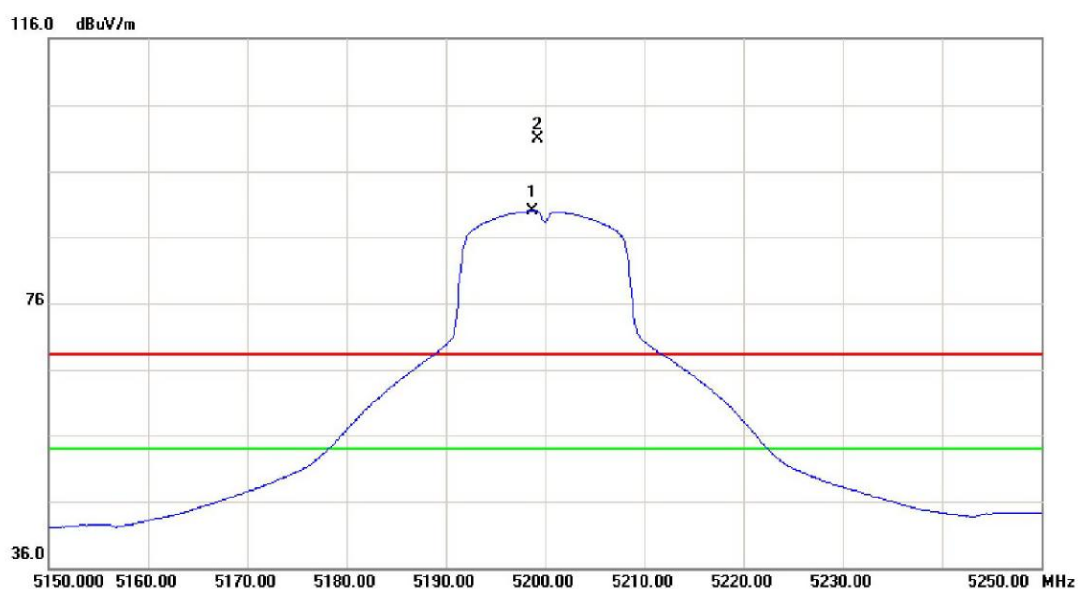
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10359.86	49.66	11.10	60.76	68.30	-7.54	peak	
2	*	10359.90	36.21	11.10	47.31	54.00	-6.69	AVG	

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

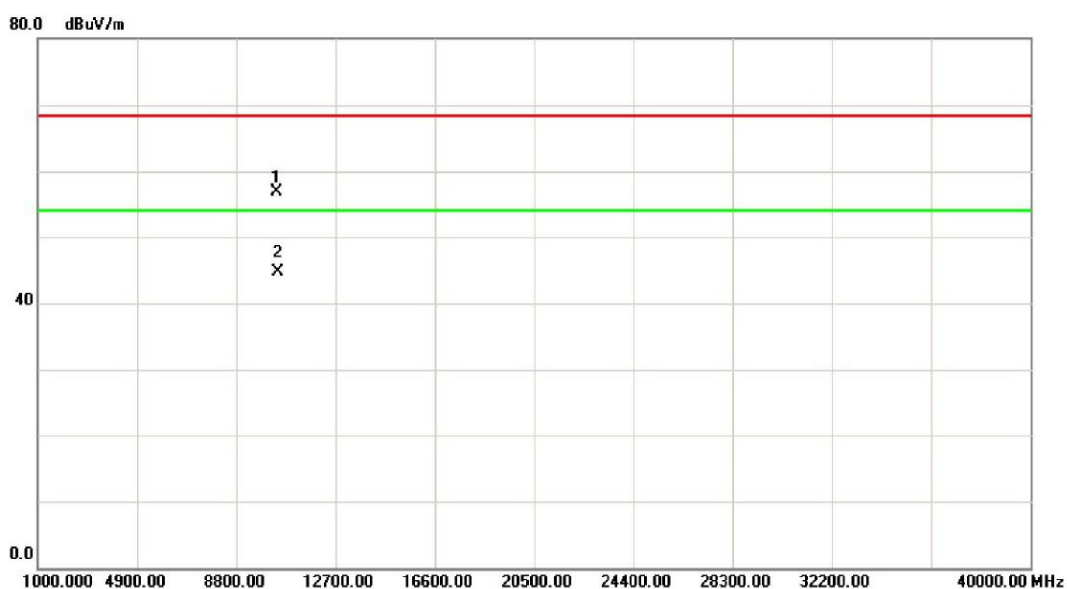
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	5198.700	50.73	39.16	89.89	54.00	35.89	AVG	no limit
2	X	5199.200	61.73	39.16	100.89	68.30	32.59	peak	no limit

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

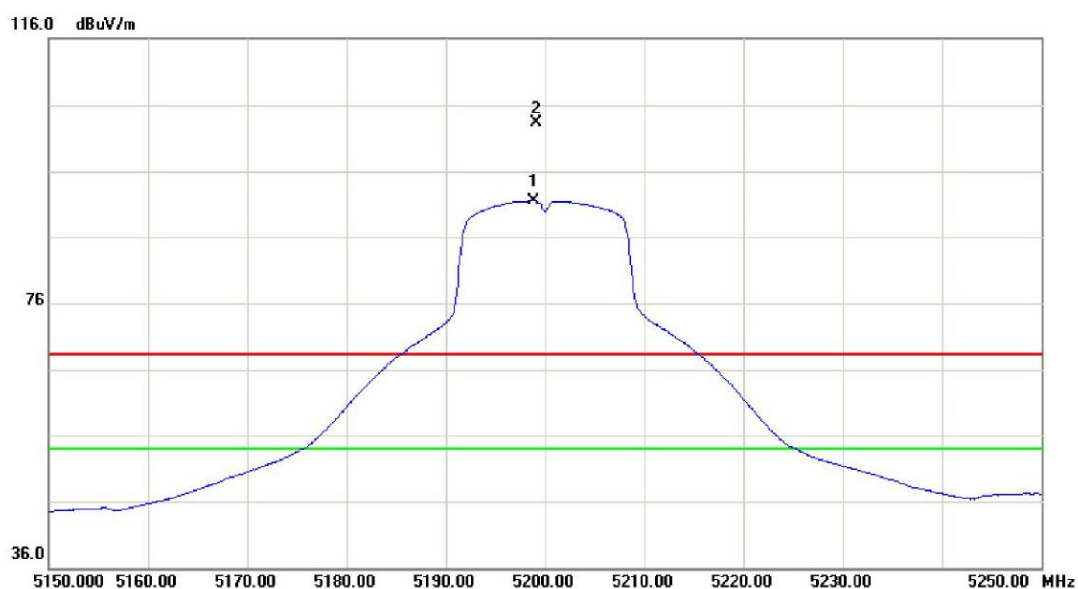
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10399.98	45.80	11.05	56.85	68.30	-11.45	peak	
2	*	10399.98	33.69	11.05	44.74	54.00	-9.26	AVG	

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

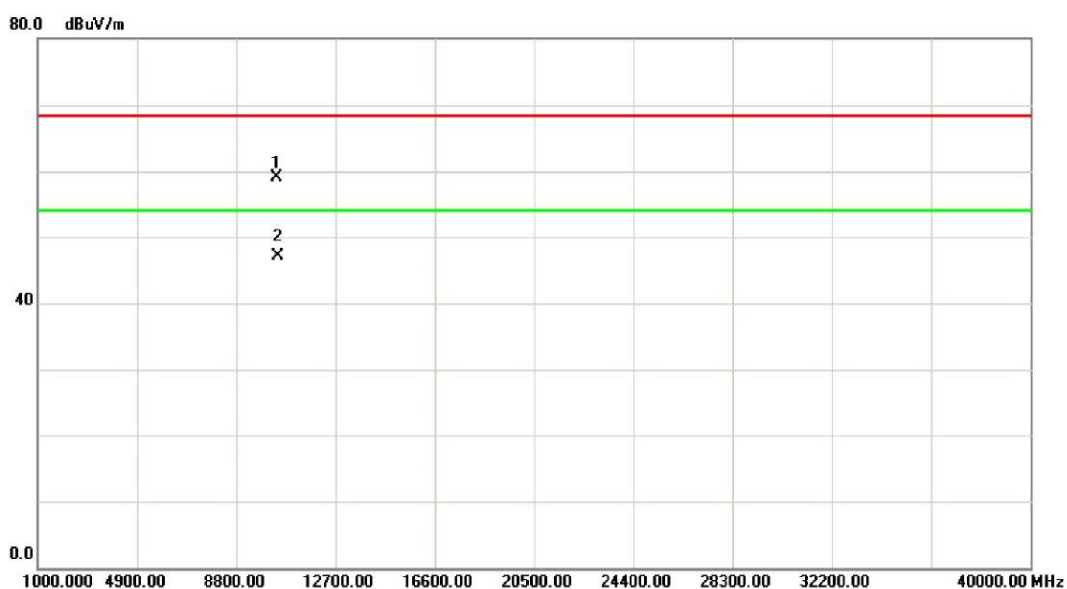
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	5198.800	52.33	39.16	91.49	54.00	37.49	AVG	no limit
2	X	5199.100	64.19	39.16	103.35	68.30	35.05	peak	no limit

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

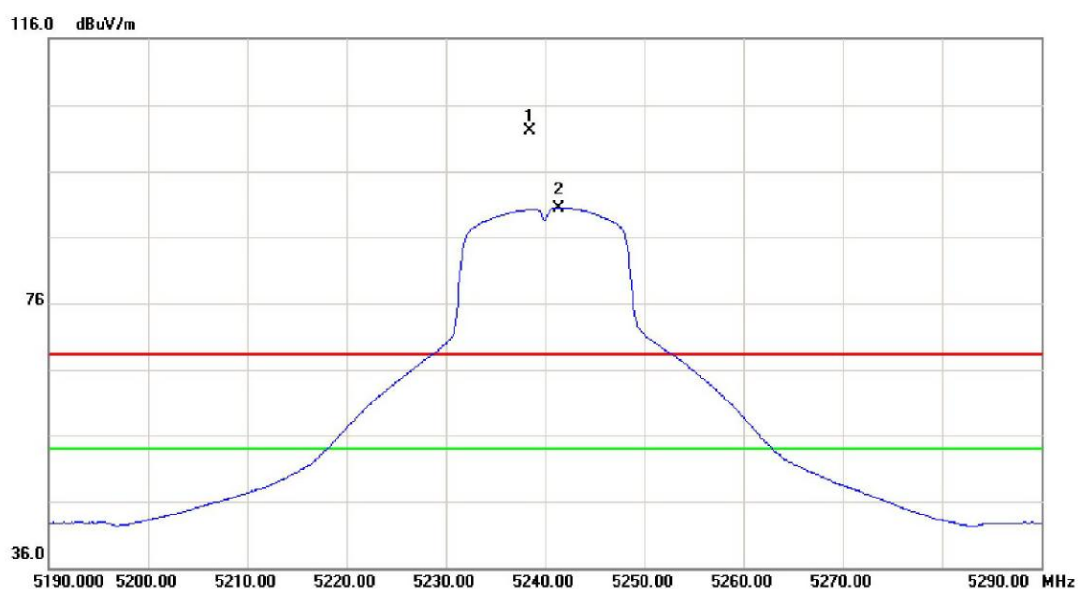
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10399.98	47.98	11.05	59.03	68.30	-9.27	peak	
2	*	10399.98	36.03	11.05	47.08	54.00	-6.92	AVG	

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

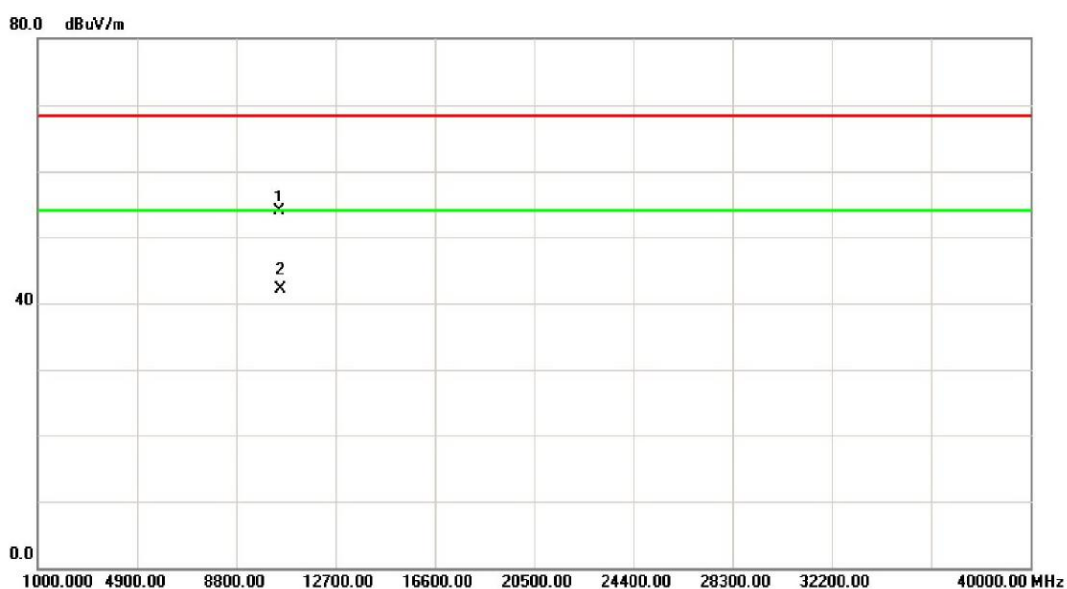
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	5238.400	62.82	39.29	102.11	68.30	33.81	peak	no limit
2	*	5241.400	51.05	39.30	90.35	54.00	36.35	AVG	no limit

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

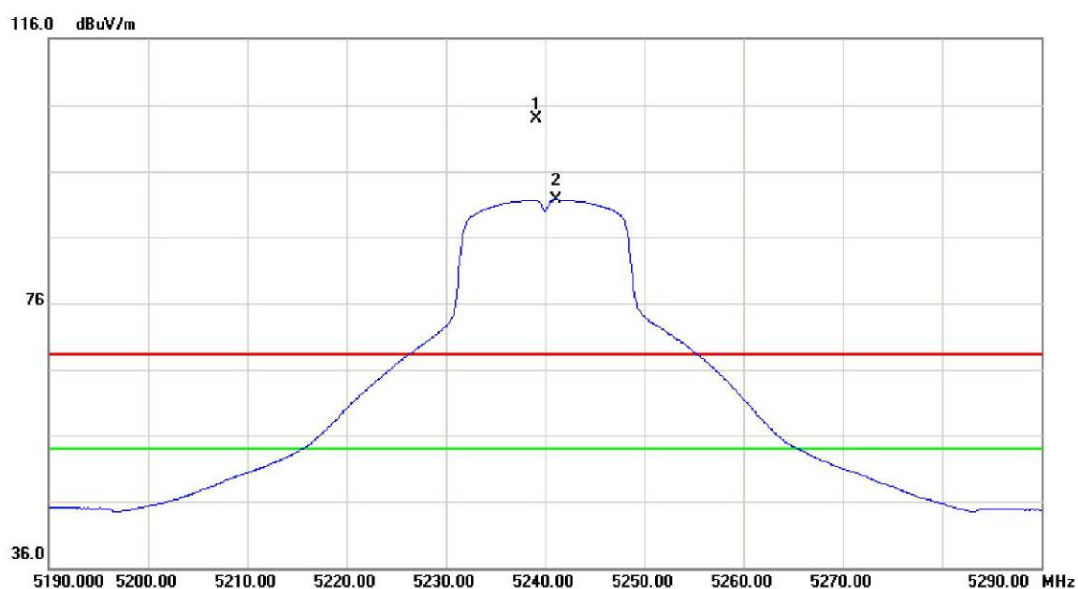
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10480.06	42.99	10.94	53.93	68.30	-14.37	peak	
2	*	10480.06	31.12	10.94	42.06	54.00	-11.94	AVG	

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

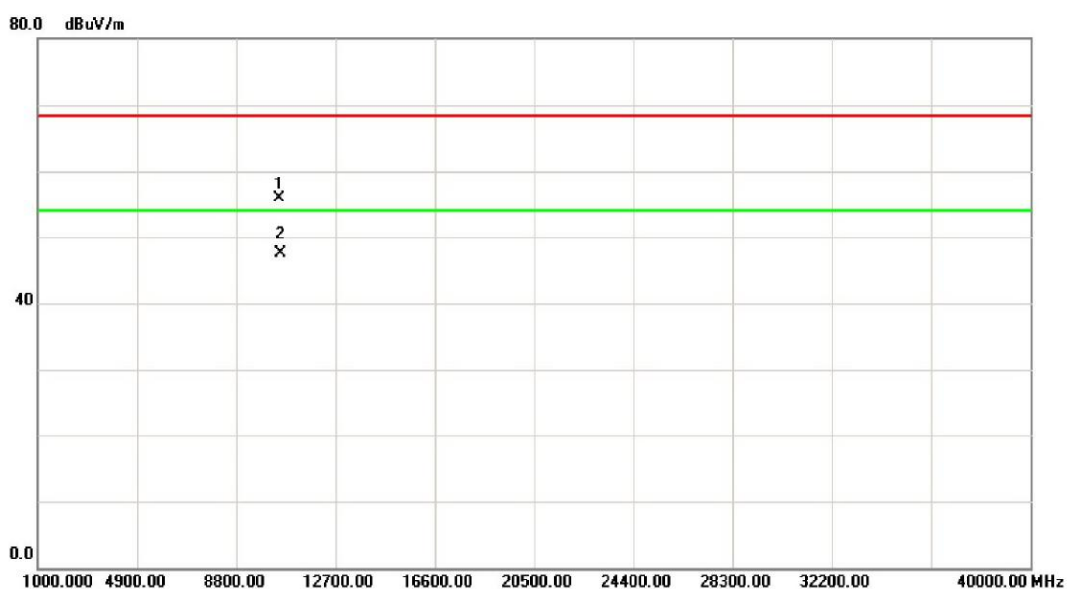
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	5239.100	64.63	39.29	103.92	68.30	35.62	peak	no limit
2	*	5241.100	52.38	39.30	91.68	54.00	37.68	AVG	no limit

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

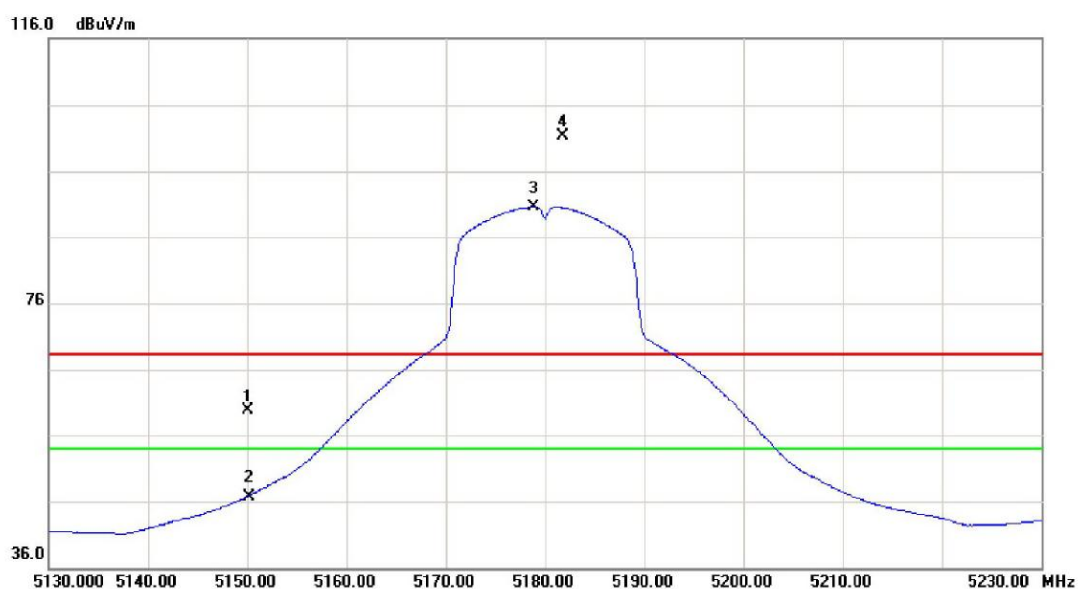
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10479.92	45.05	10.94	55.99	68.30	-12.31	peak	
2	*	10479.92	36.54	10.94	47.48	54.00	-6.52	AVG	

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

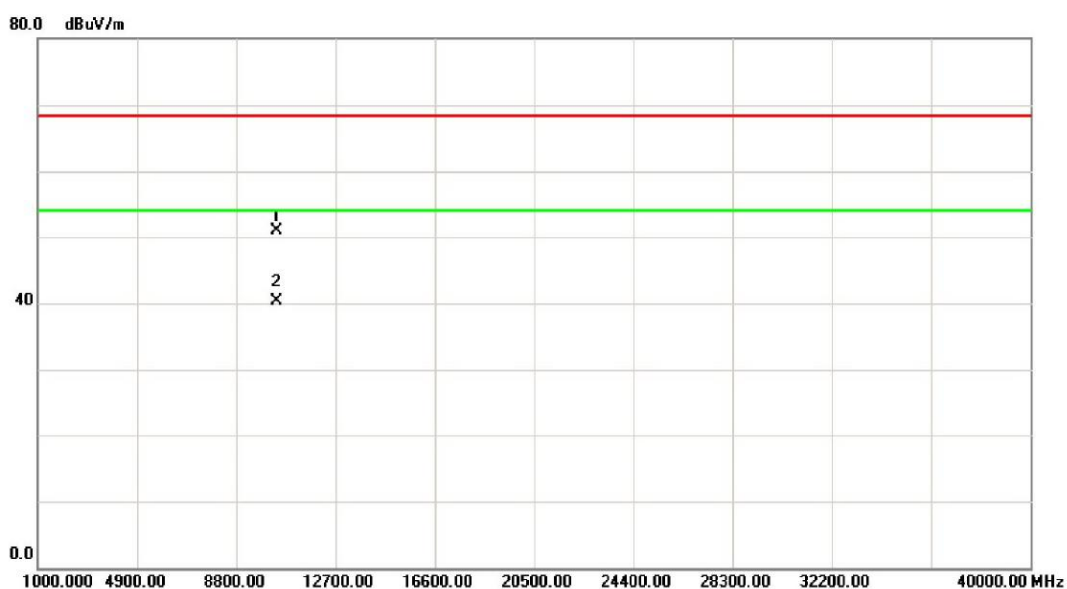
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		5150.000	20.78	39.00	59.78	68.30	-8.52	peak	
2		5150.000	7.75	39.00	46.75	54.00	-7.25	AVG	
3	*	5178.900	51.47	39.09	90.56	54.00	36.56	AVG	no limit
4	X	5181.800	62.18	39.10	101.28	68.30	32.98	peak	no limit

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

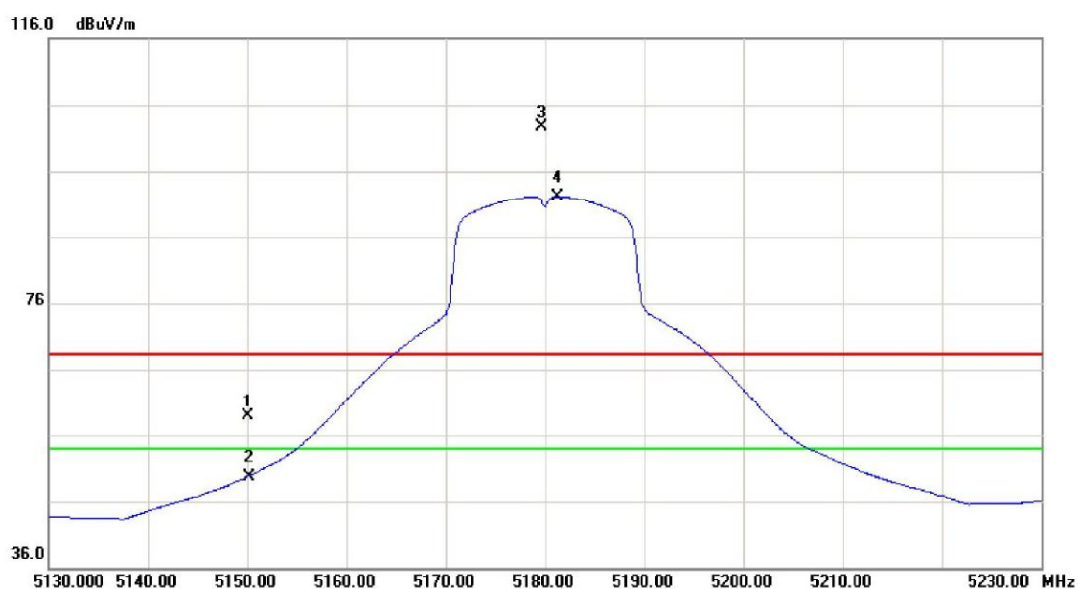
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10360.10	39.71	11.10	50.81	68.30	-17.49	peak	
2	*	10360.10	29.14	11.10	40.24	54.00	-13.76	AVG	

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

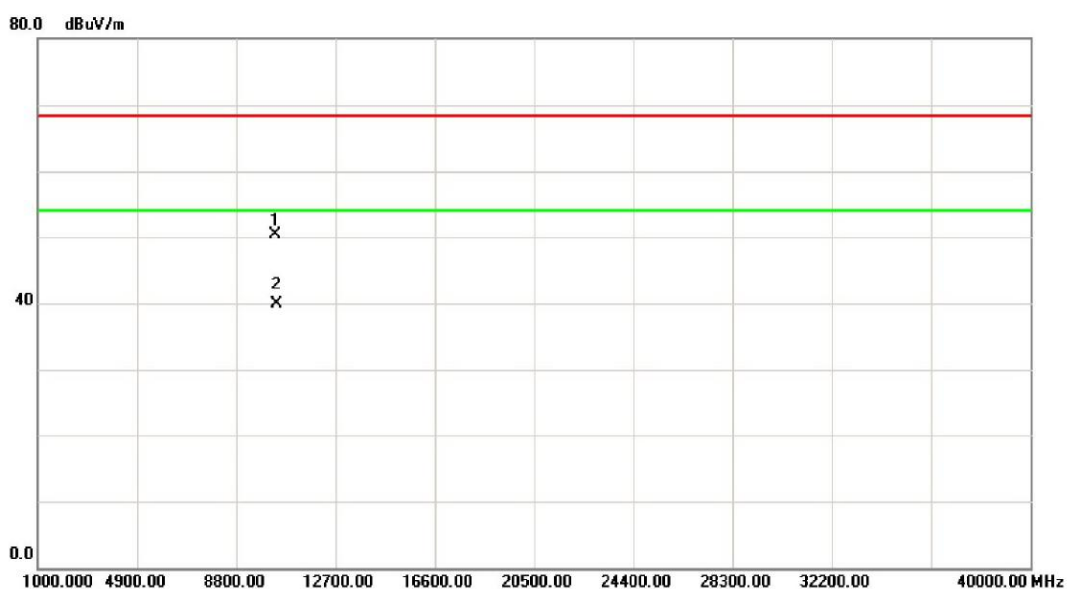
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		5150.000	19.86	39.00	58.86	68.30	-9.44	peak	
2		5150.000	10.80	39.00	49.80	54.00	-4.20	AVG	
3	X	5179.600	63.62	39.10	102.72	68.30	34.42	peak	no limit
4	*	5181.200	53.10	39.10	92.20	54.00	38.20	AVG	no limit

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

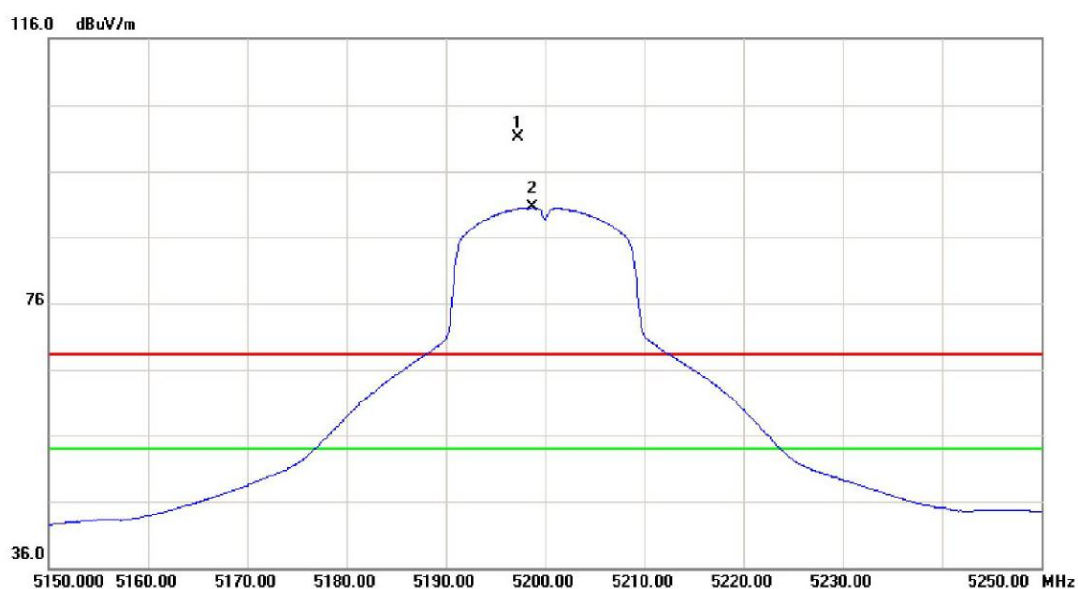
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10359.70	39.24	11.10	50.34	68.30	-17.96	peak	
2	*	10359.70	28.72	11.10	39.82	54.00	-14.18	AVG	

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

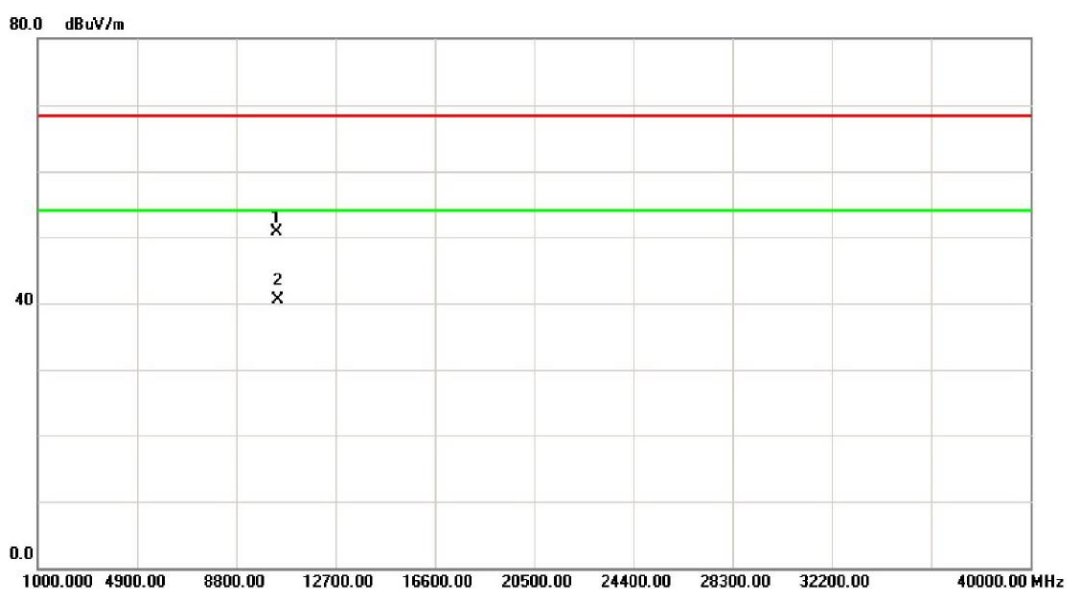
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	5197.300	62.02	39.15	101.17	68.30	32.87	peak	no limit
2	*	5198.700	51.25	39.16	90.41	54.00	36.41	AVG	no limit

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

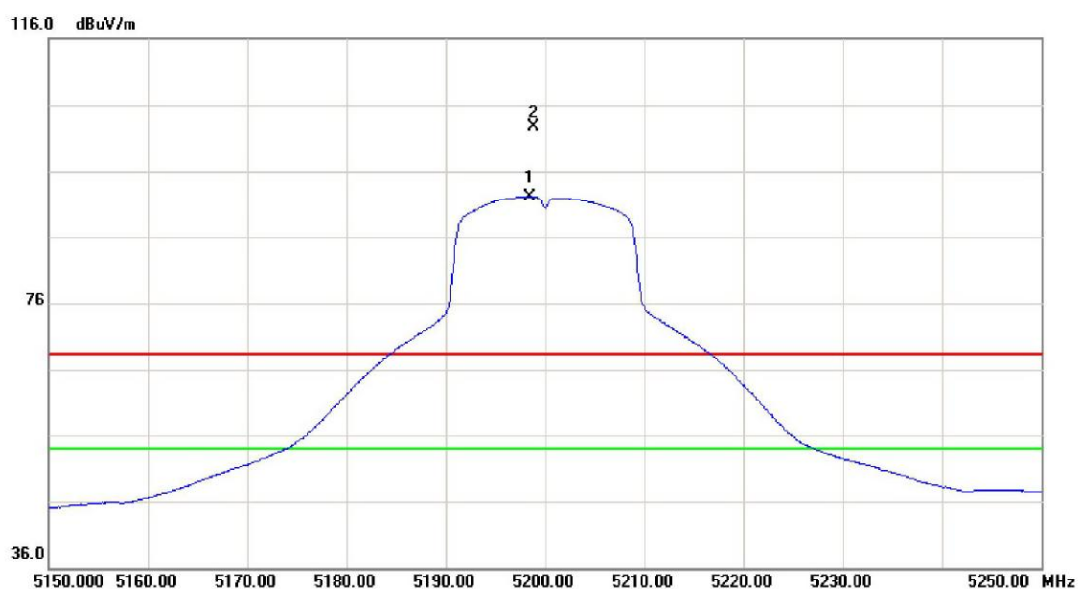
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10400.10	39.65	11.05	50.70	68.30	-17.60	peak	
2	*	10400.10	29.48	11.05	40.53	54.00	-13.47	AVG	

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

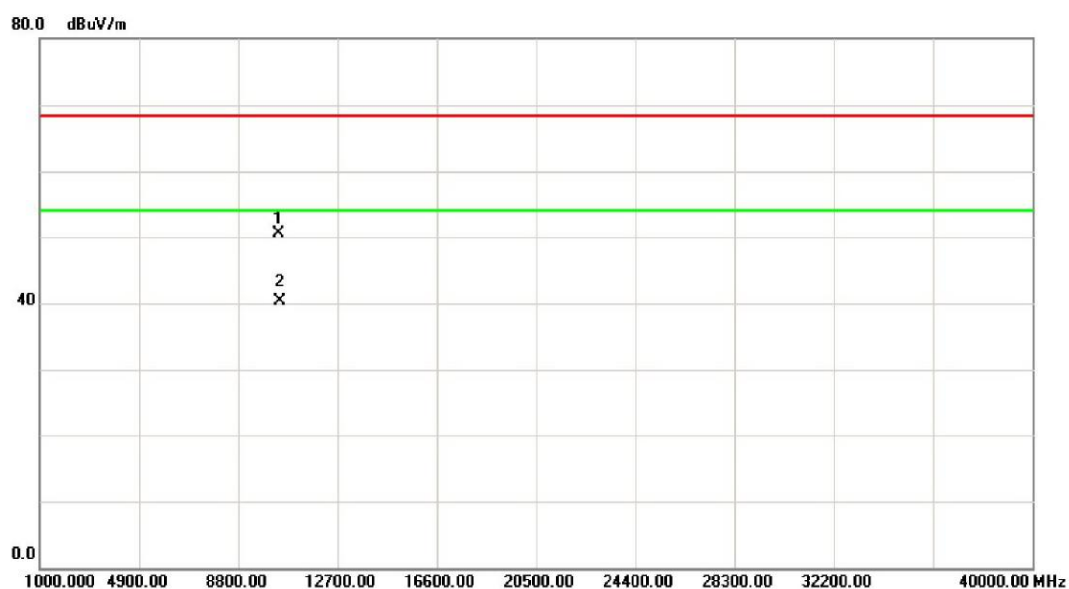
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	5198.500	52.99	39.15	92.14	54.00	38.14	AVG	no limit
2	X	5198.800	63.58	39.16	102.74	68.30	34.44	peak	no limit

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

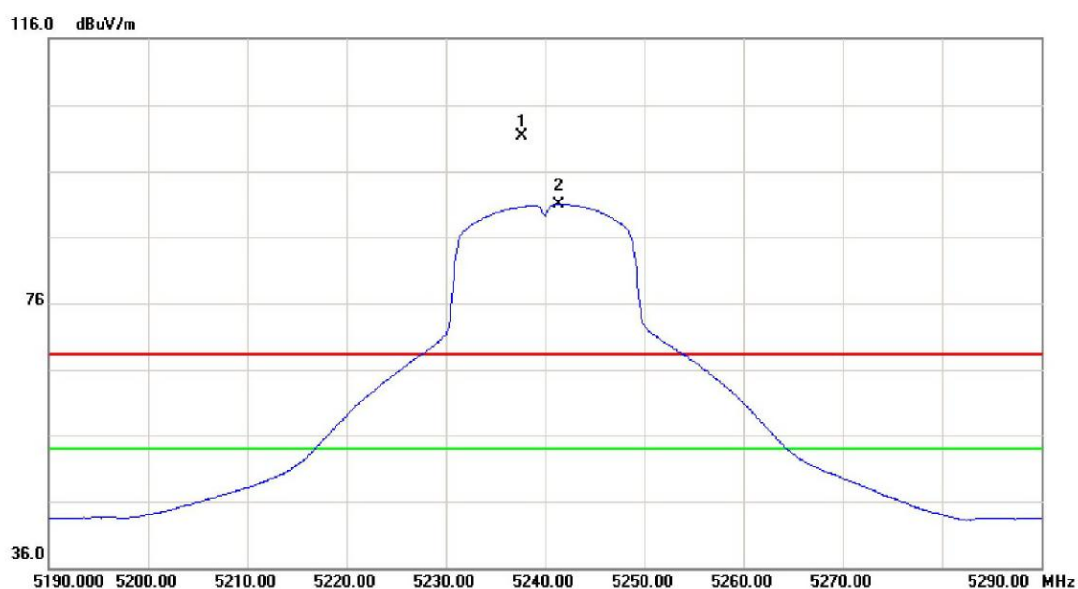
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10400.50	39.41	11.05	50.46	68.30	-17.84	peak	
2	*	10400.50	29.34	11.05	40.39	54.00	-13.61	AVG	

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

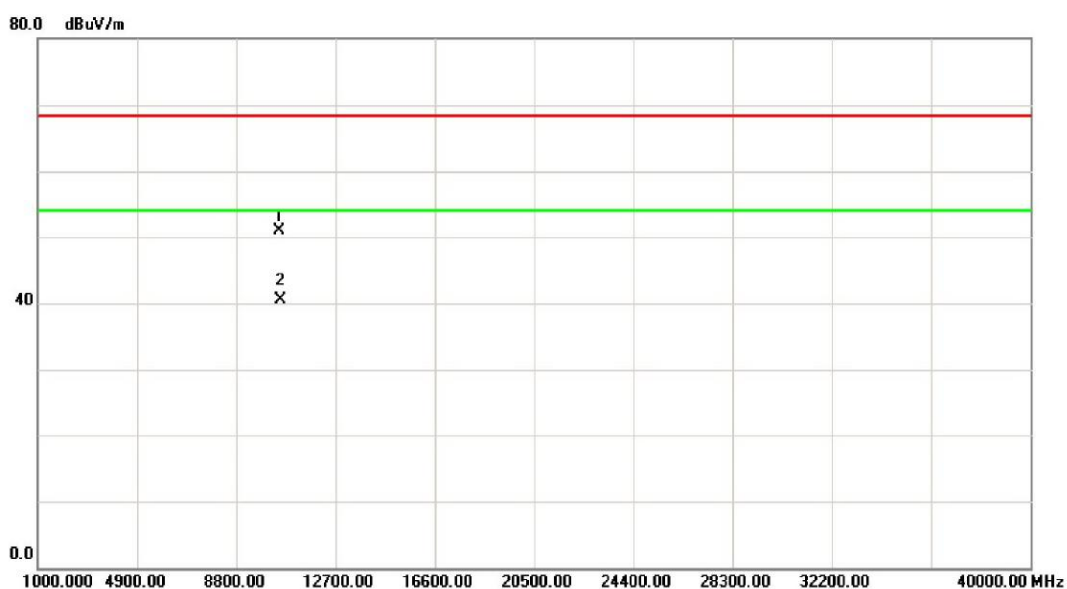
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	5237.700	61.92	39.29	101.21	68.30	32.91	peak	no limit
2	*	5241.400	51.64	39.30	90.94	54.00	36.94	AVG	no limit

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

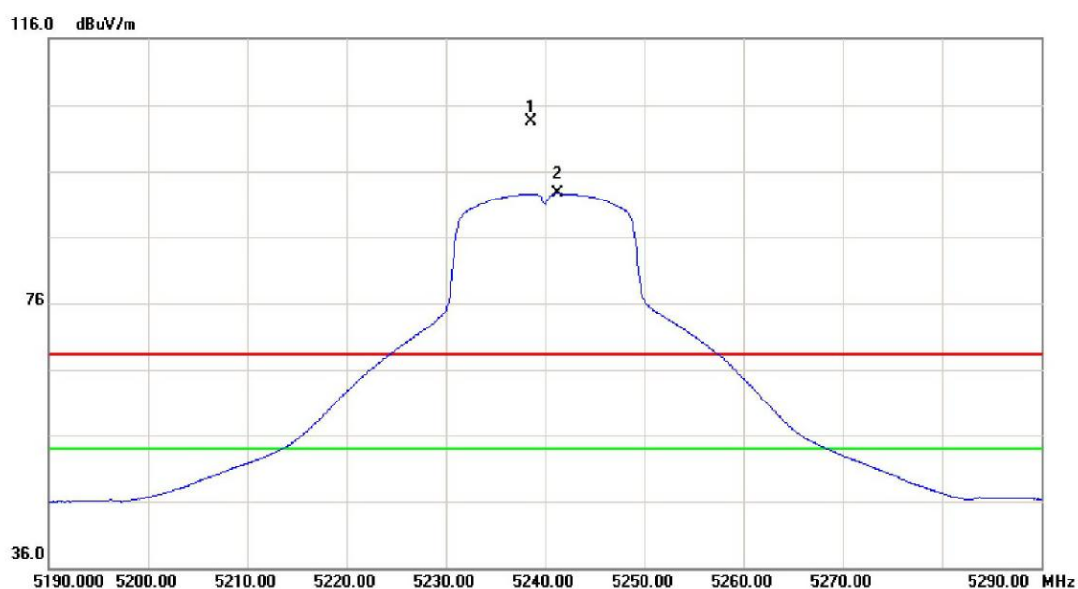
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10480.00	40.02	10.94	50.96	68.30	-17.34	peak	
2	*	10480.00	29.48	10.94	40.42	54.00	-13.58	AVG	

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

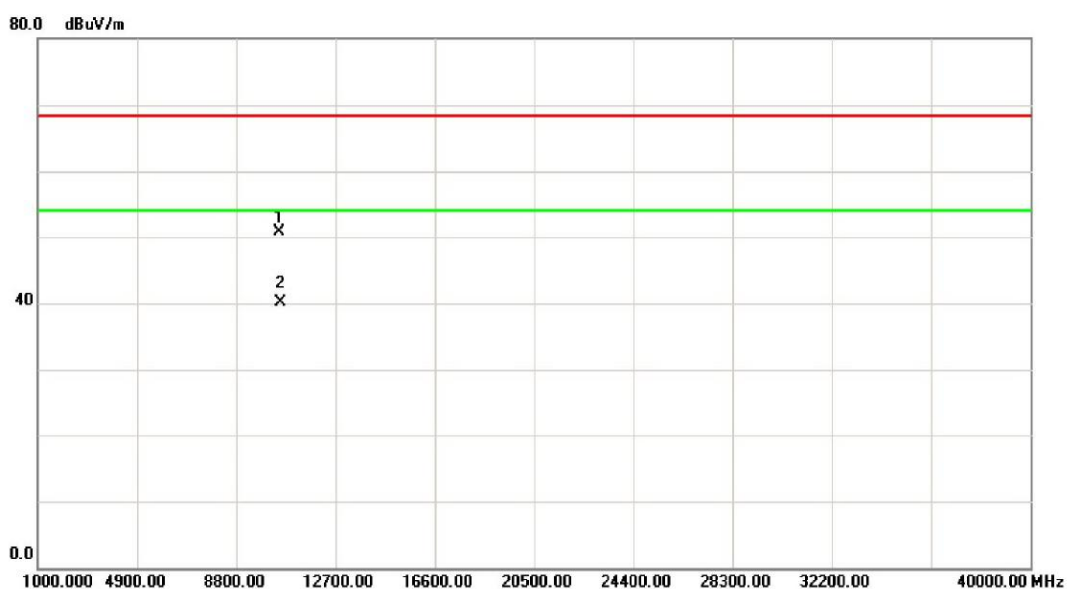
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	5238.600	64.18	39.29	103.47	68.30	35.17	peak	no limit
2	*	5241.200	53.38	39.30	92.68	54.00	38.68	AVG	no limit

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

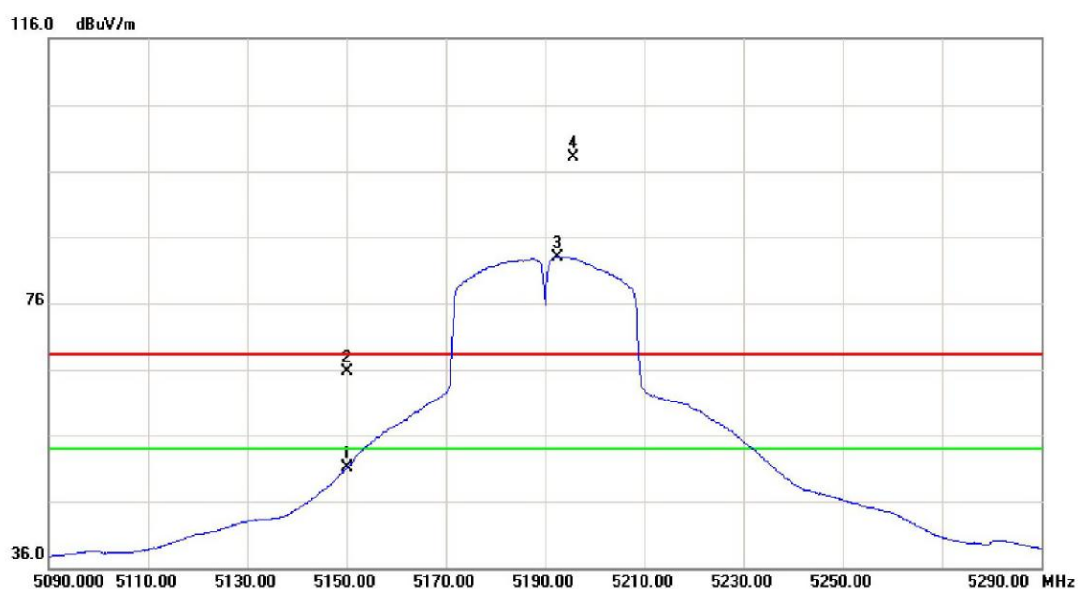
Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10480.20	39.67	10.94	50.61	68.30	-17.69	peak	
2	*	10480.20	29.13	10.94	40.07	54.00	-13.93	AVG	

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

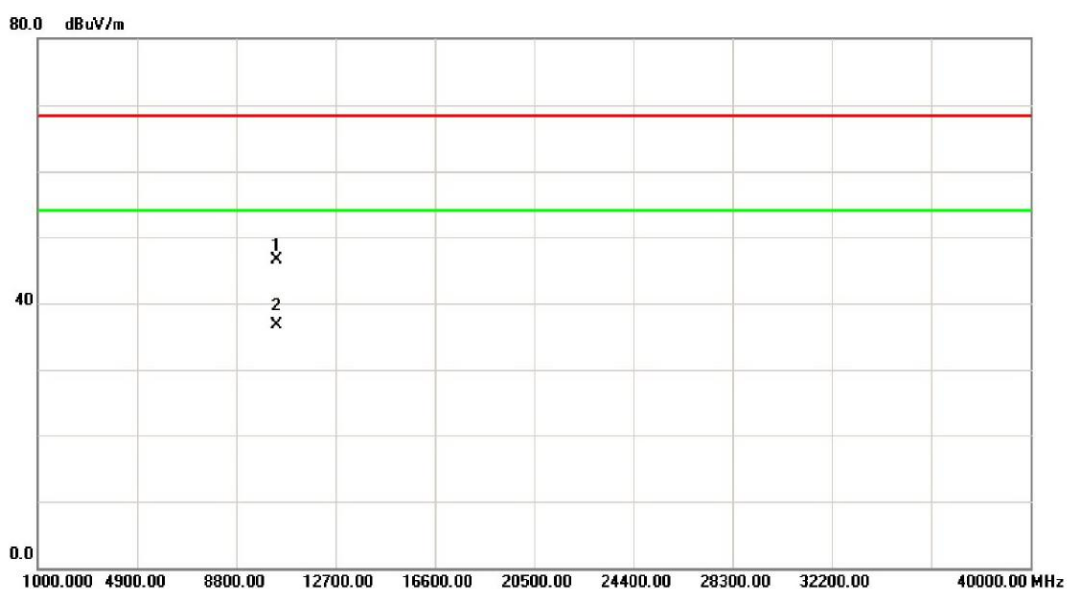
Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		5150.000	12.05	39.00	51.05	68.30	-17.25	peak	
2		5150.000	26.63	39.00	65.63	68.30	-2.67	peak	
3	X	5192.600	43.86	39.14	83.00	68.30	14.70	peak	no limit
4	*	5195.800	58.98	39.15	98.13	68.30	29.83	peak	no limit

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

Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		10380.10	35.42	11.08	46.50	68.30	-21.80	peak	
2	*	10380.10	25.63	11.08	36.71	54.00	-17.29	AVG	