

# FCC Radio Test Report FCC ID: 2AC8BAMW-DBR1200AC

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

**Project No.** : 1411C047

**Equipment**: Wireless AC1200 Dual-band Router

Model Name : AMW-DBR 1200AC Applicant : Atlas Media Co

Address : 1315 Walnut Street Suite 320 Philadelphia, PA

19107

Date of Receipt : Nov. 07, 2014

**Date of Test** : Nov. 07, 2014 ~ Dec. 10, 2014

Issued Date : Dec. 11, 2014
Tested by : BTL Inc.

Testing Engineer : Yavid Ma

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### **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.

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### Limitation

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

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# **REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FCCP-2-1411C047	Original Issue.	Dec. 11, 2014

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### 1. CERTIFICATION

Equipment : Wireless AC1200 Dual-band Router

Brand Name: Atlas Media Co Model Name: AMW-DBR 1200AC Applicant : Atlas Media Co

Date of Test : Nov. 07, 2014 ~ Dec. 10, 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-2-1411C047) 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).

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# 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.

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### 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  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95**%  $\circ$ 

### 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
		9KHz~30MHz	V	3.79	
		9KHz~30MHz	Н	3.57	
		30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
DG-CB03	CISPR	200MHz ~ 1,000MHz	V	3.86	
DG-CB03	CISER	200MHz ~ 1,000MHz	Н	3.94	
		1GHz~18GHz	V	3.12	
		1GHz~18GHz	Н	3.68	
		18GHz~40GHz	V	4.15	
		18GHz~40GHz	Н	4.14	

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# 3. GENERAL INFORMATION

# 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Wireless AC1200 Dual-band Router			
Brand Name	Atlas Media Co			
Model Name	AMW-DBR 1200AC			
Mode Different	N/A			
	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz		
	Modulation Type	OFDM		
	Bit Rate of Transmitter	300Mbps		
Product Description	Output Power (Max.)for UNII-1	802.11a: 15.80dBm 802.11n (20M): 20.91dBm 802.11n (40M): 12.81dBm 802.11ac (20M): 20.70dBm 802.11ac (40M): 12.48dBm 802.11ac (80M): 12.09dBm		
	Output Power (Max.)for UNII-3  802.11a: 10.66dBm 802.11n (20M): 14.20dBm 802.11n (40M): 12.76dBm 802.11ac (20M): 14.04dBm 802.11ac (40M): 12.66dBm 802.11ac (80M): 13.74dBm			
Power Source	DC voltage supplied from AC/DC adapter. #1 Manufacturer: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO.LTD Model: TEA12U-12100			
Power Rating	#1 I/P:100-240V~ 50/60Hz 0.3A	O/P: DC 12V/1 A		

### Note:

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

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# 2. Channel List:

802.11n	802.11a 802.11n 20MHz 802.11ac 20MHz		1 807 1136 8080		802.11n 40MHz 802.11ac 40MHz		c 80MHz
UNI	I-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	
UNI	UNII-3		UNII-3		II-3
Channel	Frequency (MHz)	Chann I	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

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# 3. Antenna Specification:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
3	Tenda	Q5116	Intemal	N/A	3.25	TX/RX
4	Tenda	Q5118	Intemal	N/A	3.15	TX/RX

Note: (1) The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R). All transmit signals are completely uncorrelated, then, Direction gain =  $G_{ANT}$ , that is Directional gain=3.25.

(2) ANT 3 for 1TX was found to be the worst case and recorded.

4.	Operating Mode		
	operating mode	1TX	2TX
	TX Mode		
	802.11a	V (ANT 3)	-
	802.11n (20MHz)	-	V (ANT 3 + ANT 4)
	802.11n (40MHz)	-	V (ANT 3 + ANT 4)
	802.11ac (20MHz)	-	V (ANT 3 + ANT 4)
	802.11ac (40MHz)	-	V (ANT 3 + ANT 4)
	802.11ac (80MHz)	-	V (ANT 3 + ANT 4)

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### 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

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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.

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### 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		MTOOL		
Frequency (MHz)	5180	5200	5240	
A Mode	68	72	66	
N20 Mode	63	82	77	
Frequency (MHz)	5190	5230		
N40 Mode	58	65		

UNII-3				
Test Software Version		MTOOL		
Frequency (MHz)	5745	5785	5825	
A Mode	69	69	67	
N20 Mode	65	65	64	
Frequency (MHz)	5755	5795		
N40 Mode	58	60		

UNII-1				
Test Software Version		MTOOL		
Frequency (MHz)	5180	5200	5240	
AC20 Mode	63	82	78	
Frequency (MHz)	5190	5230		
AC40 Mode	58	65		
Frequency (MHz)	5210			
AC80 Mode	59			

UNII-3				
Test Software Version		MTOOL		
Frequency (MHz)	5745	5785	5825	
AC20 Mode	65	65	64	
Frequency (MHz)	5755	5795		
AC40 Mode	0	0		
Frequency (MHz)	5775			
AC80 Mode	67			

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support units. The following support units or accessories v							
3.5 DESCRIPTION OF SUPPORT UNITS  The EUT has been tested as an independent unit togethe support units. The following support units or accessories of the support units of accessories of accessories of the support units of accessories of the support units of accessories of accessories of the support units of accessories of acc							
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support units. The following support units or accessories v							
configuration during the tests.	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						

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### 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)	
FREQUENCY (MITZ)	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.
- (3) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use) Margin Level = Measurement Value – Limit Value

### **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.

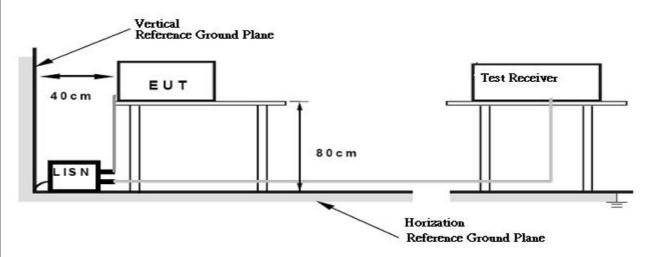
### **4.1.3 DEVIATION FROM TEST STANDARD**

No deviation

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### 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 on this case, a " \* " marked in AVG Mode column of Interference Voltage Measured on the Note of Interference Voltage Measured on the Note
- (2) Measuring frequency range from 150KHz to 30MHz o

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### **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	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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.
- (4) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use) Margin Level = Measurement Value - Limit Value

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 <b>5</b> 950	-27 (beyond 10MHz of the band edge)	68.3
5725-5850	-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)

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### **4.2.2 TEST PROCEDURE**

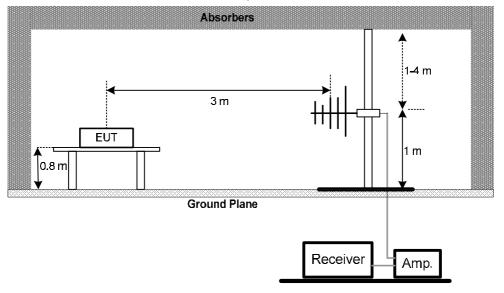
- a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 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

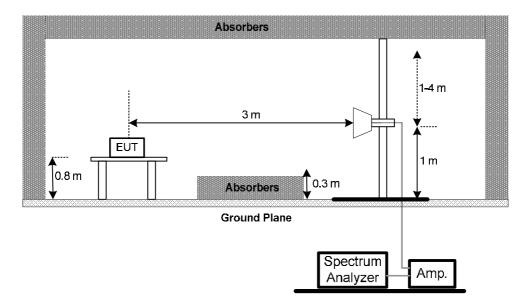
### (A) Radiated Emission Test Set-Up Frequency30 - 1000MHz



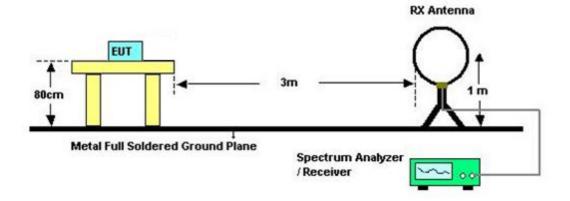
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# (B) Radiated Emission Test Set-Up Frequency Above 1 GHz



### (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

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### 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 =  $0.3 \text{ sec./MHz} \circ$
- (2) All readings are Peak unless otherwise stated QP in column of  $\lceil$ Note $_{
  m l}$ . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform  $_{
  m o}$
- (3) Measuring frequency range from 30MHz to 1000MHz o
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table  $\circ$

### 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 <code>『Note』</code>. 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.

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### 5. 26dB SPECTRUM BANDWIDTH

### **5.1 APPLIED PROCEDURES / LIMIT**

FCC Part15,	Subpart E	
Limit	Frequency Range (MHz)	Result
26 dB Bandwidth	5150-5250	PASS
Minimum 500KHz 6dB	5725-5850	PASS
	Limit 26 dB Bandwidth	26 dB Bandwidth 5150-5250  Minimum 500KHz 6dB 5725-5850

### **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.

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### **6. MAXIMUM CONDUCTED OUTPUT POWER**

### **6.1 APPLIED PROCEDURES / LIMIT**

FCC Part15, Subpart E					
Test Item	Limit	Frequency Range (MHz)	Result		
	Fixed:1 Watt (30dBm)				
Conducted Output	Mobile and portable:	5150-5250	PASS		
Power	250mW (24dBm)				
	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 Fraguency	Encompass the entire emissions bandwidth (EBW) of the
Span Frequency	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.

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### **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.

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### 7. ANTENNA CONDUCTED SPURIOUS EMISSION

### 7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E					
Test Item	Limit	Frequency Range (MHz)	Result		
	-27dBm/MHz	5150-5250	PASS		
Antenna conducted Spurious Emission	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.

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### 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 Fraguency	Encompass the entire emissions bandwidth (EBW) of the
	Span Frequency	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.

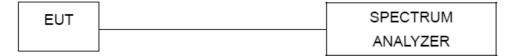
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### **8.1.1 DEVIATION FROM STANDARD**

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.

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### 9. FREQUENCY STABILITY MEASUREMENT

### 9.1 APPLIED PROCEDURES / LIMIT

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

	and blook diagram bolow,				
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.

## 9.1.2 DEVIATION FROM STANDARD

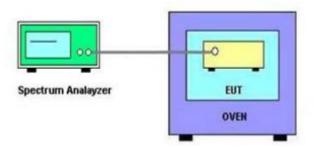
No deviation.

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



### **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.

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# 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	СТ	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	СТ	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	

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	Spectrum Bandwidth Measurement					
I	tem	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
	1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 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	FSP 40	100185	Nov. 02, 2015	

	Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 2015	

	Frequency Stability Measurement				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 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.

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# **11. EUT TEST PHOTOS**

# **Conducted Measurement Photos**





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# **Radiated Measurement Photos**







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# **Radiated Measurement Photos**

# **30MHz to 1000MHz**



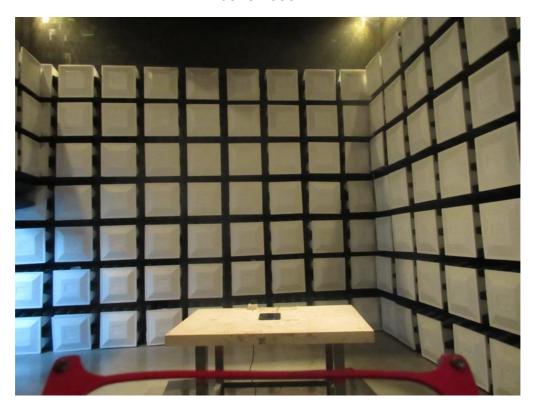


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# **Radiated Measurement Photos**

# Above 1000MHz





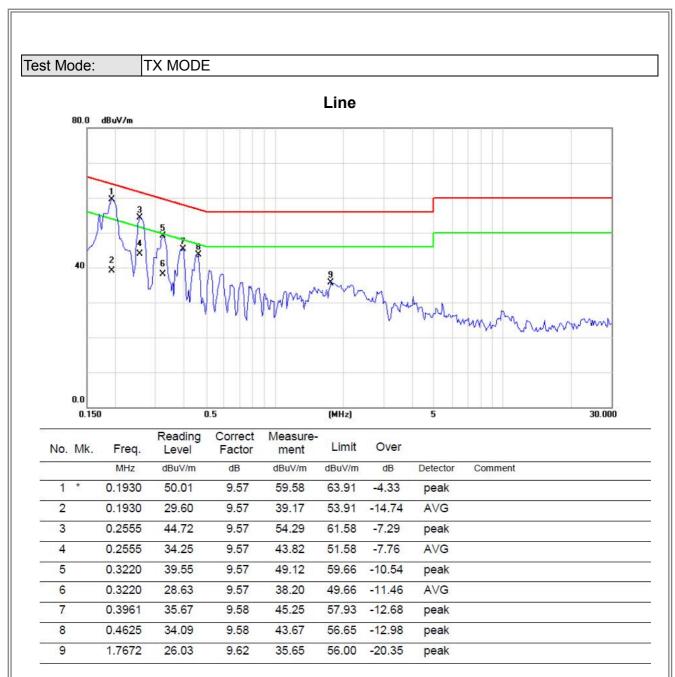
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ATTACHMENT A - CONDUCTED EMISSION

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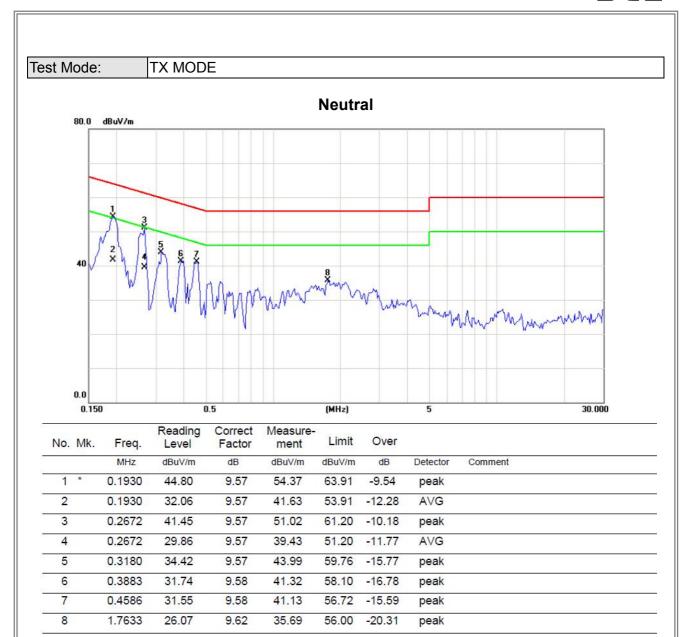




Note: The test result has included the cable loss.

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Note: The test result has included the cable loss.

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

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Test Mode: TX MODE

Freq.	Freq. Ant. Reading(RA)		Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	(MHz) 0°/90° (dBuV) (dB)		(dBuV/m)	(dBuV/m)	(dB)	NOIC	
0.0077	0°	13.29	25.08	38.37	109.93	-71.56	AVG
0.0076	0°	14.34	25.08	39.42	129.93	-90.51	PEAK
0.0138	0°	6.36	24.69	31.05	104.81	-73.75	AVG
0.0138	0°	7.41	24.69	32.10	124.81	-92.70	PEAK
0.0254	0°	3.47	23.96	27.43	99.51	-72.08	AVG
0.0254	0°	5.32	23.96	29.28	119.51	-90.23	PEAK
0.0334	0°	0.95	23.45	24.40	97.14	-72.74	AVG
0.0335	0°	2.96	23.45	26.41	117.14	-90.73	PEAK
0.5756	0°	30.52	20.04	50.56	72.40	-21.84	QP
1.7540	0°	21.37	19.52	40.89	69.54	-28.65	QP

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
0.0086	90°	13.29	24.30	37.59	128.91	-91.32	AVG
0.0086	90°	14.34	24.30	38.64	148.91	-110.27	PEAK
0.0241	90°	6.25	24.04	30.29	119.96	-89.67	AVG
0.0241	90°	8.37	24.04	32.41	139.96	-107.55	PEAK
0.0337	90°	3.32	23.43	26.75	117.05	-90.30	AVG
0.0337	90°	5.29	23.43	28.72	137.05	-108.33	PEAK
0.0446	90°	0.58	22.74	23.32	114.62	-91.30	AVG
0.0446	90°	2.82	22.74	25.56	134.62	-109.06	PEAK
0.4939	90°	30.22	19.81	50.03	73.73	-23.70	QP
1.7152	90°	21.57	19.53	41.10	69.54	-28.44	QP

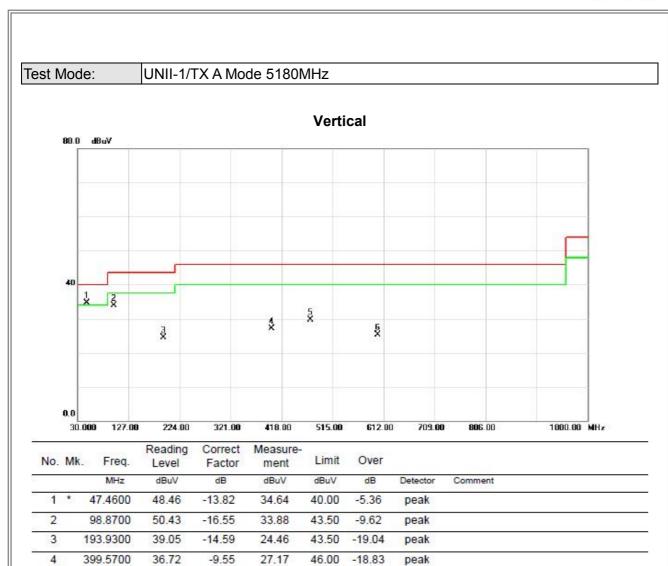
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ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)

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46.00 -16.22

-20.68

46.00

peak

peak

472.3200

600.3600

5

6

39.25

33.21

29.78

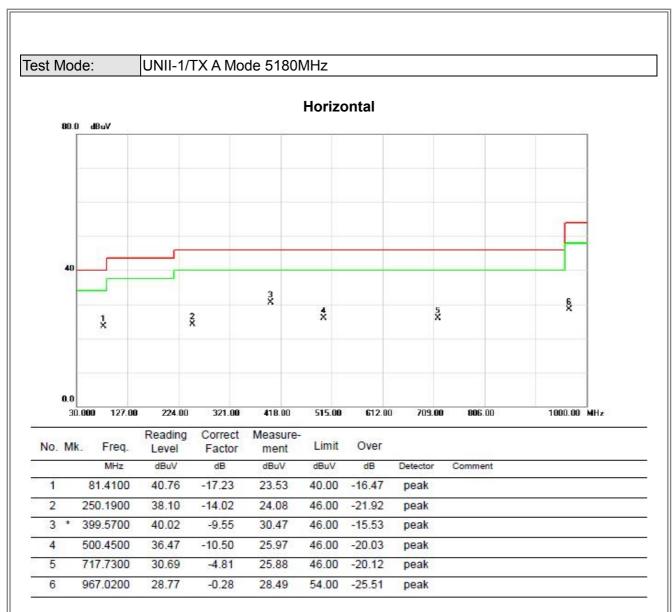
25.32

-9.47

-7.89

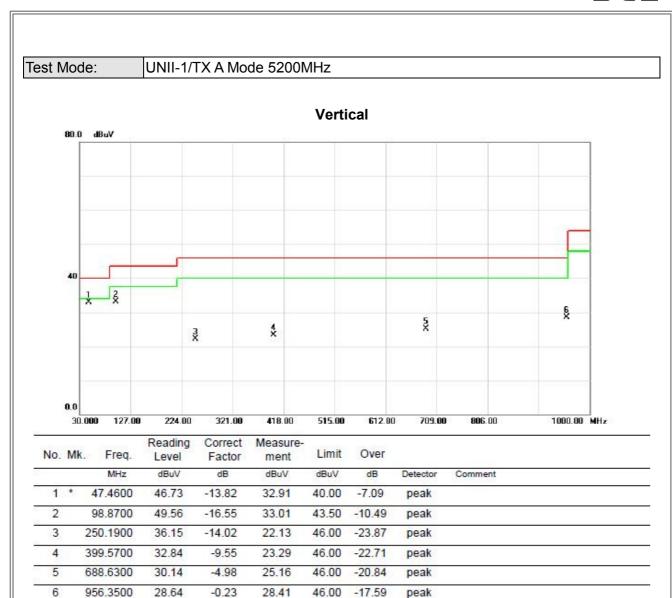
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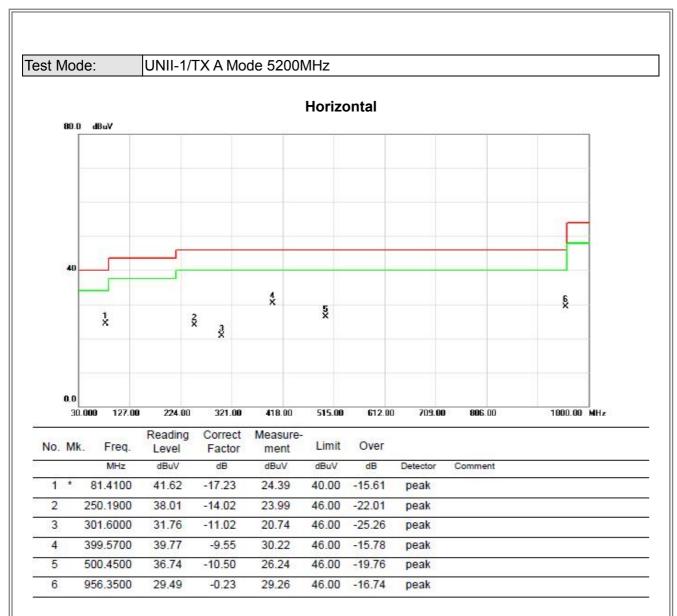
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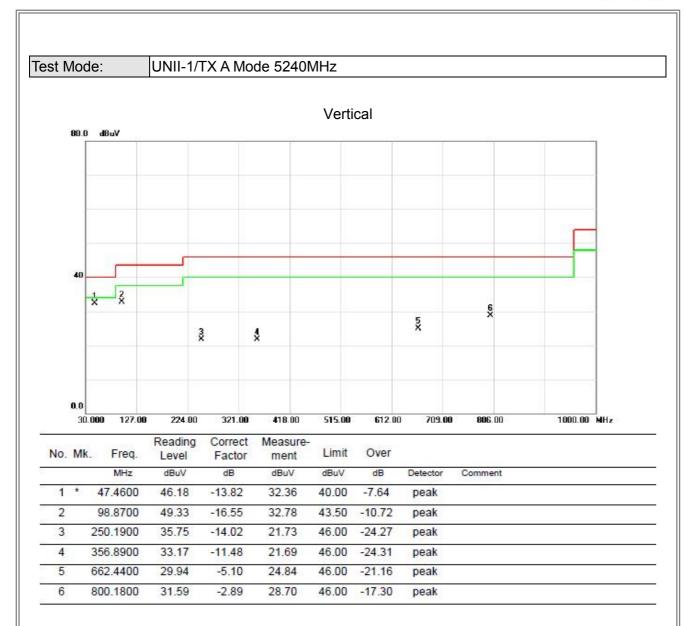
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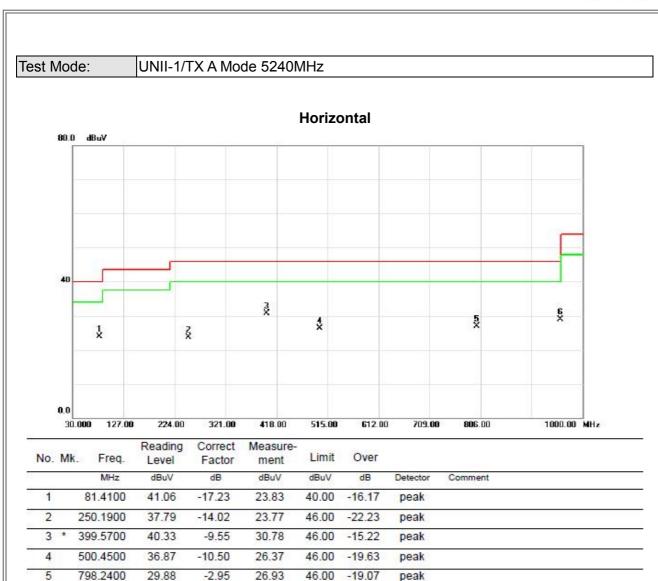
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6

957.3200

29.24

-0.24

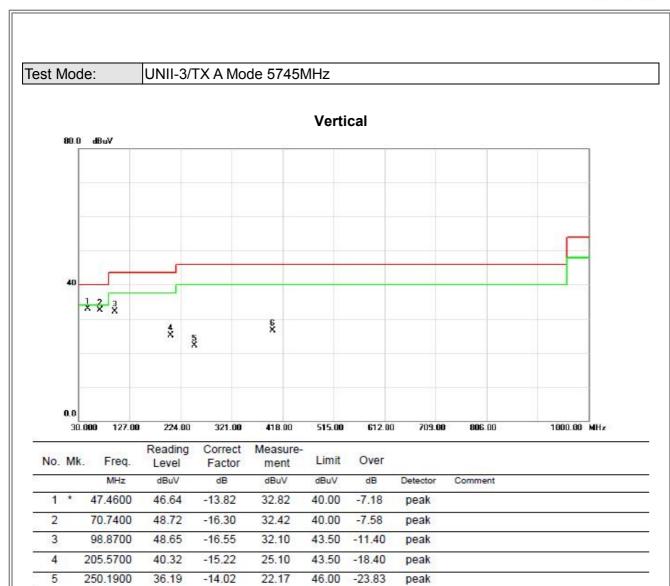
29.00

46.00 -17.00

peak

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6

399.5700

36.01

-9.55

26.46

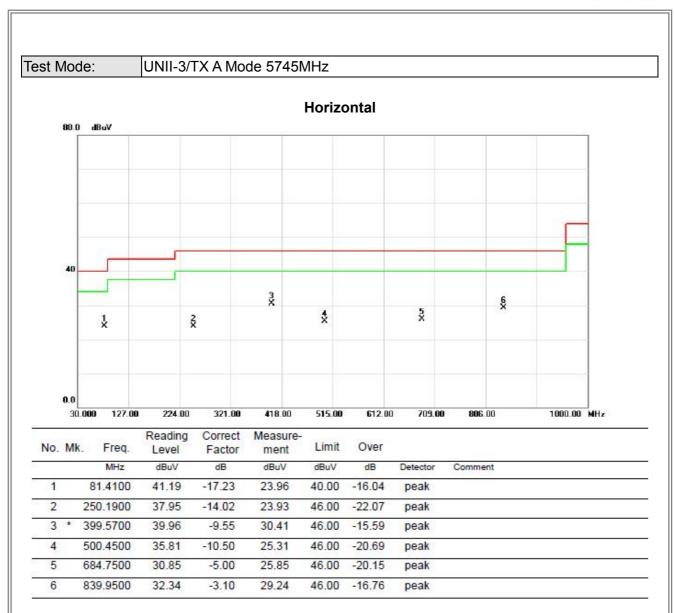
46.00

-19.54

peak

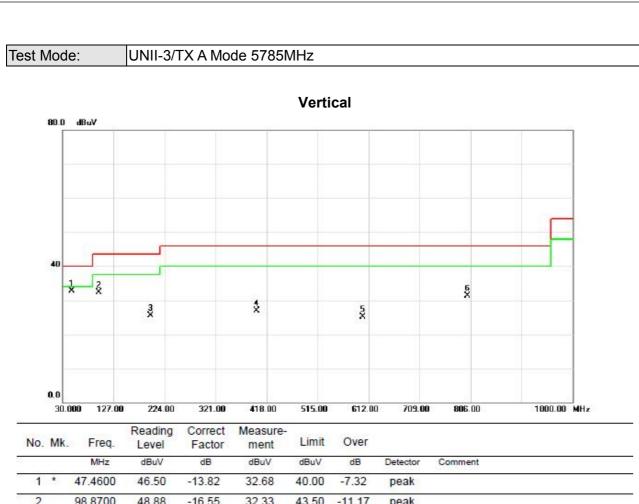
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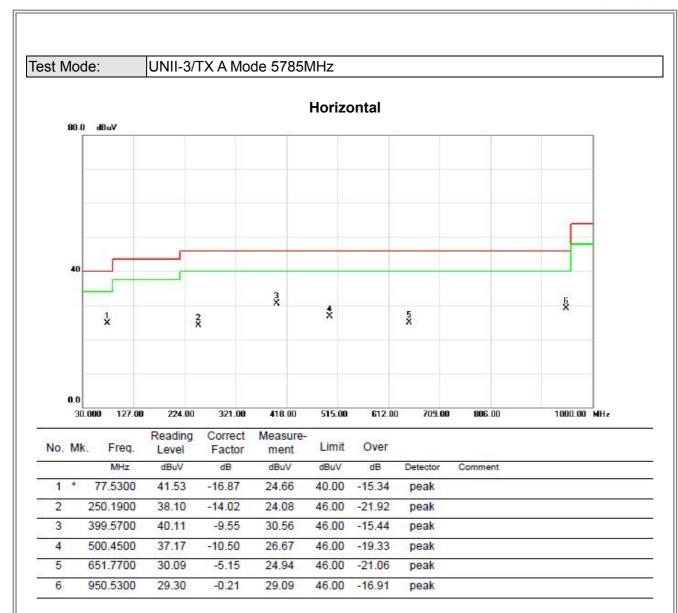




No.	Mk.	k. Freq.	Level	Factor	ment	Limit	Over		
0		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	47.4600	46.50	-13.82	32.68	40.00	-7.32	peak	
2		98.8700	48.88	-16.55	32.33	43.50	-11.17	peak	
3		196.8400	40.31	-14.79	25.52	43.50	-17.98	peak	
4	,	399.5700	36.45	-9.55	26.90	46.00	-19.10	peak	
5	(	600.3600	32.92	-7.89	25.03	46.00	-20.97	peak	
6		800.1800	34.28	-2.89	31.39	46.00	-14.61	peak	

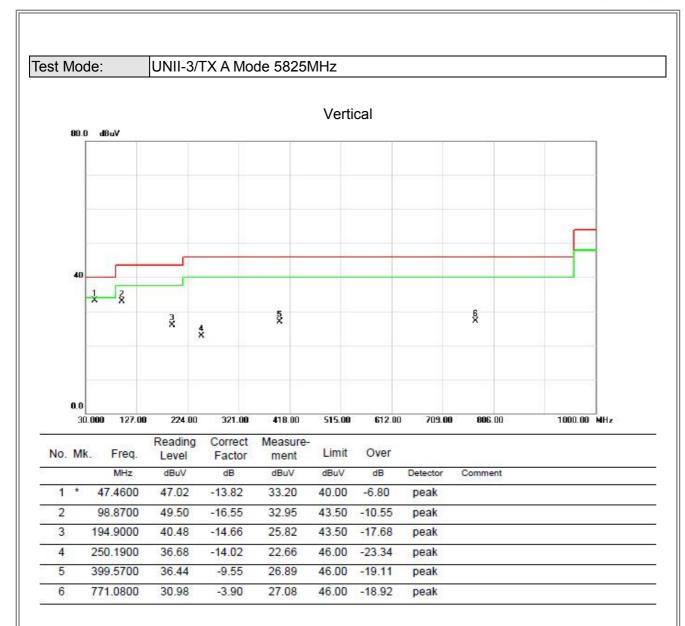
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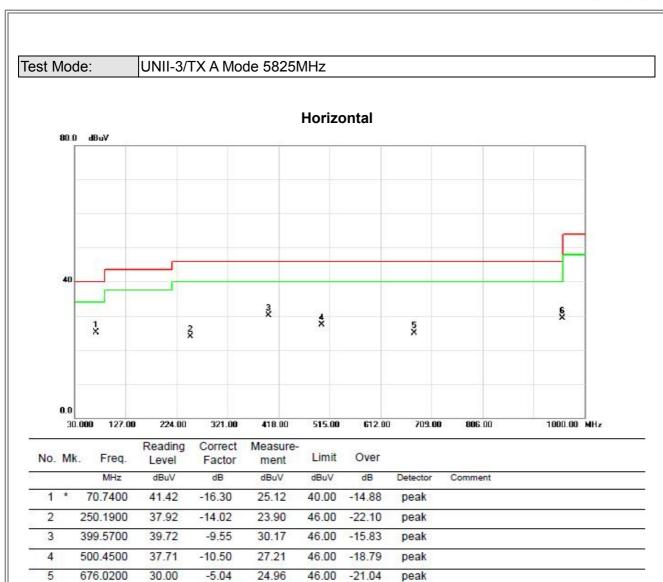
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6

958.2900

29.51

-0.25

29.26

46.00 -16.74

peak

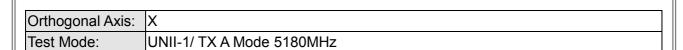
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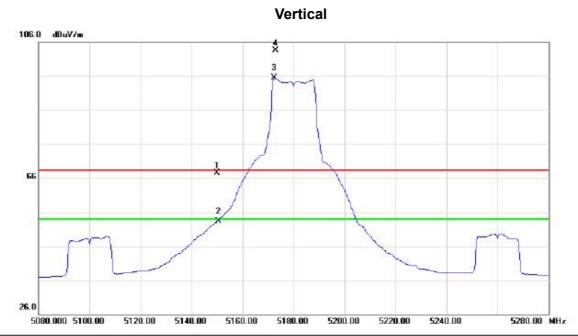


,	TTACHMENT D - RADIATED EMISSION (ABOVE 1000MI	HZ)

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No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
0		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	28.49	39.00	67.49	68.30	-0.81	peak		
2		5150.000	14.28	39.00	53.28	54.00	-0.72	AVG		
3	*	5172.400	56.41	39.07	95.48	54.00	41.48	AVG	no limit	
4	X	5172.800	64.45	39.07	103.52	68.30	35.22	peak	no limit	

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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		10359.80	41.42	11.10	52.52	68.30	-15.78	peak	
2	*	10359.80	30.64	11.10	41.74	54.00	-12.26	AVG	

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

# Horizontal 106.0 dBuV/m 4 4 26.0 5080.000 5100.00 5120.00 5140.00 5160.00 5200.00 5220.00 5240.00 5280.00 MHz

No.	M	c. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	17.45	39.00	56.45	68.30	-11.85	peak		
2		5150.000	3.35	39.00	42.35	54.00	-11.65	AVG		
3	X	5173.800	54.79	39.08	93.87	68.30	25.57	peak	no limit	
4	*	5178.800	46.84	39.09	85.93	54.00	31.93	AVG	no limit	

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

## Horizontal

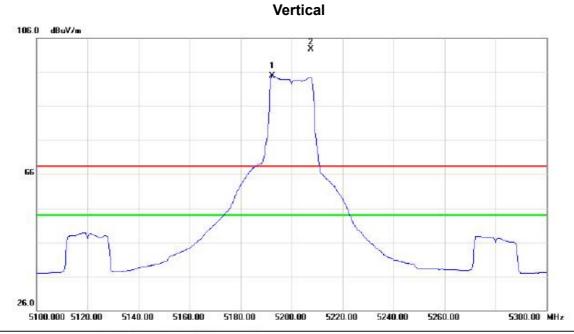


No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10358.30	41.60	11.11	52.71	68.30	-15.59	peak		
2	*	10358.30	30.37	11.11	41.48	54.00	-12.52	AVG		

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



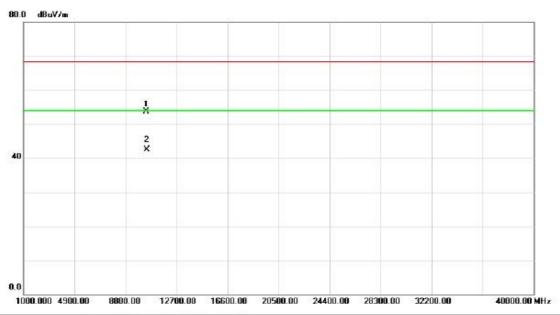
No.	М	k. Freq	Readin Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5192.40	55.79	39.14	94.93	54.00	40.93	AVG	no limit	
2	X	5207.60	63.43	39.19	102.62	68.30	34.32	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 60 of 280



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

## Vertical

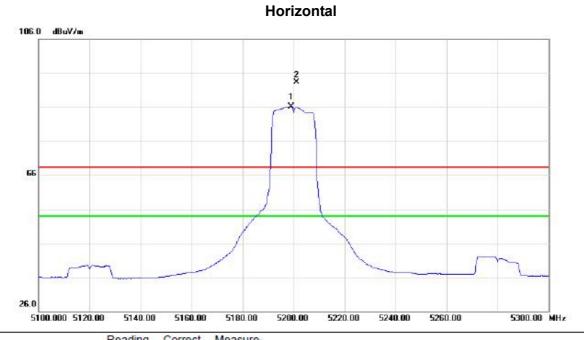


No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
673		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10400.20	42.71	11.05	53.76	68.30	-14.54	peak		
2	*	10400.20	31.47	11.05	42.52	54.00	-11.48	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 61 of 280



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



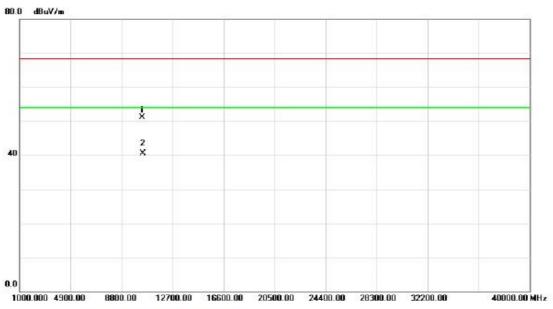
No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	51	99.000	47.01	39.16	86.17	54.00	32.17	AVG	no limit	
2	X	52	01.200	54.24	39.16	93.40	68.30	25.10	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 62 of 280



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

## Horizontal

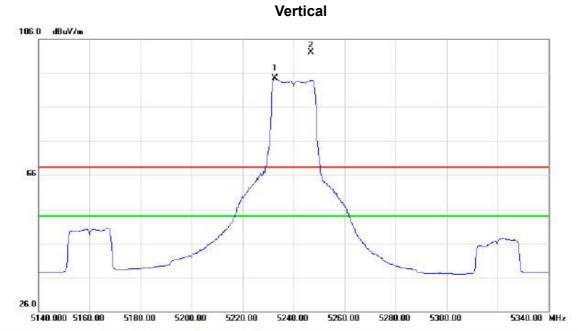


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10399.30	39.99	11.05	51.04	68.30	-17.26	peak	
2	*	10399.30	29.46	11.05	40.51	54.00	-13.49	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 63 of 280



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



No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	MHz	łz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	232.600	55.30	39.27	94.57	54.00	40.57	AVG	no limit	
2	X	52	46.800	62.86	39.32	102.18	68.30	33.88	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 64 of 280



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		10481.40	40.93	10.94	51.87	68.30	-16.43	peak	
2	*	10481.40	30.45	10.94	41.39	54.00	-12.61	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 65 of 280



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

# Horizontal 106.0 dBuV/m 2 2 5140.000 5160.00 5180.00 5200.00 5220.00 5240.00 5260.00 5280.00 5300.00 5340.00 MHz

No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		100	
			MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	X	52	237.600	56.00	39.29	95.29	68.30	26.99	peak	no limit	
2	*	52	41.200	48.15	39.30	87.45	54.00	33.45	AVG	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 66 of 280



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

## Horizontal

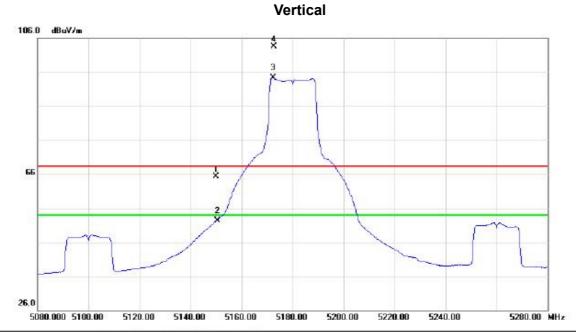


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10481.40	38.04	10.94	48.98	68.30	-19.32	peak	
2	*	10481.40	27.75	10.94	38.69	54.00	-15.31	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 67 of 280



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



No.	M	k. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
	63 6	MHz	MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	26.38	39.00	65.38	68.30	-2.92	peak		
2		5150.000	13.32	39.00	52.32	54.00	-1.68	AVG		
3	*	5172.400	55.25	39.07	94.32	54.00	40.32	AVG	no limit	
4	X	5172.600	64.38	39.07	103.45	68.30	35.15	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 68 of 280



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		10360.06	39.30	11.10	50.40	68.30	-17.90	peak		
2	*	10360.06	30.46	11.10	41.56	54.00	-12.44	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 69 of 280



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

## 

No.	M	k. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
	673	MHz	MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	19.03	39.00	58.03	68.30	-10.27	peak		
2		5150.000	7.89	39.00	46.89	54.00	-7.11	AVG		
3	*	5181.200	52.96	39.10	92.06	54.00	38.06	AVG	no limit	
4	X	5181.400	62.43	39.10	101.53	68.30	33.23	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 70 of 280



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

## Horizontal

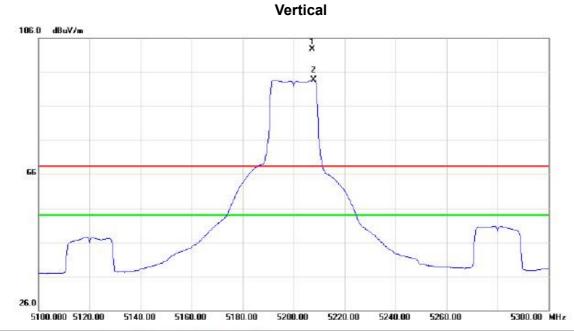


No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10360.12	37.03	11.10	48.13	68.30	-20.17	peak	
2	*	10360.12	28.90	11.10	40.00	54.00	-14.00	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 71 of 280



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



No.	MI	lk.		Reading Level	Correct Factor		Limit dBuV/m	Over	Detector	101	
										Comment	
1	X	52	07.200	63.49	39.19	102.68	68.30	34.38	peak	no limit	
2	*	52	207.800	54.61	39.19	93.80	54.00	39.80	AVG	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 72 of 280



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



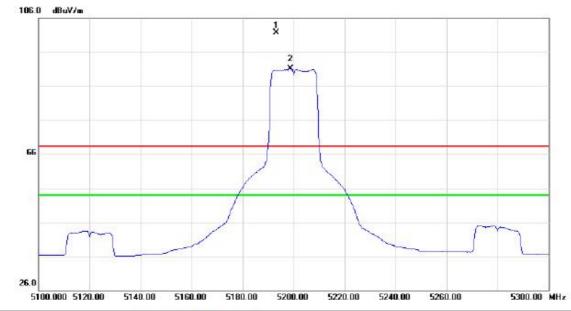
No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10400.08	41.28	11.05	52.33	68.30	-15.97	peak		
2	*	10400.08	32.15	11.05	43.20	54.00	-10.80	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 73 of 280



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

### Horizontal

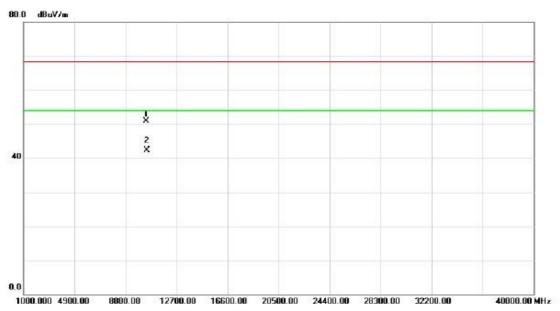


No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	51	193.200	62.49	39.15	101.64	68.30	33.34	peak	no limit	
2	*	51	198.800	51.98	39.16	91.14	54.00	37.14	AVG	no limit	

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

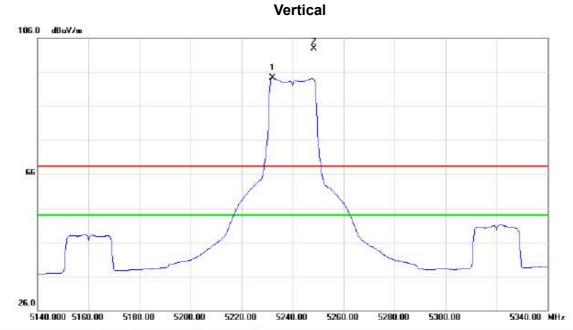


No.	М	k. Freq	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10400.00		11.05	50.84	68.30	-17.46	peak		
2	*	10400.00	0.000	11.05	42.34	54.00	-11.66	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 75 of 280



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



No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	232.000	54.96	39.28	94.24	54.00	40.24	AVG	no limit	
2	X	52	48.400	63.59	39.32	102.91	68.30	34.61	peak	no limit	

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



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10480.24	40.11	10.94	51.05	68.30	-17.25	peak		
2	*	10480.24	30.27	10.94	41.21	54.00	-12.79	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 77 of 280



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

## 

No.	М	k.	. Freq.	Reading Level dBuV	Correct Factor		Limit dBuV/m	Over	Detector		
										Comment	
1	*	52	39.000	51.46	39.29	90.75	54.00	36.75	AVG	no limit	
2	X	52	39.200	60.47	39.29	99.76	68.30	31.46	peak	no limit	

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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10480.12	39.78	10.94	50.72	68.30	-17.58	peak	
2	*	10480.12	30.45	10.94	41.39	54.00	-12.61	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 79 of 280



Orthogonal Avia:	v
Orthogonal Axis:	^
Test Mode:	UNII-1/ TX N40 Mode 5190MHz

# 

No.	Mk	k. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	25.06	39.00	64.06	68.30	-4.24	peak		
2		5150.000	11.97	39.00	50.97	54.00	-3.03	AVG		
3	*	5185.200	51.65	39.12	90.77	54.00	36.77	AVG	no limit	
4	X	5196,400	61.66	39.16	100.82	68.30	32.52	peak	no limit	

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

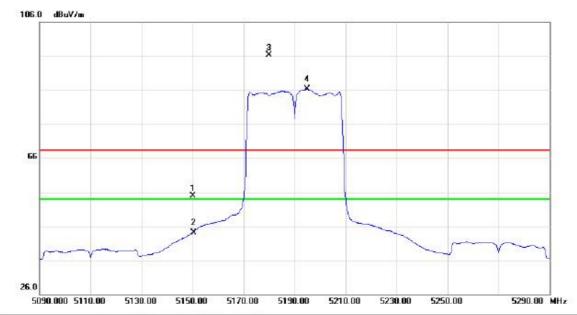


No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10380.46	41.44	11.08	52.52	68.30	-15.78	peak		
2	*	10380.46	30.66	11.08	41.74	54.00	-12.26	AVG		

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

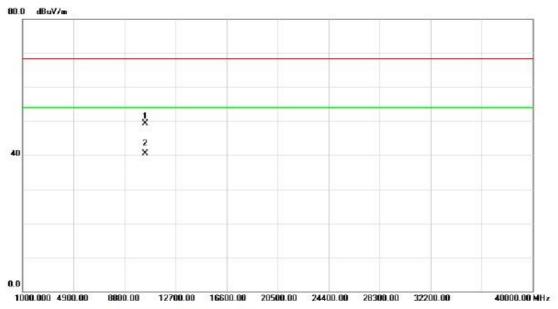


No.	M	k.	Freq.	Level	Factor	ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		51	50.000	15.81	39.00	54.81	68.30	-13.49	peak		
2		51	50.000	5.02	39.00	44.02	54.00	-9.98	AVG		
3	X	51	80.000	57.12	39.10	96.22	68.30	27.92	peak	no limit	
4	*	51	94.800	47.19	39.15	86.34	54.00	32.34	AVG	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 82 of 280



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

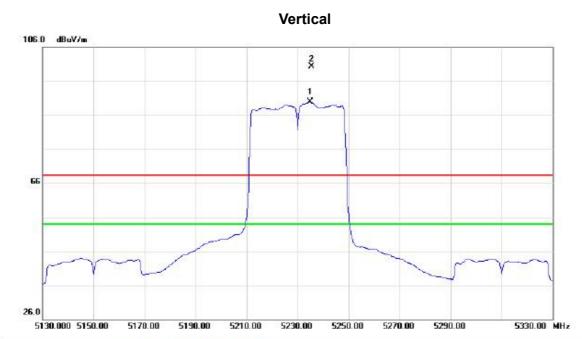


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10380.09	38.17	11.08	49.25	68.30	-19.05	peak		
2	*	10380.09	29.34	11.08	40.42	54.00	-13.58	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 83 of 280



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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5235.000	50.59	39.28	89.87	54.00	35.87	AVG	no limit	
2	X	5235.400	61.07	39.28	100.35	68.30	32.05	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 84 of 280



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

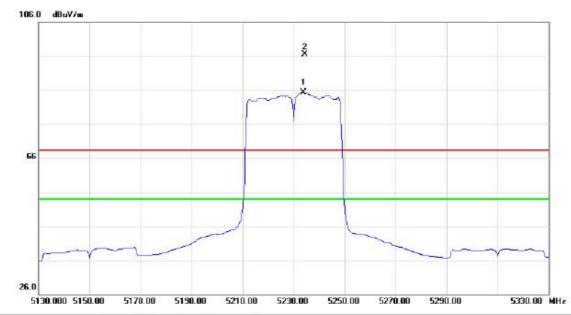


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10460.38	41.75	10.96	52.71	68.30	-15.59	peak		
2	*	10460.38	31.52	10.96	42.48	54.00	-11.52	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 85 of 280



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



No.	Mi	. Freq.			Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5233.800	45.98	39.27	85.25	54.00	31.25	AVG	no limit	
2	X	5234.400	57.18	39.27	96.45	68.30	28.15	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 86 of 280



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

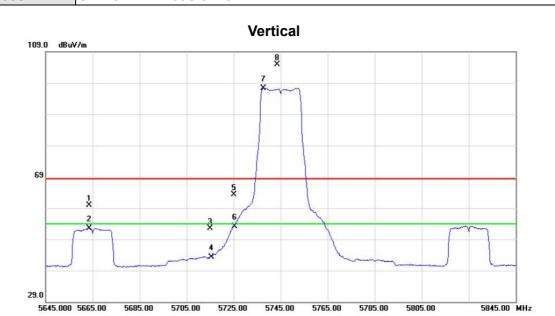


No.	М	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10460.30	40.08	10.96	51.04	68.30	-17.26	peak		
2	*	10460.30	29.55	10.96	40.51	54.00	-13.49	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 87 of 280



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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5663.400	18.99	40.84	59.83	68.30	-8.47	peak	
2		5663.400	11.74	40.84	52.58	54.00	-1.42	AVG	
3		5715.000	11.41	41.06	52.47	68.30	-15.83	peak	
4		5715.000	2.21	41.06	43.27	54.00	-10.73	AVG	
5		5725.000	22.16	41.10	63.26	68.30	-5.04	peak	
6		5725.000	12.06	41.10	53.16	54.00	-0.84	AVG	
7	*	5737.600	56.20	41.15	97.35	54.00	43.35	AVG	no limit
8	X	5743.400	63.67	41.17	104.84	68.30	36.54	peak	no limit

Report No.: BTL-FCCP-2-1411C047 Page 88 of 280



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



No.	М	k. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	z	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11492.5	50	39.48	12.92	52.40	68.30	-15.90	peak		
2	*	11492.5	50	28.64	12.92	41.56	54.00	-12.44	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 89 of 280



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

# Horizontal 109.0 dBuV/m 8 7 7 4 29.0 5645.000 5665.00 5685.00 5705.00 5725.00 5745.00 5765.00 5805.00 5845.00 MHz

No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5671.800	8.71	40.88	49.59	68.30	-18.71	peak	
2		5671.800	0.66	40.88	41.54	54.00	-12.46	AVG	
3		5715.000	6.50	41.06	47.56	68.30	-20.74	peak	
4		5715.000	-2.86	41.06	38.20	54.00	-15.80	AVG	
5		5725.000	11.81	41.10	52.91	68.30	-15.39	peak	
6		5725.000	1.66	41.10	42.76	54.00	-11.24	AVG	
7	*	5744.000	48.41	41.17	89.58	54.00	35.58	AVG	no limit
8	X	5746.200	56.37	41.18	97.55	68.30	29.25	peak	no limit

Report No.: BTL-FCCP-2-1411C047 Page 90 of 280



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

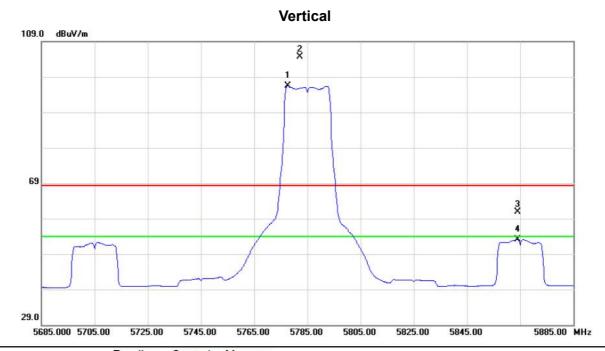


No.	Mk	c. Freq.			Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11491.70	37.81	12.91	50.72	68.30	-17.58	peak		
2	*	11491.70	28.48	12.91	41.39	54.00	-12.61	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 91 of 280



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



Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
*	5777.600	55.23	41.31	96.54	54.00	42.54	AVG	no limit	
X	5782.200	63.28	41.33	104.61	68.30	36.31	peak	no limit	
1	5864.000	19.26	41.67	60.93	68.30	-7.37	peak		
	5864.000	11.47	41.67	53.14	54.00	-0.86	AVG		
	*	MHz * 5777.600 X 5782.200 5864.000	Mk. Freq. Level  MHz dBuV  * 5777.600 55.23  X 5782.200 63.28  5864.000 19.26	Mk.         Freq.         Level         Factor           MHz         dBuV         dB           * 5777.600         55.23         41.31           X 5782.200         63.28         41.33           5864.000         19.26         41.67	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB         dBuV/m           * 5777.600         55.23         41.31         96.54           X 5782.200         63.28         41.33         104.61           5864.000         19.26         41.67         60.93	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dBuV/m           * 5777.600         55.23         41.31         96.54         54.00           X 5782.200         63.28         41.33         104.61         68.30           5864.000         19.26         41.67         60.93         68.30	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB           * 5777.600         55.23         41.31         96.54         54.00         42.54           X 5782.200         63.28         41.33         104.61         68.30         36.31           5864.000         19.26         41.67         60.93         68.30         -7.37	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB         Detector           * 5777.600         55.23         41.31         96.54         54.00         42.54         AVG           X 5782.200         63.28         41.33         104.61         68.30         36.31         peak           5864.000         19.26         41.67         60.93         68.30         -7.37         peak	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB         Detector         Comment           * 5777.600         55.23         41.31         96.54         54.00         42.54         AVG         no limit           X 5782.200         63.28         41.33         104.61         68.30         36.31         peak         no limit           5864.000         19.26         41.67         60.93         68.30         -7.37         peak

Report No.: BTL-FCCP-2-1411C047 Page 92 of 280



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



No.	Mk	. Freq.	Reading Level	Correct Factor		Limit dBuV/m	Over		
		MHz	dBuV					Detector	Comment
1		11571.80	40.24	12.89	53.13	68.30	-15.17	peak	
2	*	11571.80	29.11	12.89	42.00	54.00	-12.00	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 93 of 280



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

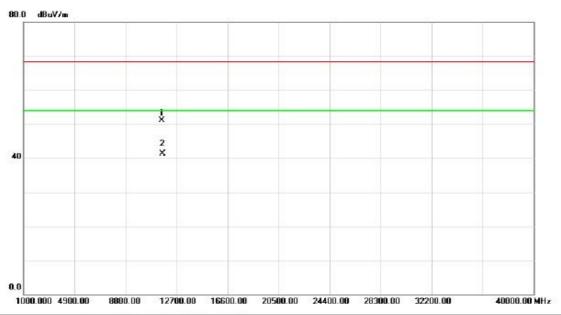
# Horizontal 109.0 dBuV/m 2 2 5695.000 5705.00 5725.00 5745.00 5765.00 5765.00 5805.00 5825.00 5845.00 5885.00 MHz

No.	Mi	c. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	tor Comment		
1	X	5783.600	56.47	41.34	97.81	68.30	29.51	peak	no limit	
2	*	5786.200	48.12	41.35	89.47	54.00	35.47	AVG	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 94 of 280



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

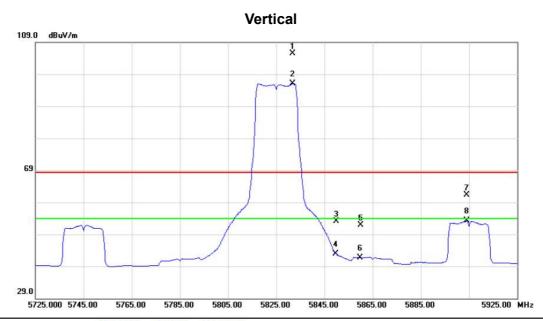


No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.40	38.16	12.89	51.05	68.30	-17.25	peak		
2	*	11570.40	28.32	12.89	41.21	54.00	-12.79	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 95 of 280



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

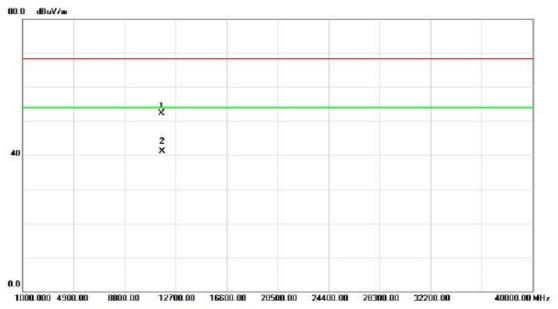


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5831.800	64.01	41.54	105.55	68.30	37.25	peak	no limit	
2	*	5831.800	54.54	41.54	96.08	54.00	42.08	AVG	no limit	
3		5850.000	11.43	41.62	53.05	68.30	-15.25	peak		
4		5850.000	1.24	41.62	42.86	54.00	-11.14	AVG		
5		5860.000	10.18	41.65	51.83	68.30	-16.47	peak		
6		5860.000	-0.04	41.65	41.61	54.00	-12.39	AVG		
7		5904.000	19.55	41.84	61.39	68.30	-6.91	peak		
8		5904.000	11.36	41.84	53.20	54.00	-0.80	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 96 of 280



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

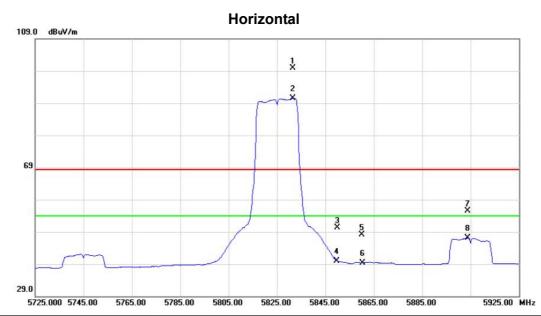


No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11652.30	39.49	12.84	52.33	68.30	-15.97	peak	
2	*	11652.30	28.36	12.84	41.20	54.00	-12.80	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 97 of 280



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



No.	Mk	۲.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	583	31.600	58.43	41.54	99.97	68.30	31.67	peak	no limit	
2	*	583	31.600	49.04	41.54	90.58	54.00	36.58	AVG	no limit	
3		588	50.000	8.65	41.62	50.27	68.30	-18.03	peak		
4		588	50.000	-1.65	41.62	39.97	54.00	-14.03	AVG		-
5		586	60.000	6.37	41.65	48.02	68.30	-20.28	peak		
6		586	60.000	-2.27	41.65	39.38	54.00	-14.62	AVG		
7		590	03.800	13.63	41.84	55.47	68.30	-12.83	peak		
8		590	03.800	5.18	41.84	47.02	54.00	-6.98	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 98 of 280



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

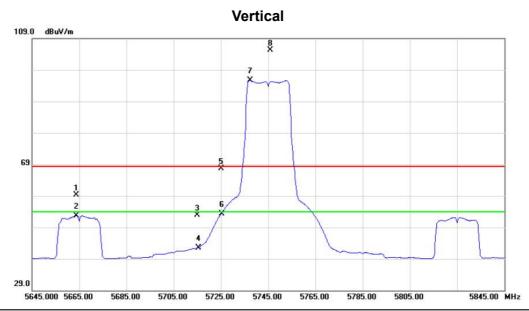


No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11652.30	38.00	12.84	50.84	68.30	-17.46	peak		
2	*	11652.30	29.50	12.84	42.34	54.00	-11.66	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 99 of 280



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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5663.800	18.45	40.84	59.29	68.30	-9.01	peak	
2		5663.800	11.84	40.84	52.68	54.00	-1.32	AVG	
3		5715.000	11.94	41.06	53.00	68.30	-15.30	peak	
4		5715.000	1.35	41.06	42.41	54.00	-11.59	AVG	
5		5725.000	26.59	41.10	67.69	68.30	-0.61	peak	
6		5725.000	12.21	41.10	53.31	54.00	-0.69	AVG	
7	*	5737.400	54.53	41.14	95.67	54.00	41.67	AVG	no limit
8	X	5745.800	64.21	41.18	105.39	68.30	37.09	peak	no limit

Report No.: BTL-FCCP-2-1411C047 Page 100 of 280



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

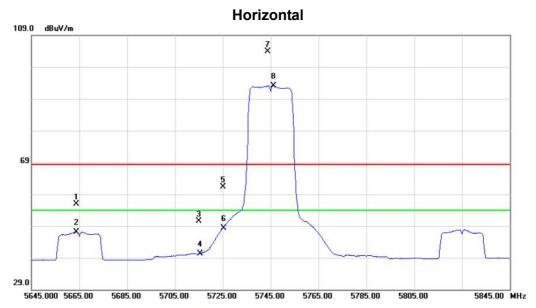


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11490.20	39.61	12.91	52.52	68.30	-15.78	peak		
2	*	11490.20	28.83	12.91	41.74	54.00	-12.26	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 101 of 280



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



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5663.800	15.04	40.84	55.88	68.30	-12.42	peak	
2		5663.800	6.25	40.84	47.09	54.00	-6.91	AVG	
3		5715.000	9.51	41.06	50.57	68.30	-17.73	peak	
4		5715.000	-0.80	41.06	40.26	54.00	-13.74	AVG	
5		5725.000	20.19	41.10	61.29	68.30	-7.01	peak	
6		5725.000	7.30	41.10	48.40	54.00	-5.60	AVG	
7	X	5743.800	62.72	41.17	103.89	68.30	35.59	peak	no limit
8	*	5746.200	51.91	41.18	93.09	54.00	39.09	AVG	no limit

Report No.: BTL-FCCP-2-1411C047 Page 102 of 280



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

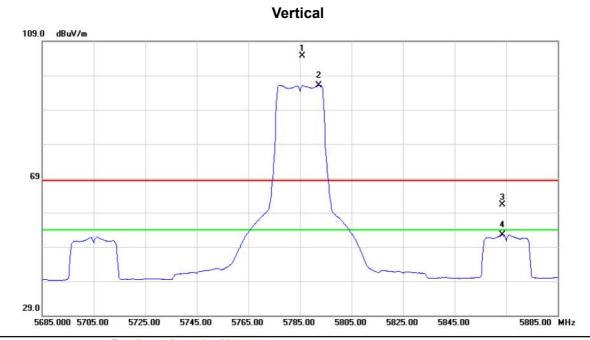


No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11490.06	35.32	12.91	48.23	68.30	-20.07	peak		
2	*	11490.06	27.51	12.91	40.42	54.00	-13.58	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 103 of 280



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



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5786.000	63.28	41.35	104.63	68.30	36.33	peak	no limit	
2	*	5792.400	54.82	41.38	96.20	54.00	42.20	AVG	no limit	
3		5863.600	19.56	41.67	61.23	68.30	-7.07	peak		
4		5863.600	10.93	41.67	52.60	54.00	-1.40	AVG		
					***************************************					

Report No.: BTL-FCCP-2-1411C047 Page 104 of 280



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



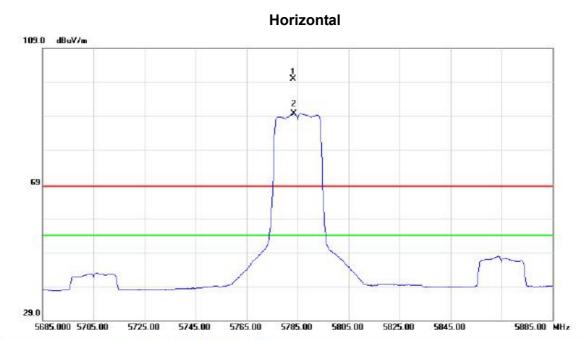


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.60	39.82	12.89	52.71	68.30	-15.59	peak		
2	*	11570.60	29.59	12.89	42.48	54.00	-11.52	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 105 of 280



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

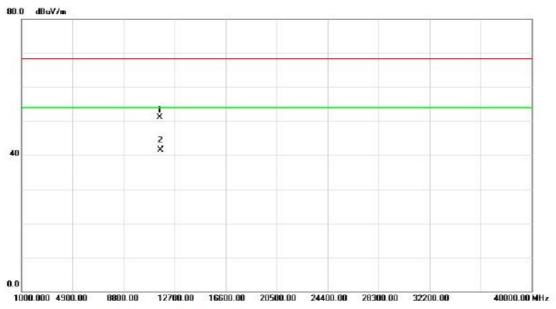


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		200		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	578	83.200	58.53	41.34	99.87	68.30	31.57	peak	no limit	
2	*	578	83.600	48.41	41.34	89.75	54.00	35.75	AVG	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 106 of 280



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

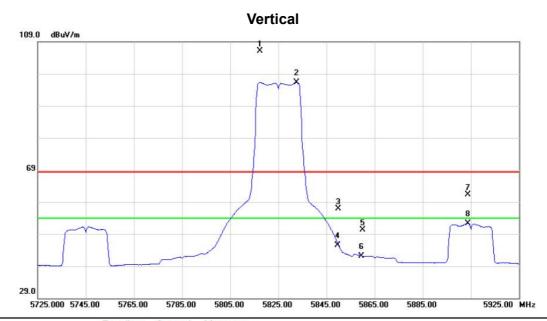


No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.20	38.15	12.89	51.04	68.30	-17.26	peak		
2	*	11570.20	28.62	12.89	41.51	54.00	-12.49	AVG		

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Orthogonal Axis: X
Test Mode: UNII-3/TX N20 Mode 5825MHz



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5817.400	64.61	41.48	106.09	68.30	37.79	peak	no limit	
2	*	5832.600	54.82	41.54	96.36	54.00	42.36	AVG	no limit	
3		5850.000	15.27	41.62	56.89	68.30	-11.41	peak		
4		5850.000	3.97	41.62	45.59	54.00	-8.41	AVG		
5		5860.000	8.69	41.65	50.34	68.30	-17.96	peak		
6		5860.000	0.50	41.65	42.15	54.00	-11.85	AVG		
7		5903.800	19.47	41.84	61.31	68.30	-6.99	peak		
8		5903.800	10.51	41.84	52.35	54.00	-1.65	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 108 of 280



Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5825MHz





No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11649.98	39.03	12.84	51.87	68.30	-16.43	peak		
2	*	11649.98	28.55	12.84	41.39	54.00	-12.61	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 109 of 280



Orthogonal Axis: X
Test Mode: UNII-3/TX N20 Mode 5825MHz

## Horizontal 109.0 dBuV/m 69 29.0 5725.000 5745.00 5765.00 5785.00 5885.00 5885.00 5885.00 5885.00 5925.00 MHz

No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
7.		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5823.800	61.27	41.50	102.77	68.30	34.47	peak	no limit
2	*	5823.800	50.70	41.50	92.20	54.00	38.20	AVG	no limit
3		5850.000	8.49	41.62	50.11	68.30	-18.19	peak	
4		5850.000	-0.33	41.62	41.29	54.00	-12.71	AVG	
5		5860.000	6.80	41.65	48.45	68.30	-19.85	peak	
6		5860.000	-1.76	41.65	39.89	54.00	-14.11	AVG	
7		5906.000	12.99	41.85	54.84	68.30	-13.46	peak	
8		5906.000	5.05	41.85	46.90	54.00	-7.10	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 110 of 280



Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5825MHz



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11650.89	36.14	12.84	48.98	68.30	-19.32	peak	
2	*	11650.89	25.85	12.84	38.69	54.00	-15.31	AVG	

Report No.: BTL-FCCP-2-1411C047 Page 111 of 280



5905.00 MHz

Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

### 

29.0

5605.000 5635.00

5665.00

5695.00

	Freq.	Level	Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
5	715.000	17.43	41.06	58.49	68.30	-9.81	peak	
5	715.000	6.96	41.06	48.02	54.00	-5.98	AVG	
5	725.000	22.98	41.10	64.08	68.30	-4.22	peak	
5	725.000	11.29	41.10	52.39	54.00	-1.61	AVG	
* 5	751.100	51.11	41.20	92.31	54.00	38.31	AVG	no limit
X 5	759.500	61.56	41.24	102.80	68.30	34.50	peak	no limit
	5 5 5	5715.000 5715.000 5725.000 5725.000	5715.000 17.43 5715.000 6.96 5725.000 22.98 5725.000 11.29 5751.100 51.11	5715.000 17.43 41.06 5715.000 6.96 41.06 5725.000 22.98 41.10 5725.000 11.29 41.10 5751.100 51.11 41.20	5715.000     17.43     41.06     58.49       5715.000     6.96     41.06     48.02       5725.000     22.98     41.10     64.08       5725.000     11.29     41.10     52.39       5751.100     51.11     41.20     92.31	5715.000     17.43     41.06     58.49     68.30       5715.000     6.96     41.06     48.02     54.00       5725.000     22.98     41.10     64.08     68.30       5725.000     11.29     41.10     52.39     54.00       5751.100     51.11     41.20     92.31     54.00	5715.000         17.43         41.06         58.49         68.30         -9.81           5715.000         6.96         41.06         48.02         54.00         -5.98           5725.000         22.98         41.10         64.08         68.30         -4.22           5725.000         11.29         41.10         52.39         54.00         -1.61           5751.100         51.11         41.20         92.31         54.00         38.31	5715.000     17.43     41.06     58.49     68.30     -9.81     peak       5715.000     6.96     41.06     48.02     54.00     -5.98     AVG       5725.000     22.98     41.10     64.08     68.30     -4.22     peak       5725.000     11.29     41.10     52.39     54.00     -1.61     AVG       * 5751.100     51.11     41.20     92.31     54.00     38.31     AVG

5755.00

5725.00

5785.00

5815.00

5845.00

Report No.: BTL-FCCP-2-1411C047 Page 112 of 280



Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

### Vertical

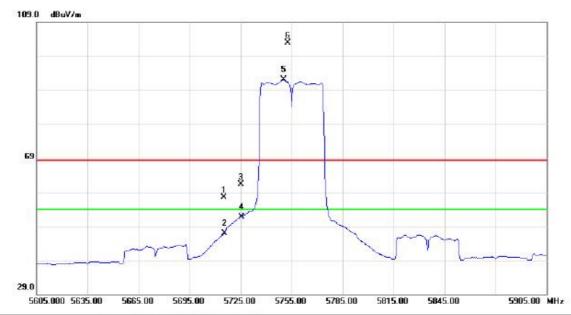


No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11	510.28	40.82	12.94	53.76	68.30	-14.54	peak		
2	*	11	510.28	29.58	12.94	42.52	54.00	-11.48	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 113 of 280



Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

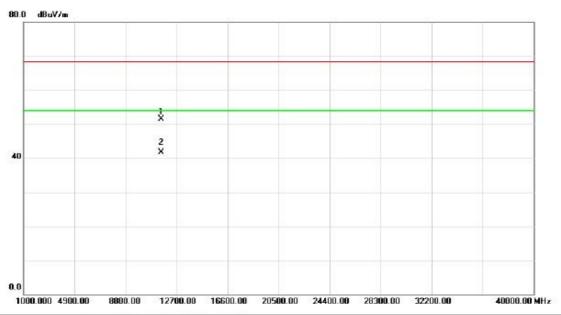


No.	Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5715.000	16.42	41.06	57.48	68.30	-10.82	peak		
2		5715.000	5.80	41.06	46.86	54.00	-7.14	AVG		
3		5725.000	20.19	41.10	61.29	68.30	-7.01	peak		
4		5725.000	10.67	41.10	51.77	54.00	-2.23	AVG		
5	*	5750.200	50.86	41.20	92.06	54.00	38.06	AVG	no limit	
6	X	5752.900	61.71	41.21	102.92	68.30	34.62	peak	no limit	

Report No.: BTL-FCCP-2-1411C047 Page 114 of 280



Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

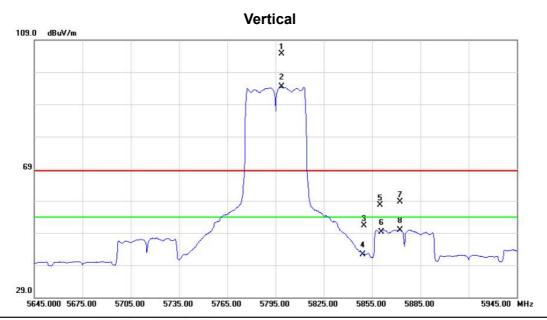


No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11511.09	38.59	12.93	51.52	68.30	-16.78	peak		
2	*	11511.09	28.81	12.93	41.74	54.00	-12.26	AVG		

Report No.: BTL-FCCP-2-1411C047 Page 115 of 280



Orthogonal Axis: X
Test Mode: UNII-3/TX N40 Mode 5795MHz



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5798.600	63.32	41.40	104.72	68.30	36.42	peak	no limit	
2	*	5798.600	53.01	41.40	94.41	54.00	40.41	AVG	no limit	
3		5850.000	9.70	41.62	51.32	68.30	-16.98	peak		
4		5850.000	0.78	41.62	42.40	54.00	-11.60	AVG		
5		5860.000	16.02	41.65	57.67	68.30	-10.63	peak		
6		5860.000	7.72	41.65	49.37	54.00	-4.63	AVG		
7		5872.400	17.04	41.71	58.75	68.30	-9.55	peak		
8		5872.400	8.29	41.71	50.00	54.00	-4.00	AVG		

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Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

### Vertical

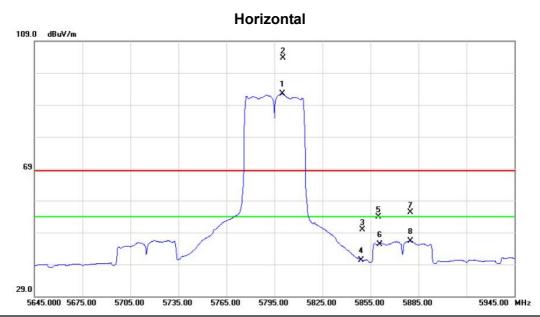


No.	Mk	. Freq.	Reading Level			Limit dBuV/m	Over	Detector	
		MHz							Comment
1		11590.18	39.64	12.88	52.52	68.30	-15.78	peak	
2	*	11590.18	28.86	12.88	41.74	54.00	-12.26	AVG	

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Orthogonal Axis: X
Test Mode: UNII-3/TX N40 Mode 5795MHz



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	5800.100	51.07	41.41	92.48	54.00	38.48	AVG	no limit
2	X	5800.400	62.27	41.41	103.68	68.30	35.38	peak	no limit
3		5850.000	8.19	41.62	49.81	68.30	-18.49	peak	
4		5850.000	-1.27	41.62	40.35	54.00	-13.65	AVG	
5		5860.000	12.18	41.65	53.83	68.30	-14.47	peak	
6		5860.000	3.65	41.65	45.30	54.00	-8.70	AVG	
7		5879.900	13.59	41.74	55.33	68.30	-12.97	peak	
8		5879.900	4.61	41.74	46.35	54.00	-7.65	AVG	

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Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

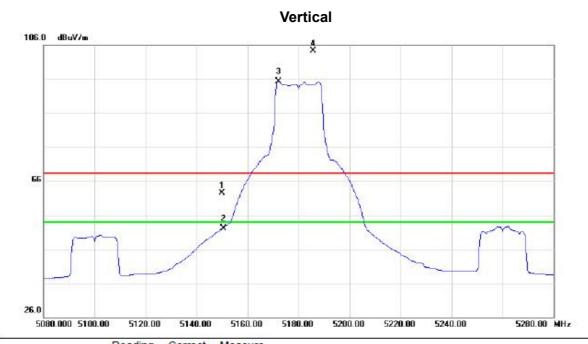


No.	Mk	. Freq.	Reading Level	Correct Factor		Limit dBuV/m	Over	Detector		
		MHz							Comment	
1		11590.29	38.64	12.88	51.52	68.30	-16.78	peak		
2	*	11590.29	28.26	12.88	41.14	54.00	-12.86	AVG		

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Orthogonal Axis:	x
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz



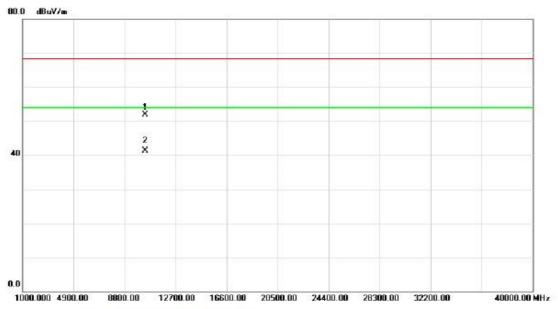
No.	Mk	۲.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		515	0.000	23.60	39.00	62.60	68.30	-5.70	peak		
2		515	0.000	13.11	39.00	52.11	54.00	-1.89	AVG		
3	*	517	2.200	56.31	39.07	95.38	54.00	41.38	AVG	no limit	
4	Х	518	5.600	65.27	39.12	104.39	68.30	36.09	peak	no limit	

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

### Vertical



No.	Mk	. Freq.	Reading Level	Correct Factor		Limit dBuV/m	Over	Detector	
		MHz							Comment
1		10360.01	40.77	11.10	51.87	68.30	-16.43	peak	
2	*	10360.12	30.29	11.10	41.39	54.00	-12.61	AVG	

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5180MHz

# Horizontal 106.0 dBuV/m 3 4 4 26.0 5080.000 5100.00 5120.00 5140.00 5160.00 5180.00 5200.00 5240.00 5240.00 5280.00 MHz

No.	Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
3		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	21.44	39.00	60.44	68.30	-7.86	peak	
2		5150.000	6.54	39.00	45.54	54.00	-8.46	AVG	
3	X	5179.800	62.69	39.10	101.79	68.30	33.49	peak	no limit
4	*	5182.200	54.40	39.11	93.51	54.00	39.51	AVG	no limit

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