

FCC Radio Test Report

FCC ID: X7D-IP04227

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

Project No. : 1410C191

Equipment: AC1200 Wireless Dual Band Gigabit Router

Model Name : A2004NS; IP04227

Applicant : ZIONCOM ELECTRONICS (SHENZHEN) LTD. **Address** : Building A1~A2, Lantian Science and Technology

Park, Xinyu Road Xinqiao Henggang Block Shajing Street, Baoan District, Shenzhen City, China

Date of Receipt : Oct. 23, 2014

Date of Test : Oct. 23, 2014~ Nov. 10, 2014

Issued Date : Nov. 12, 2014
Tested by : BTL Inc.

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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-2-1410C191	Original Issue.	Nov. 12, 2014

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1. CERTIFICATION

Equipment : AC1200 Wireless Dual Band Gigabit Router

Brand Name: TOTOLINK

Model Name: A2004NS; IP04227

Applicant : ZIONCOM ELECTRONICS (SHENZHEN) LTD. Manufacturer : ZIONCOM ELECTRONICS (SHENZHEN) LTD.

Address : Building A1~A2, Lantian Science and Technology Park, Xinyu Road Xinqiao

Henggang Block Shajing Street, Baoan District, Shenzhen City, China

Factory : ZIONCOM ELECTRONICS (SHENZHEN) LTD.

Address : Building A1~A2, Lantian Science and Technology Park, Xinyu Road Xinqiao

Henggang Block Shajing Street, Baoan District, Shenzhen City, China

Date of Test : Oct. 23, 2014~ Nov. 10, 2014 Test Sample : ENGINEERING SAMPLE

Ctandard(a) FCC Part15, Subpart E(15.407) / ANSI C63.4: 2009

Standard(s) : 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-2-1410C191) 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 $\mathbf{k=2}$, providing a level of confidence of approximately $\mathbf{95}\%$ \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	Η	3.57		
		30MHz ~ 200MHz	V	3.82		
	DG-CB03 CISPR	30MHz ~ 200MHz	Н	3.60		
DC CB03		200MHz ~ 1,000MHz	V	3.86		
DG-CB03		200MHz ~ 1,000MHz	Н	3.94		
		1GHz~18GHz	V	3.12		
		1	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	AC1200 Wireless Dual Band Gigabit Router			
Brand Name	TOTOLINK			
Model Name	A2004NS; IP04227			
Mode Different	Only differ in model name.			
	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz		
	Modulation Type	OFDM		
	Bit Rate of Transmitter	867Mbps		
Product Description	Output Power (Max.)for UNII-1	802.11a: 9.82dBm 802.11n (20M): 9.33dBm 802.11n (40M): 9.88dBm 802.11ac (20M): 9.40dBm 802.11ac (40M): 11.08dBm 802.11ac (80M): 10.76dBm		
	Output Power (Max.)for UNII-3	802.11a: 9.94dBm 802.11n (20M): 9.20dBm 802.11n (40M): 9.84dBm 802.11ac (20M): 9.49dBm 802.11ac (40M): 11.04dBm 802.11ac (80M): 10.78dBm		
Power Source	DC voltage supplied from AC/DC adapter. Manufacturer: SHENZHEN CITY HONGBEN ELECTRONICS CO., LTD Model:GT-WAAU12000200-302			
Power Rating	I/P: AC 100-240V 50/60Hz 0.8A O/P: DC 12V 2.0A			

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:

802.11a 802.11n 20MHz 802.11ac 20MHz		802.11n 40MHz 802.11ac 40MHz		802.11ad	c 80MHz
UNI	I-1	UNII-1		UN	II-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		802.11ad	c 80MHz
UNI	UNII-3		II-3	UN	II-3
Channel	Frequency (MHz)	Channel	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	Brand	Model Name	Antenna	Conne	Gain	Note
	Branu	Wodel Name	Type	ctor	(dBi)	NOLE
3	Laubichurg)	H001-10164-B	Dipole	N/A	5.0	90mm
4	Laube Cong	H001-10172-B	Dipole	N/A	5.0	210mm

Note: 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=5.0.

4.

Operating Mode	OTV	
TX Mode	2TX	
802.11a	V (ANT 3 + ANT 4)	
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: (1)For radiated emission 30 MHz to 1GHz test, the 802.11a mode is found to be the worst case and recorded.

- (2)For radiated emission 9K-30MHz test, the UNII-1 TX A Mode 5180MHz is found to be the worst case and recorded.
- (3)Both master and client mode are tested and master 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	MP TEST			
Frequency (MHz)	5180	5200	5240	
A Mode	(39,36)	(38,36)	(36,35)	
N20 Mode	(37,35)	(36,35)	(35,34)	
Frequency (MHz)	5190 5230			
N40 Mode	(36,35)	(36,34)		

UNII-3				
Test Software Version	MP TEST			
Frequency (MHz)	5745	5785	5825	
A Mode	(39,34)	(39,34)	(39,33)	
N20 Mode	(37,32)	(36,32)	(34,31)	
Frequency (MHz)	5755 5795			
N40 Mode	(37,33)	(37,33)		

	UNII-1				
Test Software Version	MP-TEST				
Frequency (MHz)	5180	5200	5240		
AC20 Mode	(33,31)	(32,30)	(31,30)		
Frequency (MHz)	5190	5230			
AC40 Mode	(33,32)	(33,31)			
Frequency (MHz)	5210				
AC80 Mode	(33,310				

	UNII-3					
Test Software Version	MP-TEST					
Frequency (MHz)	5745	5785	5825			
AC20 Mode	(33,29)	(33,29)	(33,28)			
Frequency (MHz)	5755	5795				
AC40 Mode	(34,290	(33,29)				
Frequency (MHz)	5775					
AC80 Mode	(34,30)					

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.4 BL	OCK DIAGRA	AM SHOWI	NG TI	HE CONFIGURA	TION OF SYST	TEM TES	STED	
ŗ								_
				EUT				
5 DE	SCRIPTION	OF SUPPO	RT UN	NITS				
he E	UT has been	tested as a	an inde	ependent unit tog	ether with oth es were used	er neces	ssary accesso a representati	ories o
he El	UT has been	tested as a	an inde		ether with oth es were used	er neces to form	ssary accesso a representati	ories o
he El	UT has been t units. The f	tested as a	an inde	ependent unit tog	ether with oth es were used FCC IE	to form	ssary accesso a representati Series No.	ories ove tes
he El uppoi onfigi	UT has been t units. The f uration during	tested as a collowing supthe tests.	an inde	ependent unit too units or accessor	es were used	to form	a representati	ve te
he El uppoi onfigi	UT has been t units. The f uration during	tested as a collowing supthe tests. Mfr/Brand	an inde	ependent unit too units or accessor	es were used	to form	Series No.	ve te

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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.

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.

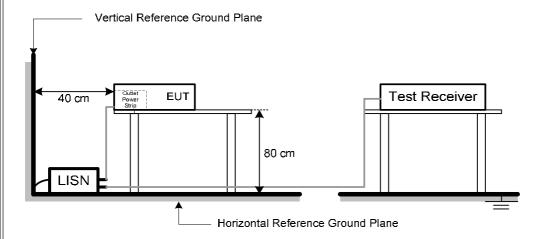
4.1.3 DEVIATION FROM TEST STANDARD

No deviation

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4.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal plan

3.The impedance of the outlet power strip is within $\pm\,20\%$ limit values for the LISN impedance at the LISN terminals.

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.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequencies (MHz)	EIRP Limit (dBm)	Equivalent Field Strength at 3m (dBµV/m)
5150-5250	-27	68.3
5725-5850	-27 (beyond 10MHz of the band edge)	68.3
3723-3630	-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

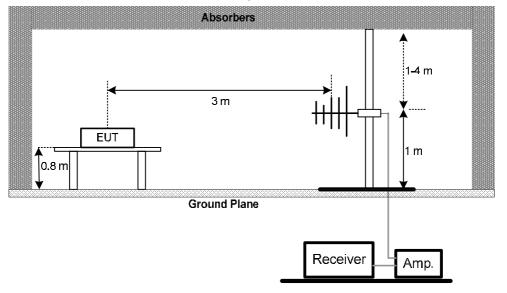
- a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated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

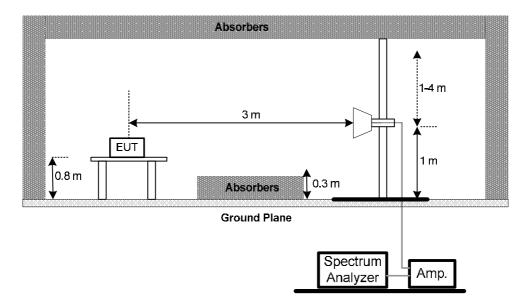
(A) Radiated Emission Test Set-Up Frequency30 - 1000MHz



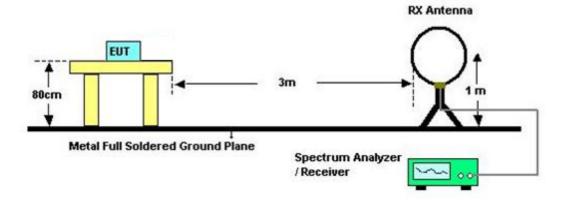
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(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



(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 『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 \circ
- (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				
Test Item	Limit	Frequency Range (MHz)	Result	
	26 dB Bandwidth	5150-5250	PASS	
Bandwidth	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.

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5.1.5 EUT TEST CONDITIONS	
Temperature: 25°C Relative Humidity: 55%	6 Test Voltage: AC 120V/60Hz
5.1.6 TEST RESULTS Please refer to the Attachment E.	
	ll ll

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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
Chan Francisco	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 Fraguenov	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.

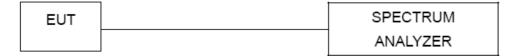
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8.1.1 DEVIATION FROM STANDARD

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				
		Frequency Range (MHz)	Result	
Construction Other Wife	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 block 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

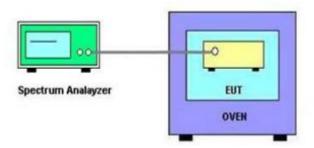
No deviation.

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d. User manual temperature is 0°C~40°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	101447	Mar. 29, 2015		
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015		
4	EMI TEST RECEIVER	R&S	ESCS30	833364/0 17	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	MY5213003 9	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	MY5213003 9	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					
Item	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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10.1. EUT TEST PHOTOS

Conducted Measurement Photos



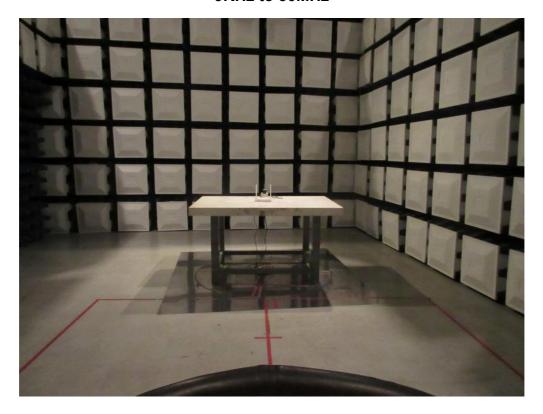


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Radiated Measurement Photos

9KHz to 30MHz





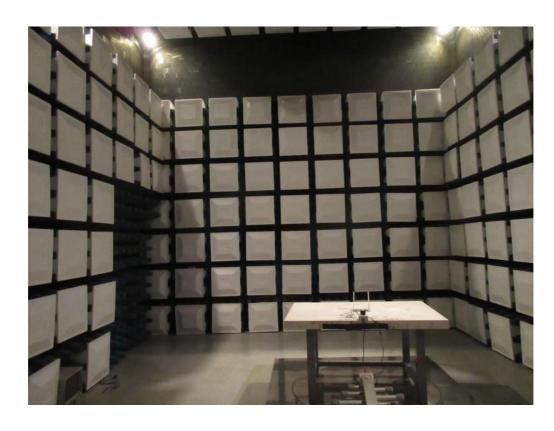
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Radiated Measurement Photos

30MHz to 1000MHz





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Radiated Measurement Photos

Above 1000MHz





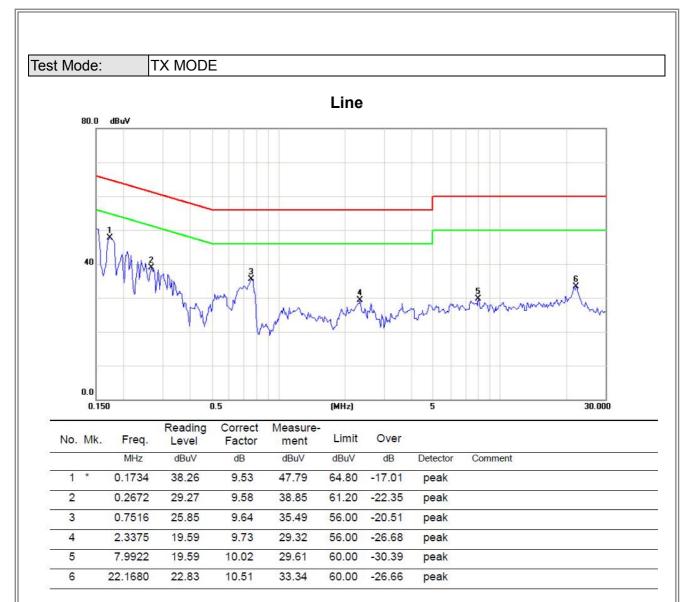
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ATTACHMENT A - CONDUCTED EMISSION

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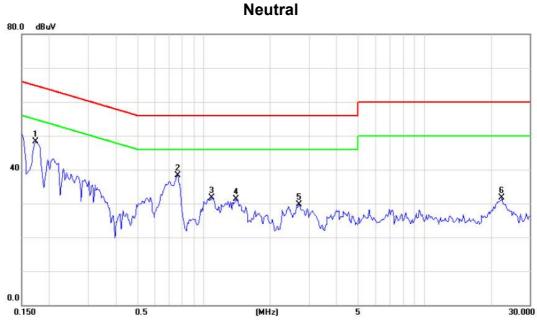


Note: The test result has included the cable loss.

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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1734	38.66	9.62	48.28	64.80	-16.52	peak	
2		0.7632	28.66	9.67	38.33	56.00	-17.67	peak	
3		1.0914	22.07	9.68	31.75	56.00	-24.25	peak	
4		1.4040	21.61	9.70	31.31	56.00	-24.69	peak	
5		2.7086	20.03	9.77	29.80	56.00	-26.20	peak	
6		22.4180	21.00	10.62	31.62	60.00	-28.38	peak	

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.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	Note
0.0090	0°	0.15	25.00	25.15	108.52	-83.37	AVG
0.0090	0°	8.62	25.00	33.62	128.52	-94.90	PEAK
0.0251	0°	1.51	23.98	25.49	99.61	-74.12	AVG
0.0251	0°	9.35	23.98	33.33	119.61	-86.28	PEAK
0.0313	0°	0.52	23.58	24.10	97.69	-73.59	AVG
0.0313	0°	8.74	23.58	32.32	117.69	-85.37	PEAK
0.0414	0°	1.87	22.94	24.81	95.26	-70.45	AVG
0.0414	0°	9.52	22.94	32.46	115.26	-82.80	PEAK
0.4821	0°	7.56	19.84	27.40	73.94	-46.54	QP
1.7366	0°	11.87	19.53	31.40	69.54	-38.14	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
0.0093	90°	1.56	24.30	25.86	128.23	-102.37	AVG
0.0093	90°	11.98	24.30	36.28	148.23	-111.95	PEAK
0.0212	90°	1.72	24.22	25.94	121.08	-95.13	AVG
0.0212	90°	9.63	24.22	33.85	141.08	-107.22	PEAK
0.0317	90°	0.45	23.56	24.01	117.58	-93.57	AVG
0.0317	90°	9.25	23.56	32.81	137.58	-104.77	PEAK
0.0413	90°	0.58	22.95	23.53	115.29	-91.75	AVG
0.0413	90°	8.21	22.95	31.16	135.29	-104.12	PEAK
0.5343	90°	6.02	19.91	25.93	73.05	-47.12	QP
1.7289	90°	9.87	19.53	29.40	69.54	-40.14	QP

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

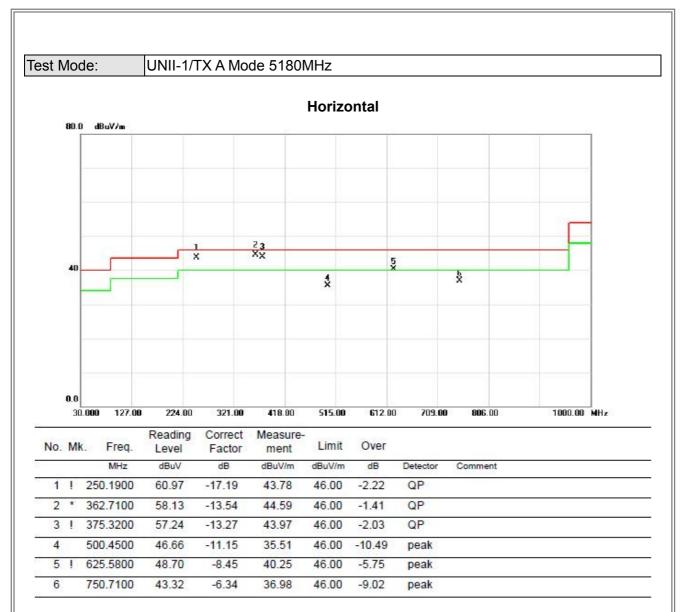
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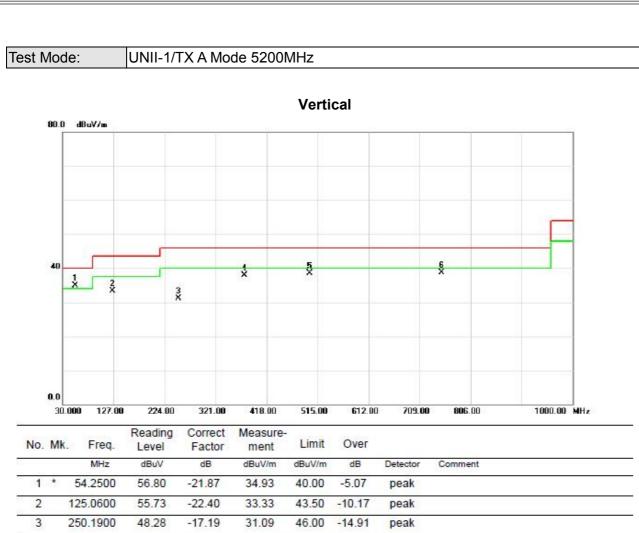
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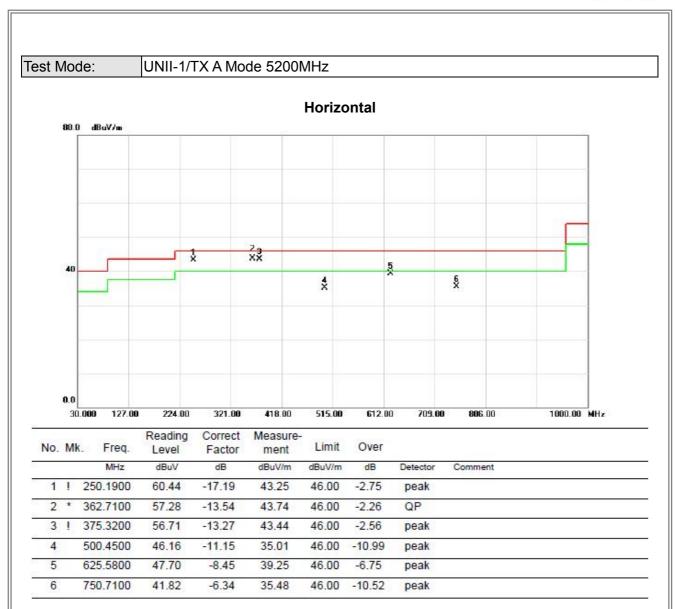




No.	No. Mk.	Mk.	Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	*	54.2500	56.80	-21.87	34.93	40.00	-5.07	peak			
2		125.0600	55.73	-22.40	33.33	43.50	-10.17	peak			
3		250.1900	48.28	-17.19	31.09	46.00	-14.91	peak			
4		375.3200	51.10	-13.27	37.83	46.00	-8.17	peak			
5		500.4500	49.73	-11.15	38.58	46.00	-7.42	peak			
6		750.7100	45.14	-6.34	38.80	46.00	-7.20	peak			
- 00000		Charles Cochected	26/9/40/999	50500000	200 200 200	23m (23fc+1	DISAVARA.	MEN GROOMS!			

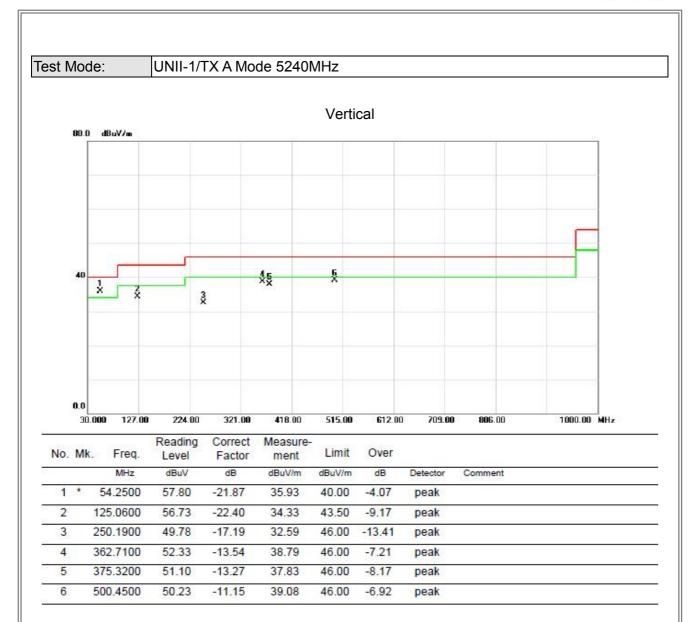
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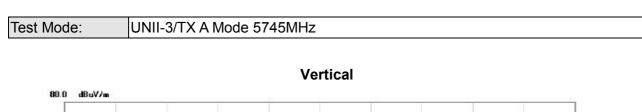
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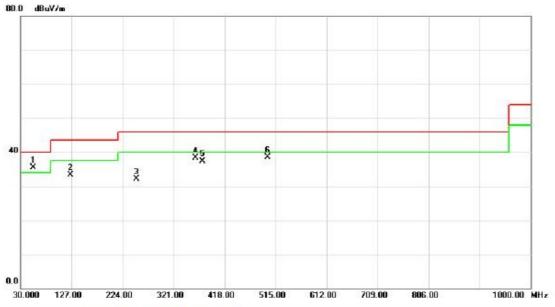




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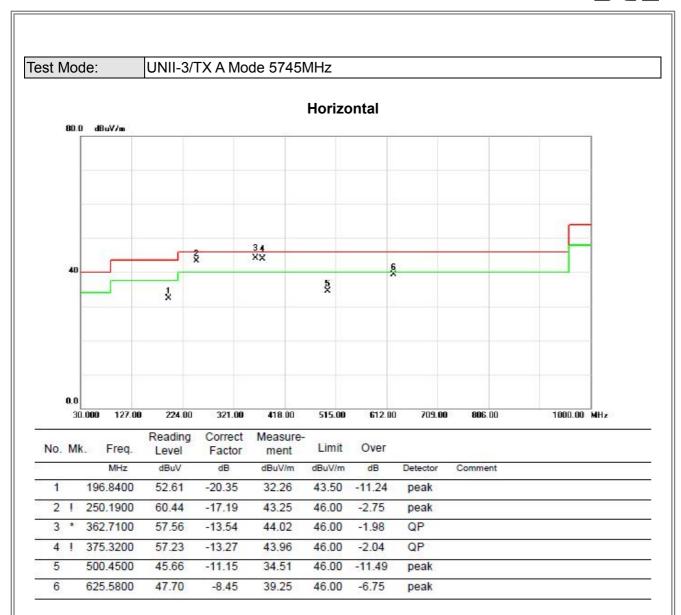




No.	No. Mk.	Mk.	Mk.	Mk.	Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment			
1	*	54.2500	57.30	-21.87	35.43	40.00	-4.57	peak				
2		125.0600	55.73	-22.40	33.33	43.50	-10.17	peak				
3		250.1900	49.28	-17.19	32.09	46.00	-13.91	peak				
4		362.7100	51.83	-13.54	38.29	46.00	-7.71	peak				
5	,	375.3200	50.60	-13.27	37.33	46.00	-8.67	peak				
6	,	500.4500	49.73	-11.15	38.58	46.00	-7.42	peak				

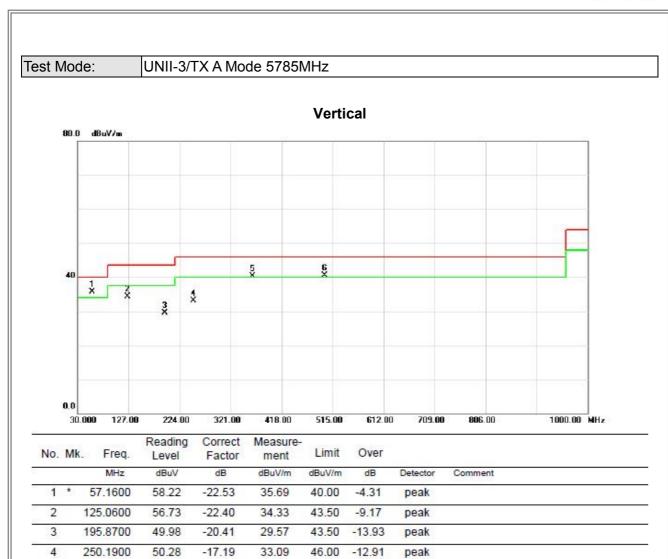
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362.7100

500.4500

5!

53.83

51.73

-13.54

-11.15

40.29

40.58

46.00

46.00

-5.71

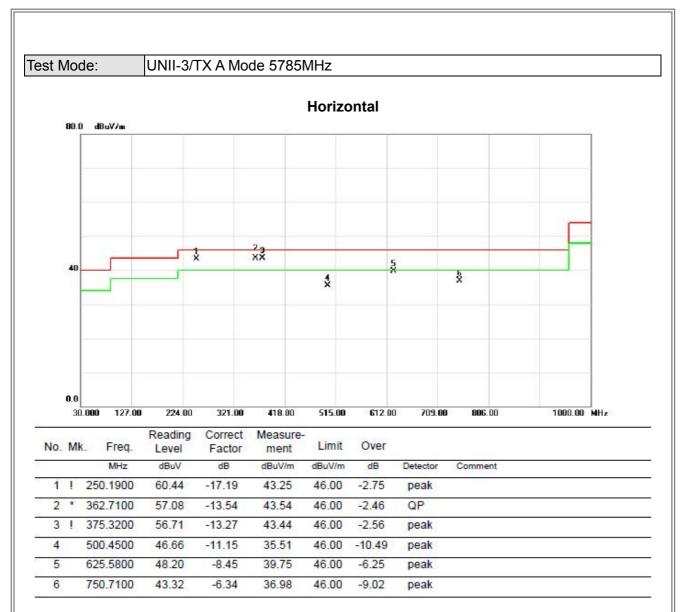
-5.42

peak

peak

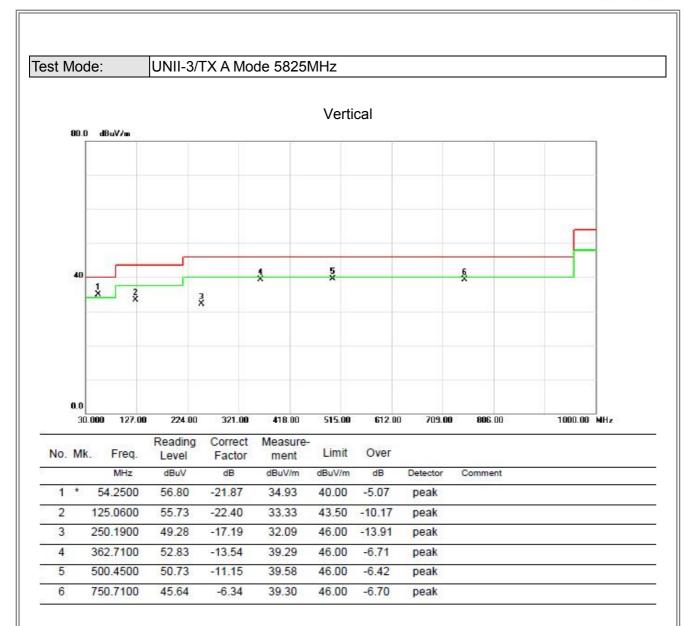
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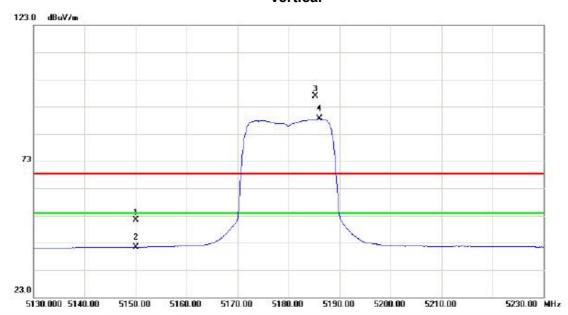
ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

Vertical



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	9.92	41.39	51.31	68.30	-16.99	peak		
2		5150.000	0.08	41.39	41.47	54.00	-12.53	AVG		
3	X	5185.300	55.33	41.51	96.84	68.30	28.54	peak	no limit	
4	*	5186.100	47.04	41.51	88.55	54.00	34.55	AVG	no limit	

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

Vertical



No.	Mk	c. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10362.12	36.48	11.10	47.58	68.30	-20.72	peak		
2	*	10364.12	27.22	11.10	38.32	54.00	-15.68	AVG		

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

No.	M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
3		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	9.99	41.39	51.38	68.30	-16.92	peak		
2		5150.000	-0.26	41.39	41.13	54.00	-12.87	AVG		
3	*	5186.300	38.46	41.51	79.97	54.00	25.97	AVG	no limit	
4	X	5187.100	46.58	41.51	88.09	68.30	19.79	peak	no limit	

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

Horizontal

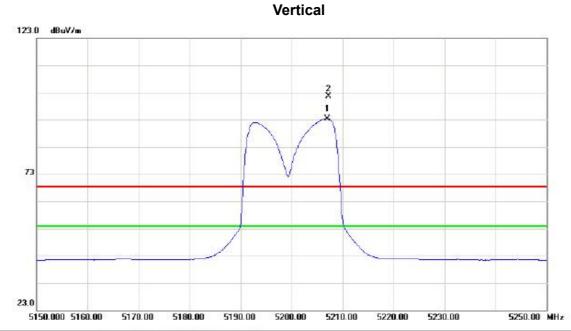


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10360.31	34.77	11.10	45.87	68.30	-22.43	peak		
2	*	10360.31	26.57	11.10	37.67	54.00	-16.33	AVG		

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



No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		1111	
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	520	07.000	51.77	41.58	93.35	54.00	39.35	AVG	no limit	
2	X	520	07.200	60.14	41.58	101.72	68.30	33.42	peak	no limit	

Report No.: BTL-FCCP-2-1410C191 Page 61 of 317



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

Vertical



No.	lo. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		10400.02	36.08	11.05	47.13	68.30	-21.17	peak	
2	*	10400.02	26.51	11.05	37.56	54.00	-16.44	AVG	

Report No.: BTL-FCCP-2-1410C191 Page 62 of 317



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

Horizontal 123.0 dBuV/m 2 2 3 5150.000 5160.00 5170.00 5180.00 5190.00 5200.00 5210.00 5220.00 5230.00 5250.00 MHz

No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		101	
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	52	201.600	47.10	41.56	88.66	68.30	20.36	peak	no limit	
2	*	52	02.600	38.89	41.56	80.45	54.00	26.45	AVG	no limit	

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

Horizontal



No.	MI	k.	Freq.		Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		104	400.13	37.14	11.05	48.19	68.30	-20.11	peak		
2	*	17.7	400.13	26.53	11.05	37.58	54.00	-16.42	AVG		

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

No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		1111	
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	34.600	52.16	41.66	93.82	54.00	39.82	AVG	no limit	
2	X	52	34.800	60.58	41.67	102.25	68.30	33.95	peak	no limit	

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

Vertical



No.	М	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10481.31	38.71	10.94	49.65	68.30	-18.65	peak		
2	*	10481.31	29.27	10.94	40.21	54.00	-13.79	AVG		

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

No.	Mk	c. F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over		1111
		-	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	5238	.100	47.22	41.68	88.90	68.30	20.60	peak	no limit
2	*	5238	.800	38.79	41.68	80.47	54.00	26.47	AVG	no limit

Report No.: BTL-FCCP-2-1410C191 Page 67 of 317



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

Horizontal



No.	M	k. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10480.14	36.62	10.94	47.56	68.30	-20.74	peak		
2	*	10480.14	26.20	10.94	37.14	54.00	-16.86	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 68 of 317



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

73 23.0 5130.000 5140.00 5150.00 5160.00 5170.00 5180.00 5190.00 5200.00 5210.00 5230.00 MHz

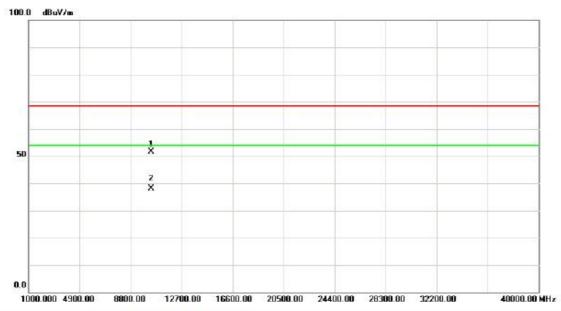
No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	9.40	41.39	50.79	68.30	-17.51	peak		
2		5150.000	0.03	41.39	41.42	54.00	-12.58	AVG		
3	X	5177.000	56.40	41.48	97.88	68.30	29.58	peak	no limit	
4	*	5186.400	47.07	41.51	88.58	54.00	34.58	AVG	no limit	

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

Vertical



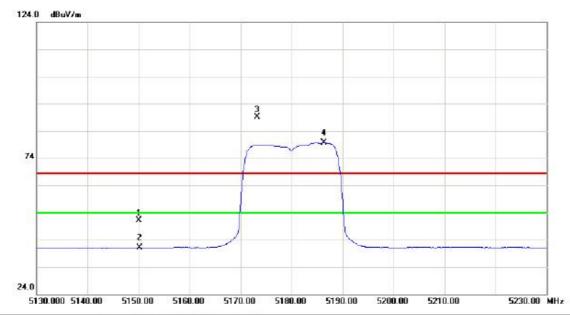
No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over		200	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10361.75	40.55	11.10	51.65	68.30	-16.65	peak		
2	*	10361.75	27.02	11.10	38.12	54.00	-15.88	AVG		

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

Horizontal



No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	9.62	41.39	51.01	68.30	-17.29	peak		
2		5150.000	-0.25	41.39	41.14	54.00	-12.86	AVG		
3	X	5173.200	47.66	41.46	89.12	68.30	20.82	peak	no limit	
4	*	5186.300	38.11	41.51	79.62	54.00	25.62	AVG	no limit	

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

Horizontal

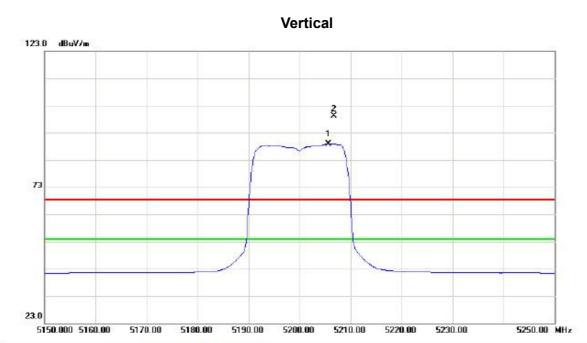


No.	Mk	. Freq.		Correct Factor		Limit dBuV/m	Over	Detector		
		MHz							Comment	
1		10360.99	40.68	11.10	51.78	68.30	-16.52	peak		
2	*	10360.99	28.15	11.10	39.25	54.00	-14.75	AVG		

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

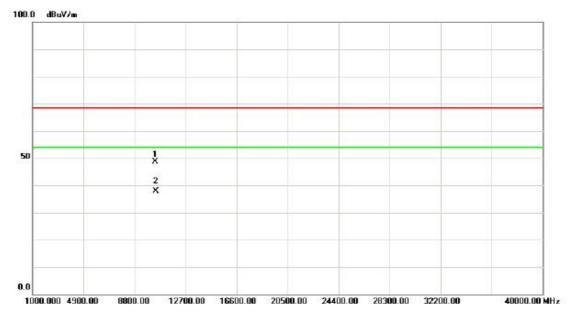


No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	52	05.700	47.42	41.57	88.99	54.00	34.99	AVG	no limit
2	X	52	06.700	57.51	41.57	99.08	68.30	30.78	peak	no limit

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



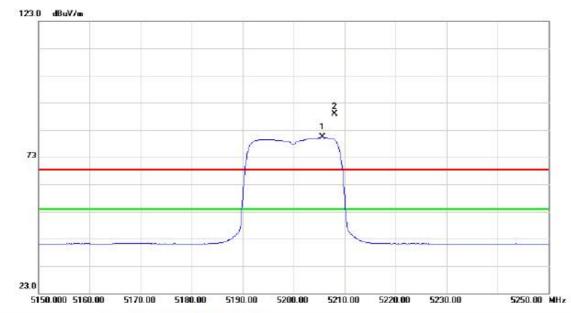
No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10400.52	37.59	11.05	48.64	68.30	-19.66	peak		
2		10400.52	26.73	11.05	37.78	54.00	-16.22	AVG		

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

Horizontal

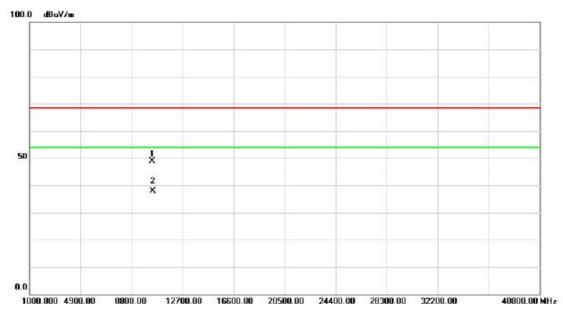


No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	205.700	38.69	41.57	80.26	54.00	26.26	AVG	no limit	
2	X	52	08.000	47.30	41.58	88.88	68.30	20.58	peak	no limit	

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX N20 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		10400.82	37.71	11.05	48.76	68.30	-19.54	peak		
2	*	10400.82	26.83	11.05	37.88	54.00	-16.12	AVG		

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

No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	52	33.500	47.90	41.66	89.56	54.00	35.56	AVG	no limit
2	X	52	43.400	57.62	41.70	99.32	68.30	31.02	peak	no limit

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



No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10481.22	37.22	10.94	48.16	68.30	-20.14	peak		
2	*	10481.22	26.58	10.94	37.52	54.00	-16.48	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 78 of 317



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

No.	Mk	c. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MH		dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5244.50	00	47.89	41.70	89.59	68.30	21.29	peak	no limit	
2	*	5246.20	00	38.35	41.71	80.06	54.00	26.06	AVG	no limit	

5240.00

5250.00

5260.00

5270.00

5290.00 MHz

23.0

5190.000 5200.00

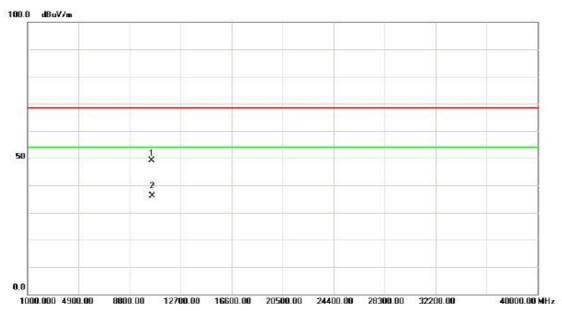
5210.00

5220.00 5230.00

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



No. I	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10481.55	38.23	10.94	49.17	68.30	-19.13	peak		
2	*	10481.55	25.23	10.94	36.17	54.00	-17.83	AVG		

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

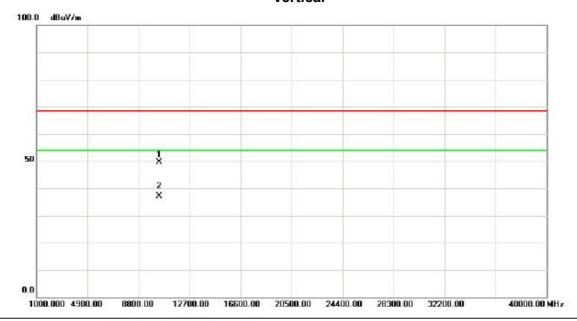
Vertical 123.0 dBuV/m 3 4 73 23.0 5090.000 5110.00 5130.00 5150.00 5170.00 5190.00 5210.00 5230.00 5250.00 5290.00 MHz

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5150.000	9.59	41.39	50.98	68.30	-17.32	peak	
2		5150.000	0.09	41.39	41.48	54.00	-12.52	AVG	
3	X	5192.000	52.14	41.52	93.66	68.30	25.36	peak	no limit
4	*	5205.400	42.90	41.57	84.47	54.00	30.47	AVG	no limit

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



No.	Mk	c. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10380.64	38.47	11.08	49.55	68.30	-18.75	peak		
2	*	10380.64	26.14	11.08	37.22	54.00	-16.78	AVG		

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

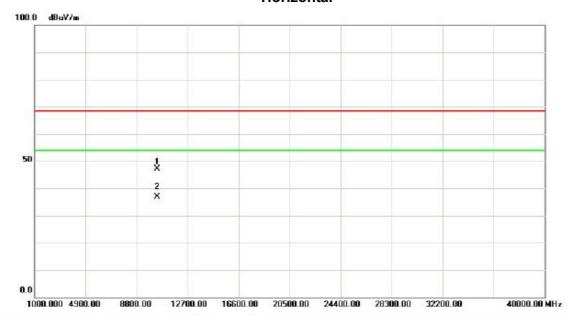
Horizontal 123.0 dBuV/m 3 4 73 23.0 5090.000 5110.00 5130.00 5150.00 5170.00 5190.00 5210.00 5250.00 5250.00 5290.00 MHz

No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
5		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	9.24	41.39	50.63	68.30	-17.67	peak		
2		5150.000	-0.23	41.39	41.16	54.00	-12.84	AVG		
3	X	5200.000	43.07	41.55	84.62	68.30	16.32	peak	no limit	
4	*	5204.200	34.01	41.57	75.58	54.00	21.58	AVG	no limit	

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

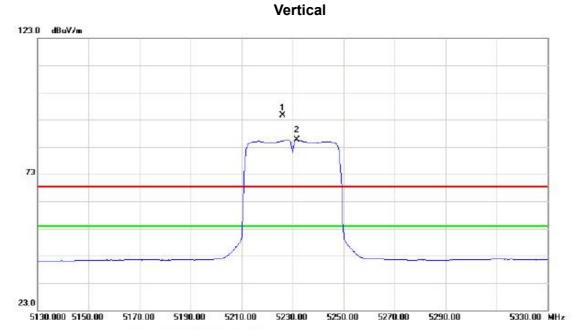


No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10383.54	36.16	11.08	47.24	68.30	-21.06	peak		
2	*	10383.54	25.90	11.08	36.98	54.00	-17.02	AVG		

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



No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		10.1	
			MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	X	52	226.200	53.12	41.63	94.75	68.30	26.45	peak	no limit	
2	*	52	231.600	43.93	41.65	85.58	54.00	31.58	AVG	no limit	

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



No.	M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10460.00	35.38	10.96	46.34	68.30	-21.96	peak		
2	*	10460.00	24.86	10.96	35.82	54.00	-18.18	AVG		

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

Horizontal 123.0 dBuV/m 2 3 1 130.000 5150.00 5170.00 5190.00 5210.00 5230.00 5250.00 5270.00 5290.00 5330.00 MHz

No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		101	
			MHz	MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	31.600	33.71	41.65	75.36	54.00	21.36	AVG	no limit	
2	X	52	44.600	43.00	41.70	84.70	68.30	16.40	peak	no limit	

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



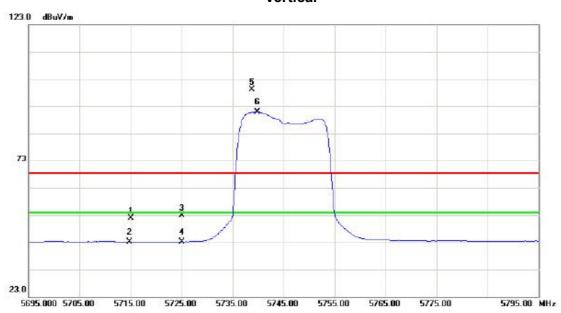
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10461.84	37.55	10.96	48.51	68.30	-19.79	peak		
2	*	10461.84	26.67	10.96	37.63	54.00	-16.37	AVG		

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

Vertical



Mk	Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	5715.000	8.45	43.47	51.92	68.30	-16.38	peak	
	5715.000	-0.38	43.47	43.09	54.00	-10.91	AVG	
	5725.000	9.43	43.51	52.94	68.30	-15.36	peak	
	5725.000	-0.29	43.51	43.22	54.00	-10.78	AVG	
X	5738.800	55.54	43.57	99.11	68.30	30.81	peak	no limit
*	5739.800	47.30	43.58	90.88	54.00	36.88	AVG	no limit
	X	MHz 5715.000 5715.000 5725.000 5725.000 X 5738.800	Mk. Freq. Level MHz dBuV 5715.000 8.45 5715.000 -0.38 5725.000 9.43 5725.000 -0.29 X 5738.800 55.54	Mk. Freq. Level Factor MHz dBuV dB 5715.000 8.45 43.47 5715.000 -0.38 43.47 5725.000 9.43 43.51 5725.000 -0.29 43.51 X 5738.800 55.54 43.57	Mk. Freq. Level Factor MHz ment MHz 5715.000 8.45 43.47 51.92 5715.000 -0.38 43.47 43.09 5725.000 9.43 43.51 52.94 5725.000 -0.29 43.51 43.22 X 5738.800 55.54 43.57 99.11	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m 5715.000 8.45 43.47 51.92 68.30 5715.000 -0.38 43.47 43.09 54.00 5725.000 9.43 43.51 52.94 68.30 5725.000 -0.29 43.51 43.22 54.00 X 5738.800 55.54 43.57 99.11 68.30	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 5715.000 8.45 43.47 51.92 68.30 -16.38 5715.000 -0.38 43.47 43.09 54.00 -10.91 5725.000 9.43 43.51 52.94 68.30 -15.36 5725.000 -0.29 43.51 43.22 54.00 -10.78 X 5738.800 55.54 43.57 99.11 68.30 30.81	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 5715.000 8.45 43.47 51.92 68.30 -16.38 peak 5715.000 -0.38 43.47 43.09 54.00 -10.91 AVG 5725.000 9.43 43.51 52.94 68.30 -15.36 peak 5725.000 -0.29 43.51 43.22 54.00 -10.78 AVG X 5738.800 55.54 43.57 99.11 68.30 30.81 peak

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



No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11491.47	37.43	12.91	50.34	68.30	-17.96	peak		
		11491.47	25.64	12.91	38.55	54.00	-15.45	AVG		

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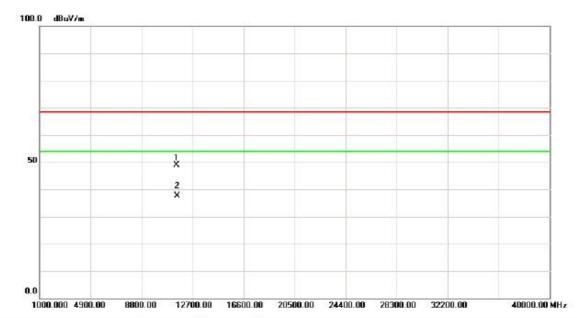
Orthogonal Axis:	x
Test Mode:	UNII-3/TX A Mode 5745MHz

No.	Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5712.000	9.42	43.45	52.87	68.30	-15.43	peak		
2		5715.000	-0.58	43.47	42.89	54.00	-11.11	AVG		
3		5725.000	10.80	43.51	54.31	68.30	-13.99	peak		
4		5725.000	-0.82	43.51	42.69	54.00	-11.31	AVG		
5	*	5747.700	36.93	43.61	80.54	54.00	26.54	AVG	no limit	
6	X	5748.500	45.36	43.61	88.97	68.30	20.67	peak	no limit	

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



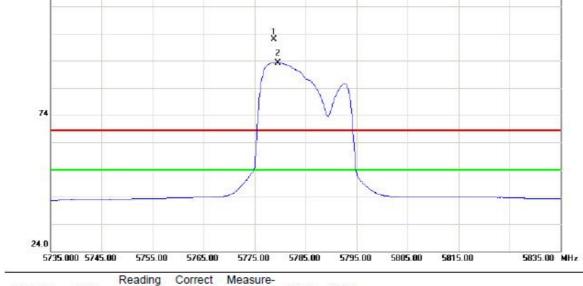
No.	lo. Mk	. Freq.			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11491.72	35.85	12.91	48.76	68.30	-19.54	peak	
2	*	11491.72	24.75	12.91	37.66	54.00	-16.34	AVG	

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

Vertical 124.0 dBuV/m

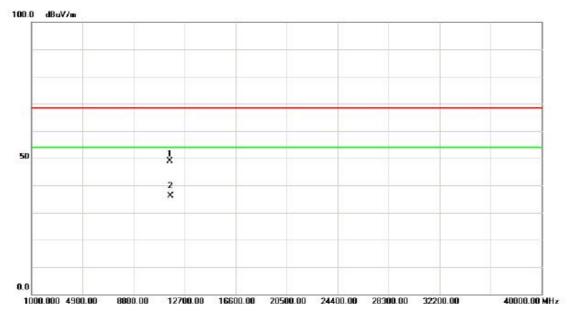


No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5778.800	58.04	43.75	101.79	68.30	33.49	peak	no limit	
2	*	5779.600	49.49	43.75	93.24	54.00	39.24	AVG	no limit	

Report No.: BTL-FCCP-2-1410C191 Page 93 of 317



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



No.	М	k. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.98	35.88	12.89	48.77	68.30	-19.53	peak		
2	*	11570.98	23.36	12.89	36.25	54.00	-17.75	AVG		

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

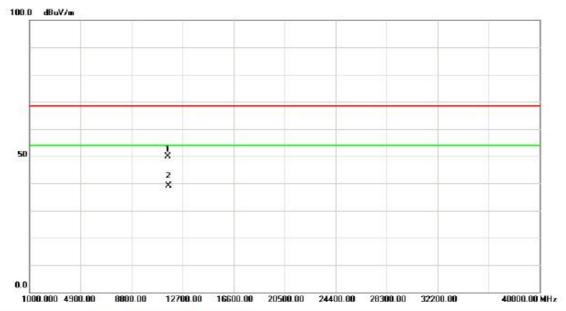
Horizontal 123.0 dBuV/m 2 2 3.0 5735.000 5745.00 5755.00 5765.00 5775.00 5785.00 5795.00 5805.00 5815.00 5835.00 MHz

No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	57	81.600	37.97	43.76	81.73	54.00	27.73	AVG	no limit	
2	X	57	82.600	46.58	43.76	90.34	68.30	22.04	peak	no limit	

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



No.	lo. Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		101	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11572.89	36.99	12.89	49.88	68.30	-18.42	peak		
2	*	11572.89	26.23	12.89	39.12	54.00	-14.88	AVG		

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

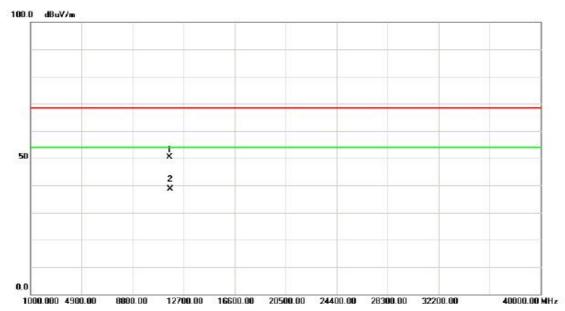
73 3 8 4 6 5775.000 5785.00 5795.00 5805.00 5815.00 5825.00 5835.00 5845.00 5855.00 5875.00 MHz

Mk	۲.	Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
X	58	28.600	56.30	43.97	100.27	68.30	31.97	peak	no limit	
*	58	29.100	47.97	43.97	91.94	54.00	37.94	AVG	no limit	
	58	50.000	9.33	44.06	53.39	68.30	-14.91	peak		
	58	50.000	-0.52	44.06	43.54	54.00	-10.46	AVG		
	58	60.000	9.69	44.10	53.79	68.30	-14.51	peak		
	58	60.000	-0.44	44.10	43.66	54.00	-10.34	AVG		
	X *	* 58 58 58	MHz X 5828.600 * 5829.100 5850.000 5850.000	MHz dBuV X 5828.600 56.30 * 5829.100 47.97 5850.000 9.33 5850.000 -0.52 5860.000 9.69	Mk. Freq. Level Factor MHz dBuV dB X 5828.600 56.30 43.97 * 5829.100 47.97 43.97 5850.000 9.33 44.06 5850.000 -0.52 44.06 5860.000 9.69 44.10	Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m X 5828.600 56.30 43.97 100.27 * 5829.100 47.97 43.97 91.94 5850.000 9.33 44.06 53.39 5850.000 -0.52 44.06 43.54 5860.000 9.69 44.10 53.79	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m X 5828.600 56.30 43.97 100.27 68.30 * 5829.100 47.97 43.97 91.94 54.00 5850.000 9.33 44.06 53.39 68.30 5850.000 -0.52 44.06 43.54 54.00 5860.000 9.69 44.10 53.79 68.30	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB X 5828.600 56.30 43.97 100.27 68.30 31.97 * 5829.100 47.97 43.97 91.94 54.00 37.94 5850.000 9.33 44.06 53.39 68.30 -14.91 5850.000 -0.52 44.06 43.54 54.00 -10.46 5860.000 9.69 44.10 53.79 68.30 -14.51	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector X 5828.600 56.30 43.97 100.27 68.30 31.97 peak * 5829.100 47.97 43.97 91.94 54.00 37.94 AVG 5850.000 9.33 44.06 53.39 68.30 -14.91 peak 5850.000 -0.52 44.06 43.54 54.00 -10.46 AVG 5860.000 9.69 44.10 53.79 68.30 -14.51 peak	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dB uV/m dB Detector Comment X 5828.600 56.30 43.97 100.27 68.30 31.97 peak no limit * 5829.100 47.97 43.97 91.94 54.00 37.94 AVG no limit 5850.000 9.33 44.06 53.39 68.30 -14.91 peak 5850.000 -0.52 44.06 43.54 54.00 -10.46 AVG 5860.000 9.69 44.10 53.79 68.30 -14.51 peak

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

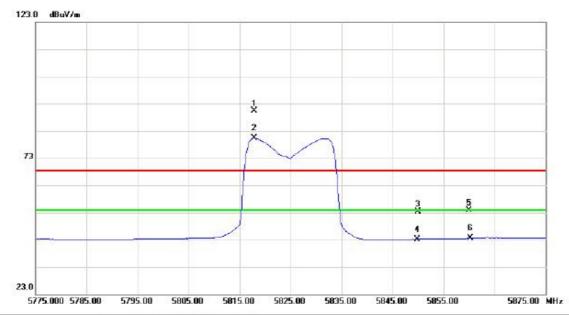


No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11651.77	37.62	12.84	50.46	68.30	-17.84	peak		
		11651.77	25.73	12.84	38.57	54.00	-15.43	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 98 of 317



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

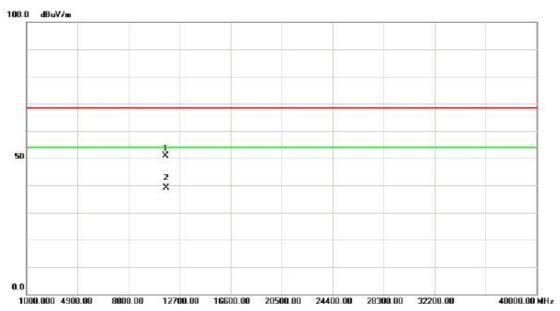


No.	Mk	c. F	req.	Reading Level	Correct	Measure- ment	Limit	Over			
		1	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5817	.900	46.34	43.92	90.26	68.30	21.96	peak	no limit	
2	*	5817	.900	36.41	43.92	80.33	54.00	26.33	AVG	no limit	
3		5850	.000	9.41	44.06	53.47	68.30	-14.83	peak		
4		5850	.000	-0.83	44.06	43.23	54.00	-10.77	AVG		
5		5860	.000	9.85	44.10	53.95	68.30	-14.35	peak		
6		5860	.000	-0.54	44.10	43.56	54.00	-10.44	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 99 of 317



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



No.	M	k. Freq.			Measure- ment		Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11651.16	37.95	12.84	50.79	68.30	-17.51	peak		
2	*	11651.16	26.30	12.84	39.14	54.00	-14.86	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 100 of 317



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

Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	5715.000	9.71	43.47	53.18	68.30	-15.12	peak	
	5715.000	-0.35	43.47	43.12	54.00	-10.88	AVG	
	5725.000	9.52	43.51	53.03	68.30	-15.27	peak	
	5725.000	-0.39	43.51	43.12	54.00	-10.88	AVG	
X	5750.800	53.84	43.62	97.46	68.30	29.16	peak	no limit
*	5751.000	45.32	43.62	88.94	54.00	34.94	AVG	no limit
	X	MHz 5715.000 5715.000 5725.000 5725.000 X 5750.800	Mk. Freq. Level MHz dBuV 5715.000 9.71 5715.000 -0.35 5725.000 9.52 5725.000 -0.39 X 5750.800 53.84	Mk. Freq. Level Factor MHz dBuV dB 5715.000 9.71 43.47 5715.000 -0.35 43.47 5725.000 9.52 43.51 5725.000 -0.39 43.51 X 5750.800 53.84 43.62	Mk. Freq. Level Factor MHz ment MHz 5715.000 9.71 43.47 53.18 5715.000 -0.35 43.47 43.12 5725.000 9.52 43.51 53.03 5725.000 -0.39 43.51 43.12 X 5750.800 53.84 43.62 97.46	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m 5715.000 9.71 43.47 53.18 68.30 5715.000 -0.35 43.47 43.12 54.00 5725.000 9.52 43.51 53.03 68.30 5725.000 -0.39 43.51 43.12 54.00 X 5750.800 53.84 43.62 97.46 68.30	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 5715.000 9.71 43.47 53.18 68.30 -15.12 5715.000 -0.35 43.47 43.12 54.00 -10.88 5725.000 9.52 43.51 53.03 68.30 -15.27 5725.000 -0.39 43.51 43.12 54.00 -10.88 X 5750.800 53.84 43.62 97.46 68.30 29.16	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 5715.000 9.71 43.47 53.18 68.30 -15.12 peak 5715.000 -0.35 43.47 43.12 54.00 -10.88 AVG 5725.000 9.52 43.51 53.03 68.30 -15.27 peak 5725.000 -0.39 43.51 43.12 54.00 -10.88 AVG X 5750.800 53.84 43.62 97.46 68.30 29.16 peak

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



No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11492.74	34.21	12.92	47.13	68.30	-21.17	peak		
2	*	11492.74	24.27	12.92	37.19	54.00	-16.81	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 102 of 317



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

Mk	c. Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	5715.000	9.17	43.47	52.64	68.30	-15.66	peak	
	5715.000	-0.61	43.47	42.86	54.00	-11.14	AVG	
	5725.000	8.38	43.51	51.89	68.30	-16.41	peak	
	5725.000	-0.84	43.51	42.67	54.00	-11.33	AVG	
*	5738.900	32.45	43.57	76.02	54.00	22.02	AVG	no limit
X	5752.100	41.50	43.63	85.13	68.30	16.83	peak	no limit
	*	MHz 5715.000 5715.000 5725.000	Mk. Freq. Level MHz dBuV 5715.000 9.17 5715.000 -0.61 5725.000 8.38 5725.000 -0.84 * 5738.900 32.45	Mk. Freq. Level Factor MHz dBuV dB 5715.000 9.17 43.47 5715.000 -0.61 43.47 5725.000 8.38 43.51 5725.000 -0.84 43.51 * 5738.900 32.45 43.57	Mk. Freq. Level Factor MHz ment MHz dBuV dB dBuV/m 5715.000 9.17 43.47 52.64 5715.000 -0.61 43.47 42.86 5725.000 8.38 43.51 51.89 5725.000 -0.84 43.51 42.67 * 5738.900 32.45 43.57 76.02	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m 5715.000 9.17 43.47 52.64 68.30 5715.000 -0.61 43.47 42.86 54.00 5725.000 8.38 43.51 51.89 68.30 5725.000 -0.84 43.51 42.67 54.00 * 5738.900 32.45 43.57 76.02 54.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 5715.000 9.17 43.47 52.64 68.30 -15.66 5715.000 -0.61 43.47 42.86 54.00 -11.14 5725.000 8.38 43.51 51.89 68.30 -16.41 5725.000 -0.84 43.51 42.67 54.00 -11.33 * 5738.900 32.45 43.57 76.02 54.00 22.02	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 5715.000 9.17 43.47 52.64 68.30 -15.66 peak 5715.000 -0.61 43.47 42.86 54.00 -11.14 AVG 5725.000 8.38 43.51 51.89 68.30 -16.41 peak 5725.000 -0.84 43.51 42.67 54.00 -11.33 AVG * 5738.900 32.45 43.57 76.02 54.00 22.02 AVG

5755.00 5765.00

5775.00

5795.00 MHz

5725.00 5735.00 5745.00

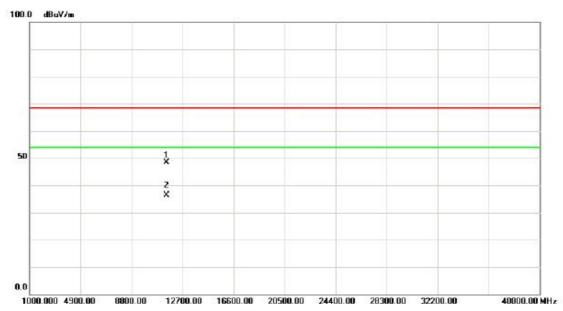
5695.000 5705.00

5715.00

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



No. N	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11490.34	35.42	12.91	48.33	68.30	-19.97	peak		
2	*	11490.34	23.36	12.91	36.27	54.00	-17.73	AVG		

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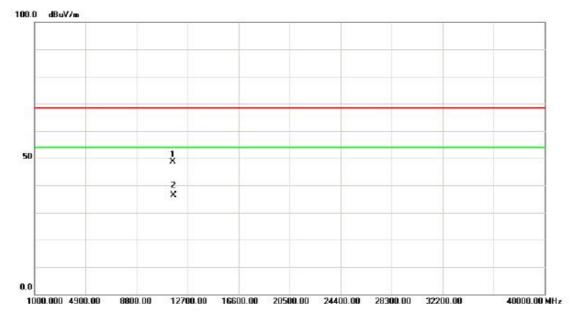
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N20 Mode 5785MHz

No.	Mk	c. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5790.600	45.70	43.80	89.50	54.00	35.50	AVG	no limit	
2	X	5791.800	54.21	43.80	98.01	68.30	29.71	peak	no limit	

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.98	35.85	12.89	48.74	68.30	-19.56	peak		
		11570.98	23.56	12.89	36.45	54.00	-17.55	AVG		

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

Horizontal 123.0 dBuV/m 2 2 73 5735.000 5745.00 5755.00 5765.00 5775.00 5785.00 5795.00 5805.00 5815.00 5835.00 MHz

No.	Mk	c. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MH	z	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5779.0	00	33.78	43.75	77.53	54.00	23.53	AVG	no limit	
2	X	5780.8	00	43.08	43.76	86.84	68.30	18.54	peak	no limit	

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

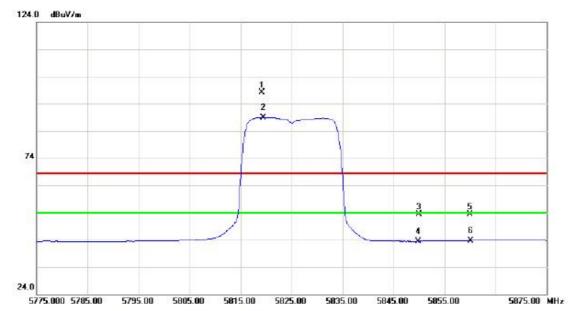


No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		F111	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.00	36.36	12.89	49.25	68.30	-19.05	peak		
2	*	11570.00	24.77	12.89	37.66	54.00	-16.34	AVG		

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

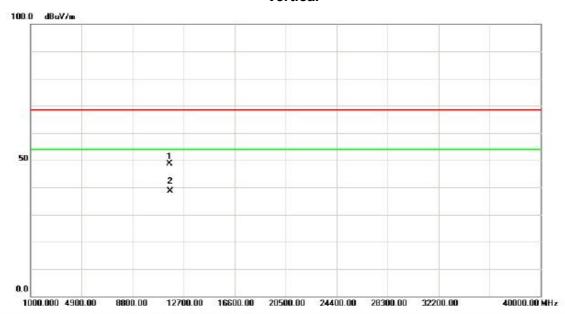


Mk	. Fr	eq.	Reading Level	Correct	Measure- ment	Limit	Over			
	М	Hz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
X	5819.	200	54.28	43.92	98.20	68.30	29.90	peak	no limit	
*	5819.	400	45.06	43.93	88.99	54.00	34.99	AVG	no limit	
	5850.	000	9.34	44.06	53.40	68.30	-14.90	peak		
	5850.	000	-0.59	44.06	43.47	54.00	-10.53	AVG		
	5860.	000	9.31	44.10	53.41	68.30	-14.89	peak		
	5860.	000	-0.40	44.10	43.70	54.00	-10.30	AVG		
	X *	X 5819 * 5819 * 5850 5850 5860	MHz X 5819.200 * 5819.400 5850.000 5850.000	Mk. Freq. Level MHz dBuV X 5819.200 54.28 * 5819.400 45.06 5850.000 9.34 5850.000 -0.59 5860.000 9.31	Mk. Freq. Level Factor MHz dBuV dB X 5819.200 54.28 43.92 * 5819.400 45.06 43.93 5850.000 9.34 44.06 5850.000 -0.59 44.06 5860.000 9.31 44.10	Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m X 5819.200 54.28 43.92 98.20 * 5819.400 45.06 43.93 88.99 5850.000 9.34 44.06 53.40 5850.000 -0.59 44.06 43.47 5860.000 9.31 44.10 53.41	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m X 5819.200 54.28 43.92 98.20 68.30 * 5819.400 45.06 43.93 88.99 54.00 5850.000 9.34 44.06 53.40 68.30 5850.000 -0.59 44.06 43.47 54.00 5860.000 9.31 44.10 53.41 68.30	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB X 5819.200 54.28 43.92 98.20 68.30 29.90 * 5819.400 45.06 43.93 88.99 54.00 34.99 5850.000 9.34 44.06 53.40 68.30 -14.90 5850.000 -0.59 44.06 43.47 54.00 -10.53 5860.000 9.31 44.10 53.41 68.30 -14.89	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB Detector X 5819.200 54.28 43.92 98.20 68.30 29.90 peak * 5819.400 45.06 43.93 88.99 54.00 34.99 AVG 5850.000 9.34 44.06 53.40 68.30 -14.90 peak 5850.000 -0.59 44.06 43.47 54.00 -10.53 AVG 5860.000 9.31 44.10 53.41 68.30 -14.89 peak	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector Comment X 5819.200 54.28 43.92 98.20 68.30 29.90 peak no limit * 5819.400 45.06 43.93 88.99 54.00 34.99 AVG no limit 5850.000 9.34 44.06 53.40 68.30 -14.90 peak 5850.000 -0.59 44.06 43.47 54.00 -10.53 AVG 5860.000 9.31 44.10 53.41 68.30 -14.89 peak

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



No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11652.82	35.87	12.84	48.71	68.30	-19.59	peak		
2	*	11652.82	25.71	12.84	38.55	54.00	-15.45	AVG		

Report No.: BTL-FCCP-2-1410C191 Page 110 of 317



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

Horizontal 123.0 dBuV/m 2 4 4 6 X X 73 5775.000 5785.00 5795.00 5805.00 5815.00 5825.00 5835.00 5845.00 5855.00 5875.00 MHz

Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
*	5818.800	35.26	43.92	79.18	54.00	25.18	AVG	no limit	
X	5819.700	44.49	43.93	88.42	68.30	20.12	peak	no limit	
	5850.000	9.09	44.06	53.15	68.30	-15.15	peak		
	5850.000	-0.79	44.06	43.27	54.00	-10.73	AVG		
	5860.000	8.84	44.10	52.94	68.30	-15.36	peak		
	5860.000	-0.58	44.10	43.52	54.00	-10.48	AVG		
	*	* 5818.800 X 5819.700 5850.000 5860.000	MHz dBuV * 5818.800 35.26 X 5819.700 44.49 5850.000 9.09 5850.000 -0.79 5860.000 8.84	* 5818.800 35.26 43.92 X 5819.700 44.49 43.93 5850.000 9.09 44.06 5860.000 8.84 44.10	MHz dBuV dB dBuV/m * 5818.800 35.26 43.92 79.18 X 5819.700 44.49 43.93 88.42 5850.000 9.09 44.06 53.15 5850.000 -0.79 44.06 43.27 5860.000 8.84 44.10 52.94	MHz dBuV dB dBuV/m dBuV/m * 5818.800 35.26 43.92 79.18 54.00 X 5819.700 44.49 43.93 88.42 68.30 5850.000 9.09 44.06 53.15 68.30 5850.000 -0.79 44.06 43.27 54.00 5860.000 8.84 44.10 52.94 68.30	MHz dBuV dB dBuV/m dBuV/m dBuV/m dB * 5818.800 35.26 43.92 79.18 54.00 25.18 X 5819.700 44.49 43.93 88.42 68.30 20.12 5850.000 9.09 44.06 53.15 68.30 -15.15 5850.000 -0.79 44.06 43.27 54.00 -10.73 5860.000 8.84 44.10 52.94 68.30 -15.36	MHz dBuV dB dBuV/m dBuV/m dB Detector * 5818.800 35.26 43.92 79.18 54.00 25.18 AVG X 5819.700 44.49 43.93 88.42 68.30 20.12 peak 5850.000 9.09 44.06 53.15 68.30 -15.15 peak 5850.000 -0.79 44.06 43.27 54.00 -10.73 AVG 5860.000 8.84 44.10 52.94 68.30 -15.36 peak	MHz dBuV dB dBuV/m dBuV/m dB Detector Comment * 5818.800 35.26 43.92 79.18 54.00 25.18 AVG no limit X 5819.700 44.49 43.93 88.42 68.30 20.12 peak no limit 5850.000 9.09 44.06 53.15 68.30 -15.15 peak 5850.000 -0.79 44.06 43.27 54.00 -10.73 AVG 5860.000 8.84 44.10 52.94 68.30 -15.36 peak

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11650.88	34.70	12.84	47.54	68.30	-20.76	peak		
		11650.88	24.79	12.84	37.63	54.00	-16.37	AVG		

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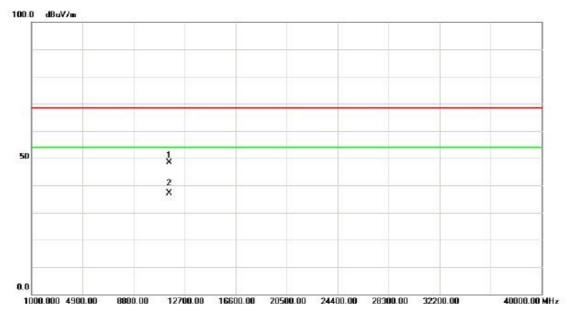
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

No. Mk.	Mk	Freq.	Freq.	Freq.	Reading Level	Correct	Measure- ment	Limit			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment			
	5715.000	9.01	43.47	52.48	68.30	-15.82	peak				
	5715.000	-0.29	43.47	43.18	54.00	-10.82	AVG				
	5725.000	11.08	43.51	54.59	68.30	-13.71	peak				
	5725.000	-0.36	43.51	43.15	54.00	-10.85	AVG				
*	5756.800	41.07	43.65	84.72	54.00	30.72	AVG	no limit			
X	5769.200	50.66	43.70	94.36	68.30	26.06	peak	no limit			
	*	MHz 5715.000 5715.000 5725.000 5725.000 * 5756.800	Mk. Freq. Level MHz dBuV 5715.000 9.01 5715.000 -0.29 5725.000 11.08 5725.000 -0.36 * 5756.800 41.07	Mk. Freq. Level Factor MHz dBuV dB 5715.000 9.01 43.47 5715.000 -0.29 43.47 5725.000 11.08 43.51 5725.000 -0.36 43.51 * 5756.800 41.07 43.65	Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m 5715.000 9.01 43.47 52.48 5715.000 -0.29 43.47 43.18 5725.000 11.08 43.51 54.59 5725.000 -0.36 43.51 43.15 * 5756.800 41.07 43.65 84.72	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m 5715.000 9.01 43.47 52.48 68.30 5715.000 -0.29 43.47 43.18 54.00 5725.000 11.08 43.51 54.59 68.30 5725.000 -0.36 43.51 43.15 54.00 * 5756.800 41.07 43.65 84.72 54.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 5715.000 9.01 43.47 52.48 68.30 -15.82 5715.000 -0.29 43.47 43.18 54.00 -10.82 5725.000 11.08 43.51 54.59 68.30 -13.71 5725.000 -0.36 43.51 43.15 54.00 -10.85 * 5756.800 41.07 43.65 84.72 54.00 30.72	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector 5715.000 9.01 43.47 52.48 68.30 -15.82 peak 5715.000 -0.29 43.47 43.18 54.00 -10.82 AVG 5725.000 11.08 43.51 54.59 68.30 -13.71 peak 5725.000 -0.36 43.51 43.15 54.00 -10.85 AVG * 5756.800 41.07 43.65 84.72 54.00 30.72 AVG			

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



No.	М	k. Freq.			Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11511.20	35.37	12.93	48.30	68.30	-20.00	peak		
2	*	11511.20	24.19	12.93	37.12	54.00	-16.88	AVG		

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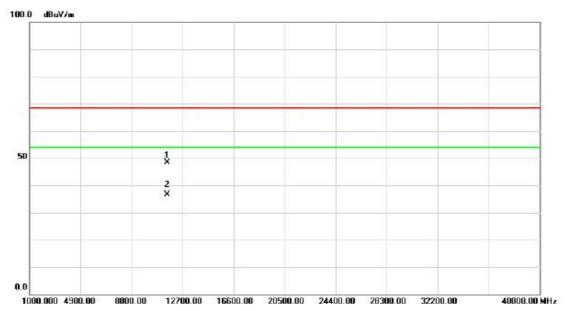
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5755MHz

No.	No. Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		5715.000	10.25	43.47	53.72	68.30	-14.58	peak	
2		5715.000	-0.54	43.47	42.93	54.00	-11.07	AVG	
3		5725.000	8.37	43.51	51.88	68.30	-16.42	peak	
4		5725.000	-0.78	43.51	42.73	54.00	-11.27	AVG	
5	*	5758.200	31.72	43.66	75.38	54.00	21.38	AVG	no limit
6	X	5758.800	41.14	43.66	84.80	68.30	16.50	peak	no limit

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

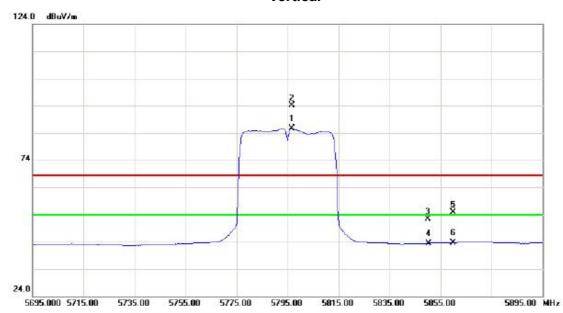


No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11510.99	35.50	12.93	48.43	68.30	-19.87	peak		
		11510.99	23.58	12.93	36.51	54.00	-17.49	AVG		

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

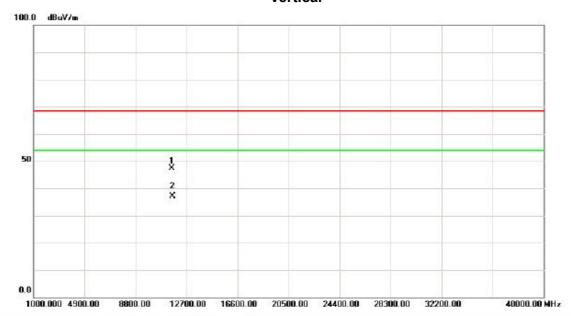


Mk	۲.	Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
*	57	796.600	41.69	43.83	85.52	54.00	31.52	AVG	no limit	
X	57	796.800	50.40	43.83	94.23	68.30	25.93	peak	no limit	
	58	350.000	8.38	44.06	52.44	68.30	-15.86	peak		
	58	350.000	-0.67	44.06	43.39	54.00	-10.61	AVG		
	58	860.000	10.81	44.10	54.91	68.30	-13.39	peak		
	58	860.000	-0.40	44.10	43.70	54.00	-10.30	AVG		
	*	X 57 58 58	MHz	Mk. Freq. Level MHz dBuV * 5796.600 41.69 X 5796.800 50.40 5850.000 8.38 5850.000 -0.67 5860.000 10.81	Mk. Freq. Level Factor MHz dBuV dB * 5796.600 41.69 43.83 X 5796.800 50.40 43.83 5850.000 8.38 44.06 5850.000 -0.67 44.06 5860.000 10.81 44.10	Mk. Freq. Level Factor ment MHz dBuV dB dBuV/m * 5796.600 41.69 43.83 85.52 X 5796.800 50.40 43.83 94.23 5850.000 8.38 44.06 52.44 5850.000 -0.67 44.06 43.39 5860.000 10.81 44.10 54.91	Mk. Freq. Level Factor ment Limit MHz dBuV dB dBuV/m dBuV/m dBuV/m * 5796.600 41.69 43.83 85.52 54.00 X 5796.800 50.40 43.83 94.23 68.30 5850.000 8.38 44.06 52.44 68.30 5850.000 -0.67 44.06 43.39 54.00 5860.000 10.81 44.10 54.91 68.30	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dBuV/m dB * 5796.600 41.69 43.83 85.52 54.00 31.52 X 5796.800 50.40 43.83 94.23 68.30 25.93 5850.000 8.38 44.06 52.44 68.30 -15.86 5850.000 -0.67 44.06 43.39 54.00 -10.61 5860.000 10.81 44.10 54.91 68.30 -13.39	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dBuV/m dB Detector * 5796.600 41.69 43.83 85.52 54.00 31.52 AVG X 5796.800 50.40 43.83 94.23 68.30 25.93 peak 5850.000 8.38 44.06 52.44 68.30 -15.86 peak 5850.000 -0.67 44.06 43.39 54.00 -10.61 AVG 5860.000 10.81 44.10 54.91 68.30 -13.39 peak	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV/m dB uV/m dB Detector Comment * 5796.600 41.69 43.83 85.52 54.00 31.52 AVG no limit X 5796.800 50.40 43.83 94.23 68.30 25.93 peak no limit 5850.000 8.38 44.06 52.44 68.30 -15.86 peak 5850.000 -0.67 44.06 43.39 54.00 -10.61 AVG 5860.000 10.81 44.10 54.91 68.30 -13.39 peak

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11590.24	34.58	12.88	47.46	68.30	-20.84	peak		
		11590.24	24.34	12.88	37.22	54.00	-16.78	AVG		

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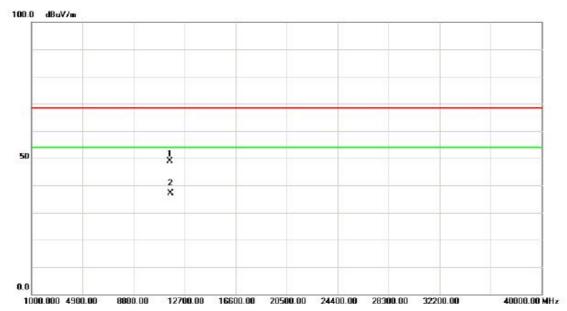
Orthogonal Axis:	X
Test Mode:	UNII-3/TX N40 Mode 5795MHz

No.	Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5796.600	31.90	43.83	75.73	54.00	21.73	AVG	no limit	
2	X	5799.200	41.45	43.84	85.29	68.30	16.99	peak	no limit	
3		5850.000	8.41	44.06	52.47	68.30	-15.83	peak		
4		5850.000	-0.82	44.06	43.24	54.00	-10.76	AVG		
5		5860.000	10.40	44.10	54.50	68.30	-13.80	peak		
6		5860.000	-0.59	44.10	43.51	54.00	-10.49	AVG		

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11590.10	35.91	12.88	48.79	68.30	-19.51	peak		
		11590.10	24.35	12.88	37.23	54.00	-16.77	AVG		

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

No.	M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
5		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5150.000	11.86	41.39	53.25	68.30	-15.05	peak		
2		5150.000	0.03	41.39	41.42	54.00	-12.58	AVG		
3	*	5174.300	47.18	41.47	88.65	54.00	34.65	AVG	no limit	
4	X	5185.600	56.40	41.51	97.91	68.30	29.61	peak	no limit	

5190.00

5200.00

5210.00

5230.00 MHz

5170.00 5180.00

23.0

5130.000 5140.00

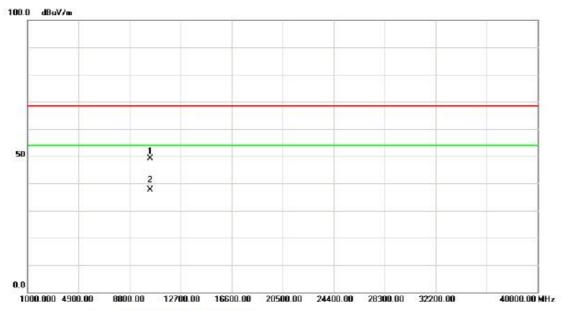
5150.00

5160.00

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

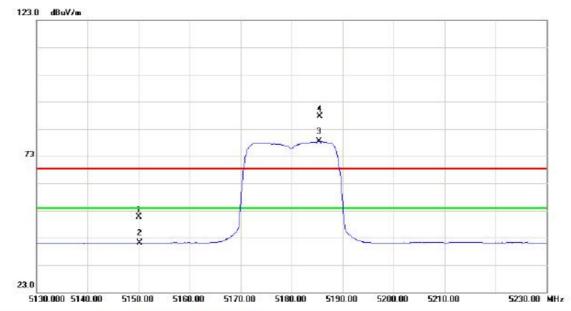


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10362.77	38.01	11.10	49.11	68.30	-19.19	peak		
2	*	10362.77	26.46	11.10	37.56	54.00	-16.44	AVG		

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

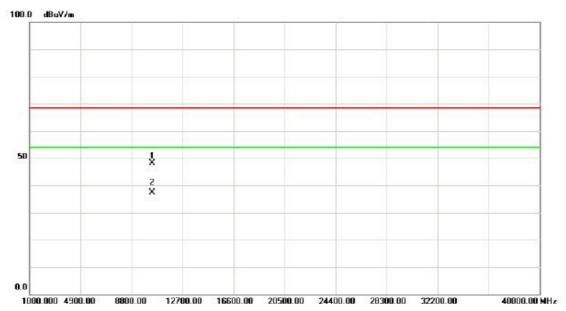


No.	Mk	K .	Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		515	50.000	9.24	41.39	50.63	68.30	-17.67	peak		
2		515	50.000	-0.23	41.39	41.16	54.00	-12.84	AVG		
3	*	518	35.400	36.85	41.51	78.36	54.00	24.36	AVG	no limit	
4	Х	518	35.500	46.19	41.51	87.70	68.30	19.40	peak	no limit	

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10360.14	37.12	11.10	48.22	68.30	-20.08	peak		
2	*	10360.14	26.31	11.10	37.41	54.00	-16.59	AVG		

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

Vertical 123.0 dBuV/m 3 1 73 5150.000 5160.00 5170.00 5190.00 5200.00 5210.00 5220.00 5230.00 5230.00 5250.00 MHz

No.	MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		100	
			MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	*	52	05.400	47.66	41.57	89.23	54.00	35.23	AVG	no limit	
2	X	52	07.000	57.29	41.58	98.87	68.30	30.57	peak	no limit	

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10400.45	36.20	11.05	47.25	68.30	-21.05	peak		
2	*	10400.45	25.52	11.05	36.57	54.00	-17.43	AVG		

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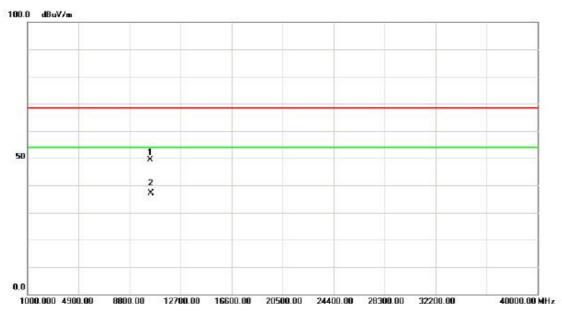
Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

No.	М	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
5			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	52	05.500	36.23	41.57	77.80	54.00	23.80	AVG	no limit	
2	X	52	05.800	45.84	41.57	87.41	68.30	19.11	peak	no limit	

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5200MHz

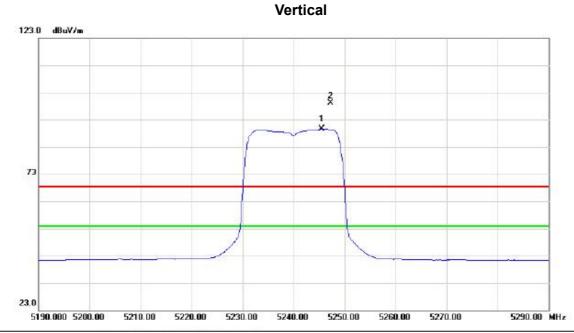


No.	Mk	. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10401.72	38.28	11.05	49.33	68.30	-18.97	peak		
2	*	10401.72	26.10	11.05	37.15	54.00	-16.85	AVG		

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Orthogonal Axis:	x
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz



No.	Mk	Mk	Mk.	Mk.	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz dBuV	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment				
1	*	524	5.500	47.83	41.70	89.53	54.00	35.53	AVG	no limit				
2	X	524	7.300	57.47	41.71	99.18	68.30	30.88	peak	no limit				

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Orthogonal Axis:	X
Test Mode:	UNII-1/ TX AC20 Mode 5240MHz



No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		10481.24	36.57	10.94	47.51	68.30	-20.79	peak		
2		10481.24	25.27	10.94	36.21	54.00	-17.79	AVG		

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