

# FCC Radio Test Report

FCC ID: SIB-BGTAB-NV24A-1

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

Project No. : 1411C077
Equipment : dreamtab
Model Name : BGTAB-NV24A

**Applicant**: Foxconn International Inc

Address : NO 2 ZIYOU ST TUCHENG DISTRICT NEW

TAIPEI,236 Taiwan

Date of Receipt : Nov. 10, 2014

**Date of Test** : Nov. 10, 2014~Nov. 25, 2014

Issued Date : Nov. 26, 2014
Tested by : BTL Inc.

Testing Engineer : Savid Mao

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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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# **REPORT ISSUED HISTORY**

Issued No.	Description	Issued Date
BTL-FCCP-5-1411C077	Original Issue.	Nov. 26, 2014

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## 1. CERTIFICATION

Equipment : dreamtab Brand Name: Nabi

Model Name: BGTAB-NV24A

Applicant : Foxconn International Inc

Manufacturer: FUHU INC.

Address : 909N., Sepulveda Blvd., Suite 540, E1 Segundo, CA 90245 Factory : HONGFUJIN Precision Electronics (Chong Qing) Co., Lta. : No.1, 1st E District RD., Shapingba District, Chongqing 401332, P.R. China

Date of Test : Nov. 10, 2014~Nov. 25, 2014 Test Sample: ENGINEERING SAMPLE

Standard(s) : FCC Part15, Subpart C(15.247) / ANSI C63.4-2009

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-5-1411C077) 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):

Applied Standard(s): FCC Part15 (15.247) , Subpart C				
Standard(s) Section	Test Item	Judgment	Remark	
FCC	rest item	oddgillelli	Remark	
15.207	Conducted Emission	PASS		
15.247(d)	Antenna conducted Spurious Emission	PASS		
15.247(a)(2)	6dB Bandwidth	PASS		
15.247(b)(3)	Peak Output Power	PASS		
15.247(e)	Power Spectral Density	PASS		
15.203	Antenna Requirement	PASS		
15.209/15.205	Transmitter Radiated Emissions	PASS		

# NOTE:

(1)" N/A" denotes test is not applicable in this test report.

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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	3.40	

# 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	dreamtab		
Brand Name	Nabi		
Model Name	BGTAB-NV24A		
Mode Different	N/A		
	Operation Frequency	UNII-3: 5745~5825 MHz	
	Modulation Type	OFDM	
Product Description	Bit Rate of Transmitter	300Mbps	
	Output Power (Max.)for UNII-3	802.11a: 21.17dBm 802.11n (20M): 23.13dBm 802.11n (40M): 23.09dBm	
Power Source	#1 DC supplied from AC Adapter. Model: ADS-65LSI-19-3 19065G #2 Supplied from rechargeable Li-ion polymer battery. 1) Brand / Model: McNair / MLP2462113-2S 2) Manufacturer: HongKong Highpower Technology Co., Ltd Model: IN484		
Power Rating	#1 I/P AC 100-240V~ 50/60Hz 1.5A O/P: DC 19V 3.42A #2 7.4V 1650mAh 12.21Wh		

# 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	.11n 40MHz
UNII-3			UNII-3
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755
153	5765	159	5795
157	5785		
161	5805		
165	5825		

# 3. Antenna Specification:

Group 1

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	FOXCONN	PCA-3007-25GC1-A2	Integral	N/A	-1.31	360mm
2	FOXCONN	PCA-3007-25GC1-A5	Integral	N/A	-3.46	65mm

**Group 2** 

0.040 =						
Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	MAG Corporation	PCA-3007-25GC1-A2	Integral	N/A	2.24	360mm
2	MAG Corporation	PCA-3007-25GC1-A5	Integral	N/A	1.92	65mm

#### Note

- 1.The EUT incorporates a MIMO function. Physically, the EUT provides two completed two transmitters and two receivers (2T2R).
- 2. ANT 1 for 1TX was found to be the worst case and recorded.
- 3. Two groups of antenna were used with the same type, only differ in manufacturer and gain. Group 2 was tested and recorded as the worst case in this report.

4.

Operating Mode  TX Mode	1TX	2TX
802.11a	V (ANT 1 )	-
802.11n (20MHz)	-	V (ANT 1 + ANT 2)
802.11n (40MHz)	-	V (ANT 1 + ANT 2)

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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 / CH149,CH157,CH165 (UNII-3)
Mode 2	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 3	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 4	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 4	TX Mode	

For Radiated Test		
Final Test Mode	Description	
Mode 1	TX A Mode / CH149,CH157,CH165 (UNII-3)	
Mode 2	TX N20 Mode / CH149,CH157,CH165 (UNII-3)	
Mode 3	TX N40 Mode / CH151,CH159 (UNII-3)	

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

(2) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis. The worst case was found positioned on Z-plane. Therefore only the test data of this Z-plane was used for radiated emission measurement test.

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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-3				
Test Software Version	N/A			
Frequency (MHz)	5745	5785	5825	
A Mode	14	14	14	
N20 Mode	13	13	13	
Frequency (MHz)	5755	5795		
N40 Mode	14	13		

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3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED						
			EUT			
	SCRIPTION C					
The El	rt units. The fo	tested as a	n independent unit to	gether with other neces	ssary accesso	
configu	uration during	the tests.	port units of accessor	les were used to form	a representativ	ries or ve test
configu		the tests.  Mfr/Brand	Model/Type No.	FCC ID	a representativ	ries or ve test Note
configu		the tests.			a representativ	ve test
Item	Equipment -	Mfr/Brand	Model/Type No.	FCC ID	Series No.	ve test
configu		Mfr/Brand	Model/Type No.		Series No.	ve test

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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.

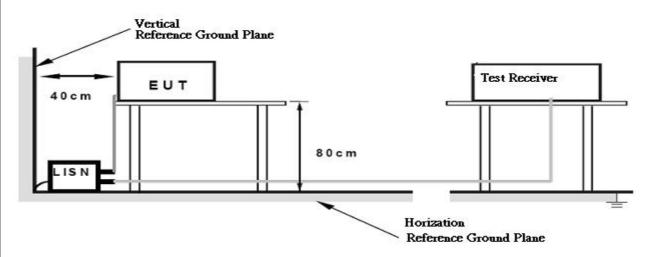
### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation

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#### 4.1.4 TEST SETUP



#### 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

# LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Fraguency (MHz)	(dBuV/m) (at 3 meters)	
Frequency (MHz)	PEAK	AVERAGE
Above 1000	74	54

# Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C..
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	AND I / AND I for Dook A MULE / ADD I for Average
(Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter Setting	
Attenuation	Auto
Start ~ Stop Frequency	9KHz~90KHz for PK/AVG detector
Start ~ Stop Frequency	90KHz~110KHz for QP detector
Start ~ Stop Frequency	110KHz~490KHz for PK/AVG detector
Start ~ Stop Frequency	490KHz~30MHz for QP detector
Start ~ Stop Frequency	30MHz~1000MHz for QP detector

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#### **4.2.2 TEST PROCEDURE**

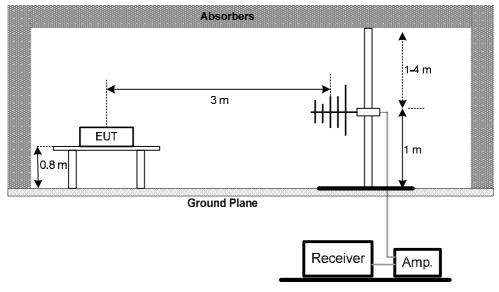
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- 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

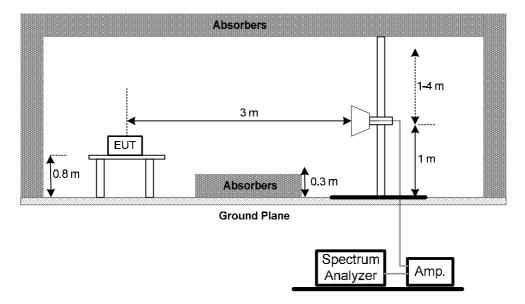
# (A) Radiated Emission Test Set-Up Frequency30 - 1000MHz



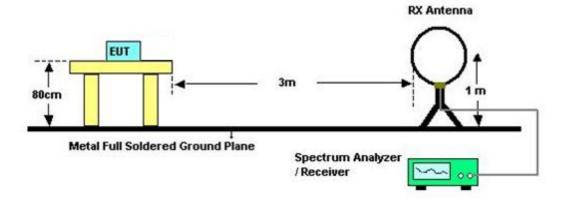
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# (B) Radiated Emission Test Set-Up Frequency Above 1 GHz



# (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: DC7.4V

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# 4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Attachment B

# 4.2.8 TEST RESULTS (BETWEEN 30 TO 1000 MHz)

Please refer to the Attachment C.

#### Remark:

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.

## 4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Attachment D.

#### Remark:

- (1) Spectrum Setting: 30MHz 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated AV in column of <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  $\circ$
- (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 (15.247) , Subpart C					
Section Test Item Limit Frequency Range (MHz) Result					
15.247(b)(3) Bandwidth >=500KHz 5745 - 5825 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 Setting: RBW= 100KHz, VBW=300KHz, Sweep time = Auto.

### **5.1.2 DEVIATION FROM STANDARD**

No deviation.

# 5.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

## **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: DC7.4V

### **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 (15.247)				
Section Test Item Limit Frequency Range (MHz) Result				
15.247(b)(3)	Conducted	1 Watt (30dBm)	5745 - 5825	PASS
	Output Power		0.10 00=0	

# **6.1.1 TEST PROCEDURE**

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

# **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: DC7.4V

# 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

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

### 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 Setting: RBW= 100KHz, VBW=300KHz, 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: DC7.4V

#### 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 (15.247) , Subpart C					
Section	Frequency Range (MHz)	Result			
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	5745 - 5825	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 Setting: RBW=3KHz, VBW=10KHz, Sweep time = Auto.

# **8.1.1 DEVIATION FROM STANDARD**

No deviation.

## 8.1.2 TEST SETUP

EUT	SPECTRUM
	ANALYZER

# **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: DC7.4V

### 8.1.5 TEST RESULTS

Please refer to the Attachment H.

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# 9. MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	LISN EMCO		3816/2	00052765	Mar. 29, 2015			
2	LISN	R&S	ENV216	100087	Mar. 29, 2015			
3	Test Cable	N/A	C_17	N/A	Mar. 14, 2015			
4	EMI TEST RECEIVER	R&S	ESCS30	826547/022	Mar. 29, 2015			
5	50Ω Terminator	SHX	TF2-3G-A	08122902	Mar. 29, 2015			

	Radiated Emission Measurement							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until			
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 29, 2015			
2	Amplifier	HP	8447D	2944A09673	Mar. 29, 2015			
3	Test Receiver	R&S	ESCI	100382	Mar. 29, 2015			
4	Test Cable	Test Cable N/A		N/A	Jul. 02, 2015			
5	Antenna	ETS	3115	00075789	Mar. 29, 2015			
6	Amplifier	Agilent	8449B	3008A02274	Mar. 29, 2015			
7	Spectrum	Agilent	E4408B	US39240143	Nov. 08, 2015			
8	Test Cable	HUBER+SUHNER	C-45	N/A	Mar. 29, 2015			
9	Controller	СТ	SC100	N/A	N/A			
10	Horn Antenna	EMCO	3115	9605-4803	Mar. 29, 2015			
11	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Mar. 29, 2015			
12	Broad-Band Horn Antenna (40G)	Schwarzbeck	BBHA 9170	9170319	Feb. 22, 2015			

Spectrum Bandwidth Measurement								
Item	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	tem Kind of Equipment Manufacturer Type No. Serial No. Calibrated until							
1	power Meter	ANRITSU	ML2495A	1128009	May. 29, 2015			
2	Pulse Power Sensor	ANRITSU	MA 2411B	1027500	May. 29, 2015			

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	Antenna Conducted Spurious Emission Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	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 un						
1	Spectrum Analyzer	R&S	FSP 40	100185	Nov. 02, 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. EUT TEST PHOTOS**







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# **Radiated Measurement Photos**

# 9KHz to 30MHz





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# **Radiated Measurement Photos**

# **30MHz to 1000MHz**



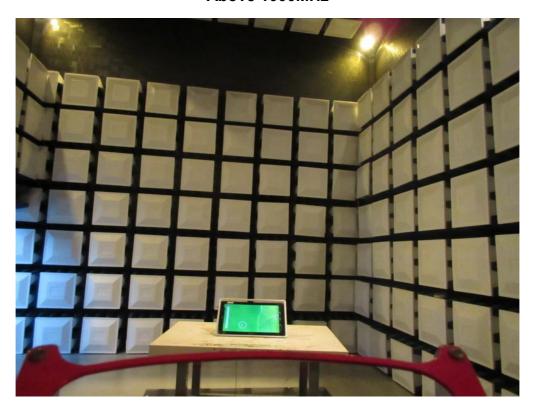


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# **Radiated Measurement Photos**

# Above 1000MHz





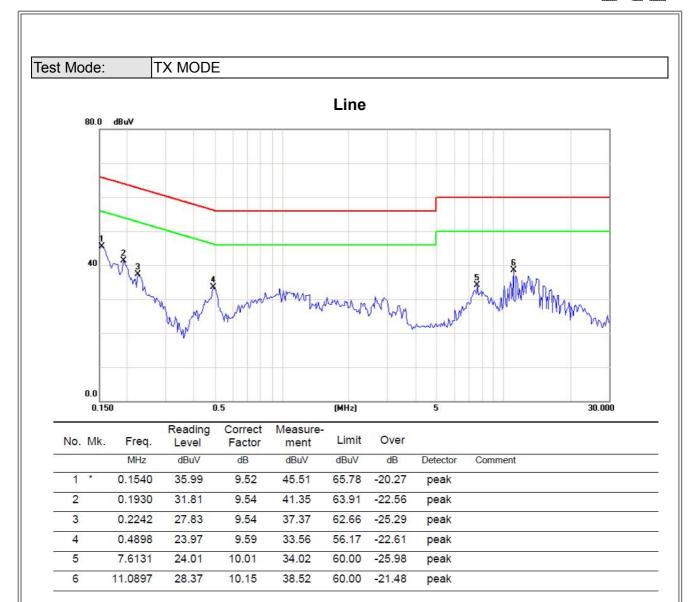
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ATTACHMENT A - CONDUCTED EMISSION

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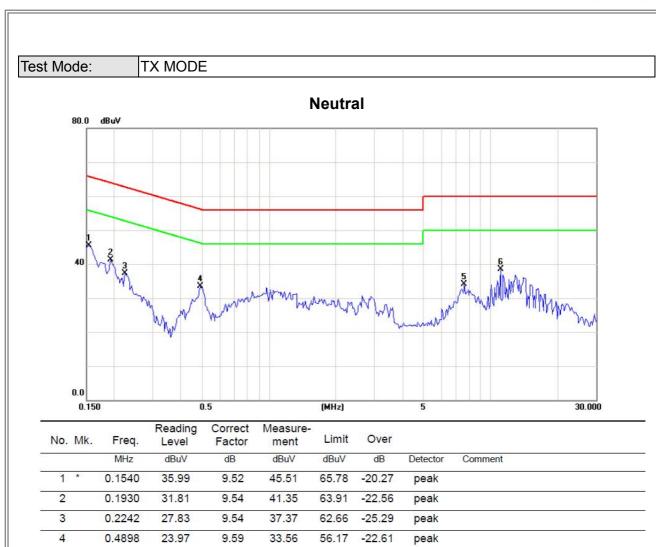




Note: The test result has included the cable loss.

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Note: The test result has included the cable loss.

24.01

28.37

10.01

10.15

34.02

38.52

60.00 -25.98

60.00 -21.48

peak

peak

7.6131

11.0897

5

6

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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
0.0156	0°	13.69	24.58	38.27	103.74	-65.47	AVG
0.0156	0°	14.75	24.58	39.33	123.74	-84.41	PEAK
0.0311	0°	7.21	23.60	30.81	97.75	-66.94	AVG
0.0311	0°	8.76	23.60	32.36	117.75	-85.39	PEAK
0.0385	0°	4.58	23.13	27.71	95.90	-68.19	AVG
0.0385	0°	6.21	23.13	29.34	115.90	-86.56	PEAK
0.0470	0°	3.41	22.59	26.00	94.16	-68.16	AVG
0.0470	0°	4.92	22.59	27.51	114.16	-86.65	PEAK
2.0604	0°	28.75	19.46	48.21	69.54	-21.33	QP
3.3738	0°	21.34	18.94	40.28	69.54	-29.26	QP

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note	
(MHz)	0°/90°	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		
0.0155	90°	13.37	24.30	37.67	123.80	-86.13	AVG	
0.0155	90°	14.89	24.30	39.19	143.80	-104.61	PEAK	
0.0311	90°	6.81	23.60	30.41	117.75	-87.34	AVG	
0.0311	90°	7.92	23.60	31.52	137.75	-106.23	PEAK	
0.0373	90°	5.86	23.20	29.06	116.17	-87.11	AVG	
0.0373	90°	6.97	23.20	30.17	136.17	-106.00	PEAK	
0.0470	90°	5.64	22.59	28.23	114.16	-85.93	AVG	
0.0470	90°	6.43	22.59	29.02	134.16	-105.14	PEAK	
2.0604	90°	28.67	19.46	48.13	69.54	-21.41	QP	
3.2842	90°	17.94	18.93	36.87	69.54	-32.67	QP	

# Remark:

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

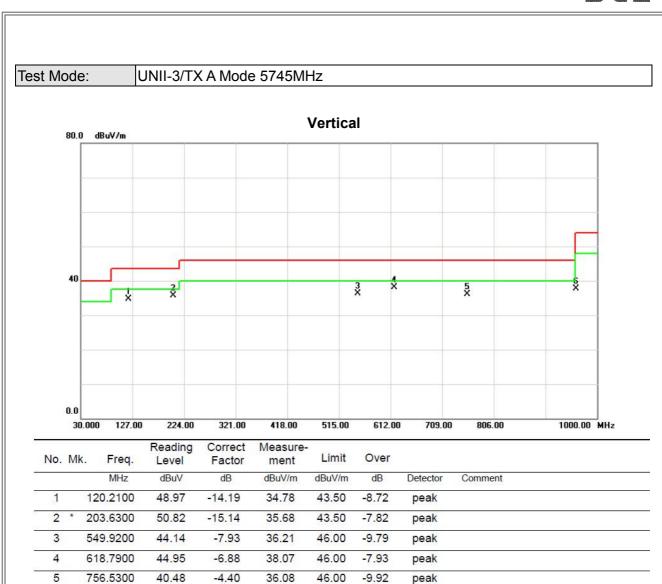
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4	ATTACHMENT C - RADIATED EMISSION (30MHZ TO 1000MHZ)

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6

960.2300

38.02

-0.25

37.77

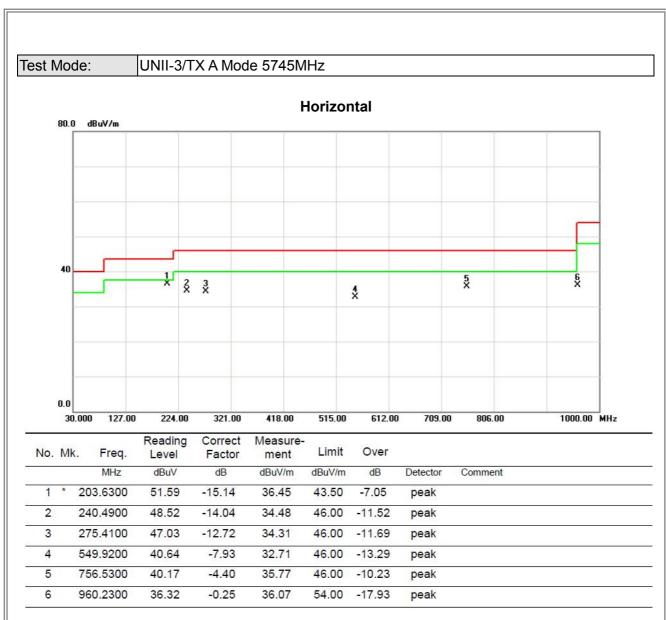
54.00

-16.23

peak

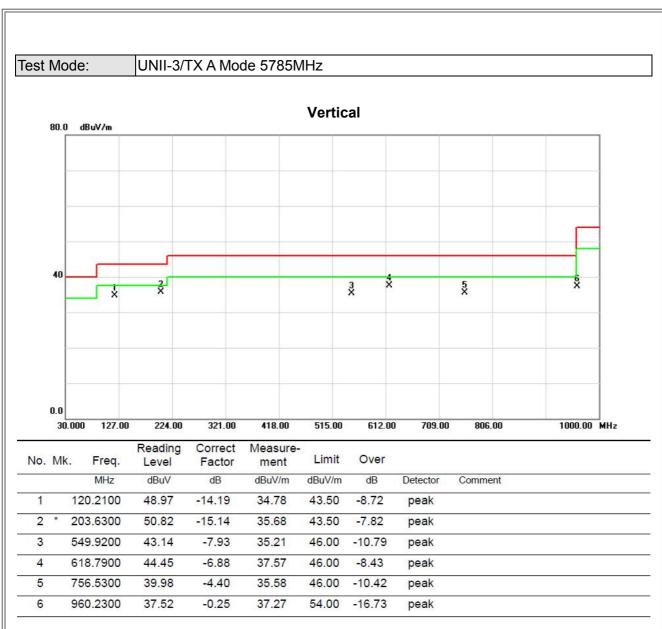
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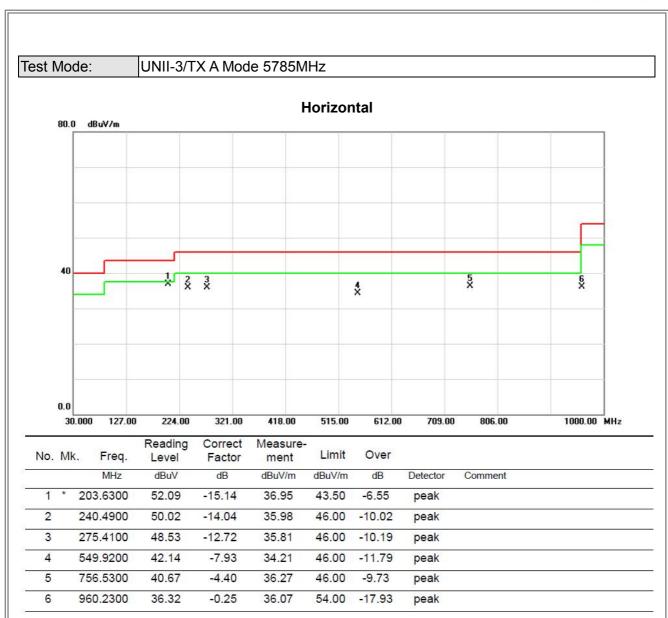
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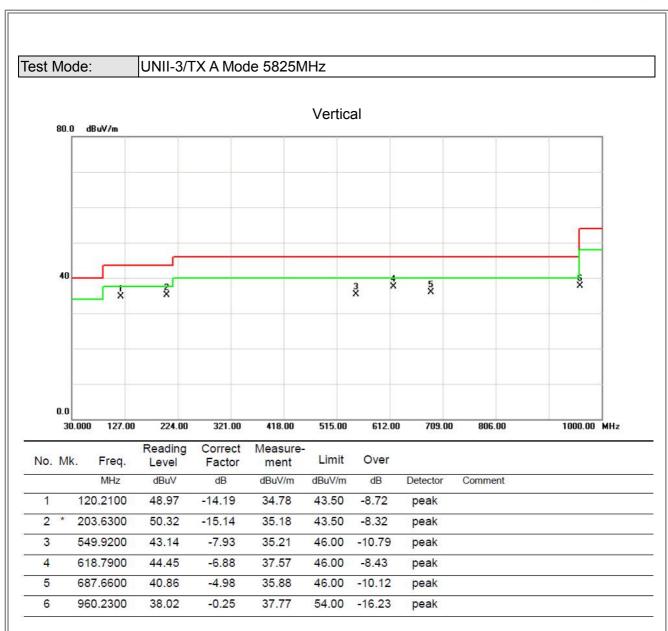
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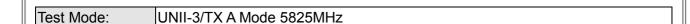
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Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
*	203.6300	52.09	-15.14	36.95	43.50	-6.55	peak	
	240.4900	50.02	-14.04	35.98	46.00	-10.02	peak	
	275.4100	48.53	-12.72	35.81	46.00	-10.19	peak	
	549.9200	41.64	-7.93	33.71	46.00	-12.29	peak	
	756.5300	40.17	-4.40	35.77	46.00	-10.23	peak	
	960.2300	35.82	-0.25	35.57	54.00	-18.43	peak	
	Mk	* 203.6300 240.4900 275.4100 549.9200 756.5300	Mk. Freq. Level  MHz dBuV  * 203.6300 52.09  240.4900 50.02  275.4100 48.53  549.9200 41.64  756.5300 40.17	Mk.         Freq.         Level         Factor           MHz         dBuV         dB           * 203.6300         52.09         -15.14           240.4900         50.02         -14.04           275.4100         48.53         -12.72           549.9200         41.64         -7.93           756.5300         40.17         -4.40	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB         dBuV/m           * 203.6300         52.09         -15.14         36.95           240.4900         50.02         -14.04         35.98           275.4100         48.53         -12.72         35.81           549.9200         41.64         -7.93         33.71           756.5300         40.17         -4.40         35.77	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dBuV/m         dBuV/m           * 203.6300         52.09         -15.14         36.95         43.50           240.4900         50.02         -14.04         35.98         46.00           275.4100         48.53         -12.72         35.81         46.00           549.9200         41.64         -7.93         33.71         46.00           756.5300         40.17         -4.40         35.77         46.00	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dBuV/m         dB           * 203.6300         52.09         -15.14         36.95         43.50         -6.55           240.4900         50.02         -14.04         35.98         46.00         -10.02           275.4100         48.53         -12.72         35.81         46.00         -10.19           549.9200         41.64         -7.93         33.71         46.00         -12.29           756.5300         40.17         -4.40         35.77         46.00         -10.23	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB         Detector           * 203.6300         52.09         -15.14         36.95         43.50         -6.55         peak           240.4900         50.02         -14.04         35.98         46.00         -10.02         peak           275.4100         48.53         -12.72         35.81         46.00         -10.19         peak           549.9200         41.64         -7.93         33.71         46.00         -12.29         peak           756.5300         40.17         -4.40         35.77         46.00         -10.23         peak

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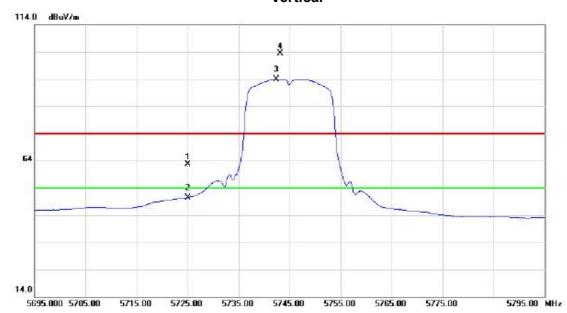


ATTACHMENT D - RADIATED EMISSION (ABOVE 1000MHZ)

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

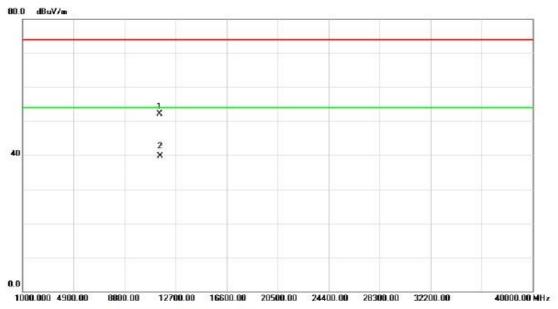


No.	M	Κ.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		57	25.000	18.16	44.58	62.74	74.00	-11.26	peak		
2		57:	25.000	5.92	44.58	50.50	54.00	-3.50	AVG		
3	*	574	42.400	49.10	44.67	93.77	54.00	39.77	AVG	NO LIMIT	
4	X	574	43.160	58.83	44.67	103.50	74.00	29.50	peak	NO LIMIT	

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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		11491.26	35.65	16.47	52.12	74.00	-21.88	peak	
2	*	11492.48	23.17	16.47	39.64	54.00	-14.36	AVG	

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

## 

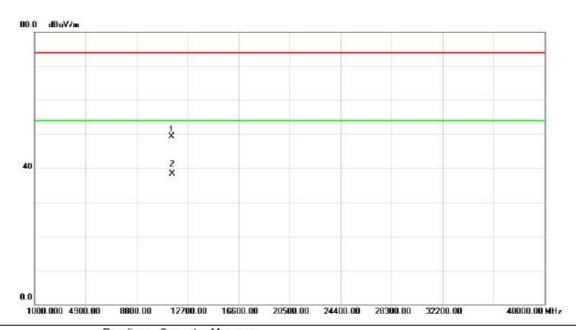
No.	M	<b>K</b> .	Freq.	Level	Factor	ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		57	25.000	18.38	44.58	62.96	74.00	-11.04	peak		
2		57	25.000	4.71	44.58	49.29	54.00	-4.71	AVG		
3	X	57	42.160	60.38	44.67	105.05	74.00	31.05	peak	NO LIMIT	
4	*	57	42.380	50.55	44.67	95.22	54.00	41.22	AVG	NO LIMIT	

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

### Horizontal



No.	Mk	c. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11488.36	32.83	16.47	49.30	74.00	-24.70	peak		
		11489.71	21.92	16.47	38.39	54.00	-15.61	AVG		

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

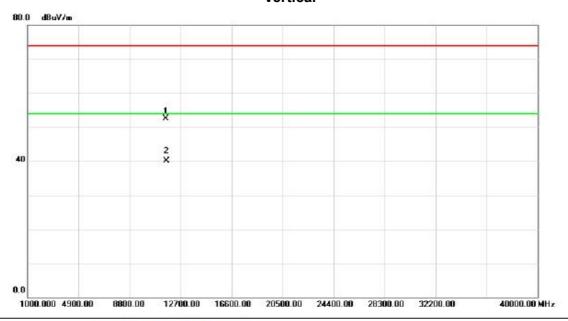
# Vertical 114.0 dBuV/m 2 14.0 5735.000 5745.00 5755.00 5765.00 5775.00 5785.00 5795.00 5805.00 5815.00 5835.00 MHz

No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		100	
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	57	86.100	57.31	44.90	102.21	74.00	28.21	peak	NO LIMIT	
2	*	57	86.300	49.02	44.90	93.92	54.00	39.92	AVG	NO LIMIT	

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



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11570.43	36.07	16.44	52.51	74.00	-21.49	peak		
		11570.85	23.71	16.44	40.15	54.00	-13.85	AVG		

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

## 

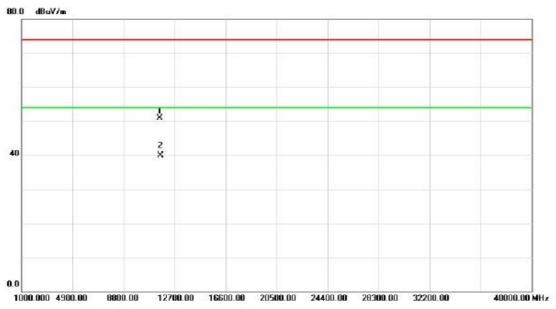
No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		111	
			MHz dBu'	dBuV	dBuV dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	57	86.170	61.32	44.90	106.22	74.00	32.22	peak	NO LIMIT	
2	*	57	87.700	52.57	44.91	97.48	54.00	43.48	AVG	NO LIMIT	

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

### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11569.32	34.53	16.44	50.97	74.00	-23.03	peak	
2	*	11570.81	23.41	16.44	39.85	54.00	-14.15	AVG	

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

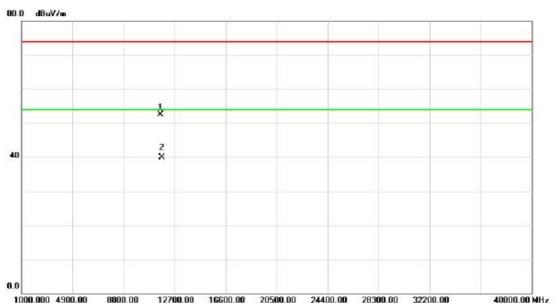
## 

No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5821.300	57.99	45.07	103.06	74.00	29.06	peak	NO LIMIT	
2	*	5822.100	48.53	45.08	93.61	54.00	39.61	AVG	NO LIMIT	
3		5850.000	14.76	45.23	59.99	74.00	-14.01	peak		
4		5850.000	1.37	45.23	46.60	54.00	-7.40	AVG		

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



No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11649.38	36.13	16.40	52.53	74.00	-21.47	peak		
-		11649.76	23.54	16.40	39.94	54.00	-14.06	AVG		

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

# Horizontal 114.0 dBuV/m 2 X 14.0 5775.000 5785.00 5795.00 5805.00 5815.00 5825.00 5835.00 5835.00 5855.00 5875.00 MHz

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5821.300	61.38	45.07	106.45	74.00	32.45	peak	NO LIMIT	
2	*	5821.700	52.61	45.08	97.69	54.00	43.69	AVG	NO LIMIT	
3		5850.000	18.25	45.23	63.48	74.00	-10.52	peak		
4		5850.000	5.34	45.23	50.57	54.00	-3.43	AVG		

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

### Horizontal



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11648.00	35.71	16.40	52.11	74.00	-21.89	peak		
		11649.13	23.52	16.40	39.92	54.00	-14.08	AVG		

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

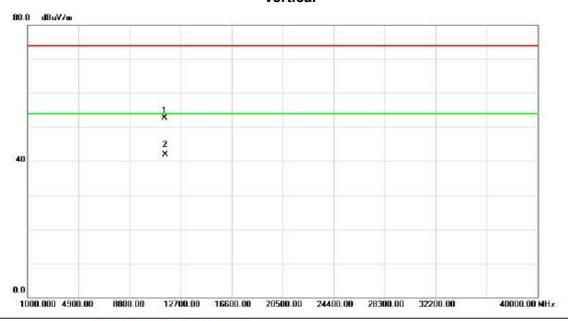
# Vertical 114.0 dBuV/m 3 4 4 7 14.0 5695.000 5705.00 5715.00 5725.00 5735.00 5745.00 5755.00 5765.00 5775.00 5795.00 MHz

No.	M	k. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
	625 (4	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5725.000	15.26	44.58	59.84	74.00	-14.16	peak		
2		5725.000	3.83	44.58	48.41	54.00	-5.59	AVG		
3	X	5742.700	59.15	44.67	103.82	74.00	29.82	peak	NO LIMIT	
4	*	5742.900	49.27	44.67	93.94	54.00	39.94	AVG	NO LIMIT	

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



No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11488.16	36.17	16.47	52.64	74.00	-21.36	peak		
2	*	11489.38	25.35	16.47	41.82	54.00	-12.18	AVG		

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

## 

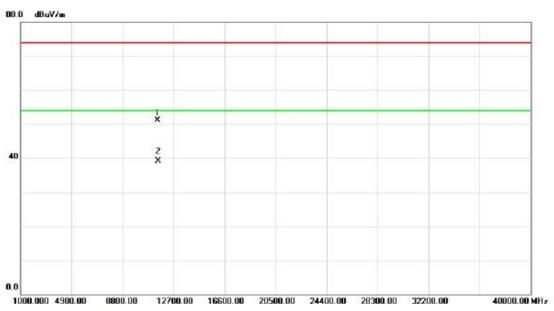
No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	60 0	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5725.000	17.69	44.58	62.27	74.00	-11.73	peak		
2		5725.000	5.34	44.58	49.92	54.00	-4.08	AVG		
3	*	5742.200	50.76	44.67	95.43	54.00	41.43	AVG	NO LIMIT	
4	X	5746.800	61.13	44.70	105.83	74.00	31.83	peak	NO LIMIT	

Report No.: BTL-FCCP-5-1411C077 Page 57 of 103



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

### Horizontal

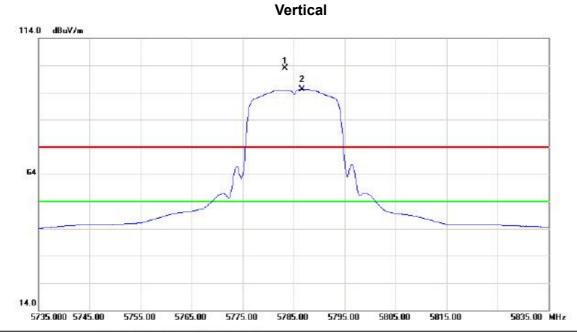


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11489.64	34.71	16.47	51.18	74.00	-22.82	peak	
2	*	11490.93	22.56	16.47	39.03	54.00	-14.97	AVG	

Report No.: BTL-FCCP-5-1411C077 Page 58 of 103



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

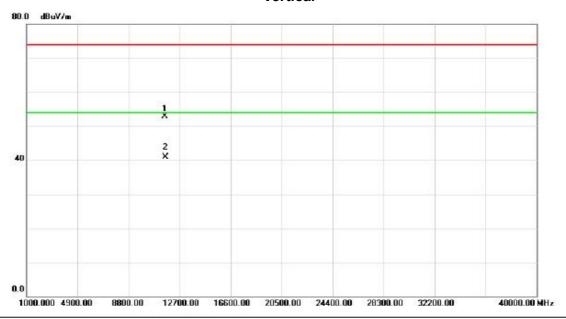


No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		701	
			MHz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment		
1	X	57	783.300	58.02	44.89	102.91	74.00	28.91	peak	NO LIMIT	
2	*	57	86.600	50.27	44.90	95.17	54.00	41.17	AVG	NO LIMIT	

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



No.	Mk.	. Freq.		Correct Factor		Limit dBuV/m	Over			
								Detector	Comment	
1		11571.38	36.52	16.44	52.96	74.00	-21.04	peak		
2	*	11571.49	24.38	16.44	40.82	54.00	-13.18	AVG		

Report No.: BTL-FCCP-5-1411C077 Page 60 of 103



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

## 

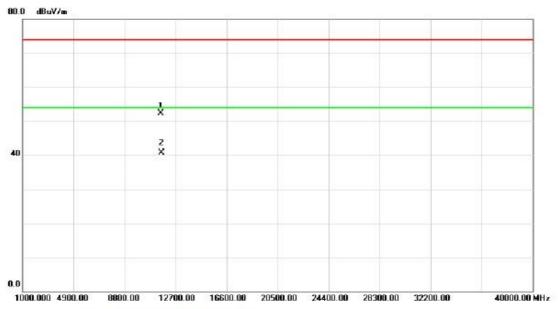
No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	57	786.800	60.83	44.90	105.73	74.00	31.73	peak	NO LIMIT	
2	*	57	787.300	51.77	44.90	96.67	54.00	42.67	AVG	NO LIMIT	

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

### Horizontal



No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11571.11	35.93	16.44	52.37	74.00	-21.63	peak		
2	*	11571.29	24.34	16.44	40.78	54.00	-13.22	AVG		

Report No.: BTL-FCCP-5-1411C077 Page 62 of 103



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

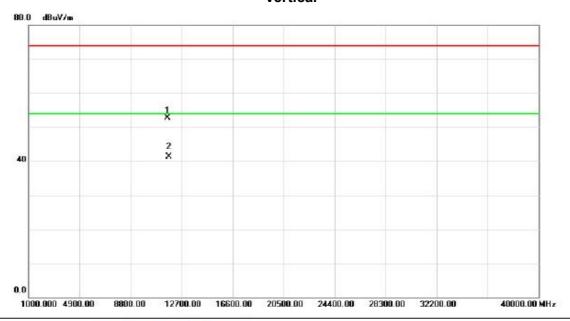
## 

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5822.300	60.91	45.08	105.99	74.00	31.99	peak	NO LIMIT	
2	*	5822.500	50.54	45.09	95.63	54.00	41.63	AVG	NO LIMIT	
3		5850.000	18.61	45.23	63.84	74.00	-10.16	peak		
4		5850.000	6.25	45.23	51.48	54.00	-2.52	AVG		

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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	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11648.13	36.23	16.40	52.63	74.00	-21.37	peak		
		11649.25	24.91	16.40	41.31	54.00	-12.69	AVG		

Report No.: BTL-FCCP-5-1411C077 Page 64 of 103



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

## 

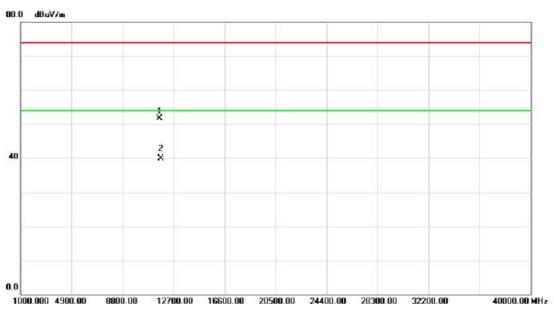
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	5821.700	52.15	45.08	97.23	54.00	43.23	AVG	NO LIMIT	
2	X	5822.800	61.75	45.09	106.84	74.00	32.84	peak	NO LIMIT	
3		5850.000	20.16	45.23	65.39	74.00	-8.61	peak		
4		5850.000	5.90	45.23	51.13	54.00	-2.87	AVG		

Report No.: BTL-FCCP-5-1411C077 Page 65 of 103



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

### Horizontal



No.	Mk	. Freq.		Correct	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11650.81	35.32	16.40	51.72	74.00	-22.28	peak		
2	*	11650.87	23.53	16.40	39.93	54.00	-14.07	AVG		

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

# Vertical 114.0 dBuV/m 64 2 14.0 5695.000 5675.00 5695.00 5715.00 5735.00 5795.00 5795.00 5815.00 5855.00 MHz

No.	M	k. Freq.	Reading Level	Correct	Measure- ment	Limit	Over			
5		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		5725.000	26.23	44.58	70.81	74.00	-3.19	peak		
2	X	5725.000	11.18	44.58	55.76	54.00	1.76	AVG		
3	X	5760.100	57.21	44.76	101.97	74.00	27.97	peak	NO LIMIT	
4	*	5761.400	47.09	44.77	91.86	54.00	37.86	AVG	NO LIMIT	

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



No. MI	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over				
			MHz dBu	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		115	511.39	34.21	16.48	50.69	74.00	-23.31	peak		
2	*	115	511.43	22.39	16.48	38.87	54.00	-15.13	AVG		

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

# Horizontal 115.0 dBuV/m 65 2 15.0 5655.000 5675.00 5695.00 5715.00 5795.00 5795.00 5795.00 5815.00 5885.00 MHz

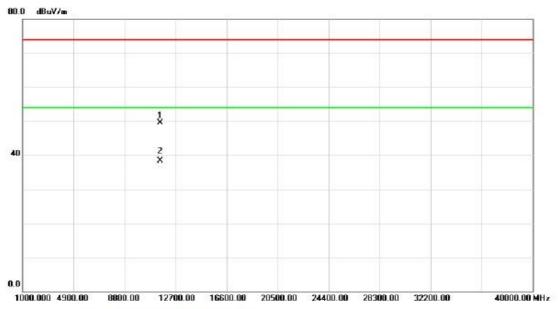
No.	M	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5725.000	30.13	44.58	74.71	74.00	0.71	peak		
2	X	5725.000	13.33	44.58	57.91	54.00	3.91	AVG		
3	X	5756.200	60.40	44.74	105.14	74.00	31.14	peak	NO LIMIT	
4	*	5758.600	49.63	44.76	94.39	54.00	40.39	AVG	NO LIMIT	

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

### Horizontal



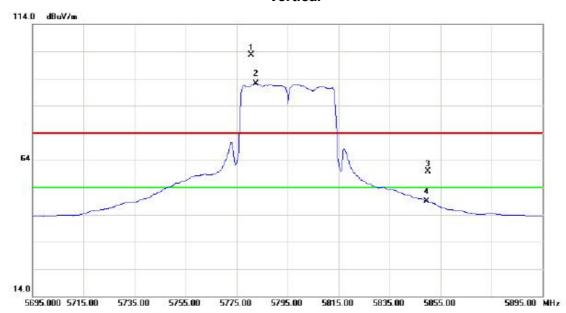
No. N	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11508.71	33.01	16.49	49.50	74.00	-24.50	peak		
2	*	11509.35	21.84	16.49	38.33	54.00	-15.67	AVG		

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

### Vertical

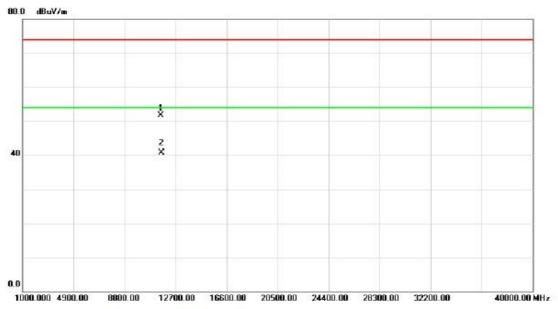


No.	M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
0		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5780.700	57.76	44.87	102.63	74.00	28.63	peak	NO LIMIT	
2	*	5782.600	47.32	44.87	92.19	54.00	38.19	AVG	NO LIMIT	
3		5850.000	14.70	45.23	59.93	74.00	-14.07	peak		
4		5850.000	3.58	45.23	48.81	54.00	-5.19	AVG		

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



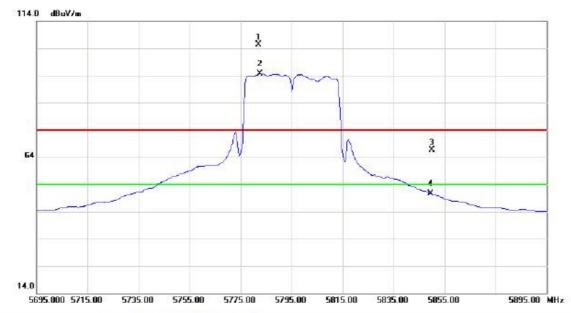
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		11587.69	35.31	16.44	51.75	74.00	-22.25	peak		
2	*	11588.31	24.26	16.44	40.70	54.00	-13.30	AVG		

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

# Horizontal



No.	Mk	. Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	X	5782.180	60.41	44.87	105.28	74.00	31.28	peak	NO LIMIT	
2	*	5782.600	49.82	44.87	94.69	54.00	40.69	AVG	NO LIMIT	
3		5850.000	21.46	45.23	66.69	74.00	-7.31	peak		
4		5850.000	5.28	45.23	50.51	54.00	-3.49	AVG		

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

### Horizontal



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		11592.34	34.25	16.43	50.68	74.00	-23.32	peak	
2	*	11592.41	23.17	16.43	39.60	54.00	-14.40	AVG	

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ATTACHMENT E - BANDWID	TH

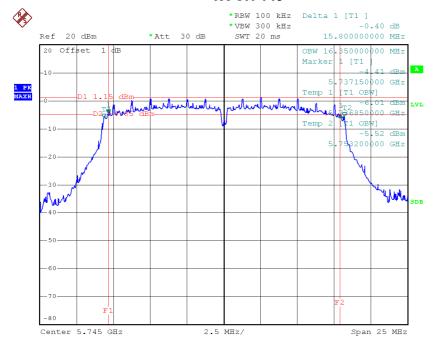
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### Test Mode: UNII-3/ TX A Mode\_CH149/CH157/CH165

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (KHz)
CH149	5745	15.80	16.35	>=500
CH1 57	5785	15.70	16.35	>=500
CH1 65	5825	15.75	16.35	>=500

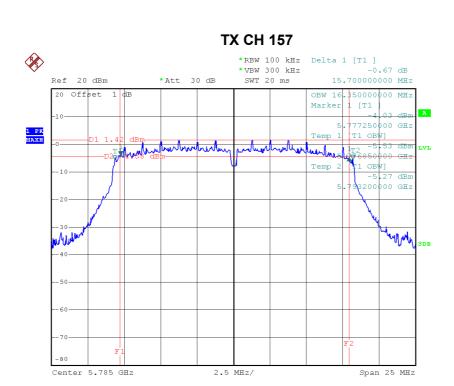
### **TX CH 149**



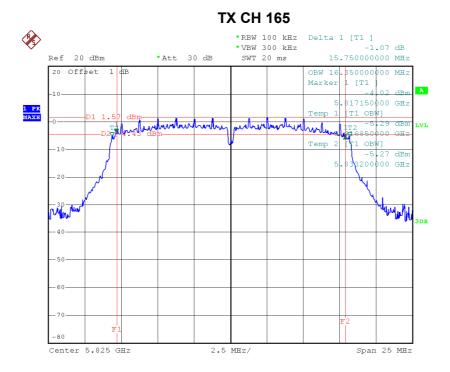
Date: 19.NOV.2014 19:12:59

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Date: 19.NOV.2014 19:17:30



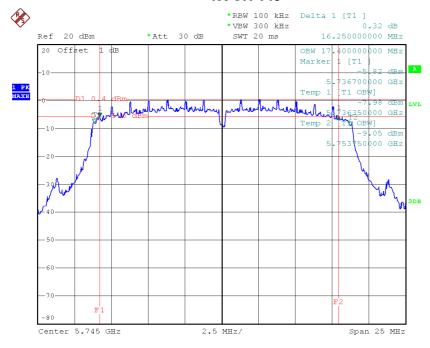
Date: 19.NOV.2014 19:18:26



### Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (KHz)
CH149	5745	16.25	17.40	>=500
CH1 57	5785	15.90	17.45	>=500
CH1 65	5825	16.30	17.45	>=500

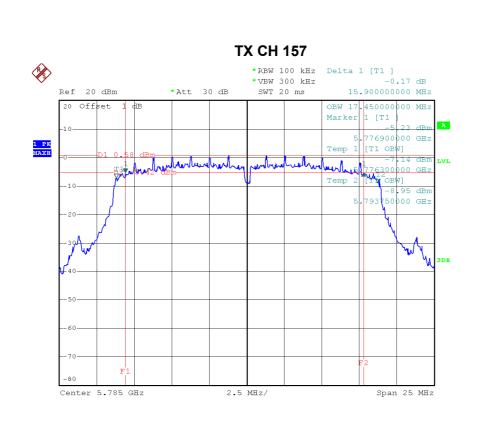
### **TX CH 149**

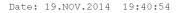


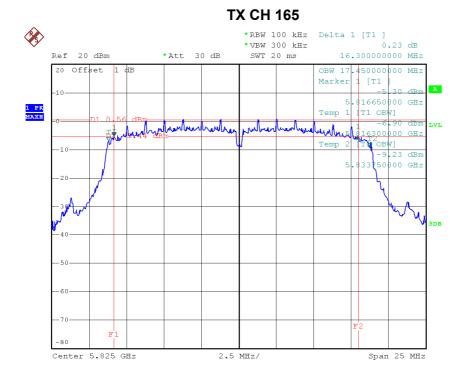
Date: 19.NOV.2014 19:38:34

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Date: 19.NOV.2014 19:29:17

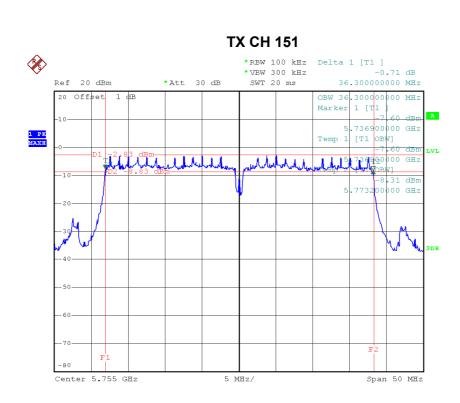


# Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159

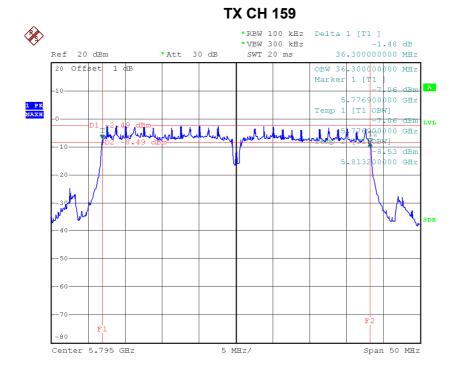
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (KHz)
CH151	5755	36.30	36.30	>=500
CH1 59	5795	36.30	36.30	>=500

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Date: 19.NOV.2014 19:45:37



Date: 19.NOV.2014 19:54:07



ATTACHMENT F - MAXIMUM OUTPUT POWER

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### Test Mode: UNII-3/ TX A Mode

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	21.13	30.00	1.00
CH157	5785	21.17	30.00	1.00
CH165	5825	20.08	30.00	1.00

# Test Mode: UNII-3/TX N20 Mode\_ANT 1

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	20.21	30.00	1.00
CH157	5785	20.27	30.00	1.00
CH165	5825	20.24	30.00	1.00

# Test Mode: UNII-3/TX N20 Mode\_ANT 2

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	19.89	30.00	1.00
CH157	5785	19.96	30.00	1.00
CH165	5825	19.91	30.00	1.00

# Test Mode: UNII-3/TX N20 Mode\_Total

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH149	5745	23.06	30.00	1.00
CH157	5785	23.13	30.00	1.00
CH165	5825	23.09	30.00	1.00

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# Test Mode: UNII-3/ TX N40 Mode\_ANT 1

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	20.36	30.00	1.00
CH159	5795	20.24	30.00	1.00

# Test Mode: UNII-3/ TX N40 Mode\_ANT 2

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	19.78	30.00	1.00
CH159	5795	19.53	30.00	1.00

# Test Mode: UNII-3/ TX N40 Mode\_Total

Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Limit (Watt)
CH151	5755	23.09	30.00	1.00
CH159	5795	22.91	30.00	1.00

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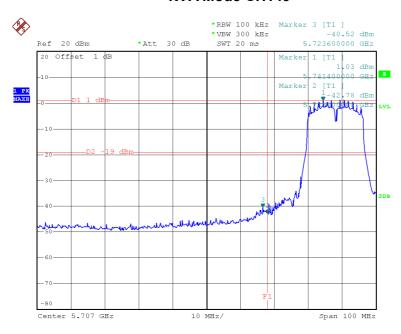
# **ATTACHMENT G - ANTENNA CONDUCTED SPURIOUS EMISSION**

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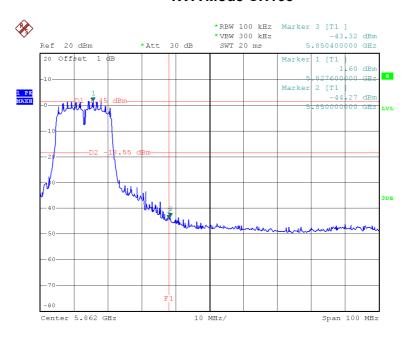


### **TX A Mode CH149**



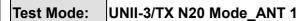
Date: 19.NOV.2014 19:22:34

### **TX A Mode CH165**

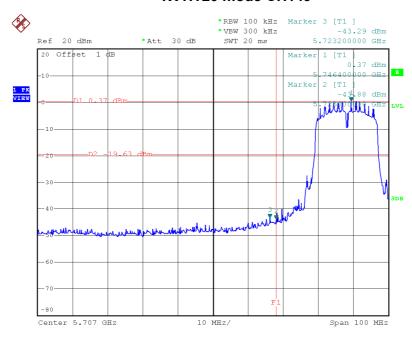


Date: 19.NOV.2014 19:20:15



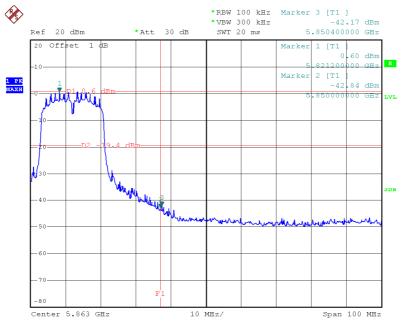


### TX HT20 mode CH149



Date: 19.NOV.2014 19:34:23

### TX HT20 mode CH165

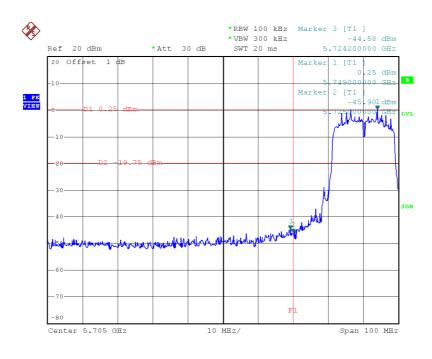


Date: 19.NOV.2014 19:31:02



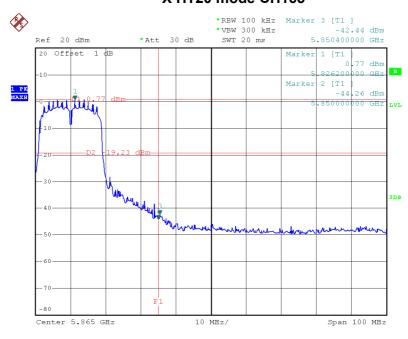
Test Mode: UNII-3/TX N20 Mode\_ANT 2

### TX HT20 mode CH149



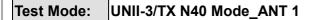
Date: 19.NOV.2014 19:36:32

### X HT20 mode CH165

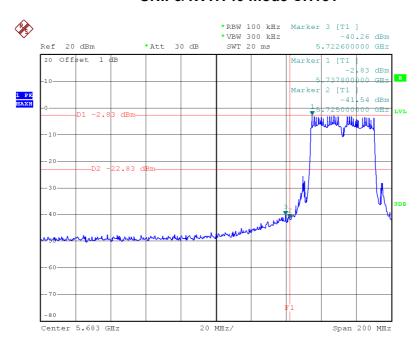


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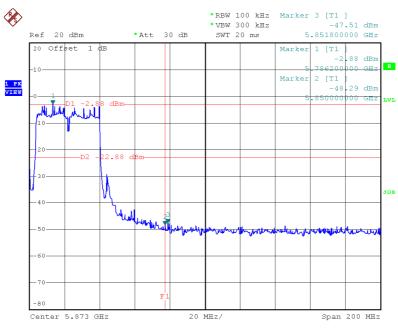


### UNII-3/TX HT40 mode CH151



Date: 19.NOV.2014 19:47:20

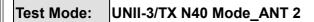
### UNII-3/TX HT40 mode CH159



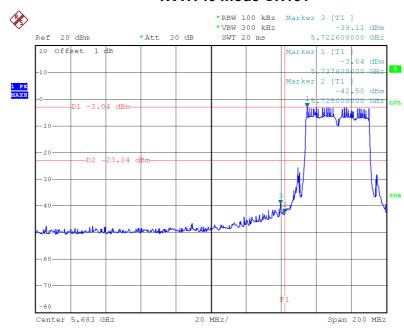
Date: 19.NOV.2014 19:51:20

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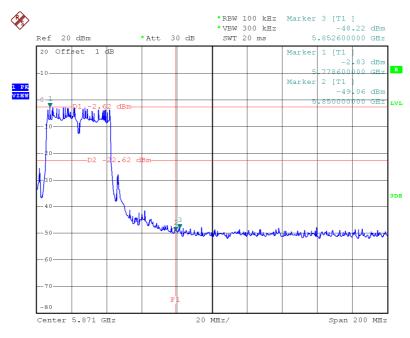


### TX HT40 mode CH151



Date: 19.NOV.2014 19:48:24

### HT40 mode CH159



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ATTACHMENT H - POWER SPECTRAL DENSITY

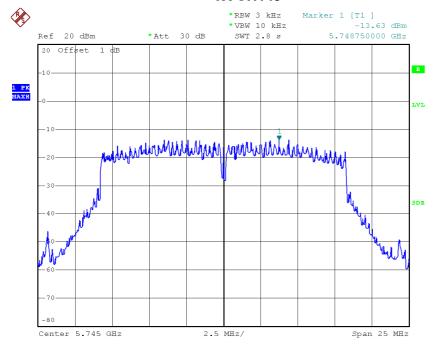
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### Test Mode: UNII-3/TX A Mode\_CH149/CH157/CH165\_ANT 1

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH149	5745	-13.63	8.00
CH157	5785	-12.39	8.00
CH165	5825	-12.74	8.00

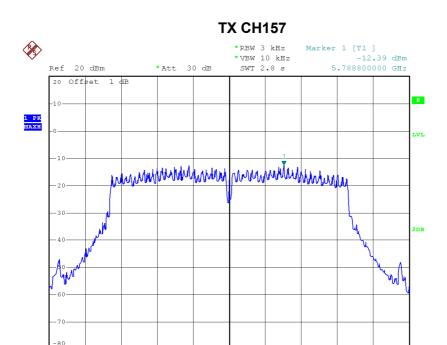
### **TX CH149**



Date: 19.NOV.2014 19:13:55

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2.5 MHz/

Span 25 MHz

Date: 19.NOV.2014 19:15:26

Center 5.785 GHz

# TX CH165 \*RBW 3 kHz Marker 1 [T1 ] \*VBW 10 kHz -12.74 dBm Ref 20 dBm \*Att 30 dB SWT 2.8 s 5.828400000 GHz 20 Offset 1 dB -10 -20 -20 -30 -40 -40 -40 -60 -70 -80 Center 5.825 GHz 2.5 MHz/ Span 25 MHz

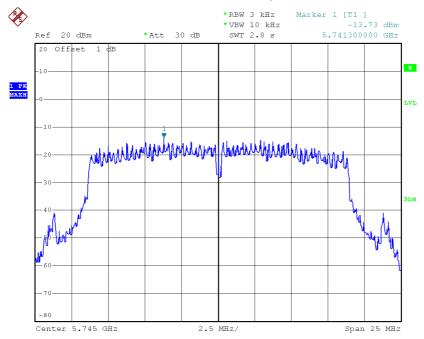
Date: 19.NOV.2014 19:26:32



### Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_ANT 1

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH149	5745	-13.73	8.00
CH157	5785	-13.82	8.00
CH165	5825	-14.35	8.00

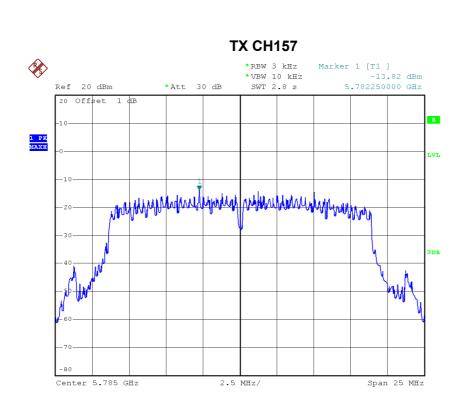
### **TX CH149**



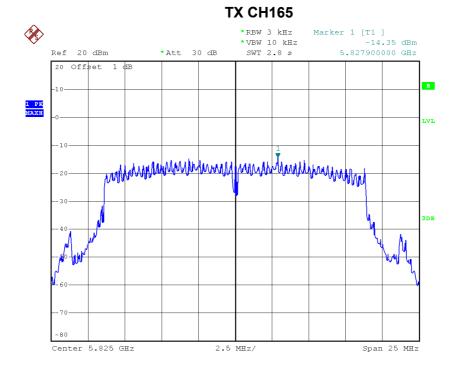
Date: 19.NOV.2014 19:37:44

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Date: 19.NOV.2014 19:41:37



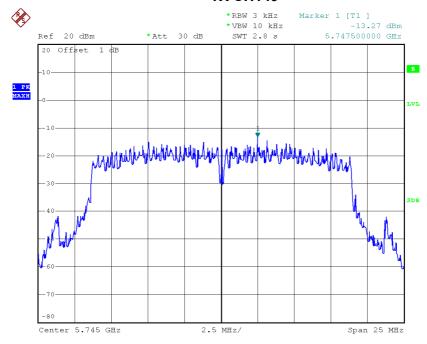
Date: 19.NOV.2014 19:28:04



### Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_ANT 2

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH149	5745	-13.27	8.00
CH157	5785	-13.65	8.00
CH165	5825	-14.17	8.00

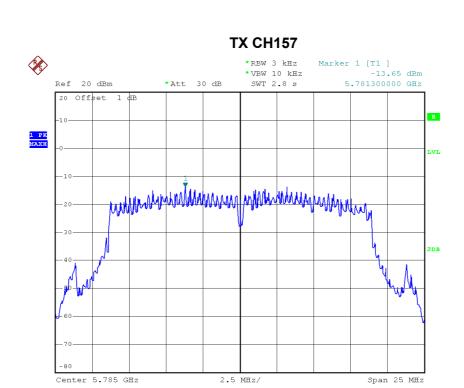
### **TX CH149**



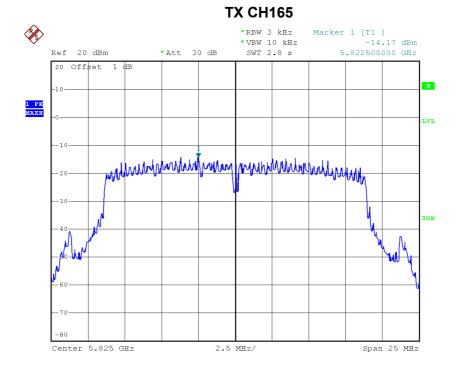
Date: 19.NOV.2014 19:37:50

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Date: 19.NOV.2014 19:41:48



Date: 19.NOV.2014 19:28:29



# Test Mode: UNII-3/ TX N20 Mode\_CH149/CH157/CH165\_Total

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH149	5745	-10.48	8.00
CH157	5785	-10.72	8.00
CH165	5825	-11.25	8.00

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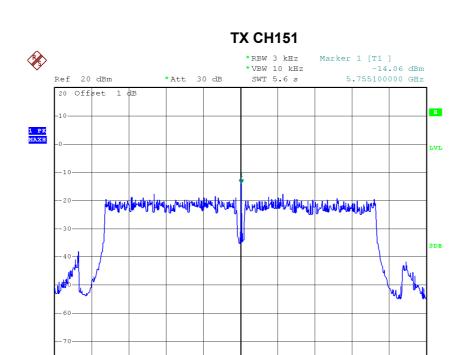


# Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_ANT 1

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH151	5755	-14.06	8.00
CH159	5795	-15.82	8.00

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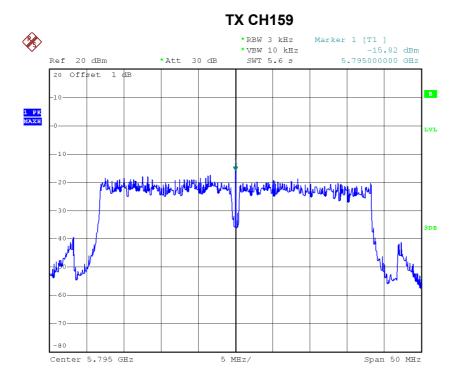


5 MHz/

Span 50 MHz

Date: 19.NOV.2014 19:49:28

Center 5.755 GHz



Date: 19.NOV.2014 19:50:25

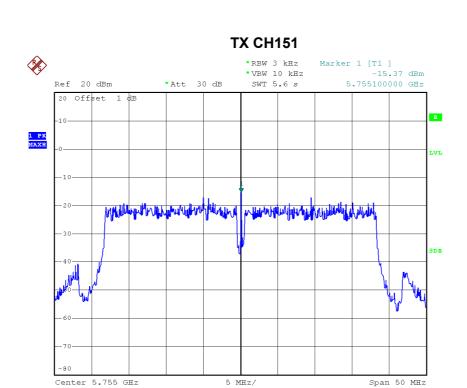


# Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_ANT 2

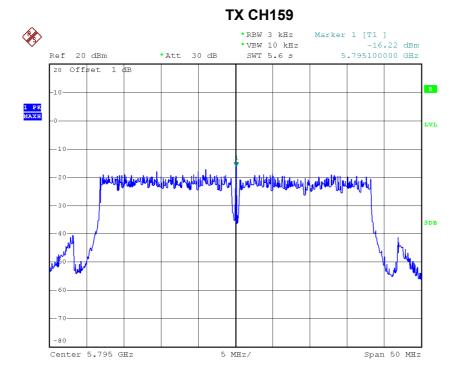
Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH151	5755	-15.37	8.00
CH159	5795	-16.22	8.00

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Date: 19.NOV.2014 19:50:39



# Test Mode: UNII-3/ TX N40 Mode\_CH151/CH159\_Total

Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3kHz)
CH151	5755	-11.66	8.00
CH159	5795	-13.01	8.00

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