

# Global United Technology Services Co., Ltd.

Report No: GTSE11090078801

# FCC REPORT

Applicant: QVS Marketing Inc.

Address of Applicant: 10721 S. Hidden Ridge Lane Sandy Utah 84092

**Equipment Under Test (EUT)** 

Product Name: 802.11n USB Module

Model No.: TS-802NRUMS4

FCC ID: YVK-802NRUMS4

Standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247:2010

Date of Receipt: Sep. 19, 2011

Date of Test: Sep. 19-21, 2011

Date of Issue: Sep. 22, 2011

**Test Result:** PASS \*

#### Authorized Signature:



Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in

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In the configuration tested, the EUT complied with the standards specified above.



# 2 Version

Version No.	Date	Description
00	Sep. 22, 2011	Original

Prepared by:	Collan He	Date:	Sep. 22, 2011
	Project Engineer		
Reviewed by:	Hams. Hu	Date:	Sep. 22, 2011
	Reviewer		

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# 4 Test Summary

Test Item	Section in CFR 47	Result	
Antenna requirement	15.203/15.247 (c)	Pass	
AC Power Line Conducted Emission	15.207	Pass	
Conducted Peak Output Power	15.247 (b)(3)	Pass	
6dB Occupied Bandwidth	15.247 (a)(2)	Pass	
Power Spectral Density	15.247 (e)	Pass	
Band Edge	15.247(d)	Pass	
Spurious Emission	15.205/15.209	Pass	

Remark:

• Pass: The EUT complies with the essential requirements in the standard.

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# 5 General Information

# **5.1 Client Information**

Applicant:	QVS Marketing Inc.		
Address of Applicant:	10721 S. Hidden Ridge Lane Sandy Utah 84092		
Manufacturer/ Factory:	QVS Marketing Inc.		
Address of Manufacturer/ Factory:	10721 S. Hidden Ridge Lane Sandy Utah 84092		

# 5.2 General Description of E.U.T.

Product Name:	802.11n USB Module		
Model No.:	TS-802NRUMS4		
Operation Frequency:	2412MHz~2462MHz (802.11b/802.11g/802.11n(H20))		
	2422MHz~2452MHz (802.11n(H40))		
Channel numbers:	11 for 802.11b/802.11g/802.11(H20)		
	7 for 802.11(H40)		
Channel separation:	5MHz		
Modulation technology:	Direct Sequence Spread Spectrum (DSSS)		
(IEEE 802.11b)			
Modulation technology:	Orthogonal Frequency Division Multiplexing(OFDM)		
(IEEE 802.11g/802.11n)			
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps		
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps		
Data speed (IEEE 802.11n):	Up to 150Mbps		
Antenna Type:	Integral		
Antenna gain:	2dBi (declare by manufacturer)		
Power supply:	DC 5V by PC USB port		

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Operation Frequency each of channel								
Channel Frequency Channel Frequency Channel Frequency Channel Frequency								
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz	
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz	
3	2422MHz	6	2437MHz	9	2452MHz			

#### Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

#### 802.11b/802.11g/802.11n(H20)

Channel	Frequency		
The lowest channel	2412MHz		
The middle channel	2437MHz		
The Highest channel	2462MHz		

#### 802.11n(H40)

Channel	Frequency
The lowest channel	2422MHz
The middle channel	2437MHz
The Highest channel	2452MHz

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#### 5.3 Test environment and mode

Operating Environment:			
Temperature:	24.0 °C		
Humidity:	54 % RH		
Atmospheric Pressure:	1010 mbar		
Test mode:			
Transmitting mode Keep the EUT in Transmitting mode			

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

#### Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate		
802.11b	1Mbps		
802.11g	6Mbps		
802.11n(H20)	6.5Mbps		
802.11n(H40)	13.0Mbps		

#### **Final Test Mode:**

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup" 1Mbps for 802.11b, 6Mbps for 802.11p, 6.5Mbps for 802.11n(H20), 13Mbps for 802.11n(H40)

# 5.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### ● FCC —Registration No.: 600491

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 600491, July 20, 2010.

#### Industry Canada (IC)

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. Has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-1.

#### 5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen,

China

Tel: 0755-27798480 Fax: 0755-27798960

Global United Technology Services Co., Ltd. 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China 518102

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# 5.6 Other Information Requested by the Customer

None.

## 5.7 Test Instruments list

Radia	Radiated Emission:							
Item	em Test Equipment Manufac		Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Mar. 30 2011	Mar. 29 2012		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Jul. 04 2011	Jul. 03 2012		
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	Feb. 26 2011	Feb. 25 2012		
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 30 2011	June 29 2012		
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2011	Mar. 29 2012		
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
8	Coaxial Cable	GTS	N/A	GTS213	Apr. 01 2011	Mar. 31 2012		
9	Coaxial Cable	GTS	N/A	GTS211	Apr. 01 2011	Mar. 31 2012		
9	Coaxial cable	GTS	N/A	GTS210	Apr. 01 2011	Mar. 31 2012		
11	Coaxial Cable	GTS	N/A	GTS212	Apr. 01 2011	Mar. 31 2012		
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	Jul. 04 2011	Jul. 03 2012		
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	Jul. 04 2011	Jul. 03 2012		
14	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 30 2011	June 29 2012		
15	Band filter	Amindeon	82346	GTS219	June 30 2011	June 29 2012		

Conducted Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.0(L)x3.0(W)x3.0(H)	GTS252	Jul. 04 2011	Jul. 03 2012
2	EMI Test Receiver	Rohde & Schwarz	ESCS30	GTS223	Jul. 04 2011	Jul. 03 2012
3	10dB Pulse Limita	Rohde & Schwarz	N/A	GTS224	Jul. 04 2011	Jul. 03 2012
4	LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	GTS226	Jul. 04 2011	Jul. 03 2012
5	Coaxial Cable	GTS	N/A	GTS227	Apr. 01 2011	Mar. 31 2012
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

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## 6 Test results and Measurement Data

# 6.1 Antenna requirement:

Standard requirement: FCC Part15 C Section 15.203 /247(c)

15.203 requirement:

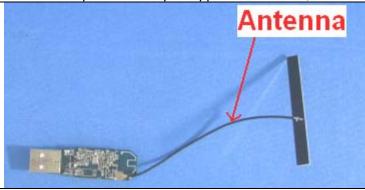
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

#### E.U.T Antenna:

The antenna port is an unique copper-axis antenna, the best case gain of the antenna is 2dBi.



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## 6.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207				
Test Method:	ANSI C63.4: 2009				
Test Frequency Range:	150kHz to 30MHz				
Class / Severity:	Class B				
Receiver setup:	RBW=9kHz, VBW=30kHz				
Limit:	Eroguanay ranga (MUz)	Limit (d	BμV)		
	Frequency range (MHz)	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
Test procedure	The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2009 on conducted measurement.				
Test setup:	LISN 40cm		er — AC power		
Test Instruments:	Refer to section 5.7 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

#### **Measurement Data**

An initial pre-scan was performed on the live and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

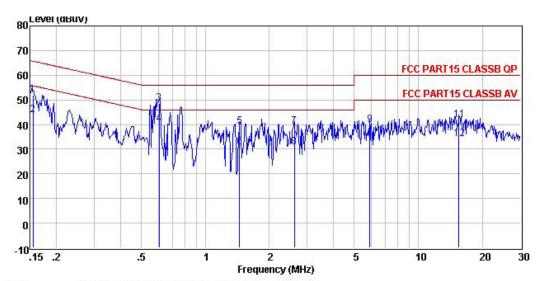
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Live:



Condition : FCC PART15 CLASSB QP LISN(2011) LINE

Job No. : 788RF Test Mode : Teans Test Engineer: Dick : 788RF : Teansmitting mode

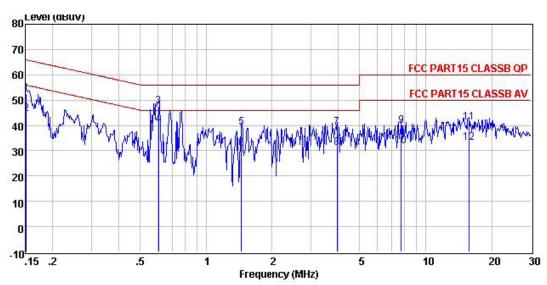
	Freq	Kead Level	Factor	Loss	Level	Limit	Uver Limit	Remark
	MHz	dBuV	——dB	— dB	dBuV	dBuV	dB	
1	0.155	51.25	0.68	0.10	52.03	65.74	-13.71	QP
2	0.155	43.16	0.68	0.10	43.94	55.74	-11.80	Average
3	0.604	47.98	0.53	0.10	48.61	56.00	-7.39	QP
2 3 4 5 6 7 8 9	0.604	39.47	0.53	0.10	40.10	46.00	-5.90	Average
5	1.441	38.65	0.44	0.10	39.19	56.00	-16.81	QP
6	1.441	30.31	0.44	0.10	30.85	46.00	-15.15	Average
7	2.622	38.60	0.37	0.10	39.07	56.00	-16.93	QP
8	2.622	30.32	0.37	0.10	30.79	46.00	-15.21	Average
9	5.898	39.36	0.28	0.11	39.75	60.00	-20.25	QP
10	5.898	31.84	0.28	0.11	32.23	50.00	-17.77	Average
11	15.470	41.62	0.17	0.20	41.99	60.00	-18.01	QP
12	15.470	33.87	0.17	0.20	34.24	50.00	-15.76	Average

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#### Neutral:



Condition : FCC PART15 CLASSB QP LISN(2011) NEUTRAL

: 788RF

Job No. Test Mode : Teansmitting mode

Test Engineer: Dick

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	ā
1	0.152	51.64	0.69	0.10	52.43	65.91	-13.48	QP
2	0.152	43.85	0.69	0.10	44.64	55.91	-11.27	Average
3	0.604	47.04	0.53	0.10	47.67	56.00	-8.33	QP
4	0.604	39.43	0.53	0.10	40.06	46.00	-5.94	Average
1 2 3 4 5 6 7 8 9	1.441	38.55	0.44	0.10	39.09	56.00	-16.91	QP
6	1.441	30.27	0.44	0.10	30.81	46.00	-15.19	Average
7	3.943	38.61	0.32	0.10	39.03	56.00	-16.97	QP
8	3.943	30.73	0.32	0.10	31.15	46.00	-14.85	Average
9	7.728	39.39	0.25	0.17	39.81	60.00	-20.19	QP
10	7.728	31.48	0.25	0.17	31.90	50.00	-18.10	Average
11	15.635	40.79	0.17	0.20	41.16	60.00	-18.84	QP
12	15.635	32.78	0.17	0.20	33.15	50.00	-16.85	Average

#### Notes:

- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.

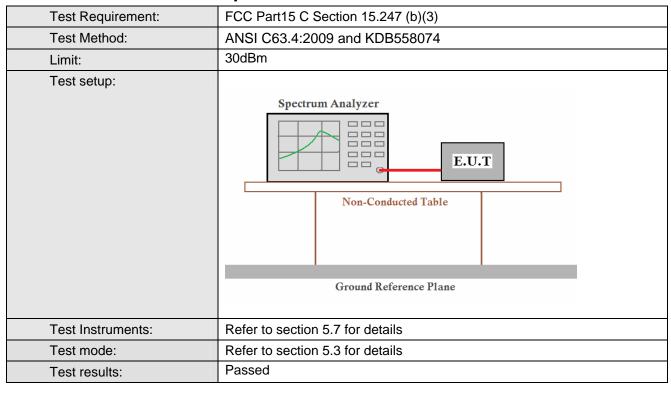
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# **6.3 Conducted Peak Output Power**



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#### **Measurement Data**

	802.11b mode					
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.29	30.00	Pass			
Middle	15.24	30.00	Pass			
Highest	15.29	30.00	Pass			
	802.11g mo	de				
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.15	30.00	Pass			
Middle	14.92	30.00	Pass			
Highest	15.30 30.0		Pass			
	802.11n-H20 mode					
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.09	30.00	Pass			
Middle	15.16	30.00	Pass			
Highest	15.18 30.00		Pass			
802.11n-H40 mode						
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.42	30.00	Pass			
Middle	15.40	30.00	Pass			
Highest	15.34	30.00	Pass			

#### Test plot as follows:

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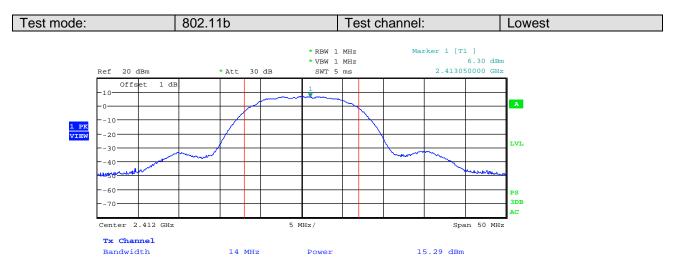


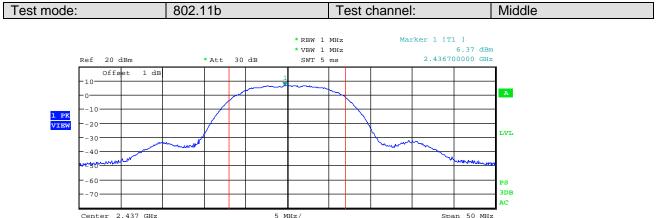
Tx Channel Bandwidth

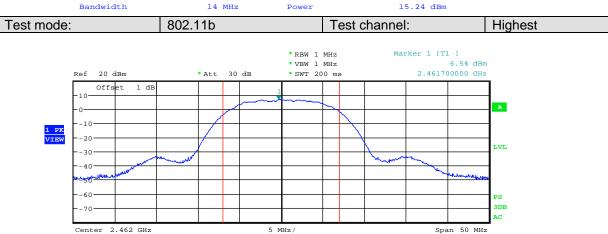
Tx Channel

Bandwidth

## Report No: GTSE11090078801







Power

Power

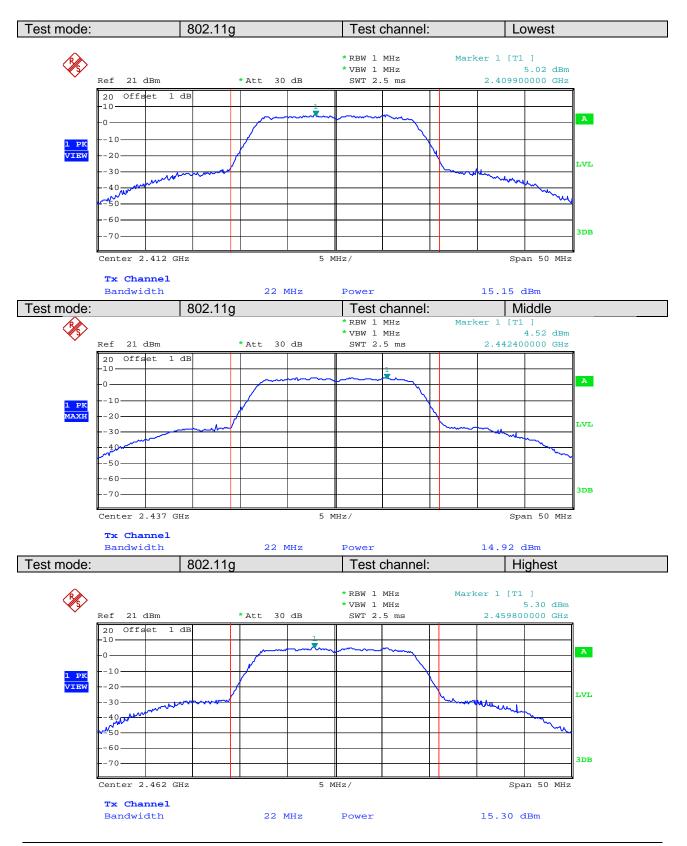
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14 MHz

14 MHz

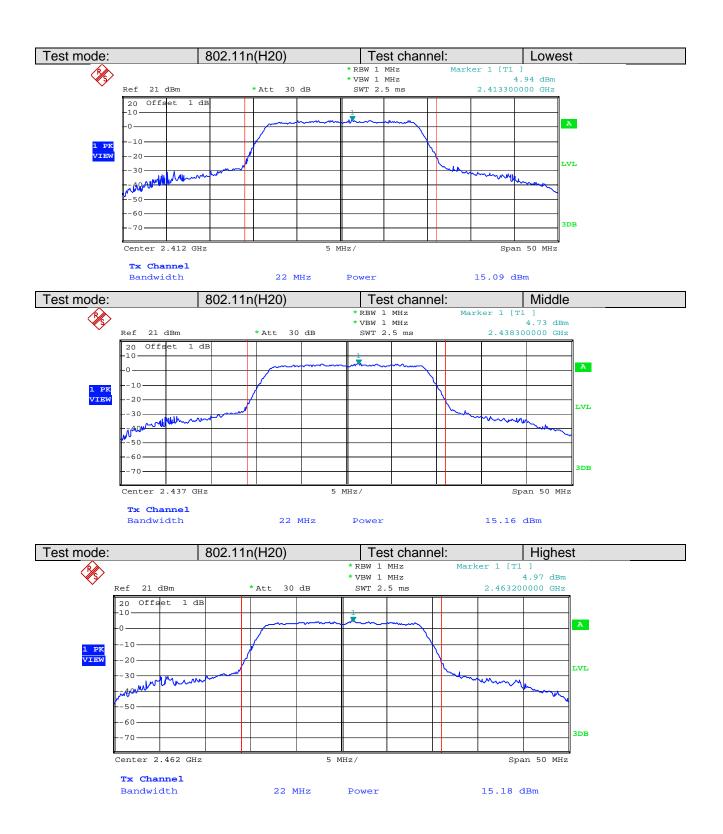
15.29 dBm





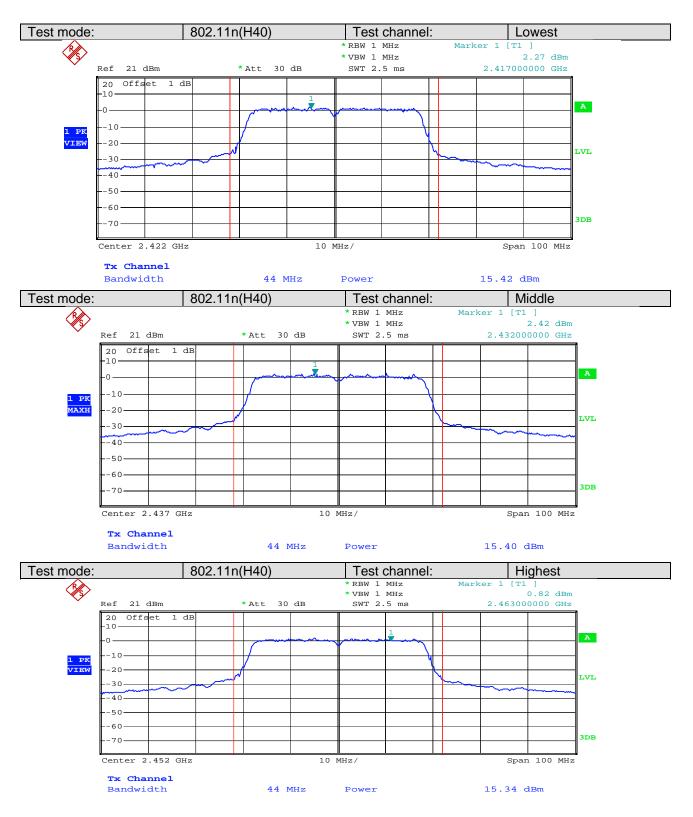
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# 6.4 6dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)	
Test Method:	ANSI C63.4:2009 and KDB558074	
Limit:	>500kHz	
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane	
Test Instruments:	Refer to section 5.7 for details	
Test mode:	Refer to section 5.3 for details	
Test results:	Passed	

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#### **Measurement Data**

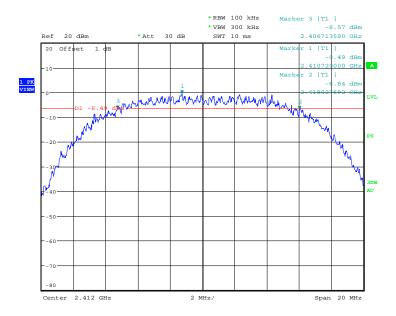
	802.11b mode					
Test channel	6dB Occupy Bandwidth (MHz)	Limit (KHz)	Result			
Lowest	11.314	>500	Pass			
Middle	10.673	>500	Pass			
Highest	12.022	>500	Pass			
	802.11g mode					
Test channel	6dB Occupy Bandwidth (MHz)	Limit (KHz)	Result			
Lowest	16.520	>500	Pass			
Middle	16.480	>500	Pass			
Highest	16.520	>500	Pass			
802.11n-H20 mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (KHz)	Result			
Lowest	17.560	>500	Pass			
Middle	17.720	>500	Pass			
Highest	17.640	>500	Pass			
	802.11n-H40 mode					
Test channel	6dB Occupy Bandwidth (MHz)	Limit (KHz)	Result			
Lowest	35.900	>500	Pass			
Middle	36.000	>500	Pass			
Highest	36.100	>500	Pass			

#### Test plot as follows:

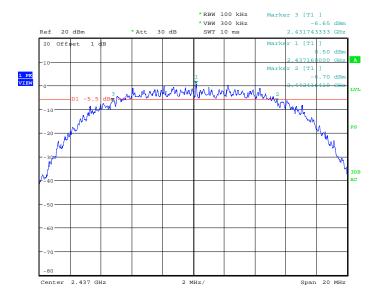
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Test mode: 802.11b Test channel: Middle

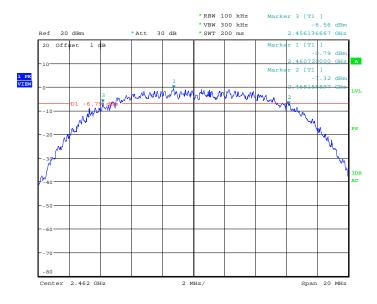


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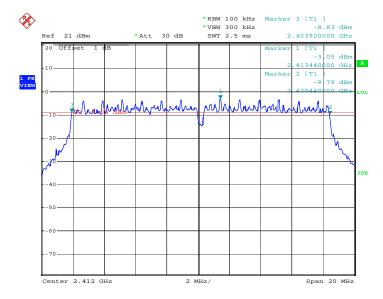


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Test mode:	802.11b	Test channel:	Highest



Test mode: 802.11g Test channel: Lowest

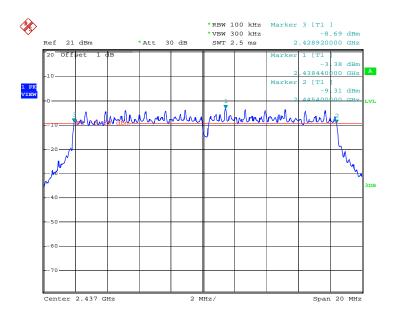


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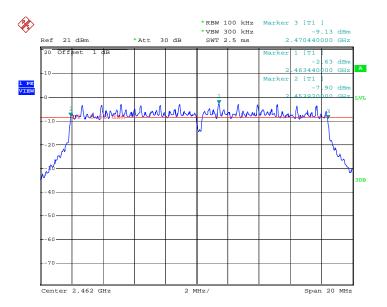


Project No.: GTSE110900788RF





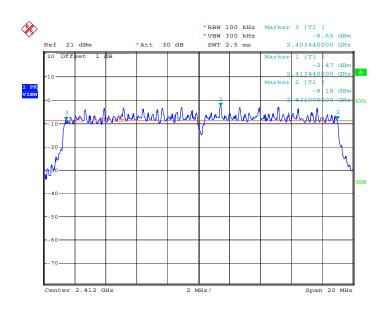
Test mode: 802.11g Test channel: Highest



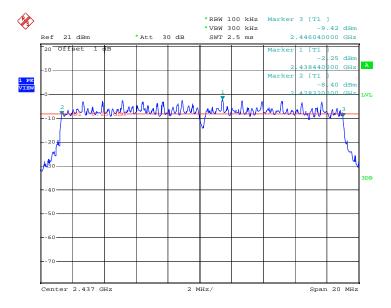
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Test mode: 802.11n-H20 Test channel: Middle

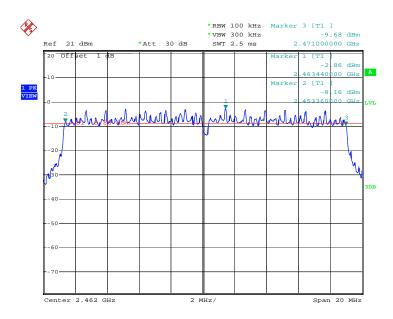


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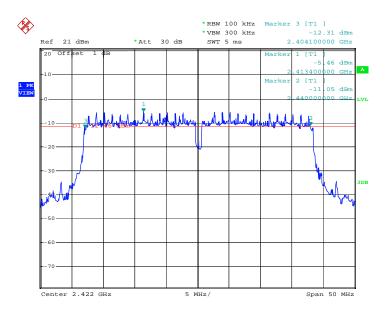
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Test mode: 802.11n-H40 Test channel: Lowest

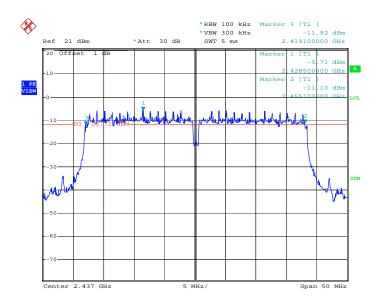


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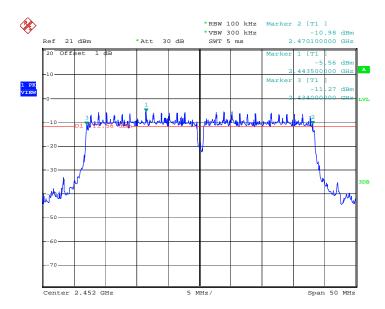
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Test mode: 802.11n-H40 Test channel: Highest

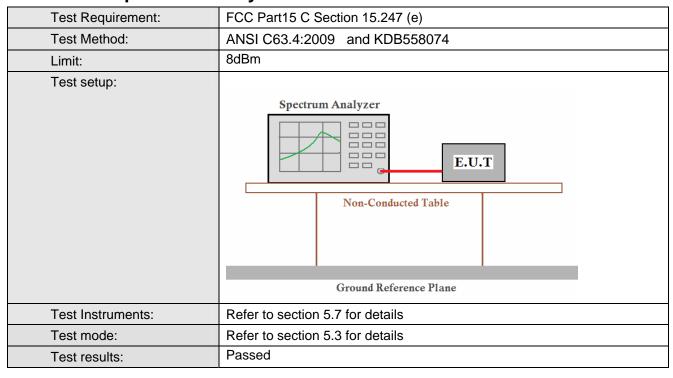


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# 6.5 Power Spectral Density



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#### **Measurement Data**

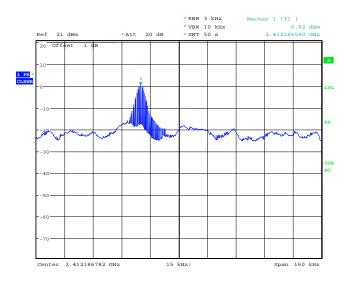
	802.11b mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	0.62	8.00	Pass			
Middle	0.50	8.00	Pass			
Highest	0.48	8.00	Pass			
	802.11g mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-19.68	8.00	Pass			
Middle	-19.69	8.00	Pass			
Highest	-18.72	8.00	Pass			
802.11n-H20 mode						
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-18.24	8.00	Pass			
Middle	-18.15	8.00	Pass			
Highest	-19.21	8.00	Pass			
	802.11n-H40 mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-21.89	8.00	Pass			
Middle	-21.62	8.00	Pass			
Highest	-21.59	8.00	Pass			

#### Test plot as follows:

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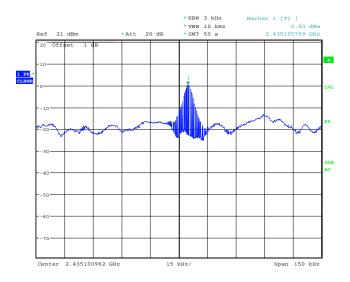


Test mode: 802.11b Test channel: Lowest



Date: 22.SEP.2011 19:14:57

Test mode: 802.11b Test channel: Middle



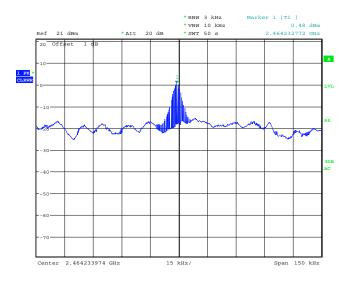
Date: 22.SEP.2011 19:18:06

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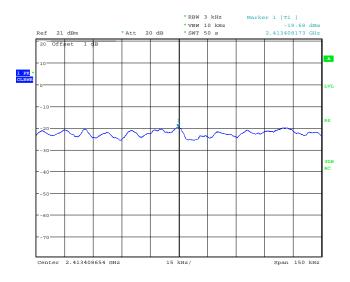
Project No.: GTSE110900788RF

Test mode: 802.11b Test channel: Highest



Date: 22.SEP.2011 19:21:24

Test mode: 802.11g Test channel: Lowest

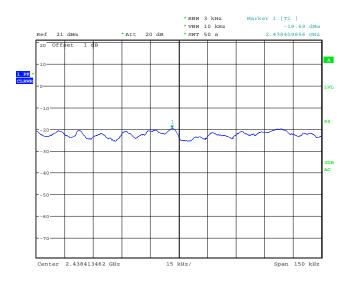


Date: 22.SEP.2011 19:31:15

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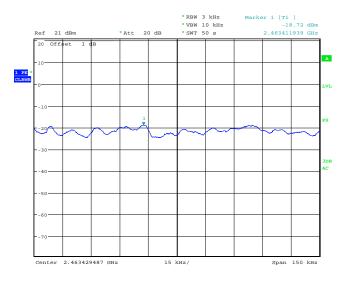






Date: 22.SEP.2011 19:34:30

rest mode:   802.11g   rest channel:   flighest	Test mode:	802.11g	Test channel:	Highest	
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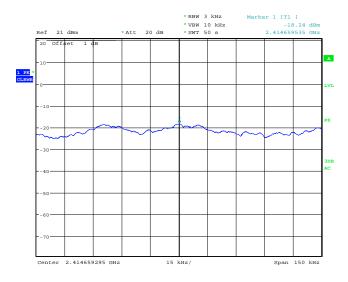


Date: 22.SEP.2011 19:40:20

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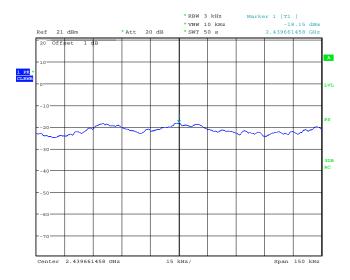






Date: 22.SEP.2011 19:43:41

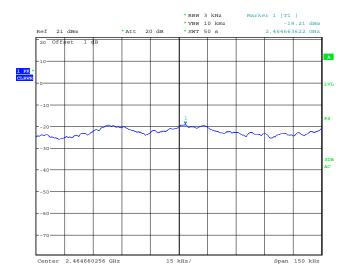
Test mode: 802.11n-H20 Test channel: Middle



Date: 22.SEP.2011 19:46:36

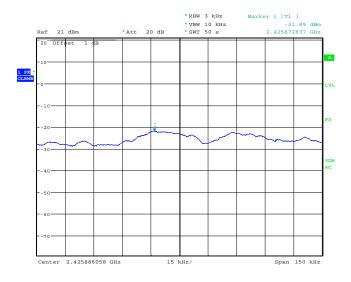
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Date: 22.SEP.2011 19:50:04

Test mode: 802.11n-H40 Test channel: Lowest

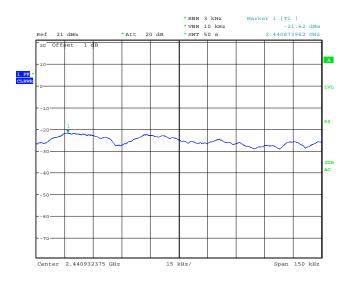


Date: 22.SEP.2011 19:55:41

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

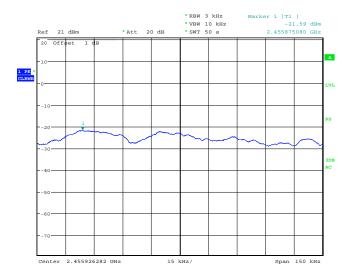






Date: 22.SEP.2011 20:01:23

Test mode: 802.11n-H40 Test channel: Highest



Date: 22.SEP.2011 20:04:51

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# 6.6 Band Edge

#### 6.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)		
Test Method:	ANSI C63.4:2009 and KDB558074		
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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 or a radiated measurement.		
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane		
Test Instruments:	Refer to section 5.7 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Passed		

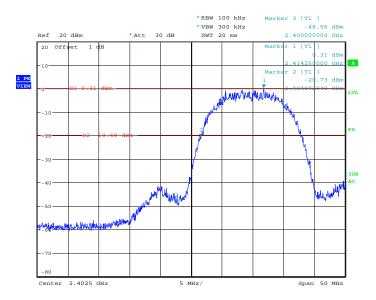
#### Test plot as follows:

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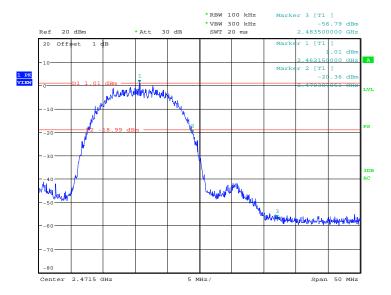
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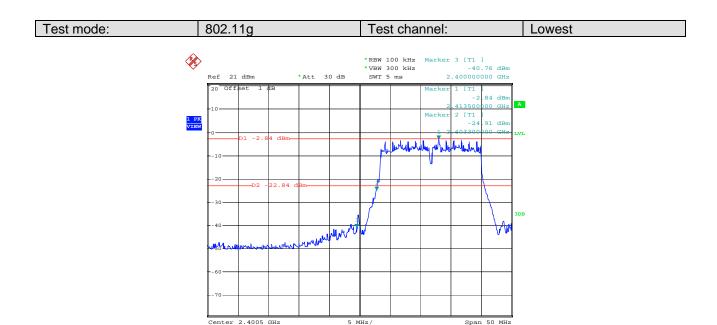


Test mode: 802.11b Test channel: Highest

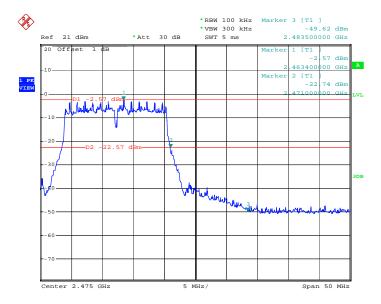


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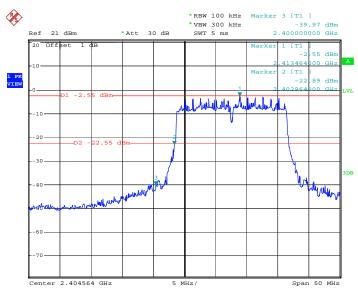




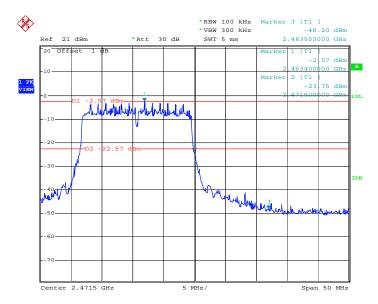






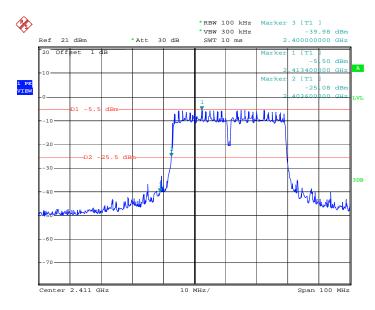


Test mode: 802.11n (H20) Test channel: Highest

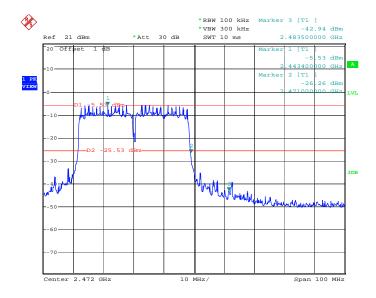








Test mode: 802.11n (H40) Test channel: Highest



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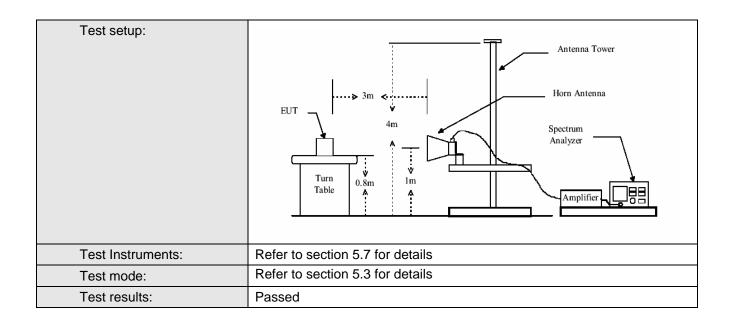


#### 6.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205									
Test Method:	ANSI C63.4: 20	09								
Test Frequency Range:	2.3GHz to 2.5G	Hz								
Test site:	Measurement D	istance: 3m (Se	emi-Anecho	ic Chambe	r)					
Receiver setup:										
	Frequency	Detector	RBW	VBW	Remark					
	Above 1GHz Peak 1MHz 3MHz Peak Value									
	Peak 1MHz 10Hz Average Value									
Limit:			1: :(/ID \//	60 )	Б					
	Freque	ncy	Limit (dBuV/ 54.0		Remark Average Value					
	Above 1	GHz	74.0		Peak Value					
Test Procedure:	the ground rotated 360 radiation.  b. The EUT was antenna, who tower.  c. The antennous the ground Both horizo make the moders and the meters and degrees to be a specified B f. If the emiss the limit specified B face of the EUT have 10dB	at a 3 meter ser degrees to determine the series as set 3 meters as set 3 meters as set 3 meters as height is varied to determine the ntal and vertical reasurement. It is pected emissionen the rotable table find the maximum and width with More in level of the lecified, then test would be report margin would be	e top of a romi-anechoic ermine the paway from the ed on the toe maximum polarization on, the EUT was turned the was turned from the editing could be ed. Otherwise re-tested of mi-anechold to the ed.	tating table camber. Toosition of the interfere p of a varial meter to fo value of the area of the area arranto heights for defending to heights f	0.8 meters above he table was he highest ence-receiving ble-height antenna ur meters above e field strength. Intenna are set to ged to its worst rom 1 meter to 4 egrees to 360					

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#### Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

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#### **Measurement data:**

Test mode:	802.1	1b	Test chann	el:	Lowest		Remark:	F	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2390.00	49.24	27.59	3.33	30.	10	51.06	74.00	-22.94	Vertical	
2400.00	53.47	27.58	3.37	30.	10	55.42	74.00	-18.58	Vertical	
2390.00	50.27	27.59	3.33	30.	10	52.29	74.00	-21.71	Horizontal	
2400.00	54.36	27.58	3.37	30.	10	56.51	74.00	-17.49	Horizontal	

Test mode:	802.1	1b	Test channel: Lowest		Remark:		Average		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2390.00	32.88	27.59	3.33	30.10	)	34.70	54.00	-19.30	Vertical
2400.00	36.46	27.58	3.37	30.10	)	38.41	54.00	-15.59	Vertical
2390.00	33.91	27.59	3.33	30.10	)	35.93	54.00	-18.07	Horizontal
2400.00	37.35	27.58	3.37	30.10	)	39.50	54.00	-14.50	Horizontal

Test mode:	802.1	1b	Test chann	el:	Highe	est	Remark:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2483.50	49.78	27.53	3.49	29	.93	51.87	74.00	-22.13	Vertical	
2500.00	53.75	27.55	3.52	30	.70	55.22	74.00	-18.78	Vertical	
2483.50	50.86	27.53	3.49	29	.93	53.15	74.00	-20.85	Horizontal	
2500.00	54.74	27.55	3.52	30	.70	56.41	74.00	-17.59	Horizontal	

Test mode:	802	11b			Highest		Remark:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Lir	ver mit B)	polarization
2483.50	36.64	27.53	3.49	29	.93	38.73	54.00	-15	5.27	Vertical
2500.00	32.14	27.55	3.52	30	.70	33.61	54.00	-20	.39	Vertical
2483.50	37.72	27.53	3.49	29	.93	40.01	54.00	-13	.99	Horizontal
2500.00	33.13	27.55	3.52	30	.70	34.80	54.00	-19	.20	Horizontal

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Test mode:	802.1	1g	Test chann	el:	Lowest		Remark:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2390.00	47.69	27.59	3.33	30	.10	49.51	74.00	-24.49	Vertical	
2400.00	51.85	27.58	3.37	30	.10	53.80	74.00	-20.20	Vertical	
2390.00	48.91	27.59	3.33	30	.10	50.93	74.00	-23.07	Horizontal	
2400.00	52.96	27.58	3.37	30	.10	55.11	74.00	-18.89	Horizontal	

Test mode:	802.1	1g	Test chann	el:	Lowest		Remark:		Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2390.00	32.95	27.59	3.33	30	.10	34.77	54.00	-19.23	Vertical	
2400.00	36.94	27.58	3.37	30	.10	38.89	54.00	-15.11	Vertical	
2390.00	34.61	27.59	3.33	30.10		36.63	54.00	-17.37	Horizontal	
2400.00	38.58	27.58	3.37	30.10		40.73	54.00	-13.27	Horizontal	

Test mode:	802.1	1g	Test chann	el:	Highe	est	Remark:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2483.50	48.52	27.53	3.49	29	.93	50.61	74.00	-23.39	Vertical	
2500.00	52.54	27.55	3.52	30	.70	54.01	74.00	-19.99	Vertical	
2483.50	49.80	27.53	3.49	29.93		52.09	74.00	-21.91	Horizontal	
2500.00	53.63	27.55	3.52	30.70		55.30	74.00	-18.70	Horizontal	

Test mode:	802.1	1g	Test channel: Highest		est	Remark:		Average		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Lir	ver mit B)	polarization
2483.50	38.06	27.53	3.49	29	.93	40.15	54.00	-13	3.85	Vertical
2500.00	33.87	27.55	3.52	30	).70	35.34	54.00	-18	3.66	Vertical
2483.50	38.05	27.53	3.49	29	.93	40.34	54.00	-13	3.66	Horizontal
2500.00	33.84	27.55	3.52	30	).70	35.51	54.00	-18	3.49	Horizontal

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Test mode:	802.1	1n(H20)	Test channel:		Lowest		Remark:		Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2390.00	35.00	27.59	3.33	30	.10	36.82	74.00	-37.18	Vertical	
2400.00	47.43	27.58	3.37	30	.10	49.38	74.00	-24.62	Vertical	
2390.00	49.07	27.59	3.33	30	.10	51.09	74.00	-22.91	Horizontal	
2400.00	53.20	27.58	3.37	30	.10	55.35	74.00	-18.65	Horizontal	

Test mode	:    8	802.11n(H20)	Test ch	annel:		_owest	Remark:		Average	
Frequency (MHz)	Read Leve (dBu\	Facto	r Loss	Pre	eamp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
2390.00	35.16	6 27.59	3.33	30	0.10	36.98	54.00	-17.02	Vertical	
2400.00	39.17	7 27.58	3.37	30	0.10	41.12	54.00	-12.88	Vertical	
2390.00	34.40	27.59	3.33	30	0.10	36.42	54.00	-17.58	Horizontal	
2400.00	34.45	5 27.58	3.37	30	0.10	36.60	54.00	-17.40	Horizontal	

Test mode	: 802	.11n(H20)	Test chan	nel:	H	Highest	Remark:	P	eak
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2483.50	39.15	27.53	3.49	29.	.93	41.24	74.00	-32.76	Vertical
2500.00	48.03	27.55	3.52	30.	.70	49.50	74.00	-24.50	Vertical
2483.50	49.83	27.53	3.49	29.	.93	52.12	74.00	-21.88	Horizontal
2500.00	53.69	27.55	3.52	30.	.70	55.36	74.00	-18.64	Horizontal

Test mode	:	802.	11n(H20)	Test chani	nel:	ŀ	lighest	Remark:		Average	
Frequency (MHz)	L	lead evel BuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t polarizatio	on
2483.50	39	9.24	27.53	3.49	29	.93	41.33	54.00	-12.6	7 Vertical	
2500.00	3	7.83	27.55	3.52	30	.70	39.30	54.00	-14.7	0 Vertical	
2483.50	3	7.07	27.53	3.49	29	.93	39.36	54.00	-14.6	4 Horizonta	al
2500.00	32	2.74	27.55	3.52	30	.70	34.41	54.00	-19.5	9 Horizonta	al

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Test mode:	802.1	1n(H40)	Test chann	el:	Lowe	st	Remark:		Peak
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2390.00	48.84	27.59	3.33	30	.10	50.66	74.00	-23.34	Vertical
2400.00	51.82	27.58	3.37	30	.10	53.77	74.00	-20.23	Vertical
2390.00	50.06	27.59	3.33	30	.10	52.08	74.00	-21.92	Horizontal
2400.00	52.93	27.58	3.37	30	.10	55.08	74.00	-18.92	Horizontal

Test mode	: 802	.11n(H40)	Test chan	nel:	Ĺ	_owest	Remark:		Average
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp r (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2390.00	32.11	27.59	3.33	30	.10	33.93	54.00	-20.07	Vertical
2400.00	37.40	27.58	3.37	30	.10	39.35	54.00	-14.65	Vertical
2390.00	32.67	27.59	3.33	30	.10	34.69	54.00	-19.31	Horizontal
2400.00	37.84	27.58	3.37	30	.10	39.99	54.00	-14.01	Horizontal

Test mode	: 80	)2.11n(H40)	Test chan	nel:	ŀ	Highest	Remark:		Peak
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2483.50	50.85	27.53	3.49	29	.93	52.94	74.00	-21.06	Vertical
2500.00	47.51	27.55	3.52	30	.70	48.98	74.00	-25.02	Vertical
2483.50	52.13	27.53	3.49	29	.93	54.42	74.00	-19.58	Horizontal
2500.00	48.60	27.55	3.52	30	.70	50.27	74.00	-23.73	Horizontal

Test mode	:	802.	11n(H40)	Test chani	nel:	H	lighest	Remark:		Average
Frequency (MHz)	L	lead evel BuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
2483.50	4	1.39	27.53	3.49	29	.93	43.48	54.00	-10.52	Vertical
2500.00	3	9.83	27.55	3.52	30	.70	41.30	54.00	-12.70	Vertical
2483.50	4	0.38	27.53	3.49	29	.93	42.67	54.00	-11.33	Horizontal
2500.00	3	8.80	27.55	3.52	30	.70	40.47	54.00	-13.53	Horizontal

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# 6.7 Spurious Emission

# **6.7.1 Conducted Emission Method**

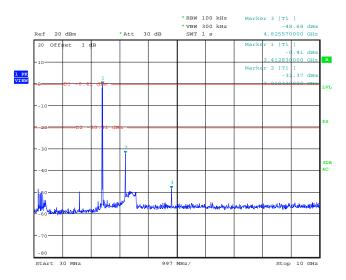
Test Requirement:	FCC Part15 C Section 15.247 (d)					
Test Method:	ANSI C63.4:2009 and KDB558074					
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall 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 or a radiated measurement.					
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane					
Test Instruments:	Refer to section 5.7 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Passed					

Test plot as follows:

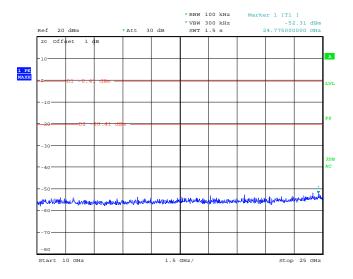
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Test mode:	802.11b	Test channel:	Lowest
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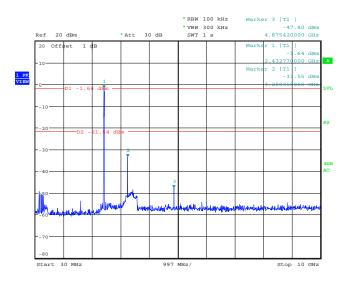
Date: 19.SEP.2011 18:42:38



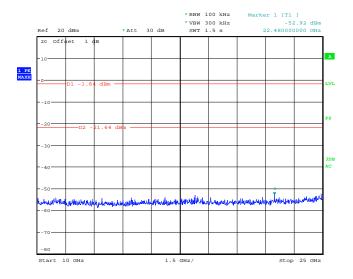
Date: 19.SEP.2011 18:47:03



Test mode: 802.11b	Test channel:	Middle
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Date: 19.SEP.2011 18:37:47

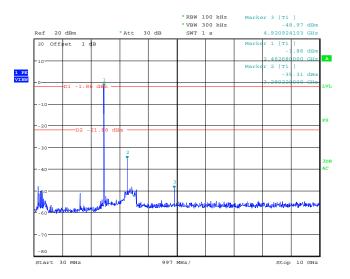


Date: 19.SEP.2011 18:38:00

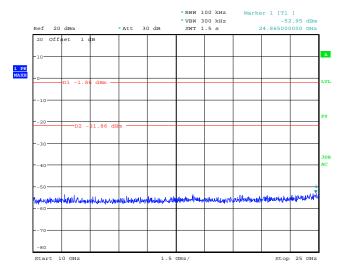
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Test mode: 802.11b Test channel:	Highest
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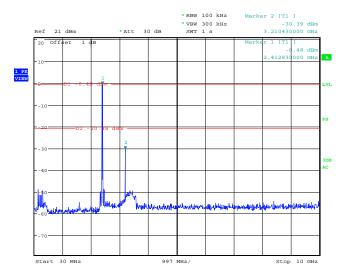
Date: 19.SEP.2011 18:33:14



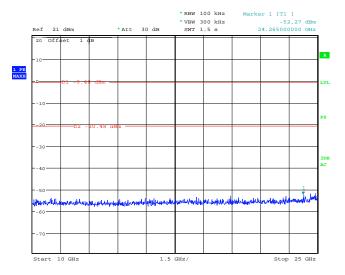
Date: 19.SEP.2011 18:33:31



Test mode:	802.11g	Test channel:	Lowest



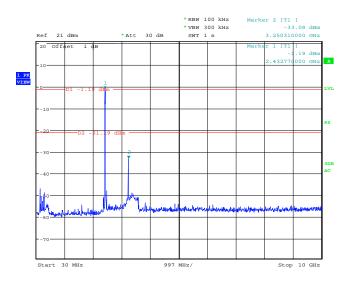
Date: 19.SEP.2011 17:43:31



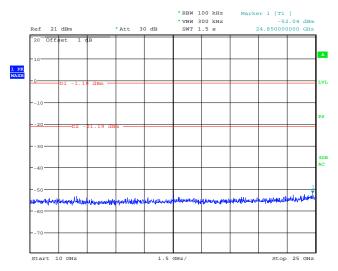
Date: 19.SEP.2011 17:43:48



Test mode: 802.11g Test channel: Middle



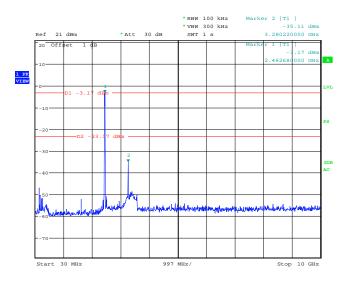
Date: 19.SEP.2011 17:45:08



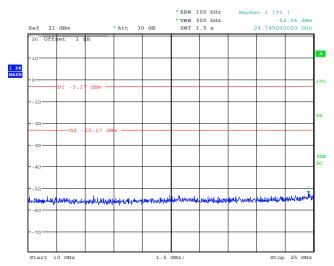
Date: 19.SEP.2011 17:45:31



Test mode:	802.11g	Test channel:	Highest



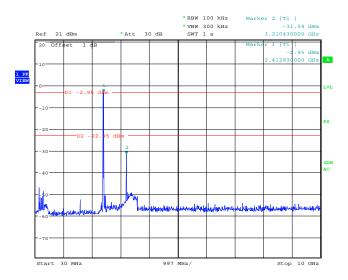
Date: 19.SEP.2011 17:47:59



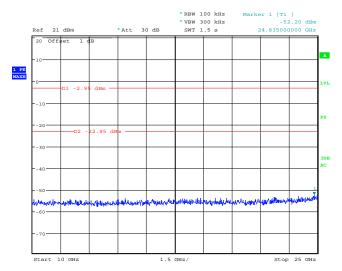
Date: 19.SEP.2011 17:48:18



Test mode:	802.11n(H20)	Test channel:	Lowest

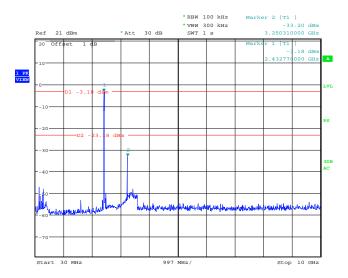


Date: 19.SEP.2011 17:51:26

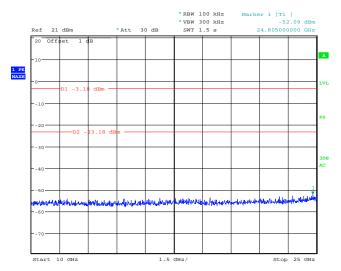


Date: 19.SEP.2011 17:51:53





Date: 19.SEP.2011 17:52:55

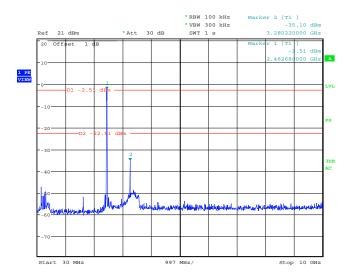


Date: 19.SEP.2011 17:53:15

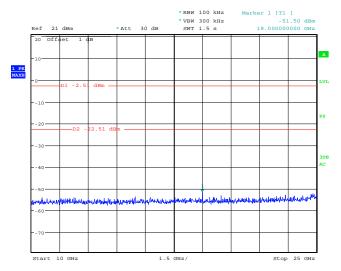


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Test mode:	802.11n(H20)	Test channel:	Highest
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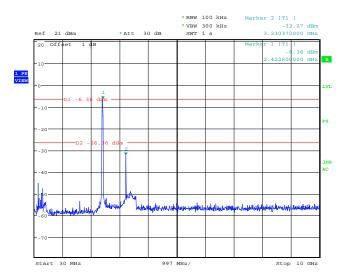


Date: 19.SEP.2011 17:54:31

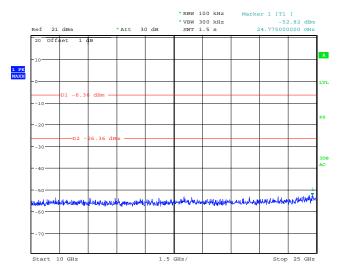


Date: 19.SEP.2011 17:55:11





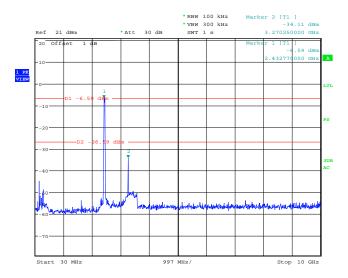
Date: 19.SEP.2011 17:57:49



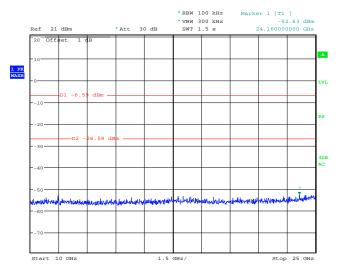
Date: 19.SEP.2011 17:58:05



Test mode: 802.11n(H40)	Test channel:	Middle
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Date: 19.SEP.2011 18:00:58



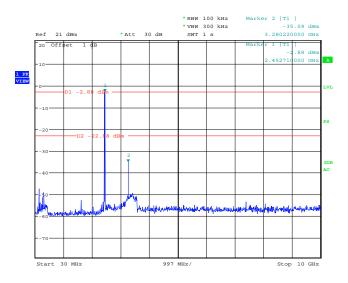
Date: 19.SEP.2011 18:01:21

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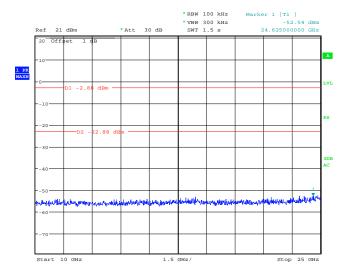


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Test mode:	802.11n(H40)	Test channel:	Highest
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Date: 19.SEP.2011 17:41:45



Date: 19.SEP.2011 17:42:05

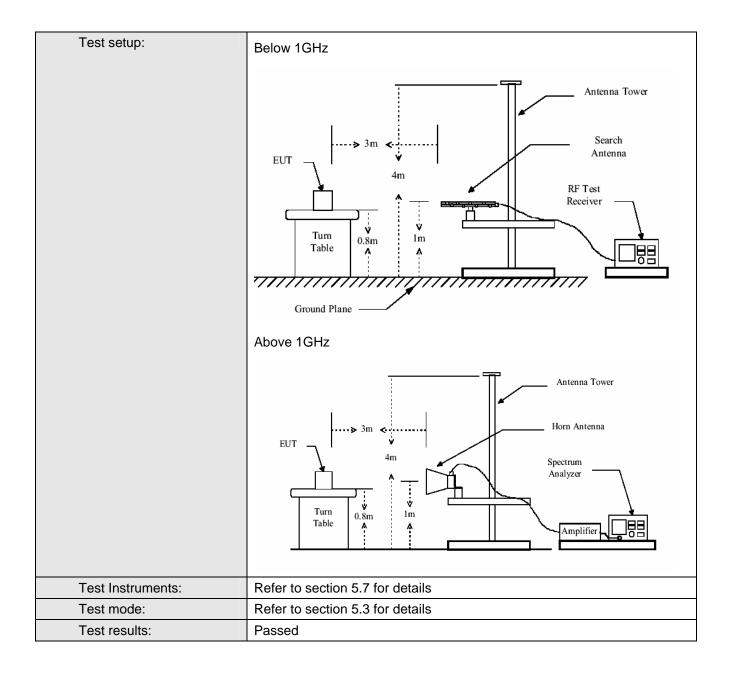


## 6.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205										
Test Method:	ANSI C63.4:2009										
Test Frequency Range:	30MHz to 25GHz										
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)										
Receiver setup:											
·	Frequency	Detector	RBW	VBW	Remark						
	30MHz-1GHz	Quasi-peak	100kHz	300kHz	Quasi-peak Value						
	Above 1GHz	Peak	1MHz	3MHz	Peak Value						
	Above IGHZ	Average	1MHz	10Hz	Average Value						
Limit:											
	Freque	ncy	Limit (dBuV/	m @3m)	Remark						
	30MHz-8	8MHz	40.0	)	Quasi-peak Value						
	88MHz-21	6MHz	43.5	5	Quasi-peak Value						
	216MHz-9	60MHz	46.0	)	Quasi-peak Value						
	960MHz-	1GHz	54.0		Quasi-peak Value						
	Above 1	GHz	54.0	)	Average Value						
			74.0		Peak Value						
Test Procedure:	the ground a rotated 360 radiation. h. The EUT was antenna, who tower. i. The antennathe ground a Both horizon make the mig. For each sucase and the meters and degrees to find the emission of the EUT have 10dB.	at a 3 meter sed degrees to de degrees to de degrees to de des set 3 meters ich was mount a height is variated and vertical and vertical and vertical easurement. It is pected emission the maximum the rotable tablication the maximum the rotable tablication level of the decified, then tes would be reportant.	emi-anechoice termine the particle on the total ed from one me maximum all polarizations was turned was set to Perecurbating could be ted. Otherwise tere-tested etermine the particle of the could be ted. Otherwise tere-tested etermine the particle of the	camber. Toosition of the interference of a varial meter to for value of the area of the area of the area of the interference of the area of the area of the area of the interference of th	he highest ence-receiving able-height antenna ur meters above e field strength. atenna are set to ged to its worst rom 1 meter to 4 egrees to 360						

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#### Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

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Project No.: GTSE110900788RF

#### **Below 1GHz**

#### Test in WIFI mode.

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
360.45	47.69	14.43	1.18	26.87	36.43	46.00	-9.57	Vertical
480.53	49.59	16.07	1.42	27.61	39.47	46.00	-6.53	Vertical
601.43	42.28	18.46	1.68	27.80	34.62	46.00	-11.38	Vertical
721.73	41.98	19.10	1.95	27.65	35.38	46.00	-10.62	Vertical
842.13	47.20	20.51	2.09	27.46	42.34	46.00	-3.66	Vertical
962.16	44.79	21.49	2.23	27.21	41.30	54.00	-12.70	Vertical
239.99	45.51	12.09	0.87	26.47	32.00	46.00	-14.00	Horizontal
360.45	51.69	14.43	1.18	26.87	40.43	46.00	-5.57	Horizontal
480.53	52.40	16.07	1.42	27.61	42.28	46.00	-3.72	Horizontal
721.73	40.15	19.10	1.95	27.65	33.55	46.00	-12.45	Horizontal
842.13	40.22	20.51	2.09	27.46	35.36	46.00	-10.64	Horizontal
962.16	41.11	21.49	2.23	27.21	37.62	54.00	-16.38	Horizontal

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#### **Above 1GHz**

Test mode:	802.1	1b	Test channe	el: Low	est	Remark:	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dE		Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	40.19	25.41	2.94	31.65	36.89	74.00	-37.11	Vertical
3212.00	56.82	28.71	4.60	34.93	55.20	74.00	-18.80	Vertical
4824.00	41.59	31.54	5.87	34.55	44.45	74.00	-29.55	Vertical
7236.00	41.22	36.50	7.10	36.11	48.71	74.00	-25.29	Vertical
9648.00	40.35	38.25	9.03	35.97	51.66	74.00	-22.34	Vertical
12060.00	39.89	39.33	10.15	35.93	53.44	74.00	-20.56	Vertical
1448.00	39.72	25.41	2.94	31.65	36.42	74.00	-37.58	Horizontal
3212.00	48.80	28.71	4.60	34.93	47.18	74.00	-26.82	Horizontal
4824.00	42.55	31.54	5.87	34.55	45.41	74.00	-28.59	Horizontal
7236.00	39.50	36.49	7.10	36.12	46.97	74.00	-27.03	Horizontal
9648.00	39.44	38.12	9.01	35.88	50.69	74.00	-23.31	Horizontal
12060.00	39.01	39.33	10.15	35.93	52.56	74.00	-21.44	Horizontal

Test mode:	802.1	1b	Test chann	el:	Lowe	st	Remark:		Avei	rage
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Facto		Level (dBuV/m)	Limit Line (dBuV/m)	Li	ver imit dB)	polarization
1448.00	35.98	25.41	2.94	31.	65	32.68	54.00	-2	1.32	Vertical
3212.00	50.01	28.71	4.60	34.	.93	48.39	54.00	-5	5.61	Vertical
4824.00	34.61	31.54	5.87	34.	55	37.47	54.00	-10	6.53	Vertical
7236.00	34.27	36.50	7.10	36.	.11	41.76	54.00	-1:	2.24	Vertical
9648.00	33.47	38.25	9.03	35.	.97	44.78	54.00	-6	).22	Vertical
12060.00	33.43	39.33	10.15	35.	.93	46.98	54.00	-7	'.02	Vertical
1448.00	34.92	25.41	2.94	31.	65	31.62	54.00	-2	2.38	Horizontal
3212.00	42.71	28.71	4.60	34.	.93	41.09	54.00	-12	2.91	Horizontal
4824.00	35.79	31.54	5.87	34.	.55	38.65	54.00	-1:	5.35	Horizontal
7236.00	32.48	36.49	7.10	36.	12	39.95	54.00	-14	4.05	Horizontal
9648.00	33.42	38.12	9.01	35.	.88	44.67	54.00	-6	.33	Horizontal
12060.00	32.47	39.33	10.15	35.	93	46.02	54.00	-7	'.98	Horizontal

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Test mode:	802.1	1b	Test chann	nannel: Middle		Remark:	Pea	k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1462.00	40.26	25.41	2.95	31.56	37.06	74.00	-36.94	Vertical
3240.00	54.42	28.54	4.62	34.98	52.60	74.00	-21.40	Vertical
4874.00	38.44	31.57	5.91	34.65	41.27	74.00	-32.73	Vertical
7311.00	39.96	36.48	7.14	36.14	47.44	74.00	-26.56	Vertical
9748.00	39.63	38.64	9.08	36.35	51.00	74.00	-23.00	Vertical
12185.00	39.54	39.35	10.15	35.98	53.06	74.00	-20.94	Vertical
1434.00	40.59	25.41	2.92	31.65	37.27	74.00	-36.73	Horizontal
3240.00	48.11	28.54	4.62	34.98	46.29	74.00	-27.71	Horizontal
4874.00	41.25	31.57	5.91	34.65	44.08	74.00	-29.92	Horizontal
7311.00	38.67	36.47	7.14	36.14	46.14	74.00	-27.86	Horizontal
9748.00	39.18	38.45	9.06	36.24	50.45	74.00	-23.55	Horizontal
12185.00	39.63	39.32	10.21	36.25	52.91	74.00	-21.09	Horizontal

Test mode	: 8	302.11b	Test chan	nel:	Middle Remark:			Average	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
1462.00	35.49	25.41	2.95	31.56	32.29	54.00	-21.71	Vertical	
3240.00	46.89	28.54	4.62	34.98	45.07	54.00	-8.93	Vertical	
4874.00	31.87	31.57	5.91	34.65	34.70	54.00	-19.30	Vertical	
7311.00	32.74	36.48	7.14	36.14	40.22	54.00	-13.78	Vertical	
9748.00	33.89	38.64	9.08	36.35	45.26	54.00	-8.74	Vertical	
12185.00	33.78	39.35	10.15	35.98	47.30	54.00	-6.70	Vertical	
1434.00	35.46	25.41	2.92	31.65	32.14	54.00	-21.86	Horizontal	
3240.00	43.89	28.54	4.62	34.98	42.07	54.00	-11.93	Horizontal	
4874.00	34.57	31.57	5.91	34.65	37.40	54.00	-16.60	Horizontal	
7311.00	31.72	36.47	7.14	36.14	39.19	54.00	-14.81	Horizontal	
9748.00	32.49	38.45	9.06	36.24	43.76	54.00	-10.24	Horizontal	
12185.00	32.46	39.32	10.21	36.25	45.74	54.00	-8.26	Horizontal	

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Test mode:	802.1	1b -	Test chann	el: Highest		Remark:		k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1462.00	39.65	25.41	2.95	31.56	36.45	74.00	-37.55	Vertical
3282.00	52.57	28.41	4.66	35.04	50.60	74.00	-23.40	Vertical
4924.00	39.26	31.64	5.95	34.79	42.06	74.00	-31.94	Vertical
7386.00	39.28	36.49	7.16	36.16	46.77	74.00	-27.23	Vertical
9848.00	40.13	38.69	9.11	36.53	51.40	74.00	-22.60	Vertical
12310.00	40.24	39.00	10.32	36.61	52.95	74.00	-21.05	Vertical
1462.00	39.80	25.41	2.95	31.56	36.60	74.00	-37.40	Horizontal
3282.00	47.15	28.41	4.66	35.04	45.18	74.00	-28.82	Horizontal
4924.00	40.67	31.74	5.97	34.86	43.52	74.00	-30.48	Horizontal
7386.00	39.08	36.50	7.10	36.11	46.57	74.00	-27.43	Horizontal
9848.00	39.56	38.67	9.08	36.47	50.84	74.00	-23.16	Horizontal
12310.00	40.65	39.00	10.32	36.61	53.36	74.00	-20.64	Horizontal

Test mode:	802.1	1b	Test chann	el: Hi	ghest	Remark:	Aver	age
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (c		Limit Line (dBuV/m)	Over Limit (dB)	polarization
1462.00	34.98	25.41	2.95	31.56	31.78	54.00	-22.22	Vertical
3282.00	45.90	28.41	4.66	35.04	43.93	54.00	-10.07	Vertical
4924.00	33.67	31.64	5.95	34.79	36.47	54.00	-17.53	Vertical
7386.00	32.76	36.49	7.16	36.16	40.25	54.00	-13.75	Vertical
9848.00	34.87	38.69	9.11	36.53	46.14	54.00	-7.86	Vertical
12310.00	33.46	39.00	10.32	36.61	46.17	54.00	-7.83	Vertical
1462.00	33.93	25.41	2.95	31.56	30.73	54.00	-23.27	Horizontal
3282.00	40.68	28.41	4.66	35.04	38.71	54.00	-15.29	Horizontal
4924.00	33.67	31.74	5.97	34.86	36.52	54.00	-17.48	Horizontal
7386.00	33.47	36.50	7.10	36.11	40.96	54.00	-13.04	Horizontal
9848.00	32.53	38.67	9.08	36.47	43.81	54.00	-10.19	Horizontal
12310.00	33.51	39.00	10.32	36.61	46.22	54.00	-7.78	Horizontal

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Test mode:	mode: 802.11g		Test channel: Lowest		st	Remark: Pea		k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	40.38	25.41	2.94	31.65	37.08	74.00	-36.92	Vertical
3216.00	60.00	28.71	4.60	34.93	58.38	74.00	-15.62	Vertical
4824.00	39.35	31.55	5.89	34.58	42.21	74.00	-31.79	Vertical
7236.00	39.56	36.50	7.10	36.11	47.05	74.00	-26.95	Vertical
9648.00	39.95	38.12	9.01	35.90	51.18	74.00	-22.82	Vertical
12060.00	39.75	39.33	10.15	35.93	53.30	74.00	-20.70	Vertical
1630.00	38.91	24.90	3.14	32.07	34.88	74.00	-39.12	Horizontal
3216.00	54.03	28.71	4.60	34.93	52.41	74.00	-21.59	Horizontal
4824.00	38.75	31.55	5.89	34.58	41.61	74.00	-32.39	Horizontal
7236.00	39.68	36.47	7.10	36.11	47.14	74.00	-26.86	Horizontal
9648.00	39.07	38.25	9.03	35.97	50.38	74.00	-23.62	Horizontal
12060.00	39.68	39.35	10.15	35.98	53.20	74.00	-20.80	Horizontal

Test mode:	802.1	1g	Test channel:		Lowe	st	Remark:	Ave	rage
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Prea Facto	amp r (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	35.87	25.41	2.94	31.	.65	32.57	54.00	-21.43	Vertical
3216.00	53.40	28.71	4.60	34	.93	51.78	54.00	-2.22	Vertical
4824.00	32.17	31.55	5.89	34.	.58	35.03	54.00	-18.97	Vertical
7236.00	32.41	36.50	7.10	36	.11	39.90	54.00	-14.10	Vertical
9648.00	33.46	38.12	9.01	35.	.90	44.69	54.00	-9.31	Vertical
12060.00	32.46	39.33	10.15	35.	.93	46.01	54.00	-7.99	Vertical
1630.00	32.80	24.90	3.14	32.	.07	28.77	54.00	-25.23	Horizontal
3216.00	47.13	28.71	4.60	34.	.93	45.51	54.00	-8.49	Horizontal
4824.00	33.47	31.55	5.89	34.	.58	36.33	54.00	-17.67	Horizontal
7236.00	33.48	36.47	7.10	36	.11	40.94	54.00	-13.06	Horizontal
9648.00	32.45	38.25	9.03	35.	.97	43.76	54.00	-10.24	Horizontal
12060.00	32.17	39.35	10.15	35.	.98	45.69	54.00	-8.31	Horizontal

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Test mode:	802.1	1g	Test chann	el: Midd	le Remark:		Pea	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
1448.00	40.33	25.41	2.94	31.65	37.03	74.00	-36.97	Vertical	
3240.00	56.54	28.54	4.62	34.98	54.72	74.00	-19.28	Vertical	
4874.00	38.51	31.56	5.89	34.58	41.38	74.00	-32.62	Vertical	
7311.00	39.06	36.47	7.14	36.14	46.53	74.00	-27.47	Vertical	
9748.00	39.19	38.45	9.06	36.24	50.46	74.00	-23.54	Vertical	
12185.00	39.75	39.32	10.21	36.25	53.03	74.00	-20.97	Vertical	
1434.00	39.72	25.41	2.92	31.65	36.40	74.00	-37.60	Horizontal	
3240.00	53.31	28.54	4.62	34.98	51.49	74.00	-22.51	Horizontal	
4874.00	38.32	31.56	5.89	34.58	41.19	74.00	-32.81	Horizontal	
7311.00	39.18	36.48	7.14	36.14	46.66	74.00	-27.34	Horizontal	
9748.00	39.98	38.45	9.06	36.18	51.31	74.00	-22.69	Horizontal	
12185.00	38.98	39.32	10.21	36.25	52.26	74.00	-21.74	Horizontal	

Test mode:	802.1	1g	Test channel: Mic		dle	Remark:	Aver	age
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dE	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	35.71	25.41	2.94	31.65	32.41	54.00	-21.59	Vertical
3240.00	49.02	28.54	4.62	34.98	47.20	54.00	-6.80	Vertical
4874.00	32.15	31.56	5.89	34.58	35.02	54.00	-18.98	Vertical
7311.00	32.75	36.47	7.14	36.14	40.22	54.00	-13.78	Vertical
9748.00	33.50	38.45	9.06	36.24	44.77	54.00	-9.23	Vertical
12185.00	32.57	39.32	10.21	36.25	45.85	54.00	-8.15	Vertical
1434.00	33.44	25.41	2.92	31.65	30.12	54.00	-23.88	Horizontal
3240.00	46.80	28.54	4.62	34.98	44.98	54.00	-9.02	Horizontal
4874.00	31.47	31.56	5.89	34.58	34.34	54.00	-19.66	Horizontal
7311.00	32.84	36.48	7.14	36.14	40.32	54.00	-13.68	Horizontal
9748.00	33.49	38.45	9.06	36.18	44.82	54.00	-9.18	Horizontal
12185.00	32.47	39.32	10.21	36.25	45.75	54.00	-8.25	Horizontal

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Test mode:	mode: 802.11g		Test chann	el: Highe	est	Remark:	Peal	<
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1462.00	40.91	25.41	2.95	31.56	37.71	74.00	-36.29	Vertical
3282.00	55.52	28.41	4.66	35.04	53.55	74.00	-20.45	Vertical
4924.00	38.43	31.61	5.93	34.76	41.21	74.00	-32.79	Vertical
7386.00	39.00	36.52	7.16	36.16	46.52	74.00	-27.48	Vertical
9848.00	39.18	38.67	9.08	36.47	50.46	74.00	-23.54	Vertical
12310.00	39.70	38.95	10.32	36.65	52.32	74.00	-21.68	Vertical
1462.00	39.73	25.41	2.95	31.56	36.53	74.00	-37.47	Horizontal
3282.00	52.02	28.41	4.66	35.04	50.05	74.00	-23.95	Horizontal
4924.00	38.53	31.64	5.95	34.79	41.33	74.00	-32.67	Horizontal
7386.00	39.19	36.54	7.16	36.16	46.73	74.00	-27.27	Horizontal
9848.00	38.81	38.69	9.11	36.53	50.08	74.00	-23.92	Horizontal
12310.00	39.91	38.73	10.37	36.83	52.18	74.00	-21.82	Horizontal

Test mode:	802.1	1g	Test chann	el: Hig	hest	Remark:	Aver	age
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dE	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1462.00	35.41	25.41	2.95	31.56	32.21	54.00	-21.79	Vertical
3282.00	48.62	28.41	4.66	35.04	46.65	54.00	-7.35	Vertical
4924.00	31.54	31.61	5.93	34.76	34.32	54.00	-19.68	Vertical
7386.00	32.39	36.52	7.16	36.16	39.91	54.00	-14.09	Vertical
9848.00	31.85	38.67	9.08	36.47	43.13	54.00	-10.87	Vertical
12310.00	33.11	38.95	10.32	36.65	45.73	54.00	-8.27	Vertical
1462.00	34.21	25.41	2.95	31.56	31.01	54.00	-22.99	Horizontal
3282.00	45.92	28.41	4.66	35.04	43.95	54.00	-10.05	Horizontal
4924.00	32.49	31.64	5.95	34.79	35.29	54.00	-18.71	Horizontal
7386.00	32.84	36.54	7.16	36.16	40.38	54.00	-13.62	Horizontal
9848.00	31.52	38.69	9.11	36.53	42.79	54.00	-11.21	Horizontal
12310.00	32.49	38.73	10.37	36.83	44.76	54.00	-9.24	Horizontal

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Test mode:	802.1	1n(H20)	Test channel: Lowest		st	Remark:	Peal	k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	39.87	25.41	2.94	31.65	36.57	74.00	-37.43	Vertical
3212.00	62.50	28.71	4.60	34.93	60.88	74.00	-13.12	Vertical
4824.00	39.55	31.85	6.00	34.92	42.48	74.00	-31.52	Vertical
7236.00	40.41	36.50	7.10	36.11	47.90	74.00	-26.10	Vertical
9648.00	39.63	38.12	9.01	35.88	50.88	74.00	-23.12	Vertical
12060.00	38.33	39.35	10.15	35.98	51.85	74.00	-22.15	Vertical
1448.00	39.51	25.41	2.94	31.65	36.21	74.00	-37.79	Horizontal
3212.00	54.51	28.71	4.60	34.93	52.89	74.00	-21.11	Horizontal
4824.00	38.97	31.55	5.89	34.58	41.83	74.00	-32.17	Horizontal
7236.00	40.21	36.50	7.10	36.11	47.70	74.00	-26.30	Horizontal
9648.00	40.28	38.12	9.01	35.90	51.51	74.00	-22.49	Horizontal
12060.00	39.54	39.35	10.15	35.98	53.06	74.00	-20.94	Horizontal

Test mode:	802.1	1n(H20)	Test chann	nel: Lowest		Remark:		Aver	age	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)		amp or (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	L	ver imit dB)	polarization
1448.00	32.42	25.41	2.94	31	.65	29.12	54.00	-2	4.88	Vertical
3212.00	53.50	28.71	4.60	34	1.93	51.88	54.00	-2	2.12	Vertical
4824.00	33.42	31.85	6.00	34	1.92	36.35	54.00	-1	7.65	Vertical
7236.00	33.81	36.50	7.10	36	5.11	41.30	54.00	-1	2.70	Vertical
9648.00	32.61	38.12	9.01	35	5.88	43.86	54.00	-1	0.14	Vertical
12060.00	30.41	39.35	10.15	35	5.98	43.93	54.00	-1	0.07	Vertical
1448.00	32.80	25.41	2.94	31	.65	29.50	54.00	-2	4.50	Horizontal
3212.00	48.24	28.71	4.60	34	1.93	46.62	54.00	-7	7.38	Horizontal
4824.00	31.82	31.55	5.89	34	1.58	34.68	54.00	-1	9.32	Horizontal
7236.00	33.87	36.50	7.10	36	5.11	41.36	54.00	-1	2.64	Horizontal
9648.00	34.23	38.12	9.01	35	5.90	45.46	54.00	-8	3.54	Horizontal
12060.00	32.87	39.35	10.15	35	5.98	46.39	54.00	-7	7.61	Horizontal

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Test mode:	Test mode: 802.11n(H20) Test channel: Middle		le	Remark:	Pea	k		
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1490.00	38.02	25.28	2.99	31.40	34.89	74.00	-39.11	Vertical
3249.00	58.50	28.54	4.62	34.98	56.68	74.00	-17.32	Vertical
4874.00	38.32	31.57	5.91	34.65	41.15	74.00	-32.85	Vertical
7311.00	38.62	36.47	7.14	36.14	46.09	74.00	-27.91	Vertical
9748.00	38.88	38.30	9.03	36.00	50.21	74.00	-23.79	Vertical
12185.00	39.66	39.32	10.21	36.25	52.94	74.00	-21.06	Vertical
1448.00	39.96	25.41	2.94	31.65	36.66	74.00	-37.34	Horizontal
3240.00	53.15	28.54	4.62	34.98	51.33	74.00	-22.67	Horizontal
4874.00	42.75	31.79	5.97	34.90	45.61	74.00	-28.39	Horizontal
7311.00	39.08	36.48	7.14	36.14	46.56	74.00	-27.44	Horizontal
9748.00	40.19	38.45	9.06	36.24	51.46	74.00	-22.54	Horizontal
12185.00	39.43	39.30	10.26	36.29	52.70	74.00	-21.30	Horizontal

Test mode:	802.1	1n(H20)	Test chann	el: Mi	ddle	Remark:	Aver	age
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (di		Limit Line (dBuV/m)	Over Limit (dB)	polarization
1490.00	33.49	25.28	2.99	31.40	30.36	54.00	-23.64	Vertical
3249.00	51.40	28.54	4.62	34.98	49.58	54.00	-4.42	Vertical
4874.00	31.94	31.57	5.91	34.65	34.77	54.00	-19.23	Vertical
7311.00	31.49	36.47	7.14	36.14	38.96	54.00	-15.04	Vertical
9748.00	32.57	38.30	9.03	36.00	43.90	54.00	-10.10	Vertical
12185.00	32.48	39.32	10.21	36.25	45.76	54.00	-8.24	Vertical
1448.00	33.87	25.41	2.94	31.65	30.57	54.00	-23.43	Horizontal
3240.00	45.98	28.54	4.62	34.98	44.16	54.00	-9.84	Horizontal
4874.00	35.73	31.79	5.97	34.90	38.59	54.00	-15.41	Horizontal
7311.00	32.43	36.48	7.14	36.14	39.91	54.00	-14.09	Horizontal
9748.00	32.79	38.45	9.06	36.24	44.06	54.00	-9.94	Horizontal
12185.00	32.54	39.30	10.26	36.29	45.81	54.00	-8.19	Horizontal

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Test mode:	802.1	1n(H20)	Test chann	nnel: Highest		Remark:	Peal	k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	39.65	25.41	2.94	31.65	36.35	74.00	-37.65	Vertical
3282.00	55.34	28.41	4.66	35.04	53.37	74.00	-20.63	Vertical
4924.00	39.50	31.61	5.93	34.76	42.28	74.00	-31.72	Vertical
7386.00	40.14	36.52	7.16	36.16	47.66	74.00	-26.34	Vertical
9848.00	39.43	38.69	9.11	36.53	50.70	74.00	-23.30	Vertical
12310.00	40.11	39.00	10.32	36.61	52.82	74.00	-21.18	Vertical
1462.00	39.92	25.41	2.95	31.56	36.72	74.00	-37.28	Horizontal
3282.00	51.04	28.41	4.66	35.04	49.07	74.00	-24.93	Horizontal
4924.00	38.23	31.61	5.93	34.76	41.01	74.00	-32.99	Horizontal
7386.00	39.16	36.52	7.16	36.16	46.68	74.00	-27.32	Horizontal
9848.00	38.74	38.67	9.08	36.47	50.02	74.00	-23.98	Horizontal
12310.00	41.00	39.00	10.32	36.61	53.71	74.00	-20.29	Horizontal

Test mode:	802.1	1n(H20)	Test chann	el: Highest		Remark:	Aver	age	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	34.98	25.41	2.94	31.6	5	31.68	54.00	-22.32	Vertical
3282.00	48.38	28.41	4.66	35.04	4	46.41	54.00	-7.59	Vertical
4924.00	32.65	31.61	5.93	34.76		35.43	54.00	-18.57	Vertical
7386.00	33.42	36.52	7.16	36.16		40.94	54.00	-13.06	Vertical
9848.00	33.82	38.69	9.11	36.53	3	45.09	54.00	-8.91	Vertical
12310.00	32.87	39.00	10.32	36.6	1	45.58	54.00	-8.42	Vertical
1462.00	33.54	25.41	2.95	31.56	6	30.34	54.00	-23.66	Horizontal
3282.00	43.88	28.41	4.66	35.04	4	41.91	54.00	-12.09	Horizontal
4924.00	31.65	31.61	5.93	34.76	6	34.43	54.00	-19.57	Horizontal
7386.00	32.75	36.52	7.16	36.16		40.27	54.00	-13.73	Horizontal
9848.00	30.85	38.67	9.08	36.47		42.13	54.00	-11.87	Horizontal
12310.00	32.45	39.00	10.32	36.6	1	45.16	54.00	-8.84	Horizontal

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Test mode:	802.1	1n(H40)	Test chann	nel: Lowest		Remark:	Peal	k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	39.86	25.41	2.94	31.65	36.56	74.00	-37.44	Vertical
3229.00	62.11	28.62	4.60	34.96	60.37	74.00	-13.63	Vertical
4844.00	38.50	31.56	5.89	34.58	41.37	74.00	-32.63	Vertical
7266.00	38.92	36.49	7.10	36.12	46.39	74.00	-27.61	Vertical
9688.00	38.86	38.25	9.03	35.97	50.17	74.00	-23.83	Vertical
12110.00	39.11	39.34	10.21	36.11	52.55	74.00	-21.45	Vertical
1462.00	40.07	25.41	2.95	31.56	36.87	74.00	-37.13	Horizontal
3229.00	51.79	28.62	4.60	34.96	50.05	74.00	-23.95	Horizontal
4844.00	39.03	31.56	5.89	34.58	41.90	74.00	-32.10	Horizontal
7266.00	39.29	36.49	7.12	36.12	46.78	74.00	-27.22	Horizontal
9688.00	39.20	38.25	9.03	35.97	50.51	74.00	-23.49	Horizontal
12110.00	39.99	39.34	10.21	36.11	53.43	74.00	-20.57	Horizontal

Test mode:	802.1	1n(H40)	Test chann	el:	el: Lowest		Remark:	Ave	rage
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	33.74	25.41	2.94	31	.65	30.44	54.00	-23.56	Vertical
3229.00	51.81	28.62	4.60	34	.96	50.07	54.00	-3.93	Vertical
4844.00	31.56	31.56	5.89	34.58		34.43	54.00	-19.57	Vertical
7266.00	31.68	36.49	7.10	36.12		39.15	54.00	-14.85	Vertical
9688.00	30.54	38.25	9.03	35	.97	41.85	54.00	-12.15	Vertical
12110.00	31.78	39.34	10.21	36	.11	45.22	54.00	-8.78	Vertical
1462.00	35.76	25.41	2.95	31	.56	32.56	54.00	-21.44	Horizontal
3229.00	44.57	28.62	4.60	34	.96	42.83	54.00	-11.17	Horizontal
4844.00	32.98	31.56	5.89	34	.58	35.85	54.00	-18.15	Horizontal
7266.00	32.96	36.49	7.12	36.12		40.45	54.00	-13.55	Horizontal
9688.00	32.71	38.25	9.03	35	.97	44.02	54.00	-9.98	Horizontal
12110.00	32.77	39.34	10.21	36	.11	46.21	54.00	-7.79	Horizontal

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Test mode: 802.11n(		1n(H40)	Test chann	el: Midd	le	Remark:	Pea	Peak	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization	
1448.00	37.69	25.28	2.99	31.40	34.56	74.00	-39.44	Vertical	
3240.00	61.40	28.54	4.62	34.98	59.58	74.00	-14.42	Vertical	
4874.00	38.43	31.57	5.91	34.65	41.26	74.00	-32.74	Vertical	
7311.00	38.66	36.48	7.14	36.14	46.14	74.00	-27.86	Vertical	
9784.00	38.97	38.40	9.06	36.12	50.31	74.00	-23.69	Vertical	
12185.00	39.19	39.30	10.26	36.29	52.46	74.00	-21.54	Vertical	
1448.00	39.04	25.41	2.94	31.65	35.74	74.00	-38.26	Horizontal	
3240.00	50.05	28.54	4.62	34.98	48.23	74.00	-25.77	Horizontal	
4874.00	38.72	31.57	5.91	34.65	41.55	74.00	-32.45	Horizontal	
7311.00	38.45	36.48	7.14	36.14	45.93	74.00	-28.07	Horizontal	
9784.00	38.14	38.45	9.06	36.18	49.47	74.00	-24.53	Horizontal	
12185.00	38.62	39.30	10.26	36.29	51.89	74.00	-22.11	Horizontal	

Test mode:	802.1	1n(H40)	Test chann	el: N	el: Middle		Remark:	Aver	age
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	32.68	25.28	2.99	31.40	)	29.55	54.00	-24.45	Vertical
3240.00	51.10	28.54	4.62	34.98		49.28	54.00	-4.72	Vertical
4874.00	32.49	31.57	5.91	34.65		35.32	54.00	-18.68	Vertical
7311.00	31.72	36.48	7.14	36.14		39.20	54.00	-14.80	Vertical
9784.00	31.67	38.40	9.06	36.12	2	43.01	54.00	-10.99	Vertical
12185.00	32.98	39.30	10.26	36.29	9	46.25	54.00	-7.75	Vertical
1448.00	34.29	25.41	2.94	31.65	5	30.99	54.00	-23.01	Horizontal
3240.00	43.87	28.54	4.62	34.98	3	42.05	54.00	-11.95	Horizontal
4874.00	31.56	31.57	5.91	34.65	5	34.39	54.00	-19.61	Horizontal
7311.00	31.84	36.48	7.14	36.14		39.32	54.00	-14.68	Horizontal
9784.00	30.57	38.45	9.06	36.18		41.90	54.00	-12.10	Horizontal
12185.00	32.48	39.30	10.26	36.29	9	45.75	54.00	-8.25	Horizontal

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Test mode:	802.1	1n(H40)	Test chann	el: Highest		Remark:	Peal	k
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	40.06	25.41	2.94	31.65	36.76	74.00	-37.24	Vertical
3268.00	59.90	28.48	4.64	35.01	58.01	74.00	-15.99	Vertical
4904.00	37.98	31.61	5.93	34.76	40.76	74.00	-33.24	Vertical
7356.00	39.69	36.54	7.16	36.16	47.23	74.00	-26.77	Vertical
9808.00	38.46	38.67	9.08	36.41	49.80	74.00	-24.20	Vertical
12260.00	38.73	39.16	10.26	36.47	51.68	74.00	-22.32	Vertical
1448.00	39.43	25.41	2.94	31.65	36.13	74.00	-37.87	Horizontal
3268.00	50.66	28.48	4.64	35.01	48.77	74.00	-25.23	Horizontal
4904.00	38.68	31.59	5.93	34.72	41.48	74.00	-32.52	Horizontal
7356.00	39.30	36.49	7.16	36.16	46.79	74.00	-27.21	Horizontal
9808.00	39.33	38.64	9.08	36.35	50.70	74.00	-23.30	Horizontal
12260.00	39.26	39.11	10.32	36.52	52.17	74.00	-21.83	Horizontal

Test mode:	802.1	1n(H40)	Test chann	el: l	el: Highest		Remark:	Ave	rage
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)		Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1448.00	35.87	25.41	2.94	31.6	35	32.57	54.00	-21.43	Vertical
3268.00	49.60	28.48	4.64	35.0	)1	47.71	54.00	-6.29	Vertical
4904.00	30.87	31.61	5.93	34.76		33.65	54.00	-20.35	Vertical
7356.00	32.87	36.54	7.16	36.16		40.41	54.00	-13.59	Vertical
9808.00	30.97	38.67	9.08	36.4	11	42.31	54.00	-11.69	Vertical
12260.00	31.65	39.16	10.26	36.4	17	44.60	54.00	-9.40	Vertical
1448.00	34.59	25.41	2.94	31.6	55	31.29	54.00	-22.71	Horizontal
3268.00	43.89	28.48	4.64	35.0	1(	42.00	54.00	-12.00	Horizontal
4904.00	30.92	31.59	5.93	34.7	'2	33.72	54.00	-20.28	Horizontal
7356.00	32.82	36.49	7.16	36.16		40.31	54.00	-13.69	Horizontal
9808.00	31.87	38.64	9.08	36.35		43.24	54.00	-10.76	Horizontal
12260.00	32.84	39.11	10.32	36.5	52	45.75	54.00	-8.25	Horizontal

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