Report No.: EH/2011/40019 Issue Date: May. 24, 2011

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ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART C REQUIREMENT

Product Name: OD8

BF-01C Marketing Name:

Brand Name: NTT Docomo

Model Name: BF-01C

Model Different: N/A

FCC ID: HFS-QD8

EH/2011/40019 **Report No.:**

Issue Date: May. 24, 2011

FCC Rule Part: §15.247, Cat: DTS

Prepared for: Quanta Computer Inc.

No.188, Wen Hwa 2nd Road, Kuei Shan

Hsiang Tao Yuan Shien, Taiwan

Prepared by: SGS Taiwan Ltd.

Electronics & Communication Laboratory

No. 134, Wu Kung Rd., Wuku Industrial

Zone, Taipei County, Taiwan



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VERIFICATION OF COMPLIANCE

Applicant: Quanta Computer Inc.

No.188, Wen Hwa 2nd Road, Kuei Shan Hsiang Tao Yuan Shien,

Taiwan

Equipment Under Test: QD8

Brand / Marketing Name: NTT Docomo / BF-01C

Model No.: BF-01C

Model Difference: N/A

FCC ID: HFS-QD8

File Number: EH/2011/40019

Date of test: Apr. 14, 2011 ~ May. 19, 2011

Date of EUT Received: Apr. 14, 2011

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.247.

The test results of this report relate only to the tested sample identified in this report.

Test By:	Jay. Lin.	Date	May. 24, 2011	
Prepared By:	Jay Lin / Engineer Judy Han	Date	May. 24, 2011	
Approved By:	Judy Hsu / General Admin. Lang Jim Chang / Supervisor	Date	May. 24, 2011	

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Version

Version No.	Date	Description
00	May. 24, 2011	Initial creation of document

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GENERAL INFORMATION

General:

General.	1		
Product Name:	QD8		
Marketing Name:	BF-01C		
Brand Name:	NTT Docomo		
Model Name:	BF-01C		
Model Difference:	N/A		
	3.7 Vdc re-char	rgeable battery or 5Vdc by AC/DC power adapter	
Power Supply	Battery: Model No.:O31A,Supplier: BUFFALO		
	Adapter: Model: FU05-9050100-A1, Supplier: LEADER		

WLAN(LAN WiFi):

W LAIN	WLAN(LAN WIFI).							
Wi-Fi	Frequency Range	Channels	Rated Power	Modulation Technology	Type of Emission			
11b/g 2	2412-2462	11	b : 15.52dBm g : 16.27dBm	DSSS, OFDM	b : 13M48G1D g : 16M45G1D			
1.1	HT20 2412-2462	11	n : 16.34dBm	OED) (17M68D1D			
11n	HT40 2422-2452	9	n : 16.95dBm	OFDM	36M18D1D			
Anten	na Designation:		Monopole Antenna with 1 dBi peak gain					
Modulation type:		CCK, DQPSK, DBPSK for DSSS 64QAM. 16QAM, QPSK, BPSK for OFDM						
Transition Rate:			802.11 b: 1/2/5.5/11 Mbps; 802.11 g: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 72.2Mbps 802.11 n_40MHz: 13.5 – 135Mbps					

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WLAN(WAN WiFi):

Wi-Fi	Frequency Range	Channels	Rated Power	Modulation Technology	Type of Emission		
11b/g 2	2412-2462	11	b : 14.59dBm g : 16.15dBm	DSSS, OFDM	b : 13M50G1D g : 16M46G1D		
11	HT20 2412-2462	11	n : 16.19dBm	OED) (17M69D1D		
11n	HT40 2422-2452	9	9 n: 18.44dBm OFDM	36M17D1D			
Anten	na Designation:		PIFA Antenna with -0.3 dBi peak gain				
Modulation type:		CCK, DQPSK, DBPSK for DSSS 64QAM. 16QAM, QPSK, BPSK for OFDM					
Transition Rate:			802.11 b: 1/2/5.5/11 Mbps; 802.11 g: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 72.2Mbps 802.11 n_40MHz: 13.5 – 135Mbps				

The EUT is compliance with IEEE 802.11 b/g/n Standard.

This report applies for WLAN, and complies with FCC rule part 15C.



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1.1 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID:** <u>HFS-QD8</u> filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules . The composite system (digita 1 device) is compliance with Subpart B is authorized under a DoC procedure.

1.2 Test Methodology

Both conducted and radiated testin g was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

Tested in accordance with Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

1.3 Test Facility

The measurement facilities used to collect the 3m Radiated Em ission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FC C requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-4.

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Ts uo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calib rated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 & 10 meters) and FCC Registration Number: 94644.

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

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SYSTEM TEST CONFIGURATION

2.1 **EUT Configuration**

The EUT configuration for testing is installed on RF field strength m easurement to meet the Commissions requirement and operating in a m anner which intends to maxim ize its emission characteristics in a continuous normal application.

2.2 **EUT Exercise**

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

2.3 **Test Procedure**

2.3.1 Conducted Emissions

The EUT is a placed on as turn tab le which is 0.8 m above ground plane. According to the requirements in Section 7 and 13 of ANSI C63.4-2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Qua si-Peak and Average detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenn a which varied from 1m to 4m to fi nd out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes and measurem ent procedures for electric field radiated e missions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azim uth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the m easurement antenna. according to the requirements in Section 8 and 13 of ANSI C63.4-2003.

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Configuration of Tested System

Fig. 2-1 AC Power line Emission Configuration

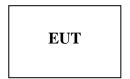


Fig. 2-2 Radiated Emission Configuration

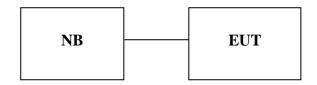


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.
1	NB HP		ProBook 4411s	CNU9316V4C

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3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.207(a)	AC Power Line Conducted Emission	Compliant
§15.247(b) (3),(4)(c)	Peak Output Power	Compliant
§15.247(a)(2)	6dB Bandwidth	Compliant
04.7.04.7(1)	100 KHz Bandwidth Of	G
§15.247(d)	Frequency Band Edges	Compliant
§15.247(d)	Spurious Emission	Compliant
§15.247(e)	Peak Power Density	Compliant
§15.203 Antenna	Requirement	Compliant

4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

- 802.11 b mode: Channel low (2412MHz) mid (2437MHz) and high (2462MHz) with 1Mbps lowest data rate are chosen for full testing.
- 802.11 g mode: Channel low (2412MHz) mid (2437MHz) and high (2462MHz) with 6Mbps lowest data rate are chosen for full testing.
- $802.11\ n_20 MHz$ mode: Channel low (2412MHz) \cdot mid (2437MHz) and high (2462MHz) with
- 6.5Mbps lowest data rate are chosen for full testing.
- 802.11 n_40MHz mode: Channel lowest (2422MHz), mid(2437MHz) and high (2452MHz) with
- 13.5 Mbps highest data rate are chosen for full testing.

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5 CONDUCTED EMISSION TEST

5.1 Standard Applicable:

According to §15.207, frequency range within 150KHz to 30MHz shall not exceed the Limit table as below.

7	Limits		
Frequency range	dB((uV)	
MHz	Quasi-peak	Average	
0.15 to 0.50	66 to 56	56 to 46	
0.50 to 5	56	46	
5 to 30	60	50	

Note

1. The lower limit shall apply at the transition frequencies

5.2 Measurement Equipment Used:

Conducted Emission Test Site							
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.		
TYPE		NUMBER	NUMBER	CAL.			
EMI Test Receiver	R&S ESC	S30	828985/004	09/16/2010 0	9/15/ 2011		
LISN Rolf-Hein	e	NNB-2/16Z	99012	02/02/2011	02/01/2012		
LISN	FCC	FCC-LISN-50/250-25-2-01	04034	02/02/2011 0	2/01/ 2012		
Coaxial Cables	N/A	WK CE Cable	N/A	11/28/2010	11/27/2011		

5.3 EUT Setup:

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4-2003.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
- 3. The LISN was connected with 120Vac/60Hz power source.

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^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.



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5.4 Measurement Procedure:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all frequency measured were complete.

5.5 Measurement Result:

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Note: Refer to next page for measurement data and plots.

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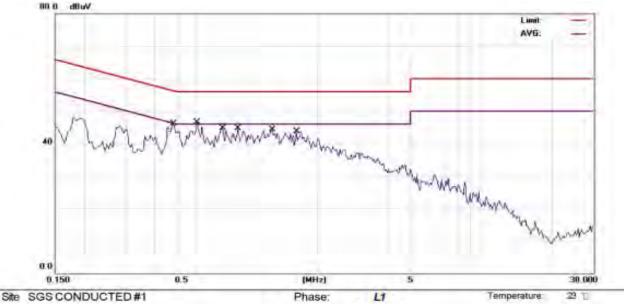


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AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	WLAN(LAN WiFi)			Test Date:	Apr. 28, 2011
Temperature:	22 °C	Humidity:	57%	Test By:	Jay



Power:

Distance:

AC 120V/60Hz

Limit: FCC Class B Conduction(QP)

EUT: PortableDevice

M/N: QD8

Note: WLAN mode (IC1-L wifi)

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit.	Over		
		MHz	dBuV	dΒ	dBuV	dBuV	dB	Detector	Comment
1		0.4794	42.91	0.12	43.03	56.35	-13.32	OP.	
2	+	0.4794	36.53	0.12	36.65	46.35	-9.70	AVG	
3		0.6083	43,47	0.12	43.59	56.00	-12.41	OP	
4		0.6083	35.22	0.12	35.34	46.00	-10,66	AVG	
5		0.7788	40.61	0.11	40.72	56.00	-15.28	QP	
6	100	0.7788	34.06	0.11	34.17	46.00	-11.83	AVG	
7		0.9092	40.77	0.11	40.88	56.00	-15.12	QP .	
8		0.9092	34.18	0.11	34.29	46.00	-11.71	AVG	
9		1.2779	39.09	0.12	39.21	56,00	-16.79	OP	
10		1.2779	33,01	0.12	33.13	46.00	-12.87	AVG	
11		1,6207	38.04	0.13	38.17	56.00	-17,83	QP	
12		1.6207	31.21	0.13	31.34	46.00	-14.66	AVG	

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Humidity:

Air Pressure

tipe



Report No.: EH/2011/40019 **Issue Date: May. 24, 2011**

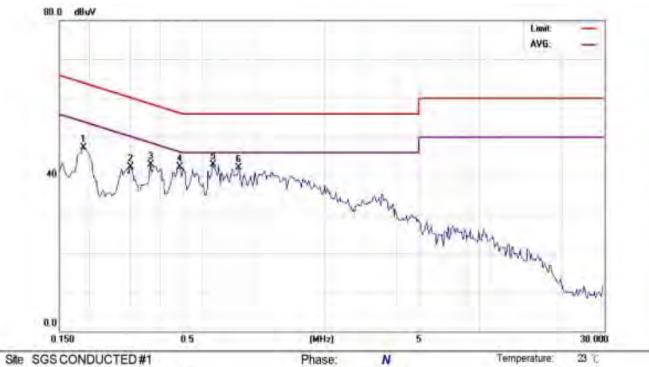
Page: 15 of 215

Humidity:

Air Pressure

61%

PERM



Site SGS CONDUCTED#1

Limit: FCC Class B Conduction(QP)

EUT: Portable Device

M/N: QD8

Note: WLAN mode (IC1-L wifi).

No. Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over	7.7	
	MHz	dBuV	dΕ	dBuV	dBuV	dΒ	Detector	Comment
1	0.1900	47.08	0.17	47.25	64.04	-16.79	peak	
2	0.3000	42.11	0.16	42.27	60.24	-17.97	peak	
3	0.3650	42.71	0.16	42.87	58.61	-15.74	peak	
4	0.4850	4221	0.16	42.37	56.25	-13.88	peak	
5 *	0.6700	42.75	0.16	42.91	56.00	-13.09	peak	
6	0.8600	41.98	0.15	42.13	56.00	-13.87	peak	

Power:

Distance:

AC 120V/60Hz

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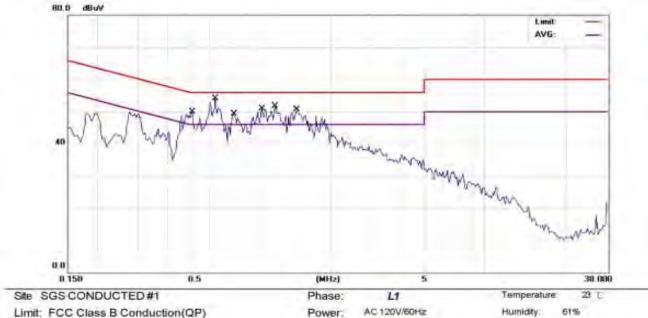
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Air Pressure

AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	WLAN(WAN Wi	Fi)	Test Date:	Apr. 28, 2011	
Temperature:	22 °C	Humidity:	57%	Test By:	Jay



Distance:

Limit: FCC Class B Conduction(QP)

EUT: PortableDevice

M/N: QD8

Note: WLAN mode (IC2-W wifi)

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dΒ	dBuV	dBuV	dB	Detector	Comment
1		0.5061	46.55	0.12	46.67	56,00	-9.33	QP	
2		0.5061	36.64	0.12	36.76	46.00	-9.24	AVG	
3		0.6411	49.71	0.12	49,83	56.00	-6.17	OP	
4	*	0.6411	40.46	0.12	40.58	46.00	-5.42	AVG	
5		0.7685	43,97	0.11	44.08	56.00	-11.92	OP.	
6		0.7685	35,51	0.11	35.62	46.00	-10.38	AVG	
7		1.0063	45,66	0.11	45.77	56.00	-10.23	QP.	
8		1.0063	37,48	0.11	37,59	46.00	-8.41	AVG	
9		1.1448	44.71	0.12	44.83	56.00	-11.17	QP	
10		1.1448	34.74	0.12	34,86	46.00	-11.14	AVG	
11		1.4153	43.81	0.13	43,94	56.00	-12.06	QP	
12		1.4153	34,20	0.13	34.33	46.00	-11.67	AVG	

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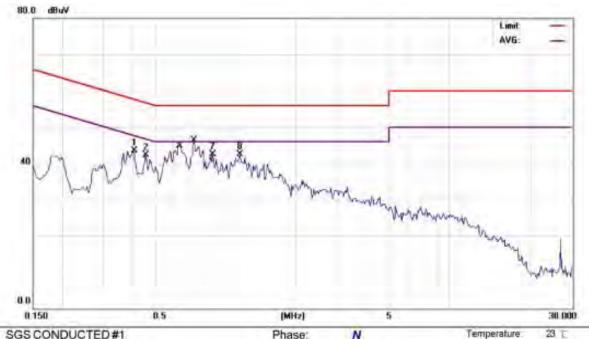
Temperature

Air Pressure

hos

Humidity:

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Phase:

Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED#1

Limit: FCC Class B Conduction(QP)

台灣檢驗科技股份有限公司

EUT: Portable Device

M/N: QD8

Note: WLAN mode (IC2-W wifi)

No.	lo. Mk.	Freq	Reading Level	Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4050	43,34	0.16	43.50	57.75	-14.25	peak	
2		0.4550	42.24	0.16	42.40	56.78	-14.38	peak	
3		0.6374	42.46	0.16	42.62	56.00	-13.38	QP	
4	*	0.6374	33.62	0.16	33.78	46.00	-12.22	AVG	
5		0.7294	36,81	0.15	36.96	56.00	-19.04	QP	
6		0.7294	28.68	0.15	28.83	46.00	-17.17	AVG	
7		0.8800	42.32	0.15	42.47	56.00	-13,53	peak	
8		1.1500	42.45	0.15	42.60	56.00	-13.40	peak	

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6 PEAK OUTPUT POWER MEASUREMENT

6.1 Standard Applicable:

According to $\S15.247(a)(2)$, (b)

- (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

 (4) The conducted output power limit specified in paragraph (b) of this section is based
- on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (c) Operation with directional antenna gains greater than 6 dBi.
- (1) Fixed point-to-point operation:
- (i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi 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 6 dBi.
- (ii) Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

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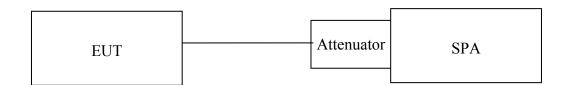
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6.2 Measurement Equipment Used:

	Conduct	ted Emission T	est Site		
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
Power Sensor	Anritsu	MA2411B 91	70 32	01/21/2011	01/20/2012
Power Meter	Anritsu	ML2495A	1005007	02/17/2010	02/16/2012
Spectrum Analyzer	Agilent	E4446A MY	43360 126	04/19/2010	04/18/2012
Spectrum Analyzer	Agilent	E4440A	MY45304525	01/25/2011 0	1/24/ 2012
DC Block	Agilent	BLK-18 155	4 52	07/05/2010	07/04/2011
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	01/05/2011 0	1/04/ 2012
Attenuator Mini-	Circuit	BW-S6W5	001	07/05/2010 0	7/04/ 2011
Attenuator Mini-	Circuit	BW-S10W5	001	07/05/2010 0	7/04/ 2011
Attenuator Mini-	Circuit	BW-S20W5	001	07/05/2010 0	7/04/ 2011
Splitter Agilent		11636B	N/A	07/05/2010 0	7/04/ 2011

6.3 Test Set-up:



6.4 Measurement Procedure:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum. (Channel power function, RBW, VBW = 1MHz,Bandwidth=26dB occupied Bandwidth)
- 3. Record the max. reading.
- 4. Repeat above procedures until all frequency measured were complete.

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6.5 **Measurement Result:**

802.11b(LAN WiFi)

	Cable loss = 0		Peak Power Output(Peak) (dBm)							
СН	Frequency (MHz)	Data Rate				Required Limit				
		1	2	5.5	11	Kequireu Linni				
1	2412	15.31	15.28	15.24	15.21	1 Watt = 30 dBm				
6	2437	15.30	15.27	15.23	15.19	1 Watt = 30 dBm				
11	2462	15.52	15.49	15.47	15.44	1 Watt = 30 dBm				

	Cable loss = 0		Peak Power Output(Avg) (dBm)							
СН	Frequency (MHz)		Data 1		Required Limit					
		1	2	5.5	11	- Kequireu Liiiit				
1	2412	12.79	12.77	12.74	12.70	1 Watt = 30 dBm				
6	2437	12.77	12.74	12.71	12.67	1 Watt = 30 dBm				
11	2462	13.00	12.98	12.94	12.91	1 Watt = 30 dBm				

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802.11g(LAN WiFi)

Cal	ble $loss = 0$	Peak Power Output(Peak) (dBm)								
СН	Frequency (MHz)		Data Rate							
	(1 VIII 2)	6	9	12	18	24	36	48	54	Required Limit
1	2412	16.07	16.03	15.98	15.91	15.87	15.83	15.79	15.74	1 Watt = 30 dBm
6	2437	16.06	16.01	15.97	15.92	15.86	15.82	15.77	15.74	1 Watt = 30 dBm
11	2462	16.27	16.24	16.20	16.17	16.13	16.09	16.06	16.01	1 Watt = 30 dBm

Cal	ole loss = 0	Peak Power Output(Avg) (dBm)								
СН	Frequency (MHz)		Required Limit							
	(WIIIZ)	6	9	12	18	24	36	48	54	Required Limit
1	2412	12.66	12.63	12.59	12.53	12.5	12.46	12.42	12.37	1 Watt = 30 dBm
6	2437	12.66	12.62	12.59	12.54	12.49	12.45	12.4	12.36	1 Watt = 30 dBm
11	2462	12.86	12.82	12.79	12.74	12.7	12.66	12.63	12.59	1 Watt = 30 dBm

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802.11n_20M(LAN WiFi)

Cab	le loss = 0		Peak Power Output(Peak) (dBm)									
СН	Frequency (MHz)		Data Rate									
	(1 VIII 2)	6.5	6.5 13 19.5 26 39 52 58.5 65 72								Limit	
1	2412	16.12	16.07	16.03	15.98	15.94	15.91	15.85	15.81	15.76	1 Watt = 30 dBm	
6	2437	16.11	16.04	15.99	15.96	15.91	15.87	15.82	15.78	15.74	1 Watt = 30 dBm	
11	2462	16.34	16.29	16.25	16.20	16.17	16.13	16.09	16.06	16.01	1 Watt = 30 dBm	

Cal	ole loss = 0		Peak Power Output(Avg) (dBm)													
СН	Frequency (MHz)		Data Rate													
	(IVIIIZ)	6.5	13	19.5	26	39	52	58.5	65	72	Limit					
1	2412	12.66	12.62	12.57	12.53	12.50	12.46	12.41	12.37	12.31	1 Watt = 30 dBm					
6	2437	12.64	12.59	12.55	12.47	12.41	12.37	12.34	12.29	12.24	1 Watt = 30 dBm					
11	2462	12.86	12.83	12.78	12.74	12.70	12.65	12.61	12.58	12.54	1 Watt = 30 dBm					

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802.11n_40M(LAN WiFi)

Cal	ole loss = 0		Peak Power Output(Peak) (dBm)										
СН	Frequency (MHz)		Data Rate										
	(1/112)	13.5	27	40.5	54	81	108	121.5	135	Required Limit			
3	2422	15.98	15.95	15.89	15.86	15.82	15.77	15.74	15.70	1 Watt = 30 dBm			
6	2437	16.95	16.92	16.88	16.85	16.81	16.77	16.72	16.69	1 Watt = 30 dBm			
9	2452	15.82	15.78	15.73	15.69	15.64	15.61	15.55	15.51	1 Watt = 30 dBm			

Cal	ole loss = 0		Peak Power Output(Avg) (dBm)										
СН	Frequency (MHz)		Data Rate										
	(17112)	13.5	27	40.5	54	81	108	121.5	135	Required Limit			
3	2422	12.56	12.52	12.47	12.44	12.41	12.37	12.34	13.29	1 Watt = 30 dBm			
6	2437	13.55	13.52	13.48	13.42	13.37	13.33	13.30	13.25	1 Watt = 30 dBm			
9	2452	12.38	12.34	12.29	12.27	12.24	12.20	12.17	12.12	1 Watt = 30 dBm			

*Note: Offset1 0.5dB

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802.11b(WAN WiFi)

(Cable loss = 0		Peak Power Output(Peak) (dBm)								
СН	Frequency (MHz)		Doguired Limit								
		1	Required Limit								
1	2412	14.10	14.08	14.05	14.04	1 Watt = 30 dBm					
6	2437	14.59	14.58	14.55	14.54	1 Watt = 30 dBm					
11	2462	13.88	13.86	13.85	13.82	1 Watt = 30 dBm					

	Cable loss = 0		Peak Power Output(Avg) (dBm)								
СН	Frequency (MHz)		Doguired Limit								
		1	Required Limit								
1	2412	11.55	11.53	11.51	11.48	1 Watt = 30 dBm					
6	2437	12.11	12.08	12.07	12.04	1 Watt = 30 dBm					
11	2462	11.35	11.33	11.3	11.29	1 Watt = 30 dBm					

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802.11g(WAN WiFi)

Cal	ble loss = 0		Peak Power Output(Peak) (dBm)										
СН	Frequency (MHz)		Data Rate										
	(141112)	6	9	12	18	24	36	48	54	Required Limit			
1	2412	15.23	15.21	15.20	15.18	15.15	15.13	15.12	15.1	1 Watt = 30 dBm			
6	2437	15.97	15.95	15.91	15.88	15.87	15.85	15.81	15.79	1 Watt = 30 dBm			
11	2462	16.15	16.11	16.09	16.07	16.03	16.02	16.00	15.97	1 Watt = 30 dBm			

Cal	ble loss = 0		Peak Power Output(Avg) (dBm)										
CH Frequency (MHz) Data Rate										Required Limit			
	(141112)	6	9	12	18	24	36	48	54	Required Limit			
1	2412	11.38	11.35	11.34	11.31	11.27	11.25	11.24	11.21	1 Watt = 30 dBm			
6	2437	11.81	11.80	11.77	11.75	11.74	11.72	11.71	11.68	1 Watt = 30 dBm			
11	2462	12.12	12.10	12.08	12.05	12.04	12.02	12.01	11.98	1 Watt = 30 dBm			

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802.11n_20M(WAN WiFi)

Cal	ble loss = 0										
СН	Frequency (MHz)		Data Rate								
	(1 VIII 2)	6.5	6.5 13 19.5 26 39 52 58.5 65 72								Limit
1	2412	15.30	15.29	15.27	15.25	15.23	15.22	15.20	15.17	15.11	1 Watt = 30 dBm
6	2437	16.02	16.00	15.98	15.95	15.91	15.90	15.88	15.85	15.82	1 Watt = 30 dBm
11	2462	16.19	16.18	16.15	16.11	16.09	16.05	16.04	16.01	15.96	1 Watt = 30 dBm

Cal	ole loss = 0		Peak Power Output(Avg) (dBm)											
СН	Frequency (MHz)		Data Rate											
	(IVIIIZ)	6.5 13 19.5 26 39 52 58.5 65 72									Limit			
1	2412	11.44	11.43	11.41	11.38	11.35	11.33	11.32	11.30	11.25	1 Watt = 30 dBm			
6	2437	11.96	11.93	11.92	11.90	11.89	11.86	11.85	11.82	11.76	1 Watt = 30 dBm			
11	2462	11.29	11.28	11.26	11.25	11.23	11.21	11.20	11.18	11.14	1 Watt = 30 dBm			

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802.11n_40M(WAN WiFi)

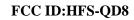
Cal	ole loss = 0		Peak Power Output(Peak) (dBm)										
СН	Frequency (MHz)		Data Rate										
	(11112)	13.5	27	40.5	54	81	108	121.5	135	Required Limit			
3	2422	15.51	15.48	15.47	15.45	18.44	15.39	15.38	15.35	1 Watt = 30 dBm			
6	2437	15.26	15.23	15.20	15.21	15.17	15.15	15.14	15.12	1 Watt = 30 dBm			
9	2452	15.76	15.75	15.72	15.68	15.65	15.64	15.61	15.58	1 Watt = 30 dBm			

Cal	ble loss = 0												
СН	Frequency (MHz)		Data Rate										
	(14112)	13.5	27	40.5	54	81	108	121.5	135	Required Limit			
3	2422	11.32	11.30	11.27	11.25	11.24	11.21	11.20	11.18	1 Watt = 30 dBm			
6	2437	11.29	11.28	11.27	11.24	11.22	11.20	11.17	11.16	1 Watt = 30 dBm			
9	2452	11.78	11.77	11.74	11.73	11.70	11.67	11.66	11.65	1 Watt = 30 dBm			

*Note: Offset1 0.5dB

Note: Refer to next page for plots.

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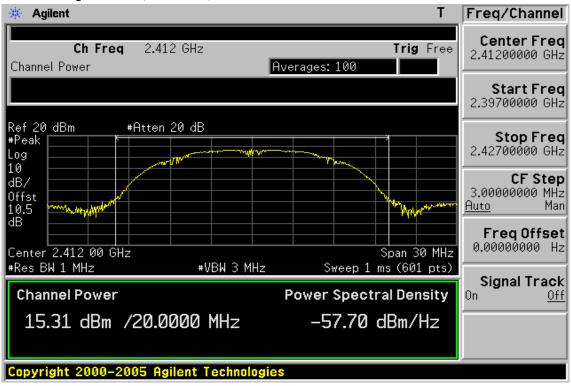




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802.11b, 1Mbps(LAN WiFi) Peak Power Output Plot (CH Low)



Peak Power Output Plot (CH Mid)



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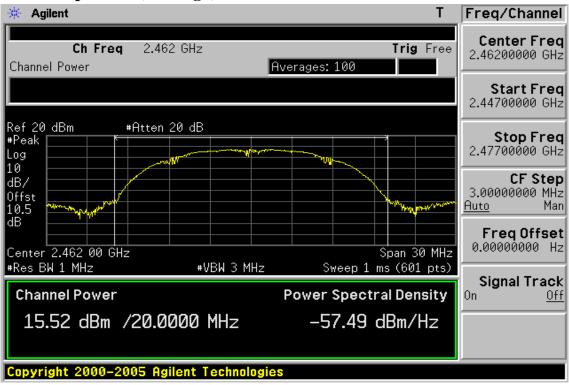
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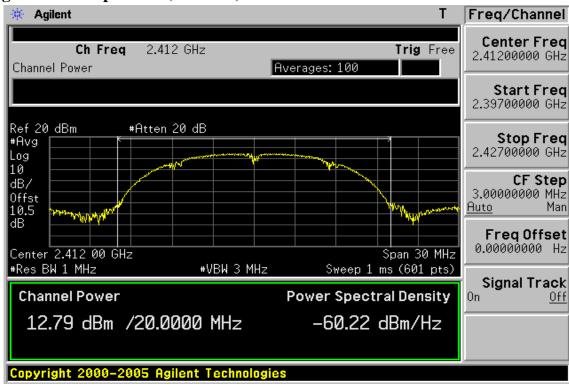
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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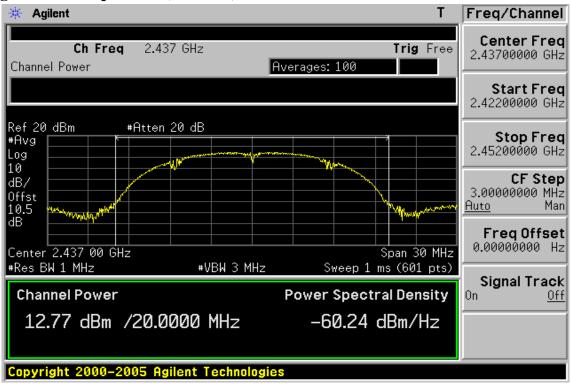
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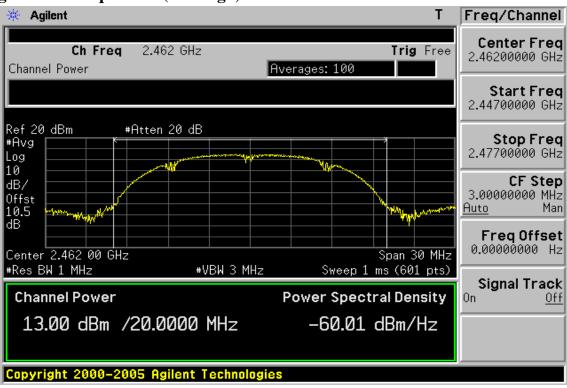
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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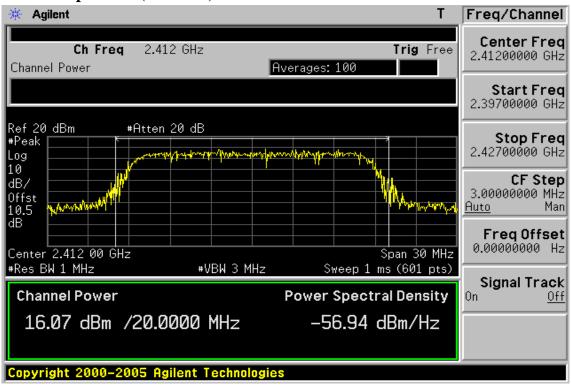
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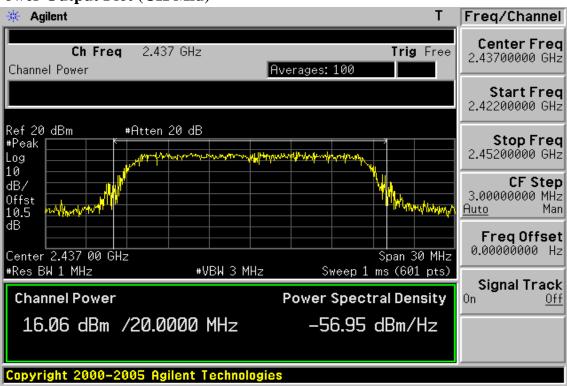
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802.11g, 6Mbps(LAN WiFi) **Peak Power Output Plot (CH Low)**



Peak Power Output Plot (CH Mid)



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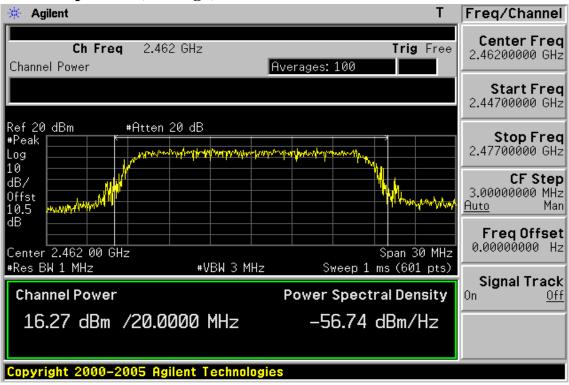
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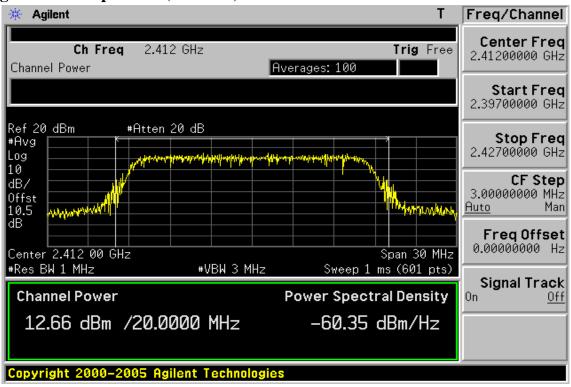
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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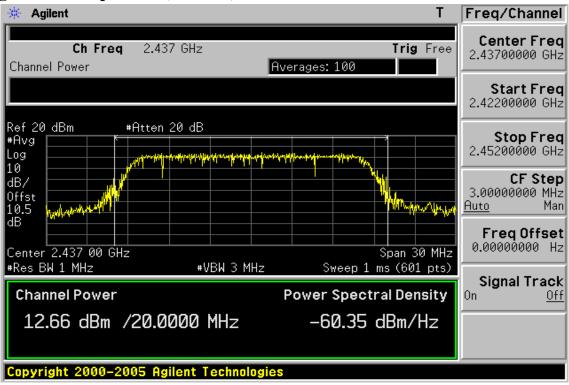
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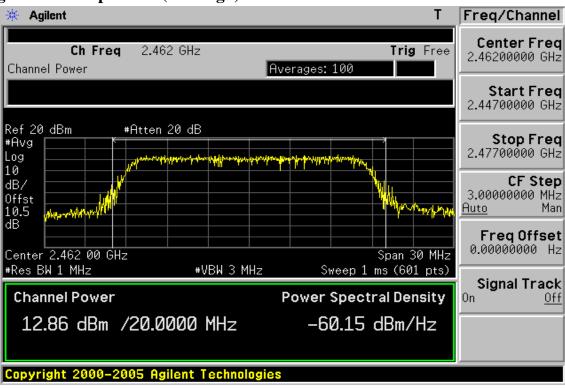
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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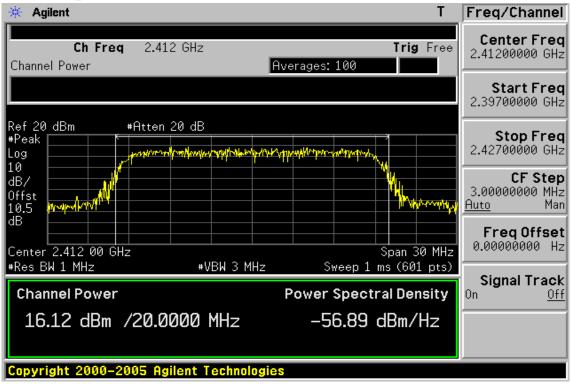
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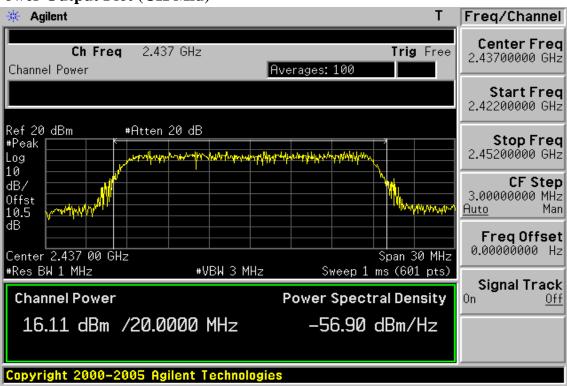
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802.11n_20M, 6.5Mbps(LAN WiFi) **Peak Power Output Plot (CH Low)**



Peak Power Output Plot (CH Mid)



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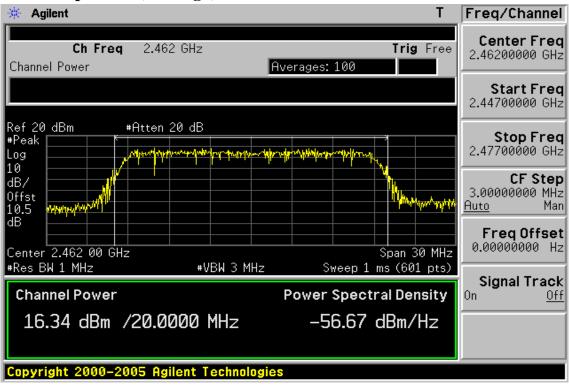
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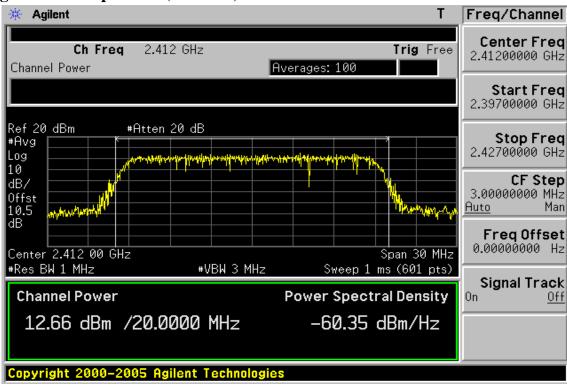
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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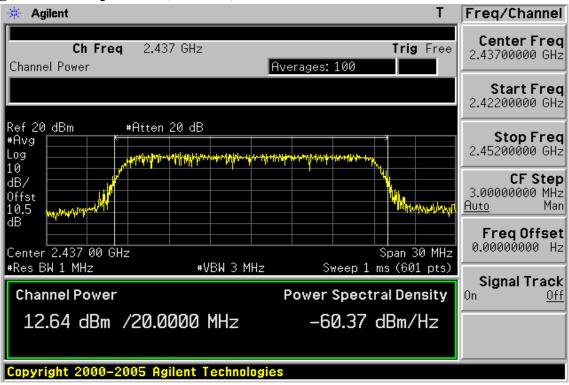
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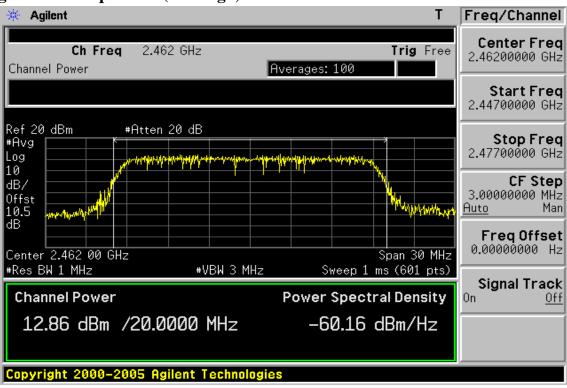
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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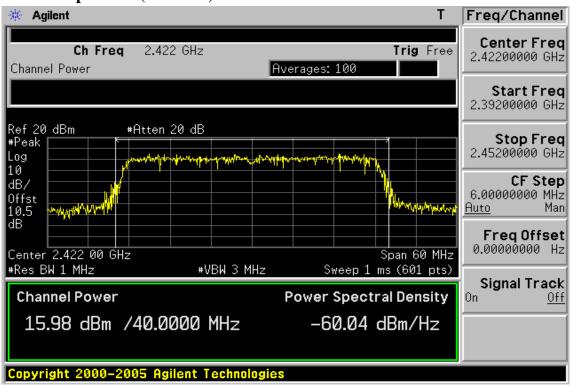
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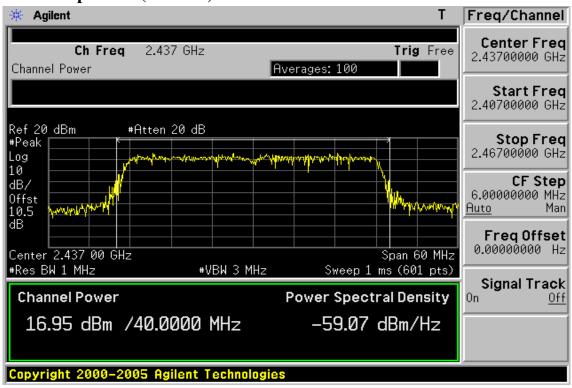
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802.11n_40M, 13.5Mbps(LAN WiFi) Peak Power Output Plot (CH Low)



Peak Power Output Plot (CH Mid)



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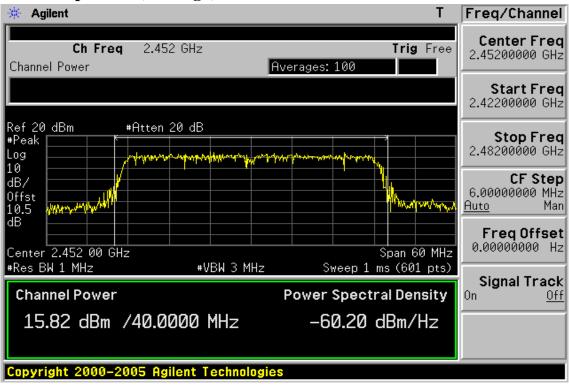
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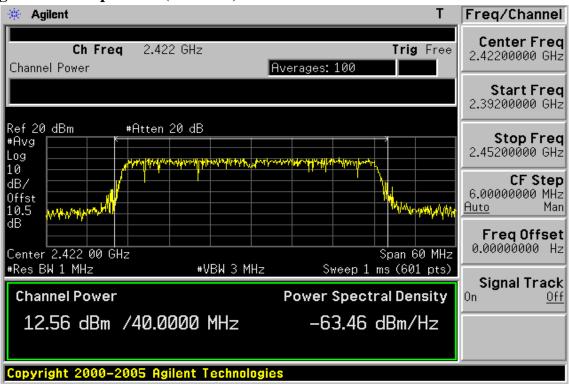
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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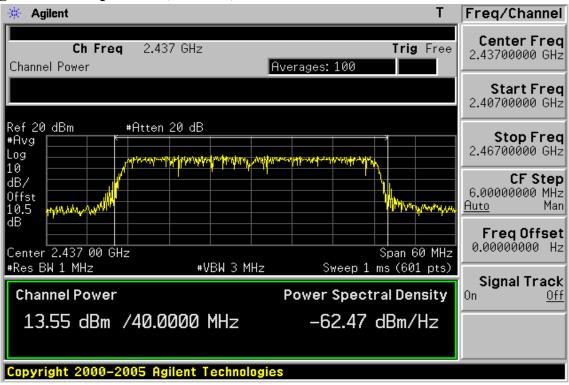
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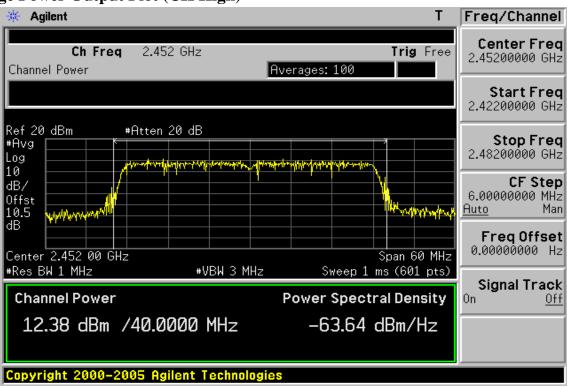
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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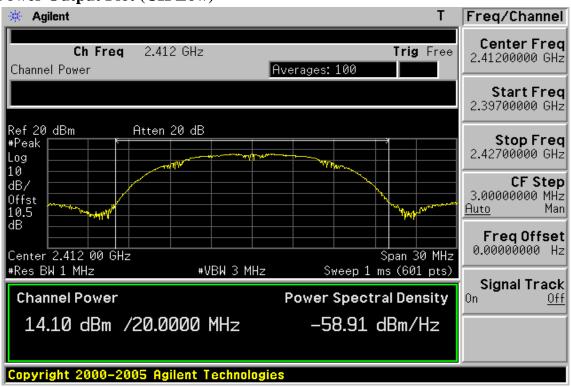




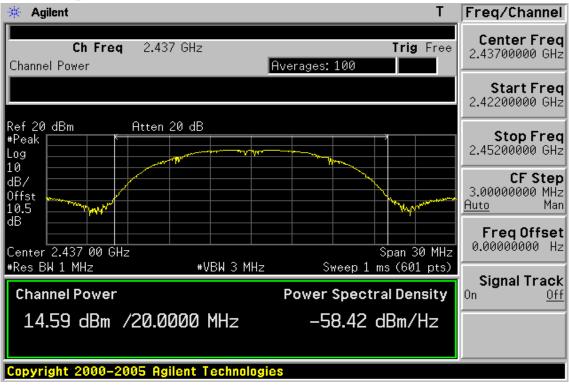
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802.11b, 1Mbps(WAN WiFi) Peak Power Output Plot (CH Low)



Peak Power Output Plot (CH Mid)



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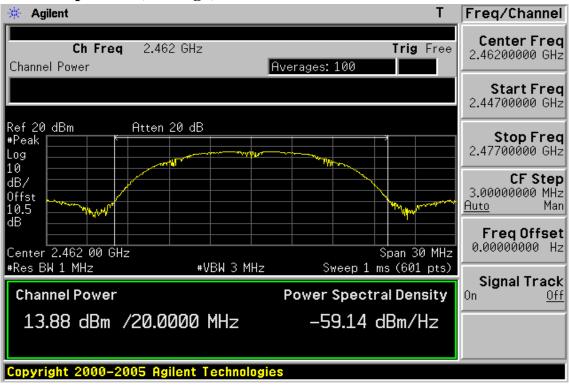
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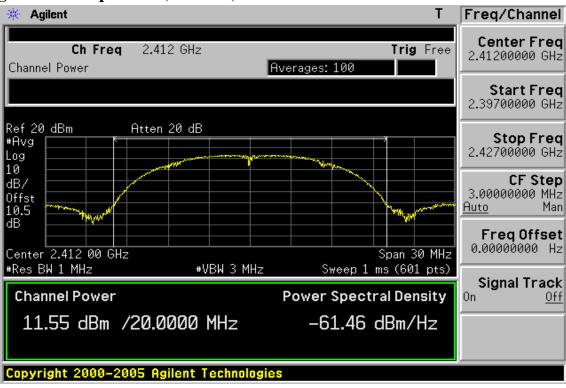
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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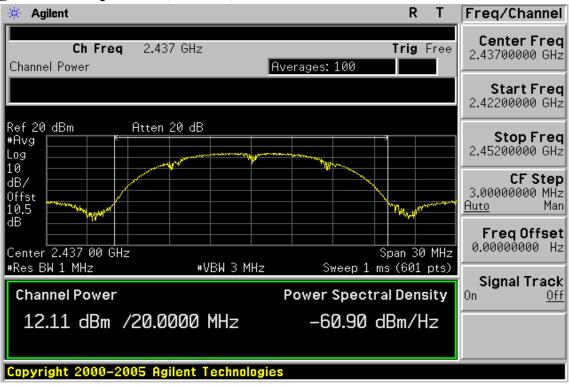
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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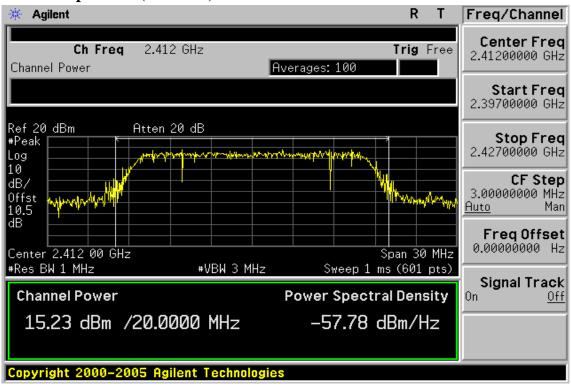
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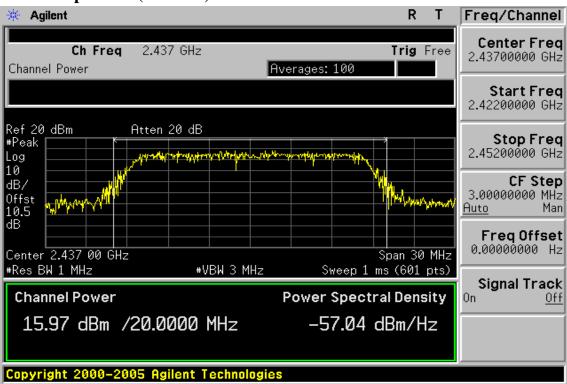
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802.11g, **6Mbps**(WAN WiFi) **Peak Power Output Plot (CH Low)**



Peak Power Output Plot (CH Mid)



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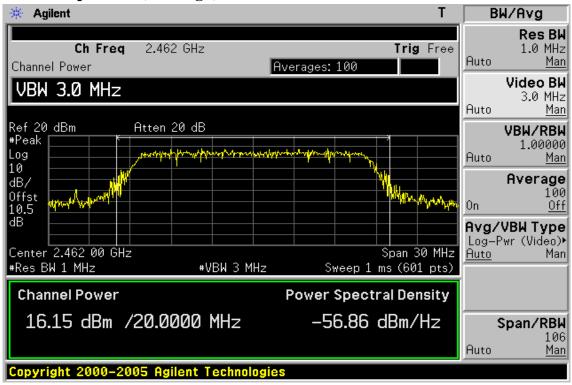
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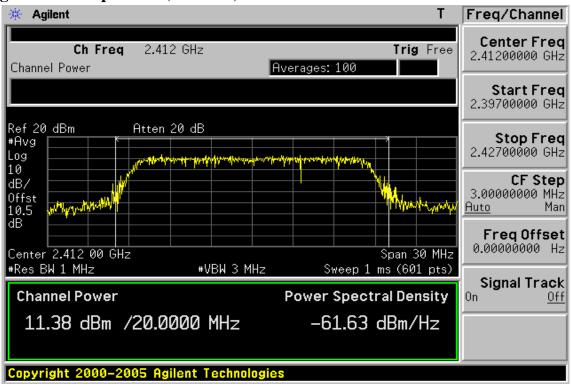
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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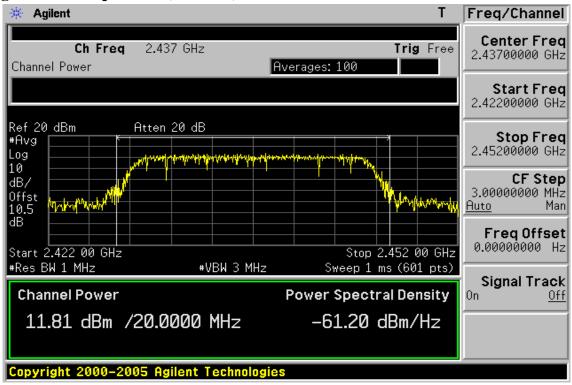
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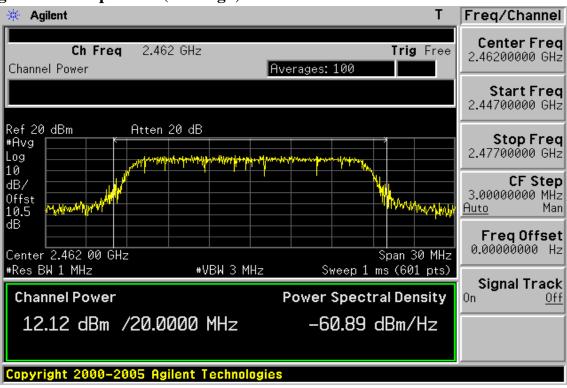
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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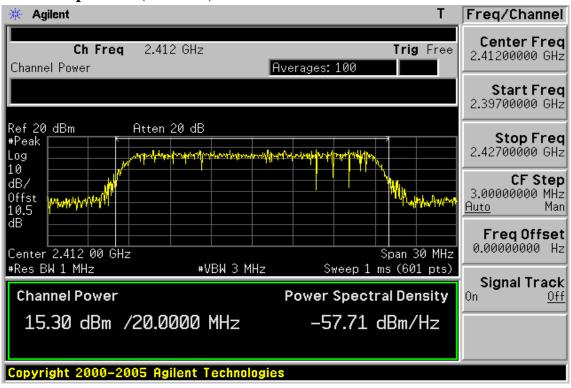
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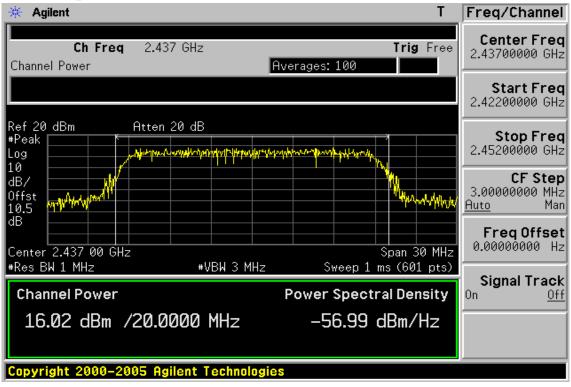
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802.11n_20M, 6.5Mbps(WAN WiFi) Peak Power Output Plot (CH Low)



Peak Power Output Plot (CH Mid)



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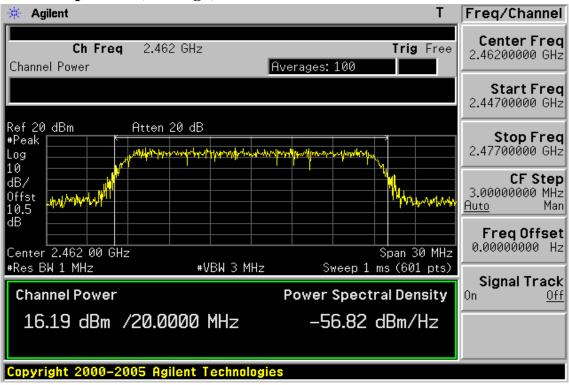
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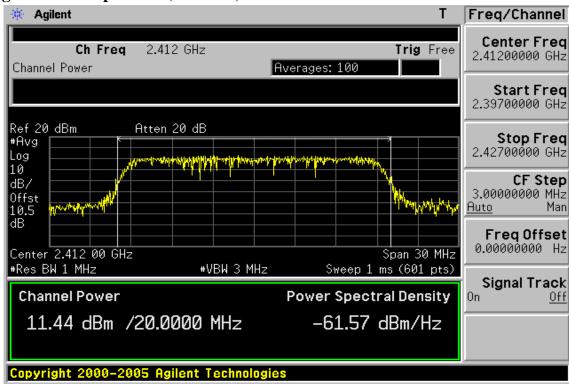
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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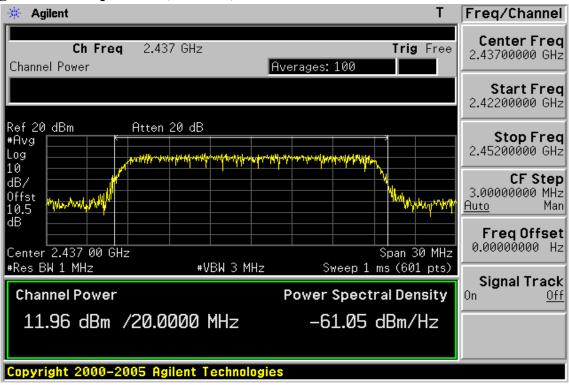
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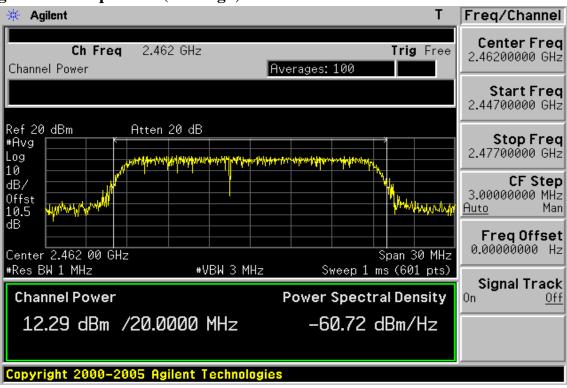
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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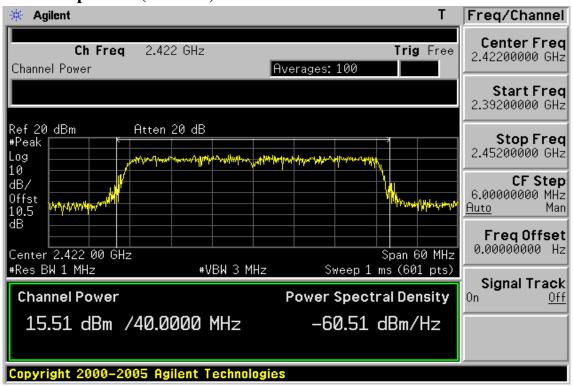
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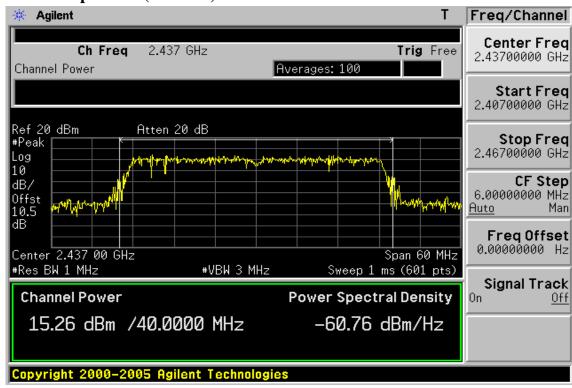
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802.11n_40M, 13.5Mbps(WAN WiFi) Peak Power Output Plot (CH Low)



Peak Power Output Plot (CH Mid)



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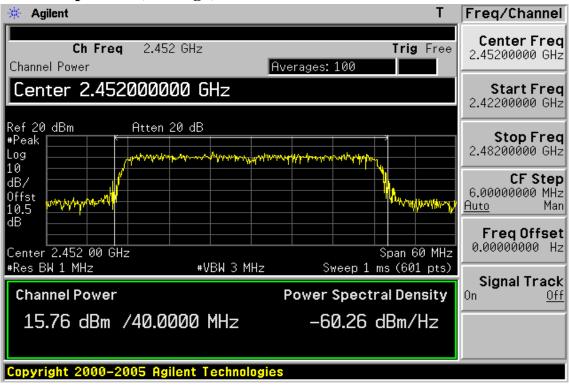
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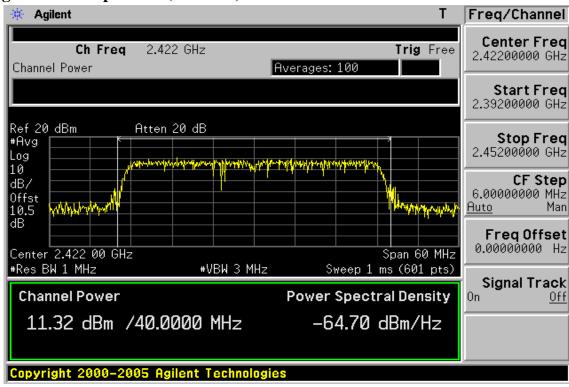
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Peak Power Output Plot (CH High)



Average Power Output Plot (CH Low)



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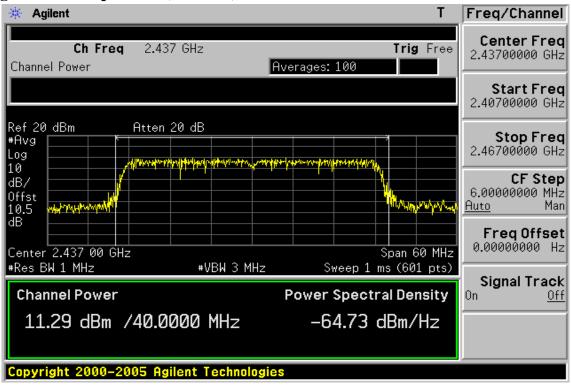
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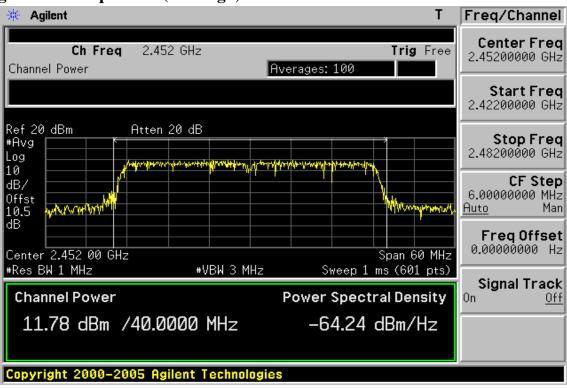
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Average Power Output Plot (CH Mid)



Average Power Output Plot (CH High)



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7 6dB Bandwidth

7.1 Standard Applicable:

According to §15.247(a)(2), Systems using digital modulation techniques may operate in the 902 - 928 MHz,2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500kHz.

7.2 Measurement Equipment Used:

Refer to section 6.2 for details.

7.3 Test Set-up:

Refer to section 6.3 for details.

7.4 Measurement Procedure:

- 1.Place the EUT on the table and set it in transmitting mode.
- 2.Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3.Set the spectrum analyzer as RBW=100KHz, VBW = 3*RBW, Span= 30M/50MHz, Sweep=auto
- 4. Mark the peak frequency and –6dB (upper and lower) frequency.
- 5. Repeat above procedures until all frequency measured were complete.

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7.5 **Measurement Result:**

802.11b(LAN WiFi)

Frequency (MHz)	Bandwidth	Bandwidth	Result
2412 10.03:	(MHz)	(KHz) > 500	PASS
2437 10.030)	> 500	PASS
2462 9.965		> 500	PASS

802.11g(LAN WiFi)

002:11g(L/11\ WIF1)						
Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result			
2412 16.63)	> 500	PASS			
2437 16.624	4	> 500	PASS			
2462 16.61)	> 500	PASS			

802.11n_20M(LAN WiFi)

Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result
2412 17.83	7	> 500	PASS
2437 17.84	7	> 500	PASS
2462 17.79	4	> 500	PASS

802.11n 40M(LAN WiFi)

Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result
2422 36.582	2	> 500	PASS
2437 36.602	2	> 500	PASS
2452 36.63	4	> 500	PASS

*Offset 10.5dB

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802.11b(WAN WiFi)

Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result
2412 9.994		> 500	PASS
2437 9.997		> 500	PASS
2462 9.990		> 500	PASS

802 11σ(WAN WiFi)

002:11g(W/IIV WIII)					
Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result		
2412 16.630)	> 500	PASS		
2437 16.634	1	> 500	PASS		
2462 16.633	3	> 500	PASS		

802.11n 20M(WAN WiFi)

Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result
2412 17.730)	> 500	PASS
2437 17.852	2	> 500	PASS
2462 17.85	7	> 500	PASS

802.11n 40M(WAN WiFi)

Frequency (MHz)	Bandwidth (MHz)	Bandwidth (KHz)	Result
2422 36.613	3	> 500	PASS
2437 36.61:	5	> 500	PASS
2452 36.613	8	> 500	PASS

*Offset 10.5dB

Note: Refer to next page for plots.

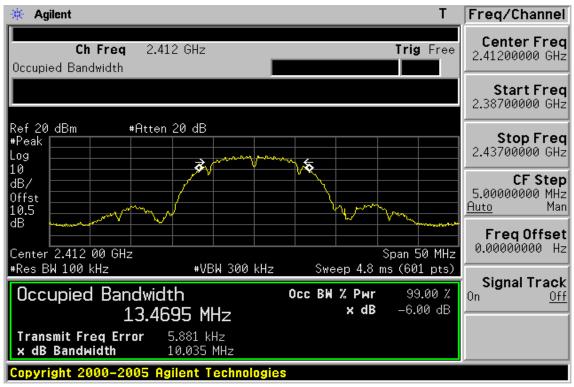




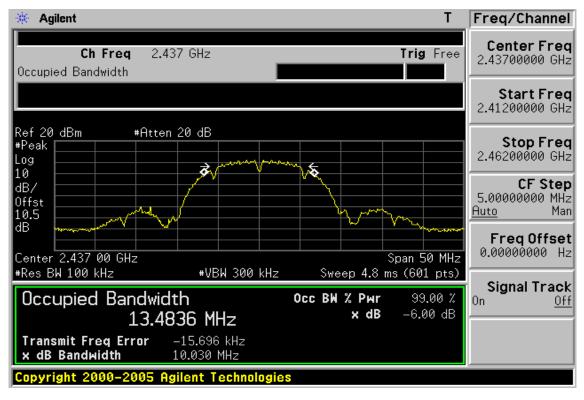
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802.11b(LAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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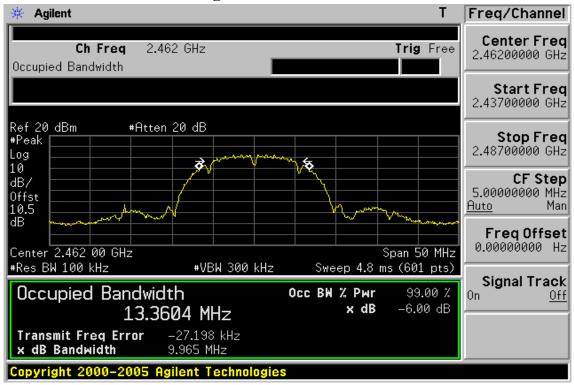
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6dB Band Width Test Data CH-High



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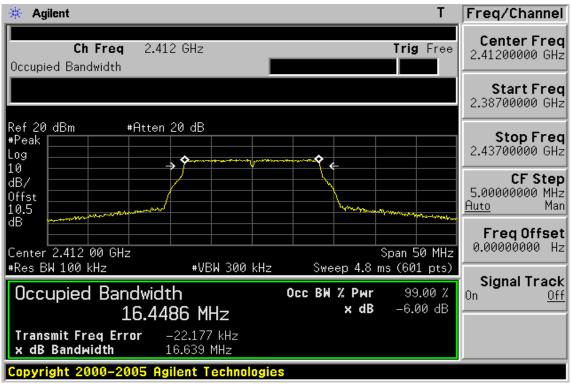




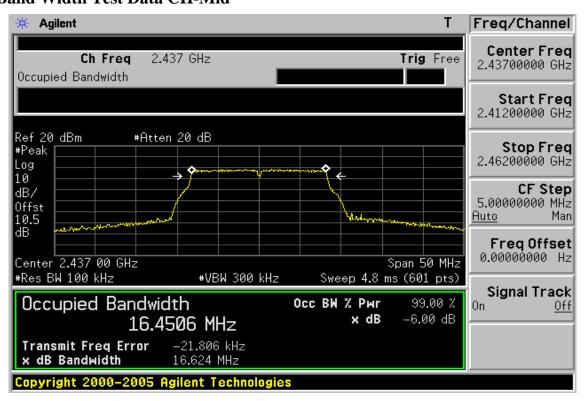
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802.11g(LAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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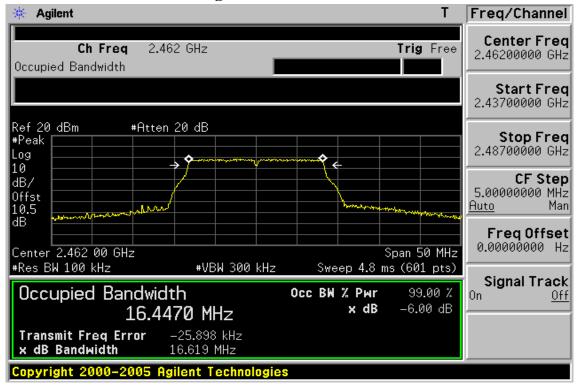
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6dB Band Width Test Data CH-High



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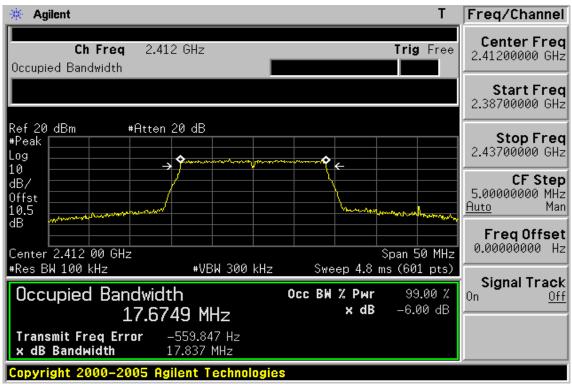
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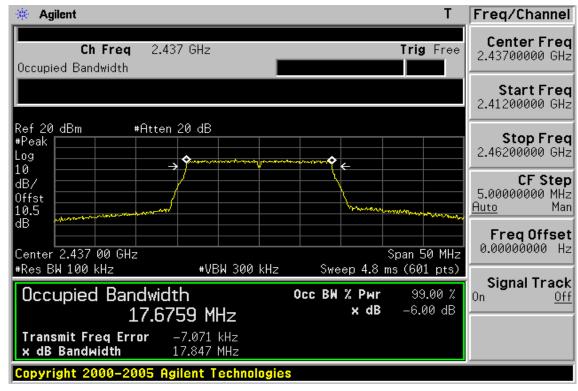
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802.11n_20M(LAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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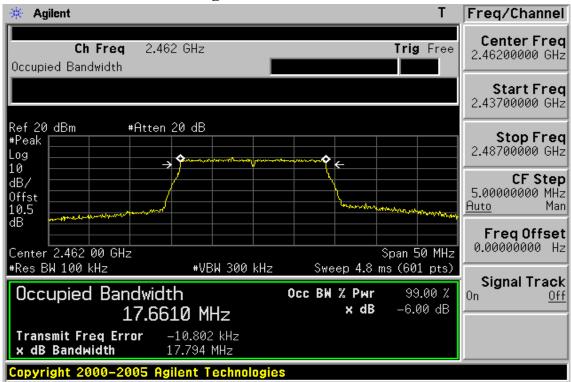
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6dB Band Width Test Data CH-High



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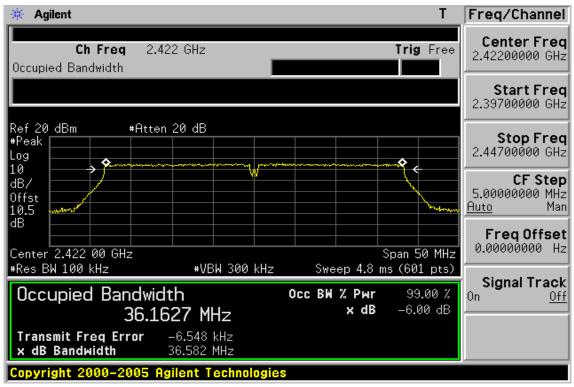
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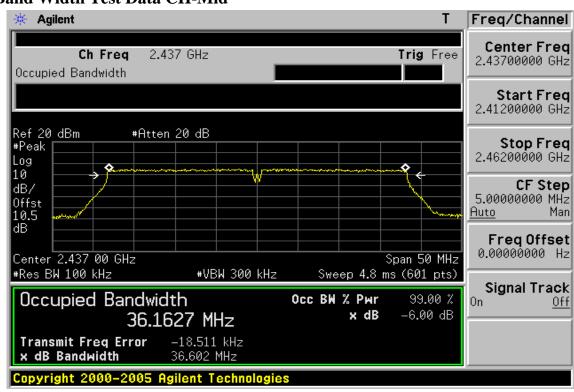
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802.11n_40M(LAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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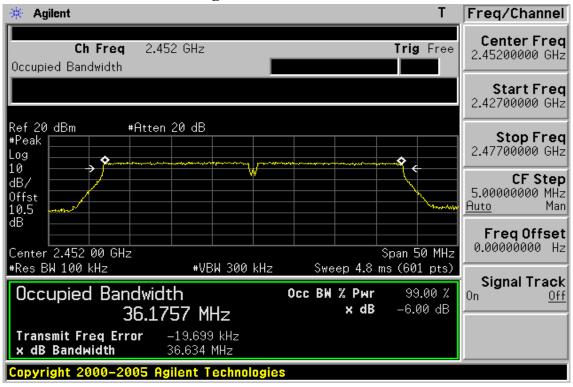
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6dB Band Width Test Data CH-High



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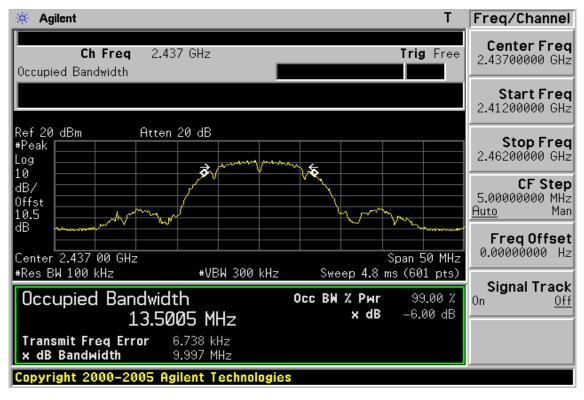
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802.11b(WAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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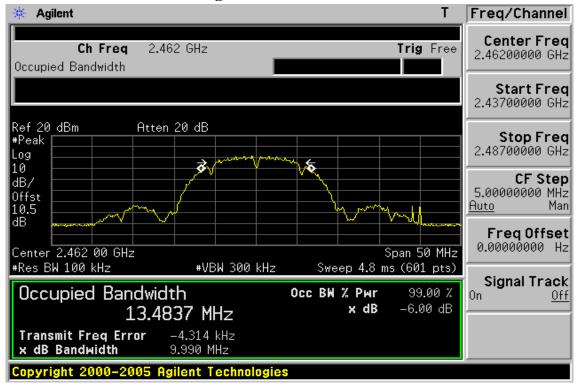
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6dB Band Width Test Data CH-High



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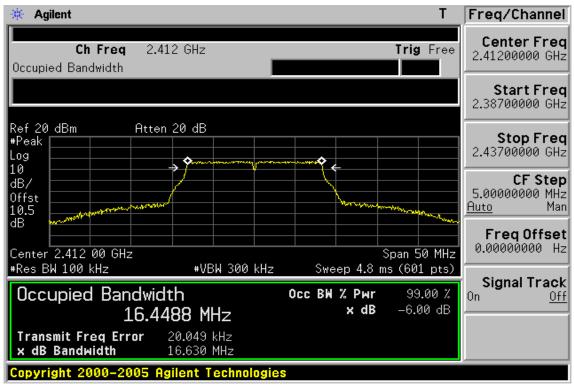


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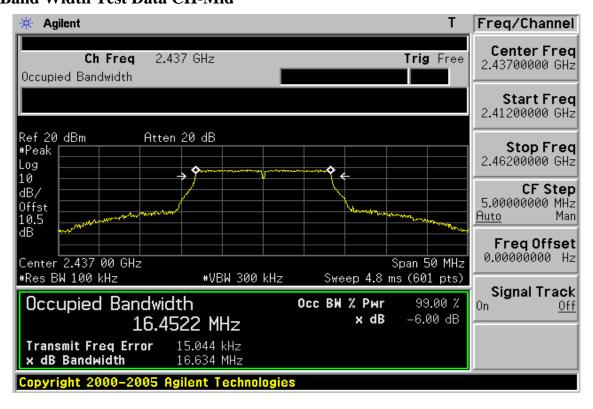
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802.11g(WAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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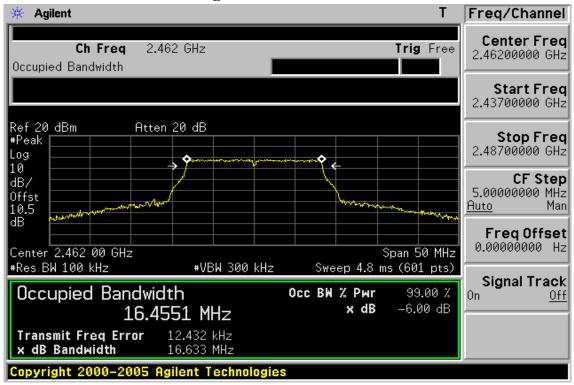
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6dB Band Width Test Data CH-High



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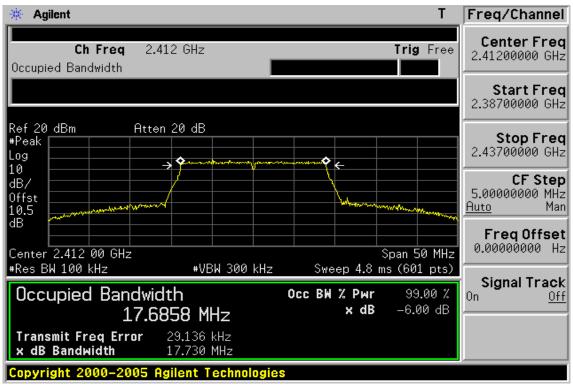
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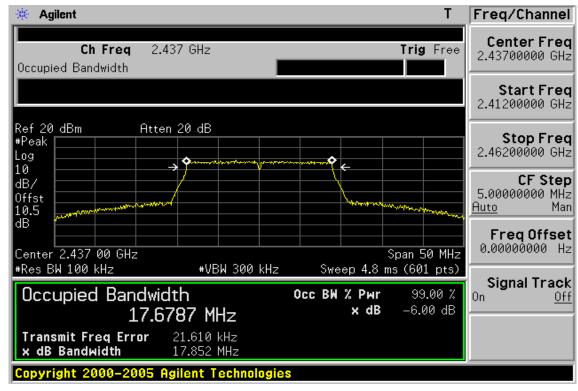
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802.11n_20M(WAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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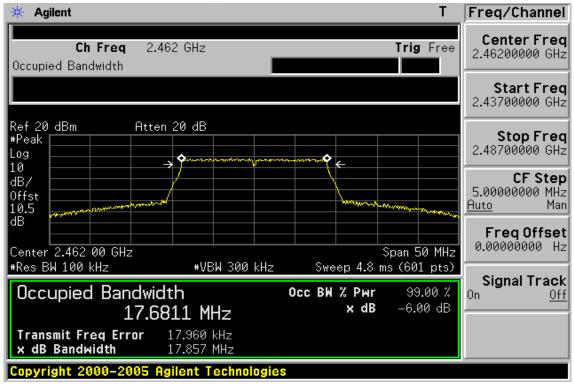
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6dB Band Width Test Data CH-High



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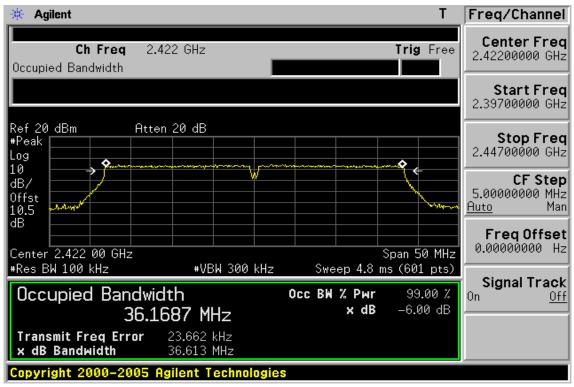
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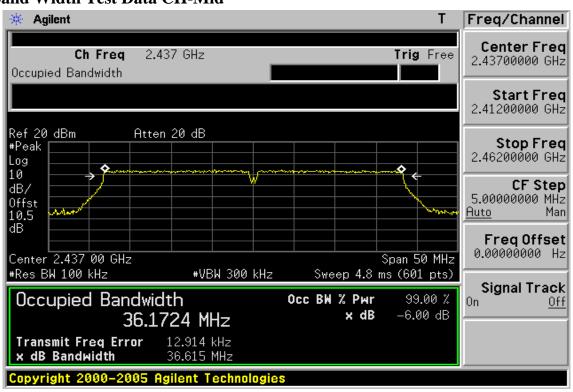
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802.11n_40M(WAN WiFi) 6dB Band Width Test Data CH-Low



6dB Band Width Test Data CH-Mid



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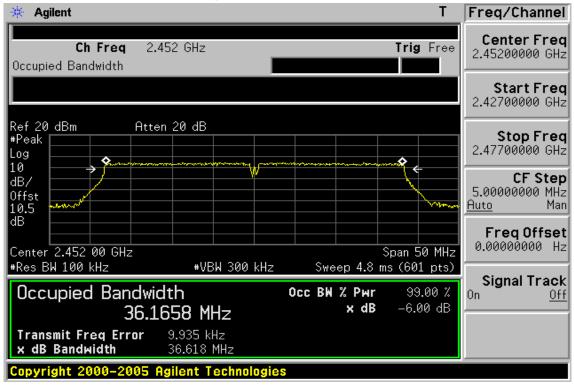
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6dB Band Width Test Data CH-High



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100KHz BANDWIDTH OF BAND EDGES MEASUREMENT

8.1 **Standard Applicable:**

According to §15.247(c), in any 100 KHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

8.2 **Measurement Equipment Used:**

Conducted Emission at antenna port:

Refer to section 6.2 for details.

8.2.2 Radiated emission:

966 Chamber					
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
Spectrum Analyzer	R&S	FSP 40	100034	02/12/2011 0	2/11/ 2012
Loop antenna	MESSTEC	FLA30	03/10086	07/08/2009 0	7/07/ 2011
Bilog Antenna	SCHWAZBECK	VULB9160	9160-3136 11	/19/ 2010	11/18/2011
Horn antenna	SCHWAZBECK	BBHA 9120D	9120D-673 05	/09/ 2010	05/08/2012
Pre-Amplifier Agiler	it	8447D	1937A02834	11/28/2010 1	1/27/ 2011
Pre-Amplifier Agiler	it	8449B	3008A01973	01/05/2011 0	1/04/ 2012
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100 N/A	N.C.R		N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	01/05/2011 0	1/04/ 2012
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	01/05/2011 0	1/04/ 2012
3m Site	SGS	966 chamber	N/A	11/08/2010	11/09/2011

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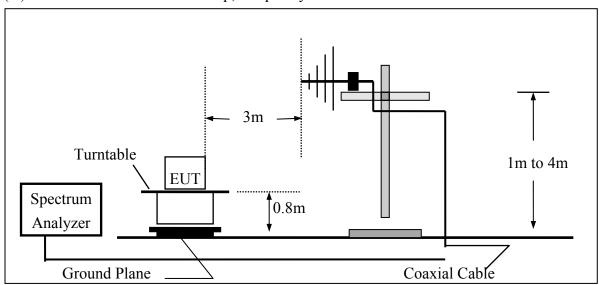
8.3 **Test SET-UP:**

Conducted Emission at antenna port:

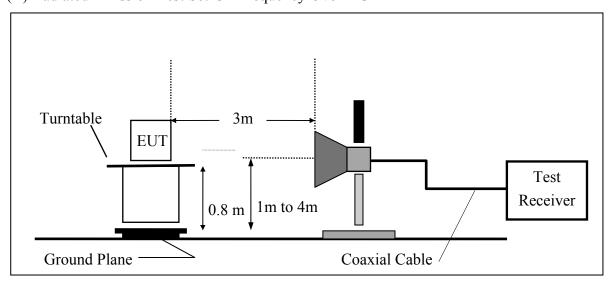
Refer to section 6.3 for details.

8.3.2 Radiated emission:

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



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



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8.4 Measurement Procedure:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set center frequency of spectrum analyzer = operating frequency.
- 4. Set the spectrum analyzer as RBW, VBW=100KHz, Span=25MHz, Sweep = auto
- 5. Mark Peak, 2.390GHz and 2.4835GHz and record the max. level.
- 6. Repeat above procedures until all frequency measured were complete.

8.5 Field Strength Calculation:

The field strength is calculated by adding the A ntenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

8.6 Measurement Result:

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

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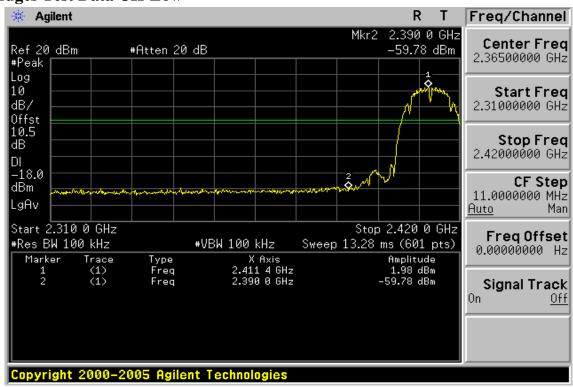


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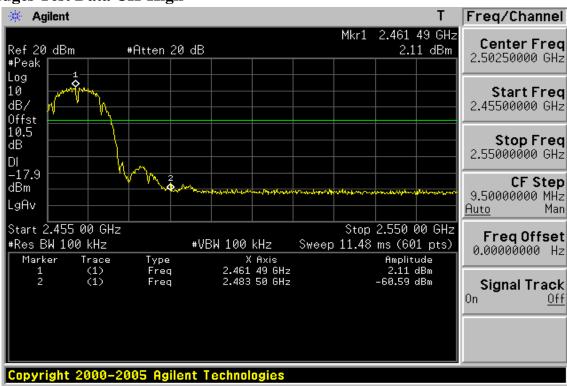
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802.11b(LAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 b mode(LAN WiFi)

Operation Mode TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	ıal FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	n) (dB)	
2390.00	43.87		-1.06	42.81		74.00	54.00	-31.19	Peak
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2412	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	44.93		-1.06	43.87		74.00	54.00	-30.13	Peak

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 b mode(LAN WiFi)

Operation Mode TX CH High **Test Date** May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	(dB)	
2483.50	44.93		-0.59	44.34		74.00	54.00	-29.66	Peak
Operation Fundament Temperatu Humidity	tal Frequer					Test Test Pol 1	By	May. 19, 2 Jay	011

		Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
	Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
_	2483.50	43.71		-0.59	43.12		74.00	54.00	-30.88	Peak

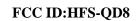
Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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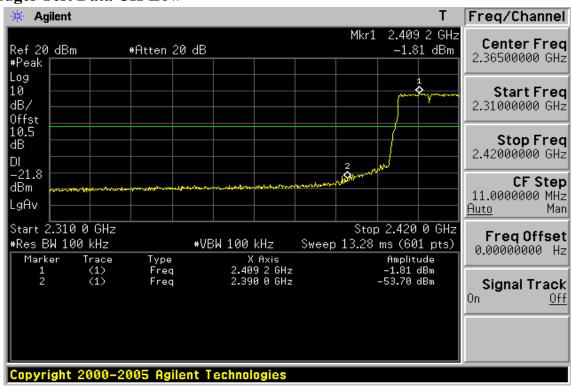
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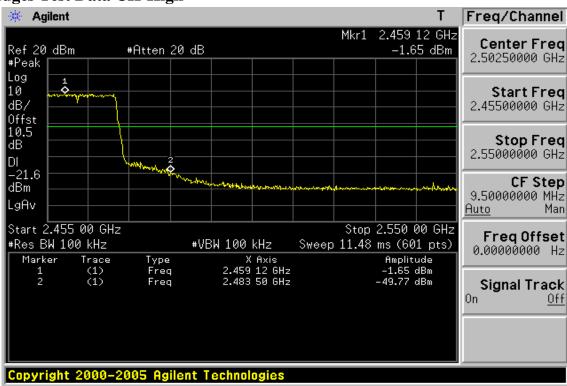


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802.11g(LAN WiFi) **Band Edges Test Data CH-Low**



Band Edges Test Data CH-High



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Radiated Emission: 802.11 g mode(LAN WiFi)

Operation Mode TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	n) (dB)	
2390.00	54.50	38.28	-1.06	53.44	37.22	74.00	54.00	-16.78	Average
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2412	MHz			Test	By	Jay	
Temperatu	re	25 °C	·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	57.33	40.36	-1.06	56.27	39.30	74.00	54.00	-14.70	Average

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 g mode(LAN WiFi)

Operation Mode TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	n) (dB)	
2483.50	56.32	41.49	-0.59	55.73	40.90	74.00	54.00	-13.10	Average
Operation	Mode	TX C	H High			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2462	MHz			Test	By	Jay	
Temperatu	re	25 °C				Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2483.50	56.50	40.67	-0.59	55.91	40.08	74.00	54.00	-13.92	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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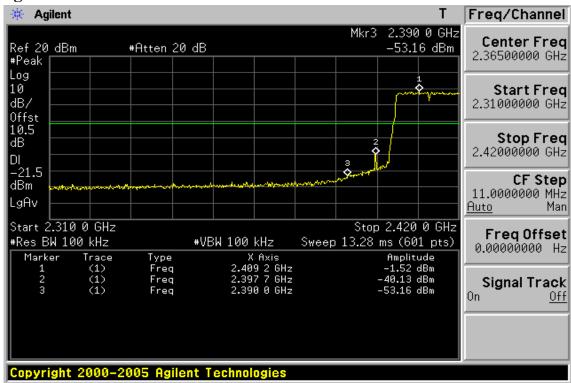
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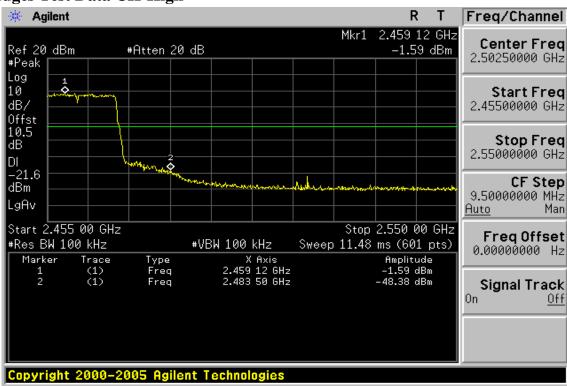


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802.11n_20M(LAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 n_20M mode(LAN WiFi)

Operation Mode TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	n) (dB)	
2390.00	56.40	40.65	-1.06	55.34	39.59	74.00	54.00	-14.41	Average
•		TT 0	** *				ъ.		011
Operation 1	Mode	TXC	H Low			Test	Date	May. 19, 2	011
Fundament	tal Frequer	ncy 2412	MHz			Test	By	Jay	
Temperatu	re	25 °C	·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	59.37	43.08	-1.06	58.31	42.02	74.00	54.00	-11.98	Average

Remark:

- (1) 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 n_20M mode(LAN WiFi)

Operation Mode TX CH High **Test Date** May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	n) (dB)	
2483.50	61.08	43.47	-0.59	60.49	42.88	74.00	54.00	-11.12	Average
Operation	Mode	TX C	H High			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2462	MHz			Test	By	Jay	
Temperatu	re	25 °C				Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2483.50	60.41	43.33	-0.59	59.82	42.74	74.00	54.00	-11.26	Average

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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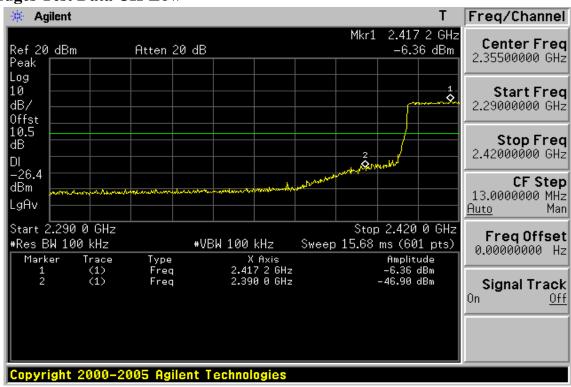
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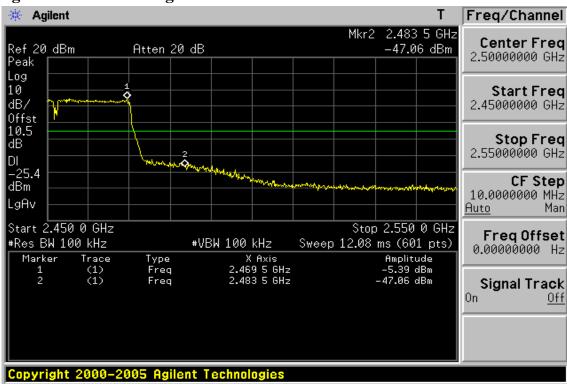


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802.11n_40M(LAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 n_40M mode(LAN WiFi)

Operation Mode TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	n) (dB)	
2390.00	5 5.40	44.16	-1.06	54.34	43.10	74.00	54.00	-10.90	Average
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2422	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	P ea k	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	58.01	47.03	-1.06	56.95	45.97	74.00	54.00	-8.03	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz-40GHz, RBW=1MHz, VBW=3MHz, Sweep time=200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 n_40M mode(LAN WiFi)

Operation Mode TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	1) (dB)	
2483.50	58.85	46.83	-0.59	58.26	46.24	74.00	54.00	-7.76	Average
Operation Fundamen			H High MHz			Test Test		May. 19, 2 Jay	011
Temperatu Humidity	-	25 °C 65 %				Pol 1	2	J	

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2483.50	58.89	47.28	-0.59	58.30	46.69	74.00	54.00	-7.31	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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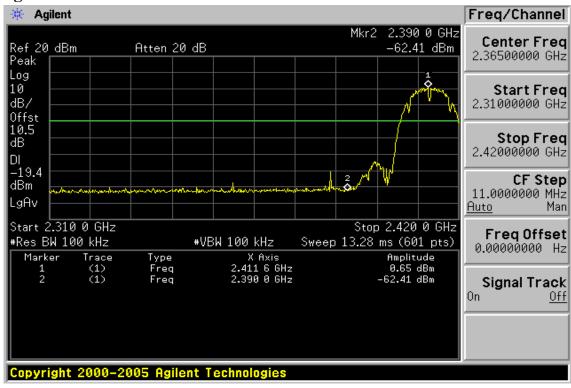
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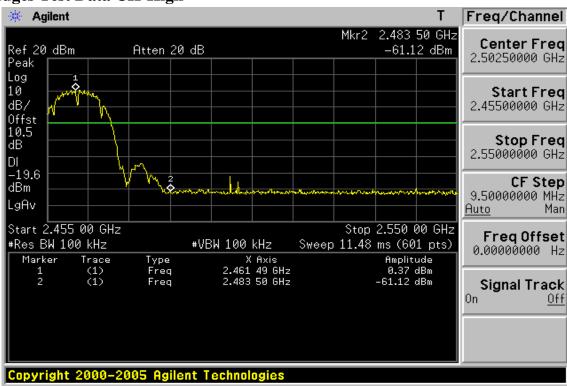


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802.11b(WAN WiFi) **Band Edges Test Data CH-Low**



Band Edges Test Data CH-High



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Radiated Emission: 802.11 b mode(WAN WiFi)

Operation Mode TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Pea k	\mathbf{AV}		Actı	ıal FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m) (dBuV/m)	(dBuV/m)	(dBuV/n	n) (dB)	
2390.00	48.00		-1.06	46.94		74.00	54.00	-27.06	Peak
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen						Test		Jay	011
Temperatu	ire	25 °C	2			Pol	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	45.48		-1.06	44.42		74.00	54.00	-29.58	Peak

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 b mode(WAN WiFi)

Operation Mode TX CH High **Test Date** May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	1) (dB)	
2483.50	44.89		-0.59	44.30		74.00	54.00	-29.70	Peak
Operation N Fundamenta Temperatur Humidity	al Frequer					Test Test Pol	By	May. 19, 2 Jay	011

		Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
	Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
•	2483.50	45.70		-0.59	45.11		74.00	54.00	-28.89	Peak

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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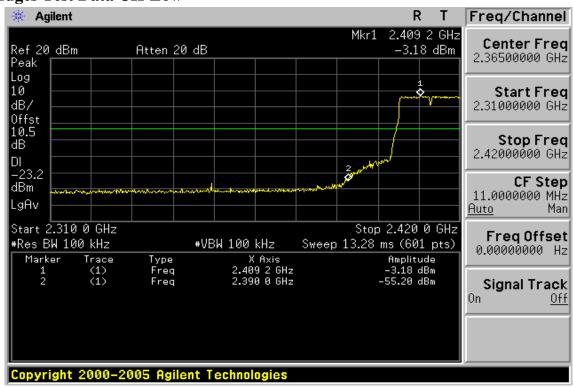


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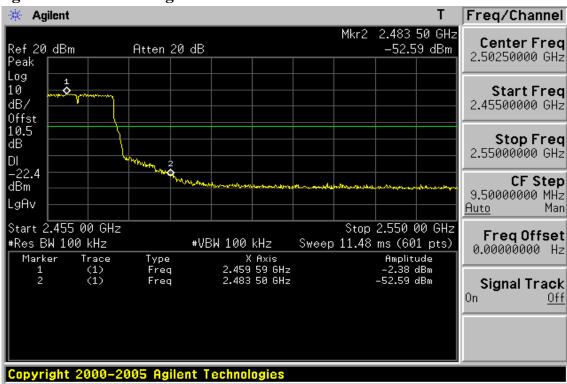
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802.11g(WAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 g mode(WAN WiFi)

Operation Mode TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	(dB)	
2390.00	58.47	42.58	-1.06	57.41	41.52	74.00	54.00	-12.48	Average
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2412	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol 1	Hor.		
Humidity		65 %							

		Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
	Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
,	2390.00	5477	39.80	-1.06	53 71	38 74	74 00	54 00	-15 26	Average

Remark:

- (1) 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 g mode(WAN WiFi)

Operation Mode TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	n) (dB)	
2483.50	62.77	46.11	-0.59	62.18	45.52	74.00	54.00	-8.48	Average
Operation 1	Mode	TX C	H High			Test	Date	May. 19, 2	011
Fundament	tal Frequer	ncy 2462	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol I	Hor.		
Humidity		65 %							

		Pea k	\mathbf{AV}		Actu	al FS	P ea k	\mathbf{AV}		
	Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
	(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
,	2483.50	65.93	49.29	-0.59	65.34	48.70	74.00	54.00	-5.30	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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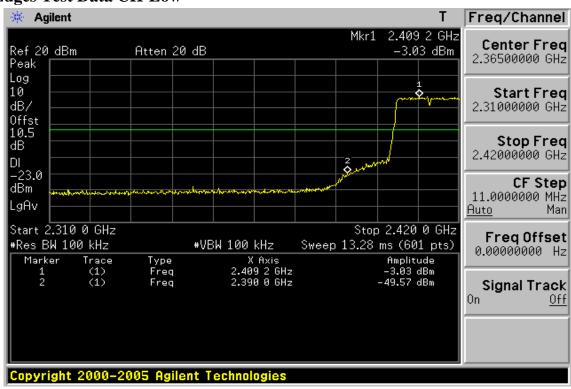
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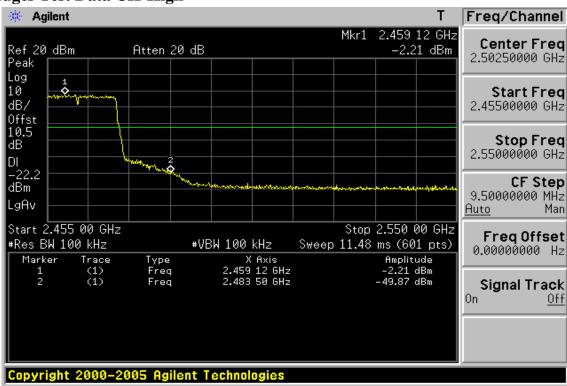


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802.11n_20M(WAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 n_20M mode(WAN WiFi)

Operation Mode TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq. (MHz)	O	Reading		Peak	AV	Limit	Limit	0	Remark
(MITZ)	(dBuV)	(dBuV)	Cr (ub)	(dBuV/m)	(ubu v/III)	(ubuv/III)	abu v/III	(dB)	
2390.00	62.63	45.34	-1.06	61.57	44.28	74.00	54.00	-9.72	Average
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2412	MHz			Test	By .	Jay	
Temperatu	re	25 °C				Pol I	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/m)	(dB)	
2390.00	61.20	42.93	-1 06	60 14	41 87	74 00	54 00	-12.13	Average

Remark:

- (1) 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 n_20M mode(WAN WiFi)

Operation Mode TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	dBuV/n	n) (dB)	
2483.50	66.06	48.71	-0.59	65.47	48.12	74.00	54.00	-5.88	Average
Operation	Mode	TX C	H High			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2462	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2483.50	9.81	52.10	-0.59	9.22	51.51	74.00	54.00	-2.49	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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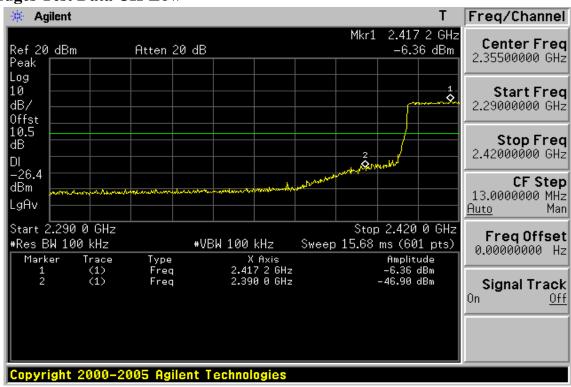
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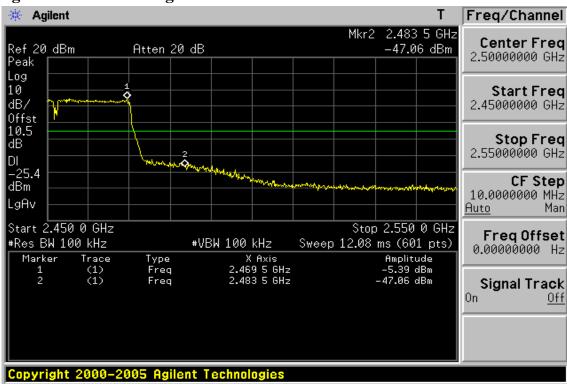


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802.11n_40M(WAN WiFi) Band Edges Test Data CH-Low



Band Edges Test Data CH-High



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Radiated Emission: 802.11 n_40M mode(WAN WiFi)

Operation Mode TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422 MHz Test By Jay

Pol Ver. Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	n) (dB)	
2390.00	62.20	51.00	-1.06	61.14	49.94	74.00	54.00	-4.06	Average
Operation	Mode	TX C	H Low			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2422	MHz			Test	By	Jay	
Temperatu	re	25 °C				Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	$\mathbf{A}\mathbf{V}$	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2390.00	59.92	46.83	-1.06	58.86	45.77	74.00	54.00	-8.23	Average

Remark:

- 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.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- Spectrum Peak Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Emission: 802.11 n_40M mode(WAN WiFi)

Operation Mode TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452 MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/n	(dB)	
2483.50	66.43	54.03	-0.59	65.84	53.44	74.00	54.00	-0.56	Average
Operation	Mode	TX C	H High			Test	Date	May. 19, 2	011
Fundamen	tal Frequer	ncy 2452	MHz			Test	By	Jay	
Temperatu	re	25 °C	· ·			Pol 1	Hor.		
Humidity		65 %							

	Pea k	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	AV	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
2483.50	62.47	50.05	-0.59	61.88	49.46	74.00	54.00	-4.54	Average

Remark:

- (1) 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.
- (2) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- (3) Spectrum Peak Setting: 1GHz- 40GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- (4) Spectrum AV Setting: 1GHz-40GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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9 SPURIOUS RADIATED EMISSION TEST

9.1 Standard Applicable

According to §15.247(c), all other emissions outside these bands shall not exceed the general radiated emission limits specified in §15.209(a). And according to §15.33(a)(1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

9.2 Measurement Equipment Used:

9.2.1 Conducted Emission at antenna port:

Refer to section 6.2 for details.

9.2.2 Radiated emission:

Refer to section 7.2 for details.

9.3 Test SET-UP:

9.3.1 Conducted Emission at antenna port:

Refer to section 6.3 for details.

9.3.2 Radiated emission:

Refer to section 7.3 for details.

9.4 Measurement Procedure:

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 4. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 6. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 7. Repeat above procedures until all frequency measured were complete.

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9.5 Field Strength Calculation

The field strength is calculated by adding the An tenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

9.6 Measurement Result:

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

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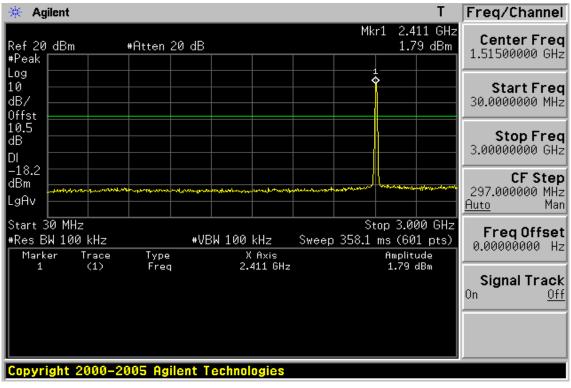
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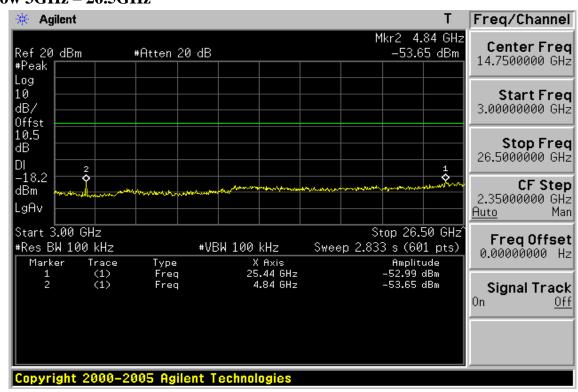


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Conducted Spurious Emission Measurement Result (802.11b) (LAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz - 26.5GHz



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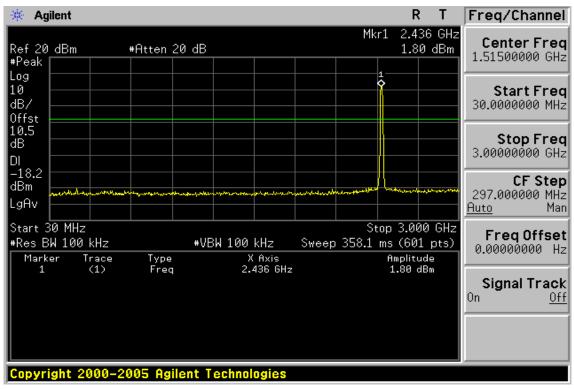
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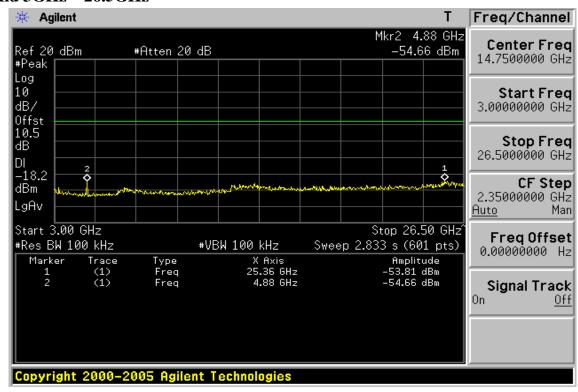
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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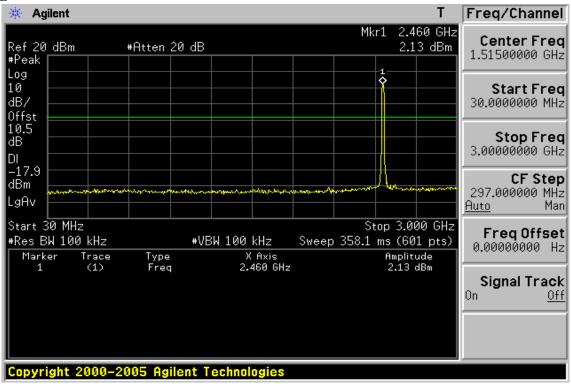
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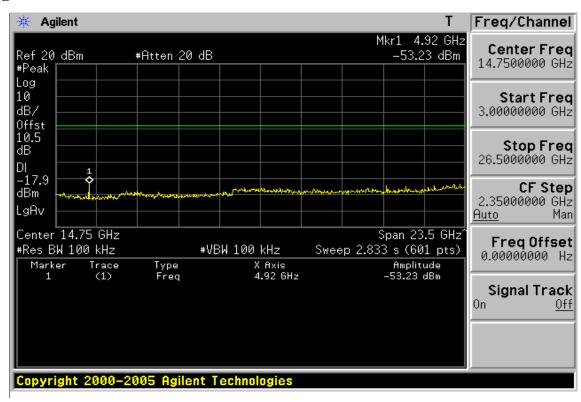
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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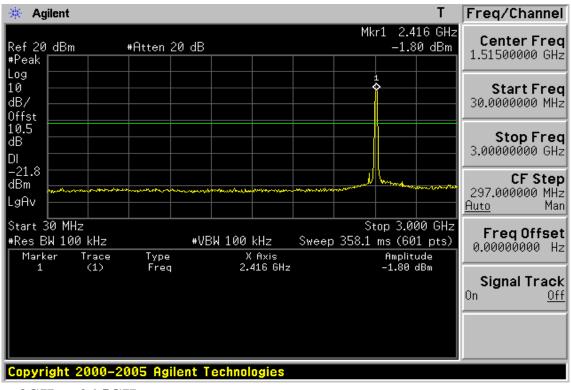
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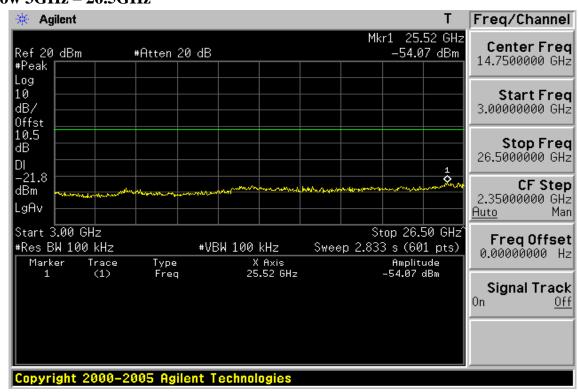
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Conducted Spurious Emission Measurement Result (802.11g) (LAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz - 26.5GHz



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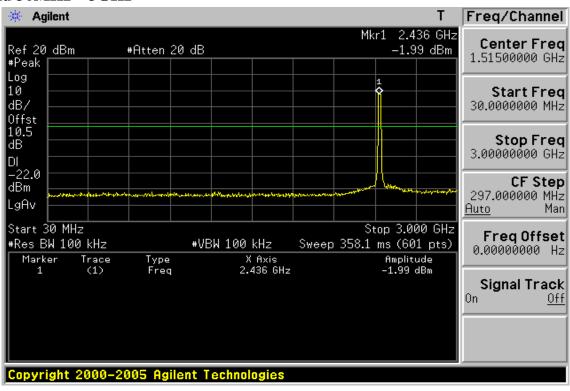
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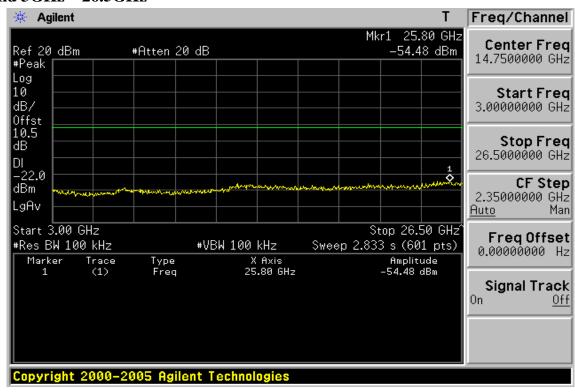
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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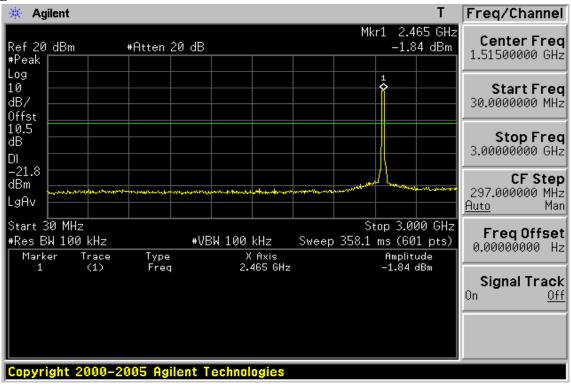
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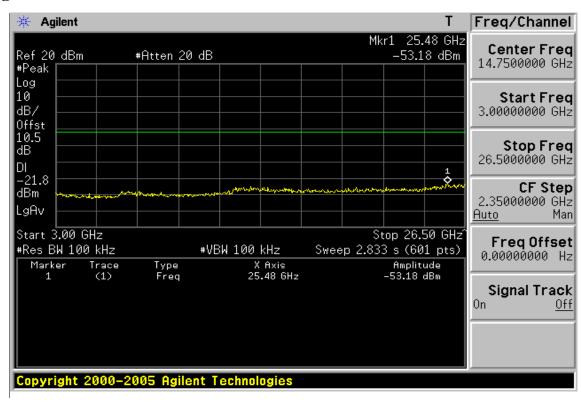
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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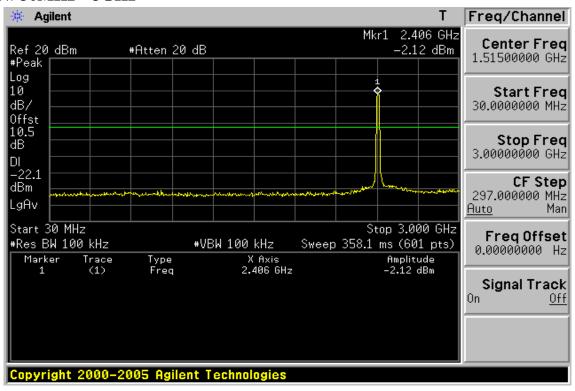
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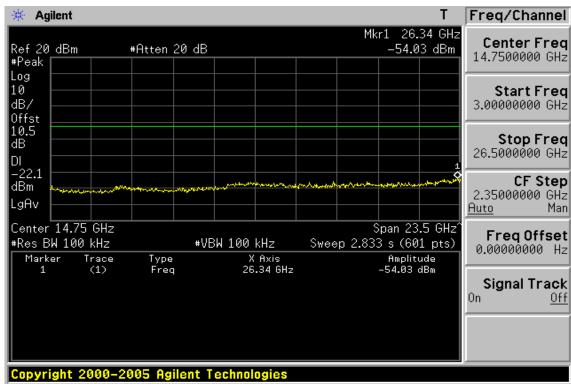


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Conducted Spurious Emission Measurement Result (802.11n_20M) (LAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz – 26.5GHz



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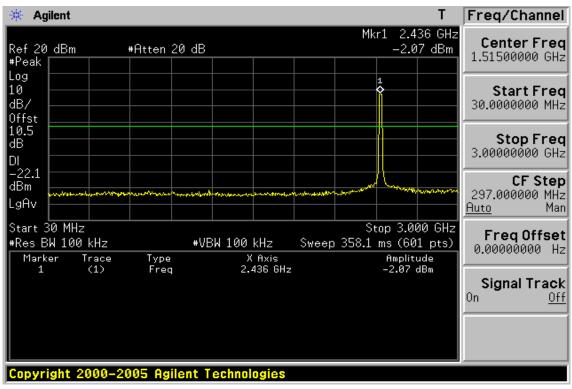
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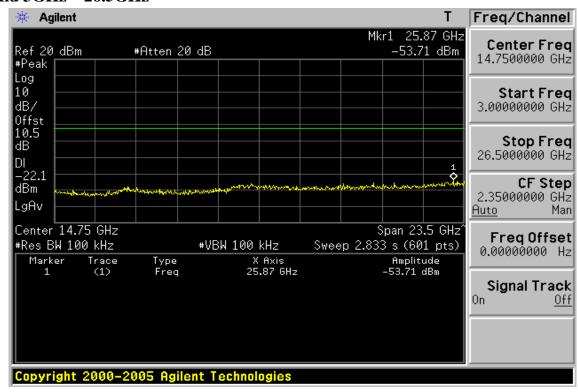
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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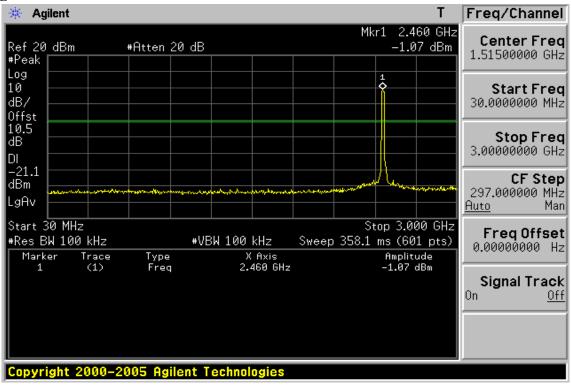
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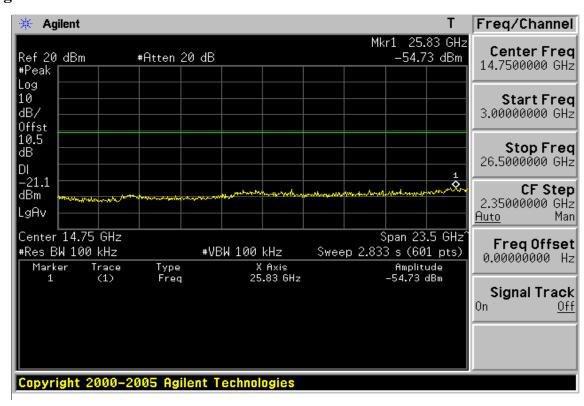
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Ch High 30MHz - 3GHz



Ch High 3GHz - 26.5GHz



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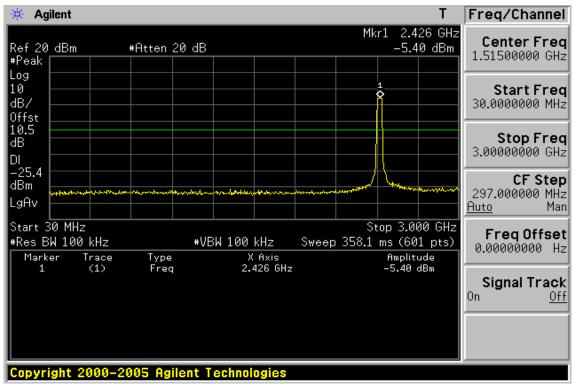




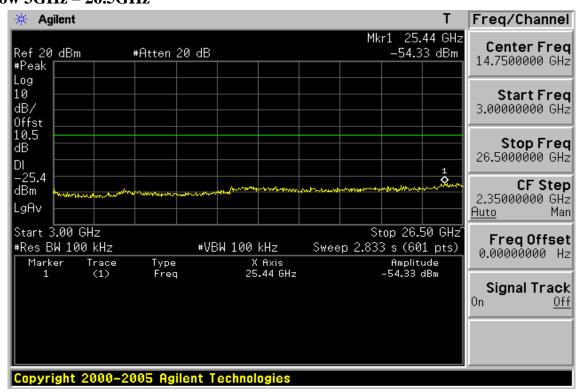
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Conducted Spurious Emission Measurement Result (802.11n_40M) (LAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz - 26.5GHz



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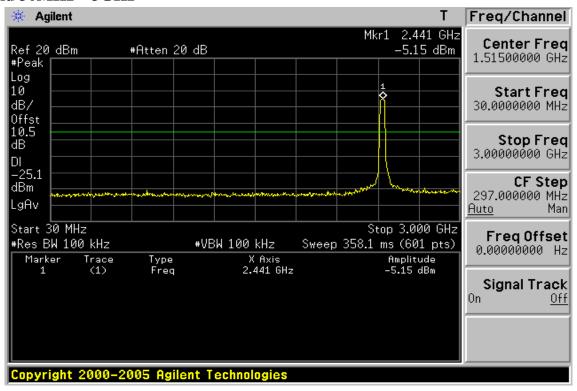
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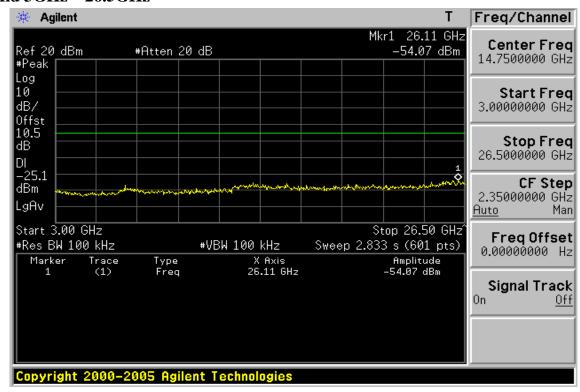
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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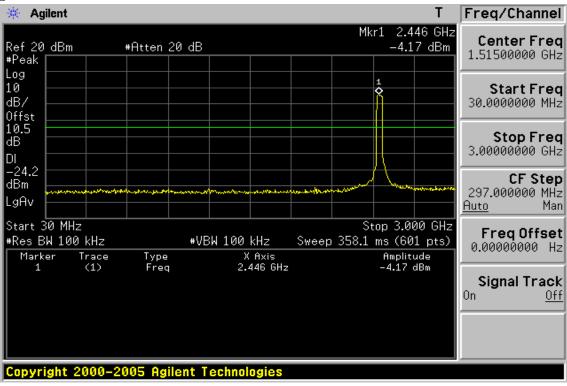
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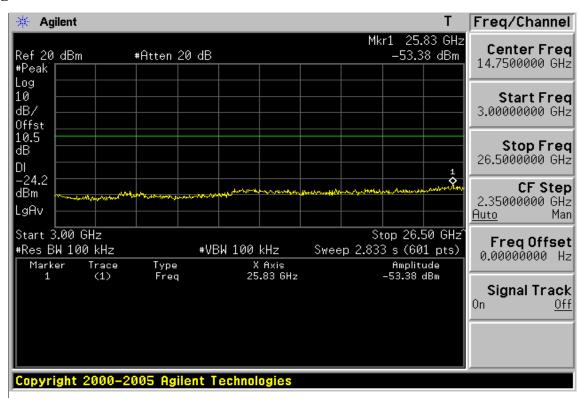
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
66.86	V	Peak	40.48	-16.00	24.48	40.00	-15.52
144.46	V	Peak	38.68	-12.66	26.02	43.50	-17.48
325.85	V	Peak	27.33	-11.92	15.41	46.00	-30.59
516.94	V	Peak	29.86	-8.81	21.05	46.00	-24.95
793.39	V	Peak	29.14	-3.73	25.41	46.00	-20.59
968.96	V	Peak	28.29	-1.55	26.74	54.00	-27.26
57.16	Н	Peak	29.76	-14.37	15.39	40.00	-24.61
154.16	Н	Peak	28.38	-12.18	16.20	43.50	-27.30
287.05	Н	Peak	29.64	-12.77	16.87	46.00	-29.13
471.35	Н	Peak	29.33	-9.58	19.75	46.00	-26.25
827.34	Н	Peak	28.36	-3.38	24.98	46.00	-21.02
966.05	Н	Peak	28.08	-1.54	26.54	54.00	-27.46

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
66.86	V	Peak	40.53	-16.00	24.53	40.00	-15.47
150.28	V	Peak	38.20	-12.21	25.99	43.50	-17.51
323.91	V	Peak	28.11	-11.95	16.16	46.00	-29.84
513.06	V	Peak	29.58	-8.88	20.70	46.00	-25.30
760.41	V	Peak	29.86	-4.19	25.67	46.00	-20.33
915.61	V	Peak	28.10	-2.02	26.08	46.00	-19.92
59.10	Н	Peak	30.18	-14.52	15.66	40.00	-24.34
163.86	Н	Peak	28.40	-12.35	16.05	43.50	-27.45
287.05	Н	Peak	29.64	-12.77	16.87	46.00	-29.13
510.15	Н	Peak	28.68	-8.91	19.77	46.00	-26.23
793.39	Н	Peak	29.42	-3.73	25.69	46.00	-20.31
970.90	Н	Peak	27.89	-1.55	26.34	54.00	-27.66

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

F	Treq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(I	MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
6	51.04	V	Peak	39.23	-14.90	24.33	40.00	-15.67
14	49.31	V	Peak	38.73	-12.35	26.38	43.50	-17.12
32	28.76	V	Peak	27.68	-11.87	15.81	46.00	-30.19
5	15.00	V	Peak	30.28	-8.84	21.44	46.00	-24.56
8.	32.19	V	Peak	28.39	-3.37	25.02	46.00	-20.98
9'	72.84	V	Peak	28.01	-1.55	26.46	54.00	-27.54
5	59.10	Н	Peak	29.44	-14.52	14.92	40.00	-25.08
10	62.89	Н	Peak	27.40	-12.16	15.24	43.50	-28.26
28	87.05	Н	Peak	29.05	-12.77	16.28	46.00	-29.72
5	10.15	Н	Peak	29.25	-8.91	20.34	46.00	-25.66
8.	35.10	Н	Peak	28.51	-3.35	25.16	46.00	-20.84
9:	53.44	Н	Peak	28.21	-1.53	26.68	46.00	-19.32

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

	Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
_	(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
	66.86	V	Peak	40.12	-16.00	24.12	40.00	-15.88
	150.28	V	Peak	38.46	-12.21	26.25	43.50	-17.25
	322.94	V	Peak	27.51	-11.95	15.56	46.00	-30.44
	513.06	V	Peak	29.49	-8.88	20.61	46.00	-25.39
	801.15	V	Peak	28.75	-3.65	25.10	46.00	-20.90
	958.29	V	Peak	28.17	-1.54	26.63	46.00	-19.37
	56.19	Н	Peak	29.83	-14.22	15.61	40.00	-24.39
	151.25	Н	Peak	28.18	-12.20	15.98	43.50	-27.52
	287.05	Н	Peak	29.11	-12.77	16.34	46.00	-29.66
	515.00	Н	Peak	28.90	-8.84	20.06	46.00	-25.94
	838.01	Н	Peak	28.54	-3.34	25.20	46.00	-20.80
	958.29	Н	Peak	28.72	-1.54	27.18	46.00	-18.82

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
68.80	V	Peak	40.90	-16.38	24.52	40.00	-15.48
151.25	V	Peak	38.40	-12.20	26.20	43.50	-17.30
301.60	V	Peak	28.42	-12.41	16.01	46.00	-29.99
505.30	V	Peak	29.56	-9.02	20.54	46.00	-25.46
794.36	V	Peak	29.90	-3.72	26.18	46.00	-19.82
958.29	V	Peak	28.21	-1.54	26.67	46.00	-19.33
71.71	Н	Peak	31.37	-16.67	14.70	40.00	-25.30
146.40	Н	Peak	28.91	-12.51	16.40	43.50	-27.10
287.05	Н	Peak	29.78	-12.77	17.01	46.00	-28.99
517.91	Н	Peak	29.86	-8.81	21.05	46.00	-24.95
783.69	Н	Peak	28.27	-3.82	24.45	46.00	-21.55
968.96	Н	Peak	27.97	-1.55	26.42	54.00	-27.58

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
61.04	V	Peak	40.20	-14.90	25.30	40.00	-14.70
150.28	V	Peak	38.47	-12.21	26.26	43.50	-17.24
314.21	V	Peak	28.02	-12.14	15.88	46.00	-30.12
510.15	V	Peak	29.93	-8.91	21.02	46.00	-24.98
784.66	V	Peak	28.72	-3.82	24.90	46.00	-21.10
956.35	V	Peak	28.40	-1.53	26.87	46.00	-19.13
71.71	Н	Peak	31.84	-16.67	15.17	40.00	-24.83
151.25	Н	Peak	28.36	-12.20	16.16	43.50	-27.34
287.05	Н	Peak	29.43	-12.77	16.66	46.00	-29.34
474.26	Н	Peak	29.32	-9.51	19.81	46.00	-26.19
794.36	Н	Peak	29.26	-3.72	25.54	46.00	-20.46
993.21	Н	Peak	28.20	-1.56	26.64	54.00	-27.36

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11 n 20M TX CH Low **Test Date** May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay Temperature Pol Ver /Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
57.16	V	Peak	39.20	-14.37	24.83	40.00	-15.17
150.28	V	Peak	38.38	-12.21	26.17	43.50	-17.33
319.06	V	Peak	28.31	-12.03	16.28	46.00	-29.72
517.91	V	Peak	29.70	-8.81	20.89	46.00	-25.11
812.79	V	Peak	28.61	-3.54	25.07	46.00	-20.93
975.75	V	Peak	28.57	-1.55	27.02	54.00	-26.98
56.19	Н	Peak	31.37	-14.22	17.15	40.00	-22.85
146.40	Н	Peak	28.76	-12.51	16.25	43.50	-27.25
287.05	Н	Peak	30.11	-12.77	17.34	46.00	-28.66
512.09	Н	Peak	29.18	-8.88	20.30	46.00	-25.70
830.25	Н	Peak	28.72	-3.37	25.35	46.00	-20.65
970.90	Н	Peak	27.90	-1.55	26.35	54.00	-27.65

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11 n 20M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
68.80	V	Peak	40.90	-16.38	24.52	40.00	-15.48
151.25	V	Peak	38.22	-12.20	26.02	43.50	-17.48
321.00	V	Peak	28.47	-11.99	16.48	46.00	-29.52
517.91	V	Peak	29.75	-8.81	20.94	46.00	-25.06
832.19	V	Peak	28.63	-3.37	25.26	46.00	-20.74
925.31	V	Peak	27.93	-1.81	26.12	46.00	-19.88
41.64	Н	Peak	28.66	-13.51	15.15	40.00	-24.85
144.46	Н	Peak	29.32	-12.66	16.66	43.50	-26.84
322.94	Н	Peak	28.86	-11.95	16.91	46.00	-29.09
510.15	Н	Peak	28.54	-8.91	19.63	46.00	-26.37
791.45	Н	Peak	29.03	-3.74	25.29	46.00	-20.71
988.36	Н	Peak	28.83	-1.56	27.27	54.00	-26.73

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11 n 20M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
68.80	V	Peak	41.14	-16.38	24.76	40.00	-15.24
149.31	V	Peak	38.72	-12.35	26.37	43.50	-17.13
318.09	V	Peak	28.39	-12.02	16.37	46.00	-29.63
503.36	V	Peak	29.72	-9.05	20.67	46.00	-25.33
835.10	V	Peak	29.46	-3.35	26.11	46.00	-19.89
982.54	V	Peak	29.15	-1.54	27.61	54.00	-26.39
32.91	Н	Peak	29.37	-14.14	15.23	40.00	-24.77
158.04	Н	Peak	28.29	-12.00	16.29	43.50	-27.21
304.51	Н	Peak	28.81	-12.32	16.49	46.00	-29.51
513.06	Н	Peak	28.61	-8.88	19.73	46.00	-26.27
837.04	Н	Peak	28.04	-3.34	24.70	46.00	-21.30
930.16	Н	Peak	27.87	-1.76	26.11	46.00	-19.89

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11 n 40M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
65.89	V	Peak	38.76	-15.63	23.13	40.00	-16.87
148.34	V	Peak	38.91	-12.36	26.55	43.50	-16.95
353.01	V	Peak	27.25	-11.53	15.72	46.00	-30.28
464.56	V	Peak	28.45	-9.63	18.82	46.00	-27.18
650.80	V	Peak	29.59	-6.00	23.59	46.00	-22.41
866.14	V	Peak	27.26	-2.98	24.28	46.00	-21.72
61.04	Н	Peak	28.81	-14.90	13.91	40.00	-26.09
167.74	Н	Peak	27.46	-12.73	14.73	43.50	-28.77
287.05	Н	Peak	29.73	-12.77	16.96	46.00	-29.04
508.21	Н	Peak	27.72	-8.95	18.77	46.00	-27.23
679.90	Н	Peak	28.30	-5.55	22.75	46.00	-23.25
888.45	Н	Peak	27.51	-2.57	24.94	46.00	-21.06

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11 n 40M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
59.10	V	Peak	38.18	-14.52	23.66	40.00	-16.34
153.19	V	Peak	37.12	-12.18	24.94	43.50	-18.56
400.54	V	Peak	28.60	-10.91	17.69	46.00	-28.31
539.25	V	Peak	29.78	-8.38	21.40	46.00	-24.60
715.79	V	Peak	27.42	-5.02	22.40	46.00	-23.60
849.65	V	Peak	27.58	-3.22	24.36	46.00	-21.64
51.34	Н	Peak	27.94	-13.93	14.01	40.00	-25.99
167.74	Н	Peak	27.96	-12.73	15.23	43.50	-28.27
178.41	Н	Peak	25.84	-14.09	11.75	43.50	-31.75
340.40	Н	Peak	26.71	-11.74	14.97	46.00	-31.03
488.81	Н	Peak	27.92	-9.30	18.62	46.00	-27.38
867.11	Н	Peak	28.21	-2.96	25.25	46.00	-20.75

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11 n 40M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452 MHz Test By Jay Temperature $25 \,^{\circ}\text{C}$ Pol Ver./Hor

Humidity 65 %

Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	Peak	38.42	-14.52	23.90	40.00	-16.10
V	Peak	38.52	-12.35	26.17	43.50	-17.33
V	Peak	28.44	-10.12	18.32	46.00	-27.68
V	Peak	29.36	-7.00	22.36	46.00	-23.64
V	Peak	28.16	-4.27	23.89	46.00	-22.11
V	Peak	27.12	-3.04	24.08	46.00	-21.92
Н	Peak	28.73	-14.52	14.21	40.00	-25.79
Н	Peak	27.24	-12.18	15.06	43.50	-28.44
Н	Peak	27.07	-13.99	13.08	46.00	-32.92
Н	Peak	28.08	-10.29	17.79	46.00	-28.21
Н	Peak	27.46	-6.24	21.22	46.00	-24.78
Н	Peak	27.40	-3.37	24.03	46.00	-21.97
	H/V V V V V H H H H	Mode H/V (PK/QP) V Peak V Peak V Peak V Peak V Peak V Peak H Peak	Ant.Pol. Mode Reading H/V (PK/QP) (dBuV) V Peak 38.42 V Peak 38.52 V Peak 28.44 V Peak 29.36 V Peak 28.16 V Peak 27.12 H Peak 27.24 H Peak 27.07 H Peak 28.08 H Peak 27.46	Ant.Pol. Mode Reading Factor H/V (PK/QP) (dBuV) (dB) V Peak 38.42 -14.52 V Peak 38.52 -12.35 V Peak 28.44 -10.12 V Peak 29.36 -7.00 V Peak 28.16 -4.27 V Peak 27.12 -3.04 H Peak 27.24 -12.18 H Peak 27.07 -13.99 H Peak 28.08 -10.29 H Peak 27.46 -6.24	Ant.Pol. H/VMode (PK/QP)Reading (dBuV)Factor 	Ant.Pol. Mode Reading Factor Actual FS Limitsm H/V (PK/QP) (dBuV) (dB) (dBuV/m) (dBuV/m) V Peak 38.42 -14.52 23.90 40.00 V Peak 38.52 -12.35 26.17 43.50 V Peak 28.44 -10.12 18.32 46.00 V Peak 29.36 -7.00 22.36 46.00 V Peak 28.16 -4.27 23.89 46.00 V Peak 27.12 -3.04 24.08 46.00 H Peak 27.24 -12.18 15.06 43.50 H Peak 27.07 -13.99 13.08 46.00 H Peak 28.08 -10.29 17.79 46.00 H Peak 27.46 -6.24 21.22 46.00

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Low May. 19, 2011 Test Date

Fundamental Frequency 2412MHz Test By Jay

Pol Ver Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1663.0	44.52		-4.13	40.39		74.00	54.00	-13.61	Peak
4824.0	34.58		5.24	39.82		74.00	54.00	-14.18	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1832.0	46.52	3.0)8	43.44		74.00	54.00	-10.56	Peak
4824.0	33.23	5.2	4	38.47		74.00	54.00	-15.53	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1832.0	45.04	3.0)8	41.96		74.00	54.00	-12.04	Peak
4874.0	34.71	5.19	9	39.90		74.00	54.00	-14.10	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Pol Hor Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.0	43.96	3.1	14	40.82		74.00	54.00	-13.18	Peak
4874.0	34.07	5.6	6	39.73		74.00	54.00	-14.27	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	44.88	3.1	14	41.74		74.00	54.00	-12.26	Peak
4924.0	33.68	5.52	2	39.20		74.00	54.00	-14.80	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms
- 5 Spectrum AV Setting: 1GHz-26GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (LAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1832.0	42.07	3.0)8	38.99		74.00	54.00	-15.01	Peak
4924.0	33.63	5.4	7	39.10		74.00	54.00	-14.90	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	43.62		-3.14	40.48		74.00	54.00	-13.52	Peak
4824.0	34.69		5.24	39.93		74.00	54.00	-14.07	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	43.15	3.1	4	40.01		74.00	54.00	-13.99	Peak
4824.0	33.9	5.5		39.40		74.00	54.00	-14.60	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Pol Ver Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	43.44	3.1	14	40.30		74.00	54.00	-13.70	Peak
4874.0	36.44	5.6	6	42.10		74.00	54.00	-11.90	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Pol Hor Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	43.81	3.1	14	40.67		74.00	54.00	-13.33	Peak
4874.0	34.28	5.6	1	39.89		74.00	54.00	-14.11	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1994.5	40.86		-2.98	37.88		74.00	54.00	-16.12	Peak
4924.0	33.83		5.52	39.35		74.00	54.00	-14.65	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (LAN WiFi)

Operation Mode 802.11g TX CH High May. 19, 2011 Test Date

Fundamental Frequency 2462MHz Test By Jay

Pol Hor Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	43.26		-3.14	40.12		74.00	54.00	-13.88	Peak
4924.0	33.94		5.55	39.49		74.00	54.00	-14.51	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1656.5	47.2		-4.13	43.07		74.00	54.00	-10.93	Peak
4824.0	33.32		5.3	38.62		74.00	54.00	-15.38	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature $25 \, ^{\circ}\text{C}$ Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	42.86		-3.14	39.72		74.00	54.00	-14.28	Peak
4824.0	35.02		5.24	40.26		74.00	54.00	-13.74	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Temperature Pol Ver 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1832.0	44.97	3.0)8	41.89		74.00	54.00	-12.11	Peak
4874.0	35.84		5.7	41.54		74.00	54.00	-12.46	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Temperature Pol Hor 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1832.0	42.76	3.0)8	39.68		74.00	54.00	-14.32	Peak
4874.0	33.78	5.52	2	39.30		74.00	54.00	-14.70	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH High May. 19, 2011 Test Date

Fundamental Frequency 2462MHz Test By Jay

Pol Ver Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	46.15		-3.14	43.01		74.00	54.00	-10.99	Peak
4924.0	33.72	5.3	3	39.05		74.00	54.00	-14.95	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (LAN WiFi)

Operation Mode 802.11n 20M TX CH High May. 19, 2011 Test Date

Fundamental Frequency 2462MHz Test By Jay

Temperature Pol Hor 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	42.15		-3.14	39.01		74.00	54.00	-14.99	Peak
4924.0	34.38		4.97	39.35		74.00	54.00	-14.65	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	45.43		-3.14	42.29		74.00	54.00	-11.71	Peak
4824.0	33.46		5.33	38.79		74.00	54.00	-15.21	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1825.5	41.01		-3.14	37.87		74.00	54.00	-16.13	Peak
4824.0	32.84		5.3	38.14		74.00	54.00	-15.86	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 $^{\circ}$ C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1663.0	43.25	4.1	13	39.12		74.00	54.00	-14.88	Peak
4874.0	34.46		4.6	39.06		74.00	54.00	-14.94	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Temperature Pol Hor 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1676.0	50.79	4.2	22	46.57		74.00	54.00	-7.43	Peak
4874.0	34.12	4.5	3	38.65		74.00	54.00	-15.35	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH High May. 19, 2011 Test Date

Fundamental Frequency 2452MHz Test By Jay

Pol Ver Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1656.5	44.45		-4.13	40.32		74.00	54.00	-13.68	Peak
4924.0	34.17	5.60	6	39.83		74.00	54.00	-14.17	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (LAN WiFi)

Operation Mode 802.11n 40M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1663.0	40.93		-4.13	36.80		74.00	54.00	-17.20	Peak
4924.0	35.10		5.66	40.76		74.00	54.00	-13.24	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

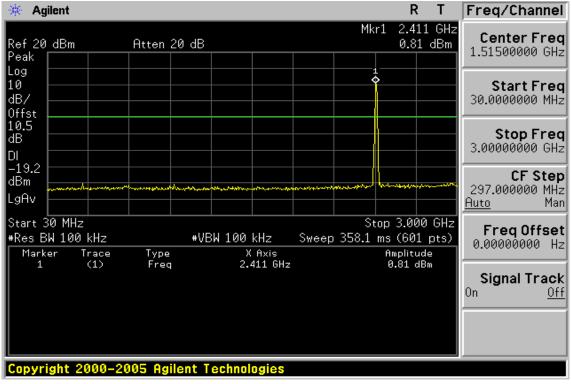
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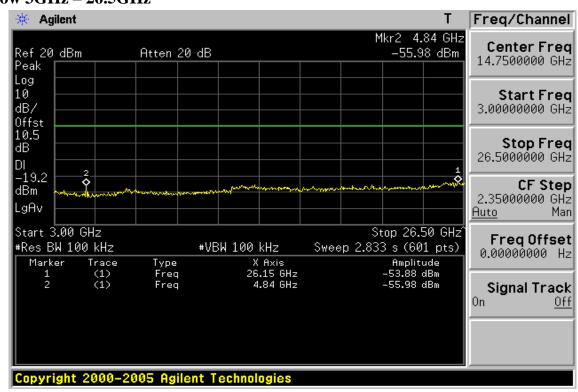
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Conducted Spurious Emission Measurement Result (802.11b) (WAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz - 26.5GHz



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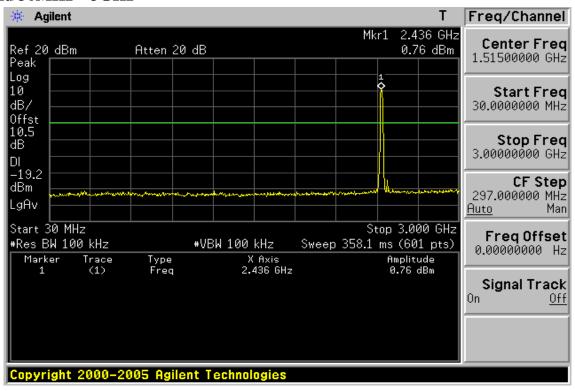
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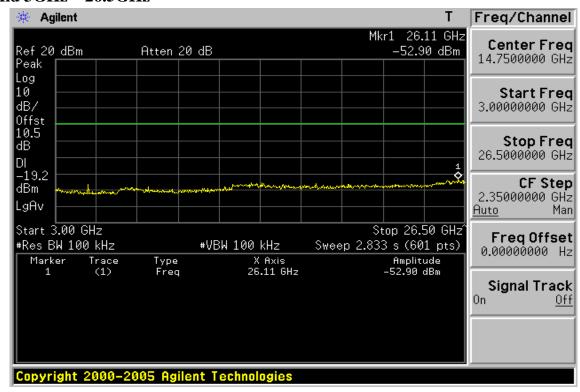
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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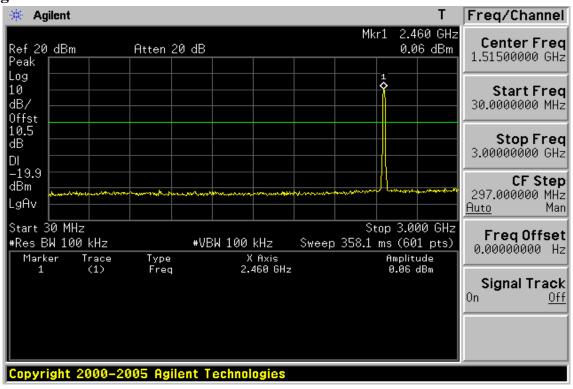
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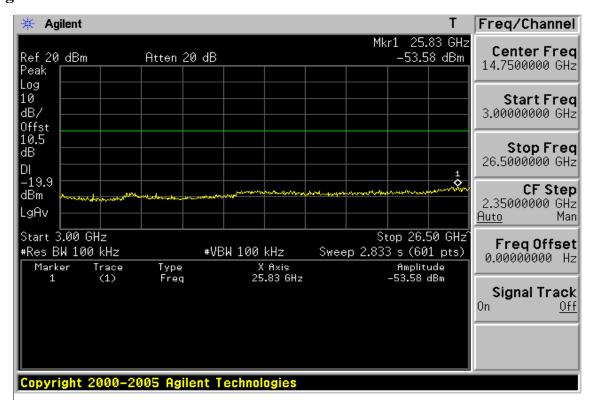
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Ch High 30MHz - 3GHz



Ch High 3GHz - 26.5GHz



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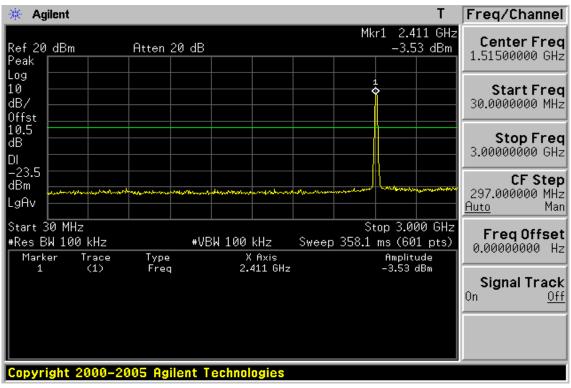
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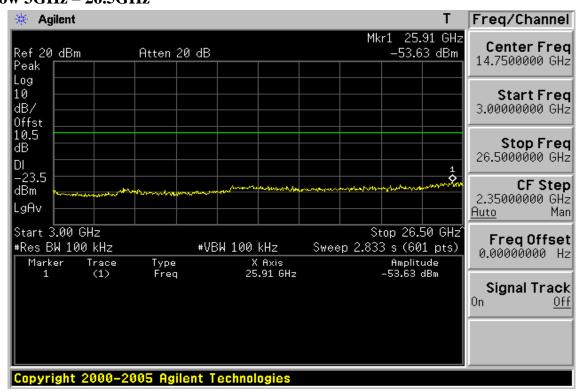
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Conducted Spurious Emission Measurement Result (802.11g) (WAN WiFi) Ch Low 30MHz – 3GHz



Ch Low 3GHz - 26.5GHz



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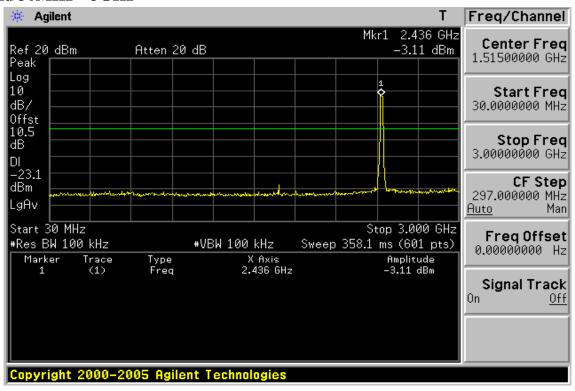
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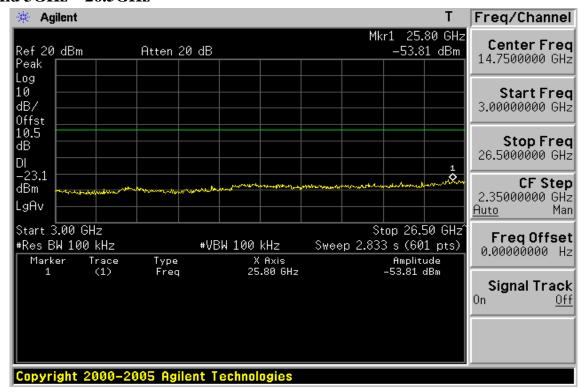
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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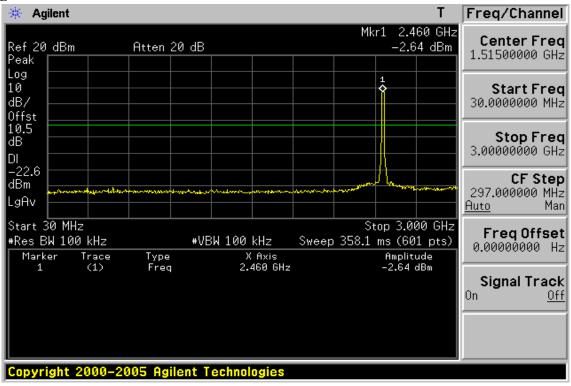
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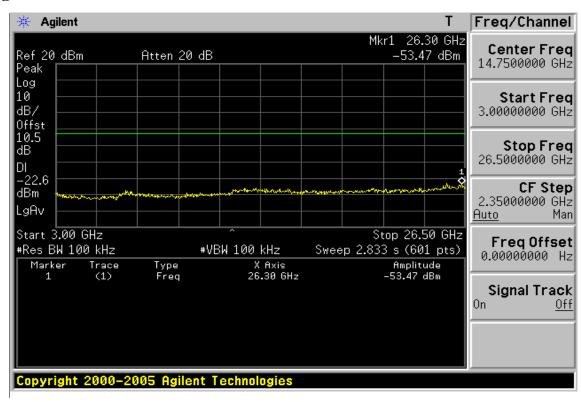
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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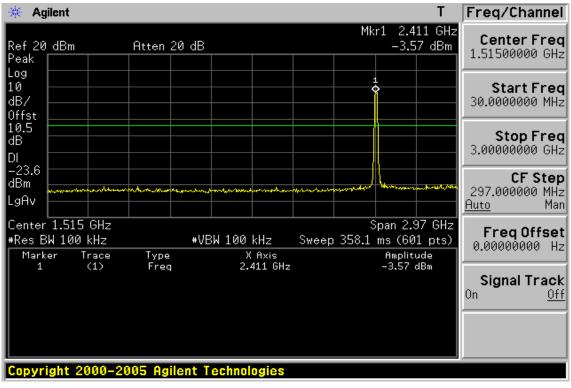


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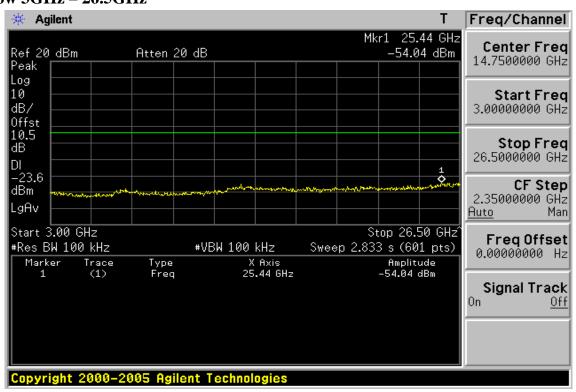
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Conducted Spurious Emission Measurement Result ($802.11n_20M$) (WAN WiFi) Ch Low 30MHz - 3GHz



Ch Low 3GHz - 26.5GHz



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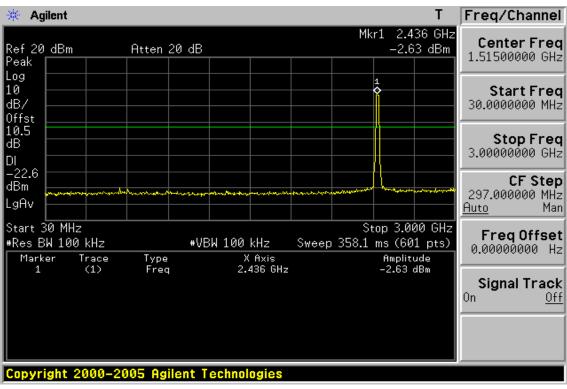
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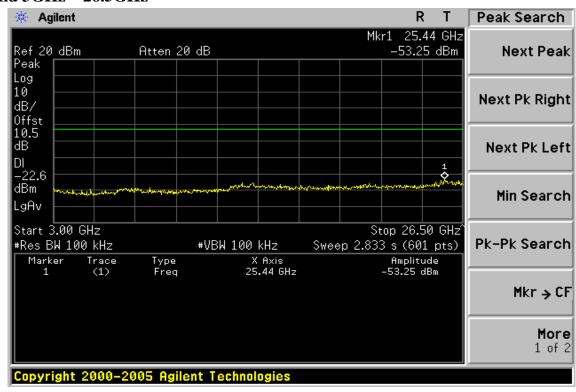
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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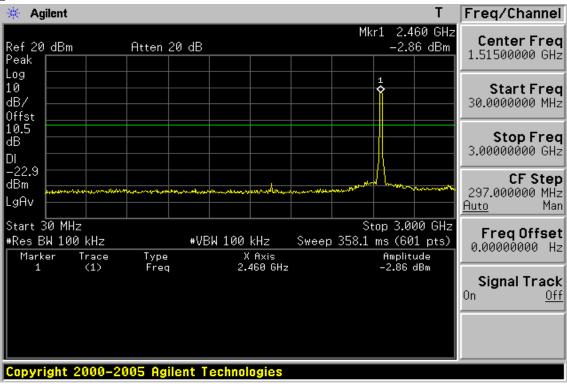
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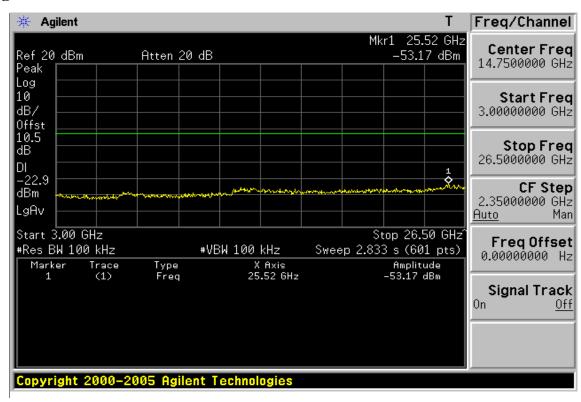
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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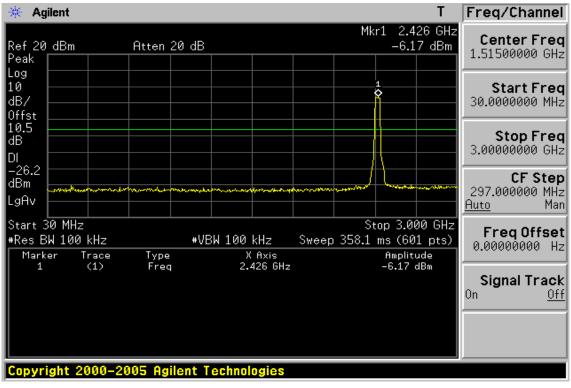




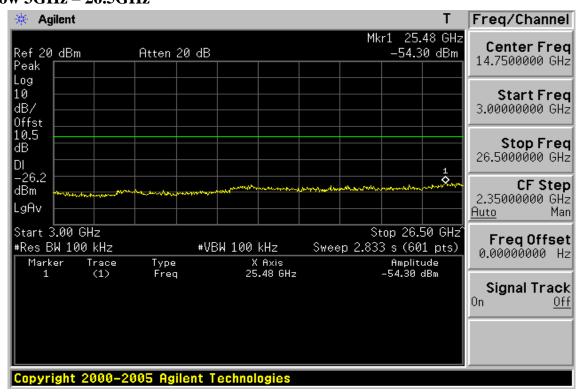
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Conducted Spurious Emission Measurement Result (802.11n_40M) (WAN WiFi) Ch Low 30MHz - 3GHz



Ch Low 3GHz – 26.5GHz



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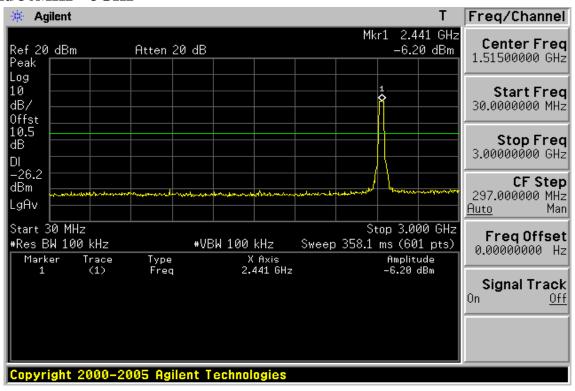
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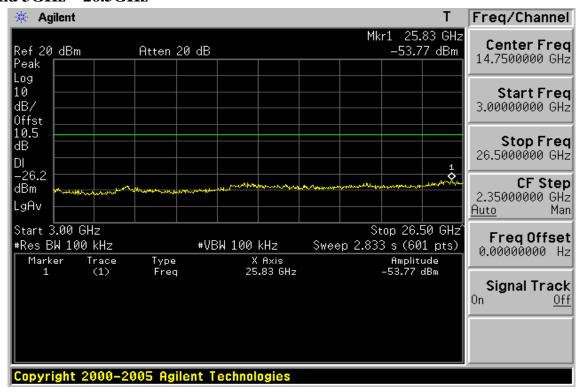
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Ch Mid 30MHz - 3GHz



Ch Mid 3GHz – 26.5GHz



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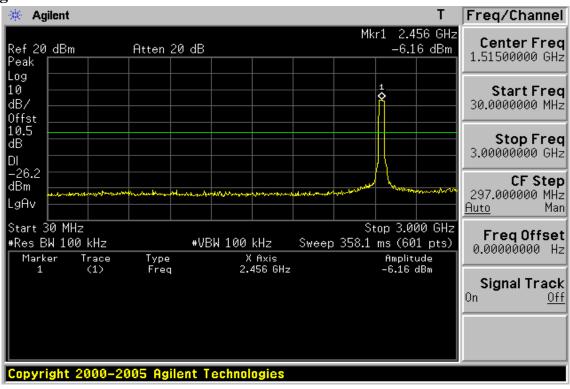
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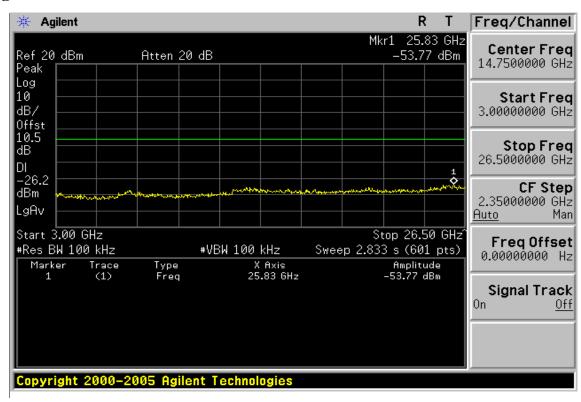
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Ch High 30MHz - 3GHz



Ch High 3GHz – 26.5GHz



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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
61.04	V	Peak	39.14	-14.90	24.24	40.00	-15.76
151.25	V	Peak	38.91	-12.20	26.71	43.50	-16.79
319.06	V	Peak	27.88	-12.03	15.85	46.00	-30.15
495.60	V	Peak	30.38	-9.21	21.17	46.00	-24.83
838.01	V	Peak	28.29	-3.34	24.95	46.00	-21.05
961.20	V	Peak	28.21	-1.54	26.67	54.00	-27.33
57.16	Н	Peak	29.65	-14.37	15.28	40.00	-24.72
141.55	Н	Peak	29.27	-12.95	16.32	43.50	-27.18
319.06	Н	Peak	28.51	-12.03	16.48	46.00	-29.52
516.94	Н	Peak	29.41	-8.81	20.60	46.00	-25.40
839.95	Н	Peak	28.45	-3.34	25.11	46.00	-20.89
993.21	Н	Peak	28.54	-1.56	26.98	54.00	-27.02

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
61.04	V	Peak	38.94	-14.90	24.04	40.00	-15.96
149.31	V	Peak	39.17	-12.35	26.82	43.50	-16.68
328.76	V	Peak	27.51	-11.87	15.64	46.00	-30.36
503.36	V	Peak	29.23	-9.05	20.18	46.00	-25.82
786.60	V	Peak	28.25	-3.80	24.45	46.00	-21.55
954.41	V	Peak	27.67	-1.53	26.14	46.00	-19.86
39.70	Н	Peak	28.35	-13.38	14.97	40.00	-25.03
153.19	Н	Peak	27.74	-12.18	15.56	43.50	-27.94
287.05	Н	Peak	28.66	-12.77	15.89	46.00	-30.11
515.00	Н	Peak	29.47	-8.84	20.63	46.00	-25.37
835.10	Н	Peak	28.28	-3.35	24.93	46.00	-21.07
964.11	Н	Peak	28.13	-1.54	26.59	54.00	-27.41

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

	Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
_	(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
	66.86	V	Peak	40.37	-16.00	24.37	40.00	-15.63
	149.31	V	Peak	38.85	-12.35	26.50	43.50	-17.00
	325.85	V	Peak	28.19	-11.92	16.27	46.00	-29.73
	512.09	V	Peak	29.44	-8.88	20.56	46.00	-25.44
	791.45	V	Peak	29.88	-3.74	26.14	46.00	-19.86
	970.90	V	Peak	28.78	-1.55	27.23	54.00	-26.77
	56.19	Н	Peak	29.21	-14.22	14.99	40.00	-25.01
	160.95	Н	Peak	28.70	-11.98	16.72	43.50	-26.78
	287.05	Н	Peak	29.75	-12.77	16.98	46.00	-29.02
	517.91	Н	Peak	29.02	-8.81	20.21	46.00	-25.79
	835.10	Н	Peak	28.19	-3.35	24.84	46.00	-21.16
	963.14	Н	Peak	28.65	-1.55	27.10	54.00	-26.90

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

	Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
_	(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
	61.04	V	Peak	39.38	-14.90	24.48	40.00	-15.52
	148.34	V	Peak	38.89	-12.36	26.53	43.50	-16.97
	306.45	V	Peak	28.54	-12.29	16.25	46.00	-29.75
	507.24	V	Peak	29.85	-8.98	20.87	46.00	-25.13
	835.10	V	Peak	28.48	-3.35	25.13	46.00	-20.87
	958.29	V	Peak	28.47	-1.54	26.93	46.00	-19.07
	32.91	Н	Peak	29.30	-14.14	15.16	40.00	-24.84
	151.25	Н	Peak	28.82	-12.20	16.62	43.50	-26.88
	287.05	Н	Peak	28.48	-12.77	15.71	46.00	-30.29
	513.06	Н	Peak	28.74	-8.88	19.86	46.00	-26.14
	796.30	Н	Peak	28.85	-3.70	25.15	46.00	-20.85
	968.96	Н	Peak	28.18	-1.55	26.63	54.00	-27.37

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	Peak	39.30	-14.90	24.40	40.00	-15.60
V	Peak	39.02	-12.36	26.66	43.50	-16.84
V	Peak	27.41	-12.03	15.38	46.00	-30.62
V	Peak	30.02	-8.95	21.07	46.00	-24.93
V	Peak	28.09	-3.34	24.75	46.00	-21.25
V	Peak	28.00	-1.56	26.44	54.00	-27.56
Н	Peak	28.72	-13.93	14.79	40.00	-25.21
Н	Peak	28.64	-12.80	15.84	43.50	-27.66
Н	Peak	29.22	-12.77	16.45	46.00	-29.55
Н	Peak	28.77	-8.88	19.89	46.00	-26.11
Н	Peak	28.58	-3.34	25.24	46.00	-20.76
Н	Peak	28.30	-1.54	26.76	46.00	-19.24
	H/V V V V V H H H H	Mode H/V (PK/QP) V Peak V Peak V Peak V Peak V Peak V Peak H Peak	Ant.Pol. Mode Reading H/V (PK/QP) (dBuV) V Peak 39.30 V Peak 39.02 V Peak 27.41 V Peak 30.02 V Peak 28.09 V Peak 28.00 H Peak 28.64 H Peak 29.22 H Peak 28.77 H Peak 28.58	Mode Reading Factor H/V (PK/QP) (dBuV) (dB) V Peak 39.30 -14.90 V Peak 39.02 -12.36 V Peak 27.41 -12.03 V Peak 30.02 -8.95 V Peak 28.09 -3.34 V Peak 28.00 -1.56 H Peak 28.72 -13.93 H Peak 29.22 -12.77 H Peak 28.77 -8.88 H Peak 28.58 -3.34	Ant.Pol. H/VMode (PK/QP)Reading (dBuV)Factor 	Ant.Pol. Mode Reading Factor Actual FS Limitsm H/V (PK/QP) (dBuV) (dB) (dBuV/m) (dBuV/m) V Peak 39.30 -14.90 24.40 40.00 V Peak 39.02 -12.36 26.66 43.50 V Peak 27.41 -12.03 15.38 46.00 V Peak 30.02 -8.95 21.07 46.00 V Peak 28.09 -3.34 24.75 46.00 V Peak 28.00 -1.56 26.44 54.00 H Peak 28.64 -12.80 15.84 43.50 H Peak 29.22 -12.77 16.45 46.00 H Peak 28.77 -8.88 19.89 46.00 H Peak 28.58 -3.34 25.24 46.00

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

	Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
_	(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
	68.80	V	Peak	41.00	-16.38	24.62	40.00	-15.38
	148.34	V	Peak	38.73	-12.36	26.37	43.50	-17.13
	322.94	V	Peak	28.12	-11.95	16.17	46.00	-29.83
	505.30	V	Peak	30.95	-9.02	21.93	46.00	-24.07
	806.00	V	Peak	28.64	-3.60	25.04	46.00	-20.96
	977.69	V	Peak	28.04	-1.53	26.51	54.00	-27.49
	52.31	Н	Peak	30.01	-13.92	16.09	40.00	-23.91
	151.25	Н	Peak	28.60	-12.20	16.40	43.50	-27.10
	287.05	Н	Peak	29.57	-12.77	16.80	46.00	-29.20
	473.29	Н	Peak	29.63	-9.56	20.07	46.00	-25.93
	835.10	Н	Peak	28.43	-3.35	25.08	46.00	-20.92
	970.90	Н	Peak	29.35	-1.55	27.80	54.00	-26.20

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11 n 20M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
70.74	V	Peak	41.10	-16.67	24.43	40.00	-15.57
149.31	V	Peak	39.24	-12.35	26.89	43.50	-16.61
311.30	V	Peak	27.99	-12.22	15.77	46.00	-30.23
515.00	V	Peak	29.45	-8.84	20.61	46.00	-25.39
839.95	V	Peak	29.00	-3.34	25.66	46.00	-20.34
983.51	V	Peak	28.10	-1.54	26.56	54.00	-27.44
44.55	Н	Peak	29.04	-13.62	15.42	40.00	-24.58
134.76	Н	Peak	29.32	-13.41	15.91	43.50	-27.59
287.05	Н	Peak	29.59	-12.77	16.82	46.00	-29.18
516.94	Н	Peak	28.76	-8.81	19.95	46.00	-26.05
759.44	Н	Peak	30.28	-4.22	26.06	46.00	-19.94
958.29	Н	Peak	28.30	-1.54	26.76	46.00	-19.24

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11 n 20M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	Peak	39.31	-14.90	24.41	40.00	-15.59
V	Peak	39.02	-12.36	26.66	43.50	-16.84
V	Peak	27.95	-11.92	16.03	46.00	-29.97
V	Peak	29.40	-8.91	20.49	46.00	-25.51
V	Peak	28.97	-3.80	25.17	46.00	-20.83
V	Peak	28.40	-1.55	26.85	54.00	-27.15
Н	Peak	29.48	-14.52	14.96	40.00	-25.04
Н	Peak	29.23	-12.20	17.03	43.50	-26.47
Н	Peak	29.71	-12.77	16.94	46.00	-29.06
Н	Peak	29.13	-8.88	20.25	46.00	-25.75
Н	Peak	28.35	-3.37	24.98	46.00	-21.02
Н	Peak	27.63	-1.55	26.08	54.00	-27.92
	H/V V V V V H H H H	Mode H/V (PK/QP) V Peak V Peak V Peak V Peak V Peak V Peak H Peak	Ant.Pol. Mode Reading H/V (PK/QP) (dBuV) V Peak 39.31 V Peak 39.02 V Peak 27.95 V Peak 29.40 V Peak 28.97 V Peak 28.40 H Peak 29.23 H Peak 29.71 H Peak 29.13 H Peak 28.35	Ant.Pol. H/VMode (PK/QP)Reading (dBuV)Factor 	Ant.Pol. H/VMode (PK/QP)Reading (dBuV)Factor (dB)Actual FS (dBuV/m)VPeak39.31-14.9024.41VPeak39.02-12.3626.66VPeak27.95-11.9216.03VPeak29.40-8.9120.49VPeak28.97-3.8025.17VPeak28.40-1.5526.85HPeak29.48-14.5214.96HPeak29.23-12.2017.03HPeak29.71-12.7716.94HPeak29.13-8.8820.25HPeak28.35-3.3724.98	Ant.Pol. Mode Reading Factor Actual FS Limitsm H/V (PK/QP) (dBuV) (dB) (dBuV/m) (dBuV/m) V Peak 39.31 -14.90 24.41 40.00 V Peak 39.02 -12.36 26.66 43.50 V Peak 27.95 -11.92 16.03 46.00 V Peak 29.40 -8.91 20.49 46.00 V Peak 28.97 -3.80 25.17 46.00 V Peak 28.40 -1.55 26.85 54.00 H Peak 29.48 -14.52 14.96 40.00 H Peak 29.23 -12.20 17.03 43.50 H Peak 29.71 -12.77 16.94 46.00 H Peak 29.13 -8.88 20.25 46.00 H Peak 28.35 -3.37 24.98 46.00

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11 n 20M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Safe Margin
(dB)
-15.37
-17.38
-30.70
-25.21
-20.66
-19.32
-24.01
-27.65
-29.65
-25.53
-20.76
-27.69

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Test Date

Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11 n 40M TX CH Low

Fundamental Frequency 2422MHz Test By Jay Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
59.10	V	Peak	39.00	-14.52	24.48	40.00	-15.52
148.34	V	Peak	39.58	-12.36	27.22	43.50	-16.28
327.79	V	Peak	28.47	-11.90	16.57	46.00	-29.43
515.00	V	Peak	29.64	-8.84	20.80	46.00	-25.20
833.16	V	Peak	28.39	-3.35	25.04	46.00	-20.96
973.81	V	Peak	28.93	-1.55	27.38	54.00	-26.62
52.31	Н	Peak	28.81	-13.92	14.89	40.00	-25.11
162.89	Н	Peak	28.50	-12.16	16.34	43.50	-27.16
287.05	Н	Peak	29.90	-12.77	17.13	46.00	-28.87
510.15	Н	Peak	28.58	-8.91	19.67	46.00	-26.33
798.24	Н	Peak	28.72	-3.68	25.04	46.00	-20.96
967.99	Н	Peak	28.08	-1.54	26.54	54.00	-27.46

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11 n 40M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

	Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
_	(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
	59.10	V	Peak	38.73	-14.52	24.21	40.00	-15.79
	149.31	V	Peak	38.45	-12.35	26.10	43.50	-17.40
	314.21	V	Peak	27.80	-12.14	15.66	46.00	-30.34
	515.00	V	Peak	29.85	-8.84	21.01	46.00	-24.99
	830.25	V	Peak	28.06	-3.37	24.69	46.00	-21.31
	967.99	V	Peak	28.16	-1.54	26.62	54.00	-27.38
	41.64	Н	Peak	28.70	-13.51	15.19	40.00	-24.81
	149.31	Н	Peak	28.28	-12.35	15.93	43.50	-27.57
	287.05	Н	Peak	28.83	-12.77	16.06	46.00	-29.94
	517.91	Н	Peak	28.56	-8.81	19.75	46.00	-26.25
	754.59	Н	Peak	29.19	-4.27	24.92	46.00	-21.08
	953.44	Н	Peak	27.49	-1.53	25.96	46.00	-20.04

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11 n 40M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452MHz Test By Jay
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
59.10	V	Peak	38.75	-14.52	24.23	40.00	-15.77
149.31	V	Peak	38.88	-12.35	26.53	43.50	-16.97
322.94	V	Peak	27.82	-11.95	15.87	46.00	-30.13
510.15	V	Peak	30.10	-8.91	21.19	46.00	-24.81
799.21	V	Peak	28.50	-3.66	24.84	46.00	-21.16
958.29	V	Peak	28.15	-1.54	26.61	46.00	-19.39
46.49	Н	Peak	28.58	-13.76	14.82	40.00	-25.18
146.40	Н	Peak	29.26	-12.51	16.75	43.50	-26.75
287.05	Н	Peak	29.74	-12.77	16.97	46.00	-29.03
516.94	Н	Peak	28.55	-8.81	19.74	46.00	-26.26
793.39	Н	Peak	28.72	-3.73	24.99	46.00	-21.01
954.41	Н	Peak	28.28	-1.53	26.75	46.00	-19.25

Remark:

- 1 Measuring frequencies from 30 MHz to the 1GHz •
- 2 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/QP detector mode.
- 3 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.
- 4 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	46.89		-4.11	42.78		74.00	54.00	-11.22	Peak
4824.0	33.7		5.24	38.94		74.00	54.00	-15.06	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	53.84	4.1	11	49.73		74.00	54.00	-4.27	Peak
4824.0	35.39	5.5	7	40.96		74.00	54.00	-13.04	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	49.37	4.1	1	45.26		74.00	54.00	-8.74	Peak
4874.0	34.43	5.3	8	39.81		74.00	54.00	-14.19	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	51.24	4.1	1	47.13		74.00	54.00	-6.87	Peak
4874.0	33.8	5.33	8	39.18		74.00	54.00	-14.82	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.51	4.1	1	44.40		74.00	54.00	-9.60	Peak
4924.0	36.02	5.6	6	41.68		74.00	54.00	-12.32	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms
- 5 Spectrum AV Setting: 1GHz-26GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11b) (WAN WiFi)

Operation Mode 802.11b TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	47.58	4.1	1	43.47		74.00	54.00	-10.53	Peak
4924.0	33.73	5.52	2	39.25		74.00	54.00	-14.75	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.61		-4.11	46.50		74.00	54.00	-7.50	Peak
4824.0	33.96		5.15	39.11		74.00	54.00	-14.89	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	46.46	4.1	1	42.35		74.00	54.00	-11.65	Peak
4824.0	34.43	4.9	7	39.40		74.00	54.00	-14.60	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.66	4.1	11	46.55		74.00	54.00	-7.45	Peak
4874.0	33.8	5.3		39.10		74.00	54.00	-14.90	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Pol Hor Temperature 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.14	4.1	1	44.03		74.00	54.00	-9.97	Peak
4874.0	33.41	5.2	4	38.65		74.00	54.00	-15.35	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	51.13		- 4.11	47.02		74.00	54.00	-6.98	Peak
4924.0	33.43		5.66	39.09		74.00	54.00	-14.91	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11g) (WAN WiFi)

Operation Mode 802.11g TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	49.79		-4.11	45.68		74.00	54.00	-8.32	Peak
4924.0	34.05		5.66	39.71		74.00	54.00	-14.29	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Ver.

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.77		-4.11	44.66		74.00	54.00	-9.34	Peak
4824.0	33.72		5.66	39.38		74.00	54.00	-14.62	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2412MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.62		-4.11	46.51		74.00	54.00	-7.49	Peak
4824.0	33.68		5.47	39.15		74.00	54.00	-14.85	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH Mid May. 19, 2011 Test Date

Fundamental Frequency 2437MHz Test By Jay

Temperature Pol Ver 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	49.05	4.1	11	44.94		74.00	54.00	-9.06	Peak
4874.0	33.59		5.38	38.97		74.00	54.00	-15.03	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature $25 \, ^{\circ}\text{C}$ Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	47.53	4.1	1	43.42		74.00	54.00	-10.58	Peak
4874.0	33.97	5.4	4	39.41		74.00	54.00	-14.59	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2462MHz Test By Jay

Temperature 25 °C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.62		- 4.11	46.51		74.00	54.00	- 7.49	Peak
4924.0	33.53	5.5	6	39.09		74.00	54.00	-14.91	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_20M) (WAN WiFi)

Operation Mode 802.11n 20M TX CH High May. 19, 2011 Test Date

Fundamental Frequency 2462MHz Test By Jay

Temperature Pol Hor 25 °C

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.57		-4.11	44.46		74.00	54.00	-9.54	Peak
4924.0	33.95		5.61	39.56		74.00	54.00	-14.44	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz-26GHz, RBW=1MHz, VBW=3MHz, Sweep time=200
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n 40M TX CH Low Test Date

Fundamental Frequency 2422MHz Test By Jay

Temperature 25 $^{\circ}$ C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.72		-4.11	46.61		74.00	54.00	-7.39	Peak
4824.0	33.46		5.52	38.98		74.00	54.00	-15.02	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n 40M TX CH Low Test Date May. 19, 2011

Fundamental Frequency 2422MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	51.87		-4.11	47.76		74.00	54.00	-6.24	Peak
4824.0	33.81		5.47	39.28		74.00	54.00	-14.72	Peak
7236.0						74.00	54.00		
9648.0						74.00	54.00		
12060.0						74.00	54.00		
14472.0						74.00	54.00		
16884.0						74.00	54.00		
19296.0						74.00	54.00		
21708.0						74.00	54.00		
24120.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n 40M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 $^{\circ}$ C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	50.57	4.1	1	46.46		74.00	54.00	-7.54	Peak
4874.0	35.12		5.5	40.62		74.00	54.00	-13.38	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n 40M TX CH Mid Test Date May. 19, 2011

Fundamental Frequency 2437MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.44	4.1	1	44.33		74.00	54.00	-9.67	Peak
4874.0	34.07	5.14	4	39.21		74.00	54.00	-14.79	Peak
7311.0						74.00	54.00		
9748.0						74.00	54.00		
12185.0						74.00	54.00		
14622.0						74.00	54.00		
17059.0						74.00	54.00		
19496.0						74.00	54.00		
21933.0						74.00	54.00		
24370.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n_40M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452MHz Test By Jay

Temperature 25 $^{\circ}$ C Pol Ver

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	48.88		-4.11	44.77		74.00	54.00	-9.23	Peak
4924.0	33.69	5.6	6	39.35		74.00	54.00	-14.65	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz) (802.11n_40M) (WAN WiFi)

Operation Mode 802.11n 40M TX CH High Test Date May. 19, 2011

Fundamental Frequency 2452MHz Test By Jay

Temperature 25 °C Pol Hor

Humidity 65 %

	Peak	\mathbf{AV}		Actu	al FS	Peak	\mathbf{AV}		
Freq.	Reading	Reading	Ant./CL	Peak	\mathbf{AV}	Limit	Limit	Margin	Remark
(MHz)	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)	
1598.0	49.9		-4.11	45.79		74.00	54.00	-8.21	Peak
4924.0	34.23		5.52	39.75		74.00	54.00	-14.25	Peak
7386.0						74.00	54.00		
9848.0						74.00	54.00		
12310.0						74.00	54.00		
14772.0						74.00	54.00		
17234.0						74.00	54.00		
19696.0						74.00	54.00		
22158.0						74.00	54.00		
24620.0						74.00	54.00		

Remark:

- 1 Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- 2 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.
- 3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4 Spectrum Peak Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 3MHz, Sweep time= 200 ms.
- 5 Spectrum AV Setting: 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

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10 Peak Power Spectral Density

10.1 Standard Applicable:

According to §15.247(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

10.2 Measurement Equipment Used:

Refer to section 6.2 for details.

10.3 Test Set-up:

Refer to section 6.3 for details.

10.4 Measurement Procedure:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the spectrum analyzer as RBW = 3KHz, VBW = 10KHz, Span = 300kHz, Sweep=100s
- 4. Record the max. reading.
- 5. Repeat above procedures until all frequency measured were complete.

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10.5 Measurement Result:

802.11b(LAN WiFi)

Frequency MHz	RF Power Density Reading (dBm)	Cable loss (dB)	RF Power Density Level (dBm)	Maximum Limit (dBm)
2412	-14.96	0.00	-14.96	8
2437	-14.89	0.00	-14.89	8
2462	-14.68	0.00	-14.68	8

802.11g(LAN WiFi)

Frequency MHz	RF Power Density Reading (dBm)	Cable loss (dB)	RF Power Density Level (dBm)	Maximum Limit (dBm)
2412	-16.98	0.00	-16.98	8
2437	-17.16	0.00	-17.16	8
2462	-16.73	0.00	-16.73	8

802.11n_20M(LAN WiFi)

Frequency	RF Power Density	Cable loss	RF Power Density	Maximum Limit
MHz	Reading (dBm)	(dB)	Level (dBm)	(dBm)
2412	-16.99	0.00	-16.99	8
2437	-16.74	0.00	-16.74	8
2462	-16.20	0.00	-16.20	8

802.11n_40M(LAN WiFi)

Frequency MHz	RF Power Density Reading (dBm)	Cable loss (dB)	RF Power Density Level (dBm)	Maximum Limit (dBm)
2422	-17.99	0.00	-17.99	8
2437	-19.36	0.00	-19.36	8
2452	-19.83	0.00	-19.83	8

^{*}Offset 10.5 dB



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802.11b(WAN WiFi)

Frequency	RF Power Density	Cable loss	RF Power Density	Maximum Limit
MHz	Reading (dBm)	(dB)	Level (dBm)	(dBm)
2412	-16.50	0.00	-16.50	8
2437	-15.87	0.00	-15.87	8
2462	-16.57	0.00	-16.57	8

802.11g(WAN WiFi)

Frequency MHz	RF Power Density Reading (dBm)	Cable loss (dB)	RF Power Density Level (dBm)	Maximum Limit (dBm)
2412	-18.24	0.00	-18.24	8
2437	-17.35	0.00	-17.35	8
2462	-16.91	0.00	-16.91	8

802.11n_20M(WAN WiFi)

	RF Power Density	Cable loss	RF Power Density	Maximum Limit
MHz	Reading (dBm)	(dB)	Level (dBm)	(dBm)
2412	-18.10	0.00	-18.10	8
2437	-16.92	0.00	-16.92	8
2462	-16.97	0.00	-16.97	8

802.11n_40M(WAN WiFi)

Frequency MHz	RF Power Density Reading (dBm)	Cable loss (dB)	RF Power Density Level (dBm)	Maximum Limit (dBm)
2422	-18.84	0.00	-18.84	8
2437	-20.05	0.00	-20.05	8
2452	-19.97	0.00	-19.97	8

^{*}Offset 10.5 dB

Note: Refer to next page for plots.

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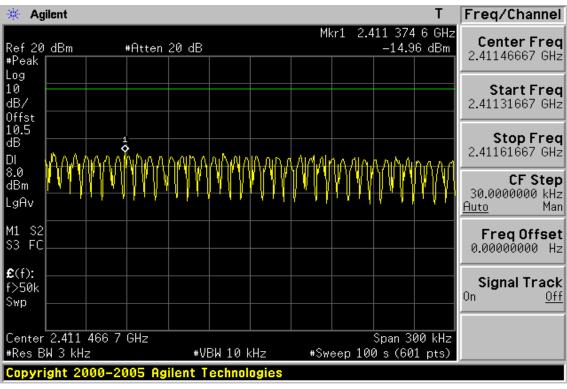




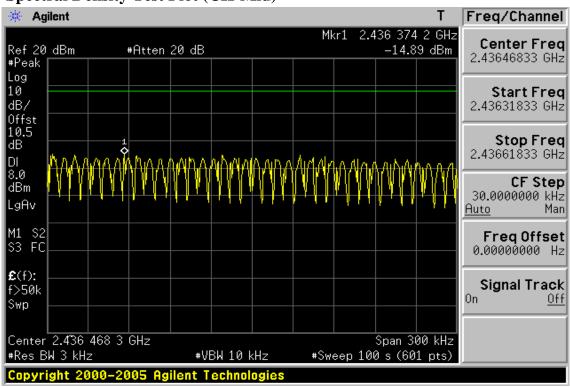
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802.11b(LAN WiFi)

Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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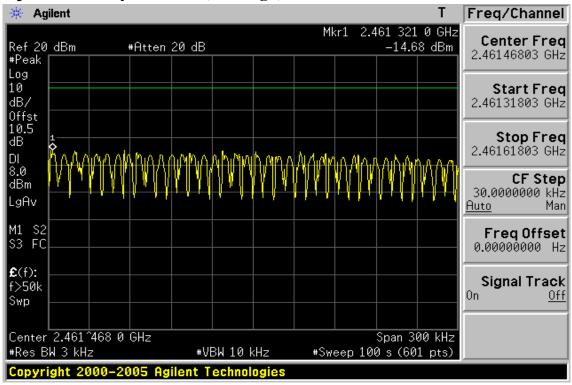
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Power Spectral Density Test Plot (CH-High)



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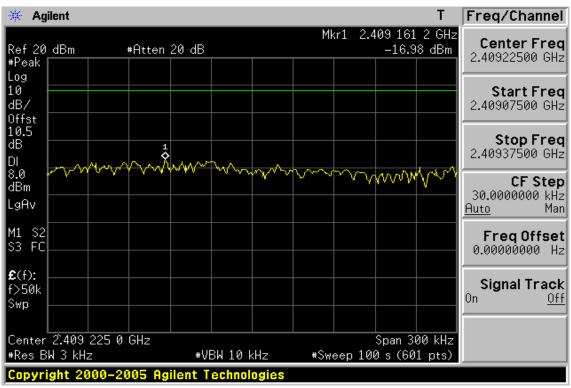
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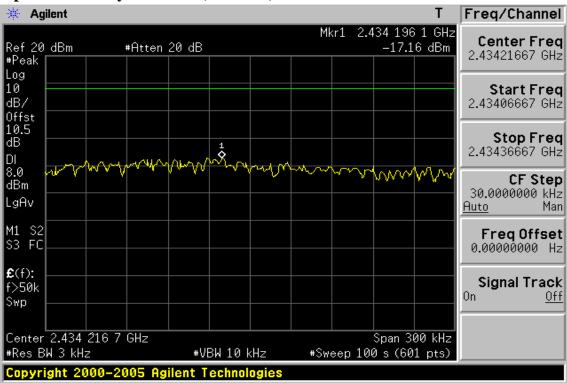


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802.11g(LAN WiFi) Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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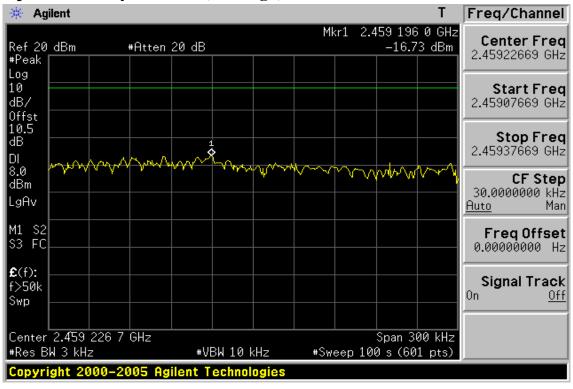
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Power Spectral Density Test Plot (CH-High)



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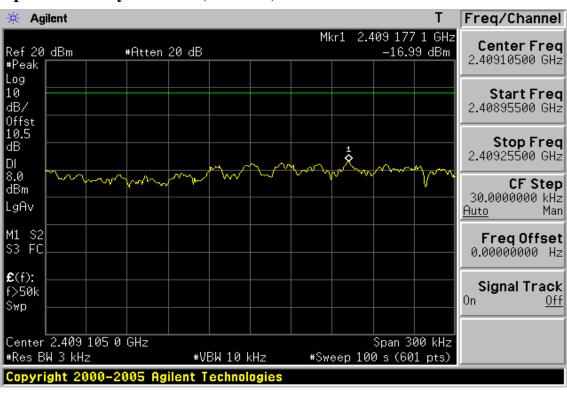
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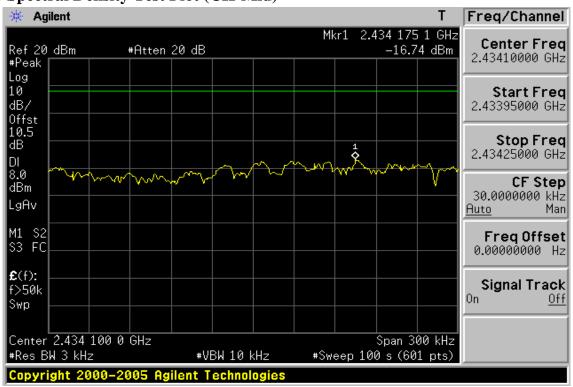


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802.11n_20M(LAN WiFi) Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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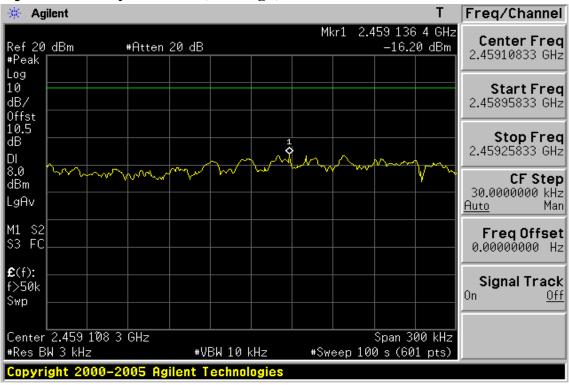
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Power Spectral Density Test Plot (CH-High)



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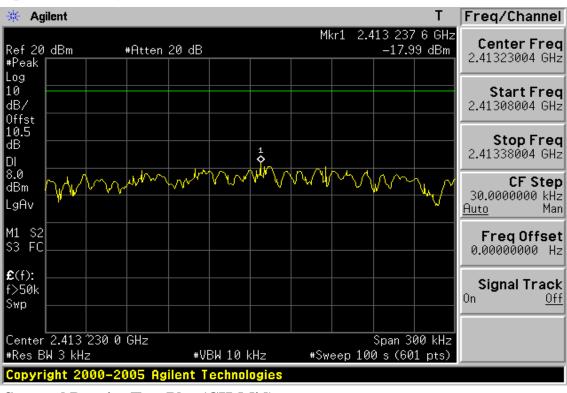
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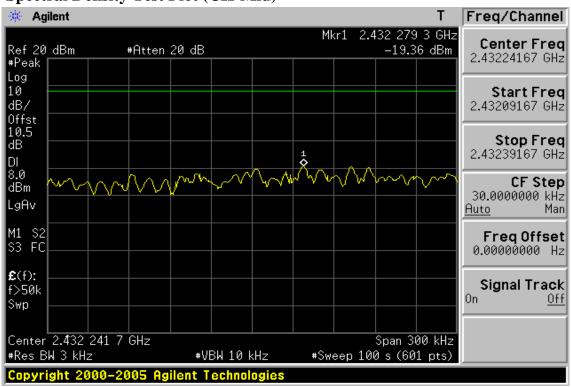


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802.11n_40M(LAN WiFi) Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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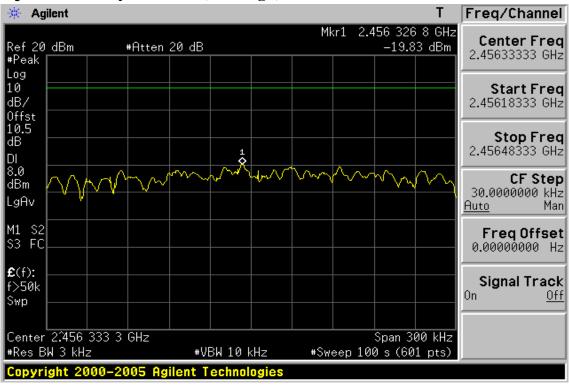
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Power Spectral Density Test Plot (CH-High)



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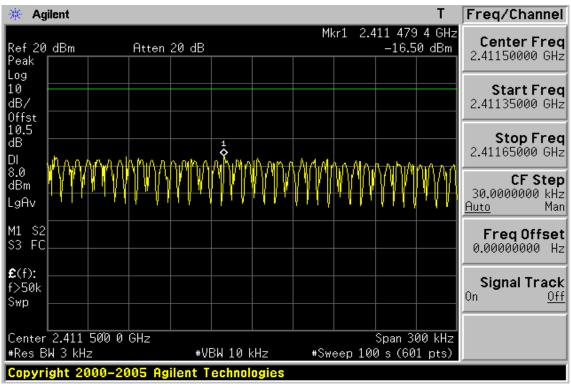




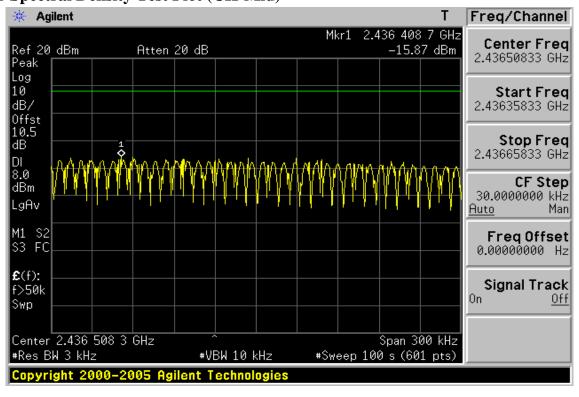
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802.11b(WAN WiFi)

Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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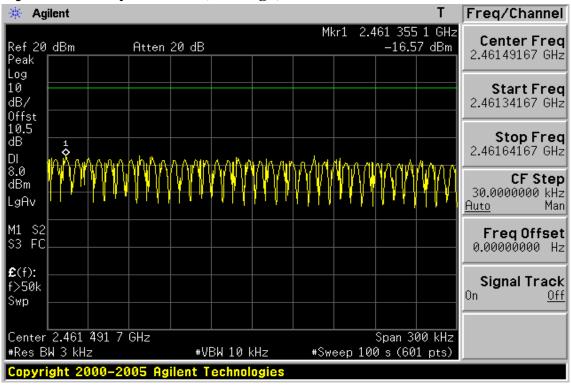
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Power Spectral Density Test Plot (CH-High)



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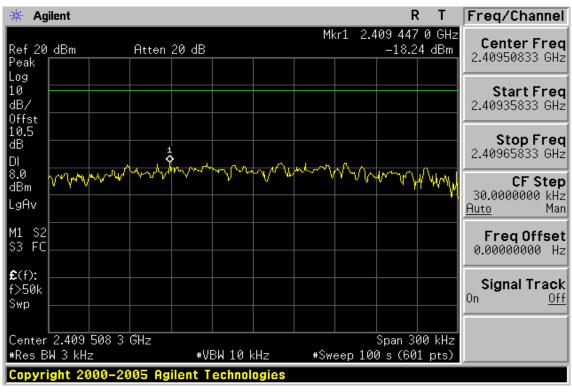
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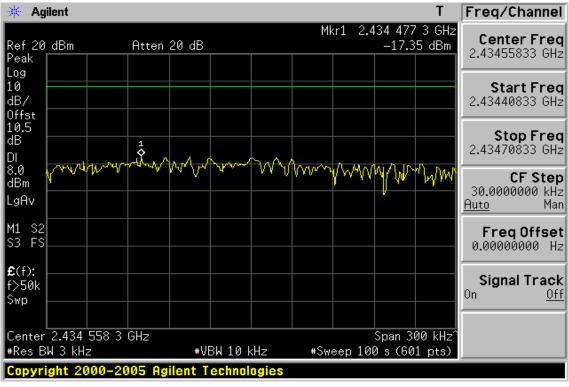


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802.11g(WAN WiFi) Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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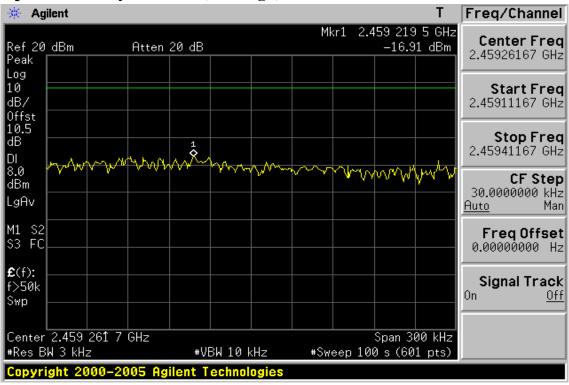
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Power Spectral Density Test Plot (CH-High)



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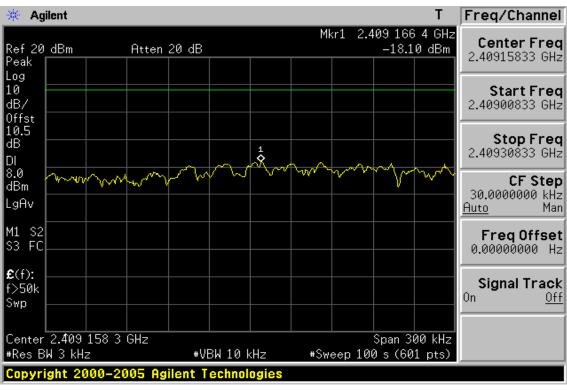
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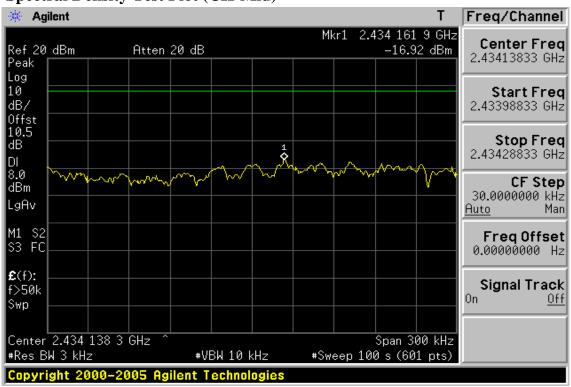


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802.11n_20M(WAN WiFi) **Power Spectral Density Test Plot (CH-Low)**



Power Spectral Density Test Plot (CH-Mid)



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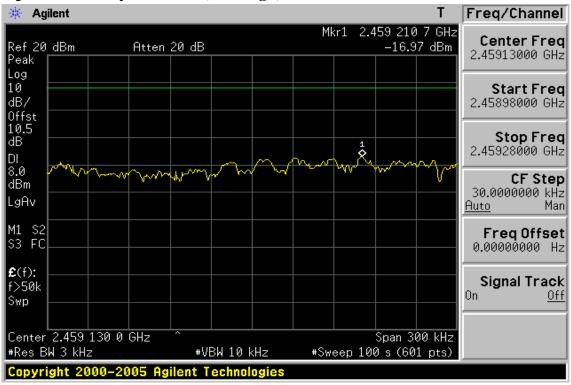
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Power Spectral Density Test Plot (CH-High)



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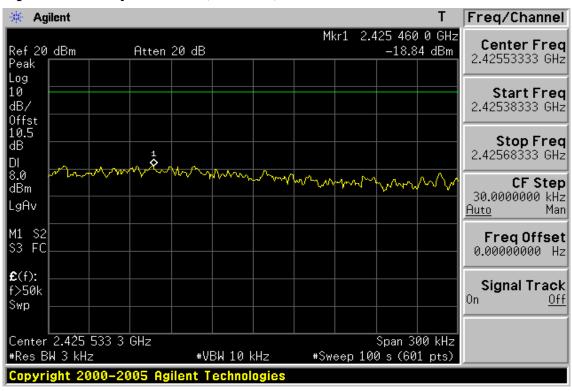
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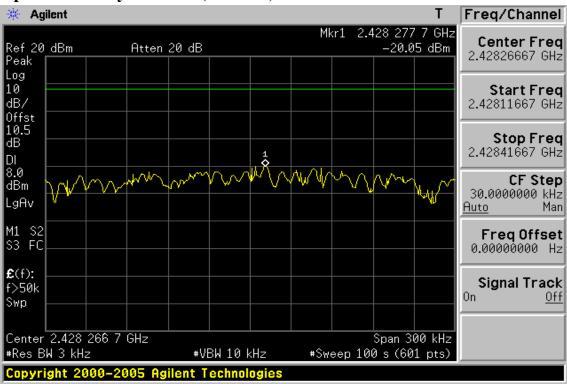


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802.11n_40M(WAN WiFi) Power Spectral Density Test Plot (CH-Low)



Power Spectral Density Test Plot (CH-Mid)



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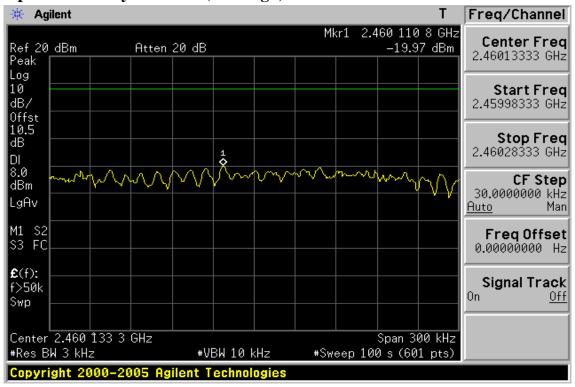
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Power Spectral Density Test Plot (CH-High)



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11 ANTENNA REQUIREMENT

11.1 Standard Applicable:

According to §15.203, Antenna 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 shall be considered sufficient to comply with the provisions of this Section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

11.2 Antenna Connected Construction:

The directional gains of antenna used for transmitting is 1 dBi(LAN WiFi)& -0.3 dBi(WAN WiFi), and the antenna connector is designed with unique type RF connector and no consideration of replacement. Please see EUT photo and antenna spec. for details.

~ End of Report ~

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