

# Test Report

# (Class II Permissive Change)

Product Name	Intel® Centrino® Advanced-N 6205
Model No	62205ANHMW
FCC ID	PD962205ANH

Applicant	Intel Corporation
Address	100 Center Point Circle Suite 200 Columbia, SC 29210

Date of Receipt	Sep. 28, 2011
Issued Date	Sep. 30, 2011
Report No.	11A037R-RFUSP45V01
Report Version	V1.0

The test results relate only to the samples tested.

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### Test Report Certification

Issued Date: Sep. 30, 2011 Report No.: 11A037R-RFUSP45V01



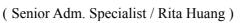
Product Name	Intel® Centrino® Advanced-N 6205
Applicant	Intel Corporation
Address	100 Center Point Circle Suite 200 Columbia, SC 29210
Manufacturer	Intel Corporation
Model No.	62205ANHMW
FCC ID.	PD962205ANH
EUT Rated Voltage	DC 3.3V (via Mini-PCI Express slot)
EUT Test Voltage	AC 120V/60Hz
Trade Name	Intel
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2010
	ANSI C63.4: 2009
Test Result	Complied

The Test Results relate only to the samples tested.

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Documented By :

Rita Huang



Tested By

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(Engineer / Sabrina Tsai)

Approved By

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(Manager / Vincent Lin)

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### 1. GENERAL INFORMATION

#### **1.1. EUT Description**

Product Name	Intel® Centrino® Advanced-N 6205
Trade Name	Intel
FCC ID.	PD962205ANH
Model No.	62205ANHMW
<b>D</b>	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz
Frequency Range	802.11n-40MHz: 5190-5310, 5510-5670MHz
Number of Channels	802.11a/n-20MHz: 19; 802.11n-40MHz: 9
Data Rate	802.11a: 6 - 54Mbps
	802.11n: up to 300Mbps
Channel Control	Auto
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM
Antenna information	Antenna element:
	TYCO, P/N: 1556292-1
	Bulkhead connector/adapter:
	Amphenol, P/N: 901-10097
	Cable:
	Hirose, P/N: U.FL-2LP-04N1-A- (100)
Antenna type	Dipole Antenna
Antenna Gain	Refer to the table "Antenna List"

#### Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	TYCO	1556292-1	3.34dBi for 5.15~5.25GHz
			4.17dBi for 5.25~5.35GHz
			4.9dBi for 5.47~5.725GHz

Note: The antenna of EUT is conform to FCC 15.203

802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz		

802.11n-40MHz Center Working Frequency of Each Channel:

Channel Channel Frequency Channel Frequency Channel Frequency Frequency Channel 38: 5190 MHz Channel 46: 5230 MHz Channel 54: 5270 MHz Channel 62: 5310 MHz Channel 102: 5510 MHz Channel 110: 5550 MHz Channel 118: 5590 MHz Channel 126: 5630 MHz Channel 134: 5670 MHz

Note:

- 1. This device is an Intel® Centrino® Advanced-N 6205 with a built-in 2.4GHz and 5GHz WLAN transceiver.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps \$\cdot 802.11b is 1Mbps \$\cdot 802.11g is 6Mbps \$\cdot 802.11n(20M-BW) is 14.4Mbps and \$\cdot 802.11n(40M-BW) is 30Mbps).
- 4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
- 5. This is to request a Class II permissive change for FCC ID: PD962205ANH, originally granted on 05/24/2011.

The major change filed under this application is:

Change #1: Addition new antenna

Antenna type: Dipole antenna Antenna Gain: 2.88dBi @ 2.4GHz, 4.9dBi @ 5GHz.

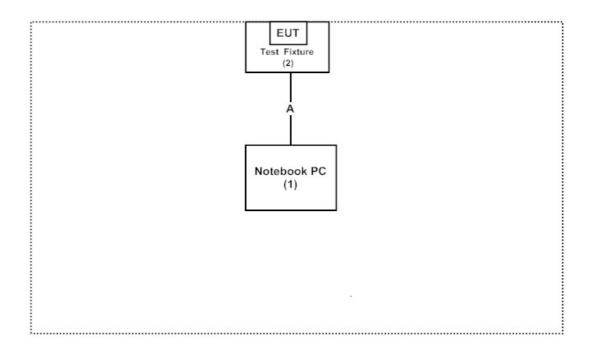
#### **1.3.** Tested System Datails

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
(1) Notebook PC		Intel	N/A	N/A	Non-Shielded, 1.8m
(2)	Test Fixture	Intel	N/A	N/A	N/A

Signal Cable Type		Signal cable Description	
A Test Fixture Line Cable		Non-shielded, 0.15m	

#### **1.4.** Configuration of tested System



#### **1.5.** EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute "DRTU v1.5.3-0320" program on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous Transmit.
- (5) Verify that the EUT works properly.

#### 1.6. **Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-30
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://www.quietek.com/tw/ctg/cts/accreditations.htm

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/

File on Site Description:

Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046 Registration Number: 92195

Accreditation on NVLAP NVLAP Lab Code: 200533-0





Site Name: Site Address:

Quietek Corporation No.5-22, Ruishukeng Linkou Dist., New Taipei City 24451, Taiwan, R.O.C. TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

FCC Accreditation Number: TW1014



#### 2. Peak Transmit Power

#### 2.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Х	Power Meter	Anritsu	ML2495A/6K00003357	May, 2011
Х	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2011
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

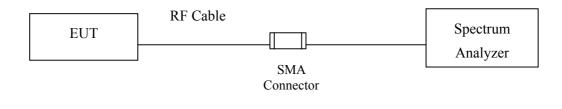
Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

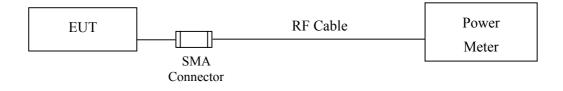
2. The test instruments marked with "X" are used to measure the final test results.

#### 2.2. Test Setup

#### 26dBc Occupied Bandwidth



#### **Conduction Power Measurement**



#### 2.3. Limits

- (1) For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (2) For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (3) For the band 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W or 17 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

#### 2.4. Test Procedur

As an alternative to DA 02-2138, the EUT peak power was measured with a peak power meter employing a video bandwidth greater than 6dB BW of the emission under test. Peak output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of DA 02-2138, and provides more accurate measurements.

#### 2.5. Uncertainty

± 1.27 dB

#### 2.6. Test Result of Peak Transmit Power

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Peak Transmit Power
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps)

#### **Peak Transmit Power Measurement:**

Channel Number	Frequency	26dB Bandwidth	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)
36	5180	36.200	14.34	17	19.59
44	5220	36.400	14.43	17	19.61
48	5240	36.700	14.48	17	19.65
52	5260	36.800	14.21	24	26.66
60	5300	37.900	14.45	24	26.79
64	5320	37.800	14.23	24	26.77
100	5500	39.800	14.67	24	27.00
120	5600	40.700	14.82	24	27.10
140	5700	41.000	15.31	24	27.13

Note: Power Output Value =Reading value on peak power meter + cable loss

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Peak Transmit Power
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps)

#### **Peak Transmit Power Measurement:**

Channel Number	Frequency	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
36	5180	21.900	10.61	10.56	13.60	17	17.40
44	5220	21.800	11.11	10.98	14.06	17	17.38
48	5240	21.800	11.03	10.70	13.88	17	17.38
52	5260	22.100	10.63	10.88	13.77	24	24.44
60	5300	22.000	11.30	10.31	13.84	24	24.42
64	5320	22.200	10.52	10.33	13.44	24	24.46
100	5500	22.300	11.38	10.98	14.19	24	24.48
120	5600	23.100	11.55	12.41	15.01	24	24.64
140	5700	26.300	12.11	11.88	15.01	24	25.20

Note:

1. Power Output Value =Reading value on peak power meter + cable loss

2. Output Power (dBm) = 10\*LOG (Chain A Power (mW)+ Chain B Power (mW))

3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Peak Transmit Power
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmitter (802.11n-40BW 30Mbps)

Channel Number	Frequency	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
38	5190	40.000	8.51	8.34	11.44	17	20.02
46	5230	40.500	11.77	10.50	14.19	17	20.07
54	5270	39.800	10.81	11.35	14.10	24	27.00
62	5310	39.700	7.88	7.56	10.73	24	26.99
102	5510	42.300	10.35	10.88	13.63	24	27.26
118	5590	41.800	11.42	11.12	14.28	24	27.21
134	5670	44.700	11.36	11.74	14.56	24	27.50

#### **Peak Transmit Power Measurement:**

Note:

1. Power Output Value =Reading value on peak power meter + cable loss

2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW)

3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

#### **3.** Radiated Emission

#### **3.1.** Test Equipment

The following test equipments are used during the radiated emission test:

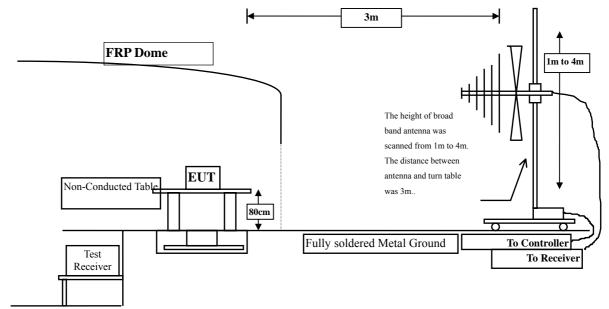
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	Х	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
	Х	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	Х	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2011
	Х	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2011
	Х	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2011
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
	Х	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2011
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

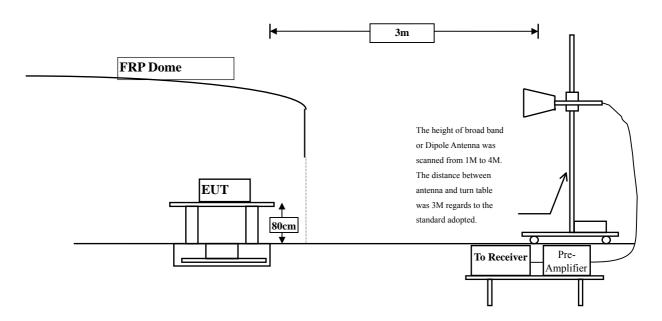
2. The test instruments marked with "X" are used to measure the final test results.

#### 3.2. Test Setup

Radiated Emission Below 1GHz



#### Radiated Emission Above 1GHz



#### 3.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits							
Frequency MHz	uV/m@3m dBuV/m@3m						
30-88	100	40					
88-216	150	43.5					
216-960	200	46					
Above 960	500	54					

Remarks: E field strength  $(dBuV/m) = 20 \log E$  field strength (uV/m)

#### **3.4.** Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to FCC Public Notice DA 02-2138 test procedure for compliance to FCC 47CFR 15.407 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2009 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement. The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The worst radiated emission is measured in the Open Area Test Site on the Final Measurement. The measurement frequency range form 30MHz - 10th Harmonic of fundamental was investigated.

#### 3.5. Uncertainty

- ± 3.8 dB below 1GHz
- ± 3.9 dB above 1GHz

#### **3.6.** Test Result of Radiated Emission

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps) (5180MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
10360.000	8.932	40.300	49.232	-24.768	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
Vertical					
Peak Detector:					
10360.000	10.436	45.200	55.635	-18.365	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
10360.000	10.436	30.850	41.285	-12.715	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

: Intel® Centrino® Advanced-N 6205							
: Mode 1: Transmitter (802.11a-6Mbps) (5220MHz)							
Correct	Reading	Measurement	Margin	Limit			
	-		U				
dB	dBuV	dBuV/m	dB	dBuV/m			
7.725	35.870	43.595	-30.405	74.000			
*	*	*	*	74.000			
*	*	*	*	74.000			
*	*	*	*	74.000			
9.505	45.100	54.605	-19.395	74.000			
*	*	*	*	74.000			
*	*	*	*	74.000			
*	*	*	*	74.000			
	<ul> <li>Harmon</li> <li>No.3 OA</li> <li>Mode 1:</li> <li>Correct</li> <li>Factor</li> <li>dB</li> </ul> 7.725 <ul> <li>*</li> <li>*</li> <li>*</li> </ul> 9.505 <ul> <li>*</li> <li>*</li> </ul>	<ul> <li>Harmonic Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802)</li> <li>Correct Reading Factor Level dB dBuV</li> <li>7.725 35.870 <ul> <li>*</li> <li>*</li> <li>*</li> <li>*</li> <li>*</li> </ul> </li> <li>9.505 45.100 <ul> <li>*</li> <li>*</li> <li>*</li> <li>*</li> <li>*</li> <li>*</li> </ul> </li> </ul>	<ul> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5220M</li> <li>Correct Reading Measurement Level</li> <li>dB</li> <li>dBuV</li> <li>dBuV/m</li> </ul>	:       Harmonic Radiated Emission Data         :       No.3 OATS         :       Mode 1: Transmitter (802.11a-6Mbps) (5220MHz)         Correct       Reading Level       Measurement Level       Margin dB         7.725       35.870       43.595       -30.405         *       *       *       *         *       *       *       *         9.505       45.100       54.605       -19.395         *       *       *       *         *       *       *       *         *       *       *       *			

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5240MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
<b>Peak Detector:</b>						
10480.000	8.464	40.330	48.793	-25.207	74.000	
15720.000	*	*	*	*	74.000	
20960.000	*	*	*	*	74.000	
26200.000	*	*	*	*	74.000	
Average Detector:						
Vertical						
Peak Detector:						
10480.000	10.399	43.400	53.799	-20.201	74.000	
15720.000	*	*	*	*	74.000	
20960.000	*	*	*	*	74.000	
26200.000	*	*	*	*	74.000	

#### Average

## Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5260MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10520.000	9.531	39.750	49.281	-24.719	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
10520.000	11.441	44.500	55.941	-18.059	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
10520.000 Note:	11.441	29.990	41.431	-12.569	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5300MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	15			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
10600.000	11.182	39.650	50.832	-23.168	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
 Vertical							
Peak Detector:							
10600.000	12.717	43.800	56.517	-17.483	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
10600.000 Note:	12.717	30.540	43.257	-10.743	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product		Intel® Centrino® Advanced-N 6205					
Test Item		ic Radiated Emiss	sion Data				
Test Site	: No.3 OA						
Test Mode	: Mode 1	: Transmitter (802	.11a-6Mbps) (5320M	Hz)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
10640.000	10.912	38.780	49.692	-24.308	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
<b>Peak Detector:</b>							
10640.000	12.585	41.180	53.765	-20.235	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		

#### Average

## Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5500MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11000.000	10.513	40.700	51.213	-22.787	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
Average							
Detector:							
 Peak Detector:							
11000.000	12.635	42.670	55.305	-18.695	74.000		
16500.000	*	*	*	*	74.000		
22000.000	*	*	*	*	74.000		
27500.000	*	*	*	*	74.000		
Average							
Detector:							
11000.000 Note:	12.635	29.000	41.635	-12.365	54.000		

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmon : No.3 OA					
Test Widde	. WIDGE I	. Transmitter (802		112)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11200.000	10.912	40.600	51.512	-22.488	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
Peak Detector:						
11200.000	13.146	47.630	60.776	-13.224	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average						
Detector:						
11200.000 Note:	13.146	34.380	47.526	-6.474	54.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: No.3 OATS							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
11400.000	12.753	39.340	52.093	-21.907	74.000			
17100.000	*	*	*	*	74.000			
22800.000	*	*	*	*	74.000			
28500.000	*	*	*	*	74.000			
Average								
Detector:								
Vertical								
Peak Detector:								
11400.000	14.303	43.380	57.683	-16.317	74.000			
17100.000	*	*	*	*	74.000			
22800.000	*	*	*	*	74.000			
28500.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
11400.000 Note:	14.303	29.280	43.583	-10.417	54.000			

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmon : No.3 OA	<ul><li>Harmonic Radiated Emission Data</li><li>No.3 OATS</li></ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
<b>Peak Detector:</b>								
10360.000	8.932	40.340	49.272	-24.728	74.000			
15540.000	*	*	*	*	74.000			
20720.000	*	*	*	*	74.000			
25900.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
Vertical								
Peak Detector:								
10360.000	10.436	44.310	54.745	-19.255	74.000			
15540.000	*	*	*	*	74.000			
20720.000	*	*	*	*	74.000			
25900.000	*	*	*	*	74.000			
Average								
<b>Detector:</b>								
10360.000 Note <sup>:</sup>	10.436	29.460	39.895	-14.105	54.000			

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5220MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10440.000	7.725	42.740	50.465	-23.535	74.000		
15660.000	*	*	*	*	74.000		
20880.000	*	*	*	*	74.000		
26100.000	*	*	*	*	74.000		
Average							
Detector:							
 Peak Detector:							
10440.000	9.505	49.340	58.845	-15.155	74.000		
15660.000	*	*	*	*	74.000		
20880.000	*	*	*	*	74.000		
26100.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
10440.000 Note:	9.505	32.740	42.245	-11.755	54.000		

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmon : No.3 OA	ctorLevelLevel $B$ $dBuV$ $dBuV/m$ $dB$ $dBuV/n$ $464$ $42.070$ $50.533$ $-23.467$ $74.000$ $*$ $*$ $*$ $*$ $*$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$ $*$ $*$ $*$ $*$ $74.000$			
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
<b>Peak Detector:</b>					
10480.000	8.464	42.070	50.533	-23.467	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
 Peak Detector:					
10480.000	10.399	48.330	58.729	-15.271	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
10480.000	10.399	32.840	43.239	-10.761	54.000
Note:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5260MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10520.000	9.531	40.410	49.941	-24.059	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							
Detector:							
 Peak Detector:							
10520.000	11.441	49.130	60.571	-13.429	74.000		
15780.000	*	*	*	*	74.000		
21040.000	*	*	*	*	74.000		
26300.000	*	*	*	*	74.000		
Average							
Detector:							
10520.000 lote:	11.441	33.340	44.781	-9.219	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5300MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
MHz	Factor dB	Level dBuV	Level dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10600.000	11.182	46.880	58.062	-15.938	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
Detector:							
10600.000	11.182	31.000	42.182	-11.818	54.000		
Peak Detector:							
10600.000	12.717	51.230	63.947	-10.053	74.000		
15900.000	*	*	*	*	74.000		
21200.000	*	*	*	*	74.000		
26500.000	*	*	*	*	74.000		
Average							
Detector:							
10600.000 lote:	12.717	34.780	47.497	-6.503	54.000		

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5320MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10640.000	10.912	38.720	49.632	-24.368	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
Average							
Detector:							
 Peak Detector:							
10640.000	12.585	46.880	59.465	-14.535	74.000		
15960.000	*	*	*	*	74.000		
21280.000	*	*	*	*	74.000		
26600.000	*	*	*	*	74.000		
Average							
Detector:							
10640.000 Note:	12.585	31.400	43.985	-10.015	54.000		

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5500MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11000.000	10.513	41.700	52.213	-21.787	74.000	
16500.000	*	*	*	*	74.000	
22000.000	*	*	*	*	74.000	
27500.000	*	*	*	*	74.000	
Average						
Detector:						
 Peak Detector:						
11000.000	12.635	50.230	62.865	-11.135	74.000	
16500.000	*	*	*	*	74.000	
22000.000	*	*	*	*	74.000	
27500.000	*	*	*	*	74.000	
Average						
Detector:						
11000.000 Note:	12.635	33.780	46.415	-7.585	54.000	

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5600MHz)</li> </ul>					
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit	
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
11200.000	10.912	42.140	53.052	-20.948	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average						
Detector:						
 Peak Detector:						
11200.000	13.146	50.920	64.066	-9.934	74.000	
16800.000	*	*	*	*	74.000	
22400.000	*	*	*	*	74.000	
28000.000	*	*	*	*	74.000	
Average						
<b>Detector:</b>						
11200.000 Note:	13.146	33.850	46.996	-7.004	54.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmon : No.3 OA	<ul> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	15			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
11400.000	12.753	39.110	51.863	-22.137	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
11400.000	14.303	42.960	57.263	-16.737	74.000		
17100.000	*	*	*	*	74.000		
22800.000	*	*	*	*	74.000		
28500.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
11400.000 Note:	14.303	27.820	42.123	-11.877	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmon : No.3 OA			(5190MHz)	
Test Wide	. Wrote 5.		.1111-40D W 50100p3)	(51)01/112)	
Frequency	Correct	Reading	Measurement	Margin	Limit
1 5	Factor	Level	Level	C	
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
10380.000	8.400	39.970	48.370	-25.630	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
<b>Detector:</b>					
Peak Detector:					
10380.000	9.965	40.290	50.256	-23.744	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000

#### Average

### Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> </ul>						
Test Mode	: Mode 3: Transmitter (802.11n-40BW 30Mbps) (5230MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10460.000	7.932	40.780	48.712	-25.288	74.000		
15690.000	*	*	*	*	74.000		
20920.000	*	*	*	*	74.000		
26150.000	*	*	*	*	74.000		
Average							
Detector:							
 Peak Detector:							
10460.000	9.790	46.830	56.620	-17.380	74.000		
15690.000	*	*	*	*	74.000		
20920.000	*	*	*	*	74.000		
26150.000	*	*	*	*	74.000		
Average							
Detector:							
10460.000 Note:	9.790	31.290	41.080	-12.920	54.000		

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	: Harmor : No.3 O	ic Radiated Emiss ATS	o® Advanced-N 6205 iated Emission Data mitter (802.11n-40BW 30Mbps) (5270MHz)				
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10540.000	10.058	40.110	50.169	-23.831	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
 Peak Detector:							
10540.000	11.868	47.780	59.648	-14.352	74.000		
15810.000	*	*	*	*	74.000		
21080.000	*	*	*	*	74.000		
26350.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
10540.000 Note:	11.868	32.350	44.218	-9.782	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5310MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
10620.000	11.096	39.070	50.165	-23.835	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
Average Detector:							
Peak Detector:							
10620.000	12.683	39.250	51.933	-22.067	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		

#### Average

# Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5510MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11020.000	10.820	40.240	51.060	-22.940	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
<b>Peak Detector:</b>							
11020.000	12.966	40.990	53.957	-20.043	74.000		
15930.000	*	*	*	*	74.000		
21240.000	*	*	*	*	74.000		
26550.000	*	*	*	*	74.000		

#### Average

# Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5590MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
11180.000	10.947	40.780	51.727	-22.273	74.000		
16770.000	*	*	*	*	74.000		
22360.000	*	*	*	*	74.000		
27950.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
Vertical							
Peak Detector:							
11180.000	13.186	46.130	59.316	-14.684	74.000		
16770.000	*	*	*	*	74.000		
22360.000	*	*	*	*	74.000		
27950.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
11180.000 Note:	13.186	32.930	46.116	-7.884	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>Harmonic Radiated Emission Data</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5670MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector:</b>							
11340.000	12.149	39.140	51.289	-22.711	74.000		
17010.000	*	*	*	*	74.000		
22680.000	*	*	*	*	74.000		
28350.000	*	*	*	*	74.000		
Average							
<b>Detector:</b>							
<b>Peak Detector:</b>							
11340.000	13.891	38.690	52.581	-21.419	74.000		
17010.000	*	*	*	*	74.000		
22680.000	*	*	*	*	74.000		
28350.000	*	*	*	*	74.000		

#### Average

# Detector:

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 1: Transmitter (802.11a-6Mbps) (5220MHz)</li> </ul>						
Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m		
Horizontal	4.2 						
Peak Detector							
134.275	-9.880	42.780	32.900	-10.600	43.500		
330.700	0.410	38.196	38.606	-7.394	46.000		
500.450	6.750	35.793	42.543	-3.457	46.000		
633.825	14.505	24.833	39.338	-6.662	46.000		
779.325	12.490	24.155	36.645	-9.355	46.000		
922.400	10.330	25.859	36.189	-9.811	46.000		
Vertical							
Peak Detector							
102.750	-0.320	37.228	36.908	-6.592	43.500		
282.200	-2.160	35.580	33.420	-12.580	46.000		
432.550	6.840	26.230	33.070	-12.930	46.000		
500.450	5.040	34.655	39.695	-6.305	46.000		
633.825	12.815	24.110	36.925	-9.075	46.000		
876.325	11.480	27.589	39.069	-6.931	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product:Intel® Centrino® Advanced-N 6205Test Item:General Radiated EmissionTest Site:No.3 OATS							
Test Mode	: Mode 1: Transmitter (802.11a-6Mbps) (5300MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
102.750	0.250	34.865	35.115	-8.385	43.500		
272.500	-2.470	44.350	41.880	-4.120	46.000		
500.450	6.750	36.397	43.147	-2.853	46.000		
648.375	14.585	26.758	41.343	-4.657	46.000		
784.175	12.585	24.036	36.621	-9.379	46.000		
929.675	9.970	25.245	35.215	-10.785	46.000		
Vertical							
<b>Peak Detector</b>							
105.175	-1.755	36.779	35.024	-8.476	43.500		
233.700	1.270	33.806	35.076	-10.924	46.000		
500.450	5.040	34.212	39.252	-6.748	46.000		
655.650	12.710	24.398	37.108	-8.892	46.000		
835.100	8.570	23.451	32.021	-13.979	46.000		
929.675	9.180	32.546	41.726	-4.274	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product:Intel® Centrino® Advanced-N 6205Test Item:General Radiated EmissionTest Site:No.3 OATS							
Test Mode	: Mode 1: Transmitter (802.11a-6Mbps) (5500MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector</b>							
131.850	-9.340	43.403	34.063	-9.437	43.500		
299.175	-2.215	43.597	41.382	-4.618	46.000		
500.450	6.750	36.548	43.298	-2.702	46.000		
638.675	14.900	24.651	39.551	-6.449	46.000		
781.750	12.620	23.752	36.372	-9.628	46.000		
883.600	9.170	27.039	36.209	-9.791	46.000		
Vertical							
<b>Peak Detector</b>							
105.175	-1.755	37.960	36.205	-7.295	43.500		
240.975	2.945	32.658	35.603	-10.397	46.000		
335.550	-3.740	35.108	31.368	-14.632	46.000		
500.450	5.040	33.826	38.866	-7.134	46.000		
696.875	10.370	24.200	34.570	-11.430	46.000		
876.325	11.480	29.268	40.748	-5.252	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site	Test Item : General Radiated Emission						
Test Mode							
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector</b>							
129.425	-8.795	44.154	35.359	-8.141	43.500		
287.050	-2.730	41.056	38.326	-7.674	46.000		
398.600	8.450	30.876	39.326	-6.674	46.000		
500.450	6.750	36.666	43.416	-2.584	46.000		
638.675	14.900	23.054	37.954	-8.046	46.000		
900.575	9.065	27.020	36.085	-9.915	46.000		
Vertical							
<b>Peak Detector</b>							
105.175	-1.755	37.989	36.234	-7.266	43.500		
192.475	-0.760	35.250	34.490	-9.010	43.500		
279.775	-2.030	34.678	32.648	-13.352	46.000		
500.450	5.040	33.797	38.837	-7.163	46.000		
658.075	12.580	24.548	37.128	-8.872	46.000		
876.325	11.480	28.276	39.756	-6.244	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> </ul>						
Test Site Test Mode	<ul> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5300MHz)</li> </ul>						
Frequency	Correct	Reading	Measurement	Margin	Limit		
1 2	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
105.175	-0.665	35.482	34.817	-8.683	43.500		
257.950	-2.260	42.867	40.607	-5.393	46.000		
398.600	8.450	30.197	38.647	-7.353	46.000		
500.450	6.750	35.780	42.530	-3.470	46.000		
648.375	14.585	25.051	39.636	-6.364	46.000		
907.850	9.640	26.086	35.726	-10.274	46.000		
Vertical							
Peak Detector							
105.175	-1.755	37.470	35.715	-7.785	43.500		
240.975	2.945	31.814	34.759	-11.241	46.000		
335.550	-3.740	34.023	30.283	-15.717	46.000		
500.450	5.040	34.333	39.373	-6.627	46.000		
682.325	9.475	25.080	34.555	-11.445	46.000		
876.325	11.480	28.216	39.696	-6.304	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 2: Transmitter (802.11n-20BW 14.4Mbps) (5600MHz)</li> </ul>						
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
97.900	0.750	34.381	35.131	-8.369	43.500		
272.500	-2.470	42.768	40.298	-5.702	46.000		
401.025	8.740	30.110	38.850	-7.150	46.000		
500.450	6.750	35.987	42.737	-3.263	46.000		
648.375	14.585	24.699	39.284	-6.716	46.000		
856.925	10.715	25.230	35.945	-10.055	46.000		
Vertical							
Peak Detector							
102.750	-0.320	37.476	37.156	-6.344	43.500		
284.625	-2.595	35.256	32.661	-13.339	46.000		
500.450	5.040	33.889	38.929	-7.071	46.000		
645.950	13.210	24.334	37.544	-8.456	46.000		
876.325	11.480	29.034	40.514	-5.486	46.000		
980.600	11.670	26.847	38.517	-15.483	54.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5190MHz)</li> </ul>						
Test Mode	. 101000 5.	Transmitter (002.		(51)000112)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
<b>Peak Detector</b>							
100.325	1.050	35.409	36.459	-7.041	43.500		
299.175	-2.215	42.930	40.715	-5.285	46.000		
401.025	8.740	30.266	39.006	-6.994	46.000		
500.450	6.750	36.200	42.950	-3.050	46.000		
648.375	14.585	25.073	39.658	-6.342	46.000		
844.800	10.700	25.444	36.144	-9.856	46.000		
Vertical							
<b>Peak Detector</b>							
105.175	-1.755	37.913	36.158	-7.342	43.500		
163.375	-3.840	35.228	31.388	-12.112	43.500		
282.200	-2.160	33.909	31.749	-14.251	46.000		
500.450	5.040	33.137	38.177	-7.823	46.000		
648.375	13.030	25.547	38.577	-7.423	46.000		
922.400	9.750	26.830	36.580	-9.420	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> </ul>						
Test Mode	: Mode 3: Transmitter (802.11n-40BW 30Mbps) (5270MHz)						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector							
257.950	-2.260	43.043	40.783	-5.217	46.000		
398.600	8.450	31.330	39.780	-6.220	46.000		
500.450	6.750	36.178	42.928	-3.072	46.000		
648.375	14.585	25.894	40.479	-5.521	46.000		
784.175	12.585	24.232	36.817	-9.183	46.000		
927.250	10.080	25.932	36.012	-9.988	46.000		
Vertical							
Peak Detector							
102.750	-0.320	38.292	37.972	-5.528	43.500		
240.975	2.945	31.203	34.148	-11.852	46.000		
335.550	-3.740	34.986	31.246	-14.754	46.000		
500.450	5.040	32.800	37.840	-8.160	46.000		
665.350	11.450	25.421	36.871	-9.129	46.000		
876.325	11.480	28.127	39.607	-6.393	46.000		

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Test Item Test Site Test Mode	<ul> <li>Intel® Centrino® Advanced-N 6205</li> <li>General Radiated Emission</li> <li>No.3 OATS</li> <li>Mode 3: Transmitter (802.11n-40BW 30Mbps) (5590MHz)</li> </ul>					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector						
105.175	-0.665	35.527	34.862	-8.638	43.500	
299.175	-2.215	43.087	40.872	-5.128	46.000	
398.600	8.450	31.197	39.647	-6.353	46.000	
500.450	6.750	35.990	42.740	-3.260	46.000	
648.375	14.585	24.921	39.506	-6.494	46.000	
798.725	10.855	25.271	36.126	-9.874	46.000	
Vertical						
Peak Detector						
102.750	-0.320	37.780	37.460	-6.040	43.500	
192.475	-0.760	35.502	34.742	-8.758	43.500	
432.550	6.840	26.753	33.593	-12.407	46.000	
500.450	5.040	33.902	38.942	-7.058	46.000	
643.525	13.420	25.043	38.463	-7.537	46.000	
876.325	11.480	27.393	38.873	-7.127	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.

# 4. Band Edge

## 4.1. Test Equipment

#### **RF** Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

#### **RF Radiated Measurement:**

The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
		Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2011
	Х	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2011
		Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2011
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2011
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

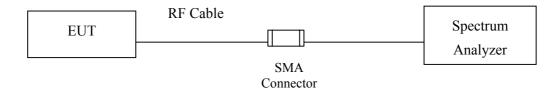
Note:

1. All instruments are calibrated every one year.

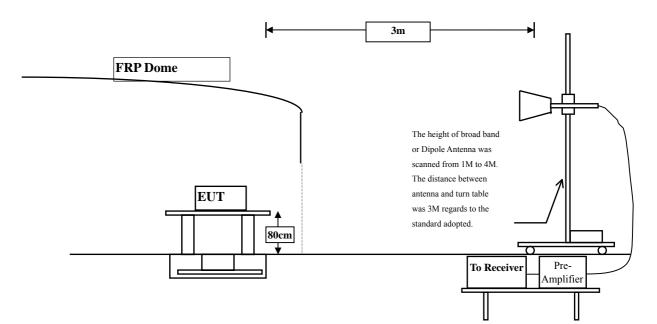
2. The test instruments marked by "X" are used to measure the final test results.

# 4.2. Test Setup

#### **RF** Conducted Measurement



#### **RF Radiated Measurement:**



# 4.3. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits						
Frequency MHz	uV/m @3m	dBuV/m@3m				
30-88	100	40				
88-216	150	43.5				
216-960	200	46				
Above 960	500	54				

Remarks : 1. RF Voltage  $(dBuV) = 20 \log RF$  Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

# 4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.4, 2009; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

# 4.5. Uncertainty

- $\pm$  3.8 dB below 1GHz
- ± 3.9 dB above 1GHz

# 4.6. Test Result of Band Edge

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps)-Channel 36

#### Fundamental Filed Strength

Antenna	Frequency	Reading Level	Correction Factor	Emission Level	Detector
Pole	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	
Horizontal	5180	35.962	61.6	97.561	Peak
Horizontal	5180	35.962	51.65	87.611	Average
Vertical	5180	36.739	75.88	112.618	Peak
Vertical	5180	36.739	65.34	102.078	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5150	97.561	42.361	55.2	74.000	Peak
Horizontal	5150	87.611	50.803	36.808	54.000	Average
Vertical	5150	112.618	42.361	70.257	74.000	Peak
Vertical	5150	102.078	50.803	51.275	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength =  $F - \Delta$ 

F = Fundamental field Strength (Peak or Average)

 $\Delta$  = Conducted Band Edge Delta (Peak or Average)

🗈 Agilent Spectrum Analyzer - S			leteu Dullu Lu		
x 50 Ω Center Freq 5.15000		AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 44/100	04:44:56 PM Sep 15, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
10 dB/div Ref 20.00 c	IFGain:Low	#Atten: 30 dB	85.07	r2 5.150 0 GHz -30.872 dBm	Auto Tun
-og 10.0 .000 -10.0			hluer and		Center Fre 5.150000005 GH
20.0 30.0 40.0	- marine de son de la fart far ante	2 almetahlet		^	Start Fre 5.100000005 G⊦
50.0 60.0 70.0					<b>Stop Fre</b> 5.200000005 GF
enter 5.15000 GHz Res BW 1.0 MHz	#VBW	/ 1.0 MHz	#Sweep	Span 100.0 MHz 500 ms (1001 pts) FUNCTION VALUE	CF Ste 10.000000 Mł Auto Ma
1         N         1         f           22         N         1         f           3         -         -         -           4         -         -         -           5         -         -         -           6         -         -         -           7         -         -         -           9         -         -         -           0         -         -         -	* 5.173 9 GHz 5.150 0 GHz	11.489 dBm -30.872 dBm			Freq Offs 0 H
11 12 13 13 13 13 13 13 13 13 13 13 13 13 13			STATUS		

# Peak Detector of conducted Band Edge Delta

# Average Detector of conducted Band Edge Delta

🔟 Agilent Spectrum Analyzer - S	Swept SA			8	
50 Ω Center Freq 5.1500	00005 GHz	]	ALIGNAUTO Avg Type: Log-Pwr	04:46:01 PM Sep 15, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
10 dB/div Ref 20.00 c	out: RF PNO: Fast 🖵 IFGain:Low	┘ Trig: Free Run #Atten: 30 dB	Avg Hold: 2/100	r1 5.173 2 GHz 1.378 dBm	Auto Tune
10.0 0.00 -10.0			▲1		Center Fre 5.150000005 GH
-20.0		2			Start Fre 5.100000005 GH
-50.0 					<b>Stop Fre</b> 5.200000005 G⊦
Center 5.15000 GHz #Res BW 1.0 MHz	#VBW		Sweep	Span 100.0 MHz 7.80 s (1001 pts) FUNCTION VALUE	CF Ste 10.000000 M⊢ Auto Ma
Max         Model         File         State           1         N         1         f         1         f           2         N         1         f         1         f           3         -         -         -         -         -           4         -	5.173 2 GHz 5.150 0 GHz	1.378 dBm -49.425 dBm			Freq Offse 0 H
SG			STATUS		

:	Intel <sup>®</sup> Centrino <sup>®</sup> Advanced-N 6205
:	Band Edge Data
:	No.3 OATS
:	Mode 1: Transmitter (802.11a-6Mbps)-Channel 48
	:

Test Frequency	Measurement Level (20dBc)	Limit	Result
(MHz)	(MHz)	(MHz)	
5240	5249.45	<5250	PASS

L RF 50 Ω	AC	SENSE:INT	ALIGN AUTO	03:21:53 AM Sep 29, 2011	
enter Freq 5.2400	00000 GHz PNO: Fast G IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Frequency
dB/div Ref 20.00 d	dBm		Mkr	2 5.249 45 GHz -12.40 dBm	Auto Tur
00			1 2 2	-12.14 dBm	Center Fr 5.240000000 G
0.0 0.0 0.0 0.0			فالمالي مراقين .	-12.14 dBm	<b>Start Fr</b> 5.215000000 G
).0 ).0 .0					<b>Stop Fr</b> 5.265000000 G
enter 5.24000 GHz Res BW 300 kHz	#VBV	V 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF St 5.000000 M
R MODE TRC SCL N 1 f N 1 f	× 5.243 25 GHz 5.249 45 GHz	7.863 dBm -12.40 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> N
	0.243 40 0112	-12.40 0.011			Freq Offs 0
3					
5 9 1 2					

Product	:	Intel <sup>®</sup> Centrino <sup>®</sup> Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps)-Channel 52

Test Frequency	Measurement Level (20dBc)	Limit	Result
(MHz)	(MHz)	(MHz)	
5260	5250.4	>5250	PASS

PNO: Fast         Trig: Free Run         Atten: 30 dB         Select Ma           0 dB/div         Ref 20.00 dBm         0	RF	50 Ω AC	SENSE:INT	ALIGNAUTO	11:05:40 AM Sep 29, 2011	Marker
Org         1 <th1< th="">         1         1         1</th1<>		PNO: Fast G IFGain:Low		Avg Type: Log-Pwr	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Select Marke
0.0         0.0 <td>) dB/div Ref 20.0</td> <td>)0 dBm</td> <td></td> <td></td> <td>Ĩ</td> <td>3</td>	) dB/div Ref 20.0	)0 dBm			Ĩ	3
000     000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
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00     100 <td></td> <td>anterstant</td> <td></td> <td>June march</td> <td></td> <td></td>		anterstant		June march		
00	and and a second				masany	De
No     Span 50.00 MHz       enter 5.26000 GHz     Span 50.00 MHz       tes BW 300 KHz     #VBW 1.0 MHz       #VBW 1.0 MHz     #Sweep 500 ms (1001 pts)       R     MODE HRC SQL       N     1       f     5.257 85 GHz       6.08 dBm       1     f       5.250 40 GHz       -13.884 dBm       1       1       1       2       1       3       4       5       4       5       5       6       6       7       7       8       9       9					~	
Enter 5.26000 GHz         Span 50.00 MHz           Res BW 300 kHz         #VBW 1.0 MHz         #Sweep 500 ms (1001 pts)           R M005 TEG SEL         X         Y         FUNCTION           N         1         f         5.257 85 GHz         6.08 dBm           N         1         f         5.250 40 GHz         -13.884 dBm           3         -         -         -         -           4         -         -         -         -           5         -         -         -         -           8         -         -         -         -           3         -         -         -         -         -	0.0					Fixe
Res BW 300 kHz         #VBW 1.0 MHz         #Sweep         500 ms (1001 pts)           R         MODE         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE           I         N         1         f         5.257 85 GHz         6.08 dBm         PUNCTION WIDTH         FUNCTION VALUE           I         N         1         f         5.257 00 GHz         -13.884 dBm         Prope           I         N         1         f         5.250 40 GHz         -13.884 dBm         Prope           I         N         1         f         5.250 40 GHz         -13.884 dBm         Prope           I         N         I         f         5.250 40 GHz         -13.884 dBm         Prope           I         N         I         f         5.250 40 GHz         -13.884 dBm         Prope           I         I         I         I         I         I         I         I           I         I         I         I         I         I         I         I           I         I         I         I         I         I         I         I         I	1.0					80.00.000.00
Image: Set in the set			N 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	
N         1         f         5.250 40 GHz         -13.884 dBm         Prope           A </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>C</td>						C
4	2 N 1 f					
7     8     1     1     1     1     1       3     1     1     1     1     1     1       3     1     1     1     1     1     1	5					Propertie
	7					
	)					Mo
	1					1 0



Product	:	Intel <sup>®</sup> Centrino <sup>®</sup> Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps) -Channel 64

#### Fundamental Filed Strength

Antenna	Frequency	Reading Level	Correction Factor	Emission Level	Detector
Pole	[MHz]	[dB(uV)]	[dB/m]	[dB(uV/m)]	
Horizontal	5320	36.573	59.81	96.383	Peak
Horizontal	5320	36.573	50.61	87.183	Average
Vertical	5320	36.817	77.13	113.947	Peak
Vertical	5320	36.817	66.39	103.207	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	5350.7	96.383	48.913	47.47	Peak
Horizontal	5350	87.183	52.9	34.283	Average
Vertical	5350.7	113.947	48.913	65.034	Peak
Vertical	5350	103.207	52.9	50.307	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$ 

F = Fundamental field Strength (Peak or Average)

 $\Delta$  = Conducted Band Edge Delta (Peak or Average)

Agilent Spectrum Analyzer -	Swept SA	no is			
50 Ω enter Freg 5.3500	000000 GHz	AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	04:46:59 PM Sep 15, 2011 TRACE 1 2 3 4 5 6	Frequency
Ir	nput: RF PNO: Fast 🔾 IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Hold: 32/100	TYPE MWWWWW DET P N N N N N	Auto Tu
dB/div Ref 20.00	dBm		Mk	r3 5.350 7 GHz -37.338 dBm	Auto Tu
g <u>(1</u>					Center Fr
					5.350000000 G
.0 Juliulium	William	Nu -			
.0		4			Start Fr 5.300000000 G
.0		. M. W. Waldward	a master where we were	the strand the state	3.300000000
.0					Stop Fr
.0					5.40000000 G
enter 5.35000 GHz				Span 100.0 MHz	CF St
es BW 1.0 MHz		N 1.0 MHz	#Sweep	500 ms (1001 pts)	10.000000 N
N 1 f	× 5.315 8 GHz 5.350 0 GHz	11.575 dBm -38.014 dBm	UNCTION FONCTION WIDTH	FUNCTION VALUE	<u>Auto</u> N
N 1 f	5.350 7 GHz	-37.338 dBm			Freq Offs
					0
2					
3			STATUS		

# Peak Detector of conducted Band Edge Delta

#### Average Detector of conducted Band Edge Delta

Desired Spectrum Analyzer - Sv	0		nuueteu Danu I					
Center Freq 5.35000 Imp	100000 GHz ut: RF PNO: Fast G IFGain:Low	AC SENSE:INT Trig: Free Run #Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 2/100	04:47:32 PM Sep 15, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N	Frequency			
10 dB/div <b>Ref 20.00 d</b>	Mkr1 5.313 4 GHz 0 dB/div Ref 20.00 dBm 1.151 dBm							
					Center Freq 5.350000000 GHz			
-20.0 -30.0 -40.0		2			Start Free 5.300000000 GH2			
-50.0					Stop Free 5.400000000 GH:			
Center 5.35000 GHz #Res BW 1.0 MHz	#VBV	V 10 Hz	Swee	Span 100.0 MHz 5 7.80 s (1001 pts)				
MKR MODE TRC SCL 1 N 1 f 2 N 1 f	× 5.313 4 GHz 5.350 0 GHz	1.151 dBm -51.749 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Mar			
3 4 5 6					Freq Offse 0 H:			
7 8 9 9 9 10 11 12 12								
MSG			STATU	s				

# QuieTer

Product	:	Intel <sup>®</sup> Centrino <sup>®</sup> Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps) -Channel 100

#### Fundamental Filed Strength

Antenna	Frequency	Reading Level	Correction Factor	Emission Level	Detector
Pole	[MHz]	[dB(uV)]	[dB/m]	[dB(uV/m)]	
Horizontal	5500	37.553	60.71	98.263	Peak
Horizontal	5500	37.553	50	87.553	Average
Vertical	5500	37.534	76.63	114.164	Peak
Vertical	5500	37.534	65.54	103.074	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5460	98.263	46.137	52.126	74.000	Peak
Horizontal	5460	87.553	55.648	31.905	54.000	Average
Vertical	5460	114.164	46.137	68.027	74.000	Peak
Vertical	5460	103.074	55.648	47.426	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$ 

F = Fundamental field Strength (Peak or Average)

 $\Delta$  = Conducted Band Edge Delta (Peak or Average)



	Peak Dele	ctor of cond	ucted Band Ed	ge Delta	
🔟 Agilent Spectrum Analyzer -	Swept SA				
20 Ω 50 Ω Center Freq 5.4600	00000 GHz put: RF PNO: Fast C	AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 60/100	04:48:53 PM Sep 15, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
10 dB/div Ref 20.00 (	IFGain:Low	#Atten: 30 dB	Mk	r3 5.470 0 GHz -27.612 dBm	Auto Tune
			3 jetherten and		<b>Center Free</b> 5.460000000 GH
-20.0 -30.0 -40.0	Apple Prover service to a set out of the	2 	3W		Start Free 5.410000000 GH
-60.0					<b>Stop Fre</b> 5.510000000 GH
Center 5.46000 GHz #Res BW 1.0 MHz	#VB	W 1.0 MHz		Span 100.0 MHz 500 ms (1001 pts)	CF Ste 10.000000 MH
MKR MODE TRC SCL 1 N 1 f 2 N 1 f	× 5.495 4 GHz 5.460 0 GHz	13.054 dBm -33.083 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
3 N 1 f 4 5 6 8	5.470 0 GHz	-27.612 dBm			Freq Offse 0 H
7 8 9 10 11					
12			STATUS		

#### Peak Detector of conducted Band Edge Delta

#### Average Detector of conducted Band Edge Delta

- Swept SA				
	AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 2/100	04:49:28 PM Sep 15, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
IFGain:Low	#Atten: 30 dB	Mk		Auto Tune
				Center Freq 5.460000000 GHz
	2	3		<b>Start Freq</b> 5.410000000 GHz
				<b>Stop Freq</b> 5.510000000 GHz
#VE				CF Step 10.000000 MHz
× 5.493 6 GHz 5.460 0 GHz 5.470 0 GHz	2.257 dBm -53.391 dBm -45.846 dBm			Auto Man Freq Offset 0 Hz
	#VE	AC         SENSE:INT           000000 GHz         Trig: Free Run #Atten: 30 dB           dBm         #Atten: 30 dB           dBm	AC SENSE:NT ALIONAUTO 000000 GHz Trig: Free Run IFGain:Low #Atten: 30 dB Avg Type: Log-Pwr Avg Type: Log-Pwr AvgHold: 2/100 Mk dBm 4tten: 30 dB Mk dBm 4tten: 30 dB 5.493 6 GHz 2.27 dBm 5.490 6 GHz 53.391 dBm	AC         SENSE:INT         ALIGNAUTO         (p4:49:28 PM Sep 15, 2011)           000000 GHz         Trig: Free Run #Atten: 30 dB         Avg Type: Log-Pwr Avg Hold: 2/100         Trig: Cree Run #Atten: 30 dB         Mkr1 5.493 6 GHz 2.257 dBm           dBm         2         1         1         1           dBm         2         3         1         1         1           dBm         2         3         1         1         1         1           dBm         2         3         3         1         1         1         1           dBm         2         3         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps) -Channel 100

#### **RF Radiated Measurement:**

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizonta	1 5470.000	13.958	-60.130	-46.172	-19.172	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5470.000	14.324	-51.470	-37.146	-10.146	-27.000	Pass

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter (802.11a-6Mbps) -Channel 140

#### **RF Radiated Measurement:**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Hori	zontal	5725.000	12.135	-69.560	-57.425	-30.425	-27.000	Pass

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5725.000	12.243	-61.860	-49.617	-22.617	-27.000	Pass



Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps) -Channel 36

#### Fundamental Filed Strength

Antenna	Frequency Reading Leve		Correction Factor	Emission Level	Detector
Pole	[MHz]	[dBuV]	[dB/m]	[dBuV/m]	
Horizontal	5180	35.962	59.52	95.481	Peak
Horizontal	5180	35.962	46.89	82.851	Average
Vertical	5180	36.739	76.46	113.198	Peak
Vertical	5180	36.739	63.82	100.558	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

#### Band Edge Test Data (Chain A)

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5150	95.481	47.504	47.977	74.000	Peak
Horizontal	5150	82.851	49.938	32.913	54.000	Average
Vertical	5150	113.198	47.504	65.694	74.000	Peak
Vertical	5150	100.558	49.938	50.62	54.000	Average

Band Edge Test Data (Chain B)

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5150	95.481	47.697	47.784	74.000	Peak
Horizontal	5150	82.851	50.076	32.775	54.000	Average
Vertical	5150	113.198	47.697	65.501	74.000	Peak
Vertical	5150	100.558	50.076	50.482	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$ 

F = Fundamental field Strength (Peak or Average)

 $\Delta$  = Conducted Band Edge Delta (Peak or Average)

I ea	K Delector o	1 conducted	i Band Edge D	ena-Chain A	
💭 Agilent Spectrum Analyzer - Sw					
		AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	05:42:20 PM Sep 14, 2011 TRACE 1 2 3 4 5 6	Frequency
Inpu		Trig: Free Run Atten: 30 dB	Avg Hold: 27/100	DET P N N N N N	
	IFGain:Low	Atten: 50 db	MŁ	r2 5.150 0 GHz	Auto Tune
10 dB/div Ref 20.00 dE	Rm		IVIN	-37.351 dBm	
Log			()1		
10.0			- min	m	Center Freq
0.00			/	$\overline{\mathbf{v}}$	5.150000000 GHz
-10.0			1	h.	
-20.0		2	and and a state of the second state of the sec	Un with	Start Freq
-30.0		a mark			5.10000000 GHz
-40.0	and the second				
-50.0					
-60.0					Stop Freq 5.20000000 GHz
-70.0					5.20000000 GH2
Center 5.15000 GHz				Span 100.0 MHz	05.04.1
#Res BW 1.0 MHz	#VBW	1.0 MHz	#Sweep	500 ms (1001 pts)	CF Step 10.000000 MHz
MKR MODE TRC SCL	×		FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Man
1 N 1 f 2 N 1 f	5.174 4 GHz 5.150 0 GHz	10.153 dBm -37.351 dBm			
3					Freq Offset
					0 Hz
6 7	0				
8					
10					
11					
MSG	ж. 		STATUS		
			of Allos		

#### Peak Detector of conducted Band Edge Delta-Chain A

Agilent Spectrum Analyzer	- Swept SA				
4 50 Ω Center Freg 5.150	000000 GHz	AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	05:43:11 PM Sep 14, 2011 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.00	Input: RF PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Hold: 2/100	r1 5.173 3 GHz -3.115 dBm	Auto Tune
-og 10.0 0.00 -10.0					Center Fred 5.150000000 GH:
-20.0		2			Start Free 5.100000000 GH:
-50.0 -60.0 -70.0					Stop Free 5.200000000 GH
Center 5.15000 GHz #Res BW 1.0 MHz		BW 10 Hz	-	Span 100.0 MHz 7.80 s (1001 pts)	CF Ste 10.000000 MH
MIXE         MODE         TRC         SCL           1         N         1         f           2         N         1         f           3         -         -         -           4         -         -         -           5         -         -         -           6         -         -         -           7         -         -         -           9         -         -         -           10         -         -         -	× 5.173 3 GHz 5.150 0 GHz	Y FU -3.115 dBm -53.053 dBm	FUNCTION WIDTH	FUNCTION VALUE	Auto Ma Freq Offse 0 H

	I Can	Dettettor	of conducted	i Band Edge D	Cita-Citaili D	
	rum Analyzer - Swept	SA				
	50 Ω cq 5.1500000 Input: R		AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 28/100	05:29:08 PM Sep 14, 2011 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P N N N N N	Frequency
		IFGain:Low	Atten: 30 dB	Mk	r2 5.150 0 GHz -36.700 dBm	Auto Tun
0 dB/div   og	Ref 20.00 dBm	<u> </u>		1	-36.700 dBm	
10.0				- man	mi	Center Fre 5.150000000 GH
0.0						
30.0			2	e have marked	Melon apple	Start Fre
40.0	wants drives and	and a start and a start at a start at a				5.100000000 Gł
0.0	ur han han the faith of the hand has been been been been been been been bee					Stop Fr
0.0						5.200000000 GI
enter 5.15 Res BW 1.		#VB	W 1.0 MHz	#Sweep	Span 100.0 MHz 500 ms (1001 pts)	CF Ste 10.000000 M
KR MODE TRC				FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto M
1 N 1 2 N 1		5.186 3 GHz 5.150 0 GHz	10.997 dBm -36.700 dBm			
3						Freq Offs
6						0
8						
8						

#### Peak Detector of conducted Band Edge Delta-Chain B

#### Average Detector of conducted Band Edge Delta-Chain B

💴 Agilent Spectrum Analyzer -			cu Dana Luge		
لا من العربي العربي العربي العربي العربي العربي العربي	00000 GHz put: RF PNO: Fast C IFGain:Low	AC SENSE:INT Trig: Free Run Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 2/100	05:29:43 PM Sep 14, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET P N N N N N	Frequency
10 dB/div Ref 20.00 (		Atten. ov ub	Mk	r1 5.173 3 GHz -3.147 dBm	Auto Tune
10.0 -10.0					Center Free 5.150000000 GH:
-20.0					Start Fre 5.100000000 GH
-50.0 -60.0 -70.0					Stop Fre 5.200000000 GH
Center 5.15000 ĜHz #Res BW 1.0 MHz	#VB	W 10 Hz	Sweep	Span 100.0 MHz 7.80 s (1001 pts)	CF Ste 10.000000 M⊢
MKR MODE TRC SCL 1 N 1 f 2 N 1 f	× 5.173 3 GHz 5.150 0 GHz	-3.147 dBm -53.223 dBm	JNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
3 4 5 6					Freq Offse 0 H
7 8 9 10 11 12					
MSG			STATUS		

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps)-Channel 48

# Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5240	5249.95	<5250	PASS

L Deter F		Ω AC	<b>U</b> -7	SENSE		ALIGNAUTO		M Sep 29, 2011 CE 1 2 3 4 5 6	Frequency
Filler F	req 5.240	PN	⊓∠ 10: Fast  ⊊ Gain:Low	Trig: Free Ru #Atten: 30 dB	un Č	Type: Log T H	TY	PE MWWWWW ET P N N N N N	
dB/div	Ref 20.00	) dBm				Mkr		95 GHz 96 dBm	Auto Tu
g				1					Conton Fr
			hours	handharbarra	more hand	1			Center Fr 5.240000000 G
0			/			2		-10.89 dBm	5.24000000 G
	m.	mour				mon well	mananth		
	mon						- April	Munt	Start Fr
.0									5.215000000 0
.0		6							
.0									
.0									Stop Fr
.0									5.265000000 G
Inter 5	24000 GHz					25	Snan 5	0.00 MHz	
	300 kHz		#VBV	1.0 MHz		#Sweep		(1001 pts)	CF St
R MODE T		X		-9	FUNCTION	FUNCTION WIDTH		ON VALUE	5.000000 N Auto N
N 1	f	5.234 9	5 GHz	9.11 dBm			Tonich	OIN VALUE	Auto
N 1	f	5.249 9	5 GHz	-11.96 dBm					
						1			Freq Off
									0
					1				
1									

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps)-Channel 48

# Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5240	5249.9	<5250	PASS

		RF 50			SENS	E:INT	ALIGNAUTO		AM Sep 29, 2011	Frequency
enter	Frec	5.240		HZ NO: Fast 🕞 Gain:Low	Trig: Free F #Atten: 30 d	Run	Type: Log-Pwr	T	CE 123456 PE MWWWWW DET P NNNNN	
dB/di	v R	ef 20.00	dBm				Mkr		90 GHz 40 dBm	Auto Tu
				1. 7	<b>∆</b> 1					Center Fr
				putter	narman	mon				5.240000000 G
				/			2		-11.02 dBm	3.24000000 G
.0		- 4	all monte and	r			manne	and and and		
.0	men	pontone						and sound	and have	Start Fr
									2	5.215000000 G
.0										
.0									-	
.0		-	-	-						Stop Fr
.0			4						-	5.265000000 G
L								_		
		000 GHz 0 kHz		#\/D\/	1.0 MHz		#Sween	Span:	50.00 MHz (1001 pts)	CF St
	WW 30			#*0*					<u> </u>	5.000000 N
		ICL			¥ 8.98 dBi	FUNCTION	FUNCTION WIDTH	FUNCT	ION VALUE	<u>Auto</u> N
R MODE		F	5 236 2							
N N	1	f f	5.236 2 5.249 9		-11.40 dBr					
R MODE N N	1									Freq Offs
R MODE N N	1									
	1									
	1									
	1									
	1									Freq Offs 0

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps)-Channel 52

#### Chain A

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5260	5250.15	>5250	PASS

L RF 50 S		SENSE:INT	ALIGNAUTO	03:35:48 AM Sep 29, 2011	Frequency
enter Freq 5.2600	1000000 GHz PNO: Fast IFGain:Low	➡ Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	
dB/div Ref 20.00	dBm		Mkr:	2 5.250 15 GHz -10.52 dBm	Auto Tu
9	when	1 monor with	whom have		Center Fr
.0	2		- Man	-10.35 dBm	5.260000000 G
when	how		manuer	and an all and the	Start Fr
.0					5.235000000 G
0					Stop Fr
.0					5.285000000 G
enter 5.26000 GHz tes BW 300 kHz	#VB	W 1.0 MHz	#Sweep	Span 50.00 MHz 500 ms (1001 pts)	CF St 5.000000 M
N 1 F	× 5.254 95 GHz	9.646 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto N
N 1 f	5.250 15 GHz	-10.52 dBm			Freq Offs
					0
				L	

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps)-Channel 52

# Chain B

Test Frequency	Measurement Level (20dB BW)	Limit	Result
(MHz)	(MHz)	(MHz)	
5260	5250.05	>5250	PASS

L		RF	50 Ω			S	ENSE:INT		ALIGN AUTO		M Sep 29, 2011	Frequency
enter	Fre	eq	5.26000	00000 G PI IFC	Hz 10: Fast Gain:Low	➡ Trig: Fre #Atten: 3		Avg T <sub>i</sub>	ype: Log-Pwr	TY	2E 1 2 3 4 5 6 PE MWWWWW ET P NNNN	
dB/di	v	Ref	20.00 d	IBm					Mkr		05 GHz 60 dBm	Auto Tu
g					morth	1	man	North				Center Fr
- 00		_			2						-10.45 dBm	5.260000000 G
.0			and	www.					and a second	montally	-10.45 dbm	
.0 M	problem	A MOR									- want 1	Start Fr 5.235000000 G
.0		-							0			5.235000000 G
.0												Stop Fr
.0												5.285000000 G
L	6.0	600								0		
enter les B			) GHz (Hz		#VB	W 1.0 MHz	2		#Sweep	span 5 500 ms (	0.00 MHz 1001 pts)	CF St 5.000000 M
R MODE	TRC 1	SCL		× 5.256 1		ү 9.55 с		NCTION	FUNCTION WIDTH	FUNCTI	DN VALUE	<u>Auto</u> M
N	1	f		5.250 0		-10.60 c						1 2000
												Freq Offs 0
												U
1												
	-											

# QuieTer

Product	:	Intel® Centrino® Advanced-N 6205
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter (802.11n-20BW 14.4Mbps) -Channel 64

#### Fundamental Filed Strength

Antenna	Frequency	Reading Level	Correction Factor	Emission Level	Detector
Pole	[MHz]	[dB(uV)]	[dB/m]	[dB(uV/m)]	
Horizontal	5320	36.573	61.69	98.263	Peak
Horizontal	5320	36.573	49.37	85.943	Average
Vertical	5320	36.817	77.54	114.357	Peak
Vertical	5320	36.817	64.02	100.837	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data (Chain A)

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5350	98.263	46.853	51.41	74.000	Peak
Horizontal	5350	85.943	52.104	33.839	54.000	Average
Vertical	5350	114.357	46.853	67.504	74.000	Peak
Vertical	5350	100.837	52.104	48.733	54.000	Average

Band Edge Test Data (Chain B)

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta$ (dB)	Band Edge Field Strength (dBuV/m)	Requiqment Limit (dBuV/m)	Detector
Horizontal	5350	98.263	51.289	46.974	74.000	Peak
Horizontal	5350	85.943	51.448	34.495	54.000	Average
Vertical	5350	114.357	51.289	63.068	74.000	Peak
Vertical	5350	100.837	51.448	49.389	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F -  $\Delta$ 

F = Fundamental field Strength (Peak or Average)

 $\Delta$  = Conducted Band Edge Delta (Peak or Average)

Agilent Spectrum Analyzer -		or conducte	u Danu Euge I		
🧱 50 Ω Center Freq 5.3500	00000 GHz	AC SENSE:INT	ALIGN AUTC Avg Type: Log-Pwr		Frequency
In	put: RF PNO: Fast ⊂ IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Hold: 27/100	DET P N N N N N	Auto Tune
10 dB/div Ref 20.00	dBm		М	kr2 5.350 0 GHz -36.362 dBm	Auto Tune
10.0 1					Center Fred
-10.0					5.350000000 GH
-10.0 -20.0	U.L. W	lau			
-30.0		2			Start Free 5.300000000 GH
-40.0				art war is ball the regulation of the second	
-60.0					Stop Free 5.400000000 GH
-70.0	7 1				3.40000000 GH
Center 5.35000 GHz #Res BW 1.0 MHz	#VBI	W 1.0 MHz	#Sweep	Span 100.0 MHz 500 ms (1001 pts)	CF Step 10.000000 MH
MKR MODE TRC SCL	× 5.314 5 GHz	10.491 dBm	FUNCTION FUNCTION WIDT	H FUNCTION VALUE	<u>Auto</u> Mar
2 N 1 f 3	5.350 0 GHz	-36.362 dBm			Freq Offse
4 5 6					0 Н
7 8					
9 10 11					
12					
ISG			STATU	JS	

# Peak Detector of conducted Band Edge Delta-Chain A

# Average Detector of conducted Band Edge Delta-Chain A

🖉 Agilent Spectrum Analyzer -	Swept SA		8		
× 50 Ω Center Freq 5.3500		AC SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 2/100	05:44:35 PM Sep 14, 2011 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
10 dB/div Ref 20.00	put: RF PNO: Fast C IFGain:Low dBm	Atten: 30 dB	5.04	r1 5.313 2 GHz -2.457 dBm	Auto Tuno
10.0 0.00 -10.0					Center Fre 5.350000000 G⊦
-20.0		2			Start Fre 5.300000000 G⊦
50.0 60.0 70.0					<b>Stop Fre</b> 5.40000000 GH
Center 5.35000 GHz Res BW 1.0 MHz		W 10 Hz		Span 100.0 MHz 7.80 s (1001 pts)	CF Ste 10.000000 MI
MICE         MICE         FIC         SCI.           1         N         1         f	× 5.313 2 GHz 5.350 0 GHz	Y F -2.457 dBm -54.561 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Ma Freq Offs 0 H
11 12 13 13 13 13 13 13 13 13 13 13 13 13 13			STATUS		

🕦 Agilent Spectrum Analyzer -		10 11	u Danu Euge I		
⊠ 50 Ω Center Freq 5.3500 In	00000 GHz put: RF PNO: Fast G IFGain:Low	AC SENSE:INT Trig: Free Run Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 32/100		
10 dB/div Ref 20.00	dBm		Μ	kr2 5.350 0 GHz -40.264 dBm	
					Center Fred 5.350000000 GHz
-20.0 -20.0			March and Kangson from an and the		Start Fred 5.300000000 GH2
-60.0					<b>Stop Fre</b> 5.400000000 GH
Center 5.35000 GHz #Res BW 1.0 MHz	#VBI	№ 1.0 MHz		Span 100.0 MHz 500 ms (1001 pts)	CF Ste 10.000000 MH
MKR MODE TRC SCL 1 N 1 f 2 N 1 f 3	× 5.326 2 GHz 5.350 0 GHz	11.025 dBm -40.264 dBm	FUNCTION FUNCTION WID1	FUNCTION VALUE	Auto Ma Freq Offse
4 5 6 7 8					ОН
8 9 9 10 11 12					
ISG		U	STAT	us	

# Peak Detector of conducted Band Edge Delta-Chain B

# Average Detector of conducted Band Edge Delta-Chain B

🛙 Agilent Spectrum Analyzer -	Swept SA	ing is			
X 50 Ω Center Freg 5.3500	00000 GHz	AC SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	05:31:29 PM Sep 14, 2011 TRACE 1 2 3 4 5 6	Frequency
10 dB/div <b>Ref 20.00</b>	put: RF PNO: Fast C IFGain:Low	Atten: 30 dB	Avg Hold: 2/100	r1 5.313 2 GHz -2.743 dBm	Auto Tun
10.0 0.00 -10.0					Center Fre 5.350000000 G⊦
20.0		2			Start Fre 5.300000000 GH
50.0 60.0 70.0					<b>Stop Fre</b> 5.40000000 GH
Center 5.35000 GHz Res BW 1.0 MHz	#VB	W 10 Hz		Span 100.0 MHz 7.80 s (1001 pts)	CF Ste 10.000000 Mi
MKR         MODE         TRC         SCL           1         N         1         f           2         N         1         f           3	× 5.313 2 GHz 5.350 0 GHz	-2.743 dBm -54.191 dBm	INCTION FUNCTION WIDTH	FUNCTION VALUE	Auto M Freq Offs
4 5 6 7					01
8 9 9 10 11 12					
sg			STATUS		