Test Report

Product Name : Notebook P.C.

Model No : F9S,F9D,F9E

FCC ID : MSQF94965AGN

Applicant : ASUSTeK COMPUTER INC.

Address : 4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

Date of Receipt : Apr. 02, 2007

Issued Date : May. 08, 2007

Report No. : 074L043-RFUSP08V01

Test Report Certification

Issued Date: May. 08, 2007
Rport No.: 074L043-RFUSP08V01

Product Name	:	Notebook P.C.
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
Manufacturer	:	ASUSTeK COMPUTER INC.
Model No.	:	F9S,F9D,F9E
FCC ID.	:	MSQF94965AGN
Rated Voltage	:	AC 120V/60Hz
Working Voltage	:	AC 120V/60Hz
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E: 2006 ANSI C63.4: 2003
Test Result	:	Complied

NVLAP Lab Code: 200533-0

The Test Results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : Leven Huang
(Engineering Adm. Assistant/ Leven Huang)

Tested By : Dino Chen
(Assistant Engineer/Dino Chen)

Approved By : Gene Chang
(President/Gene Chang)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	:	Notebook P.C.
Trade Name	:	ASUS
FCC ID.	:	MSQF94965AGN
Model No.	:	F9S,F9D,F9E
Frequency Range	:	2412MHz - 2462MHz, 5150-5250MHz, 5725-5850MHz
Number of Channels	:	11 in 2.4GHz band, 9 in 5GHz band, 3 in 5GHz band (802.11n)
Channel Separation	:	802.11b/g/n-5/20 MHz, 802.11a-20MHz, 802.11n-40MHz
Channel Control	:	Auto
Data Rate	:	802.11b – 1,2,5.5,11Mbps, 802.11a/g – 6,9,12,18,24,36,48,54Mbps, 802.11a/g/n (20MHz) – 13,26,39,52,78,104,117,130,144Mbps 802.11a/n (40MHz) – 27,54,81,108,162,216,243,270,300Mbps
Type of Modulation	:	DSSS/ OFDM
Antenna type	:	PCB
Antenna Gain	:	Refer to the table “Antenna List”
Power Adapter	:	MFR: LITE ON, M/N: PA-1900-04 Input: AC 100-240V, 50-60Hz, 1.5A Output: DC 19V, 4.74A Cable out: Non-shielded, 2m,with one ferrite core bonded. Power Cord: Shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	Tyco	1909802(Main) 1909805 (Aux) 1909888 (MIMO)	0.44 dBi for 2.4 GHz 3.64 dBi for 5.0 GHz
2	ACON	APP6P-700043/CM2P76-0245600 (Main) APP6P-700044/CM2P76-0245601(Aux) APP6P-700045/CM2P76-0245602(MIMO)	0.52dBi for 2.4 GHz 0.53 dBi for 5.0 GHz

Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	5180 MHz	Channel 2:	5200 MHz	Channel 3:	5220 MHz	Channel 4:	5240 MHz

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

Channel	Frequency	Channel	Frequency
Channel 1:	5190 MHz		

Note:

1. This device is a Notebook P.C. with a built-in 2.4GHz and 5GHz transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test. (802.11b is 1Mbps, 802.11g and 802.11a are 6Mbps, 802.11n 20MHz are 13Mbps, 802.11n 40MHz are 27Mbps)
3. 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.

The serial model numbers of the Notebook P.C are F9S, F9E and F9D.
The following table shows the main differences:

	F9S	F9E	F9D
CPU	Intel 2.2GHz	Intel 2.2GHz	AMD
North Birdge	Intel 965PM	Intel 965GM	nVidia MCP67MD
Sourth Birdge	Intel ICH-8M	Intel ICH-8M	
Graphic	nVidia NB8M-SE	Intel 965GM	nVidia NB8M-SE
Display Output	D-sub,HDMI	D-sub,HDMI	D-sub,HDMI

1.2. Operational Description

EUT is a Notebook P.C. with a built-in 2.4GHz and 5GHz transceiver. There are 11 channels in 2412 – 2462MHz and 5 channels in 5745 – 5825MHz, and 3 channel of 802.11n.

The channels are separated by 5MHz in 2.4GHz band and 20MHz in 5GHz band.

This device supports the data rates of 1, 2, 5.5, 11Mbps in 802.11b mode(TX Ch.A and TX Ch.B) , 6, 9, 12, 18, 24, 36, 48, 54Mbps in 802.11a/g mode(TX Ch.A and TX Ch.B), 13, 26, 39, 52, 78, 104, 117, 130, 144 Mbps in 2.4 & 5.0 GHz frequency bands is under 20MHz bandwidth (TX Ch.A , TX Ch.B and TX Ch.A+Ch.B) and 27, 54, 81, 108, 162, 216, 243, 270, 300 Mbps in 5.0 GHz frequency bands is under 40MHz bandwidth (TX Ch.A , TX Ch.B and TX Ch.A+Ch.B)

The signals are modulated by DSSS in 802.11b mode and OFDM in 802.11a/g/n mode. The antennas are Connector and use diversity to improve the receiving sensitivity.

This Notebook P.C., complied with IEEE 802.11b, IEEE 802.11g/n, and IEEE 802.11a/n, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without network wires. Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b, IEEE 802.11g/n, and IEEE 802.11a/n network.

Following are the test modes corresponding to the transmit antenna:

Mode1: TX Ch.A and TX Ch.B

Mode2: TX Ch.A , TX Ch.B and TX Ch.A+Ch.B

Mode3: TX Ch.A , TX Ch.B and TX Ch.A+Ch.B

Test Mode	Mode 1: Transmitter 802.11a-(Ant.1)
	Mode 2: Transmitter 802.11n (20MHz)-(Ant.1)
	Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)

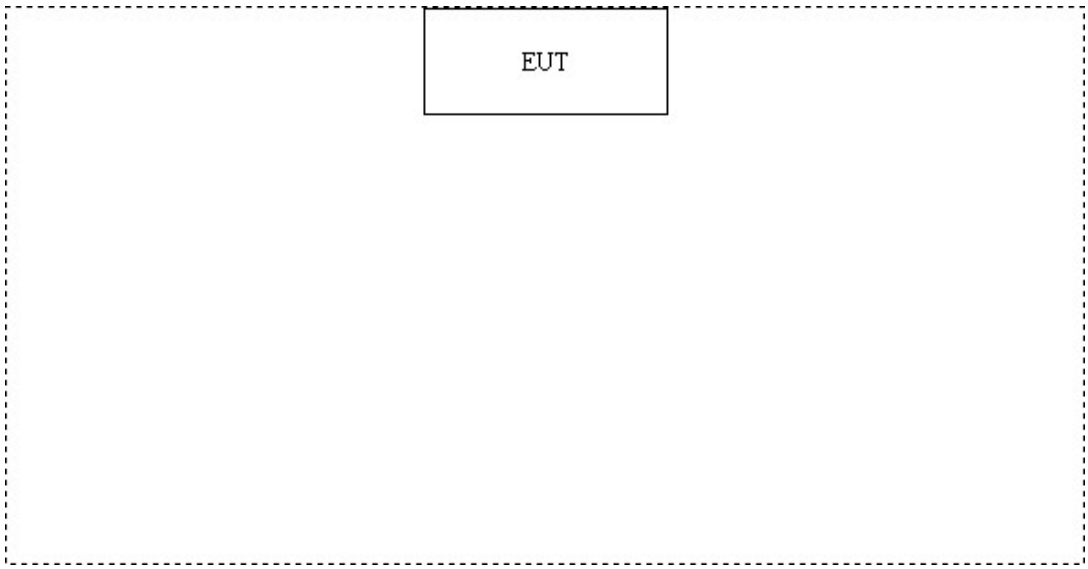
1.3. Tested System Datails

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.	FCC ID	Power Cord
N/A					

Signal Cable Type	Signal cable Description
N/A	

1.4. Configuration of tested System



1.5. EUT Exercise Software

(1) Setup the EUT as shown in Section 1.4

(2) Execute CRTU.exe on the notebook.

(3) Configure the test mode, the test channel, and the data rate.

(4) Press “OK” to start the continuous transmission.

(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	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

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FCC Accreditation Number: TW1014

2. Conducted Emission

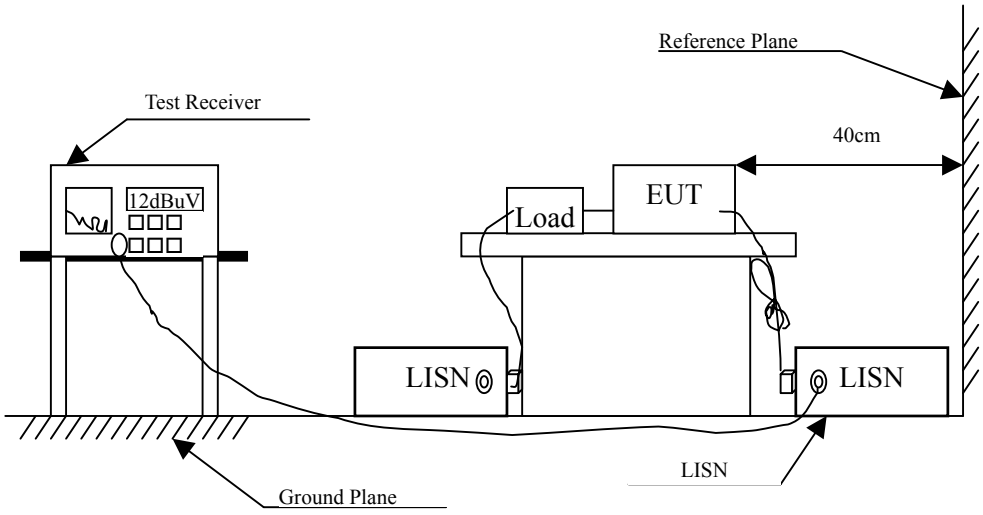
2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2007	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2007	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2007	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2007	
5	No.1 Shielded Room			N/A	

Note: All equipments are calibrated every one year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.181	0.202	26.950	27.152	-37.962	65.114
0.369	0.214	35.530	35.744	-23.999	59.743
0.752	0.230	42.320	42.550	-13.450	56.000
2.580	0.294	27.030	27.324	-28.676	56.000
5.677	0.435	35.060	35.495	-24.505	60.000
25.353	1.138	31.560	32.698	-27.302	60.000
Average					
0.181	0.202	13.750	13.952	-41.162	55.114
0.369	0.214	18.010	18.224	-31.519	49.743
0.752	0.230	30.570	30.800	-15.200	46.000
2.580	0.294	17.210	17.504	-28.496	46.000
5.677	0.435	25.090	25.525	-24.475	50.000
25.353	1.138	25.230	26.368	-23.632	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.584	0.217	38.010	38.227	-17.773	56.000
1.498	0.260	33.980	34.240	-21.760	56.000
4.048	0.354	35.380	35.734	-20.266	56.000
6.908	0.442	33.280	33.722	-26.278	60.000
16.193	0.796	32.940	33.736	-26.264	60.000
28.509	0.810	34.490	35.300	-24.700	60.000
Average					
0.584	0.217	20.820	21.037	-24.963	46.000
1.498	0.260	22.760	23.020	-22.980	46.000
4.048	0.354	23.180	23.534	-22.466	46.000
6.908	0.442	22.740	23.182	-26.818	50.000
16.193	0.796	23.890	24.686	-25.314	50.000
28.509	0.810	27.870	28.680	-21.320	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.345	0.214	36.800	37.014	-23.415	60.429
0.548	0.217	39.160	39.377	-16.623	56.000
0.744	0.230	39.750	39.980	-16.020	56.000
1.369	0.248	33.070	33.318	-22.682	56.000
5.638	0.427	34.540	34.967	-25.033	60.000
27.685	1.169	33.470	34.639	-25.361	60.000
Average					
0.345	0.214	24.050	24.264	-26.165	50.429
0.548	0.217	24.920	25.137	-20.863	46.000
0.744	0.230	26.050	26.280	-19.720	46.000
1.369	0.248	21.420	21.668	-24.332	46.000
5.638	0.427	24.330	24.757	-25.243	50.000
27.685	1.169	27.020	28.189	-21.811	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.158	0.202	38.270	38.472	-27.299	65.771
0.447	0.216	36.240	36.456	-21.058	57.514
0.568	0.217	37.320	37.537	-18.463	56.000
0.755	0.230	39.990	40.220	-15.780	56.000
4.216	0.356	32.090	32.446	-23.554	56.000
9.130	0.511	31.190	31.701	-28.299	60.000
Average					
0.158	0.202	23.570	23.772	-31.999	55.771
0.447	0.216	24.480	24.696	-22.818	47.514
0.568	0.217	19.690	19.907	-26.093	46.000
0.755	0.230	28.100	28.330	-17.670	46.000
4.216	0.356	23.240	23.596	-22.404	46.000
9.130	0.511	22.720	23.231	-26.769	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.369	0.214	35.270	35.484	-24.259	59.743
0.568	0.217	39.180	39.397	-16.603	56.000
0.759	0.230	41.170	41.400	-14.600	56.000
1.505	0.260	36.440	36.700	-19.300	56.000
6.302	0.464	36.050	36.514	-23.486	60.000
28.443	1.179	34.040	35.219	-24.781	60.000
Average					
0.369	0.214	17.960	18.174	-31.569	49.743
0.568	0.217	21.270	21.487	-24.513	46.000
0.759	0.230	28.310	28.540	-17.460	46.000
1.505	0.260	25.130	25.390	-20.610	46.000
6.302	0.464	26.110	26.574	-23.426	50.000
28.443	1.179	27.600	28.779	-21.221	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.365	0.214	34.380	34.594	-25.263	59.857
0.568	0.217	37.440	37.657	-18.343	56.000
3.888	0.352	34.480	34.832	-21.168	56.000
6.466	0.426	33.550	33.976	-26.024	60.000
10.279	0.547	32.120	32.667	-27.333	60.000
17.607	0.785	30.880	31.665	-28.335	60.000
Average					
0.365	0.214	16.510	16.724	-33.133	49.857
0.568	0.217	19.770	19.987	-26.013	46.000
3.888	0.352	21.850	22.202	-23.798	46.000
6.466	0.426	23.700	24.126	-25.874	50.000
10.279	0.547	22.330	22.877	-27.123	50.000
17.607	0.785	22.980	23.765	-26.235	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.154	0.202	44.420	44.622	-21.264	65.886
0.298	0.214	36.700	36.914	-24.857	61.771
0.572	0.217	39.800	40.017	-15.983	56.000
0.748	0.230	41.110	41.340	-14.660	56.000
1.509	0.260	36.030	36.290	-19.710	56.000
6.314	0.464	36.040	36.504	-23.496	60.000
Average					
0.154	0.202	28.310	28.512	-27.374	55.886
0.298	0.214	24.580	24.794	-26.977	51.771
0.572	0.217	22.530	22.747	-23.253	46.000
0.748	0.230	27.760	27.990	-18.010	46.000
1.509	0.260	26.020	26.280	-19.720	46.000
6.314	0.464	26.330	26.794	-23.206	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.345	0.214	36.260	36.474	-23.955	60.429
0.545	0.217	39.500	39.717	-16.283	56.000
5.302	0.390	35.730	36.120	-23.880	60.000
8.916	0.499	33.170	33.669	-26.331	60.000
19.021	0.774	32.310	33.084	-26.916	60.000
28.896	0.805	34.490	35.295	-24.705	60.000
Average					
0.345	0.214	23.460	23.674	-26.755	50.429
0.545	0.217	29.460	29.677	-16.323	46.000
5.302	0.390	25.400	25.790	-24.210	50.000
8.916	0.499	24.000	24.499	-25.501	50.000
19.021	0.774	24.680	25.454	-24.546	50.000
28.896	0.805	27.570	28.375	-21.625	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.302	0.214	37.830	38.044	-23.613	61.657
0.545	0.217	40.980	41.197	-14.803	56.000
0.752	0.230	41.700	41.930	-14.070	56.000
2.349	0.291	30.550	30.841	-25.159	56.000
5.263	0.410	33.450	33.860	-26.140	60.000
27.388	1.165	33.760	34.925	-25.075	60.000
Average					
0.302	0.214	25.310	25.524	-26.133	51.657
0.545	0.217	31.450	31.667	-14.333	46.000
0.752	0.230	29.790	30.020	-15.980	46.000
2.349	0.291	13.960	14.251	-31.749	46.000
5.263	0.410	23.720	24.130	-25.870	50.000
27.388	1.165	26.580	27.745	-22.255	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.150	0.202	49.910	50.112	-15.888	66.000
0.451	0.216	39.140	39.356	-18.044	57.400
0.755	0.230	39.910	40.140	-15.860	56.000
2.275	0.290	35.470	35.760	-20.240	56.000
5.275	0.390	35.140	35.530	-24.470	60.000
16.240	0.796	31.700	32.496	-27.504	60.000
Average					
0.150	0.202	35.460	35.662	-20.338	56.000
0.451	0.216	27.560	27.776	-19.624	47.400
0.755	0.230	28.690	28.920	-17.080	46.000
2.275	0.290	24.440	24.730	-21.270	46.000
5.275	0.390	25.090	25.480	-24.520	50.000
16.240	0.796	22.500	23.296	-26.704	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.150	0.202	49.160	49.362	-16.638	66.000
0.545	0.217	40.760	40.977	-15.023	56.000
0.748	0.230	40.660	40.890	-15.110	56.000
2.283	0.290	31.500	31.790	-24.210	56.000
6.306	0.464	34.900	35.364	-24.636	60.000
27.775	1.170	33.460	34.630	-25.370	60.000
Average					
0.150	0.202	32.940	33.142	-22.858	56.000
0.545	0.217	30.970	31.187	-14.813	46.000
0.748	0.230	27.090	27.320	-18.680	46.000
2.283	0.290	21.300	21.590	-24.410	46.000
6.306	0.464	25.230	25.694	-24.306	50.000
27.775	1.170	26.920	28.090	-21.910	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.150	0.202	49.020	49.222	-16.778	66.000
0.455	0.216	38.070	38.286	-19.000	57.286
0.752	0.230	39.810	40.040	-15.960	56.000
4.681	0.372	36.980	37.352	-18.648	56.000
10.728	0.573	32.770	33.343	-26.657	60.000
16.947	0.786	30.270	31.056	-28.944	60.000
Average					
0.150	0.202	34.420	34.622	-21.378	56.000
0.455	0.216	26.490	26.706	-20.580	47.286
0.752	0.230	27.220	27.450	-18.550	46.000
4.681	0.372	26.760	27.132	-18.868	46.000
10.728	0.573	23.210	23.783	-26.217	50.000
16.947	0.786	22.420	23.206	-26.794	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.150	0.202	49.480	49.682	-16.318	66.000
0.560	0.217	39.380	39.597	-16.403	56.000
0.759	0.230	41.820	42.050	-13.950	56.000
2.291	0.290	33.370	33.660	-22.340	56.000
6.494	0.466	35.850	36.316	-23.684	60.000
29.029	1.187	34.380	35.567	-24.433	60.000
Average					
0.150	0.202	33.500	33.702	-22.298	56.000
0.560	0.217	22.420	22.637	-23.363	46.000
0.759	0.230	29.470	29.700	-16.300	46.000
2.291	0.290	19.900	20.190	-25.810	46.000
6.494	0.466	26.040	26.506	-23.494	50.000
29.029	1.187	27.380	28.567	-21.433	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.334	0.214	35.310	35.524	-25.219	60.743
0.564	0.217	38.130	38.347	-17.653	56.000
1.056	0.234	36.280	36.514	-19.486	56.000
6.486	0.426	35.020	35.446	-24.554	60.000
19.517	0.770	31.740	32.510	-27.490	60.000
28.130	0.815	34.320	35.135	-24.865	60.000
Average					
0.334	0.214	24.230	24.444	-26.299	50.743
0.564	0.217	21.010	21.227	-24.773	46.000
1.056	0.234	21.950	22.184	-23.816	46.000
6.486	0.426	24.660	25.086	-24.914	50.000
19.517	0.770	24.270	25.040	-24.960	50.000
28.130	0.815	27.500	28.315	-21.685	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.150	0.202	49.550	49.752	-16.248	66.000
0.560	0.217	39.820	40.037	-15.963	56.000
0.900	0.232	36.760	36.992	-19.008	56.000
1.529	0.260	34.440	34.700	-21.300	56.000
6.314	0.464	34.210	34.674	-25.326	60.000
17.392	0.932	24.330	25.262	-34.738	60.000
Average					
0.150	0.202	34.200	34.402	-21.598	56.000
0.560	0.217	22.990	23.207	-22.793	46.000
0.900	0.232	24.940	25.172	-20.828	46.000
1.529	0.260	21.120	21.380	-24.620	46.000
6.314	0.464	24.930	25.394	-24.606	50.000
17.392	0.932	16.220	17.152	-32.848	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.154	0.202	46.860	47.062	-18.824	65.886
0.548	0.217	38.940	39.157	-16.843	56.000
1.486	0.260	31.540	31.800	-24.200	56.000
4.072	0.354	36.360	36.714	-19.286	56.000
10.310	0.547	32.120	32.667	-27.333	60.000
16.263	0.791	30.730	31.521	-28.479	60.000
Average					
0.154	0.202	32.530	32.732	-23.154	55.886
0.548	0.217	27.580	27.797	-18.203	46.000
1.486	0.260	19.600	19.860	-26.140	46.000
4.072	0.354	24.750	25.104	-20.896	46.000
10.310	0.547	23.210	23.757	-26.243	50.000
16.263	0.791	22.590	23.381	-26.619	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Transmit Power

3.1. Test Equipment

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

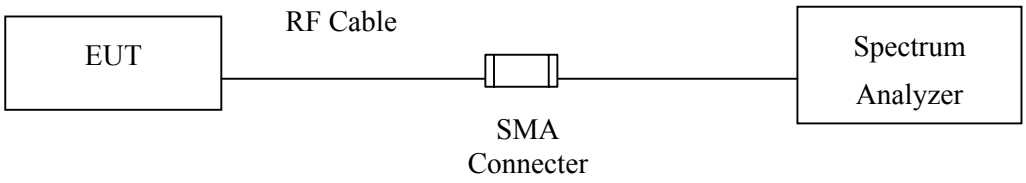
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2006

Note: 1. All equipments are calibrated every one year.

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

3.2. Test Setup

Conduction Power Measurement



3.3. Limits

i. 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.

ii. 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.

iii. 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.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Transmit Power

Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180 MHz) (Ch.A)

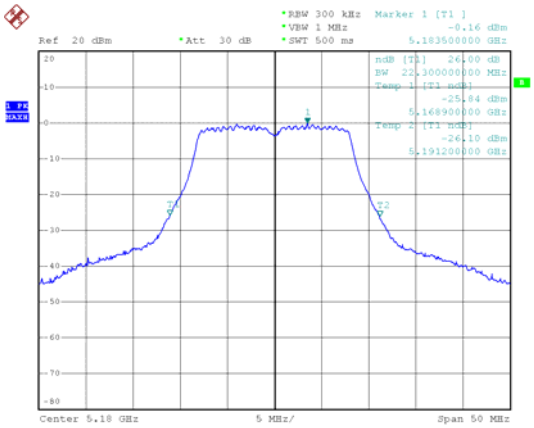
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
1	5180	22.3	16.14

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 22.3MHz)=17.48dBm	Pass

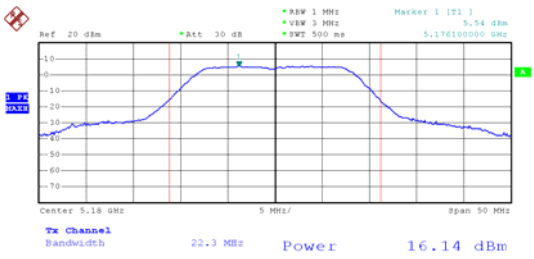
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180 MHz) (Ch.B)

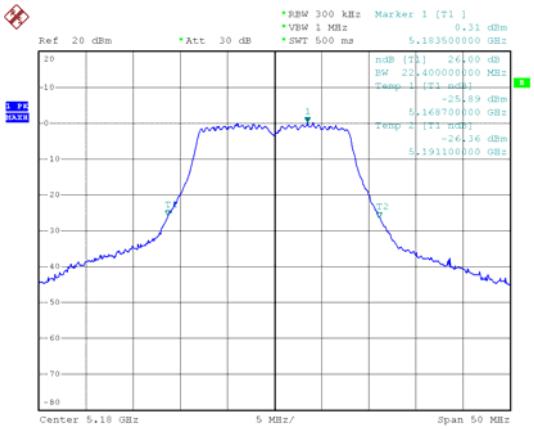
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5180	22.4	16.03

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 22.4MHz)=17.50 dBm	Pass

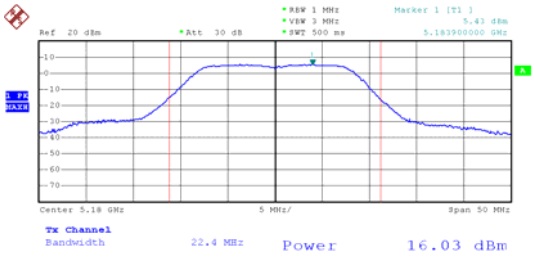
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.A)

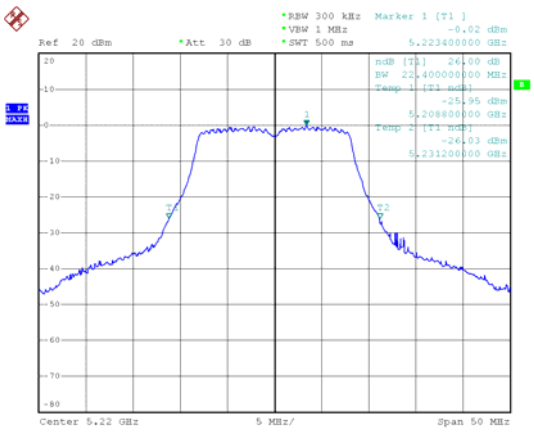
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	22.4	16.11

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 22.4MHz)=17.50dBm	Pass

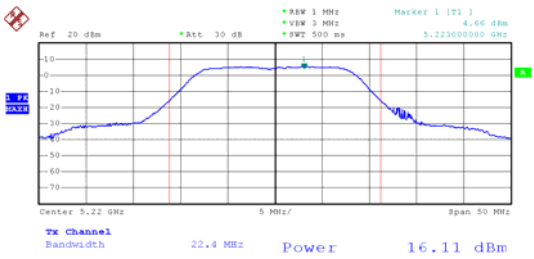
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.B)

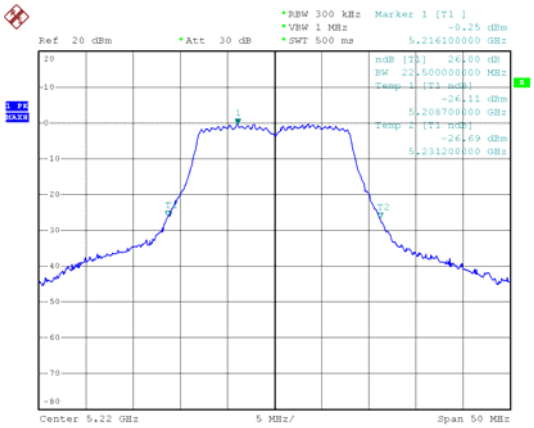
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	22.5	16.03

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B=22.5 MHz)=17.52dBm	Pass

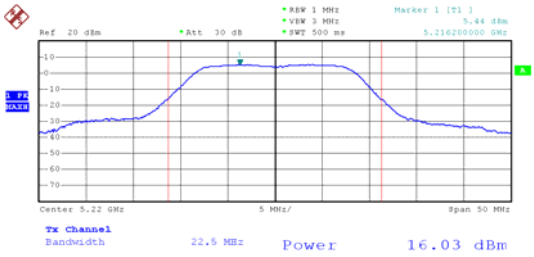
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.A)

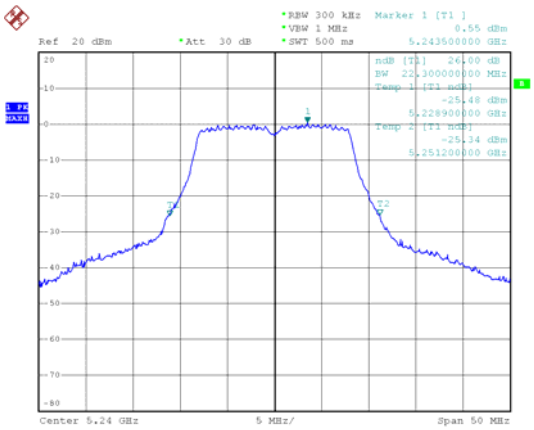
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	22.3	16.33

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 22.3MHz)= 17.48dBm	Pass

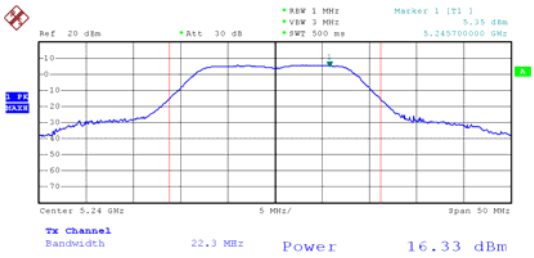
26dBc Occupied Bandwidth:

Channel 04



Peak Transmit Power:

Channel 04



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.B)

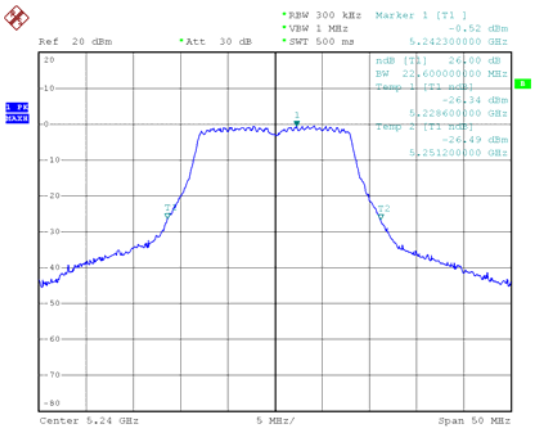
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	22.6	16.02

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 22.6MHz)=17.54dBm	Pass

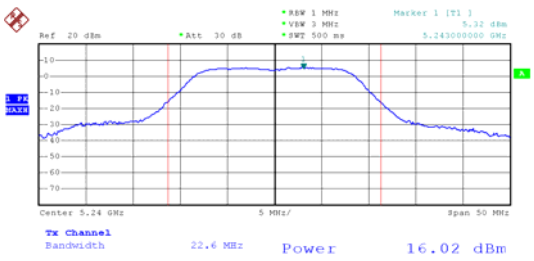
26dBc Occupied Bandwidth:

Channel 04



Peak Transmit Power:

Channel 04



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz) (Ch.A)

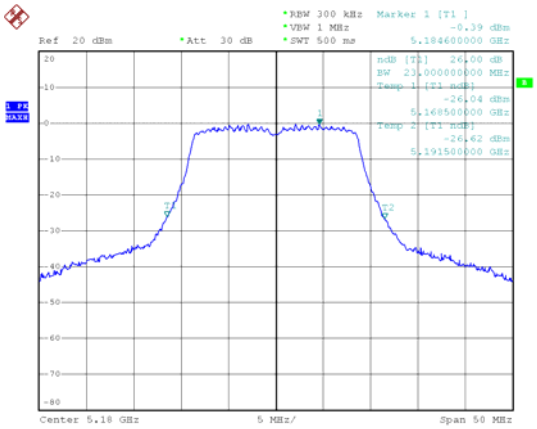
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5180	23	16.02

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 23 MHz)= 17.62 dBm	Pass

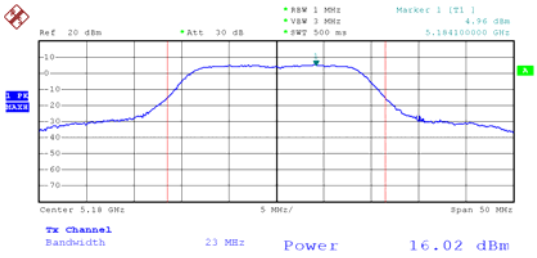
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz) (Ch.B)

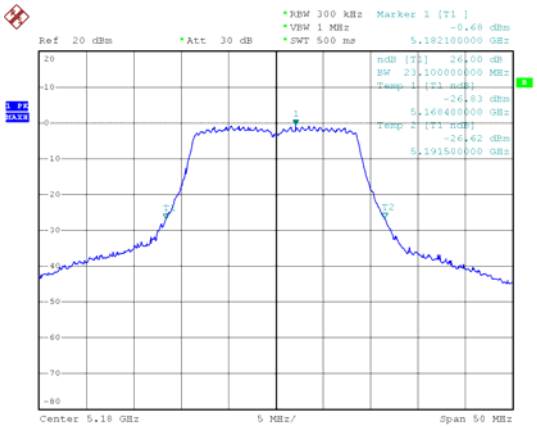
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5180	23.1	16.16

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 23.1MHz)=17.64 dBm	Pass

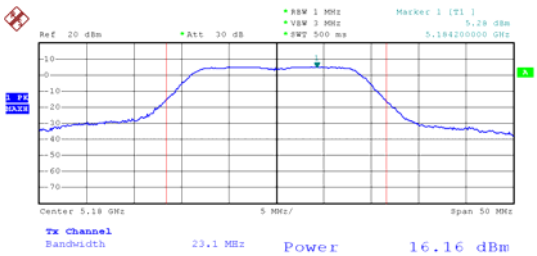
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz)(Ch.A+Ch.B)

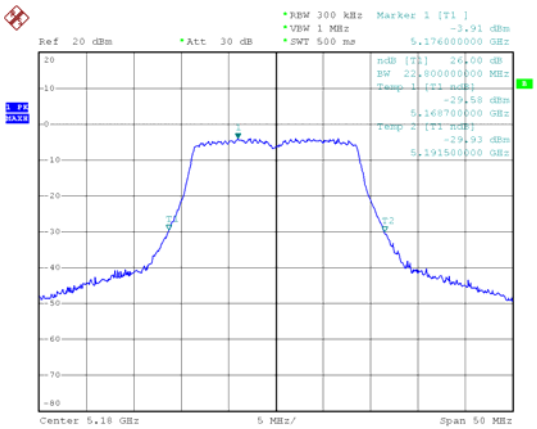
Peak Transmit Power Measurement: (Ch.A)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5180	22.8	13.04

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B=22.8 MHz)= 17.58 dBm

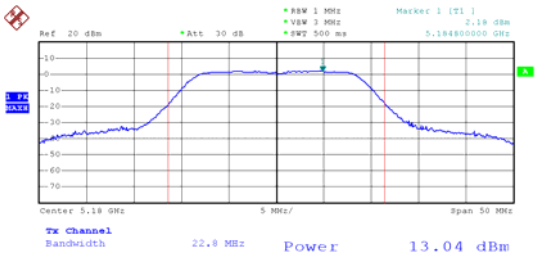
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz)(Ch.A+Ch.B)

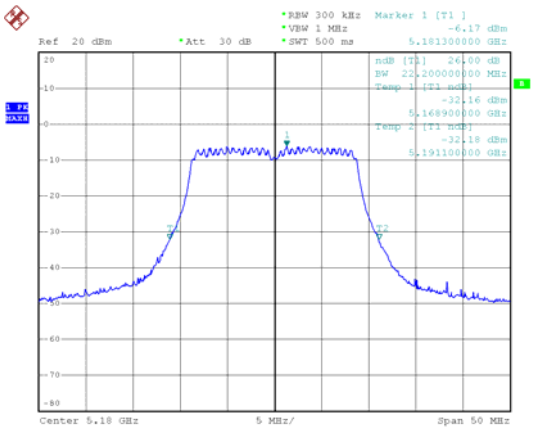
Peak Transmit Power Measurement: (Ch.B)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5180	22.2	11.65

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 22.2MHz)= 17.46 dBm

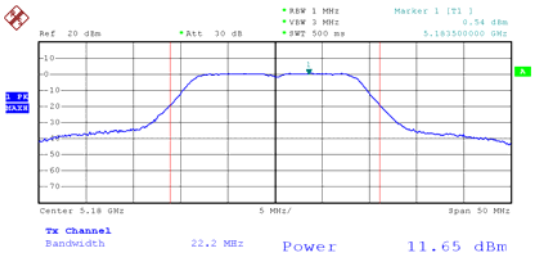
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Peak Power Ch. A (dBm)	Peak Power Ch. A (mW)	Peak Power Ch. B (dBm)	Peak Power Ch. B (mW)	Peak Power Ch. A+B (dBm)	Required Limit (dBm)	Result
01	5180.000	HT08	13.040	20.137	11.650	14.622	15.411	17.58	Pass

Data Speed: HT08Mbps (Ch.A+Ch.B)

P.S: Peak Power Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A)

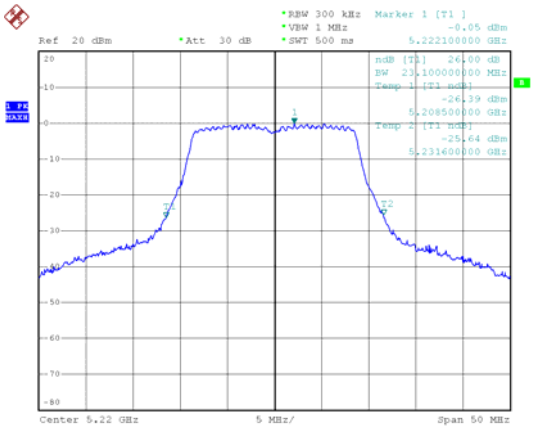
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	23.1	16.40

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B=23.1 MHz)= 17.64 dBm	Pass

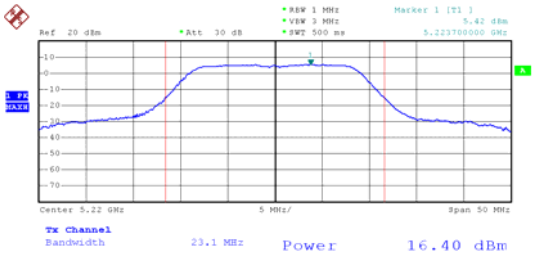
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.B)

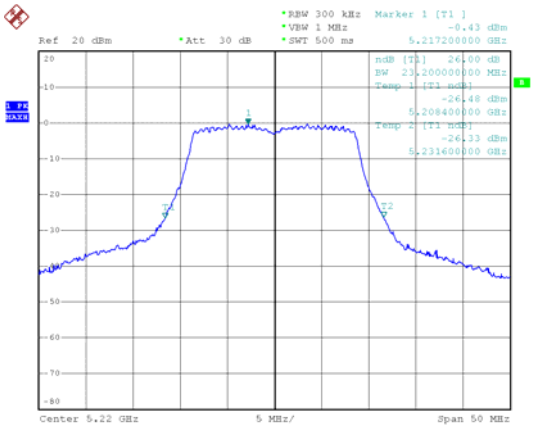
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	23.2	16.08

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B=23.2MHz)= 17.65 dBm	Pass

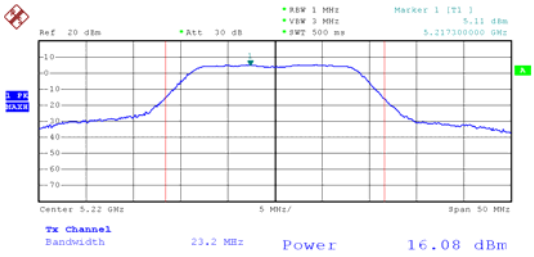
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

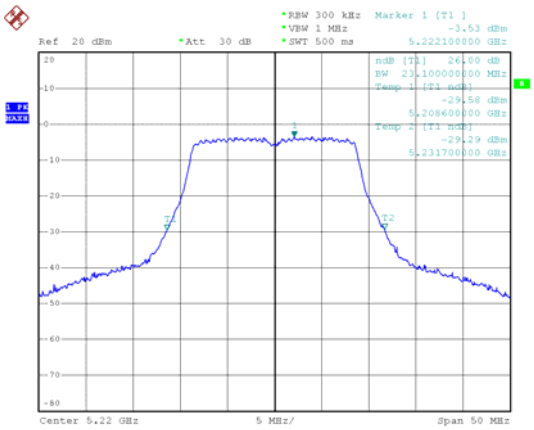
Peak Transmit Power Measurement: (Ch.A)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	23.1	13.04

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 23.1MHz)=17.64dBm

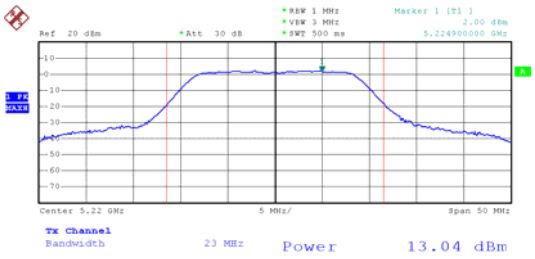
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

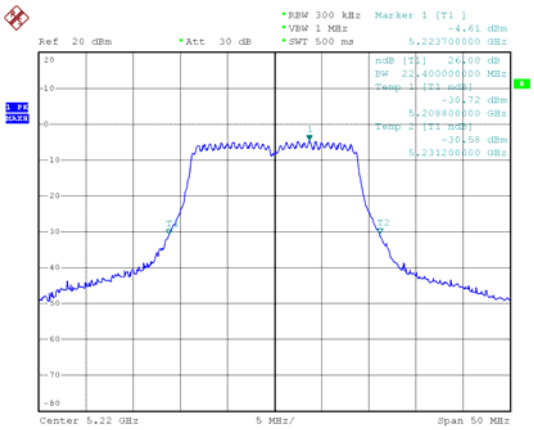
Peak Transmit Power Measurement: (Ch.B)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
03	5220	22.4	11.40

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 22.4 MHz)= 17.50 dBm

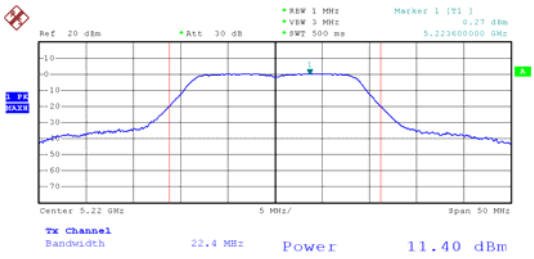
26dBc Occupied Bandwidth:

Channel 03



Peak Transmit Power:

Channel 03



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

Data Speed: HT08Mbps (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	DataRate (Mbps)	Peak Power Ch. A (dBm)	Peak Power Ch. A (mW)	Peak Power Ch. B (dBm)	Peak Power Ch. B (mW)	Peak Power Ch. A+B (dBm)	Required Limit (dBm)	Result
03	5220.000	HT08	13.040	20.137	11.400	13.804	15.307	17.64	Pass

P.S: Peak Power Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A)

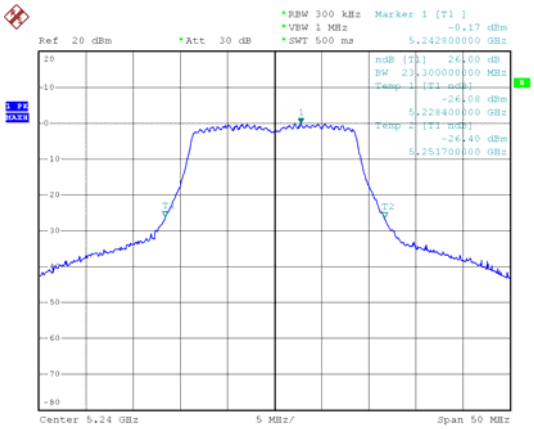
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	23.3	16.48

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B=23.3 MHz)= 17.67 dBm	Pass

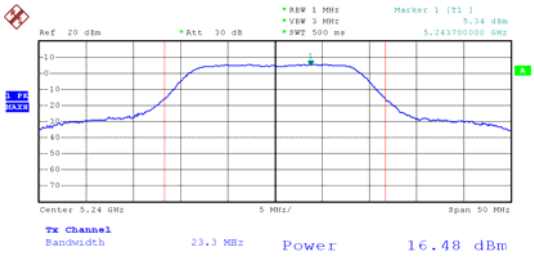
26dBc Occupied Bandwidth:

Channel 04



Peak Transmit Power:

Channel 04



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.B)

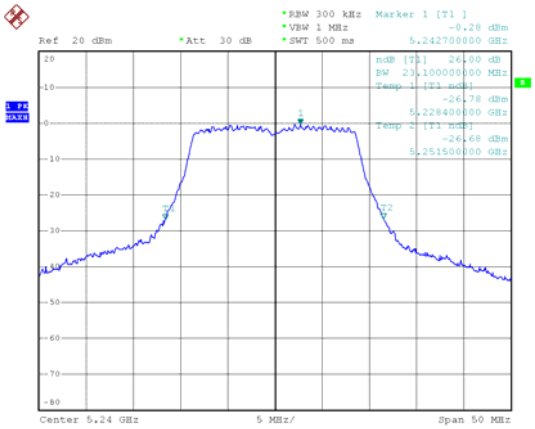
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	23.1	16.12

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 23.1MHz)=17.64 dBm	Pass

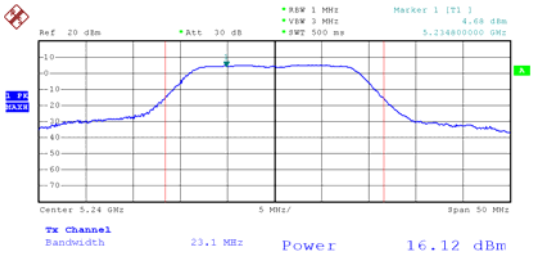
26dBc Occupied Bandwidth:

Channel 04



Peak Transmit Power:

Channel 04



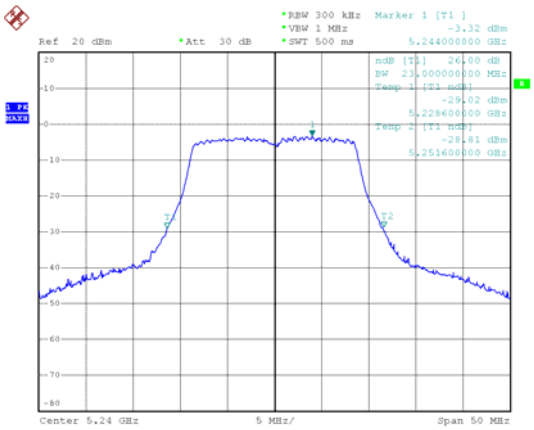
Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A+Ch.B)

Peak Transmit Power Measurement: (Ch.A)

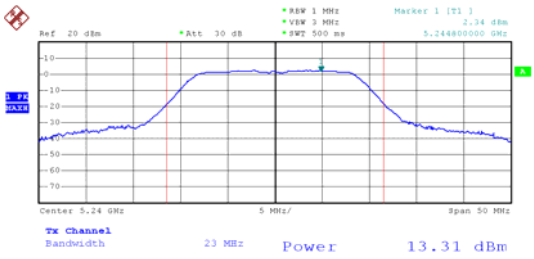
Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	23	13.31

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B=23 MHz)= 17.62 dBm

26dBc Occupied Bandwidth:
Channel 04



Peak Transmit Power:
Channel 04



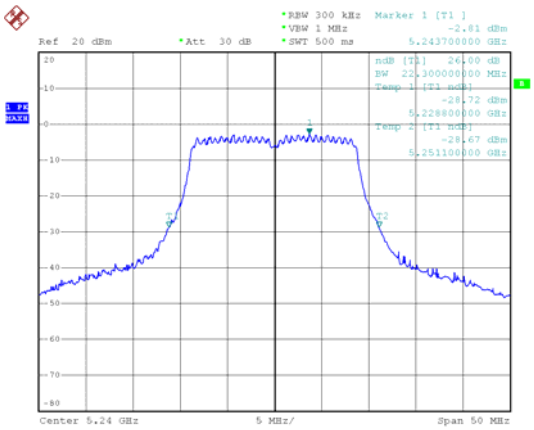
Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A+Ch.B)

Peak Transmit Power Measurement: (Ch.B)

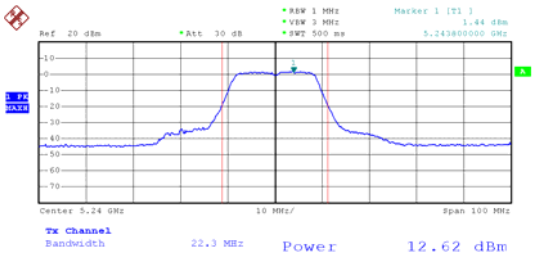
Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
04	5240	22.3	12.62

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 22.3MHz)= 17.48 dBm

26dBc Occupied Bandwidth:
Channel 04



Peak Transmit Power:
Channel 04



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A+Ch.B)

Data Speed: HT08Mbps (Ch.A+Ch.B)

P.S: Peak Power Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

Channel No.	Frequency (MHz)	DataRate (Mbps)	Peak Power Ch. A (dBm)	Peak Power Ch. A (mW)	Peak Power Ch. B (dBm)	Peak Power Ch. B (mW)	Peak Power Ch. A+B (dBm)	Required Limit (dBm)	Result
04	5240.000	HT08	13.310	21.429	12.620	18.281	15.989	17.62	Pass

Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(5190MHz) (Ch.A)

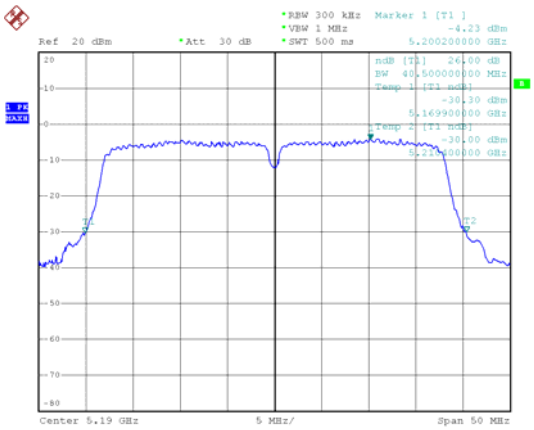
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5190	40.5	15.07

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B=40.5 MHz)= 20.07 dBm	Pass

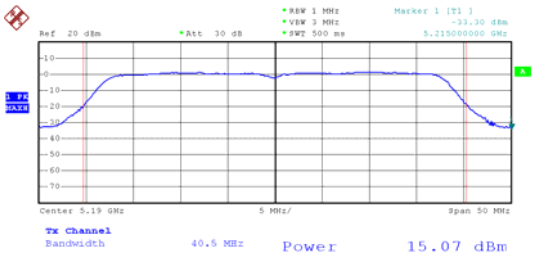
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(5190MHz) (Ch.B)

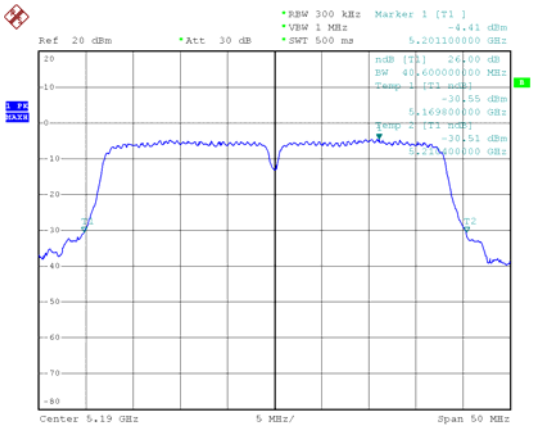
Peak Transmit Power Measurement:

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5190	40.6	15.01

Limits (dBm)	Result
50mW (17dBm) or 4dBm+10 log (B= 40.6MHz)= 20.09dBm	Pass

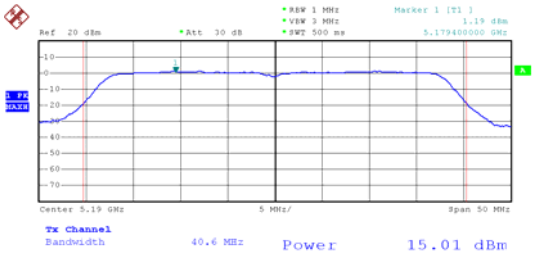
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(5190 MHz) (Ch.A+Ch.B)

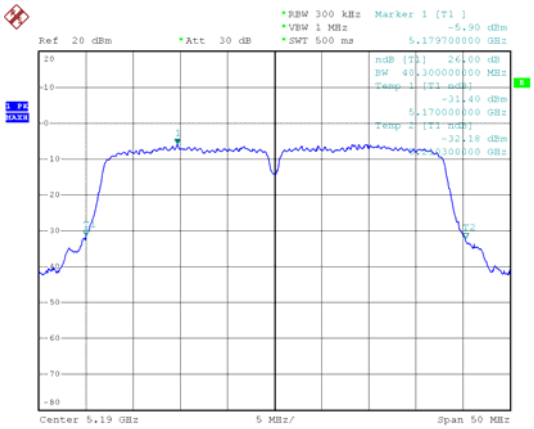
Peak Transmit Power Measurement: (Ch.A)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5190	40.3	13.44

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 40.3MHz)=20.05 dBm

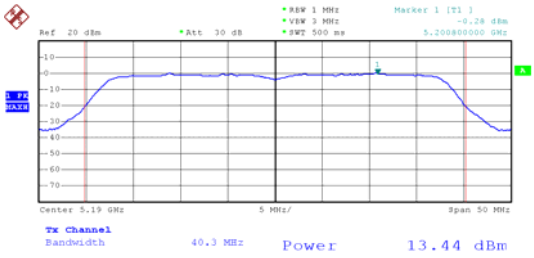
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(5190 MHz) (Ch.A+Ch.B)

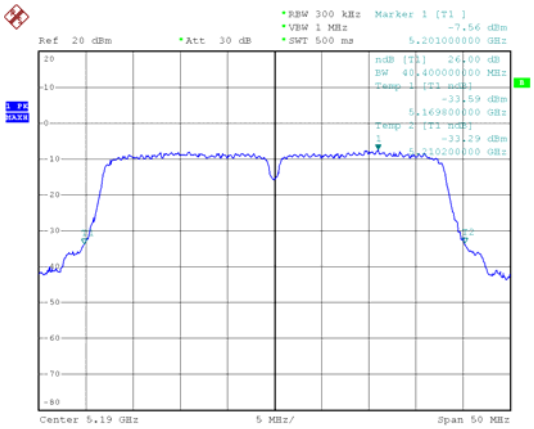
Peak Transmit Power Measurement: (Ch.B)

Channel No.	Frequency (MHz)	26dBc Occupied Bandwidth (MHz)	Measurement Level (dBm)
01	5190	40.4	12.03

Limits (dBm)
50mW (17dBm) or 4dBm+10 log (B= 40.4MHz)= 20.06 dBm

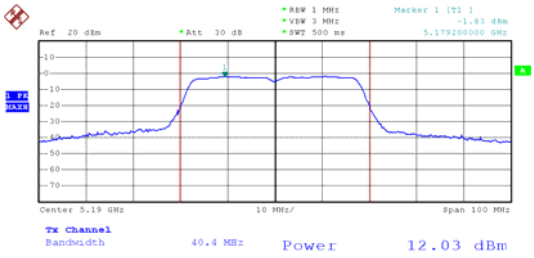
26dBc Occupied Bandwidth:

Channel 01



Peak Transmit Power:

Channel 01



Product : Notebook P.C.
Test Item : Peak Transmit Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(5190 MHz) (Ch.A+Ch.B)

Data Speed: HT08Mbps (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	DataRate (Mbps)	Peak Power Ch. A (dBm)	Peak Power Ch. A (mW)	Peak Power Ch. B (dBm)	Peak Power Ch. B (mW)	Peak Power Ch. A+B (dBm)	Required Limit (dBm)	Result
01	5190.000	HT08	13.440	22.080	12.030	15.959	15.802	20.06	Pass

P.S: Peak Power Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

4. Peak Power Spectral Density

4.1. Test Equipment

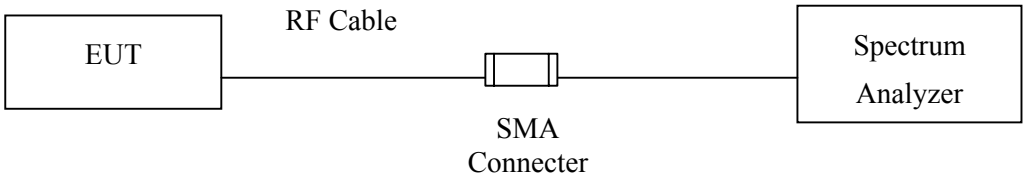
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2006

Note: 1. All equipments are calibrated every one year.

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

4.2. Test Setup



4.3. Limits

iv. For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

v. For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

vi. For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4.4. Uncertainty

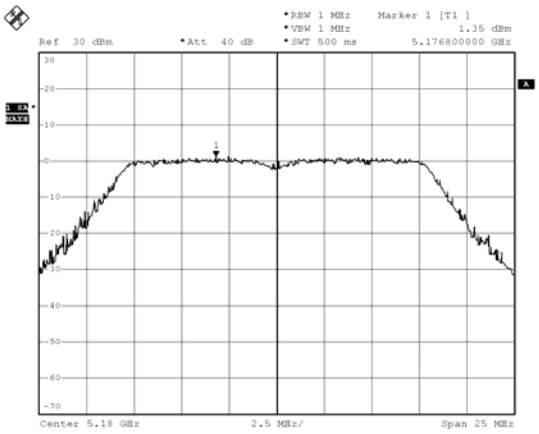
± 1.27 dB

4.5. Test Result of Peak Power Spectral Density

Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (Ch.A)

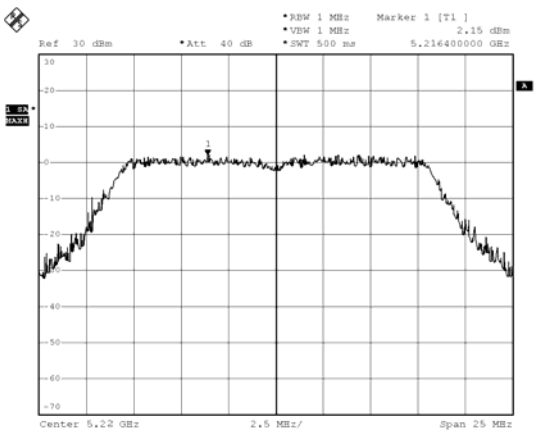
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5180.00	1.35	< 4	Pass
03	5220.00	2.15	< 4	Pass
04	5240.00	1.02	< 4	Pass

Channel 01:



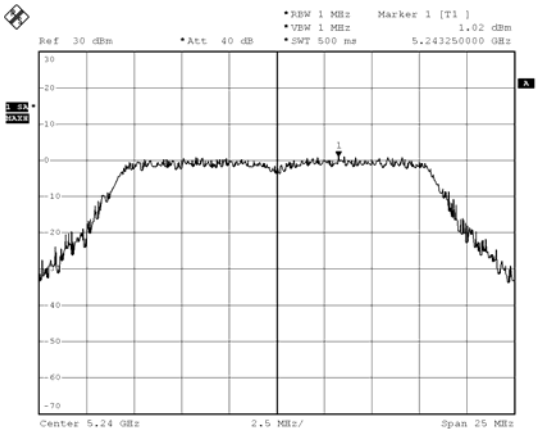
PN1
Date: 24.APR.2007 04:59:12

Channel 03:



PN1
Date: 24.APR.2007 05:01:30

Channel 04:

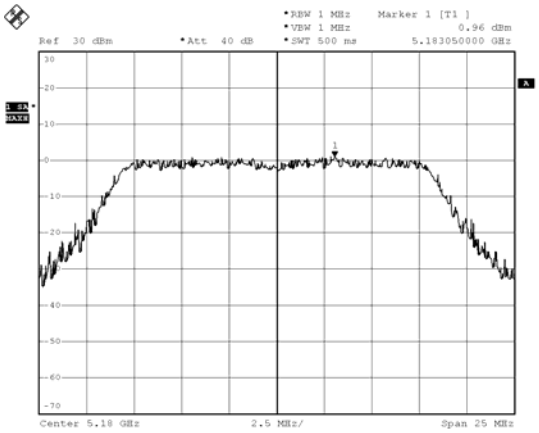


PN1
Date: 24.APR.2007 05:00:26

Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (Ch.B)

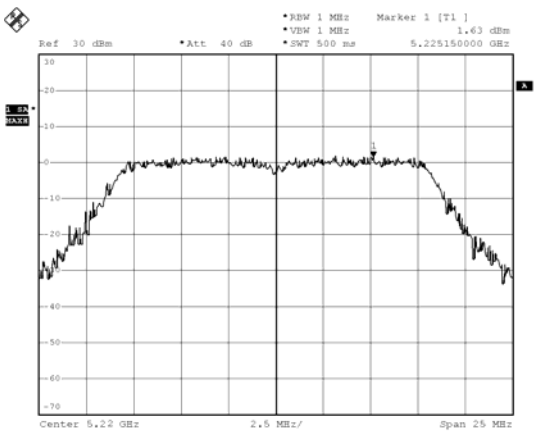
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5180.00	0.96	< 4	Pass
03	5220.00	1.63	< 4	Pass
04	5240.00	1.01	< 4	Pass

Channel 01:



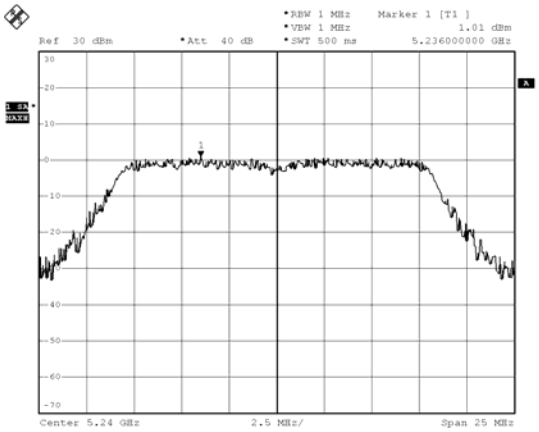
PN1
Date: 24.APR.2007 03:52:52

Channel 03:



PN1
Date: 24.APR.2007 03:55:31

Channel 04:

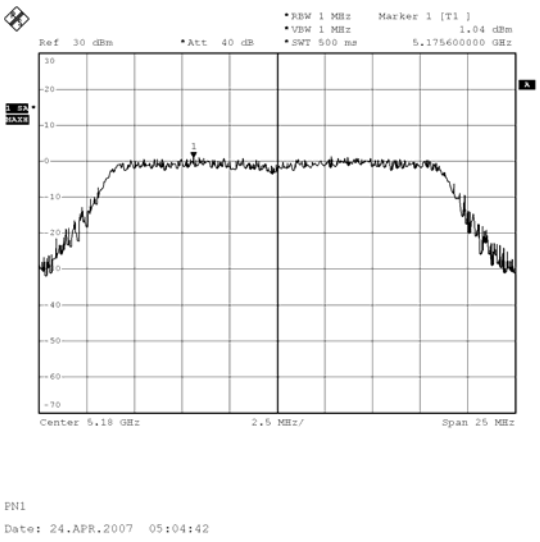


PN1
Date: 24.APR.2007 03:54:11

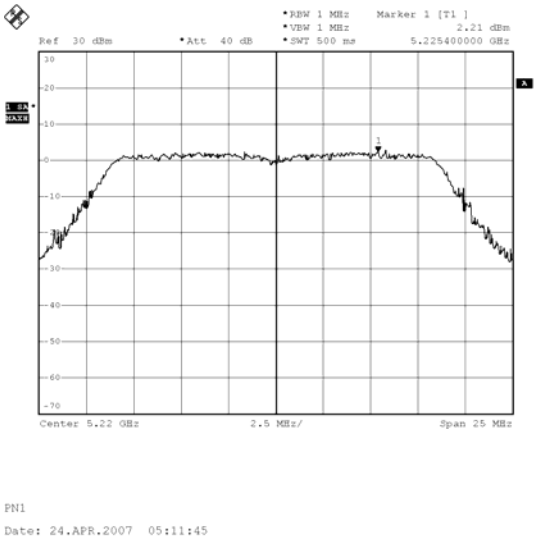
Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5180.00	1.04	< 4	Pass
03	5220.00	2.21	< 4	Pass
04	5240.00	2.18	< 4	Pass

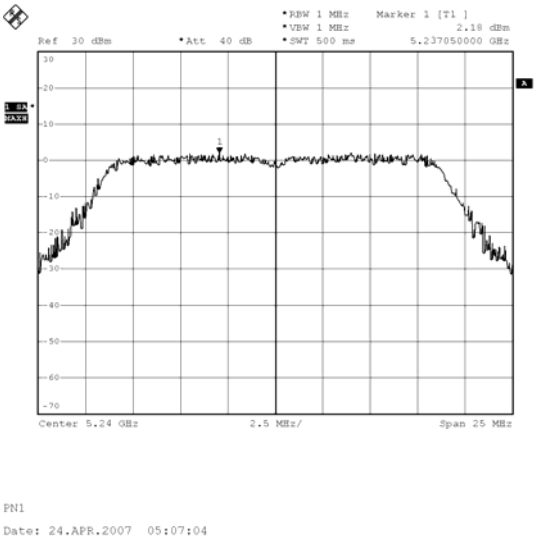
Channel 01:



Channel 03:



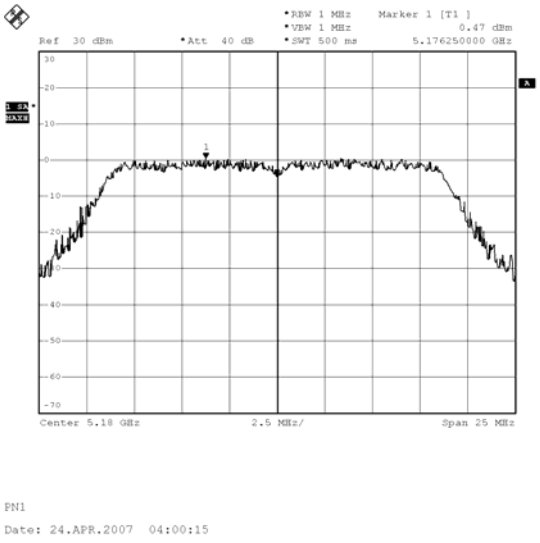
Channel 04:



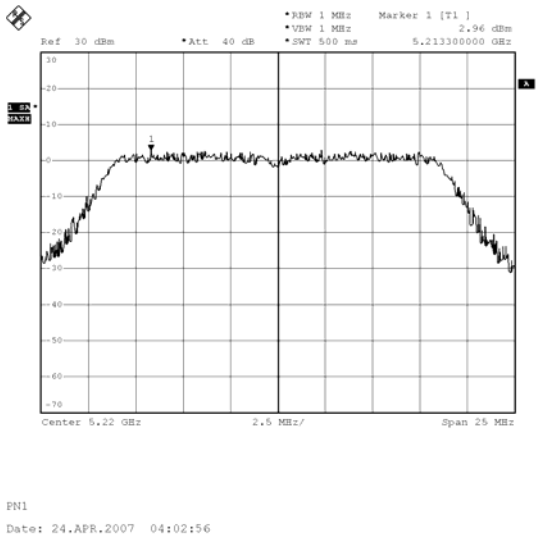
Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5180.00	0.47	< 4	Pass
03	5220.00	2.96	< 4	Pass
04	5240.00	2.98	< 4	Pass

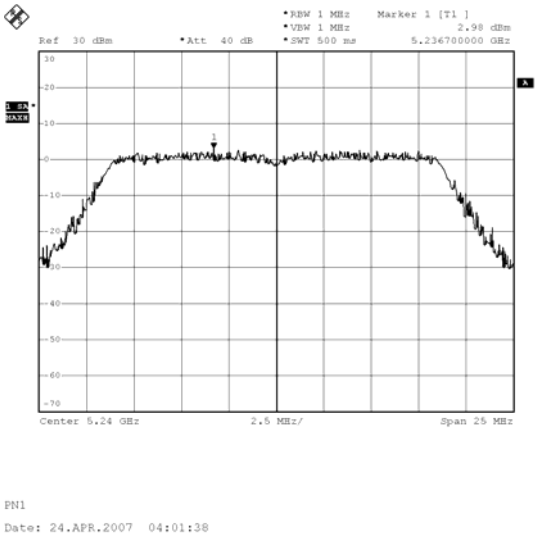
Channel 01:



Channel 03:



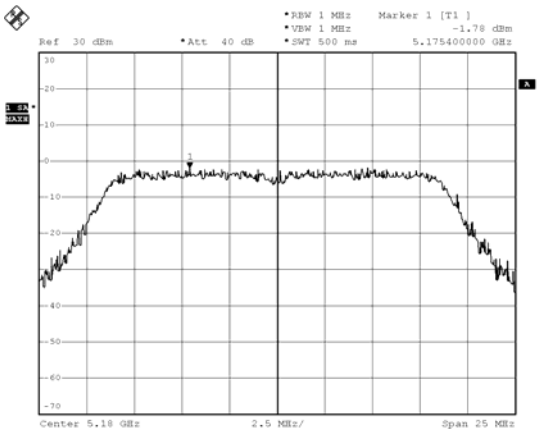
Channel 04:



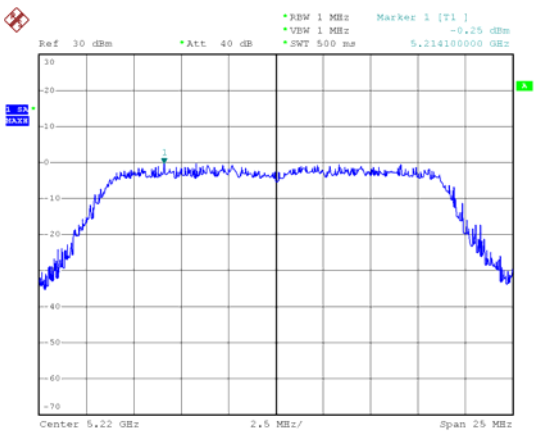
Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)
01	5180.00	-1.78
03	5220.00	-0.25
04	5240.00	-0.01

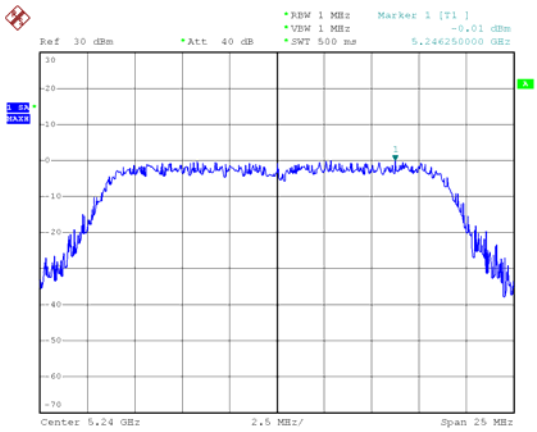
Channel 01: (Ch.A)



Channel 03: (Ch.A)



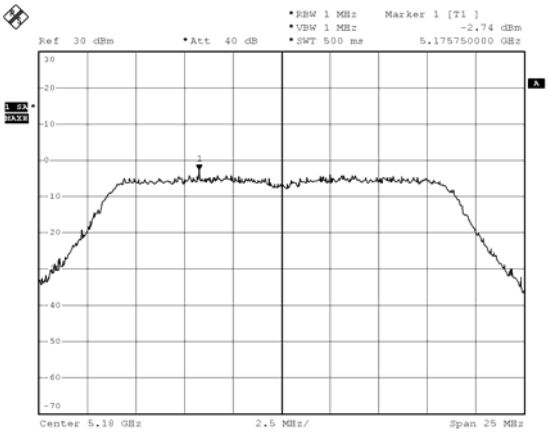
Channel 04: (Ch.A)



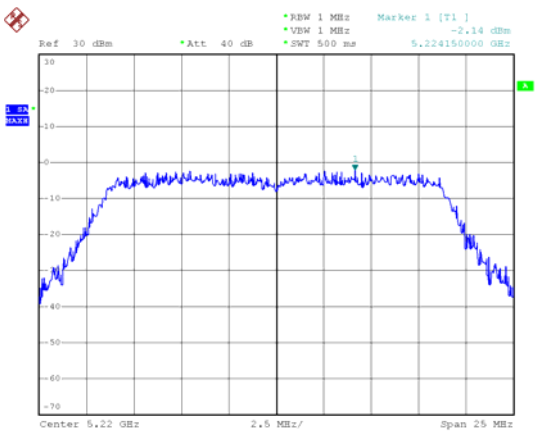
Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)
01	5180.00	-2.74
03	5220.00	-2.14
04	5240.00	-1.35

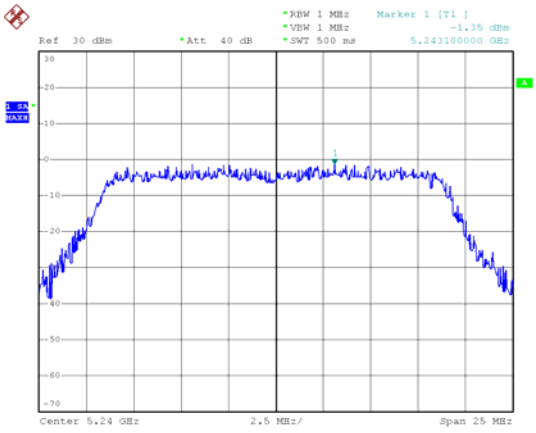
Channel 01: (Ch.B)



Channel 03: (Ch.B)



Channel 04: (Ch.B)



Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A+Ch.B)

Data Speed: HT8Mbps (Ch.A+Ch.B)

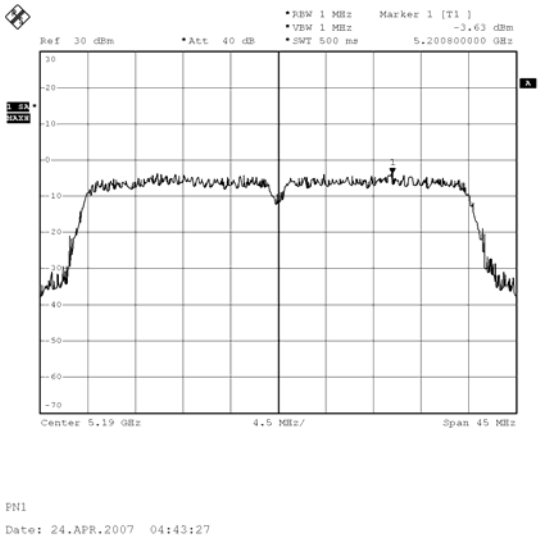
Channel No.	Frequency (MHz)	Data Rate (Mbps)	Power Density Ch. A (dBm)	Power Density Ch. A (mW)	Power Density Ch. B (dBm)	Power Density Ch. B (mW)	Power Density Ch. A+B (dBm)	Required Limit (dBm)	Result
01	5180.00	HT08	-1.780	0.664	-2.740	0.532	0.777	< 4dBm	Pass
03	5220.00	HT08	-0.250	0.944	-2.140	0.611	1.917	< 4dBm	Pass
04	5240.00	HT08	-0.010	0.998	-1.350	0.733	2.382	< 4dBm	Pass

P.S: Power Density Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (Ch.A)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5190	-3.63	< 4	Pass

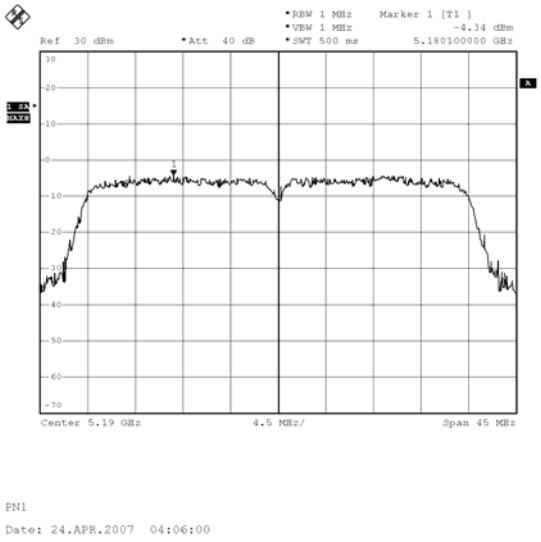
Channel 01:



Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5190	-4.34	< 4	Pass

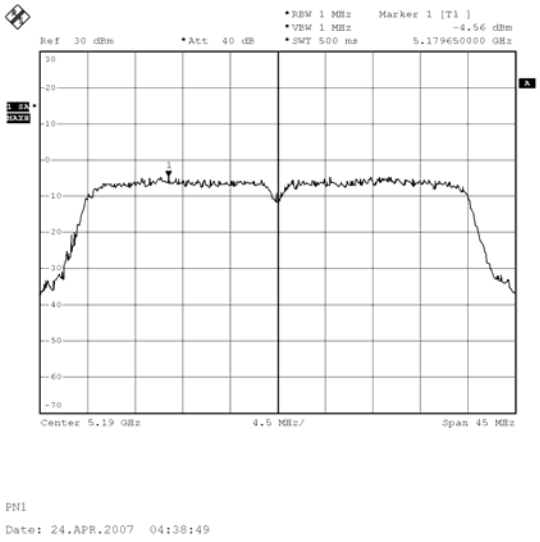
Channel 01:



Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz)(Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)
01	5190	-4.56

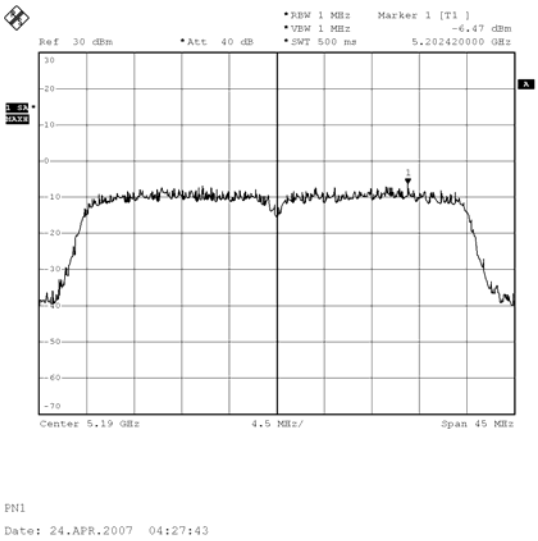
Channel 01: (Ch.A)



Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dBm)
01	5190	-6.47

Channel 01: (Ch.B)



Product : Notebook P.C.
Test Item : Peak Power Spectral Density
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

Data Speed: HT8Mbps (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Data Rate (Mbps)	Power Density Ch. A (dBm)	Power Density Ch. A (mW)	Power Density Ch. B (dBm)	Power Density Ch. B (mW)	Power Density Ch. A+B (dBm)	Required Limit (dBm)	Result
01	5190	HT08	-4.56	0.349	-6.47	0.225	-2.400	< 4dBm	Pass

P.S: Power Density Ch. A+B=10*Log (Ch.A(mW)+ Ch.B(mW))

5. Peak Excursion

5.1. Test Equipment

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

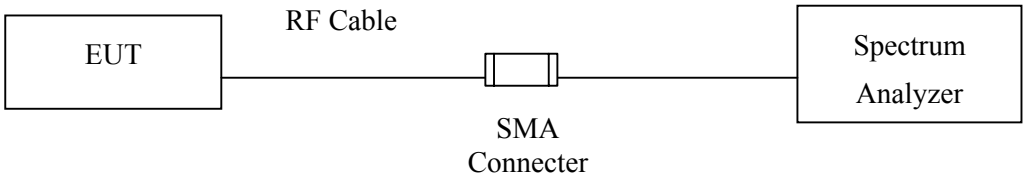
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Nov, 2006

Note: 1. All equipments are calibrated every one year.

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

5.2. Test Setup

Conduction Power Measurement



5.3. Limits

The ratio of the peak excursion of the modulation envelope (measured suing a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

5.4. Uncertainty

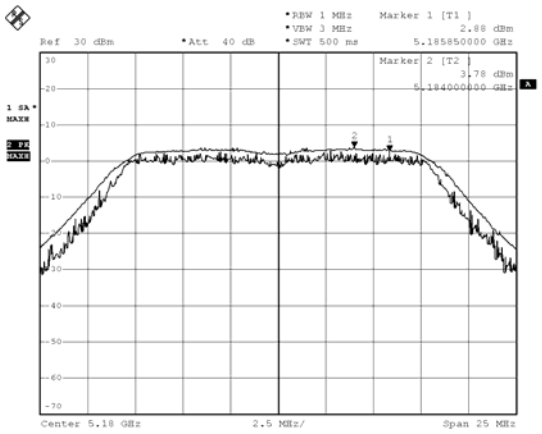
± 1.27 dB

5.5. Test Result of Peak Excursion

Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (Ch.A)

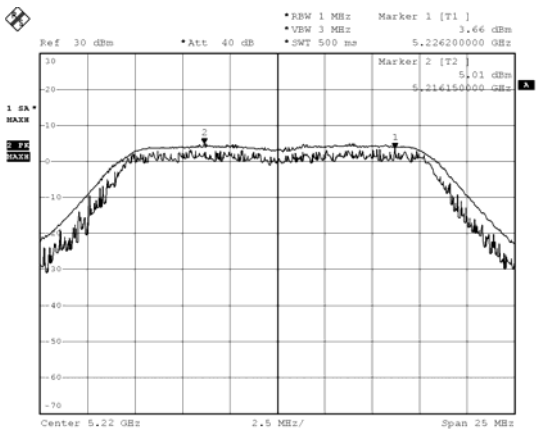
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	0.9	≦ 13	Pass
03	5220.00	1.35	≦ 13	Pass
04	5240.00	1.28	≦ 13	Pass

Channel 01 :



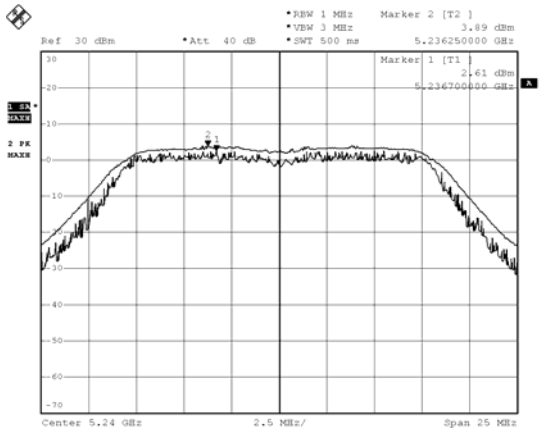
PN1
Date: 24.APR.2007 07:39:01

Channel 03:



PN1
Date: 24.APR.2007 07:43:39

Channel 04:

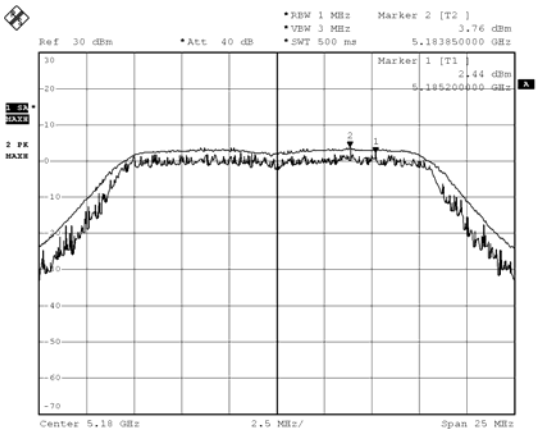


PN1
Date: 24.APR.2007 07:41:49

Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1)(Ch.B)

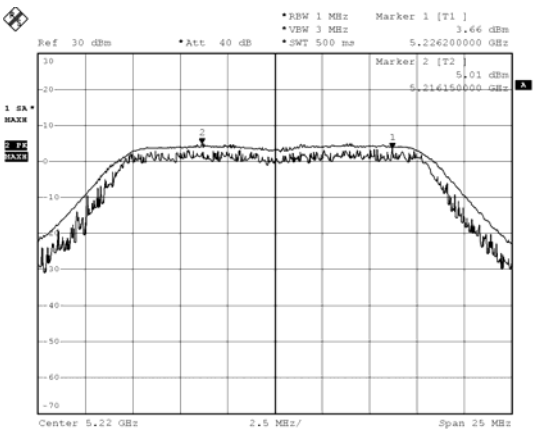
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	1.32	≦ 13	Pass
03	5220.00	1.35	≦ 13	Pass
04	5240.00	1.22	≦ 13	Pass

Channel 01 :



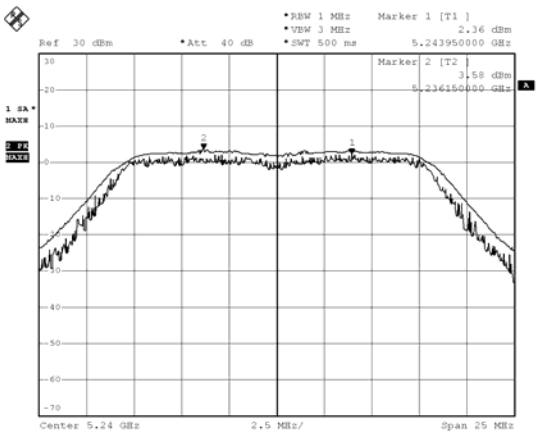
PN1
Date: 24.APR.2007 08:29:20

Channel 03:



PN1
Date: 24.APR.2007 07:43:39

Channel 04:

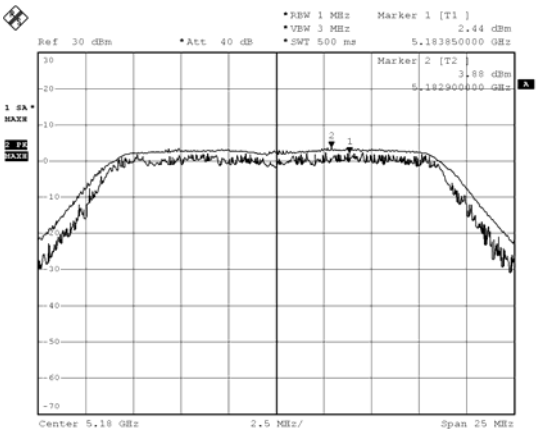


PN1
Date: 24.APR.2007 08:32:21

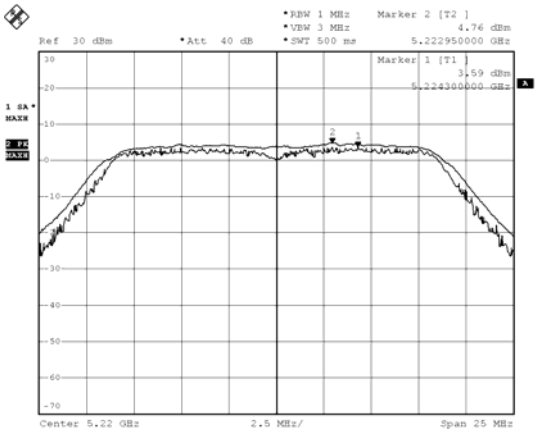
Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1)(Ch.A)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	1.44	≦ 13	Pass
03	5220.00	1.17	≦ 13	Pass
04	5240.00	1.49	≦ 13	Pass

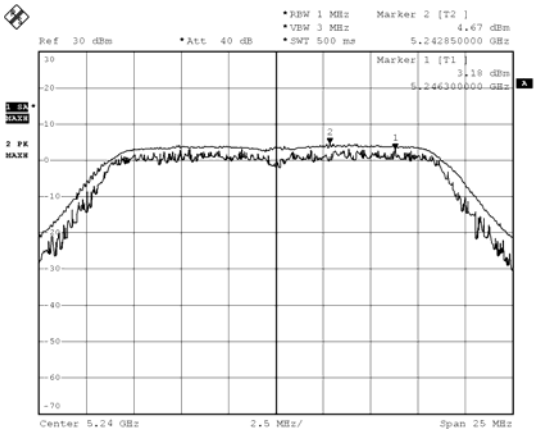
Channel 01 :



Channel 03 :



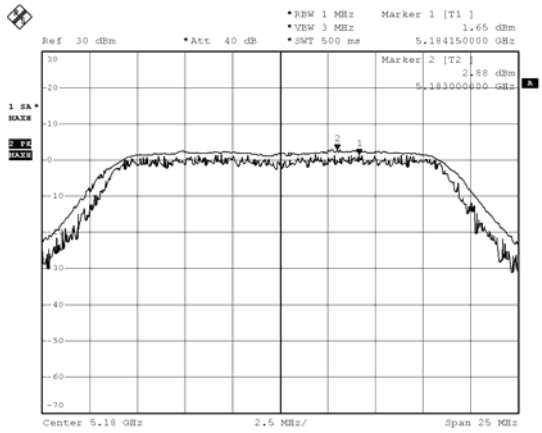
Channel 04 :



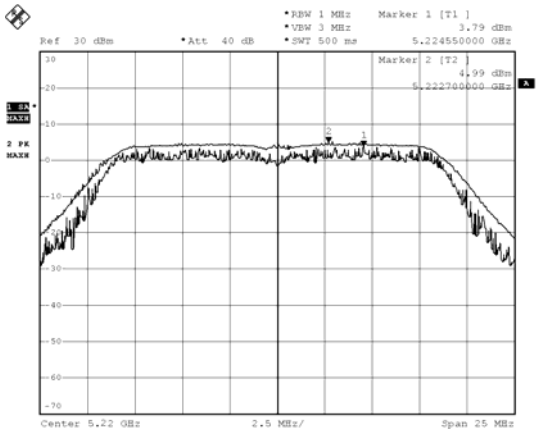
Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	1.23	≦ 13	Pass
03	5220.00	1.2	≦ 13	Pass
04	5240.00	1.14	≦ 13	Pass

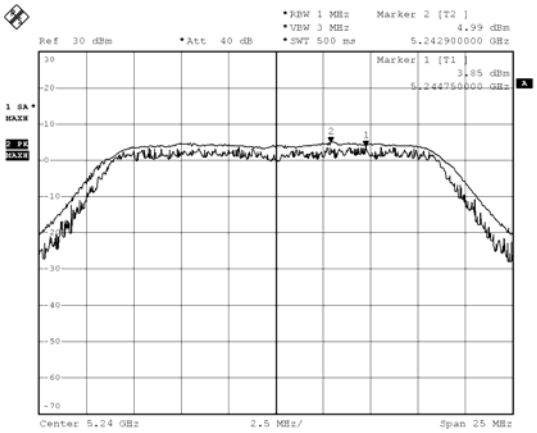
Channel 01 :



Channel 03 :



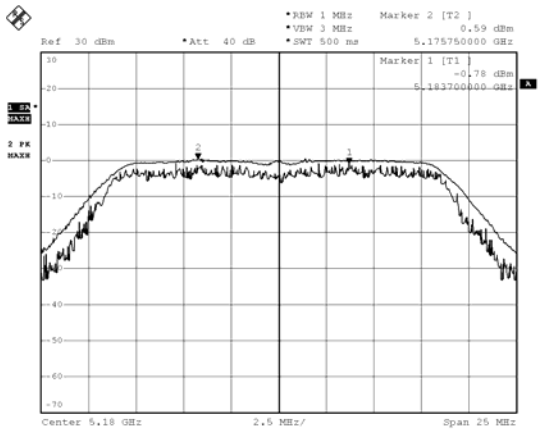
Channel 04 :



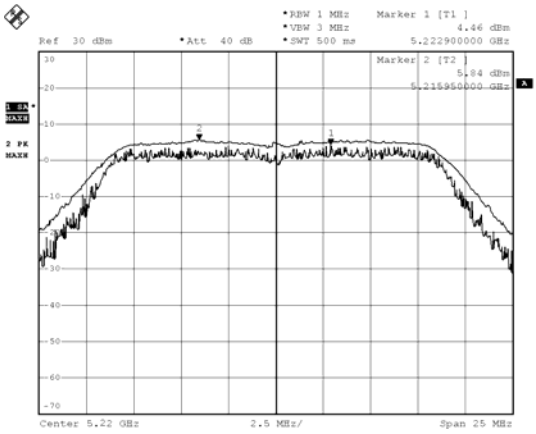
Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	1.37	≦ 13	Pass
03	5220.00	1.38	≦ 13	Pass
04	5240.00	1.03	≦ 13	Pass

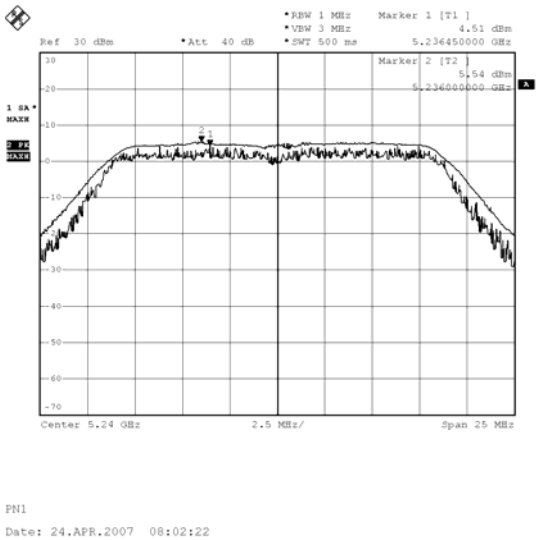
Channel 01 : (Ch.A)



Channel 03 : (Ch.A)



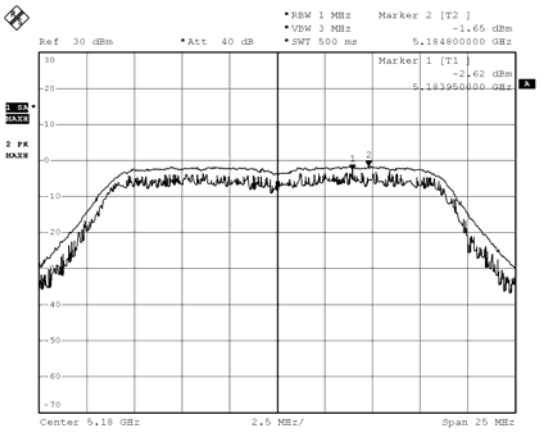
Channel 04 : (Ch.A)



Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (Ch.A+Ch.B)

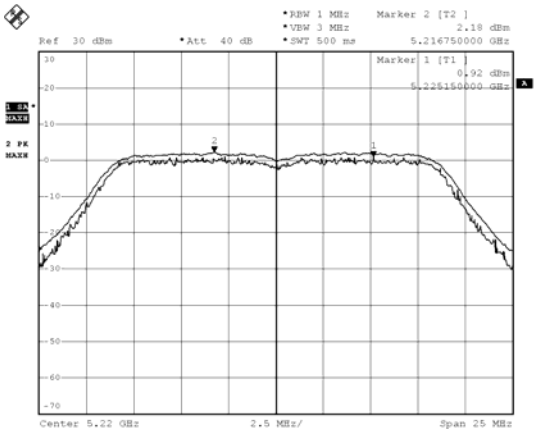
Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5180.00	0.97	≦ 13	Pass
03	5220.00	1.26	≦ 13	Pass
04	5240.00	1.58	≦ 13	Pass

Channel 01 : (Ch.B)



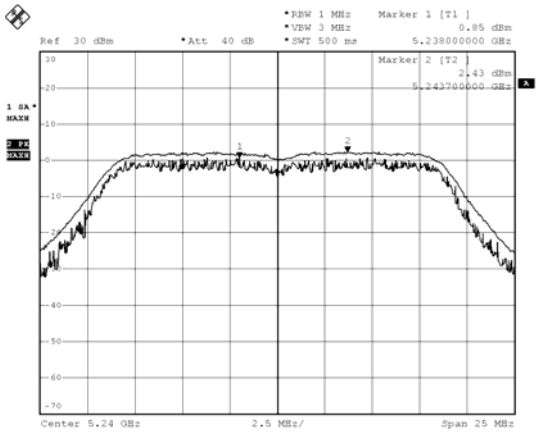
PN1
Date: 24.APR.2007 08:46:33

Channel 03 : (Ch.B)



PN1
Date: 24.APR.2007 09:02:06

Channel 04 : (Ch.B)

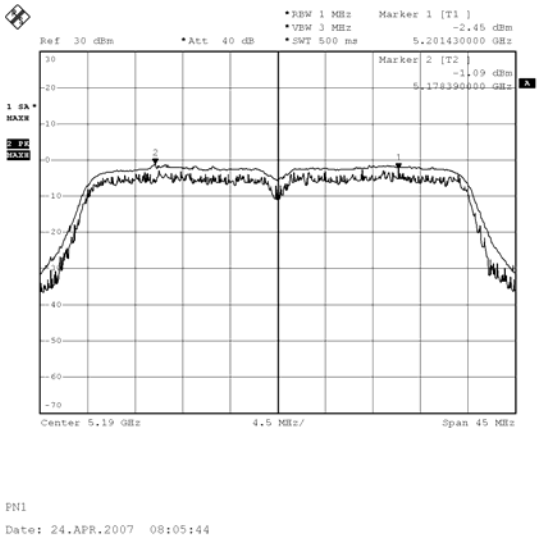


PN1
Date: 24.APR.2007 08:48:14

Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (Ch.A)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5190.00	1.36	≦ 13	Pass

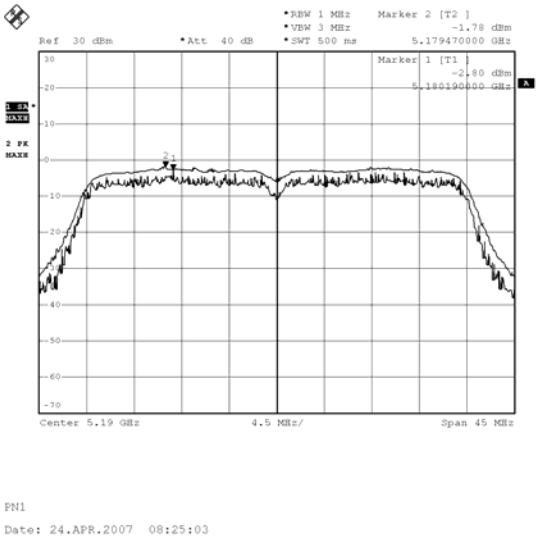
Channel 01 :



Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)(Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5190.00	1.02	≦ 13	Pass

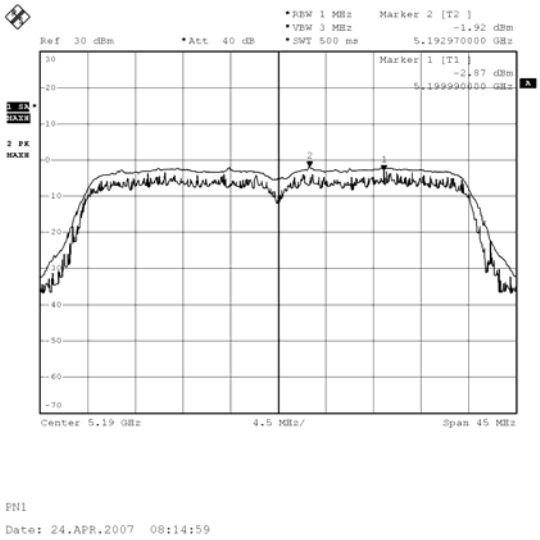
Channel 01 :



Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5190.00	0.95	≦ 13	Pass

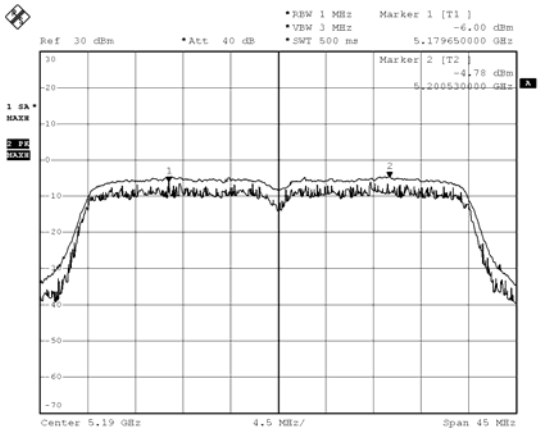
Channel 01 : (Ch.A)



Product : Notebook P.C.
Test Item : Peak Excursion
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (Ch.A+Ch.B)

Channel No.	Frequency (MHz)	Measurement Level (dB)	Required Limit (dB)	Result
01	5190.00	1.22	≦ 13	Pass

Channel 01 : (Ch.B)



PN1
Date: 24.APR.2007 08:23:07

6. Undesirable Emission

6.1. Test Equipment

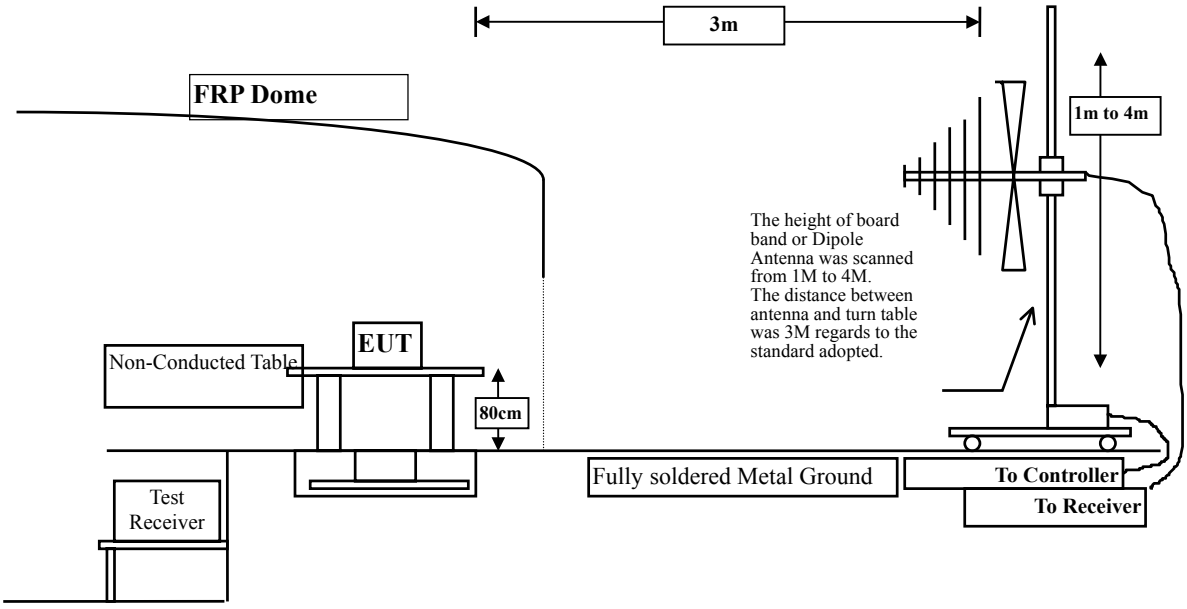
The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
	X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
	X	Horn Antenna	ETS	3115 / 0005-6160	July, 2007
	X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007

Note: 1. All equipments are calibrated every one year.

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

6.2. Test Setup



6.3. Limits

(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15-5.25 GHz band.

(3) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of –17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of –27 dBm/MHz.

(4) The field strength of emissions appearing within restricted bands of operation shall not exceed the limits in the Section 15.209.

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth 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 Ch.And the closed point of any part of the device or system.

6.4. 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 Ch.Are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2001 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

6.5. Uncertainty

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

6.6. Test Result of Undesirable Emission

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10360.000	11.952	37.727	49.678	-24.292	74.000
15540.000	13.868	37.471	51.339	-22.631	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10360.000	11.952	38.605	50.556	-23.414	74.000
15540.000	13.868	37.128	50.996	-22.974	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10360.000	11.952	38.865	50.816	-23.154	74.000
15540.000	13.868	36.558	50.426	-23.544	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10360.000	11.952	40.775	52.726	-21.244	74.000
15540.000	13.868	36.909	50.777	-23.193	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10440.000	12.451	38.304	50.755	-23.215	74.000
15660.000	13.076	37.957	51.033	-22.937	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10440.000	12.451	38.151	50.602	-23.368	74.000
15660.000	13.076	36.571	49.647	-24.323	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10440.000	12.451	38.241	50.692	-23.278	74.000
15660.000	13.076	37.009	50.085	-23.885	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10440.000	12.451	38.831	51.282	-22.688	74.000
15660.000	13.076	37.948	51.024	-22.946	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10480.000	12.609	36.201	48.810	-25.160	74.000
15720.000	12.805	38.317	51.122	-22.848	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10480.000	12.609	37.141	49.750	-24.220	74.000
15720.000	12.805	36.749	49.554	-24.416	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz。
4. Measurement Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10480.000	12.609	38.206	50.815	-23.155	74.000
15720.000	12.805	36.466	49.271	-24.699	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10480.000	12.609	39.486	52.095	-21.875	74.000
15720.000	12.805	36.902	49.707	-24.263	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz。
4. Measurement Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10360.000	11.952	37.750	49.701	-24.269	74.000
15540.000	13.868	36.943	50.811	-23.159	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10360.000	11.952	37.992	49.943	-24.027	74.000
15540.000	13.868	37.101	50.969	-23.001	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10360.000	11.952	38.024	49.975	-23.995	74.000
15540.000	13.868	36.434	50.302	-23.668	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10360.000	11.952	38.141	50.092	-23.878	74.000
15540.000	13.868	36.642	50.510	-23.460	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1)(5180 MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10360.000	11.952	37.416	49.367	-24.603	74.000
15540.000	13.868	36.998	50.866	-23.104	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10360.000	11.952	37.172	49.123	-24.847	74.000
15540.000	13.868	36.508	50.376	-23.594	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220 MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10440.000	12.609	37.175	49.784	-24.186	74.000
15660.000	12.805	37.438	50.243	-23.727	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10440.000	12.609	37.443	50.052	-23.918	74.000
15660.000	12.805	36.684	49.489	-24.481	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) 5220 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10440.000	44.123	5.817	49.940	-24.060	74.000
15660.000	44.226	4.470	48.696	-25.304	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10440.000	44.123	8.329	52.452	-21.548	74.000
15660.000	44.226	3.872	48.098	-25.902	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220 MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10440.000	12.609	37.425	50.034	-23.936	74.000
15660.000	12.805	36.836	49.641	-24.329	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10440.000	12.609	37.425	50.034	-23.936	74.000
15660.000	12.805	36.836	49.641	-24.329	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240 MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10480.000	44.194	5.918	50.112	-23.888	74.000
15720.000	43.880	4.444	48.324	-25.676	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10480.000	44.194	5.694	49.888	-24.112	74.000
15720.000	43.880	4.519	48.399	-25.601	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10520.000	12.609	38.238	50.847	-23.123	74.000
15780.000	12.805	36.521	49.326	-24.644	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10520.000	12.609	38.839	51.448	-22.522	74.000
15780.000	12.805	37.241	50.046	-23.924	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240 MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10480.000	44.194	4.940	49.134	-24.866	74.000
15720.000	43.880	3.813	47.693	-26.307	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10480.000	44.194	5.573	49.767	-24.233	74.000
15660.000	44.226	4.541	48.767	-25.233	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10380.000	12.042	37.446	49.488	-24.482	74.000
15570.000	13.736	37.170	50.905	-23.065	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10380.000	12.042	38.041	50.083	-23.887	74.000
15570.000	13.736	36.821	50.556	-23.414	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10380.000	12.042	38.216	50.258	-23.712	74.000
15570.000	13.736	36.681	50.416	-23.554	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10380.000	12.042	37.453	49.495	-24.475	74.000
15570.000	13.736	36.013	49.748	-24.222	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190 MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
10380.000	12.042	37.495	49.537	-24.433	74.000
15570.000	13.736	37.149	50.884	-23.086	74.000
Average Detector					
--					
Vertical					
Peak Detector					
10380.000	12.042	38.159	50.201	-23.769	74.000
15570.000	13.736	38.127	51.862	-22.108	74.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz.
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz.
4. Measurement Level = Reading Level + Correct Factor..
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
265.225	13.015	22.351	35.366	-10.634	46.000
299.175	13.082	22.012	35.094	-10.906	46.000
459.225	17.286	21.078	38.365	-7.635	46.000
662.925	19.263	17.946	37.209	-8.791	46.000
798.725	20.318	14.963	35.281	-10.719	46.000
961.200	21.119	19.543	40.662	-13.338	54.000
Average Detector					
--					
Vertical					
Peak Detector					
139.125	10.633	23.521	34.154	-9.346	43.500
202.175	8.953	24.309	33.262	-10.238	43.500
267.650	13.185	20.159	33.344	-12.656	46.000
398.600	16.812	23.288	40.100	-5.900	46.000
599.875	20.433	12.788	33.221	-12.779	46.000
769.625	21.085	14.100	35.185	-10.815	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
265.225	13.015	22.635	35.650	-10.350	46.000
333.125	13.148	26.501	39.650	-6.350	46.000
381.625	14.553	21.653	36.206	-9.794	46.000
631.400	19.500	11.362	30.862	-15.138	46.000
696.875	19.339	15.067	34.406	-11.594	46.000
961.200	21.119	19.543	40.662	-13.338	54.000
Average Detector					
--					
Vertical					
Peak Detector					
265.225	13.404	20.841	34.245	-11.755	46.000
381.625	15.526	21.925	37.451	-8.549	46.000
500.450	17.034	19.045	36.079	-9.921	46.000
565.925	19.946	16.958	36.904	-9.096	46.000
706.575	19.561	17.044	36.605	-9.395	46.000
839.950	19.769	12.875	32.644	-13.356	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
199.750	8.820	20.328	29.148	-14.352	43.500
265.225	13.015	21.711	34.726	-11.274	46.000
318.575	12.650	19.909	32.559	-13.441	46.000
401.025	15.491	19.948	35.439	-10.561	46.000
548.950	19.155	19.513	38.668	-7.332	46.000
769.250	20.331	12.811	33.142	-12.858	46.000
Average Detector					
--					
Vertical					
Peak Detector					
318.575	12.986	25.779	38.765	-7.235	46.000
459.225	17.123	17.341	34.465	-11.535	46.000
495.600	17.165	19.521	36.686	-9.314	46.000
561.075	19.857	17.693	37.550	-8.450	46.000
699.300	19.102	16.466	35.568	-10.432	46.000
839.950	19.769	13.352	33.121	-12.879	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
265.225	13.015	22.764	35.779	-10.221	46.000
333.125	13.148	25.521	38.670	-7.330	46.000
405.875	15.986	21.663	37.649	-8.351	46.000
597.450	18.464	17.190	35.654	-10.346	46.000
665.350	19.232	16.731	35.963	-10.037	46.000
849.650	20.609	14.851	35.460	-10.540	46.000
Average Detector					
--					
Vertical					
Peak Detector					
202.175	8.953	26.186	35.139	-8.361	43.500
265.225	13.404	20.082	33.486	-12.514	46.000
333.125	13.199	25.463	38.662	-7.338	46.000
500.450	17.034	18.468	35.502	-10.498	46.000
563.500	19.869	16.169	36.038	-9.962	46.000
961.200	21.219	20.111	41.330	-12.670	54.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5220MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
267.650	12.675	22.482	35.157	-10.843	46.000
333.125	13.148	25.247	38.396	-7.604	46.000
401.025	15.491	23.166	38.657	-7.343	46.000
500.450	17.032	22.344	39.376	-6.624	46.000
662.925	19.263	17.516	36.779	-9.221	46.000
769.625	20.335	16.885	37.220	-8.780	46.000
Average Detector					
--					
Vertical					
Peak Detector					
202.175	8.953	27.524	36.477	-7.023	43.500
333.125	13.199	26.422	39.621	-6.379	46.000
398.600	16.812	20.362	37.174	-8.826	46.000
495.600	17.165	19.478	36.643	-9.357	46.000
565.925	19.946	18.609	38.555	-7.445	46.000
701.725	19.225	17.317	36.542	-9.458	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
333.125	13.148	27.627	40.776	-5.224	46.000
405.875	15.986	22.846	38.832	-7.168	46.000
500.450	17.032	21.249	38.281	-7.719	46.000
568.350	17.883	19.558	37.441	-8.559	46.000
699.300	19.202	16.292	35.494	-10.506	46.000
844.800	20.675	14.987	35.662	-10.338	46.000
Average Detector					
--					
Vertical					
Peak Detector					
202.175	8.953	26.801	35.754	-7.746	43.500
267.650	13.185	20.857	34.042	-11.958	46.000
333.125	13.199	25.433	38.632	-7.368	46.000
495.600	17.165	19.693	36.858	-9.142	46.000
662.925	18.538	16.113	34.652	-11.348	46.000
772.050	20.899	13.065	33.964	-12.036	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
267.650	12.675	23.036	35.711	-10.289	46.000
333.125	13.148	25.520	38.669	-7.331	46.000
459.225	17.286	23.011	40.298	-5.702	46.000
500.450	17.032	22.338	39.370	-6.630	46.000
842.375	20.514	15.676	36.190	-9.810	46.000
961.200	21.119	19.468	40.587	-13.413	54.000
Average Detector					
--					
Vertical					
Peak Detector					
124.575	10.527	23.571	34.098	-9.402	43.500
333.125	13.199	25.042	38.241	-7.759	46.000
561.075	19.857	17.522	37.379	-8.621	46.000
662.925	18.538	17.040	35.579	-10.421	46.000
769.625	21.085	11.224	32.309	-13.691	46.000
961.200	21.219	20.113	41.332	-12.668	54.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Notebook P.C.
Test Item : Undesirable Emission
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
267.650	12.675	22.925	35.600	-10.400	46.000
333.125	13.148	26.472	39.621	-6.379	46.000
401.025	15.491	24.030	39.521	-6.479	46.000
490.750	17.011	23.104	40.115	-5.885	46.000
662.925	19.263	17.758	37.021	-8.979	46.000
961.200	21.119	20.216	41.335	-12.665	54.000
Average Detector					
--					
Vertical					
Peak Detector					
139.125	10.633	23.414	34.047	-9.453	43.500
202.175	8.953	27.790	36.743	-6.757	43.500
350.100	13.918	26.061	39.979	-6.021	46.000
459.225	17.123	17.399	34.523	-11.477	46.000
665.350	18.513	16.740	35.253	-10.747	46.000
769.625	21.085	14.573	35.658	-10.342	46.000
Average Detector					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

7. Band Edge

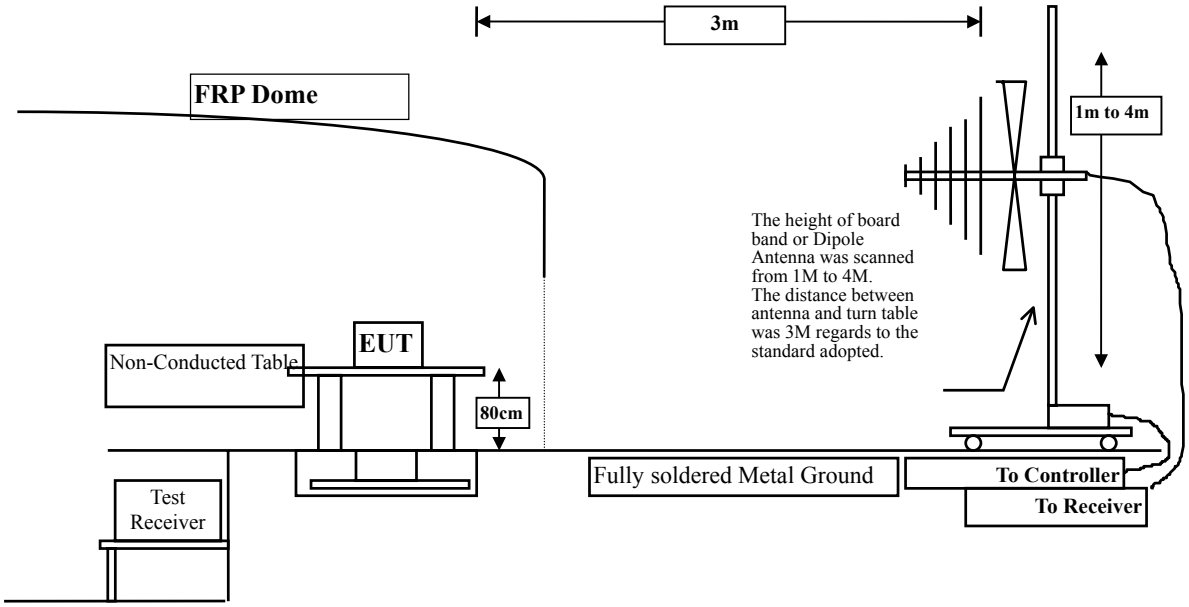
7.1. Test Equipment

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

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 3	X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
	X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
	X	Horn Antenna	ETS	3115 / 0005-6160	July, 2006
	X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006

7.2. Test Setup

RF Radiated Measurement:



7.3. 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 Ch.And the closed point of any part of the device or system.

7.4. 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 Ch.Are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:1992 on radiated measurement.

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

7.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

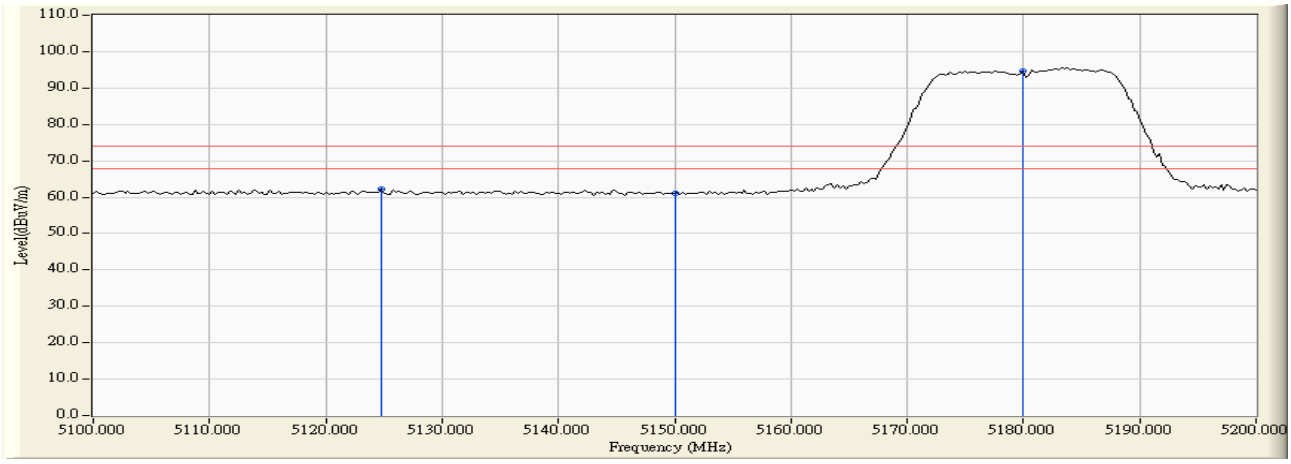
7.6. Test Result of Band Edge

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.A)

RF Radiated Measurement (Horizontal):

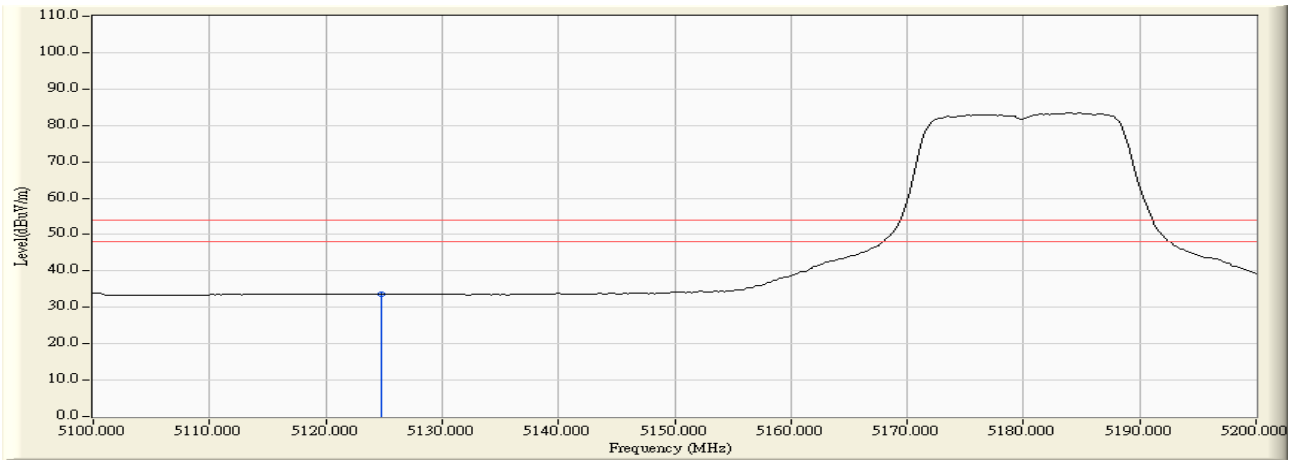
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5124.750	3.260	58.872	62.131	74.00	54.00	Pass
01(Average)	5124.750	3.260	30.346	33.605	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



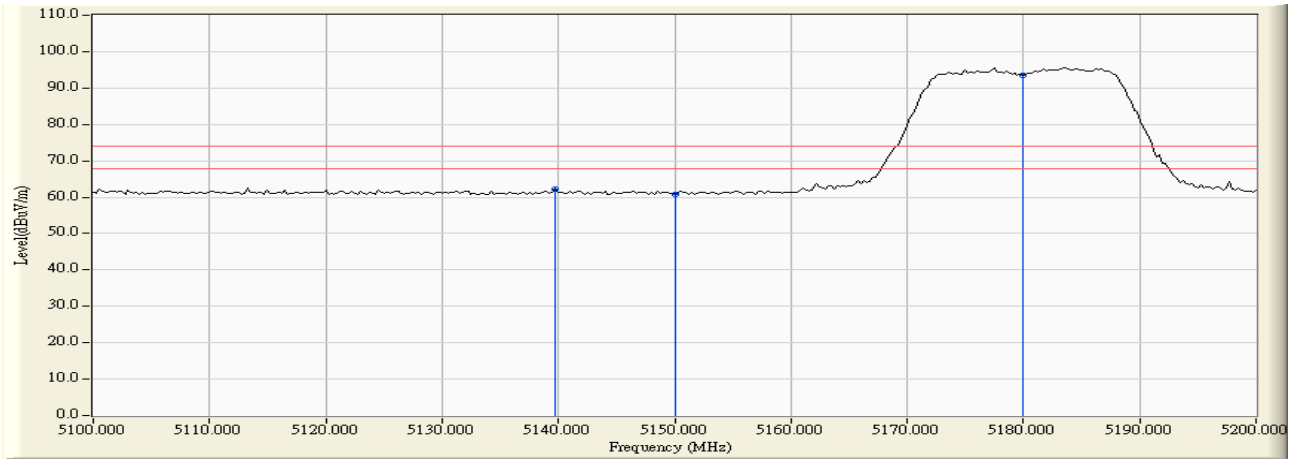
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.A)

RF Radiated Measurement (Vertical):

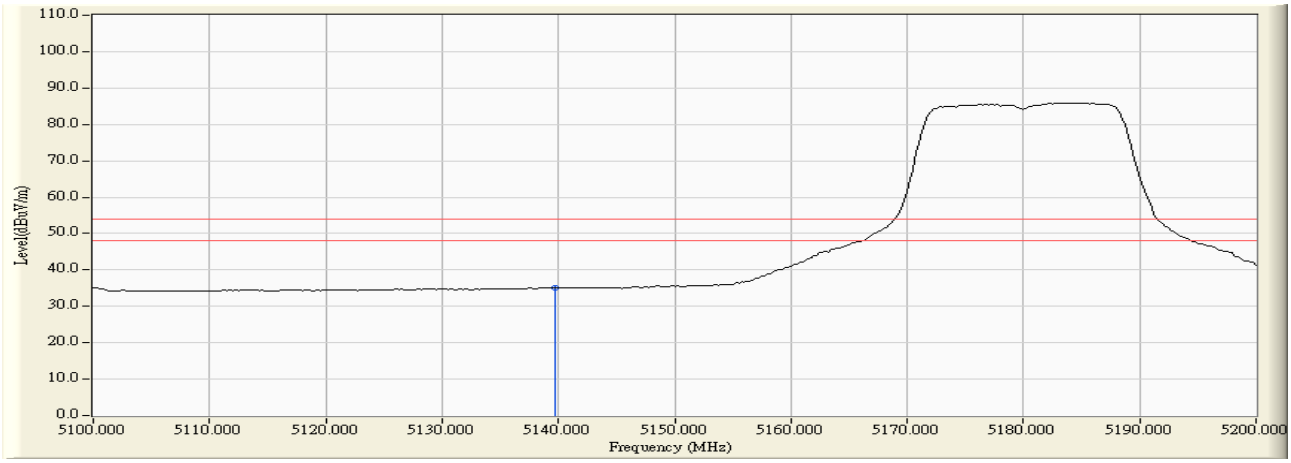
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5139.750	3.259	58.954	62.213	74.00	54.00	Pass
01(Average)	5139.750	3.259	31.935	35.194	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



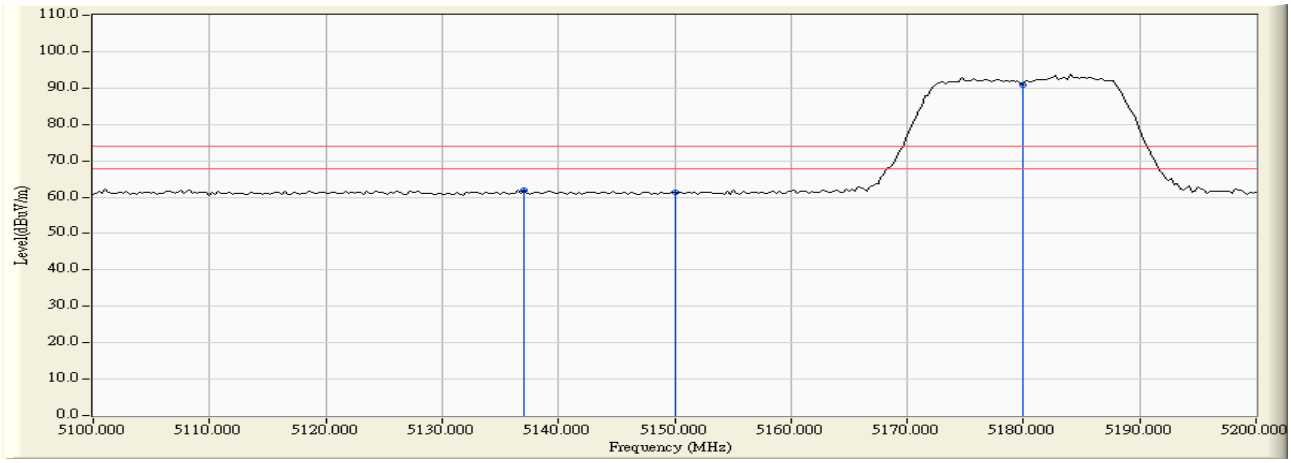
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.B)

RF Radiated Measurement (Horizontal):

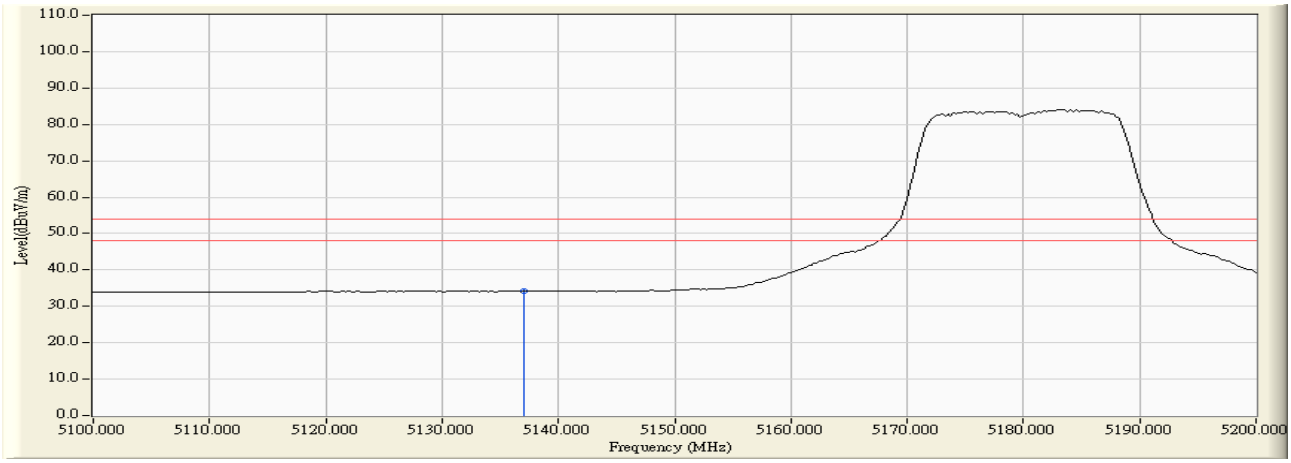
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5137.000	3.259	58.729	61.988	74.00	54.00	Pass
01(Average)	5137.000	3.259	30.913	34.172	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



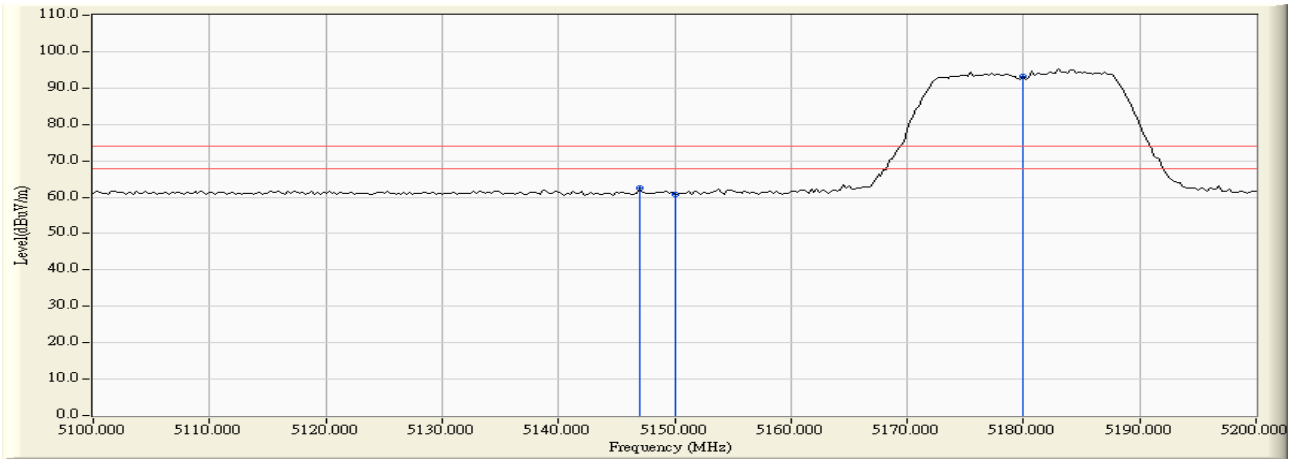
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5180MHz) (Ch.B)

RF Radiated Measurement (Vertical):

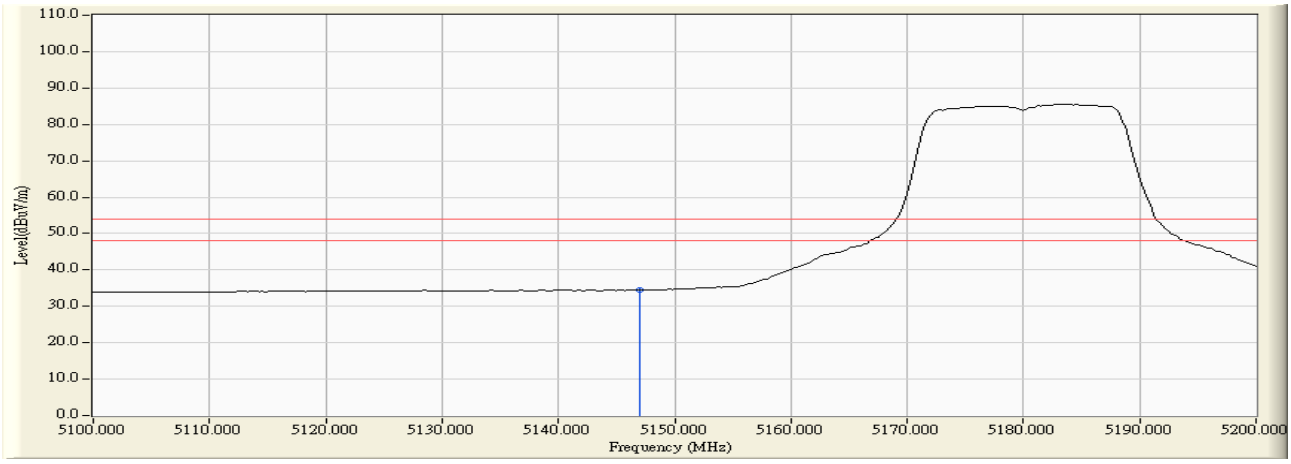
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5147.000	3.259	59.153	62.412	74.00	54.00	Pass
01(Average)	5147.000	3.259	31.185	34.444	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



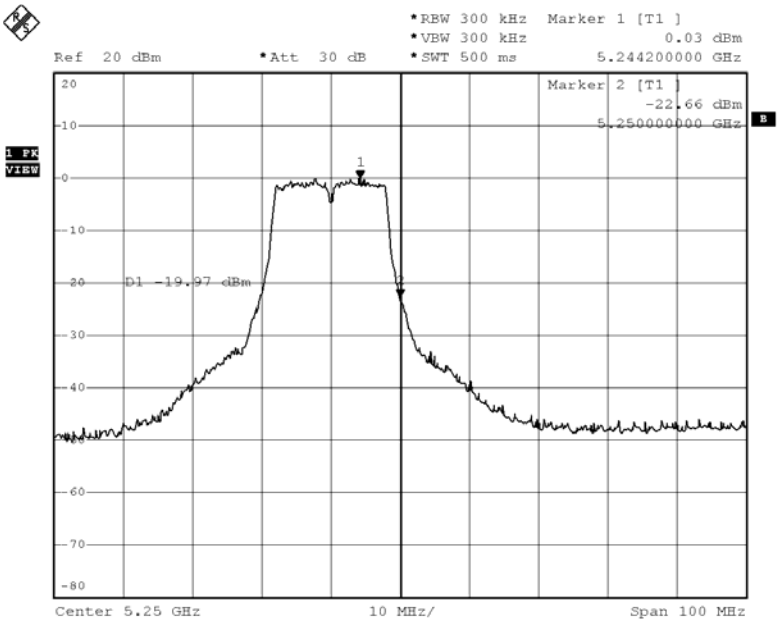
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.A)

RF Conduction Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

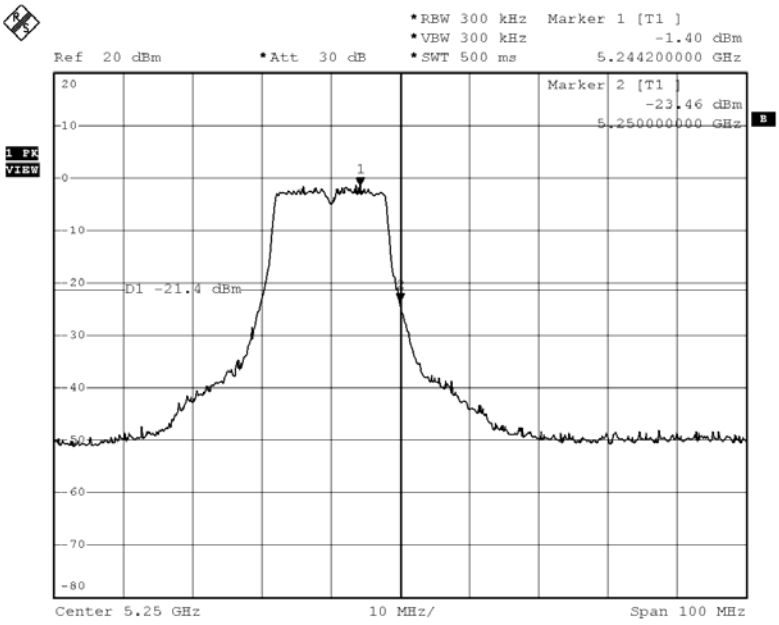


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1) (5240MHz) (Ch.B)

RF Conduction Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

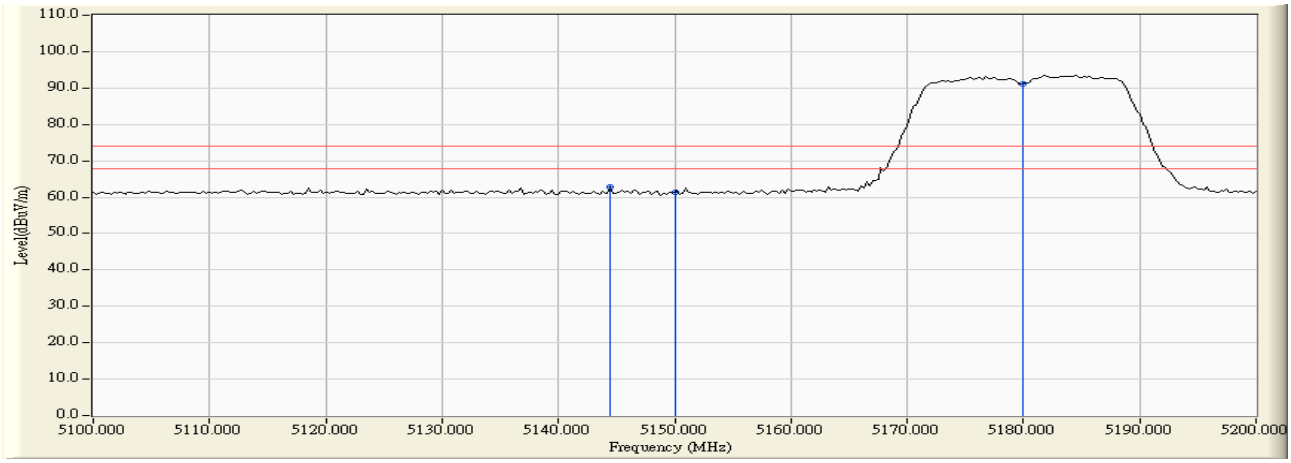


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180MHz) (Ch.A)

RF Radiated Measurement (Horizontal):

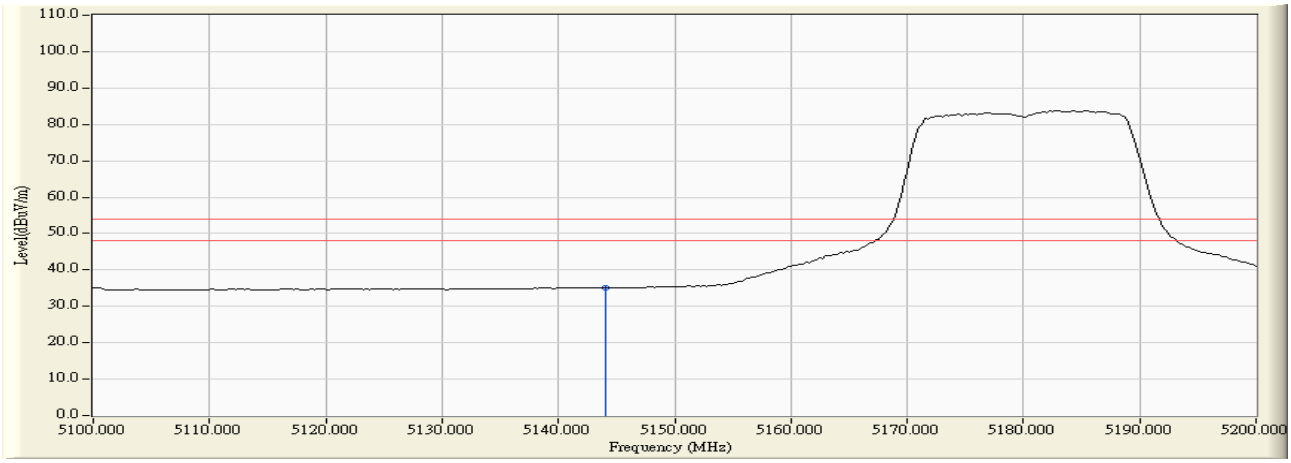
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5144.500	3.259	59.488	62.747	74.00	54.00	Pass
01(Average)	5144.500	3.259	31.883	35.142	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



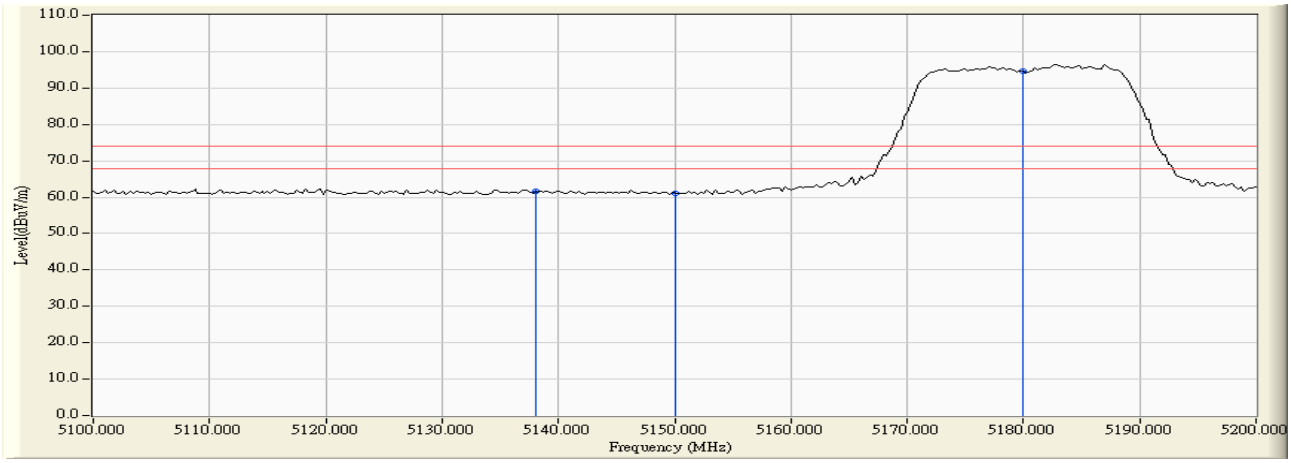
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180MHz) (Ch.A)

RF Radiated Measurement (Vertical):

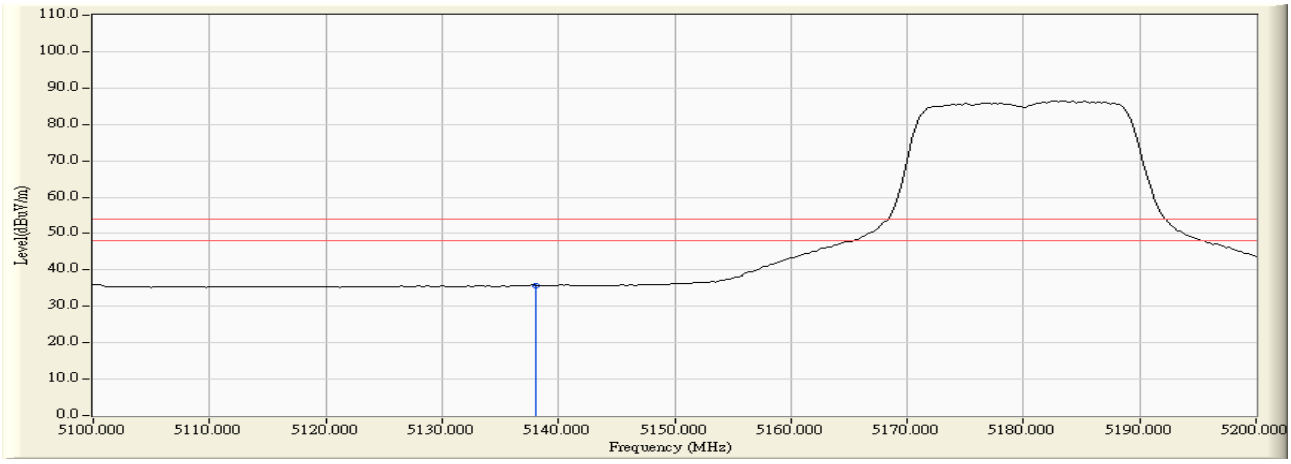
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5138.000	3.259	58.484	61.743	74.00	54.00	Pass
01(Average)	5138.000	3.259	32.338	35.597	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



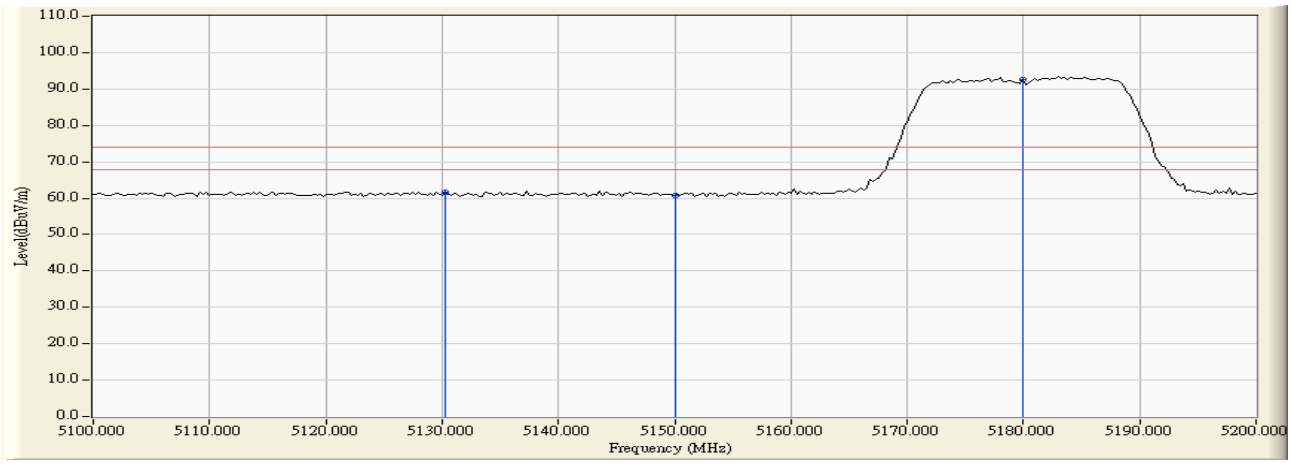
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180MHz) (Ch.B)

RF Radiated Measurement (Horizontal):

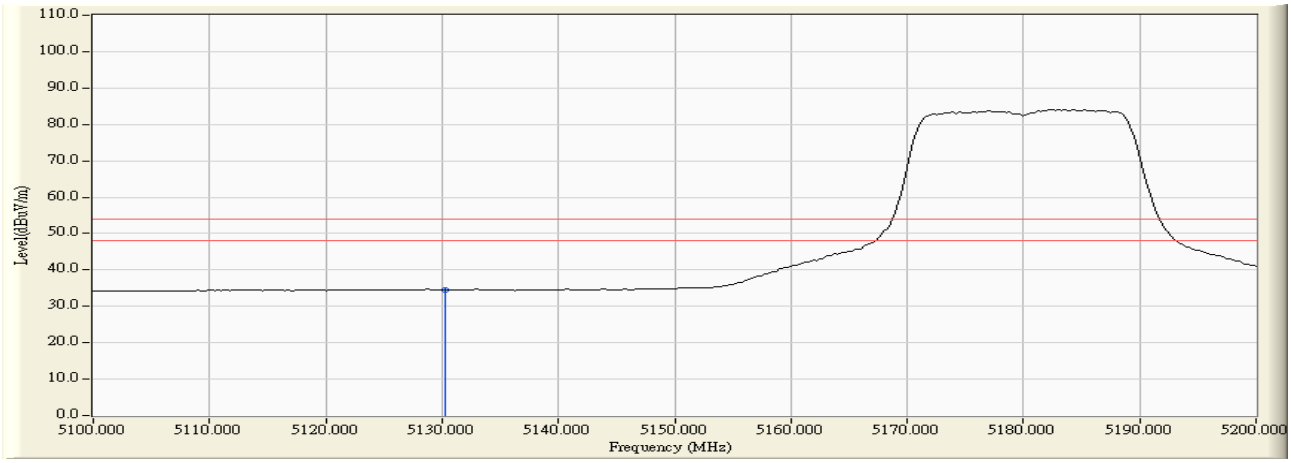
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5130.250	3.259	58.494	61.753	74.00	54.00	Pass
01(Average)	5130.250	3.259	31.203	34.462	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



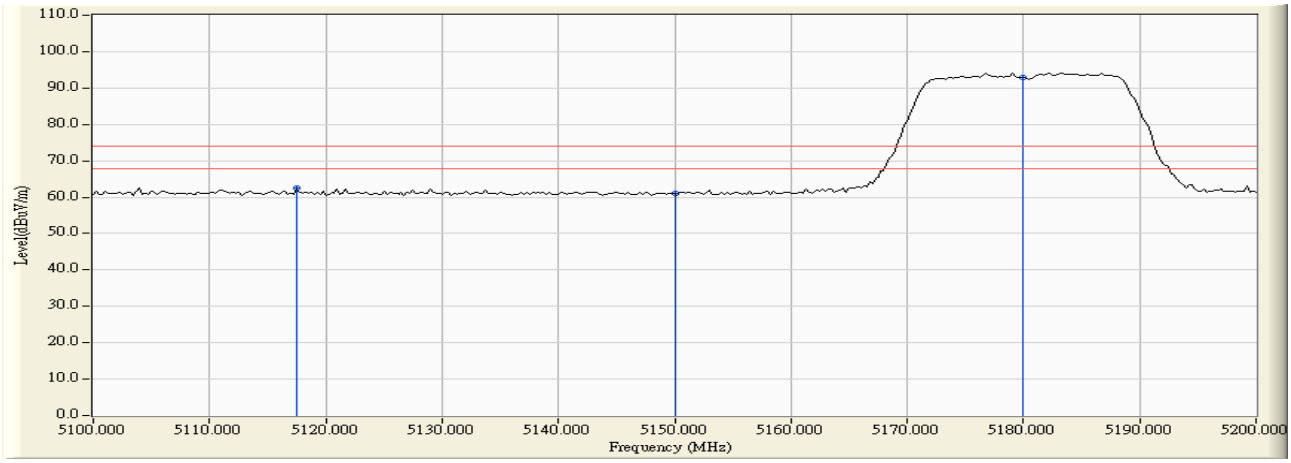
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5180MHz) (Ch.B)

RF Radiated Measurement (Vertical):

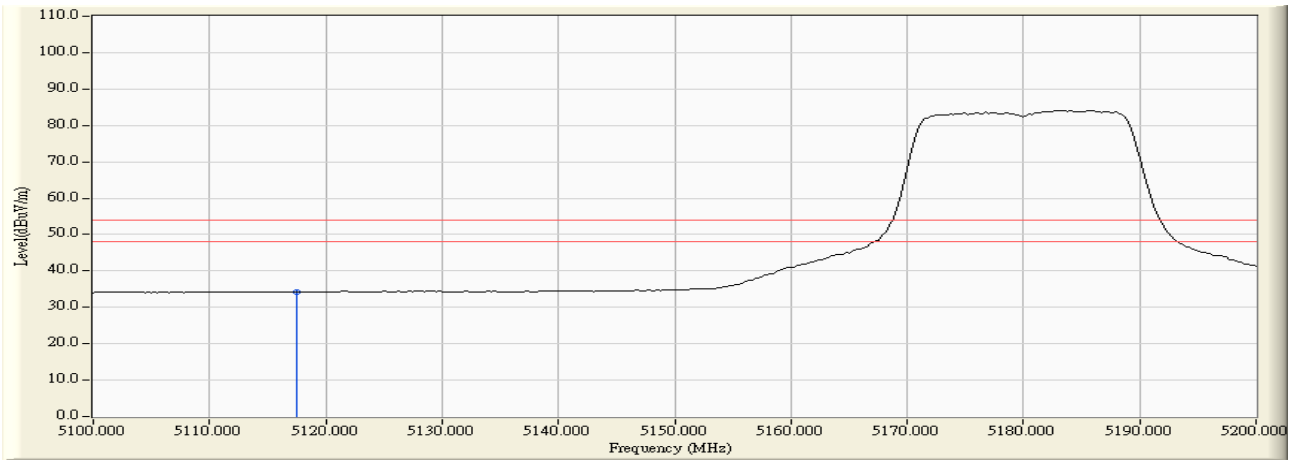
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	5117.500	3.259	59.352	62.612	74.00	54.00	Pass
01(Average)	5117.500	3.259	30.962	34.222	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



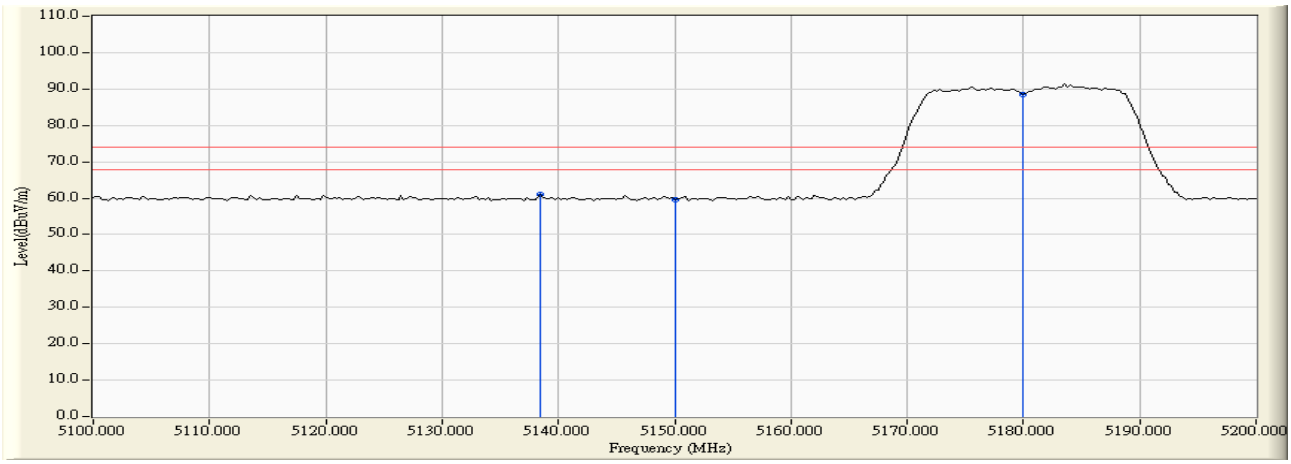
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1)(5180MHz) (Ch.A+Ch.B)

RF Radiated Measurement (Horizontal):

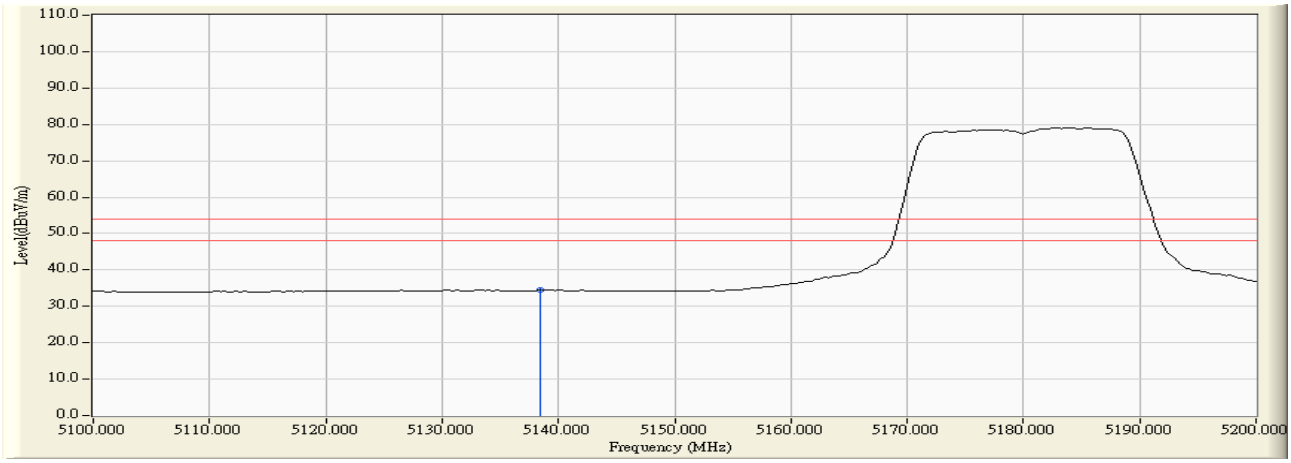
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5138.500	3.259	57.688	60.947	74.00	54.00	Pass
01(Average)	5138.500	3.259	31.189	34.448	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



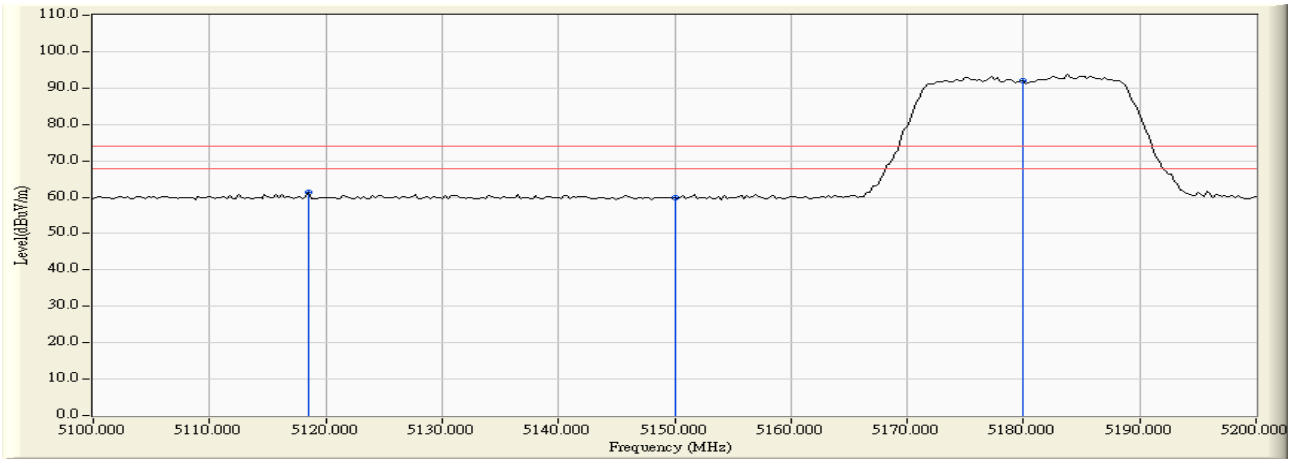
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1)(5180MHz) (Ch.A+Ch.B)

RF Radiated Measurement (Vertical):

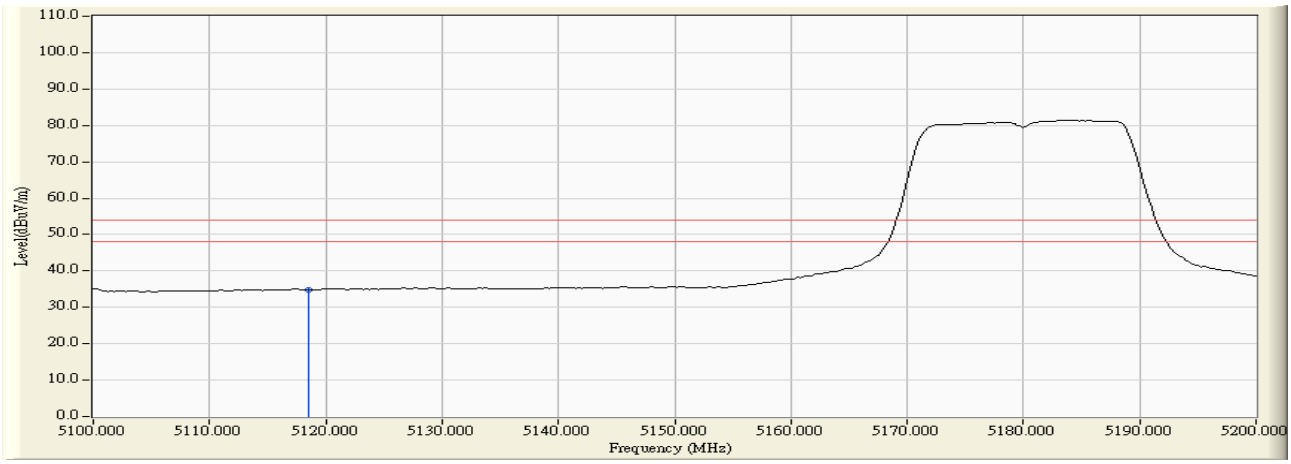
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5118.500	3.260	58.135	61.395	74.00	54.00	Pass
01 (Average)	5118.500	3.260	31.641	34.901	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



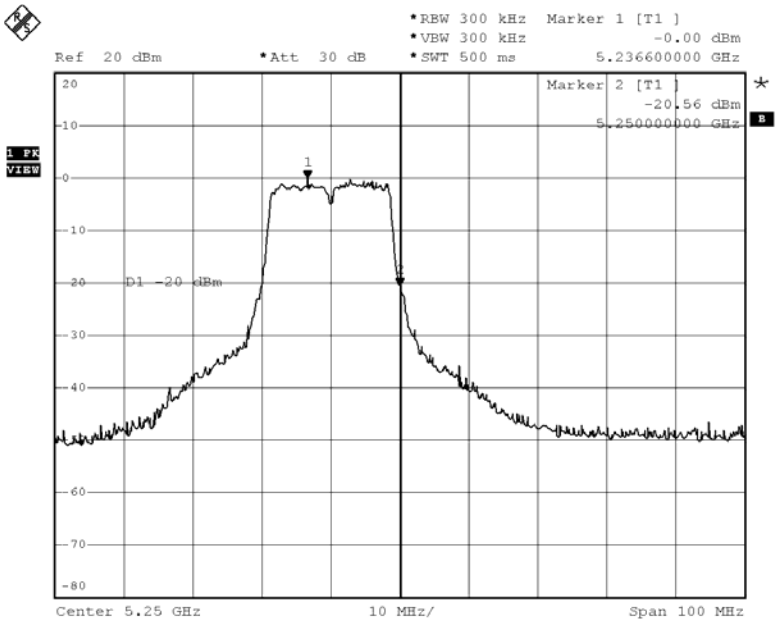
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A)

RF Conduction Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

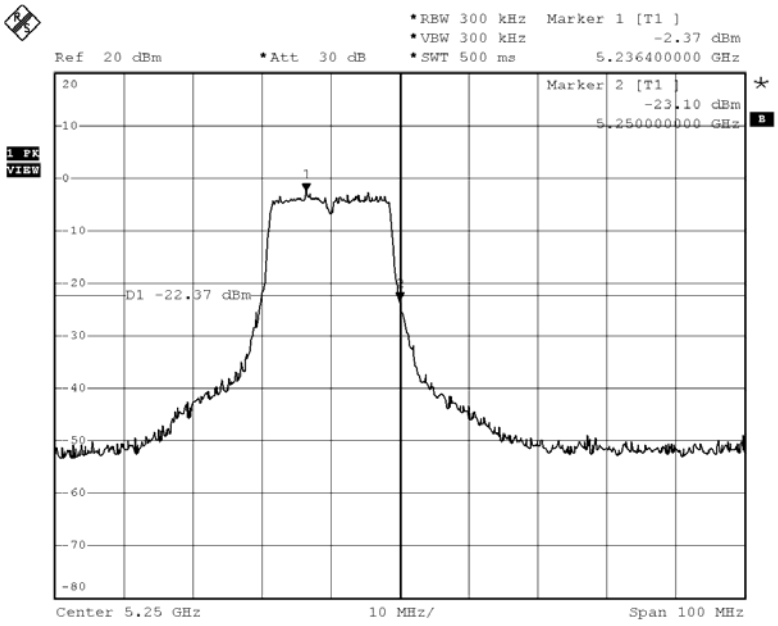


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.B)

RF Conduction Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

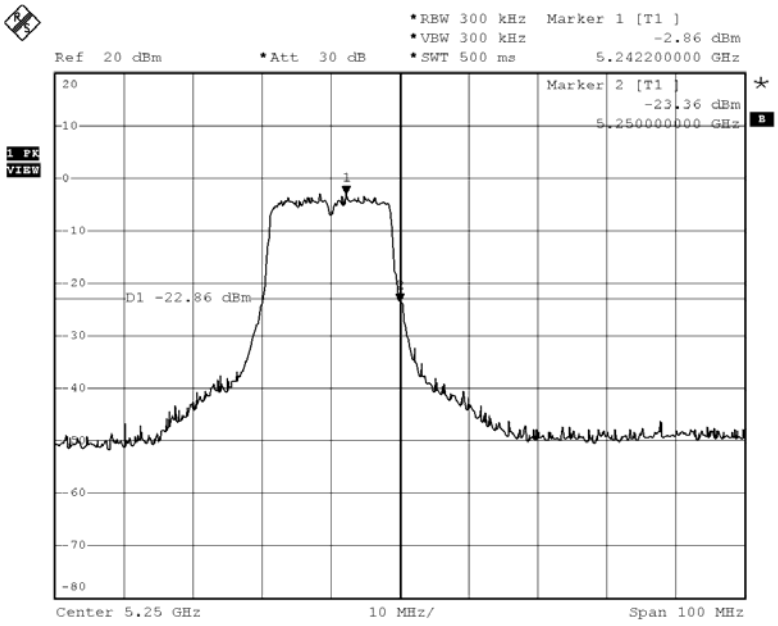


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A+Ch.B)

RF Conduction Measurement: (Ch.A)

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

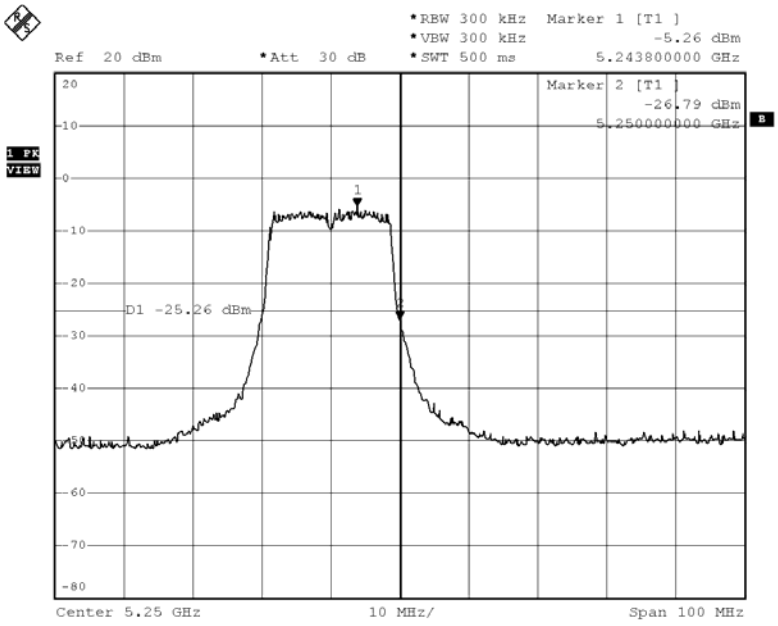


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11n (20MHz)-(Ant.1) (5240MHz) (Ch.A+Ch.B)

RF Conduction Measurement: (Ch.B)

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
4	< 5250	>20	Pass

Figure Channel 4:

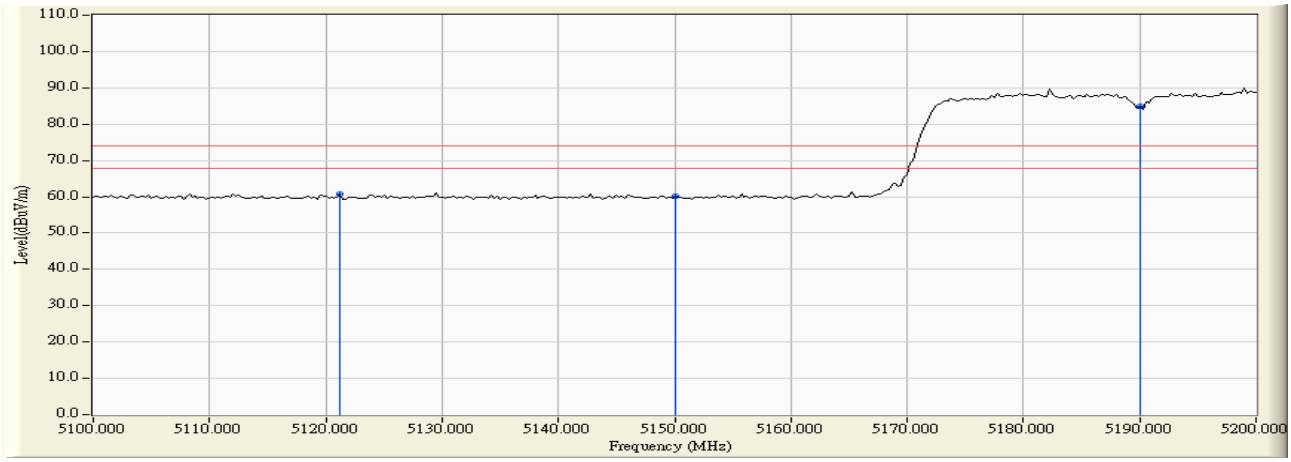


Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A)

RF Radiated Measurement (Horizontal):

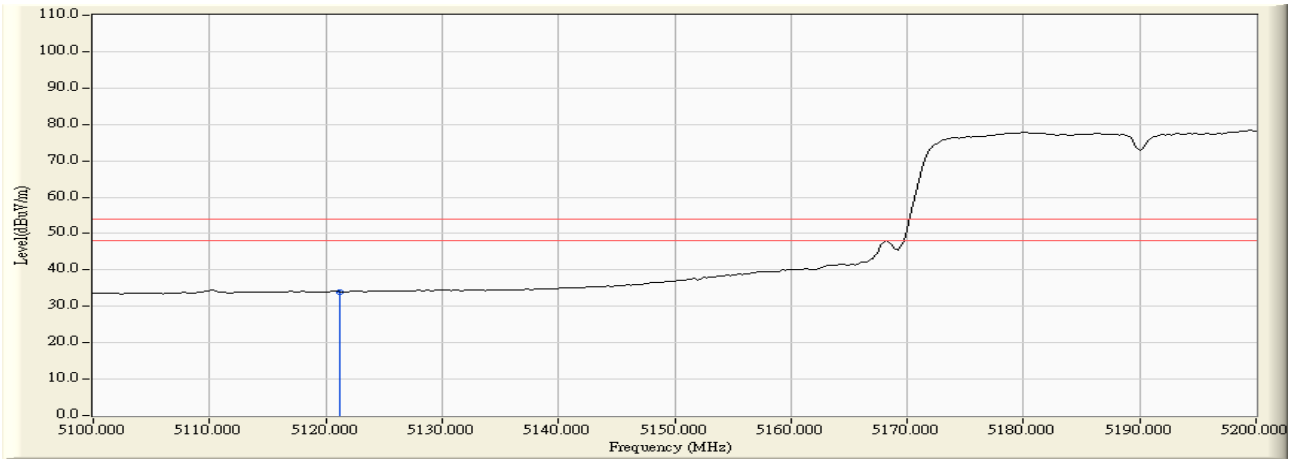
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5121.250	3.259	57.523	60.783	74.00	54.00	Pass
01(Average)	5121.250	3.259	30.738	33.998	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



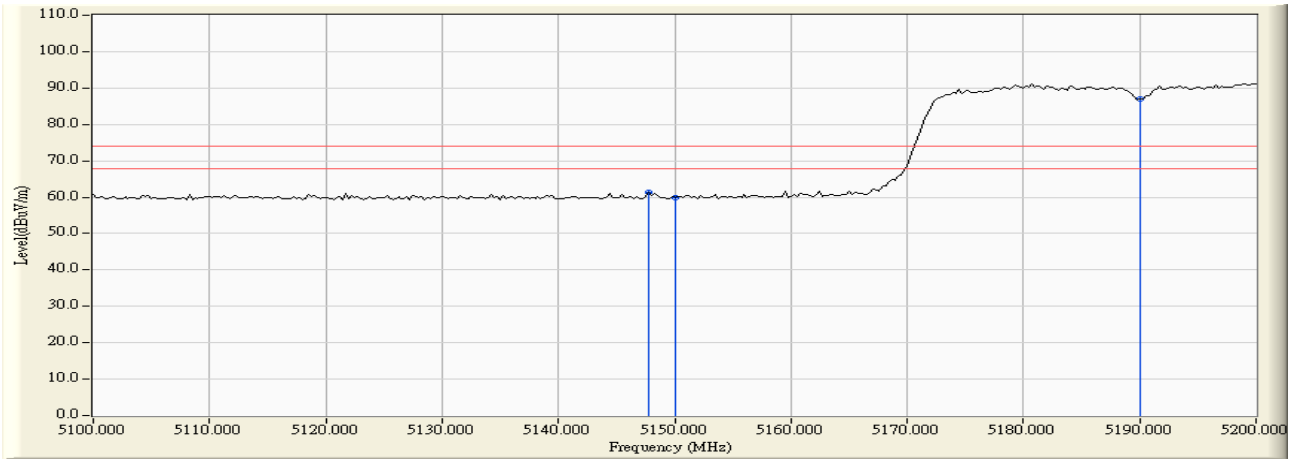
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A)

RF Radiated Measurement (Vertical):

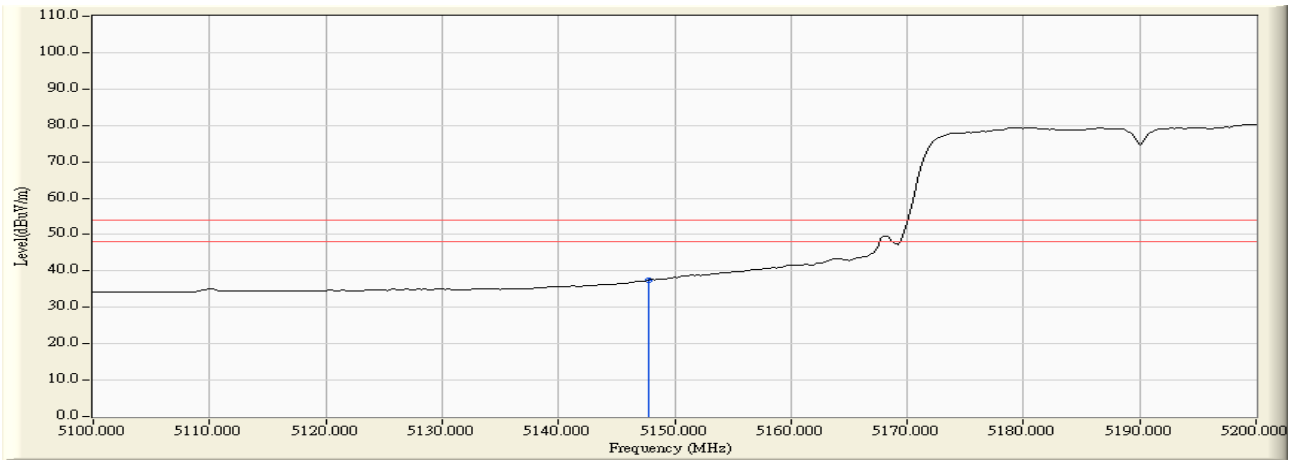
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	5147.750	3.259	58.125	61.384	74.00	54.00	Pass
01(Average)	5147.750	3.259	34.189	37.448	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



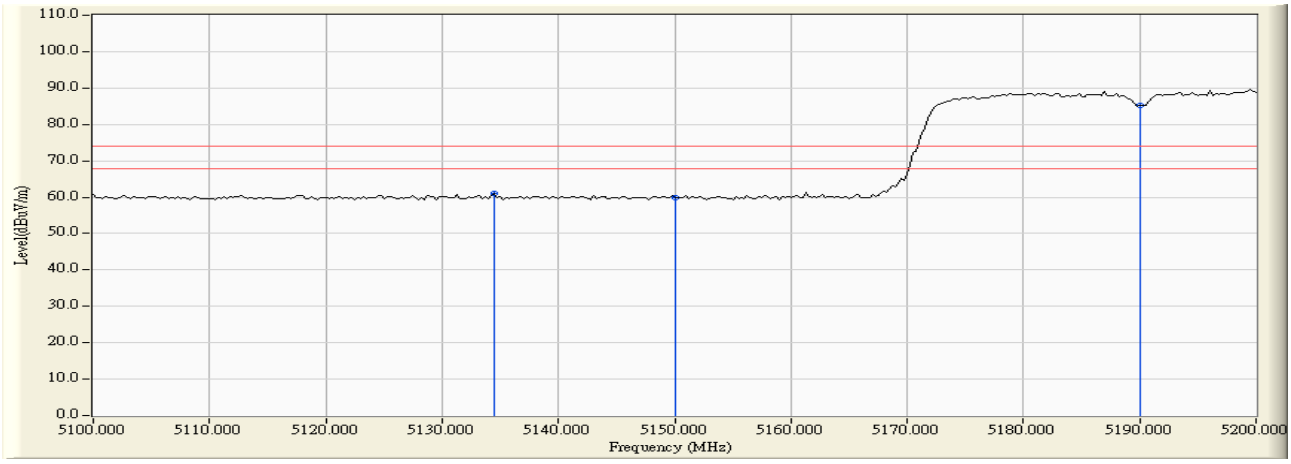
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.B)

RF Radiated Measurement (Horizontal):

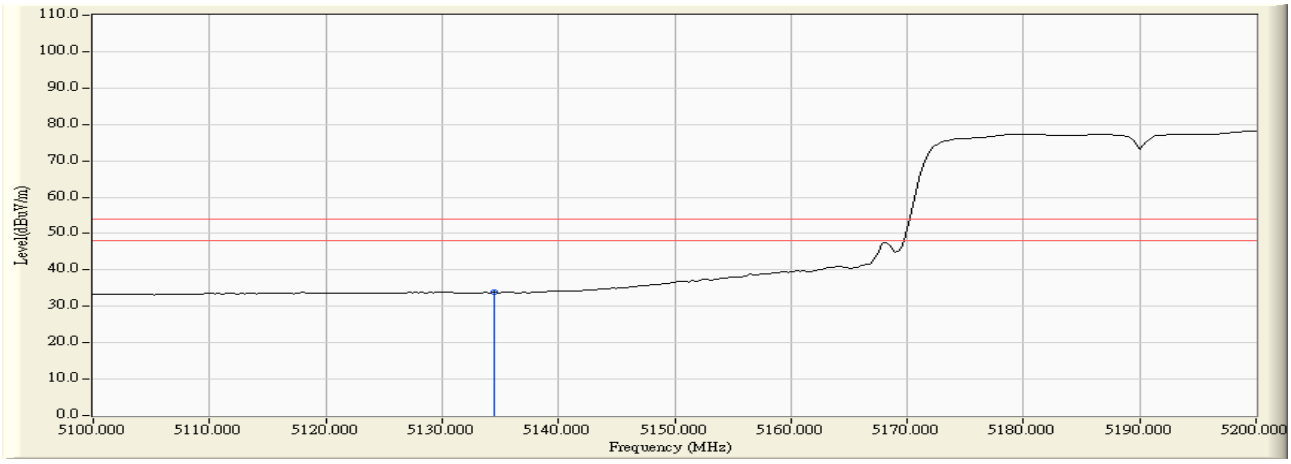
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5134.500	3.259	57.706	60.965	74.00	54.00	Pass
01(Average)	5134.500	3.259	30.555	33.814	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



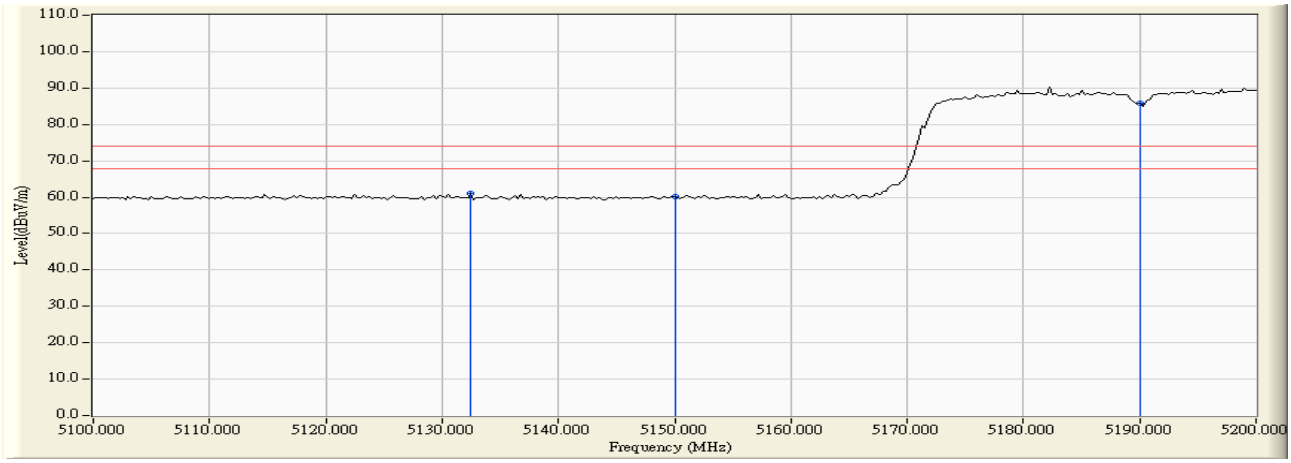
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.B)

RF Radiated Measurement (Vertical):

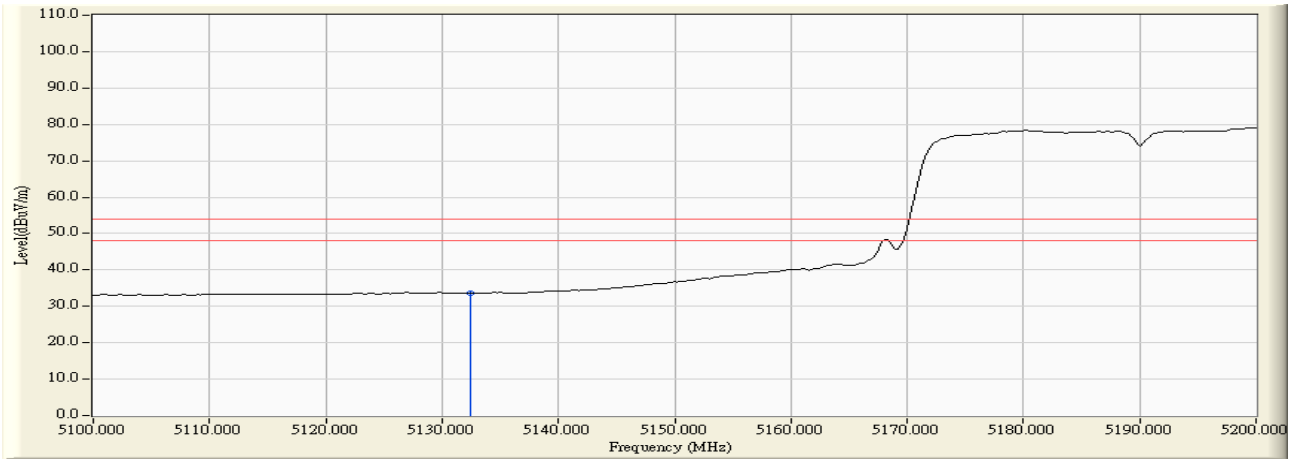
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	5132.500	3.259	57.692	60.951	74.00	54.00	Pass
01(Average)	5132.500	3.259	30.335	33.594	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



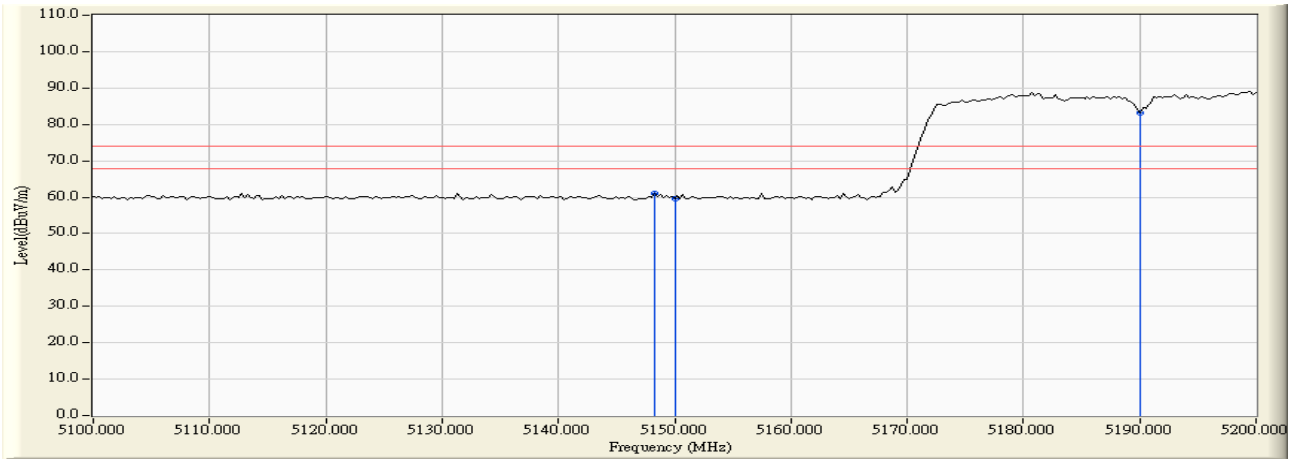
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

RF Radiated Measurement (Horizontal):

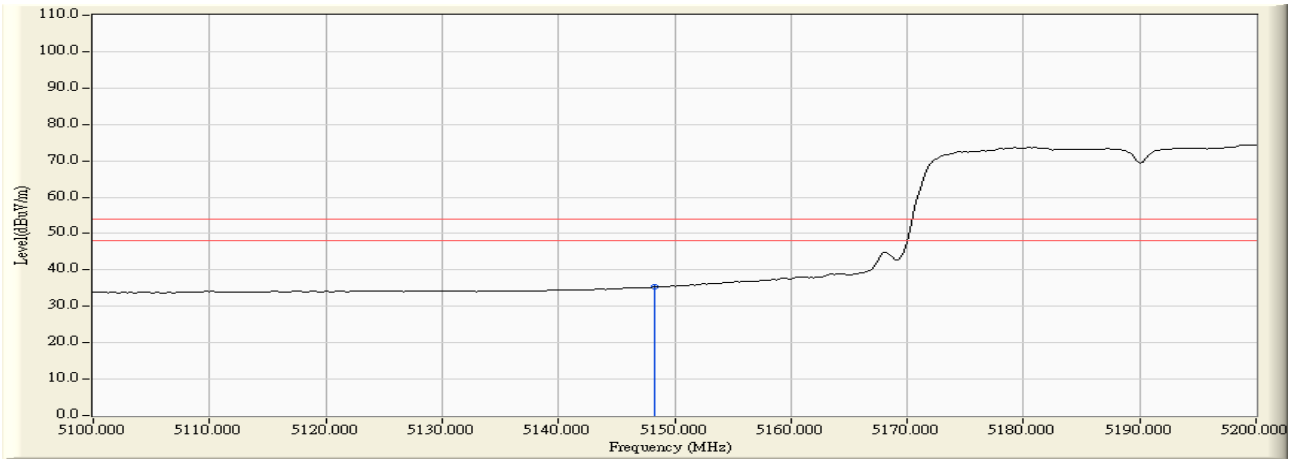
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	5148.250	3.259	57.665	60.924	74.00	54.00	Pass
01(Average)	5148.250	3.259	32.012	35.271	74.00	54.00	Pass

Figure Channel 01: **Horizontal** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Horizontal** (Average)



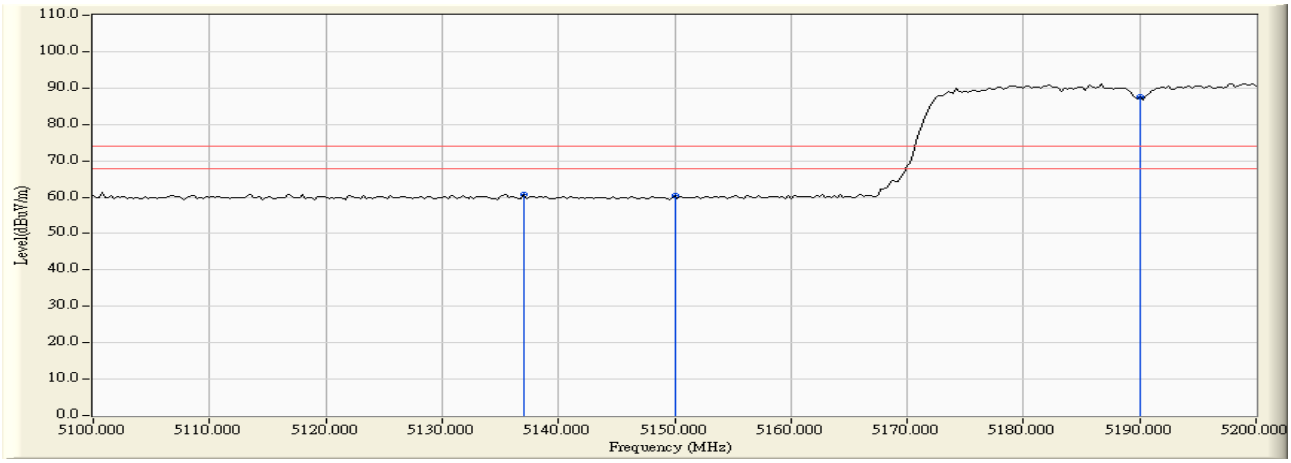
Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1) (5190MHz) (Ch.A+Ch.B)

RF Radiated Measurement (Vertical):

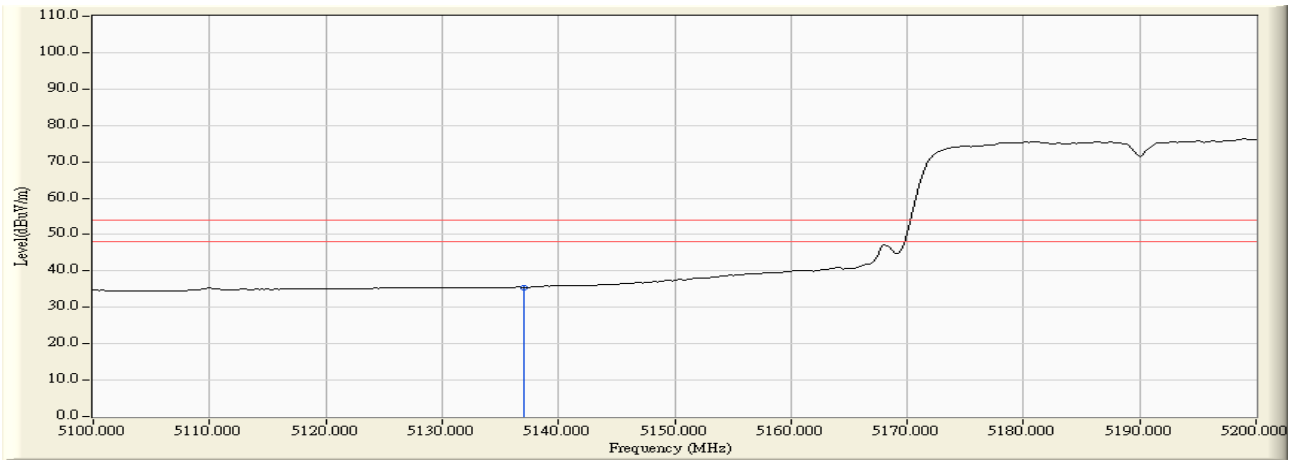
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	5137.000	3.259	57.573	60.832	74.00	54.00	Pass
01(Average)	5137.000	3.259	32.240	35.499	74.00	54.00	Pass

Figure Channel 01: **Vertical** (Peak)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Figure Channel 01: **Vertical** (Average)



Note: RBW=1MHz, VBW=1MHz, Sweep=500ms

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

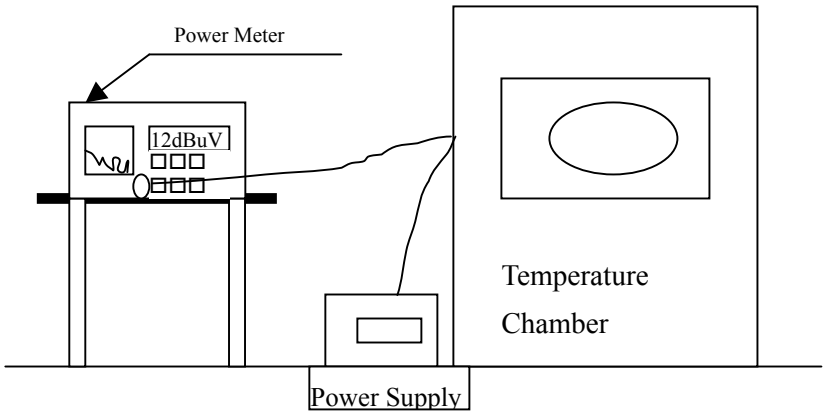
8. Frequency Stability

8.1. Test Equipment

Equipment	Manufacturer	Model No./Serial No.	Last Cal.	Remark
Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007	
Temperature Chamber	WIT GROUP	TH-1S-B / WIT-02121901	June, 2006	

Note: All equipments are calibrated every one year.

8.2. Test Setup



8.3. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.4. Uncertainty

± 150 Hz

8.5. Test Result of Frequency Stability

Product : Notebook P.C.
Test Item : Frequency Stability
Test Site : Temperature Chamber
Test Mode : Mode 1: Transmitter 802.11a-(Ant.1)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) °C	Vnom (110)V	1	5180.00	5179.95	0.05
		3	5220.00	5219.95	0.05
		4	5240.00	5239.95	0.05
Tnom (25) °C	Vnom (126.5)V	1	5180.00	5179.95	0.05
		3	5220.00	5219.95	0.05
		4	5240.00	5239.95	0.05
Tnom (25) °C	Vnom (93.5)V	1	5180.00	5179.95	0.05
		3	5220.00	5219.95	0.05
		4	5240.00	5239.95	0.05
Tnom (15) °C	Vnom (126.5)V	1	5180.00	5179.95	0.05
		3	5220.00	5219.95	0.05
		4	5240.00	5239.95	0.05
Tnom (15) °C	Vnom (93.5)V	1	5180.00	5179.95	0.05
		3	5220.00	5219.95	0.05
		4	5240.00	5239.95	0.05

Product : Notebook P.C.
Test Item : Frequency Stability
Test Site : Temperature Chamber
Test Mode : Mode 3: Transmitter 802.11n (40MHz)-(Ant.1)

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20) °C	Vnom (110)V	1	5190.00	5189.95	0.05
Tnom (25) oC	Vnom (126.5)V	1	5190.00	5189.95	0.05
Tnom (25) °C	Vnom (93.5)V	1	5190.00	5189.95	0.05
Tnom (15) °C	Vnom (126.5)V	1	5190.00	5189.95	0.05
Tnom (15) °C	Vnom (93.5)V	1	5190.00	5189.95	0.05

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.