Test Report

Product Name	Notebook P.C.
Model No	N3400 Series
FCC ID.	C8V-N3400NILE

Applicant	TriGem Computer, Inc
Address	1125-1 Shingil-Dong Danwon-Gu, Ansan-Shi Kyunggi-Do 425-839, Korea

Date of Receipt	Dec. 19, 2008
Issue Date	Jan. 16, 2009
Report No.	08C272R-RFUSP05V01
Version	V1.0

Test Report Certification

Issue Date: Jan. 16, 2009
Report No.: 08C272R-RFUSP05V01

Accredited by NIST (NVLAP)
NVLAP Lab Code: 200533-0

Product Name	Notebook P.C.
Applicant	TriGem Computer, Inc
Address	1125-1 Shingil-Dong Danwon-Gu, Ansan-Shi Kyunggi-Do 425-839, Korea
Manufacturer	PEGATRON CORPORATION
Model No.	N3400 Series
Rated Voltage	AC 120V/60Hz
Working Voltage	DC 3.3V
Trade Name	AVERATEC
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2007 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

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(Engineering Adm. Specialist / Rita Huang)

Tested By : Molin huang
(Engineer / Molin Huang)

Approved By :
(Manager / Vincent Lin)

Testing Laboratory
0914

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Notebook P.C.
Trade Name	AVERATEC
FCC ID.	C8V-N3400NILE
Model No.	N3400 Series
Frequency Range	2412-2472MHz, 5745-5825MHz
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7 802.11a/n-20MHz: 5, n-40MHz: 2
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: 13.5-300Mbps
Channel separation	802.11b/g/n-20MHz: 5 MHz, 802.11a/n-20MHz: 20MHz 802.11n-40MHz: 40MHz
Type of Modulation	802.11b:DSSS DBPSK, DQPSK, CCK 802.11a/g/n: OFDM BPSK, QPSK, 16QAM, 64QAM
Antenna Type	PCB
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
Power Adapter	MFR: AVERATEC, M/N: SADP-65KB B Input: AC100-24V, 50-60Hz 1.5A Output: 19V-3.42A Cable out: Non-Shielded, 1.8m, with one ferrite core bonded. Power Cord: Shielded, 1.7m

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	Tyco	2023687-1	-0.37dBi in 2.4 GHz
		2023686-1	0.81dBi in 5GHz
2	YAGEO	CAN 4313 831 012701B	-2.12dBi in 2.4 GHz
		CAN 4313 831 022702B	0.76dBi in 5GHz

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

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

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

802.11n-40MHz (2.4G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	2422 MHz	Channel 2:	2427 MHz	Channel 3:	2432 MHz	Channel 4:	2437 MHz
Channel 5:	2442 MHz	Channel 6:	2447 MHz	Channel 7:	2452 MHz		

802.11n-40MHz (5G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency
Channel 151:	5755 MHz	Channel 159:	5795 MHz

Note:

1. The EUT is a Notebook P.C. with a built-in 2.4GHz and 5GHz WLAN card.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps 、802.11g is 6Mbps、802.11n(20BW) is 13.5Mbps and 、802.11n(40BW) is 27Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11a/b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

1.2. Operational Description

The EUT is a Notebook P.C. with a built-in 2.4GHz and 5GHz WLAN card. This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps and the device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b). The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11a/g).

The device provided of eight kinds of transmitting speed 13.5,26,39,52,78,104,117 and 130Mbps in 802.11n(20BW) mode and 27,54,81,108,162,216,243 and 270Mbps(40BW) the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11n), the IEEE 802.11n is Multiple In, Multiple Out" (MIMO) technology.

The device adapts direct sequence spread spectrum modulation. The antenna provides diversity function to improve the receiving function and the antennas to support 1(Transmit) × 2 (Receive) MIMO technology.

This Notebook P.C. , compliant with IEEE 802.11b and IEEE 802.11a/g/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 being bound to the network wires. Operation in 2.4GHz Direst Sequence Spread Spectrum (DSSS) radio transmission, the Notebook P.C. Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b and IEEE 802.11a/g/n network.

Test Mode:	Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1
	Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1
	Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1
	Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1
	Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1
	Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1
	Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1

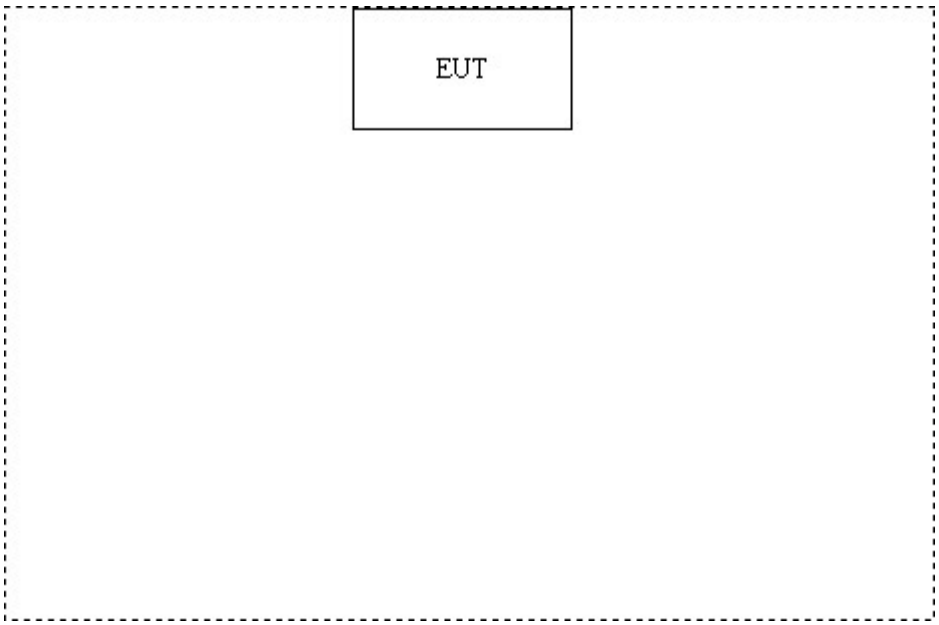
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
(1)	N/A	N/A	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A.	N/A	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 (Version 5.0.48.0000) on the EUT.

(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

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

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

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

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: 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

FCC Accreditation Number: TW1014

Testing Laboratory
0914

2. Conducted Emission

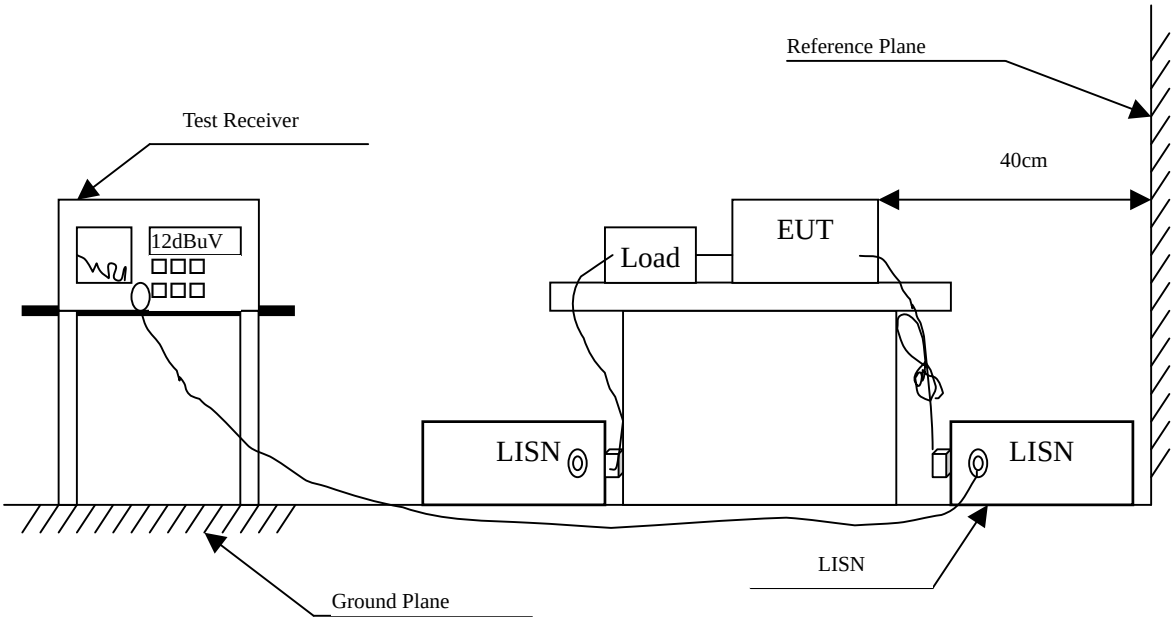
2.1. Test Equipment

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, 2008	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2008	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2008	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2008	
5	No.1 Shielded Room			N/A	

Note: All instruments 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	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

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 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.162	9.750	27.550	37.300	-28.357	65.657
0.205	9.703	42.840	52.543	-11.886	64.429
0.267	9.665	31.820	41.485	-21.172	62.657
0.935	9.670	28.030	37.700	-18.300	56.000
4.884	9.700	26.850	36.550	-19.450	56.000
18.185	9.970	13.110	23.080	-36.920	60.000
Average					
0.162	9.750	3.290	13.040	-42.617	55.657
0.205	9.703	30.270	39.973	-14.456	54.429
0.267	9.665	21.990	31.655	-21.002	52.657
0.935	9.670	18.530	28.200	-17.800	46.000
4.884	9.700	19.740	29.440	-16.560	46.000
18.185	9.970	8.420	18.390	-31.610	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
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.154	9.760	30.850	40.611	-25.275	65.886
0.201	9.716	41.920	51.636	-12.907	64.543
0.916	9.670	25.760	35.430	-20.570	56.000
5.361	9.706	27.100	36.806	-23.194	60.000
9.025	9.810	17.430	27.240	-32.760	60.000
23.002	9.970	15.170	25.140	-34.860	60.000
Average					
0.154	9.760	6.230	15.991	-39.895	55.886
0.201	9.716	29.900	39.616	-14.927	54.543
0.916	9.670	15.470	25.140	-20.860	46.000
5.361	9.706	21.050	30.756	-19.244	50.000
9.025	9.810	13.800	23.610	-26.390	50.000
23.002	9.970	9.870	19.840	-30.160	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
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.205	9.703	43.020	52.723	-11.706	64.429
0.275	9.659	31.360	41.019	-21.410	62.429
0.408	9.647	26.560	36.207	-22.422	58.629
0.939	9.670	27.340	37.010	-18.990	56.000
5.291	9.700	27.440	37.140	-22.860	60.000
24.279	10.080	15.380	25.460	-34.540	60.000
Average					
0.205	9.703	30.360	40.063	-14.366	54.429
0.275	9.659	21.530	31.189	-21.240	52.429
0.408	9.647	21.100	30.747	-17.882	48.629
0.939	9.670	16.400	26.070	-19.930	46.000
5.291	9.700	21.510	31.210	-18.790	50.000
24.279	10.080	9.640	19.720	-30.280	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
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.158	9.756	29.140	38.896	-26.875	65.771
0.201	9.716	42.240	51.956	-12.587	64.543
0.275	9.669	30.700	40.369	-22.060	62.429
0.939	9.670	25.310	34.980	-21.020	56.000
5.361	9.706	26.960	36.666	-23.334	60.000
23.607	10.030	15.330	25.360	-34.640	60.000
Average					
0.158	9.756	4.860	14.616	-41.155	55.771
0.201	9.716	30.180	39.896	-14.647	54.543
0.275	9.669	21.710	31.379	-21.050	52.429
0.939	9.670	14.800	24.470	-21.530	46.000
5.361	9.706	20.850	30.556	-19.444	50.000
23.607	10.030	10.140	20.170	-29.830	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
4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, antenna ports (if EUT with antenna diversity architecture), and data rate.
5. Only worst case is shown in the test mode.

3. Peak Power Output

3.1. Test Equipment

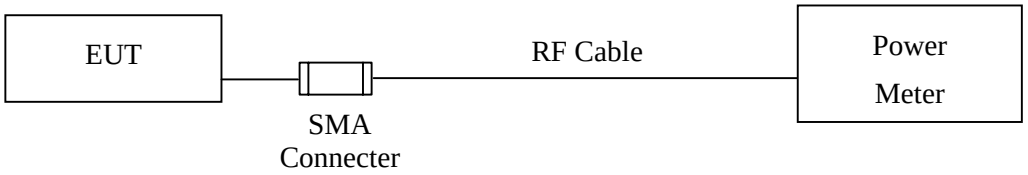
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2008
X	Power Sensor	Anritsu	MA2491A/034457	May, 2008

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup

Conducted Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)				
Channel No.	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412.00	20.22	--	--	--	1Watt= 30 dBm
6	2437.00	20.17	19.33	19.01	18.99	1Watt= 30 dBm
11	2462.00	20.14	--	--	--	1Watt= 30 dBm

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
1	2412.00	20.11	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	23.99	23.51	23.03	22.88	22.16	21.95	21.43	21.02	1Watt= 30 dBm
11	2462.00	23.20	--	--	--	--	--	--	--	1Watt= 30 dBm

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1

Cable loss=1dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
149	5745.00	20.60	--	--	--	--	--	--	--	1Watt= 30 dBm
157	5785.00	20.11	19.13	18.56	18.02	17.49	17.05	16.63	15.23	1Watt= 30 dBm
165	5825.00	20.25	--	--	--	--	--	--	--	1Watt= 30 dBm

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		13.5	26	39	52	78	104	117	130	
1	2412.00	24.10	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	24.00	21.68	21.13	20.84	20.11	19.62	19.11	18.66	1Watt= 30 dBm
11	2462.00	23.90	--	--	--	--	--	--	--	1Watt= 30 dBm

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		27	54	81	108	162	216	243	270	
1	2422.00	24.20	--	--	--	--	--	--	--	1Watt= 30
4	2437.00	22.97	22.13	21.63	21.03	20.74	20.16	19.73	19.22	1Watt= 30
7	2452.00	20.45	--	--	--	--	--	--	--	1Watt= 30

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	21.51	--	--	--	--	--	--	--	1Watt= 30
157	5785	20.92	19.31	18.56	18.04	17.55	17.03	16.59	16.14	1Watt= 30
165	5825	20.23	--	--	--	--	--	--	--	1Watt= 30

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

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1

Cable loss=0.5dB		Peak Power Output (dBm)								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit (dBm)
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	21.43	20.02	19.62	19.23	18.68	18.11	17.61	17.05	1Watt= 30
159	5795	20.91	--	--	--	--	--	--	--	1Watt= 30

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

4. Radiated Emission

4.1. Test Equipment

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

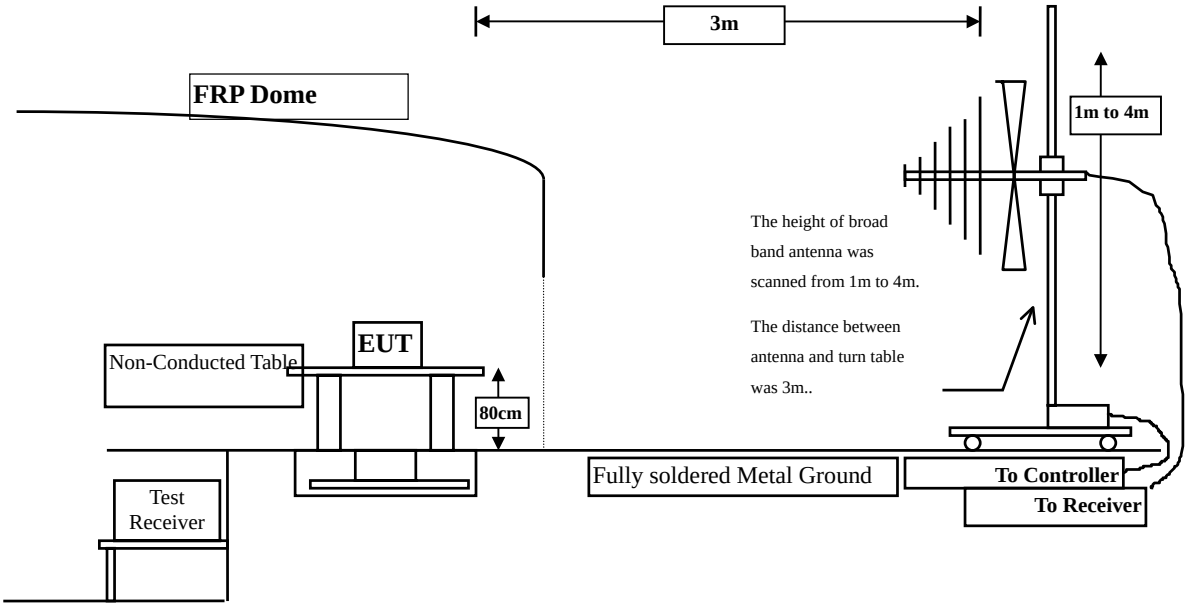
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2008
	X	Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2008
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2008
	X	Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2008
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2008
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

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

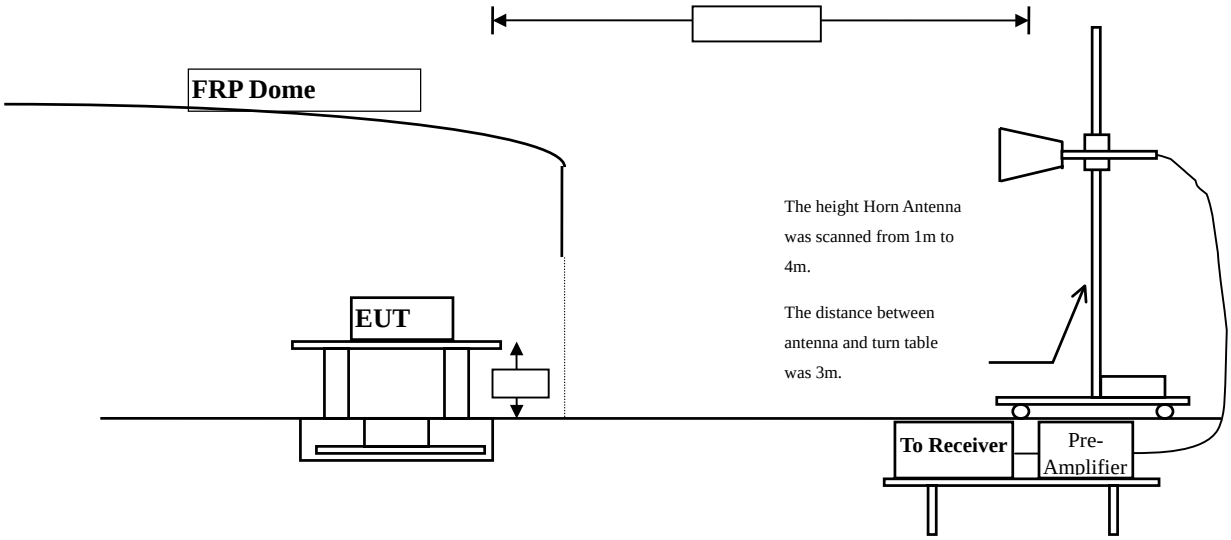
2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. Limits

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

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

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

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

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

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

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

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

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB beamwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The frequency range from 30MHz to 10th harminics is checked.

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	-1.868	43.690	41.822	-32.178	74.000
7236.000	1.849	42.670	44.519	-29.481	74.000
9648.000	6.359	41.790	48.149	-25.851	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-1.868	43.400	41.532	-32.468	74.000
7236.000	1.849	41.290	43.139	-30.861	74.000
9648.000	6.359	42.170	48.529	-25.471	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	-1.686	42.350	40.664	-33.336	74.000
7311.000	2.285	41.840	44.125	-29.875	74.000
9748.000	5.809	40.980	46.789	-27.211	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-1.686	42.880	41.194	-32.806	74.000
7311.000	2.285	41.730	44.015	-29.985	74.000
9748.000	5.809	42.090	47.899	-26.101	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	-1.505	42.930	41.425	-32.575	74.000
7386.000	2.596	41.840	44.436	-29.564	74.000
9848.000	7.743	40.750	48.494	-25.506	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-1.505	42.590	41.085	-32.915	74.000
7386.000	2.596	42.400	44.996	-29.004	74.000
9848.000	7.743	40.880	48.624	-25.376	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	-1.868	42.690	40.822	-33.178	74.000
7236.000	1.849	41.860	43.709	-30.291	74.000
9648.000	6.359	41.640	47.999	-26.001	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-1.868	42.670	40.802	-33.198	74.000
7236.000	1.849	42.900	44.749	-29.251	74.000
9648.000	6.359	41.580	47.939	-26.061	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	-1.686	42.310	40.624	-33.376	74.000
7311.000	2.285	41.900	44.185	-29.815	74.000
9748.000	5.809	41.120	46.929	-27.071	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-1.686	42.590	40.904	-33.096	74.000
7311.000	2.285	42.650	44.935	-29.065	74.000
9748.000	5.809	41.320	47.129	-26.871	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	-1.505	42.380	40.875	-33.125	74.000
7386.000	2.596	41.360	43.956	-30.044	74.000
9848.000	7.743	40.990	48.734	-25.266	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-1.505	42.920	41.415	-32.585	74.000
7386.000	2.596	40.900	43.496	-30.504	74.000
9848.000	7.743	41.200	48.944	-25.056	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5745 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000	6.655	42.290	48.944	-25.026	74.000
17235.000	5.738	43.690	49.428	-24.542	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11490.000	6.655	42.980	49.634	-24.336	74.000
17235.000	5.738	43.640	49.378	-24.592	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	6.386	42.380	48.766	-25.204	74.000
17355.000	5.645	43.230	48.875	-25.095	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11570.000	6.386	45.510	51.896	-22.074	74.000
17355.000	5.645	43.350	48.995	-24.975	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11650.000	7.199	42.420	49.619	-24.351	74.000
17475.000	5.834	42.080	47.914	-26.056	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11650.000	7.199	46.790	53.989	-19.981	74.000
17475.000	5.834	42.470	48.304	-25.666	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	1.526	37.500	39.026	-34.974	74.000
7236.000	5.972	36.880	42.852	-31.148	74.000
9648.000	9.848	36.500	46.348	-27.652	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4824.000	1.526	37.990	39.516	-34.484	74.000
7236.000	5.972	37.250	43.222	-30.778	74.000
9648.000	9.848	36.740	46.588	-27.412	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	1.542	38.520	40.061	-33.939	74.000
7311.000	6.125	38.330	44.456	-29.544	74.000
9748.000	10.524	36.460	46.984	-27.016	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	1.542	38.150	39.691	-34.309	74.000
7311.000	6.125	36.860	42.986	-31.014	74.000
9748.000	10.524	36.800	47.324	-26.676	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
4924.000	2.004	38.210	40.214	-33.786	74.000
7386.000	6.246	37.440	43.687	-30.313	74.000
9848.000	11.101	35.810	46.911	-27.089	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4924.000	2.004	38.330	40.334	-33.666	74.000
7386.000	6.246	38.110	44.357	-29.643	74.000
9848.000	11.101	34.850	45.951	-28.049	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2422MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	1.596	37.970	39.566	-34.434	74.000
7266.000	5.735	37.360	43.095	-30.905	74.000
9688.000	10.102	38.300	48.402	-25.598	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	1.596	36.490	38.086	-35.914	74.000
7266.000	5.735	36.880	42.615	-31.385	74.000
9688.000	10.102	37.190	47.292	-26.708	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	1.542	36.580	38.121	-35.879	74.000
7311.000	6.125	36.990	43.116	-30.884	74.000
9748.000	10.524	38.260	48.784	-25.216	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	1.542	37.250	38.791	-35.209	74.000
7311.000	6.125	38.110	44.236	-29.764	74.000
9748.000	10.524	38.590	49.114	-24.886	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2452 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	1.559	38.550	40.110	-33.890	74.000
7356.000	6.520	37.610	44.131	-29.869	74.000
9808.000	10.639	36.880	47.520	-26.480	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4904.000	1.559	37.210	38.770	-35.230	74.000
7356.000	6.520	37.680	44.201	-29.799	74.000
9808.000	10.639	37.580	48.220	-25.780	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5745MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	12.097	36.110	48.207	-25.793	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11490.000	12.097	36.780	48.877	-25.123	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	12.058	38.020	50.078	-23.922	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11570.000	12.058	38.220	50.278	-23.722	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11650.000	11.608	36.780	48.388	-25.612	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11650.000	11.608	37.330	48.938	-25.062	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	11.186	38.220	49.405	-24.595	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11510.000	11.186	37.200	48.385	-25.615	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5795 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11590.000	11.976	37.210	49.187	-24.813	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11590.000	11.976	36.990	48.967	-25.033	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
30.000	-0.230	21.758	21.528	-18.472	40.000
103.720	-8.350	34.984	26.634	-16.866	43.500
171.620	-9.780	40.913	31.133	-12.367	43.500
379.200	1.206	36.540	37.746	-8.254	46.000
674.080	2.550	32.700	35.250	-10.750	46.000
833.160	6.330	26.339	32.669	-13.331	46.000
Vertical					
30.000	-3.090	25.605	22.515	-17.485	40.000
99.840	-6.195	43.564	37.369	-6.131	43.500
171.620	-3.830	37.690	33.860	-9.640	43.500
379.200	0.786	39.628	40.414	-5.586	46.000
674.080	-0.160	38.621	38.461	-7.539	46.000
968.960	3.740	25.230	28.970	-25.030	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
30.000	-0.230	21.758	21.528	-18.472	40.000
171.620	-9.780	36.719	26.939	-16.561	43.500
237.580	-7.830	34.418	26.588	-19.412	46.000
379.200	1.206	39.840	41.046	-4.954	46.000
414.120	-0.290	36.687	36.397	-9.603	46.000
831.220	6.838	27.077	33.915	-12.085	46.000
Vertical					
64.920	-12.454	43.373	30.918	-9.082	40.000
171.620	-3.830	34.040	30.210	-13.290	43.500
379.200	0.786	38.284	39.070	-6.930	46.000
501.420	-0.283	35.517	35.234	-10.766	46.000
604.240	1.966	31.780	33.747	-12.253	46.000
796.300	2.400	27.980	30.380	-15.620	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
30.000	-0.230	21.414	21.184	-18.816	40.000
103.720	-8.350	34.596	26.246	-17.254	43.500
171.620	-9.780	39.784	30.004	-13.496	43.500
379.200	1.206	38.803	40.009	-5.991	46.000
600.360	3.240	29.680	32.920	-13.080	46.000
831.220	6.838	28.515	35.353	-10.647	46.000
Vertical					
30.000	-3.090	26.259	23.169	-16.831	40.000
99.840	-6.195	43.403	37.208	-6.292	43.500
171.620	-3.830	36.313	32.483	-11.017	43.500
379.200	0.786	41.355	42.141	-3.859	46.000
501.420	-0.283	36.226	35.943	-10.057	46.000
796.300	2.400	29.256	31.656	-14.344	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
324.880	-4.687	20.739	16.052	-29.948	46.000
383.080	1.209	23.327	24.536	-21.464	46.000
561.560	1.740	25.963	27.703	-18.297	46.000
633.340	1.350	26.309	27.659	-18.341	46.000
712.880	3.609	28.403	32.012	-13.988	46.000
858.380	6.380	26.319	32.699	-13.301	46.000
Vertical					
388.900	-0.812	24.658	23.846	-22.154	46.000
530.520	0.995	25.132	26.127	-19.873	46.000
687.660	2.124	26.619	28.743	-17.257	46.000
747.800	1.457	27.545	29.002	-16.998	46.000
823.460	2.810	28.277	31.087	-14.913	46.000
937.920	2.887	26.506	29.393	-16.607	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
266.680	-5.646	23.891	18.245	-27.755	46.000
381.140	1.292	26.373	27.665	-18.335	46.000
474.260	2.130	23.985	26.115	-19.885	46.000
518.880	3.010	22.496	25.506	-20.494	46.000
662.440	1.729	23.564	25.293	-20.707	46.000
749.740	3.753	29.010	32.763	-13.237	46.000
Vertical					
177.440	-1.400	19.504	18.104	-25.396	43.500
299.660	-4.270	20.667	16.397	-29.603	46.000
371.440	-0.420	24.191	23.771	-22.229	46.000
497.540	-0.890	24.345	23.455	-22.545	46.000
610.060	1.863	26.955	28.818	-17.182	46.000
689.600	2.131	24.061	26.192	-19.808	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
144.460	-7.875	21.584	13.709	-29.791	43.500
348.160	-1.459	22.812	21.353	-24.647	46.000
472.320	2.770	22.653	25.423	-20.577	46.000
522.760	2.988	24.025	27.013	-18.987	46.000
596.480	3.357	24.763	28.120	-17.880	46.000
852.560	6.800	22.653	29.453	-16.547	46.000
Vertical					
262.800	-5.080	22.481	17.401	-28.599	46.000
336.520	-2.156	23.670	21.514	-24.486	46.000
452.920	-5.006	21.261	16.255	-29.745	46.000
540.220	1.970	24.472	26.442	-19.558	46.000
598.420	0.884	23.870	24.754	-21.246	46.000
697.360	0.517	24.616	25.133	-20.867	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
404.420	0.811	23.456	24.267	-21.733	46.000
516.940	3.010	23.265	26.275	-19.725	46.000
633.340	1.350	25.252	26.602	-19.398	46.000
738.100	3.134	24.376	27.510	-18.490	46.000
811.820	6.020	28.857	34.877	-11.123	46.000
877.780	5.914	28.136	34.050	-11.950	46.000
Vertical					
175.500	-1.990	18.785	16.795	-26.705	43.500
326.820	-2.931	20.517	17.586	-28.414	46.000
540.220	1.970	24.425	26.395	-19.605	46.000
615.880	1.263	22.032	23.295	-22.705	46.000
689.600	2.131	24.580	26.711	-19.289	46.000
794.360	2.420	25.143	27.563	-18.437	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

5. RF antenna conducted test

5.1. Test Equipment

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

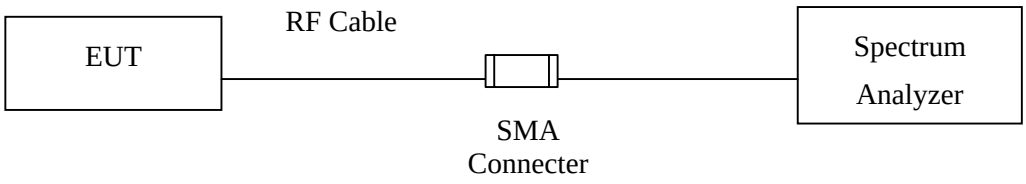
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	FSP40 / 100339	May, 2008
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008

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

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

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Uncertainty

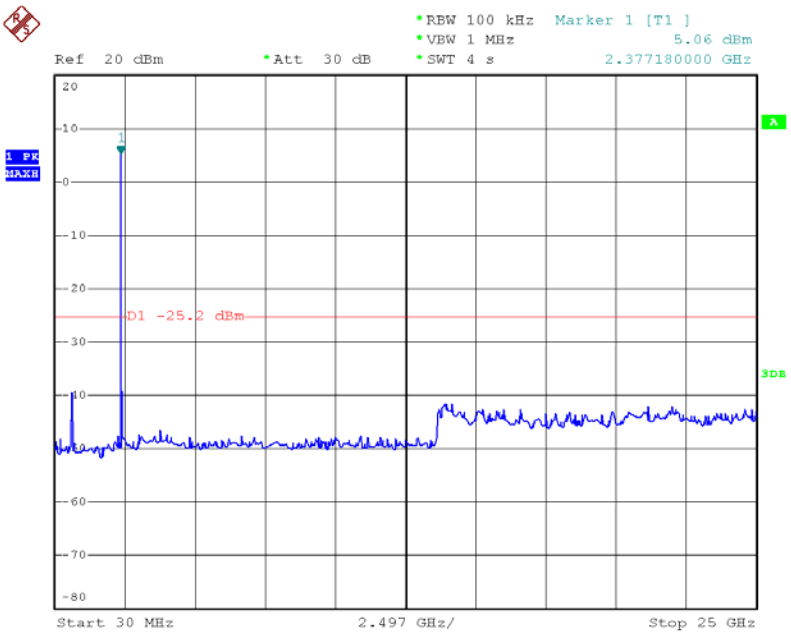
The measurement uncertainty

Conducted is defined as ± 1.27dB

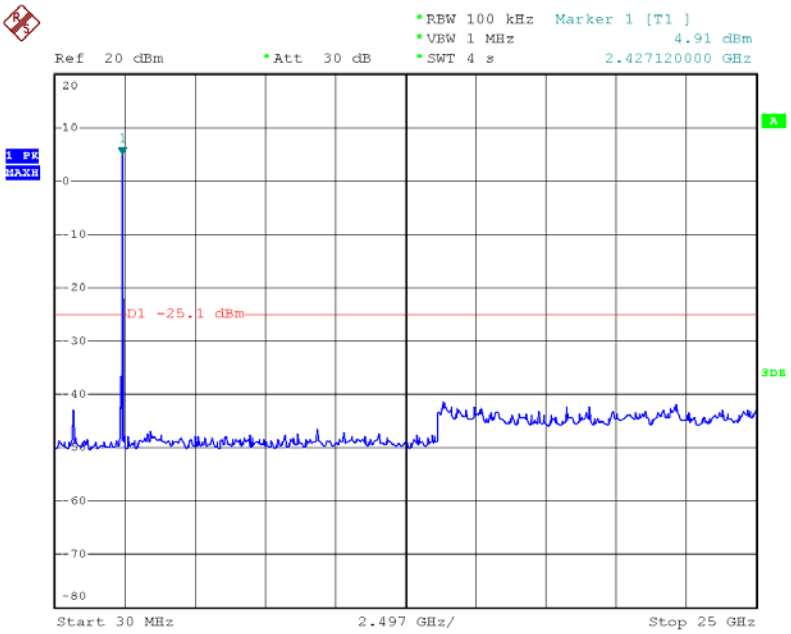
5.6. Test Result of RF antenna conducted test

Product : Notebook P.C.
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

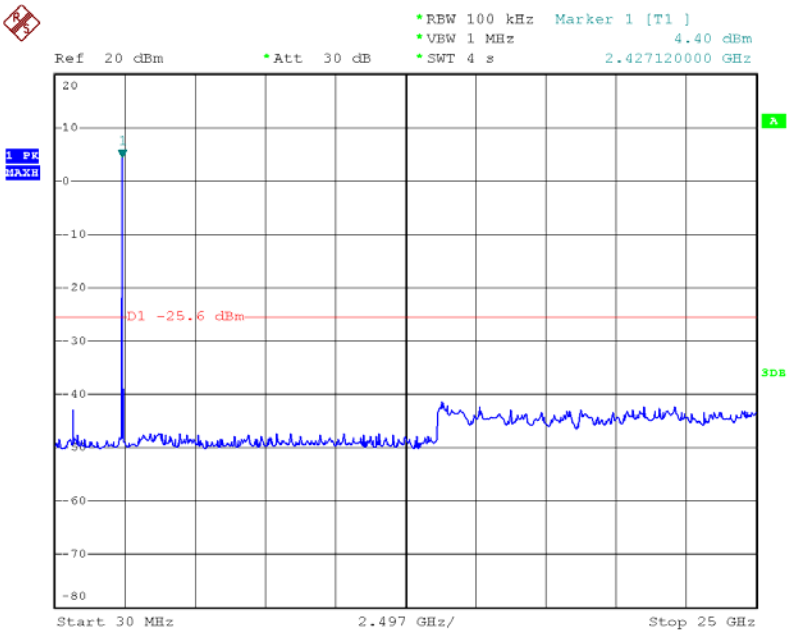
Channel 01 (2412MHz) 30MHz-25GHz



Channel 06 (2437MHz) 30MHz -25GHz

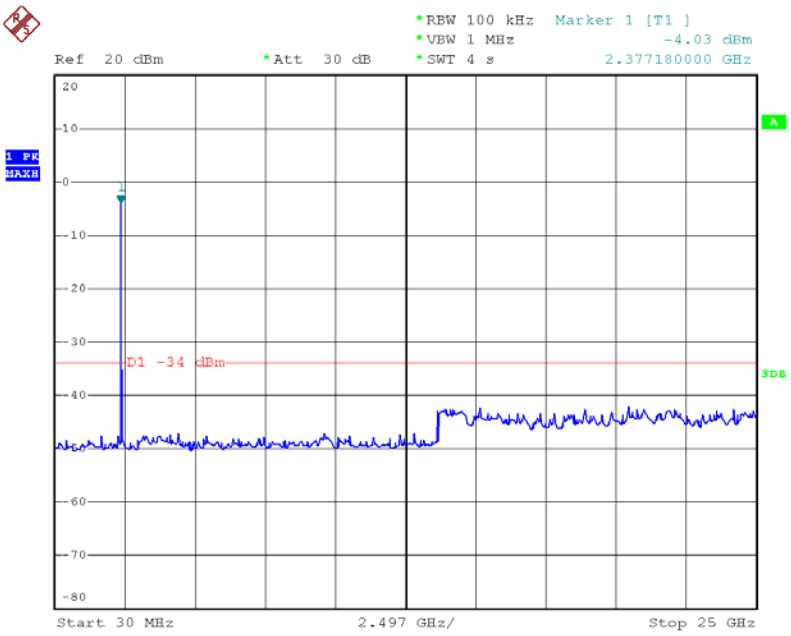


Channel 11 (2462MHz) 30MHz -25GHz

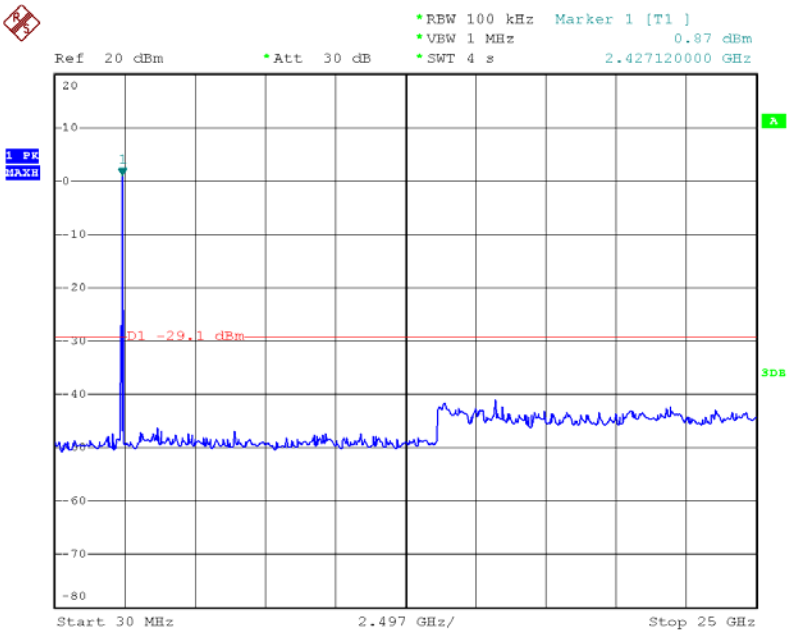


Product : Notebook P.C.
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

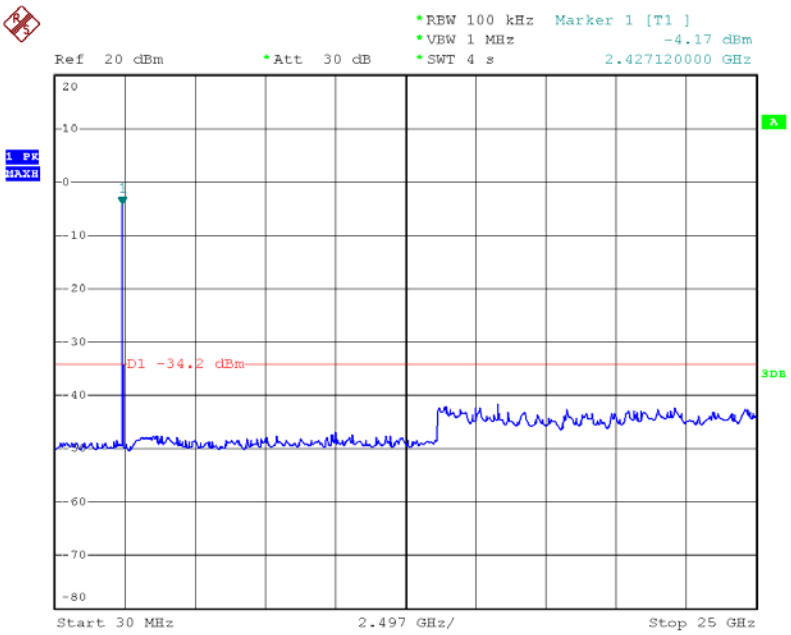
Channel 01 (2412MHz) 30MHz -25GHz



Channel 06 (2437MHz) 30MHz -25GHz



Channel 11 (2462MHz) 30MHz -25GHz



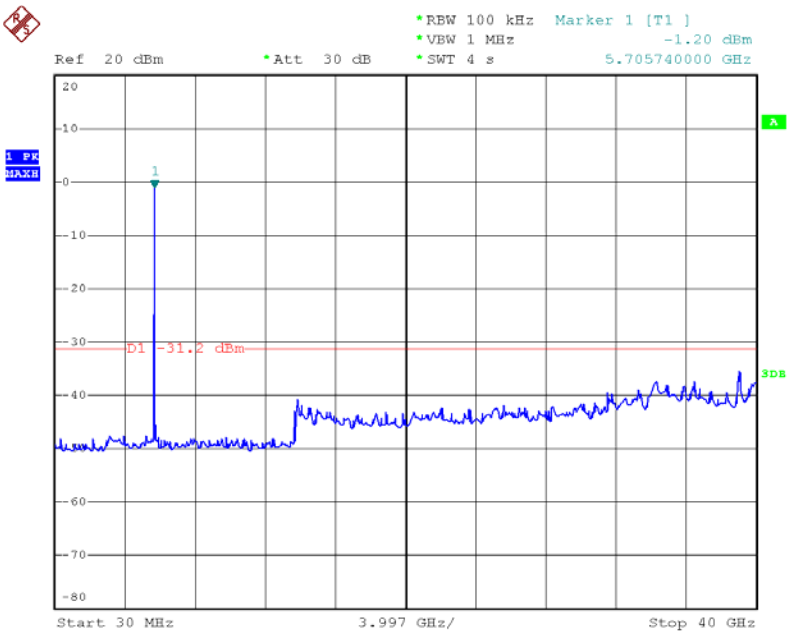
Product : Notebook P.C.

Test Item : RF Antenna Conducted Spurious

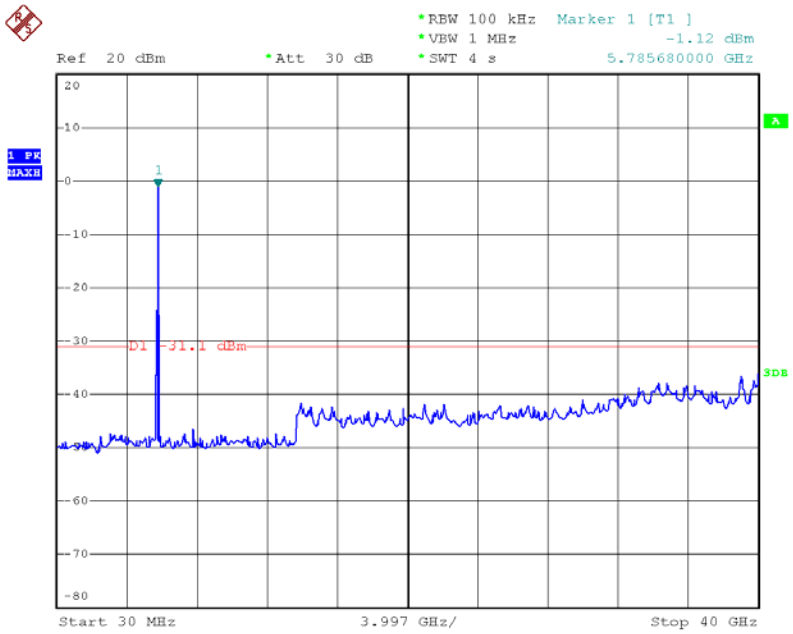
Test Site : No.3 OATS

Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1

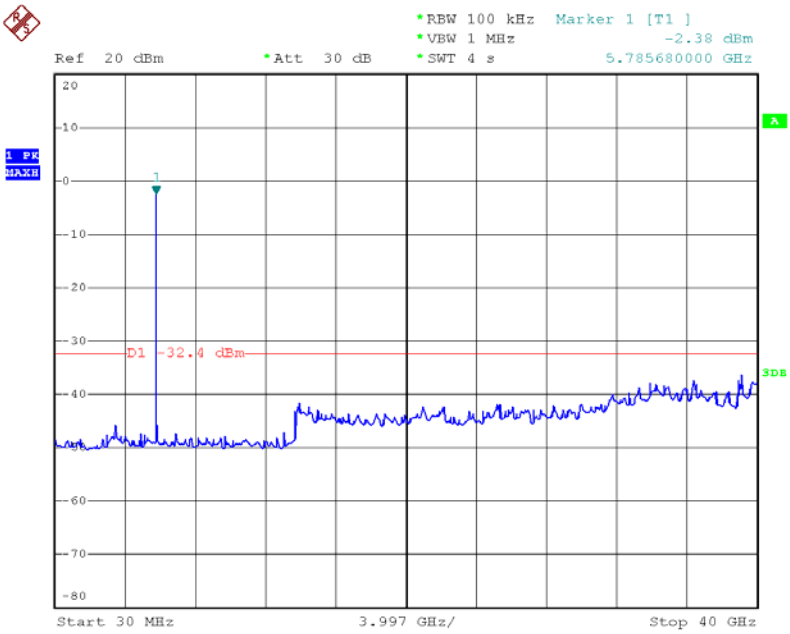
Channel 149 (5745MHz) 30MHz -40GHz



Channel 157 (5785MHz) 30MHz -40GHz

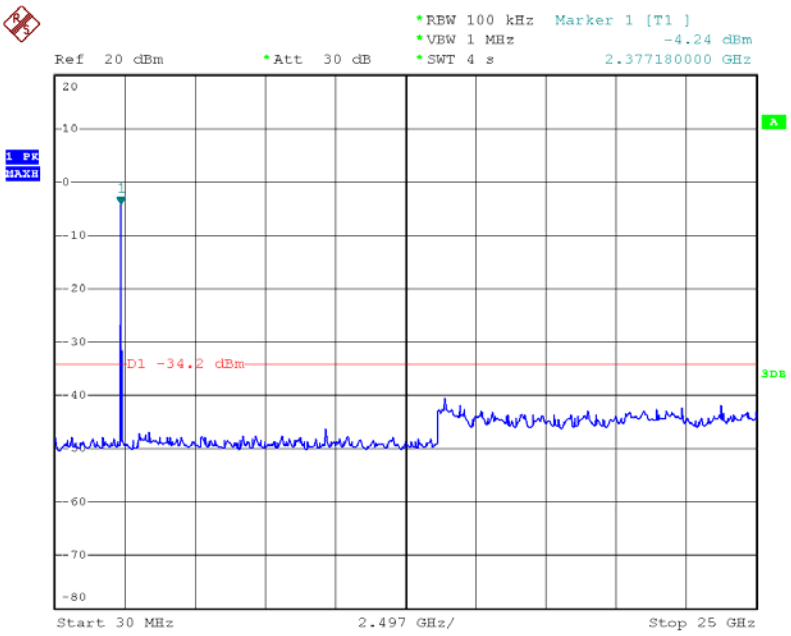


Channel 165 (5825MHz) 30MHz -40GHz

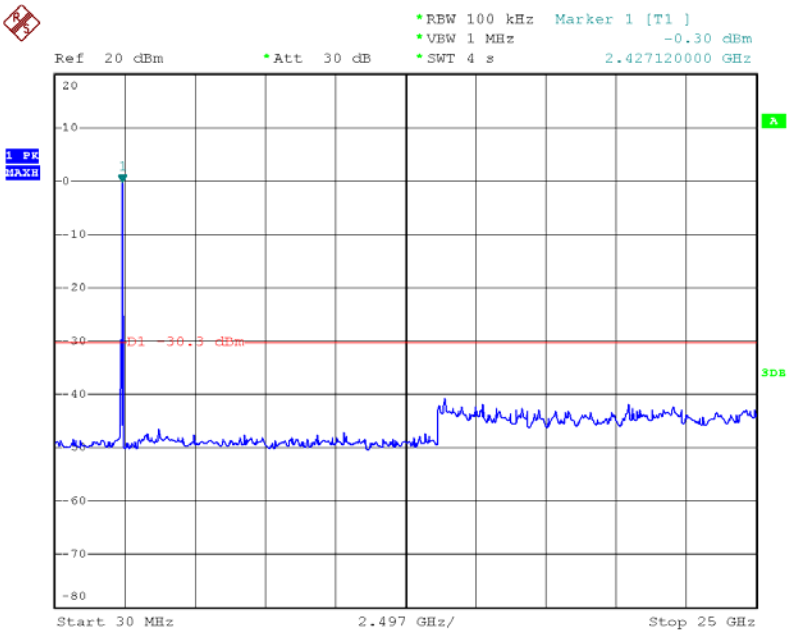


Product : Notebook P.C.
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

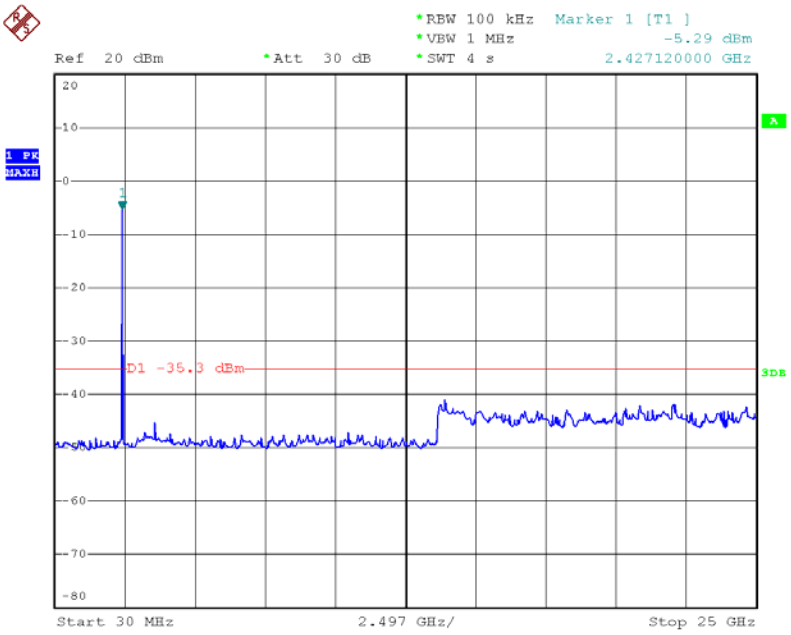
Channel 01 (2412MHz) 30MHz -25GHz



Channel 06 (2437MHz) 30MHz -25GHz

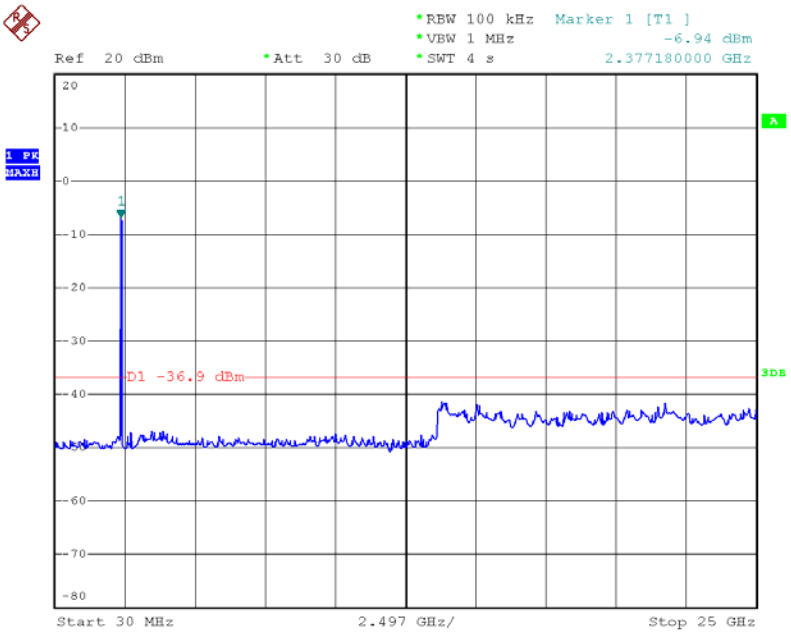


Channel 11 (2462MHz) 30MHz -25GHz

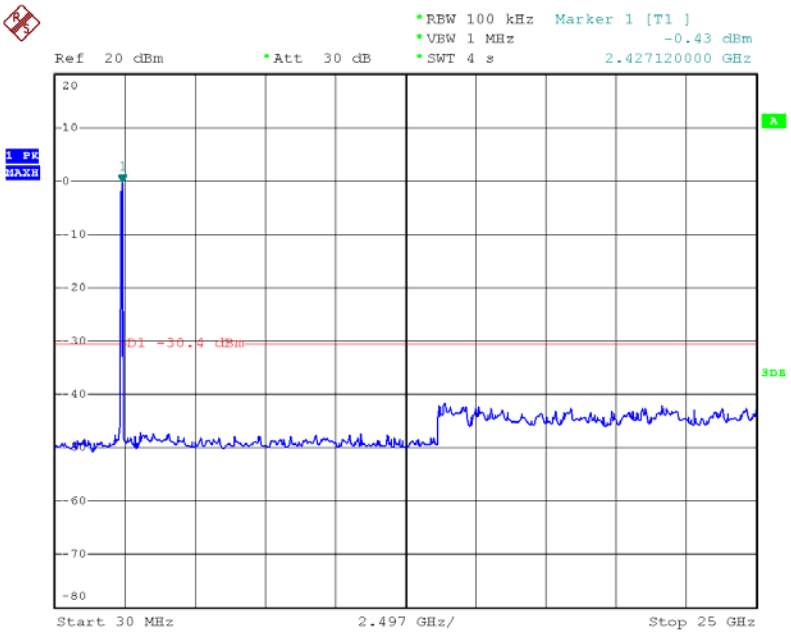


Product : Notebook P.C.
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

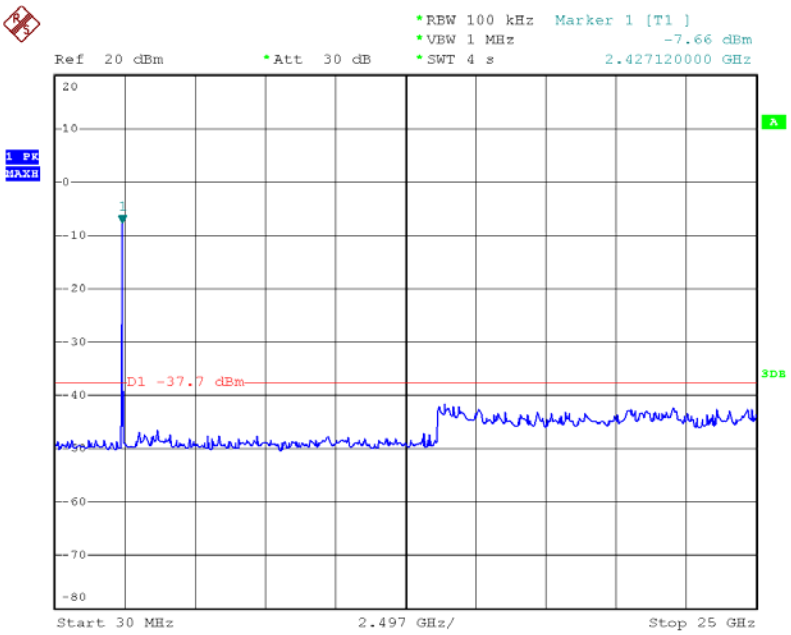
Channel 01 (2422MHz) 30MHz -25GHz



Channel 04 (2437MHz) 30MHz -25GHz

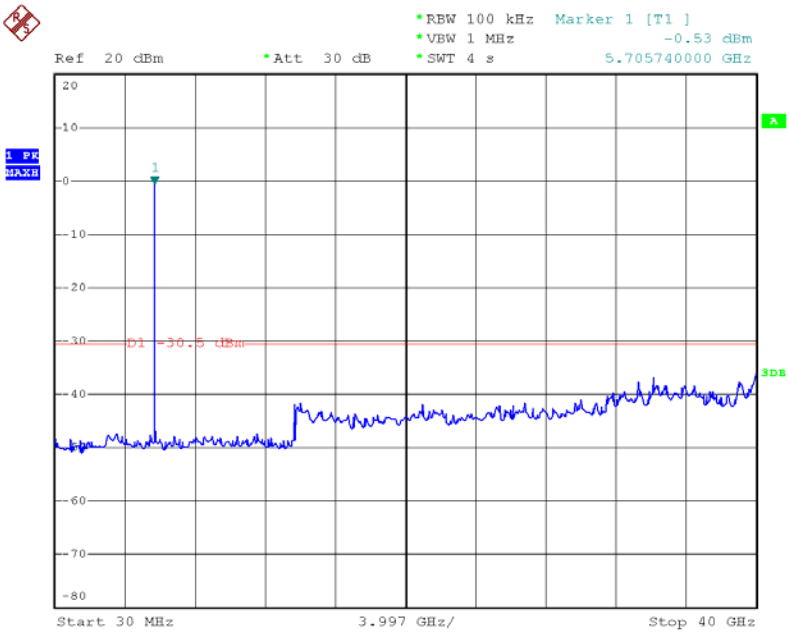


Channel 07 (2452MHz) 30MHz -25GHz

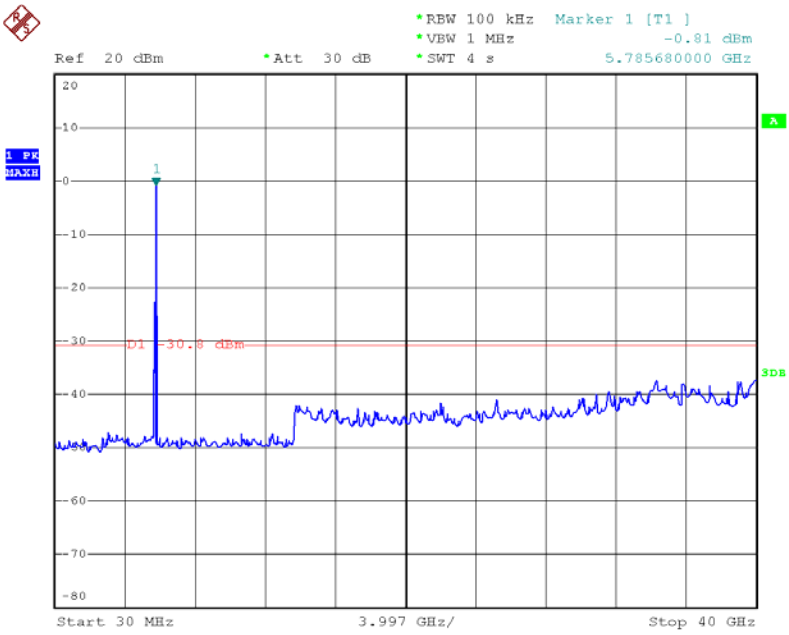


Product : Notebook P.C.
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1

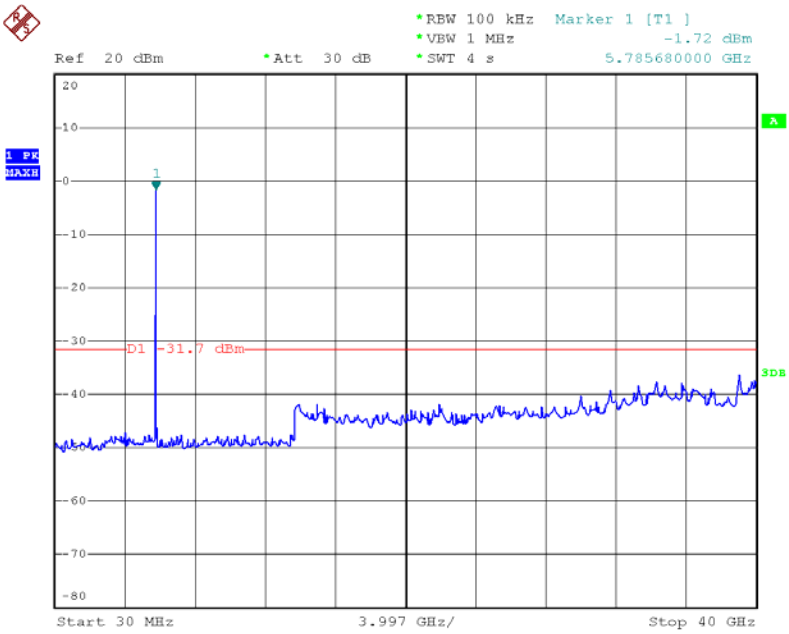
Channel 49 (5745MHz) 30MHz -40GHz



Channel 157 (5785MHz) 30MHz -40GHz

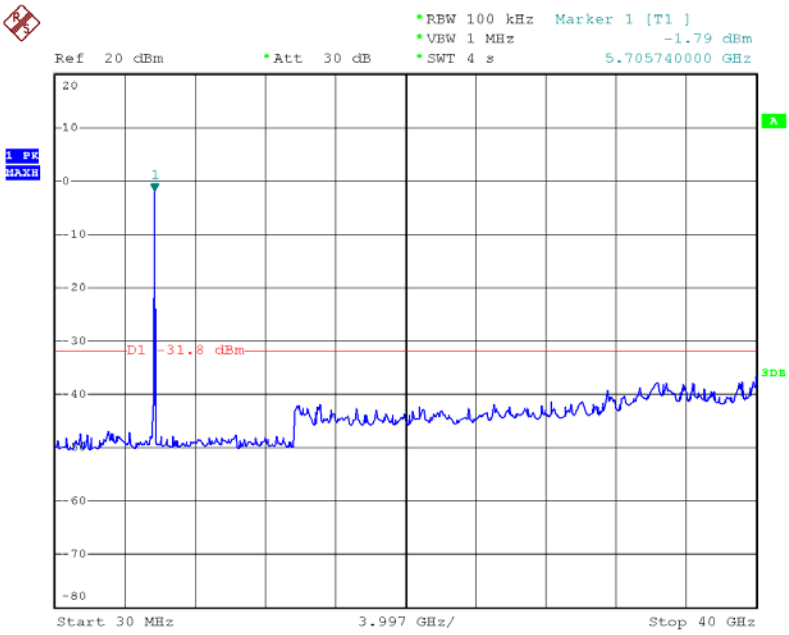


Channel 165 (5825MHz) 30MHz -40GHz

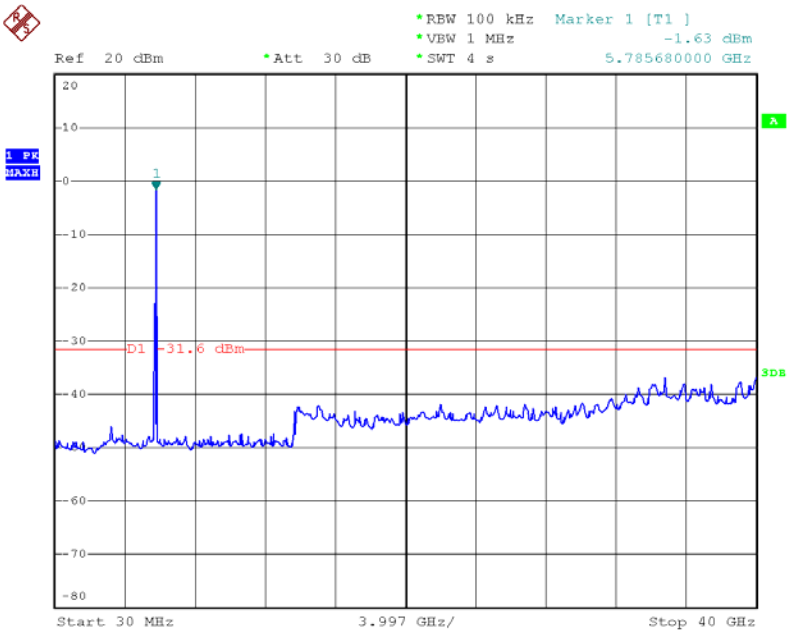


Product : Notebook P.C.
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1

Channel 151 (5755MHz) 30MHz -40GHz



Channel 159 (5795MHz) 30MHz -40GHz



6. Band Edge

6.1. Test Equipment

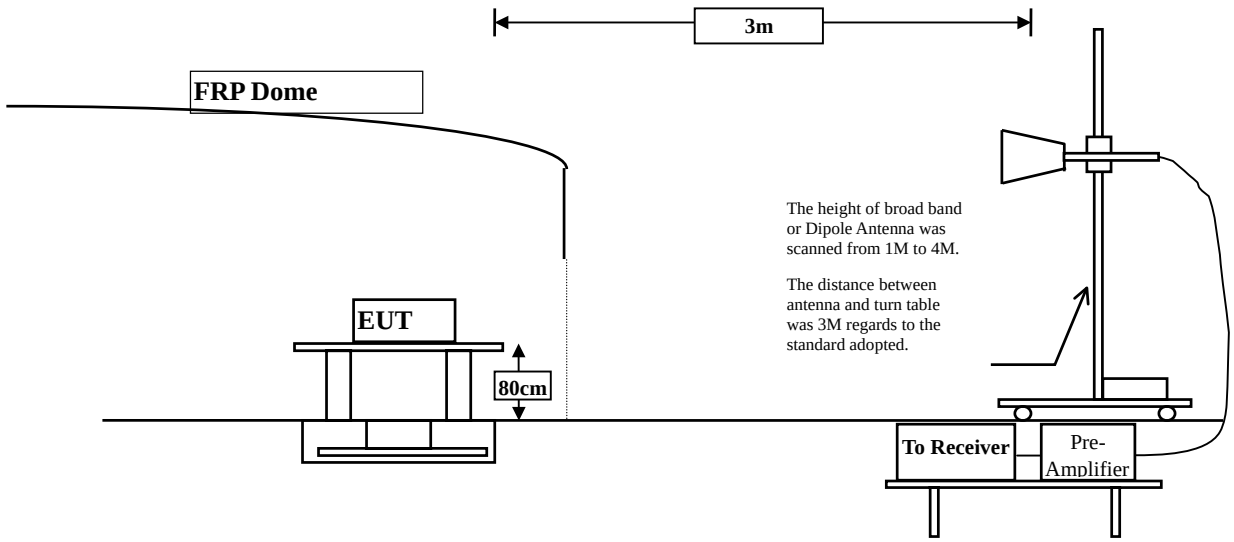
The following test equipments are used during the band edge tests:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2008
	X	Pre-Amplifier	AGILENT	8447D/2944A09549	Sep., 2008
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2008
	X	Spectrum Analyzer	Advantest	R3162/91700283	Oct., 2008
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2008
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

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

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Uncertainty

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

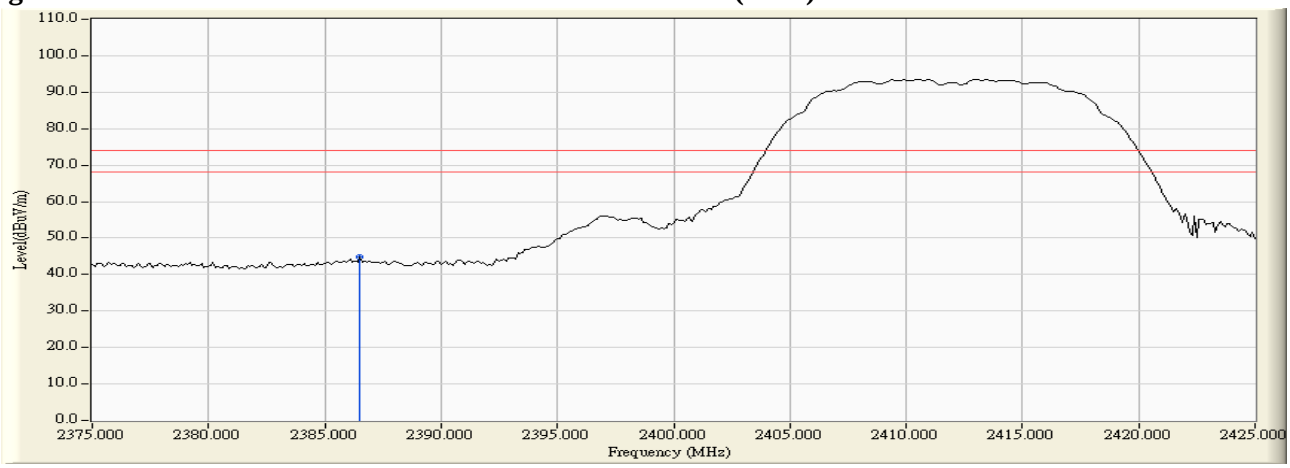
6.6. Test Result of Band Edge

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2386.500	-6.213	51.027	44.813	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01: Horizontal (Peak)



Note:

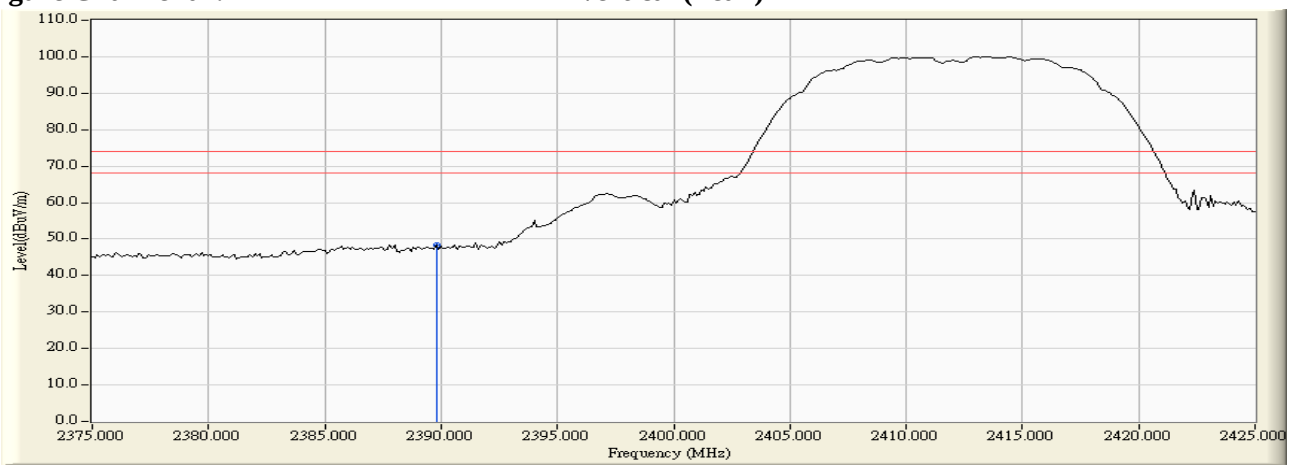
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.800	-6.161	54.522	48.360	74.00	54.00	Pass
01 (Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 01: Vertical (Peak)



Note:

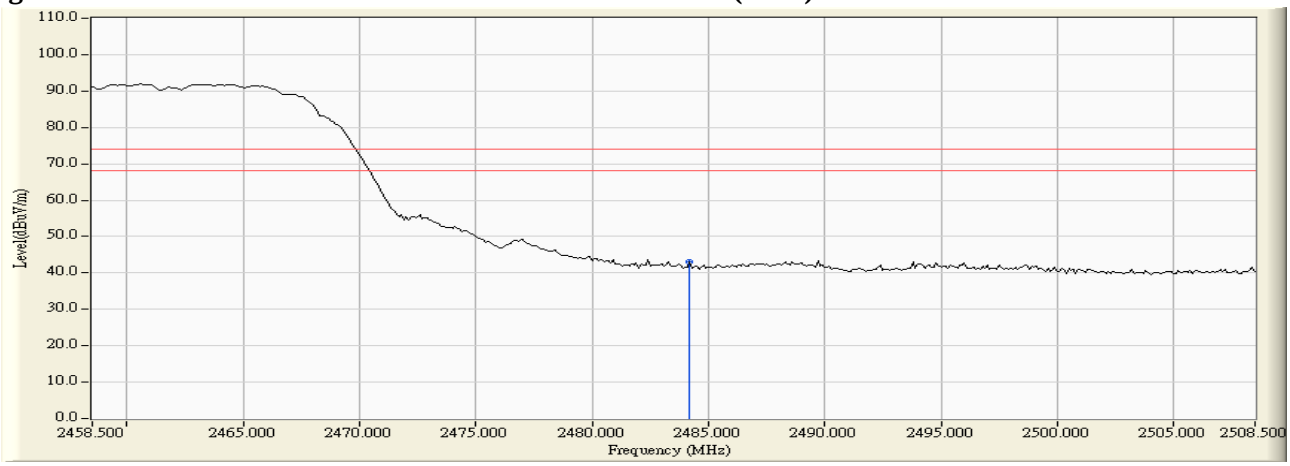
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2484.200	-5.967	48.982	43.015	74.00	54.00	Pass
11(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)



Note:

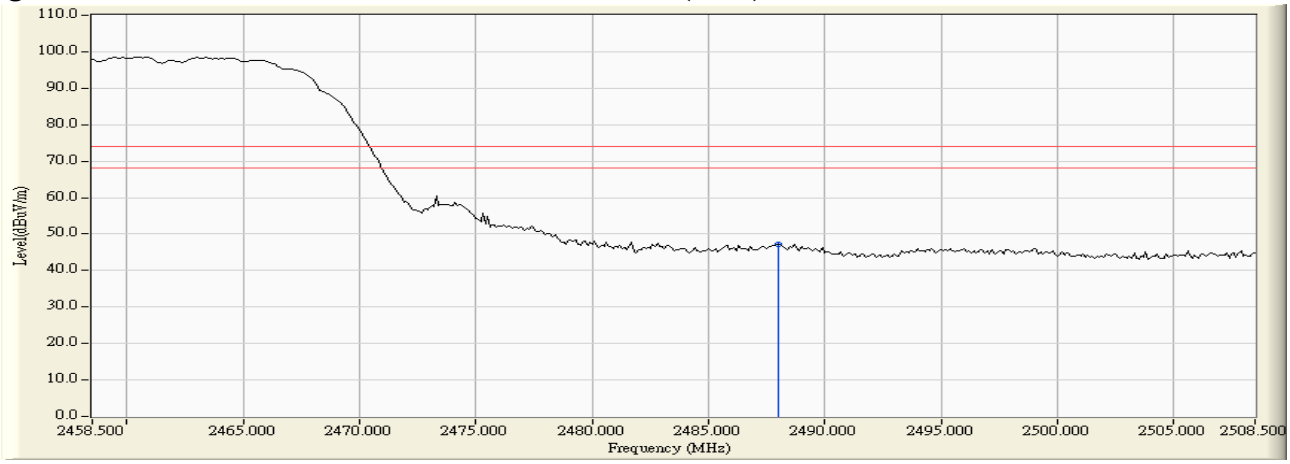
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2488.000	-5.964	53.107	47.143	74.00	54.00	Pass
11(Average)	--	--	--	--	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2389.400	29.591	69.125	62.355	74.00	54.00	Pass
01 (Average)	2389.400	-6.168	37.446	31.278	74.00	54.00	Pass

Figure Channel 01: Horizontal (Peak)

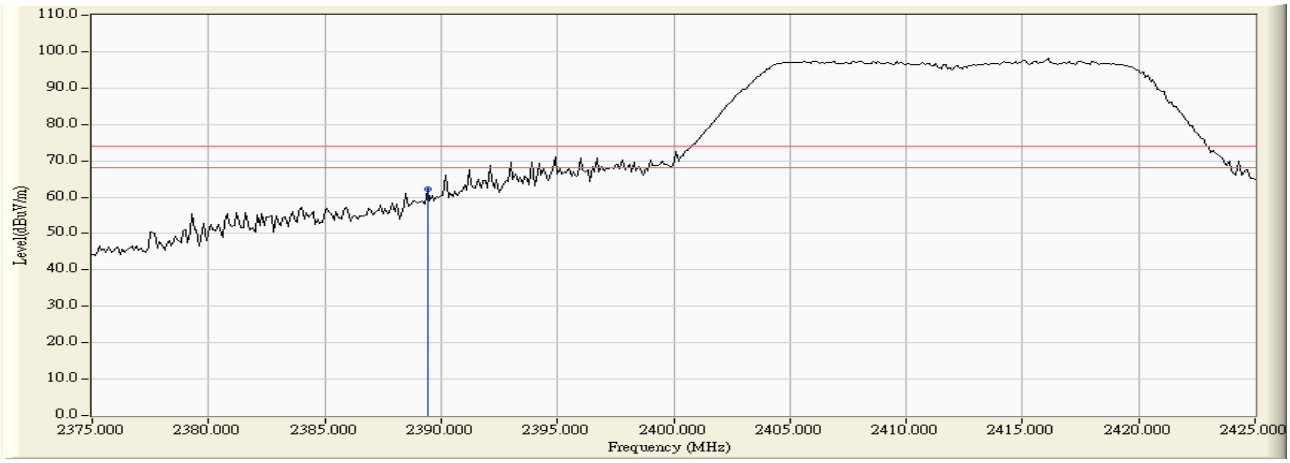
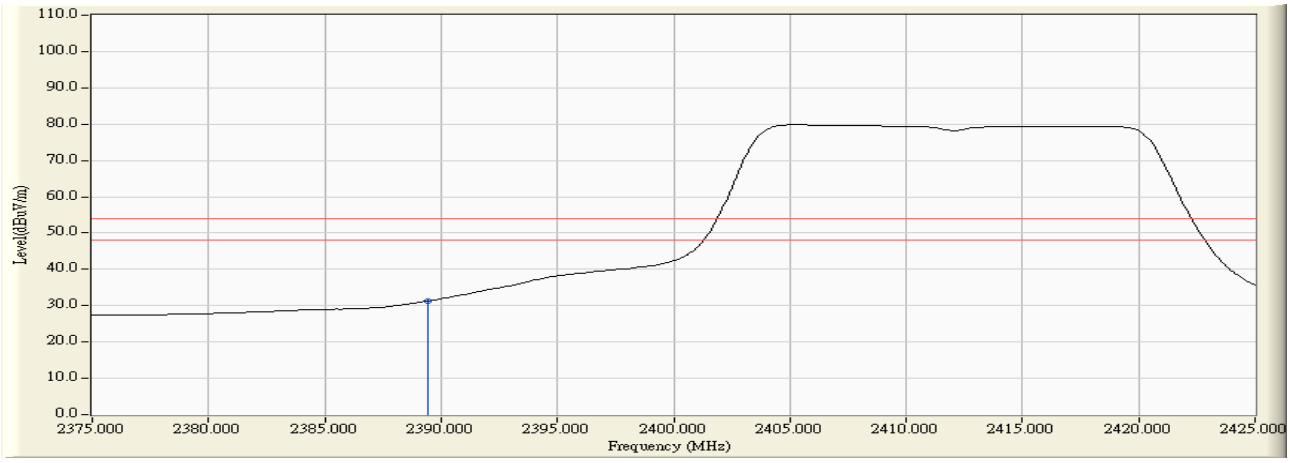


Figure Channel 01: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	-6.769	68.965	62.197	74.00	54.00	Pass
01 (Average)	2390.000	-6.159	43.400	37.242	74.00	54.00	Pass

Figure Channel 01: Vertical (Peak)

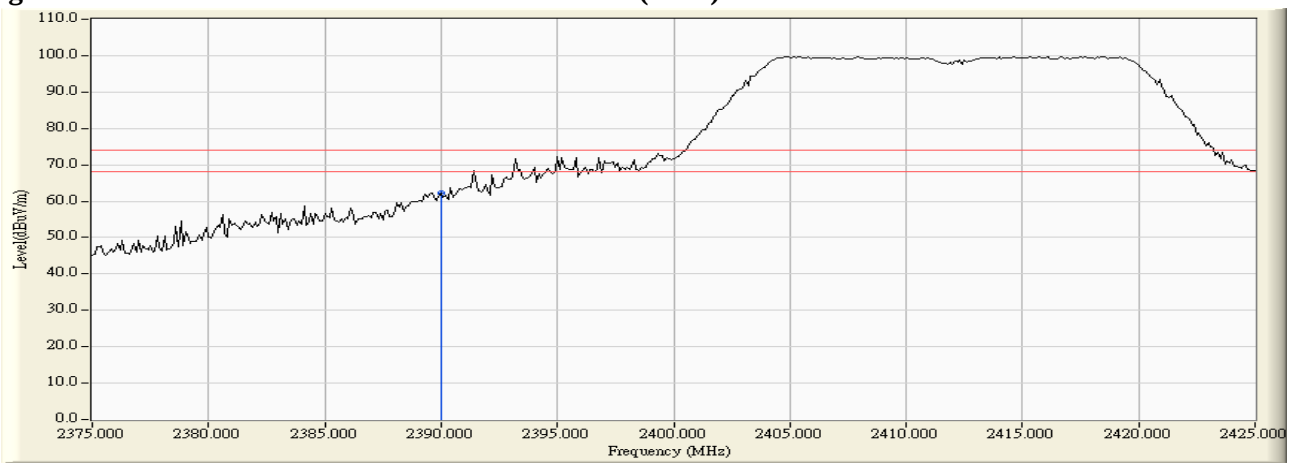
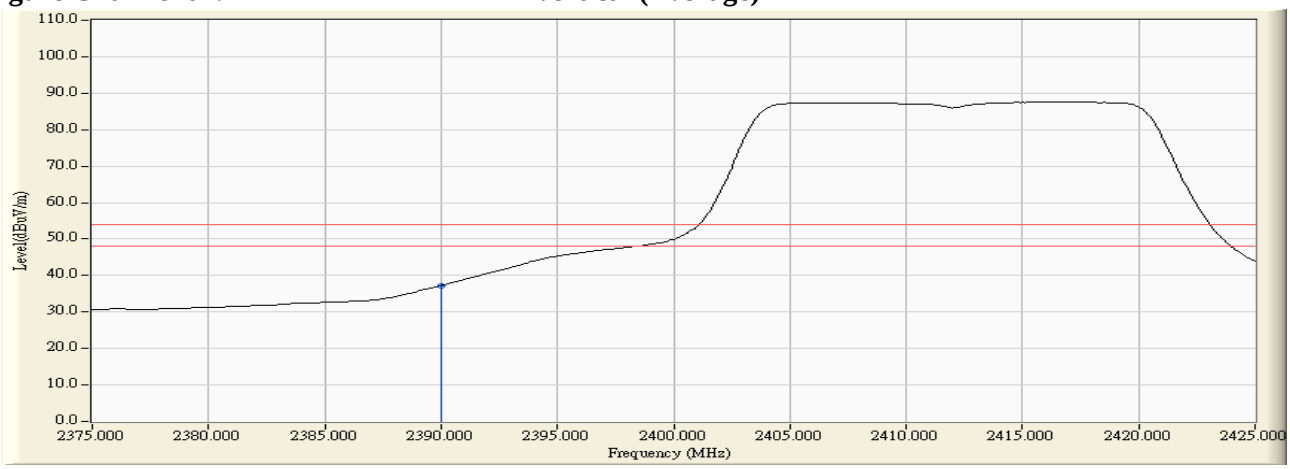


Figure Channel 01: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2484.800	-6.467	65.154	58.688	74.00	54.00	Pass
11 (Average)	2484.800	-5.967	47.316	41.350	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

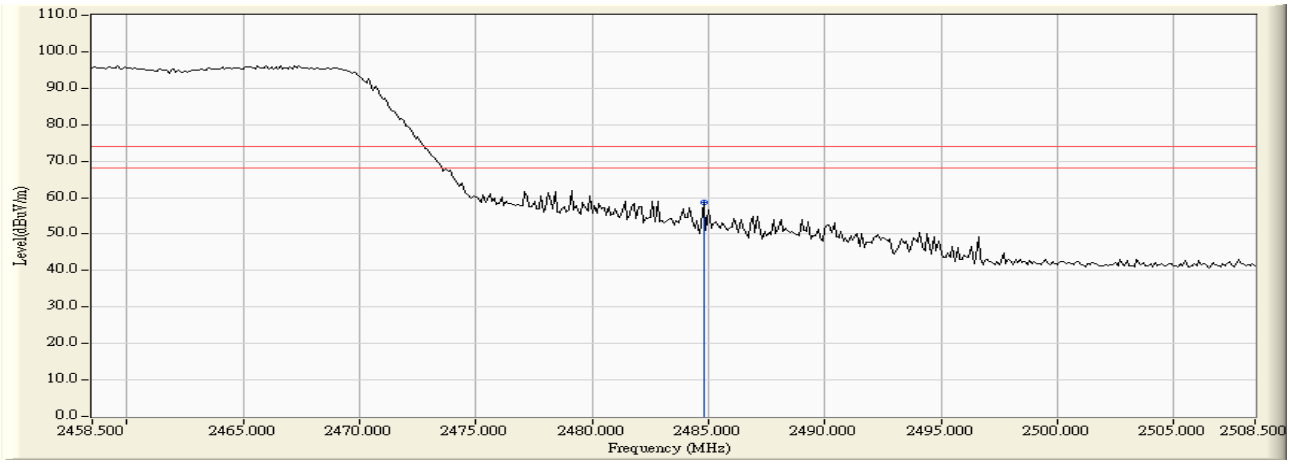
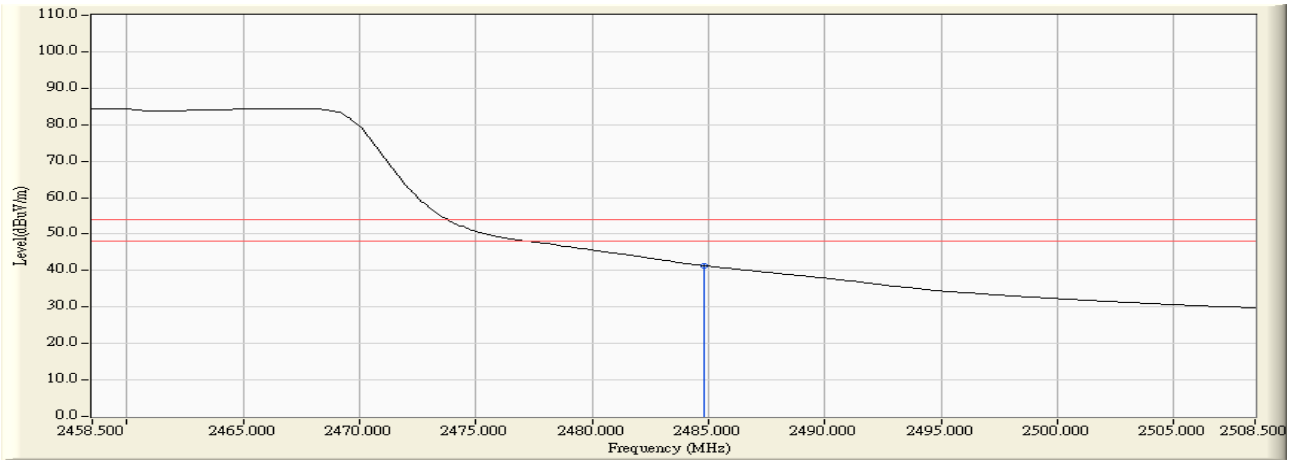


Figure Channel 11: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2484.400	-6.467	66.136	59.669	74.00	54.00	Pass
11(Average)	2484.400	-6.467	43.029	36.562	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

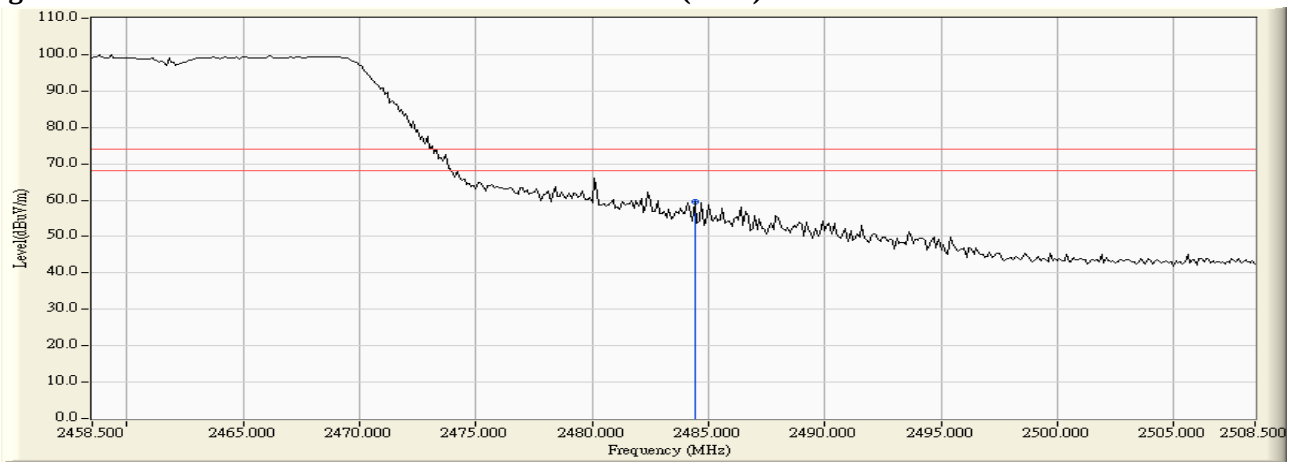
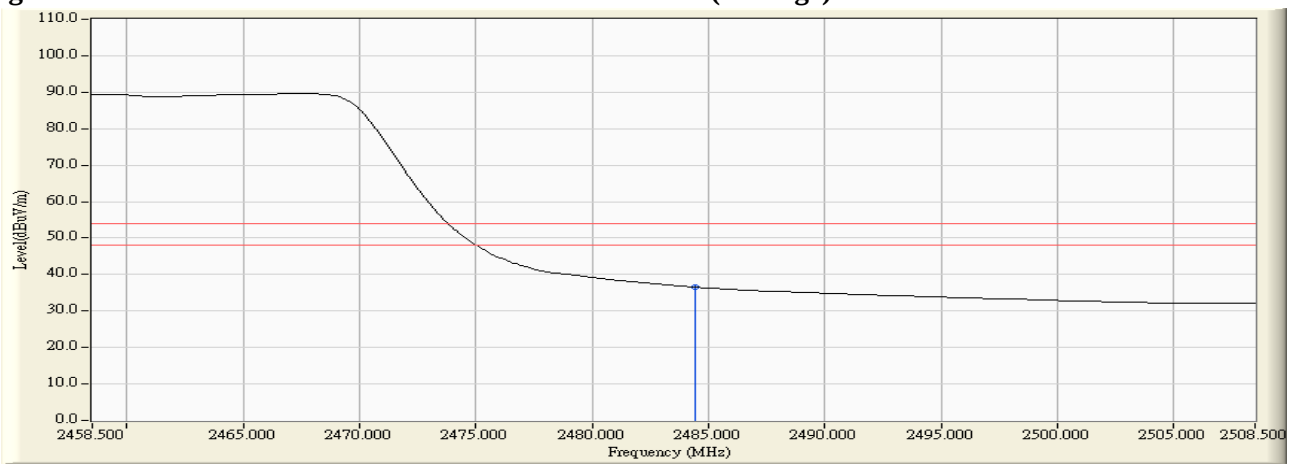


Figure Channel 11: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	-6.769	76.820	70.052	74.00	54.00	Pass
01 (Average)	2390.000	-6.159	53.793	47.635	74.00	54.00	Pass

Figure Channel 01: Horizontal (Peak)

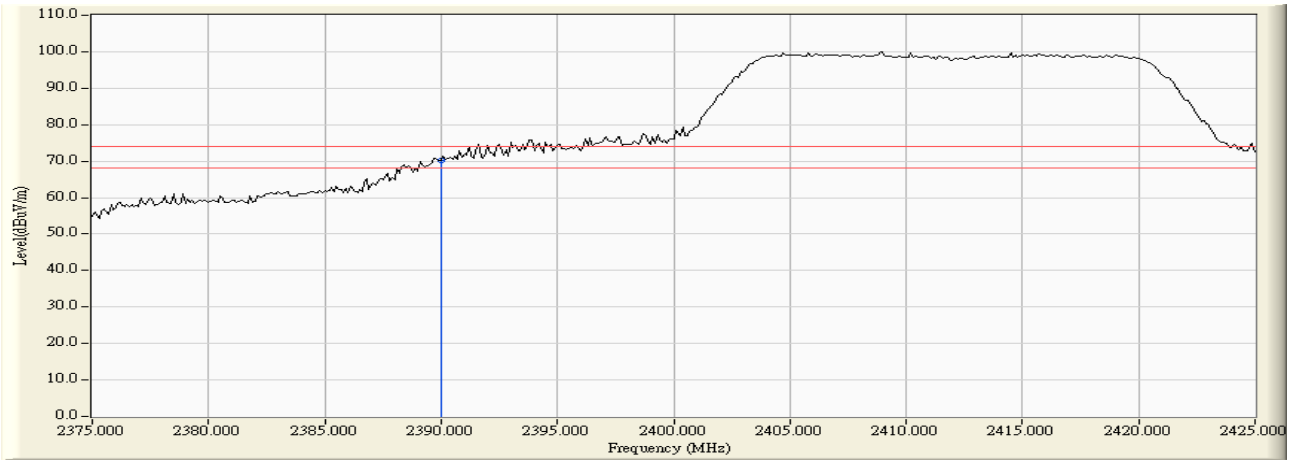
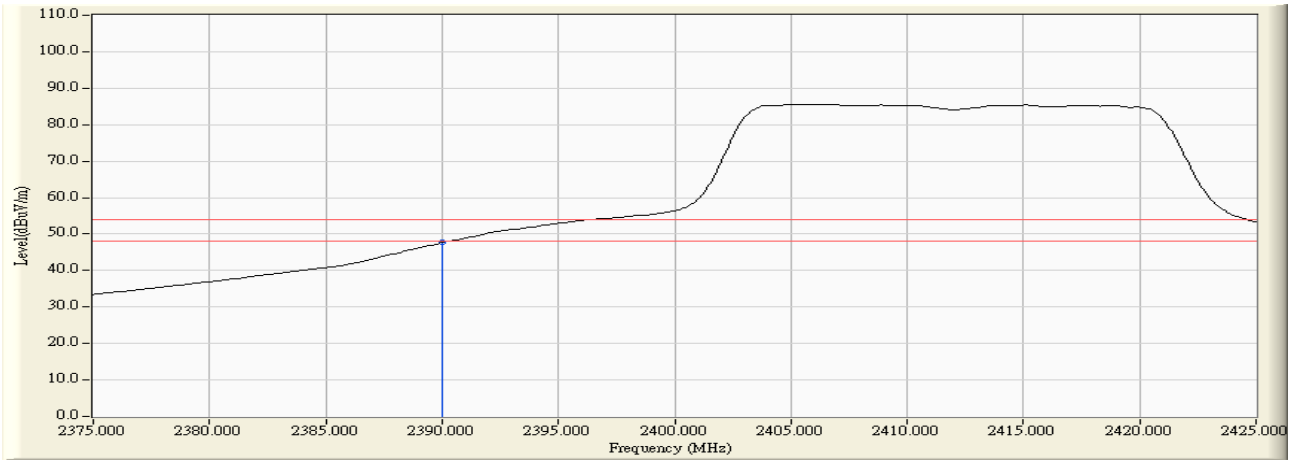


Figure Channel 01: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2390.000	-6.769	76.027	69.259	74.00	54.00	Pass
01 (Average)	2390.000	-6.159	55.167	49.009	74.00	54.00	Pass

Figure Channel 01: Vertical (Peak)

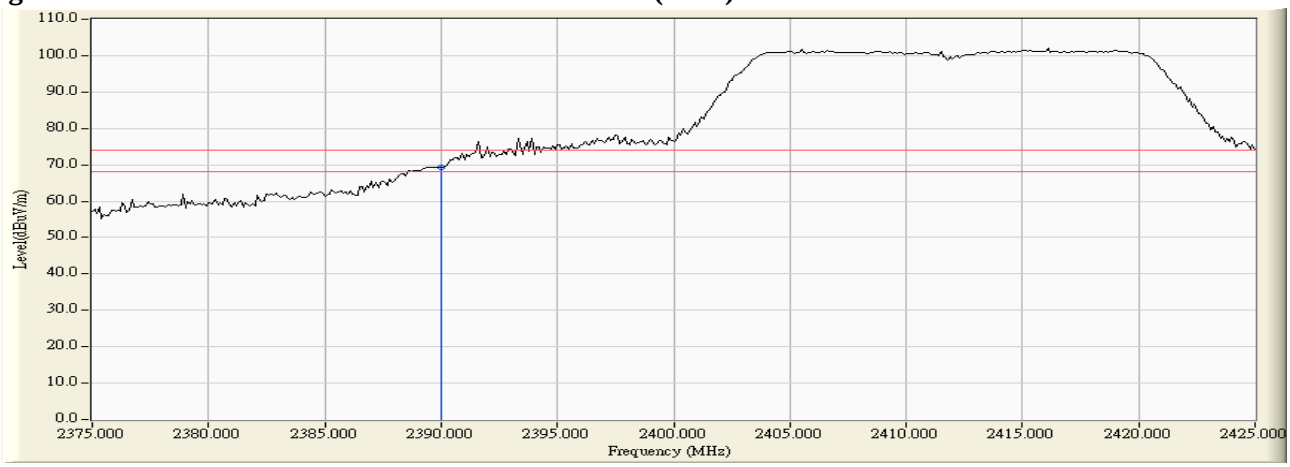
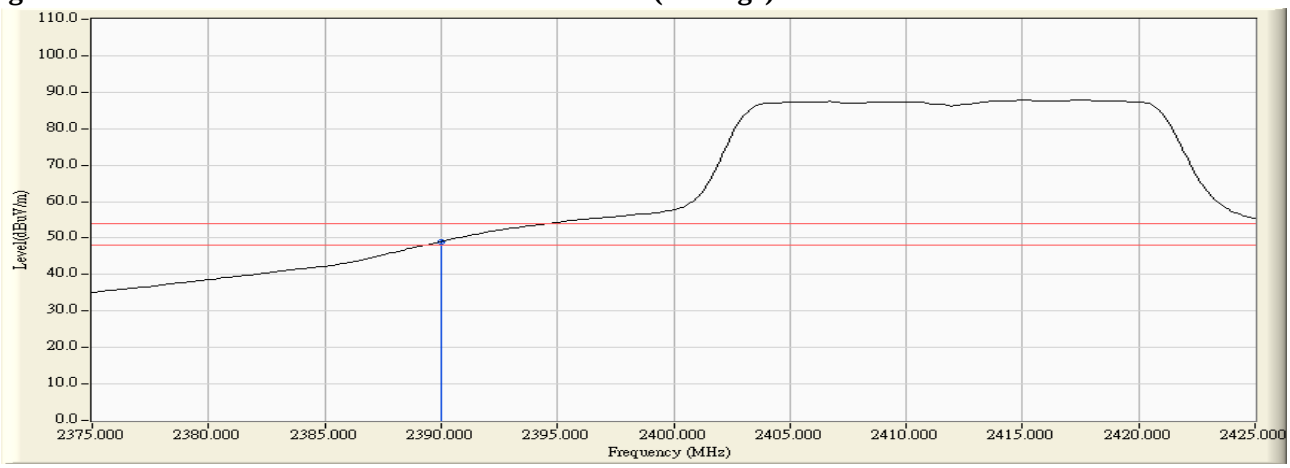


Figure Channel 01: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2483.500	29.973	71.631	65.163	74.00	54.00	Pass
11 (Average)	2483.500	-5.968	47.100	41.133	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)

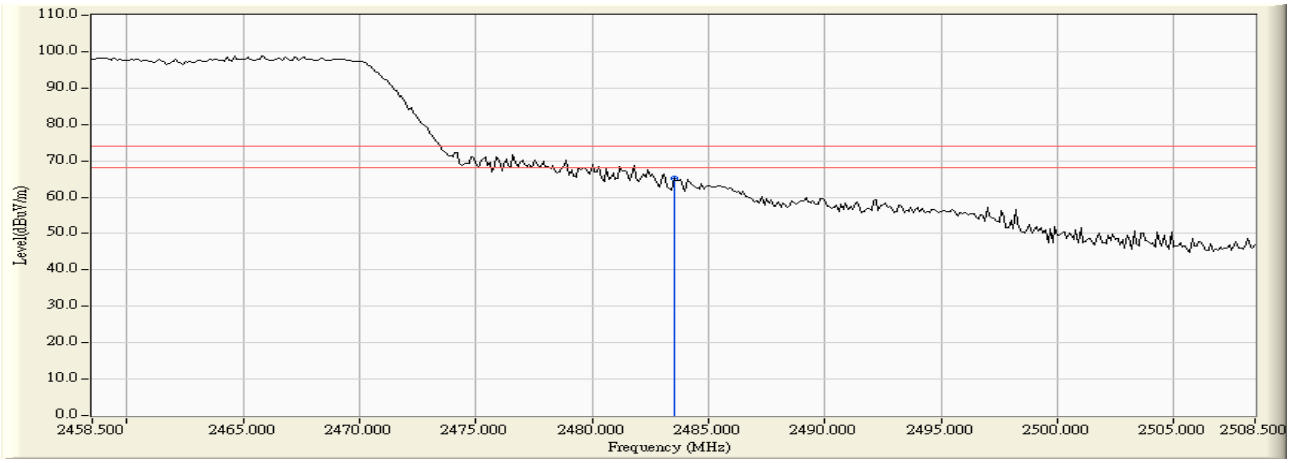
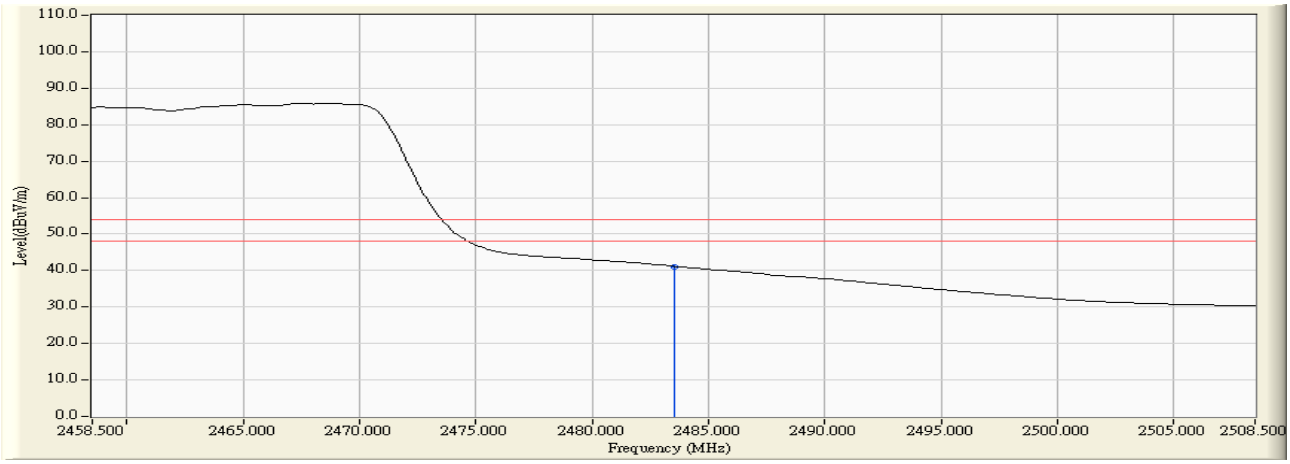


Figure Channel 11: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2483.500	-6.469	73.378	66.910	74.00	54.00	Pass
11 (Average)	2483.500	-5.968	49.040	43.073	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)

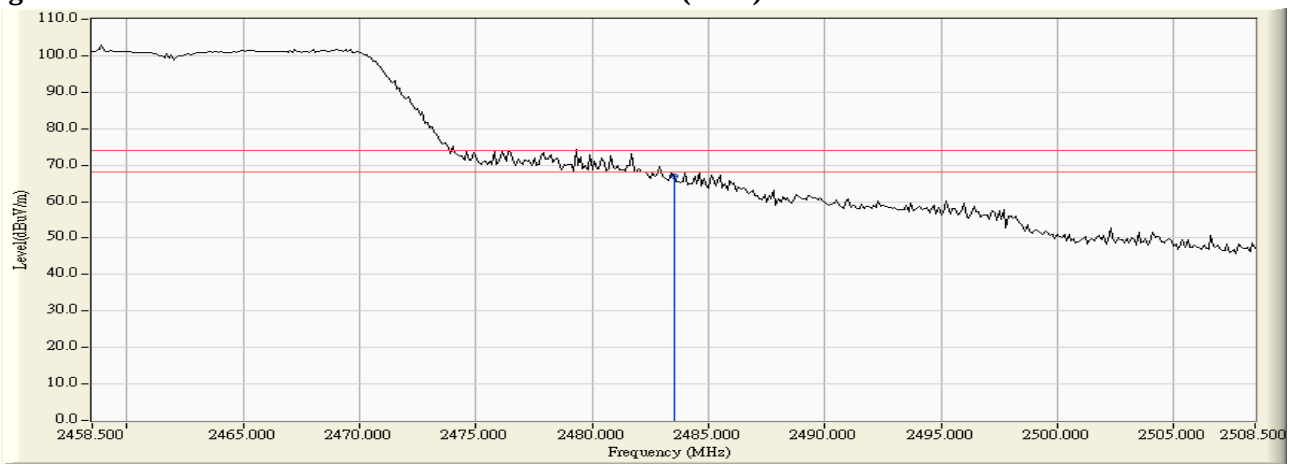
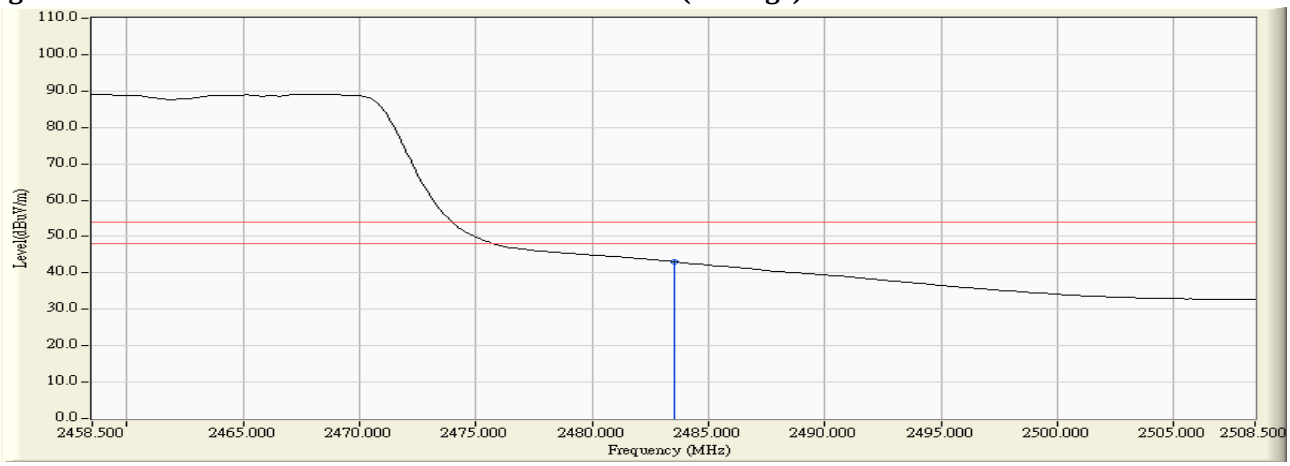


Figure Channel 11: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2385.600	-6.781	75.765	68.984	74.00	54.00	Pass
01 (Average)	2385.600	-6.781	51.391	44.610	74.00	54.00	Pass

Figure Channel 01: Horizontal (Peak)

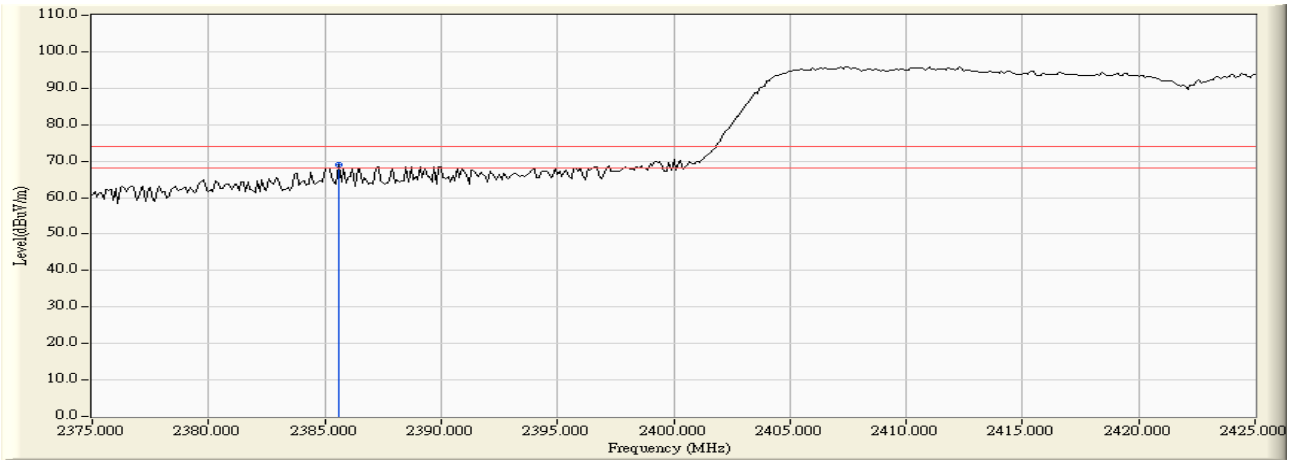
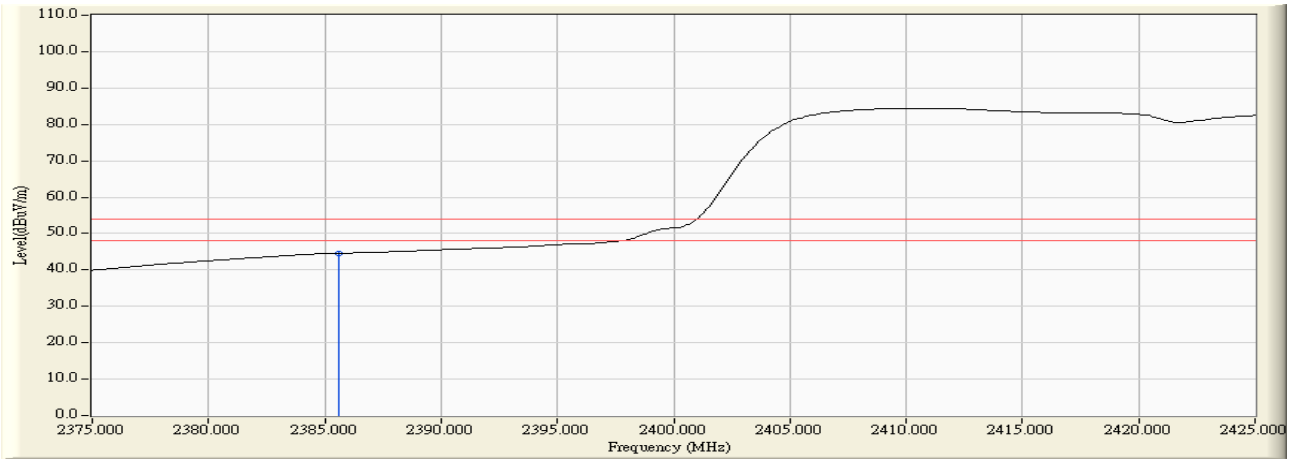


Figure Channel 01: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
01 (Peak)	2387.100	-6.776	75.794	69.018	74.00	54.00	Pass
01 (Average)	2387.100	-6.776	53.743	46.967	74.00	54.00	Pass

Figure Channel 01: Vertical (Peak)

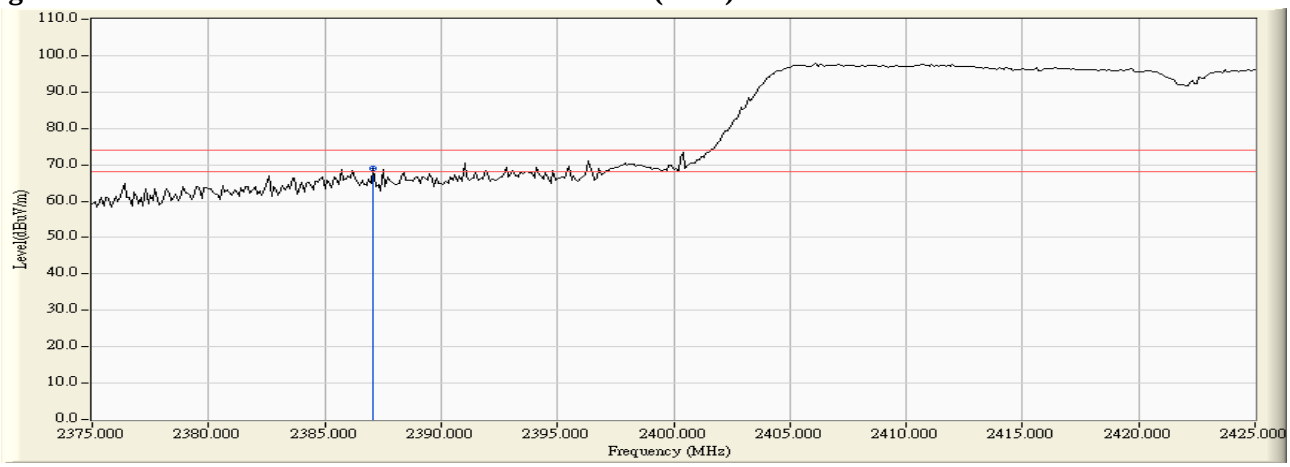
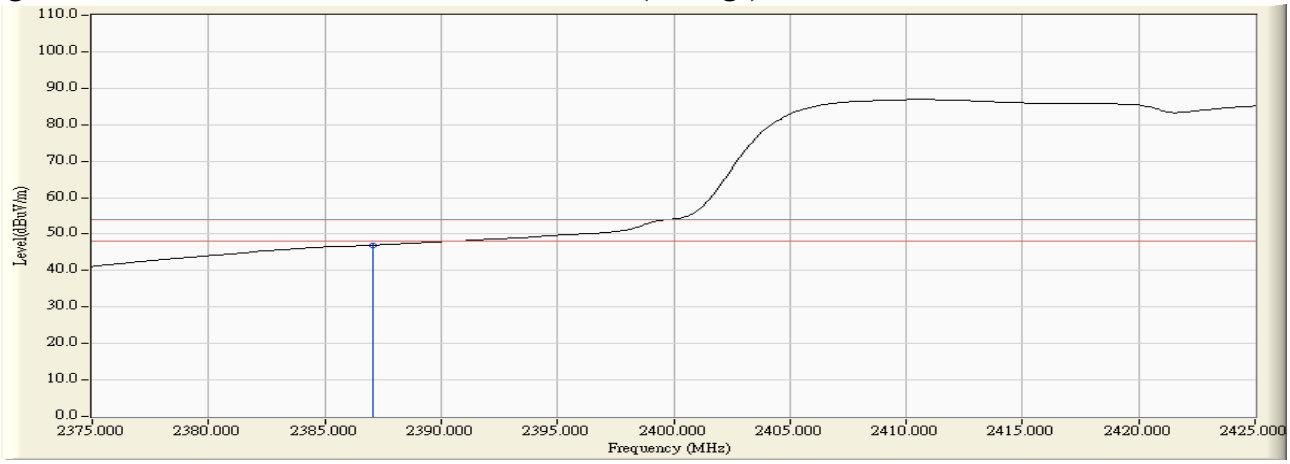


Figure Channel 01: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
07 (Peak)	2485.200	-6.466	68.671	62.205	74.00	54.00	Pass
07 (Average)	2485.200	-6.466	45.033	38.567	74.00	54.00	Pass

Figure Channel 07: Horizontal (Peak)

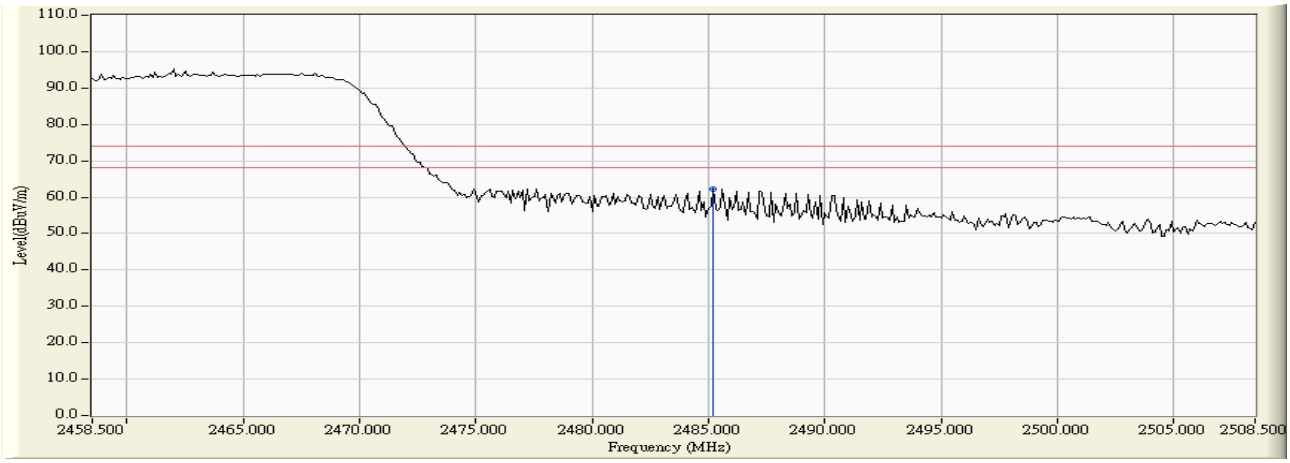
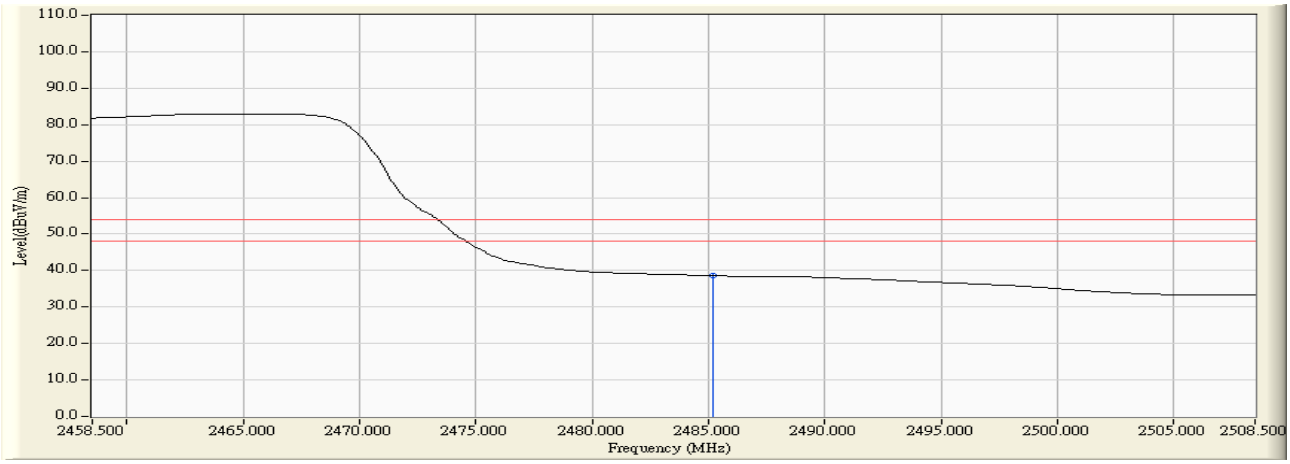


Figure Channel 07: Horizontal (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
07 (Peak)	2483.900	-5.967	71.505	65.538	74.00	54.00	Pass
07 (Average)	2483.900	-5.967	42.963	36.996	74.00	54.00	Pass

Figure Channel 07: Vertical (Peak)

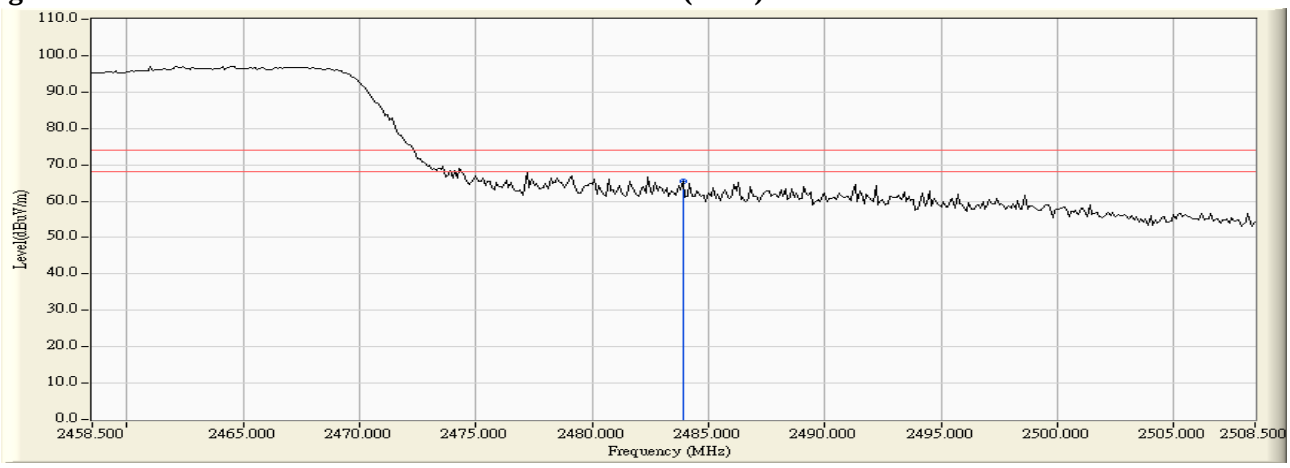
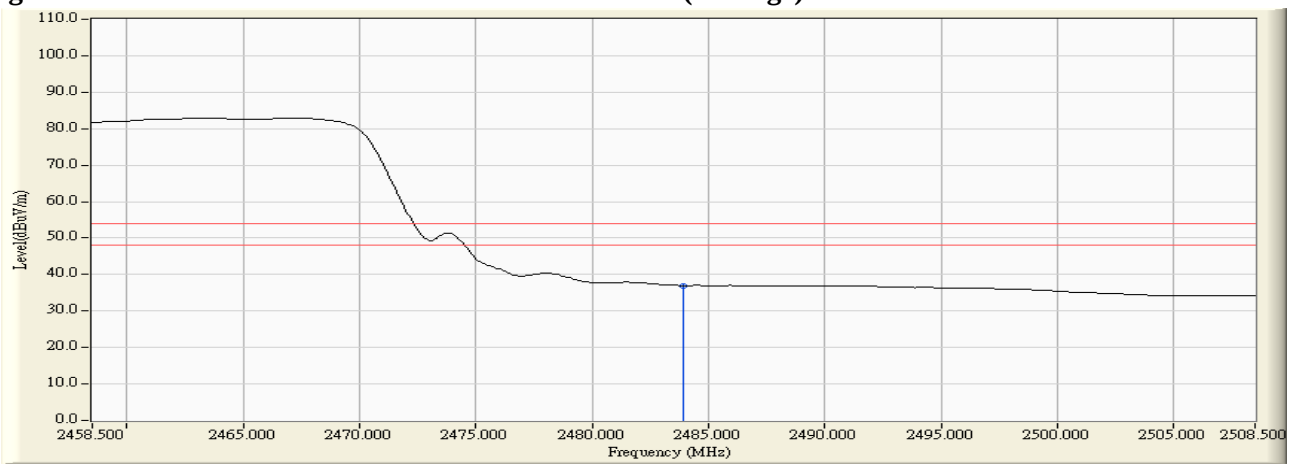


Figure Channel 07: Vertical (Average)



Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Occupied Bandwidth

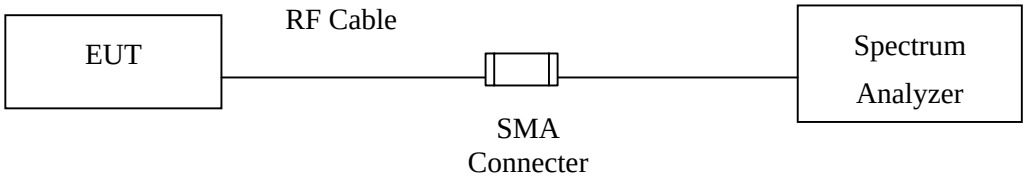
7.1. Test Equipment

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

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2008

Note: 1. All instruments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

7.5. Uncertainty

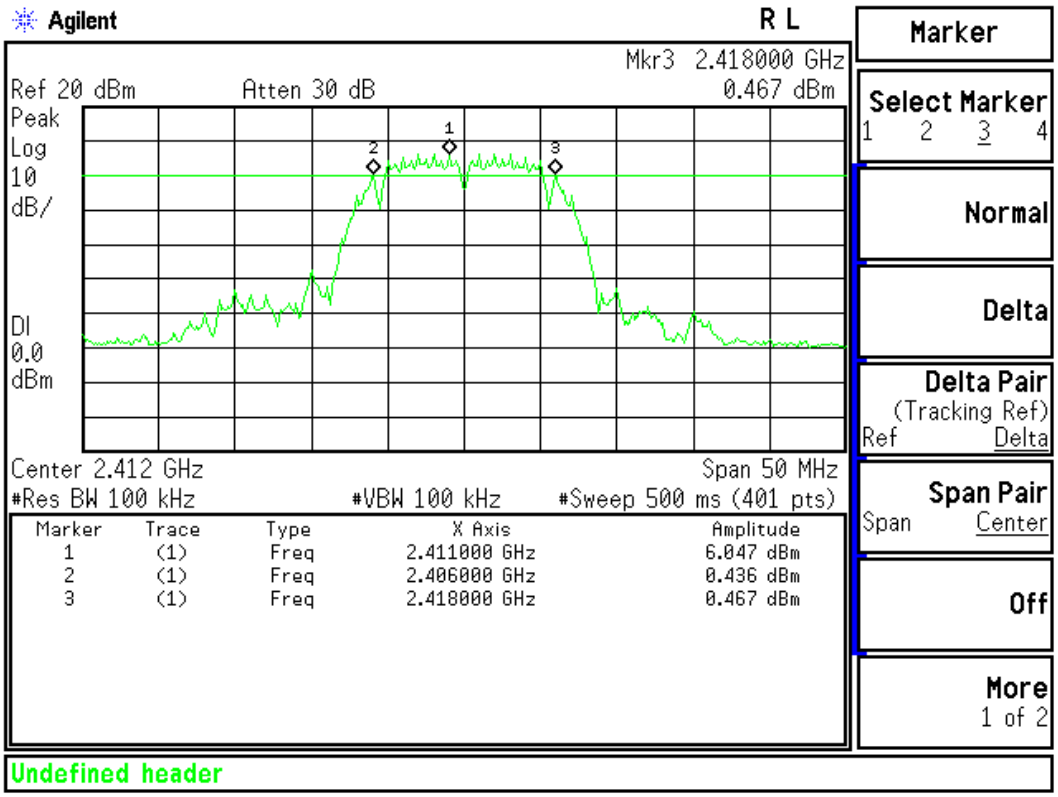
± 150Hz

7.6. Test Result of Occupied Bandwidth

Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412.00	12000	>500	Pass

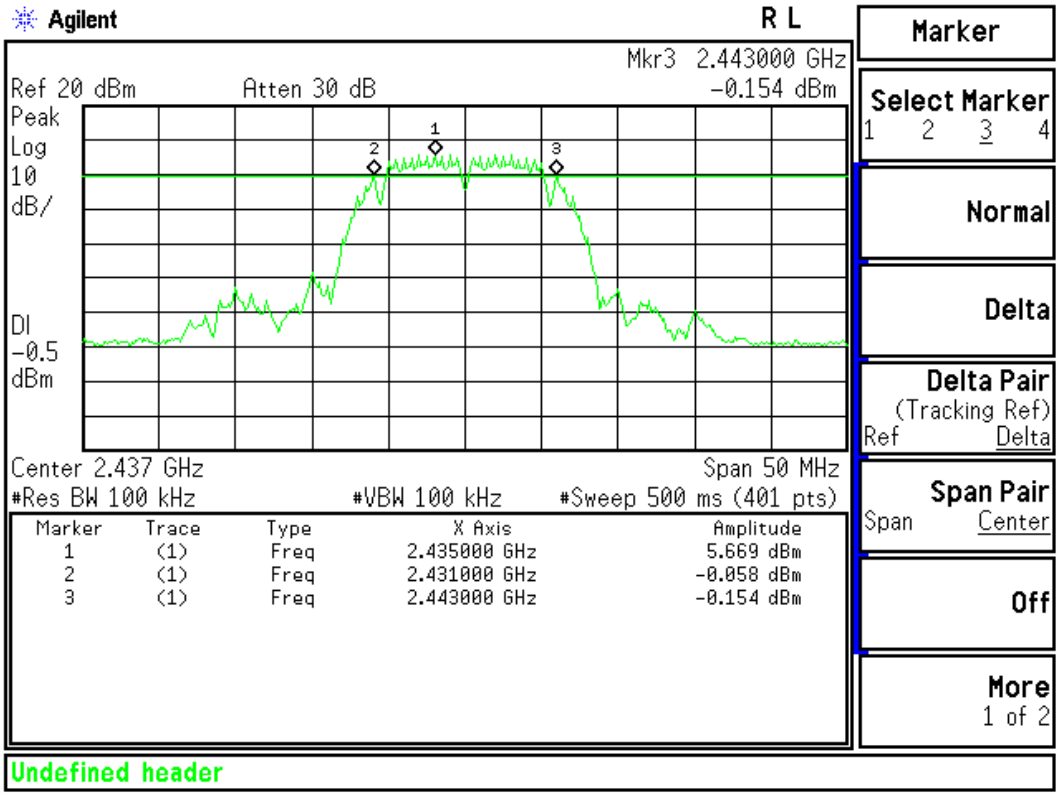
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (1Mbps)	2437.00	12000	>500	Pass

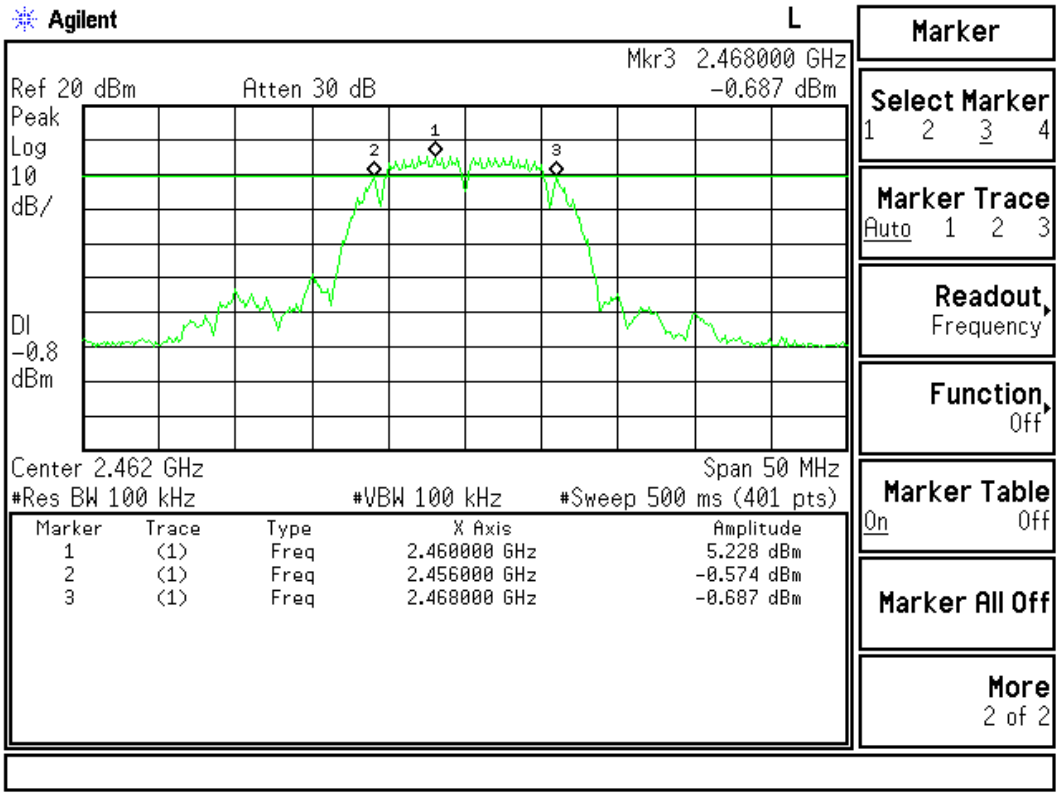
Figure Channel 6:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (1Mbps)	2462.00	12000	>500	Pass

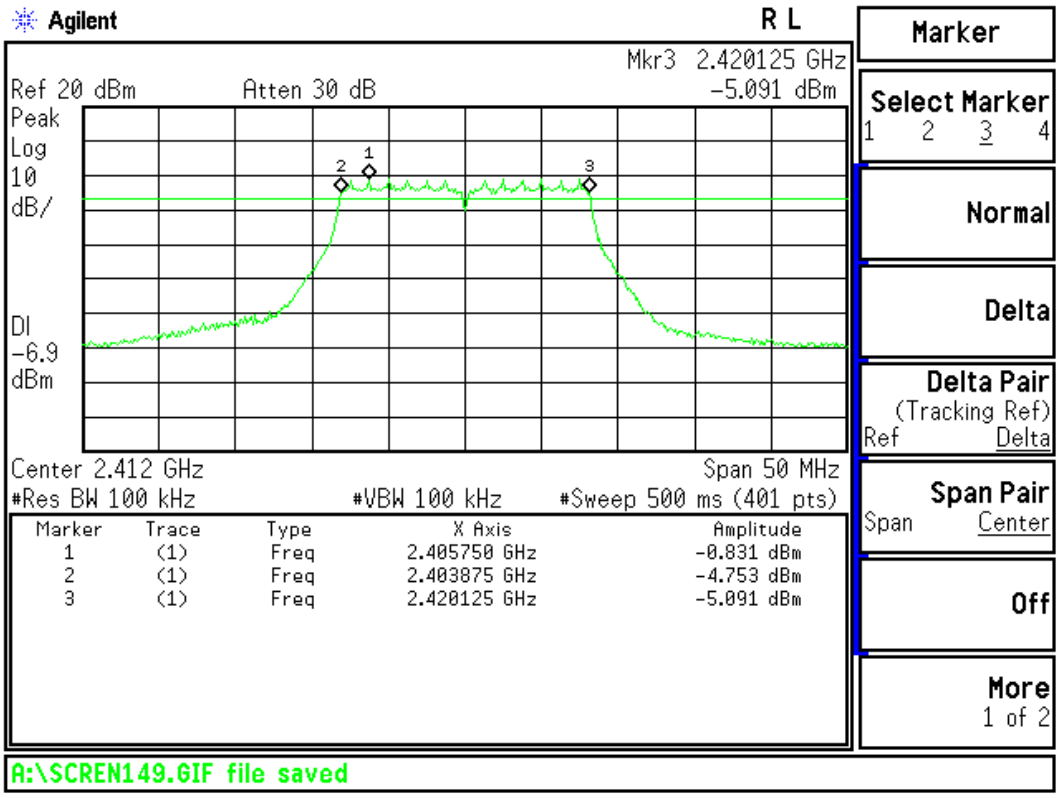
Figure Channel 11:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (6Mbps)	2412.00	16250	>500	Pass

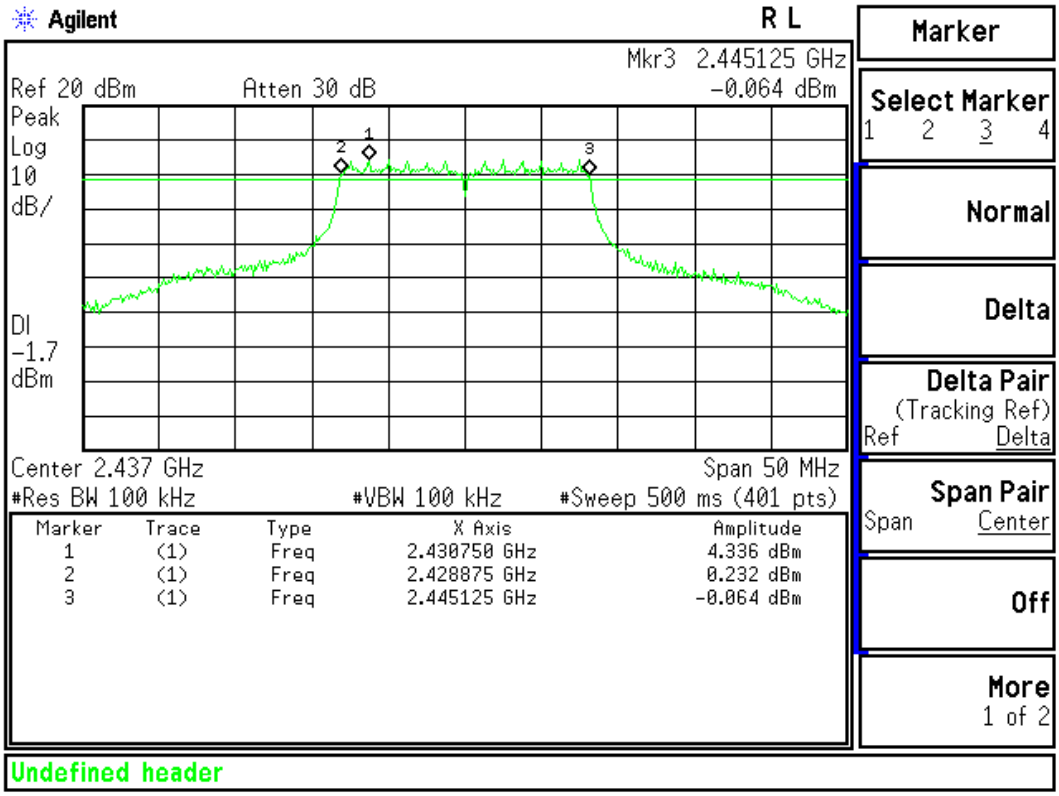
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (6Mbps)	2437.00	16250	>500	Pass

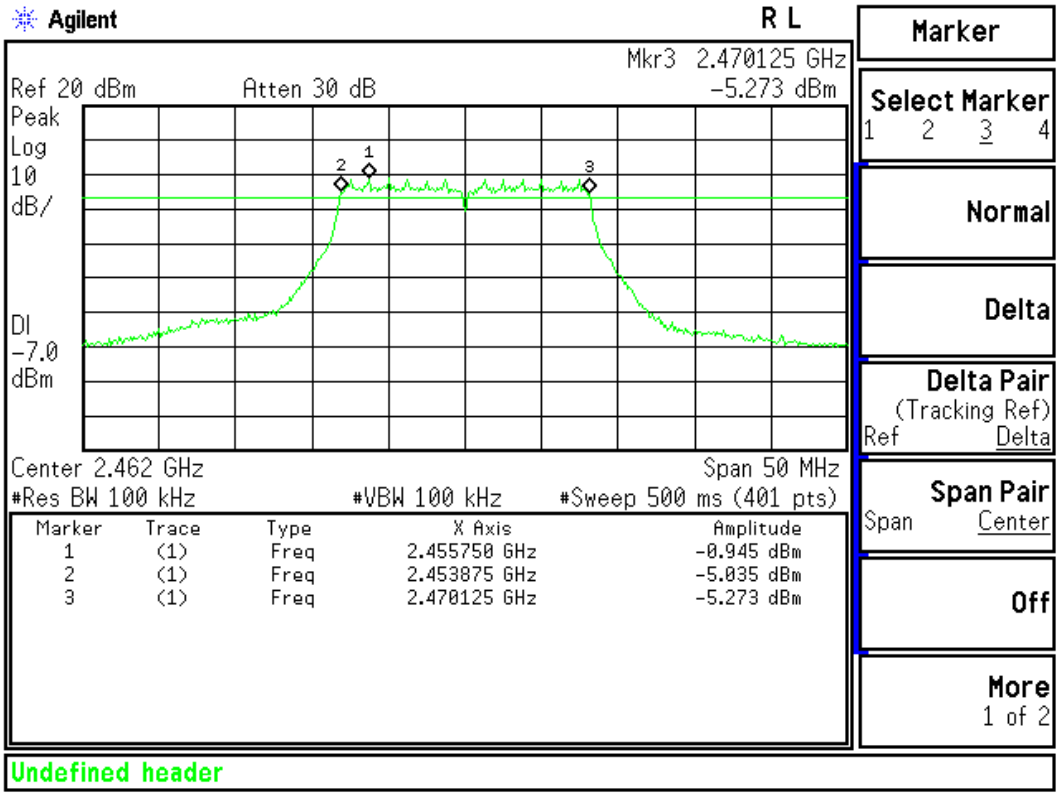
Figure Channel 6:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (6Mbps)	2462.00	16250	>500	Pass

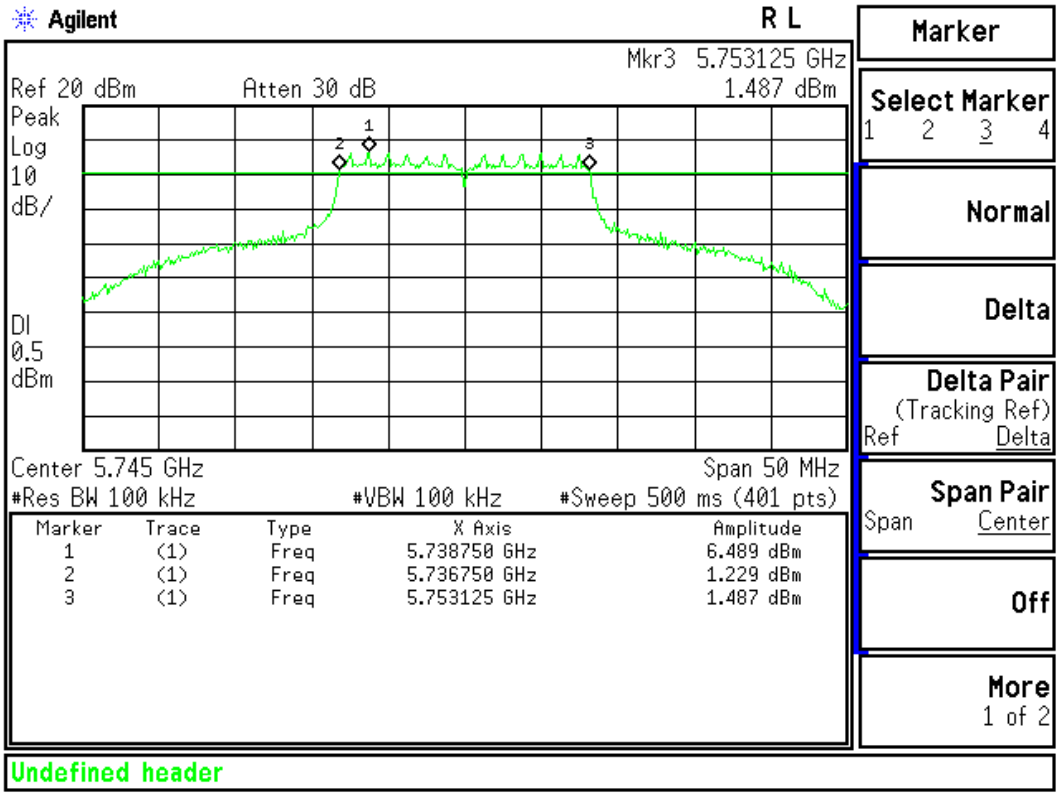
Figure Channel 11:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149 (6Mbps)	5745.00	16375	>500	Pass

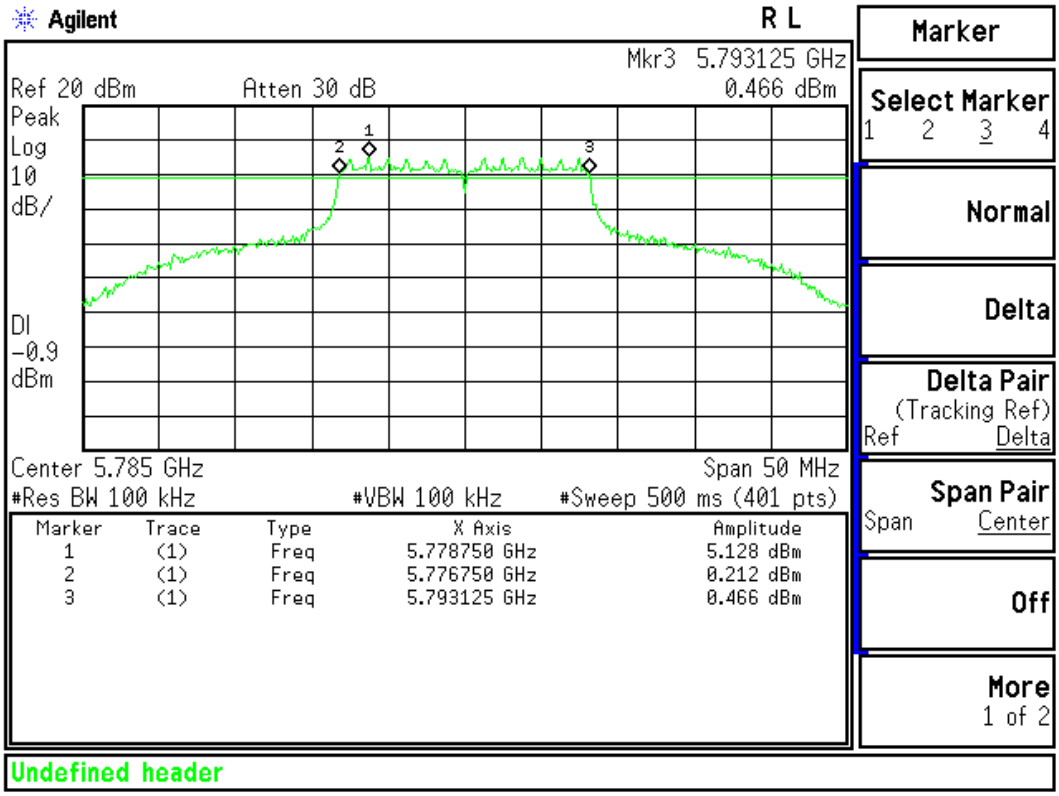
Figure Channel 149:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157 (6Mbps)	5785.00	16375	>500	Pass

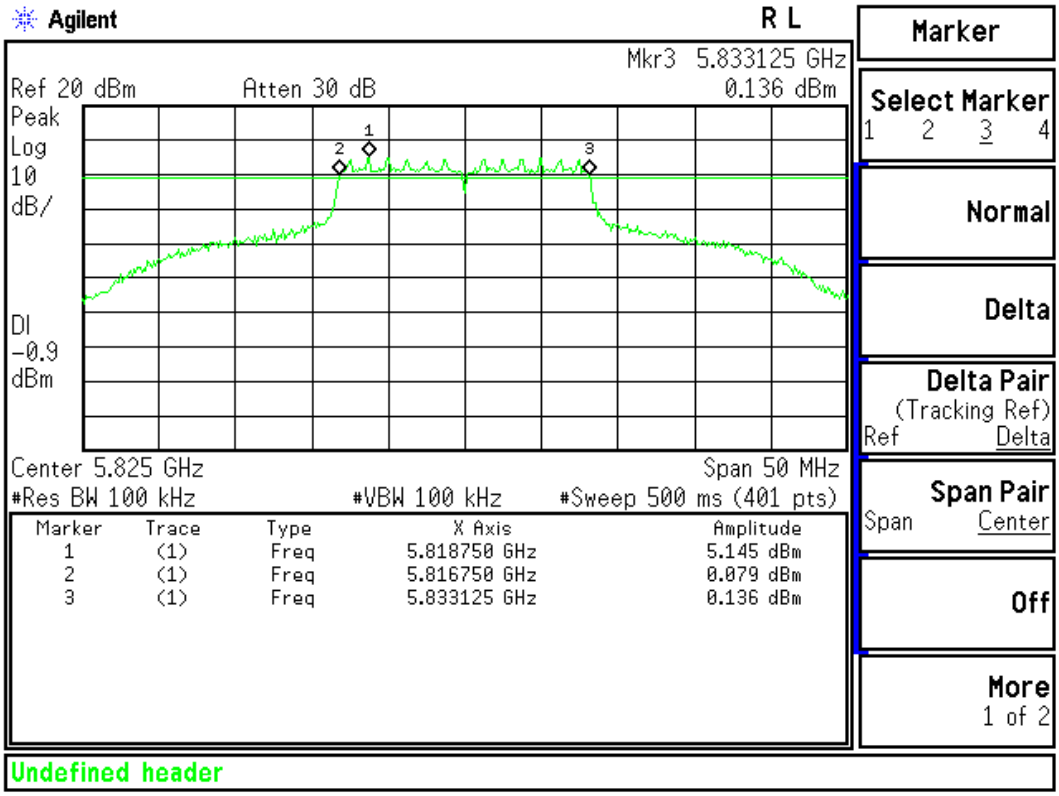
Figure Channel 157:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165 (6Mbps)	5825.00	16375	>500	Pass

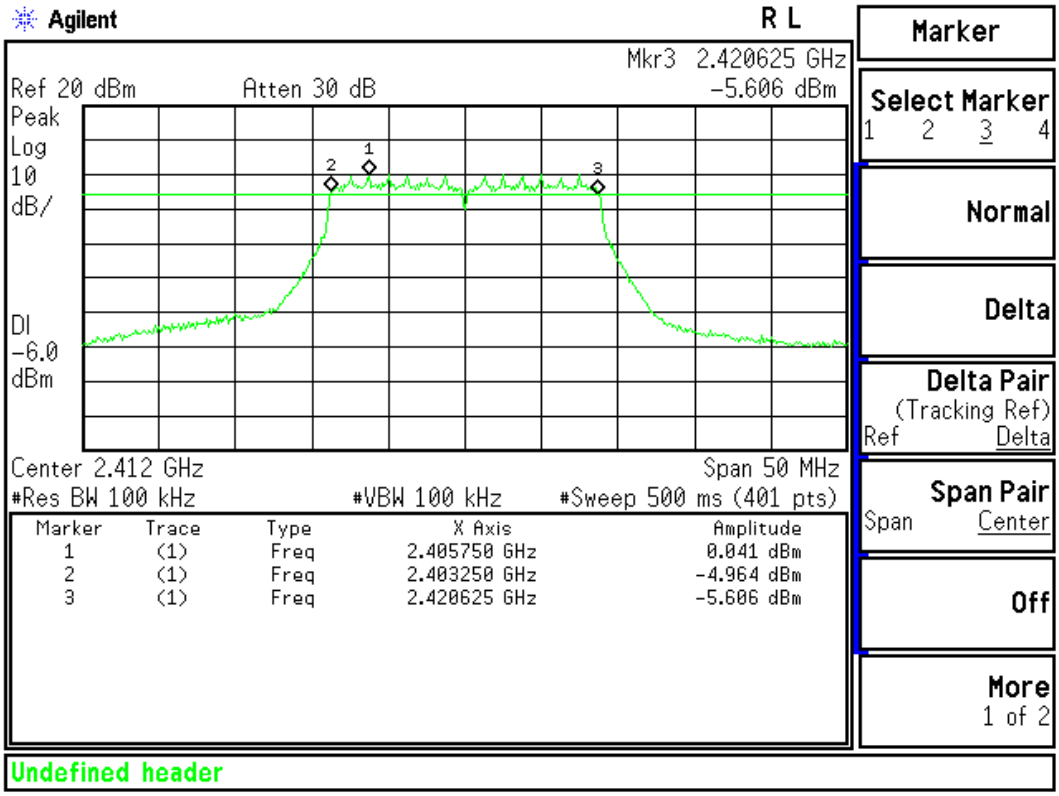
Figure Channel 165:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (13.5Mbps)	2412.00	17375	>500	Pass

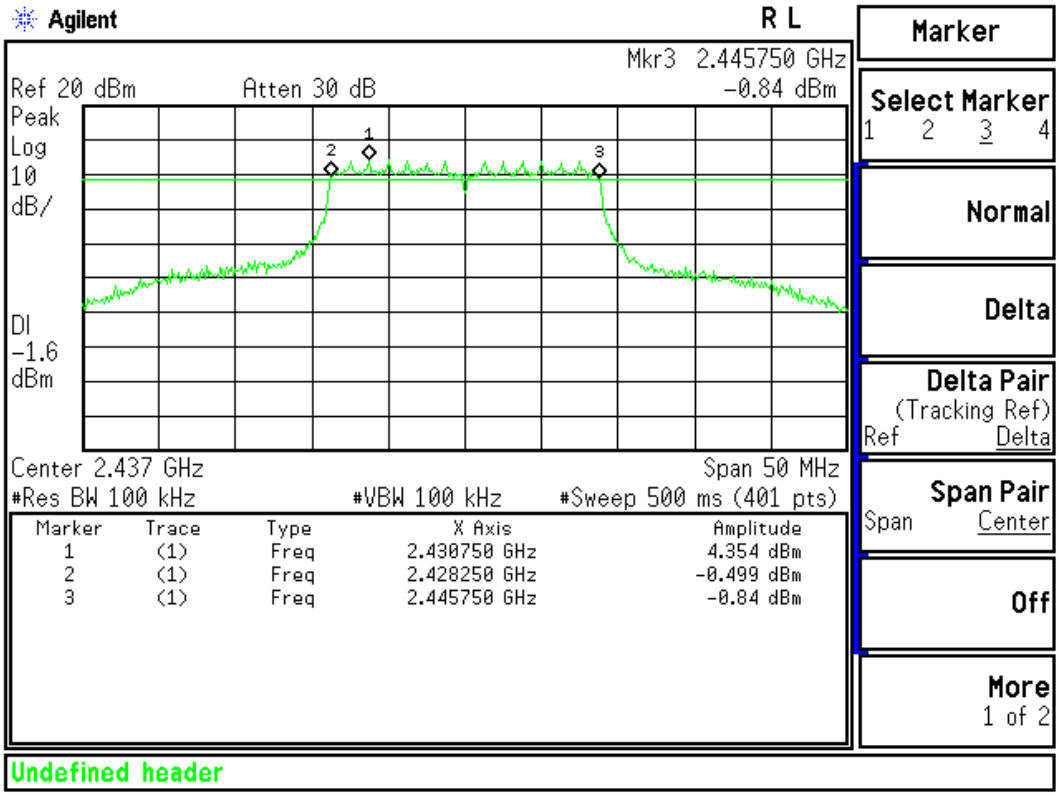
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (13.5Mbps)	2437.00	17500	>500	Pass

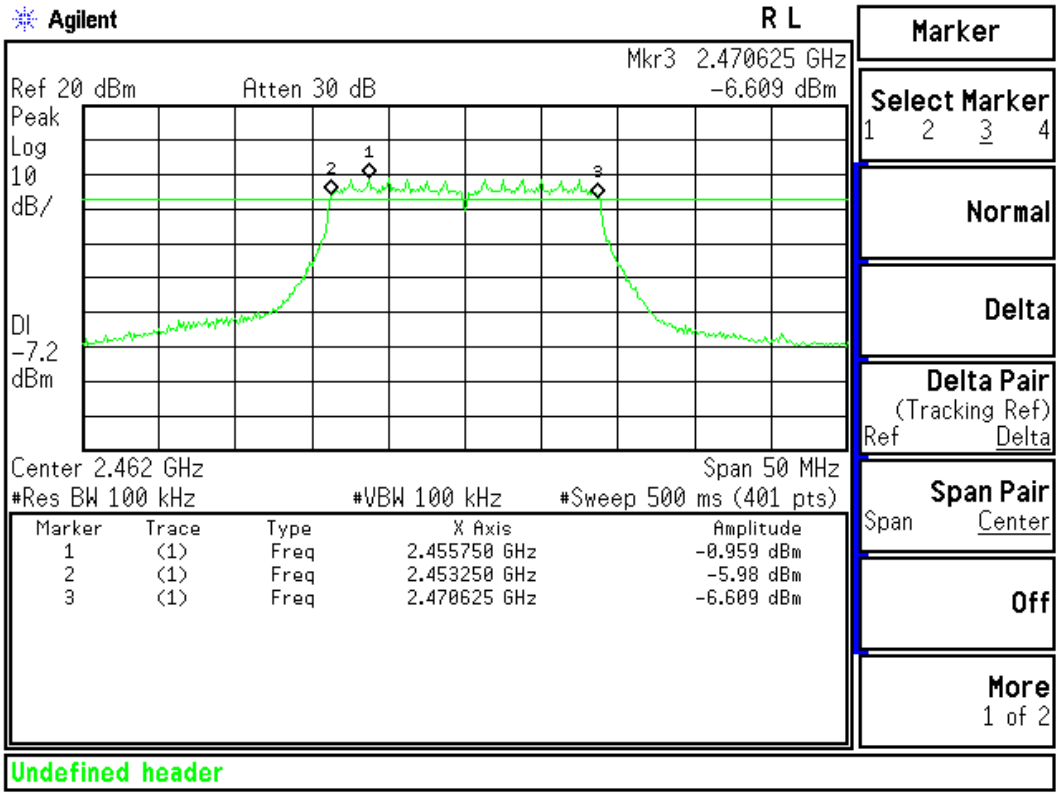
Figure Channel 6:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (13.5Mbps)	2462.00	17375	>500	Pass

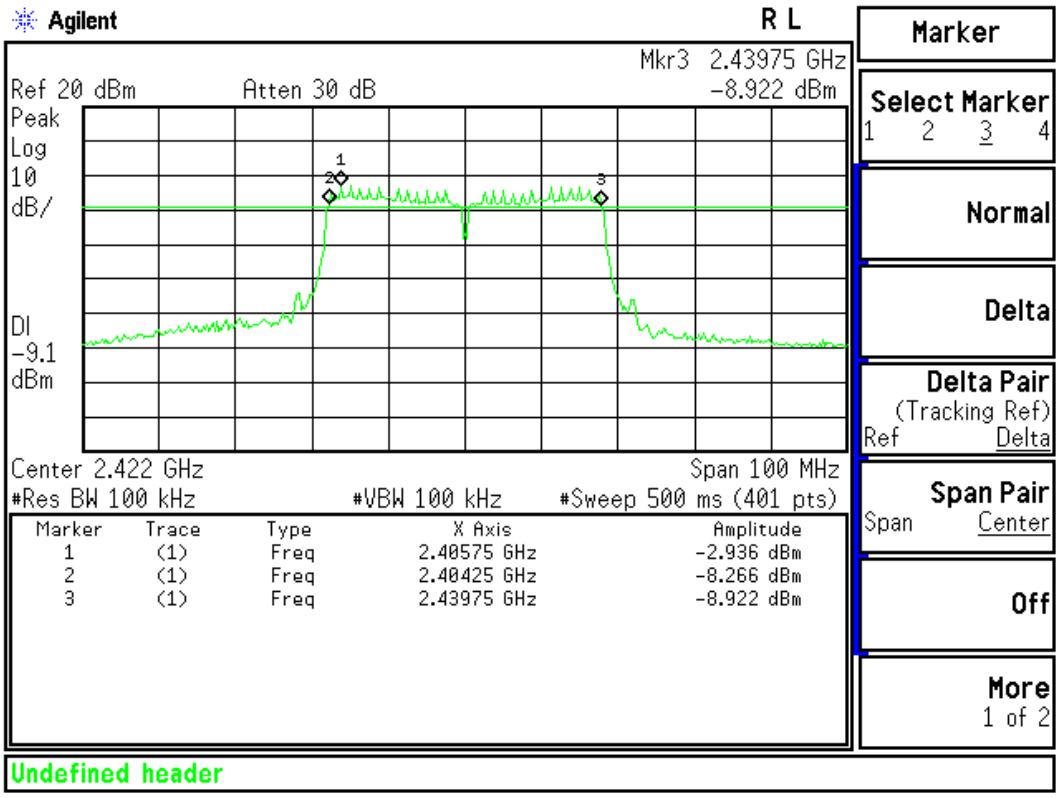
Figure Channel 11:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2422MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (27Mbps)	2422.00	35500	>500	Pass

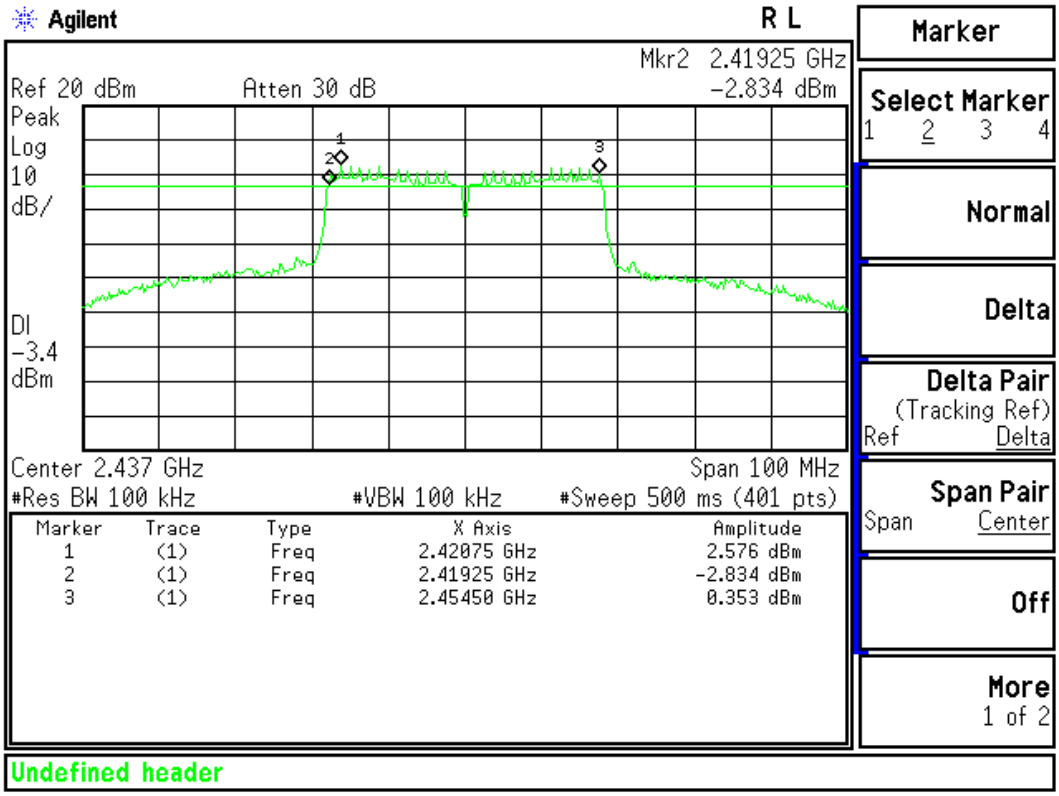
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
4 (27Mbps)	2437.00	35250	>500	Pass

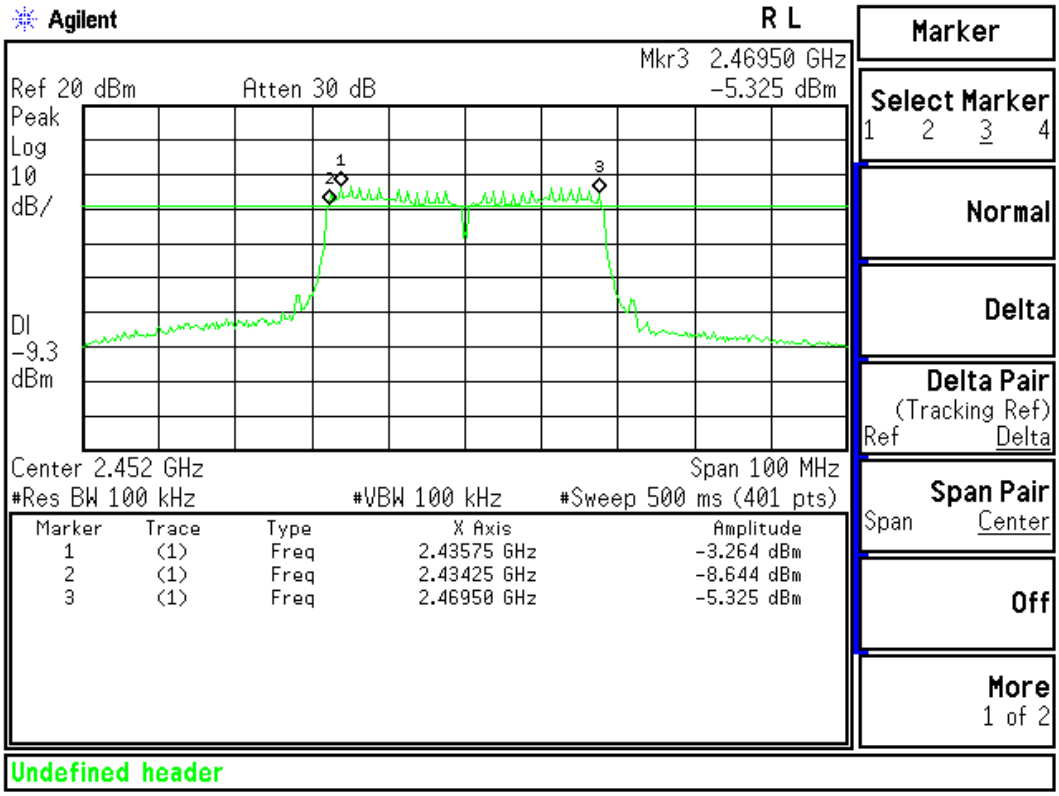
Figure Channel 4:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
7 (27Mbps)	2452.00	35250	>500	Pass

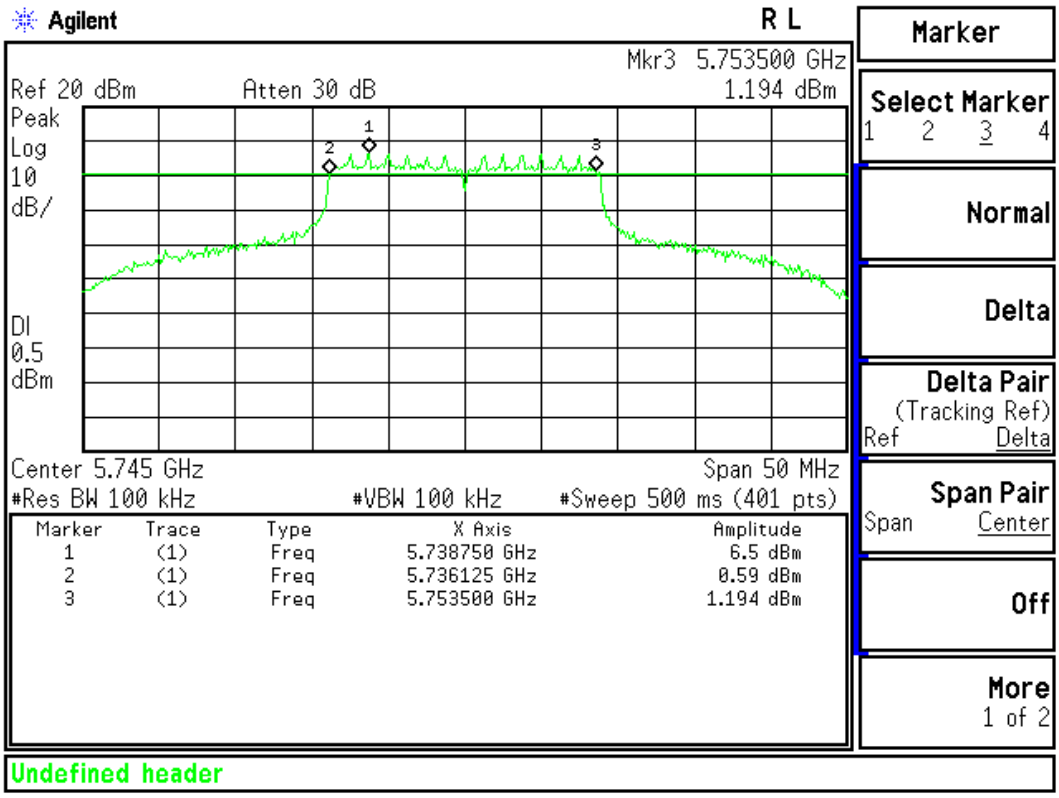
Figure Channel 7:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149(13.5Mbps)	5745.00	17375	>500	Pass

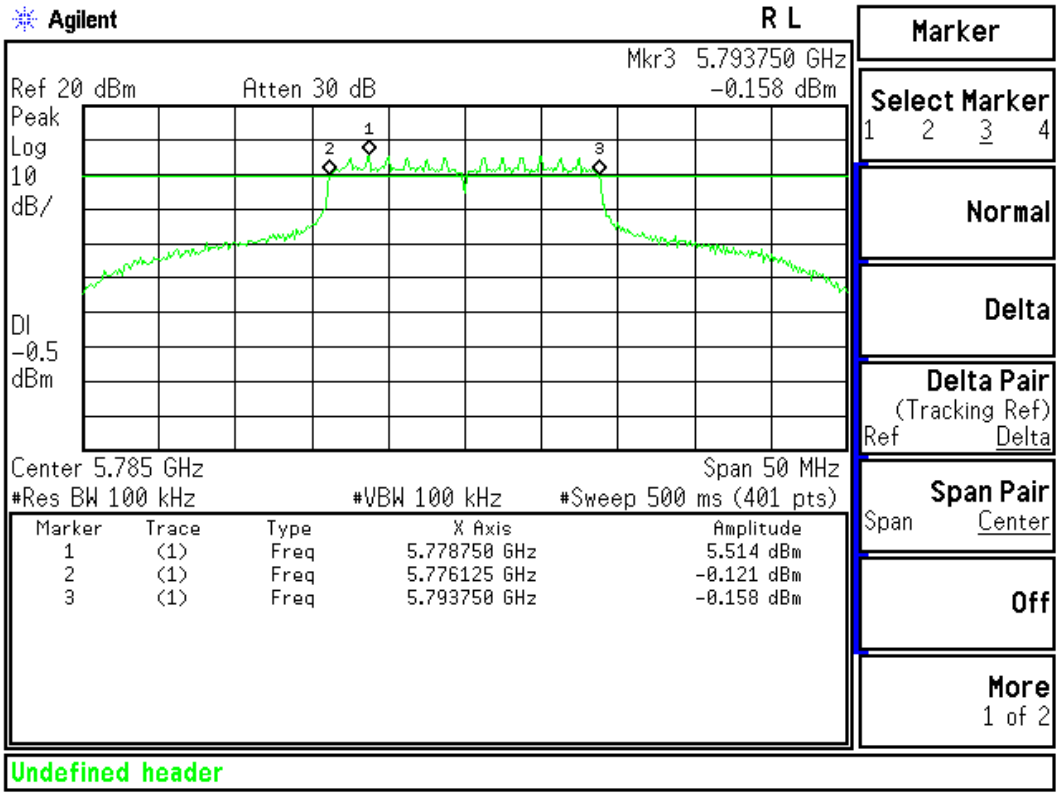
Figure Channel 149:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157(13.5Mbps)	5785.00	17625	>500	Pass

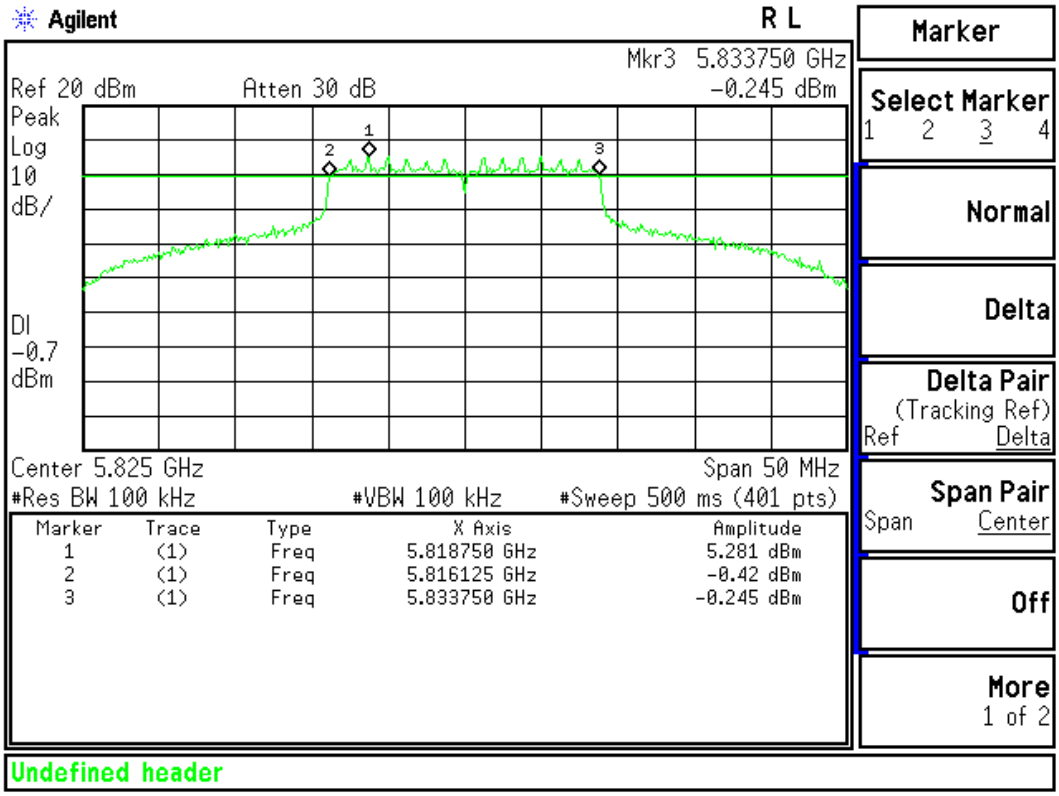
Figure Channel 157:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165(13.5Mbps)	5825.00	17625	>500	Pass

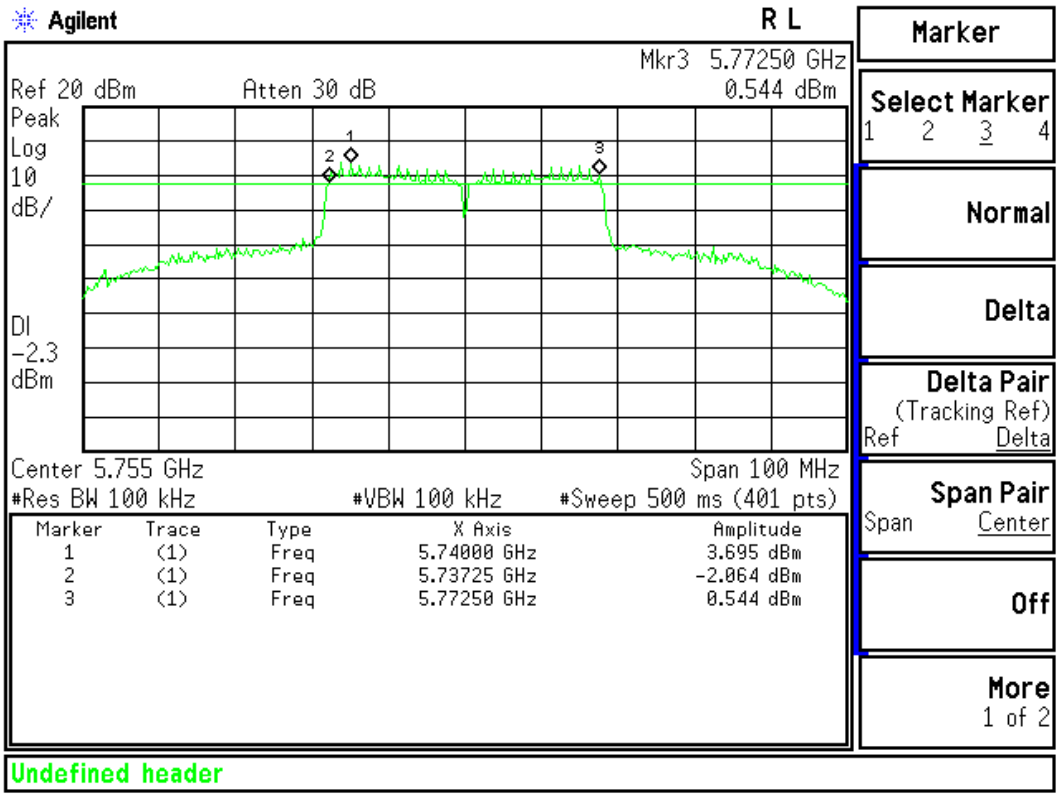
Figure Channel 165:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151 (27Mbps)	5755.00	35250	>500	Pass

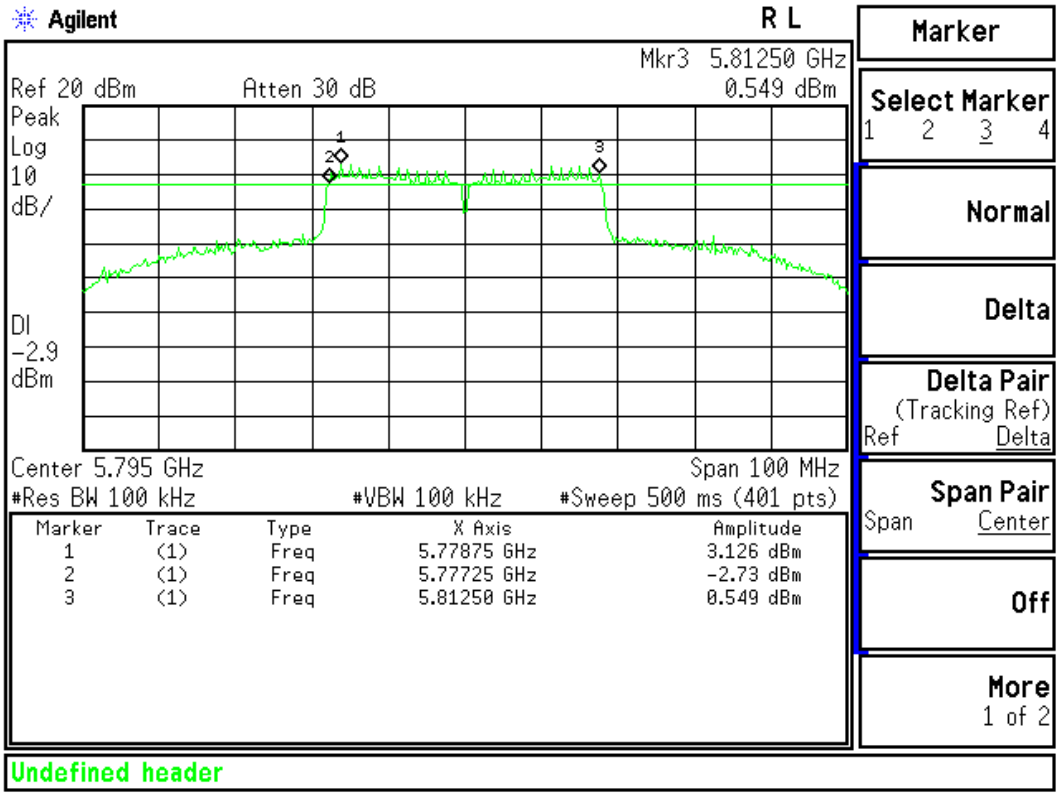
Figure Channel 151:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5795MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159 (27Mbps)	5795.00	35250	>500	Pass

Figure Channel 159:



8. Power Density

8.1. Test Equipment

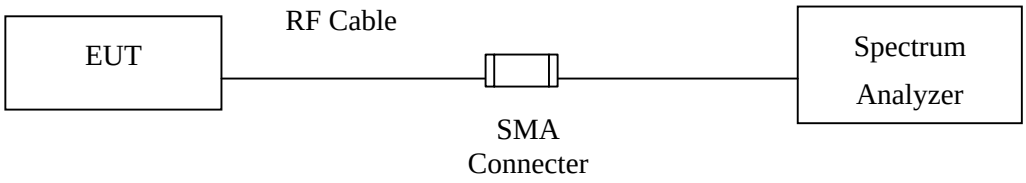
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2008

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

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

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, VBW=10KHz, Sweep time=(SPAN/3KHz), detector=Peak detector

8.5. Uncertainty

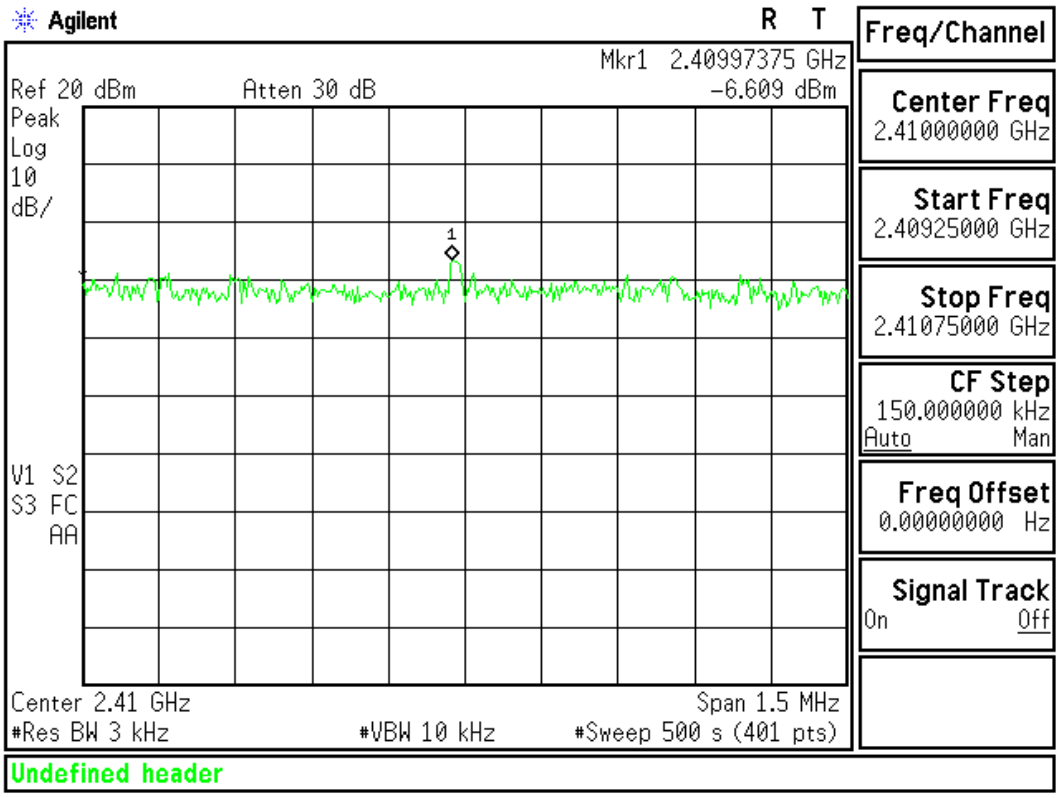
± 1.27 dB

8.6. Test Result of Power Density

Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (1Mbps)	2412.00	-6.609	< 8dBm	Pass

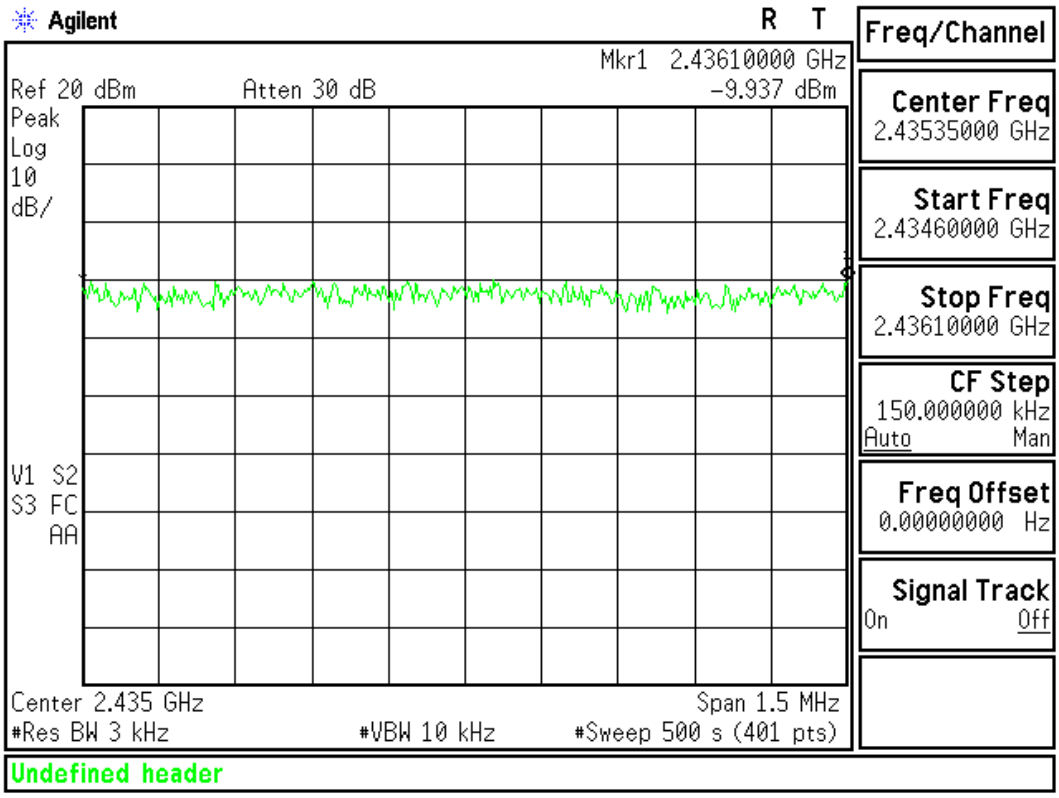
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (1Mbps)	2437.000	-9.937	< 8dBm	Pass

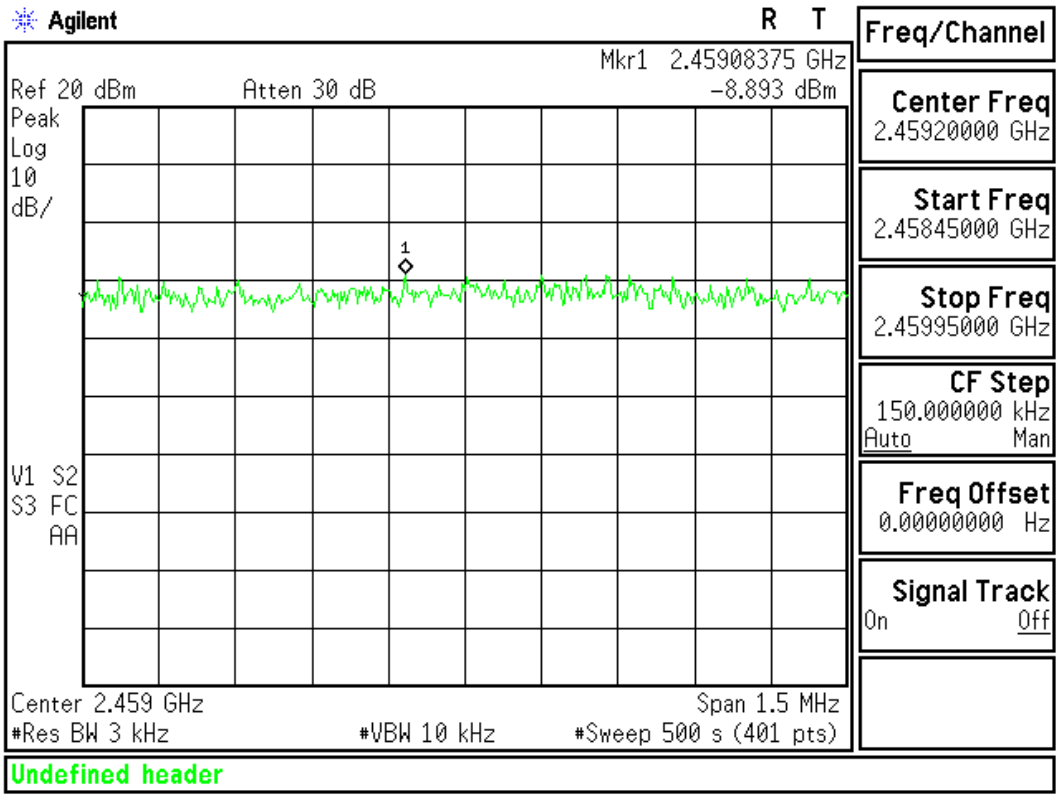
Figure Channel 6:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter - 802.11b 1Mbps-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (1Mbps)	2462.00	-8.893	< 8dBm	Pass

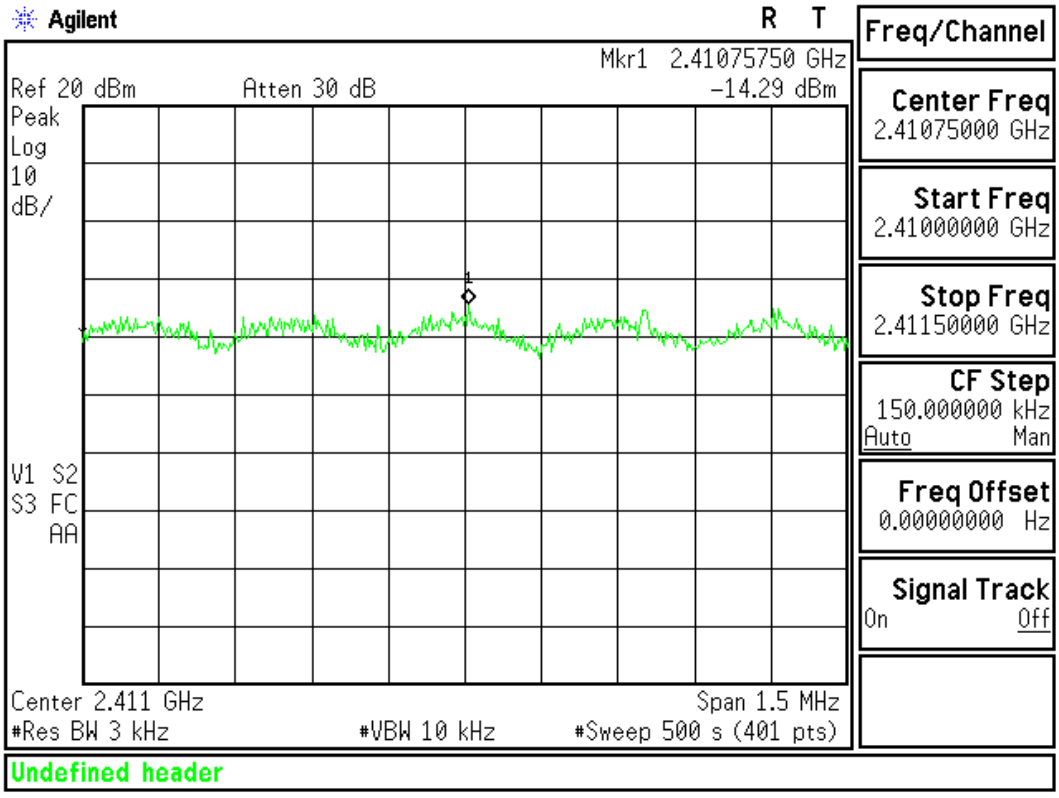
Figure Channel 11:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (6Mbps)	2412.00	-14.29	< 8dBm	Pass

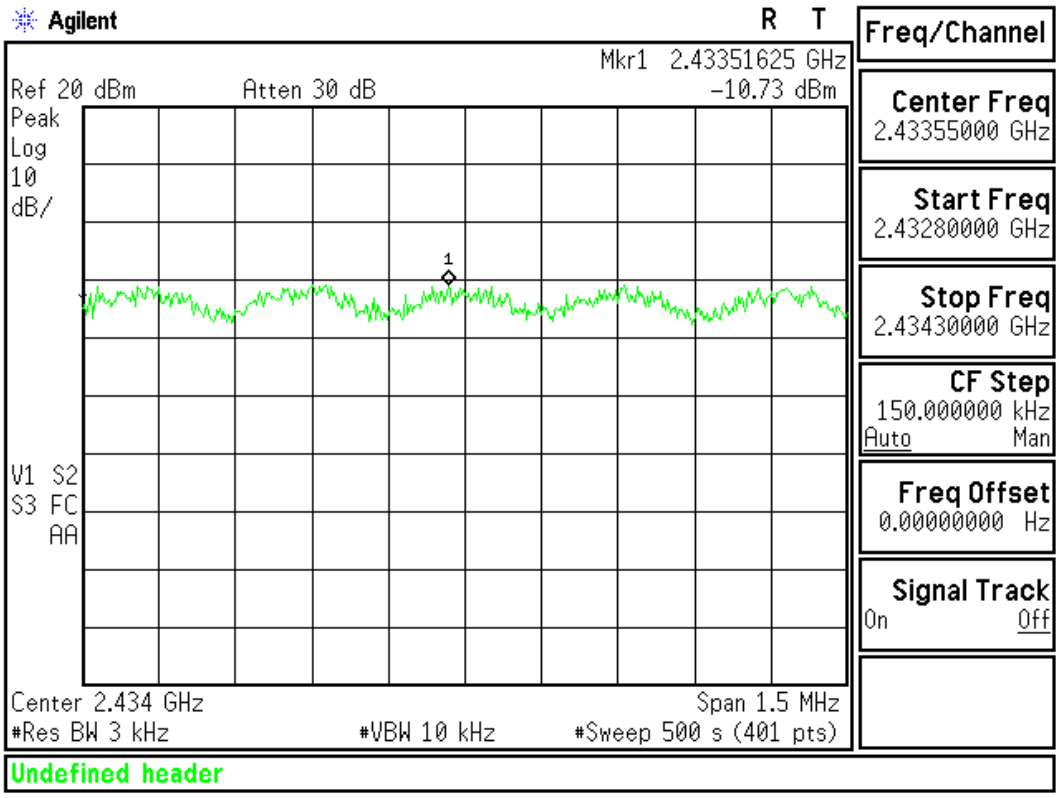
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (6Mbps)	2437.000	-10.73	< 8dBm	Pass

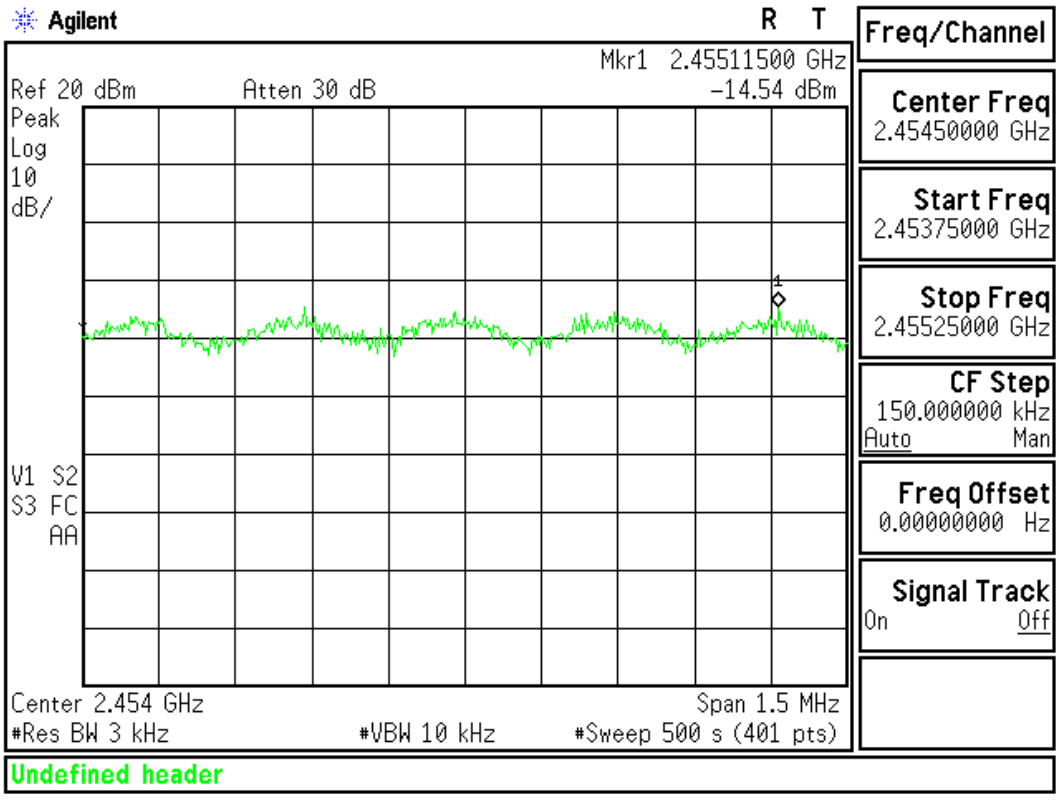
Figure Channel 6:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter - 802.11g 6Mbps-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (6Mbps)	2462.00	-14.54	< 8dBm	Pass

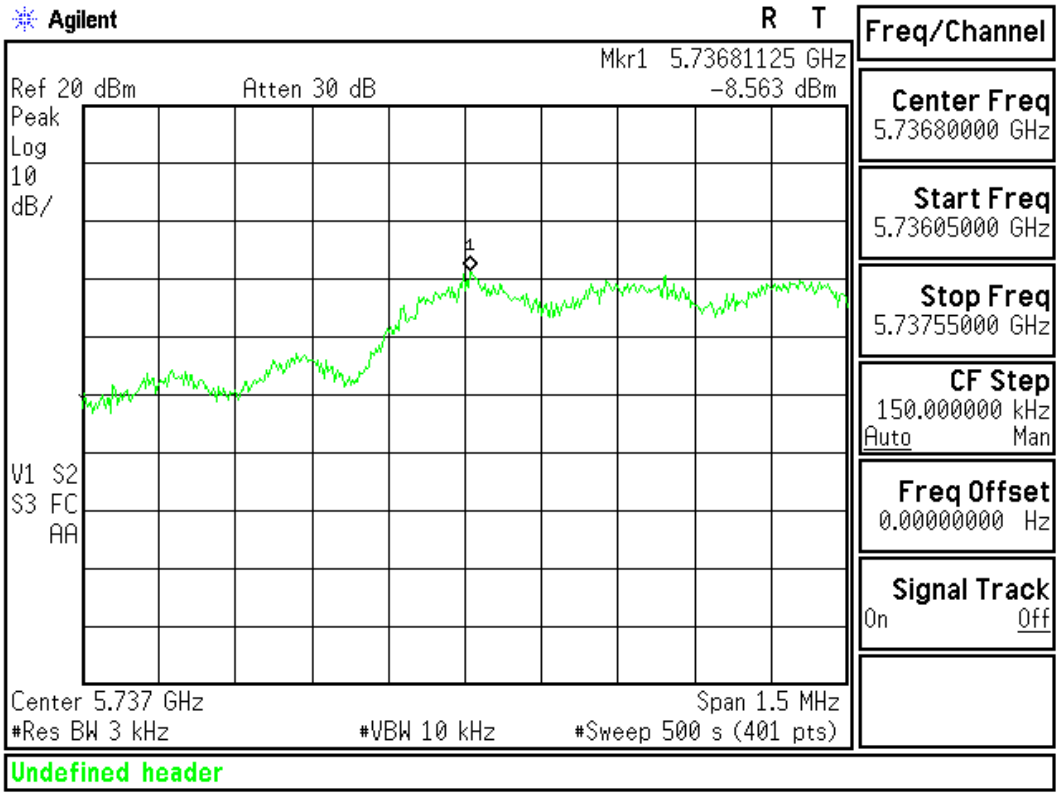
Figure Channel 11:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5745MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149 (6Mbps)	5745.000	-8.563	< 8dBm	Pass

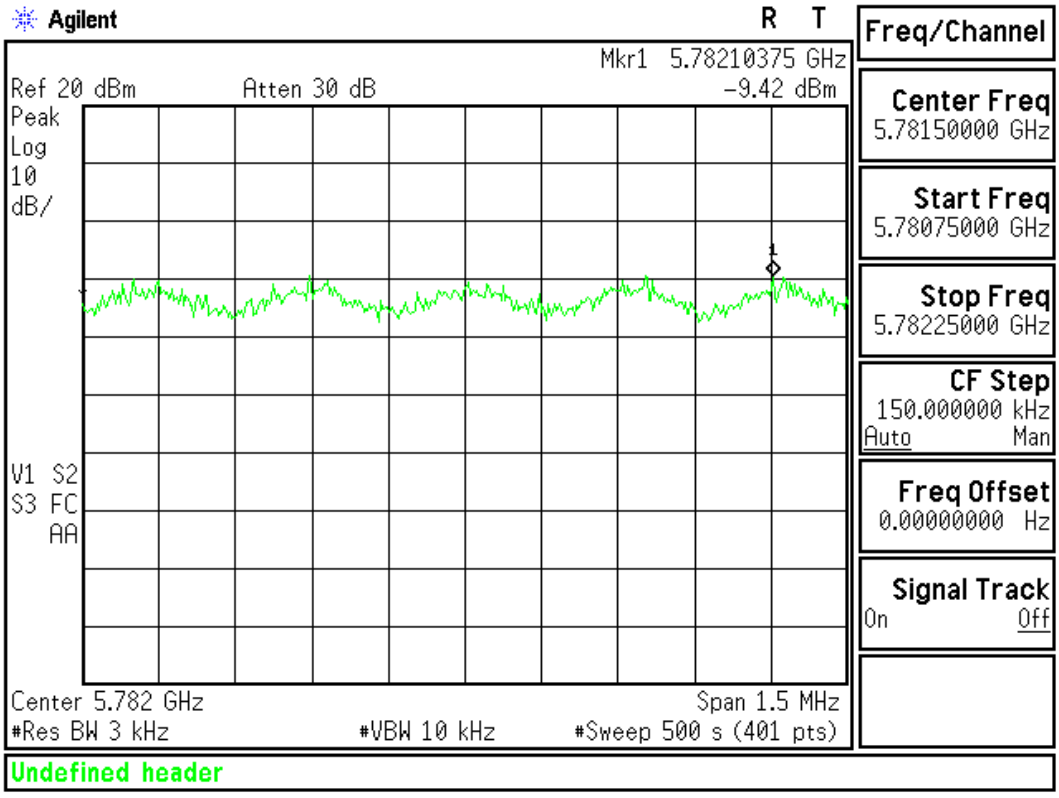
Figure Channel 149:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5785MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
157(6Mbps)	5785.000	-9.42	< 8dBm	Pass

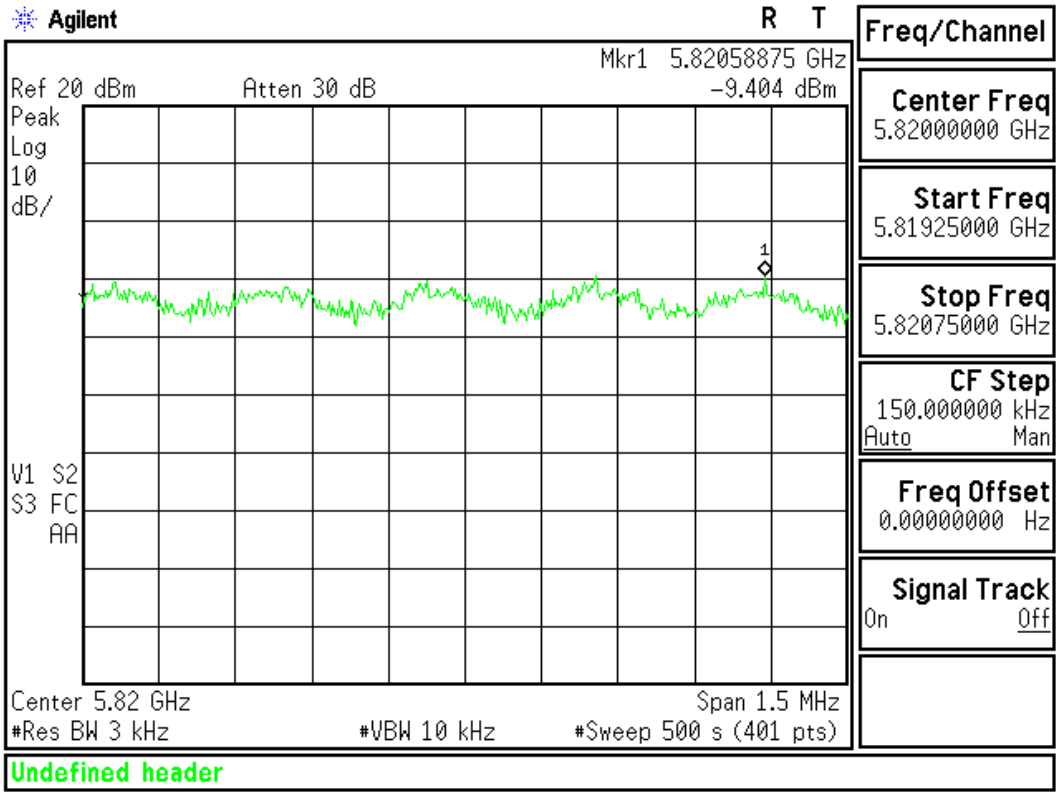
Figure Channel 157:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter - 802.11a 6Mbps-Antenna 1 (5825MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
165 (6Mbps)	5825.000	-9.404	< 8dBm	Pass

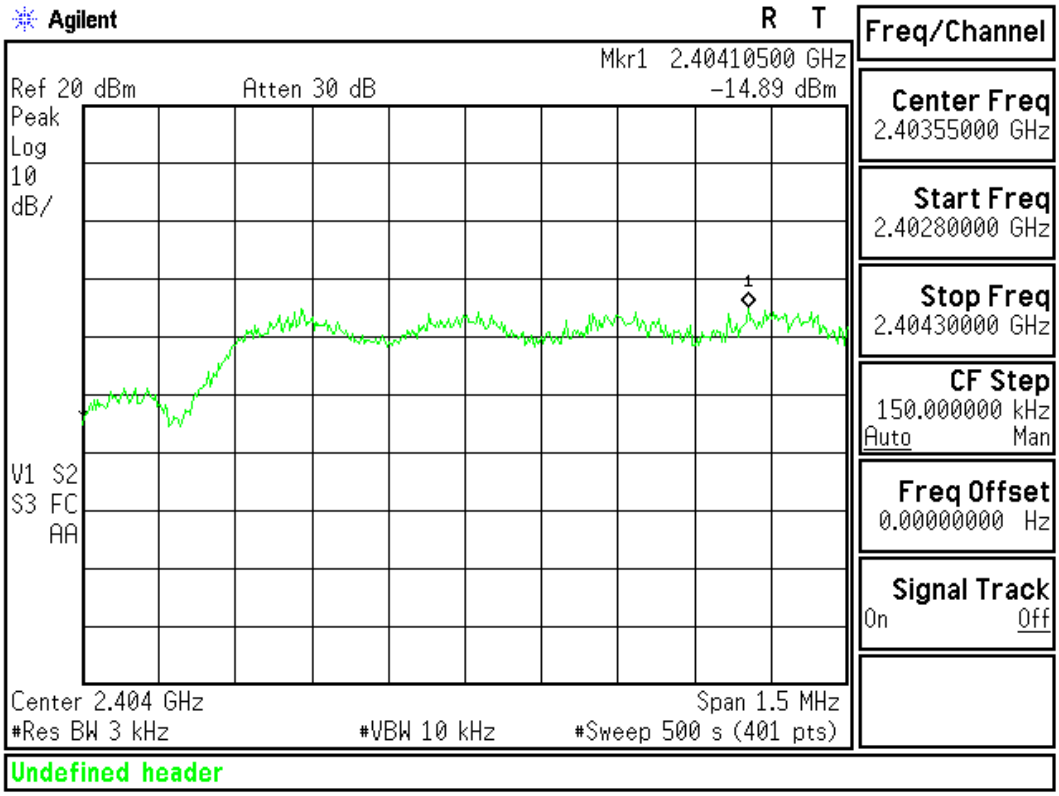
Figure Channel 165:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (13.5Mbps)	2412.00	-14.89	< 8dBm	Pass

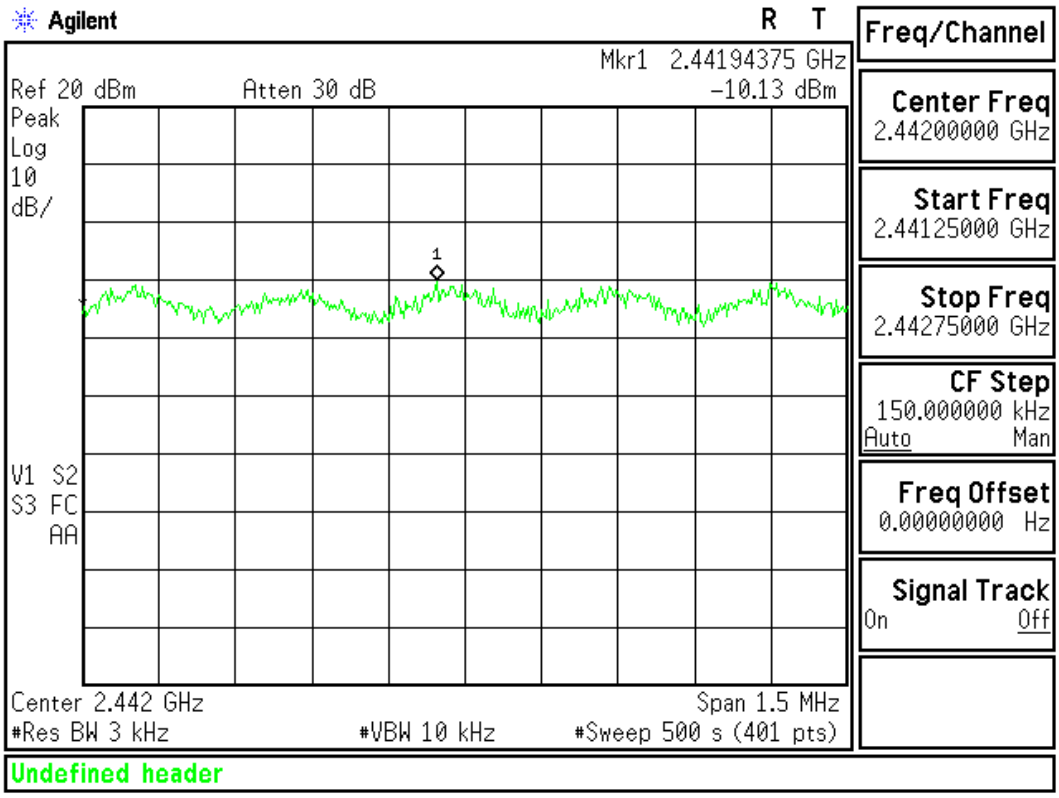
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (13.5Mbps)	2437.000	-10.13	< 8dBm	Pass

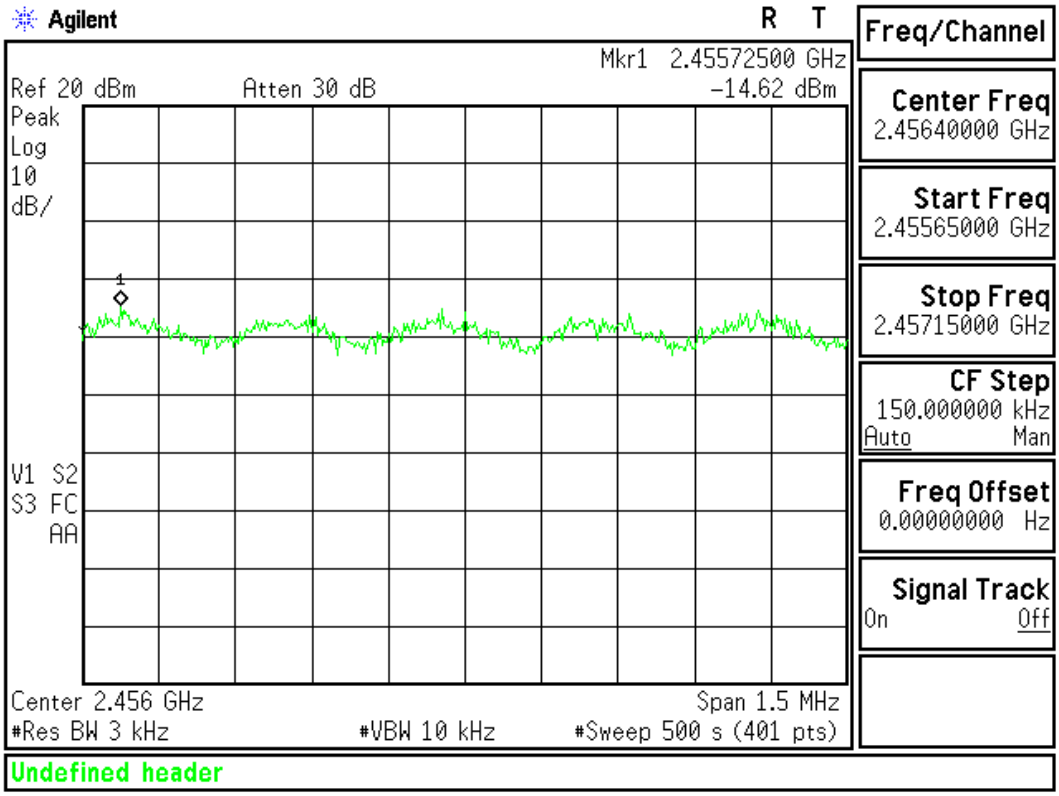
Figure Channel 6:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmitter - 802.11n-20BW_13.5Mbps(2.4G Band)-Antenna 1 (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (13.5Mbps)	2462.00	-14.62	< 8dBm	Pass

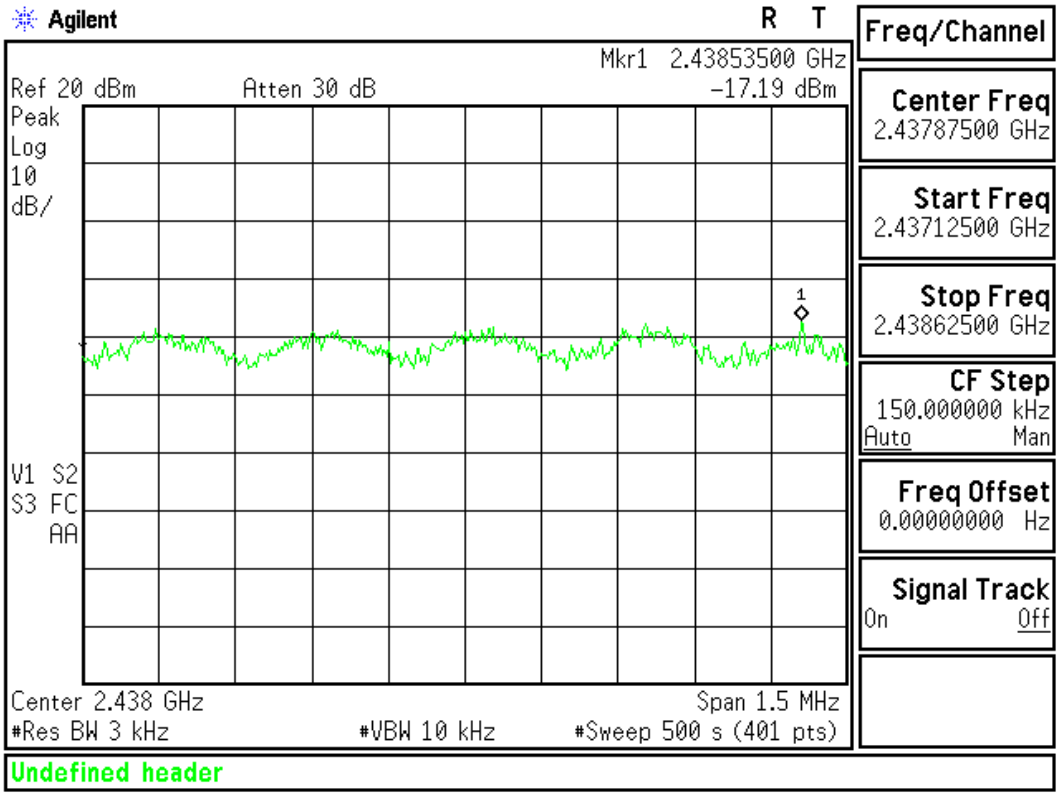
Figure Channel 11:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2422MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (27Mbps)	2422.00	-17.19	< 8dBm	Pass

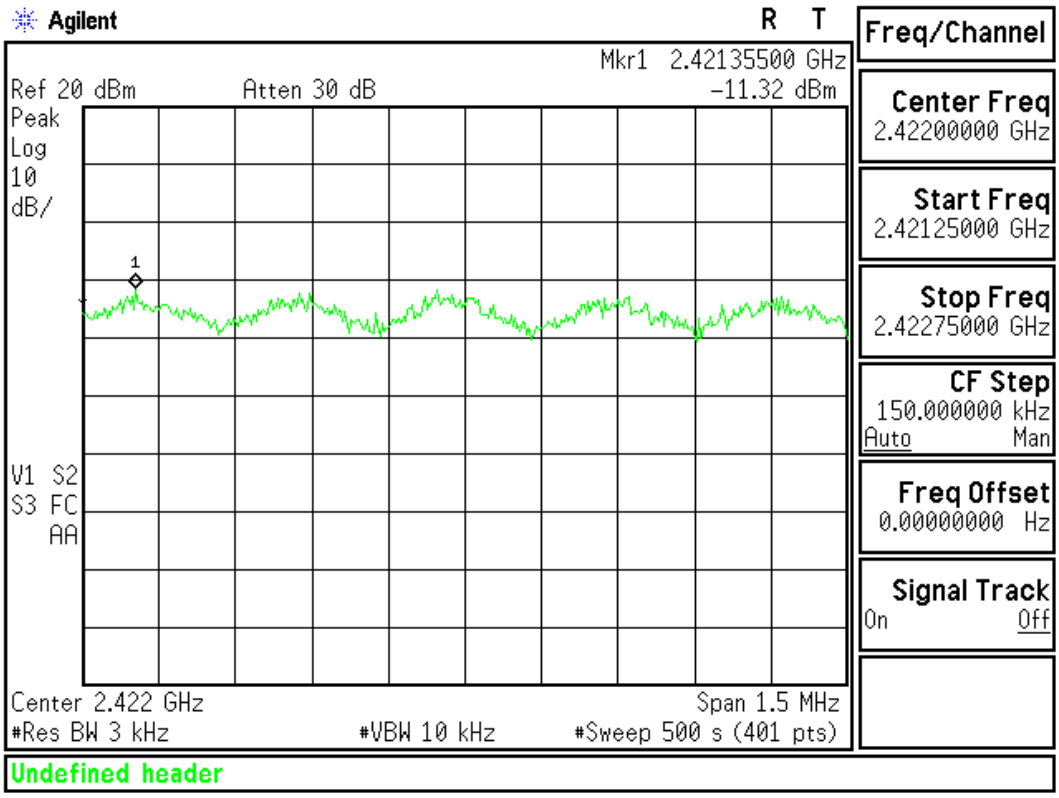
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
4 (27Mbps)	2437.000	-11.32	< 8dBm	Pass

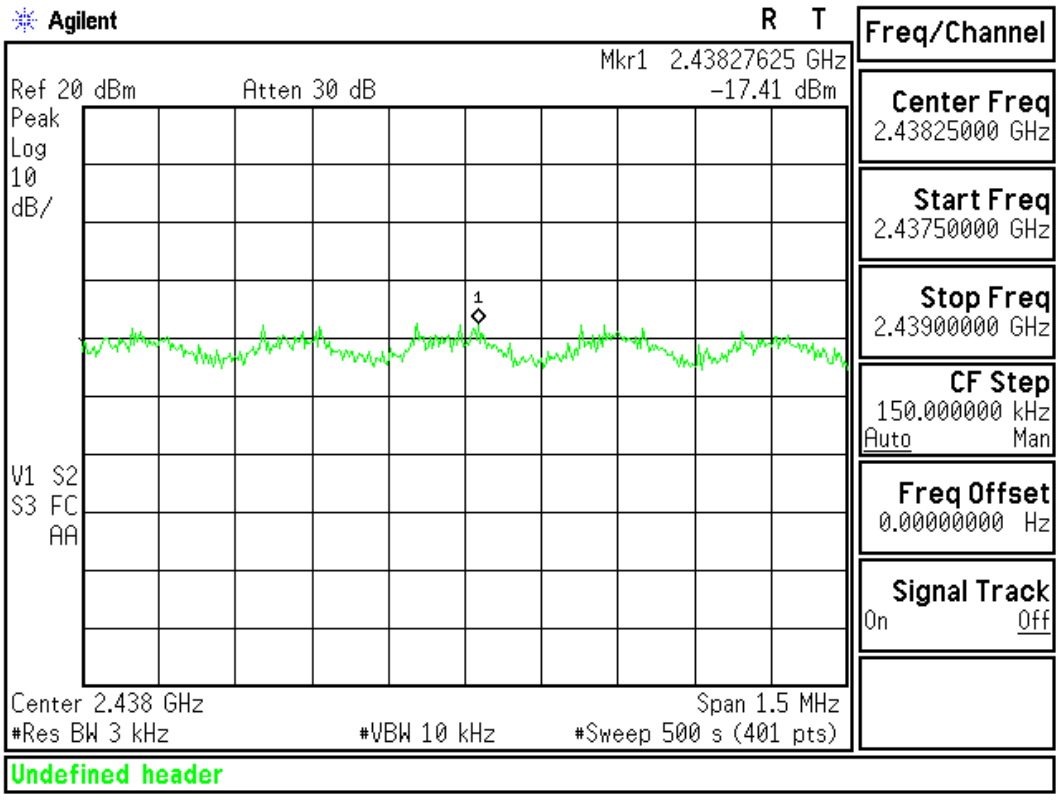
Figure Channel 4:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmitter - 802.11n-40BW_27Mbps(2.4G Band)-Antenna 1 (2452MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
07 (27Mbps)	2452.00	-17.41	< 8dBm	Pass

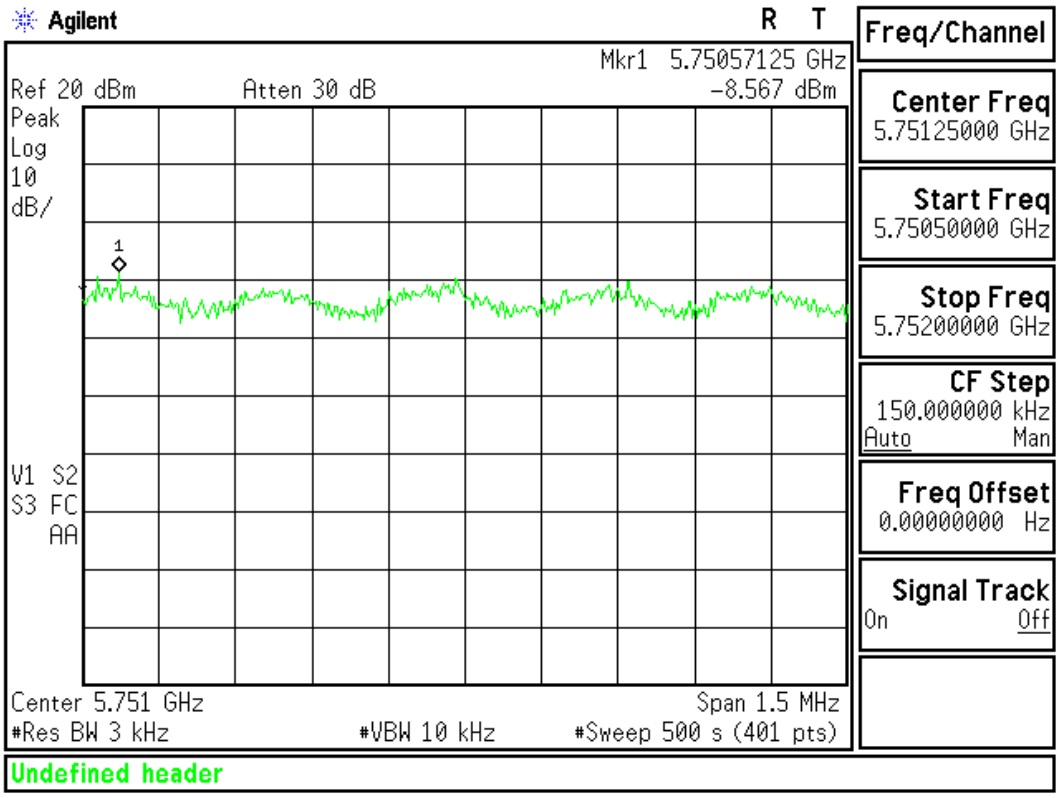
Figure Channel 7:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5745MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149 (13.5Mbps)	5745.00	-8.567	< 8dBm	Pass

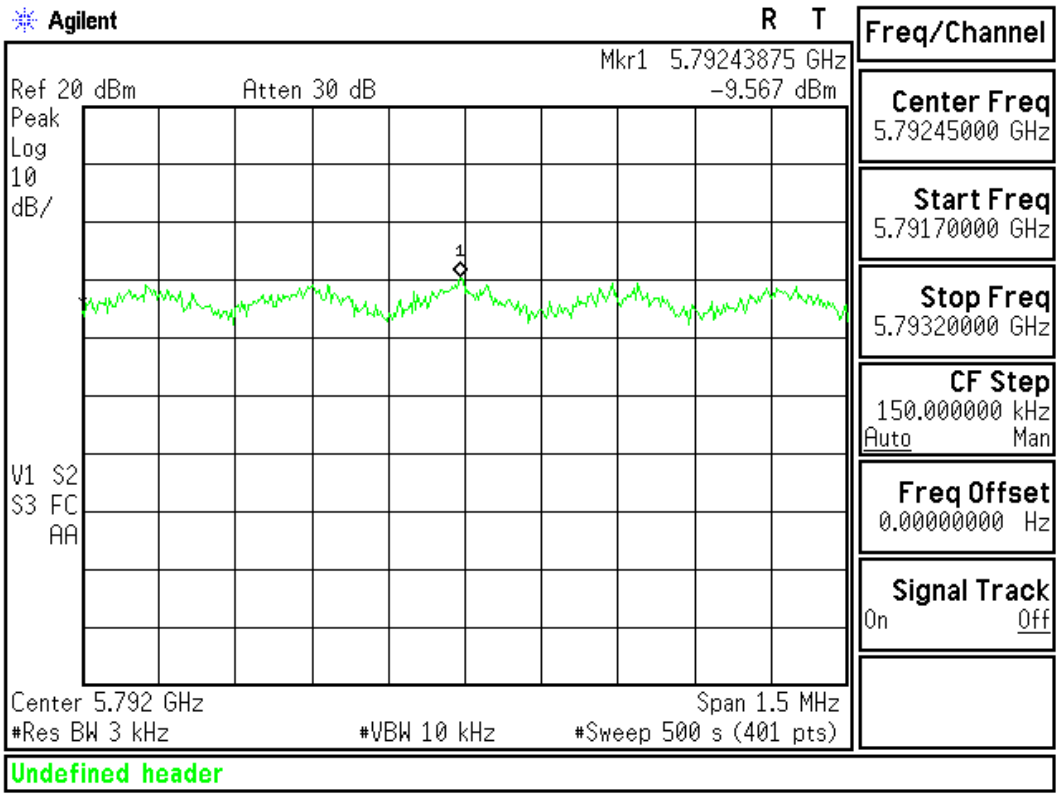
Figure Channel 149:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
157(13.5Mbps)	5785.000	-9.567	< 8dBm	Pass

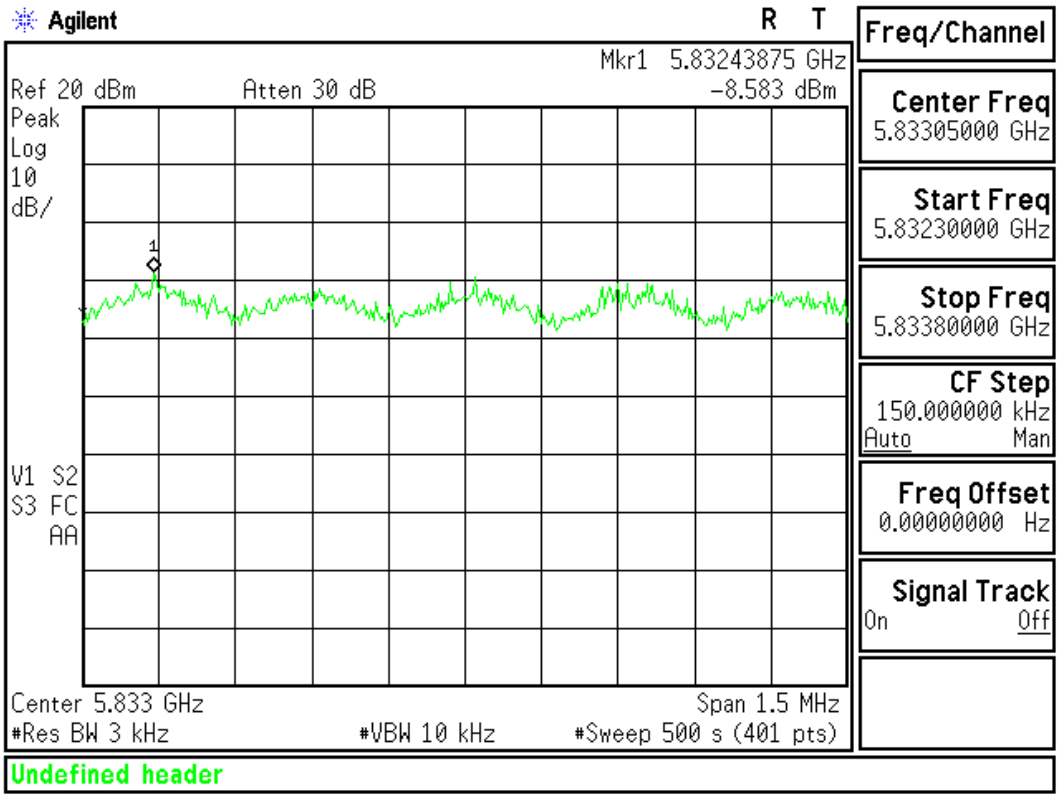
Figure Channel 157:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmitter - 802.11n-20BW_13.5Mbps(5G Band)-Antenna 1 (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
165(13.5Mbps)	5825.00	-8.583	< 8dBm	Pass

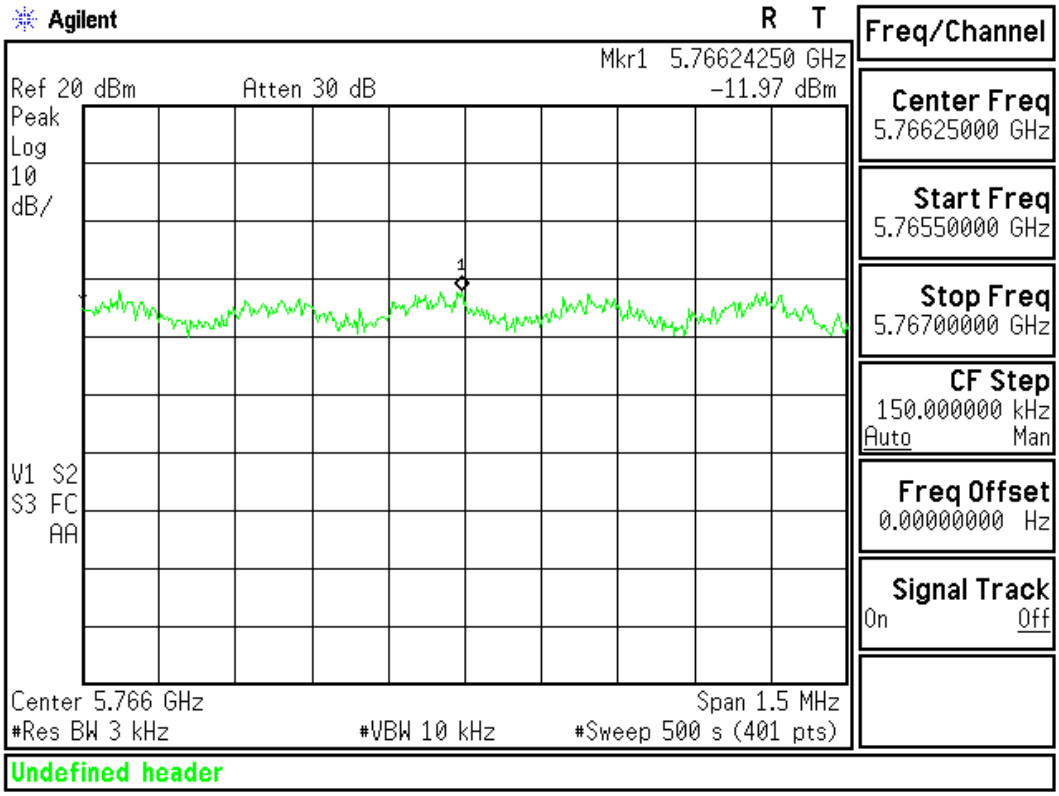
Figure Channel 165:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5755MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151 (27Mbps)	5755.00	-11.97	< 8dBm	Pass

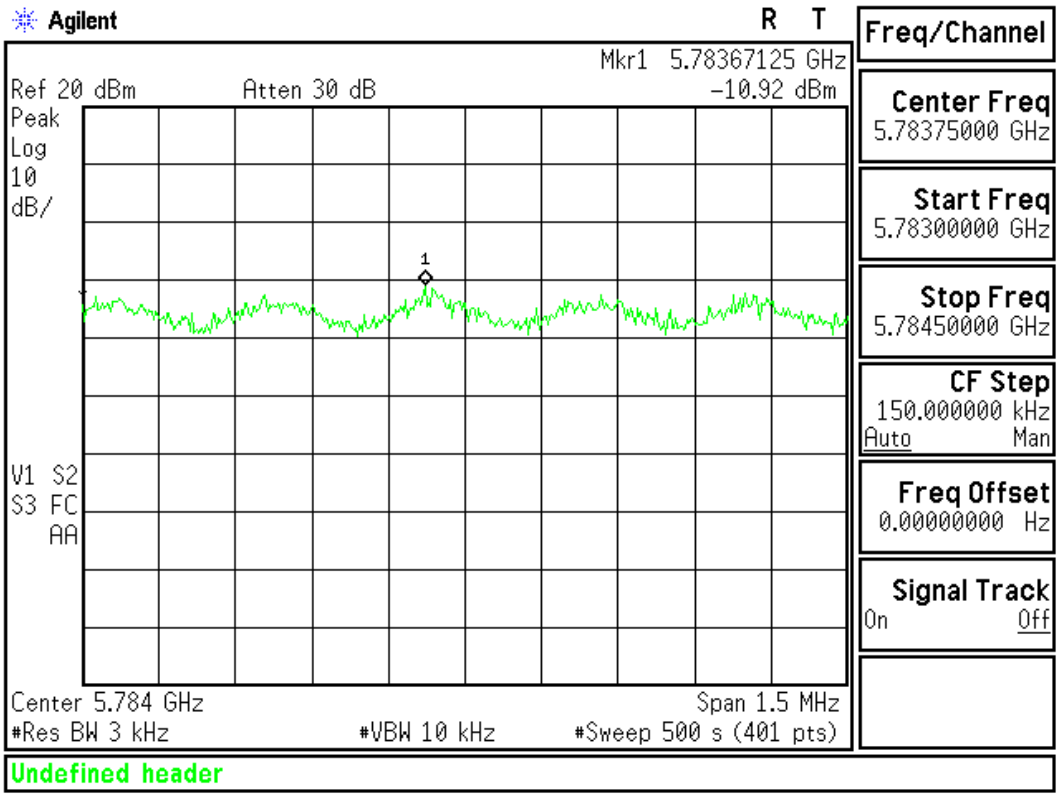
Figure Channel 151:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 7: Transmitter - 802.11n-40BW_27Mbps(5G Band)-Antenna 1 (5795MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
159 (27Mbps)	5795.000	-10.92	< 8dBm	Pass

Figure Channel 159:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.