Test Report

Product Name ： 802.11A/B/G/N MINI-PCI MODULE

Model No. ： 62009015 MINI-PCI MODULE

FCC ID ： UDX-62009015

Applicant ： MERAKI INC.

Address ： 99 RHODE ISLAND ST., 2ND FLOOR, SAN FRANCISCO, CA UNITED STATES. 94103

Date of Receipt ： 2009/01/12

Issued Date ： 2009/02/23

Report No. ： 093S015-RF-US-P09V01

Test Report Certification

Issued Date : 2009/02/23
Report No. : 093S015-RF-US-P09V01

QuieTek

Product Name	:	802.11A/B/G/N MINI-PCI MODULE
Applicant	:	MERAKI INC.
Address	:	99 RHODE ISLAND ST., 2ND FLOOR, SAN FRANCISCO, CA UNITED STATES. 94103
Manufacturer	:	MERAKI INC.
Model No.	:	62009015 Mini-PCI Module
FCC ID	:	UDX-62009015
Rated Voltage	:	AC 120 V / 60 Hz
EUT Voltage	:	DC 3.3V
Trade Name	:	MERAKI
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E: 2007 ANSI C63.4: 2003
Test Result	:	Complied
Performed Location	:	SuZhou EMC laboratory No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., SuZhou, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392

Documented By : Lanny Jin
(Lanny Jin)

Reviewed By : Marlin Chen
(Marlin Chen)

Approved By : Gene Chang
(Gene Chang)

Laboratory Information

We , **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited by the following accreditation Bodies in compliance with ISO 17025, EN 45001 and Guide 25:

Taiwan R.O.C.	**:**	**BSMI, DGT, CNLA**
Germany	**:**	**TUV Rheinland**
Norway	**:**	**Nemko, DNV**
USA	**:**	**FCC, NVLAP**
Japan	**:**	**VCCI**

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/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

NVLAP Lab Code : 200347-0
1313

LinKou Testing Laboratory :
No. 5, 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

NVLAP Lab Code: 200533-0
0914

Suzhou Testing Laboratory :
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TEL : +86-512-6251-5088 / FAX : 86-512-6251-5098 E-Mail : service@quietek.com

NVLAP Lab Code : 200743-0
1596

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

Product Name	802.11A/B/G/N MINI-PCI MODULE
Trade Name	MERAKI
Model No.	62009015 MINI-PCI MODULE
FCC ID	UDX-62009015

WLAN	802.11A/B/G/N MINI-PCI MODULE
Working Voltage	DC 3.3V
Frequency Range	**For 2.4GHz Band** 802.11b/g/n(20MHz): 2412 - 2462 MHz 802.11n(40MHz): 2422 - 2452 MHz **For 5.0GHz Band** 802.11a/n(20MHz): 5180 - 5320 MHz, 5500 - 5700 MHz, 5745 - 5805MHz 802.11n(40MHz): 5190 - 5310 MHz, 5510 - 5670 MHz, 5755 - 5795 MHz
Channel Number	**For 2.4GHz Band** 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7 **For 5.0GHz Band** 802.11a/n(20MHz): 23 802.11n(40MHz): 11
Type of Modulation	802.11b: DSSS
	802.11a/g/n: OFDM
Data Rate	802.11a/g: 6/9/12/18/24/36/48/54 Mbps
	802.11b: 1/2/5.5/11 Mbps
	802.11n: up to 450 Mbps
Channel Control	Auto
Antenna Type	Omni Antenna
Antenna Gain	Refer to the “Antenna List”

For 2.4GHz Band

802.11b/g/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	N/A	N/A

802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	N/A	N/A

For 5.0GHz Band

802.11a/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260 MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500 MHz	104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz	N/A	N/A

802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	151	5755 MHz	159	5795 MHz	N/A	N/A

802.11a/b/g/n Antenna List

Antenna	Manufacturer	Model No.	Peak Gain
Combined Antenna	Exceltek Electronics (Kunshan) Co.,Ltd	C0053-ANG0004	2.0 dBi

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11a
Mode 2: Transmit by 802.11n (20MHz)
Mode 3: Transmit by 802.11n (40MHz)

Note:

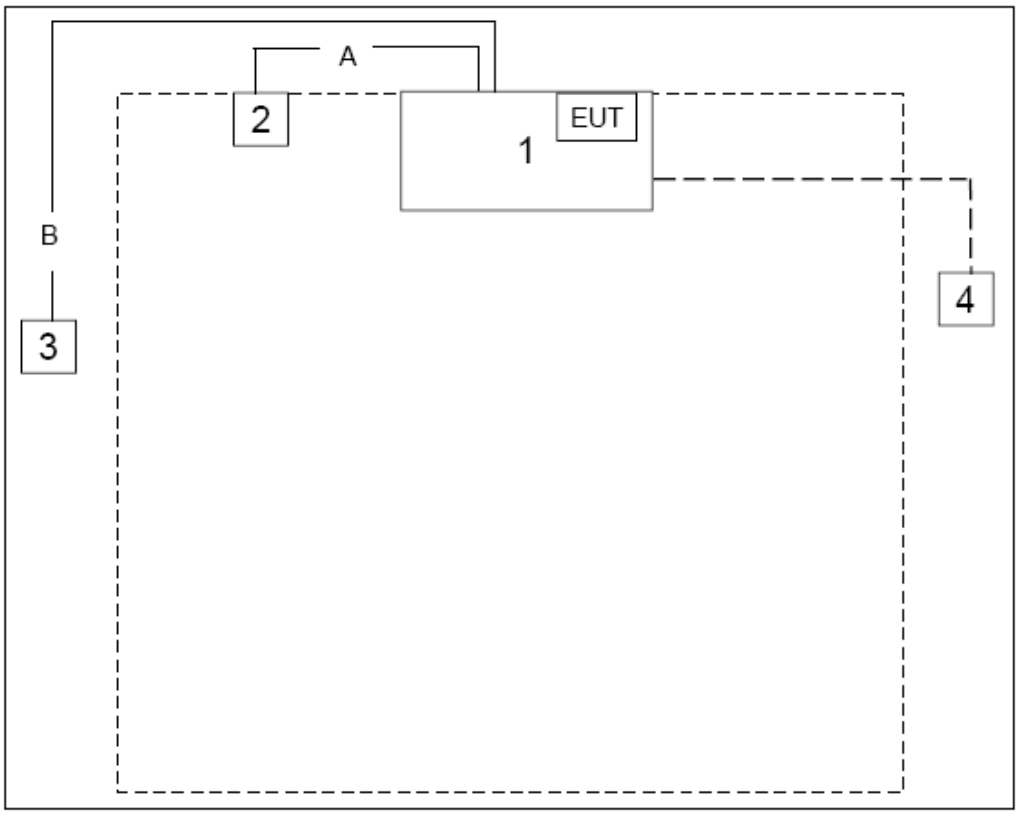
1. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. While the EUT is operational for all the 5GHz frequency bands as stated in the EUT description, the report FCC15.407 (1) contains only compliance testing results for the bands 5.150GHz - 5.250GHz and 5.725GHz and 5.825GHz, tested in accordance with FCC15.407.

1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Router Frame	Compex	B-543W	N/A	N/A
2	Adapter	DVE	DSA-15P-24	N/A	N/A
3	Notebook	DELL	PP19L	JH097 A01	Power by adapter
4	MacBook	Apple	MB061CH	W8732B4TZ5V	Power by adapter

1.4. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	Power Cable	Non-Shielded, 1.8m
B	LAN Cable	Non-Shielded, >10m

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Execute the “brinks” software, then select test mode and test channel, press OK to transmit data with another Notebook P.C. by wireless.

2. Technical Test

2.1. Summary of Test Result

☒ No deviations from the test standards

☐ Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.207	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.209	Yes	No
26dB Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.407(a)	Yes	No
Power Output	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.407(a)	Yes	No
Peak Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.407(a)	Yes	No
Peak Excursion	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.407(a)(6)	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.205, 15.407(b)	Yes	No
Frequency Stability	FCC CFR Title 47 Part 15 Subpart C: 2007 Section 15.407(g)	Yes	No

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

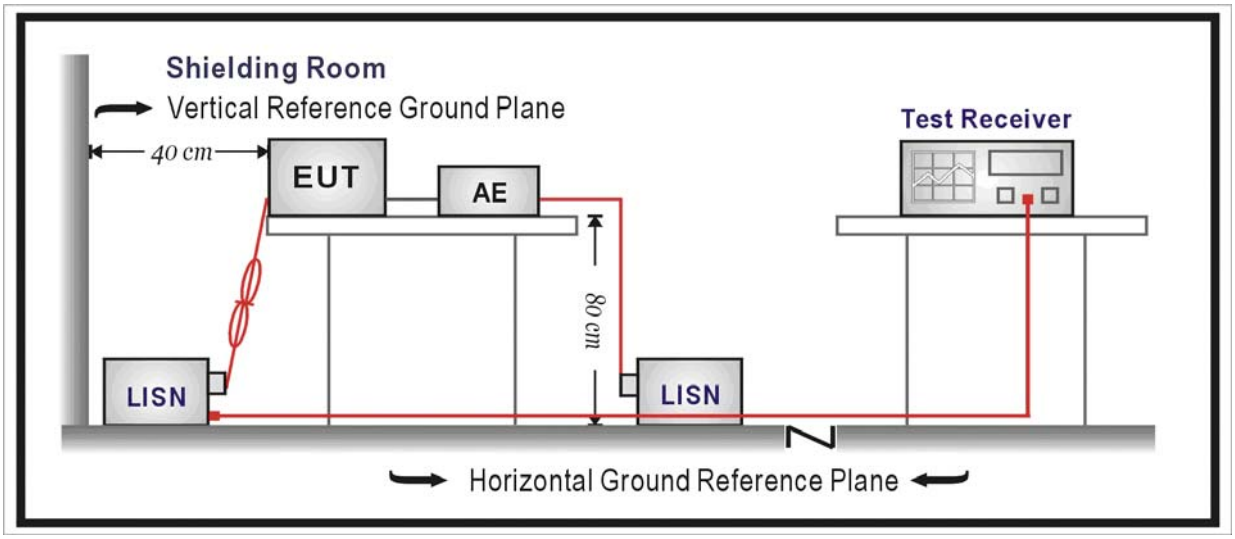
3.1. Test Equipment

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2008/06/28
Two-Line V-Network	R&S	ENV216	100013	2008/06/28
Two-Line V-Network	R&S	ENV216	100014	2008/06/28
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2007/11/25
50ohm Termination	SHX	TF2	07081401	2008/10/19
Coaxial Cable	Luthi	RG214	519358	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH004	2008/03/31

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

3.2. Test Setup



3.3. Limit

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

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

3.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

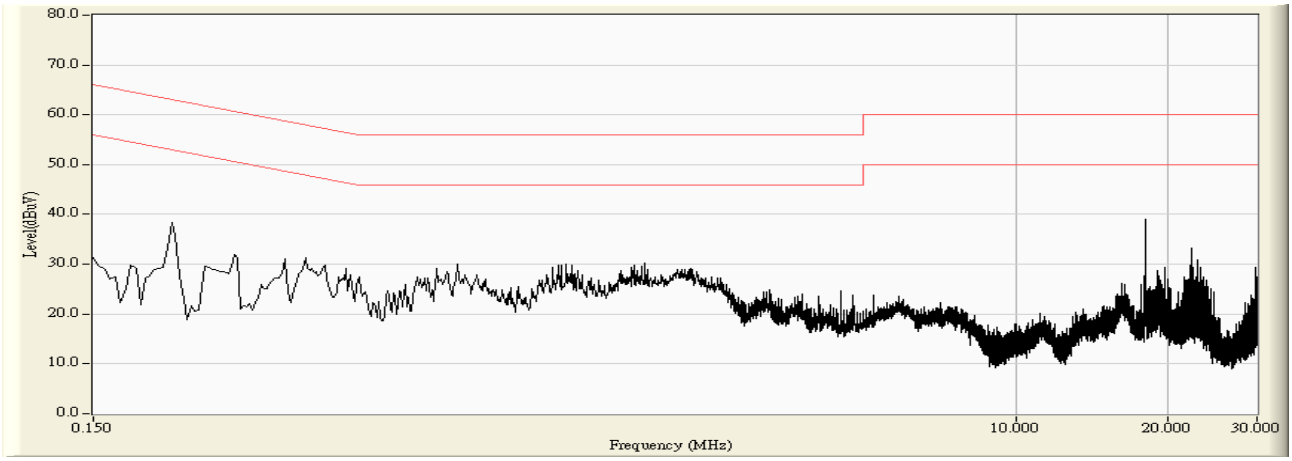
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Uncertainty

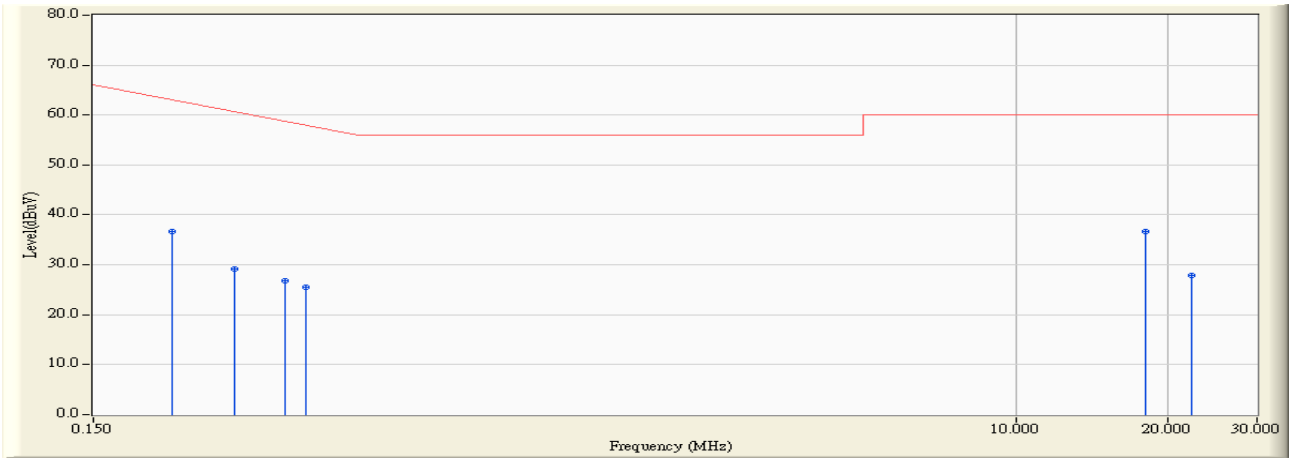
The measurement uncertainty is defined as ± 2.02 dB

3.6. Test Result

Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:51**
Limit : FCC_SPartC_15.207_00M_QP	**Margin : 10**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line1**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:52**
Limit : FCC_SPartC_15.207_00M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line1**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**

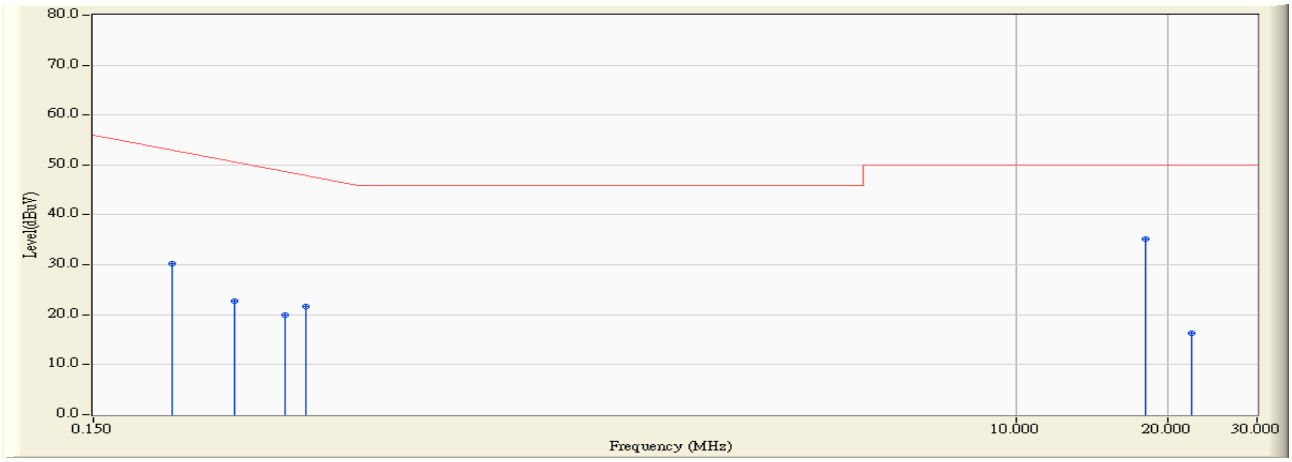


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.214	9.378	27.400	36.778	-27.393	64.171	QUASIPEAK
2		0.286	9.423	19.800	29.223	-32.891	62.114	QUASIPEAK
3		0.358	9.509	17.400	26.909	-33.148	60.057	QUASIPEAK
4		0.394	9.553	16.000	25.553	-33.476	59.029	QUASIPEAK
5	*	18.034	10.170	26.500	36.670	-23.330	60.000	QUASIPEAK
6		22.238	10.300	17.500	27.800	-32.200	60.000	QUASIPEAK

Note:

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

Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:52**
Limit : FCC_SPartC_15.207_00M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line1**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**

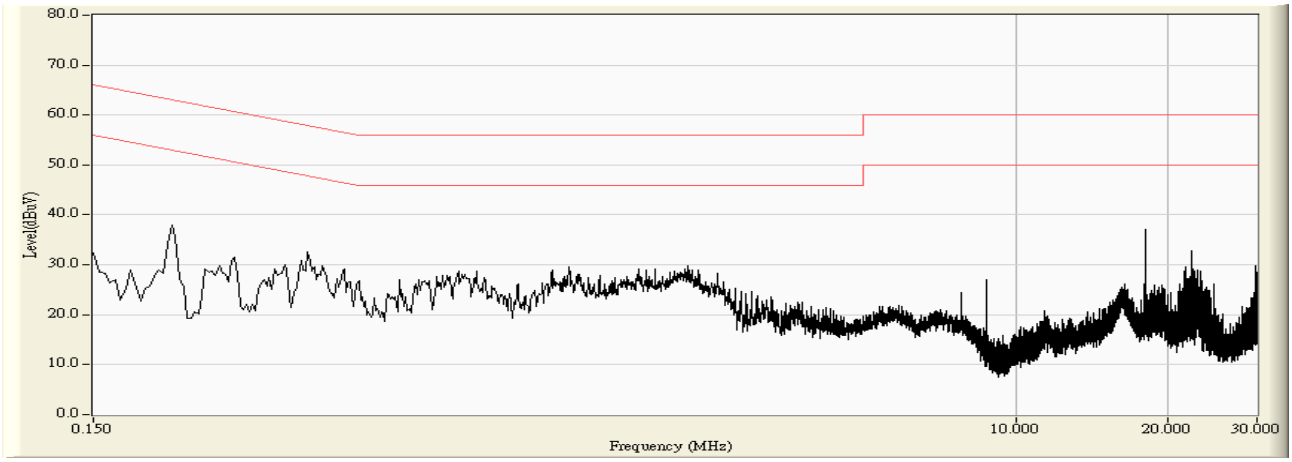


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.214	9.378	20.900	30.278	-23.893	54.171	AVERAGE
2		0.286	9.423	13.300	22.723	-29.391	52.114	AVERAGE
3		0.358	9.509	10.500	20.009	-30.048	50.057	AVERAGE
4		0.394	9.553	12.100	21.653	-27.376	49.029	AVERAGE
5	*	18.034	10.170	25.000	35.170	-14.830	50.000	AVERAGE
6		22.238	10.300	6.000	16.300	-33.700	50.000	AVERAGE

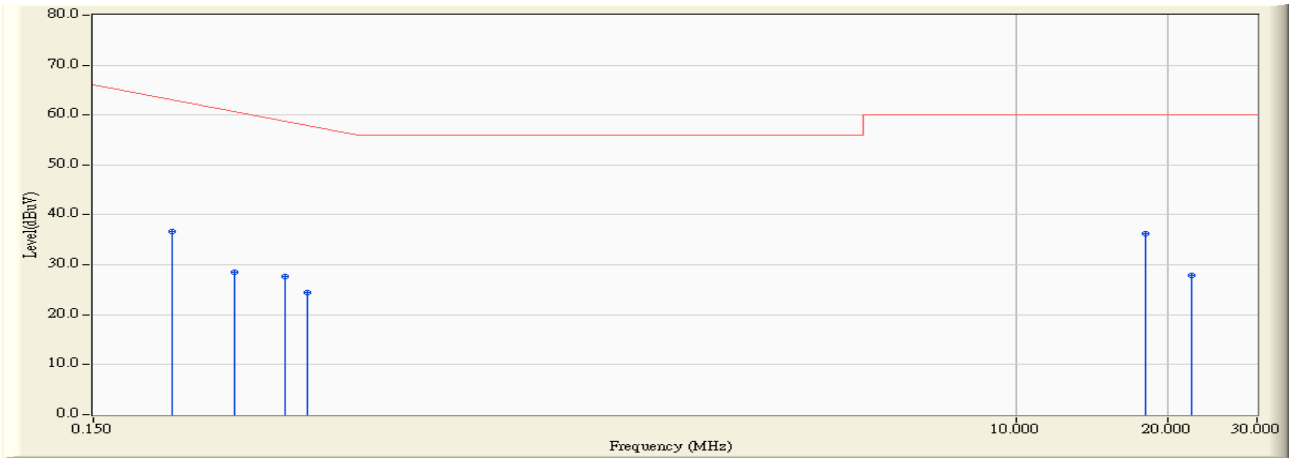
Note:

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

Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:54**
Limit : FCC_SPartC_15.207_00M_QP	**Margin : 10**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line2**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:56**
Limit : FCC_SPartC_15.207_00M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line2**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**

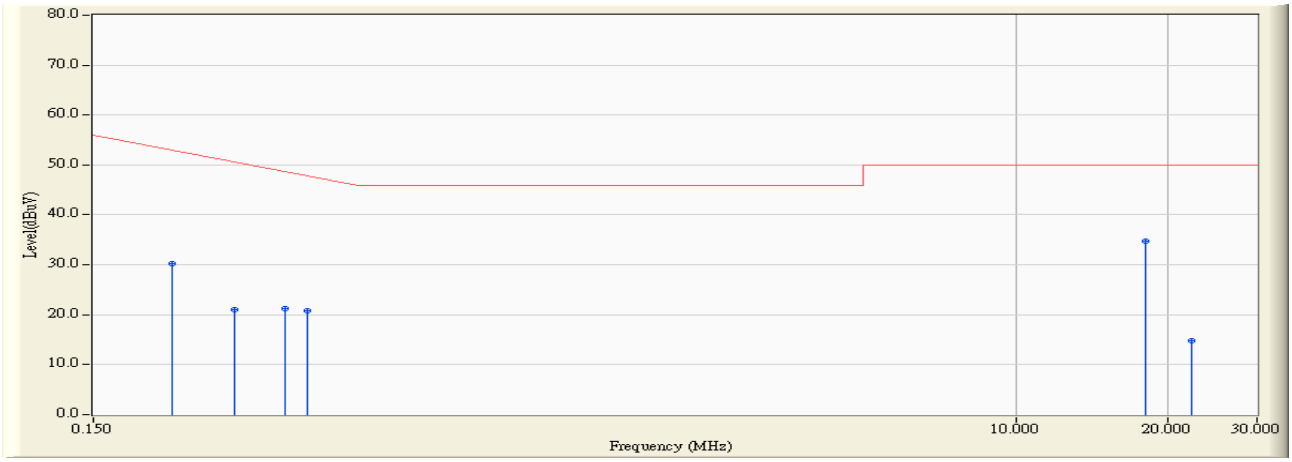


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.214	9.478	27.300	36.778	-27.393	64.171	QUASIPEAK
2		0.286	9.543	19.000	28.543	-33.571	62.114	QUASIPEAK
3		0.358	9.619	18.100	27.719	-32.338	60.057	QUASIPEAK
4		0.398	9.659	14.700	24.359	-34.555	58.914	QUASIPEAK
5	*	18.034	10.110	26.100	36.210	-23.790	60.000	QUASIPEAK
6		22.238	10.280	17.500	27.780	-32.220	60.000	QUASIPEAK

Note:

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

Engineer : Robin	
Site : SR-1 (Conducted Emission and Power Disturbance Test)	**Time : 2008/10/09 - 16:56**
Limit : FCC_SPartC_15.207_00M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : ENV216_100013(0.009-30MHz) - Line2**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.214	9.478	20.700	30.178	-23.993	54.171	AVERAGE
2		0.286	9.543	11.400	20.943	-31.171	52.114	AVERAGE
3		0.358	9.619	11.600	21.219	-28.838	50.057	AVERAGE
4		0.398	9.659	11.100	20.759	-28.155	48.914	AVERAGE
5	*	18.034	10.110	24.600	34.710	-15.290	50.000	AVERAGE
6		22.238	10.280	4.600	14.880	-35.120	50.000	AVERAGE

Note:

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

4. Radiated Emission

4.1. Test Equipment

☒Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
EMI Test Receiver	R&S	ESCI	100573	2008/05/10
Preamplifier	Quietek	AP-025C	QT-AP003	2008/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112B	2932	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2008/06/28
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2008/03/03
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2008/03/03
50ohm Coaxial Switch	Anritsu	MP59B	6200447304	2007/11/25
Coaxial Cable	Huber+Suhner	AC2-C	04	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2008/03/31

☐Radiated Emission / AC-3

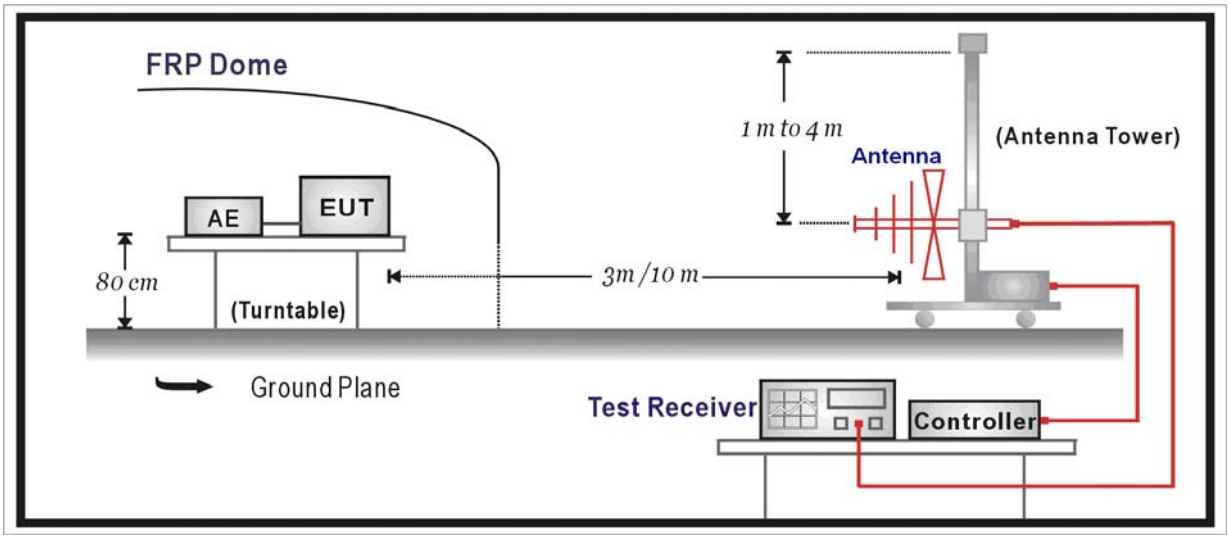
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
EMI Test Receiver	R&S	ESCI	100176	2007/11/15
Preamplifier	Quietek	AP-025C	QT-AP004	2007/11/25
Preamplifier	Quietek	AP-180C	CHM-0602012	2007/11/25
Bilog Type Antenna	Schaffner	CBL6112D	22254	2007/11/22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2007/11/25
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2008/03/03
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2008/03/03
50ohm Coaxial Switch	Anritsu	MP59B	6200464463	2007/11/25
Coaxial Cable	Huber+Suhner	AC3-C	05	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2008/03/31

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

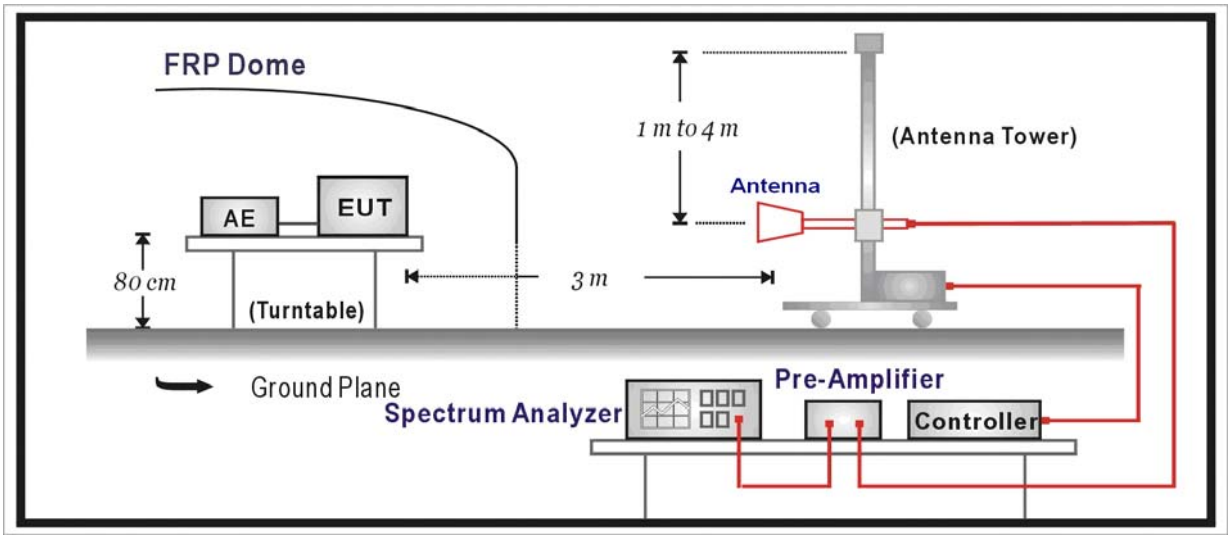
Note 2: The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: 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.

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.

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

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

Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna has the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 60 degrees for H-plane and 90 degrees for E-plane.

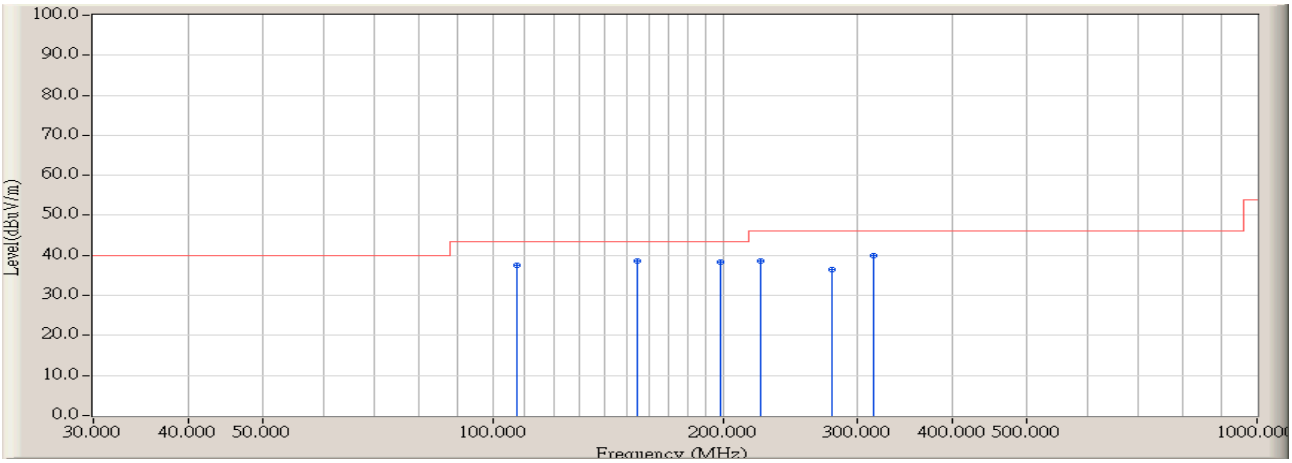
4.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB

below 1G is defined as ± 3.8 dB

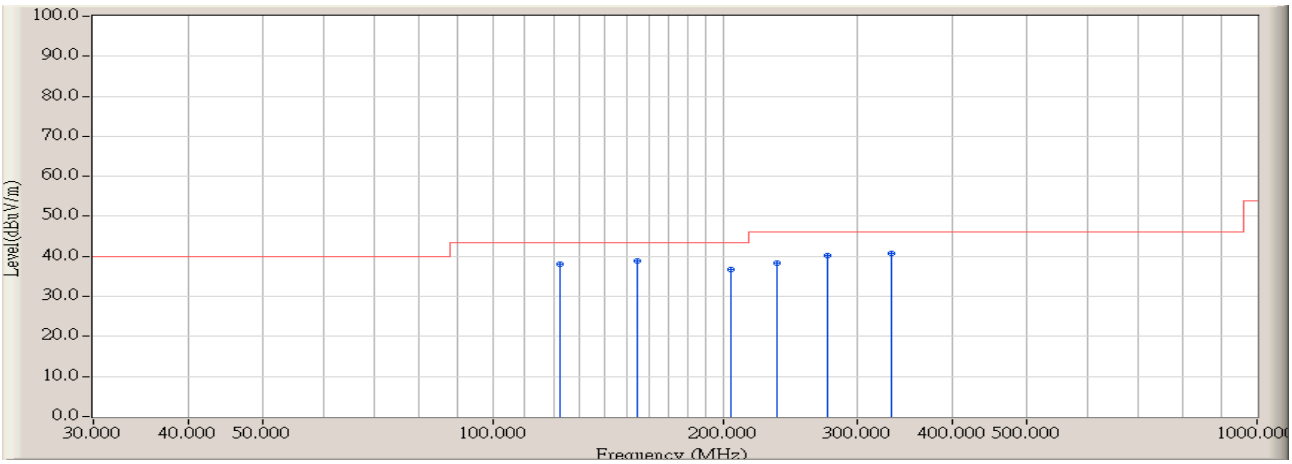
4.6. Test Result

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/10/22 - 10:28**
Limit : FCC_SpartC_15.209_03M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Model 1: Transmit by 802.11n(20MHz) at channel 5180MHz**



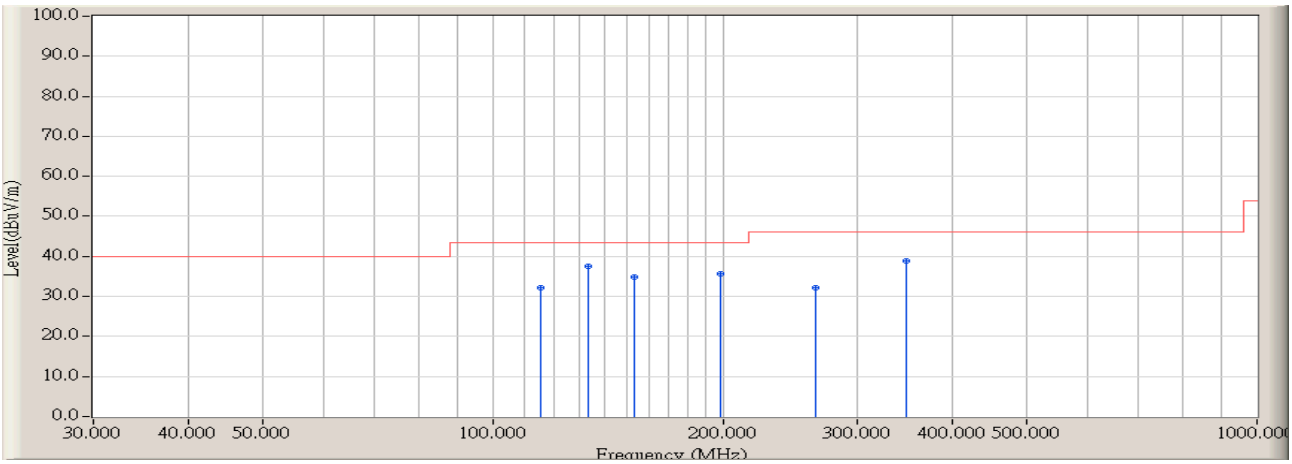
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		107.600	-10.764	48.373	37.609	-5.911	43.520	QUASIPEAK	114.500	172.600
2	*	154.483	-9.554	48.168	38.614	-4.906	43.520	QUASIPEAK	100.000	158.000
3		198.133	-10.999	49.362	38.363	-5.157	43.520	QUASIPEAK	100.000	163.000
4		224.000	-8.608	47.239	38.631	-7.389	46.020	QUASIPEAK	123.600	75.000
5		277.350	-8.688	45.131	36.443	-9.577	46.020	QUASIPEAK	112.600	82.900
6		314.533	-7.027	46.913	39.886	-6.134	46.020	QUASIPEAK	145.500	49.600

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/10/22 - 10:28**
Limit : FCC_SpartC_15.209_03M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : CBL6112D_22254(30-2000MHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Model 1: Transmit by 802.11n(20MHz) at channel 5180MHz**



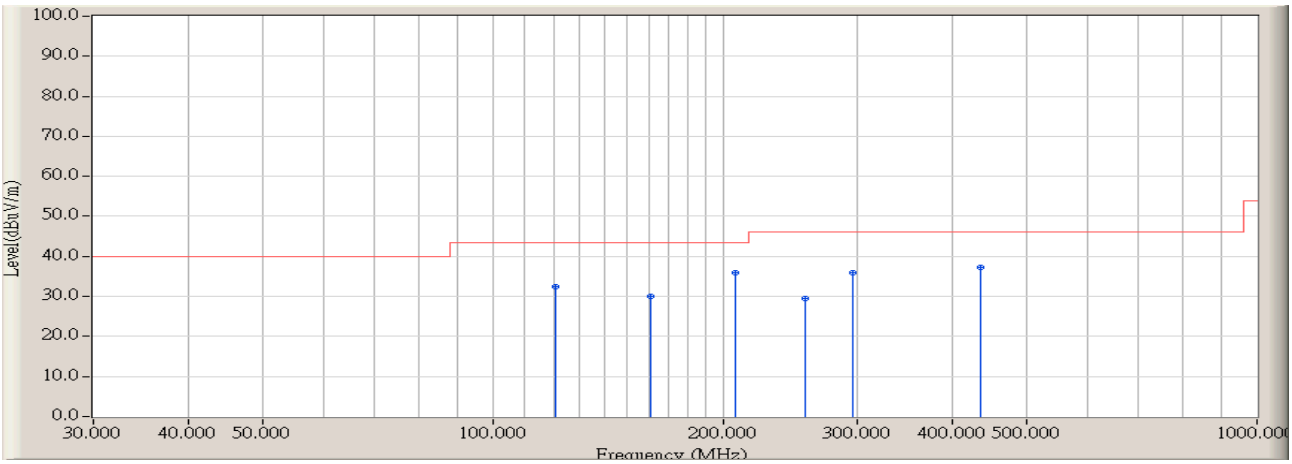
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		122.150	-9.970	47.982	38.012	-5.508	43.520	QUASIPEAK	100.000	185.000
2	*	154.483	-9.554	48.521	38.967	-4.553	43.520	QUASIPEAK	104.000	117.000
3		204.600	-10.514	47.240	36.726	-6.794	43.520	QUASIPEAK	105.900	54.000
4		235.317	-9.544	47.822	38.279	-7.741	46.020	QUASIPEAK	152.600	188.000
5		274.117	-8.627	48.812	40.185	-5.835	46.020	QUASIPEAK	104.000	85.000
6		332.317	-6.670	47.475	40.805	-5.215	46.020	QUASIPEAK	100.000	136.000

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/10/22 - 10:30**
Limit : FCC_SpartC_15.209_03M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : CBL6112D_22254(30-2000MHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		115.683	-10.272	42.566	32.294	-11.226	43.520	QUASIPEAK	136.100	112.500
2	*	133.467	-9.432	46.989	37.558	-5.962	43.520	QUASIPEAK	100.000	75.800
3		152.867	-9.523	44.282	34.759	-8.761	43.520	QUASIPEAK	113.600	152.600
4		198.133	-10.999	46.583	35.584	-7.936	43.520	QUASIPEAK	100.000	118.500
5		264.417	-8.570	40.699	32.129	-13.891	46.020	QUASIPEAK	114.600	45.800
6		346.867	-6.192	45.140	38.949	-7.071	46.020	QUASIPEAK	100.000	315.000

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/10/22 - 10:31**
Limit : FCC_SpartC_15.209_03M_QP	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : CBL6112D_22254(30-2000MHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		120.533	-10.067	42.442	32.374	-11.146	43.520	QUASIPEAK	100.000	152.600
2		160.950	-9.895	39.834	29.939	-13.581	43.520	QUASIPEAK	100.000	86.900
3	*	207.833	-10.338	46.251	35.913	-7.607	43.520	QUASIPEAK	112.500	93.500
4		256.333	-8.611	38.168	29.557	-16.463	46.020	QUASIPEAK	100.000	188.000
5		295.133	-8.220	44.104	35.885	-10.135	46.020	QUASIPEAK	105.600	325.000
6		434.167	-4.671	41.966	37.294	-8.726	46.020	QUASIPEAK	100.000	156.500

Mode 1: 802.11a (Chain 010)							
Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 36 (5180MHz)							
1498.00	H	46.45	74	-27.55	PK	105.400	114.700
1498.00	H	32.33	54	-21.67	AV	105.400	114.700
1498.00	V	49.43	74	-24.57	PK	103.500	63.800
1498.00	V	36.42	54	-17.58	AV	103.500	63.800
Channel 40 (5200MHz)							
2058.25	H	48.02	74	-25.98	PK	100.000	84.900
2058.25	H	34.38	54	-19.62	AV	100.000	84.900
2058.25	V	50.47	74	-23.53	PK	100.000	185.000
2058.25	V	37.14	54	-16.86	AV	100.000	185.000
Channel 48 (5240MHz)							
1498.00	H	46.85	74	-27.15	PK	100.000	153.000
1498.00	H	33.09	54	-20.91	AV	100.000	153.000
1498.00	V	50.27	74	-23.73	PK	104.000	206.000
1498.00	V	37.48	54	-16.52	AV	104.000	206.000
Channel 149 (5745MHz)							
1498.000	H	48.55	74	-25.45	PK	120.50	65.80
1498.000	H	36.35	54	-17.65	AV	120.50	65.80
1498.000	V	49.03	74	-24.97	PK	114.20	144.80
1498.000	V	37.02	54	-16.98	AV	114.20	144.80
Channel 157 (5785MHz)							
1498.000	H	47.22	74	-26.78	PK	100.00	165.20
1498.000	H	35.31	54	-18.69	AV	100.00	165.20
1498.000	V	50.27	74	-23.73	PK	100.00	205.00
1498.000	V	38.84	54	-15.16	AV	100.00	205.00
Channel 161 (5805MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	35.39	54	-18.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	37.58	54	-16.42	AV	106.00	328.00

Mode 1: 802.11a (Chain 100)							
Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 36 (5180MHz)							
1498.00	H	47.55	74	-26.45	PK	120.500	65.800
1498.00	H	34.35	54	-19.65	AV	120.500	65.800
1498.00	V	48.03	74	-25.97	PK	114.200	144.800
1498.00	V	36.02	54	-17.98	AV	114.200	144.800
Channel 40 (5200MHz)							
2058.25	H	47.22	74	-26.78	PK	100.000	165.200
2058.25	H	33.31	54	-20.69	AV	100.000	165.200
2058.25	V	50.27	74	-23.73	PK	100.000	205.000
2058.25	V	38.84	54	-15.16	AV	100.000	205.000
Channel 48 (5240MHz)							
1498.00	H	47.85	74	-26.15	PK	100.000	187.000
1498.00	H	34.39	54	-19.61	AV	100.000	187.000
1498.00	V	48.27	74	-25.73	PK	106.000	328.000
1498.00	V	36.58	54	-17.42	AV	106.000	328.000
Channel 149 (5745MHz)							
1498.000	H	48.55	74	-25.45	PK	120.50	65.80
1498.000	H	36.35	54	-17.65	AV	120.50	65.80
1498.000	V	49.03	74	-24.97	PK	114.20	144.80
1498.000	V	37.02	54	-16.98	AV	114.20	144.80
Channel 157 (5785MHz)							
1498.000	H	47.22	74	-26.78	PK	100.00	165.20
1498.000	H	35.31	54	-18.69	AV	100.00	165.20
1498.000	V	50.27	74	-23.73	PK	100.00	205.00
1498.000	V	38.84	54	-15.16	AV	100.00	205.00
Channel 161 (5805MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	36.39	54	-17.61	AV	100.00	187.00
1498.000	V	49.27	74	-24.73	PK	106.00	328.00
1498.000	V	38.58	54	-15.42	AV	106.00	328.00

Mode 2: 802.11n (20MHz Bandwidth) (Chain 010)							
Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 36 (5180MHz)							
1498.00	H	46.26	74	-27.74	PK	100.000	196.000
1498.00	H	32.94	54	-21.06	AV	100.000	196.000
1498.00	V	48.35	74	-25.65	PK	100.000	144.000
1498.00	V	35.67	54	-18.33	AV	100.000	144.000
Channel 40 (5200MHz)							
2058.25	H	47.53	74	-26.47	PK	120.500	304.000
2058.25	H	34.13	54	-19.87	AV	120.500	304.000
2058.25	V	50.67	74	-23.33	PK	109.400	65.800
2058.25	V	36.82	54	-17.18	AV	109.400	65.800
Channel 48 (5240MHz)							
1498.00	H	47.55	74	-26.45	PK	100.000	103.800
1498.00	H	33.79	54	-20.21	AV	100.000	103.800
1498.00	V	50.65	74	-23.35	PK	100.000	142.400
1498.00	V	36.68	54	-17.32	AV	100.000	142.400
Channel 149 (5745MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	33.39	54	-20.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	35.58	54	-18.42	AV	106.00	328.00
Channel 157 (5785MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	35.39	54	-18.61	AV	100.00	187.00
1498.000	V	49.27	74	-24.73	PK	106.00	328.00
1498.000	V	37.58	54	-16.42	AV	106.00	328.00
Channel 161 (5805MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	33.39	54	-20.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	34.58	54	-19.42	AV	106.00	328.00
Mode 2: 802.11n (20MHz Bandwidth) (Chain 100)							
Frequency (MHz)	Polarization (H/V)	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)

		(dBuV/m)					
Channel 36 (5180MHz)							
1498.00	H	46.36	74	-27.64	PK	100.000	169.000
1498.00	H	33.53	54	-20.47	AV	100.000	169.000
1498.00	V	48.35	74	-25.65	PK	100.000	167.400
1498.00	V	35.47	54	-18.53	AV	100.000	167.400
Channel 40 (5200MHz)							
2058.25	H	45.62	74	-28.38	PK	102.500	116.700
2058.25	H	32.43	54	-21.57	AV	102.500	116.700
2058.25	V	48.57	74	-25.43	PK	106.400	158.000
2058.25	V	35.12	54	-18.88	AV	106.400	158.000
Channel 48 (5240MHz)							
1498.00	H	47.55	74	-26.45	PK	110.400	258.000
1498.00	H	34.29	54	-19.71	AV	110.400	258.000
1498.00	V	50.15	74	-23.85	PK	103.600	84.000
1498.00	V	36.58	54	-17.42	AV	103.600	84.000
Channel 149 (5745MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	33.39	54	-20.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	35.58	54	-18.42	AV	106.00	328.00
Channel 157 (5785MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	35.39	54	-18.61	AV	100.00	187.00
1498.000	V	49.27	74	-24.73	PK	106.00	328.00
1498.000	V	37.58	54	-16.42	AV	106.00	328.00
Channel 161 (5805MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00

Mode 2: 802.11n (20MHz Bandwidth) (Chain 110)							
Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 36 (5180MHz)							
1498.00	H	48.54	74	-25.46	PK	100.000	169.000
1498.00	H	35.34	54	-18.66	AV	100.000	169.000
1498.00	V	48.75	74	-25.25	PK	100.000	167.400
1498.00	V	35.21	54	-18.79	AV	100.000	167.400
Channel 40 (5200MHz)							
2058.25	H	47.38	74	-26.62	PK	100.000	169.000
2058.25	H	34.74	54	-19.26	AV	100.000	169.000
2058.25	V	50.64	74	-23.36	PK	102.400	25.600
2058.25	V	36.26	54	-17.74	AV	102.400	25.600
Channel 48 (5240MHz)							
1498.00	H	47.47	74		PK	105.100	94.000
1498.00	H	33.36	54		AV	105.100	94.000
1498.00	V	50.44	74		PK	100.000	284.000
1498.00	V	36.38	54		AV	100.000	284.000
Channel 149 (5745MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	36.39	54	-17.61	AV	100.00	187.00
1498.000	V	49.27	74	-24.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00
Channel 157 (5785MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00
Channel 161 (5805MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	35.58	54	-18.42	AV	106.00	328.00
Mode 3: 802.11n (40MHz Bandwidth) (Chain 010)							
Frequency (MHz)	Polarization (H/V)	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)

		(dBuV/m)					
Channel 38 (5190MHz)							
1498.00	H	46.36	74	-27.64	PK	104.000	62.000
1498.00	H	32.67	54	-21.33	AV	104.000	62.000
1498.00	V	48.45	74	-25.55	PK	120.000	147.000
1498.00	V	35.34	54	-18.66	AV	120.000	147.000
Channel 46 (5230MHz)							
1498.00	H	47.57	74	-26.43	PK	110.400	208.000
1498.00	H	33.67	54	-20.33	AV	110.400	208.000
1498.00	V	50.54	74	-23.46	PK	105.100	163.600
1498.00	V	36.38	54	-17.62	AV	105.100	163.600
Channel 151 (5755MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00
Channel 159 (5795MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	35.58	54	-18.42	AV	106.00	328.00

Mode 3: 802.11n (40MHz Bandwidth) (Chain 100)

Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 38 (5190MHz)							
1498.00	H	47.73	74	-26.53	PK	100.000	198.000
1498.00	H	33.56	54	-20.64	AV	100.000	198.000
1498.00	V	49.25	74	-23.56	PK	100.000	126.000
1498.00	V	35.45	54	-17.62	AV	100.000	126.000
Channel 46 (5230MHz)							
1498.00	H	46.43	74	-26.27	PK	100.000	153.000
1498.00	H	34.47	54	-20.21	AV	100.000	153.000
1498.00	V	50.34	74	-25.66	PK	104.000	206.000
1498.00	V	36.35	54	-19.31	AV	104.000	206.000
Channel 151 (5755MHz)							
1498.000	H	46.85	74	-27.15	PK	100.00	187.00

1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00
Channel 159 (5795MHz)							
1498.000	H	47.85	74	-26.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00

Mode 3: 802.11n (40MHz Bandwidth) (Chain 110)

Frequency (MHz)	Polarization (H/V)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (degree)
Channel 38 (5190MHz)							
1498.00	H	47.67	74	-26.33	PK	100.000	198.000
1498.00	H	34.93	54	-19.07	AV	100.000	198.000
1498.00	V	48.45	74	-25.55	PK	100.000	126.000
1498.00	V	35.83	54	-18.17	AV	100.000	126.000
Channel 46 (5230MHz)							
1498.00	H	46.49	74	-27.51	PK	100.000	185.000
1498.00	H	32.78	54	-21.22	AV	100.000	185.000
1498.00	V	50.73	74	-23.27	PK	105.400	216.000
1498.00	V	36.55	54	-17.45	AV	105.400	216.000
Channel 151 (5755MHz)							
1498.000	H	46.85	74	-27.15	PK	100.00	187.00
1498.000	H	34.39	54	-19.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	36.58	54	-17.42	AV	106.00	328.00
Channel 159 (5795MHz)							
1498.000	H	48.85	74	-25.15	PK	100.00	187.00
1498.000	H	36.39	54	-17.61	AV	100.00	187.00
1498.000	V	48.27	74	-25.73	PK	106.00	328.00
1498.000	V	37.58	54	-16.42	AV	106.00	328.00

5. 26dB Occupied Bandwidth

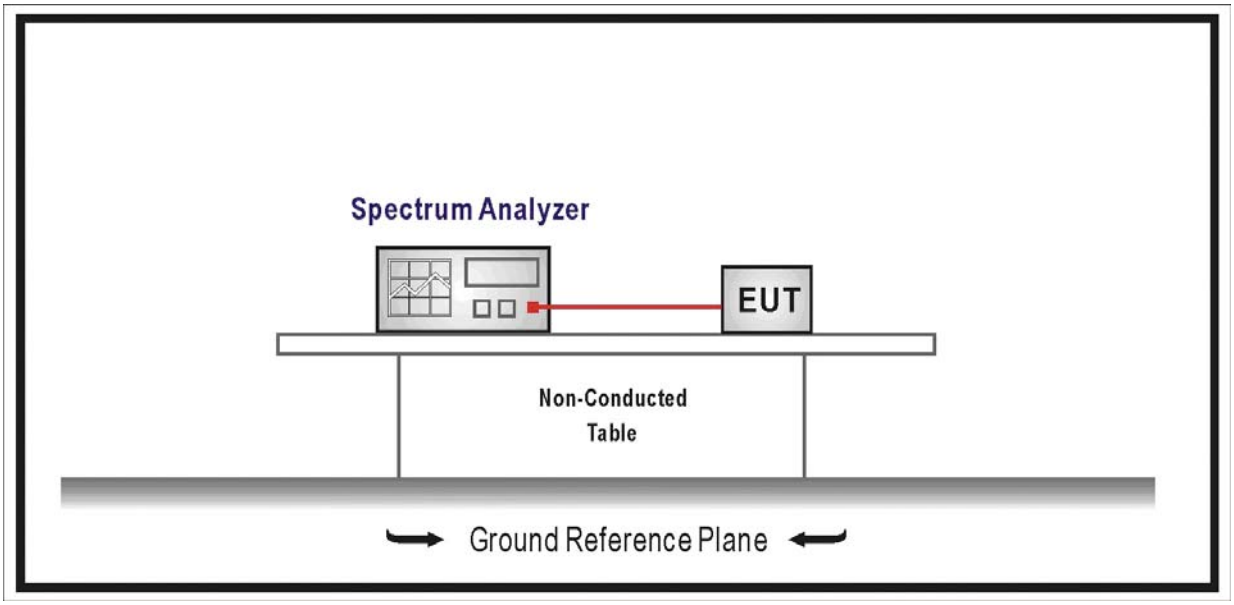
5.1. Test Equipment

26dB Occupied Bandwidth / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

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

5.2. Test Setup



5.3. Limit

N/A

5.4. Test Procedure

The EUT was tested according to FCC Public Notice DA 02-2138, August 30, 2002 for compliance to FCC 47CFR 15.407 requirements.

Emission bandwidth “B” MHz.

- Use a RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW
- Use a peak detector.
- Do not use the Max Hold function. Rather, use the view button to capture the emission.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

5.5. Uncertainty

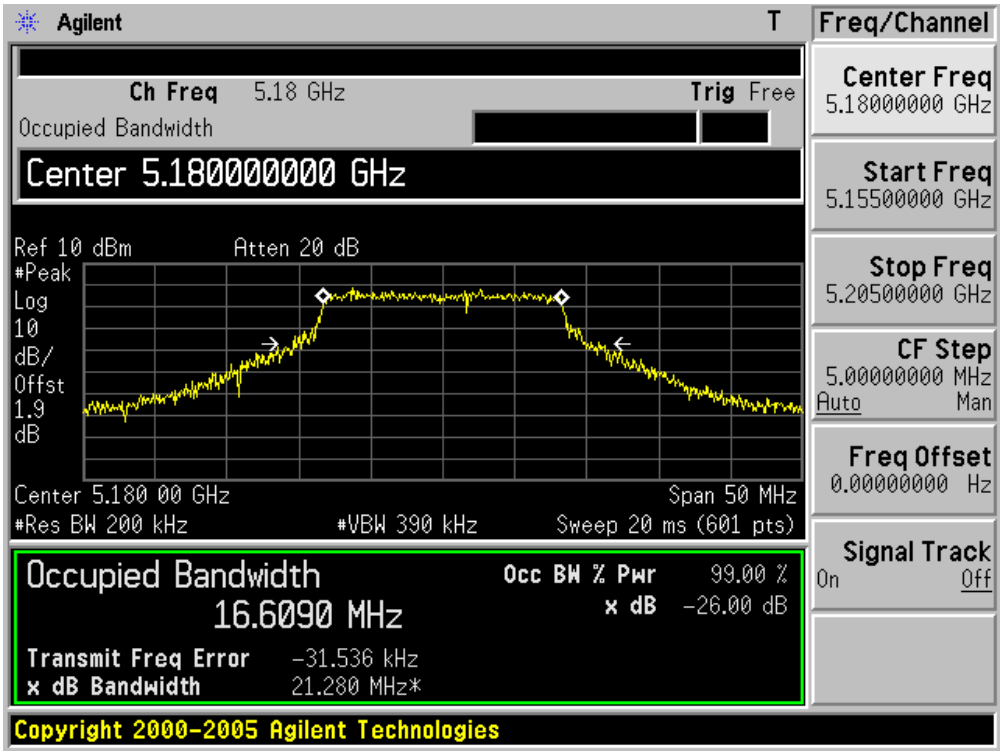
The measurement uncertainty is defined as ± 1 kHz

5.6. Test Result

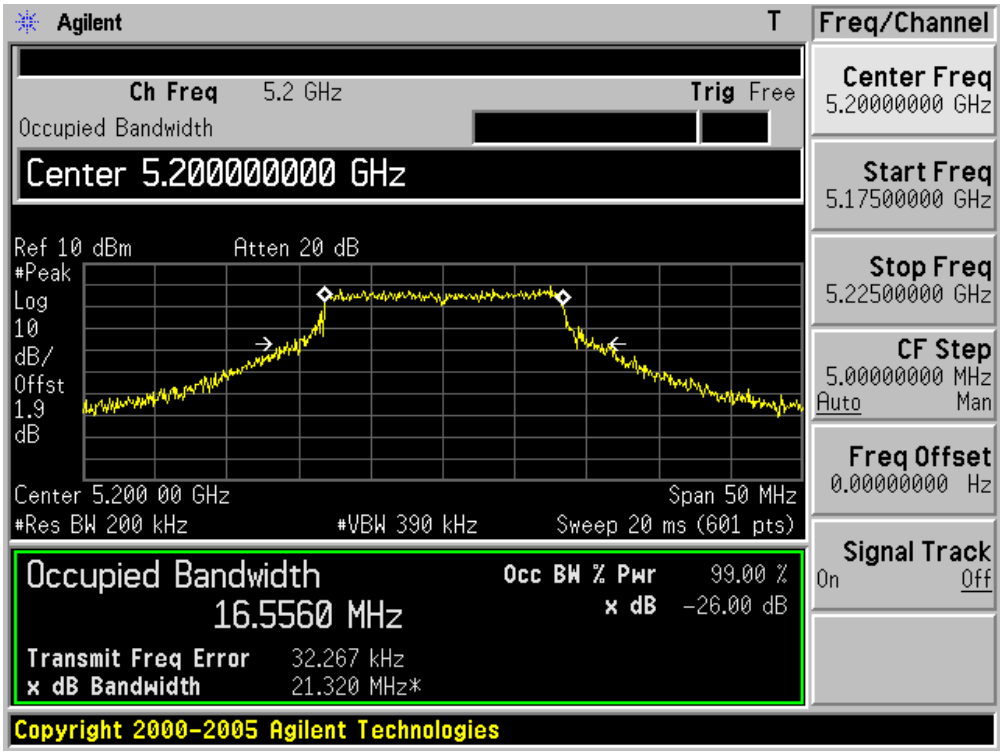
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a - Chain 010

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
36	5180	16.609	N/A	Pass
40	5200	16.556	N/A	Pass
48	5240	16.575	N/A	Pass
149	5745	16.647	N/A	Pass
157	5785	16.729	N/A	Pass
161	5805	16.734	N/A	Pass

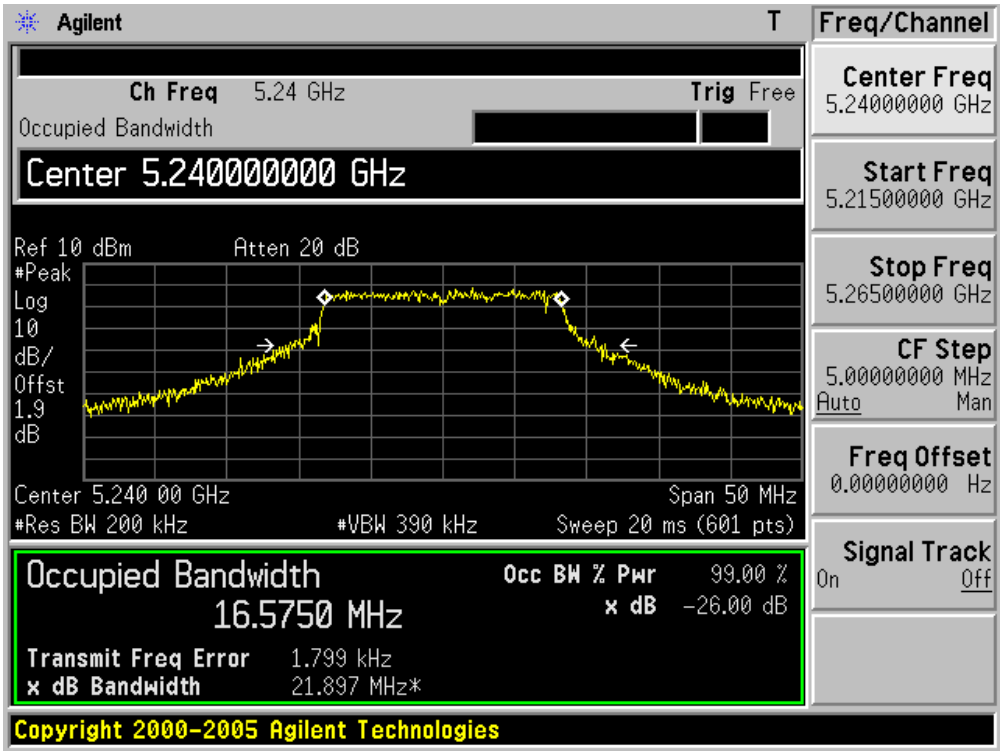
Channel 36 (5180MHz)



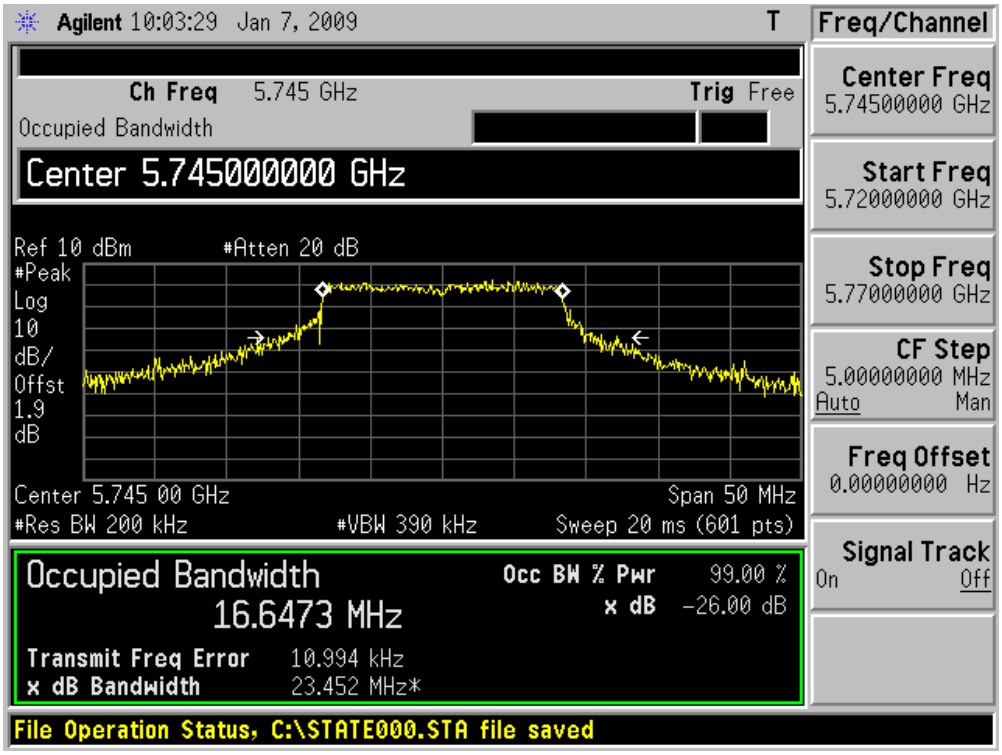
Channel 40 (5200MHz)



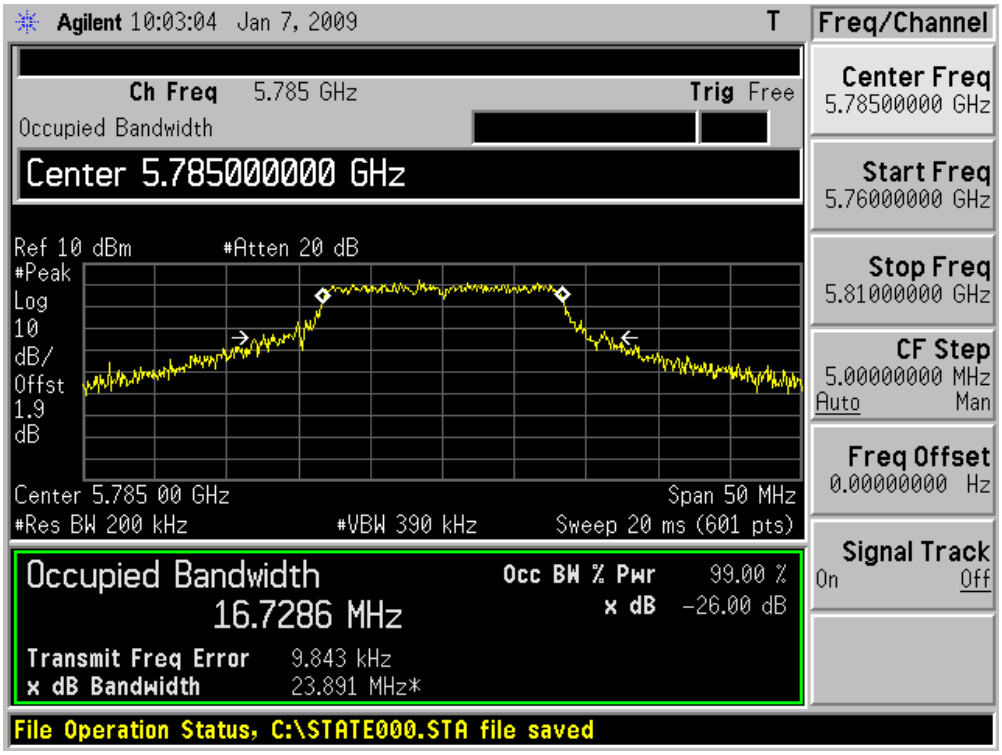
Channel 48 (5240MHz)



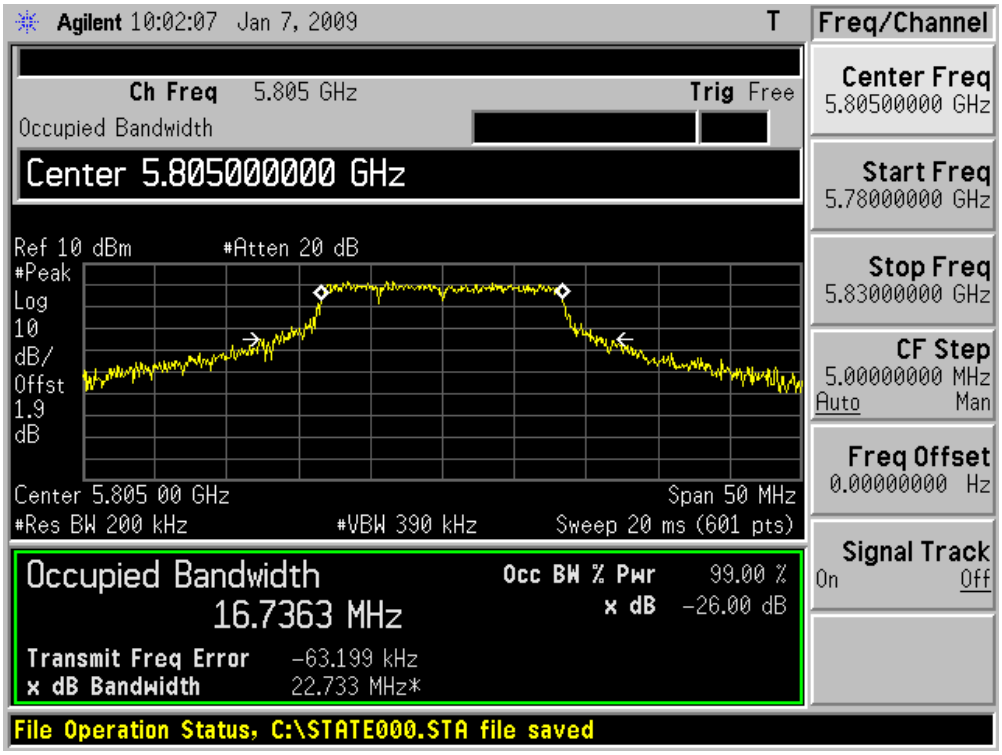
Channel 149 (5745MHz)



Channel 157 (5785MHz)



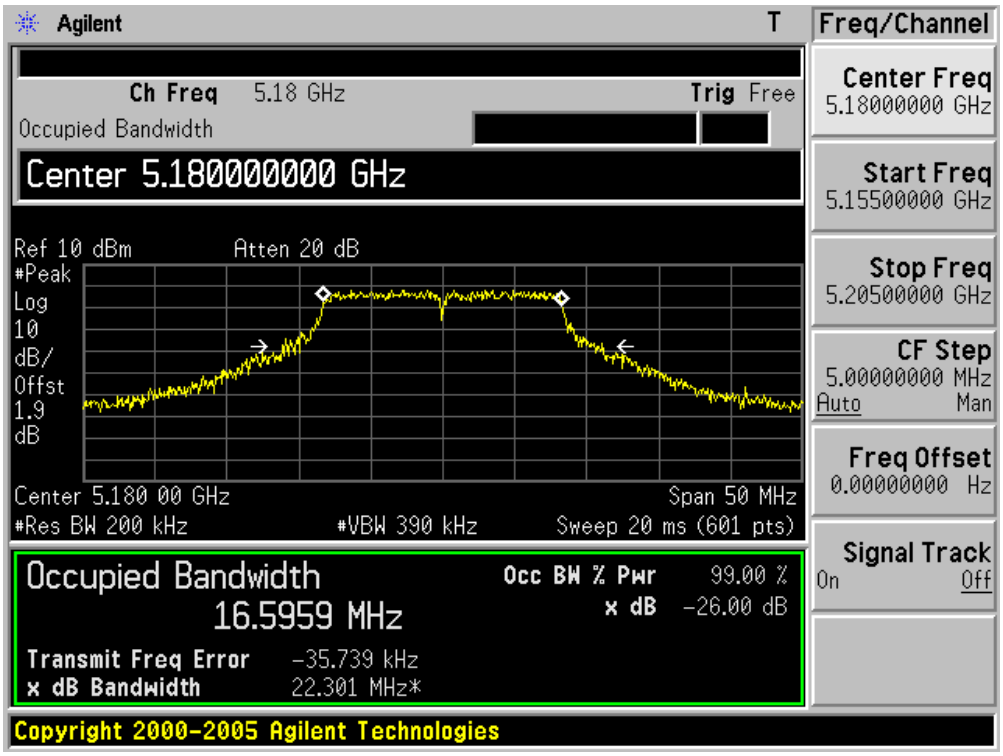
Channel 161 (5805MHz)



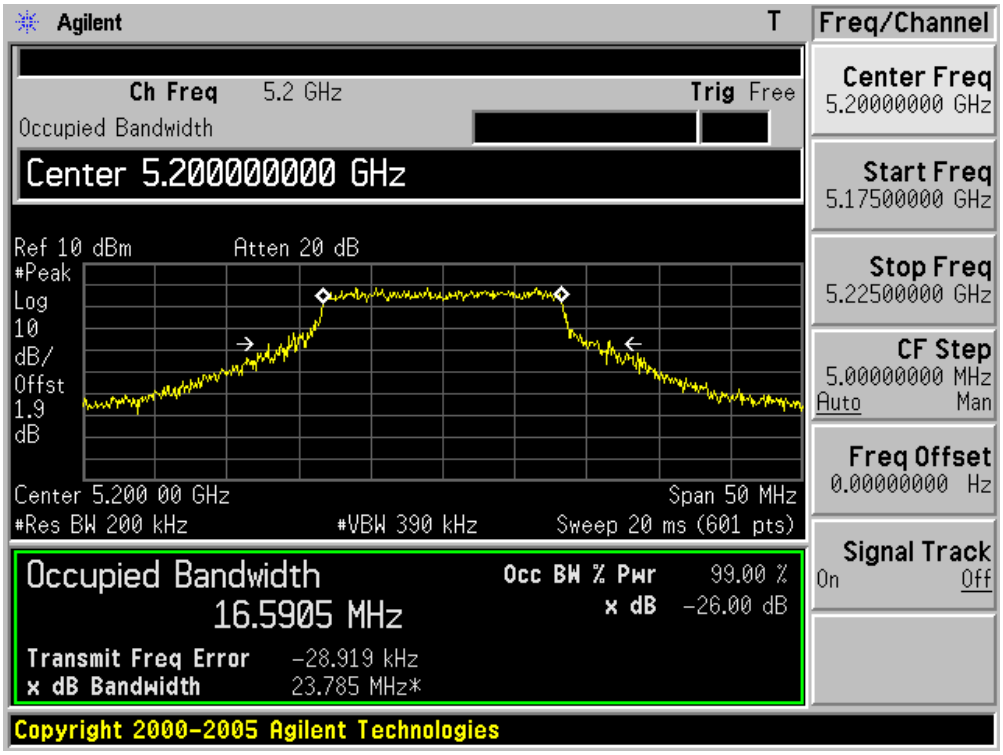
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a – Chain 100

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
36	5180	16.596	N/A	Pass
40	5200	16.591	N/A	Pass
48	5240	16.583	N/A	Pass
149	5745	16.707	N/A	Pass
157	5785	16.697	N/A	Pass
161	5805	16.714	N/A	Pass

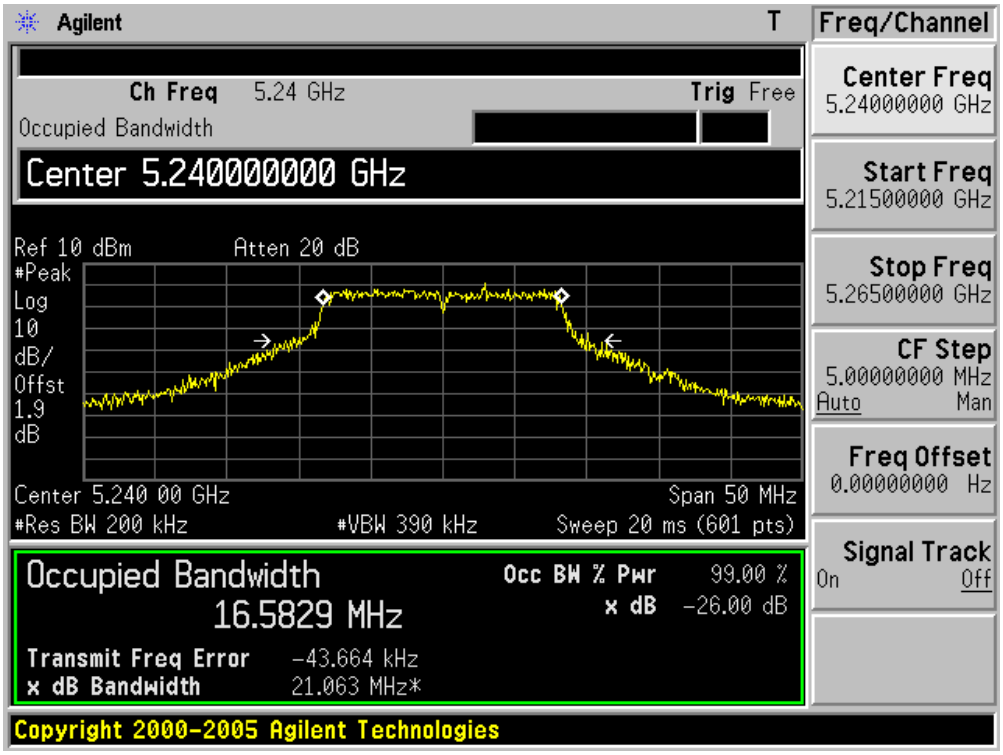
Channel 36 (5180MHz)



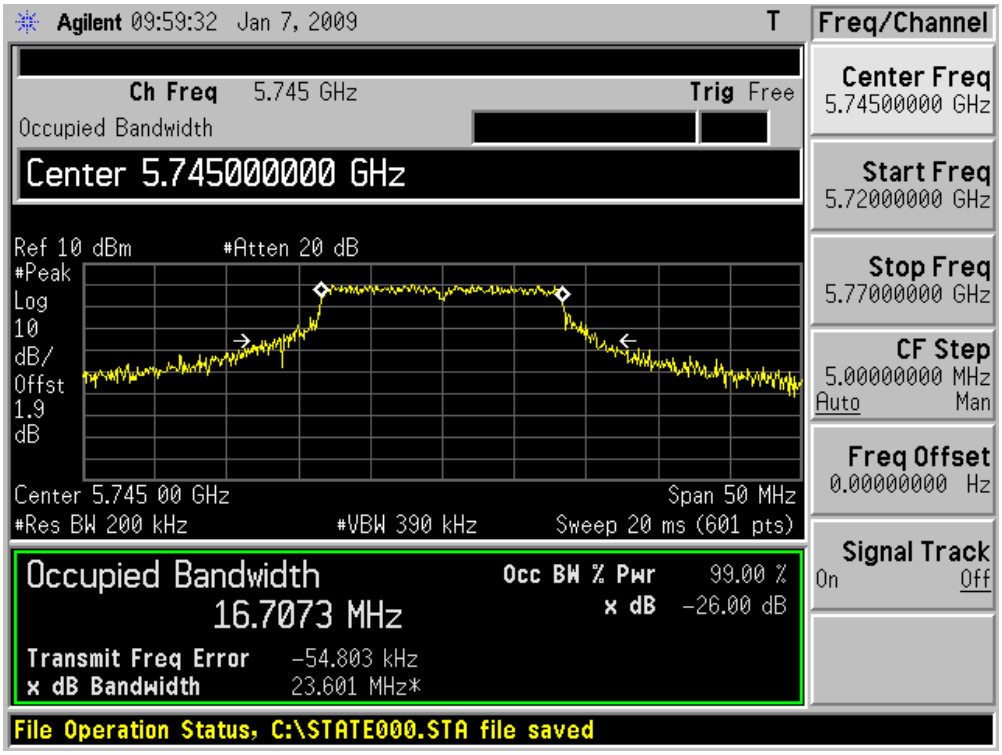
Channel 40 (5200MHz)



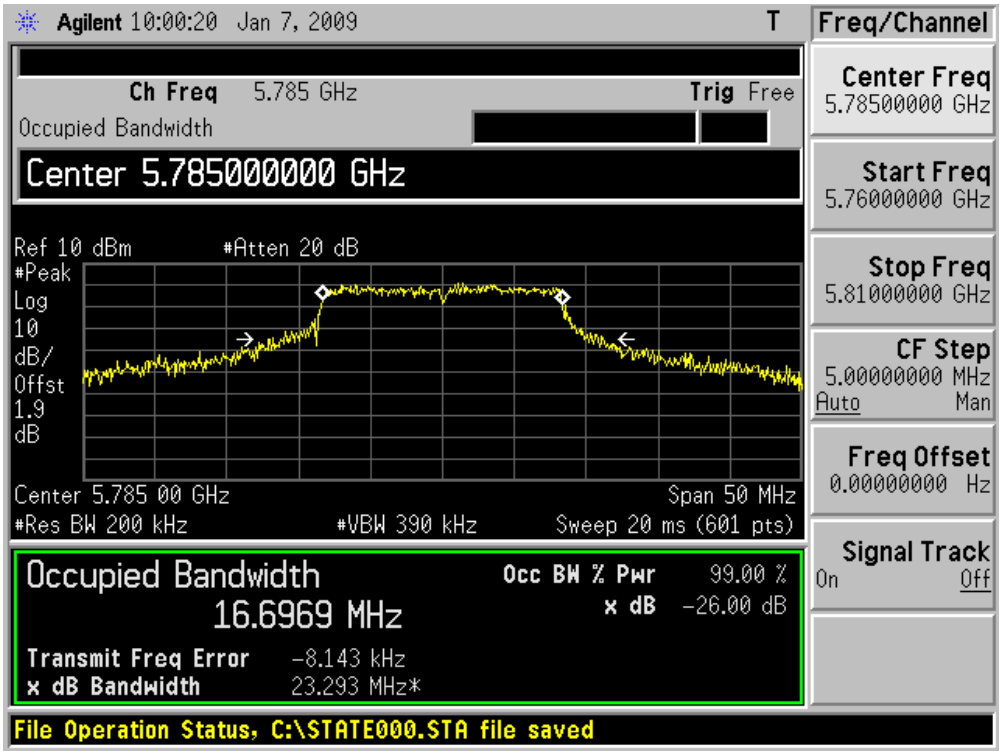
Channel 48 (5240MHz)



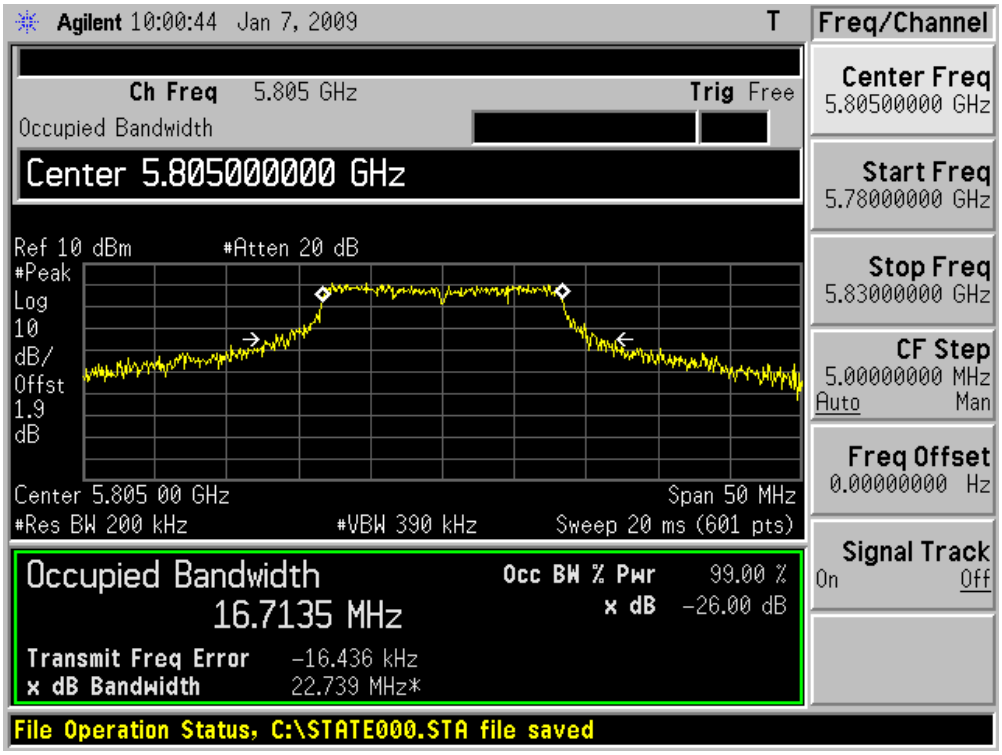
Channel 149 (5745MHz)



Channel 157 (5785MHz)



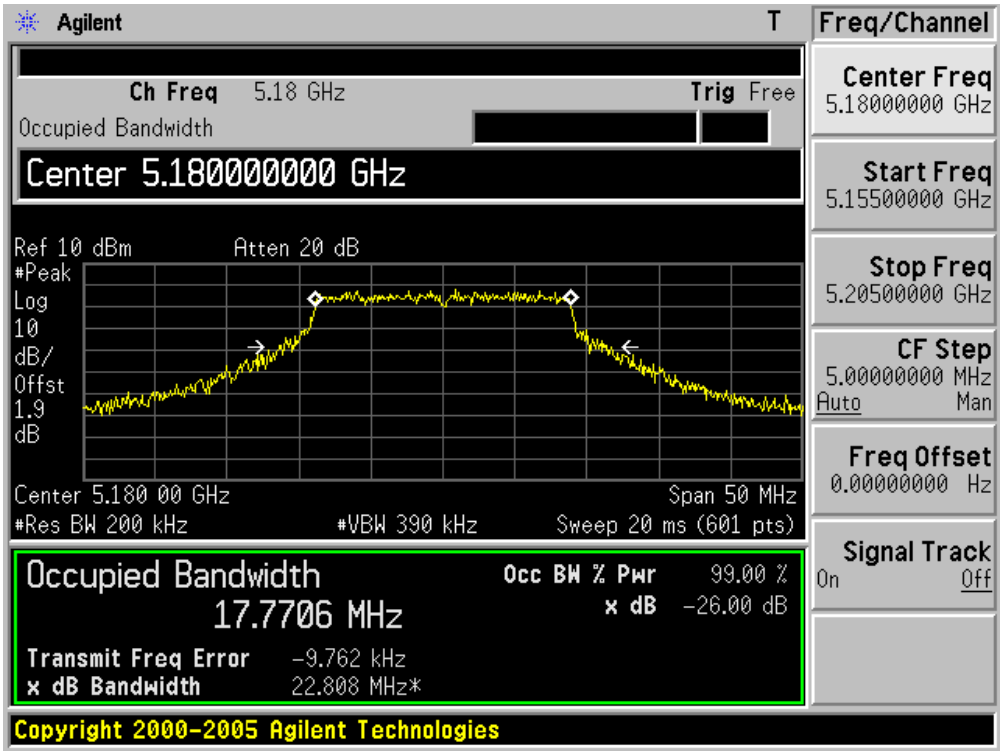
Channel 161 (5805MHz)



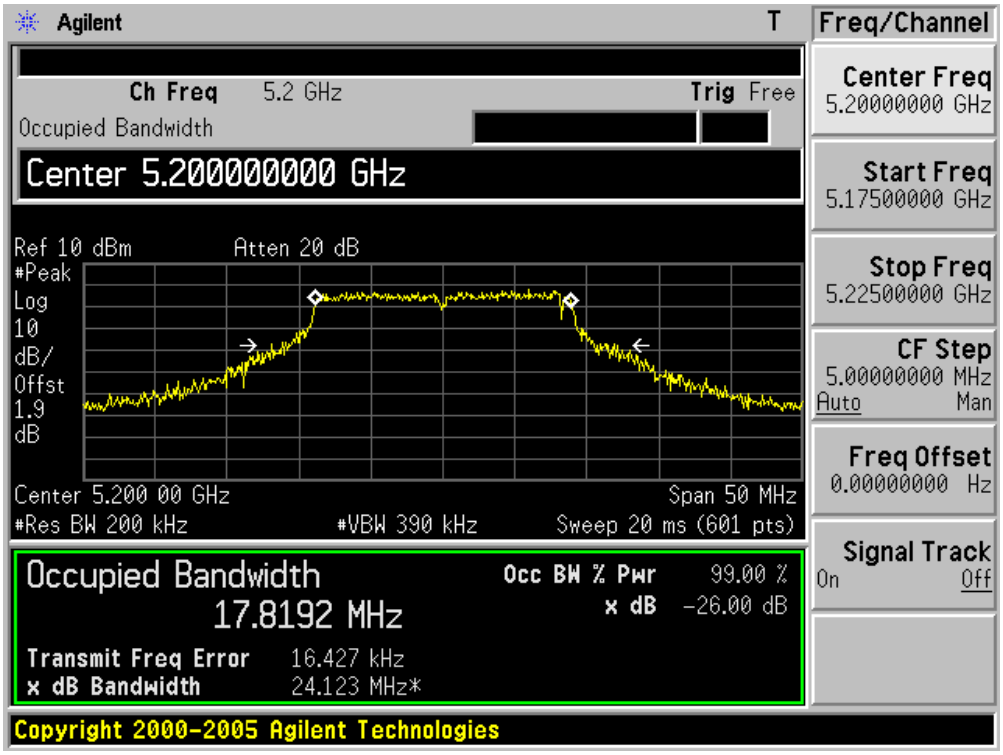
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) - Chain 010

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
36	5180	17.771	N/A	Pass
40	5200	17.819	N/A	Pass
48	5240	17.730	N/A	Pass
149	5745	17.950	N/A	Pass
157	5785	17.802	N/A	Pass
161	5805	17.875	N/A	Pass

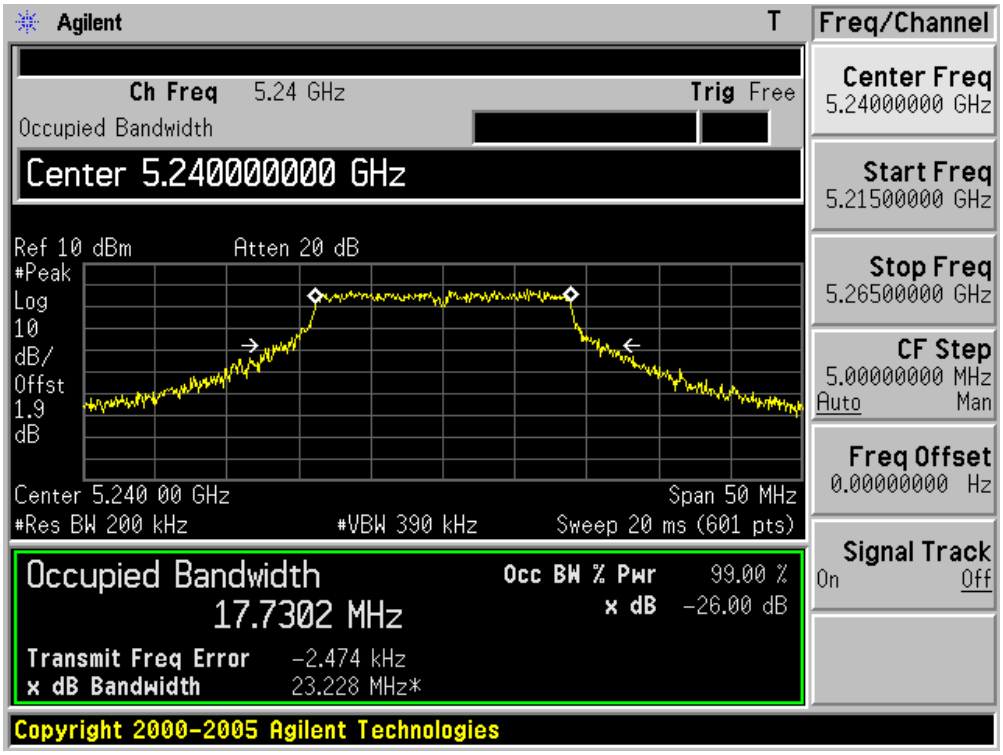
Channel 36 (5180MHz)



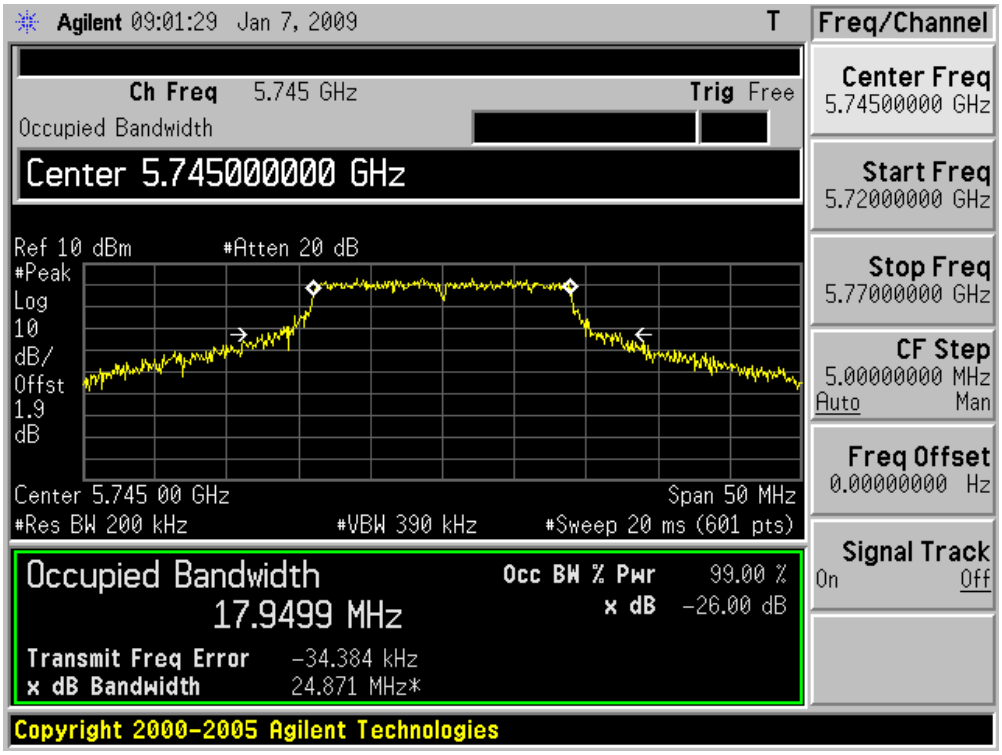
Channel 40 (5200MHz)



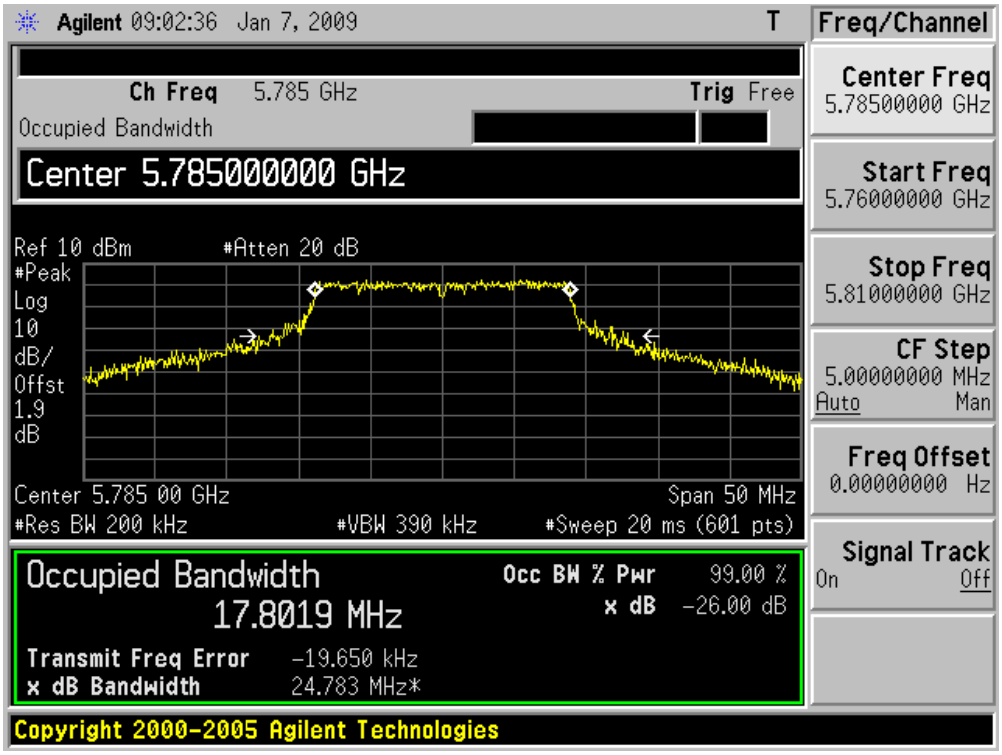
Channel 48 (5240MHz)



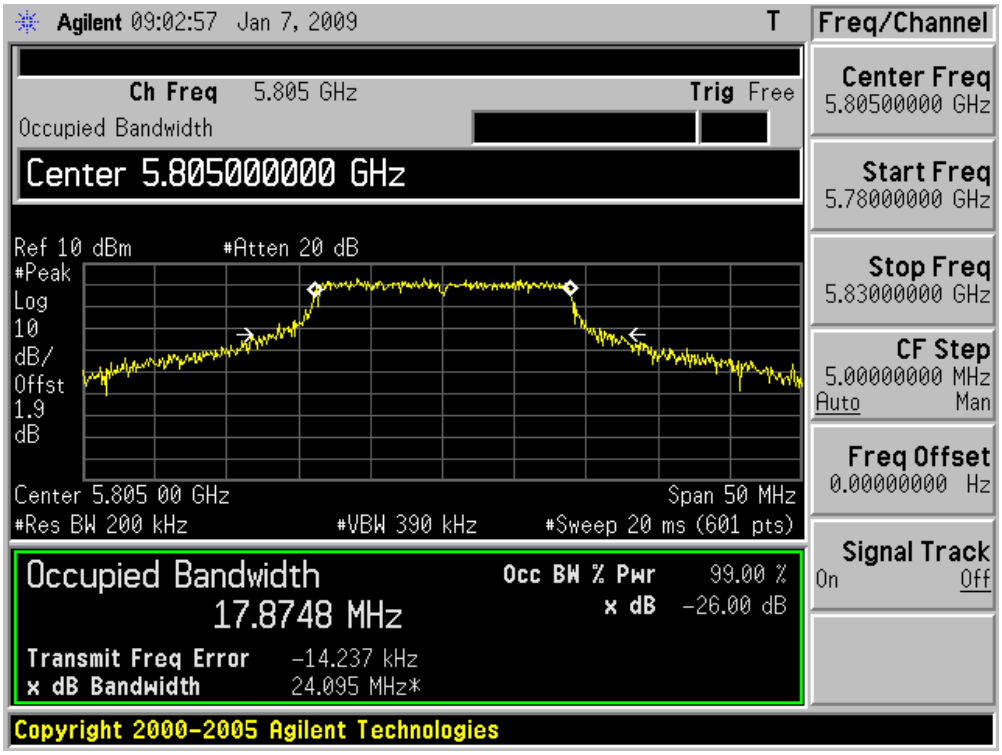
Channel 149 (5745MHz)



Channel 157 (5785MHz)



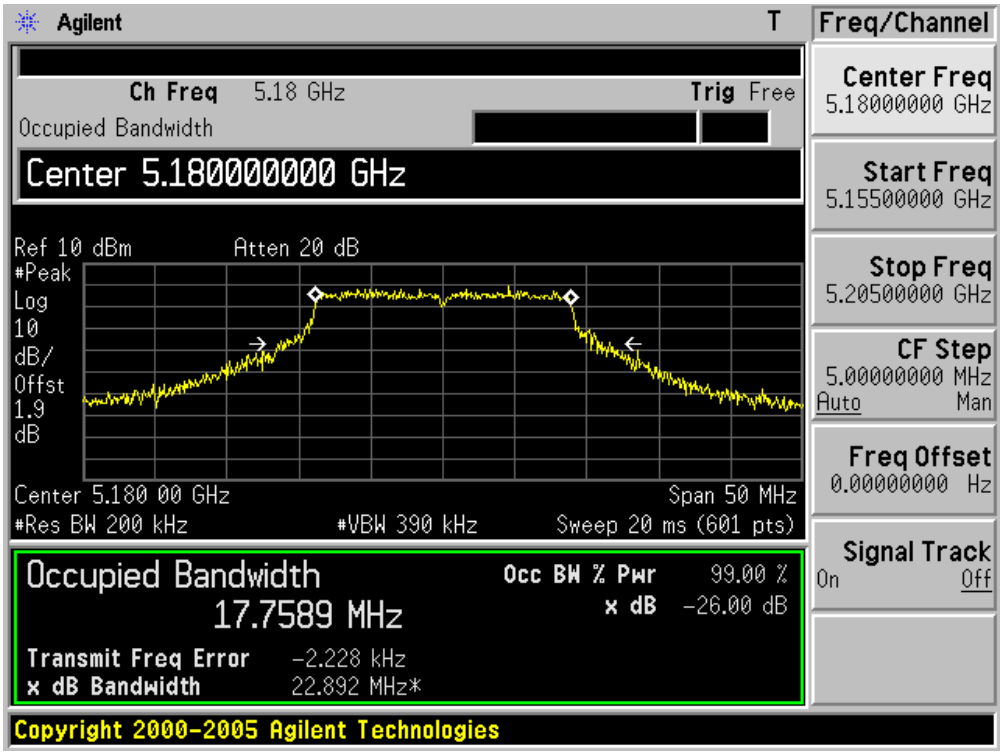
Channel 161 (5805MHz)



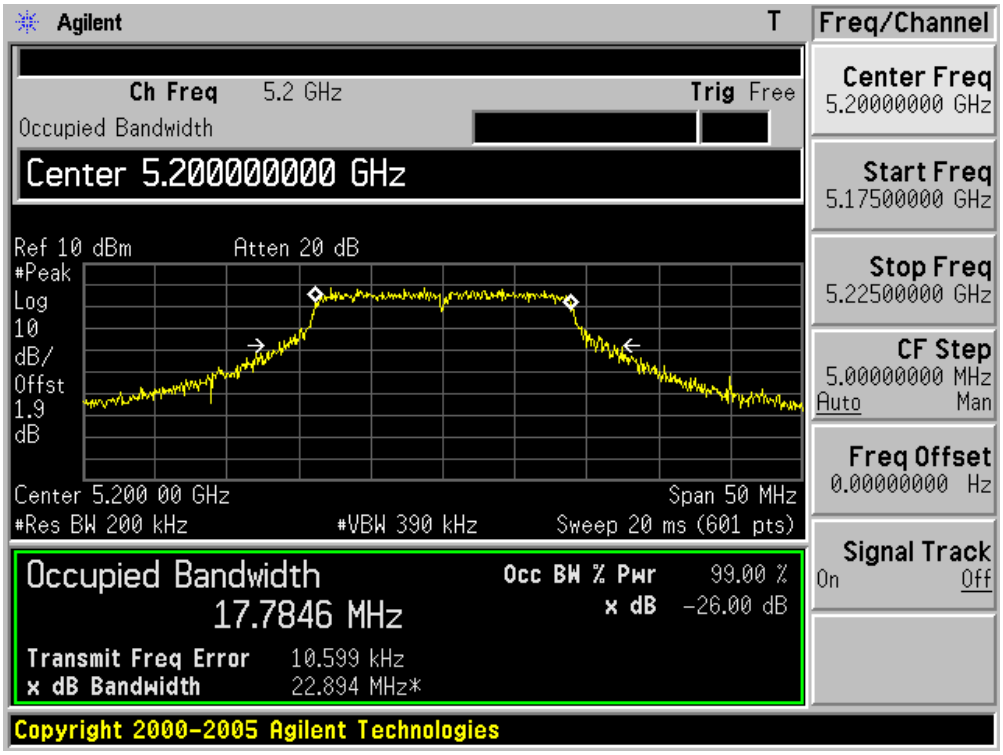
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) – Chain 100

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
36	5180	17.758	N/A	Pass
40	5200	17.785	N/A	Pass
48	5240	17.768	N/A	Pass
149	5745	17.866	N/A	Pass
157	5785	17.918	N/A	Pass
161	5805	17.884	N/A	Pass

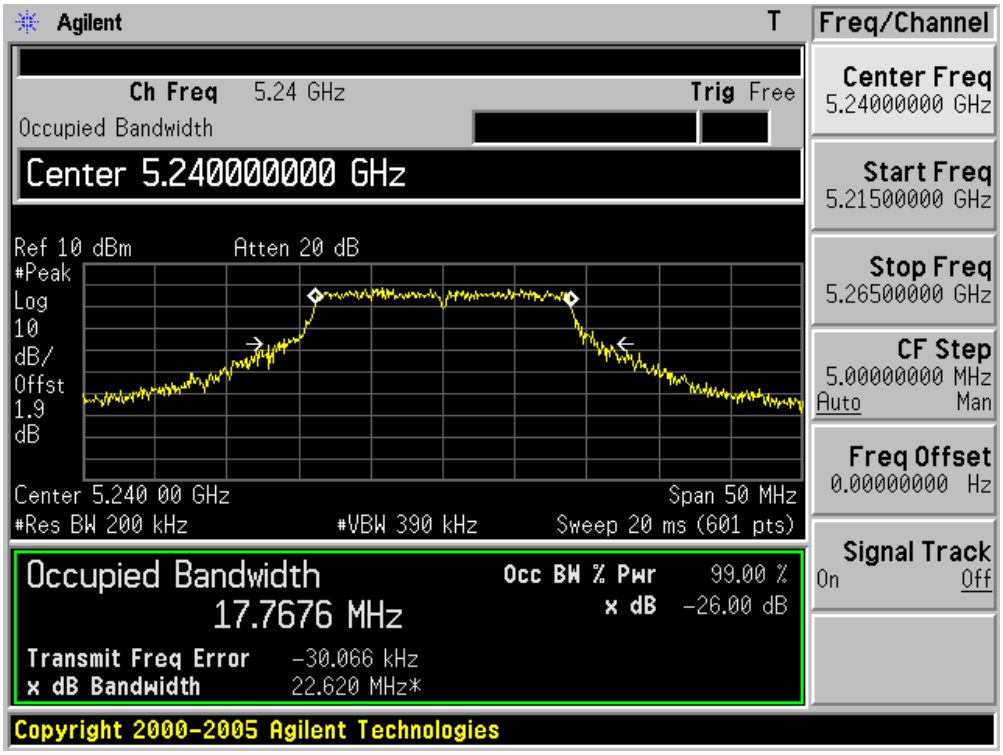
Channel 36 (5180MHz)



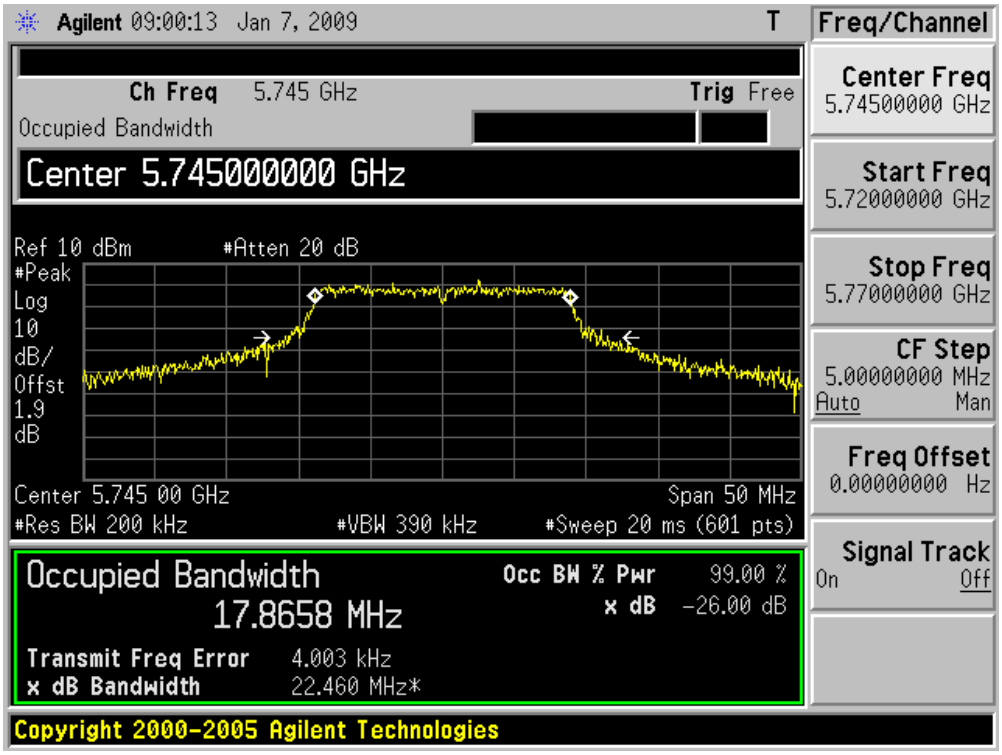
Channel 40 (5200MHz)



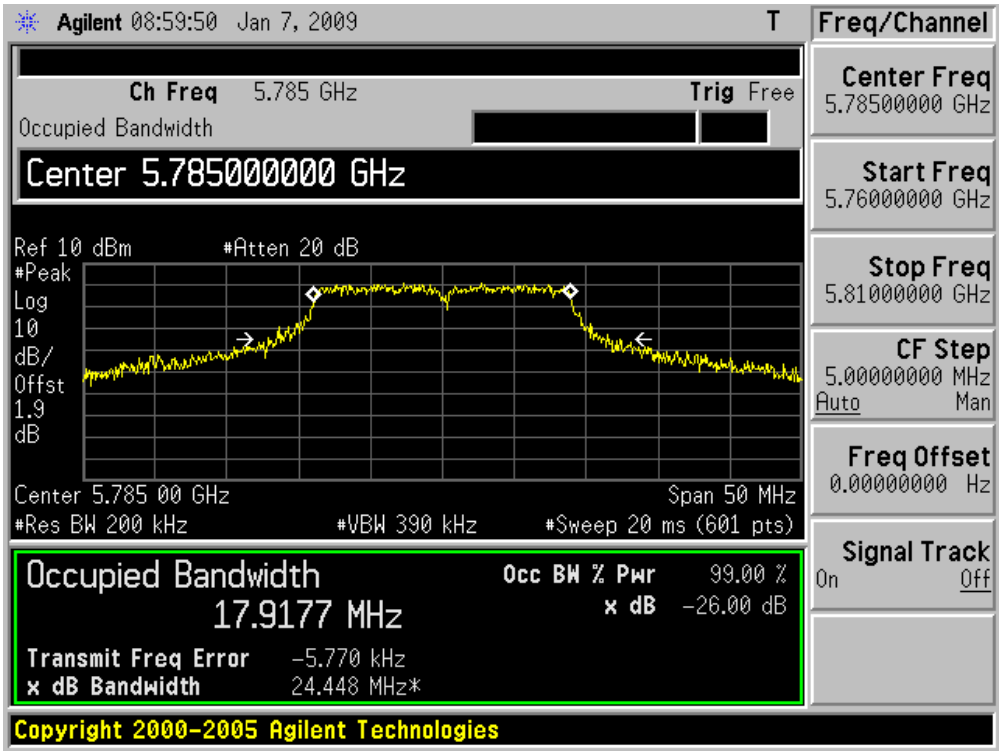
Channel 48 (5240MHz)



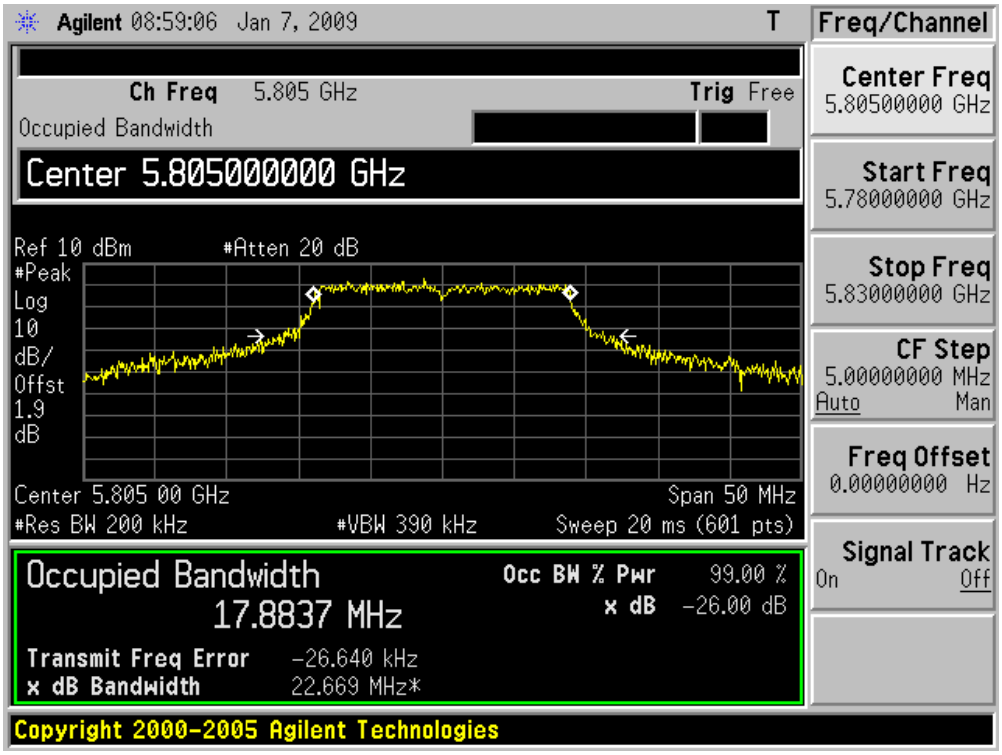
Channel 149 (5745MHz)



Channel 157 (5785MHz)



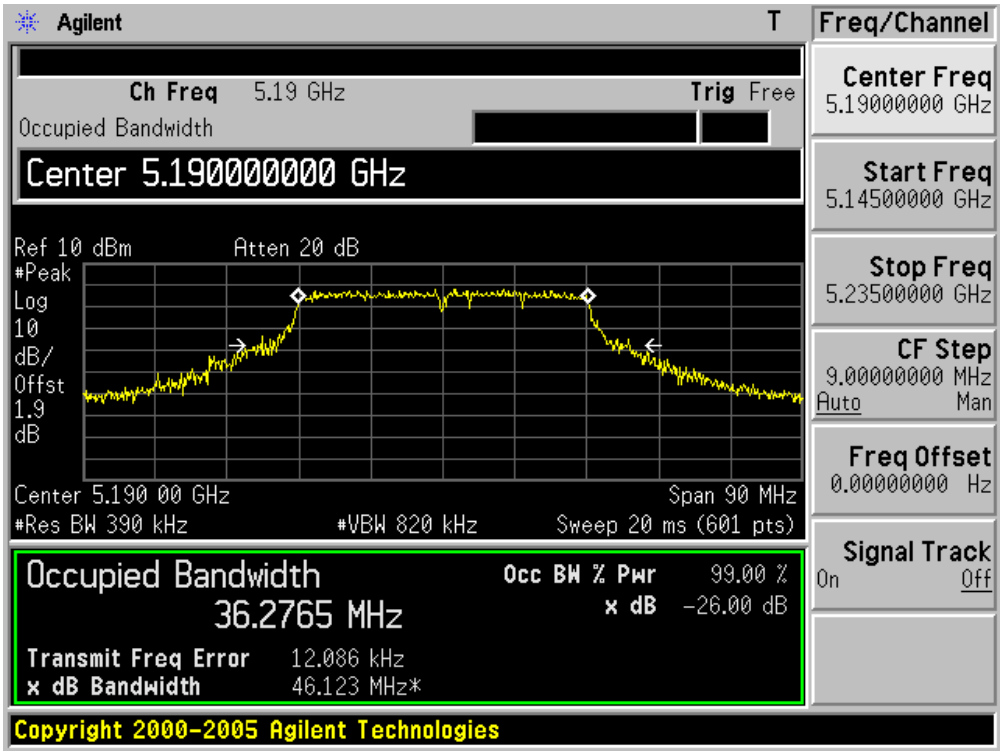
Channel 161 (5805MHz)



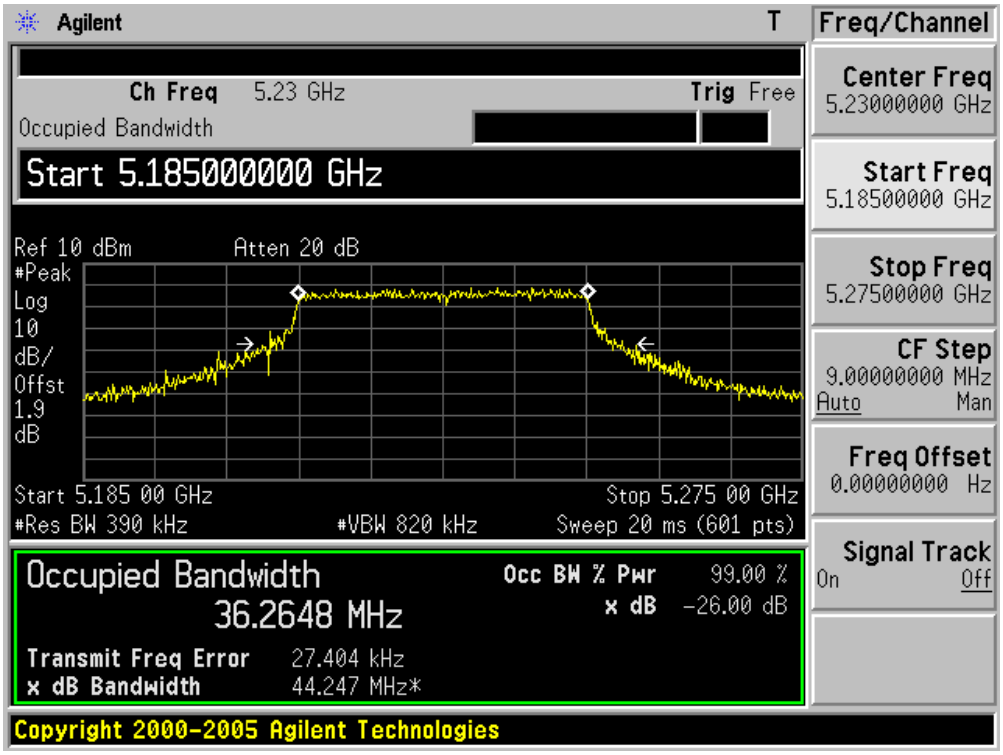
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) - Chain 010

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
38	5190	36.277	N/A	Pass
46	5230	36.265	N/A	Pass
151	5755	36.546	N/A	Pass
159	5795	36.533	N/A	Pass

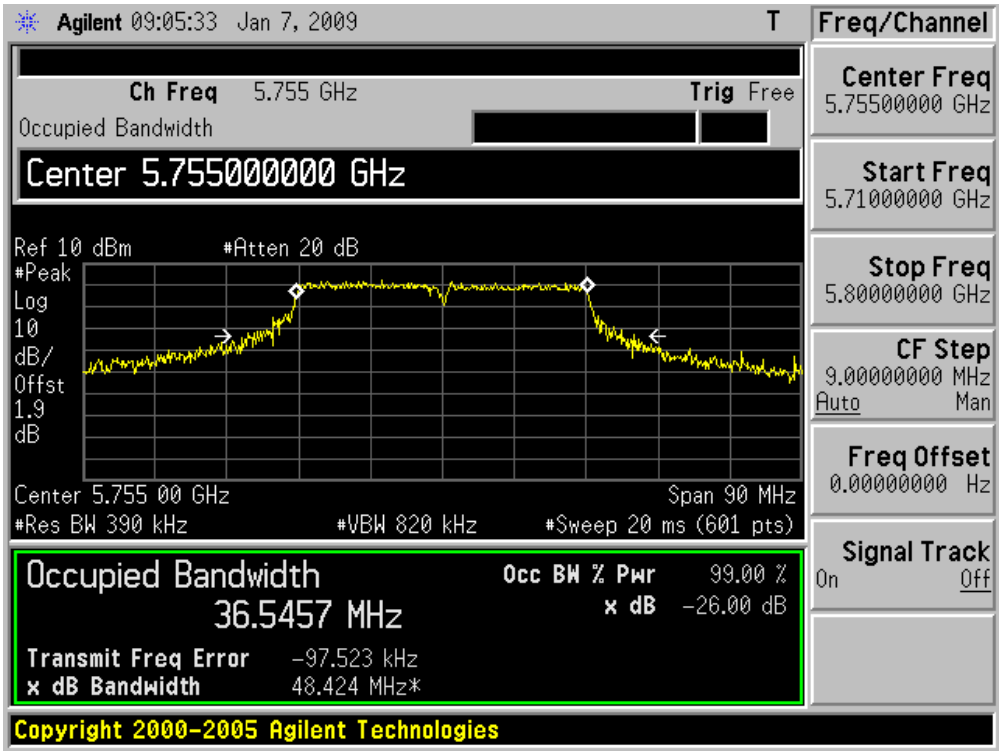
Channel 38 (5190MHz)



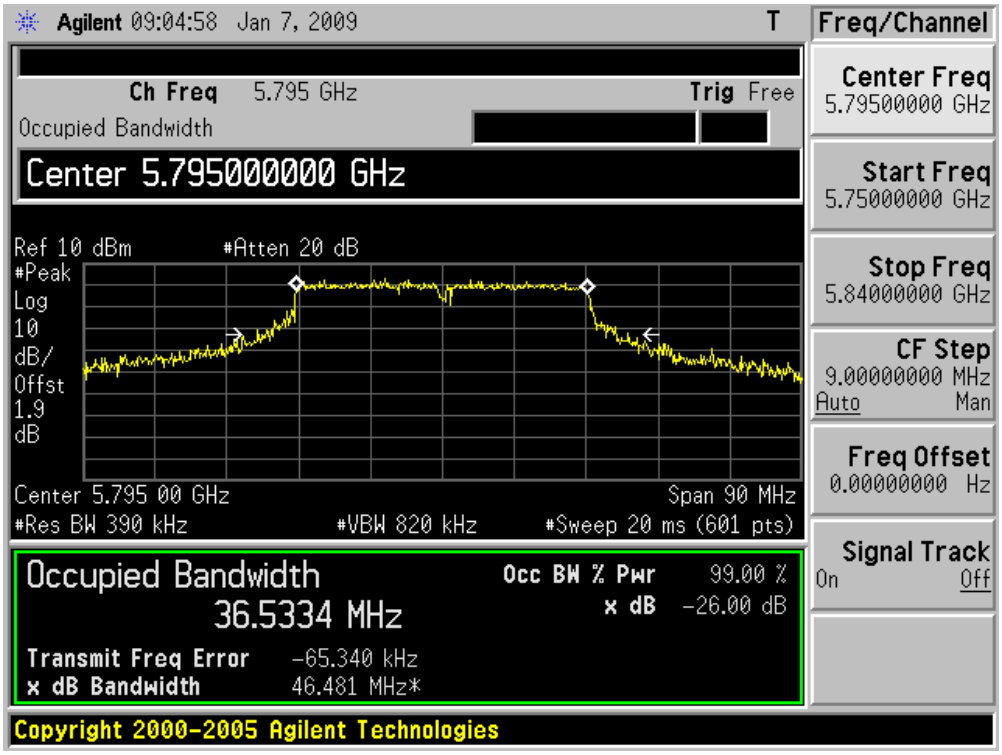
Channel 46 (5230MHz)



Channel 151 (5755MHz)



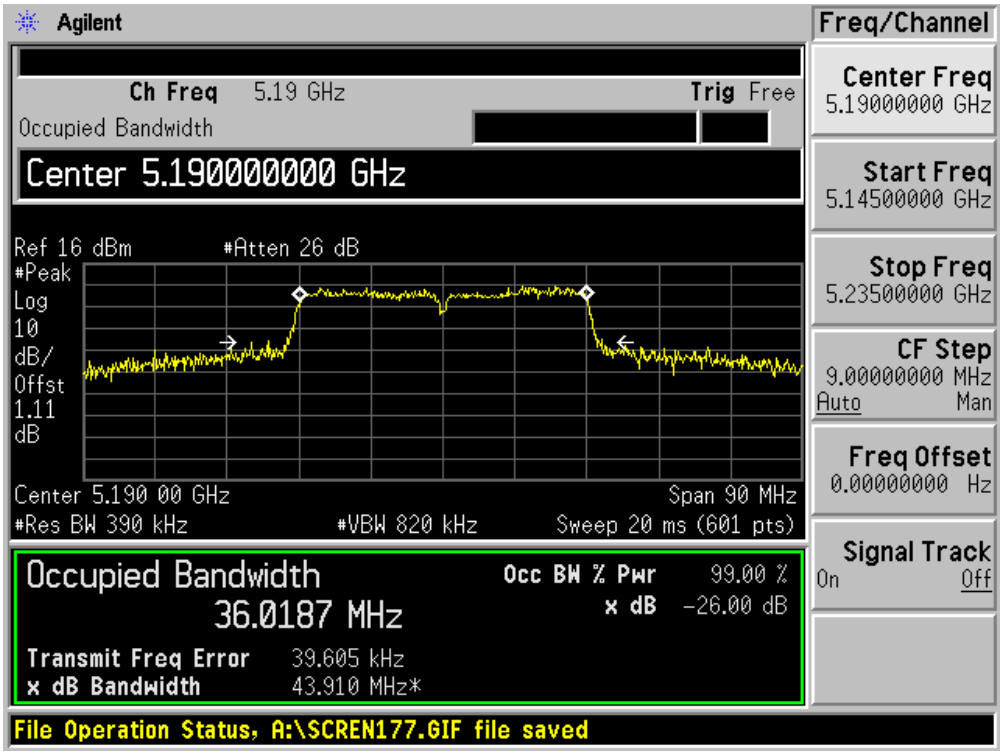
Channel 159 (5795MHz)



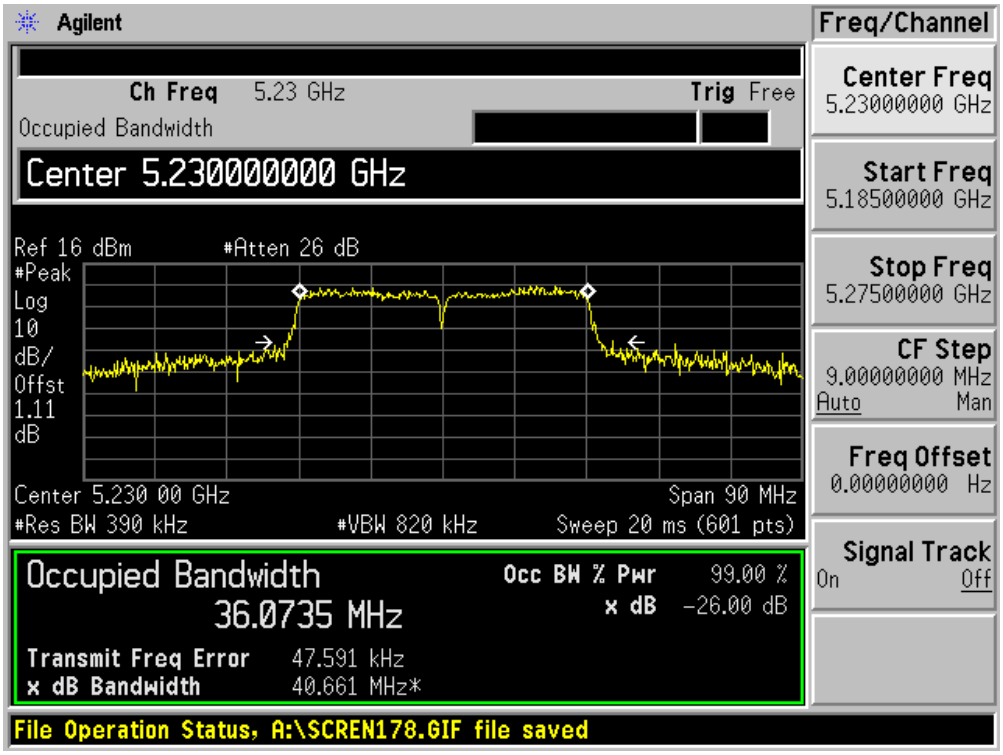
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	26dB Occupied Bandwidth
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) – Chain 100

Channel No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)	Limit (MHz)	Result
38	5190	36.019	N/A	Pass
46	5230	36.074	N/A	Pass
151	5755	36.534	N/A	Pass
159	5795	36.417	N/A	Pass

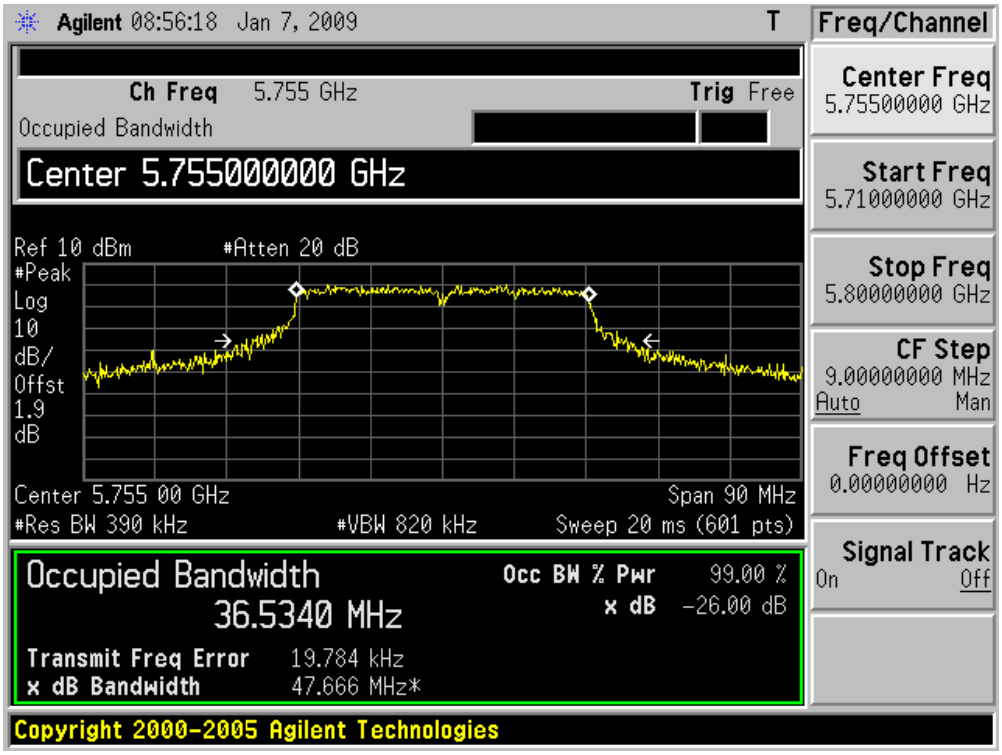
Channel 38 (5190MHz)



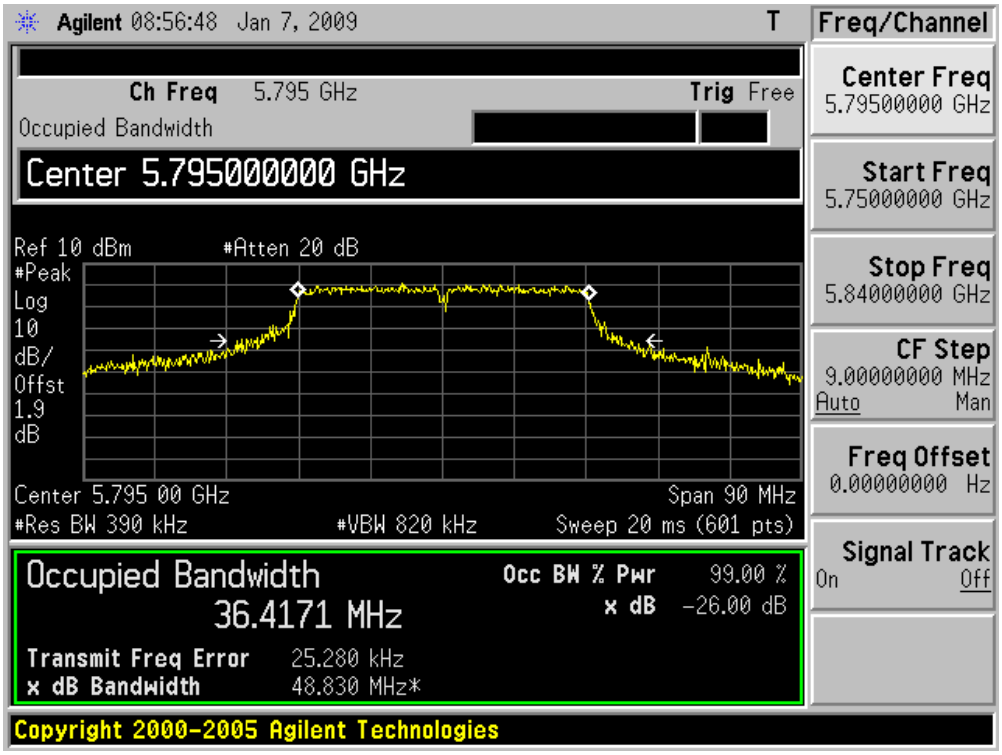
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



6. Power Output

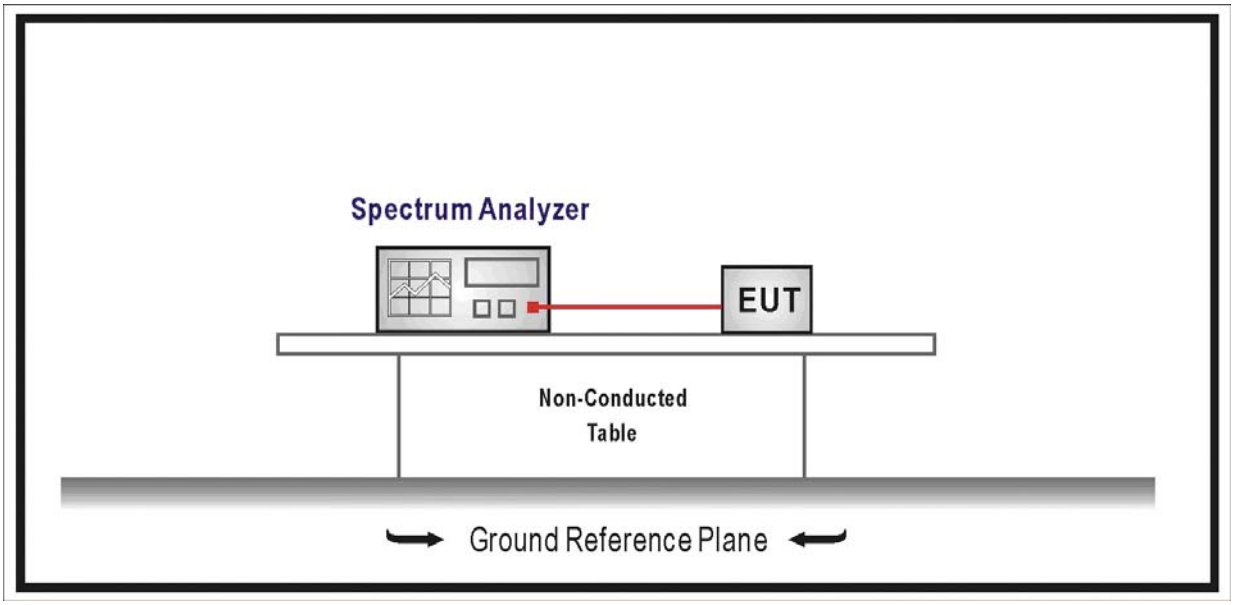
6.1. Test Equipment

Power Output / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

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

6.2. Test Setup



6.3. Limit

- For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- For the band 5.25-5.35 GHz and 5.47-5725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting

antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

- For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power for each 1 dB of antenna gain in excess of 23 dBi would be required.

6.4. Test Procedure

The EUT was tested according to FCC Public Notice DA 02-2138, August 30, 2002 for compliance to FCC 47CFR 15.407 requirements.
Power output measurement allowed per Section 15.407(a).
In the following, “T” is the transmission pulse duration over which the transmitter is on and transmitting at its maximum power control level. Measurements are performed with a spectrum analyzer. Three methods are provided to accommodate measurement limitations of the spectrum analyzer depending on signal parameters. Set resolution bandwidth (RBW) = 1 MHz. Set span to encompass the entire emission bandwidth (EBW) of the signal. Use automatic setting for analyzer sweep time. Check the sweep time to determine which procedure to use.

As “T” ≧ sweep time, the test procedure will be used as following:

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode
- Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
- Trace average 100 traces in power averaging mode.
- Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement

function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

6.5. Uncertainty

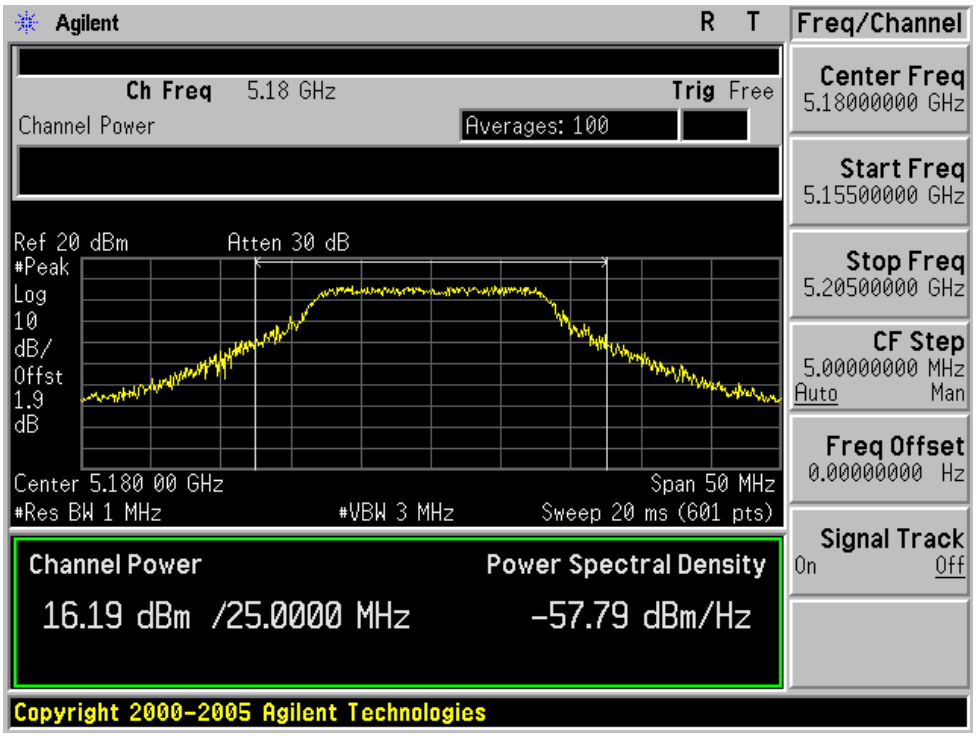
The measurement uncertainty is defined as ± 1.27 dB

6.6. Test Result

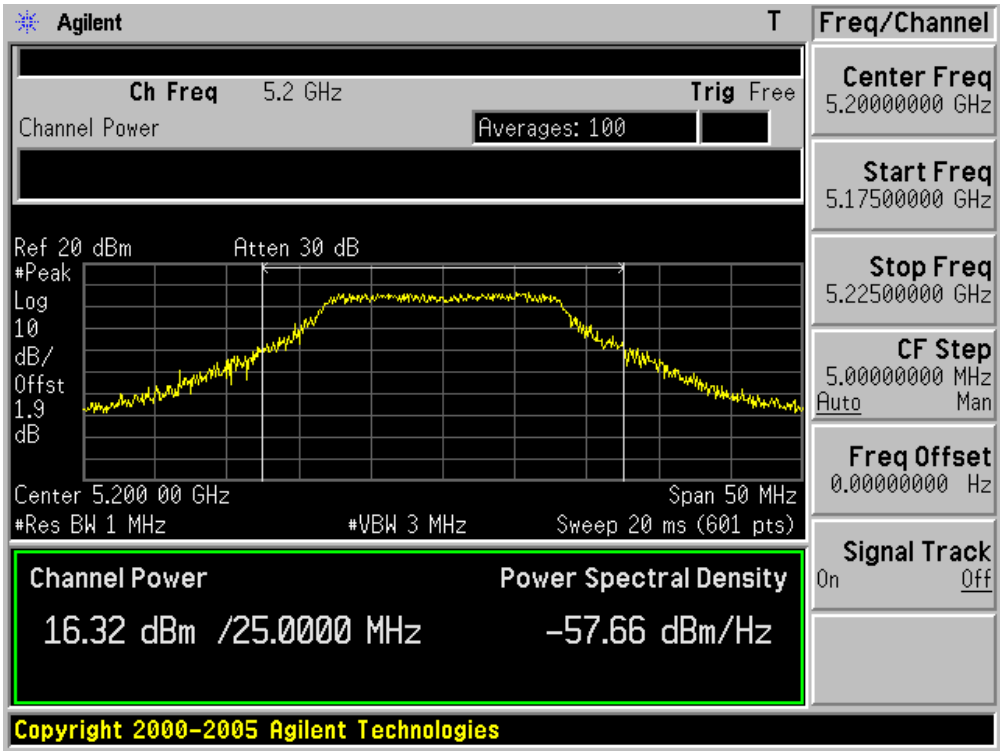
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a - Chain 010

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
36	5180	16.19	N/A	16.19	17.00	Pass
40	5200	16.32	N/A	16.32	17.00	Pass
48	5240	16.23	N/A	16.23	17.00	Pass
149	5745	20.78	N/A	20.78	30.00	Pass
157	5785	20.67	N/A	20.67	30.00	Pass
161	5805	20.82	N/A	20.87	30.00	Pass

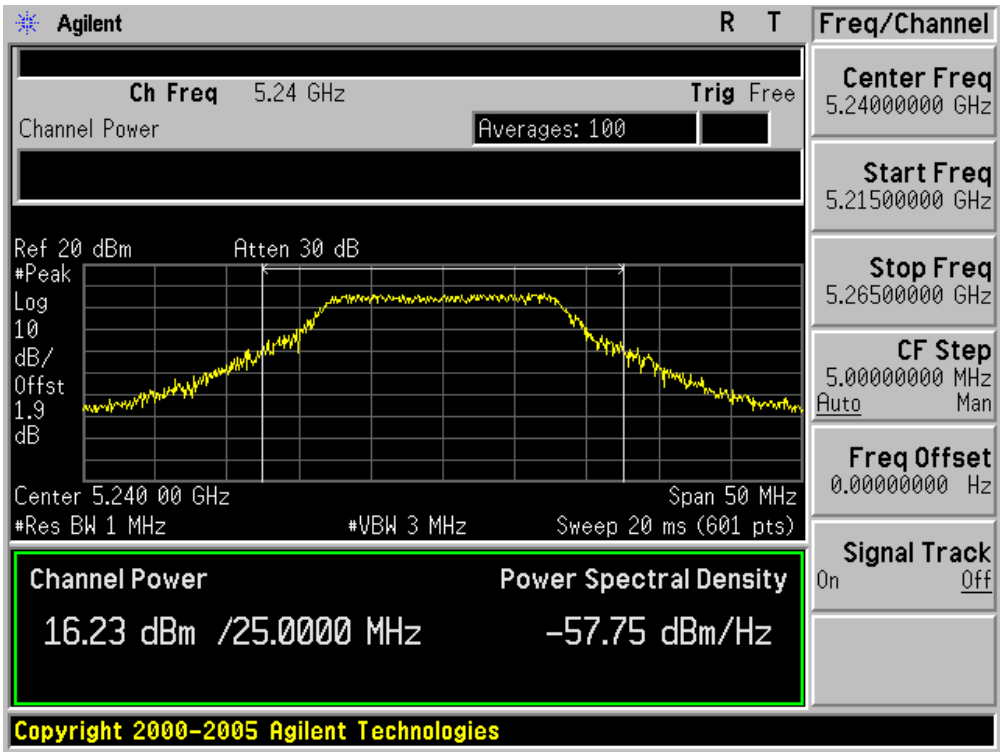
Channel 36 (5180MHz)



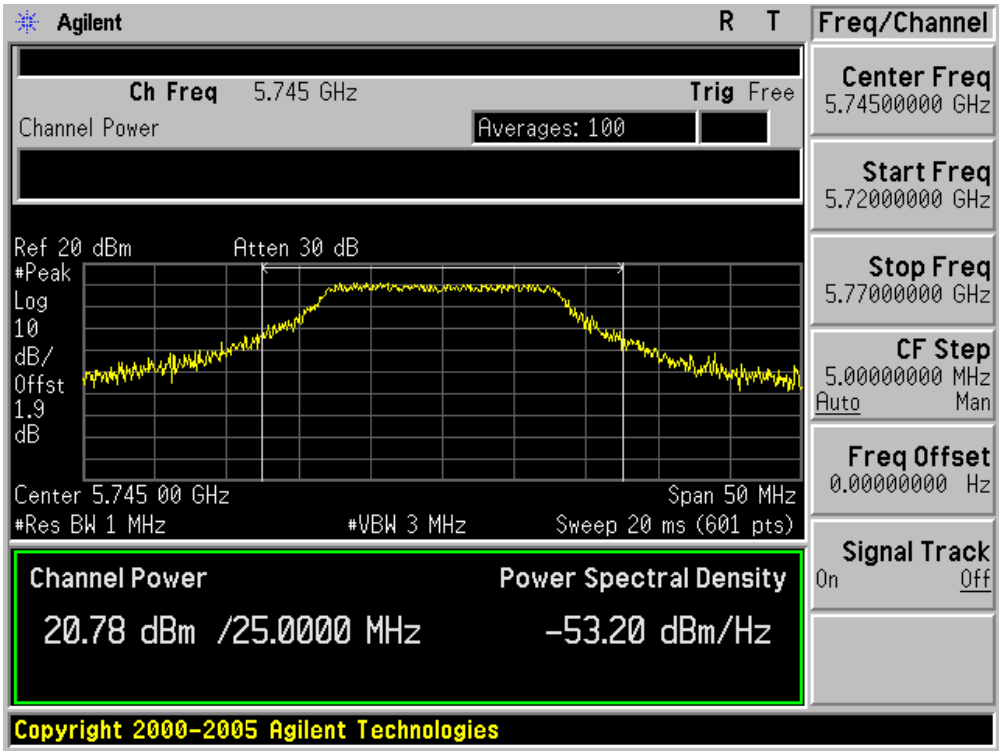
Channel 40 (5200MHz)



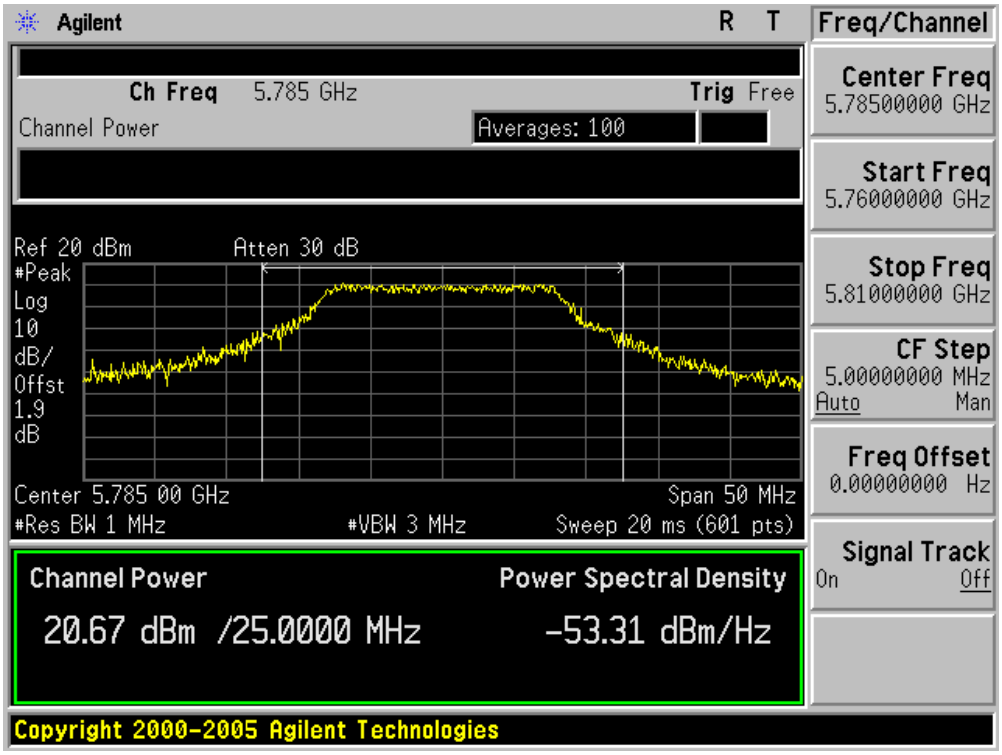
Channel 48 (5240MHz)



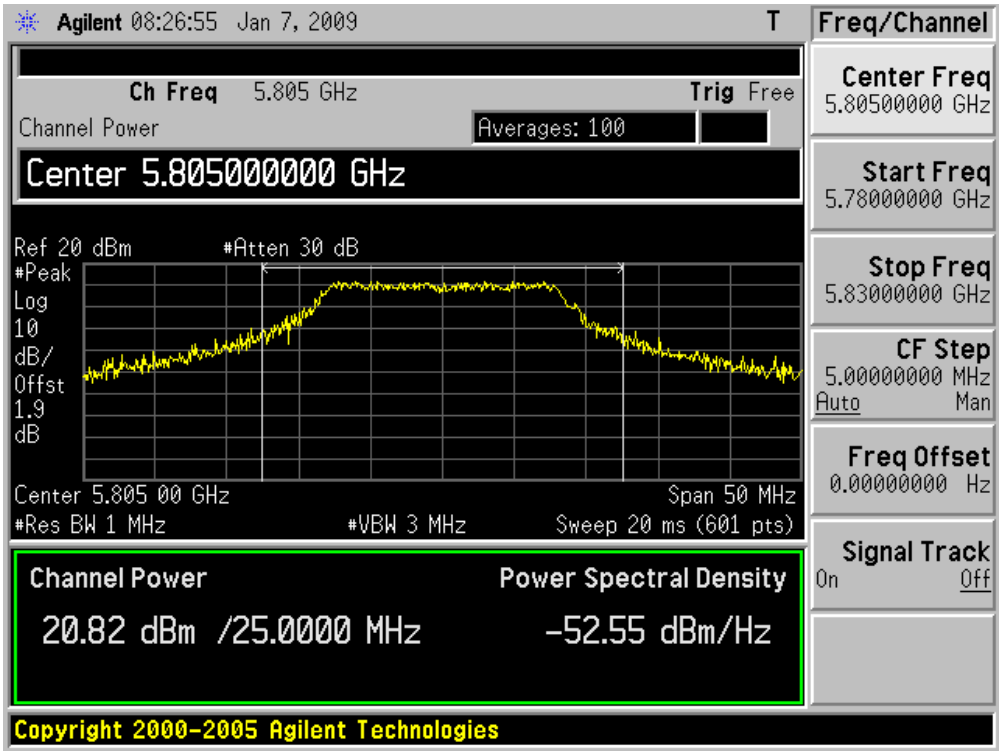
Channel 149 (5745MHz)



Channel 157 (5785MHz)



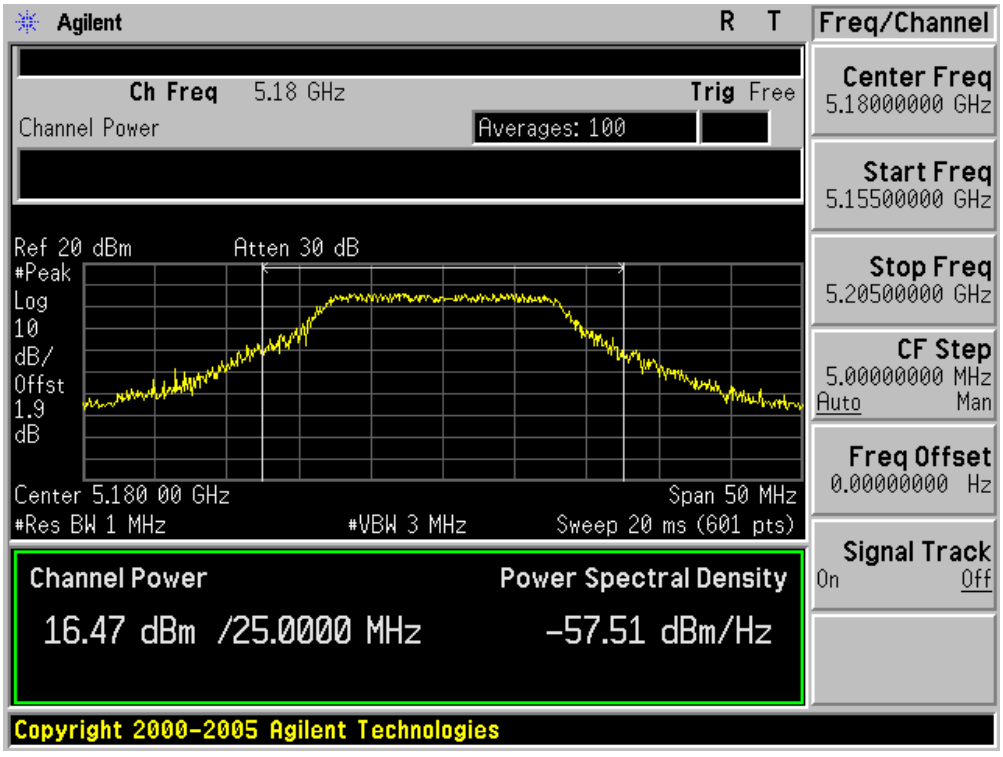
Channel 161 (5805MHz)



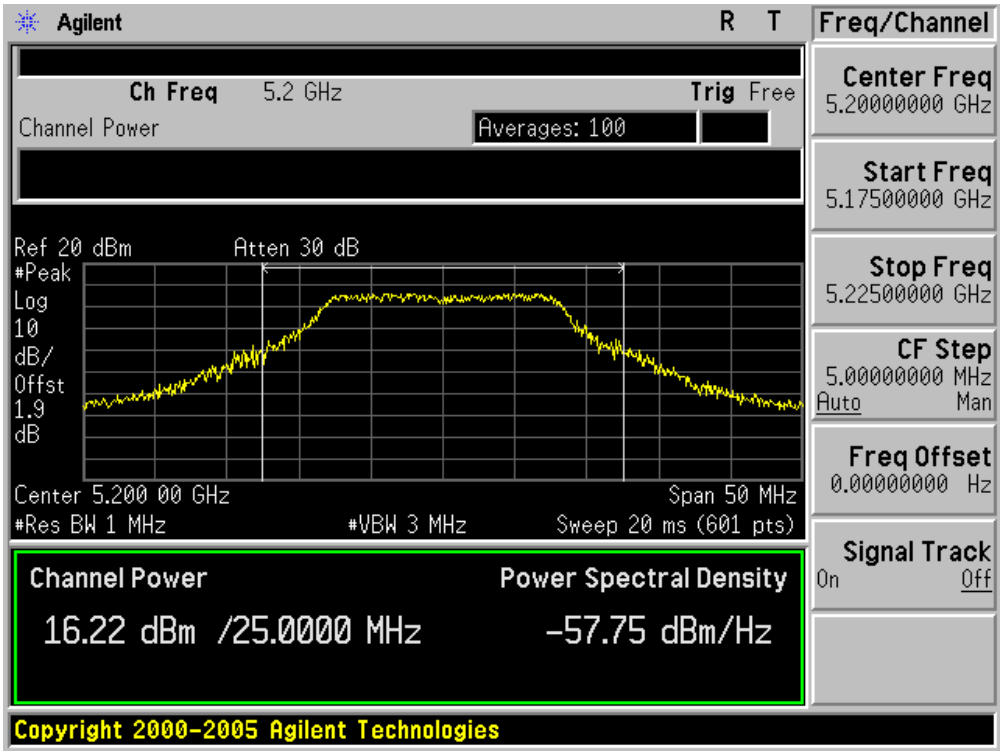
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a – Chain 100

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
36	5180	N/A	16.47	16.47	17.00	Pass
40	5200	N/A	16.32	16.32	17.00	Pass
48	5240	N/A	16.33	16.33	17.00	Pass
149	5745	N/A	20.82	20.82	30.00	Pass
157	5785	N/A	21.17	21.17	30.00	Pass
161	5805	N/A	20.30	20.30	30.00	Pass

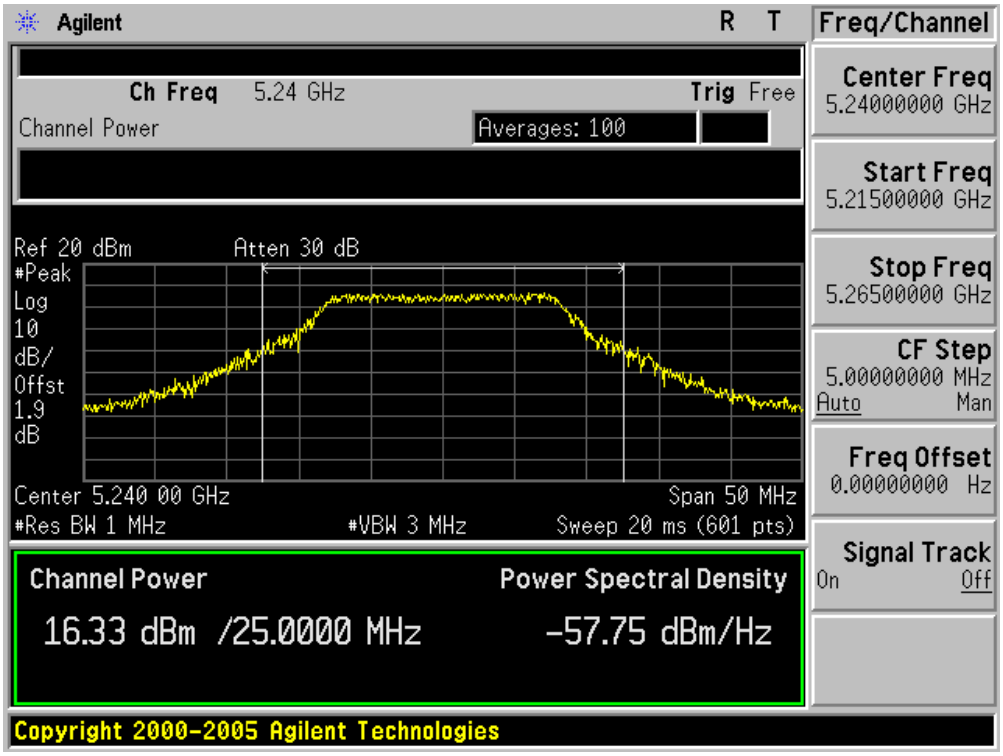
Channel 36 (5180MHz)



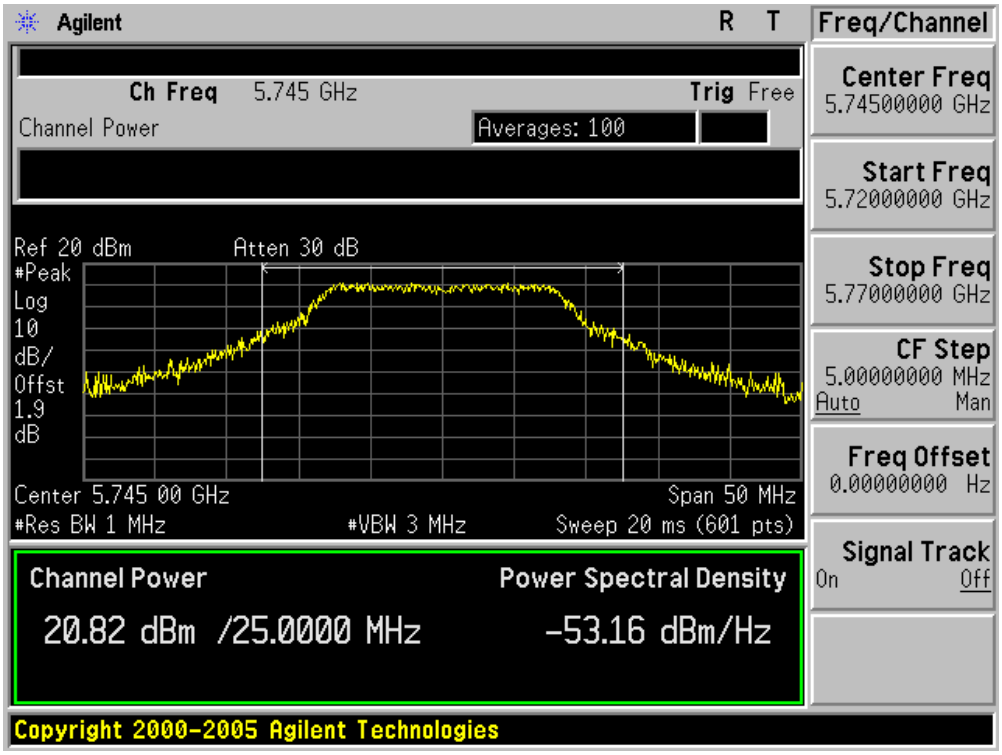
Channel 40 (5200MHz)



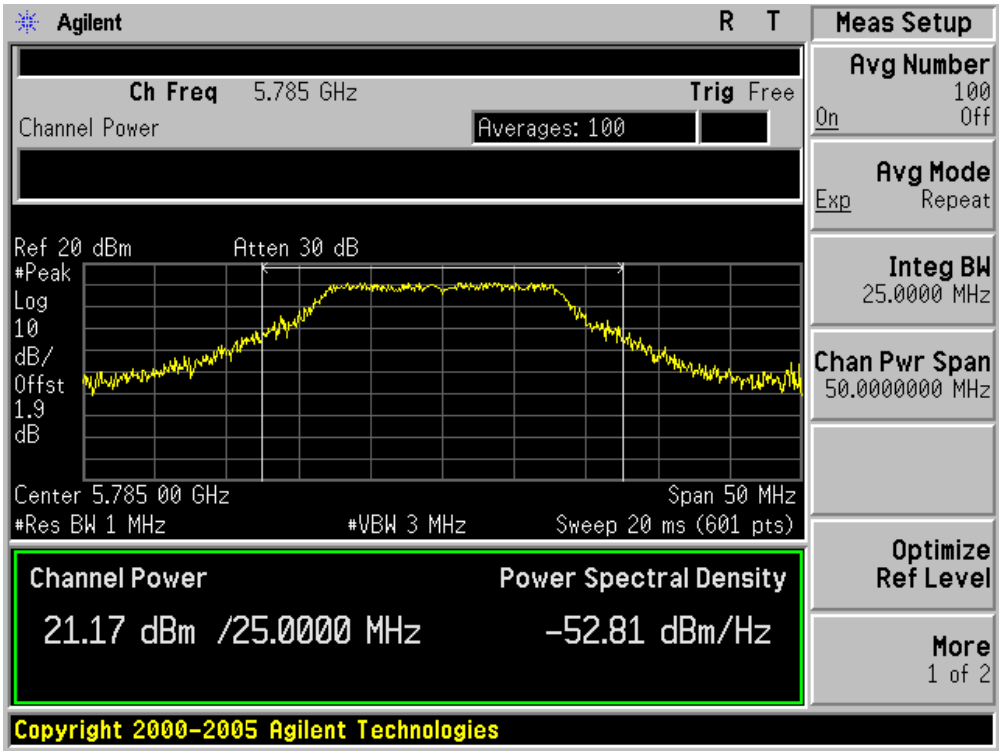
Channel 48 (5240MHz)



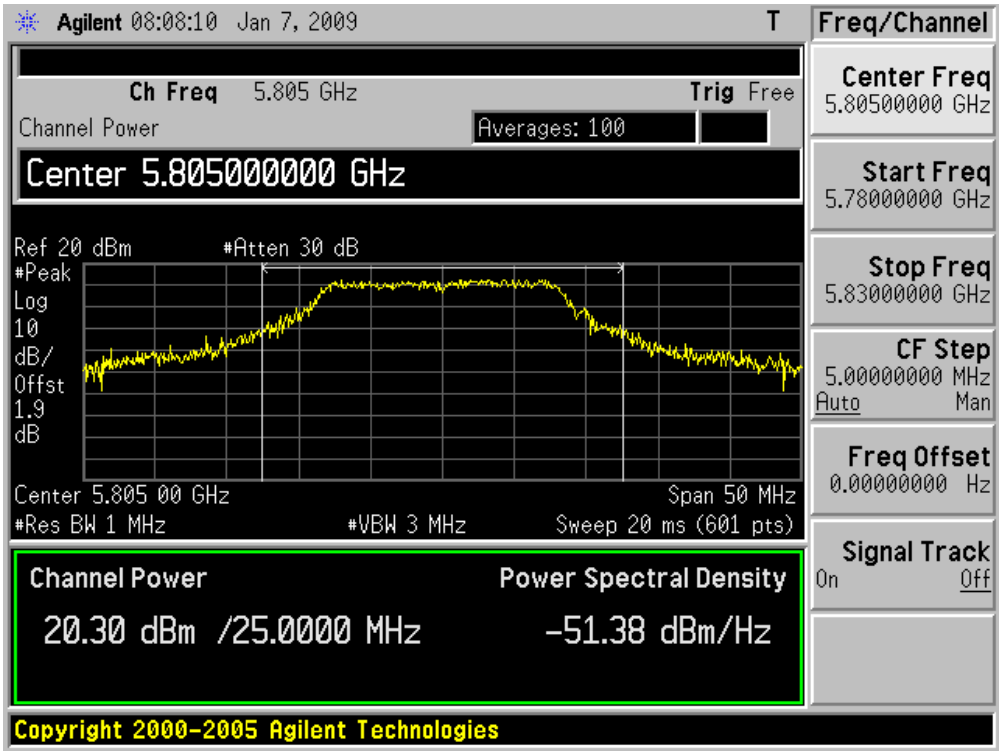
Channel 149 (5745MHz)



Channel 157 (5785MHz)



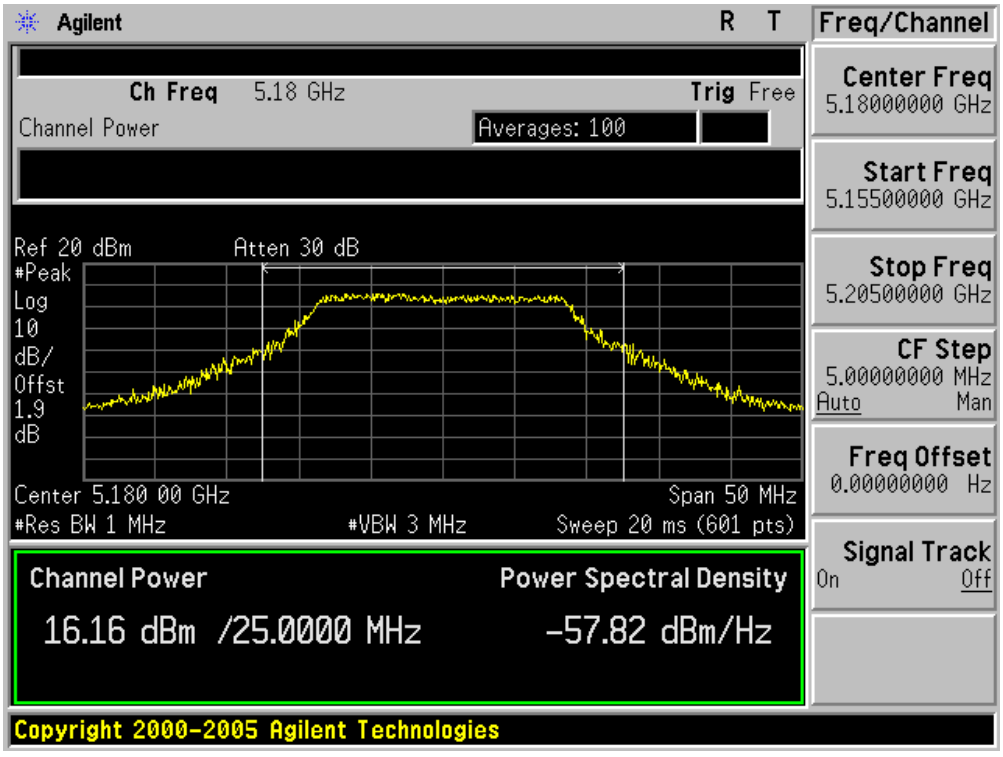
Channel 161 (5805MHz)



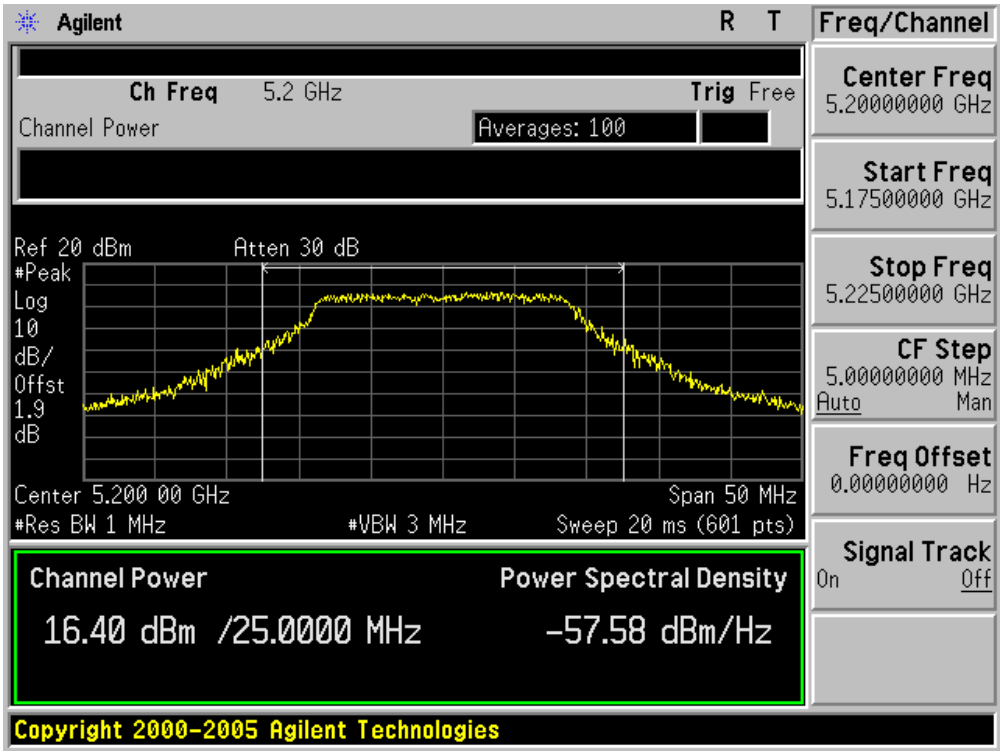
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) - Chain 010

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
36	5180	16.16	N/A	16.16	17.00	Pass
40	5200	16.40	N/A	16.40	17.00	Pass
48	5240	16.30	N/A	16.30	17.00	Pass
149	5745	20.77	N/A	20.77	30.00	Pass
157	5785	20.65	N/A	20.65	30.00	Pass
161	5805	20.83	N/A	20.83	30.00	Pass

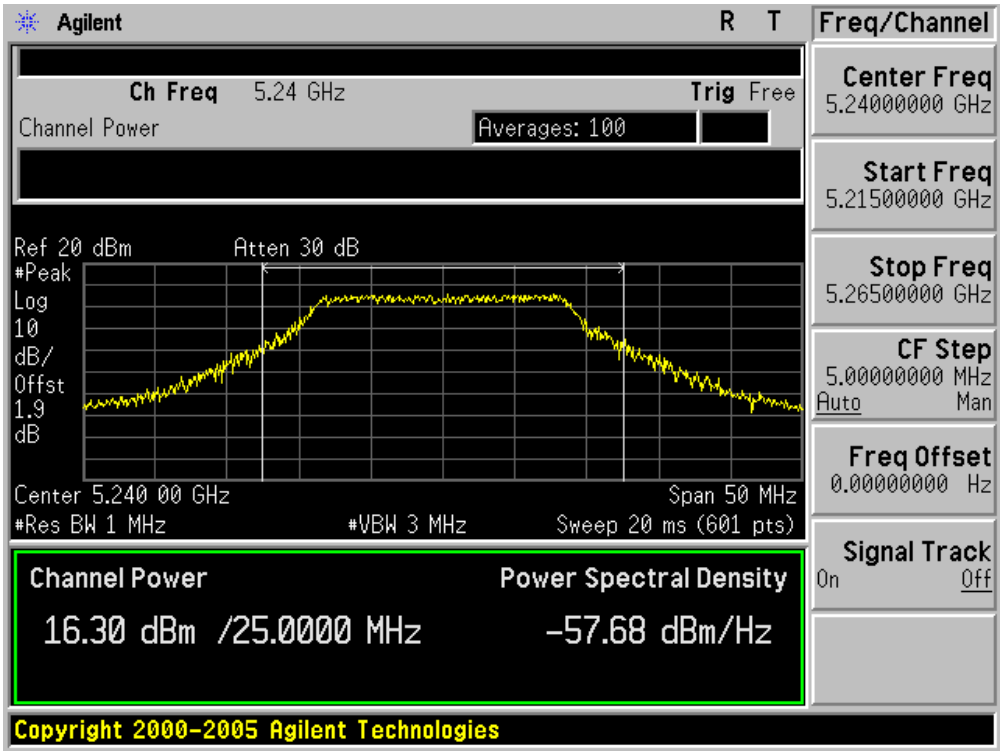
Channel 36 (5180MHz)



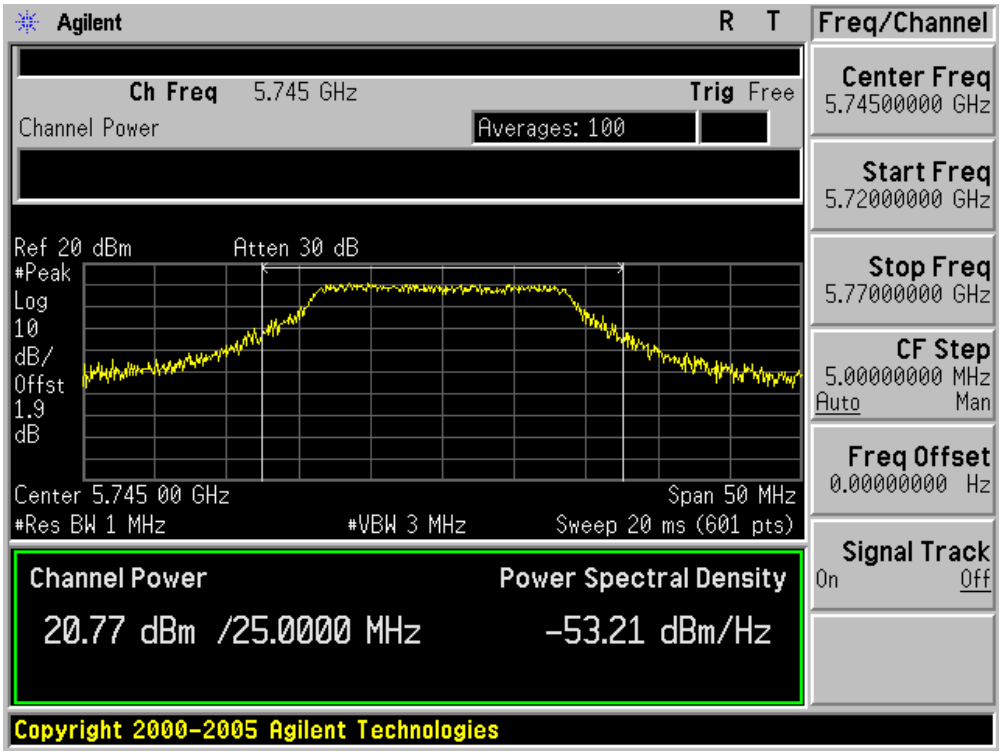
Channel 40 (5200MHz)



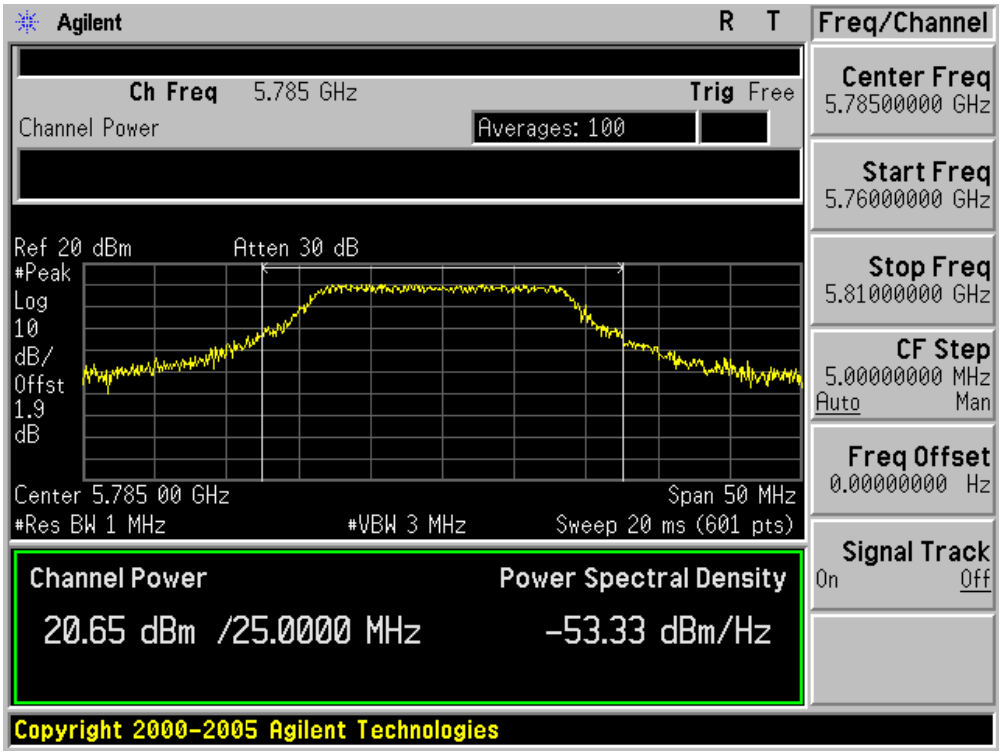
Channel 48 (5240MHz)



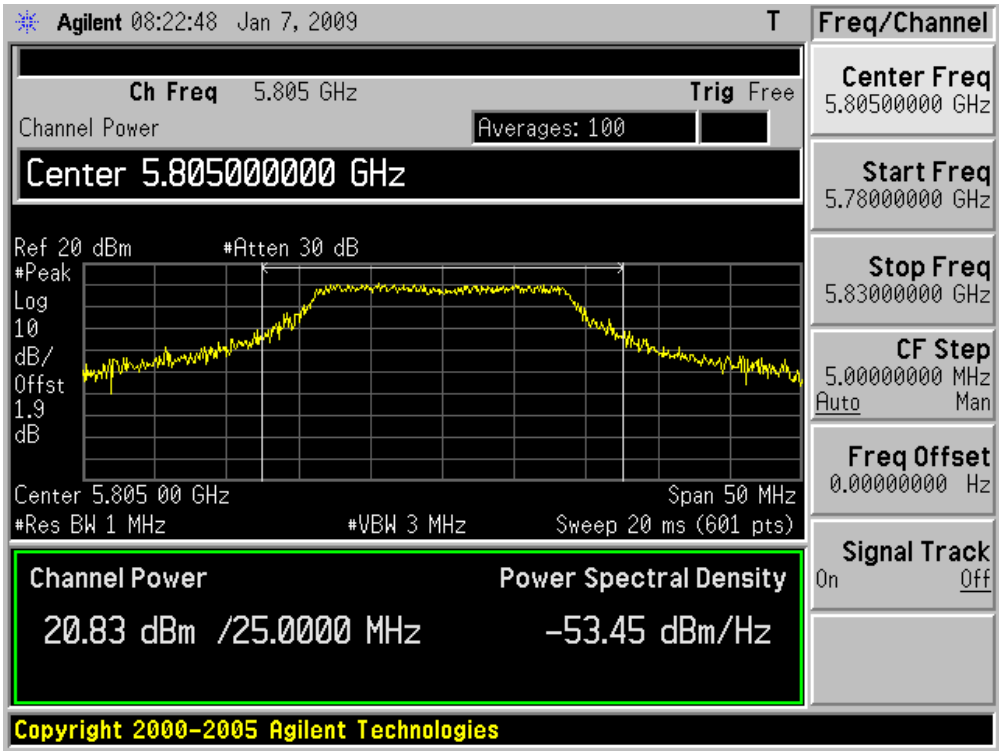
Channel 149 (5745MHz)



Channel 157 (5785MHz)



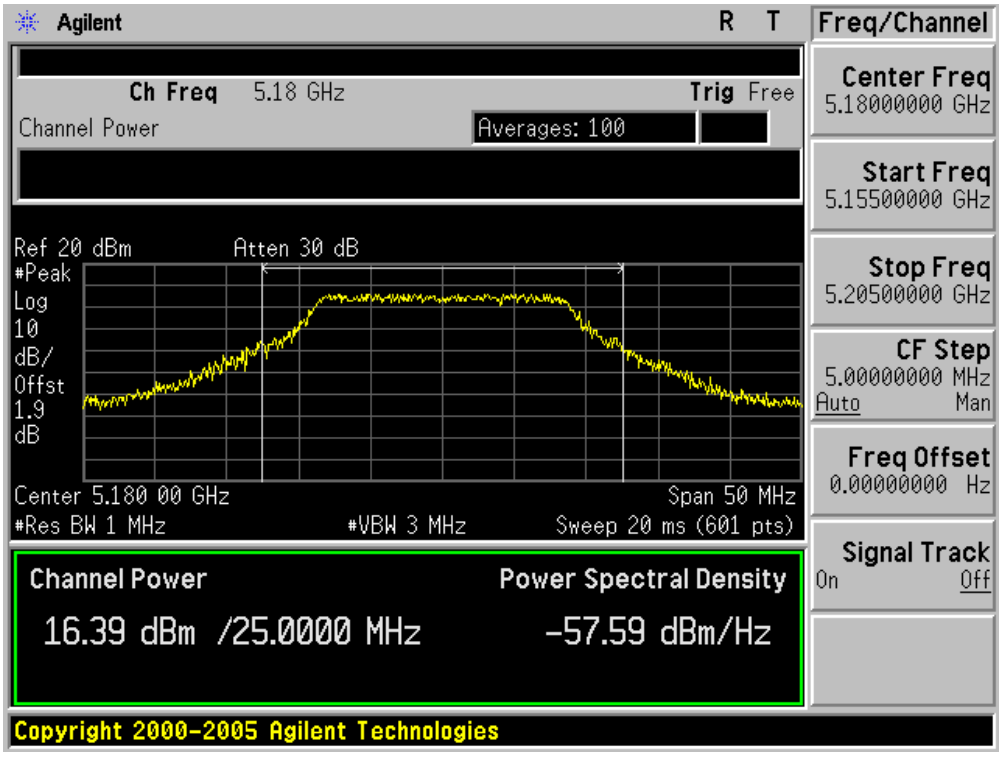
Channel 161 (5805MHz)



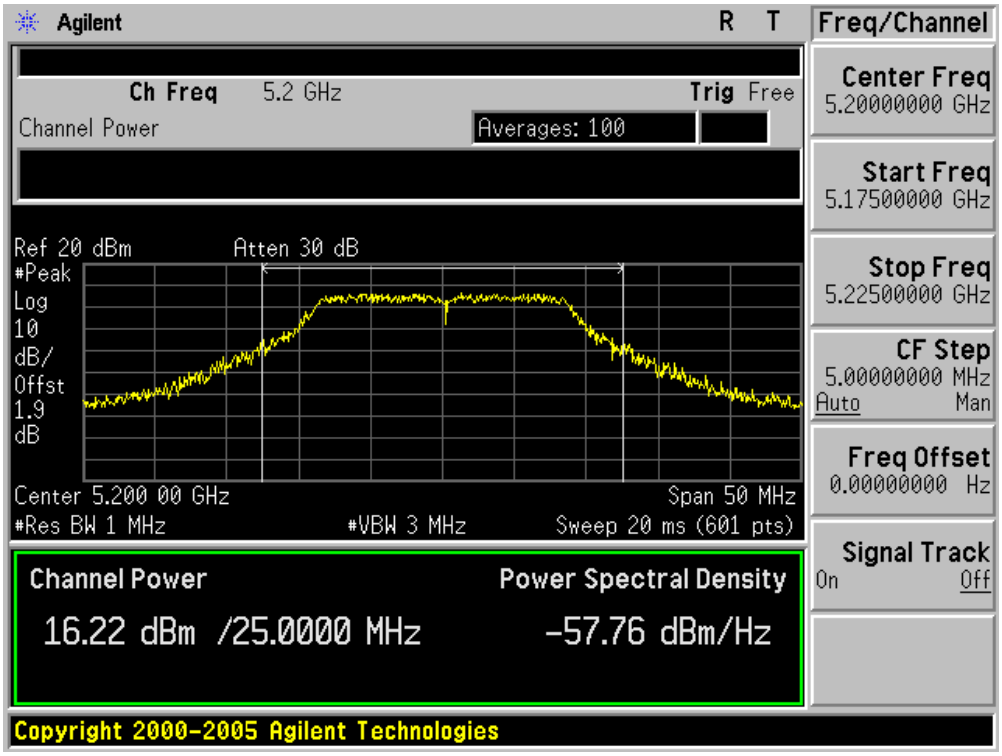
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) - Chain 100

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
36	5180	N/A	16.39	16.39	17.00	Pass
40	5200	N/A	16.22	16.22	17.00	Pass
48	5240	N/A	16.20	16.20	17.00	Pass
149	5745	N/A	20.76	20.76	30.00	Pass
157	5785	N/A	21.10	21.10	30.00	Pass
161	5805	N/A	20.71	20.71	30.00	Pass

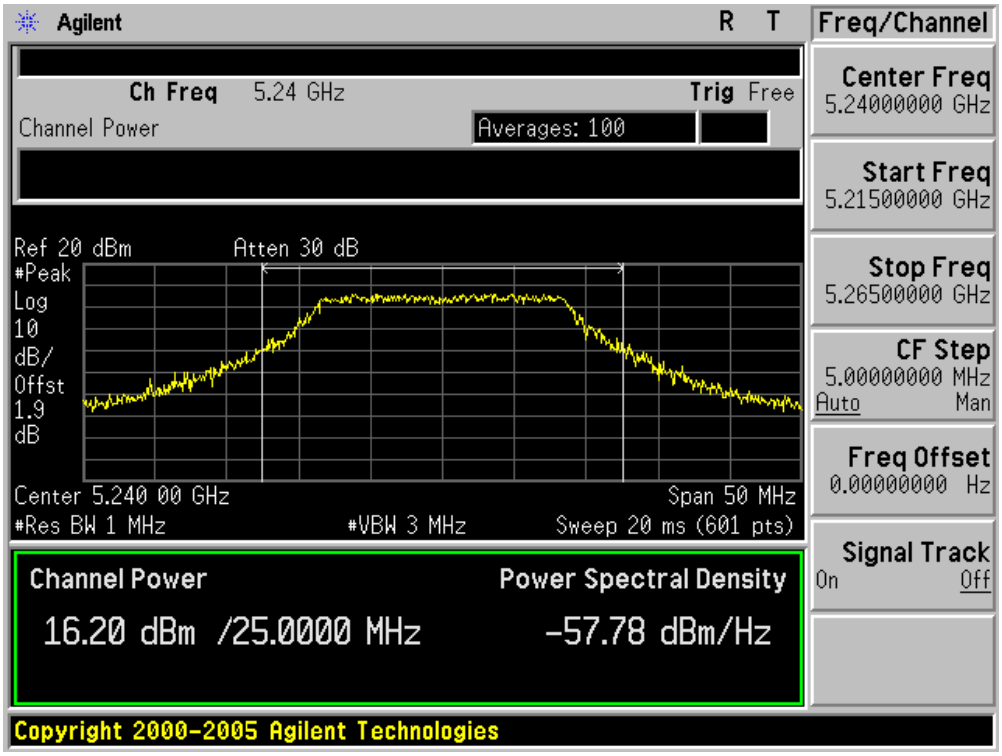
Channel 36 (5180MHz)



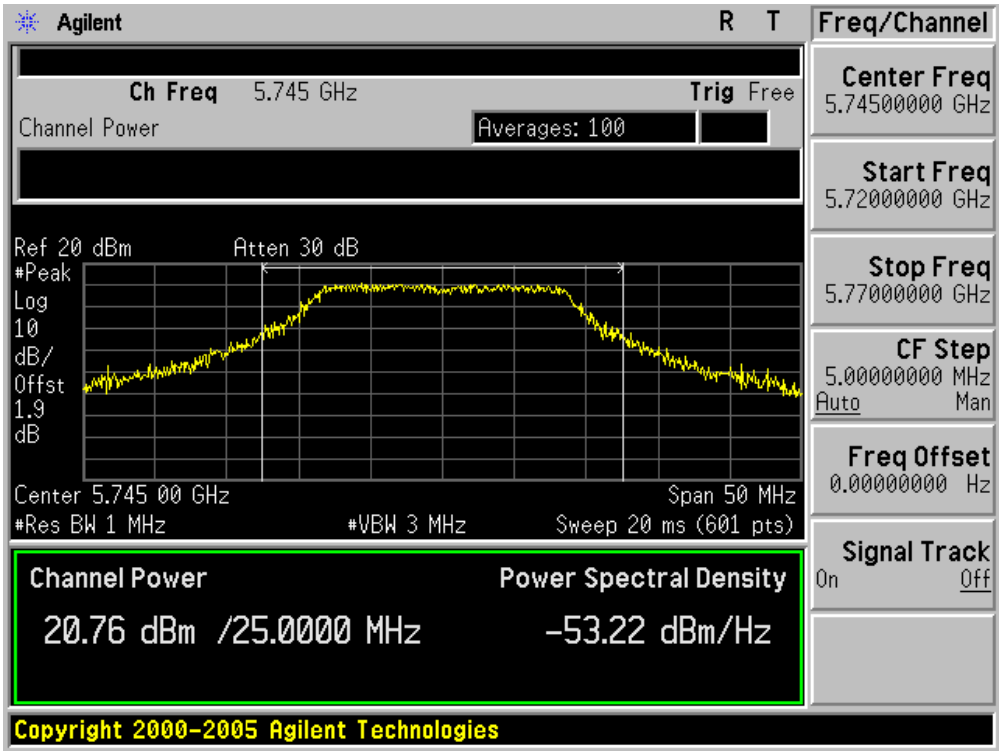
Channel 40 (5200MHz)



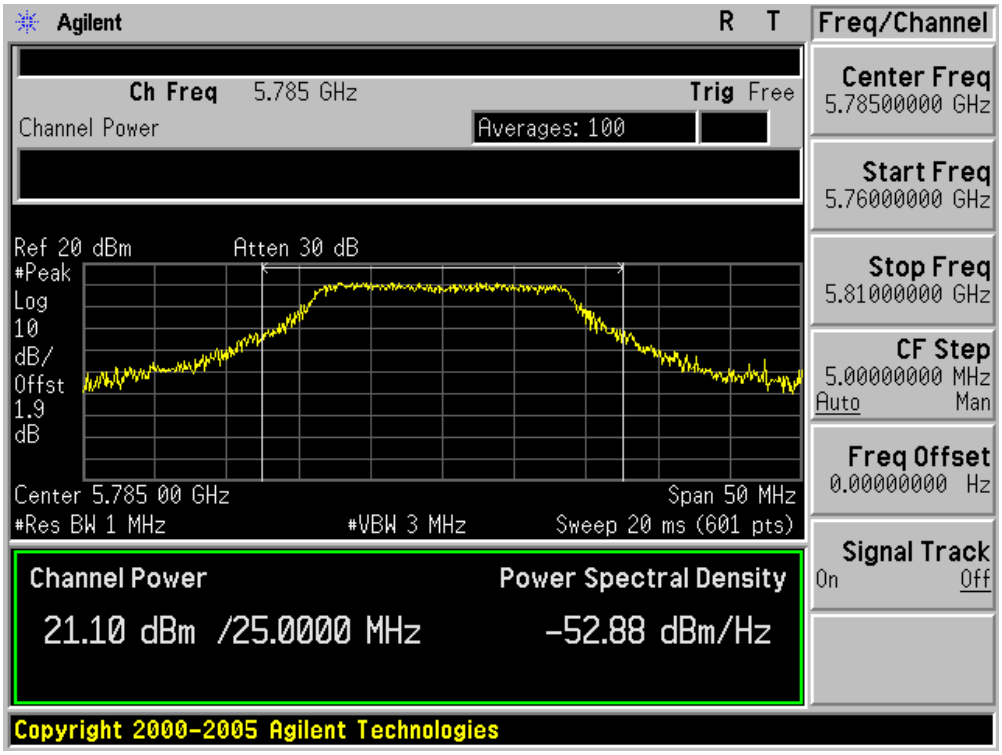
Channel 48 (5240MHz)



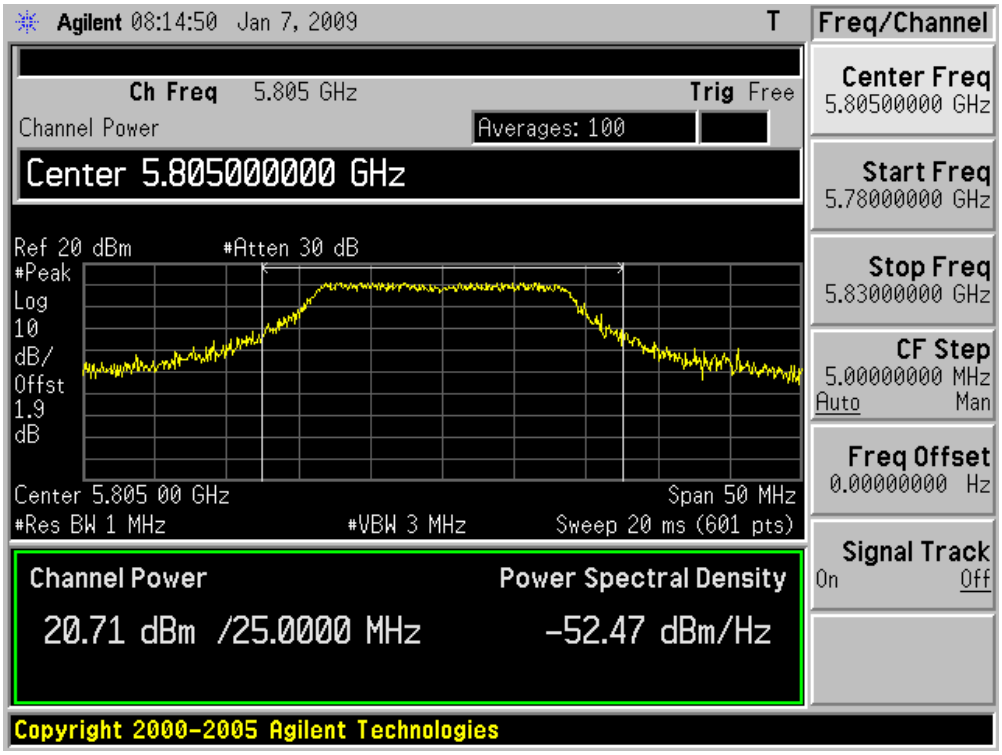
Channel 149 (5745MHz)



Channel 157 (5785MHz)



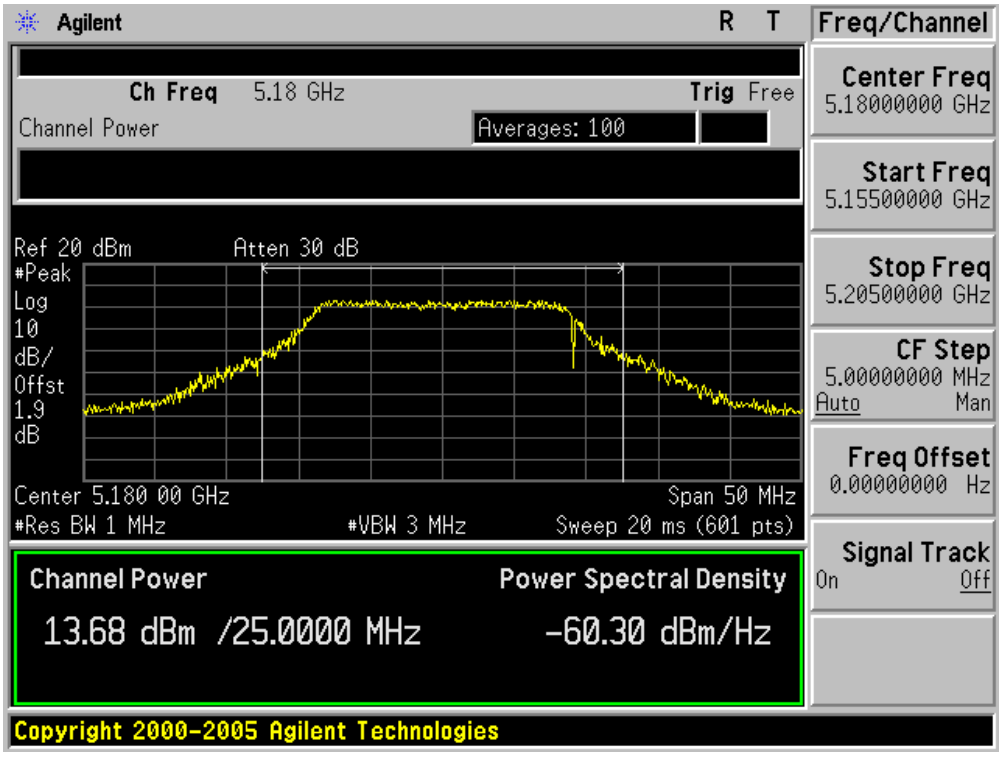
Channel 161 (5805MHz)



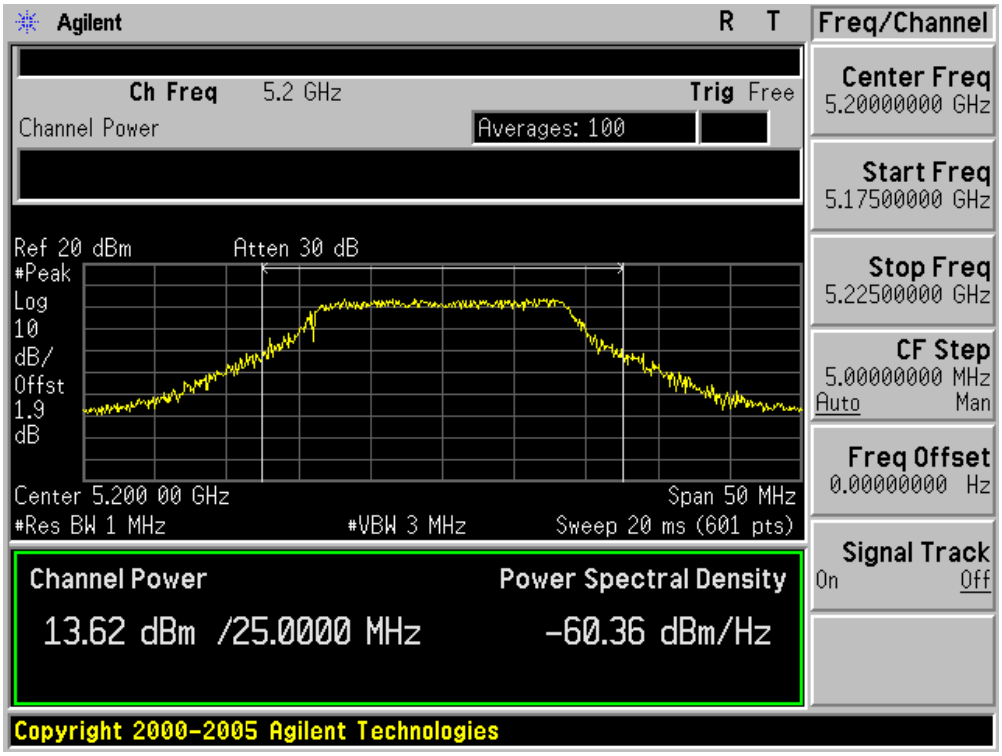
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) – Chain 110

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
36	5180	13.68	12.98	16.35	17.00	Pass
40	5200	13.62	13.20	16.43	17.00	Pass
48	5240	13.31	13.02	16.18	17.00	Pass
149	5745	15.92	18.27	20.26	30.00	Pass
157	5785	15.82	18.23	20.20	30.00	Pass
161	5805	15.71	18.19	20.13	30.00	Pass

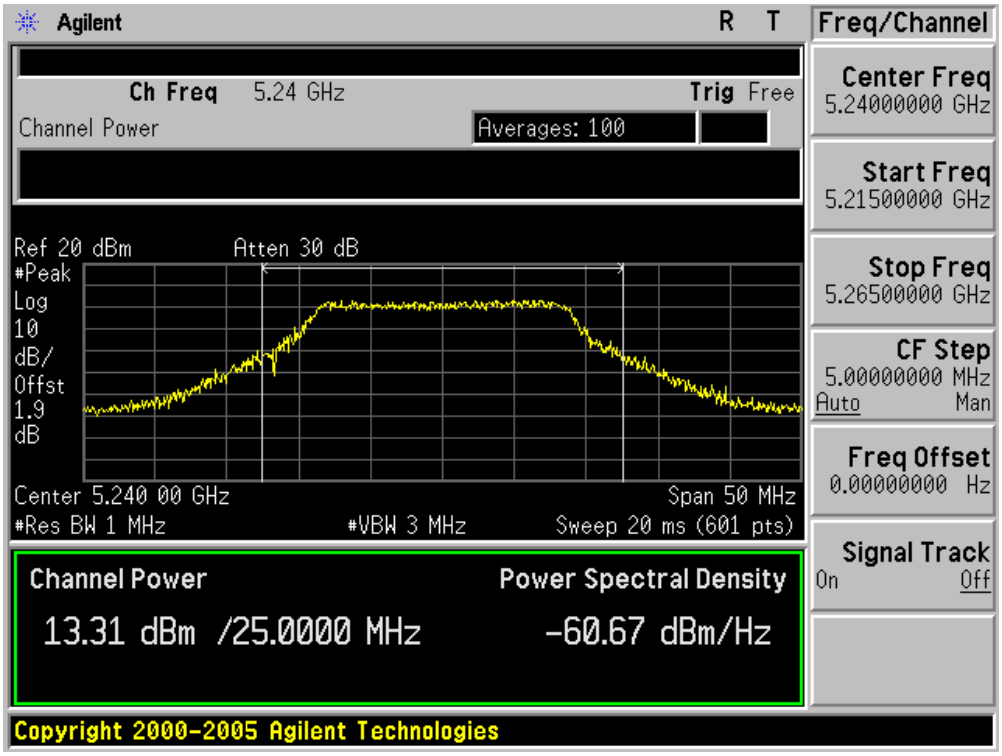
Channel 36 (5180MHz) - Chain 010



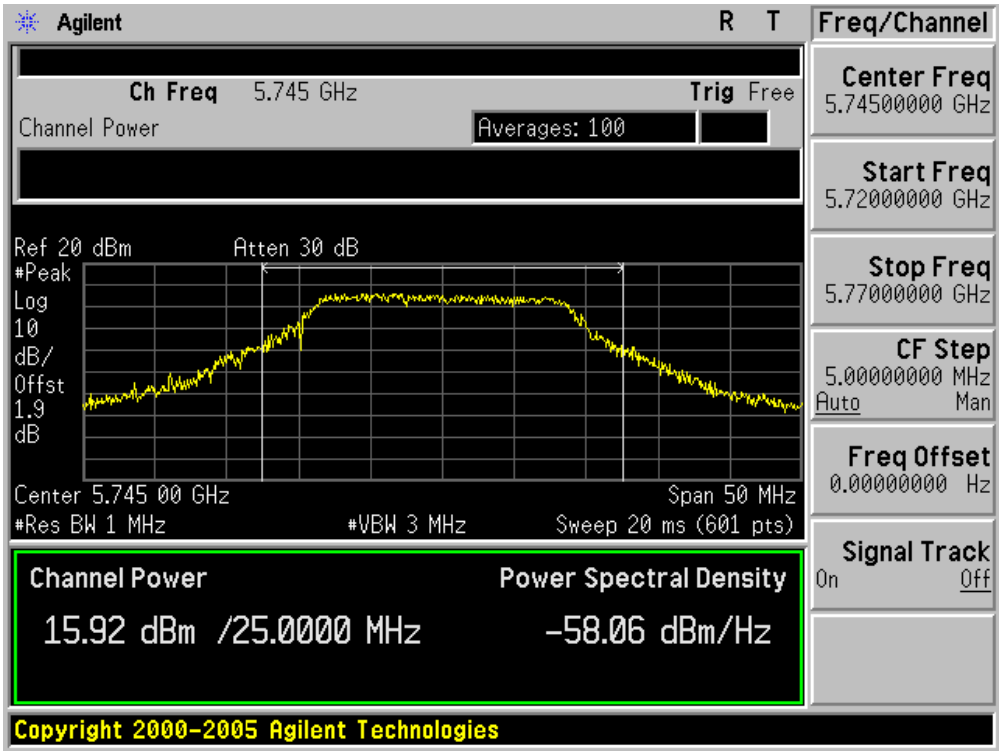
Channel 40 (5200MHz) - Chain 010



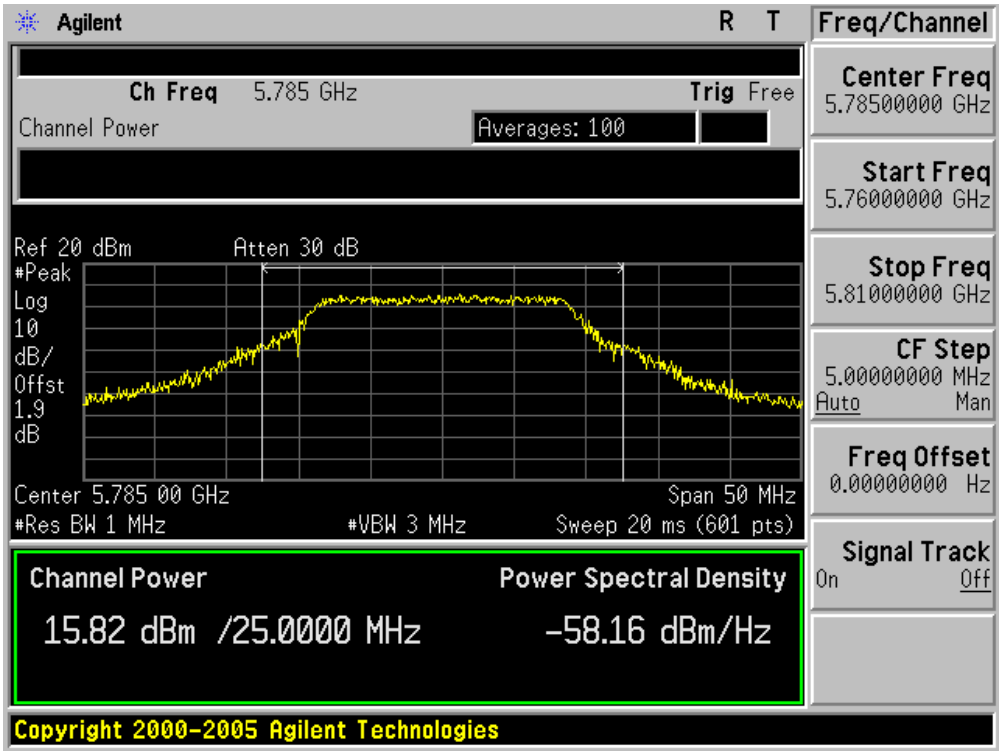
Channel 48 (5240MHz) - Chain 010



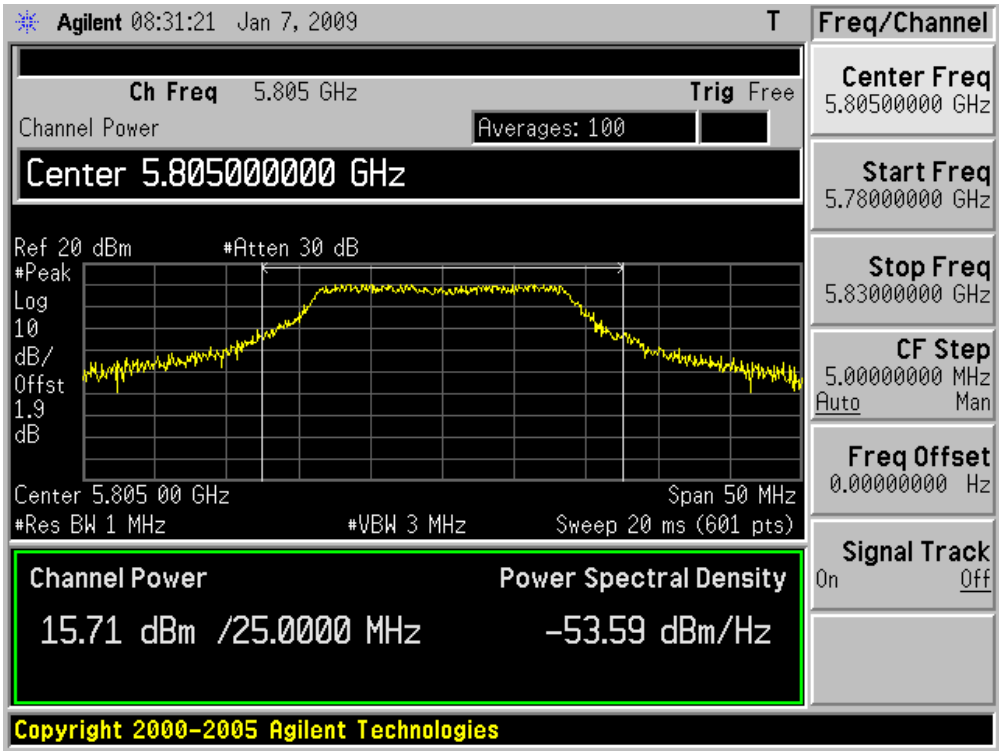
Channel 149 (5745MHz) - Chain 010



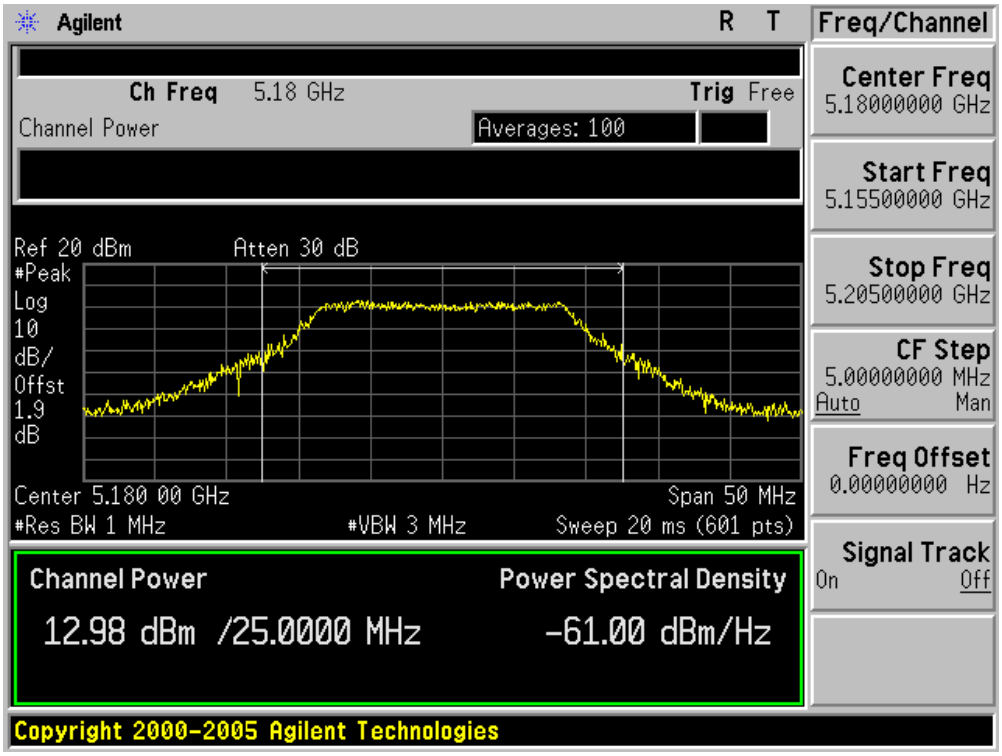
Channel 157 (5785MHz) - Chain 010



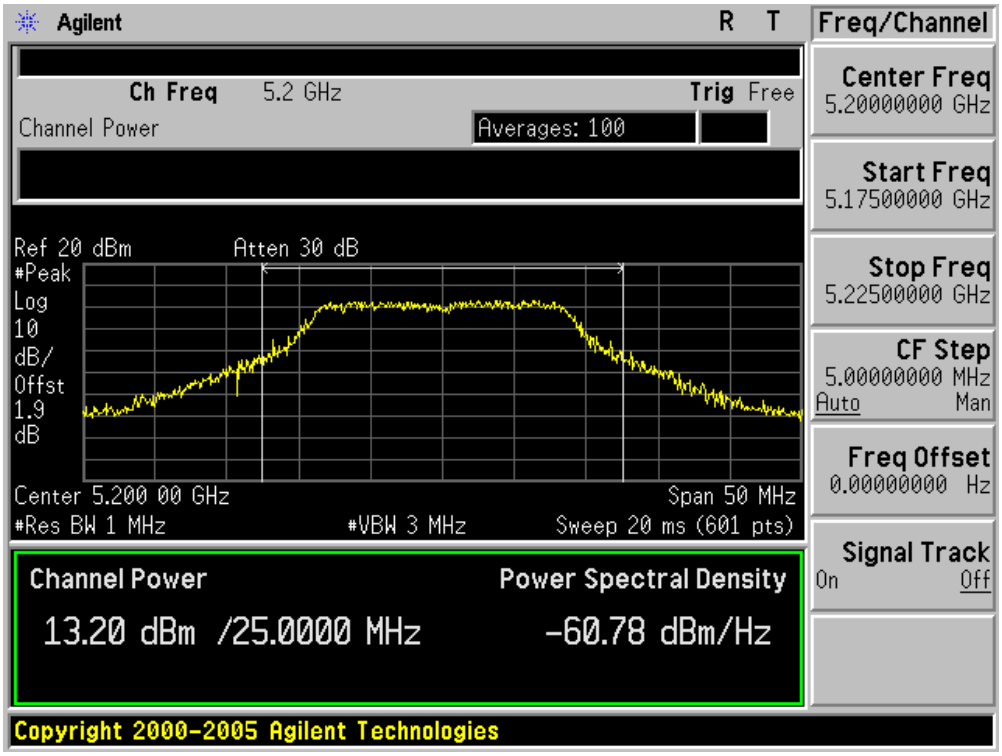
Channel 161 (5805MHz) - Chain 010



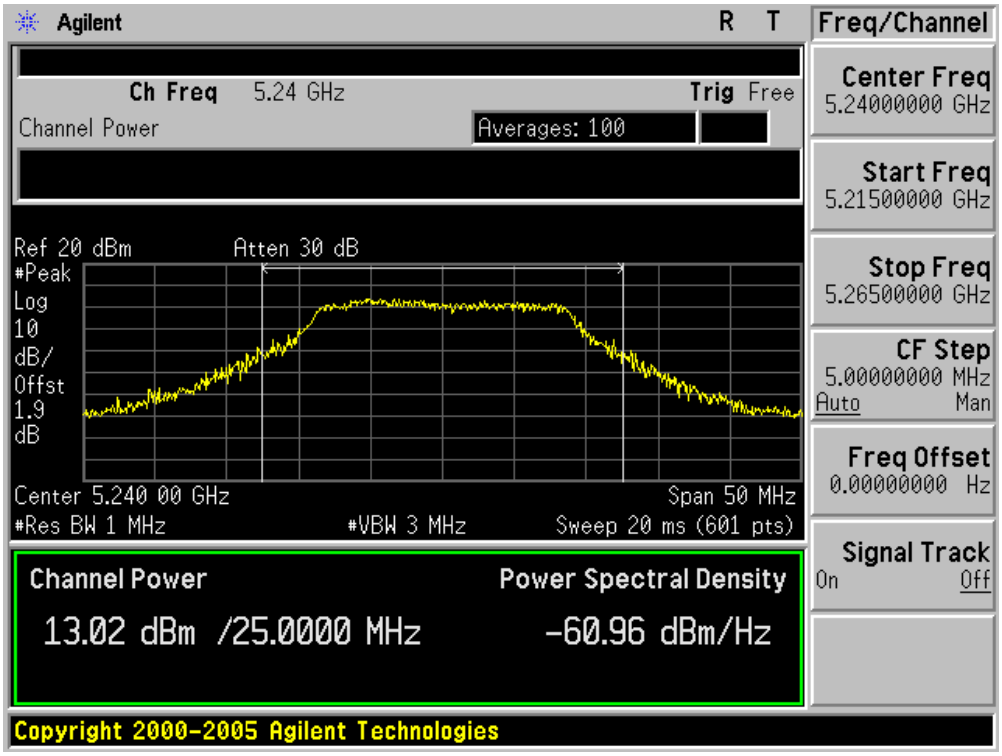
Channel 36 (5180MHz) - Chain 100



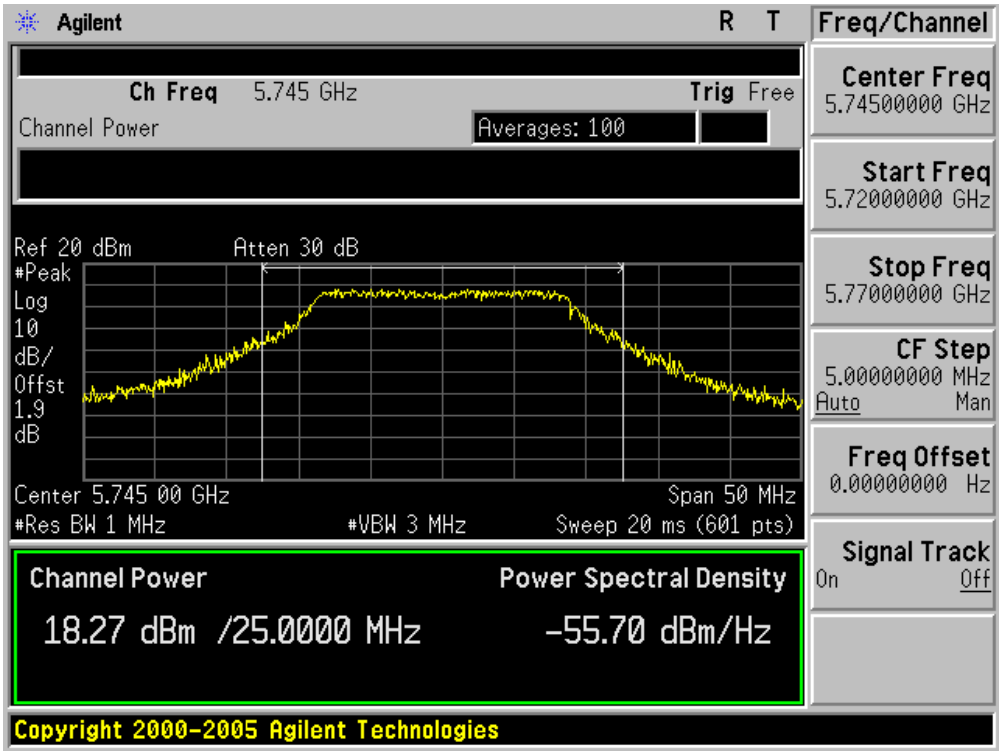
Channel 40 (5200MHz) - Chain 100



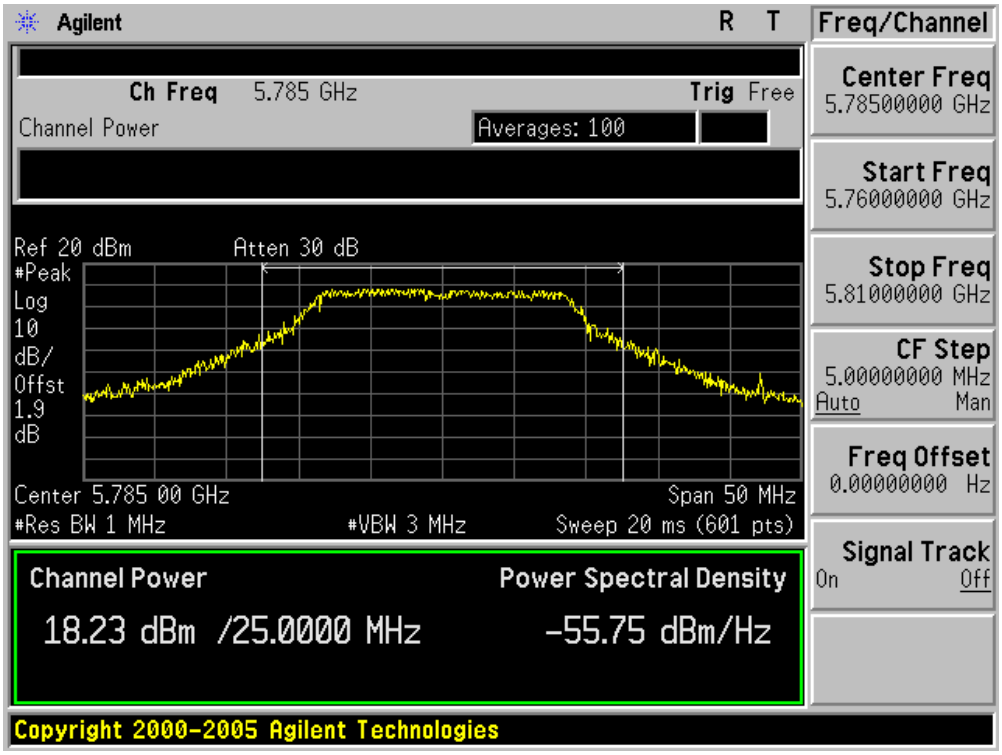
Channel 48 (5240MHz) - Chain 100



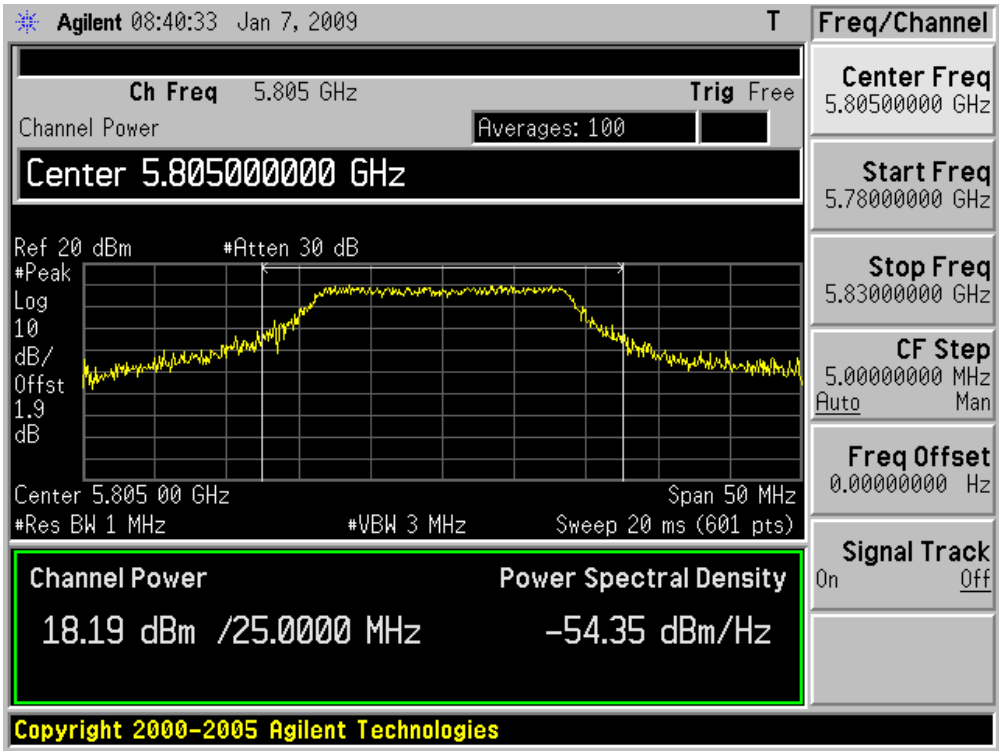
Channel 149 (5745MHz) - Chain 010



Channel 157 (5785MHz) - Chain 010



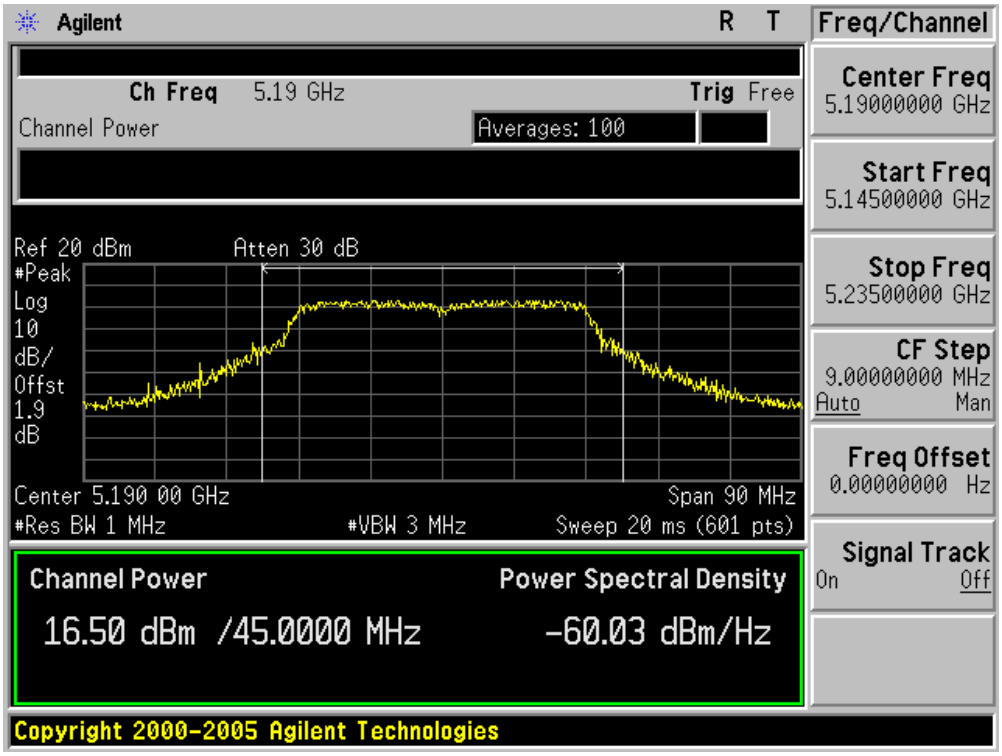
Channel 161 (5805MHz) - Chain 100



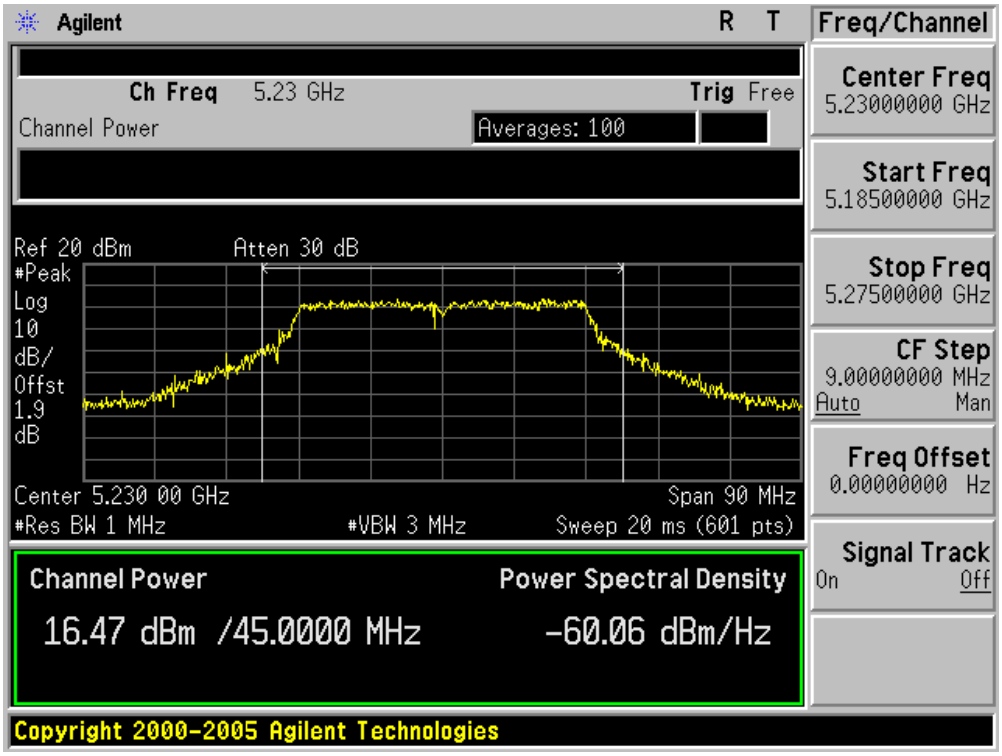
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) – Chain 010

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
38	5190	16.50	N/A	16.50	17.00	Pass
46	5230	16.47	N/A	16.47	17.00	Pass
151	5755	20.84	N/A	20.84	30.00	Pass
159	5795	21.04	N/A	21.04	30.00	Pass

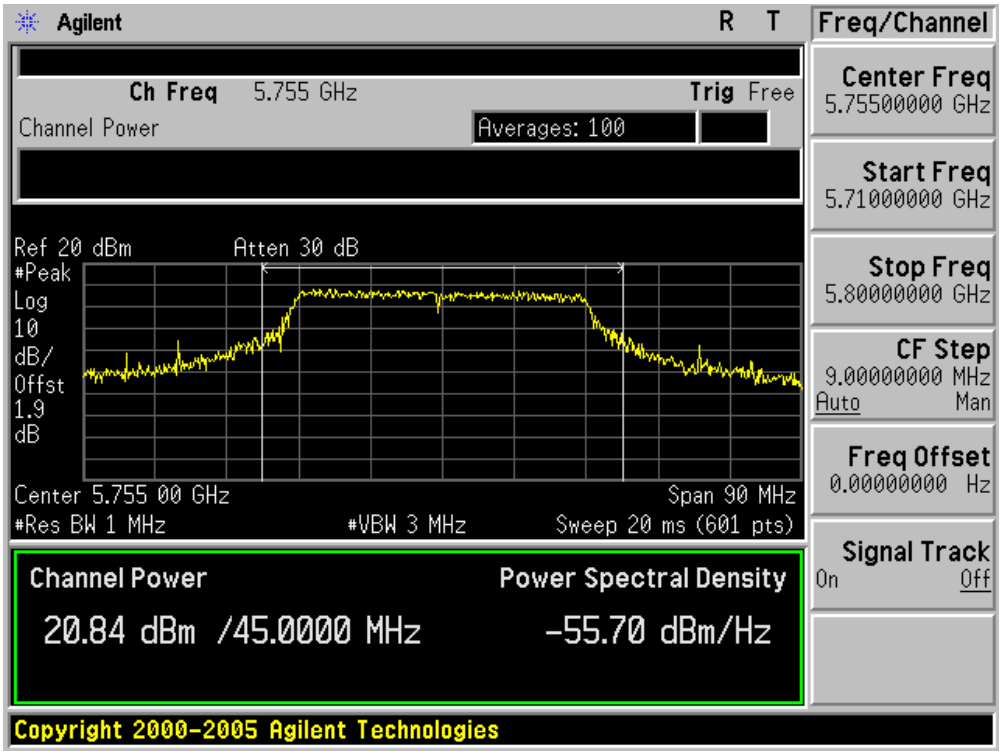
Channel 38 (5190MHz)



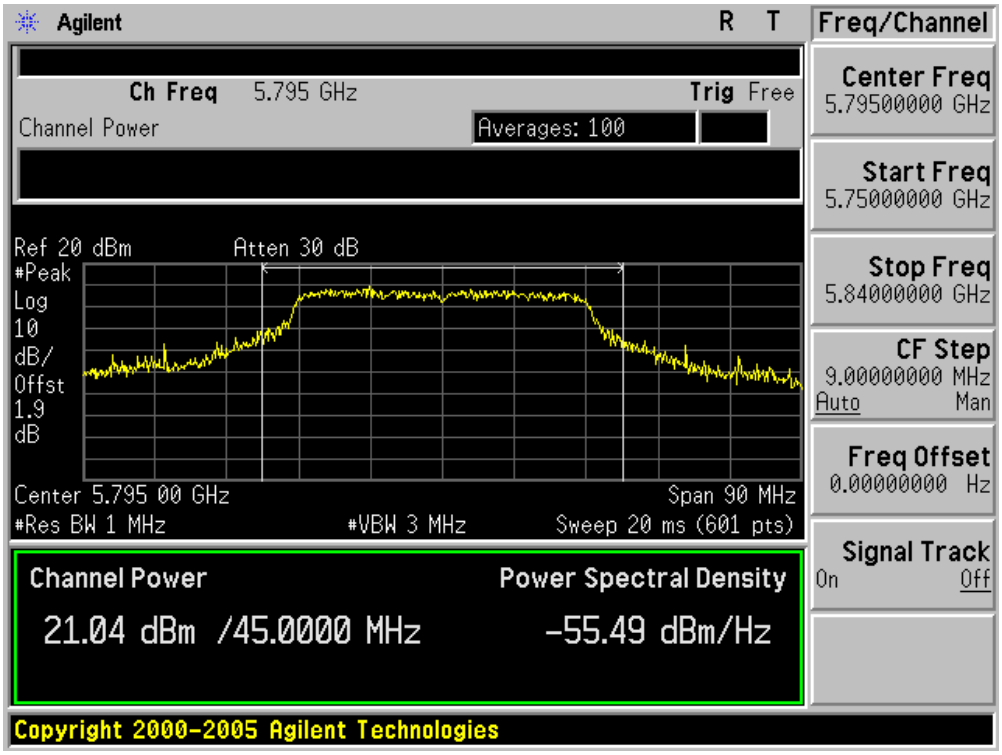
Channel 46 (5230MHz)



Channel 151 (5755MHz)



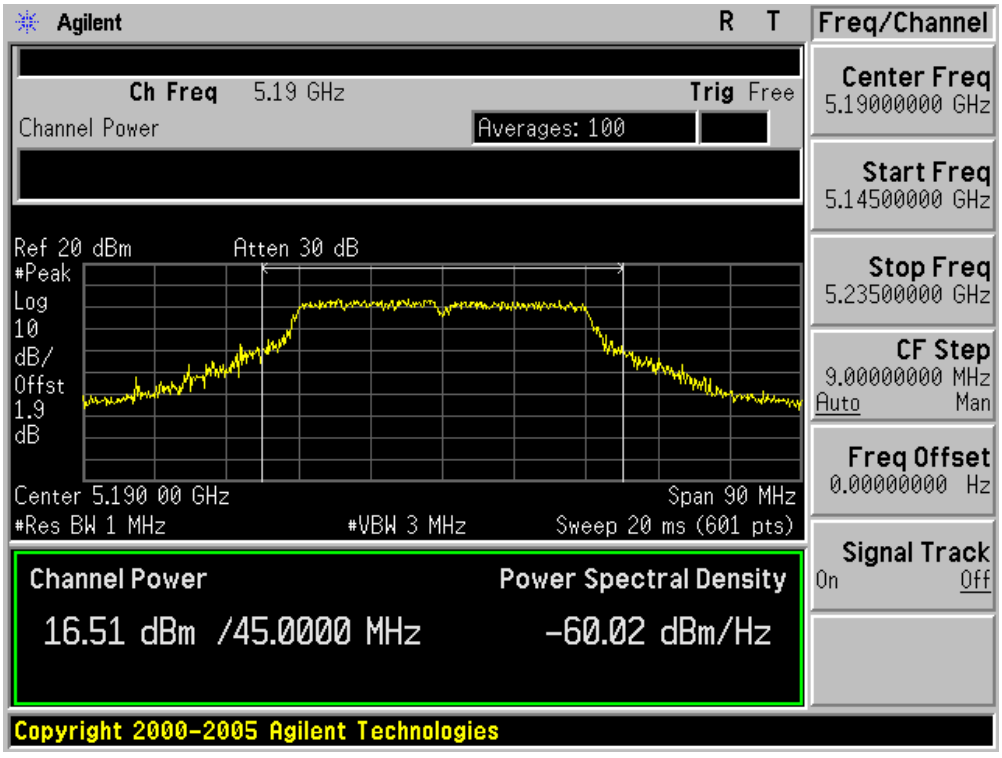
Channel 159 (5795MHz)



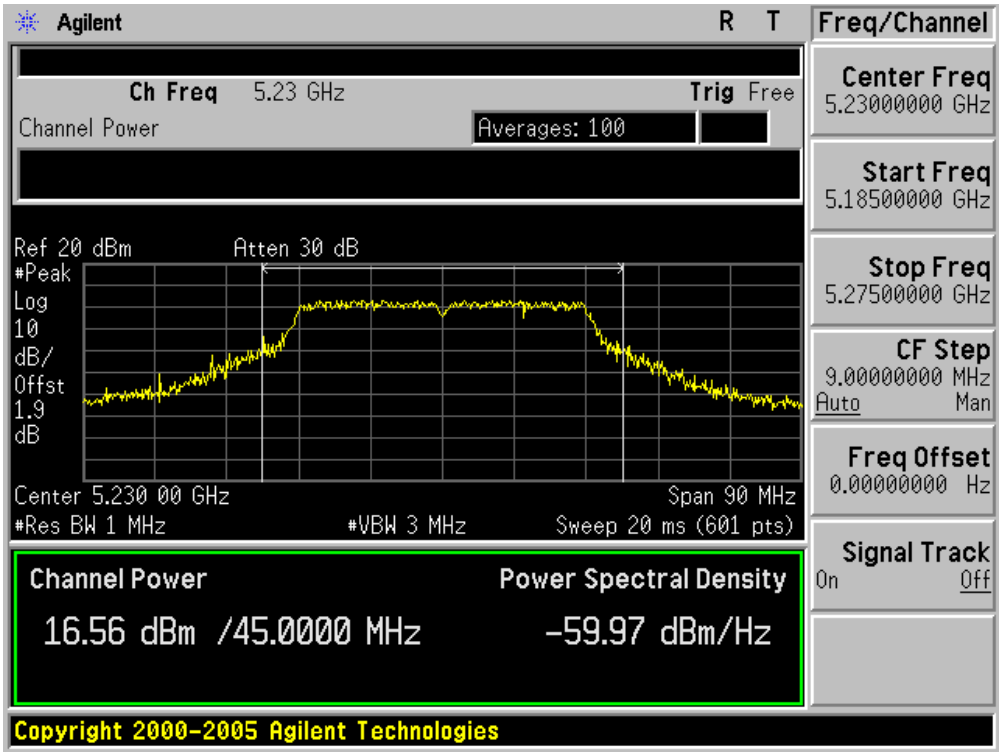
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) – Chain100

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
38	5190	N/A	16.51	16.51	17.00	Pass
46	5230	N/A	16.56	16.56	17.00	Pass
151	5755	N/A	20.40	20.84	30.00	Pass
159	5795	N/A	20.23	21.04	30.00	Pass

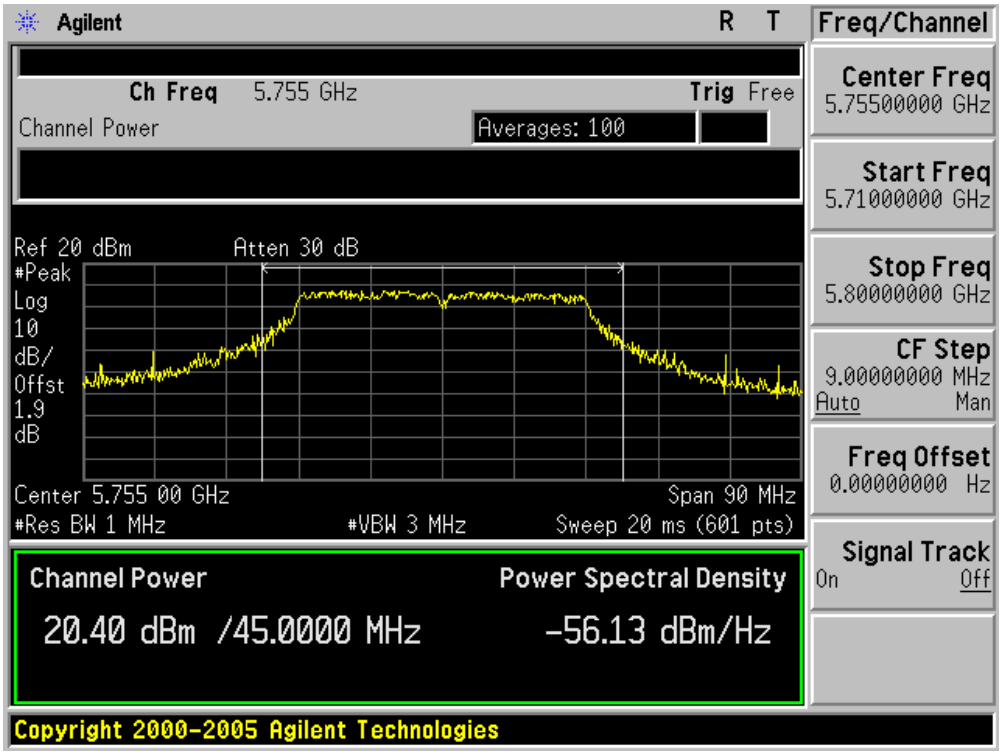
Channel 38 (5190MHz)



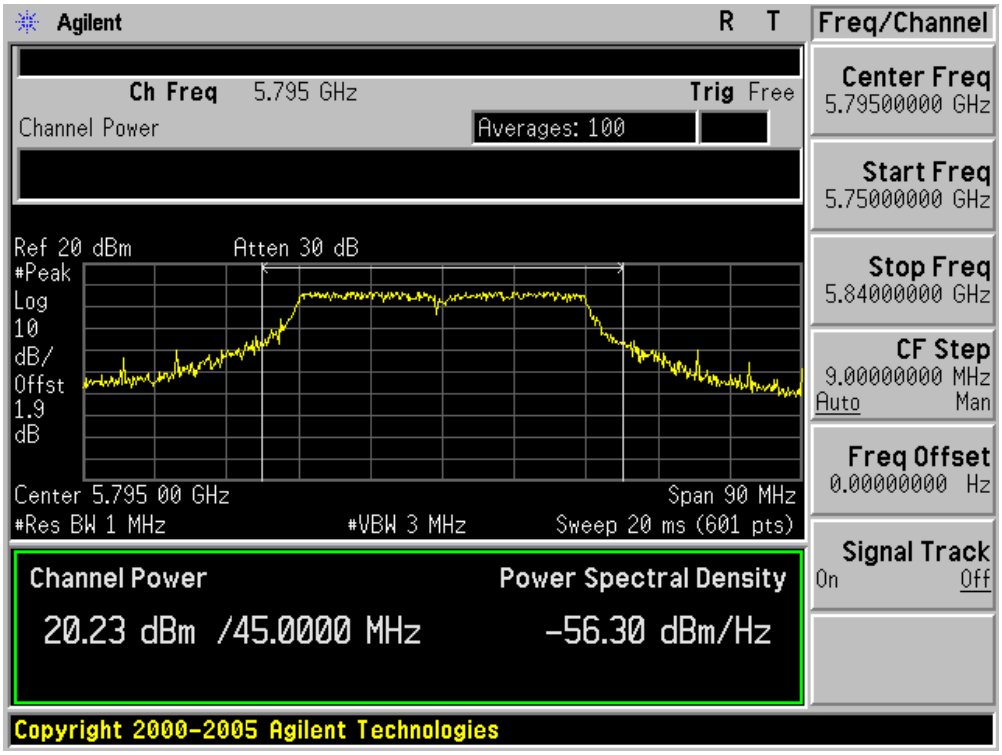
Channel 46 (5230MHz)



Channel 151 (5755MHz)



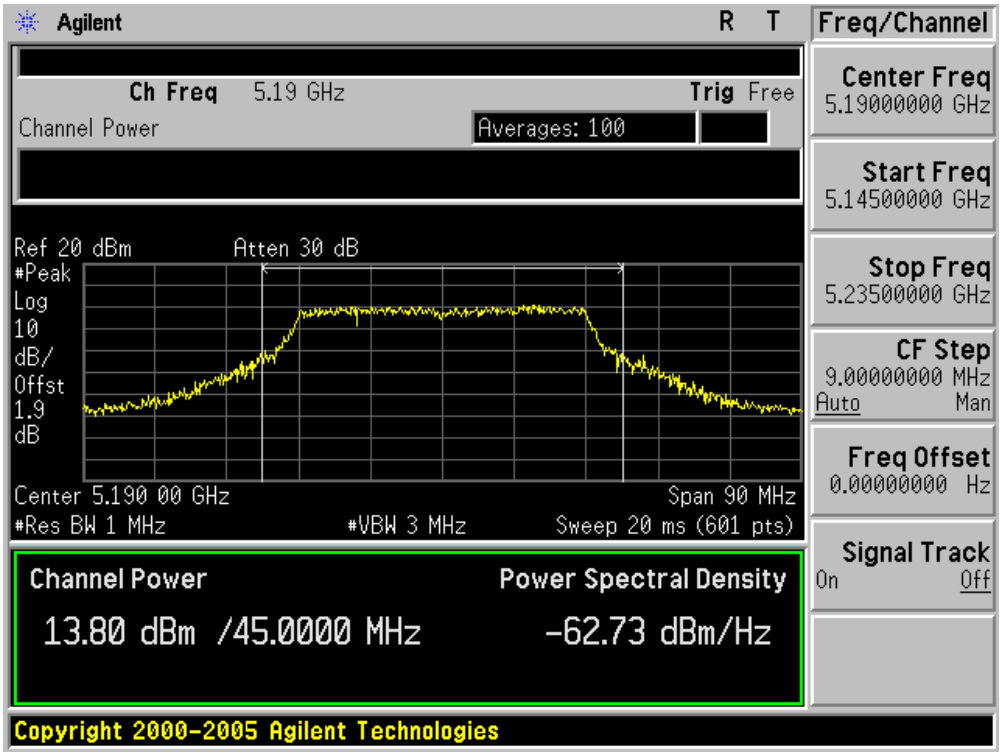
Channel 159 (5795MHz)



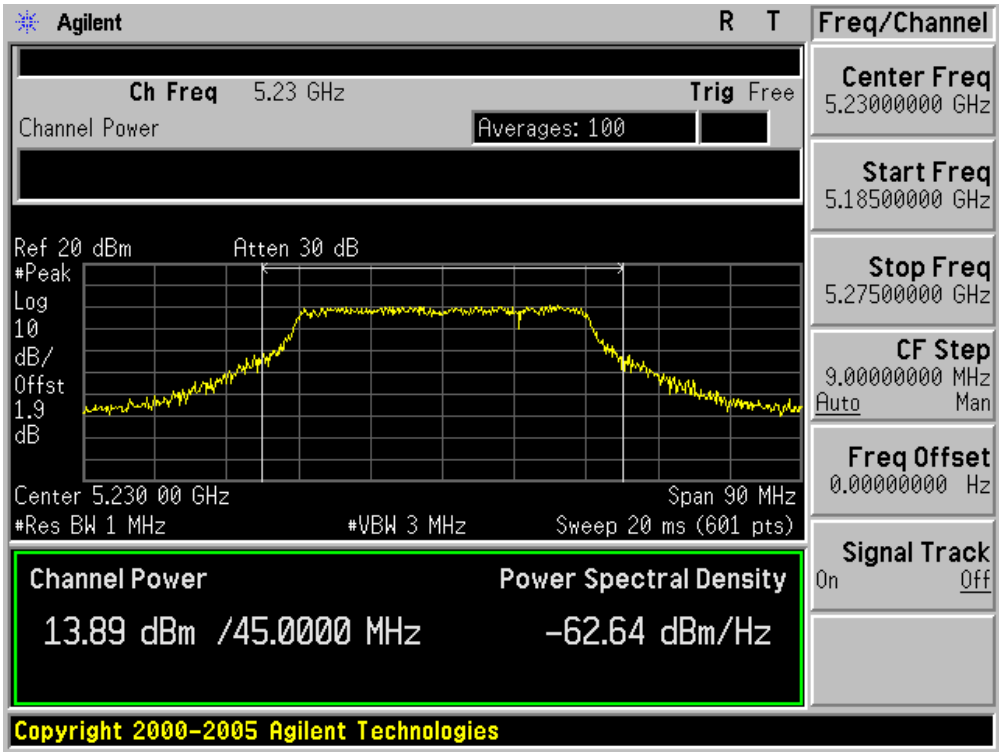
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Power Output
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) – Chain 110

Channel No.	Frequency (MHz)	Measurement Power Output (dBm)		Total Power (dBm)	Limit (dBm)	Result
		Chain 010	Chain 100			
38	5190	13.80	13.12	16.48	17.00	Pass
46	5230	13.89	13.26	16.60	17.00	Pass
151	5755	15.87	18.38	20.31	30.00	Pass
159	5795	15.99	18.76	20.60	30.00	Pass

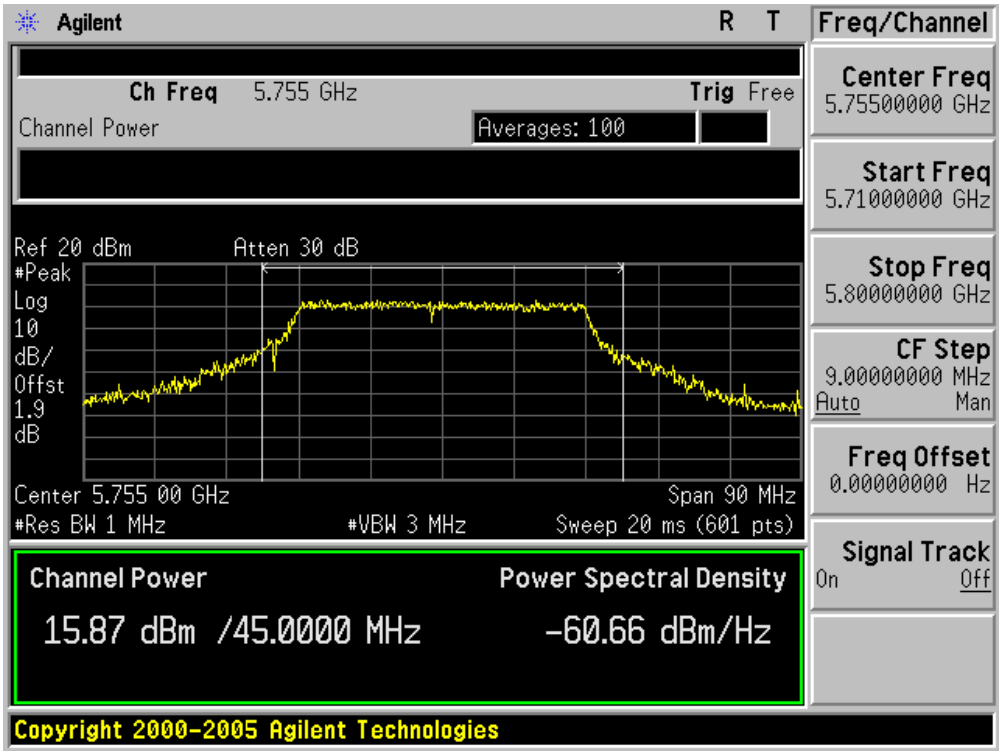
Channel 38 (5190MHz) - Chain 010



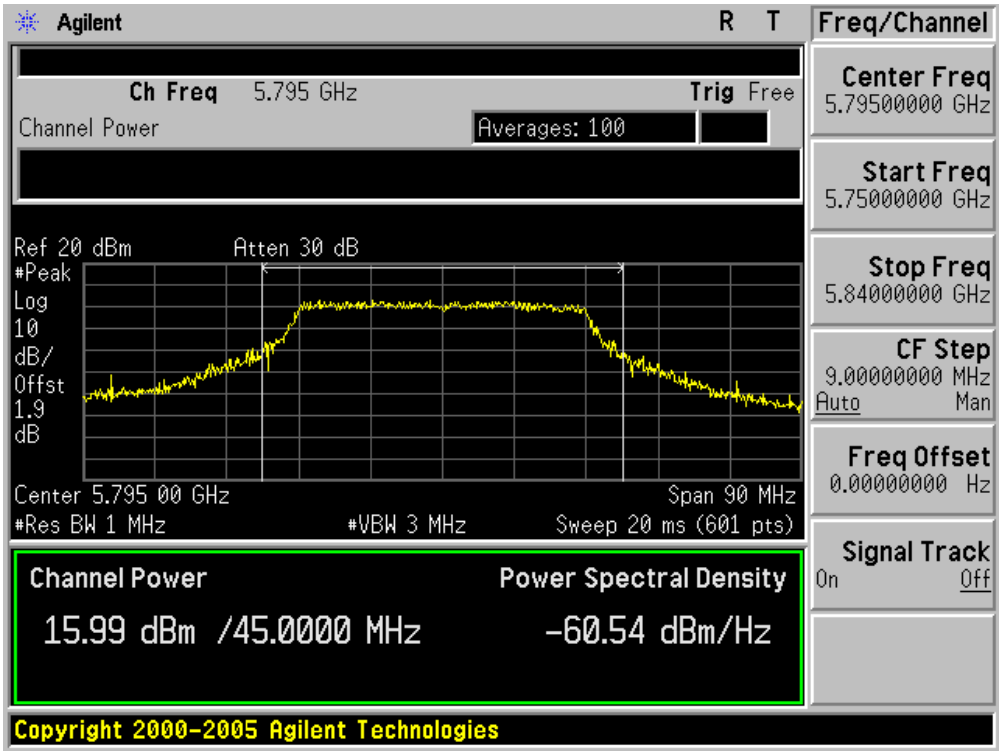
Channel 46 (5230MHz) - Chain 010



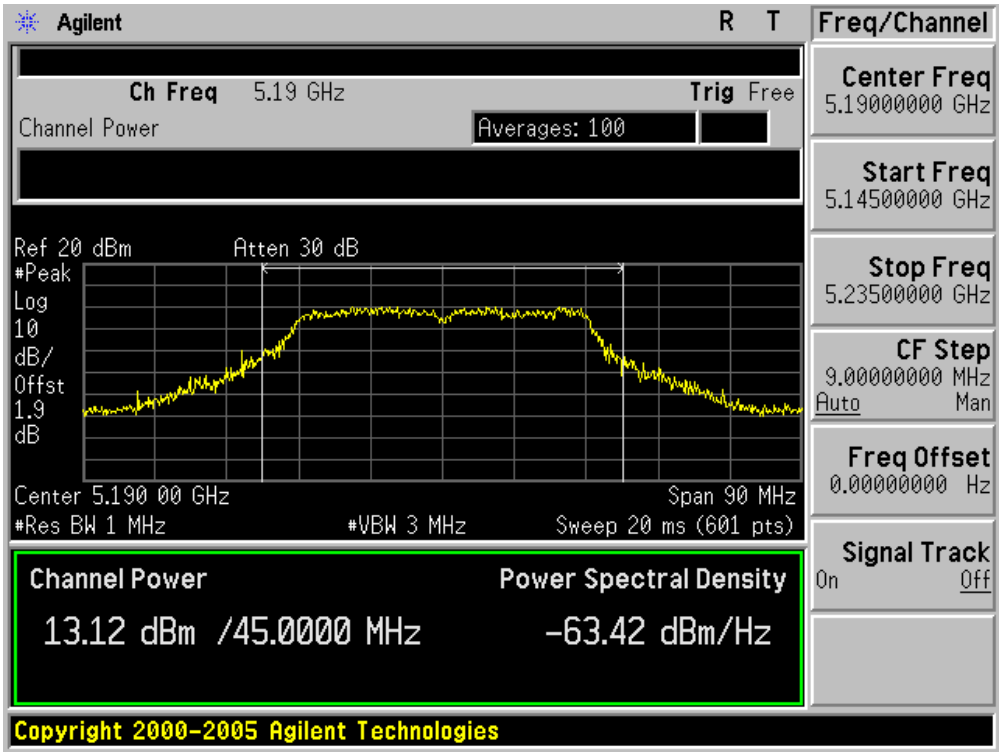
Channel 151 (5755MHz) - Chain 010



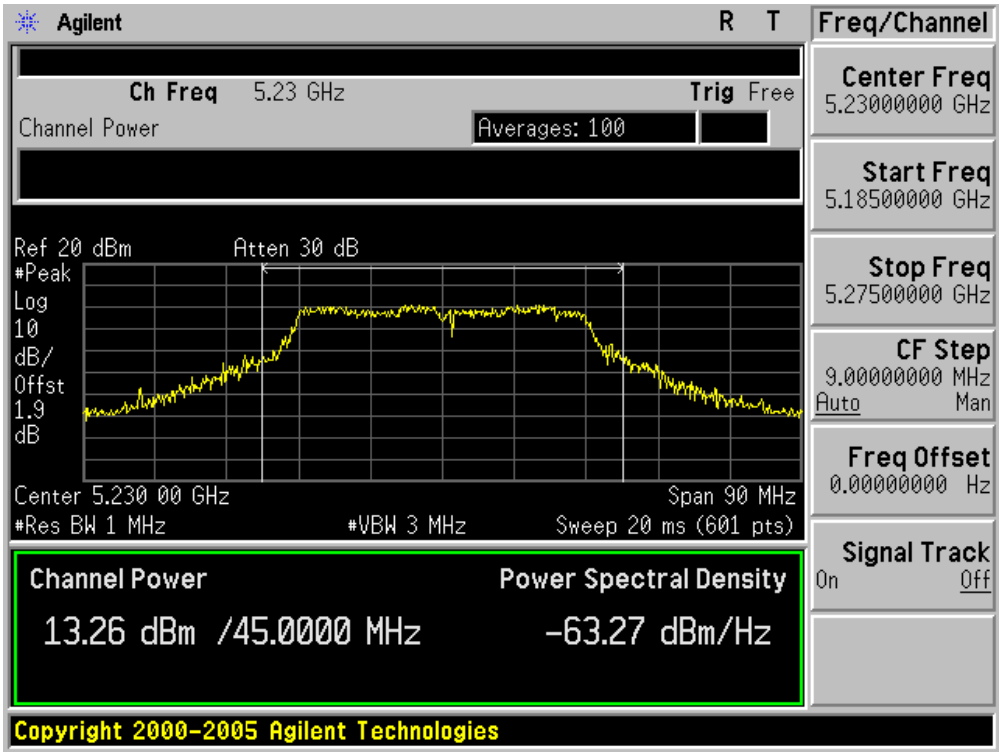
Channel 159 (5795MHz) - Chain 010



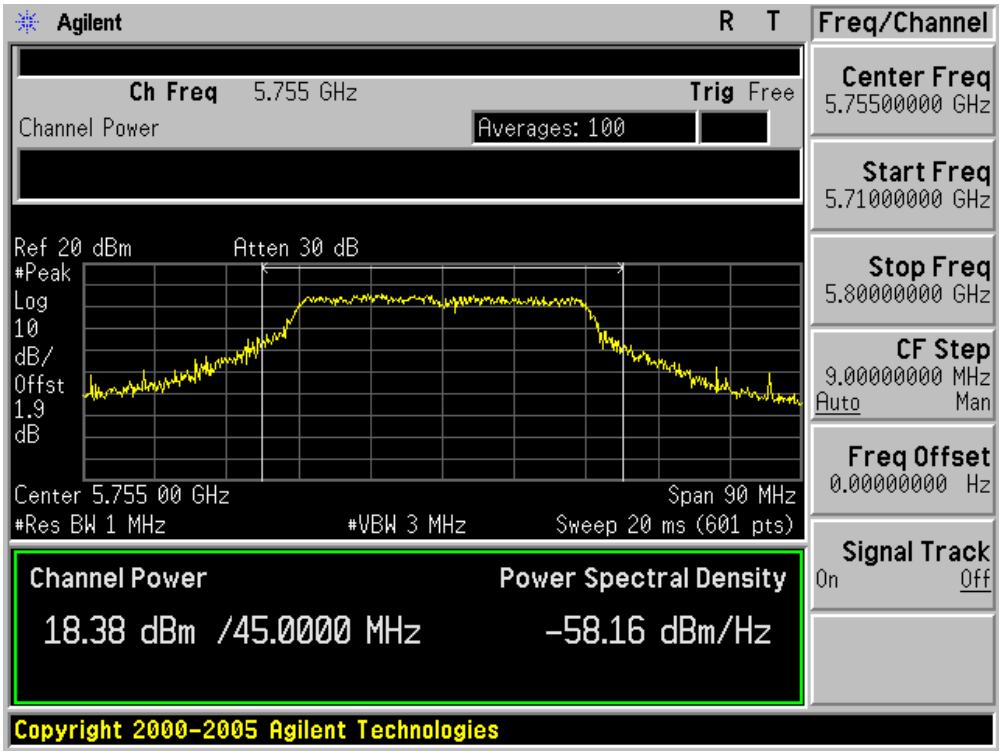
Channel 38 (5190MHz) - Chain 100



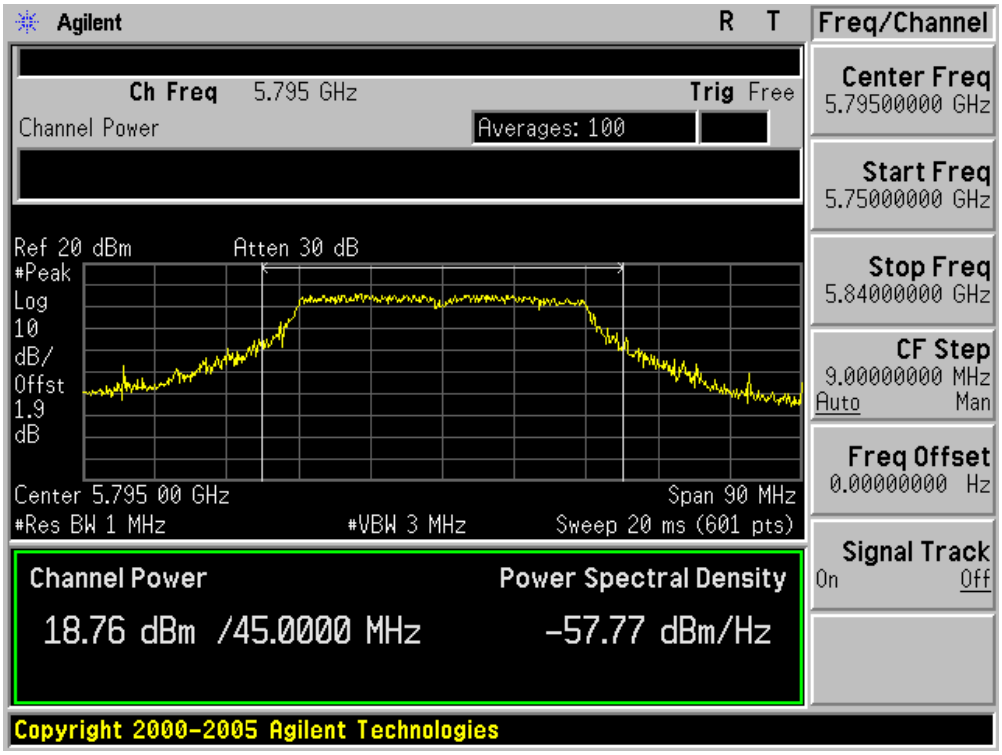
Channel 46 (5230MHz) - Chain 100



Channel 151 (5755MHz) - Chain 100



Channel 159 (5795MHz) - Chain 100



7. Peak Power Spectral Density

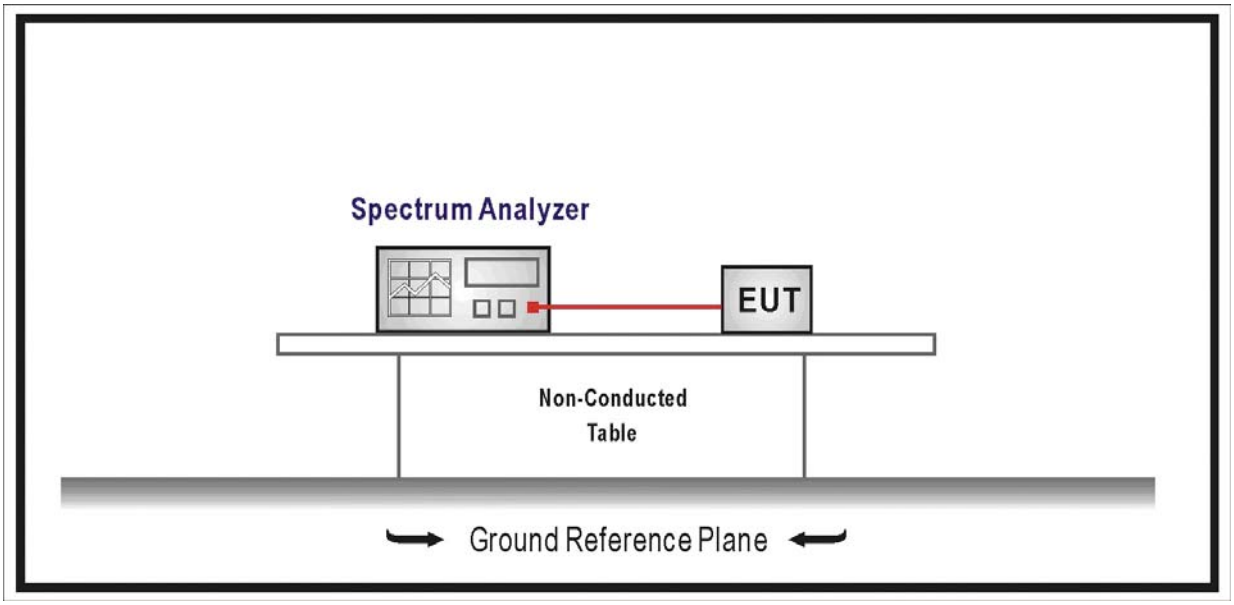
7.1. Test Equipment

Peak Power Spectral Density / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

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

7.2. Test Setup



7.3. Limit

- For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- For the band 5.25-5.35 GHz and 5.47-5725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting

antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

- For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26 dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power for each 1 dB of antenna gain in excess of 23 dBi would be required.

7.4. Test Procedure

The EUT was tested according to FCC Public Notice DA 02-2138, August 30, 2002 for compliance to FCC 47CFR 15.407 requirements.
Use sample detector and power averaging (not video averaging) mode. Set RBW= 1 MHz*, VBW > 1 MHz. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging. This method is permitted only if the transmission pulse or sequence of pulses remains at maximum transmit power throughout each of the 100 sweeps of averaging and that the interval between pulses is not included in any of the sweeps (e.g., 100 sweeps should occur during one transmission, or each sweep gated to occur during a transmission).

7.5. Uncertainty

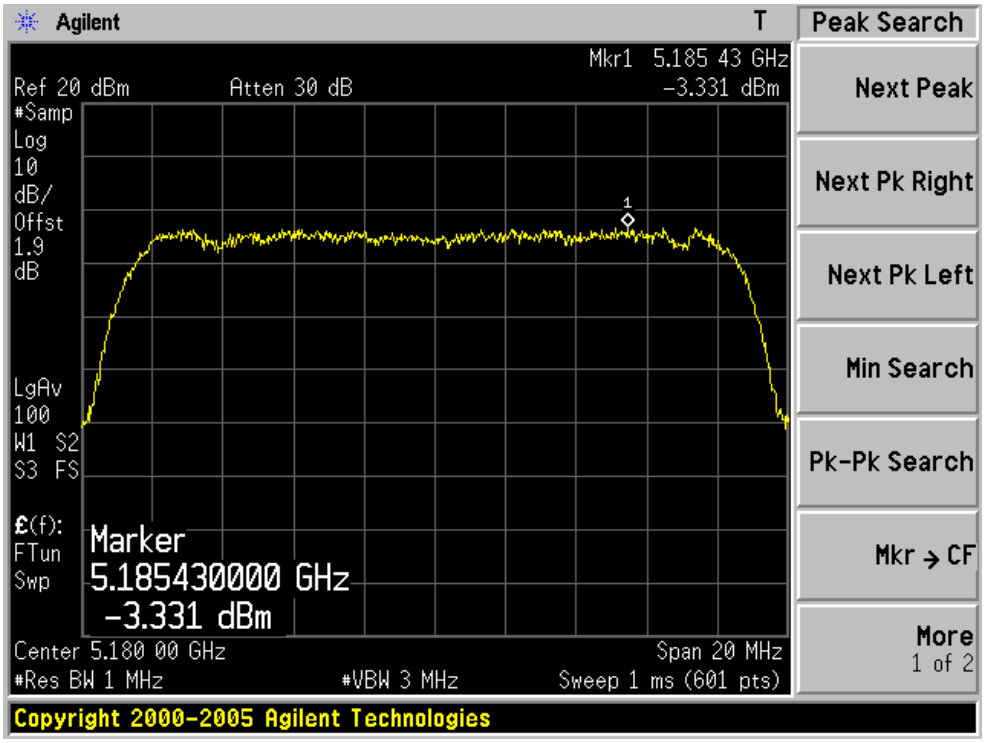
The measurement uncertainty is defined as ± 1.27 dB

7.6. Test Result

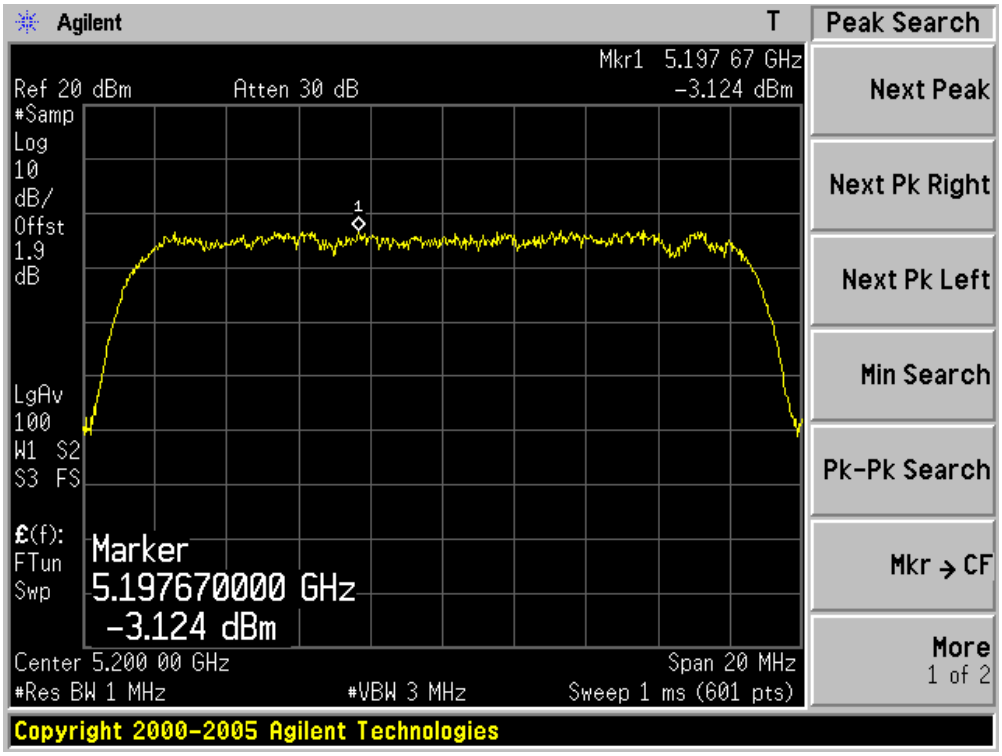
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a - Chain 010

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
36	5180	-3.331	N/A	-3.331	4	Pass
40	5200	-3.124	N/A	-3.124	4	Pass
48	5240	-3.342	N/A	-3.342	4	Pass
149	5745	2.972	N/A	2.972	17	Pass
157	5785	2.481	N/A	2.481	17	Pass
161	5805	2.458	N/A	2.458	17	Pass

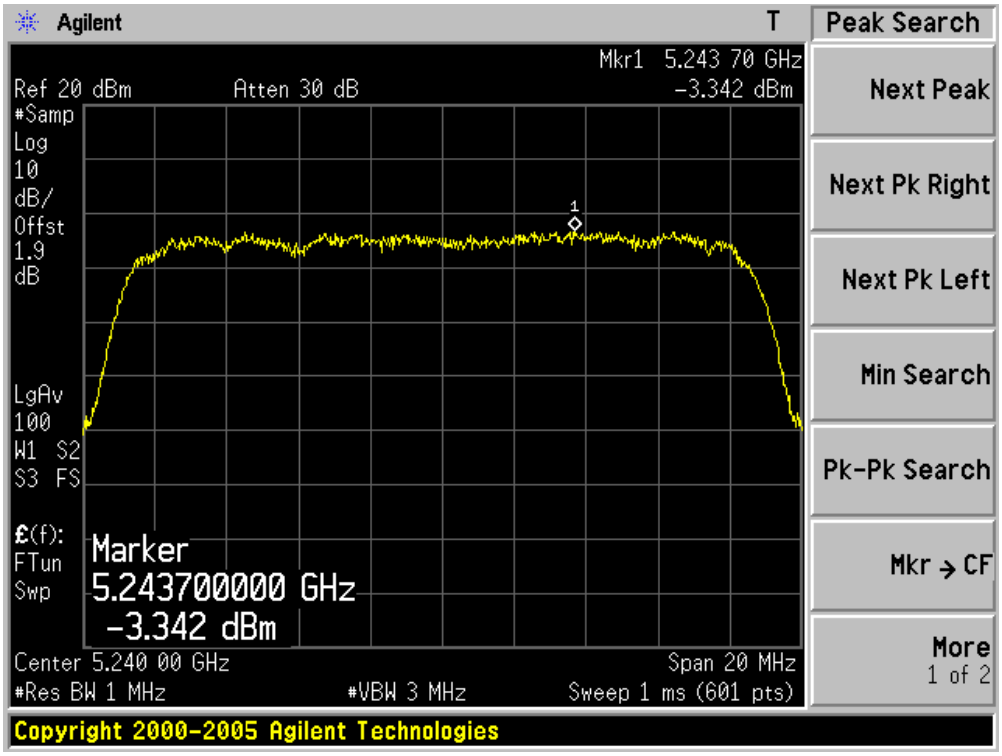
Channel 36 (5180MHz)



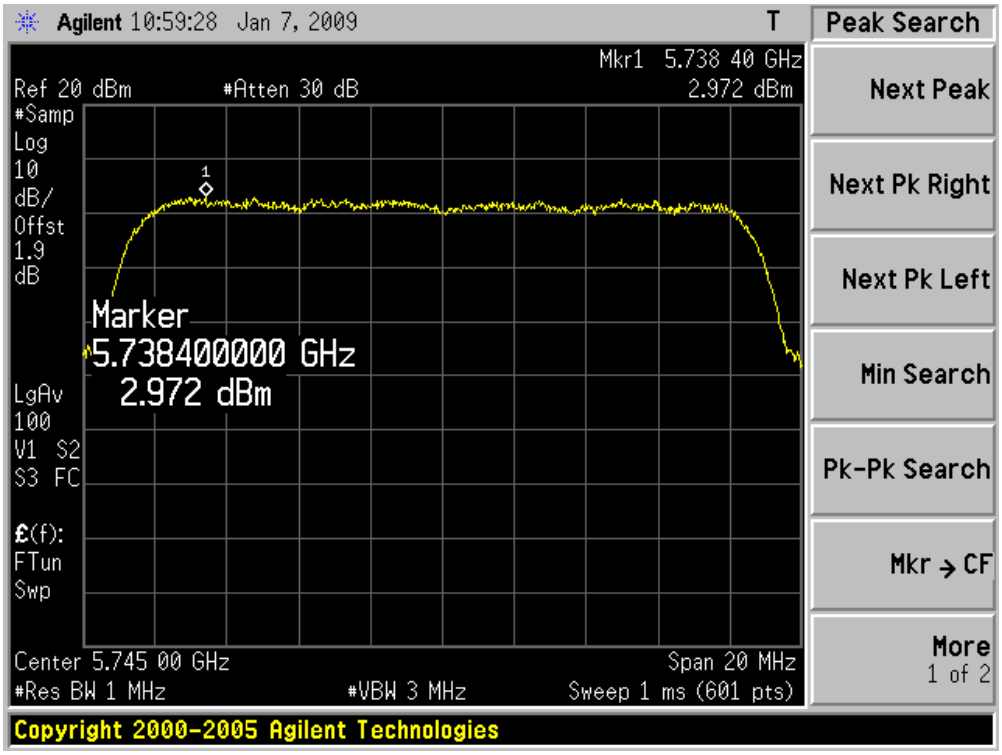
Channel 40 (5200MHz)



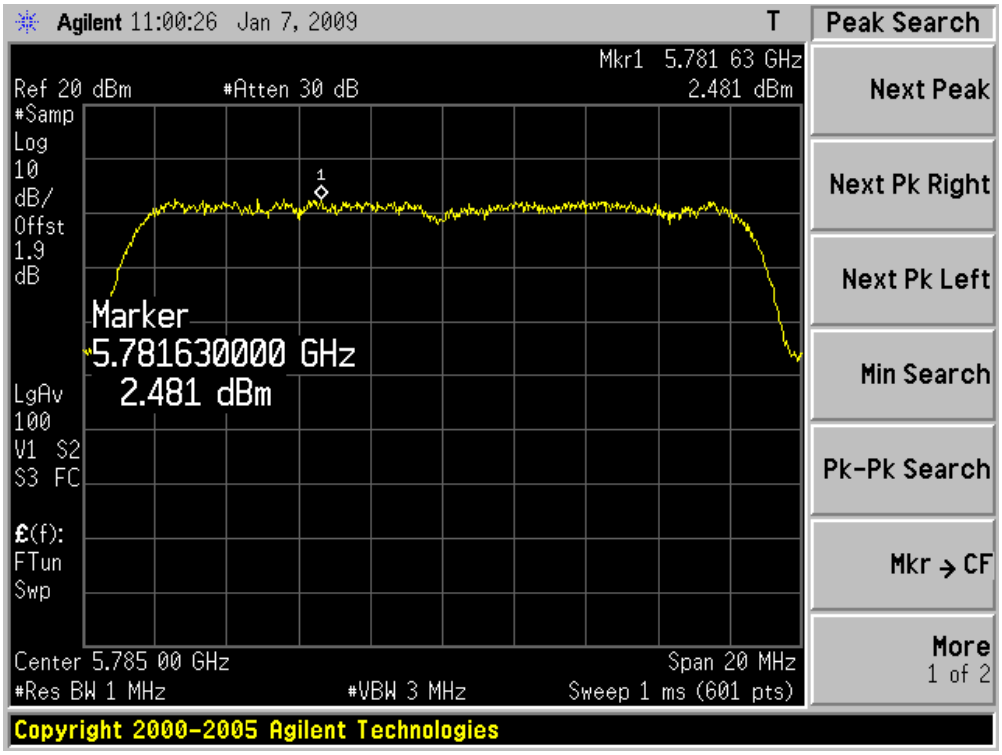
Channel 48 (5240MHz)



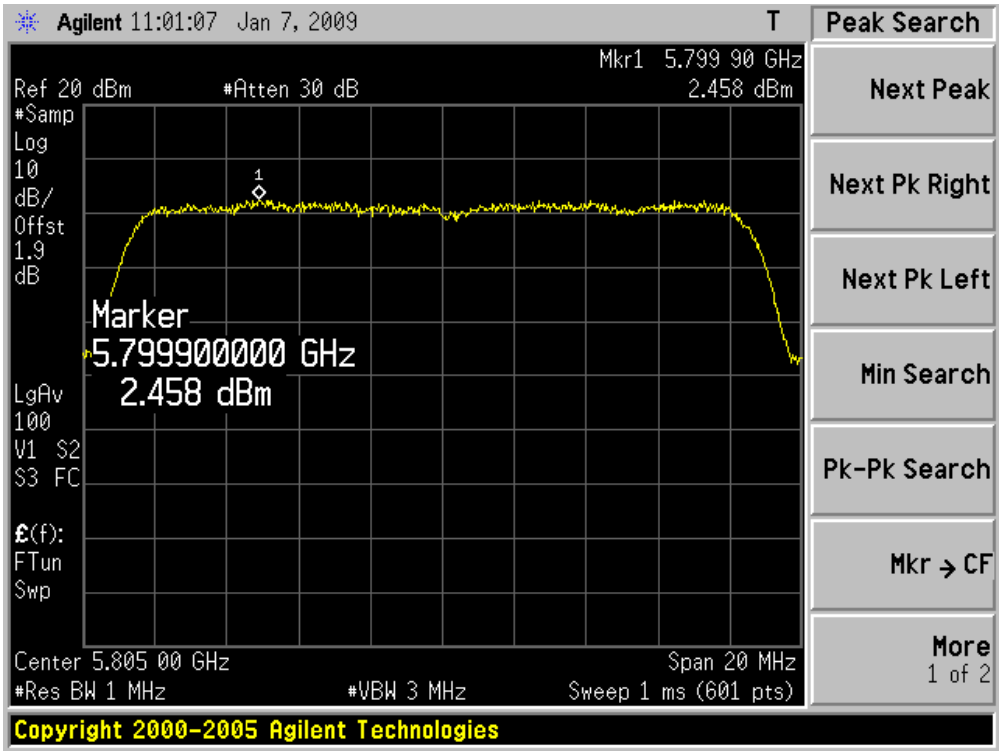
Channel 149 (5745MHz)



Channel 157 (5785MHz)



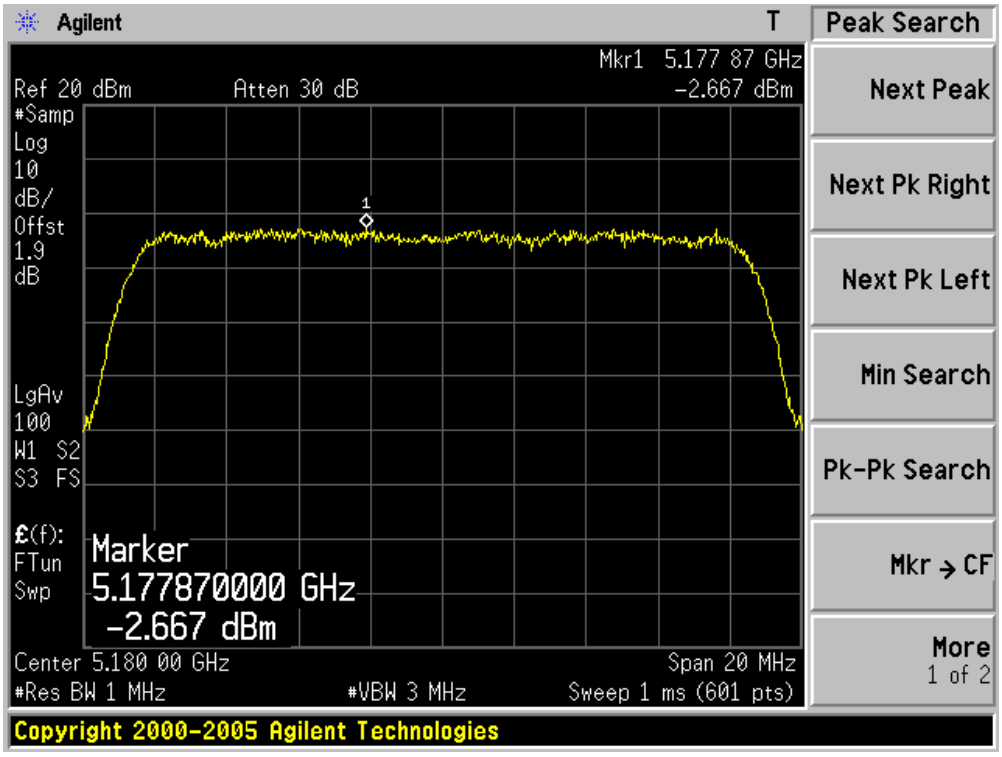
Channel 161 (5805MHz)



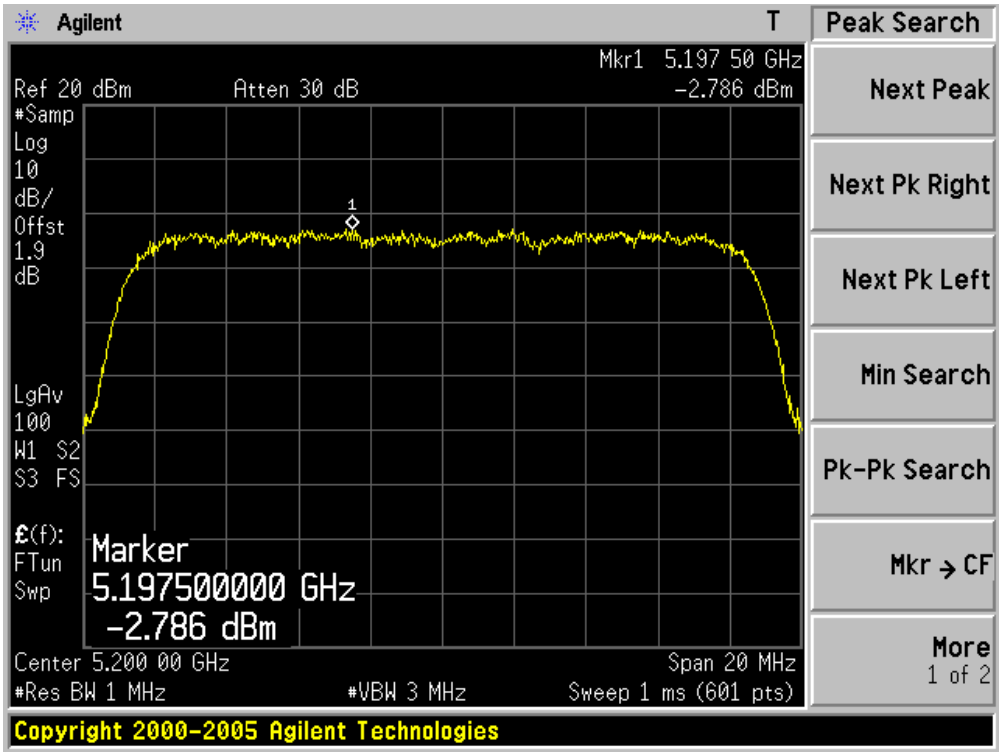
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a (Chain 100)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
36	5180	N/A	-2.667	-2.667	4	Pass
40	5200	N/A	-2.786	-2.786	4	Pass
48	5240	N/A	-2.634	-2.634	4	Pass
149	5745	N/A	3.532	3.532	17	Pass
157	5785	N/A	5.678	5.678	17	Pass
161	5805	N/A	5.800	5.800	17	Pass

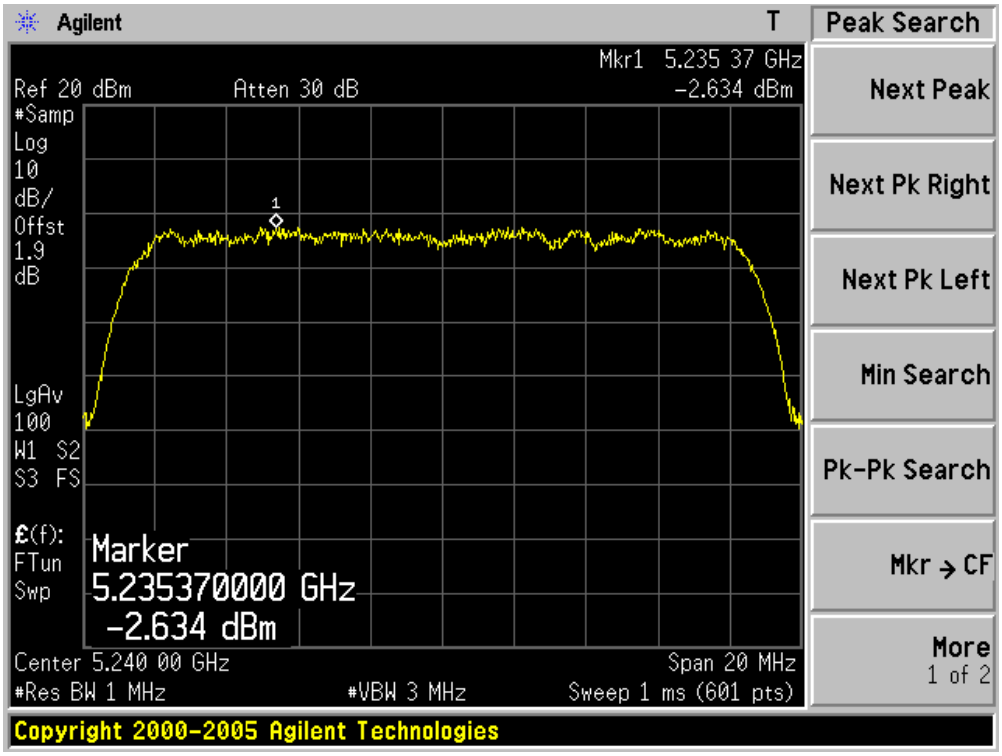
Channel 36 (5180MHz)



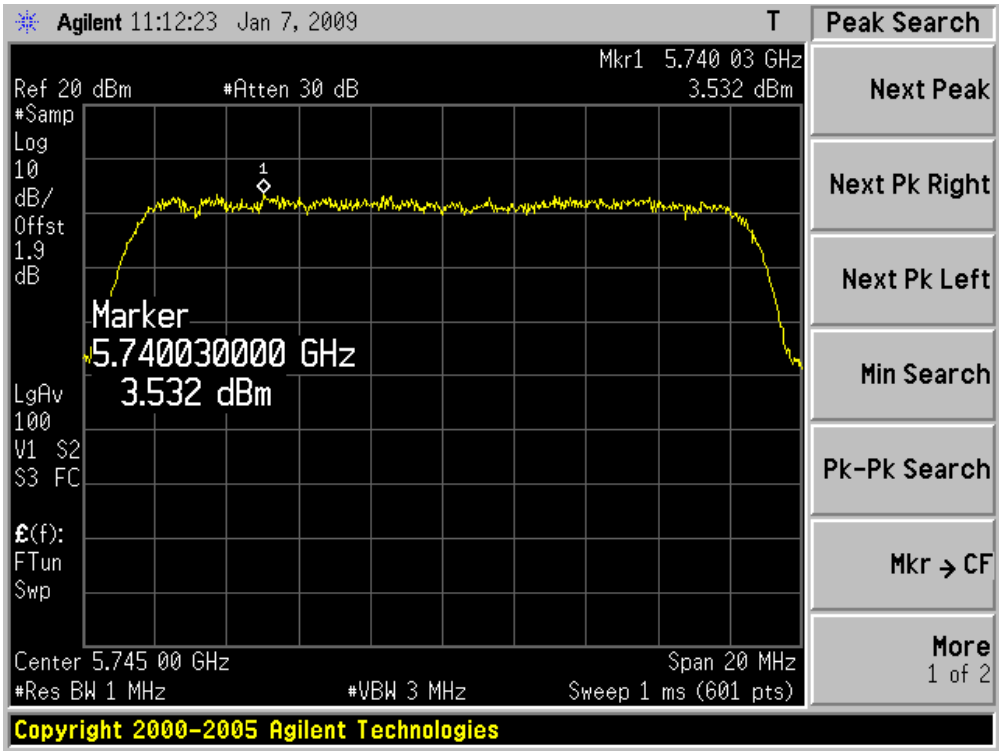
Channel 40 (5200MHz)



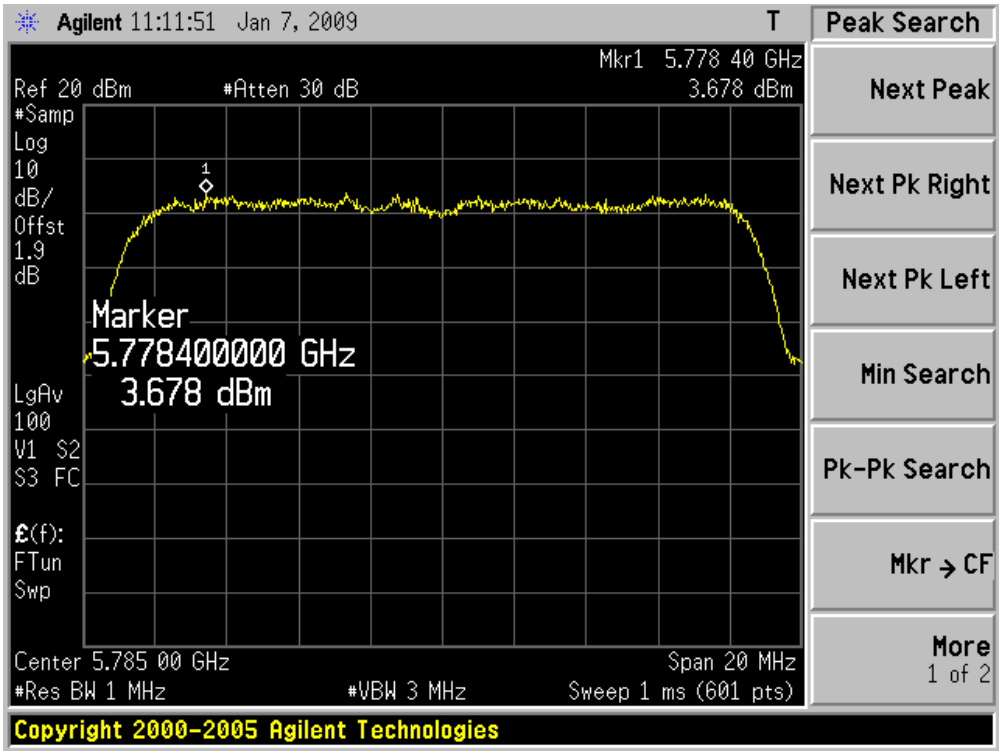
Channel 48 (5240MHz)



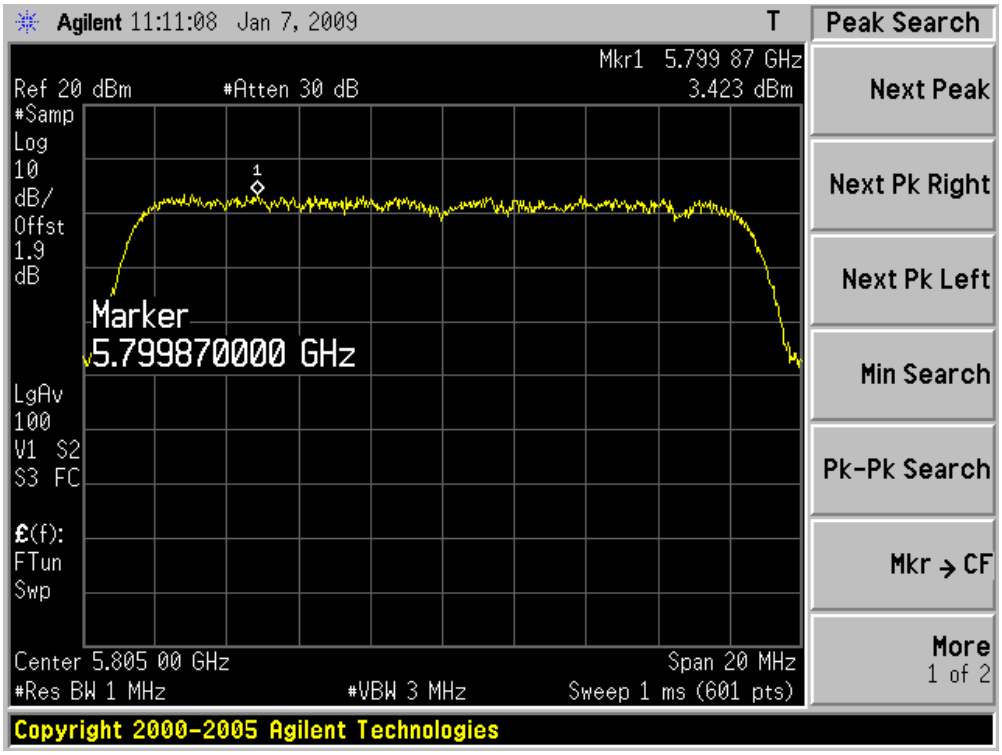
Channel 149 (5745MHz)



Channel 157 (5785MHz)



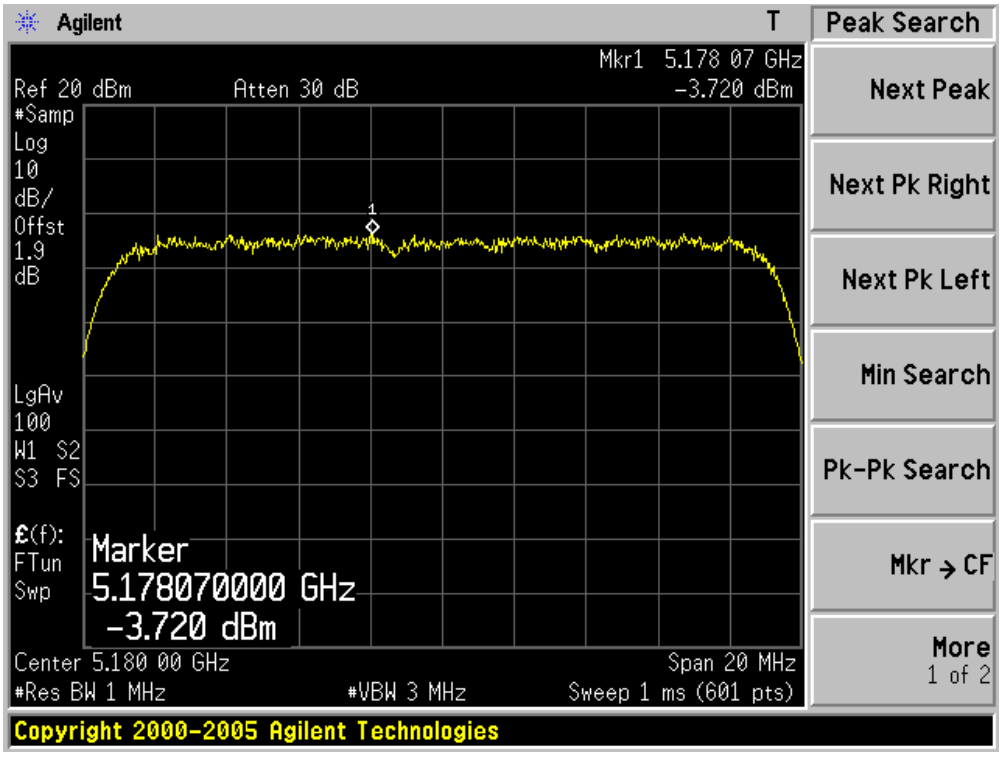
Channel 161 (5805MHz)



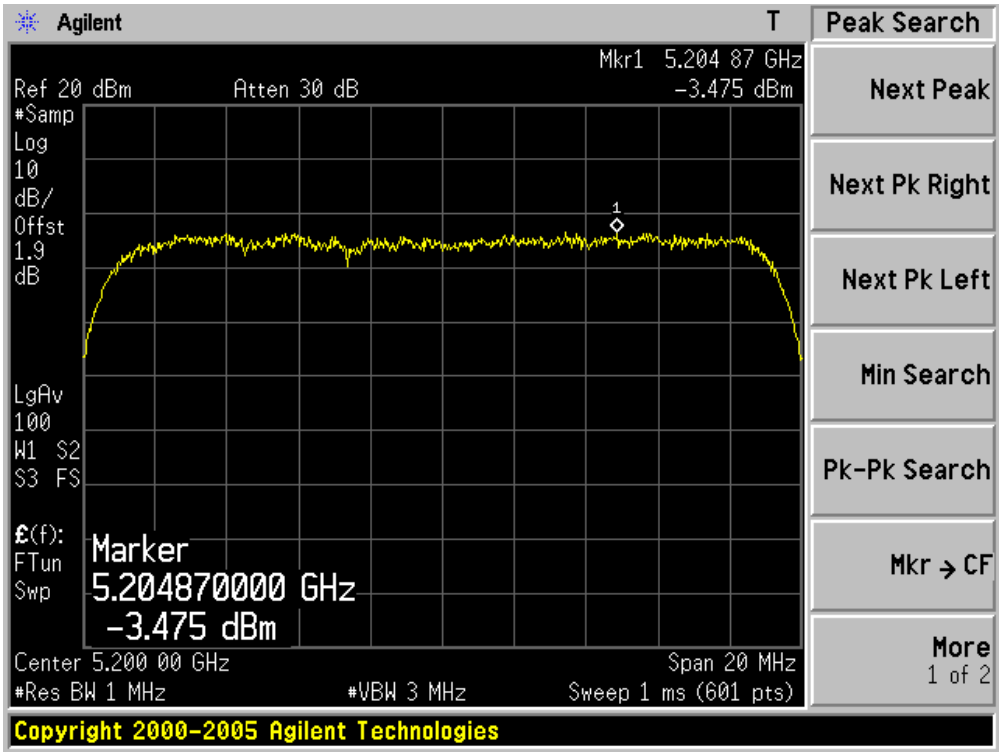
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) (Chain 010)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
36	5180	-3.720	N/A	-3.720	4	Pass
40	5200	-3.475	N/A	-3.475	4	Pass
48	5240	-3.124	N/A	-3.124	4	Pass
149	5745	1.466	N/A	1.466	17	Pass
157	5785	5.778	N/A	5.778	17	Pass
161	5805	1.496	N/A	1.496	17	Pass

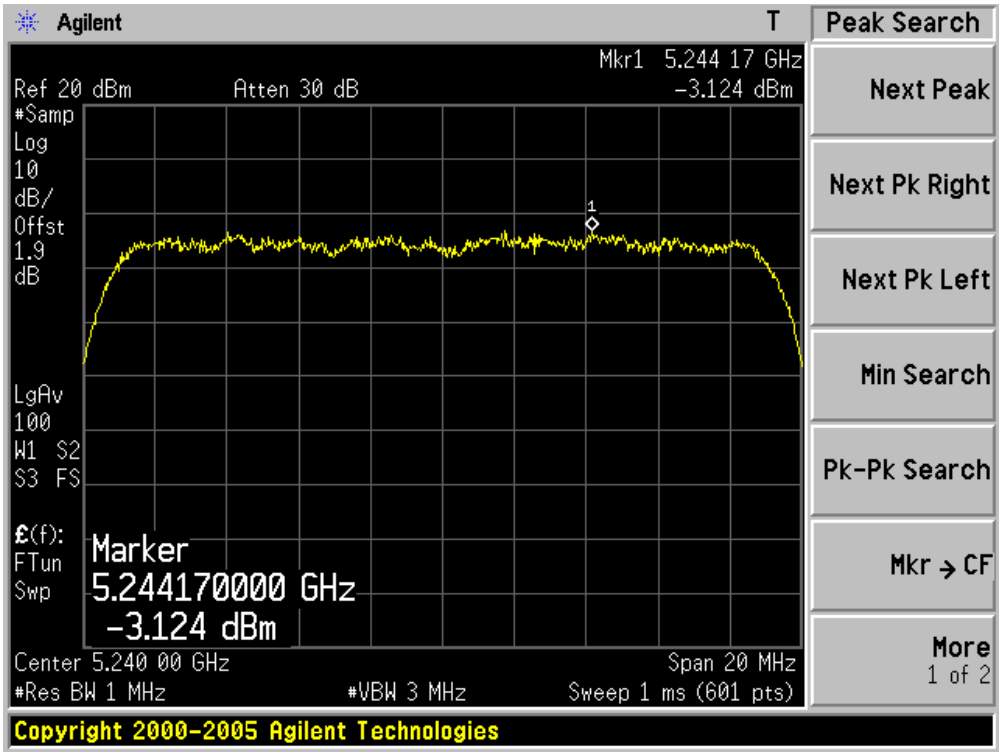
Channel 36 (5180MHz)



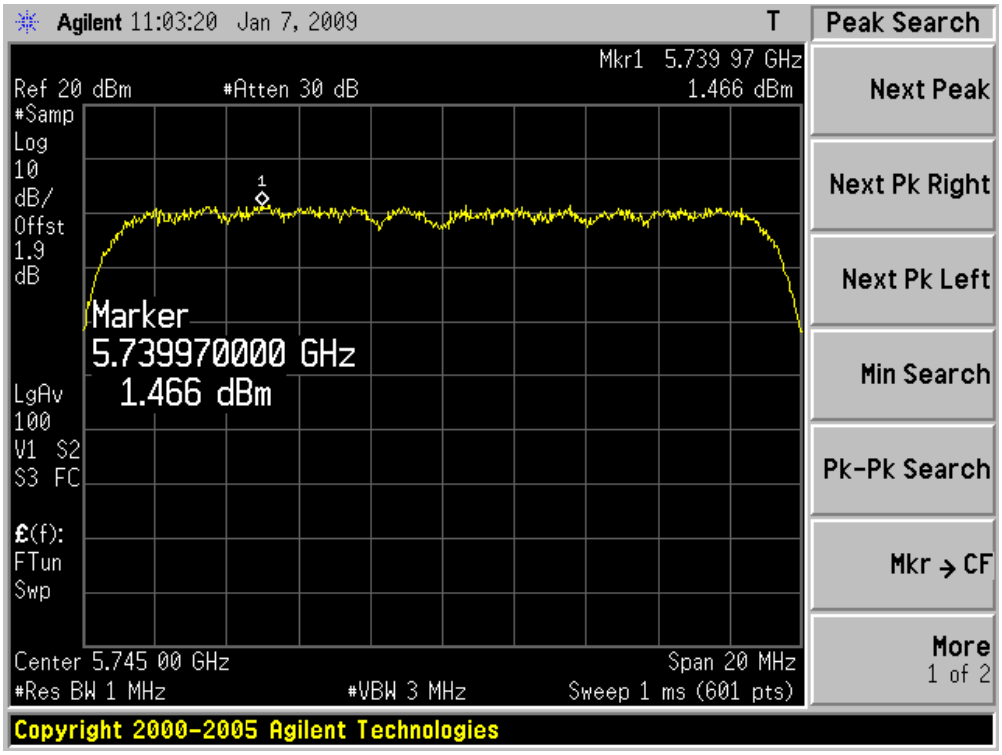
Channel 40 (5200MHz)



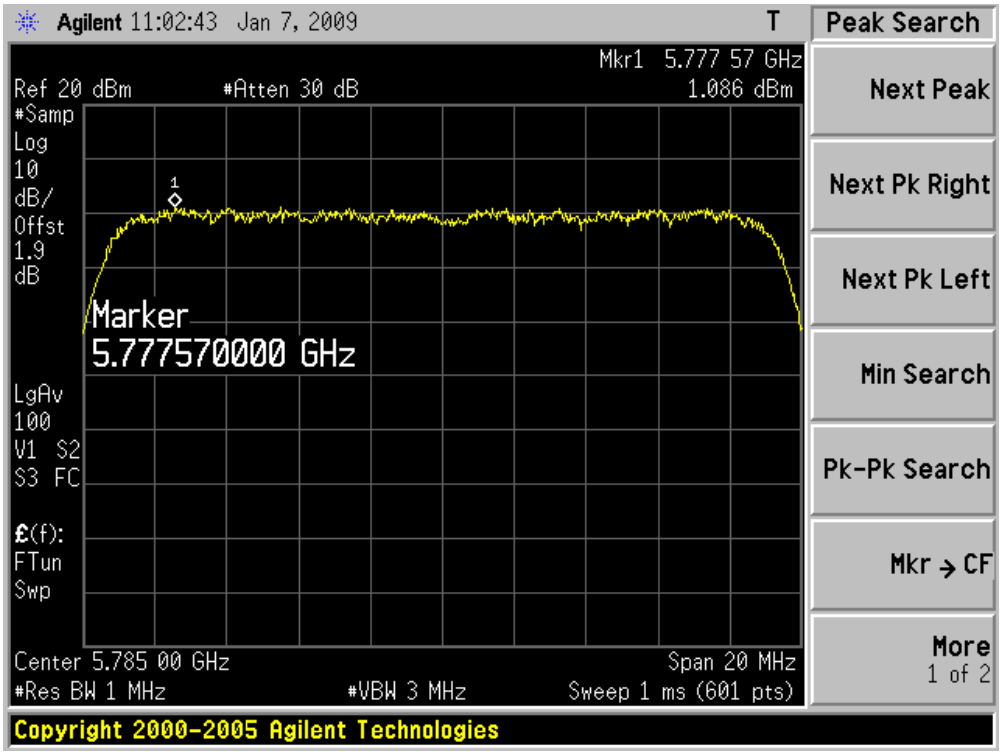
Channel 48 (5240MHz)



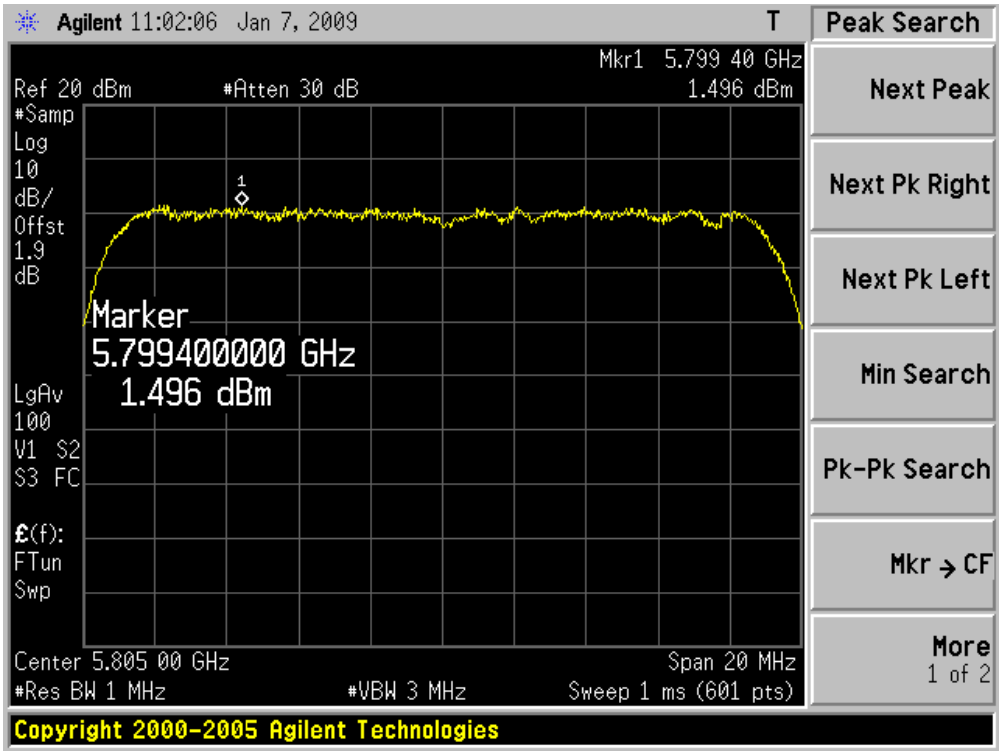
Channel 149 (5745MHz)



Channel 157 (5785MHz)



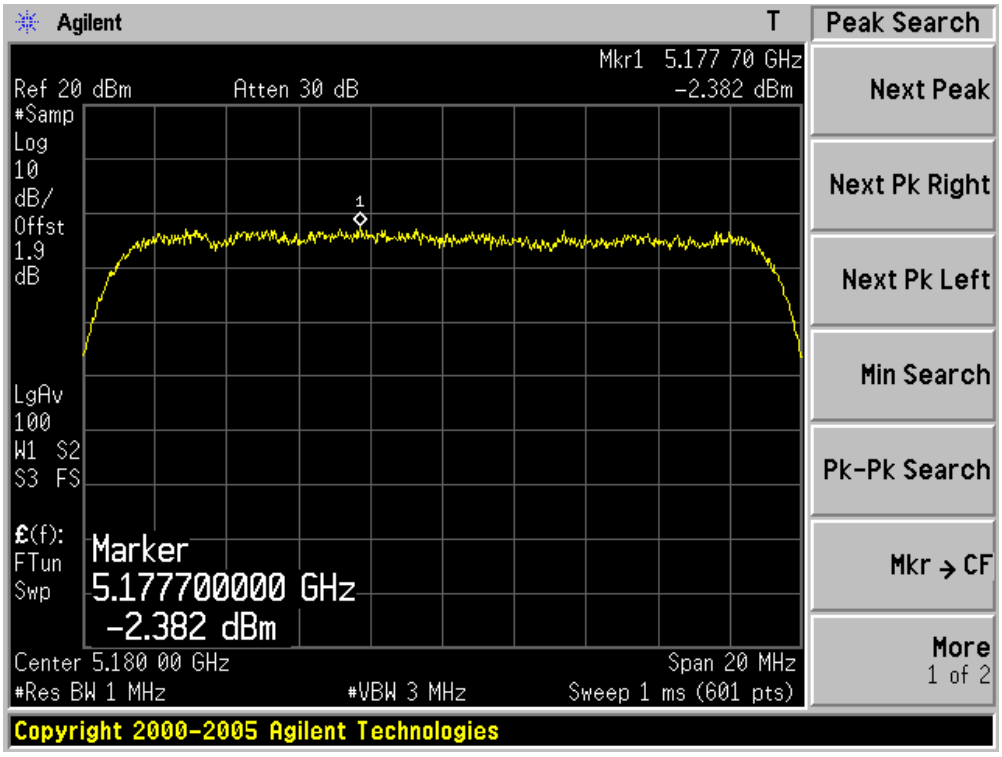
Channel 161 (5805MHz)



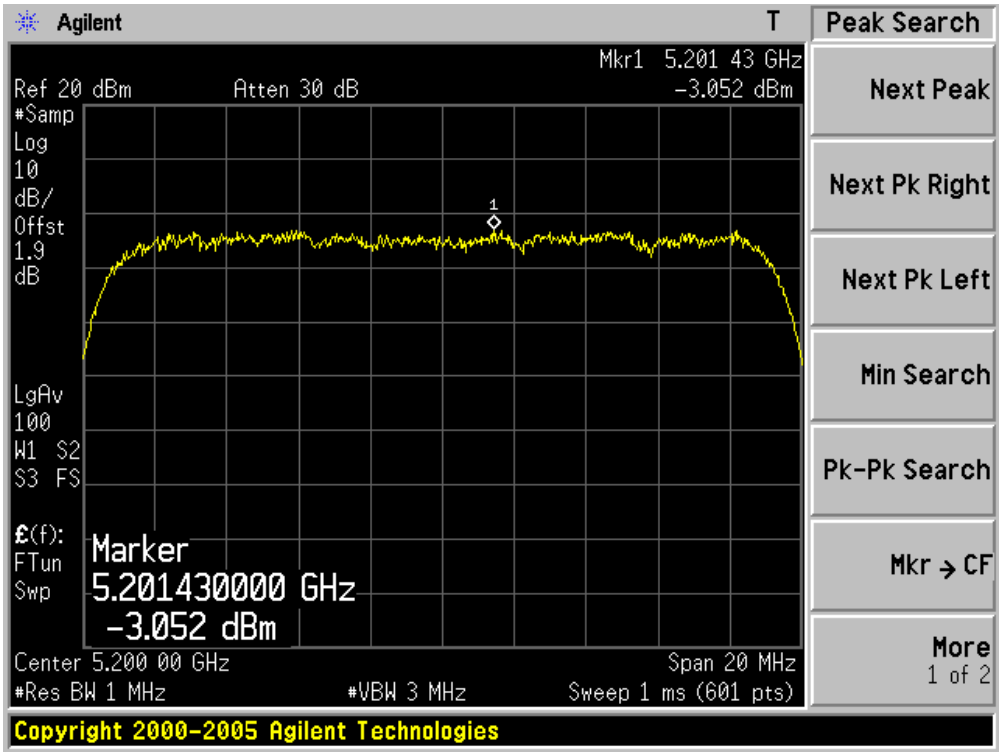
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) (Chain 100)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
36	5180	N/A	-2.382	-2.382	4	Pass
40	5200	N/A	-3.052	-3.052	4	Pass
48	5240	N/A	-2.931	-2.931	4	Pass
149	5745	N/A	2.233	2.233	17	Pass
157	5785	N/A	1.919	1.919	17	Pass
161	5805	N/A	2.459	2.459	17	Pass

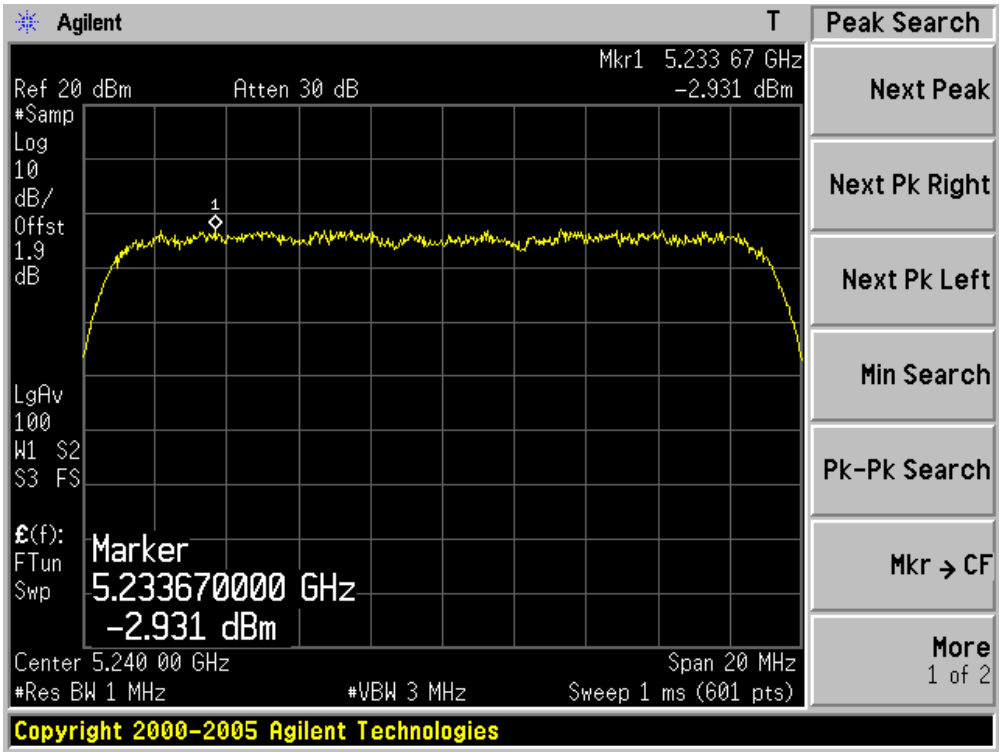
Channel 36 (5180MHz)



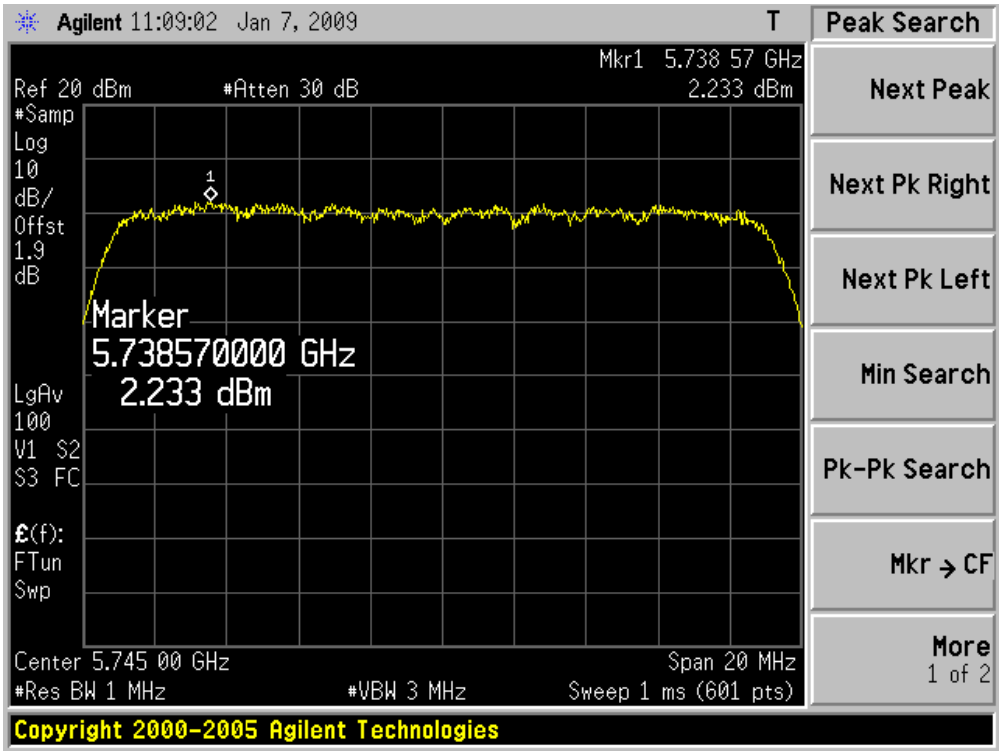
Channel 40 (5200MHz)



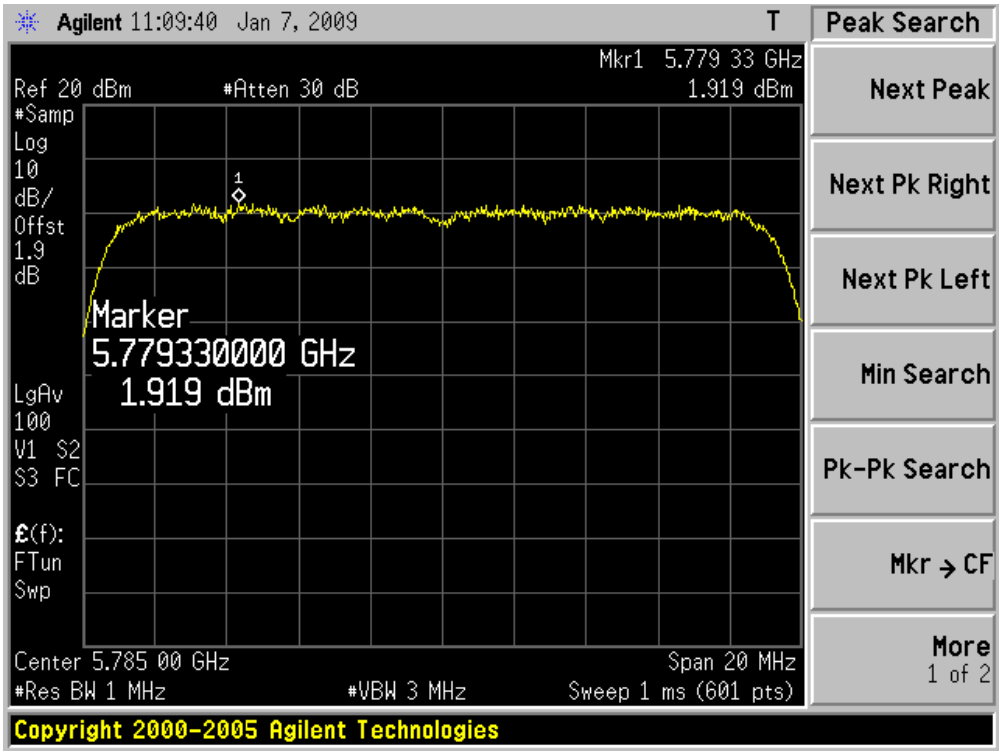
Channel 48 (5240MHz)



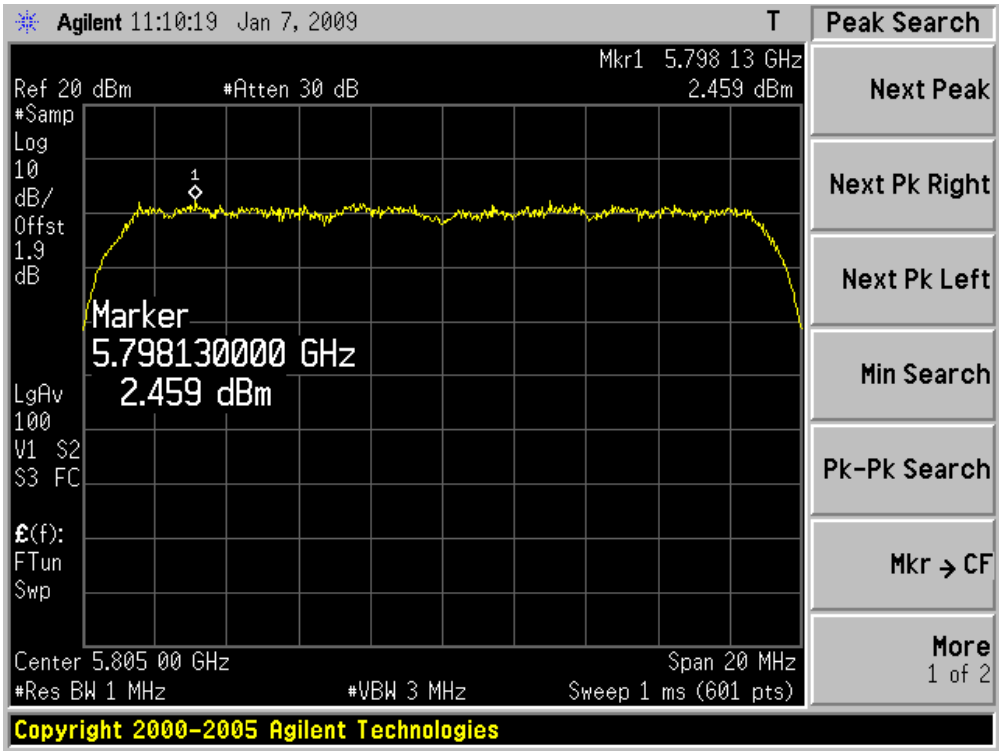
Channel 149 (5745MHz)



Channel 157 (5785MHz)



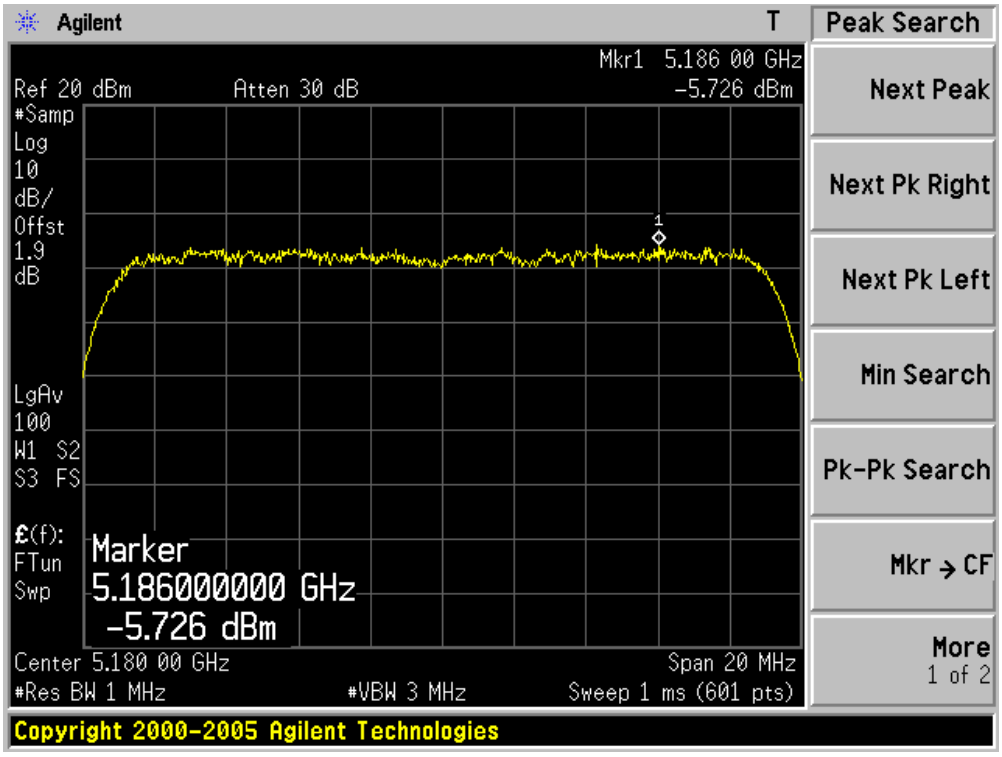
Channel 161 (5805MHz)



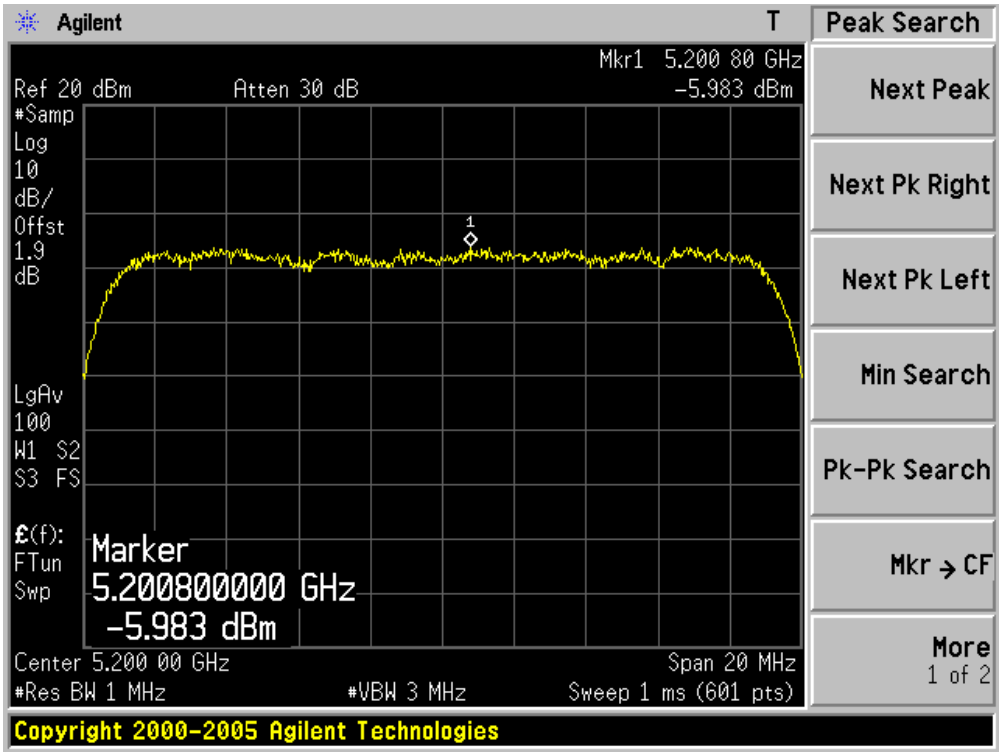
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) (Chain 110)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
36	5180	-5.726	-6.407	-3.04	4	Pass
40	5200	-5.983	-5.366	-2.65	4	Pass
48	5240	-6.306	-5.766	-3.02	4	Pass
149	5745	2.073	2.601	5.36	17	Pass
157	5785	2.148	1.707	4.94	17	Pass
161	5805	1.546	2.101	4.84	17	Pass

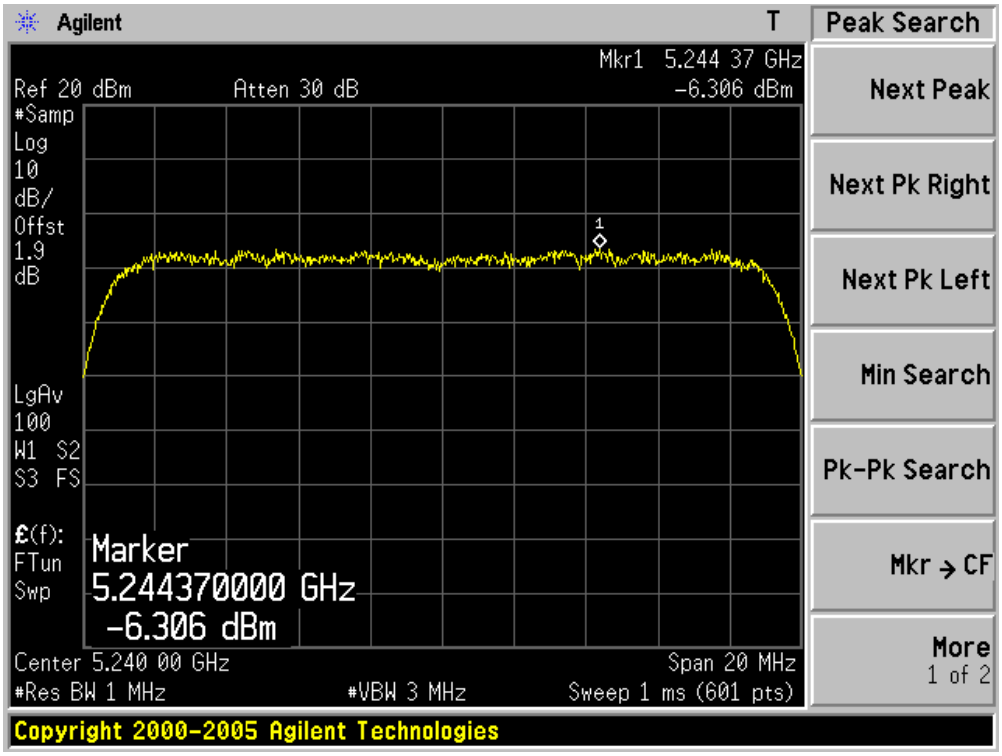
Channel 36 (5180MHz) - Chain 010



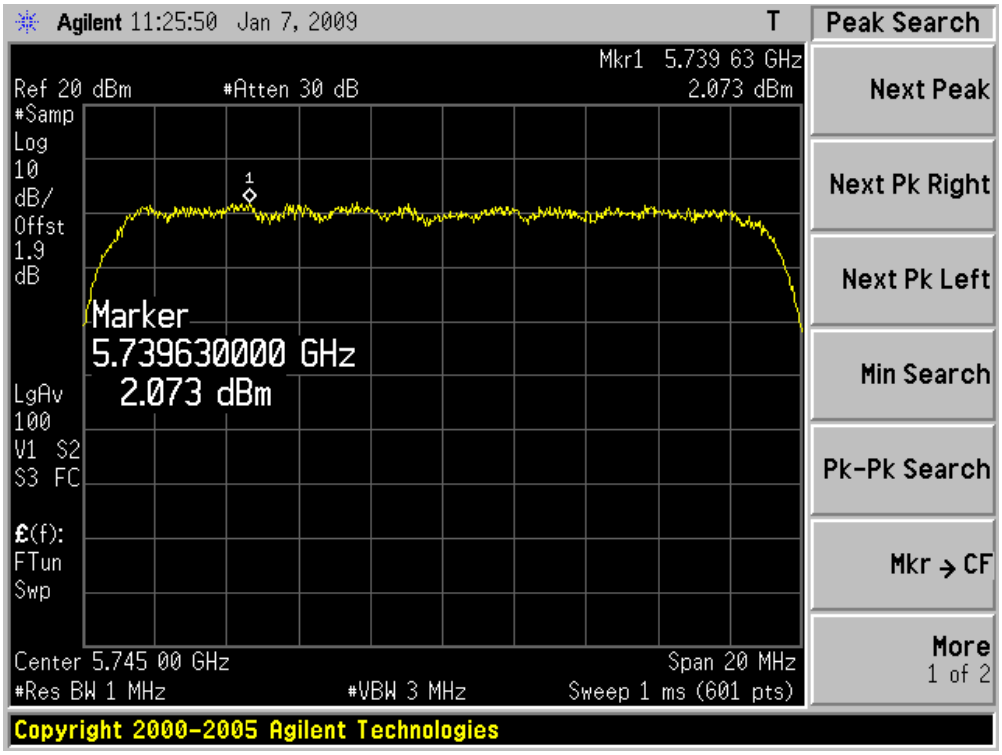
Channel 40 (5200MHz) - Chain 010



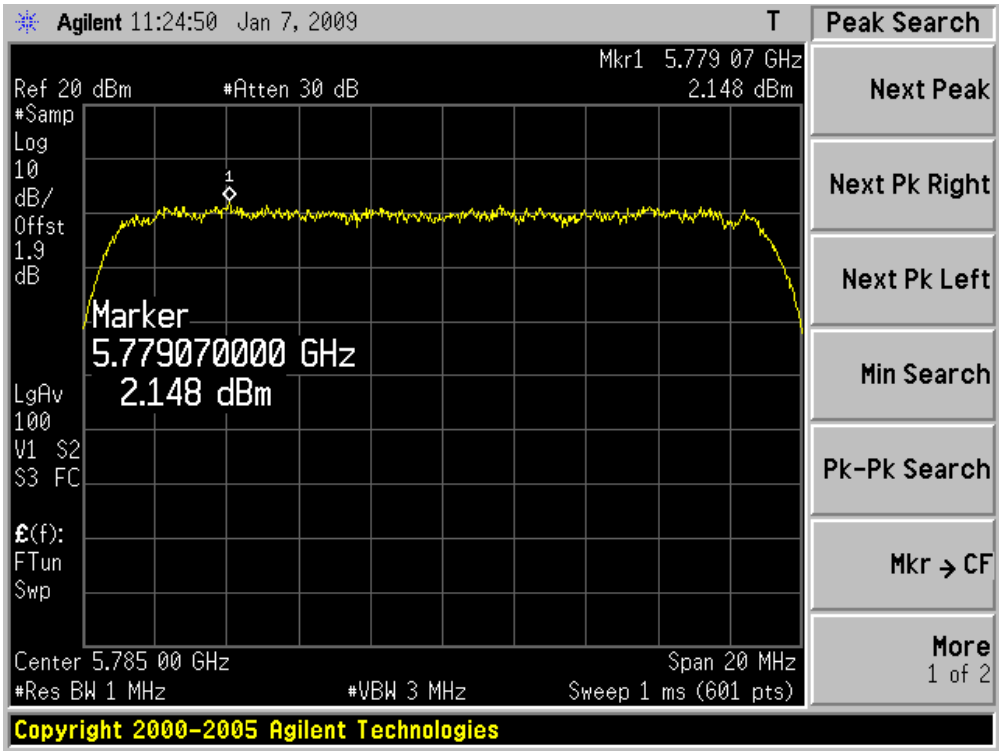
Channel 48 (5240MHz) - Chain 010



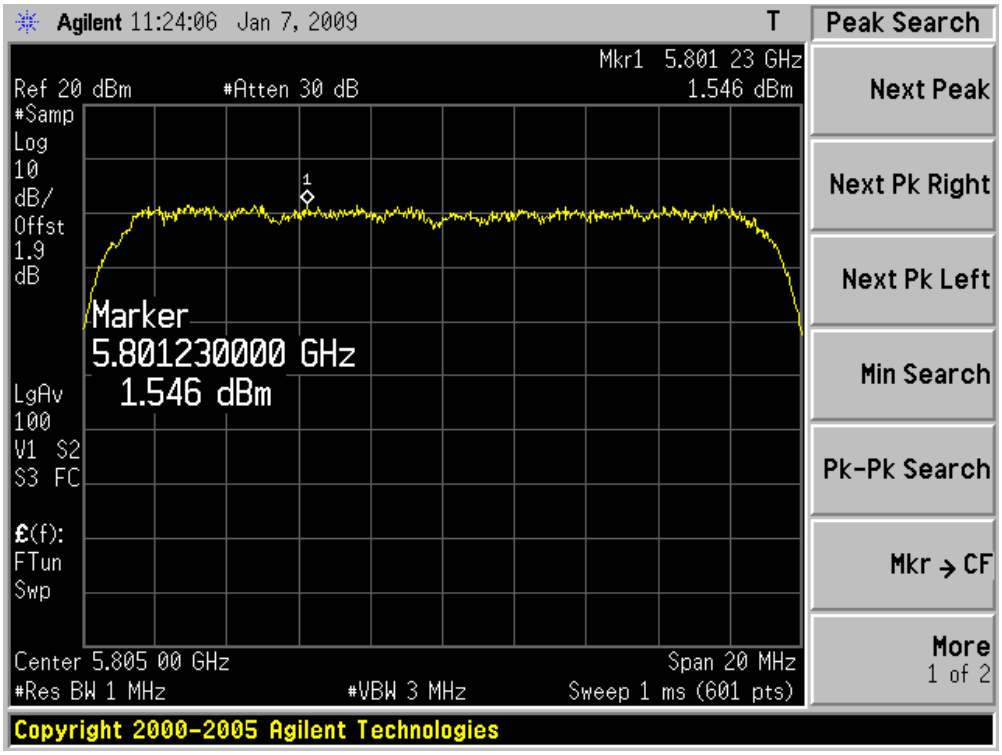
Channel 149 (5745MHz) - Chain 010



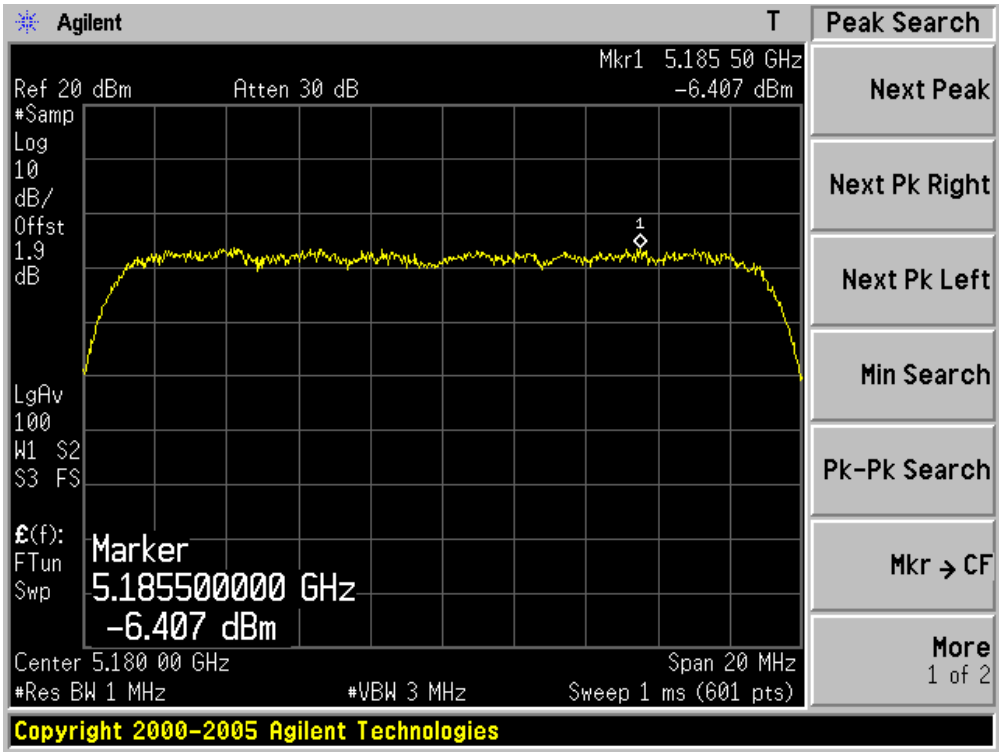
Channel 157 (5785MHz) - Chain 010



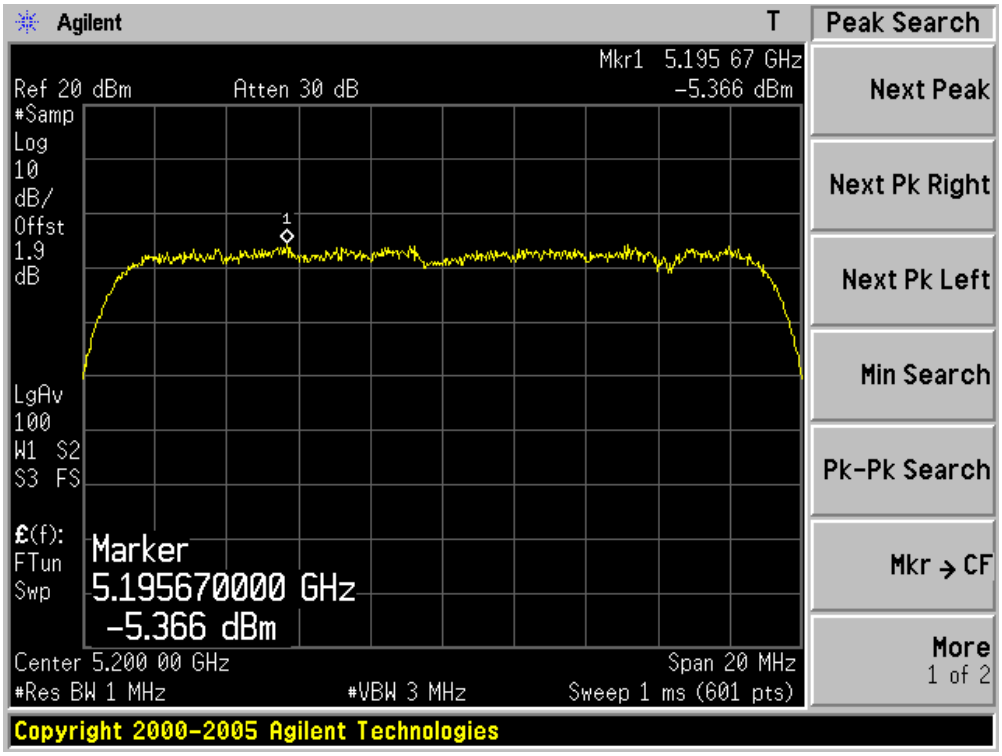
Channel 161 (5805MHz) - Chain 010



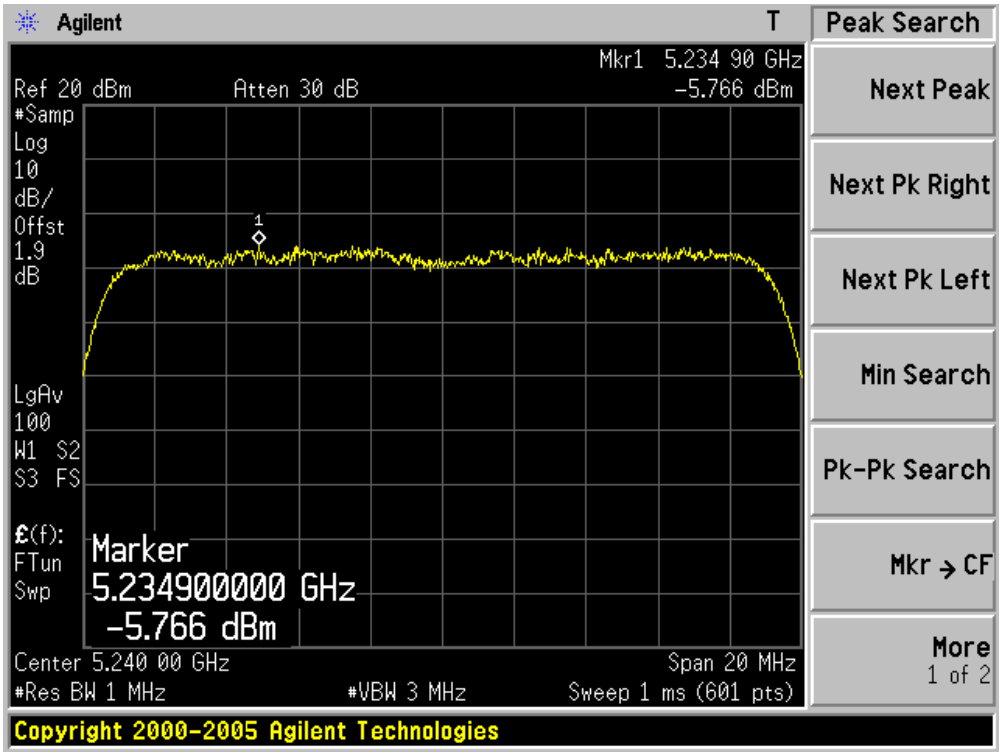
Channel 36 (5180MHz) - Chain 100



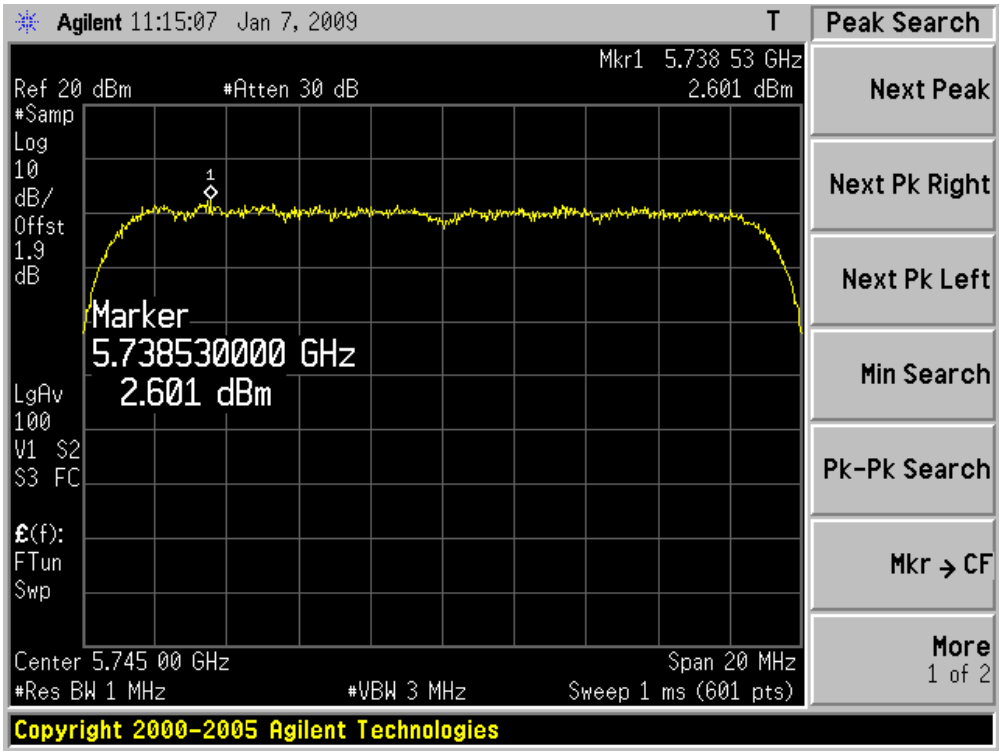
Channel 40 (5200MHz) - Chain 100



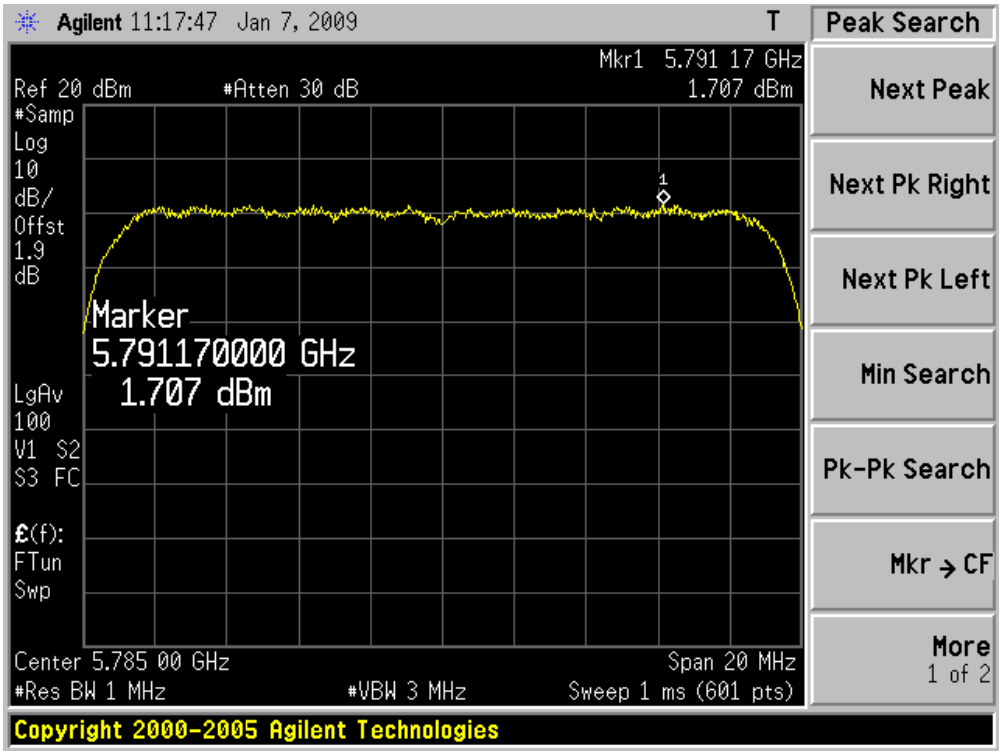
Channel 48 (5240MHz) - Chain 100



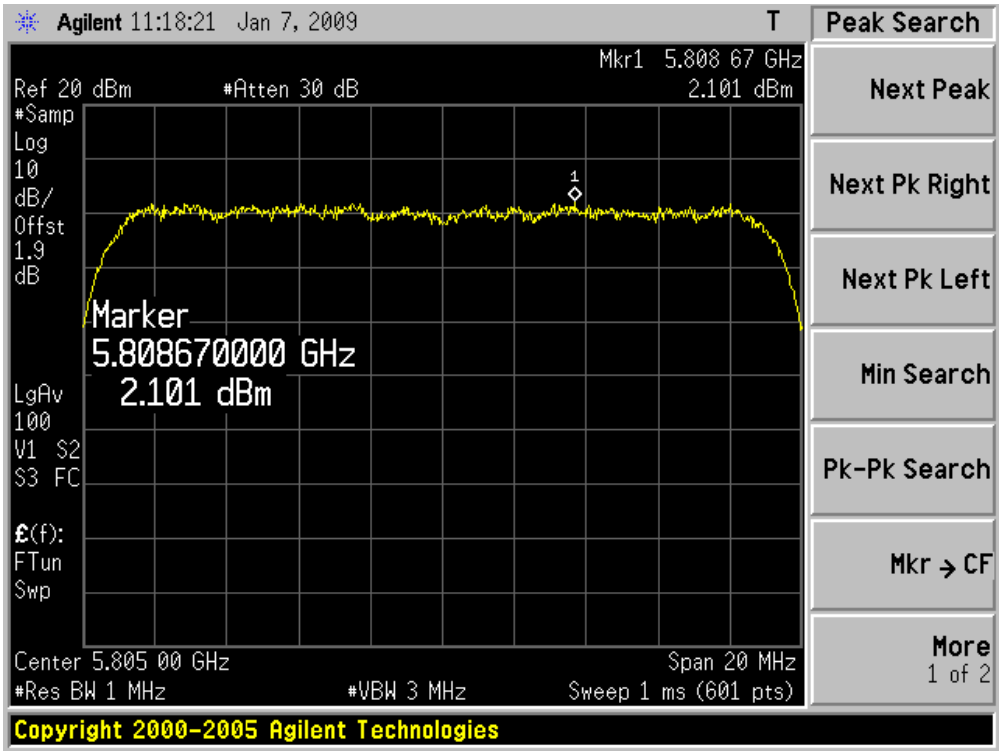
Channel 149 (5745MHz) - Chain 100



Channel 157 (5785MHz) - Chain 100



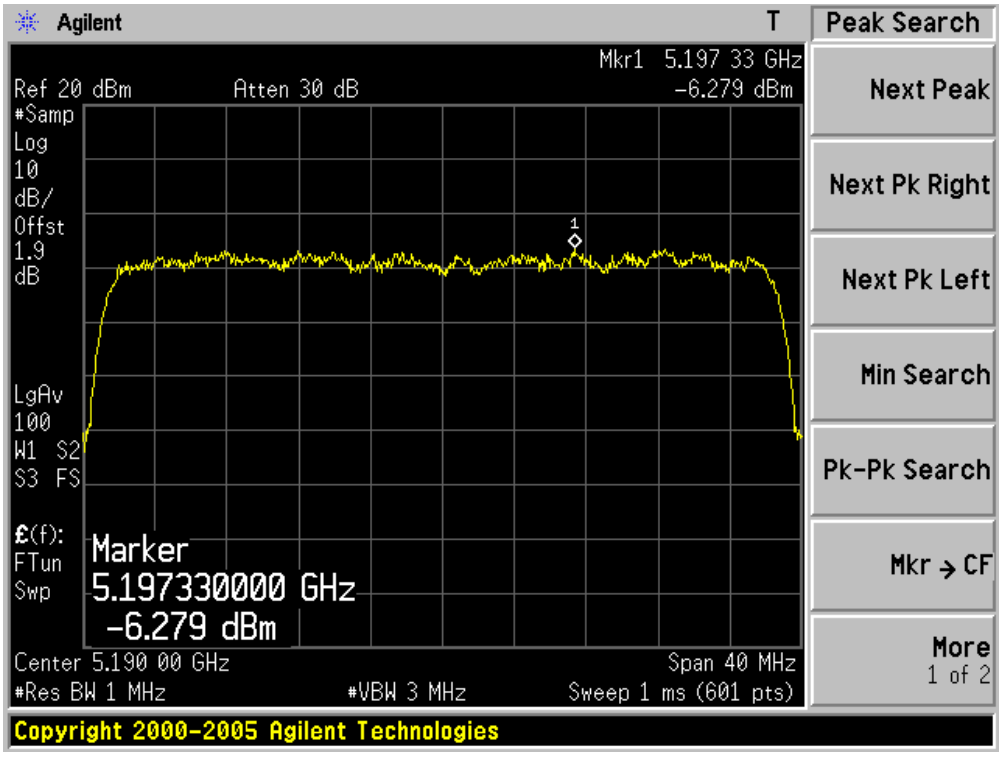
Channel 161 (5805MHz) - Chain 100



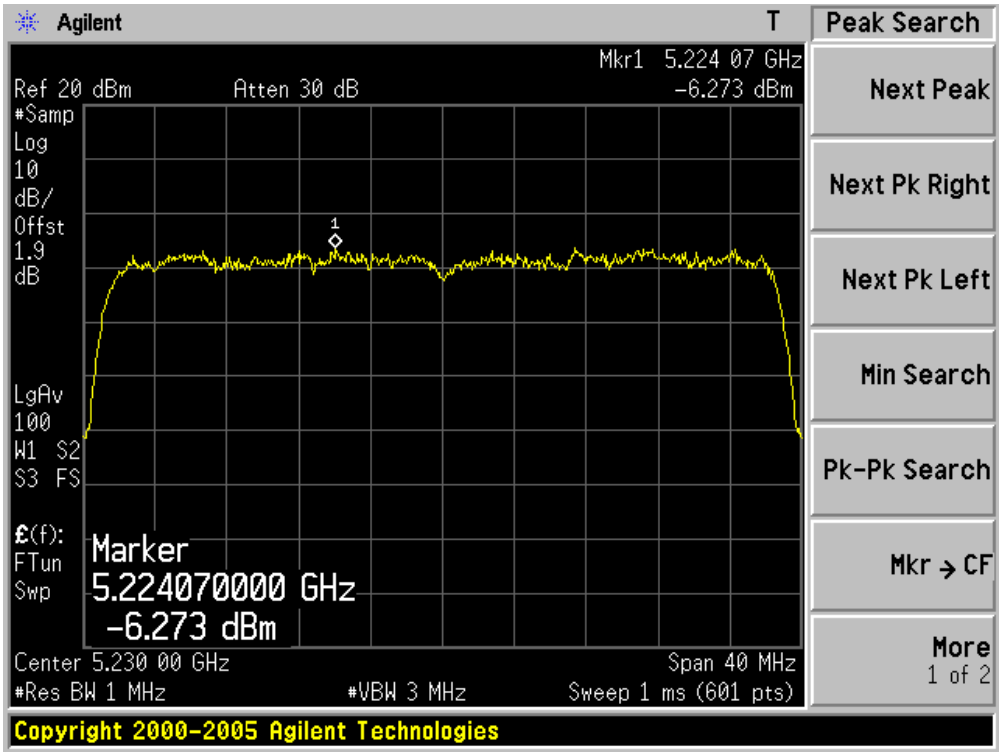
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) (Chain 010)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
38	5190	-6.279	N/A	-6.279	4	Pass
46	5230	-6.273	N/A	-6.273	4	Pass
151	5755	-2.601	N/A	-2.601	17	Pass
159	5795	-2.925	N/A	-2.925	17	Pass

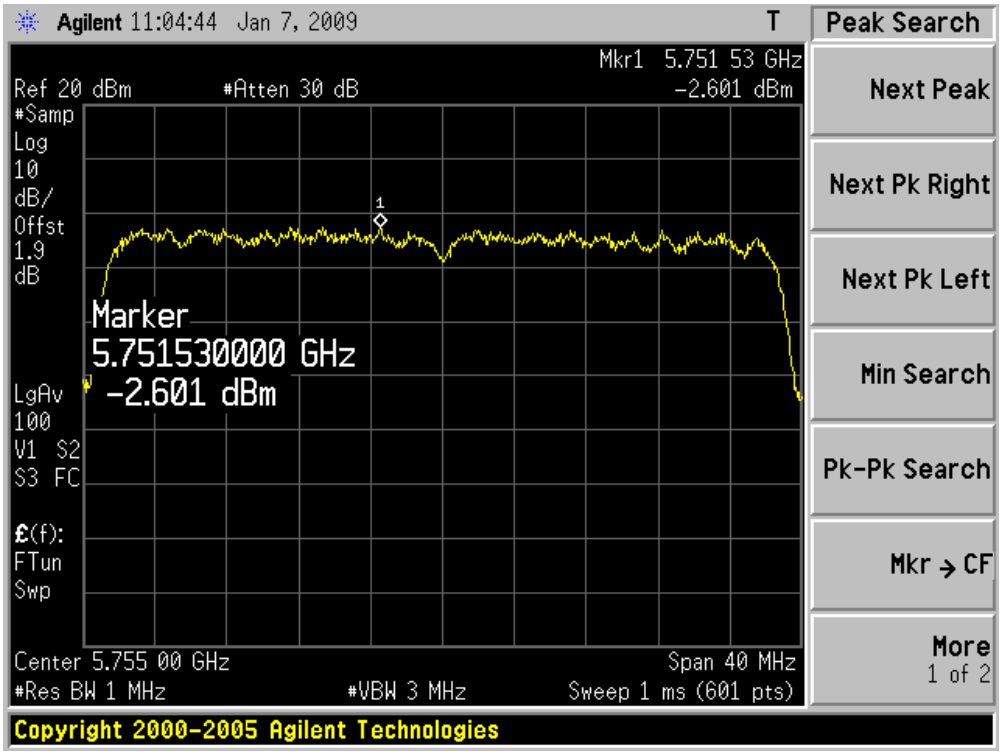
Channel 38 (5190MHz)



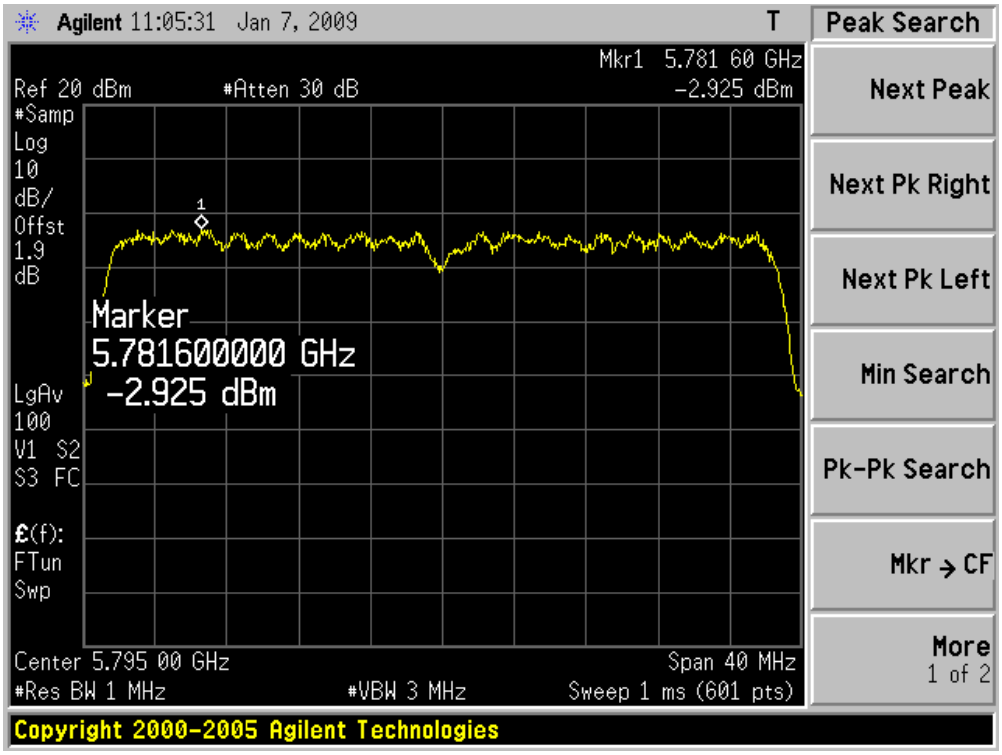
Channel 46 (5230MHz)



Channel 151 (5755MHz)



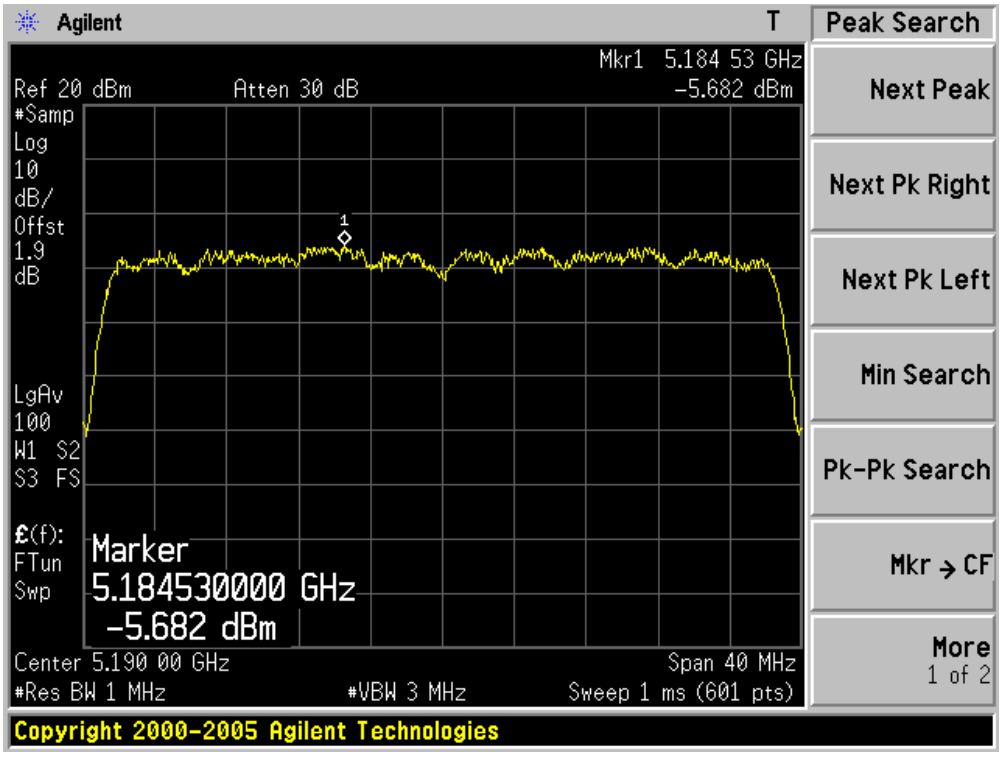
Channel 159 (5795MHz)



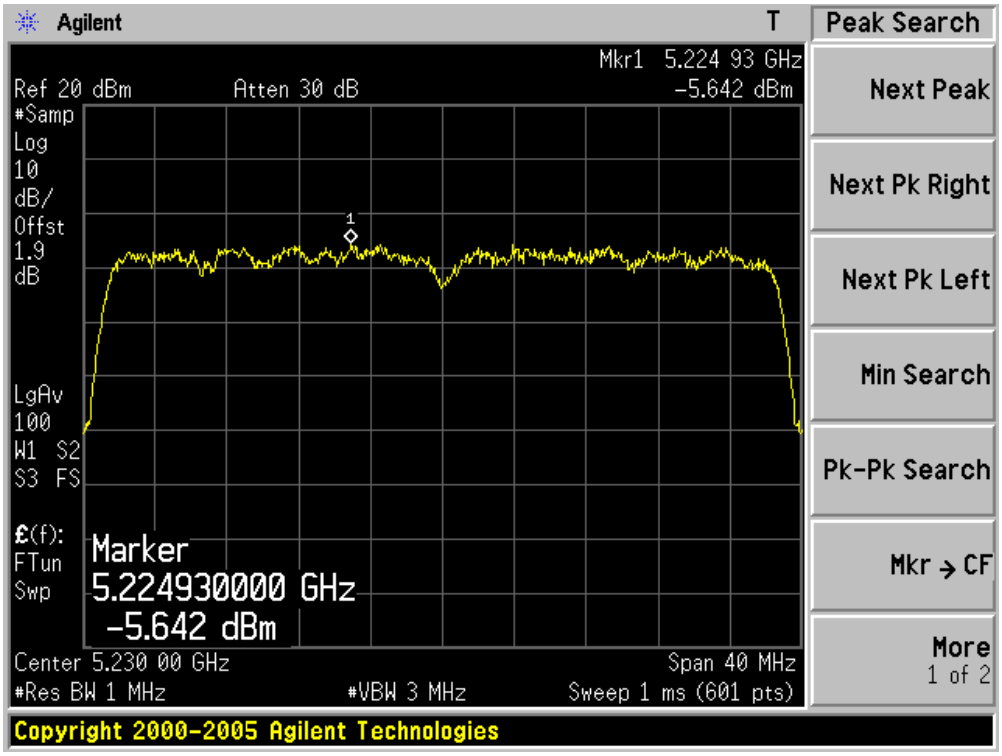
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) (Chain 100)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
38	5190	N/A	-5.682	-5.682	4	Pass
46	5230	N/A	-5.642	-5.642	4	Pass
151	5755	N/A	-2.667	-2.667	17	Pass
159	5795	N/A	-2.560	-2.560	17	Pass

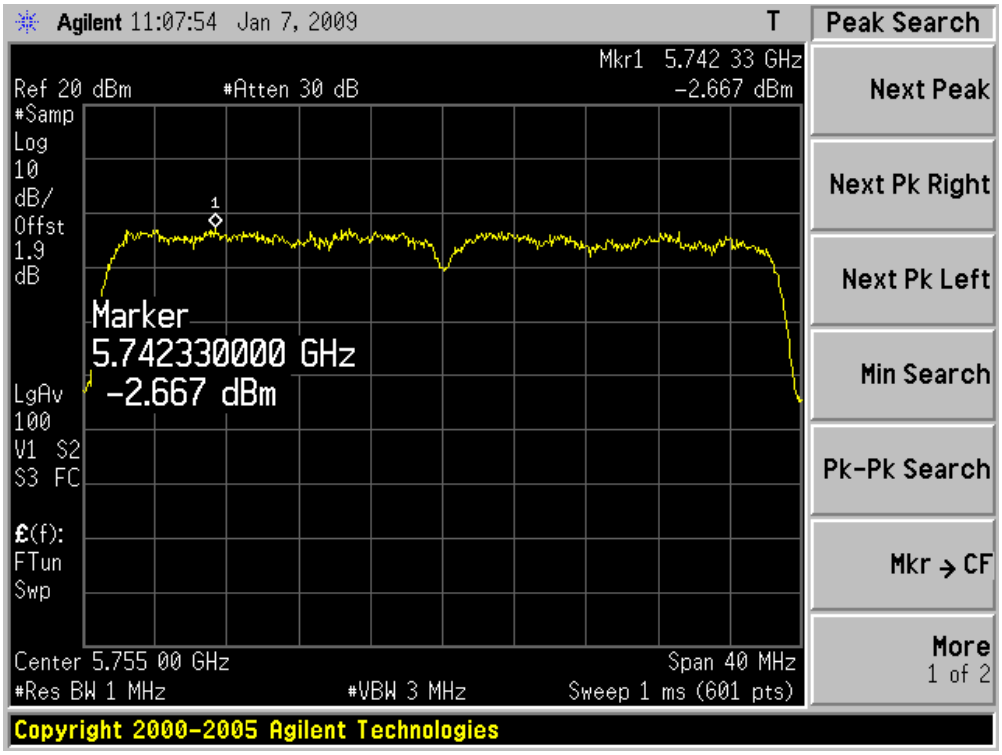
Channel 38 (5190MHz)



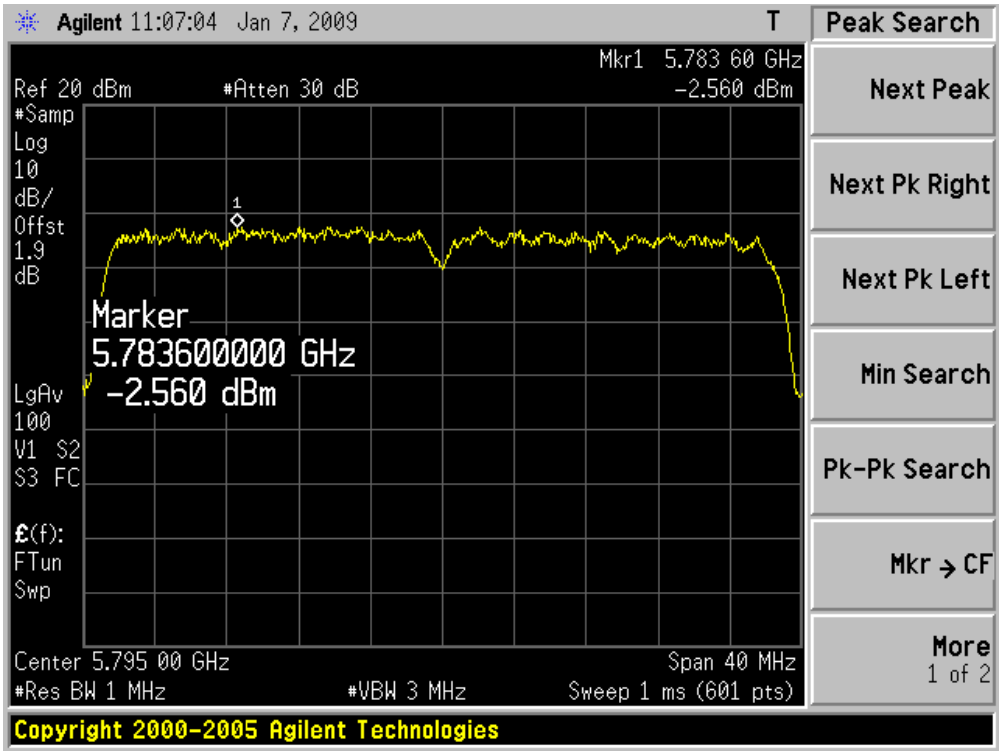
Channel 46 (5230MHz)



Channel 151 (5755MHz)



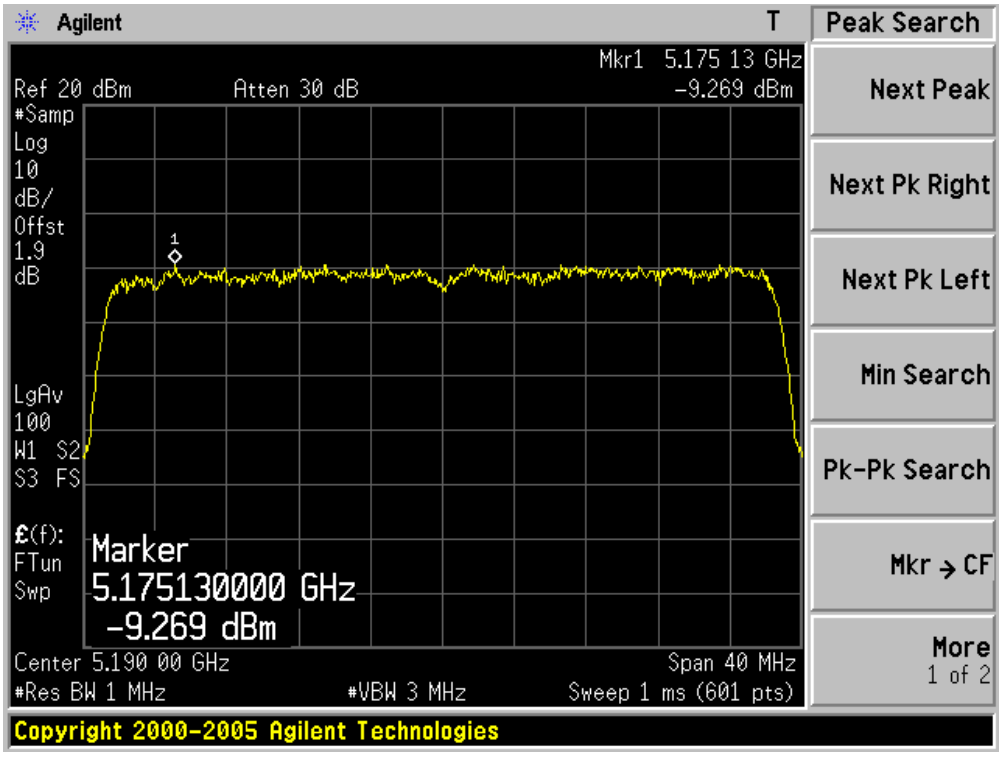
Channel 159 (5795MHz)



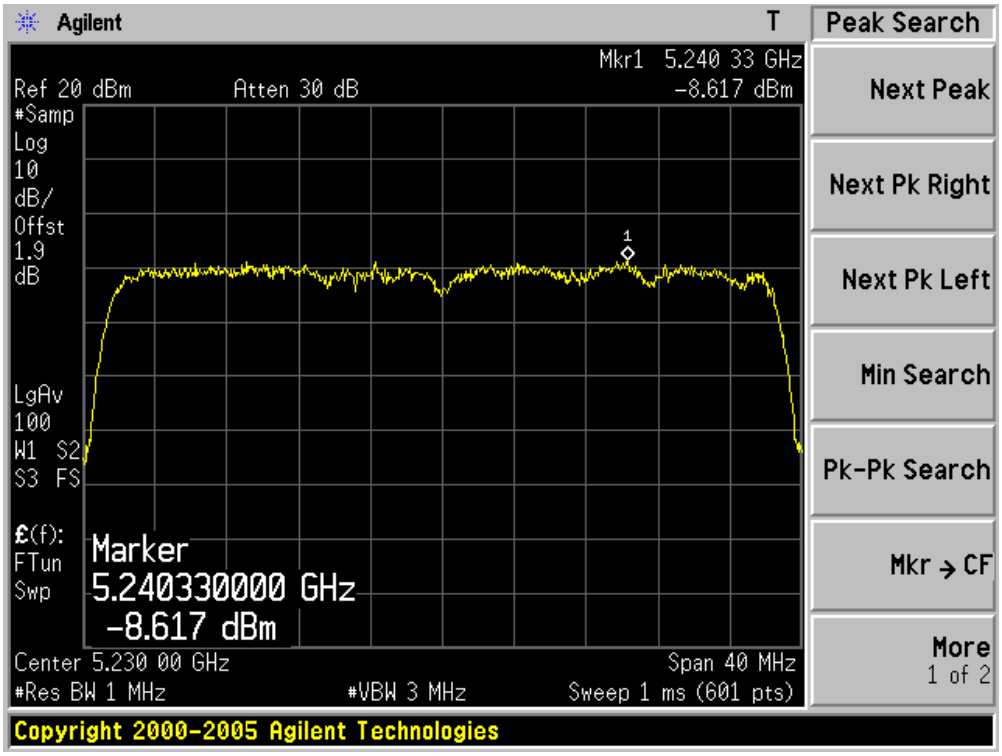
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Power Spectral Density
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) (Chain 110)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm/MHz)		Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Result
		Chain 010	Chain 100			
38	5190	-9.269	-9.090	-6.17	4	Pass
46	5230	-8.617	-9.173	-5.88	4	Pass
151	5755	-3.807	-2.121	0.13	17	Pass
159	5795	-2.449	-2.527	0.52	17	Pass

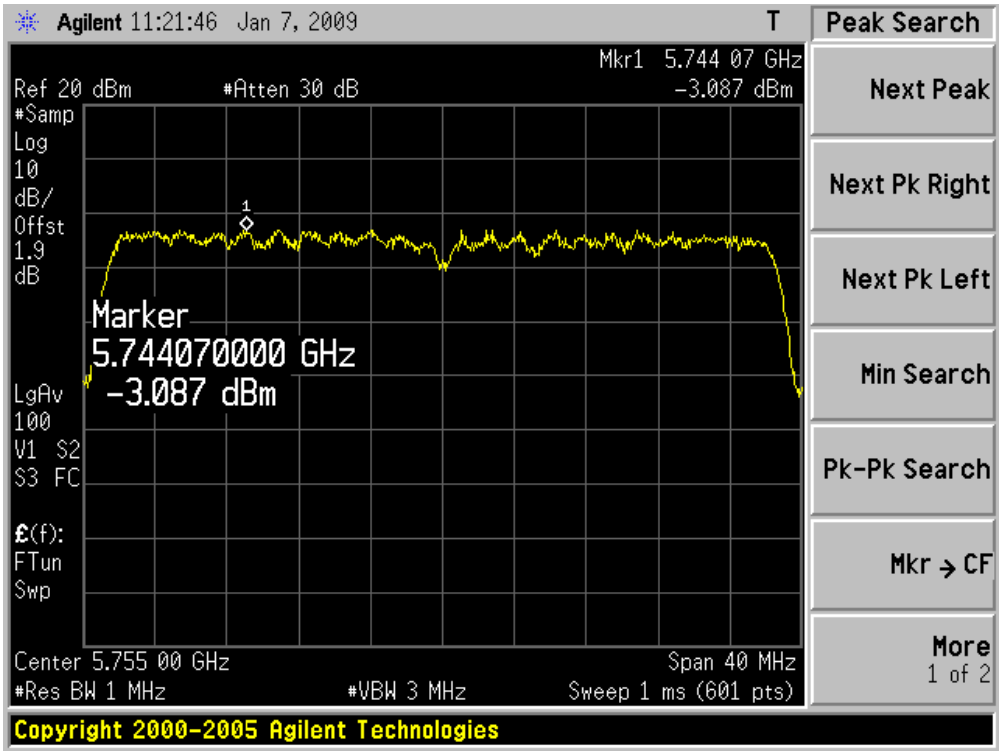
Channel 38 (5190MHz) - Chain 010



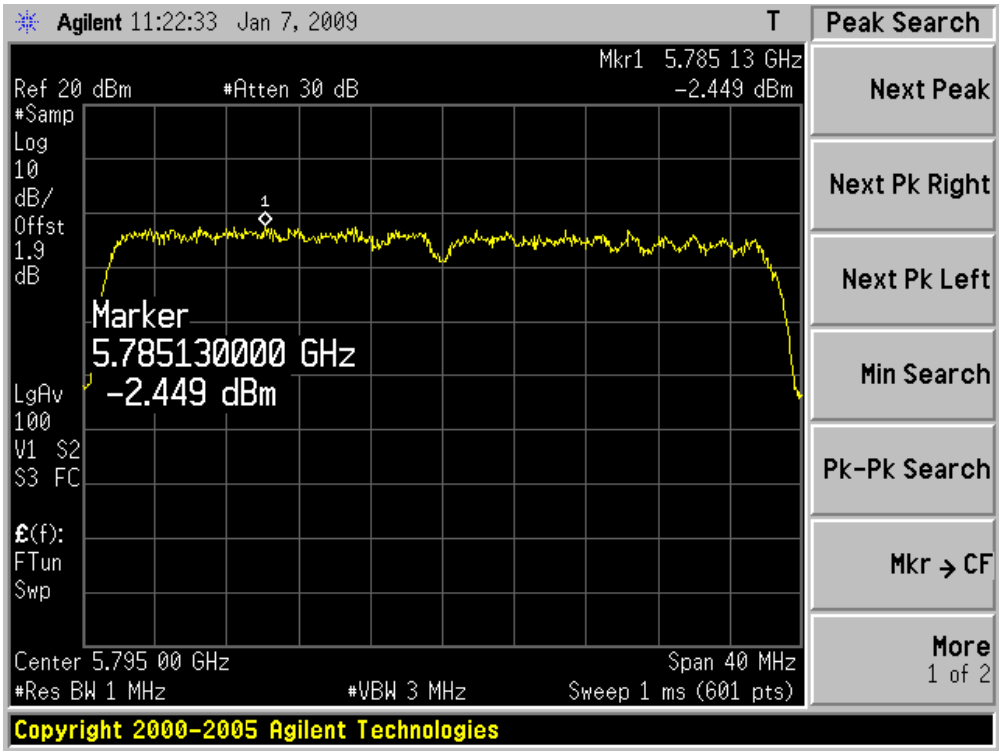
Channel 46 (5230MHz) - Chain 010



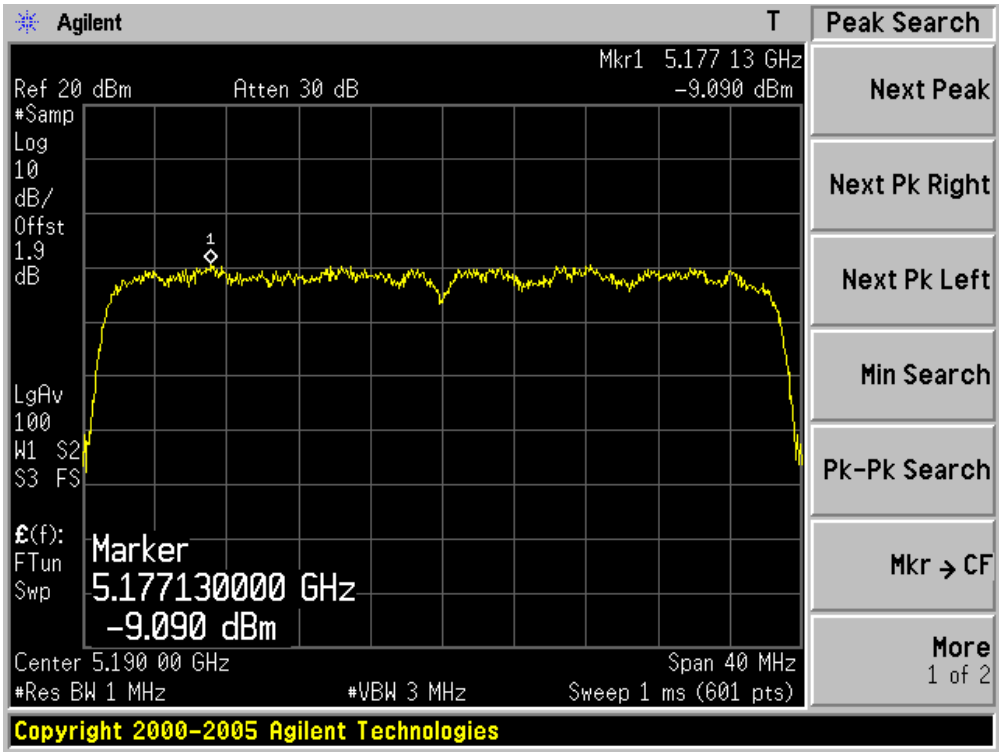
Channel 151 (5755MHz) - Chain 010



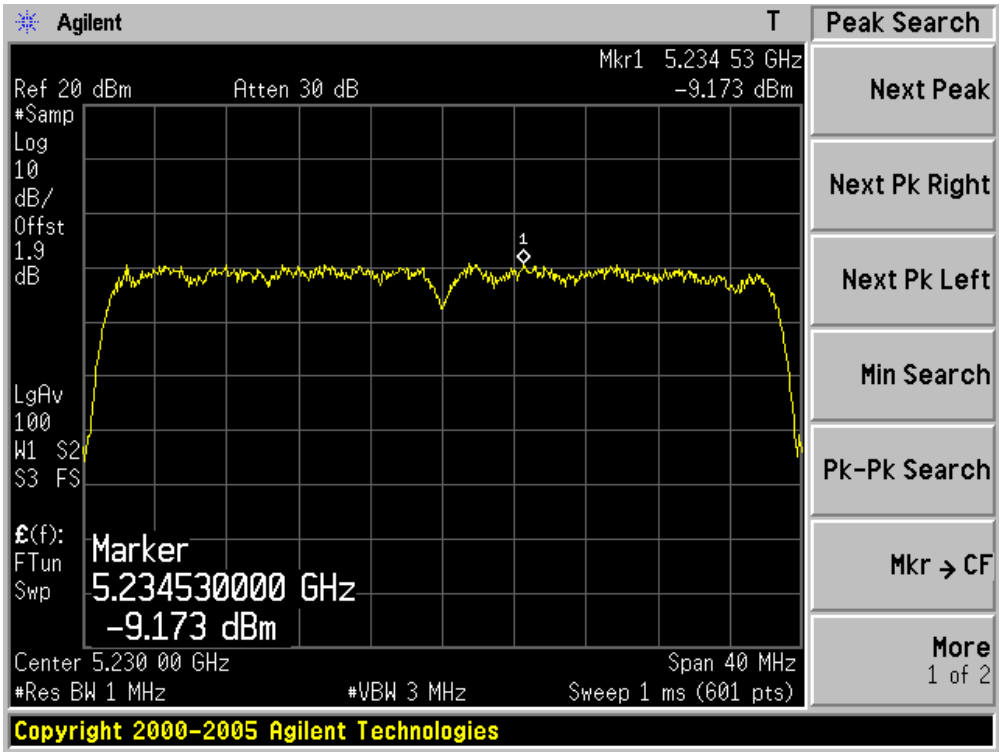
Channel 159 (5795MHz) - Chain 010



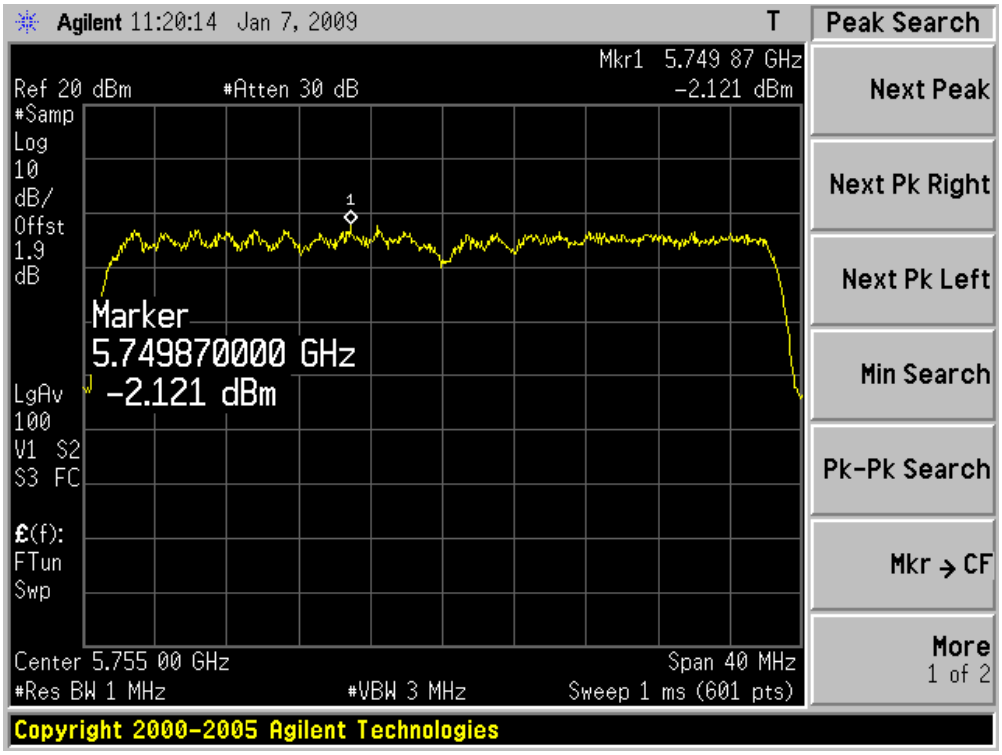
Channel 38 (5190MHz) - Chain 100



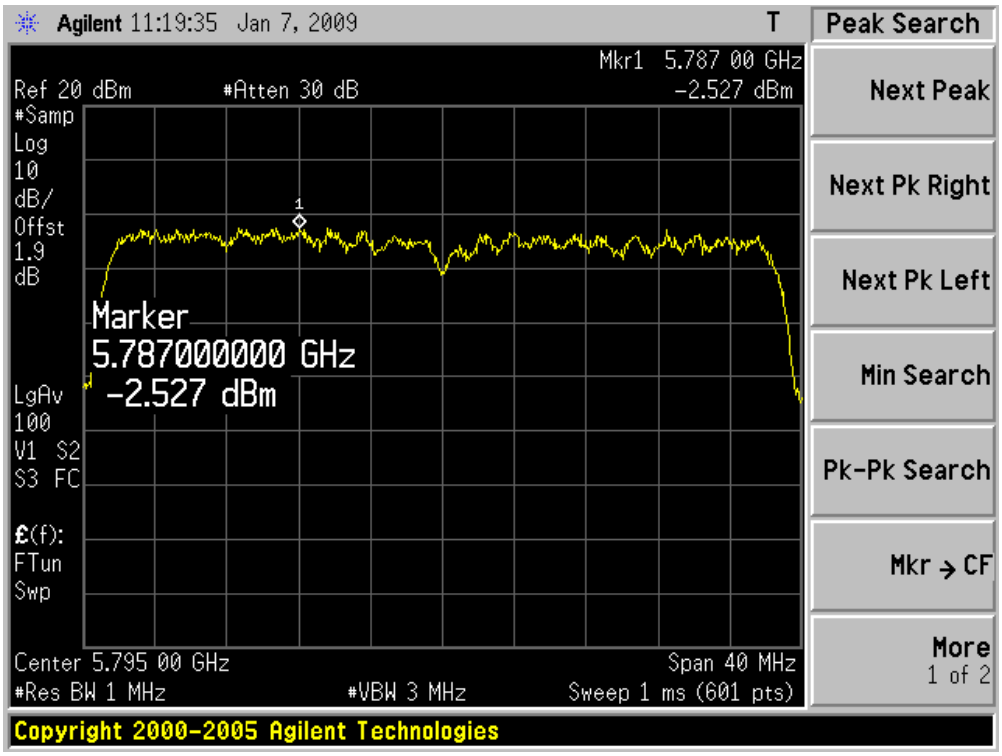
Channel 46 (5230MHz) - Chain 100



Channel 151 (5755MHz) - Chain 100



Channel 159 (5795MHz) - Chain 100



8. Peak Excursion

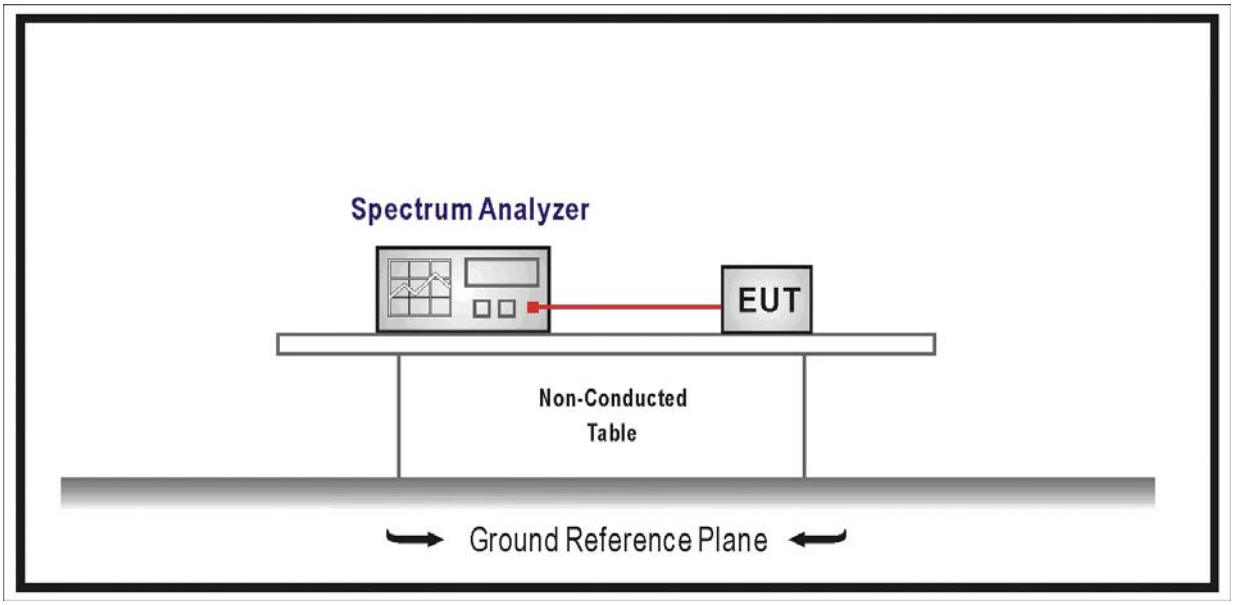
8.1. Test Equipment

Peak Excursion / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

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

8.2. Test Setup



8.3. Limit

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

8.4. Test Procedure

The EUT was tested according to FCC Public Notice DA 02-2138, August 30, 2002 for compliance to FCC 47CFR 15.407 requirements.
Set the spectrum analyzer span to view the entire emission bandwidth. The largest difference between the following two traces must be ≤ 13 dB for all frequencies across the emission bandwidth.

- 1st Trace: Set RBW = 1 MHz, VBW ≥ 3 MHz with peak detector and maxhold settings.
- 2nd Trace: Set RBW = 1 MHz, VBW = 30 kHz with peak detector and maxhold settings.

8.5. Uncertainty

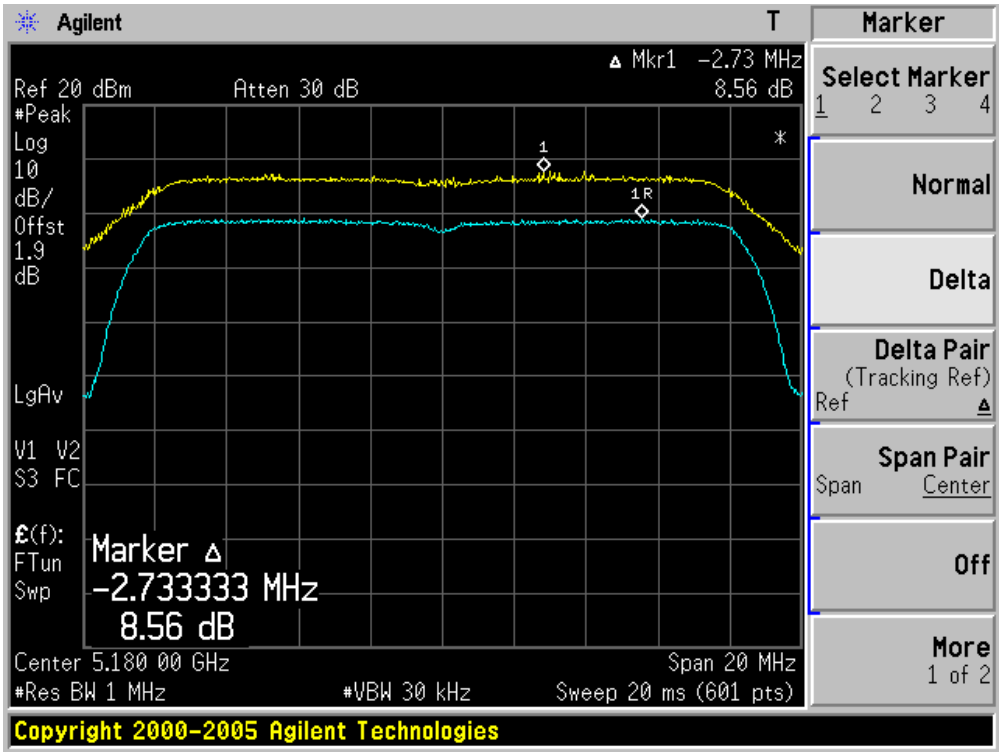
The measurement uncertainty is defined as ± 1.27 dB

8.6. Test Result

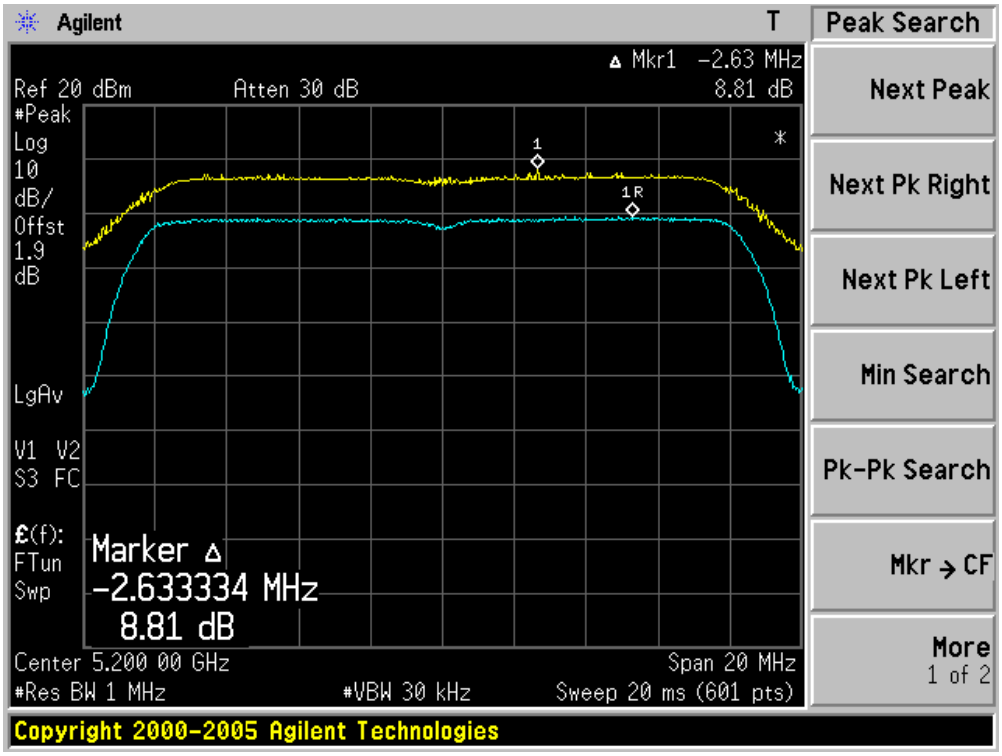
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a (Chain 010)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
36	5180	8.56	13	Pass
40	5200	8.81	13	Pass
48	5240	8.76	13	Pass
149	5745	8.69	13	Pass
157	5785	8.59	13	Pass
161	5805	8.58	13	Pass

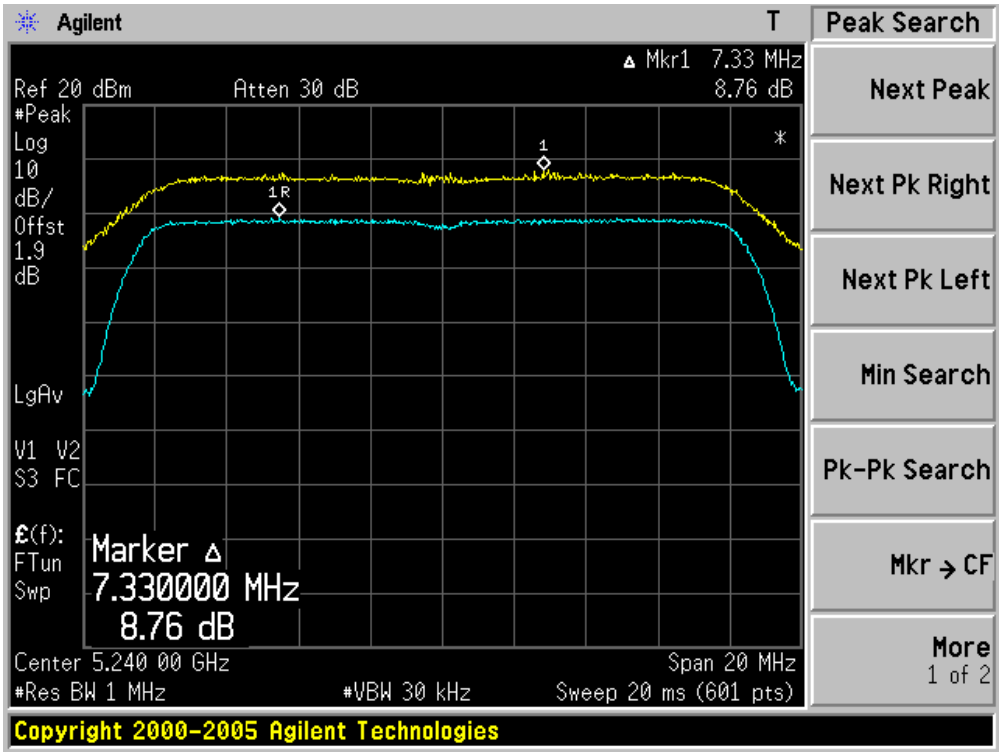
Channel 36 (5180MHz)



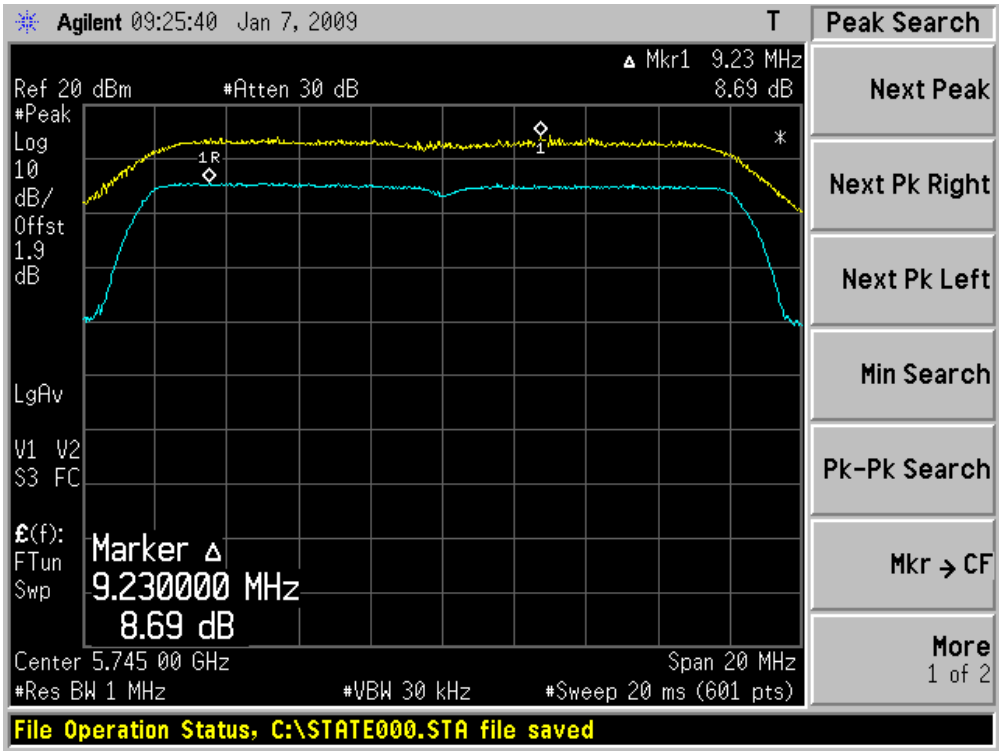
Channel 40 (5200MHz)



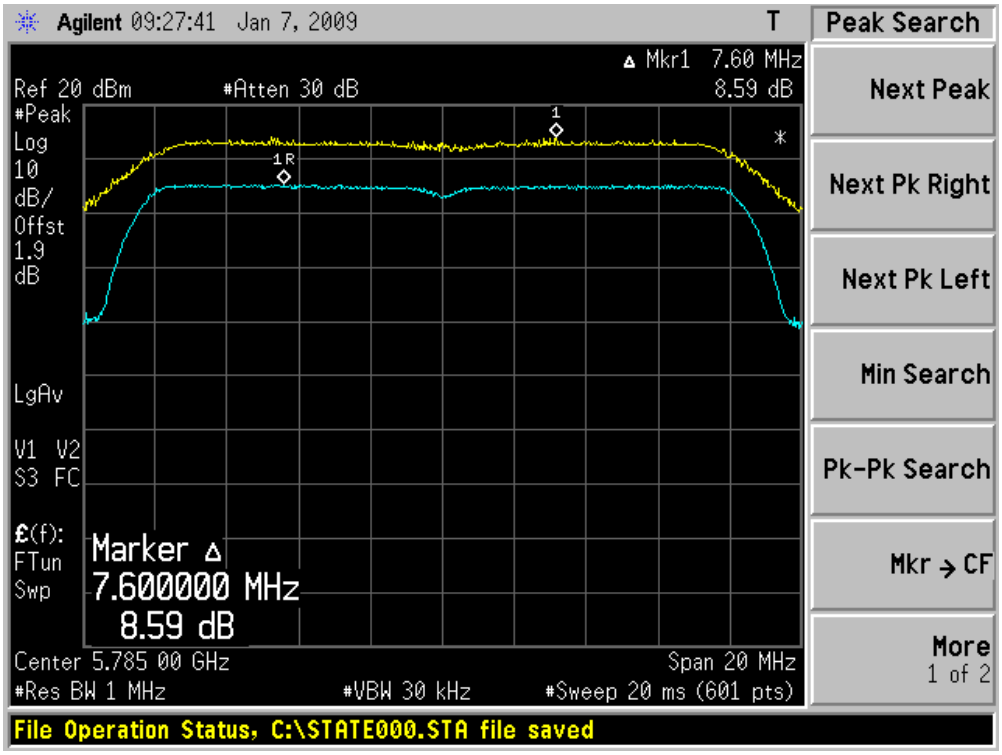
Channel 48 (5240MHz)



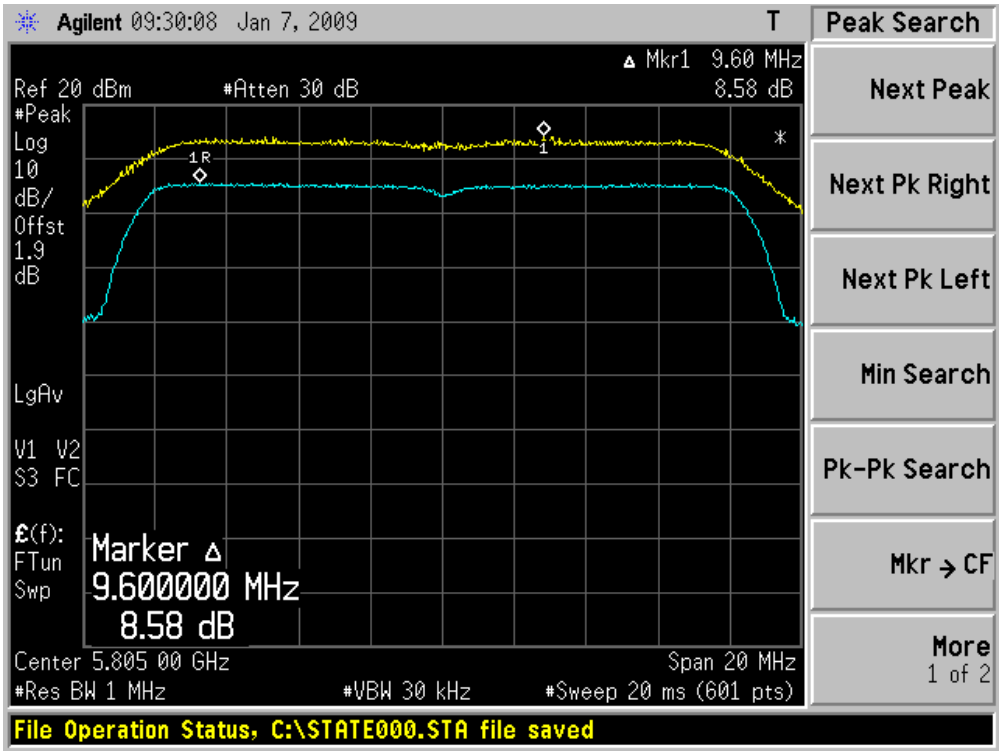
Channel 149 (5745MHz)



Channel 157 (5785MHz)



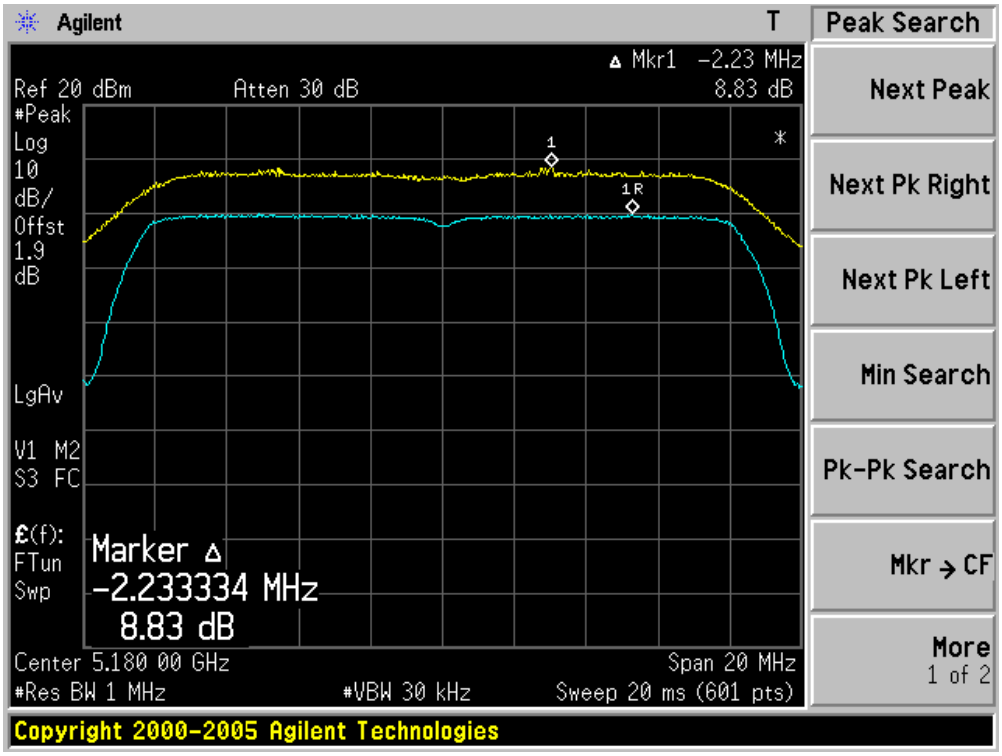
Channel 161 (5805MHz)



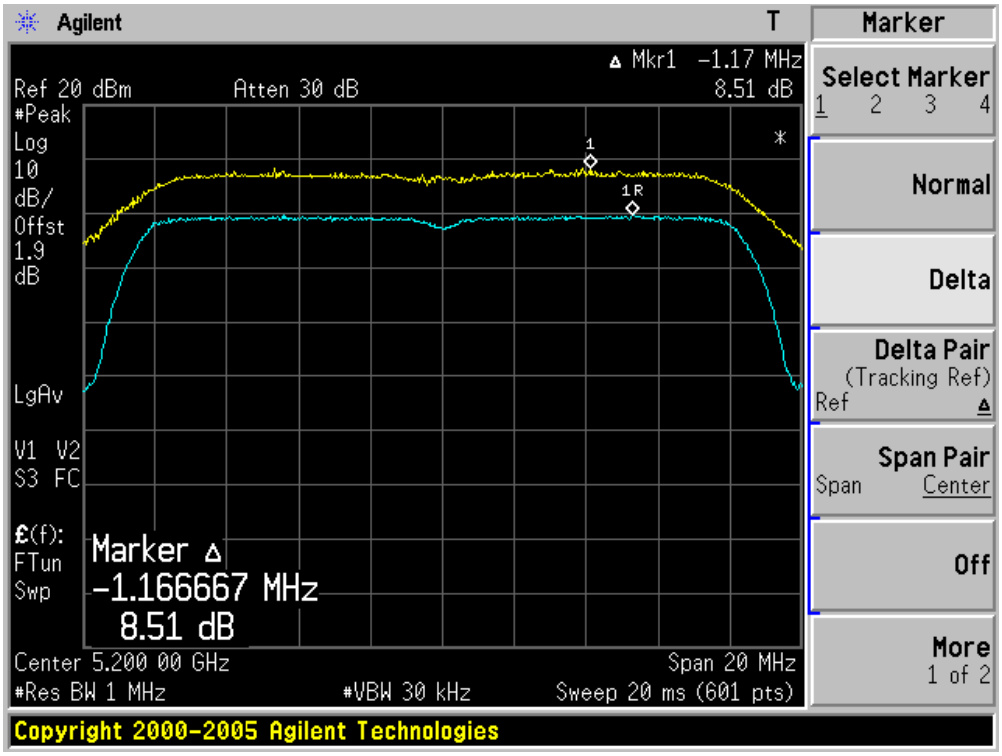
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 1: Transmit by 802.11a (Chain 100)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
36	5180	8.83	13	Pass
40	5200	8.51	13	Pass
48	5240	8.56	13	Pass
149	5745	8.60	13	Pass
157	5785	8.76	13	Pass
161	5805	8.87	13	Pass

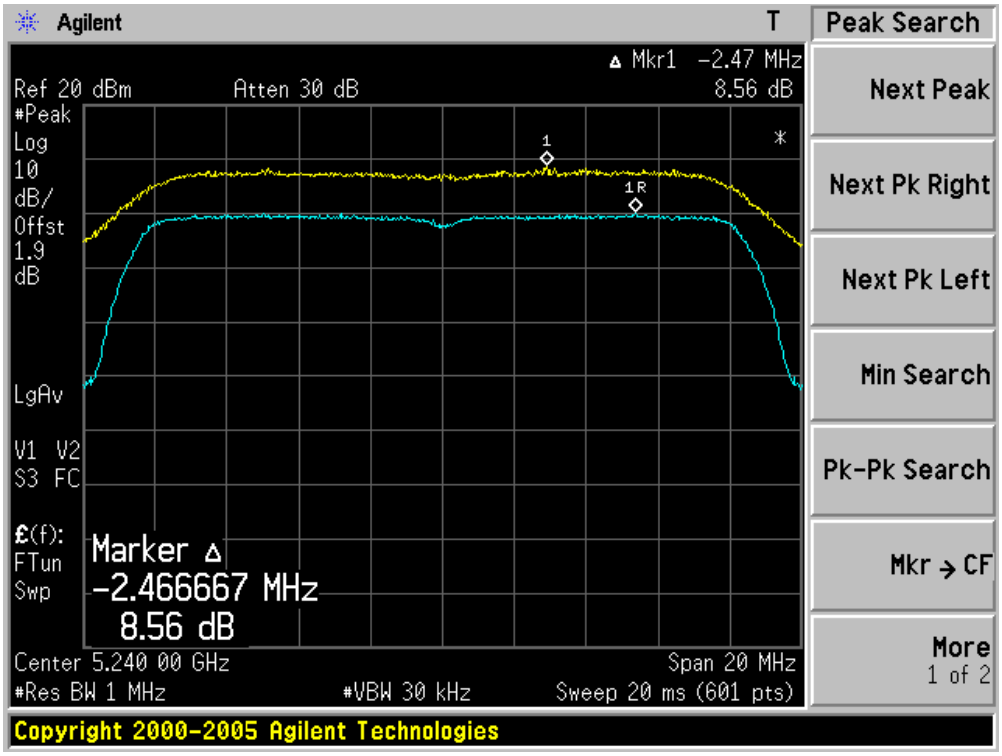
Channel 36 (5180MHz)



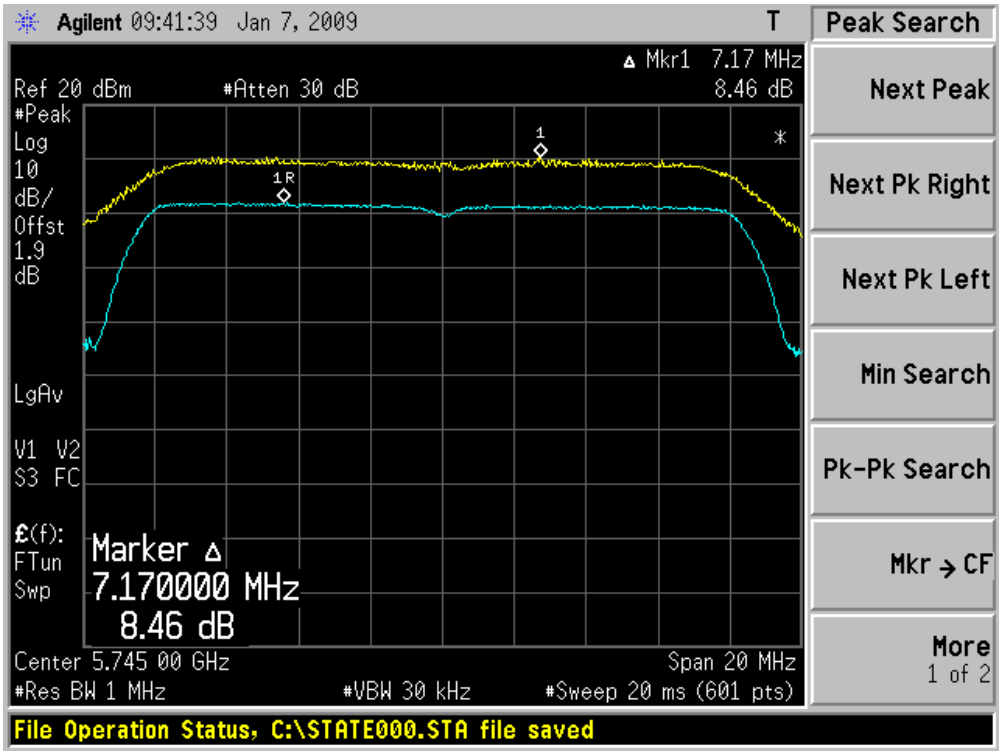
Channel 40 (5200MHz)



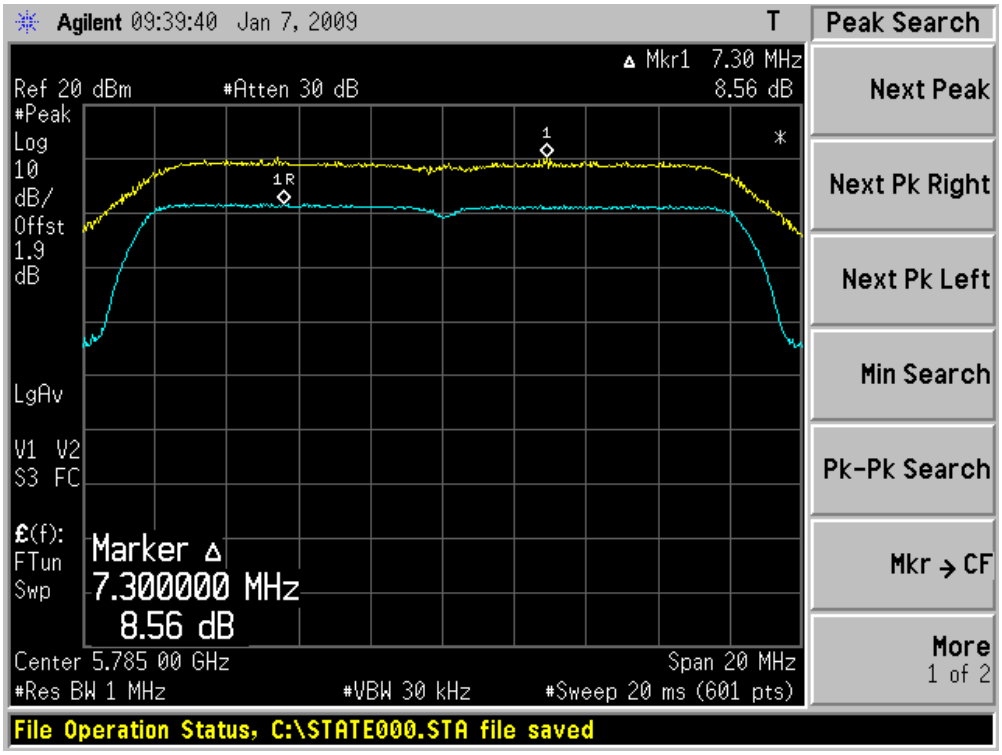
Channel 48 (5240MHz)



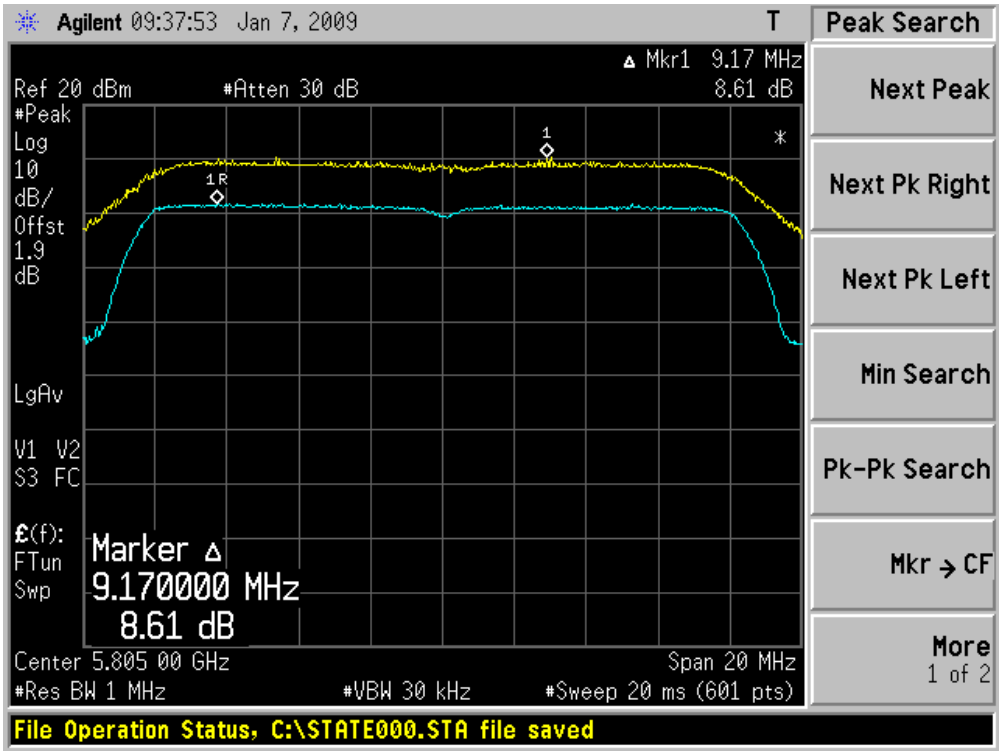
Channel 149 (5745MHz)



Channel 157 (5785MHz)



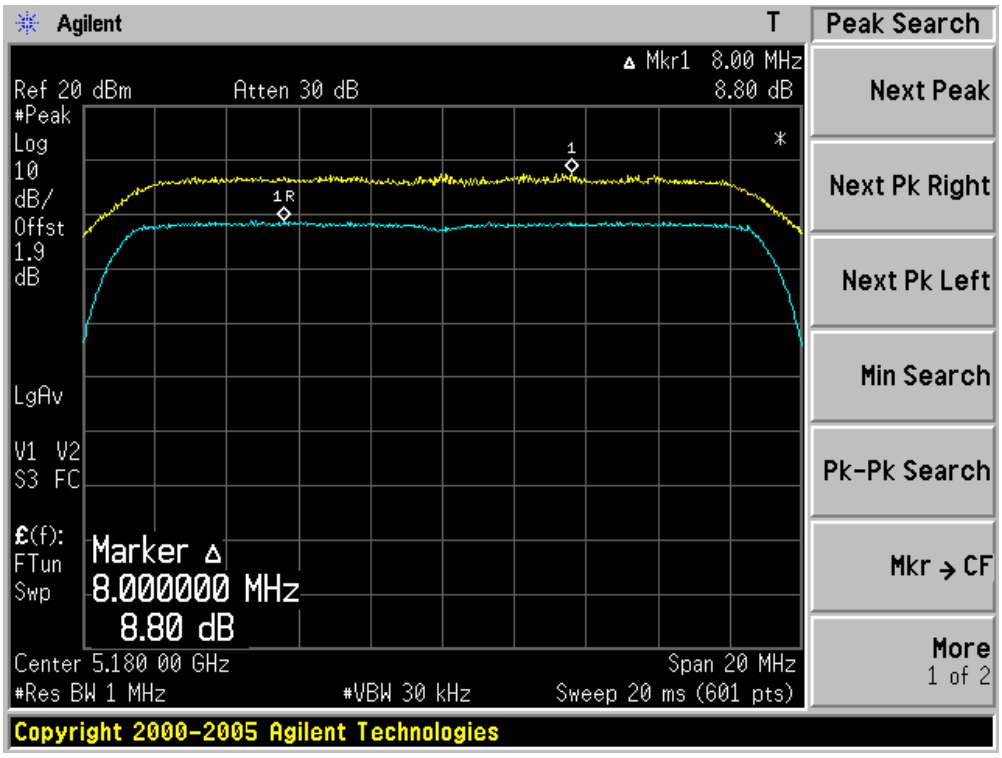
Channel 161 (5805MHz)



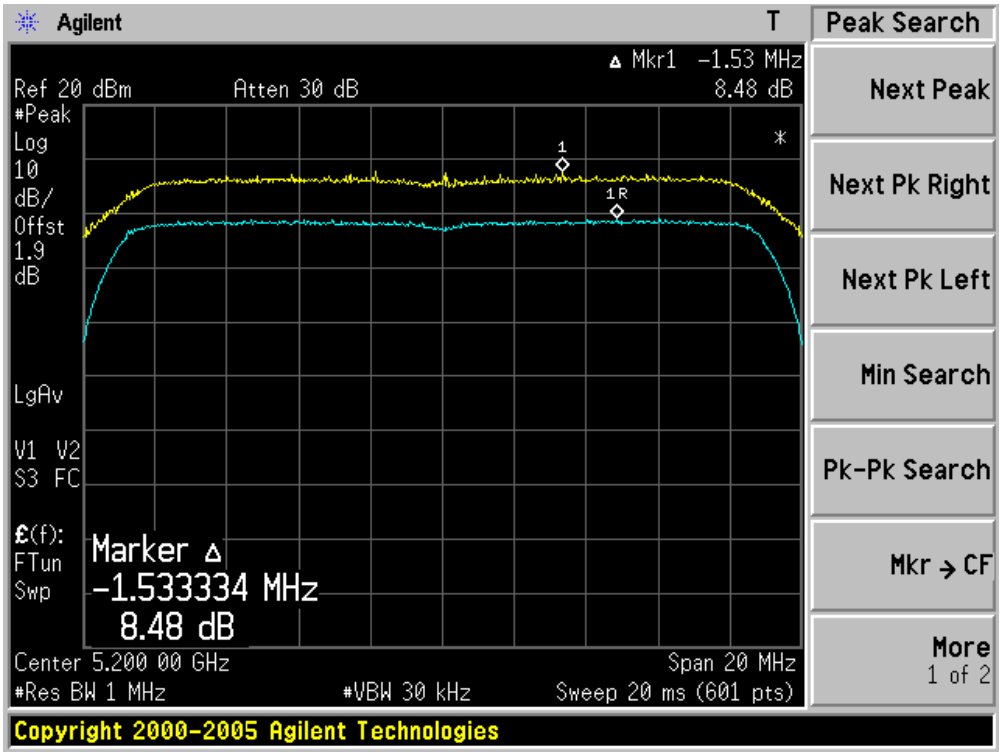
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) (Chain 010)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
36	5180	8.80	13	Pass
40	5200	8.48	13	Pass
48	5240	8.64	13	Pass
149	5745	8.46	13	Pass
157	5785	8.56	13	Pass
161	5805	8.61	13	Pass

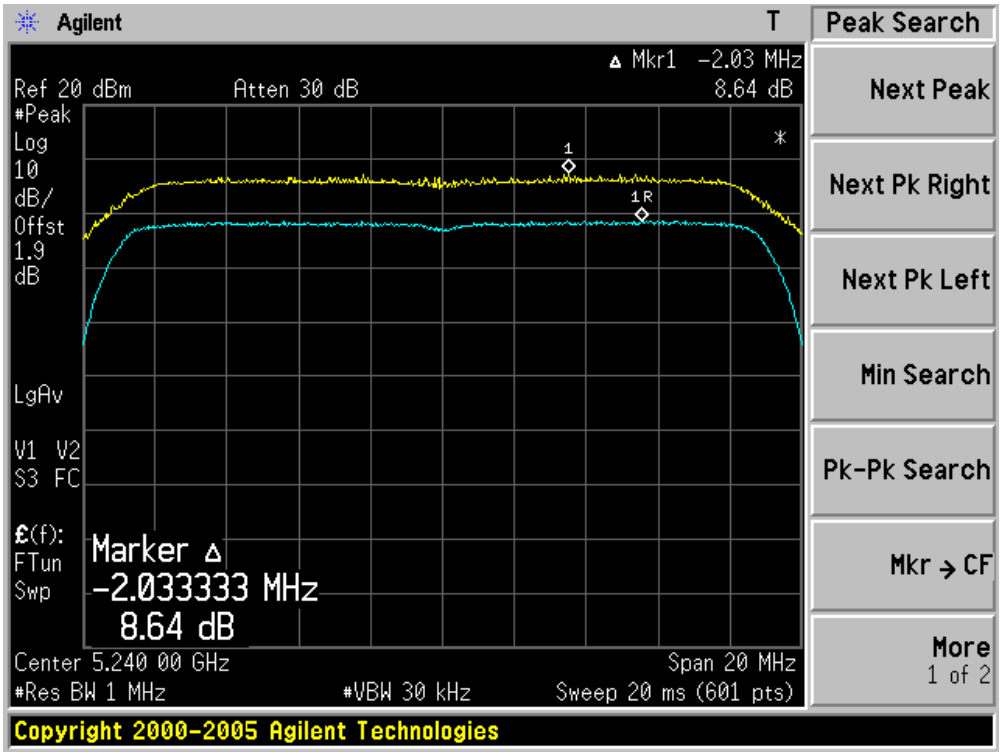
Channel 36 (5180MHz)



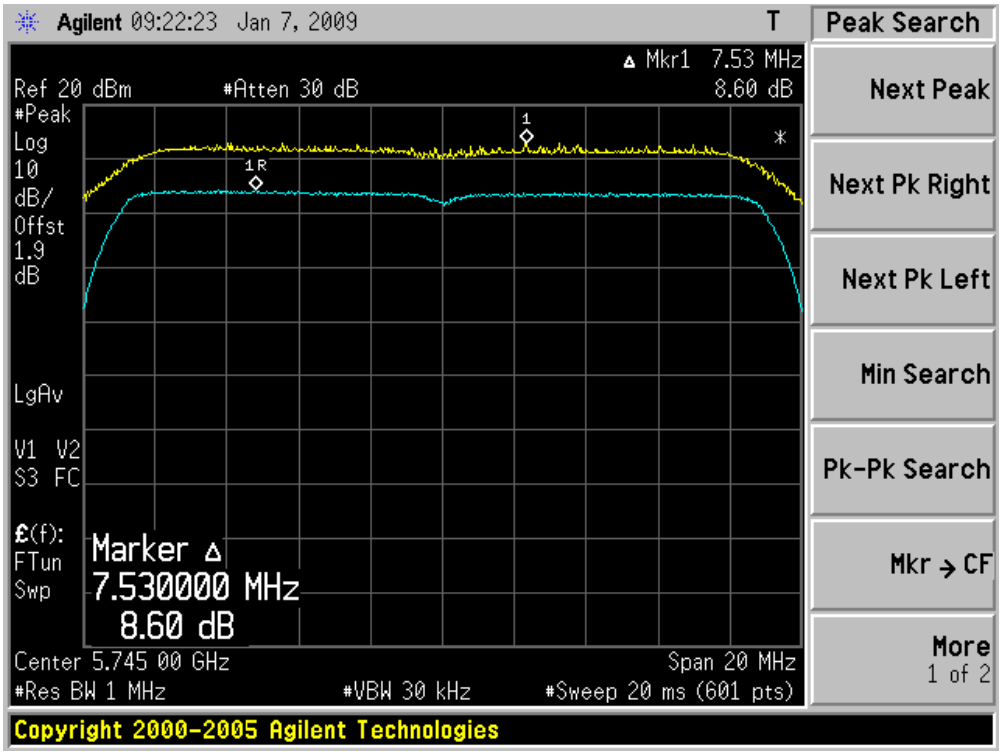
Channel 40 (5200MHz)



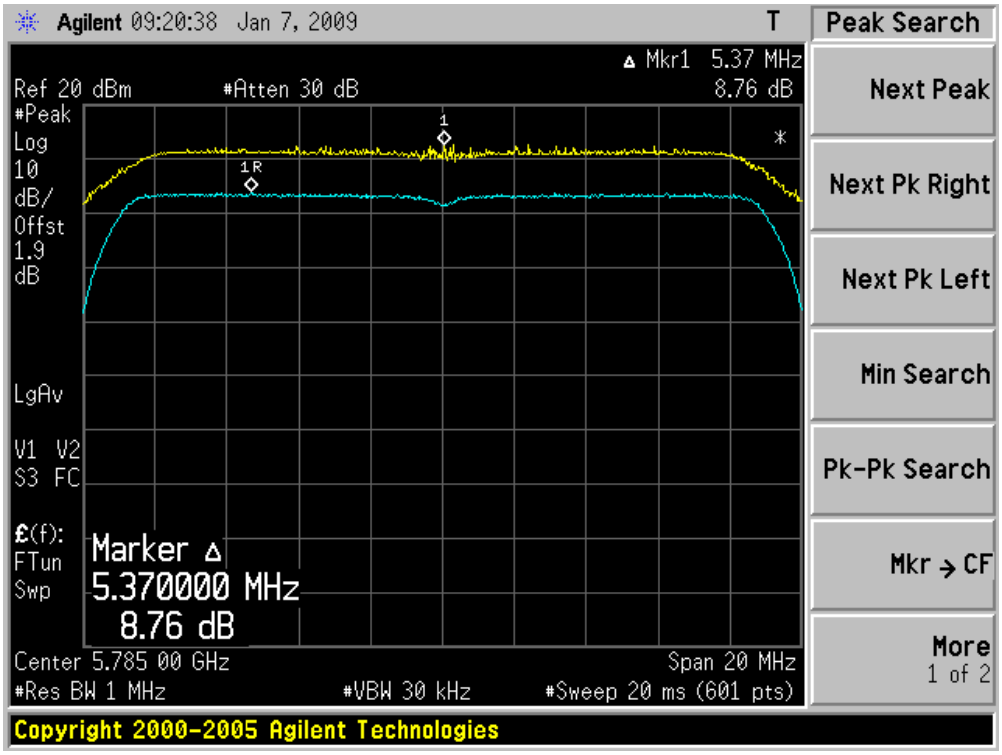
Channel 48 (5240MHz)



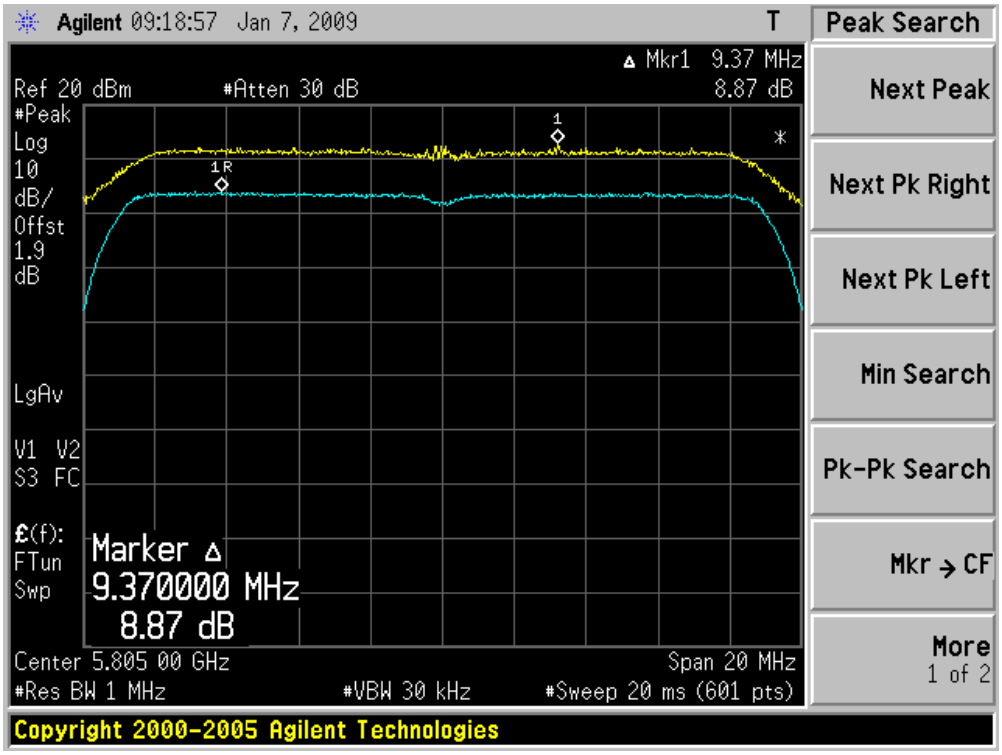
Channel 149 (5745MHz)



Channel 157 (5785MHz)



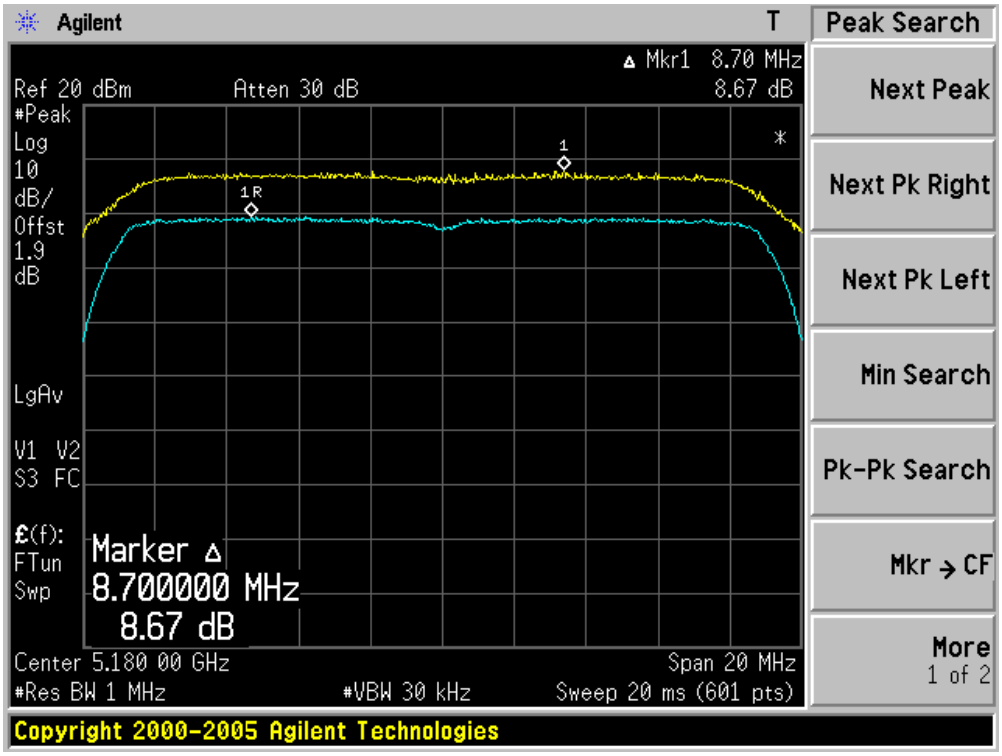
Channel 161 (5805MHz)



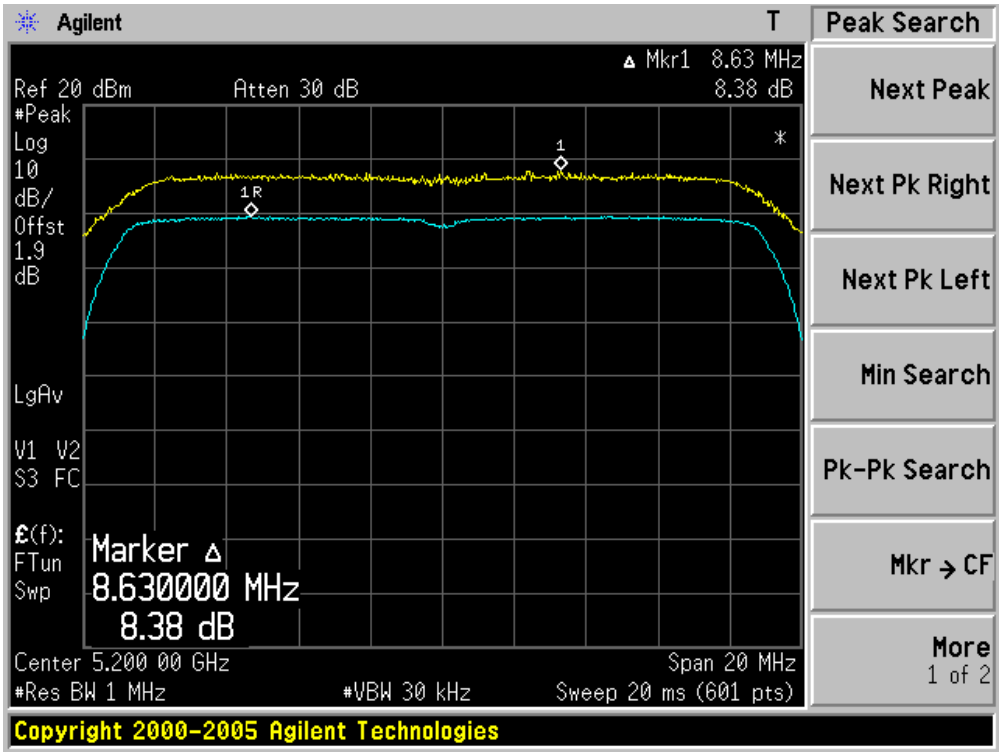
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 2: Transmit by 802.11n (20MHz) (Chain 100)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
36	5180	8.67	13	Pass
40	5200	8.38	13	Pass
48	5240	8.93	13	Pass
149	5745	8.54	13	Pass
157	5785	8.87	13	Pass
161	5805	8.98	13	Pass

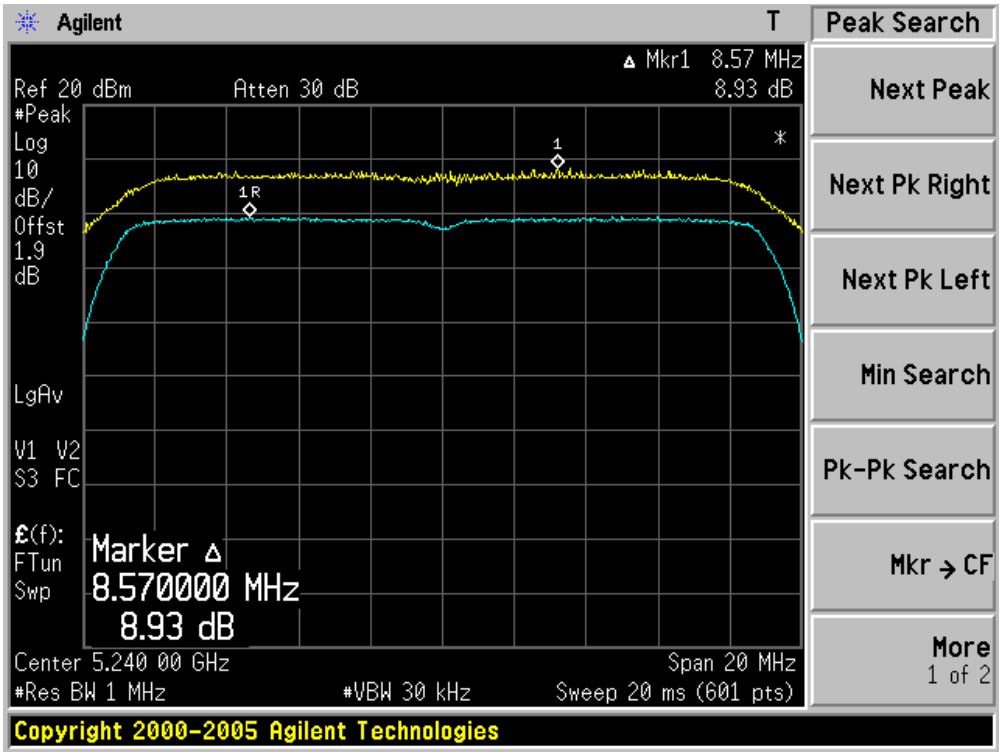
Channel 36 (5180MHz)



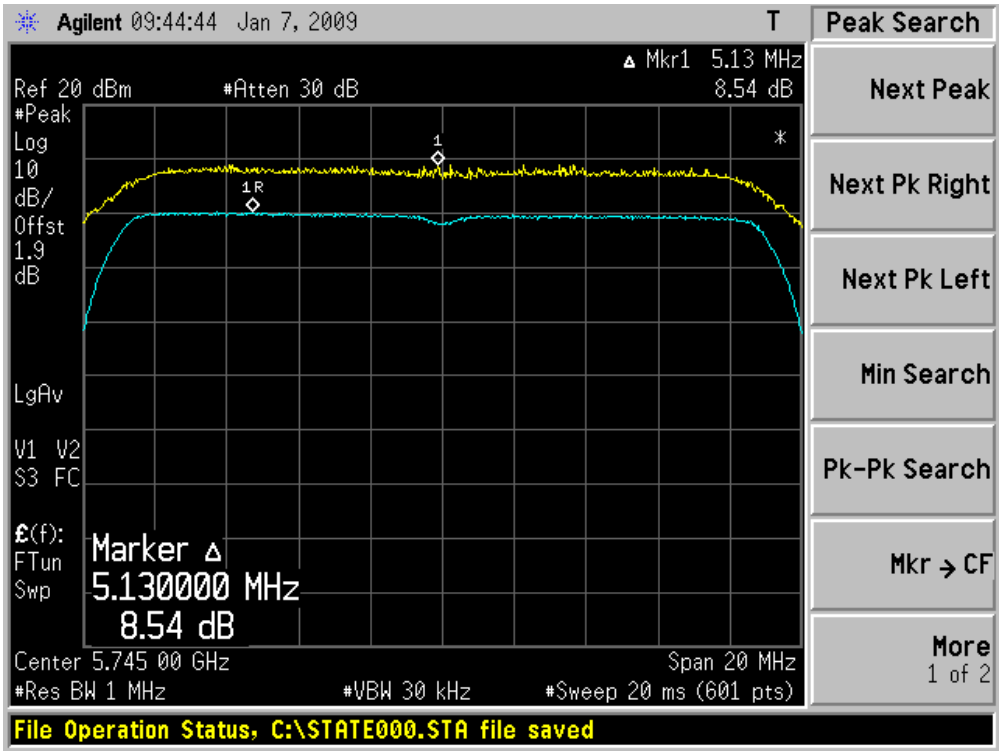
Channel 40 (5200MHz)



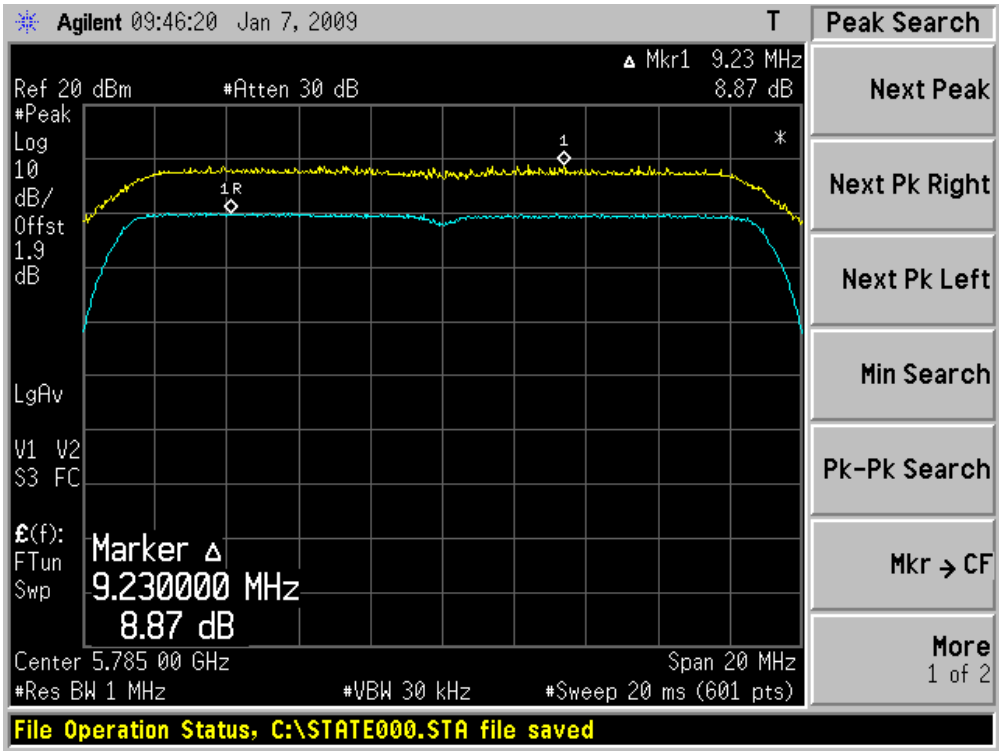
Channel 48 (5240MHz)



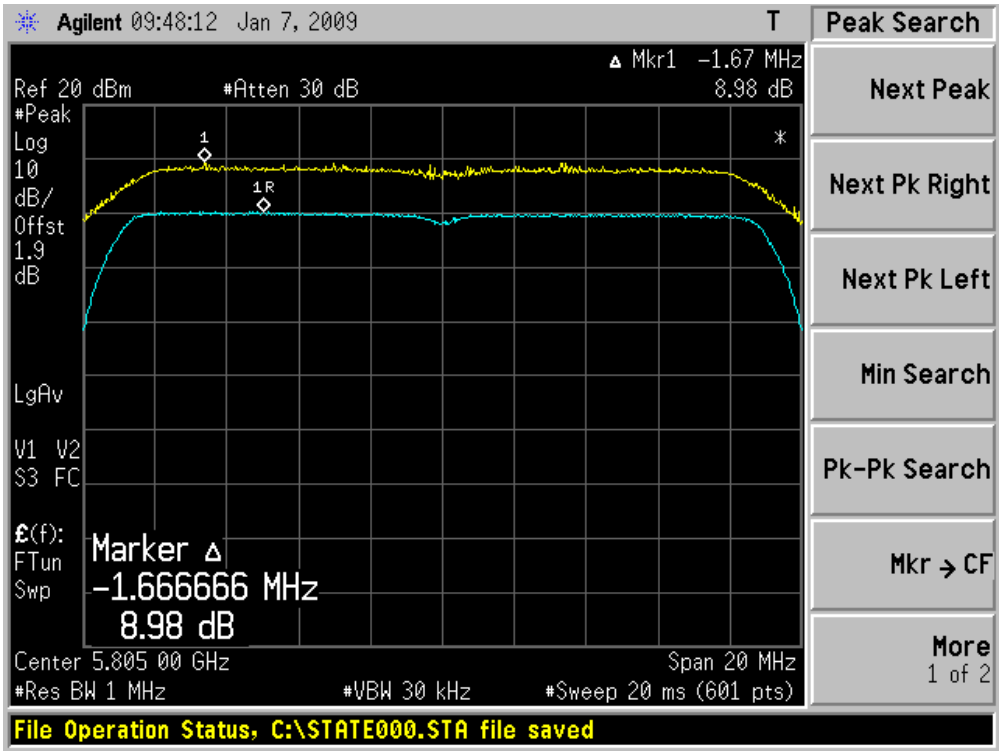
Channel 149 (5745MHz)



Channel 157 (5785MHz)



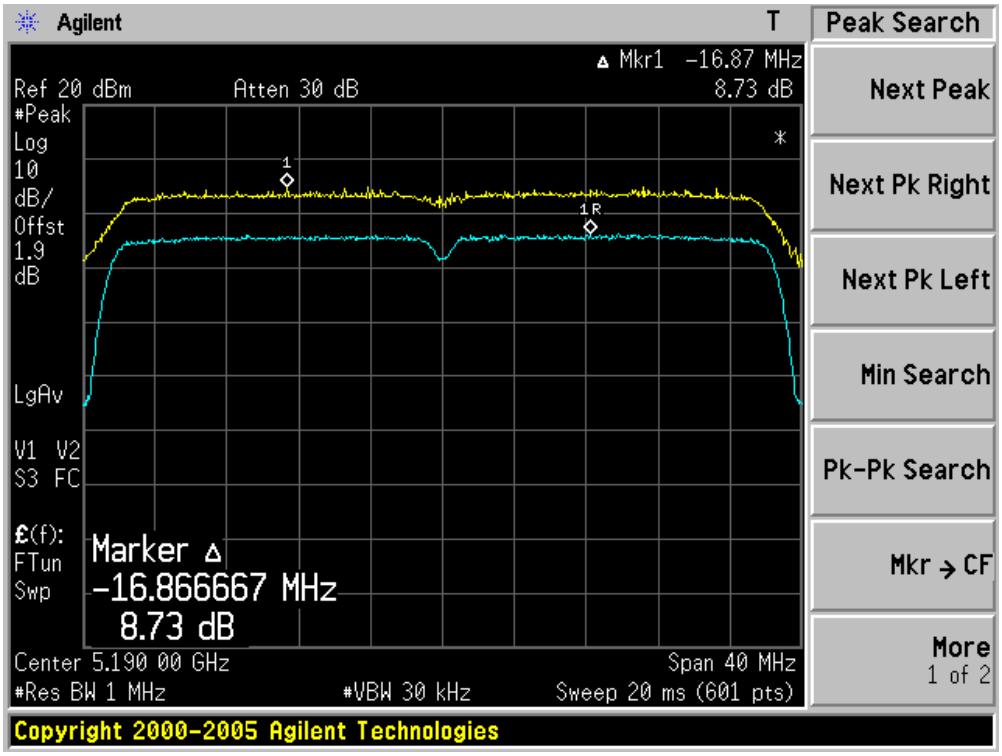
Channel 161 (5805MHz)



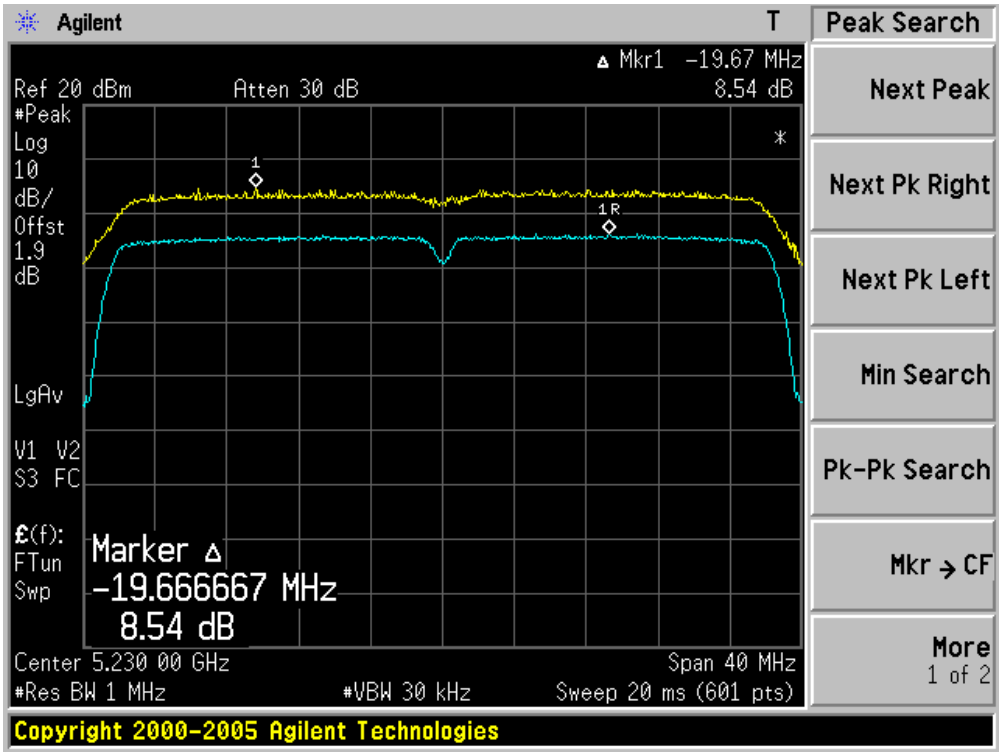
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) (Chain 010)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
38	5190	8.73	13	Pass
46	5230	8.54	13	Pass
151	5755	8.94	13	Pass
159	5795	8.95	13	Pass

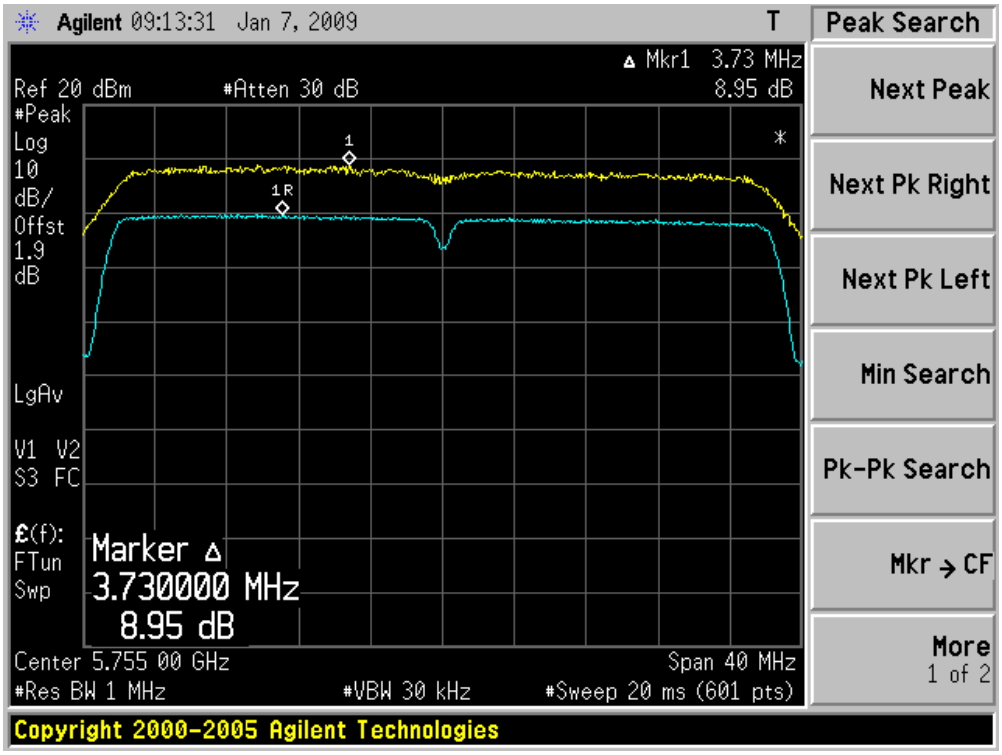
Channel 38 (5190MHz)



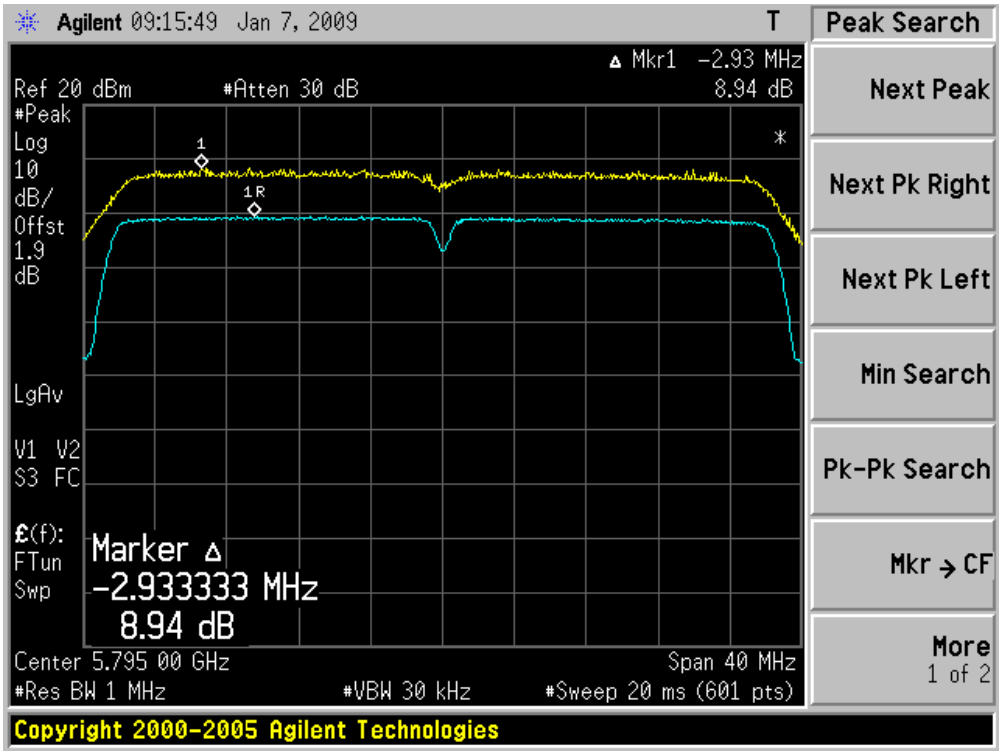
Channel 46 (5230MHz)



Channel 151 (5755MHz)



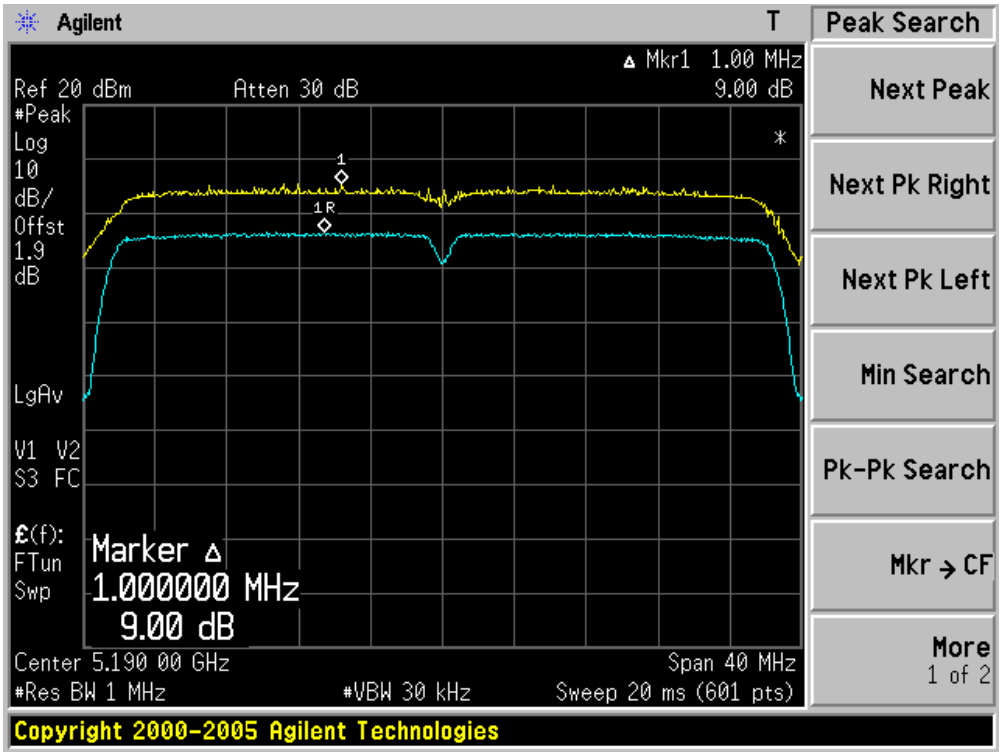
Channel 159 (5795MHz)



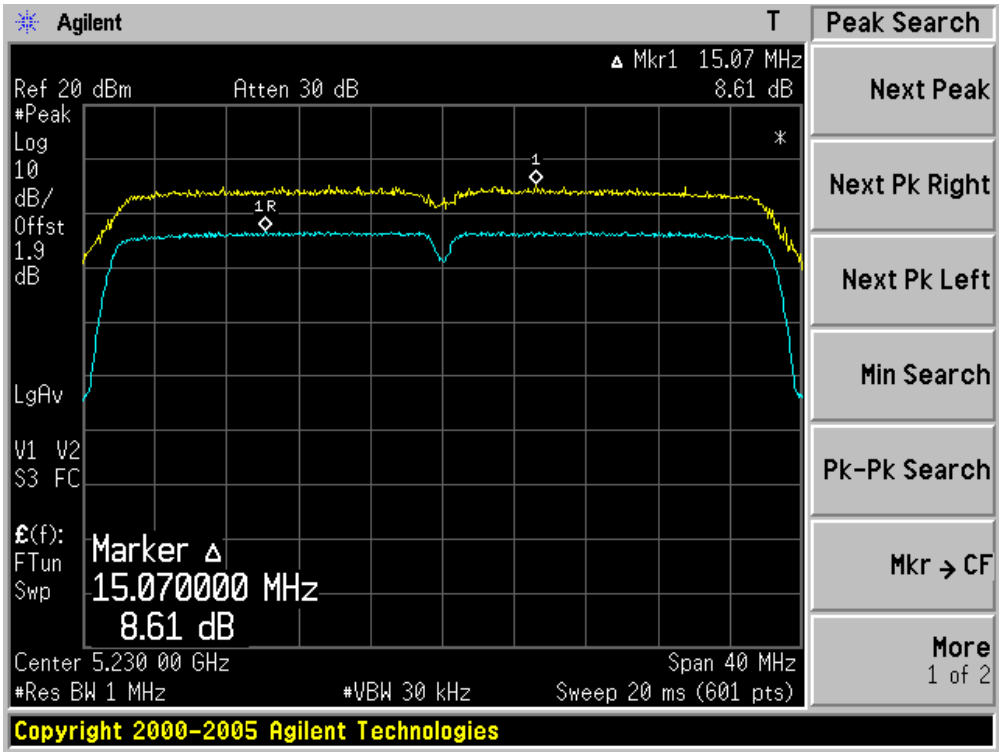
Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Peak Excursion
Test Site	:	AC-4
Test Mode	:	Mode 3: Transmit by 802.11n (40MHz) (Chain 100)

Channel No.	Frequency (MHz)	Peak Excursion (dB)	Limit (dB)	Result
38	5190	9.00	13	Pass
46	5230	8.61	13	Pass
151	5755	9.04	13	Pass
159	5795	9.23	13	Pass

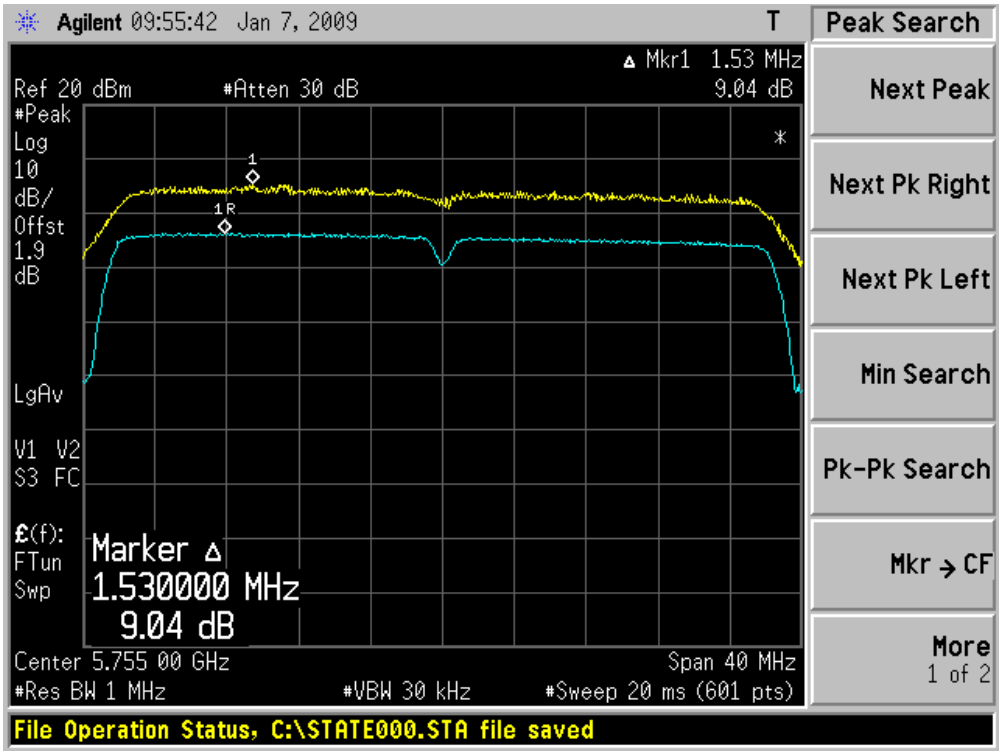
Channel 38 (5190MHz)



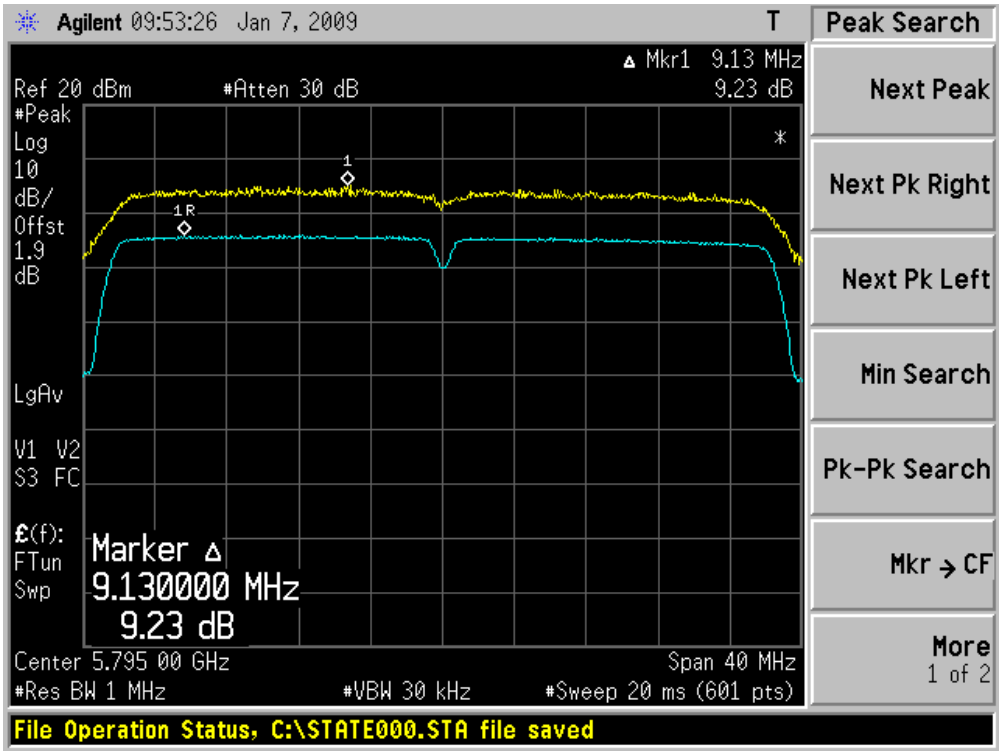
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



9. Radiated Emission Band Edge

9.1. Test Equipment

☒Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Coaxial Cable	Huber+Suhner	AC2-C	04	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH002	2008/03/31

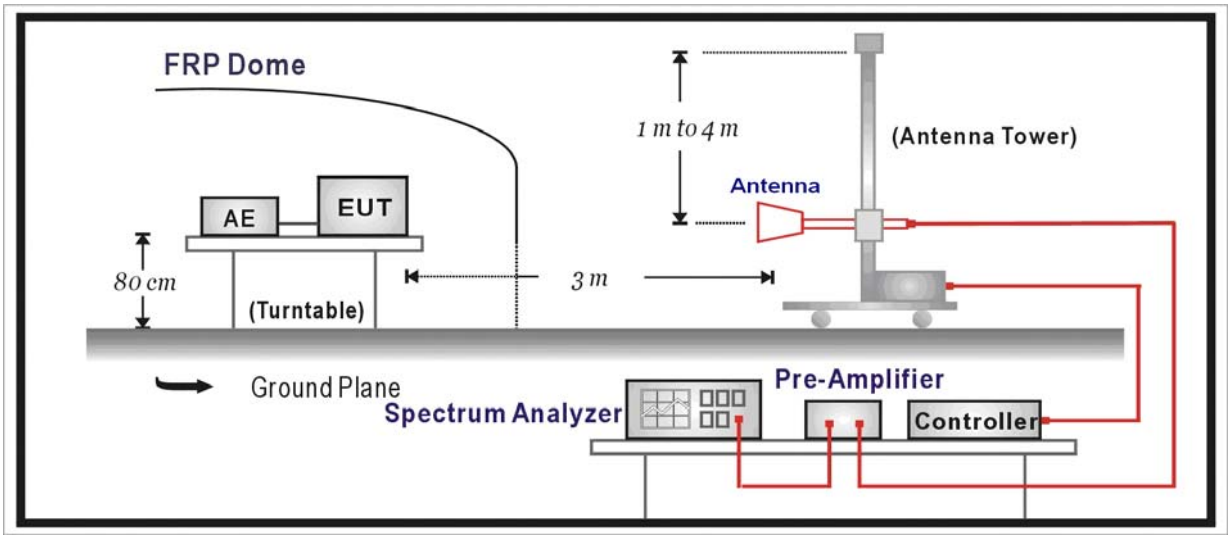
☐Radiated Emission / AC-3

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	496	2008/06/28
Coaxial Cable	Huber+Suhner	AC3-C	05	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH003	2008/03/31

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

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

9.2. Test Setup



9.3. Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

For 15.407(b) requirement:

- For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27dBm/MHz in the 5.15-5.25 GHz band.
- For transmitters operating in the 5.47-5.725 GHz band: all emission outside of the 5.47-5725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- For transmitters operating in the 5.725-5.825 GHz band: all emission within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.

Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBuV/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
5725 - 5825	-27 [Note(1)]	68.3
	-17 [Note(2)]	78.3
Note(1): Outsitde the frequency range 5715 - 5835MHz. Note(2): Within the frequency range from the band edge to 10MHz below or above the band edge, 5715 – 5725MHz and 5825 - 5835MHz.		

9.4. Test Procedure

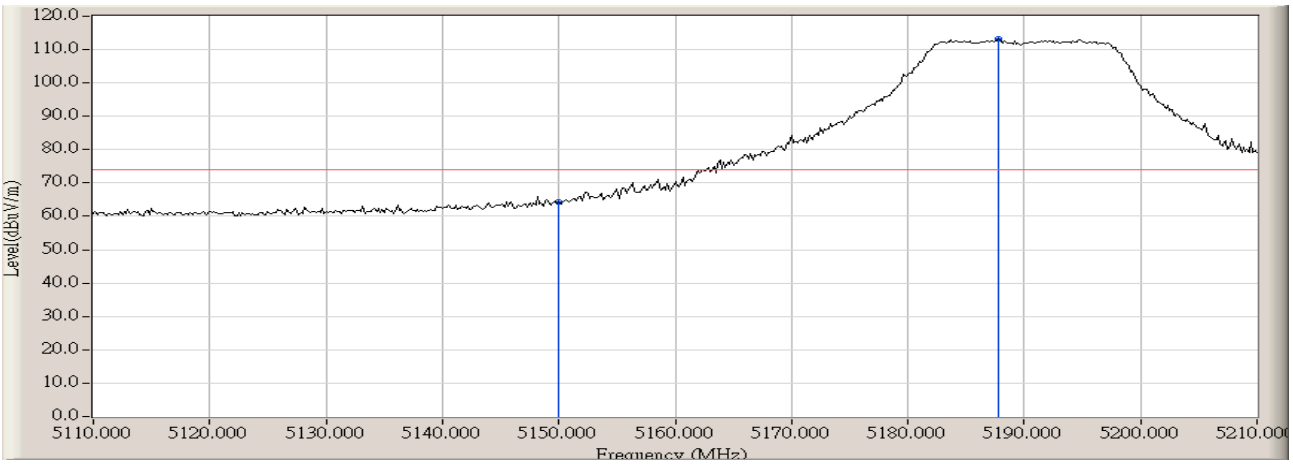
The EUT was tested according to FCC Public Notice DA 02-2138, August 30, 2002 for compliance to FCC 47CFR 15.407 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.
Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna has the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 60 degrees for H-plane and 90 degrees for E-plane.

9.5. Uncertainty

The measurement uncertainty above 1GHz is defined as ± 3.9 dB

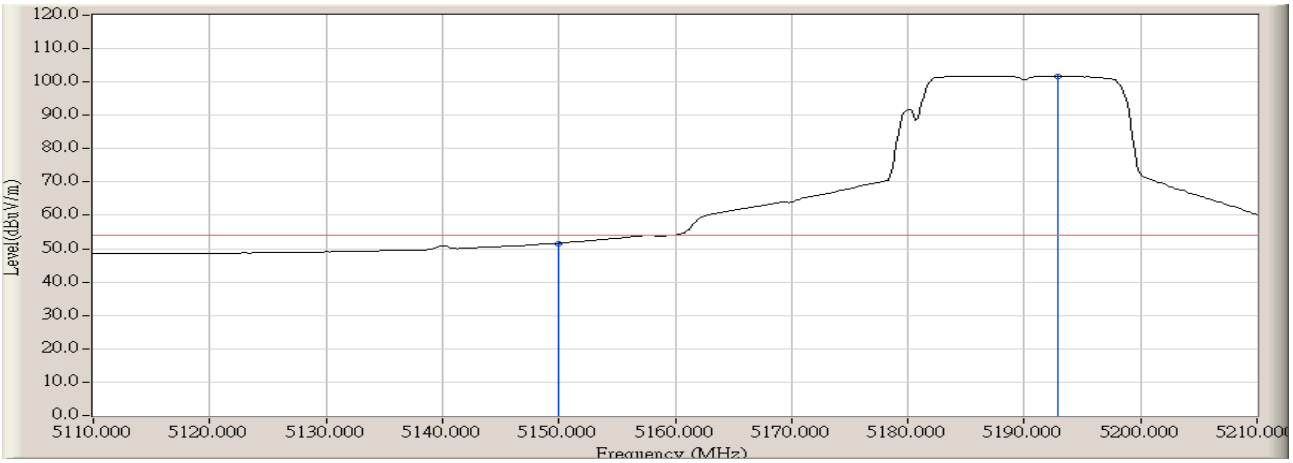
9.6. Test Result

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:58**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



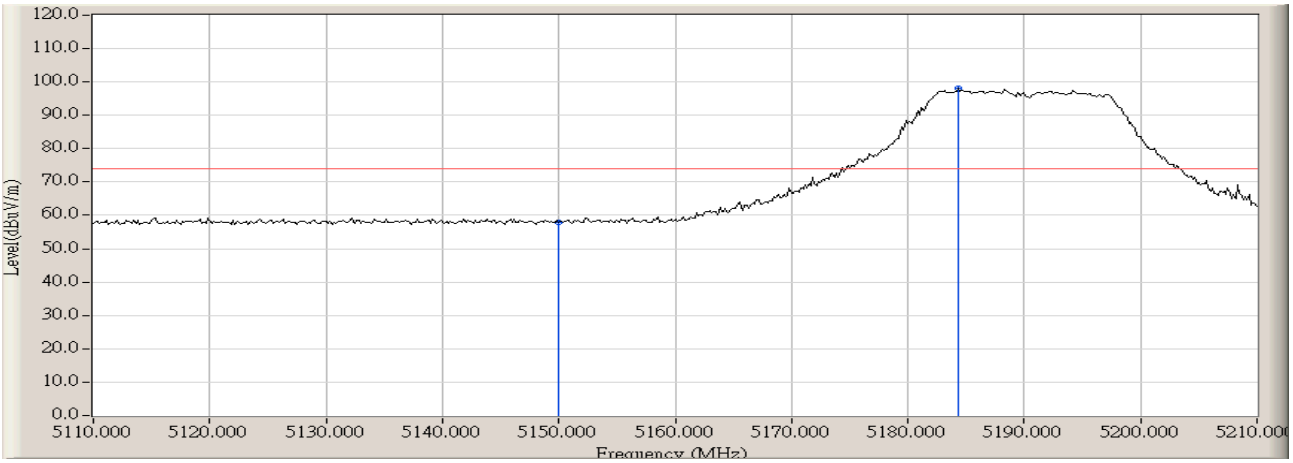
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	60.456	64.434	-9.536	73.970	PEAK
2	*	5187.833	4.137	108.961	113.098	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:58**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



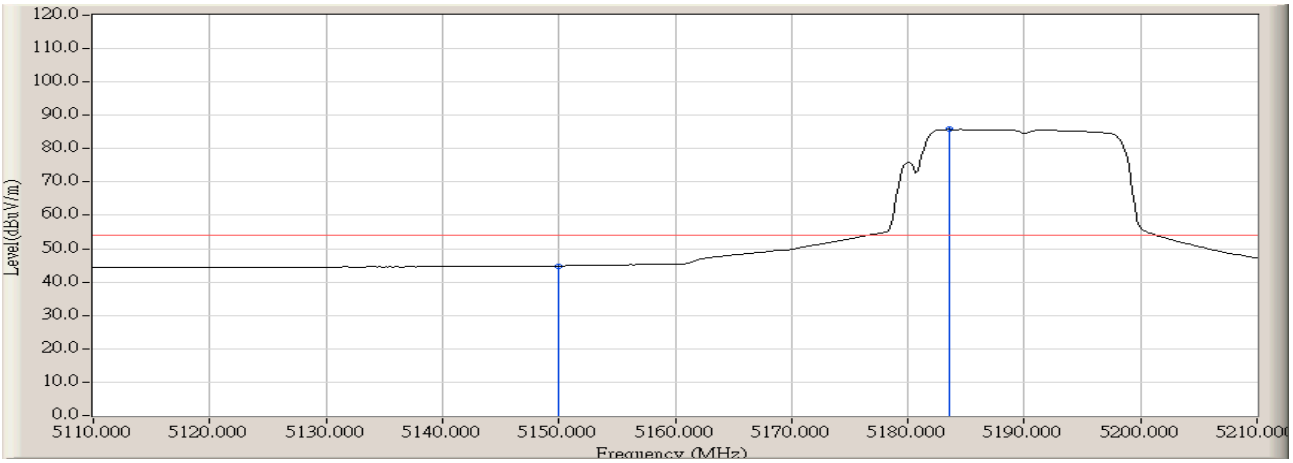
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	47.647	51.625	-2.345	53.970	AVERAGE
2	*	5192.833	4.160	97.607	101.768	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 11:02**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



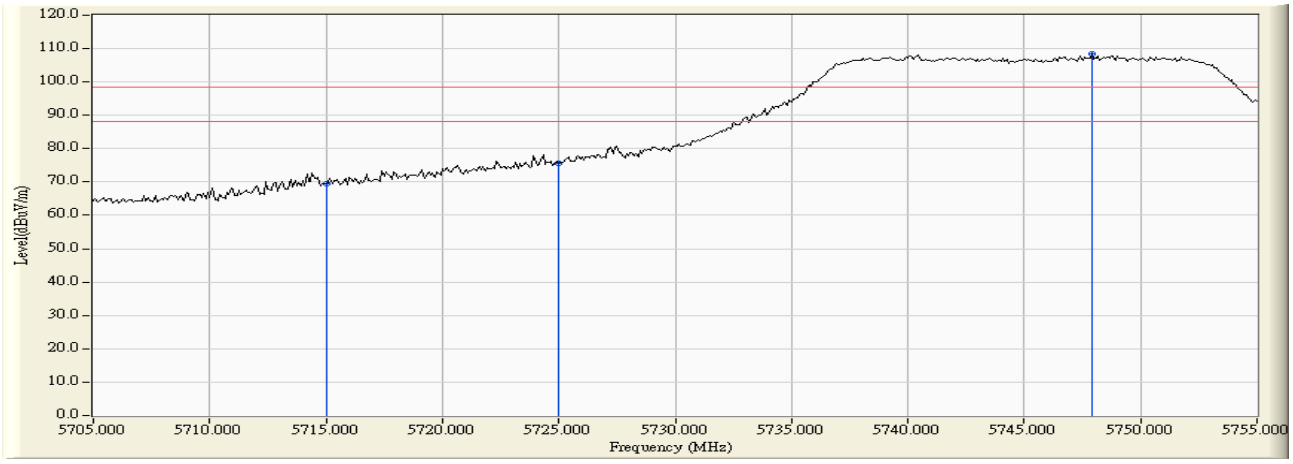
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	54.067	58.045	-15.925	73.970	PEAK
2	*	5184.333	4.120	93.898	98.019	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 11:03**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



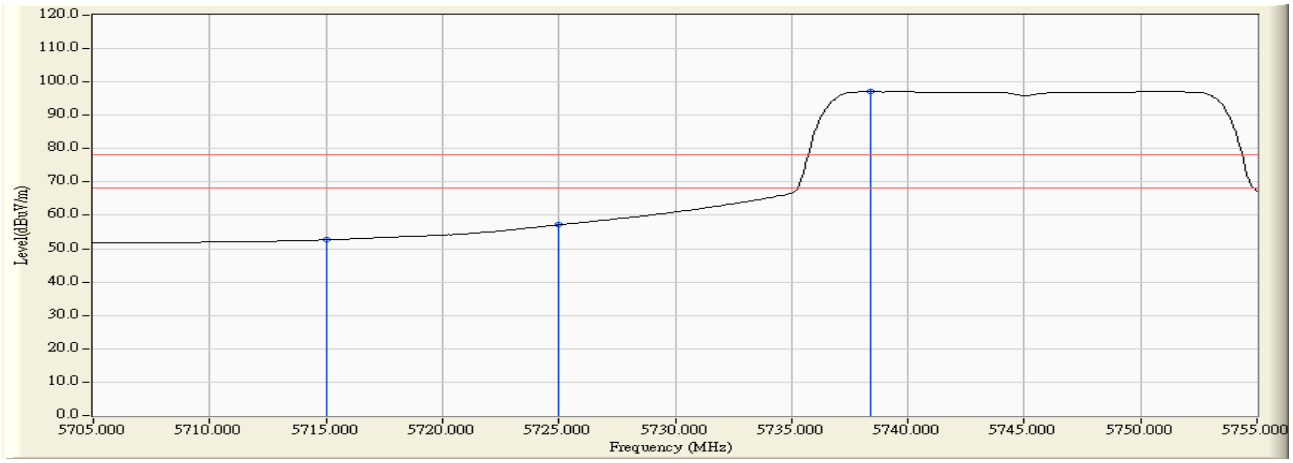
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	40.835	44.813	-9.157	53.970	AVERAGE
2	*	5183.500	4.118	81.646	85.763	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:39**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



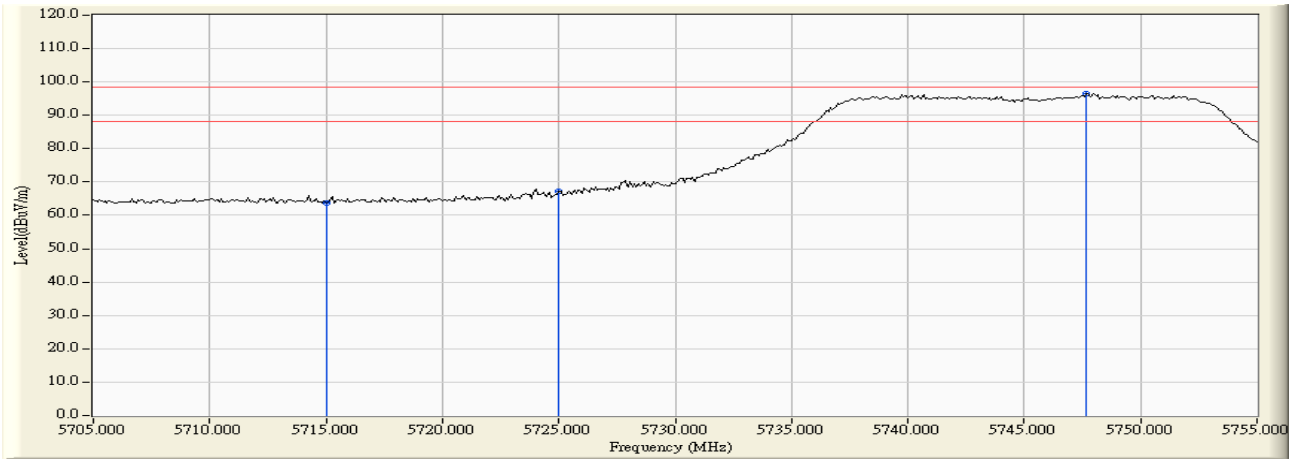
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	31.757	69.358	-18.942	88.300	PEAK
2		5725.000	37.618	37.932	75.550	-12.750	98.300	PEAK
3	*	5747.917	37.675	70.819	108.493	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:39**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



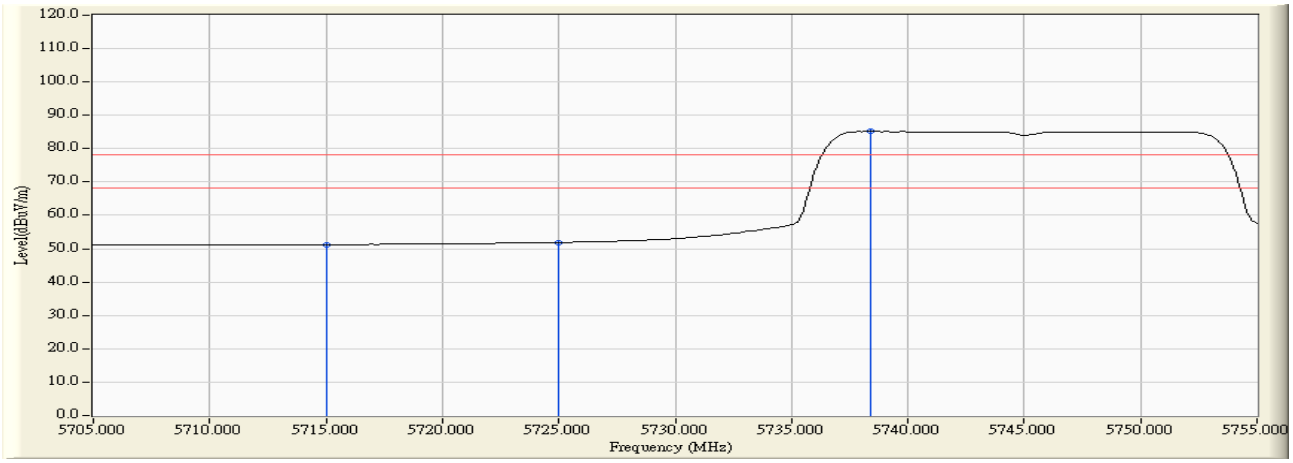
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	15.099	52.700	-15.600	68.300	AVERAGE
2		5725.000	37.618	19.545	57.163	-11.137	78.300	AVERAGE
3	*	5738.417	37.649	59.463	97.112	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:47**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



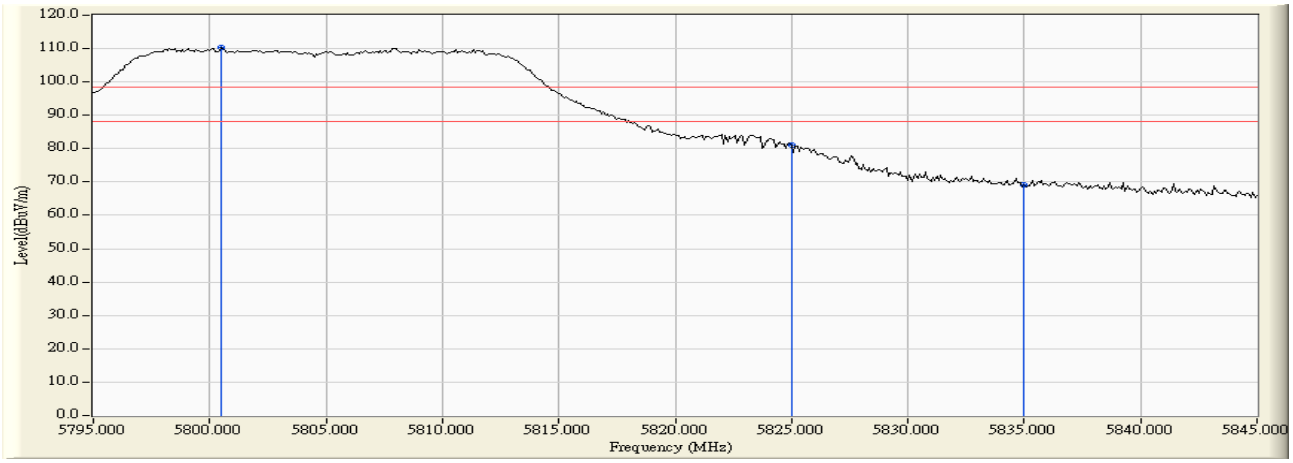
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	26.224	63.825	-24.475	88.300	PEAK
2		5725.000	37.618	29.655	67.273	-21.027	98.300	PEAK
3	*	5747.667	37.674	58.853	96.527	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:47**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



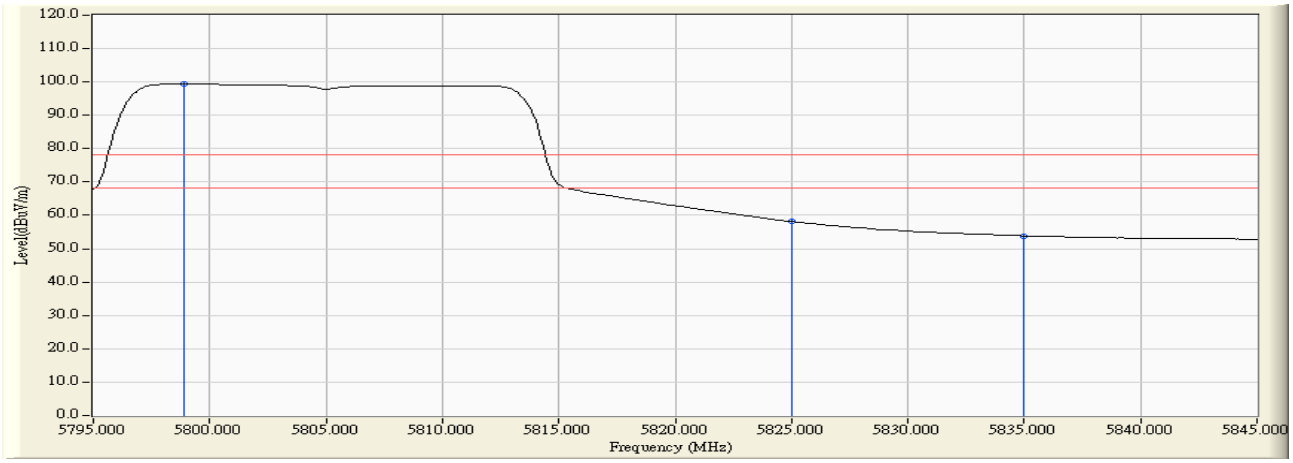
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	13.678	51.279	-17.021	68.300	AVERAGE
2		5725.000	37.618	14.280	51.898	-16.402	78.300	AVERAGE
3	*	5738.417	37.649	47.563	85.212	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:51**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



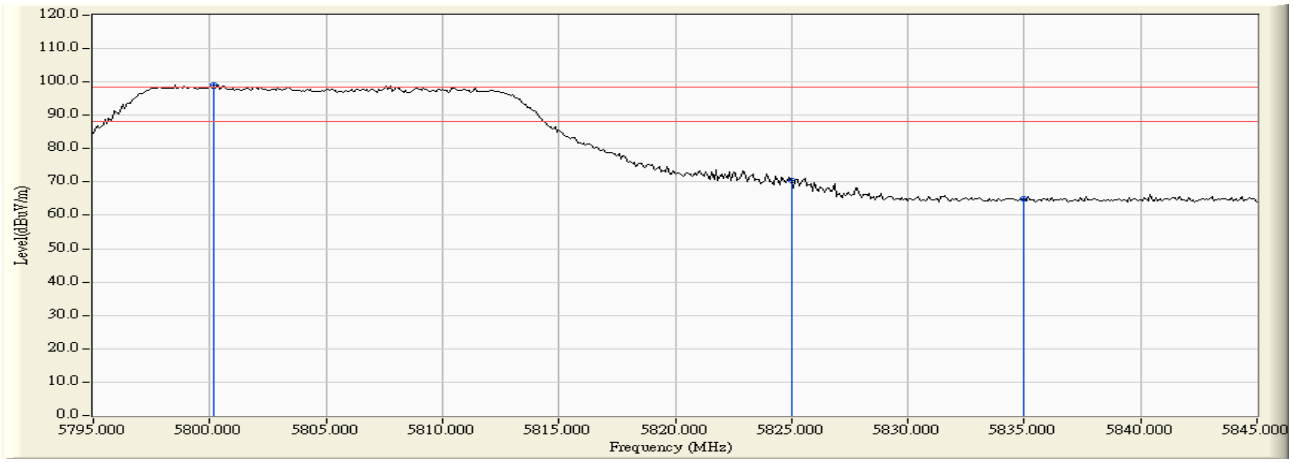
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5800.500	37.795	72.413	110.208	N/A	N/A	PEAK
2		5825.000	37.853	43.317	81.170	-7.130	98.300	PEAK
3		5835.000	37.876	31.203	69.079	-19.221	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:52**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



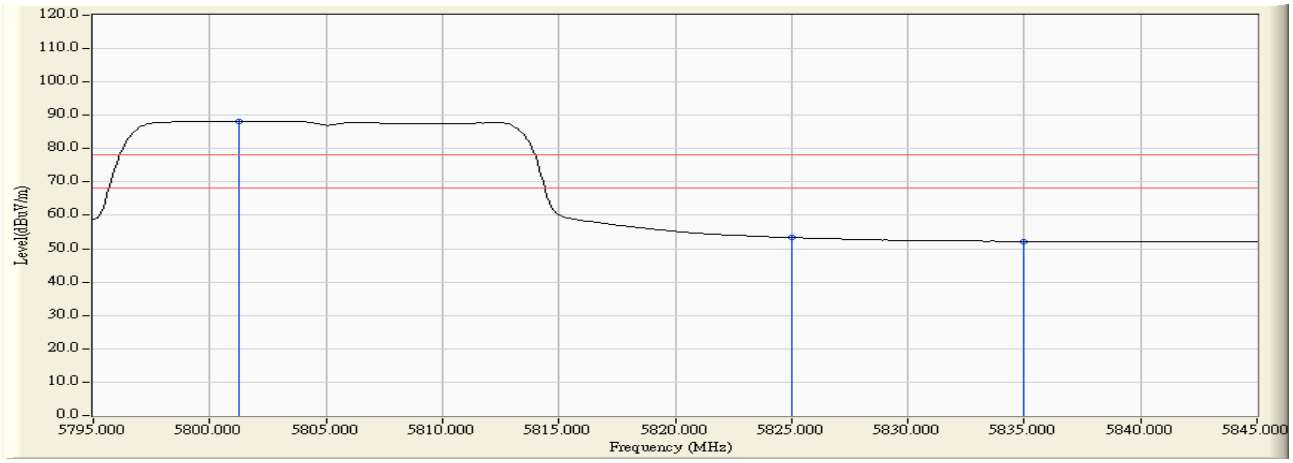
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.917	37.792	61.594	99.386	N/A	N/A	AVERAGE
2		5825.000	37.853	20.259	58.112	-10.188	78.300	AVERAGE
3		5835.000	37.876	15.983	53.859	-14.441	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:54**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



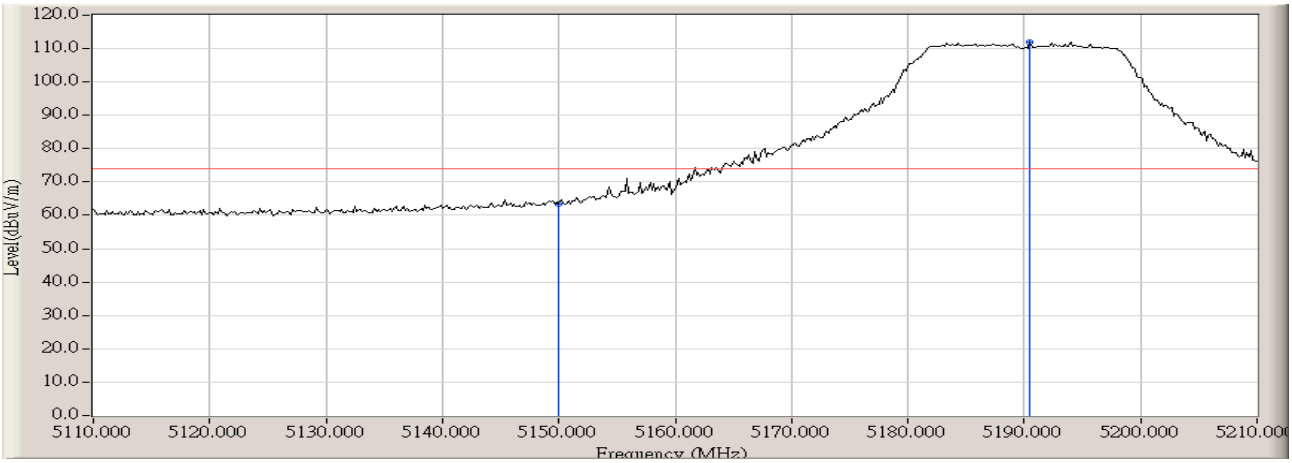
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5800.167	37.795	61.240	99.035	N/A	N/A	PEAK
2		5825.000	37.853	32.505	70.358	-17.942	98.300	PEAK
3		5835.000	37.876	27.231	65.107	-23.193	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:54**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



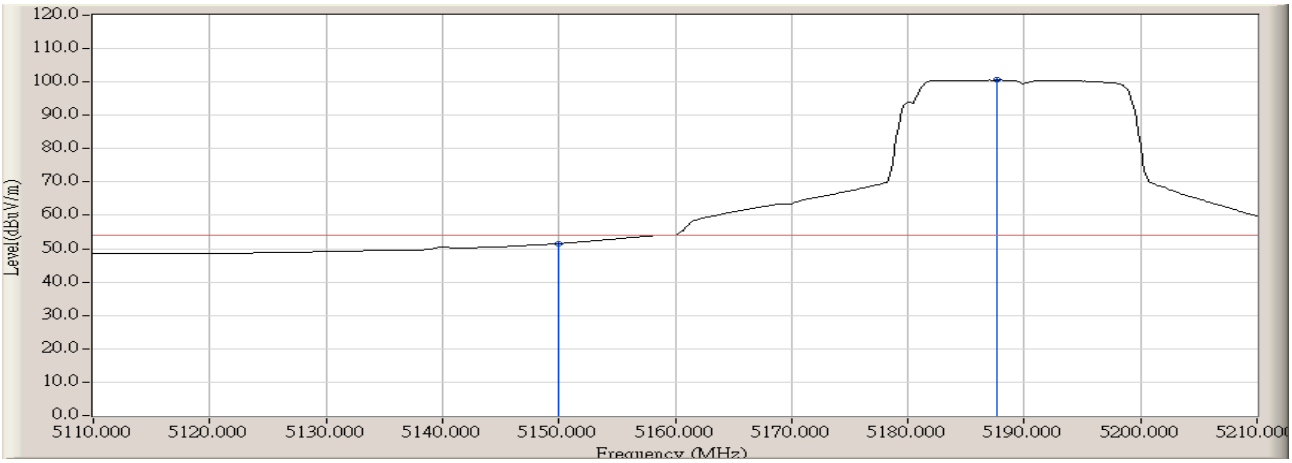
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5801.250	37.797	50.401	88.198	N/A	N/A	AVERAGE
2		5825.000	37.853	15.510	53.363	-14.937	78.300	AVERAGE
3		5835.000	37.876	14.355	52.231	-16.069	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:49**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



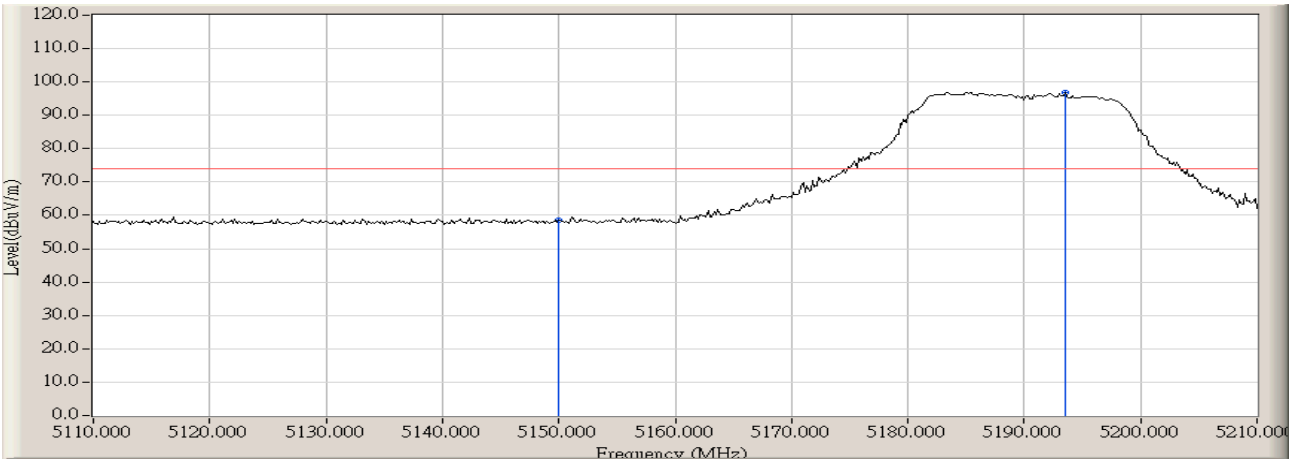
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	59.256	63.234	-10.736	73.970	PEAK
2	*	5190.500	4.150	107.834	111.984	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:48**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



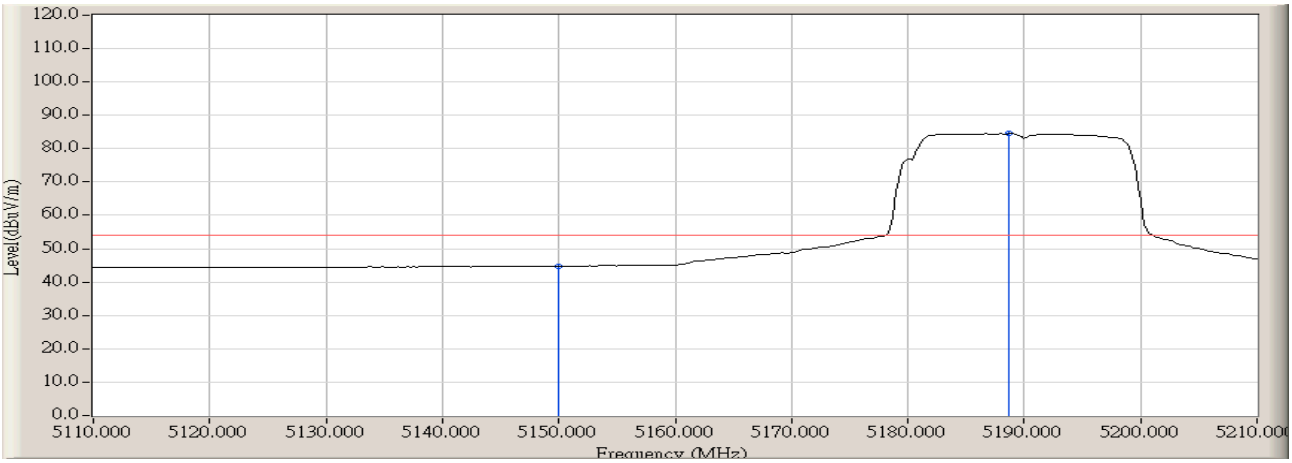
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	47.506	51.484	-2.486	53.970	AVERAGE
2	*	5187.667	4.136	96.435	100.572	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:52**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



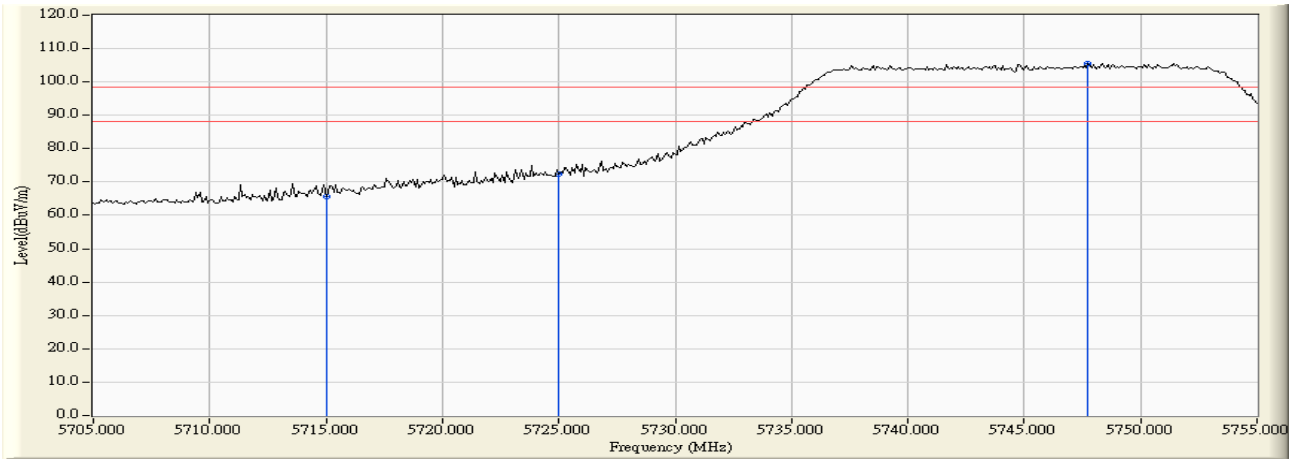
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	54.639	58.617	-15.353	73.970	PEAK
2	*	5193.500	4.164	92.765	96.929	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 10:52**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



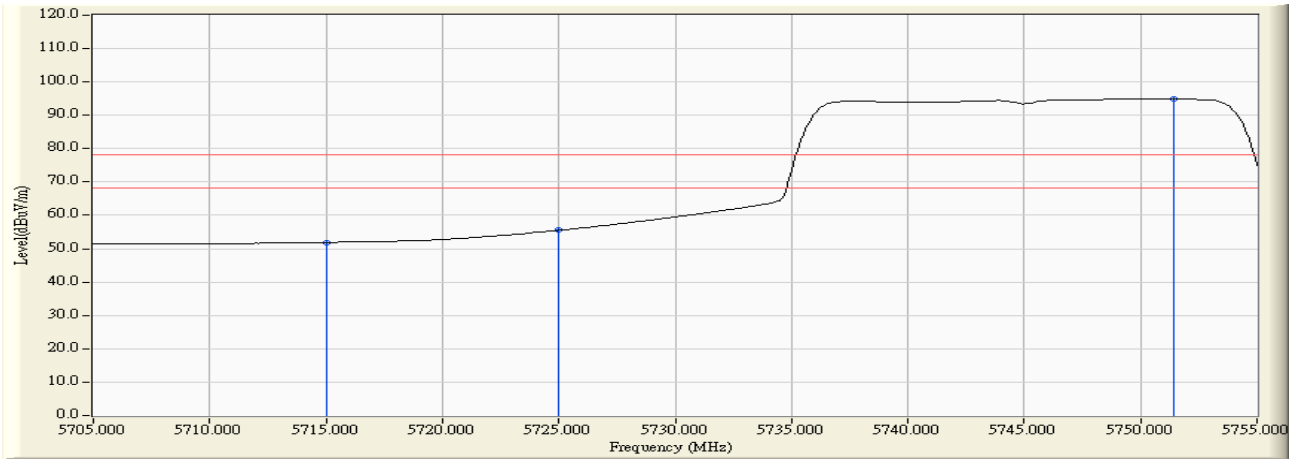
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	40.795	44.773	-9.197	53.970	AVERAGE
2	*	5188.667	4.142	80.375	84.516	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:05**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



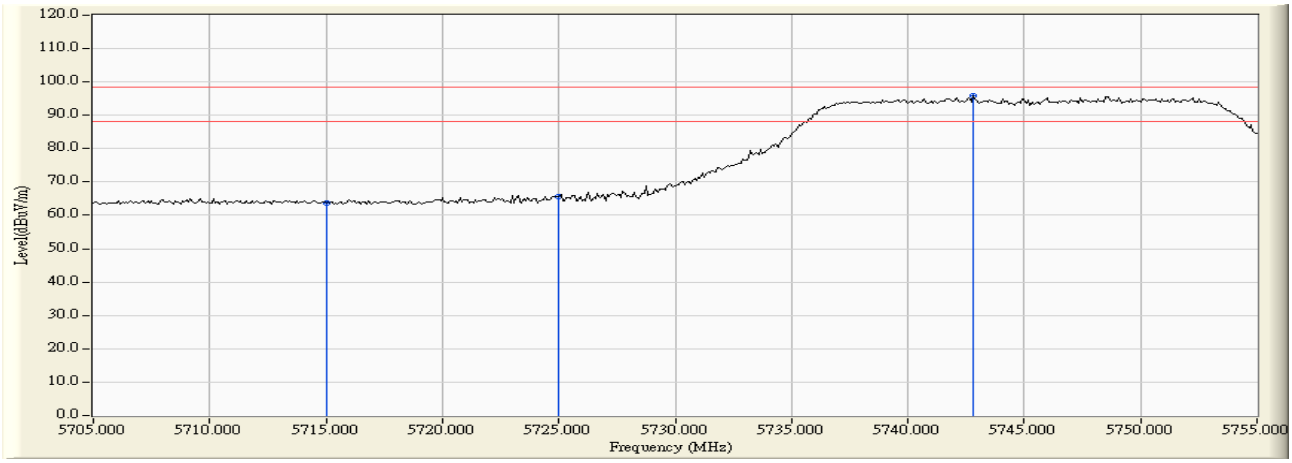
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	28.008	65.609	-22.691	88.300	PEAK
2		5725.000	37.618	34.819	72.437	-15.863	98.300	PEAK
3	*	5747.750	37.674	67.896	105.570	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:05**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



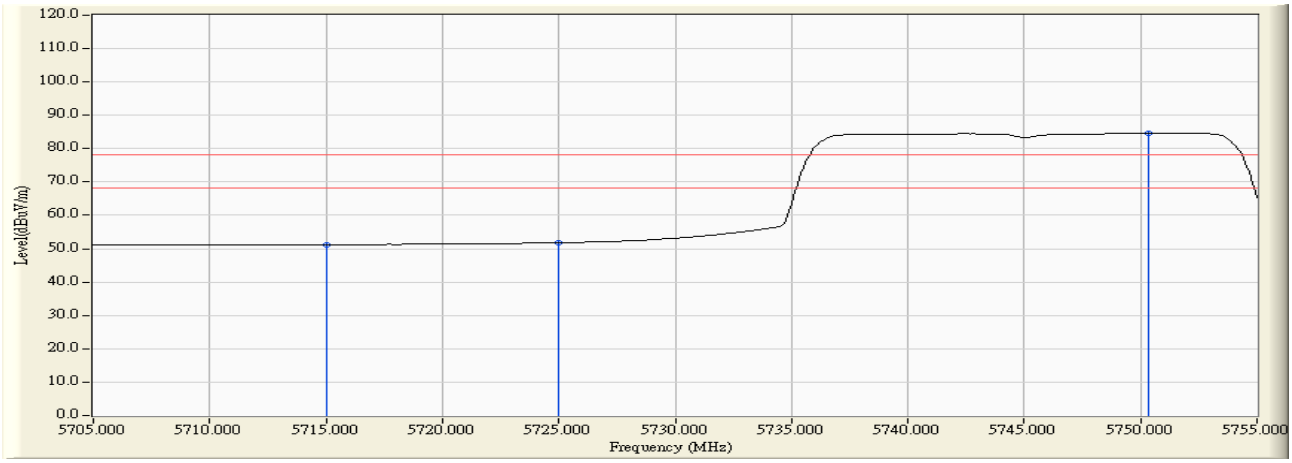
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	14.282	51.883	-16.417	68.300	AVERAGE
2		5725.000	37.618	17.955	55.573	-12.727	78.300	AVERAGE
3	*	5751.417	37.685	57.226	94.911	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:08**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



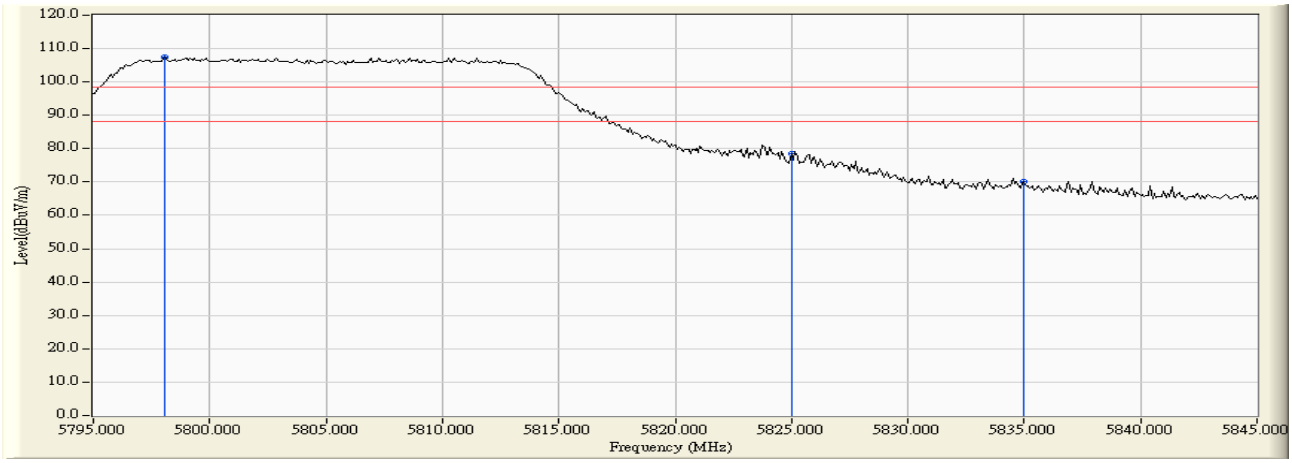
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	26.169	63.770	-24.530	88.300	PEAK
2		5725.000	37.618	28.033	65.651	-22.649	98.300	PEAK
3	*	5742.833	37.660	58.117	95.777	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:08**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



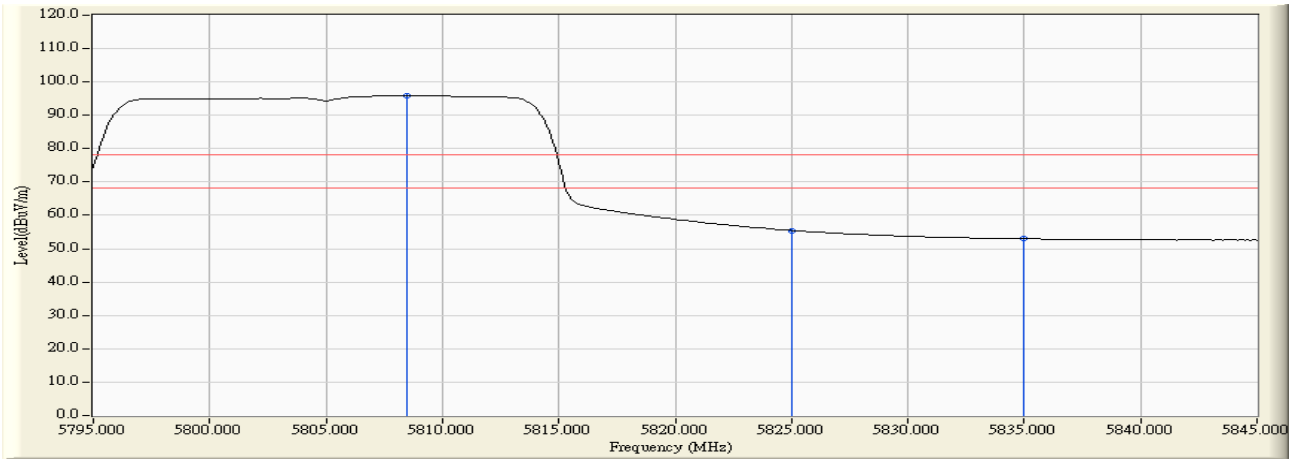
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	13.673	51.274	-17.026	68.300	AVERAGE
2		5725.000	37.618	14.186	51.804	-16.496	78.300	AVERAGE
3	*	5750.333	37.681	47.000	84.682	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:01**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



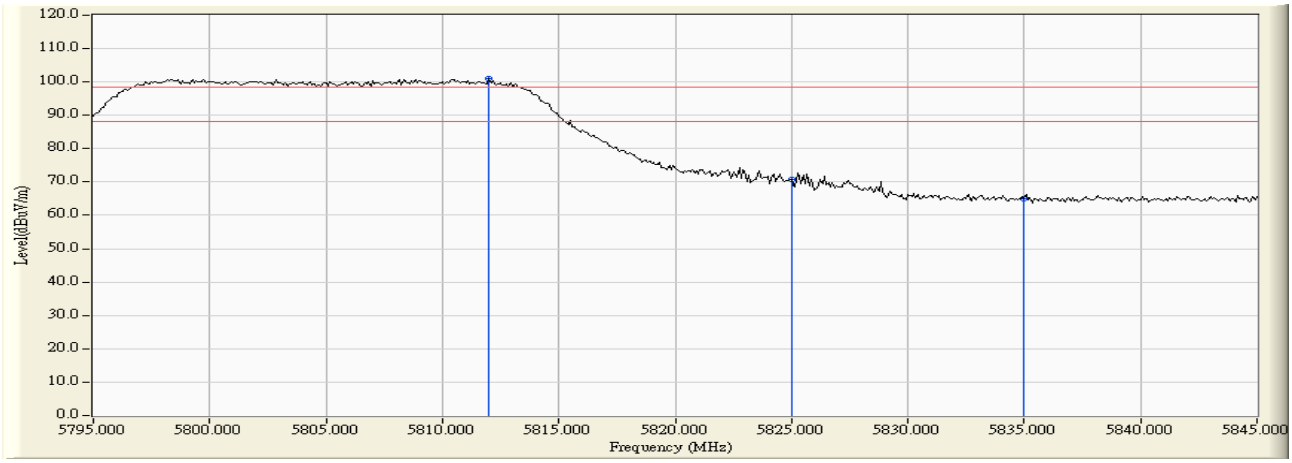
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.083	37.789	69.652	107.442	N/A	N/A	PEAK
2		5825.000	37.853	40.645	78.498	-9.802	98.300	PEAK
3		5835.000	37.876	32.279	70.155	-18.145	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:01**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



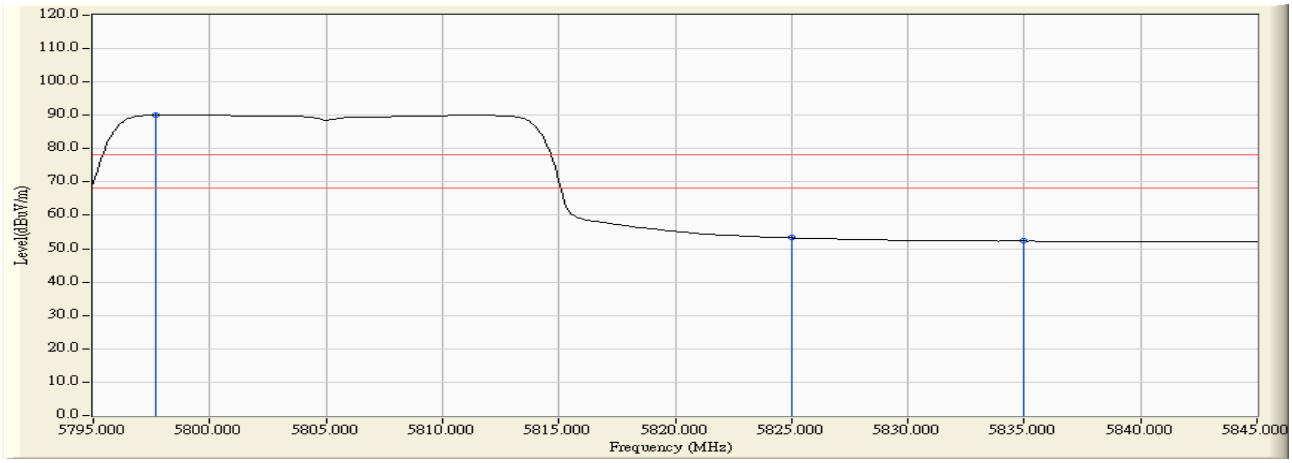
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5808.500	37.815	58.054	95.868	N/A	N/A	AVERAGE
2		5825.000	37.853	17.630	55.483	-12.817	78.300	AVERAGE
3		5835.000	37.876	15.143	53.019	-15.281	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:58**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



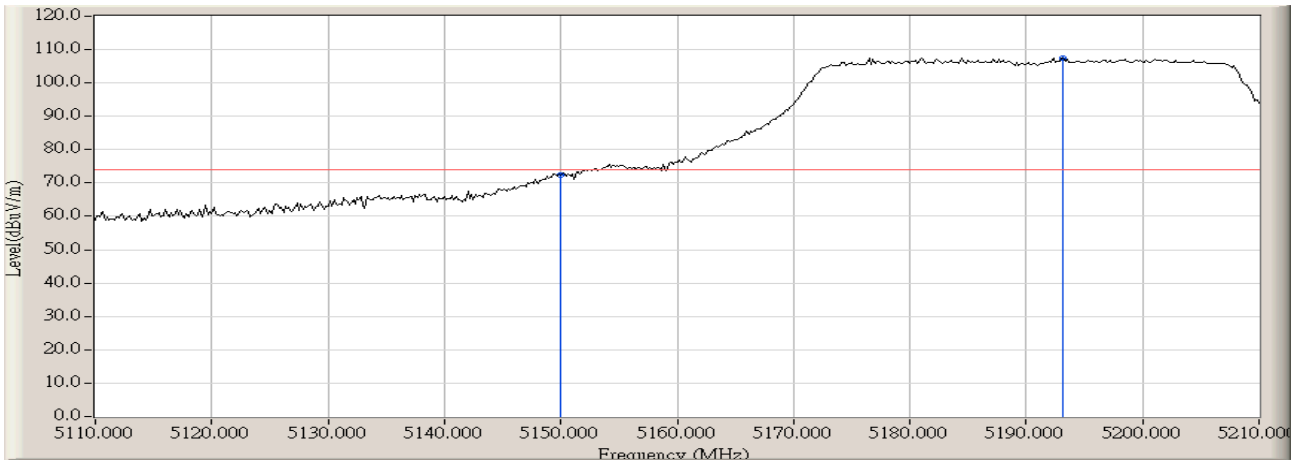
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5812.000	37.823	63.269	101.091	N/A	N/A	PEAK
2		5825.000	37.853	32.885	70.738	-17.562	98.300	PEAK
3		5835.000	37.876	27.218	65.094	-23.206	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 19:58**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



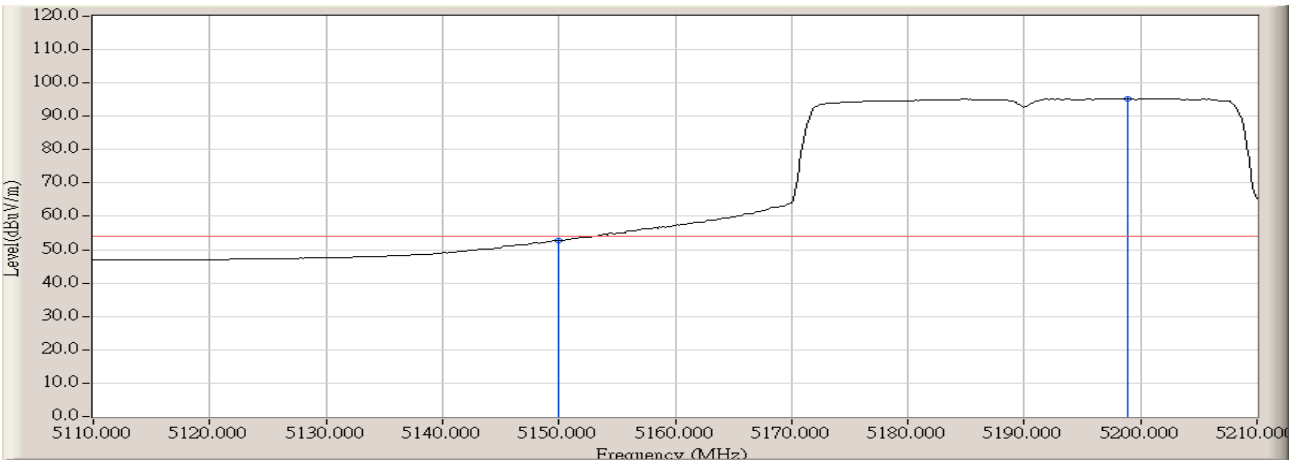
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5797.667	37.788	52.412	90.201	N/A	N/A	AVERAGE
2		5825.000	37.853	15.393	53.246	-15.054	78.300	AVERAGE
3		5835.000	37.876	14.419	52.295	-16.005	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 09:46**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



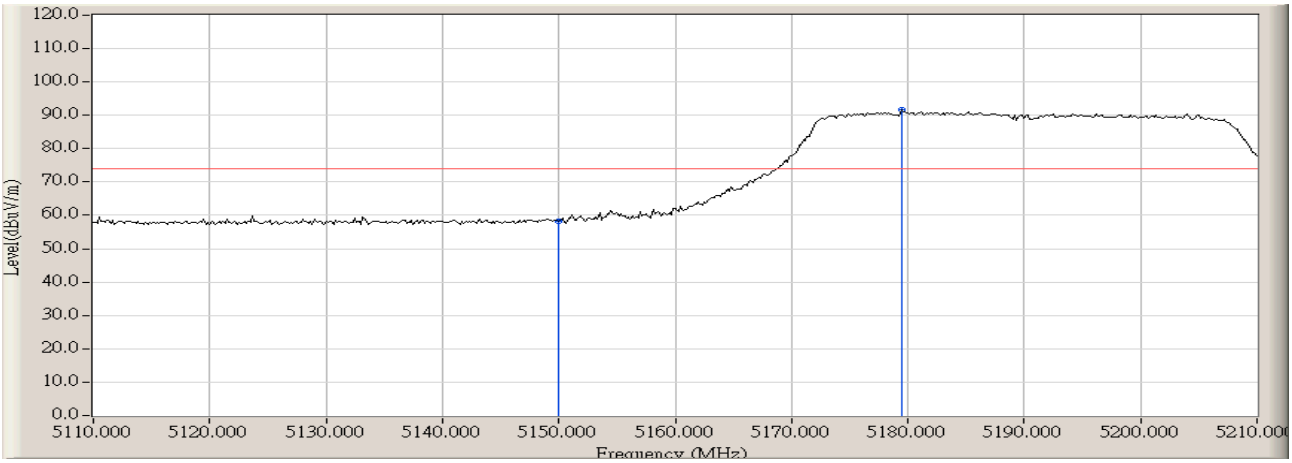
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	68.307	72.285	-1.685	73.970	PEAK
2	*	5193.167	4.163	103.400	107.563	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 09:46**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



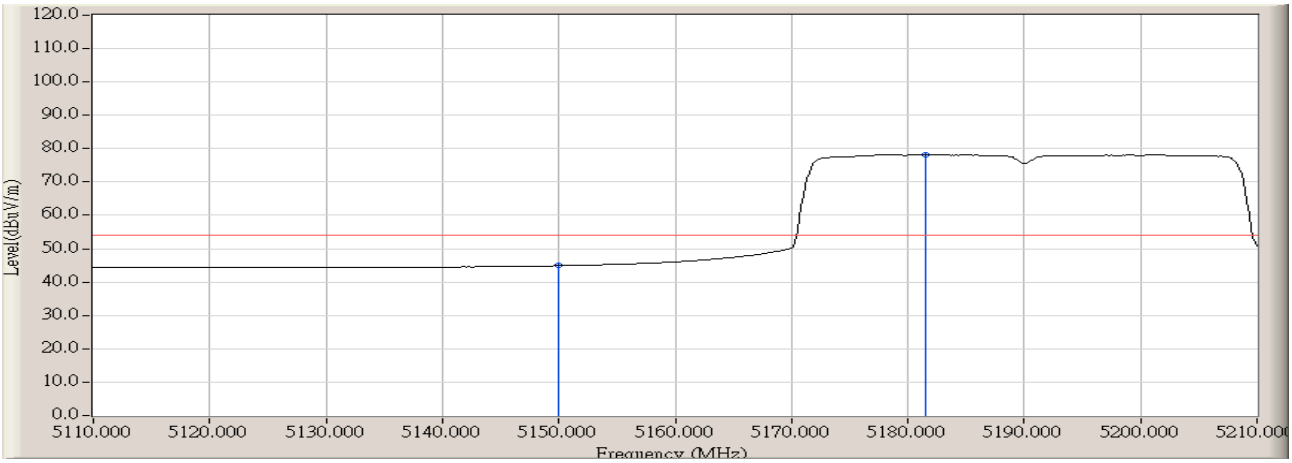
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	48.678	52.656	-1.314	53.970	AVERAGE
2	*	5198.833	4.190	91.195	95.384	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 09:51**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



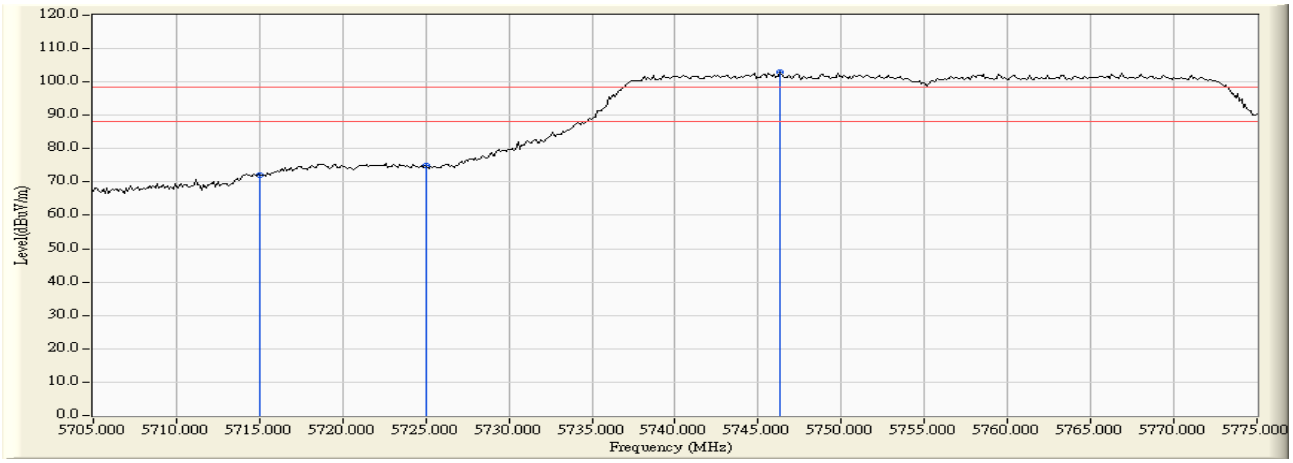
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	54.384	58.362	-15.608	73.970	PEAK
2	*	5179.500	4.101	87.511	91.611	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 09:51**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



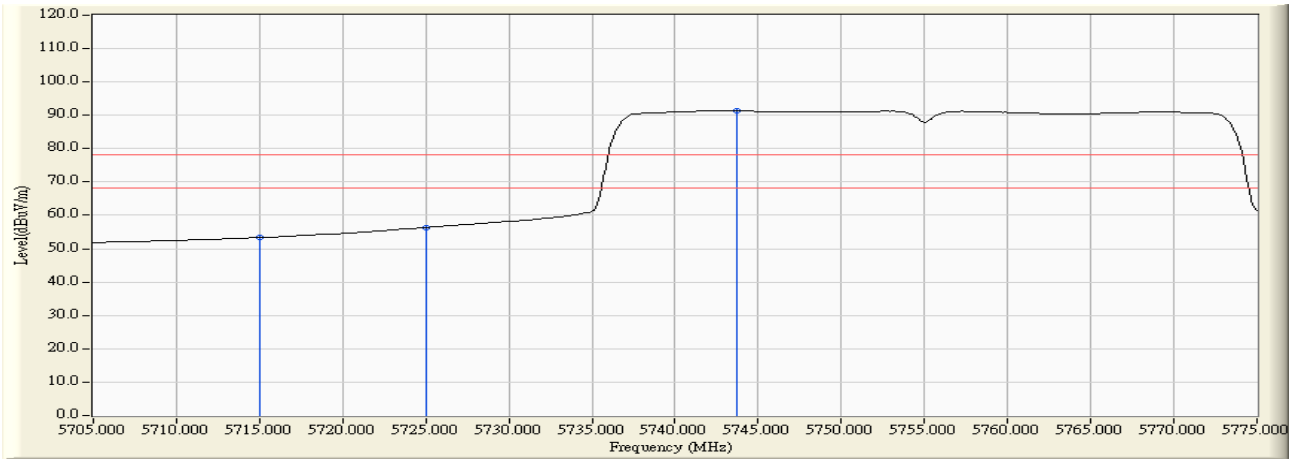
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	40.949	44.927	-9.043	53.970	AVERAGE
2	*	5181.500	4.108	74.138	78.246	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:16**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



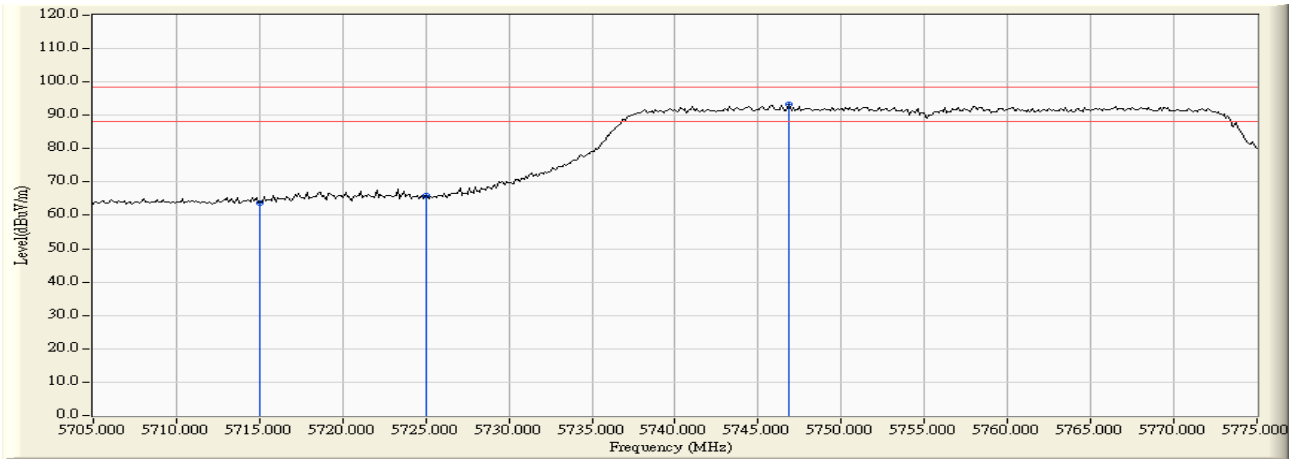
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	34.612	72.213	-16.087	88.300	PEAK
2		5725.000	37.618	37.225	74.843	-13.457	98.300	PEAK
3	*	5746.300	37.670	65.259	102.929	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:17**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



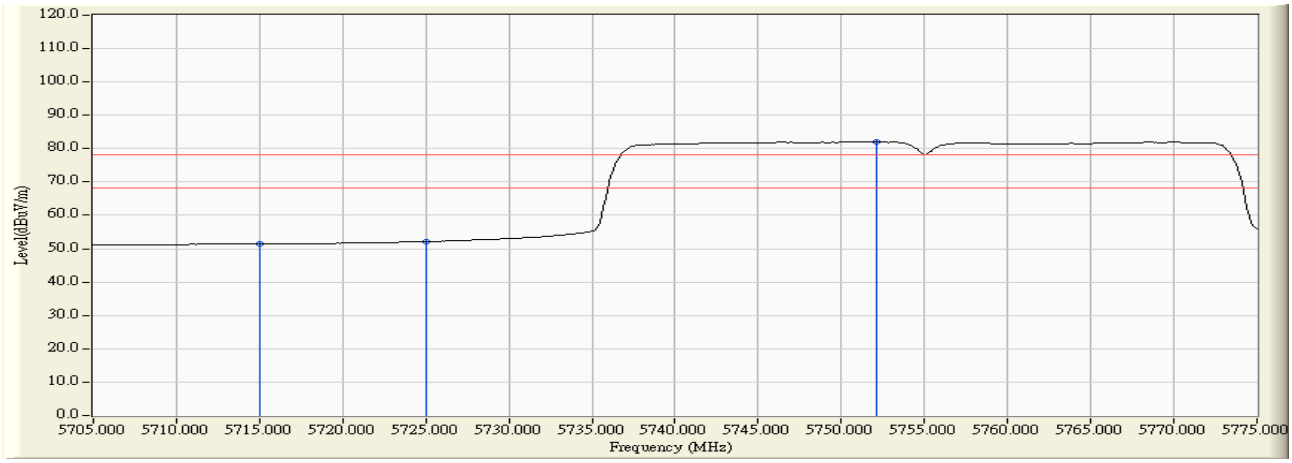
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	15.746	53.347	-14.953	68.300	AVERAGE
2		5725.000	37.618	18.735	56.353	-11.947	78.300	AVERAGE
3	*	5743.733	37.662	53.790	91.452	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:13**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



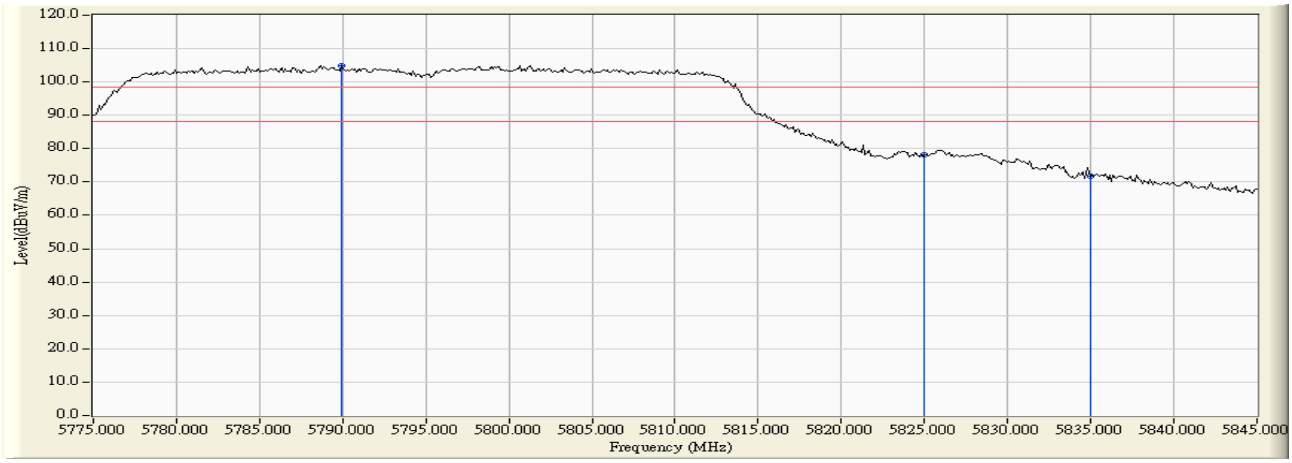
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	26.196	63.797	-24.503	88.300	PEAK
2		5725.000	37.618	28.264	65.882	-22.418	98.300	PEAK
3	*	5746.883	37.671	55.773	93.444	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:14**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



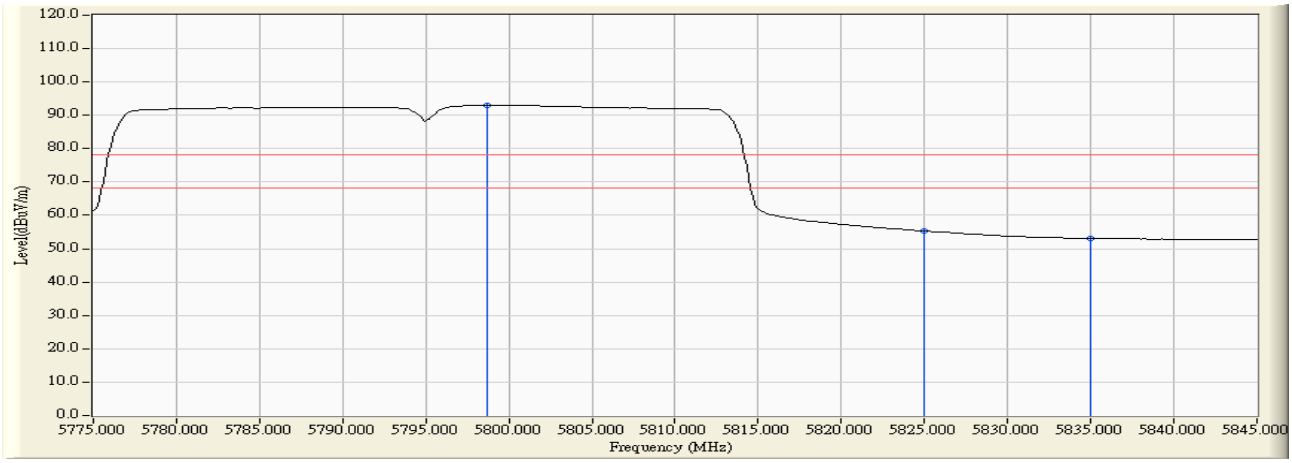
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	13.837	51.438	-16.862	68.300	AVERAGE
2		5725.000	37.618	14.540	52.158	-16.142	78.300	AVERAGE
3	*	5752.133	37.686	44.300	81.987	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:21**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



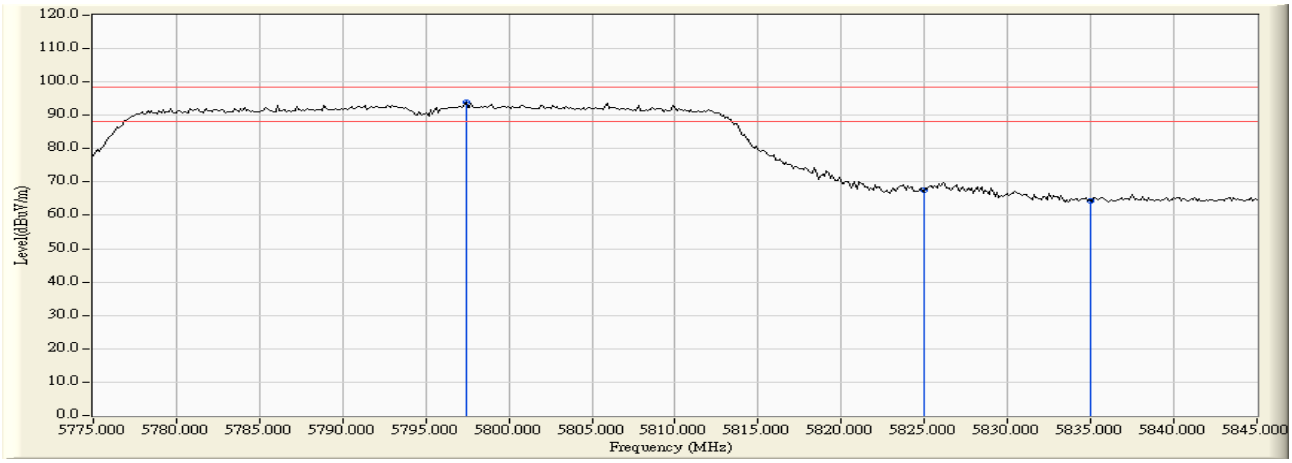
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5789.933	37.773	67.141	104.914	N/A	N/A	PEAK
2		5825.000	37.853	40.179	78.032	-10.268	98.300	PEAK
3		5835.000	37.876	33.800	71.676	-16.624	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:22**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



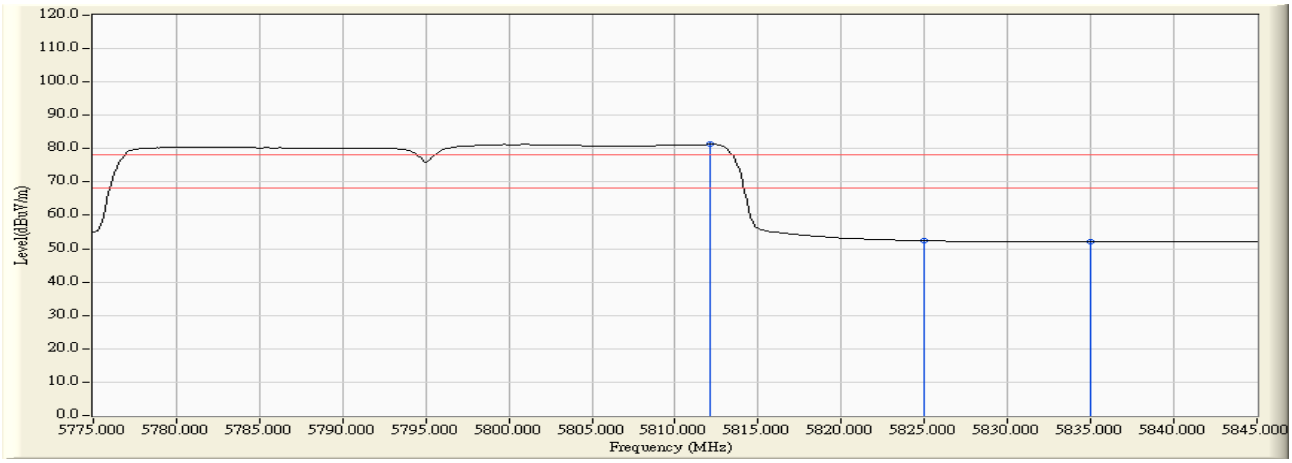
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.683	37.791	55.207	92.998	N/A	N/A	AVERAGE
2		5825.000	37.853	17.434	55.287	-13.013	78.300	AVERAGE
3		5835.000	37.876	15.200	53.076	-15.224	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:24**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



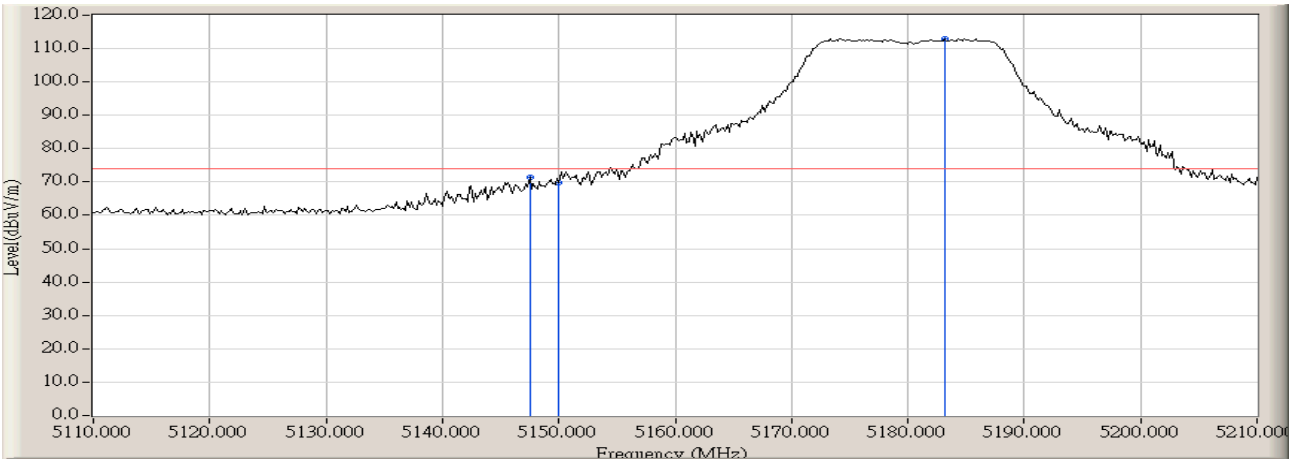
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5797.400	37.788	56.156	93.944	N/A	N/A	PEAK
2		5825.000	37.853	29.689	67.542	-20.758	98.300	PEAK
3		5835.000	37.876	26.579	64.455	-23.845	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:24**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



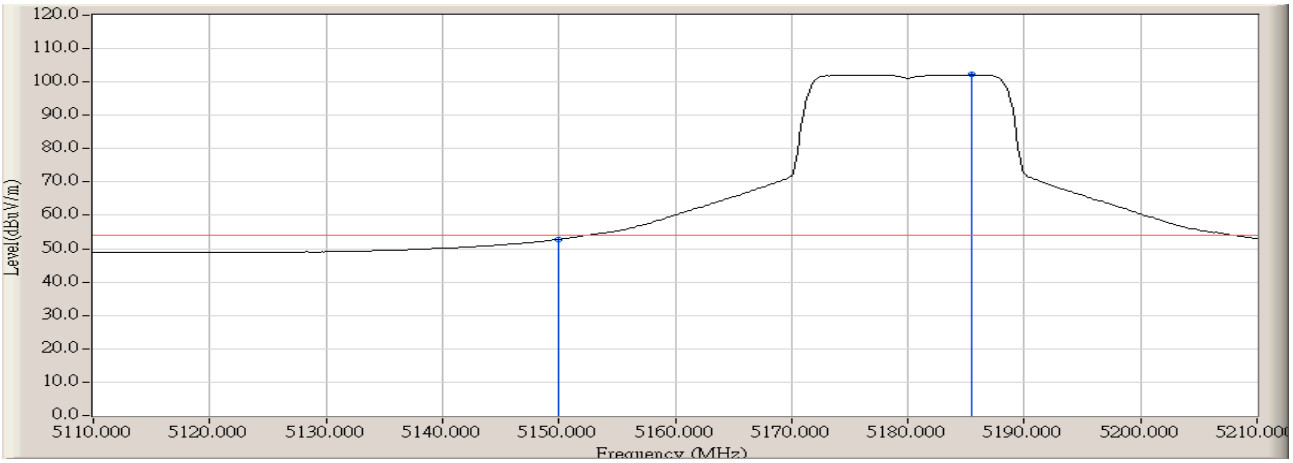
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5812.100	37.823	43.472	81.295	N/A	N/A	AVERAGE
2		5825.000	37.853	14.533	52.386	-15.914	78.300	AVERAGE
3		5835.000	37.876	14.215	52.091	-16.209	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 21:21**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



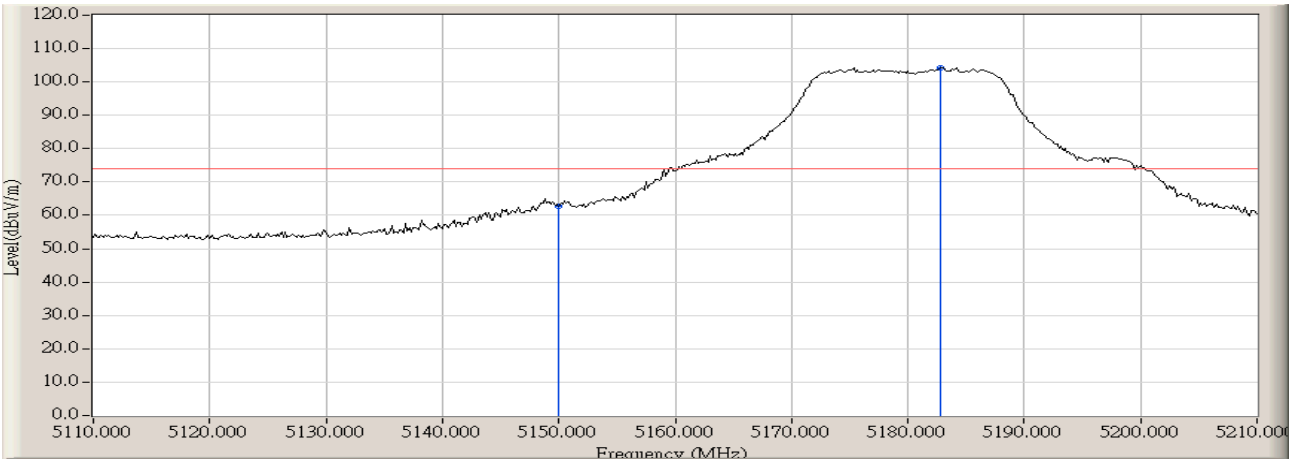
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5147.500	3.970	67.506	71.476	-2.494	73.970	PEAK
2		5150.000	3.979	65.838	69.816	-4.154	73.970	PEAK
3	*	5183.167	4.116	108.854	112.969	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 21:20**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



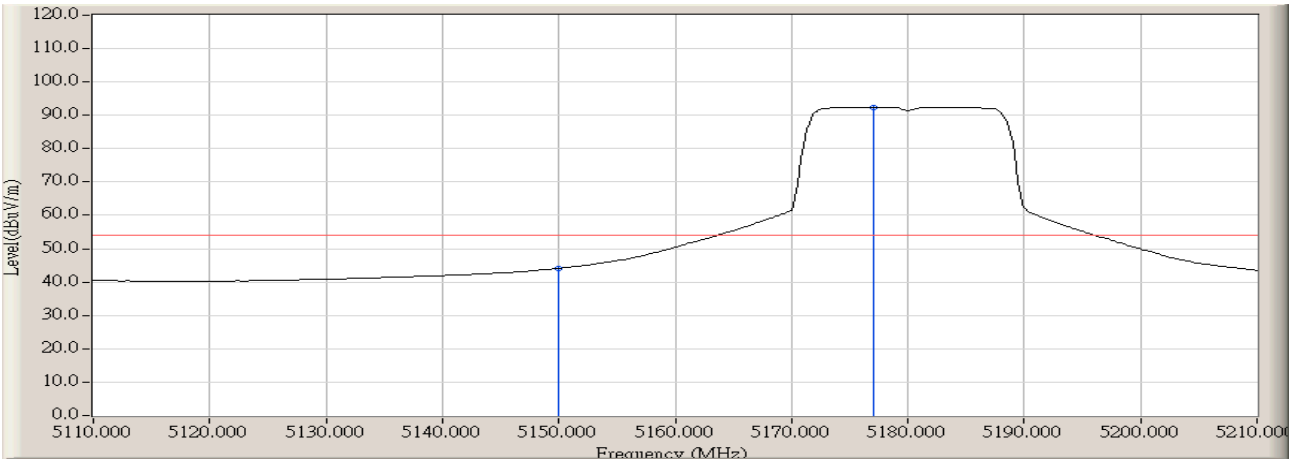
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	48.838	52.816	-1.154	53.970	AVERAGE
2	*	5185.500	4.126	98.043	102.169	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 21:24**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



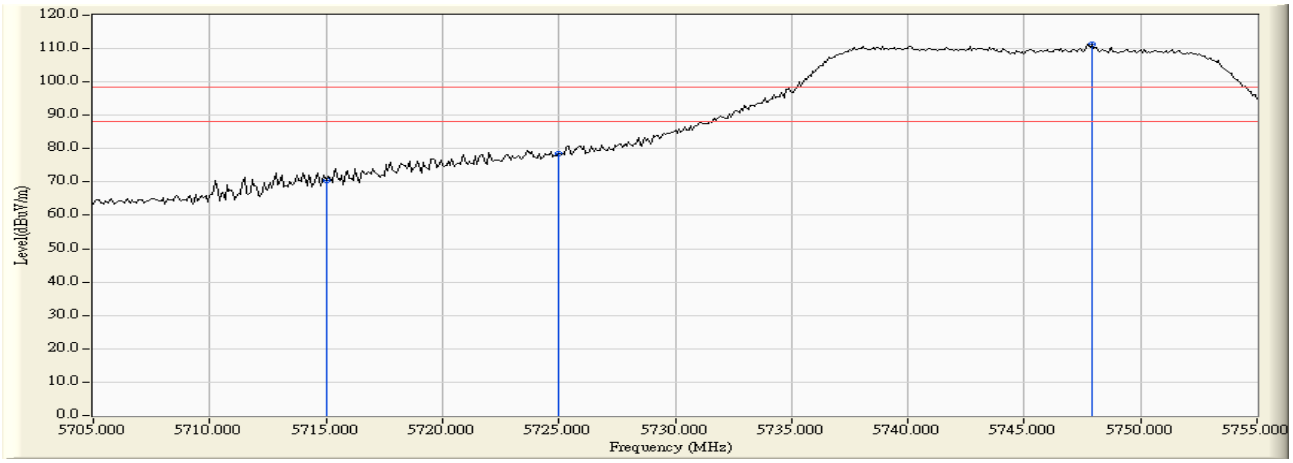
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	58.687	62.665	-11.305	73.970	PEAK
2	*	5182.833	4.113	100.163	104.277	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 21:25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5180MHz**



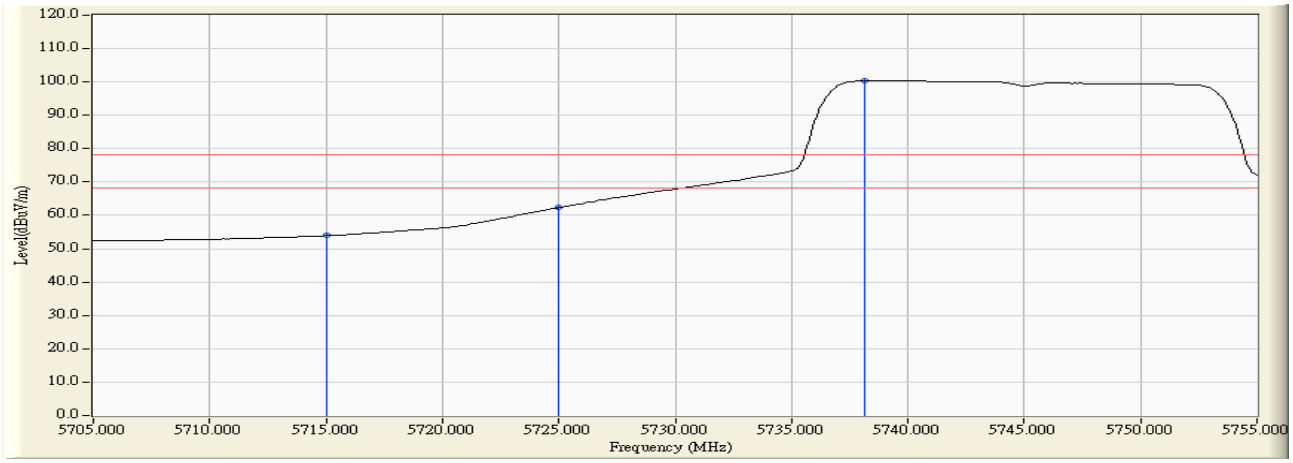
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	40.142	44.120	-9.850	53.970	AVERAGE
2	*	5177.000	4.089	88.373	92.462	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:04**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



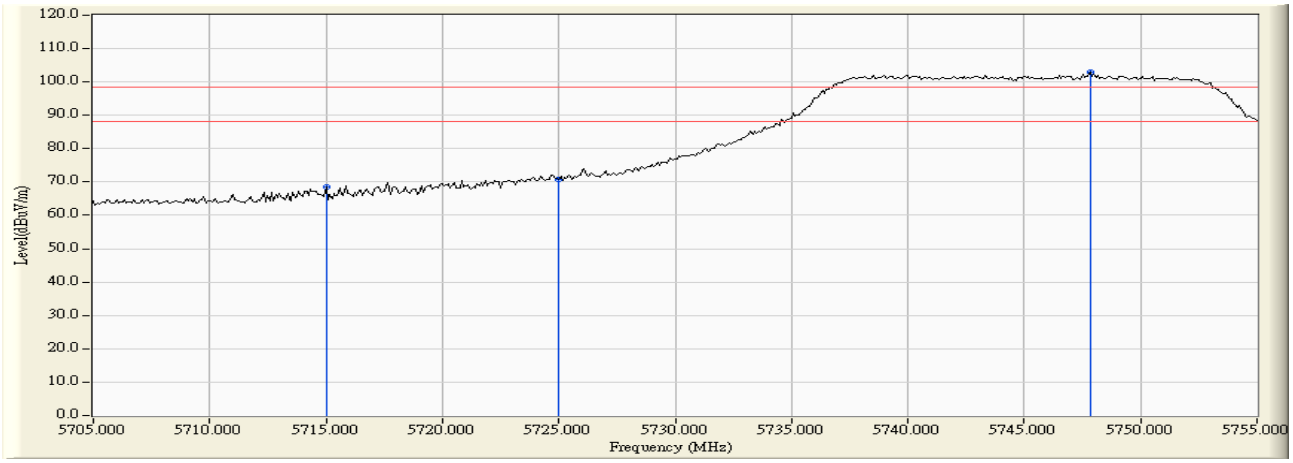
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	32.842	70.443	-17.857	88.300	PEAK
2		5725.000	37.618	40.731	78.349	-9.951	98.300	PEAK
3	*	5747.917	37.675	73.679	111.353	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:04**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



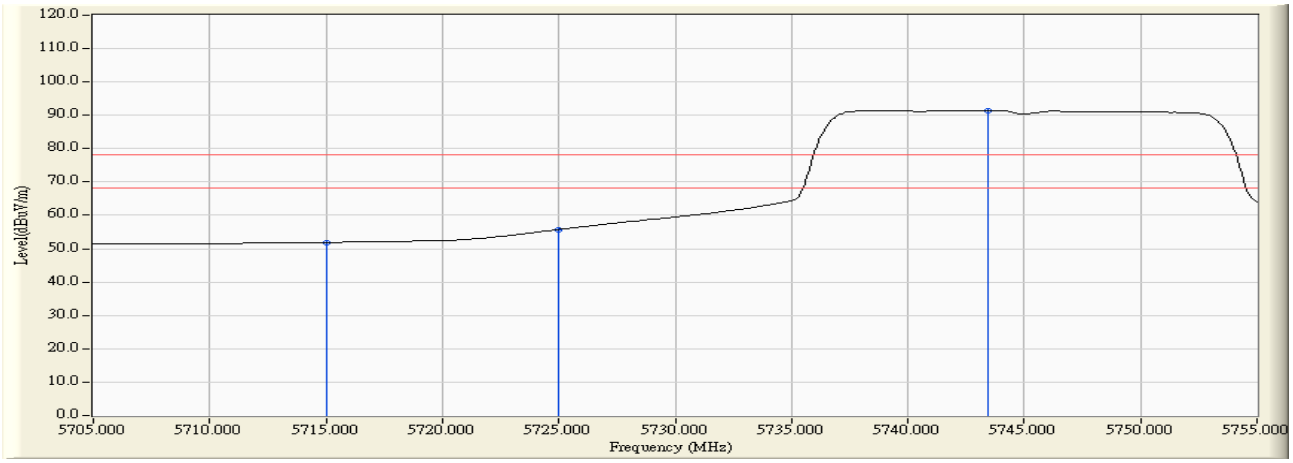
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	16.304	53.905	-14.395	68.300	AVERAGE
2		5725.000	37.618	24.776	62.394	-5.906	78.300	AVERAGE
3	*	5738.167	37.648	62.768	100.417	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:07**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



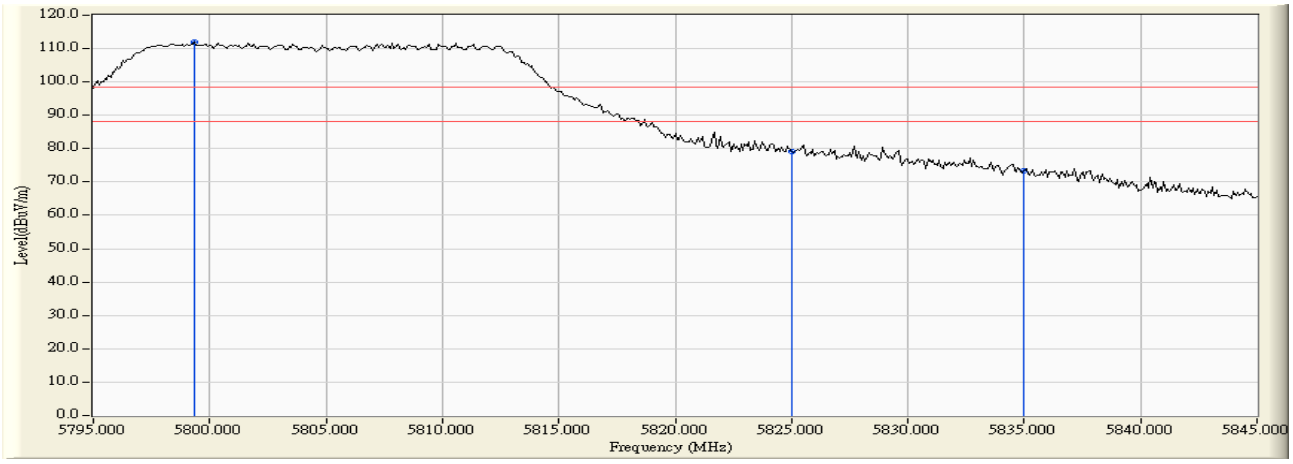
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	31.003	68.604	-19.696	88.300	PEAK
2		5725.000	37.618	33.306	70.924	-17.376	98.300	PEAK
3	*	5747.833	37.674	65.401	103.075	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:07**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5745MHz**



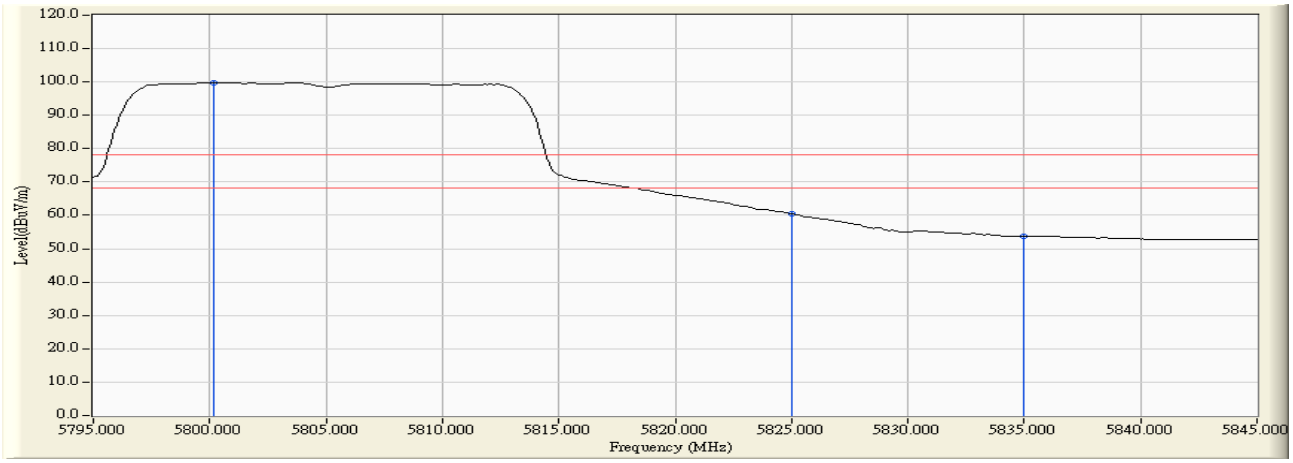
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	14.297	51.898	-16.402	68.300	AVERAGE
2		5725.000	37.618	18.157	55.775	-12.525	78.300	AVERAGE
3	*	5743.417	37.661	53.757	91.418	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:00**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



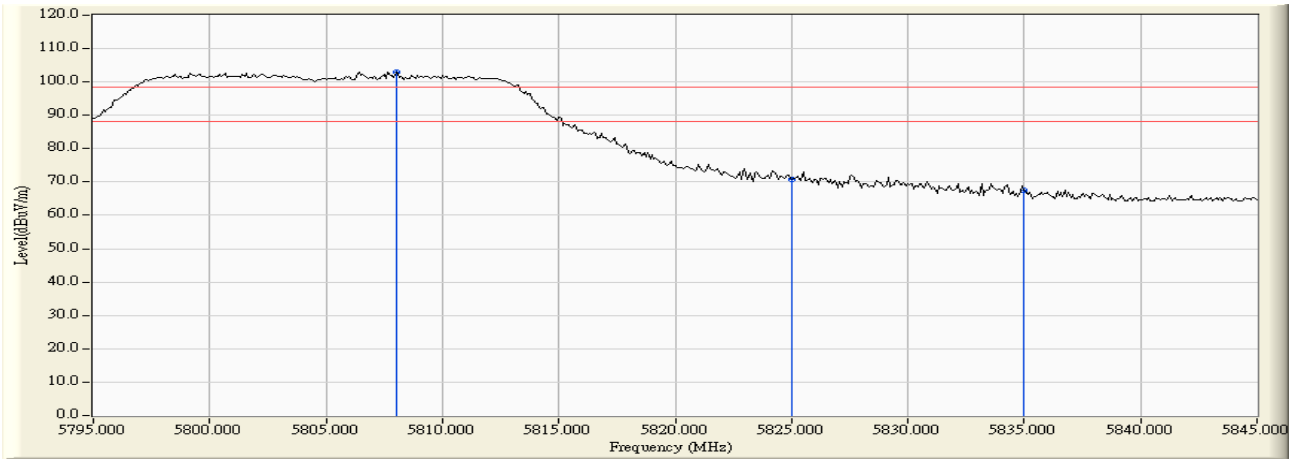
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5799.333	37.792	74.210	112.003	N/A	N/A	PEAK
2		5825.000	37.853	41.338	79.191	-9.109	98.300	PEAK
3		5835.000	37.876	35.428	73.304	-14.996	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:00**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



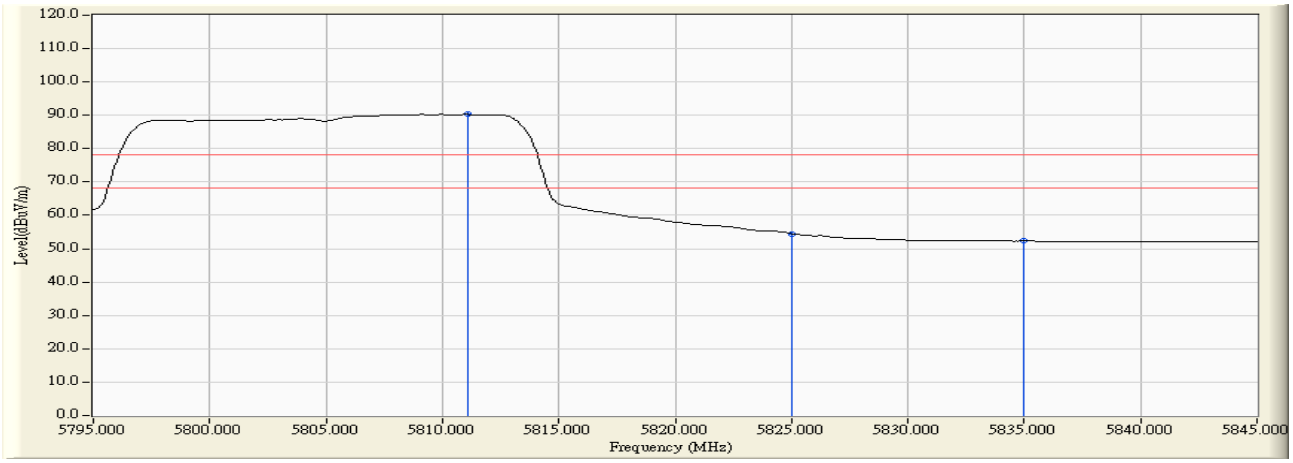
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5800.167	37.795	61.872	99.667	N/A	N/A	AVERAGE
2		5825.000	37.853	22.632	60.485	-7.815	78.300	AVERAGE
3		5835.000	37.876	15.765	53.641	-14.659	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:57**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



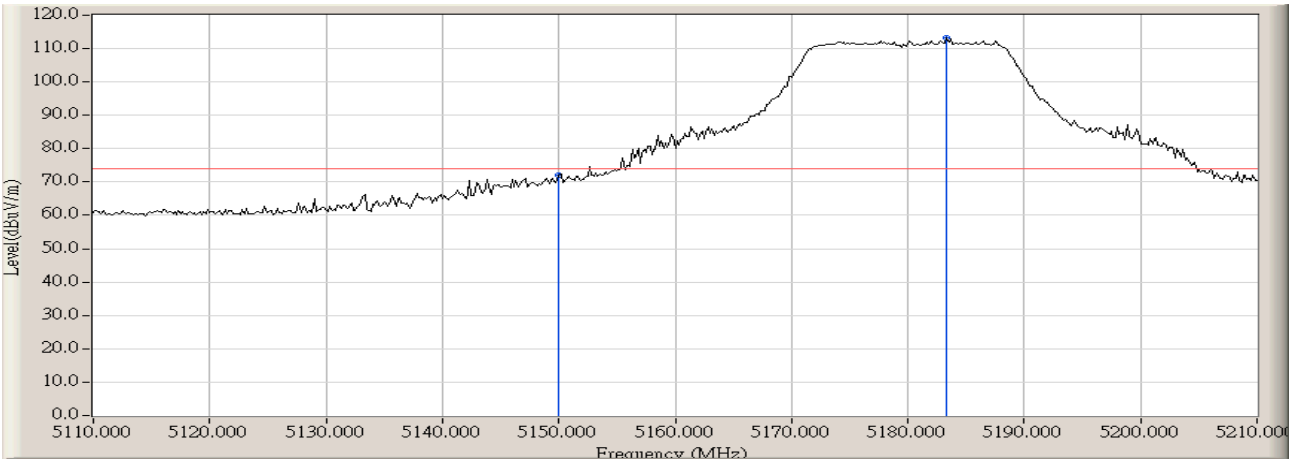
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5808.000	37.813	65.295	103.108	N/A	N/A	PEAK
2		5825.000	37.853	32.825	70.678	-17.622	98.300	PEAK
3		5835.000	37.876	29.530	67.406	-20.894	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:58**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 1: Transmit by 802.11a at channel 5805MHz**



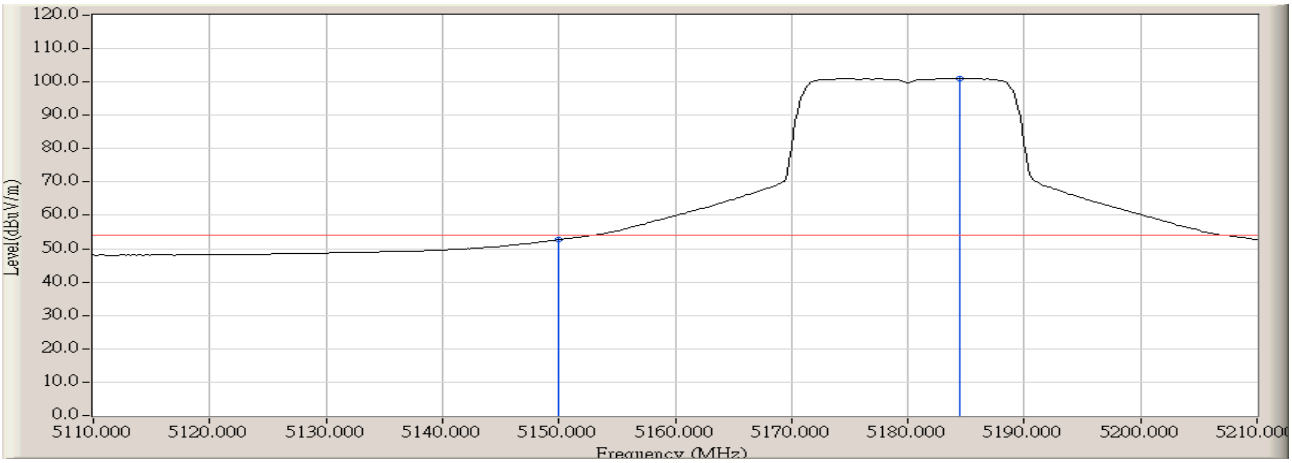
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5811.083	37.820	52.564	90.384	N/A	N/A	AVERAGE
2		5825.000	37.853	16.671	54.524	-13.776	78.300	AVERAGE
3		5835.000	37.876	14.430	52.306	-15.994	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 22:26**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



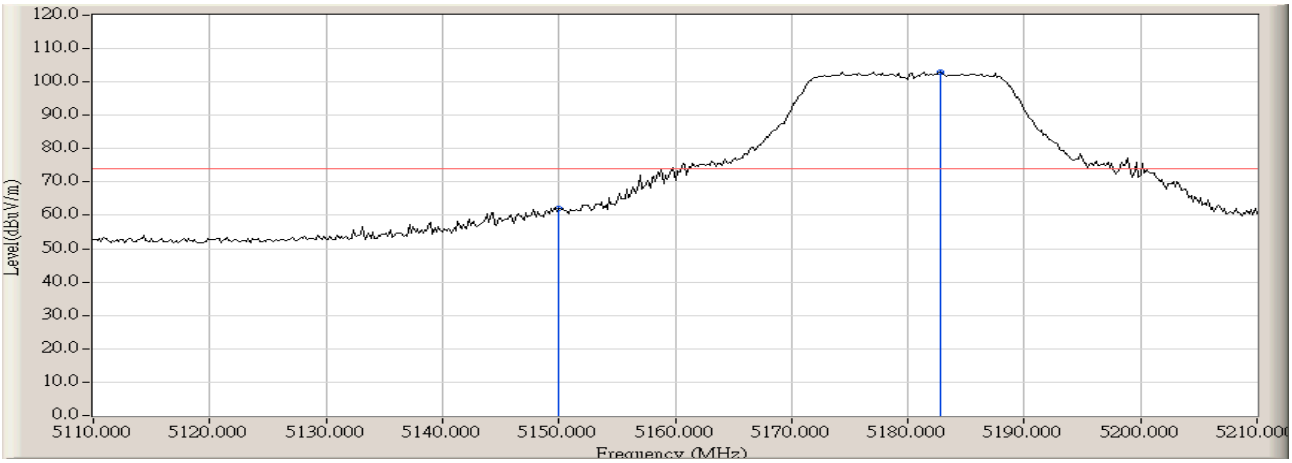
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	68.068	72.046	-1.924	73.970	PEAK
2	*	5183.333	4.116	109.052	113.168	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 22:26**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



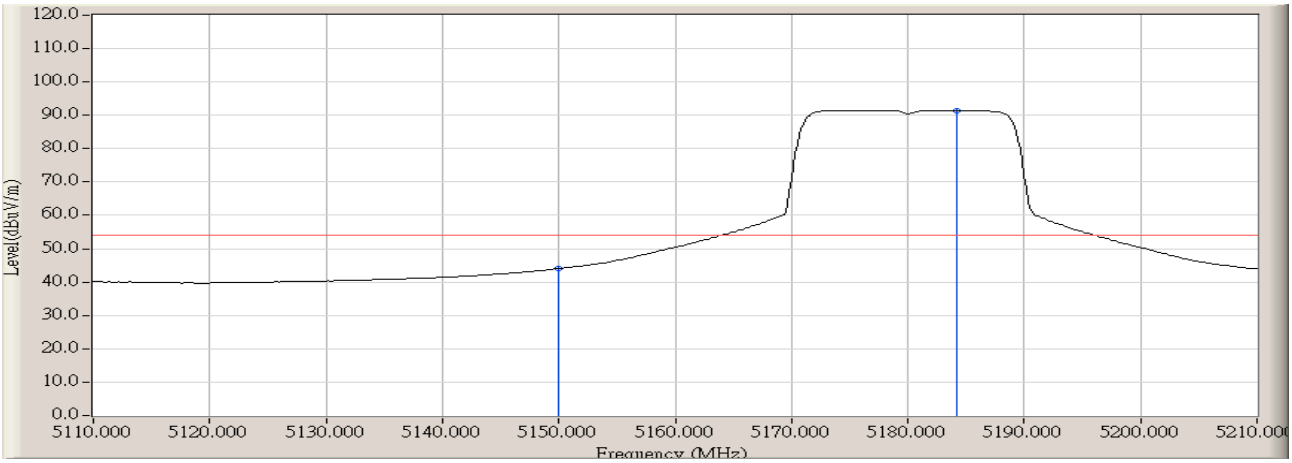
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	39.045	48.746	52.724	-1.246	53.970	AVERAGE
2	*	5184.500	39.127	96.889	101.011	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 22:29**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



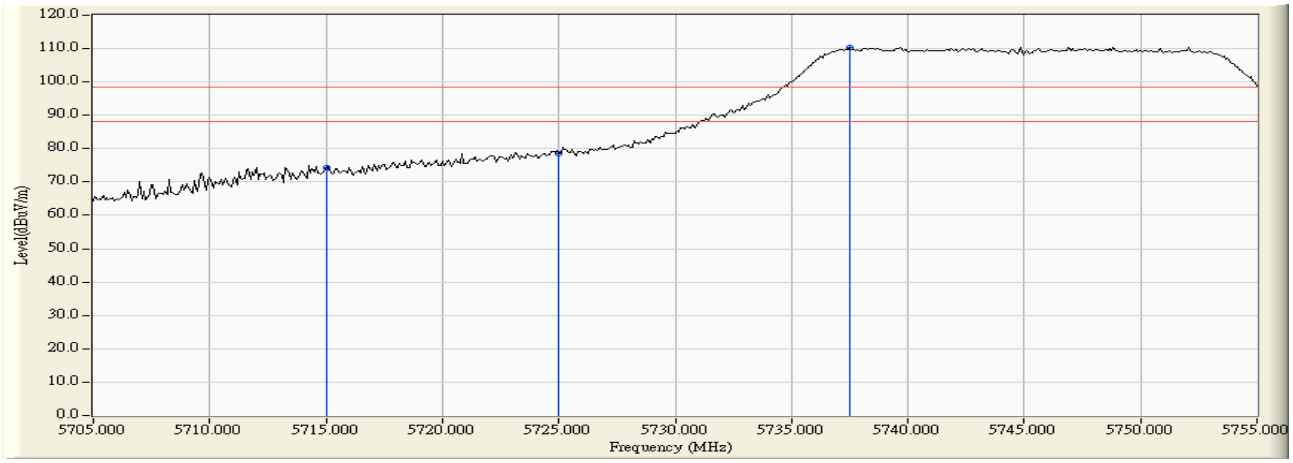
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	58.190	62.168	-11.802	73.970	PEAK
2	*	5182.833	4.113	98.926	103.040	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 22:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



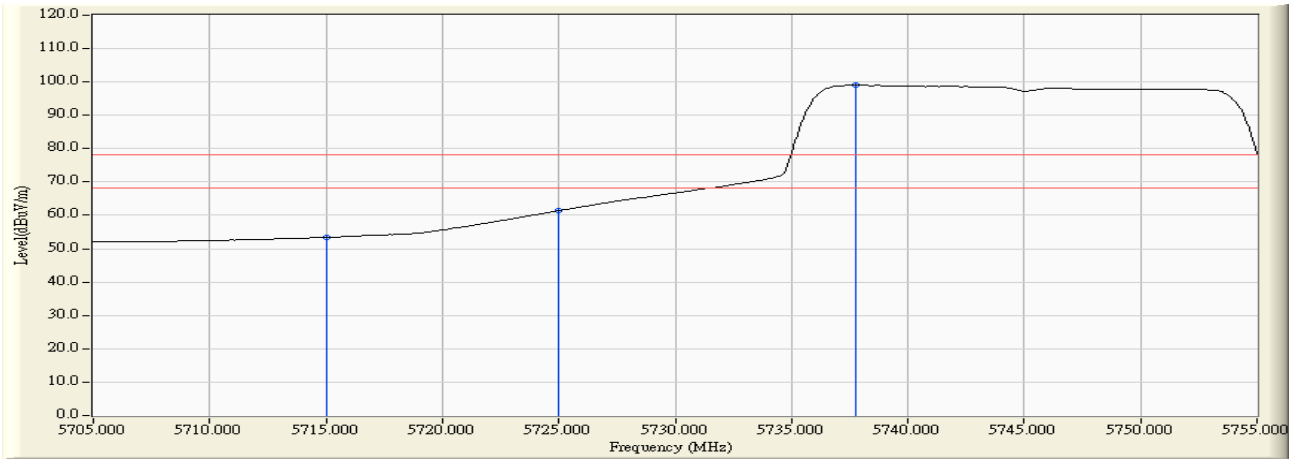
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	40.085	44.063	-9.907	53.970	AVERAGE
2	*	5184.167	4.120	87.405	91.525	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:46**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



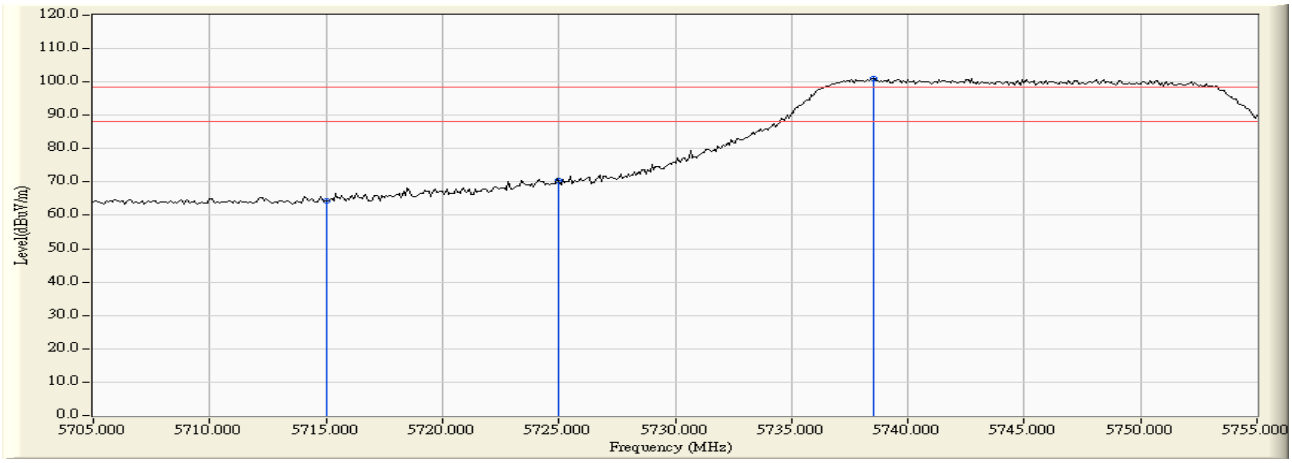
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	36.862	74.463	-13.837	88.300	PEAK
2		5725.000	37.618	40.948	78.566	-9.734	98.300	PEAK
3	*	5737.500	37.647	72.838	110.485	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:47**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



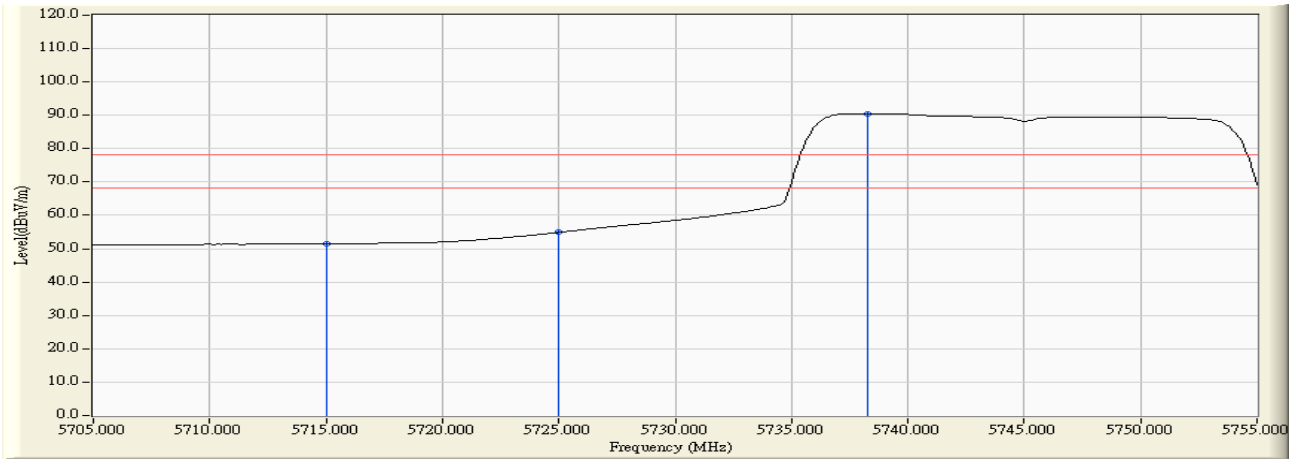
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	15.839	53.440	-14.860	68.300	AVERAGE
2		5725.000	37.618	23.813	61.431	-6.869	78.300	AVERAGE
3	*	5737.750	37.648	61.370	99.018	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:44**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



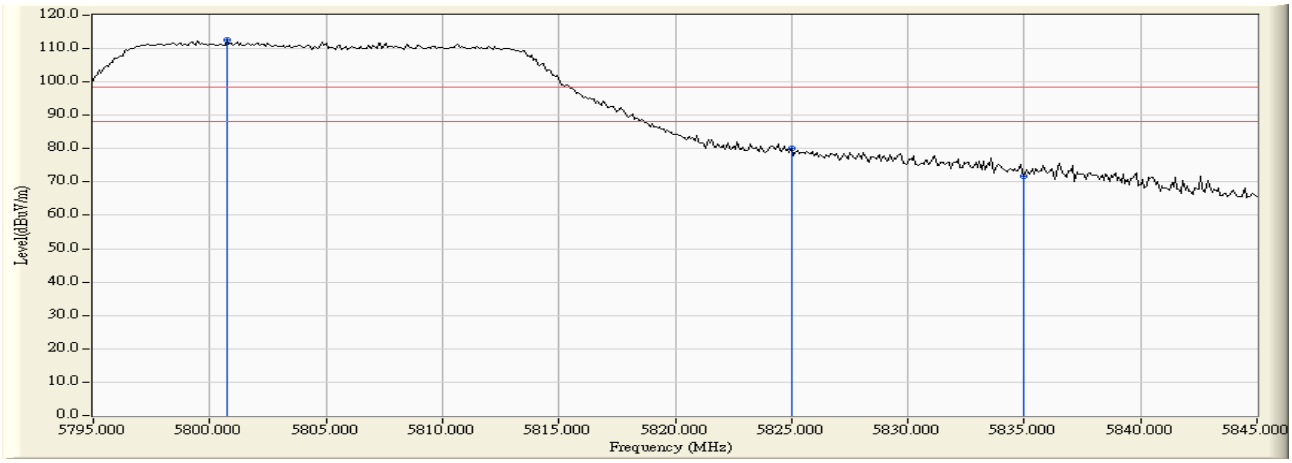
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	26.831	64.432	-23.868	88.300	PEAK
2		5725.000	37.618	32.777	70.395	-17.905	98.300	PEAK
3	*	5738.500	37.649	63.430	101.079	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:44**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



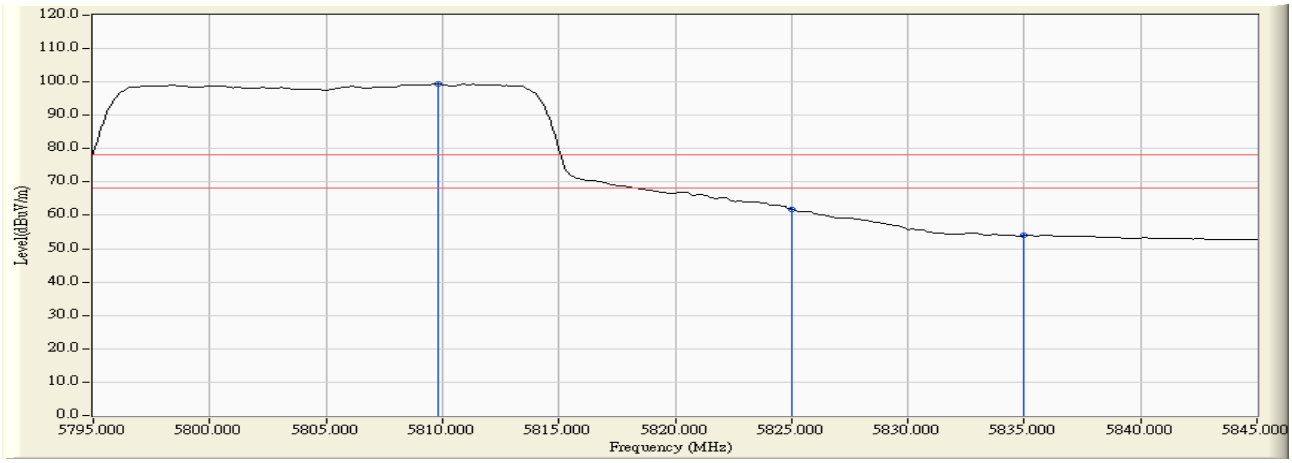
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	13.872	51.473	-16.827	68.300	AVERAGE
2		5725.000	37.618	17.264	54.882	-13.418	78.300	AVERAGE
3	*	5738.250	37.649	52.856	90.505	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:50**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



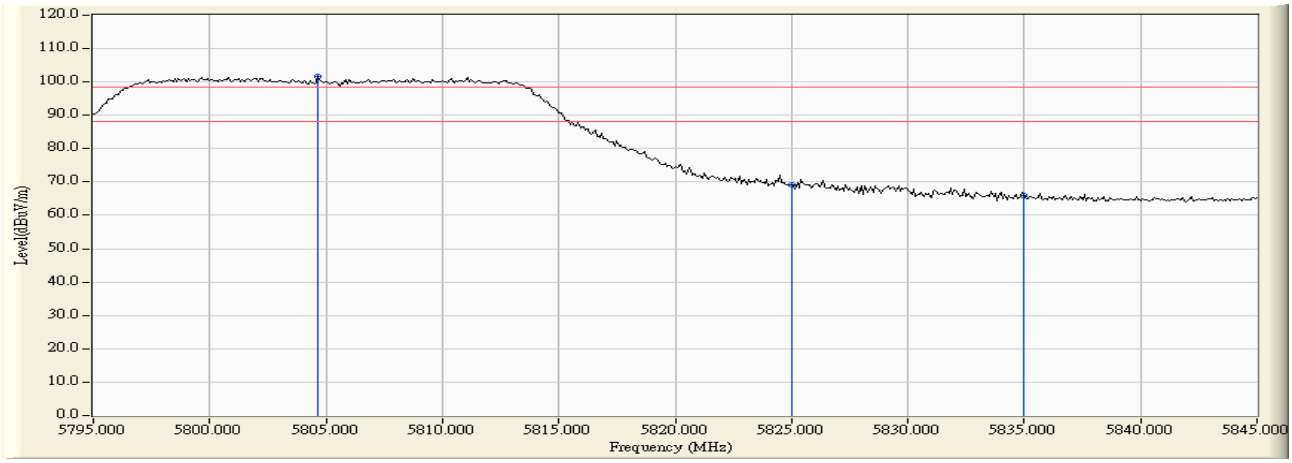
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5800.750	37.796	74.694	112.490	N/A	N/A	PEAK
2		5825.000	37.853	42.156	80.009	-8.291	98.300	PEAK
3		5835.000	37.876	33.920	71.796	-16.504	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:51**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



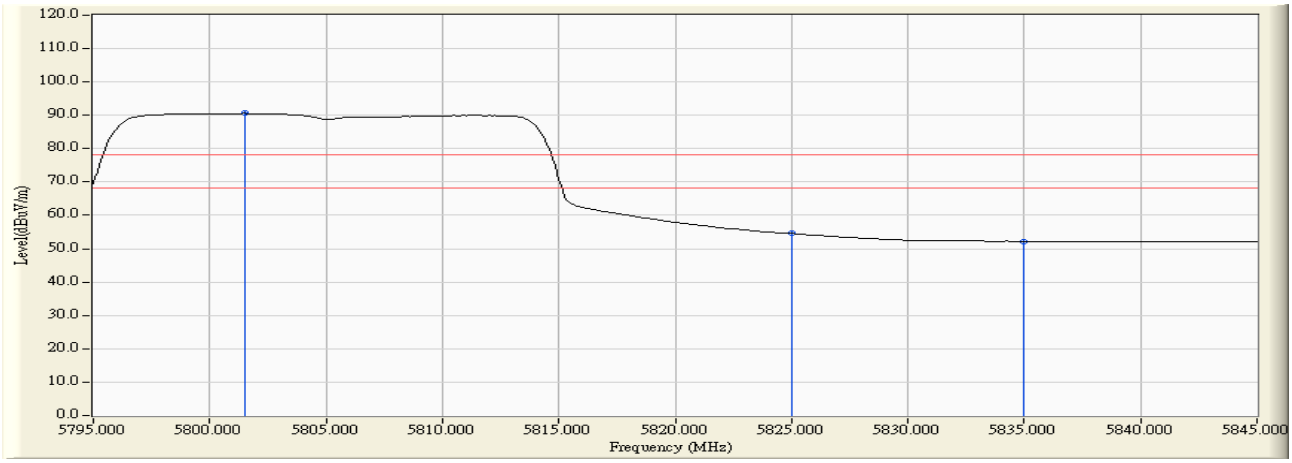
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5809.833	37.817	61.520	99.337	N/A	N/A	AVERAGE
2		5825.000	37.853	23.945	61.798	-6.502	78.300	AVERAGE
3		5835.000	37.876	16.048	53.924	-14.376	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:53**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



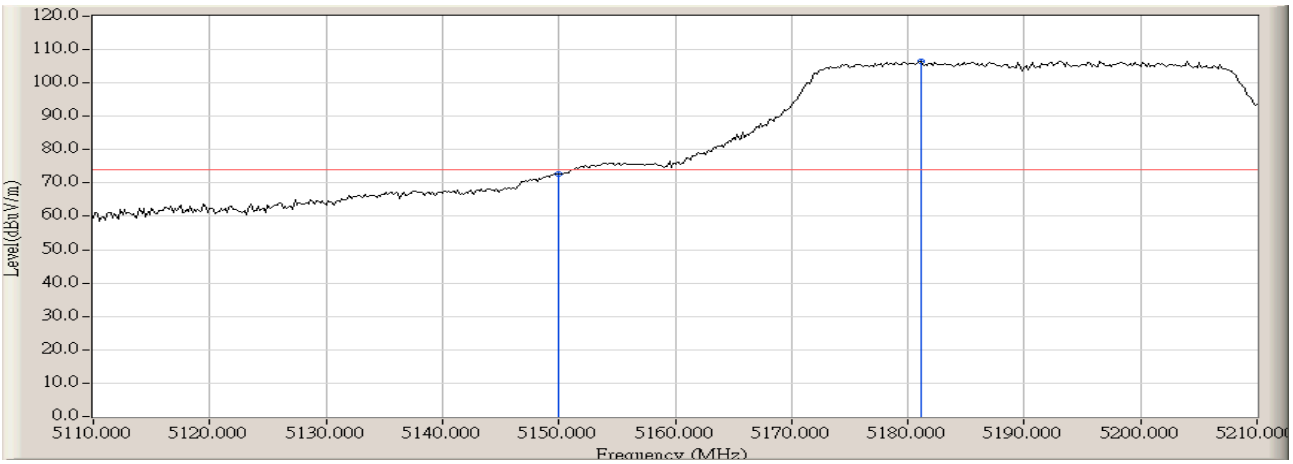
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5804.667	37.805	63.785	101.590	N/A	N/A	PEAK
2		5825.000	37.853	31.363	69.216	-19.084	98.300	PEAK
3		5835.000	37.876	27.976	65.852	-22.448	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:54**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



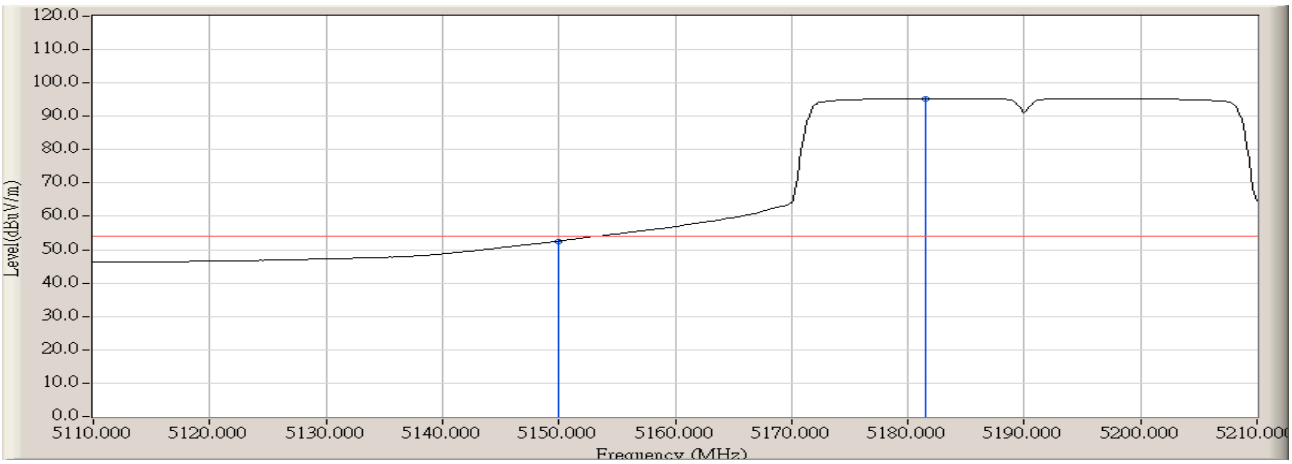
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5801.500	37.797	52.776	90.574	N/A	N/A	AVERAGE
2		5825.000	37.853	16.742	54.595	-13.705	78.300	AVERAGE
3		5835.000	37.876	14.317	52.193	-16.107	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 14:52**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



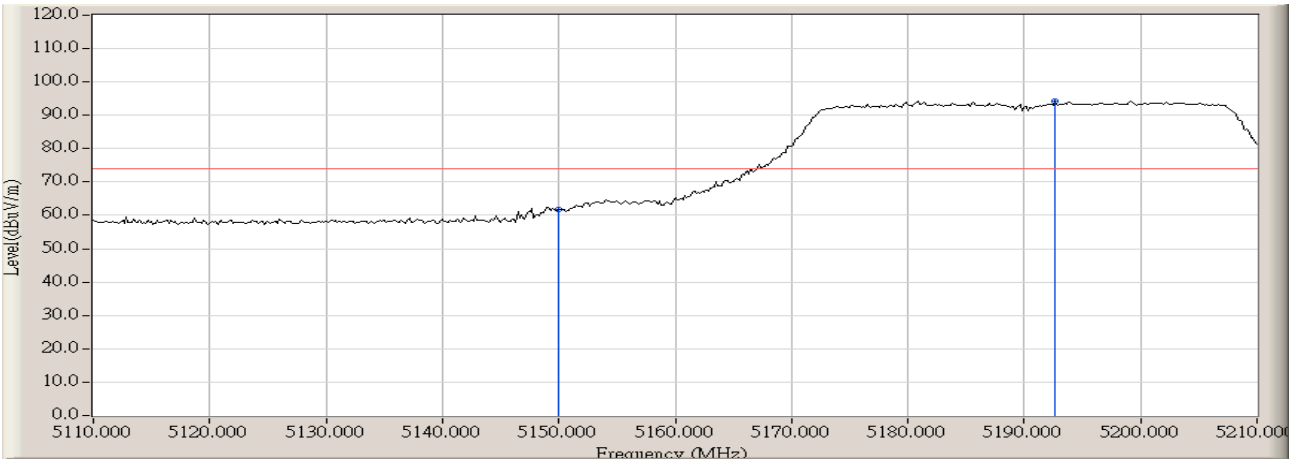
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	68.595	72.573	-1.397	73.970	PEAK
2	*	5181.167	4.108	102.506	106.613	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 14:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



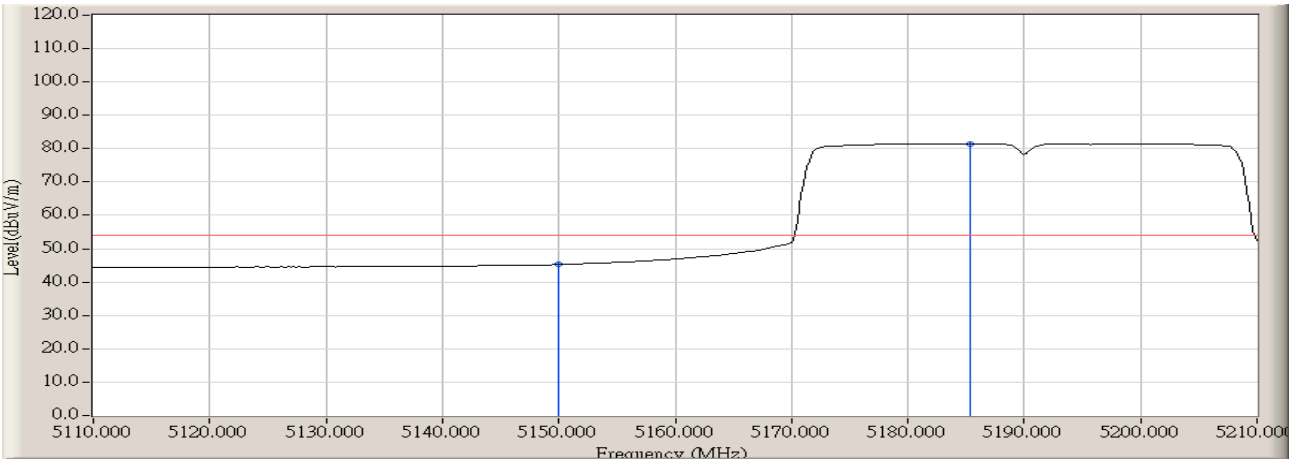
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	48.580	52.558	-1.412	53.970	AVERAGE
2	*	5181.500	4.108	91.237	95.345	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 14:56**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



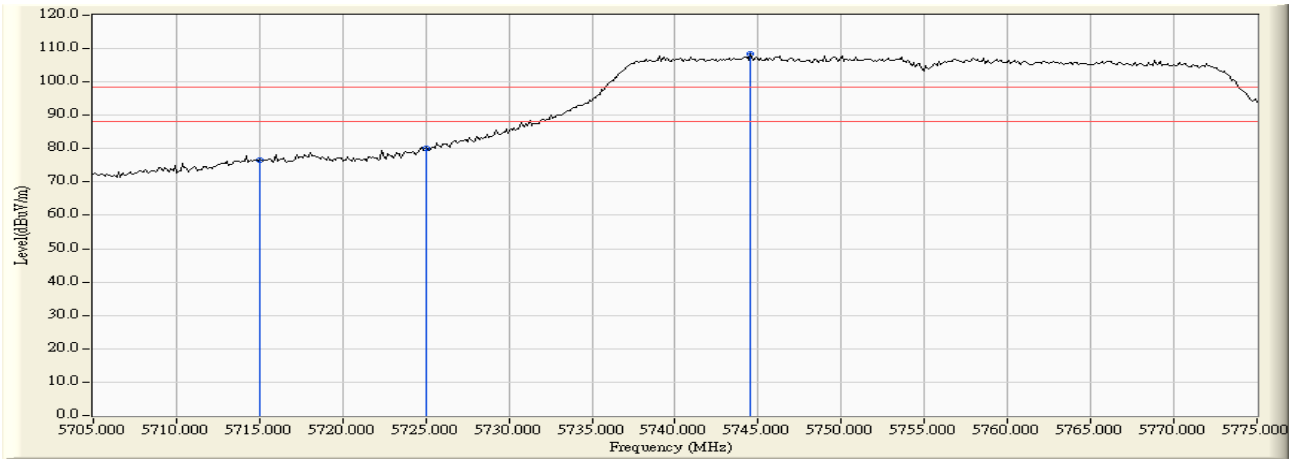
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	57.635	61.613	-12.357	73.970	PEAK
2	*	5192.667	4.160	90.068	94.228	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 14:57**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



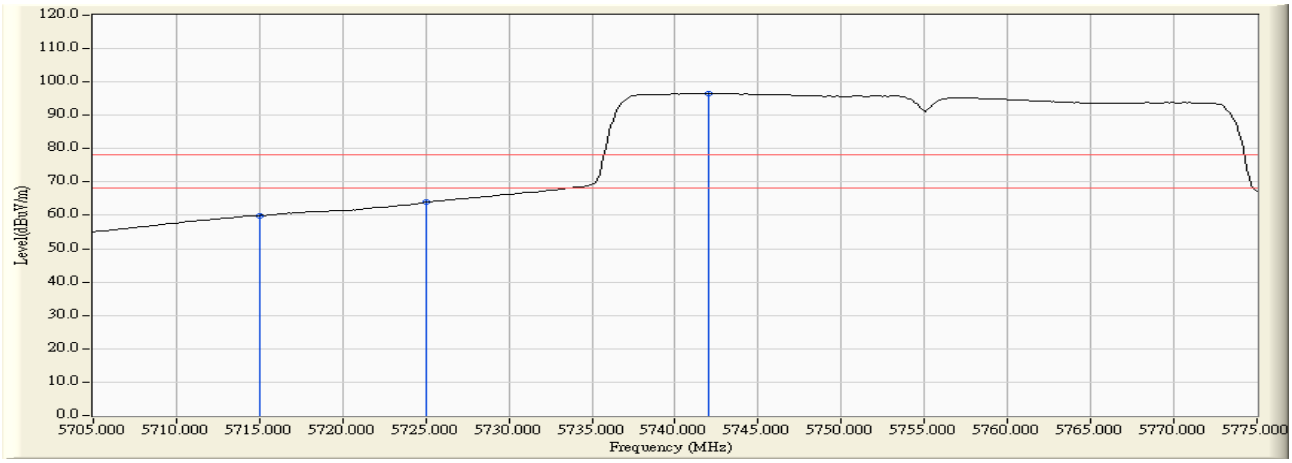
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	41.297	45.275	-8.695	53.970	AVERAGE
2	*	5185.333	4.126	77.349	81.475	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:35**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



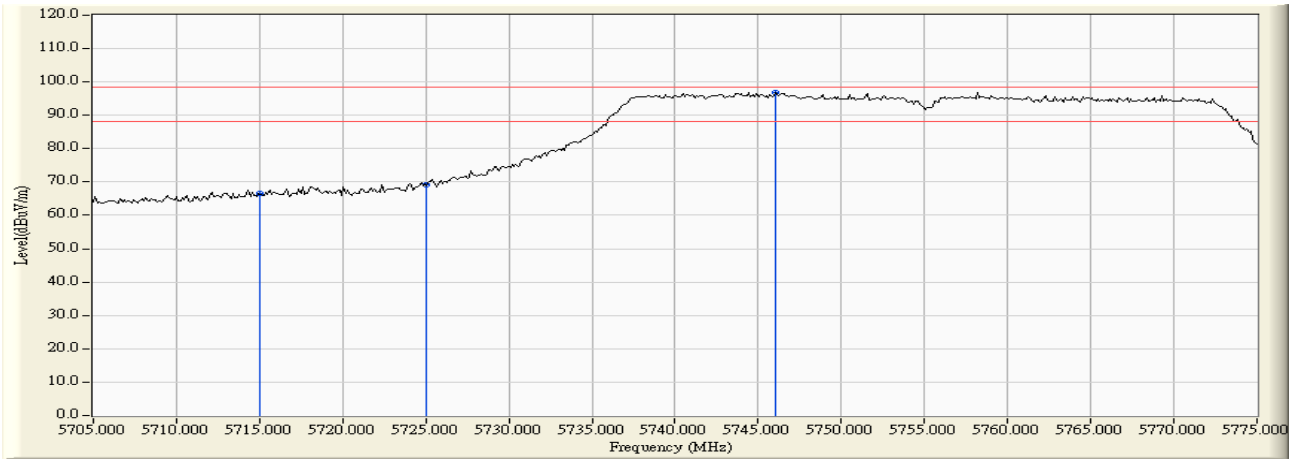
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	39.118	76.719	-11.581	88.300	PEAK
2		5725.000	37.618	42.625	80.243	-8.057	98.300	PEAK
3	*	5744.550	37.665	70.700	108.365	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:35**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



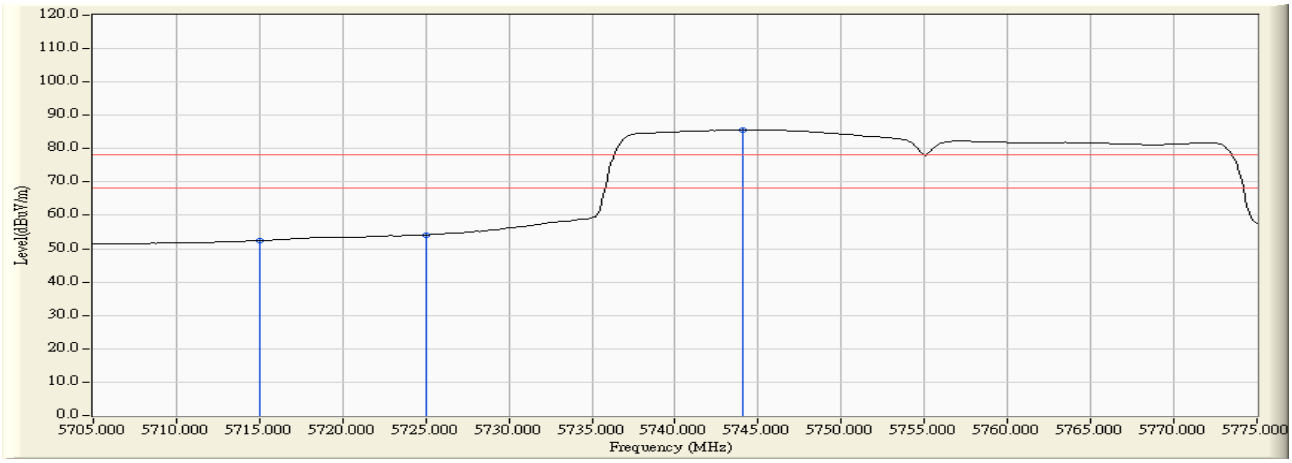
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	22.291	59.892	-8.408	68.300	AVERAGE
2		5725.000	37.618	26.301	63.919	-4.381	78.300	AVERAGE
3	*	5741.983	37.657	58.850	96.508	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:39**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



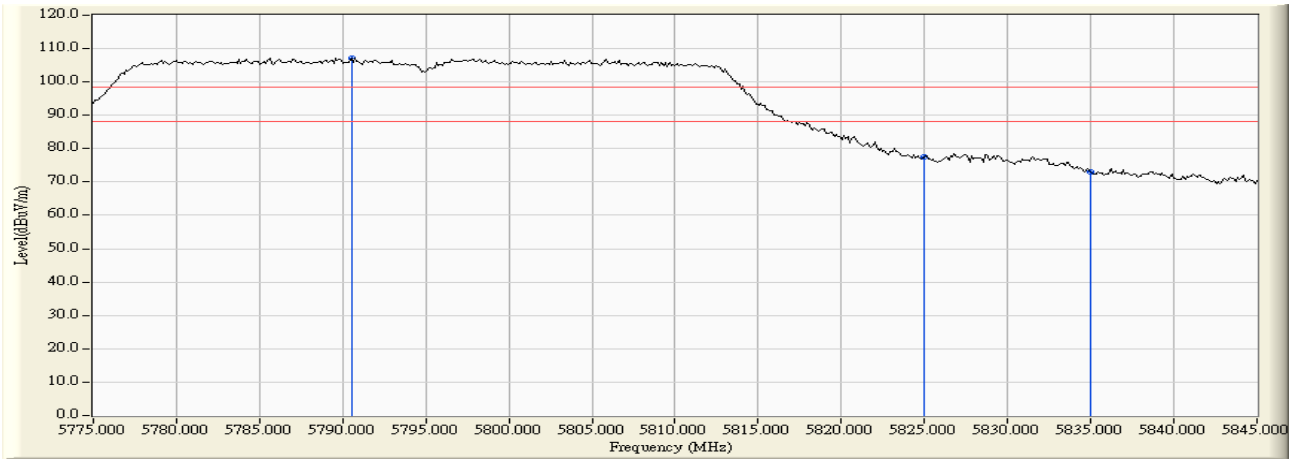
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	28.915	66.516	-21.784	88.300	PEAK
2		5725.000	37.618	31.565	69.183	-19.117	98.300	PEAK
3	*	5746.067	37.669	59.058	96.727	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:39**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5755MHz**



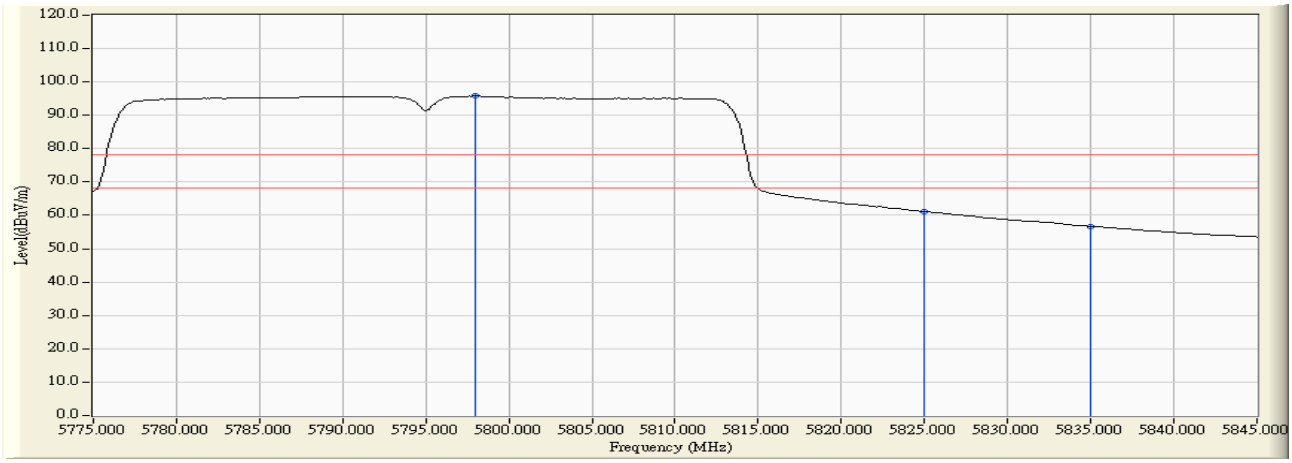
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	14.884	52.485	-15.815	68.300	AVERAGE
2		5725.000	37.618	16.556	54.174	-14.126	78.300	AVERAGE
3	*	5744.083	37.664	47.991	85.654	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:32**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



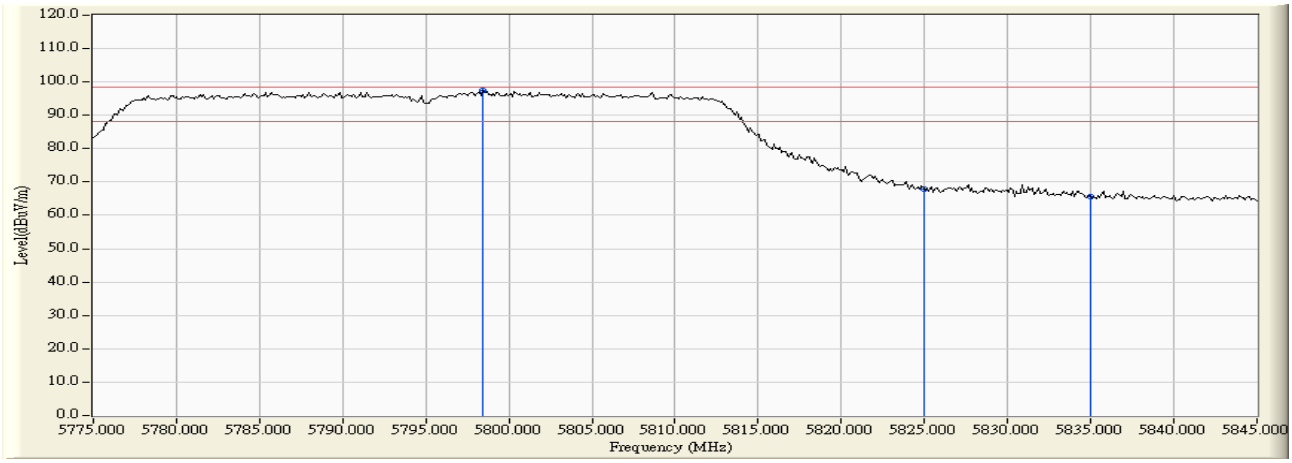
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5790.517	37.774	69.490	107.264	N/A	N/A	PEAK
2		5825.000	37.853	39.729	77.582	-10.718	98.300	PEAK
3		5835.000	37.876	35.199	73.075	-15.225	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:32**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



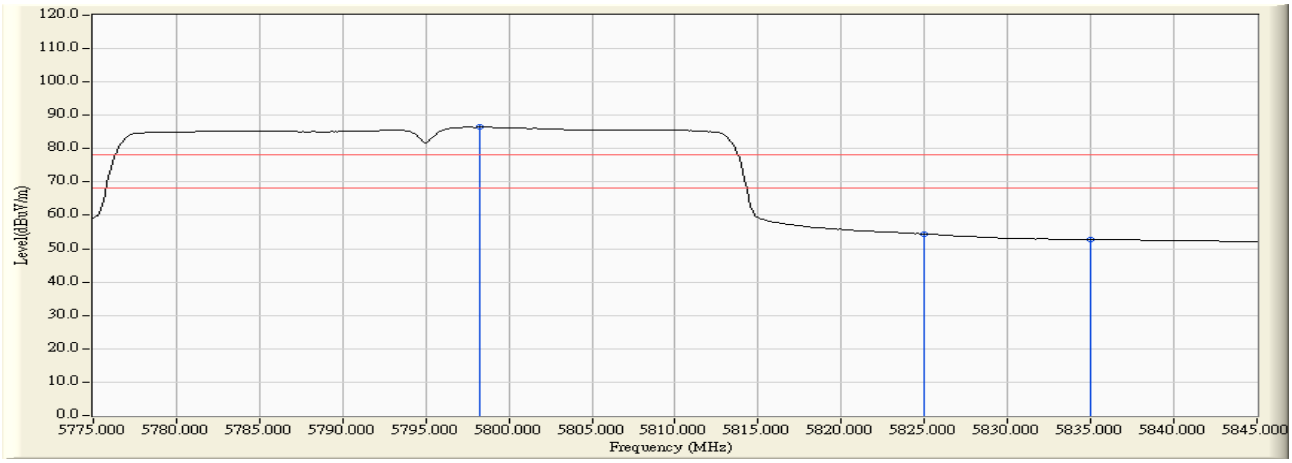
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5797.983	37.789	57.984	95.773	N/A	N/A	AVERAGE
2		5825.000	37.853	23.184	61.037	-7.263	78.300	AVERAGE
3		5835.000	37.876	18.839	56.715	-11.585	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:28**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



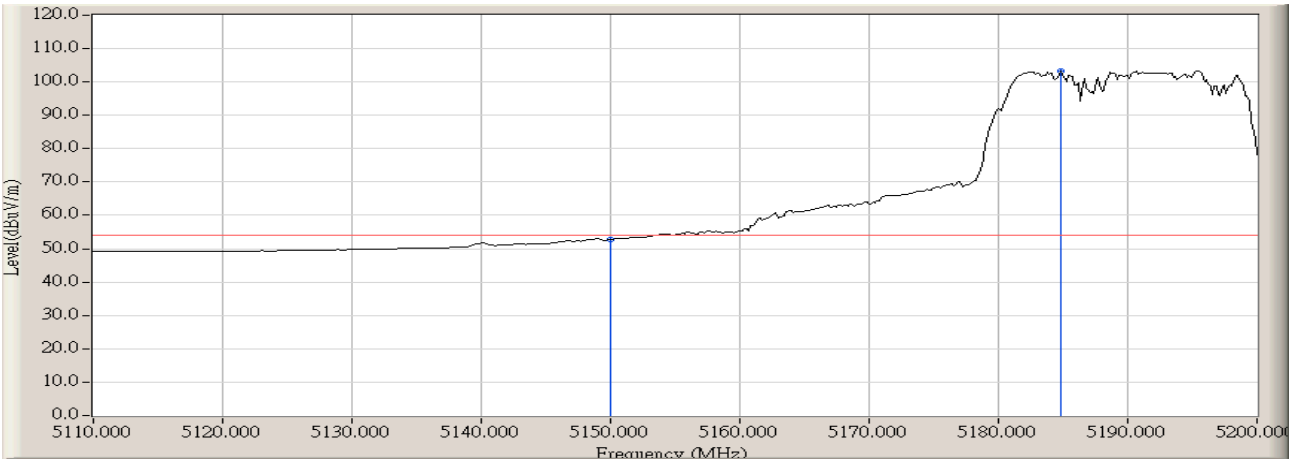
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.450	37.791	59.821	97.611	N/A	N/A	PEAK
2		5825.000	37.853	29.895	67.748	-20.552	98.300	PEAK
3		5835.000	37.876	27.716	65.592	-22.708	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 20:29**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5795MHz**



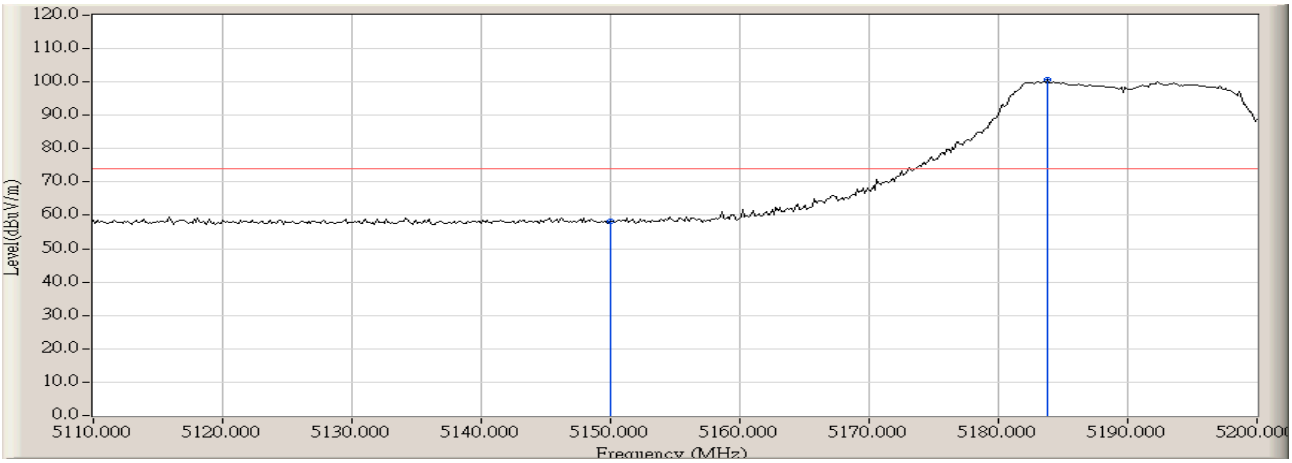
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.217	37.789	48.686	86.476	N/A	N/A	AVERAGE
2		5825.000	37.853	16.570	54.423	-13.877	78.300	AVERAGE
3		5835.000	37.876	14.893	52.769	-15.531	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:28**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



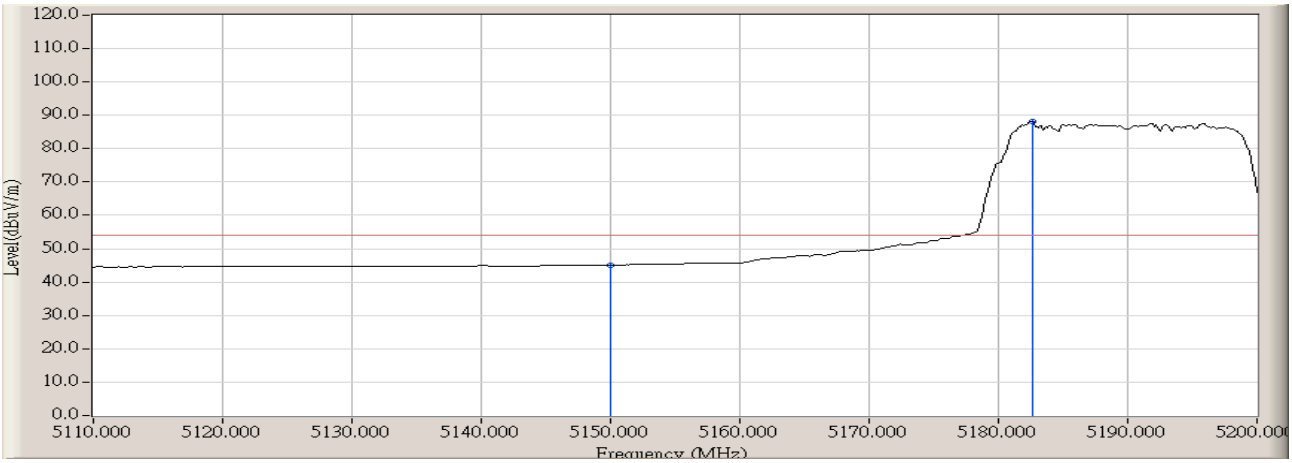
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	48.727	52.705	-1.265	53.970	AVERAGE
2	*	5184.850	4.124	99.207	103.330	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:32**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



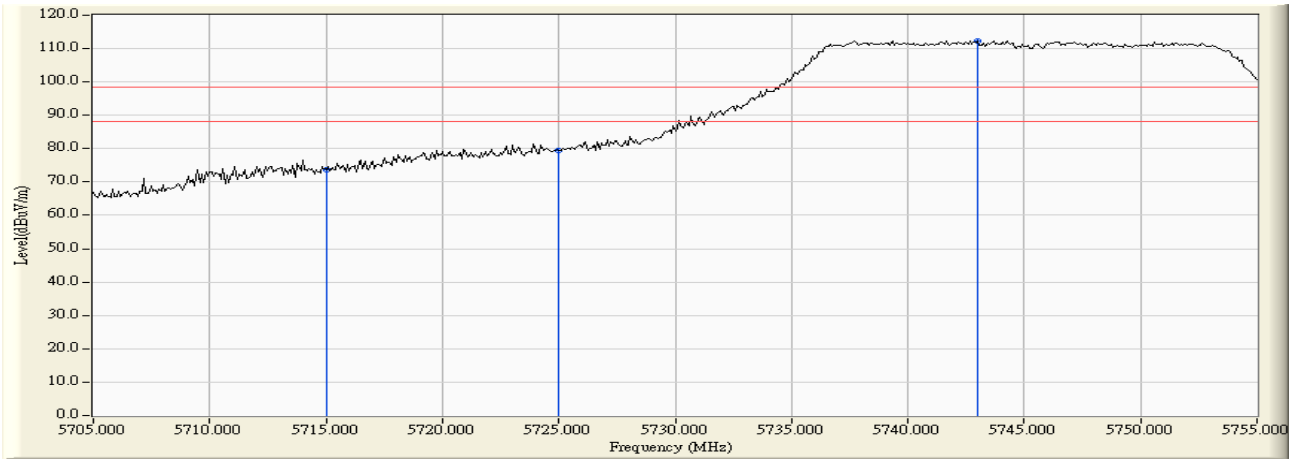
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	54.223	58.201	-15.769	73.970	PEAK
2	*	5183.800	4.118	96.440	100.558	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:32**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5180MHz**



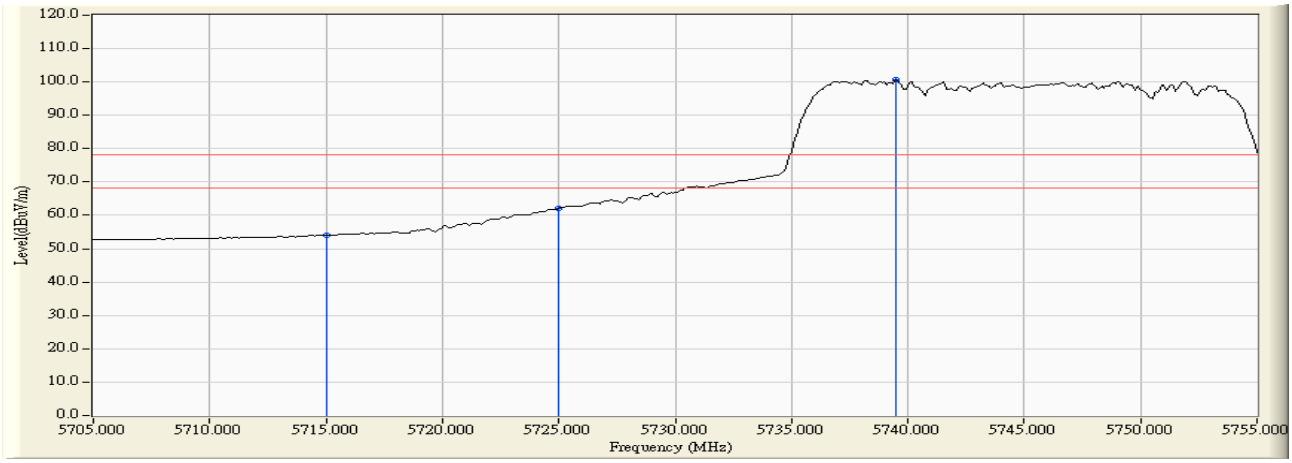
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	41.131	45.109	-8.861	53.970	AVERAGE
2	*	5182.600	4.112	84.073	88.186	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:13**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



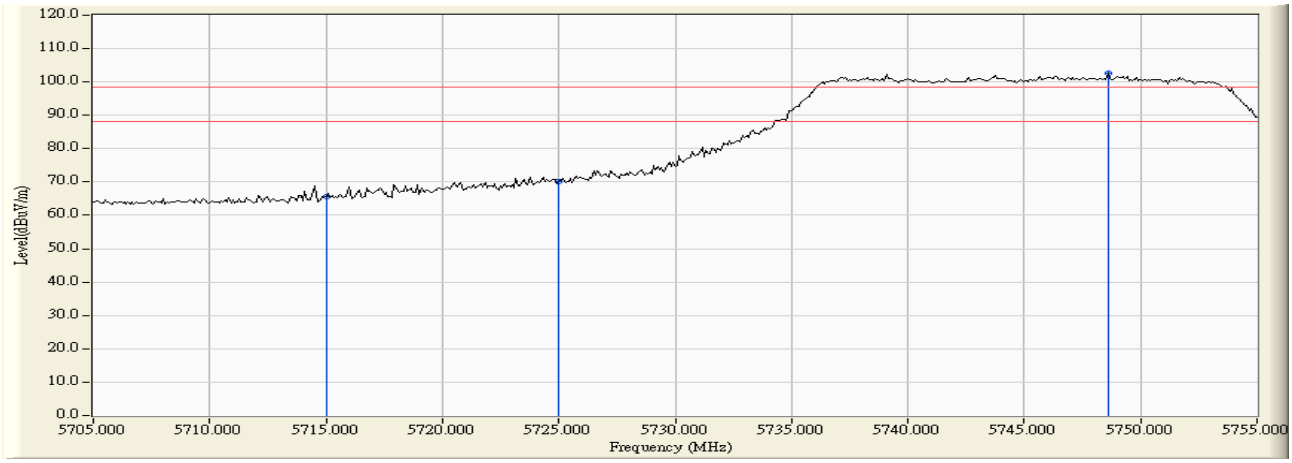
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	36.168	73.769	-14.531	88.300	PEAK
2		5725.000	37.618	41.724	79.342	-8.958	98.300	PEAK
3	*	5743.000	37.660	74.753	112.413	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:14**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



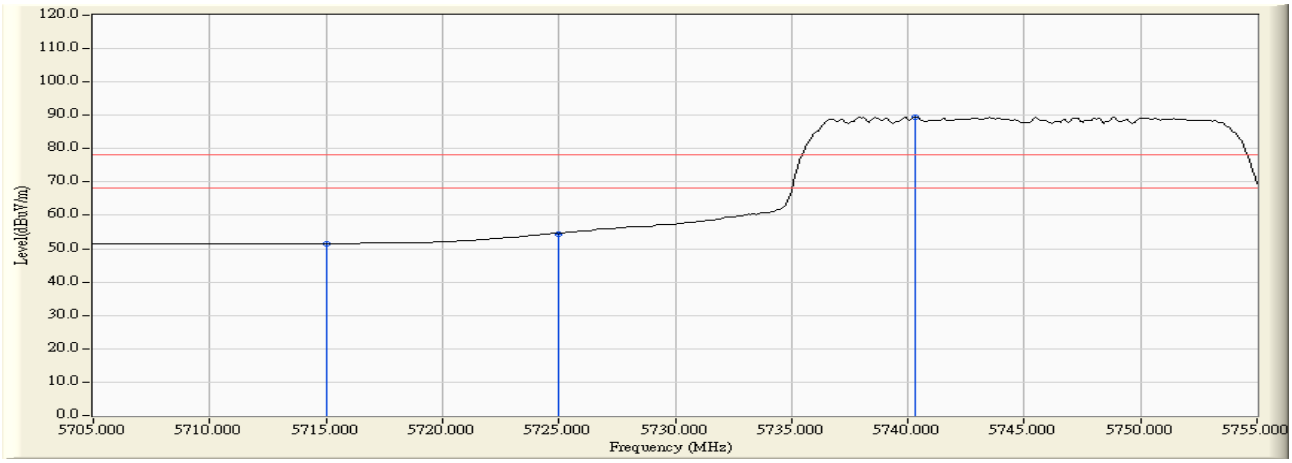
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	16.498	54.099	-14.201	68.300	AVERAGE
2		5725.000	37.618	24.600	62.218	-6.082	78.300	AVERAGE
3	*	5739.500	37.652	62.973	100.625	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:11**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



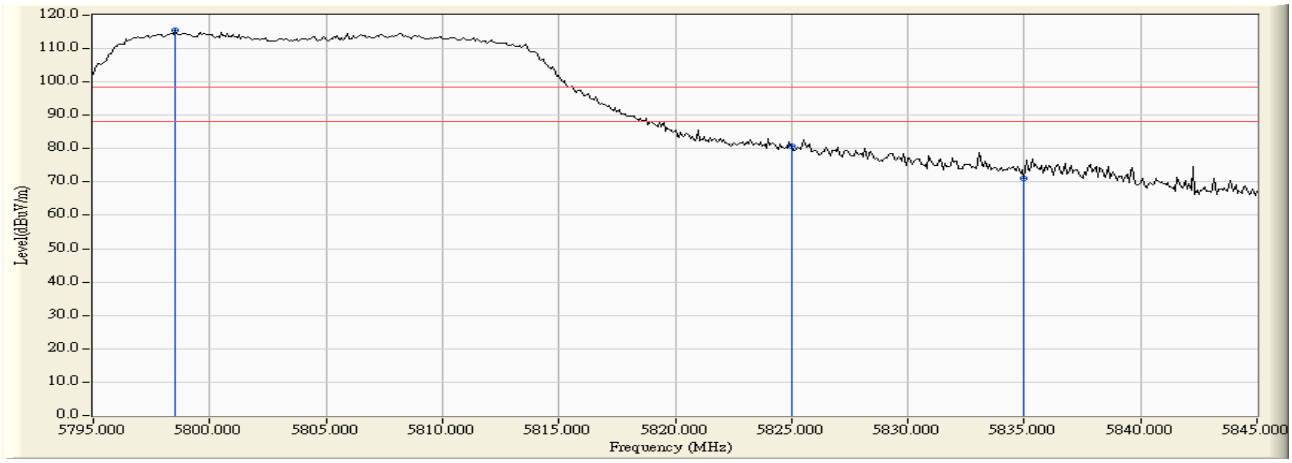
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	28.138	65.739	-22.561	88.300	PEAK
2		5725.000	37.618	32.524	70.142	-18.158	98.300	PEAK
3	*	5748.583	37.676	64.827	102.503	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:11**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5745MHz**



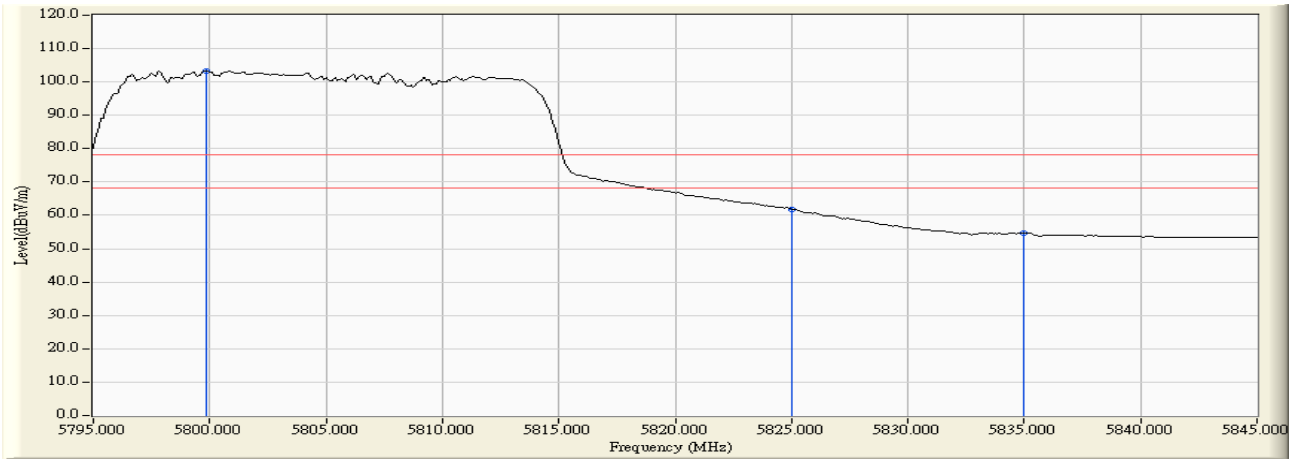
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	13.984	51.585	-16.715	68.300	AVERAGE
2		5725.000	37.618	16.879	54.497	-13.803	78.300	AVERAGE
3	*	5740.333	37.653	51.841	89.495	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:18**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



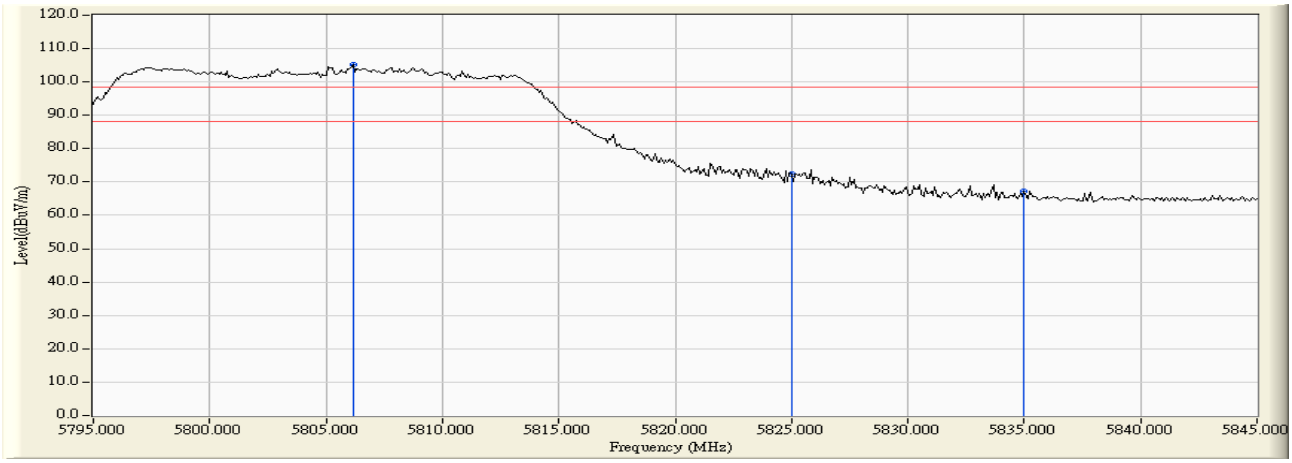
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.500	37.791	77.649	115.440	N/A	N/A	PEAK
2		5825.000	37.853	42.791	80.644	-7.656	98.300	PEAK
3		5835.000	37.876	33.312	71.188	-17.112	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:19**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



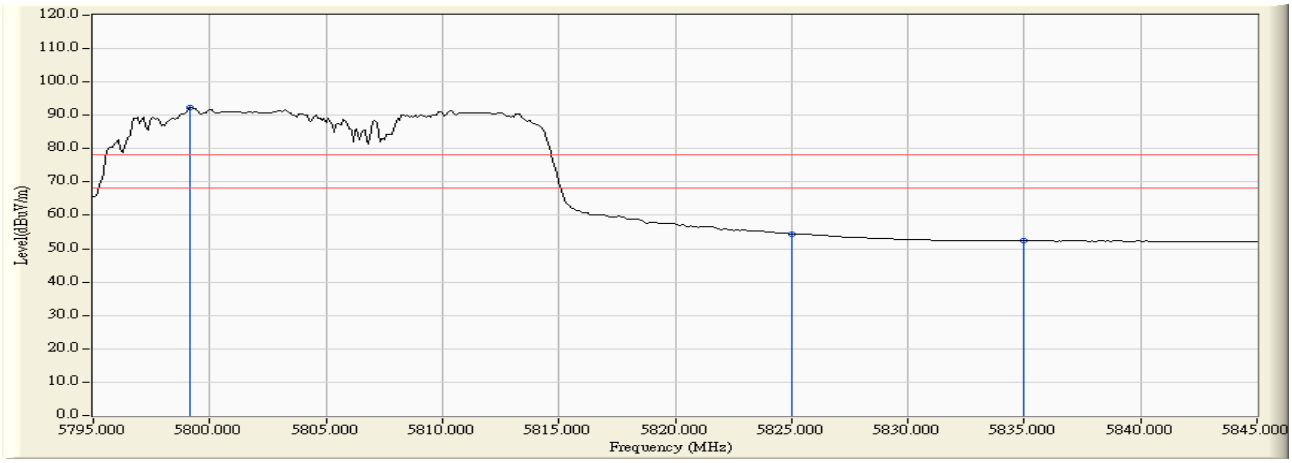
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5799.833	37.793	65.508	103.302	N/A	N/A	AVERAGE
2		5825.000	37.853	24.056	61.909	-6.391	78.300	AVERAGE
3		5835.000	37.876	16.754	54.630	-13.670	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:21**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



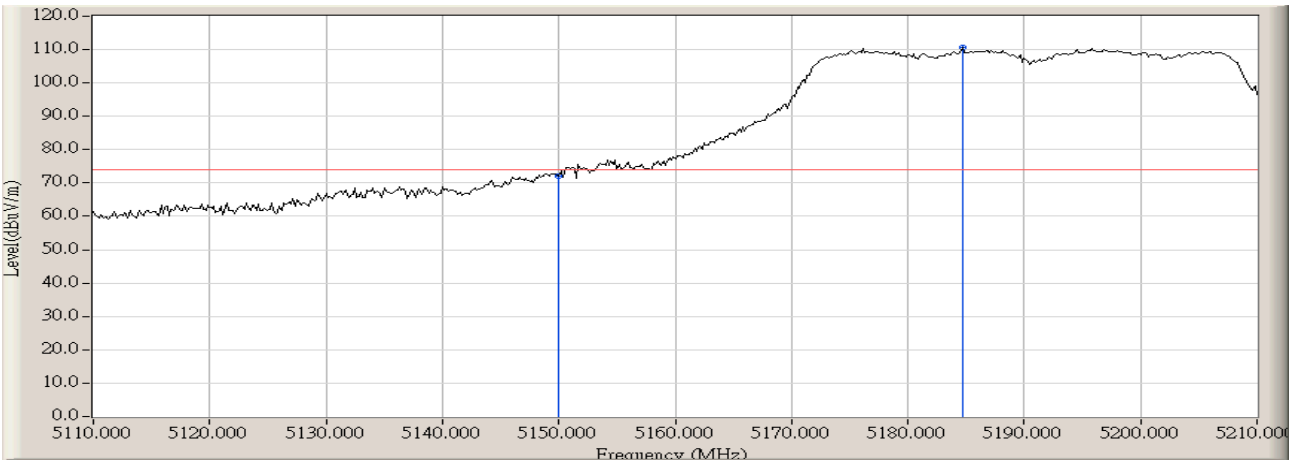
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5806.167	37.808	67.508	105.317	N/A	N/A	PEAK
2		5825.000	37.853	34.549	72.402	-15.898	98.300	PEAK
3		5835.000	37.876	29.356	67.232	-21.068	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:21**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 2: Transmit by 802.11n(20MHz) at channel 5805MHz**



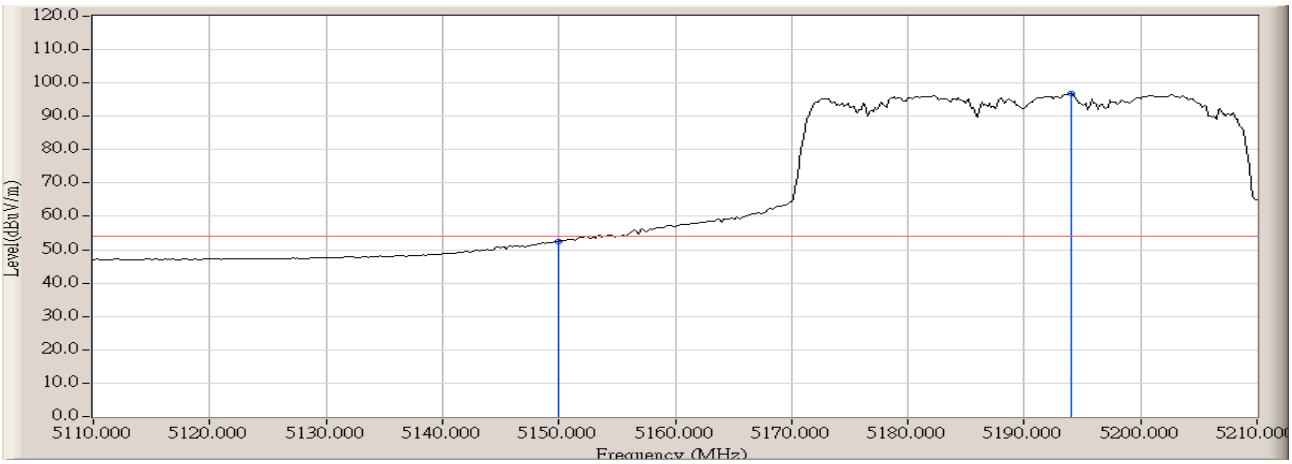
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5799.167	37.792	54.397	92.189	N/A	N/A	AVERAGE
2		5825.000	37.853	16.668	54.521	-13.779	78.300	AVERAGE
3		5835.000	37.876	14.558	52.434	-15.866	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:43**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



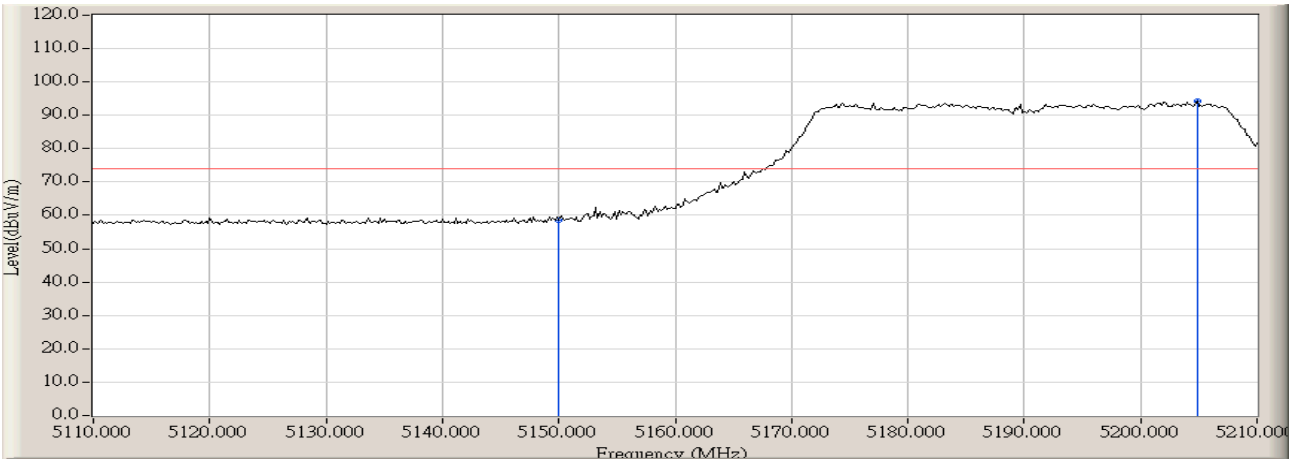
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	68.236	72.214	-1.756	73.970	PEAK
2	*	5184.667	4.123	106.446	110.569	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



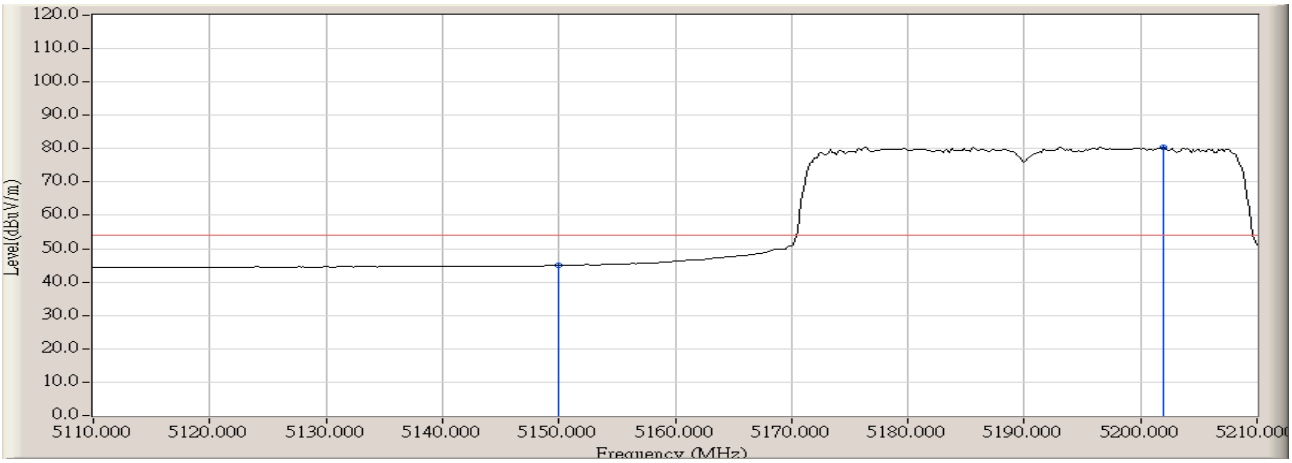
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	48.542	52.520	-1.450	53.970	AVERAGE
2	*	5194.000	4.166	92.628	96.794	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



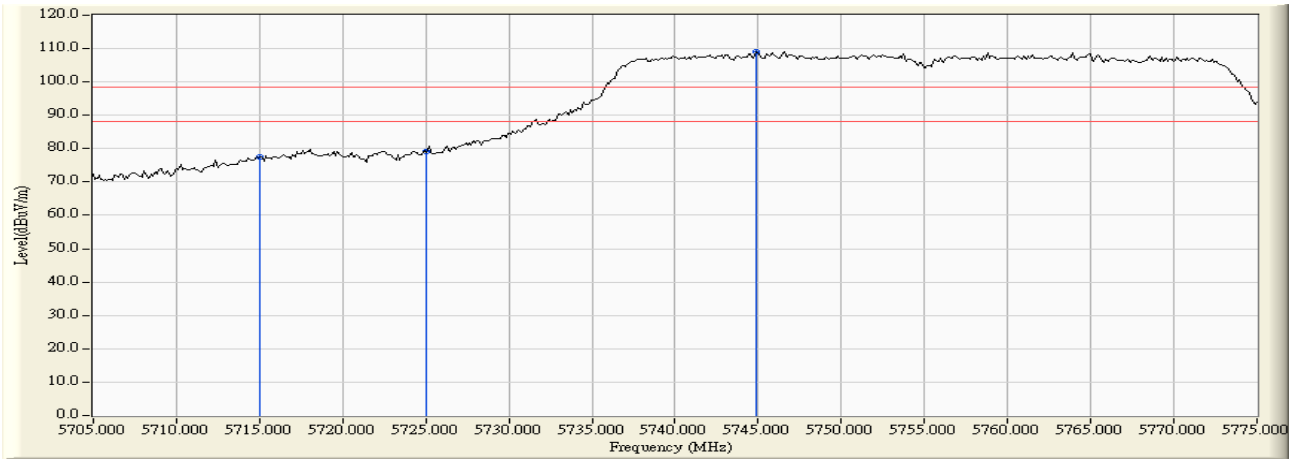
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	54.529	58.507	-15.463	73.970	PEAK
2	*	5204.833	4.166	89.966	94.132	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Anechoic Chamber)	**Time : 2008/09/24 - 13:49**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 0**
EUT : 802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3: Transmit by 802.11n(40MHz) at channel 5190MHz**



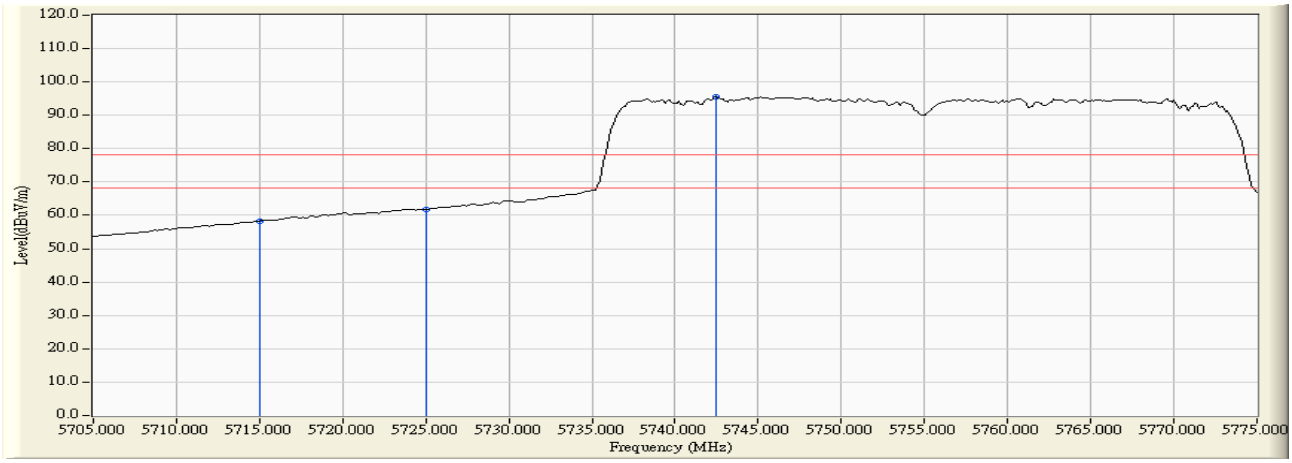
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	3.979	41.059	45.037	-8.933	53.970	AVERAGE
2	*	5202.000	4.178	76.402	80.580	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:32**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5755MHz**



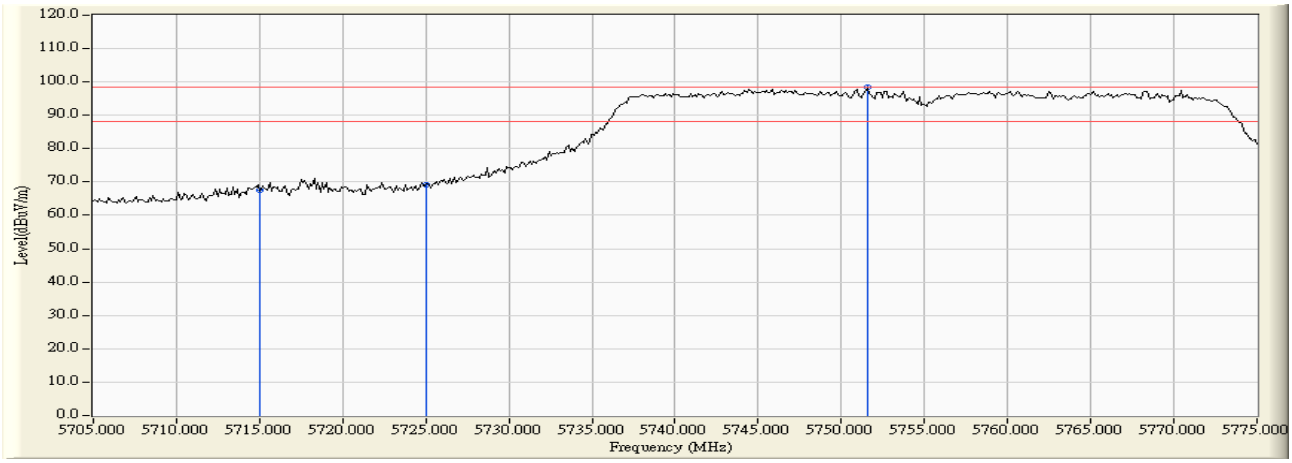
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	39.882	77.483	-10.817	88.300	PEAK
2		5725.000	37.618	41.605	79.223	-9.077	98.300	PEAK
3	*	5744.900	37.665	71.356	109.022	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:33**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5755MHz**



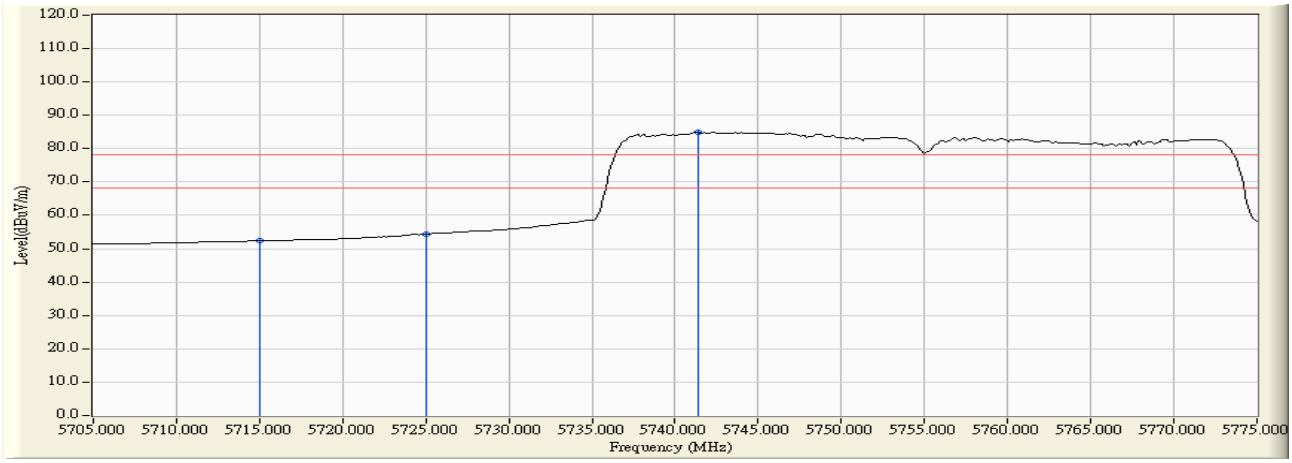
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	20.691	58.292	-10.008	68.300	AVERAGE
2		5725.000	37.618	24.302	61.920	-6.380	78.300	AVERAGE
3	*	5742.450	37.659	57.832	95.491	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:35**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5755MHz**



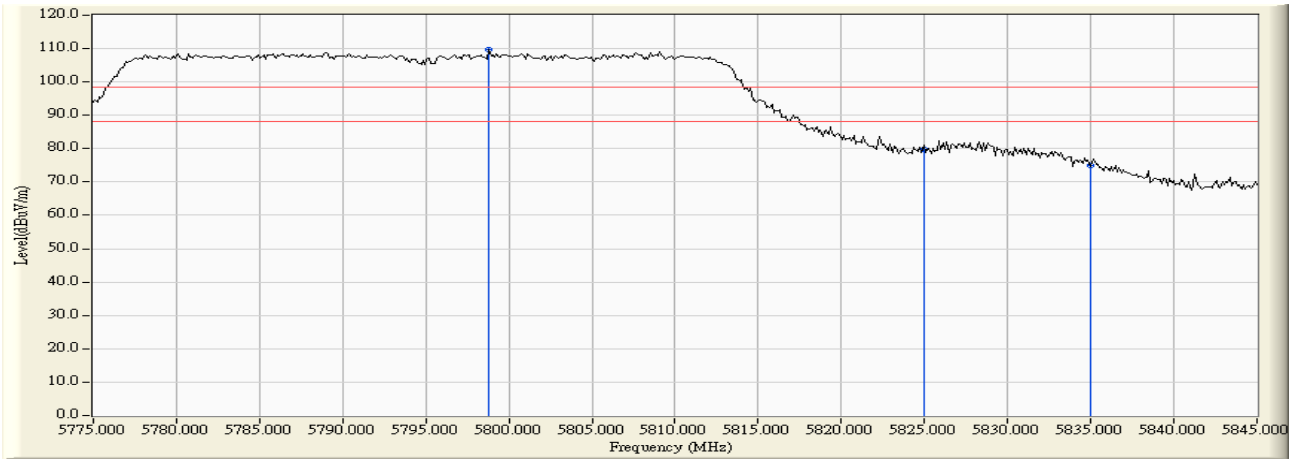
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	30.109	67.710	-20.590	88.300	PEAK
2		5725.000	37.618	31.627	69.245	-19.055	98.300	PEAK
3	*	5751.550	37.685	60.614	98.299	N/A	N/A	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:35**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5755MHz**



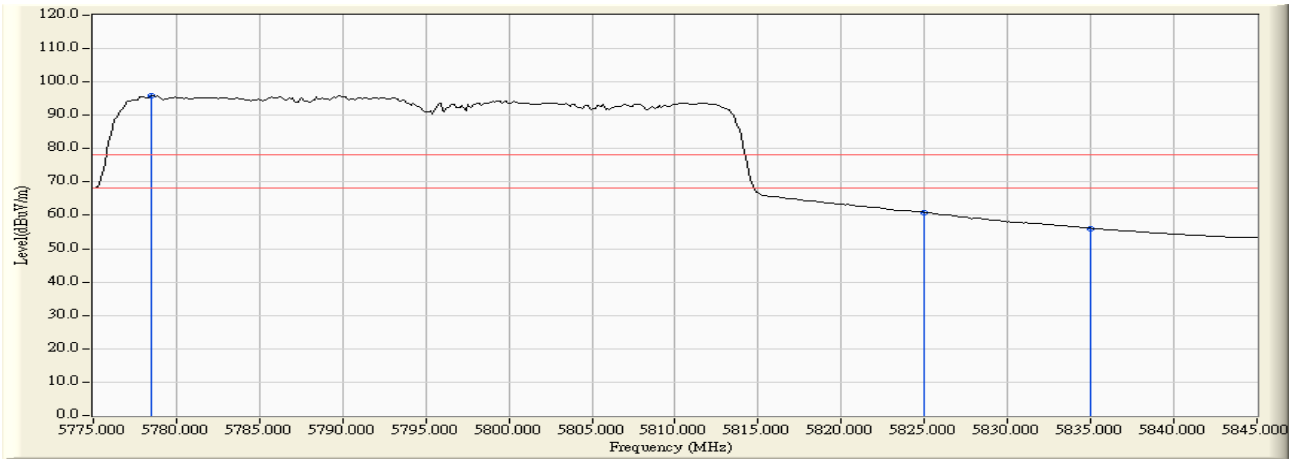
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5715.000	37.601	14.751	52.352	-15.948	68.300	AVERAGE
2		5725.000	37.618	16.691	54.309	-13.991	78.300	AVERAGE
3	*	5741.400	37.656	47.256	84.912	N/A	N/A	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:28**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5795MHz**



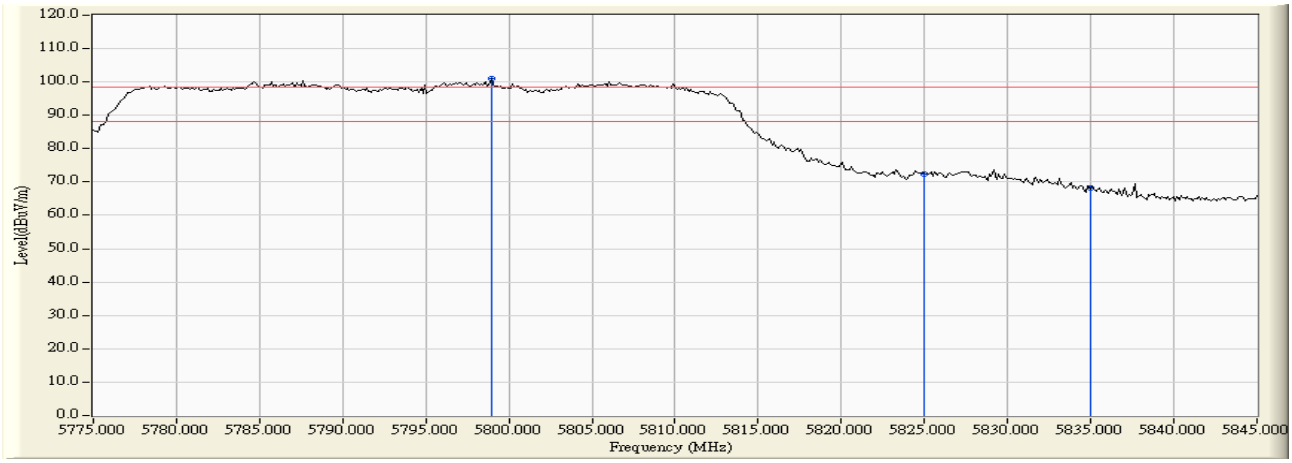
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.800	37.791	71.781	109.572	N/A	N/A	PEAK
2		5825.000	37.853	41.930	79.783	-8.517	98.300	PEAK
3		5835.000	37.876	37.160	75.036	-13.264	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:28**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - VERTICAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5795MHz**



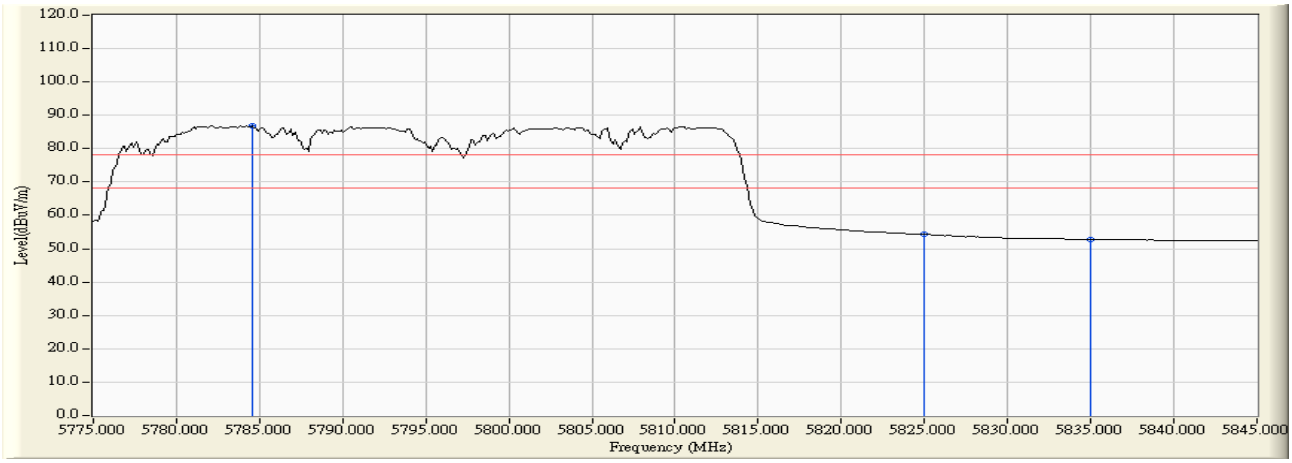
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5778.500	37.753	58.162	95.915	N/A	N/A	AVERAGE
2		5825.000	37.853	22.985	60.838	-7.462	78.300	AVERAGE
3		5835.000	37.876	18.241	56.117	-12.183	68.300	AVERAGE

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:25**
Limit : FCC_Part15.407_EIRP_03M_PK	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5795MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5798.917	37.792	63.331	101.123	N/A	N/A	PEAK
2		5825.000	37.853	34.675	72.528	-15.772	98.300	PEAK
3		5835.000	37.876	30.179	68.055	-20.245	88.300	PEAK

Engineer : Jame	
Site : AC-2 (3m Semi-Aenchoic Chamber)	**Time : 2009/02/17 - 21:25**
Limit : FCC_Part15.407_EIRP_03M_AV	**Margin : 10**
EUT :802.11A/B/G/N MINI-PCI MODULE	**Probe : BBHA9120D_496(1-18GHz) - HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode 3 :Transmit by 802.11n(40MHz) at channel 5795MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5784.567	37.763	49.128	86.891	N/A	N/A	AVERAGE
2		5825.000	37.853	16.441	54.294	-14.006	78.300	AVERAGE
3		5835.000	37.876	14.895	52.771	-15.529	68.300	AVERAGE

10. Frequency Stability

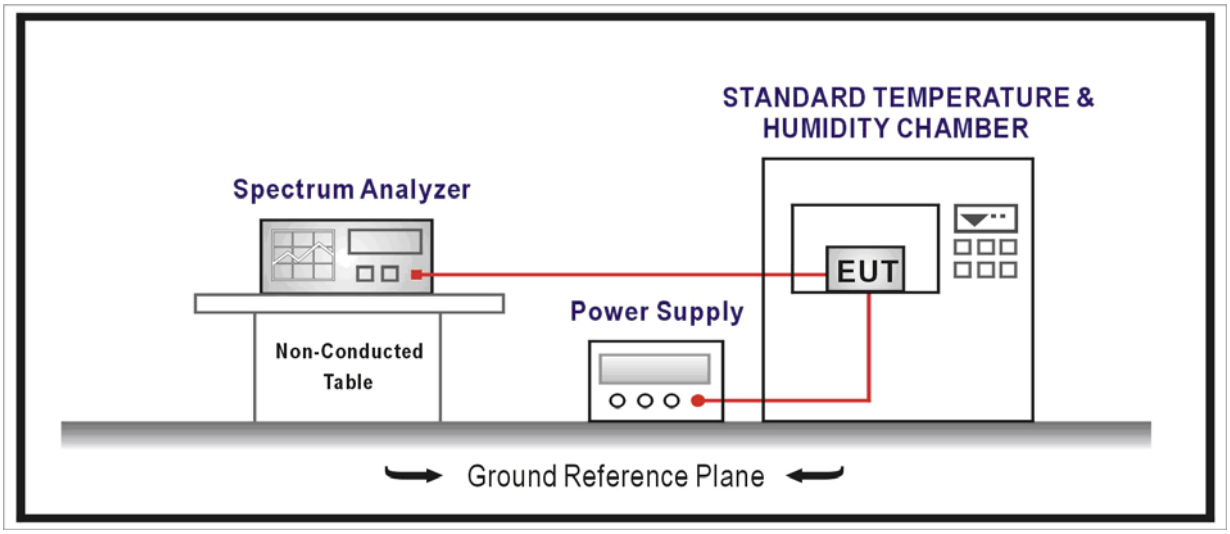
10.1. Test Equipment

Frequency Stability / AC-4

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2008/06/11
AC Power Supply	IDRC	CF-500TP	979422	2007/10/30
DC Power Supply	IDRC	CD-035-020PR	977272	2007/10/30
Programmable Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2008/01/19
Coaxial Cable	Huber+Suhner	AC4-RF	09	2007/11/25
Temperature/Humidity Meter	zhicheng	ZC1-2	QT-TH007	2008/03/09

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

10.2. Test Setup



10.3. Limit

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

10.4. Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

10.5. Uncertainty

The measurement uncertainty is defined as ± 100 Hz

10.6. Test Result

Product	:	802.11A/B/G/N MINI-PCI MODULE
Test Item	:	Frequency Stability
Test Site	:	AC-4
Test Mode	:	Carrier Transmit

Operating Frequency: 5180MHz					
Temp (℃)	Voltage (AC)	Frequency Tolerance (ppm)			
		0 minutes	2 minutes	5 minutes	10 minutes
-20	102	2.13	2.13	2.19	2.18
	120	1.98	1.97	1.96	1.98
	138	2.22	2.21	2.21	2.14
20	102	2.13	2.13	2.19	2.18
	120	1.96	1.96	1.95	1.94
	138	2.21	2.21	2.21	2.14
55	102	2.13	2.13	2.19	2.18
	120	1.97	1.96	1.96	1.94
	138	2.22	2.20	2.18	2.16

Operating Frequency: 5700MHz					
Temp (℃)	Voltage (AC)	Frequency Tolerance (ppm)			
		0 minutes	2 minutes	5 minutes	10 minutes
-20	102	2.02	2.03	2.01	2.02
	120	1.68	1.68	1.66	1.65
	138	2.12	2.11	2.08	2.09
20	102	2.02	2.03	2.01	2.02
	120	1.68	1.68	1.66	1.65
	138	2.13	2.11	2.08	2.09
55	102	2.02	2.03	2.01	2.02
	120	1.69	1.67	1.66	1.65
	138	2.12	2.12	2.08	2.09