FCC PART 15.407
IC RSS-210, ISSUE 8, DEC 2010
TEST AND MEASUREMENT REPORT

For

Ruckus Wireless, Inc.

350 West Java Drive,

Sunnyvale, CA 94089, USA

FCC ID: S9G-MPE5AC33A
IC: 5912A-MPE5AC33A

Report Type:	**Product Type:**
CIIPC Report	802.11ac Mini-PCI Express Radio Module

Test Engineers:	Ning Ma
Report Number:	R1302145-407W53W56
Report Date:	2013-12-03
Reviewed By:	Daniel Deng Technical Reviewer

Bay Area Compliance Laboratories Corp.
1274 Anvilwood Avenue,
Sunnyvale, CA 94089, USA
Tel: (408) 732-9162
Fax: (408) 732-9164

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R1302145-407W53W56	Original Report	2013-12-03

1 General Description

1.1 Product Description for Equipment under Test (EUT)

This test and measurement report was prepared on behalf of *Ruckus Wireless, Inc*., and their product model: *MPE5AC33A with FCC ID: S9G-MPE5AC33A, IC: 5912A-MPE5AC33A* or the "EUT" as referred to in this report. The EUT is an 802.11ac Mini-PCI Express Radio Module.

1.2 Mechanical Description of EUT

The "EUT" measures approximately *6.7cm (L) x 3.8cm (W) x 1.1cm (H)*, and weighs approximately *16* g.

The test data gathered are from typical production sample, serial number: CTS0413RK0085 *provided by the manufacture.*

1.3 Objective

This CIIPC report of adding W53 and W56 DFS bands is prepared on behalf of *Ruckus Wireless, Inc., in* accordance with FCC CFR47 §15.407 and IC RSS-210 Issue 8, Dec 2010.

The objective is to determine compliance with FCC Part 15.407 and IC RSS-210 rules for Antenna Requirements, Conducted Emissions, Occupied Bandwidth, Output Power, Power Spectral Density, Peak Excursion Ratio, Radiated and Conducted Spurious Emissions, and Band Edge. Please refer to the detail antenna list in the antenna requirement section.

1.4 Related Submittal(s)/Grant(s)

N/A

1.5 Test Methodology

ANSI C63.4-2009, ANSI C63.10-2009, FCC KDB 789033.

1.6 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR16-4-2:2003, The Treatment of Uncertainty in EMC Measurements, the values ranging from $\pm$2.0 dB for Conducted Emissions tests and $\pm$4.0 dB for Radiated Emissions tests are the most accurate estimates pertaining to uncertainty of EMC measurements at BACL Corp.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratory, Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

1.7 Test Facility

The test site used by BACL Corp. to collect radiated and conducted emissions measurement data is located at its facility in Sunnyvale, California, USA.

The test site at BACL Corp. has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997, and Article 8 of the VCCI regulations on December 25, 1997. The test site also complies with the test methods and procedures set forth in CISPR 22:2008 §10.4 for measurements below 1 GHz and §10.6 for measurements above 1 GHz as well as ANSI C63.4-2003, ANSI C63.4-2009, TIA/EIA-603 & CISPR 24:2010.

The Federal Communications Commission and Voluntary Control Council for Interference have the reports on file and they are listed under FCC registration number: 90464 and VCCI Registration No.: A-0027. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL Corp. is an American Association for laboratory Accreditation (A2LA) accredited laboratory (Lab Code 3297-02). The current scope of accreditations can be found at

http://www.a2la.org/scopepdf/3297-02.pdf?CFID=1132286&CFTOKEN=e42a3240dac3f6ba-6DE17DCB-1851-9E57-477422F667031258&jsessionid=8430d44f1f47cf2996124343c704b367816b

2 EUT Test Configuration

2.1 Justification

The EUT was configured for testing according to ANSI C63.4-2009.

The EUT was tested in a testing mode to represent worst-case results during the final qualification test.

The worst-case data rates are determined to be as follows for each mode based upon investigation by measuring the average power, peak power and PPSD across all data rates bandwidths, and modulations.

2.2 EUT Exercise Software

The test utility used was CART Version: 4.4, CartBuildDate: 4494324 was provided by Ruckus Wireless Inc, and was verified Ning Ma to comply with the standard requirements being tested against.

2.3 Equipment Modifications

No modifications were made to the EUT.

2.4 Local Support Equipment

Manufacturer	Description	Model	Serial Number
DELL	Laptop	P15F	-

2.5 EUT Internal Configuration Details

N/A: The EUT is a module and the serial number is shown on section 1.2.

2.6 Power Supply List and Details

Manufacturer	Description	Model	Serial Number
Ruckus Wireless	Switching adapter	MPBS-12020000	-

2.7 Interface Ports and Cables

Cable Description	Length (m)	To	From
RF Cable	<1.0	PSA	EUT
RJ 45 Cable	<1.0	Laptop	EUT

3 Summary of Test Results

FCC & IC Rules	Description of Test	Results
FCC §15.407(f), §2.1091 IC RSS-102	RF Exposure	Compliant
FCC §15.203 IC RSS-Gen §7.1.2	Antenna Requirement	Compliant
FCC §15.207 IC RSS-Gen §7.2.4	AC Power Line Conducted Emissions	Compliant
FCC §15.209(a), 15.407(b) IC RSS-210 §A9.2	Spurious Radiated Emissions	Compliant
FCC §15.407(a) IC RSS-210 §A9.2	26 dB and 99% Emission Bandwidth	Compliant
FCC §407(a)(1) IC RSS-210 §A9.2	Peak Output Power Measurement	Compliant
FCC §2.1051, §15.407(b) IC RSS-210 §A9.2	Out of Band Emissions	Compliant
FCC §15.407(a)(1) IC RSS-210 §A9.2	Power Spectral Density	Compliant
FCC §15.407(a)(6)	Peak Excursion Ratio	Compliant
IC RSS-210 §2.3 IC RSS-Gen §6.1	Receiver Spurious Radiated Emissions	Compliant
FCC §2.1051, §15.407(b) IC RSS-210 §A9.2	Spurious Emissions at Antenna Terminals	Compliant

4 FCC §15.407(f), §2.1091 & IC RSS-102 - RF Exposure

4.1 Applicable Standard

According to FCC §15.407(f) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	* (100)	30
1.34-30	824/f	2.19/f	* ($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

Before equipment certification is granted, the procedure of IC RSS-102 must be followed concerning the exposure of humans to RF fields.

According to IC RSS-102 Issue 2 section 4.1, RF limits used for general public will be applied to the EUT.

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Time Averaging (min)
0.003 - 1	280	2.19	-	6
1 - 10	280 / f	2.19 / f	-	6
10 - 30	28	2.19 / f	-	6
30 – 300	28	0.073	2*	6
300 – 1 500	$1.585\ f^{0.5}$	$0.0042\ f^{0.5}$	f / 150	6
1 500 – 15 000	61.4	0.163	10	6
15 000 – 150 000	61.4	0.163	10	$616000 / f^{1.2}$
150 000- 300 000	$0.158\ f^{0.5}$	$4.21 \times 10^{-4}\ f^{0.5}$	$6.67 \times 10^{-5}\ f$	$616000 / f^{1.2}$

Note: *f* is frequency in MHz
* = Power density limit is applicable at frequencies greater than 100 MHz

4.2 MPE Prediction

Predication of MPE limit at a given distance, Equation from OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where: S = power density
P = power input to antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

4.3 MPE Results

W53 Band:

Maximum peak output power at antenna input terminal (dBm):	23.75
Maximum peak output power at antenna input terminal (mW):	237.14
Prediction distance (cm):	20
Prediction frequency (MHz):	5270
Maximum Antenna Gain, typical (dBi):	3.0
Maximum Antenna Gain (numeric):	1.99
Power density of prediction frequency at 20.0 cm (mW/cm^2):	0.094
Power density of prediction frequency at 20.0 cm (W/m^2):	0.94
MPE limit for uncontrolled exposure at prediction frequency (mW/cm^2):	1.0
MPE limit for uncontrolled exposure at prediction frequency (W/m^2):	10

The device meets FCC/IC MPE requirement for uncontrolled exposure environment at 20 cm distance.

W56 Band:

Maximum peak output power at antenna input terminal (dBm):	23.39
Maximum peak output power at antenna input terminal (mW):	218.27
Prediction distance (cm):	20
Prediction frequency (MHz):	5710
Maximum Antenna Gain, typical (dBi):	3.0
Maximum Antenna Gain (numeric):	1.99
Power density of prediction frequency at 20.0 cm (mW/cm^2):	0.087
Power density of prediction frequency at 20.0 cm (W/m^2):	0.87
MPE limit for uncontrolled exposure at prediction frequency (mW/cm^2):	1.0
MPE limit for uncontrolled exposure at prediction frequency (W/m^2):	10

The device meets FCC/IC MPE requirement for uncontrolled exposure environment at 20 cm distance for mobile use.

5 FCC §15.203 & IC RSS-Gen §7.1.2 – Antenna Requirements

5.1 Applicable Standard

According to FCC §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to FCC §15.247 (b)(4), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

As per IC RSS-Gen §7.1.2: Transmitter Antenna
A transmitter can only be sold or operated with antennas with which it was certified. A transmitter may be certified with multiple antenna types. An antenna type comprises antennas having similar in-band and out-of-band radiation patterns. Testing shall be performed using the highest-gain antenna of each combination of transmitter and antenna type for which certification is being sought, with the transmitter output power set at the maximum level. Any antenna of the same type and having equal or lesser gain as an antenna that had been successfully tested for certification with the transmitter, will also be considered certified with the transmitter, and may be used and marketed with the transmitter. The manufacturer shall include with the application for certification a list of acceptable antenna types to be used with the transmitter.
When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on measurement or on data from the antenna manufacturer. Any antenna gain in excess of 6 dBi (6 dB above isotropic gain) shall be added to the measured RF output power before using the power limits specified in RSS-210 or RSS-310 for devices of RF output powers of 10 milliwatts or less. For devices of output powers greater than 10 milliwatts, except devices subject to RSS-210 Annex 8 (Frequency Hopping and Digital Modulation Systems Operating in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz Bands) or RSS-210 Annex 9 (Local Area Network Devices), the total antenna gain shall be added to the measured RF output power before using the specified power limits. For devices subject to RSS-210 Annex 8 or Annex 9, the antenna gain shall not be added.

5.2 Result

The EUT will antennas that consist of UFL connectors and gain of 3.0 dBi; therefore, it complies with the antenna requirement. Please refer to the internal photos.

6 FCC §15.207 & IC RSS-Gen §7.2.4 - AC Power Line Conducted Emissions

6.1 Applicable Standards

As per FCC §15.207 and IC RSS-Gen §7.2.4 Conducted limits:

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 Note 1	56 to 46 Note 1
0.5-5	56	46
5-30	60	50

Note 1 Decreases with the logarithm of the frequency.

6.2 Test Setup

The measurement was performed at shield room, using the setup per ANSI C63.4-2003 measurement procedure. The specification used was FCC §15.207 and IC RSS-Gen §7.2.4 limits.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The AC/DC power adapter of the test support board was connected with LISN-1 which provided 120 V / 60 Hz AC power.

6.3 Test Procedure

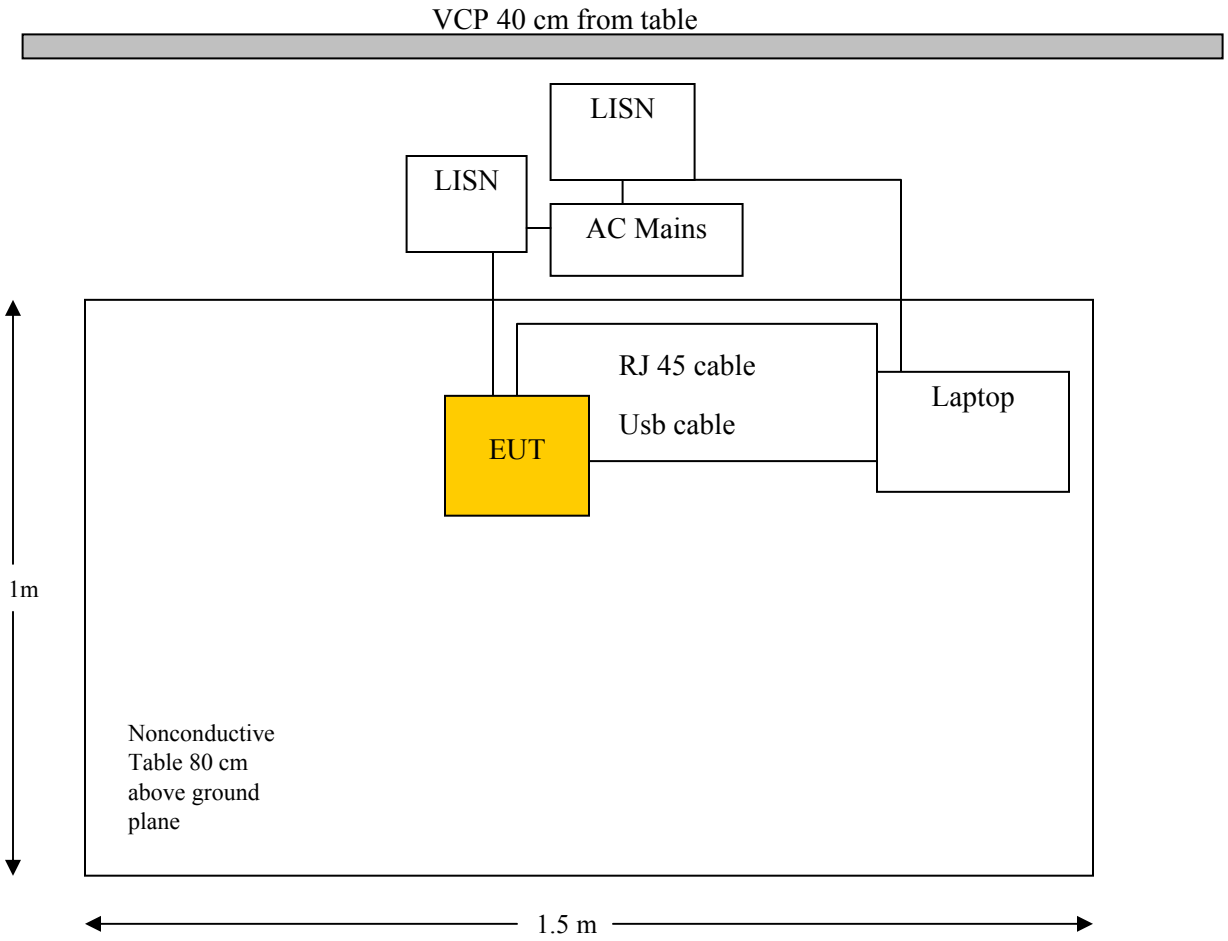
During the conducted emissions test, the power cord of the EUT host system was connected to the mains outlet of the LISN-2.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the peak detection mode, quasi-peak and average. Quasi-Peak readings are distinguished with a “QP.” Average readings are distinguished with an “Ave”.

6.4 Test Setup Block Diagram

AC/DC Adaptor:



6.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Cable Loss (CL), the Attenuator Factor (Atten) to indicated Amplitude (Ai) reading. The basic equation is as follows:

CA = Ai + CL + Atten

For example, a corrected amplitude of 46.2 dBuV = Indicated Reading (32.5 dBuV) + Cable Loss (3.7 dB) + Attenuator (10 dB)

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

6.6 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Rohde & Schwarz	Receiver, EMI Test	ESCI 1166.5950K03	100337	2013-03-28	1 year
TTE	Filter, High Pass	H962-150k-50-21378	K7133	2012-05-30	1 year
Solar Electronics	LISN, EMC	9252-50-R-24-N	511205	2012-06-25	1 year
Solar Electronics	LISN, EMC	9252-50-R-24-N	511213	2012-06-25	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

6.7 Test Environmental Conditions

Temperature:	21 ºC
Relative Humidity:	41 %
ATM Pressure:	102.1 kPa

The testing was performed by Ning Ma on 2013-05-07 in 5 m chamber 3.

6.8 Summary of Test Results

According to the recorded data in following table, the EUT complied with the FCC/IC standard's conducted emissions limits, with the margin reading of:

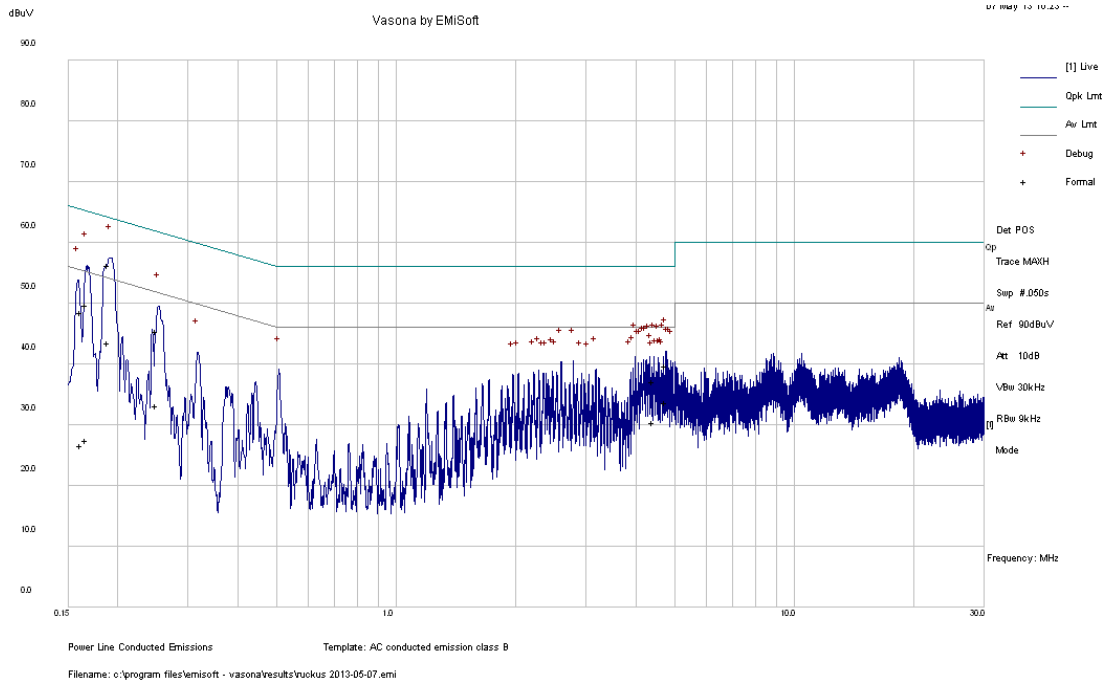
Transmitting Mode:

Connection: 120 V/60 Hz, AC			
Margin (dB)	**Frequency (MHz)**	**Conductor (Line/Neutral)**	**Range (MHz)**
-7.66	0.189774	Line	0.15-30

6.9 Conducted Emissions Test Plots and Data

Transmitting Mode: 802.11n-HT40, Low channel

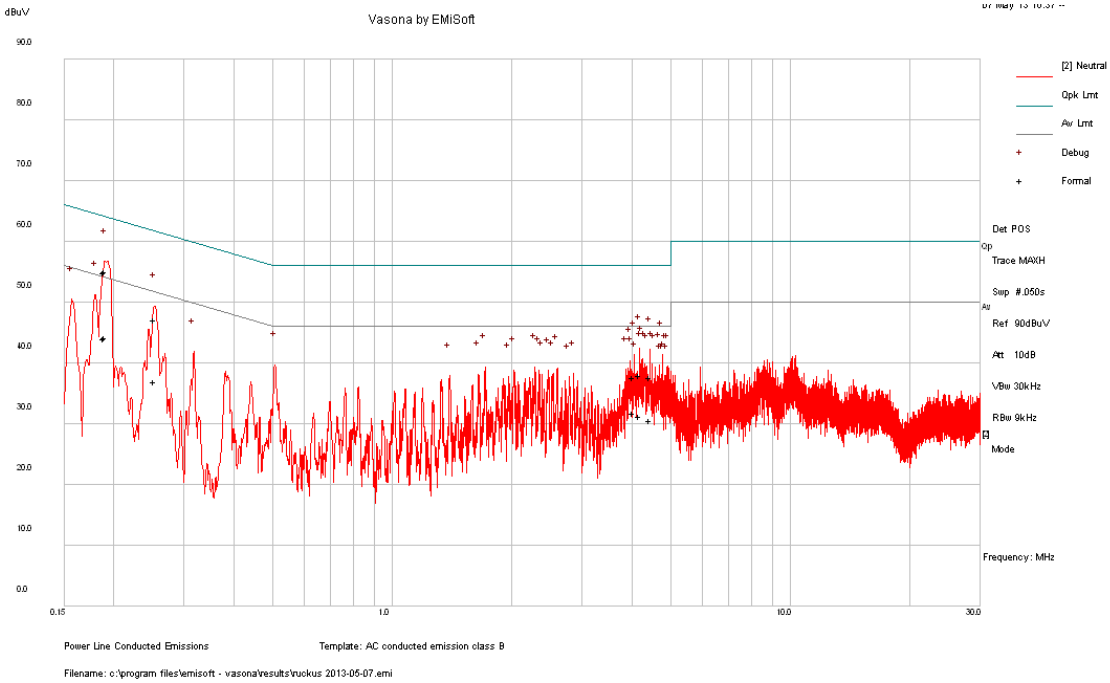
120 V, 60 Hz – Line, AC/DC Adaptor



Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.189774	56.39	Line	64.05	-7.66	QP
0.166344	49.77	Line	65.14	-15.37	QP
0.162105	48.6	Line	65.36	-16.75	QP
0.250308	45.36	Line	61.75	-16.38	QP
4.759649	39.82	Line	56	-16.18	QP
4.42889	37.25	Line	56	-18.75	QP

Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.189774	43.57	Line	54.05	-10.48	Ave.
0.166344	27.48	Line	55.14	-27.66	Ave.
0.162105	26.71	Line	55.36	-28.64	Ave.
0.250308	33.27	Line	51.75	-18.48	Ave.
4.759649	33.64	Line	46	-12.36	Ave.
4.42889	30.52	Line	46	-15.48	Ave.

120 V, 60 Hz – Neutral, AC/DC Adaptor



Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.190371	55.07	Neutral	64.02	-8.95	QP
0.252792	47.11	Neutral	61.66	-14.55	QP
0.189702	55.01	Neutral	64.05	-9.04	QP
4.175021	38.07	Neutral	56	-17.93	QP
4.435751	37.61	Neutral	56	-18.39	QP
4.04825	37.64	Neutral	56	-18.36	QP

Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.190371	44.24	Neutral	54.02	-9.78	Ave.
0.252792	36.96	Neutral	51.66	-14.71	Ave.
0.189702	44.06	Neutral	54.05	-9.98	Ave.
4.175021	31.26	Neutral	46	-14.74	Ave.
4.435751	30.57	Neutral	46	-15.43	Ave.
4.04825	31.77	Neutral	46	-14.23	Ave.

7 FCC §15.209, §15.407(b) & IC RSS-210 §A9.2 - Spurious Radiated Emissions

7.1 Applicable Standard

FCC §15.205, §15.209, §15.407 (b)

IC RSS-210, §2.2, §A9.2, RSS-Gen §7.2.2

7.2 Test Setup

The radiated emissions tests were performed in the 5-meter Chamber, using the setup in accordance with ANSI C63.4-2009, C63.10-2009. The specification used was the FCC 15C/15E and IC RSS-210/RSS-Gen limits.

The spacing between the peripherals was 10 centimeters.
External I/O cables were draped along the edge of the test table and bundle when necessary.

7.3 Test Procedure

For the radiated emissions test, the EUT host, and all support equipment power cords was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meters, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

The spectrum analyzer or receiver is set as:

Below 1000 MHz:

RBW = 100 kHz/VBW = 300 kHz/Sweep = Auto

Above 1000 MHz:

(1) Peak: RBW = 1MHz/VBW = 1MHz/Sweep = Auto
(2) Average: RBW = 1MHz/VBW = 10Hz/Sweep = Auto

7.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Antenna Factor (AF), the Cable Loss (CL), the Attenuator Factor (Atten) and subtracting the Amplifier Gain (Ga) to indicated Amplitude (Ai) reading. The basic equation is as follows:

CA = Ai + AF + CL + Atten – Ga

For example, a corrected amplitude of 40.3 dBuV/m = Indicated Reading (32.5 dBuV) + Antenna Factor (+23.5 dB) + Cable Loss (3.7 dB) + Attenuator (10 dB) - Amplifier Gain (29.4 dB)

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

7.5 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Sunol Science Corp	System Controller	SC99V	122303-1	N/R	N/R
Sunol Science Corp	Combination Antenna	JB3	A020106-2	2012-08-15	1 year
Hewlett Packard	Pre-amplifier	8447D	2944A06639	2012-06-09	1 year
HP	Pre-amplifier	8449B	3147A00400	2013-02-04	1 year
Agilent	Spectrum Analyzer	E4440A	MY44303352	2012-10-16	1 year
A.R.A	Horn Antenna	DRG-118/A	1132	2013-01-29	1 year
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100338	2012-09-19	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

7.6 Test Environmental Conditions

Temperature:	22 °C
Relative Humidity:	41 %
ATM Pressure:	102.1 kPa

The testing was performed by Ning Ma from 2013-05-08 at 5 meter 3.

7.7 Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Part 15.205, 15.209 and 15.407 & IC RSS-210, RSS-Gen standard's radiated emissions limits, and had the worst margin of:

W53 Band:

Mode: Transmitting			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Range**
-0.39	125.0015	Vertical	30 MHz to 1 GHz
-0.345	5150	Vertical	1 to 40 GHz

W56 Band:

Mode: Transmitting			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Range**
-0.5	125.0015	Vertical	30 MHz to 1 GHz
-0.277	5460	Vertical	1 to 40 GHz

7.8 Radiated Emissions Test Result Data

1) W53 Band, 30 MHz–1 GHz, Measured at 3 meters

W53 Band, Dipole Antennas, Quasi-Peak Measurements

802.11a mode, High Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	36.29	160	V	142	46	-9.71
125.0015	43.11	110	V	60	43.5	-0.39
625.015	43.08	122	H	155	46	-2.92
249.999	41.15	115	H	144	46	-4.85

802.11n-HT20 mode, Middle Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	36.63	158	V	140	46	-9.37
125.0015	42.89	106	V	59	43.5	-0.61
625.015	42.97	118	H	152	46	-3.03
249.999	41.21	110	H	139	46	-4.79

802.11n-HT40 mode, Low Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	36.79	159	V	135	46	-9.21
125.0015	42.93	106	V	55	43.5	-0.57
625.015	42.16	115	H	155	46	-3.84
249.999	40.88	108	H	141	46	-5.12

802.11ac 80 mode

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	36.51	150	V	145	46	-9.49
125.0015	41.89	109	V	65	43.5	-1.61
625.015	41.59	112	H	148	46	-4.41
249.999	41.22	110	H	130	46	-4.78

Note: Only digital emissions present from 30 MHz to 1 GHz, therefore only one channel was tested per modulation.

2) W53 Band, 1–40 GHz, Measured at 3 meters

802.11a mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz, measured at 3 meters											
10520	28.33	0	100	V	39.79	7.02	26.98	48.16	74	-25.84	Peak
10520	29.61	0	100	H	39.79	7.02	26.98	49.44	74	-24.56	Peak
10520	13.75	0	100	V	39.79	7.02	26.98	33.58	54	-20.42	Ave
10520	13.59	0	100	H	39.79	7.02	26.98	33.42	54	-20.58	Ave
15780	31.29	0	100	V	39.284	8.38	25.92	53.034	74	-20.966	Peak
15780	32.01	0	100	H	39.284	8.38	25.92	53.754	74	-20.246	Peak
15780	17.26	0	100	V	39.284	8.38	25.92	39.004	54	-14.996	Ave
15780	17.11	0	100	H	39.284	8.38	25.92	38.854	54	-15.146	Ave
5150	29.76	0	100	V	33.825	4.56	0	68.145	74	-5.855	Peak
5150	29.61	0	100	H	33.825	4.56	0	67.995	74	-6.005	Peak
5150	15.27	0	100	V	33.825	4.56	0	53.655	54	-0.345	Ave
5150	14.91	0	100	H	33.825	4.56	0	53.295	54	-0.705	Ave
5350	28.75	0	100	V	34.05	4.71	0	67.51	74	-6.49	Peak
5350	28.11	0	100	H	34.05	4.71	0	66.87	74	-7.13	Peak
5350	14.24	0	100	V	34.05	4.71	0	53	54	-1	Ave
5350	14.37	0	100	H	34.05	4.71	0	53.13	54	-0.87	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Middle Channel 5280 MHz, measured at 3 meters											
10560	28.61	0	100	V	39.79	7.02	26.98	48.44	74	-25.56	Peak
10560	28.57	0	100	H	39.79	7.02	26.98	48.4	74	-25.6	Peak
10560	12.69	0	100	V	39.79	7.02	26.98	32.52	54	-21.48	Ave
10560	12.19	0	100	H	39.79	7.02	26.98	32.02	54	-21.98	Ave
15840	31.27	0	100	V	39.284	8.38	25.92	53.014	74	-20.986	Peak
15840	31.22	0	100	H	39.284	8.38	25.92	52.964	74	-21.036	Peak
15840	17.2	0	100	V	39.284	8.38	25.92	38.944	54	-15.056	Ave
15840	16.97	0	100	H	39.284	8.38	25.92	38.714	54	-15.286	Ave
5150	28.76	0	100	V	33.825	4.56	0	67.145	74	-6.855	Peak
5150	28.13	0	100	H	33.825	4.56	0	66.515	74	-7.485	Peak
5150	14.96	0	100	V	33.825	4.56	0	53.345	54	-0.655	Ave
5150	14.56	0	100	H	33.825	4.56	0	52.945	54	-1.055	Ave
5350	28.53	0	100	V	34.05	4.71	0	67.29	74	-6.71	Peak
5350	28.49	0	100	H	34.05	4.71	0	67.25	74	-6.75	Peak
5350	14.36	0	100	V	34.05	4.71	0	53.12	54	-0.88	Ave
5350	14.51	0	100	H	34.05	4.71	0	53.27	54	-0.73	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5320 MHz, measured at 3 meters											
10640	45.58	0	100	V	39.59	6.14	34.49	56.82	74	-17.18	Peak
10640	45.27	0	100	H	39.59	6.14	34.49	56.51	74	-17.49	Peak
10640	30.8	0	100	V	39.59	6.14	34.49	42.04	54	-11.96	Ave
10640	30.75	0	100	H	39.59	6.14	34.49	41.99	54	-12.01	Ave
15960	47.39	0	100	V	38.764	7.71	34.82	59.044	74	-14.956	Peak
15960	47.2	0	100	H	38.764	7.71	34.82	58.854	74	-15.146	Peak
15960	32.49	0	100	V	38.764	7.71	34.82	44.144	54	-9.856	Ave
15960	32.51	0	100	H	38.764	7.71	34.82	44.164	54	-9.836	Ave
5150	28.63	0	100	V	33.825	4.52	0	66.975	74	-7.025	Peak
5150	28.67	0	100	H	33.825	4.52	0	67.015	74	-6.985	Peak
5150	14.86	0	100	V	33.825	4.52	0	53.205	54	-0.795	Ave
5150	14.67	0	100	H	33.825	4.52	0	53.015	54	-0.985	Ave
5350	28.55	0	100	V	34.05	4.6	0	67.2	74	-6.8	Peak
5350	28.67	0	100	H	34.05	4.6	0	67.32	74	-6.68	Peak
5350	14.96	0	100	V	34.05	4.6	0	53.61	54	-0.39	Ave
5350	14.38	0	100	H	34.05	4.6	0	53.03	54	-0.97	Ave

802.11n-HT20 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz, measured at 3 meters											
10520	45.27	0	100	V	39.59	6.14	34.49	56.51	74	-17.49	Peak
10520	45.19	0	100	H	39.59	6.14	34.49	56.43	74	-17.57	Peak
10520	30.94	0	100	V	39.59	6.14	34.49	42.18	54	-11.82	Ave
10520	30.56	0	100	H	39.59	6.14	34.49	41.8	54	-12.2	Ave
15780	46.46	0	100	V	39.061	7.71	34.72	58.511	74	-15.489	Peak
15780	46.51	0	100	H	39.061	7.71	34.72	58.561	74	-15.439	Peak
15780	31.9	0	100	V	39.061	7.71	34.72	43.951	54	-10.049	Ave
15780	31.96	0	100	H	39.061	7.71	34.72	44.011	54	-9.989	Ave
5150	28.79	0	100	V	33.825	4.52	0	67.135	74	-6.865	Peak
5150	28.64	0	100	H	33.825	4.52	0	66.985	74	-7.015	Peak
5150	14.33	0	100	V	33.825	4.52	0	52.675	54	-1.325	Ave
5150	14.57	0	100	H	33.825	4.52	0	52.915	54	-1.085	Ave
5350	28.49	0	100	V	34.05	4.6	0	67.14	74	-6.86	Peak
5350	28.63	0	100	H	34.05	4.6	0	67.28	74	-6.72	Peak
5350	14.53	0	100	V	34.05	4.6	0	53.18	54	-0.82	Ave
5350	14.62	0	100	H	34.05	4.6	0	53.27	54	-0.73	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Middle Channel 5200 MHz, measured at 3 meters											
10560	45.49	0	100	V	39.79	6.23	34.27	57.24	74	-16.76	Peak
10560	45.51	0	100	H	39.79	6.23	34.27	57.26	74	-16.74	Peak
10560	30.62	0	100	V	39.79	6.23	34.27	42.37	54	-11.63	Ave
10560	30.71	0	100	H	39.79	6.23	34.27	42.46	54	-11.54	Ave
15840	46.4	0	100	V	39.284	7.71	34.72	58.674	74	-15.326	Peak
15840	46.71	0	100	H	39.284	7.71	34.72	58.984	74	-15.016	Peak
15840	31.67	0	100	V	39.284	7.71	34.72	43.944	54	-10.056	Ave
15840	31.82	0	100	H	39.284	7.71	34.72	44.094	54	-9.906	Ave
5150	28.92	0	100	V	33.825	4.52	0	67.265	74	-6.735	Peak
5150	29.02	0	100	H	33.825	4.52	0	67.365	74	-6.635	Peak
5150	14.67	0	100	V	33.825	4.52	0	53.015	54	-0.985	Ave
5150	14.71	0	100	H	33.825	4.52	0	53.055	54	-0.945	Ave
5350	29.31	0	100	V	34.05	4.6	0	67.96	74	-6.04	Peak
5350	29.17	0	100	H	34.05	4.6	0	67.82	74	-6.18	Peak
5350	14.75	0	100	V	34.05	4.6	0	53.4	54	-0.6	Ave
5350	14.63	0	100	H	34.05	4.6	0	53.28	54	-0.72	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5240 MHz, measured at 3 meters											
10640	44.87	0	100	V	39.59	6.14	34.49	56.11	74	-17.89	Peak
10640	45.01	0	100	H	39.59	6.14	34.49	56.25	74	-17.75	Peak
10640	30.28	0	100	V	39.59	6.14	34.49	41.52	54	-12.48	Ave
10640	30.19	0	100	H	39.59	6.14	34.49	41.43	54	-12.57	Ave
15960	44.72	0	100	V	38.764	7.71	34.82	56.374	74	-17.626	Peak
15960	44.95	0	100	H	38.764	7.71	34.82	56.604	74	-17.396	Peak
15960	30.33	0	100	V	38.764	7.71	34.82	41.984	54	-12.016	Ave
15960	30.28	0	100	H	38.764	7.71	34.82	41.934	54	-12.066	Ave
5150	29.11	0	100	V	33.825	4.52	0	67.455	74	-6.545	Peak
5150	29.34	0	100	H	33.825	4.52	0	67.685	74	-6.315	Peak
5150	14.93	0	100	V	33.825	4.52	0	53.275	54	-0.725	Ave
5150	14.82	0	100	H	33.825	4.52	0	53.165	54	-0.835	Ave
5350	29.34	0	100	V	34.05	4.6	0	67.99	74	-6.01	Peak
5350	29.55	0	100	H	34.05	4.6	0	68.2	74	-5.8	Peak
5350	14.92	0	100	V	34.05	4.6	0	53.57	54	-0.43	Ave
5350	14.79	0	100	H	34.05	4.6	0	53.44	54	-0.56	Ave

802.11n-HT40 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5270 MHz, measured at 3 meters											
10540	45.12	0	100	V	39.59	6.14	34.49	56.36	74	-17.64	Peak
10540	44.79	0	100	H	39.59	6.14	34.49	56.03	74	-17.97	Peak
10540	30.21	0	100	V	39.59	6.14	34.49	41.45	54	-12.55	Ave
10540	30.36	0	100	H	39.59	6.14	34.49	41.6	54	-12.4	Ave
15810	45.99	0	100	V	39.061	7.71	34.72	58.041	74	-15.959	Peak
15810	45.82	0	100	H	39.061	7.71	34.72	57.871	74	-16.129	Peak
15810	31.66	0	100	V	39.061	7.71	34.72	43.711	54	-10.289	Ave
15810	31.58	0	100	H	39.061	7.71	34.72	43.631	54	-10.369	Ave
5150	28.37	0	100	V	33.825	4.52	0	66.715	74	-7.285	Peak
5150	29.13	0	100	H	33.825	4.52	0	67.475	74	-6.525	Peak
5150	14.62	0	100	V	33.825	4.52	0	52.965	54	-1.035	Ave
5150	14.83	0	100	H	33.825	4.52	0	53.175	54	-0.825	Ave
5350	29.66	0	100	V	34.05	4.6	0	68.31	74	-5.69	Peak
5350	29.49	0	100	H	34.05	4.6	0	68.14	74	-5.86	Peak
5350	14.38	0	100	V	34.05	4.6	0	53.03	54	-0.97	Ave
5350	14.86	0	100	H	34.05	4.6	0	53.51	54	-0.49	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5310 MHz, measured at 3 meters											
10620	44.59	0	100	V	39.479	6.14	34.27	55.939	74	-18.061	Peak
10620	44.71	0	100	H	39.479	6.14	34.27	56.059	74	-17.941	Peak
10620	30.01	0	100	V	39.479	6.14	34.27	41.359	54	-12.641	Ave
10620	30.09	0	100	H	39.479	6.14	34.27	41.439	54	-12.561	Ave
15930	46.43	0	100	V	39.047	7.71	34.8	58.387	74	-15.613	Peak
15930	46.51	0	100	H	39.047	7.71	34.8	58.467	74	-15.533	Peak
15930	32.18	0	100	V	39.047	7.71	34.8	44.137	54	-9.863	Ave
15930	32.27	0	100	H	39.047	7.71	34.8	44.227	54	-9.773	Ave
5150	29.16	0	100	V	33.825	4.52	0	67.505	74	-6.495	Peak
5150	29.66	0	100	H	33.825	4.52	0	68.005	74	-5.995	Peak
5150	15.01	0	100	V	33.825	4.52	0	53.355	54	-0.645	Ave
5150	14.83	0	100	H	33.825	4.52	0	53.175	54	-0.825	Ave
5350	28.06	0	100	V	34.05	4.6	0	66.71	74	-7.29	Peak
5350	28.13	0	100	H	34.05	4.6	0	66.78	74	-7.22	Peak
5350	14.98	0	100	V	34.05	4.6	0	53.63	54	-0.37	Ave
5350	15.06	0	100	H	34.05	4.6	0	53.71	54	-0.29	Ave

802.11ac 80 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Channel 5290 MHz, measured at 3 meters											
10580	44.61	0	100	V	39.479	6.14	34.27	55.959	74	-18.041	Peak
10580	44.73	0	100	H	39.479	6.14	34.27	56.079	74	-17.921	Peak
10580	30.11	0	100	V	39.479	6.14	34.27	41.459	54	-12.541	Ave
10580	30.19	0	100	H	39.479	6.14	34.27	41.539	54	-12.461	Ave
15870	46.51	0	100	V	39.047	7.71	34.8	58.467	74	-15.533	Peak
15870	46.27	0	100	H	39.047	7.71	34.8	58.227	74	-15.773	Peak
15870	31.19	0	100	V	39.047	7.71	34.8	43.147	54	-10.853	Ave
15870	31.82	0	100	H	39.047	7.71	34.8	43.777	54	-10.223	Ave
5150	29.67	0	100	V	33.825	4.52	0	68.015	74	-5.985	Peak
5150	29.82	0	100	H	33.825	4.52	0	68.165	74	-5.835	Peak
5150	14.08	0	100	V	33.825	4.52	0	52.425	54	-1.575	Ave
5150	14.92	0	100	H	33.825	4.52	0	53.265	54	-0.735	Ave
5350	29.64	0	100	V	34.05	4.6	0	68.29	74	-5.71	Peak
5350	29.73	0	100	H	34.05	4.6	0	68.38	74	-5.62	Peak
5350	14.36	0	100	V	34.05	4.6	0	53.01	54	-0.99	Ave
5350	14.72	0	100	H	34.05	4.6	0	53.37	54	-0.63	Ave

3) W56 Band, 30 MHz–1 GHz, Measured at 3 meters

W56 Band, Dipole Antennas, Quasi-Peak Measurements

802.11a mode, High Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	32.19	137	V	133	46	-13.81
125.0015	40.95	115	V	58	43.5	-2.55
625.015	41.26	107	H	152	46	-4.74
249.999	40.98	100	H	131	46	-5.02

802.11n-HT20 mode, Middle Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	35.82	141	V	129	46	-10.18
125.0015	42.01	110	V	61	43.5	-1.49
625.015	41.57	108	H	148	46	-4.43
249.999	41.03	115	H	127	46	-4.97

802.11n-HT40 mode, Low Channel

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	38.92	137	V	120	46	-7.08
125.0015	43	108	V	59	43.5	-0.5
625.015	42.01	111	H	151	46	-3.99
249.999	41.53	107	H	133	46	-4.47

802.11ac 80 mode

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	37.64	136	V	133	46	-8.36
125.0015	42.66	111	V	69	43.5	-0.84
625.015	43.05	120	H	155	46	-2.95
249.999	42.27	110	H	135	46	-3.73

Note: Only digital emissions present from 30MHz to 1GHz, therefore only one channel was tested per modulation.

4) W56 Band, 1–40 GHz, Measured at 3 meters,

802.11a mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz, measured at 3 meters											
11000	44.96	0	100	V	39.349	6.23	34.05	56.489	74	-17.511	Peak
11000	44.78	0	100	H	39.349	6.23	34.05	56.309	74	-17.691	Peak
11000	29.81	0	100	V	39.349	6.23	34.05	41.339	54	-12.661	Ave
11000	29.76	0	100	H	39.349	6.23	34.05	41.289	54	-12.711	Ave
16500	45.98	0	100	V	39.207	8.1	34.64	58.647	74	-15.353	Peak
16500	46.16	0	100	H	39.207	8.1	34.64	58.827	74	-15.173	Peak
16500	32.04	0	100	V	39.207	8.1	34.64	44.707	54	-9.293	Ave
16500	31.93	0	100	H	39.207	8.1	34.64	44.597	54	-9.403	Ave
5460	29.02	0	100	V	34.303	4.57	0	67.893	74	-6.107	Peak
5460	28.76	0	100	H	34.303	4.57	0	67.633	74	-6.367	Peak
5460	14.28	0	100	V	34.303	4.57	0	53.153	54	-0.847	Ave
5460	14.11	0	100	H	34.303	4.57	0	52.983	54	-1.017	Ave
7250	44.7	0	100	V	37.414	4.88	34.39	52.604	74	-21.396	Peak
7250	44.92	0	100	H	37.414	4.88	34.39	52.824	74	-21.176	Peak
7250	30.45	0	100	V	37.414	4.88	34.39	38.354	54	-15.646	Ave
7250	31.06	0	100	H	37.414	4.88	34.39	38.964	54	-15.036	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Middle Channel 5580 MHz, measured at 3 meters											
11160	44.99	0	100	V	40.292	6.23	33.96	57.552	74	-16.448	Peak
11160	45.07	0	100	H	40.292	6.23	33.96	57.632	74	-16.368	Peak
11160	30.08	0	100	V	40.292	6.23	33.96	42.642	54	-11.358	Ave
11160	30.01	0	100	H	40.292	6.23	33.96	42.572	54	-11.428	Ave
16740	45.92	0	100	V	39.954	8.1	34.34	59.634	74	-14.366	Peak
16740	45.89	0	100	H	39.954	8.1	34.34	59.604	74	-14.396	Peak
16740	31.62	0	100	V	39.954	8.1	34.34	45.334	54	-8.666	Ave
16740	31.27	0	100	H	39.954	8.1	34.34	44.984	54	-9.016	Ave
5460	29.11	0	100	V	34.303	4.57	0	67.983	74	-6.017	Peak
5460	29.03	0	100	H	34.303	4.57	0	67.903	74	-6.097	Peak
5460	14.22	0	100	V	34.303	4.57	0	53.093	54	-0.907	Ave
5460	14.26	0	100	H	34.303	4.57	0	53.133	54	-0.867	Ave
7250	45.59	0	100	V	37.414	4.88	34.39	53.494	74	-20.506	Peak
7250	45.27	0	100	H	37.414	4.88	34.39	53.174	74	-20.826	Peak
7250	30.1	0	100	V	37.414	4.88	34.39	38.004	54	-15.996	Ave
7250	30.26	0	100	H	37.414	4.88	34.39	38.164	54	-15.836	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5700 MHz, measured at 3 meters											
11400	45.53	0	100	V	40.716	6.2	33.85	58.596	74	-15.404	Peak
11400	45.21	0	100	H	40.716	6.2	33.85	58.276	74	-15.724	Peak
11400	30.4	0	100	V	40.716	6.2	33.85	43.466	54	-10.534	Ave
11400	30.29	0	100	H	40.716	6.2	33.85	43.356	54	-10.644	Ave
17100	46.43	0	100	V	42.928	8.31	33.82	63.848	74	-10.152	Peak
17100	46.81	0	100	H	42.928	8.31	33.82	64.228	74	-9.772	Peak
17100	31.38	0	100	V	42.928	8.31	33.82	48.798	54	-5.202	Ave
17100	31.42	0	100	H	42.928	8.31	33.82	48.838	54	-5.162	Ave
5460	29.12	0	100	V	34.303	4.57	0	67.993	74	-6.007	Peak
5460	29.26	0	100	H	34.303	4.57	0	68.133	74	-5.867	Peak
5460	14.28	0	100	V	34.303	4.57	0	53.153	54	-0.847	Ave
5460	14.19	0	100	H	34.303	4.57	0	53.063	54	-0.937	Ave
7250	44.36	0	100	V	37.414	4.88	34.39	52.264	74	-21.736	Peak
7250	44.72	0	100	H	37.414	4.88	34.39	52.624	74	-21.376	Peak
7250	30	0	100	V	37.414	4.88	34.39	37.904	54	-16.096	Ave
7250	30.25	0	100	H	37.414	4.88	34.39	38.154	54	-15.846	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5720 MHz, measured at 3 meters											
11440	45.02	0	100	V	40.716	6.2	33.85	58.086	74	-15.914	Peak
11440	45.26	0	100	H	40.716	6.2	33.85	58.326	74	-15.674	Peak
11440	30.18	0	100	V	40.716	6.2	33.85	43.246	54	-10.754	Ave
11440	30.24	0	100	H	40.716	6.2	33.85	43.306	54	-10.694	Ave
17160	45	0	100	V	43.874	8.31	33.82	63.364	74	-10.636	Peak
17160	45.18	0	100	H	43.874	8.31	33.82	63.544	74	-10.456	Peak
17160	30.98	0	100	V	43.874	8.31	33.82	49.344	54	-4.656	Ave
17160	31.23	0	100	H	43.874	8.31	33.82	49.594	54	-4.406	Ave
5460	29.67	0	100	V	34.303	4.57	0	68.543	74	-5.457	Peak
5460	29	0	100	H	34.303	4.57	0	67.873	74	-6.127	Peak
5460	14.19	0	100	V	34.303	4.57	0	53.063	54	-0.937	Ave
5460	14.85	0	100	H	34.303	4.57	0	53.723	54	-0.277	Ave
7250	43.38	0	100	V	37.414	4.88	34.39	51.284	74	-22.716	Peak
7250	44.17	0	100	H	37.414	4.88	34.39	52.074	74	-21.926	Peak
7250	29.95	0	100	V	37.414	4.88	34.39	37.854	54	-16.146	Ave
7250	30.16	0	100	H	37.414	4.88	34.39	38.064	54	-15.936	Ave

802.11n-HT20 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz, measured at 3 meters											
11000	44.71	0	100	V	39.349	6.23	34.05	56.239	74	-17.761	Peak
11000	44.86	0	100	H	39.349	6.23	34.05	56.389	74	-17.611	Peak
11000	30.58	0	100	V	39.349	6.23	34.05	42.109	54	-11.891	Ave
11000	30.92	0	100	H	39.349	6.23	34.05	42.449	54	-11.551	Ave
16500	45.24	0	100	V	39.207	8.1	34.64	57.907	74	-16.093	Peak
16500	46.3	0	100	H	39.207	8.1	34.64	58.967	74	-15.033	Peak
16500	31.58	0	100	V	39.207	8.1	34.64	44.247	54	-9.753	Ave
16500	31.67	0	100	H	39.207	8.1	34.64	44.337	54	-9.663	Ave
5460	29.56	0	100	V	34.303	4.57	0	68.433	74	-5.567	Peak
5460	29.18	0	100	H	34.303	4.57	0	68.053	74	-5.947	Peak
5460	14.2	0	100	V	34.303	4.57	0	53.073	54	-0.927	Ave
5460	14.19	0	100	H	34.303	4.57	0	53.063	54	-0.937	Ave
7250	43.4	0	100	V	37.414	4.88	34.39	51.304	74	-22.696	Peak
7250	43.63	0	100	H	37.414	4.88	34.39	51.534	74	-22.466	Peak
7250	30.12	0	100	V	37.414	4.88	34.39	38.024	54	-15.976	Ave
7250	30.14	0	100	H	37.414	4.88	34.39	38.044	54	-15.956	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Middle Channel 5580 MHz, measured at 3 meters											
11160	44.26	0	100	V	40.292	6.23	33.96	56.822	74	-17.178	Peak
11160	44.1	0	100	H	40.292	6.23	33.96	56.662	74	-17.338	Peak
11160	30.14	0	100	V	40.292	6.23	33.96	42.702	54	-11.298	Ave
11160	30.27	0	100	H	40.292	6.23	33.96	42.832	54	-11.168	Ave
16740	45.12	0	100	V	39.954	8.1	34.34	58.834	74	-15.166	Peak
16740	45.63	0	100	H	39.954	8.1	34.34	59.344	74	-14.656	Peak
16740	31.47	0	100	V	39.954	8.1	34.34	45.184	54	-8.816	Ave
16740	30.96	0	100	H	39.954	8.1	34.34	44.674	54	-9.326	Ave
5460	29.31	0	100	V	34.303	4.57	0	68.183	74	-5.817	Peak
5460	29.21	0	100	H	34.303	4.57	0	68.083	74	-5.917	Peak
5460	14.19	0	100	V	34.303	4.57	0	53.063	54	-0.937	Ave
5460	14.26	0	100	H	34.303	4.57	0	53.133	54	-0.867	Ave
7250	44.01	0	100	V	37.414	4.88	34.39	51.914	74	-22.086	Peak
7250	43.84	0	100	H	37.414	4.88	34.39	51.744	74	-22.256	Peak
7250	30.02	0	100	V	37.414	4.88	34.39	37.924	54	-16.076	Ave
7250	30.17	0	100	H	37.414	4.88	34.39	38.074	54	-15.926	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5700 MHz, measured at 3 meters											
11400	44.09	0	100	V	40.716	6.2	33.85	57.156	74	-16.844	Peak
11400	44.26	0	100	H	40.716	6.2	33.85	57.326	74	-16.674	Peak
11400	30	0	100	V	40.716	6.2	33.85	43.066	54	-10.934	Ave
11400	30.12	0	100	H	40.716	6.2	33.85	43.186	54	-10.814	Ave
17100	45.57	0	100	V	42.928	8.31	33.82	62.988	74	-11.012	Peak
17100	45.23	0	100	H	42.928	8.31	33.82	62.648	74	-11.352	Peak
17100	31.29	0	100	V	42.928	8.31	33.82	48.708	54	-5.292	Ave
17100	31.41	0	100	H	42.928	8.31	33.82	48.828	54	-5.172	Ave
5460	29.84	0	100	V	34.303	4.57	0	68.713	74	-5.287	Peak
5460	29.76	0	100	H	34.303	4.57	0	68.633	74	-5.367	Peak
5460	14.22	0	100	V	34.303	4.57	0	53.093	54	-0.907	Ave
5460	14.29	0	100	H	34.303	4.57	0	53.163	54	-0.837	Ave
7250	44.06	0	100	V	37.414	4.88	34.39	51.964	74	-22.036	Peak
7250	44.27	0	100	H	37.414	4.88	34.39	52.174	74	-21.826	Peak
7250	30	0	100	V	37.414	4.88	34.39	37.904	54	-16.096	Ave
7250	30.1	0	100	H	37.414	4.88	34.39	38.004	54	-15.996	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5720 MHz, measured at 3 meters											
11440	44.27	0	100	V	40.716	6.2	33.85	57.336	74	-16.664	Peak
11440	44.36	0	100	H	40.716	6.2	33.85	57.426	74	-16.574	Peak
11440	30.02	0	100	V	40.716	6.2	33.85	43.086	54	-10.914	Ave
11440	30.11	0	100	H	40.716	6.2	33.85	43.176	54	-10.824	Ave
17160	45.21	0	100	V	43.874	8.31	33.82	63.574	74	-10.426	Peak
17160	45.38	0	100	H	43.874	8.31	33.82	63.744	74	-10.256	Peak
17160	30.05	0	100	V	43.874	8.31	33.82	48.414	54	-5.586	Ave
17160	30.62	0	100	H	43.874	8.31	33.82	48.984	54	-5.016	Ave
5460	29.36	0	100	V	34.303	4.57	0	68.233	74	-5.767	Peak
5460	29.14	0	100	H	34.303	4.57	0	68.013	74	-5.987	Peak
5460	14.08	0	100	V	34.303	4.57	0	52.953	54	-1.047	Ave
5460	14.16	0	100	H	34.303	4.57	0	53.033	54	-0.967	Ave
7250	43.61	0	100	V	37.414	4.88	34.39	51.514	74	-22.486	Peak
7250	44.02	0	100	H	37.414	4.88	34.39	51.924	74	-22.076	Peak
7250	30.22	0	100	V	37.414	4.88	34.39	38.124	54	-15.876	Ave
7250	30.46	0	100	H	37.414	4.88	34.39	38.364	54	-15.636	Ave

802.11n-HT40 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5510 MHz, measured at 3 meters											
11020	44.75	0	100	V	39.506	6.23	34.05	56.436	74	-17.564	Peak
11020	44.82	0	100	H	39.506	6.23	34.05	56.506	74	-17.494	Peak
11020	30.41	0	100	V	39.506	6.23	34.05	42.096	54	-11.904	Ave
11020	30.68	0	100	H	39.506	6.23	34.05	42.366	54	-11.634	Ave
16530	46.12	0	100	V	39.207	8.1	34.64	58.787	74	-15.213	Peak
16530	46.67	0	100	H	39.207	8.1	34.64	59.337	74	-14.663	Peak
16530	31.72	0	100	V	39.207	8.1	34.64	44.387	54	-9.613	Ave
16530	31.69	0	100	H	39.207	8.1	34.64	44.357	54	-9.643	Ave
5460	29.17	0	100	V	34.303	4.57	0	68.043	74	-5.957	Peak
5460	29.33	0	100	H	34.303	4.57	0	68.203	74	-5.797	Peak
5460	14.62	0	100	V	34.303	4.57	0	53.493	54	-0.507	Ave
5460	14.51	0	100	H	34.303	4.57	0	53.383	54	-0.617	Ave
7250	43.64	0	100	V	37.414	4.88	34.39	51.544	74	-22.456	Peak
7250	44.06	0	100	H	37.414	4.88	34.39	51.964	74	-22.036	Peak
7250	29.91	0	100	V	37.414	4.88	34.39	37.814	54	-16.186	Ave
7250	30.03	0	100	H	37.414	4.88	34.39	37.934	54	-16.066	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Middle Channel 5550 MHz, measured at 3 meters											
11100	45.04	0	100	V	39.755	6.23	34.01	57.015	74	-16.985	Peak
11100	44.76	0	100	H	39.755	6.23	34.01	56.735	74	-17.265	Peak
11100	30.93	0	100	V	39.755	6.23	34.01	42.905	54	-11.095	Ave
11100	30.72	0	100	H	39.755	6.23	34.01	42.695	54	-11.305	Ave
16650	45.19	0	100	V	39.617	8.1	34.4	58.507	74	-15.493	Peak
16650	44.76	0	100	H	39.617	8.1	34.4	58.077	74	-15.923	Peak
16650	31.17	0	100	V	39.617	8.1	34.4	44.487	54	-9.513	Ave
16650	31.09	0	100	H	39.617	8.1	34.4	44.407	54	-9.593	Ave
5460	29.61	0	100	V	34.303	4.57	0	68.483	74	-5.517	Peak
5460	29.36	0	100	H	34.303	4.57	0	68.233	74	-5.767	Peak
5460	14.09	0	100	V	34.303	4.57	0	52.963	54	-1.037	Ave
5460	14.19	0	100	H	34.303	4.57	0	53.063	54	-0.937	Ave
7250	44.12	0	100	V	37.414	4.88	34.39	52.024	74	-21.976	Peak
7250	44.37	0	100	H	37.414	4.88	34.39	52.274	74	-21.726	Peak
7250	29.88	0	100	V	37.414	4.88	34.39	37.784	54	-16.216	Ave
7250	30.02	0	100	H	37.414	4.88	34.39	37.924	54	-16.076	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5670 MHz, measured at 3 meters											
11340	44.03	0	100	V	40.716	6.2	33.85	57.096	74	-16.904	Peak
11340	44.12	0	100	H	40.716	6.2	33.85	57.186	74	-16.814	Peak
11340	30.32	0	100	V	40.716	6.2	33.85	43.386	54	-10.614	Ave
11340	30.21	0	100	H	40.716	6.2	33.85	43.276	54	-10.724	Ave
17010	45.79	0	100	V	42.928	8.31	33.82	63.208	74	-10.792	Peak
17010	45.12	0	100	H	42.928	8.31	33.82	62.538	74	-11.462	Peak
17010	31.27	0	100	V	42.928	8.31	33.82	48.688	54	-5.312	Ave
17010	31.58	0	100	H	42.928	8.31	33.82	48.998	54	-5.002	Ave
5460	29.71	0	100	V	34.303	4.57	0	68.583	74	-5.417	Peak
5460	29.58	0	100	H	34.303	4.57	0	68.453	74	-5.547	Peak
5460	14.29	0	100	V	34.303	4.57	0	53.163	54	-0.837	Ave
5460	14.31	0	100	H	34.303	4.57	0	53.183	54	-0.817	Ave
7250	43.64	0	100	V	37.414	4.88	34.39	51.544	74	-22.456	Peak
7250	44.01	0	100	H	37.414	4.88	34.39	51.914	74	-22.086	Peak
7250	29.86	0	100	V	37.414	4.88	34.39	37.764	54	-16.236	Ave
7250	30.01	0	100	H	37.414	4.88	34.39	37.914	54	-16.086	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5710 MHz, measured at 3 meters											
11420	44.05	0	100	V	40.716	6.2	33.85	57.116	74	-16.884	Peak
11420	44.26	0	100	H	40.716	6.2	33.85	57.326	74	-16.674	Peak
11420	30.37	0	100	V	40.716	6.2	33.85	43.436	54	-10.564	Ave
11420	30.49	0	100	H	40.716	6.2	33.85	43.556	54	-10.444	Ave
17130	44.99	0	100	V	42.928	8.31	33.82	62.408	74	-11.592	Peak
17130	45.03	0	100	H	42.928	8.31	33.82	62.448	74	-11.552	Peak
17130	31.31	0	100	V	42.928	8.31	33.82	48.728	54	-5.272	Ave
17130	30.87	0	100	H	42.928	8.31	33.82	48.288	54	-5.712	Ave
5460	29.16	0	100	V	34.303	4.57	0	68.033	74	-5.967	Peak
5460	29.22	0	100	H	34.303	4.57	0	68.093	74	-5.907	Peak
5460	14.17	0	100	V	34.303	4.57	0	53.043	54	-0.957	Ave
5460	14.26	0	100	H	34.303	4.57	0	53.133	54	-0.867	Ave
7250	44.01	0	100	V	37.414	4.88	34.39	51.914	74	-22.086	Peak
7250	43.82	0	100	H	37.414	4.88	34.39	51.724	74	-22.276	Peak
7250	30.05	0	100	V	37.414	4.88	34.39	37.954	54	-16.046	Ave
7250	30.76	0	100	H	37.414	4.88	34.39	38.664	54	-15.336	Ave

802.11ac 80 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5530 MHz, measured at 3 meters											
11060	44.75	0	100	V	39.506	6.23	34.05	56.436	74	-17.564	Peak
11060	44.82	0	100	H	39.506	6.23	34.05	56.506	74	-17.494	Peak
11060	30.41	0	100	V	39.506	6.23	34.05	42.096	54	-11.904	Ave
11060	30.68	0	100	H	39.506	6.23	34.05	42.366	54	-11.634	Ave
16590	45.16	0	100	V	39.207	8.1	34.64	57.827	74	-16.173	Peak
16590	45.02	0	100	H	39.207	8.1	34.64	57.687	74	-16.313	Peak
16590	30.04	0	100	V	39.207	8.1	34.64	42.707	54	-11.293	Ave
16590	30.09	0	100	H	39.207	8.1	34.64	42.757	54	-11.243	Ave
5460	29.51	0	100	V	34.303	4.57	0	68.383	74	-5.617	Peak
5460	29.46	0	100	H	34.303	4.57	0	68.333	74	-5.667	Peak
5460	14.25	0	100	V	34.303	4.57	0	53.123	54	-0.877	Ave
5460	14.32	0	100	H	34.303	4.57	0	53.193	54	-0.807	Ave
7250	43.64	0	100	V	37.414	4.88	34.39	51.544	74	-22.456	Peak
7250	44.06	0	100	H	37.414	4.88	34.39	51.964	74	-22.036	Peak
7250	29.91	0	100	V	37.414	4.88	34.39	37.814	54	-16.186	Ave
7250	30.03	0	100	H	37.414	4.88	34.39	37.934	54	-16.066	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
High Channel 5690 MHz, measured at 3 meters											
11380	44.15	0	100	V	40.716	6.2	33.85	57.216	74	-16.784	Peak
11380	44.13	0	100	H	40.716	6.2	33.85	57.196	74	-16.804	Peak
11380	30.36	0	100	V	40.716	6.2	33.85	43.426	54	-10.574	Ave
11380	30.11	0	100	H	40.716	6.2	33.85	43.176	54	-10.824	Ave
17070	45.82	0	100	V	42.928	8.31	33.82	63.238	74	-10.762	Peak
17070	45.33	0	100	H	42.928	8.31	33.82	62.748	74	-11.252	Peak
17070	31.51	0	100	V	42.928	8.31	33.82	48.928	54	-5.072	Ave
17070	51.36	0	100	H	42.928	8.31	33.82	68.778	54	14.778	Ave
5460	29.82	0	100	V	34.303	4.57	0	68.693	74	-5.307	Peak
5460	29.61	0	100	H	34.303	4.57	0	68.483	74	-5.517	Peak
5460	14.27	0	100	V	34.303	4.57	0	53.143	54	-0.857	Ave
5460	14.28	0	100	H	34.303	4.57	0	53.153	54	-0.847	Ave
7250	43.66	0	100	V	37.414	4.88	34.39	51.564	74	-22.436	Peak
7250	44.05	0	100	H	37.414	4.88	34.39	51.954	74	-22.046	Peak
7250	29.81	0	100	V	37.414	4.88	34.39	37.714	54	-16.286	Ave
7250	29.92	0	100	H	37.414	4.88	34.39	37.824	54	-16.176	Ave

Cross Channel FCC 15.247 Limit:

802.11a mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5720 MHz, measured at 3 meters											
11440	31.85	0	100	V	38.827	6.2	27.7	49.177	74	-24.823	Peak
11440	32.56	0	100	H	38.827	6.2	27.7	49.887	74	-24.113	Peak
11440	18.31	0	100	V	38.827	6.2	27.7	35.637	54	-18.363	Ave
11440	17.96	0	100	H	38.827	6.2	27.7	35.287	54	-18.713	Ave
17160	35.11	0	100	V	43.239	8.31	27.58	59.079	74	-14.921	Peak
17160	35.05	0	100	H	43.239	8.31	27.58	59.019	74	-14.981	Peak
17160	21.48	0	100	V	43.239	8.31	27.58	45.449	54	-8.551	Ave
17160	21.53	0	100	H	43.239	8.31	27.58	45.499	54	-8.501	Ave
22880	33.03	0	100	V	49.854	9.74	27.06	65.564	74	-8.436	Peak
22880	33.64	0	100	H	49.854	9.74	27.06	66.174	74	-7.826	Peak
22880	19.53	0	100	V	49.854	9.74	27.06	52.064	54	-1.936	Ave
22880	19.56	0	100	H	49.854	9.74	27.06	52.094	54	-1.906	Ave

802.11n-HT20 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5720 MHz, measured at 3 meters											
11440	32.63	0	100	V	38.827	6.2	27.7	49.957	74	-24.043	Peak
11440	32.93	0	100	H	38.827	6.2	27.7	50.257	74	-23.743	Peak
11440	18.43	0	100	V	38.827	6.2	27.7	35.757	54	-18.243	Ave
11440	18.04	0	100	H	38.827	6.2	27.7	35.367	54	-18.633	Ave
17160	35.17	0	100	V	43.239	8.31	27.58	59.139	74	-14.861	Peak
17160	34.84	0	100	H	43.239	8.31	27.58	58.809	74	-15.191	Peak
17160	21.5	0	100	V	43.239	8.31	27.58	45.469	54	-8.531	Ave
17160	21.47	0	100	H	43.239	8.31	27.58	45.439	54	-8.561	Ave
22880	32.98	0	100	V	49.854	9.74	27.06	65.514	74	-8.486	Peak
22880	33.3	0	100	H	49.854	9.74	27.06	65.834	74	-8.166	Peak
22880	19.47	0	100	V	49.854	9.74	27.06	52.004	54	-1.996	Ave
22880	19.53	0	100	H	49.854	9.74	27.06	52.064	54	-1.936	Ave

802.11n-HT40 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5710 MHz, measured at 3 meters											
11420	32.12	0	100	V	38.827	6.2	27.7	49.447	74	-24.553	Peak
11420	32.7	0	100	H	38.827	6.2	27.7	50.027	74	-23.973	Peak
11420	18.16	0	100	V	38.827	6.2	27.7	35.487	54	-18.513	Ave
11420	18.36	0	100	H	38.827	6.2	27.7	35.687	54	-18.313	Ave
17130	34.34	0	100	V	43.239	8.31	27.58	58.309	74	-15.691	Peak
17130	35.24	0	100	H	43.239	8.31	27.58	59.209	74	-14.791	Peak
17130	21.31	0	100	V	43.239	8.31	27.58	45.279	54	-8.721	Ave
17130	21.27	0	100	H	43.239	8.31	27.58	45.239	54	-8.761	Ave
22840	33.5	0	100	V	49.854	9.74	27.06	66.034	74	-7.966	Peak
22840	33.45	0	100	H	49.854	9.74	27.06	65.984	74	-8.016	Peak
22840	19.51	0	100	V	49.854	9.74	27.06	52.044	54	-1.956	Ave
22840	19.52	0	100	H	49.854	9.74	27.06	52.054	54	-1.946	Ave

802.11ac 80 mode

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Cross Channel 5690 MHz, measured at 3 meters											
11380	30.82	0	100	V	38.827	6.2	27.7	48.147	74	-25.853	Peak
11380	32.19	0	100	H	38.827	6.2	27.7	49.517	74	-24.483	Peak
11380	18.22	0	100	V	38.827	6.2	27.7	35.547	54	-18.453	Ave
11380	18.25	0	100	H	38.827	6.2	27.7	35.577	54	-18.423	Ave
17070	33.91	0	100	V	43.239	8.31	27.58	57.879	74	-16.121	Peak
17070	35.11	0	100	H	43.239	8.31	27.58	59.079	74	-14.921	Peak
17070	20.71	0	100	V	43.239	8.31	27.58	44.679	54	-9.321	Ave
17070	20.72	0	100	H	43.239	8.31	27.58	44.689	54	-9.311	Ave
22760	33.67	0	100	V	49.854	9.74	27.06	66.204	74	-7.796	Peak
22760	33.59	0	100	H	49.854	9.74	27.06	66.124	74	-7.876	Peak
22760	19.25	0	100	V	49.854	9.74	27.06	51.784	54	-2.216	Ave
22760	19.52	0	100	H	49.854	9.74	27.06	52.054	54	-1.946	Ave

8 FCC §15.407(a) & IC RSS-210 §A9.2 – 26 dB & 99% Emission Bandwidth

8.1 Applicable Standard

FCC §15.407(a) and IC RSS-210 §A9.2.

8.2 Measurement Procedure

The measurements are base on FCC KDB 789033 D01 General UNII Test Procedures v01r03: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section C: Emission bandwidth and section D: 99 Percent Occupied Bandwidth

8.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	US44300386	2012-09-29	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

8.4 Test Environmental Conditions

Temperature:	24 °C
Relative Humidity:	40 %
ATM Pressure:	101.8 kPa

The testing was performed by Ning Ma on 2013-04-16in RF site.

8.5 Test Results

W53 Band

802.11a mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5260	24.418	16.7490
Middle	5280	24.191	16.8127
High	5320	23.898	16.7929
Chain C1			
Low	5260	23.456	16.6878
Middle	5280	23.805	16.8209
High	5320	24.211	16.7492
Chain C2			
Low	5260	24.422	16.8260
Middle	5280	23.930	16.8276
High	5320	23.561	16.7521

802.11n-HT20 mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5260	24.119	17.9077
Middle	5280	24.215	17.9386
High	5320	24.475	17.9040
Chain C1			
Low	5260	24.760	17.8652
Middle	5280	24.443	17.8905
High	5320	24.917	17.9029
Chain C2			
Low	5260	24.376	17.8538
Middle	5280	24.289	17.8223
High	5320	24.692	17.8858

802.11n-HT40 mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5270	47.956	36.5625
High	5310	49.619	36.6019
Chain C1			
Low	5270	51.620	36.4769
High	5310	48.273	36.4472
Chain C2			
Low	5270	50.548	36.5330
High	5310	46.916	36.4150

802.11ac 80 mode

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
High	5290	93.744	75.8943
Chain C1			
High	5290	97.134	75.9801
Chain C2			
High	5290	96.893	75.9397

W56 Band

802.11a mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5500	23.484	16.7490
Middle	5580	23.727	16.8127
High	5700	23.624	16.7929
Cross *	5720	23.764	16.7341
Chain C1			
Low	5500	22.782	16.6878
Middle	5580	23.365	16.8209
High	5700	23.865	16.7492
Cross *	5720	22.946	16.7534
Chain C2			
Low	5500	24.401	16.8260
Middle	5580	23.550	16.8276
High	5700	23.501	16.7521
Cross *	5720	24.277	16.7523

802.11n-HT20 mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5500	23.567	17.8152
Middle	5580	23.302	17.8115
High	5700	24.346	17.8660
Cross *	5720	22.635	17.8645
Chain C1			
Low	5500	23.766	17.7643
Middle	5580	23.563	17.8309
High	5700	24.428	17.8833
Cross *	5720	23.294	17.8514
Chain C2			
Low	5500	23.598	17.8724
Middle	5580	23.794	17.8577
High	5700	24.166	17.8077
Cross *	5720	24.452	17.8616

802.11n-HT40 mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5510	48.809	36.4993
Middle	5550	48.076	36.4322
High	5690	48.772	36.3483
Cross *	5710	46.807	36.4431
Chain C1			
Low	5510	44.301	36.3236
Middle	5550	47.296	36.4110
High	5690	49.107	36.4726
Cross *	5710	50.642	36.5952
Chain C2			
Low	5510	46.545	36.4370
Middle	5550	47.954	36.3695
High	5690	46.518	36.4275
Cross *	5710	46.432	36.3781

802.11ac 80 mode:

Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)
Chain C0			
Low	5530	92.672	75.7717
High	5690	89.389	75.6792
Chain C1			
Low	5530	96.542	75.7377
High	5690	92.255	75.9790
Chain C2			
Low	5530	95.717	75.8754
High	5690	94.489	75.7542

Note: * channel cross U-NII 2ext and U-NII 3.

Cross Band *:

802.11a mode:

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)	Note
Chain C0				
Cross *	5720	16.366	16.5532	Complies FCC Part 15.247 Limit
Chain C1				
Cross *	5720	16.384	16.5413	Complies FCC Part 15.247 Limit
Chain C2				
Cross *	5720	16.347	16.5106	Complies FCC Part 15.247 Limit

802.11n-HT20 mode:

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)	Note
Chain C0				
Cross *	5720	16.682	17.7850	Complies FCC Part 15.247 Limit
Chain C1				
Cross *	5720	16.369	17.6989	Complies FCC Part 15.247 Limit
Chain C2				
Cross *	5720	16.977	17.7030	Complies FCC Part 15.247 Limit

802.11n-HT40 mode:

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)	Note
Chain C0				
Cross *	5710	35.730	36.1880	Complies FCC Part 15.247 Limit
Chain C1				
Cross *	5710	36.046	36.2531	Complies FCC Part 15.247 Limit
Chain C2				
Cross *	5710	35.233	36.1710	Complies FCC Part 15.247 Limit

802.11ac 80 mode:

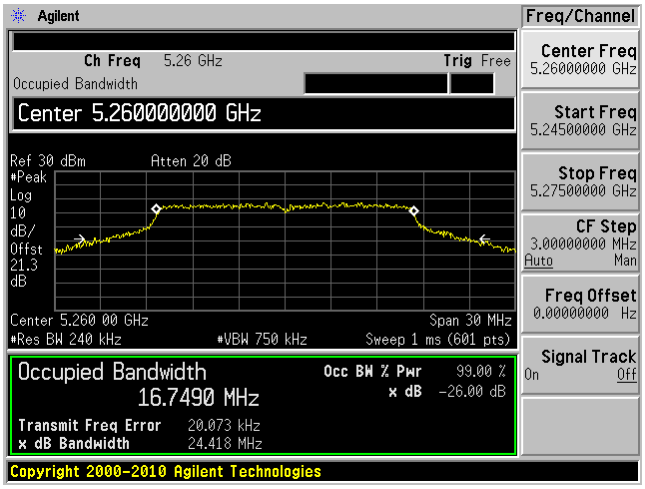
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)	Note
Chain C0				
Cross *	5690	70.367	75.3223	Complies FCC Part 15.247 Limit
Chain C1				
Cross *	5690	75.404	75.5904	Complies FCC Part 15.247 Limit
Chain C2				
Cross *	5690	75.490	75.7568	Complies FCC Part 15.247 Limit

Note: * channel cross U-NII 2ext and U-NII 3.

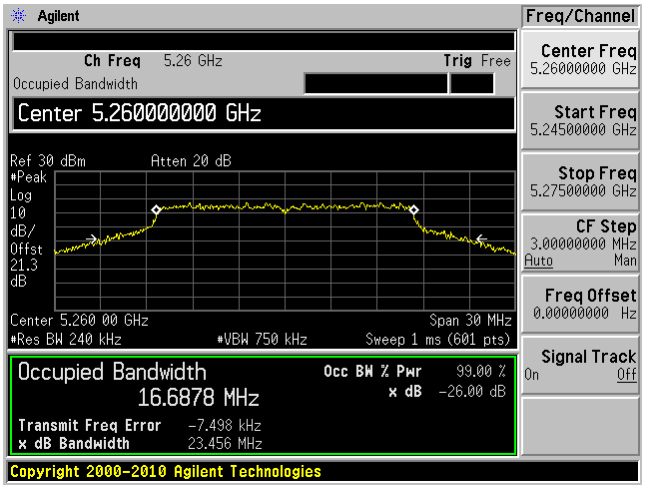
W53 Band

802.11a mode

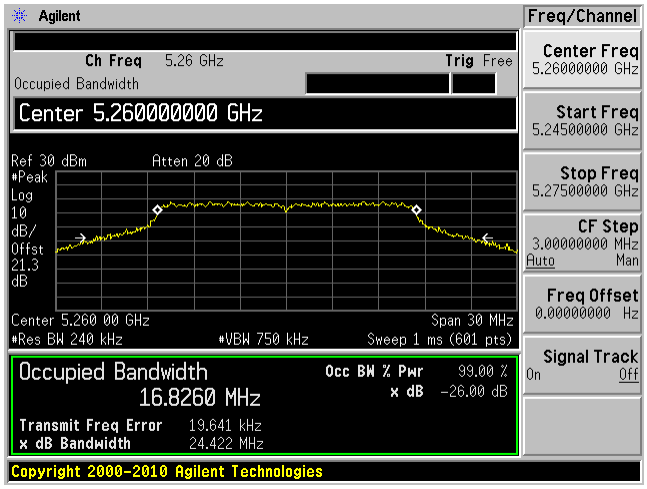
Low channel: Chain 0



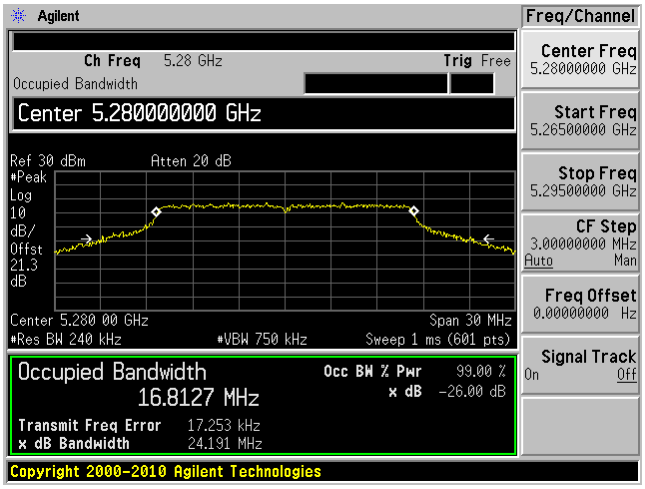
Low channel: Chain 1



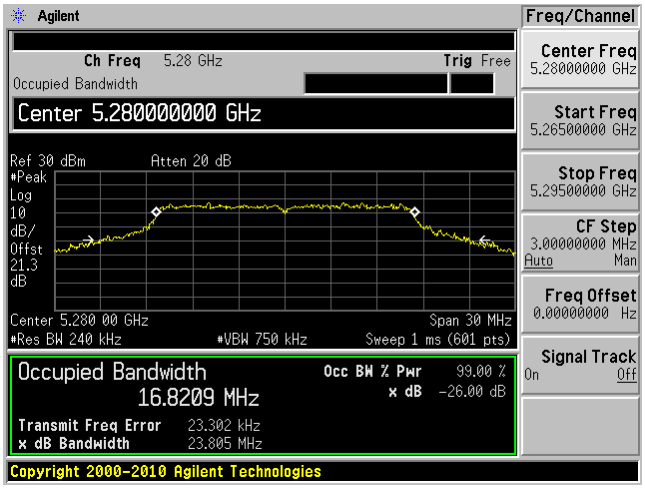
Low Channel: Chain 2



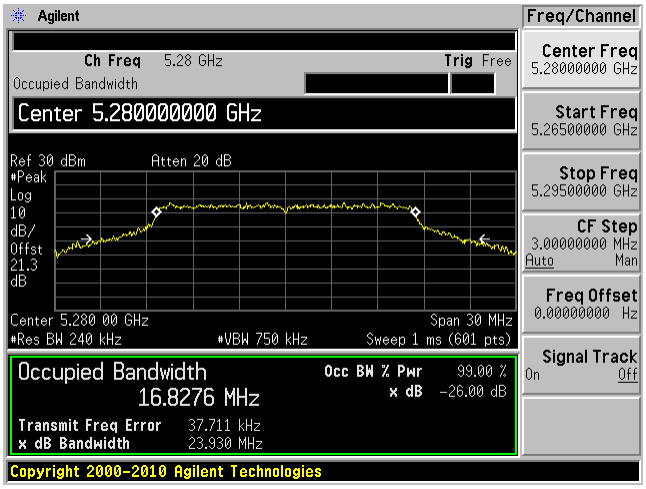
Middle channel: Chain 0



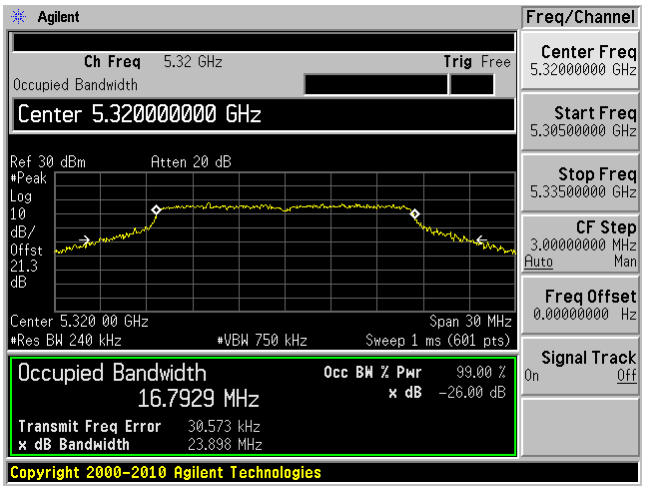
Middle channel: Chain 1



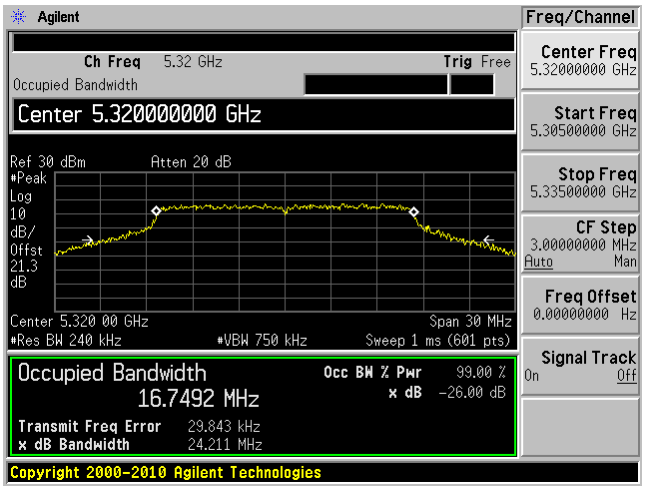
Middle Channel: Chain 2



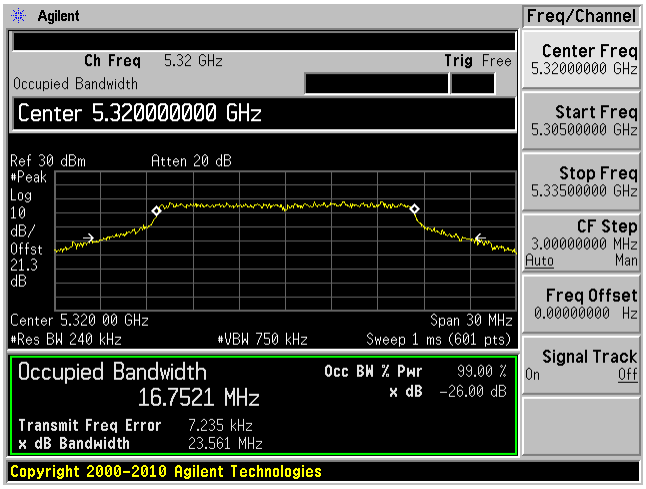
High channel: Chain 0



High channel: Chain 1

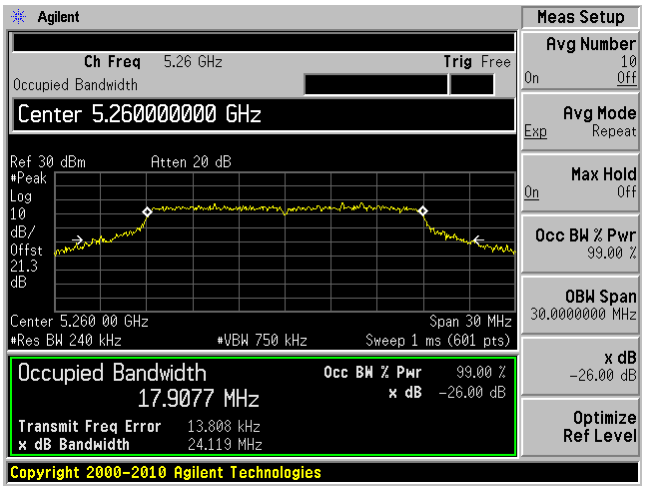


High Channel: Chain 2

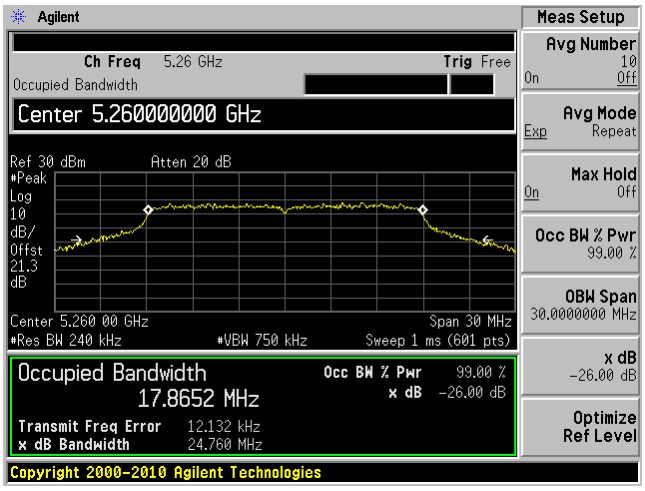


802.11n-HT20 mode

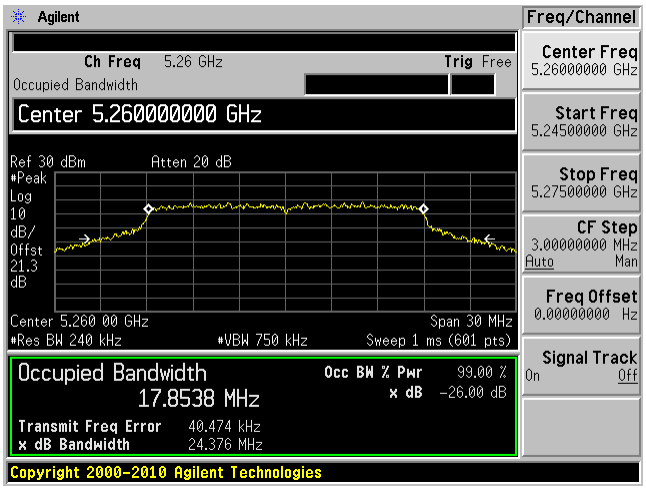
Low channel: Chain 0



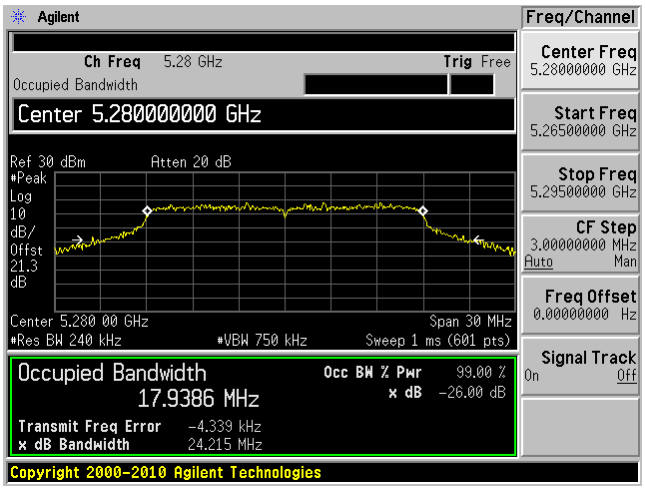
Low channel: Chain 1



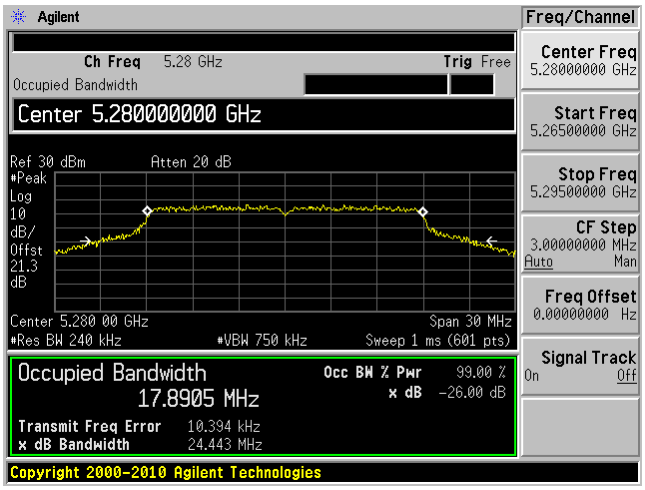
Low Channel: Chain 2



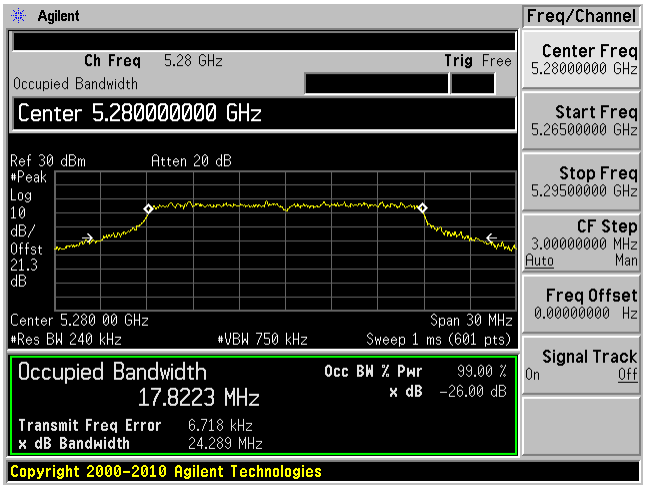
Middle channel: Chain 0



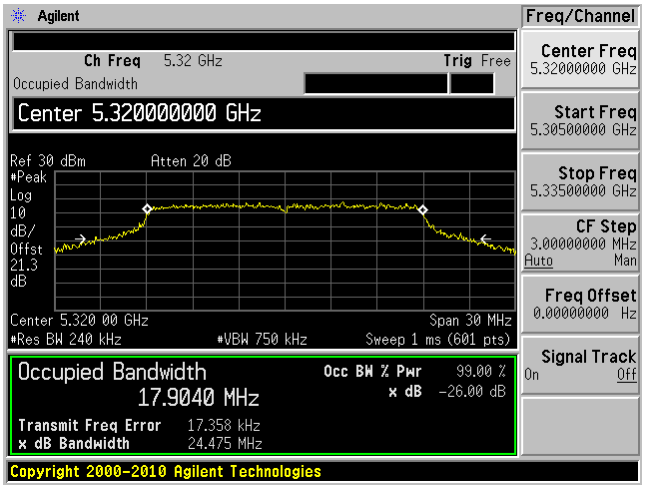
Middle channel: Chain 1



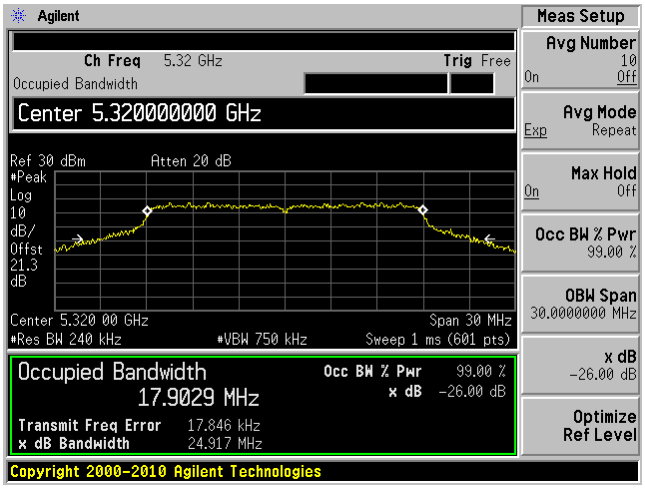
Middle Channel: Chain 2



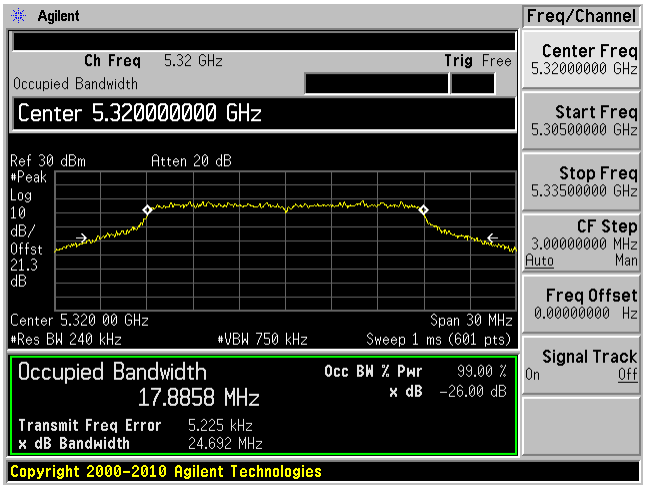
High channel: Chain 0



High channel: Chain 1

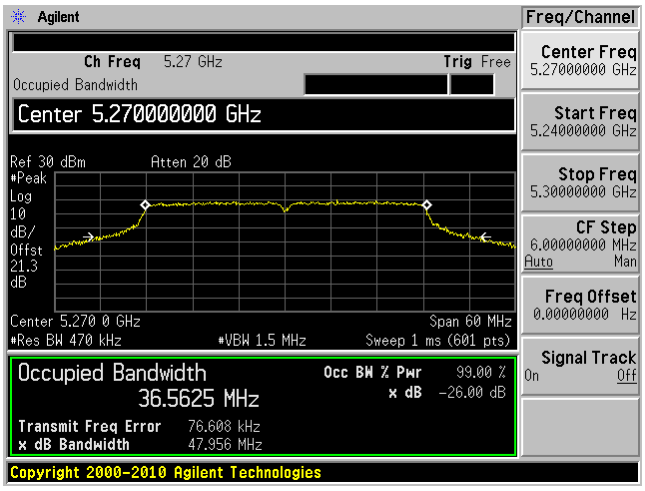


High Channel: Chain 2

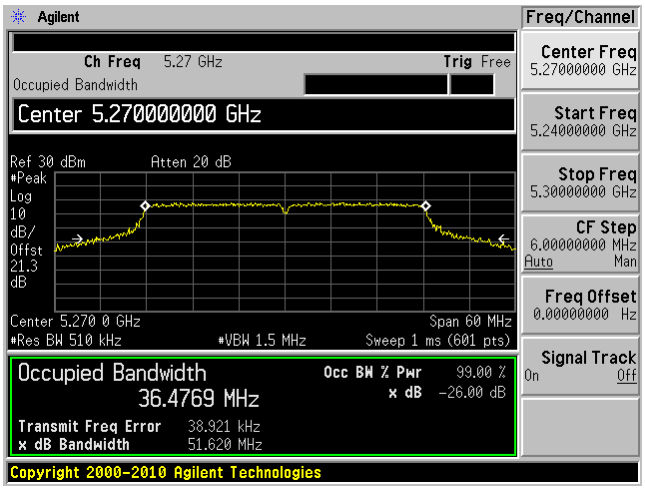


802.11n-HT40 mode

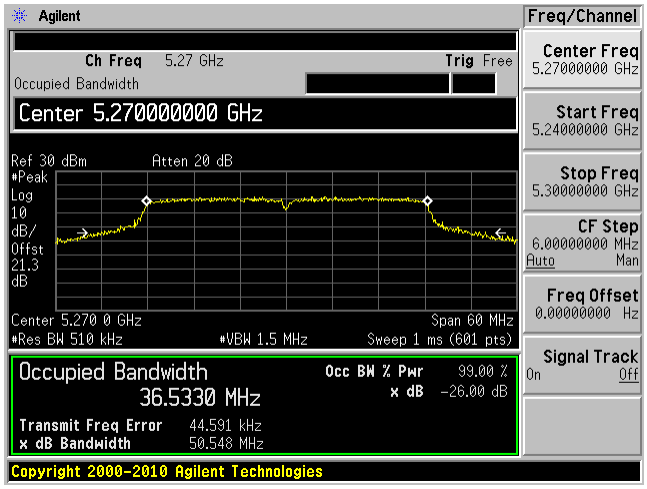
Low channel: Chain 0



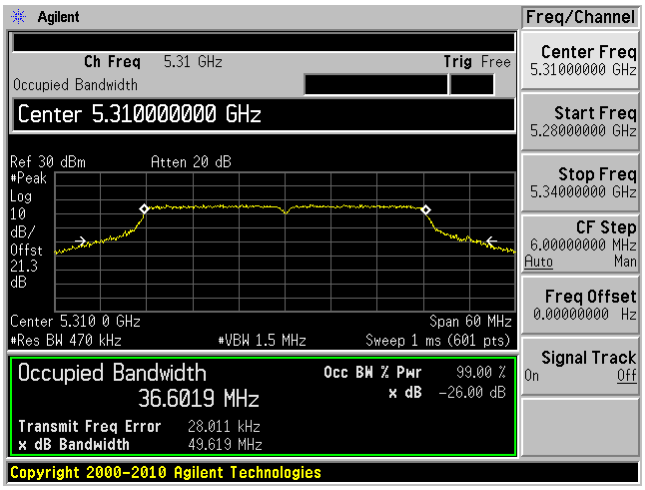
Low channel: Chain 1



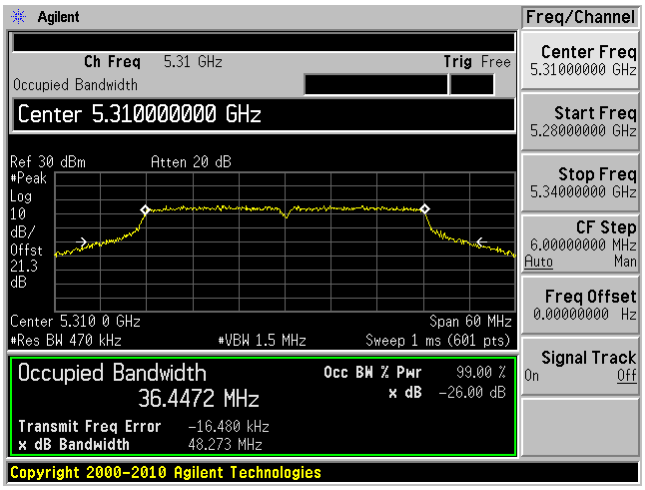
Low Channel: Chain 2



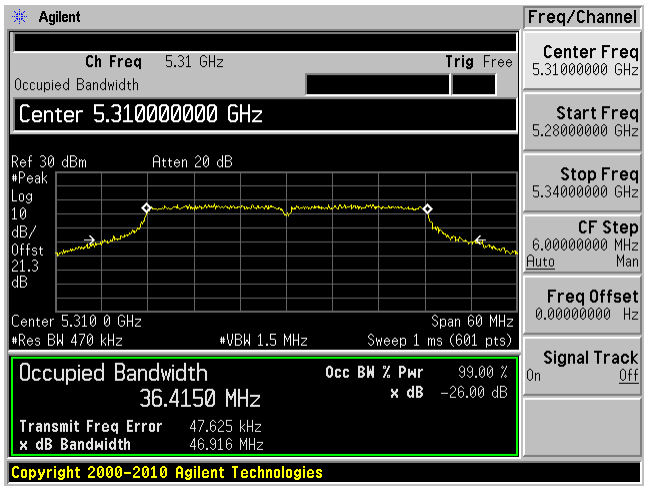
High channel: Chain 0



High channel: Chain 1

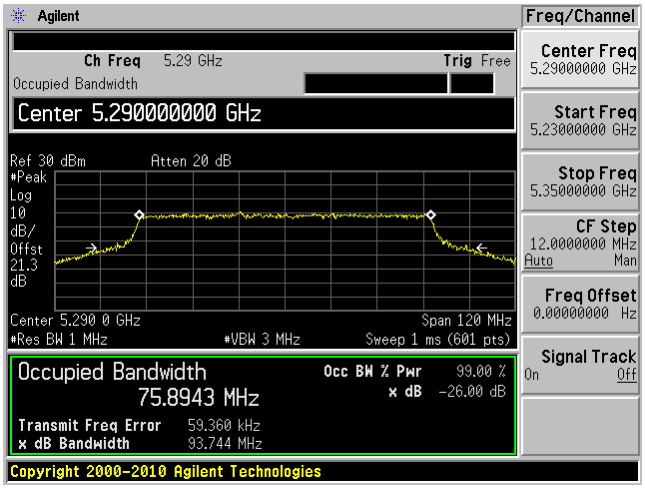


High Channel: Chain 2

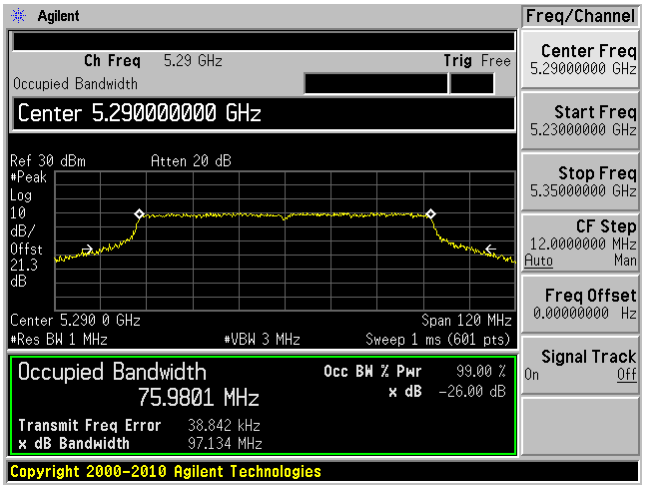


802.11ac 80 mode

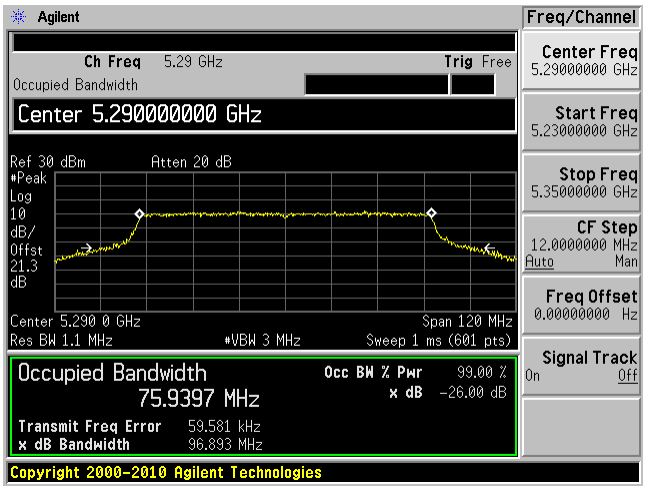
Chain 0



Chain 1



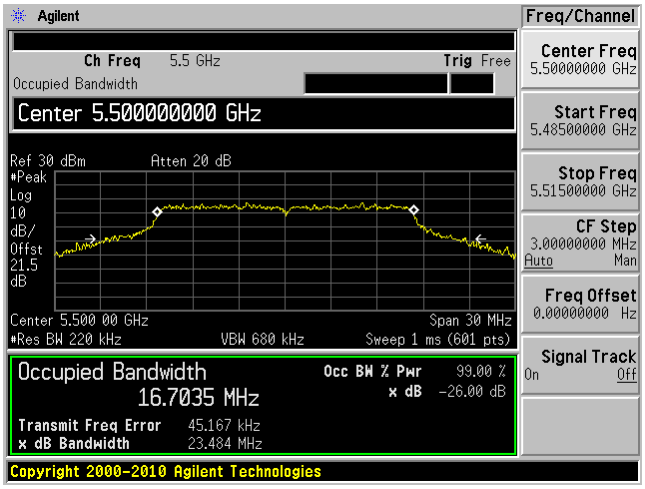
Chain 2



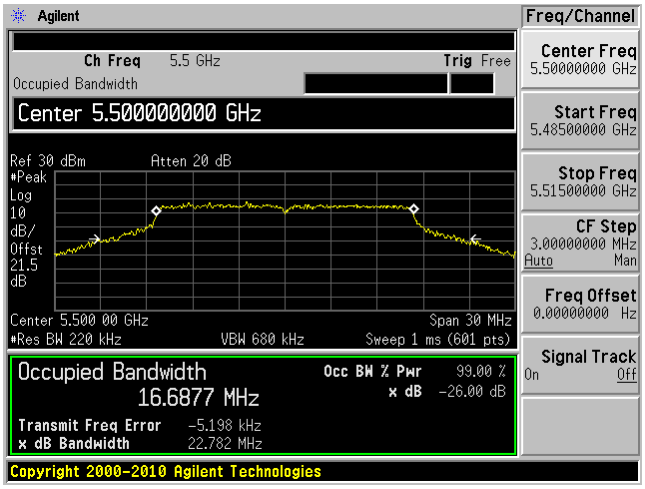
W56 Band

802.11a mode

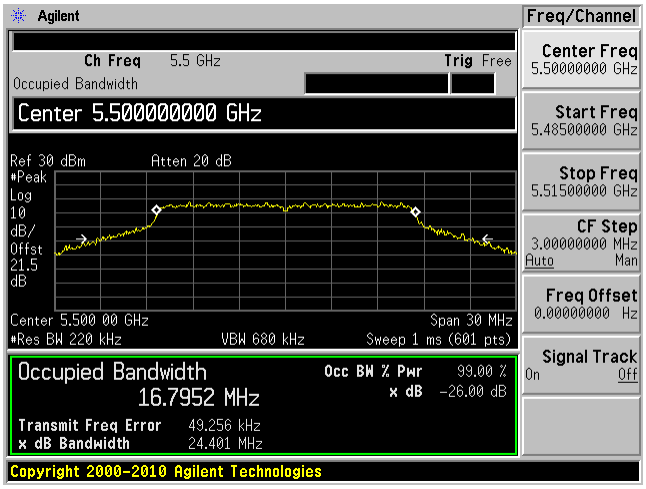
Low channel: Chain 0



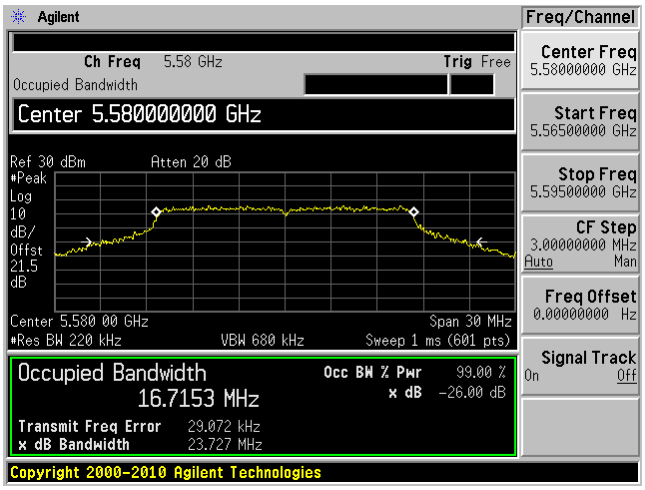
Low channel: Chain 1



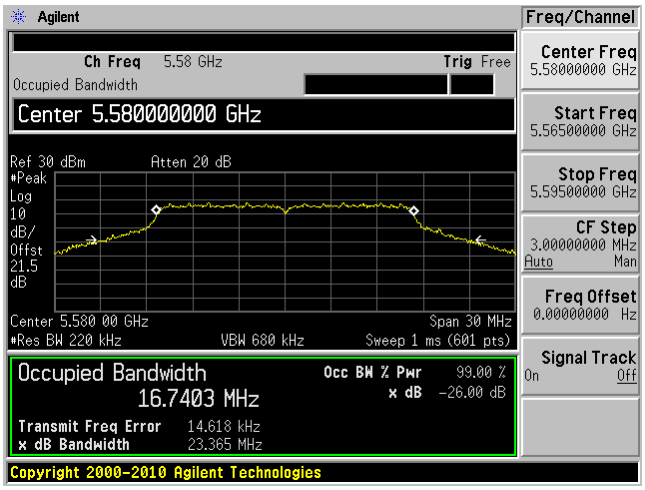
Low Channel: Chain 2



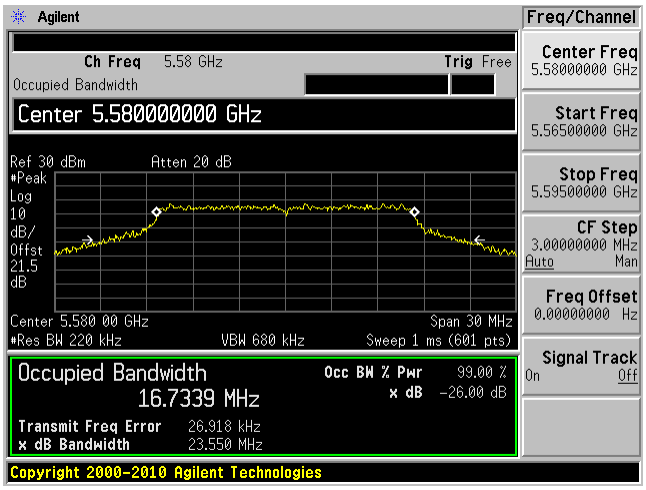
Middle channel: Chain 0



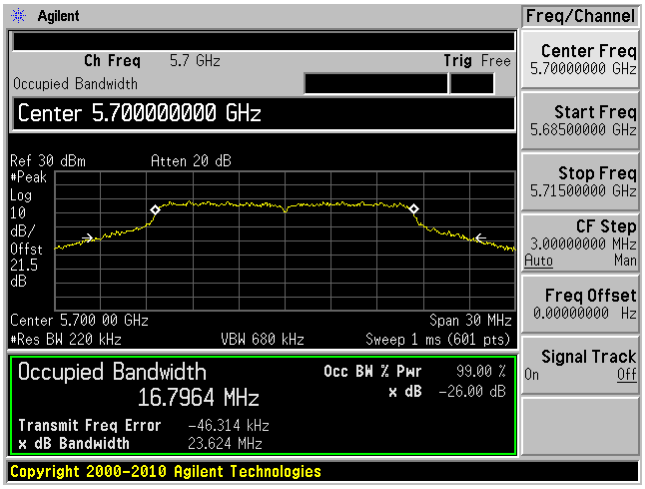
Middle channel: Chain 1



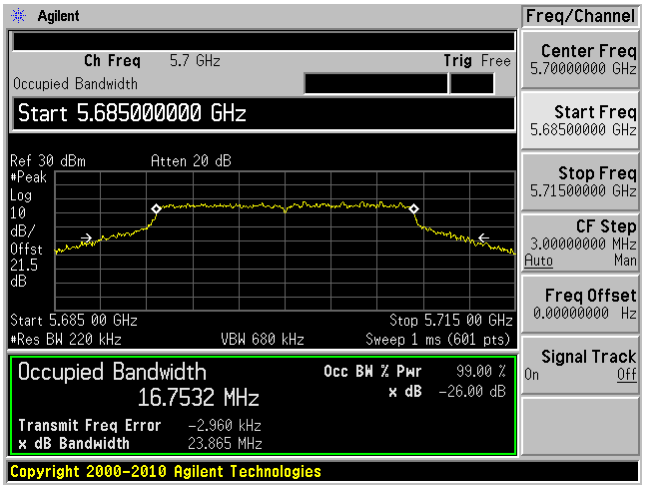
Middle Channel: Chain 2



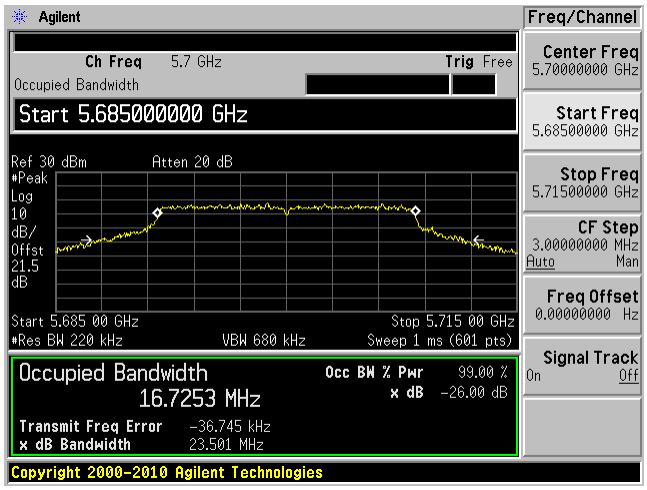
High channel: Chain 0



High channel: Chain 1

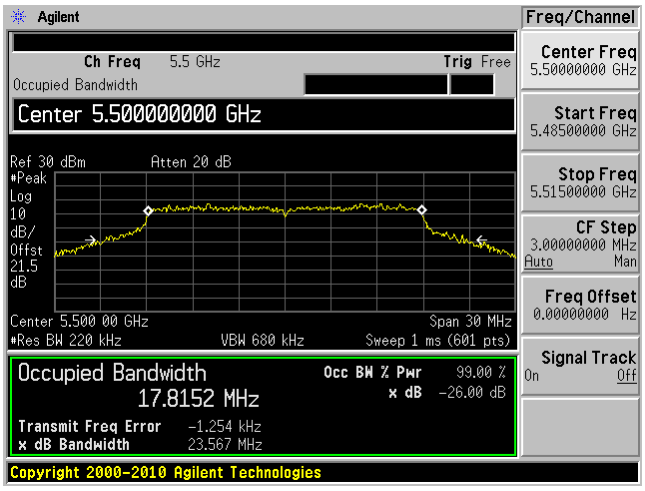


High Channel: Chain 2

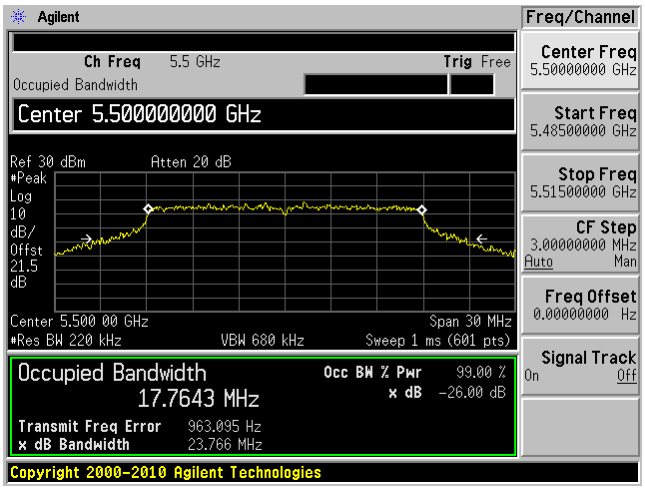


802.11n-HT20 mode

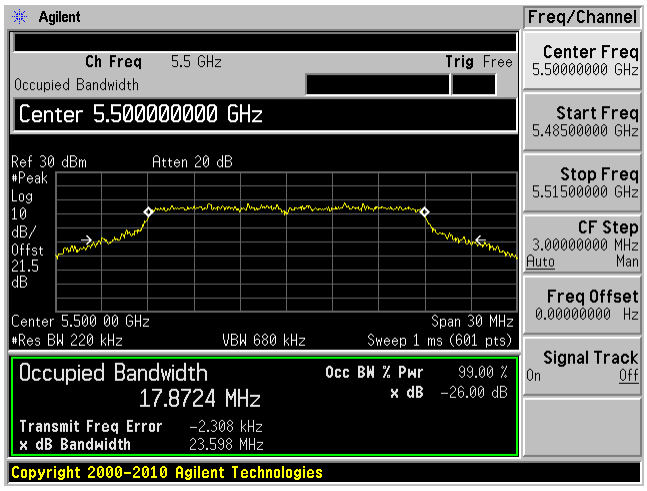
Low channel: Chain 0



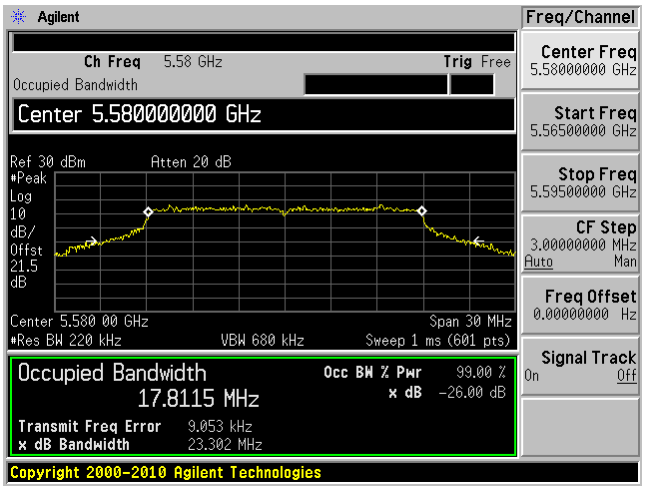
Low channel: Chain 1



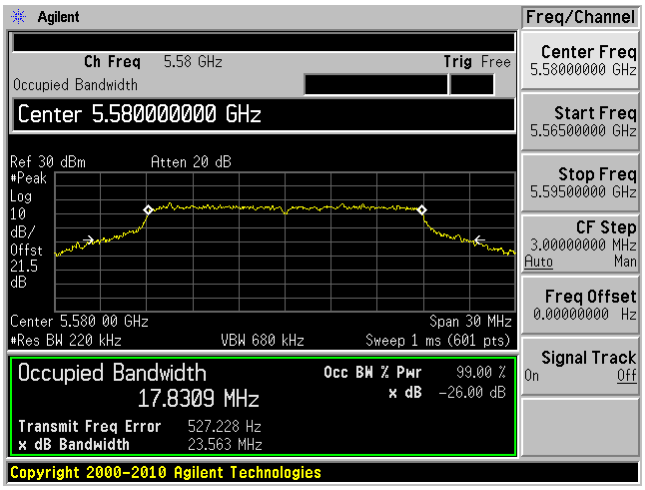
Low Channel: Chain 2



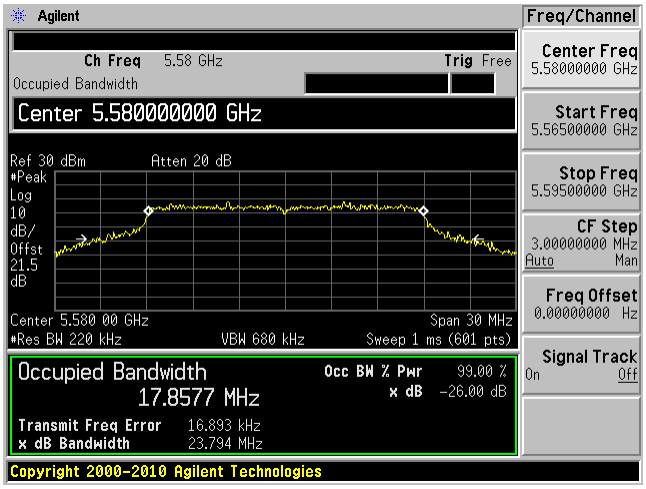
Middle channel: Chain 0



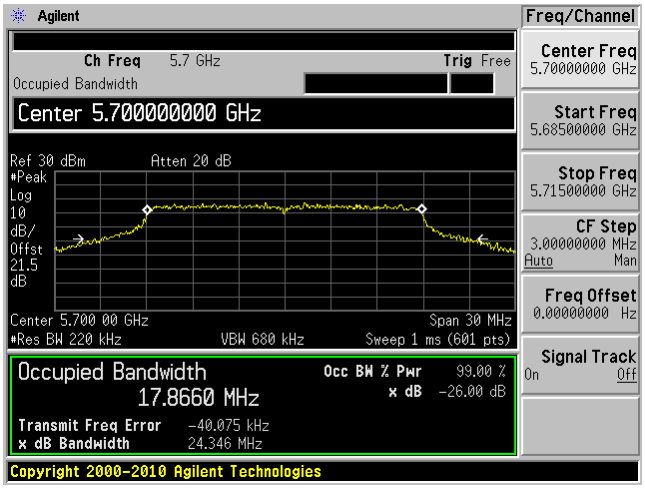
Middle channel: Chain 1



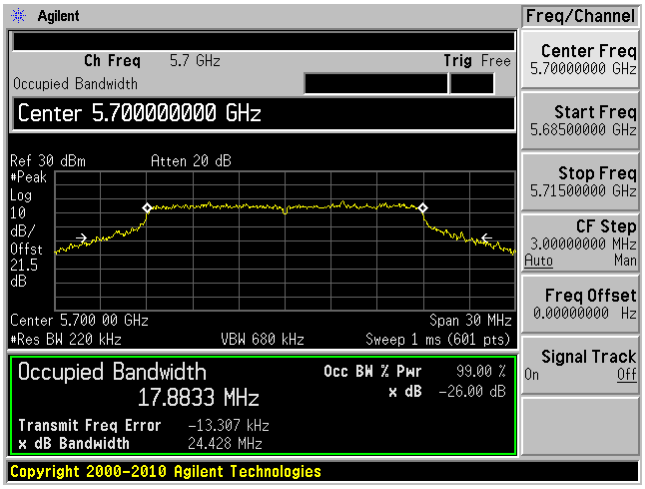
Middle Channel: Chain 2



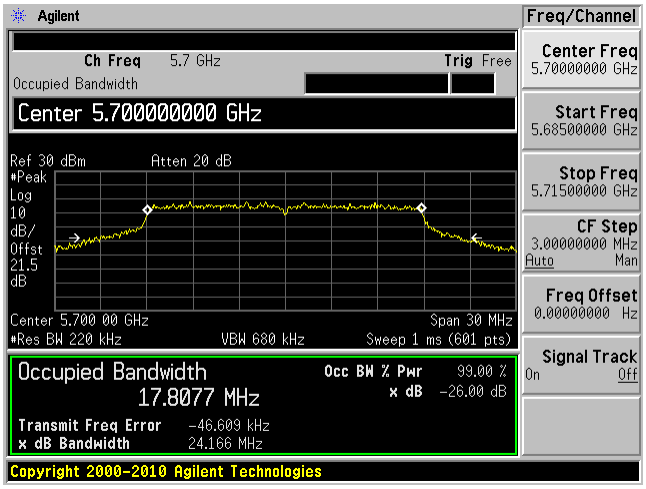
High channel: Chain 0



High channel: Chain 1

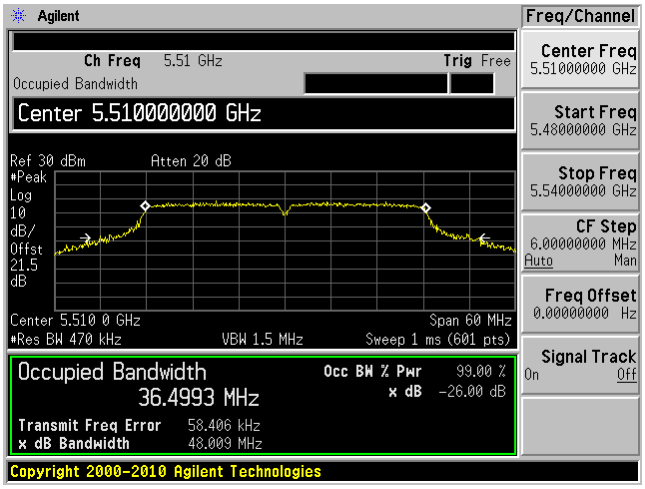


High Channel: Chain 2

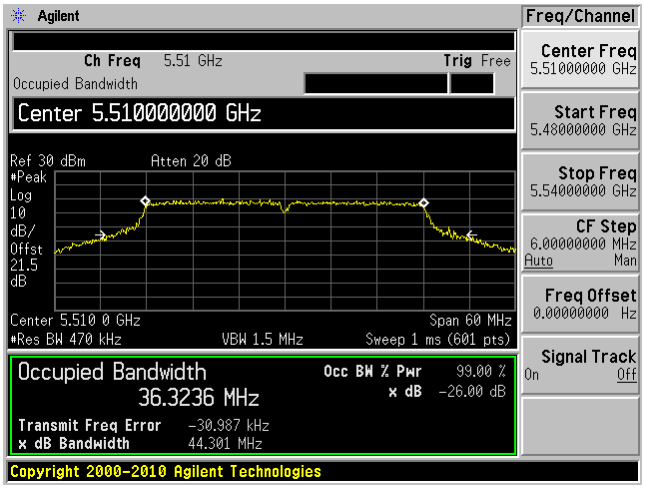


802.11n-HT40 mode

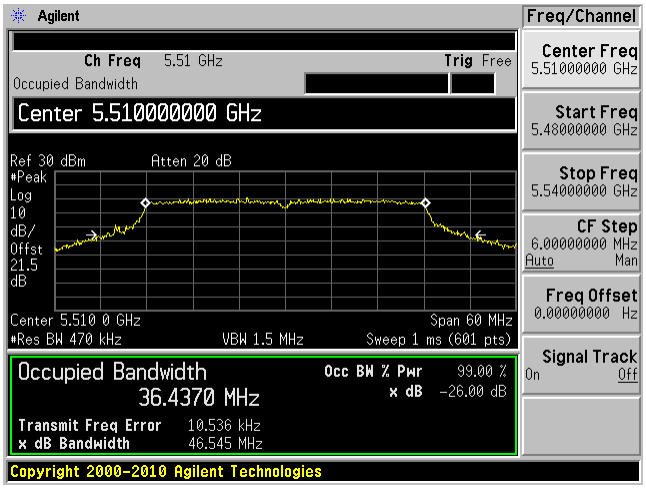
Low channel: Chain 0



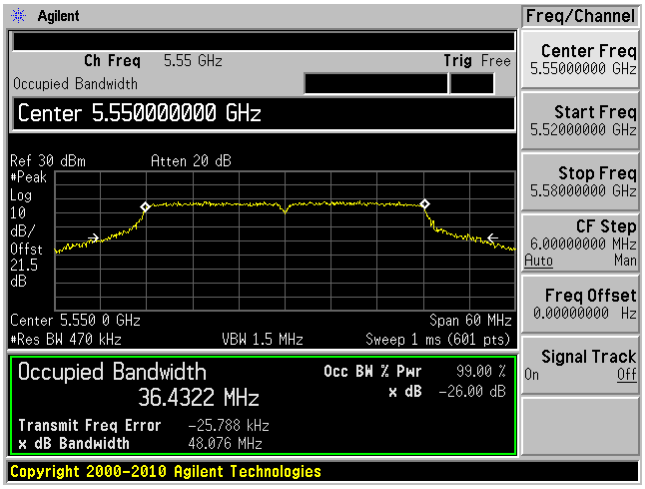
Low channel: Chain 1



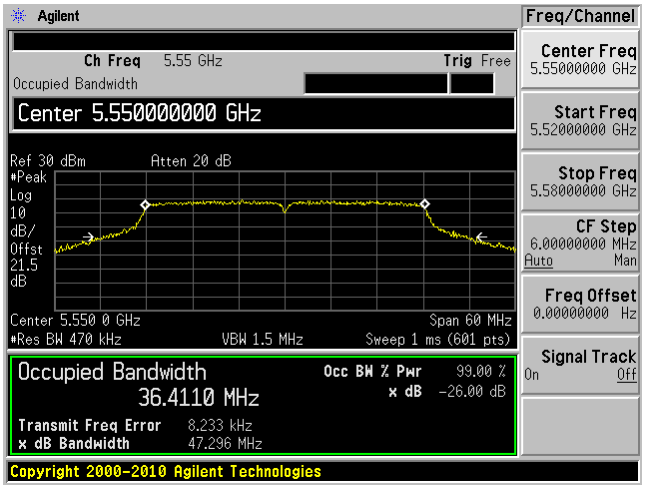
Low Channel: Chain 2



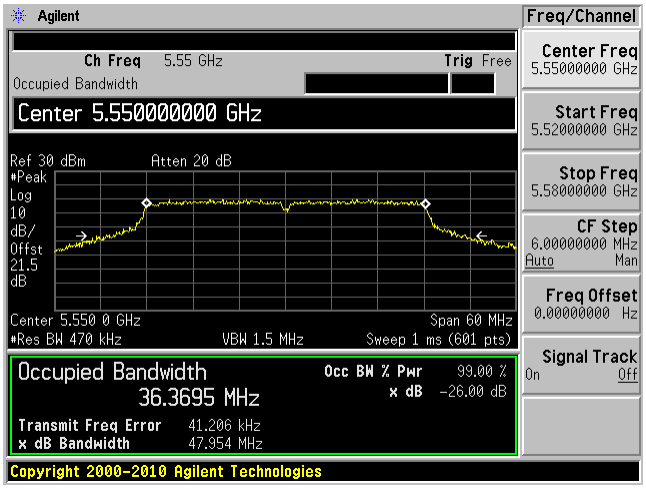
Middle channel: Chain 0



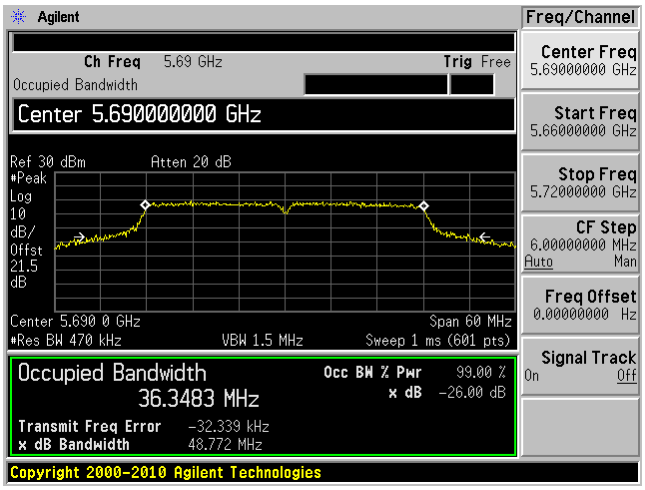
Middle channel: Chain 1



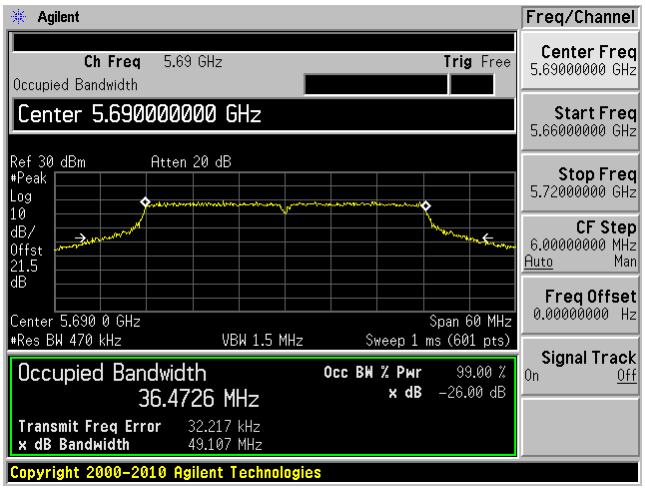
Middle Channel: Chain 2



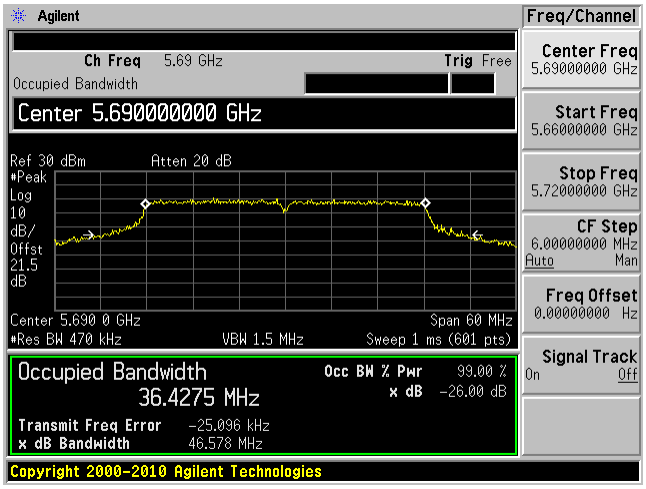
High channel: Chain 0



High channel: Chain 1



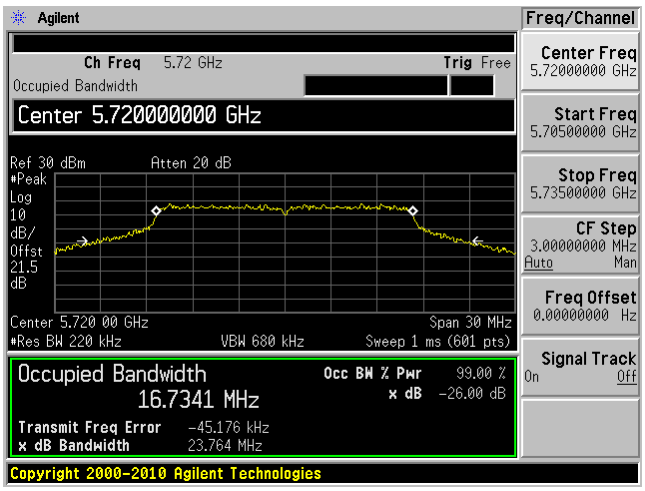
High Channel: Chain 2



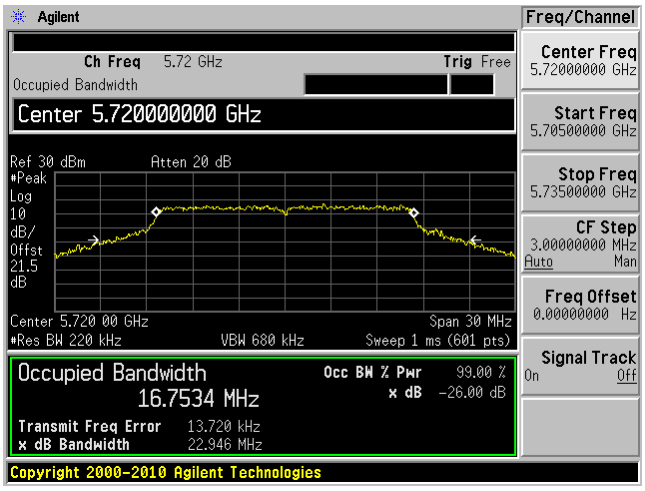
Cross band FCC Part 15.407 limit:

802.11a mode

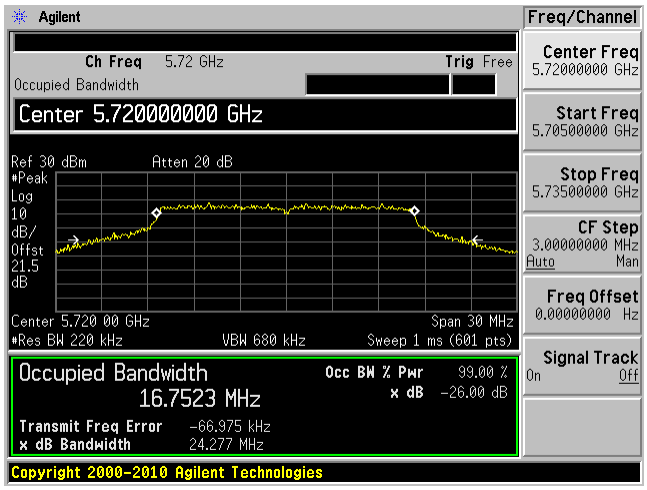
Chain 0



Chain 1

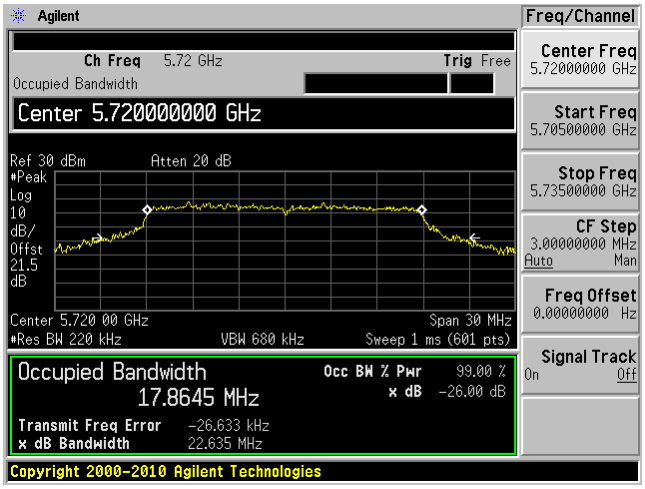


Chain 2

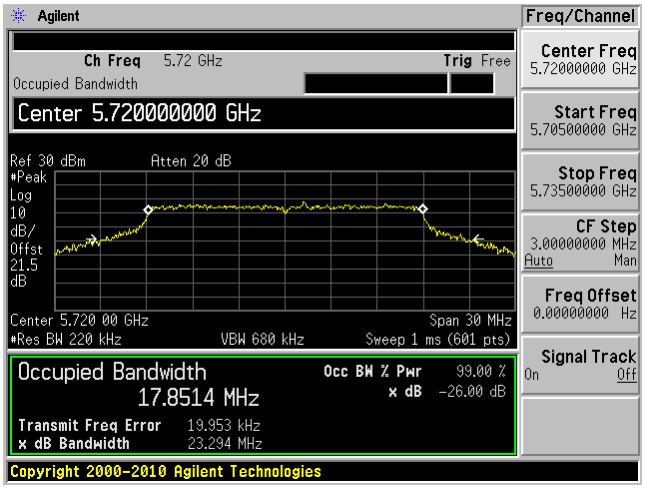


802.11n-HT20 mode

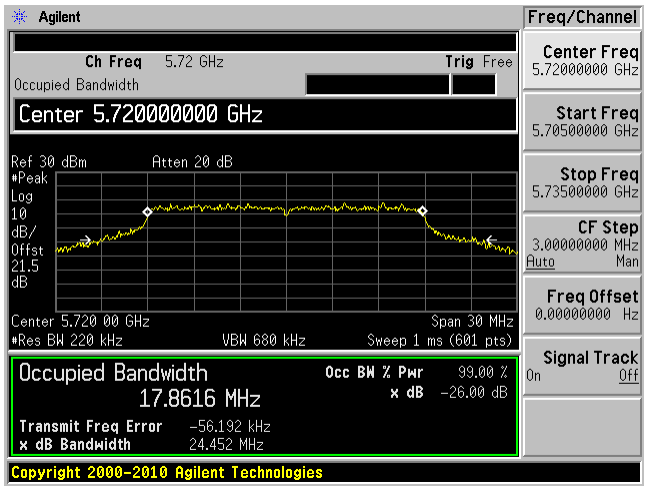
Chain 0



Chain 1

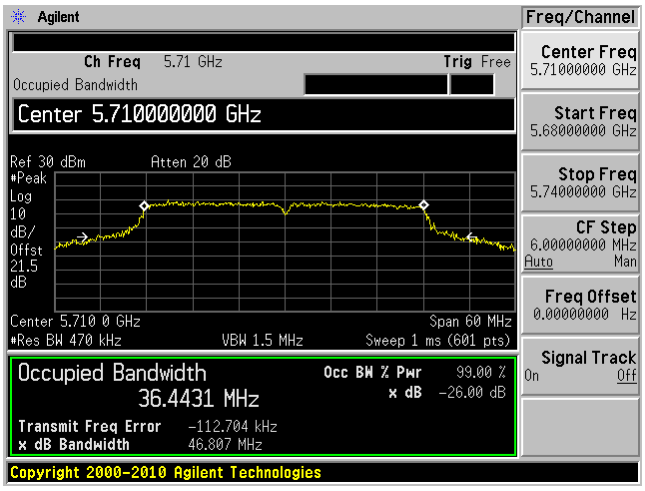


Chain 2

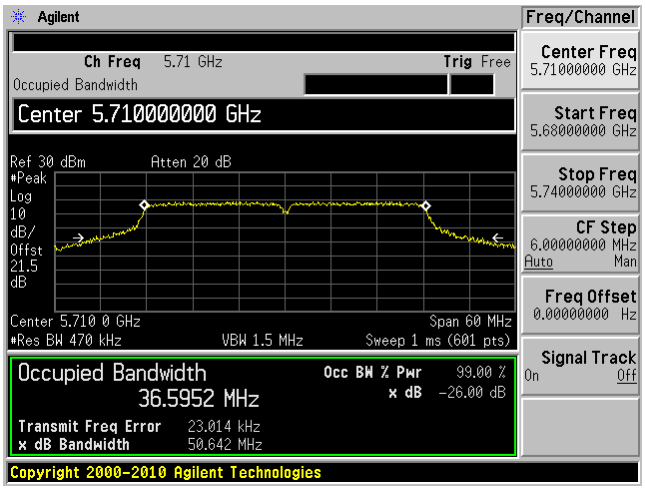


802.11n-HT40 mode

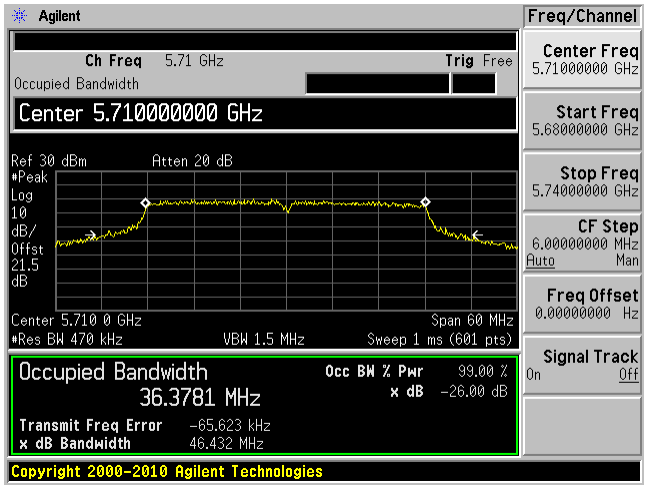
Chain 0



Chain 1

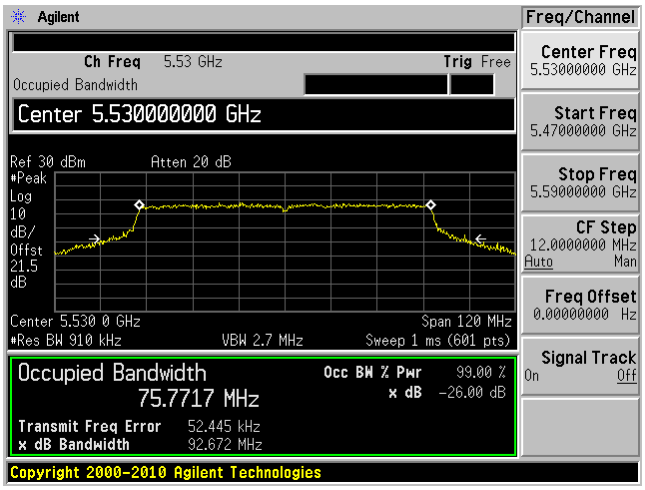


Chain 2

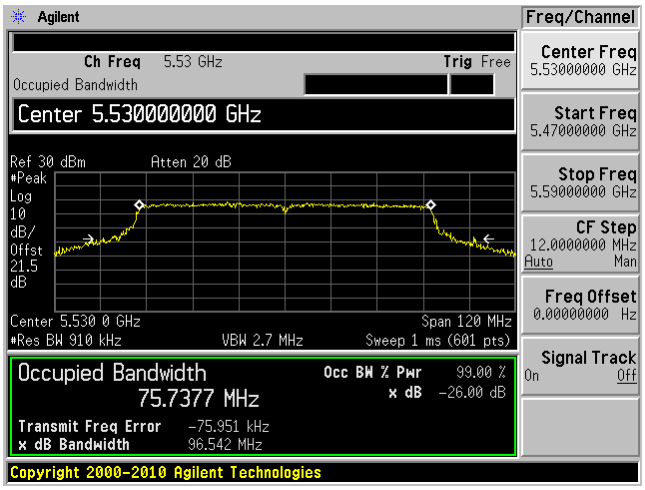


802.11ac 80 mode

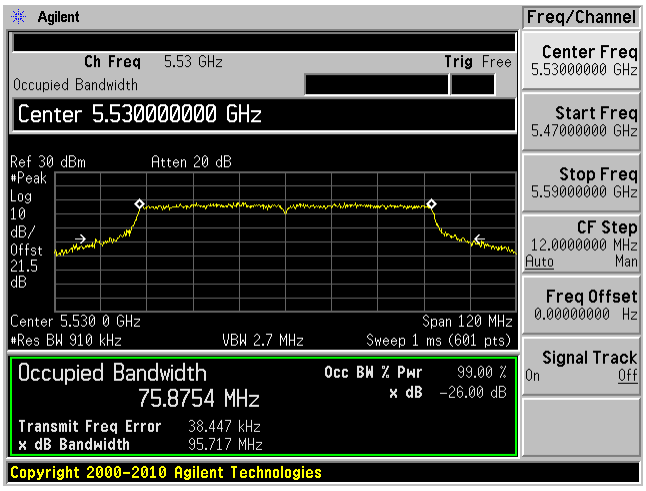
Low channel: Chain 0



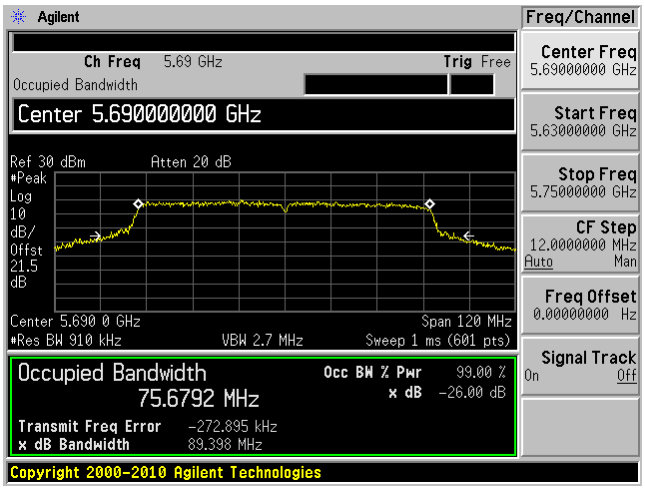
Low channel: Chain 1



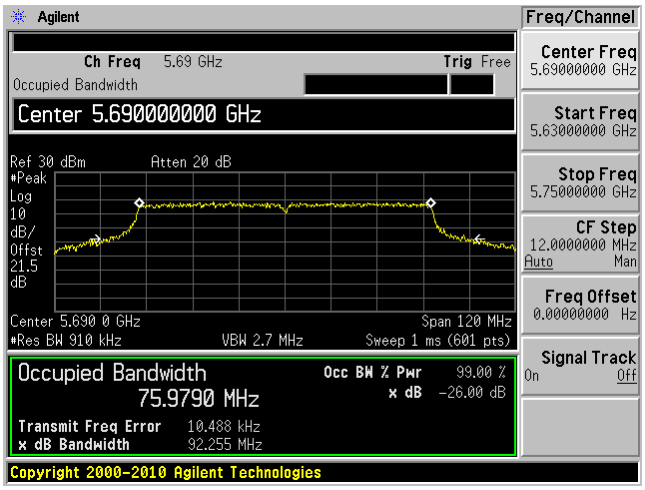
Low Channel: Chain 2



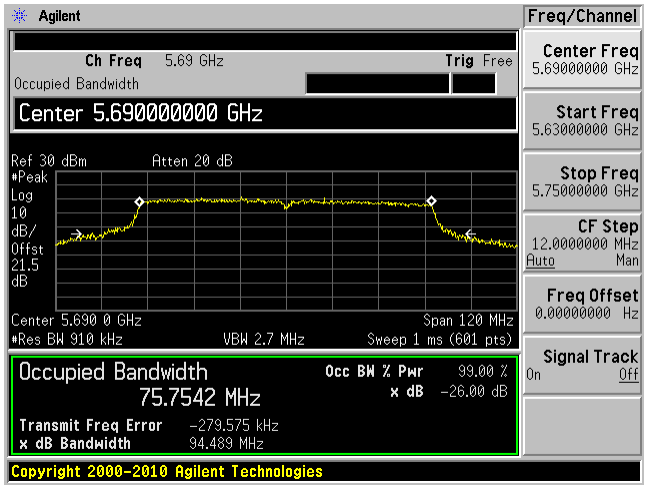
High channel: Chain 0



High channel: Chain 1



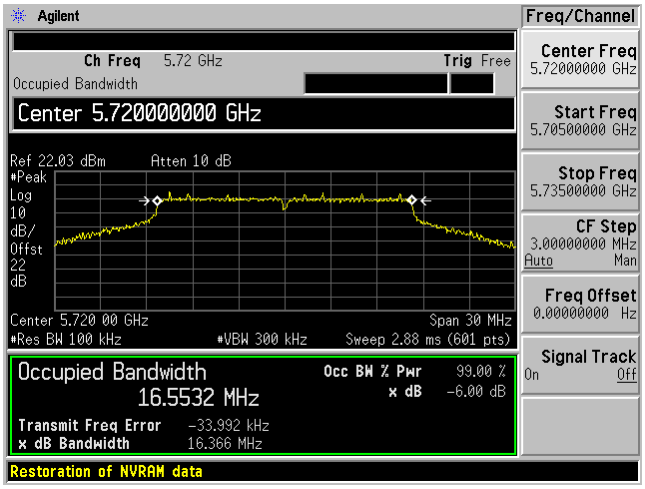
High Channel: Chain 2



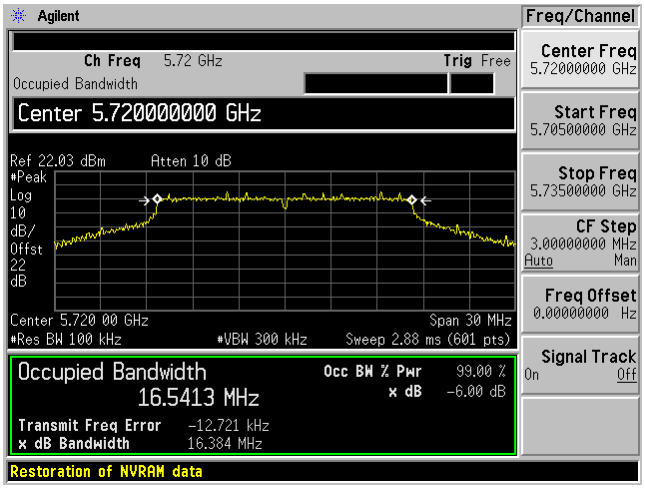
Cross band FCC Part 15.247 limit:

802.11a mode

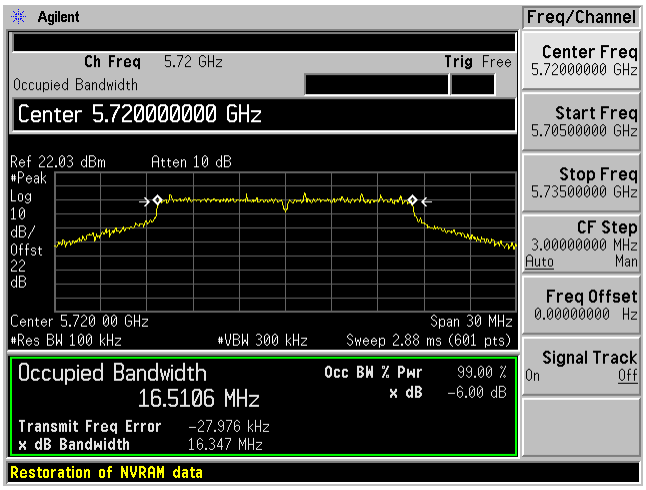
Chain 0



Chain 1

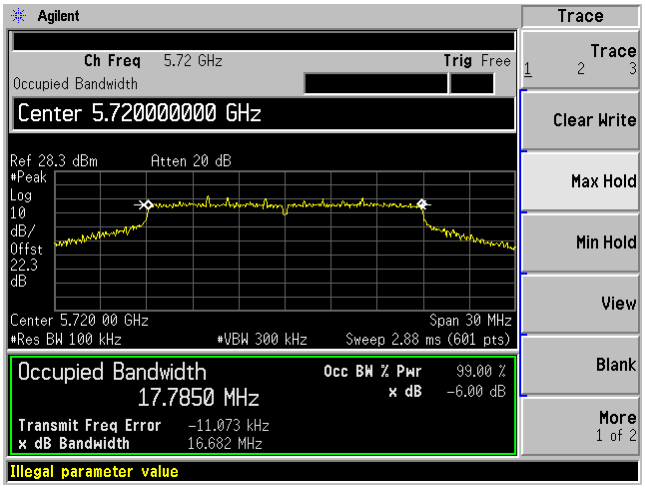


Chain 2

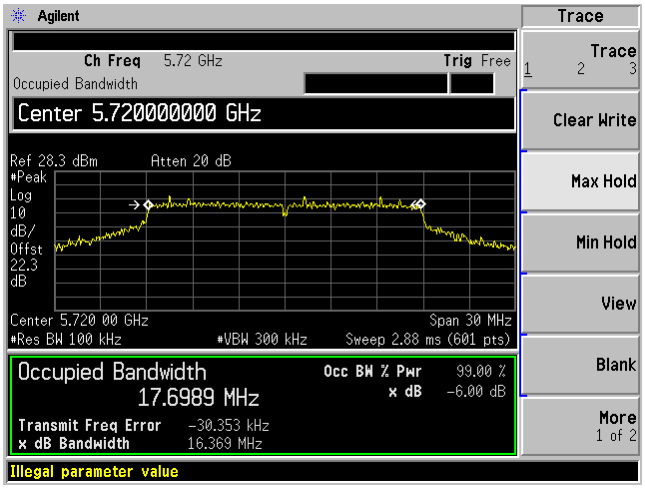


802.11n-HT20 mode

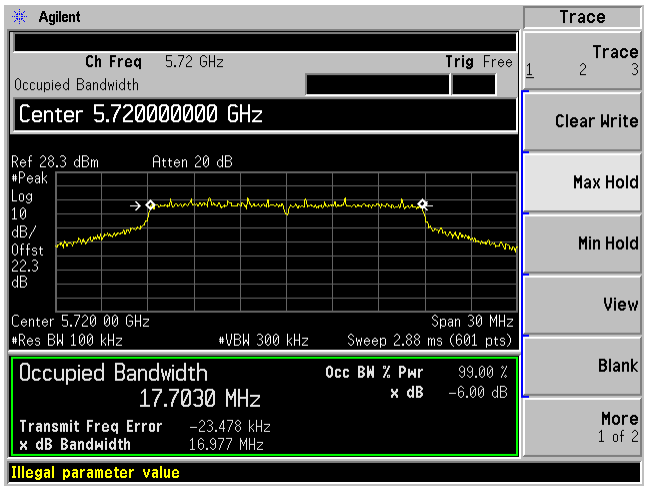
Chain 0



Chain 1

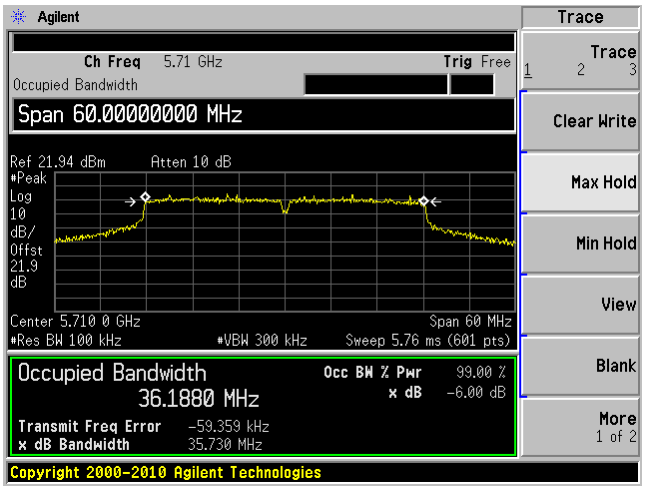


Chain 2

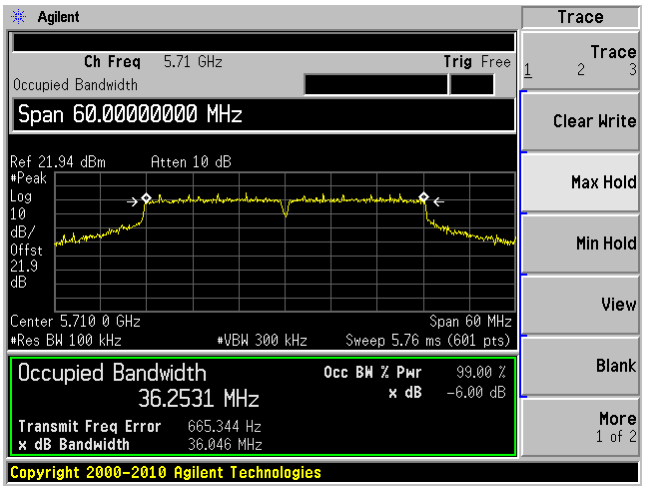


802.11n-HT40 mode

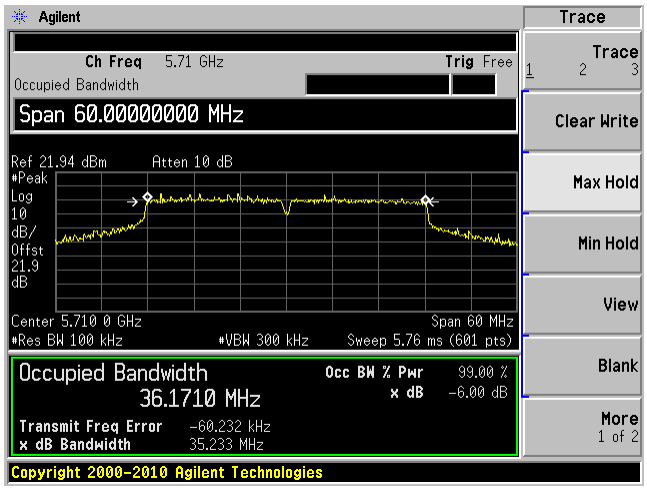
Chain 0



Chain 1

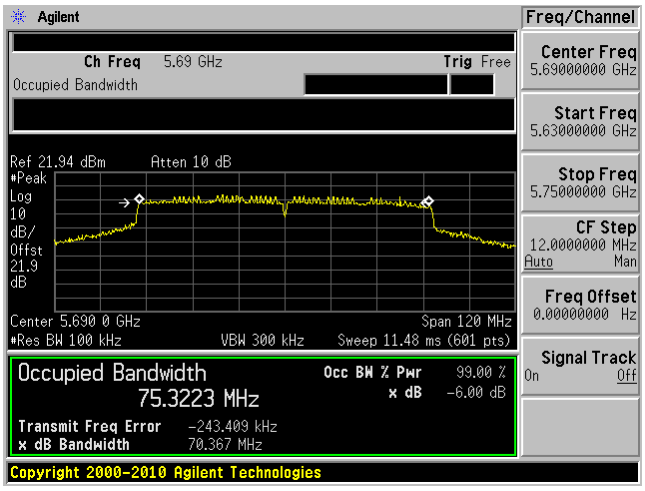


Chain 2

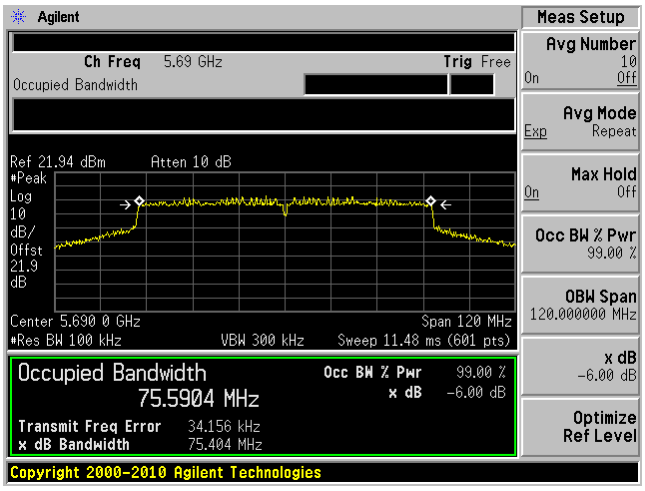


802.11ac 80 mode

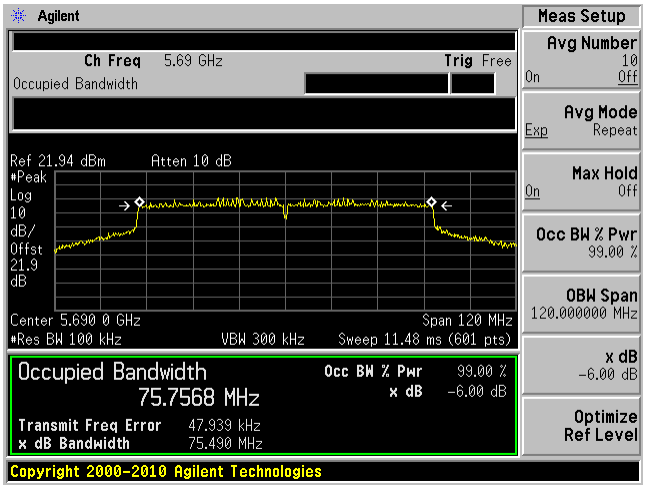
Chain 0



Chain 1



Chain 2



9 FCC §407(a)(1) & IC RSS-210 §A9.2 - Peak Output Power Measurement

9.1 Applicable Standard

According to FCC §15.407(a)(1)

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 + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to IC RSS-210 §A9.2:

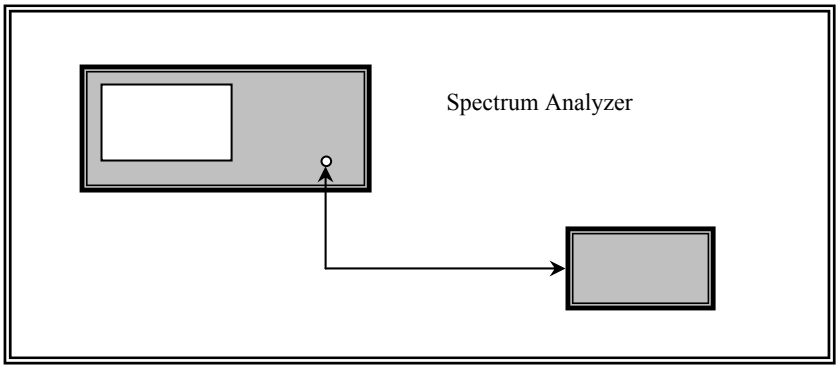
For the 5.15–5.250 GHz bands, the maximum e.i.r.p shall not exceed 200 mW or 10 + 10 log B, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to FCC §15.247(b) and IC RSS-210 §A8.4 (4)

For systems using digital modulation in the 902~928 MHz, 2400~2483.5 MHz, and 5725~5850 MHz bands: 1 Watt.

9.2 Measurement Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a spectrum analyzer.
3. Add a correction factor to the display.



9.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	US44300386	2012-09-29	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

9.4 Test Environmental Conditions

Temperature:	21 °C
Relative Humidity:	43 %
ATM Pressure:	101.3 kPa

The testing was performed by Ning Ma from 2013-04-16 at the RF site.

9.5 Test Results

5250-5350 MHz:

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11a mode	5260	16.86	16.62	18.11	22.02	24	-1.98
	5280	16.9	16.11	16.6	21.32	24	-2.68
	5320	16.82	16.65	17.35	21.72	24	-2.28

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 20	5260	17.03	16.39	17.32	21.70	24	-2.30
	5280	16.74	16.56	17.39	21.68	24	-2.32
	5320	15.5	16.5	16.98	21.14	24	-2.86

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 40	5270	18.96	17.87	19.87	23.75	24	-0.25
	5310	16.09	15.48	16.06	20.66	24	-3.34

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 ac 80	5290	8.57	8.48	9.28	13.56	24	-10.44

5470-5725 MHz FCC Part 15.407 limit:

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11a mode	5500	16.32	16.78	16.55	21.33	24	-2.67
	5580	15.34	16.53	16.71	21.01	24	-2.99
	5700	16.52	16.89	16.58	21.44	24	-2.56
	5720*	16.6	16.61	16.63	21.38	24	-2.62

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 20	5500	16.45	17.05	16.69	21.51	24	-2.49
	5580	16.74	16.93	17.05	21.68	24	-2.32
	5700	16.56	17.09	16.91	21.63	24	-2.37
	5720*	17.05	17.24	16.86	21.82	24	-2.18

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 40	5510	17.69	18.05	17.76	22.61	24	-1.39
	5550	17.99	18.4	18.66	23.13	24	-0.87
	5690	18.49	18.48	18.86	23.38	24	-0.62
	5710*	18.8	18.69	18.36	23.39	24	-0.61

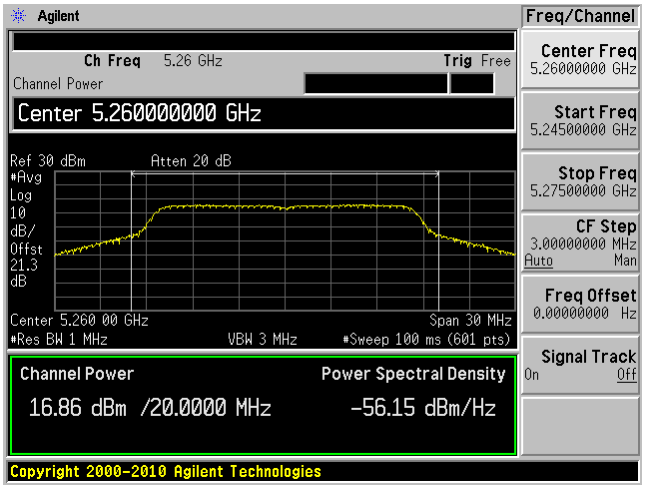
Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 ac 80	5530	16.53	16.12	16.56	21.18	24	-2.82
	5690*	18.14	18.02	18.74	23.08	24	-0.92

Note: * channel cross U-NII 2C and U-NII 3 band.

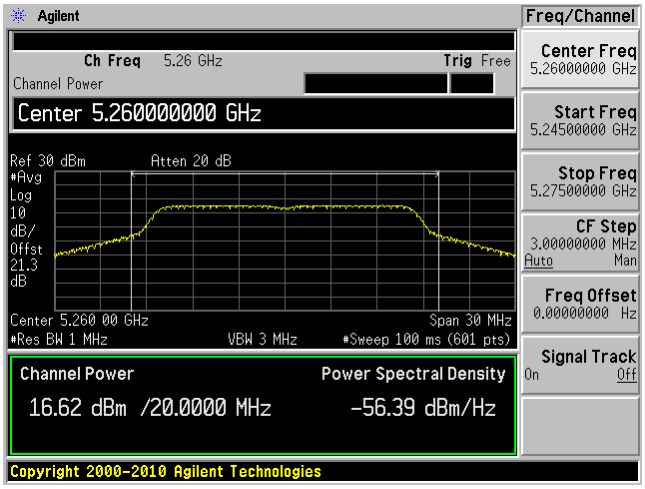
5250-5350 MHz Band:

802.11a mode

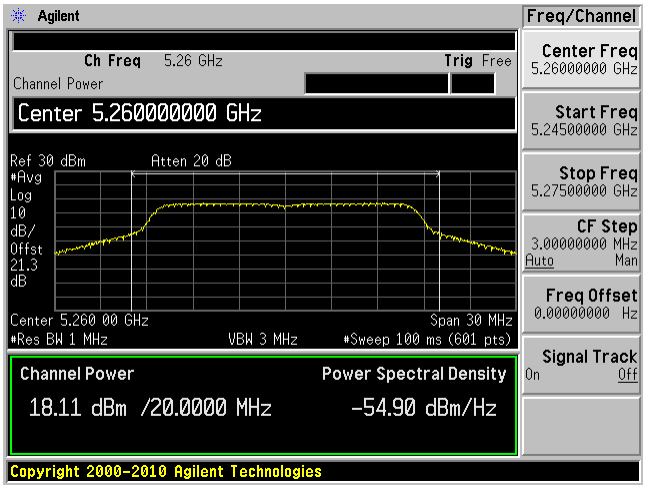
Low channel: Chain 0



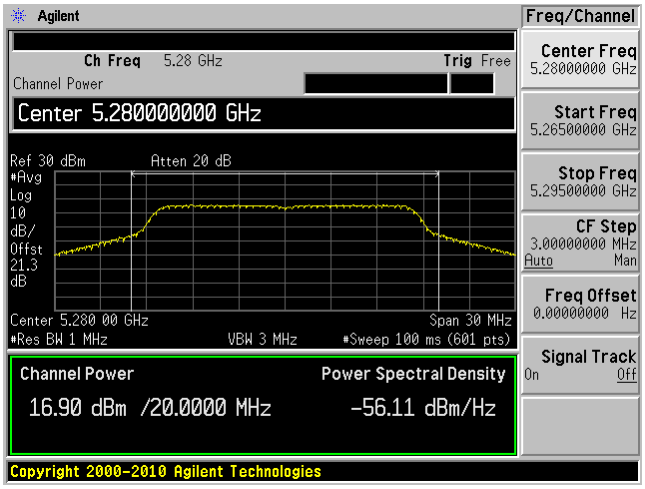
Low channel: Chain 1



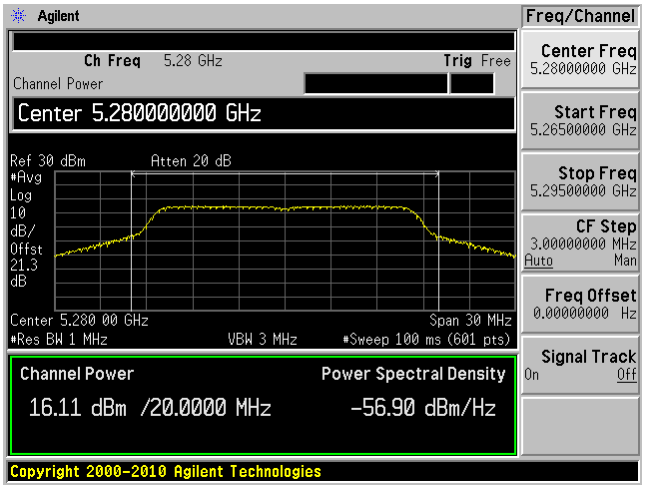
Low Channel: Chain 2



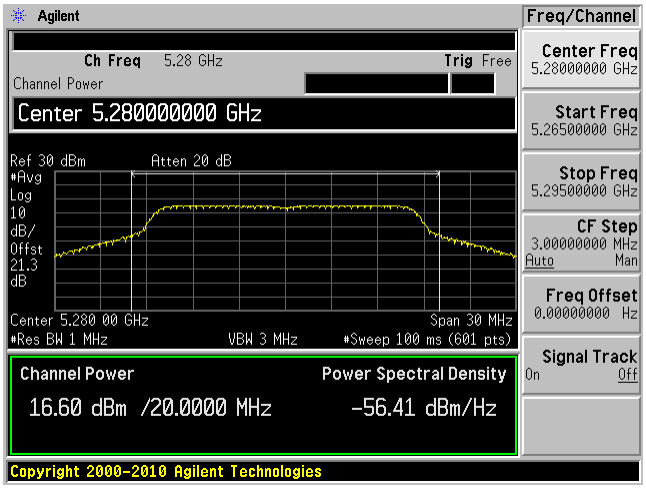
Middle channel: Chain 0



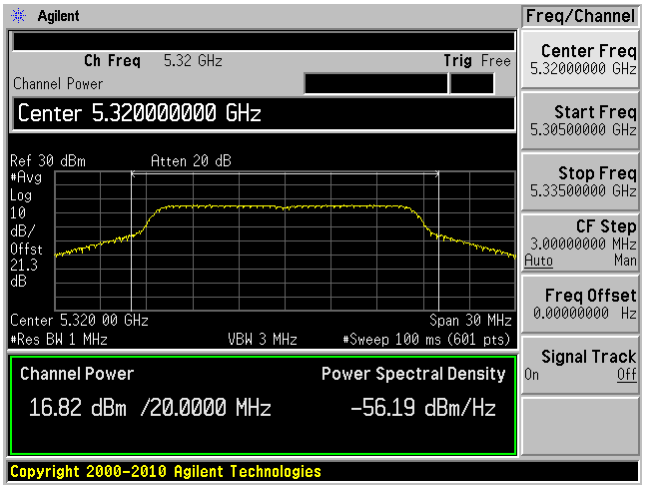
Middle channel: Chain 1



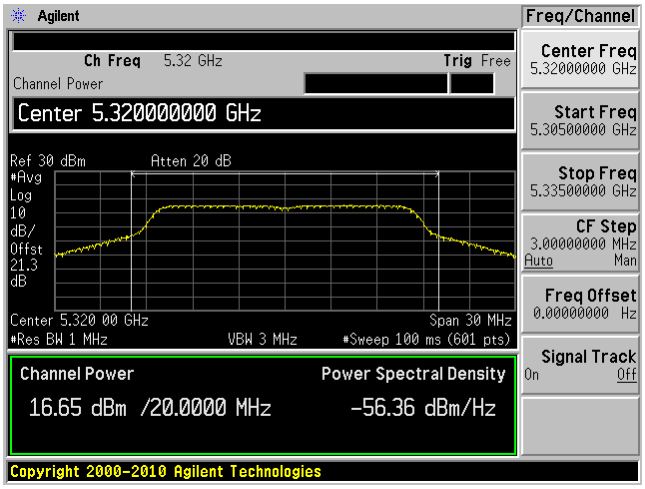
Middle Channel: Chain 2



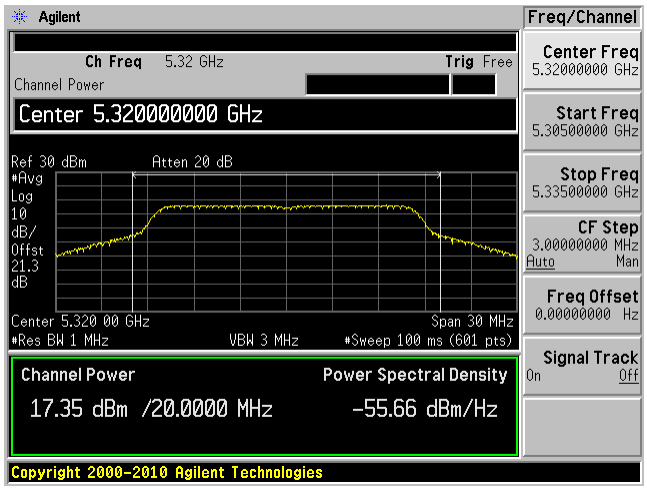
High channel: Chain 0



High channel: Chain 1

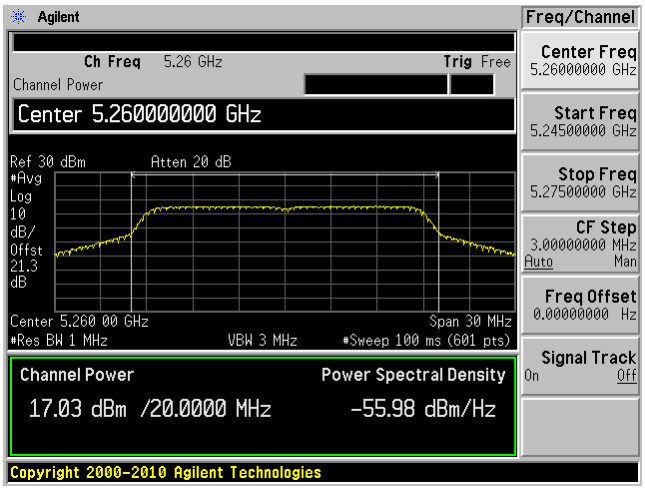


High Channel: Chain 2

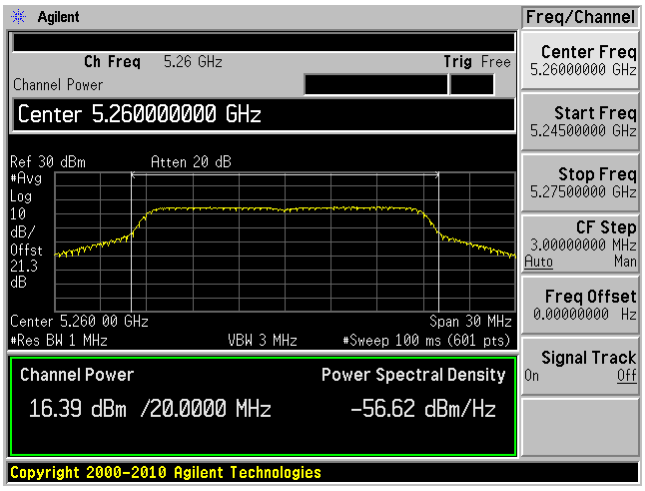


802.11n-HT20 mode

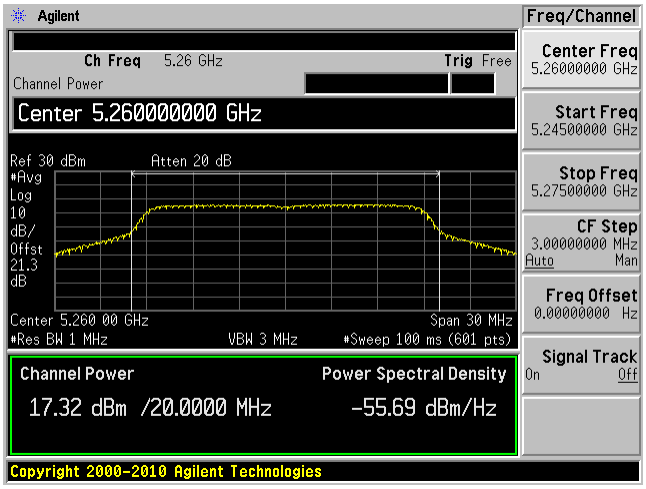
Low channel: Chain 0



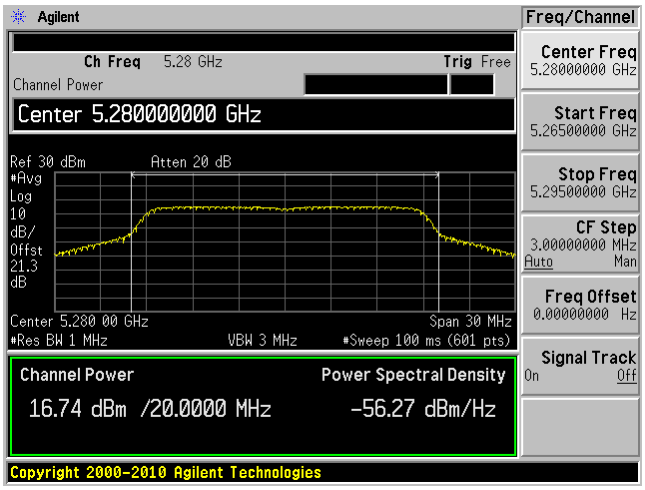
Low channel: Chain 1



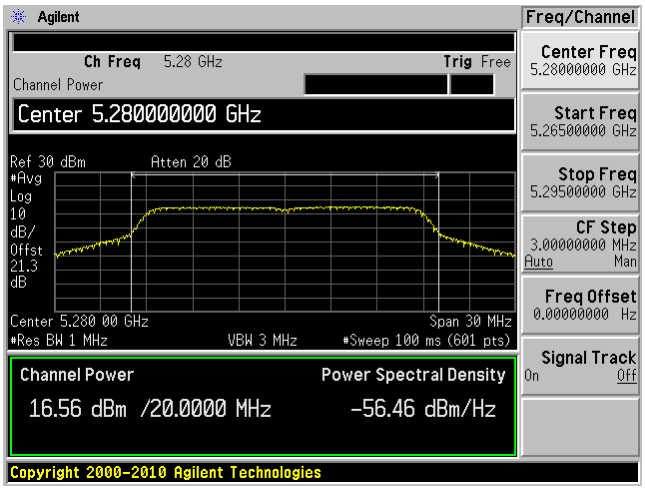
Low Channel: Chain 2



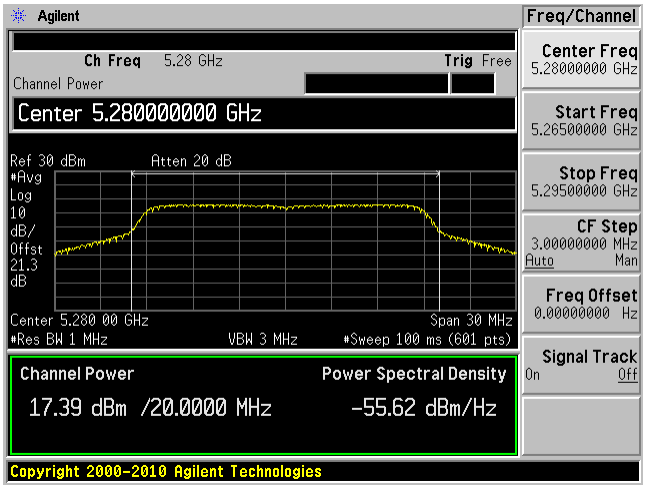
Middle channel: Chain 0



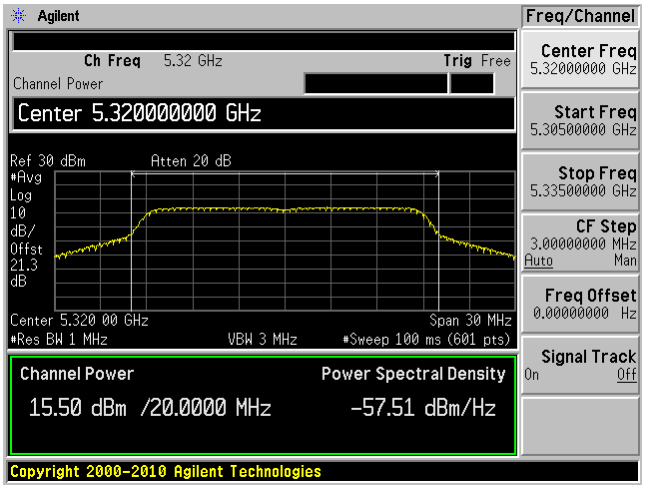
Middle channel: Chain 1



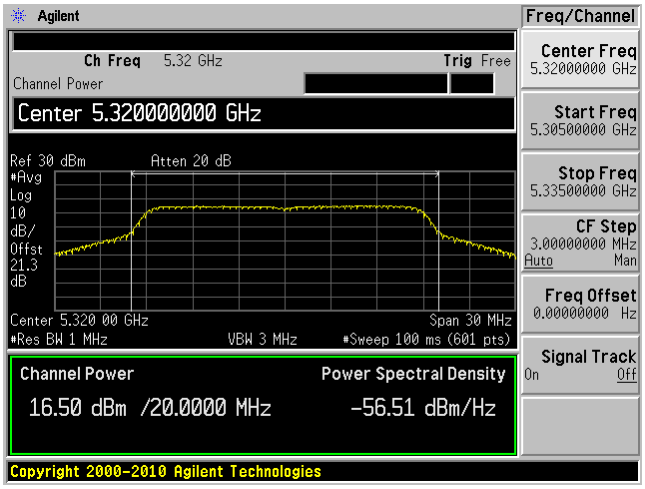
Middle Channel: Chain 2



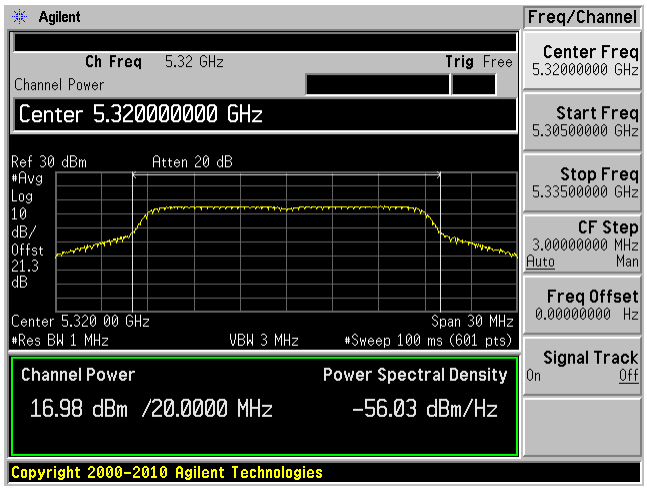
High channel: Chain 0



High channel: Chain 1

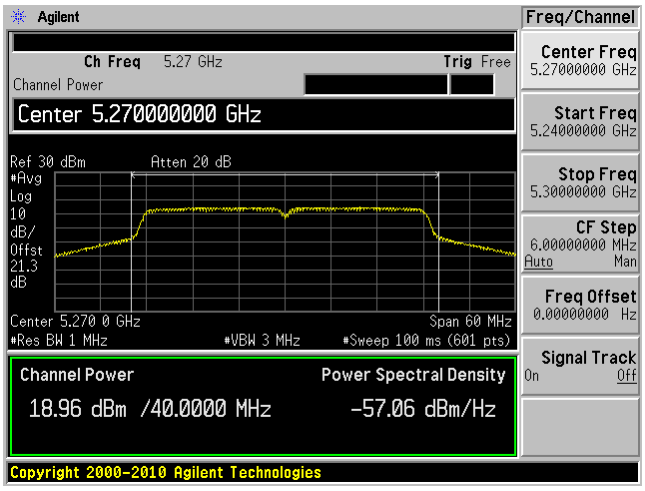


High Channel: Chain 2

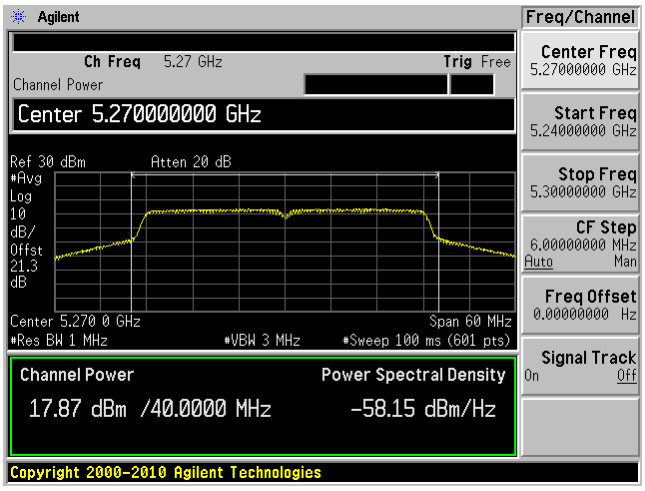


802.11n-HT40 mode

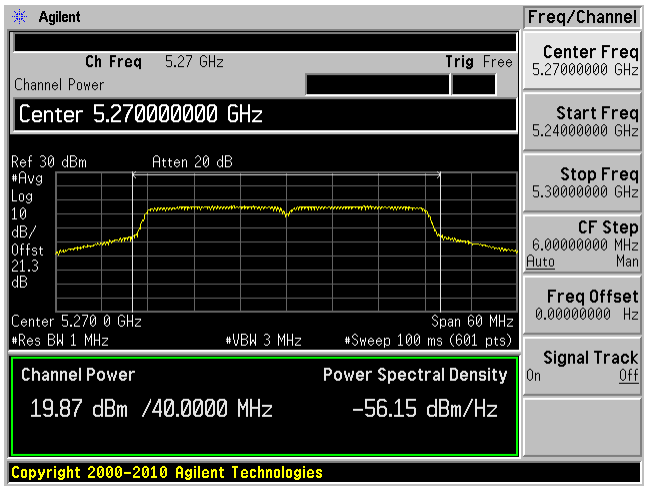
Low channel: Chain 0



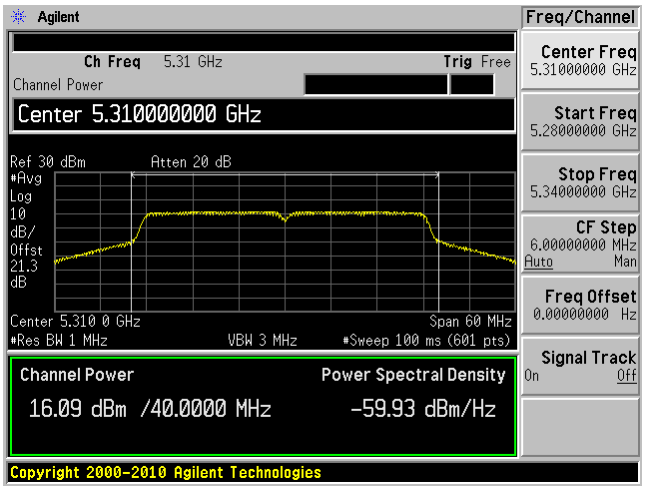
Low channel: Chain 1



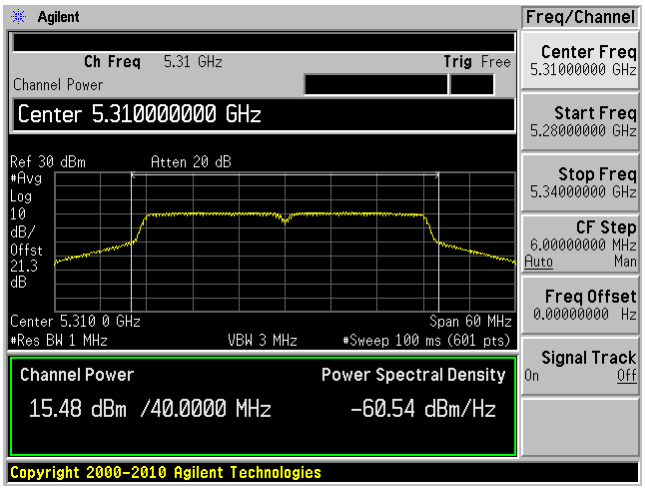
Low Channel: Chain 2



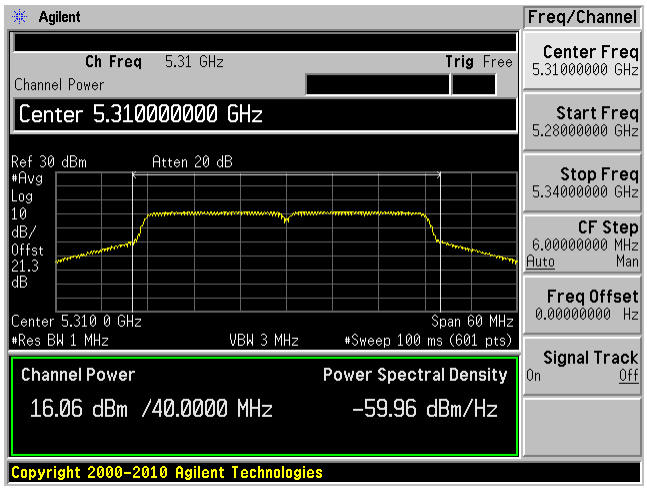
High channel: Chain 0



High channel: Chain 1

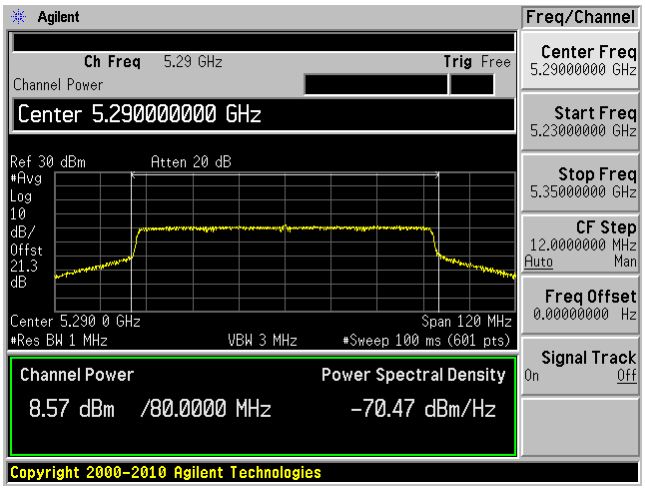


High Channel: Chain 2

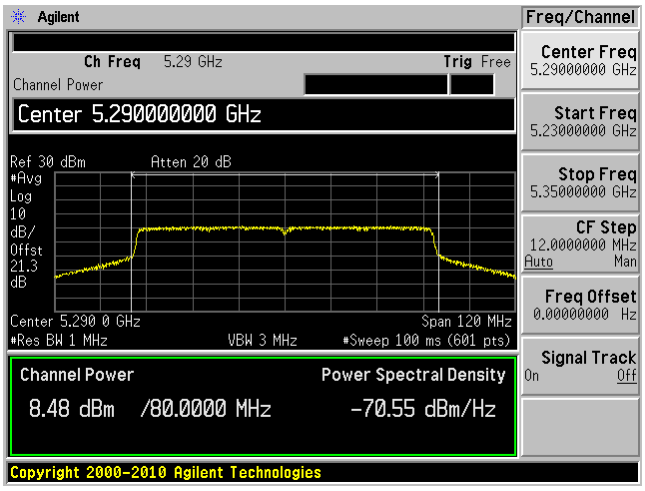


802.11ac 80 mode

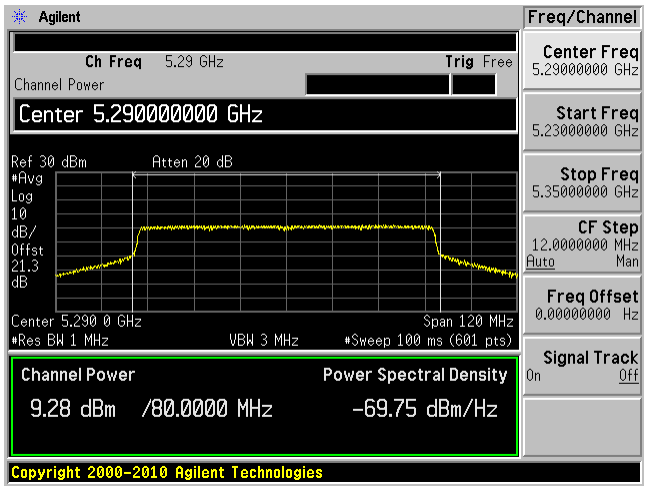
Chain 0



Chain 1



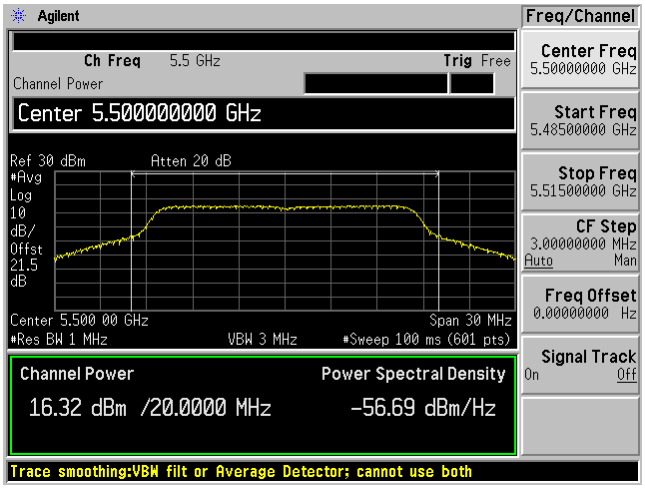
Chain 2



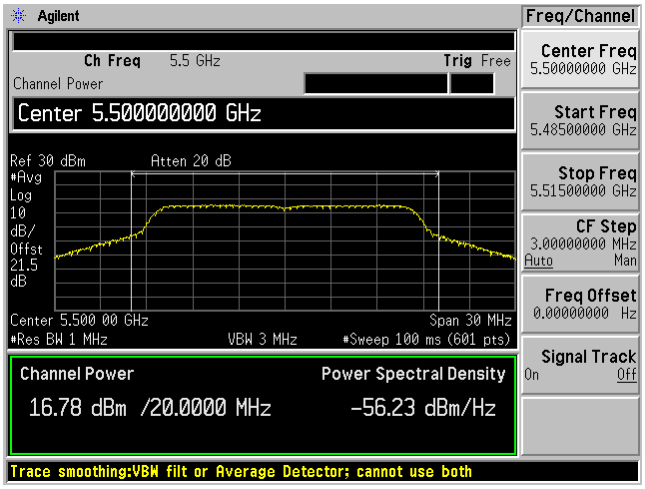
5470-5725 MHz Band:

802.11a mode

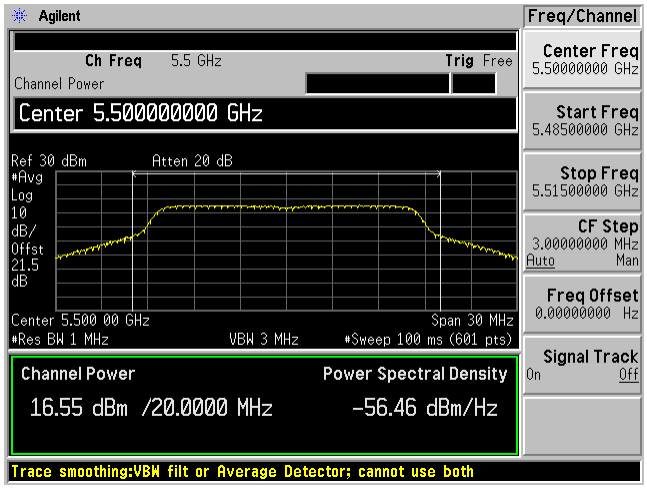
Low channel: Chain 0



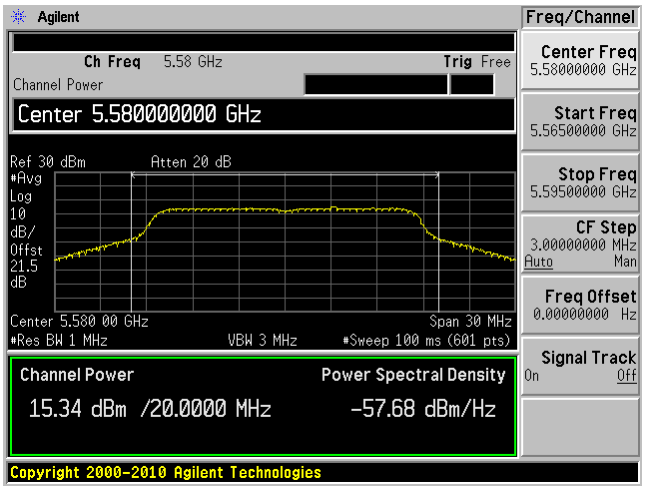
Low channel: Chain 1



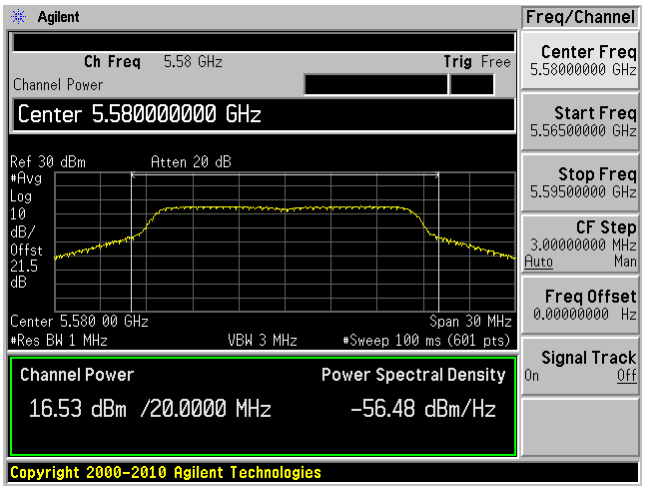
Low Channel: Chain 2



Middle channel: Chain 0



Middle channel: Chain 1



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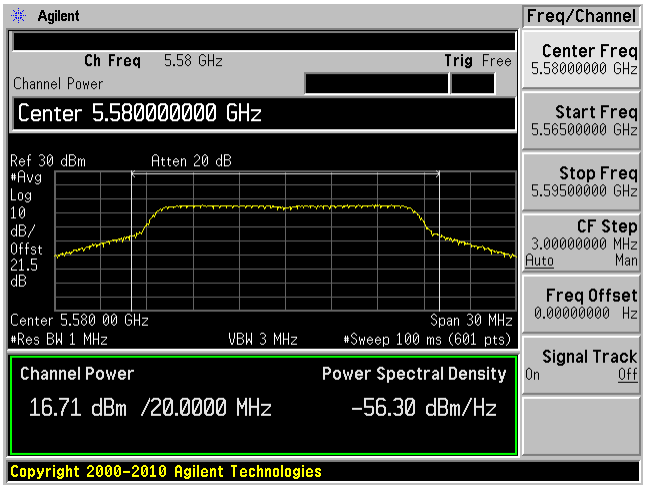
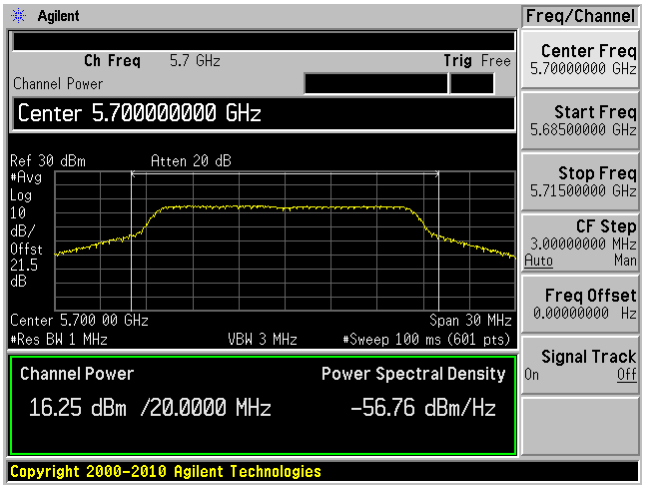


High channel: Chain 0



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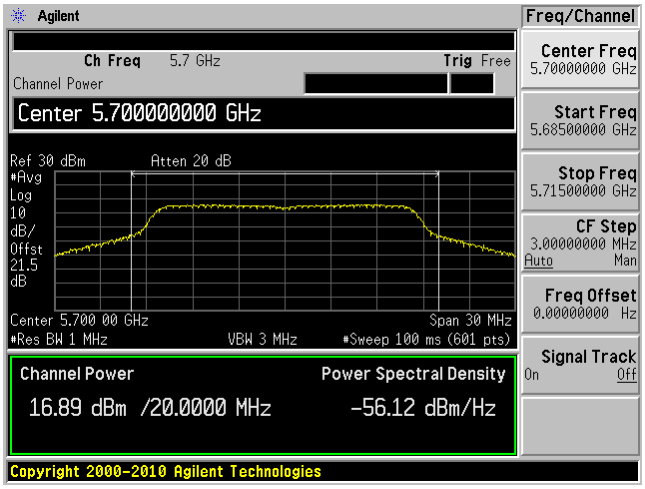
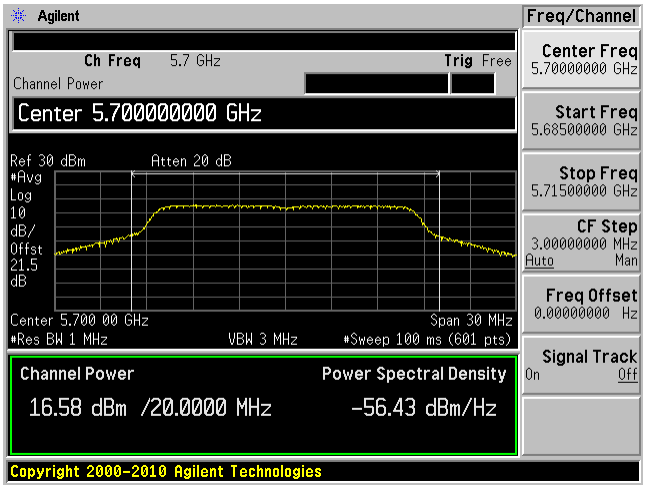
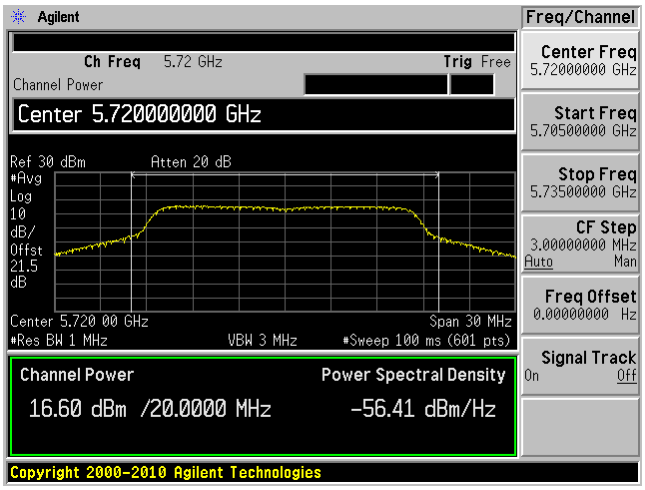


High Channel: Chain 2



Cross channel: Chain 0



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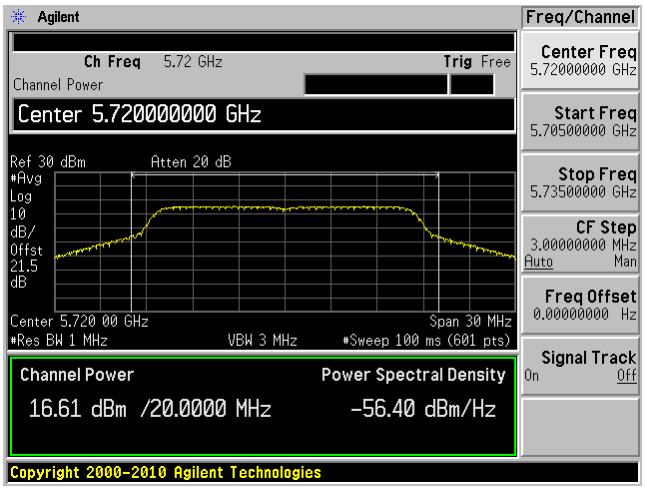
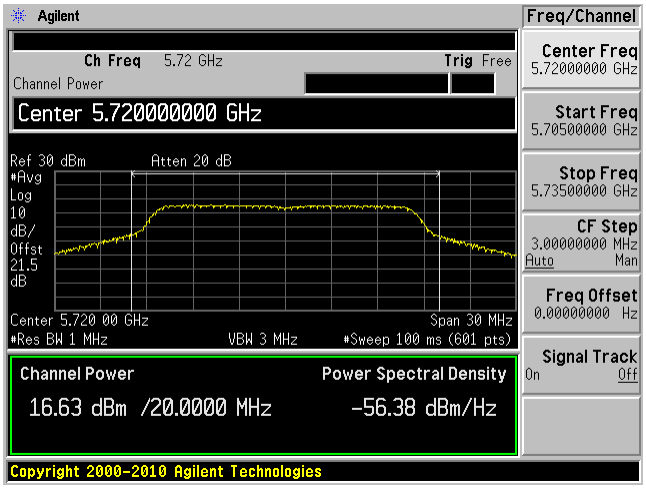
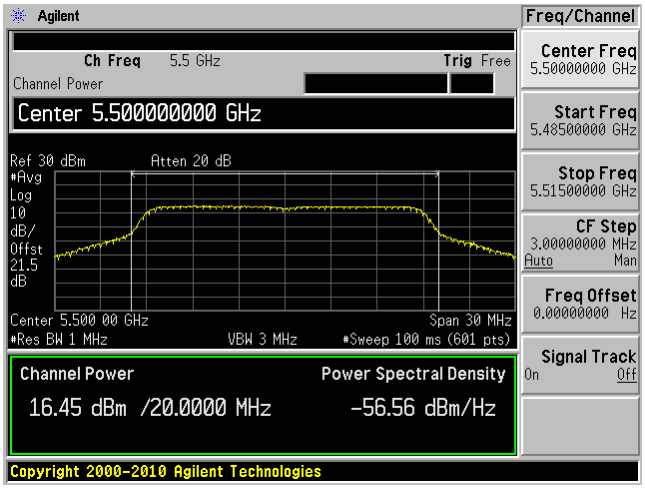


Cross Channel: Chain 2

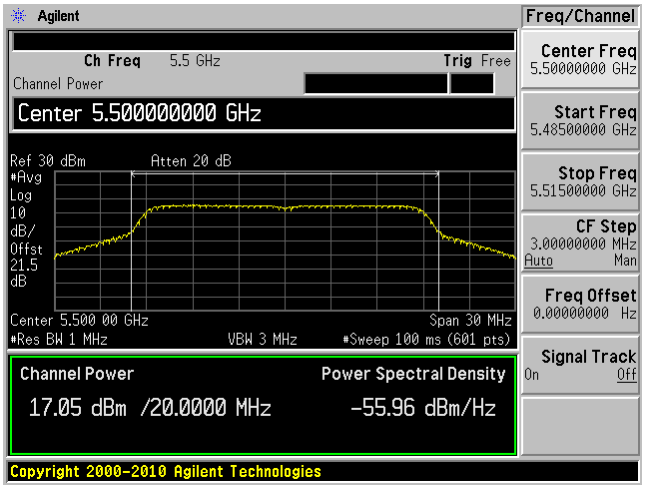


802.11n-HT20 mode

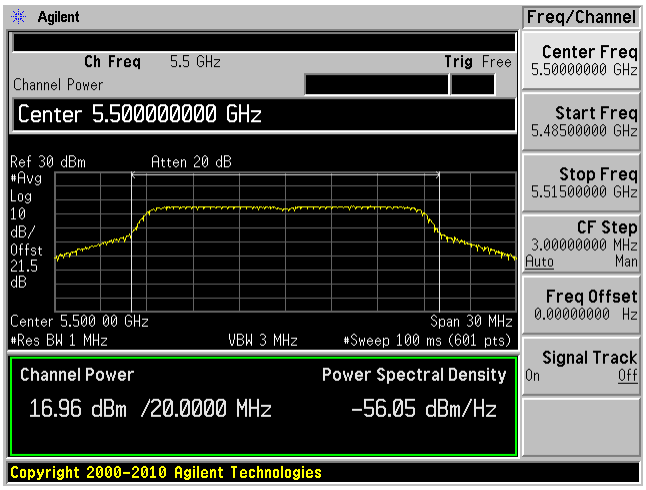
Low channel: Chain 0



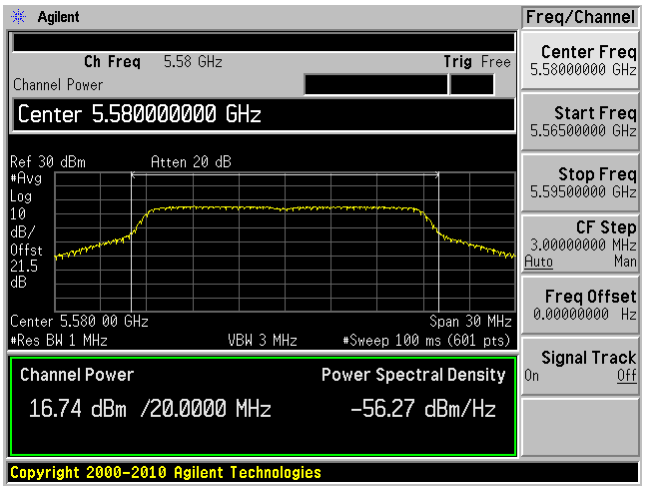
Low channel: Chain 1



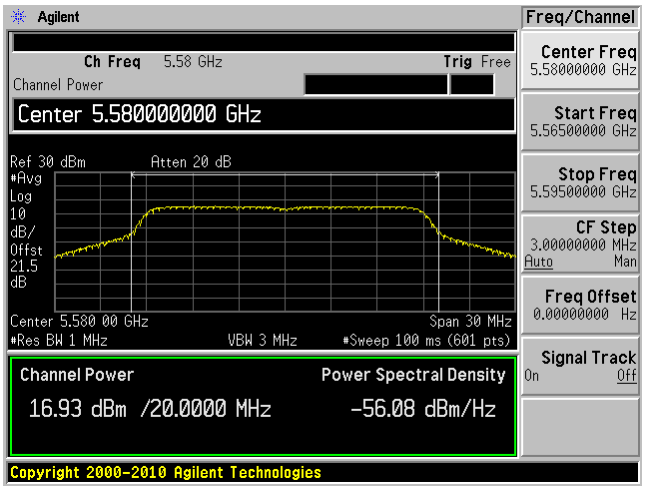
Low Channel: Chain 2



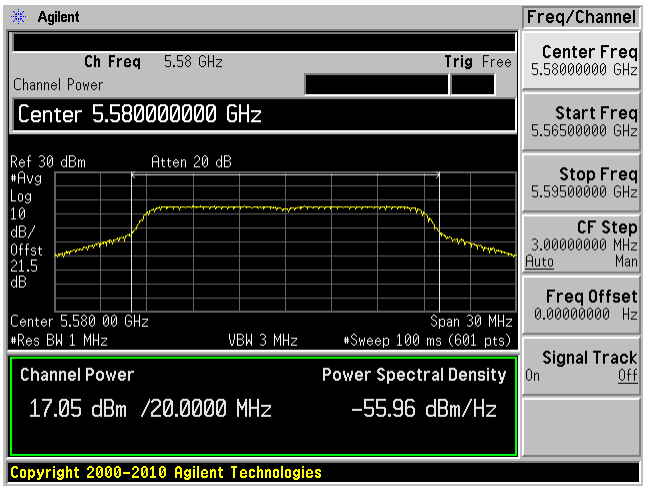
Middle channel: Chain 0



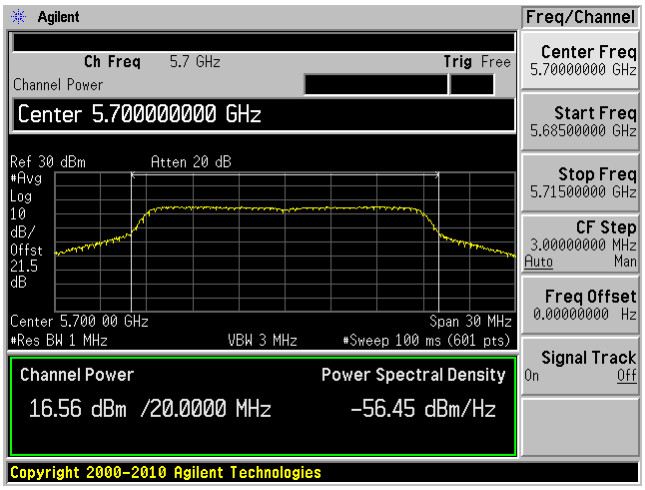
Middle channel: Chain 1



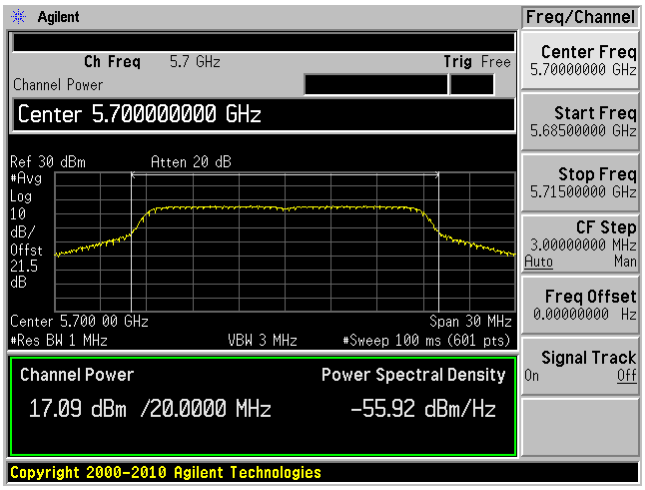
Middle Channel: Chain 2



High channel: Chain 0



High channel: Chain 1



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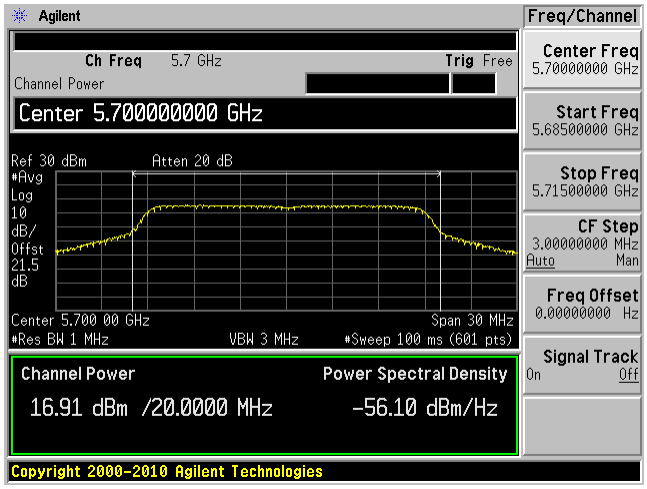
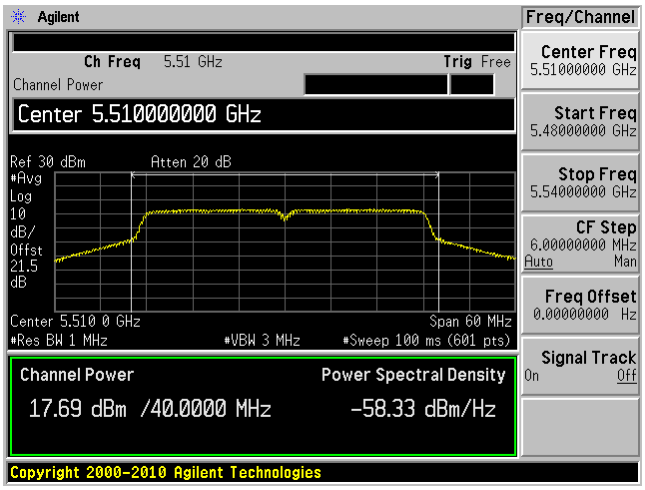
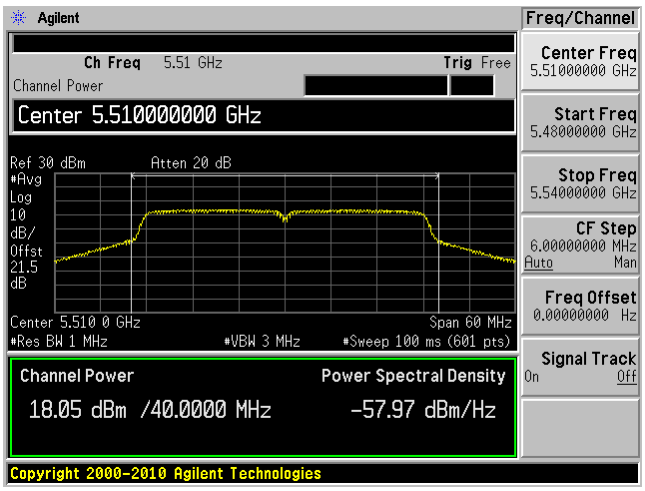


802.11n-HT40 mode

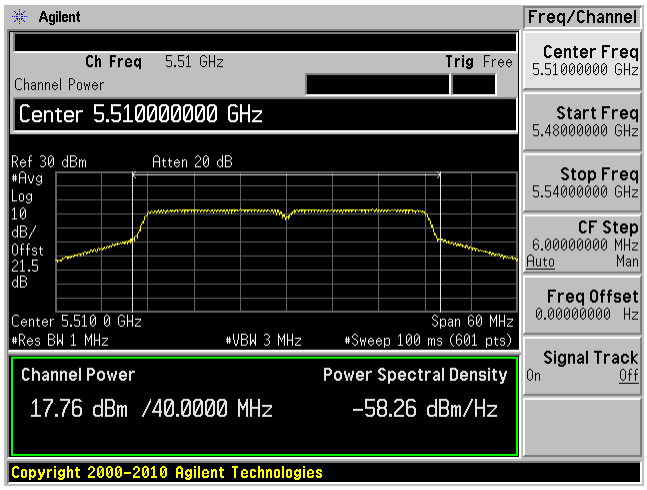
Low channel: Chain 0



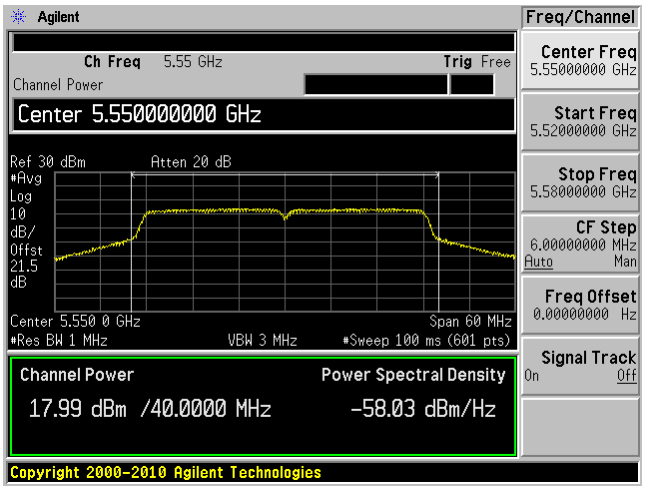
Low channel: Chain 1



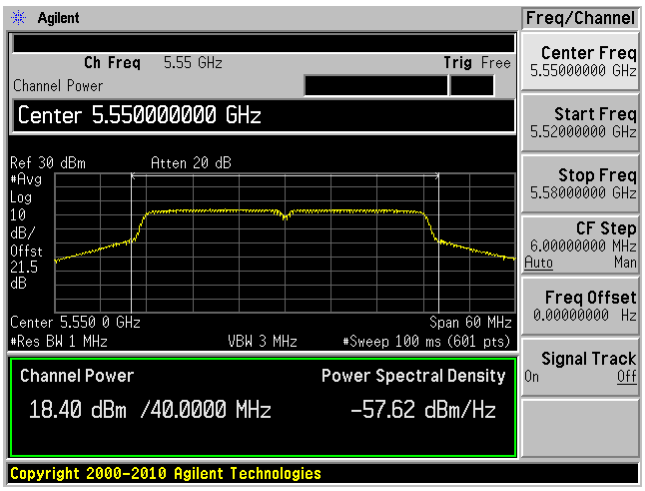
Low Channel: Chain 2



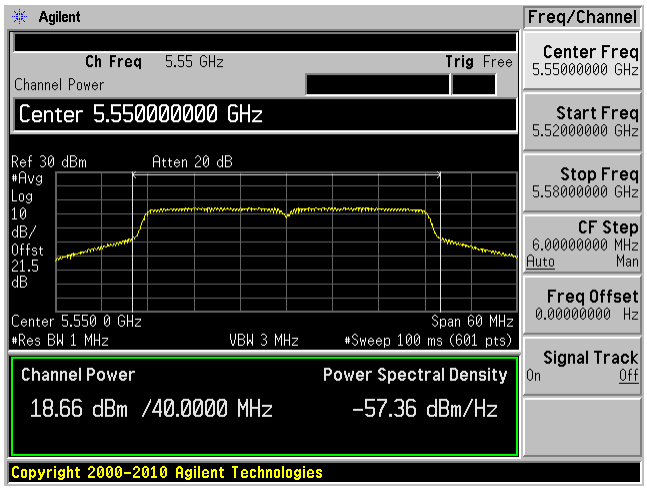
Middle channel: Chain 0



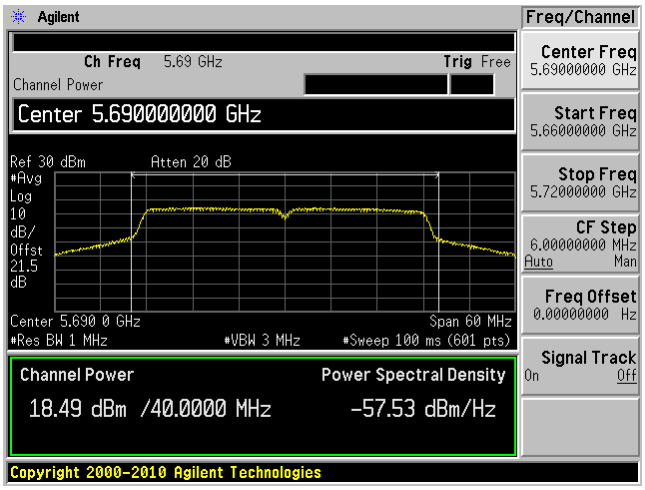
Middle channel: Chain 1



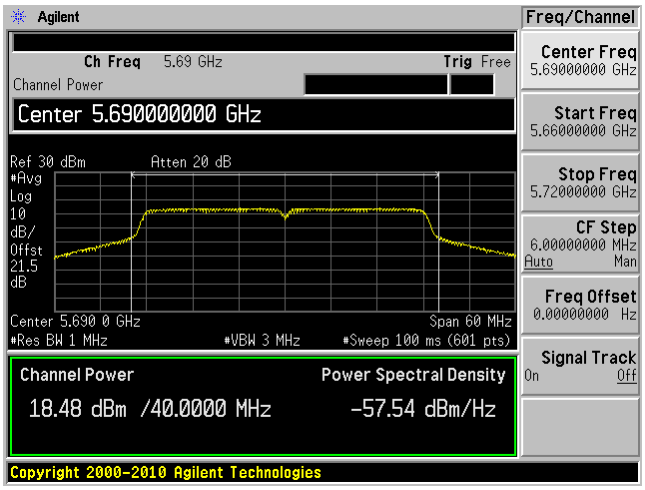
Middle Channel: Chain 2



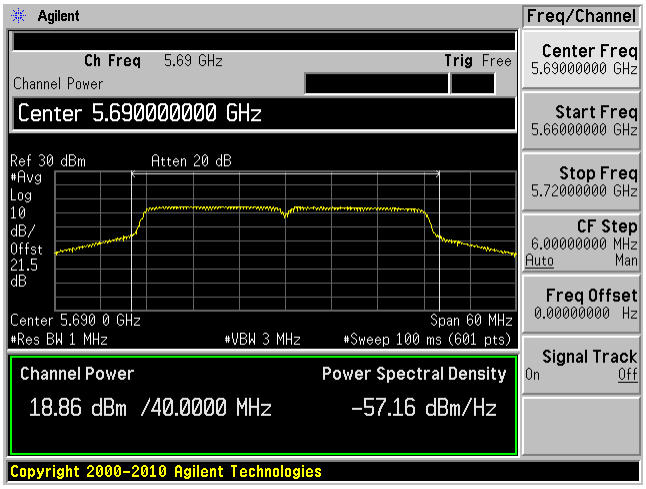
High channel: Chain 0



High channel: Chain 1

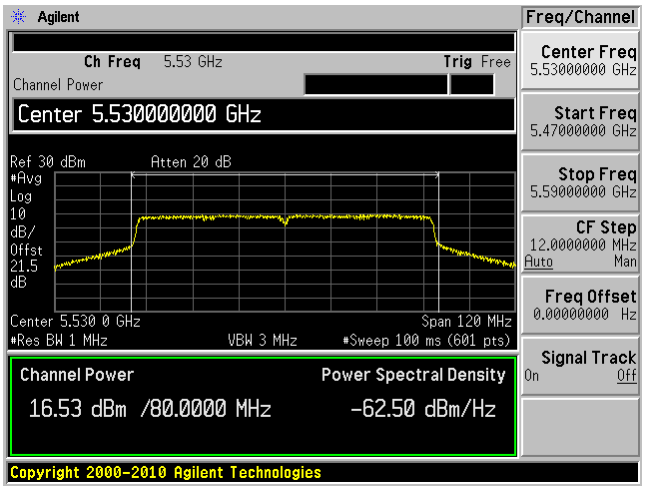


High Channel: Chain 2

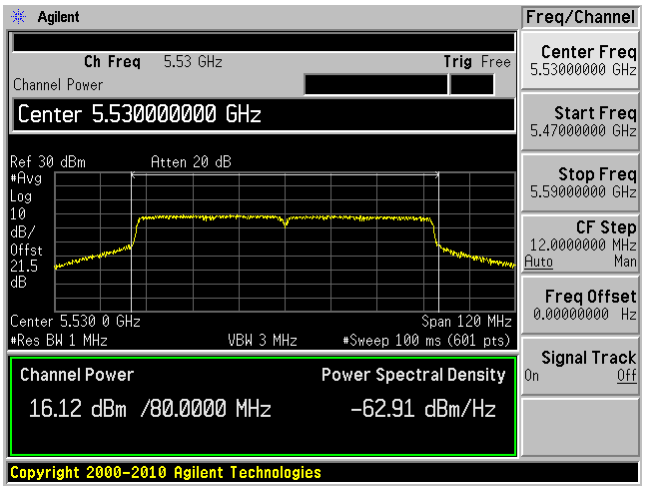


802.11ac 80 mode

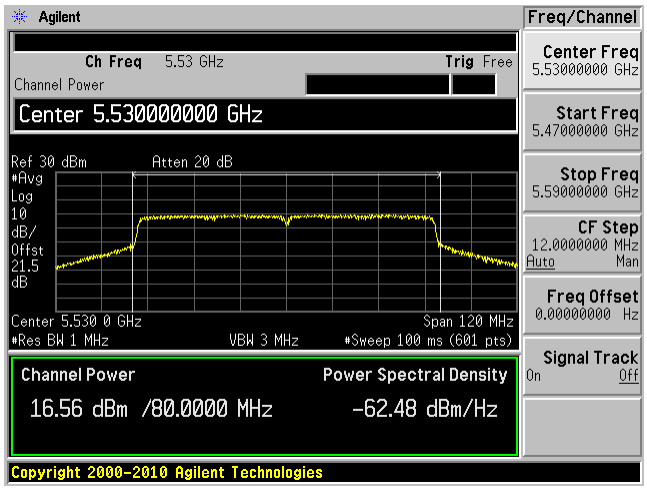
Low channel: Chain 0



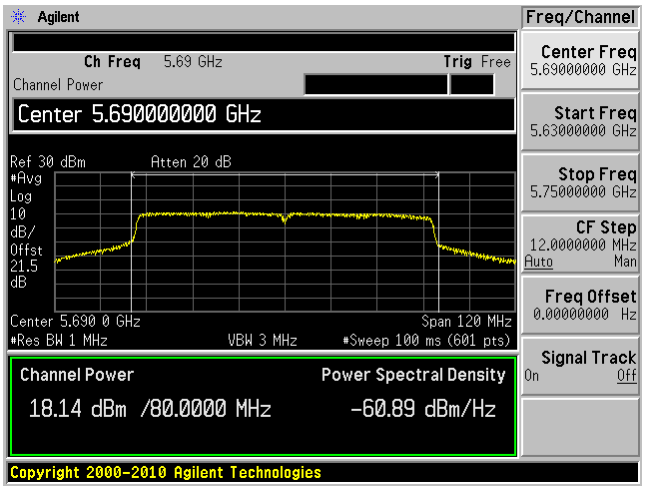
Low channel: Chain 1



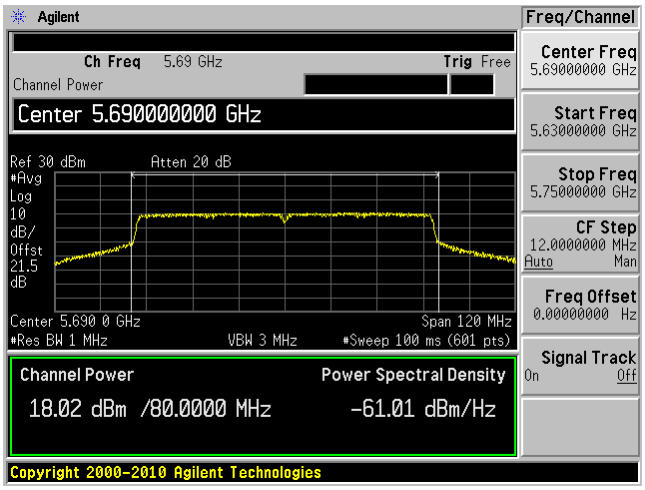
Low Channel: Chain 2



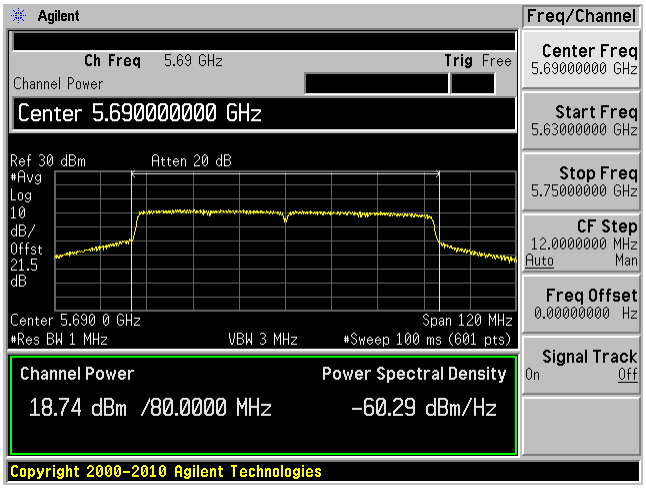
High channel: Chain 0



High channel: Chain 1



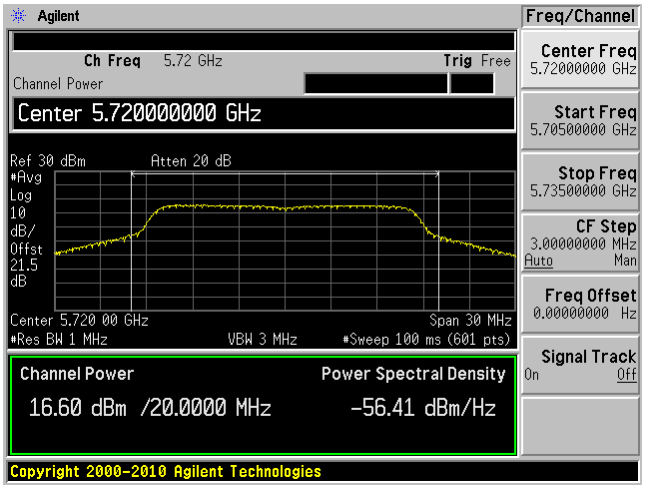
High Channel: Chain 2



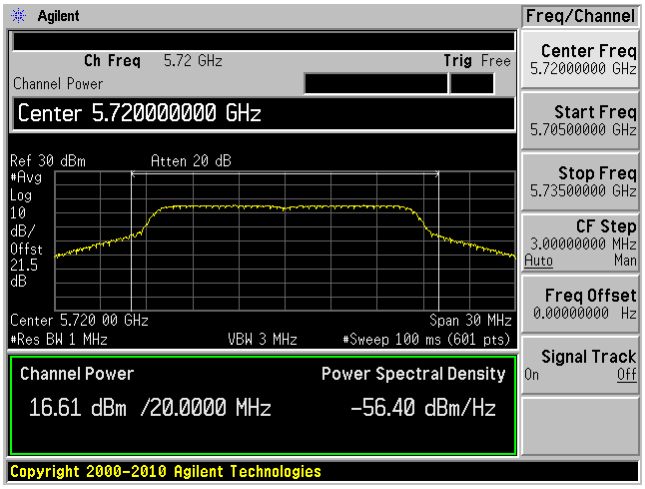
Cross channel:

802.11a mode

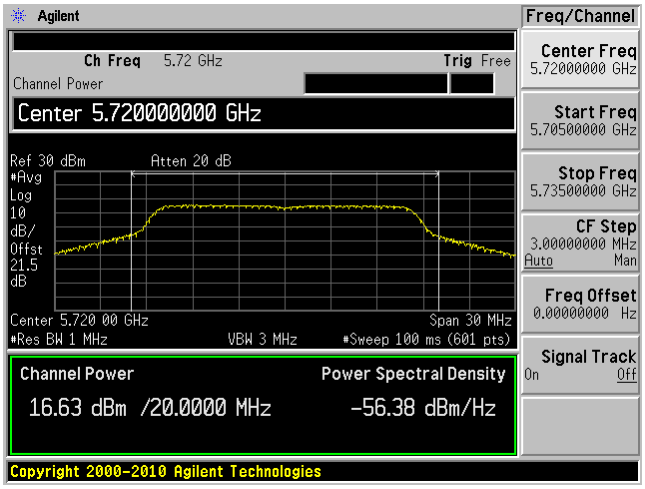
5720 MHz Chain 0



5720 MHz Chain 1

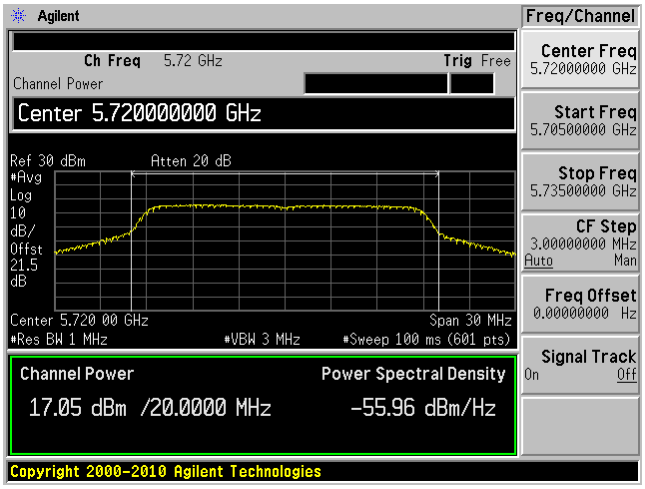


5720 MHz Chain 2

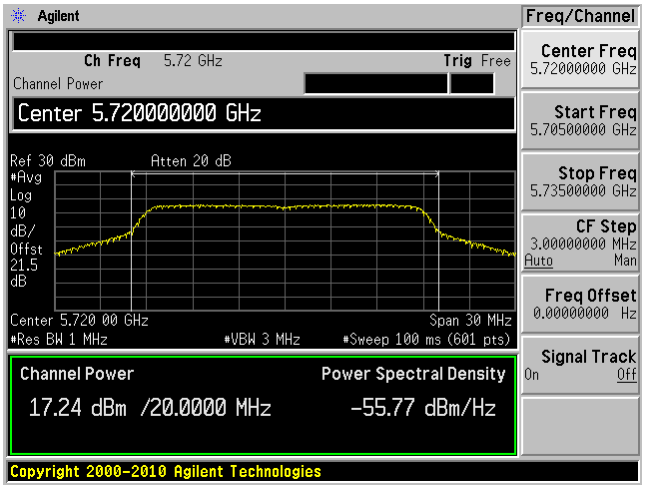


802.11n-HT20 mode

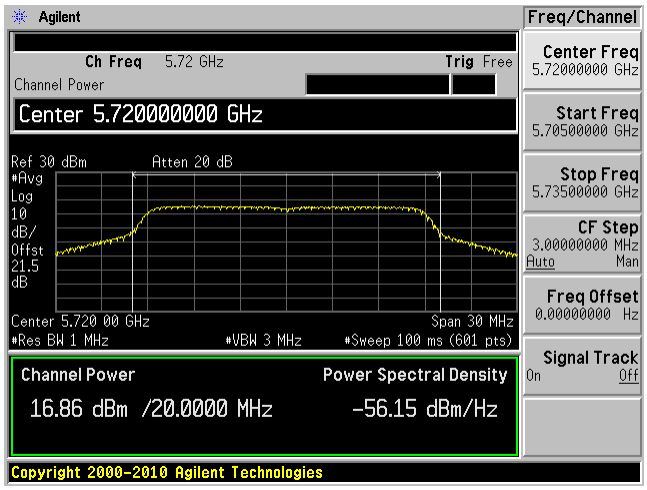
5720 MHz Chain 0



5720 MHz Chain 1

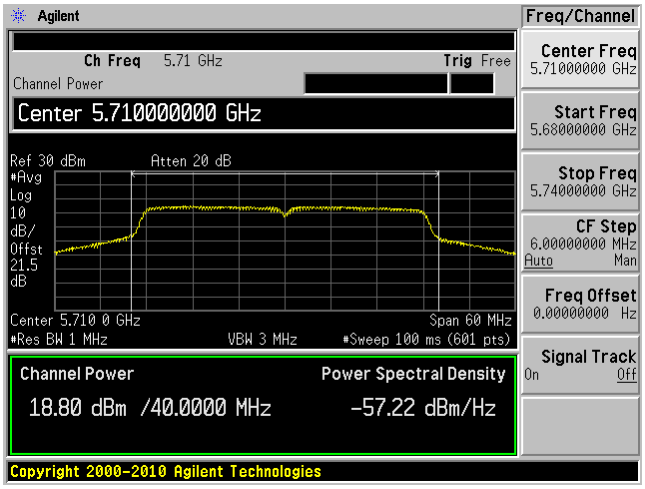


5720 MHz Chain 2

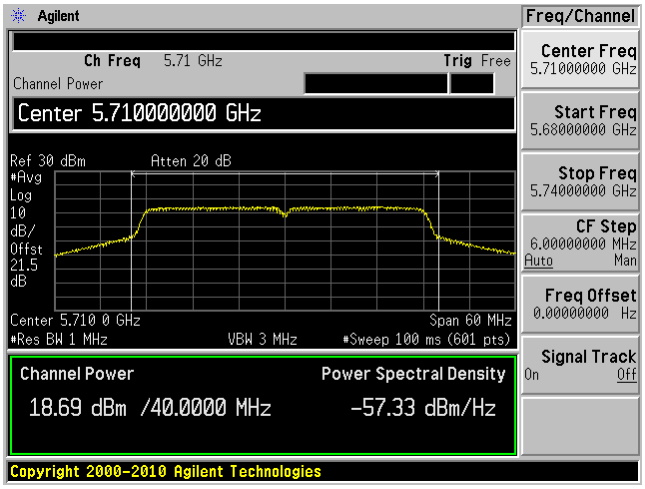


802.11n-HT40 mode

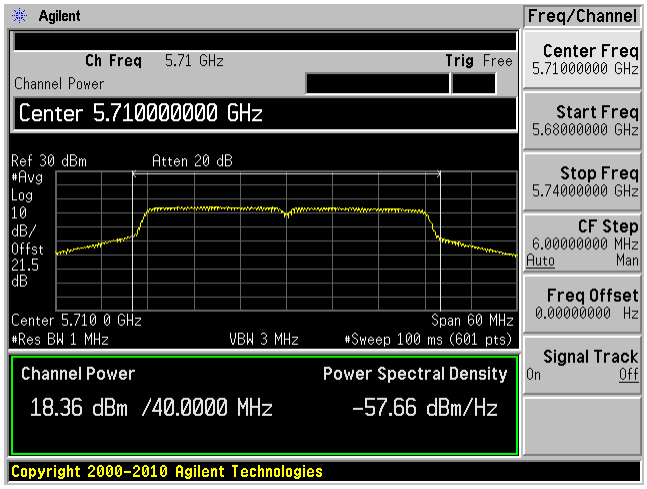
5710 MHz Chain 0



5710 MHz Chain 1



5710 MHz Chain 2



10 FCC §15.407(b) & IC RSS-210 §A9.2 - Out of Band Emissions

10.1 Applicable Standard

According to FCC §15.407(b)

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

According to RSS-210 §A9.2, in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the radio frequency power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under section A8.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Tables 2 and 3 is not required.

10.2 Measurement Procedure

1. Set RBW = 100 KHz.
2. Set VBW ≥ 3 x RBW
3. Perform a band-power intergration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.
4. Detector = RMS.
5. Averaging type = power
6. Sweep time = auto.
7. Perform a trace average of at least 100 traces if the transmission is continuous.

10.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	US44300386	2012-09-29	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

10.4 Test Environmental Conditions

Temperature:	24 °C
Relative Humidity:	40 %
ATM Pressure:	101.8 kPa

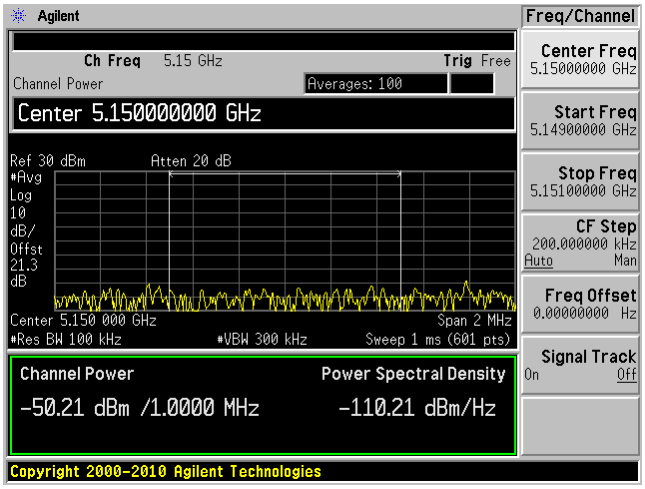
The testing was performed by Ning Ma on 2013-04-16 in RF site.

10.5 Test Results

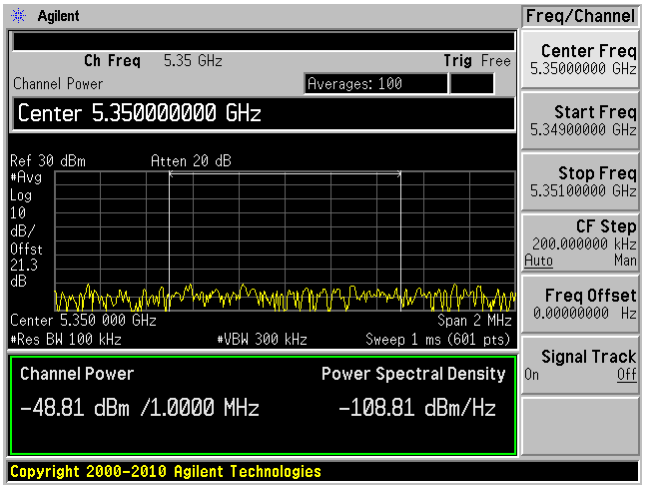
Please refer to following pages for plots of band edge.

5.3 GHz Band

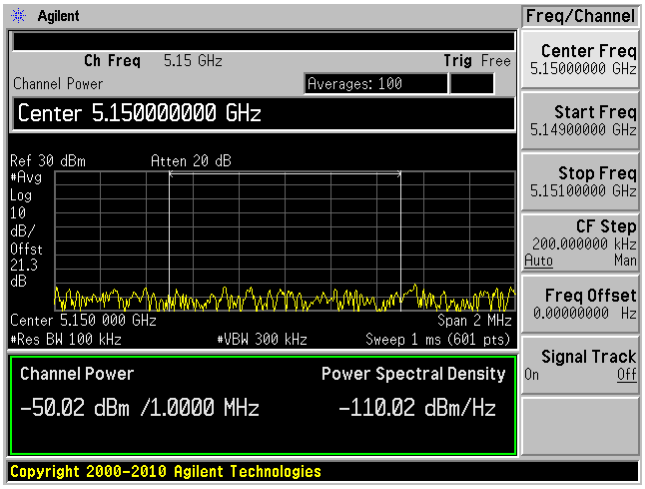
802.11a, Chain 0 Low Band Edge



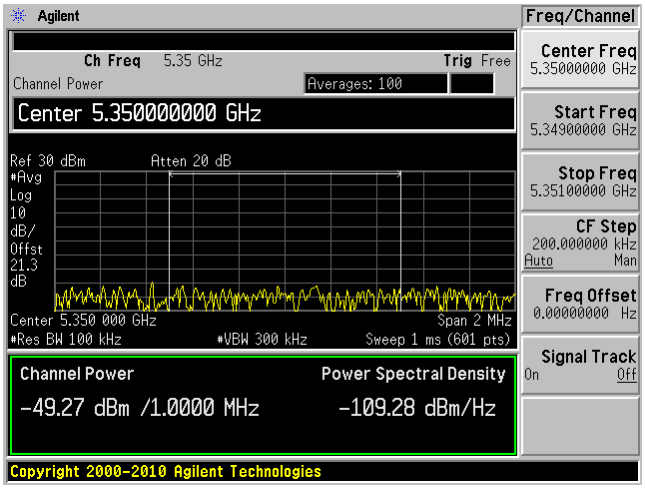
802.11a, Chain 0 High Band Edge



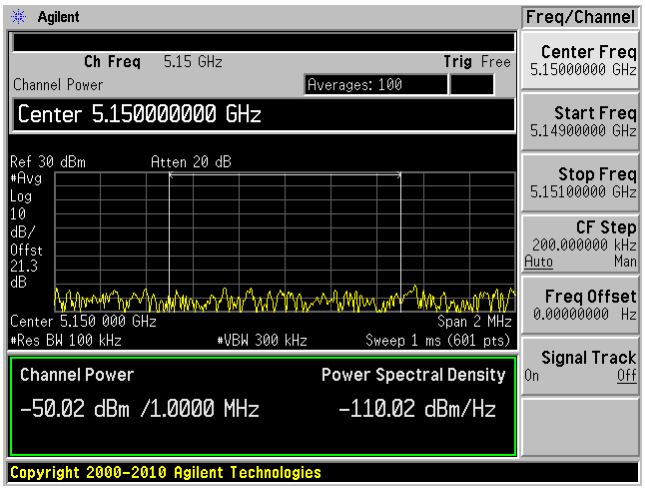
802.11a, Chain 1 Low Band Edge



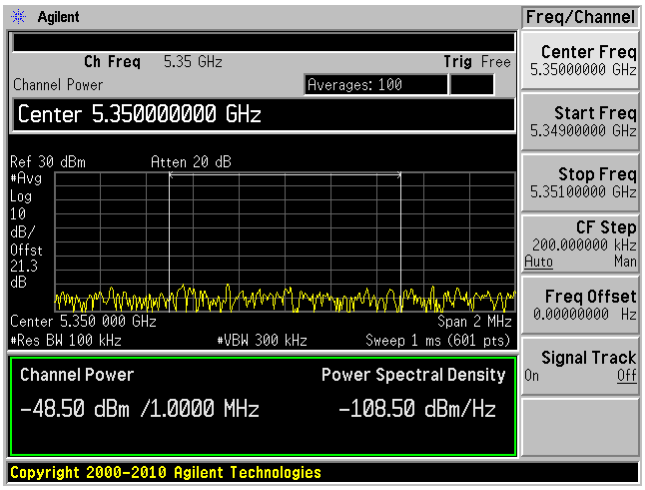
802.11a, Chain 1 High Band Edge



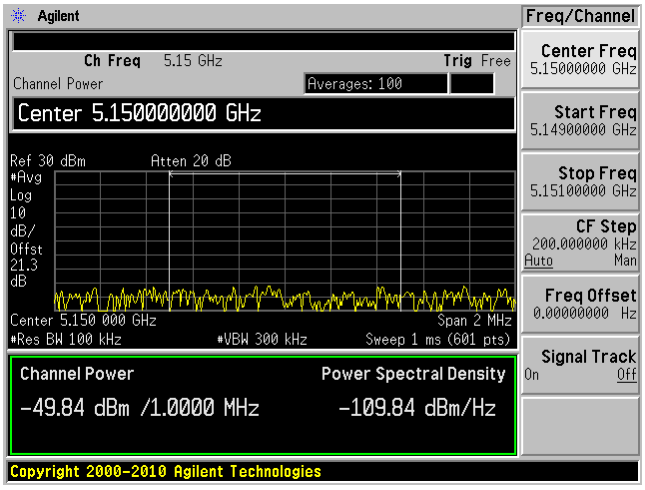
802.11a, Chain 2 Low Band Edge



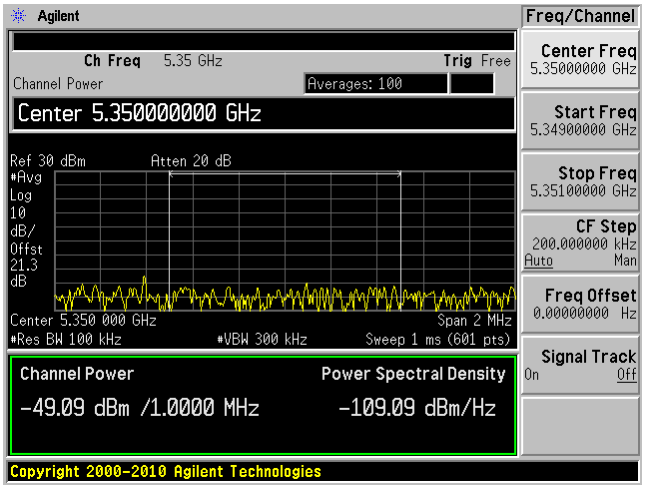
802.11a, Chain 2 High Band Edge



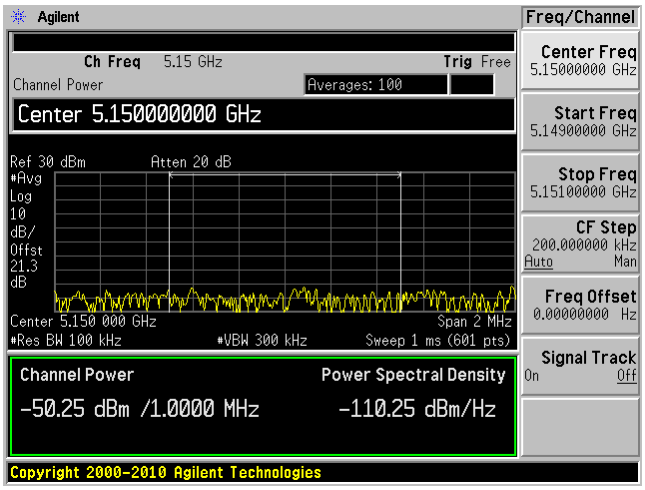
802.11 n 20, Chain 0 Low Band Edge



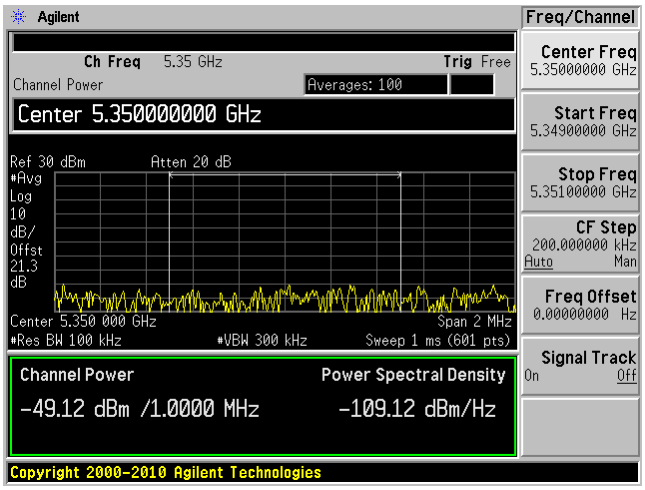
802.11 n 20, Chain 0 High Band Edge



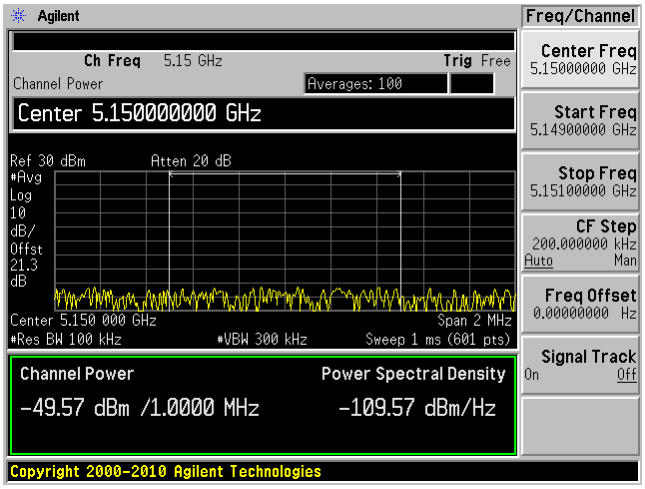
802.11 n 20, Chain 1 Low Band Edge



802.11 n 20, Chain 1 High Band Edge



802.11 20, Chain 2 Low Band Edge



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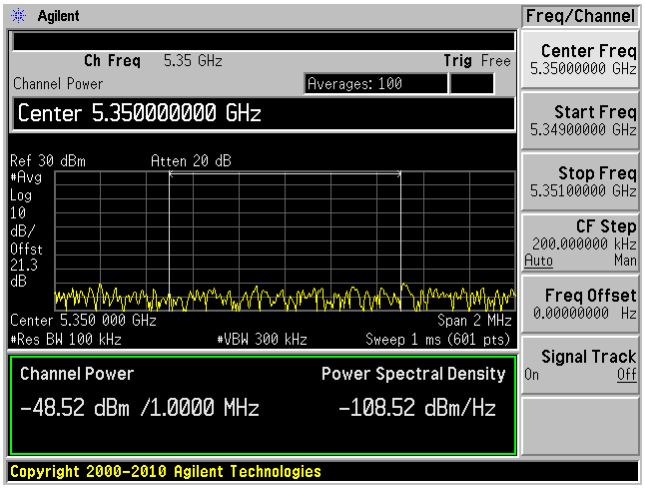

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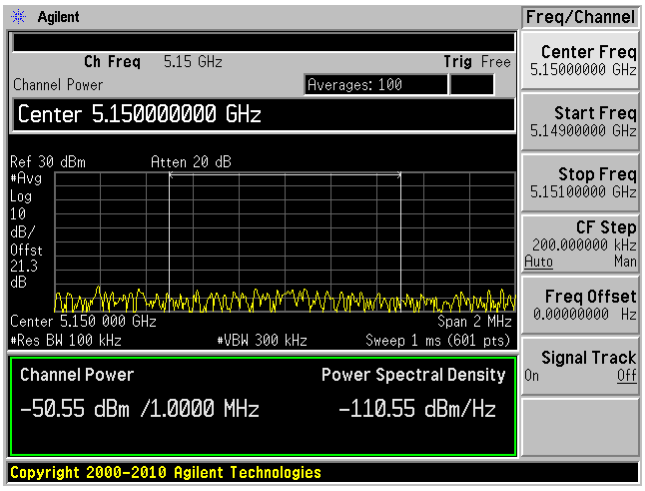

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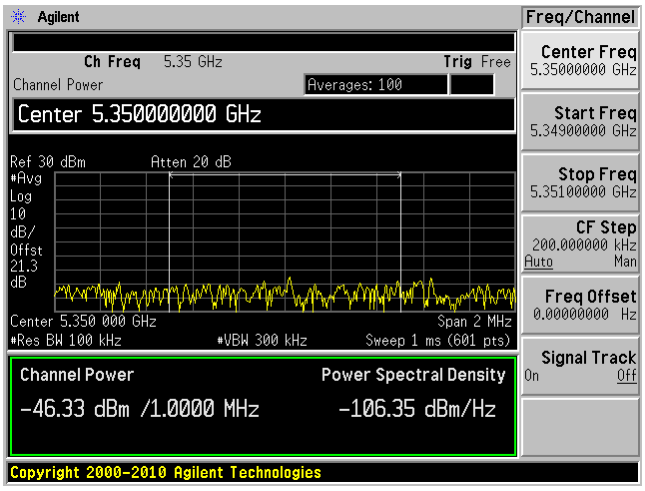

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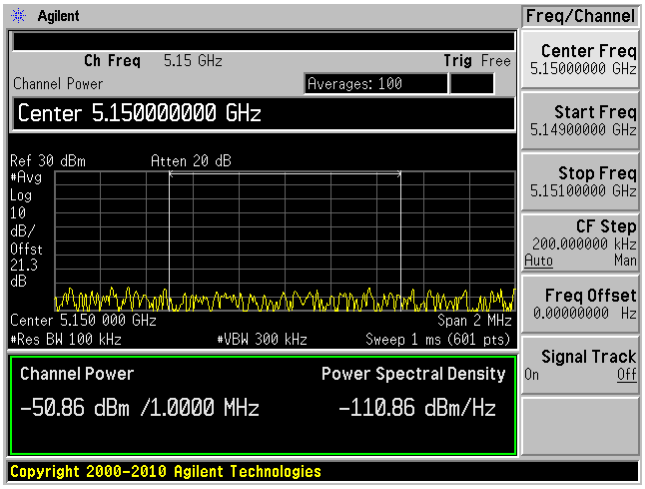

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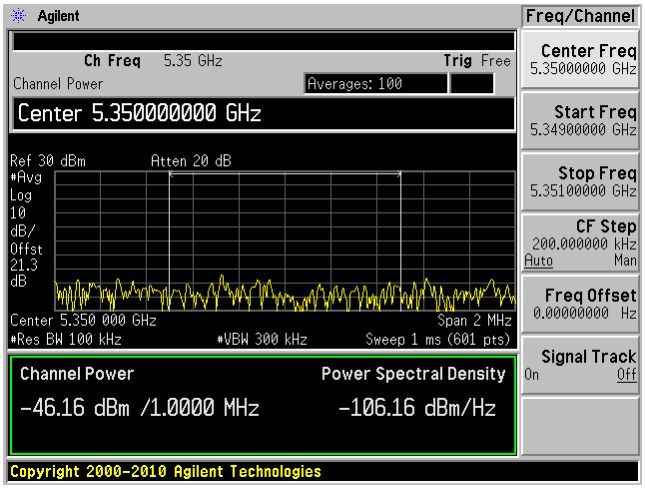

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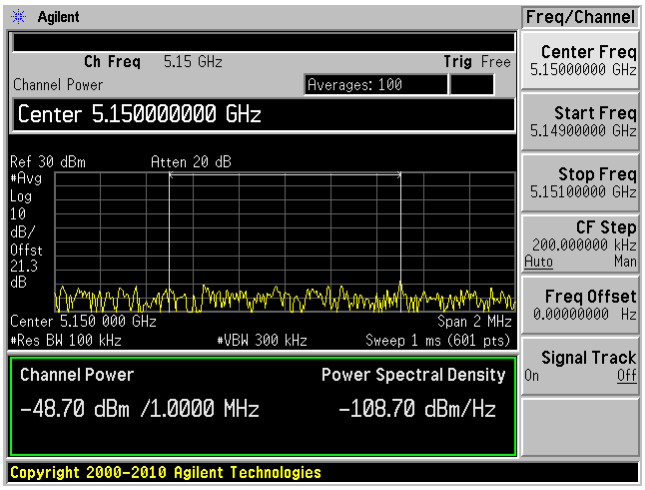

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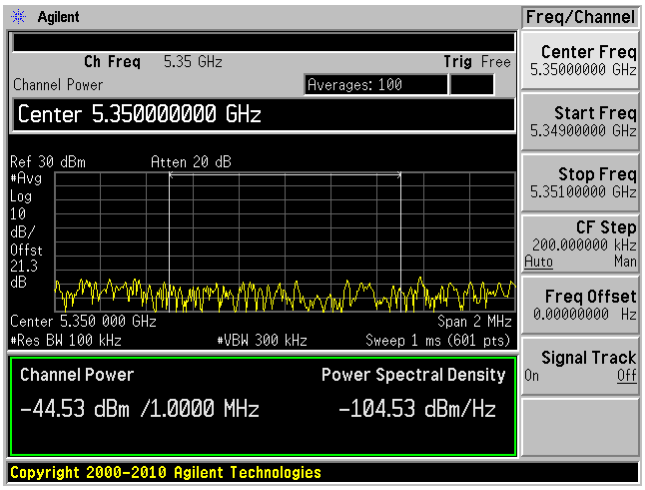

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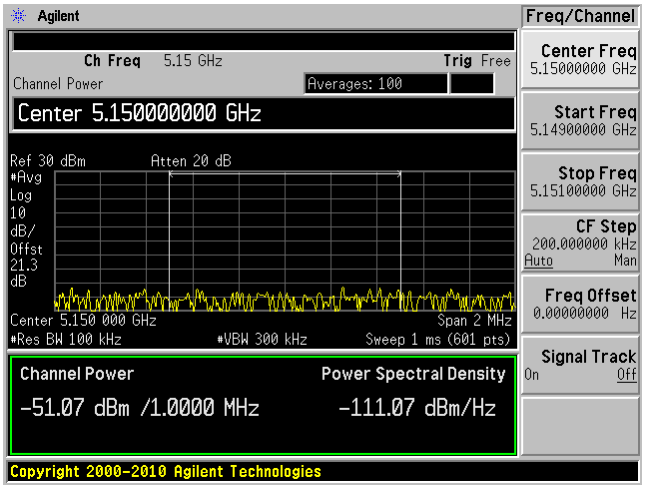

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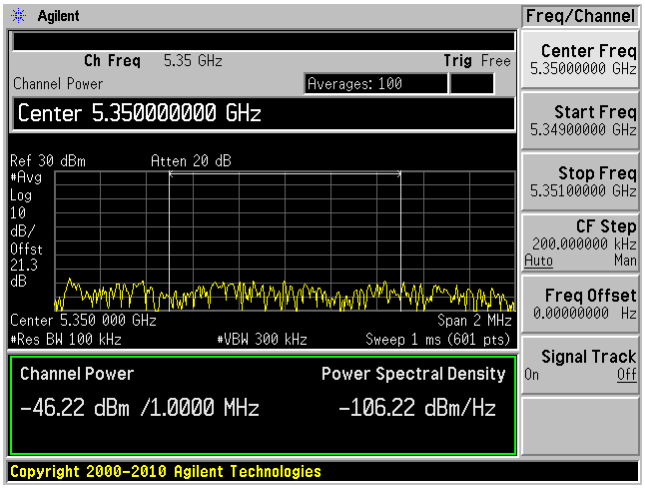

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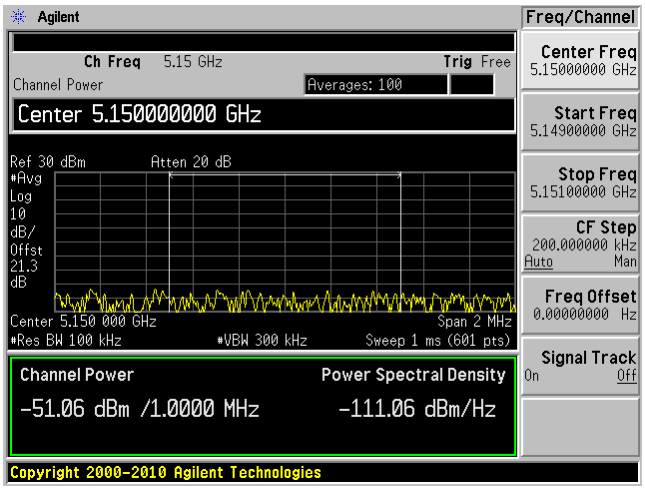

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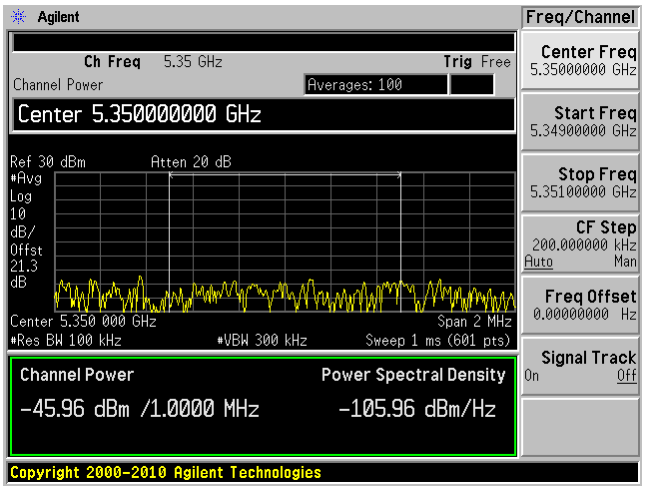

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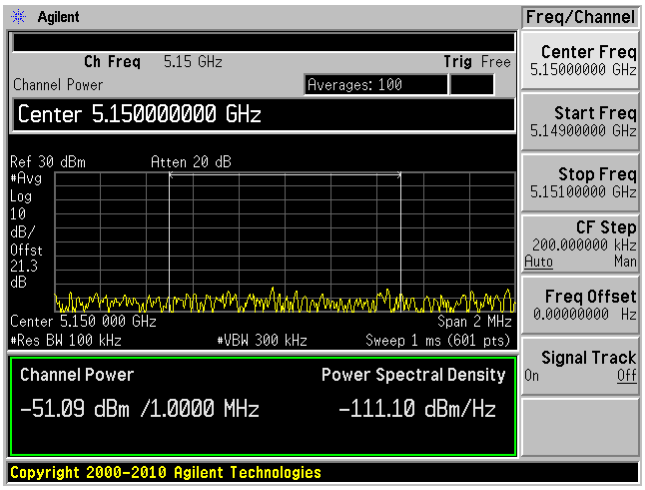

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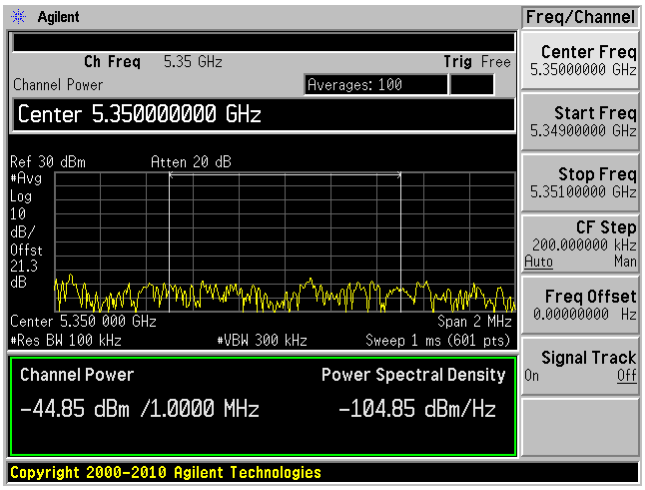
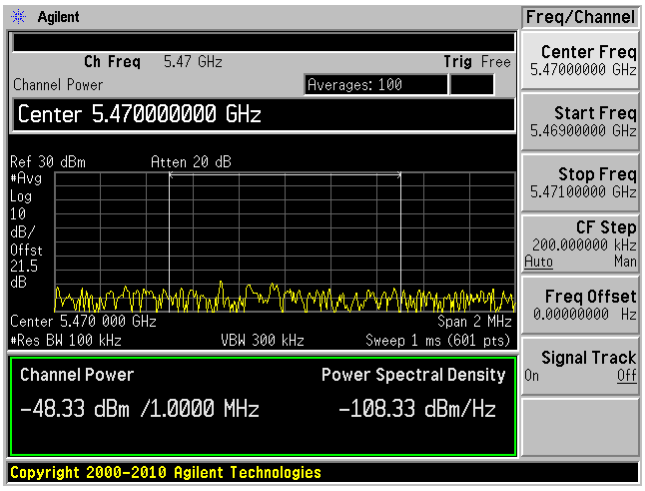


5.6 GHz Band

802.11a, Chain 0 Low Band Edge



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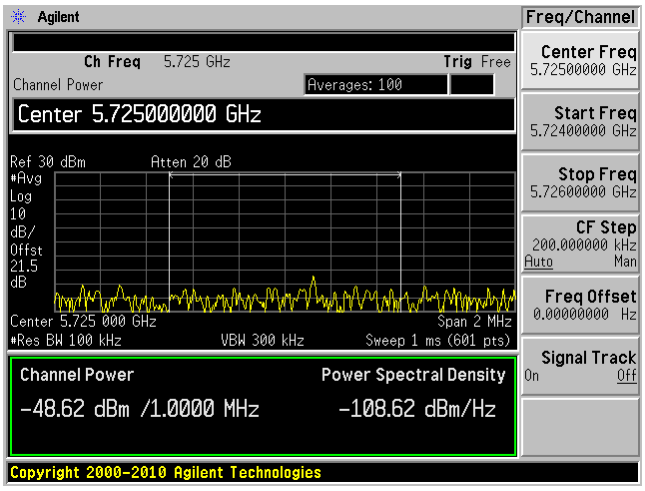

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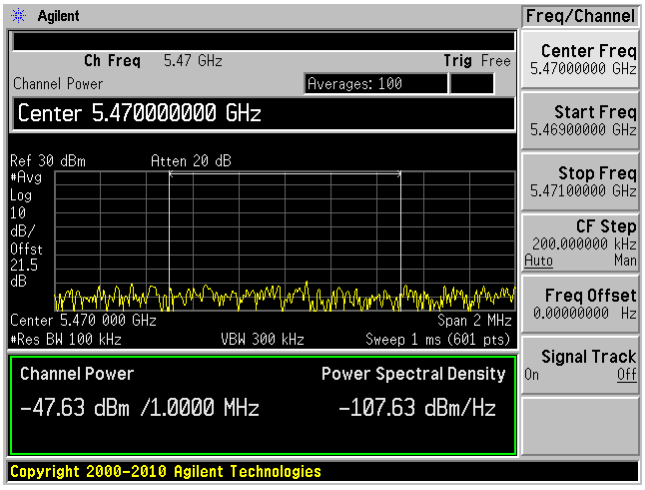

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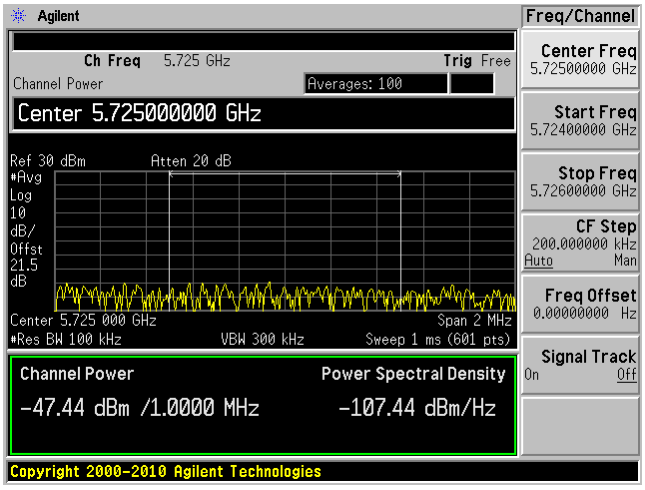

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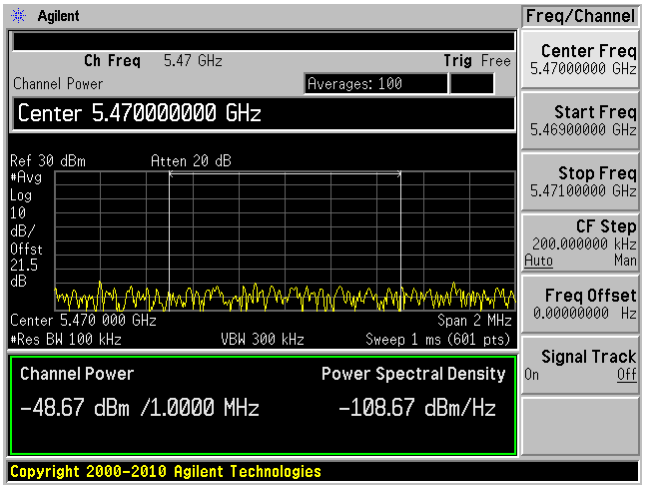

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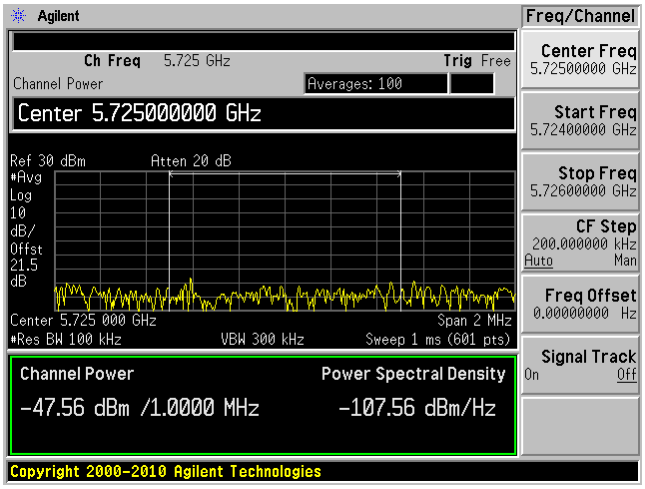

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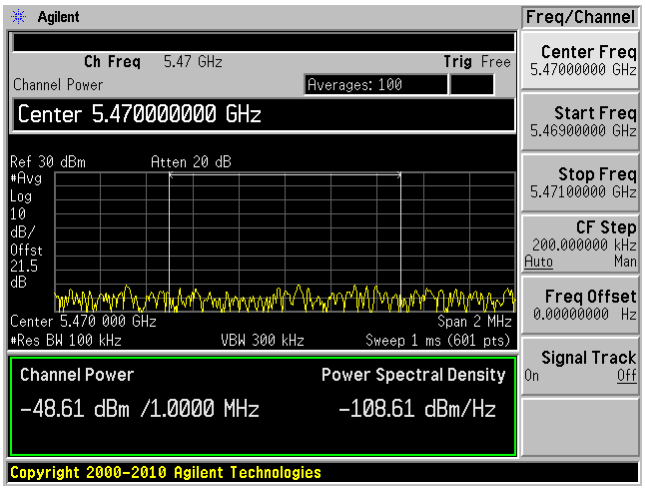

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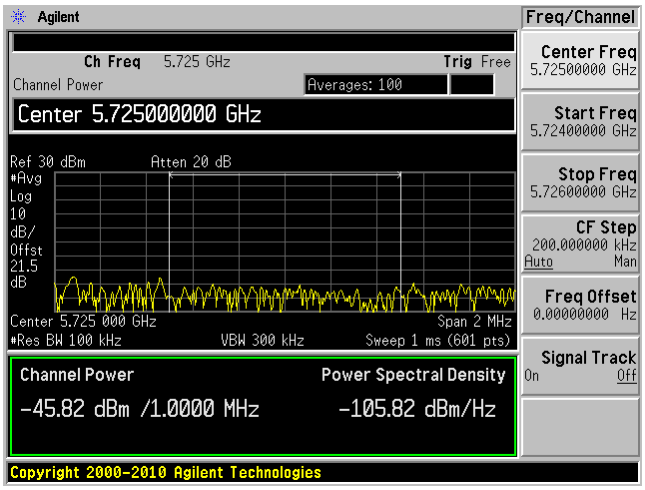

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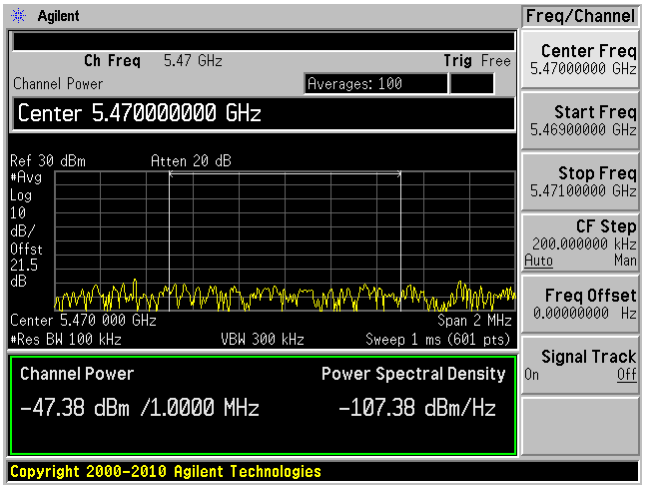

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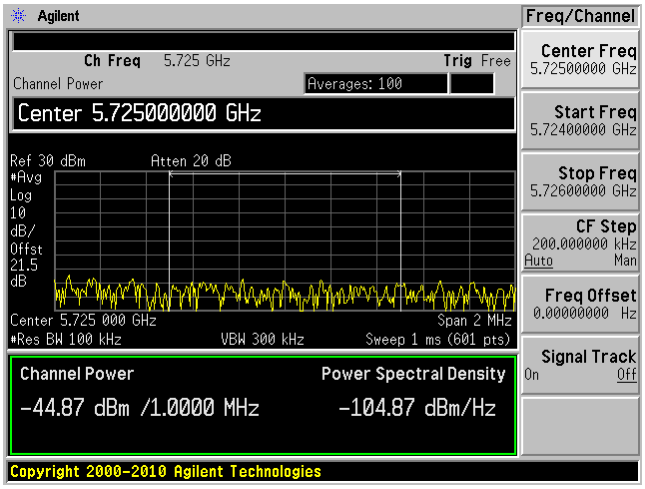

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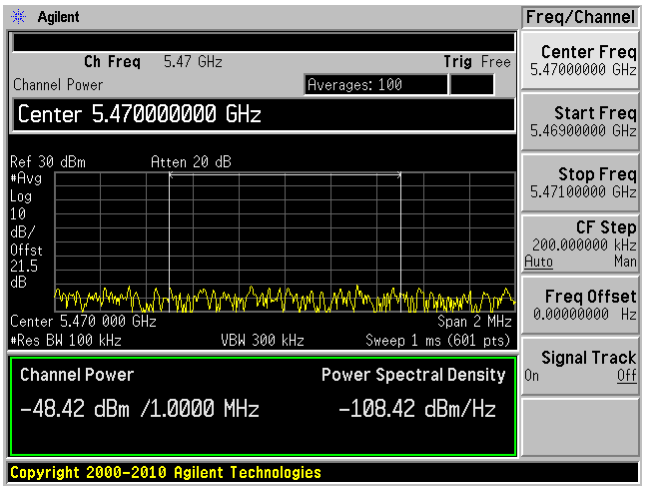

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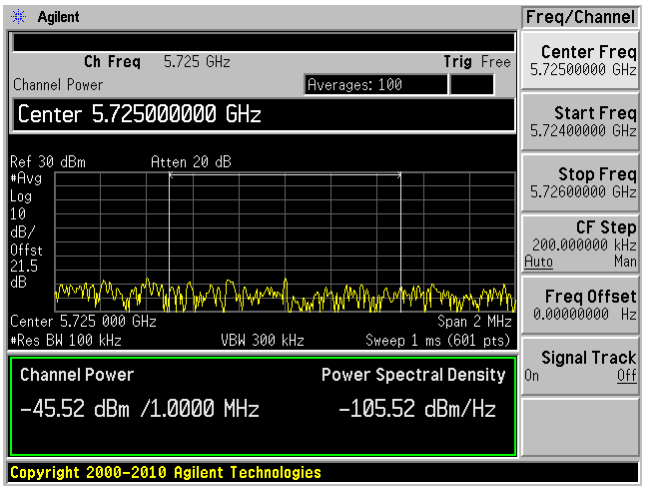

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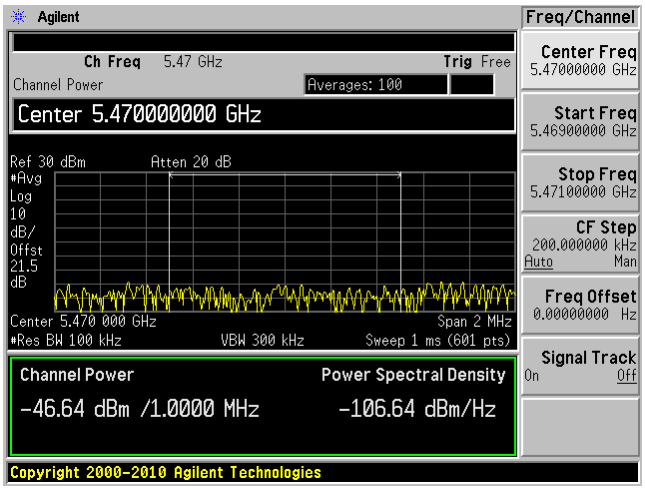

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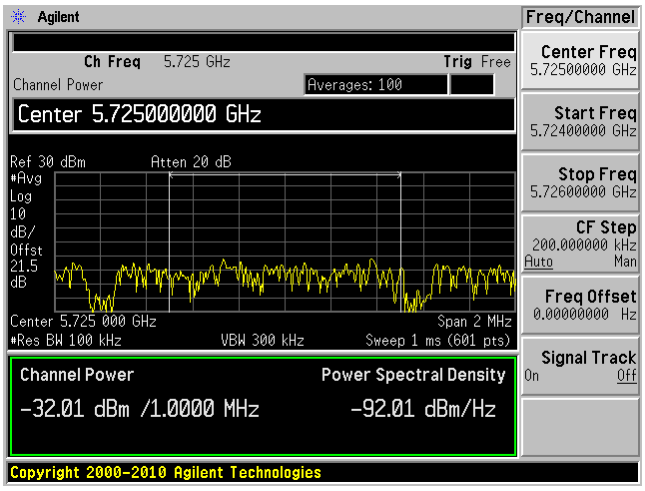

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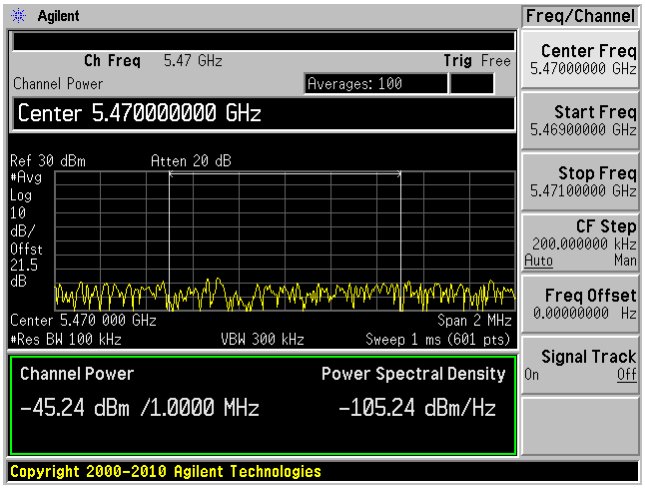

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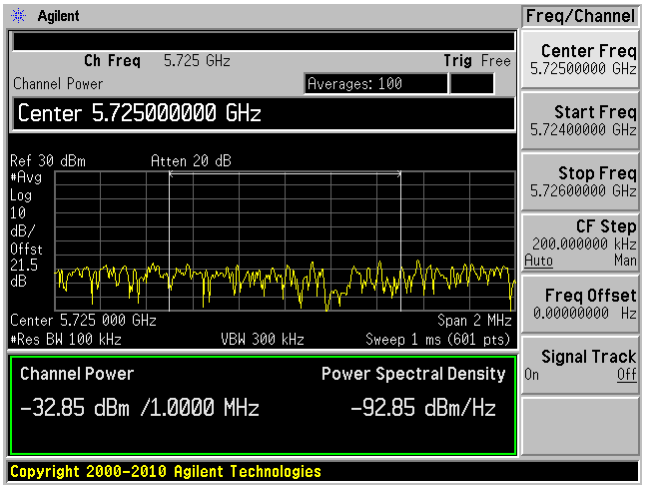

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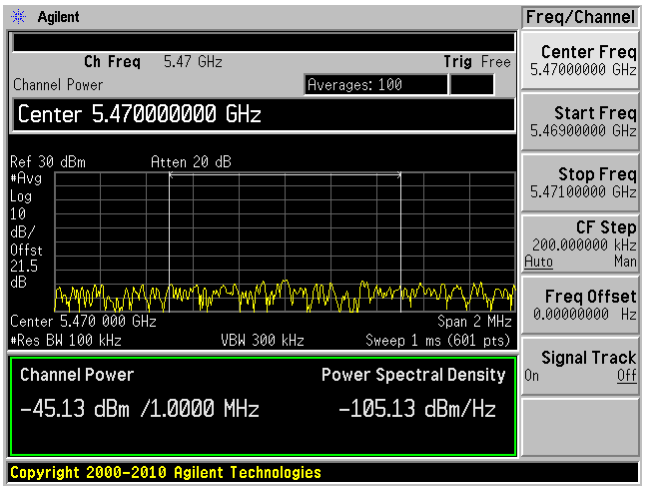

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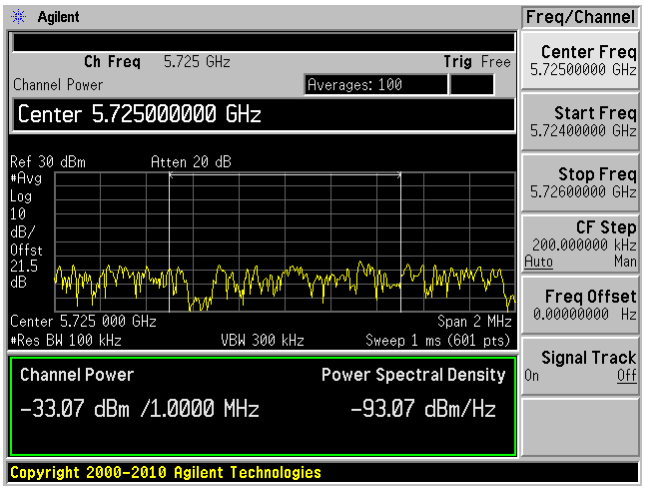
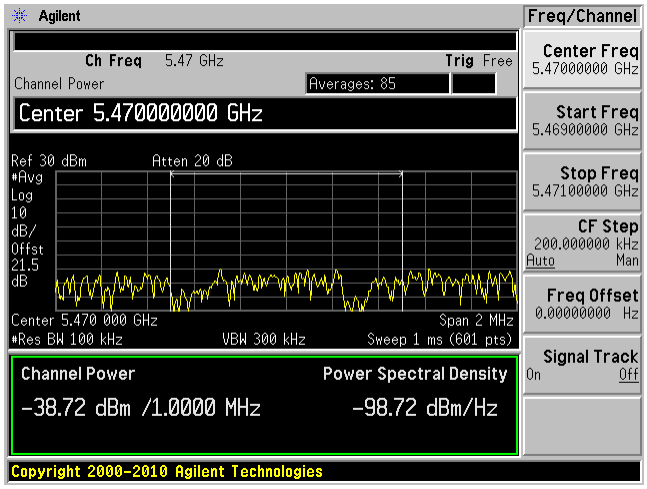


802.11 ac 80, Chain 0 Low Band Edge



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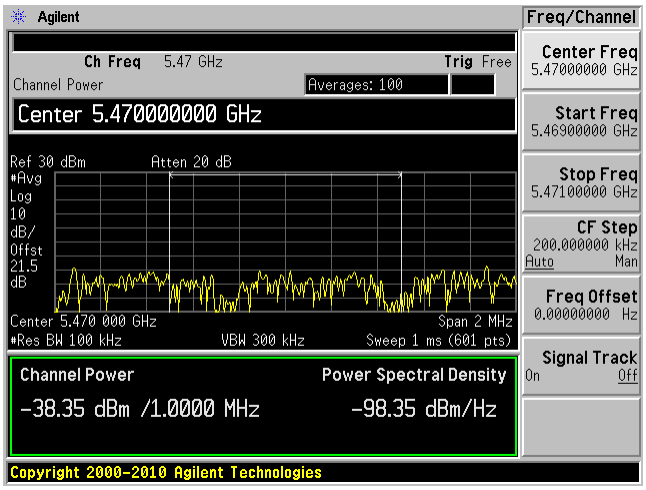

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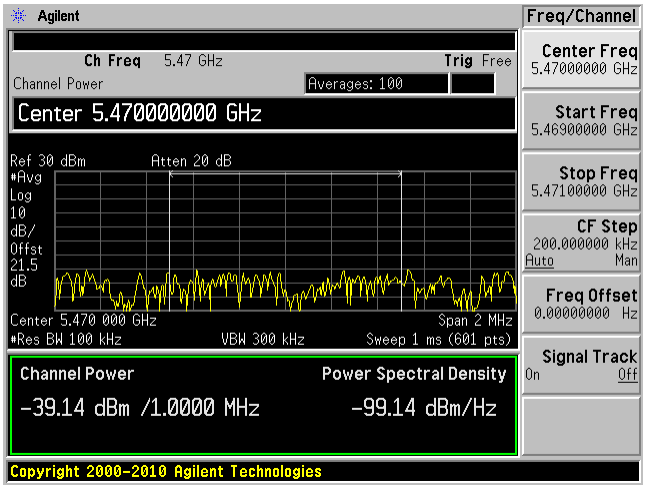


11 FCC §15.407(a)(1) & IC RSS-210 §A9.2 - Power Spectral Density

11.1 Applicable Standard

According to FCC §15.407(a)(1)

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 + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

According to IC RSS-210 §A9.2:

5150-5250MHz the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to FCC §15.247(e) and RSS-210 §A8.2 (b) ,
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

11.2 Measurement Procedure

(i) Set span to encompass the entire emission bandwidth (EBW) of the signal.
(ii) Set RBW = 1 MHz.
(iii) Set VBW ≥ 3 MHz.
(iv) Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
(v) Sweep time = auto.
(vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
(vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
(viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
(ix) Compute power by integrating the spectrum across the 26 dB EBW of the signal using the spectrum analyzer's band power measurement function with band limits set equal to the EBW band edges. If the spectrum analyzer does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW of the spectrum.

The measurements are base on FCC KDB 558074 D01 DTS Meas Guidance v03r01: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 10: Maximum power spectral density level in the fundamental emission

11.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	US44300386	2012-09-29	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

11.4 Test Environmental Conditions

Temperature:	24 °C
Relative Humidity:	40 %
ATM Pressure:	101.8 kPa

The testing was performed by Ning Ma from 2013-04-16 at the RF site.

11.5 Test Results

5250–5350 MHz

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11a mode	5260	5.88	5.88	6.65	10.92	11	-0.08
	5280	5.72	5.29	5.85	10.40	11	-0.60
	5320	5.88	5.61	5.98	10.60	11	-0.40

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 20	5260	5.28	5.36	6.04	10.35	11	-0.65
	5280	5.50	5.14	6.32	10.45	11	-0.55
	5320	5.68	5.23	5.91	10.39	11	-0.61

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 40	5275	5.12	3.30	5.72	9.60	11	-1.40
	5310	1.29	0.94	1.42	5.99	11	-5.01

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 ac 80	5290	-8.73	-9.30	-9.92	-4.52	11	-15.52

Please refer to the following plots.

5470–5725 MHz

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11a mode	5500	5.34	5.91	5.32	10.30	11	-0.70
	5580	5.61	5.76	6.10	10.60	11	-0.40
	5700	5.52	6.13	5.73	10.57	11	-0.43
	5720*	5.71	5.49	5.93	10.49	11	-0.51
	5720**	-4.41	-3.09	-5.25	0.61	8	-7.39

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 20	5500	5.38	5.75	5.69	10.38	11	-0.62
	5580	5.73	5.82	5.91	10.59	11	-0.41
	5700	6.08	5.77	5.98	10.72	11	-0.28
	5720*	5.13	5.51	5.54	10.17	11	-0.83
	5720**	-4.93	-3.61	-2.24	1.32	8	-6.68

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 n 40	5510	3.38	3.96	4.19	8.63	11	-2.37
	5550	4.77	3.49	4.70	9.13	11	-1.87
	5670	4.58	4.12	4.21	9.08	11	-1.92
	5710*	4.65	4.24	4.75	9.32	11	-1.68
	5710**	-7.79	-8.01	-7.68	-3.05	8	-11.05

Mode	Frequency (MHz)	Output Power C0 (dBm)	Output Power C1 (dBm)	Output Power C2 (dBm)	Output Power Combined (dBm)	Limit (dBm)	Margin (dB)
802.11 ac 80	5530	-0.78	0.15	-0.19	4.51	11	-6.49
	5690*	1.05	0.53	1.71	5.89	11	-5.11
	5690**	-10.62	-12.35	-10.75	-6.40	8	-14.40

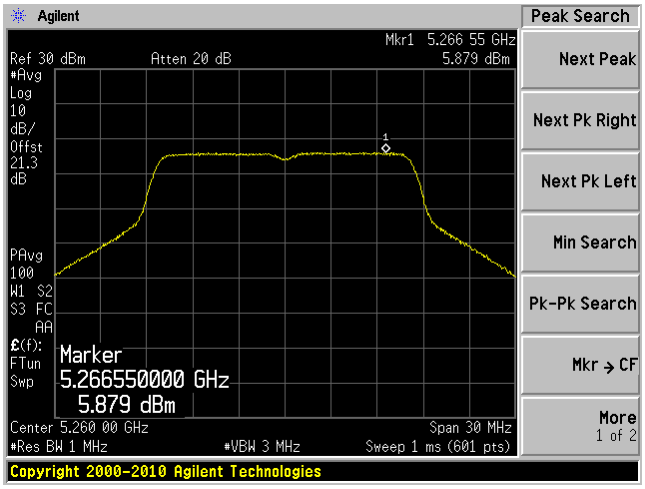
Note : * cross band for FCC 15.407 limit, ** cross band for FCC 15.247 limit,

Please refer to the following plots.

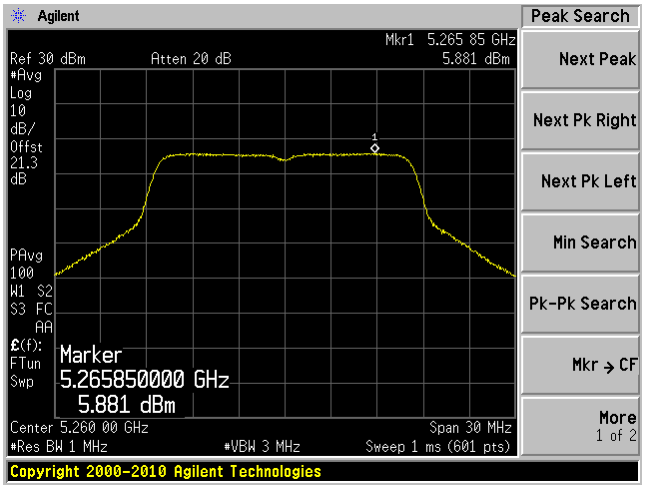
5250–5350 MHz Band:

802.11a mode

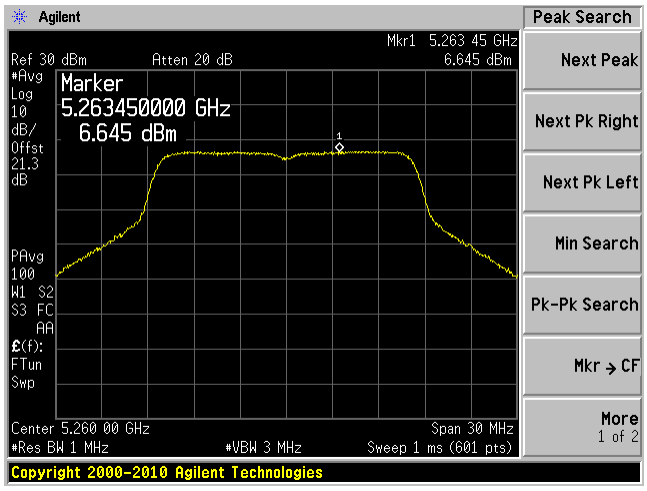
Low channel: Chain 0



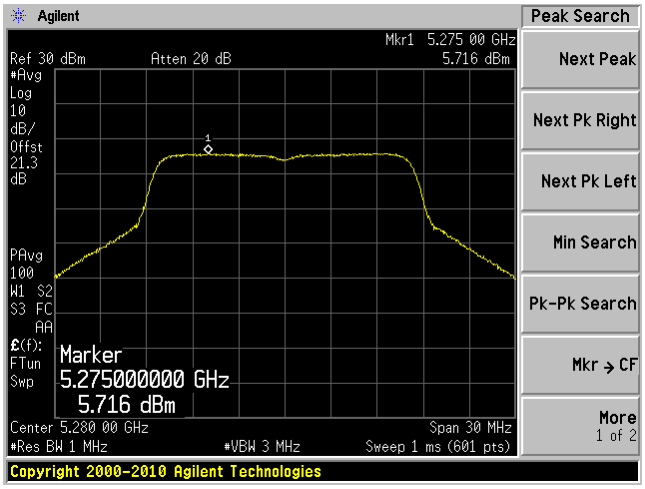
Low channel: Chain 1



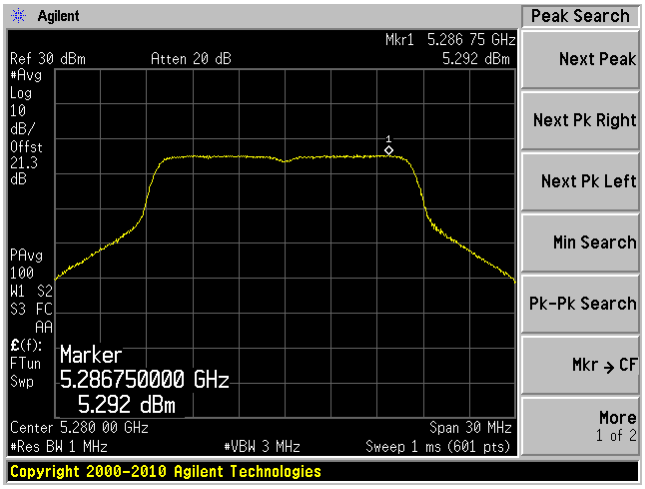
Low Channel: Chain 2



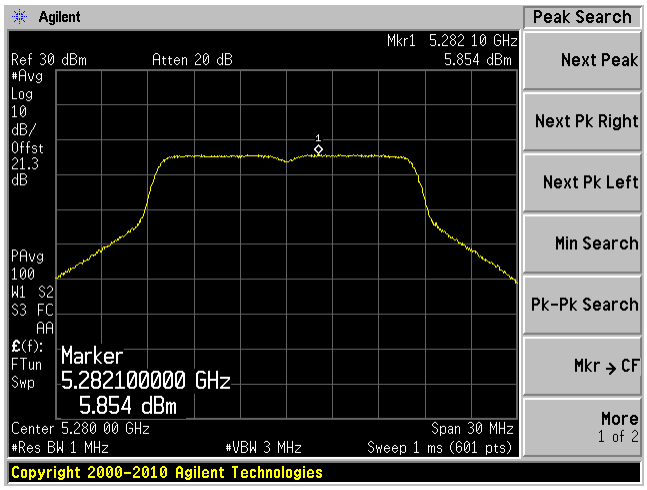
Middle channel: Chain 0



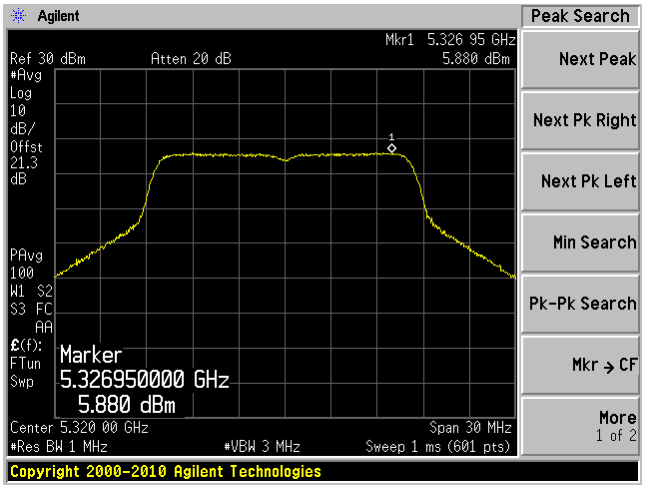
Middle channel: Chain 1



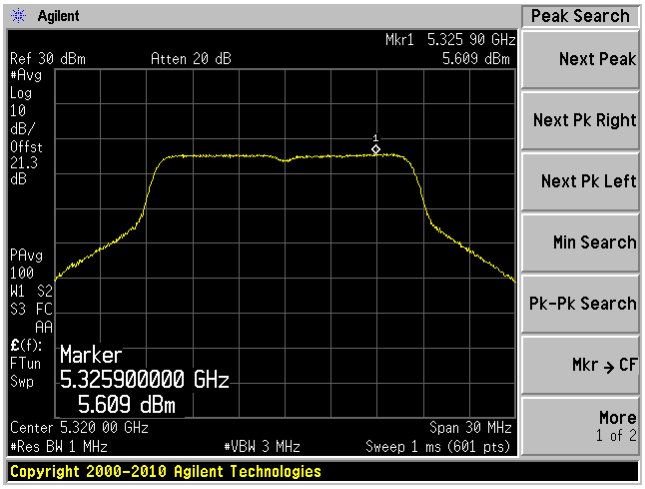
Middle Channel: Chain 2



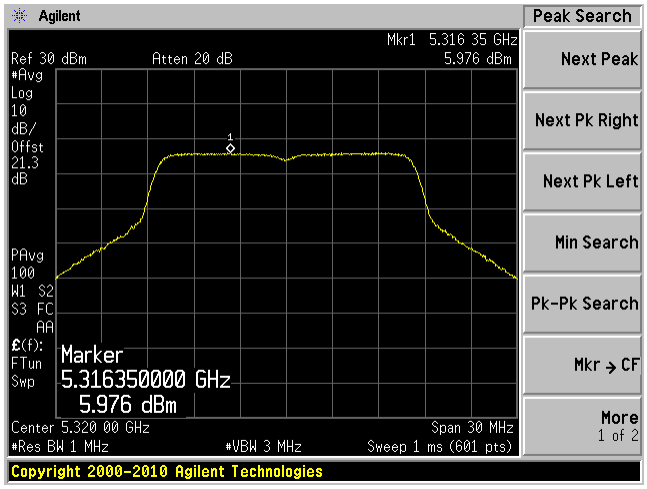
High channel: Chain 0



High channel: Chain 1

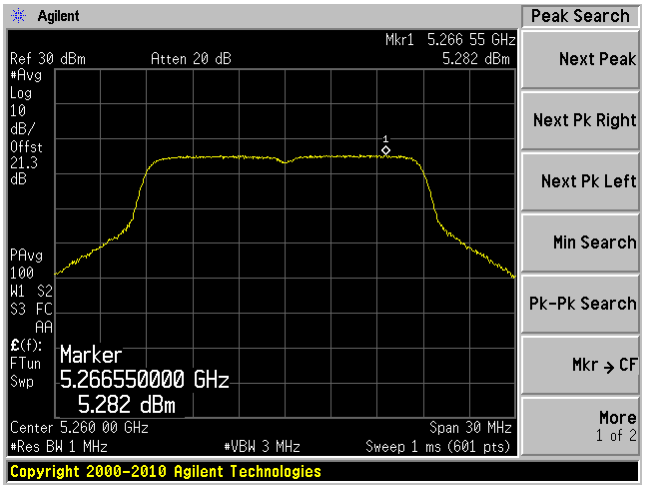


High Channel: Chain 2

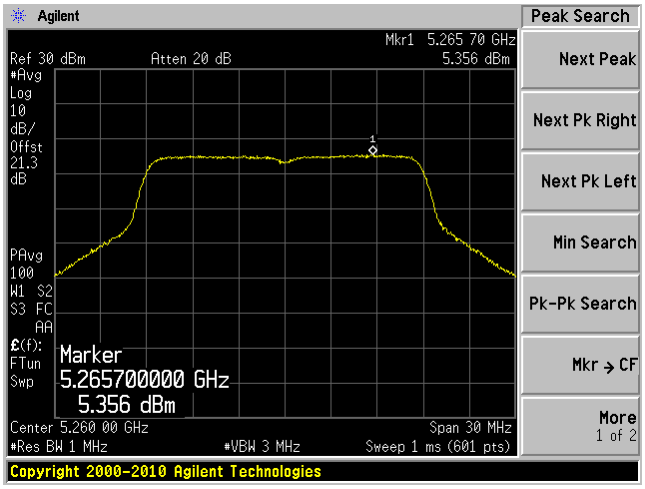


802.11n-HT20 mode

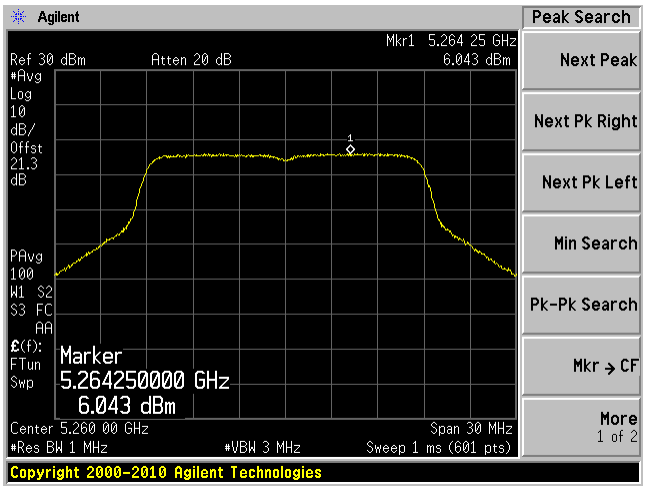
Low channel: Chain 0



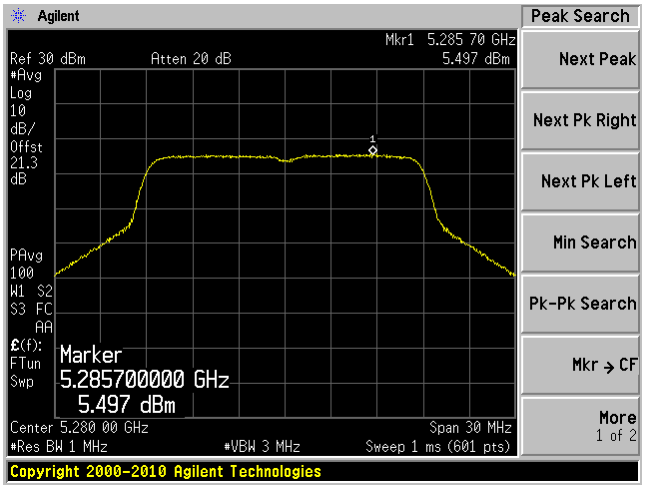
Low channel: Chain 1



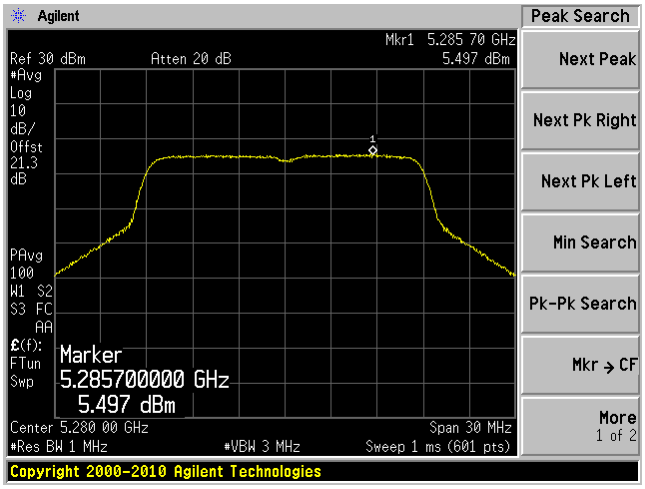
Low Channel: Chain 2



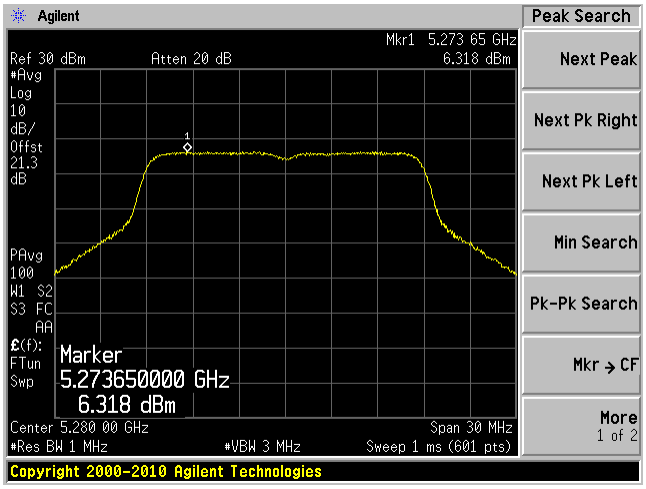
Middle channel: Chain 0



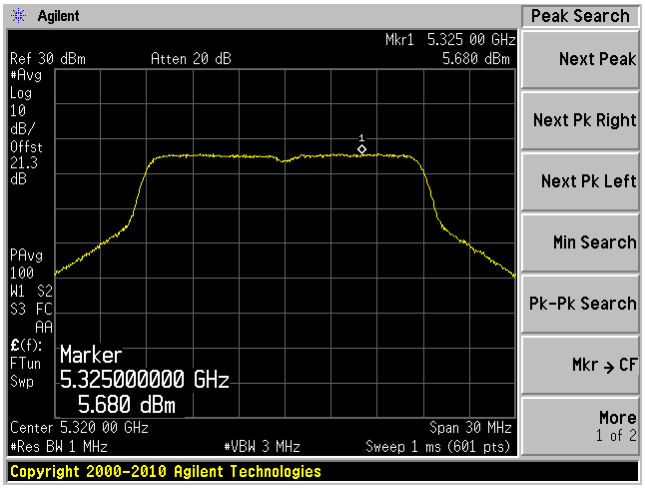
Middle channel: Chain 1



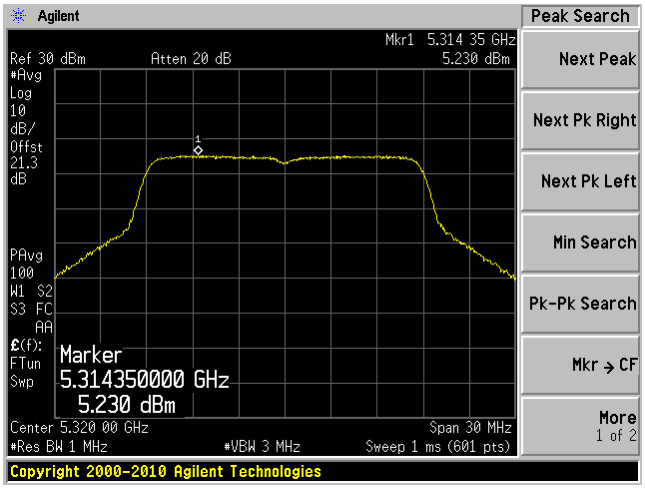
Middle Channel: Chain 2



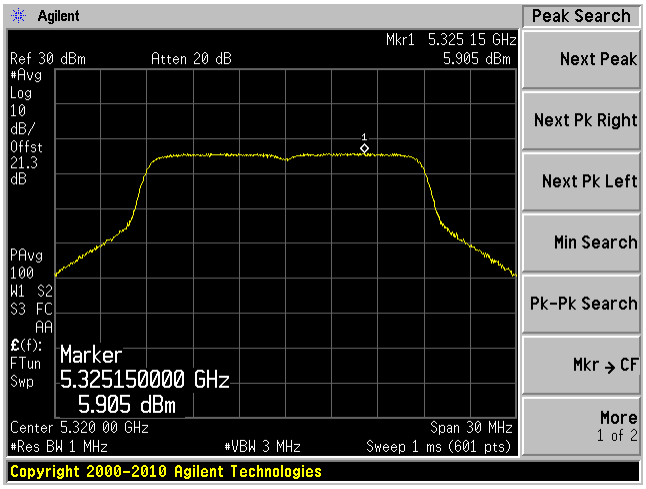
High channel: Chain 0



High channel: Chain 1

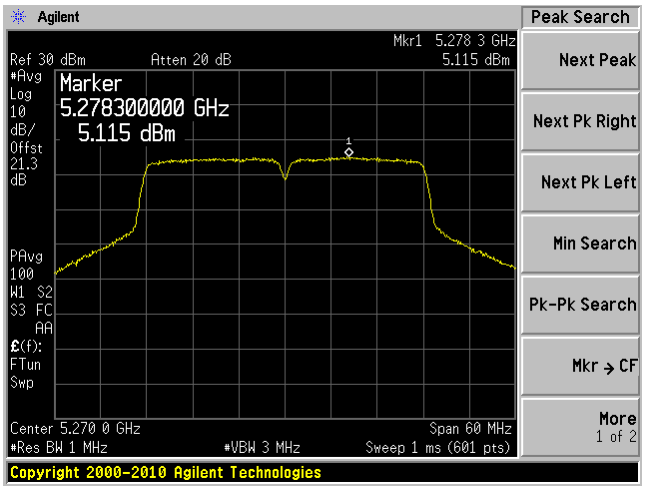


High Channel: Chain 2

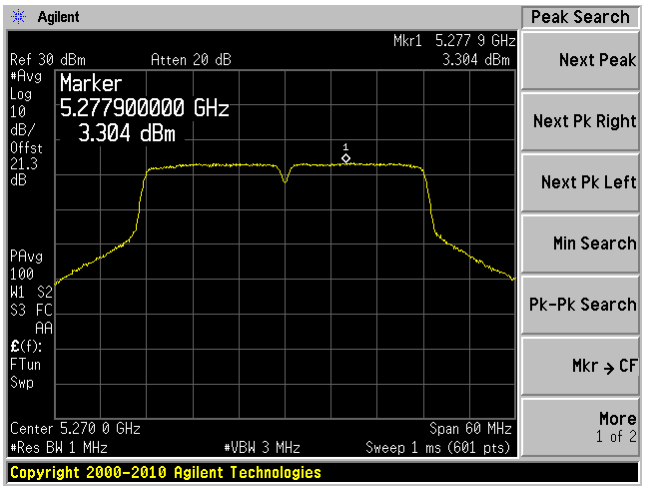


802.11n-HT40 mode

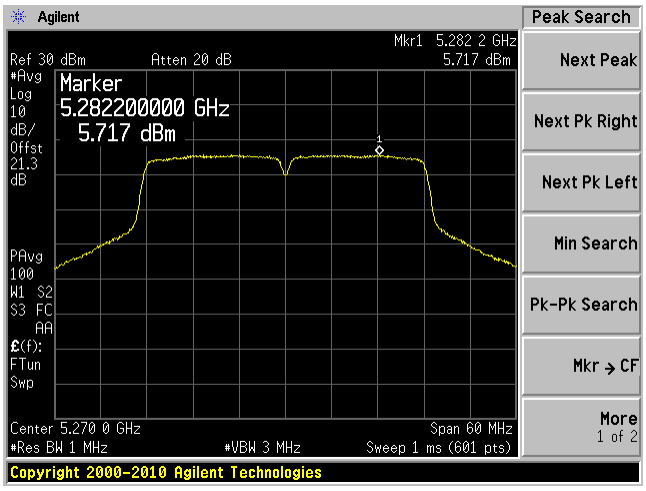
Low channel: Chain 0



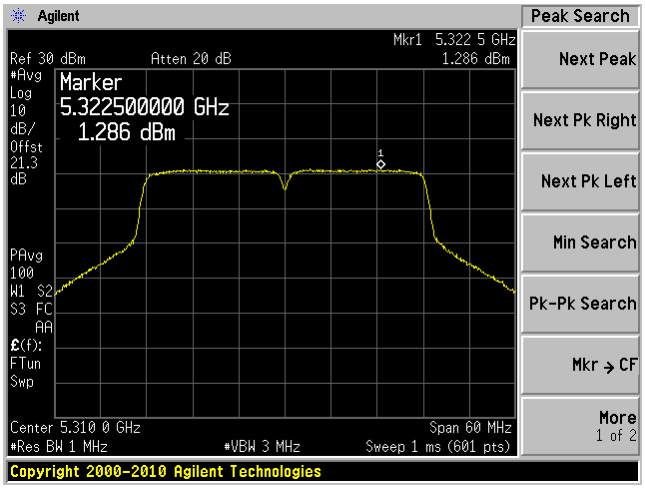
Low channel: Chain 1



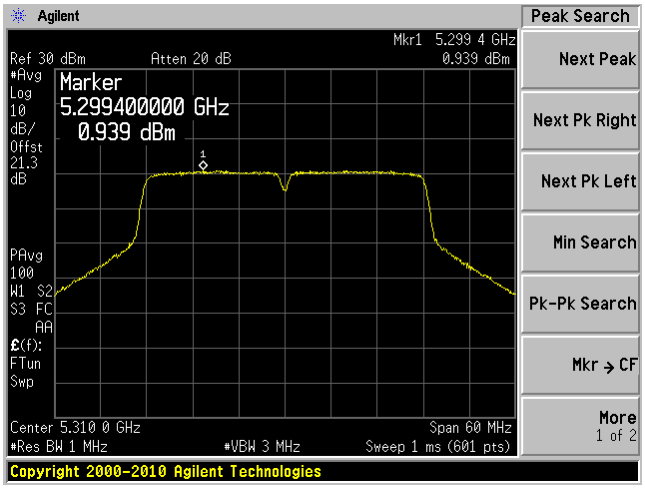
Low Channel: Chain 2



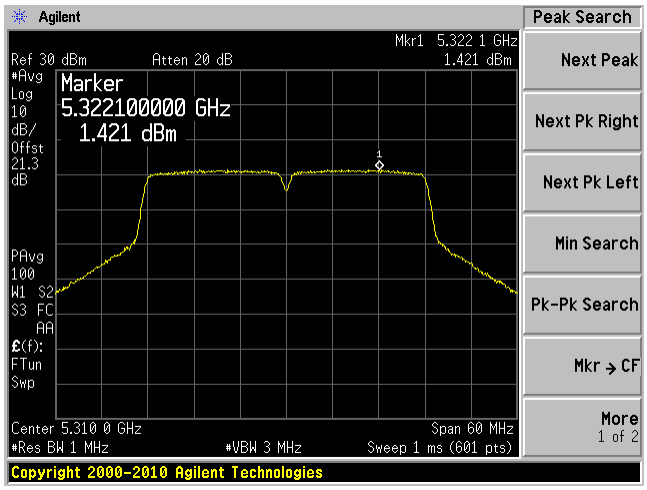
High channel: Chain 0



High channel: Chain 1

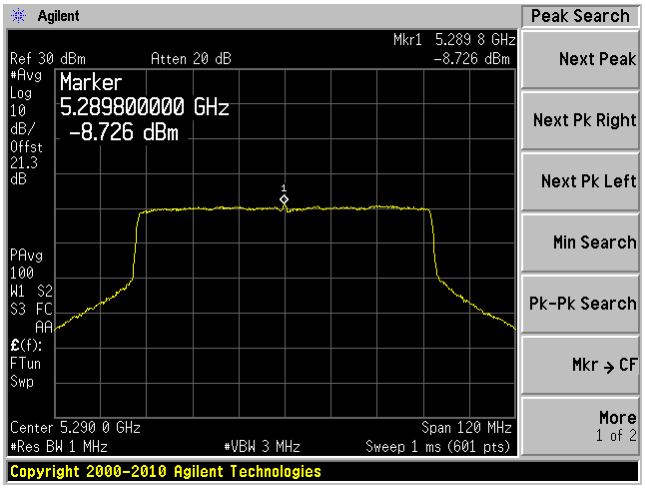


High Channel: Chain 2

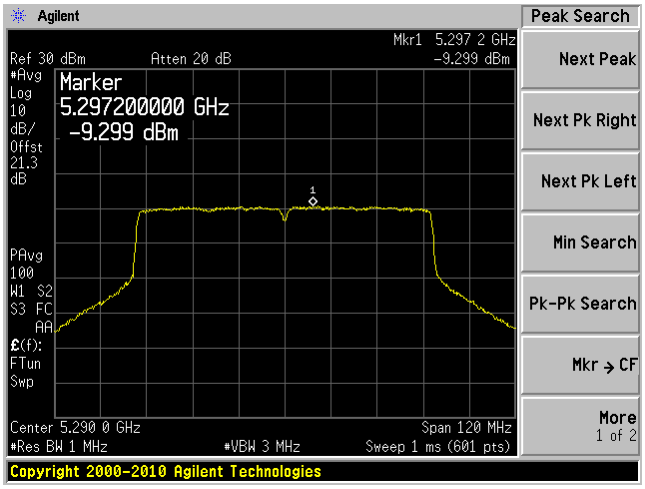


802.11ac 80 mode

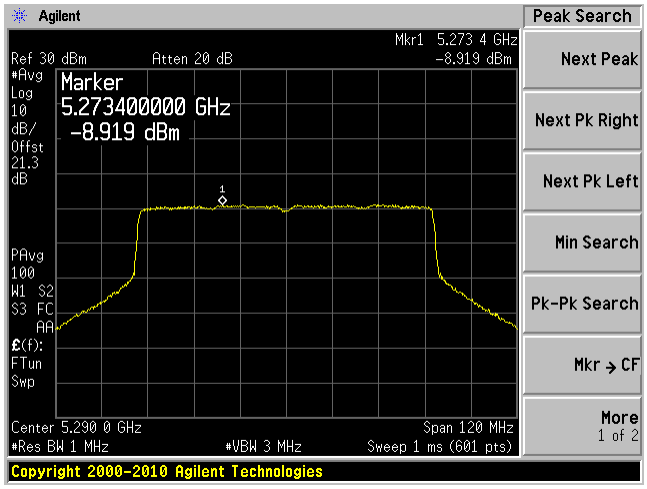
Chain 0



Chain 1



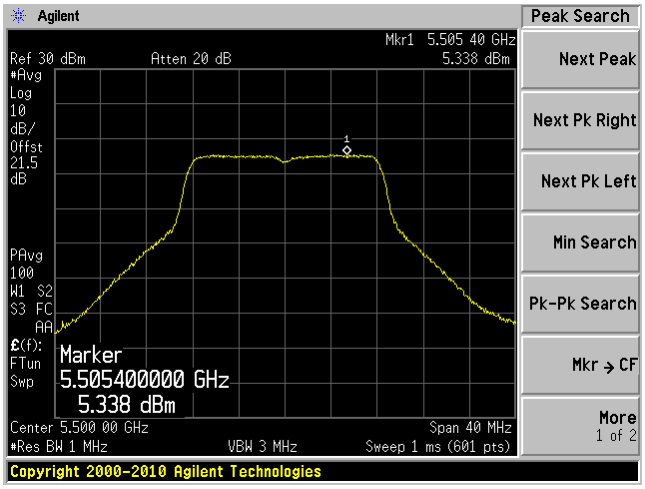
Chain 2



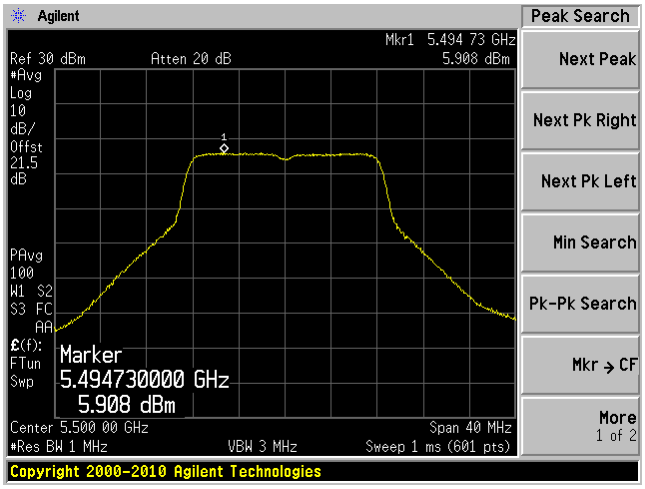
5470–5725 MHz Band:

802.11a mode

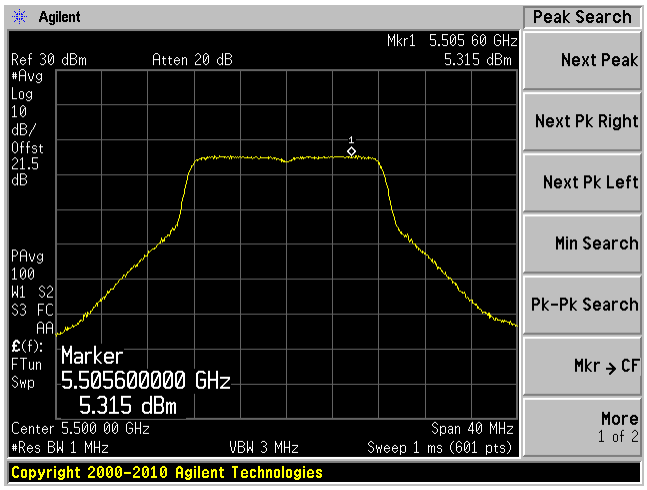
Low channel: Chain 0



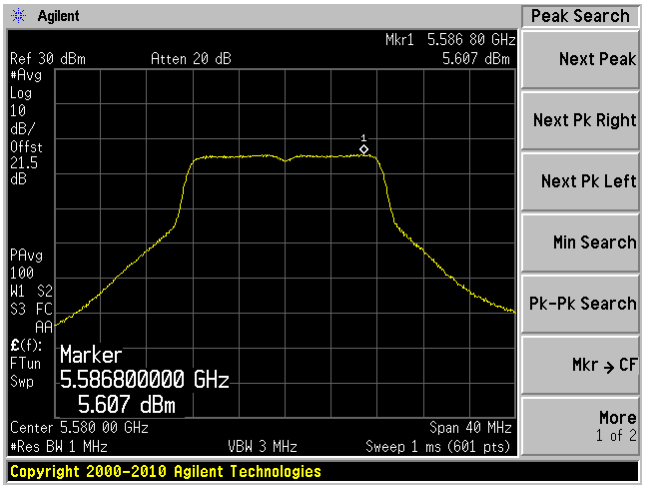
Low channel: Chain 1



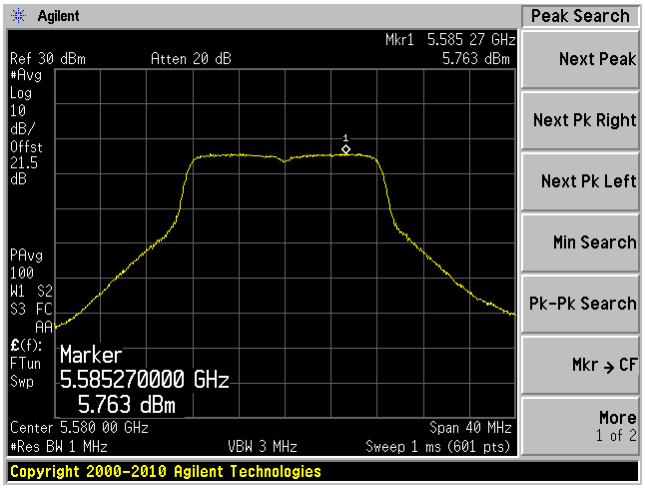
Low Channel: Chain 2



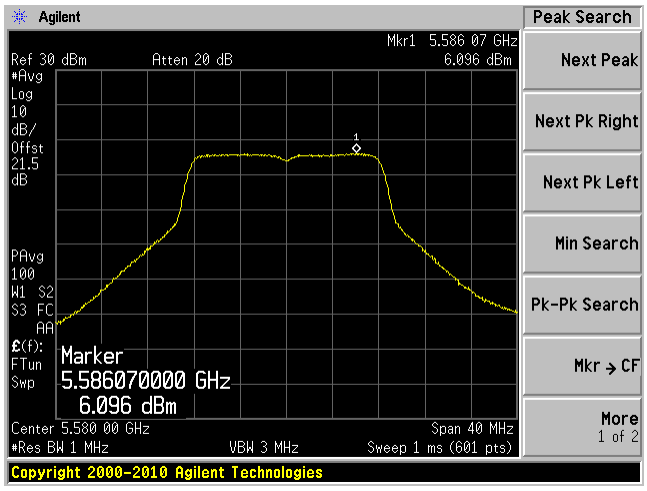
Middle channel: Chain 0



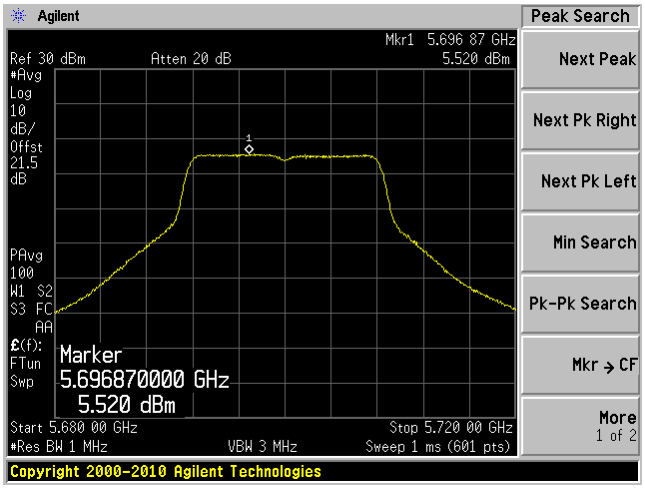
Middle channel: Chain 1



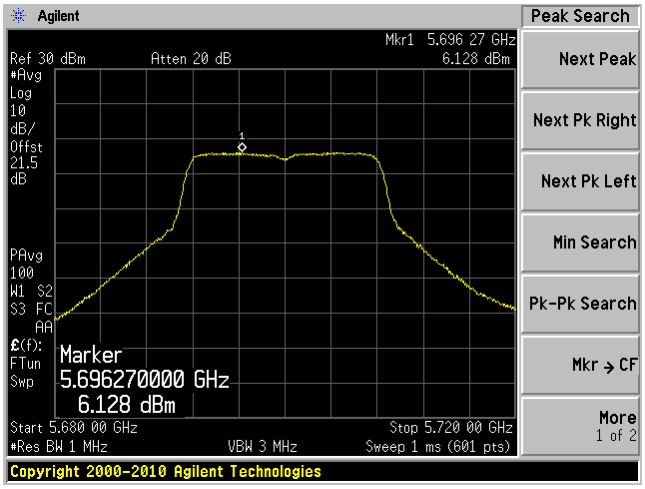
Middle Channel: Chain 2



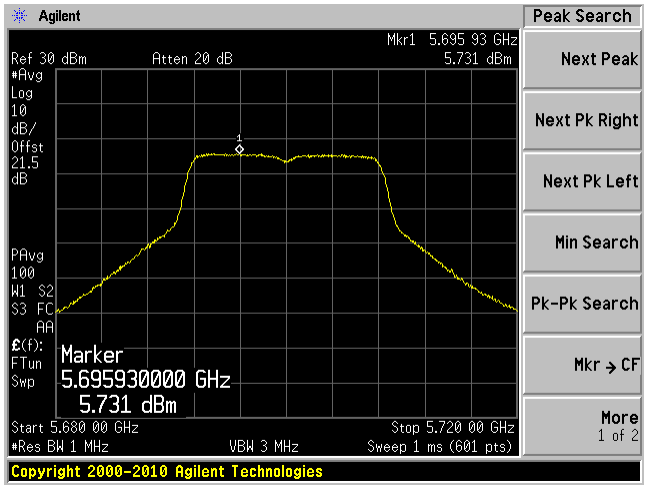
High channel: Chain 0



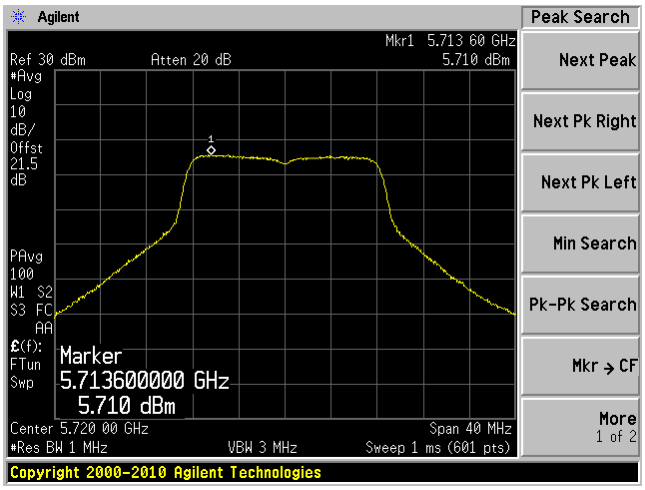
High channel: Chain 1



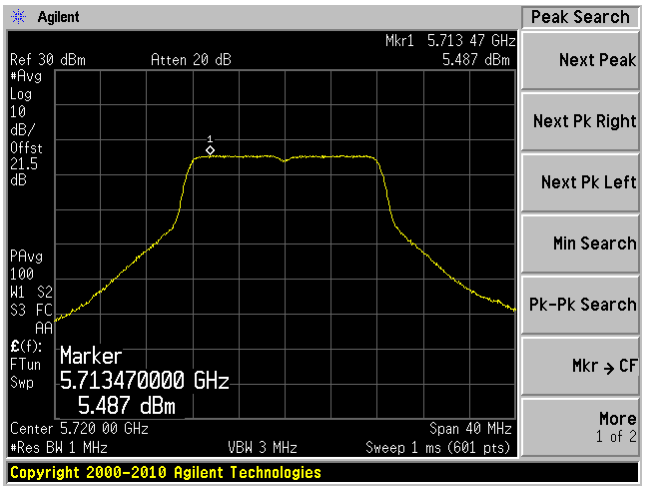
High Channel: Chain 2



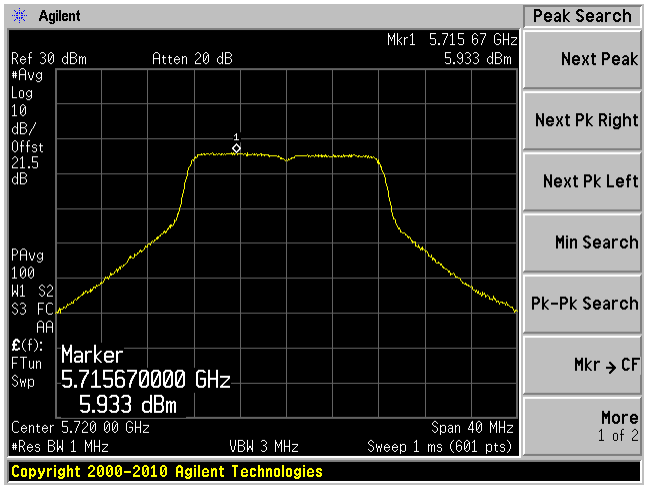
Cross channel: Chain 0



Cross channel: Chain 1

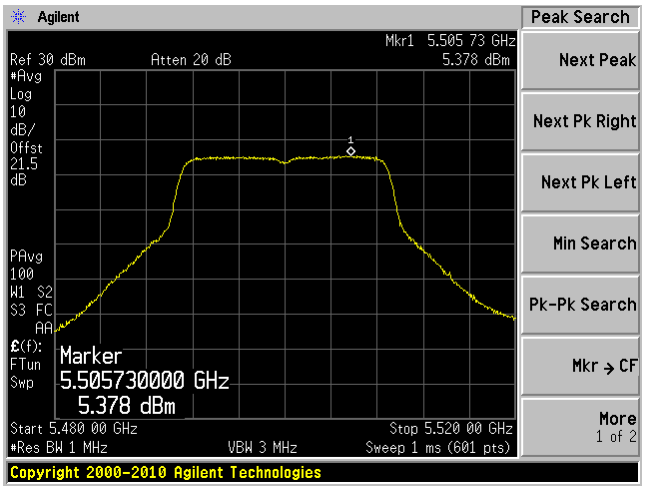


Cross Channel: Chain 2

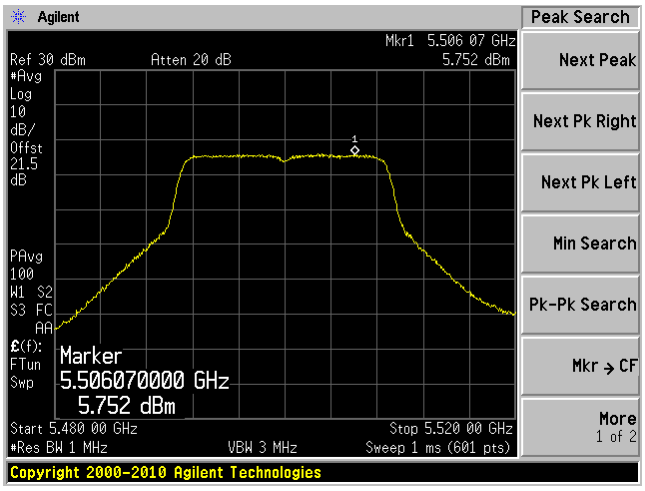


802.11n-HT20 mode

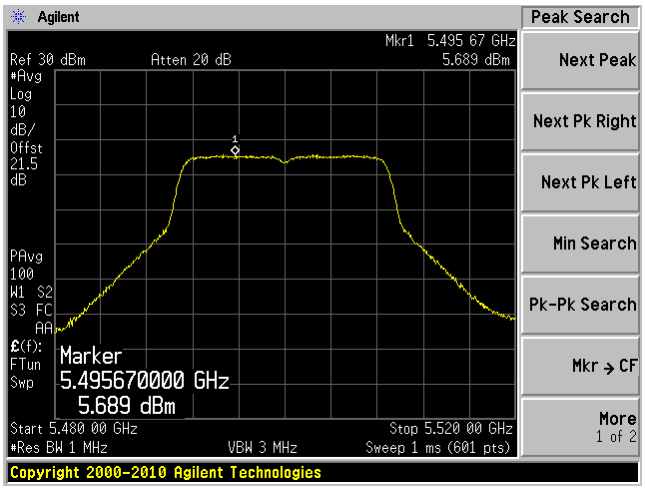
Low channel: Chain 0



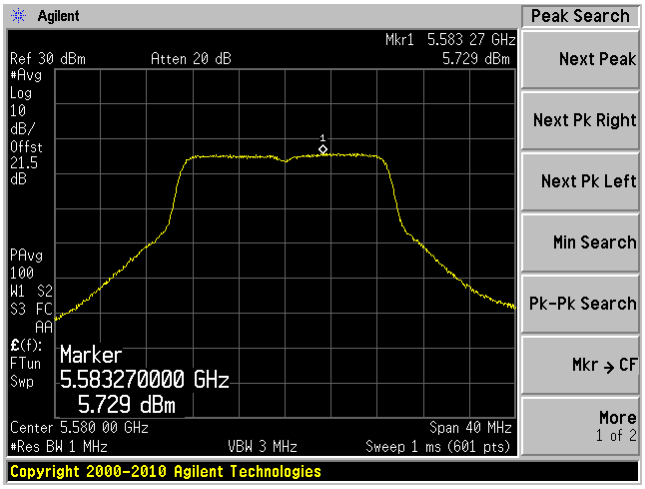
Low channel: Chain 1



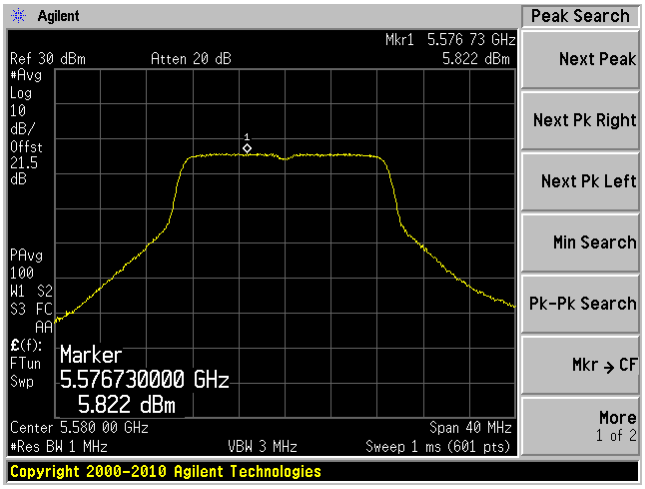
Low Channel: Chain 2



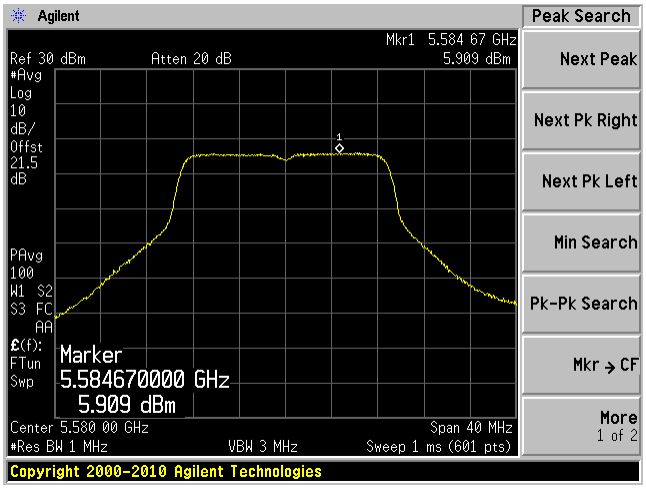
Middle channel: Chain 0



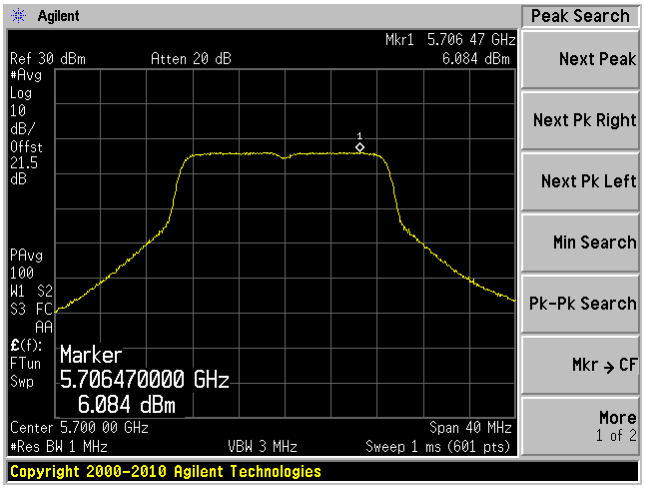
Middle channel: Chain 1



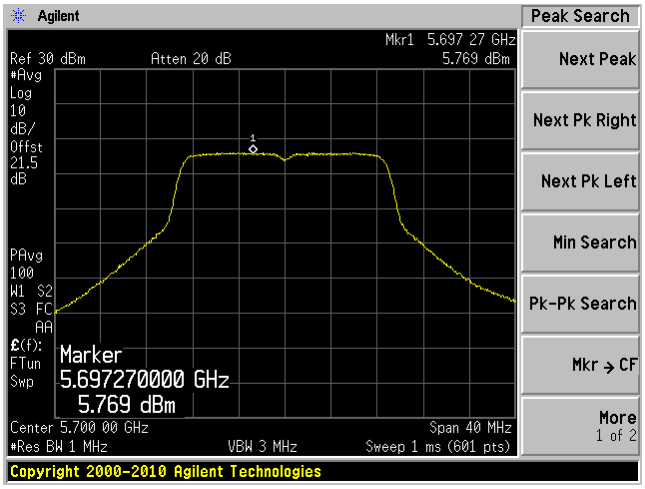
Middle Channel: Chain 2



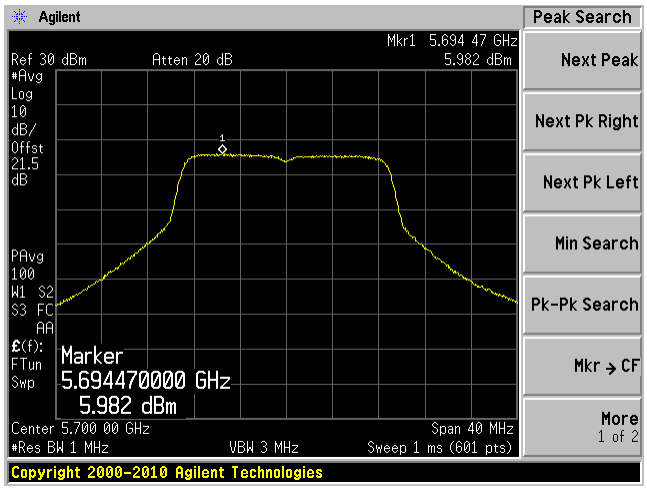
High channel: Chain 0



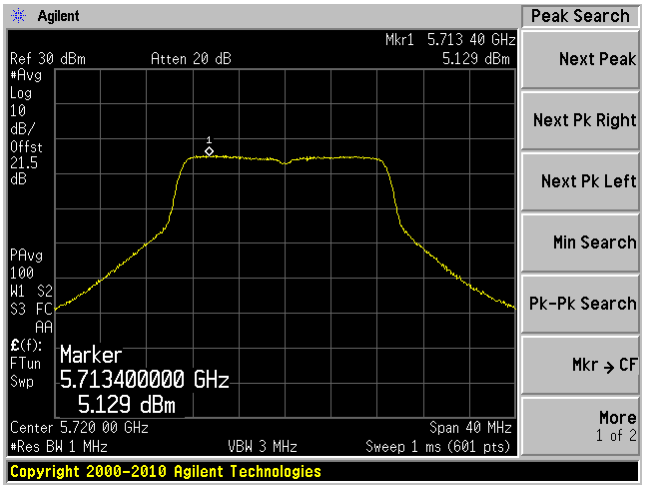
High channel: Chain 1



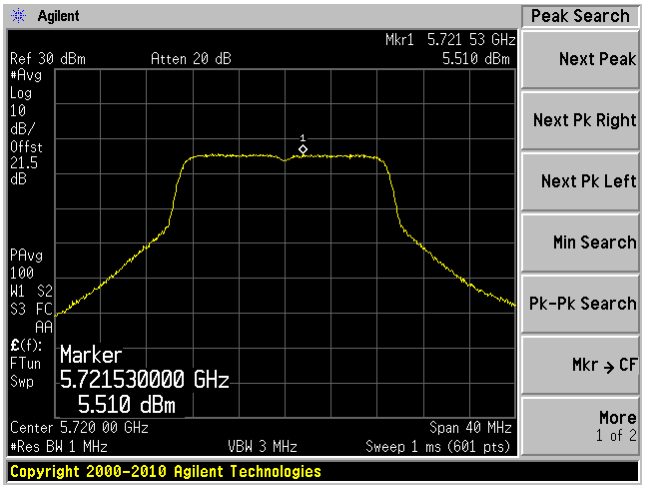
High Channel: Chain 2



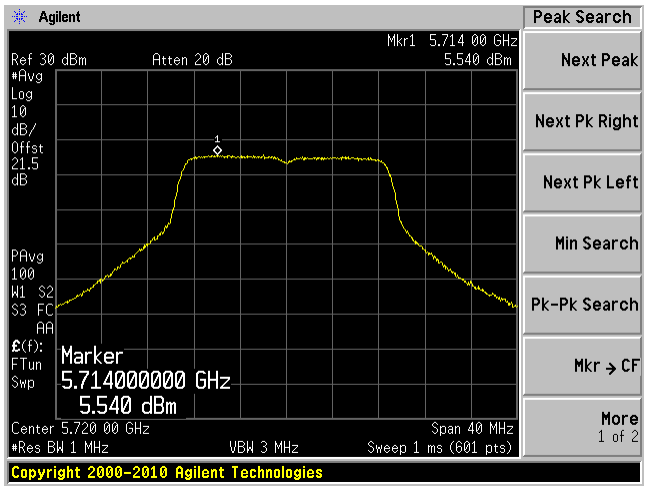
Cross channel: Chain 0



Cross channel: Chain 1

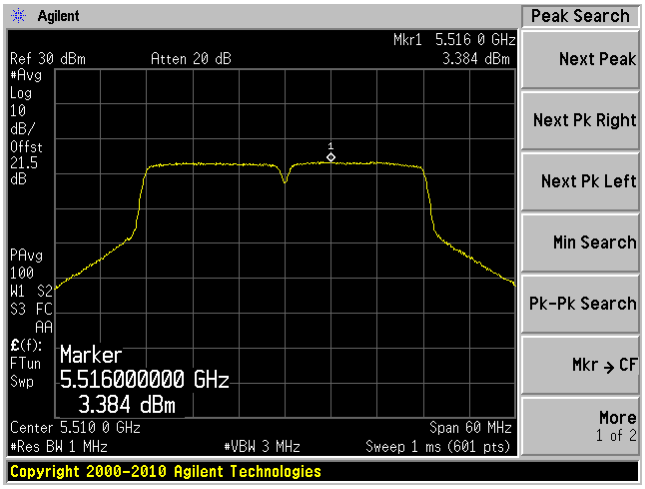


Cross Channel: Chain 2

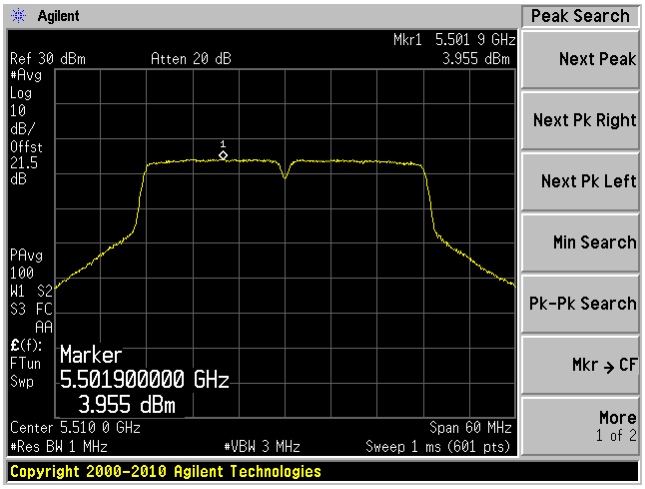


802.11n-HT40 mode

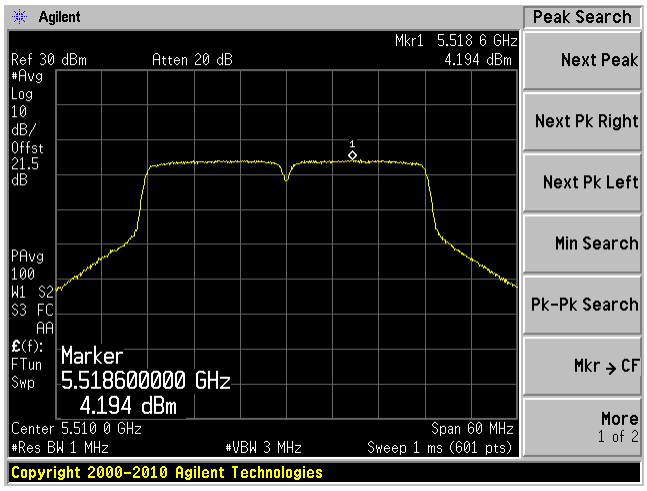
Low channel: Chain 0



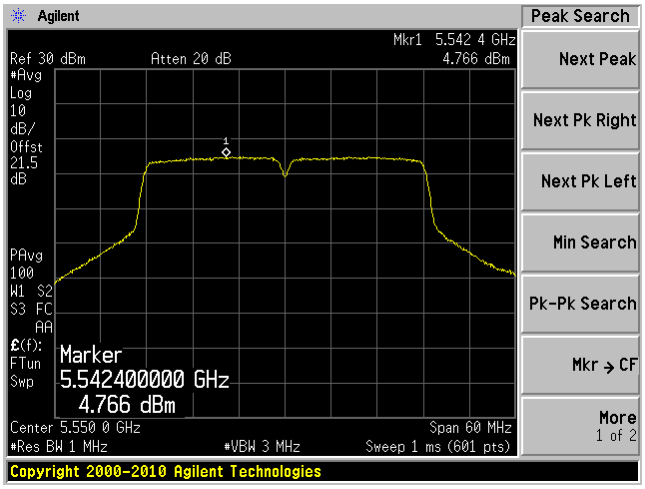
Low channel: Chain 1



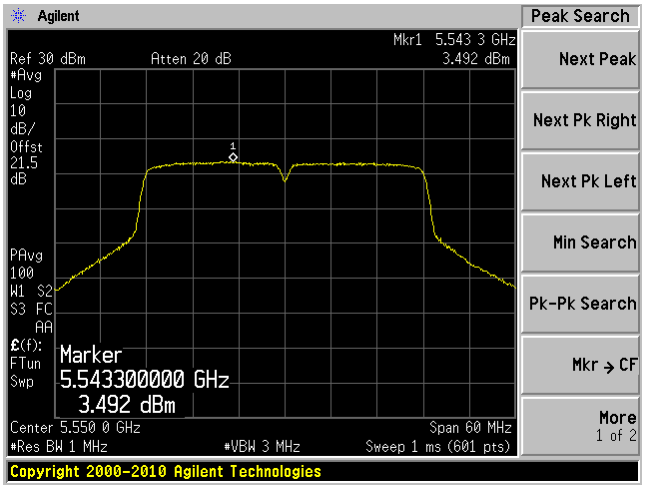
Low Channel: Chain 2



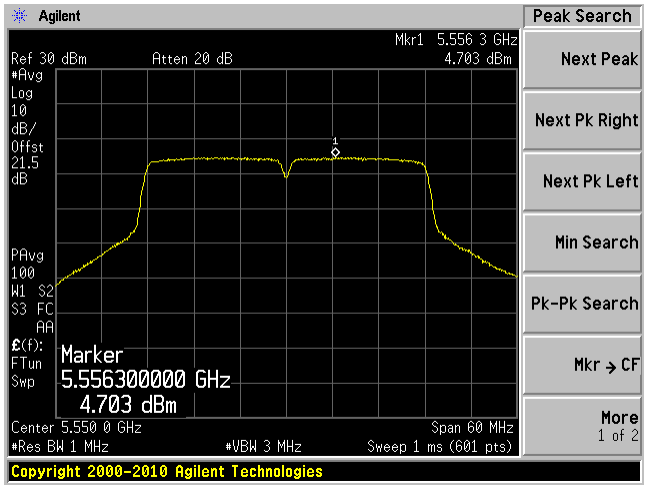
Middle channel: Chain 0



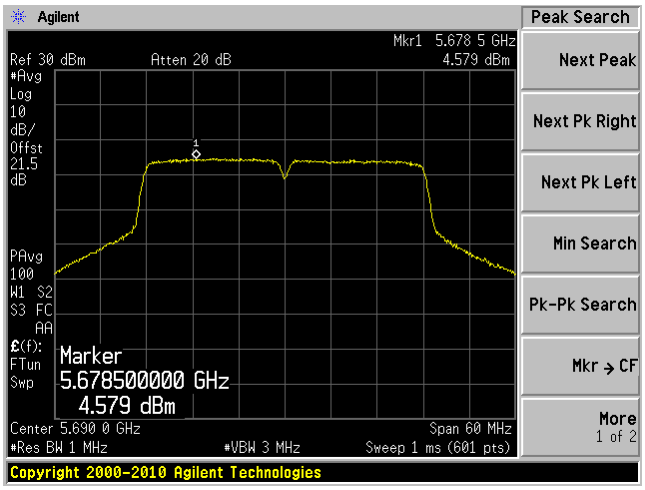
Middle channel: Chain 1



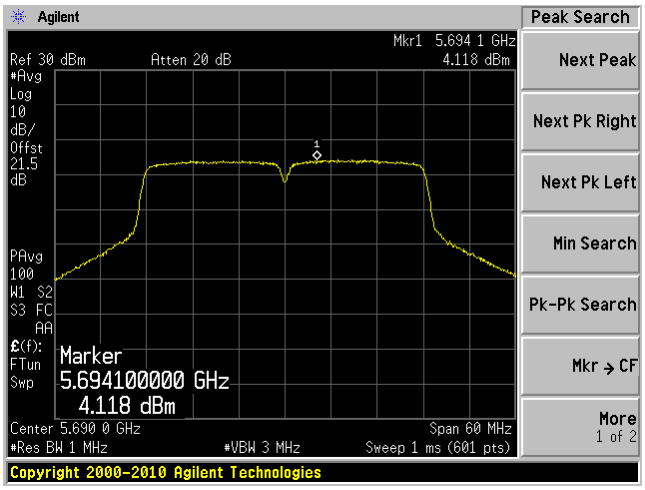
Middle Channel: Chain 2



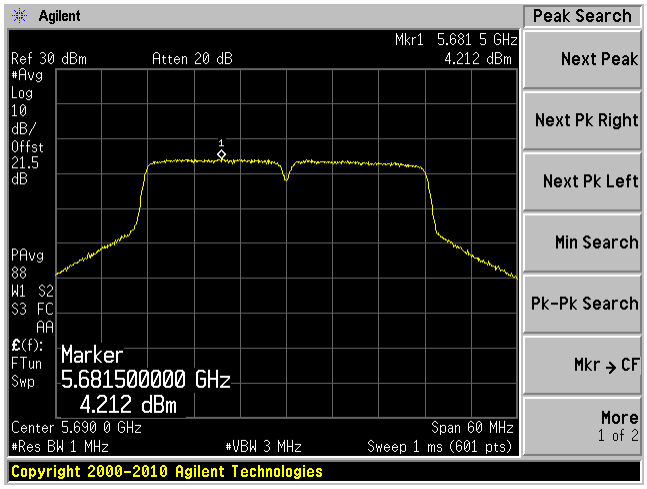
High channel: Chain 0



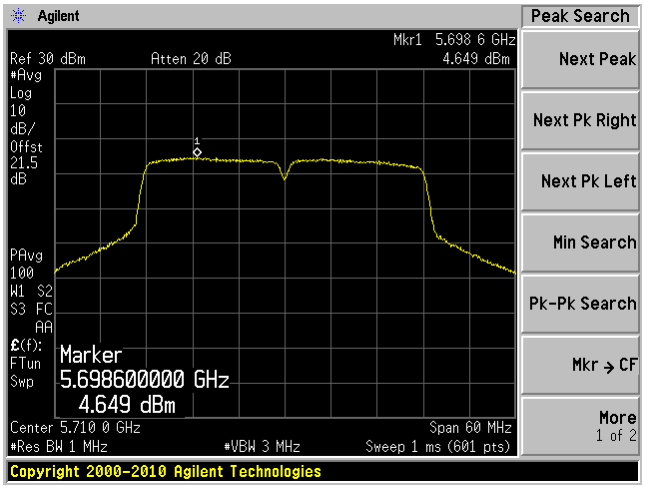
High channel: Chain 1



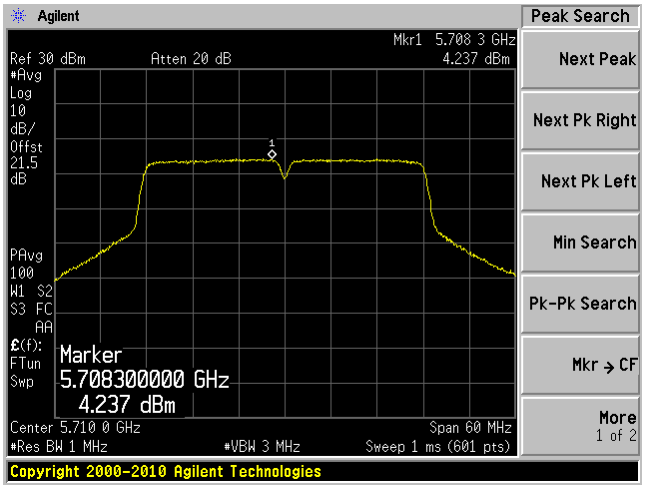
High Channel: Chain 2



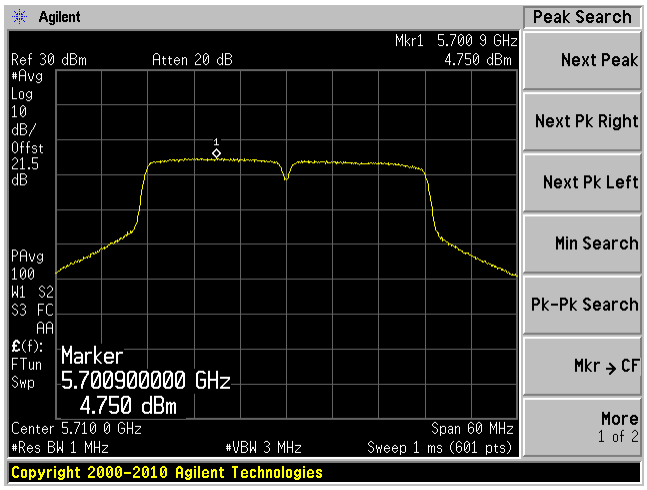
Cross channel: Chain 0



Cross channel: Chain 1

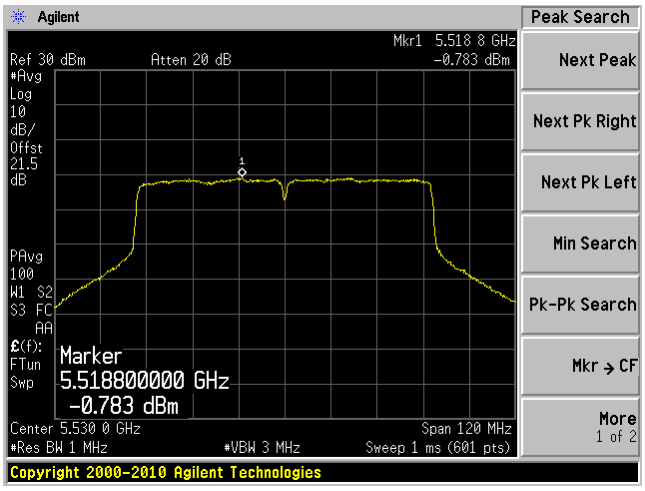


Cross Channel: Chain 2

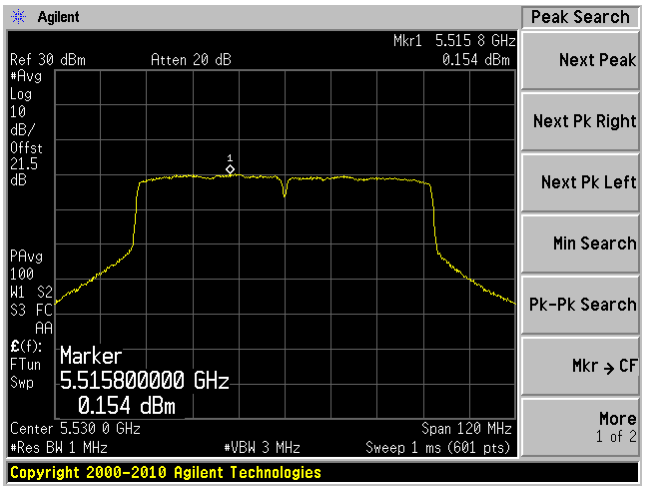


802.11ac 80 mode

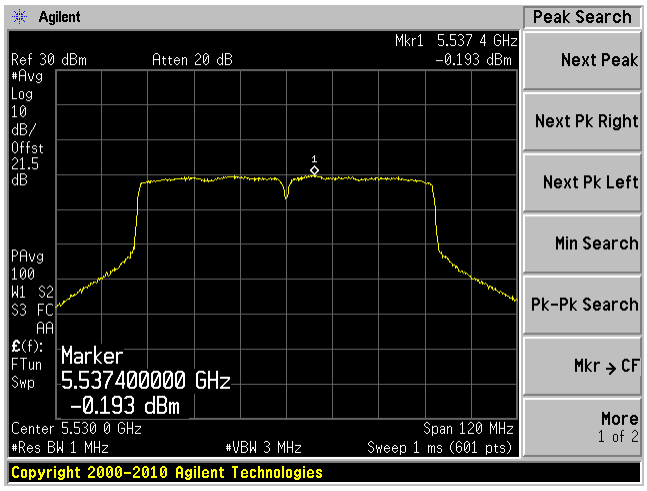
Low Channel Chain 0



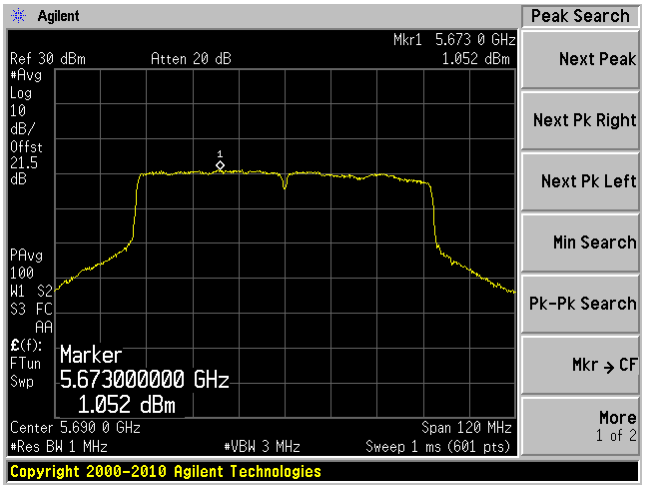
Low Channel Chain 1



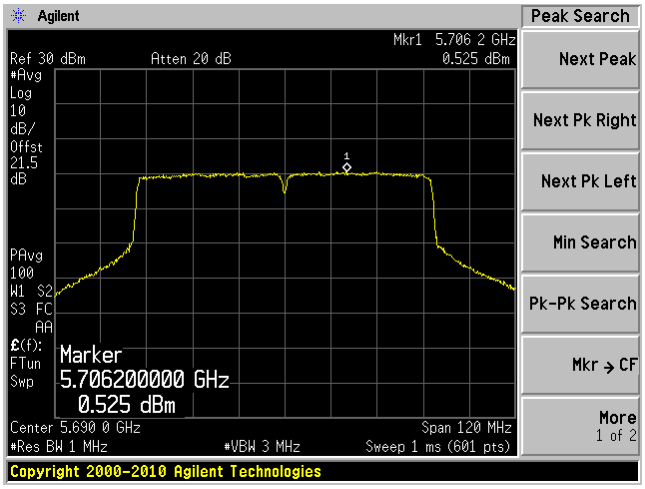
Low Channel Chain 2



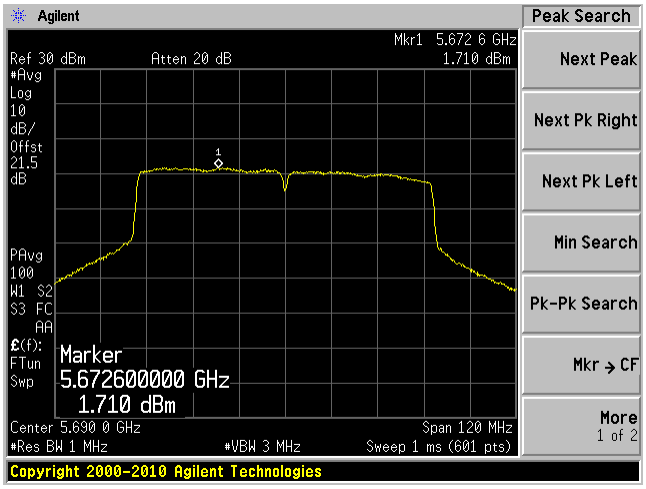
High Channel Chain 0



High Channel Chain 1



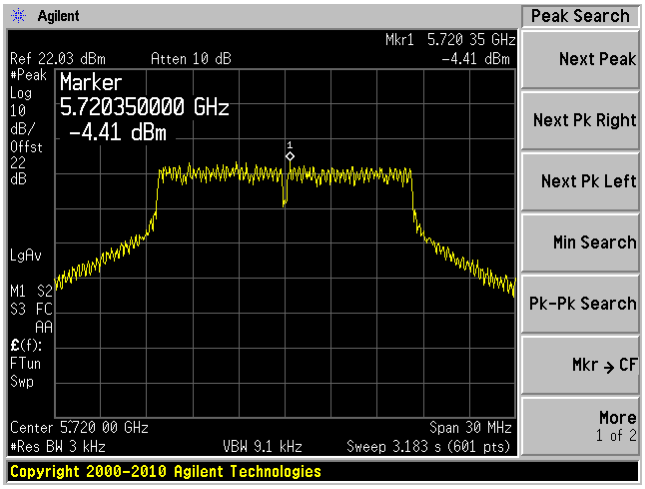
High Channel Chain 2



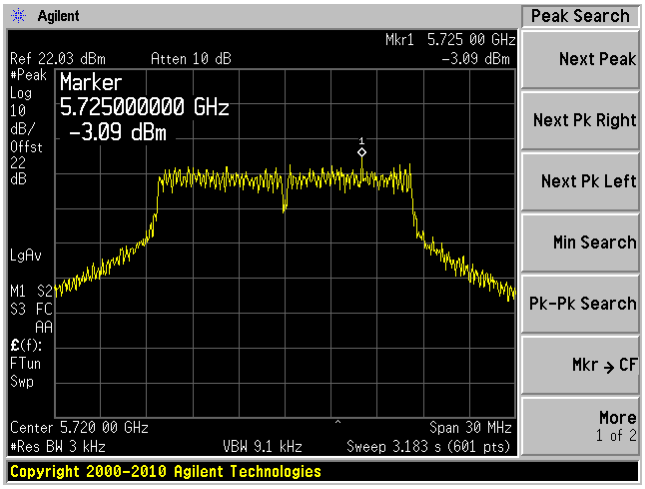
Cross Channel at FCC Part 15.247 Limit:

802.11a mode

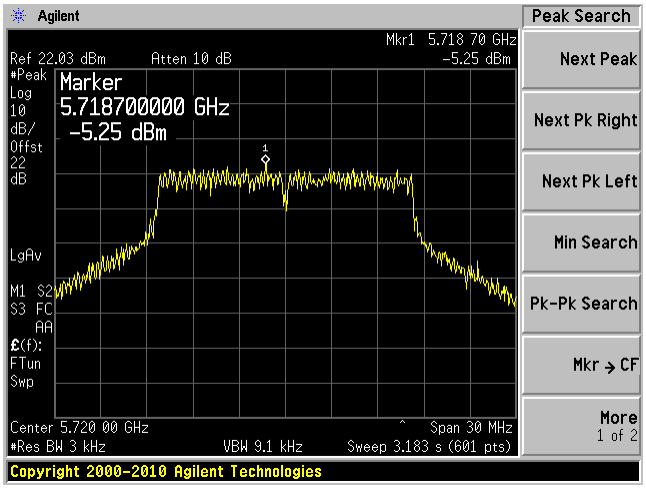
Cross Channel Chain 0



Cross Channel Chain 1

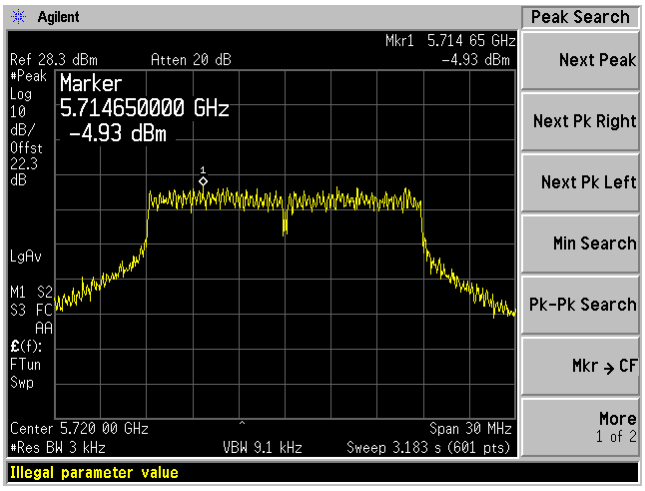


Cross Channel Chain 2

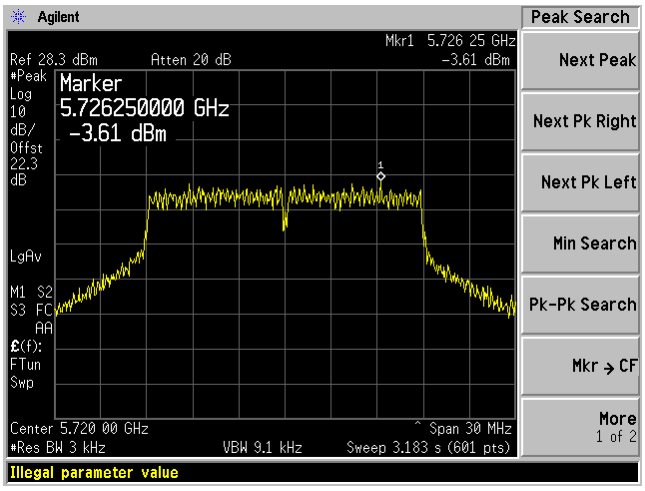


802.11n-HT20 mode

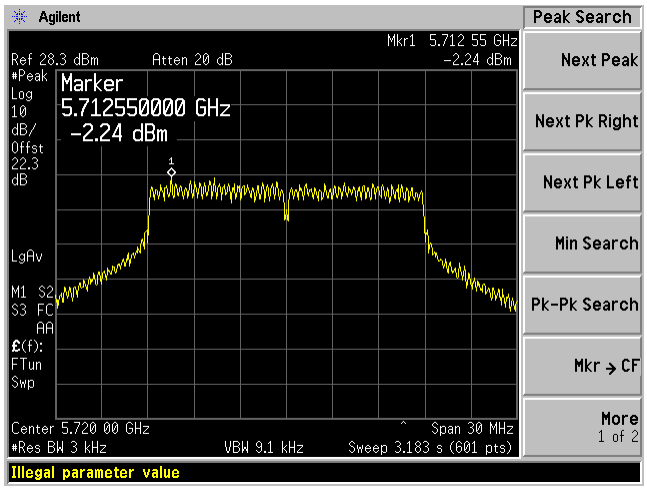
Cross Channel Chain 0



Cross Channel Chain 1

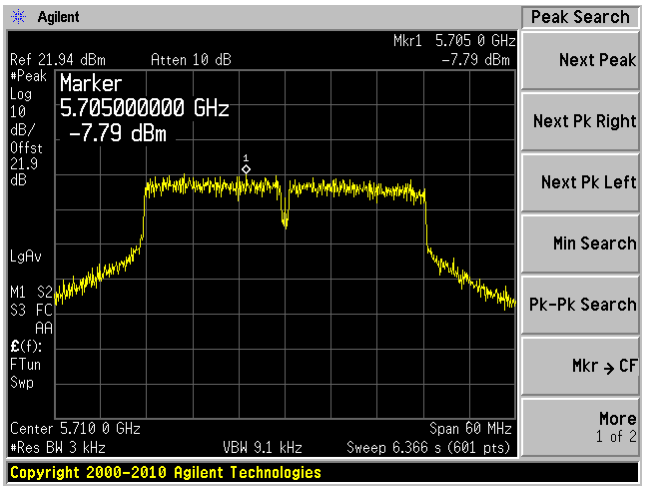


Cross Channel Chain 2

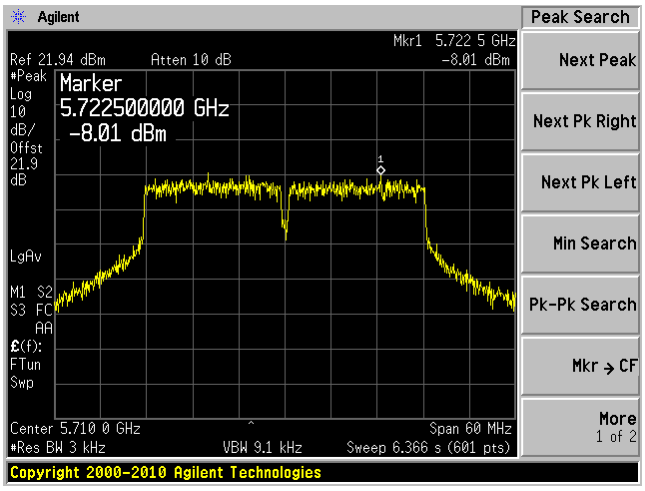


802.11n-HT40 mode

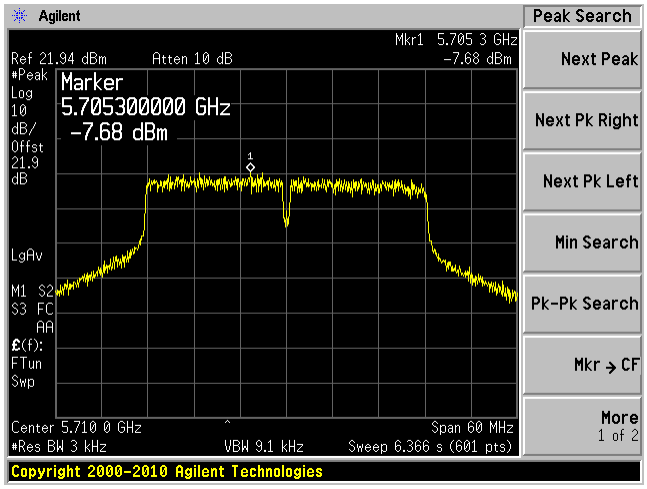
Cross Channel Chain 0



Cross Channel Chain 1

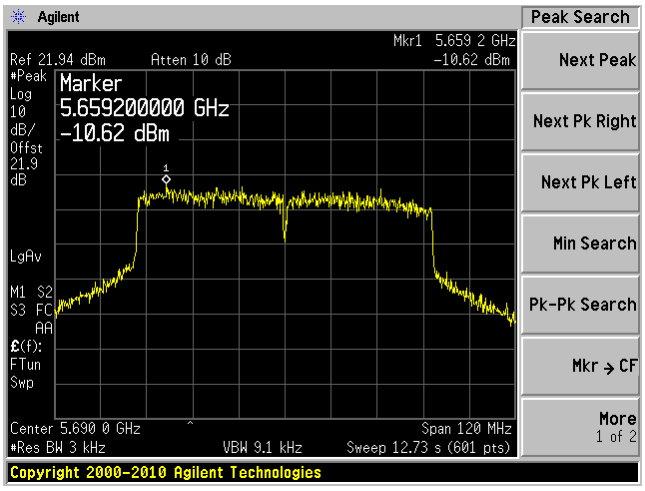


Cross Channel Chain 2

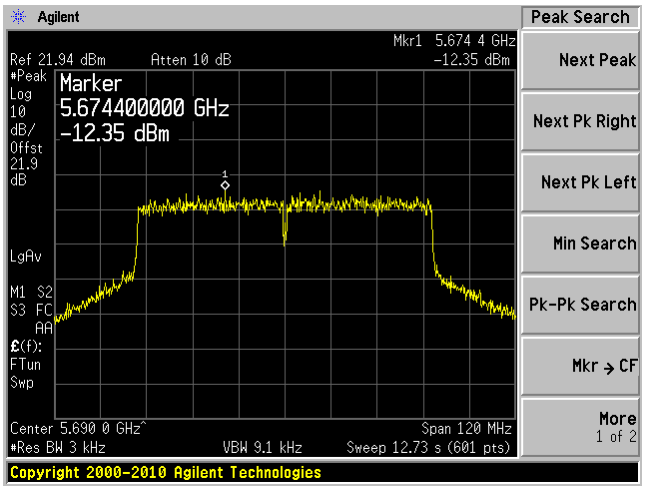


802.11ac 80 mode

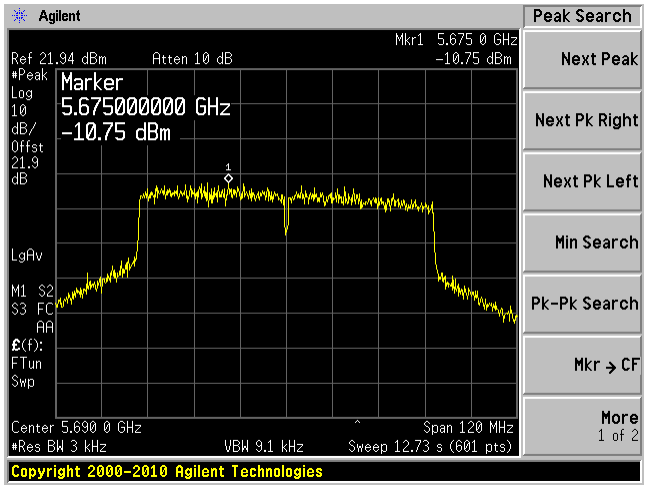
Cross Channel Chain 0



Cross Channel Chain 1



Cross Channel Chain 2



12 FCC §15.407(a)(6) – Peak Excursion Ratio

12.1 Applicable Standard

According to FCC §15.407(a) (6), 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.

12.2 Test Procedure

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. Submit a plot.

1st Trace:
• Set RBW = 1 MHz, VBW ≥ 3 MHz with peak detector and maxhold settings.

2nd Trace:
• create the 2nd trace using the settings described in the setion "FCC §15.407(a)(1)(2) – CONDUCTED TRANSMITTER OUTPUT POWER".

12.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4446A	US44300386	2012-09-29	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed according to A2LA requirements, traceable to the NIST.*

12.4 Test Environmental Conditions

Temperature:	24 °C
Relative Humidity:	40 %
ATM Pressure:	101.8 kPa

The testing was performed by Ning Ma on 2013-04-16 in RF site.

12.5 Test Results

5250-5350 MHz Band

Channel	Frequency (MHz)	TX Chain 0 PER (dB)	TX Chain 1 PER (dB)	TX Chain 2 PER (dB)	Limit (dB)
802.11a mode					
Low	5260	8.581	8.962	8.798	13
Middle	5280	8.435	9.431	9.918	
High	5320	8.491	8.745	9.541	
802.11n-HT20					
Low	5260	8.458	8.556	9.493	13
Middle	5280	9.092	8.535	8.870	
High	5320	8.518	8.747	9.012	
802.11n-HT40					
Low	5270	8.947	8.978	9.568	13
High	5310	9.569	8.770	10.253	
802.11ac 80					
Middle	5290	8.472	9.706	9.460	13

5470-5725 MHz Band

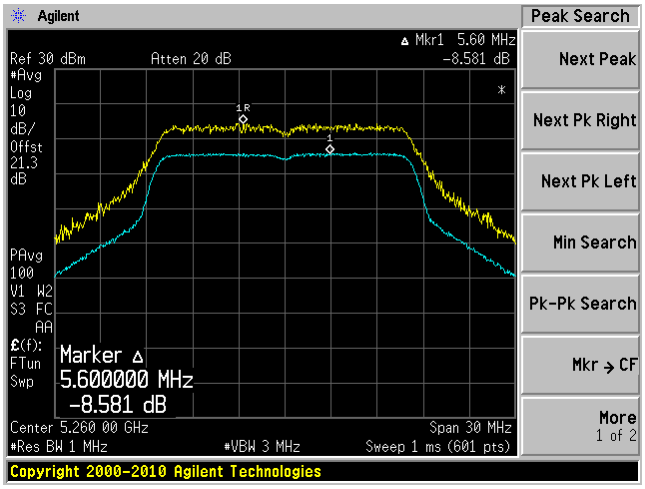
Channel	Frequency (MHz)	TX Chain 0 PER (dB)	TX Chain 1 PER (dB)	TX Chain 2 PER (dB)	Limit (dB)
802.11a mode					
Low	5500	9.532	8.898	9.541	13
Middle	5580	8.991	9.620	9.485	
High	5700	8.969	9.524	8.735	
Cross	5720	8.900	8.971	8.665	
802.11n-HT20					
Low	5500	8.987	9.678	8.573	13
Middle	5580	8.560	8.853	9.276	
High	5700	8.927	8.544	8.726	
Cross	5720	8.360	8.654	8.678	
802.11n-HT40					
Low	5510	8.848	10.711	9.561	13
Middle	5550	8.884	8.933	8.896	
High	5670	8.663	9.565	10.196	
Cross	5710	9.395	10.595	9.306	
802.11ac 80					
Low	5530	9.553	8.995	9.482	13
High	5690	10.242	9.779	10.097	

Please refer to the following plots for detailed test results:

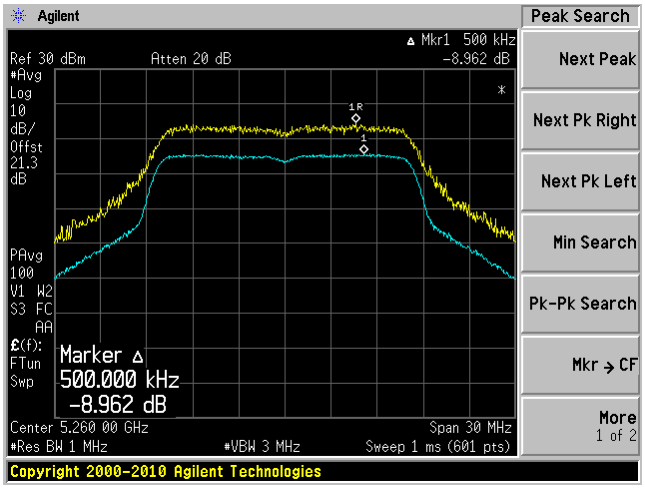
5250–5350 MHz Band:

802.11a mode

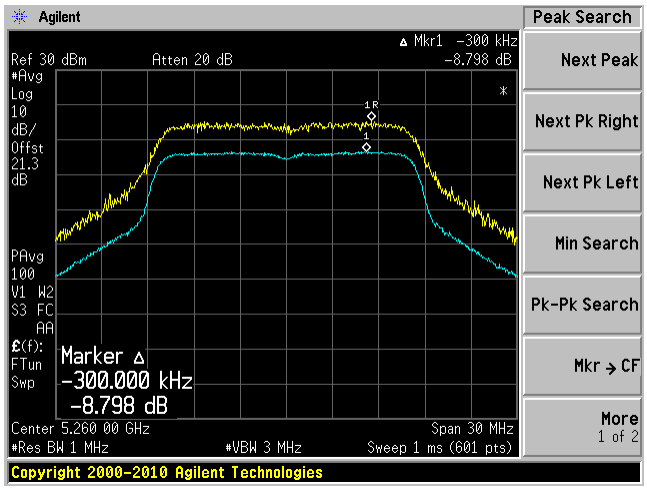
Low channel: Chain 0



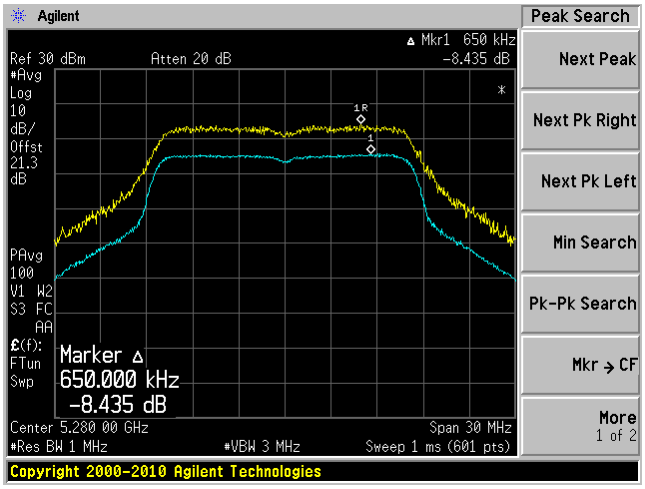
Low channel: Chain 1



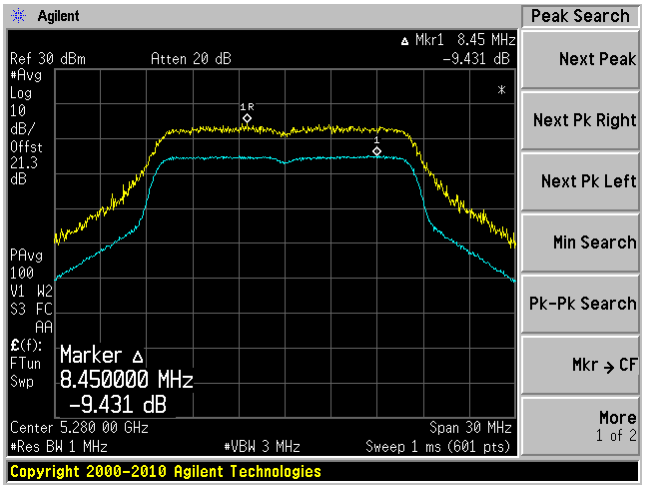
Low Channel: Chain 2



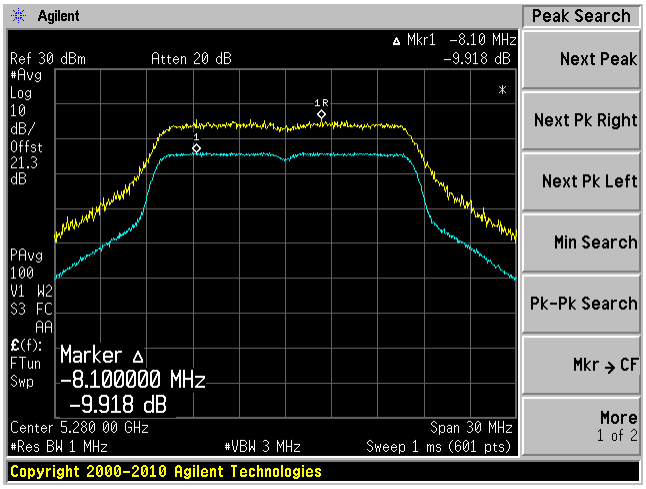
Middle channel: Chain 0



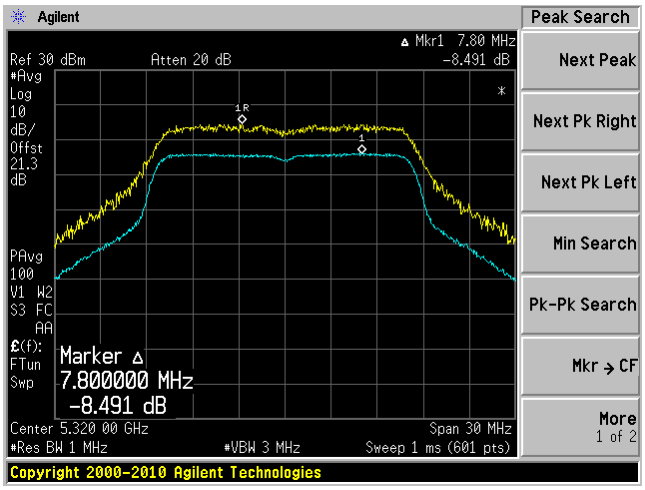
Middle channel: Chain 1



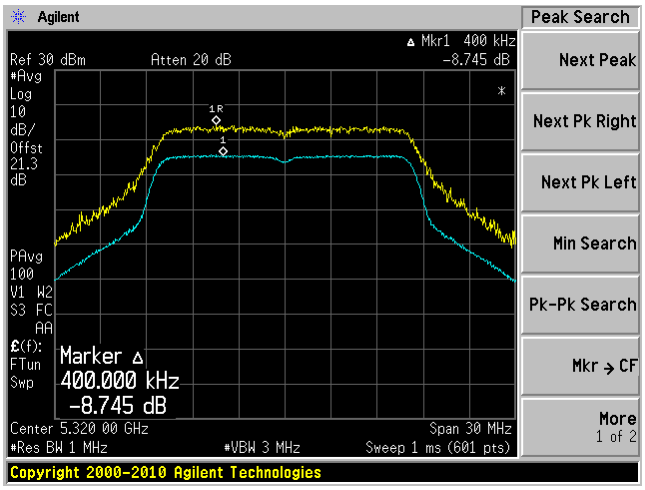
Middle Channel: Chain 2



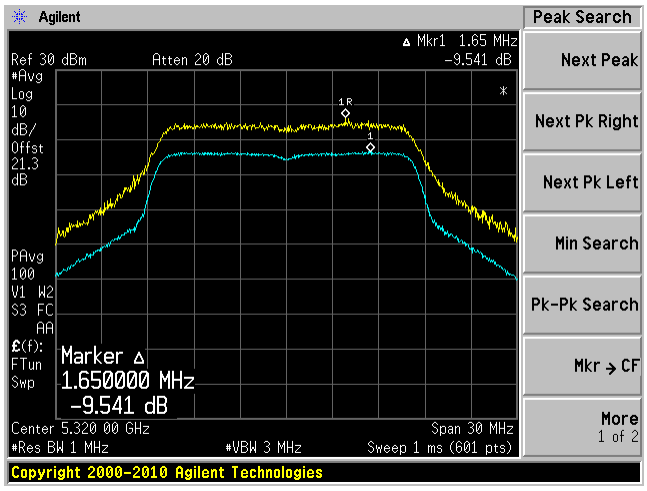
High channel: Chain 0



High channel: Chain 1

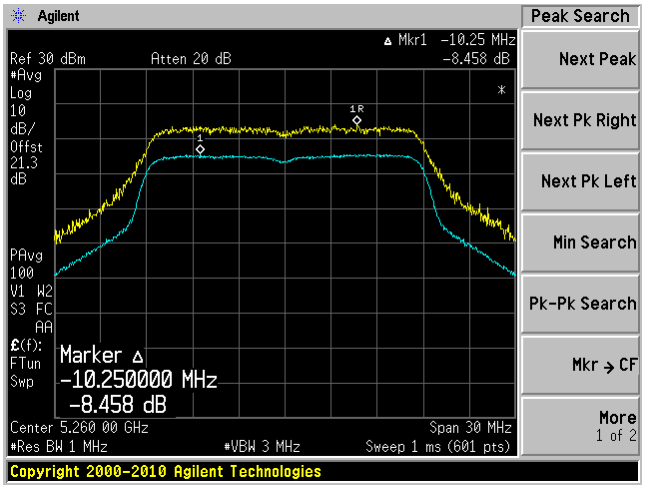


High Channel: Chain 2

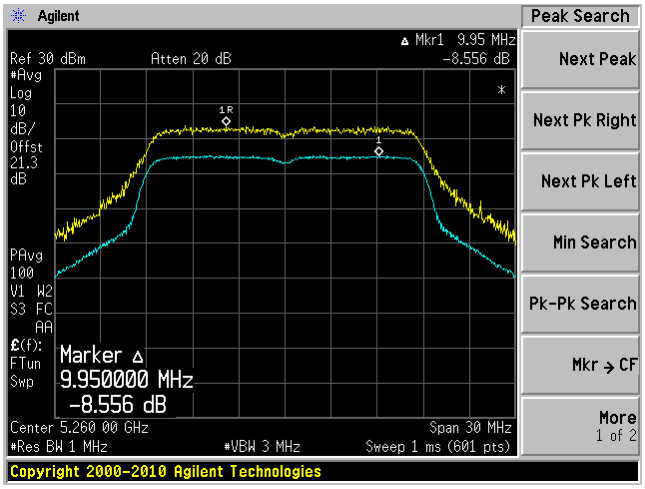


802.11n-HT20 mode

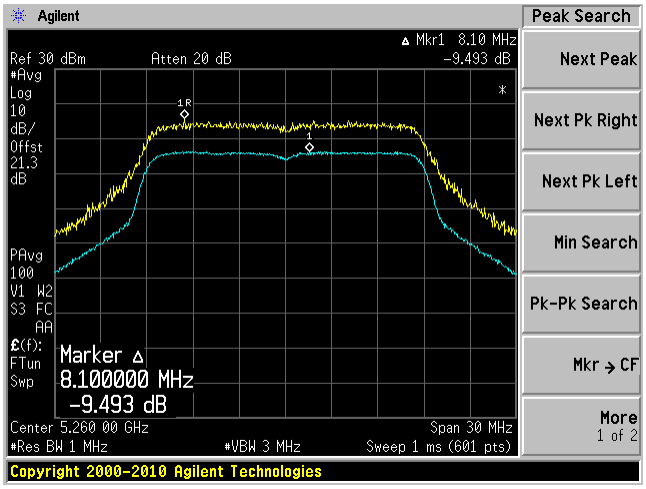
Low channel: Chain 0



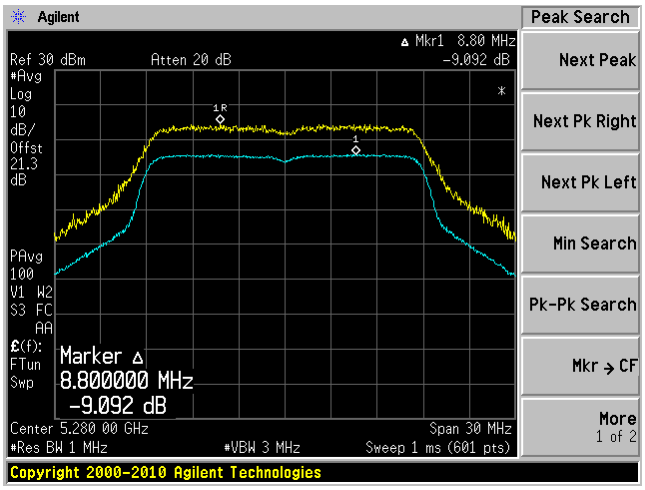
Low channel: Chain 1



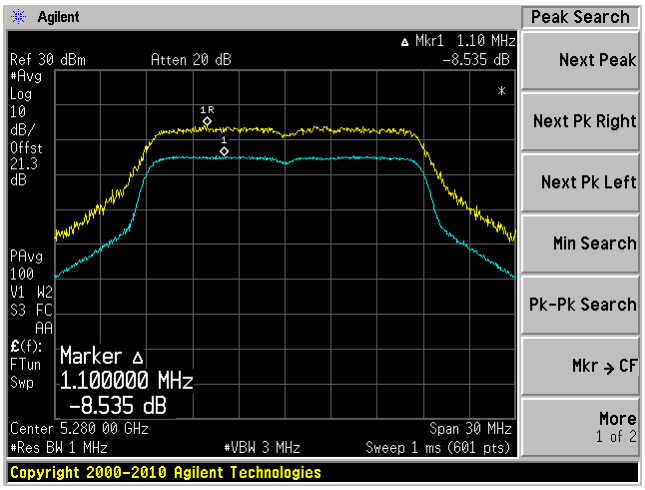
Low Channel: Chain 2



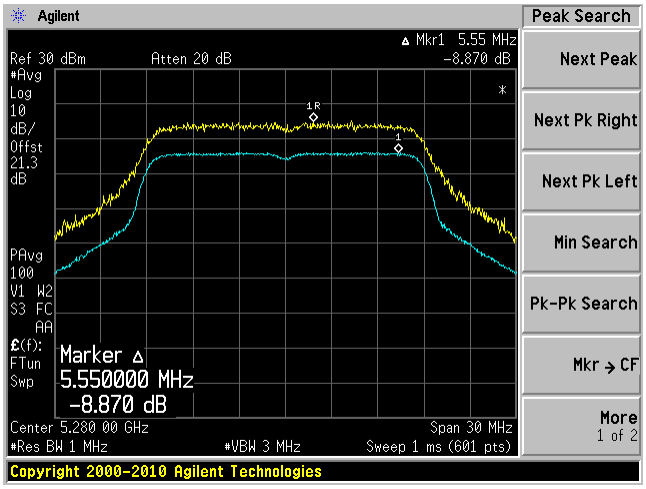
Middle channel: Chain 0



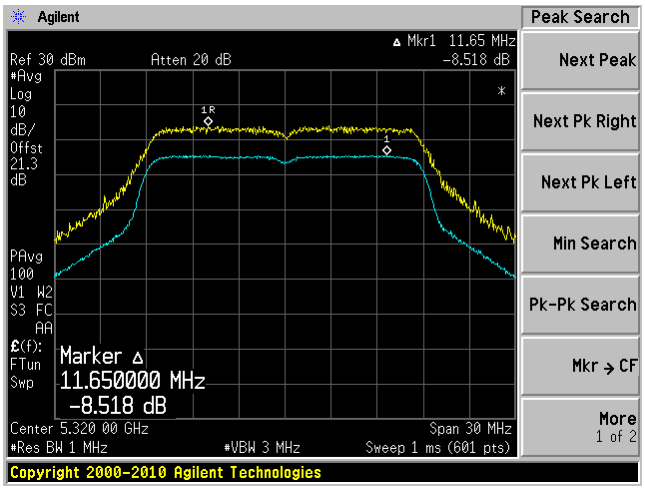
Middle channel: Chain 1



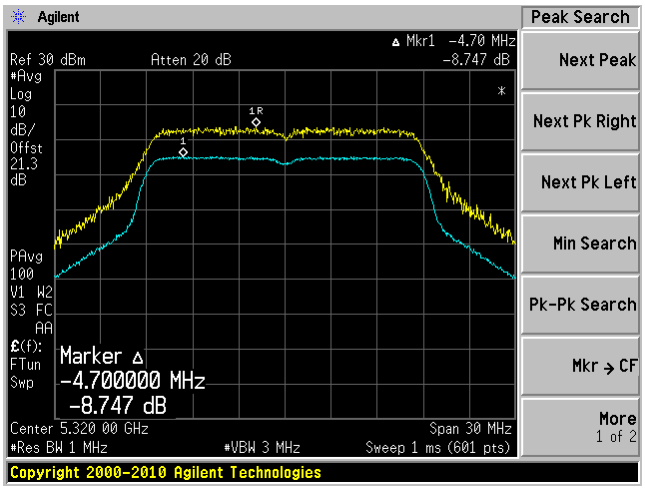
Middle Channel: Chain 2



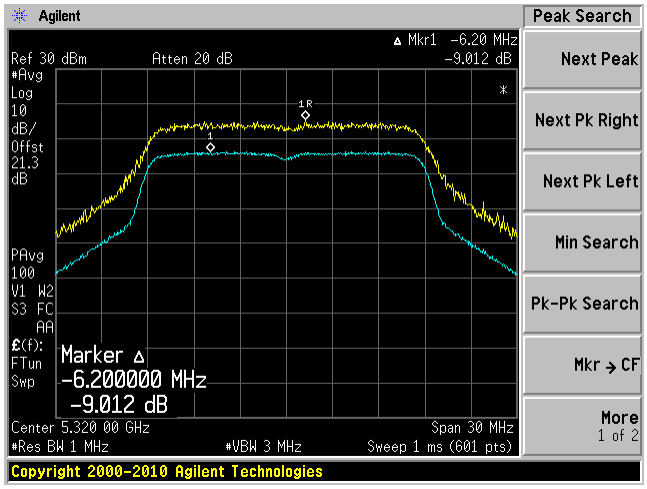
High channel: Chain 0



High channel: Chain 1

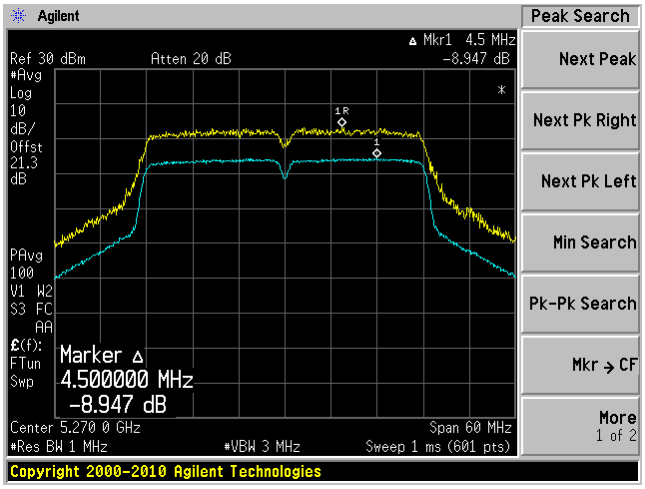


High Channel: Chain 2

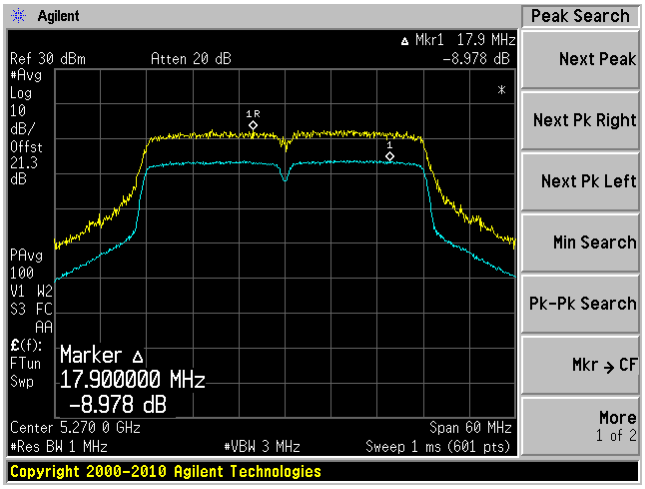


802.11n-HT40 mode

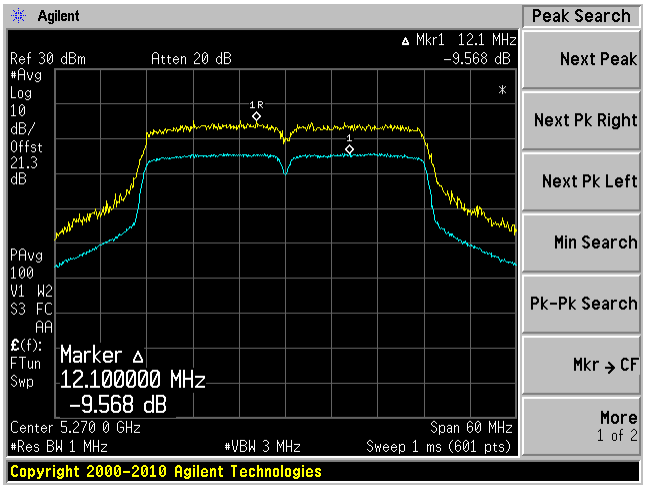
Low channel: Chain 0



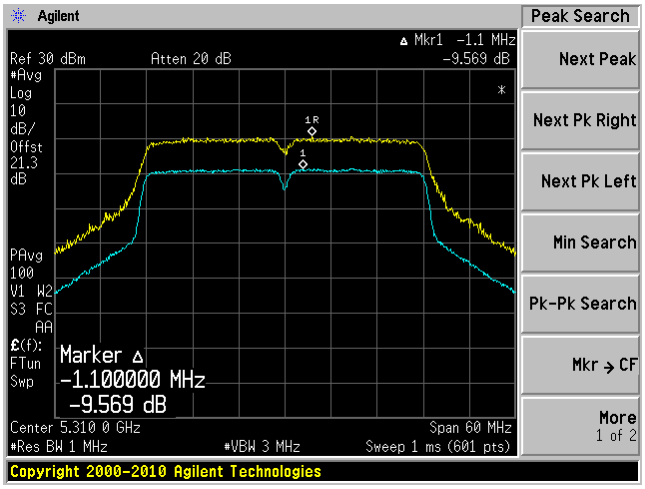
Low channel: Chain 1



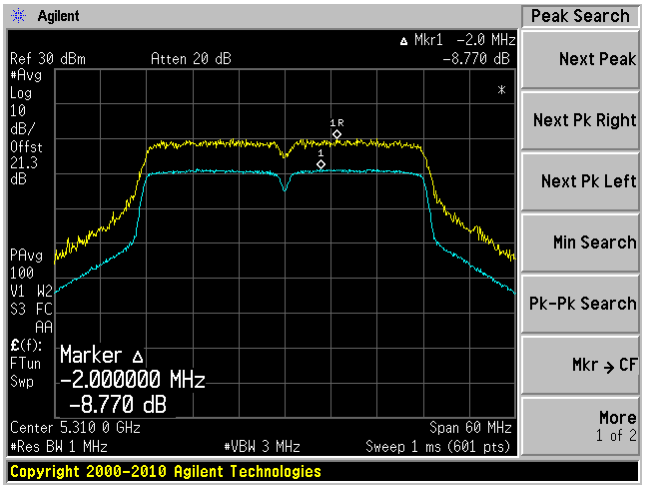
Low Channel: Chain 2



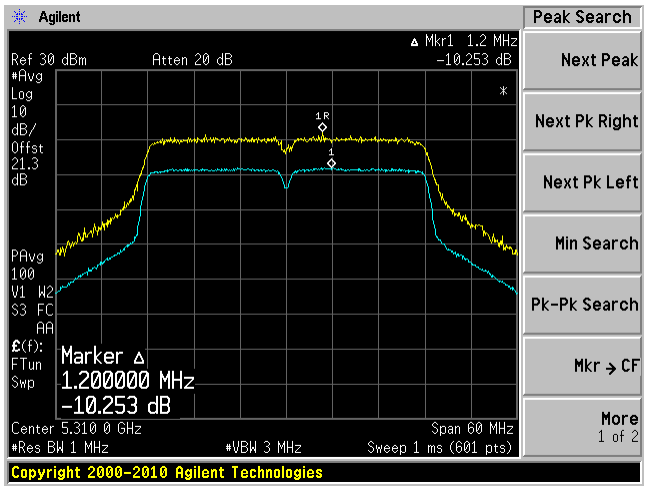
High channel: Chain 0



High channel: Chain 1

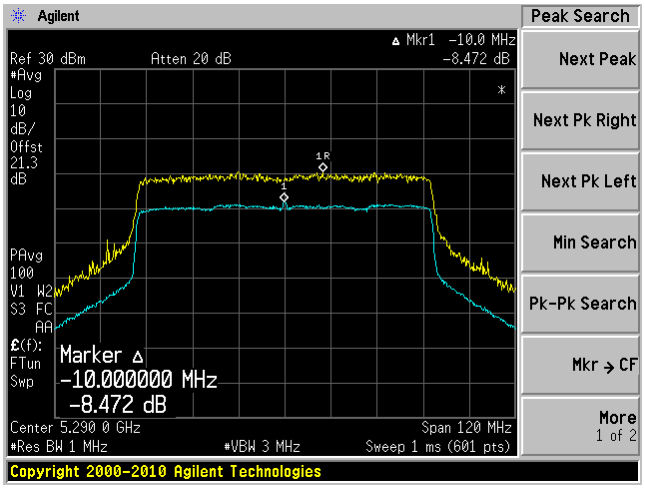


High Channel: Chain 2

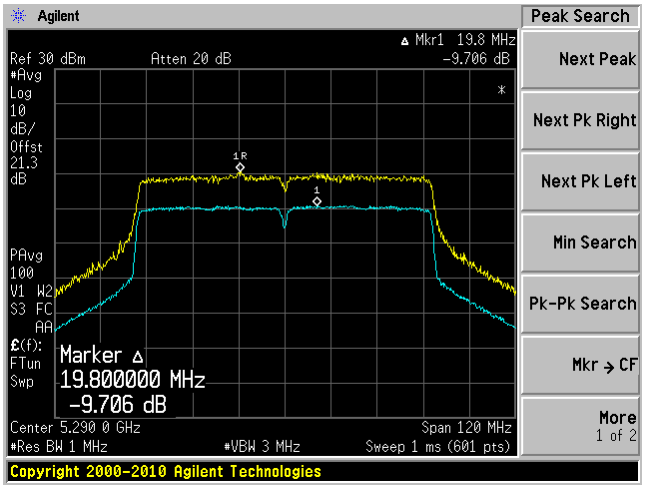


802.11ac 80 mode

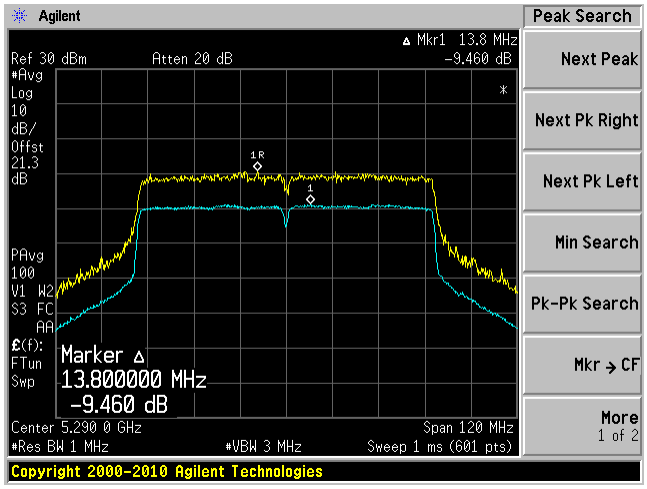
Chain 0



Chain 1



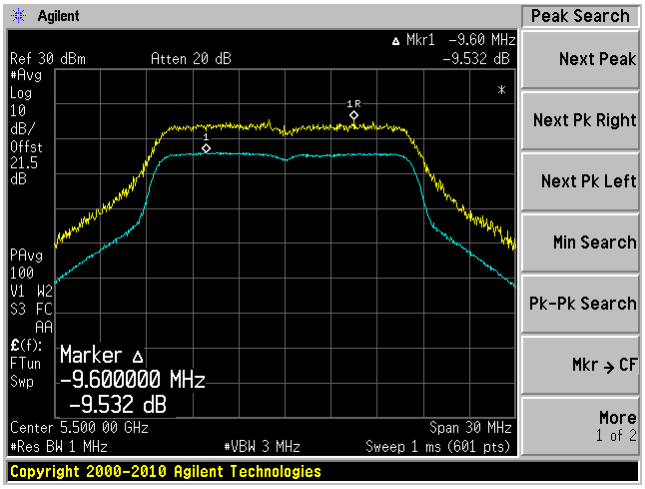
Chain 2



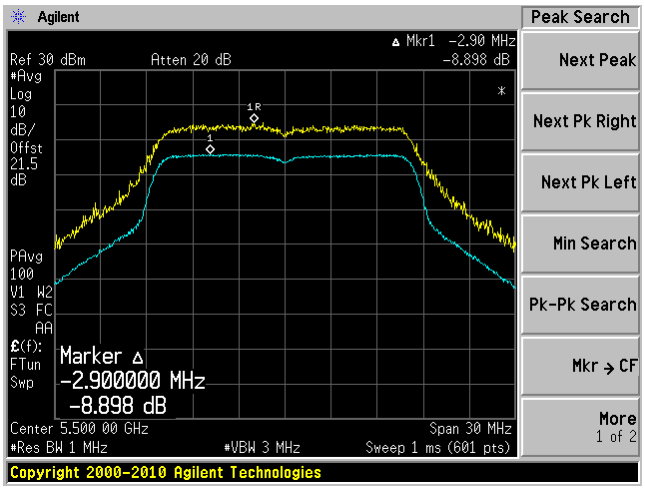
5470 –5725 MHz Band:

802.11a mode

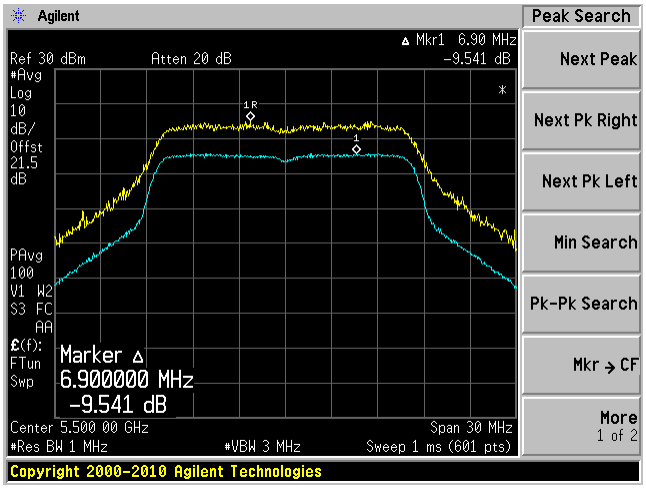
Low channel: Chain 0



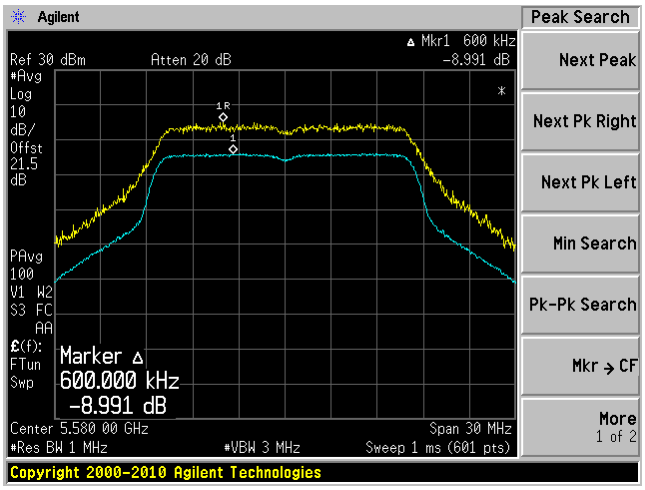
Low channel: Chain 1



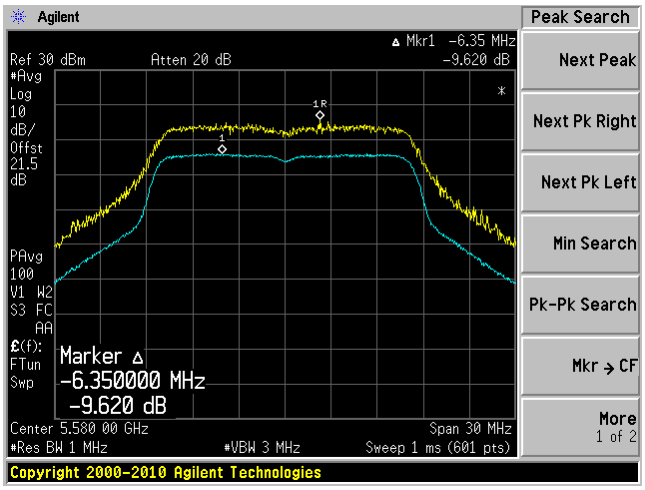
Low Channel: Chain 2



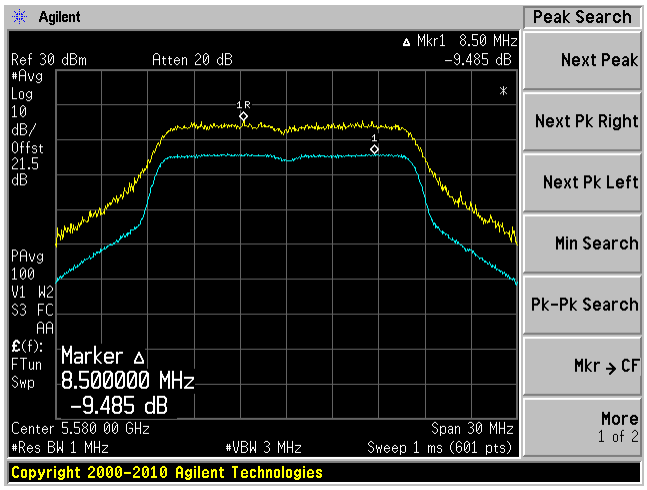
Middle channel: Chain 0



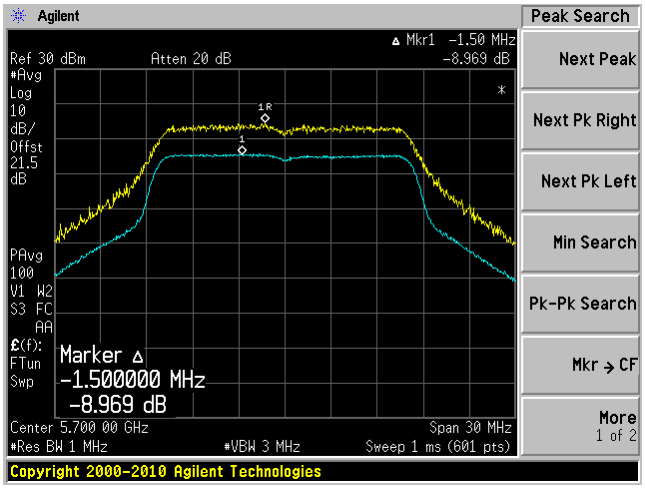
Middle channel: Chain 1



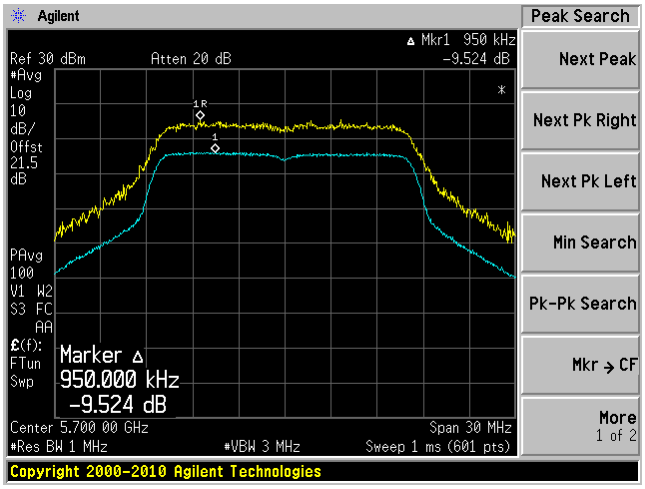
Middle Channel: Chain 2



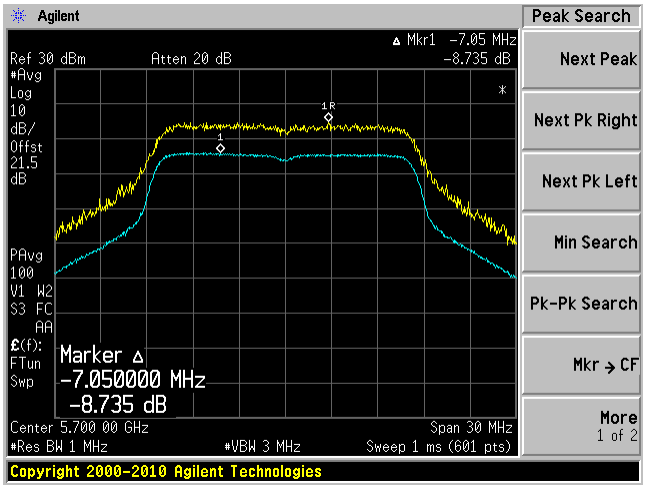
High channel: Chain 0



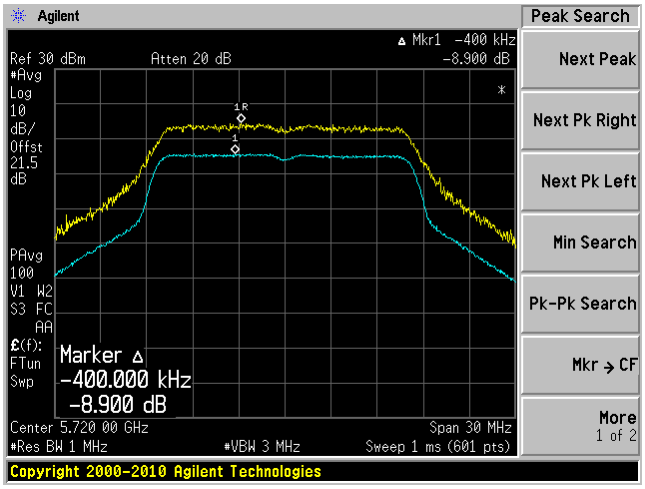
High channel: Chain 1



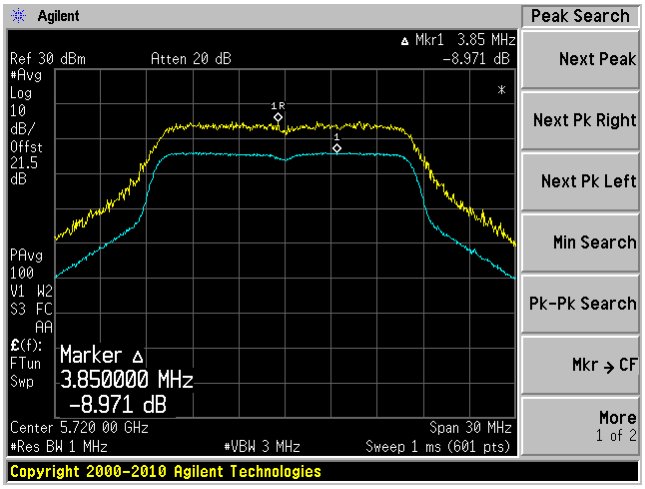
High Channel: Chain 2



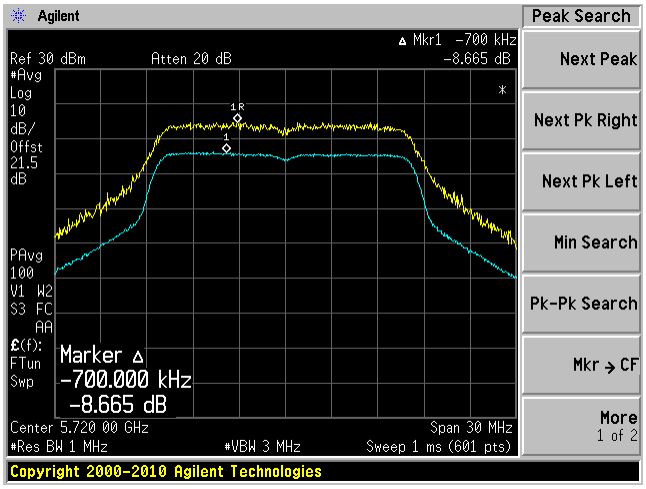
Cross channel: Chain 0



Cross channel: Chain 1

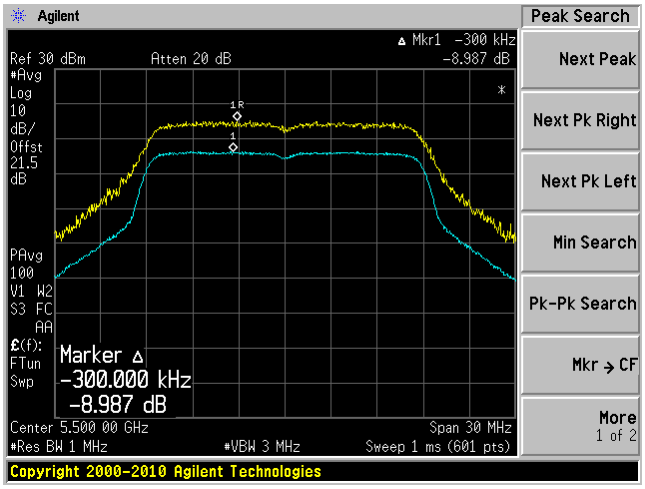


Cross Channel: Chain 2

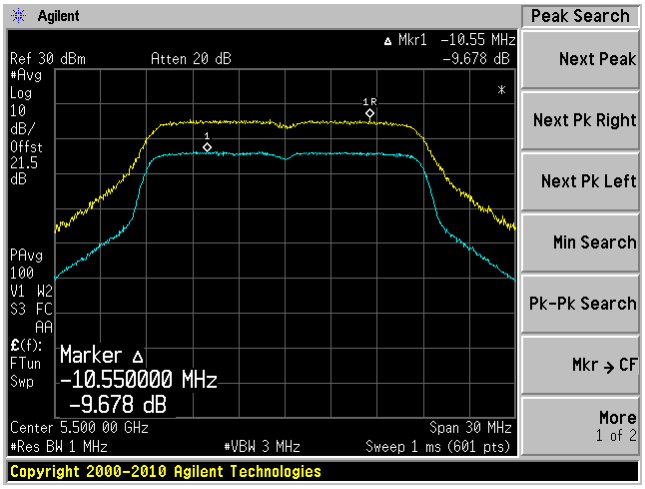


802.11n-HT20 mode

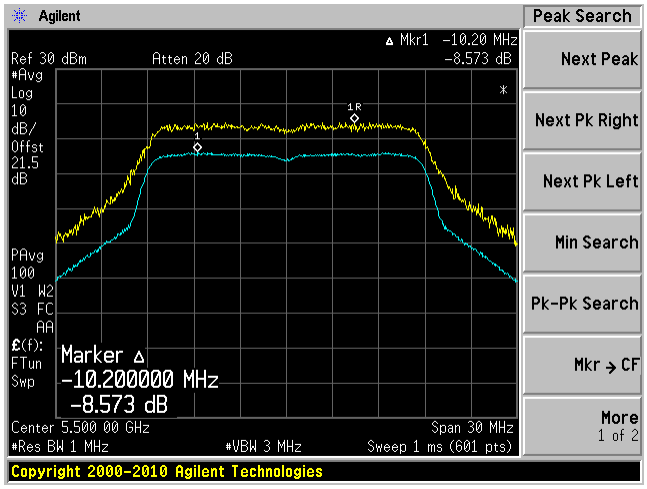
Low channel: Chain 0



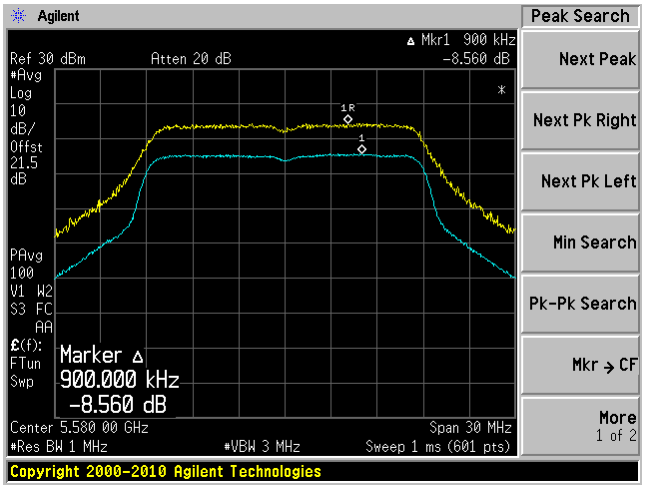
Low channel: Chain 1



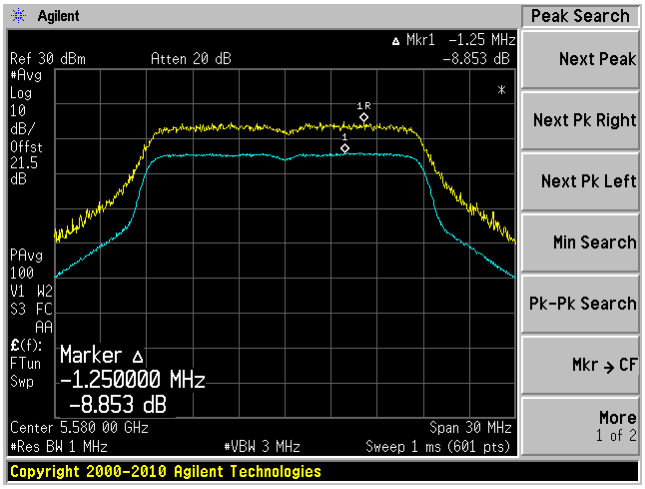
Low Channel: Chain 2



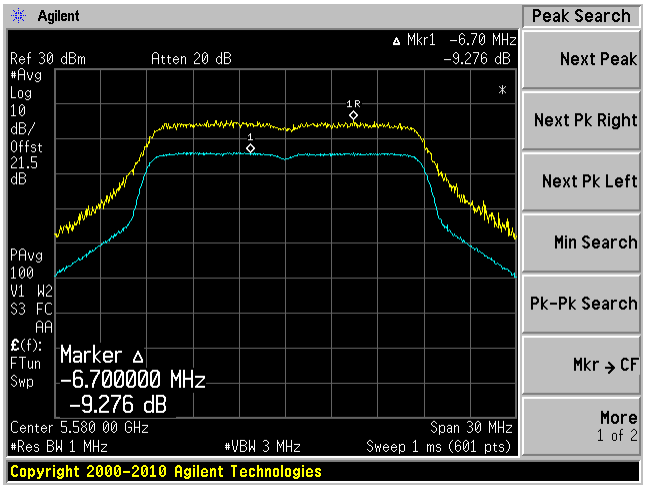
Middle channel: Chain 0



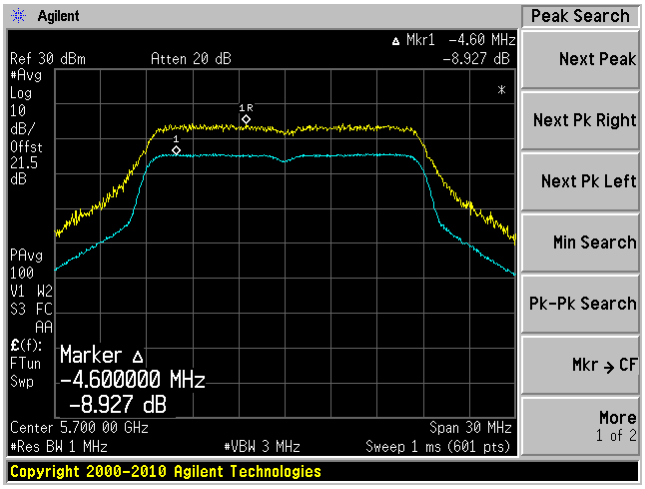
Middle channel: Chain 1



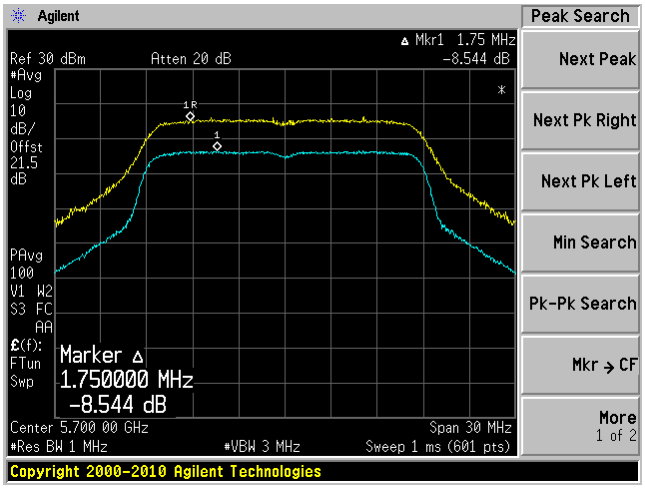
Middle Channel: Chain 2



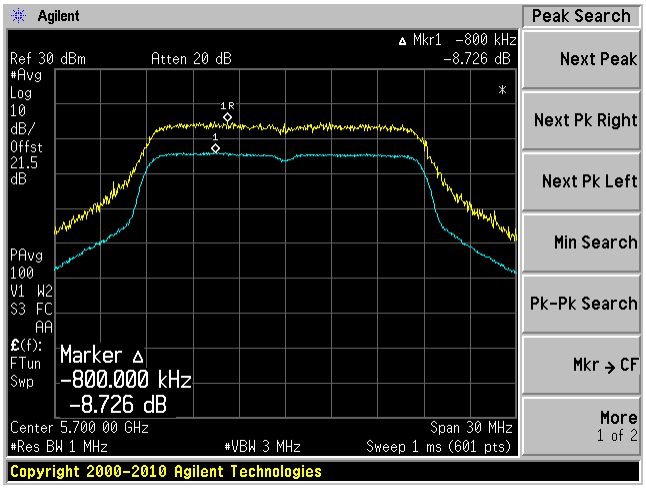
High channel: Chain 0



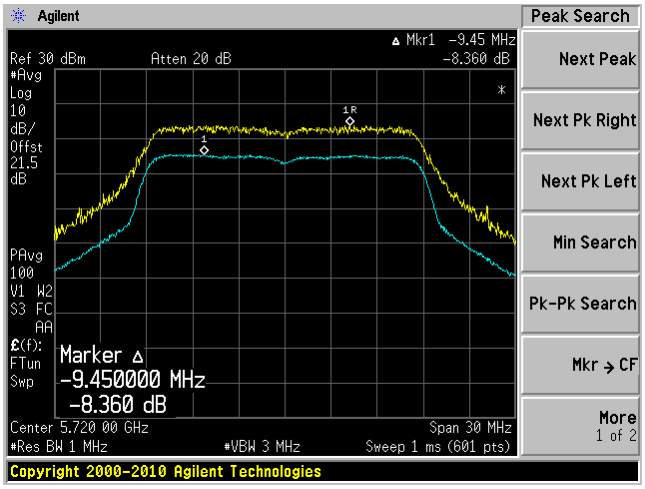
High channel: Chain 1



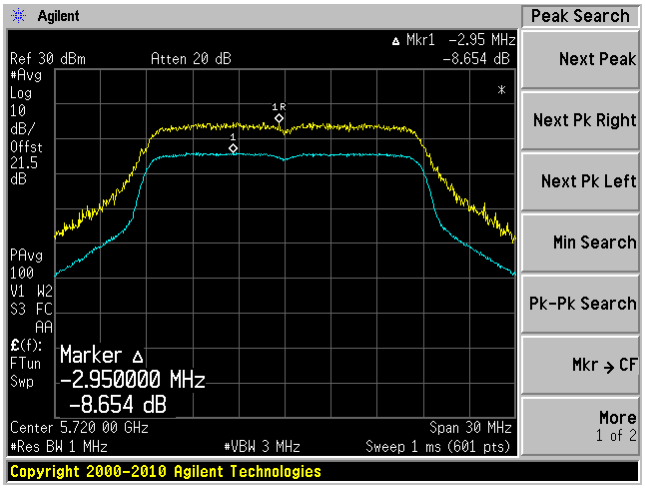
High Channel: Chain 2



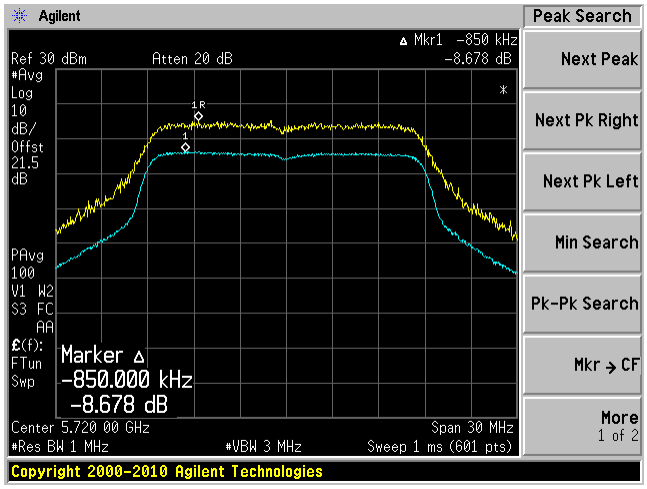
Cross channel: Chain 0



Cross channel: Chain 1

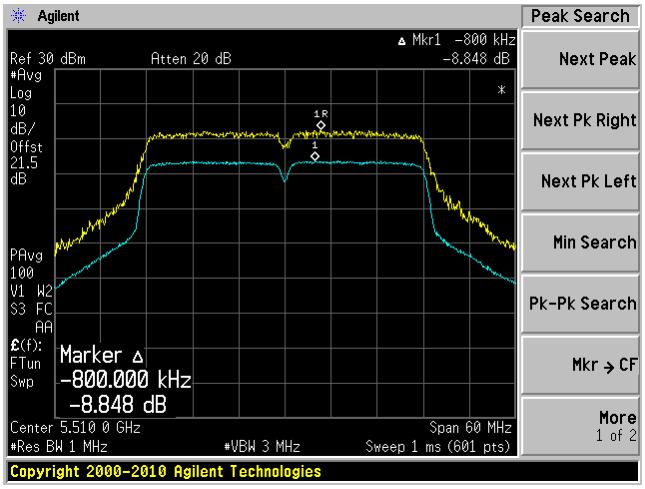


Cross Channel: Chain 2

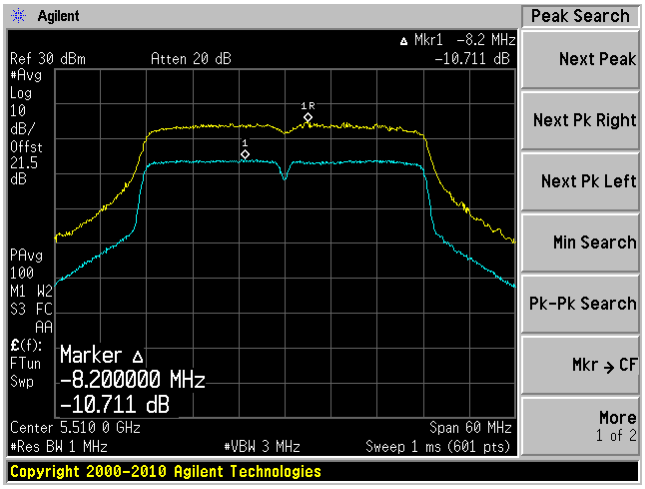


802.11n-HT40 mode

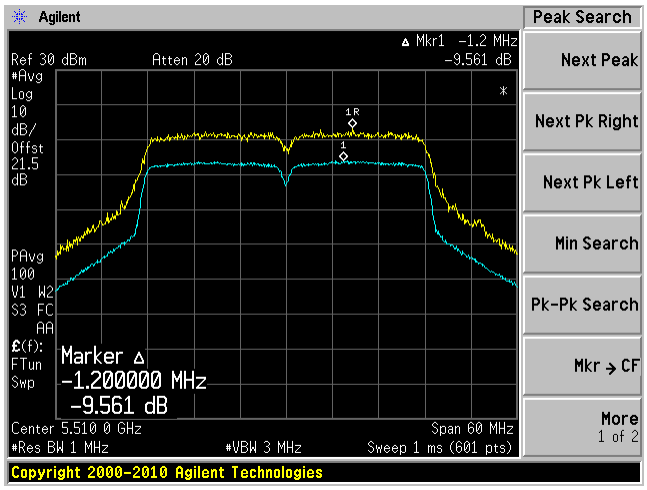
Low channel: Chain 0



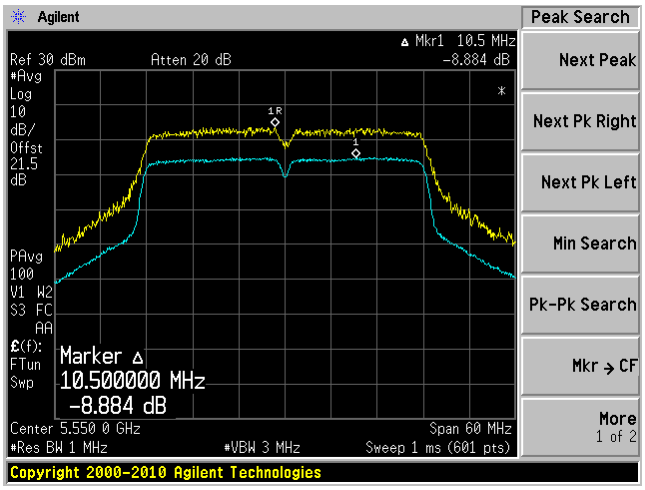
Low channel: Chain 1



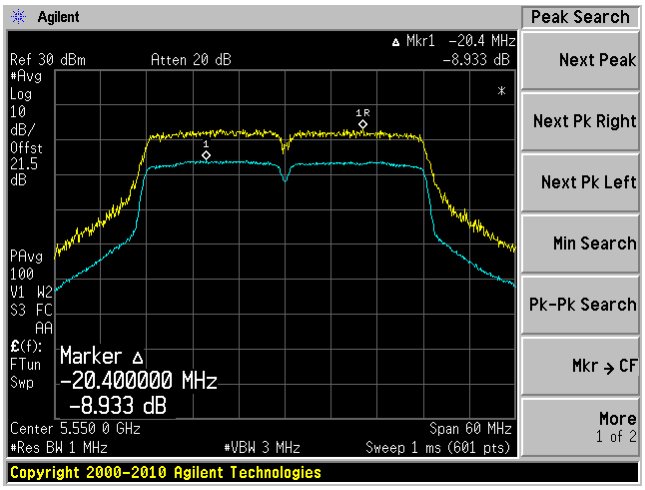
Low Channel: Chain 2



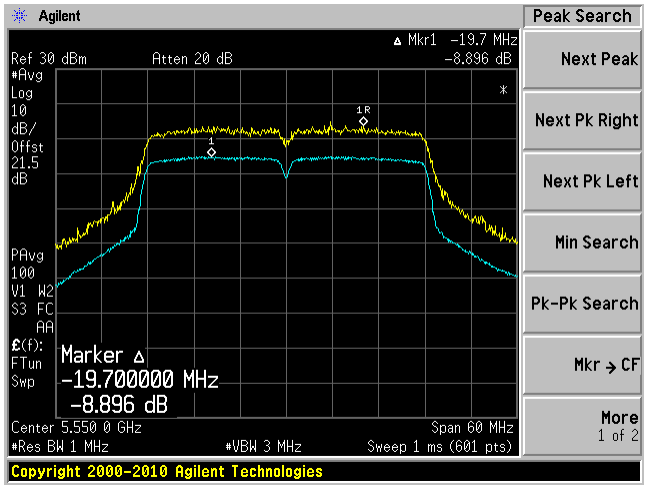
Middle channel: Chain 0



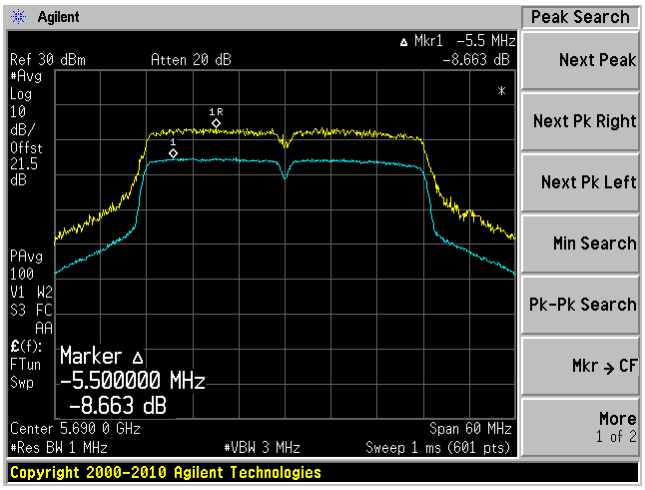
Middle channel: Chain 1



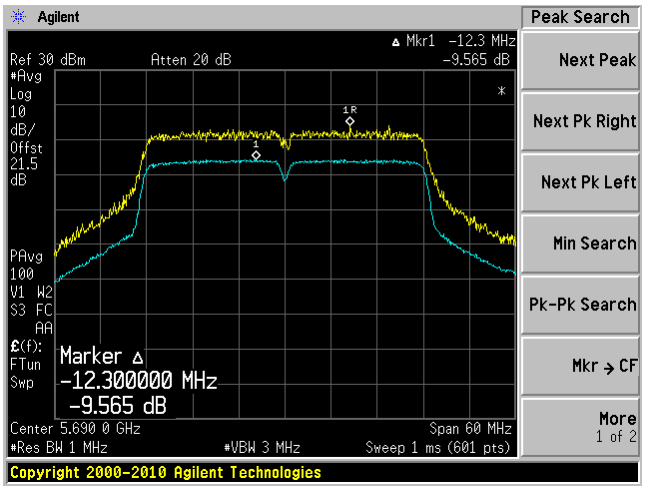
Middle Channel: Chain 2



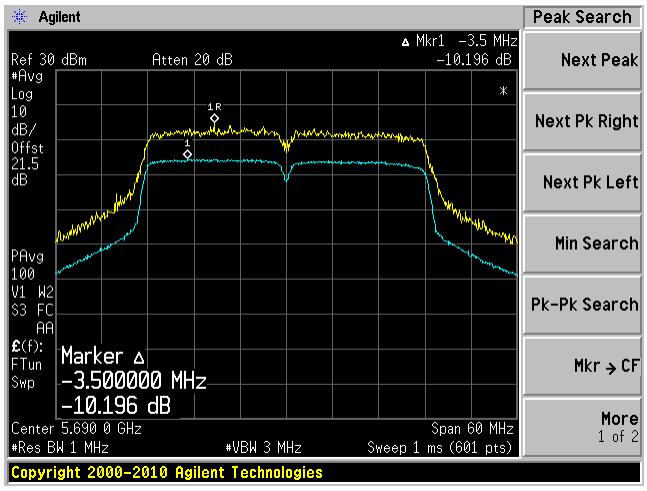
High channel: Chain 0



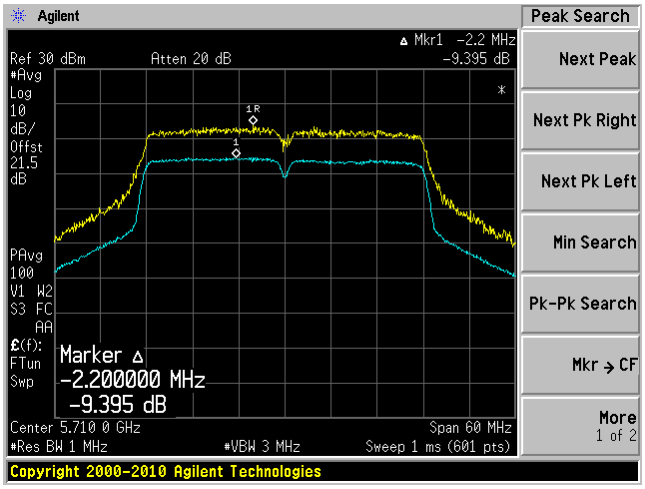
High channel: Chain 1



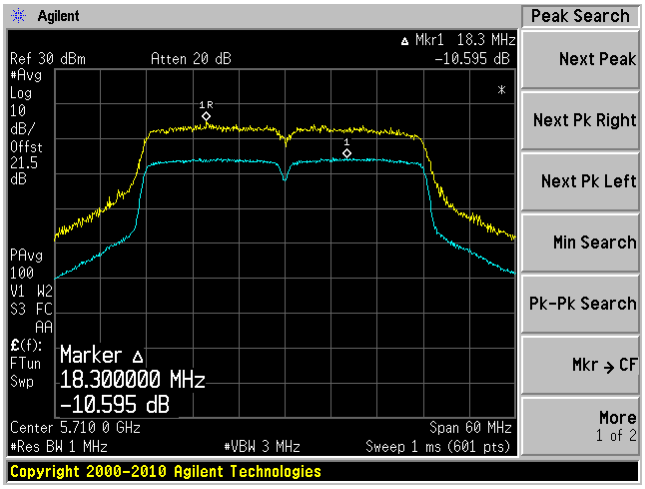
High Channel: Chain 2



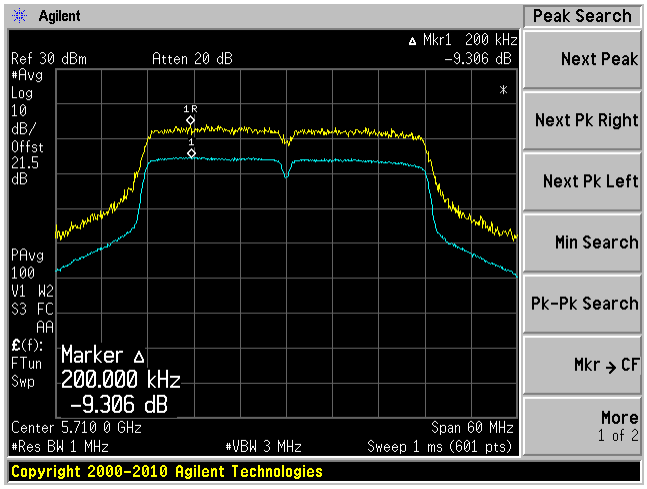
Cross channel: Chain 0



Cross channel: Chain 1

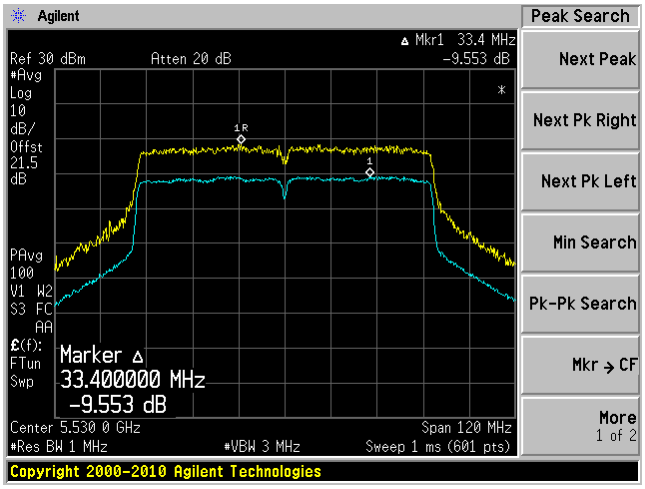


Cross Channel: Chain 2

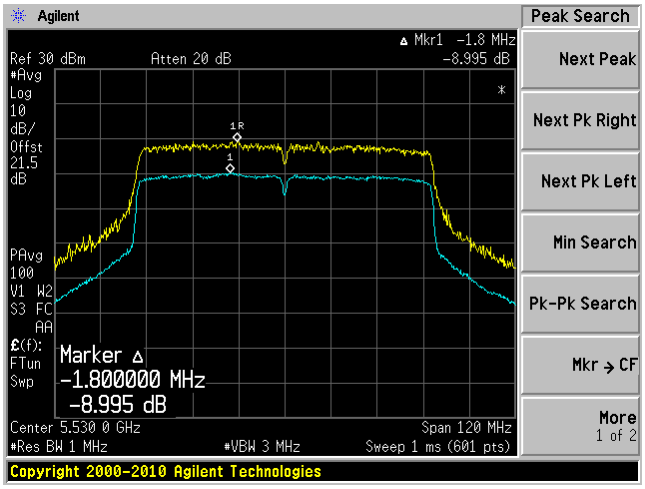


802.11ac 80 mode

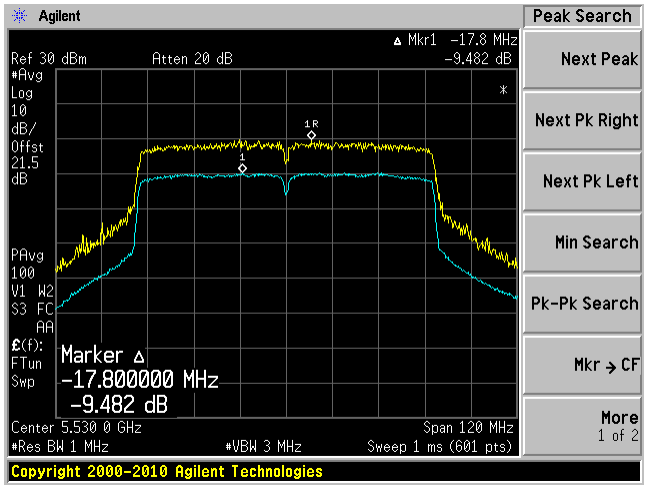
Low Channel Chain 0



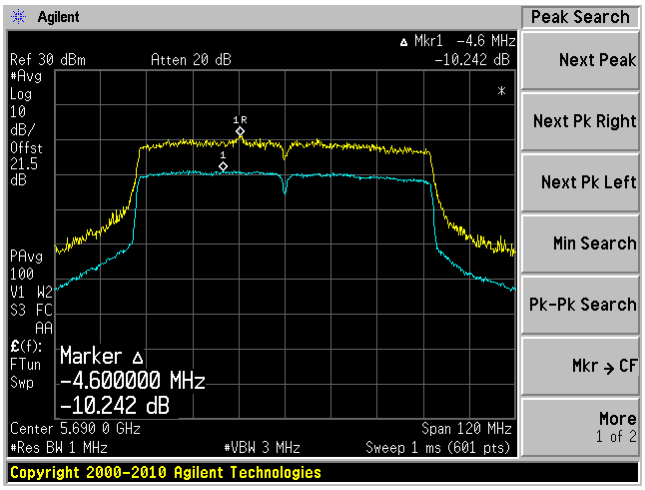
Low Channel Chain 1



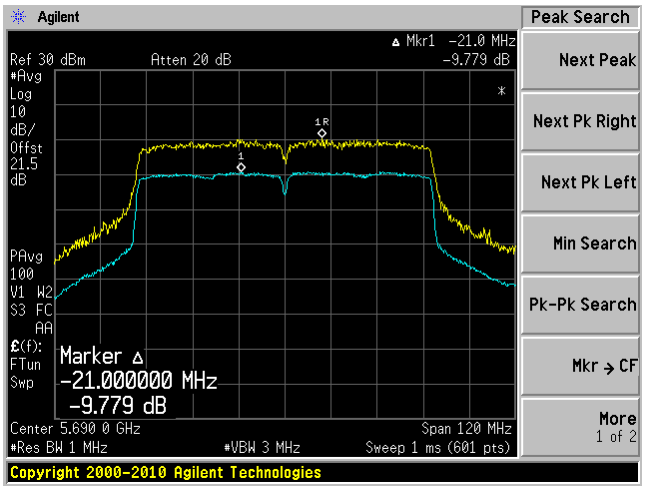
Low Channel Chain 2



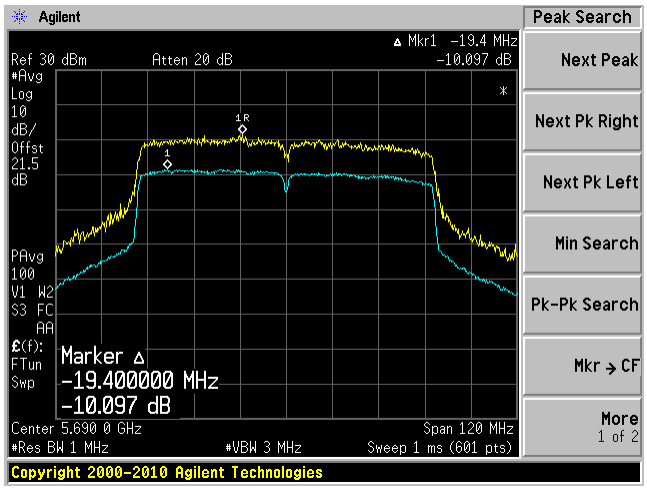
High Channel Chain 0



High Channel Chain 1



High Channel Chain 2



13 IC RSS-210 §2.3 & RSS-Gen §6.1 - Receiver Spurious Radiated Emissions

13.1 Applicable Standard

According to IC RSS-Gen §6.1, spurious emissions from receivers shall not exceed the radiated limits shown in the table below.

Table 2: General Field Strength Limits for Transmitters and Receivers at Frequencies above 30 MHz

Frequency (MHz)	Field Strength Microvolts/m at 3 meters
	Receivers
30-88	100
88-216	150
216-960	200
Above 960	500

13.2 EUT Setup

The radiated emissions tests were performed in the 3 meter chamber, using the setup in accordance with ANSI C63.4-2009.

13.3 Test Procedure

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations.

All data were recorded in the peak detection mode. Quasi-peak readings was performed only when an emissions was found to be marginal (within -4 dB of specification limits), and are distinguished with a "**QP**" in the data table.

13.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Antenna Factor (AF), the Cable Loss (CL), the Attenuator Factor (Atten) and subtracting the Amplifier Gain (Ga) to indicated Amplitude (Ai) reading. The basic equation is as follows:

CA = Ai + AF + CL + Atten – Ga

For example, a corrected amplitude of 40.3 dBuV/m = Indicated Reading (32.5 dBuV) + Antenna Factor (+23.5dB) + Cable Loss (3.7 dB) + Attenuator (10 dB) - Amplifier Gain (29.4 dB)

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude - Limit

13.5 Test Equipment Lists and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Sunol Science Corp	System Controller	SC99V	122303-1	N/R	N/R
Sunol Science Corp	Combination Antenna	JB3	A020106-2	2012-08-15	1 year
Hewlett Packard	Pre-amplifier	8447D	2944A06639	2012-06-09	1 year
HP	Pre-amplifier	8449B	3147A00400	2013-02-04	1 year
Agilent	Spectrum Analyzer	E4440A	MY44303352	2012-10-16	1 year
A.R.A	Horn Antenna	DRG-118/A	1132	2013-01-29	1 year
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100338	2012-09-19	1 year

Statement of Traceability: *BACL attests that all calibrations have been performed per the A2LA requirements, traceable to NIST.*

13.6 Test Environmental Conditions

Temperature:	22 °C
Relative Humidity:	41 %
ATM Pressure:	102.1 kPa

The testing was performed by Ning Ma from 2013-05-08 at 5 meter 3.

13.7 Summary of Test Results

According to the test data, the EUT complied with the with the IC RSS-210, with the closest margins from the limit listed below:

Mode: Receiving			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Range (MHz),**
-1.02	625.015	Horizontal	30-44000

13.8 Test Results and Plots

30 MHz-40 GHz, Measured at 3 meters

W53 Band:

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	37.08	155	V	145	46	-8.92
125.0015	41.88	102	V	61	43.5	-1.62
625.015	44.62	133	H	150	46	-1.38
249.999	41.26	115	H	133	46	-4.74

W56 Band:

Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)
874.9955	37.11	150	V	140	46	-8.89
125.0015	42.01	103	V	63	43.5	-1.49
625.015	44.98	129	H	148	46	-1.02
249.999	42.05	112	H	128	46	-3.95

14 FCC §15.407(b) & IC RSS-210 §A9.2 - Spurious Emissions at Antenna Terminals

14.1 Applicable Standard

According to FCC §15.407(b)

(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of −27 dBm/MHz.

According to RSS-210 §A9.2,
Emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.
Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

For FCC §15.247(d) and IC RSS-210 §A8.5
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

14.2 Measurement Procedure

4) Procedure for Unwanted Emissions Measurements Below 1000 MHz.
a) Follow the requirements in section G)3), “General Requirements for Unwanted Emissions Measurements”.
b) Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.
6) Procedures for Average Unwanted Emissions Measurements above 1000 MHz.
a) Follow the requirements in section G)3), “General Requirements for Unwanted Emissions Measurements”.
b) Average emission levels shall be measured using one of the following two methods.
c) Method AD (Average Detection): Primary method
(i) RBW = 1 MHz.
(ii) VBW ≥ 3 MHz.
(iii) Detector = RMS, if span/(# of points in sweep) ≤ RBW/2. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, the detector mode shall be set to peak.
(iv) Averaging type = power (i.e., RMS)
• As an alternative, the detector and averaging type may be set for linear voltage averaging. Some analyzers require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
(v) Sweep time = auto.
(vi) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle. For example, with 50 percent duty cycle, at least 200 traces should be averaged.
(vii) If tests are performed with the EUT transmitting at a duty cycle less than 98 percent, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

• If power averaging (RMS) mode was used in step (iv) above, the correction factor is10 log(1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50 percent, then 3 dB must be added to the measured emission levels.
• If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log(1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50 percent, then 6 dB must be added to the measured emission levels.

The measurements are base on FCC KDB 558074 D01 DTS Meas Guidance v03r01: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 11: Emissions in non-restricted frequency bands and section 12: Emissions in restricted frequency bands.

14.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Spectrum Analyzer	E4446A	US42221851	2013-03-05	1 year

Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

14.4 Test Environmental Conditions

Temperature:	24 °C
Relative Humidity:	40 %
ATM Pressure:	101.8 kPa

The testing was performed by Ning Ma on 2013-10-04 in RF site.

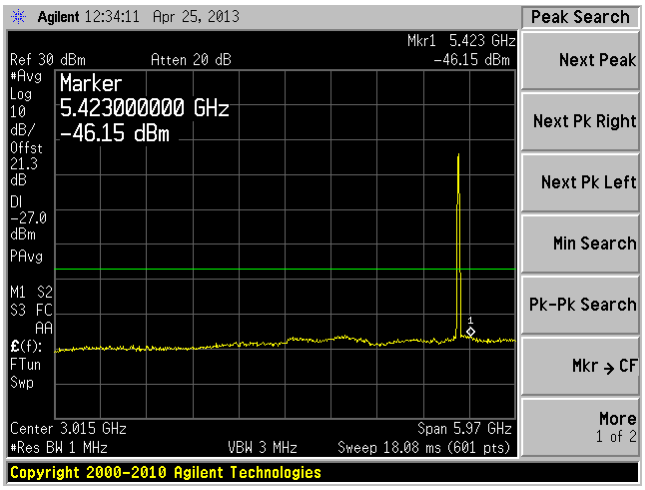
14.5 Test Results

Please refer to following plots of spurious emissions.

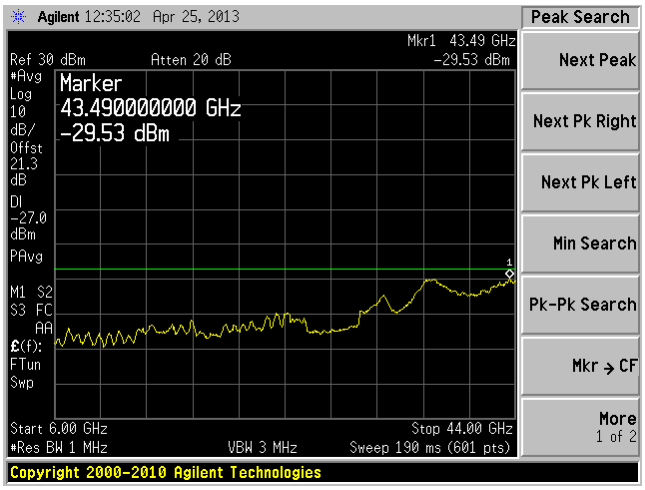
W53 Band

802.11a, Low Channel,

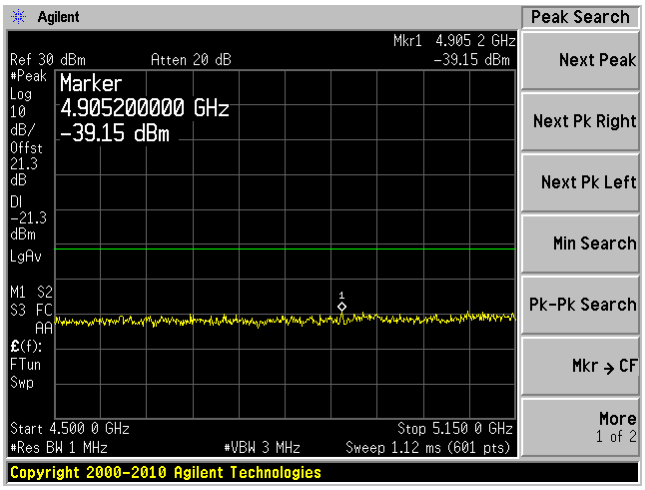
Chain 0, Plot: 30 MHz – 6 GHz



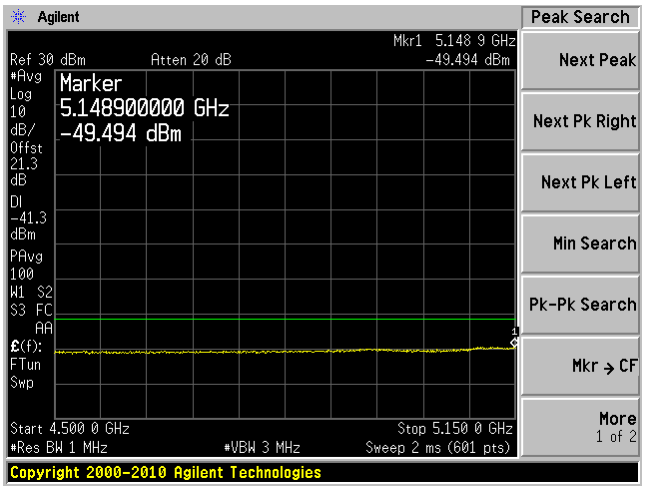
Chain 0, Plot: 6 GHz – 44 GHz



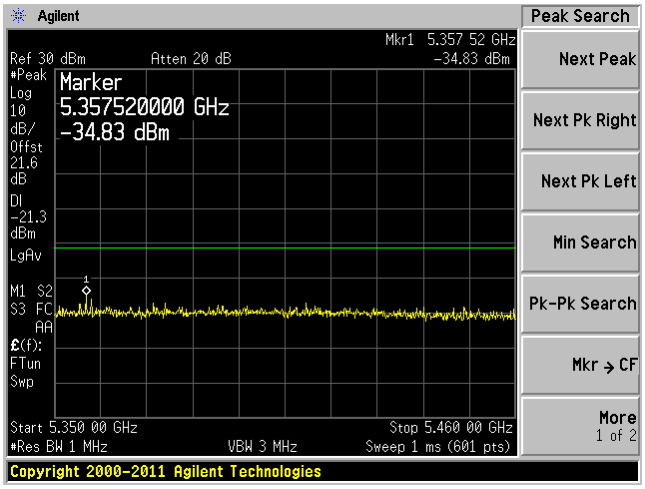
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



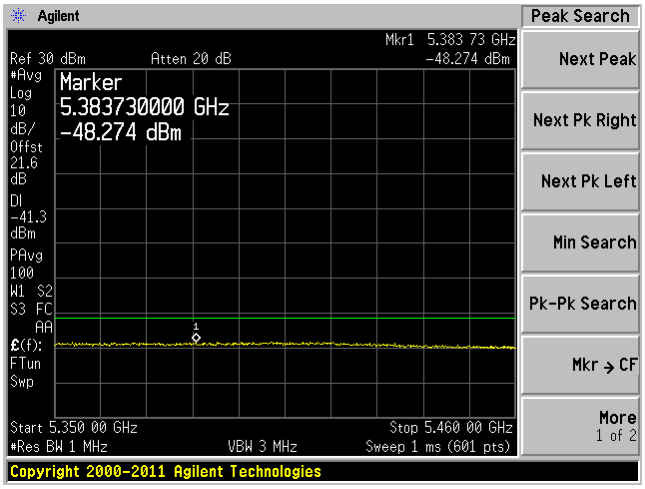
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



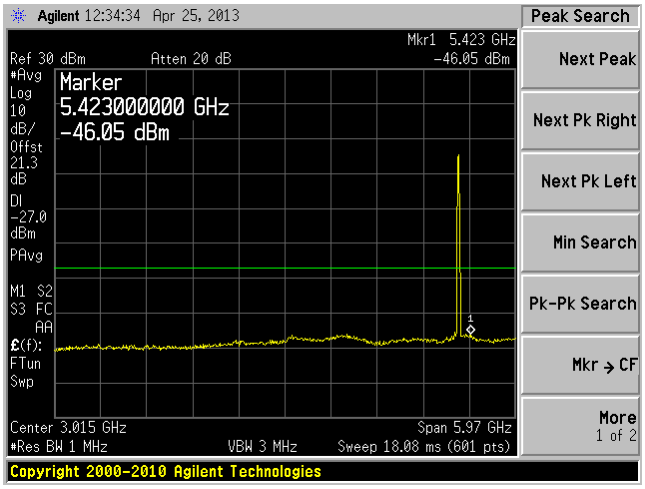
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



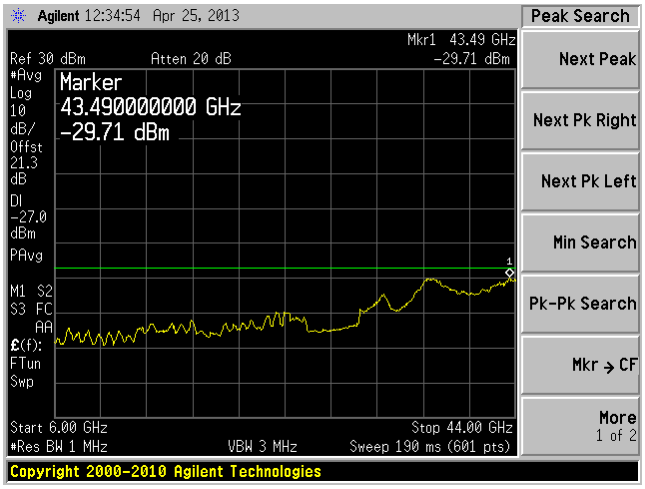
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



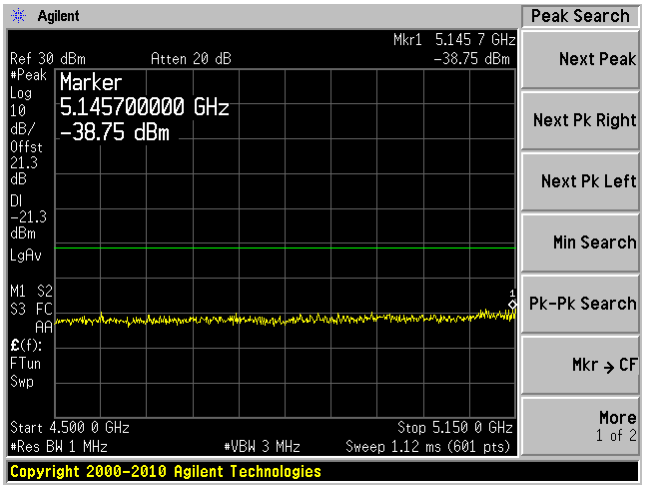
Chain 1, Plot: 30 MHz – 6 GHz



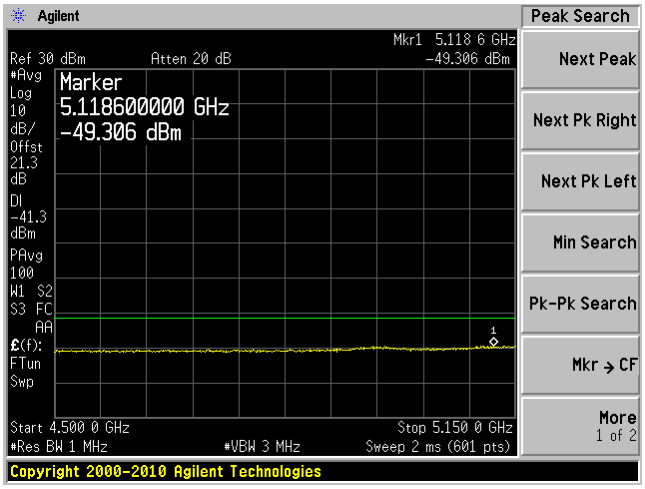
Chain 1, Plot: 6 GHz – 44 GHz



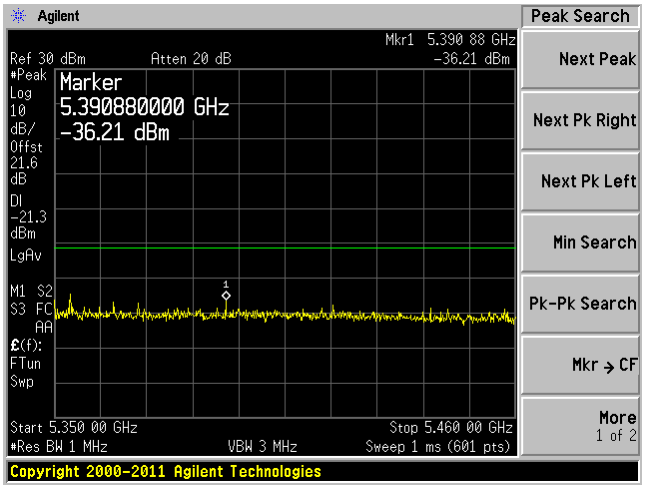
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



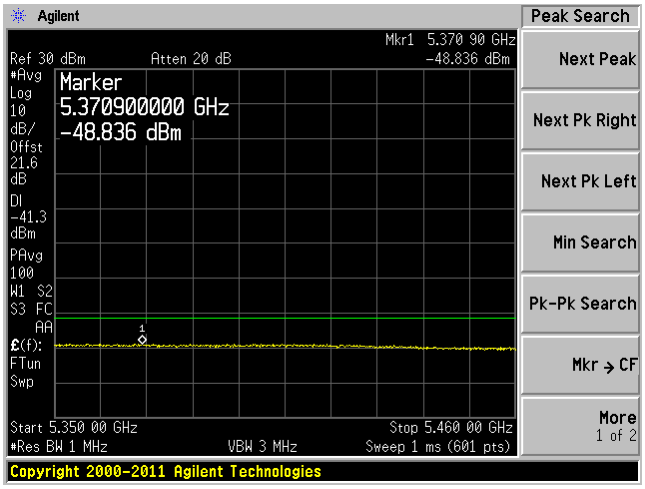
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



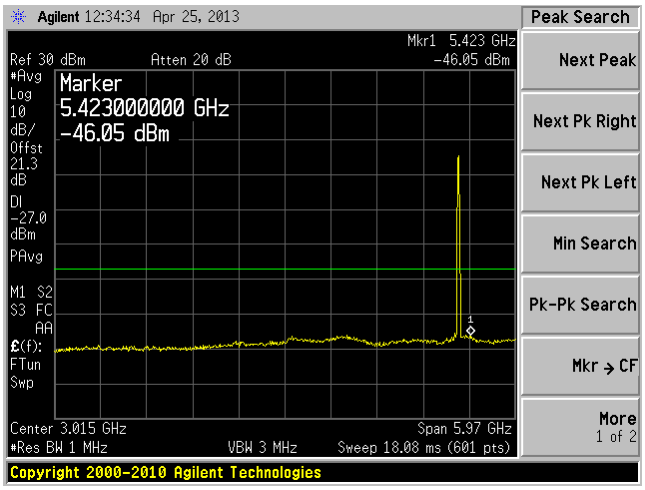
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



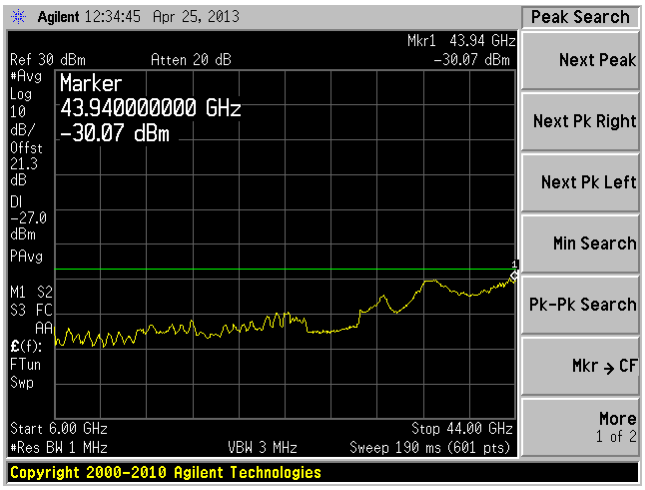
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



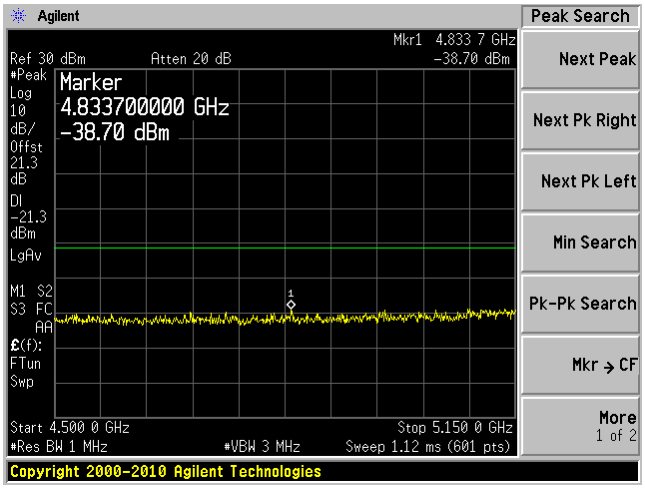
Chain 2, Plot: 30 MHz – 6 GHz



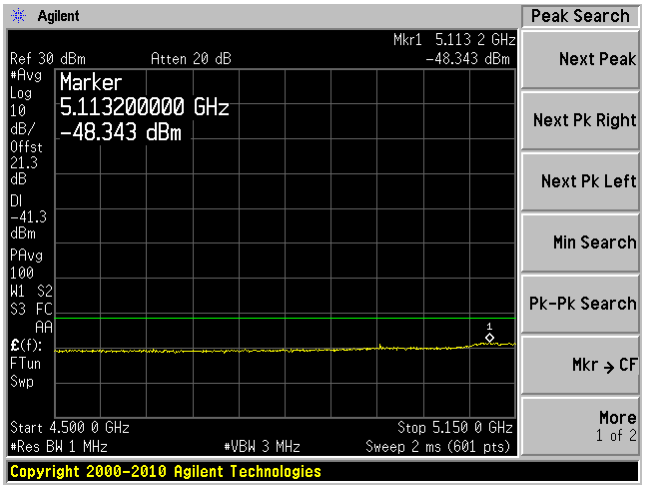
Chain 2, Plot: 6 GHz – 44 GHz



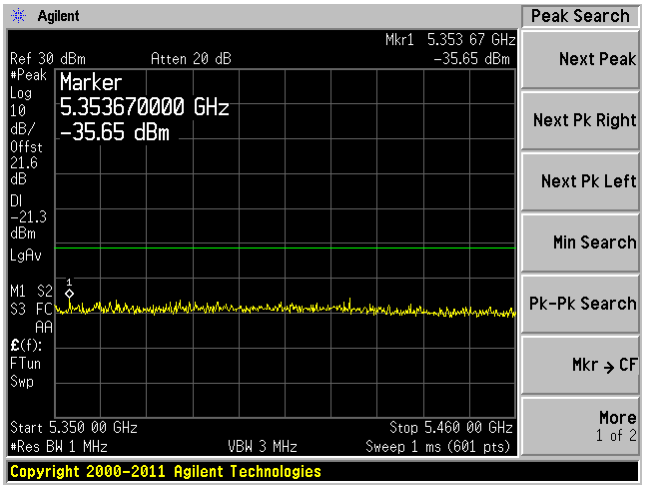
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



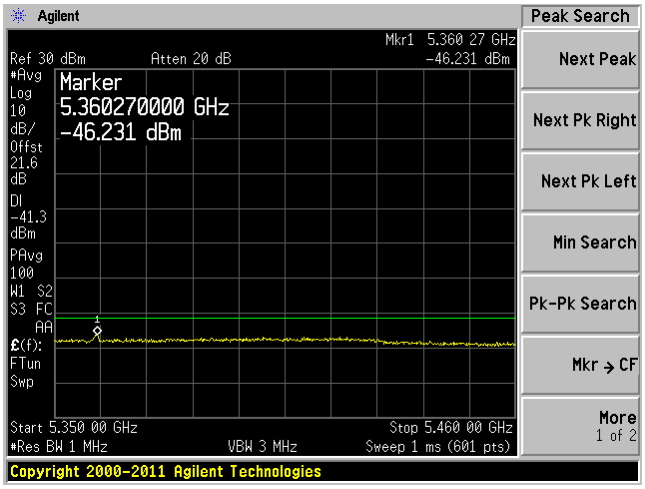
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

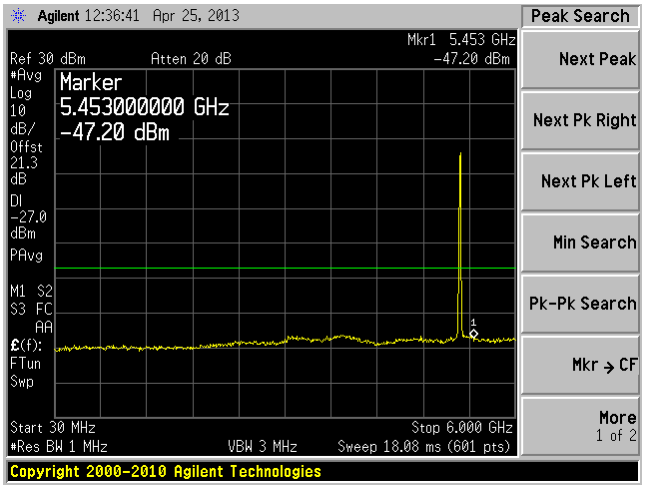


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

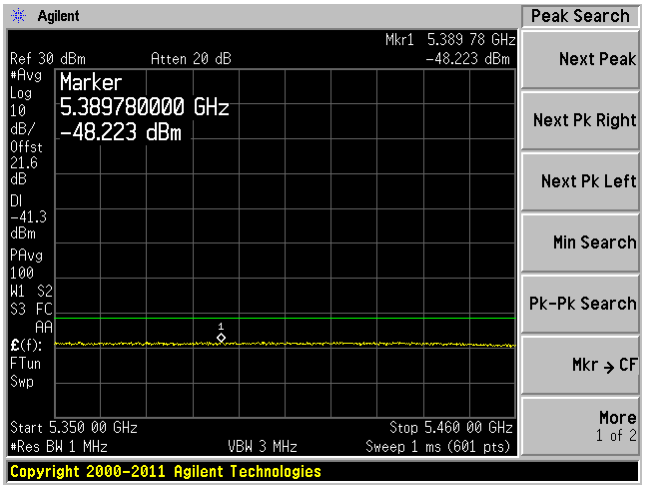


802.11a, Middle Channel,

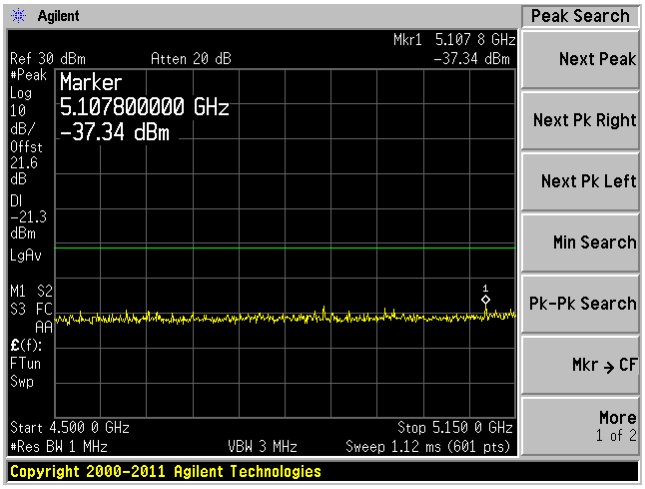
Chain 0, Plot: 30 MHz – 6 GHz



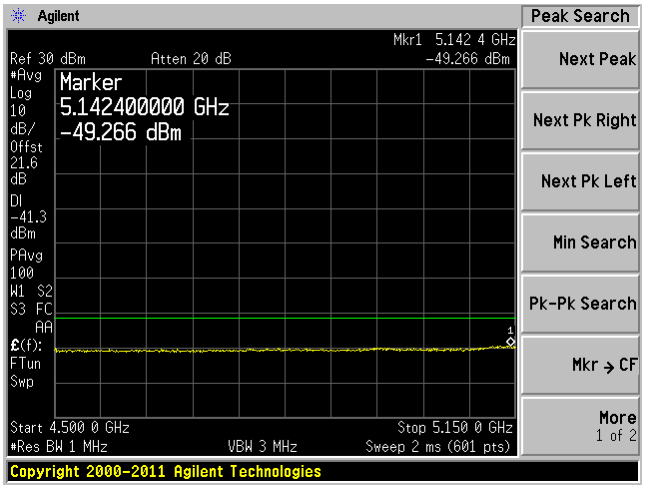
Chain 0, Plot: 6 GHz – 44 GHz



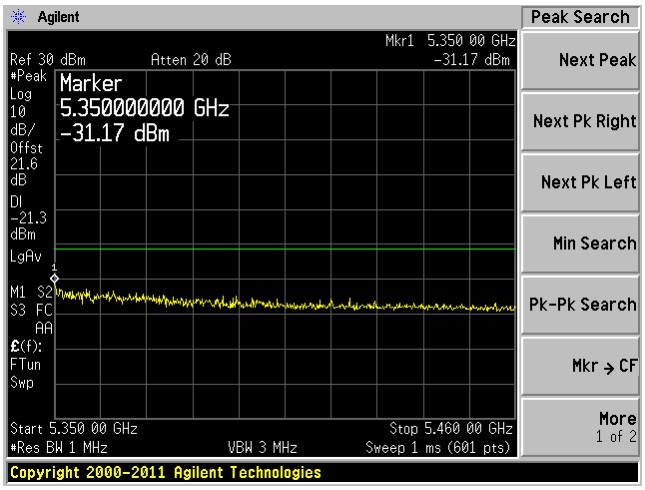
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



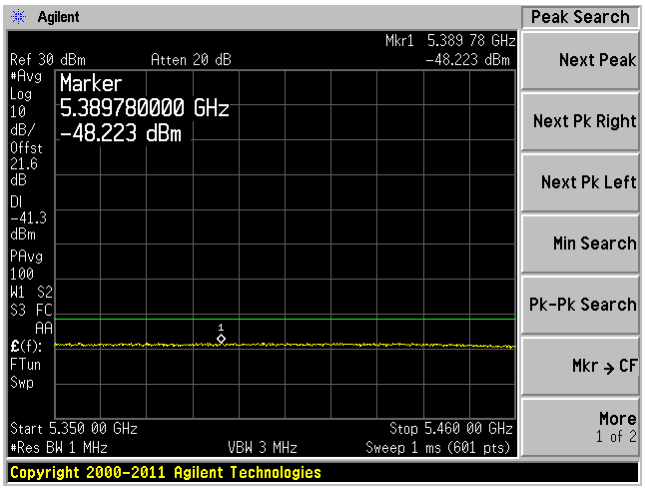
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



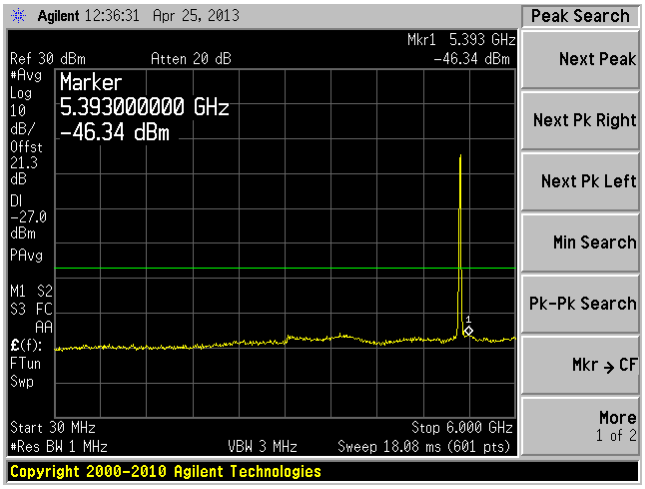
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



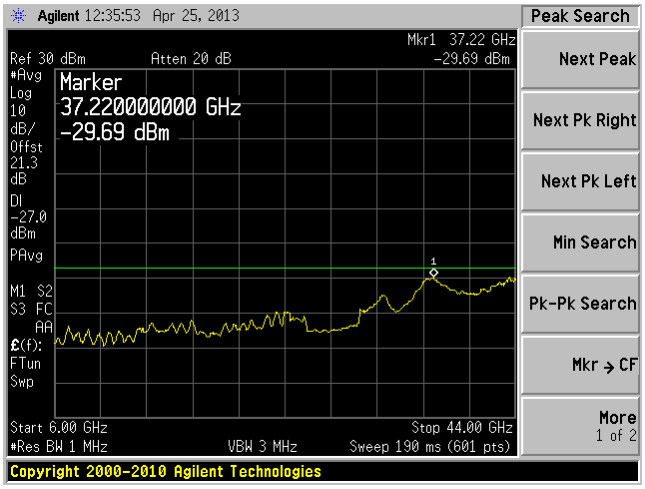
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



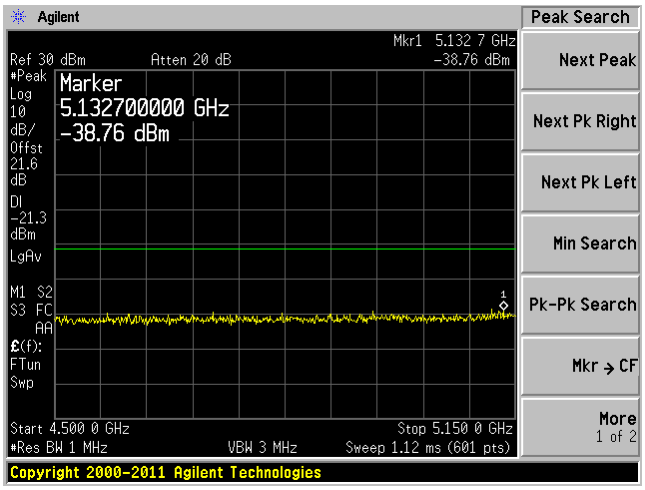
Chain 1, Plot: 30 MHz – 6 GHz



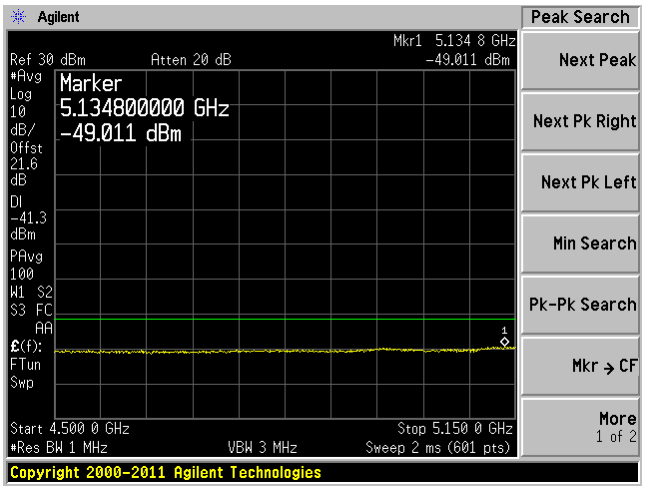
Chain 1, Plot: 6 GHz – 44 GHz



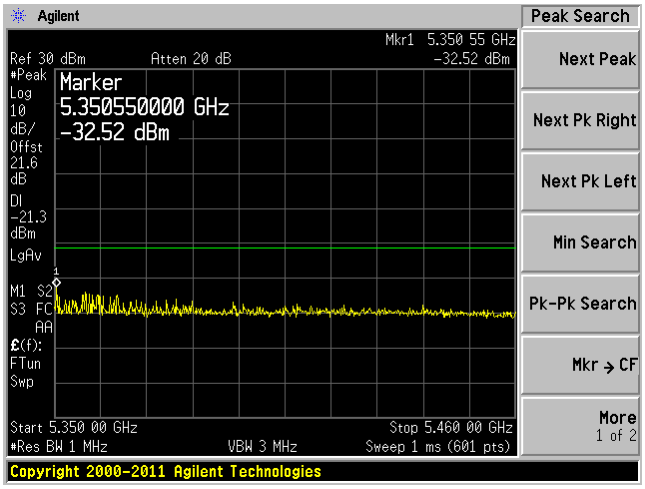
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



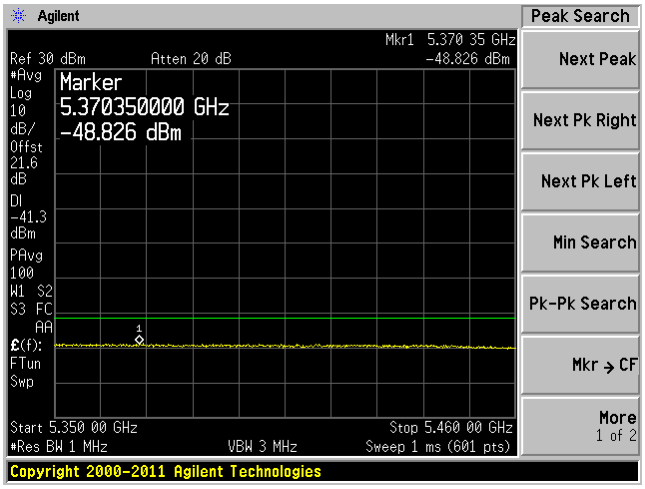
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



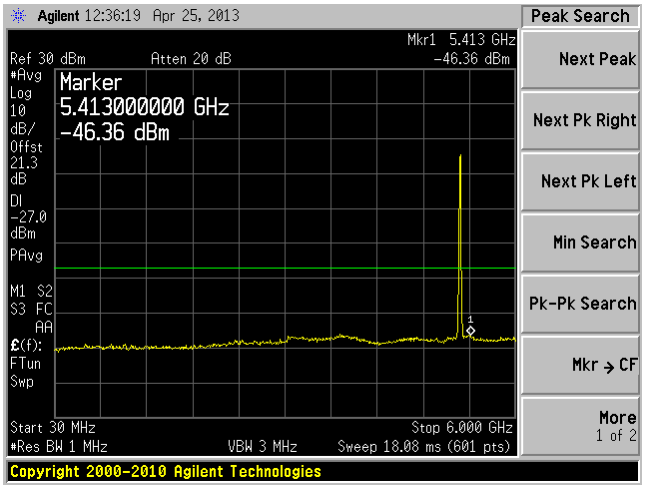
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak



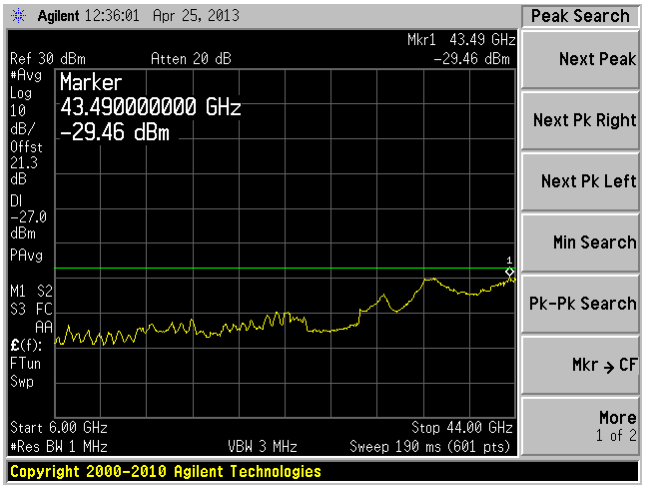
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave



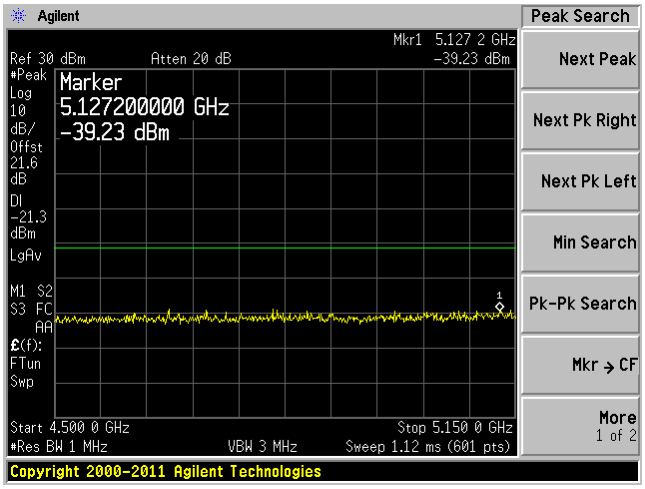
Chain 2, Plot: 30 MHz – 6 GHz



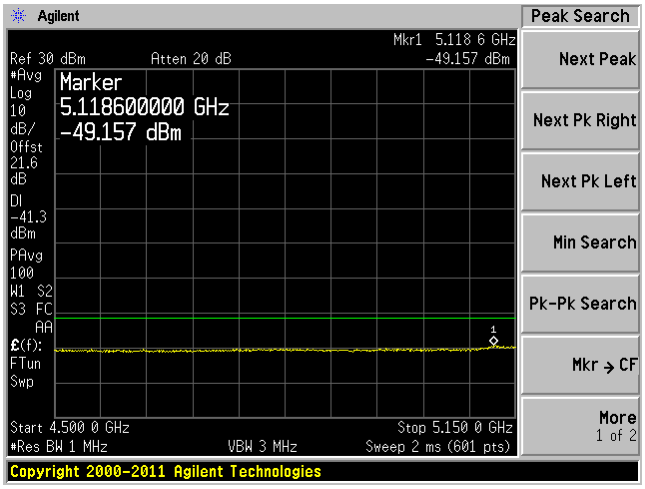
Chain 2, Plot: 6 GHz – 44 GHz



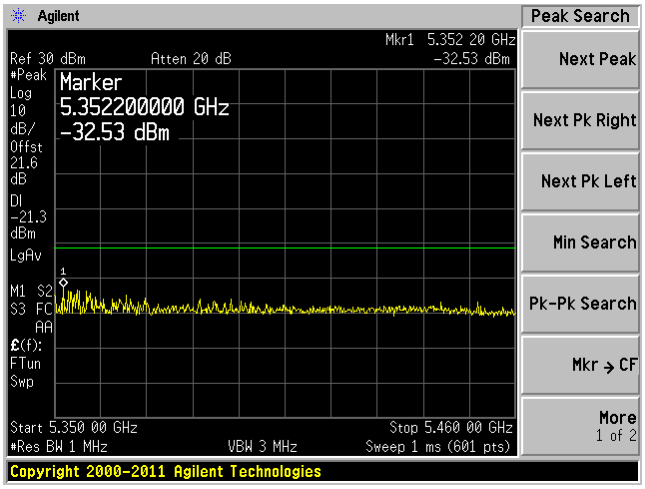
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band)
Peak



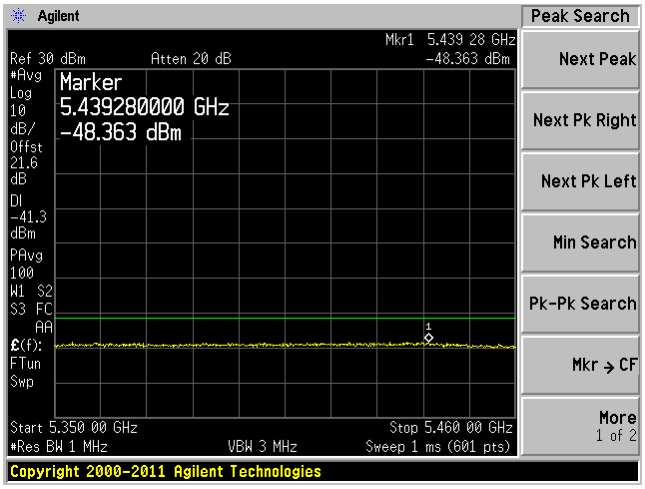
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band)
Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak

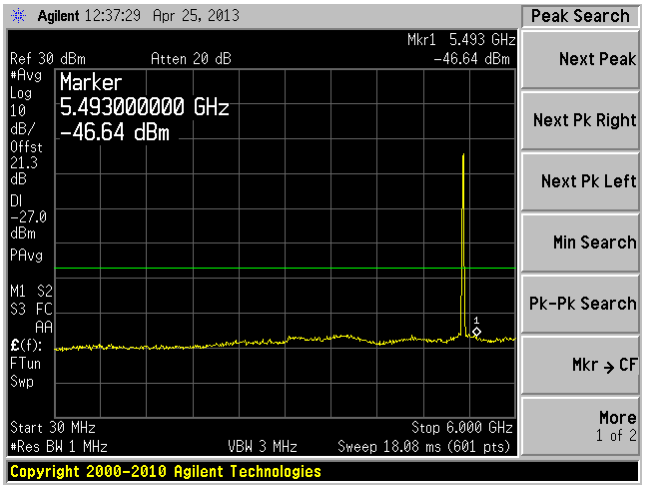


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave

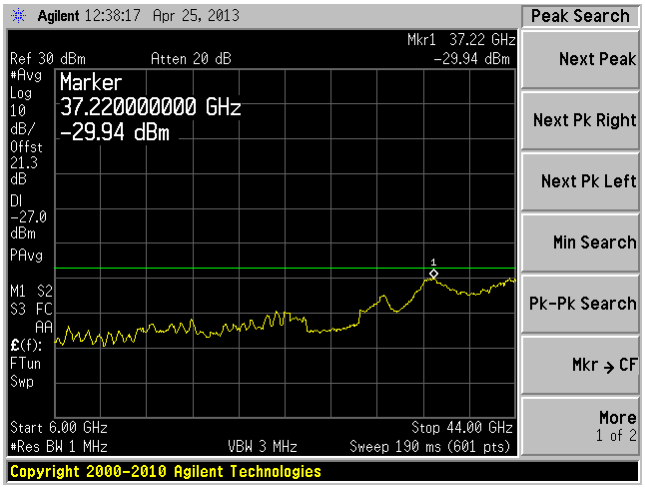


802.11a, High Channel,

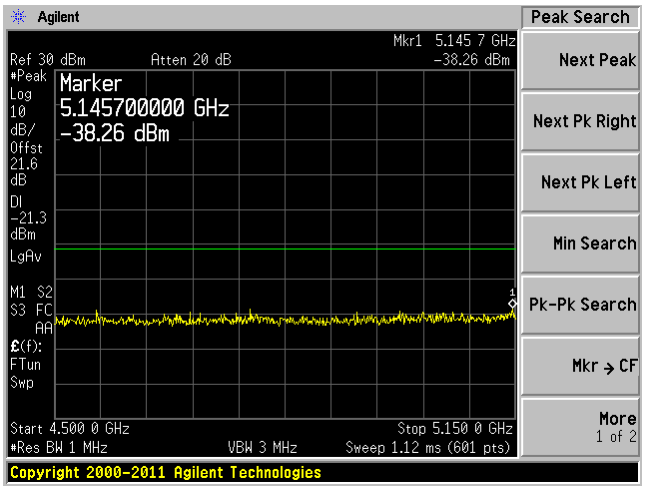
Chain 0, Plot: 30 MHz – 6 GHz



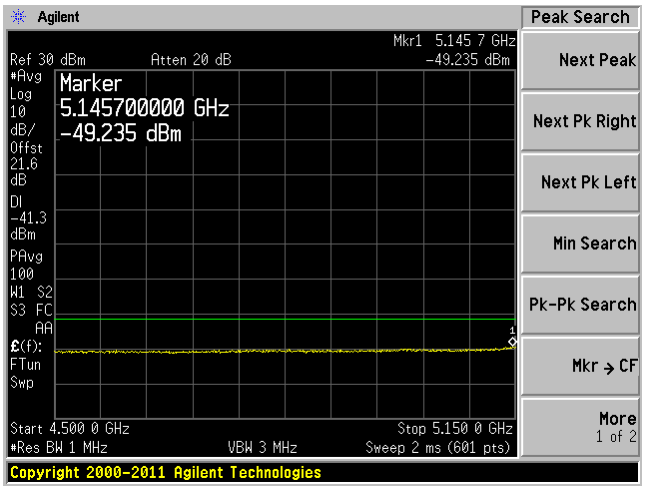
Chain 0, Plot: 6 GHz – 44 GHz



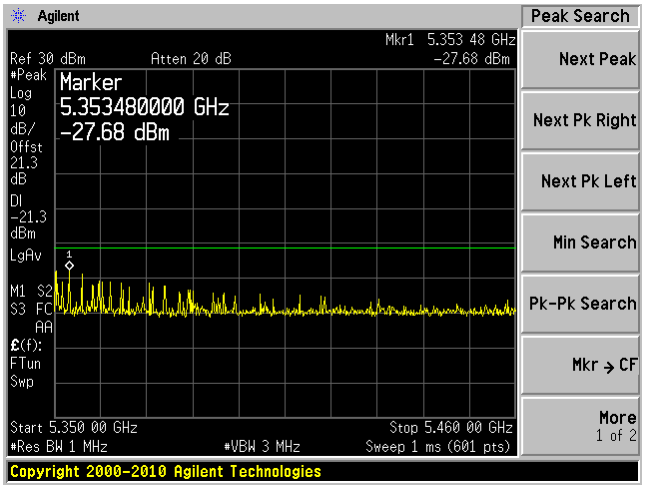
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



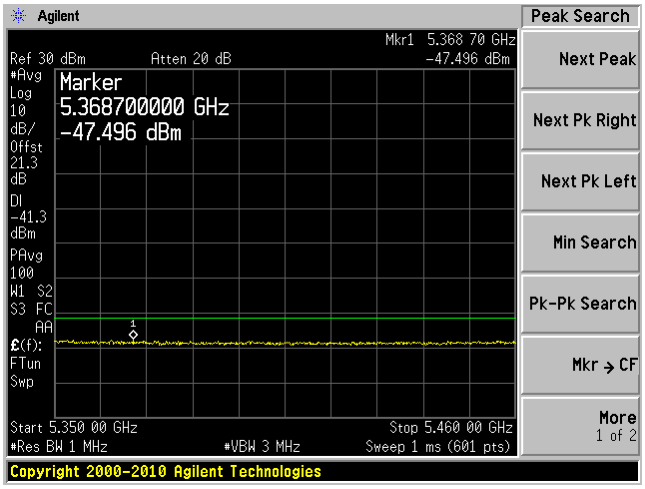
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



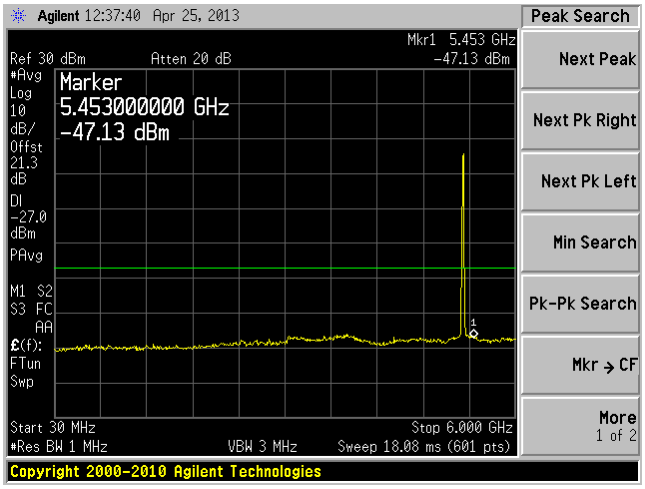
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



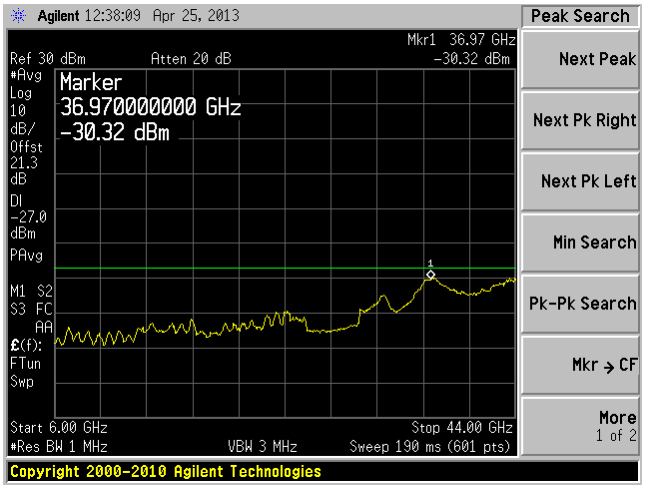
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



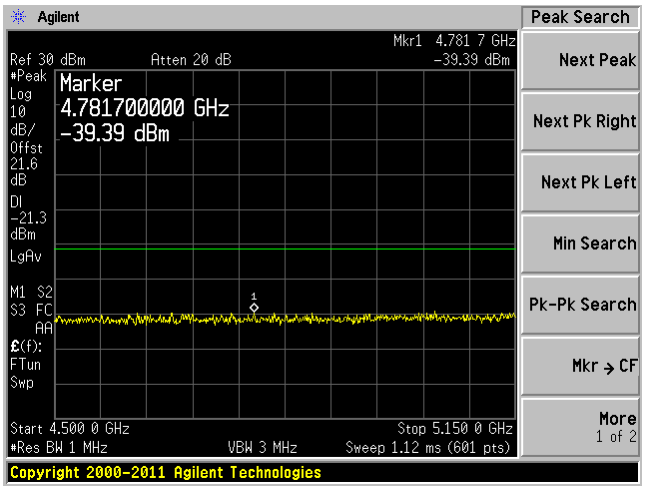
Chain 1, Plot: 30 MHz – 6 GHz



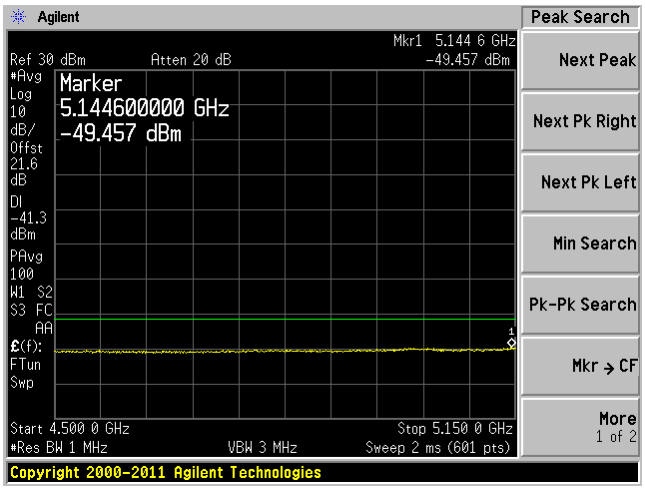
Chain 1, Plot: 6 GHz – 44 GHz



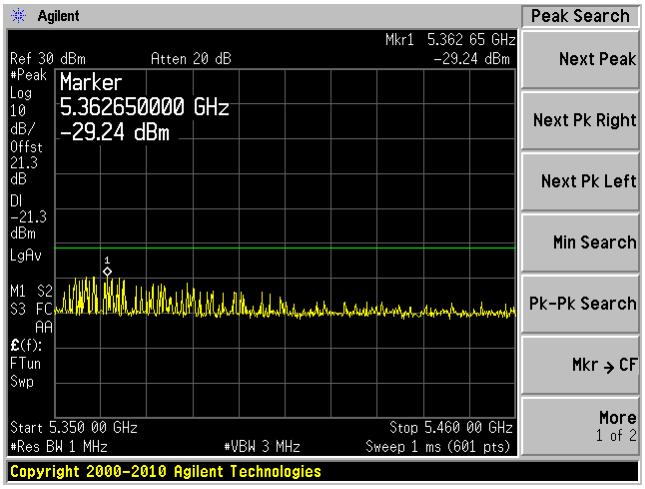
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



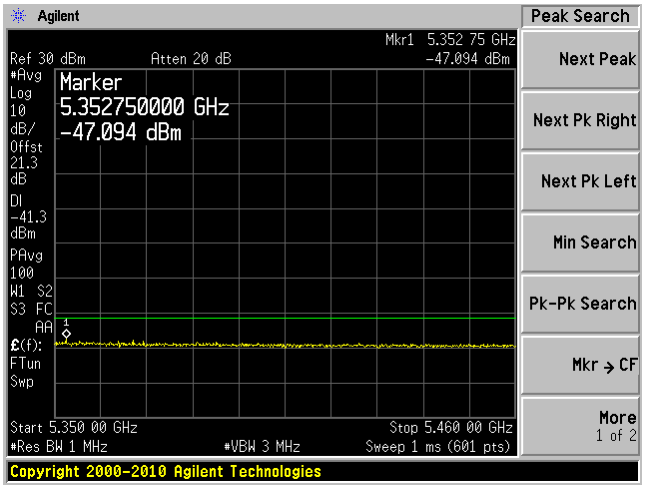
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



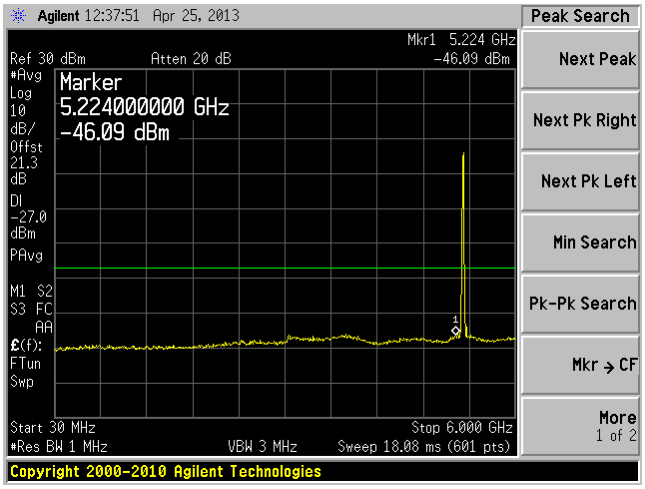
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



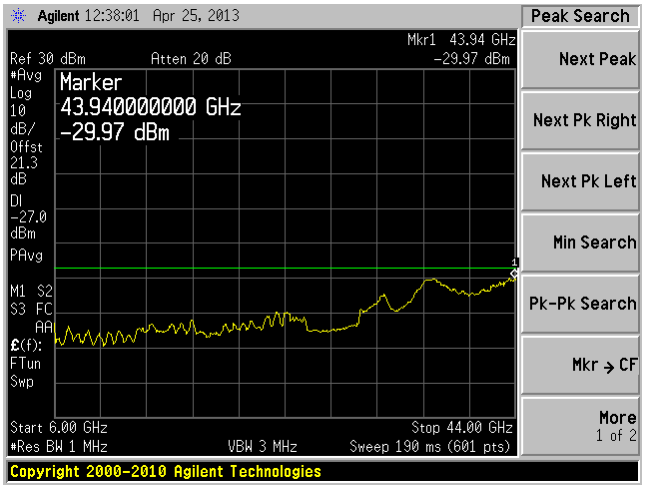
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



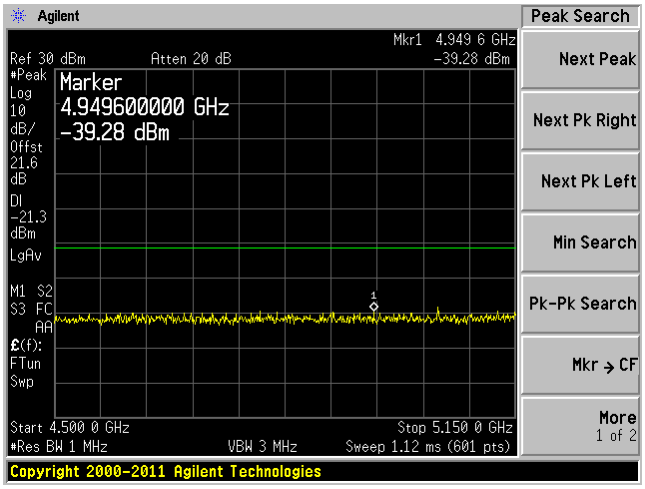
Chain 2, Plot: 30 MHz – 6 GHz



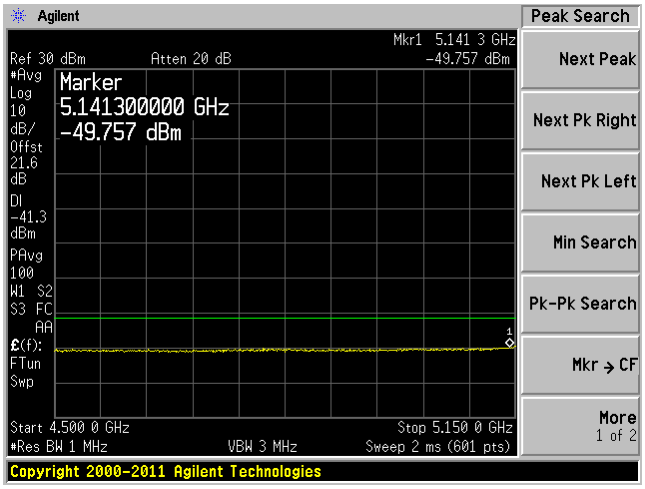
Chain 2, Plot: 6 GHz – 44 GHz



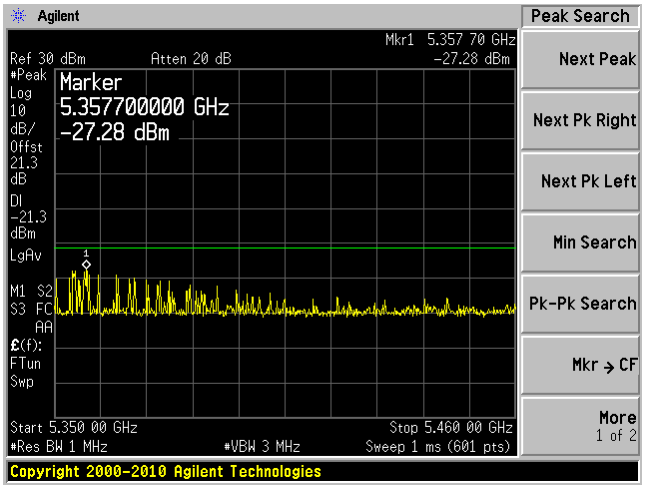
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



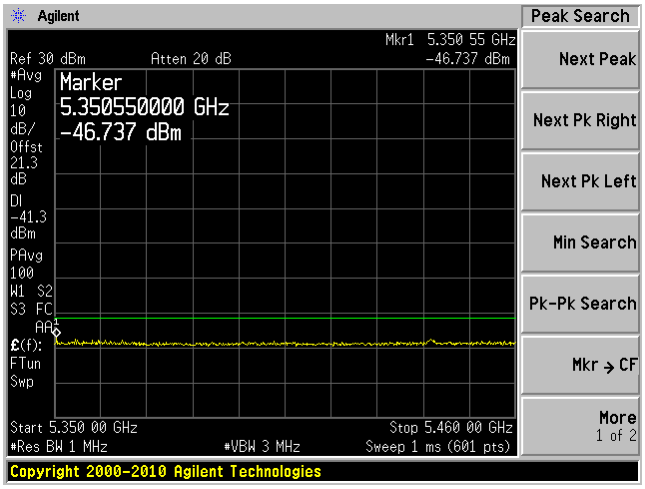
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

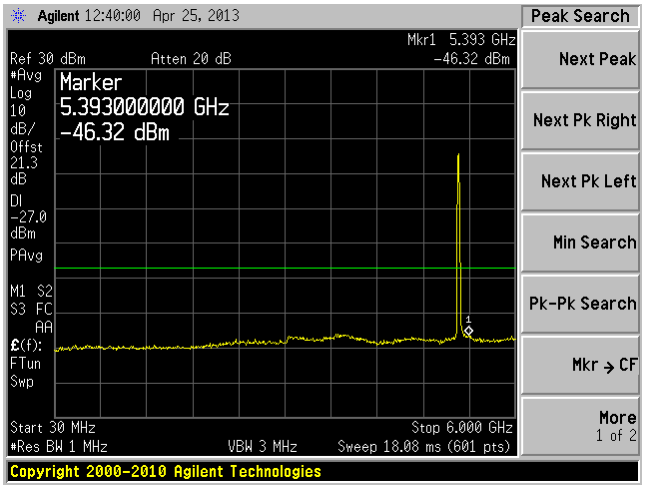


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

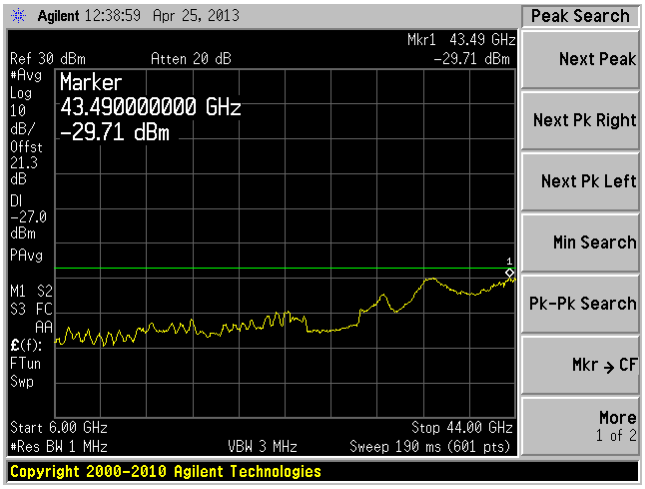


802.11 n 20, Low Channel

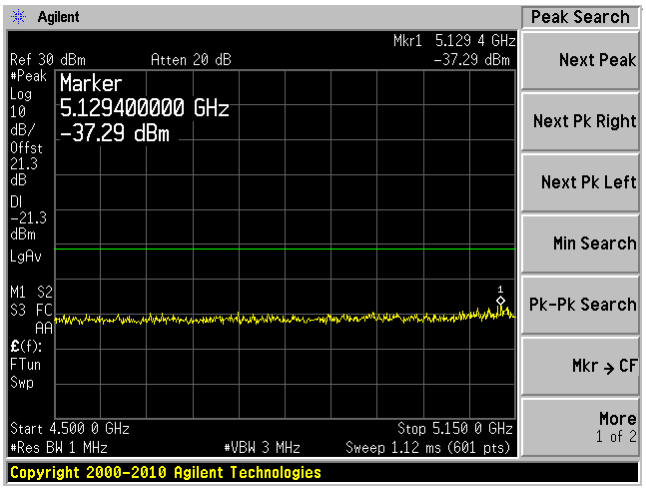
Chain 0, Plot: 30 MHz – 6 GHz



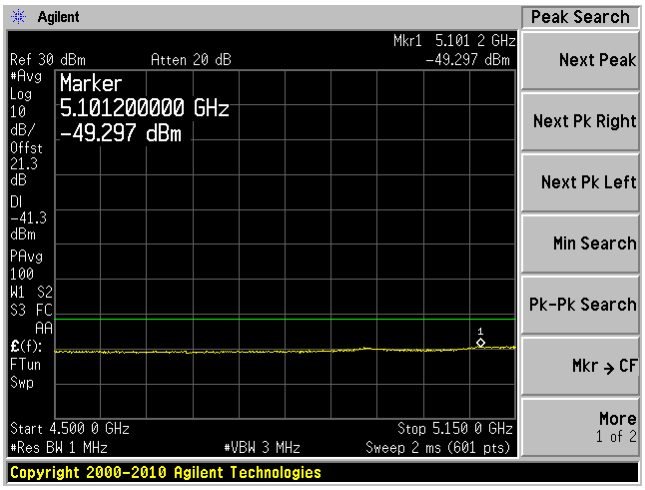
Chain 0, Plot: 6 GHz – 44 GHz



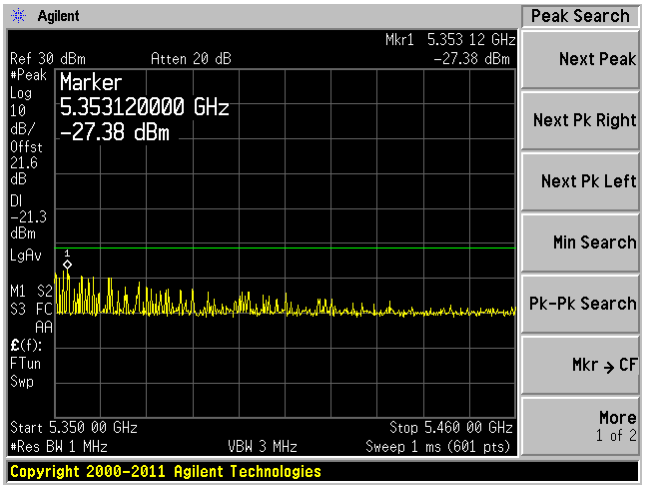
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



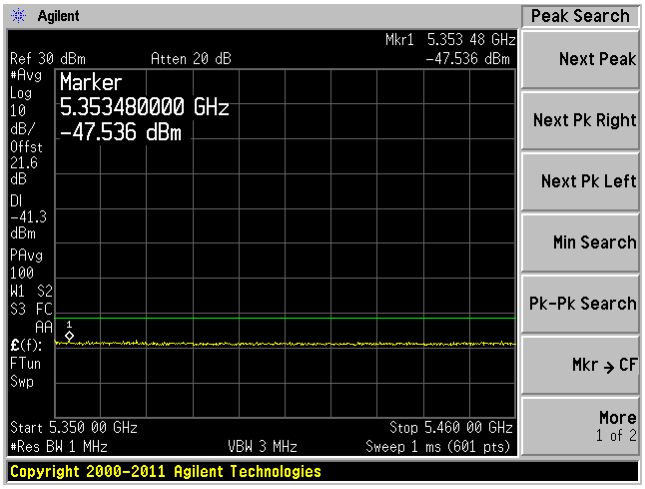
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



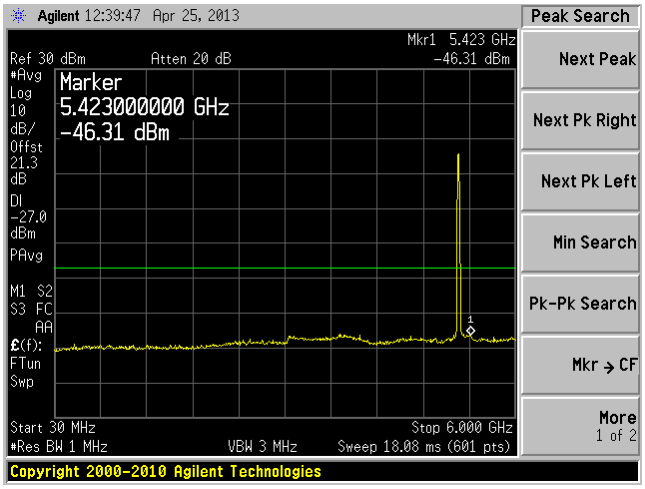
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



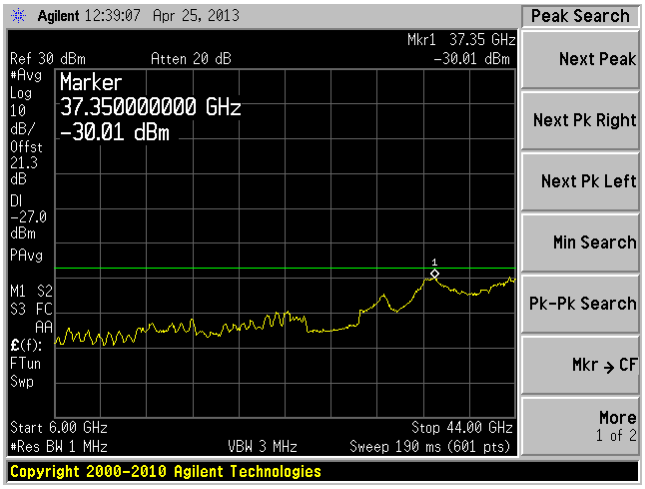
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



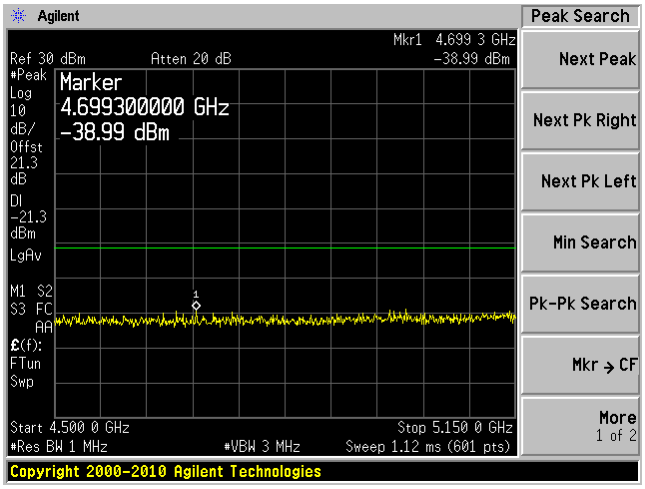
Chain 1, Plot: 30 MHz – 6 GHz



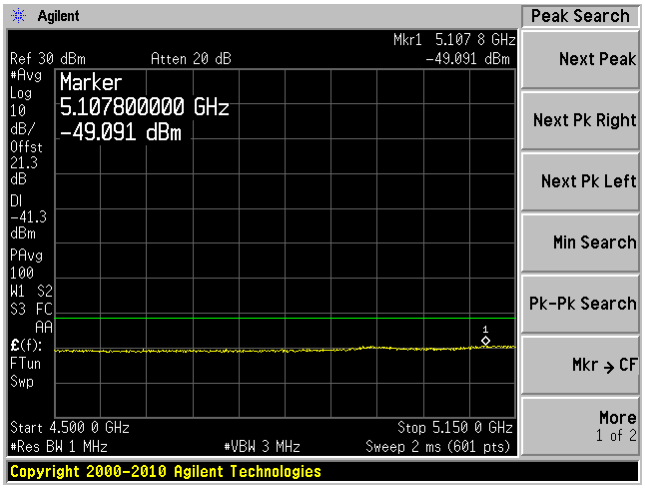
Chain 1, Plot: 6 GHz – 44 GHz



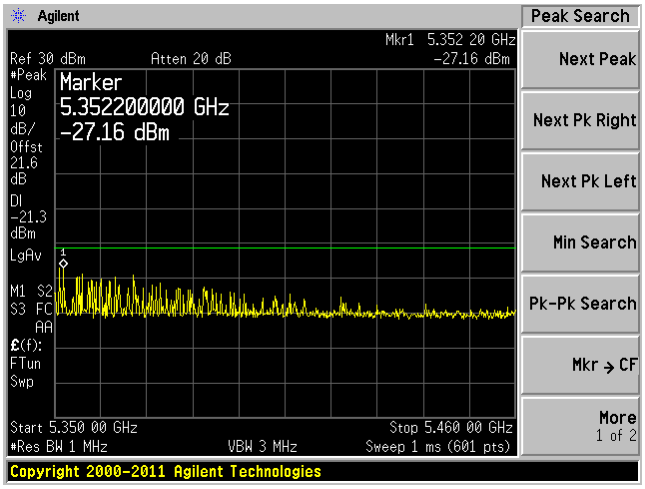
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



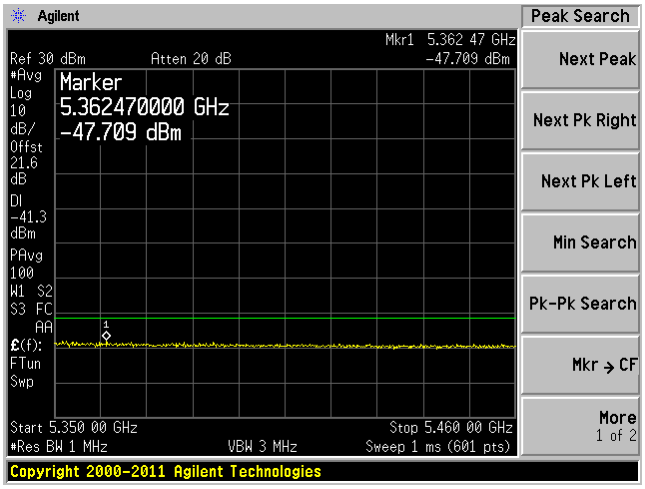
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



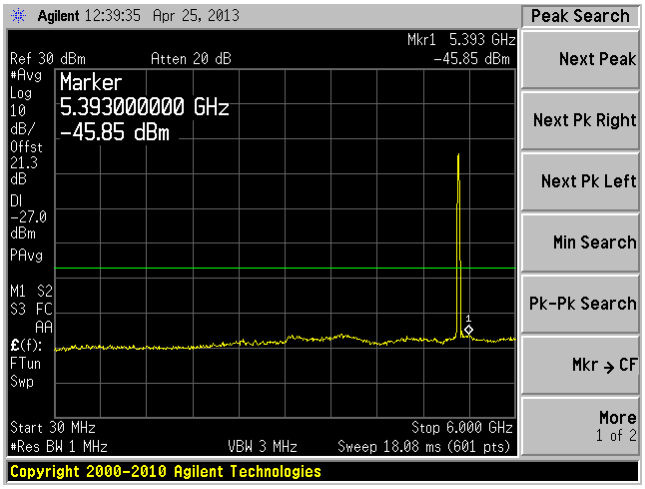
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak



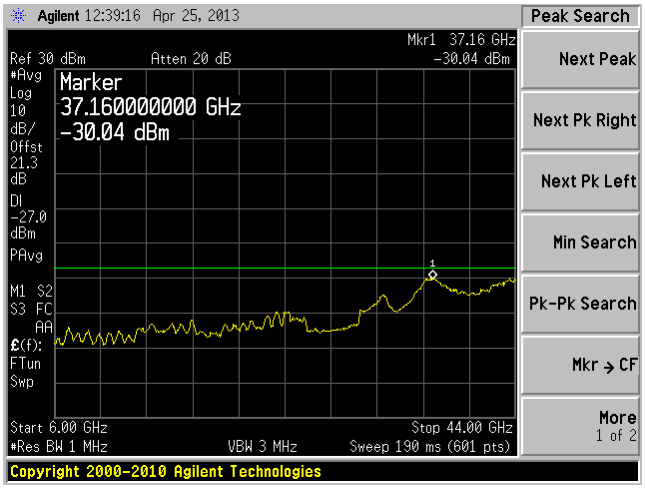
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave



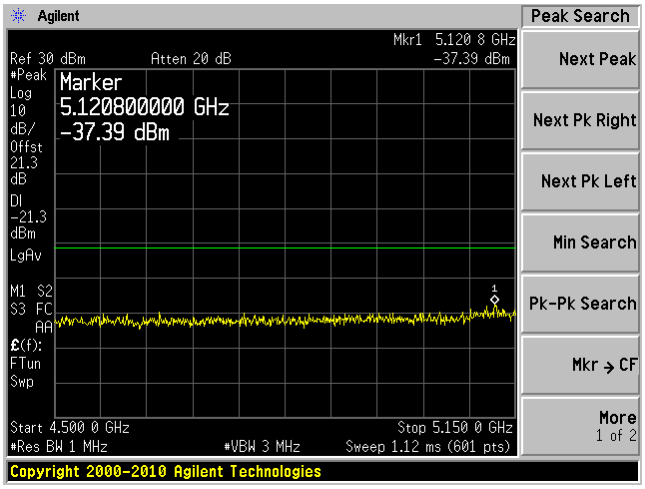
Chain 2, Plot: 30 MHz – 6 GHz



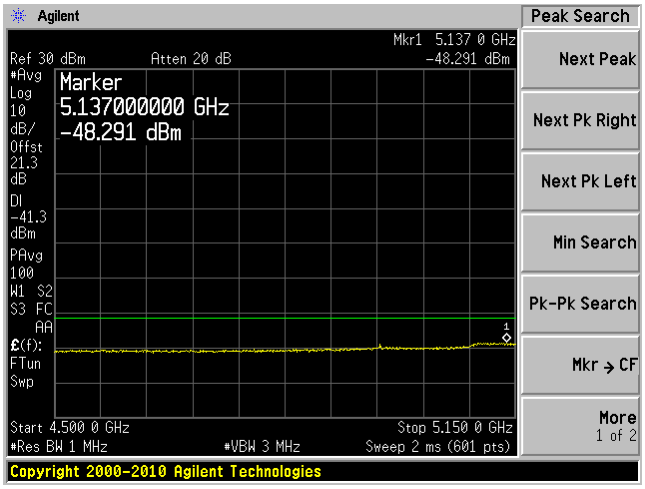
Chain 2, Plot: 6 GHz – 44 GHz



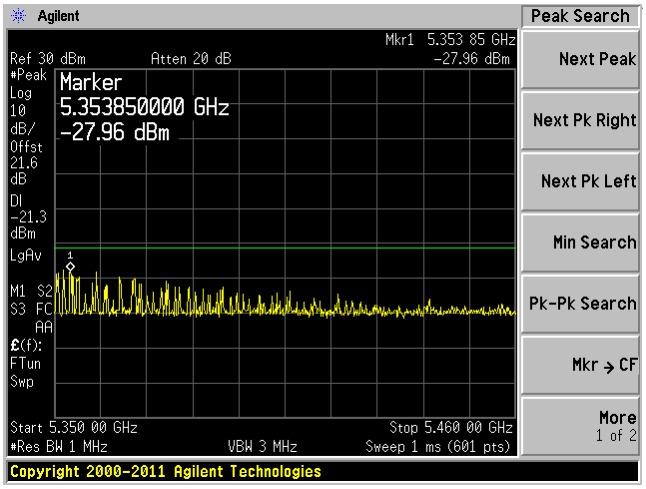
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band)
Peak



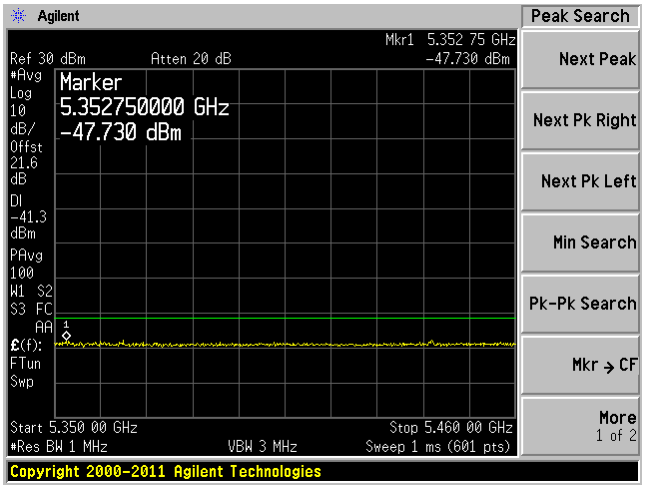
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band)
Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak

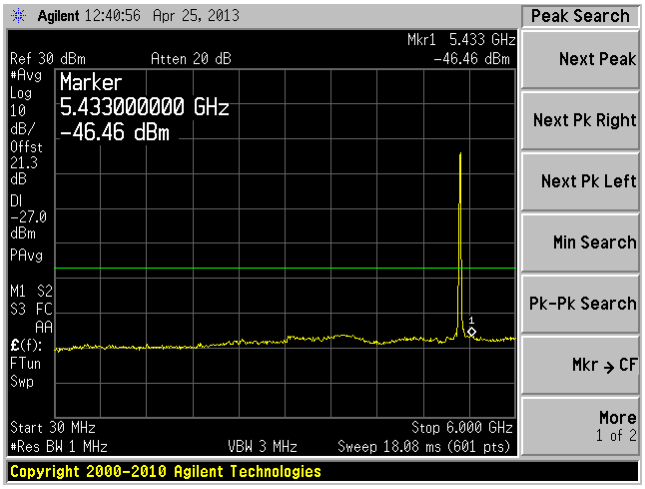


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave

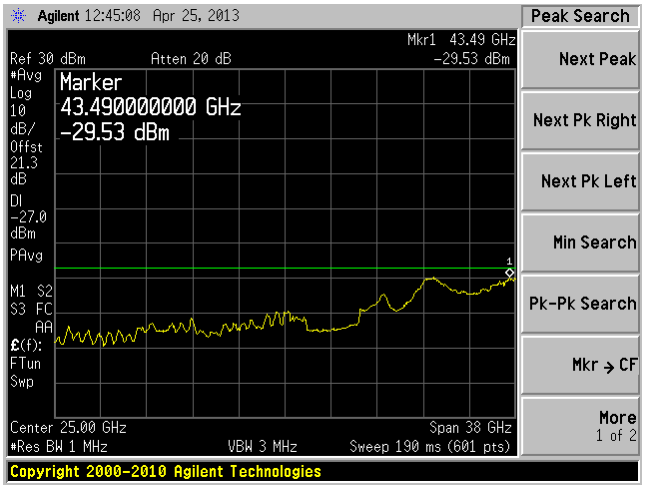


802.11n-HT20, Middle Channel,

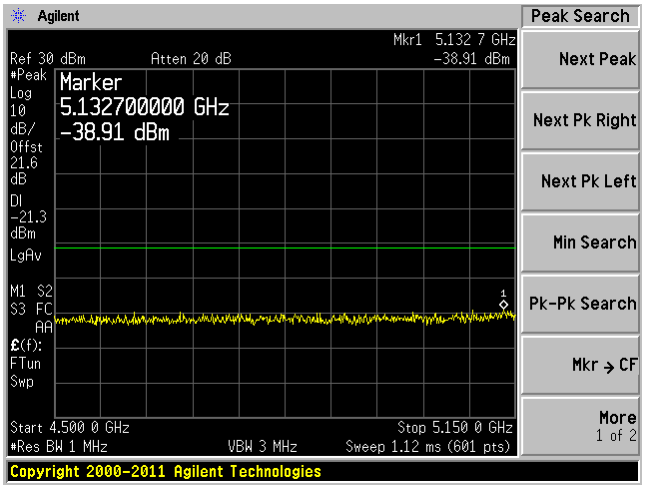
Chain 0, Plot: 30 MHz – 6 GHz



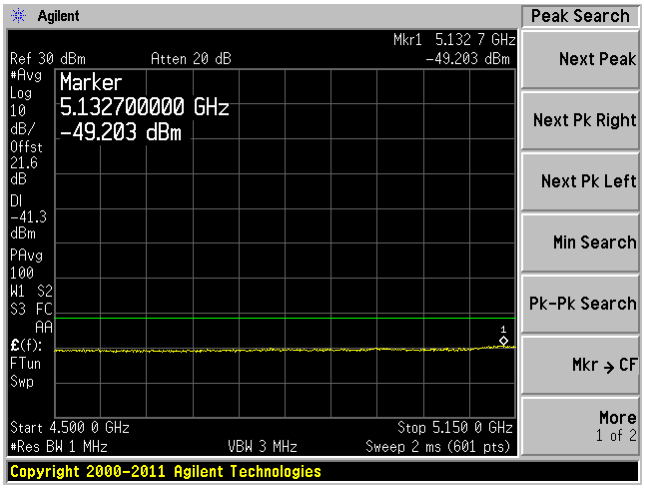
Chain 0, Plot: 6 GHz – 44 GHz



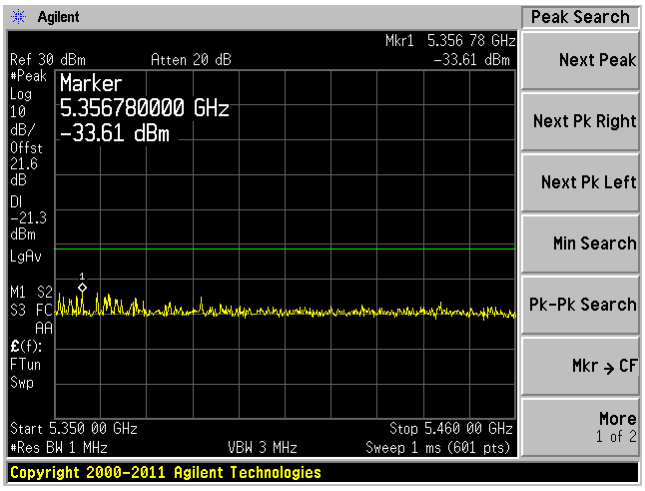
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



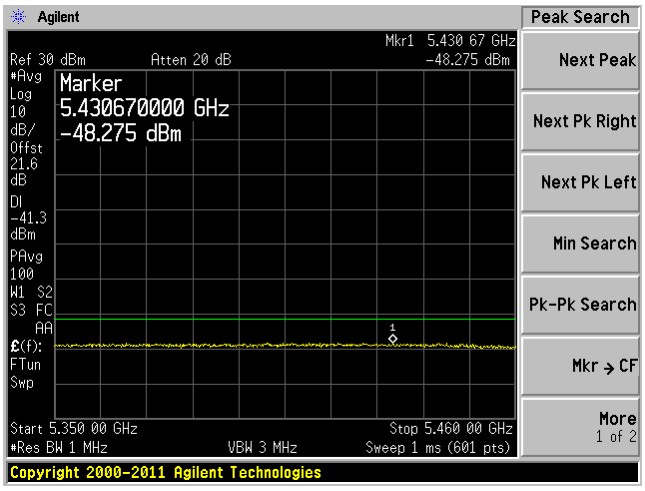
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



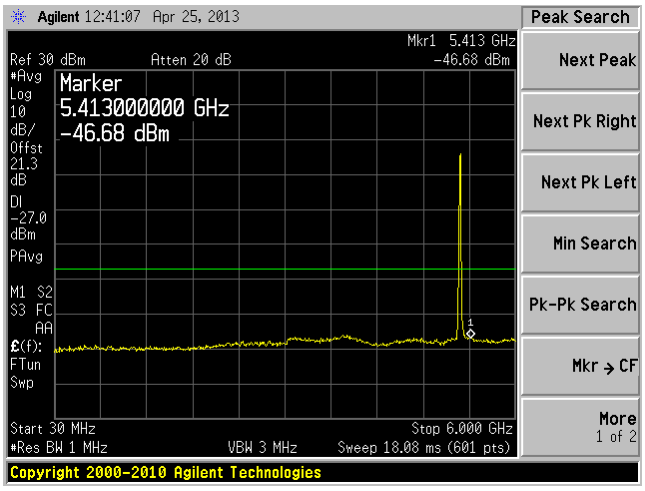
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



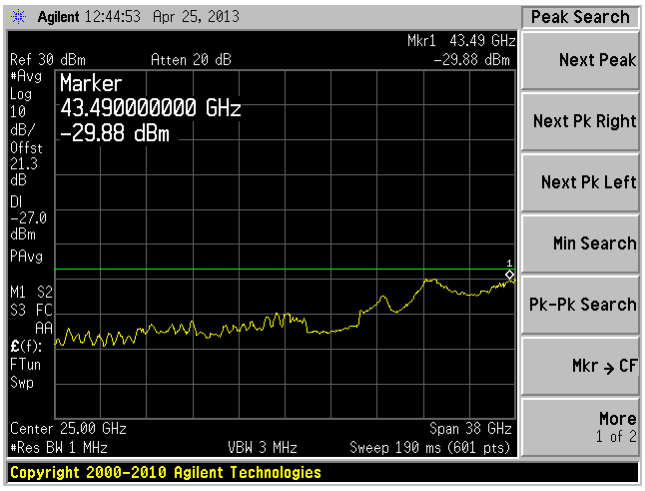
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



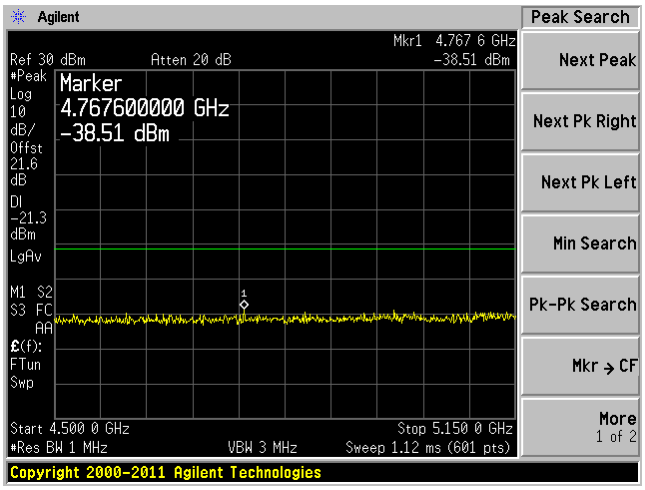
Chain 1, Plot: 30 MHz – 6 GHz



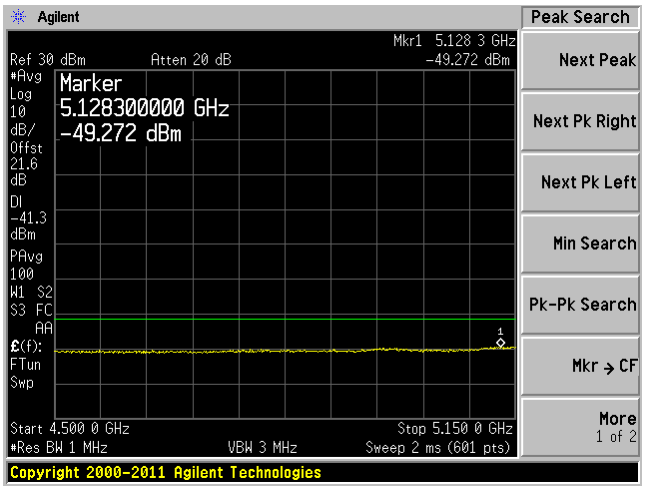
Chain 1, Plot: 6 GHz – 44 GHz



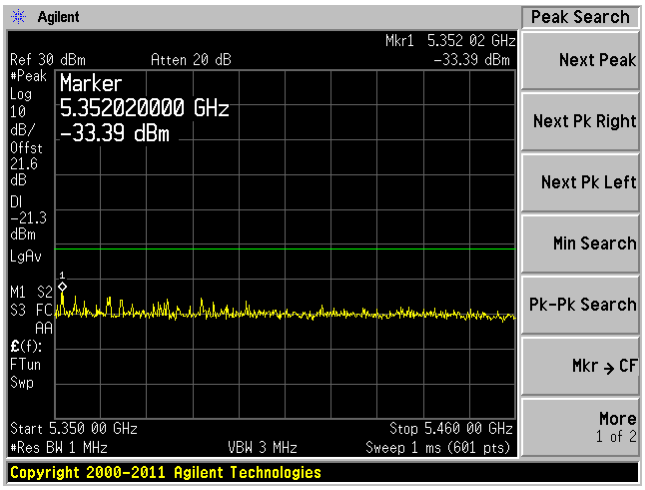
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



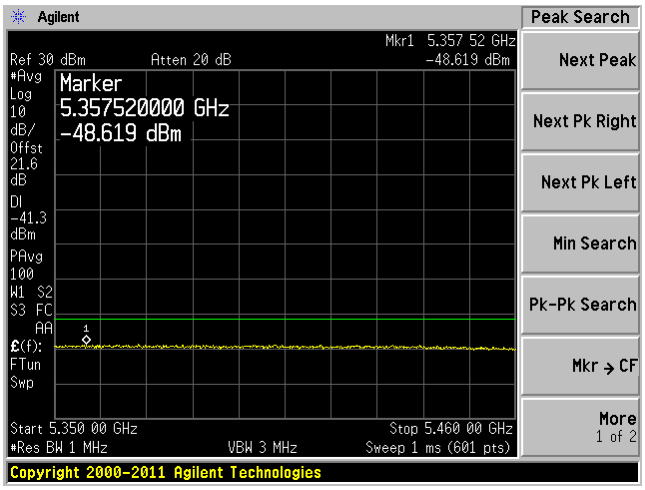
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



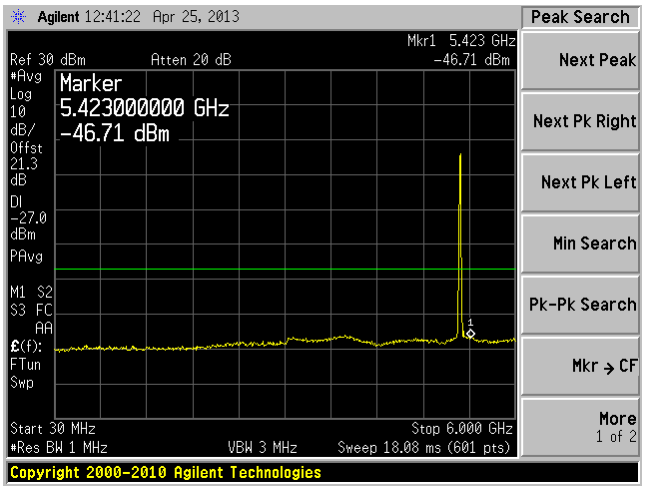
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



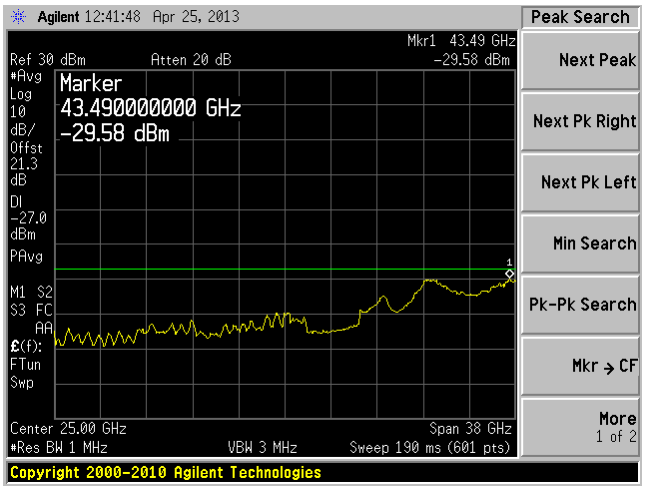
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



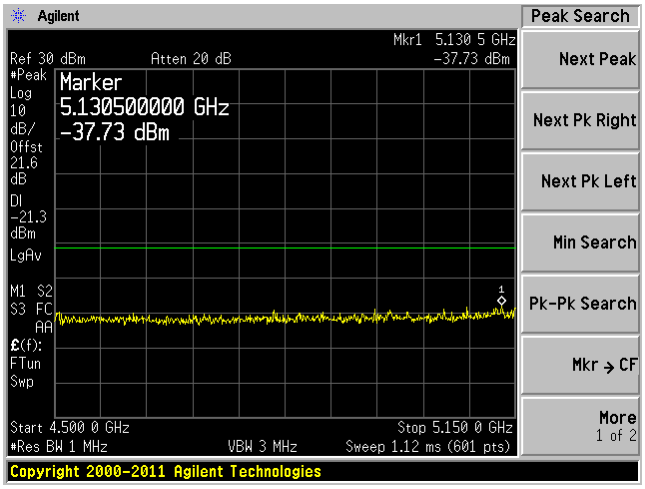
Chain 2, Plot: 30 MHz – 6 GHz



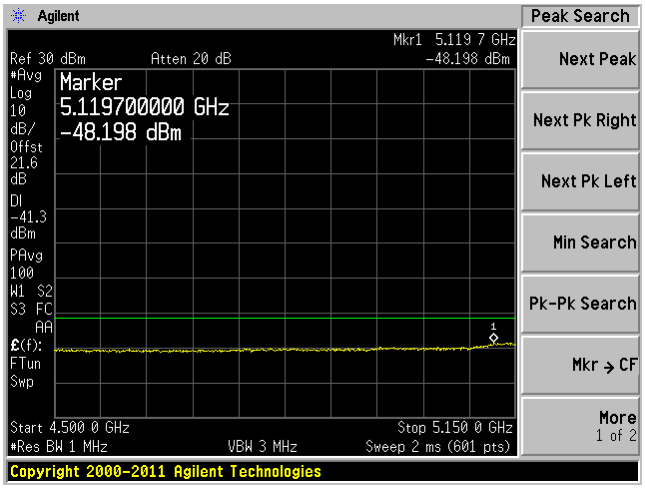
Chain 2, Plot: 6 GHz – 44 GHz



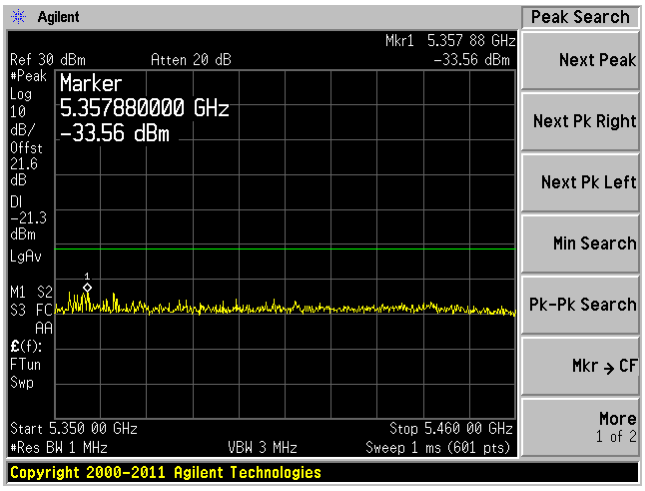
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



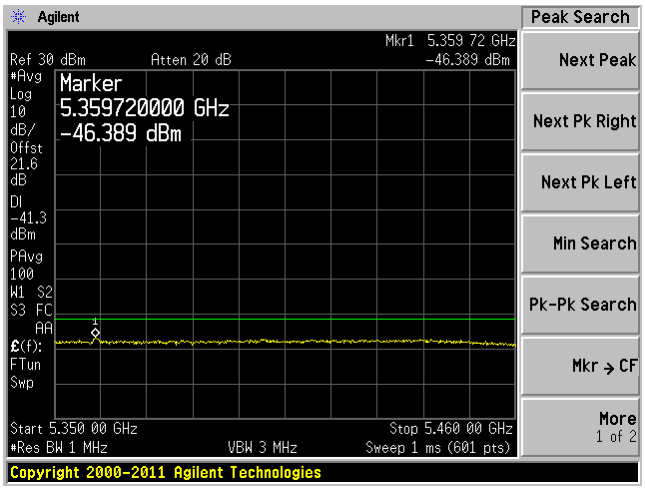
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

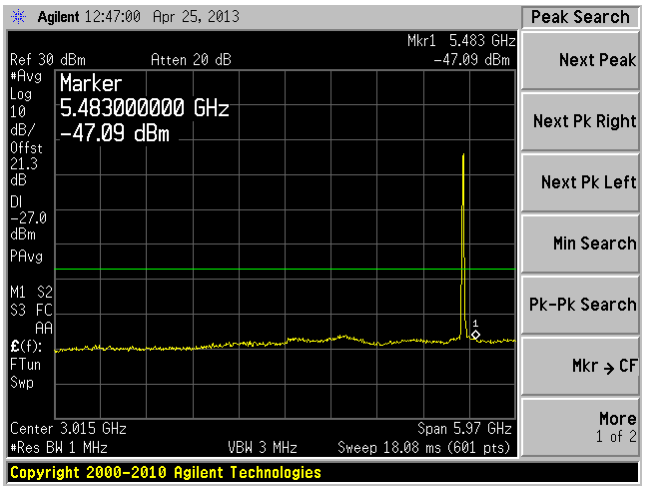


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

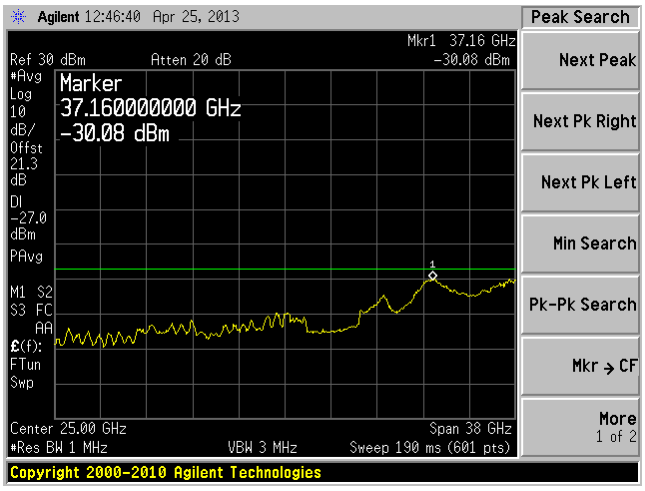


802.11n-HT20, High Channel,

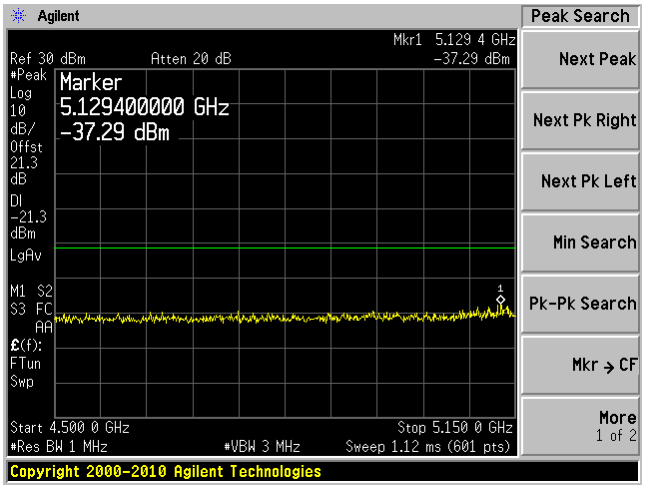
Chain 0, Plot: 30 MHz – 6 GHz



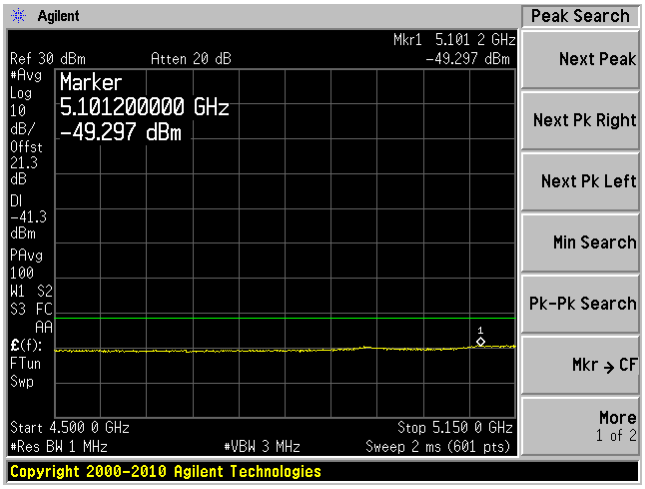
Chain 0, Plot: 6 GHz – 44 GHz



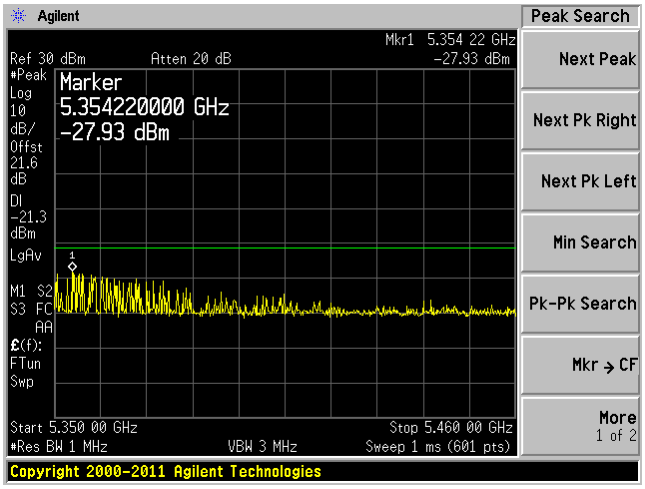
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



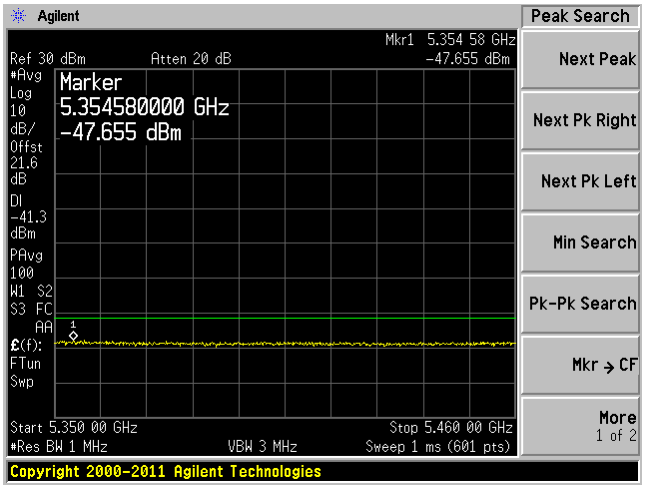
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



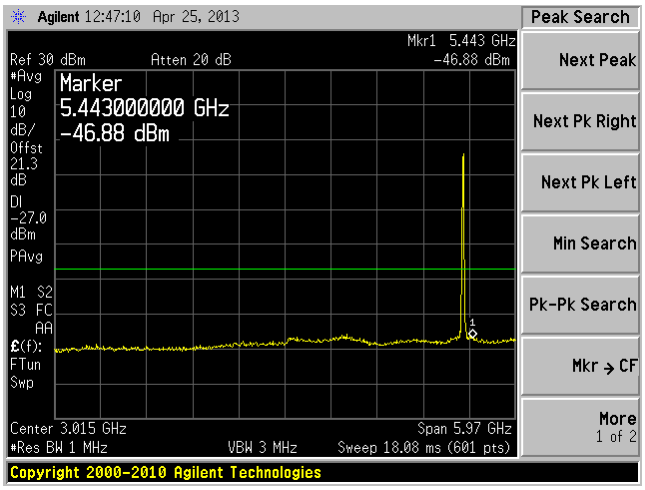
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



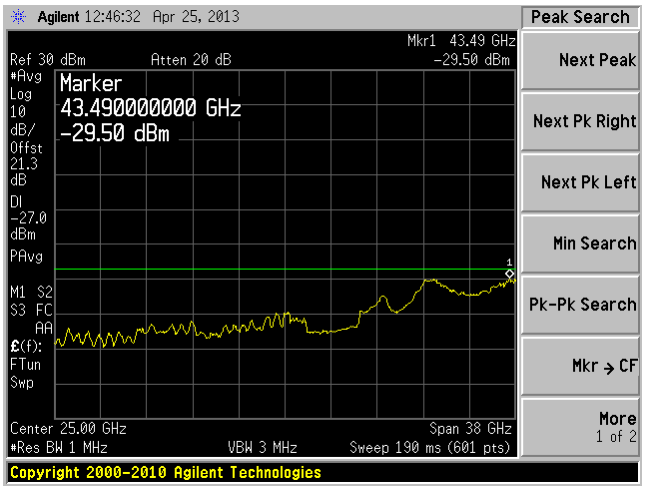
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



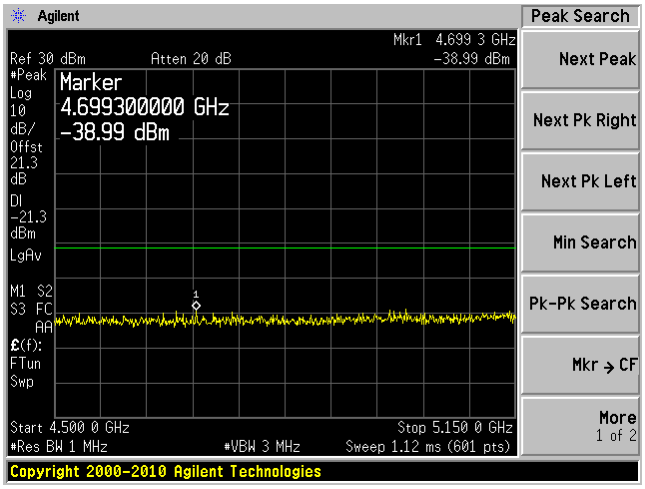
Chain 1, Plot: 30 MHz – 6 GHz



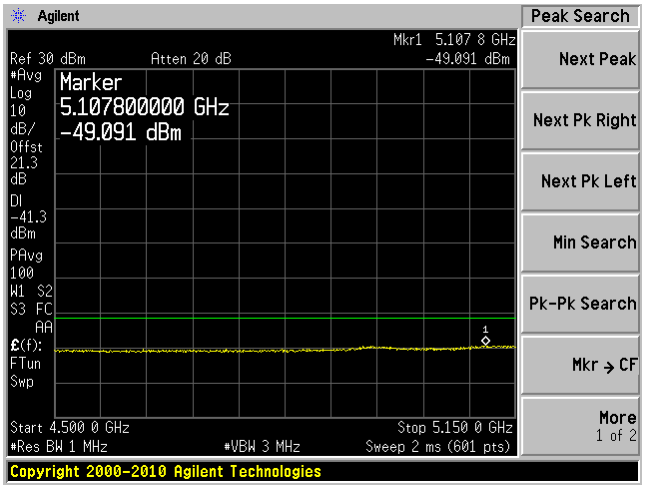
Chain 1, Plot: 6 GHz – 44 GHz



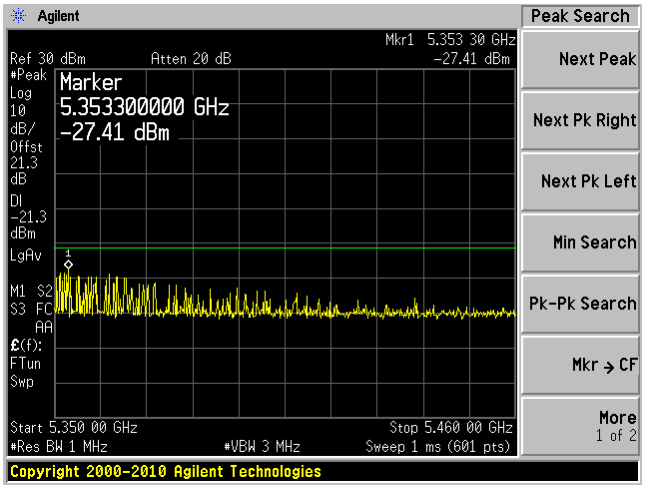
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



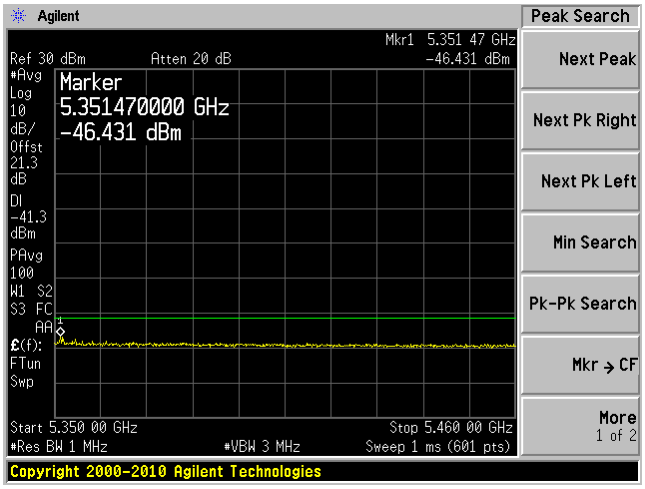
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



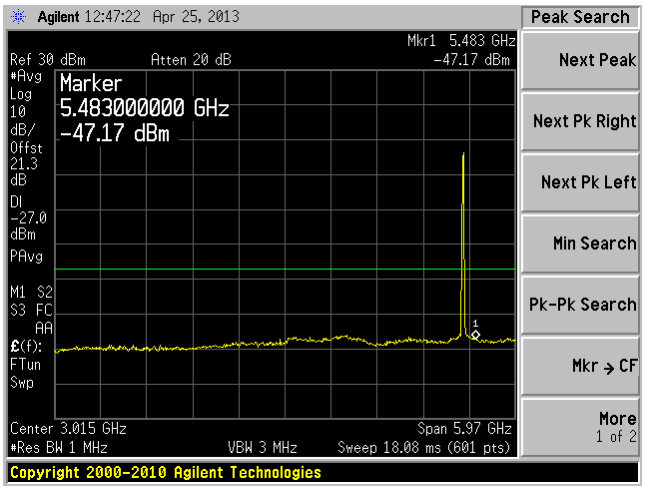
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



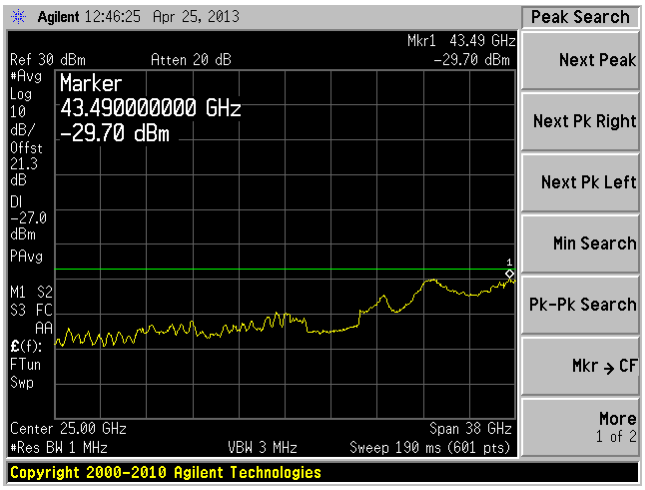
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



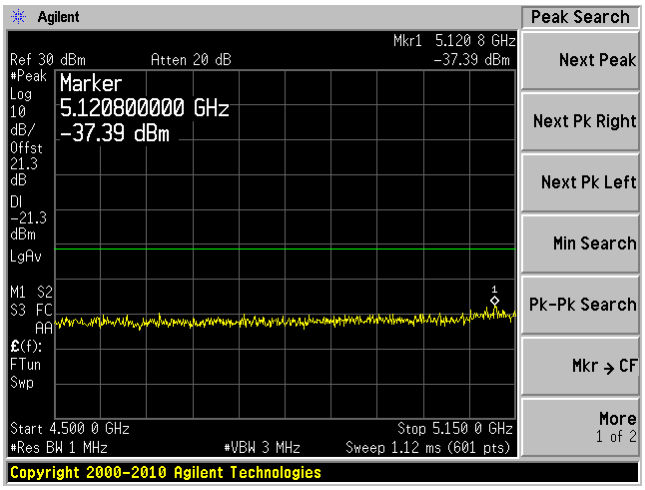
Chain 2, Plot: 30 MHz – 6 GHz



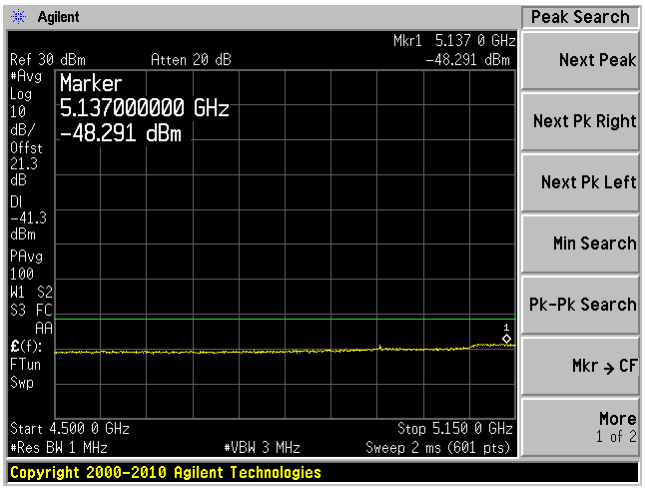
Chain 2, Plot: 6 GHz – 44 GHz



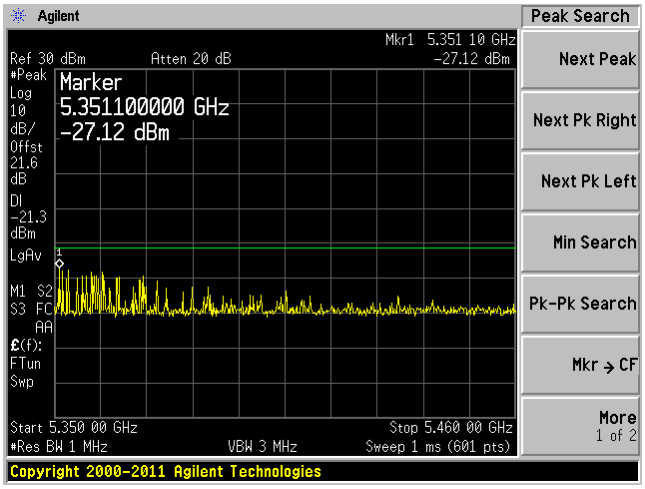
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



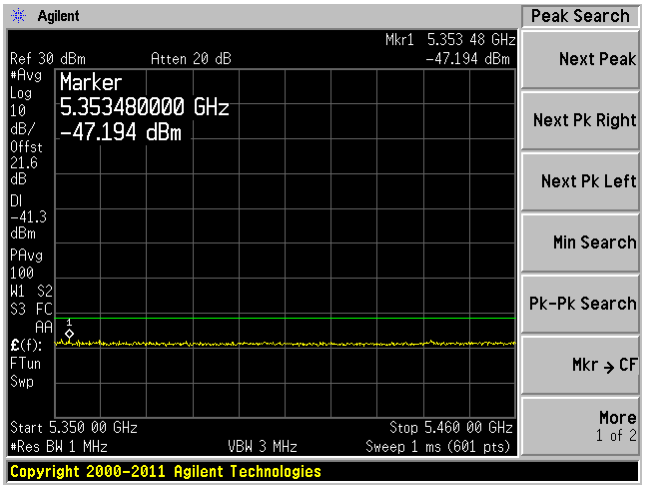
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

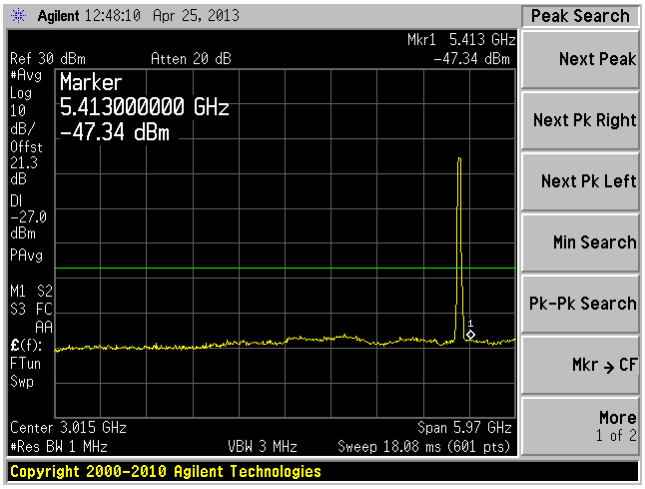


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

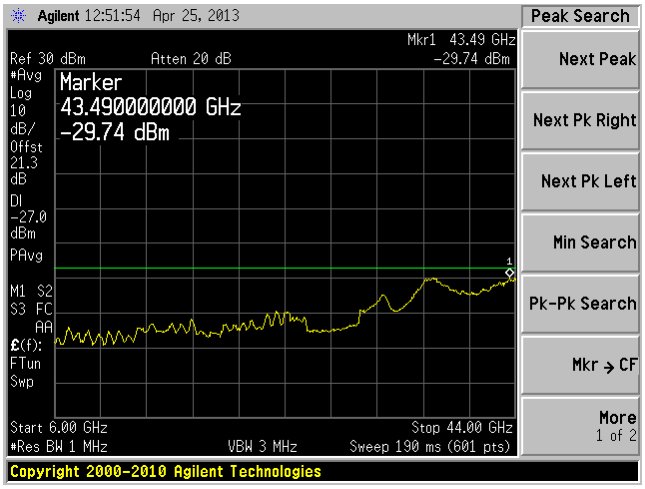


802.11n-HT40, Low Channel,

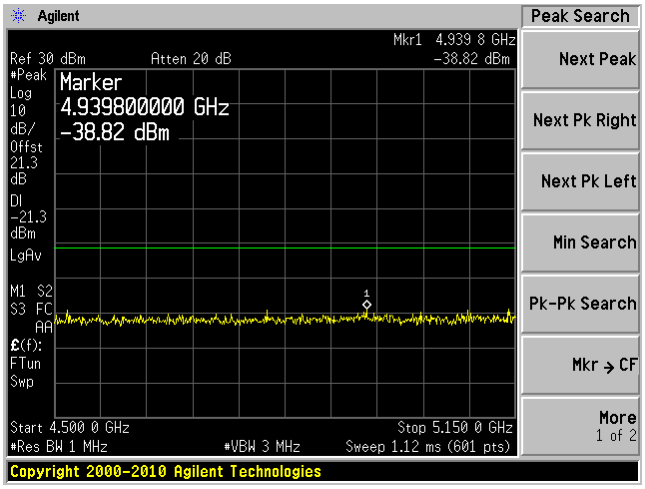
Chain 0, Plot: 30 MHz – 6 GHz



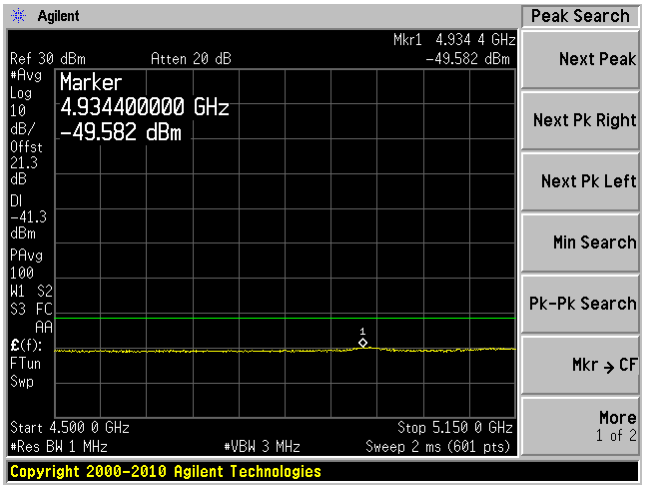
Chain 0, Plot: 6 GHz – 44 GHz



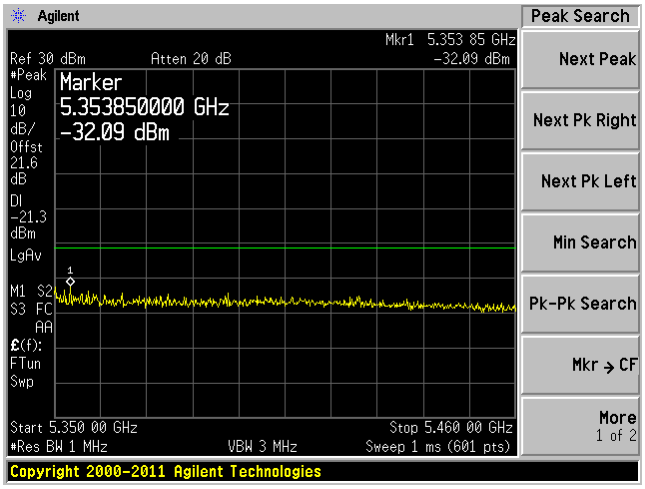
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



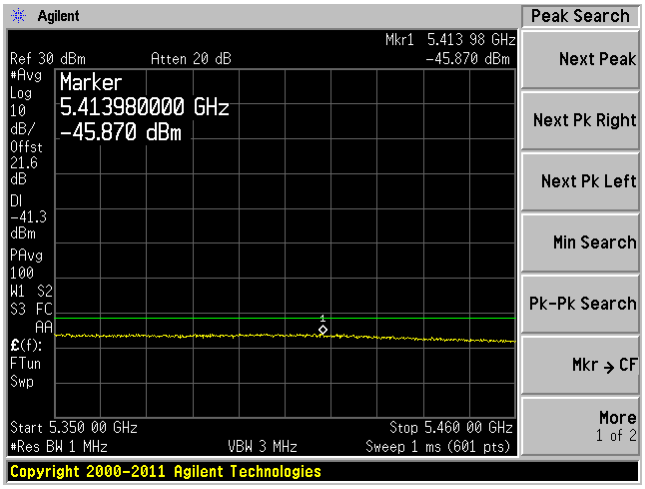
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



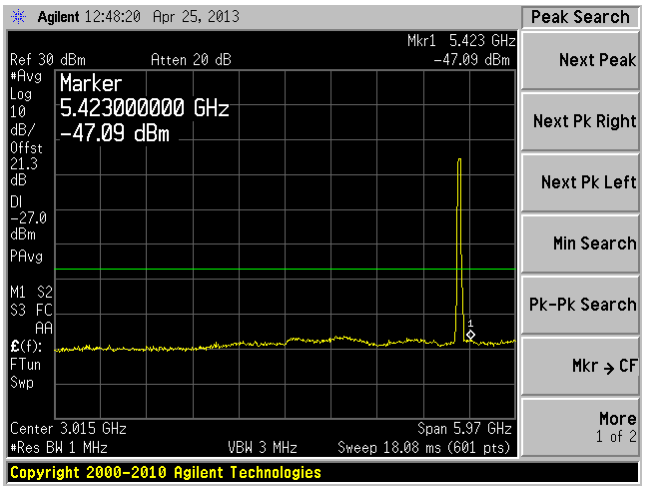
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



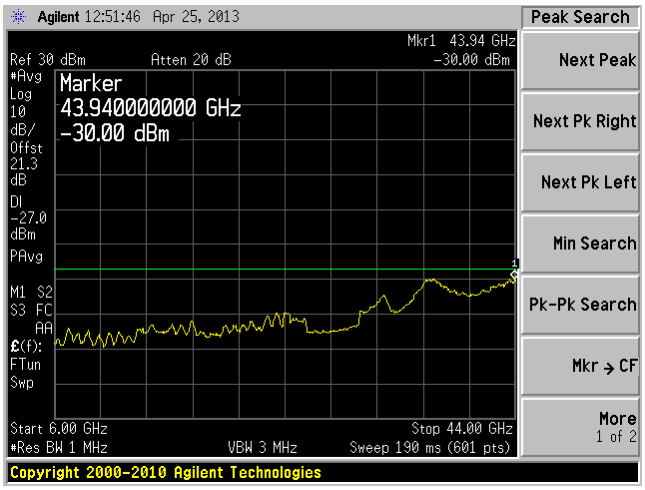
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



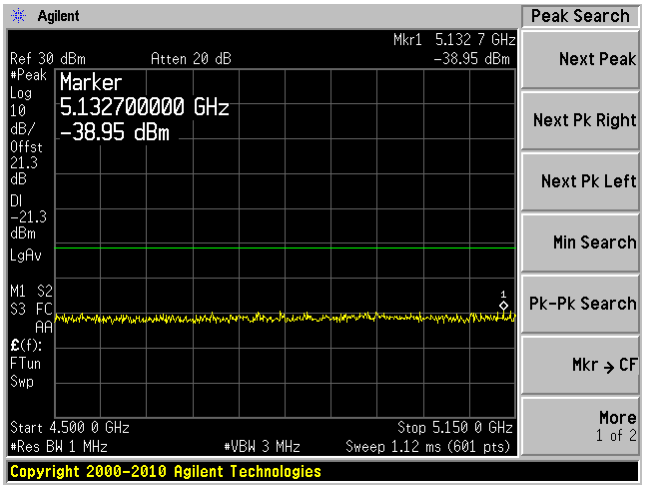
Chain 1, Plot: 30 MHz – 6 GHz



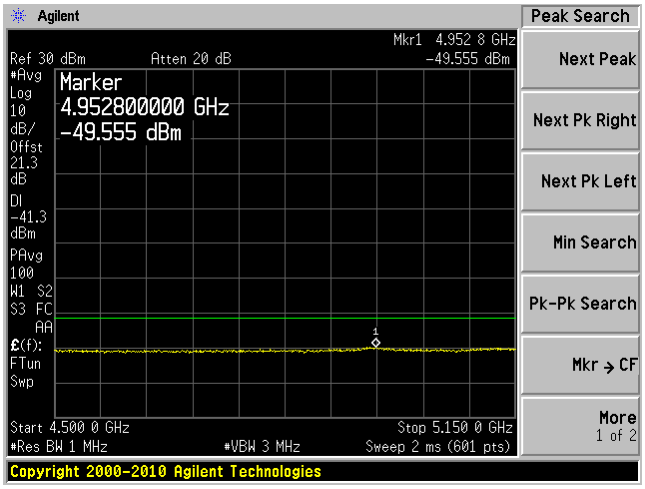
Chain 1, Plot: 6 GHz – 44 GHz



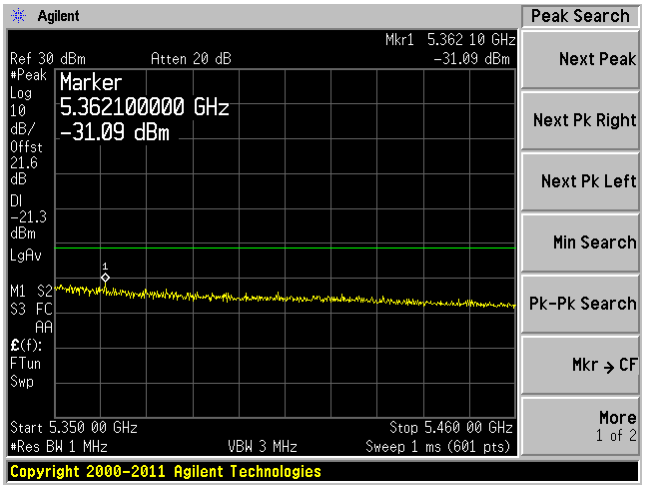
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



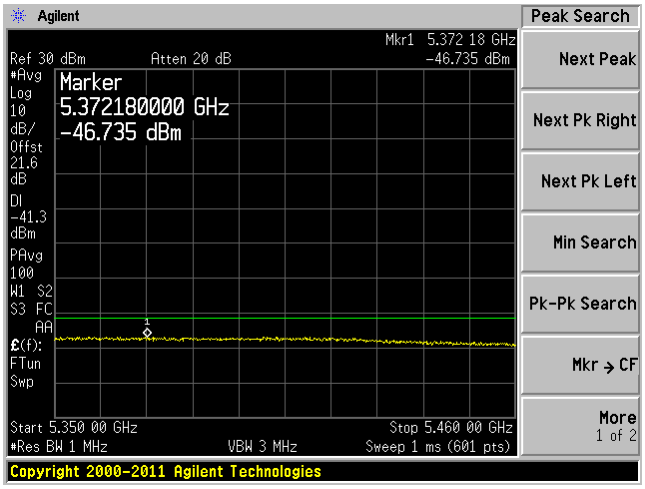
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



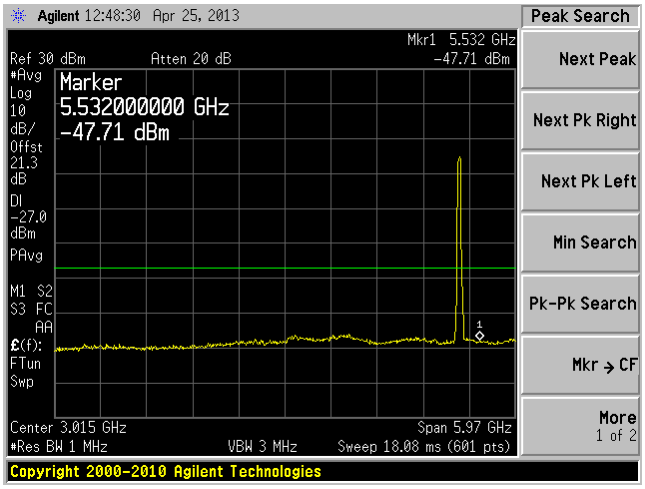
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



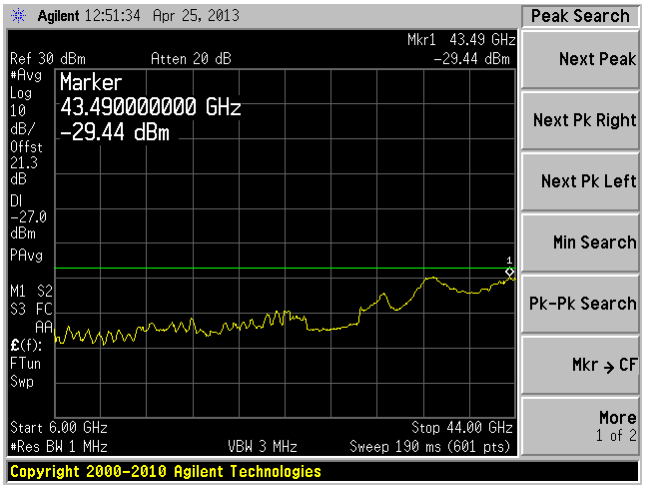
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



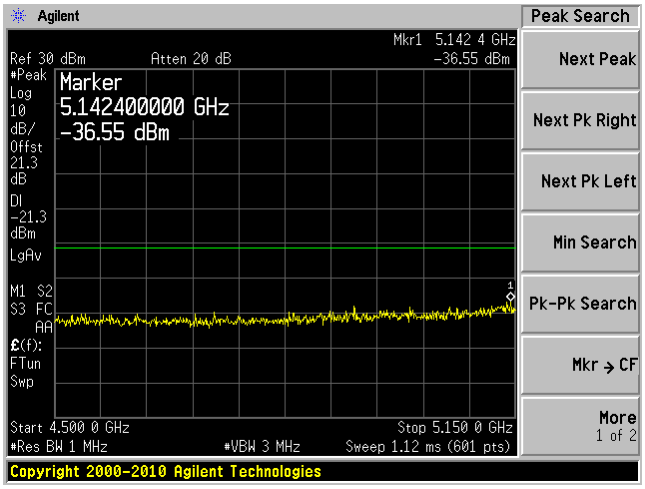
Chain 2, Plot: 30 MHz – 6 GHz



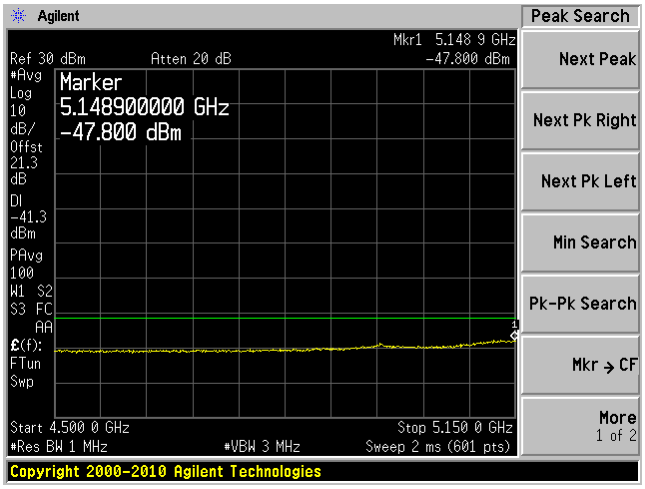
Chain 2, Plot: 6 GHz – 44 GHz



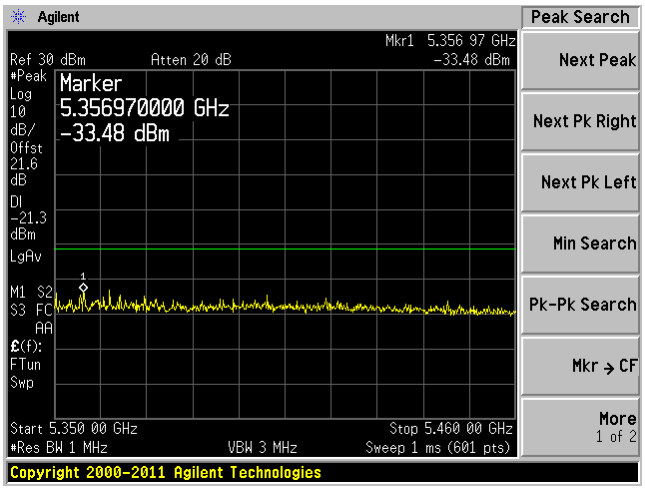
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



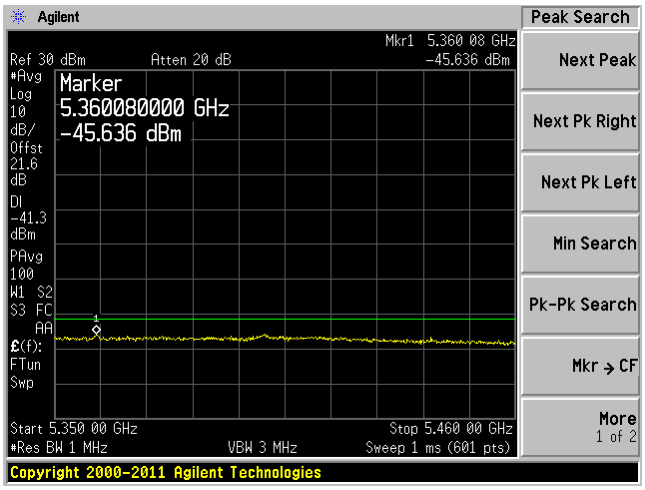
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

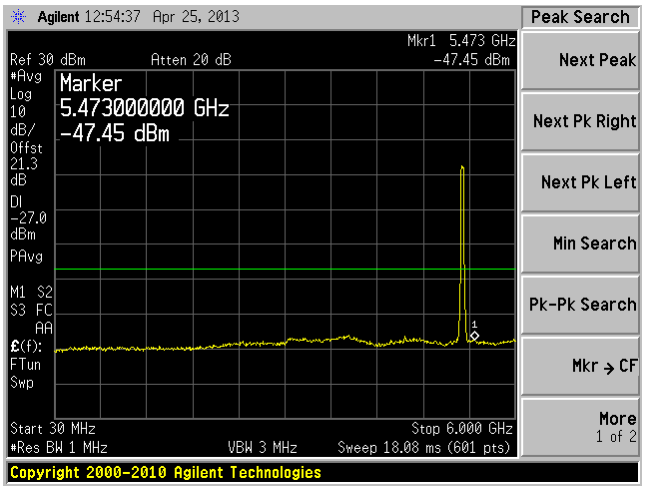


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

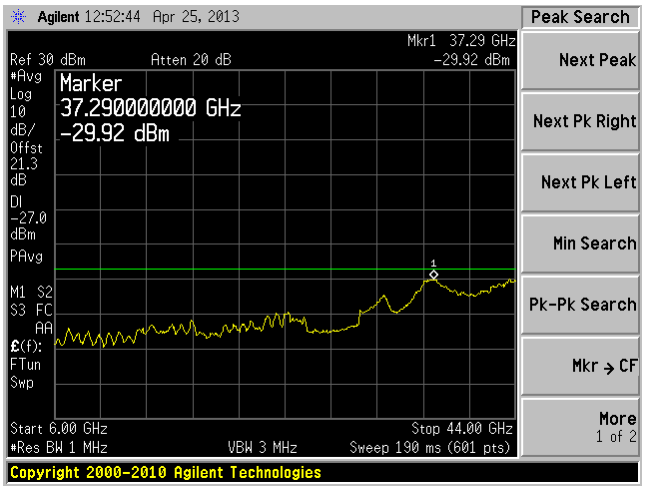


802.11n-HT40, High Channel,

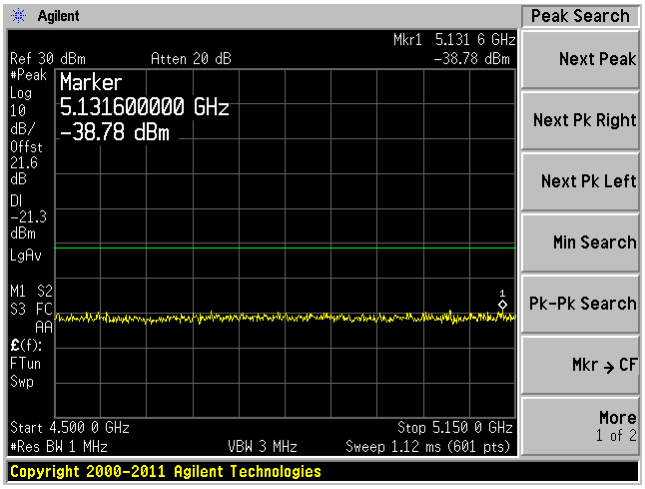
Chain 0, Plot: 30 MHz – 6 GHz



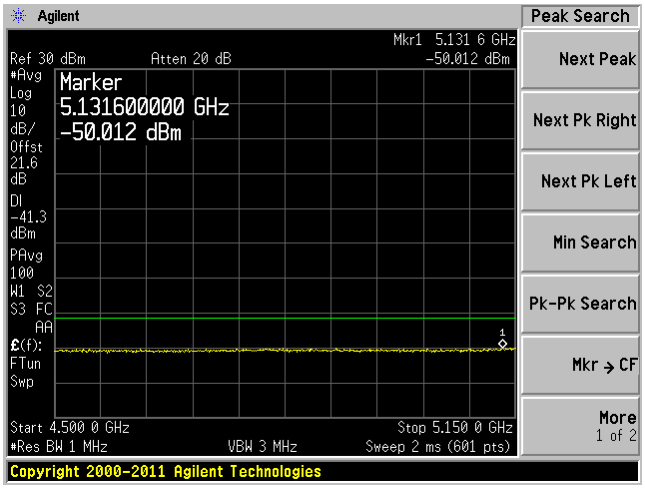
Chain 0, Plot: 6 GHz – 44 GHz



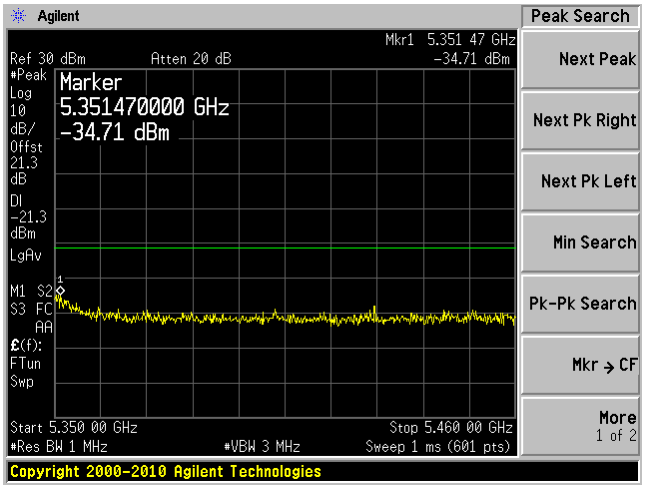
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



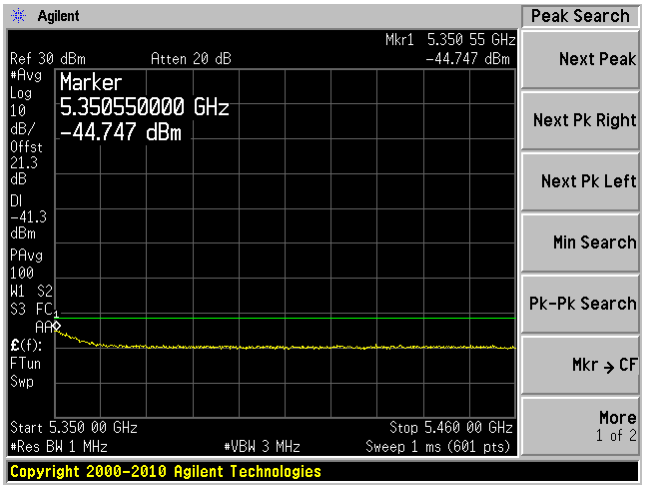
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



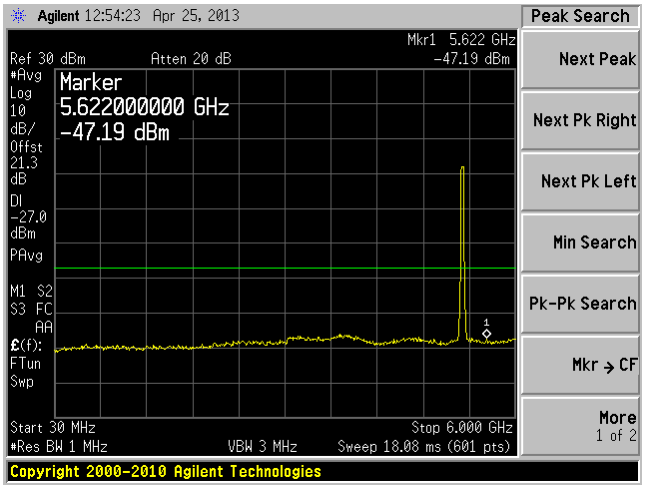
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



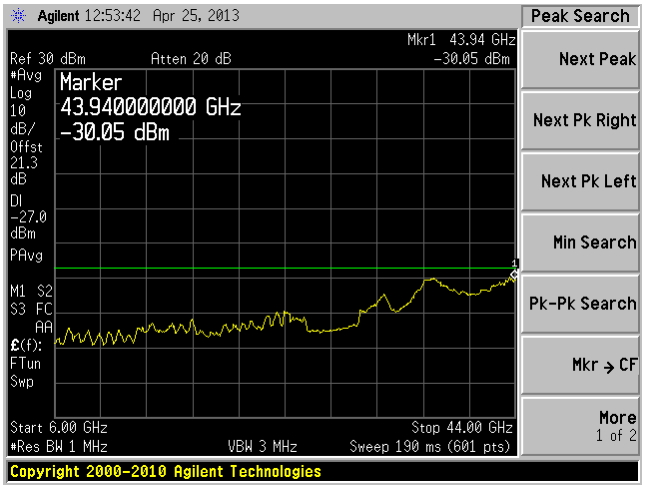
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



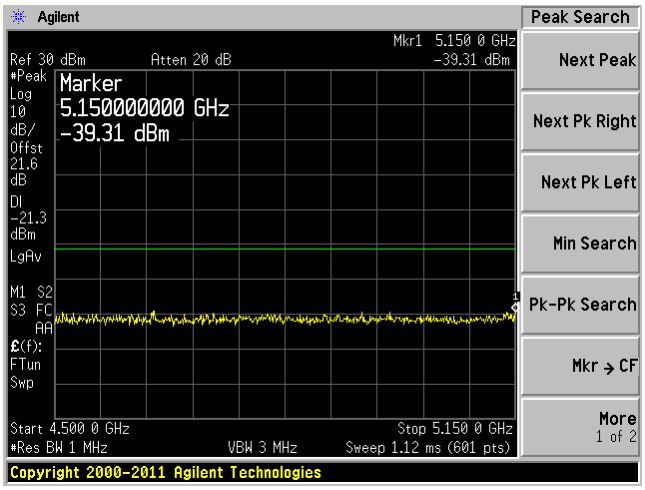
Chain 1, Plot: 30 MHz – 6 GHz



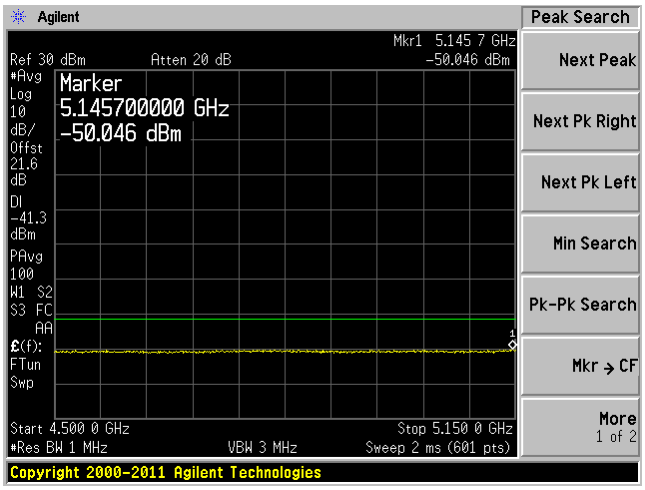
Chain 1, Plot: 6 GHz – 44 GHz



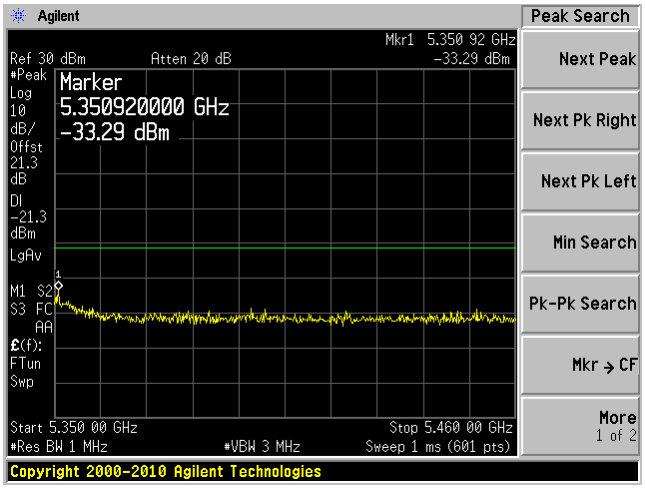
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



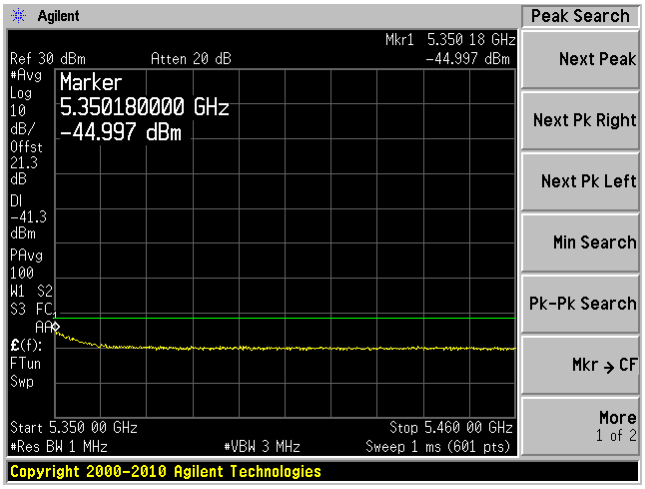
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



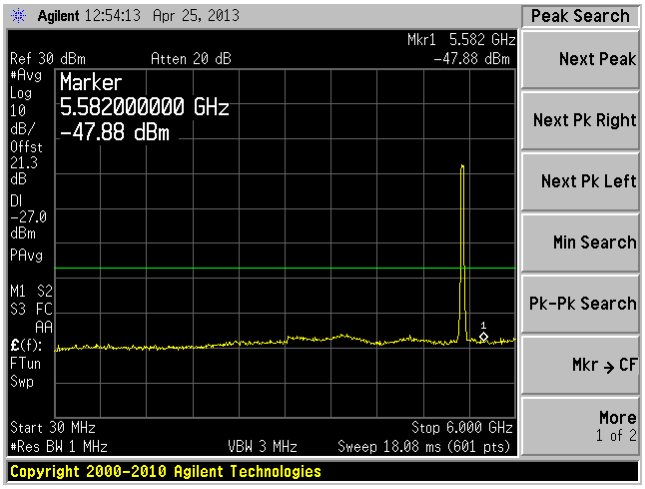
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak



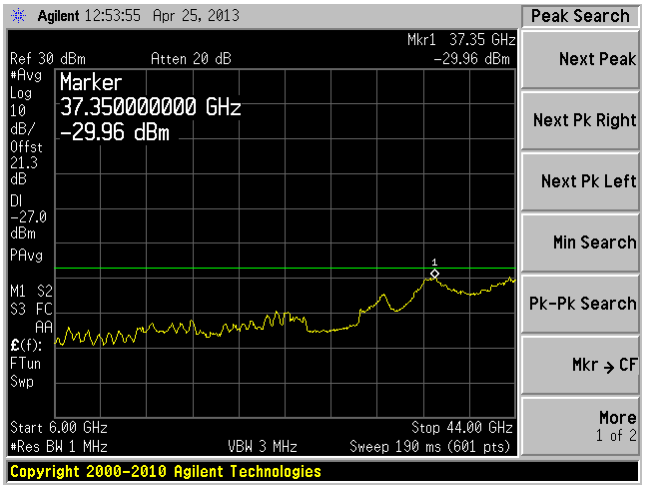
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave



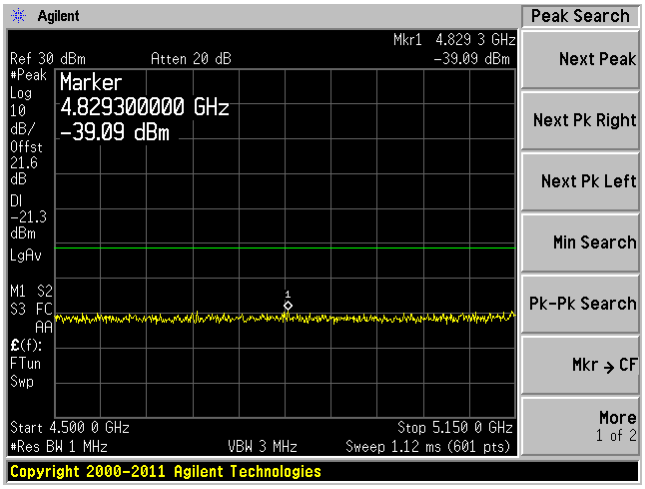
Chain 2, Plot: 30 MHz – 6 GHz



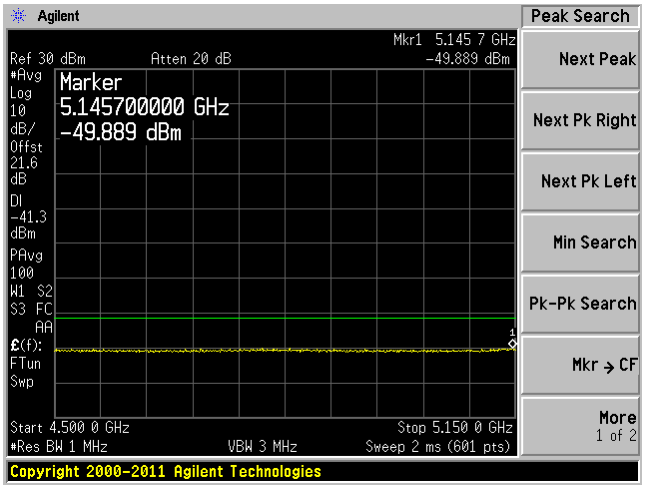
Chain 2, Plot: 6 GHz – 44 GHz



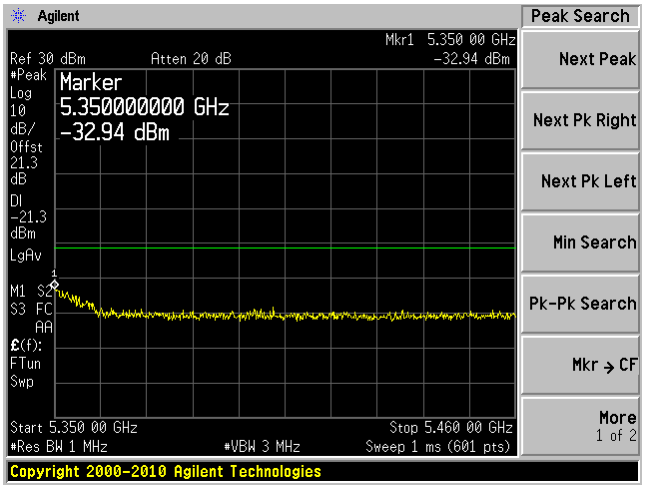
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



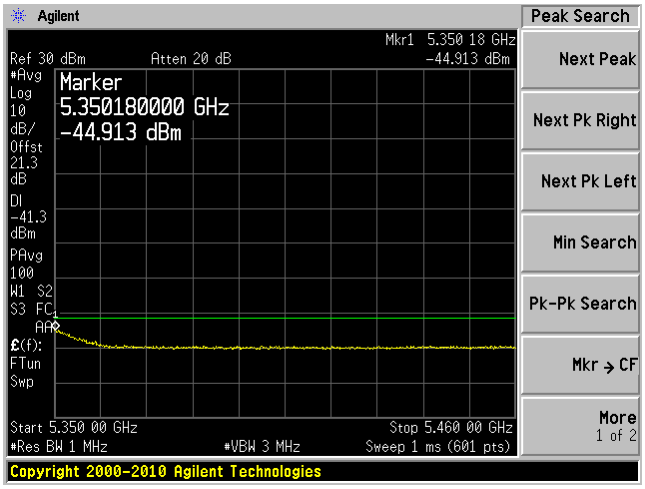
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

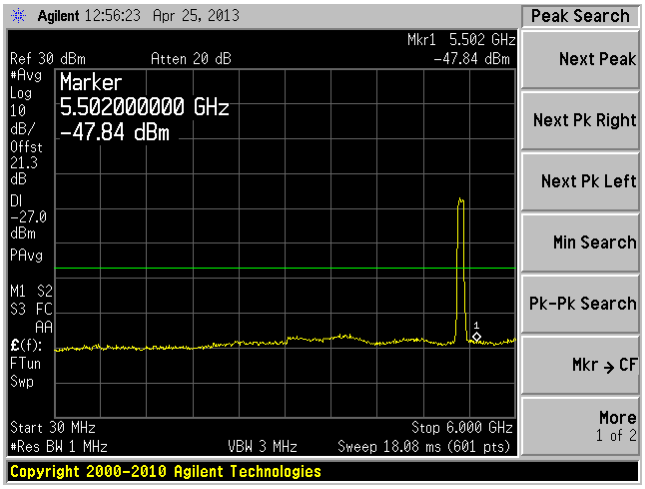


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

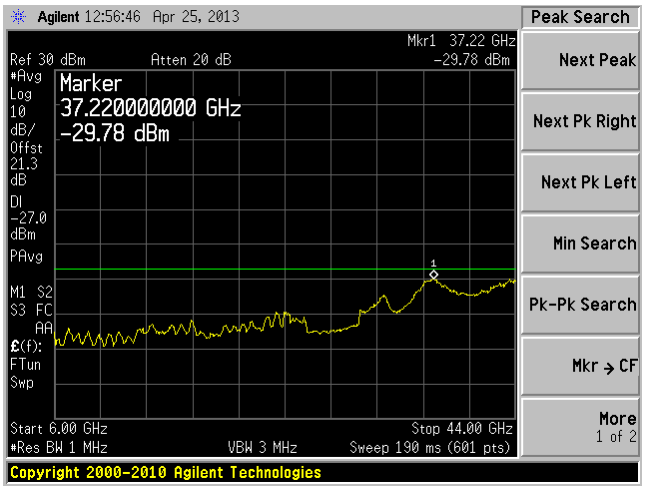


802.11ac 80 Mode

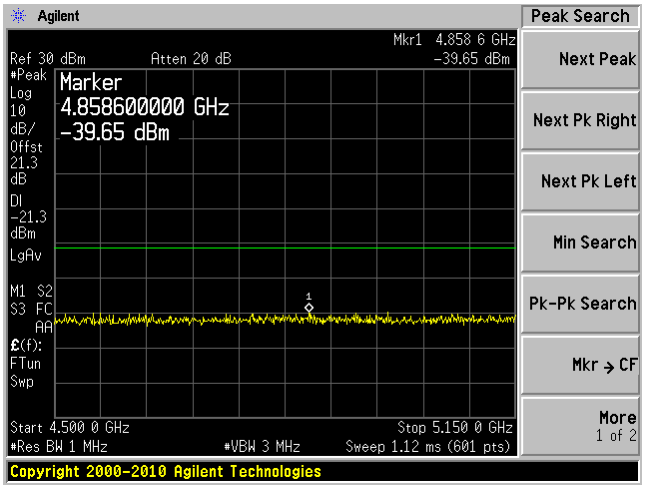
Chain 0, Plot: 30 MHz – 6 GHz



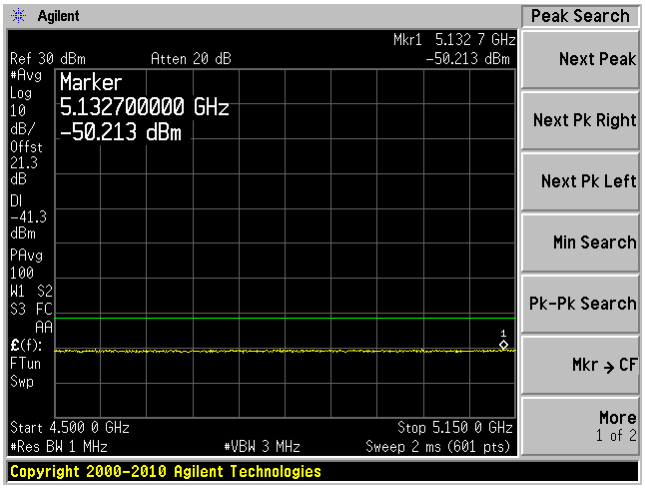
Chain 0, Plot: 6 GHz – 44 GHz



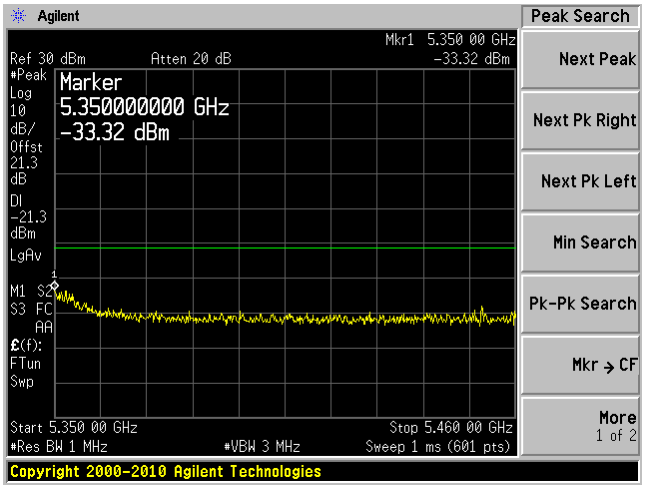
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



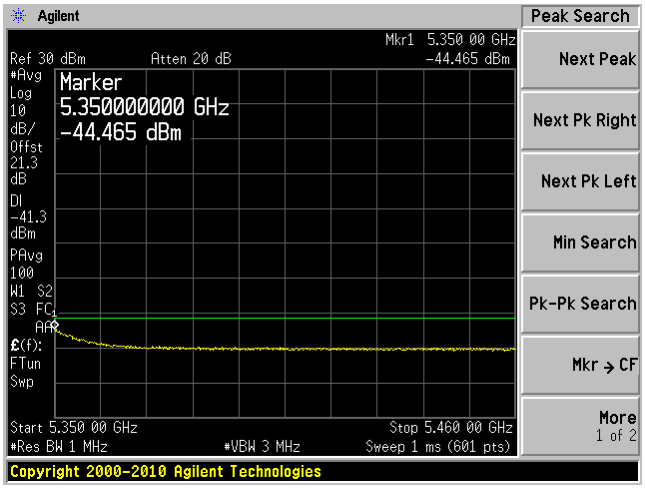
Chain 0, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



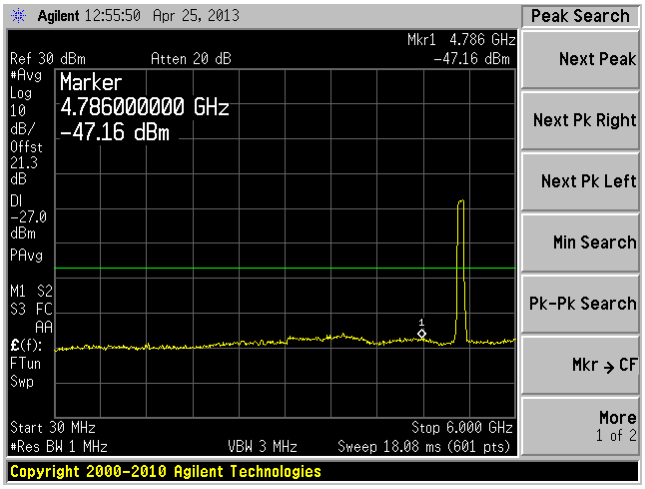
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



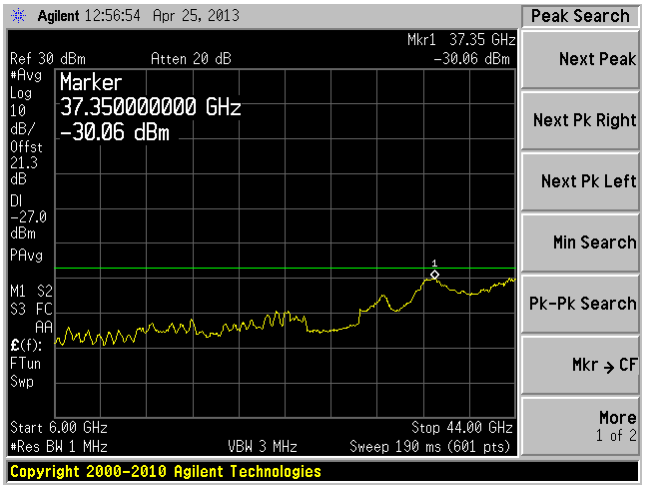
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



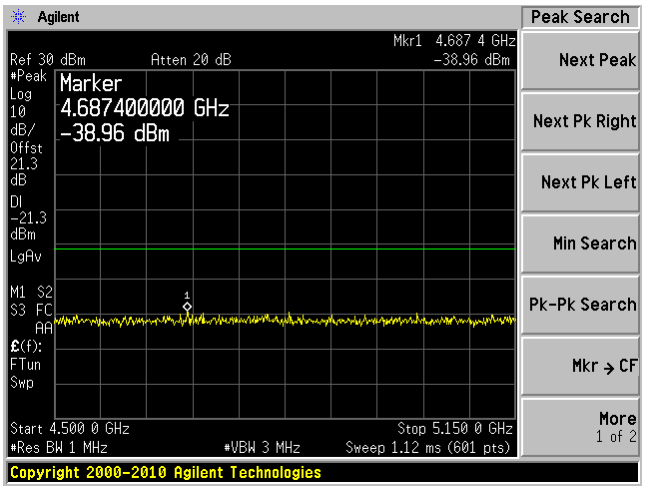
Chain 1, Plot: 30 MHz – 6 GHz



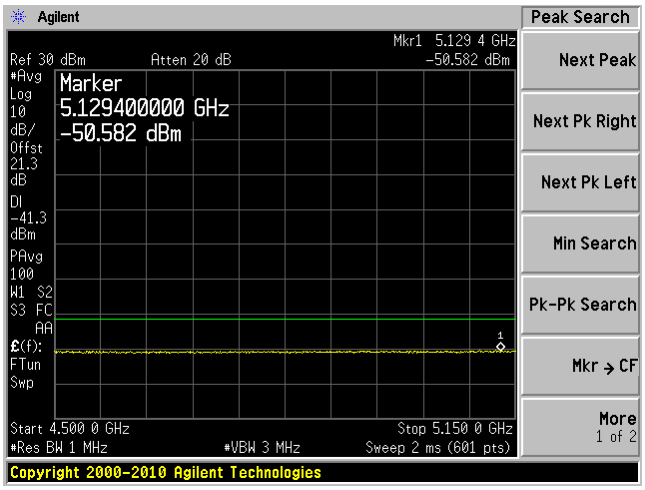
Chain 1, Plot: 6 GHz – 44 GHz



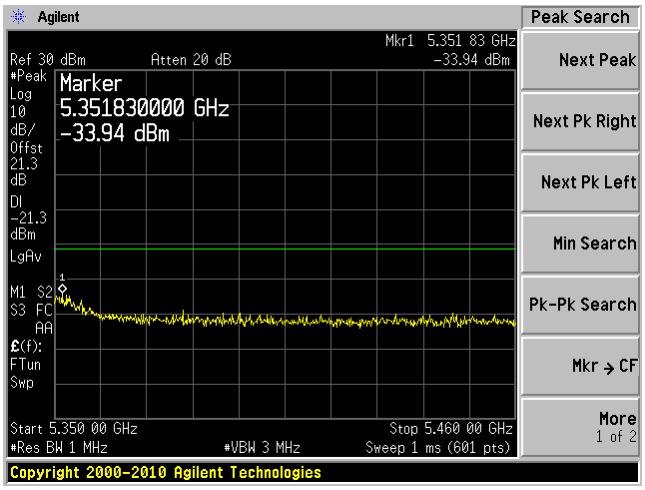
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



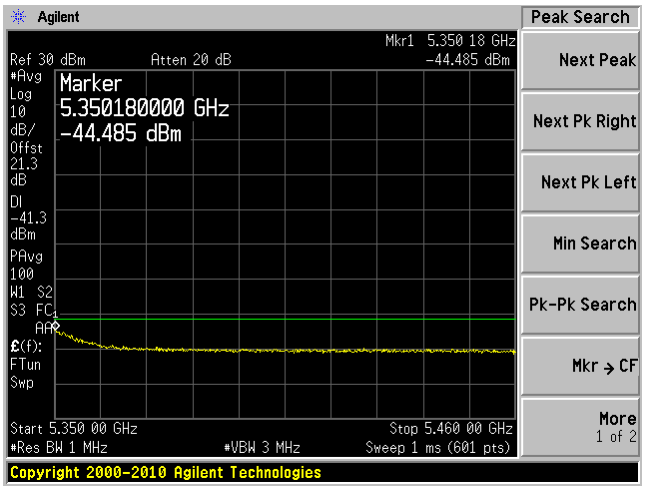
Chain 1, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



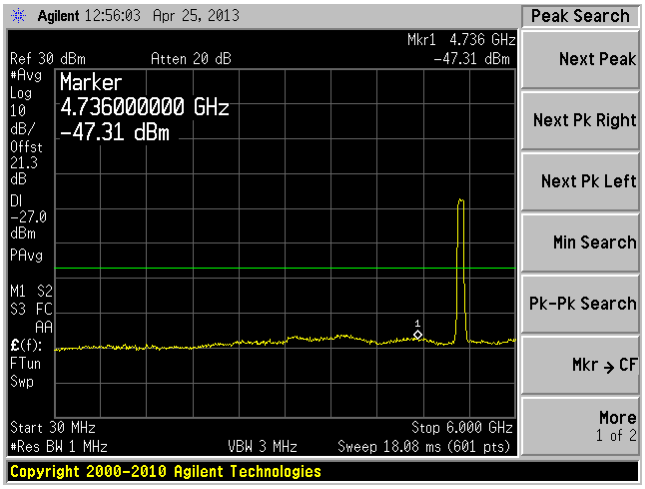
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



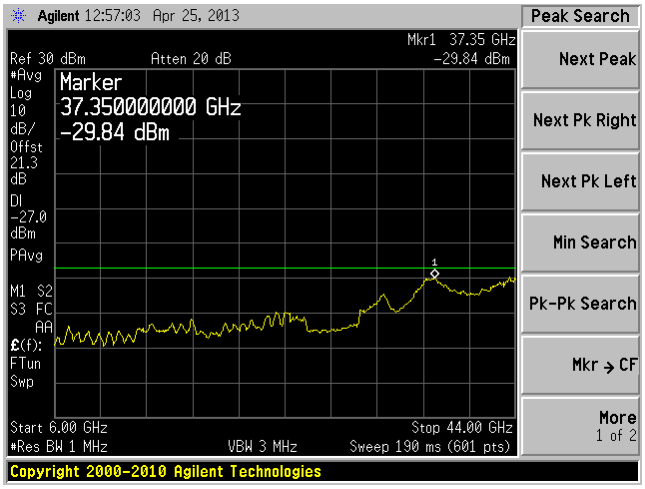
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



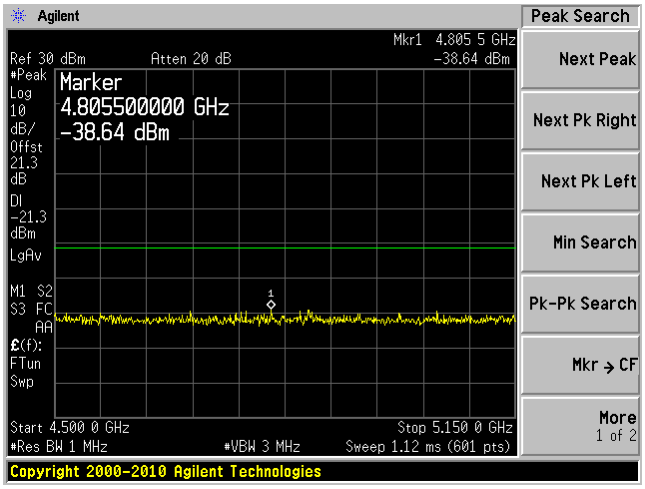
Chain 2, Plot: 30 MHz – 6 GHz



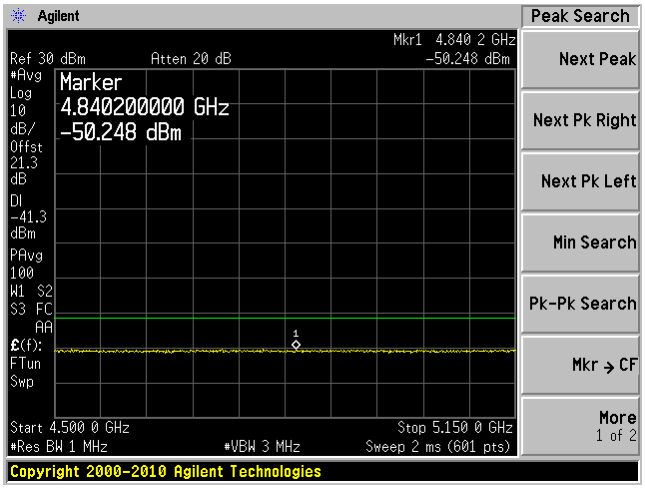
Chain 2, Plot: 6 GHz – 44 GHz



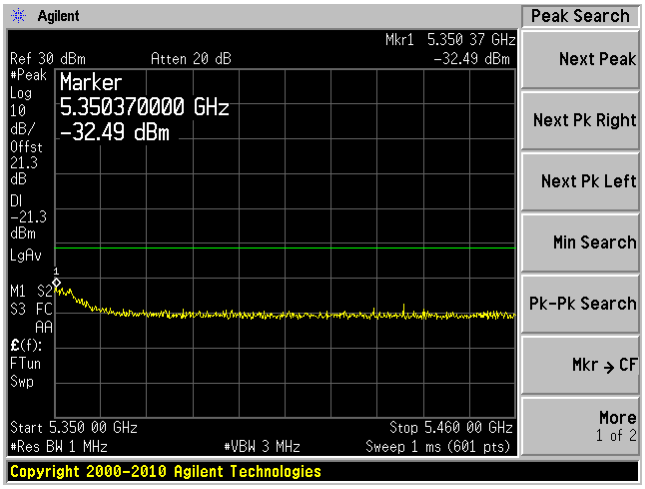
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict Band) Peak



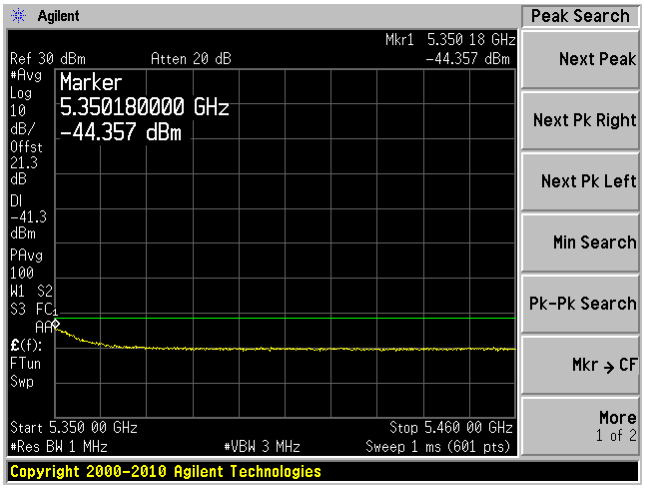
Chain 2, Plot: 4.15 GHz – 5.15 GHz (restrict band) Ave



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band)
Peak



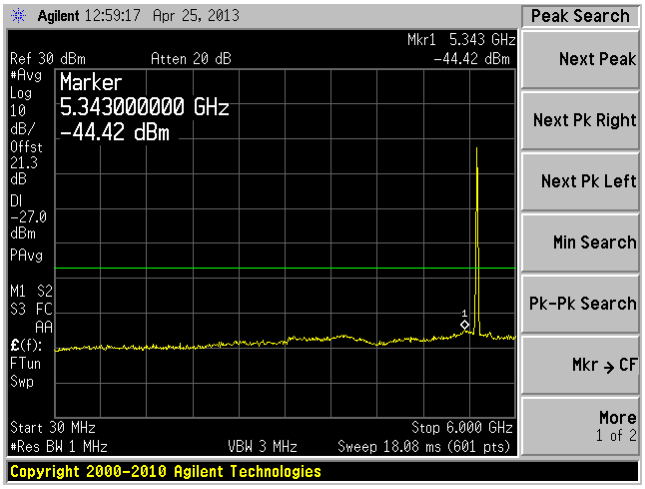
Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band)
Ave



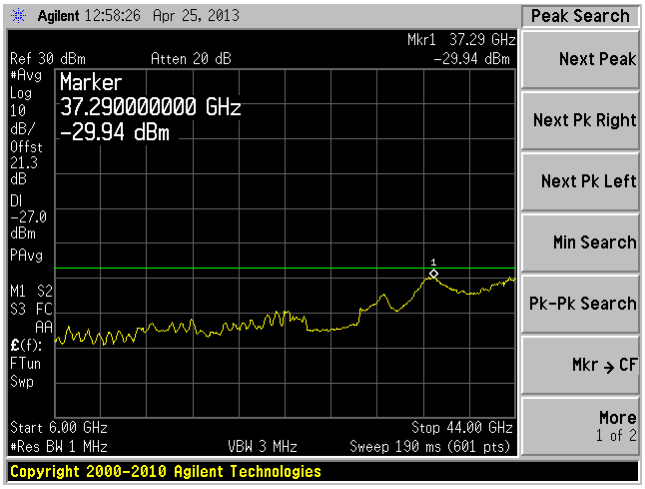
W56 Band

802.11a, Low Channel,

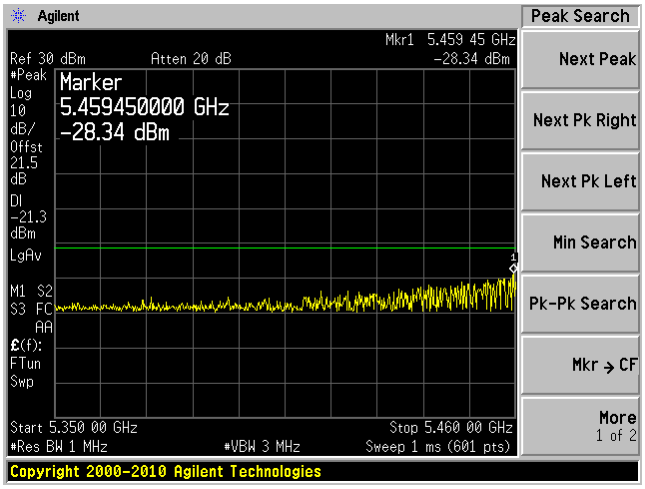
Chain 0, Plot: 30 MHz – 6 GHz



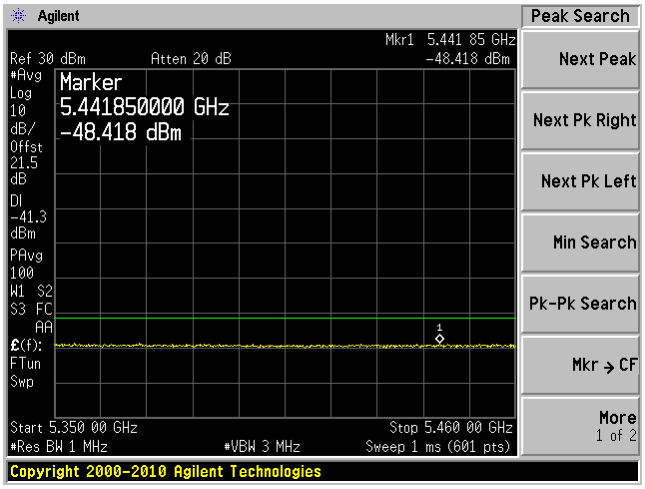
Chain 0, Plot: 6 GHz – 44 GHz



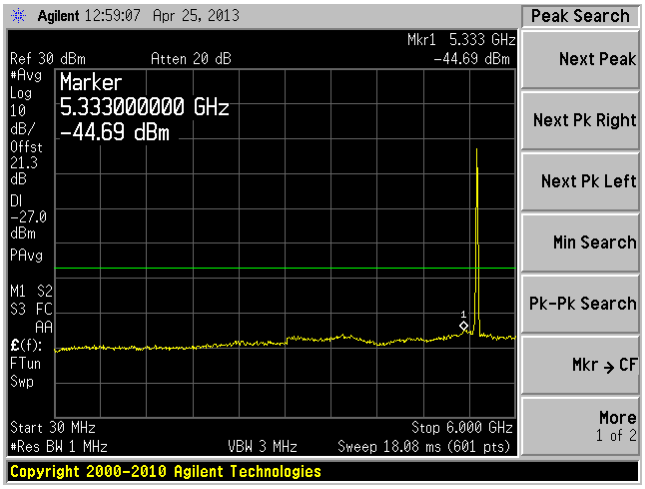
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



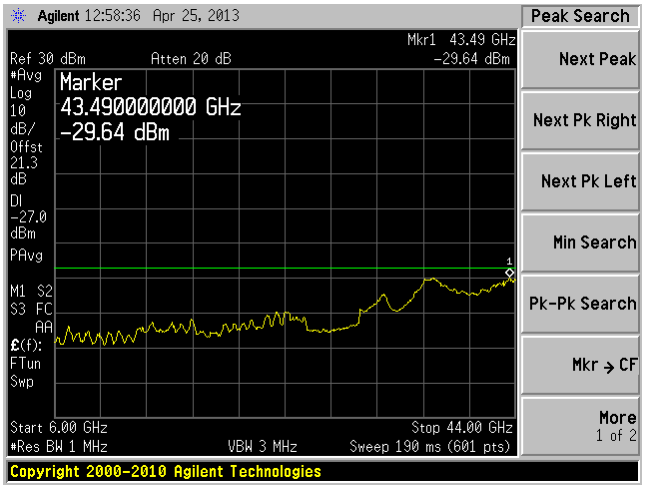
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



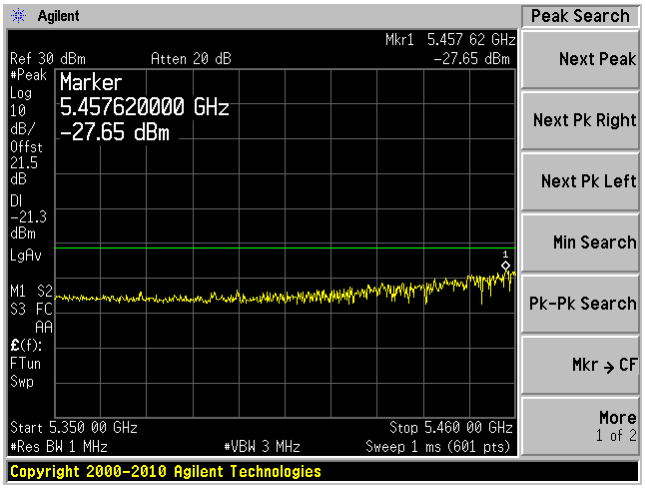
Chain 1, Plot: 30 MHz – 6 GHz



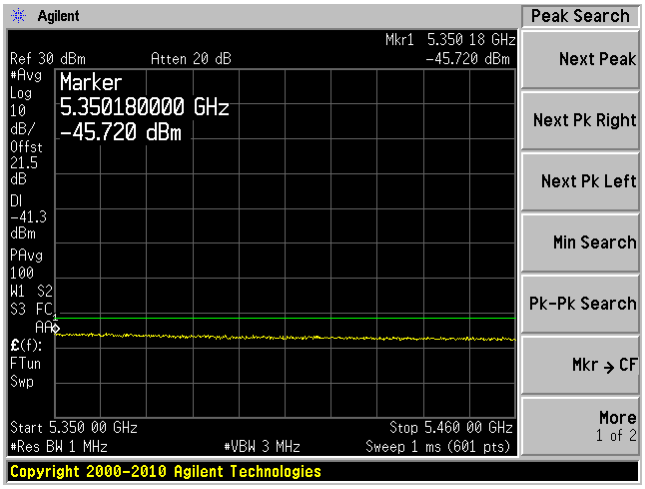
Chain 1, Plot: 6 GHz – 44 GHz



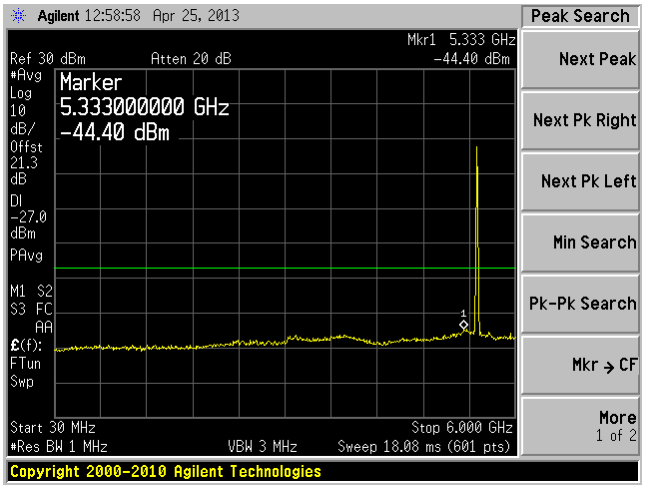
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



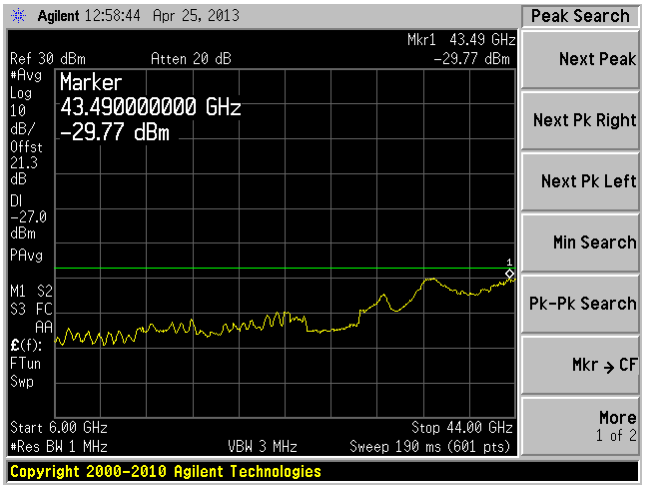
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



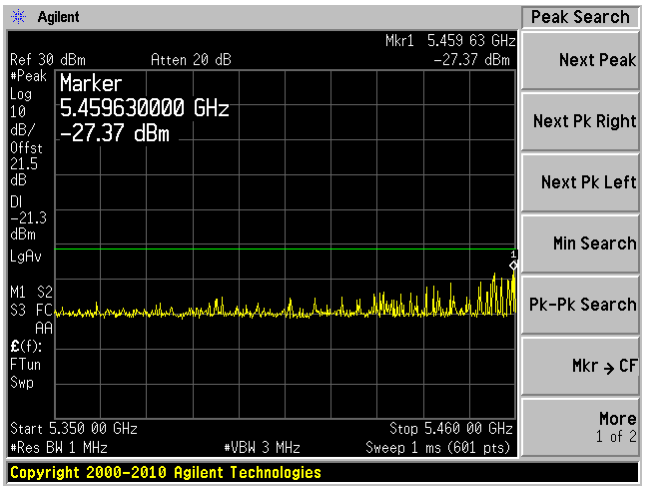
Chain 2, Plot: 30 MHz – 6 GHz



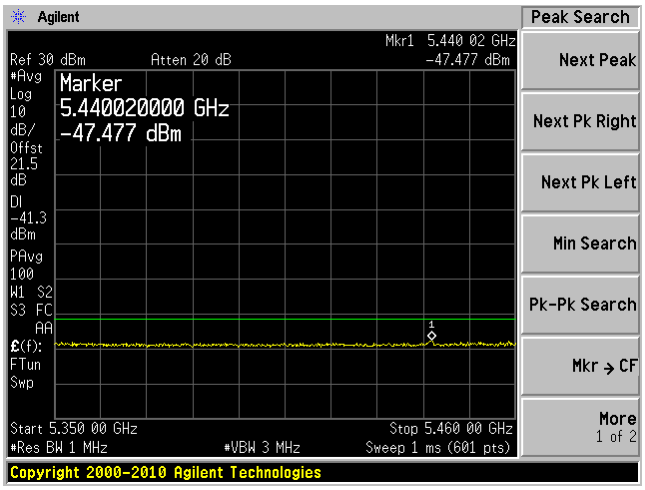
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

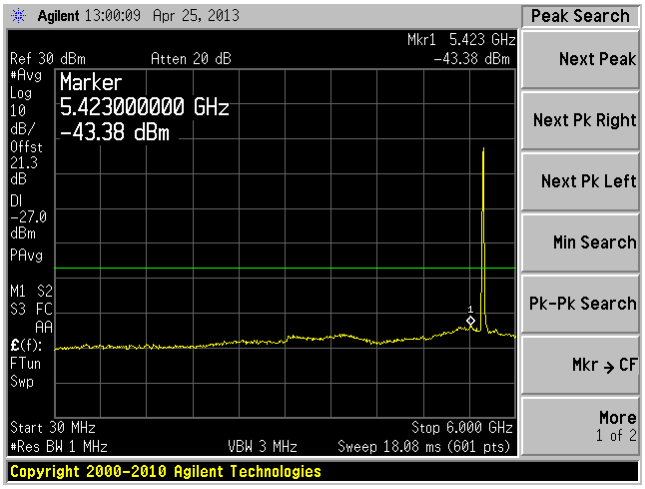


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

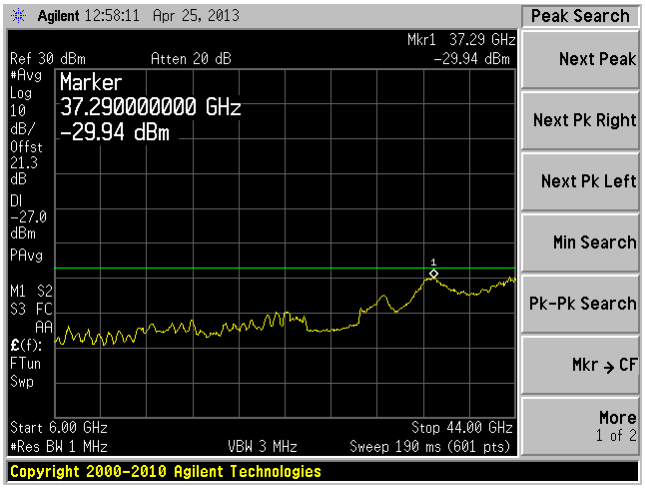


802.11a, Middle Channel,

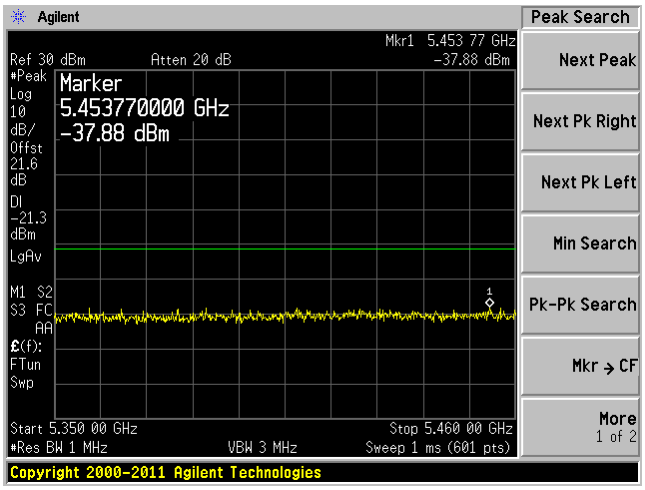
Chain 0, Plot: 30 MHz – 6 GHz



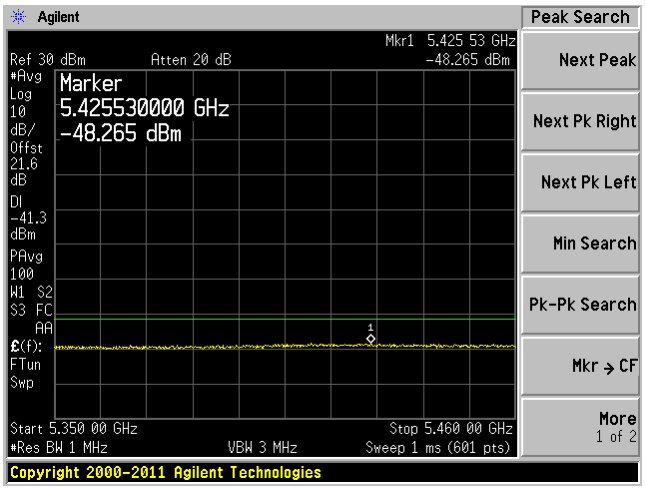
Chain 0, Plot: 6 GHz – 44 GHz



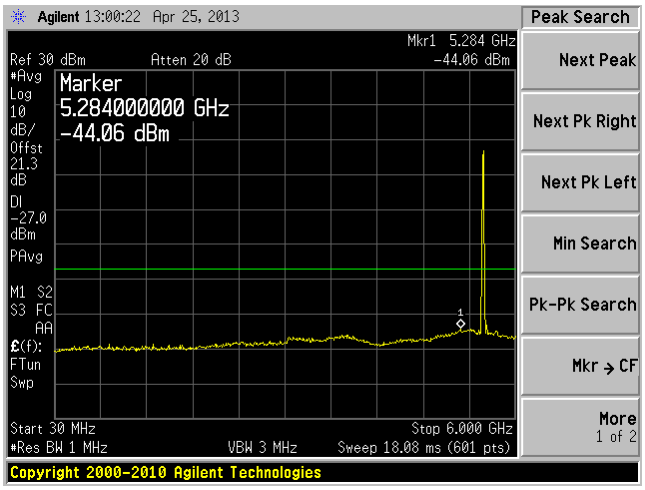
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



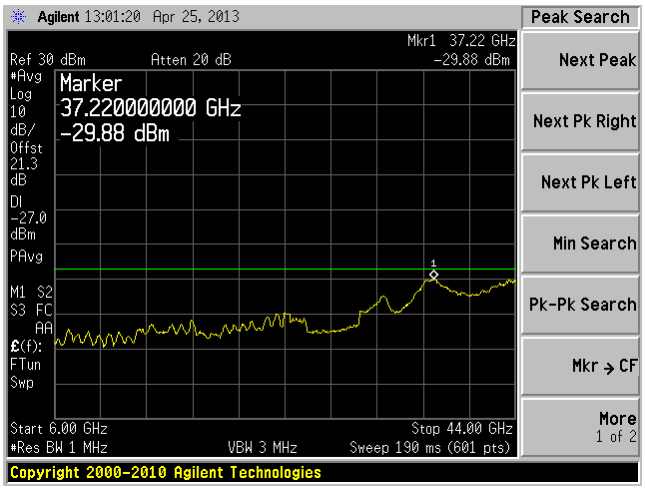
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



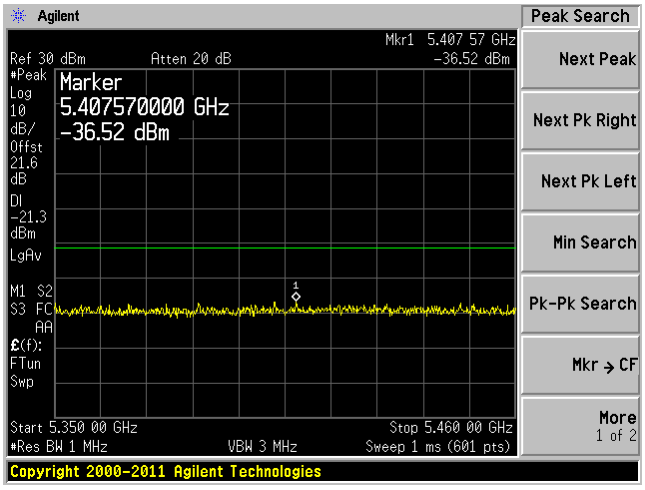
Chain 1, Plot: 30 MHz – 6 GHz



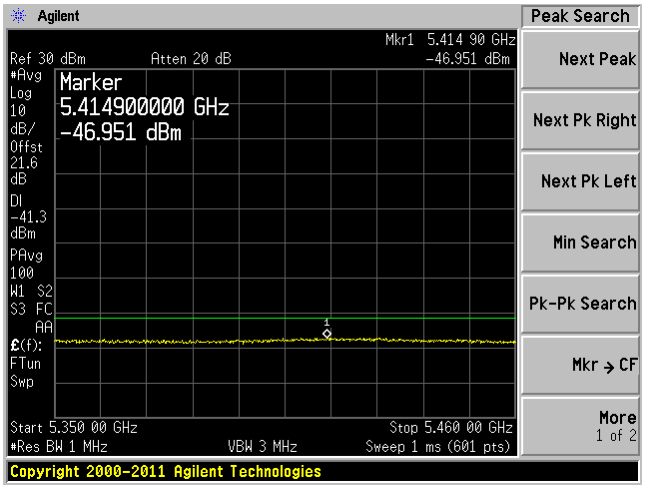
Chain 1, Plot: 6 GHz – 44 GHz



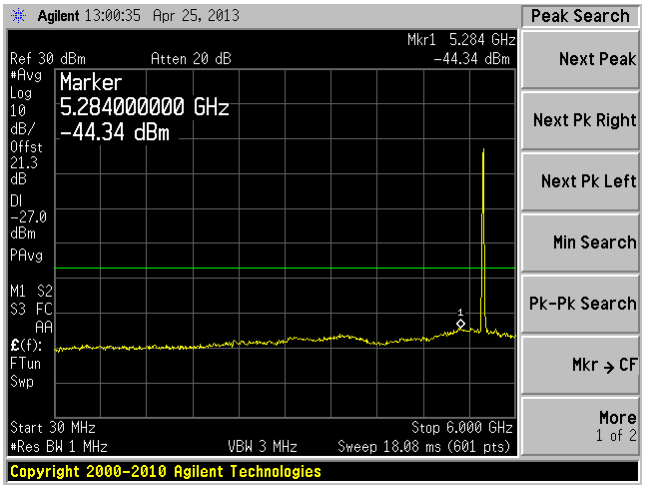
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



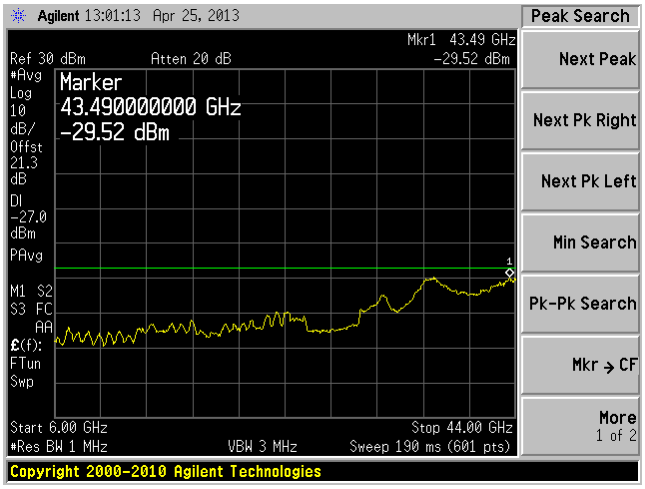
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



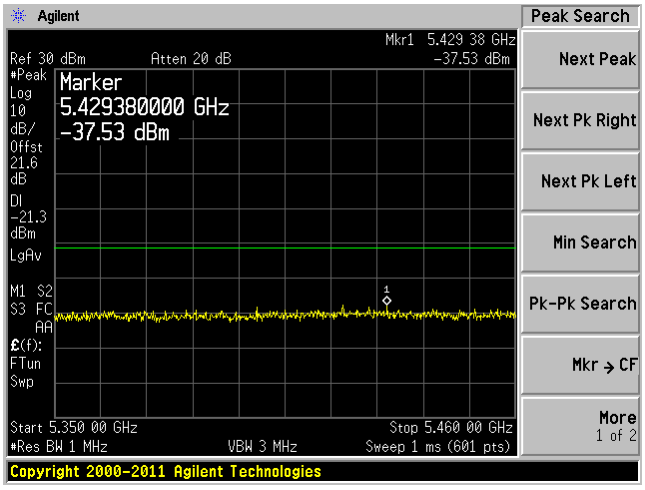
Chain 2, Plot: 30 MHz – 6 GHz



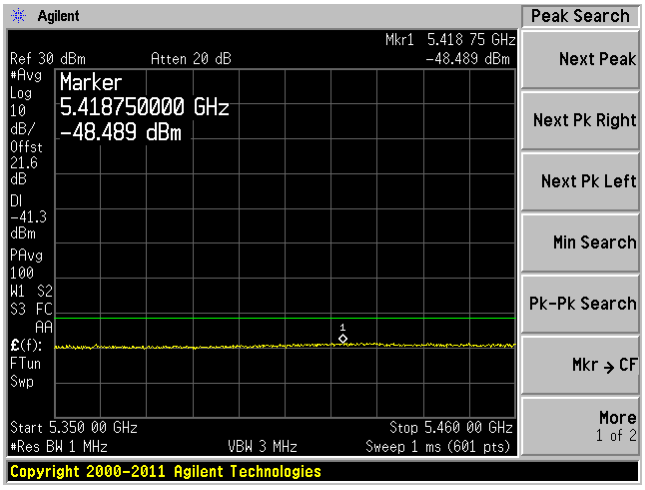
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

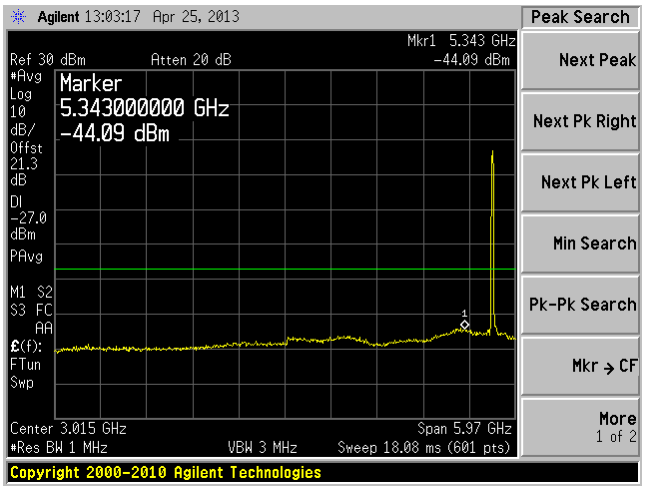


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

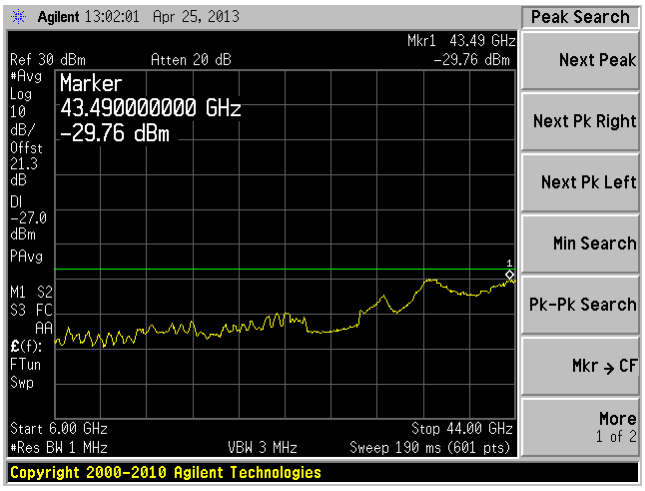


802.11a, High Channel,

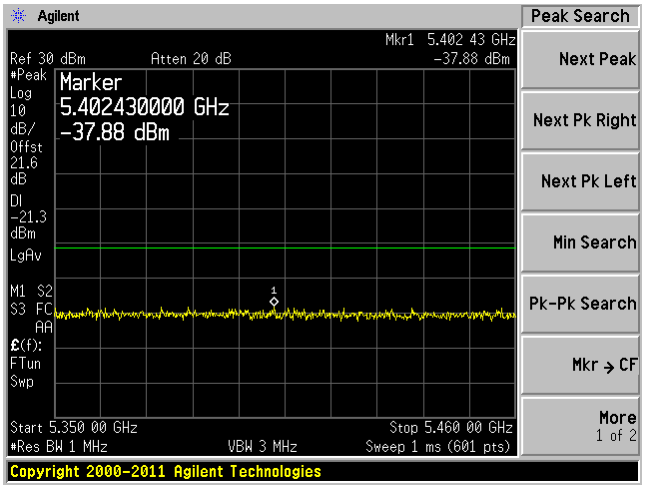
Chain 0, Plot: 30 MHz – 6 GHz



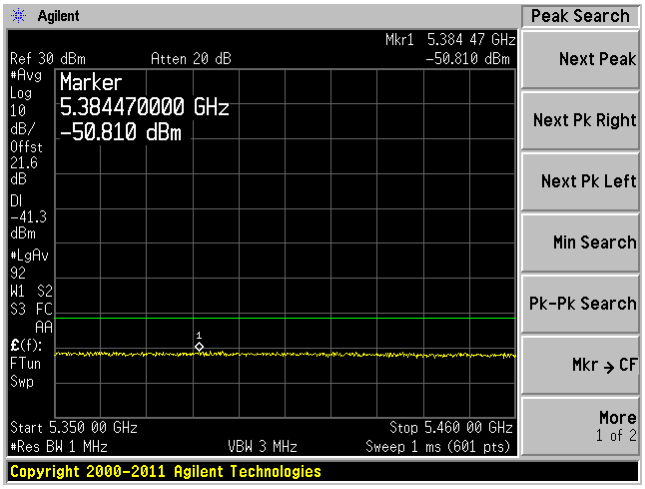
Chain 0, Plot: 6 GHz – 44 GHz



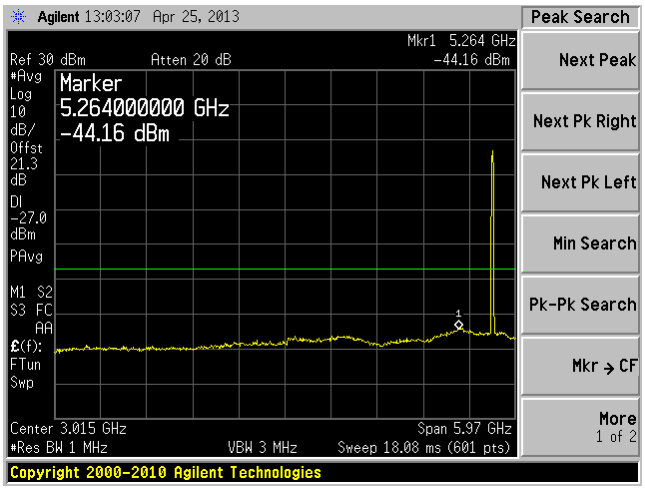
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



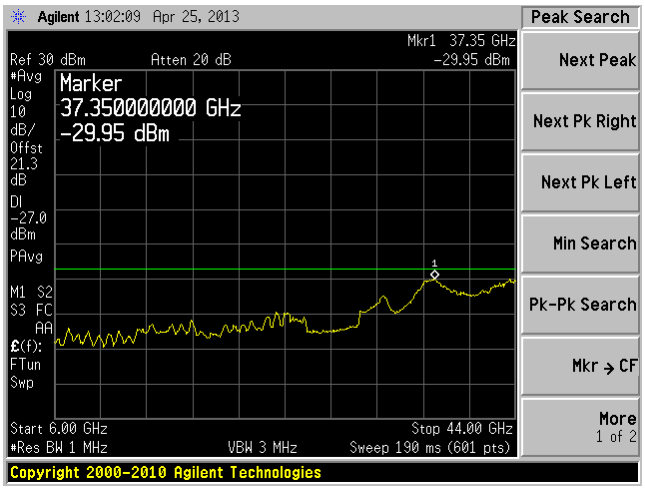
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



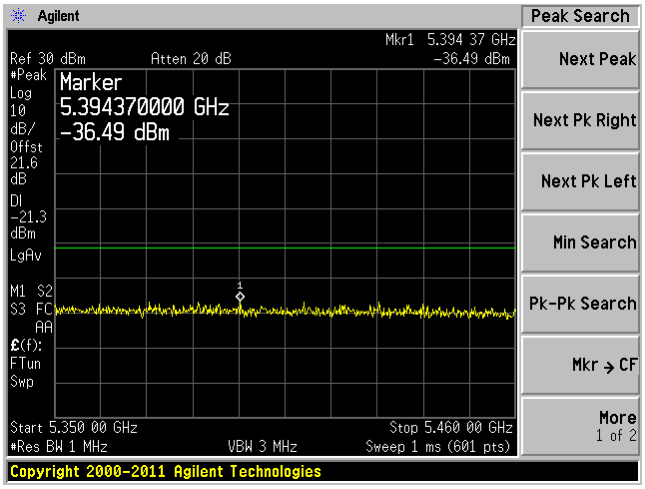
Chain 1, Plot: 30 MHz – 6 GHz



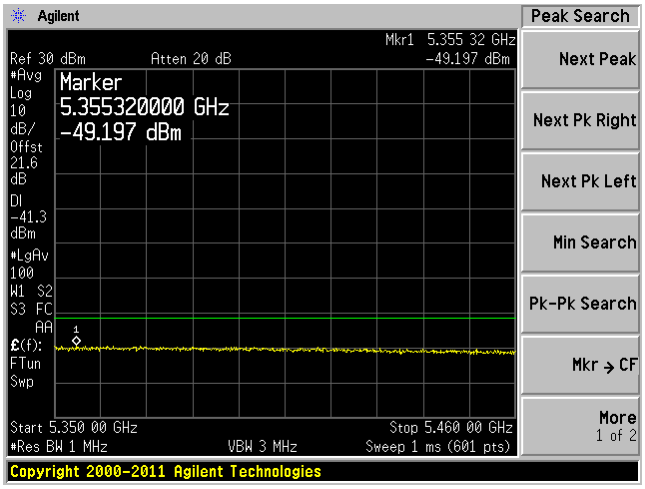
Chain 1, Plot: 6 GHz – 44 GHz



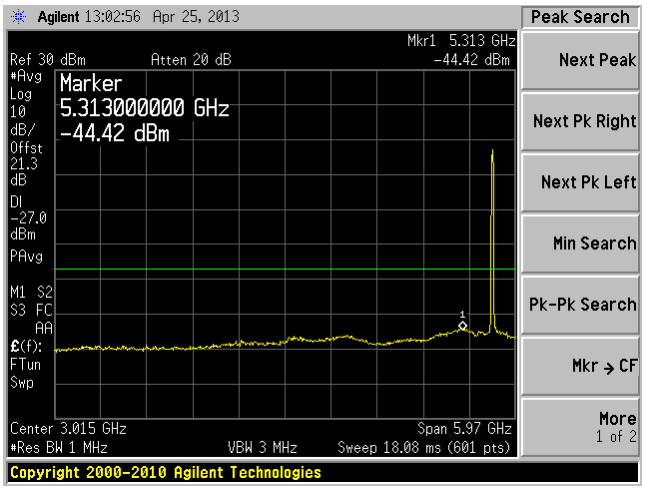
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



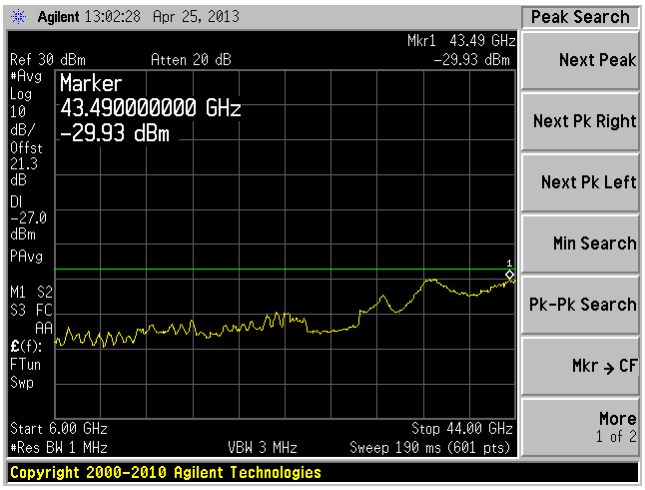
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



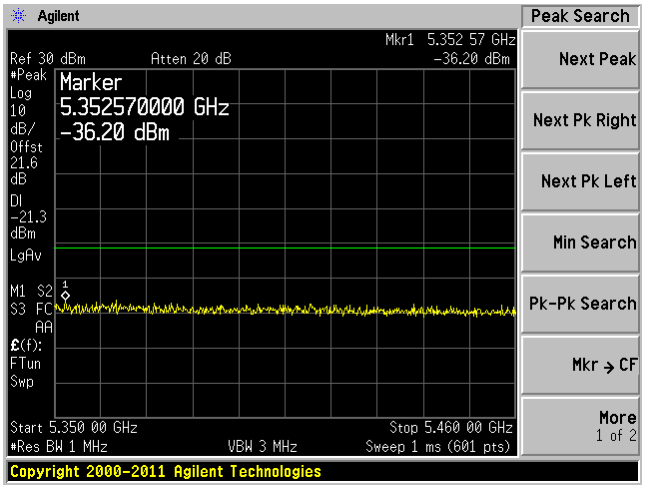
Chain 2, Plot: 30 MHz – 6 GHz



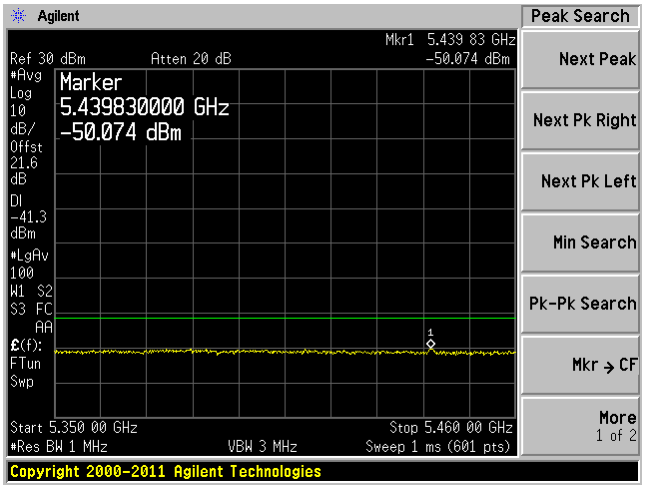
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

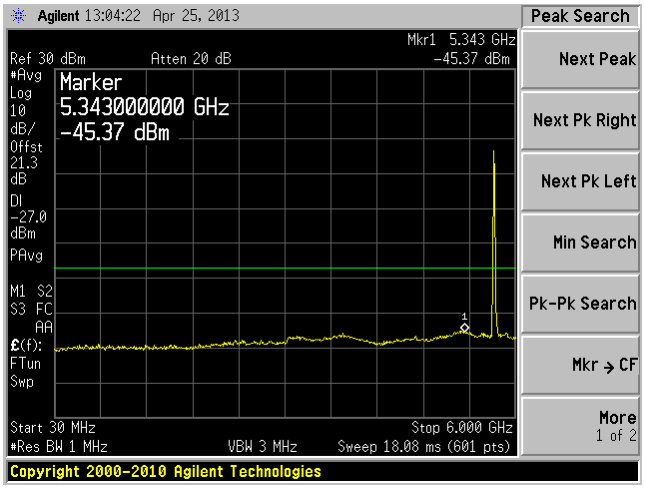


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

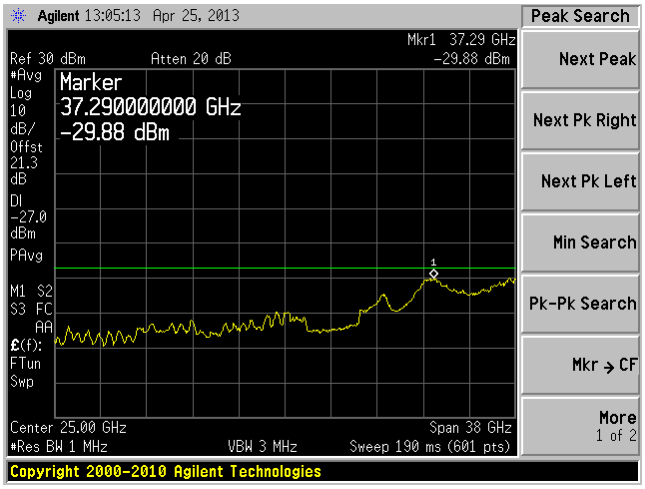


802.11a mode, Cross Channel,

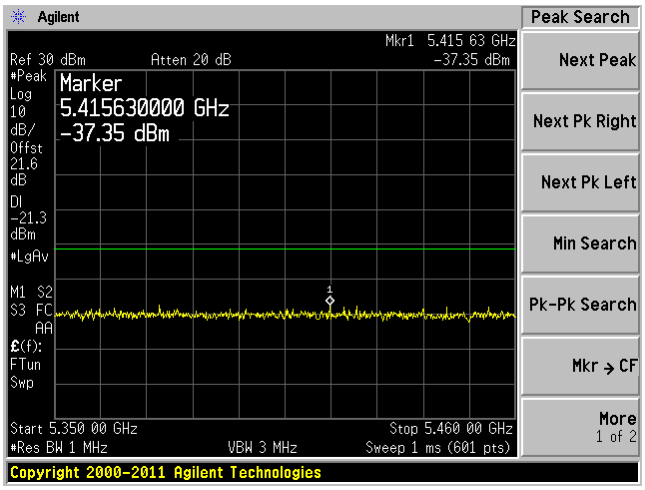
Chain 0, Plot: 30 MHz – 6 GHz



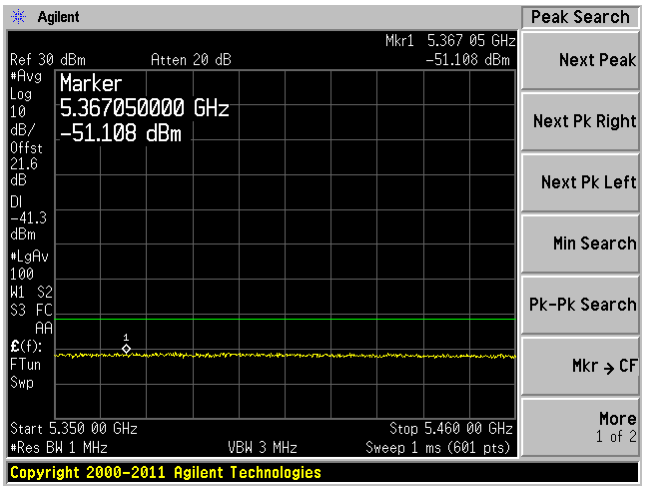
Chain 0, Plot: 6 GHz – 44 GHz



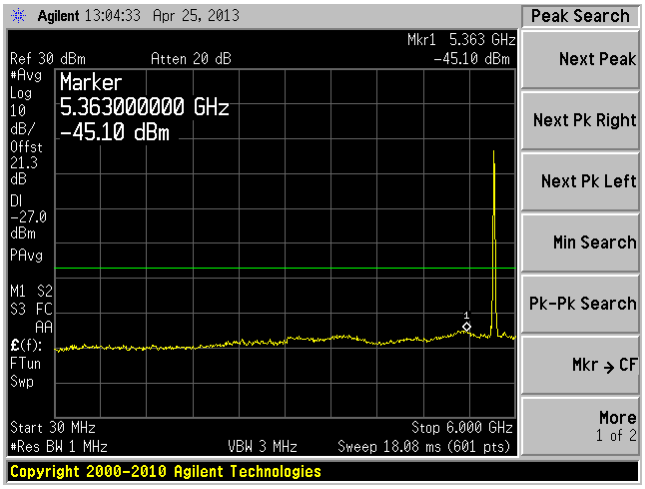
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



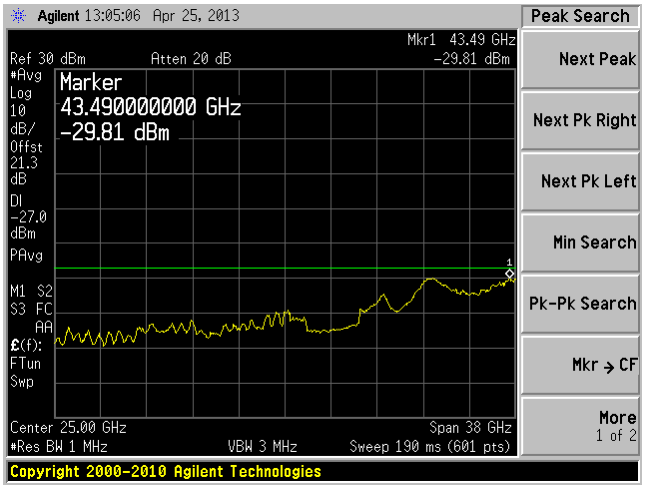
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



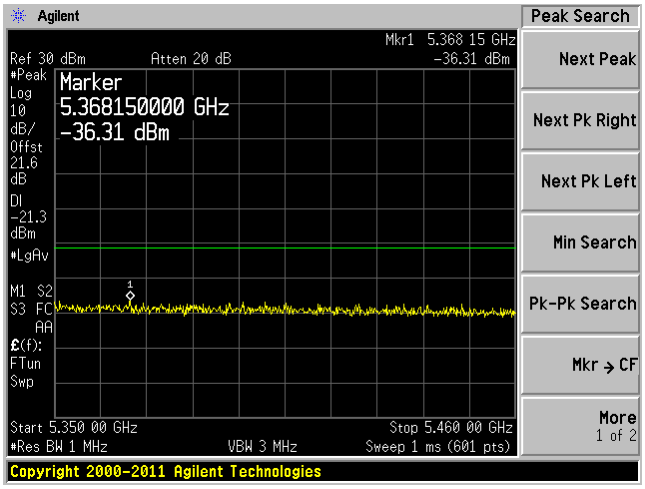
Chain 1, Plot: 30 MHz – 6 GHz



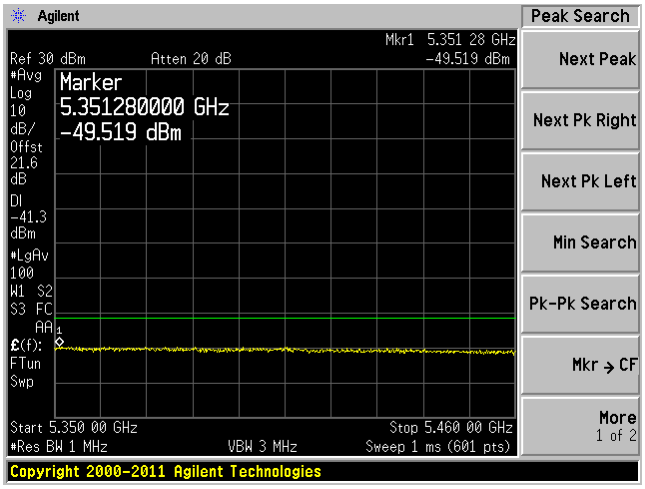
Chain 1, Plot: 6 GHz – 44 GHz



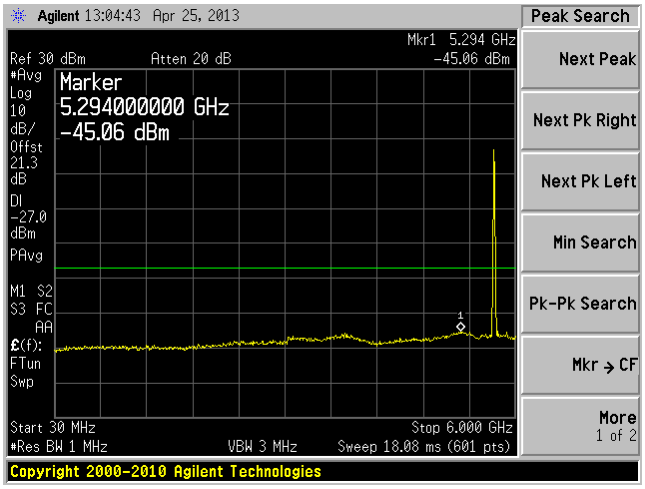
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



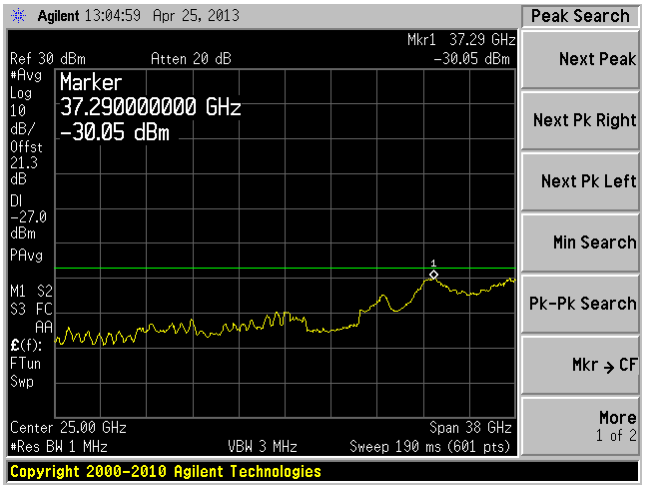
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



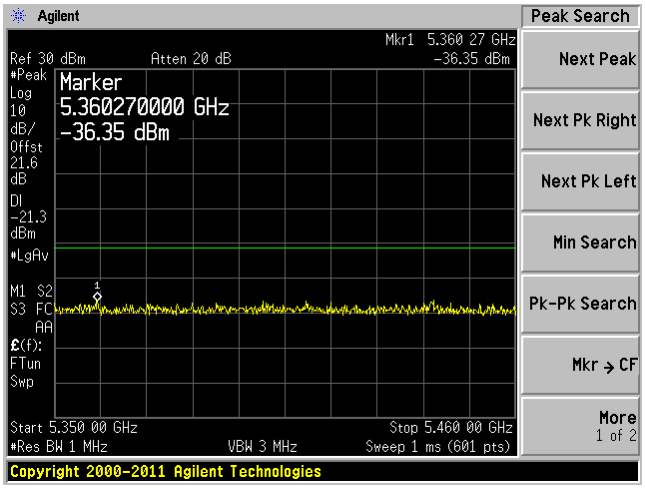
Chain 2, Plot: 30 MHz – 6 GHz



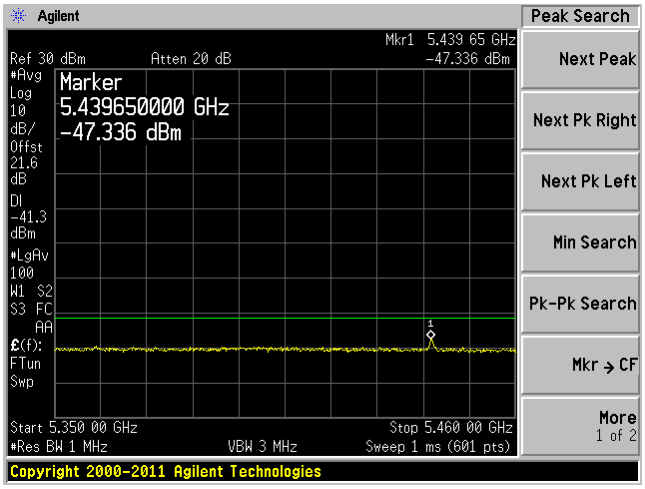
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

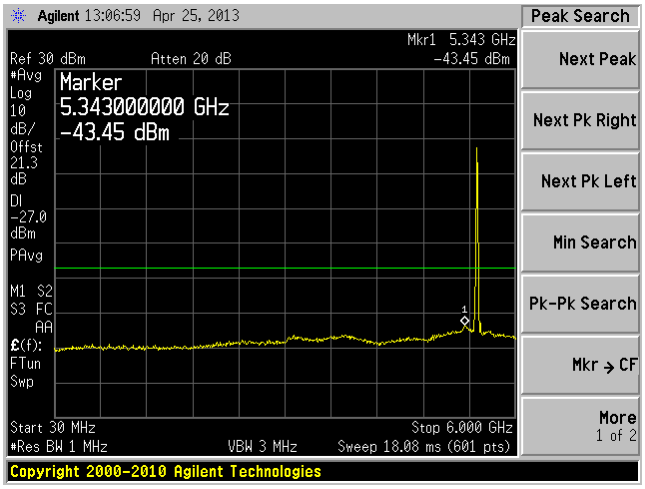


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

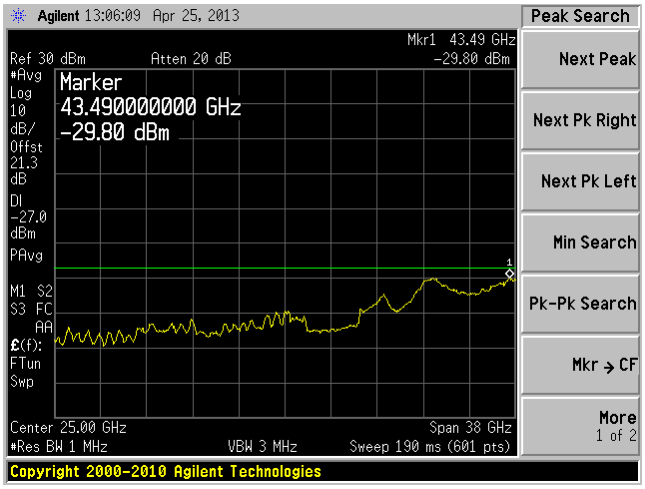


802.11n-HT20, Low Channel,

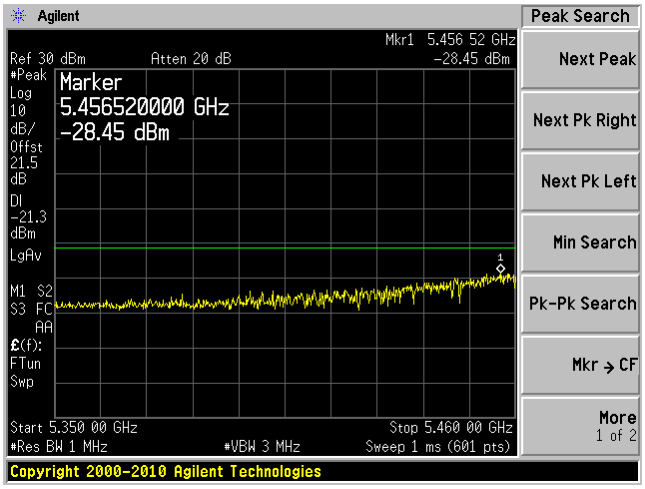
Chain 0, Plot: 30 MHz – 6 GHz



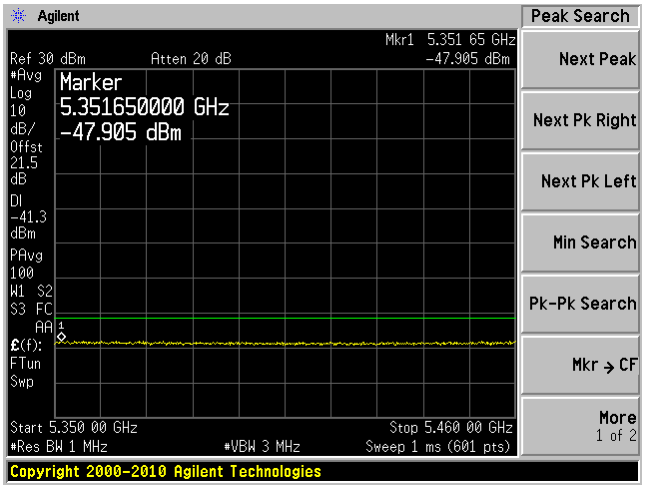
Chain 0, Plot: 6 GHz – 44 GHz



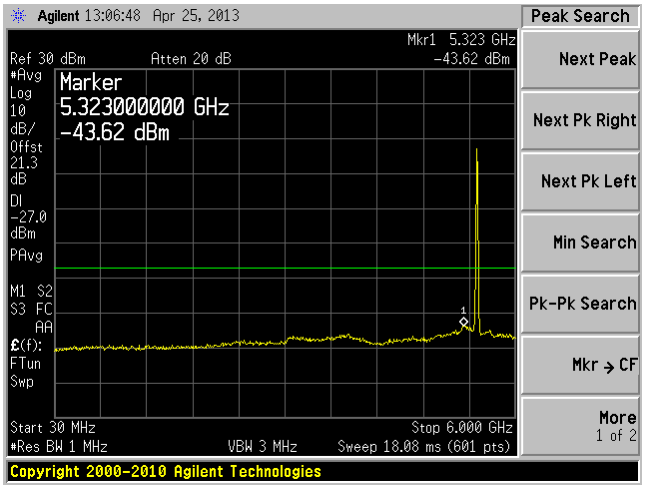
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



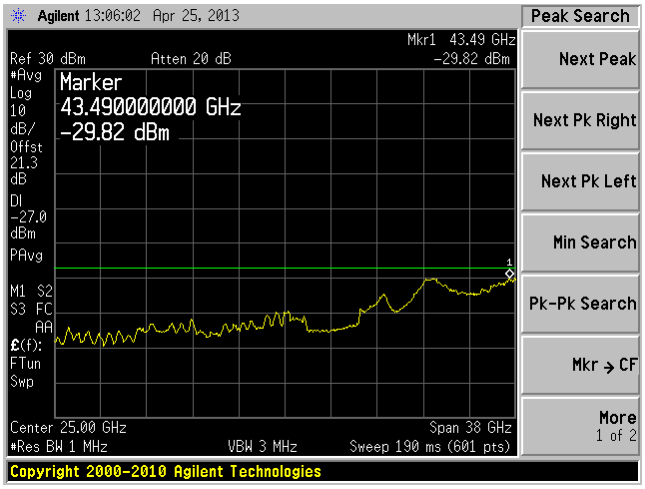
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



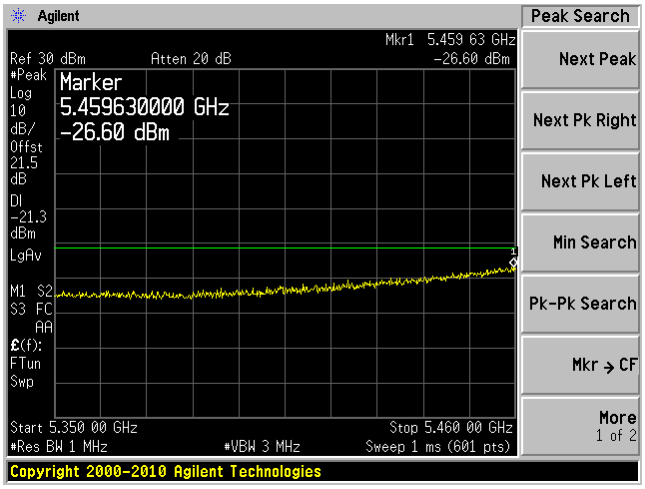
Chain 1, Plot: 30 MHz – 6 GHz



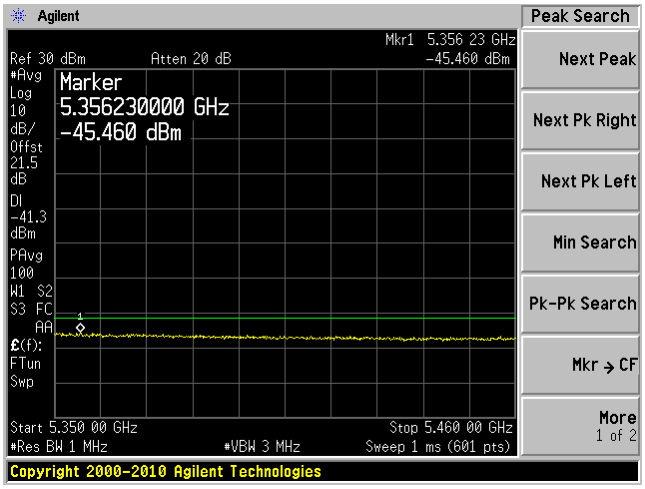
Chain 1, Plot: 6 GHz – 44 GHz



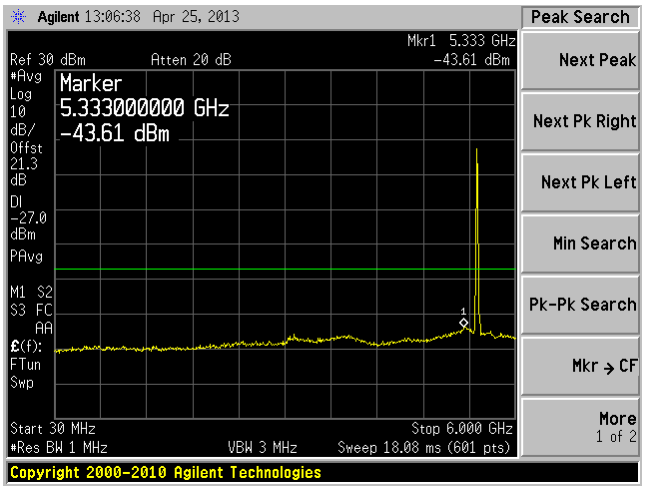
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



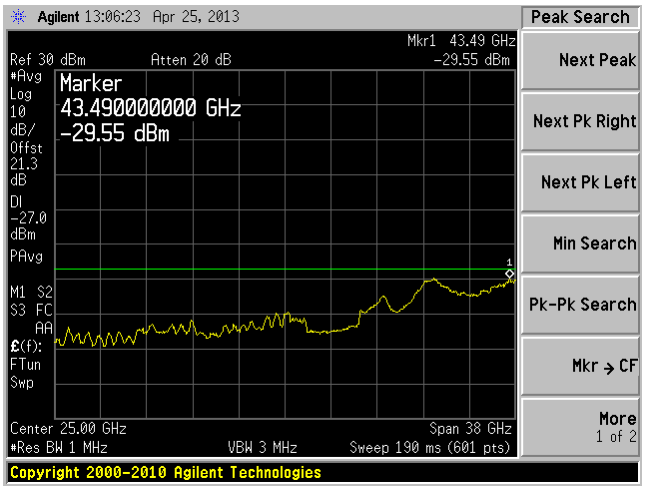
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



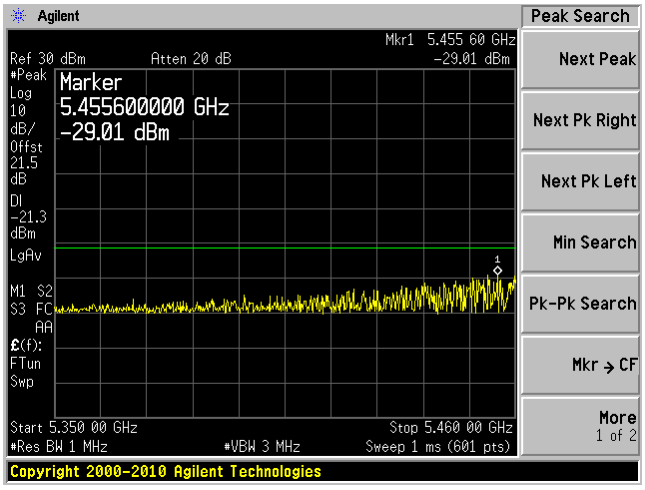
Chain 2, Plot: 30 MHz – 6 GHz



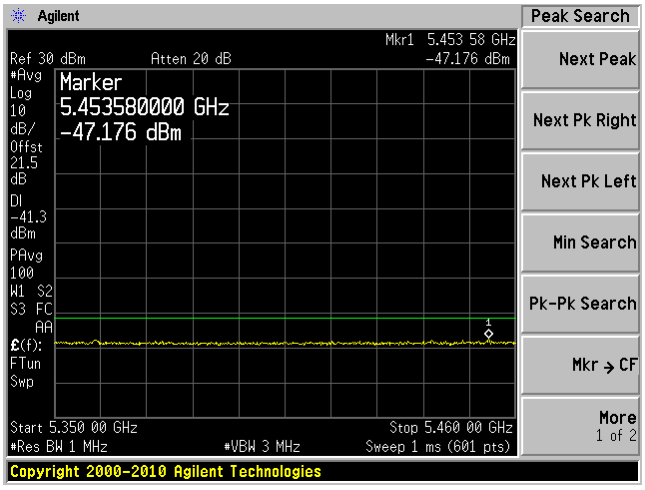
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

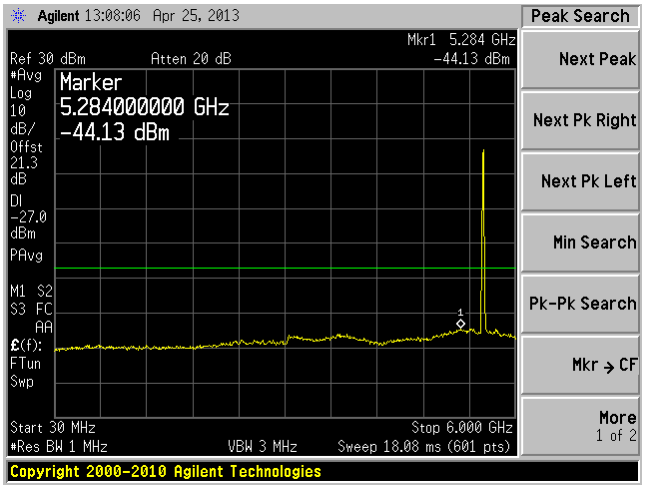


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

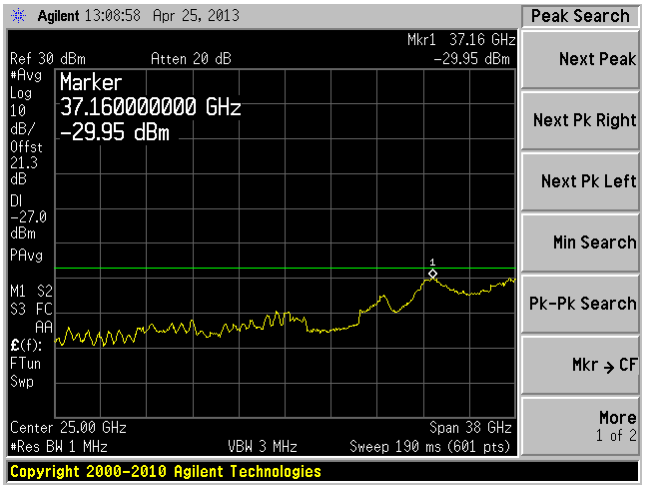


802.11n-HT20, Middle Channel,

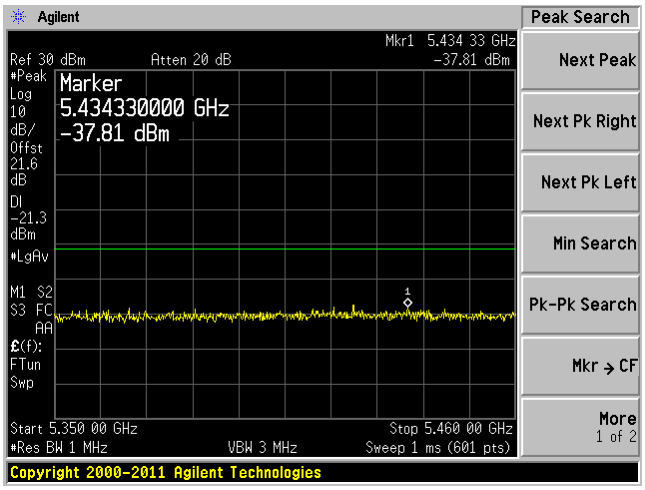
Chain 0, Plot: 30 MHz – 6 GHz



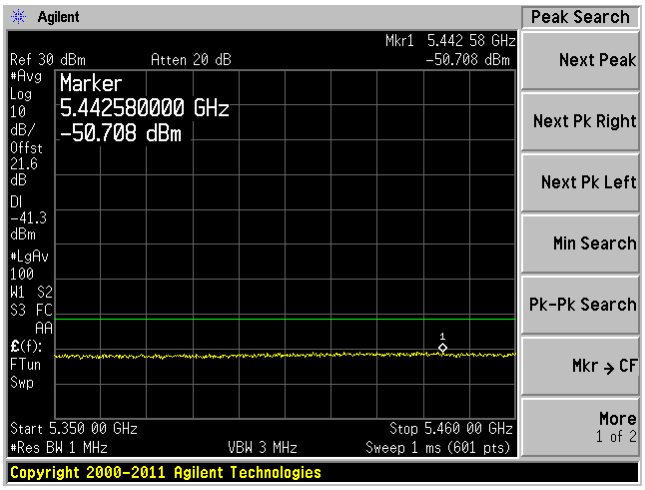
Chain 0, Plot: 6 GHz – 44 GHz



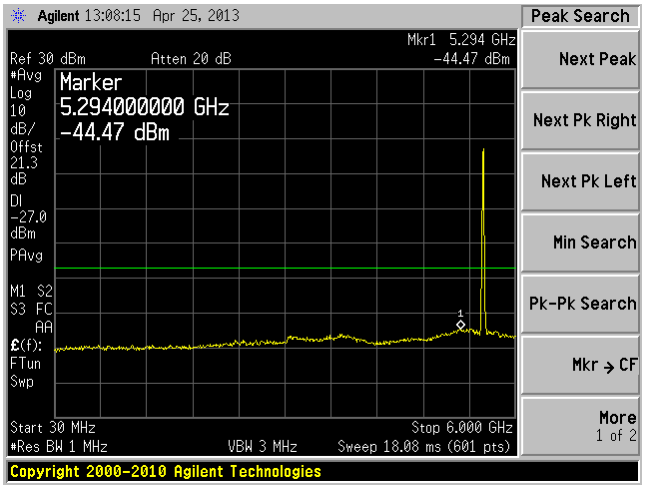
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



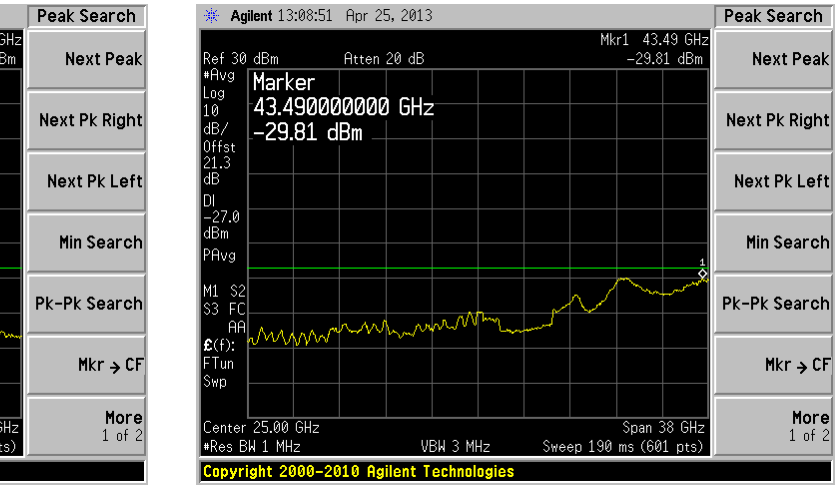
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



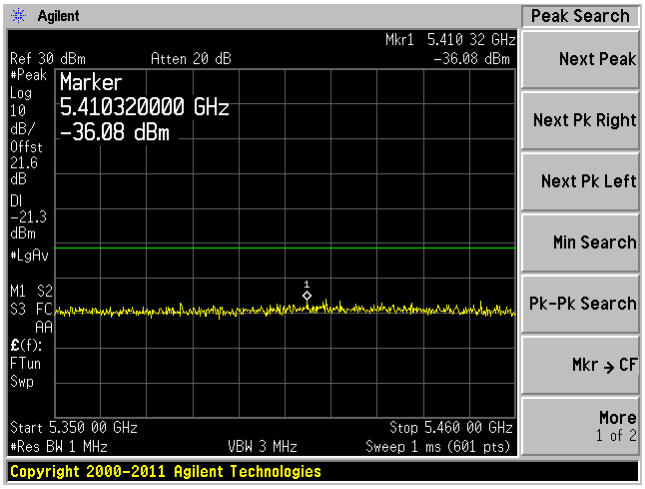
Chain 1, Plot: 30 MHz – 6 GHz



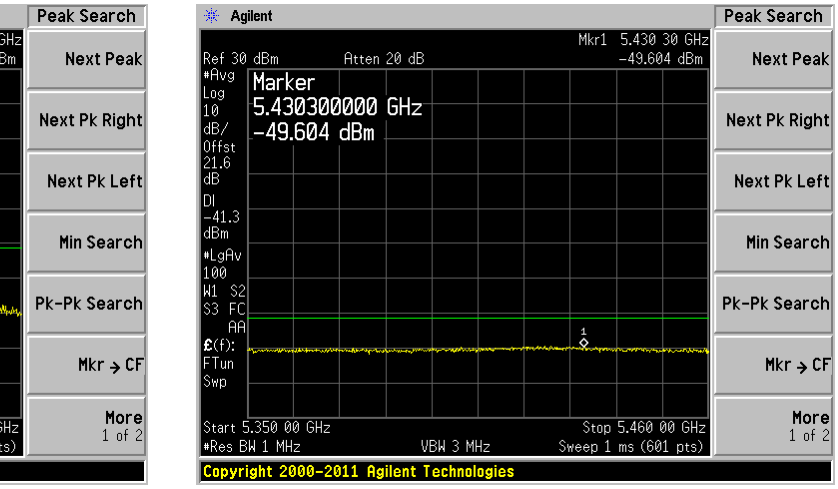
Chain 1, Plot: 6 GHz – 44 GHz



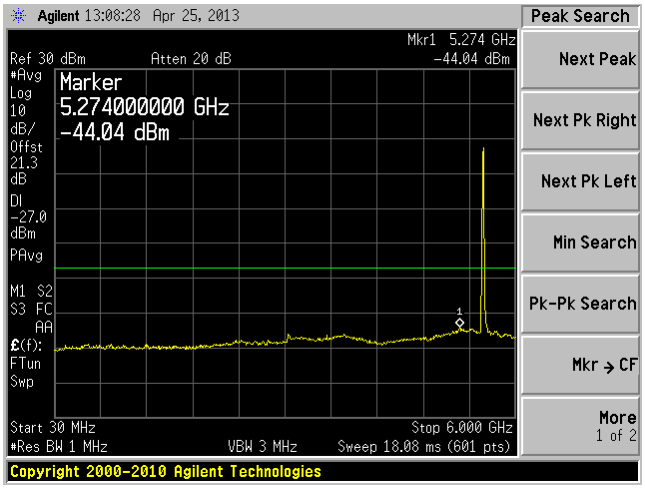
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



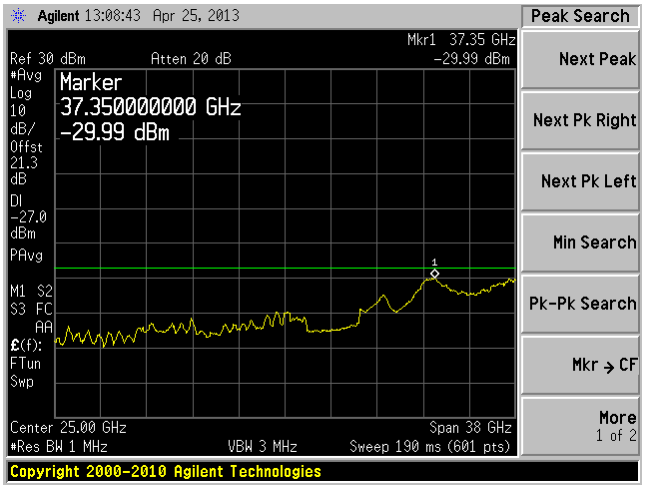
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



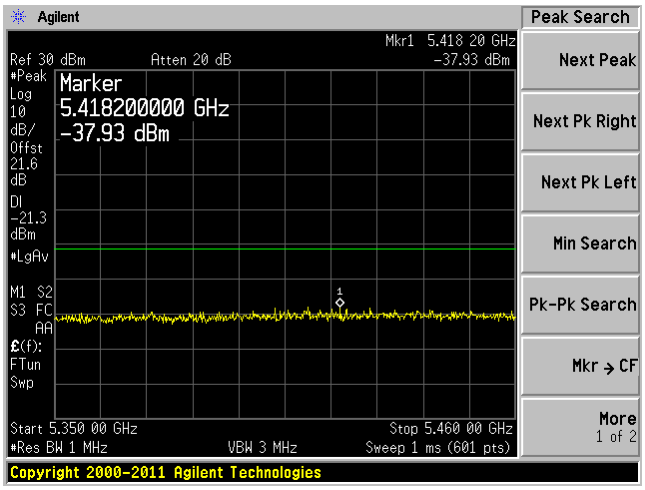
Chain 2, Plot: 30 MHz – 6 GHz



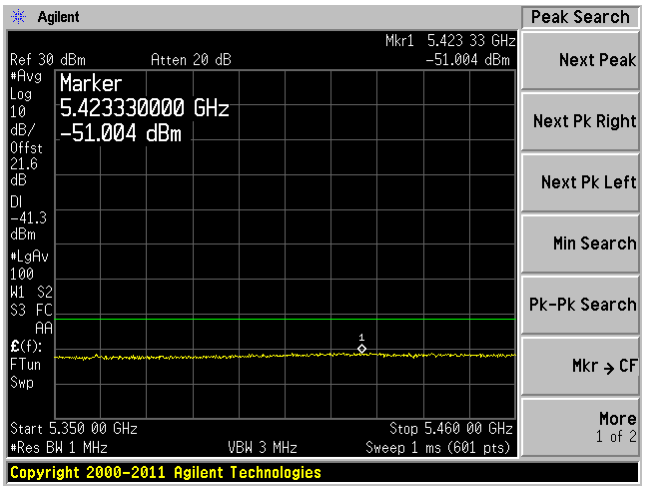
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

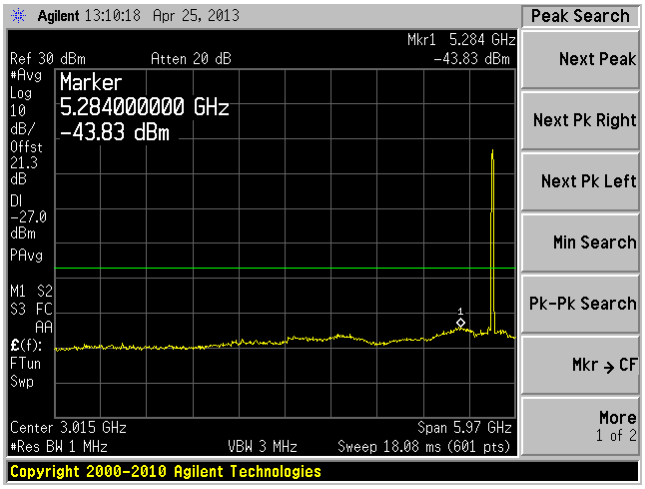


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

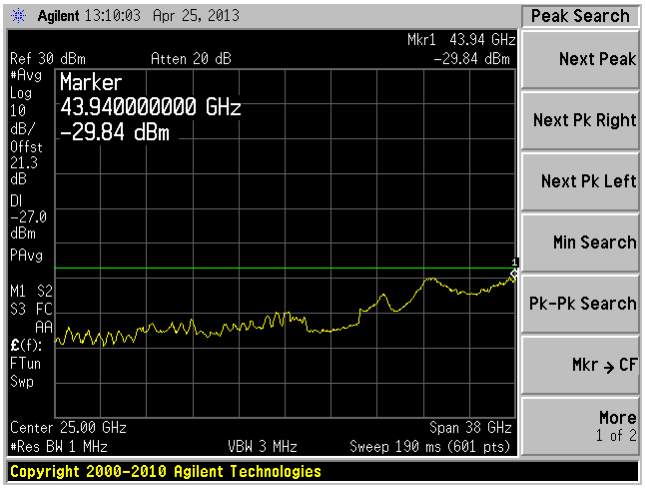


802.11n-HT20, High Channel,

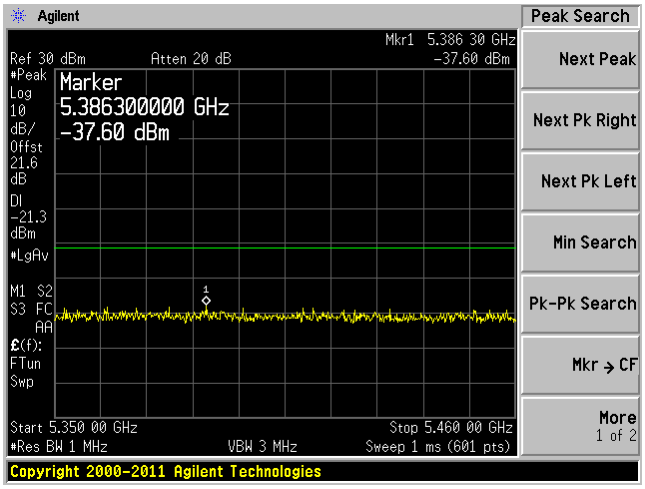
Chain 0, Plot: 30 MHz – 6 GHz



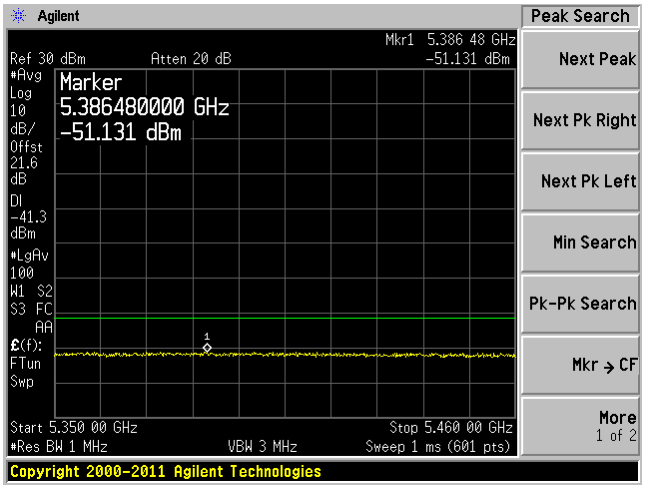
Chain 0, Plot: 6 GHz – 44 GHz



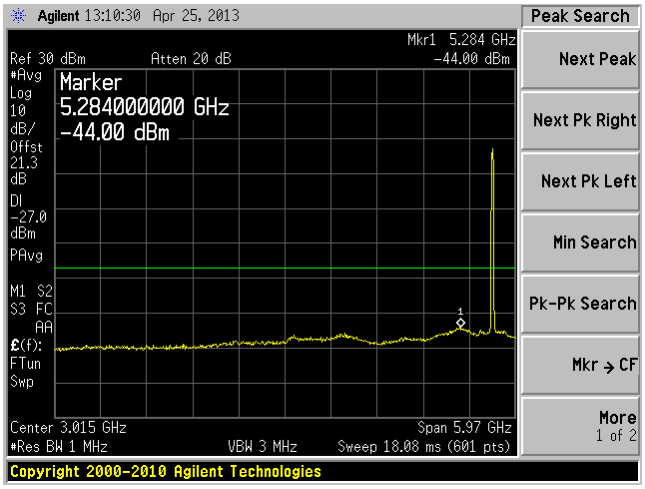
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



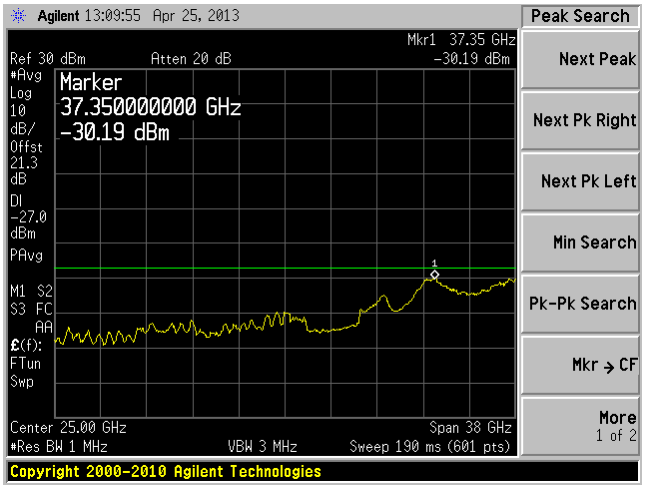
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



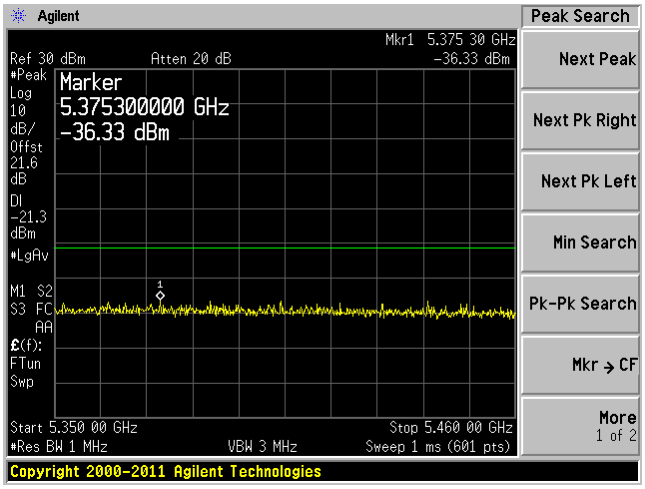
Chain 1, Plot: 30 MHz – 6 GHz



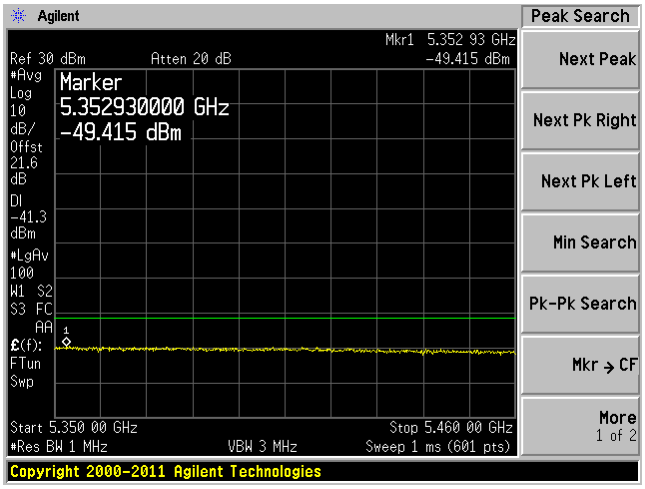
Chain 1, Plot: 6 GHz – 44 GHz



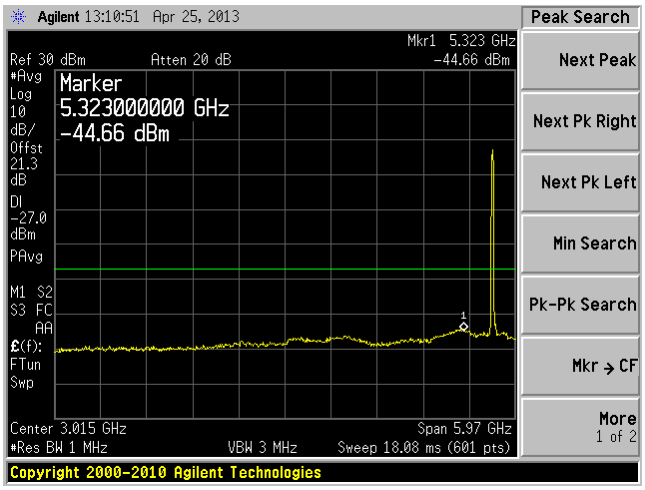
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



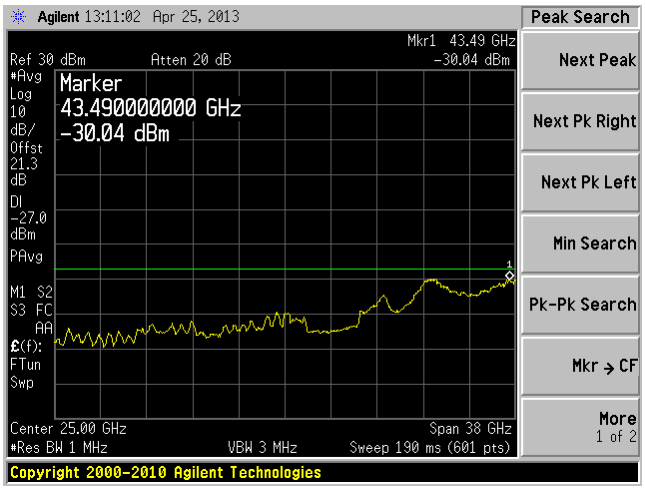
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



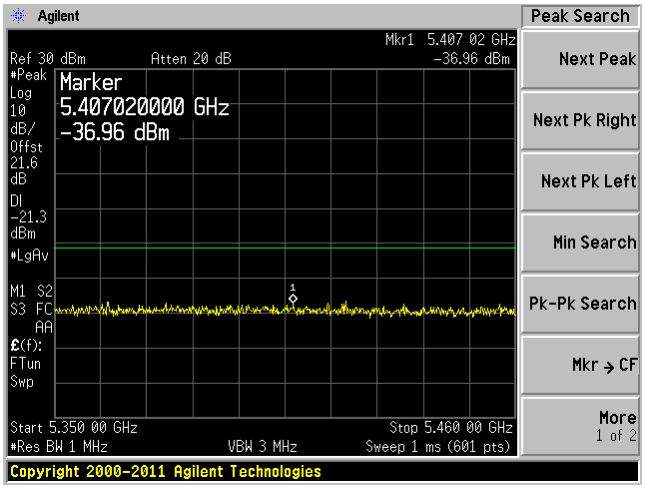
Chain 2, Plot: 30 MHz – 6 GHz



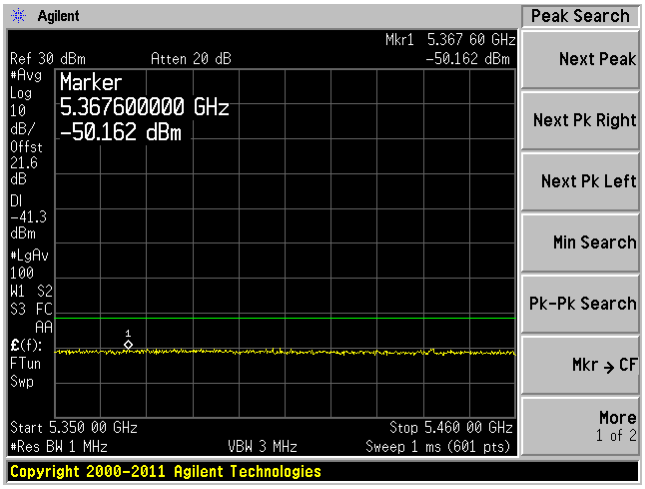
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

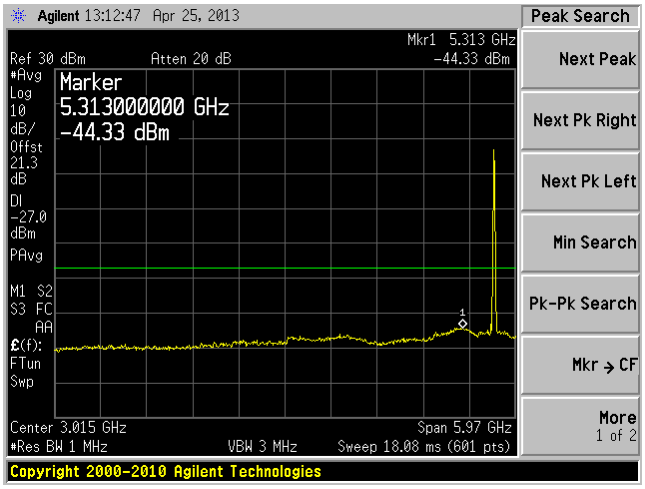


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

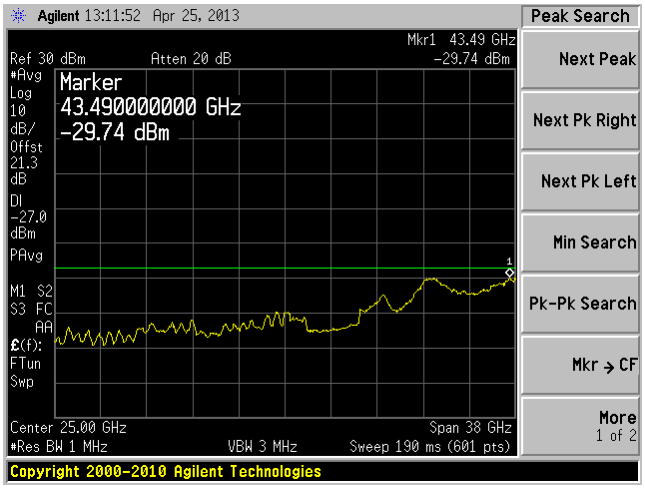


802.11n-HT20, Cross Channel,

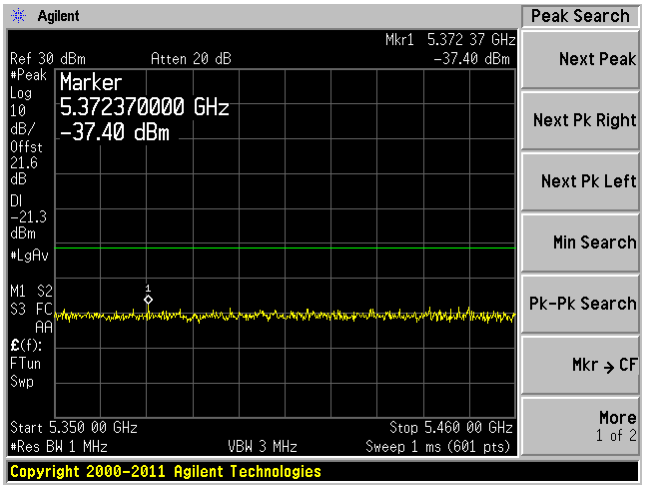
Chain 0, Plot: 30 MHz – 6 GHz



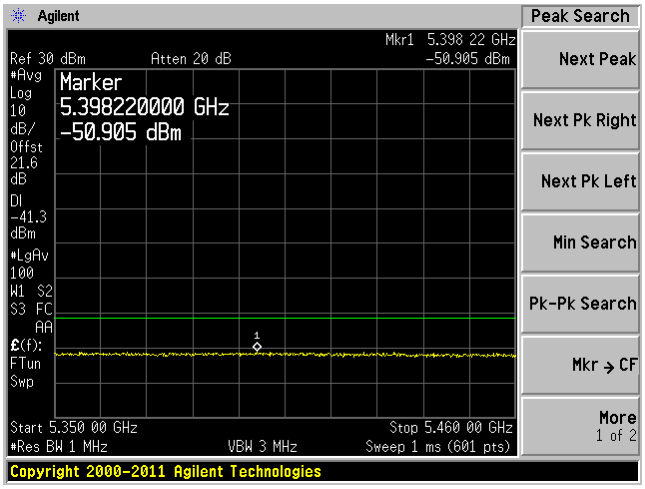
Chain 0, Plot: 6 GHz – 44 GHz



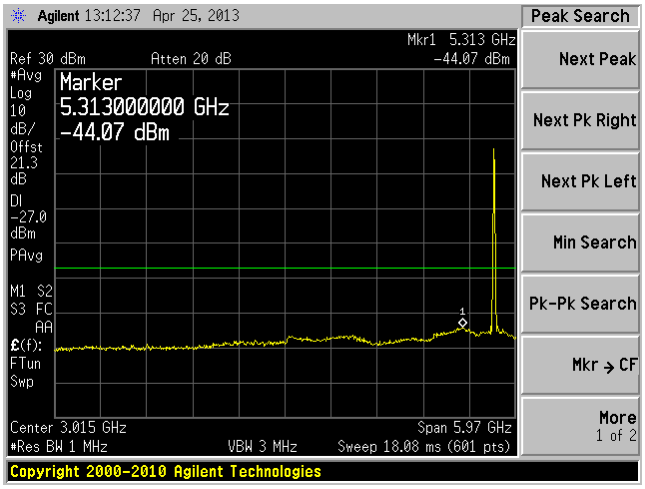
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



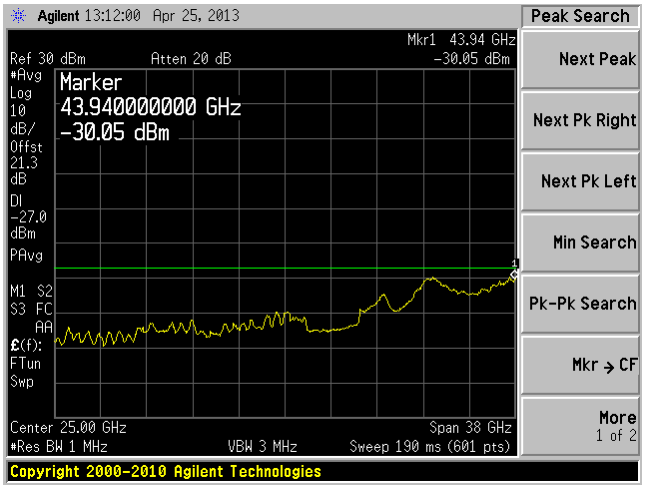
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



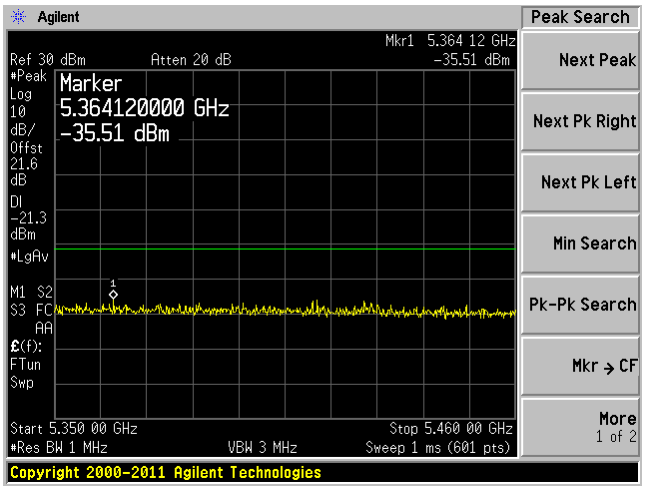
Chain 1, Plot: 30 MHz – 6 GHz



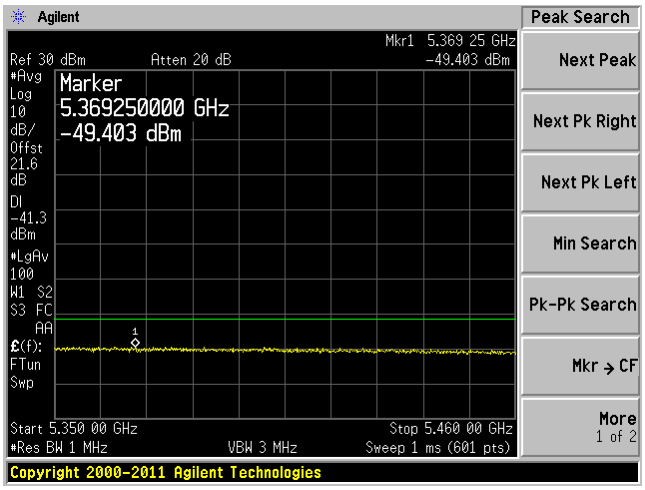
Chain 1, Plot: 6 GHz – 44 GHz



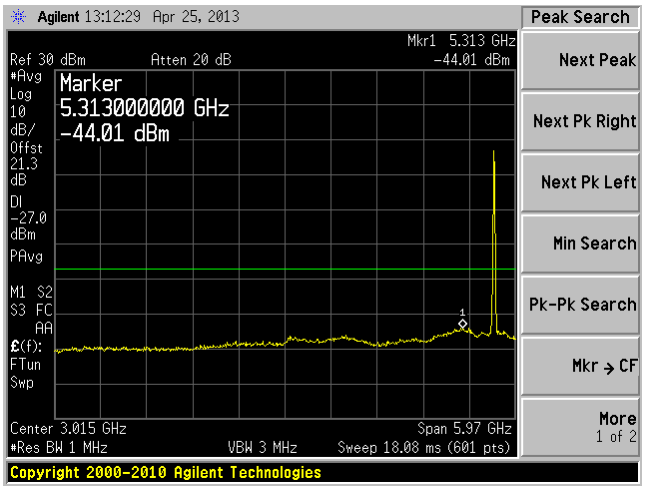
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



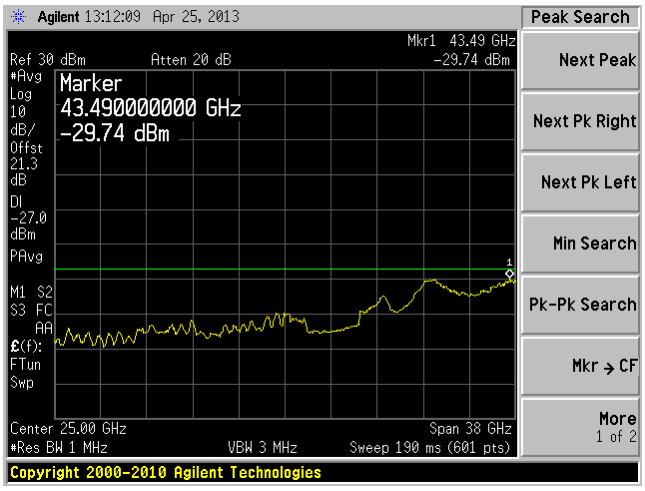
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



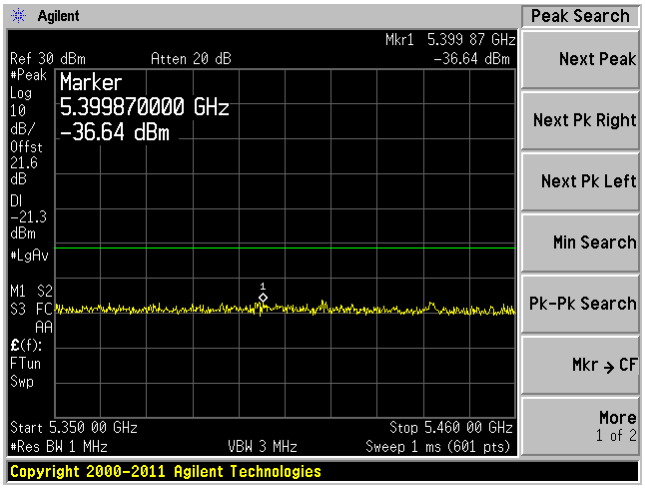
Chain 2, Plot: 30 MHz – 6 GHz



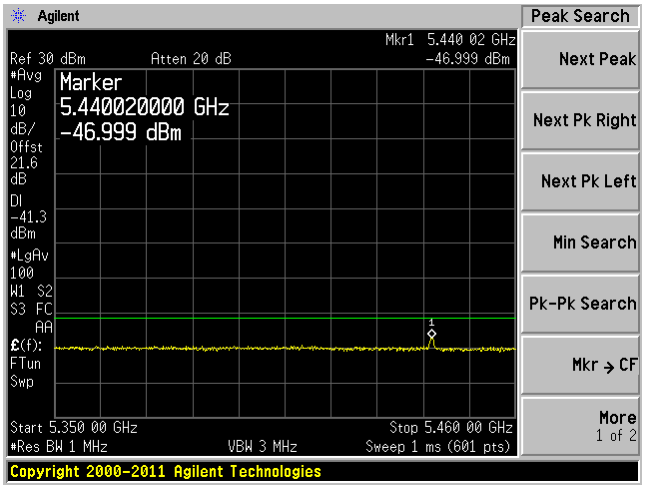
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

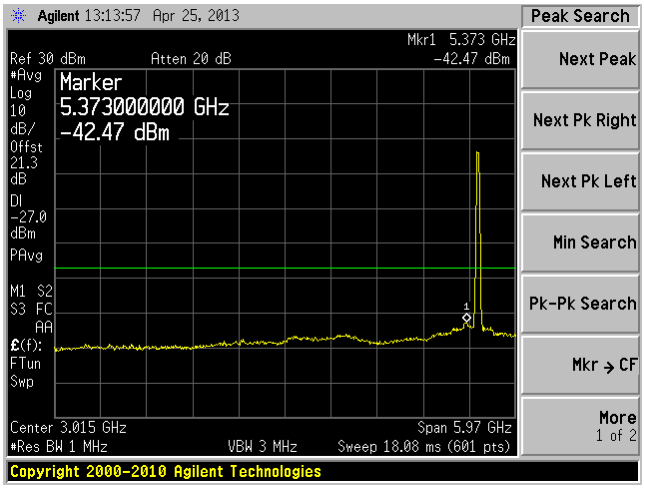


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

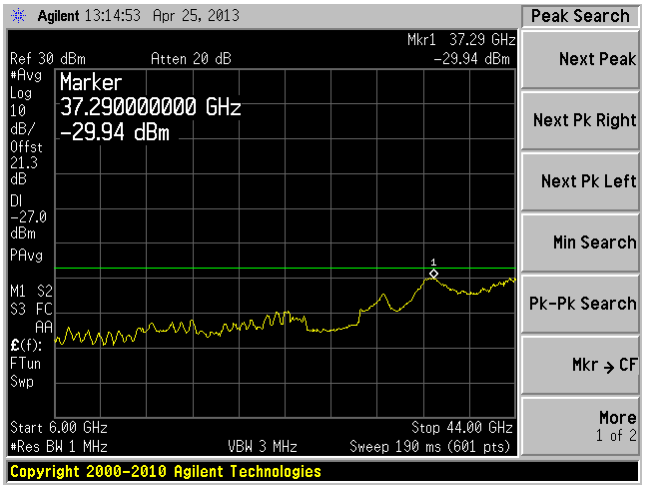


802.11n-HT40, Low Channel,

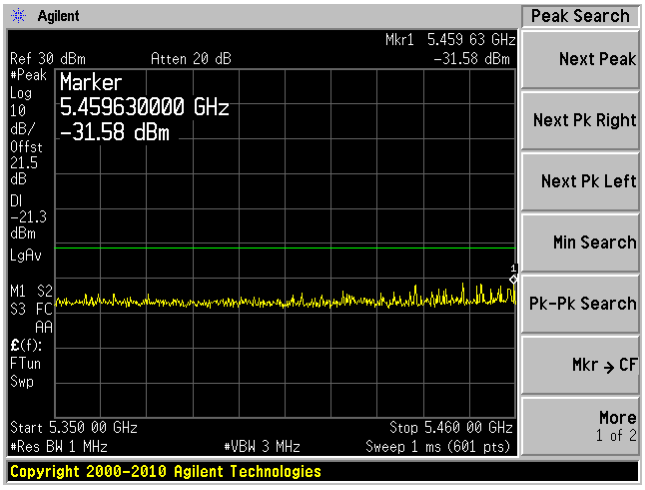
Chain 0, Plot: 30 MHz – 6 GHz



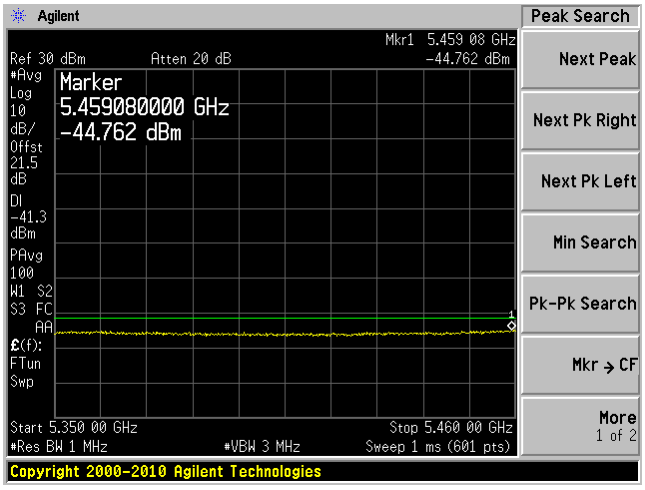
Chain 0, Plot: 6 GHz – 44 GHz



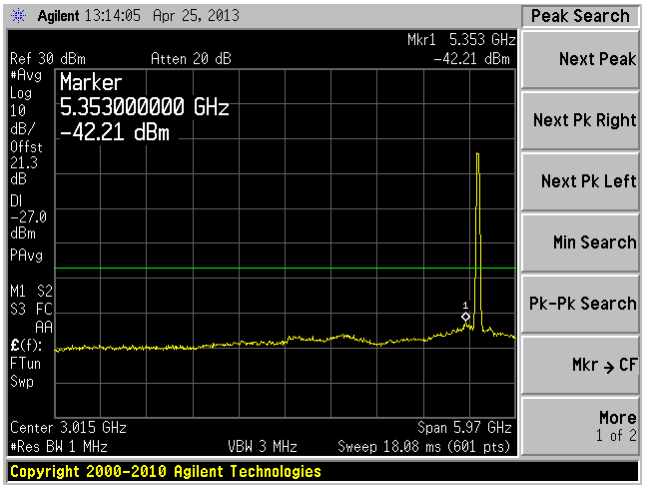
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



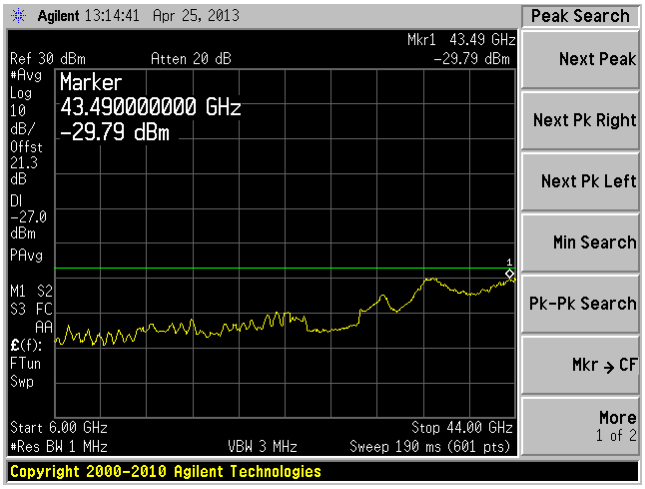
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



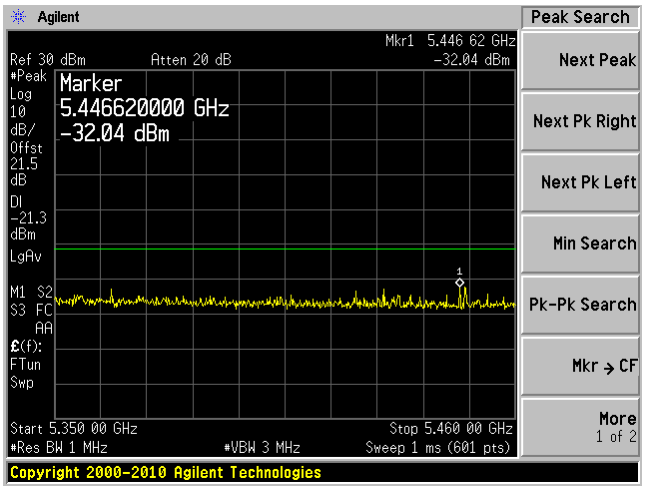
Chain 1, Plot: 30 MHz – 6 GHz



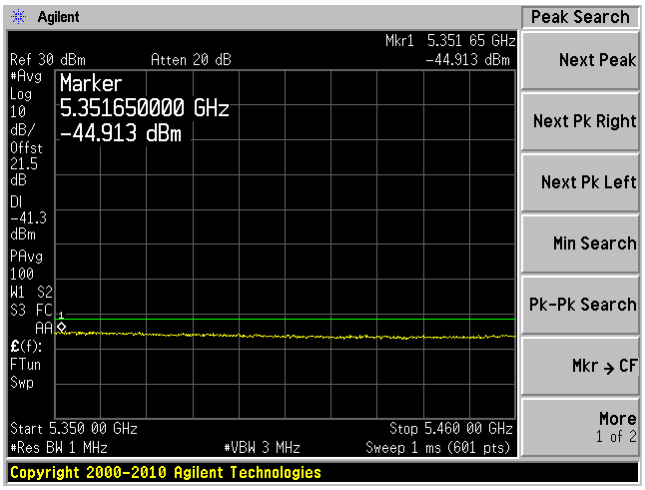
Chain 1, Plot: 6 GHz – 44 GHz



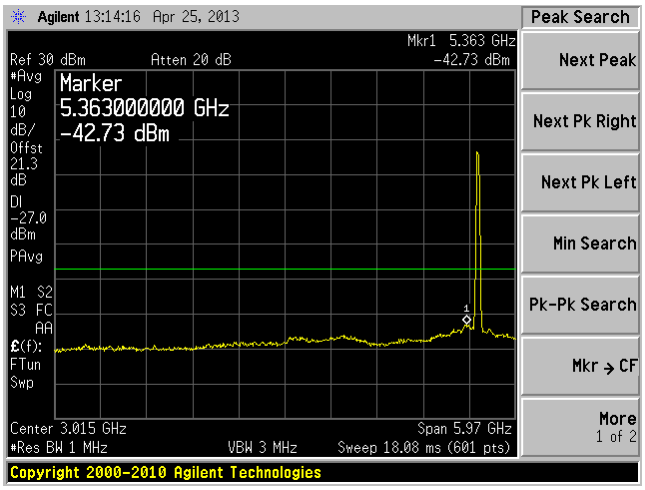
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



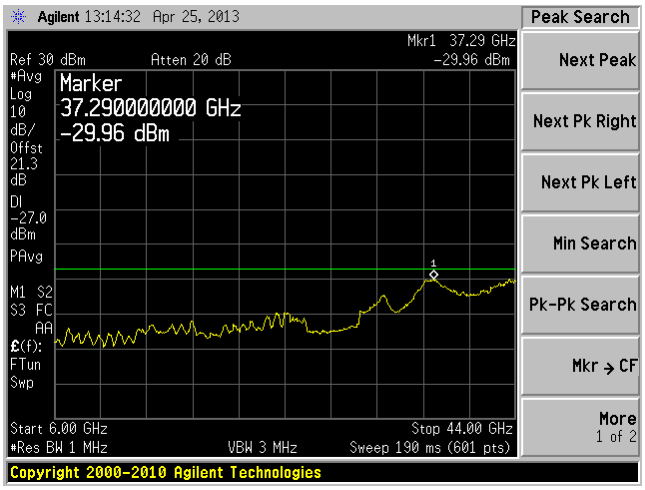
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



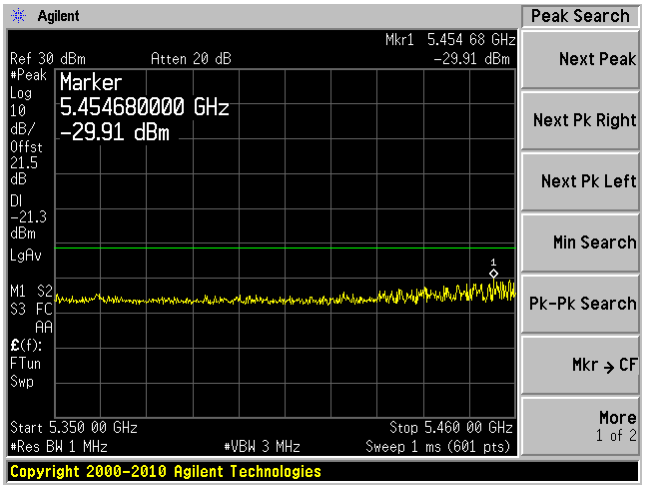
Chain 2, Plot: 30 MHz – 6 GHz



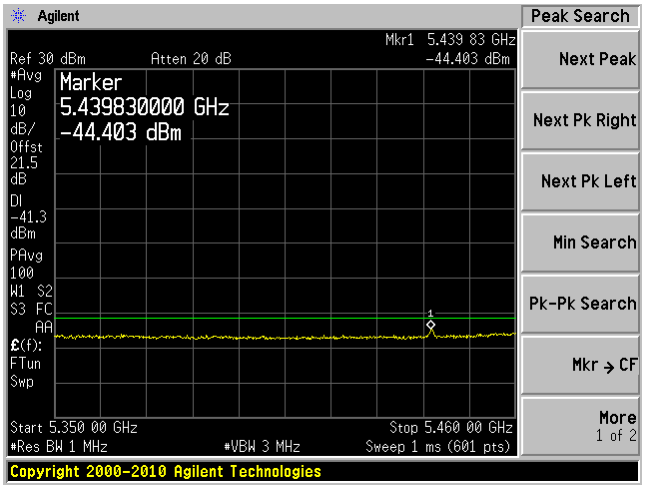
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

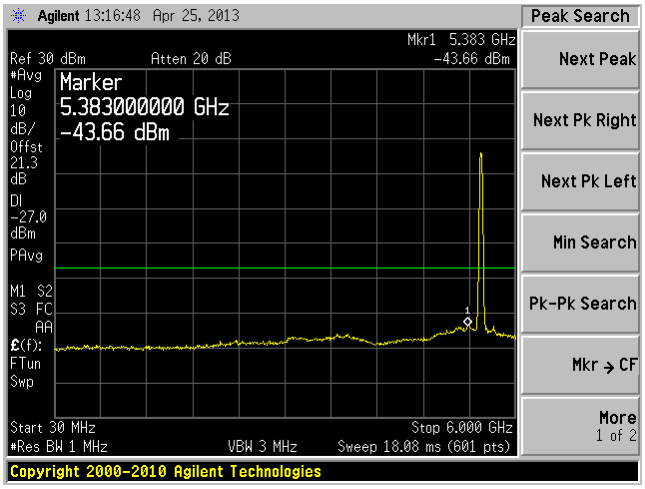


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

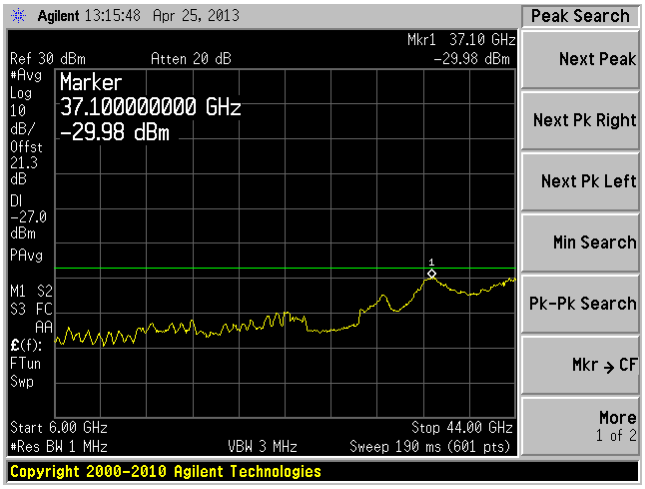


802.11n-HT40, Middle Channel,

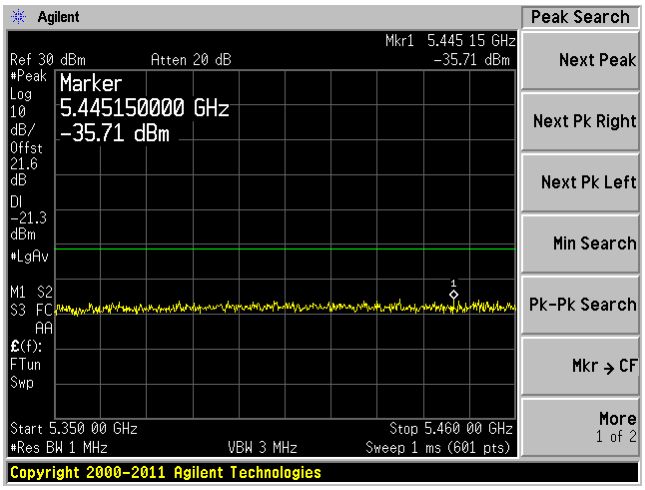
Chain 0, Plot: 30 MHz – 6 GHz



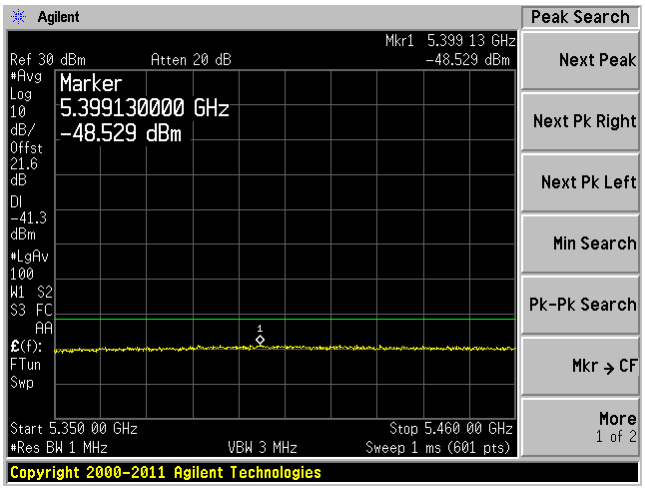
Chain 0, Plot: 6 GHz – 44 GHz



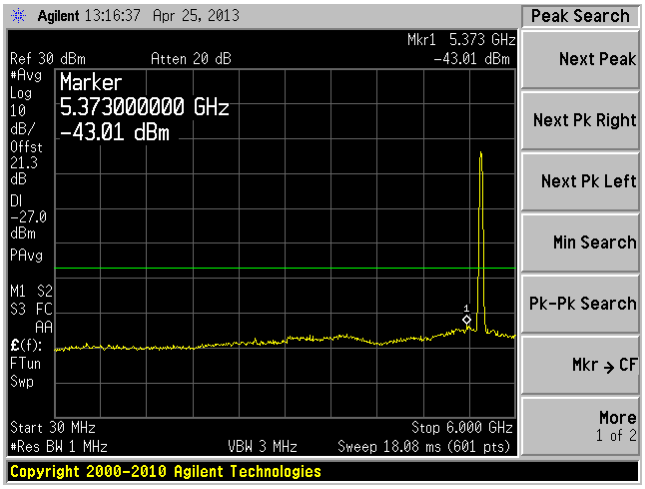
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



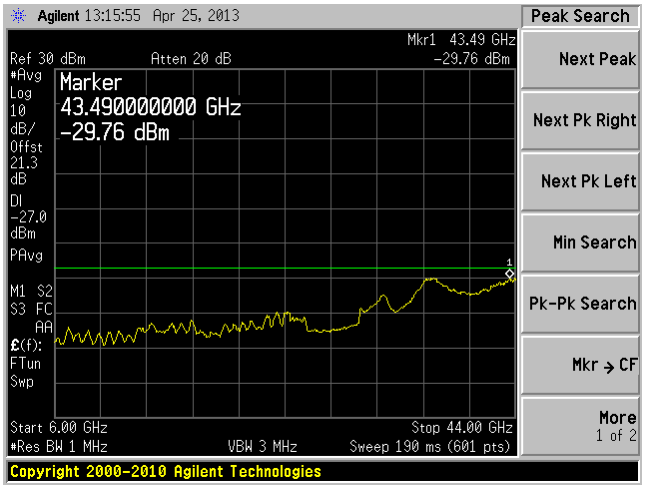
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



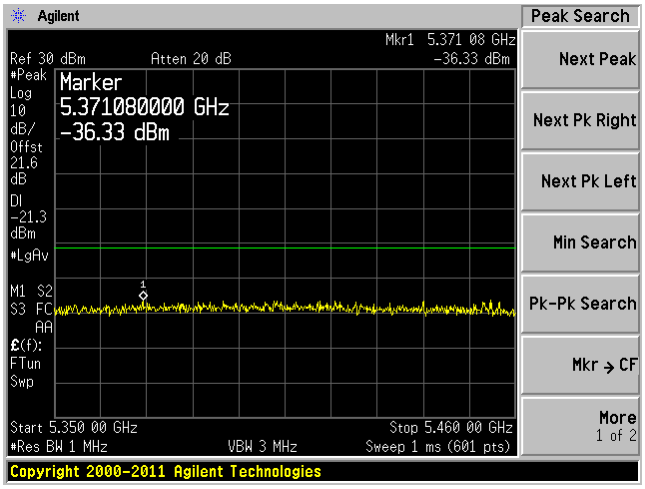
Chain 1, Plot: 30 MHz – 6 GHz



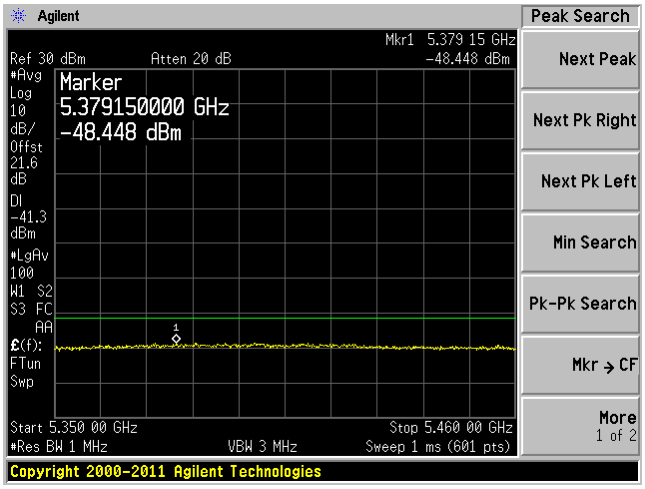
Chain 1, Plot: 6 GHz – 44 GHz



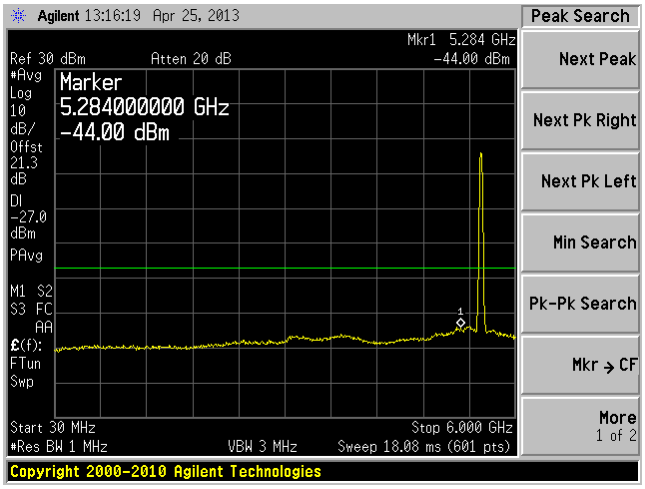
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



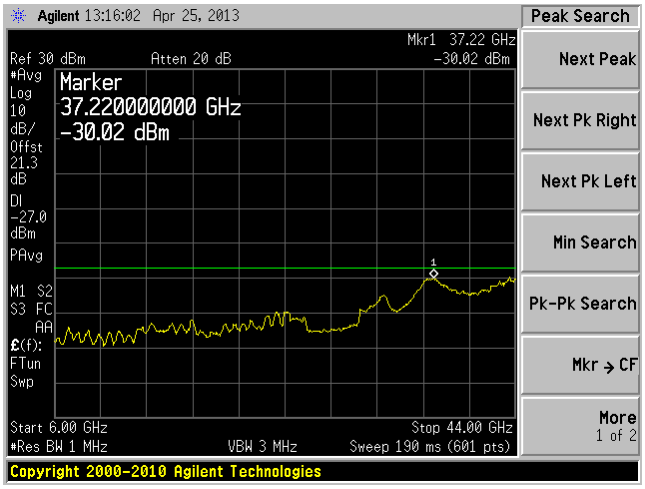
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



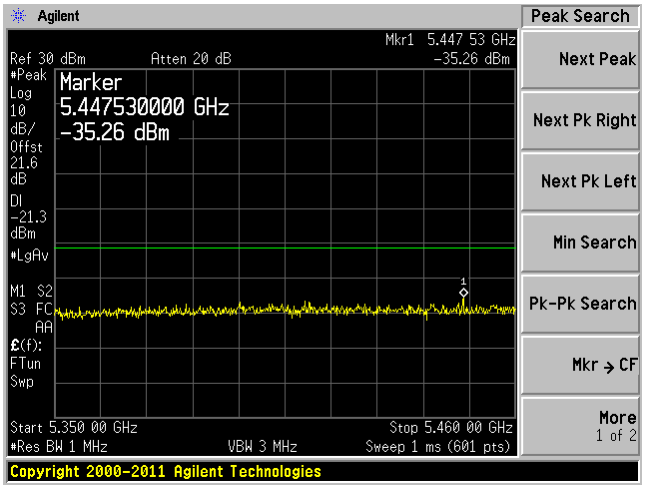
Chain 2, Plot: 30 MHz – 6 GHz



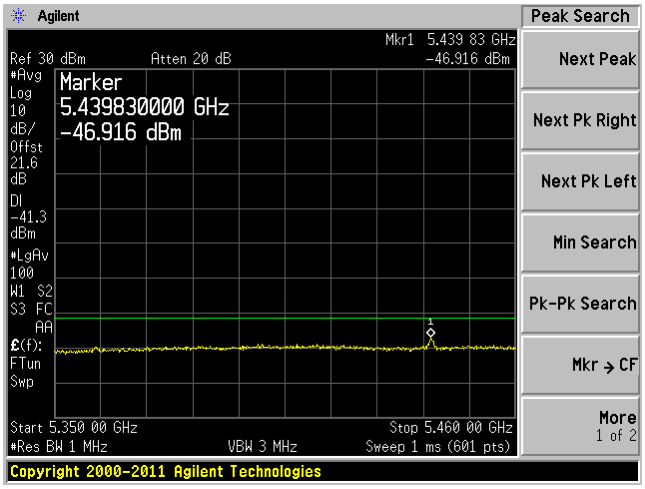
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

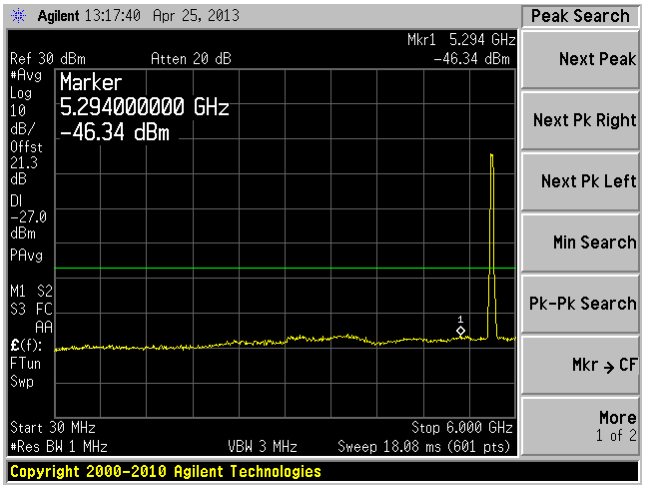


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

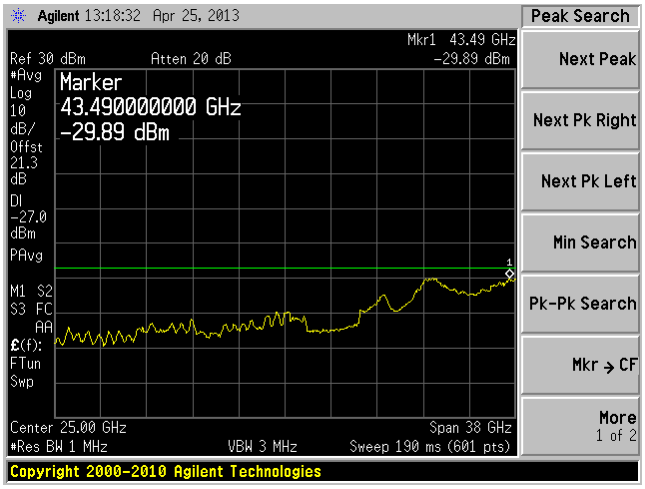


802.11n-HT40, High Channel,

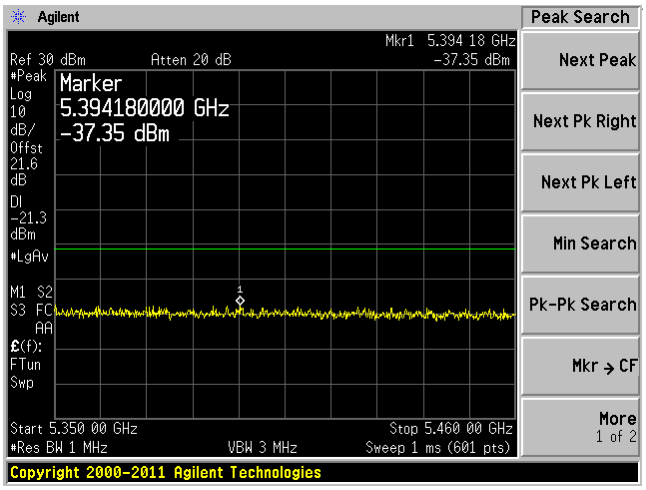
Chain 0, Plot: 30 MHz – 6 GHz



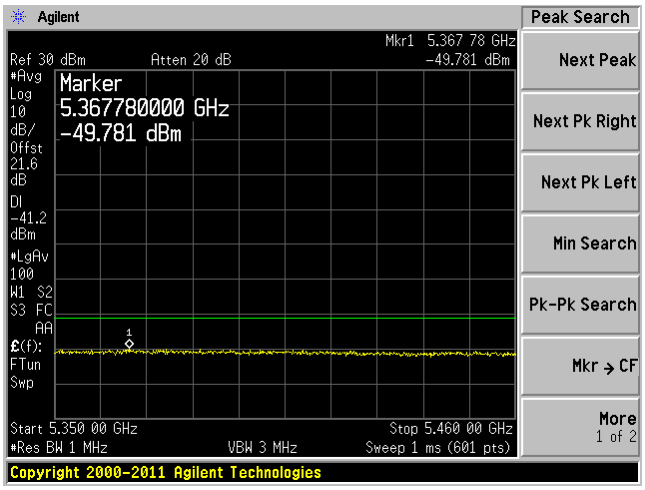
Chain 0, Plot: 6 GHz – 44 GHz



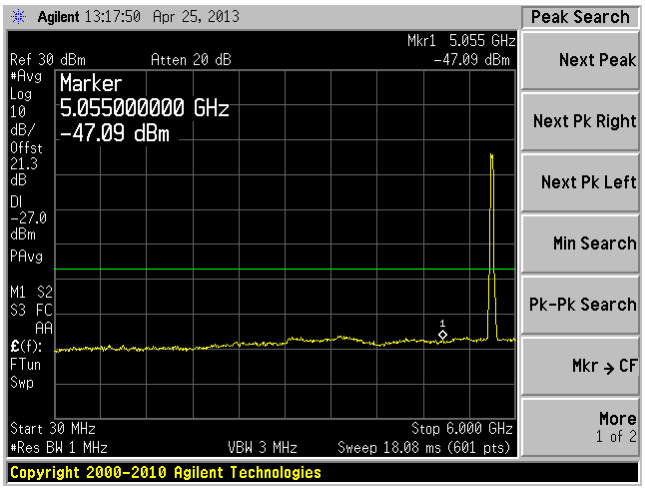
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



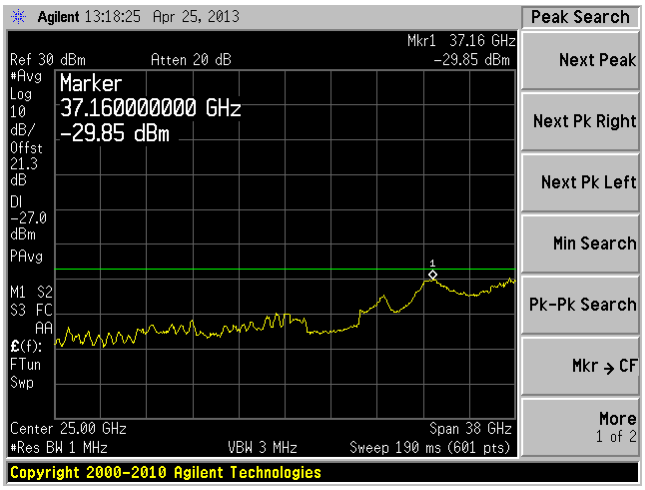
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



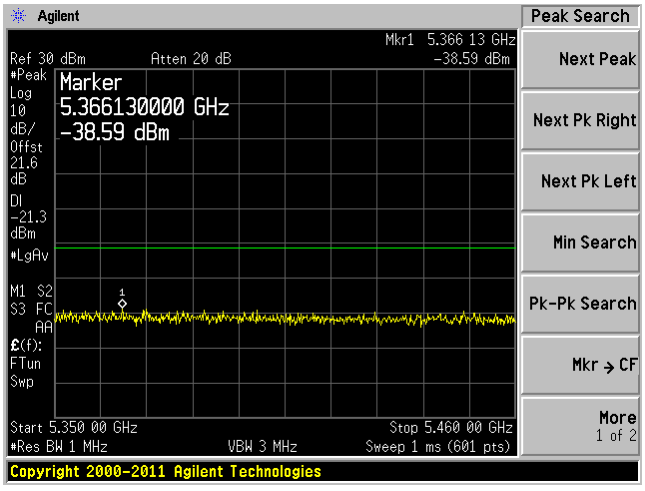
Chain 1, Plot: 30 MHz – 6 GHz



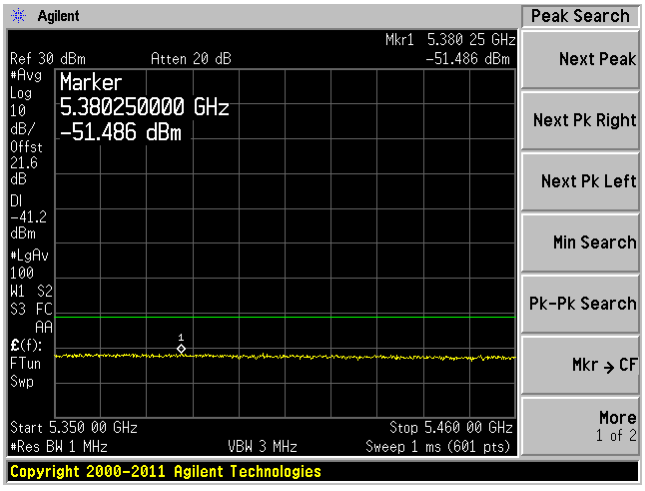
Chain 1, Plot: 6 GHz – 44 GHz



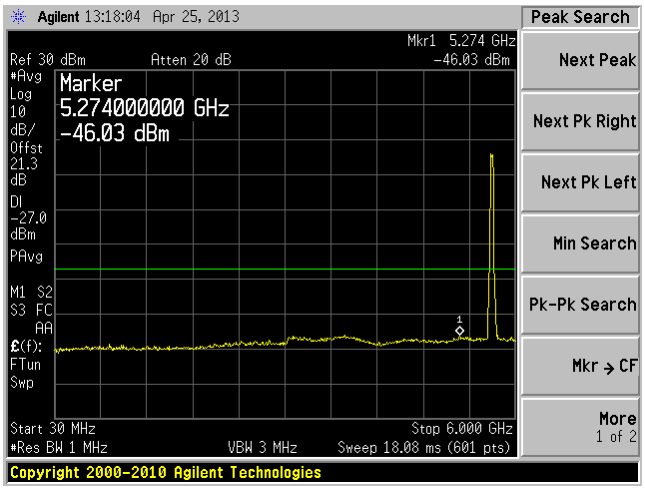
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



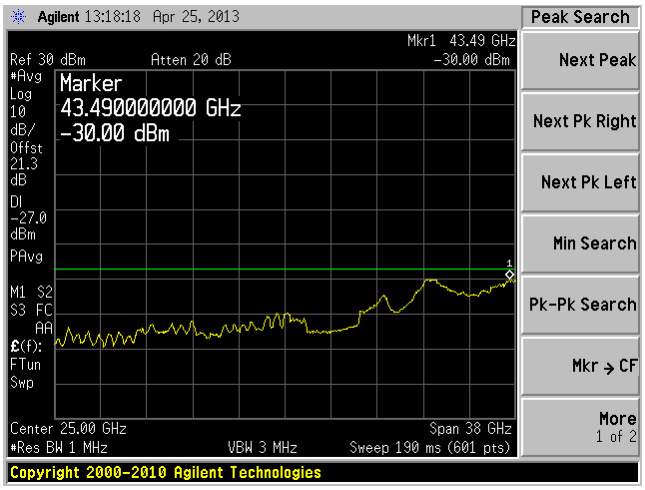
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



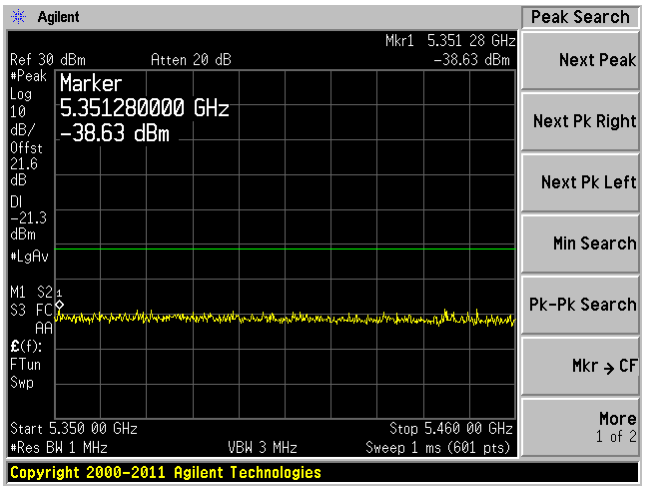
Chain 2, Plot: 30 MHz – 6 GHz



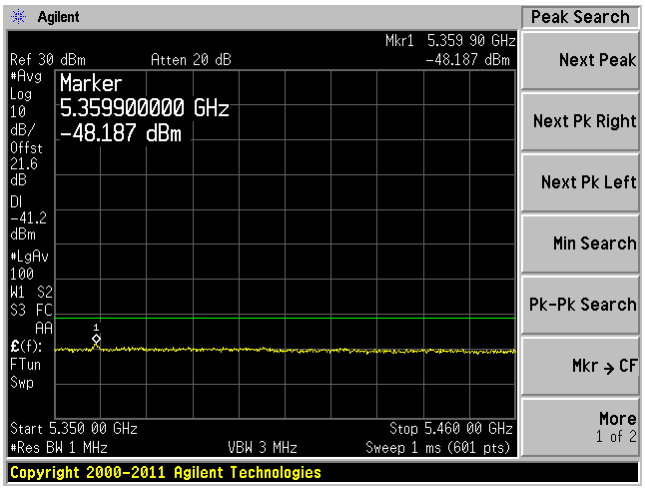
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

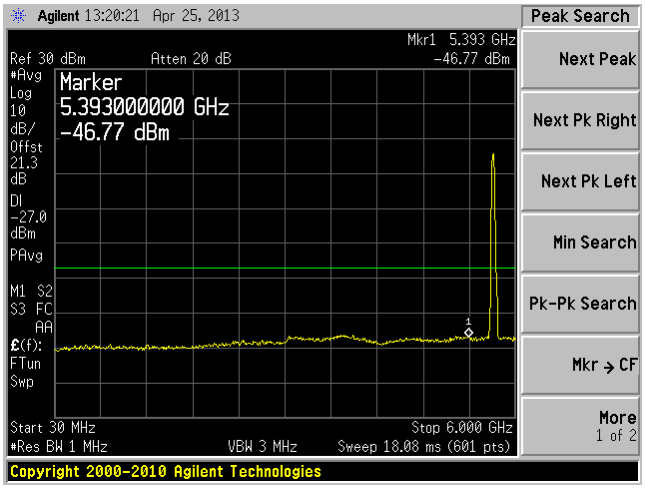


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

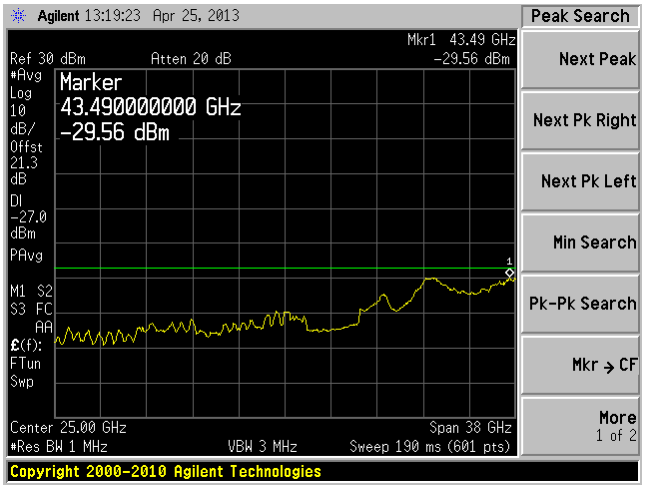


802.11ac 80, Cross Channel,

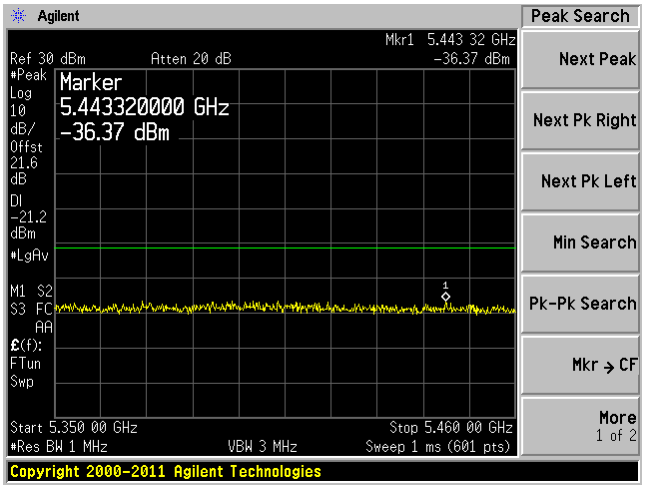
Chain 0, Plot: 30 MHz – 6 GHz



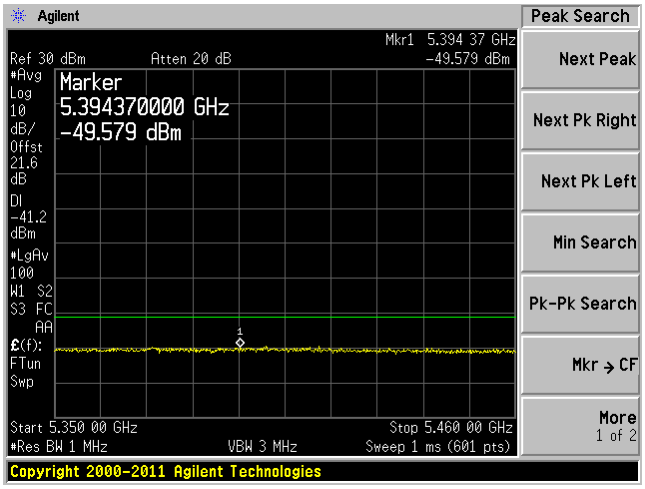
Chain 0, Plot: 6 GHz – 44 GHz



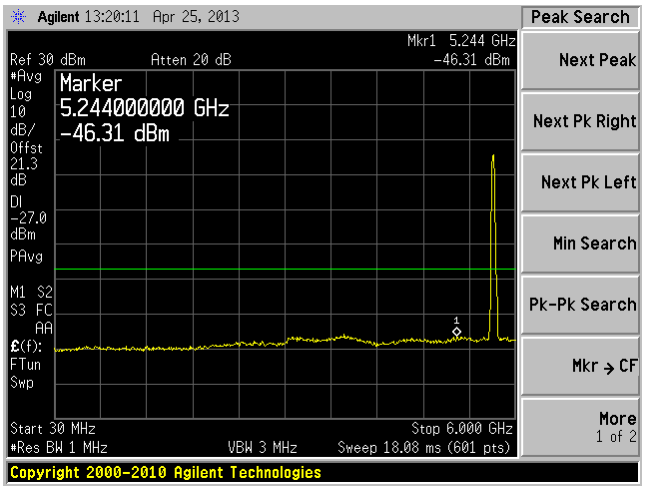
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



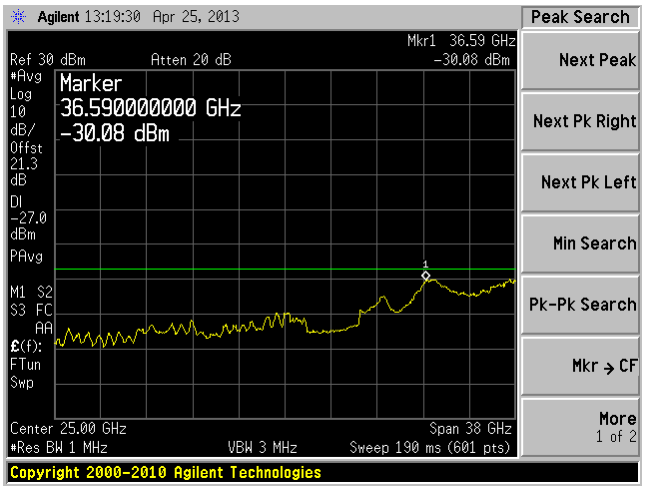
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



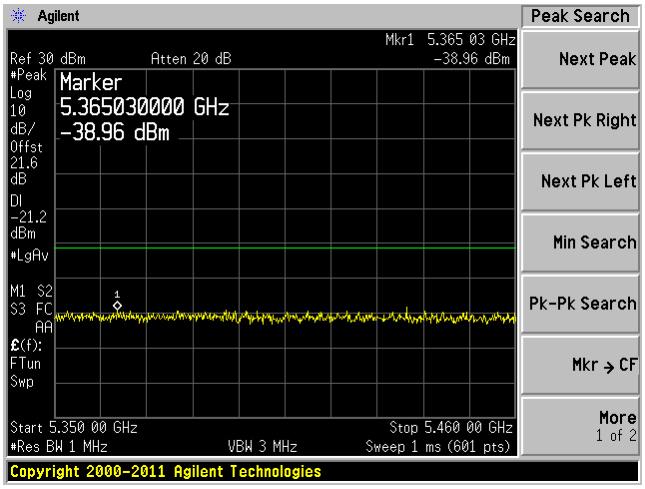
Chain 1, Plot: 30 MHz – 6 GHz



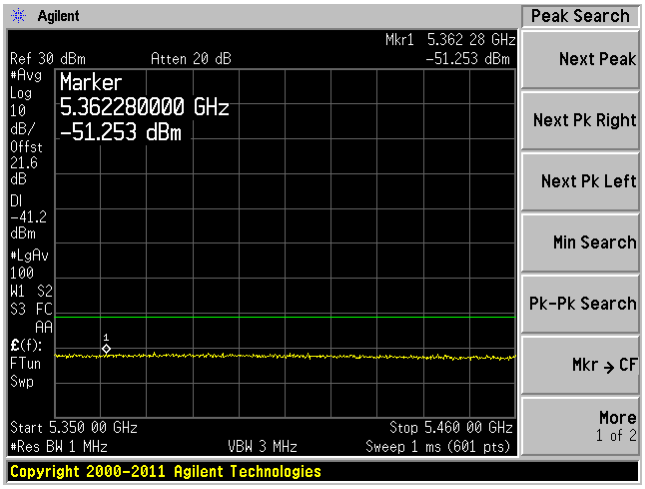
Chain 1, Plot: 6 GHz – 44 GHz



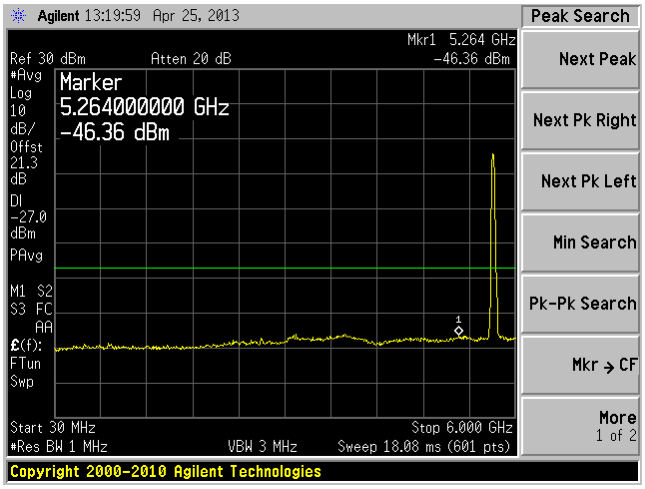
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



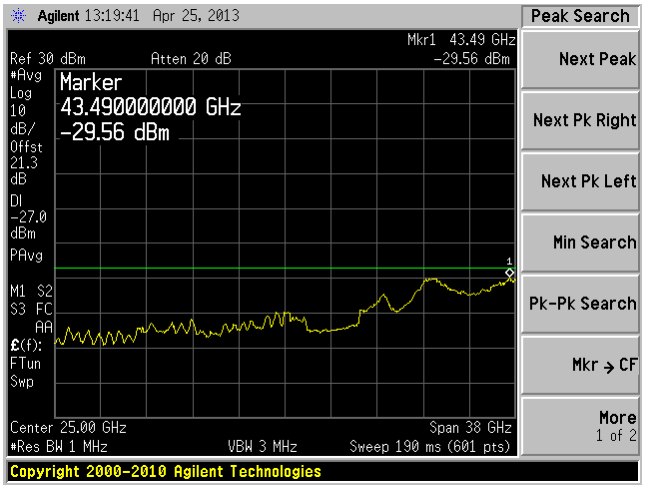
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



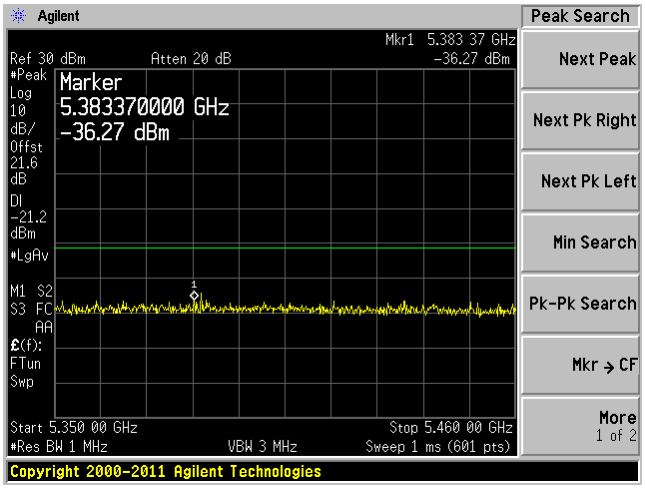
Chain 2, Plot: 30 MHz – 6 GHz



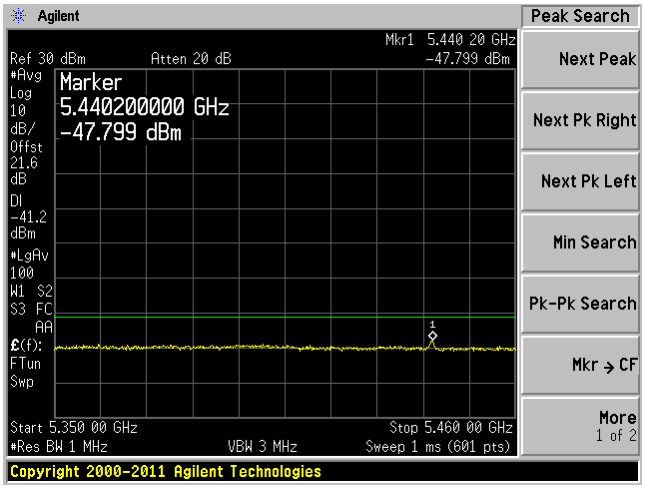
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

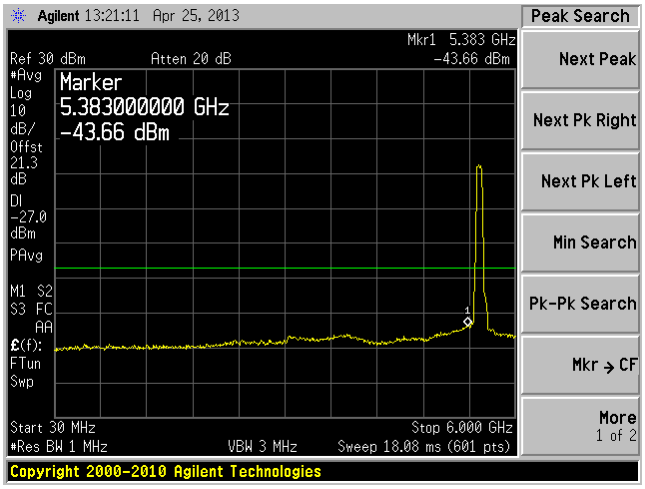


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

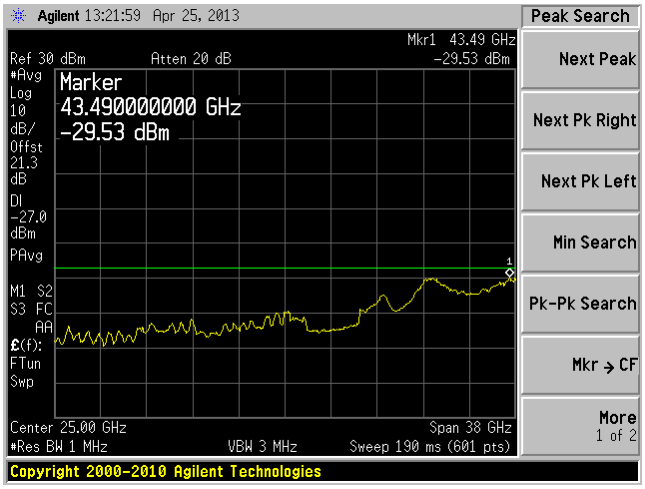


802.11ac 80, Low Channel

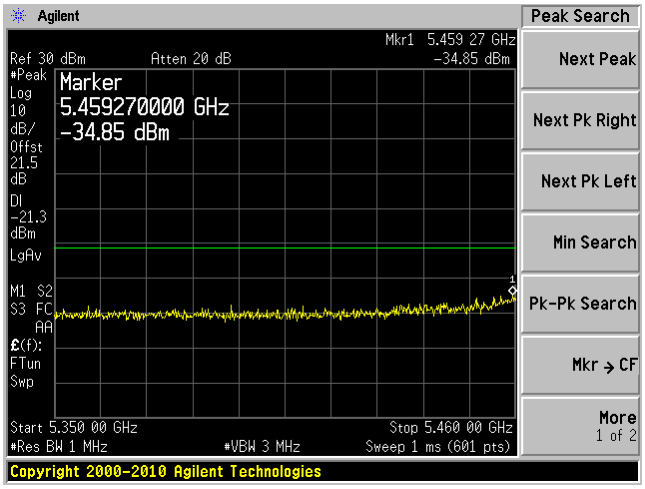
Chain 0, Plot: 30 MHz – 6 GHz



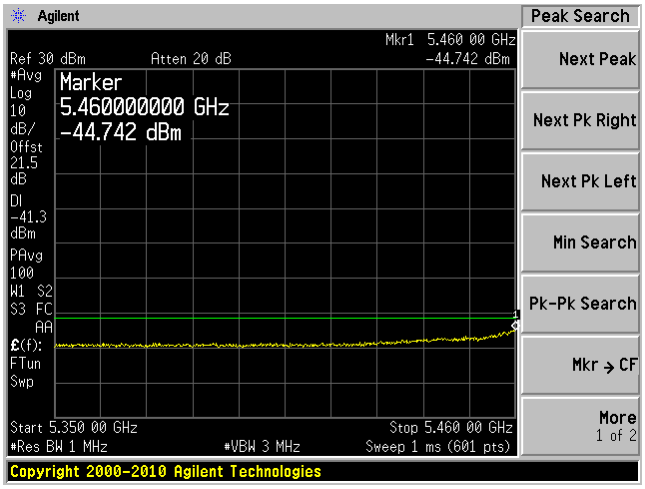
Chain 0, Plot: 6 GHz – 44 GHz



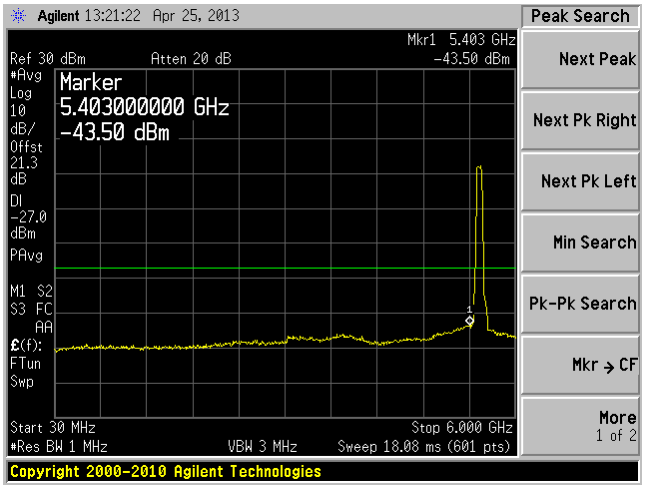
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



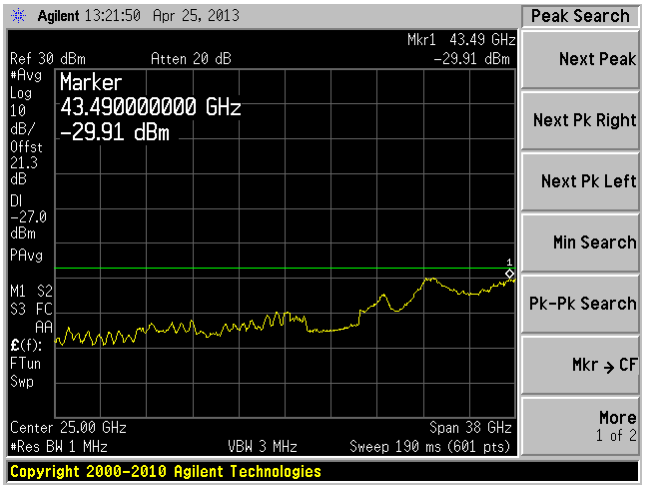
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



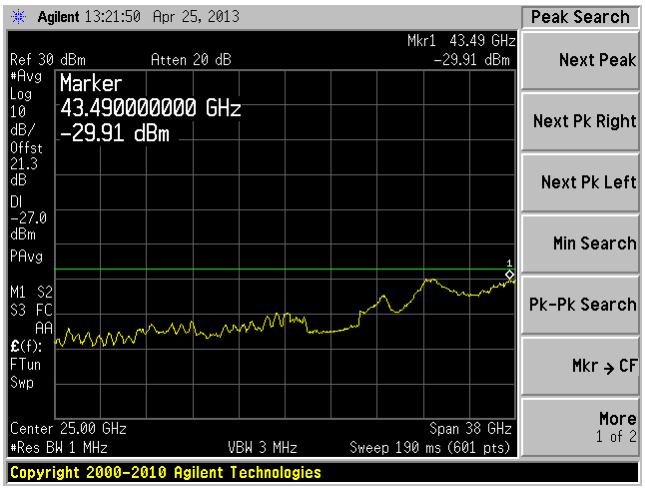
Chain 1, Plot: 30 MHz – 6 GHz



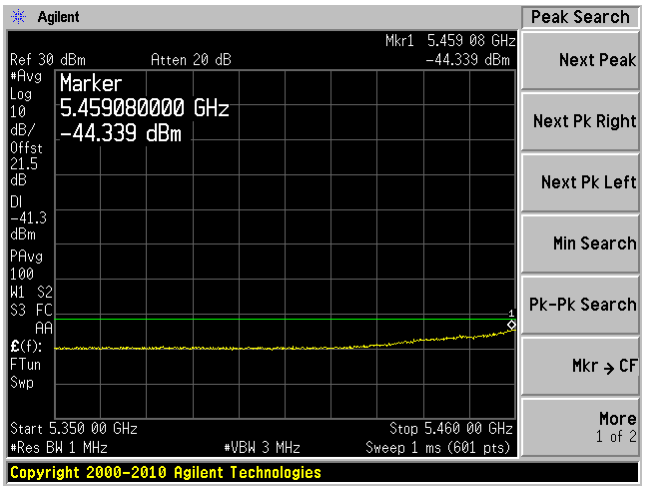
Chain 1, Plot: 6 GHz – 44 GHz



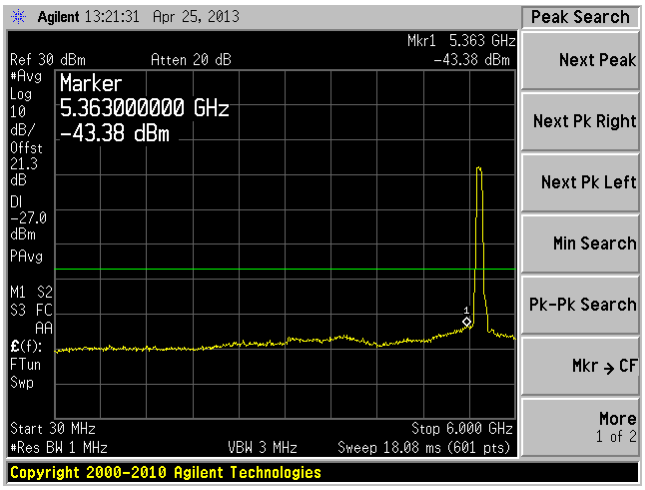
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



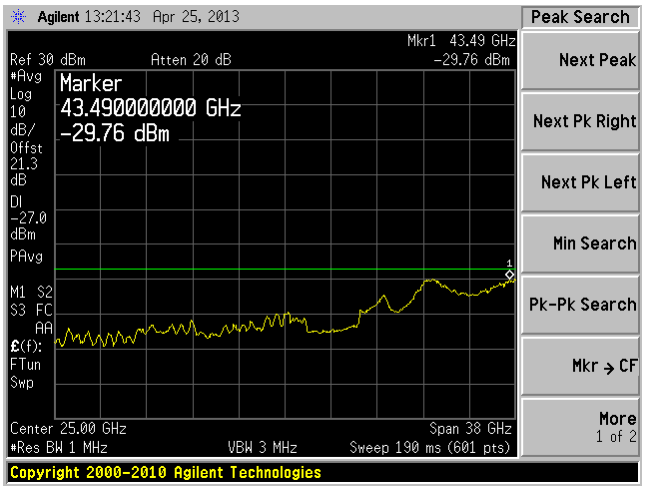
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



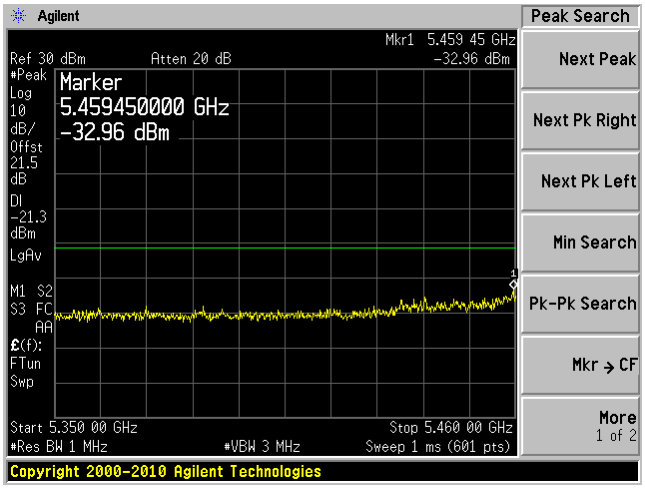
Chain 2, Plot: 30 MHz – 6 GHz



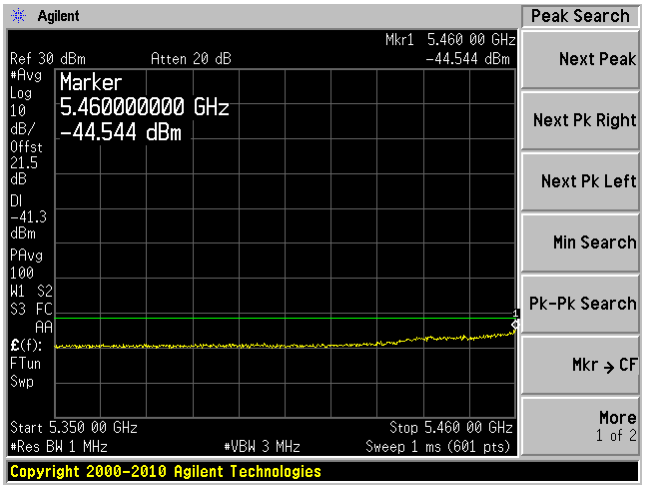
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak

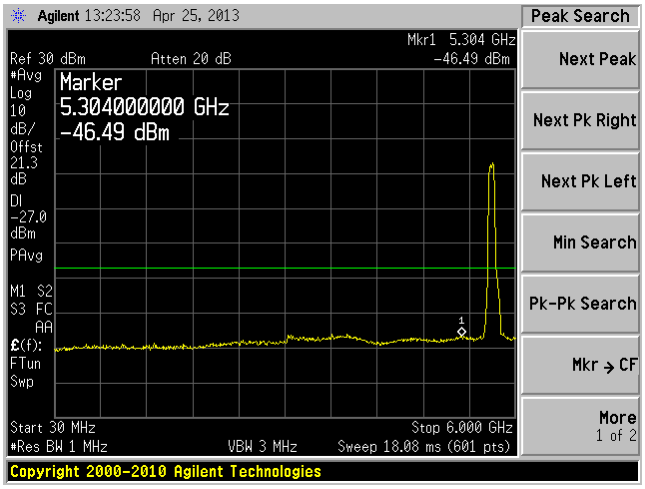


Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave

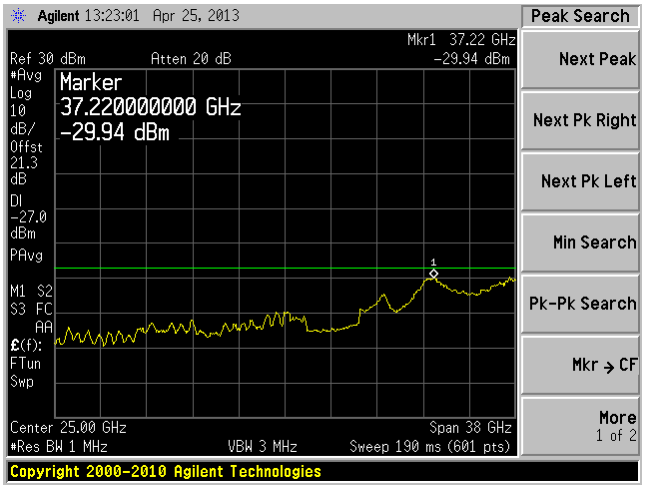


802.11 ac 80, High Channel

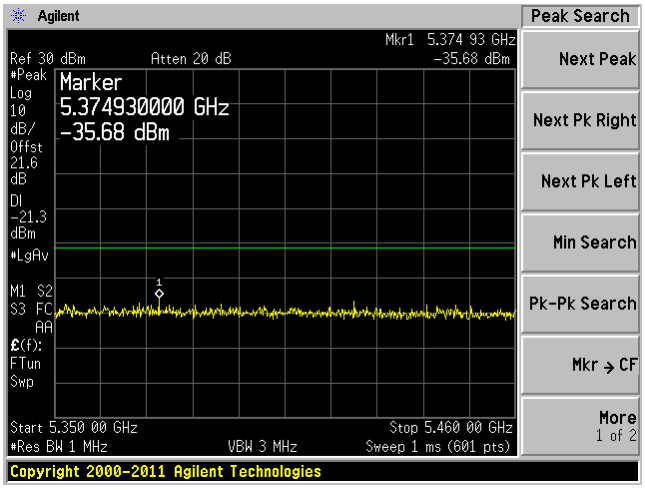
Chain 0, Plot: 30 MHz – 6 GHz



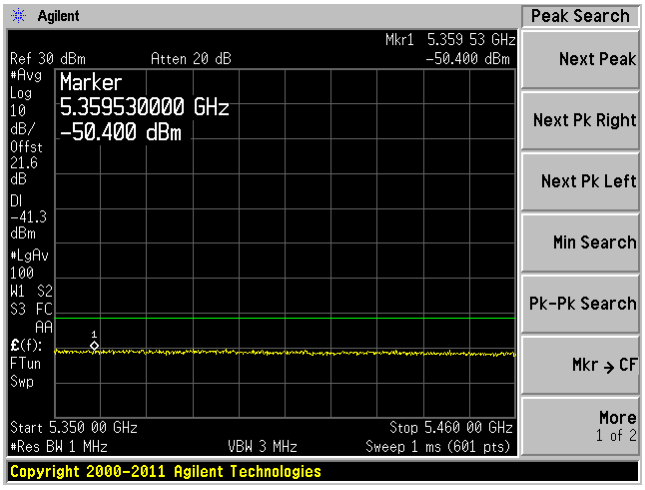
Chain 0, Plot: 6 GHz – 44 GHz



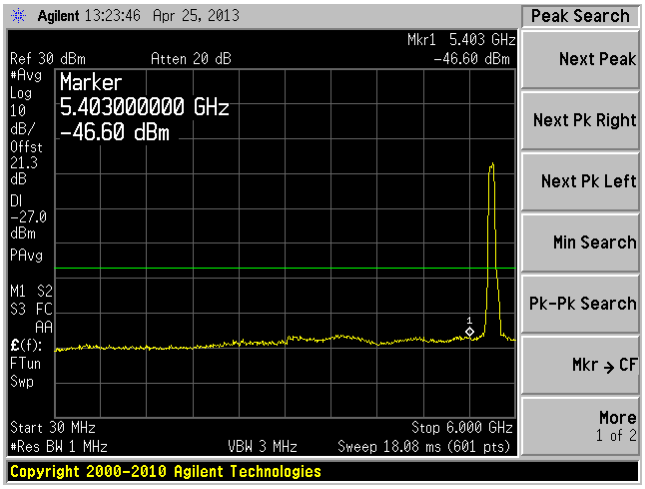
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



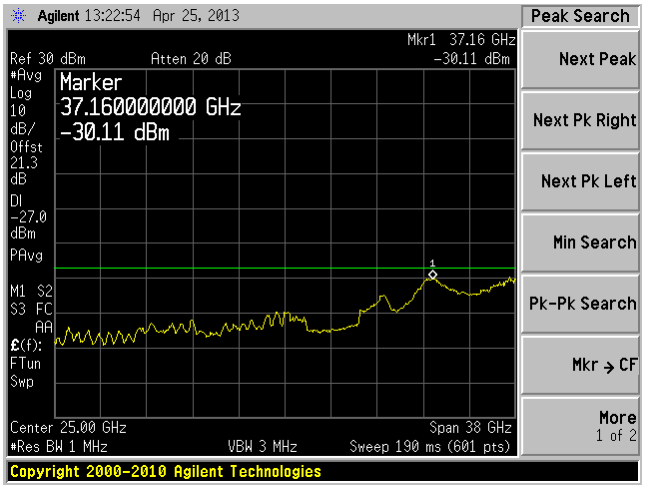
Chain 0, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



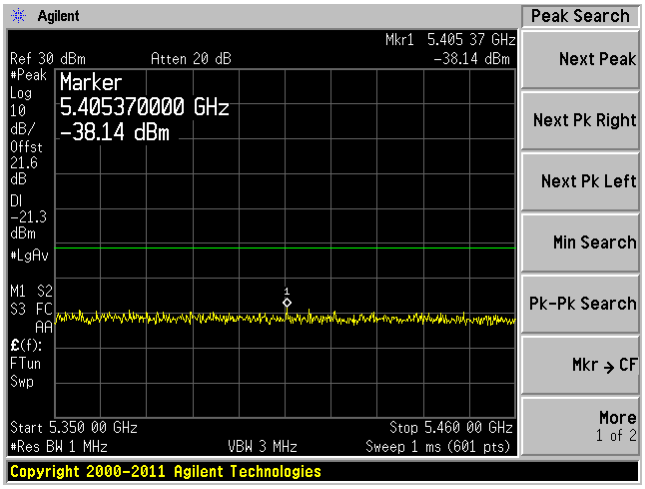
Chain 1, Plot: 30 MHz – 6 GHz



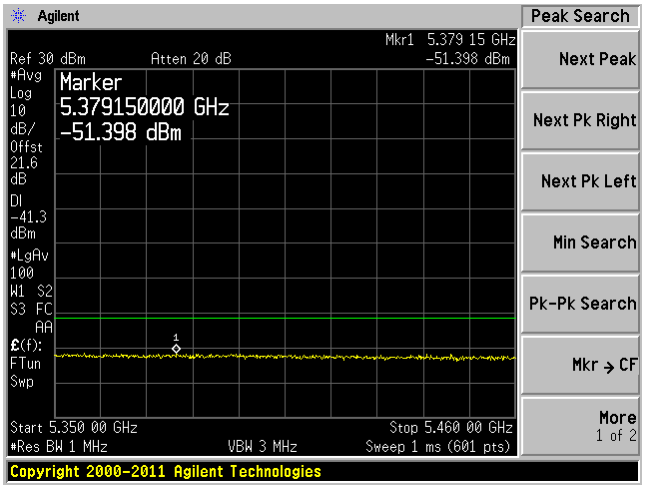
Chain 1, Plot: 6 GHz – 44 GHz



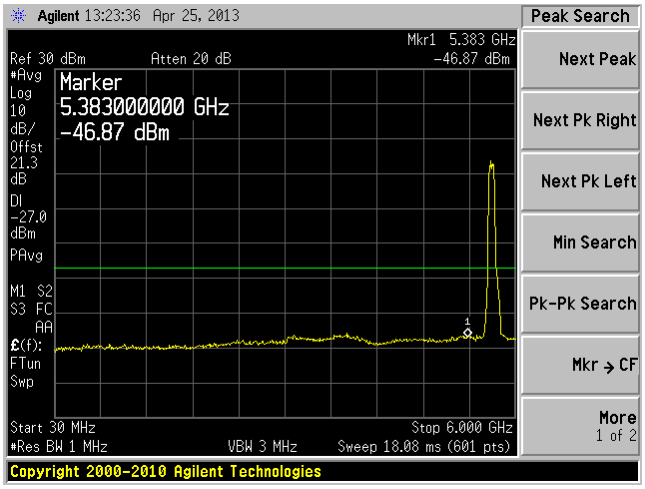
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



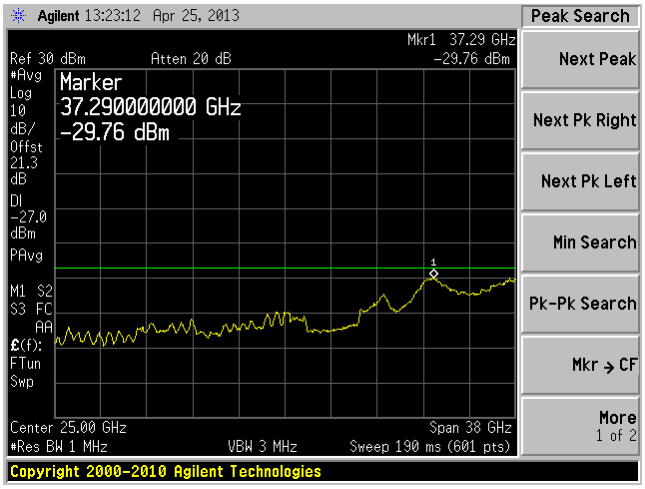
Chain 1, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



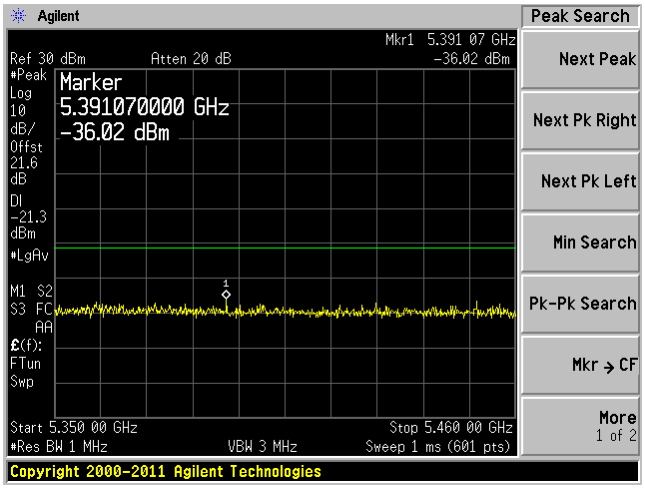
Chain 2, Plot: 30 MHz – 6 GHz



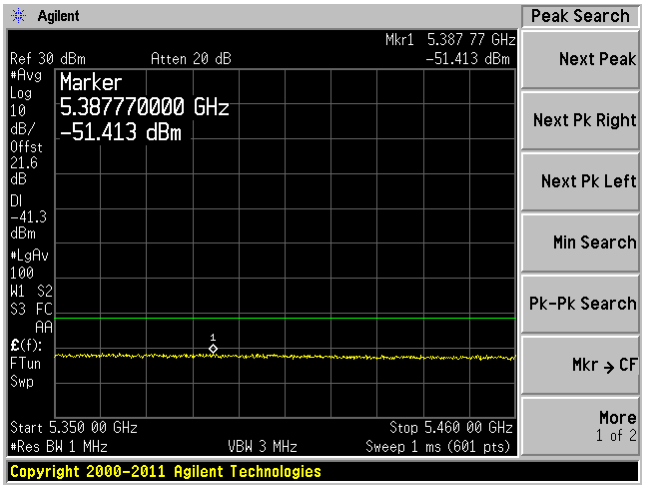
Chain 2, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict Band) Peak



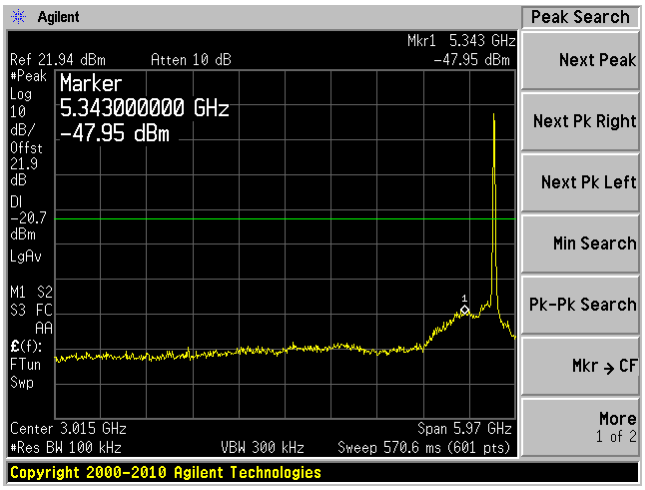
Chain 2, Plot: 5.35 GHz – 5.46 GHz (restrict band) Ave



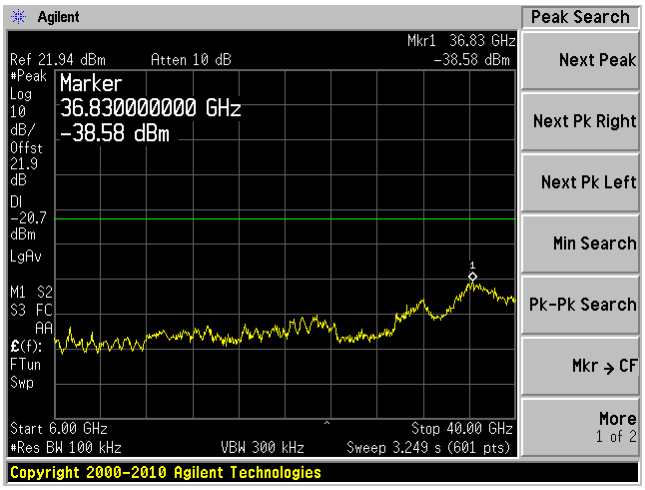
Cross Channel FCC15.247 Limit

802.11 a mode, Cross Channel

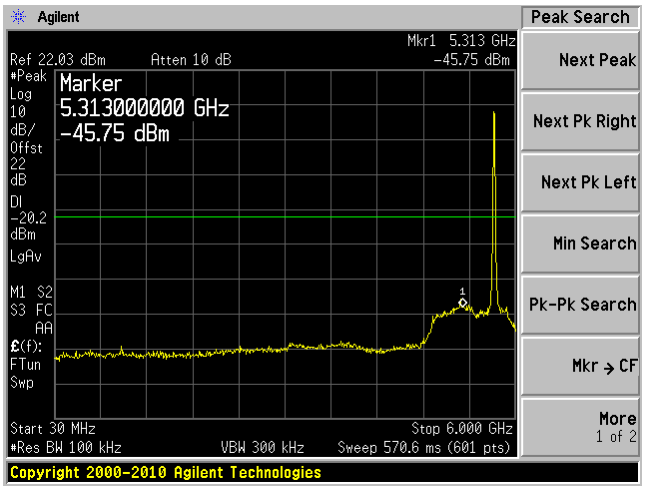
Chain 0, Plot: 30 MHz – 6 GHz



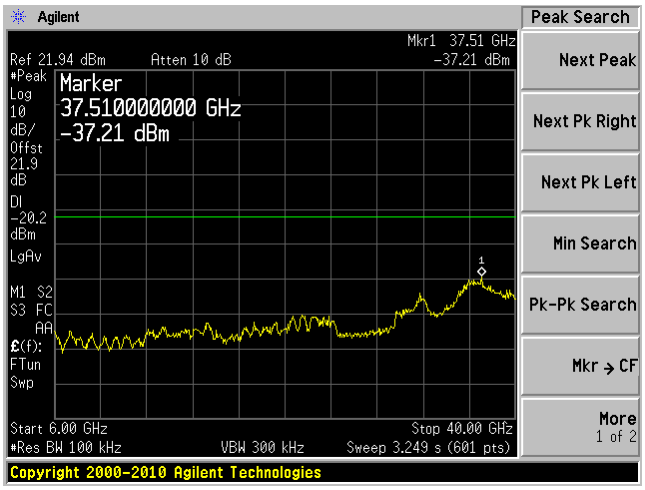
Chain 0, Plot: 6 GHz – 44 GHz



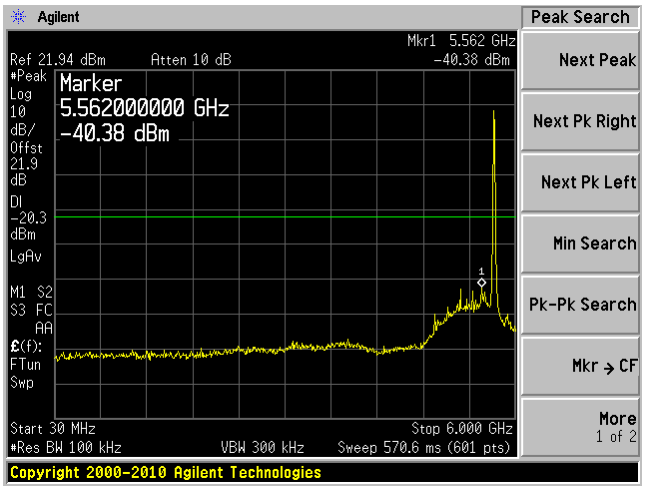
Chain 1, Plot: 30 MHz – 6 GHz



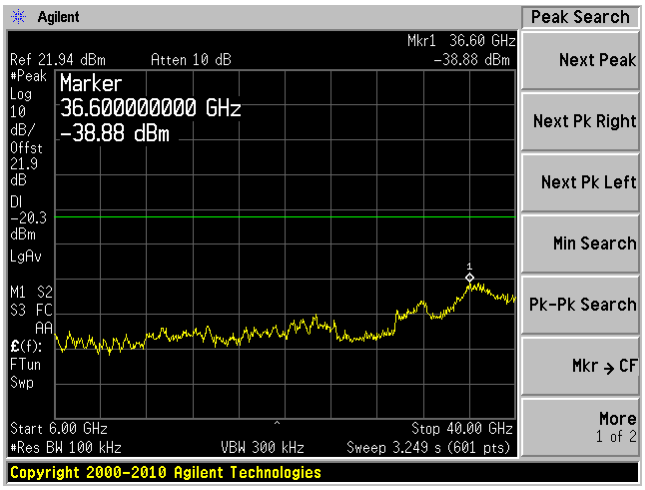
Chain 1, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 30 MHz – 6 GHz

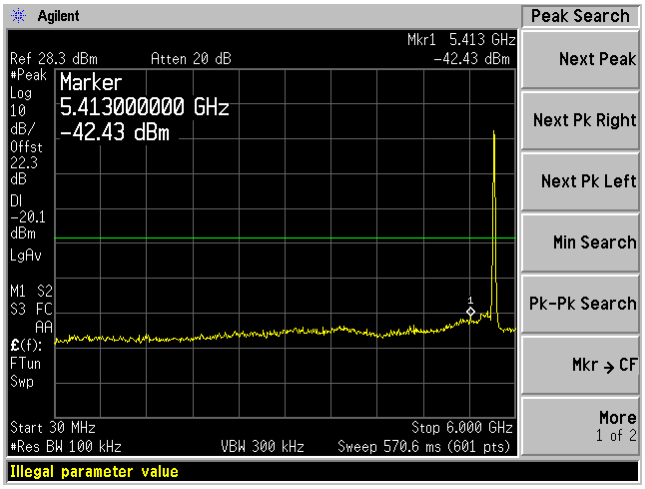


Chain 2, Plot: 6 GHz – 44 GHz

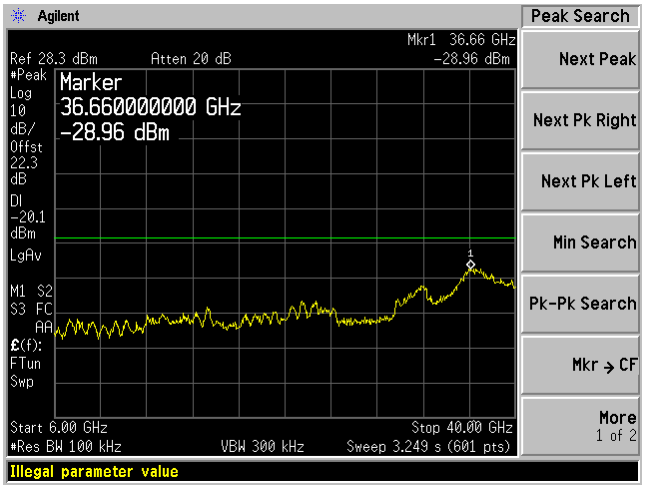


802.11n-HT20 mode, Cross Channel

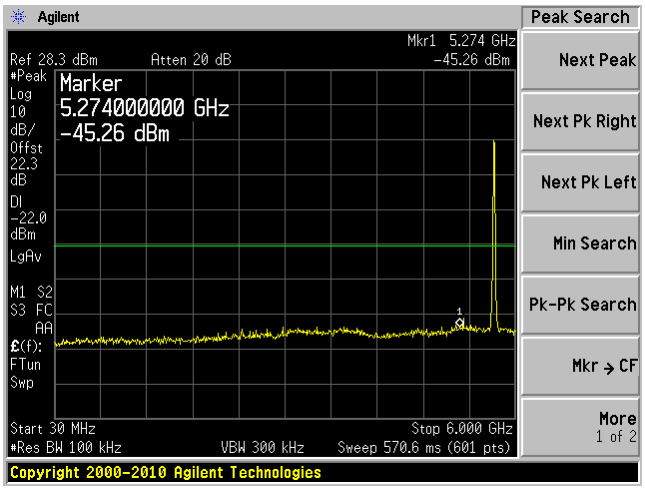
Chain 0, Plot: 30 MHz – 6 GHz



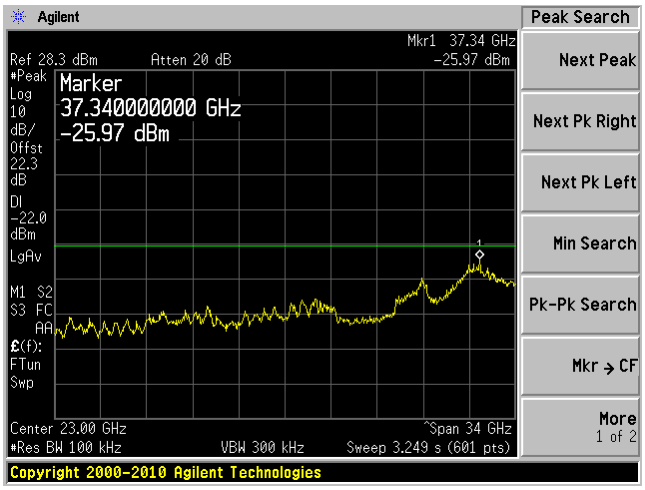
Chain 0, Plot: 6 GHz – 44 GHz



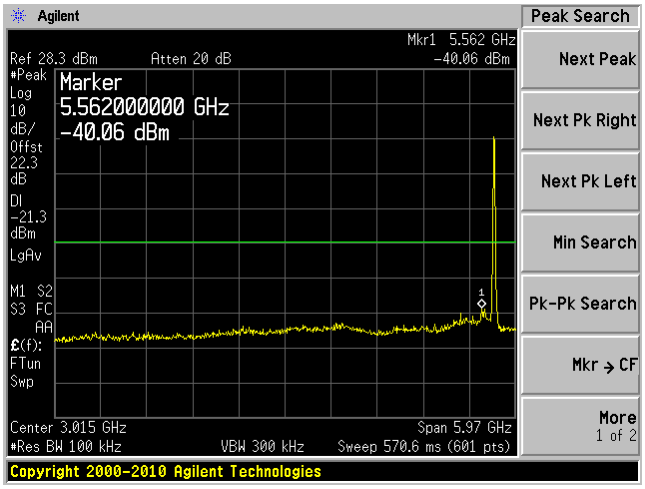
Chain 1, Plot: 30 MHz – 6 GHz



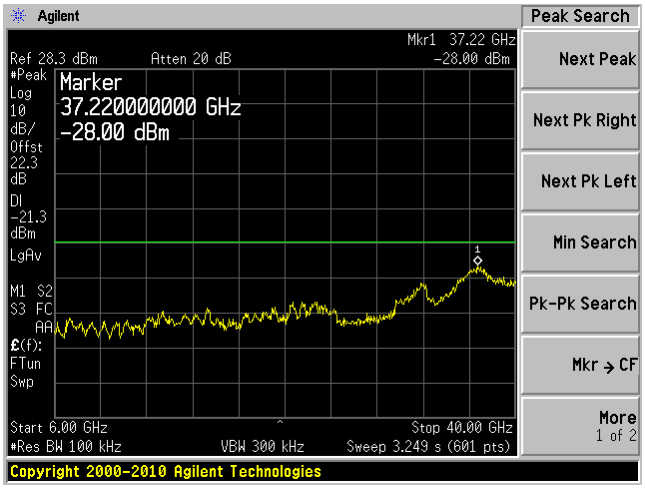
Chain 1, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 30 MHz – 6 GHz

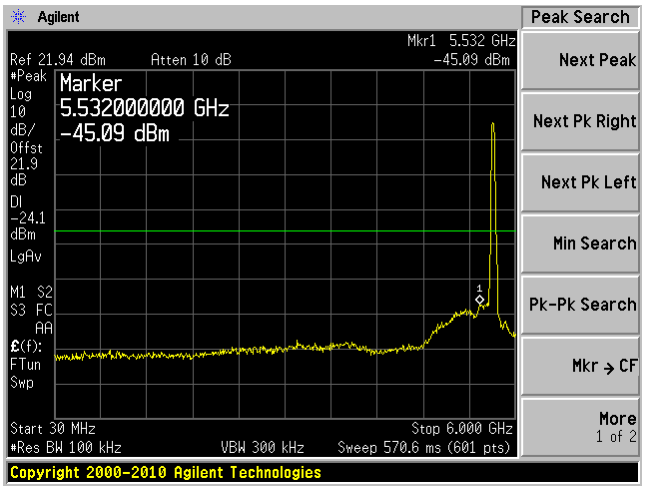


Chain 2, Plot: 6 GHz – 44 GHz

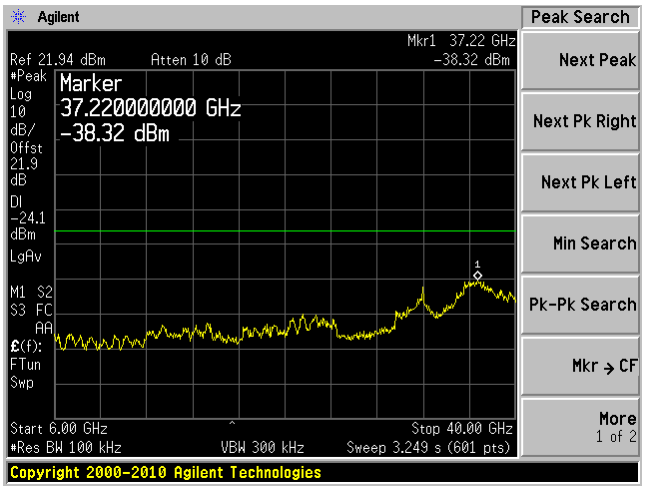


802.11n-HT40 mode, Cross Channel

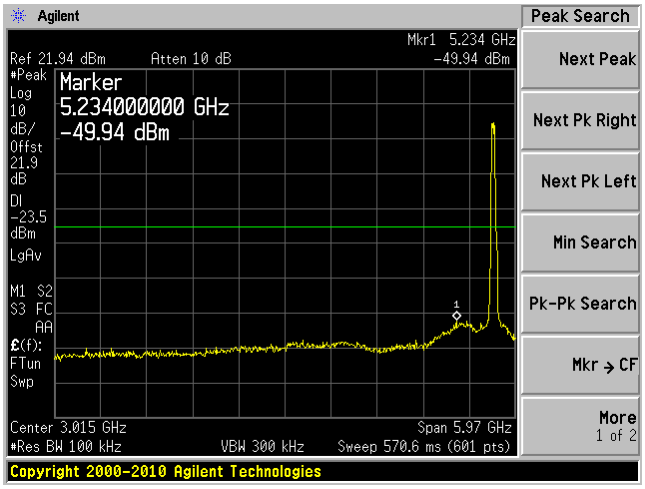
Chain 0, Plot: 30 MHz – 6 GHz



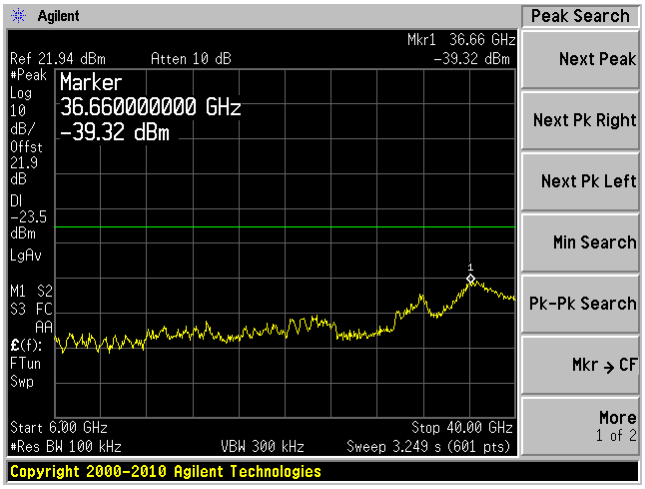
Chain 0, Plot: 6 GHz – 44 GHz



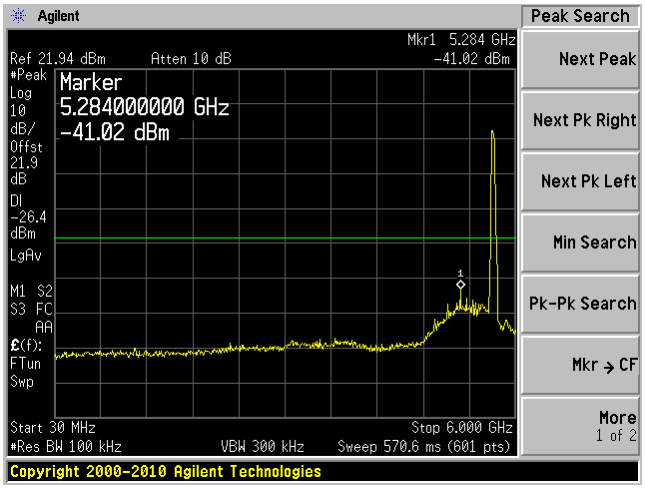
Chain 1, Plot: 30 MHz – 6 GHz



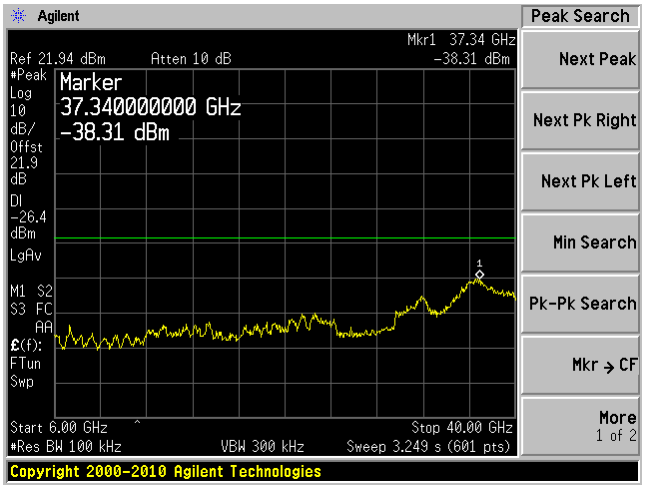
Chain 1, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 30 MHz – 6 GHz

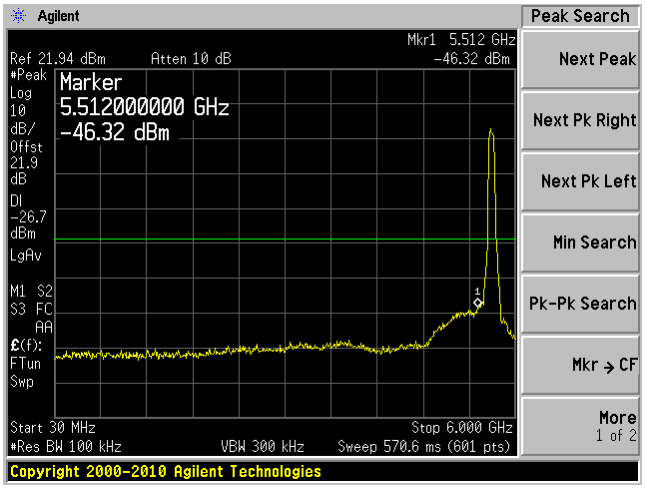


Chain 2, Plot: 6 GHz – 44 GHz

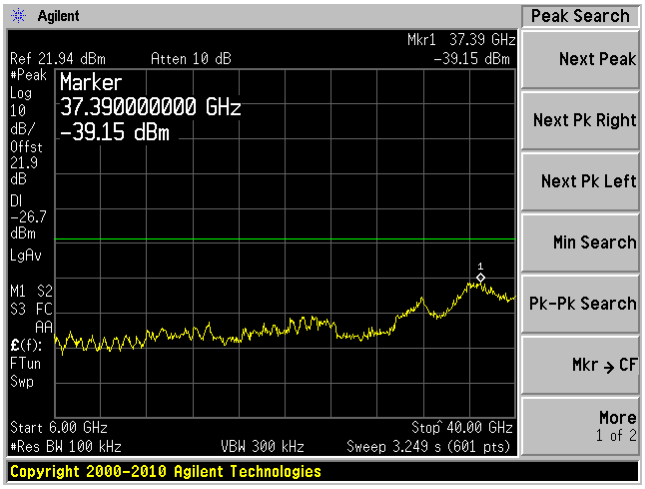


802.11ac 80 mode, Cross Channel

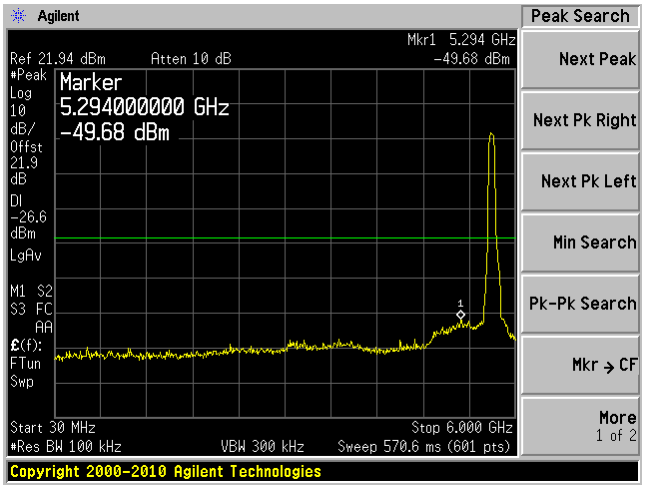
Chain 0, Plot: 30 MHz – 6 GHz



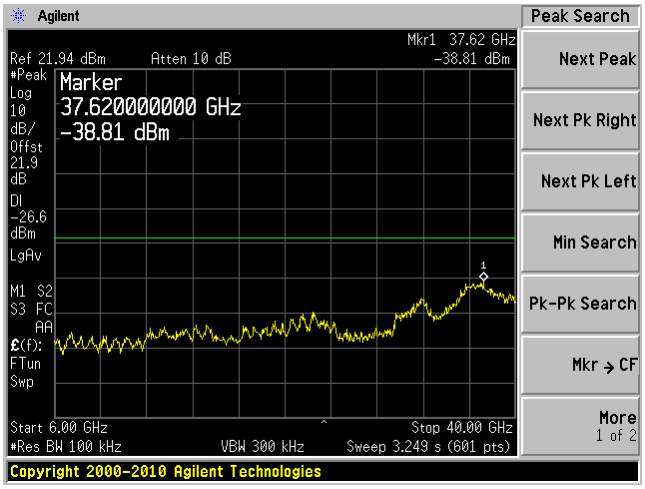
Chain 0, Plot: 6 GHz – 44 GHz



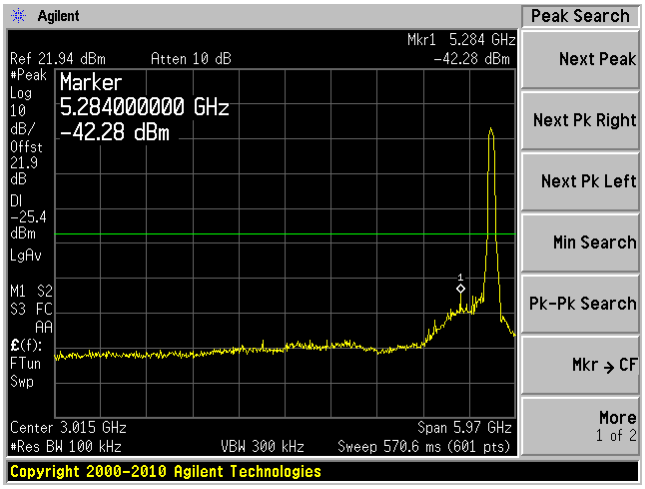
Chain 1, Plot: 30 MHz – 6 GHz



Chain 1, Plot: 6 GHz – 44 GHz



Chain 2, Plot: 30 MHz – 6 GHz



Chain 2, Plot: 6 GHz – 44 GHz