FCC PART 15.407
IC RSS-247, ISSUE 1, MAY 2015

TEST AND MEASUREMENT REPORT

For

NVIDIA CORPORATION

2701 San Tomas Expressway,

Santa Clara, CA 95050, USA

FCC ID: VOB-P2290W
IC: 7361A-P2290W

Report Type:	**Product Type:**
Original Report	Tablet

Prepared By:	Todd Moy Test Engineer
Report Number:	R1511101-407
Report Date:	2016-05-04
Reviewed By:	Simon Ma RF Lead

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	R1511101-407	Original Report	2016-05-04

1 General Description

1.1 Product Description for Equipment under Test (EUT)

This test and measurement report was prepared on behalf of *NVIDIA CORPORATION*, and their product model: *P2290W,* FCC ID: VOB-P2290W; IC: 7361A-P2290W or the "EUT" as referred to in this report. It is a tablet that operates in the 2.4 GHz and 5 GHz bands.

1.2 Mechanical Description of EUT

The EUT measures approximately 218 mm (L) x 123 mm (W) x 8 mm (H) and weight 350 g.

The test data gathered are from typical production sample, serial number: 0424515000300 assigned by NVIDIA CORPORATION.

1.3 Objective

This report is prepared on behalf of *NVIDIA CORPORATION* in accordance with FCC CFR47 §15.407 and IC RSS-247 Issue 1, May 2015.

The objective is to determine compliance with FCC Part 15.407 and IC RSS-247 rules for Output Power, Antenna Requirements, AC Line Conducted Emissions, Emission Bandwidth, Power spectral density, Conducted and Radiated Spurious Emissions.

1.4 Related Submittal(s)/Grant(s)

FCC Part 15, Subpart C, Equipment DSS with FCC ID: VOB-P2290W, IC: 7361A-P2290W
FCC Part 15, Subpart C, Equipment DTS with FCC ID: VOB-P2290W, IC: 7361A-P2290W

1.5 Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.10-2013, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz, and FCC KDB 789033 D02 General UNII Test Procedure New Rules v01r01.

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 CISPR16-4-2:2011, 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

Bay area compliance Laboratories Corp. (BACL) is:
1- An independent Commercial Test Laboratory accredited to **ISO 17025: 2005** by **A2LA**, in the fields of: Electromagnetic Compatibility & Telecommunications covering Emissions, Immunity, Radio, RF Exposure, Safety and Telecom. This includes NEBS (Network Equipment Building System), Wireless RF, Telecommunications Terminal Equipment (TTE); Network Equipment; Information Technology Equipment (ITE); Medical Electrical Equipment; Industrial, Commercial, and Medical Test Equipment; Professional Audio and Video Equipment; Electronic (Digital) Products; Industrial and Scientific Instruments; Cabled Distribution Systems and Energy Efficiency Lighting.

2- An ENERGY STAR Recognized Laboratory, for the LM80 Testing, a wide variety of Luminares and Computers.

3- A NIST Designated Phase-I and Phase-II CAB including: ACMA (Australian Communication and Media Authority), BSMI (Bureau of Standards, Metrology and Inspection of Taiwan), IDA (Infocomm Development Authority of Singapore), IC(Industry Canada), Korea (Ministry of Communications Radio Research Laboratory), NCC (Formerly DGT; Directorate General of Telecommunication of Chinese Taipei) OFTA (Office of the Telecommunications Authority of Hong Kong), Vietnam, VCCI - Voluntary Control Council for Interference of Japan and a designated EU CAB (Conformity Assessment Body) (Notified Body) for the EMC and R&TTE Directives.

4- A Product Certification Body accredited to **ISO Guide 65: 1996** by **A2LA** to certify:
.
2. Radio Standards Specifications (RSS) in the Category I Equipment Standards List and All Broadcasting Technical Standards (BETS) in Category I Equipment Standards List for Industry Canada.
3. Radio Communication Equipment for Singapore.
4. Radio Equipment Specifications, GMDSS Marine Radio Equipment Specifications, and Fixed Network Equipment Specifications for Hong Kong.
5. Japan MIC Telecommunication Business Law (A1, A2) and Radio Law (B1, B2 and B3).
6. Audio/Video, Battery Charging Systems, Computers, Displays, Enterprise Servers, Imaging Equipment, Set-Top Boxes, Telephony, Televisions, Ceiling Fans, CFLs (Including GU24s),Decorative Light Strings, Integral LED Lamps, Luminaires, Residential Ventilating Fans.

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 C63.4-2009, 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 C63.10-2013 and FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r01.

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 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 Android Debug Bridge provided by *NVIDIA CORPORATION*, the software was verified by *Todd Moy* to comply with the standard requirements being tested against.

Please refer to the following power setting table.

Modulation	Channel	Frequency (MHz)	Power Setting
802.11a mode	36	5180	48/44
	40	5200	50/44
	48	5240	50/46
	52	5260	46
	60	5300	46
	64	5320	46
	100	5500	42/38
	116	5580	42/38
	140	5700	48
	149	5745	48
	157	5785	48
	165	5825	44/48

Modulation	Channel	Frequency (MHz)	Power Setting
802.11n20 mode	36	5180	44
	40	5200	44
	48	5240	44
	52	5260	46
	60	5300	46
	64	5320	46
	100	5500	38
	116	5580	38
	140	5700	48
	149	5745	48
	157	5785	48
	165	5825	44
802.11n40 mode	38	5190	44
	46	5230	44
	54	5270	44
	62	5310	46
	102	5510	38
	110	5550	38
	134	5670	38
	151	5755	48
	159	5795	44
802.11ac20 mode	36	5180	44
	40	5200	44
	48	5240	46
	52	5260	46
	60	5300	46
	64	5320	46
	100	5500	38
	116	5580	38
	140	5700	48
	149	5745	48
	157	5785	48
	165	5825	44

Modulation	Channel	Frequency (MHz)	Power Setting
802.11ac40 mode	38	5190	44
	46	5230	44
	54	5270	46
	62	5310	46
	102	5510	38
	110	5550	38
	134	5670	38
	151	5755	48
	159	5795	44
802.11ac80 mode	42	5210	46
	58	5290	46
	106	5530	38
	122	5610	38
	155	5775	48

2.3 Duty Cycle Correction Factor

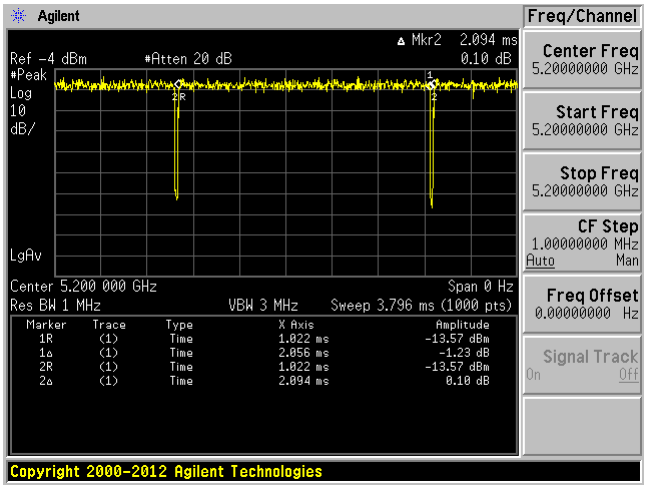
According to KDB 789033 D02 General UNII Test Procedures New Rules v01r01 section B:

All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.

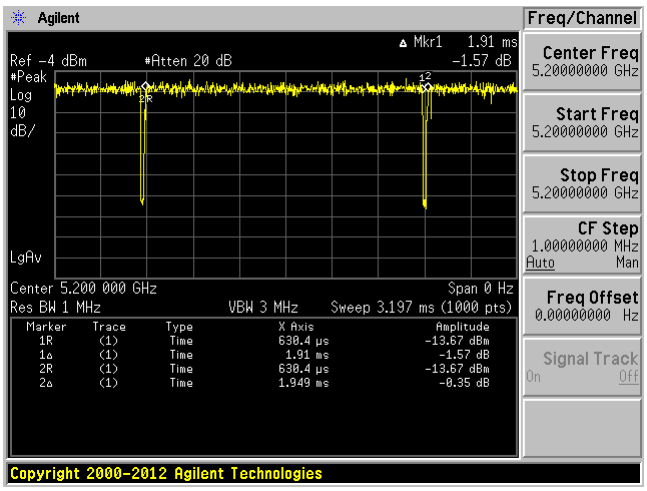
Radio Mode	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11a	2.056	2.094	98.19	0.08
802.11n20	1.91	1.949	98.00	0.09
802.11n40	0.9238	0.984	93.88	0.27
802.11ac20	0.983	1.022	96.18	0.17
802.11ac40	0.4637	0.5294	87.59	0.58
802.11ac80	0.227	0.2856	79.48	1.00

Please refer to the following plots.

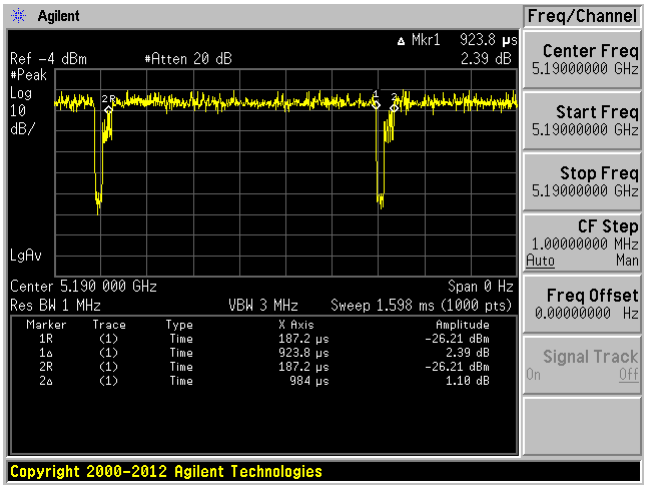
802.11a mode



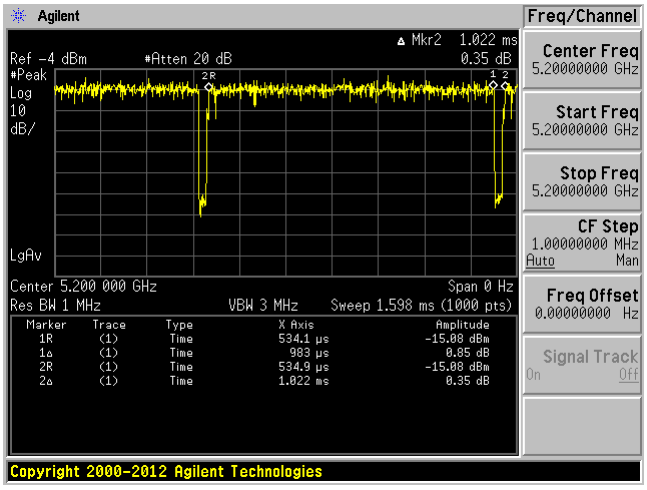
802.11n20 mode



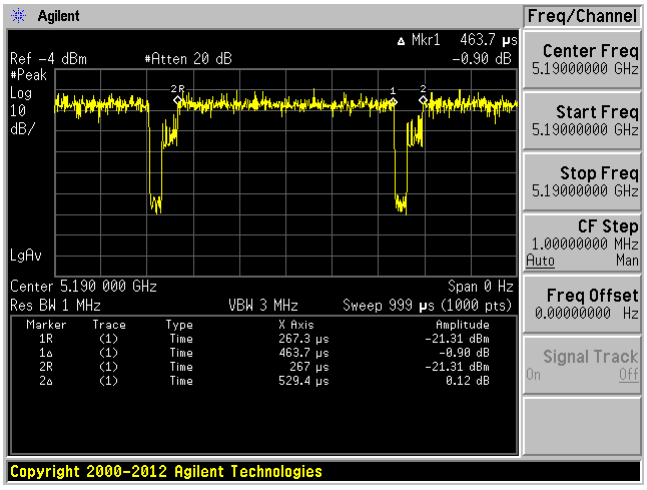
802.11n40 mode



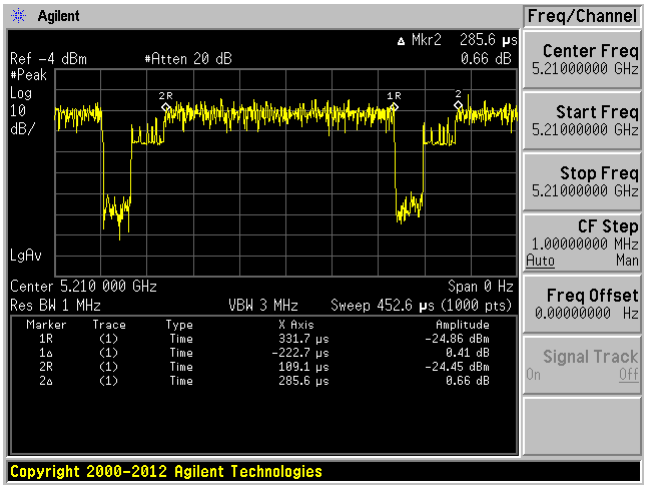
802.11ac20 mode



802.11ac40 mode



802.11ac80 mode



2.4 Equipment Modifications

A hole was cut in the back of the EUT to access the antenna ports.

2.5 Local Support Equipment

Manufacturer	Description	Model
Dell	Laptop	Latitude D630

2.6 EUT Internal Configuration Details

Manufacturer	Description	Model
NVIDIA	Main Board	P2290
BYD	battery	11416519-00

2.7 Support Equipment

Manufacturer	Description	Model
NVIDIA	USB Power Adapter	SPA011AU5W2

2.8 Interface Ports and Cabling

Cable Description	Length (m)	To	From
USB Cable	< 1 m	Laptop	EUT
U.FL-RSMA pigtail	< 1 m	EUT	PSA

3 Summary of Test Results

FCC & IC Rules	Description of Test	Result
FCC §2.1093, §15.407(f), IC RSS-102	RF Exposure	Compliant[1]
FCC §15.203 IC RSS-Gen §8.3	Antenna Requirement	Compliant
FCC §15.207 IC RSS-Gen §8.8	AC Power Line Conducted Emissions	Compliant
FCC §2.1053, §15.205, §15.209, 15.407(b) IC RSS-247 §6.2	Spurious Radiated Emissions	Compliant
FCC §15.407(e) IC RSS-Gen §6.2	Emission Bandwidth	Compliant
FCC §407(a) IC RSS-247 §6.2	Output Power	Compliant
FCC §2.1051, §15.407(b) IC RSS-247 §6.2	Band Edges	Compliant
FCC §15.407(a)(5) IC RSS-247 §6.2	Power Spectral Density	Compliant
FCC §2.1051, §15.407(b) IC RSS-247 §6.2	Spurious Emissions at Antenna Terminals	Compliant
FCC §15.407(h) IC RSS-247 §6.3	Dynamic Frequency Selection (DFS)	Compliant[2]

Note[1]: RF exposure analysis is covered in a separate report.
Note[2]: DFS measurement is recorded in a separate report.

4 FCC §2.1093, §15.407(f) & IC RSS-102 - RF Exposure

4.1 Applicable Standard

FCC §2.1093, §15.407(f) & IC RSS-102

4.2 Test Results

Please refer to the SAR Report: R1511101- SAR.

5 FCC §15.203 & IC RSS-Gen §8.3 - Antenna Requirements

5.1 Applicable Standards

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.

According to IC RSS-Gen §8.3: Transmitter Antenna

The applicant for equipment certification, as per RSP-100, must provide a list of all antenna types that may be used with the licence-exempt transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna.

Licence-exempt transmitters that have received equipment certification may operate with different types of antennas. However, it is not permissible to exceed the maximum equivalent isotropically radiated power (e.i.r.p.) limits specified in the applicable standard (RSS) for the licence-exempt apparatus.

Testing shall be performed using the highest gain antenna of each combination of licence-exempt transmitter and antenna type, with the transmitter output power set at the maximum level. [9] 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 a measurement or on data from the antenna manufacturer.

User manuals for transmitters equipped with detachable antennas shall also contain the following notice in a conspicuous location:

This radio transmitter (identify the device by certification number) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

5.2 Antenna List

The antennas used by the EUT are permanent attached antennas.

Antenna Chain	Antenna Gain (dBi)		
	5150-5350 MHz	5470-5725 MHz	5725-5850 MHz
Wi-Fi 0/Bluetooth	2.7	2.7	3.5
Wi-Fi 1	0.2	2.3	1.9

6 FCC §15.207 & IC RSS-Gen §8.8 - AC Power Line Conducted Emissions

6.1 Applicable Standards

As per FCC §15.207 & IC RSS GEN §8.8

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 C63.10-2013 measurement procedure. The specification used was FCC §15.207 limits & & IC RSS GEN §8.8.

External I/O cables were draped along the edge of the test table and bundle when necessary.
The AC/DC power adapter of the EUT was connected with LISN-1 which provided 120 V / 60 Hz AC power.

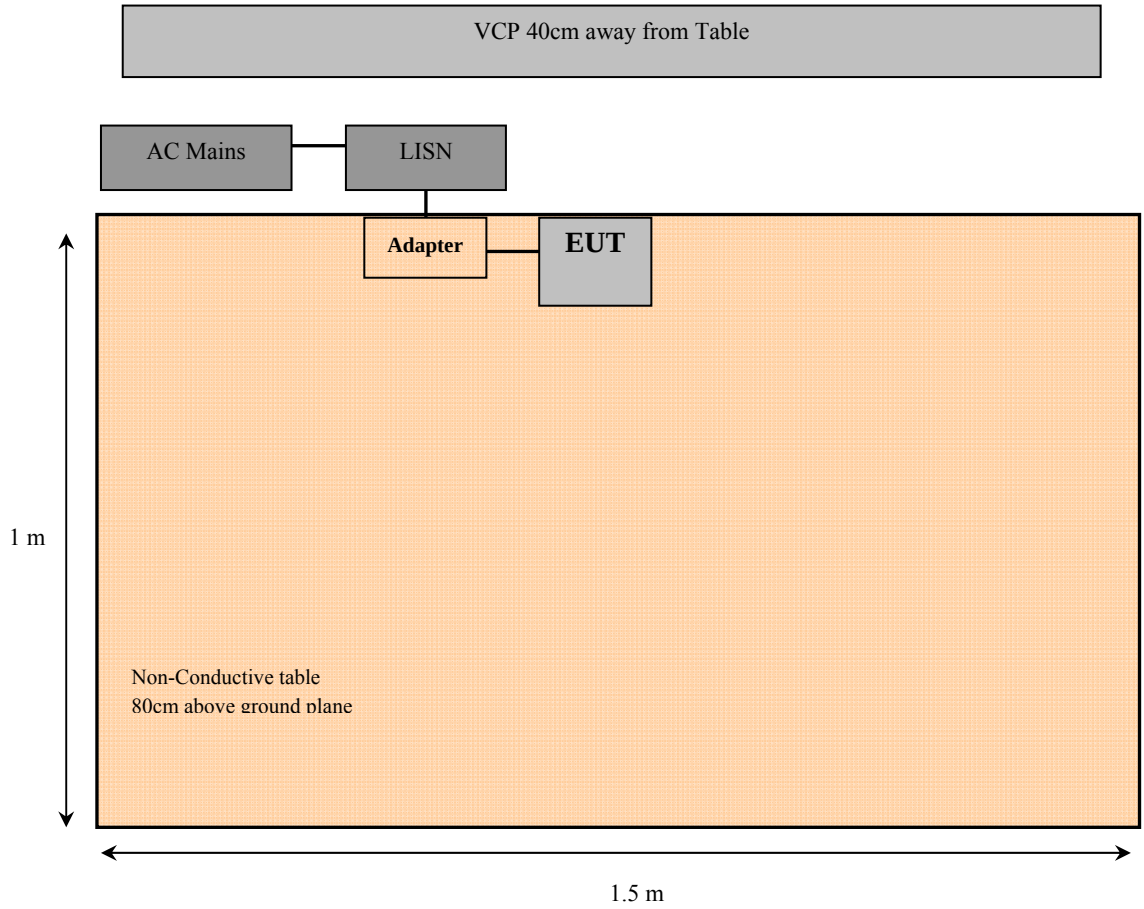
6.3 Test Procedure

During the conducted emissions test, the power cord of the EUT host system was connected to the mains outlet of the LISN-1 and the power cords of support equipment were connected to LISN-2.

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

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

6.4 Test Setup Block Diagram



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	EMI Test Receiver	ESCI 1166.5950K03	100044	2015-07-23	1 year
Rohde & Schwarz	Impulse Limiter	ESH3-Z2	101963	2015-07-15	1year
Keysight Technologies	RF Limiter	11867A	MY42242932	2015-12-15	1year
Solar Electronics Company	High Pass Filter	Type 7930-100	7930150204	2015-03-06	1 Year
Suirong	30 ft conductive emission cable	LMR 400	-	2015-03-05	1 year

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

6.7 Test Environmental Conditions

Temperature:	22-24º C
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Todd Moy on 2016-01-20 at 5 meter 3.

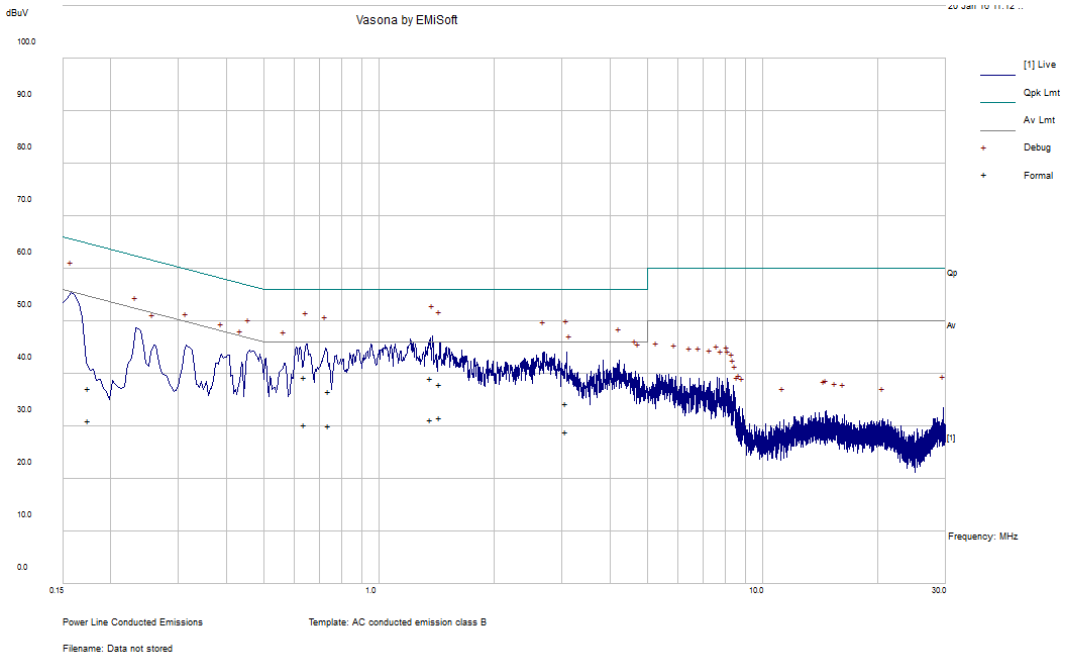
6.8 Summary of Test Results

According to the recorded data in following table, the EUT complied with the FCC Part 15 and RSS-Gen standard's conducted emissions limits, with the margin reading of:

Connection: AC/DC adapter connected to 120 V/60 Hz, AC			
Margin (dB)	**Frequency (MHz)**	**Conductor Mode (Live/Neutral)**	**Range (MHz)**
-13.07	0.455911	Neutral	0.15-30

6.9 Conducted Emissions Test Plots and Data

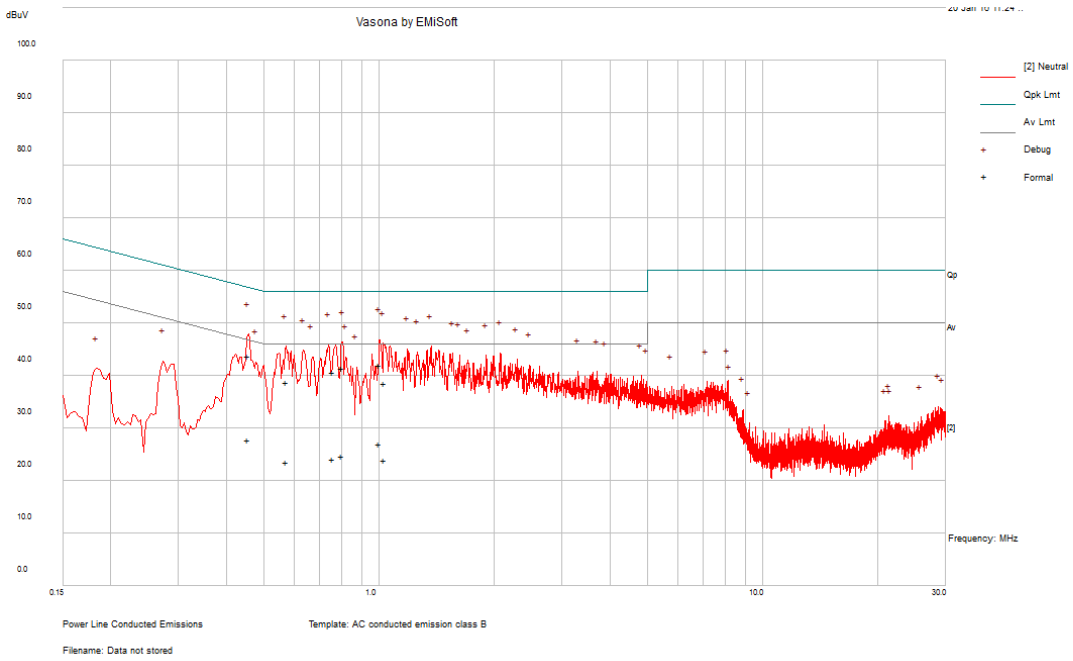
120 V, 60 Hz – Line



Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
1.366612	39.15	Line	56	-16.85	QP
1.438507	37.99	Line	56	-18.01	QP
0.174779	37.29	Line	64.73	-27.44	QP
0.641016	39.43	Line	56	-16.57	QP
0.738151	36.63	Line	56	-19.37	QP
3.078009	34.41	Line	56	-21.59	QP

Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
1.366612	31.36	Line	46	-14.64	Ave.
1.438507	31.72	Line	46	-14.28	Ave.
0.174779	31.15	Line	54.73	-23.58	Ave.
0.641016	30.24	Line	46	-15.76	Ave.
0.738151	30.17	Line	46	-15.83	Ave.
3.078009	29.04	Line	46	-16.96	Ave.

120 V, 60 Hz – Neutral



Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.455911	43.69	Neutral	56.77	-13.07	QP
1.002372	42.12	Neutral	56	-13.88	QP
0.798477	41.47	Neutral	56	-14.53	QP
1.032429	38.6	Neutral	56	-17.4	QP
0.756983	40.67	Neutral	56	-15.33	QP
0.573064	38.87	Neutral	56	-17.13	QP

Frequency (MHz)	Corrected Amplitude (dBµV)	Conductor (Line/Neutral)	Limit (dBµV)	Margin (dB)	Detector (QP/Ave.)
0.455911	27.86	Neutral	46.77	-18.9	Ave.
1.002372	26.98	Neutral	46	-19.02	Ave.
0.798477	24.79	Neutral	46	-21.21	Ave.
1.032429	24.06	Neutral	46	-21.94	Ave.
0.756983	24.23	Neutral	46	-21.77	Ave.
0.573064	23.68	Neutral	46	-22.32	Ave.

7 FCC §15.209, §15.407(b) & IC RSS-247 §6.2 - Spurious Radiated Emissions

7.1 Applicable Standard

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	960 – 1240	4. 5 – 5. 15
0.495 – 0.505	16.69475 – 16.69525	1300 – 1427	5. 35 – 5. 46
2.1735 – 2.1905	25.5 – 25.67	1435 – 1626.5	7.25 – 7.75
4.125 – 4.128	37.5 – 38.25	1645.5 – 1646.5	8.025 – 8.5
4.17725 – 4.17775	73 – 74.6	1660 – 1710	9.0 – 9.2
4.20725 – 4.20775	74.8 – 75.2	1718.8 – 1722.2	9.3 – 9.5
6.215 – 6.218	108 – 121.94	2200 – 2300	10.6 – 12.7
6.26775 – 6.26825	123 – 138	2310 – 2390	13.25 – 13.4
6.31175 – 6.31225	149.9 – 150.05	2483.5 – 2500	14.47 – 14.5
8.291 – 8.294	156.52475 – 156.52525	2690 – 2900	15.35 – 16.2
8.362 – 8.366	156.7 – 156.9	3260 – 3267	17.7 – 21.4
8.37625 – 8.38675	162.0125 –167.17	3.332 – 3.339	22.01 – 23.12
8.41425 – 8.41475	167.72 – 173.2	3 3458 – 3 358	23.6 – 24.0
12.29 – 12.293	240 – 285	3.600 – 4.400	31.2 – 31.8
12.51975 – 12.52025	322 – 335.4		36.43 – 36.5
12.57675 – 12.57725	399.9 – 410		Above 38.6
13.36 – 13.41	608 – 614		

As per FCC §15.209: The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table

Frequency (MHz)	Field Strength (micro volts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100 Note 1	3
88 - 216	150 Note 1	3
216 - 960	200 Note 1	3
Above 960	500	3

Note 1: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per FCC Part 15.407 (b)

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47 -5.725 GHz band: All emissions outside of the 5.47-5725 GHz band shall not exceed an ei.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall noet exceed an e.i.r.p. of -27 dBm/MHz.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

As per IC RSS-247 §6.2

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250- 5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

For devices with both operating frequencies and channel bandwidths contained within the band 5250-5350 MHz, the device shall comply with the following:

1. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. if the equipment is intended for outdoor use; or
2. All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of Section 6.2.1. The device shall be labelled “for indoor use only.”

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices’ unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled “for indoor use only.”

For transmitters operating in the band 5470-5725 MHz, emissions outside the band shall not exceed -27 dBm/MHz e.i.r.p.

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p. For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz.

7.2 Test Setup

The radiated emissions tests were performed in the 5-meter Chamber, using the setup in accordance with ANSI C63.10-2013. The specification used was the FCC 15.407 and IC RSS-247 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 were 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 meter, and the EUT is placed on a turntable, which is 0.8 meter or 1.5 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 = 3MHz / Sweep = 100ms
(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 (+23.5dB) + 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 for Class A. 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
Rohde & Schwarz	Receiver, EMI Test	ESCI 1166.5950K03	100044	2015-07-23	1 year
Agilent	Analyzer, Spectrum	E4440A	MY44303352	2015-06-22	1 year
Sunol Science Corp	System Controller	SC99V	011003-1	N/R	N/R
Sunol Sciences	Antenna, Biconi-Log	JB3	A020106-2	2015-07-11	2 Years
EMCO	Antenna, Horn	3115	9511-4627	2016-01-28	2 years
Agilent	Amplifier, Pre	8447D	2944A10187	2015-03-20	1 year
Suirong	30 ft conductive emission cable	LMR 400	-	2015-03-05	1 year
-	SMA cable	-	C0002	Each time[1]	N/A
IW Microwave	High Frequency Cable	DC-1438	SPS-2303-3840-SPS	2016-01-18	1 year
IW	AOBOR Hi frequency Co AX CabelCable	DC 1531	KPS-1501A3960KPS	2015-08-10	1 Year
Hewlett-Packard	5 ft N-type RF cable	-	1268	2015-05-15	1 year
Hewlett	Pre-Amplifier	8449B	3008A01978	2015-03-11	1year
Wisewave	Antenna, Horn	ARH-4223-02	10555-02	2013-09-20	3 year
Wisewave	Antenna, Horn	ARH-2823-02	10555-02	2013-09-20	3 year
Wisewave	Amplifier, Low Noise	ALN-33144030-01	11424-01	2015-04-28	2 year
Wisewave	Amplifier, Low Noise	ALN-22093530-01	12263-01	2015-04-28	1 year

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

7.6 Test Environmental Conditions

Temperature:	22-24 ºC
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Leonard Grey and Todd Moy from 2016-01-11 to 2016-01-25 at 5 meter 3.

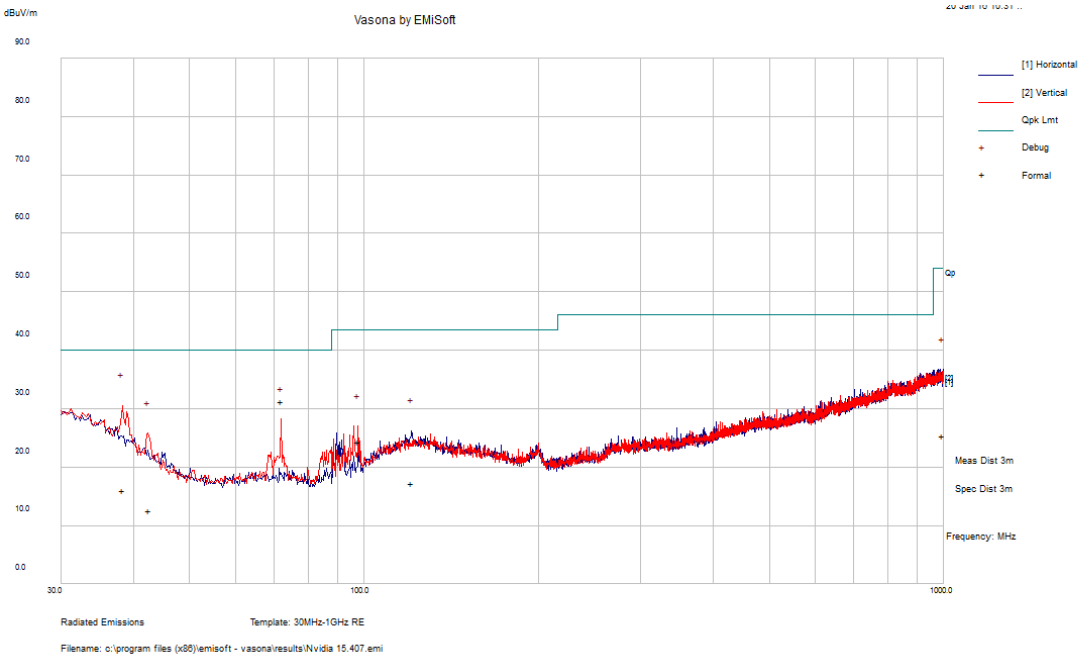
7.7 Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Part 15.407 and RSS-247 standard's radiated emissions limits, and had the worst margin of:

Mode: Transmitting			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Mode, Channel**
-0.20	5725	Horizontal	a mode chain 1, 5700 MHz

7.8 Radiated Emissions Test Result Data

1) 30 MHz – 1 GHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)	Comments (PK/QP/Ave.)
38.3895	16.06	267	V	91	40	-23.94	QP
72	31.3	279	V	302	40	-8.7	QP
42.56725	12.65	223	V	174	40	-27.35	QP
97.657	24.36	297	V	4	43.5	-19.14	QP
120.6453	17.23	100	H	97	43.5	-26.27	QP
997.3293	25.36	172	H	3	54	-28.64	QP

2) 1–40 GHz

5150 - 5250 MHz

802.11a mode chain 1

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5180 MHz											
5180	62.54	204	246	V	33.61	5.64	0.00	101.79	-	-	Peak
5180	61.84	234	160	H	33.61	5.64	0.00	101.09	-	-	Peak
5180	51.47	204	233	V	33.61	5.64	0.00	90.72	-	-	Ave
5180	50.64	308	142	H	33.61	5.64	0.00	89.89	-	-	Ave
5150	27.03	0	100	V	33.61	5.64	0.00	66.28	74	-7.72	Peak
5150	27.08	0	100	H	33.61	5.64	0.00	66.33	74	-7.67	Peak
5150	12.77	0	100	V	33.61	5.64	0.00	52.02	54	-1.98	Ave
5150	12.76	0	100	H	33.61	5.64	0.00	52.01	54	-1.99	Ave
10360	41.83	0	100	V	38.25	9.43	34.41	55.11	68.26	-13.15	Peak
10360	41.70	0	100	H	38.25	9.43	34.41	54.98	68.26	-13.28	Peak
15540	48.09	0	100	V	39.18	10.83	33.73	64.37	74	-9.63	Peak
15540	47.98	0	100	H	39.18	10.83	33.73	64.26	74	-9.74	Peak
15540	33.22	0	100	V	39.18	10.83	33.73	49.50	54	-4.50	Ave
15540	33.28	0	100	H	39.18	10.83	33.73	49.56	54	-4.44	Ave
Middle Channel 5200 MHz											
5200	63.05	204	276	V	33.61	5.64	0.00	102.30	-	-	Peak
5200	62.41	236	151	H	33.61	5.64	0.00	101.66	-	-	Peak
5200	52.02	205	192	V	33.61	5.64	0.00	91.27	-	-	Ave
5200	50.02	201	139	H	33.61	5.64	0.00	89.27	-	-	Ave
10400	39.37	0	100	V	38.25	9.43	34.41	52.65	68.26	-15.61	Peak
10400	39.71	0	100	H	38.25	9.43	34.41	52.99	68.26	-15.27	Peak
15600	45.07	0	100	V	39.18	10.83	33.73	61.36	74	-12.64	Peak
15600	45.81	0	100	H	39.18	10.83	33.73	62.10	74	-11.90	Peak
15600	31.71	0	100	V	39.18	10.83	33.73	48.00	54	-6.00	Ave
15600	31.78	0	100	H	39.18	10.83	33.73	48.07	54	-5.93	Ave
High Channel 5240 MHz											
5240	62.43	200	152	V	33.61	5.64	0.00	101.68	-	-	Peak
5240	61.54	231	234	H	33.61	5.64	0.00	100.79	-	-	Peak
5240	51.78	192	200	V	33.61	5.64	0.00	91.03	-	-	Ave
5240	48.17	199	131	H	33.61	5.64	0.00	87.42	-	-	Ave
10480	40.02	0	100	V	38.33	10.07	34.40	54.02	68.26	-14.24	Peak
10480	40.70	0	100	H	38.33	10.07	34.40	54.70	68.26	-13.56	Peak
15720	46.93	0	100	V	39.18	10.83	33.89	63.05	74	-10.95	Peak
15720	46.68	0	100	H	39.18	10.83	33.89	62.80	74	-11.20	Peak
15720	33.16	0	100	V	39.18	10.83	33.89	49.28	54	-4.72	Ave
15720	33.22	0	100	H	39.18	10.83	33.89	49.34	54	-4.66	Ave

802.11a mode chain 2

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5180 MHz											
5180	61.64	277	285	V	33.61	5.64	0.00	100.89	-	-	Peak
5180	59.09	178	203	H	33.61	5.64	0.00	98.34	-	-	Peak
5180	50.91	197	202	V	33.61	5.64	0.00	90.16	-	-	Ave
5180	49.83	236	237	H	33.61	5.64	0.00	89.08	-	-	Ave
5150	26.5	277	285	V	33.61	5.64	0.00	65.75	74	-8.25	Peak
5150	26.81	178	203	H	33.61	5.64	0.00	66.06	74	-7.94	Peak
5150	12.81	197	202	V	33.61	5.64	0.00	52.06	54	-1.94	Ave
5150	12.81	236	237	H	33.61	5.64	0.00	52.06	54	-1.94	Ave
10360	40.85	0	100	V	38.25	9.43	34.41	54.13	68.26	-14.13	Peak
10360	40.16	0	100	H	38.25	9.43	34.41	53.44	68.26	-14.82	Peak
15540	46.40	0	100	V	39.18	10.83	33.73	62.68	74	-11.32	Peak
15540	46.41	0	100	H	39.18	10.83	33.73	62.69	74	-11.31	Peak
15540	33.08	0	100	V	39.18	10.83	33.73	49.36	54	-4.64	Ave
15540	33.10	0	100	H	39.18	10.83	33.73	49.38	54	-4.62	Ave
Middle Channel 5200 MHz											
5200	63.49	254	194	V	33.61	5.64	0.00	102.74	-	-	Peak
5200	63.19	230	217	H	33.61	5.64	0.00	102.44	-	-	Peak
5200	52.68	254	240	V	33.61	5.64	0.00	91.93	-	-	Ave
5200	52.15	233	121	H	33.61	5.64	0.00	91.40	-	-	Ave
10400	39.93	0	100	V	38.25	9.43	34.41	53.21	68.26	-15.05	Peak
10400	39.31	0	100	H	38.25	9.43	34.41	52.59	68.26	-15.67	Peak
15600	45.84	0	100	V	39.18	10.83	33.73	62.13	74	-11.87	Peak
15600	45.92	0	100	H	39.18	10.83	33.73	62.21	74	-11.79	Peak
15600	31.84	0	100	V	39.18	10.83	33.73	48.13	54	-5.87	Ave
15600	31.86	0	100	H	39.18	10.83	33.73	48.15	54	-5.85	Ave
High Channel 5240 MHz											
5240	61.17	199	115	V	33.61	5.64	0.00	100.42	-	-	Peak
5240	60.4	234	254	H	33.61	5.64	0.00	99.65	-	-	Peak
5240	50.36	11	192	V	33.61	5.64	0.00	89.61	-	-	Ave
5240	49.75	235	129	H	33.61	5.64	0.00	89.00	-	-	Ave
10480	40.11	0	100	V	38.33	10.07	34.40	54.11	68.26	-14.15	Peak
10480	41.12	0	100	H	38.33	10.07	34.40	55.12	68.26	-13.14	Peak
15720	47.09	0	100	V	39.18	10.83	33.89	63.21	74	-10.79	Peak
15720	47.53	0	100	H	39.18	10.83	33.89	63.65	74	-10.35	Peak
15720	33.34	0	100	V	39.18	10.83	33.89	49.46	54	-4.54	Ave
15720	33.38	0	100	H	39.18	10.83	33.89	49.50	54	-4.50	Ave

802.11n20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5180 MHz											
5180	66.61	268	274	V	33.61	5.64	0.00	105.86	-	-	Peak
5180	66.21	251	100	H	33.61	5.64	0.00	105.46	-	-	Peak
5180	52.46	266	277	V	33.61	5.64	0.00	91.71	-	-	Ave
5180	50.26	170	196	H	33.61	5.64	0.00	89.51	-	-	Ave
5150	26.34	268	274	V	33.61	5.64	0.00	65.59	74	-8.41	Peak
5150	26.98	251	100	H	33.61	5.64	0.00	66.23	74	-7.77	Peak
5150	12.22	266	277	V	33.61	5.64	0.00	51.47	54	-2.53	Ave
5150	13.88	251	100	H	33.61	5.64	0.00	53.13	54	-0.87	Ave
10360	41.08	0	100	V	38.25	9.43	34.41	54.36	68.26	-13.90	Peak
10360	41.61	0	100	H	38.25	9.43	34.41	54.89	68.26	-13.37	Peak
15540	46.08	0	100	V	39.18	10.83	33.73	62.36	74	-11.64	Peak
15540	47.33	0	100	H	39.18	10.83	33.73	63.61	74	-10.39	Peak
15540	32.68	0	100	V	39.18	10.83	33.73	48.96	54	-5.04	Ave
15540	32.66	0	100	H	39.18	10.83	33.73	48.94	54	-5.06	Ave
Middle Channel 5200 MHz											
5200	66.48	251	195	V	33.61	5.64	0.00	105.73	-	-	Peak
5200	66.56	233	173	H	33.61	5.64	0.00	105.81	-	-	Peak
5200	54.89	249	240	V	33.61	5.64	0.00	94.14	-	-	Ave
5200	55.02	225	144	H	33.61	5.64	0.00	94.27	-	-	Ave
10400	39.59	0	100	V	38.25	9.43	34.41	52.87	68.26	-15.39	Peak
10400	39.80	0	100	H	38.25	9.43	34.41	53.08	68.26	-15.18	Peak
15600	46.33	0	100	V	39.18	10.83	33.73	62.62	74	-11.38	Peak
15600	45.84	0	100	H	39.18	10.83	33.73	62.13	74	-11.87	Peak
15600	31.49	0	100	V	39.18	10.83	33.73	47.78	54	-6.22	Ave
15600	31.51	0	100	H	39.18	10.83	33.73	47.80	54	-6.20	Ave
High Channel 5240 MHz											
5240	66.09	253	211	V	33.61	5.64	0.00	105.34	-	-	Peak
5240	66.67	229	159	H	33.61	5.64	0.00	105.92	-	-	Peak
5240	54.76	251	233	V	33.61	5.64	0.00	94.01	-	-	Ave
5240	54.74	229	122	H	33.61	5.64	0.00	93.99	-	-	Ave
10480	40.48	0	100	V	38.33	10.07	34.40	54.48	68.26	-13.78	Peak
10480	40.67	0	100	H	38.33	10.07	34.40	54.67	68.26	-13.59	Peak
15720	47.58	0	100	V	39.18	10.83	33.89	63.70	74	-10.30	Peak
15720	47.24	0	100	H	39.18	10.83	33.89	63.36	74	-10.64	Peak
15720	32.92	0	100	V	39.18	10.83	33.89	49.04	54	-4.96	Ave
15720	32.89	0	100	H	39.18	10.83	33.89	49.01	54	-4.99	Ave

802.11 n40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5190 MHz											
5190	63.8	283	237	V	33.51	5.26	0.00	102.57	-	-	Peak
5190	61.56	178	259	H	33.61	5.26	0.00	100.43	-	-	Peak
5190	51.42	278	300	V	33.51	5.26	0.00	90.19	-	-	Ave
5190	50.9	245	157	H	33.61	5.26	0.00	89.77	-	-	Ave
5150	29.33	192	273	V	33.51	5.26	0.00	68.10	74	-5.90	Peak
5150	28.58	0	100	H	33.61	5.26	0.00	67.45	74	-6.55	Peak
5150	13.9	260	155	V	33.51	5.26	0.00	52.67	54	-1.33	Ave
5150	14.12	244	100	H	33.61	5.26	0.00	52.99	54	-1.01	Ave
10380	46.48	0	100	V	38.25	9.43	34.41	59.76	68.26	-8.50	Peak
10380	46.41	0	100	H	38.25	9.43	34.41	59.69	68.26	-8.57	Peak
15570	40.87	0	100	V	39.18	10.83	33.73	57.15	74	-16.85	Peak
15570	41.00	0	100	H	39.18	10.83	33.73	57.28	74	-16.72	Peak
15570	26.67	0	100	V	39.18	10.83	33.73	42.95	54	-11.05	Ave
15570	26.69	0	100	H	39.18	10.83	33.73	42.97	54	-11.03	Ave
High Channel 5230 MHz											
5230	63.81	253	190	V	33.51	5.26	0.00	102.58	-	-	Peak
5230	64.03	229	178	H	33.61	5.26	0.00	102.90	-	-	Peak
5230	51.24	254	301	V	33.51	5.26	0.00	90.01	-	-	Ave
5230	51.21	234	118	H	33.61	5.26	0.00	90.08	-	-	Ave
10460	40.68	0	100	V	38.25	9.43	34.41	53.95	68.26	-14.31	Peak
10460	40.94	0	100	H	38.25	9.43	34.41	54.21	68.26	-14.05	Peak
15690	45.86	0	100	V	39.18	10.83	33.73	62.15	74	-11.85	Peak
15690	46.83	0	100	H	39.18	10.83	33.73	63.12	74	-10.88	Peak
15690	32.00	0	100	V	39.18	10.83	33.73	48.29	54	-5.71	Ave
15690	31.96	0	100	H	39.18	10.83	33.73	48.25	54	-5.75	Ave

802.11ac20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5180 MHz											
5180	65.66	287	189	V	33.61	5.64	0.00	104.91	-	-	Peak
5180	64.25	308	162	H	33.61	5.64	0.00	103.50	-	-	Peak
5180	53.13	281	239	V	33.61	5.64	0.00	92.38	-	-	Ave
5180	51.79	255	148	H	33.61	5.64	0.00	91.04	-	-	Ave
5150	27.9	0	100	V	33.61	5.64	0.00	67.15	74	-6.85	Peak
5150	27.65	0	100	H	33.61	5.64	0.00	66.90	74	-7.10	Peak
5150	12.69	0	100	V	33.61	5.64	0.00	51.94	54	-2.06	Ave
5150	12.61	0	100	H	33.61	5.64	0.00	51.86	54	-2.14	Ave
10360	40.68	0	100	V	38.25	9.43	34.41	53.96	68.26	-14.30	Peak
10360	40.79	0	100	H	38.25	9.43	34.41	54.07	68.26	-14.19	Peak
15540	45.07	0	100	V	39.18	10.83	33.73	61.35	74	-12.65	Peak
15540	44.36	0	100	H	39.18	10.83	33.73	60.64	74	-13.36	Peak
15540	30.57	0	100	V	39.18	10.83	33.73	46.85	54	-7.15	Ave
15540	30.54	0	100	H	39.18	10.83	33.73	46.82	54	-7.18	Ave
Middle Channel 5200 MHz											
5200	66.69	257	273	V	33.61	5.64	0.00	105.94	-	-	Peak
5200	65.95	235	113	H	33.61	5.64	0.00	105.20	-	-	Peak
5200	53.75	251	256	V	33.61	5.64	0.00	93.00	-	-	Ave
5200	53.91	239	169	H	33.61	5.64	0.00	93.16	-	-	Ave
10400	41.15	0	100	V	38.25	9.43	34.41	54.43	68.26	-13.83	Peak
10400	41.42	0	100	H	38.25	9.43	34.41	54.70	68.26	-13.56	Peak
15600	45.96	0	100	V	39.18	10.83	33.73	62.24	74	-11.76	Peak
15600	45.80	0	100	H	39.18	10.83	33.73	62.08	74	-11.92	Peak
15600	31.57	0	100	V	39.18	10.83	33.73	47.85	54	-6.15	Ave
15600	31.58	0	100	H	39.18	10.83	33.73	47.86	54	-6.14	Ave
High Channel 5240 MHz											
5240	67.74	274	203	V	33.61	5.64	0.00	106.99	-	-	Peak
5240	67.43	245	119	H	33.61	5.64	0.00	106.68	-	-	Peak
5240	54.76	272	272	V	33.61	5.64	0.00	94.01	-	-	Ave
5240	54.51	244	140	H	33.61	5.64	0.00	93.76	-	-	Ave
10480	40.51	0	100	V	38.33	10.07	34.40	54.50	68.26	-13.76	Peak
10480	41.45	0	100	H	38.33	10.07	34.40	55.44	68.26	-12.82	Peak
15720	46.54	0	100	V	39.18	10.83	33.89	62.66	74	-11.34	Peak
15720	46.78	0	100	H	39.18	10.83	33.89	62.90	74	-11.10	Peak
15720	31.87	0	100	V	39.18	10.83	33.89	47.99	54	-6.01	Ave
15720	31.88	0	100	H	39.18	10.83	33.89	48.00	54	-6.00	Ave

802.11ac40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5190 MHz											
5190	63.77	274	209	V	33.51	5.26	0.00	102.54	-	-	Peak
5190	62.92	254	195	H	33.61	5.26	0.00	101.79	-	-	Peak
5190	49.92	277	287	V	33.51	5.26	0.00	88.69	-	-	Ave
5190	49.6	252	160	H	33.61	5.26	0.00	88.47	-	-	Ave
5150	28.59	0	100	V	33.51	5.26	0.00	67.36	74	-6.64	Peak
5150	28.15	0	100	H	33.61	5.26	0.00	67.02	74	-6.98	Peak
5150	13.81	264	136	V	33.51	5.26	0.00	52.58	54	-1.42	Ave
5150	13.9	244	100	H	33.61	5.26	0.00	52.77	54	-1.23	Ave
10380	41.90	0	100	V	38.25	9.43	34.41	55.18	68.26	-13.08	Peak
10380	42.22	0	100	H	38.25	9.43	34.41	55.50	68.26	-12.76	Peak
15570	45.69	0	100	V	39.18	10.83	33.73	61.97	74	-12.03	Peak
15570	45.74	0	100	H	39.18	10.83	33.73	62.02	74	-11.98	Peak
15570	31.61	0	100	V	39.18	10.83	33.73	47.89	54	-6.11	Ave
15570	31.59	0	100	H	39.18	10.83	33.73	47.87	54	-6.13	Ave
High Channel 5230 MHz											
5230	64.17	248	193	V	33.51	5.26	0.00	102.94	-	-	Peak
5230	63.8	235	207	H	33.61	5.26	0.00	102.67	-	-	Peak
5230	50.04	252	245	V	33.51	5.26	0.00	88.81	-	-	Ave
5230	49.91	226	121	H	33.61	5.26	0.00	88.78	-	-	Ave
10460	40.95	0	100	V	38.25	9.43	34.41	54.22	68.26	-14.04	Peak
10460	41.45	0	100	H	38.25	9.43	34.41	54.72	68.26	-13.54	Peak
15690	45.93	0	100	V	39.18	10.83	33.73	62.22	74	-11.78	Peak
15690	46.06	0	100	H	39.18	10.83	33.73	62.35	74	-11.65	Peak
15690	31.88	0	100	V	39.18	10.83	33.73	48.17	54	-5.83	Ave
15690	31.90	0	100	H	39.18	10.83	33.73	48.19	54	-5.81	Ave

802.11ac80 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
5210 MHz											
5210	58.39	276	285	V	33.61	5.64	0.00	97.64	-	-	Peak
5210	57.73	251	167	H	33.61	5.64	0.00	96.98	-	-	Peak
5210	42.39	276	285	V	33.61	5.64	0.00	81.64	-	-	Ave
5210	41.86	251	167	H	33.61	5.64	0.00	81.11	-	-	Ave
5150	27.9	276	285	V	33.61	5.64	0.00	67.15	74	-6.85	Peak
5150	28.15	251	167	H	33.61	5.64	0.00	67.40	74	-6.60	Peak
5150	13.64	276	285	V	33.61	5.64	0.00	52.89	54	-1.11	Ave
5150	13.65	251	167	H	33.61	5.64	0.00	52.90	54	-1.10	Ave
10420	37.41	0	100	V	37.51	11.38	33.52	52.78	68.26	-15.48	Peak
10420	37.56	0	100	H	38.25	11.38	33.52	53.67	68.26	-14.59	Peak
15630	44.83	0	100	V	37.46	14.13	33.82	62.60	74	-11.41	Peak
15630	45.59	0	100	H	39.18	14.13	33.82	65.08	74	-8.92	Peak
15630	31.1	0	100	V	37.46	14.13	33.82	48.87	54	-5.14	Ave
15630	31.06	0	100	H	39.18	14.13	33.82	50.55	54	-3.45	Ave

5250 - 5350 MHz

802.11a mode chain 1

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz											
5260	61.95	205	105	V	33.48	5.71	0.00	101.14	-	-	Peak
5260	61	237	235	H	33.48	5.71	0.00	100.19	-	-	Peak
5260	50.47	180	128	V	33.48	5.71	0.00	89.66	-	-	Ave
5260	50.15	312	134	H	33.48	5.71	0.00	89.34	-	-	Ave
10520	41.60	0	100	V	38.33	10.07	34.40	55.59	68.26	-12.67	Peak
10520	41.39	0	100	H	38.33	10.07	34.40	55.38	68.26	-12.88	Peak
15780	44.69	0	100	V	38.33	10.83	33.89	59.95	74	-14.05	Peak
15780	43.97	0	100	H	38.33	10.83	33.89	59.23	74	-14.77	Peak
15780	31.97	0	100	V	38.33	10.83	33.89	47.23	54	-6.77	Ave
15780	32.01	0	100	H	39.18	10.83	33.89	48.12	54	-5.88	Ave
Middle Channel 5300 MHz											
5300	62.83	199	187	V	33.48	5.71	0.00	102.02	-	-	Peak
5300	62	238	243	H	33.48	5.71	0.00	101.19	-	-	Peak
5300	51.79	191	188	V	33.48	5.71	0.00	90.98	-	-	Ave
5300	50.93	302	12	H	33.48	5.71	0.00	90.12	-	-	Ave
10600	42.10	0	100	V	38.26	10.07	34.40	56.03	74	-17.97	Peak
10600	42.19	0	100	H	38.26	10.07	34.40	56.12	74	-17.88	Peak
10600	27.95	0	100	V	38.26	10.07	34.40	41.88	54	-12.12	Ave
10600	27.98	0	100	H	38.26	10.07	34.40	41.91	54	-12.09	Ave
15900	44.14	0	100	V	38.50	10.83	34.07	59.40	74	-14.60	Peak
15900	44.40	0	100	H	38.50	10.83	34.07	59.66	74	-14.34	Peak
15900	31.50	0	100	V	38.50	10.83	34.07	46.76	54	-7.24	Ave
15900	31.52	0	100	H	38.50	10.83	34.07	46.78	54	-7.22	Ave
High Channel 5320 MHz											
5320	61.61	212	130	V	33.48	5.71	0.00	100.80	-	-	Peak
5320	60.97	313	240	H	33.48	5.71	0.00	100.16	-	-	Peak
5320	51.3	185	206	V	33.48	5.71	0.00	90.49	-	-	Ave
5320	50.25	312	109	H	33.48	5.71	0.00	89.44	-	-	Ave
5350	26.77	0	100	V	33.58	5.59	0.00	65.93	74	-8.07	Peak
5350	26.67	0	100	H	33.58	5.59	0.00	65.83	74	-8.17	Peak
5350	12.61	0	100	V	33.58	5.59	0.00	51.77	54	-2.23	Ave
5350	12.61	0	100	H	33.58	5.59	0.00	51.77	54	-2.23	Ave
10640	40.92	0	100	V	38.26	10.07	34.35	54.90	74	-19.10	Peak
10640	41.81	0	100	H	38.26	10.07	34.35	55.79	74	-18.21	Peak
10640	29.21	0	100	V	38.26	10.07	34.35	43.19	54	-10.81	Ave
10640	29.20	0	100	H	38.26	10.07	34.35	43.18	54	-10.82	Ave
15960	46.51	0	100	V	38.44	10.83	34.07	61.70	74	-12.30	Peak
15960	46.05	0	100	H	38.44	10.83	34.07	61.24	74	-12.76	Peak
15960	33.57	0	100	V	38.44	10.83	34.07	48.76	54	-5.24	Ave
15960	33.58	0	100	H	38.44	10.83	34.07	48.77	54	-5.23	Ave

802.11a mode chain 2

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz											
5260	64.26	272	202	V	33.48	5.71	0.00	103.45	-	-	Peak
5260	63.89	245	197	H	33.48	5.71	0.00	103.08	-	-	Peak
5260	53.36	267	270	V	33.48	5.71	0.00	92.55	-	-	Ave
5260	50.62	174	269	H	33.48	5.71	0.00	89.81	-	-	Ave
10520	41.90	0	100	V	38.33	10.07	34.40	55.89	68.26	-12.37	Peak
10520	42.15	0	100	H	38.33	10.07	34.40	56.14	68.26	-12.12	Peak
15780	44.44	0	100	V	38.33	10.83	33.89	59.70	74	-14.30	Peak
15780	45.95	0	100	H	38.33	10.83	33.89	61.21	74	-12.79	Peak
15780	31.80	0	100	V	38.33	10.83	33.89	47.06	54	-6.94	Ave
15780	31.77	0	100	H	39.18	10.83	33.89	47.88	54	-6.12	Ave
Middle Channel 5300 MHz											
5300	65.1	273	289	V	33.48	5.71	0.00	104.29	-	-	Peak
5300	63.7	254	100	H	33.48	5.71	0.00	102.89	-	-	Peak
5300	53.94	271	191	V	33.48	5.71	0.00	93.13	-	-	Ave
5300	53.75	242	123	H	33.48	5.71	0.00	92.94	-	-	Ave
10600	41.70	0	100	V	38.26	10.07	34.40	55.63	74	-18.37	Peak
10600	40.58	0	100	H	38.26	10.07	34.40	54.51	74	-19.49	Peak
10600	26.97	0	100	V	38.26	10.07	34.40	40.90	54	-13.10	Ave
10600	27.02	0	100	H	38.26	10.07	34.40	40.95	54	-13.05	Ave
15900	44.76	0	100	V	38.50	10.83	34.07	60.02	74	-13.98	Peak
15900	44.44	0	100	H	38.50	10.83	34.07	59.70	74	-14.30	Peak
15900	30.86	0	100	V	38.50	10.83	34.07	46.12	54	-7.88	Ave
15900	30.82	0	100	H	38.50	10.83	34.07	46.08	54	-7.92	Ave
High Channel 5320 MHz											
5320	64.77	270	198	V	33.48	5.71	0.00	103.96	-	-	Peak
5320	64.44	241	211	H	33.48	5.71	0.00	103.63	-	-	Peak
5320	53.35	264	198	V	33.48	5.71	0.00	92.54	-	-	Ave
5320	53.16	242	100	H	33.48	5.71	0.00	92.35	-	-	Ave
5350	26.57	270	198	V	33.58	5.59	0.00	65.73	74	-8.27	Peak
5350	26.52	241	211	H	33.58	5.59	0.00	65.68	74	-8.32	Peak
5350	12.25	264	198	V	33.58	5.59	0.00	51.41	54	-2.59	Ave
5350	12.27	241	100	H	33.58	5.59	0.00	51.43	54	-2.57	Ave
10640	43.31	0	100	V	38.26	10.07	34.35	57.29	74	-16.71	Peak
10640	42.69	0	100	H	38.26	10.07	34.35	56.67	74	-17.33	Peak
10640	28.21	0	100	V	38.26	10.07	34.35	42.19	54	-11.81	Ave
10640	28.26	0	100	H	38.26	10.07	34.35	42.24	54	-11.76	Ave
15960	46.42	0	100	V	38.44	10.83	34.07	61.61	74	-12.39	Peak
15960	46.94	0	100	H	38.44	10.83	34.07	62.13	74	-11.87	Peak
15960	32.59	0	100	V	38.44	10.83	34.07	47.78	54	-6.22	Ave
15960	32.57	0	100	H	38.44	10.83	34.07	47.76	54	-6.24	Ave

802.11n20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz											
5260	66.55	269	197	V	33.48	5.71	0.00	105.74	-	-	Peak
5260	66.57	242	191	H	33.48	5.71	0.00	105.76	-	-	Peak
5260	53.28	269	266	V	33.48	5.71	0.00	92.47	-	-	Ave
5260	53.37	248	132	H	33.48	5.71	0.00	92.56	-	-	Ave
10520	42.32	0	100	V	38.33	10.07	34.40	56.31	68.26	-11.95	Peak
10520	41.83	0	100	H	38.33	10.07	34.40	55.82	68.26	-12.44	Peak
15780	44.48	0	100	V	38.33	10.83	33.89	59.74	74	-14.26	Peak
15780	45.06	0	100	H	38.33	10.83	33.89	60.32	74	-13.68	Peak
15780	31.51	0	100	V	38.33	10.83	33.89	46.77	54	-7.23	Ave
15780	31.53	0	100	H	39.18	10.83	33.89	47.64	54	-6.36	Ave
Middle Channel 5300 MHz											
5300	66.75	268	201	V	33.48	5.71	0.00	105.94	-	-	Peak
5300	67.02	243	211	H	33.48	5.71	0.00	106.21	-	-	Peak
5300	53.48	270	232	V	33.48	5.71	0.00	92.67	-	-	Ave
5300	53.4	248	100	H	33.48	5.71	0.00	92.59	-	-	Ave
10600	43.07	0	100	V	38.26	10.07	34.40	57.00	74	-17.00	Peak
10600	42.30	0	100	H	38.26	10.07	34.40	56.23	74	-17.77	Peak
10600	27.03	0	100	V	38.26	10.07	34.40	40.96	54	-13.04	Ave
10600	27.04	0	100	H	38.26	10.07	34.40	40.97	54	-13.03	Ave
15900	44.48	0	100	V	38.50	10.83	34.07	59.74	74	-14.26	Peak
15900	44.58	0	100	H	38.50	10.83	34.07	59.84	74	-14.16	Peak
15900	30.85	0	100	V	38.50	10.83	34.07	46.11	54	-7.89	Ave
15900	30.87	0	100	H	38.50	10.83	34.07	46.13	54	-7.87	Ave
High Channel 5320 MHz											
5320	66.1	272	179	V	33.48	5.71	0.00	105.29	-	-	Peak
5320	66.24	244	209	H	33.48	5.71	0.00	105.43	-	-	Peak
5320	52.42	284	300	V	33.48	5.71	0.00	91.61	-	-	Ave
5320	53.04	246	133	H	33.48	5.71	0.00	92.23	-	-	Ave
5350	26.53	272	179	V	33.58	5.59	0.00	65.69	74	-8.31	Peak
5350	26.3	243	209	H	33.58	5.59	0.00	65.46	74	-8.54	Peak
5350	12.67	284	300	V	33.58	5.59	0.00	51.83	54	-2.17	Ave
5350	12.68	246	133	H	33.58	5.59	0.00	51.84	54	-2.16	Ave
10640	43.96	0	100	V	38.26	10.07	34.35	57.94	74	-16.06	Peak
10640	43.59	0	100	H	38.26	10.07	34.35	57.57	74	-16.43	Peak
10640	28.30	0	100	V	38.26	10.07	34.35	42.28	54	-11.72	Ave
10640	28.31	0	100	H	38.26	10.07	34.35	42.29	54	-11.71	Ave
15960	46.60	0	100	V	38.44	10.83	34.07	61.79	74	-12.21	Peak
15960	46.65	0	100	H	38.44	10.83	34.07	61.84	74	-12.16	Peak
15960	32.67	0	100	V	38.44	10.83	34.07	47.86	54	-6.14	Ave
15960	32.63	0	100	H	38.44	10.83	34.07	47.82	54	-6.18	Ave

802.11n40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5270 MHz											
5270	62.7	248	230	V	33.42	5.26	0.00	101.38	-	-	Peak
5270	62.22	222	231	H	33.48	5.26	0.00	100.96	-	-	Peak
5270	50.31	250	228	V	33.42	5.26	0.00	88.99	-	-	Ave
5270	50.06	223	114	H	33.48	5.26	0.00	88.80	-	-	Ave
10540	41.43	0	100	V	38.33	10.07	34.40	55.42	68.26	-12.84	Peak
10540	42.18	0	100	H	38.33	10.07	34.40	56.17	68.26	-12.09	Peak
15810	46.94	0	100	V	38.33	10.83	33.89	62.20	74	-11.80	Peak
15810	46.59	0	100	H	38.33	10.83	33.89	61.85	74	-12.15	Peak
15810	32.50	0	100	V	38.33	10.83	33.89	47.76	54	-6.24	Ave
15810	32.51	0	100	H	39.18	10.83	33.89	48.62	54	-5.38	Ave
High Channel 5310 MHz											
5310	64.07	286	259	V	33.48	5.71	0.00	103.26	-	-	Peak
5310	63.89	247	206	H	33.48	5.71	0.00	103.08	-	-	Peak
5310	51.3	277	234	V	33.48	5.71	0.00	90.49	-	-	Ave
5310	50.9	245	108	H	33.48	5.71	0.00	90.09	-	-	Ave
5350	27.53	0	100	V	33.58	5.59	0.00	66.69	74	-7.31	Peak
5350	29.19	0	100	H	33.58	5.59	0.00	68.35	74	-5.65	Peak
5350	13.77	277	234	V	33.58	5.59	0.00	52.93	54	-1.07	Ave
5350	13.72	245	108	H	33.58	5.59	0.00	52.88	54	-1.12	Ave
10620	43.11	0	100	V	38.33	10.07	34.40	57.11	74	-16.89	Peak
10620	43.32	0	100	H	38.33	10.07	34.40	57.32	74	-16.68	Peak
10620	28.39	0	100	V	38.33	10.83	33.89	43.65	54	-10.35	Ave
10620	28.39	0	100	H	38.33	10.83	33.89	43.65	54	-10.35	Ave
15930	46.65	0	100	V	38.33	10.83	33.89	61.91	74	-12.09	Peak
15930	46.56	0	100	H	38.33	10.83	33.89	61.82	74	-12.18	Peak
15930	32.56	0	100	V	38.33	10.83	33.89	47.82	54	-6.18	Ave
15930	32.58	0	100	H	39.18	10.83	33.89	48.70	54	-5.30	Ave

802.11ac20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5260 MHz											
5260	65.72	276	178	V	33.48	5.71	0.00	104.91	-	-	Peak
5260	65.65	249	161	H	33.48	5.71	0.00	104.84	-	-	Peak
5260	52.94	280	194	V	33.48	5.71	0.00	92.13	-	-	Ave
5260	52.84	254	160	H	33.48	5.71	0.00	92.03	-	-	Ave
10520	42.37	0	100	V	38.33	10.07	34.40	56.36	68.26	-11.90	Peak
10520	42.29	0	100	H	38.33	10.07	34.40	56.28	68.26	-11.98	Peak
15780	45.61	0	100	V	38.33	10.83	33.89	60.87	74	-13.13	Peak
15780	45.74	0	100	H	38.33	10.83	33.89	61.00	74	-13.00	Peak
15780	31.81	0	100	V	38.33	10.83	33.89	47.07	54	-6.93	Ave
15780	31.83	0	100	H	39.18	10.83	33.89	47.94	54	-6.06	Ave
Middle Channel 5300 MHz											
5300	66.72	272	213	V	33.48	5.71	0.00	105.91	-	-	Peak
5300	66.1	251	203	H	33.48	5.71	0.00	105.29	-	-	Peak
5300	54.17	273	300	V	33.48	5.71	0.00	93.36	-	-	Ave
5300	52.67	311	109	H	33.48	5.71	0.00	91.86	-	-	Ave
10600	42.78	0	100	V	38.26	10.07	34.40	56.71	74	-17.29	Peak
10600	43.12	0	100	H	38.26	10.07	34.40	57.05	74	-16.95	Peak
10600	27.12	0	100	V	38.26	10.07	34.40	41.05	54	-12.95	Ave
10600	27.10	0	100	H	38.26	10.07	34.40	41.03	54	-12.97	Ave
15900	45.11	0	100	V	38.50	10.83	34.07	60.37	74	-13.63	Peak
15900	44.89	0	100	H	38.50	10.83	34.07	60.15	74	-13.85	Peak
15900	30.86	0	100	V	38.50	10.83	34.07	46.12	54	-7.88	Ave
15900	30.88	0	100	H	38.50	10.83	34.07	46.14	54	-7.86	Ave
High Channel 5320 MHz											
5320	66.07	275	297	V	33.48	5.71	0.00	105.26	-	-	Peak
5320	66.65	242	214	H	33.48	5.71	0.00	105.84	-	-	Peak
5320	53.47	273	241	V	33.48	5.71	0.00	92.66	-	-	Ave
5320	53.33	247	122	H	33.48	5.71	0.00	92.52	-	-	Ave
5350	27.88	0	100	V	33.58	5.59	0.00	67.04	74	-6.96	Peak
5350	28.04	0	100	H	33.58	5.59	0.00	67.20	74	-6.80	Peak
5350	13.18	0	100	V	33.58	5.59	0.00	52.34	54	-1.66	Ave
5350	13.15	0	100	H	33.58	5.59	0.00	52.31	54	-1.69	Ave
10640	42.48	0	100	V	38.26	10.07	34.35	56.46	74	-17.54	Peak
10640	43.26	0	100	H	38.26	10.07	34.35	57.24	74	-16.76	Peak
10640	28.44	0	100	V	38.26	10.07	34.35	42.42	54	-11.58	Ave
10640	28.45	0	100	H	38.26	10.07	34.35	42.43	54	-11.57	Ave
15960	46.52	0	100	V	38.44	10.83	34.07	61.71	74	-12.29	Peak
15960	46.81	0	100	H	38.44	10.83	34.07	62.00	74	-12.00	Peak
15960	32.70	0	100	V	38.44	10.83	34.07	47.89	54	-6.11	Ave
15960	32.69	0	100	H	38.44	10.83	34.07	47.88	54	-6.12	Ave

802.11ac40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5270 MHz											
5270	58.37	289	258	V	33.42	5.26	0.00	97.05	-	-	Peak
5270	58.05	246	176	H	33.48	5.26	0.00	96.79	-	-	Peak
5270	45.09	289	258	V	33.42	5.26	0.00	83.77	-	-	Ave
5270	43.89	246	176	H	33.48	5.26	0.00	82.63	-	-	Ave
10540	42.25	0	100	V	38.33	10.07	34.40	56.24	68.26	-12.02	Peak
10540	41.89	0	100	H	38.33	10.07	34.40	55.88	68.26	-12.38	Peak
15810	46.59	0	100	V	38.33	10.83	33.89	61.85	74	-12.15	Peak
15810	46.18	0	100	H	38.33	10.83	33.89	61.44	74	-12.56	Peak
15810	32.48	0	100	V	38.33	10.83	33.89	47.74	54	-6.26	Ave
15810	32.47	0	100	H	39.18	10.83	33.89	48.58	54	-5.42	Ave
High Channel 5310 MHz											
5310	59.57	289	273	V	33.48	5.71	0.00	98.76	-	-	Peak
5310	59.1	252	205	H	33.48	5.71	0.00	98.29	-	-	Peak
5310	44.77	289	273	V	33.48	5.71	0.00	83.96	-	-	Ave
5310	45.04	252	205	H	33.48	5.71	0.00	84.23	-	-	Ave
5350	26.65	289	273	V	33.58	5.59	0.00	65.81	74	-8.19	Peak
5350	27.41	252	205	H	33.58	5.59	0.00	66.57	74	-7.43	Peak
5350	13.02	289	273	V	33.58	5.59	0.00	52.18	54	-1.82	Ave
5350	13.42	252	205	H	33.58	5.59	0.00	52.58	54	-1.42	Ave
10620	43.05	0	100	V	38.33	10.07	34.40	57.05	74	-16.95	Peak
10620	43.77	0	100	H	38.33	10.07	34.40	57.77	74	-16.23	Peak
10620	28.35	0	100	V	38.33	10.83	33.89	43.61	54	-10.39	Ave
10620	28.35	0	100	H	38.33	10.83	33.89	43.61	54	-10.39	Ave
15930	46.62	0	100	V	38.33	10.83	33.89	61.88	74	-12.12	Peak
15930	46.82	0	100	H	38.33	10.83	33.89	62.08	74	-11.92	Peak
15930	32.64	0	100	V	38.33	10.83	33.89	47.90	54	-6.10	Ave
15930	32.66	0	100	H	39.18	10.83	33.89	48.77	54	-5.23	Ave

802.11ac80 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
5290 MHz											
5290	54.41	195	229	V	33.48	5.71	0.00	93.60	-	-	Peak
5290	56.16	223	253	H	33.48	5.71	0.00	95.35	-	-	Peak
5290	38.84	195	229	V	33.48	5.71	0.00	78.03	-	-	Ave
5290	39.6	223	253	H	33.48	5.71	0.00	78.79	-	-	Ave
5350	26.66	195	229	V	33.58	5.59	0.00	65.82	74	-8.18	Peak
5350	26.47	223	253	H	33.58	5.59	0.00	65.63	74	-8.37	Peak
5350	12.85	195	229	V	33.58	5.59	0.00	52.01	54	-1.99	Ave
5350	13.22	223	253	H	33.58	5.59	0.00	52.38	54	-1.62	Ave
10580	40.42	0	100	V	37.74	11.35	33.91	55.60	68.26	-12.66	Peak
10580	39.98	0	100	H	38.26	11.35	33.91	55.68	68.26	-12.58	Peak
15870	45.24	0	100	V	37.00	14.52	34.57	62.19	74	-11.81	Peak
15870	45.75	0	100	H	38.50	14.52	34.57	64.20	74	-9.80	Peak
15870	31.03	0	100	V	37.00	14.52	34.57	47.98	54	-6.02	Ave
15870	31.08	0	100	H	38.50	14.52	34.57	49.53	54	-4.47	Ave

5470 - 5725 MHz

802.11a mode chain 1

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz											
5500	60.18	174	213	V	33.85	5.34	0.00	99.36	-	-	Peak
5500	59.49	314	108	H	33.85	5.34	0.00	98.67	-	-	Peak
5500	49.18	191	214	V	33.85	5.34	0.00	88.36	-	-	Ave
5500	47.99	239	105	H	33.85	5.34	0.00	87.17	-	-	Ave
5460	27.66	0	100	V	33.85	5.34	0.00	66.84	74	-7.16	Peak
5460	26.38	0	100	H	33.85	5.34	0.00	65.56	74	-8.44	Peak
5460	12.61	0	100	V	33.85	5.34	0.00	51.79	54	-2.21	Ave
5460	12.61	0	100	H	33.85	5.34	0.00	51.79	54	-2.21	Ave
11000	45.31	0	100	V	38.28	10.07	34.34	59.31	74	-14.69	Peak
11000	44.62	0	100	H	38.28	10.07	34.34	58.62	74	-15.38	Peak
11000	31.09	0	100	V	38.28	10.07	34.34	45.09	54	-8.91	Ave
11000	31.20	0	100	H	38.28	10.07	34.34	45.20	54	-8.80	Ave
16500	44.43	0	100	V	38.51	10.07	34.04	58.97	68.26	-9.29	Peak
16500	44.86	0	100	H	38.51	10.07	34.04	59.40	68.26	-8.86	Peak
Middle Channel 5580 MHz											
5580	59.17	88	241	V	33.92	5.34	0.00	98.43	-	-	Peak
5580	59.94	311	234	H	33.92	5.34	0.00	99.20	-	-	Peak
5580	49.14	109	285	V	33.92	5.34	0.00	88.40	-	-	Ave
5580	45.46	71	230	H	33.92	5.34	0.00	84.72	-	-	Ave
11160	44.11	0	100	V	38.53	10.07	34.34	58.36	74	-15.64	Peak
11160	44.22	0	100	H	38.53	10.07	34.34	58.47	74	-15.53	Peak
11160	31.28	0	100	V	38.53	10.07	34.34	45.53	54	-8.47	Ave
11160	31.28	0	100	H	38.53	10.07	34.34	45.53	54	-8.47	Ave
16740	45.09	0	100	V	38.68	10.07	34.04	59.80	68.26	-8.46	Peak
16740	44.96	0	100	H	38.68	10.07	34.04	59.67	68.26	-8.59	Peak
High Channel 5700 MHz											
5700	60.32	118	210	V	33.87	5.57	0.00	99.76	-	-	Peak
5700	59.32	138	236	H	33.87	5.57	0.00	98.76	-	-	Peak
5700	48.59	120	232	V	33.87	5.57	0.00	88.03	-	-	Ave
5700	47.59	50	262	H	33.87	5.57	0.00	87.03	-	-	Ave
5725	28.49	0	100	V	33.87	5.57	0.00	67.93	68.26	-0.33	Peak
5725	28.62	0	100	H	33.87	5.57	0.00	68.06	68.26	-0.20	Peak
11400	45.01	0	100	V	38.50	10.07	35.20	58.38	74	-15.62	Peak
11400	44.51	0	100	H	38.50	10.07	35.20	57.88	74	-16.12	Peak
11400	31.83	0	100	V	38.50	10.07	35.20	45.20	54	-8.80	Ave
11400	31.90	0	100	H	38.50	10.07	35.20	45.27	54	-8.73	Ave
17100	45.29	0	100	V	41.03	10.07	33.83	62.55	68.26	-5.71	Peak
17100	45.26	0	100	H	41.03	10.07	33.83	62.52	68.26	-5.74	Peak

802.11a mode chain 2

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz											
5500	61.73	272	295	V	33.85	5.34	0.00	100.91	-	-	Peak
5500	61.88	241	177	H	33.85	5.34	0.00	101.06	-	-	Peak
5500	50.08	265	250	V	33.85	5.34	0.00	89.26	-	-	Ave
5500	50.27	239	100	H	33.85	5.34	0.00	89.45	-	-	Ave
5460	26.64	272	295	V	33.85	5.34	0.00	65.82	74	-8.18	Peak
5460	26.45	241	177	H	33.85	5.34	0.00	65.63	74	-8.37	Peak
5460	12.12	265	250	V	33.85	5.34	0.00	51.30	54	-2.70	Ave
5460	12.14	239	100	H	33.85	5.34	0.00	51.32	54	-2.68	Ave
11000	43.60	0	100	V	38.28	10.07	34.34	57.60	74	-16.40	Peak
11000	44.84	0	100	H	38.28	10.07	34.34	58.84	74	-15.16	Peak
11000	31.08	0	100	V	38.28	10.07	34.34	45.08	54	-8.92	Ave
11000	31.08	0	100	H	38.28	10.07	34.34	45.08	54	-8.92	Ave
16500	45.03	0	100	V	38.51	10.07	34.04	59.57	68.26	-8.69	Peak
16500	44.79	0	100	H	38.51	10.07	34.04	59.33	68.26	-8.93	Peak
Middle Channel 5580 MHz											
5580	62.94	265	180	V	33.92	5.34	0.00	102.20	-	-	Peak
5580	63.07	246	193	H	33.92	5.34	0.00	102.33	-	-	Peak
5580	52.01	266	229	V	33.92	5.34	0.00	91.27	-	-	Ave
5580	52.06	242	138	H	33.92	5.34	0.00	91.32	-	-	Ave
11160	44.55	0	100	V	38.53	10.07	34.34	58.80	74	-15.20	Peak
11160	44.67	0	100	H	38.53	10.07	34.34	58.92	74	-15.08	Peak
11160	31.18	0	100	V	38.53	10.07	34.34	45.43	54	-8.57	Ave
11160	31.26	0	100	H	38.53	10.07	34.34	45.51	54	-8.49	Ave
16740	45.06	0	100	V	38.68	10.07	34.04	59.77	68.26	-8.49	Peak
16740	44.39	0	100	H	38.68	10.07	34.04	59.10	68.26	-9.16	Peak
High Channel 5700 MHz											
5700	56.03	104	225	V	33.87	5.57	0.00	95.47	-	-	Peak
5700	54.39	346	119	H	33.87	5.57	0.00	93.83	-	-	Peak
5700	44.422	104	225	V	33.87	5.57	0.00	83.87	-	-	Ave
5700	43.78	346	119	H	33.87	5.57	0.00	83.22	-	-	Ave
5725	28.02	104	225	V	33.87	5.57	0.00	67.46	68.26	-0.80	Peak
5725	28.05	346	119	H	33.87	5.57	0.00	67.49	68.26	-0.77	Peak
11400	45.48	0	100	V	38.50	10.07	35.20	58.85	74	-15.15	Peak
11400	45.68	0	100	H	38.50	10.07	35.20	59.05	74	-14.95	Peak
11400	31.90	0	100	V	38.50	10.07	35.20	45.27	54	-8.73	Ave
11400	31.87	0	100	H	38.50	10.07	35.20	45.24	54	-8.76	Ave
17100	43.88	0	100	V	41.03	10.07	33.83	61.14	68.26	-7.12	Peak
17100	44.36	0	100	H	41.03	10.07	33.83	61.62	68.26	-6.64	Peak

802.11n20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz											
5500	63.76	267	169	V	33.85	5.34	0.00	102.94	-	-	Peak
5500	63.99	240	100	H	33.85	5.34	0.00	103.17	-	-	Peak
5500	60.68	270	225	V	33.85	5.34	0.00	99.86	-	-	Ave
5500	50.75	243	180	H	33.85	5.34	0.00	89.93	-	-	Ave
5460	26.8	267	169	V	33.85	5.34	0.00	65.98	74	-8.02	Peak
5460	27.09	240	100	H	33.85	5.34	0.00	66.27	74	-7.73	Peak
5460	12.6	270	225	V	33.85	5.34	0.00	51.78	54	-2.22	Ave
5460	12.6	243	180	H	33.85	5.34	0.00	51.78	54	-2.22	Ave
11000	44.87	0	100	V	38.28	10.07	34.34	58.87	74	-15.13	Peak
11000	44.91	0	100	H	38.28	10.07	34.34	58.91	74	-15.09	Peak
11000	31.11	0	100	V	38.28	10.07	34.34	45.11	54	-8.89	Ave
11000	31.14	0	100	H	38.28	10.07	34.34	45.14	54	-8.86	Ave
16500	44.06	0	100	V	38.51	10.07	34.04	58.60	68.26	-9.66	Peak
16500	44.82	0	100	H	38.51	10.07	34.04	59.36	68.26	-8.90	Peak
Middle Channel 5580 MHz											
5580	64.97	272	181	V	33.92	5.34	0.00	104.23	-	-	Peak
5580	65.21	238	125	H	33.92	5.34	0.00	104.47	-	-	Peak
5580	51.8	274	300	V	33.92	5.34	0.00	91.06	-	-	Ave
5580	52.03	241	155	H	33.92	5.34	0.00	91.29	-	-	Ave
11160	44.62	0	100	V	38.53	10.07	34.34	58.87	74	-15.13	Peak
11160	44.84	0	100	H	38.53	10.07	34.34	59.09	74	-14.91	Peak
11160	31.23	0	100	V	38.53	10.07	34.34	45.48	54	-8.52	Ave
11160	31.25	0	100	H	38.53	10.07	34.34	45.50	54	-8.50	Ave
16740	44.55	0	100	V	38.68	10.07	34.04	59.26	68.26	-9.00	Peak
16740	44.80	0	100	H	38.68	10.07	34.04	59.51	68.26	-8.75	Peak
High Channel 5700 MHz											
5700	57.59	290	289	V	33.87	5.57	0.00	97.03	-	-	Peak
5700	56.96	242	198	H	33.87	5.57	0.00	96.40	-	-	Peak
5700	45.68	290	289	V	33.87	5.57	0.00	85.12	-	-	Ave
5700	44.397	242	198	H	33.87	5.57	0.00	83.84	-	-	Ave
5725	27.95	290	289	V	33.87	5.57	0.00	67.39	68.26	-0.87	Peak
5725	27.56	242	198	H	33.87	5.57	0.00	67.00	68.26	-1.26	Peak
11400	45.55	0	100	V	38.50	10.07	35.20	58.92	74	-15.08	Peak
11400	46.05	0	100	H	38.50	10.07	35.20	59.42	74	-14.58	Peak
11400	31.88	0	100	V	38.50	10.07	35.20	45.25	54	-8.75	Ave
11400	32.12	0	100	H	38.50	10.07	35.20	45.49	54	-8.51	Ave
17100	44.48	0	100	V	41.03	10.07	33.83	61.74	68.26	-6.52	Peak
17100	45.88	0	100	H	41.03	10.07	33.83	63.14	68.26	-5.12	Peak

802.11n40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5510 MHz											
5510	60.64	294	300	V	33.85	5.34	0.00	99.82	-	-	Peak
5510	61.42	245	158	H	33.85	5.34	0.00	100.60	-	-	Peak
5510	48.94	271	300	V	33.85	5.34	0.00	88.12	-	-	Ave
5510	49.16	245	151	H	33.85	5.34	0.00	88.34	-	-	Ave
5460	27.19	0	100	V	33.85	5.34	0.00	66.37	74	-7.63	Peak
5460	28.34	0	100	H	33.85	5.34	0.00	67.52	74	-6.48	Peak
5460	12.93	271	300	V	33.85	5.34	0.00	52.11	54	-1.89	Ave
5460	12.97	245	151	H	33.85	5.34	0.00	52.15	54	-1.85	Ave
11020	44.33	0	100	V	38.28	10.07	34.34	58.33	74	-15.67	Peak
11020	44.46	0	100	H	38.28	10.07	34.34	58.46	74	-15.54	Peak
11020	30.96	0	100	V	38.28	10.07	34.34	44.96	54	-9.04	Ave
11020	30.97	0	100	H	38.28	10.07	34.34	44.97	54	-9.03	Ave
16530	44.41	0	100	V	38.51	10.07	34.04	58.95	68.26	-9.31	Peak
16530	44.17	0	100	H	38.51	10.07	34.04	58.71	68.26	-9.55	Peak
Middle Channel 5550 MHz											
5550	61.9	275	194	V	33.92	5.34	0.00	101.16	-	-	Peak
5550	62.98	244	167	H	33.92	5.34	0.00	102.24	-	-	Peak
5550	50.31	291	195	V	33.92	5.34	0.00	89.57	-	-	Ave
5550	50.29	246	100	H	33.92	5.34	0.00	89.55	-	-	Ave
11100	43.51	0	100	V	38.28	10.07	34.34	57.51	74	-16.49	Peak
11100	45.54	0	100	H	38.28	10.07	34.34	59.54	74	-14.46	Peak
11100	31.64	0	100	V	38.28	10.07	34.34	45.64	54	-8.36	Ave
11100	31.66	0	100	H	38.28	10.07	34.34	45.66	54	-8.34	Ave
16650	45.88	0	100	V	38.51	10.07	34.04	60.42	74	-13.58	Peak
16650	44.43	0	100	H	38.51	10.07	34.04	58.97	74	-15.03	Peak
High Channel 5670 MHz											
5670	60.62	273	181	V	33.87	5.57	0.00	100.06	-	-	Peak
5670	59.89	243	210	H	33.87	5.57	0.00	99.33	-	-	Peak
5670	47.63	274	205	V	33.87	5.57	0.00	87.07	-	-	Ave
5670	47.05	68	199	H	33.87	5.57	0.00	86.49	-	-	Ave
5725	27.5	0	100	V	33.87	5.57	0.00	66.94	68.26	-1.32	Peak
5725	28.33	0	100	H	33.87	5.57	0.00	67.77	68.26	-0.49	Peak
11340	44.55	0	100	V	38.28	10.07	34.34	58.55	74	-15.45	Peak
11340	45.71	0	100	H	38.28	10.07	34.34	59.71	74	-14.29	Peak
11340	31.45	0	100	V	38.28	10.07	34.34	45.45	54	-8.55	Ave
11340	31.42	0	100	H	38.28	10.07	34.34	45.42	54	-8.58	Ave
17010	43.78	0	100	V	39.99	10.83	33.83	60.77	68.26	-7.49	Peak

802.11ac20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5500 MHz											
5500	63.84	279	269	V	33.85	5.34	0.00	103.02	-	-	Peak
5500	63.34	255	127	H	33.85	5.34	0.00	102.52	-	-	Peak
5500	50.67	279	269	V	33.85	5.34	0.00	89.85	-	-	Ave
5500	50.08	255	127	H	33.85	5.34	0.00	89.26	-	-	Ave
5460	26.07	279	269	V	33.85	5.34	0.00	65.25	74	-8.75	Peak
5460	25.58	255	127	H	33.85	5.34	0.00	64.76	74	-9.24	Peak
5460	13.11	279	269	V	33.85	5.34	0.00	52.29	54	-1.71	Ave
5460	13.1	255	127	H	33.85	5.34	0.00	52.28	54	-1.72	Ave
11000	45.27	0	100	V	37.98	10.64	35.08	58.81	74	-15.19	Peak
11000	47.64	246	162	H	38.28	10.64	35.08	61.48	74	-12.52	Peak
11000	30.01	0	100	V	37.98	10.64	35.08	43.55	54	-10.45	Ave
11000	31.65	246	162	H	38.28	10.64	35.08	45.49	54	-8.51	Ave
16500	45.91	0	100	V	37.94	12.55	34.38	62.02	68.26	-6.25	Peak
16500	46.06	0	100	H	38.51	12.55	34.38	62.74	68.26	-5.52	Peak
Middle Channel 5580 MHz											
5580	65.03	281	283	V	33.92	5.34	0.00	104.29	-	-	Peak
5580	64.79	254	112	H	33.92	5.34	0.00	104.05	-	-	Peak
5580	52	281	283	V	33.92	5.34	0.00	91.26	-	-	Ave
5580	51.73	254	112	H	33.92	5.34	0.00	90.99	-	-	Ave
11160	44.49	0	100	V	38.42	11.93	34.46	60.38	74	-13.62	Peak
11160	46.71	249	190	H	38.53	11.93	34.46	62.71	74	-11.30	Peak
11160	29.37	0	100	V	38.42	11.93	34.46	45.26	54	-8.74	Ave
11160	30.81	249	190	H	38.53	11.93	34.46	46.81	54	-7.20	Ave
16740	46.53	0	100	V	38.50	12.97	34.23	63.77	68.26	-4.49	Peak
16740	46.58	0	100	H	38.68	12.97	34.23	64.00	68.26	-4.26	Peak
High Channel 5700 MHz											
5700	62.57	288	275	V	33.87	5.57	0.00	102.01	-	-	Peak
5700	63.07	251	166	H	33.87	5.57	0.00	102.51	-	-	Peak
5700	49.1	288	275	V	33.87	5.57	0.00	88.54	-	-	Ave
5700	49.3	251	166	H	33.87	5.57	0.00	88.74	-	-	Ave
5725	28.02	288	275	V	33.87	5.57	0.00	67.46	68.26	-0.80	Peak
5725	28.5	251	166	H	33.87	5.57	0.00	67.94	68.26	-0.32	Peak
11400	45.56	0	100	V	38.89	11.51	34.16	61.80	74	-12.20	Peak
11400	45.70	0	100	H	38.50	11.51	34.16	61.55	74	-12.45	Peak
11400	30.40	0	100	V	38.89	11.51	34.16	46.64	54	-7.36	Ave
11400	30.46	0	100	H	38.50	11.51	34.16	46.31	54	-7.69	Ave
17100	46.47	0	100	V	41.03	12.85	33.83	66.52	68.26	-1.74	Peak
17100	46.48	0	100	H	41.03	12.85	33.83	66.53	68.26	-1.73	Peak

802.11ac40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5510 MHz											
5510	57.61	280	283	V	33.85	5.34	0.00	96.79	-	-	Peak
5510	57.19	245	180	H	33.85	5.34	0.00	96.37	-	-	Peak
5510	43.19	280	283	V	33.85	5.34	0.00	82.37	-	-	Ave
5510	43.2	245	180	H	33.85	5.34	0.00	82.38	-	-	Ave
5460	27.27	280	283	V	33.85	5.34	0.00	66.45	74	-7.55	Peak
5460	26.76	245	180	H	33.85	5.34	0.00	65.94	74	-8.06	Peak
5460	12.83	280	283	V	33.85	5.34	0.00	52.01	54	-1.99	Ave
5460	13.3	245	180	H	33.85	5.34	0.00	52.48	54	-1.52	Ave
11020	46.36	0	100	V	38.28	10.07	34.34	60.36	74	-13.64	Peak
11020	47.19	0	100	H	38.28	10.07	34.34	61.19	74	-12.81	Peak
11020	31.69	0	100	V	38.28	10.07	34.34	45.69	54	-8.31	Ave
11020	31.64	0	100	H	38.28	10.07	34.34	45.64	54	-8.36	Ave
16530	48.80	0	100	V	38.51	10.07	34.04	63.34	68.26	-4.92	Peak
16530	48.71	0	100	H	38.51	10.07	34.04	63.25	68.26	-5.01	Peak
Middle Channel 5550 MHz											
5550	56.71	286	270	V	33.92	5.34	0.00	95.97	-	-	Peak
5550	56.98	247	204	H	33.92	5.34	0.00	96.24	-	-	Peak
5550	43.25	286	270	V	33.92	5.34	0.00	82.51	-	-	Ave
5550	42.924	247	204	H	33.92	5.34	0.00	82.19	-	-	Ave
11100	47.93	0	100	V	38.28	10.07	34.34	61.93	74	-12.07	Peak
11100	49.22	0	100	H	38.28	10.07	34.34	63.22	74	-10.78	Peak
11100	32.79	0	100	V	38.28	10.07	34.34	46.79	54	-7.21	Ave
11100	34.07	0	100	H	38.28	10.07	34.34	48.07	54	-5.93	Ave
16650	49.21	0	100	V	38.51	10.07	34.04	63.75	68.26	-4.51	Peak
16650	49.08	0	100	H	38.51	10.07	34.04	63.62	68.26	-4.64	Peak
High Channel 5670 MHz											
5670	61.98	279	254	V	33.87	5.57	0.00	101.42	-	-	Peak
5670	61.09	247	170	H	33.87	5.57	0.00	100.53	-	-	Peak
5670	47.35	279	254	V	33.87	5.57	0.00	86.79	-	-	Ave
5670	46.83	247	170	H	33.87	5.57	0.00	86.27	-	-	Ave
5725	27.44	279	254	V	33.87	5.57	0.00	66.88	68.26	-1.38	Peak
5725	26.86	247	170	H	33.87	5.57	0.00	66.30	68.26	-1.96	Peak
11340	46.08	0	100	V	38.28	10.07	34.34	60.08	74	-13.92	Peak
11340	46.45	0	100	H	38.28	10.07	34.34	60.45	74	-13.55	Peak
11340	30.97	0	100	V	38.28	10.07	34.34	44.97	54	-9.03	Ave
11340	31.13	0	100	H	38.28	10.07	34.34	45.13	54	-8.87	Ave
17010	48.29	0	100	V	39.99	10.83	33.83	65.28	68.26	-2.98	Peak
17010	47.48	0	100	H	39.99	10.83	33.83	64.47	68.26	-3.79	Peak

802.11ac80 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel: 5530 MHz											
5530	59.94	277	300	V	33.80	5.49	0.00	99.23	-	-	Peak
5530	56.46	20	140	H	33.85	5.49	0.00	95.80	-	-	Peak
5530	44.27	288	300	V	33.80	5.49	0.00	83.56	-	-	Ave
5530	43.74	252	175	H	33.85	5.49	0.00	83.08	-	-	Ave
5460	27.86	0	100	V	33.80	5.60	0.00	67.26	74	-6.74	Peak
5460	28.52	0	100	H	33.85	5.60	0.00	67.97	74	-6.03	Peak
5460	13.5	0	100	V	33.80	5.60	0.00	52.90	54	-1.10	Ave
5460	13.41	0	100	H	33.85	5.60	0.00	52.86	54	-1.14	Ave
11060	42.40	0	100	V	38.20	11.88	35.08	57.40	74	-16.60	Peak
11060	42.85	0	100	H	38.37	11.88	35.08	58.02	74	-15.98	Peak
11060	28.94	0	100	V	38.20	11.88	35.08	43.94	54	-10.06	Ave
11060	28.98	0	100	H	38.37	11.88	35.08	44.15	54	-9.85	Ave
16590	45.84	0	100	V	38.27	14.45	34.31	64.25	68.26	-4.01	Peak
16590	44.2	0	100	H	38.55	14.45	34.31	62.89	68.26	-5.37	Peak
High Channel*: 5610 MHz											
5610	56.07	270	300	V	33.796	8.46	0.00	98.326	-	-	Peak
5610	56.31	234	147	H	33.846	8.46	0.00	98.616	-	-	Peak
5610	41.34	268	212	V	33.796	8.46	0.00	83.596	-	-	Ave
5610	41.09	231	160	H	33.846	8.46	0.00	83.396	-	-	Ave
5725	43.8	0	100	V	33.91	8.62	34.37	51.95	68.26	-16.31	Peak
5725	44.33	0	100	H	33.92	8.62	34.37	52.50	68.26	-15.76	Peak
11220	44.39	0	100	V	38.20	12.36	35.08	59.87	74.00	-14.13	Peak
11220	42.88	0	100	H	38.37	12.36	35.08	58.53	74.00	-15.47	Peak
11220	28.98	0	100	V	38.20	12.36	35.08	44.46	54.00	-9.54	Ave
11220	29.13	0	100	H	38.37	12.36	35.08	44.78	54.00	-9.22	Ave
16830	41.92	0	100	V	38.27	15.49	34.31	61.37	68.26	-6.89	Peak
16830	41.75	0	100	H	38.55	15.49	34.31	61.48	68.26	-6.78	Peak

*Note: channel 122 is for FCC application only.

5725 - 5850 MHz

802.11a mode chain 1

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5745 MHz											
5745	62.72	113	269	V	33.87	5.57	0.00	102.16	-	-	Peak
5745	61.38	153	106	H	33.87	5.57	0.00	100.82	-	-	Peak
5745	52.06	113	296	V	33.87	5.57	0.00	91.50	-	-	Ave
5745	50.13	164	296	H	33.87	5.57	0.00	89.57	-	-	Ave
5725	30.2	119	268	V	33.87	5.57	0.00	69.64	78.26	-8.62	Peak
5725	28.66	0	100	H	33.87	5.57	0.00	68.10	78.26	-10.16	Peak
11490	43.63	0	100	V	38.42	10.07	35.20	56.91	74	-17.09	Peak
11490	43.41	0	100	H	38.42	10.07	35.20	56.69	74	-17.31	Peak
11490	30.73	0	100	V	38.42	10.07	35.20	44.01	54	-9.99	Ave
11490	30.69	0	100	H	38.42	10.07	35.20	43.97	54	-10.03	Ave
17235	44.89	0	100	V	42.02	10.07	33.63	63.34	68.26	-4.92	Peak
17235	44.02	0	100	H	42.02	10.07	33.63	62.47	68.26	-5.79	Peak
Middle Channel 5785 MHz											
5785	62.25	145	300	V	33.96	5.63	0.00	101.83	-	-	Peak
5785	62.56	56	131	H	33.96	5.63	0.00	102.14	-	-	Peak
5785	52.93	116	238	V	33.96	5.63	0.00	92.51	-	-	Ave
5785	51.58	145	100	H	33.96	5.63	0.00	91.16	-	-	Ave
11570	44.21	0	100	V	38.30	10.07	35.20	57.38	74	-16.62	Peak
11570	44.12	0	100	H	38.30	10.07	35.20	57.29	74	-16.71	Peak
11570	30.93	0	100	V	38.30	10.07	35.20	44.10	54	-9.90	Ave
11570	31.02	0	100	H	38.30	10.07	35.20	44.19	54	-9.81	Ave
17355	44.63	0	100	V	43.82	10.07	33.63	64.88	68.26	-3.38	Peak
17355	45.22	0	100	H	43.82	10.07	33.63	65.47	68.26	-2.79	Peak
High Channel 5825 MHz											
5825	59.68	51	300	V	33.96	5.63	0.00	99.26	-	-	Peak
5825	60.9	127	107	H	33.96	5.63	0.00	100.48	-	-	Peak
5825	50.08	106	259	V	33.96	5.63	0.00	89.66	-	-	Ave
5825	49.82	125	110	H	33.96	5.63	0.00	89.40	-	-	Ave
5850	28.59	0	100	V	34.22	5.78	0.00	68.59	78.26	-9.67	peak
5850	28.46	0	100	H	34.22	5.78	0.00	68.46	78.26	-9.80	Peak
11650	43.12	0	100	V	38.33	10.07	36.19	55.33	74	-18.67	Peak
11650	43.01	0	100	H	38.33	10.07	36.19	55.22	74	-18.78	Peak
11650	30.31	0	100	V	38.33	10.07	36.19	42.52	54	-11.48	Ave
11650	30.26	0	100	H	38.33	10.07	36.19	42.47	54	-11.53	Ave
17475	44.80	0	100	V	44.41	10.07	33.60	65.68	68.26	-2.58	Peak
17475	45.02	0	100	H	44.41	10.07	33.60	65.90	68.26	-2.36	Peak

802.11a mode chain 2

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/IC		Comments (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5745 MHz											
5745	62.98	295	163	V	33.87	5.57	0.00	102.42	-	-	Peak
5745	63.27	240	181	H	33.87	5.57	0.00	102.71	-	-	Peak
5745	52.02	272	242	V	33.87	5.57	0.00	91.46	-	-	Ave
5745	50.88	18	197	H	33.87	5.57	0.00	90.32	-	-	Ave
5725	31.83	295	163	V	33.87	5.57	0.00	71.27	78.26	-6.99	Peak
5725	32.79	19	180	H	33.87	5.57	0.00	72.23	78.26	-6.03	Peak
11490	44.48	0	100	V	38.42	10.07	35.20	57.76	74	-16.24	Peak
11490	44.98	0	100	H	38.42	10.07	35.20	58.26	74	-15.74	Peak
11490	30.98	0	100	V	38.42	10.07	35.20	44.26	54	-9.74	Ave
11490	31.00	0	100	H	38.42	10.07	35.20	44.28	54	-9.72	Ave
17235	44.95	0	100	V	42.02	10.07	33.63	63.40	68.26	-4.86	Peak
17235	44.18	0	100	H	42.02	10.07	33.63	62.63	68.26	-5.63	Peak
Middle Channel 5785 MHz											
5785	62.93	286	288	V	33.96	5.63	0.00	102.51	-	-	Peak
5785	62.13	13	130	H	33.96	5.63	0.00	101.71	-	-	Peak
5785	50.82	265	165	V	33.96	5.63	0.00	90.40	-	-	Ave
5785	51	236	148	H	33.96	5.63	0.00	90.58	-	-	Ave
11570	44.70	0	100	V	38.30	10.07	35.20	57.87	74	-16.13	Peak
11570	44.96	0	100	H	38.30	10.07	35.20	58.13	74	-15.87	Peak
11570	30.92	0	100	V	38.30	10.07	35.20	44.09	54	-9.91	Ave
11570	30.96	0	100	H	38.30	10.07	35.20	44.13	54	-9.87	Ave
17355	44.61	0	100	V	43.82	10.07	33.63	64.86	68.26	-3.40	Peak
17355	44.93	0	100	H	43.82	10.07	33.63	65.18	68.26	-3.08	Peak
High Channel 5825 MHz											
5825	60.5	268	152	V	33.96	5.63	0.00	100.08	-	-	Peak
5825	60.6	235	235	H	33.96	5.63	0.00	100.18	-	-	Peak
5825	49.82	258	227	V	33.96	5.63	0.00	89.40	-	-	Ave
5825	50.09	226	132	H	33.96	5.63	0.00	89.67	-	-	Ave
5850	28.47	0	100	V	34.22	5.78	0.00	68.47	78.26	-9.79	peak
5850	29.18	0	100	H	34.22	5.78	0.00	69.18	78.26	-9.08	Peak
11650	45.60	0	100	V	38.33	10.07	36.19	57.81	74	-16.19	Peak
11650	45.57	0	100	H	38.33	10.07	36.19	57.78	74	-16.22	Peak
11650	31.47	0	100	V	38.33	10.07	36.19	43.68	54	-10.32	Ave
11650	31.44	0	100	H	38.33	10.07	36.19	43.65	54	-10.35	Ave
17475	44.94	0	100	V	44.41	10.07	33.60	65.82	68.26	-2.44	Peak
17475	45.43	0	100	H	44.41	10.07	33.60	66.31	68.26	-1.95	Peak

802.11n20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5745 MHz											
5745	65.49	102	287	V	33.87	5.57	0.00	104.93	-	-	Peak
5745	65.23	63	167	H	33.87	5.57	0.00	104.67	-	-	Peak
5745	50.21	280	166	V	33.87	5.57	0.00	89.65	-	-	Ave
5745	51.37	64	266	H	33.87	5.57	0.00	90.81	-	-	Ave
5725	37.64	277	245	V	33.87	5.57	0.00	77.08	78.26	-1.18	Peak
5725	36.47	250	122	H	33.87	5.57	0.00	75.91	78.26	-2.35	Peak
11490	44.26	0	100	V	38.42	10.07	35.20	57.54	74	-16.46	Peak
11490	44.92	0	100	H	38.42	10.07	35.20	58.20	74	-15.80	Peak
11490	31.05	0	100	V	38.42	10.07	35.20	44.33	54	-9.67	Ave
11490	31.08	0	100	H	38.42	10.07	35.20	44.36	54	-9.64	Ave
17235	44.53	0	100	V	42.02	10.07	33.63	62.98	68.26	-5.28	Peak
17235	44.16	0	100	H	42.02	10.07	33.63	62.61	68.26	-5.65	Peak
Middle Channel 5785 MHz											
5785	63.41	268	161	V	33.96	5.63	0.00	102.99	-	-	Peak
5785	66.55	54	207	H	33.96	5.63	0.00	106.13	-	-	Peak
5785	50.77	283	234	V	33.96	5.63	0.00	90.35	-	-	Ave
5785	52.41	56	258	H	33.96	5.63	0.00	91.99	-	-	Ave
11570	46.01	0	100	V	38.30	10.07	35.20	59.18	74	-14.82	Peak
11570	45.08	0	100	H	38.30	10.07	35.20	58.25	74	-15.75	Peak
11570	30.98	0	100	V	38.30	10.07	35.20	44.15	54	-9.85	Ave
11570	31.18	0	100	H	38.30	10.07	35.20	44.35	54	-9.65	Ave
17355	45.78	0	100	V	43.82	10.07	33.63	66.03	68.26	-2.23	Peak
17355	45.16	0	100	H	43.82	10.07	33.63	65.41	68.26	-2.85	Peak
High Channel 5825 MHz											
5825	62.32	277	300	V	33.96	5.63	0.00	101.90	-	-	Peak
5825	64.49	163	293	H	33.96	5.63	0.00	104.07	-	-	Peak
5825	47.45	350	249	V	33.96	5.63	0.00	87.03	-	-	Ave
5825	51.16	50	237	H	33.96	5.63	0.00	90.74	-	-	Ave
5850	30.06	277	300	V	34.22	5.78	0.00	70.06	78.26	-8.20	peak
5850	29.19	163	293	H	34.22	5.78	0.00	69.19	78.26	-9.07	Peak
11650	45.62	0	100	V	38.33	10.07	36.19	57.83	74	-16.17	Peak
11650	45.66	0	100	H	38.33	10.07	36.19	57.87	74	-16.13	Peak
11650	31.54	0	100	V	38.33	10.07	36.19	43.75	54	-10.25	Ave
11650	31.64	0	100	H	38.33	10.07	36.19	43.85	54	-10.15	Ave
17475	45.49	0	100	V	44.41	10.07	33.60	66.37	68.26	-1.89	Peak
17475	45.05	0	100	H	44.41	10.07	33.60	65.93	68.26	-2.33	Peak

802.11n40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5755 MHz											
5755	62.28	122	241	V	33.96	5.63	0.00	101.86	-	-	Peak
5755	62.31	139	284	H	33.96	5.63	0.00	101.89	-	-	Peak
5755	51.04	120	300	V	33.96	5.63	0.00	90.62	-	-	Ave
5755	49.88	29	300	H	33.96	5.63	0.00	89.46	-	-	Ave
5725	37.26	128	233	V	33.87	5.57	0.00	76.70	78.26	-1.56	Peak
5725	37.54	63	263	H	33.87	5.57	0.00	76.98	78.26	-1.28	Peak
11510	45.05	0	100	V	38.42	10.83	35.20	59.09	74	-14.91	Peak
11510	45.04	0	100	H	38.42	10.83	35.20	59.08	74	-14.92	Peak
11510	31.29	0	100	V	38.42	10.83	35.20	45.33	54	-8.67	Ave
11510	31.36	0	100	H	38.42	10.83	35.20	45.40	54	-8.60	Ave
17265	45.22	0	100	V	43.09	10.83	33.63	65.51	68.26	-2.75	Peak
17265	44.62	0	100	H	43.09	10.83	33.63	64.91	68.26	-3.35	Peak
High Channel 5795 MHz											
5795	59.55	278	293	V	33.96	5.63	0.00	99.13	-	-	Peak
5795	61.48	154	258	H	33.96	5.63	0.00	101.06	-	-	Peak
5795	49.6	113	300	V	33.96	5.63	0.00	89.18	-	-	Ave
5795	50.01	53	222	H	33.96	5.63	0.00	89.59	-	-	Ave
5850	29.22	0	100	V	34.22	5.78	0.00	69.22	78.26	-9.04	Peak
5850	28.43	0	100	H	34.22	5.78	0.00	68.43	78.26	-9.83	Peak
11590	43.96	0	100	V	38.30	10.83	35.20	57.89	74	-16.11	Peak
11590	44.56	0	100	H	38.30	10.83	35.20	58.49	74	-15.51	Peak
11590	30.98	0	100	V	38.30	10.83	35.20	44.91	54	-9.09	Ave
11590	30.91	0	100	H	38.30	10.83	35.20	44.84	54	-9.16	Ave
17385	45.27	0	100	V	43.82	10.83	33.63	66.28	68.26	-1.98	Peak
17385	45.39	0	100	H	43.82	10.83	33.63	66.40	68.26	-1.86	Peak

802.11ac20 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5745 MHz											
5745	64.44	290	251	V	33.87	5.57	0.00	103.88	-	-	Peak
5745	64.04	240	220	H	33.87	5.57	0.00	103.48	-	-	Peak
5745	50.98	290	251	V	33.87	5.57	0.00	90.42	-	-	Ave
5745	50.91	240	220	H	33.87	5.57	0.00	90.35	-	-	Ave
5725	37.39	290	251	V	33.87	5.57	0.00	76.83	78.26	-1.43	Peak
5725	33.72	240	220	H	33.87	5.57	0.00	73.16	78.26	-5.10	Peak
11490	45.46	0	100	V	39.10	11.17	34.10	61.63	74	-12.37	Peak
11490	48.29	139	185	H	38.42	11.17	34.10	63.78	74	-10.22	Peak
11490	29.85	0	100	V	39.10	11.17	34.10	46.02	54	-7.98	Ave
11490	32.36	139	185	H	38.42	11.17	34.10	47.85	54	-6.15	Ave
17235	46.19	0	100	V	42.02	10.07	33.72	64.55	68.26	-3.71	Peak
17235	45.89	0	100	H	42.02	10.07	33.72	64.25	68.26	-4.01	Peak
Middle Channel 5785 MHz											
5785	64.01	293	253	V	33.96	5.63	0.00	103.59	-	-	Peak
5785	65.98	150	300	H	33.96	5.63	0.00	105.56	-	-	Peak
5785	50.61	293	253	V	33.96	5.63	0.00	90.19	-	-	Ave
5785	52.83	150	300	H	33.96	5.63	0.00	92.41	-	-	Ave
11570	44.91	0	100	V	39.38	11.04	34.06	61.27	74	-12.73	Peak
11570	48.59	154	300	H	38.30	11.04	34.06	63.87	74	-10.13	Peak
11570	30.23	0	100	V	39.38	11.04	34.06	46.59	54	-7.41	Ave
11570	32.57	154	300	H	38.30	11.04	34.06	47.85	54	-6.15	Ave
17355	45.04	0	100	V	43.82	10.07	33.81	65.11	68.26	-3.15	Peak
17355	45.12	0	100	H	43.82	10.07	33.81	65.19	68.26	-3.07	Peak
High Channel 5825 MHz											
5825	61.94	284	253	V	33.96	5.63	0.00	101.52	-	-	Peak
5825	64.61	150	295	H	33.96	5.63	0.00	104.19	-	-	Peak
5825	49.25	284	253	V	33.96	5.63	0.00	88.83	-	-	Ave
5825	51.91	150	295	H	33.96	5.63	0.00	91.49	-	-	Ave
5850	27.91	284	253	V	34.22	5.78	0.00	67.91	78.26	-10.35	peak
5850	27.61	150	295	H	34.22	5.78	0.00	67.61	78.26	-10.65	Peak
11650	46.02	0	100	V	39.91	11.02	34.12	62.83	74	-11.17	Peak
11650	46.34	0	100	H	38.33	11.02	34.12	61.57	74	-12.43	Peak
11650	30.84	0	100	V	39.91	11.02	34.12	47.65	54	-6.35	Ave
11650	30.78	0	100	H	38.33	11.02	34.12	46.01	54	-7.99	Ave
17475	44.62	0	100	V	44.41	10.07	33.87	65.23	68.26	-3.03	Peak
17475	44.41	0	100	H	44.41	10.07	33.87	65.02	68.26	-3.24	Peak

802.11ac40 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Low Channel 5755 MHz											
5755	60.96	297	248	V	33.96	5.63	0.00	100.54	-	-	Peak
5755	61.22	241	159	H	33.96	5.63	0.00	100.80	-	-	Peak
5755	47.31	297	248	V	33.96	5.63	0.00	86.89	-	-	Ave
5755	47.02	241	159	H	33.96	5.63	0.00	86.60	-	-	Ave
5725	34.47	297	248	V	33.87	5.57	0.00	73.91	78.26	-4.35	Peak
5725	34.41	241	159	H	33.87	5.57	0.00	73.85	78.26	-4.41	Peak
11510	47.17	0	100	V	38.42	10.83	35.20	61.21	74	-12.79	Peak
11510	48.03	0	100	H	38.42	10.83	35.20	62.07	74	-11.93	Peak
11510	31.78	0	100	V	38.42	10.83	35.20	45.82	54	-8.18	Ave
11510	31.76	0	100	H	38.42	10.83	35.20	45.80	54	-8.20	Ave
17265	47.27	0	100	V	43.09	10.83	33.63	67.56	68.26	-0.70	Peak
17265	46.65	0	100	H	43.09	10.83	33.63	66.94	68.26	-1.32	Peak
High Channel 5795 MHz											
5795	60.72	243	290	V	33.96	5.63	0.00	100.30	-	-	Peak
5795	62.04	144	287	H	33.96	5.63	0.00	101.62	-	-	Peak
5795	47.1	243	290	V	33.96	5.63	0.00	86.68	-	-	Ave
5795	48.66	144	287	H	33.96	5.63	0.00	88.24	-	-	Ave
5850	27.08	243	290	V	34.22	5.78	0.00	67.08	78.26	-11.18	Peak
5850	26.12	144	287	H	34.22	5.78	0.00	66.12	78.26	-12.14	Peak
11590	46.73	0	100	V	38.30	10.83	35.20	60.66	74	-13.34	Peak
11590	47.45	0	100	H	38.30	10.83	35.20	61.38	74	-12.62	Peak
11590	31.25	0	100	V	38.30	10.83	35.20	45.18	54	-8.82	Ave
11590	31.16	0	100	H	38.30	10.83	35.20	45.09	54	-8.91	Ave
17385	46.60	0	100	V	43.82	10.83	33.63	67.61	68.26	-0.65	Peak
17385	46.66	0	100	H	43.82	10.83	33.63	67.67	68.26	-0.59	Peak

802.11ac80 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 (PK/Ave.)
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
5775 MHz											
5775	53.64	286	209	V	33.96	5.63	0.00	93.22	-	-	Peak
5775	55.77	146	262	H	33.96	5.63	0.00	95.35	-	-	Peak
5775	39.09	286	209	V	33.96	5.63	0.00	78.67	-	-	Ave
5775	39.64	146	262	H	33.96	5.63	0.00	79.22	-	-	Ave
5725	28.41	286	209	V	33.87	5.57	0.00	67.85	78.26	-10.41	peak
5725	28.76	146	262	H	33.87	5.57	0.00	68.20	78.26	-10.06	Peak
5850	28.09	286	209	V	34.22	5.78	0.00	68.09	78.26	-10.17	peak
5850	27.59	146	262	H	34.22	5.78	0.00	67.59	78.26	-10.67	Peak
11550	44.39	0	100	V	39.38	12.04	34.06	61.75	74	-12.25	Peak
11550	44.09	0	100	H	38.30	12.04	34.06	60.37	74	-13.63	Peak
11550	29.48	0	100	V	39.38	12.04	34.06	46.84	54	-7.16	Ave
11550	29.33	0	100	H	38.30	12.04	34.06	45.61	54	-8.39	Ave
17325	44.99	0	100	V	43.09	14.80	33.73	69.15	74	-4.85	Peak
17325	44.94	0	100	H	43.09	14.80	33.73	69.10	74	-4.90	Peak

Note 1: Any emissions above 18 GHz are noise floor.
Note 2: Duty Cycle Correction Factor has been added to the measurements.

8 FCC §15.407(e) & IC RSS-247 §6.2 - 6 dB, 26 dB, & 99% Occupied Bandwidth

8.1 Applicable Standards

As per FCC §15.407(e) and IC RSS-247 6.2.4(1): for equipment operating in the band 5725 – 5850 MHz, the minimum 6 dB bandwidth of U-NII devices shall be 500 kHz.

8.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 or 26 dB from the reference level. Record the frequency difference as the minimum emission or emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

8.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4440A	MY44303352	2015-06-22	1 year
-	U. FL to SMA pigtail	-	-	Each time[1]	N/A
-	10dB attenuator	-	-	Each time[1]	N/A

Note[1]: cable and attenuator included in the test set-up will be checked each time before testing.

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

8.4 Test Environmental Conditions

Temperature:	22-24 ºC
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Todd Moy on 2016-01-05 at RF site.

8.5 Test Results

Please refer to the following tables and plots.

5150 - 5250 MHz

Channel	Frequency (MHz)	99% OBW (kHz)		26 dB OBW (kHz)	
		Chain 1	Chain 2	Chain 1	Chain 2
802.11 a mode					
36	5180	16632.4	16673.6	21166	20921
40	5200	16646.3	16592.6	21320	21140
48	5240	16623.2	16652.7	20992	21000
802.11n20 mode					
36	5180	17846.3	17750.2	21319	21106
40	5200	17833.5	17760.1	21418	21071
48	5240	17753.8	17778.2	21145	20867
802.11n40 mode					
38	5190	35233.4	36150.9	39423	38950
46	5230	36233.9	36224.5	39796	39304
802.11ac20 mode					
36	5180	17745.7	17735.3	21163	20796
40	5200	17757.9	17739.1	20945	21199
48	5240	17734.1	17762.8	21033	20776
802.11ac40 mode					
38	5190	36222.5	36078.5	39364	39331
46	5230	36257	36127.1	42840	39313
802.11ac80 mode					
42	5210	75587.1	75474.7	81145	80694

5250 - 5350 MHz

Channel	Frequency (MHz)	99% OBW (kHz)		26 dB OBW (kHz)	
		Chain 1	Chain 2	Chain 1	Chain 2
802.11 a mode					
52	5260	16654.8	16619.9	20929	20761
60	5300	16597.4	16648	20813	21475
64	5320	16630.3	16657.7	21002	21064
802.11n20 mode					
52	5260	17805.7	17762.4	21259	20973
60	5300	17775.5	17828.2	21194	21478
64	5320	17838.7	17703.5	21102	21109
802.11n40 mode					
54	5270	36229.6	36187.3	39344	39324
62	5310	36210.6	36163.3	39152	39541
802.11ac20 mode					
52	5260	17832.6	17764.3	21112	20890
60	5300	17735.2	17749	21443	21223
64	5320	17757.4	17822.2	21368	21262
802.11ac40 mode					
54	5270	36271.3	36214	39712	39534
62	5310	36149	36188.3	39497	40018
802.11ac80 mode					
58	5290	75591	75562.4	81027	80630

5470 - 5725 MHz

Channel	Frequency (MHz)	99% OBW (kHz)		26 dB OBW (kHz)	
		Chain 1	Chain 2	Chain 1	Chain 2
802.11 a mode					
100	5500	16631.8	16655.5	21120	21007
116	5580	16630	16639.8	20886	20934
140	5700	16655.1	16586	20863	20559
802.11n20 mode					
100	5500	17754.5	17774.5	20957	20882
116	5580	17822.8	17792.4	21029	21412
140	5700	17775.5	17779.7	21389	21398
802.11n40 mode					
102	5510	36246.5	36210.2	39427	39270
110	5550	36257.9	36187.9	39356	39243
134	5670	36201.5	36235.1	39209	39317
802.11ac20 mode					
100	5500	17815.5	17772.3	20885	21382
116	5580	17847.1	17761	21158	21174
140	5700	17747.3	17789.8	20854	21308
802.11ac40 mode					
102	5510	36201.6	36173.4	39693	39614
110	5550	36175.9	36215.6	39321	39710
134	5670	36234.1	36212.6	39682	39319
802.11ac80 mode					
106	5530	75728.4	75610.2	83310	82910
122*	5610	75616.8	75644.9	89116	81096

*Note: This is an FCC only channel.

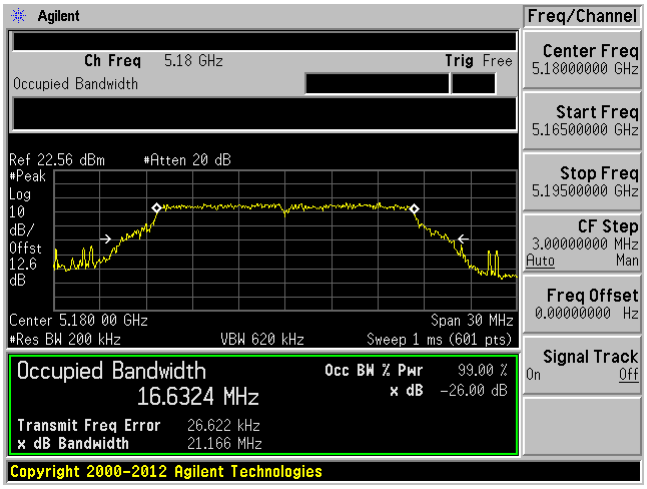
5725 - 5850 MHz

Channel	Frequency (MHz)	99% OBW (kHz)		6 dB OBW (kHz)		6 dB OBW Limit (kHz)
		Chain 1	Chain 2	Chain 1	Chain 2	
802.11 a mode						
149	5745	16495.3	16515.7	16500	16387	500
157	5785	16481.8	16515.1	16452	16406	500
165	5825	16467.2	16489.3	16391	16439	500
802.11n20 mode						
149	5745	17699.7	17700.8	17676	17807	500
157	5785	17698.1	17665.1	17619	17656	500
165	5825	17678.9	17679.8	17634	17625	500
802.11n40 mode						
151	5755	36188.7	36167.4	36329	36229	500
159	5795	36157.9	36163	36369	36424	500
802.11ac20 mode						
149	5745	17681.5	17668.5	17618	17647	500
157	5785	17657.2	17691.5	17596	17639	500
165	5825	17671.5	17661.9	17662	17634	500
802.11ac40 mode						
151	5755	36184.2	36171.5	36115	36426	500
159	5795	36168.4	36155.3	36371	36435	500
802.11ac80 mode						
155	5775	75386	75730.9	75979	76139	500

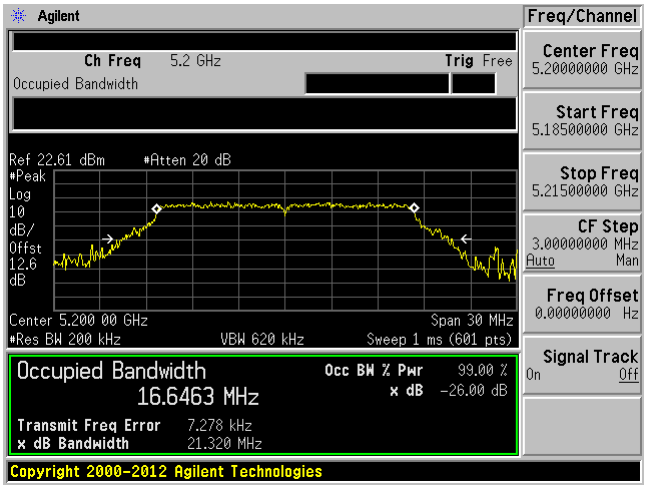
5150 – 5250 MHz

802.11a mode chain 1

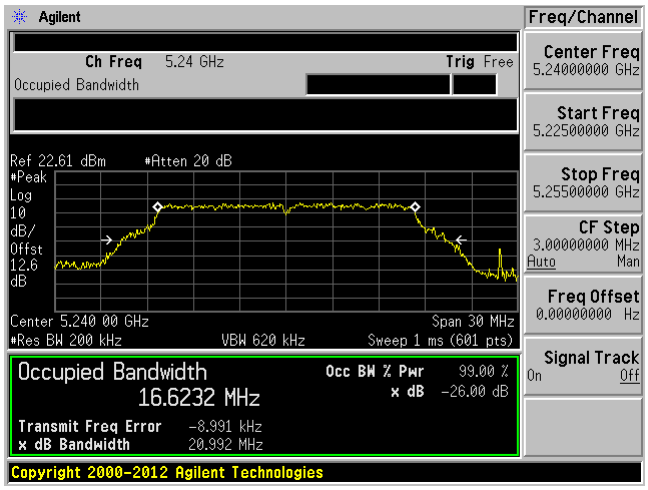
5180 MHz



5200 MHz

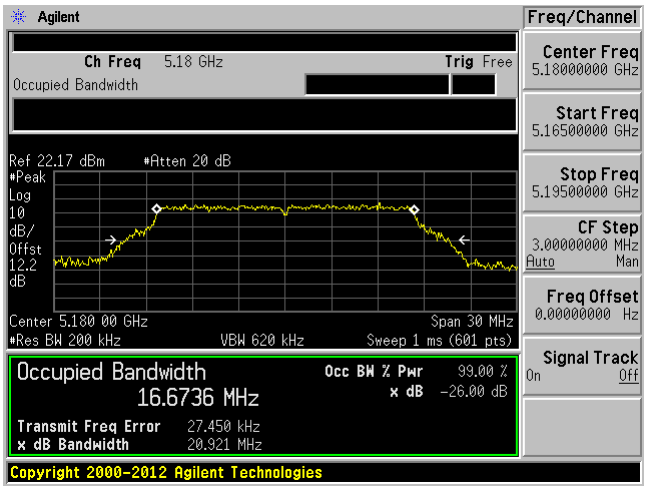


5240 MHz

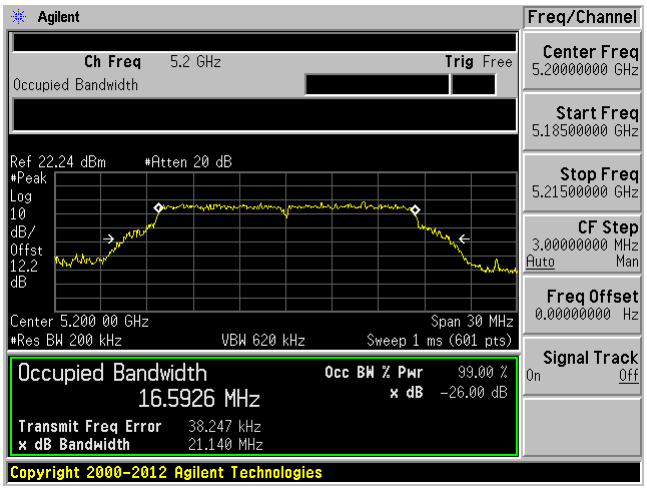


802.11a mode chain 2

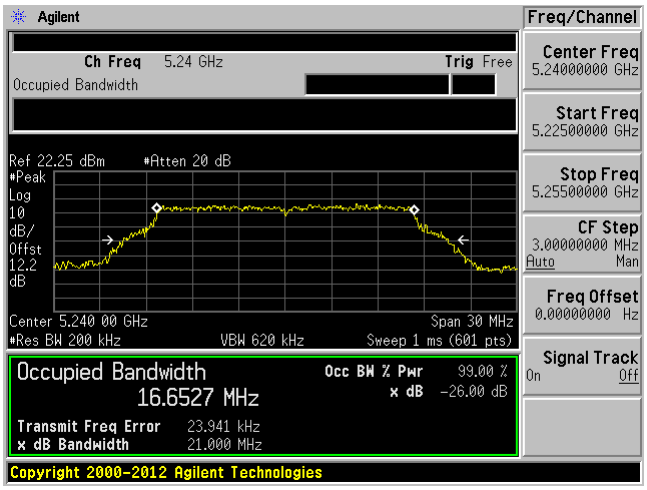
5180 MHz



5200 MHz

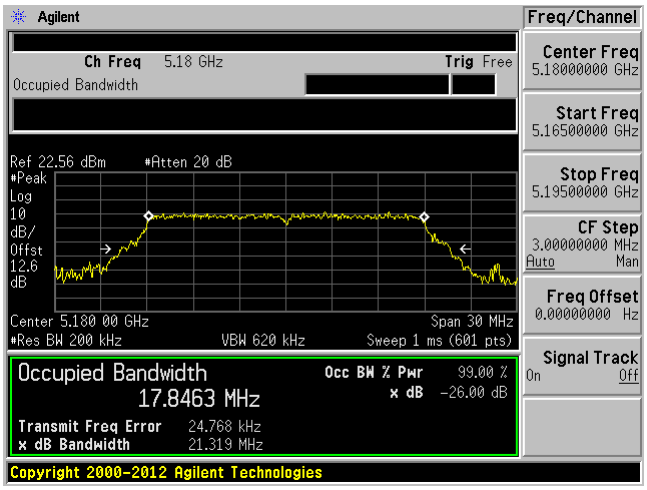


5240 MHz

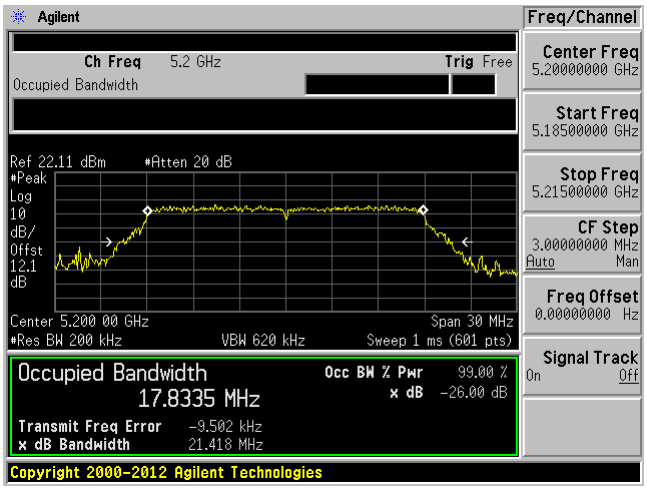


802.11n20 mode chain 1

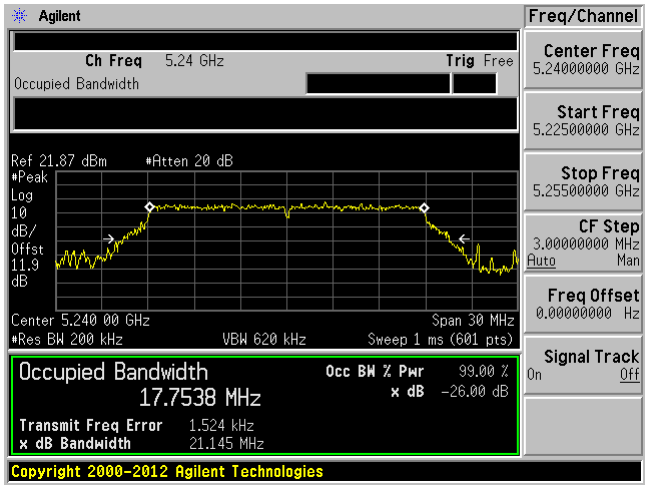
5180 MHz



5200 MHz

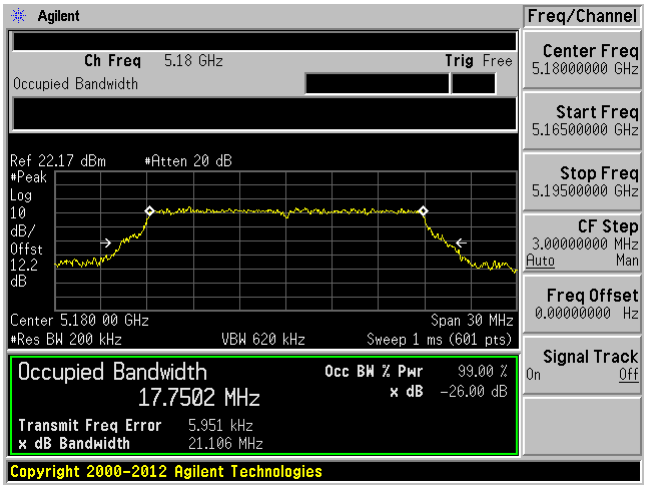


5240 MHz

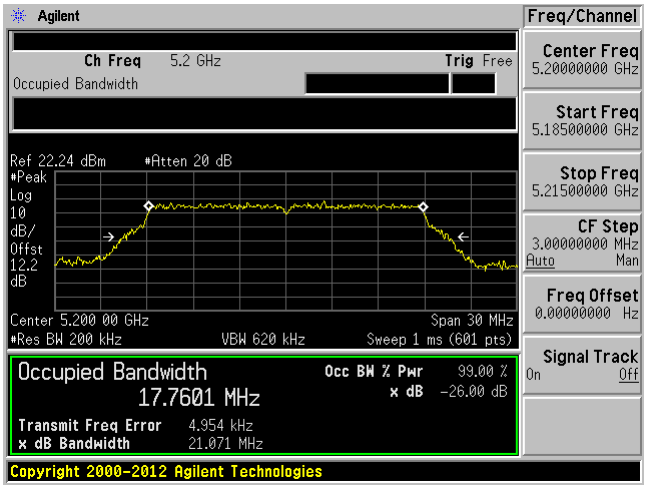


802.11n20 mode chain 2

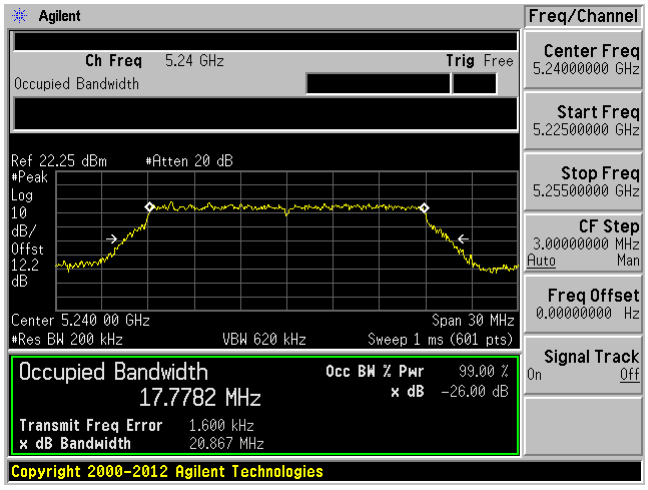
5180 MHz



5200 MHz

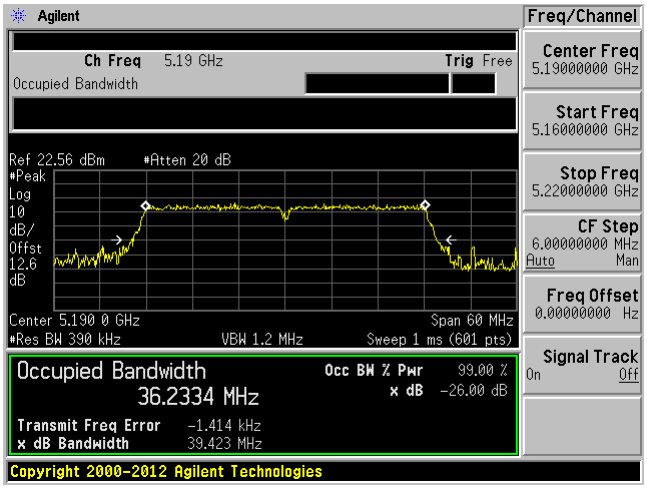


5240 MHz

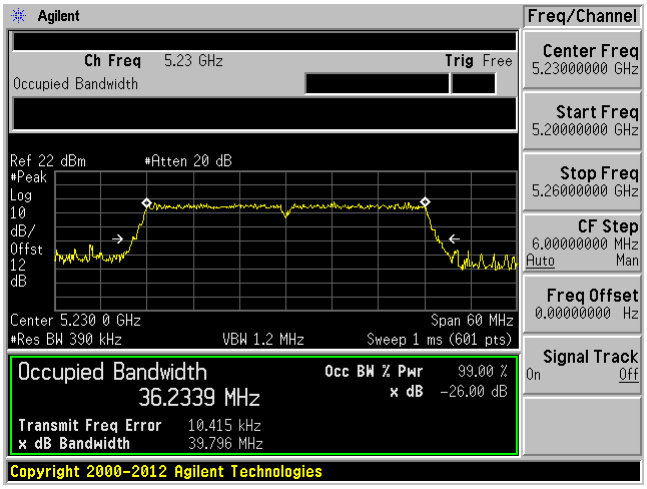


802.11n40 mode chain 1

5190 MHz

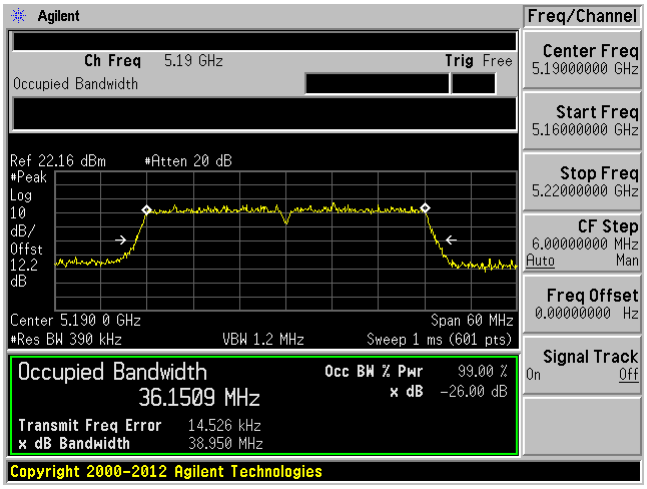


5230 MHz

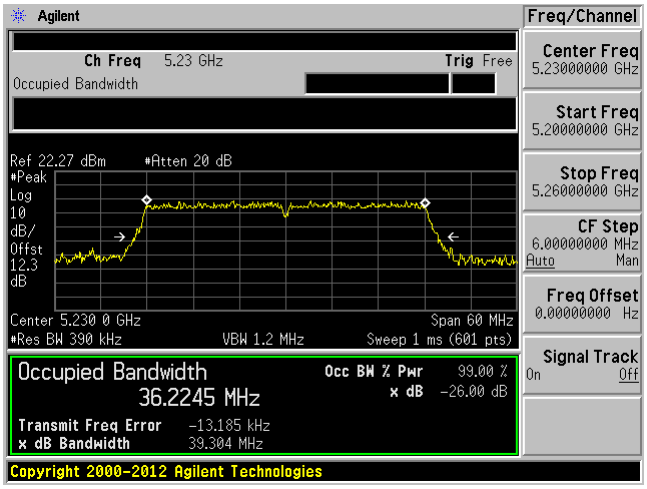


802.11n40 mode chain 2

5190 MHz

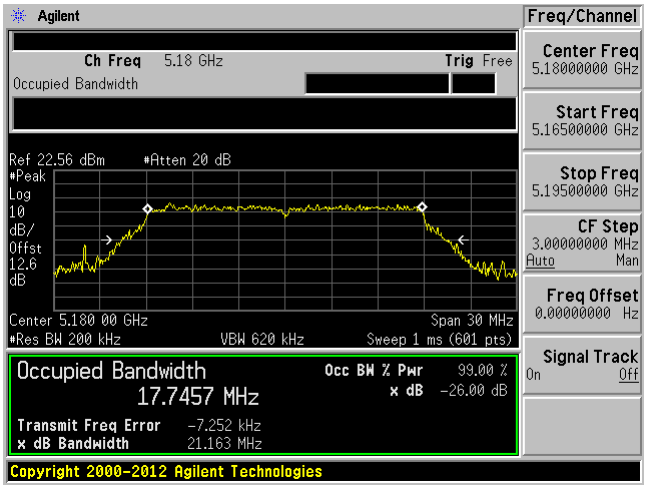


5230 MHz

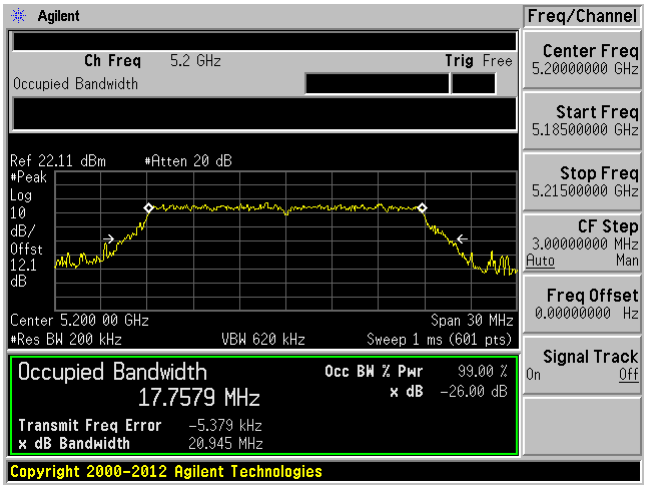


802.11ac20 mode chain 1

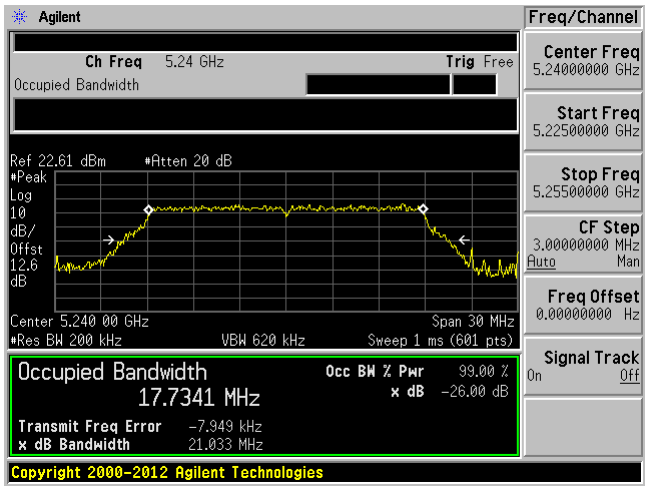
5180 MHz



5200 MHz

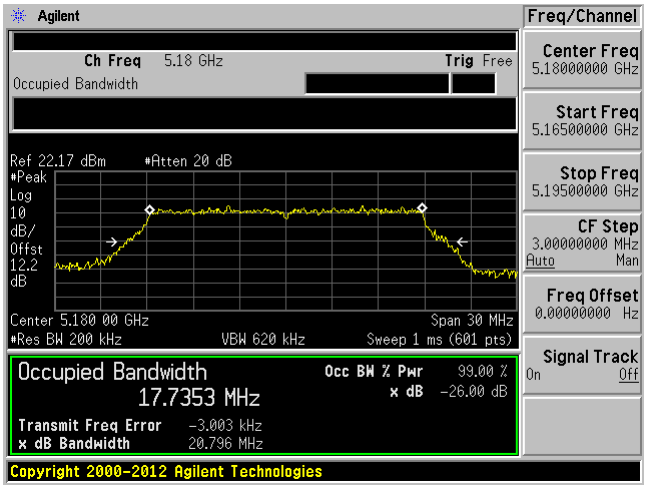


5240 MHz

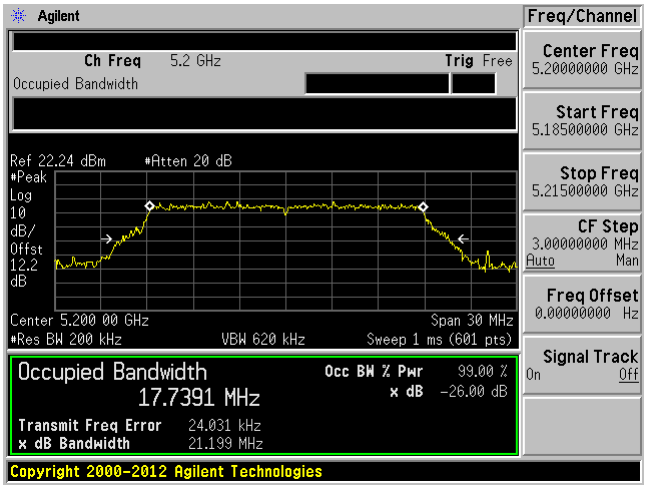


802.11ac20 mode chain 2

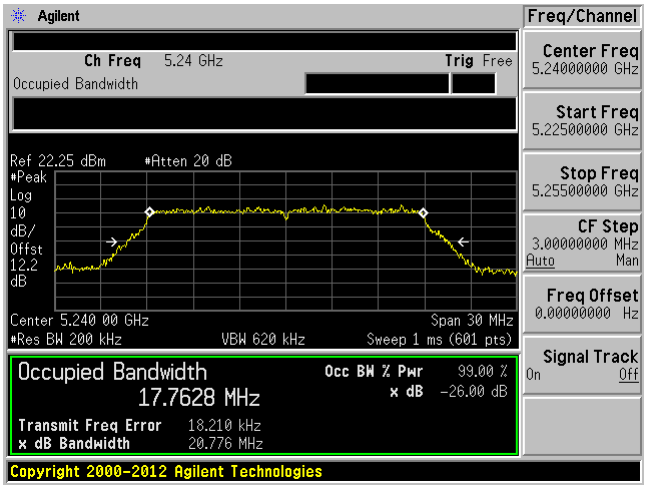
5180 MHz



5200 MHz

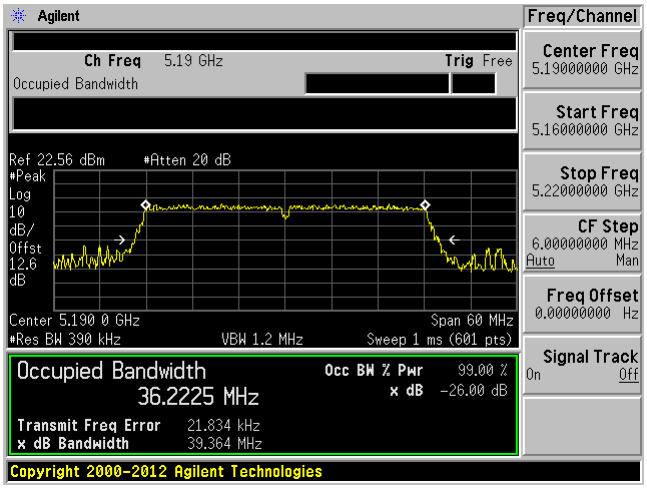


5240 MHz

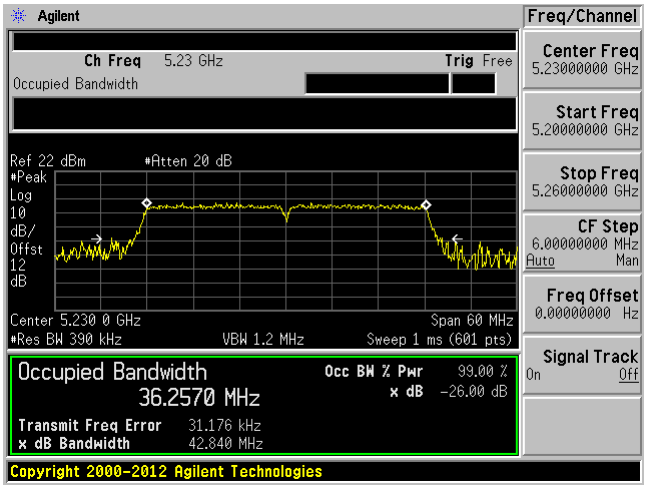


802.11ac40 mode chain 1

5190 MHz

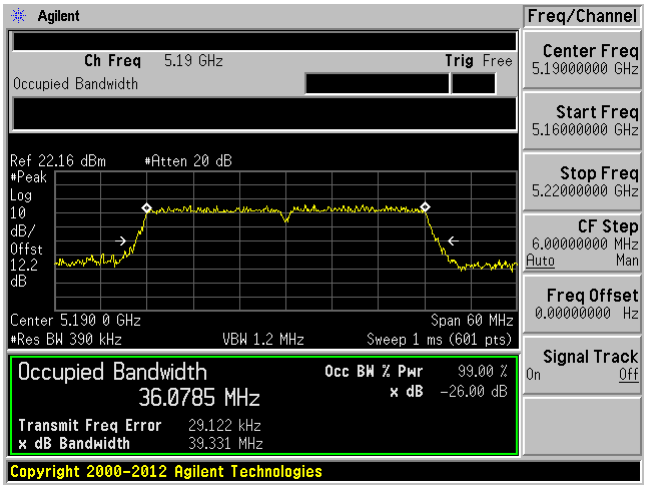


5230 MHz

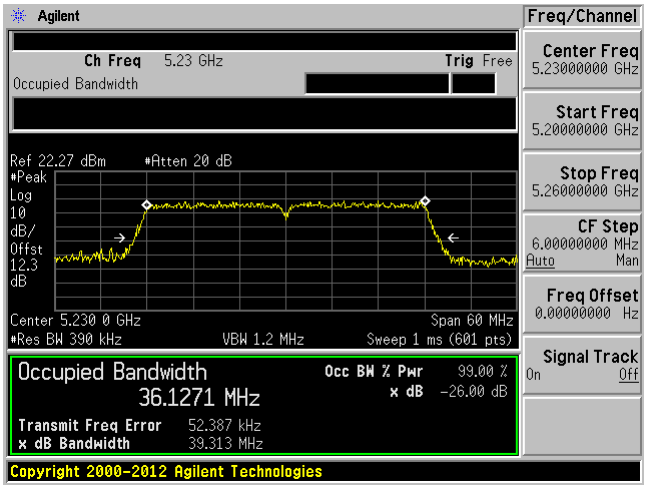


802.11n40 mode chain 2

5190 MHz

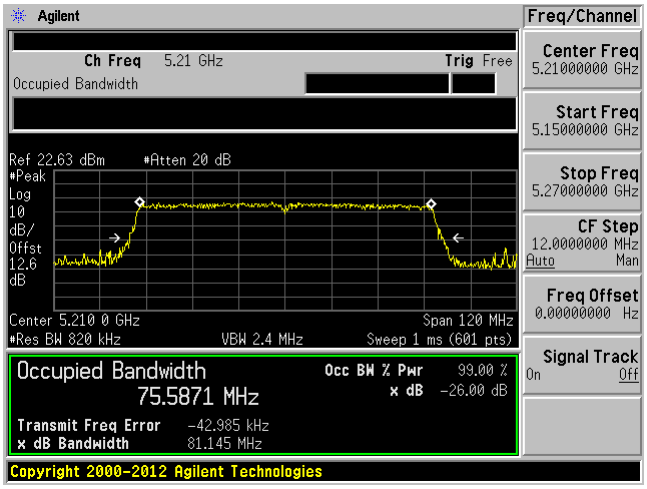


5230 MHz

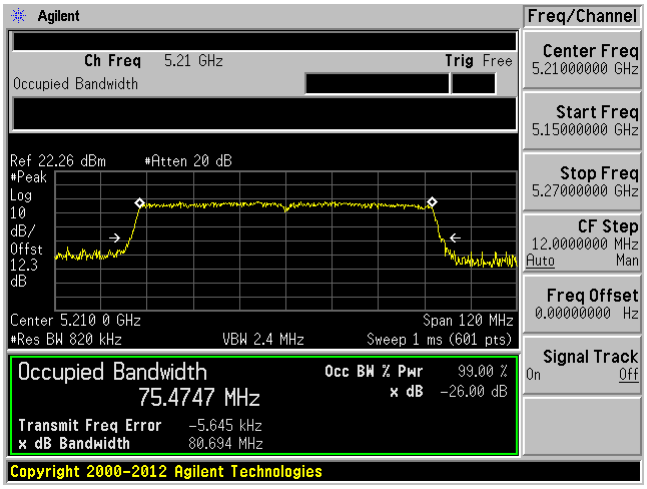


802.11ac80 mode

5210 MHz chain 1



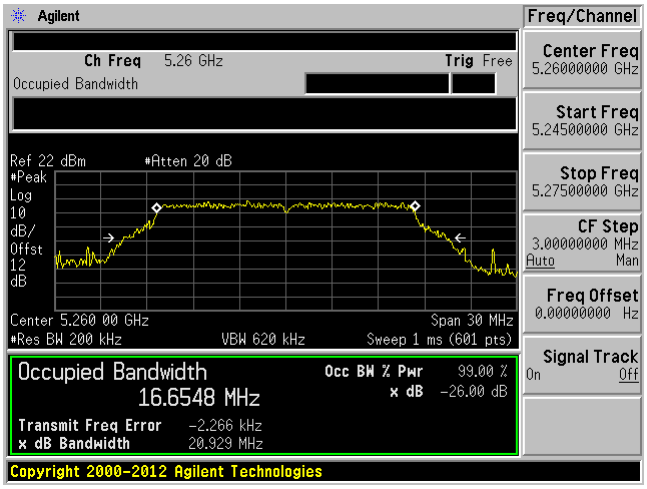
5210 MHz chain 2



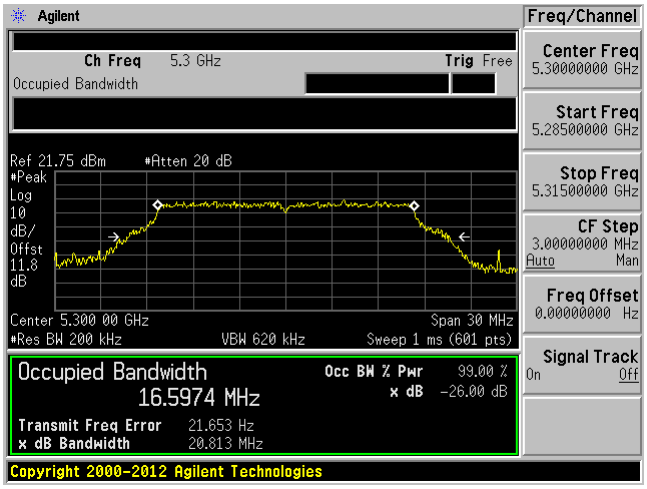
5250 – 5350 MHz

802.11a mode chain 1

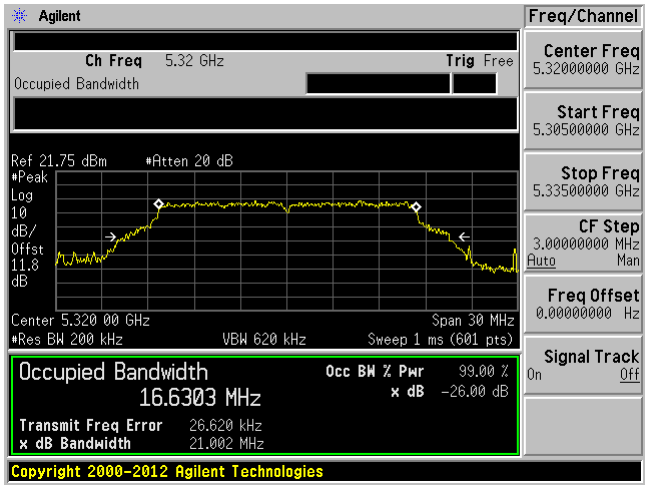
5260 MHz



5300 MHz

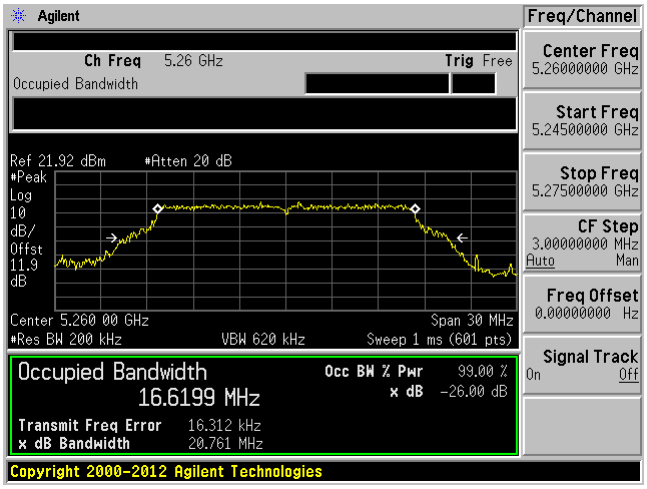


5320 MHz

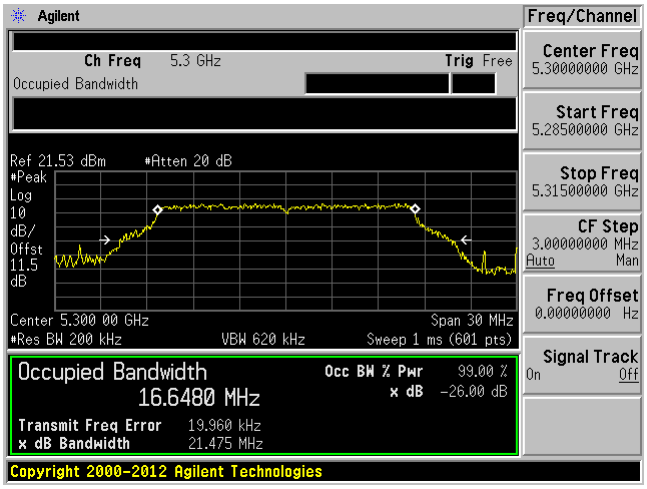


802.11a mode chain 2

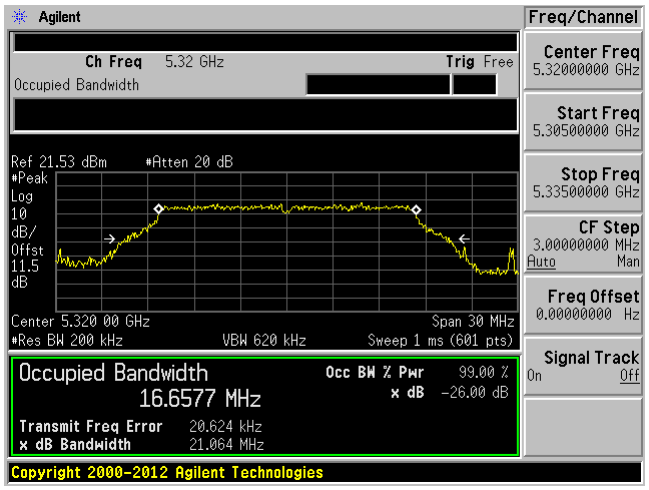
5260 MHz



5300 MHz

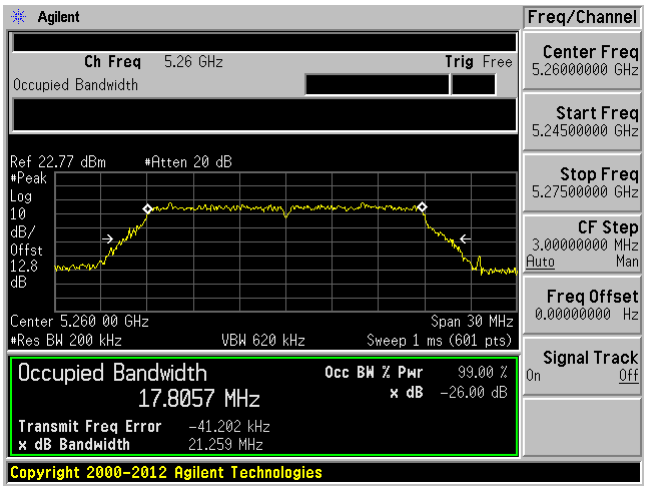


5320 MHz

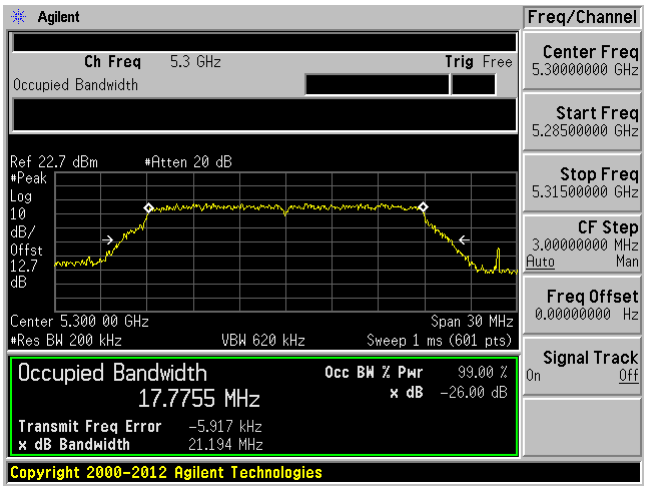


802.11n20 mode chain 1

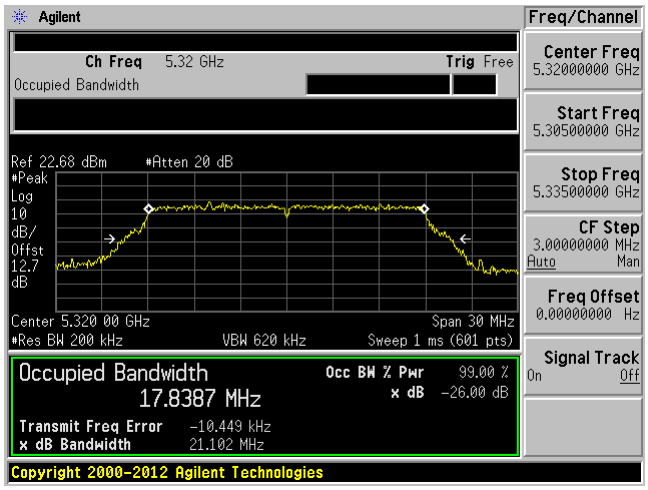
5260 MHz



5300 MHz

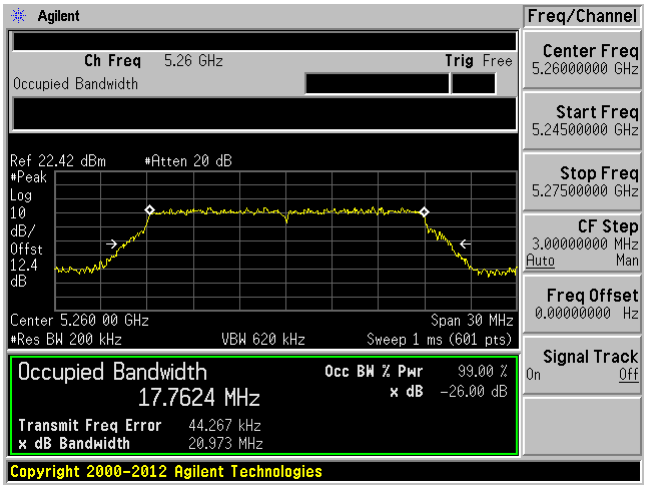


5320 MHz

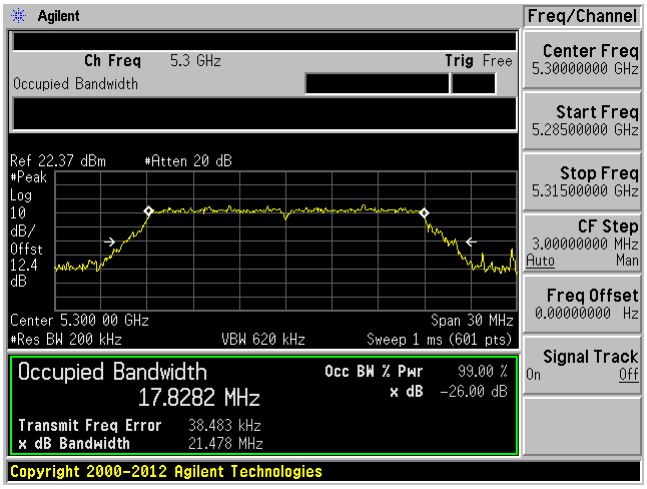


802.11n20 mode chain 2

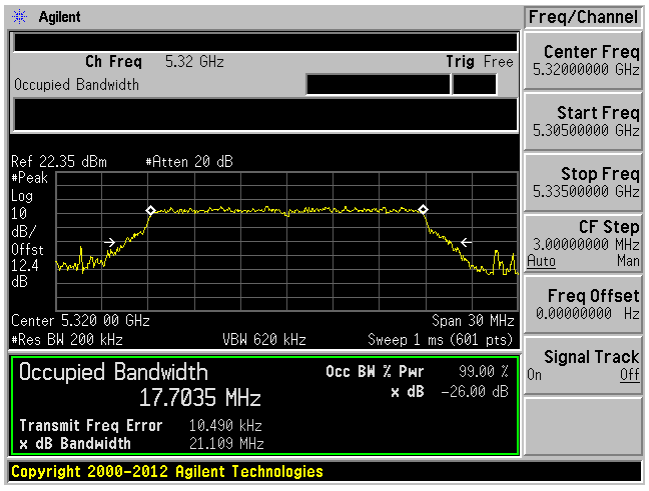
5260 MHz



5300 MHz

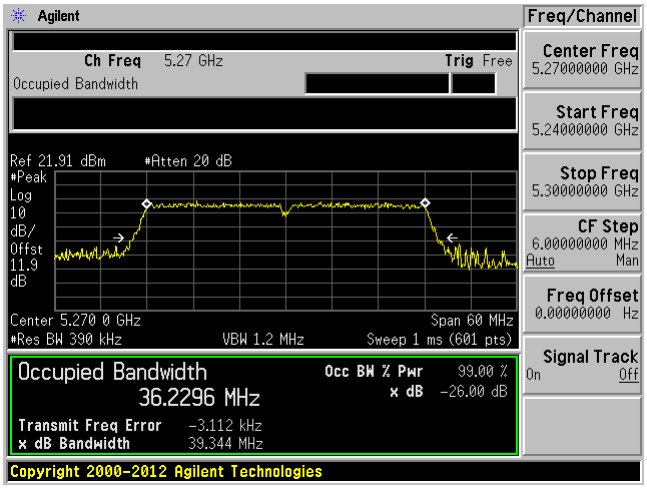


5320 MHz

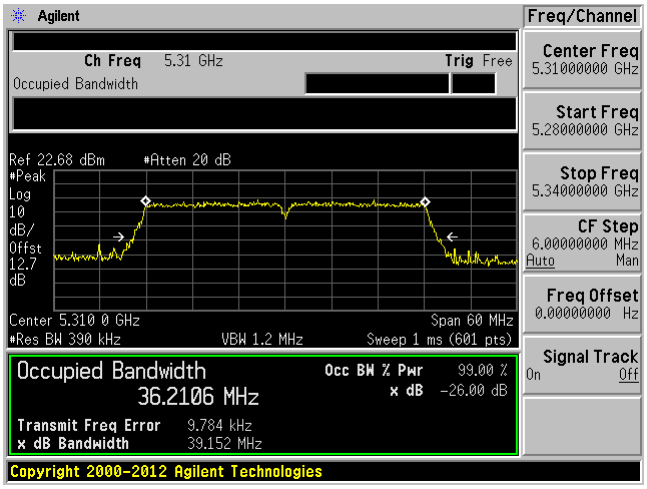


802.11n40 mode chain 1

5270 MHz

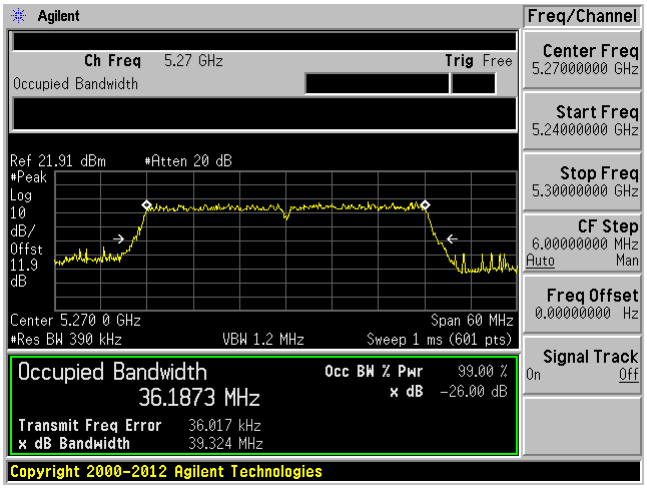


5310 MHz

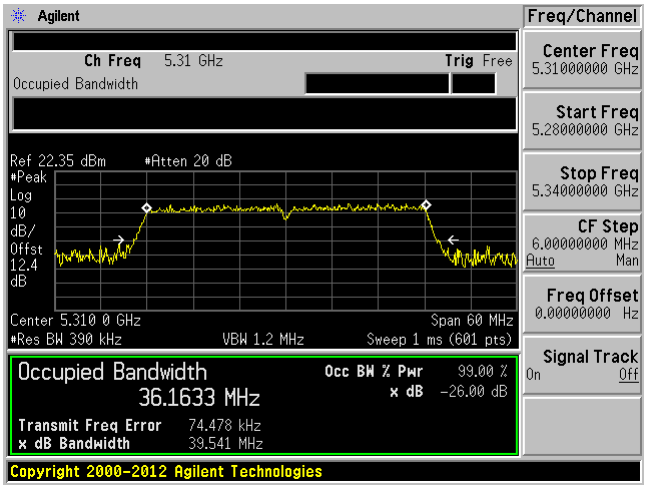


802.11n40 mode chain 2

5270 MHz

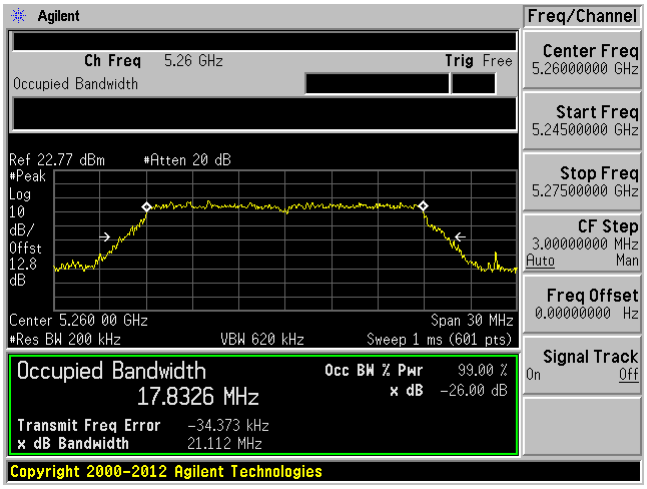


5310 MHz

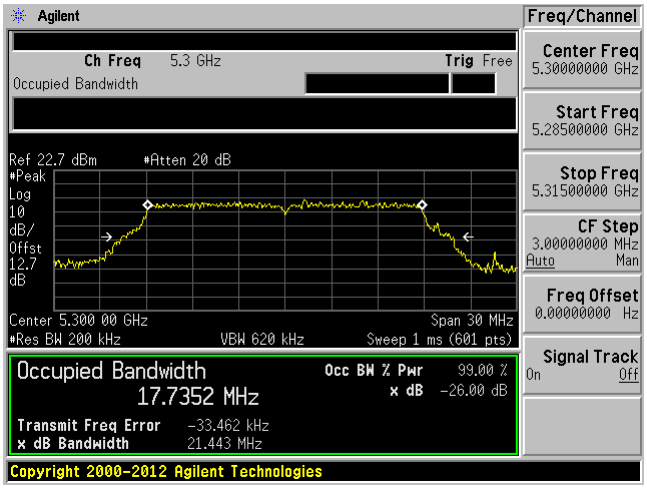


802.11ac20 mode chain 1

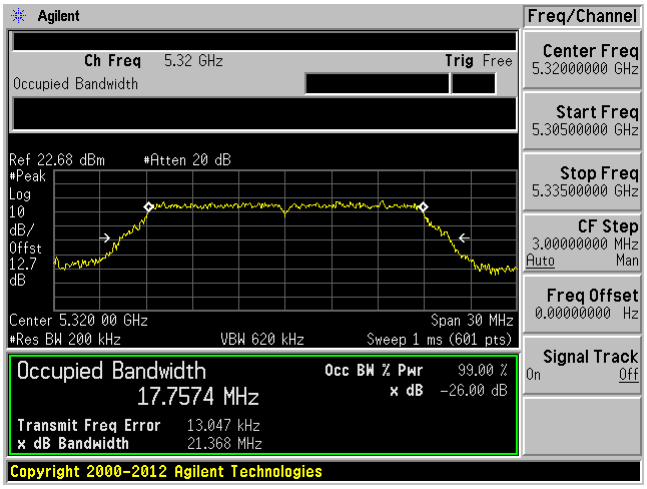
5260 MHz



5300 MHz

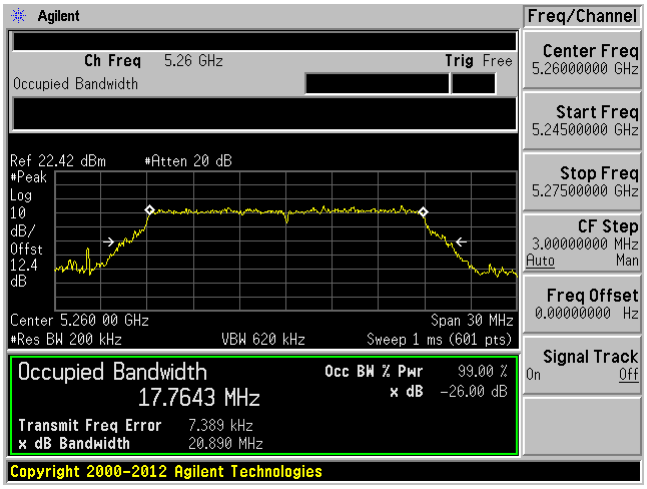


5320 MHz

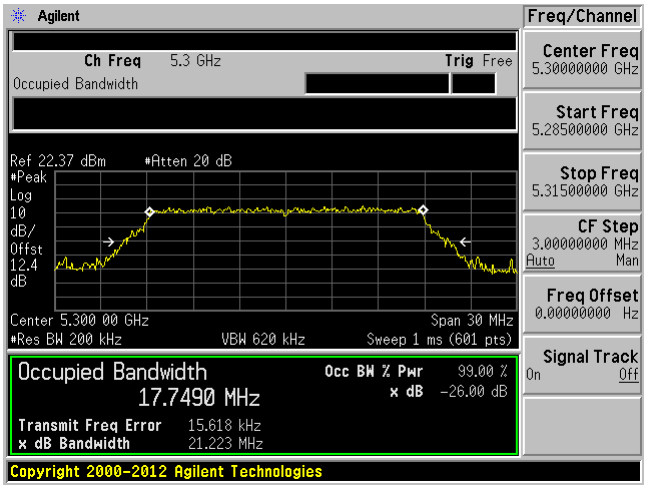


802.11ac20 mode chain 2

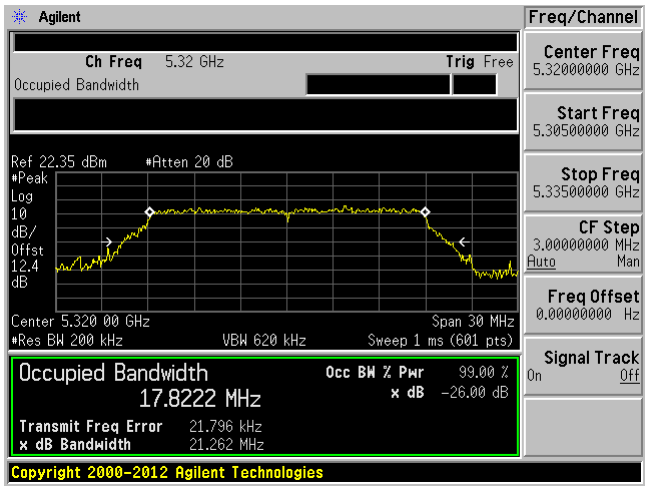
5260 MHz



5300 MHz

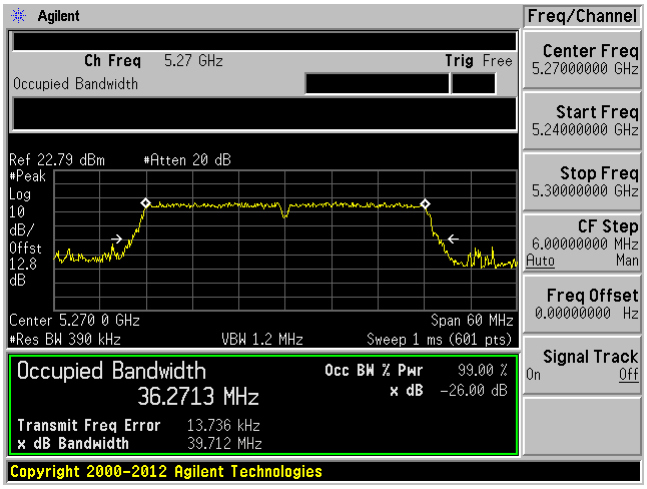


5320 MHz

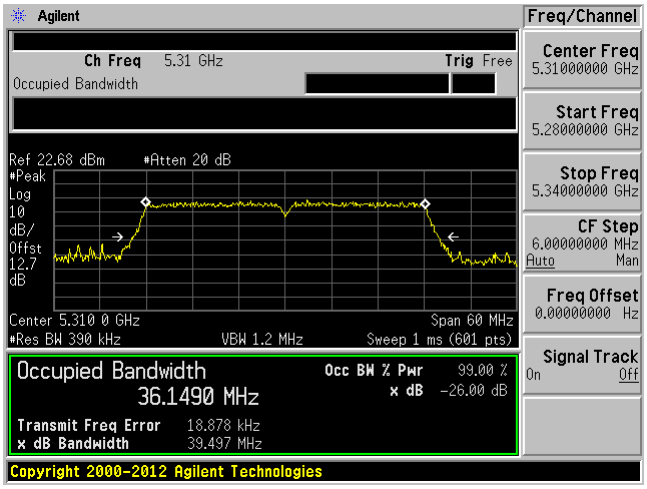


802.11ac40 mode chain 1

5270 MHz

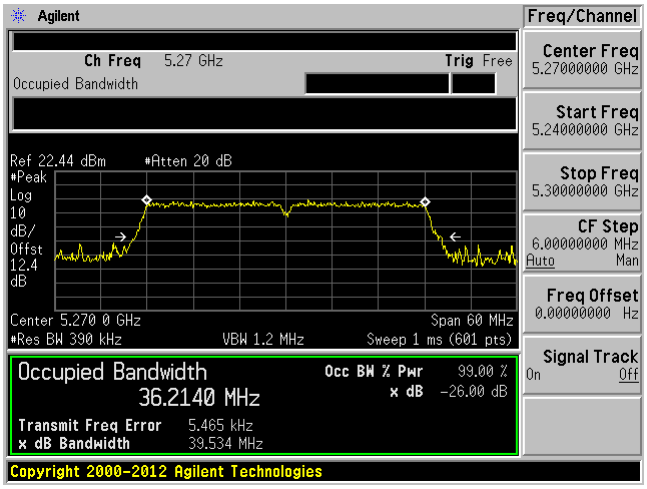


5310 MHz

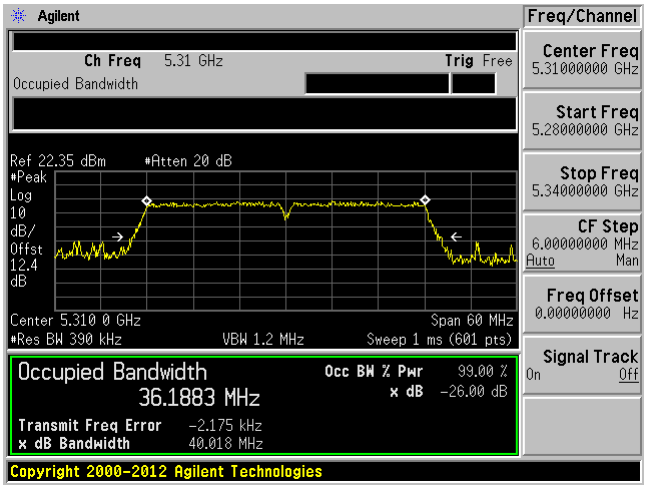


802.11n40 mode chain 2

5270 MHz

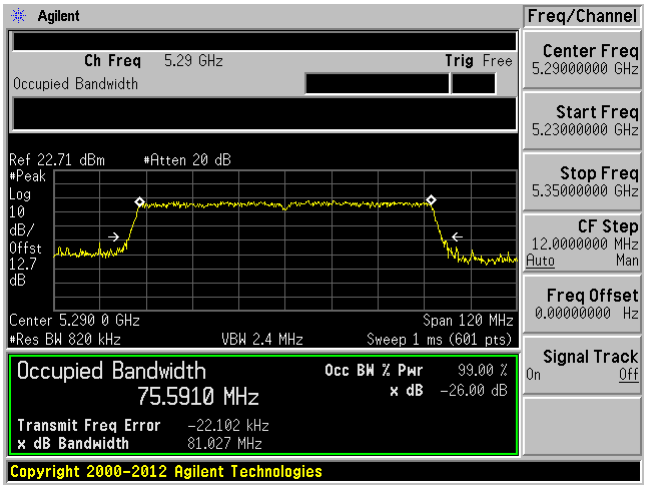


5310 MHz

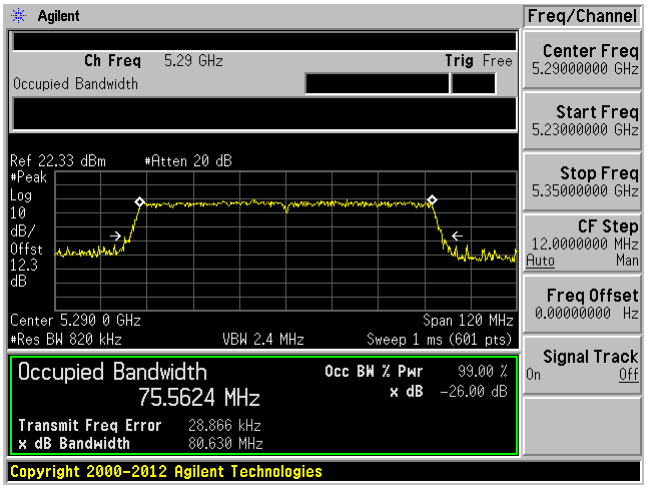


802.11ac80 mode

5290 MHz chain 1



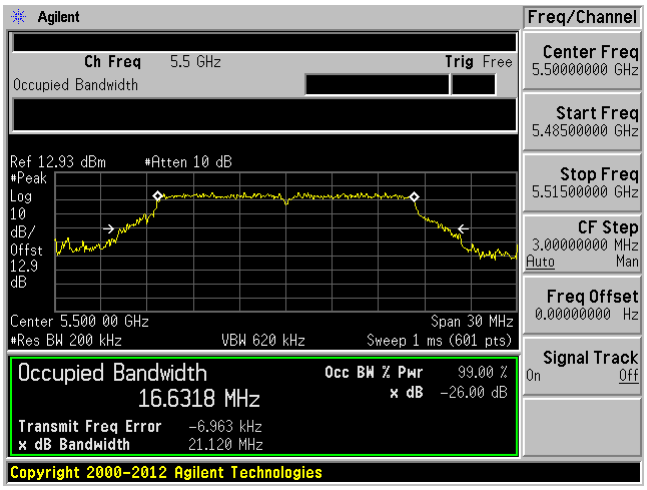
5290 MHz chain 2



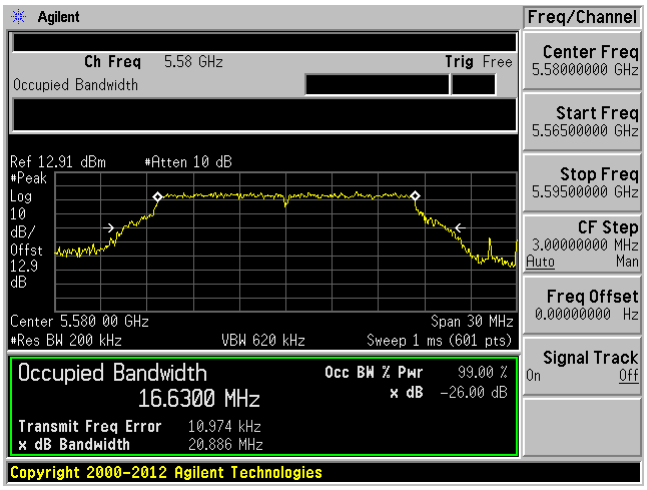
5470 – 5725 MHz

802.11a mode chain 1

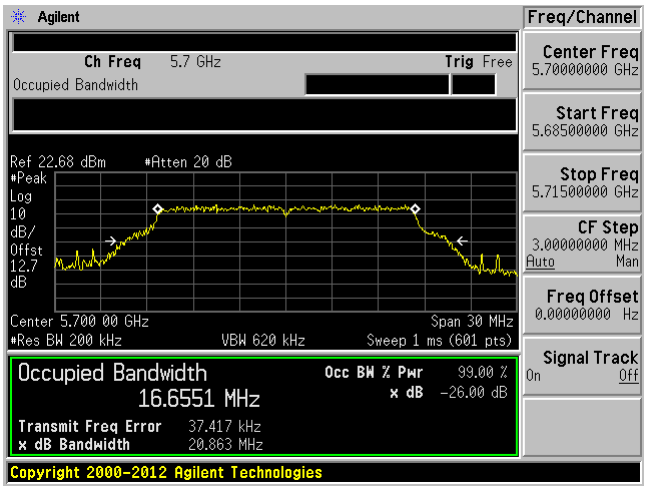
5500 MHz



5580 MHz

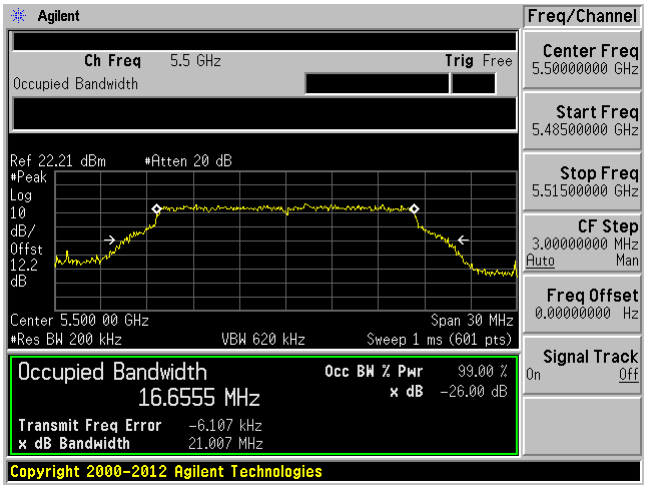


5700 MHz

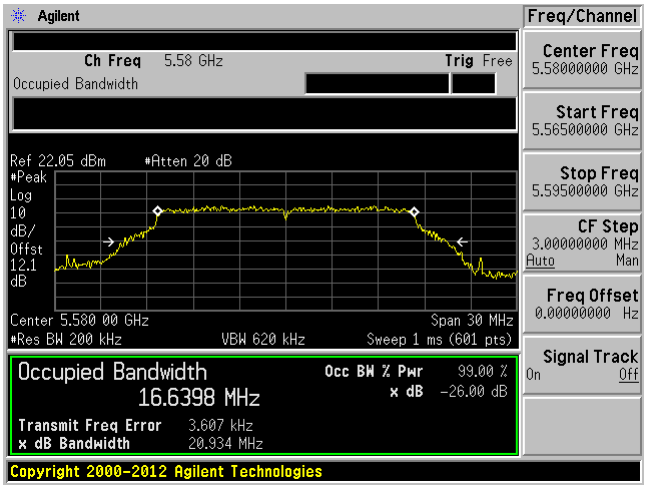


802.11a mode chain 2

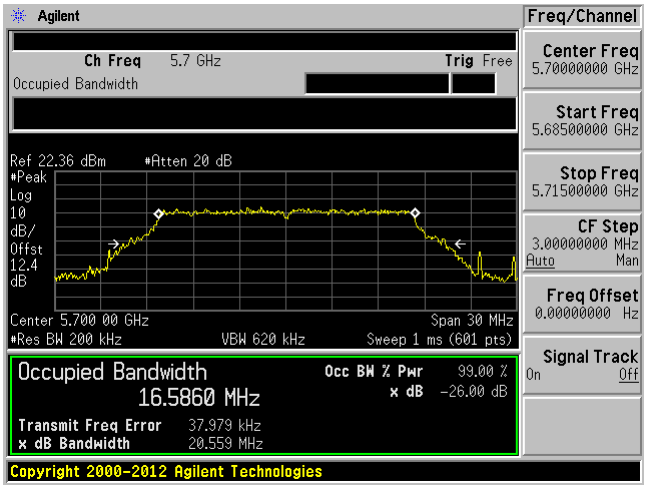
5500 MHz



5580 MHz

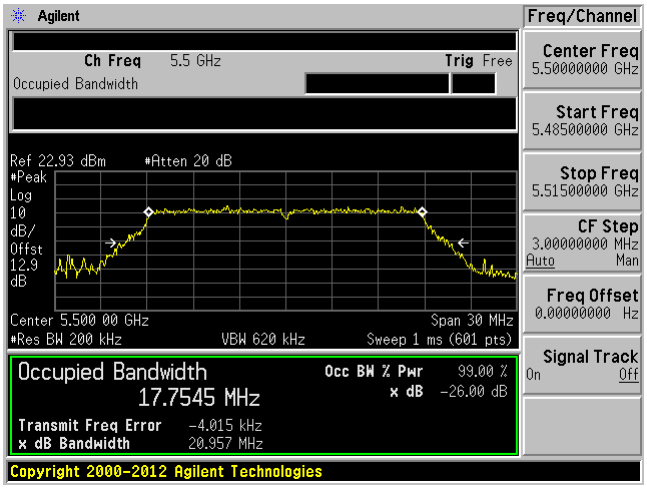


5700 MHz

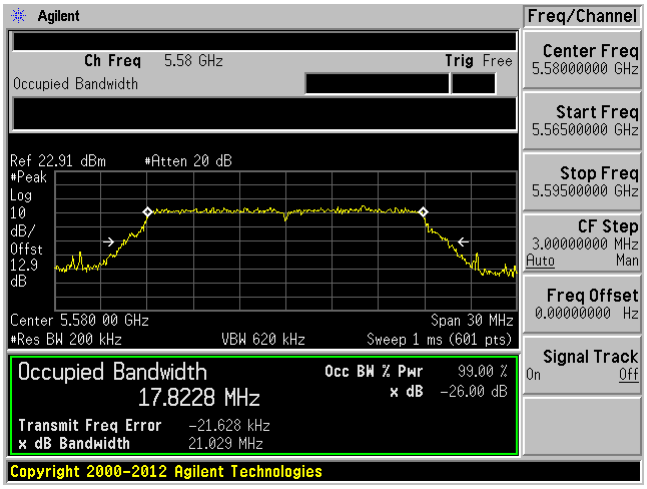


802.11n20 mode chain 1

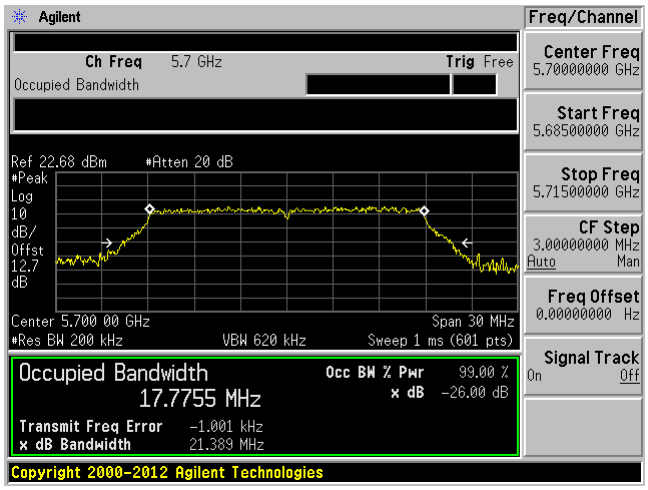
5500 MHz



5580 MHz

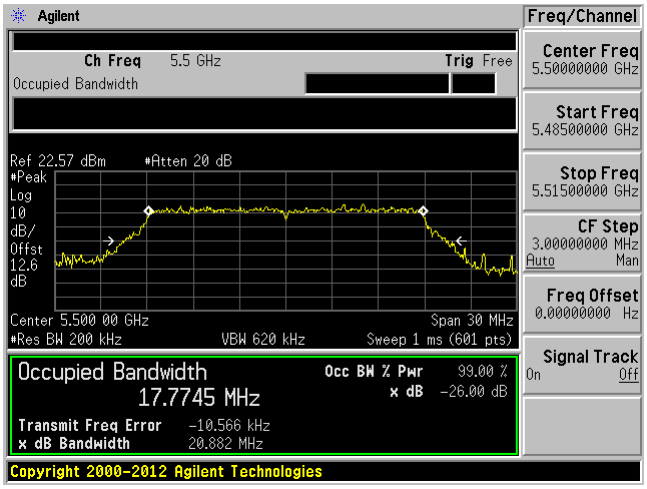


5700 MHz

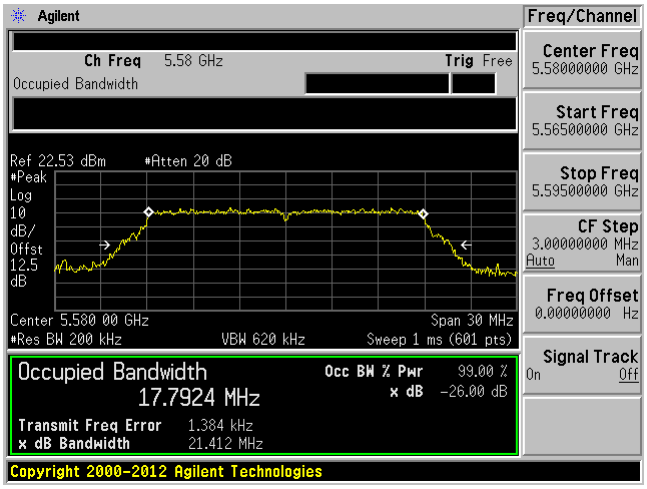


802.11n20 mode chain 2

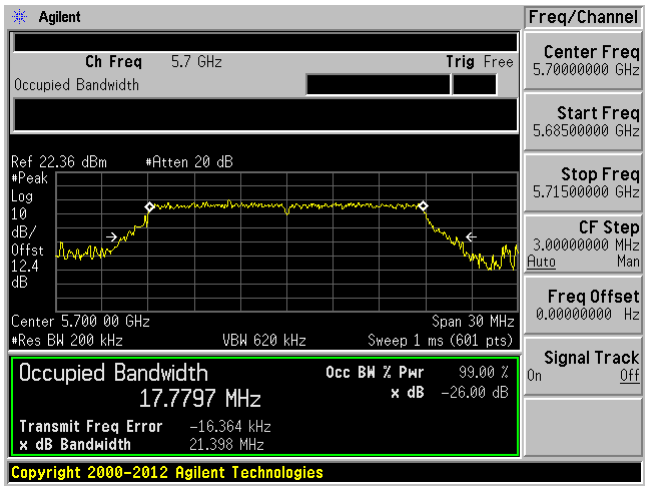
5500 MHz



5580 MHz

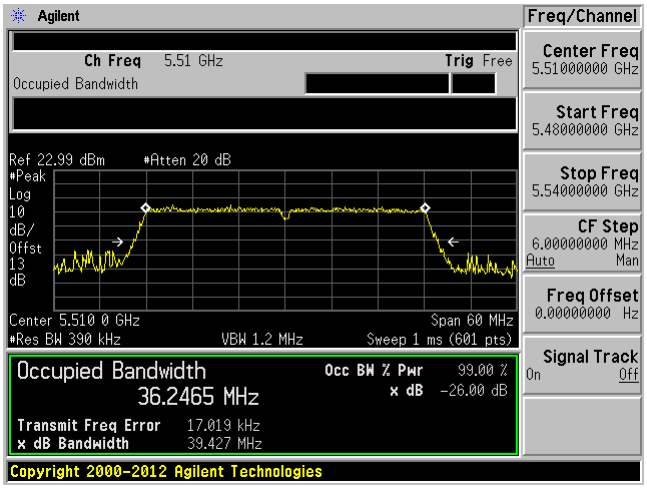


5700 MHz

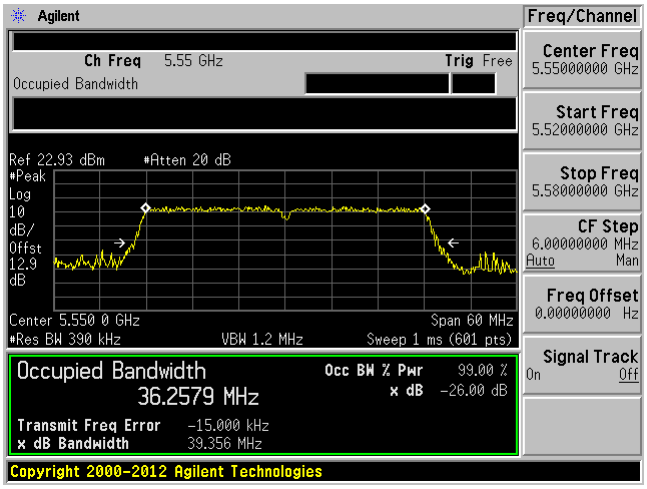


802.11n40 mode chain 1

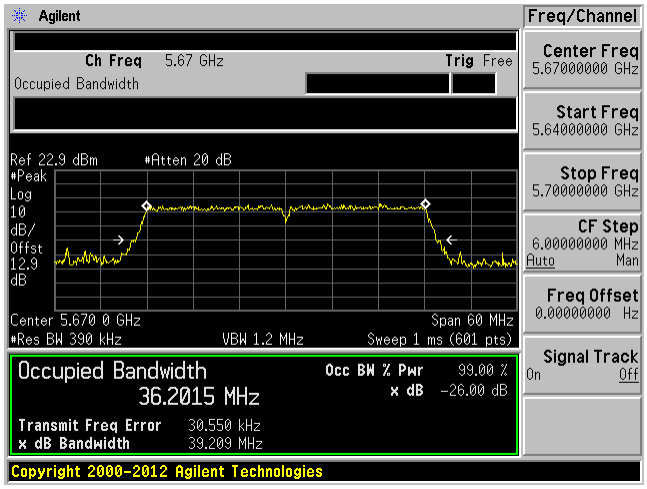
5510 MHz



5550 MHz



5670 MHz



802.11n40 mode chain 2

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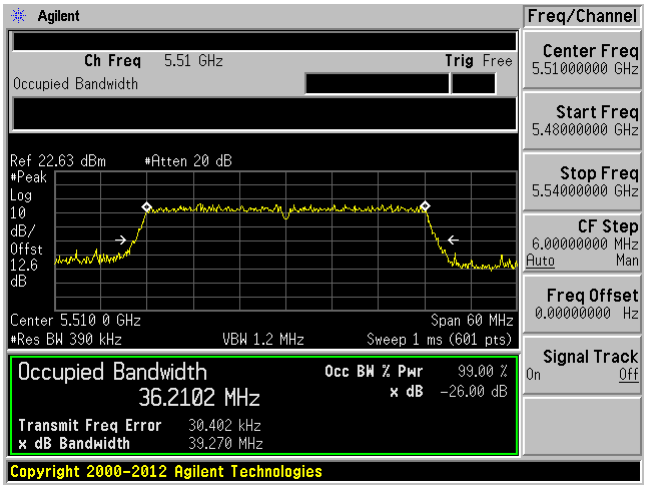
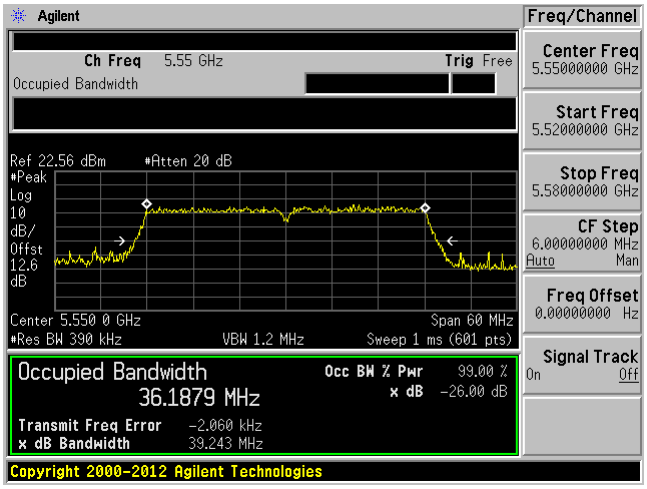
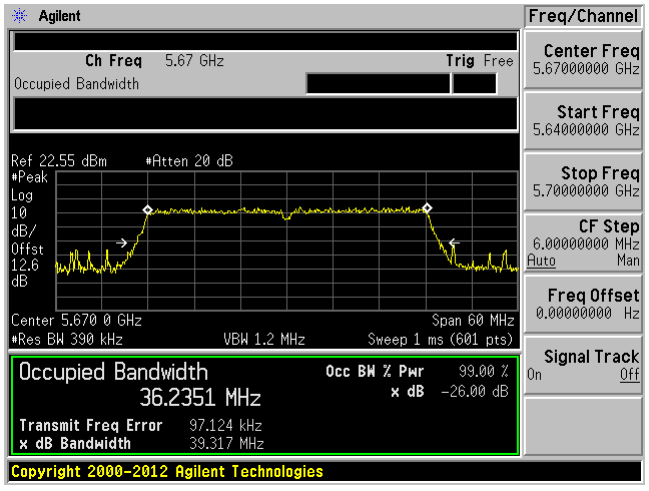


5550 MHz

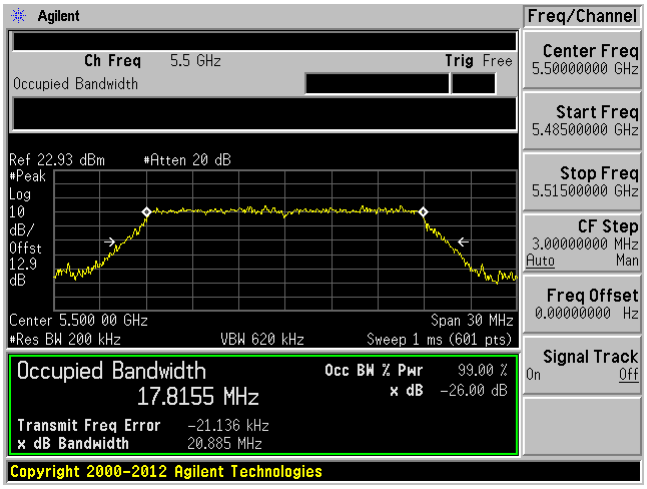


5670 MHz

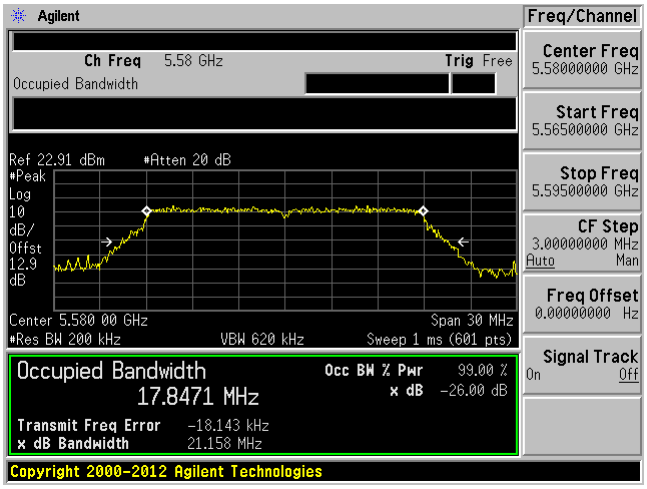


802.11ac20 mode chain 1

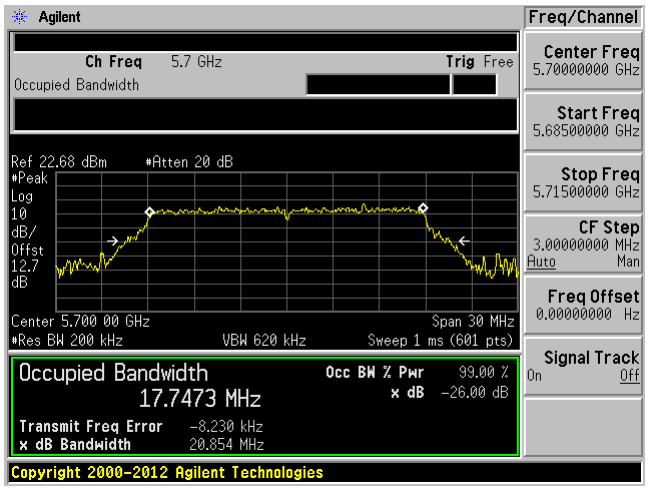
5500 MHz



5580 MHz

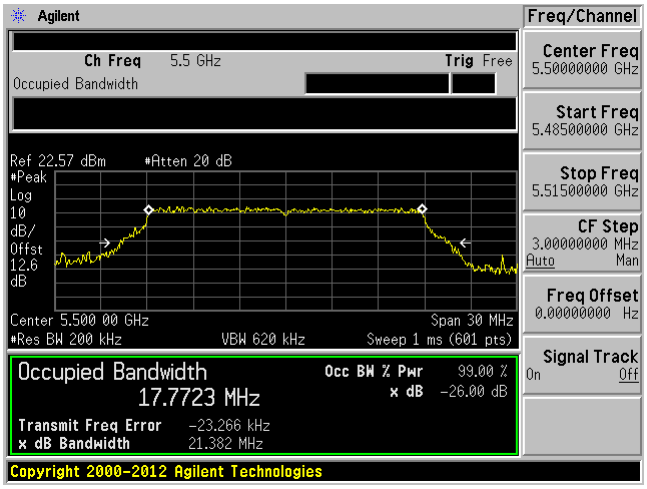


5700 MHz

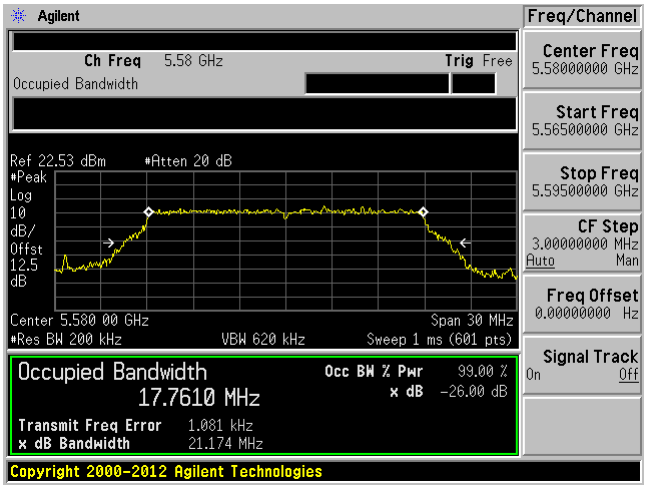


802.11ac20 mode chain 2

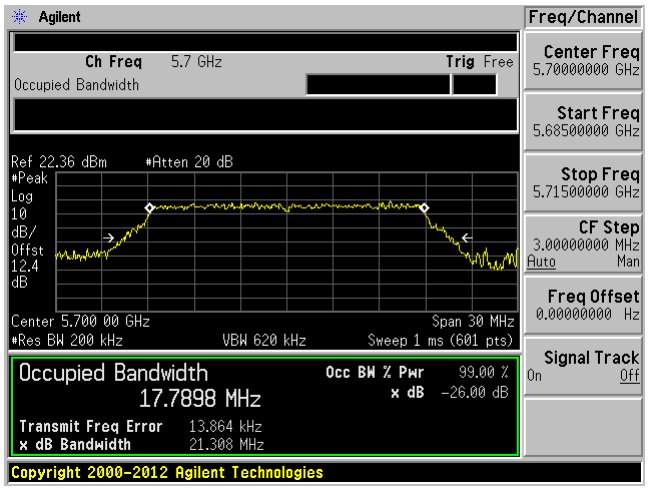
5500 MHz



5580 MHz

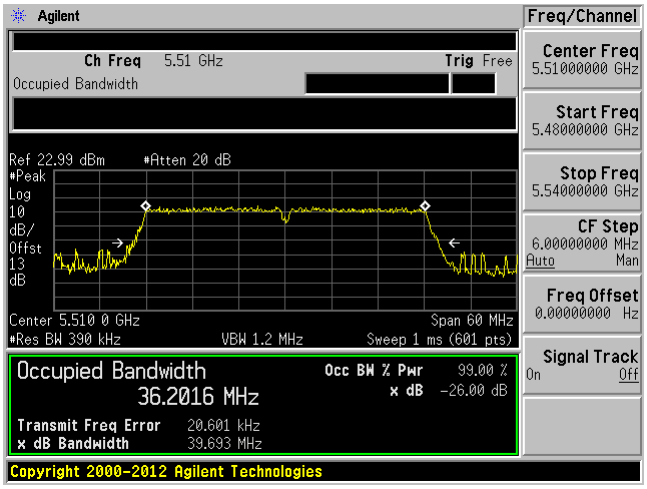


5700 MHz

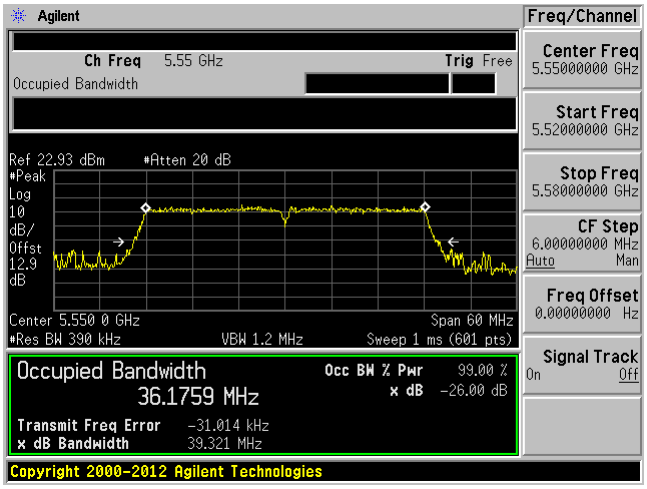


802.11ac40 mode chain 1

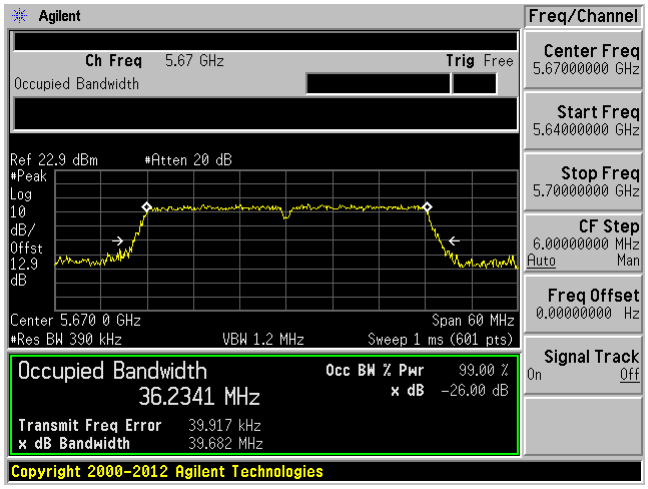
5510 MHz



5550 MHz

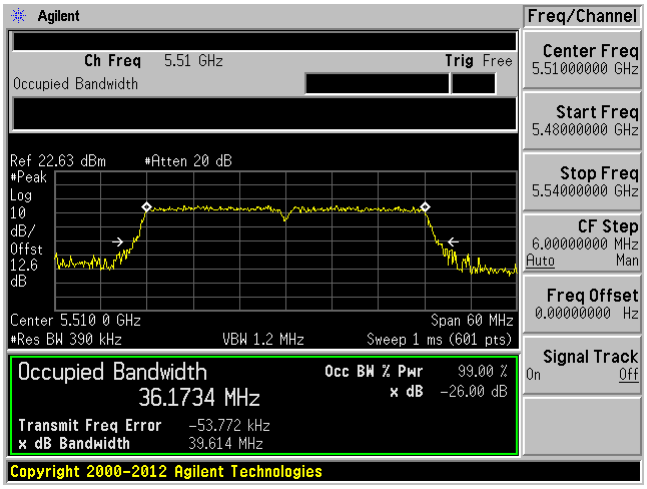


5670 MHz

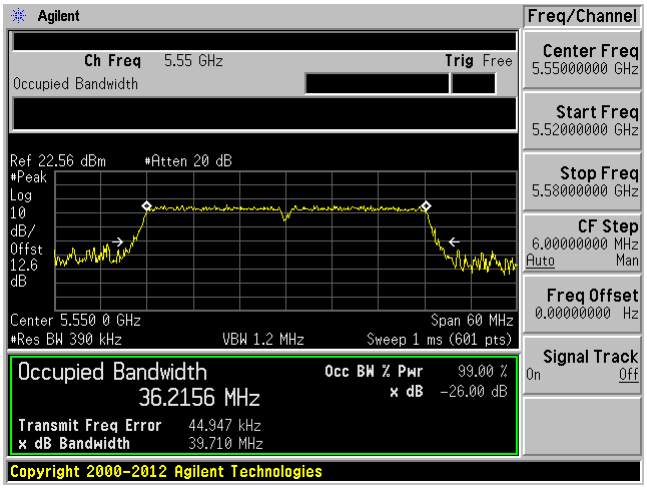


802.11ac40 mode chain 2

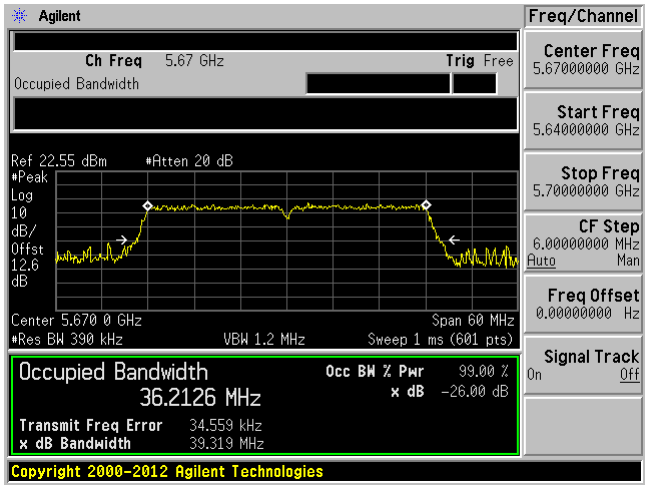
5510 MHz



5550 MHz

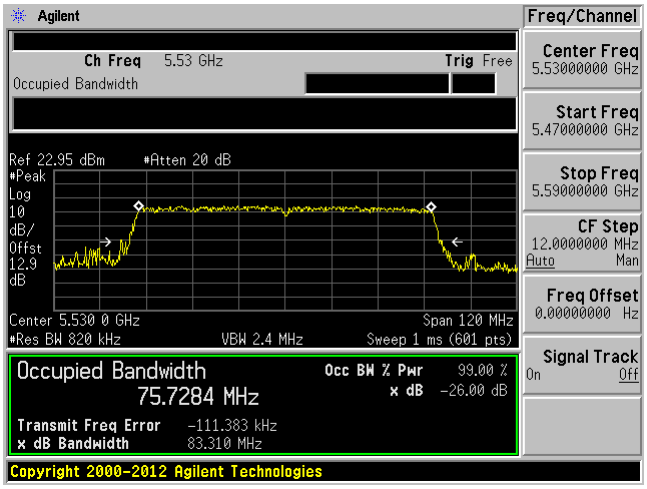


5670 MHz

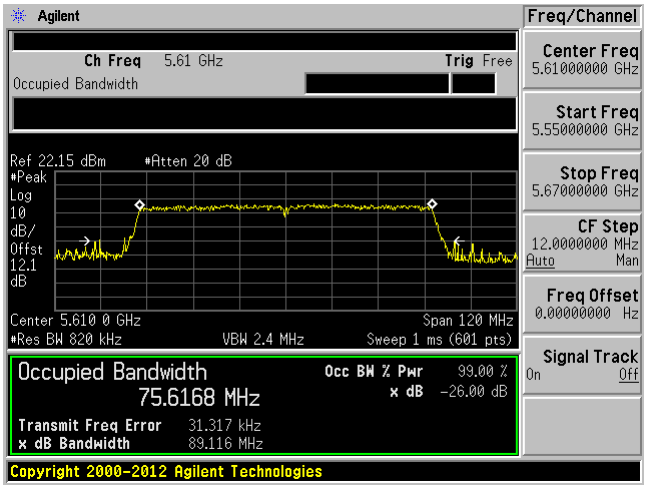


802.11ac80 mode

5530 MHz



5610 MHz



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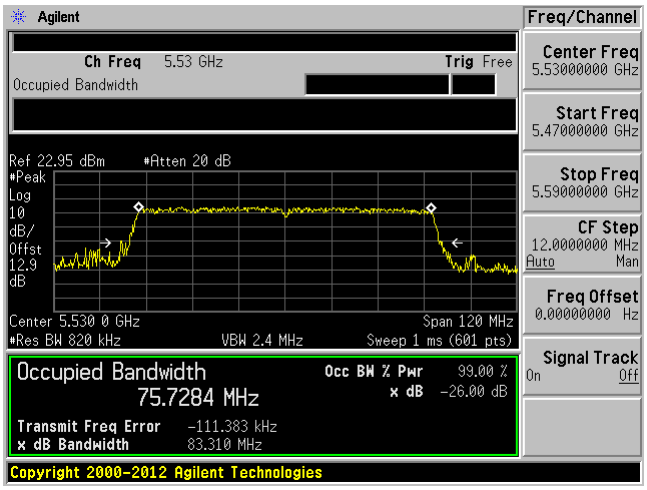
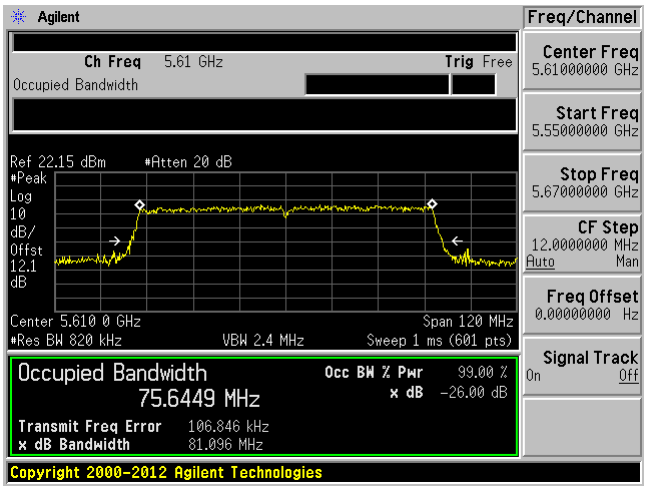


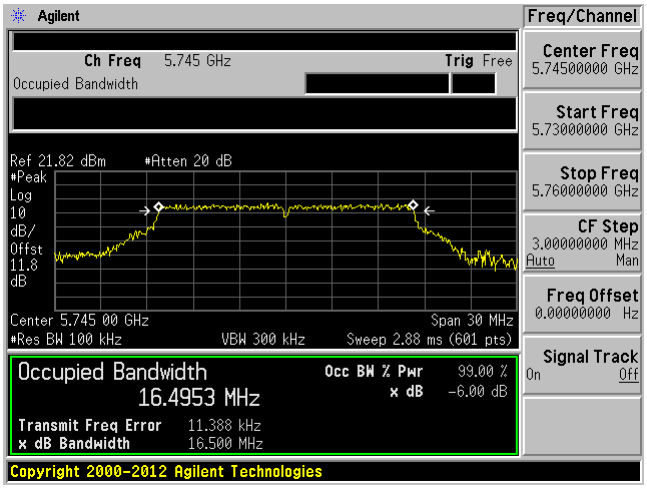
5610 MHz



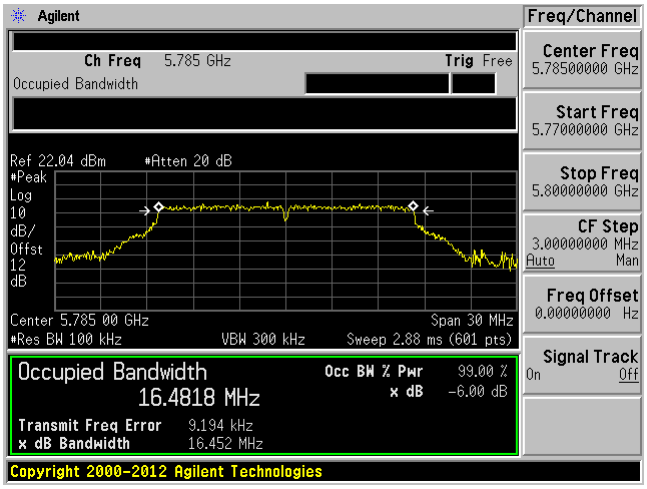
5725 – 5850 MHz

802.11a mode chain 1

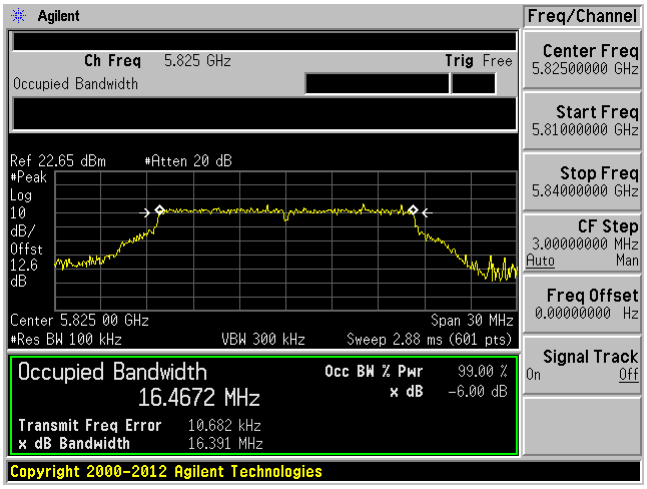
5745 MHz



5785 MHz

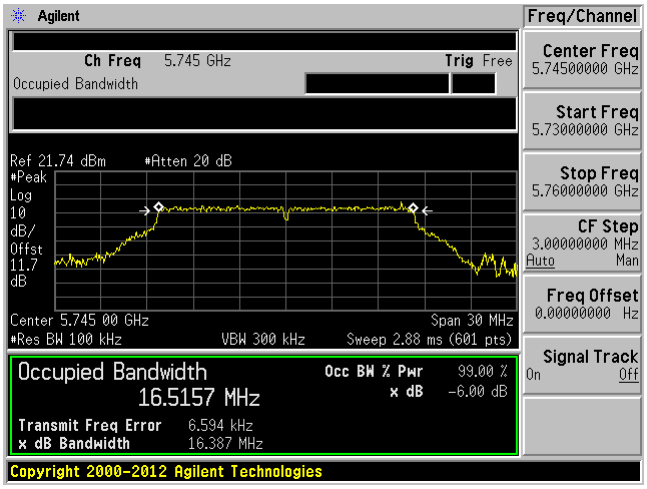


5825 MHz

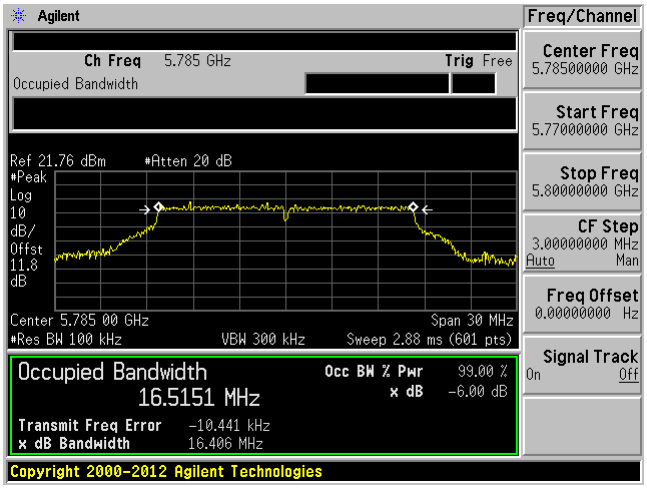


802.11a mode chain 2

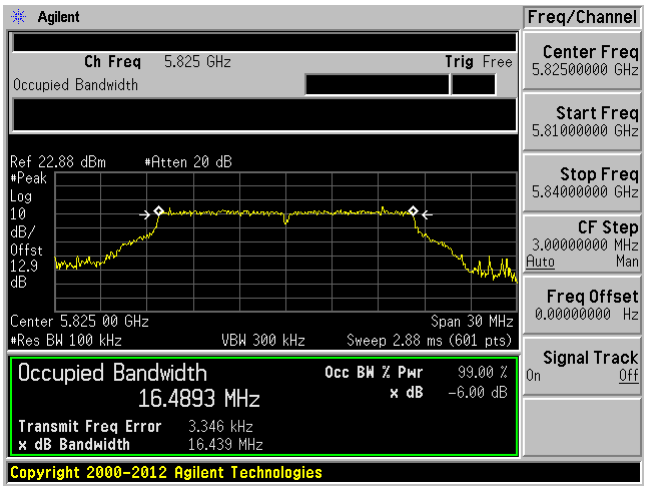
57450 MHz



5785 MHz

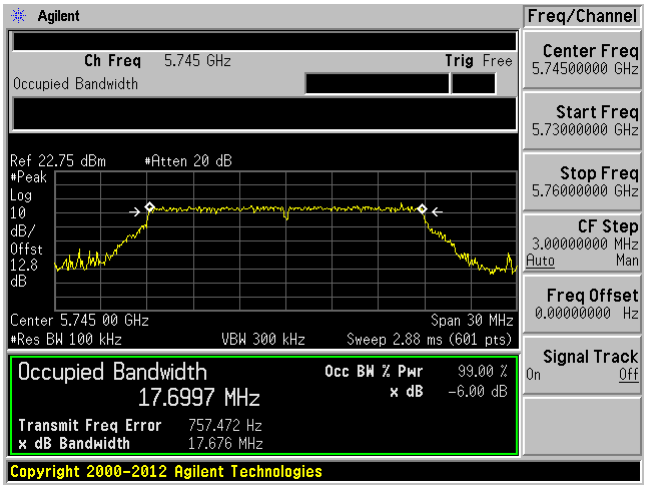


5825 MHz

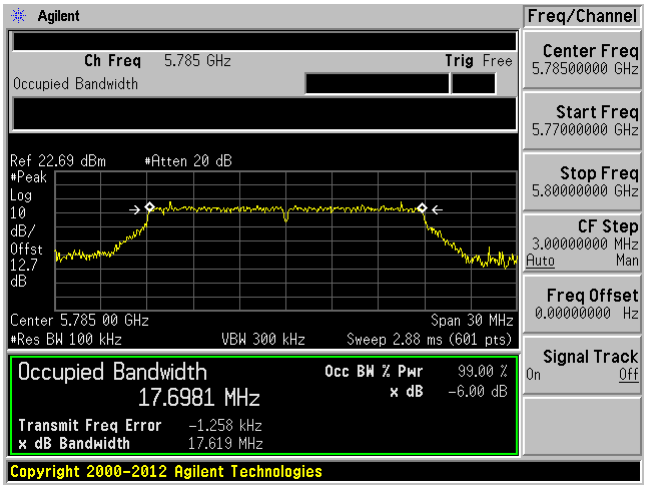


802.11n20 mode chain 1

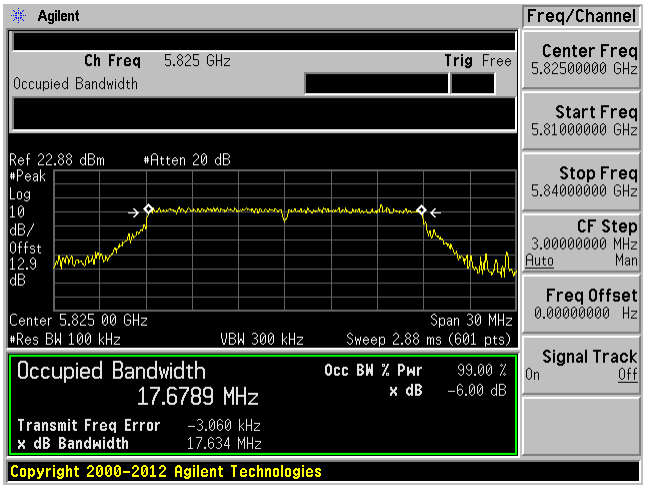
5745 MHz



5785 MHz

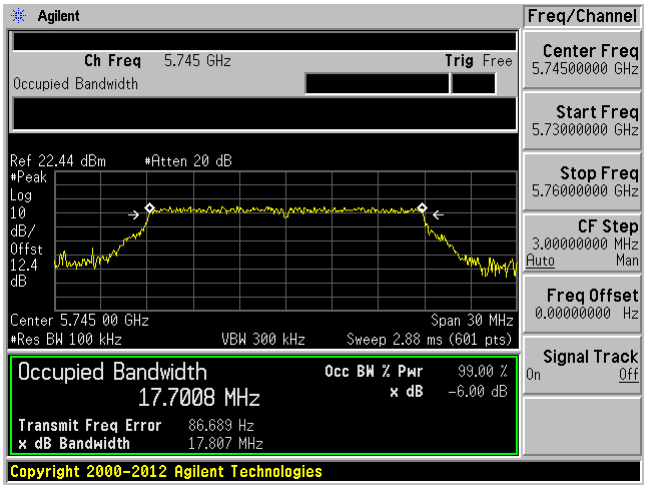


5825 MHz

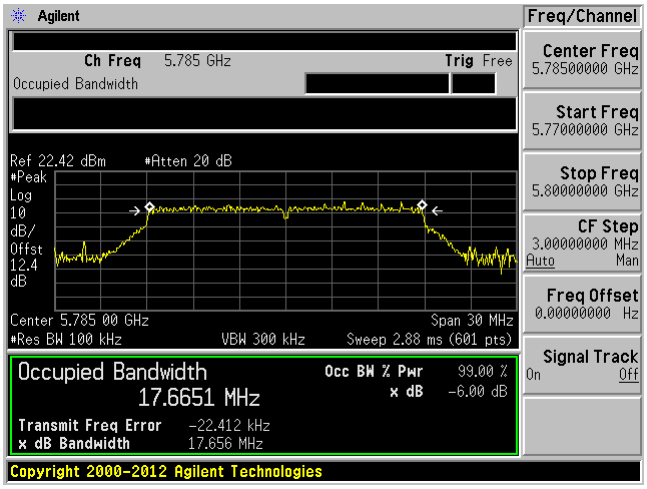


802.11n20 mode chain 2

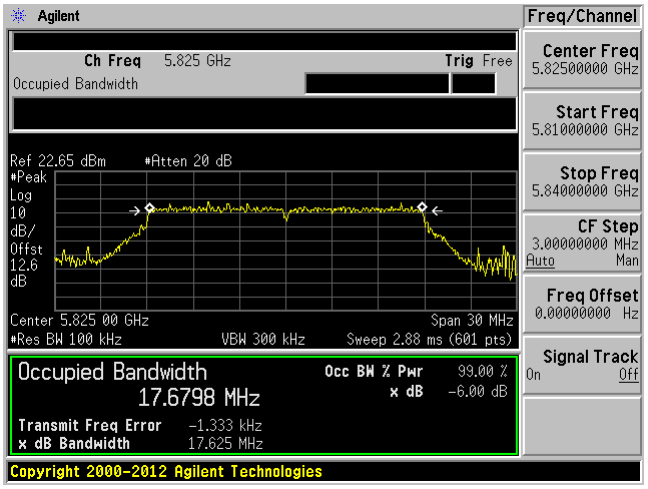
5745 MHz



5785 MHz

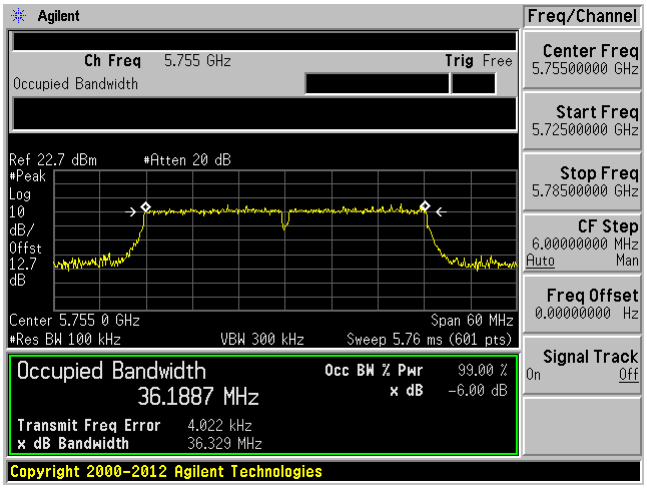


5825 MHz

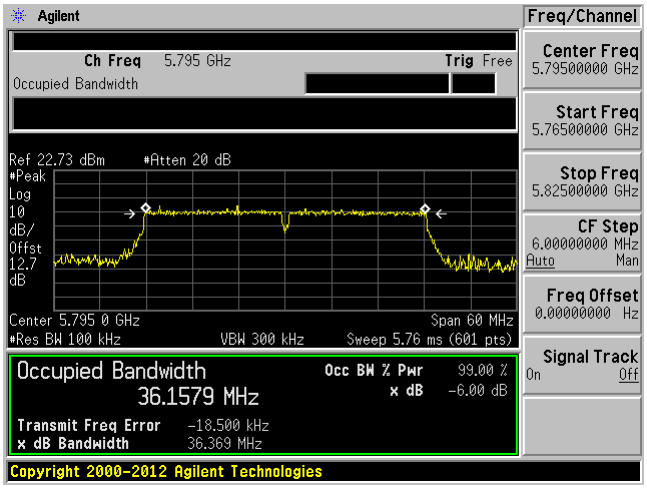


802.11n40 mode chain 1

5755 MHz

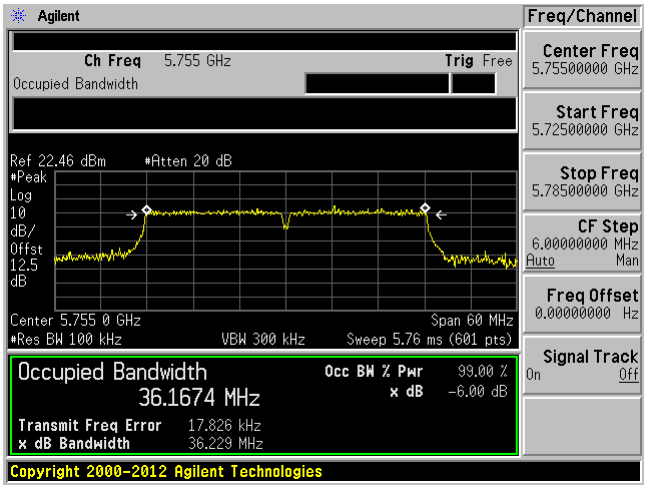


5795 MHz

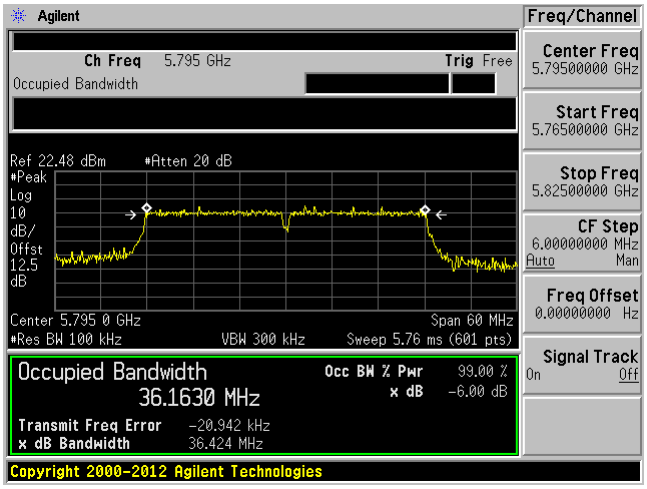


802.11n40 mode chain 2

5755 MHz

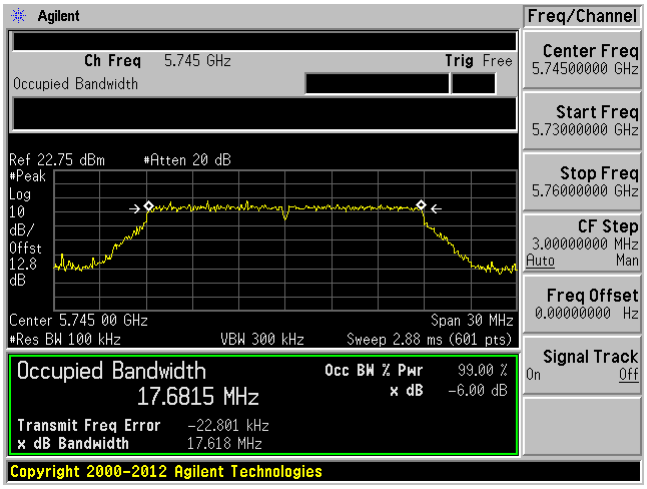


5795 MHz

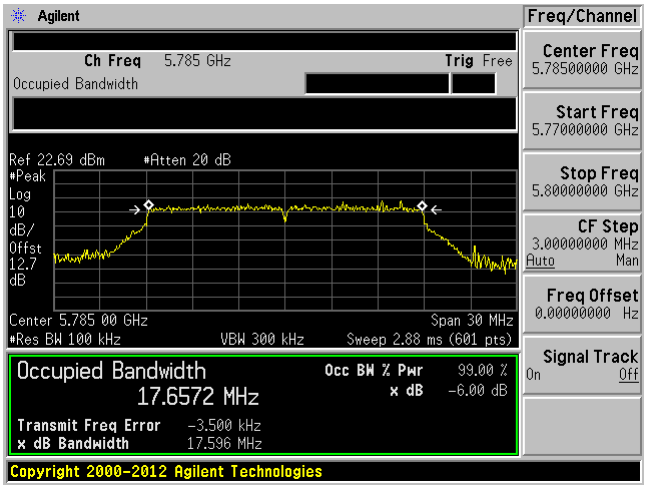


802.11ac20 mode chain 1

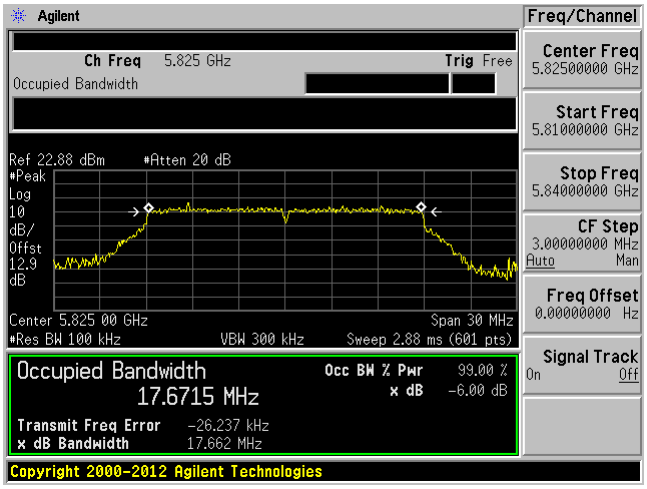
5745 MHz



5785 MHz

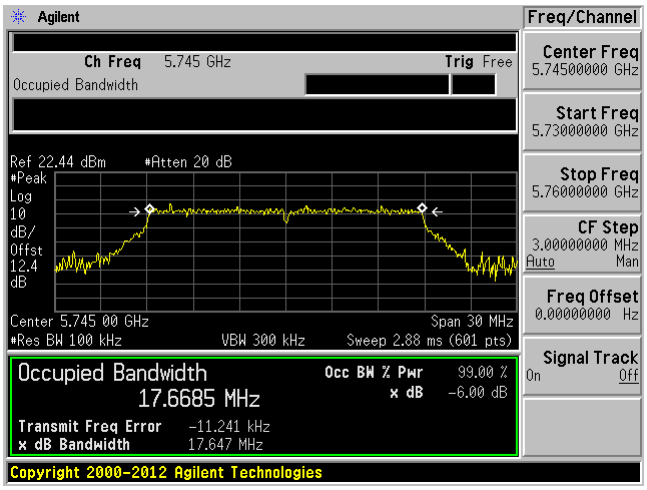


5825 MHz

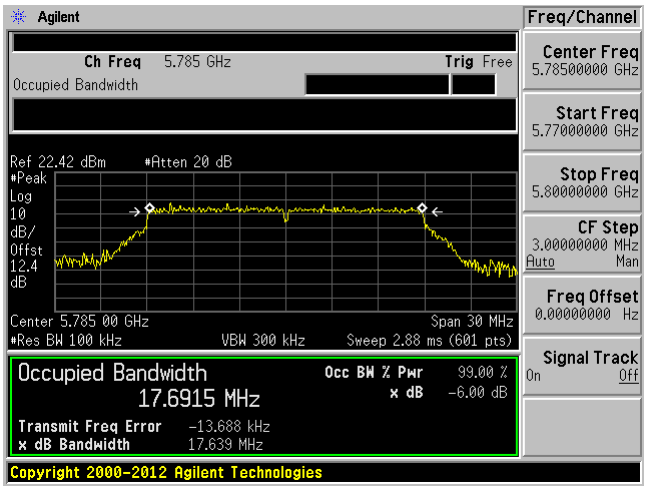


802.11ac20 mode chain 2

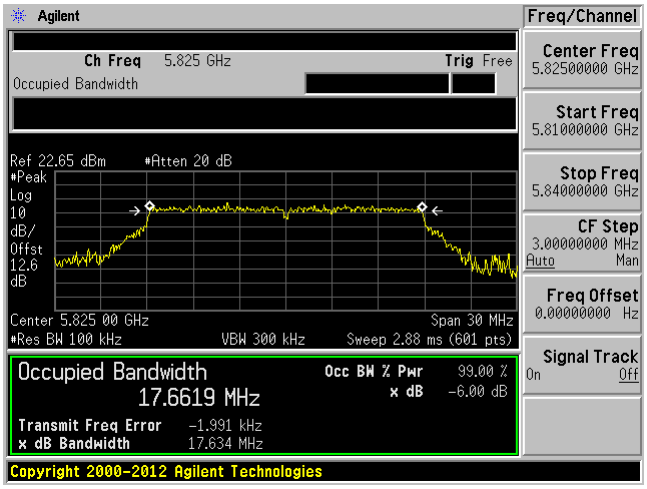
5745 MHz



5785 MHz

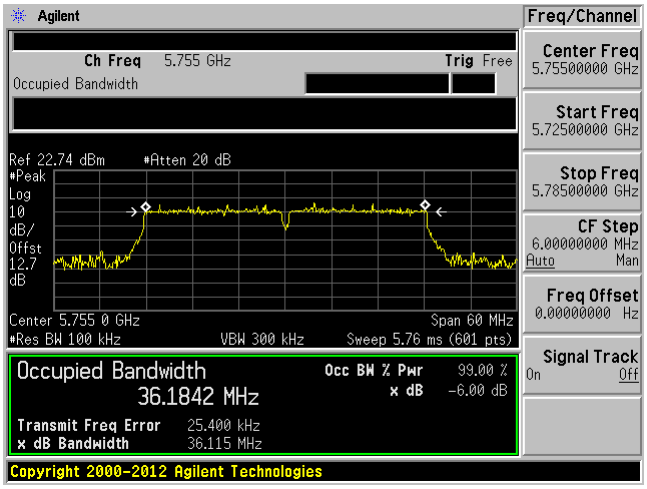


5825 MHz

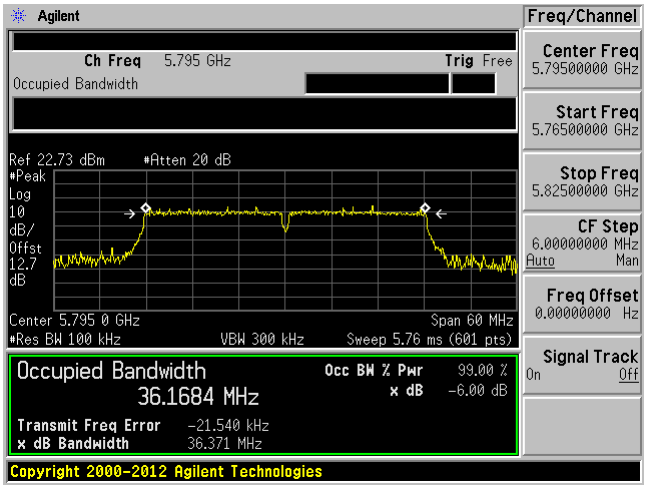


802.11ac40 mode chain 1

5755 MHz

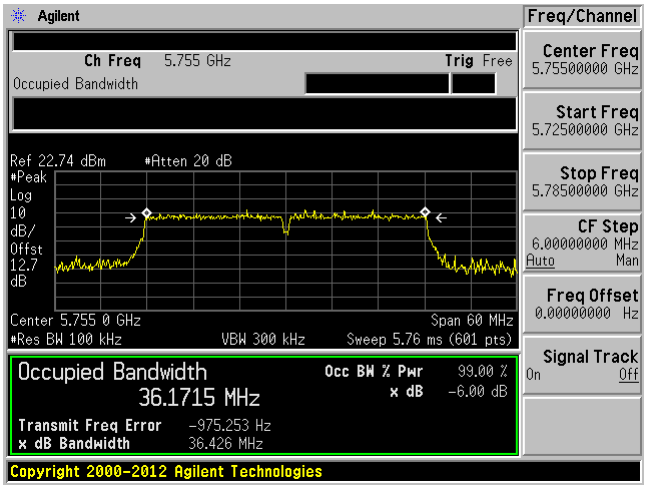


5795 MHz

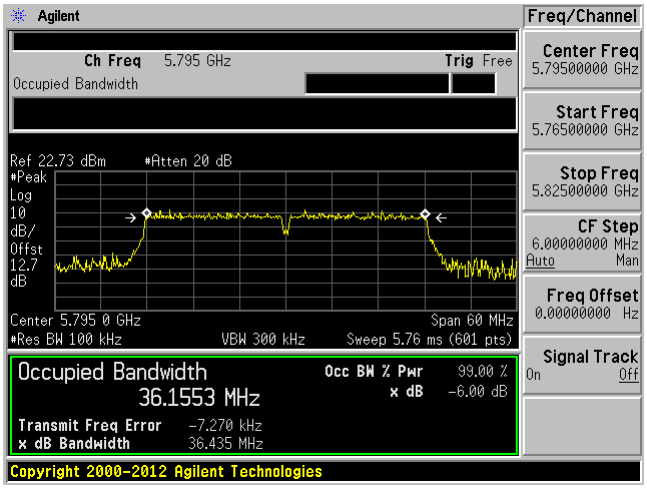


802.11n40 mode chain 2

5755 MHz

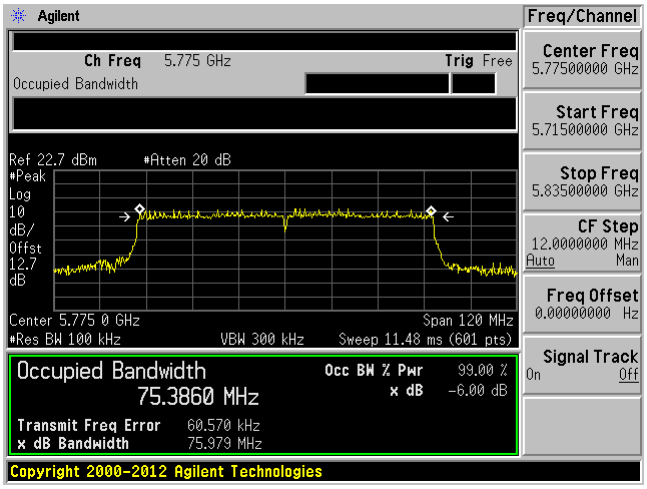


5795 MHz

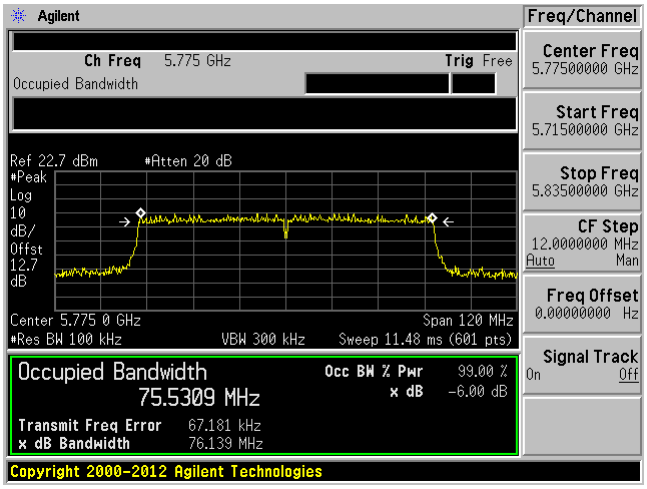


802.11ac80 mode

5775 MHz chain 1



5775 MHz chain 2



9 FCC §407(a) & IC RSS-247 §6.2 - Output Power

9.1 Applicable Standards

According to FCC §15.407(a):

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum 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 maximum 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 maximum 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 maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to IC RSS-247 §6.2.1 for frequency band 5150-5250 MHz:

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to IC RSS-247 §6.2.2 for frequency band 5250-5350 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to IC RSS-247 §6.2.3 for frequency band 5470-5600 MHz and 5650-5725 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to IC RSS-247 §6.2.4 for frequency band 5725-5850 MHz:

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

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 power meter.

9.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
ETS- Lingerin	Power Sensor	7002-006	160097	2014-10-21	2 years
-	U. FL to SMA pigtail	-	-	Each time[1]	N/A
-	10dB attenuator	-	-	Each time[1]	N/A

Note[1]: cable and attenuator included in the test set-up will be checked each time before testing.
Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

9.4 Test Environmental Conditions

Temperature:	22º C
Relative Humidity:	42 %
ATM Pressure:	102.7 KPa

The testing was performed by Jin Yang on 2016-01-21 in RF site.

9.5 Test Results

5150 - 5250 MHz

FCC Results

Frequency (MHz)	Conducted Average Power (dBm)		Total Average Power (dBm)	FCC Limit (dBm)
	Chain 1	Chain 2		
802.11a mode				
5180	11.33	10.9	-	24
5200	12.19	10.89	-	24
5240	11.92	10.92	-	24
802.11n20 mode				
5180	10.24	10.9	13.59	24
5200	11.03	10.91	13.98	24
5240	10.98	10.85	13.93	24
802.11n40 mode				
5190	10.29	10.85	13.59	24
5230	11.04	10.96	14.01	24
802.11ac20 mode				
5180	10.32	10.92	13.64	24
5200	10.86	10.96	13.92	24
5240	10.86	10.45	13.67	24
802.11ac40 mode				
5190	10.34	10.96	13.67	24
5230	11	11.02	14.02	24
802.11ac80 mode				
5210	10.6	10.71	13.67	24

IC Results

Frequency (MHz)	Conducted Average Power (dBm)		EIRP (dBm)		Total EIRP (dBm)	IC Limit (dBm)
	Chain 1	Chain 2	Chain 1	Chain 2		
802.11a mode						
5180	11.33	10.9	14.03	11.1	-	23
5200	12.19	10.89	14.89	11.09	-	23
5240	11.92	10.92	14.62	11.12	-	23
802.11n20 mode						
5180	10.24	10.9	12.94	11.1	15.13	23
5200	11.03	10.91	13.73	11.11	15.62	23
5240	10.98	10.85	13.68	11.05	15.57	23
802.11n40 mode						
5190	10.29	10.85	12.99	11.05	15.14	23
5230	11.04	10.96	13.74	11.16	15.65	23
802.11ac20 mode						
5180	10.32	10.92	13.02	11.12	15.18	23
5200	10.86	10.96	13.56	11.16	15.53	23
5240	10.86	10.45	13.56	10.65	15.35	23
802.11ac40 mode						
5190	10.34	10.96	13.04	11.16	15.21	23
5230	11	11.02	13.7	11.22	15.64	23
802.11ac80 mode						
5210	10.6	10.71	13.3	10.91	15.28	23

5250 - 5350 MHz

Frequency (MHz)	Conducted Average Power (dBm)		Total Average Power (dBm)	FCC Limit (dBm)	IC Limit (dBm)
	Chain 1	Chain 2			
802.11a mode					
5260	11.8	10.61	-	24	24
5300	12.29	10.79	-	24	24
5320	12.43	10.8	-	24	24
802.11n20 mode					
5260	11.53	10.29	13.96	24	24
5300	12.37	10.65	14.60	24	24
5320	12.32	10.96	14.70	24	24
802.11n40 mode					
5270	12.01	11.01	14.55	24	24
5310	12.75	10.86	14.92	24	24
802.11ac20 mode					
5260	11.51	10.4	14.00	24	24
5300	12.39	10.92	14.73	24	24
5320	12.39	11.02	14.77	24	24
802.11ac40 mode					
5270	12.08	10.82	14.51	24	24
5310	12.66	11.2	15.00	24	24
802.11ac80 mode					
5290	12.2	10.64	14.50	24	24

5470 - 5725 MHz

Frequency (MHz)	Conducted Average Power (dBm)		Total Average Power (dBm)	FCC Limit (dBm)	IC Limit (dBm)
	Chain 1	Chain 2			
802.11a mode					
5500	10.15	10.21	-	24	24
5580	10.4	9.55	-	24	24
5700	12.87	11.26	-	24	24
802.11n20 mode					
5500	9.83	10.36	13.11	24	24
5580	9.45	9.4	12.44	24	24
5700	12.76	11.14	15.04	24	24
802.11n40 mode					
5510	10.01	10.68	13.37	24	24
5550	9.3	10	12.67	24	24
5670	10.4	9.2	12.85	24	24
802.11ac20 mode					
5500	9.79	10.31	13.07	24	24
5580	9.32	9.5	12.42	24	24
5700	12.7	11.22	15.03	24	24
802.11ac40 mode					
5510	10.06	10.6	13.35	24	24
5550	9.43	10.22	12.85	24	24
5670	10.45	9.2	12.88	24	24
802.11ac80 mode					
5530	9.27	10.01	12.67	24	24
5610*	9.91	9.41	12.68	24	-

*Note: This is an FCC only channel.

5725 - 5850 MHz

Frequency (MHz)	Conducted Average Power (dBm)		Total Average Power (dBm)	FCC Limit (dBm)	IC Limit (dBm)
	Chain 1	Chain 2			
802.11a mode					
5745	13.5	11.67	-	30	30
5785	12.94	12.01	-	30	30
5825	11.66	12.83	-	30	30
802.11n20 mode					
5745	13.5	11.83	15.76	30	30
5785	13.08	12.08	15.62	30	30
5825	11.58	11.43	14.52	30	30
802.11n40 mode					
5755	13.5	12.14	15.88	30	30
5795	12.03	11.65	14.85	30	30
802.11ac20 mode					
5745	13.46	11.9	15.76	30	30
5785	13.06	12.16	15.64	30	30
5825	11.45	11.4	14.44	30	30
802.11ac40 mode					
5755	13.5	12.32	15.96	30	30
5795	12.05	11.34	14.72	30	30
802.11ac80 mode					
5775	13.1	12.08	15.63	30	30

Note: Duty cycle correction factor has already been added to the measurements.

10 FCC §15.407(a) & IC RSS-247 §6.2 - Power Spectral Density

10.1 Applicable Standards

According to FCC §15.407(a):

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum 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 maximum 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 maximum 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 maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to IC RSS-247 §6.2.1 for frequency band 5150-5250 MHz:

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

According to IC RSS-247 §6.2.2 for frequency band 5250-5350 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 $\log_{10}$B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to IC RSS-247 §6.2.3 for frequency band 5470-5600 MHz and 5650-5725 MHz:

The maximum conducted output power shall not exceed 250 mW or 11 + 10 $\log_{10}$B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

According to IC RSS-247 §6.2.4 for frequency band 5725-5850 MHz:

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

10.2 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.

10.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4440A	MY44303352	2015-06-22	1 year
-	U. FL to SMA pigtail	-	-	Each time[1]	N/A
-	10dB attenuator	-	-	Each time[1]	N/A

Note[1]: cable and attenuator included in the test set-up will be checked each time before testing.
Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

10.4 Test Environmental Conditions

Temperature:	22-24 ºC
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Todd Moy on 2016-01-05 at RF site.

10.5 Test Results

5150 – 5250 MHz

FCC Results:

Freq. (MHz)	Measured PSD (dBm/MHz)		Corrected PSD (dBm/MHz)		Total PSD (dBm/MHz)	FCC limit (dBm/MHz)
	Chain 1	Chain 2	Chain 1	Chain 2		
802.11a mode						
5180	-0.492	-1.466	-0.412	-1.386	-	11
5200	0.065	-0.255	0.145	-0.175	-	11
5240	0.217	-1.274	0.297	-1.194	-	11
802.11n20 mode						
5180	-6.972	-3.983	-6.882	-3.893	-2.12	11
5200	-1.51	-0.557	-1.42	-0.467	2.09	11
5240	-1.621	-0.823	-1.531	-0.733	1.9	11
802.11n40 mode						
5190	-4.667	-6.588	-4.397	-6.318	-2.24	11
5230	-4.261	-3.375	-3.991	-3.105	-0.52	11
802.11ac20 mode						
5180	-1.981	-4.174	-1.811	-4.004	0.24	11
5200	-1.721	-0.694	-1.551	-0.524	2	11
5240	-1.355	-3.42	-1.185	-3.25	0.91	11
802.11ac40 mode						
5190	-4.728	-6.379	-4.148	-5.799	-1.89	11
5230	-4.008	-3.262	-3.428	-2.682	-0.03	11
802.11ac80 mode						
5210	-7.283	-6.697	-6.283	-5.697	-2.97	11

IC Results:

Freq. (MHz)	Measured PSD (dBm/MHz)		Corrected PSD (dBm/MHz)		EIRP PSD (dBm/MHz)		Total EIRP PSD (dBm/MHz)	IC limit (dBm/MHz)
	Chain 1	Chain 2	Chain 1	Chain 2	Chain 1	Chain 2		
802.11a mode								
5180	-0.492	-1.466	-0.412	-1.386	2.288	-1.186	-	10
5200	0.065	-0.255	0.145	-0.175	2.845	0.025	-	10
5240	0.217	-1.274	0.297	-1.194	2.997	-0.994	-	10
802.11n20 mode								
5180	-6.972	-3.983	-6.882	-3.893	-4.182	-3.693	-0.92	10
5200	-1.51	-0.557	-1.42	-0.467	1.28	-0.267	3.59	10
5240	-1.621	-0.823	-1.531	-0.733	1.169	-0.533	3.41	10
802.11n40 mode								
5190	-4.667	-6.588	-4.397	-6.318	-1.697	-6.118	-0.36	10
5230	-4.261	-3.375	-3.991	-3.105	-1.291	-2.905	0.99	10
802.11ac20 mode								
5180	-1.981	-4.174	-1.811	-4.004	0.889	-3.804	2.16	10
5200	-1.721	-0.694	-1.551	-0.524	1.149	-0.324	3.48	10
5240	-1.355	-3.42	-1.185	-3.25	1.515	-3.05	2.82	10
802.11ac40 mode								
5190	-4.728	-6.379	-4.148	-5.799	-1.448	-5.599	-0.04	10
5230	-4.008	-3.262	-3.428	-2.682	-0.728	-2.482	1.49	10
802.11ac80 mode								
5210	-7.283	-6.697	-6.283	-5.697	-3.583	-5.497	-1.43	10

5250 – 5350 MHz

Freq. (MHz)	PSD (dBm/MHz)		Corrected PSD (dBm/MHz)		Total PSD (dBm/MHz)	FCC limit (dBm/MHz)	IC limit (dBm/MHz)
	Chain 1	Chain 2	Chain 1	Chain 2			
802.11a mode							
5260	0.048	-1.017	0.128	-0.937	-	11	11
5300	0.117	-1.225	0.197	-1.145	-	11	11
5320	0.519	-1.073	0.599	-0.993	-	11	11
802.11n20 mode							
5260	-0.264	-3.548	-0.174	-3.458	1.50	11	11
5300	0.039	-2.919	0.129	-2.829	1.91	11	11
5320	-0.078	-2.586	0.012	-2.496	1.95	11	11
802.11n40 mode							
5270	-3.604	-5.14	-3.334	-4.87	-1.02	11	11
5310	-2.659	-5.355	-2.389	-5.085	-0.52	11	11
802.11ac20 mode							
5260	-0.32	-3.475	-0.15	-3.305	1.56	11	11
5300	-0.012	-3.129	0.158	-2.959	1.88	11	11
5320	0.047	-2.746	0.217	-2.576	2.05	11	11
802.11ac40 mode							
5270	-2.825	-2.391	-2.245	-1.811	0.99	11	11
5310	-2.727	-2.315	-2.147	-1.735	1.07	11	11
802.11ac80 mode							
5290	-6.171	-5.781	-5.171	-4.781	-1.96	11	11

5470 – 5725 MHz

Freq. (MHz)	PSD (dBm/MHz)		Corrected PSD (dBm/MHz)		Total PSD (dBm/MHz)	FCC limit (dBm/MHz)	IC limit (dBm/MHz)
	Chain 1	Chain 2	Chain 1	Chain 2			
802.11a mode							
5500	-1.79	-1.594	-1.71	-1.514	-	11	11
5580	-1.422	-2.717	-1.342	-2.637	-	11	11
5700	-0.799	-4.125	-0.719	-4.045	-	11	11
802.11n20 mode							
5500	-3.074	-2.79	-2.984	-2.7	0.17	11	11
5580	-2.71	-3.878	-2.62	-3.788	-0.15	11	11
5700	-1.795	0.861	-1.705	0.951	2.83	11	11
802.11n40 mode							
5510	-5.909	-5.384	-5.639	-5.114	-2.36	11	11
5550	-5.477	-5.981	-5.207	-5.711	-2.44	11	11
5670	-4.404	-6.611	-4.134	-6.341	-2.09	11	11
802.11ac20 mode							
5500	-3.068	-2.552	-2.898	-2.382	0.38	11	11
5580	-2.792	-3.77	-2.622	-3.6	-0.07	11	11
5700	-1.974	0.583	-1.804	0.753	2.67	11	11
802.11ac40 mode							
5510	-5.876	-5.121	-5.296	-4.541	-1.89	11	11
5550	-5.807	-4.937	-5.227	-4.357	-1.76	11	11
5670	-4.52	-3.935	-3.94	-3.355	-0.63	11	11
802.11ac80 mode							
5530	-9.245	-8.611	-8.245	-7.611	-4.91	11	11
5610*	-8.426	-9	-7.426	-8	-4.69	11	11

*Note: This is an FCC only channel.

5725 - 5850 MHz

Freq. (MHz)	PSD (dBm/MHz)		Corrected PSD (dBm/MHz)		Total PSD (dBm/MHz)	FCC/IC Limit (dBm/500 kHz)	
	Chain 1	Chain 2	Chain 1	Chain 2			
802.11a mode							
5745	-7.626	-8.876	-0.5563	-1.8063	-	30	30
5785	-7.631	-8.41	-0.5613	-1.3403	-	30	30
5825	-9.688	-9.83	-2.6183	-2.7603	-	30	30
802.11n20 mode							
5745	-7.893	-9.155	-0.8133	-2.0753	1.61	30	30
5785	-8.096	-8.828	-1.0163	-1.7483	1.64	30	30
5825	-9.287	-8.975	-2.2073	-1.8953	0.96	30	30
802.11n40 mode							
5755	-10.584	-11.829	-3.3243	-4.5693	-0.89	30	30
5795	-11.659	-12.339	-4.3993	-5.0793	-1.72	30	30
802.11ac20 mode							
5745	-7.647	-9.352	-0.4873	-2.1923	1.75	30	30
5785	-8.227	-8.34	-1.0673	-1.1803	1.89	30	30
5825	-9.444	-8.758	-2.2843	-1.5983	1.08	30	30
802.11ac40 mode							
5755	-10.711	-14.237	-3.1413	-6.6673	-1.55	30	30
5795	-11.768	-13.867	-4.1983	-6.2973	-2.11	30	30
802.11ac80 mode							
5775	-14.671	-17.712	-6.6813	-9.7223	-4.93	30	30

Corrected PSD (dBm/MHz) = PSD (dBm/MHz) + Duty Cycle Correction (dB)

Note: For the 5725-5850 MHz band, the Corrected PSD (dBm/500 kHz) is equal to:

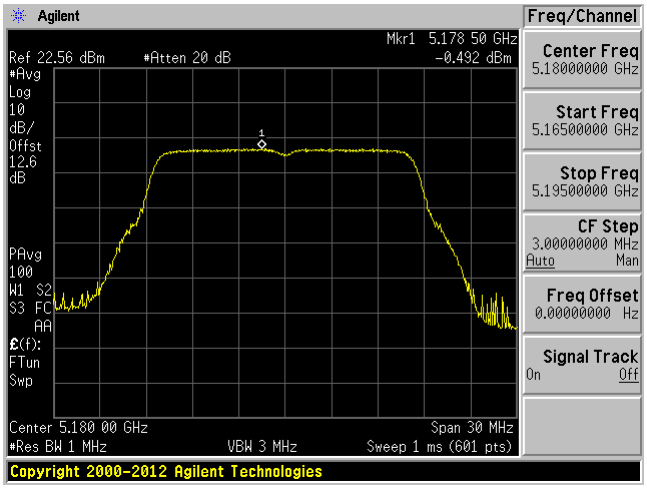
Correct PSD (dBm/500 kHz) = PSD (dBm/100 kHz) + Duty Cycle Correction (dB) + 10*log(500 kHz/100 kHz)

Please refer to the following plots.

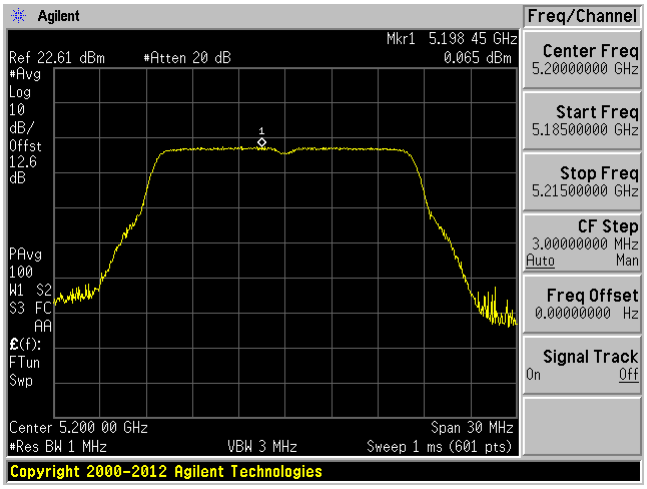
5150 – 5250 MHz

802.11a mode chain 1

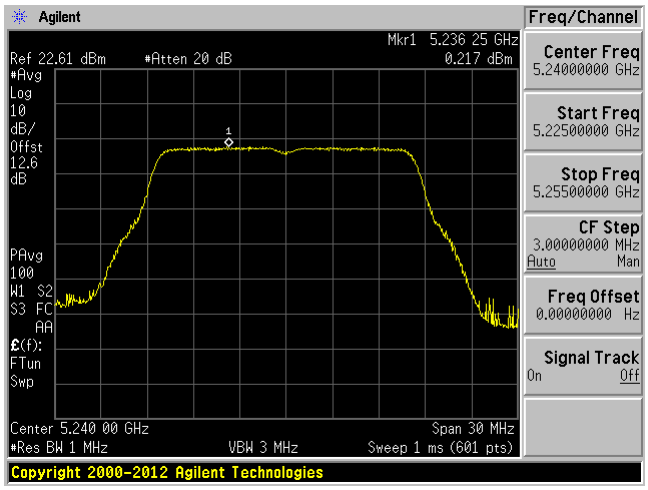
5180 MHz



5200 MHz

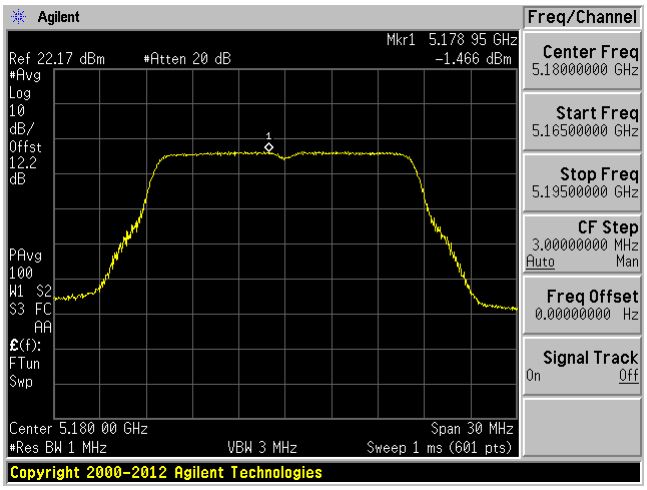


5240 MHz

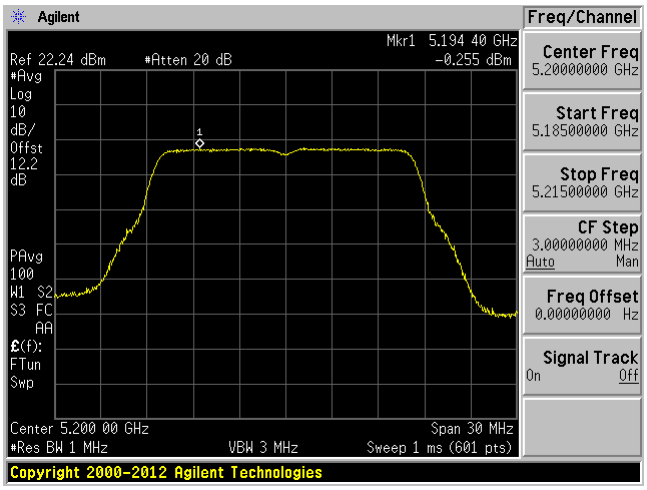


802.11a mode chain 2

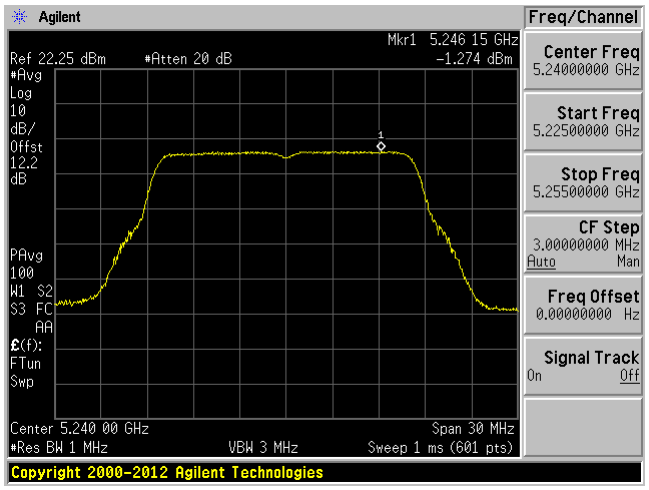
5180 MHz



5200 MHz

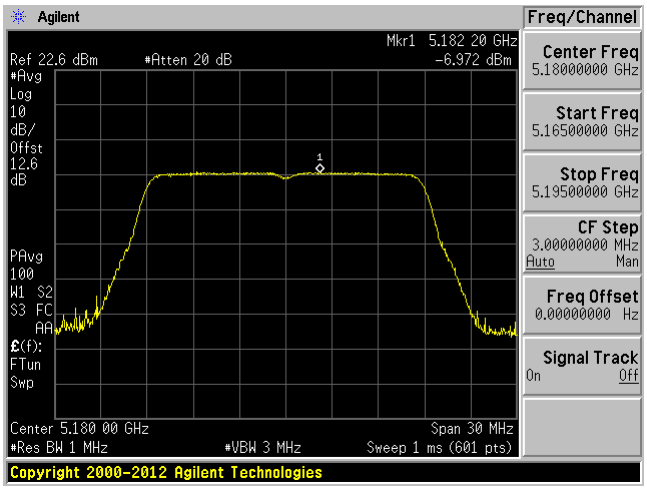


5240 MHz

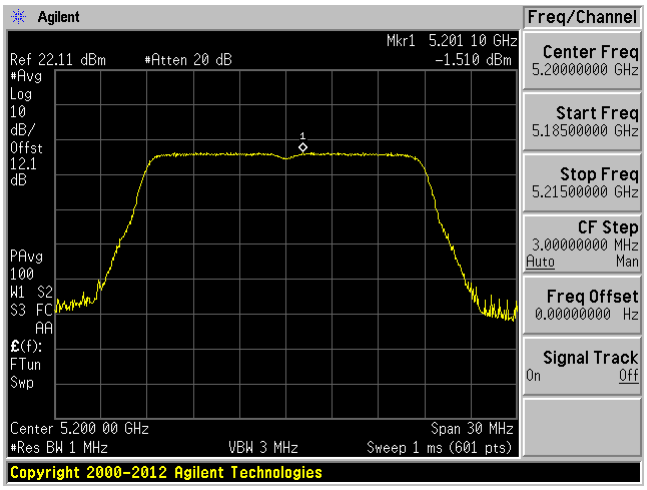


802.11n20 mode chain 1

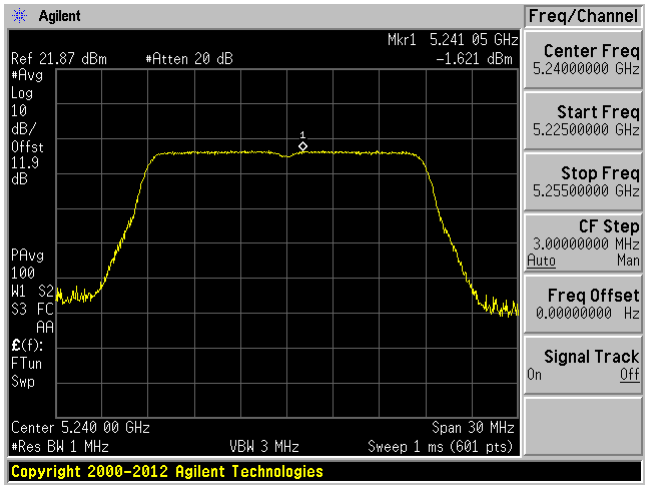
5180 MHz



5200 MHz

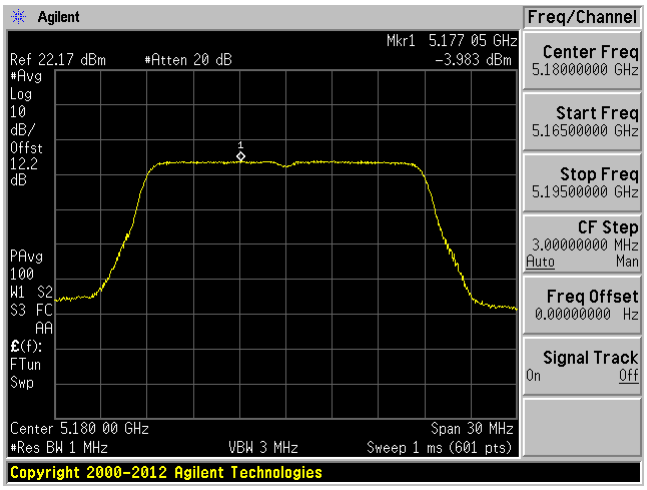


5240 MHz

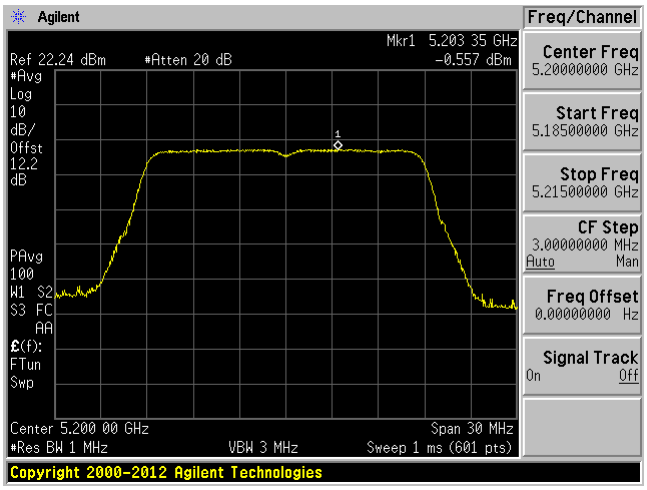


802.11n20 mode chain 2

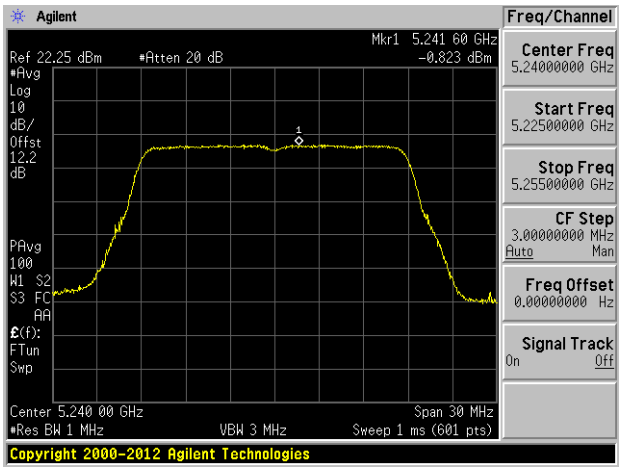
5180 MHz



5200 MHz

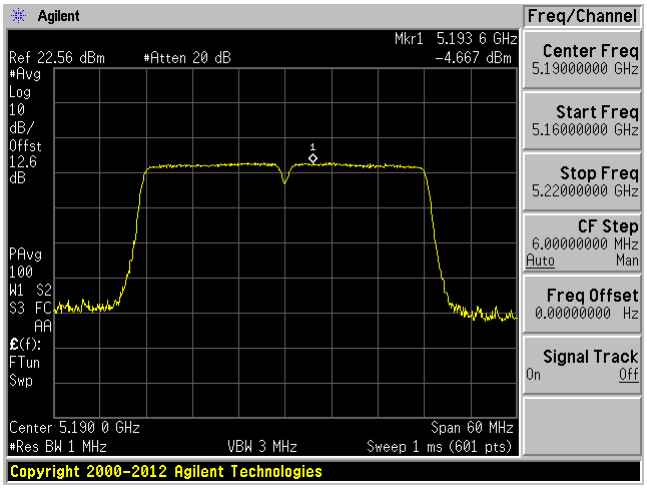


5240 MHz

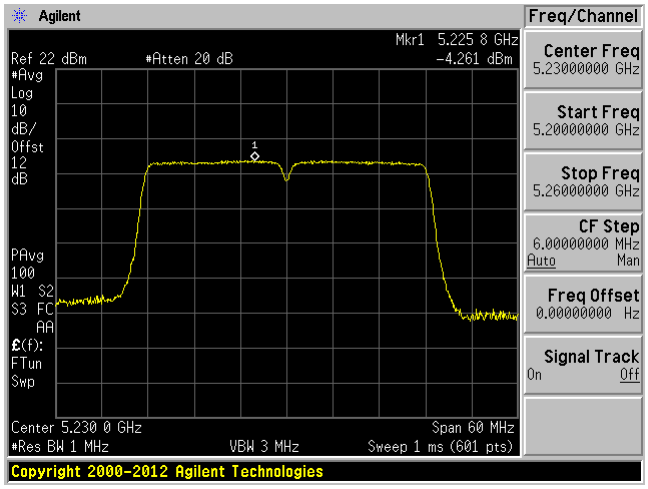


802.11n40 mode chain 1

5190 MHz

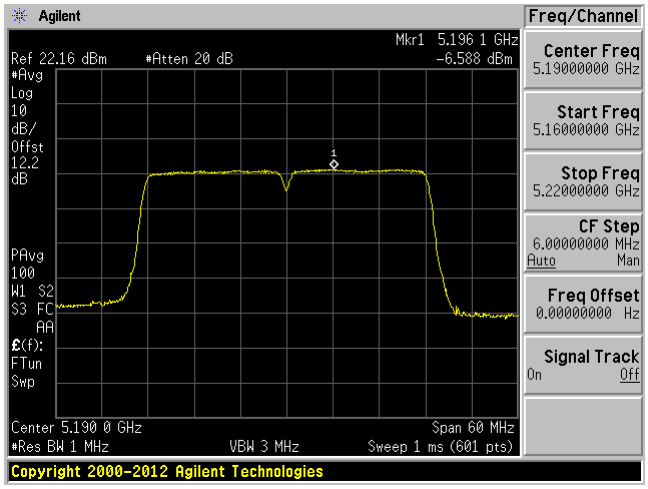


5230 MHz

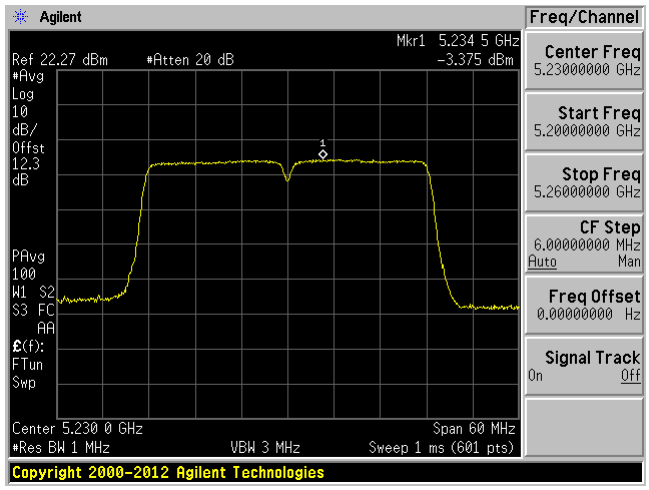


802.11n40 mode chain 2

5190 MHz

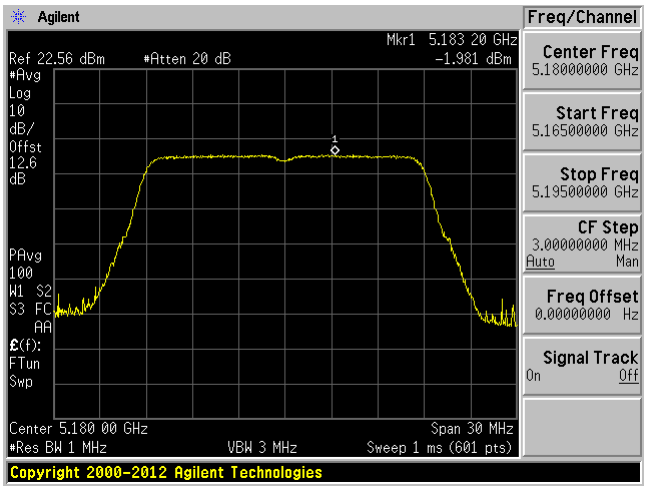


5230 MHz

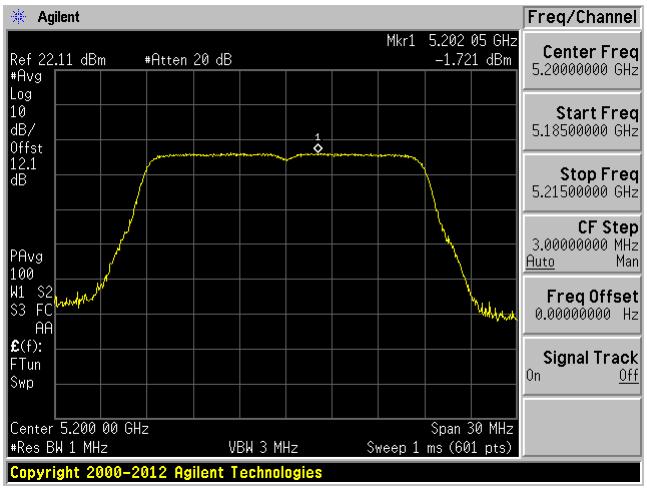


802.11ac20 mode chain 1

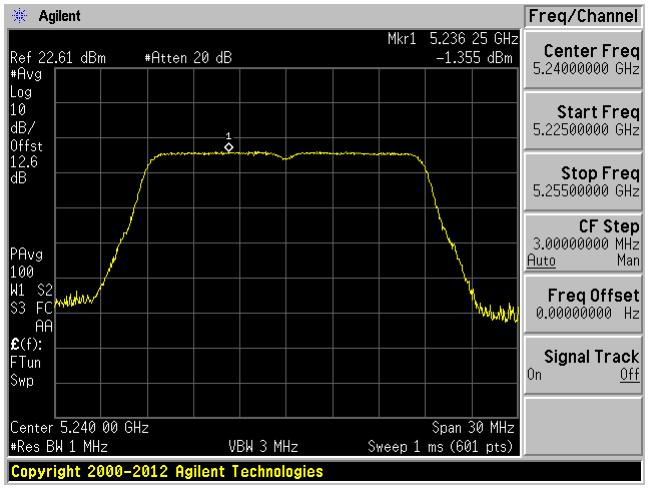
5180 MHz



5200 MHz

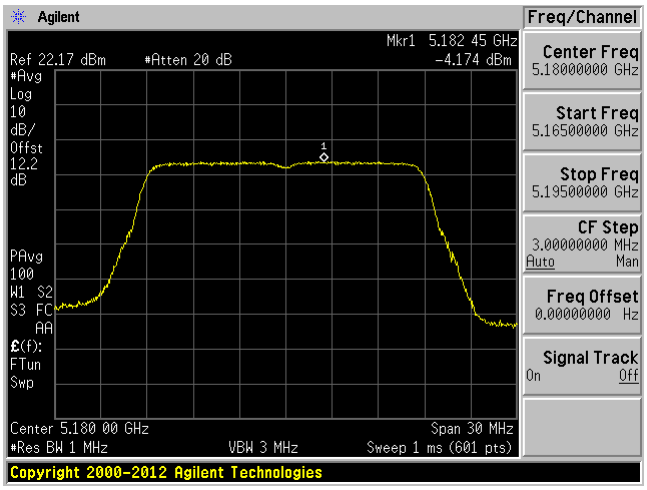


5240 MHz

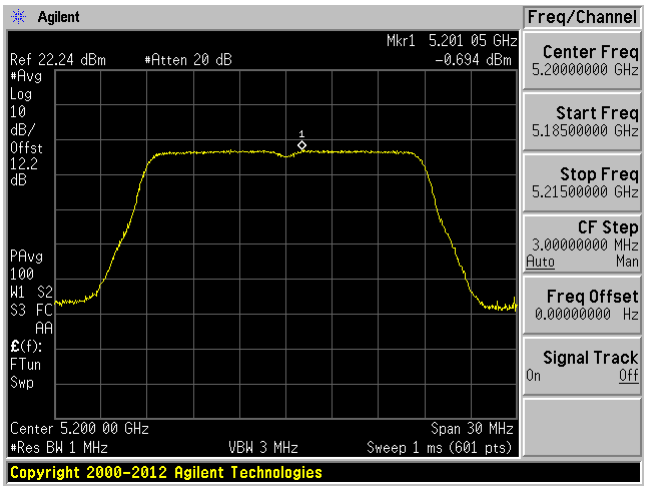


802.11ac20 mode chain 2

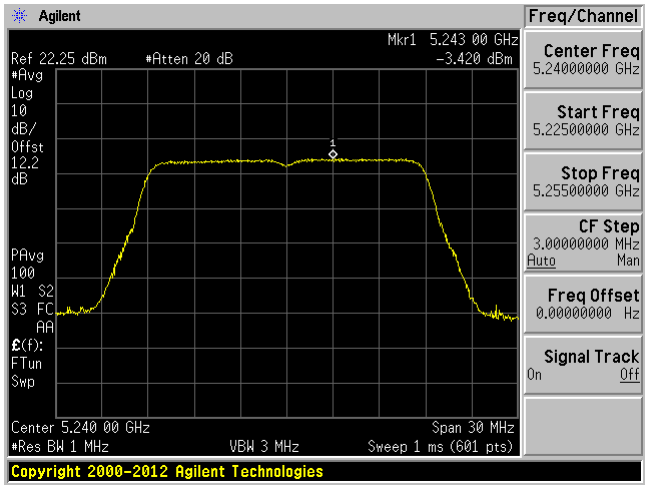
5180 MHz



5200 MHz

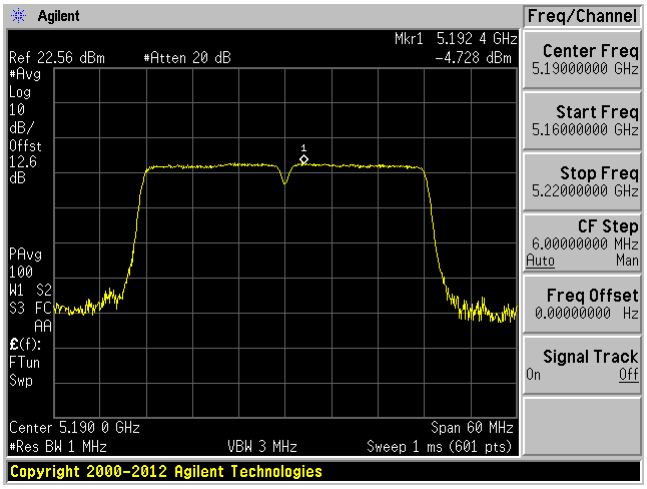


5240 MHz

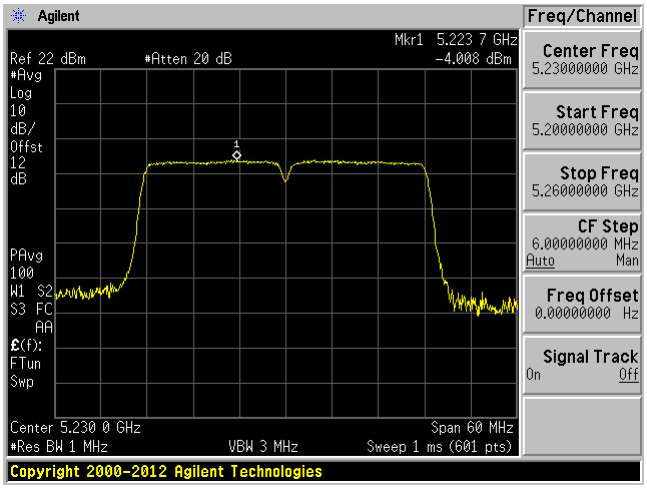


802.11ac40 mode chain 1

5190 MHz

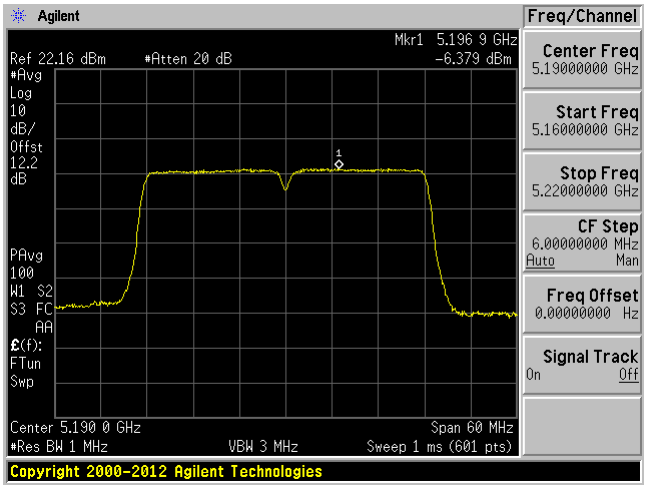


5230 MHz

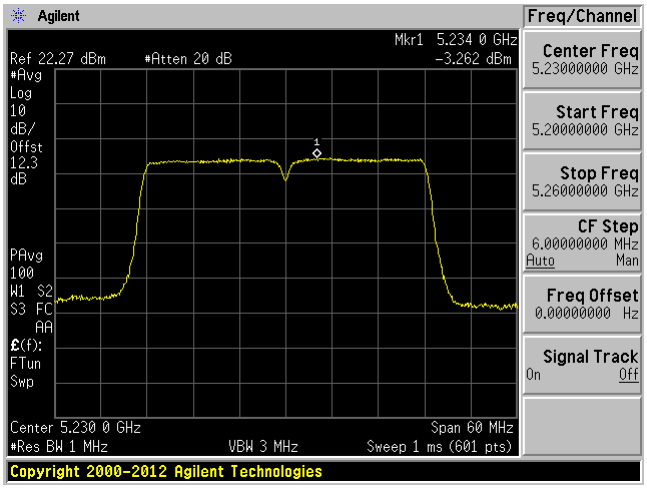


802.11n40 mode chain 2

5190 MHz

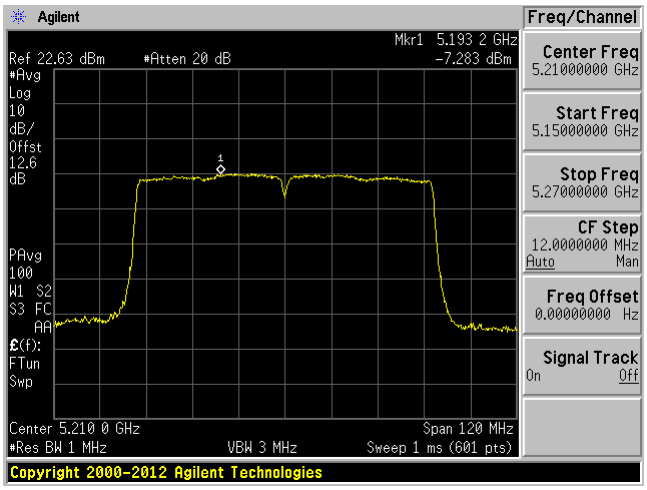


5230 MHz

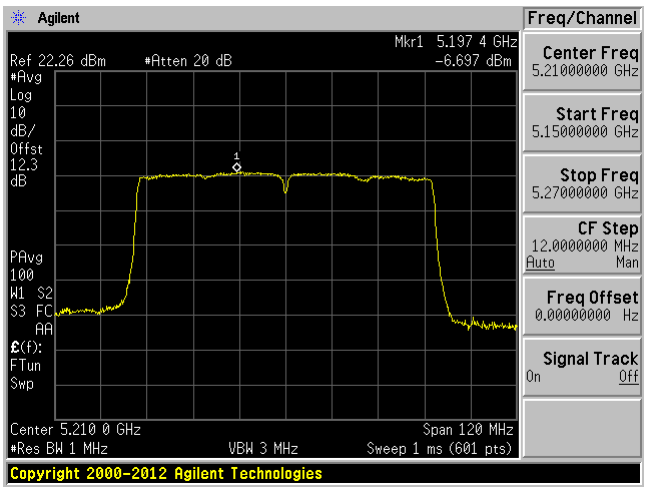


802.11ac80 mode

5210 MHz chain 1



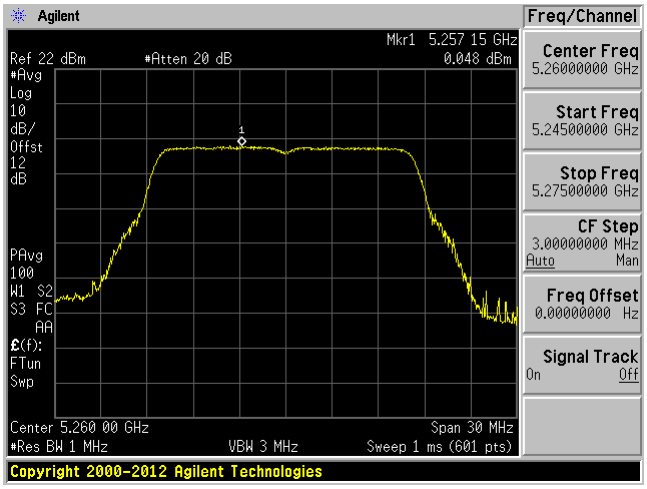
5210 MHz chain 2



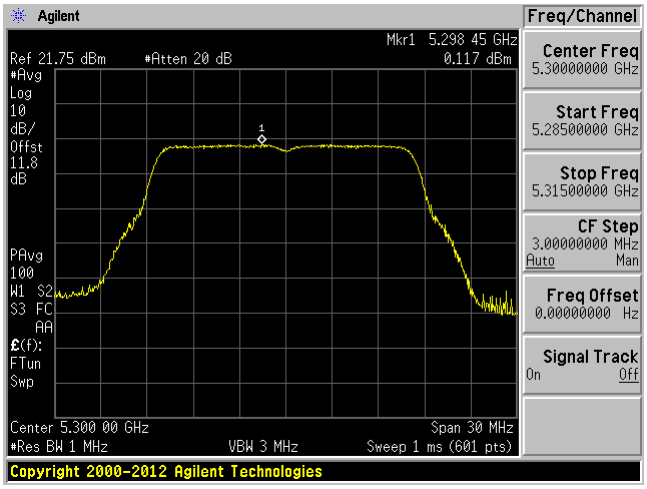
5250 – 5350 MHz

802.11a mode chain 1

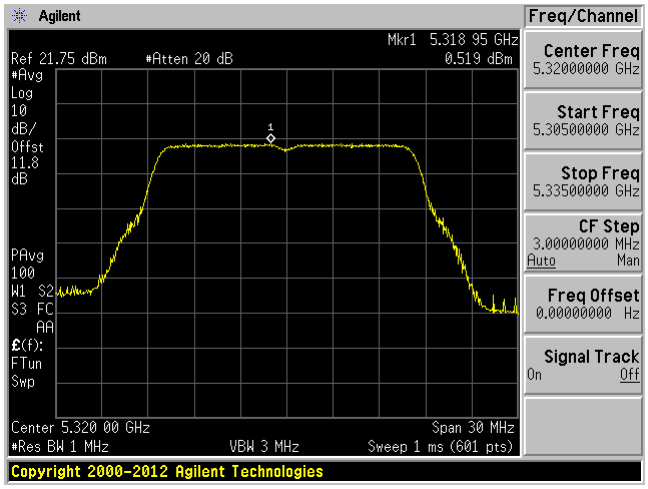
5260 MHz



5300 MHz

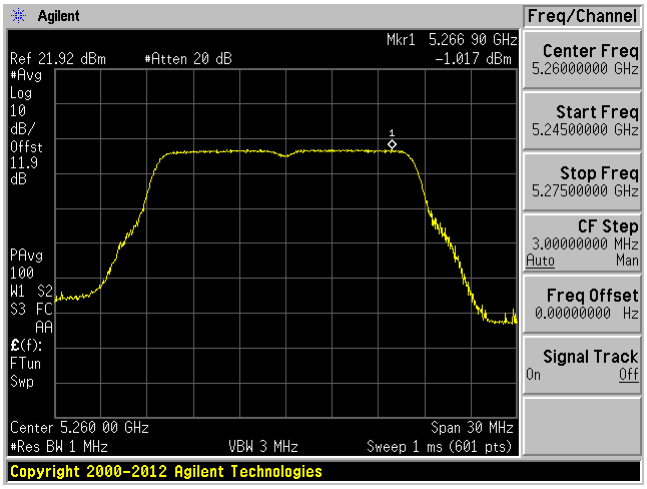


5320 MHz

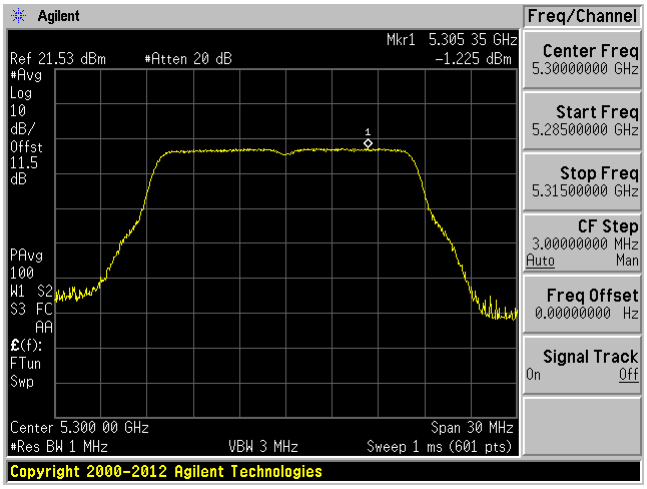


802.11a mode chain 2

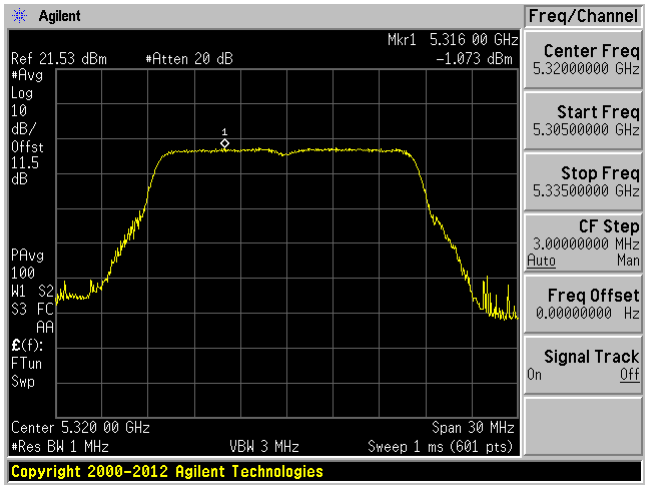
5260 MHz



5300 MHz

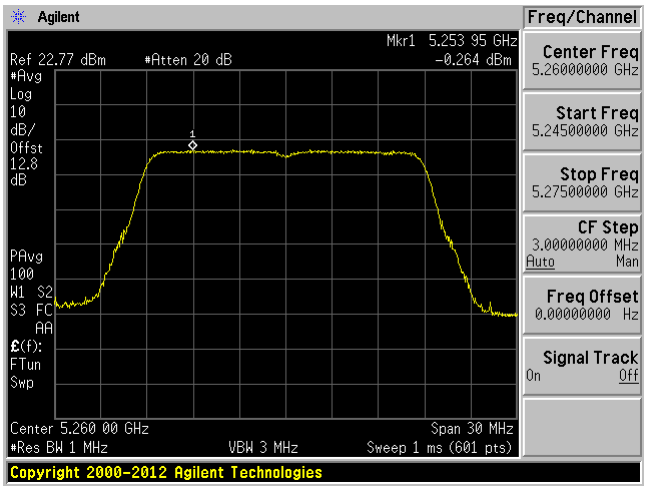


5320 MHz

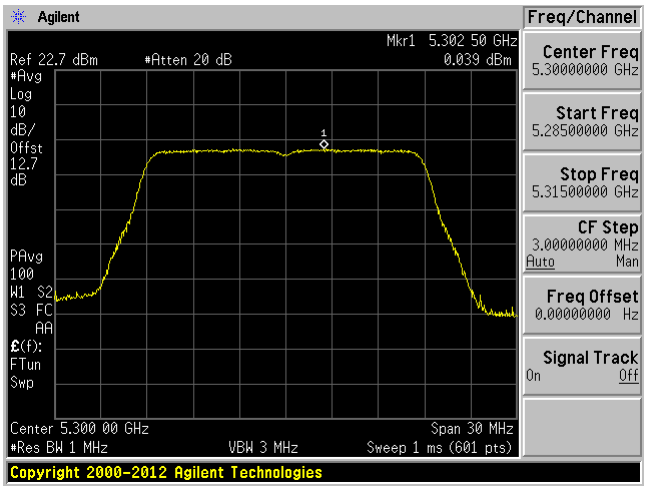


802.11n20 mode chain 1

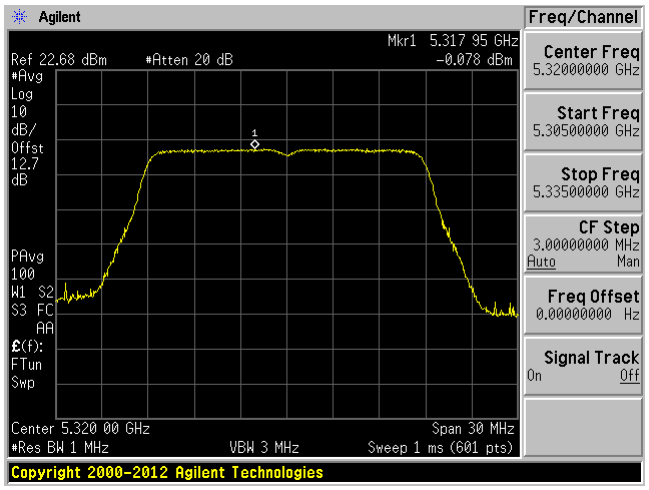
5260 MHz



5300 MHz

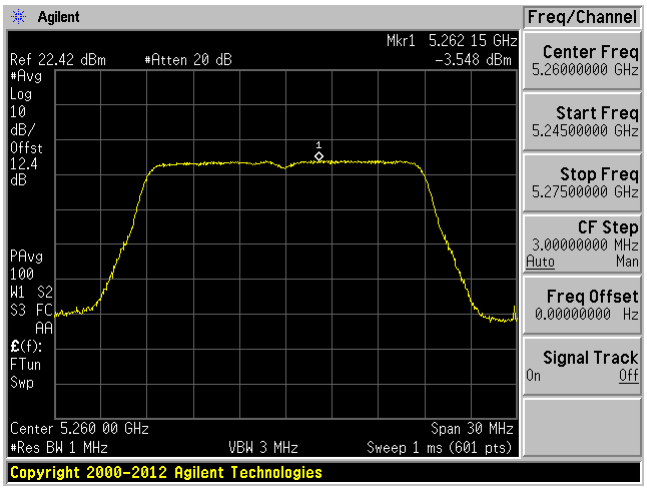


5320 MHz

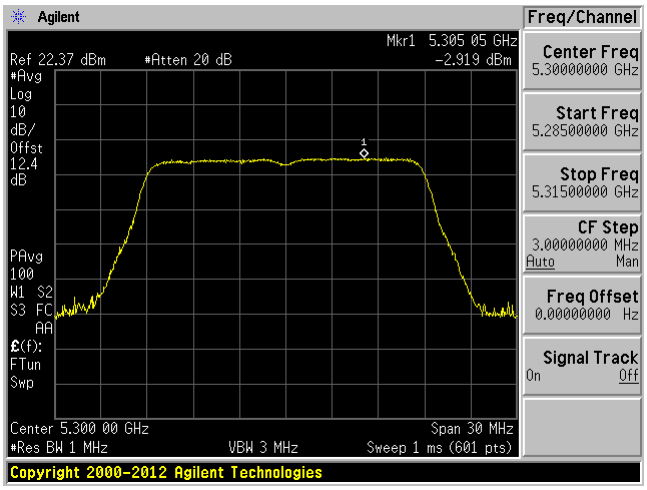


802.11n20 mode chain 2

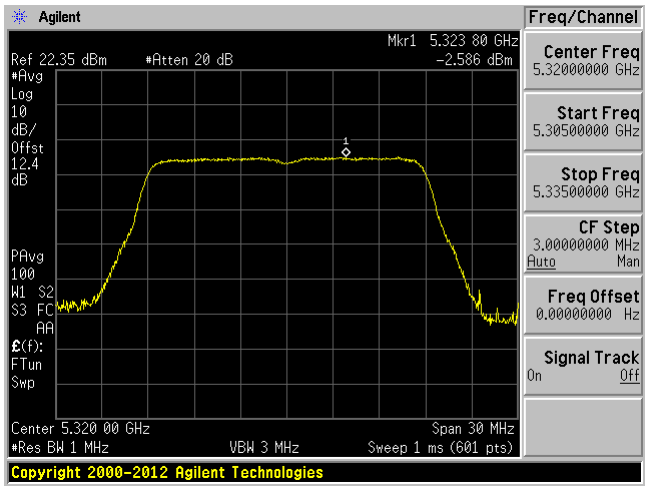
5260 MHz



5300 MHz

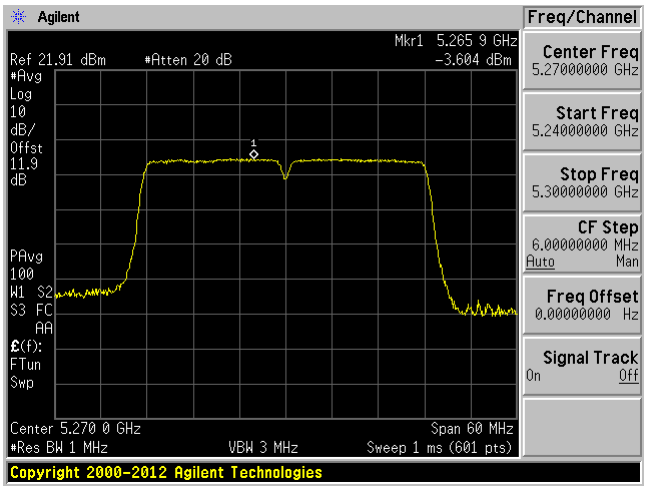


5320 MHz

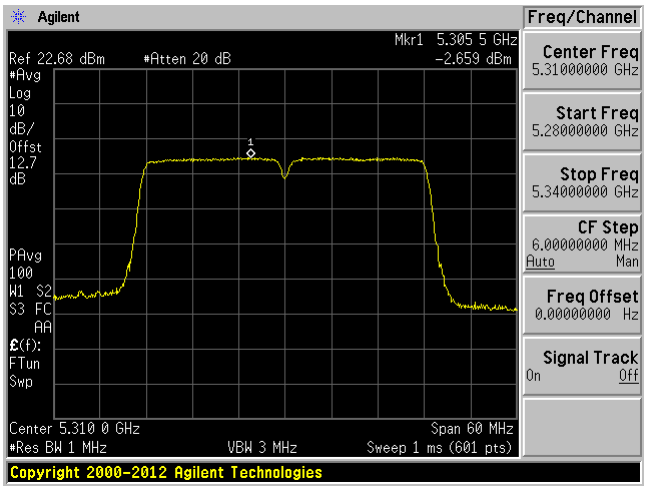


802.11n40 mode chain 1

5270 MHz

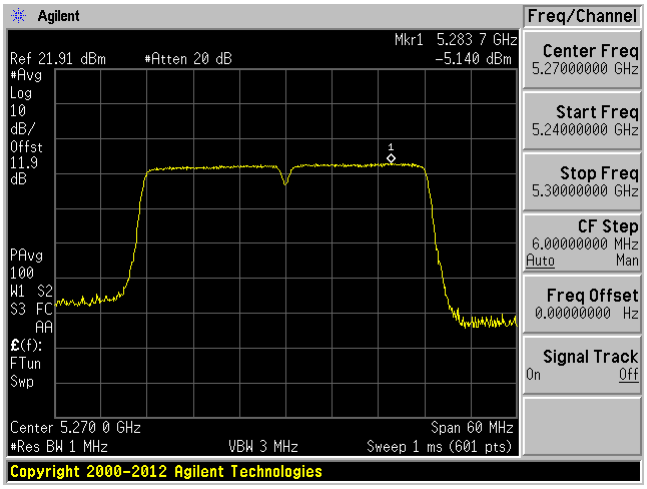


5310 MHz

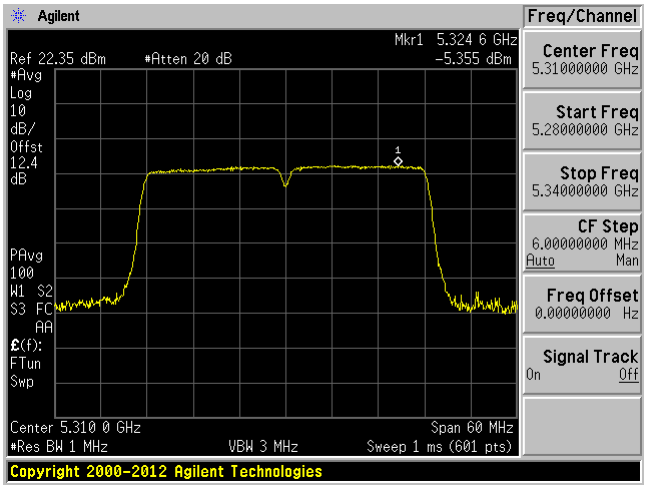


802.11n40 mode chain 2

5270 MHz

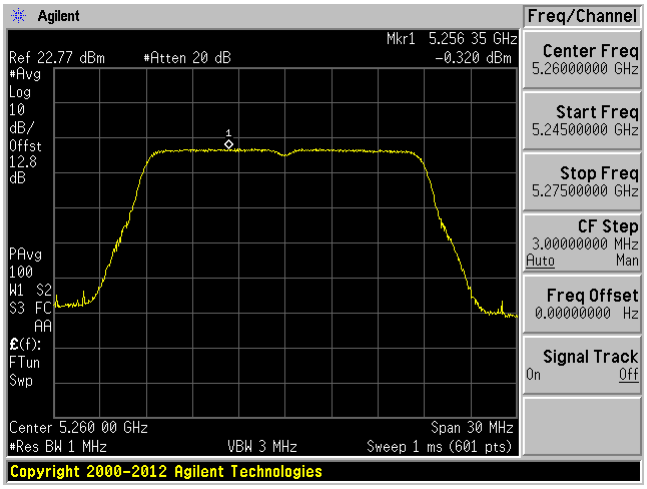


5310 MHz

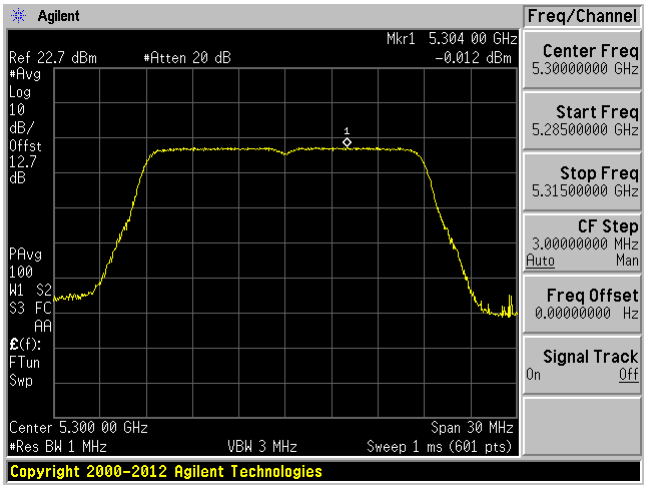


802.11ac20 mode chain 1

5260 MHz



5300 MHz



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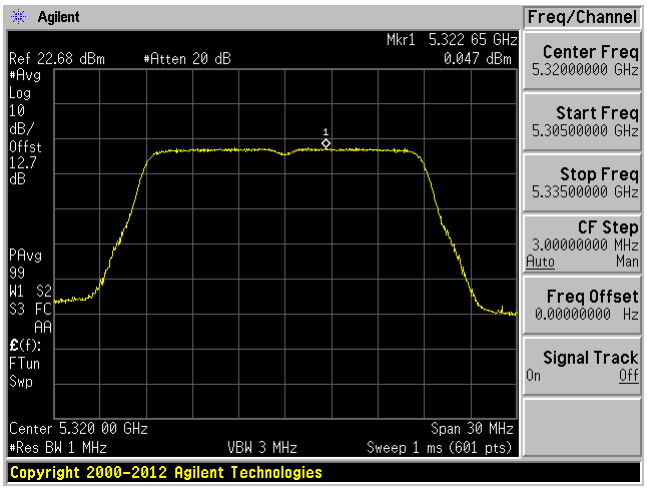
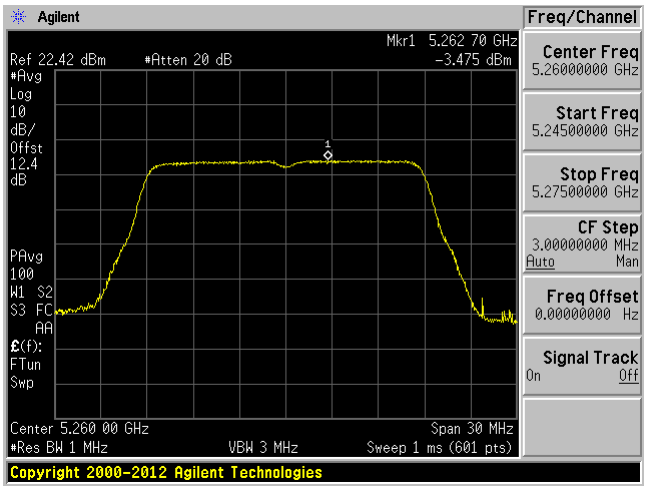


802.11ac20 mode chain 2

5260 MHz



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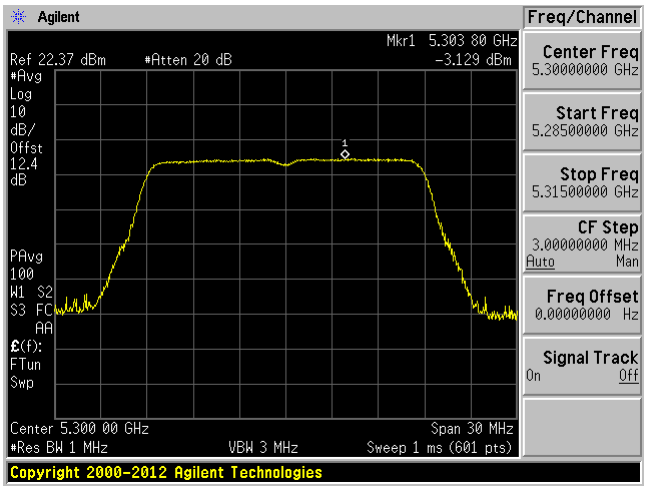

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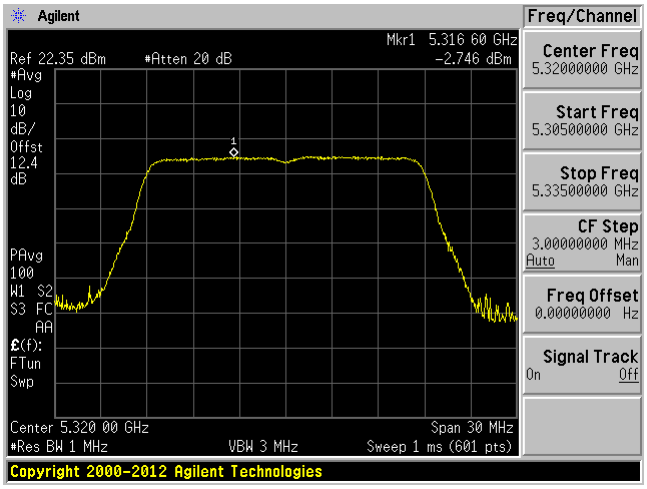
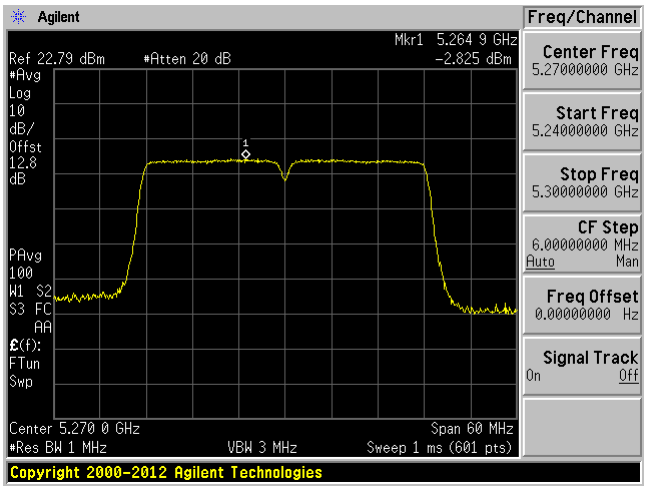


802.11ac40 mode chain 1

5270 MHz



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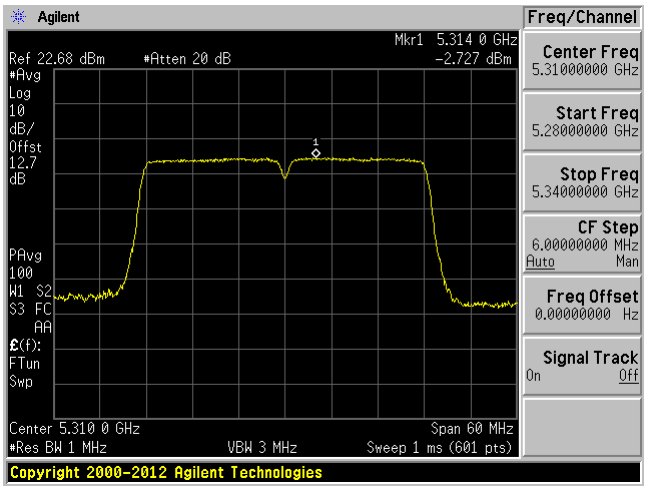
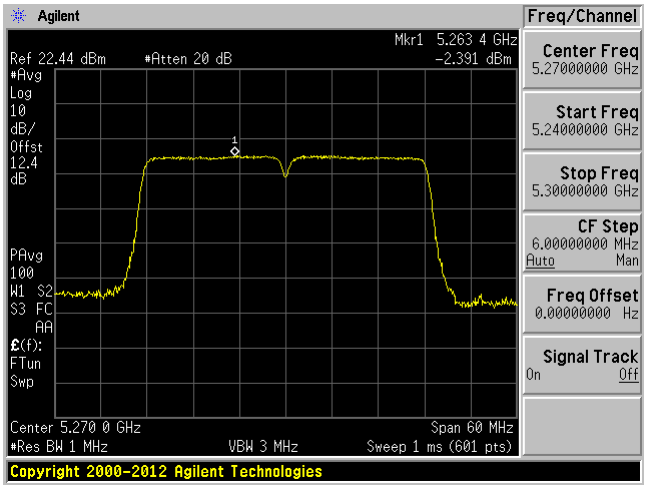


802.11n40 mode chain 2

5270 MHz



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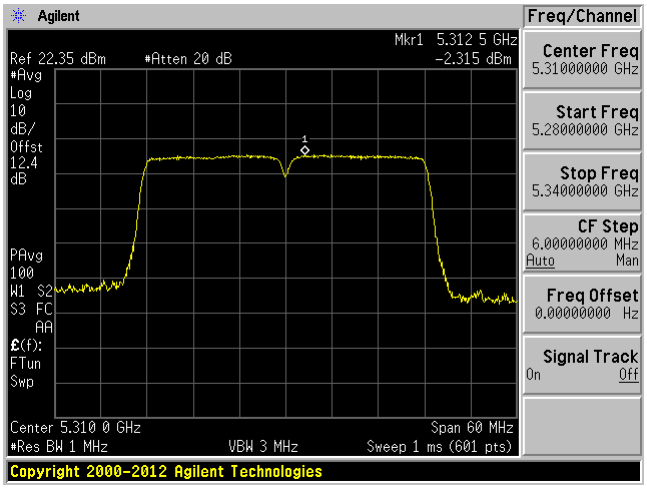
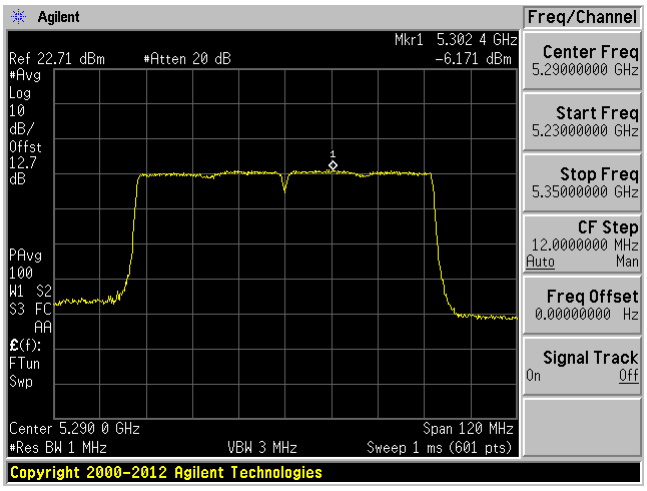
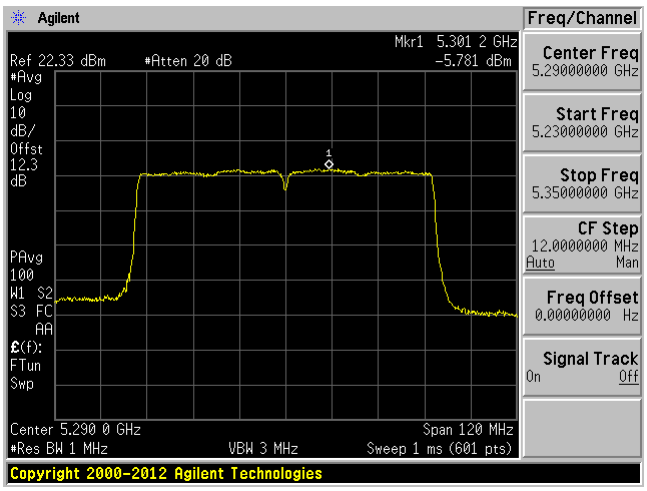


802.11ac80 mode

5290 MHz chain 1



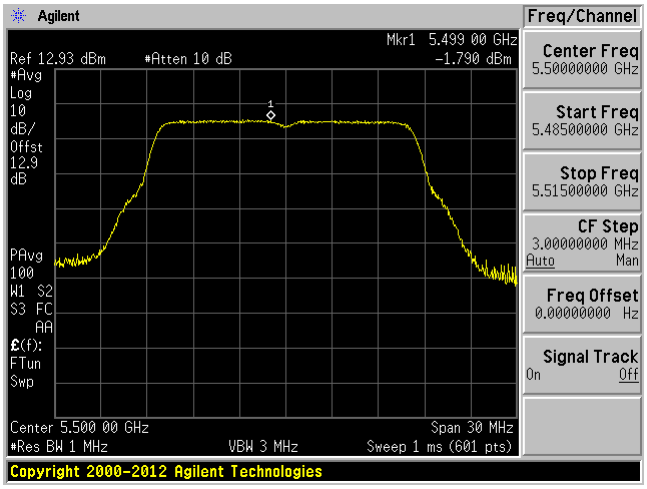
5290 MHz chain 2



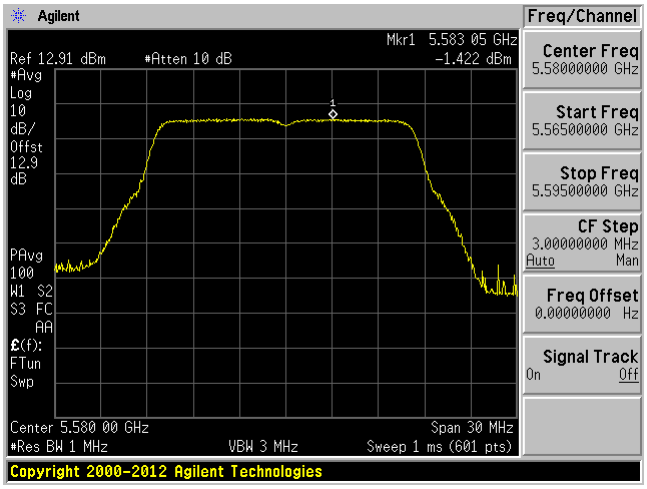
5470 – 5725 MHz

802.11a mode chain 1

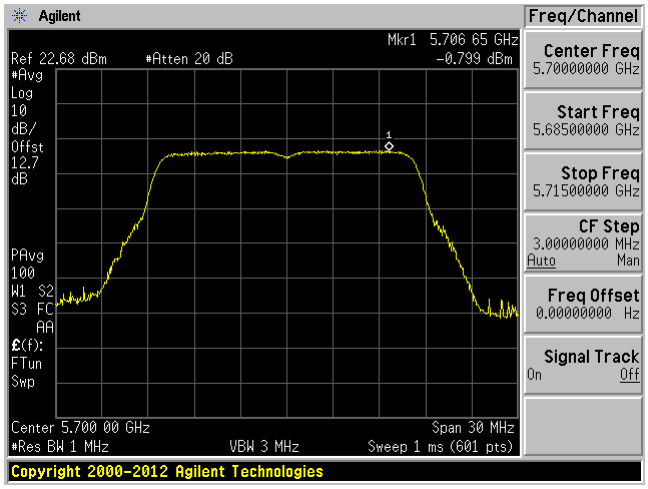
5500 MHz



5580 MHz

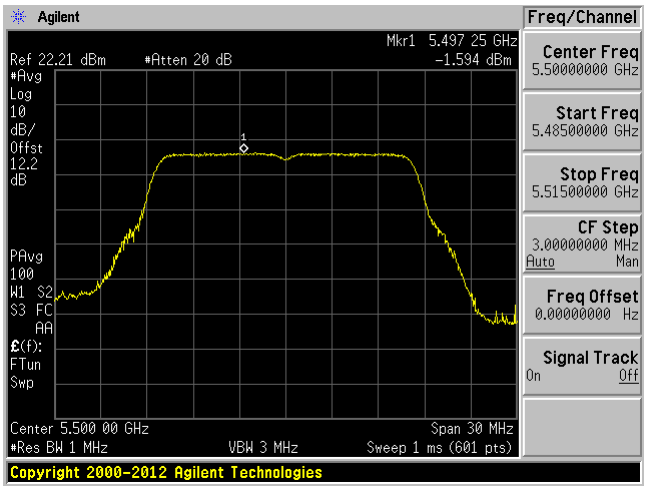


5700 MHz

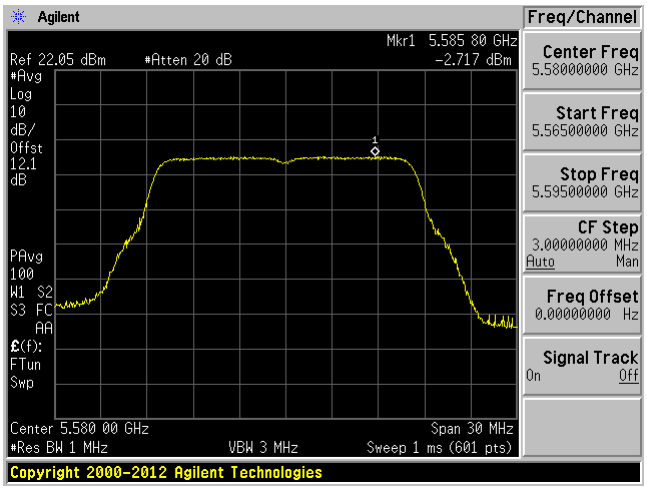


802.11a mode chain 2

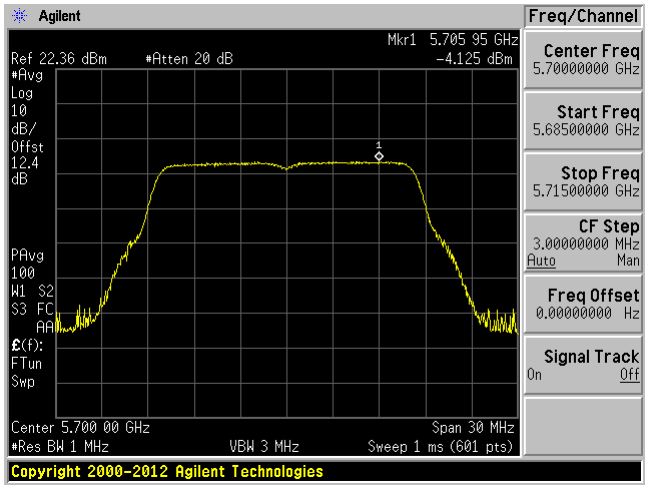
5500 MHz



5580 MHz

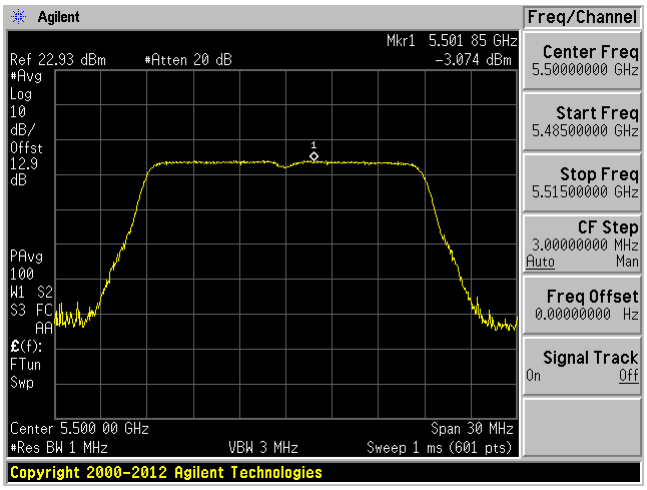


5700 MHz



802.11n20 mode chain 1

5500 MHz



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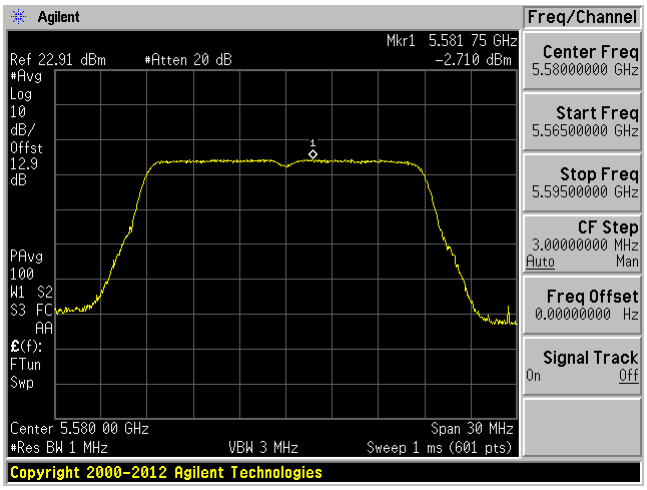
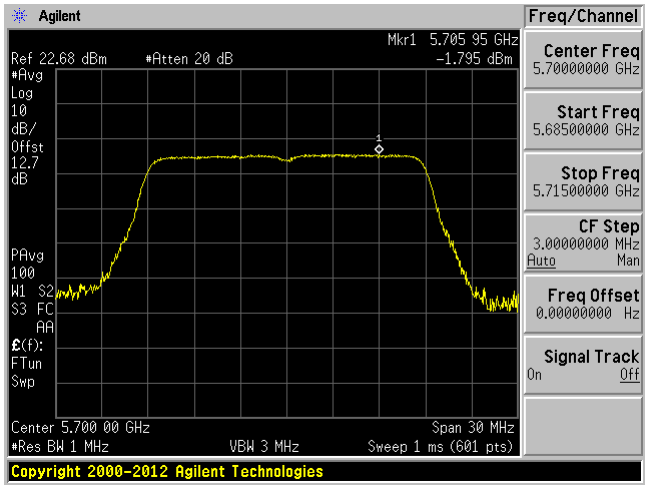


5700 MHz



802.11n20 mode chain 2

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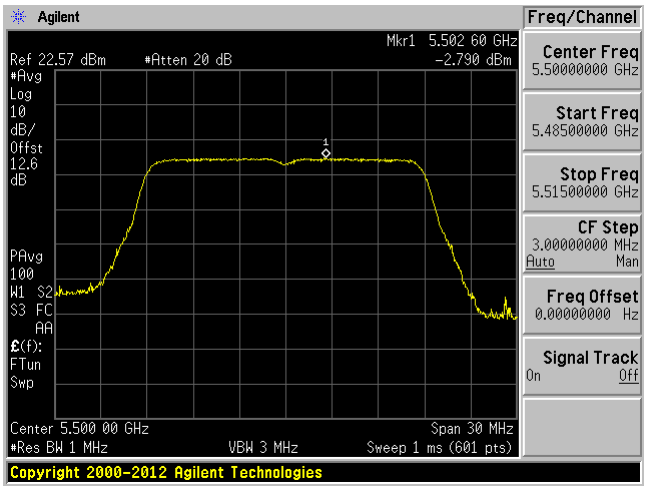
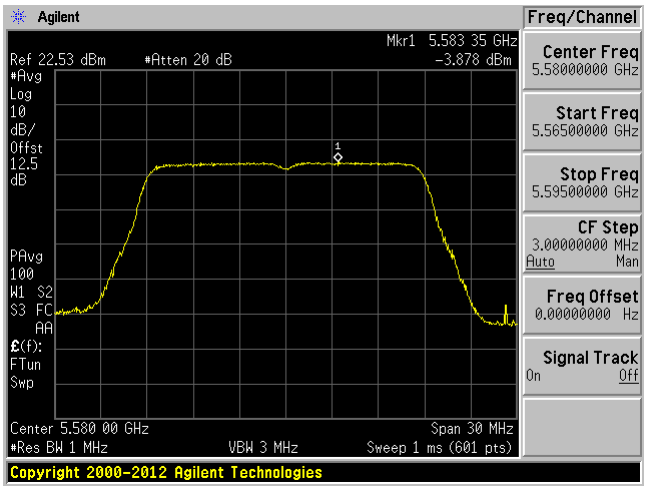


5580 MHz



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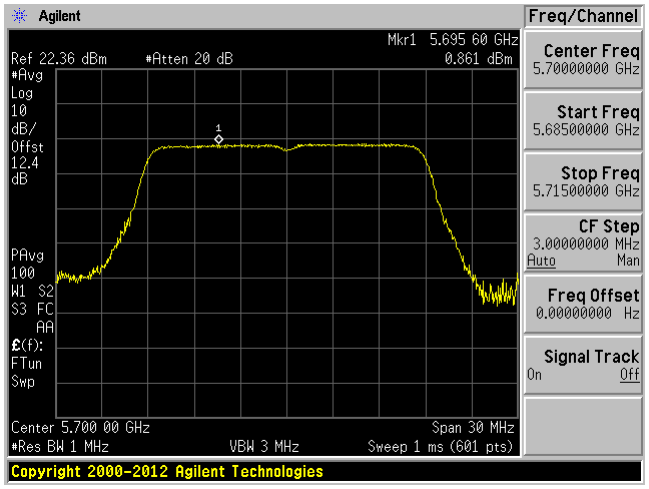
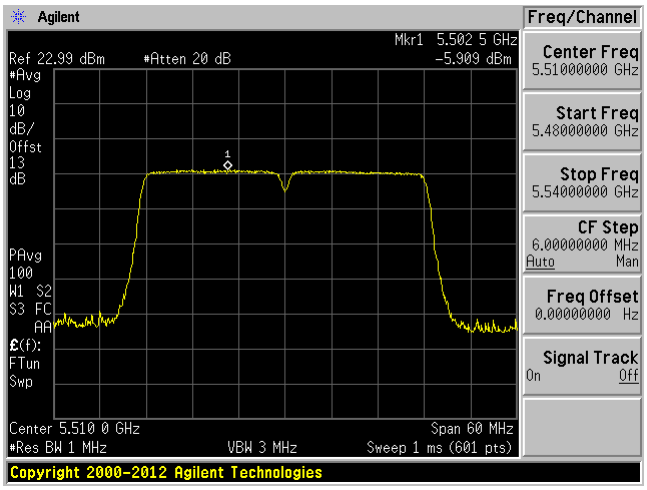
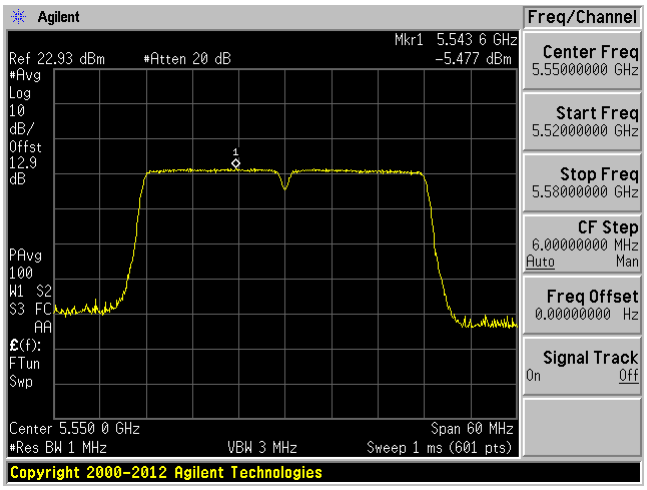


802.11n40 mode chain 1

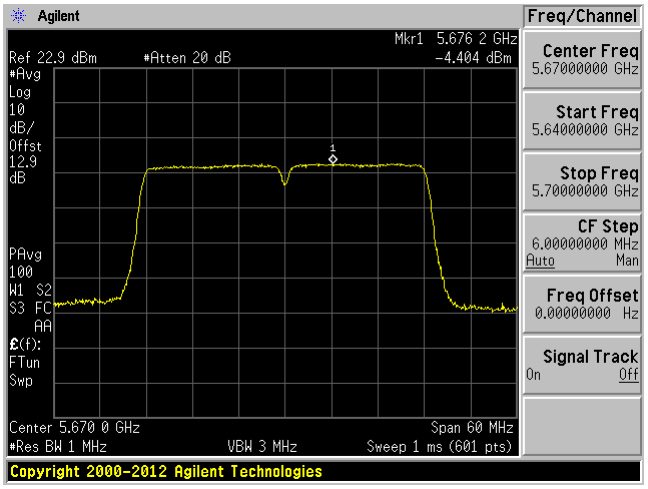
5510 MHz



5550 MHz

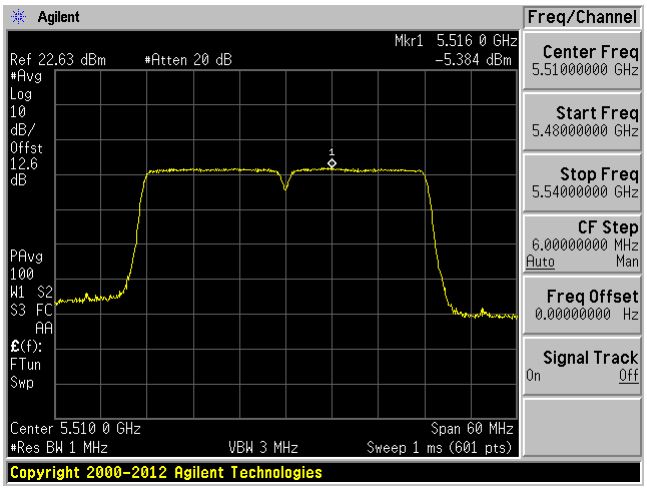


5670 MHz



802.11n40 mode chain 2

5510 MHz



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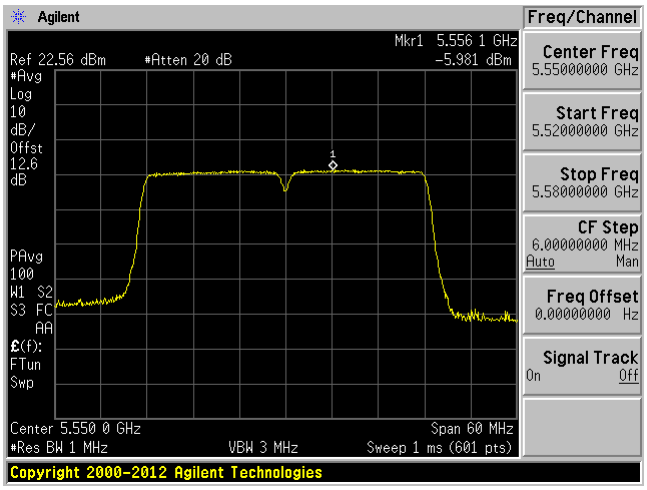

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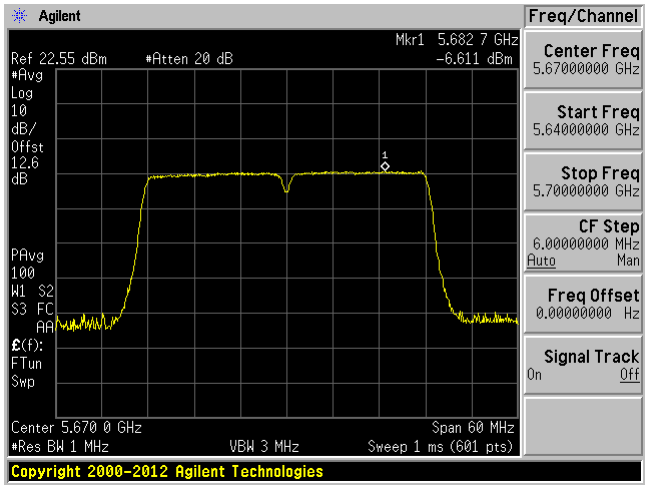
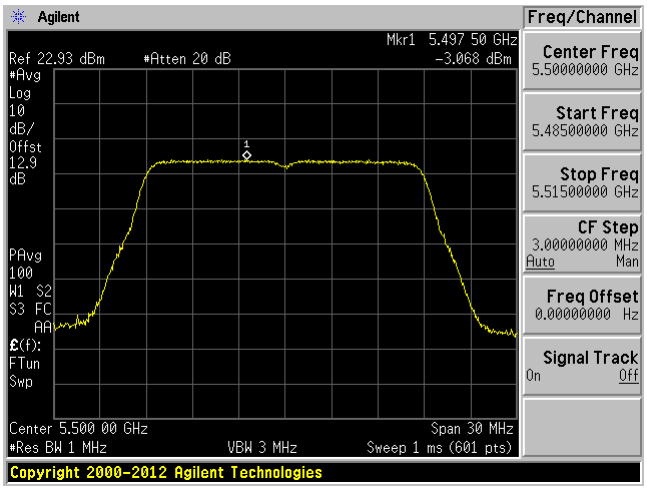
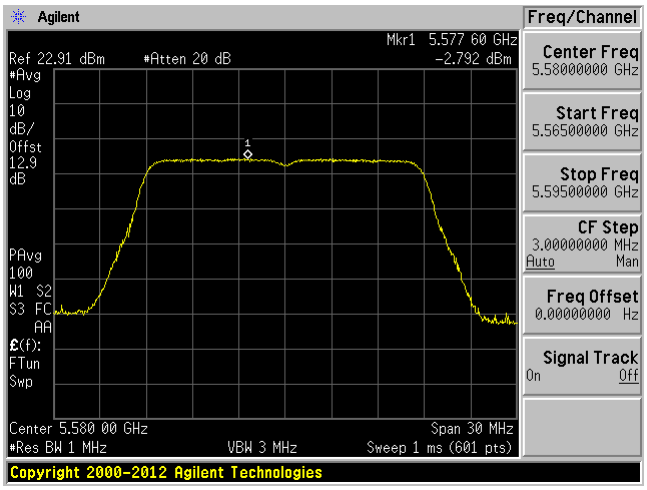


802.11ac20 mode chain 1

5500 MHz



5580 MHz



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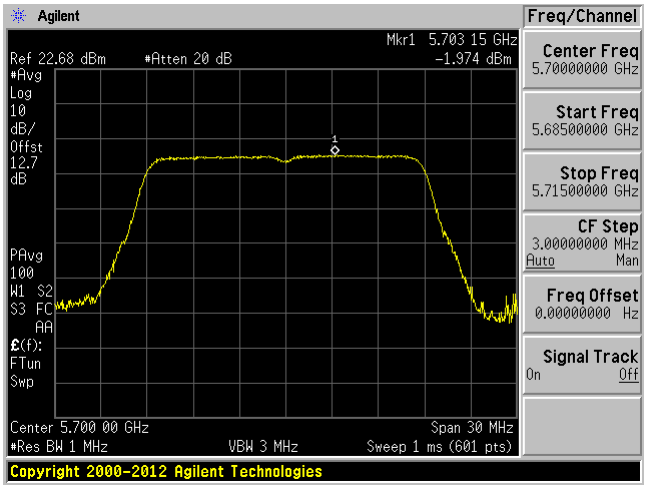
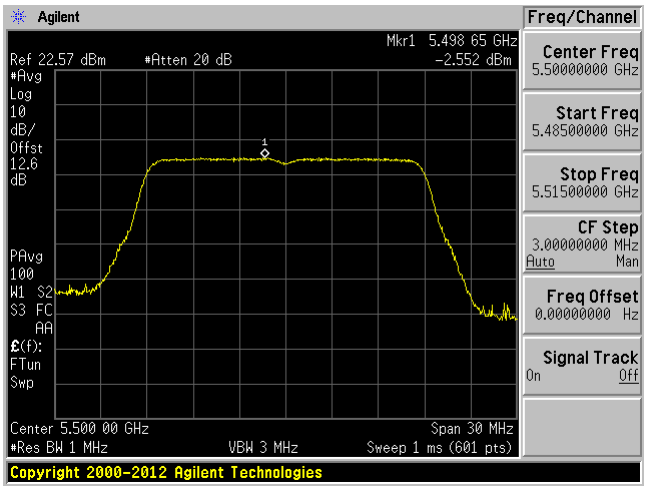
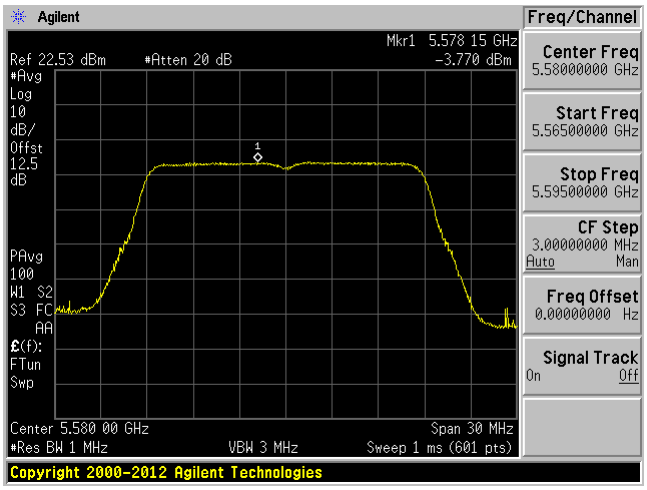


802.11ac20 mode chain 2

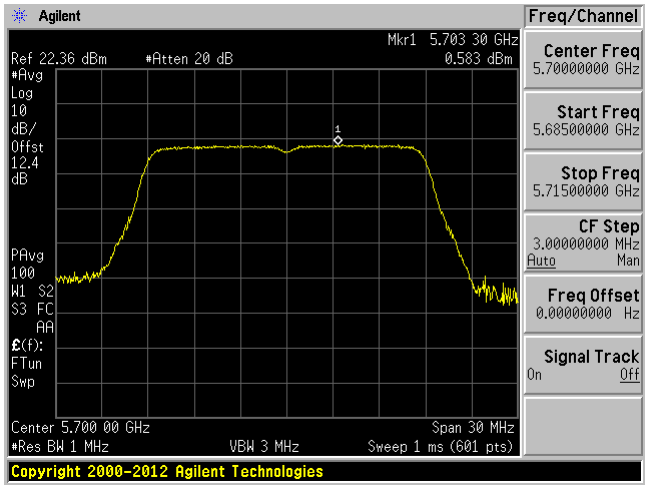
5500 MHz



5580 MHz

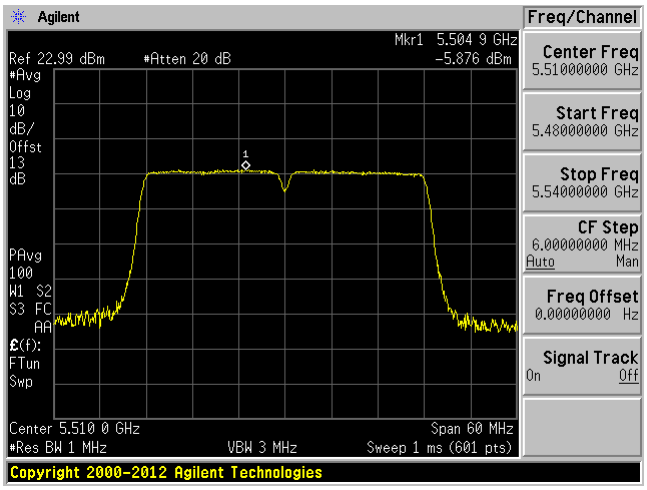


5700 MHz

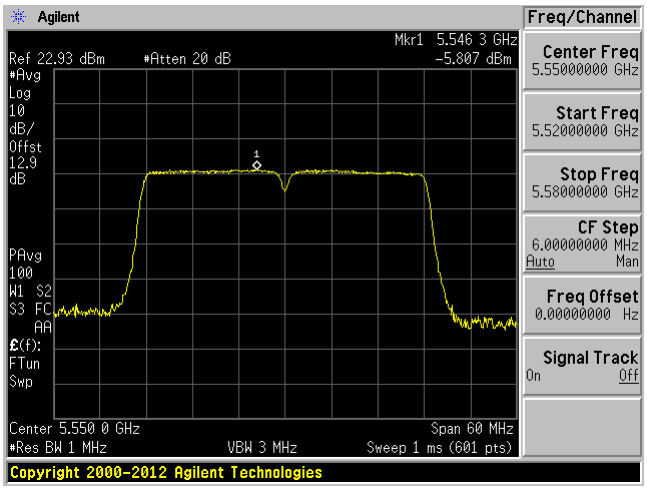


802.11ac40 mode chain 1

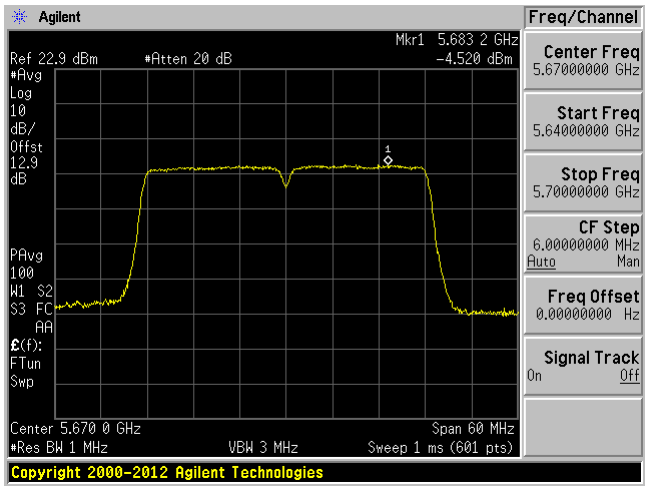
5510 MHz



5550 MHz



5670 MHz



802.11ac40 mode chain 2

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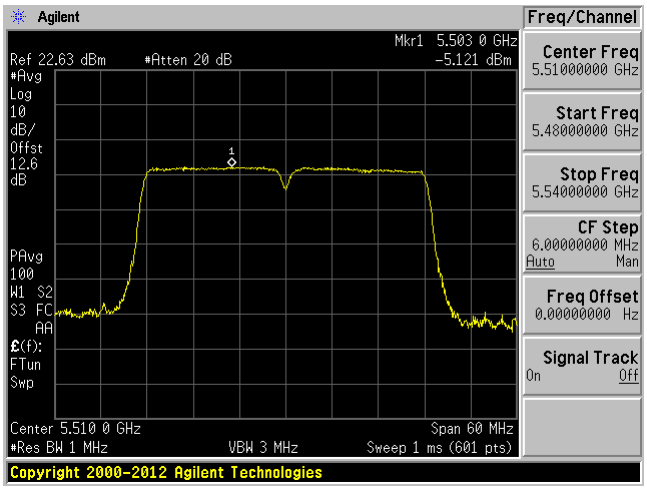

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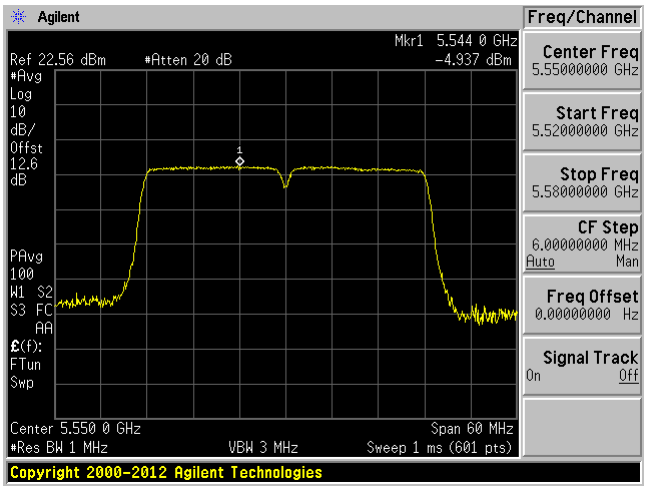

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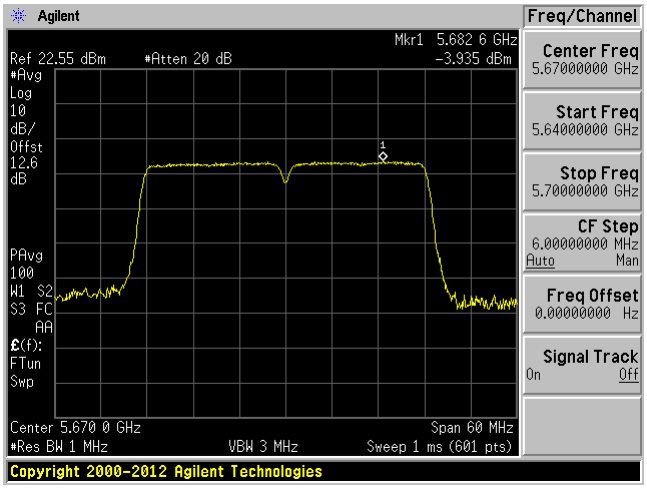
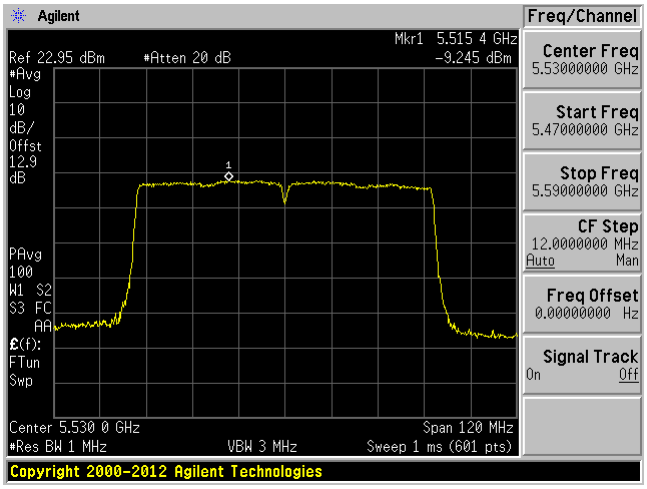
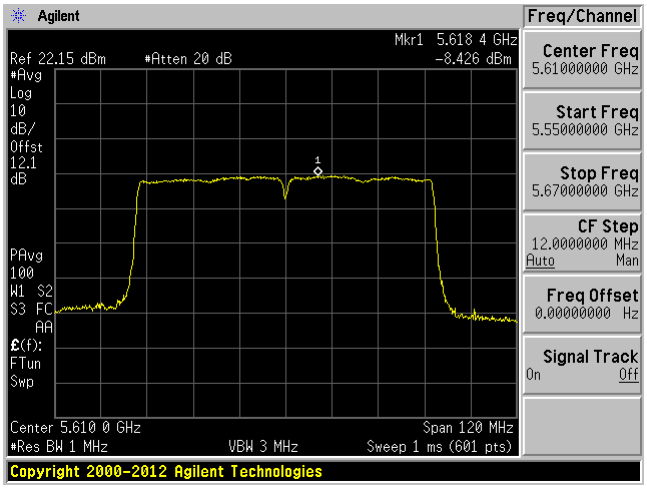


802.11ac80 mode chain 1

5530 MHz

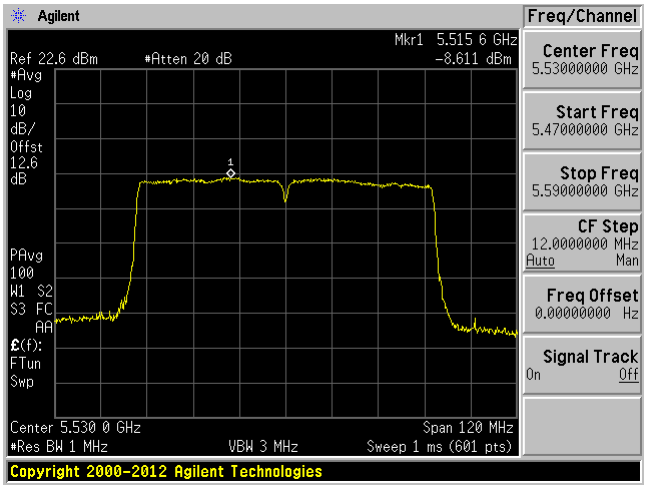


5610 MHz

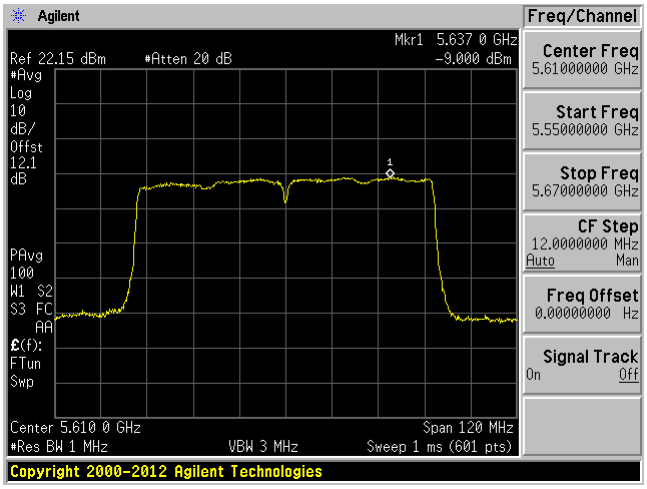


802.11ac80 mode chain 2

5530 MHz



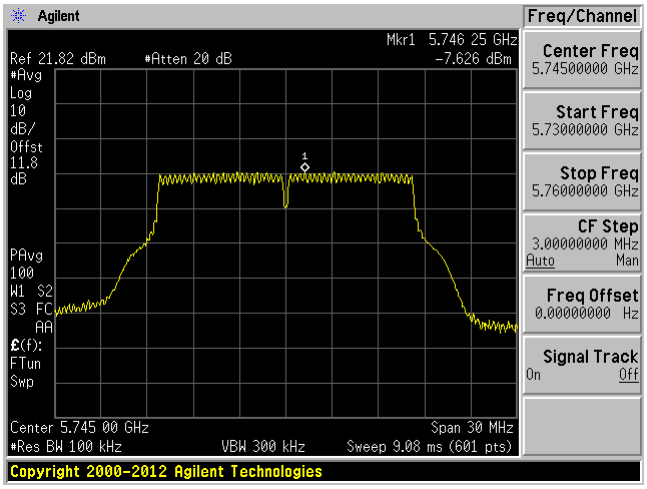
5610 MHz



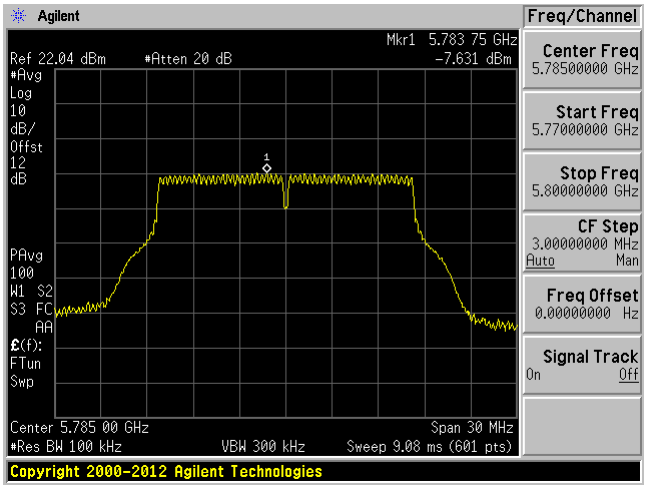
5725 – 5850 MHz

802.11a mode chain 1

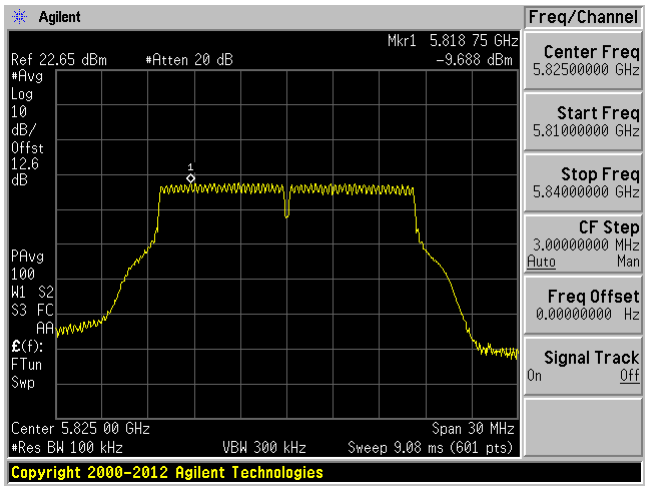
5745 MHz



5785 MHz

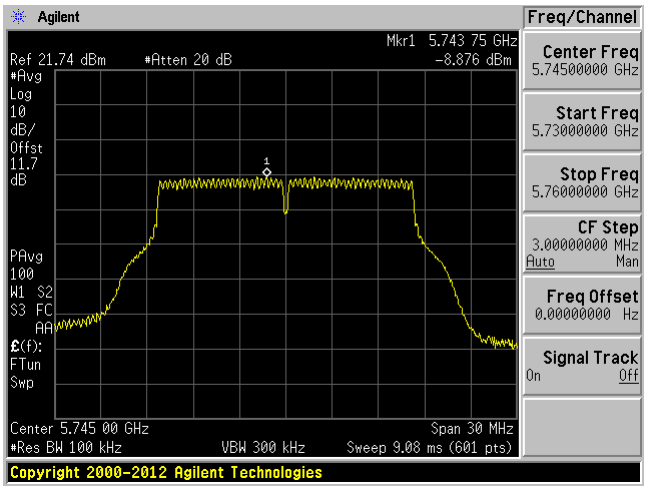


5825 MHz

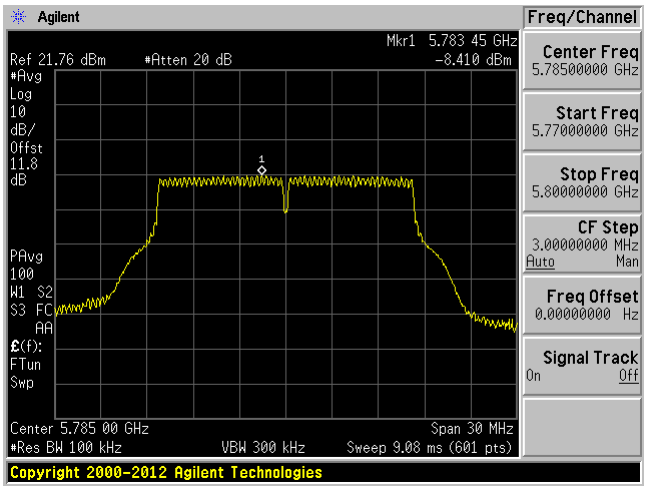


802.11a mode chain 2

57450 MHz



5785 MHz



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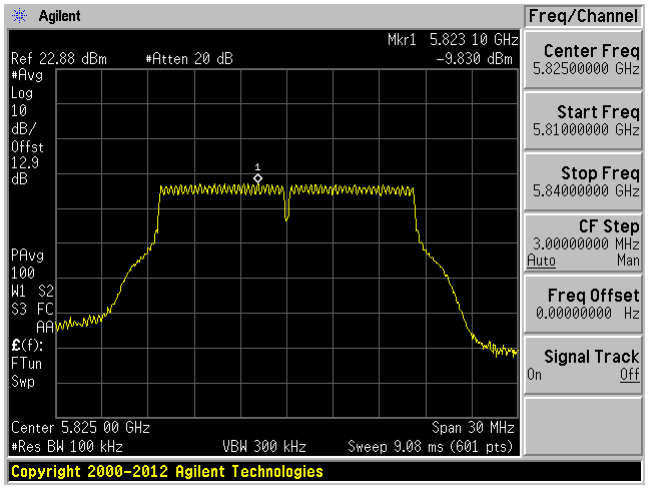
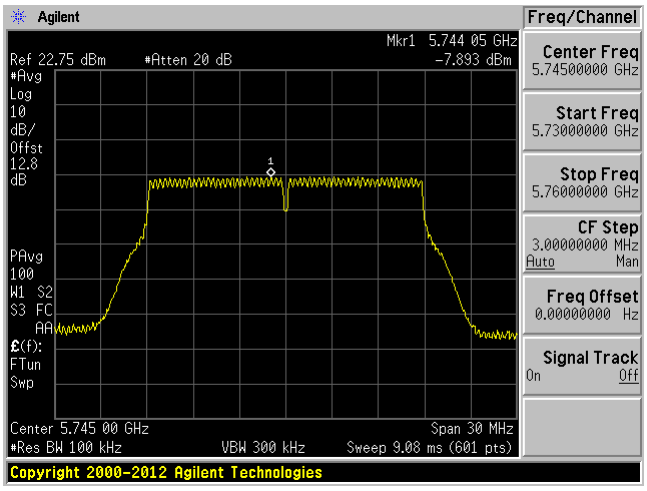
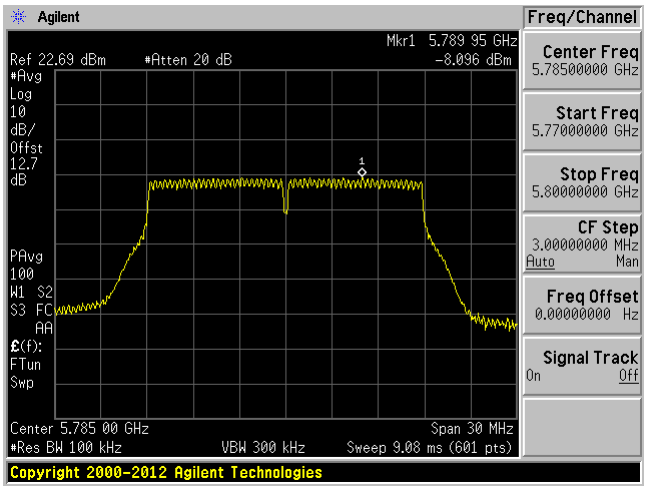


802.11n20 mode chain 1

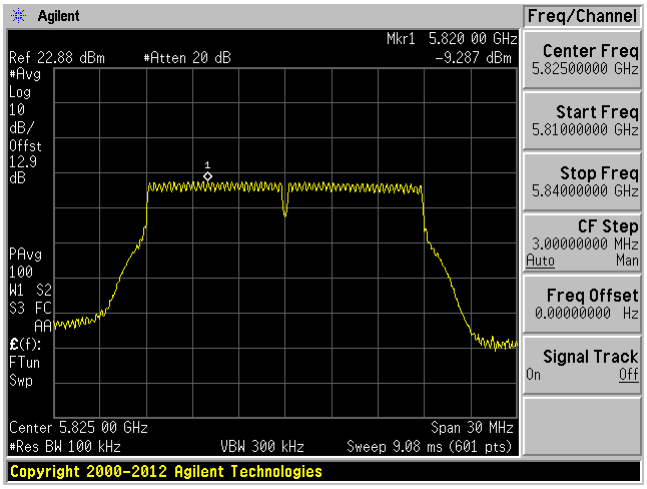
5745 MHz



5785 MHz

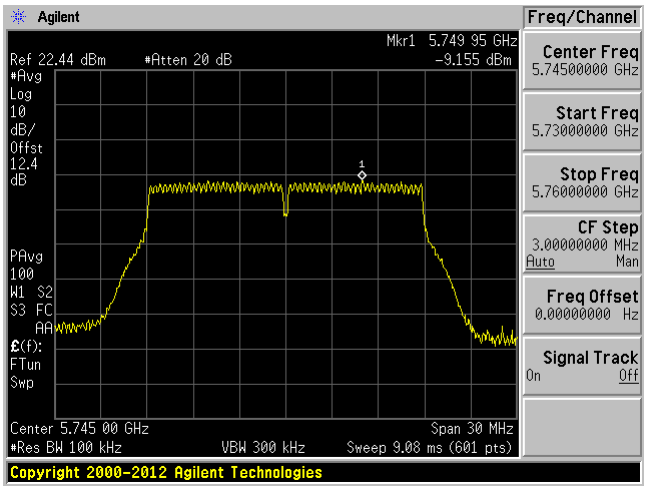


5825 MHz



802.11n20 mode chain 2

5745 MHz



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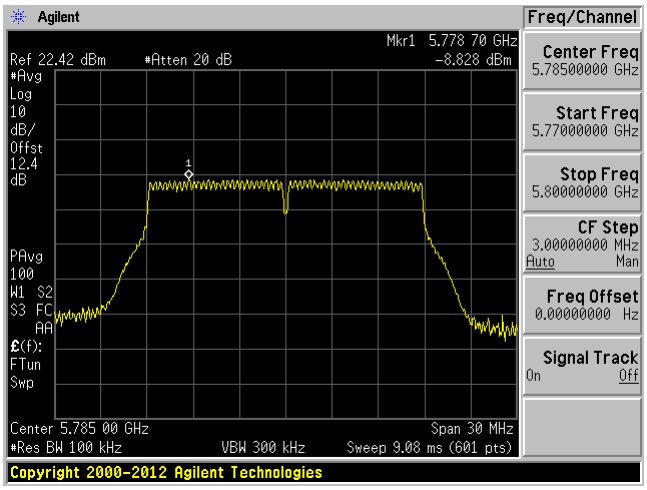

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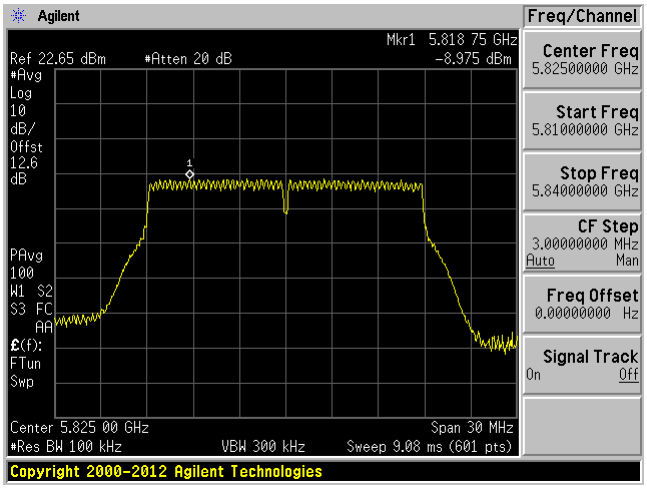
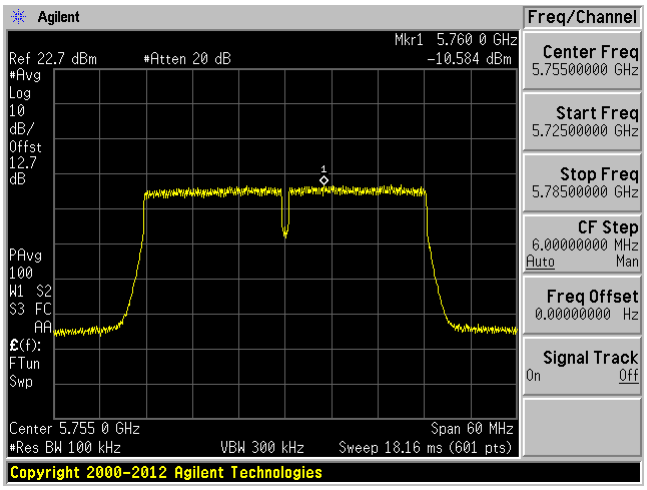
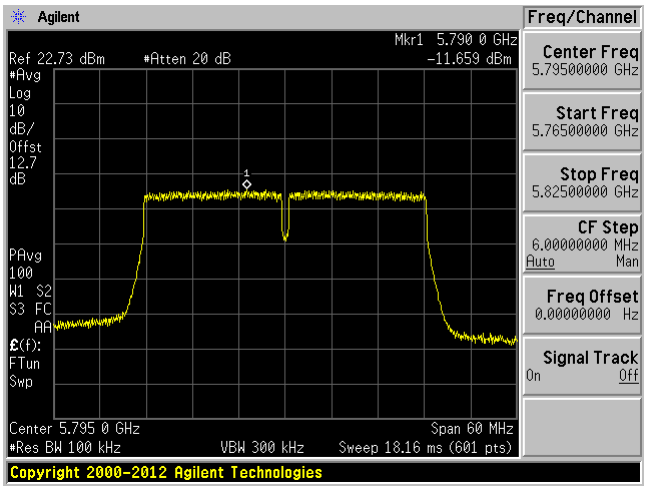


802.11n40 mode chain 1

5755 MHz

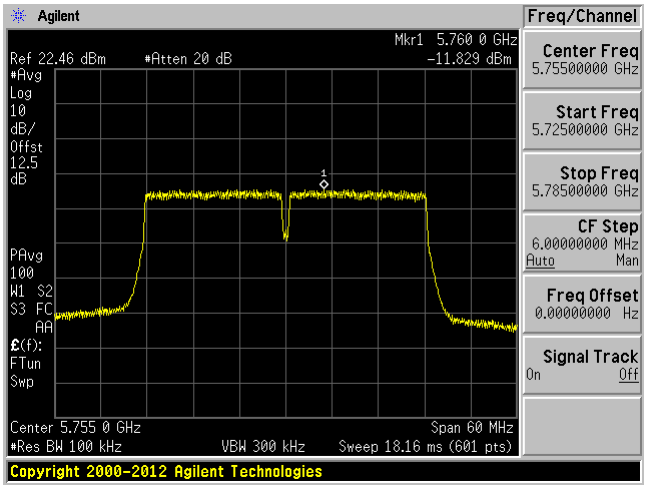


5795 MHz

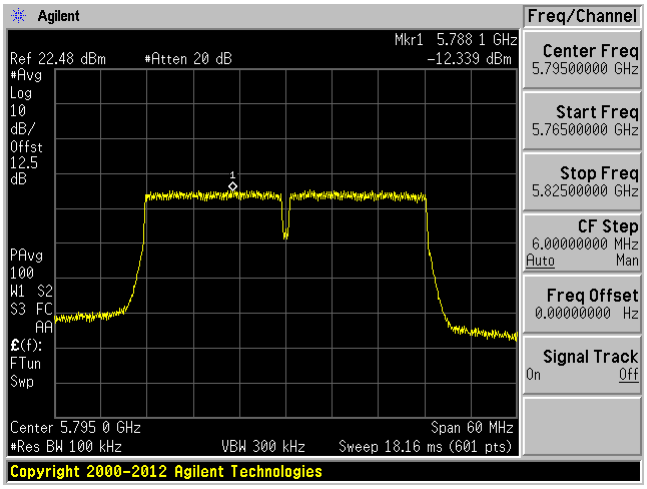


802.11n40 mode chain 2

5755 MHz

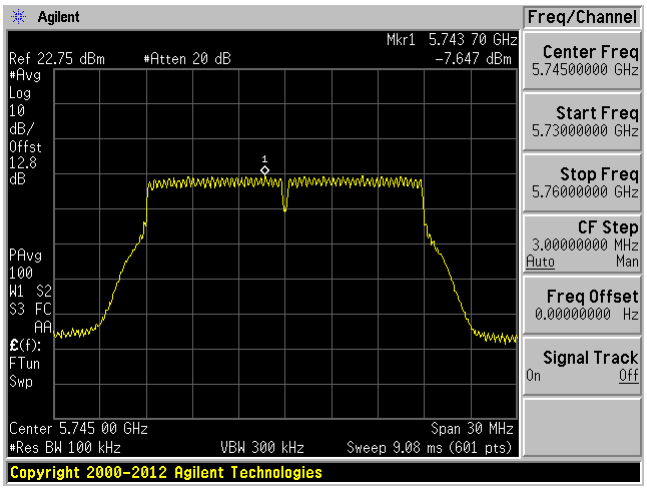


5795 MHz

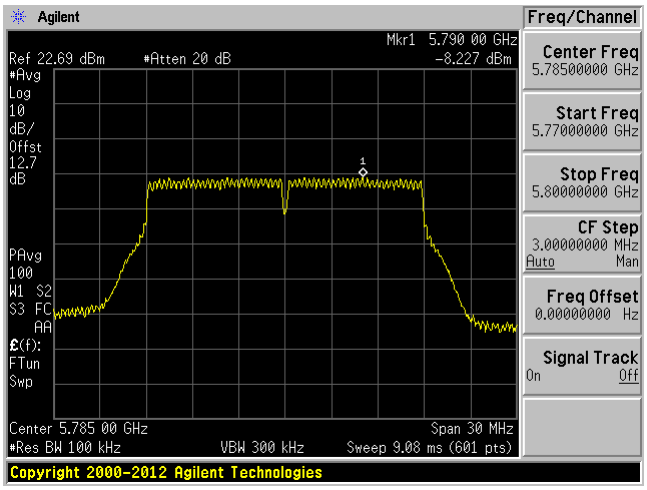


802.11ac20 mode chain 1

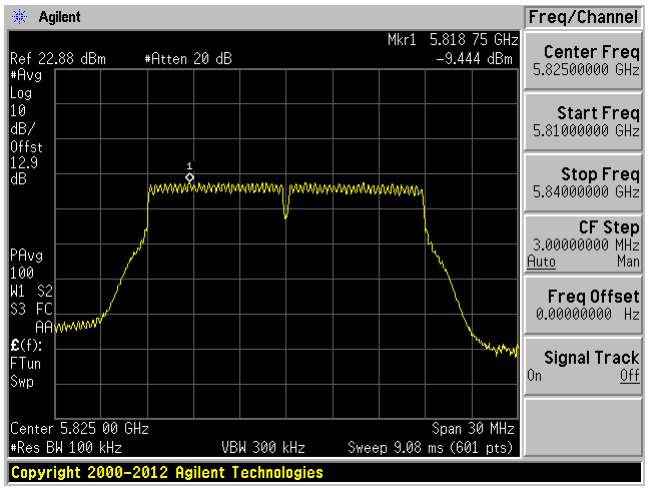
5745 MHz



5785 MHz

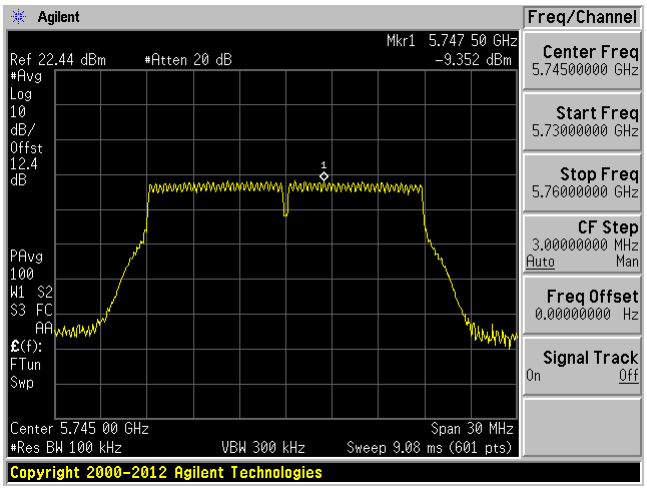


5825 MHz

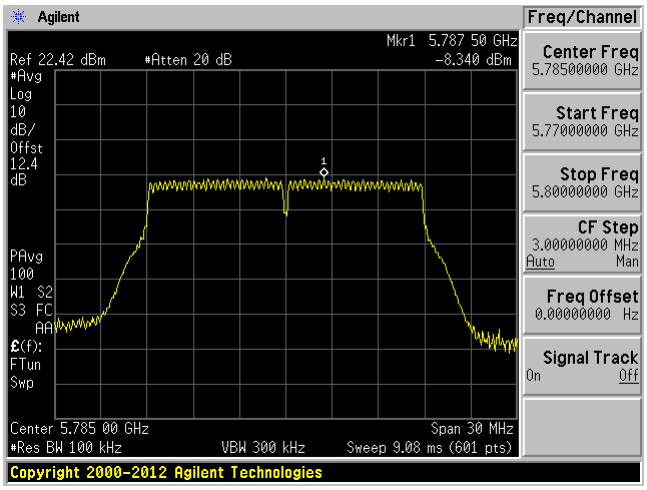


802.11ac20 mode chain 2

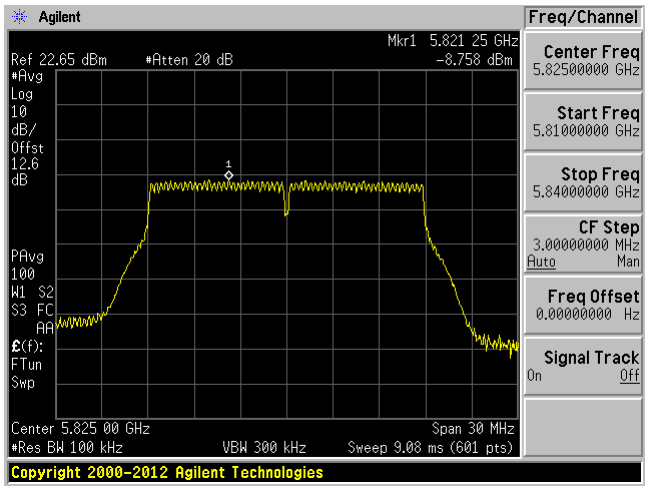
5745 MHz



5785 MHz

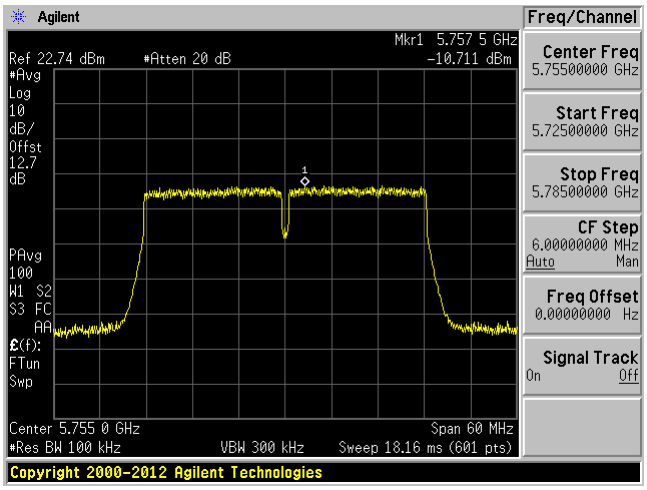


5825 MHz

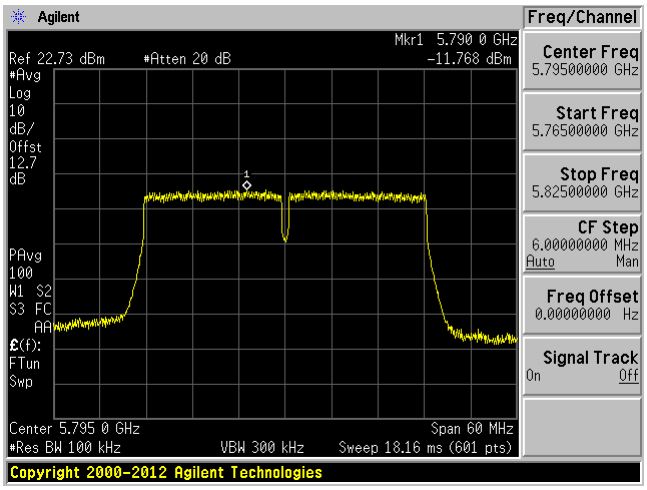


802.11ac40 mode chain 1

5755 MHz

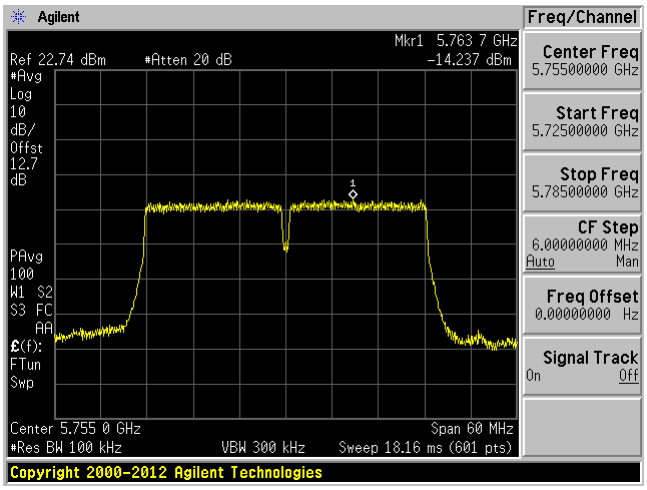


5795 MHz

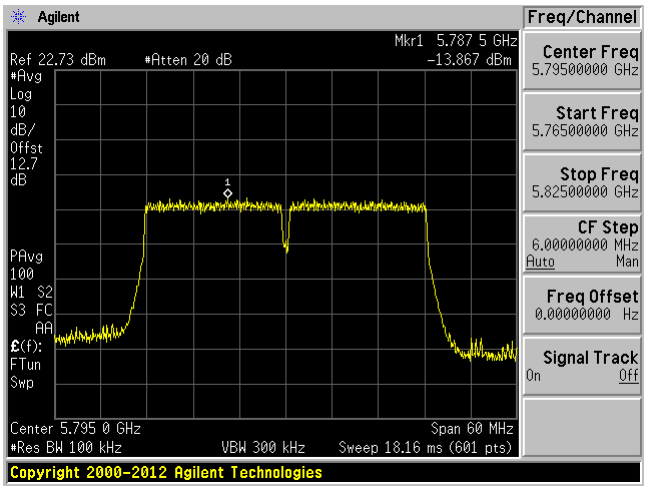


802.11ac40 mode chain 2

5755 MHz

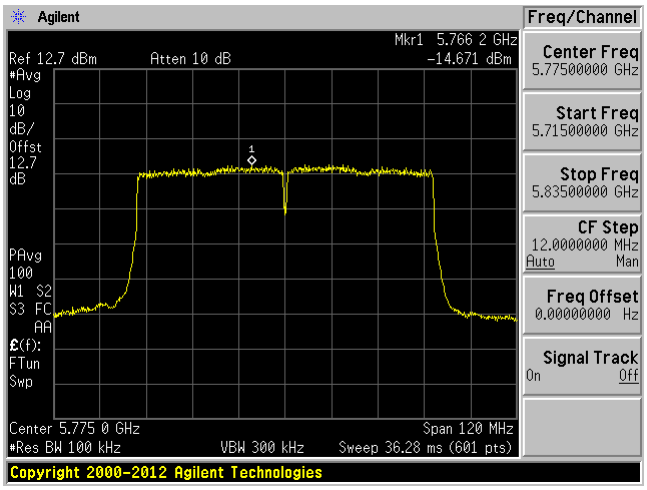


5795 MHz

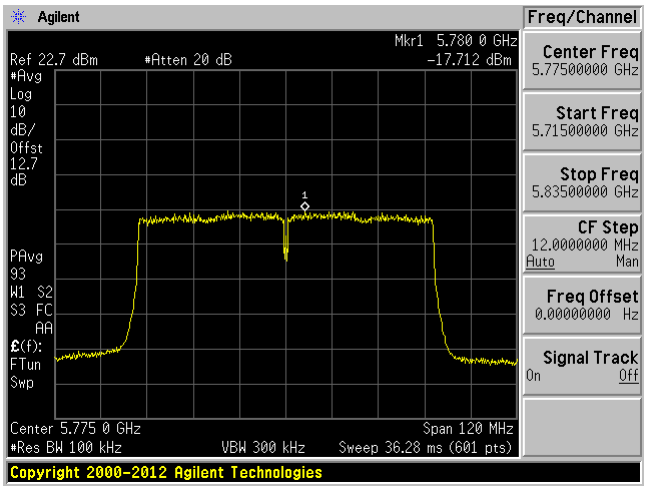


802.11ac80 mode

5775 MHz chain 1



5775 MHz chain 2



11 §15.407(b) & IC RSS-247 §6.2 - Out of Band Emissions

11.1 Applicable Standards

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 e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

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 e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

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

According to IC RSS-247 §6.2.1 for devices operatinging in the frequency band 5150-5250 MHz:

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz.

According to IC RSS-247 §6.2.2 for devices operatinging in the frequency band 5250-5350 MHz:

For devices with both operating frequencies and channel bandwidths contained within the band 5250-5350 MHz, the device shall comply with the following:

1. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. if the equipment is intended for outdoor use; or
2. All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of Section 6.2.1. The device shall be labelled “for indoor use only.”

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices’ unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled “for indoor use only.”

According to IC RSS-247 §6.2.3 for devices operatinging in the frequency band 5470-5600 MHz and 5650-5725 MHz. Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

According to IC RSS-247 §6.2.4 for devices operatinging in the frequency band 5725-5850 MHz:
For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.
For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz.

11.2 Measurement Procedure

Add a correction factor (antenna gain+ Attenuator loss+cable loss) to the offset of the spectrum analyzer.
Integration Method

1. For peak emissions measurements, follow the procedures described in section H)5), "Procedures for Peak Unwanted Emissions Measurements above 1000 MHz", except for the following changes:
- Set RBW = 100 kHz
- Set VBW = 3RBW
- Perform a band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured. CAUTION: You must ensure that the spectrum analyzer or EMI receiver is set for peak-detection and max-hold for this measurement.
2. For average emissions measurements, follow the procedures described in section H)6), "Procedures for Average Unwanted Emissions Measurements above 1000 MHz", except for the following changes:
- Set RBW = 100 kHz
- Set VBW = 3RBW
- Perform a band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.

11.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Analyzer, Spectrum	E4440A	MY44303352	2015-06-22	1 year
-	U. FL to SMA pigtail	-	-	Each time[1]	N/A
-	10dB attenuator	-	-	Each time[1]	N/A

Note[1]: cable and attenuator included in the test set-up will be checked each time before testing.
Statement of Traceability: BACL Corp. *attests that all calibrations have been performed per the A2LA requirements, traceable to the NIST.*

11.4 Test Environmental Conditions

Temperature:	22-24º C
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Todd Moy on 2016-01-05 and 2016-05-03 at RF site.

11.5 Test Results

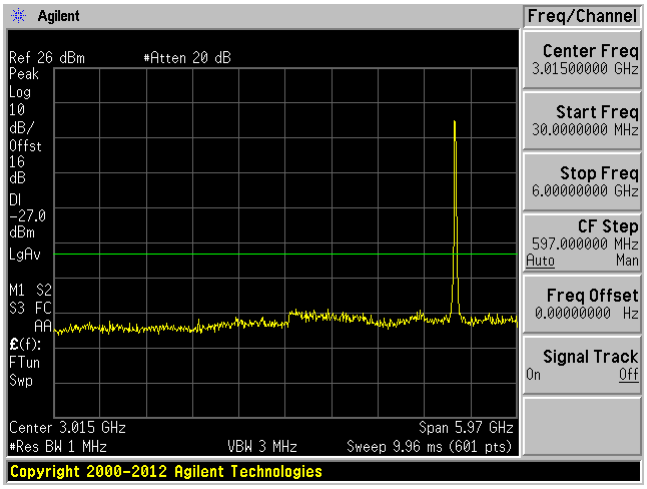
Please refer to the following plots

(1) Out-of-band spurious emission

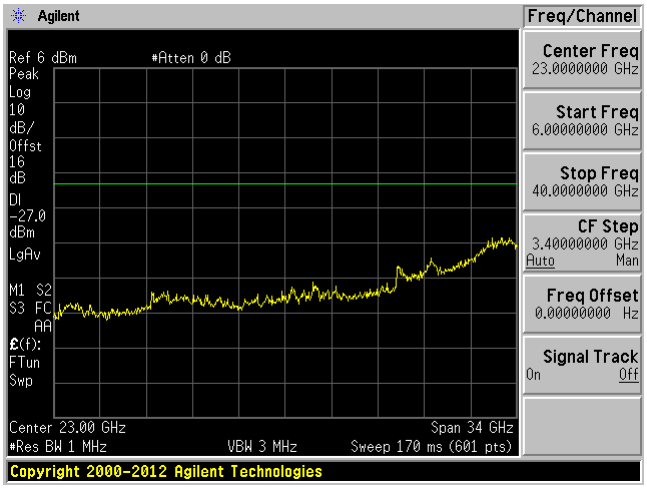
5150 - 5250 MHz

802.11a mode chain 1

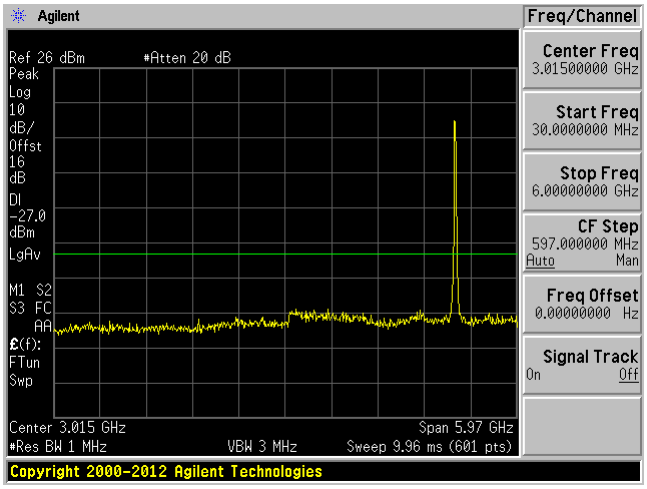
Low Channel 5180MHz (30MHz-6GHz)



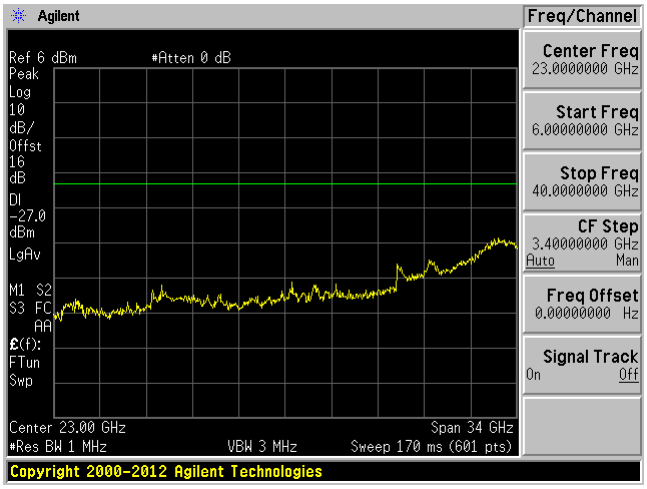
Low Channel 5180 MHz (6-40GHz)



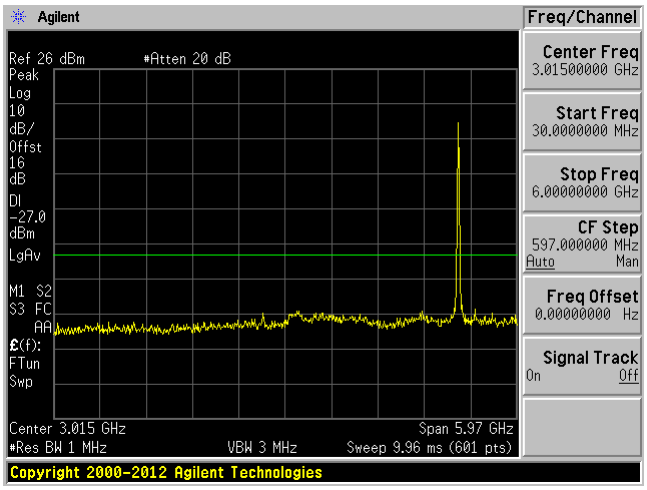
Middle Channel 5200MHz (30MHz-6GHz)



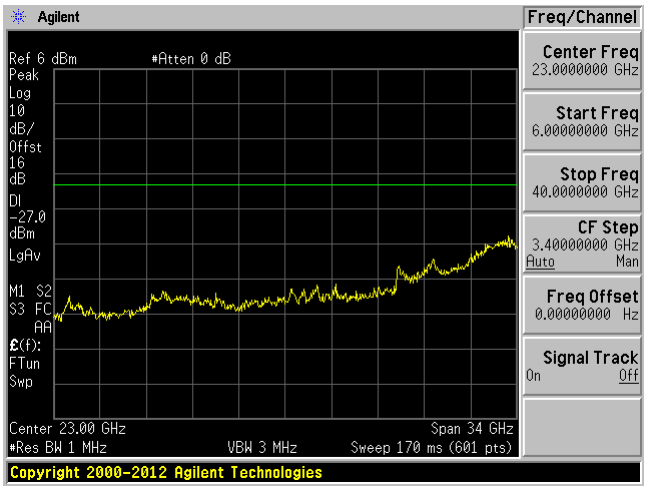
Middle Channel 5200 MHz (6-40GHz)



High Channel 5240MHz (30MHz-6GHz)

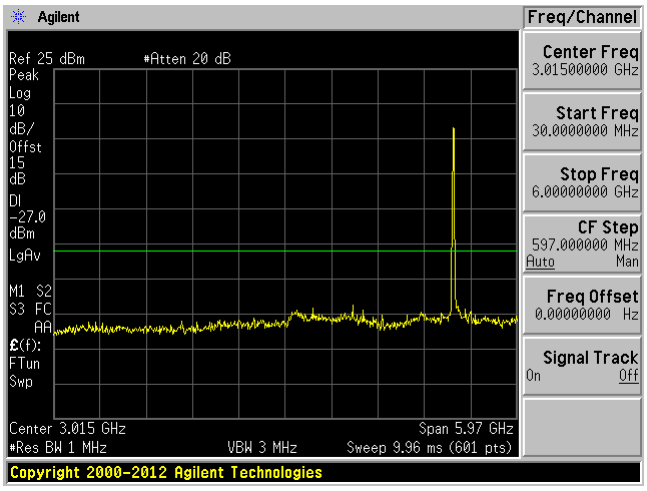


High Channel 5240 MHz (6-40GHz)

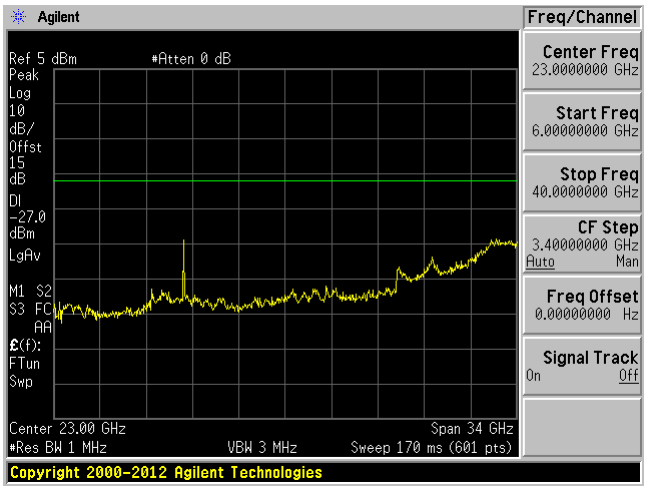


802.11a mode chain 2

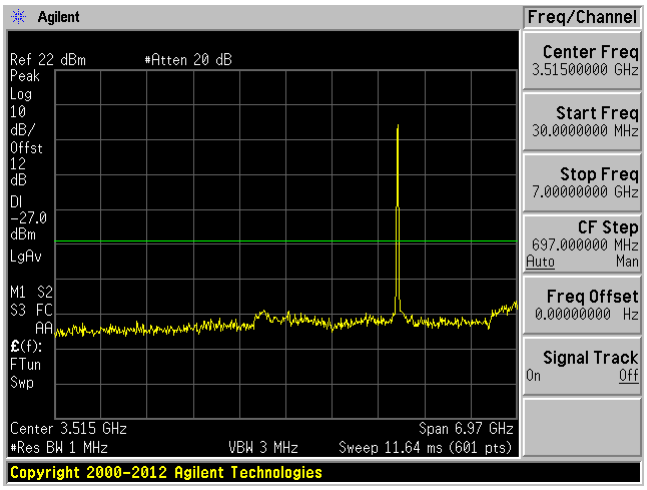
Low Channel 5180MHz (30MHz-6GHz)



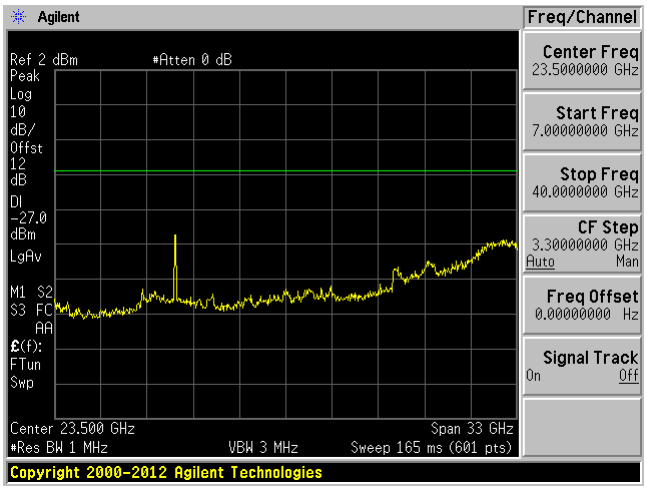
Low Channel 5180 MHz (6-40GHz)



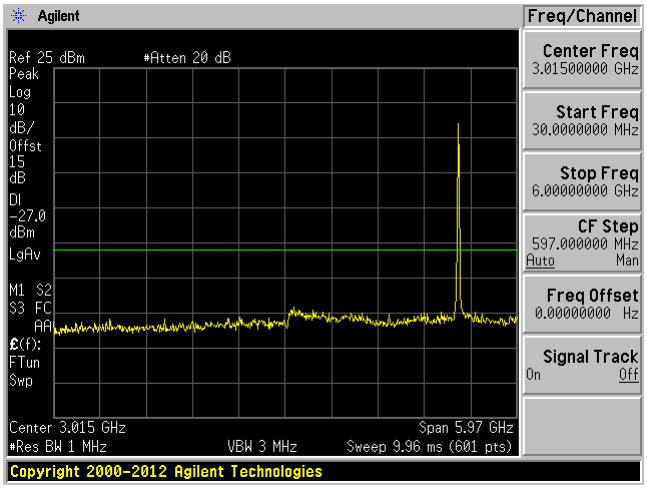
Middle Channel 5200MHz (30MHz-7GHz)



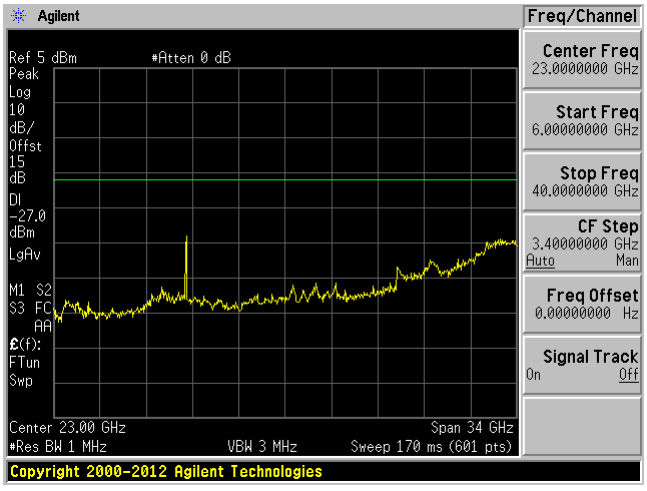
Middle Channel 5200 MHz (7-40GHz)



High Channel 5240MHz (30MHz-6GHz)

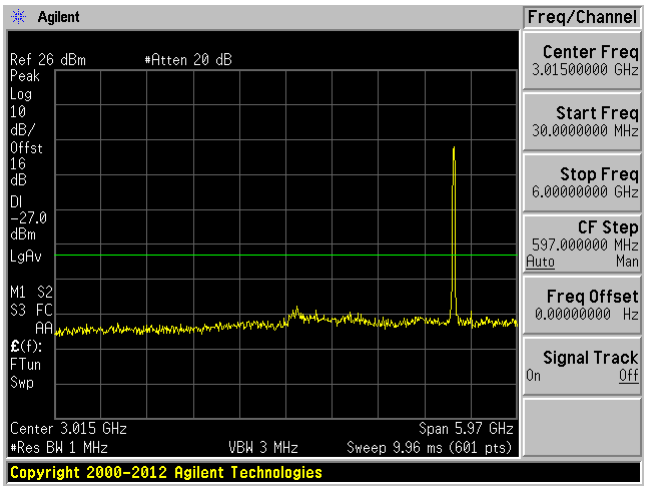


High Channel 5240 MHz (6-40GHz)

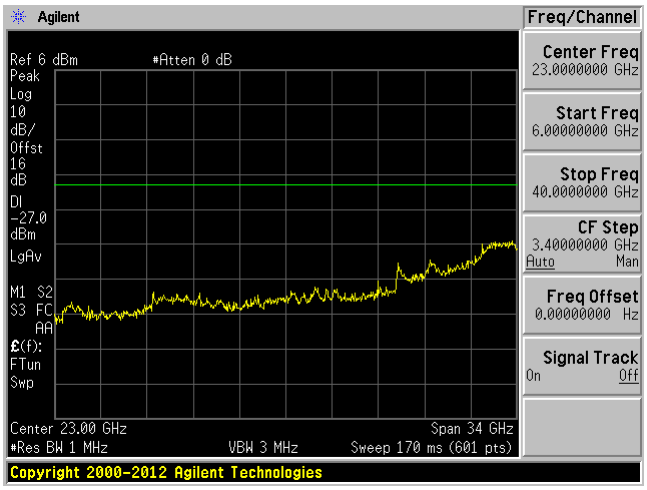


802.11n20 mode chain 1

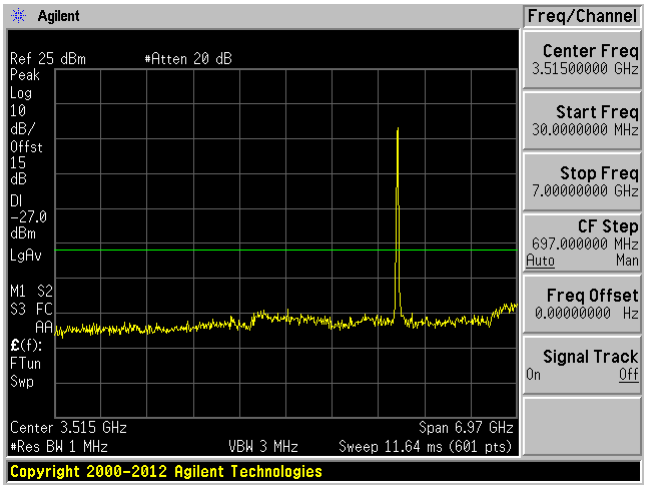
Low Channel 5180MHz (30MHz-6GHz)



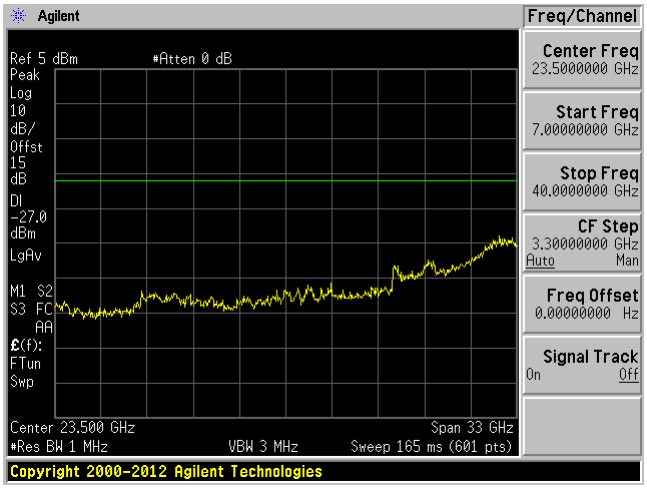
Low Channel 5180 MHz (6-40GHz)



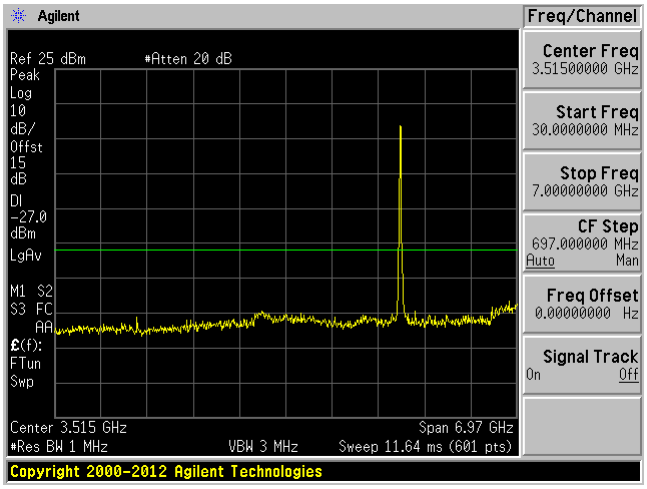
Middle Channel 5200MHz (30MHz-7GHz)



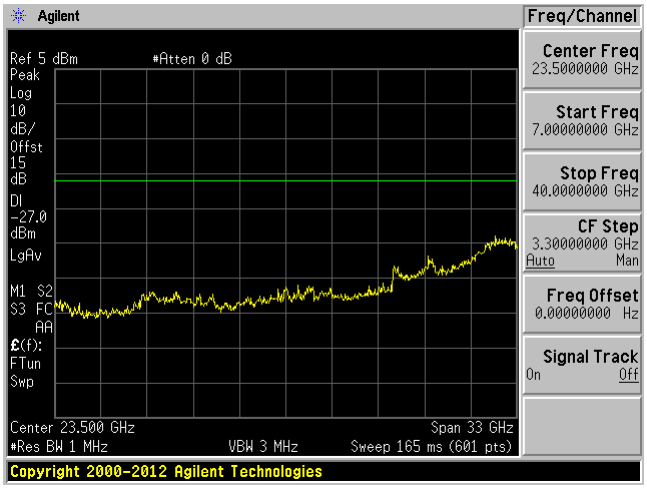
Middle Channel 5200 MHz (7-40GHz)



High Channel 5240MHz (30MHz-7GHz)

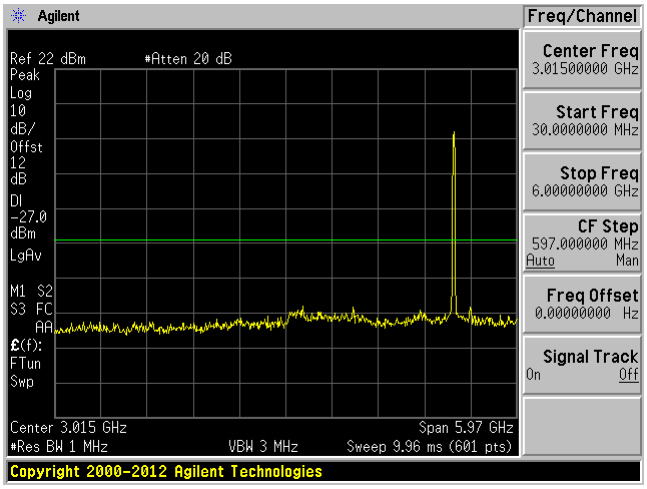


High Channel 5240 MHz (7-40GHz)

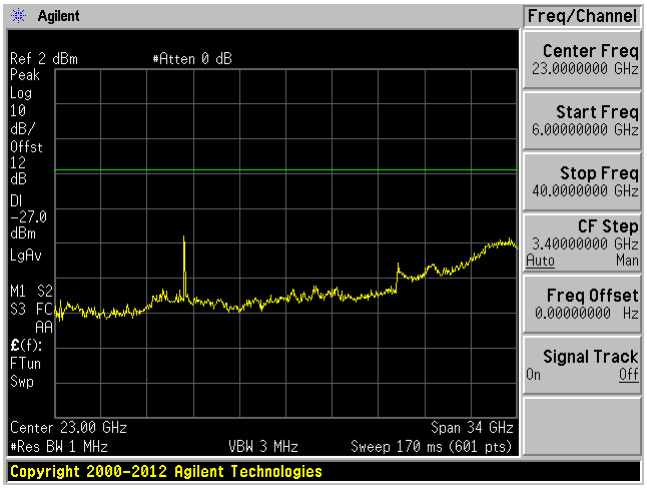


802.11n20 mode chain 2

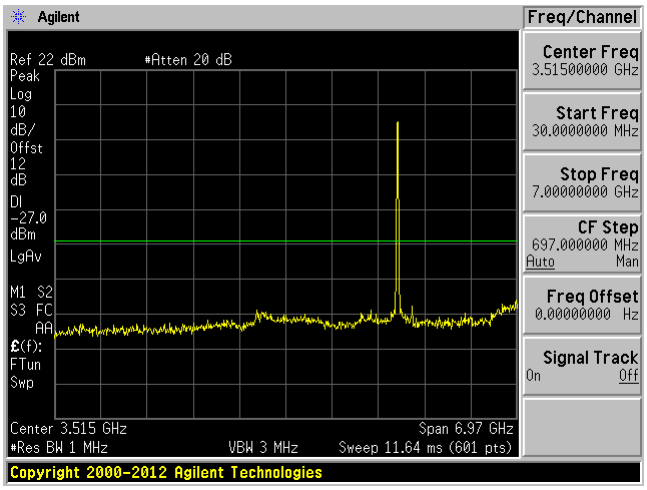
Low Channel 5180MHz (30MHz-6GHz)



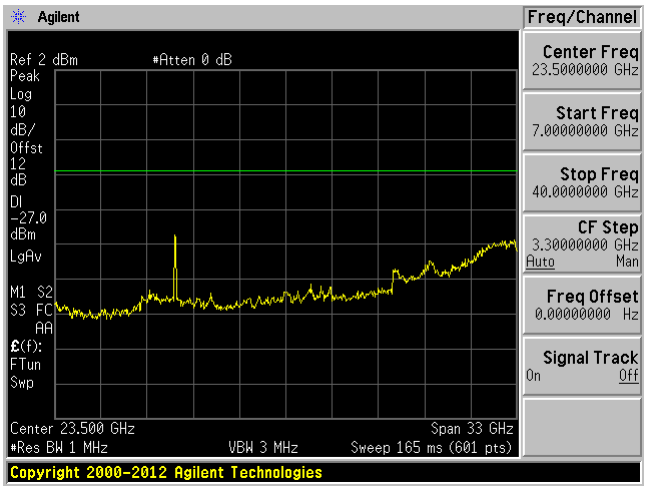
Low Channel 5180 MHz (6-40GHz)



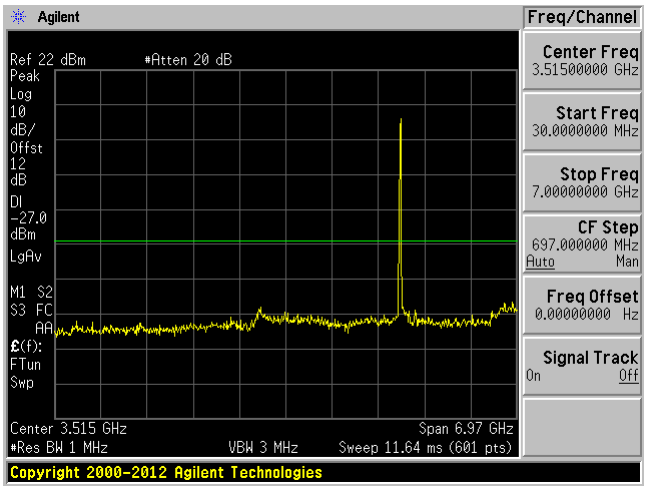
Middle Channel 5200MHz (30MHz-7GHz)



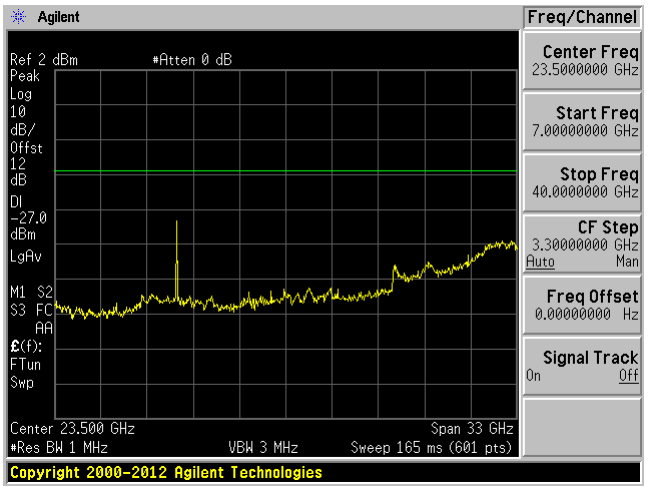
Middle Channel 5200 MHz (7-40GHz)



High Channel 5240MHz (30MHz-7GHz)

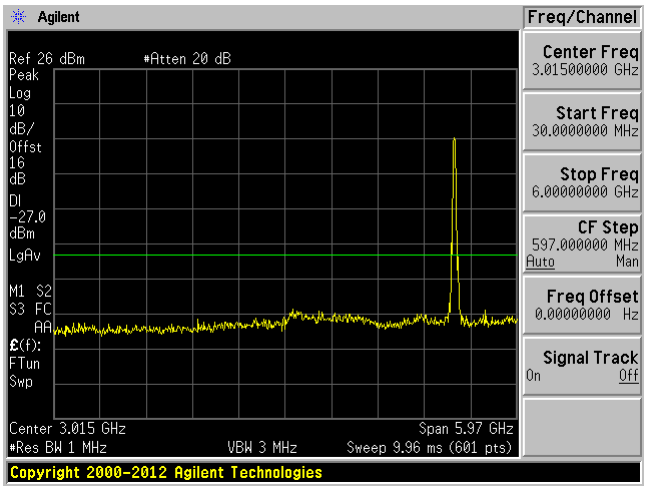


High Channel 5240 MHz (7-40GHz)

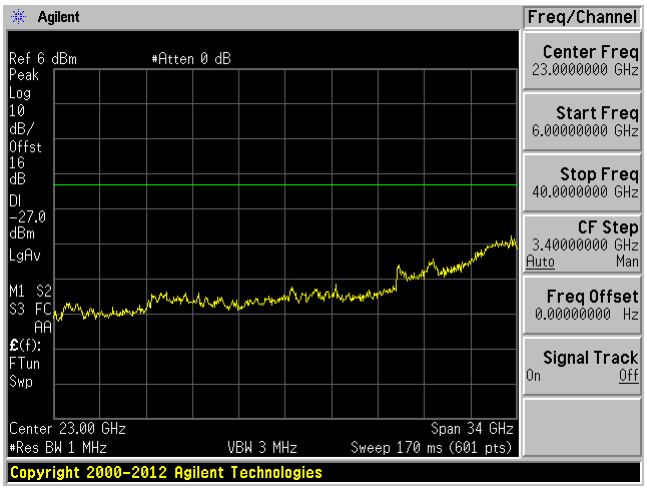


802.11n40 mode chain 1

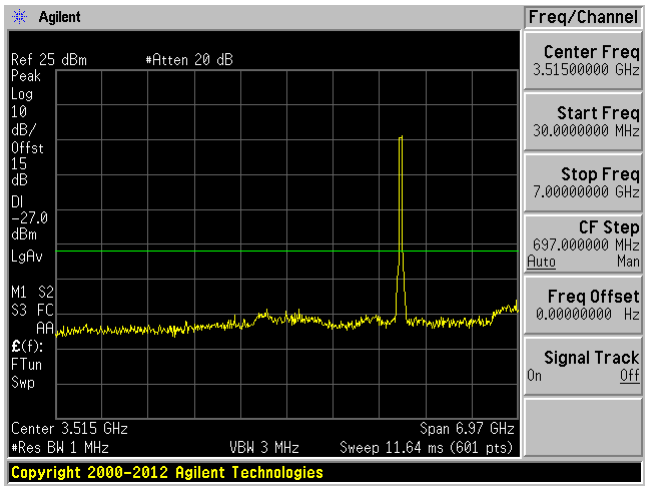
Low Channel 5190MHz (30MHz-6GHz)



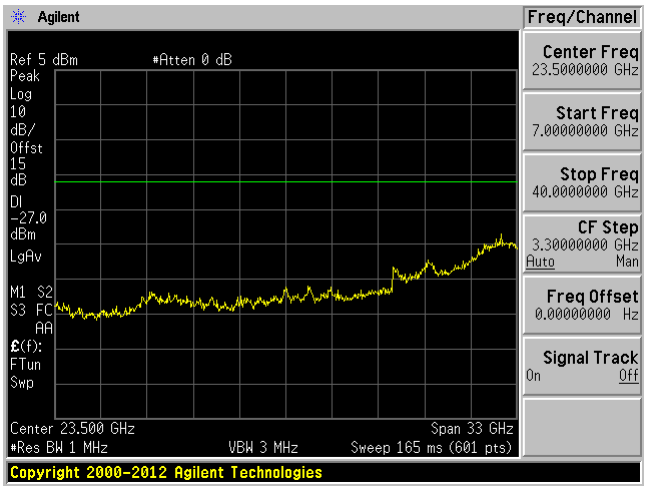
Low Channel 5190 MHz (6-40GHz)



High Channel 5230MHz (30MHz-7GHz)

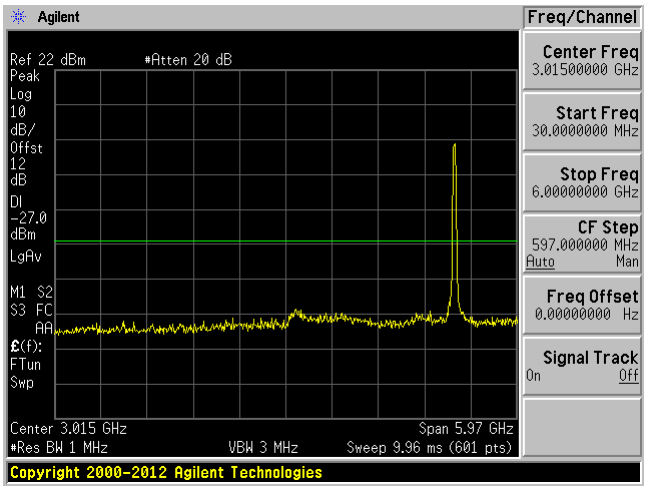


High Channel 5230 MHz (7-40GHz)

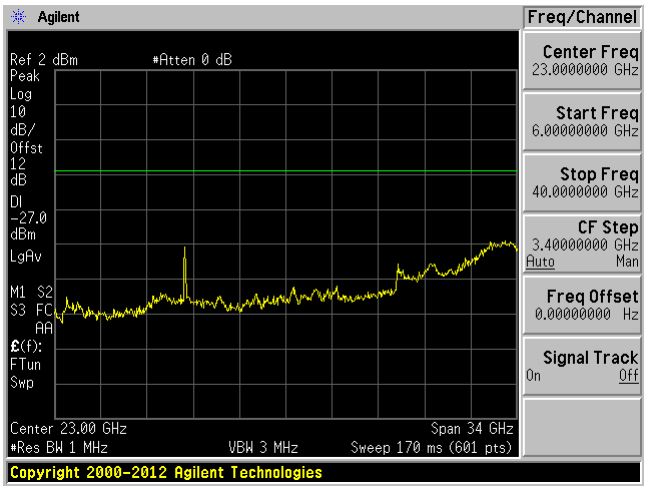


802.11n40 mode chain 2

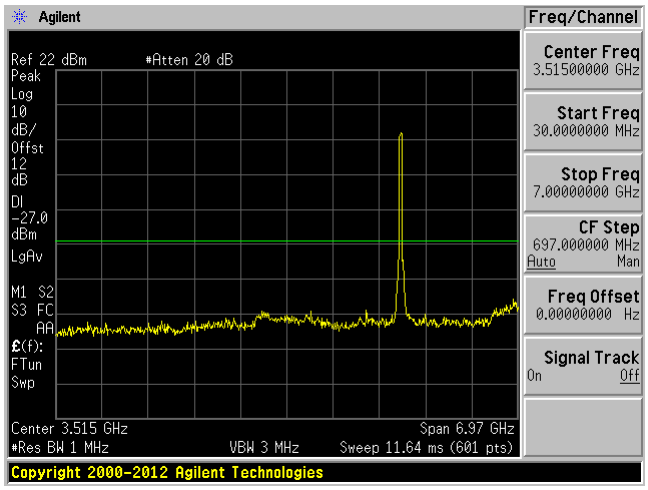
Low Channel 5190MHz (30MHz-6GHz)



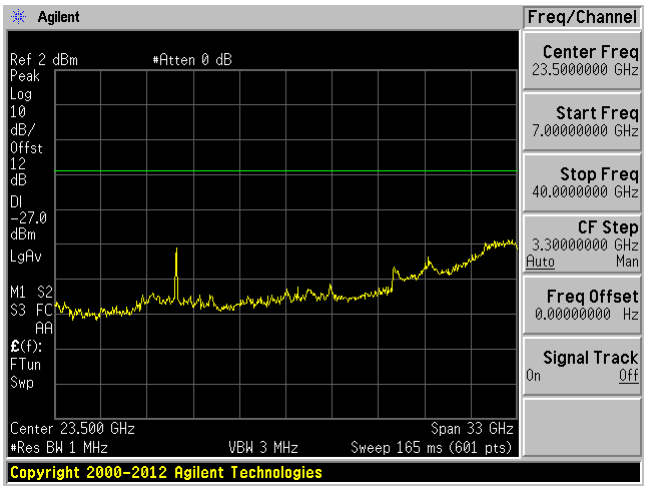
Low Channel 5190 MHz (6-40GHz)



High Channel 5230MHz (30MHz-7GHz)

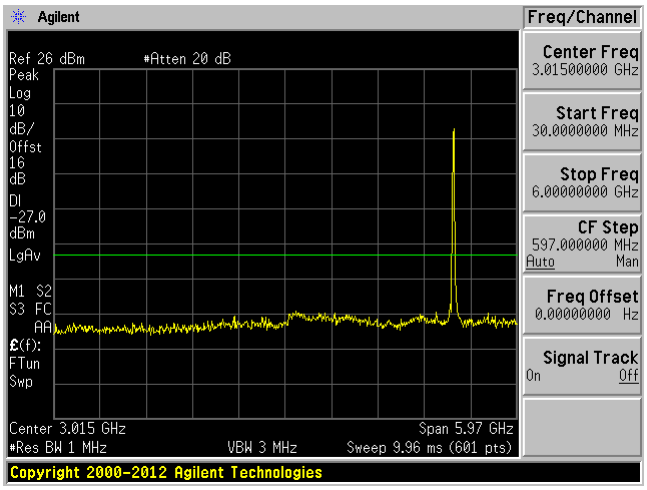


High Channel 5230 MHz (7-40GHz)

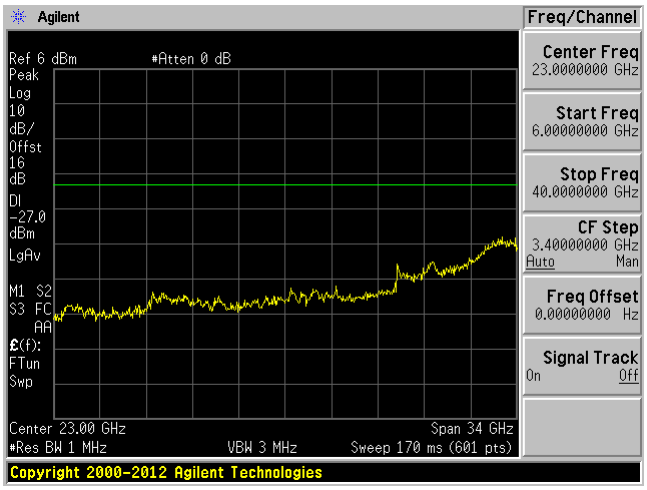


802.11ac20 mode chain 1

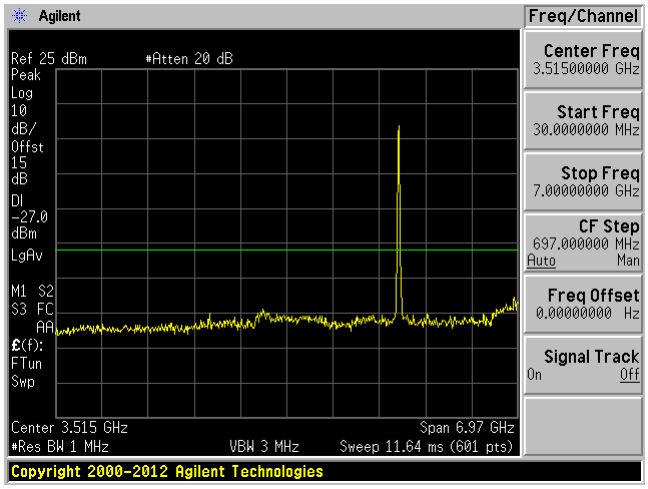
Low Channel 5180MHz (30MHz-6GHz)



Low Channel 5180 MHz (6-40GHz)

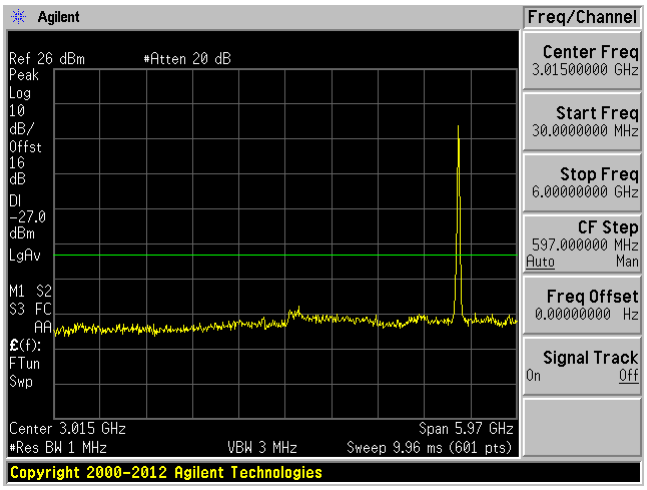


Middle Channel 5200MHz (30MHz-7GHz)

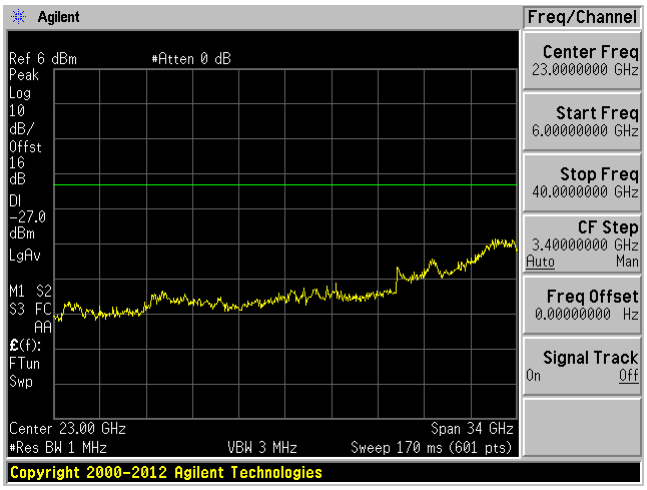


Middle Channel 5200 MHz (7GHz – 40GHz)

High Channel 5240MHz (30MHz-6GHz)

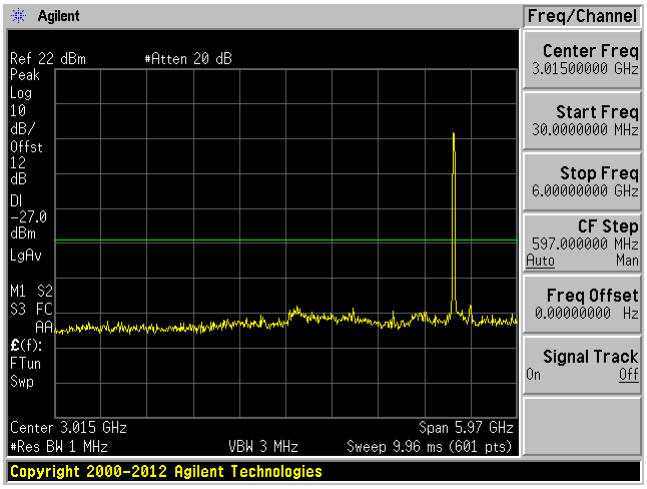


High Channel 5240 MHz (6GHz – 40GHz)

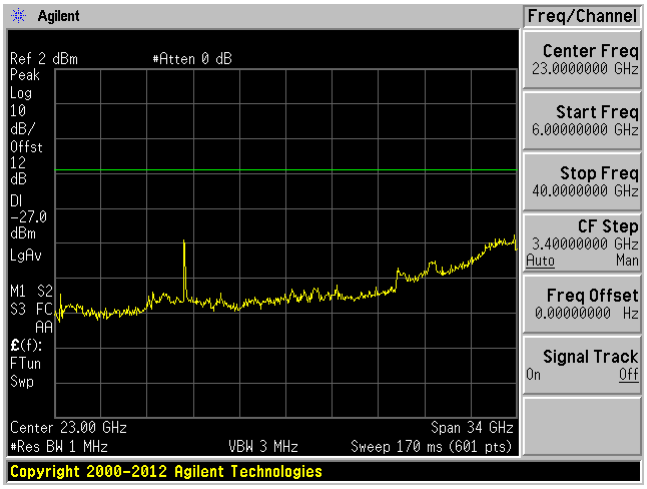


802.11ac20 mode chain 2

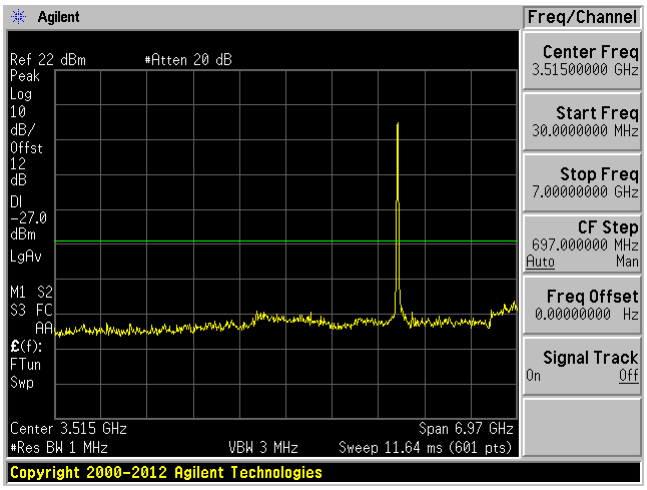
Low Channel 5180MHz (30MHz-6GHz)



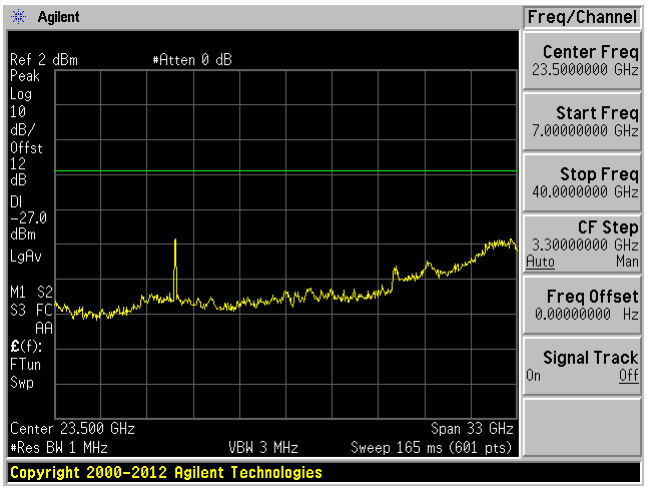
Low Channel 5180 MHz (6-40GHz)



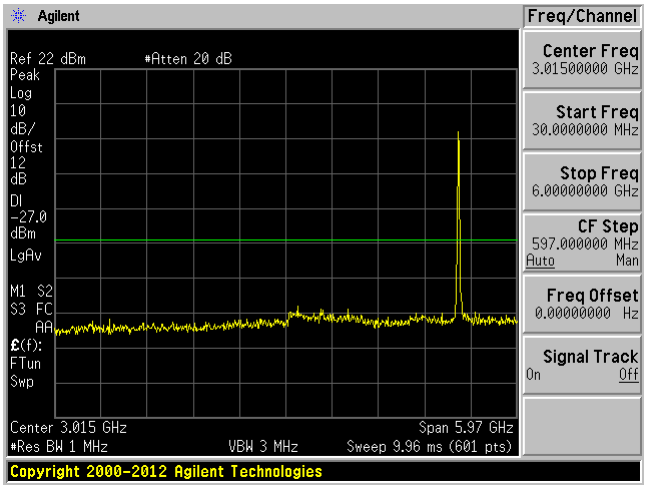
Middle Channel 5200MHz (30MHz-7GHz)



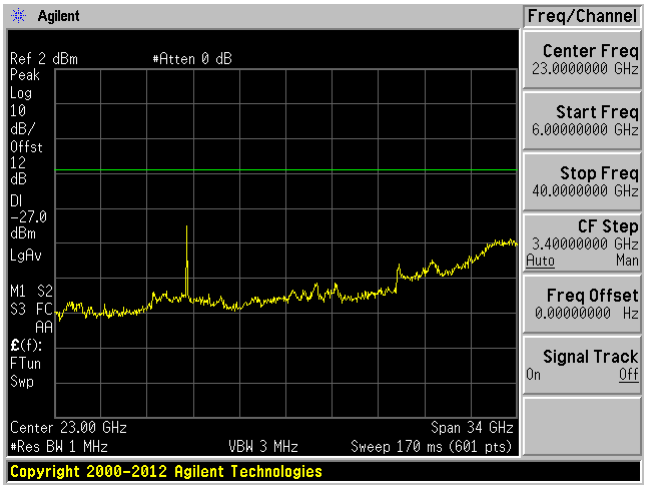
Middle Channel 5200 MHz (7GHz – 40GHz)



High Channel 5240MHz (30MHz-6GHz)

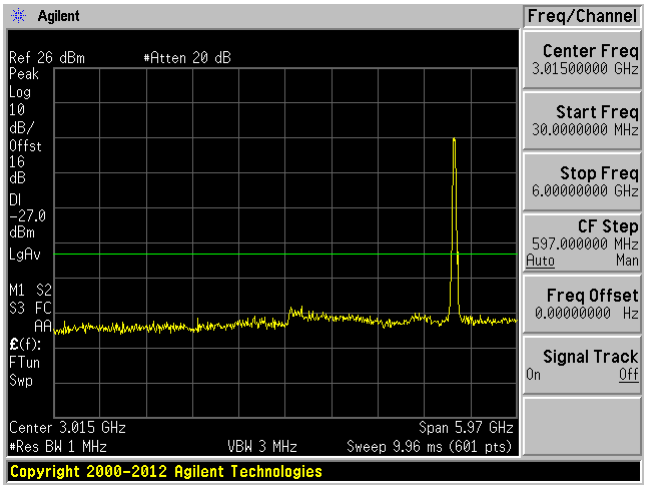


High Channel 5240 MHz (6GHz – 40GHz)

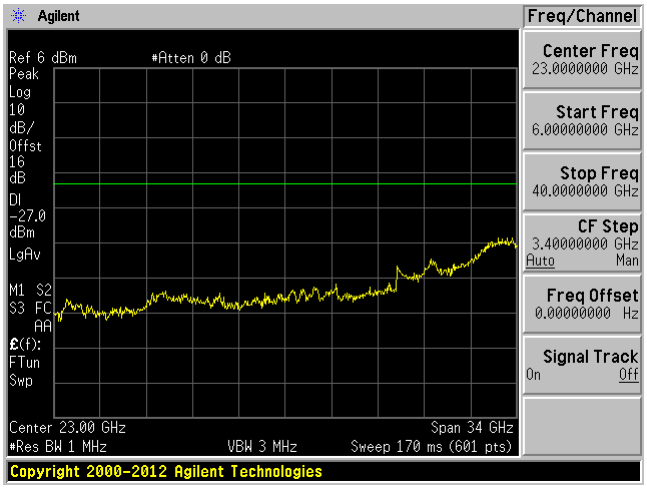


802.11ac40 mode chain 1

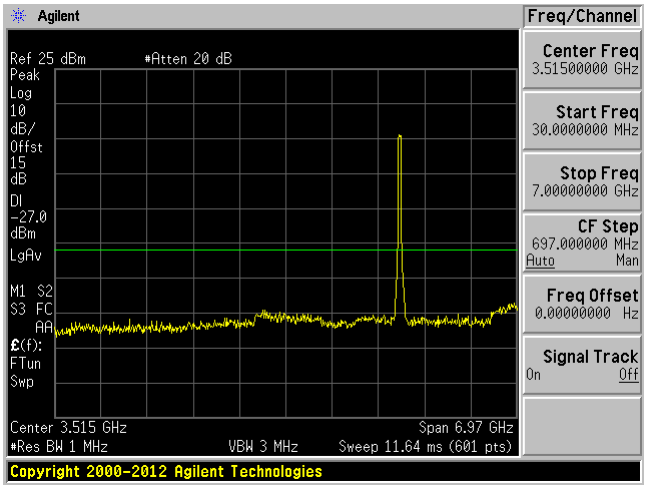
Low Channel 5190MHz (30MHz-6GHz)



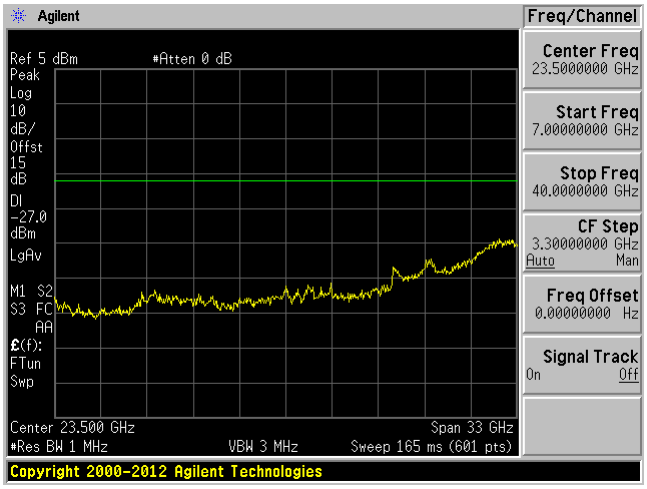
Low Channel 5190 MHz (6-40GHz)



High Channel 5230MHz (30MHz-7GHz)

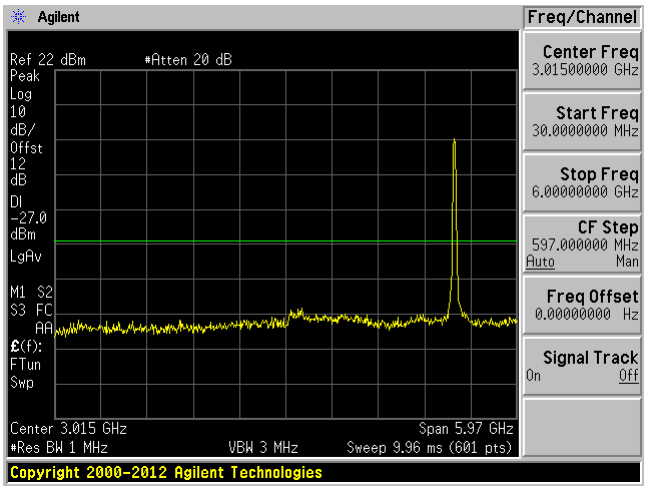


High Channel 5230 MHz (7GHz – 40GHz)

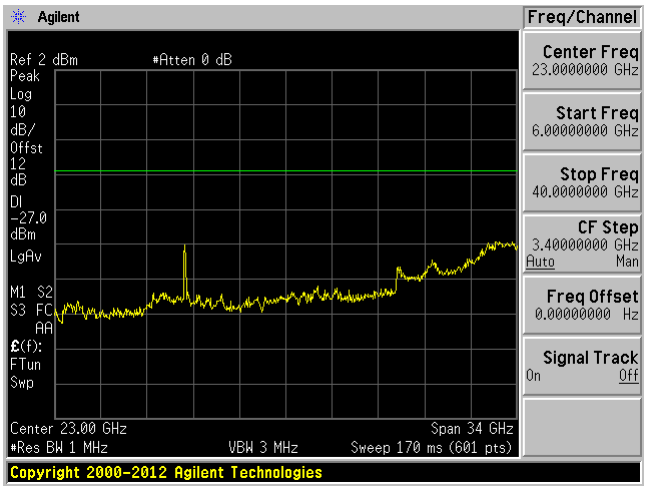


802.11ac40 mode chain 2

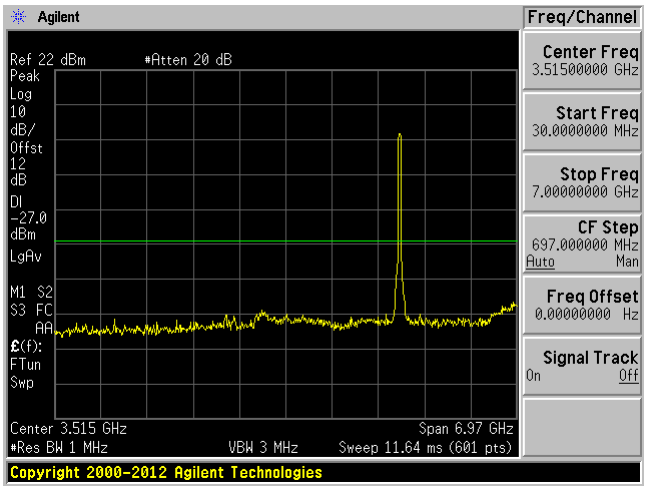
Low Channel 5190MHz (30MHz-6GHz)



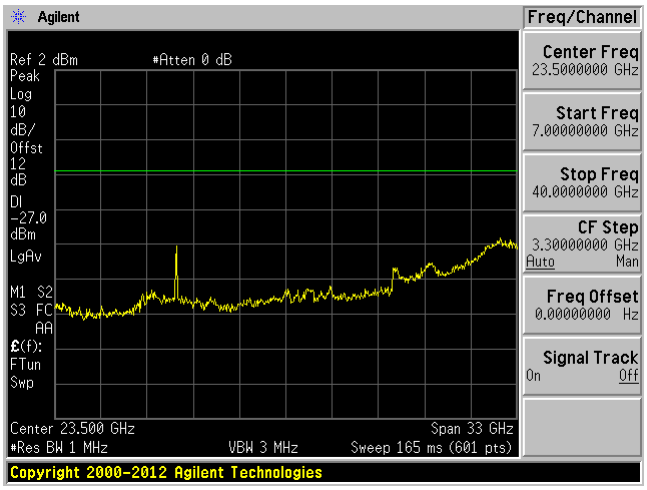
Low Channel 5190 MHz (6-40GHz)



High Channel 5230MHz (30MHz-7GHz)

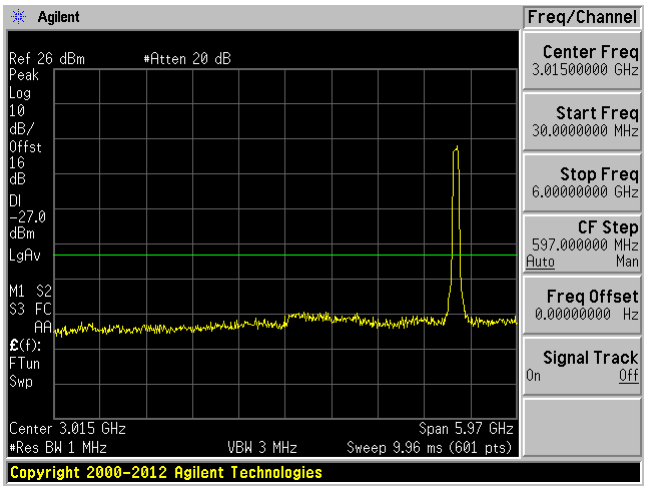


High Channel 5230 MHz (7GHz – 40GHz)

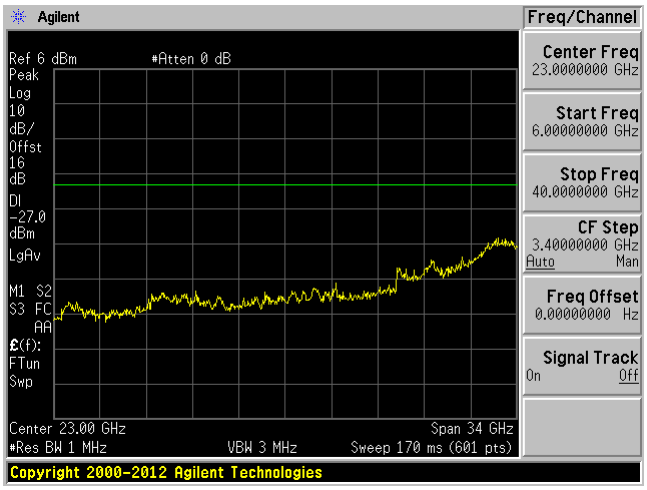


802.11ac80 mode chain 1

5210 MHz (30MHz-6GHz)

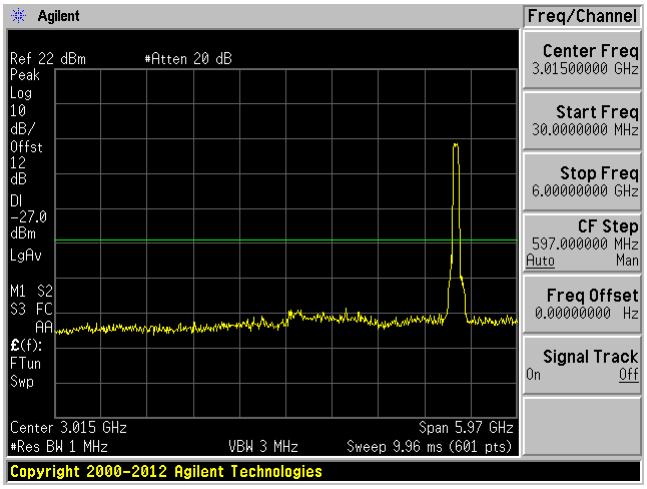


5210 MHz (6GHz – 40GHz)

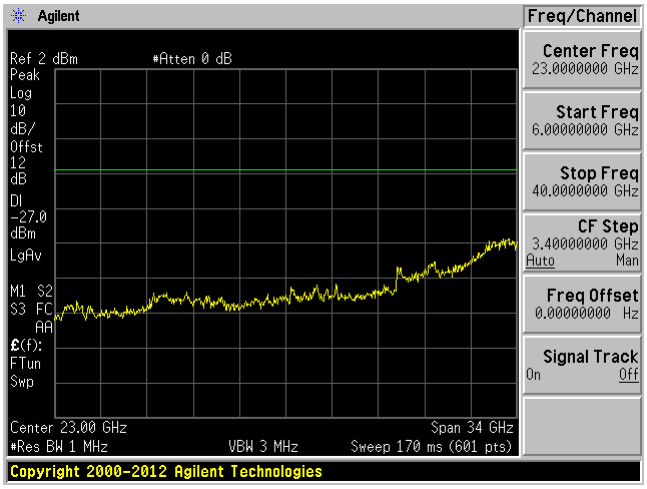


802.11ac80 mode chain 2

5210 MHz (30MHz-6GHz)



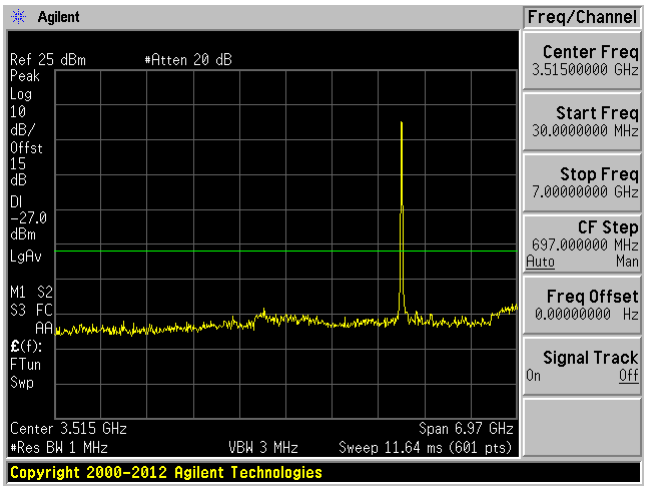
5210 MHz (6GHz – 40GHz)



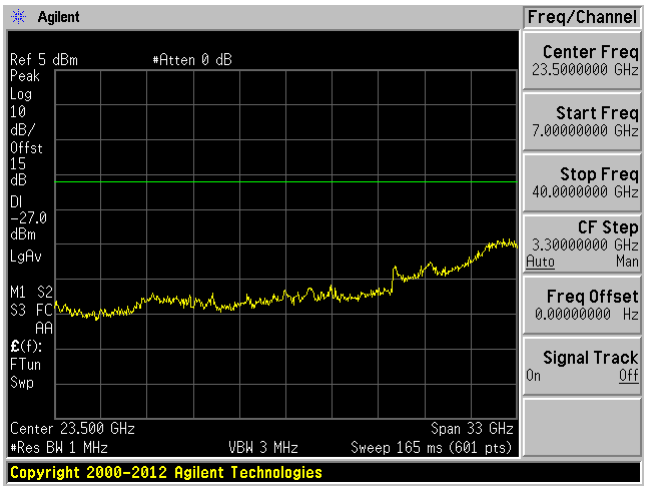
5250 – 5350 MHz

802.11a mode chain 1

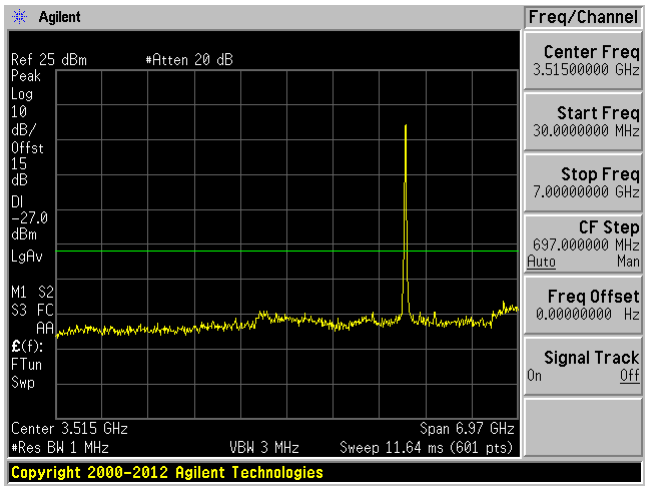
Low Channel 5260 MHz (30MHz-7GHz)



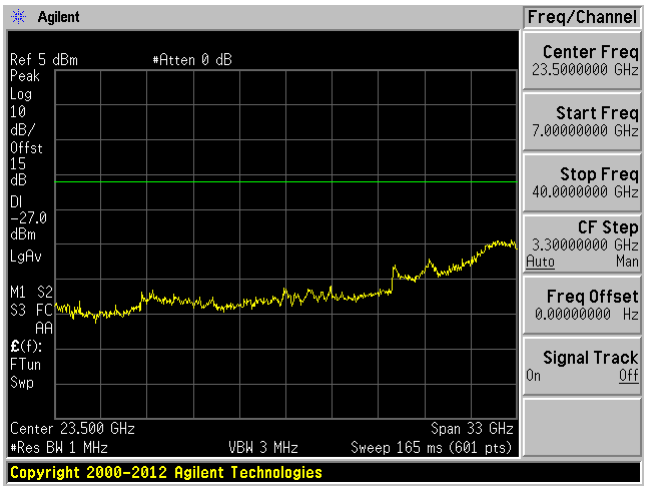
Low Channel 5260 MHz (7-40GHz)



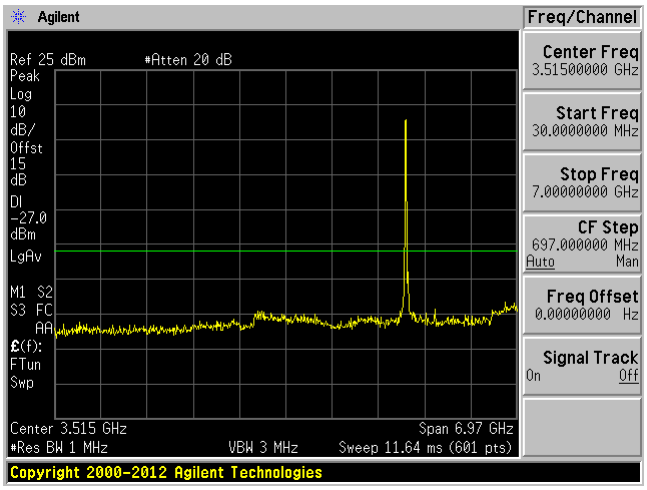
Middle Channel 5300 MHz (30MHz-7GHz)



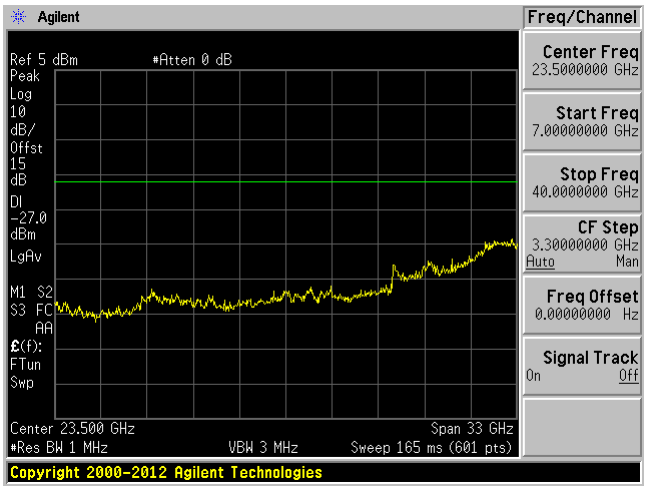
Middle Channel 5300 MHz (7-40GHz)



High Channel 5320 MHz (30MHz-7GHz)

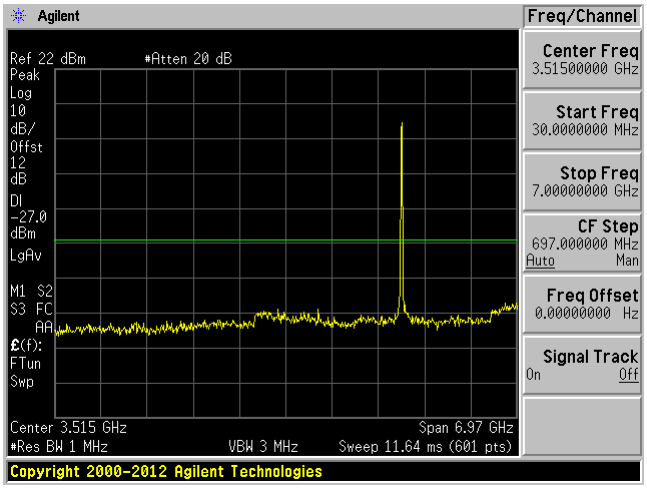


High Channel 5320 MHz (7-40GHz)

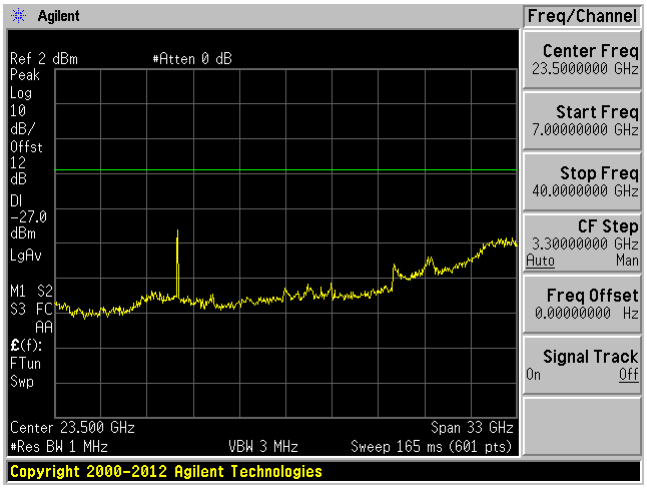


802.11a mode chain 2

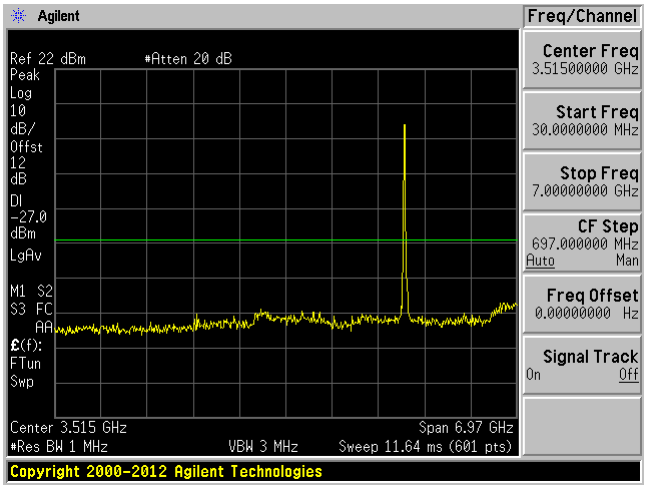
Low Channel 5260 MHz (30MHz-7GHz)



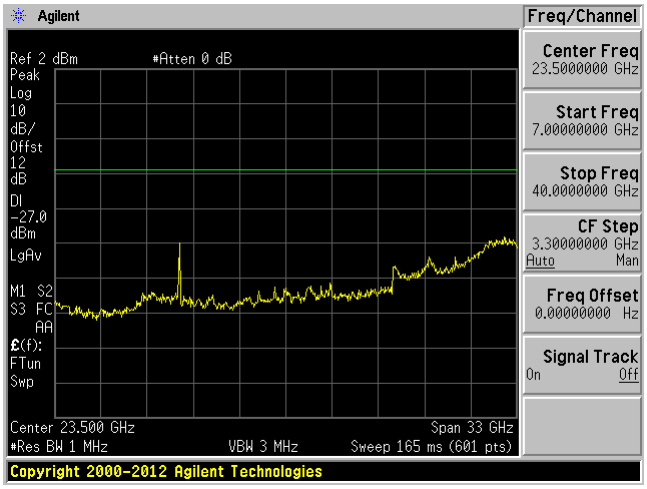
Low Channel 5260 MHz (7-40GHz)



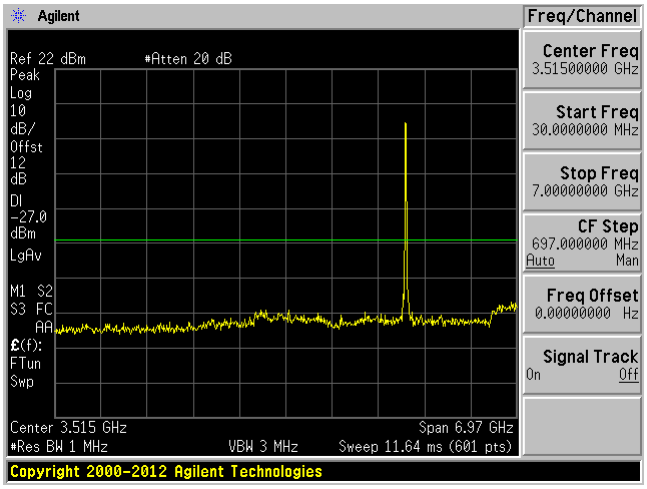
Middle Channel 5300 MHz (30MHz-7GHz)



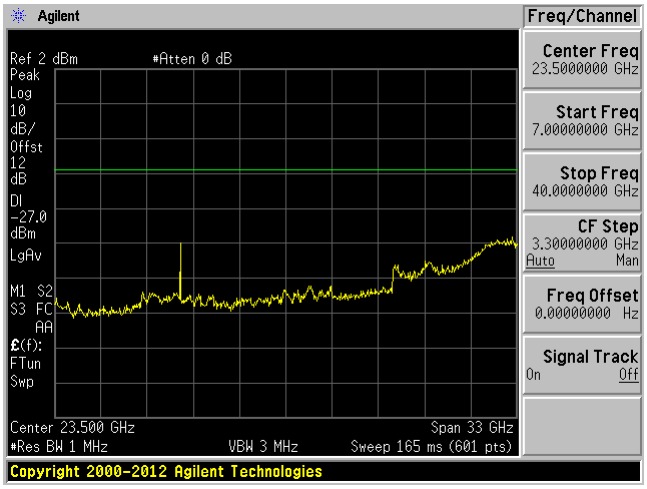
Middle Channel 5300 MHz (7-40GHz)



High Channel 5320 MHz (30MHz-7GHz)

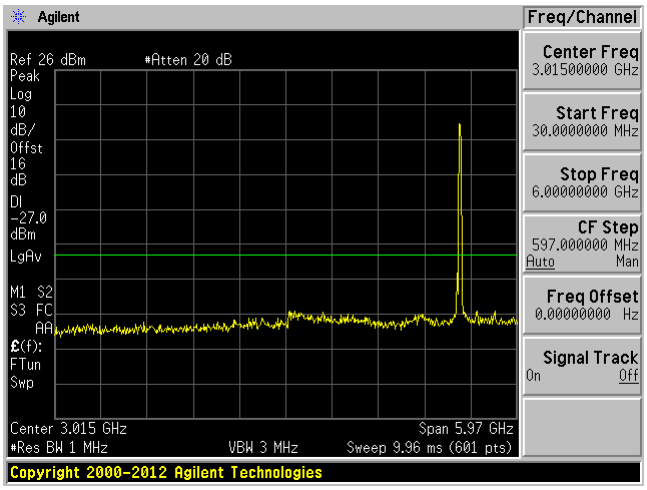


High Channel 5320 MHz (7-40GHz)

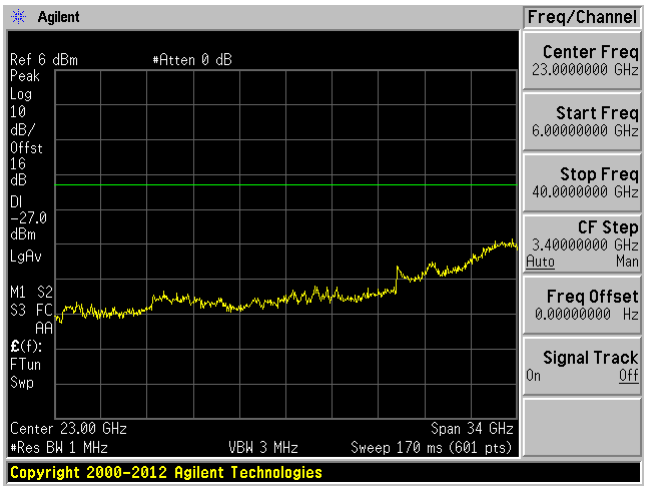


802.11n20 mode chain 1

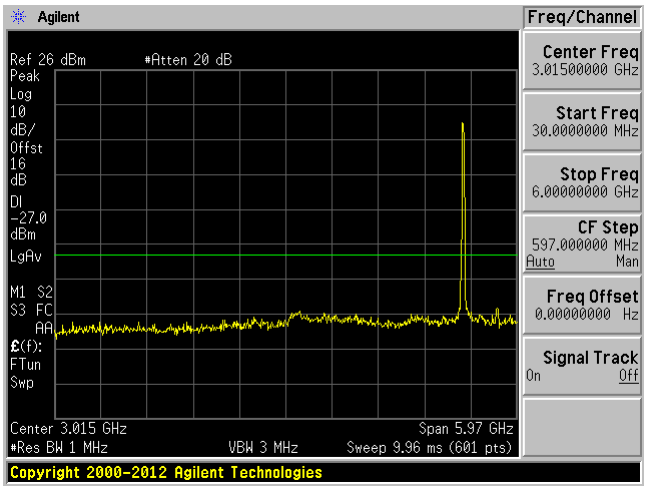
Low Channel 5260 MHz (30MHz-6GHz)



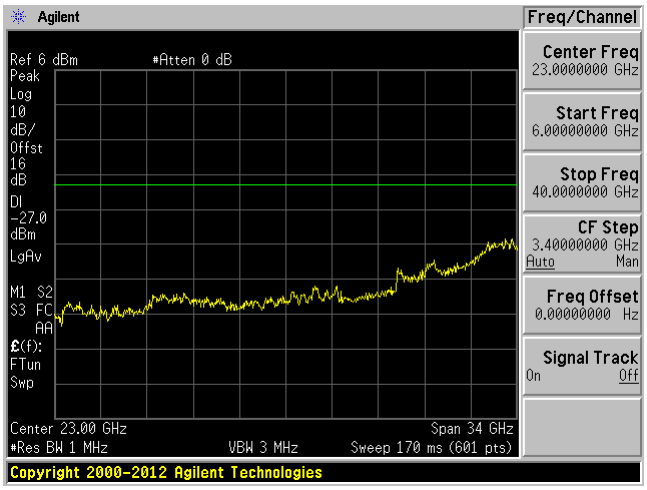
Low Channel 5260 MHz (6-40GHz)



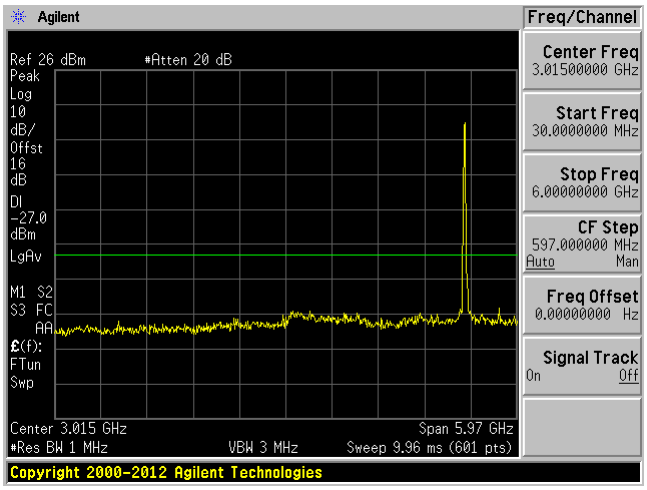
Middle Channel 5300 MHz (30MHz-6GHz)



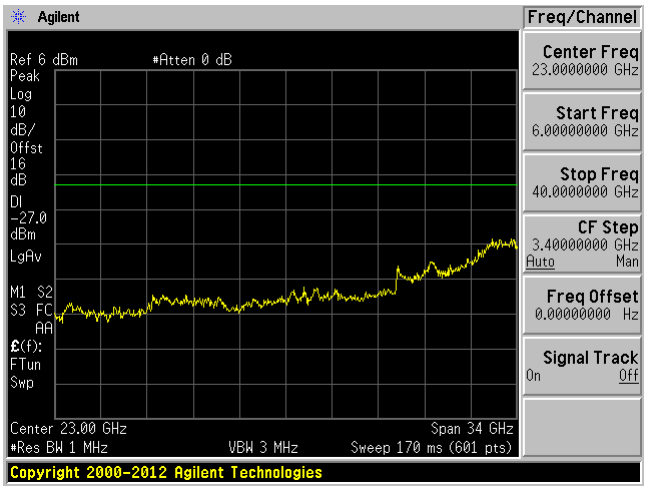
Middle Channel 5300 MHz (6-40GHz)



High Channel 5320 MHz (30MHz-6GHz)

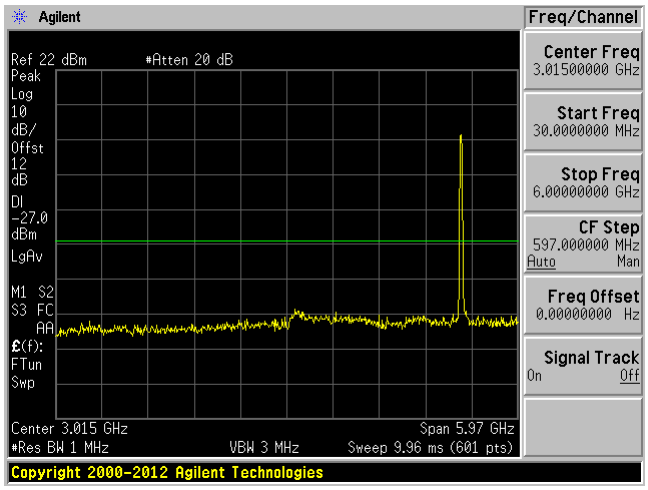


High Channel 5320 MHz (6-40GHz)

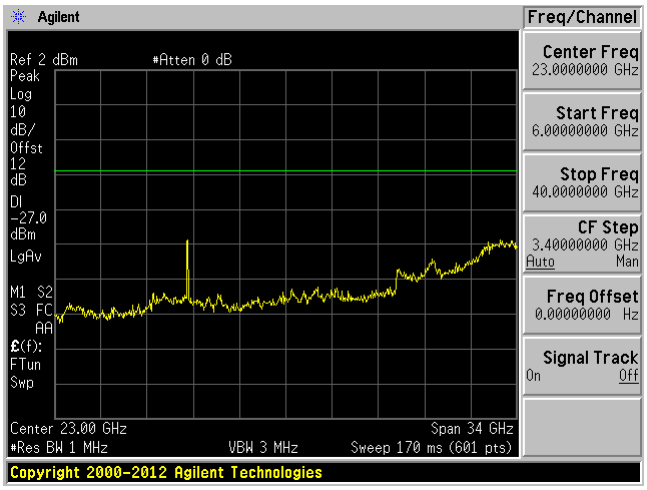


802.11n20 mode chain 2

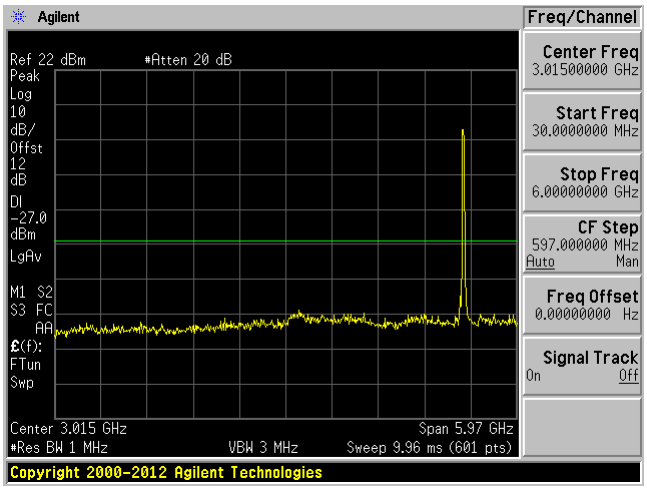
Low Channel 5260 MHz (30MHz-6GHz)



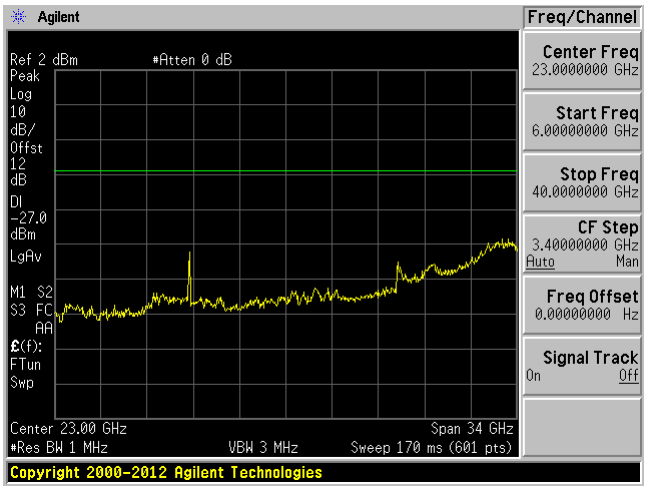
Low Channel 5260 MHz (6-40GHz)



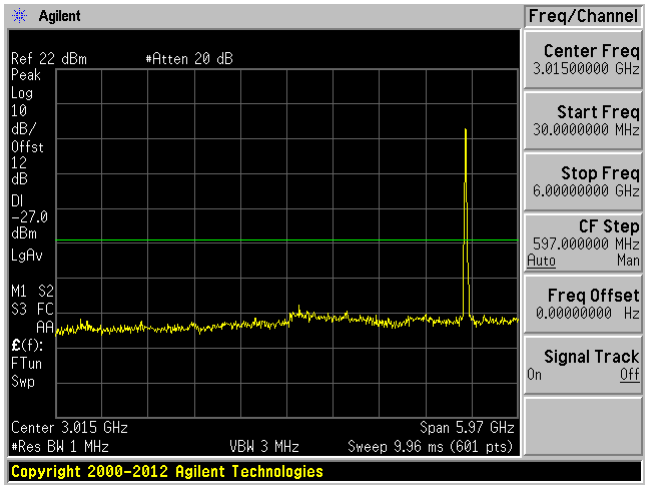
Middle Channel 5300 MHz (30MHz-6GHz)



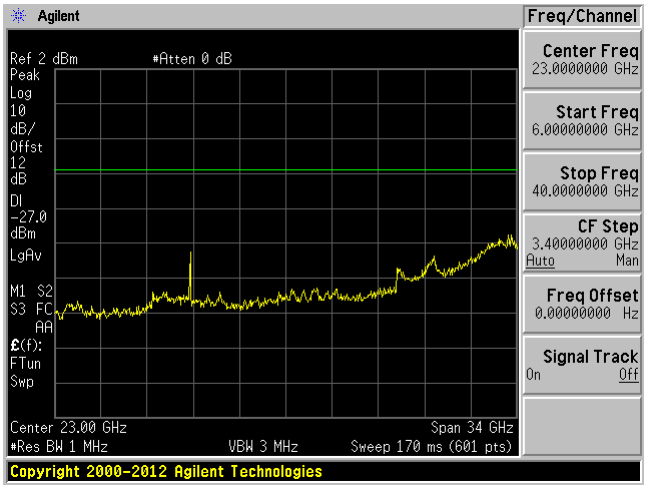
Middle Channel 5300 MHz (6-40GHz)



High Channel 5320 MHz (30MHz-6GHz)

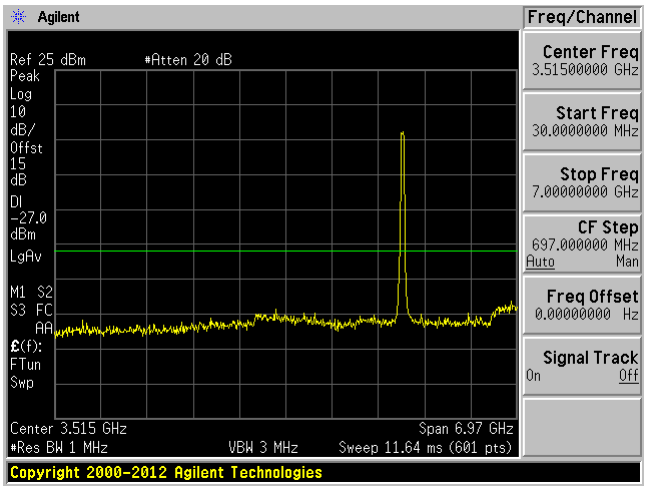


High Channel 5320 MHz (6-40GHz)

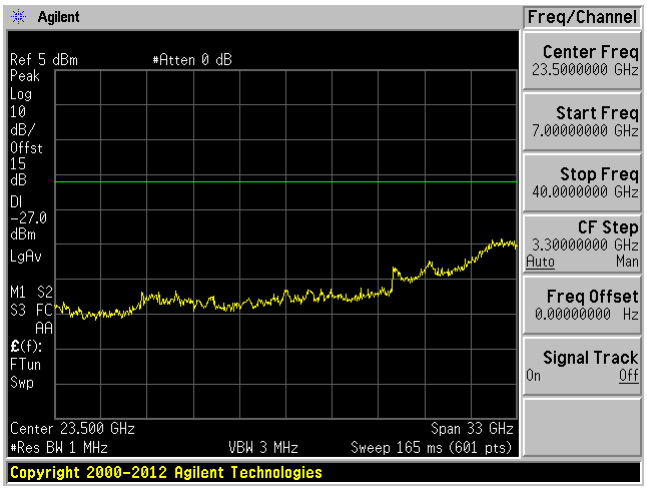


802.11n40 mode chain 1

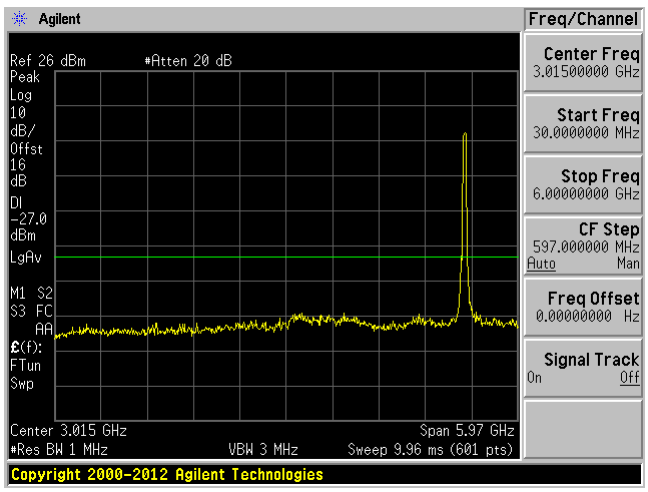
Low Channel 5270 MHz (30MHz-7GHz)



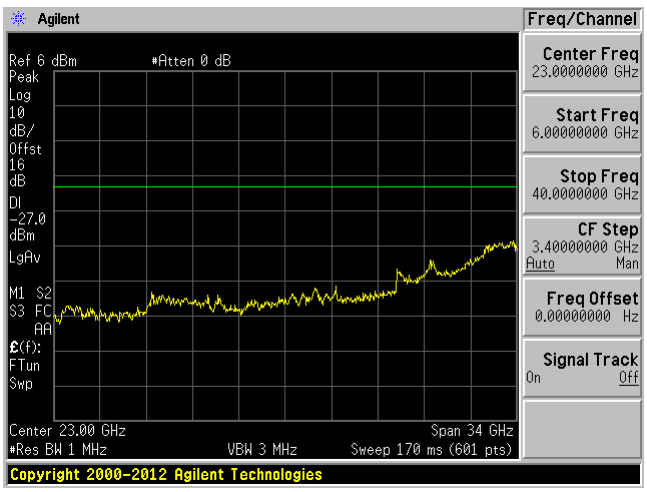
Low Channel 5270 MHz (7-40GHz)



High Channel 5310 MHz (30MHz-6GHz)

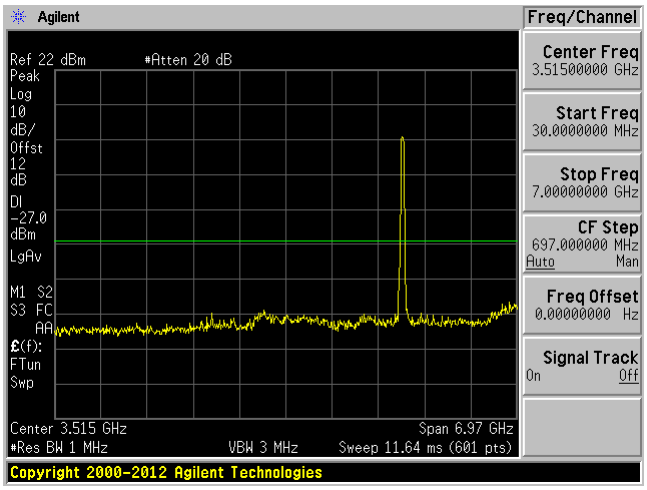


High Channel 5310 MHz (6-40GHz)

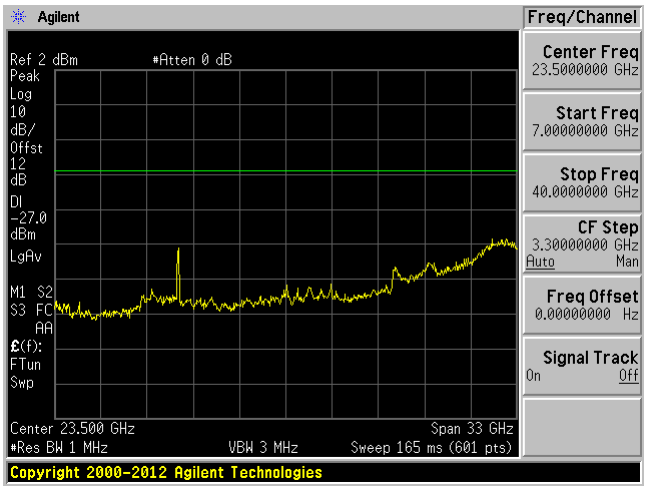


802.11n40 mode chain 2

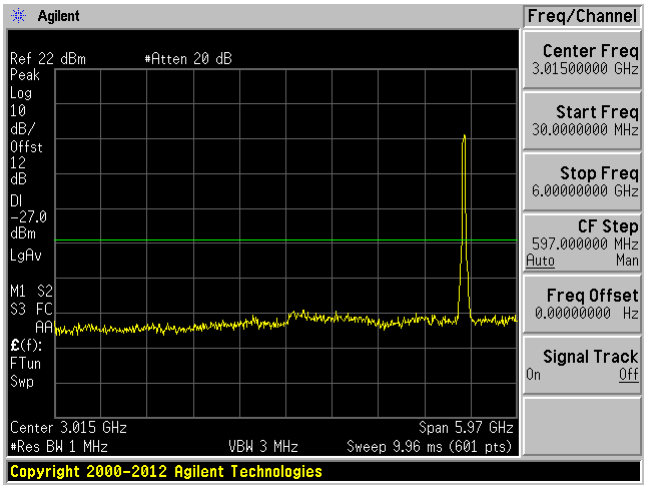
Low Channel 5270 MHz (30MHz-7GHz)



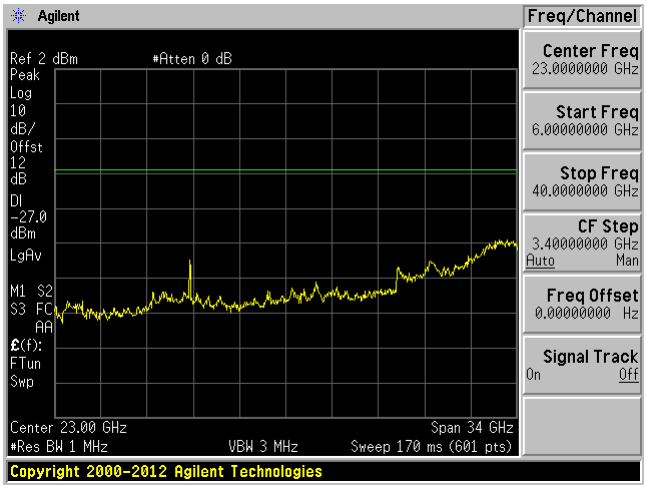
Low Channel 5270 MHz (7-40GHz)



High Channel 5310 MHz (30MHz-6GHz)

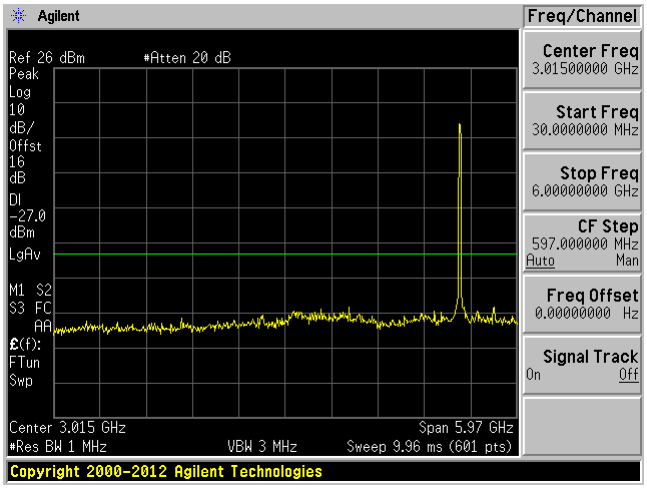


High Channel 5310 MHz (6-40GHz)

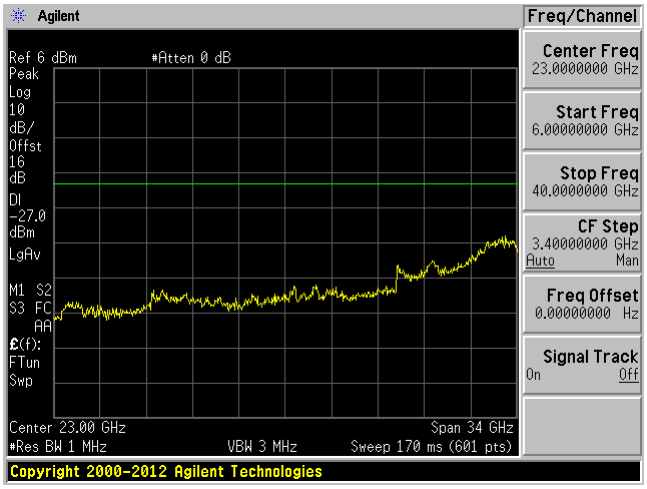


802.11ac20 mode chain 1

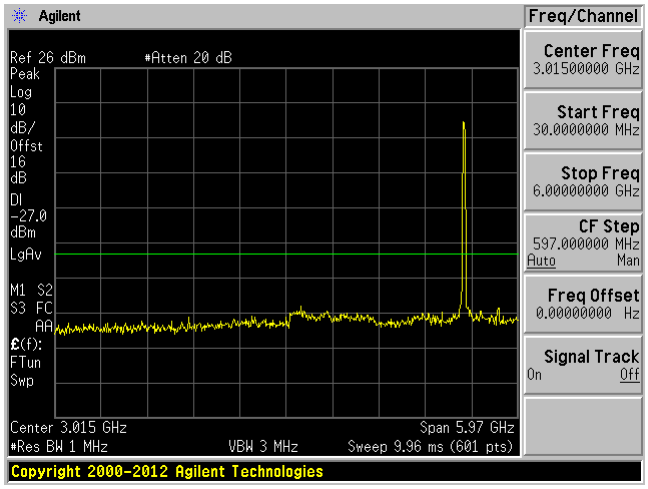
Low Channel 5260MHz (30MHz-6GHz)



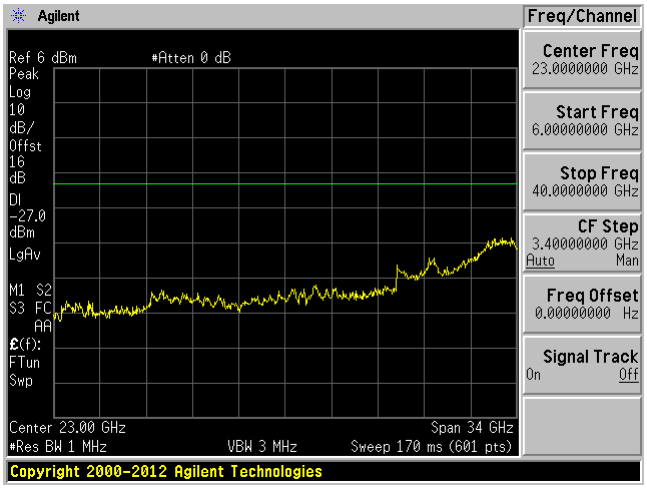
Low Channel 5260 MHz (6-40GHz)



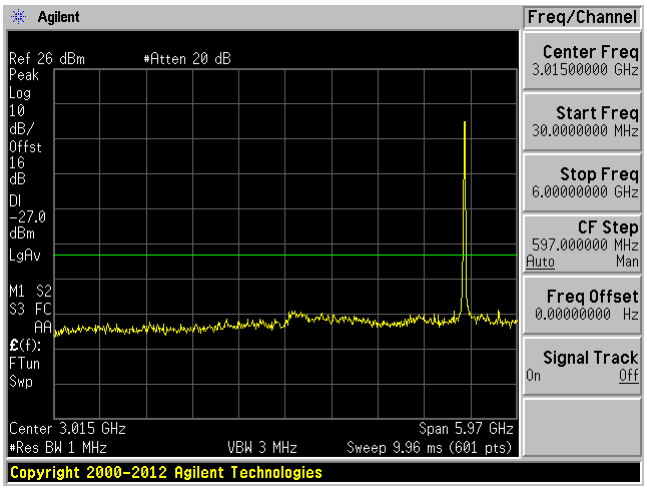
Middle Channel 5300MHz (30MHz-6GHz)



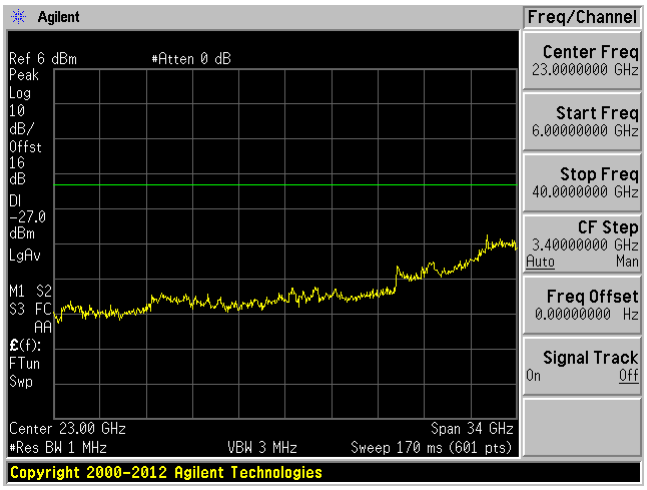
Middle Channel 5300 MHz (6GHz – 40GHz)



High Channel 5320 MHz (30MHz-6GHz)

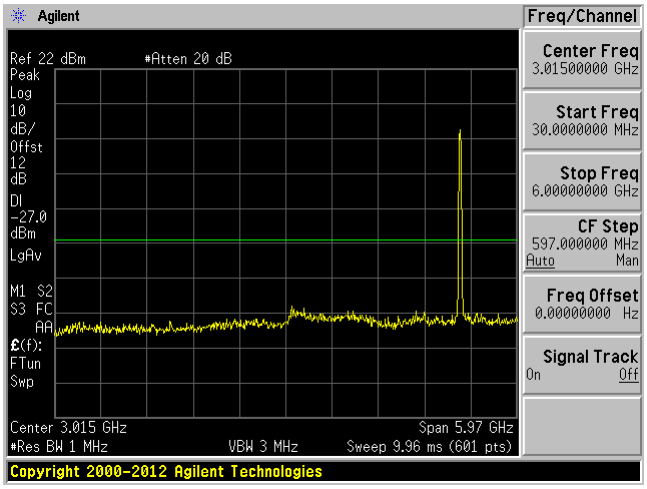


High Channel 5320 MHz (6GHz – 40GHz)

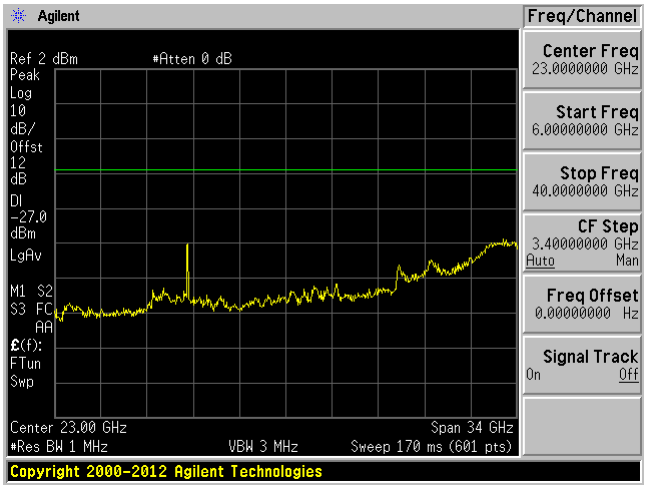


802.11ac20 mode chain 2

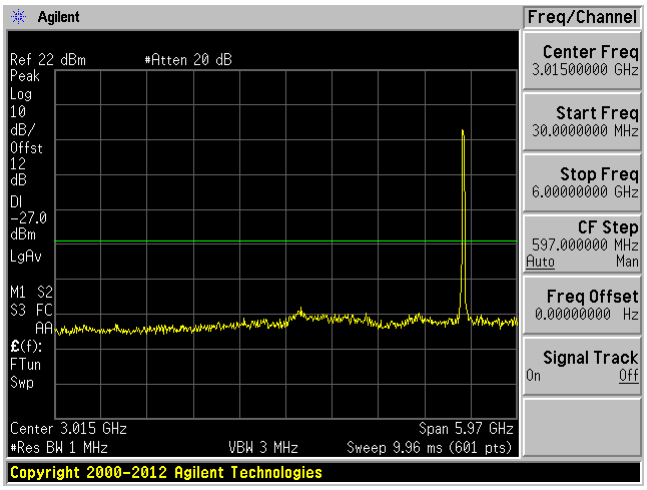
Low Channel 5260MHz (30MHz-6GHz)



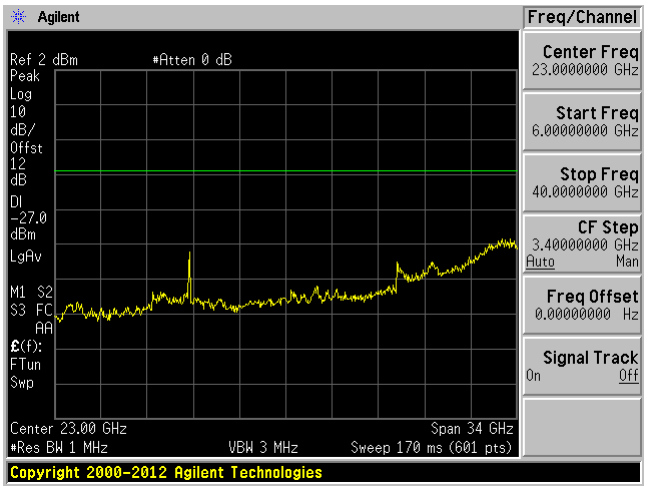
Low Channel 5260 MHz (6-40GHz)



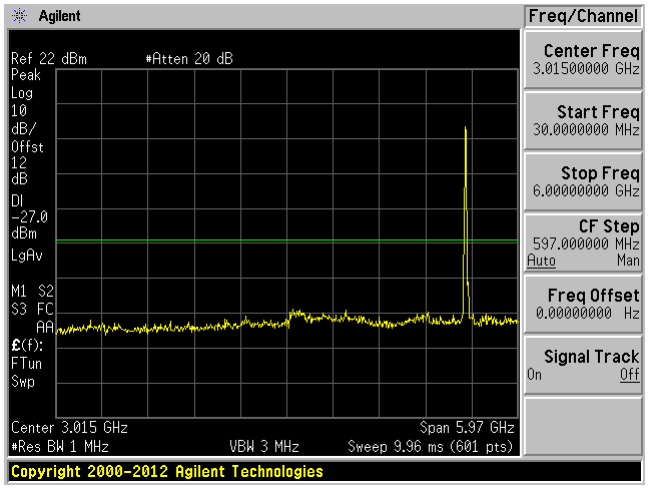
Middle Channel 5300MHz (30MHz-6GHz)



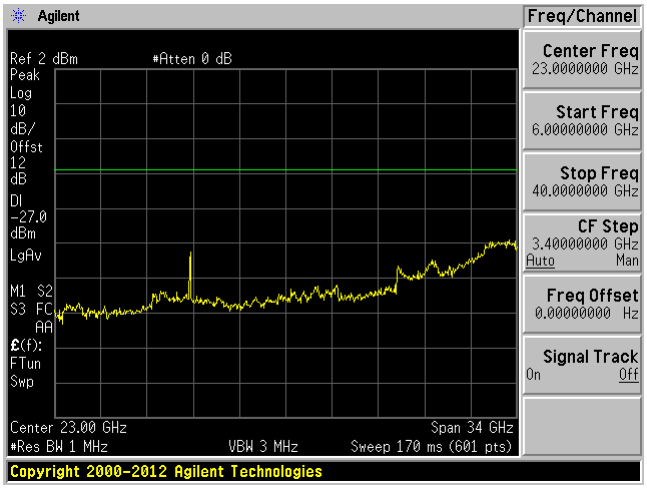
Middle Channel 5300 MHz (6GHz – 40GHz)



High Channel 5320 MHz (30MHz-6GHz)

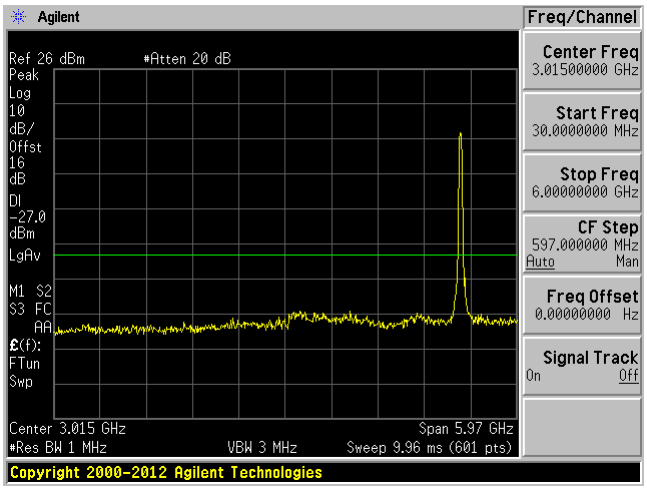


High Channel 5320 MHz (6GHz – 40GHz)

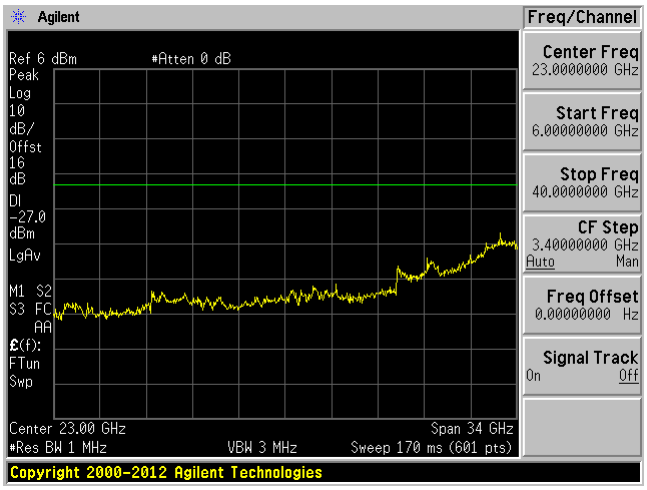


802.11ac40 mode chain 1

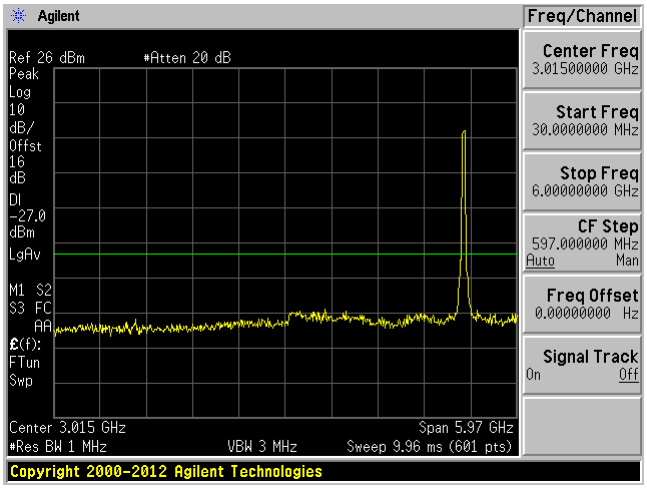
Low Channel 5270 MHz (30MHz-6GHz)



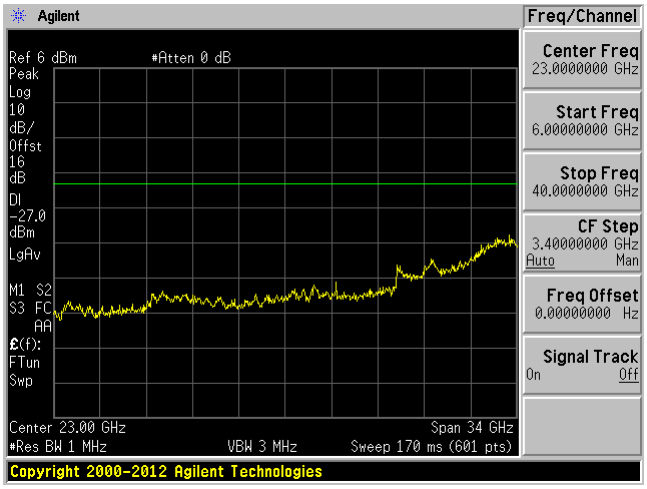
Low Channel 5270 MHz (6-40GHz)



High Channel 5310 MHz (30MHz-6GHz)

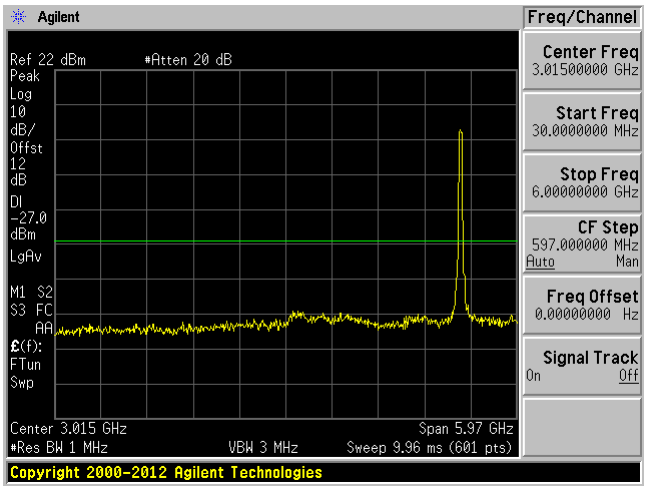


High Channel 5310 MHz (6GHz – 40GHz)

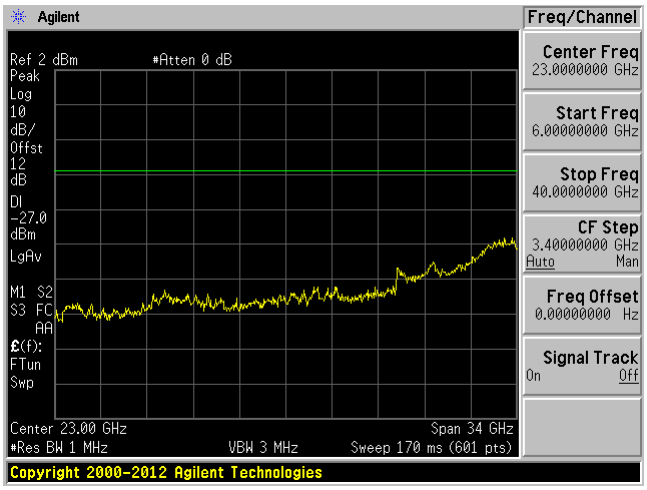


802.11ac40 mode chain 2

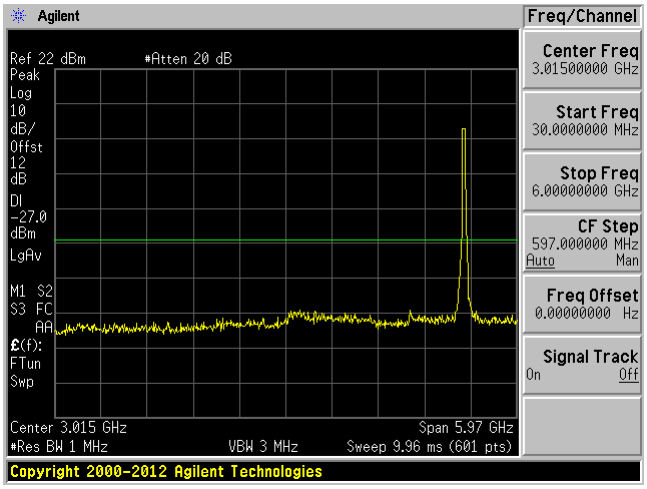
Low Channel 5270 MHz (30MHz-6GHz)



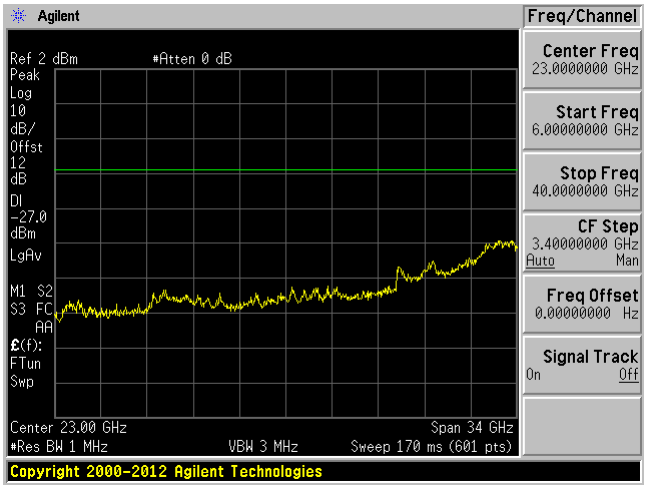
Low Channel 5270 MHz (6-40GHz)



High Channel 5310 MHz (30MHz-6GHz)

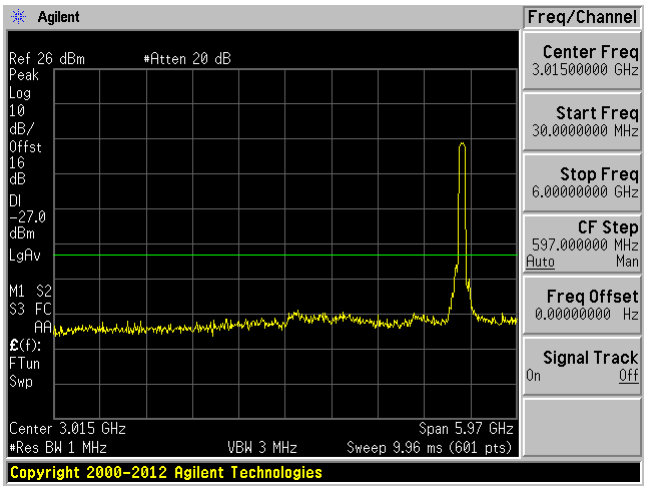


High Channel 5310 MHz (6GHz – 40GHz)

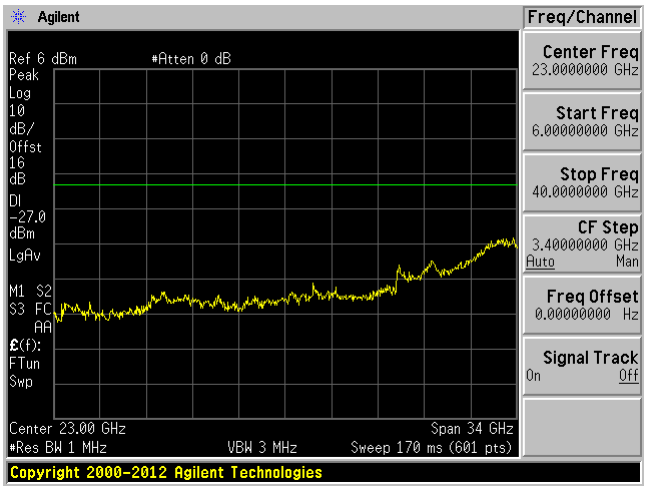


802.11ac80 mode chain 1

5290 MHz (30MHz-6GHz)

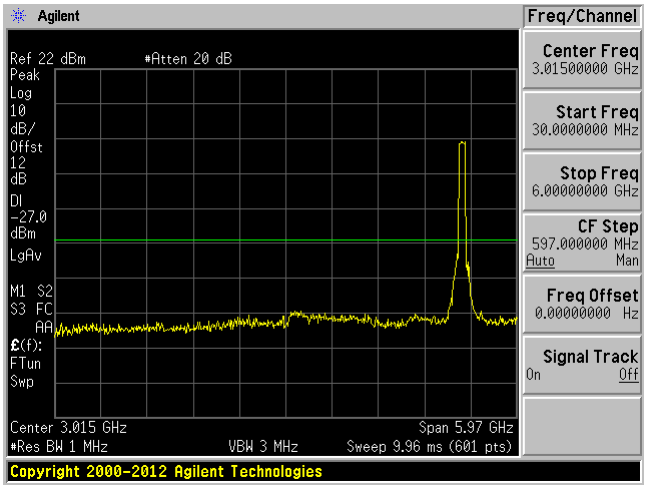


5290 MHz (6GHz – 40GHz)

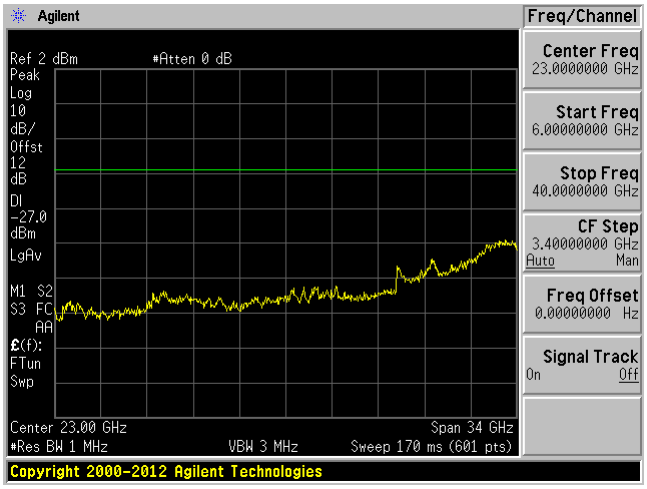


802.11ac80 mode chain 2

5290 MHz (30MHz-6GHz)



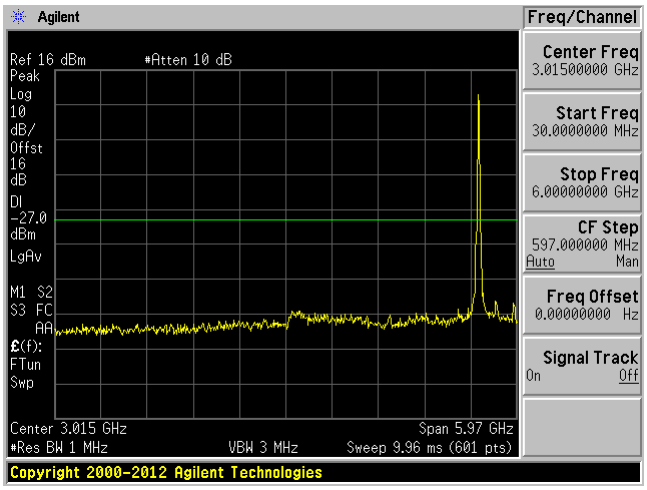
5290 MHz (6GHz – 40GHz)



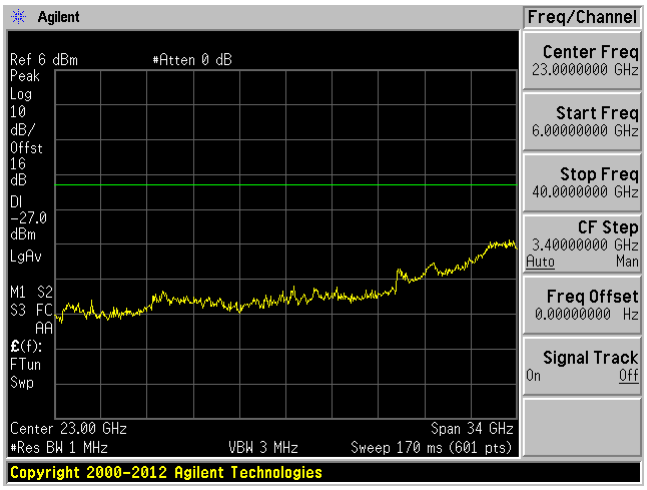
5470 – 5725 MHz

802.11a mode chain 1

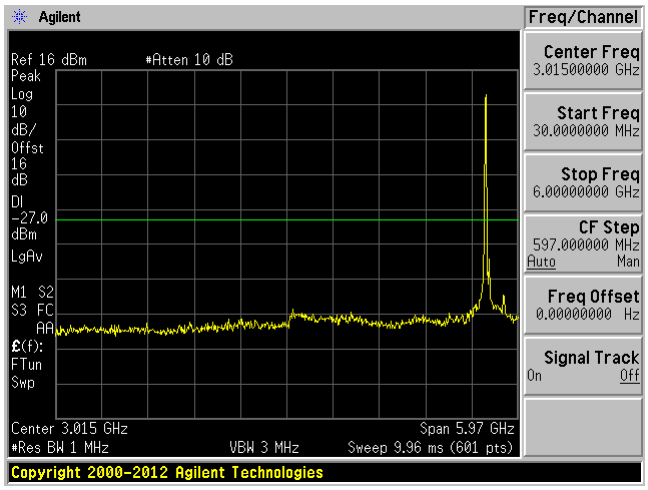
Low Channel 5500 MHz (30MHz-6GHz)



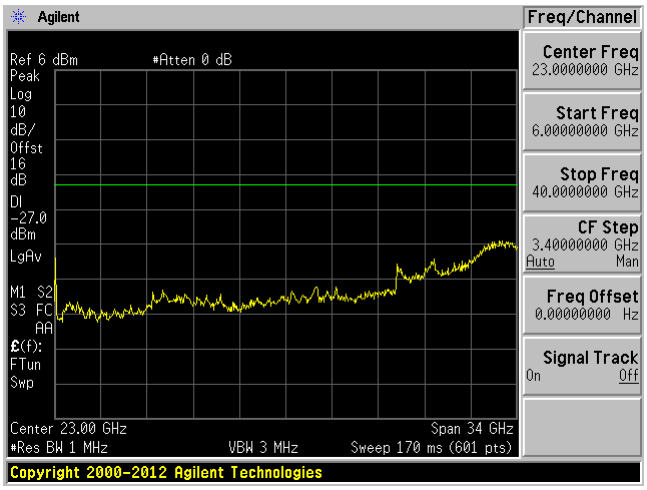
Low Channel 5500 MHz (6-40GHz)



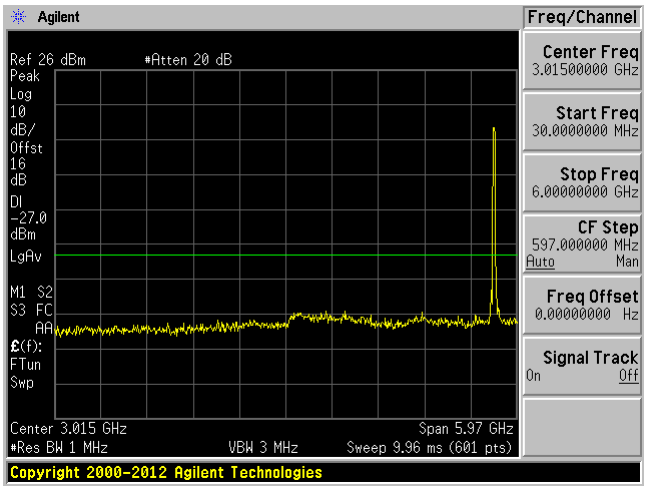
Middle Channel 5580 MHz (30MHz-6GHz)



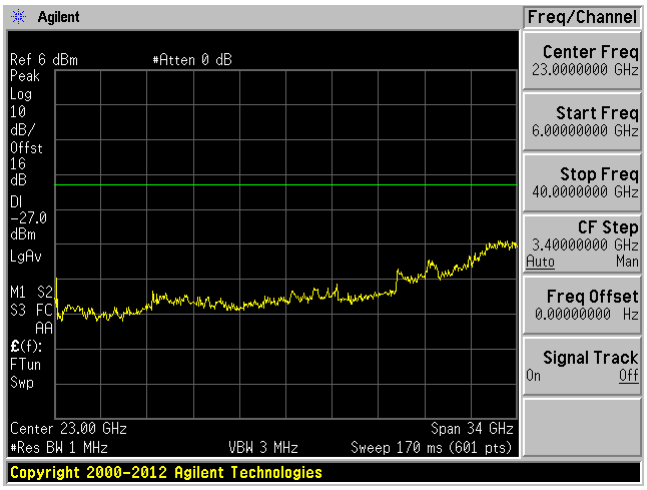
Middle Channel 5580 MHz (6-40GHz)



High Channel 5700 MHz (30MHz-6GHz)

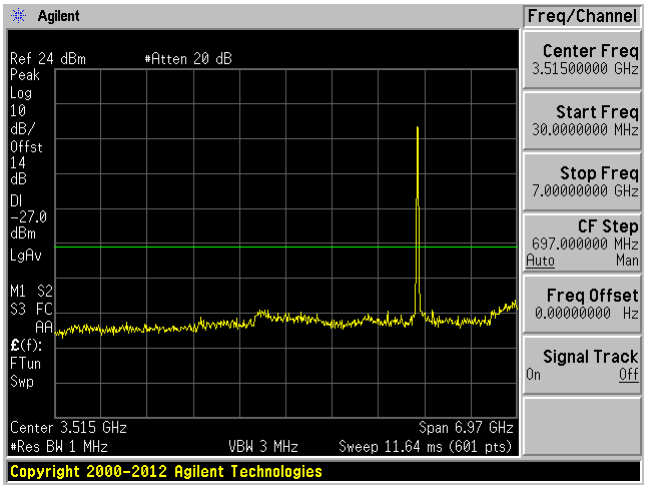


High Channel 5700 MHz (6-40GHz)

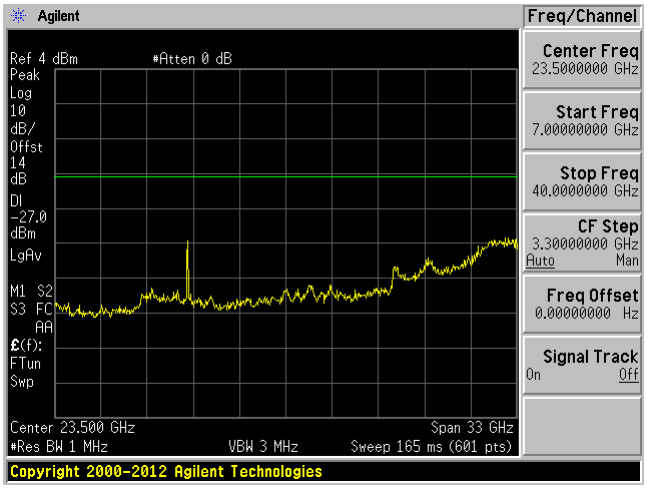


802.11a mode chain 2

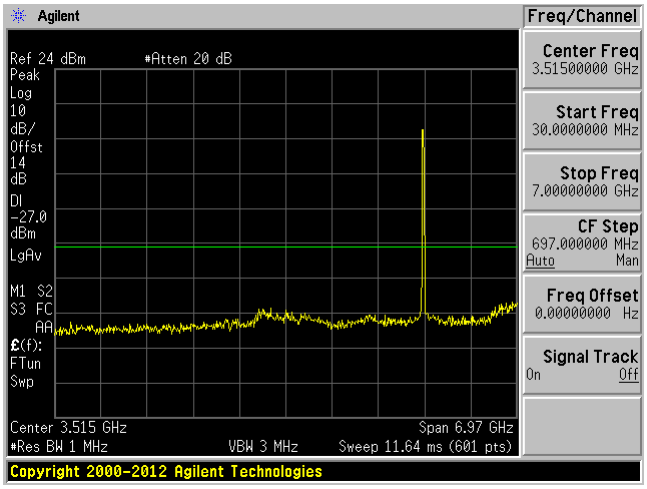
Low Channel 5500 MHz (30MHz-7GHz)



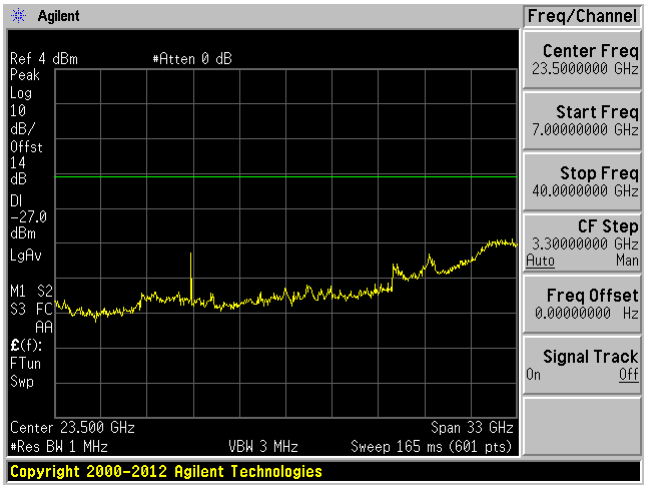
Low Channel 5500 MHz (7-40GHz)



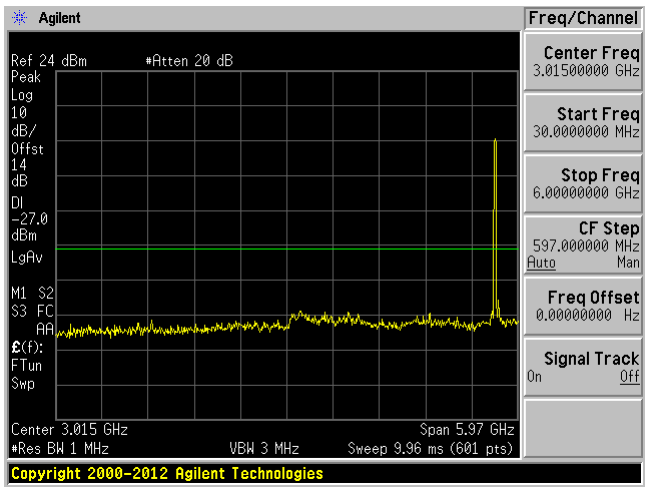
Middle Channel 5580 MHz (30MHz-7GHz)



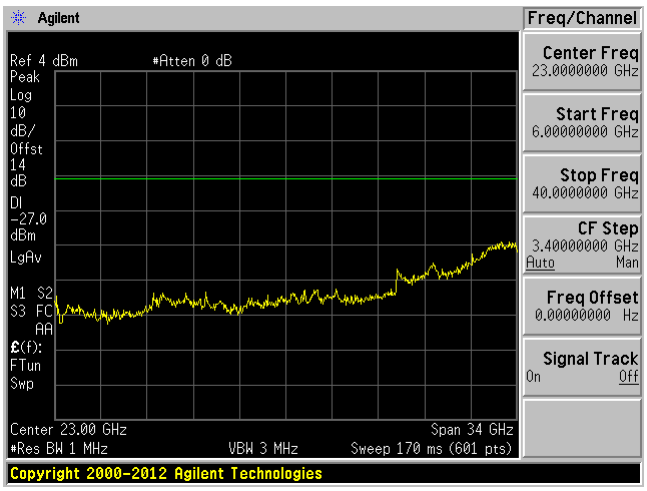
Middle Channel 5580 MHz (7-40GHz)



High Channel 5700 MHz (30MHz-6GHz)

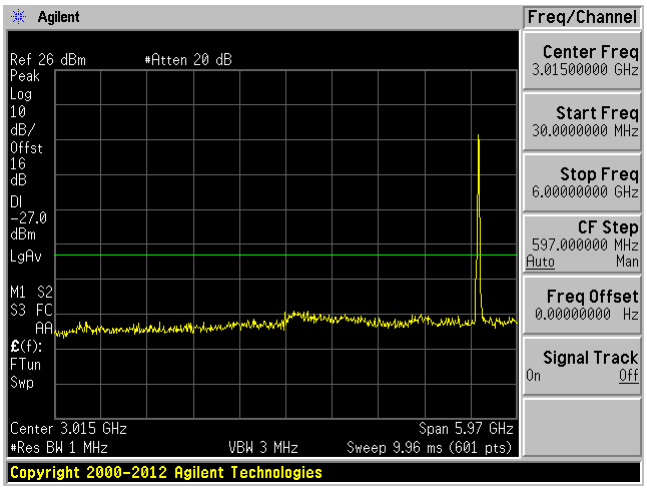


High Channel 5700 MHz (6-40GHz)

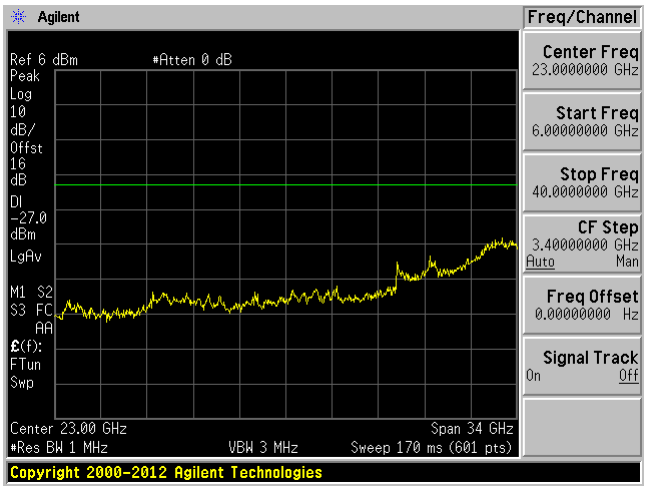


802.11n20 mode chain 1

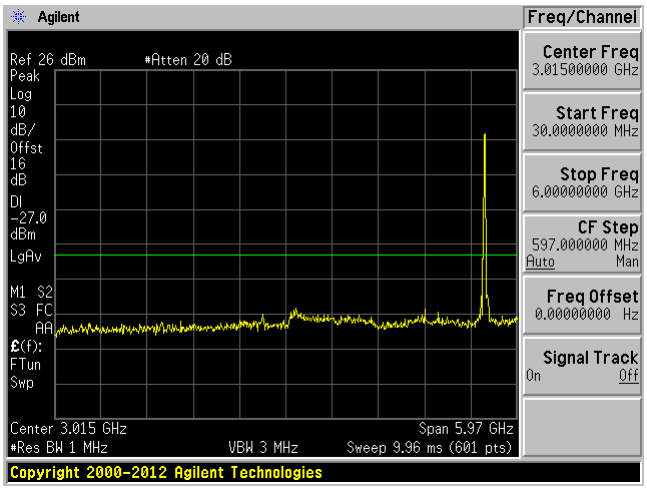
Low Channel 5500 MHz (30MHz-6GHz)



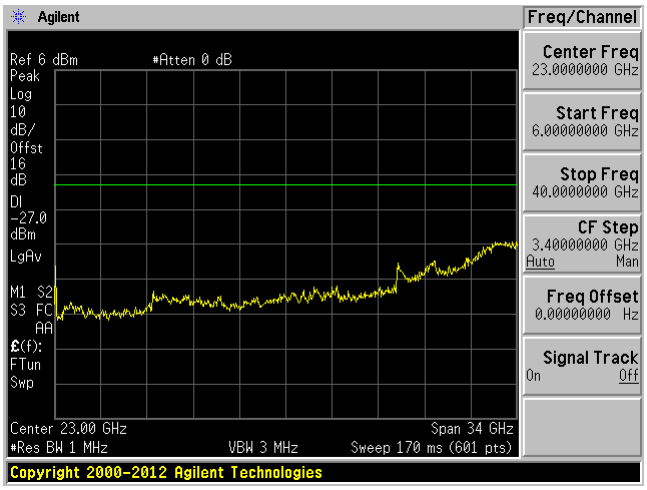
Low Channel 5500 MHz (6-40GHz)



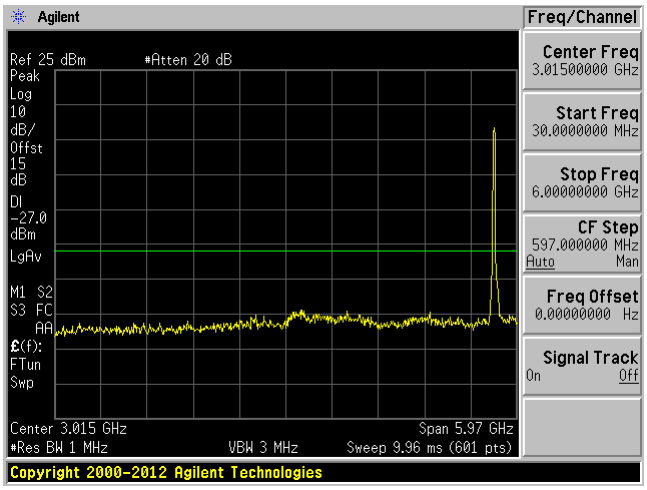
Middle Channel 5580 MHz (30MHz-6GHz)



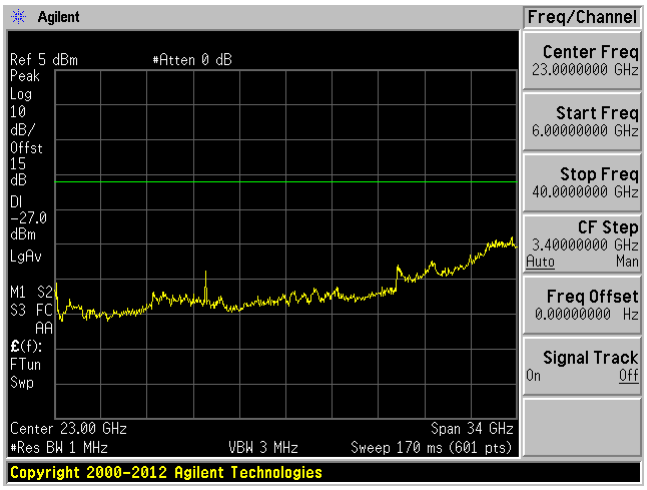
Middle Channel 5580 MHz (6-40GHz)



High Channel 5700 MHz (30MHz-6GHz)

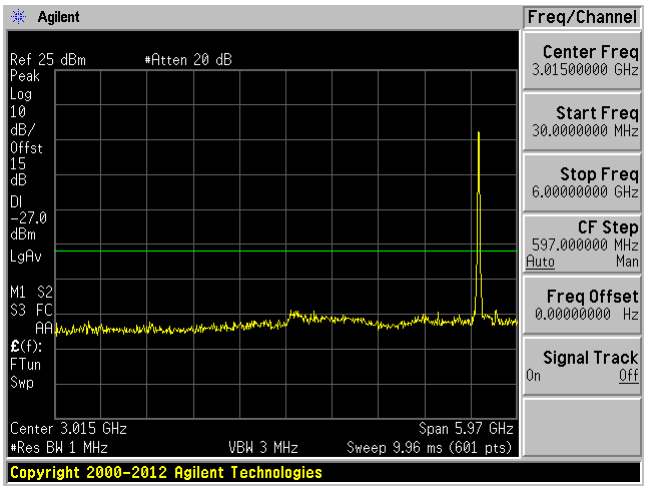


High Channel 5700 MHz (6-40GHz)

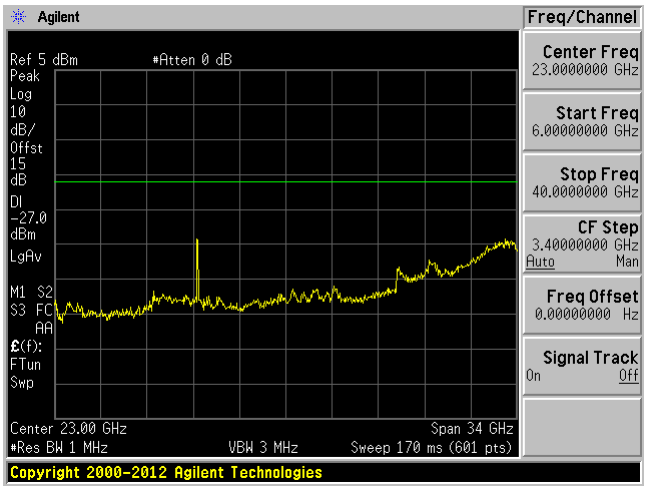


802.11n20 mode chain 2

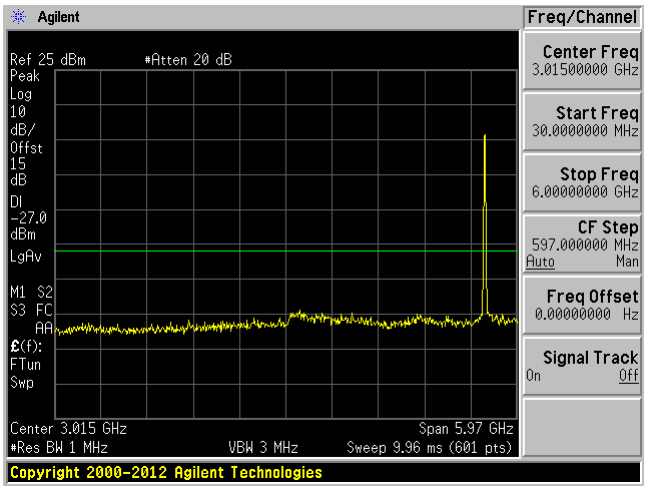
Low Channel 5500 MHz (30MHz-6GHz)



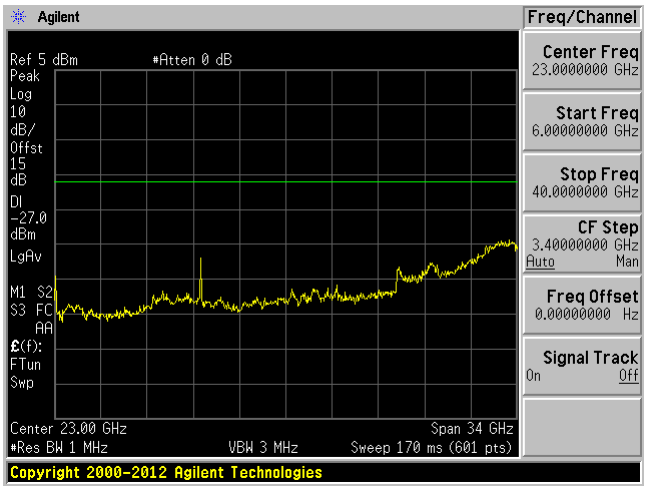
Low Channel 5500 MHz (6-40GHz)



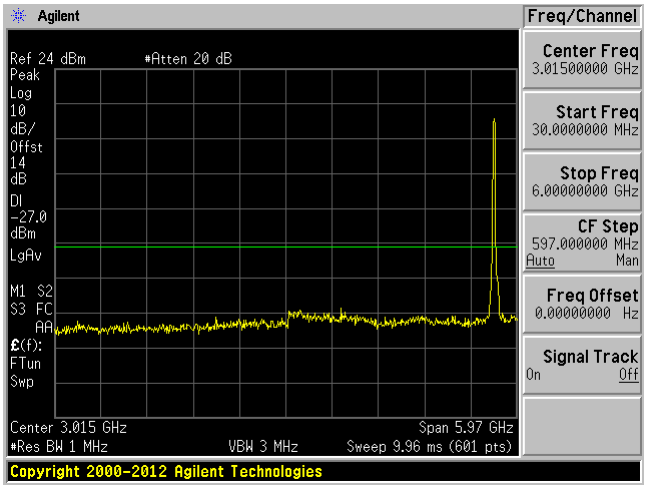
Middle Channel 5580 MHz (30MHz-6GHz)



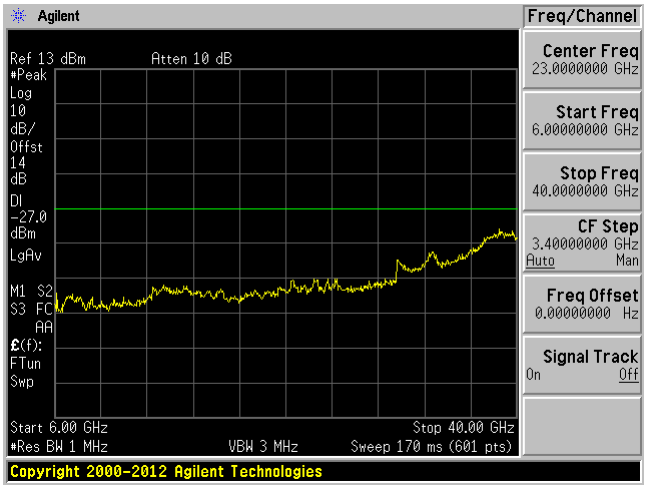
Middle Channel 5580 MHz (6-40GHz)



High Channel 5700 MHz (30MHz-6GHz)

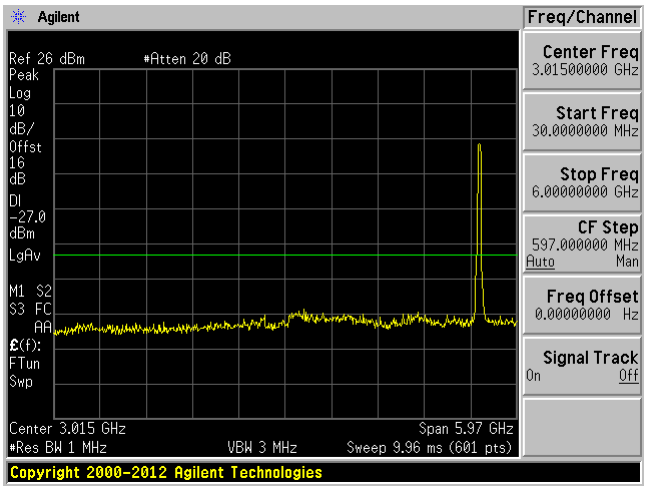


High Channel 5700 MHz (6-40GHz)

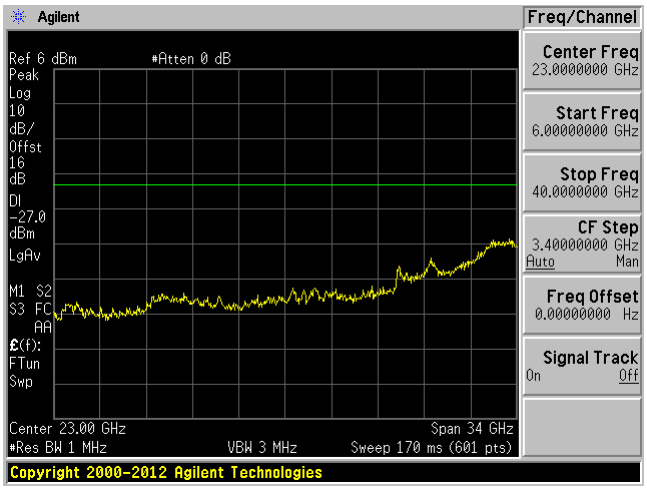


802.11n40 mode chain 1

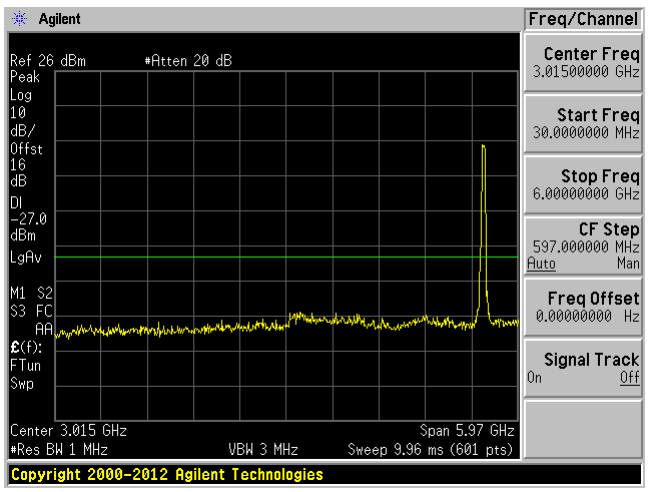
Low Channel 5510 MHz (30MHz-6GHz)



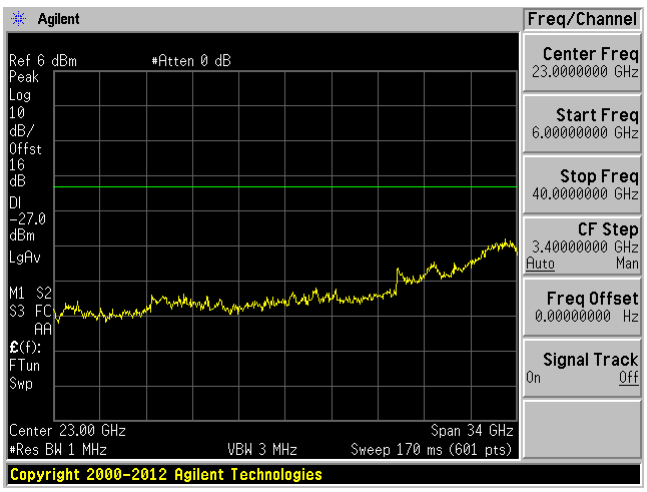
Low Channel 5510 MHz (6-40GHz)



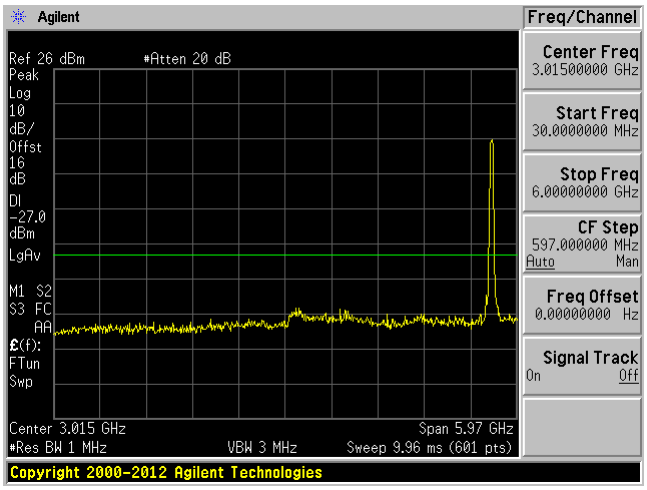
Middle Channel 5500 MHz (30MHz-6GHz)



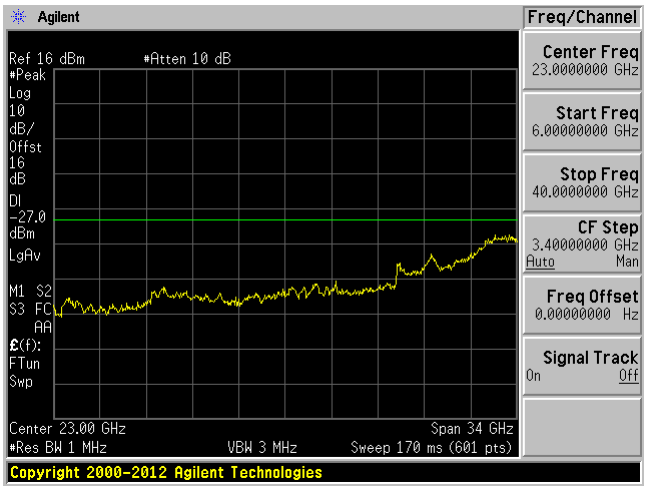
Middle Channel 5500 MHz (6-40GHz)



High Channel 5670 MHz (30MHz-6GHz)

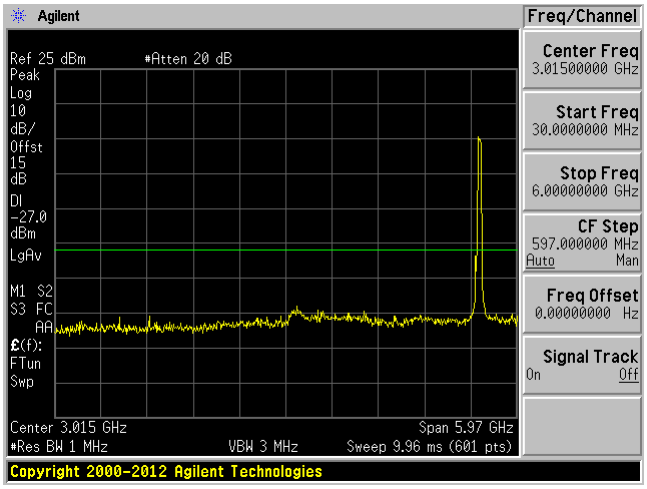


High Channel 5670 MHz (6-40GHz)

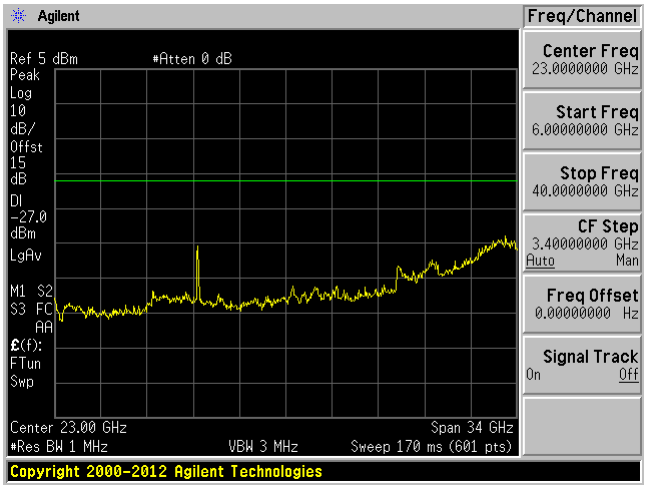


802.11n40 mode chain 2

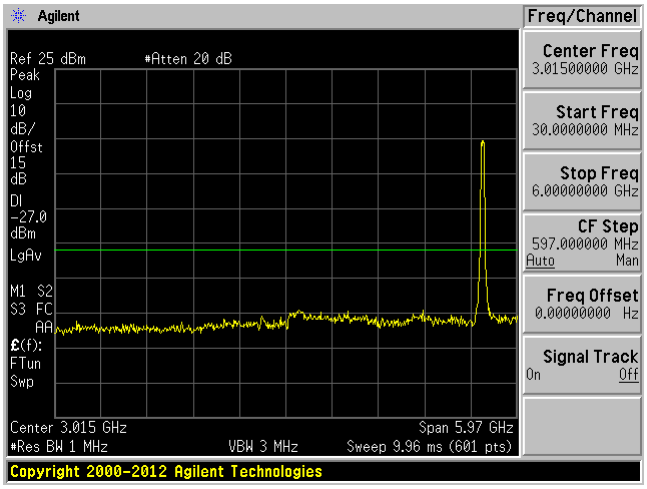
Low Channel 5510 MHz (30MHz-6GHz)



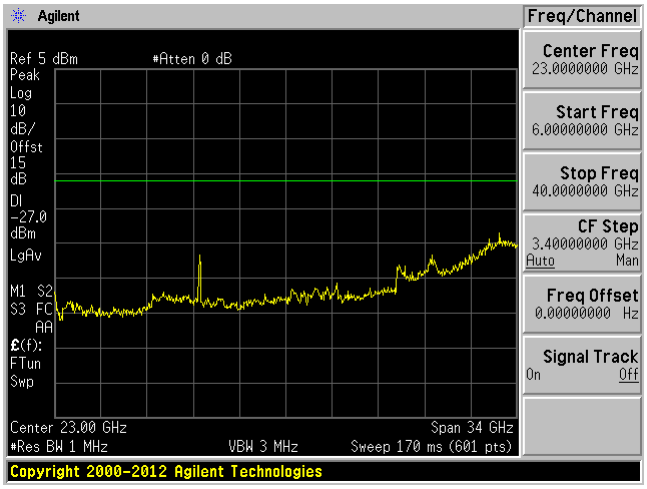
Low Channel 5510 MHz (6-40GHz)



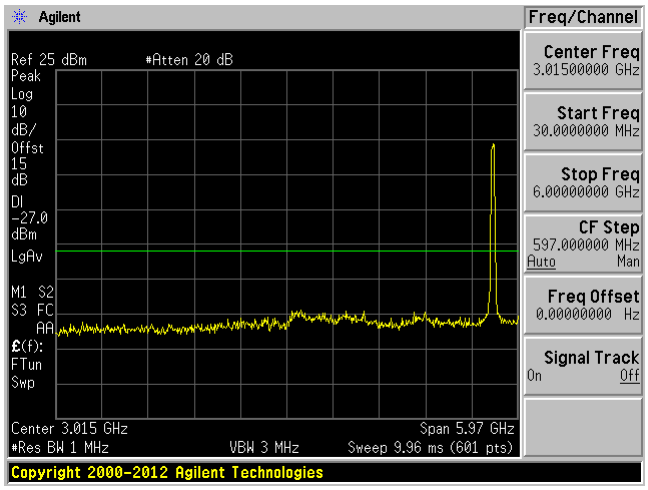
Middle Channel 5550 MHz (30MHz-6GHz)



Middle Channel 5550 MHz (6-40GHz)



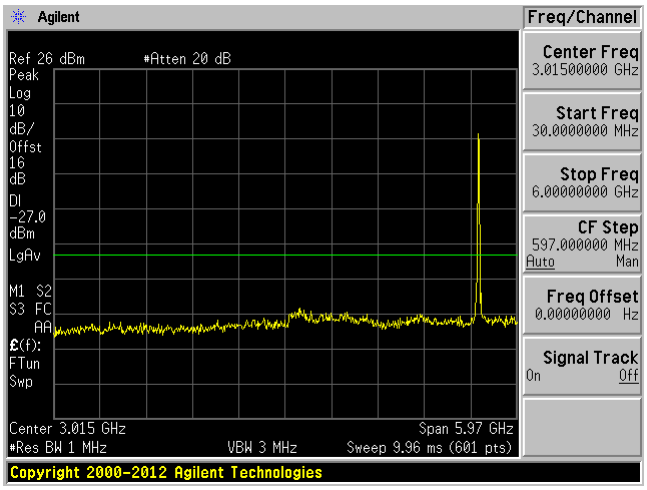
High Channel 5670 MHz (30MHz-6GHz)



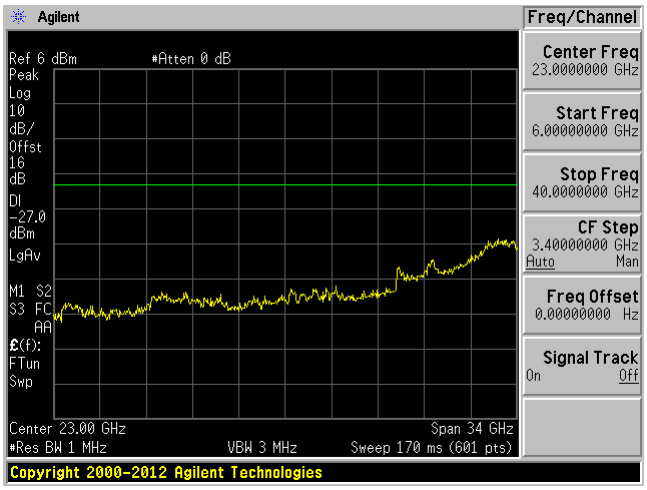
High Channel 5670 MHz (6-40GHz)

802.11ac20 mode chain 1

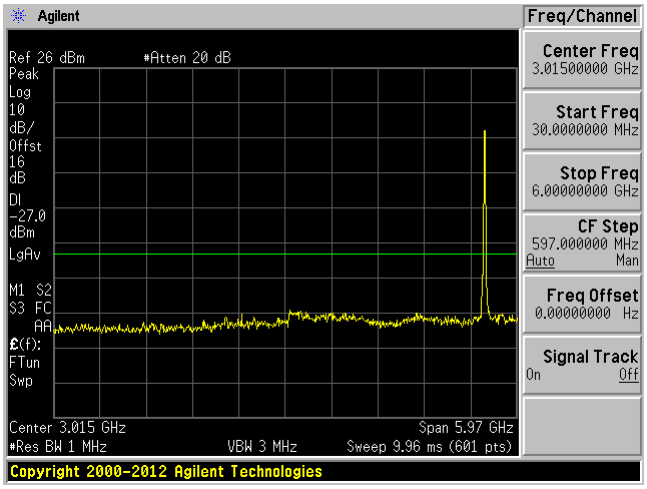
Low Channel 5500MHz (30MHz-6GHz)



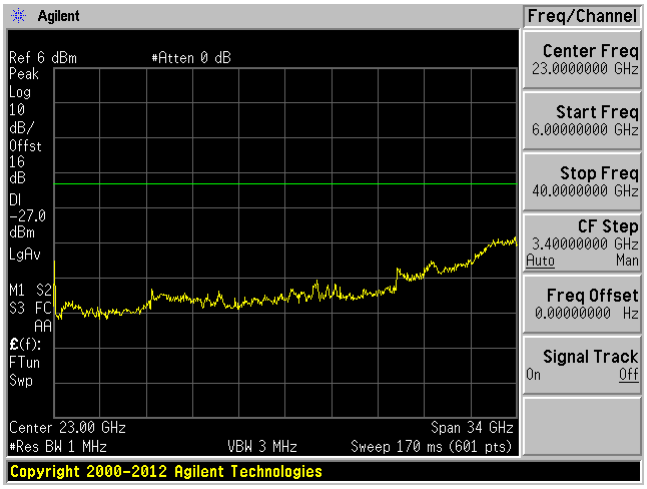
Low Channel 5500 MHz (6-40GHz)



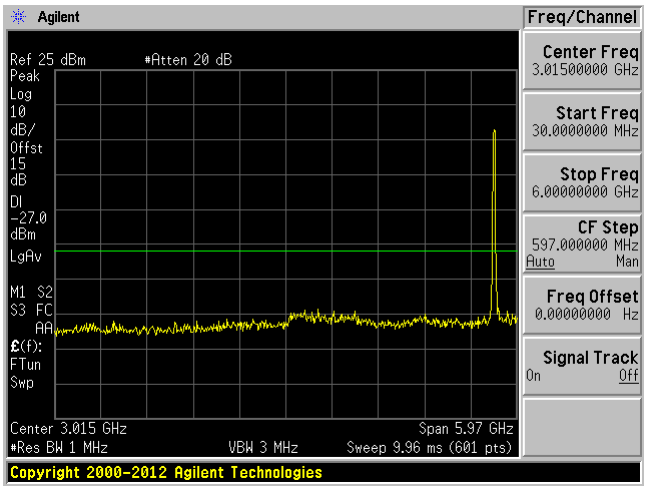
Middle Channel 5580 MHz (30MHz-6GHz)



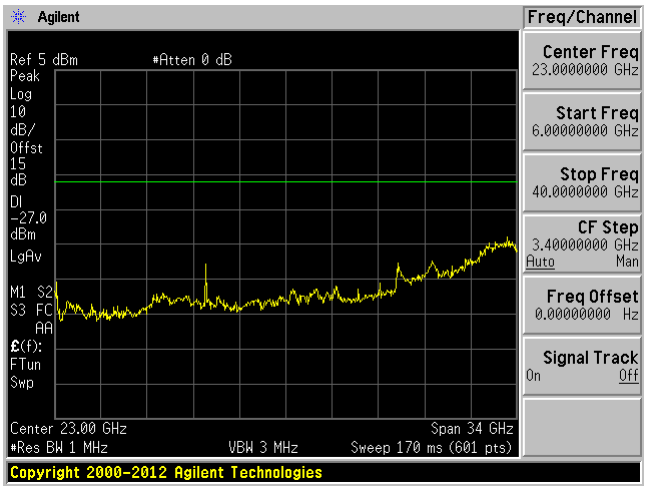
Middle Channel 5580 MHz (6GHz – 40GHz)



High Channel 5700 MHz (30MHz-6GHz)

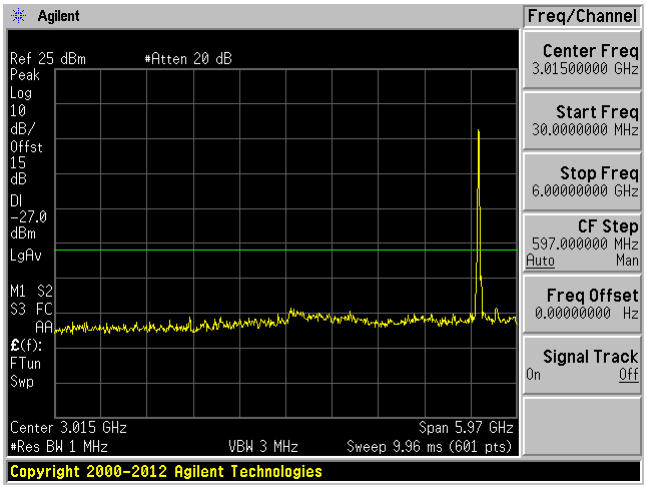


High Channel 5700 MHz (6GHz – 40GHz)



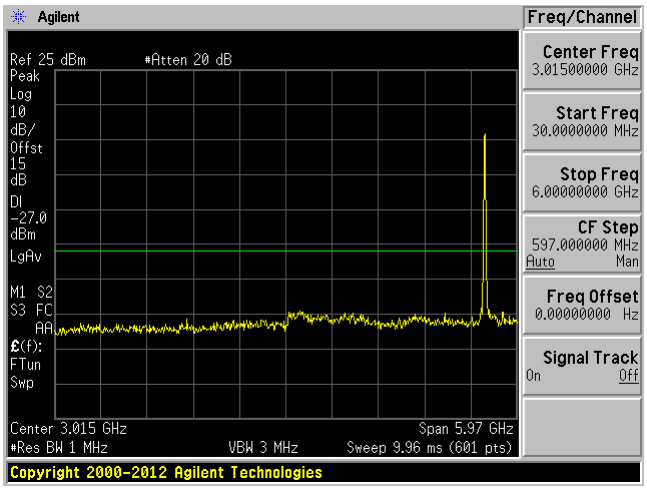
802.11ac20 mode chain 2

Low Channel 5500MHz (30MHz-6GHz)

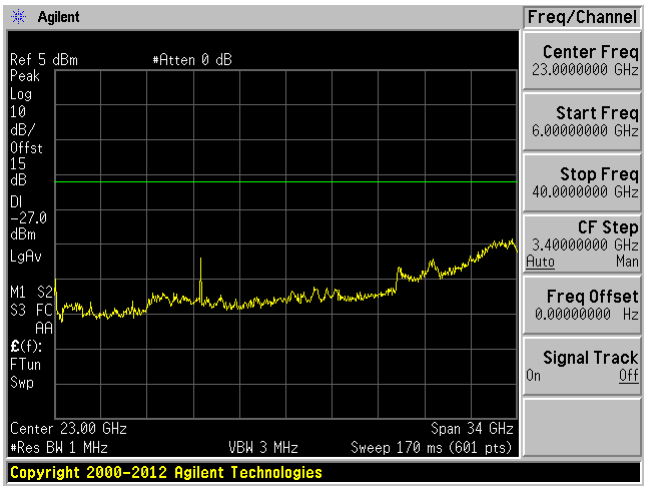


Low Channel 5500 MHz (6-40GHz)

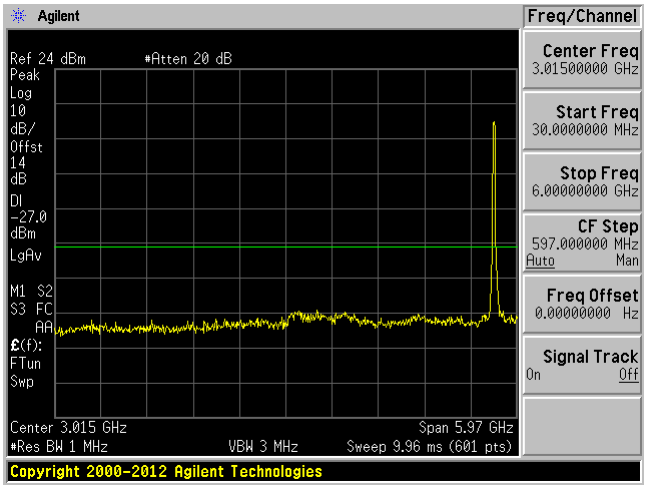
Middle Channel 5580MHz (30MHz-6GHz)



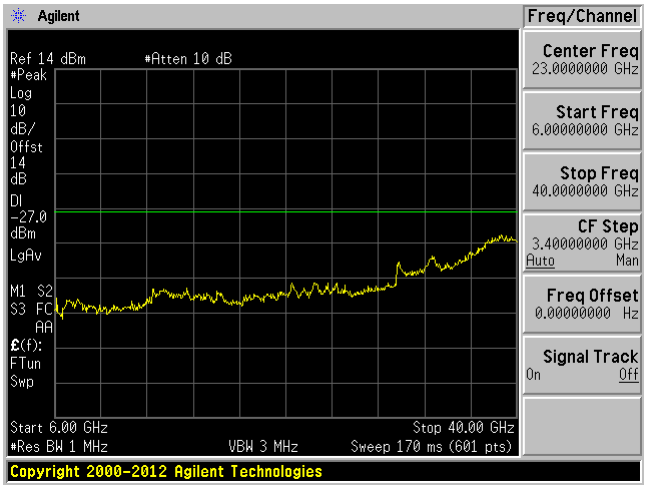
Middle Channel 5580 MHz (6GHz – 40GHz)



High Channel 5700 MHz (30MHz-6GHz)

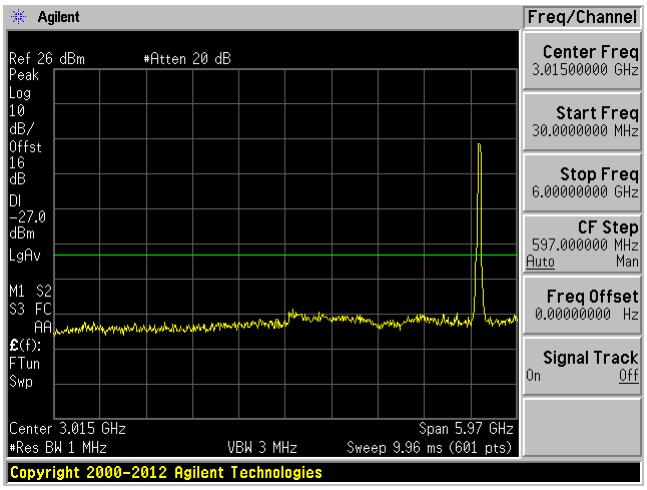


High Channel 5700 MHz (6GHz – 40GHz)

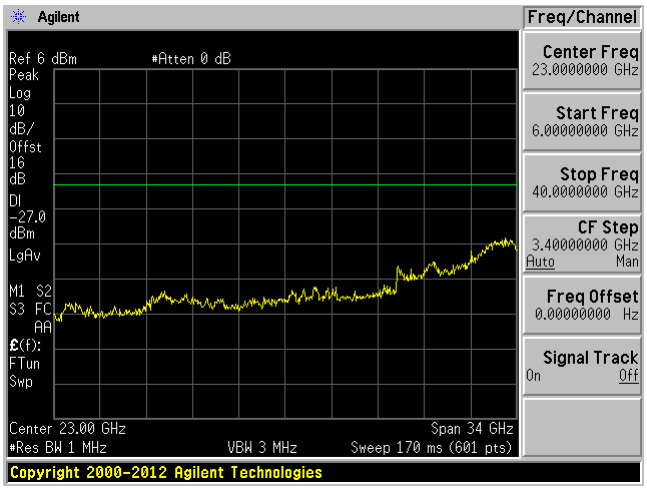


802.11ac40 mode chain 1

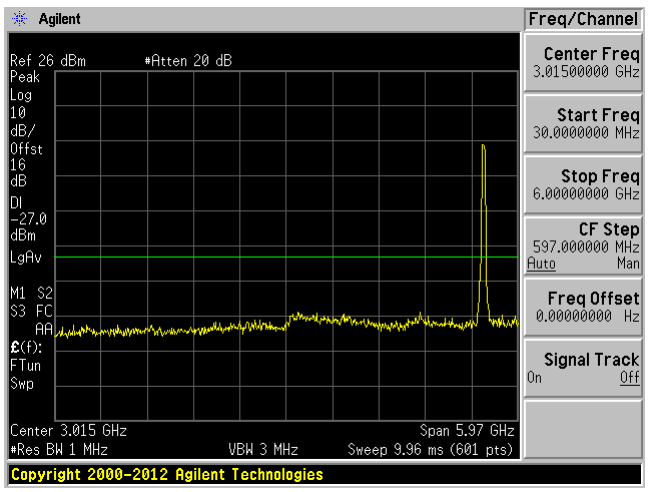
Low Channel 5510 MHz (30MHz-6GHz)



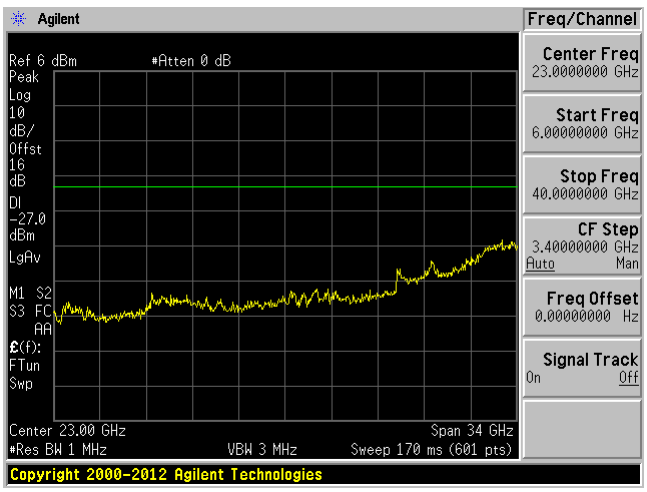
Low Channel 5510 MHz (6-40GHz)



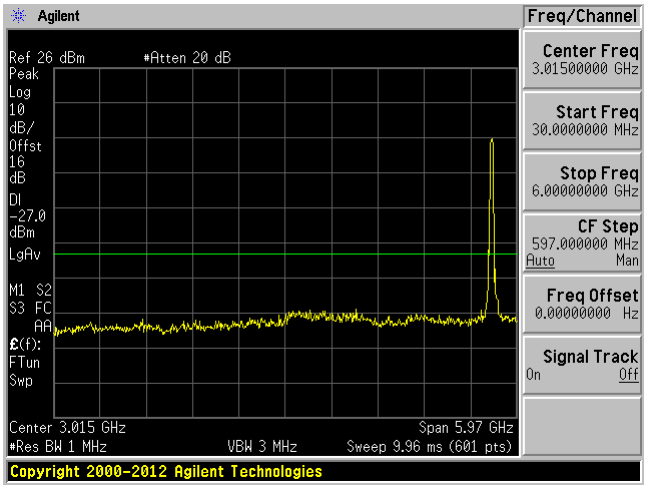
Middle Channel 5550 MHz (30MHz-6GHz)



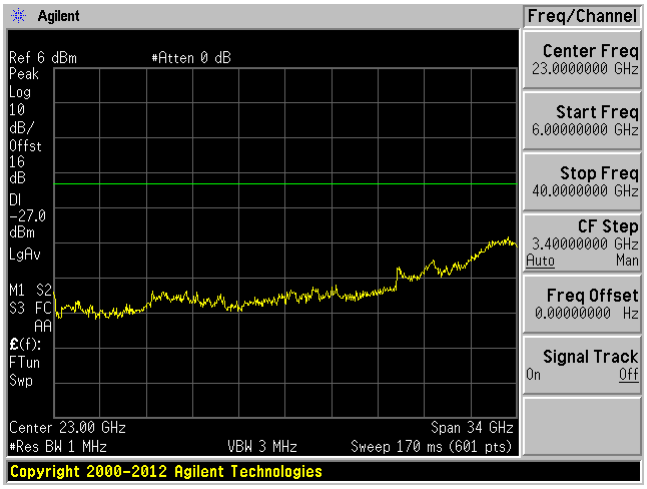
Middle Channel 5550 MHz (6-40GHz)



High Channel 5670 MHz (30MHz-6GHz)

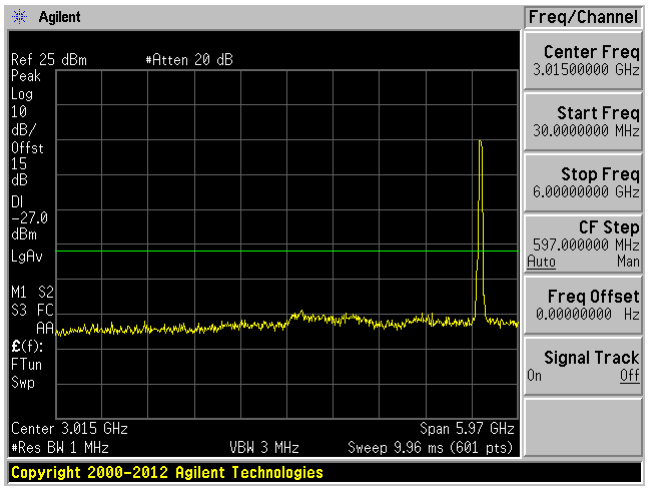


High Channel 5670 MHz (6-40GHz)

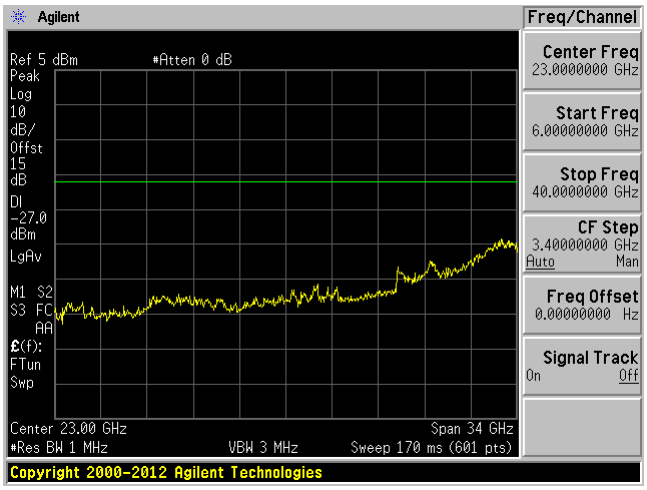


802.11ac40 mode chain 2

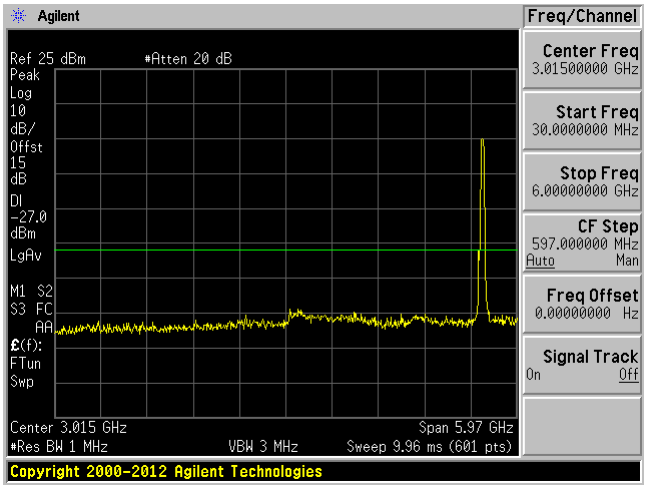
Low Channel 5510 MHz (30MHz-6GHz)



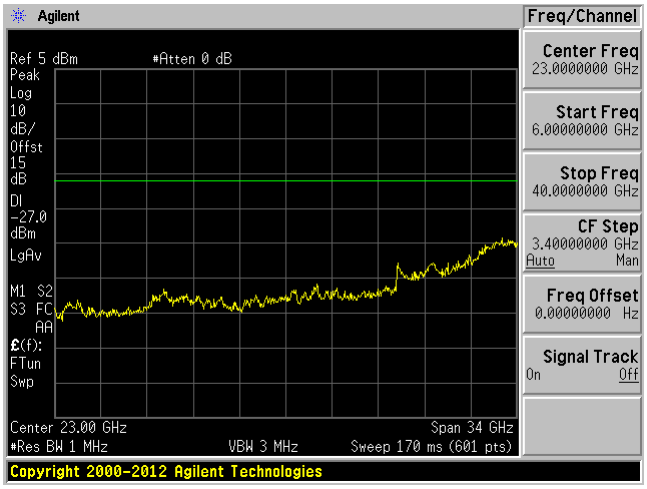
Low Channel 5510 MHz (6-40GHz)



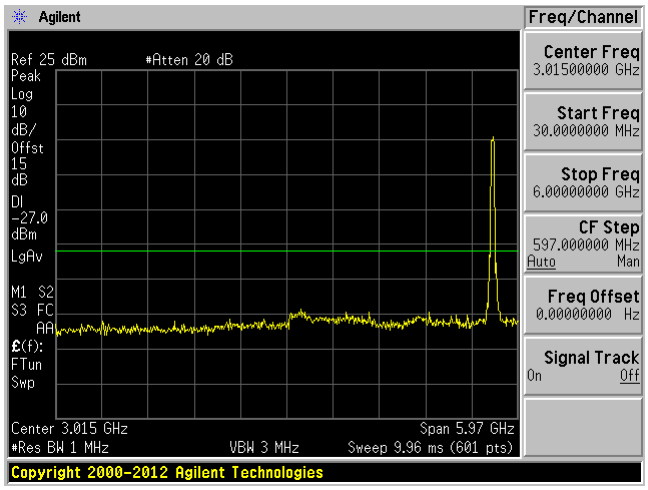
Middle Channel 5550 MHz (30MHz-6GHz)



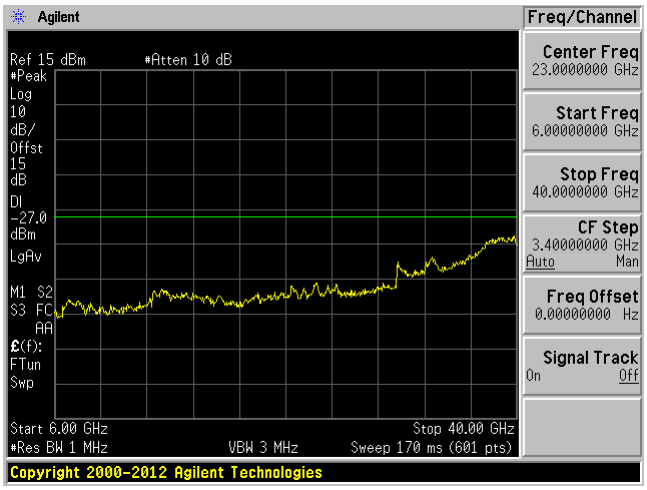
Middle Channel 5550 MHz (6-40GHz)



High Channel 5670 MHz (30MHz-6GHz)

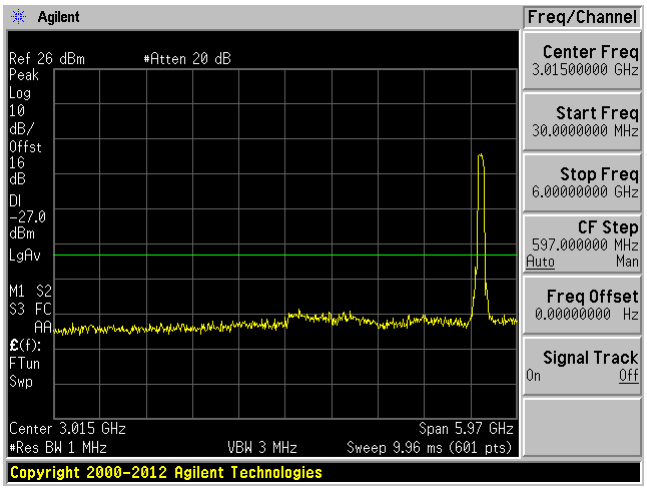


High Channel 5670 MHz (6-40GHz)

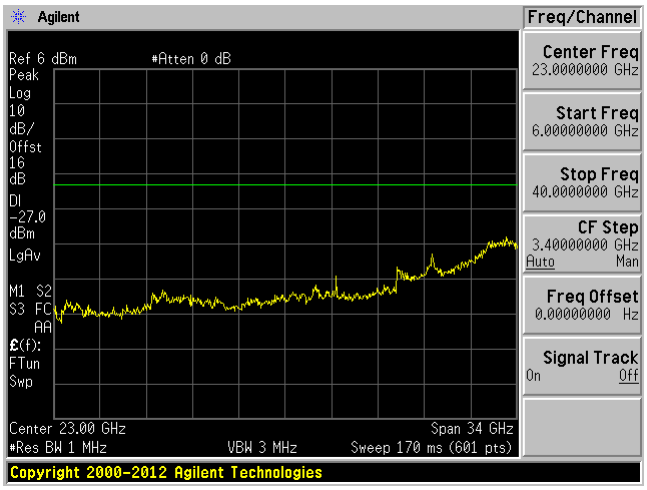


802.11ac80 mode chain 1

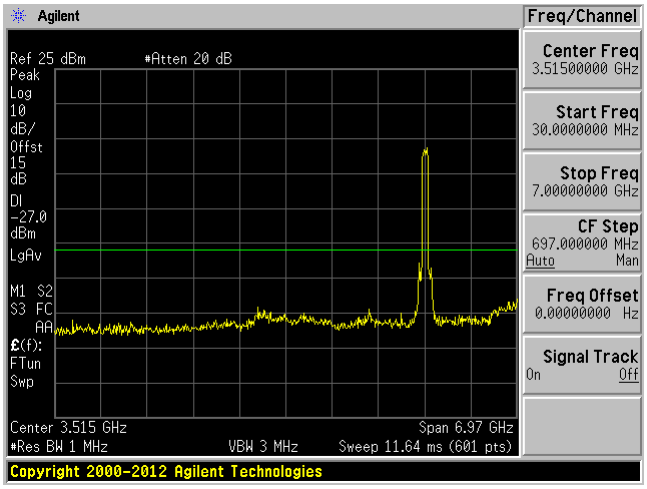
5530 MHz (30MHz-6GHz)



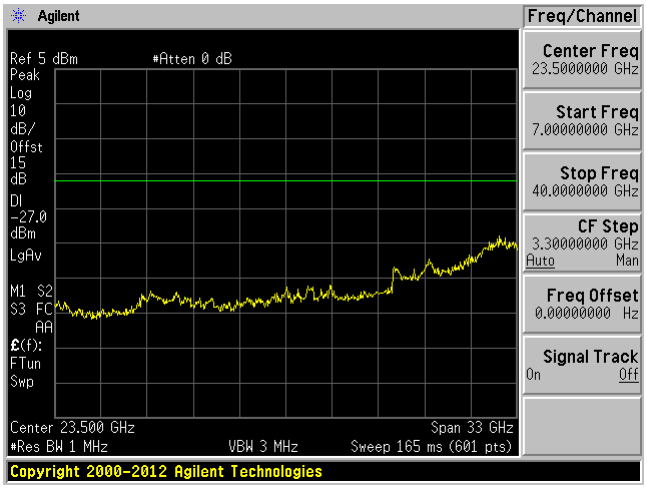
5530 MHz (6GHz – 40GHz)



5610 MHz (30MHz-7GHz)

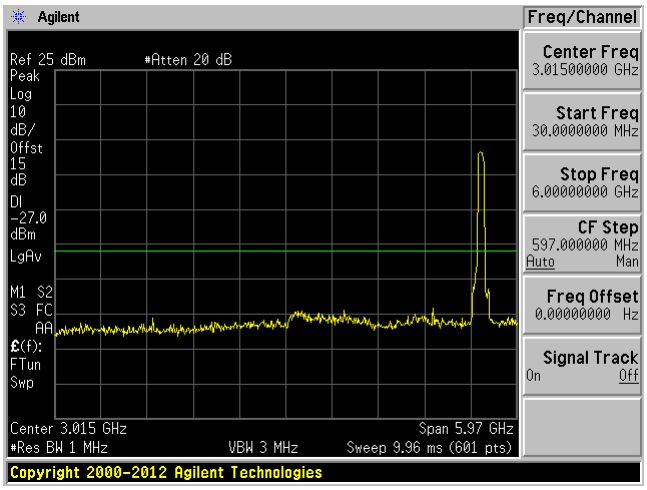


5610 MHz (7GHz – 40GHz)

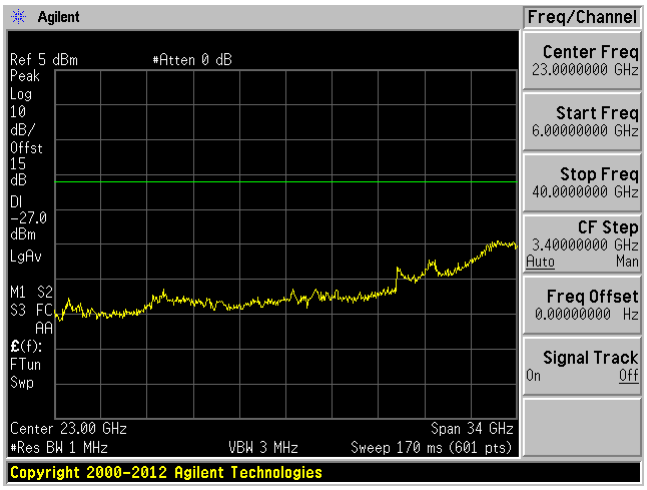


802.11ac80 mode chain 2

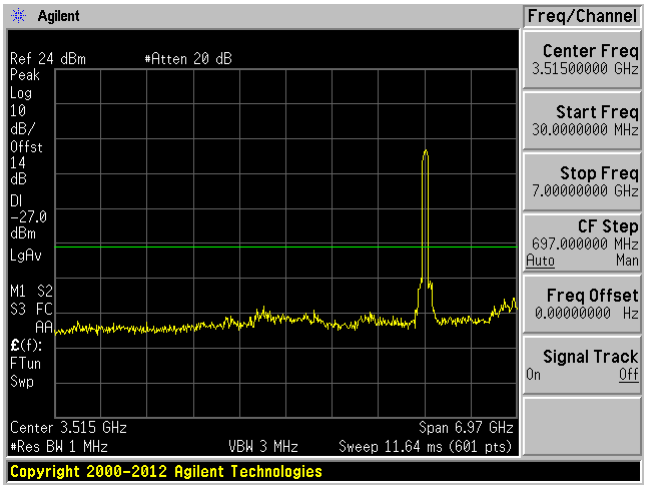
5530 MHz (30MHz-6GHz)



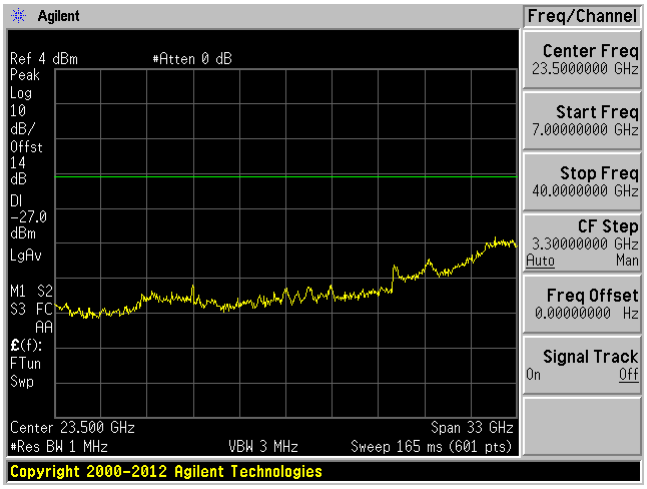
5530 MHz (6GHz – 40GHz)



5610 MHz (30MHz-7GHz)



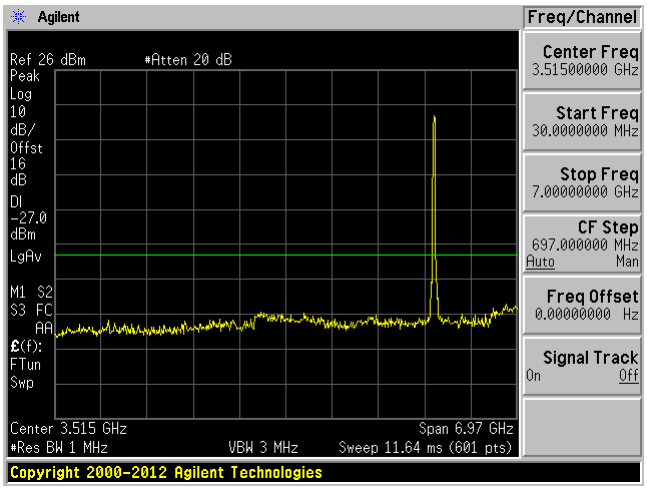
5610 MHz (7GHz – 40GHz)



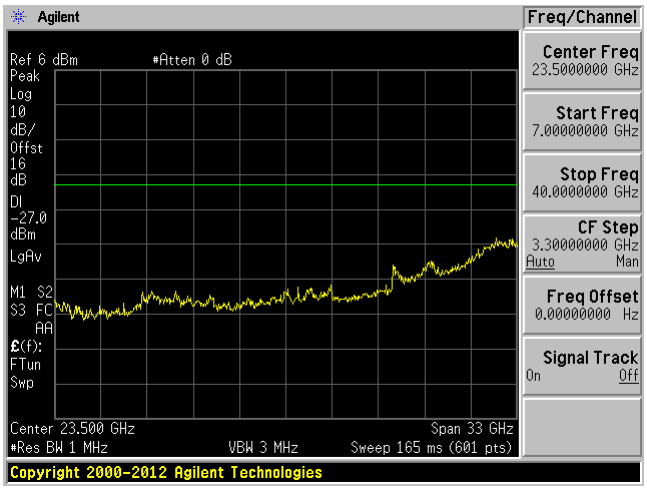
5725 – 5850 MHz

802.11a mode chain 1

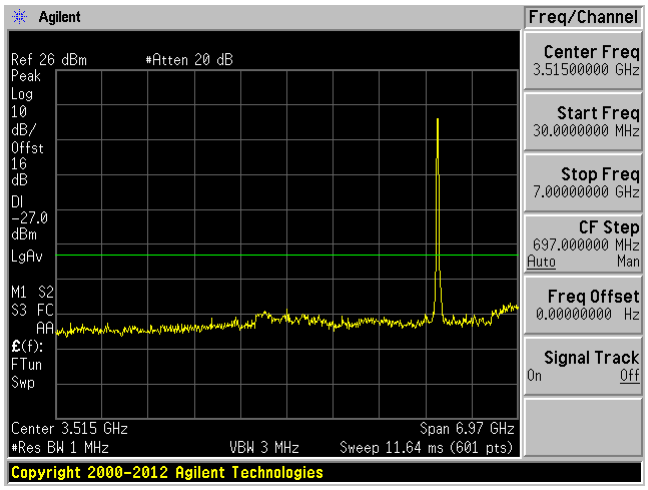
Low Channel 5745 MHz (30MHz-7GHz)



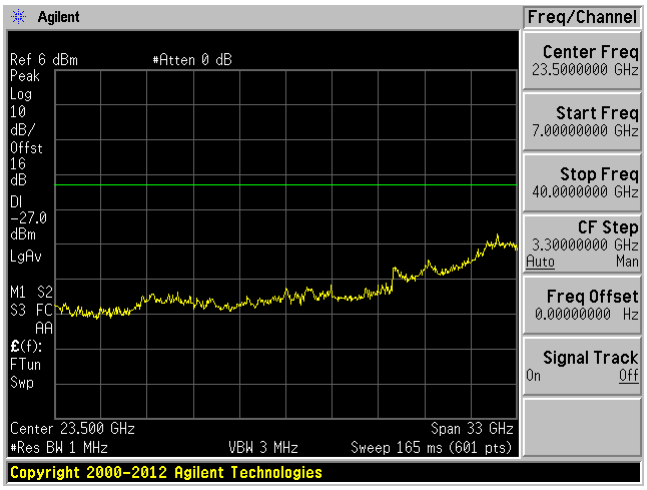
Low Channel 5745 MHz (7-40GHz)



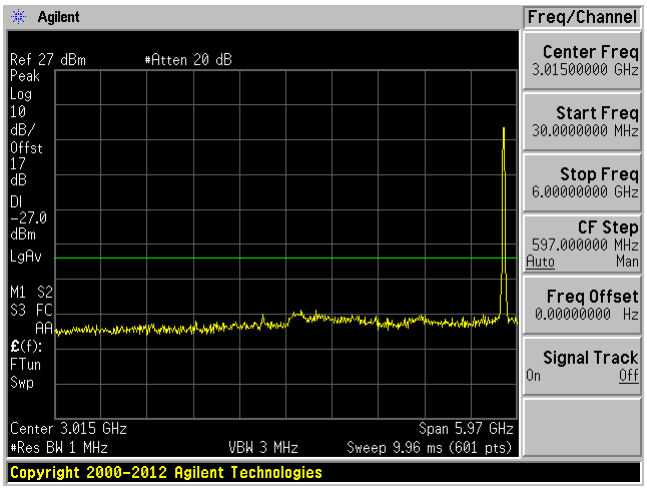
Middle Channel 5785 MHz (30MHz-7GHz)



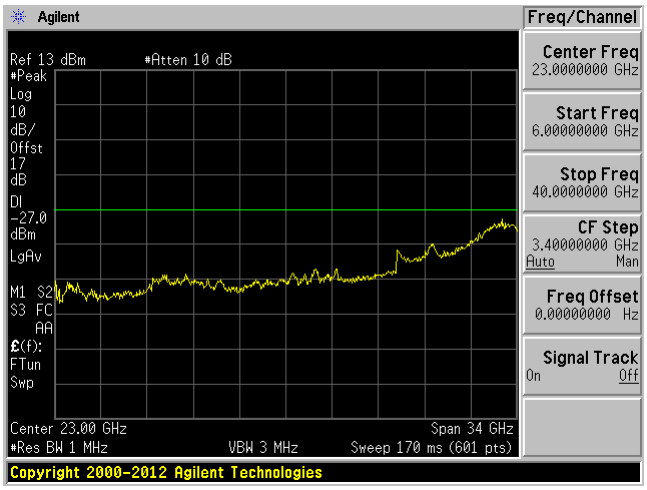
Middle Channel 5785 MHz (7-40GHz)



High Channel 5825 MHz (30MHz-6GHz)

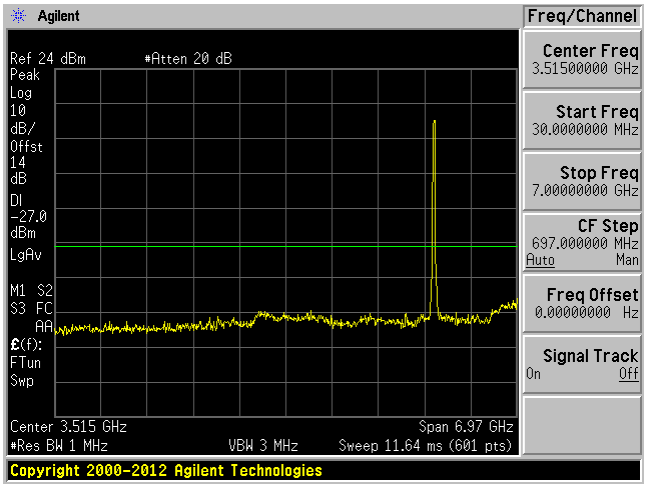


High Channel 5825 MHz (6-40GHz)

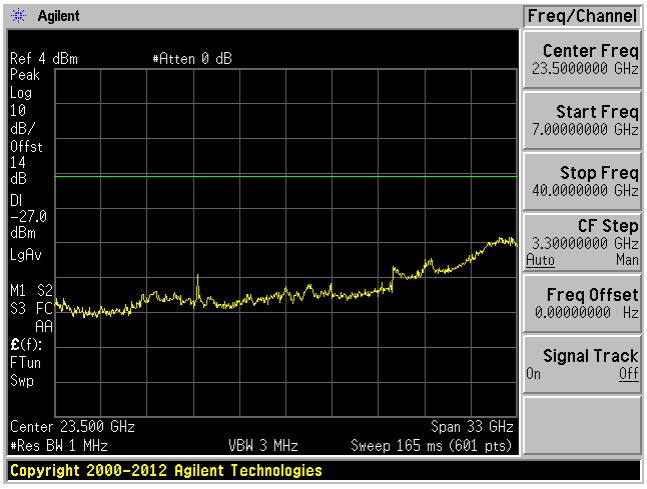


802.11a mode chain 2

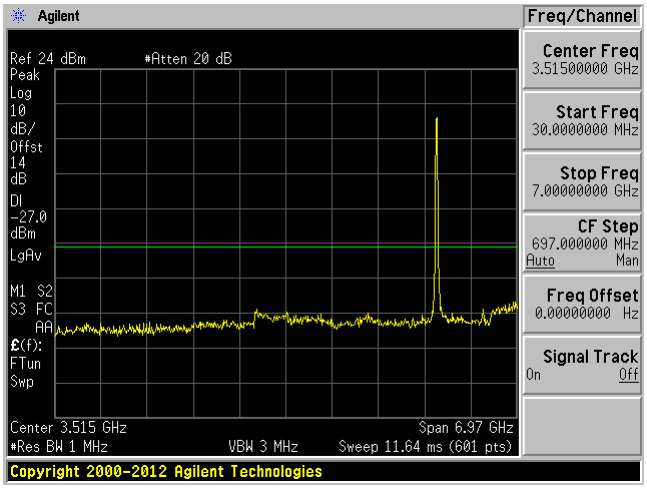
Low Channel 5745 MHz (30MHz-7GHz)



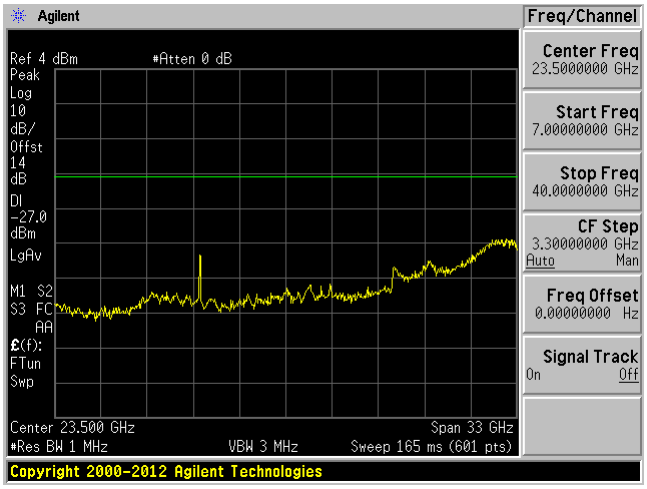
Low Channel 5745 MHz (7-40GHz)



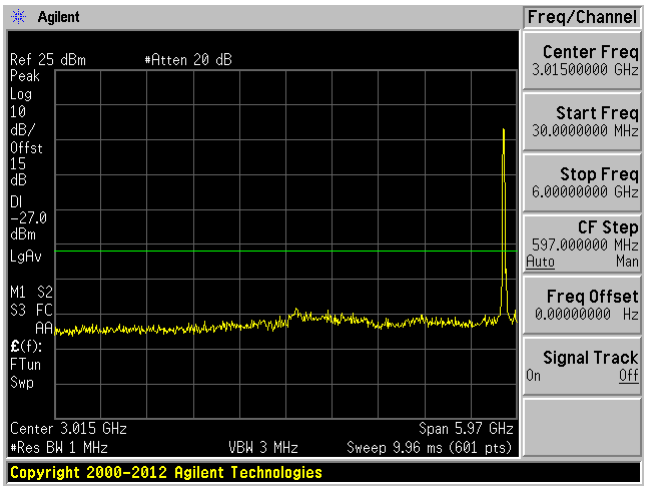
Middle Channel 5785 MHz (30MHz-7GHz)



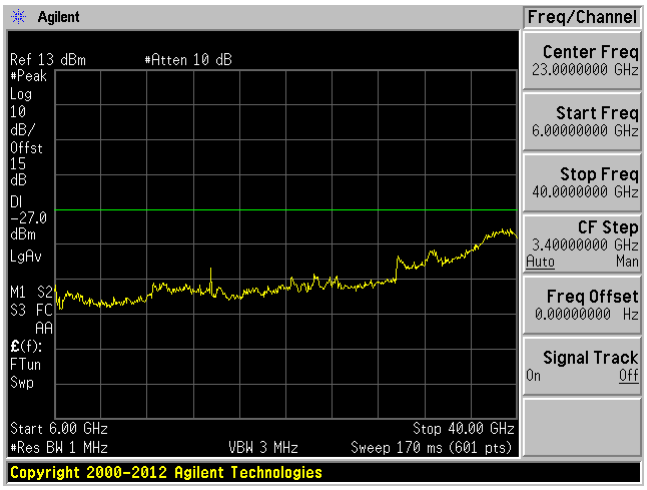
Middle Channel 5785 MHz (7-40GHz)



High Channel 5825 MHz (30MHz-6GHz)

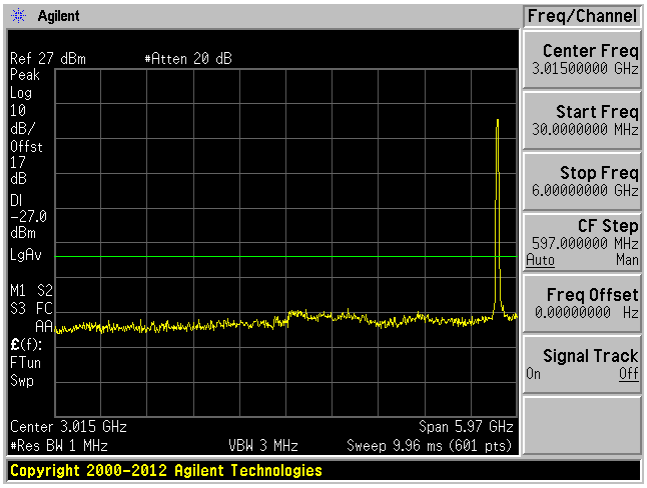


High Channel 5825 MHz (6-40GHz)

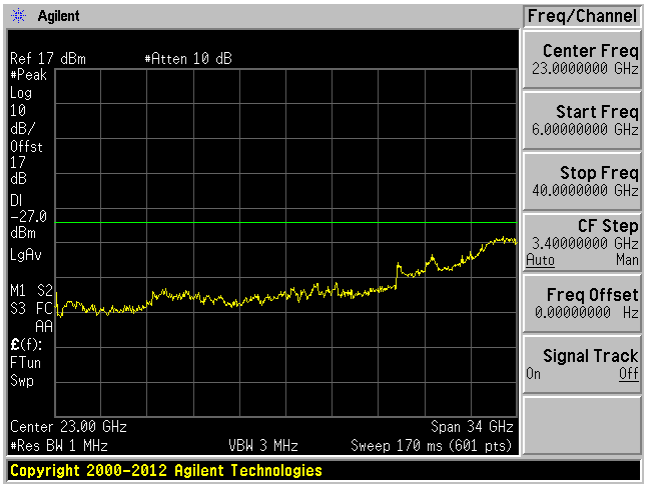


802.11n20 mode chain 1

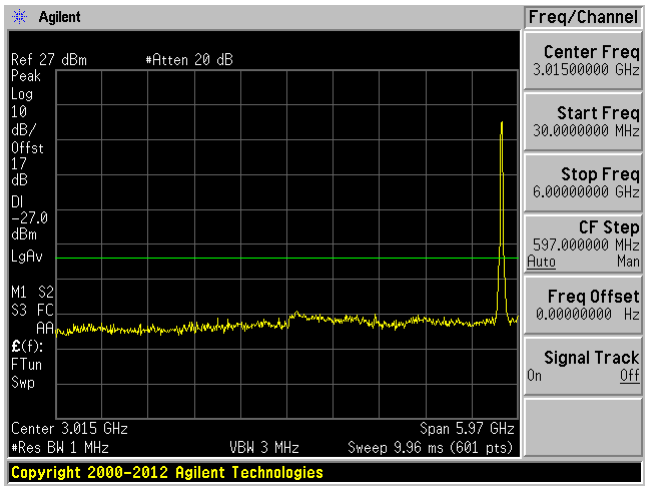
Low Channel 5745 MHz (30MHz-6GHz)



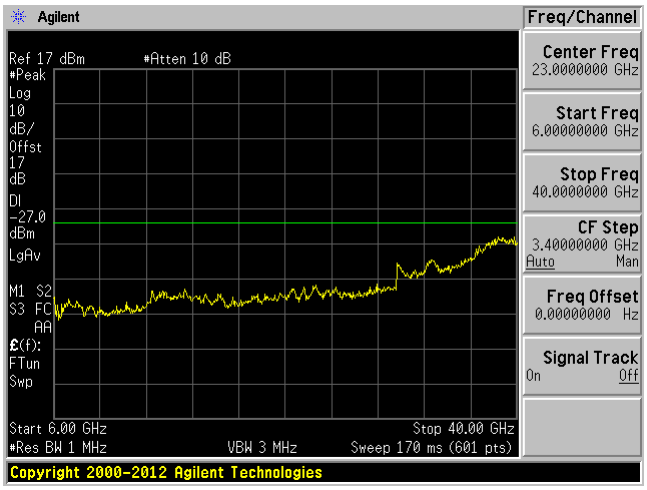
Low Channel 5745 MHz (6-40GHz)



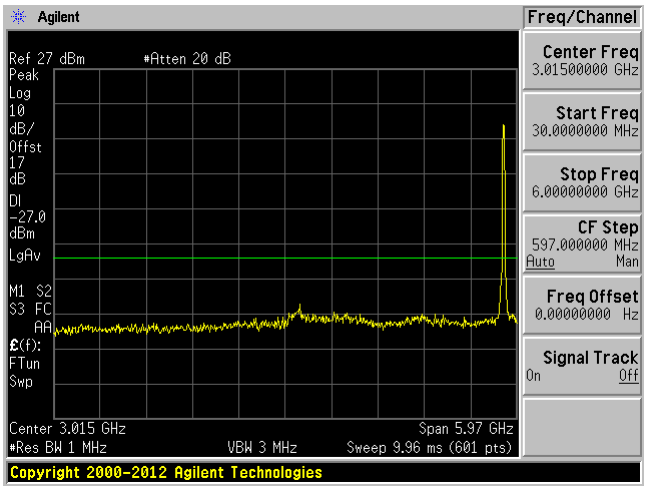
Middle Channel 5785 MHz (30MHz-6GHz)



Middle Channel 5785 MHz (6-40GHz)



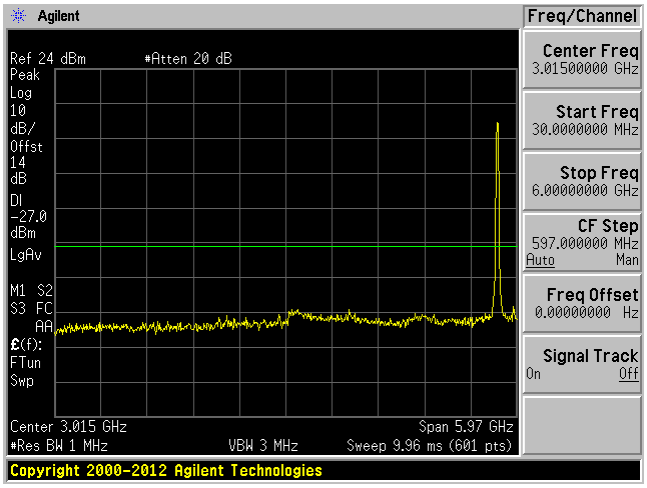
High Channel 5825 MHz (30MHz-6GHz)



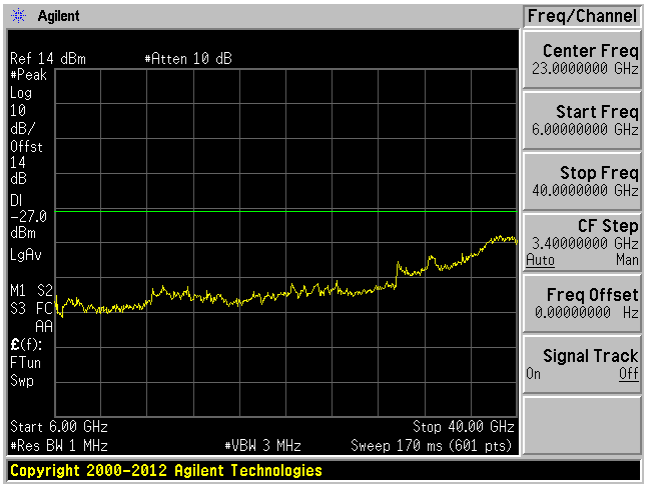
High Channel 5825 MHz (6-40GHz)

802.11n20 mode chain 2

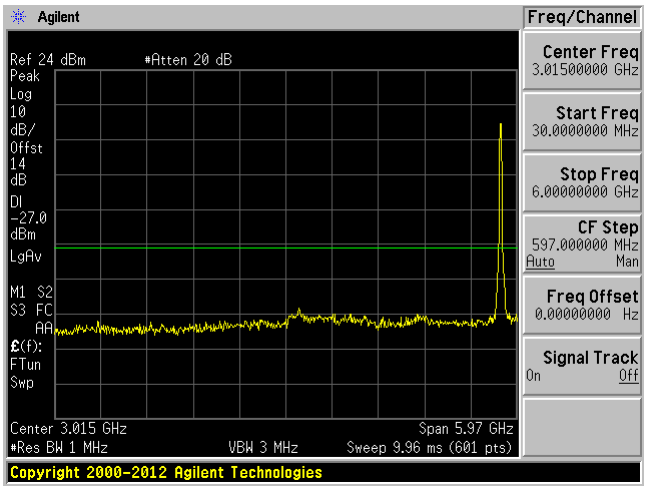
Low Channel 5745 MHz (30MHz-6GHz)



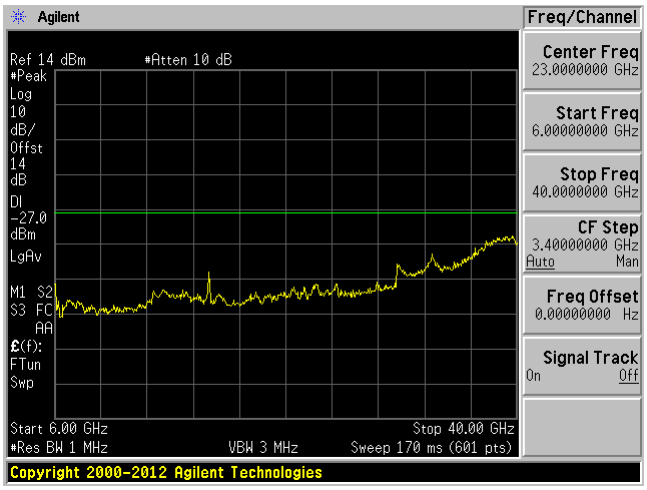
Low Channel 5745 MHz (6-40GHz)



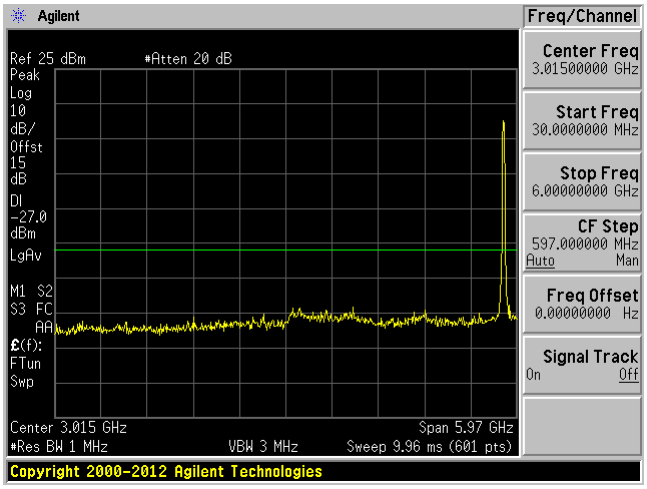
Middle Channel 5785 MHz (30MHz-6GHz)



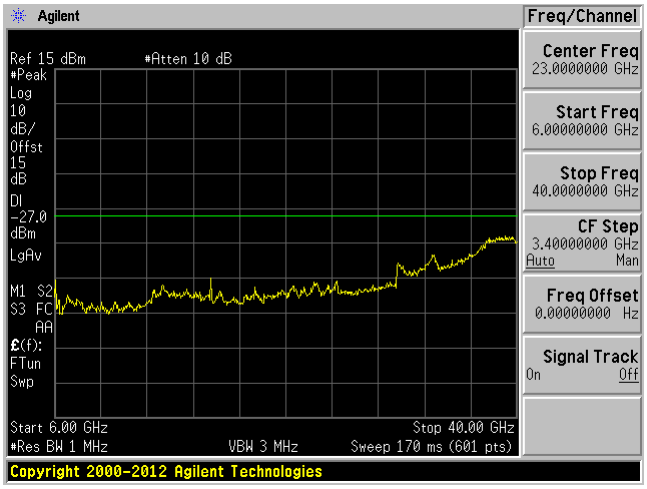
Middle Channel 5785 MHz (6-40GHz)



High Channel 5825 MHz (30MHz-6GHz)

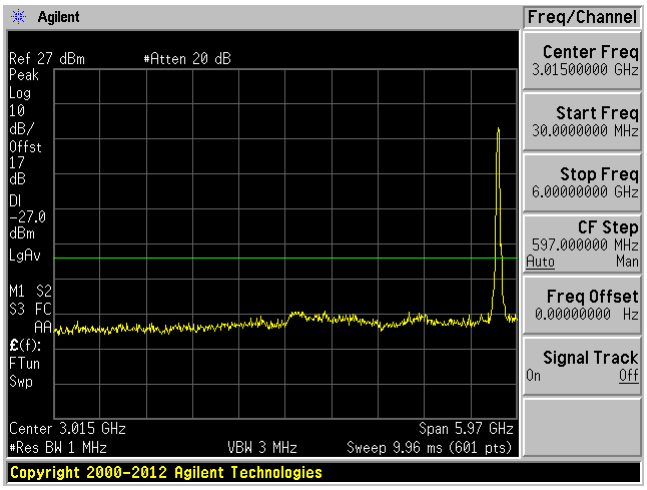


High Channel 5825 MHz (6-40GHz)

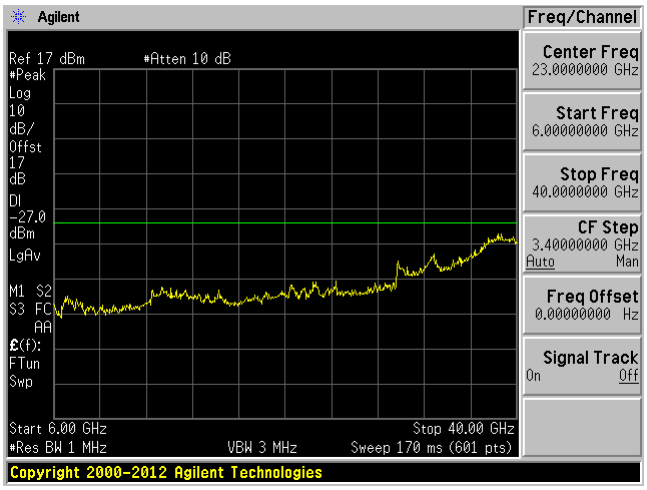


802.11n40 mode chain 1

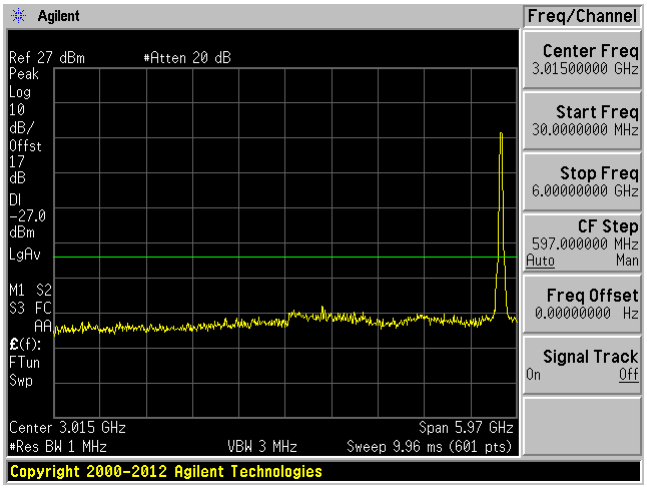
Low Channel 5755 MHz (30MHz-6GHz)



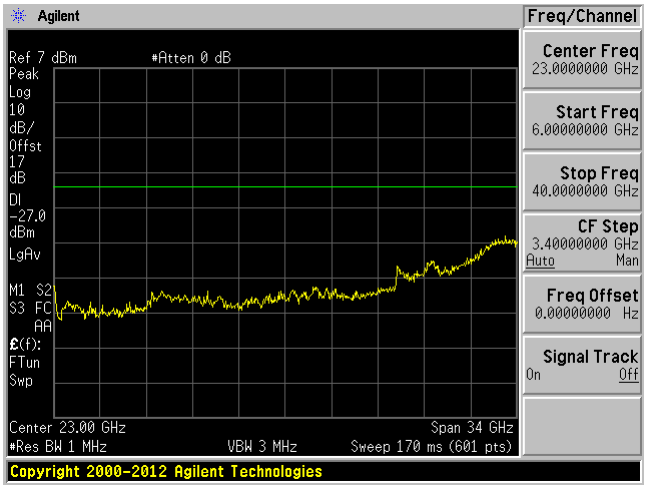
Low Channel 5755 MHz (6-40GHz)



High Channel 5795 MHz (30MHz-6GHz)

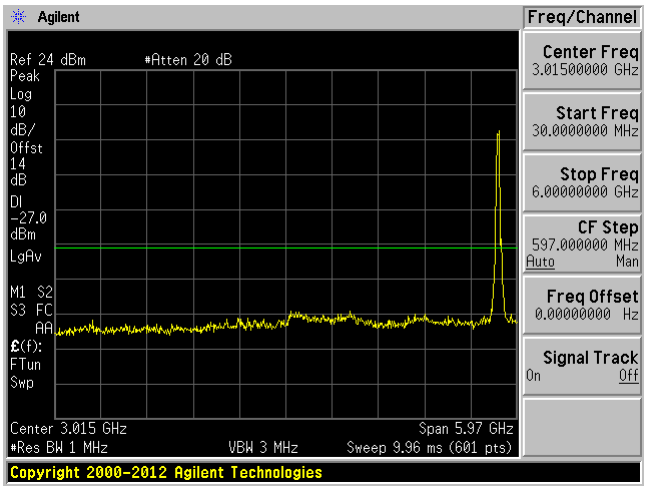


High Channel 5795 MHz (6-40GHz)

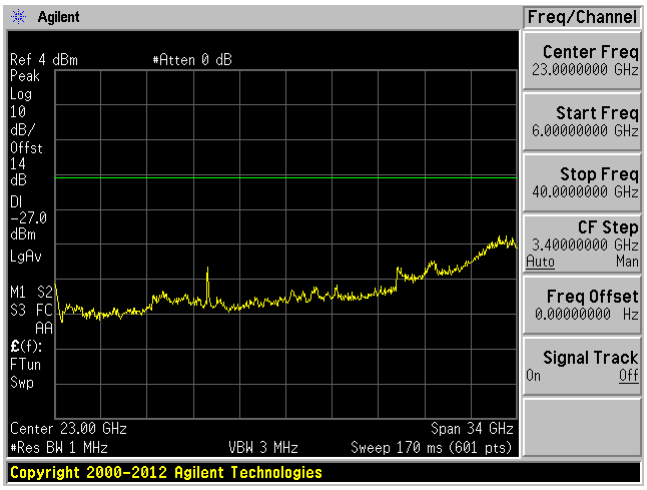


802.11n40 mode chain 2

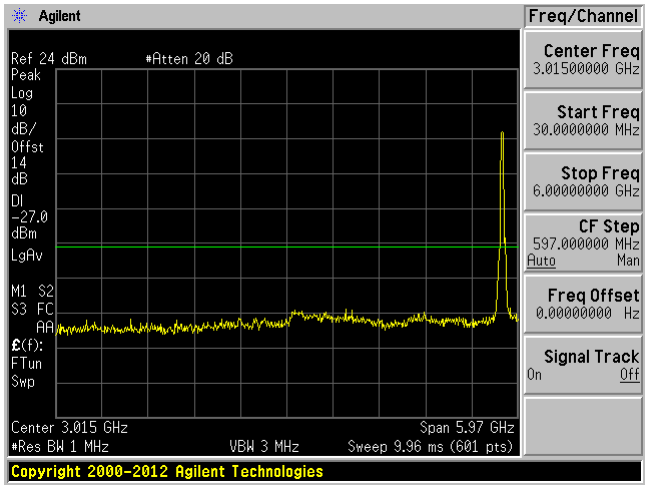
Low Channel 5755 MHz (30MHz-6GHz)



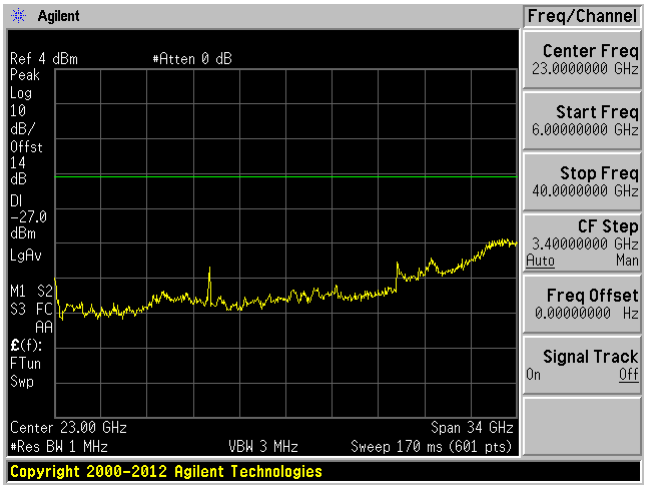
Low Channel 5755 MHz (6-40GHz)



High Channel 5795 MHz (30MHz-6GHz)

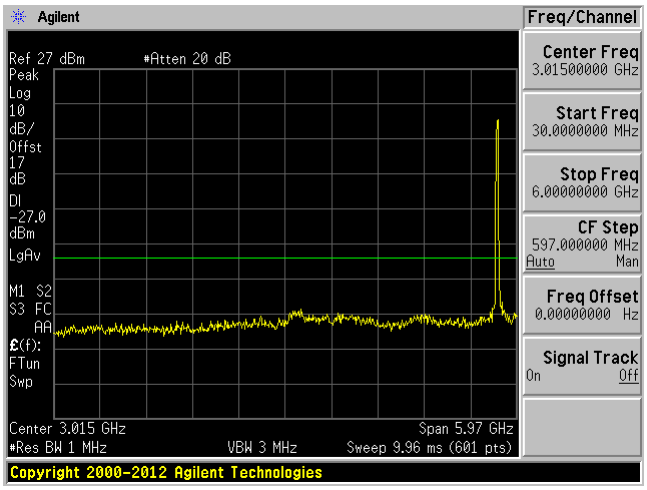


High Channel 5795 MHz (6-40GHz)



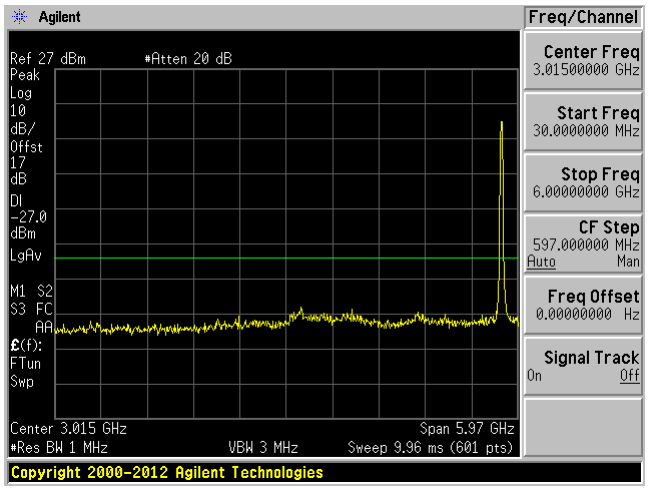
802.11ac20 mode chain 1

Low Channel 5745 MHz (30MHz-6GHz)

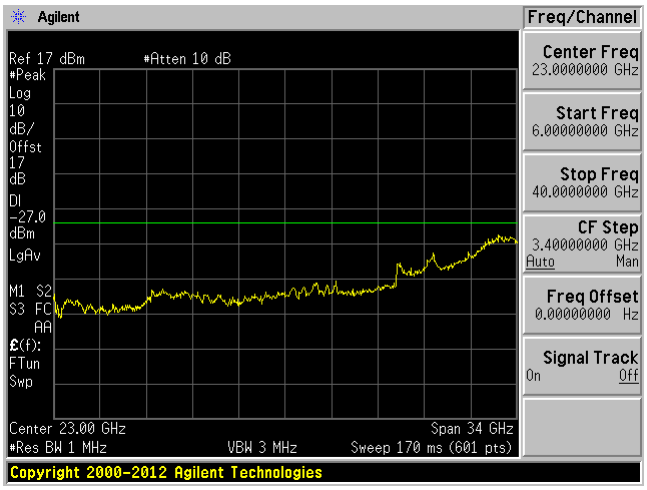


Low Channel 5745 MHz (6-40GHz)

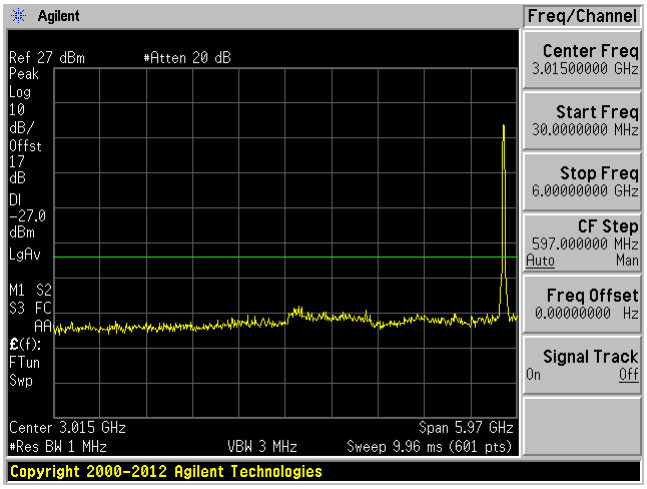
Middle Channel 5785 MHz (30MHz-6GHz)



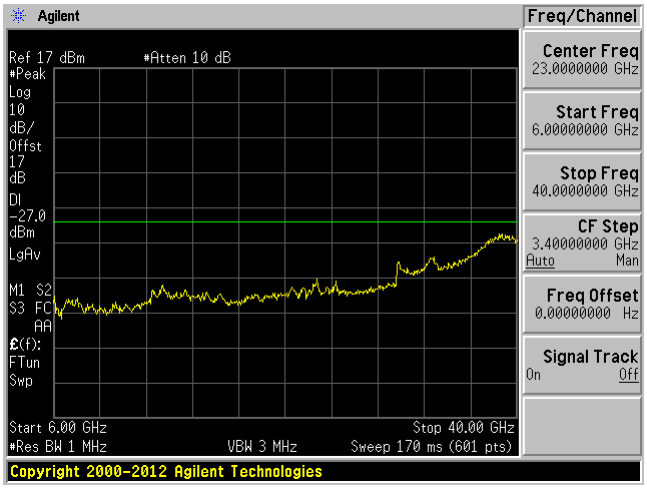
Middle Channel 5785 MHz (6-40GHz)



High Channel 5825 MHz (30MHz-6GHz)

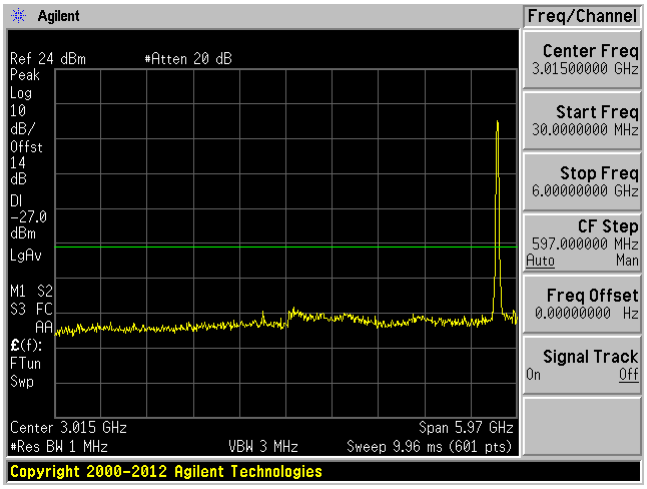


High Channel 5825 MHz (6-40GHz)

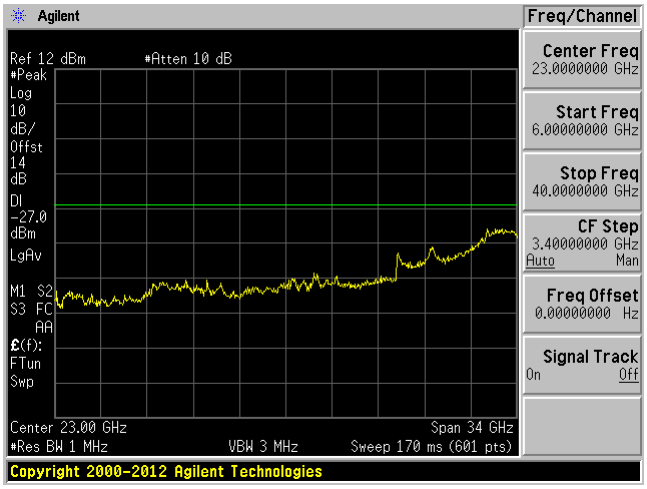


802.11ac20 mode chain 2

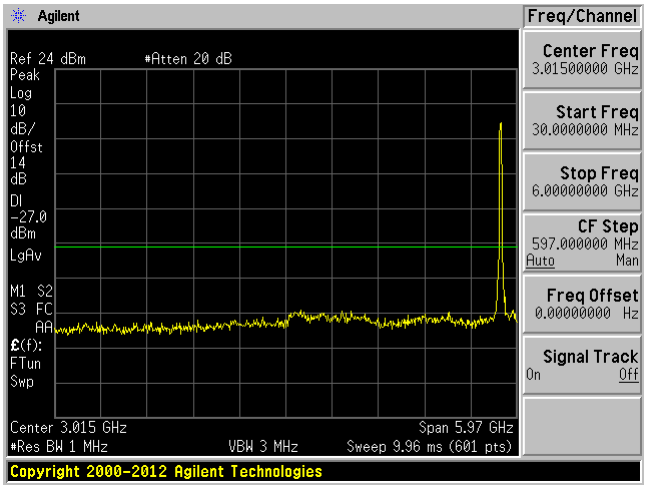
Low Channel 5745 MHz (30MHz-6GHz)



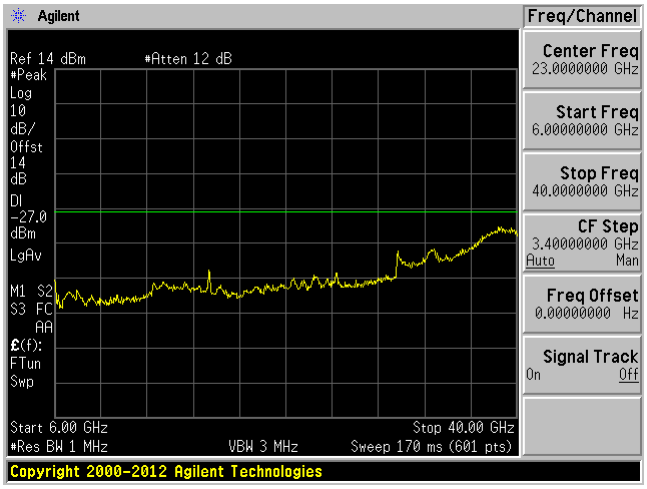
Low Channel 5745 MHz (6-40GHz)



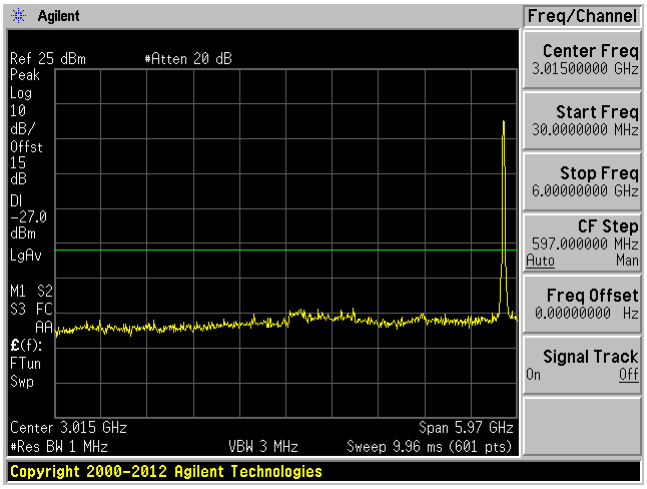
Middle Channel 5785 MHz (30MHz-6GHz)



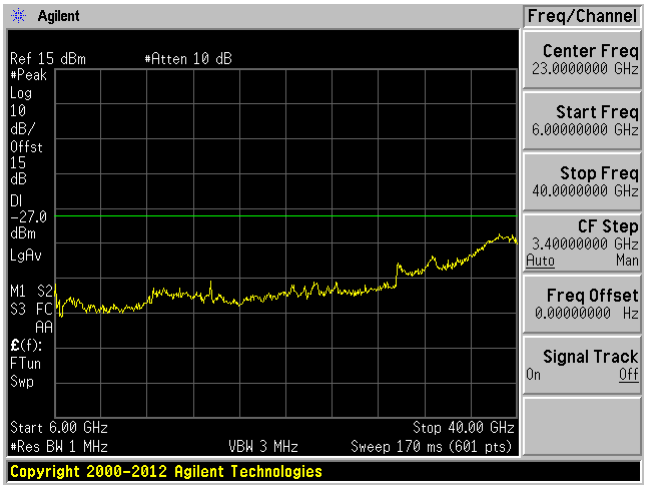
Middle Channel 5785 MHz (6-40GHz)



High Channel 5825 MHz (30MHz-6GHz)

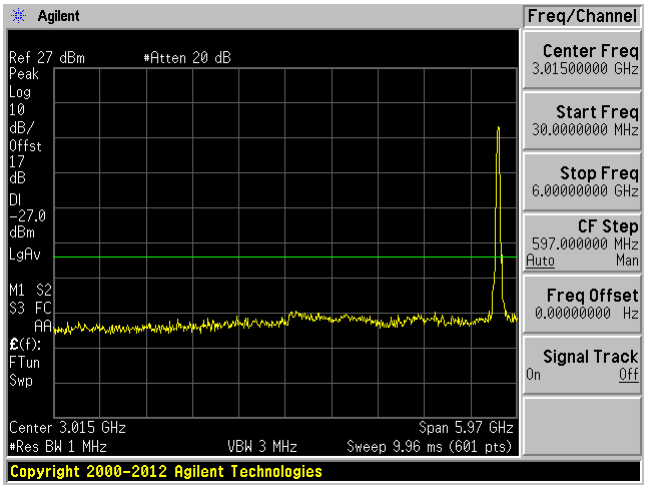


High Channel 5825 MHz (6-40GHz)

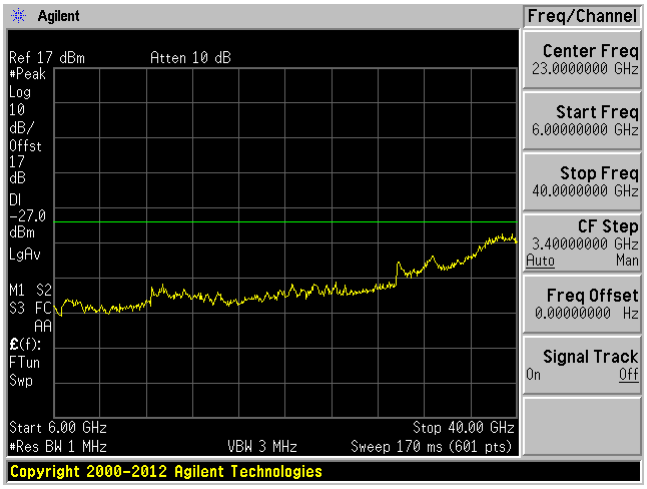


802.11ac40 mode chain 1

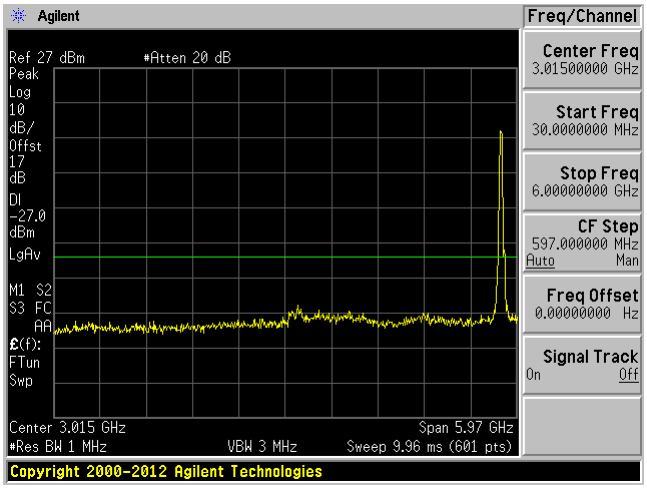
Low Channel 5755 MHz (30MHz-6GHz)



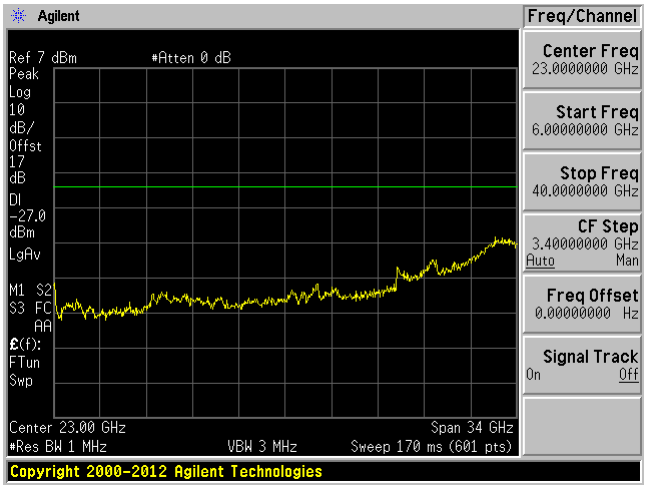
Low Channel 5755 MHz (6-40GHz)



High Channel 5795 MHz (30MHz-6GHz)

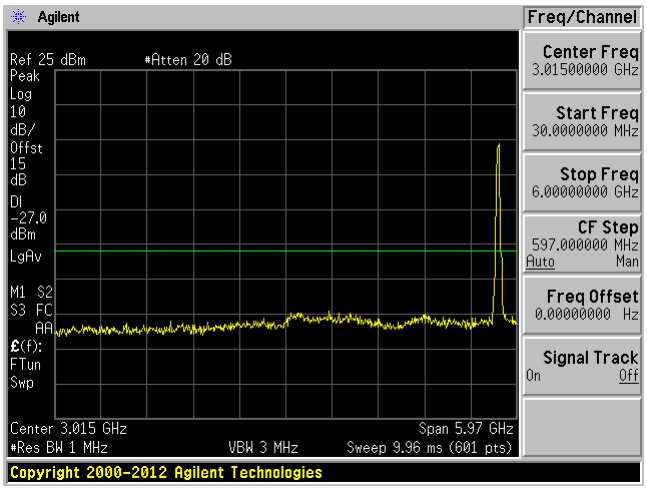


High Channel 5795 MHz (6-40GHz)

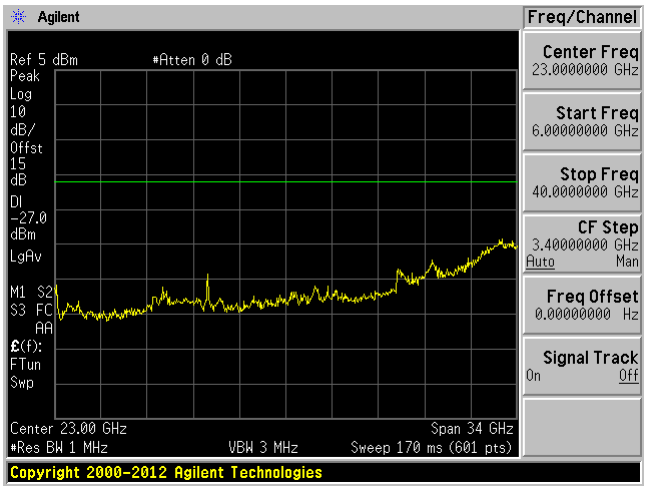


802.11ac40 mode chain 2

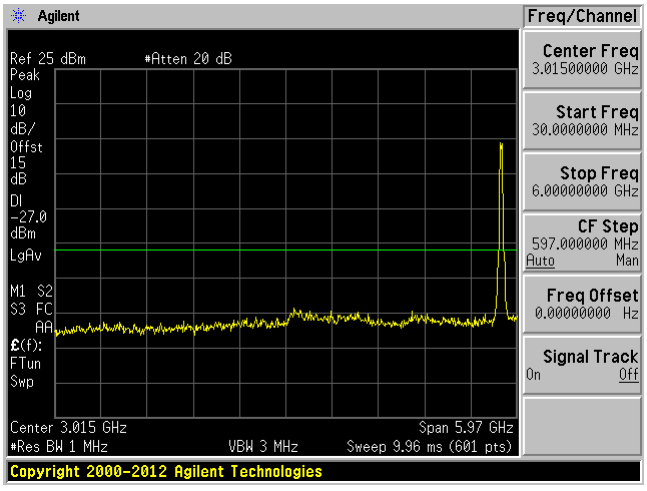
Low Channel 5755 MHz (30MHz-6GHz)



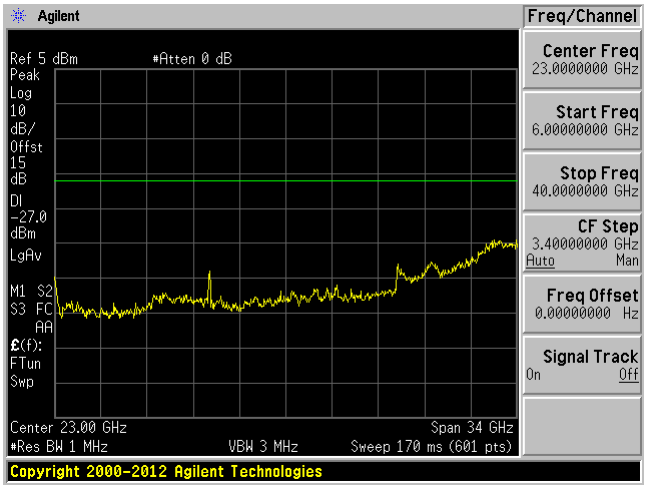
Low Channel 5755 MHz (6-40GHz)



High Channel 5795 MHz (30MHz-6GHz)

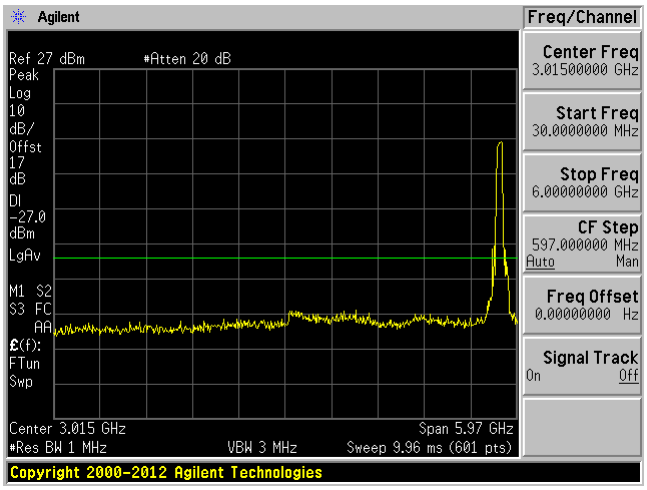


High Channel 5795 MHz (6-40GHz)

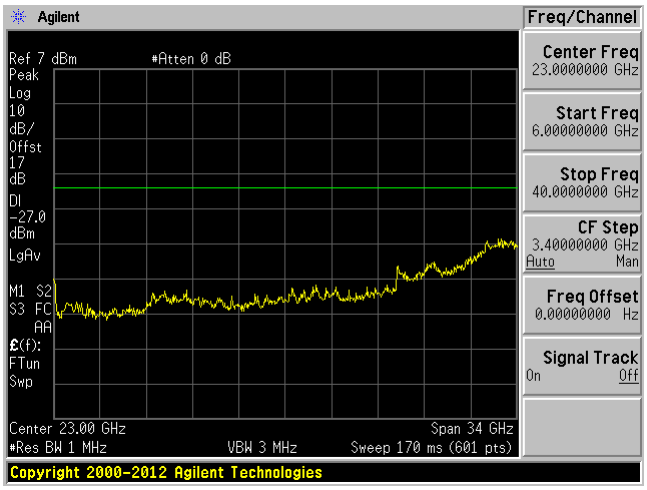


802.11ac80 mode chain 1

5755 MHz (30MHz-6GHz)

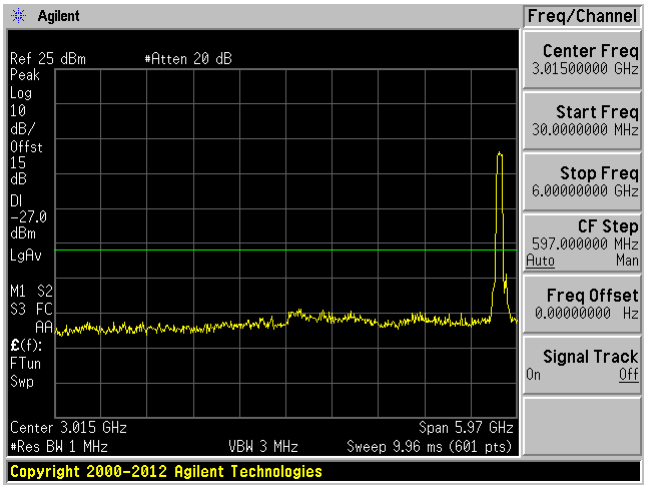


5755 MHz (6GHz – 40GHz)

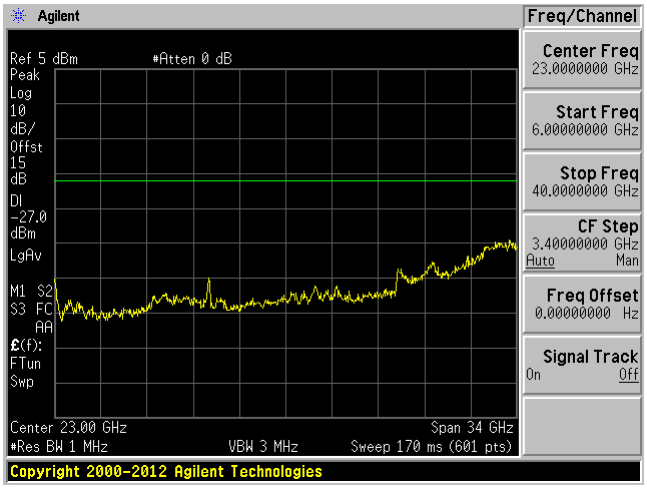


802.11ac80 mode chain 2

5755 MHz (30MHz-6GHz)



5755 MHz (6GHz – 40GHz)

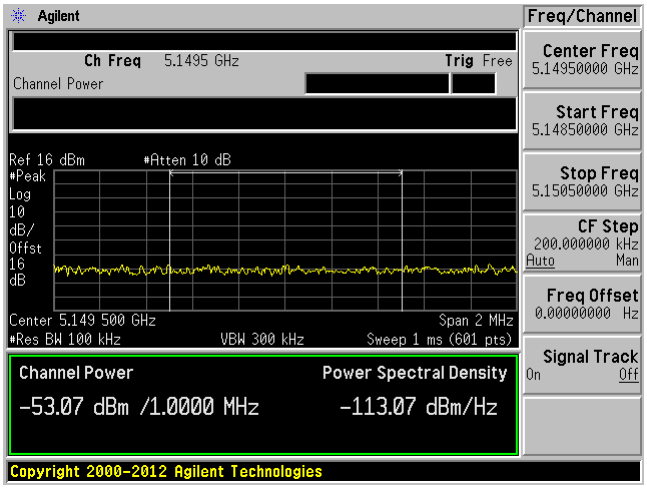


2) Band Edge Emissions

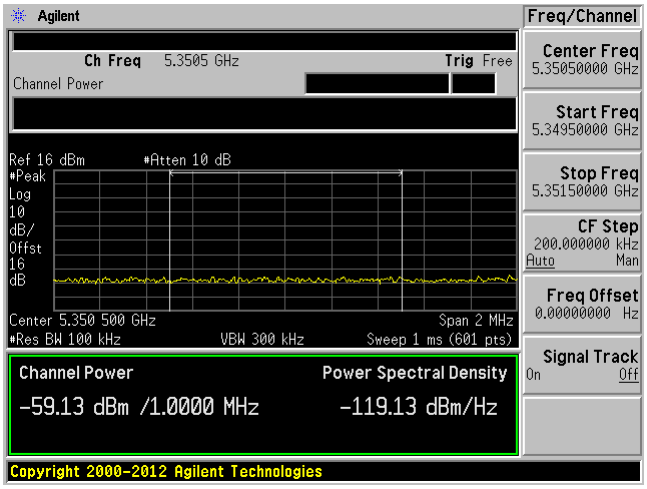
5150 - 5250 MHz

802.11a mode chain 1

Low Channel: 5180 MHz

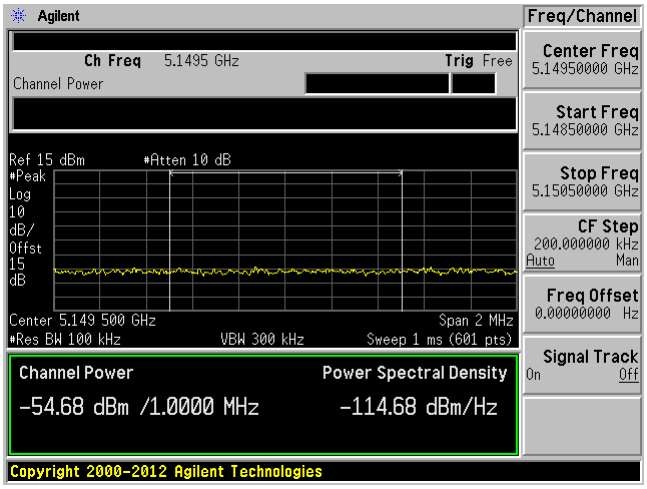


High channel: 5240 MHz

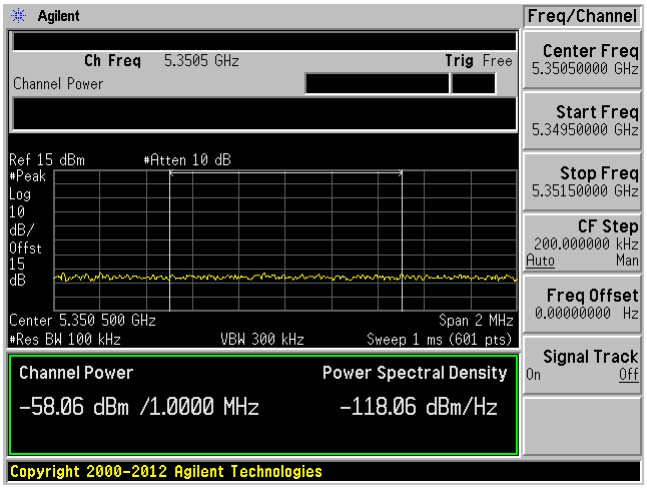


802.11a mode chain 2

Low Channel: 5180 MHz

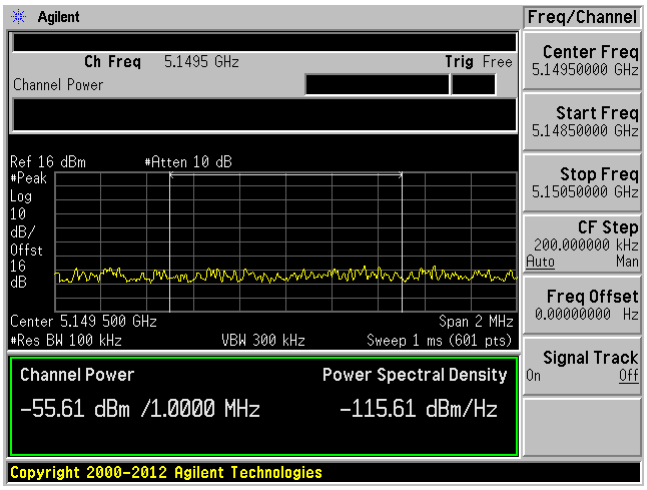


High channel: 5240 MHz

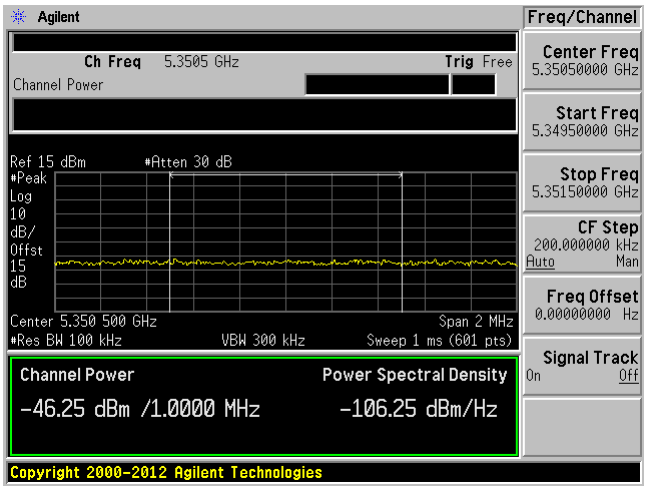


802.11n20 mode chain 1

Low Channel: 5180 MHz

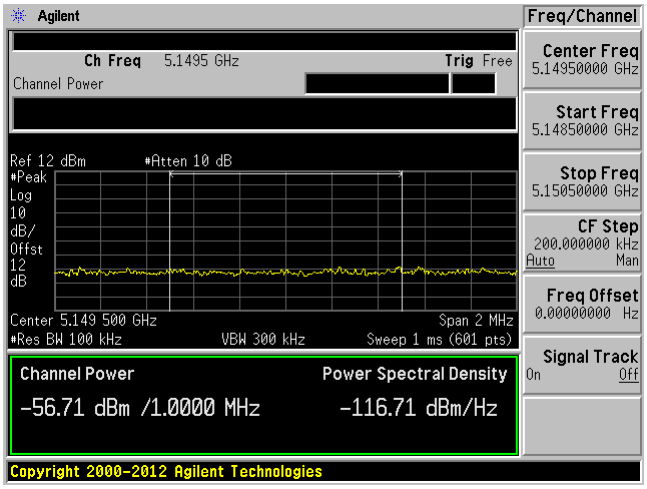


High channel: 5240 MHz

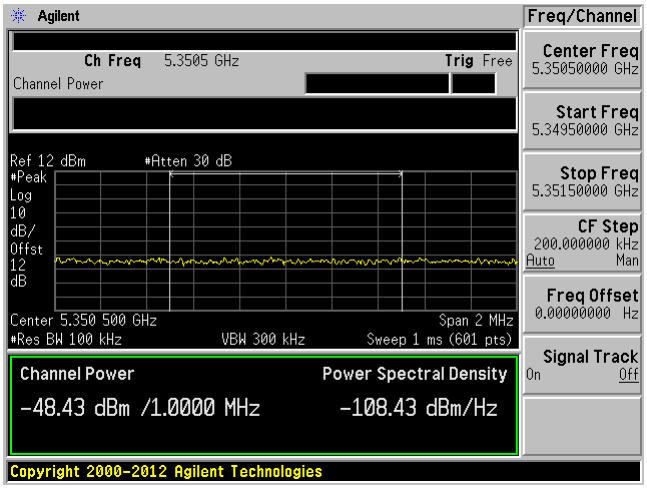


802.11n20 mode chain 2

Low Channel: 5180 MHz

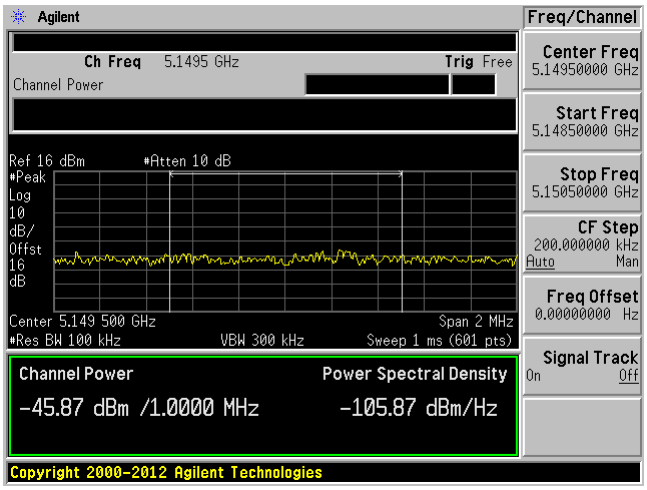


High channel: 5240 MHz

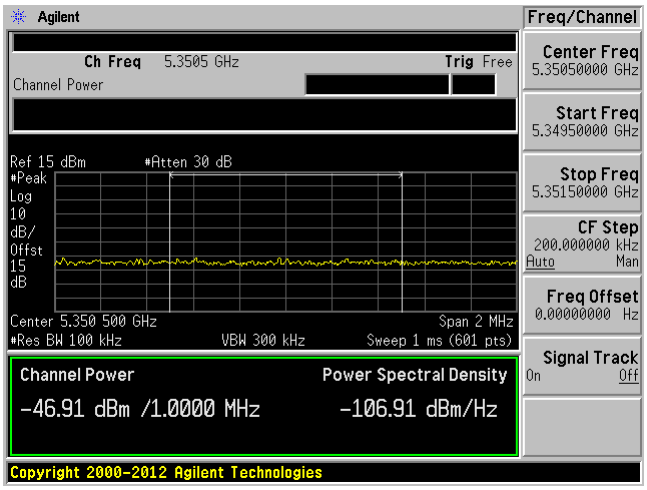


802.11n40 mode chain 1

Low Channel: 5190 MHz

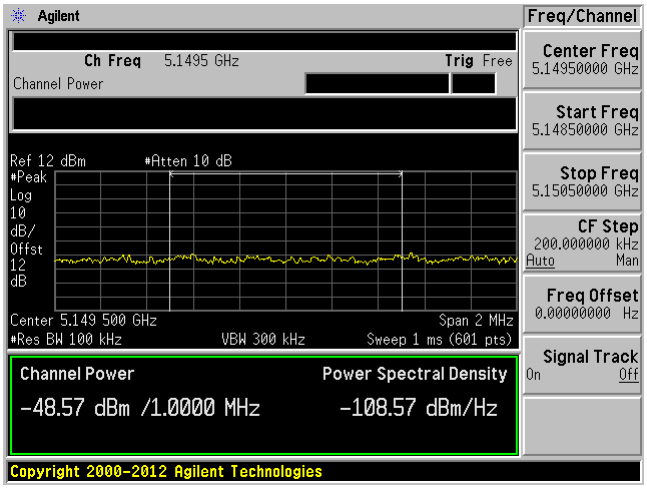


High channel: 5230 MHz

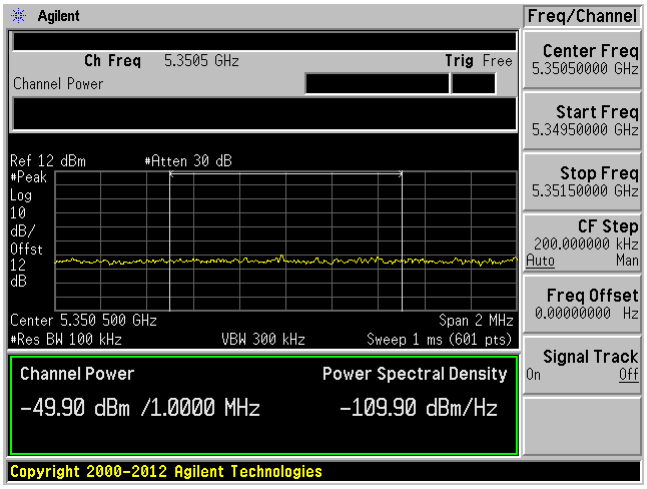


802.11n40 mode chain 2

Low Channel: 5190 MHz

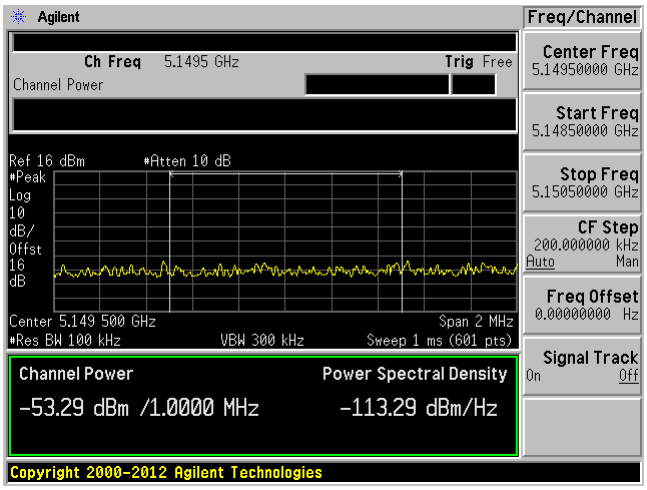


High channel: 5230 MHz

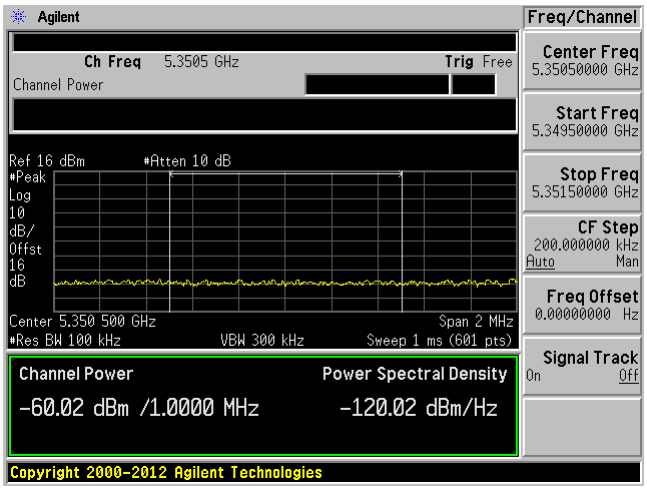


802.11ac20 mode chain 1

Low Channel: 5180 MHz

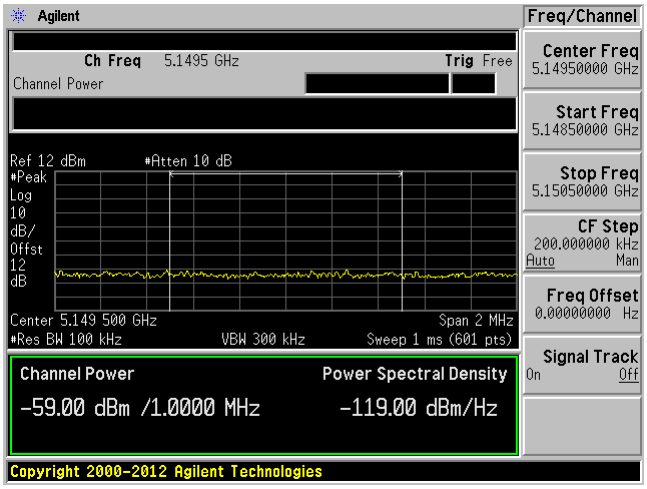


High channel: 5240 MHz

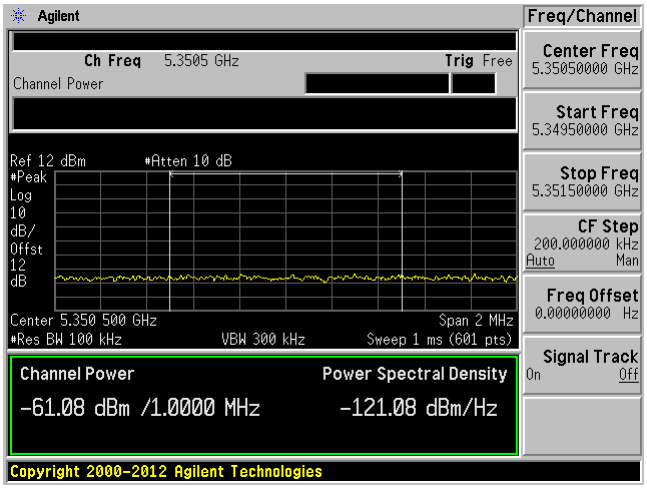


802.11ac20 mode chain 2

Low Channel: 5180 MHz

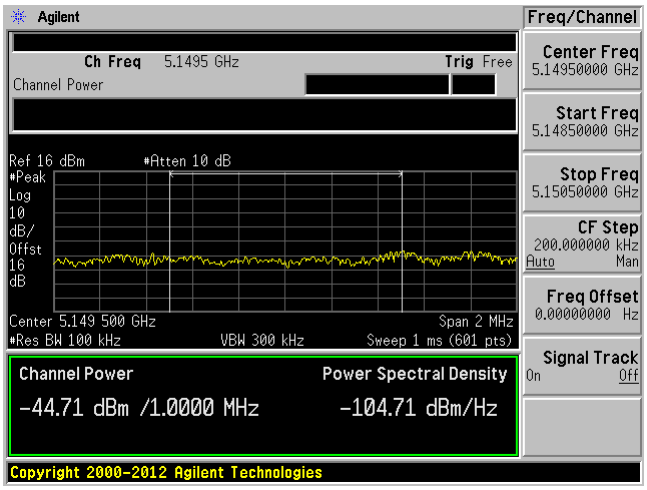


High channel: 5240 MHz

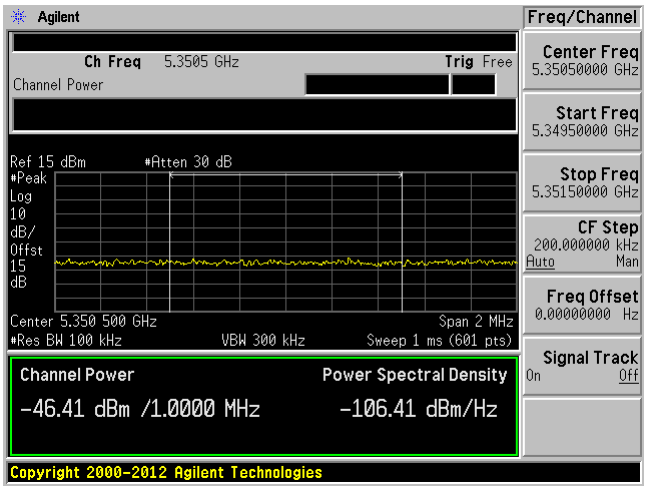


802.11ac40 mode chain 1

Low Channel: 5190 MHz

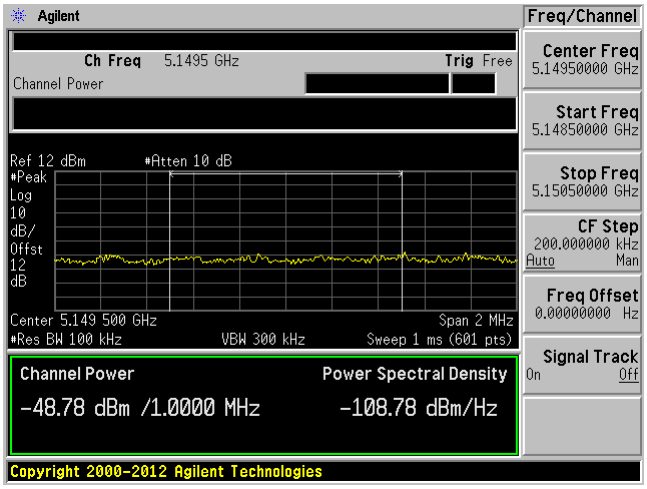


High channel: 5230 MHz

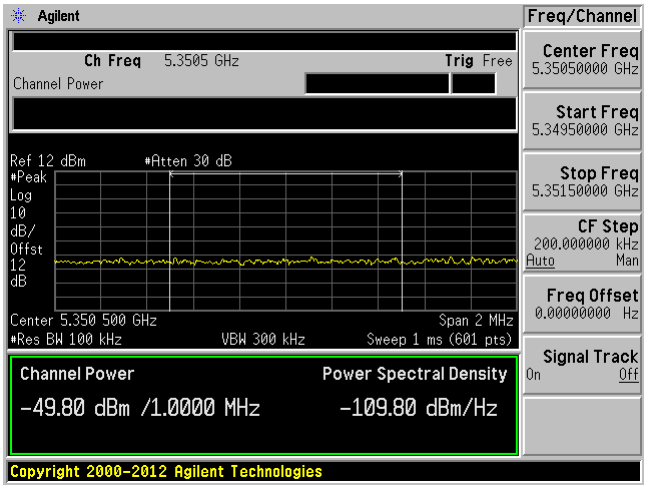


802.11ac40 mode chain 2

Low Channel: 5190 MHz

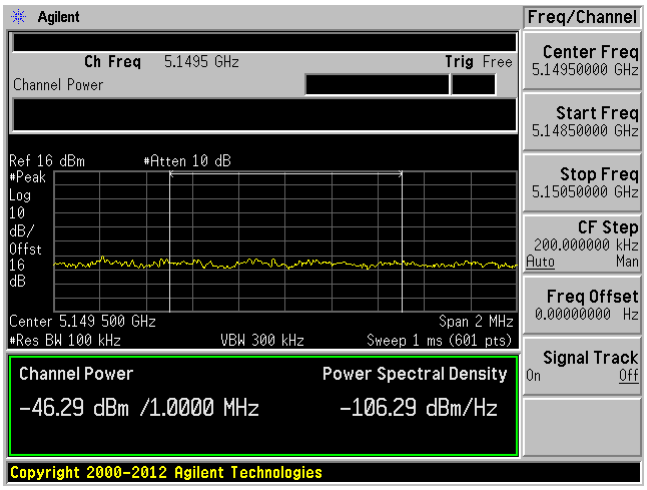


High channel: 5230 MHz

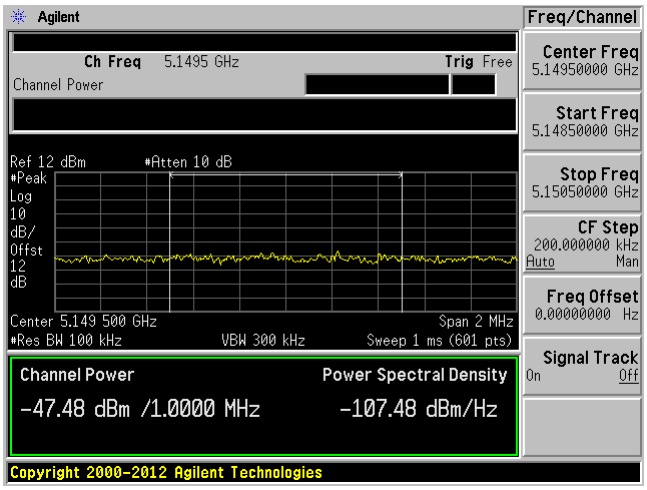


802.11ac80 mode

5210 MHz chain 1



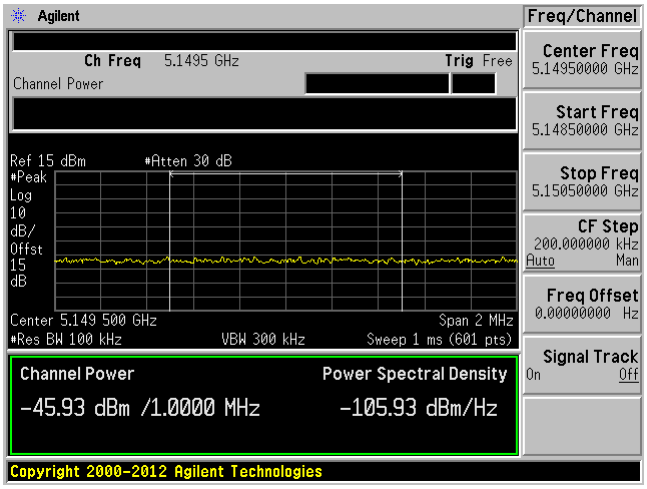
5210 MHz chain 2



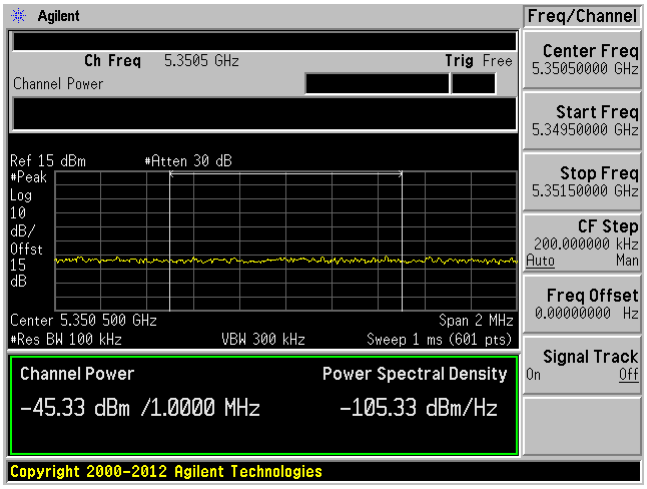
5250 – 5350 MHz

802.11a mode chain 1

Low Channel: 5260 MHz

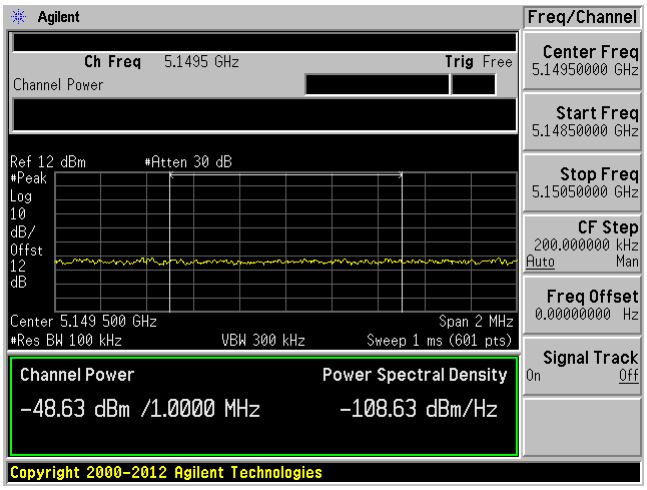


High channel: 5320 MHz

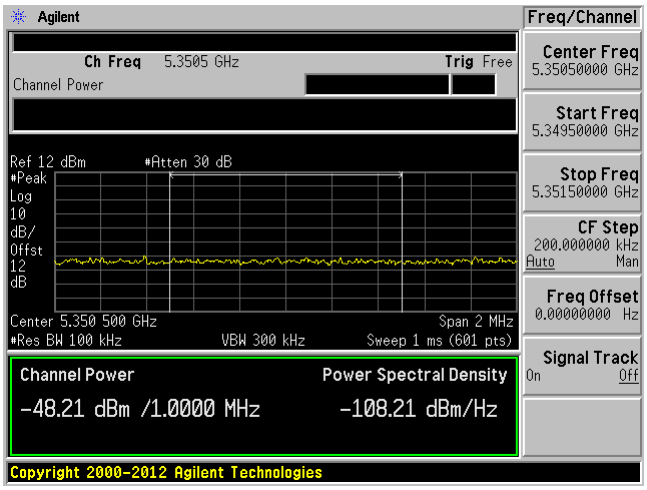


802.11a mode chain 2

Low Channel: 5260 MHz

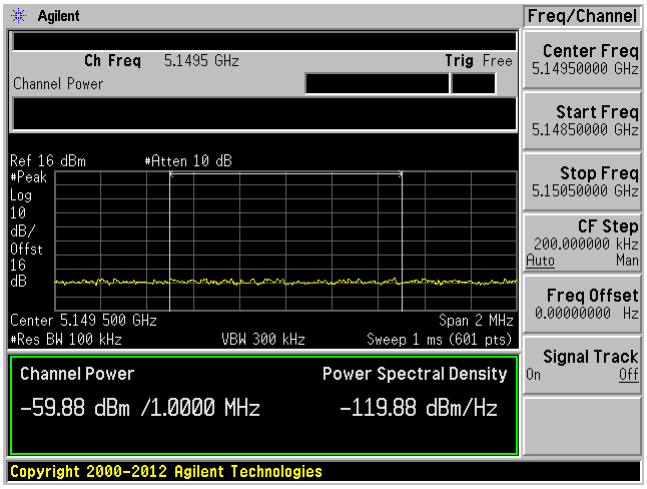


High channel: 5320 MHz

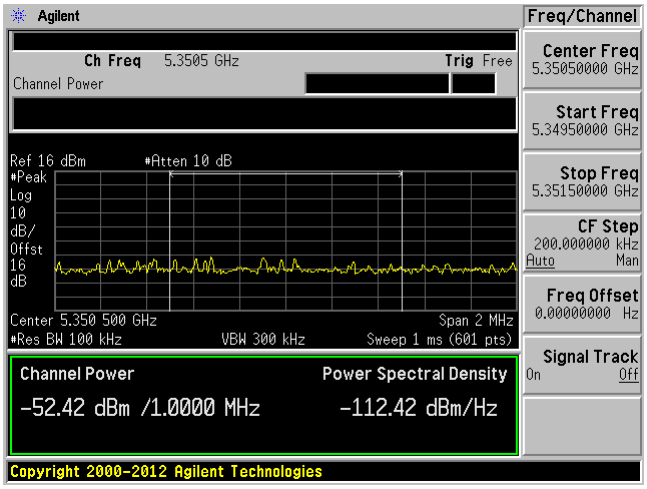


802.11n20 mode chain 1

Low Channel: 5260 MHz

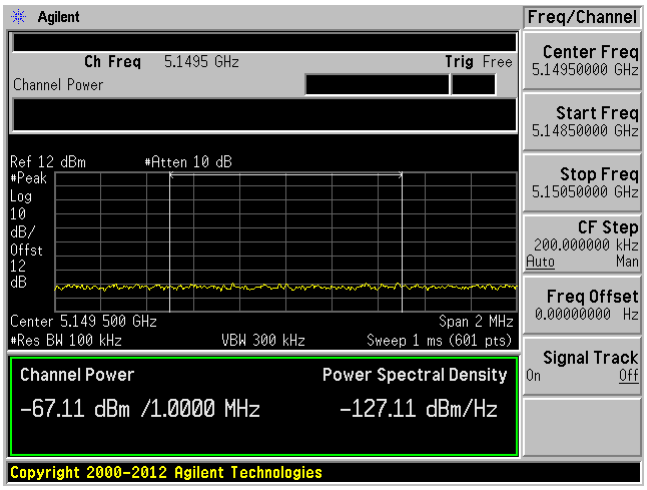


High channel: 5320 MHz

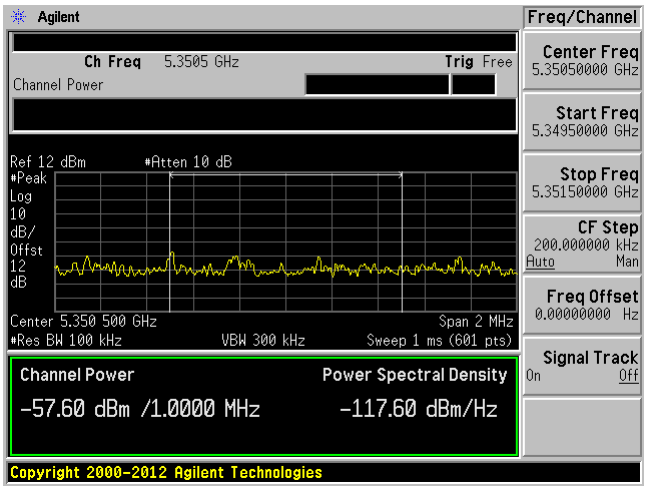


802.11n20 mode chain 2

Low Channel: 5260 MHz

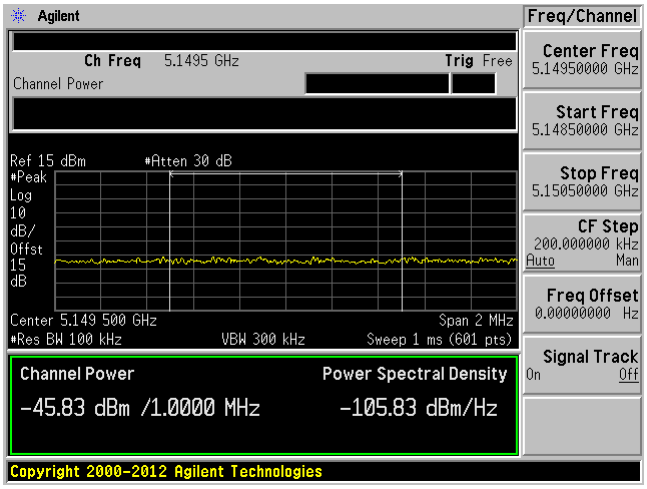


High channel: 5320 MHz

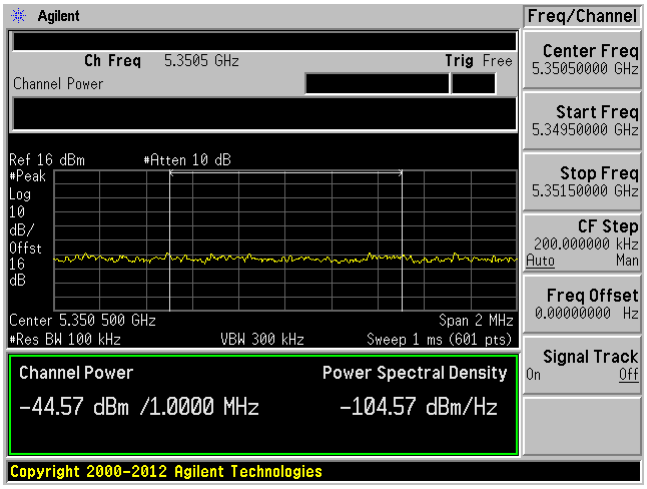


802.11n40 mode chain 1

Low Channel: 5270 MHz

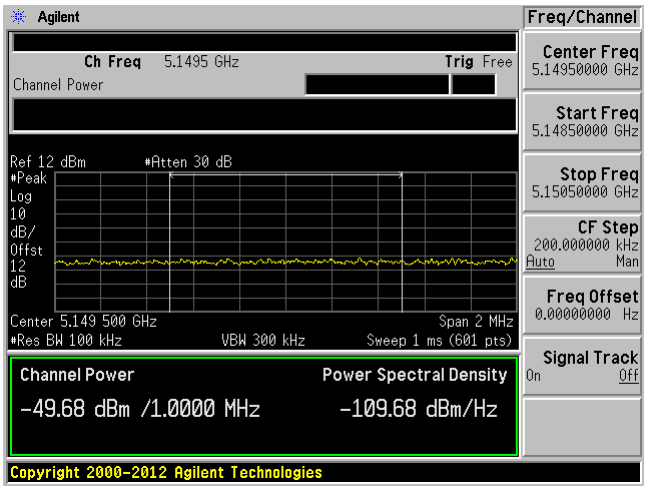


High channel: 5310 MHz

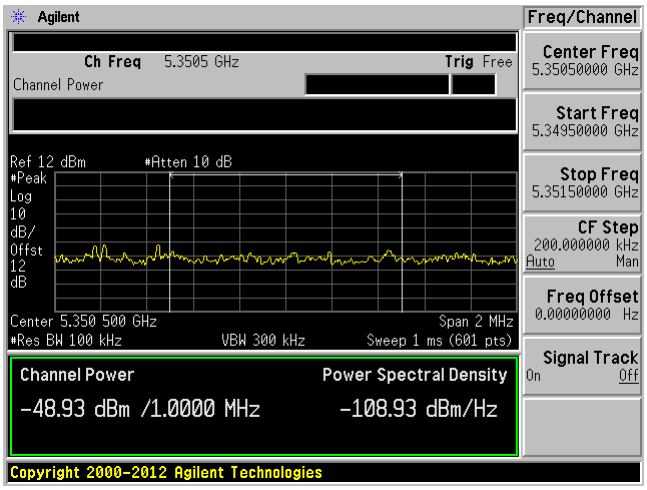


802.11n40 mode chain 2

Low Channel: 5270 MHz

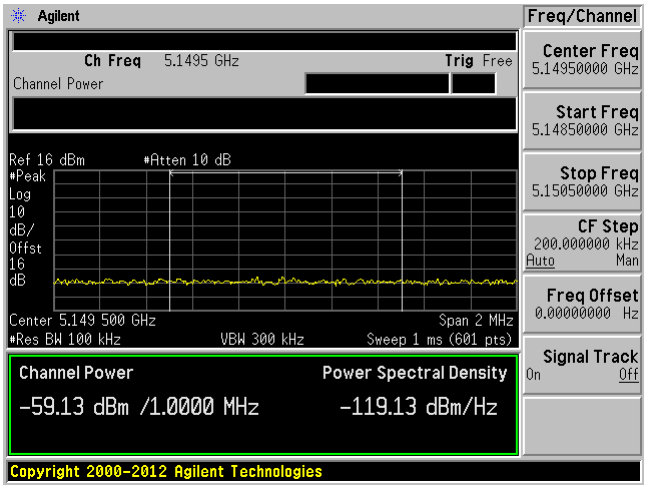


High channel: 5310 MHz

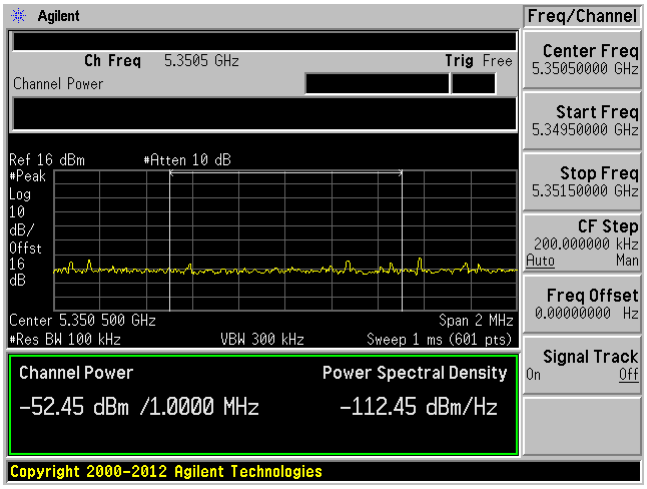


802.11ac20 mode chain 1

Low Channel: 5260 MHz

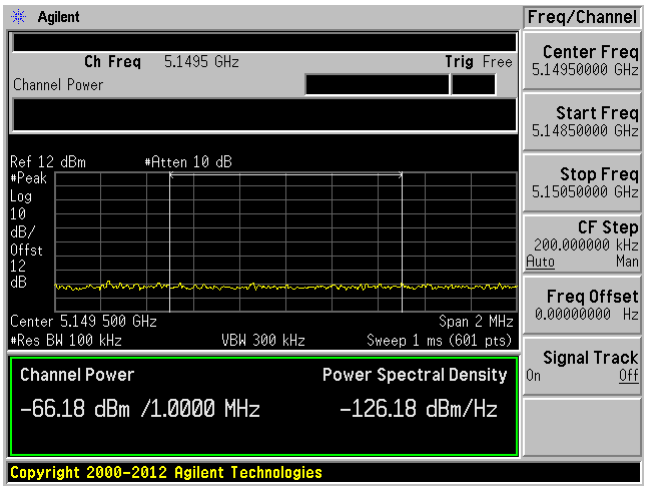


High channel: 5320 MHz

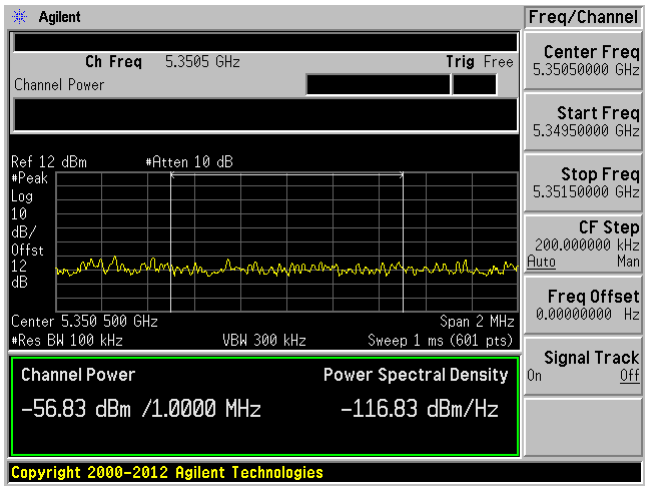


802.11ac20 mode chain 2

Low Channel: 5260 MHz

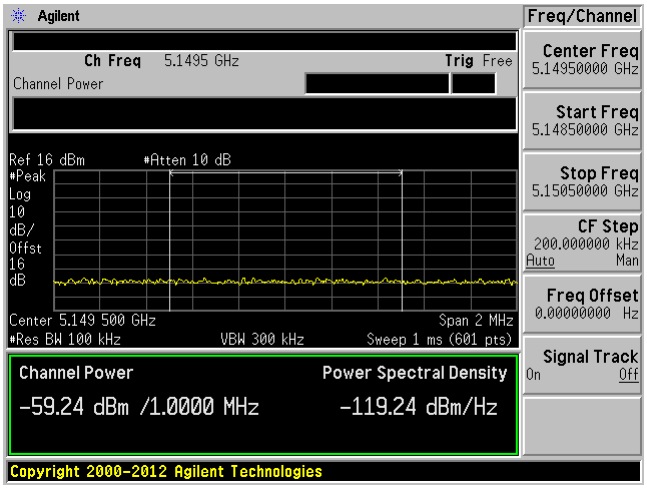


High channel: 5320 MHz

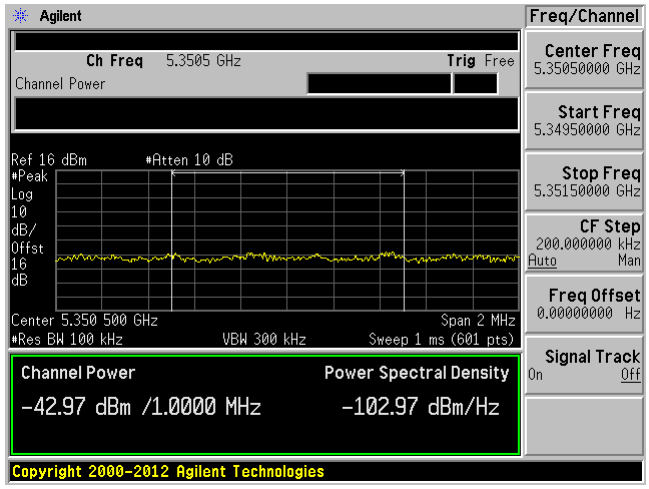


802.11ac40 mode chain 1

Low Channel: 5270 MHz

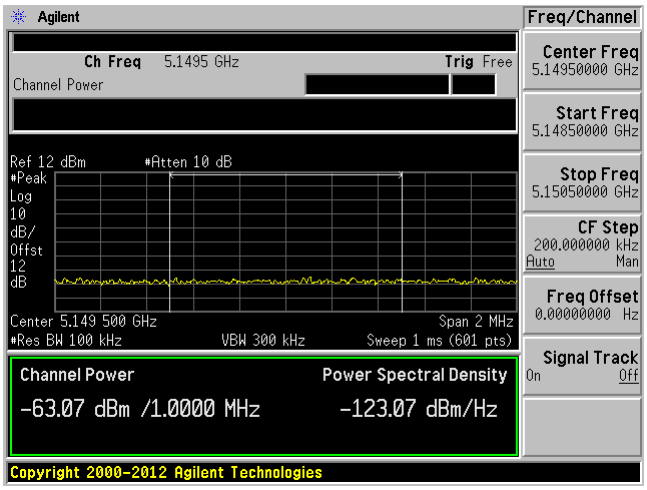


High channel: 5310 MHz

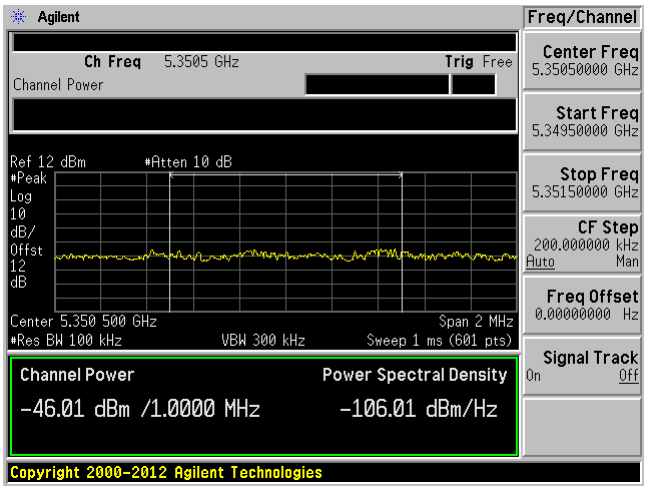


802.11ac40 mode chain 2

Low Channel: 5270 MHz

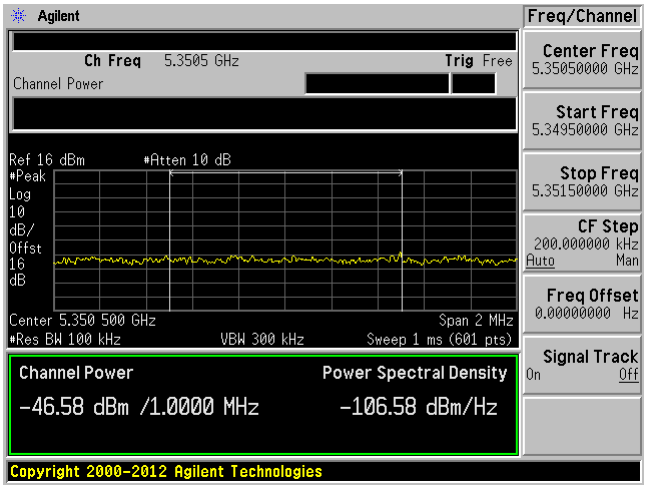


High channel: 5310 MHz

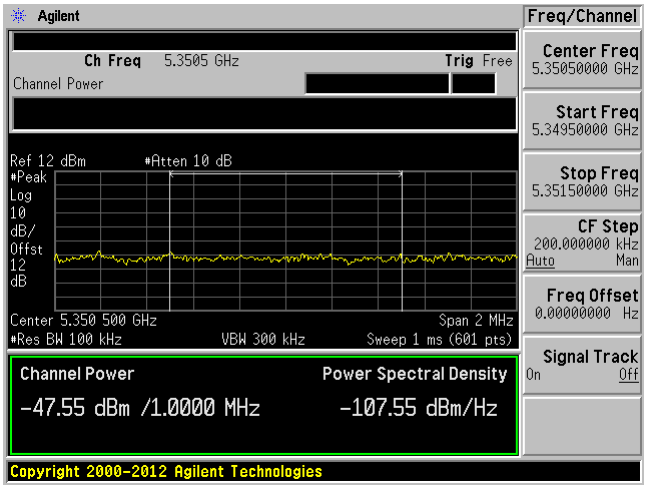


802.11ac80 mode

5290 MHz chain 1



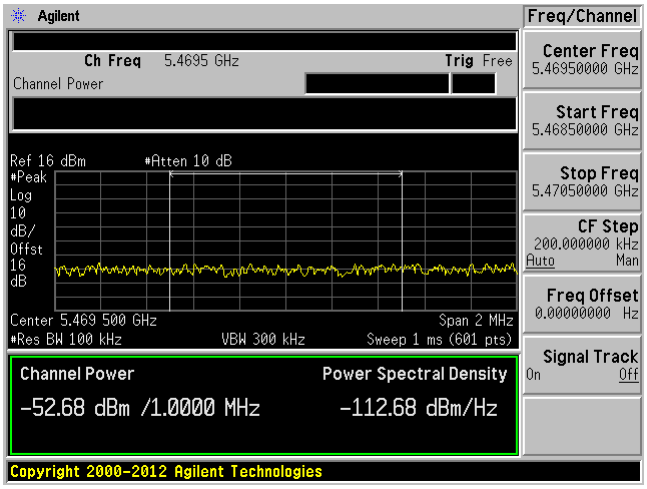
5290 MHz chain 2



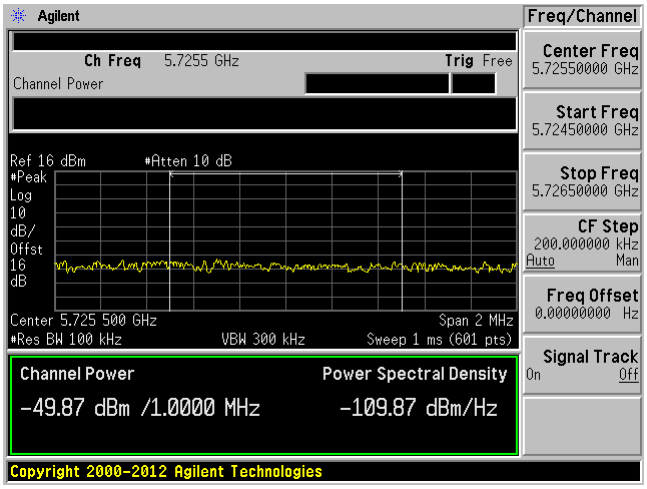
5470 - 5725 MHz

802.11a mode chain 1

Low Channel: 5500 MHz

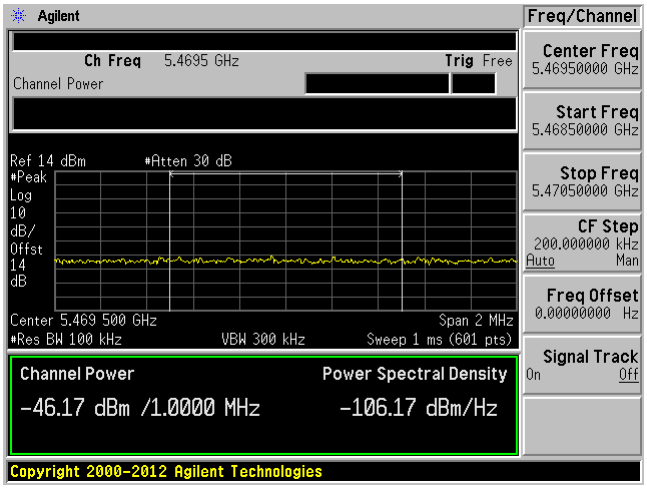


High channel: 5700 MHz

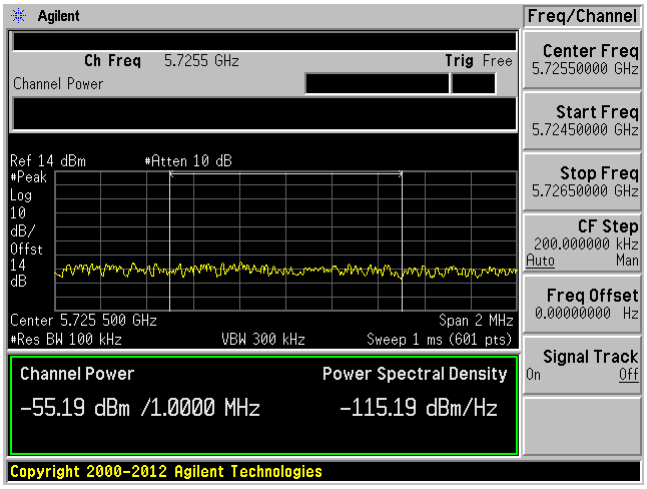


802.11a mode chain 2

Low Channel: 5500 MHz

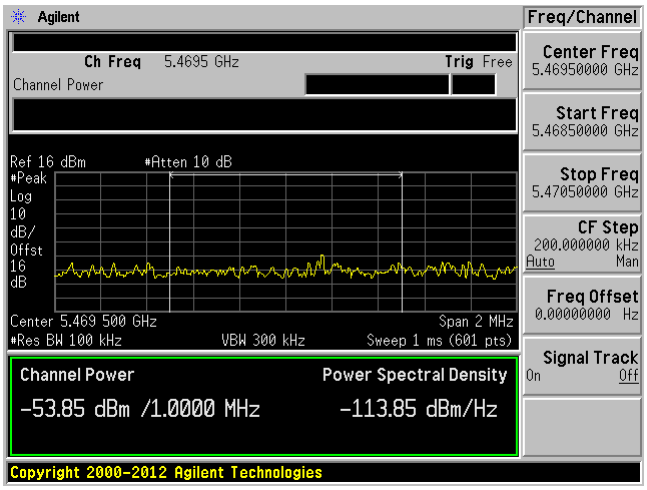


High channel: 5700 MHz

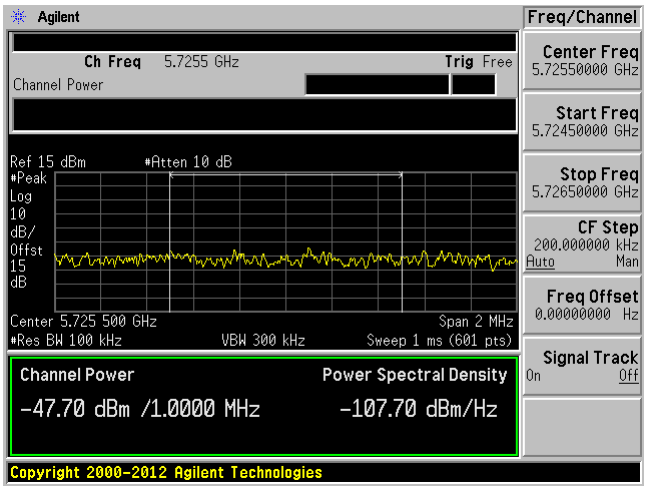


802.11n20 mode chain 1

Low Channel: 5500 MHz

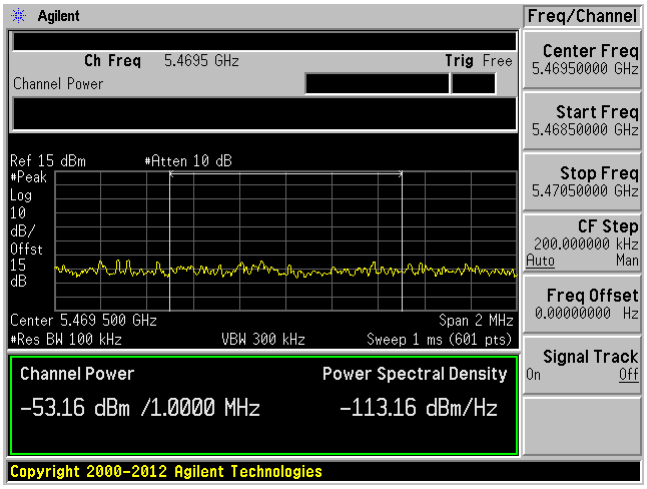


High channel: 5700 MHz

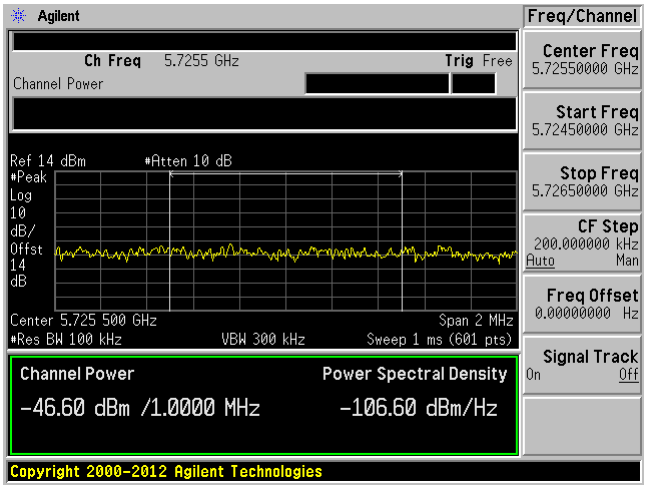


802.11n20 mode chain 2

Low Channel: 5500 MHz

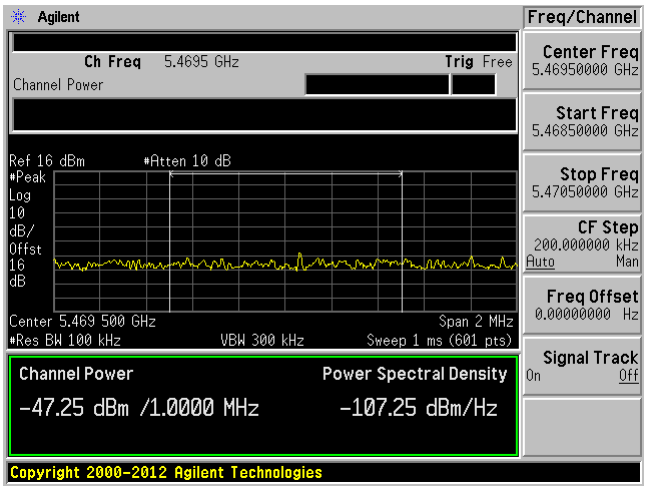


High channel: 5700 MHz

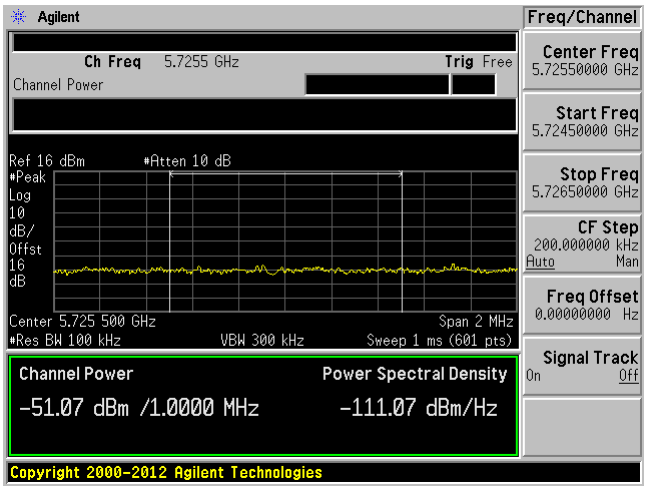


802.11n40 mode chain 1

Low Channel: 5510 MHz

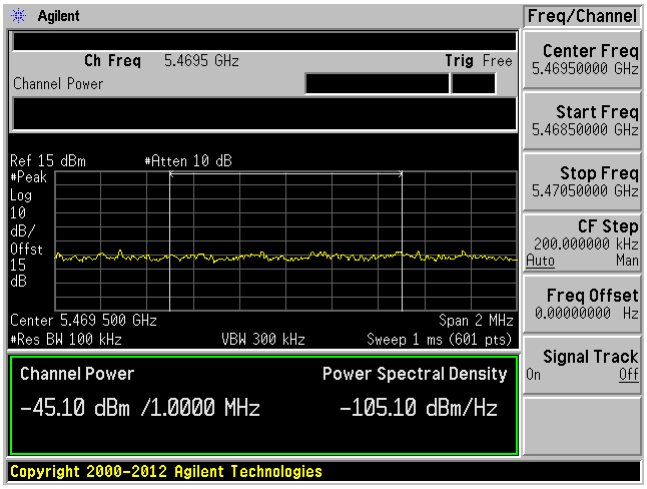


High channel: 5670 MHz

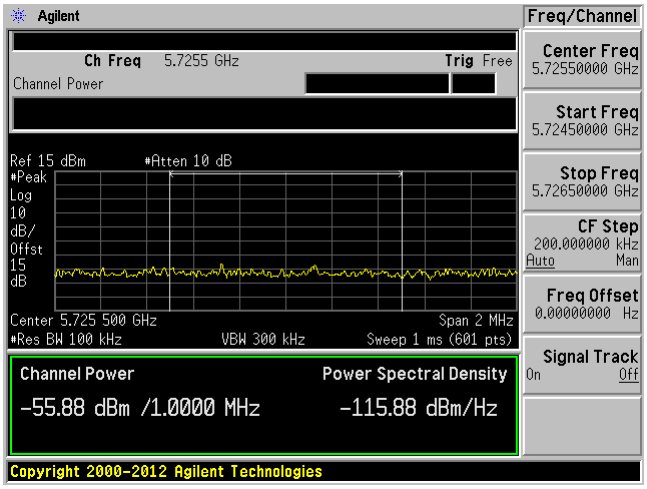


802.11n40 mode chain 2

Low Channel: 5510 MHz

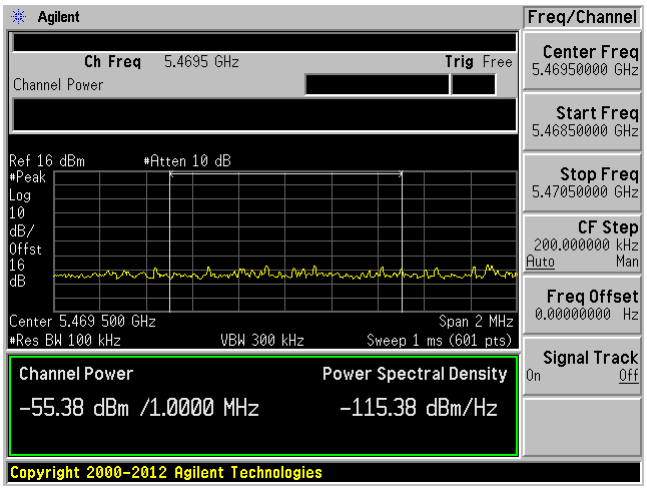


High channel: 5670 MHz

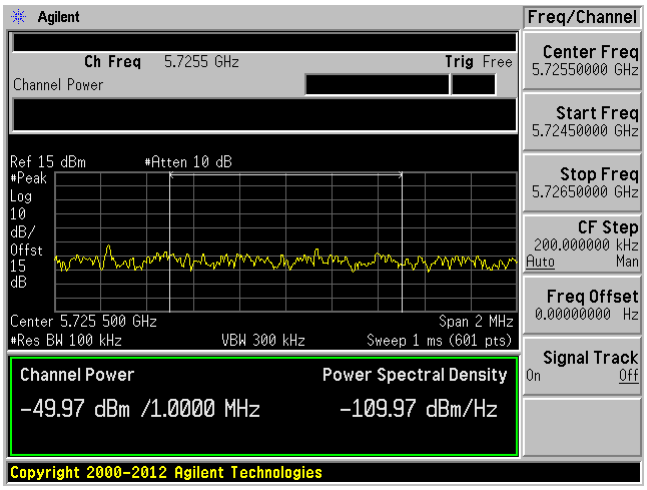


802.11ac20 mode chain 1

Low Channel: 5500 MHz

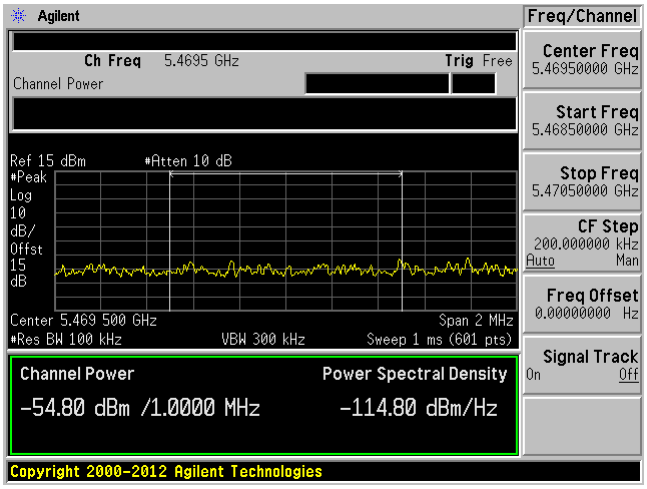


High channel: 5700 MHz

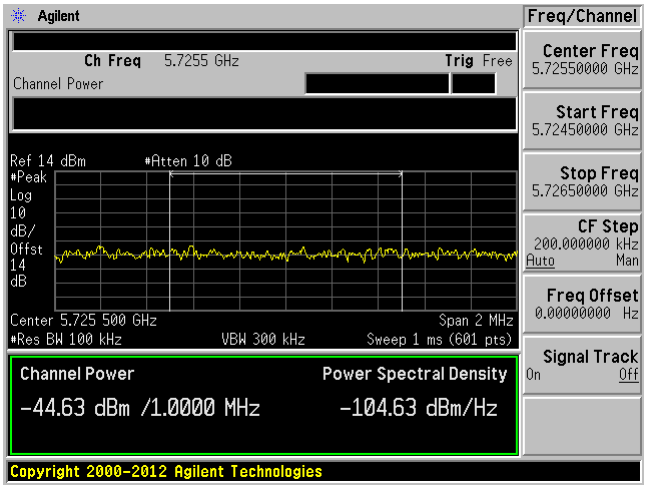


802.11ac20 mode chain 2

Low Channel: 5500 MHz

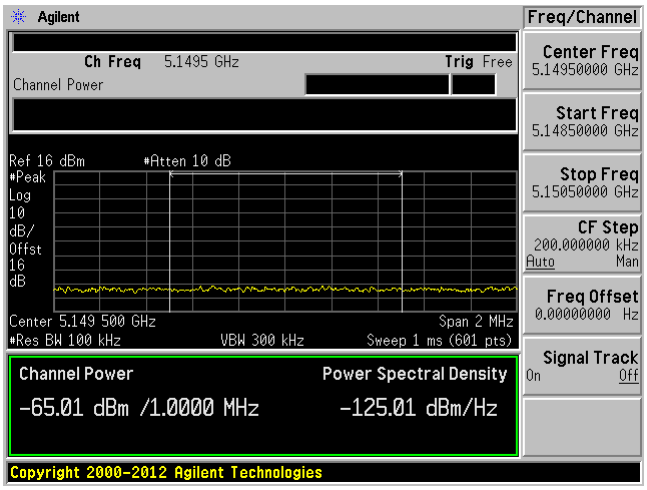


High channel: 5700 MHz

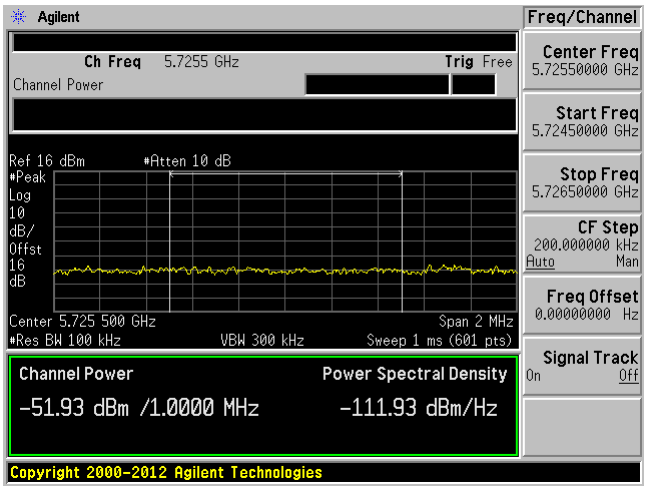


802.11ac40 mode chain 1

Low Channel: 5510 MHz

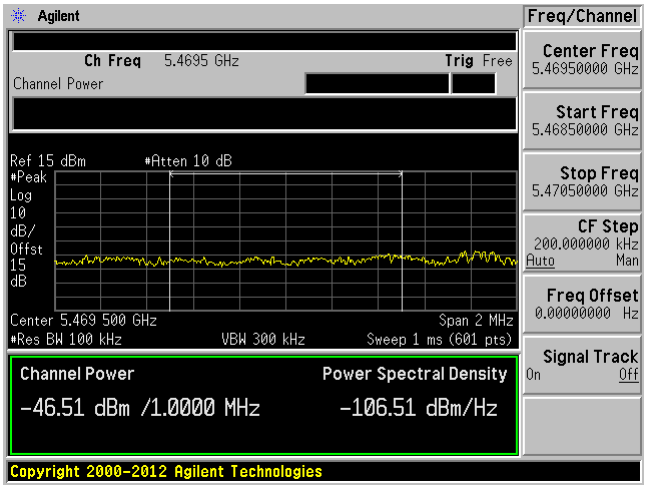


High channel: 5670 MHz

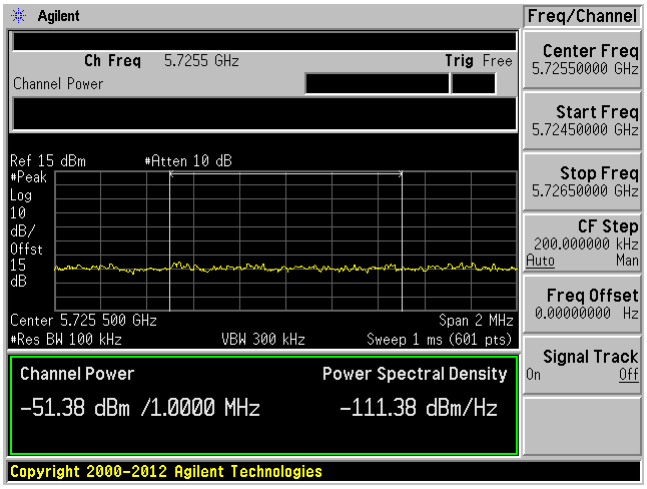


802.11ac40 mode chain 2

Low Channel: 5510 MHz

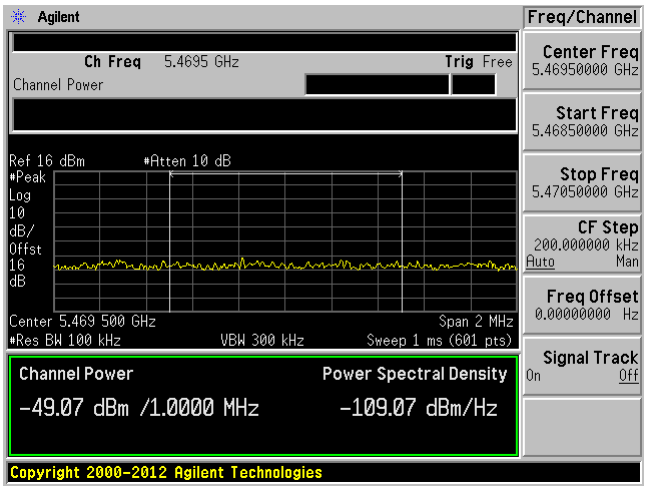


High channel: 5670 MHz

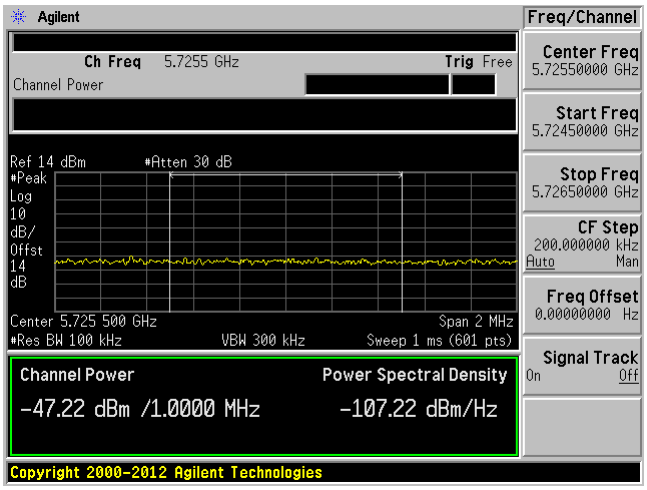


802.11ac80 mode chain 1

Low Channel: 5530 MHz

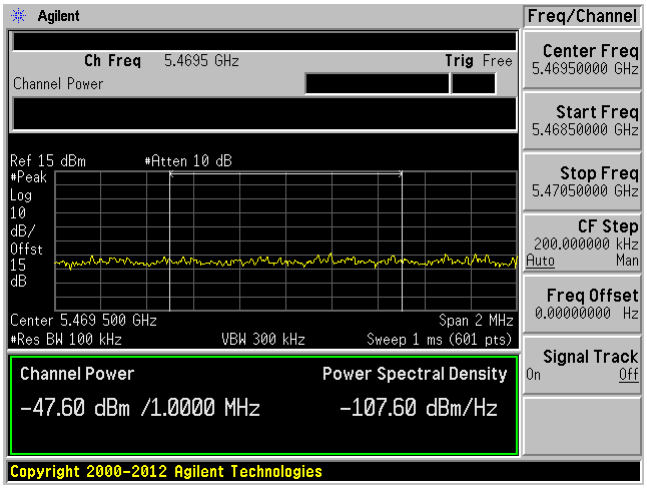


High Channel: 5610 MHz

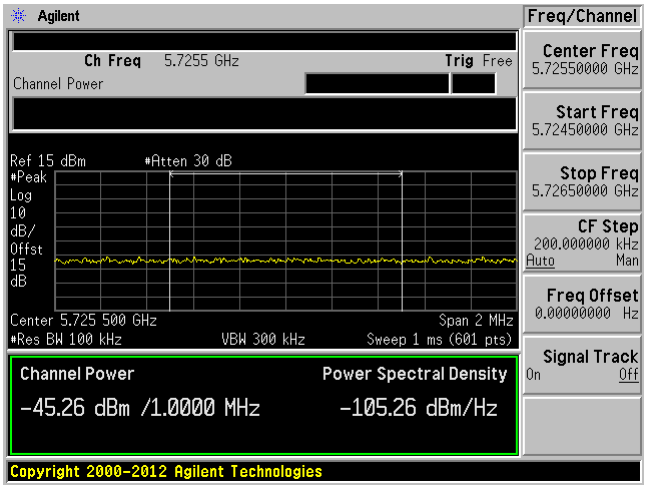


802.11ac80 mode chain 2

Low Channel: 5530 MHz



High Channel: 5610 MHz

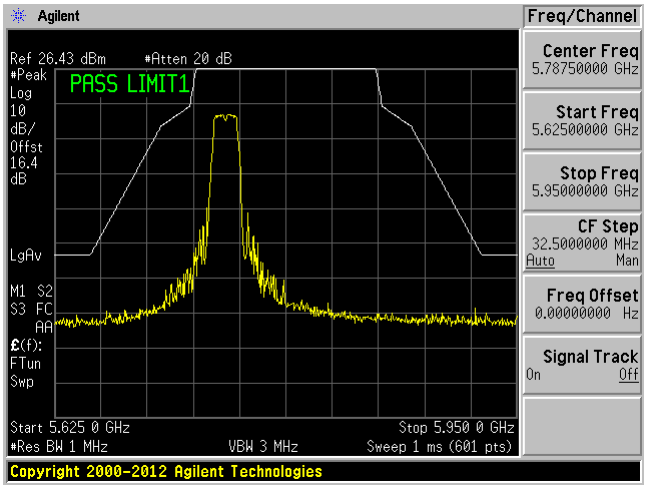


5725 - 5850 MHz

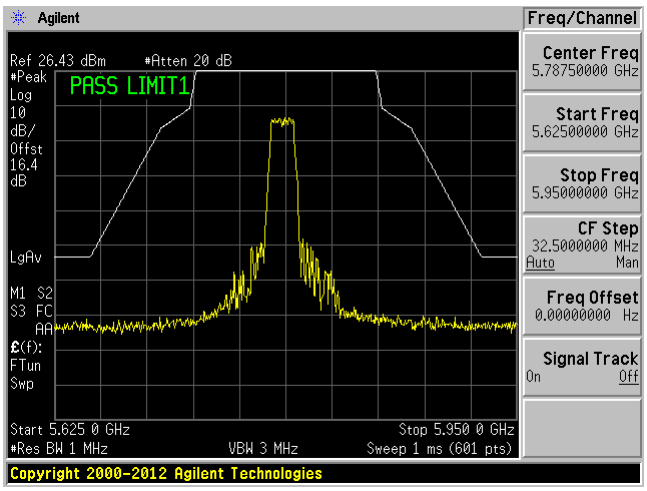
FCC Band-Edge (Mask)

802.11a mode chain 1

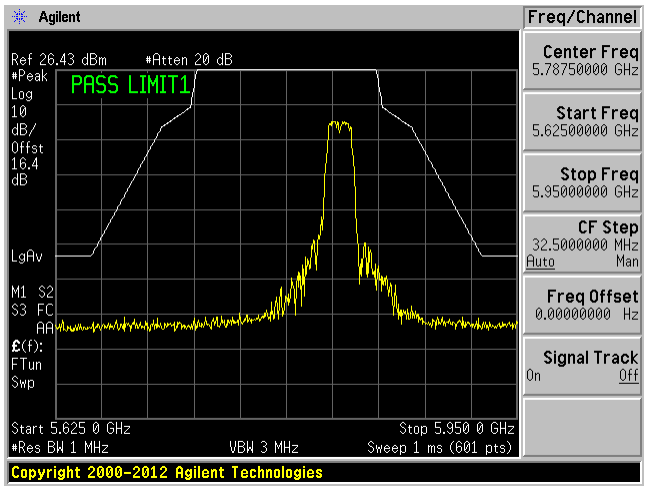
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

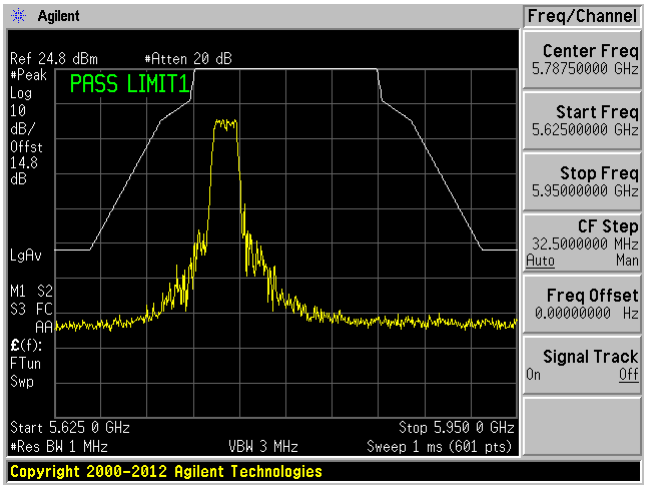


High Channel: 5825 MHz

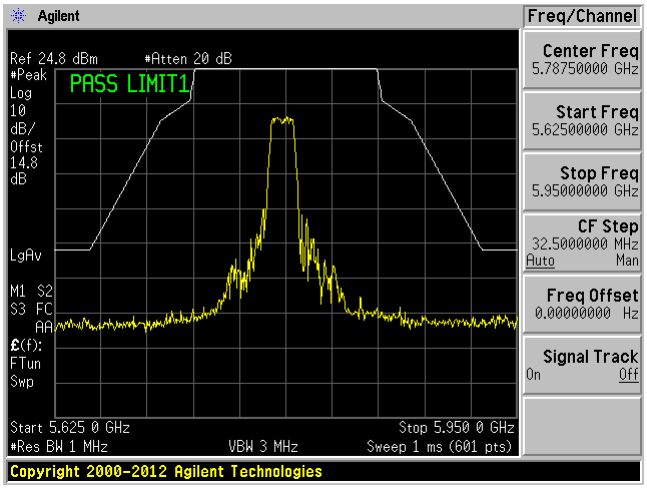


802.11a mode chain 2

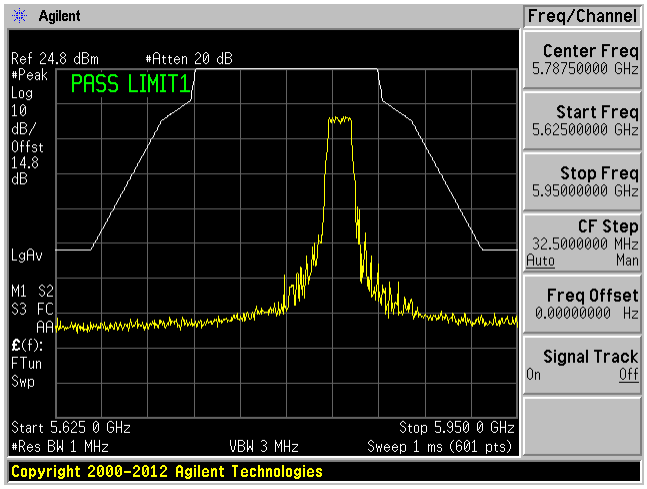
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

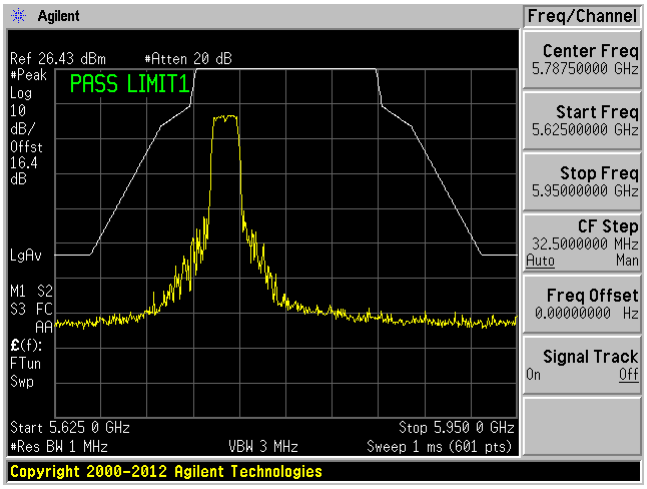


High Channel: 5825 MHz

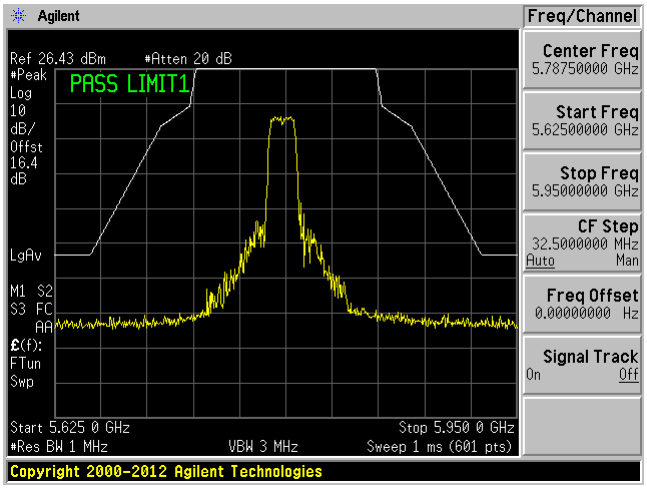


802.11n20 mode chain 1

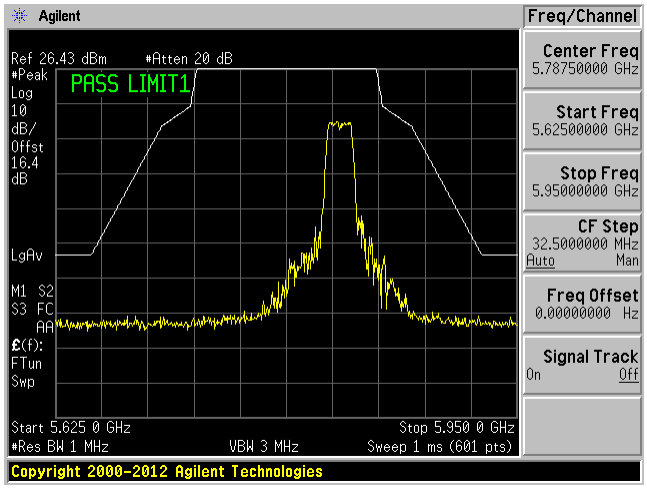
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

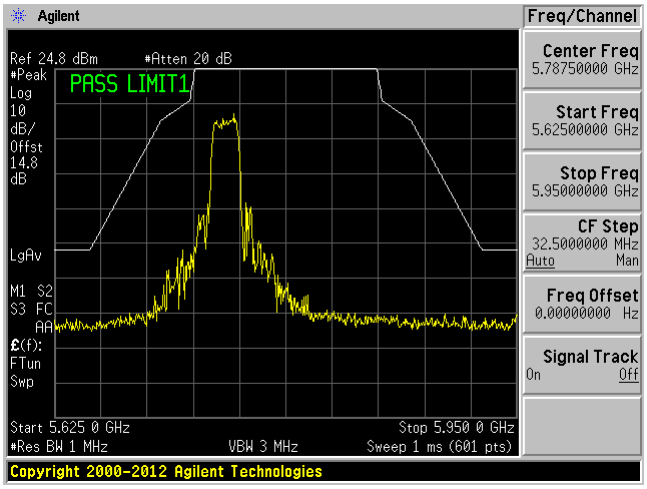


High Channel: 5825 MHz

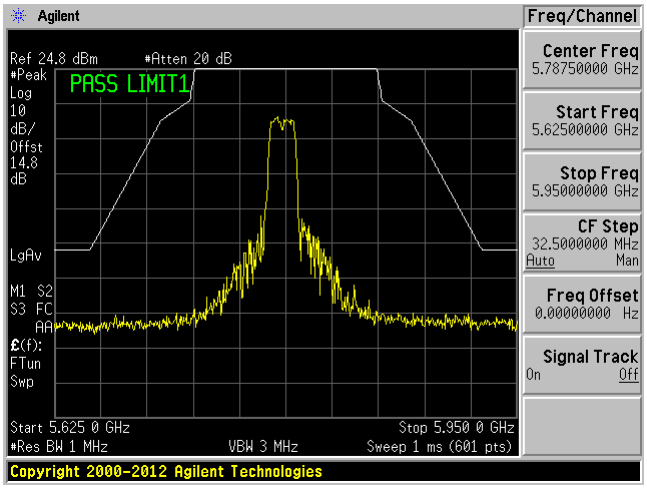


802.11n20 mode chain 2

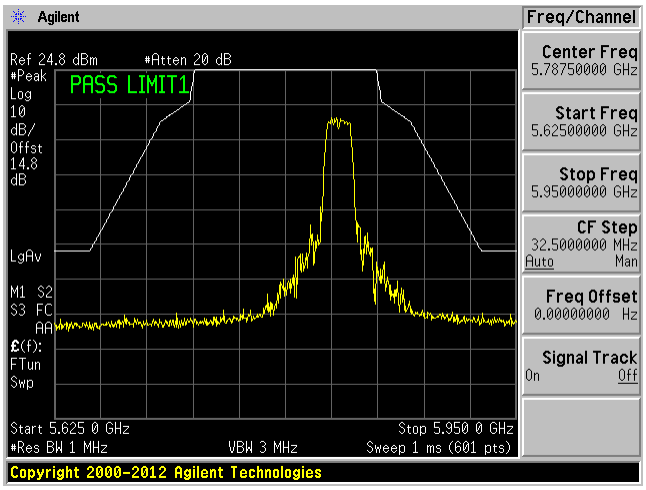
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

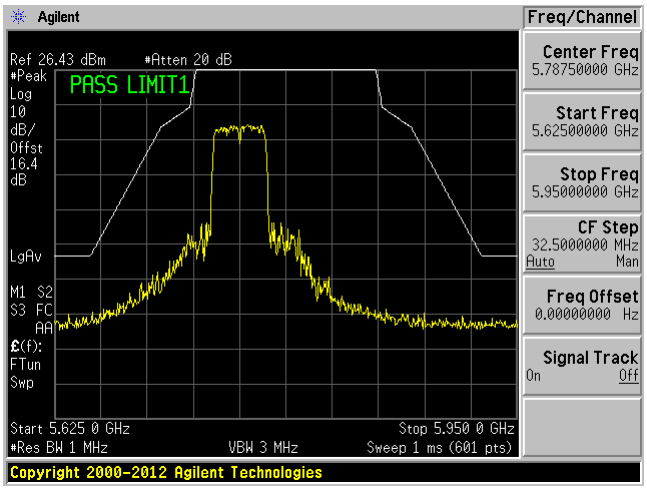


High Channel: 5825 MHz

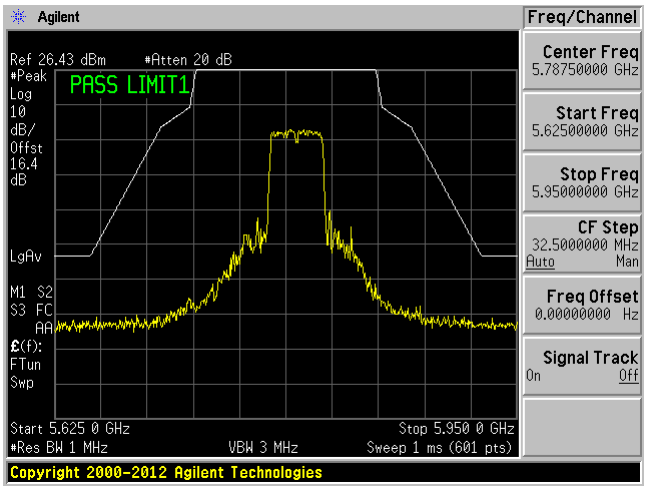


802.11n40 mode chain 1

Low Channel: 5755 MHz

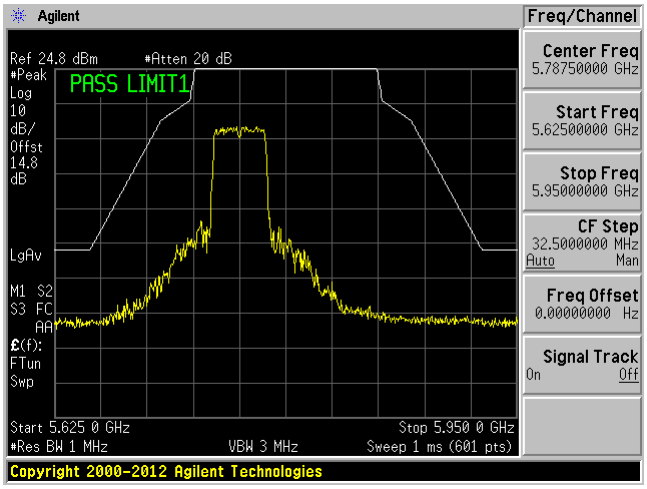


High Channel: 5855 MHz

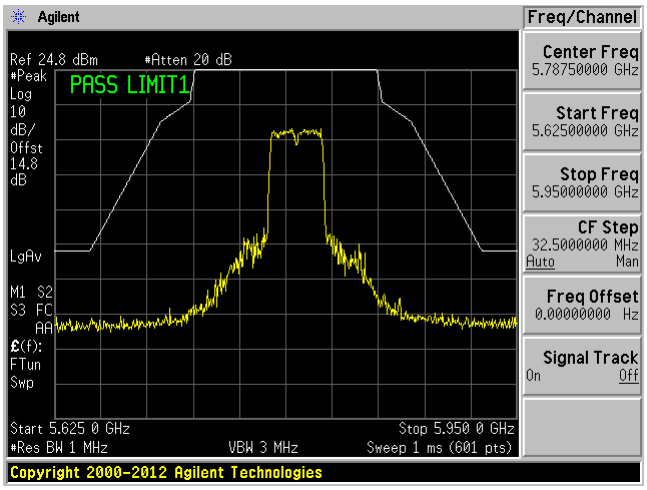


802.11n40 mode chain 2

Low Channel: 5745 MHz

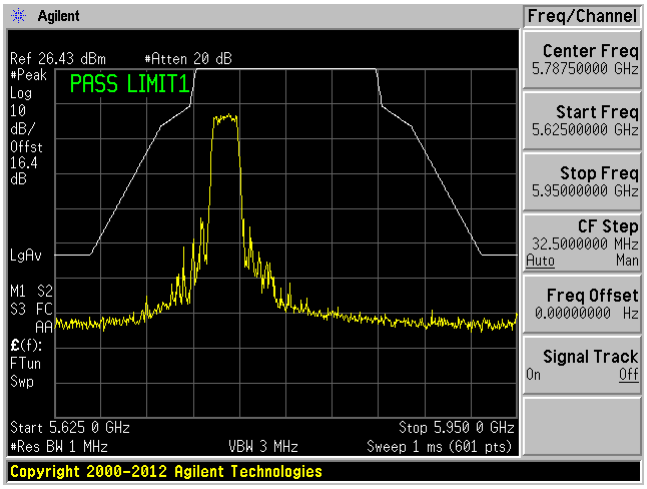


High Channel: 5825 MHz

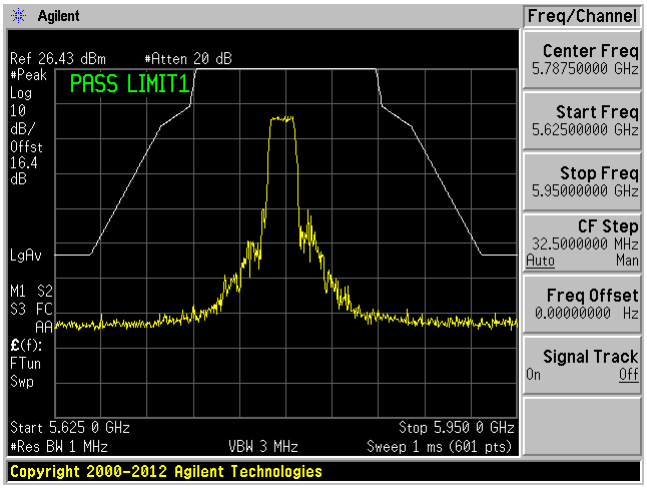


802.11ac20 mode chain 1

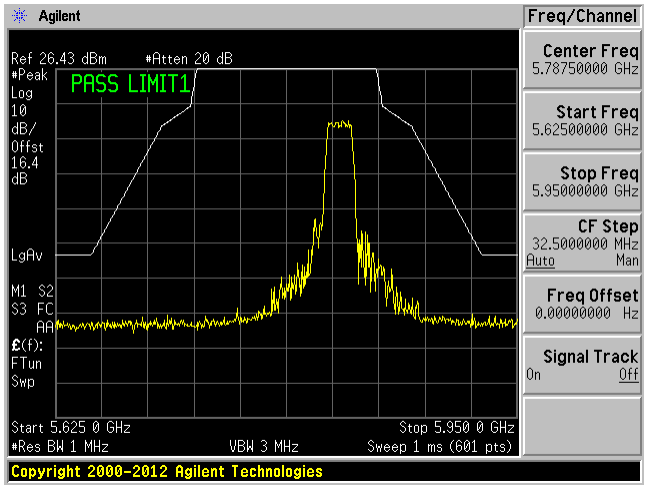
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

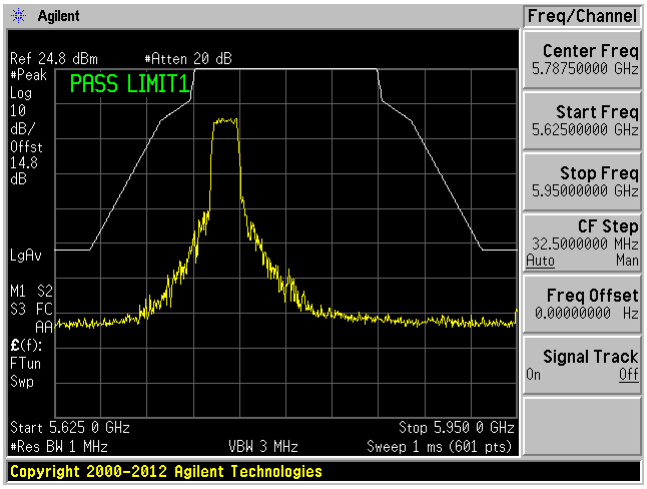


High Channel: 5825 MHz

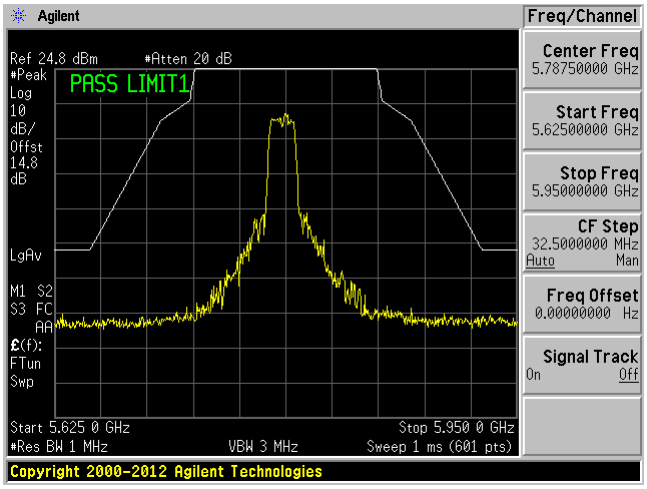


802.11ac20 mode chain 2

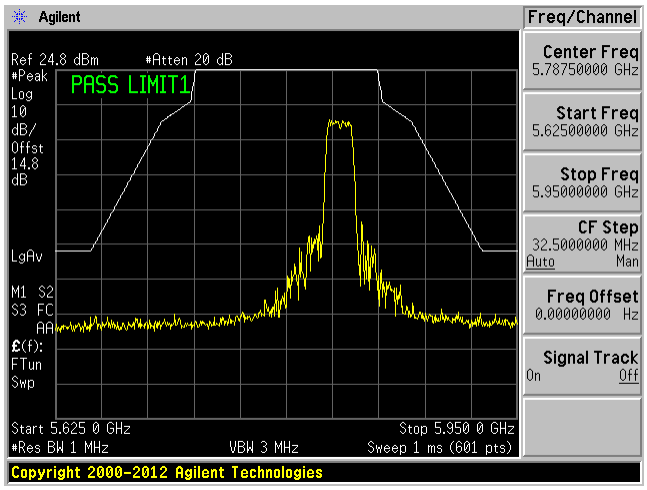
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

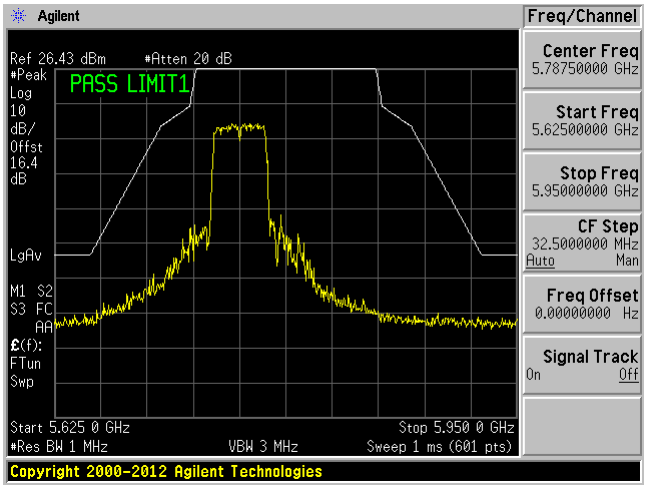


High Channel: 5825 MHz

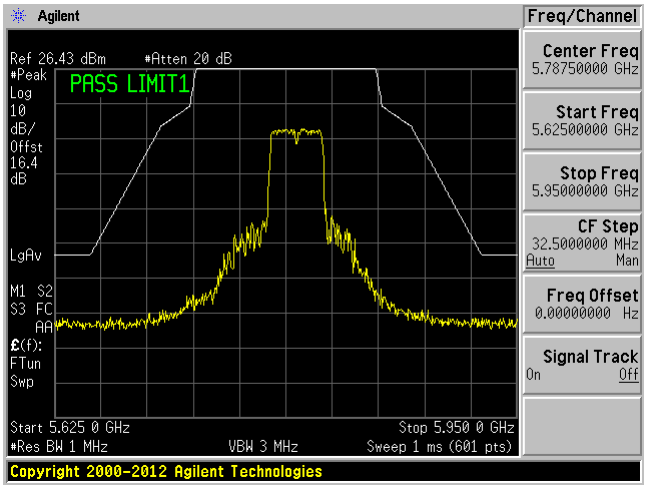


802.11ac40 mode chain 1

Low Channel: 5755 MHz

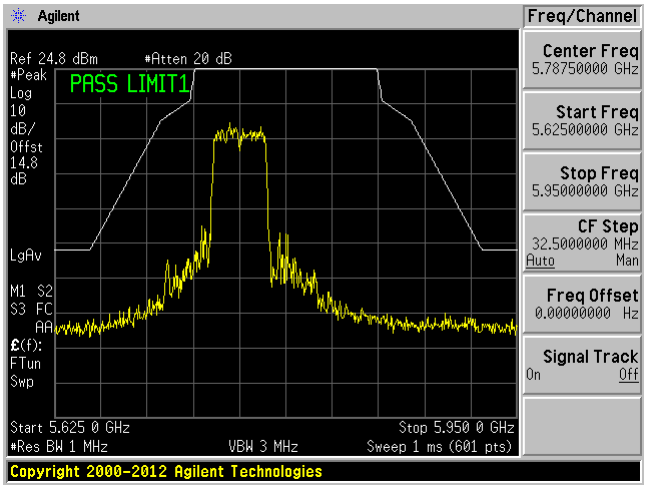


High Channel: 5855 MHz

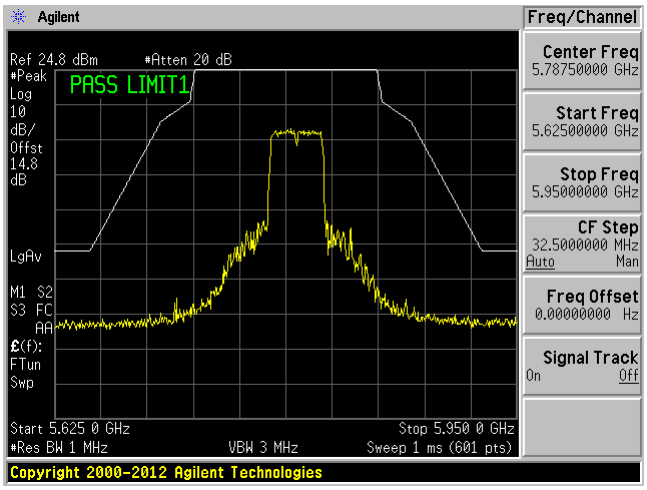


802.11ac40 mode chain 2

Low Channel: 5745 MHz

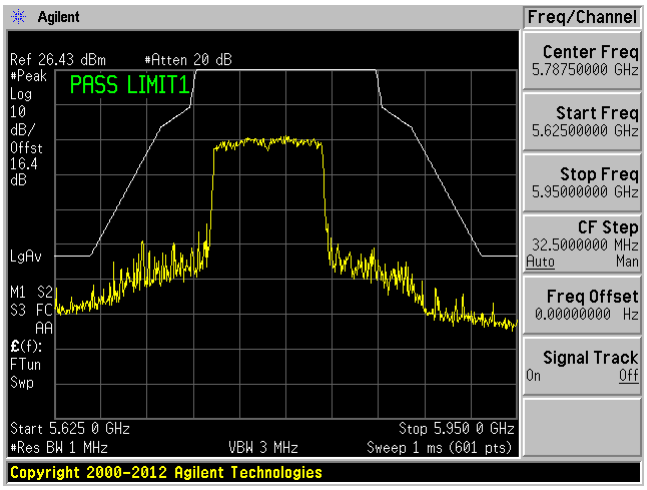


High Channel: 5825 MHz

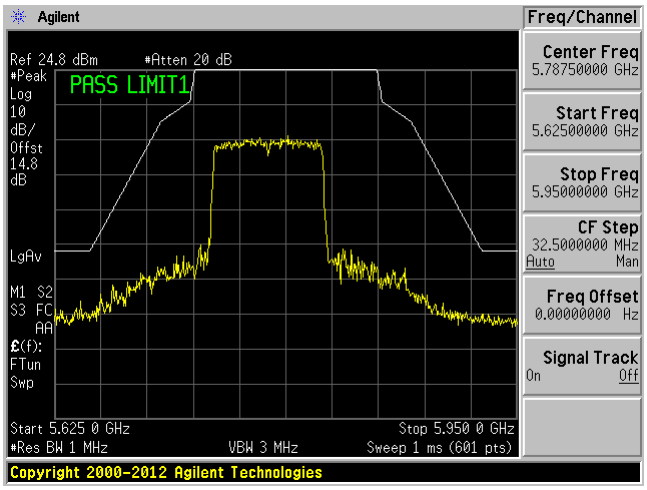


802.11ac80 mode, 5775 MHz

Chain 1



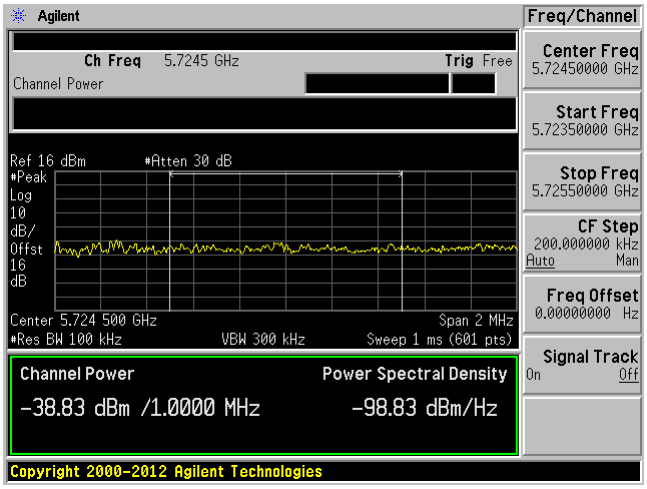
Chain 2



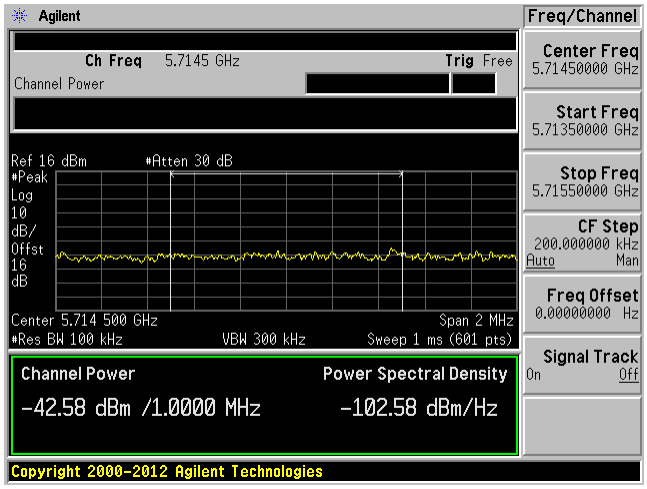
(3) IC Band-Edge

802.11a mode chain 1

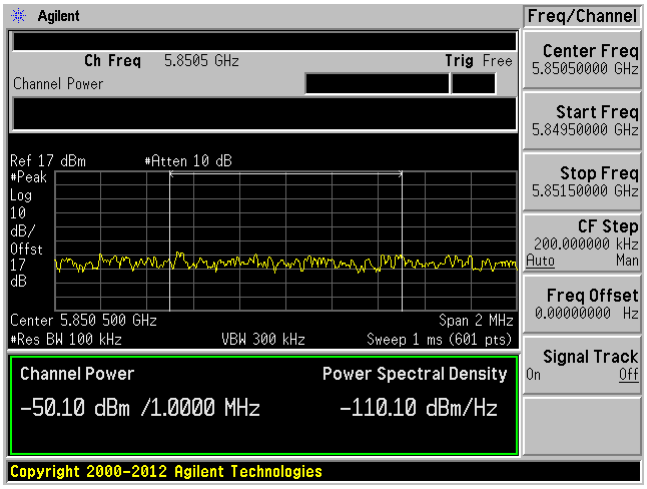
Low Channel: 5745 MHz (-17 dBm/MHz limit)



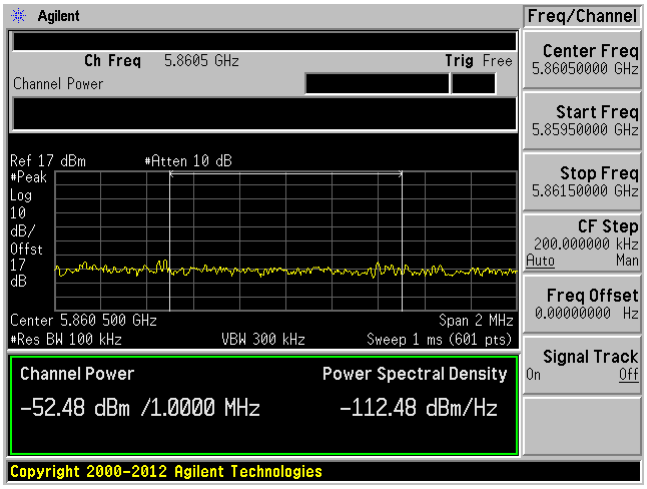
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

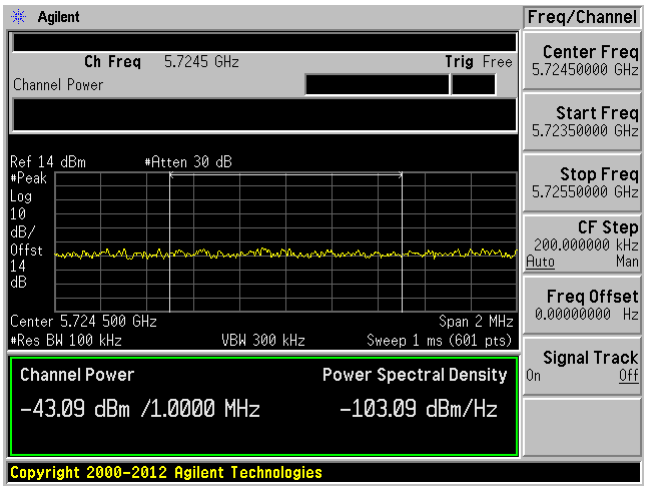


High Channel: 5825 MHz (-27 dBm/MHz limit)

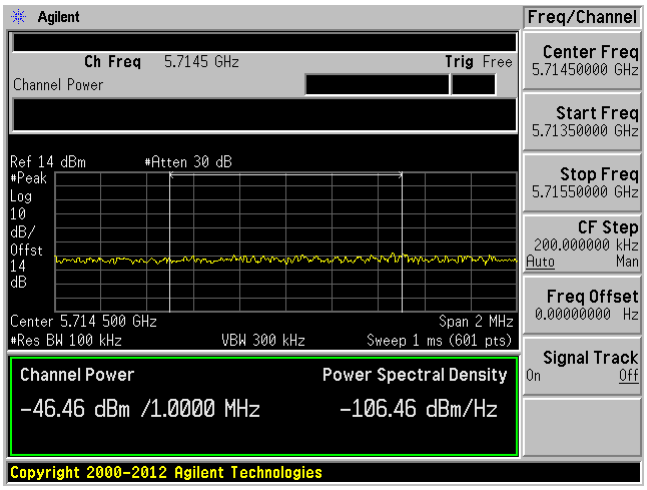


802.11a mode chain 2

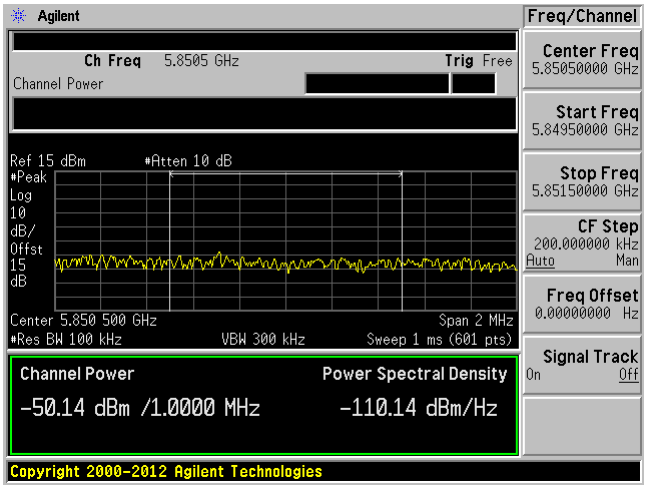
Low Channel: 5745 MHz (-17 dBm/MHz limit)



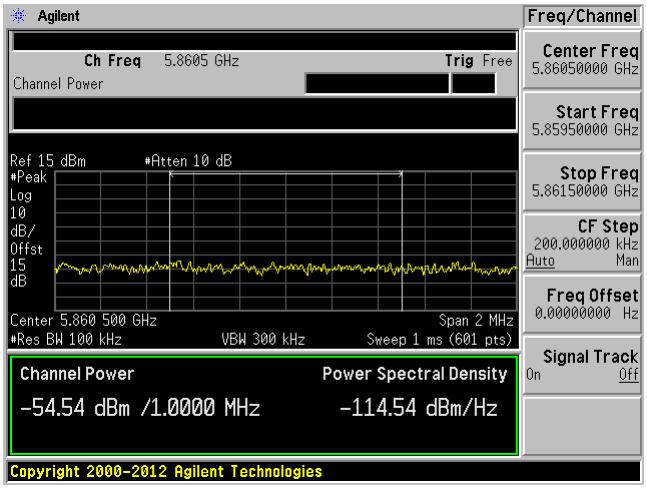
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

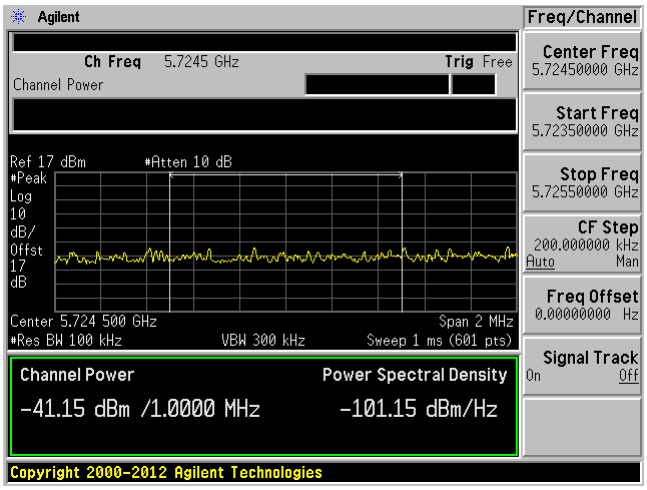


High Channel: 5825 MHz (-27 dBm/MHz limit)

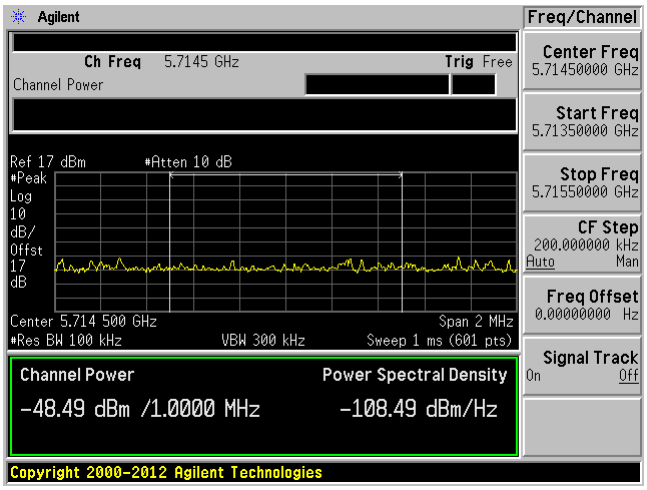


802.11n20 mode chain 1

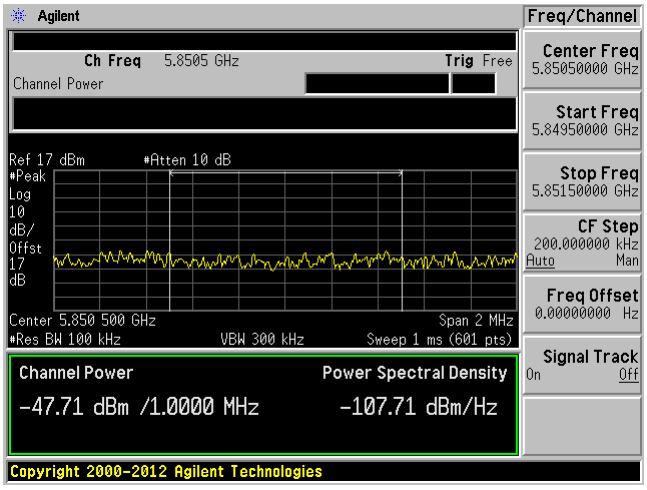
Low Channel: 5745 MHz (-17 dBm/MHz limit)



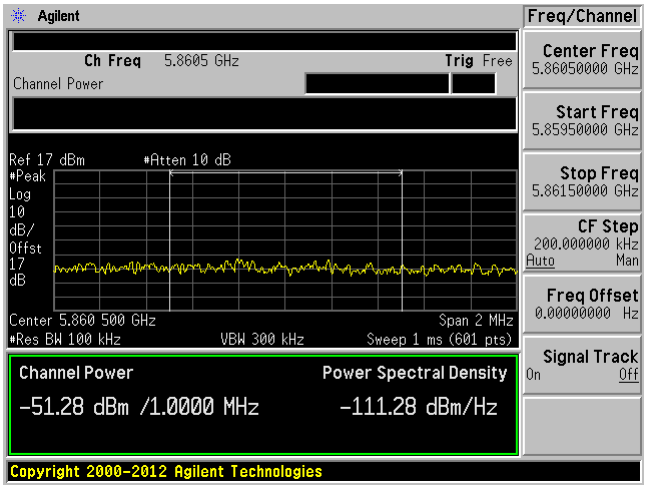
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

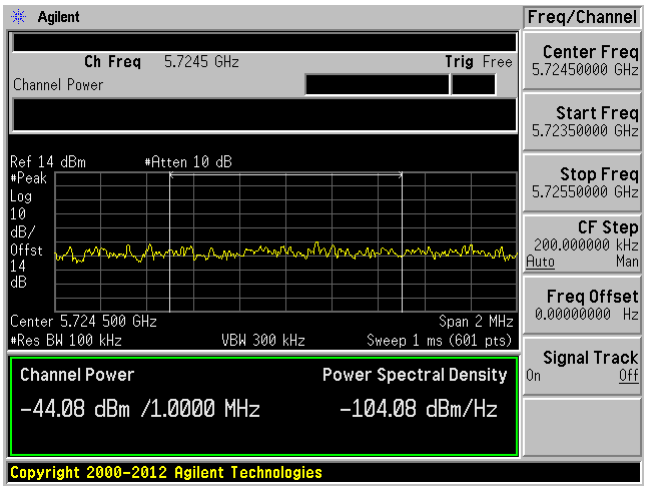


High Channel: 5825 MHz (-27 dBm/MHz limit)

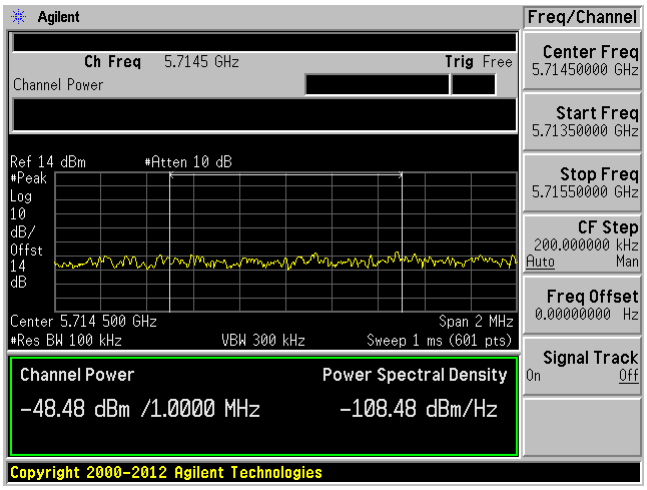


802.11n20 mode chain 2

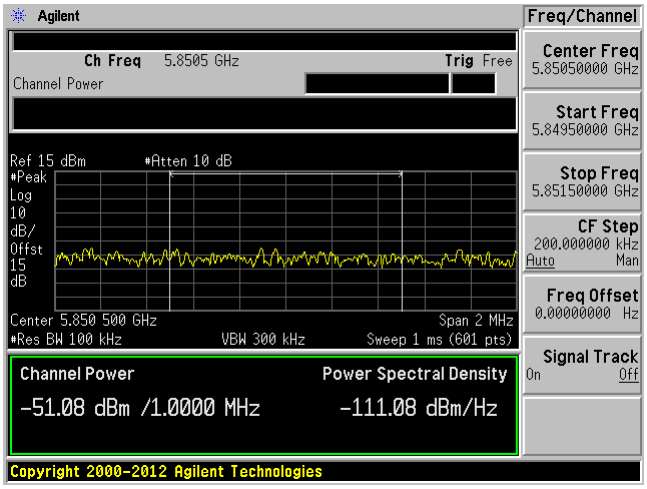
Low Channel: 5745 MHz (-17 dBm/MHz limit)



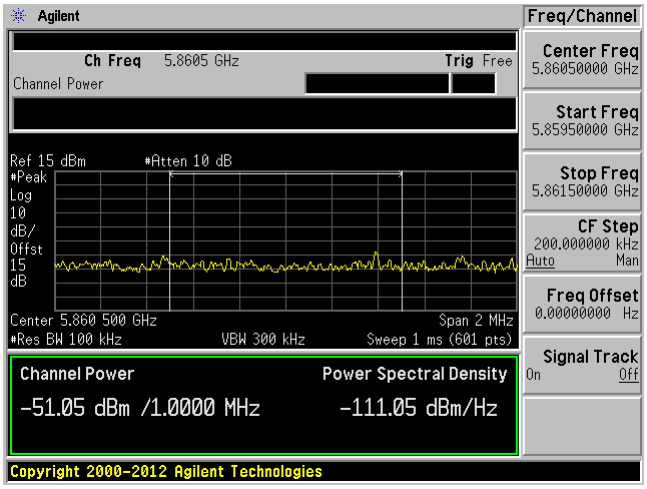
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

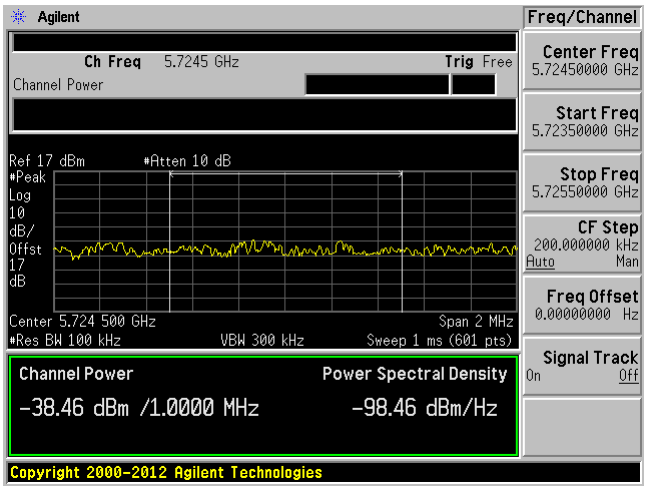


High Channel: 5825 MHz (-27 dBm/MHz limit)

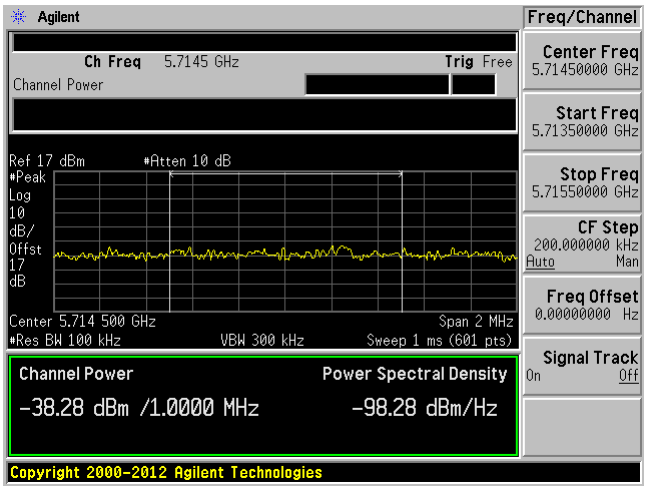


802.11n40 mode chain 1

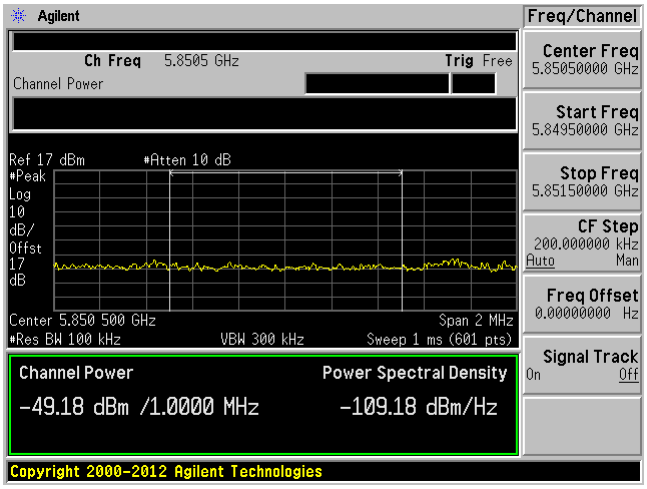
Low Channel: 5755 MHz (-17 dBm/MHz limit)



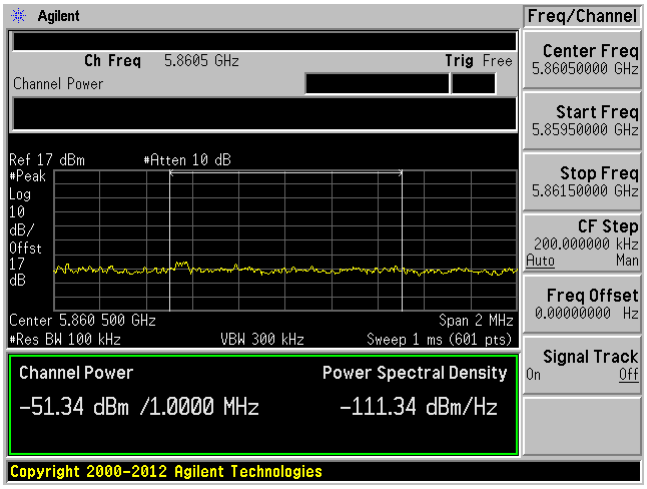
Low Channel: 5755 MHz (-27 dBm/MHz limit)



High Channel: 5795 MHz (-17 dBm/MHz limit)

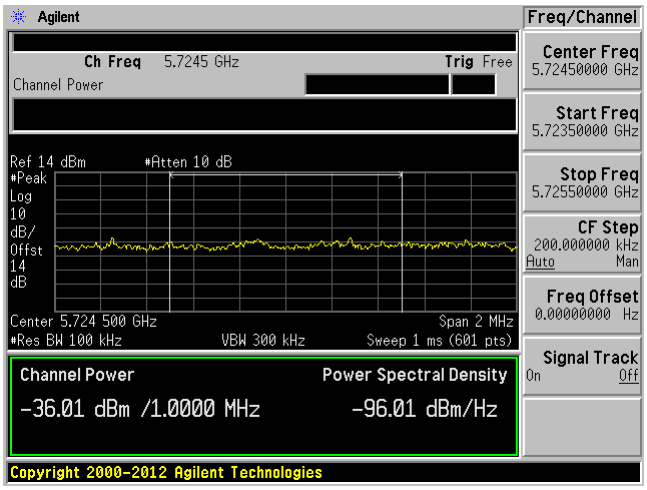


High Channel: 5795 MHz (-27 dBm/MHz limit)

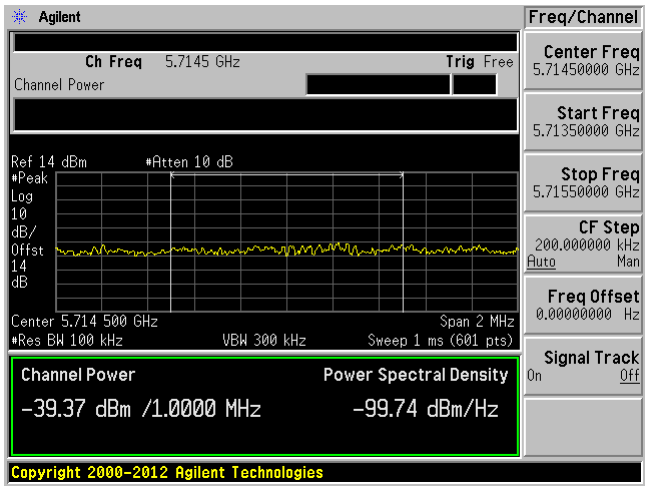


802.11n40 mode chain 2

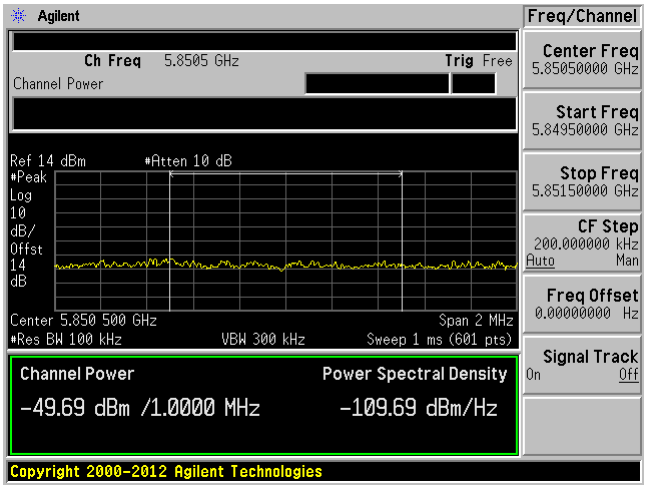
Low Channel: 5755 MHz (-17 dBm/MHz limit)



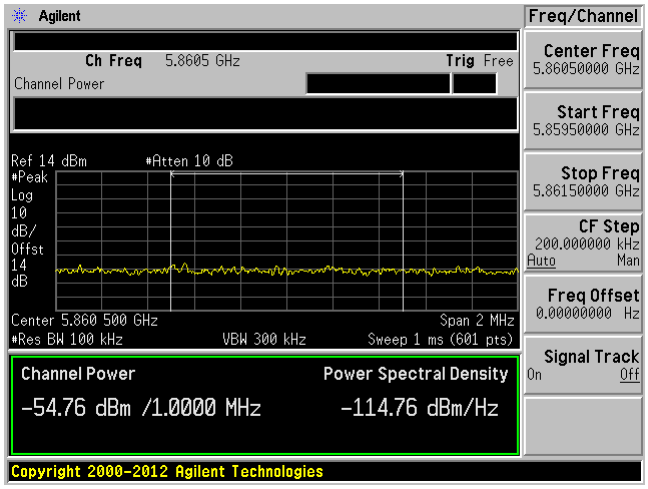
Low Channel: 5755 MHz (-27 dBm/MHz limit)



High Channel: 5795 MHz (-17 dBm/MHz limit)

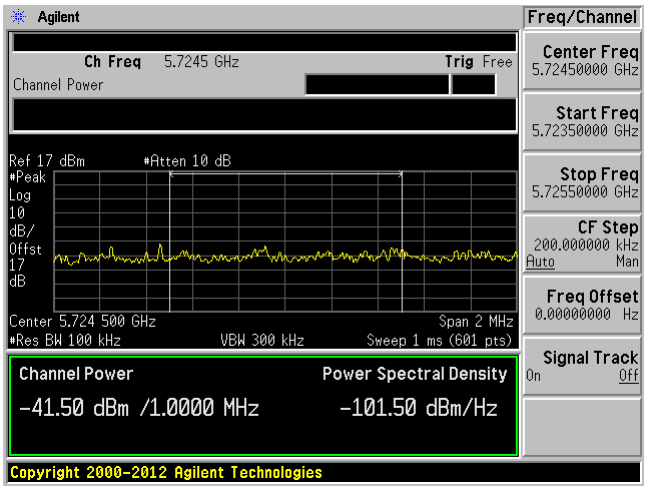


High Channel: 5795 MHz (-27 dBm/MHz limit)

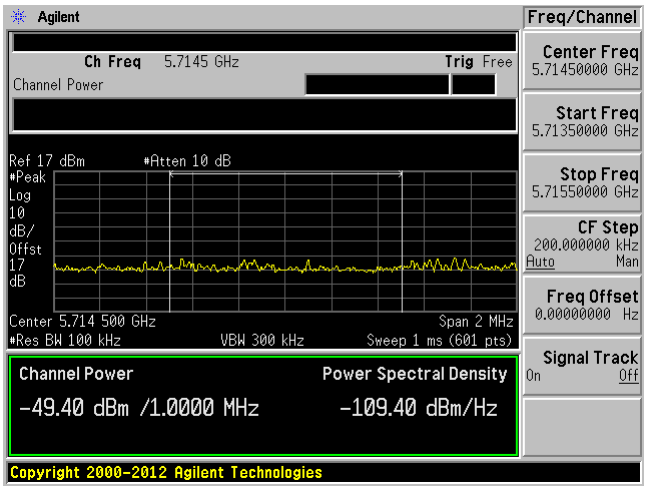


802.11ac20 mode chain 1

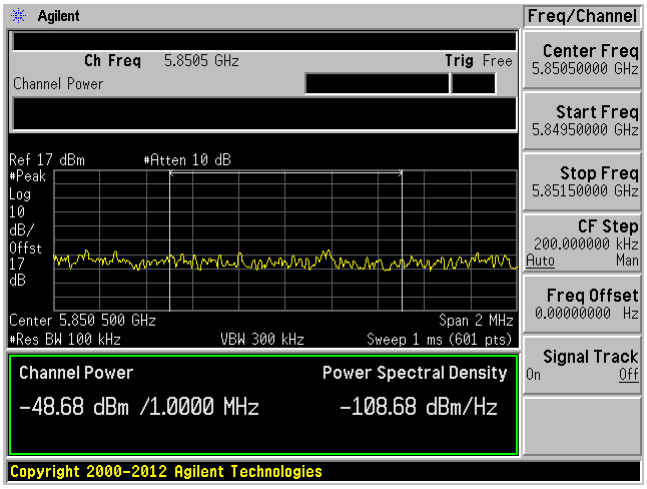
Low Channel: 5745 MHz (-17 dBm/MHz limit)



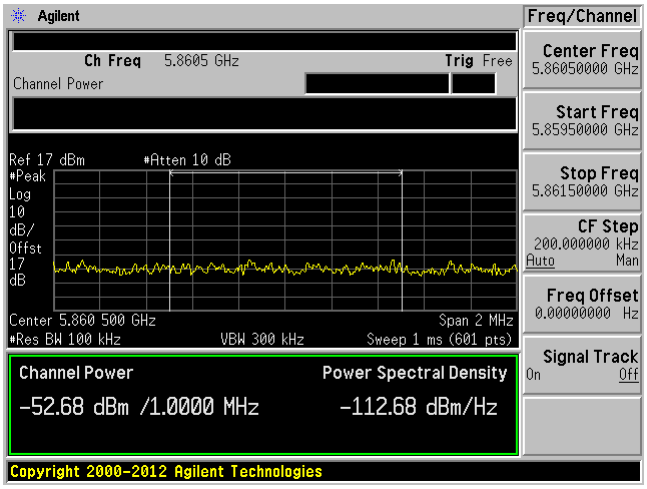
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

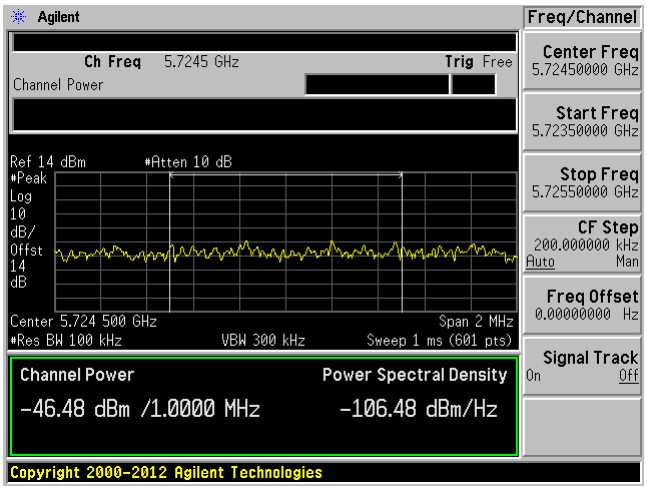


High Channel: 5825 MHz (-27 dBm/MHz limit)

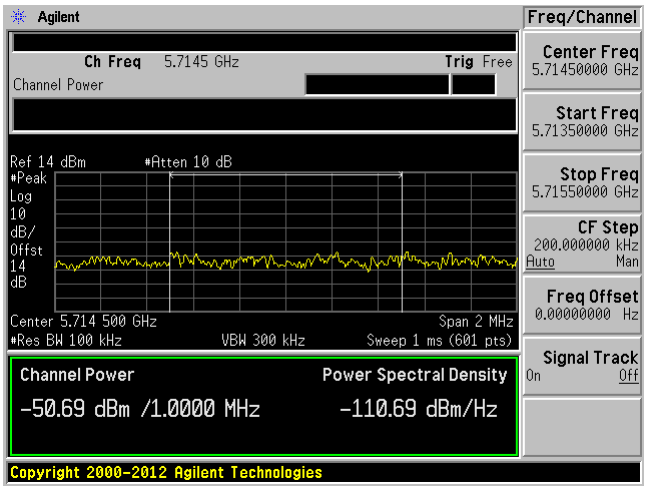


802.11ac20 mode chain 2

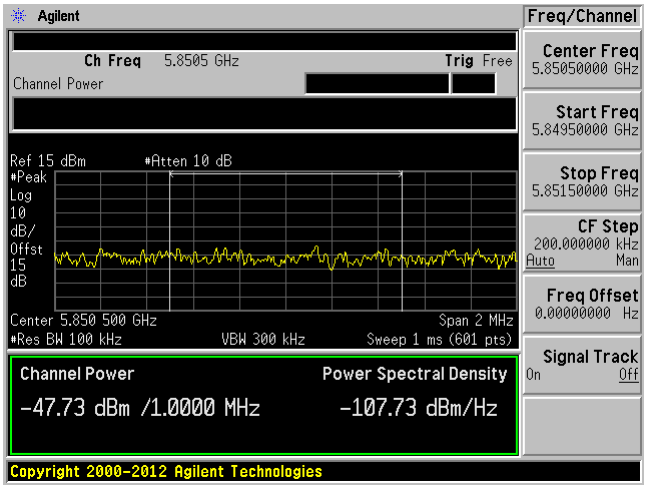
Low Channel: 5745 MHz (-17 dBm/MHz limit)



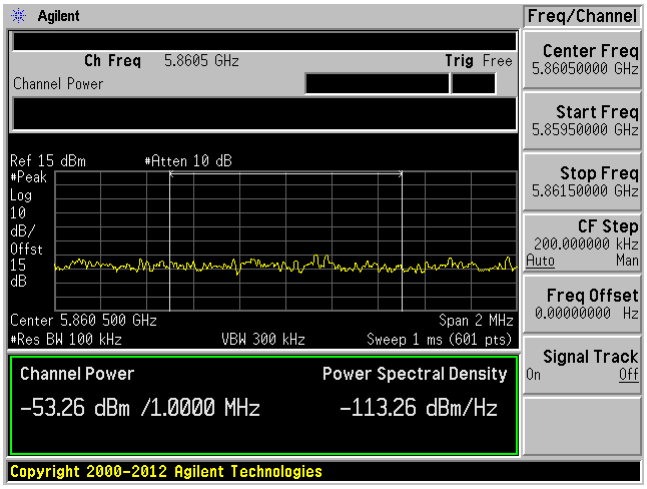
Low Channel: 5745 MHz (-27 dBm/MHz limit)



High Channel: 5825 MHz (-17 dBm/MHz limit)

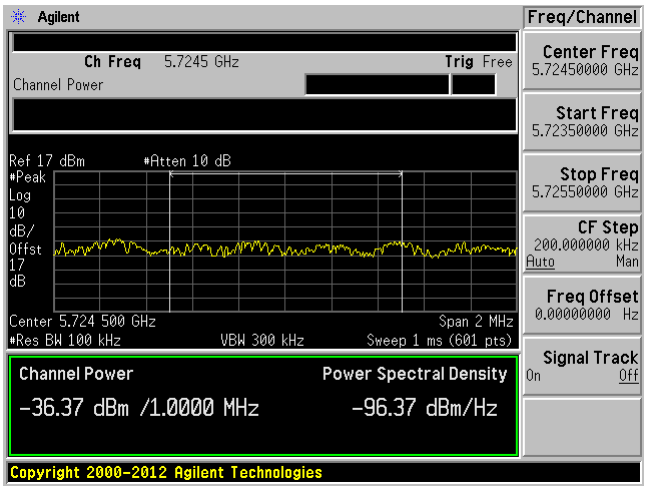


High Channel: 5825 MHz (-27 dBm/MHz limit)

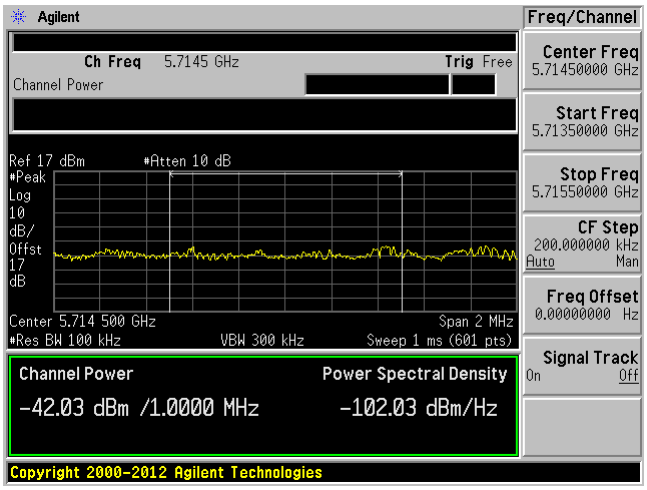


802.11ac40 mode chain 1

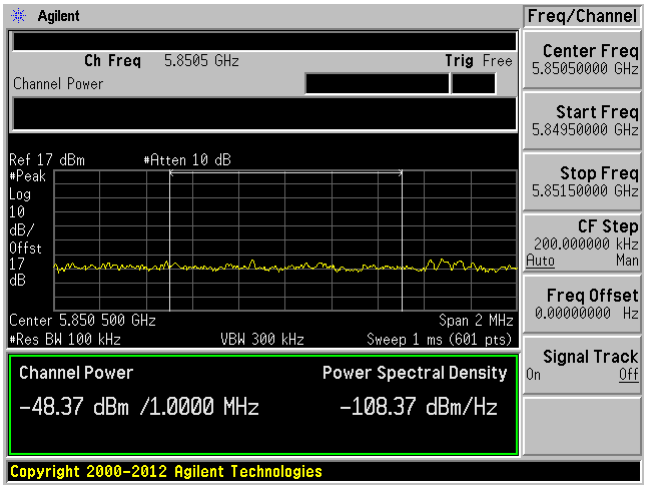
Low Channel: 5755 MHz (-17 dBm/MHz limit)



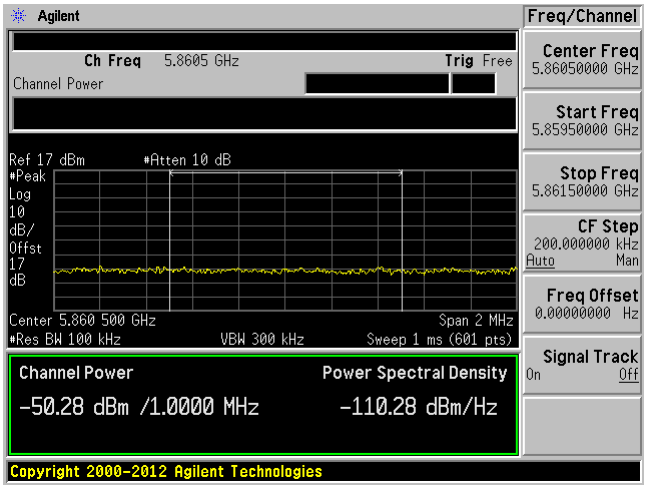
Low Channel: 5755 MHz (-27 dBm/MHz limit)



High Channel: 5795 MHz (-17 dBm/MHz limit)

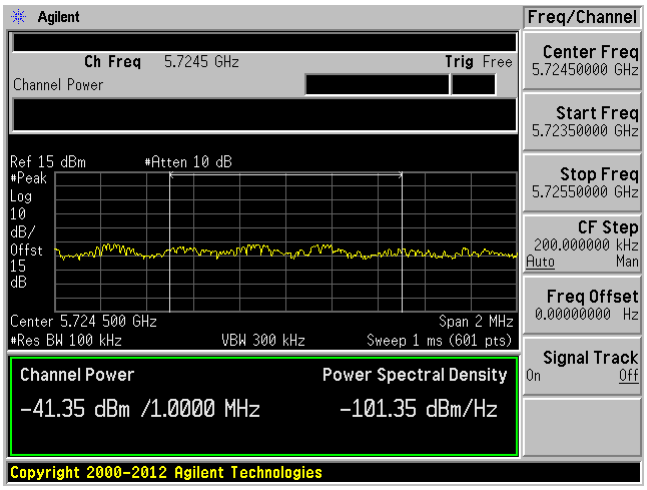


High Channel: 5795 MHz (-27 dBm/MHz limit)

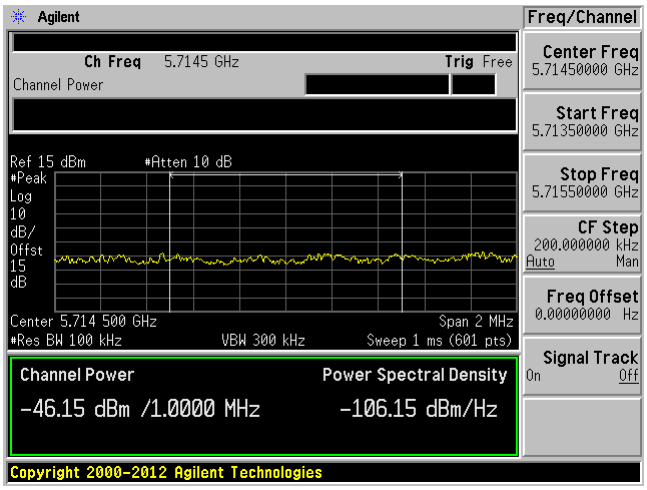


802.11ac40 mode chain 2

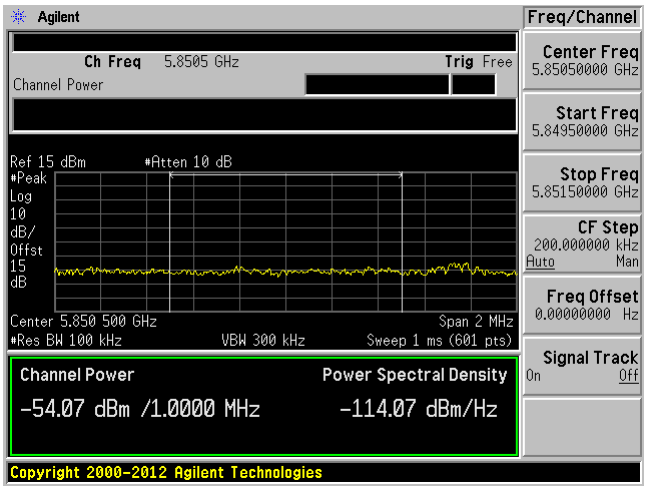
Low Channel: 5755 MHz (-17 dBm/MHz limit)



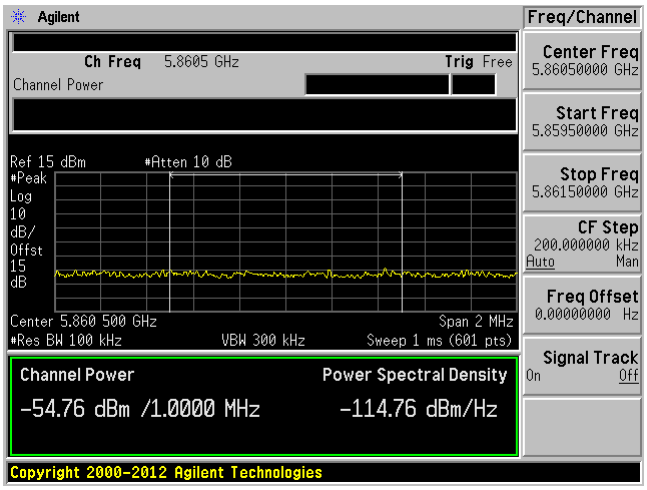
Low Channel: 5755 MHz (-27 dBm/MHz limit)



High Channel: 5795 MHz (-17 dBm/MHz limit)

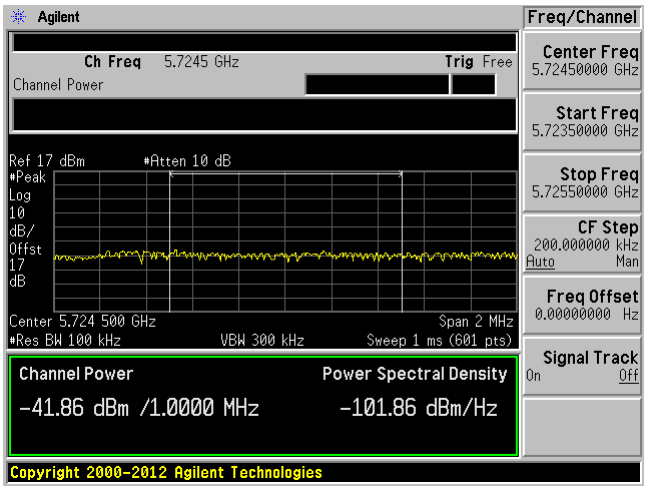


High Channel: 5795 MHz (-27 dBm/MHz limit)

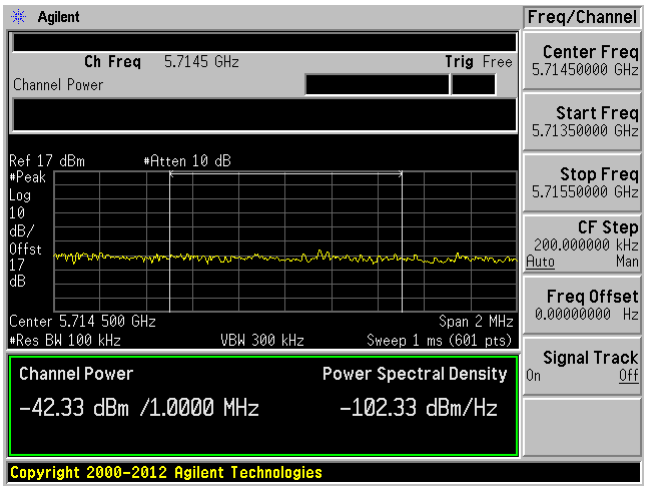


802.11ac80 mode chain 1

5775 MHz (-17 dBm/MHz limit)

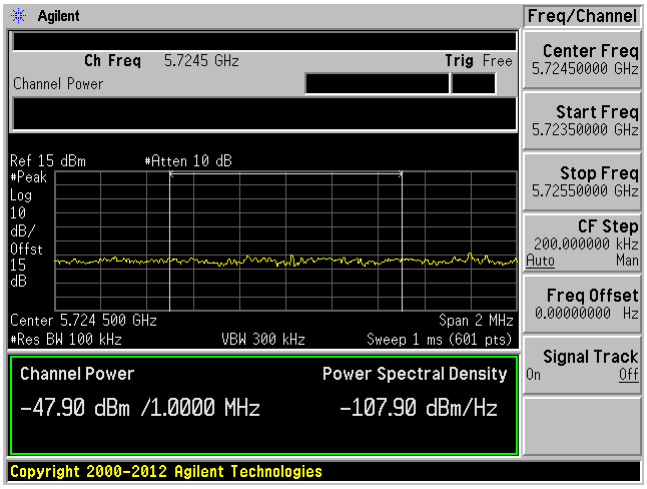


5775 MHz (-27 dBm/MHz limit)

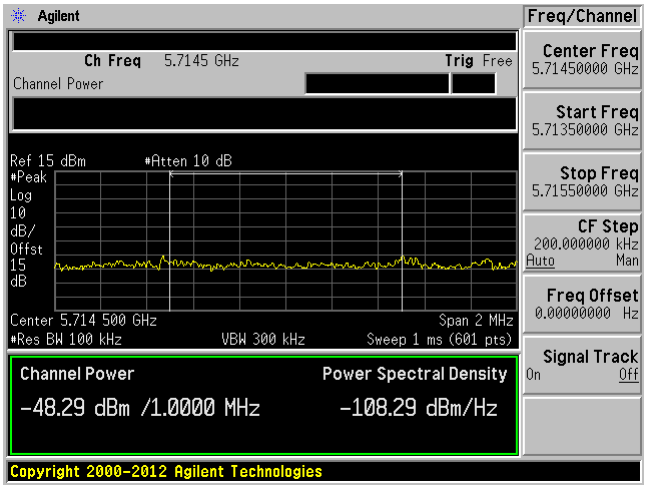


802.11ac80 mode chain 2

5775 MHz (-17 dBm/MHz limit)



5775 MHz (-27 dBm/MHz limit)



Note 1: Antenna gain has been considered for the out-of-band and band edge measurements.

Note 2: the -17 dBm/MHz and the -27 dBm/MHz measurements in 5725-5850 MHz band are for IC certification; emission mask measurements in 5725-5850 MHz band are for FCC certification.