

10 FCC §15.407(b) - Out of Band Emissions

10.1 Applicable Standards

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 5.725-5.85 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 not exceed an e.i.r.p. of -27 dBm/MHz

10.2 Measurement Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Procedures New Rules v01: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section H: Unwanted emissions measurement

10.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Spectrum Analyzer	E4446A	MY48250238	09-03-2015	1 year
-	RF cable	-	00609	06-05-2015	1year

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

10.4 Test Environmental Conditions

Temperature:	22-24° C
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 KPa

The testing was performed by Jin Yang on 2015-10-29 at RF site.

10.5 Test Results

Please refer to following pages for plots of band edge

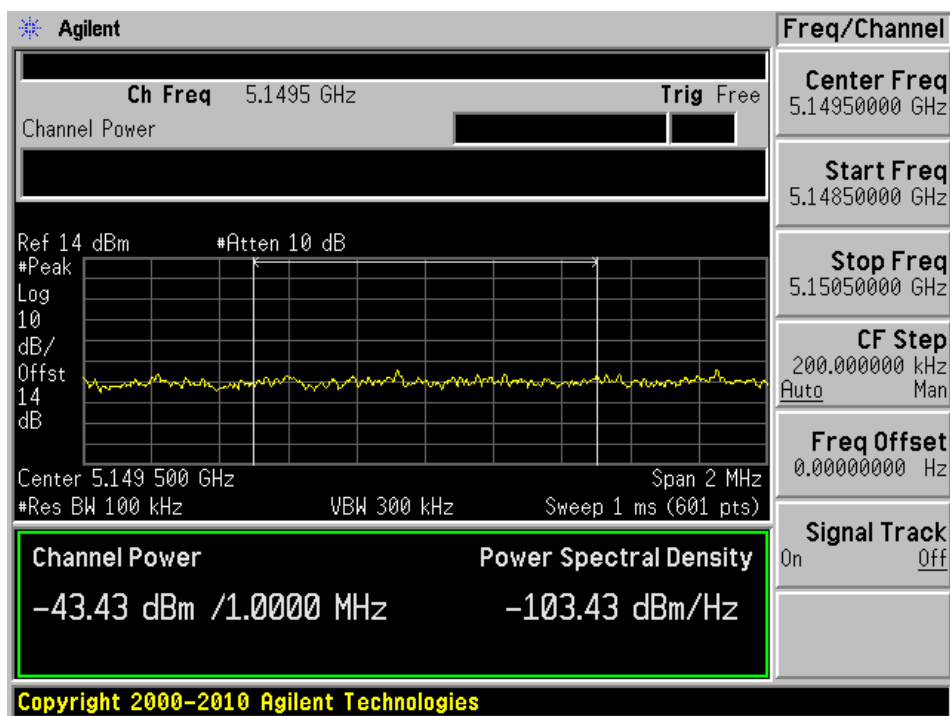
Note: the offset include the attenuation, cable loss and the maximum antenna gain. And the margin between limit line and the emission covers other requirements in the KDB 789033.

5.2 GHz Band, 3 dBi Antenna

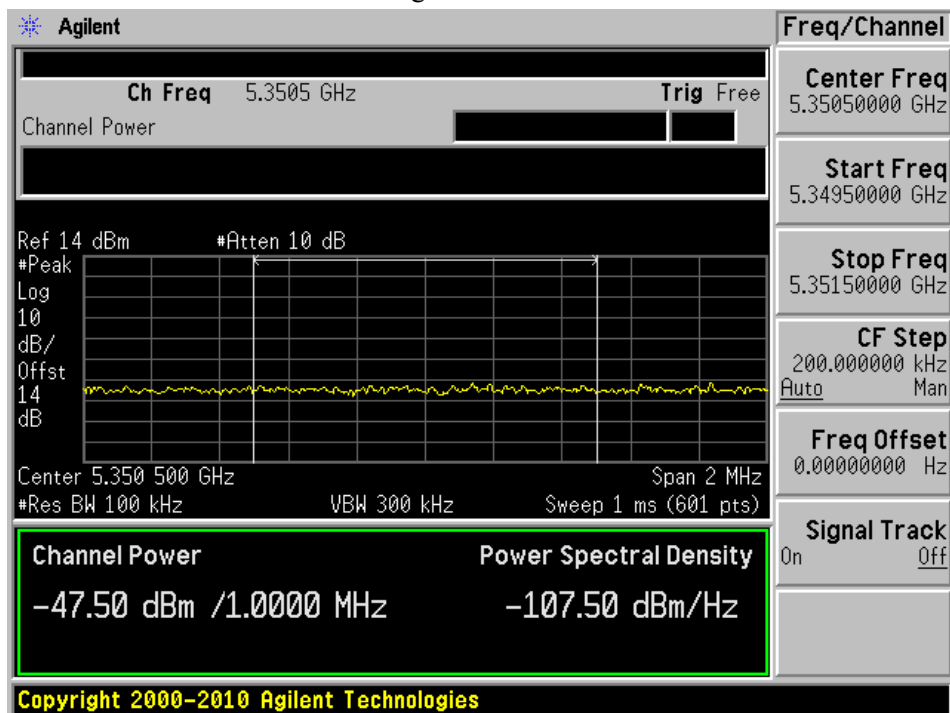
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5180	-43.43	-43.1	-41.35	-27	Pass
High	5240	-47.5	-49.83	-49.11	-27	Pass
802.11n HT20 mode						
Low	5180	-43.11	-41.16	-39.54	-27	Pass
High	5240	-47.92	-50.28	-50.25	-27	Pass
802.11n HT40 mode						
Low	5190	-39.06	-38.9	-33.88	-27	Pass
High	5230	-47.38	-49.71	-49.54	-27	Pass

5.2 GHz Band
802.11a mode
3 dBi Antenna Chain 0

802.11a Low channel: 5180 MHz

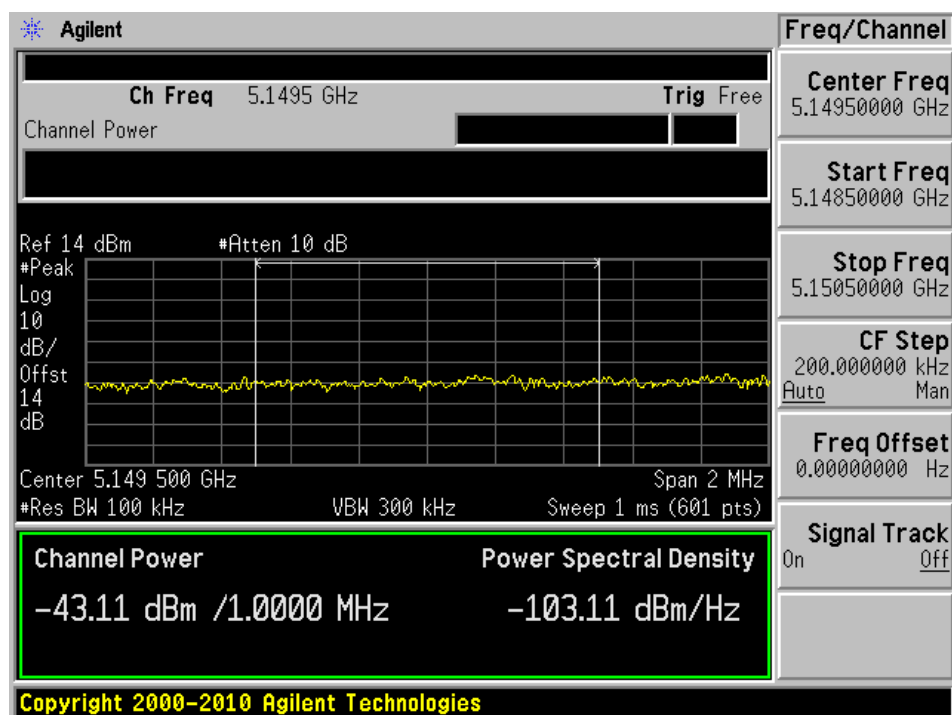


802.11a High channel: 5240 MHz

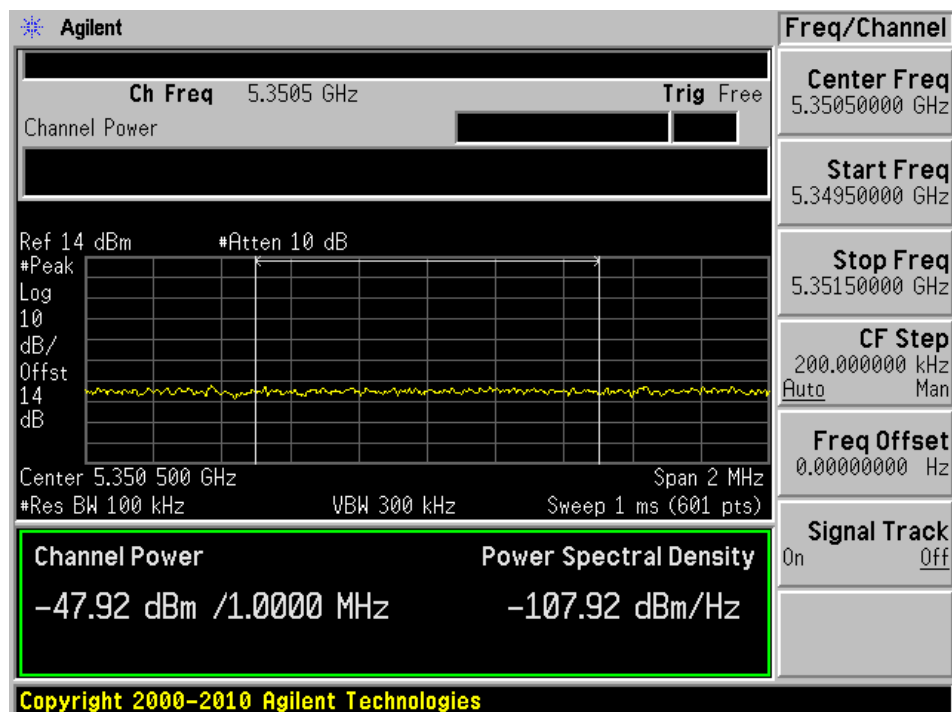


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

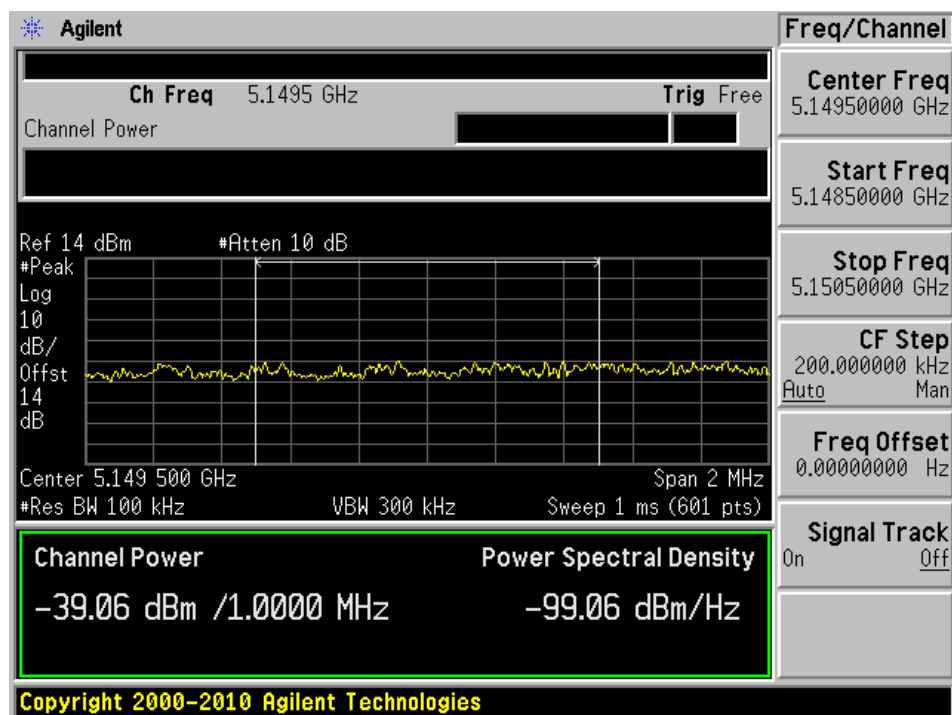


802.11n HT20 High channel: 5240 MHz

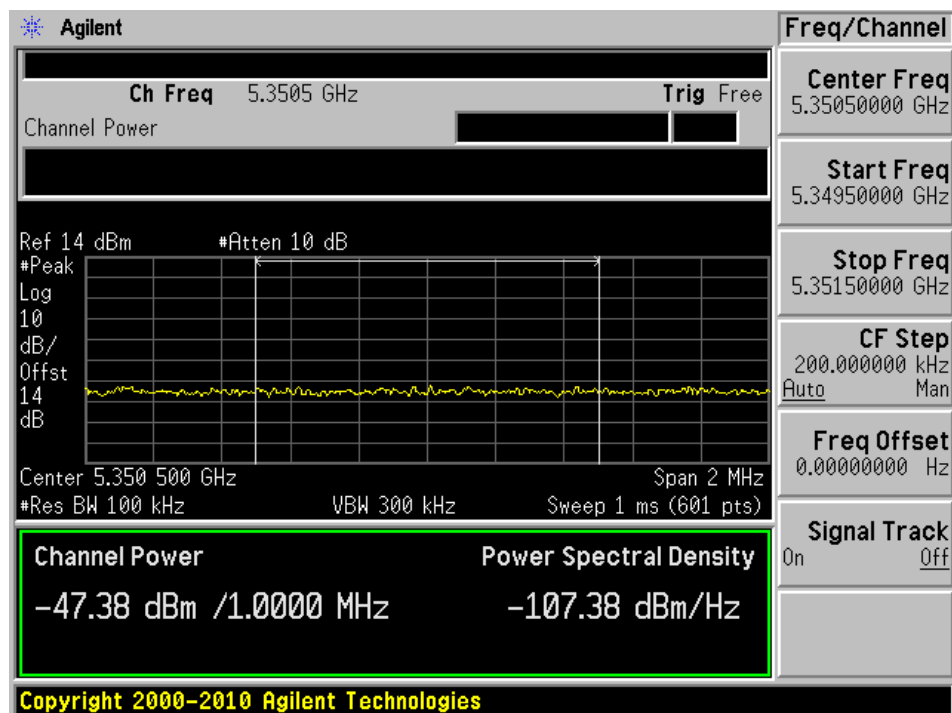


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

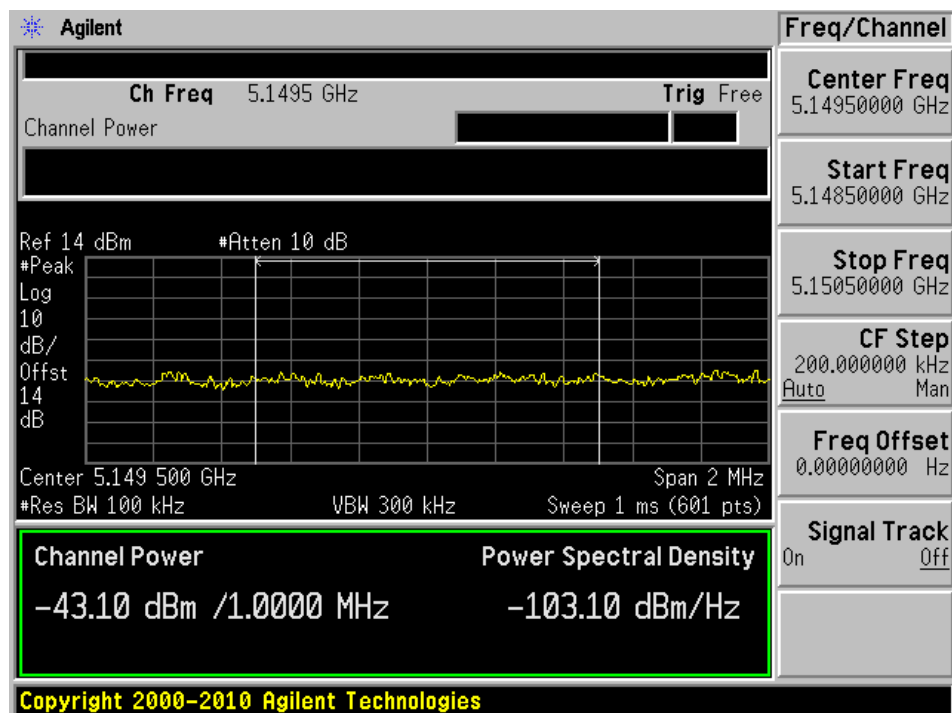


802.11n HT40 High channel: 5230 MHz

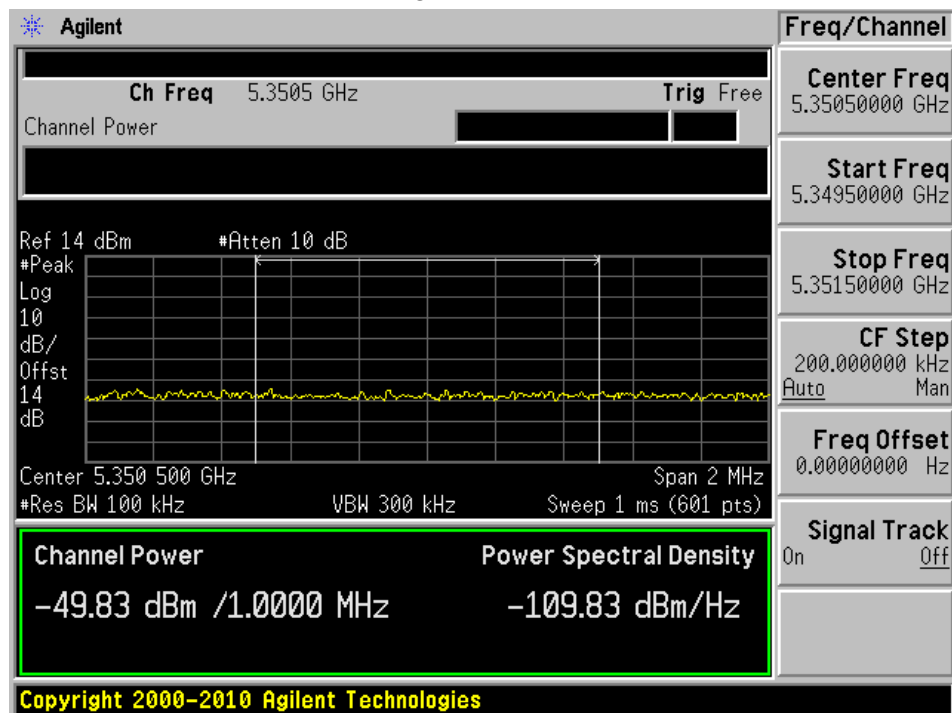


5.2 GHz Band
802.11a mode
3 dBi Antenna Chain 1

802.11a Low channel: 5180 MHz

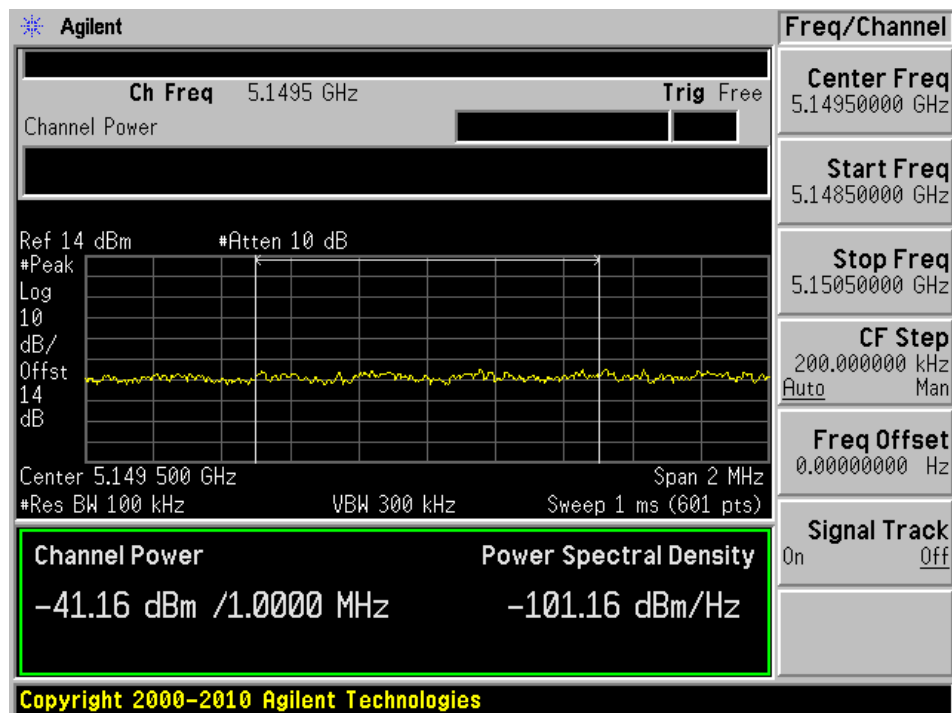


802.11a High channel: 5240 MHz

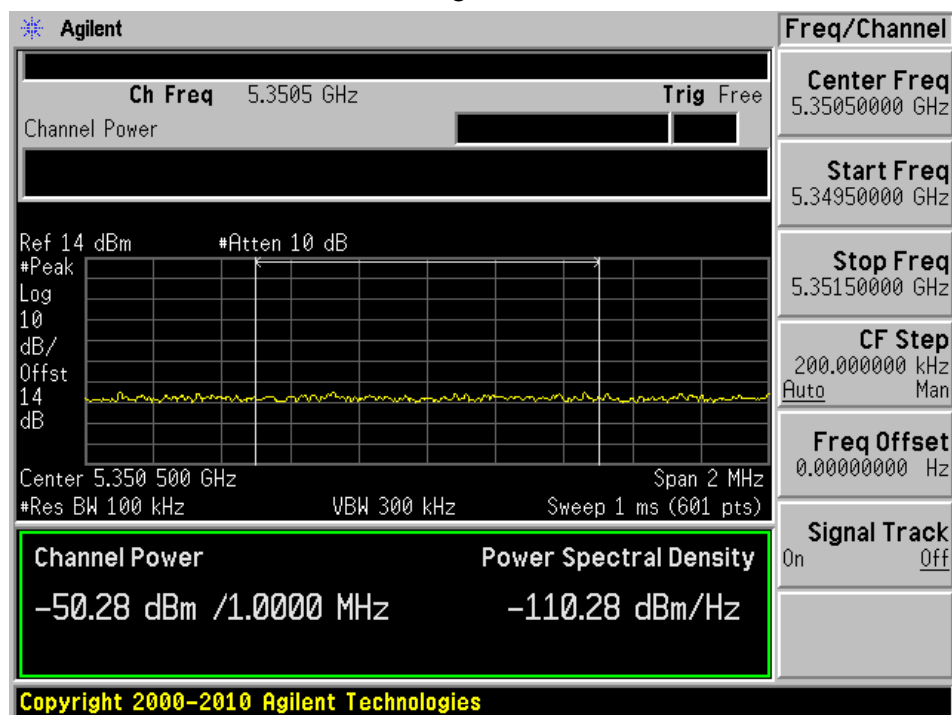


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

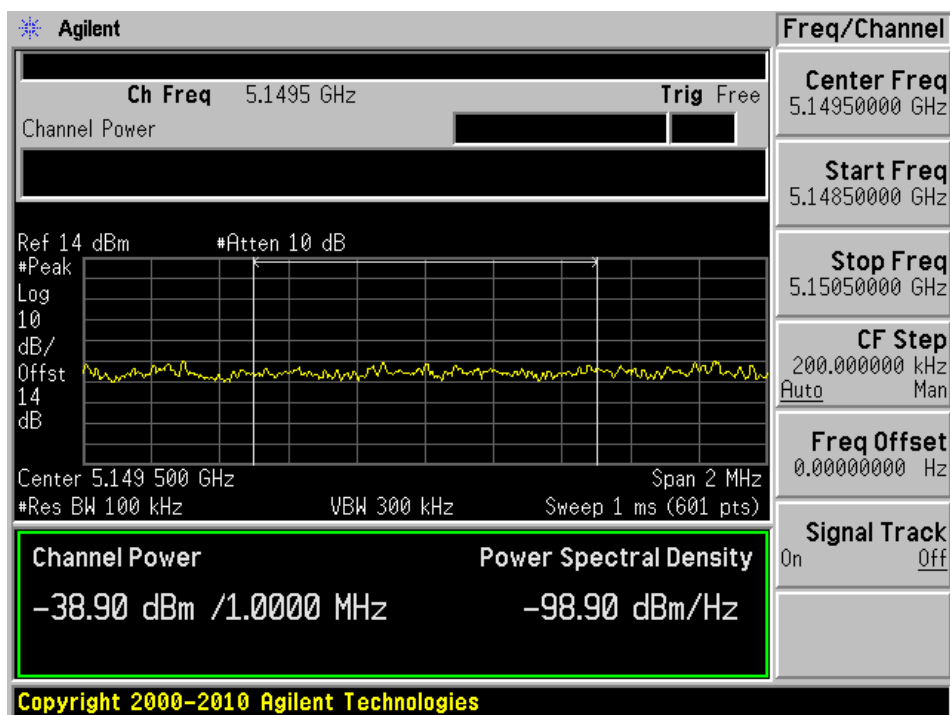


802.11n HT20 High channel: 5240 MHz

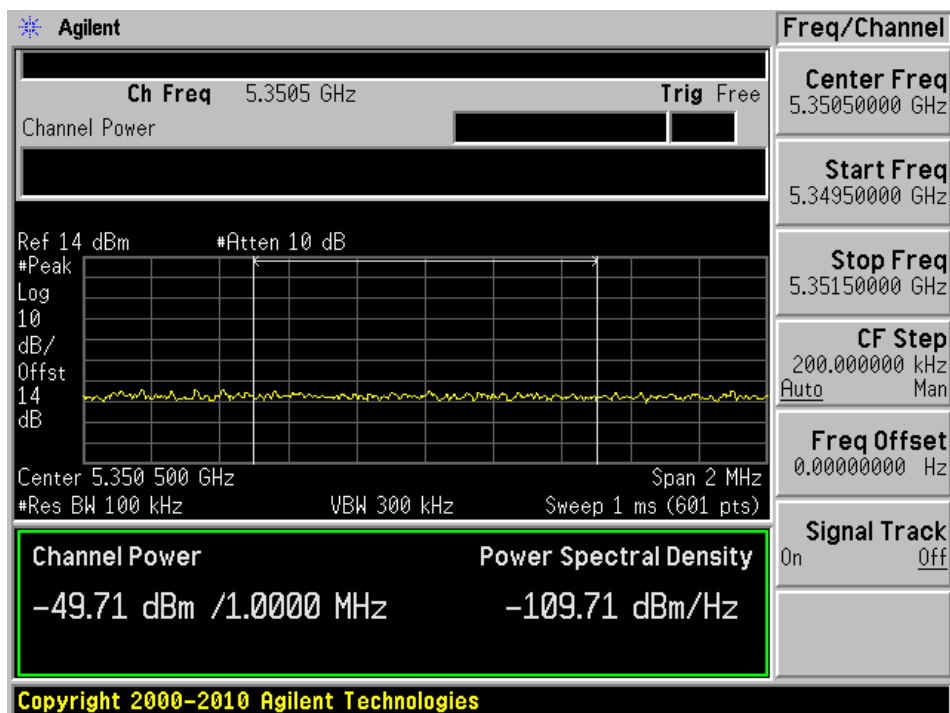


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

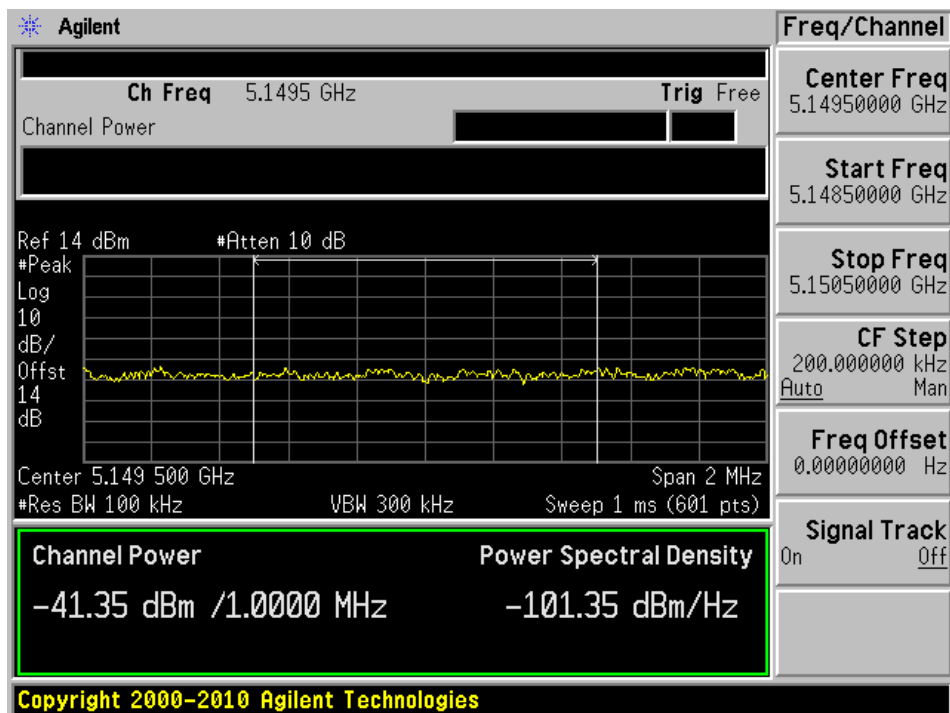


802.11n HT40 High channel: 5230 MHz

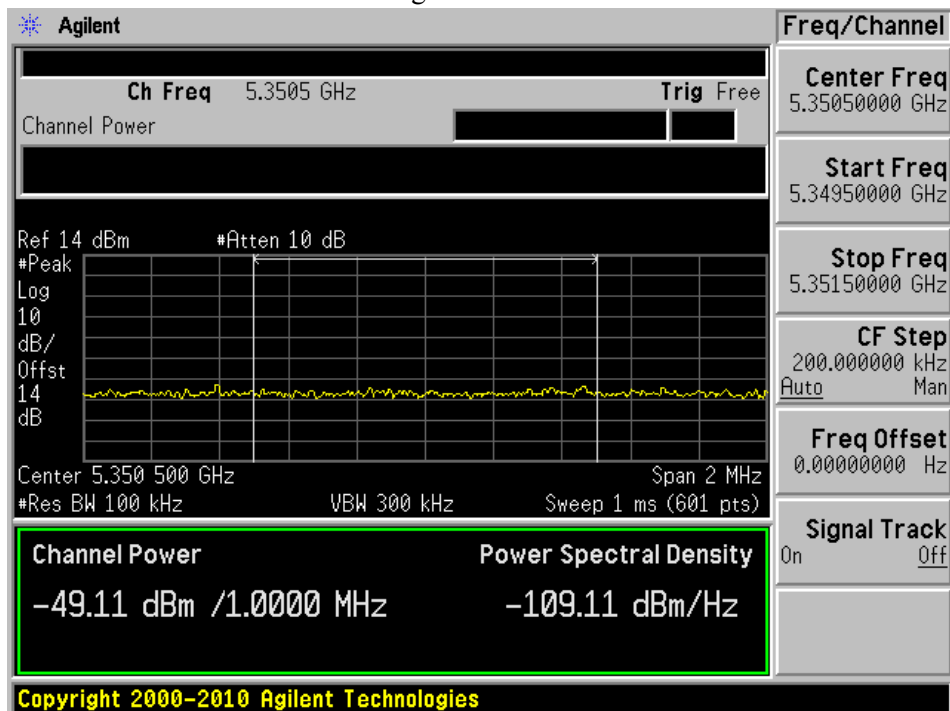


5.2 GHz Band
802.11a mode
3 dBi Antenna Chain 2

802.11a Low channel: 5180 MHz

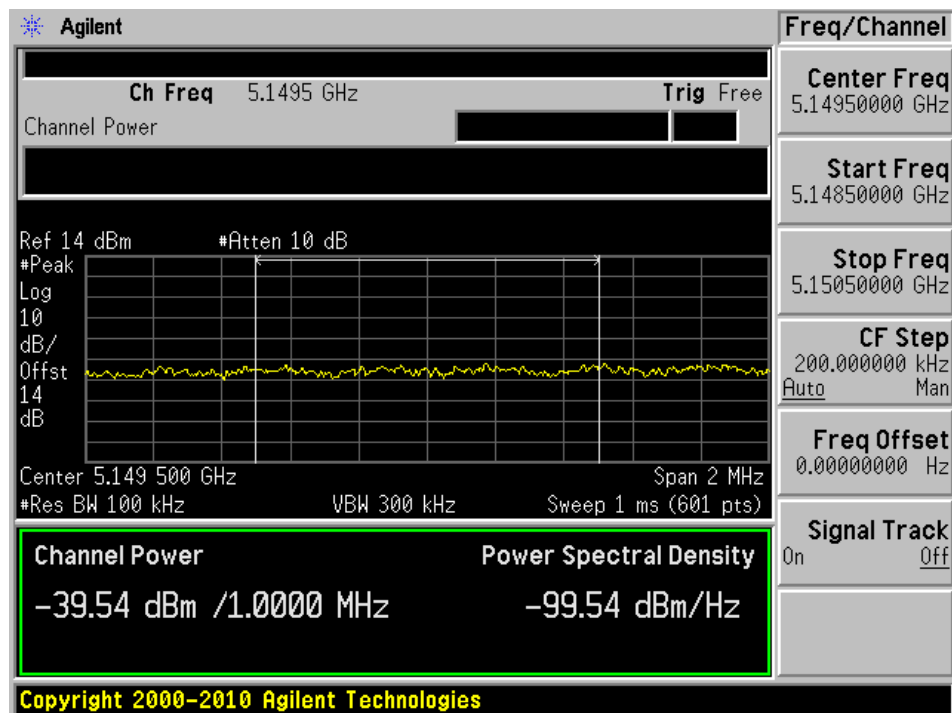


802.11a High channel: 5240 MHz

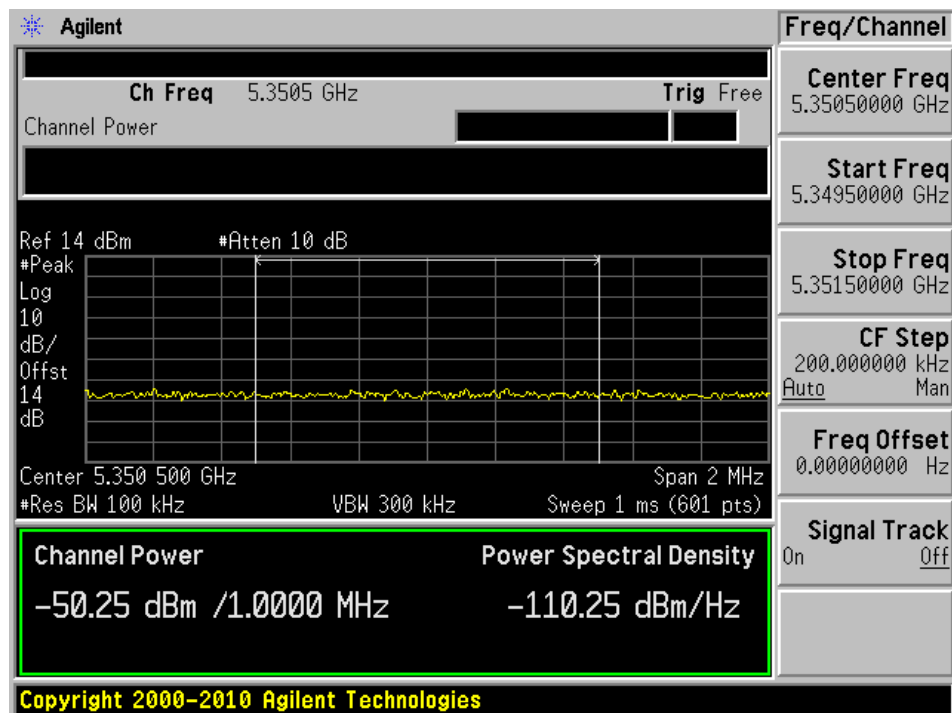


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

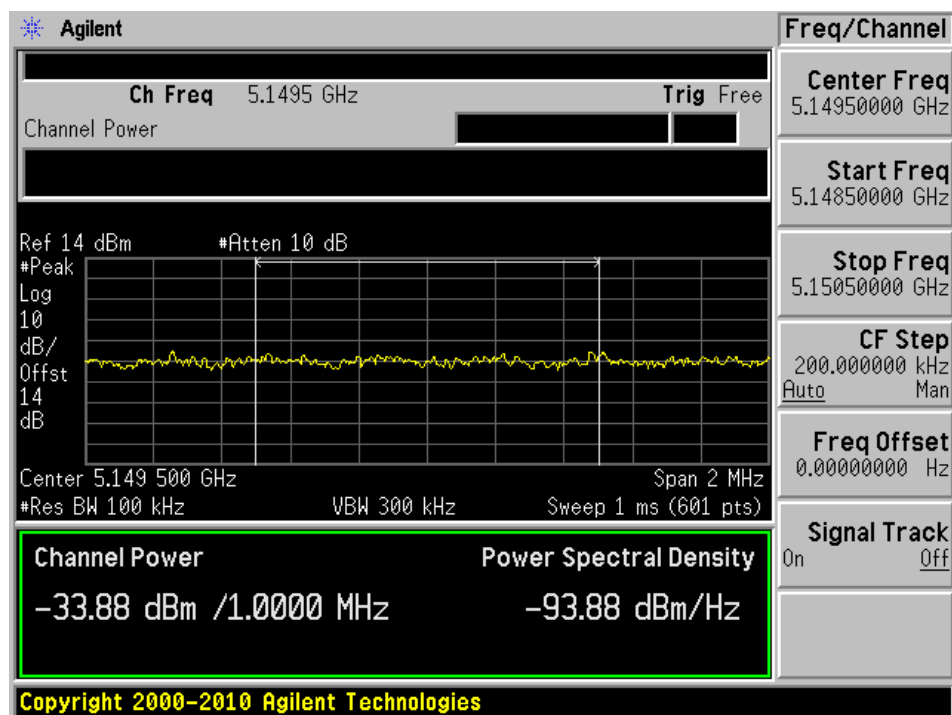


802.11n HT20 High channel: 5240 MHz

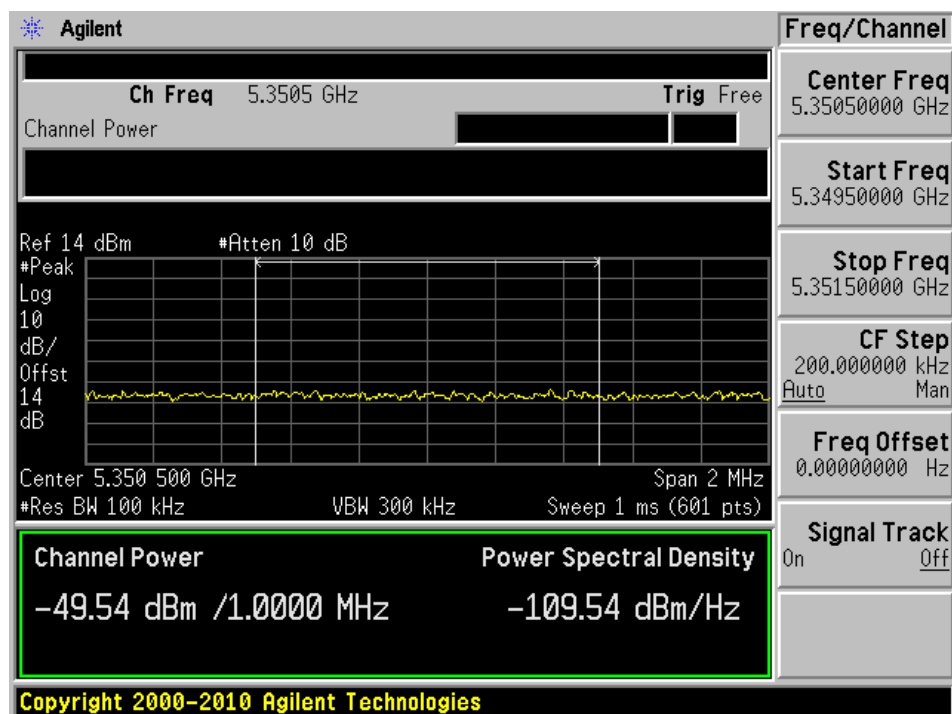


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz



802.11n HT40 High channel: 5230 MHz

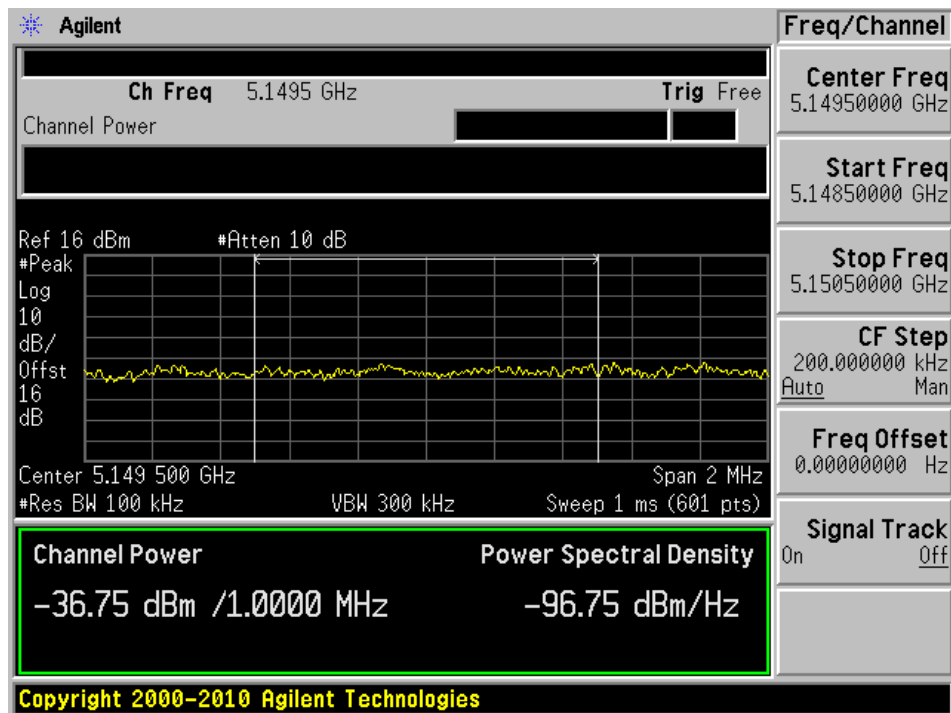


5.2 GHz Band, 5 dBi Antenna

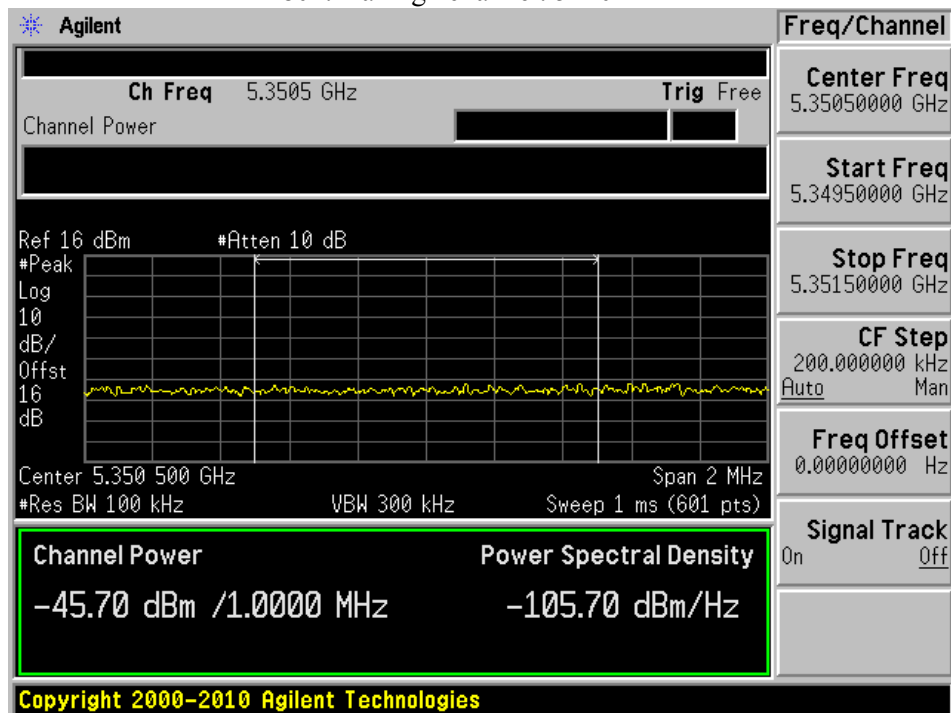
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5180	-36.75	-36.25	-36.41	-27	Pass
High	5240	-45.7	-48.7	-47.5	-27	Pass
802.11n HT20 mode						
Low	5180	-37.32	-34.52	-31.92	-27	Pass
High	5240	-45.49	-49.19	-48.19	-27	Pass
802.11n HT40 mode						
Low	5190	-35.23	-35.23	-31.18	-27	Pass
High	5230	-44.97	-48.88	-44.3	-27	Pass

5.2 GHz Band
802.11a mode
5 dBi Antenna Chain 0

802.11a Low channel: 5180 MHz

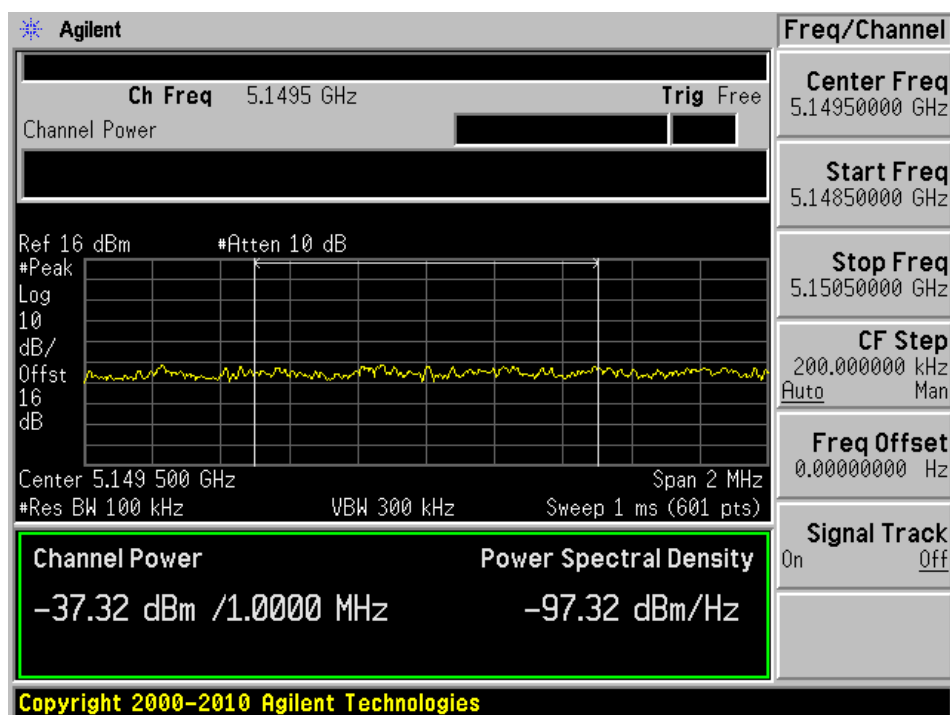


802.11a High channel: 5240 MHz

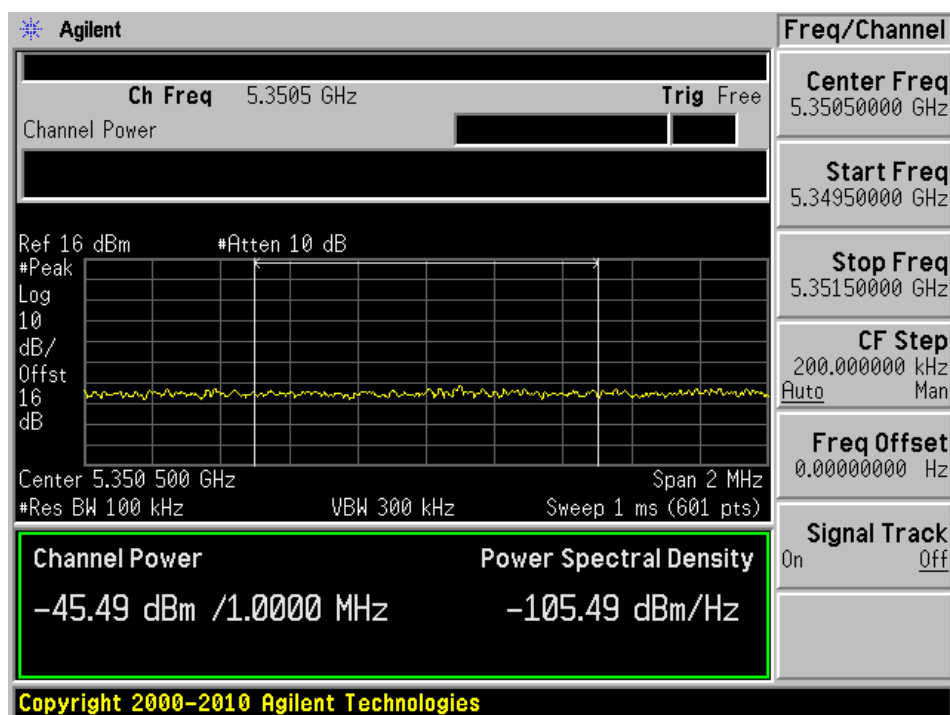


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

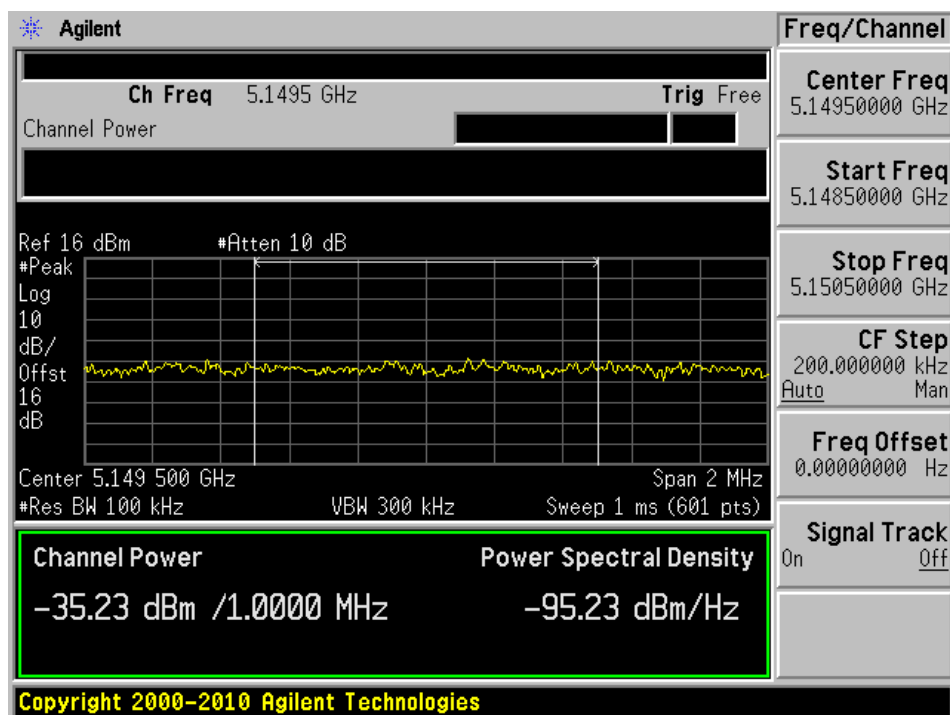


802.11n HT20 High channel: 5240 MHz

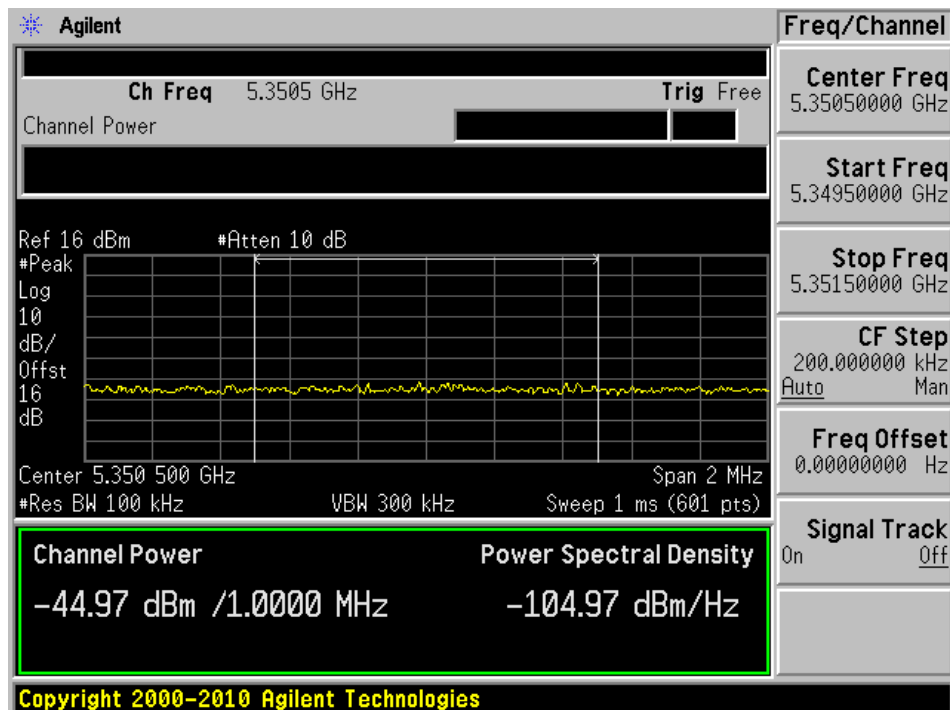


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

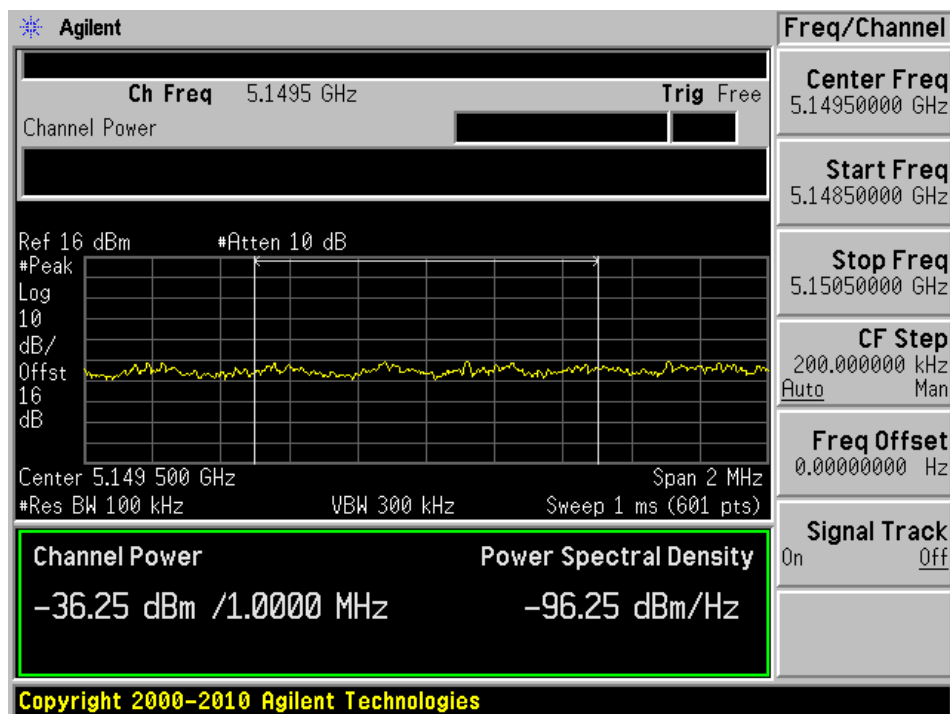


802.11n HT40 High channel: 5230 MHz

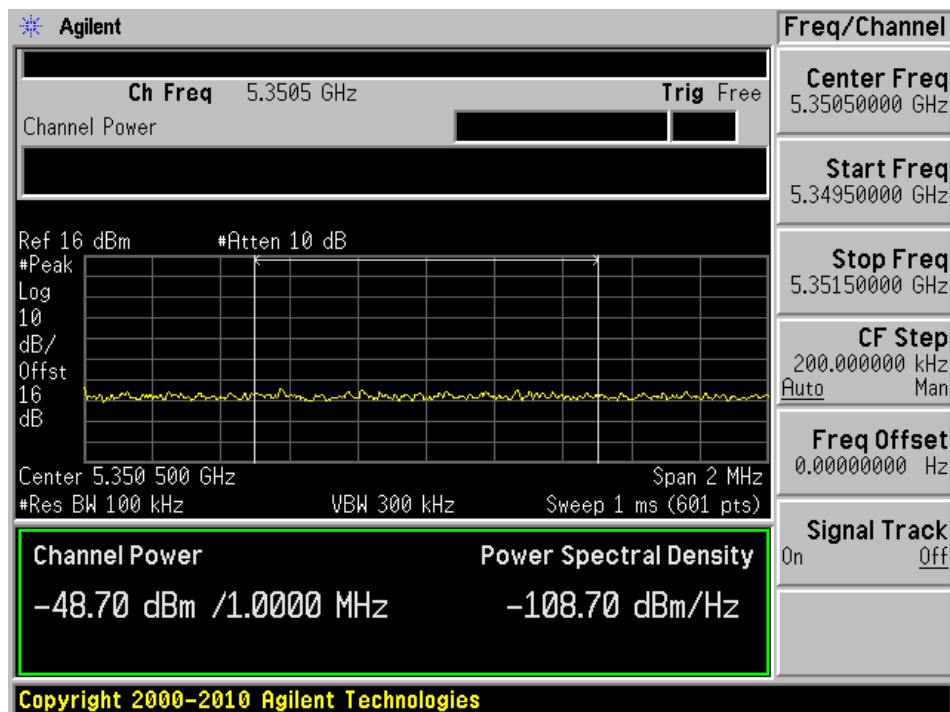


5.2 GHz Band
802.11a mode
5 dBi Antenna Chain 1

802.11a Low channel: 5180 MHz

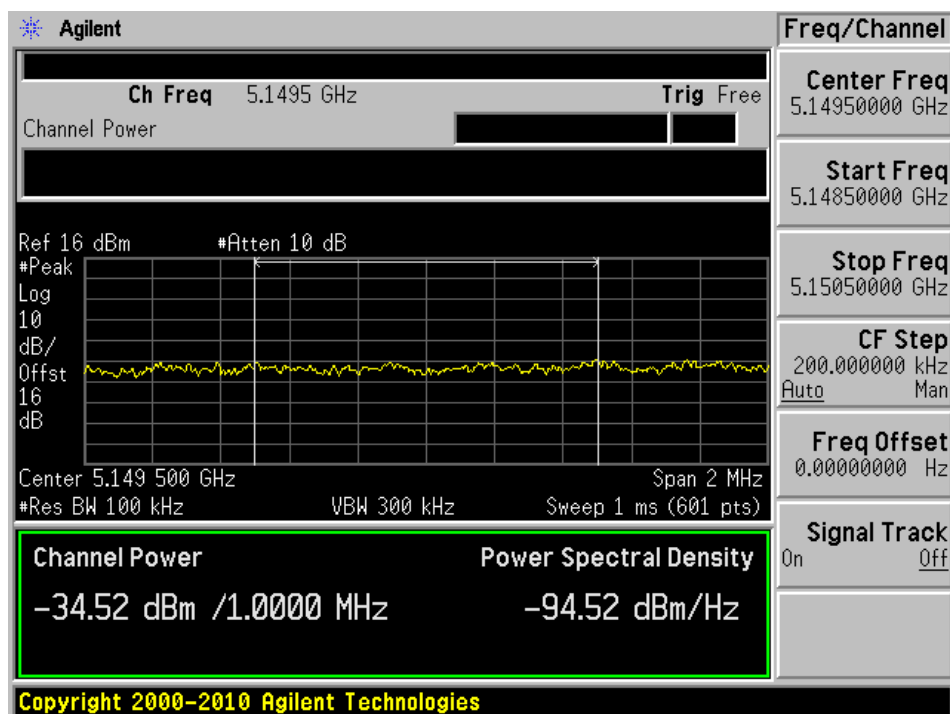


802.11a High channel: 5240 MHz

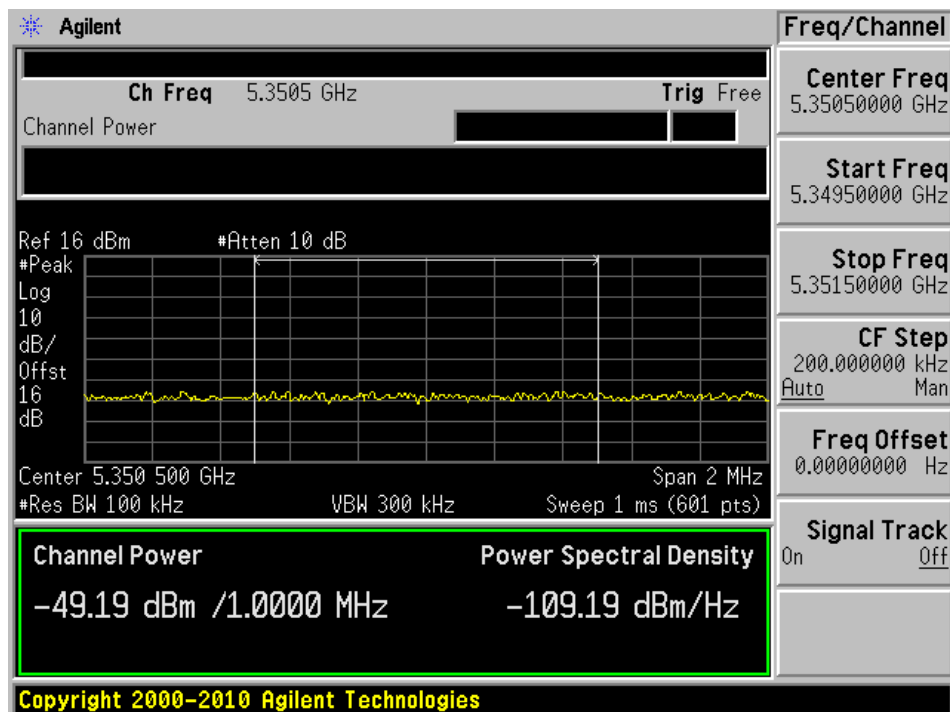


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

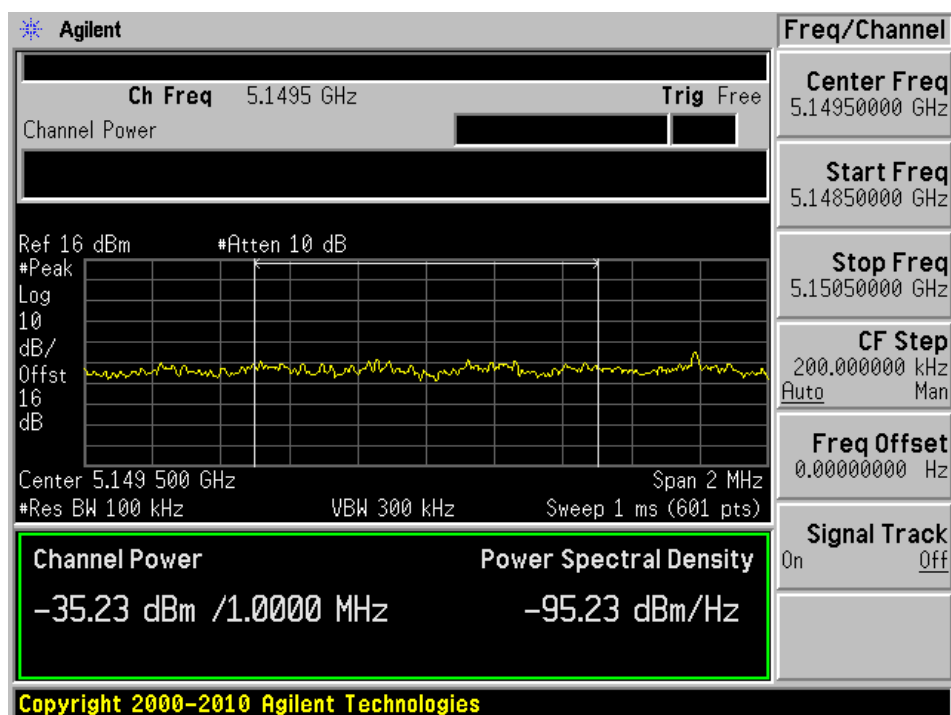


802.11n HT20 High channel: 5240 MHz

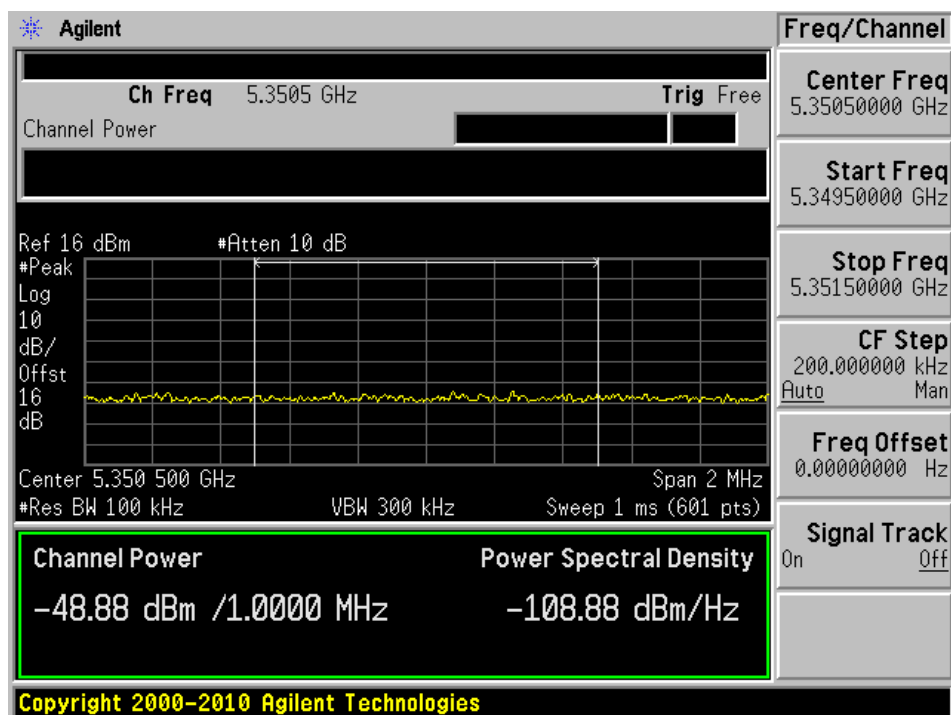


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

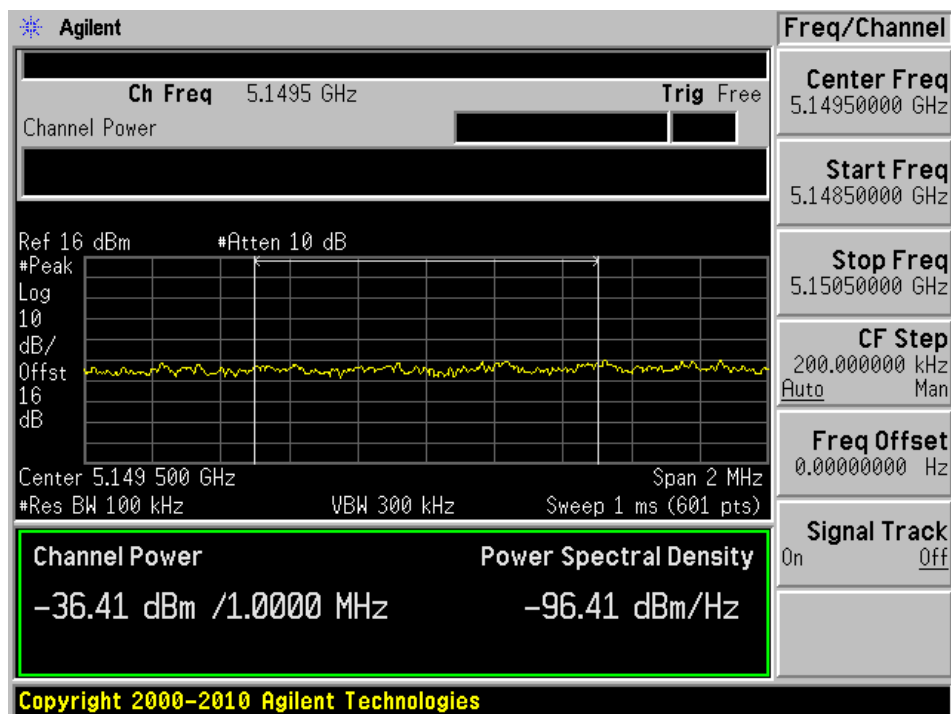


802.11n HT40 High channel: 5230 MHz

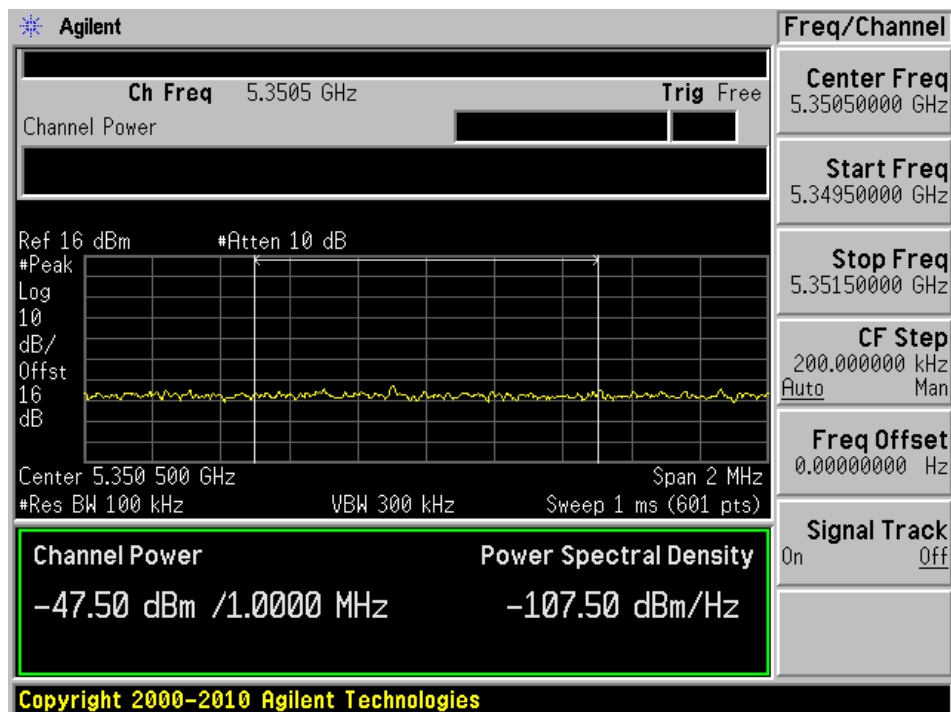


5.2 GHz Band
802.11a mode
5 dBi Antenna Chain 2

802.11a Low channel: 5180 MHz

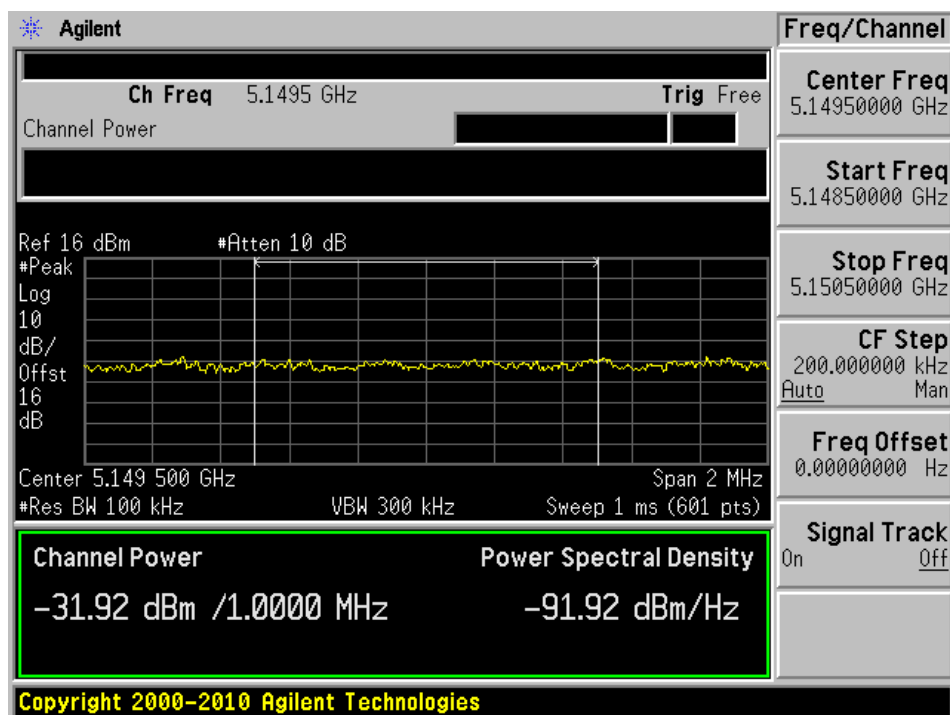


802.11a High channel: 5240 MHz

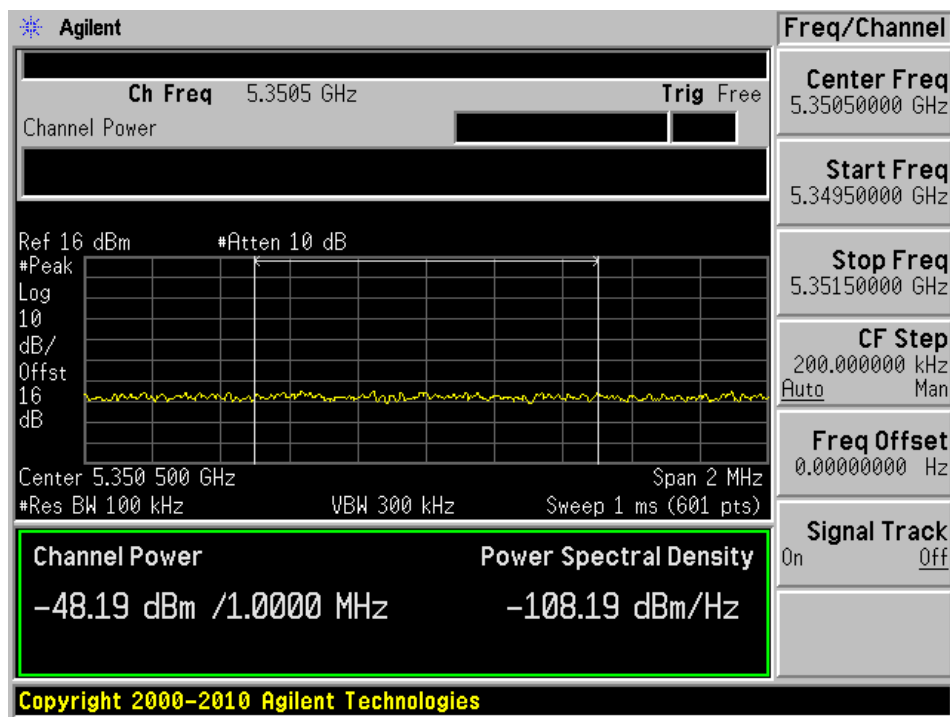


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

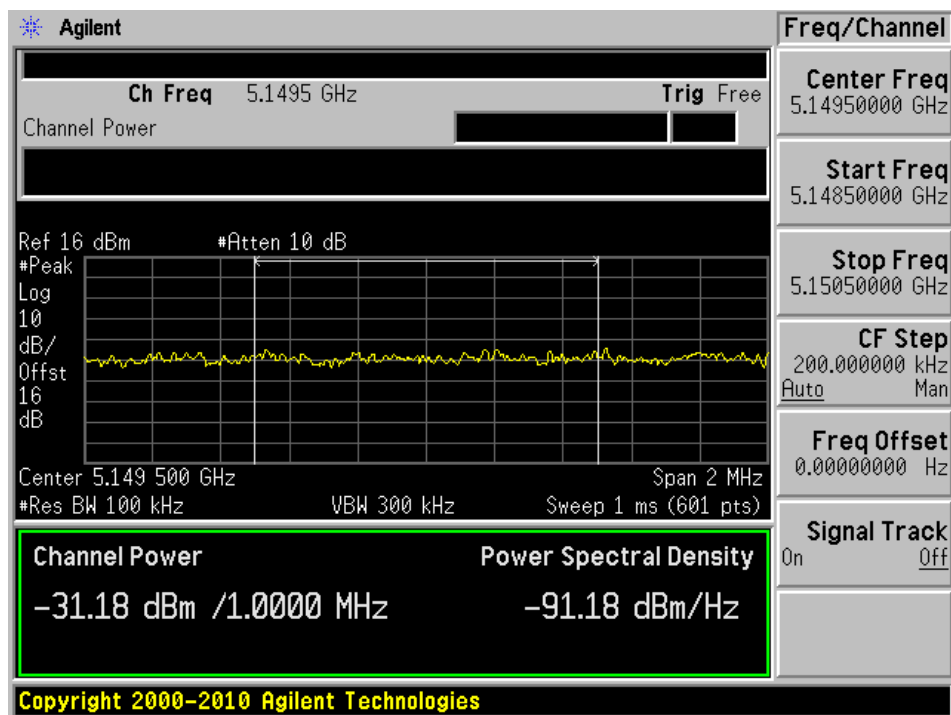


802.11n HT20 High channel: 5240 MHz

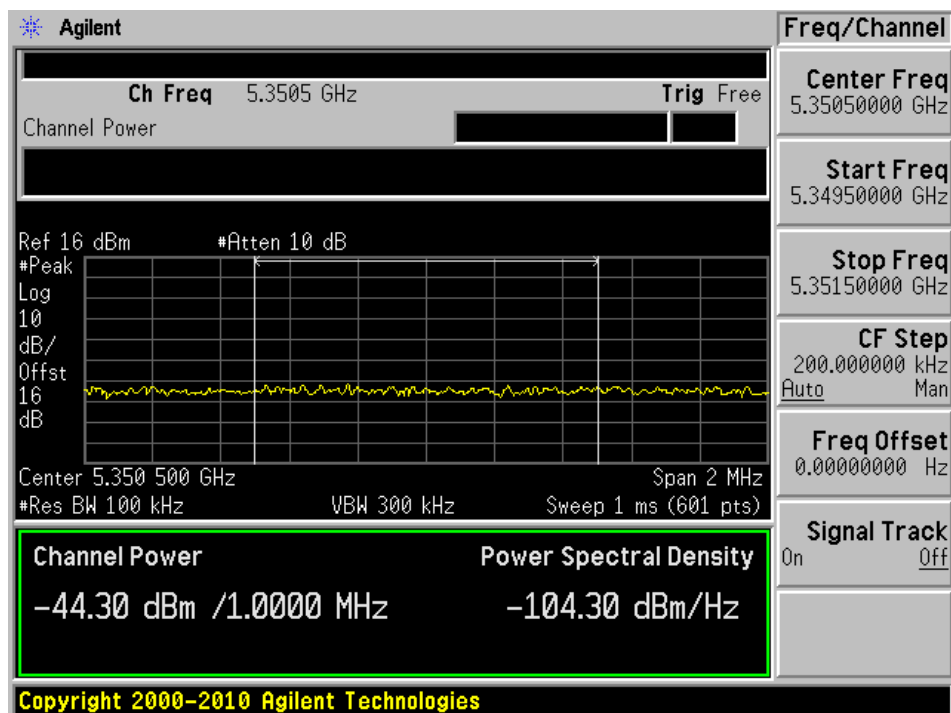


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz



802.11n HT40 High channel: 5230 MHz

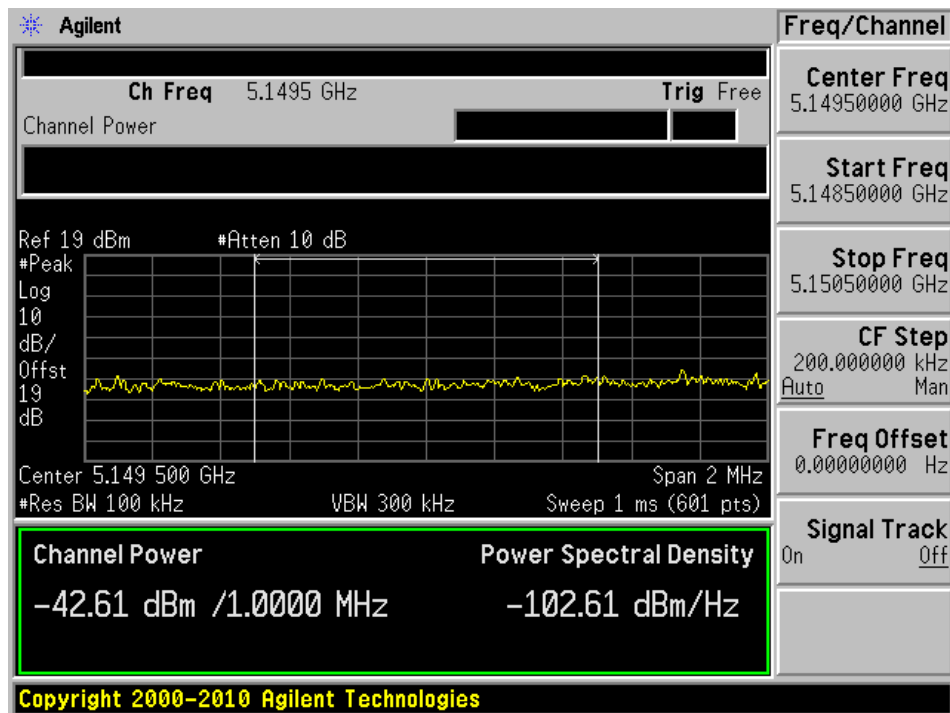


5.2 GHz Band, 8 dBi antenna gain

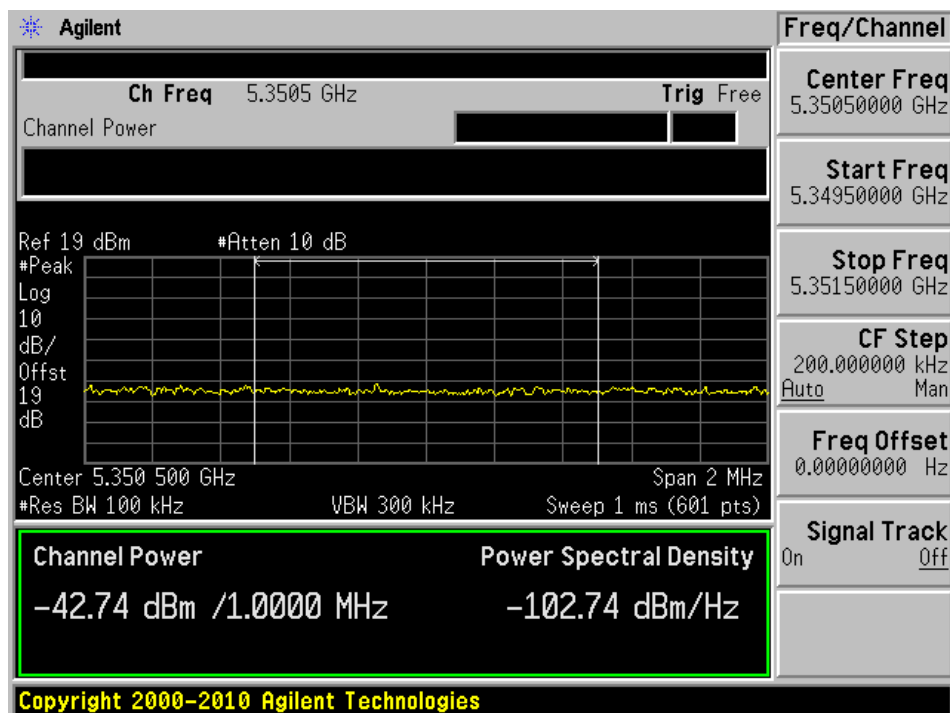
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5180	-42.61	-40.12	-39.97	-27	Pass
High	5240	-42.74	-46.08	-45.26	-27	Pass
802.11n HT20 mode						
Low	5180	-38.78	-39.52	-37.84	-27	Pass
High	5240	-41.38	-44.51	-43.67	-27	Pass
802.11n HT40 mode						
Low	5190	-41.6	-41.84	-40.81	-27	Pass
High	5230	-42.73	-44.59	-44.14	-27	Pass

**5.2 GHz Band
802.11a mode
8 dBi Antenna Chain 0**

802.11a Low channel: 5180 MHz

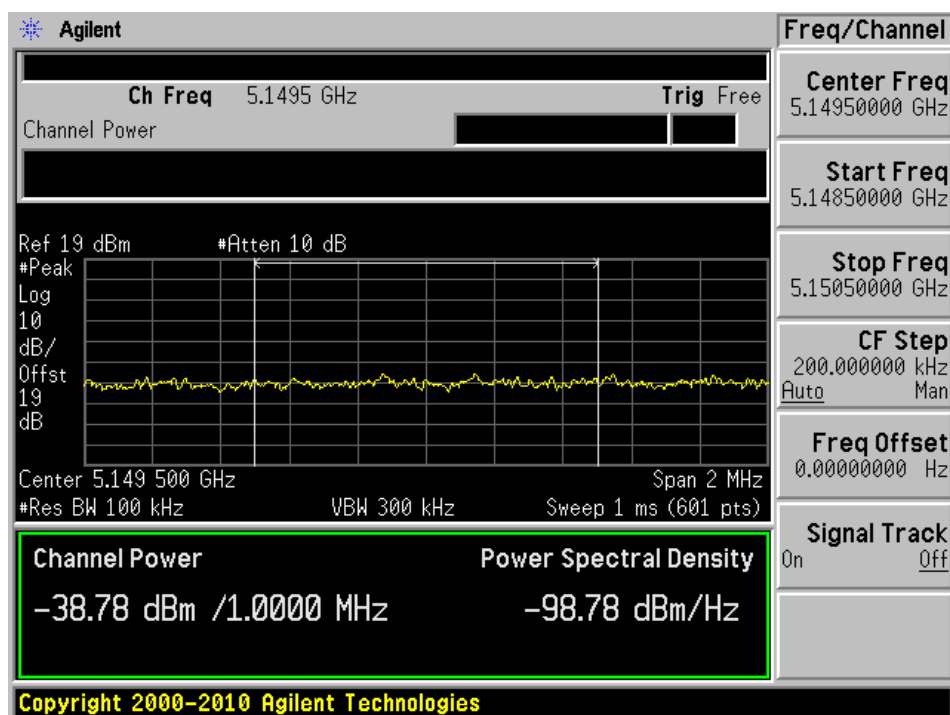


802.11a High channel: 5240 MHz

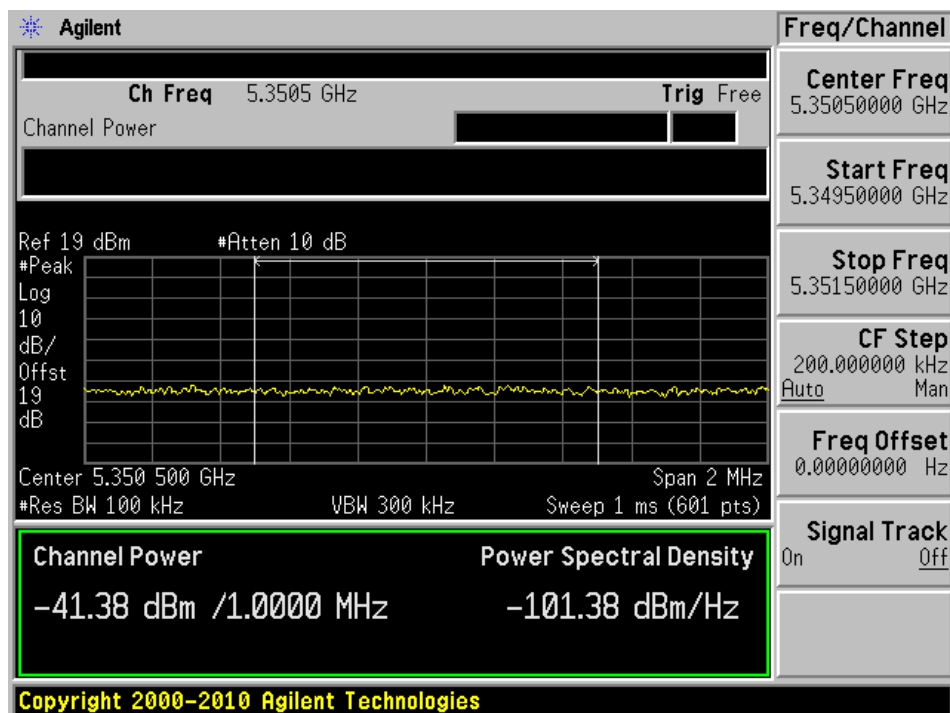


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

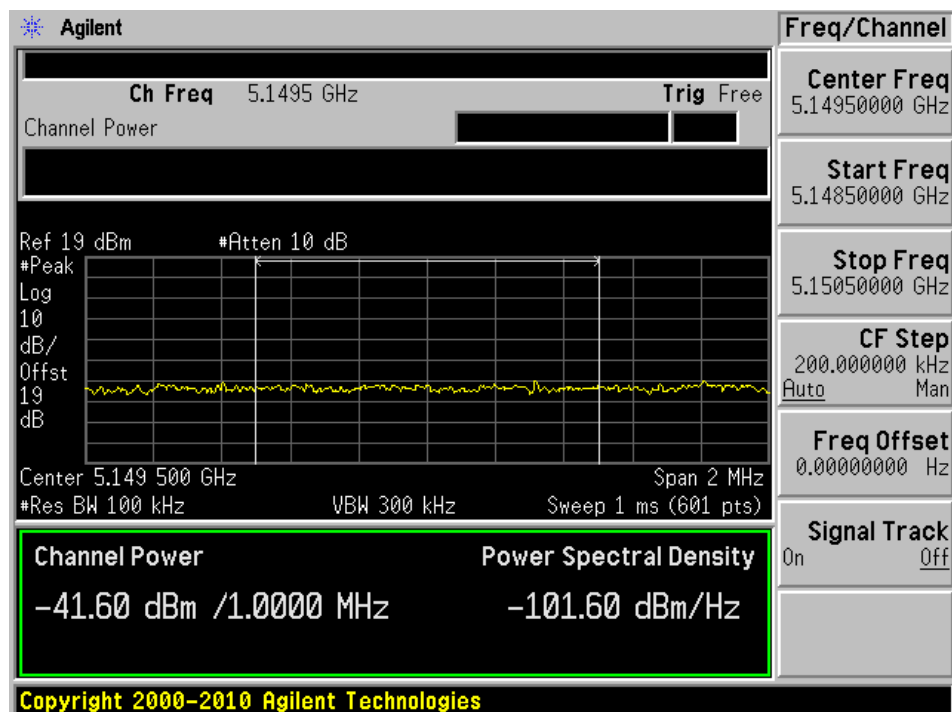


802.11n HT20 High channel: 5240 MHz

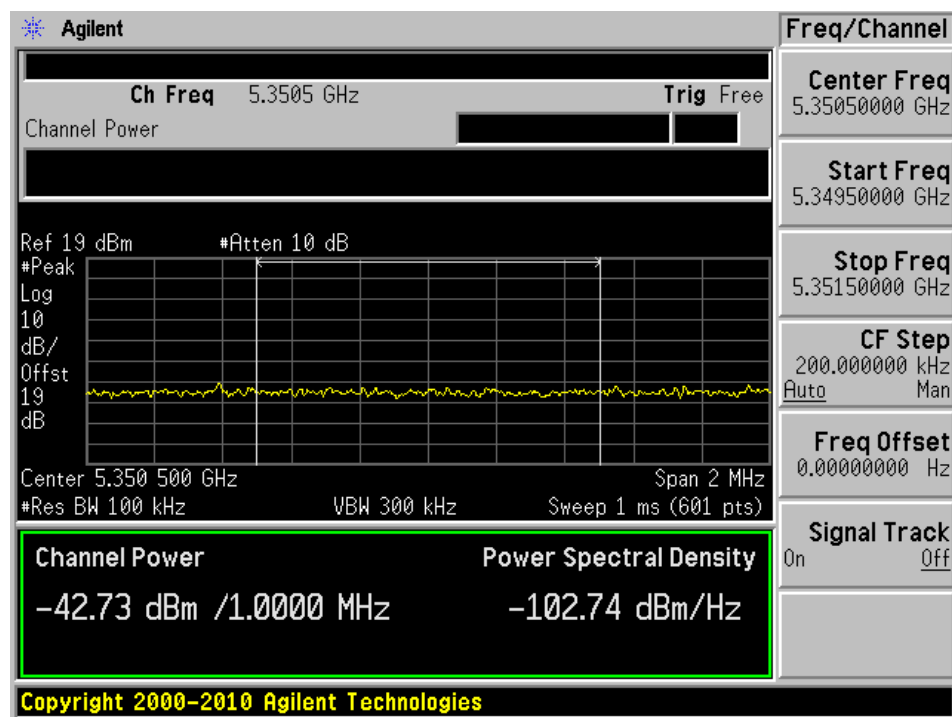


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

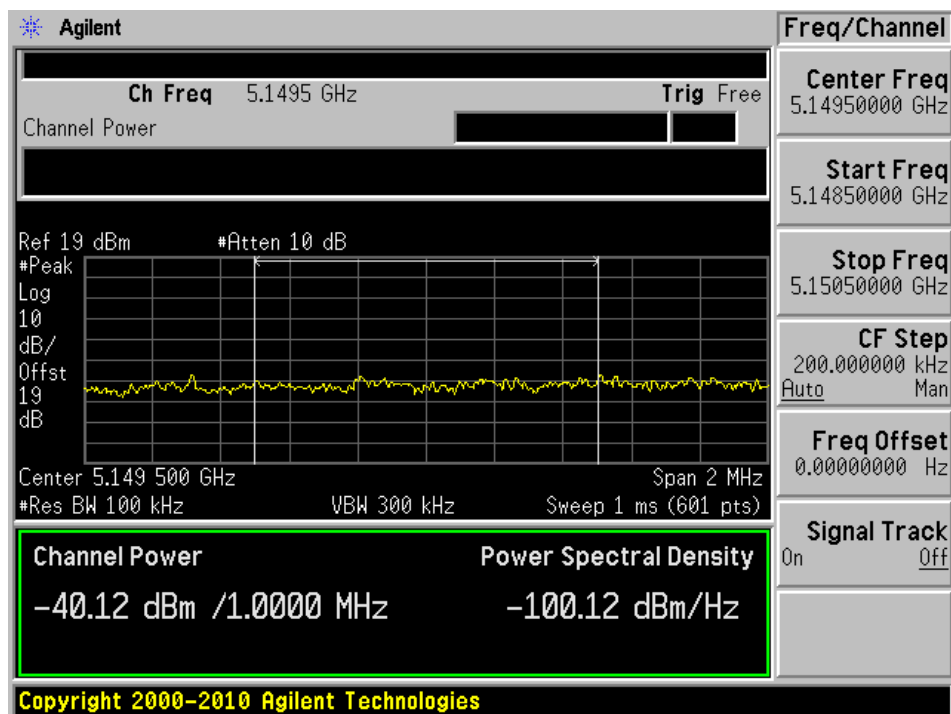


802.11n HT40 High channel: 5230 MHz

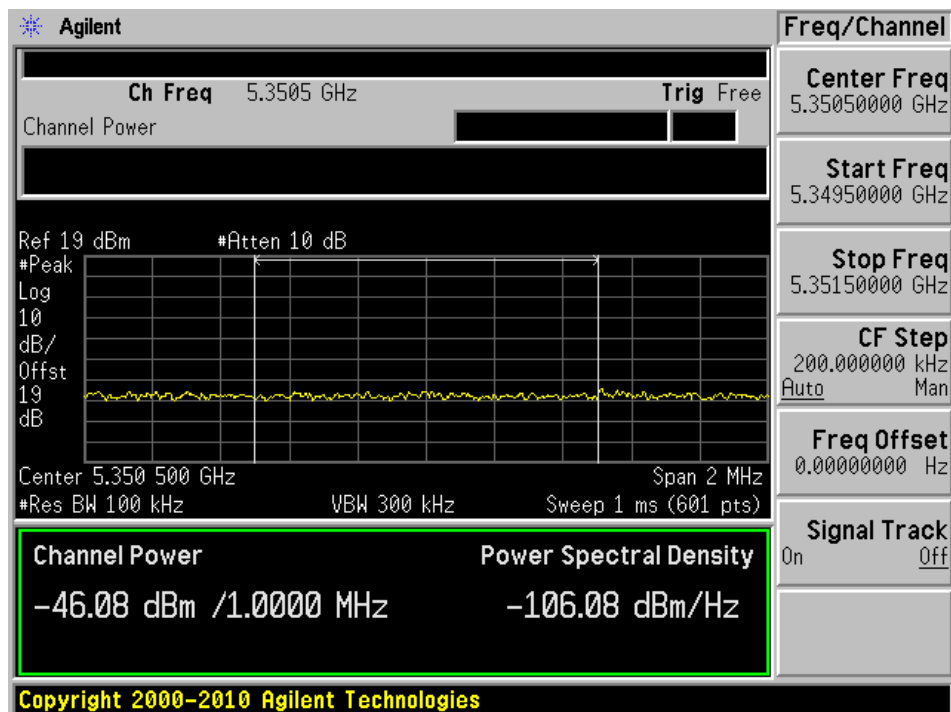


5.2 GHz Band
802.11a mode
8 dBi Antenna Chain 1

802.11a Low channel: 5180 MHz

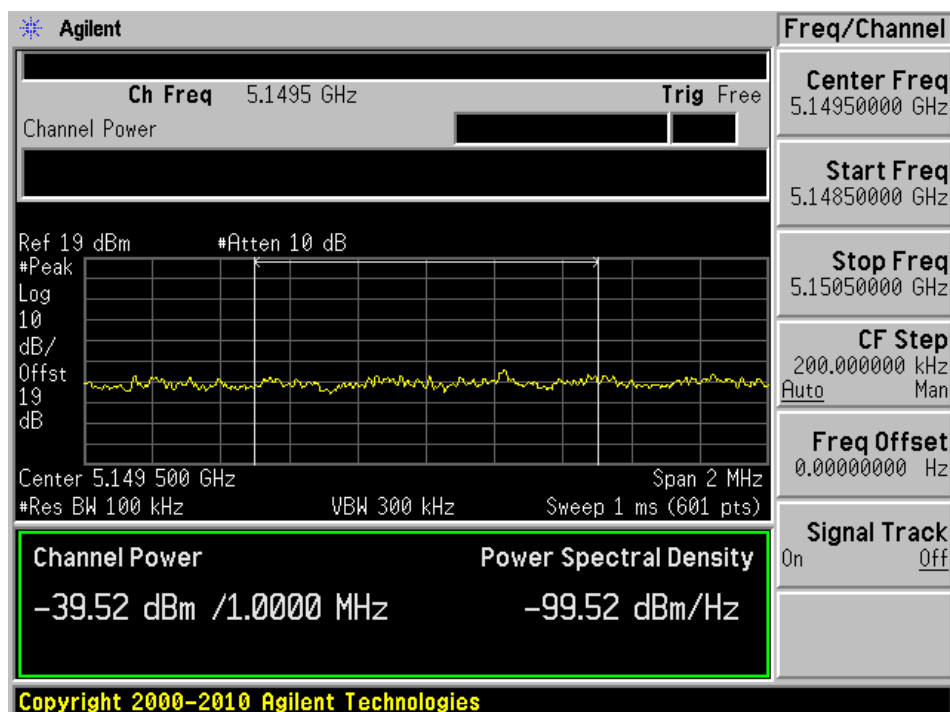


802.11a High channel: 5240 MHz

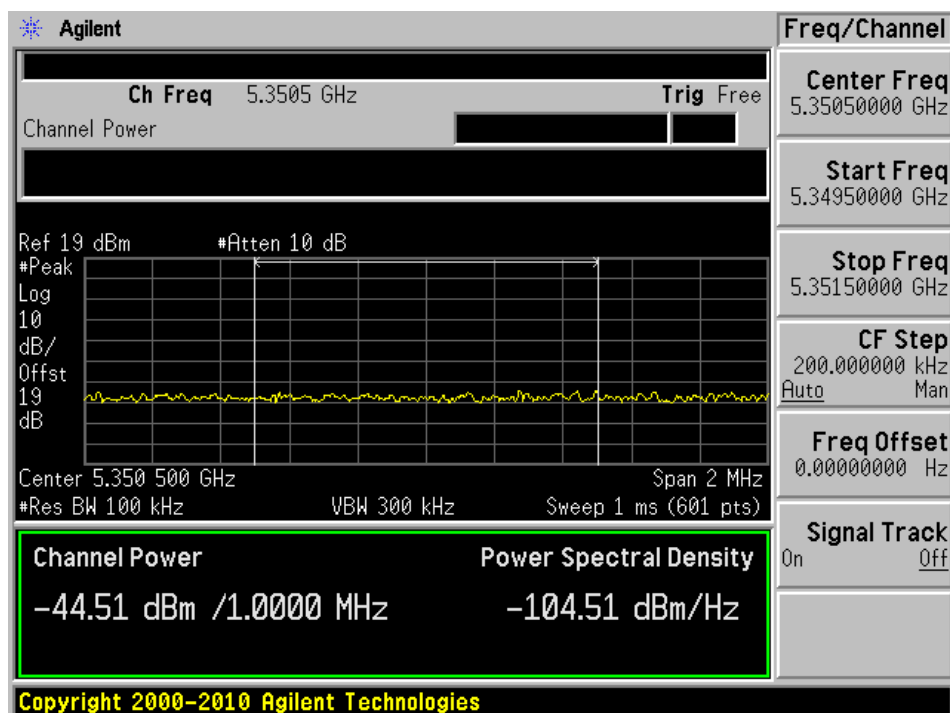


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

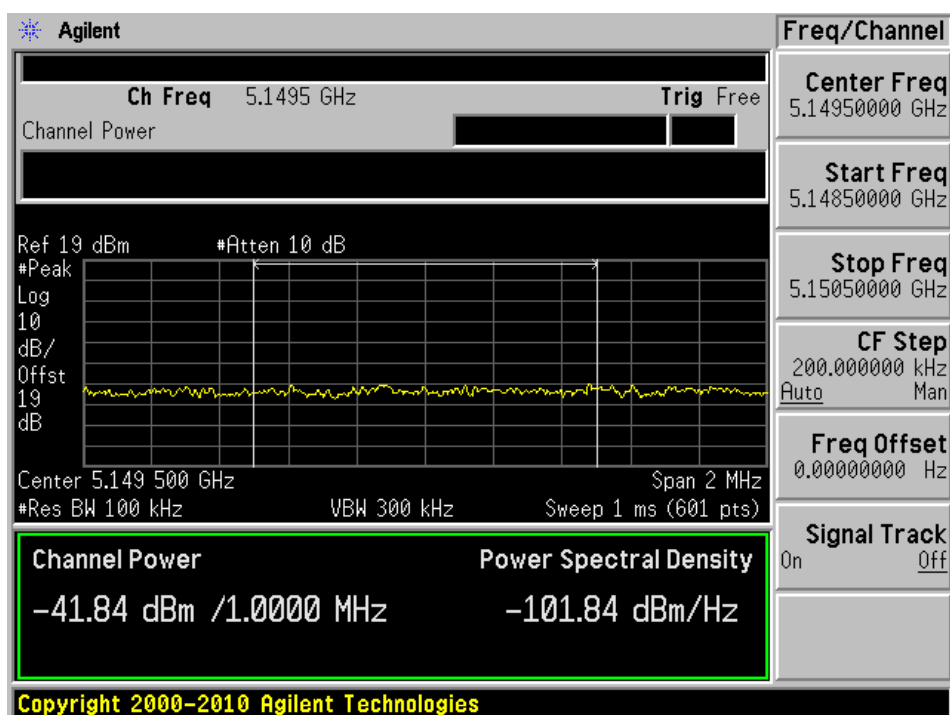


802.11n HT20 High channel: 5240 MHz

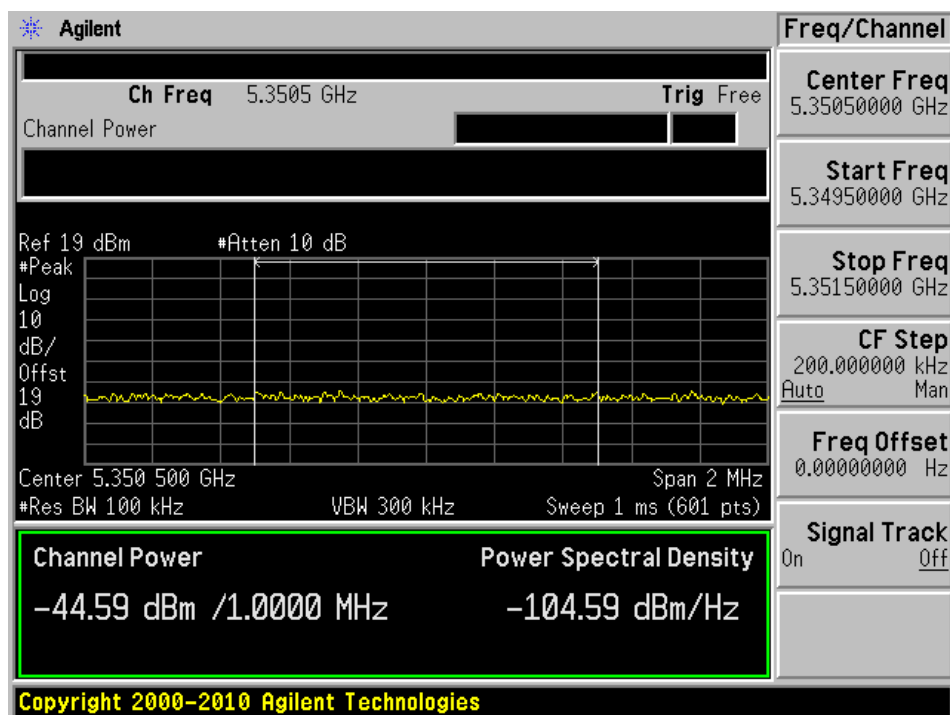


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

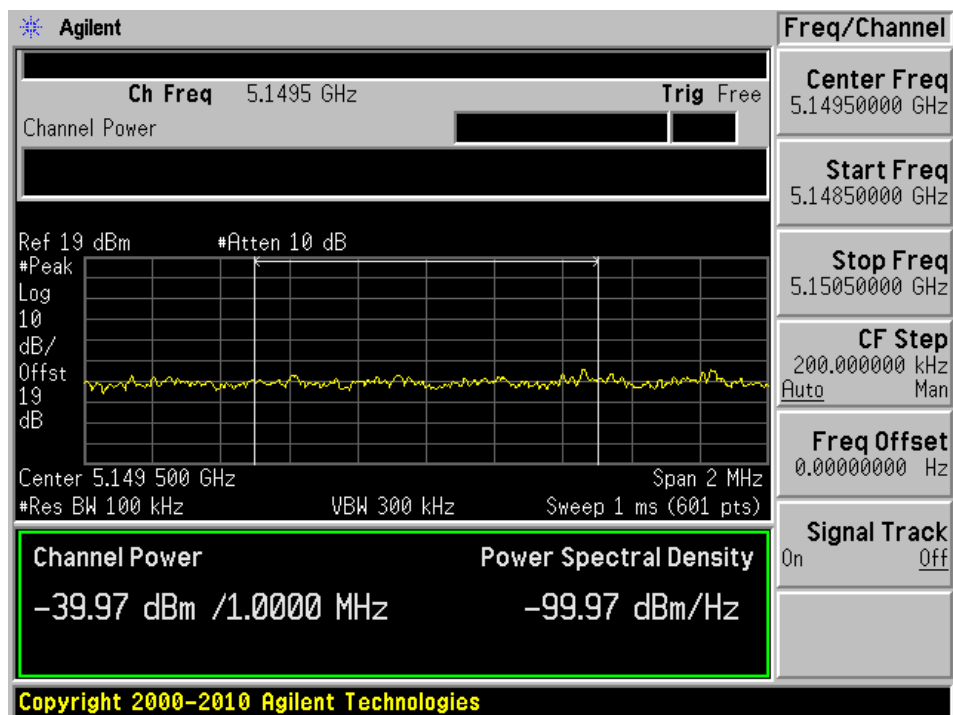


802.11n HT40 High channel: 5230 MHz

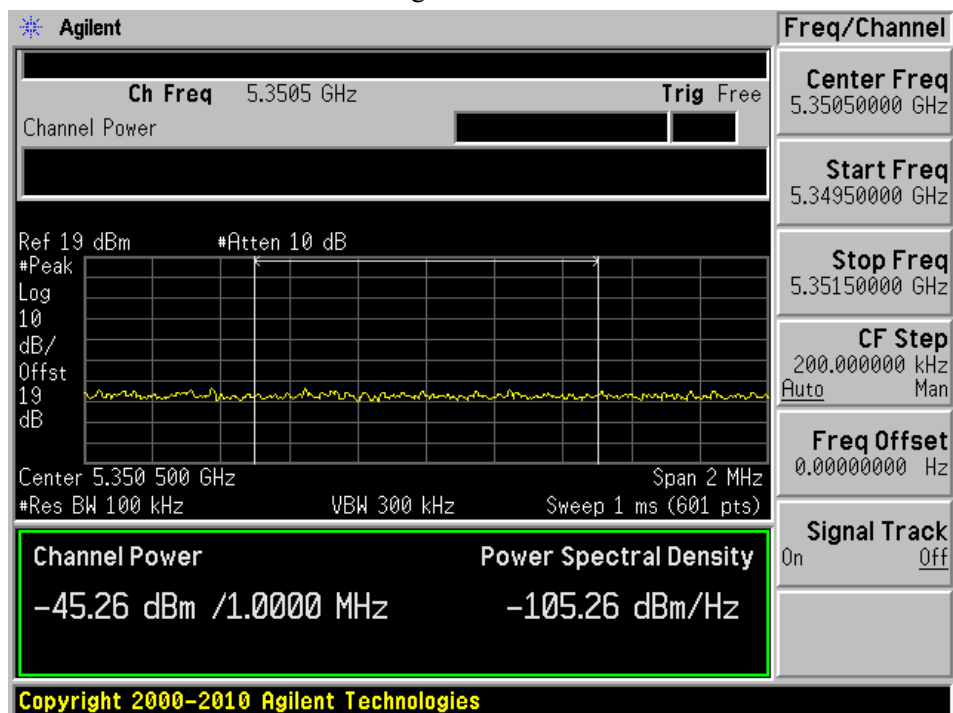


5.2 GHz Band
802.11a mode
8 dBi Antenna Chain 2

802.11a Low channel: 5180 MHz

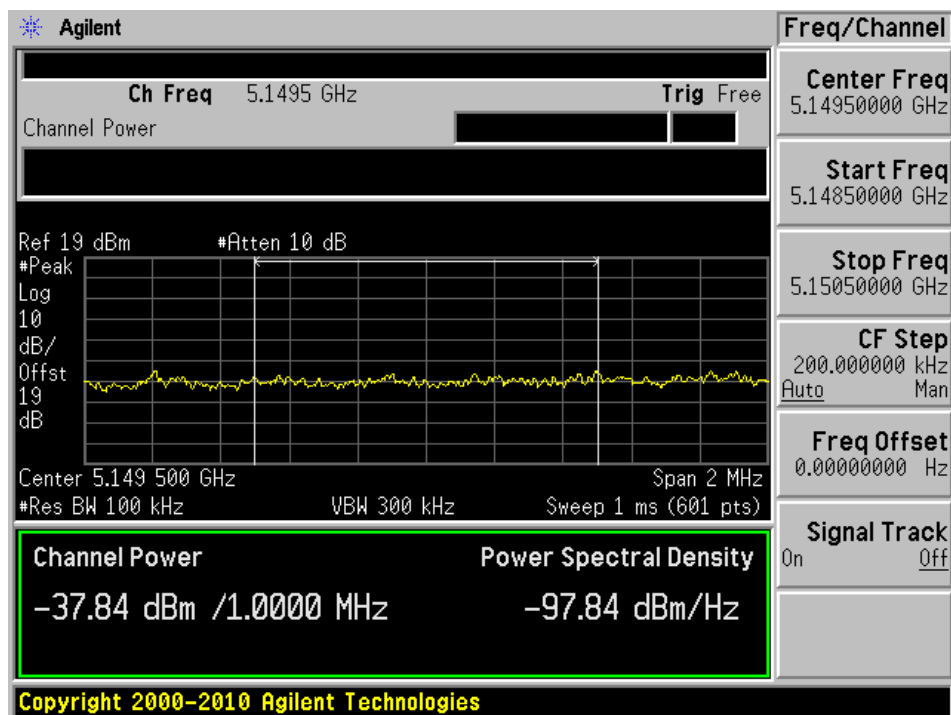


802.11a High channel: 5240 MHz

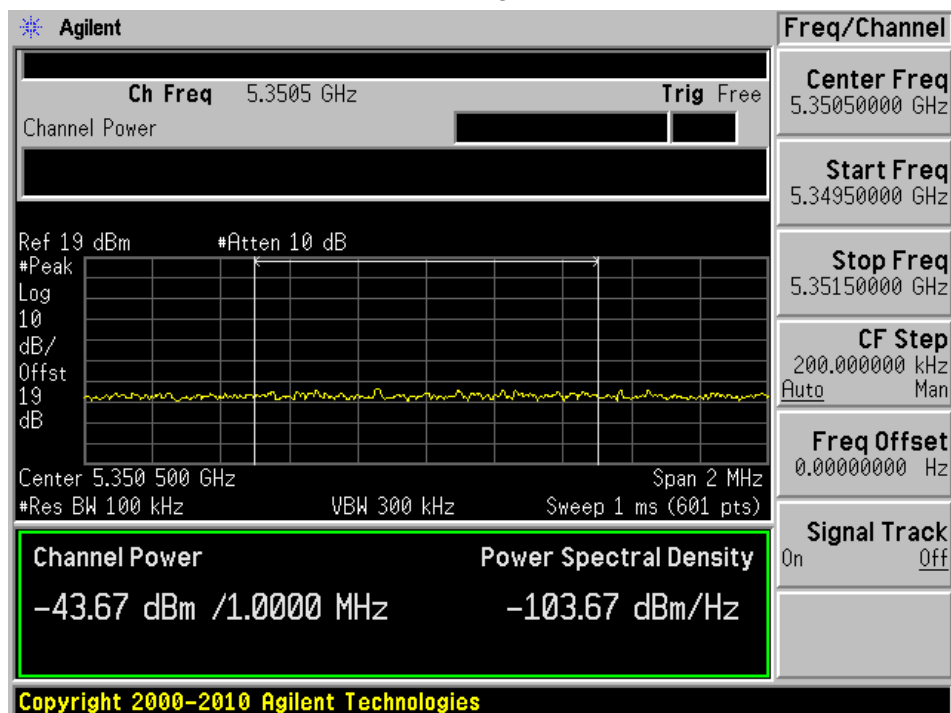


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

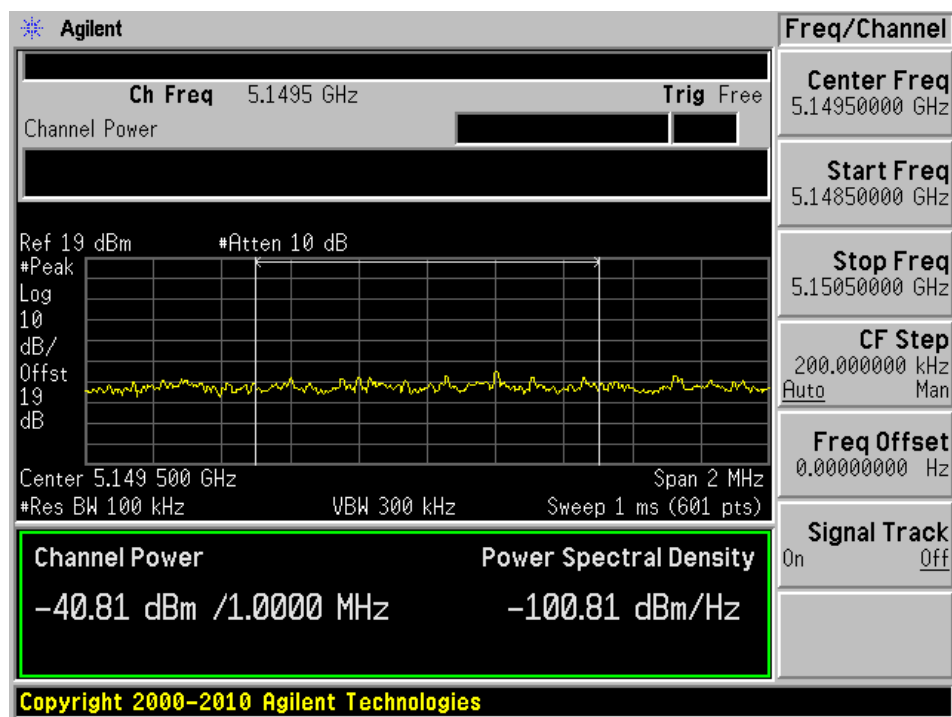


802.11n HT20 High channel: 5240 MHz

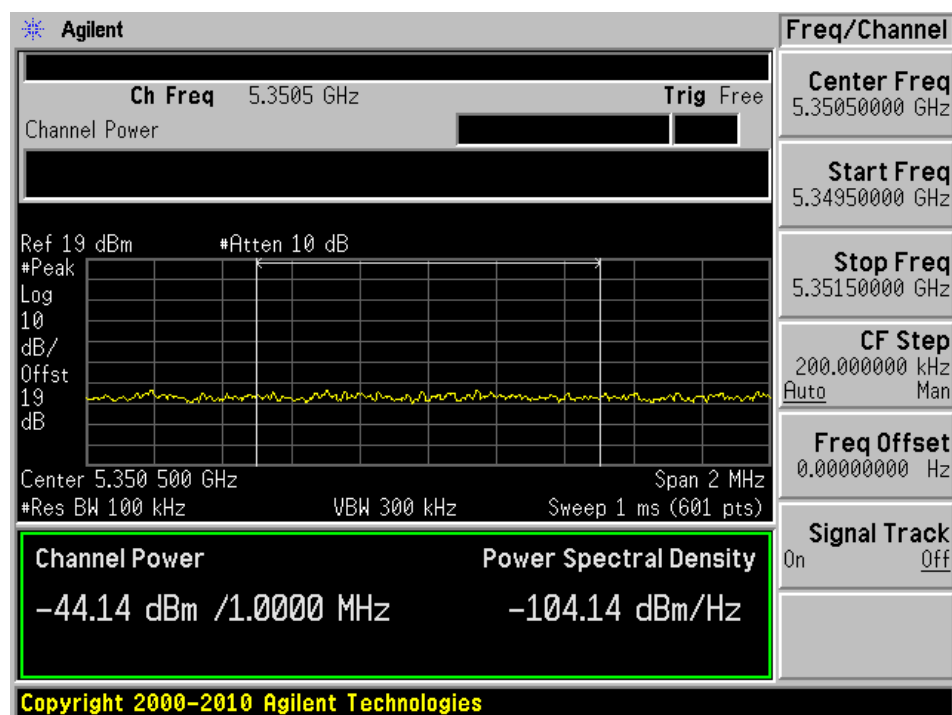


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz



802.11n HT40 High channel: 5230 MHz

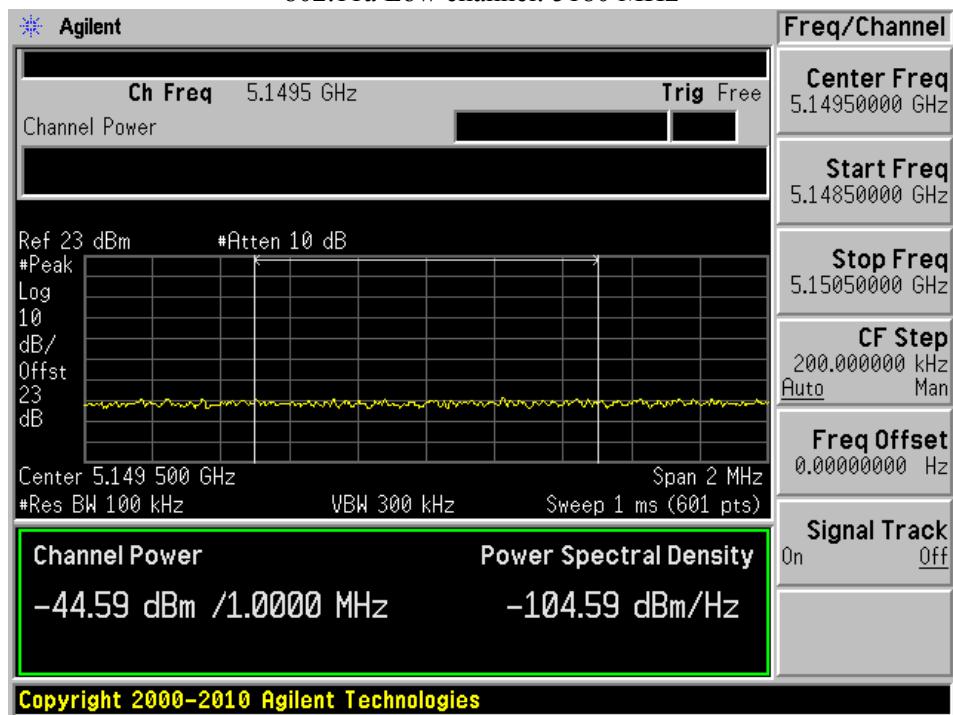


5.2 GHz Band, 12 dBi antenna gain

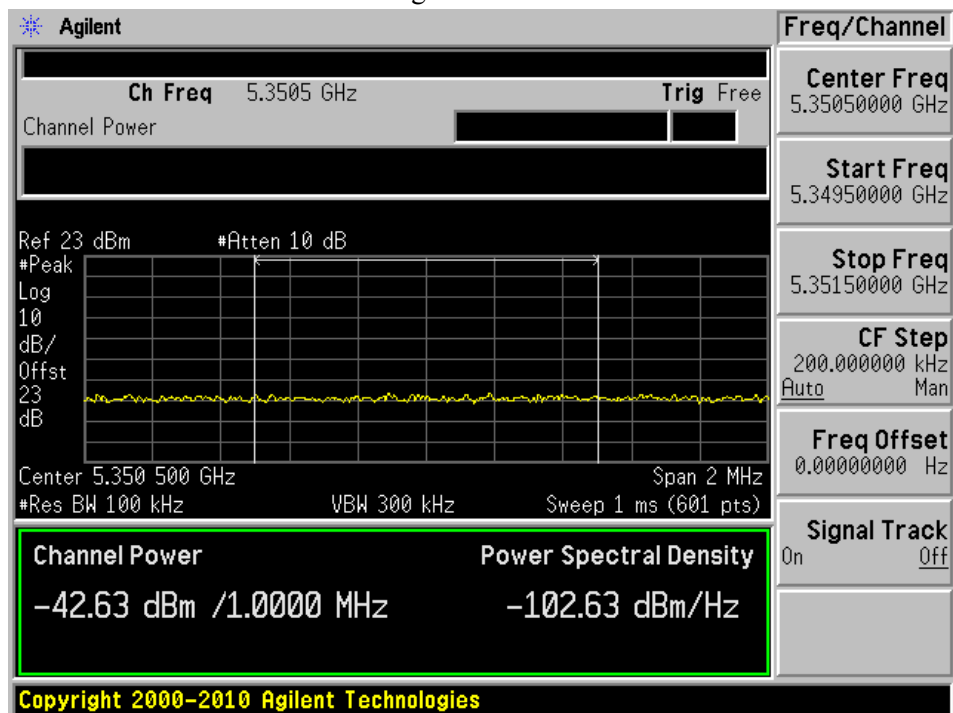
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5180	-44.59	-43.43	-43.37	-27	Pass
High	5240	-42.63	-42.37	-41.46	-27	Pass
802.11n HT20 mode						
Low	5180	-44.49	-43.29	-44.80	-27	Pass
High	5240	-42.01	-41.18	-41.33	-27	Pass
802.11n HT40 mode						
Low	5190	-41.72	-40.23	-40.99	-27	Pass
High	5230	-41.31	-40.75	-40.47	-27	Pass

5.2 GHz Band
802.11a mode
12 dBi Antenna Chain 0

802.11a Low channel: 5180 MHz

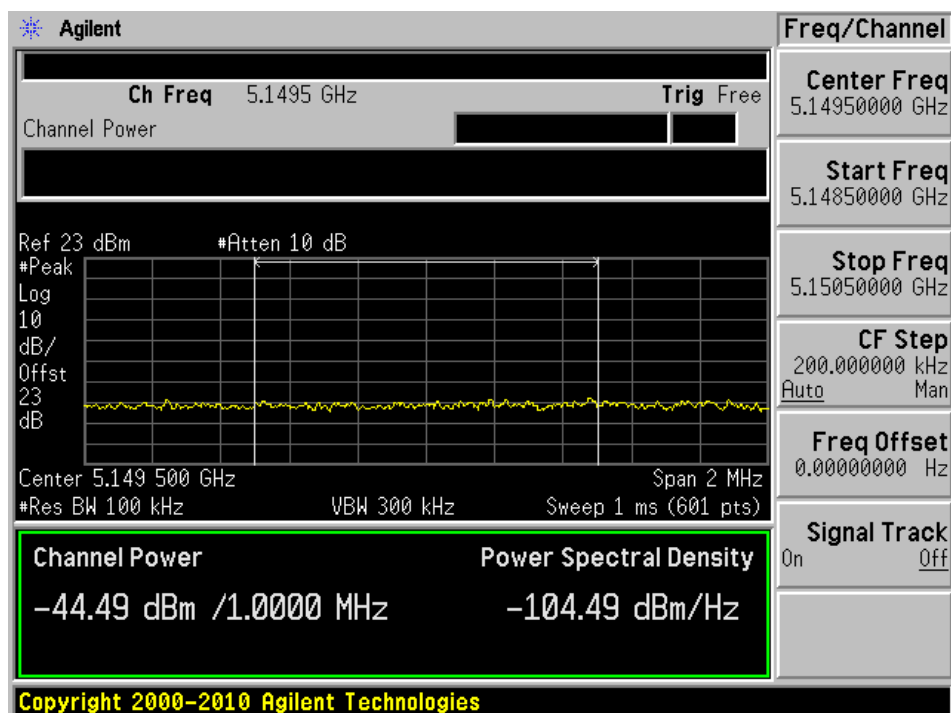


802.11a High channel: 5240 MHz

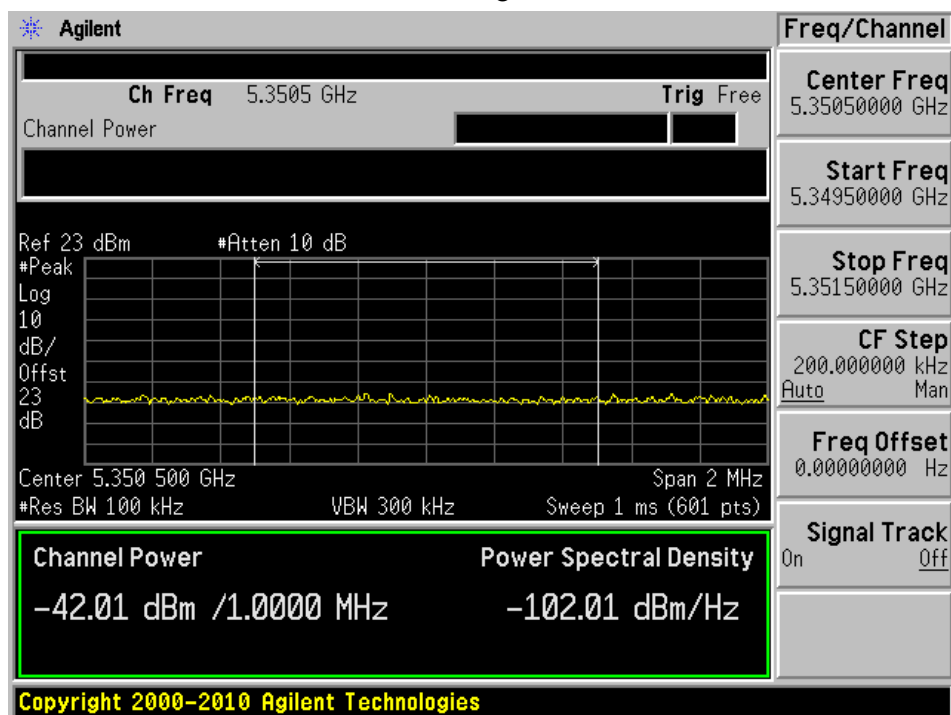


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

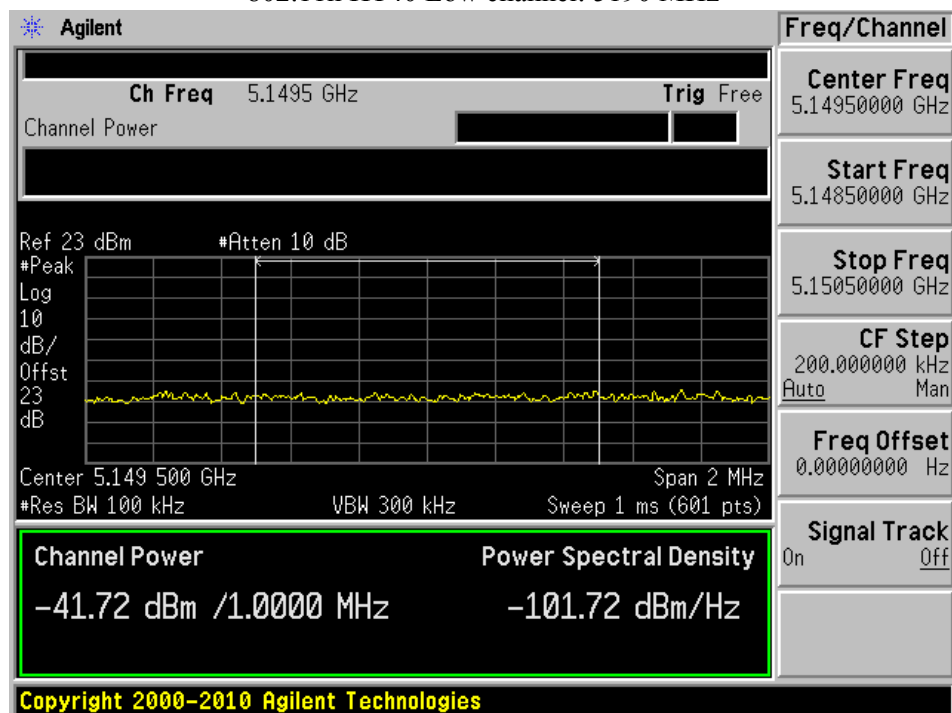


802.11n HT20 High channel: 5240 MHz

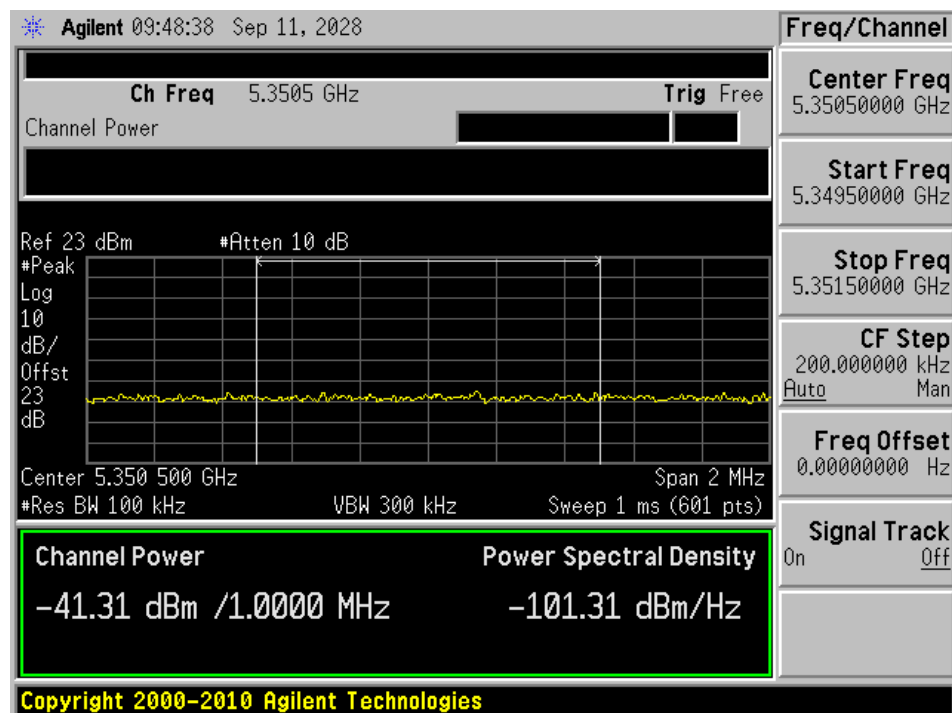


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

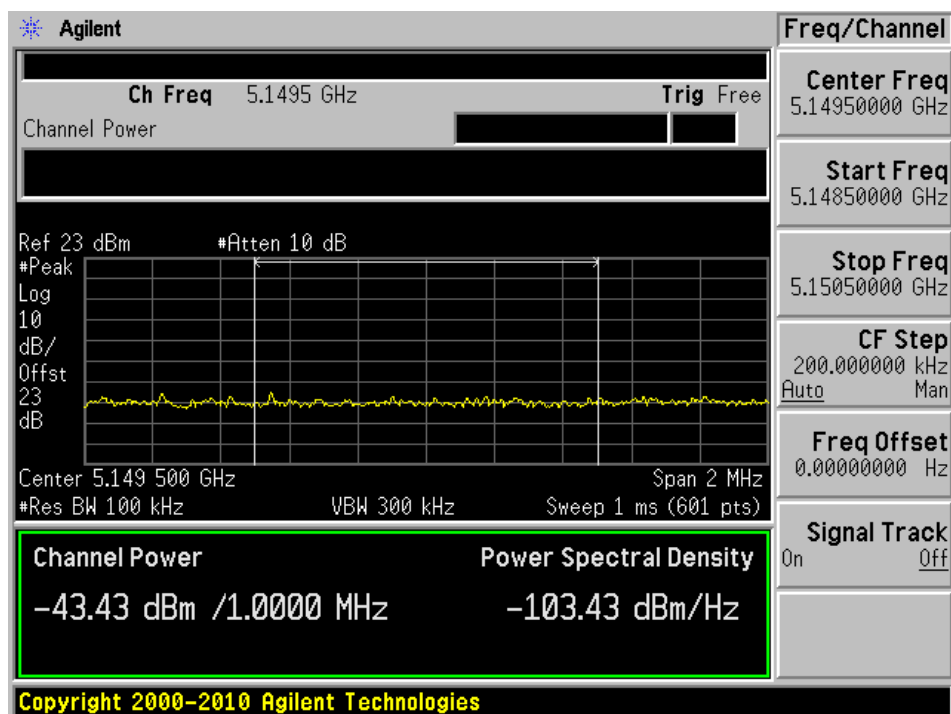


802.11n HT40 High channel: 5230 MHz

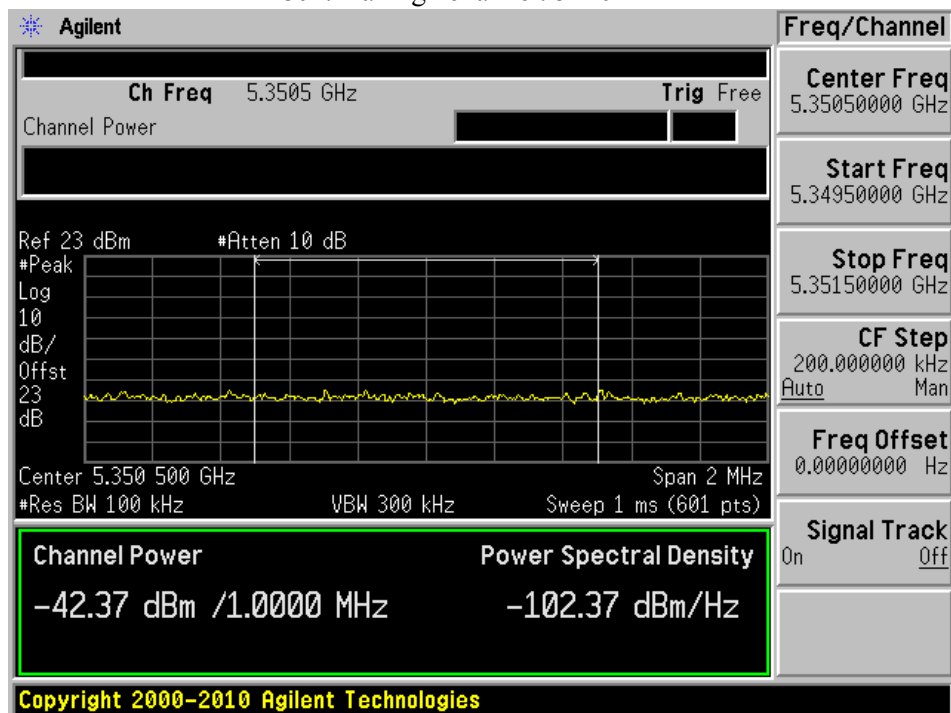


5.2 GHz Band
802.11a mode
12 dBi Antenna Chain 1

802.11a Low channel: 5180 MHz

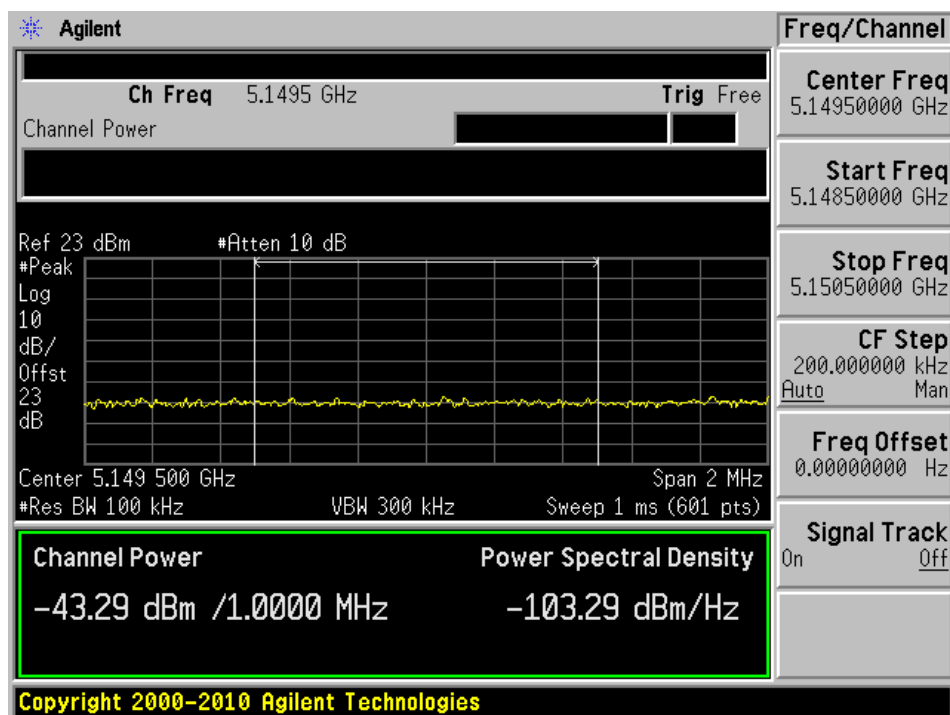


802.11a High channel: 5240 MHz

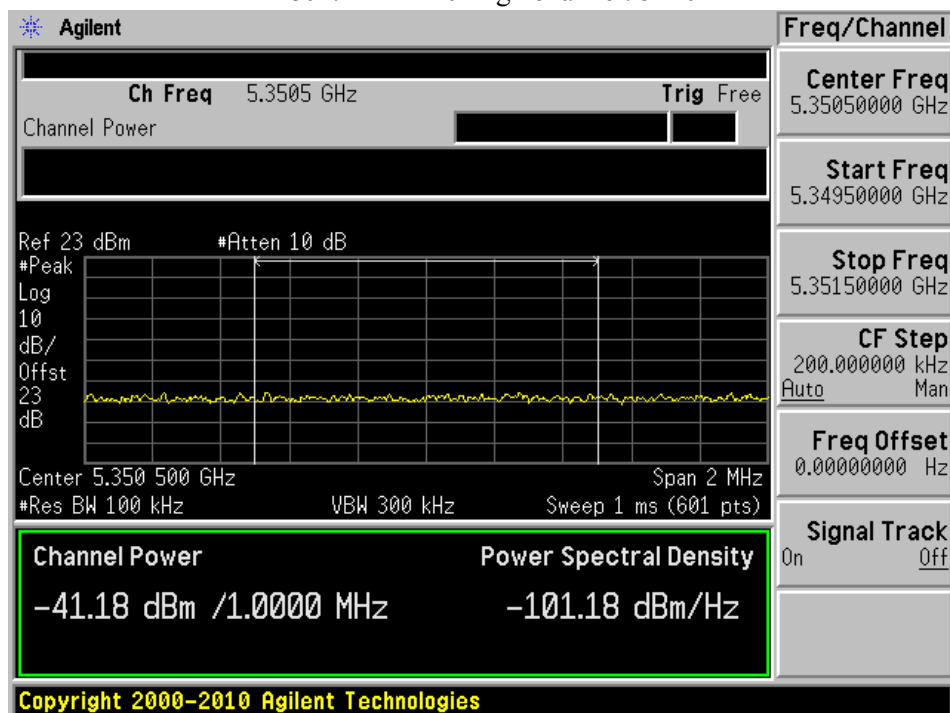


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

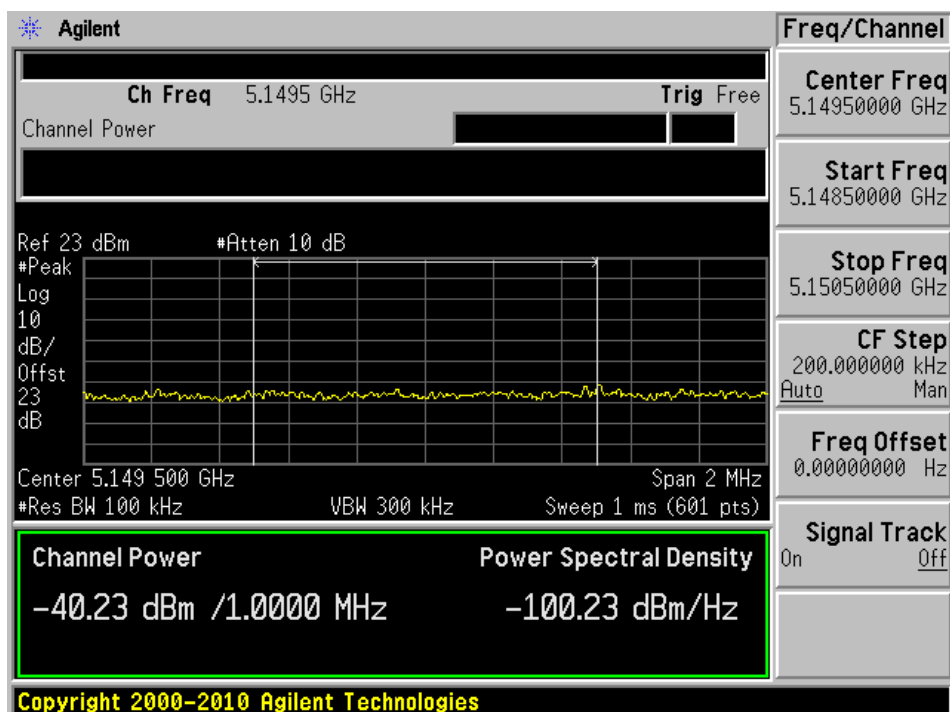


802.11n HT20 High channel: 5240 MHz

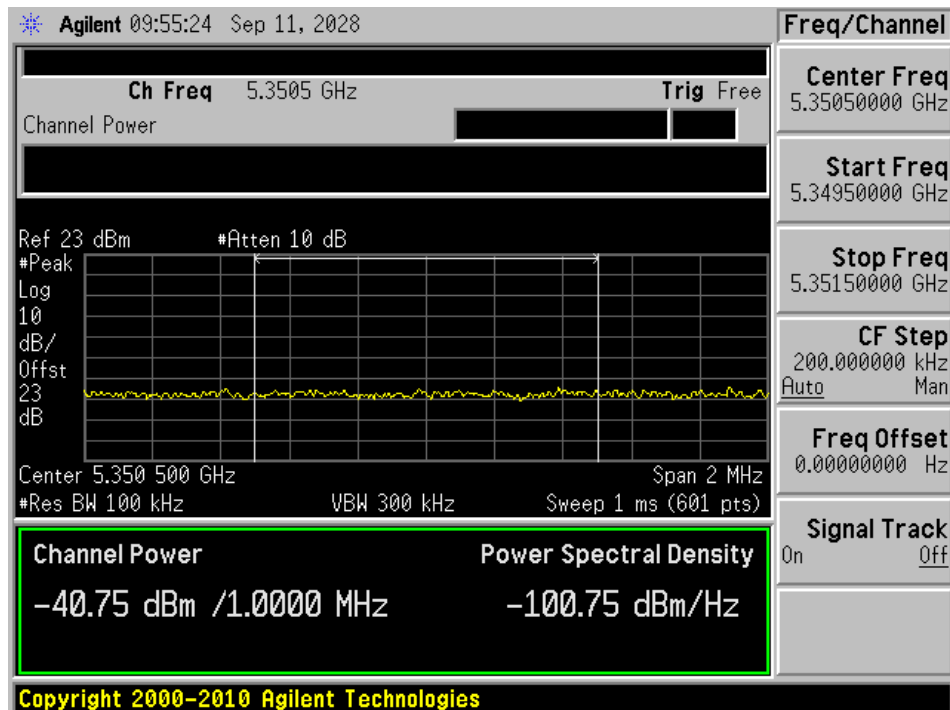


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

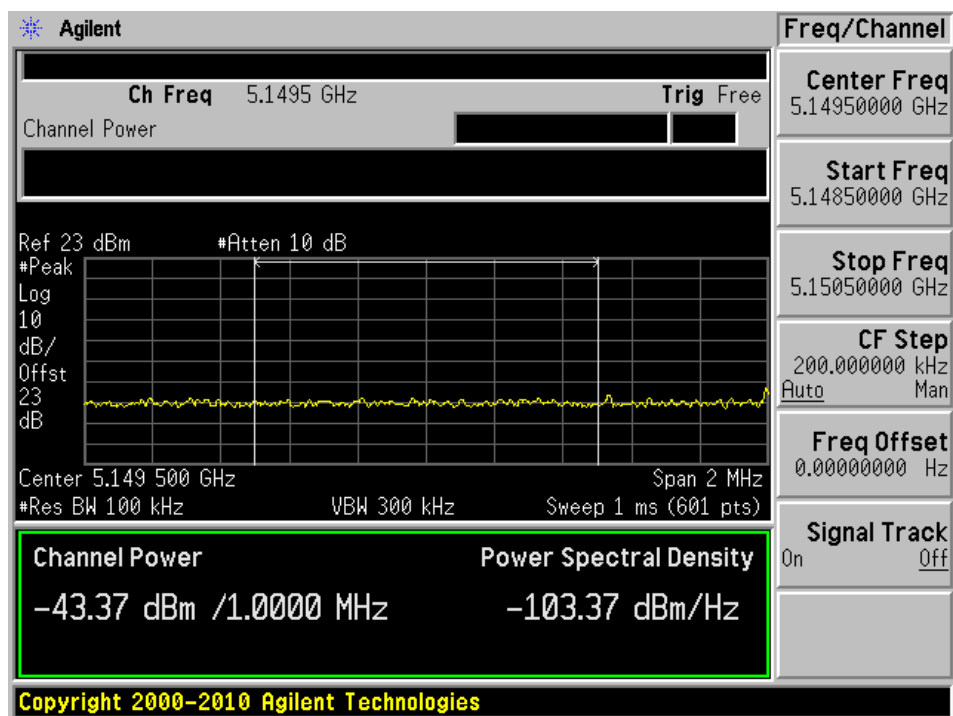


802.11n HT40 High channel: 5230 MHz

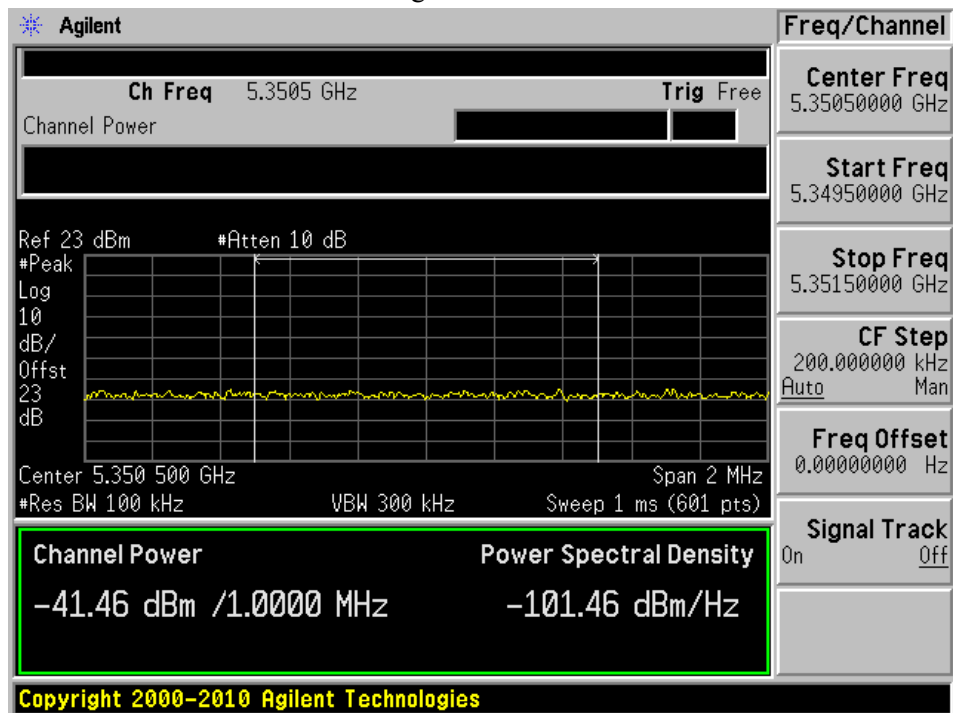


5.2 GHz Band
802.11a mode
12 dBi Antenna Chain 2

802.11a Low channel: 5180 MHz

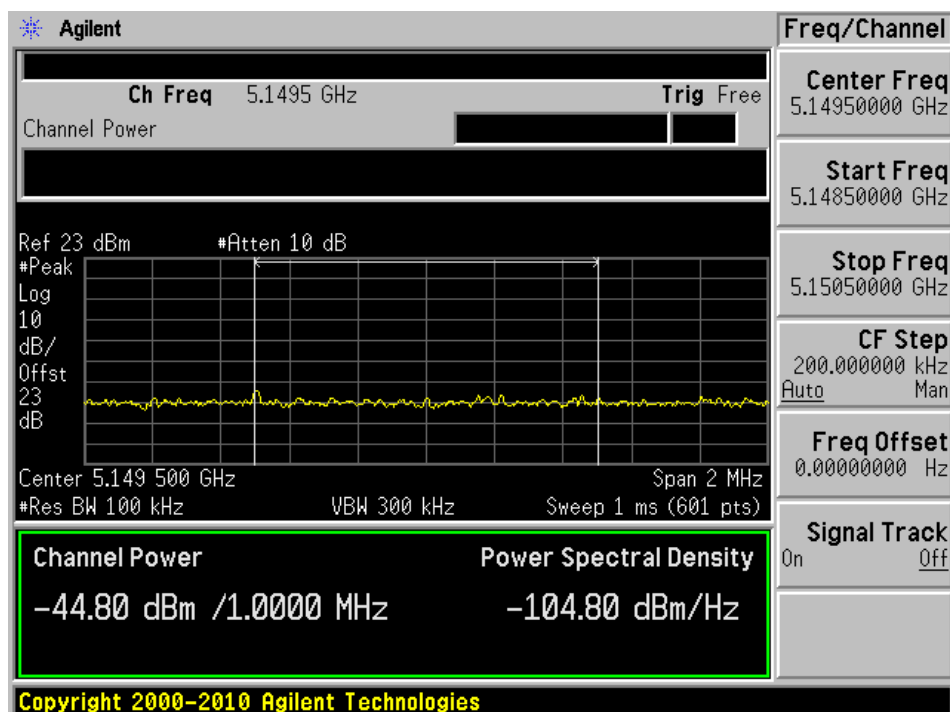


802.11a High channel: 5240 MHz

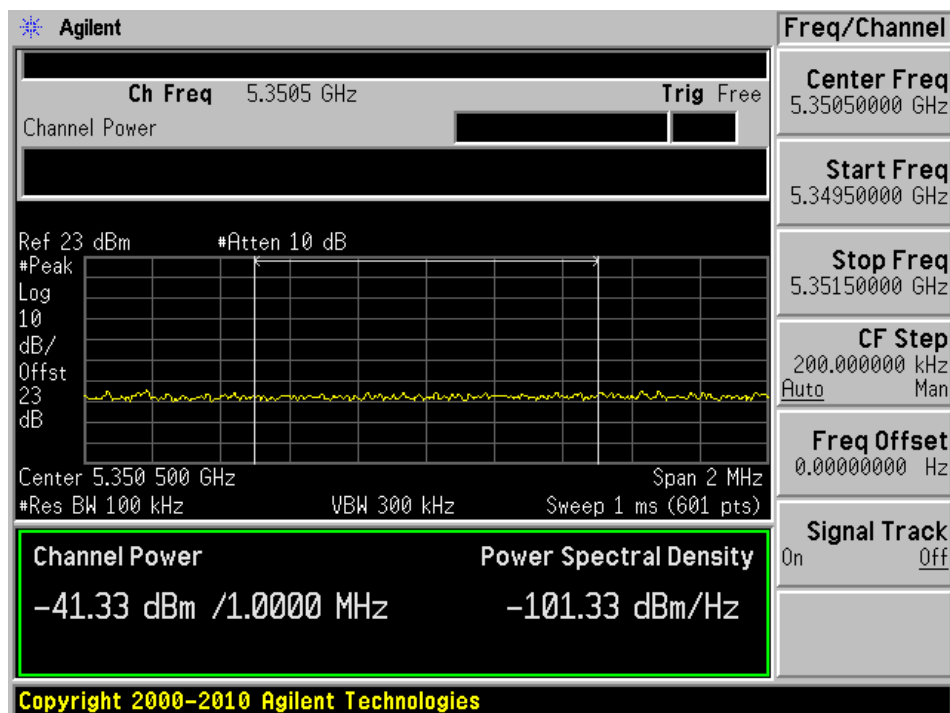


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

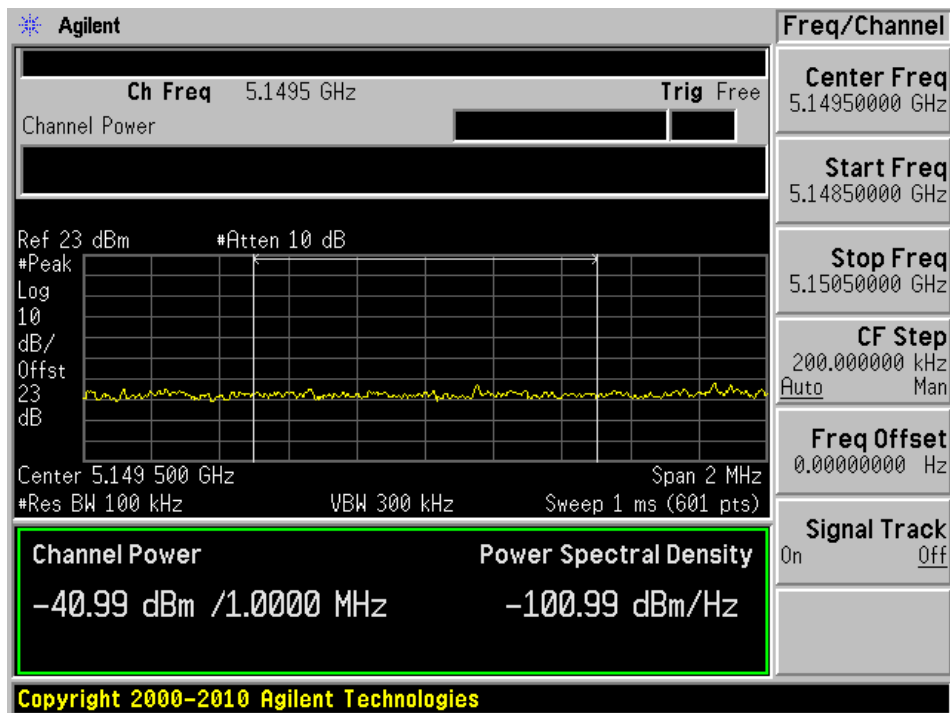


802.11n HT20 High channel: 5240 MHz

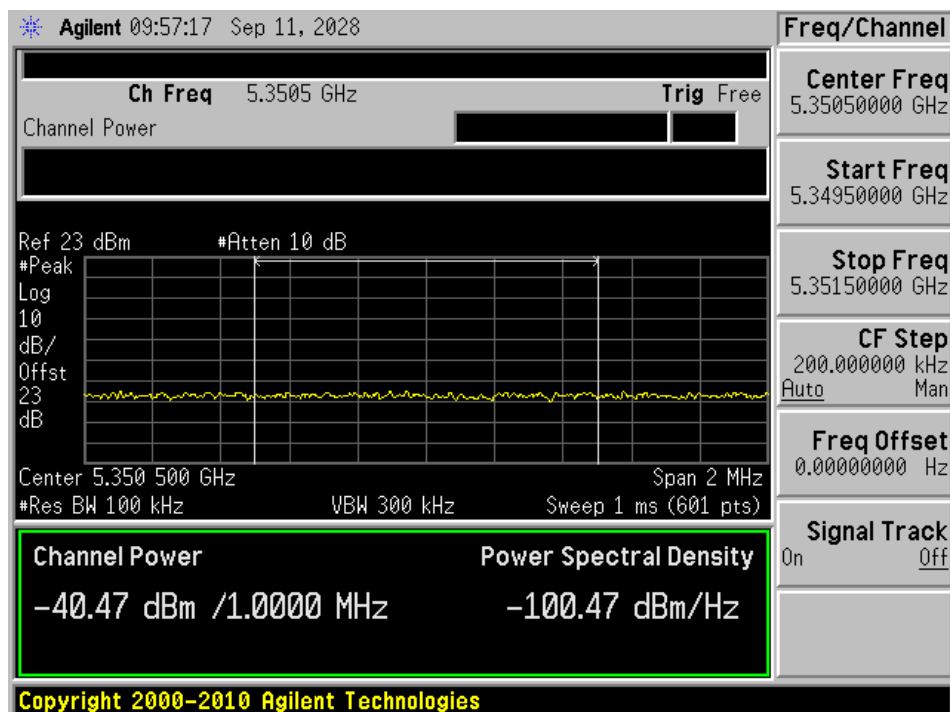


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz



802.11n HT40 High channel: 5230 MHz

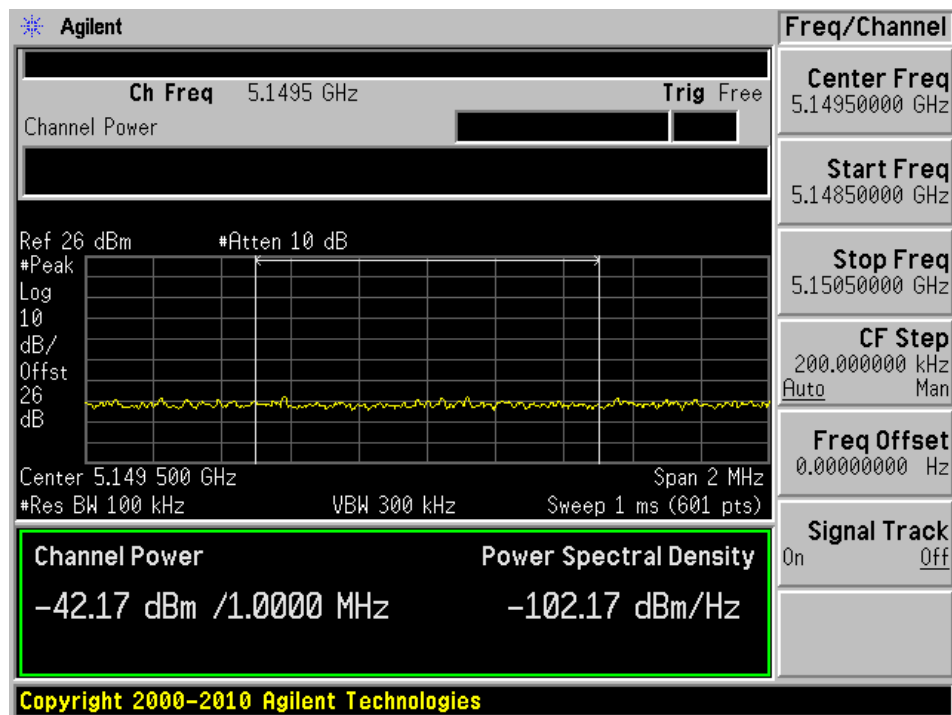


5.2 GHz Band, 15 dBi antenna gain

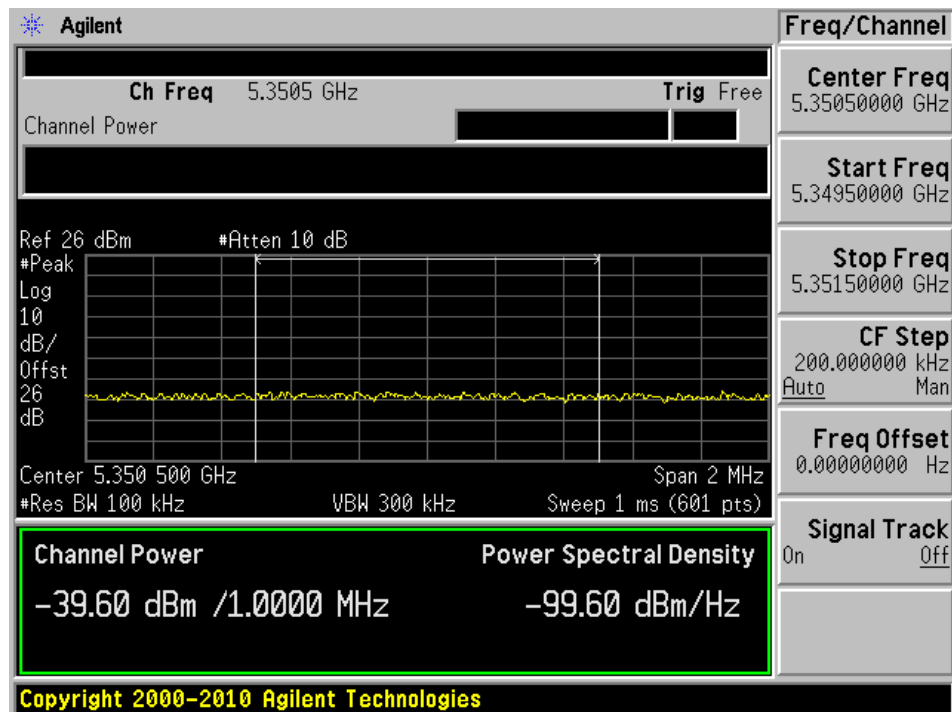
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5180	-42.17	-43.55	-45.56	-27	Pass
High	5240	-39.6	-41.78	-40.83	-27	Pass
802.11n HT20 mode						
Low	5180	-42.22	-43.67	-44.00	-27	Pass
High	5240	-39.15	-42.12	-40.79	-27	Pass
802.11n HT40 mode						
Low	5190	-40.77	-40.87	-41.52	-27	Pass
High	5230	-39.75	-41.74	-40.84	-27	Pass

5.2 GHz Band
802.11a mode
15 dBi Antenna Chain 0

802.11a Low channel: 5180 MHz

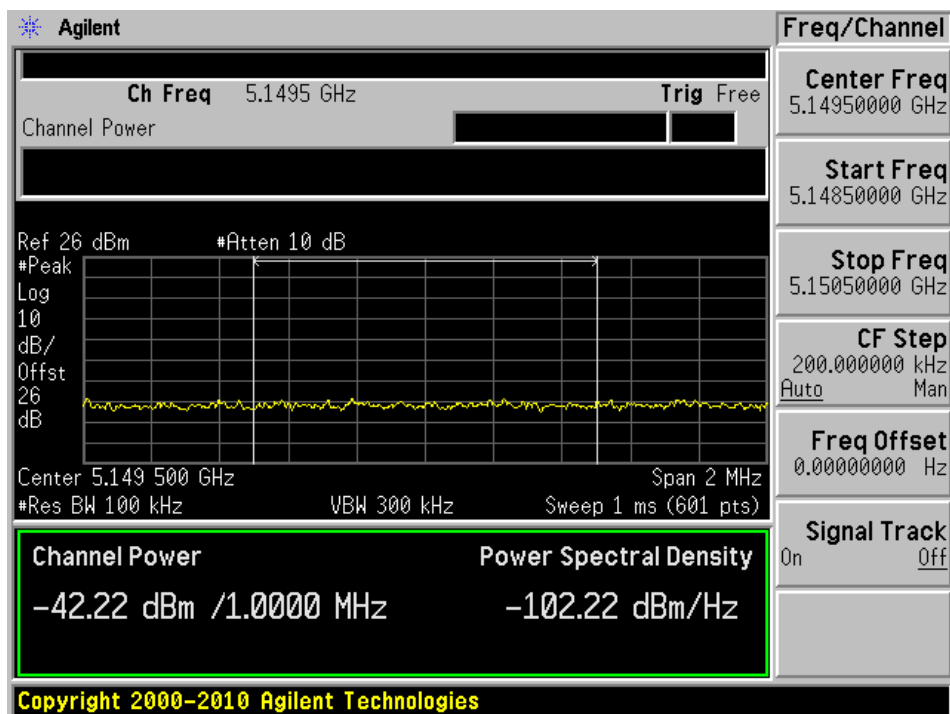


802.11a High channel: 5240 MHz

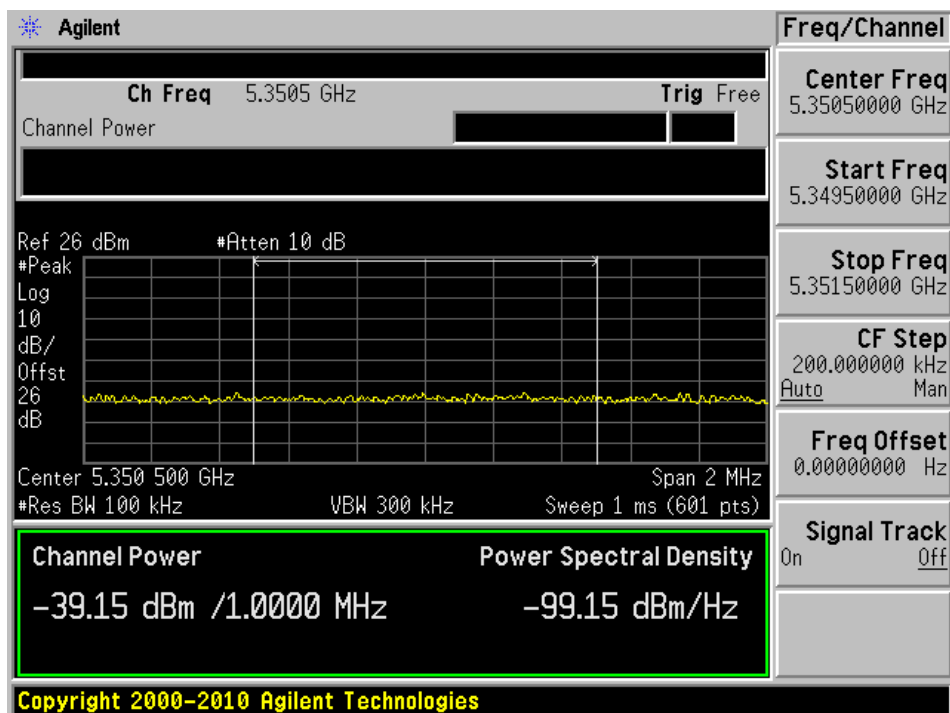


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

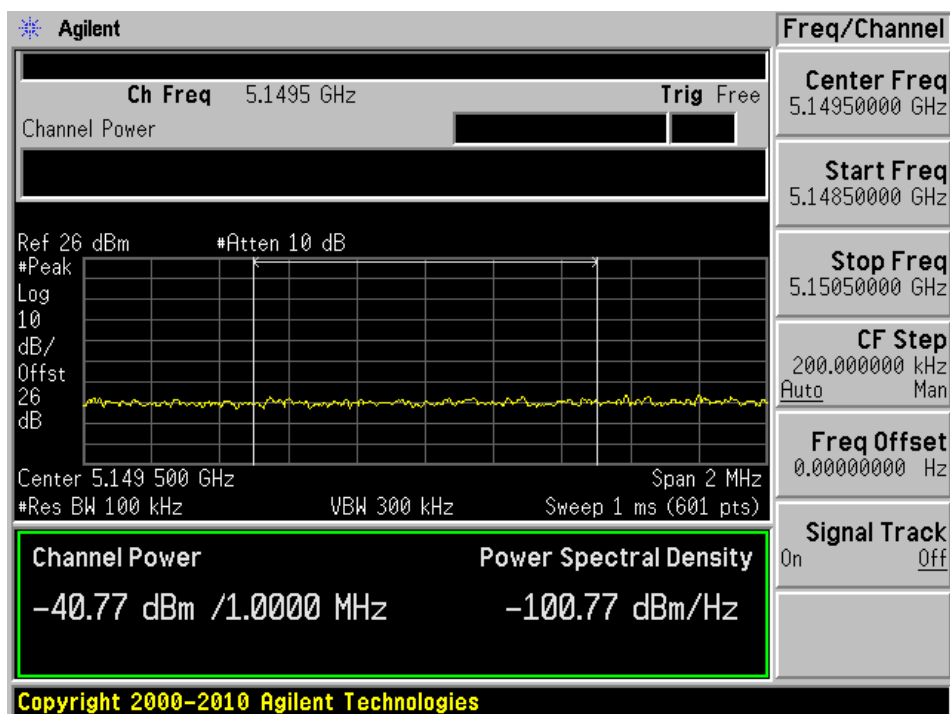


802.11n HT20 High channel: 5240 MHz

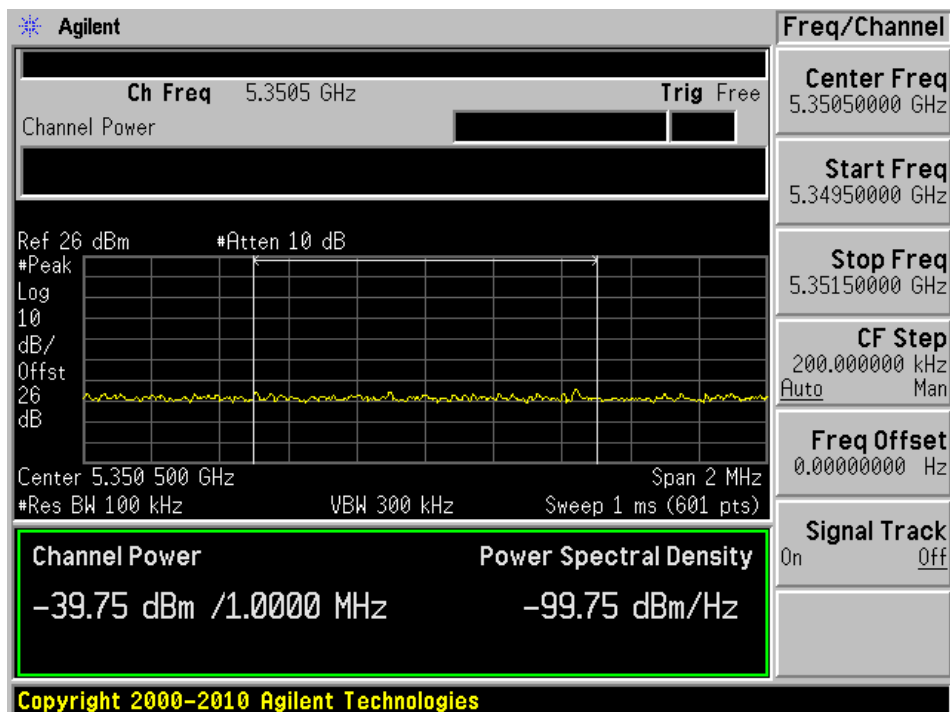


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

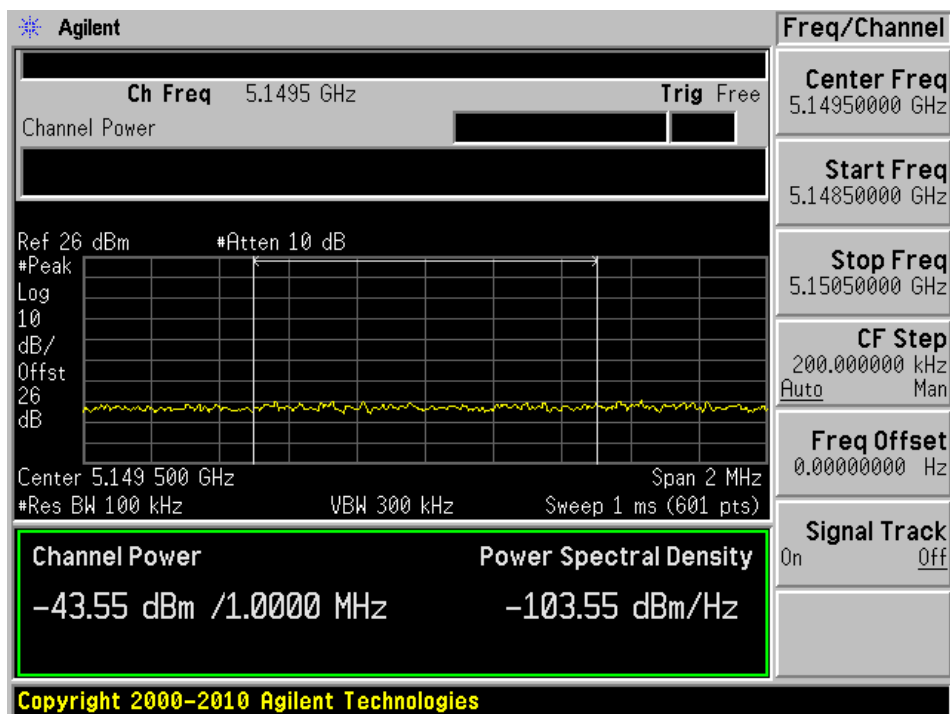


802.11n HT40 High channel: 5230 MHz

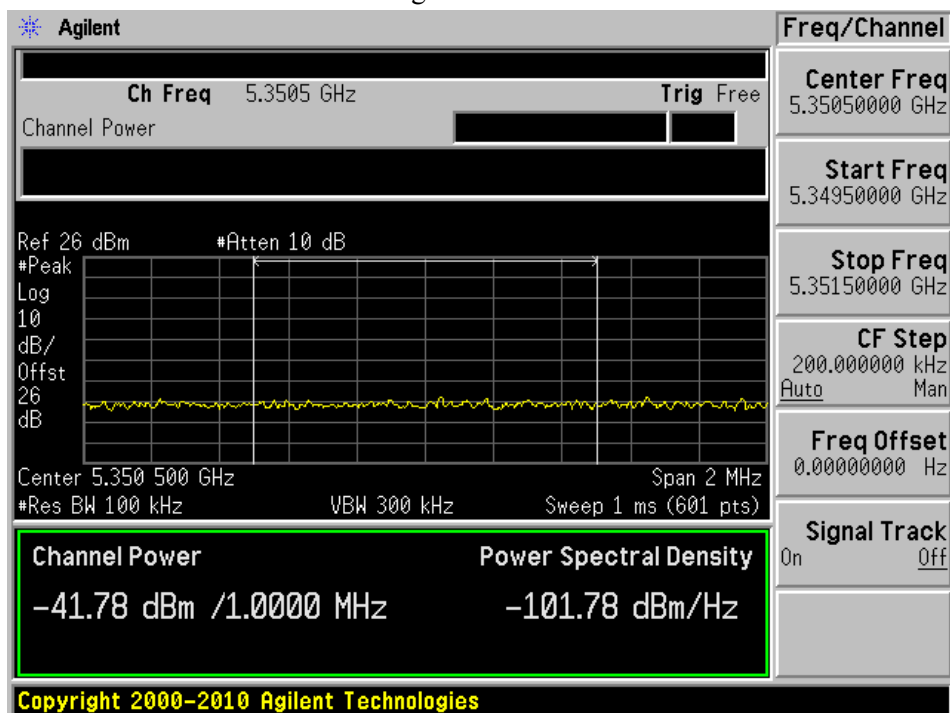


5.2 GHz Band
802.11a mode
15 dBi Antenna Chain 1

802.11a Low channel: 5180 MHz

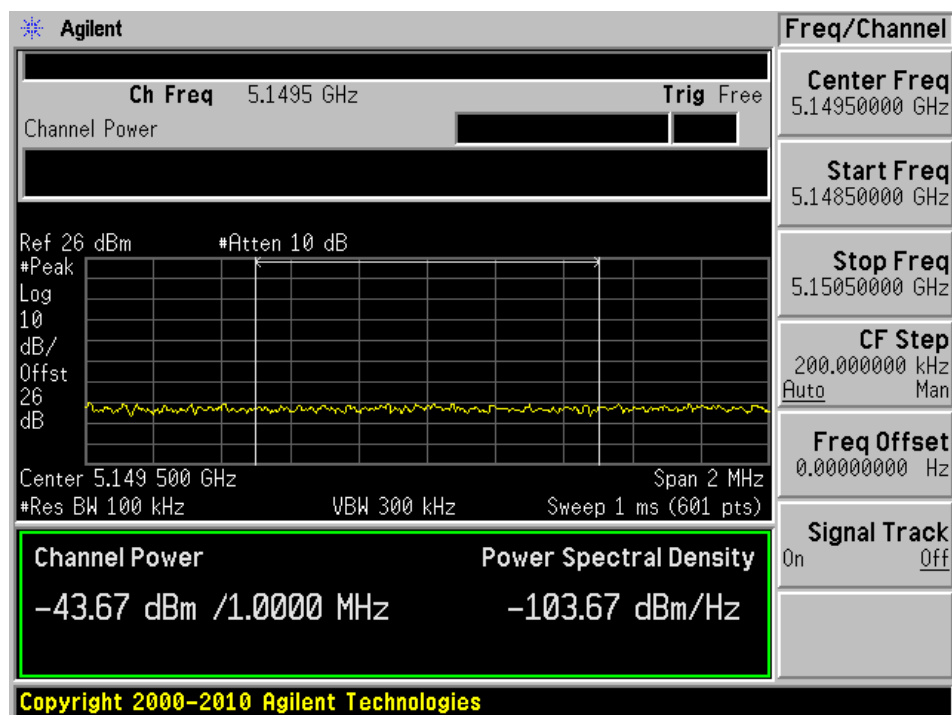


802.11a High channel: 5240 MHz

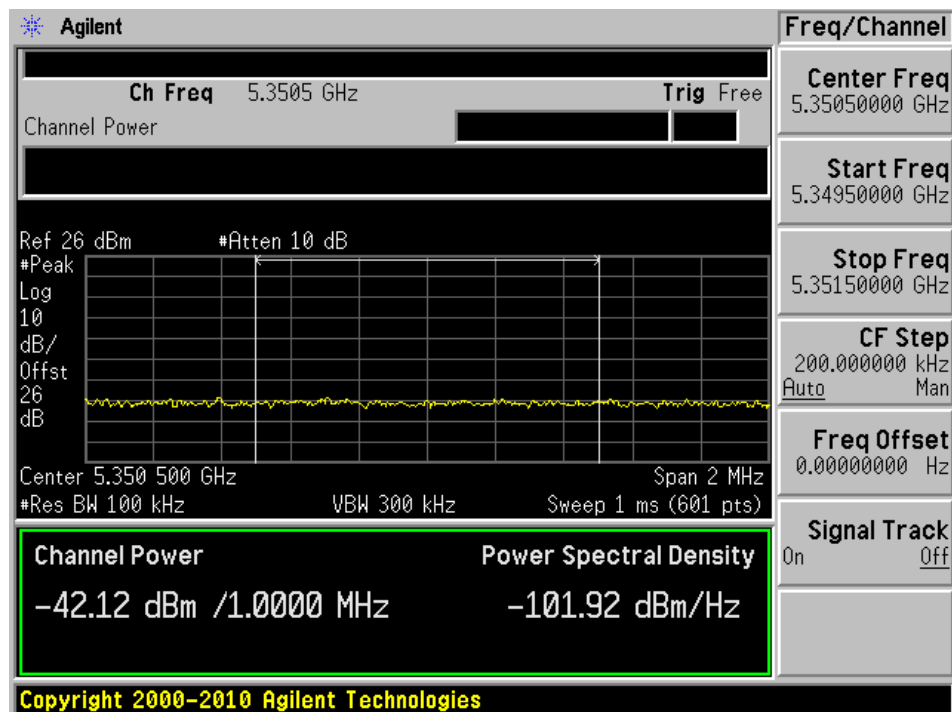


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

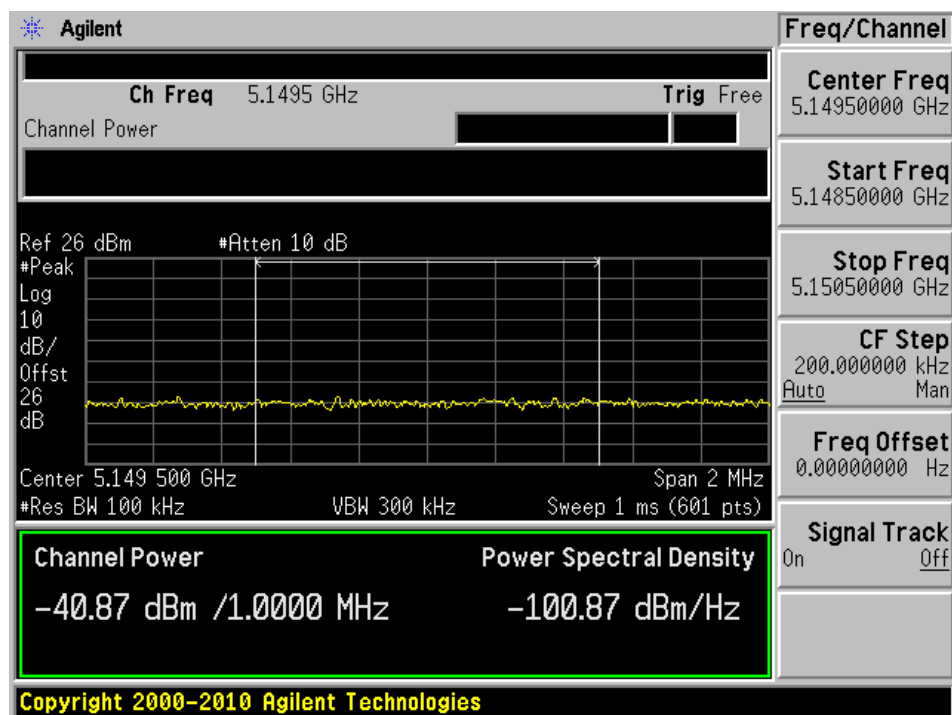


802.11n HT20 High channel: 5240 MHz

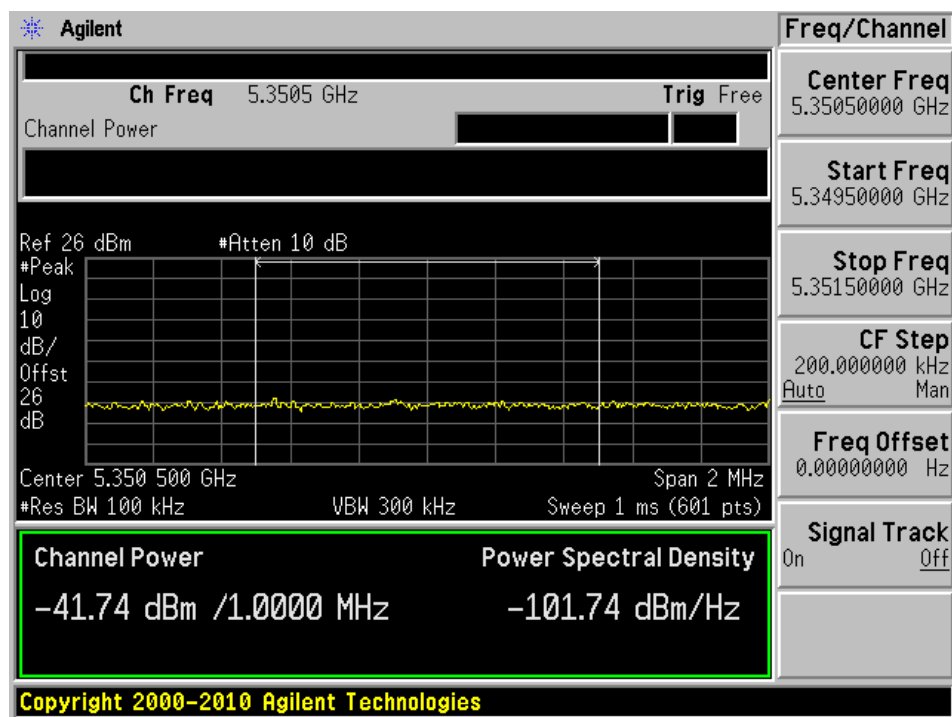


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz

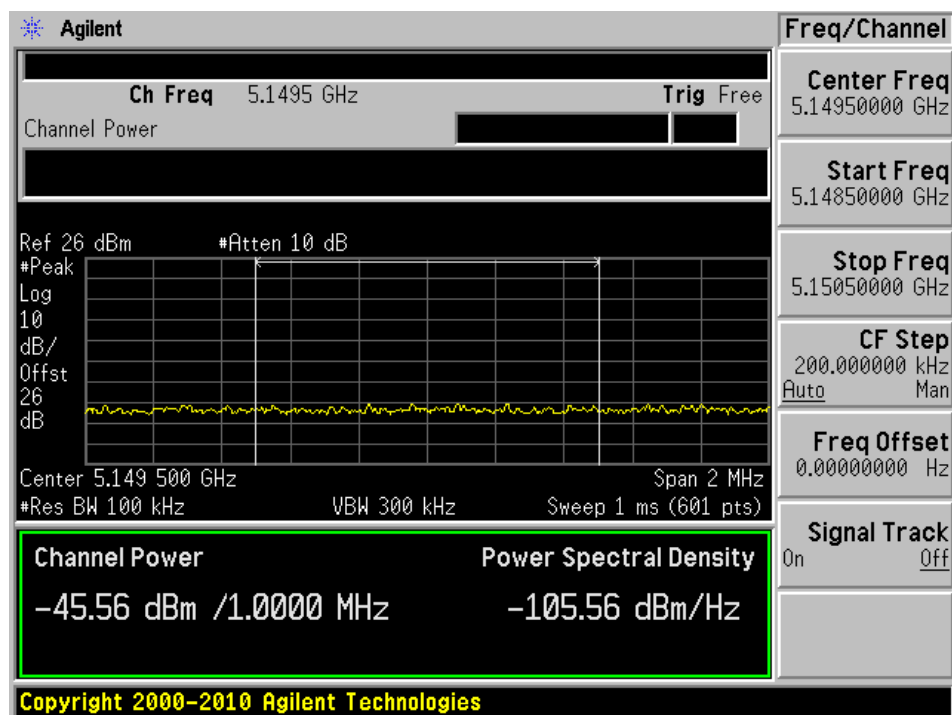


802.11n HT40 High channel: 5230 MHz

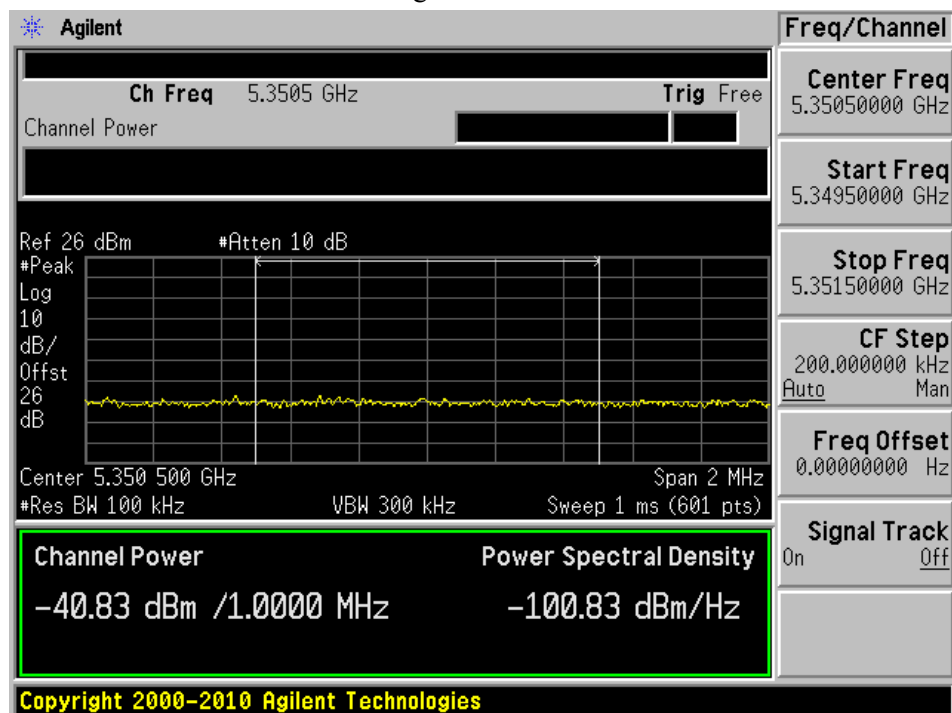


5.2 GHz Band
802.11a mode
15 dBi Antenna Chain 2

802.11a Low channel: 5180 MHz

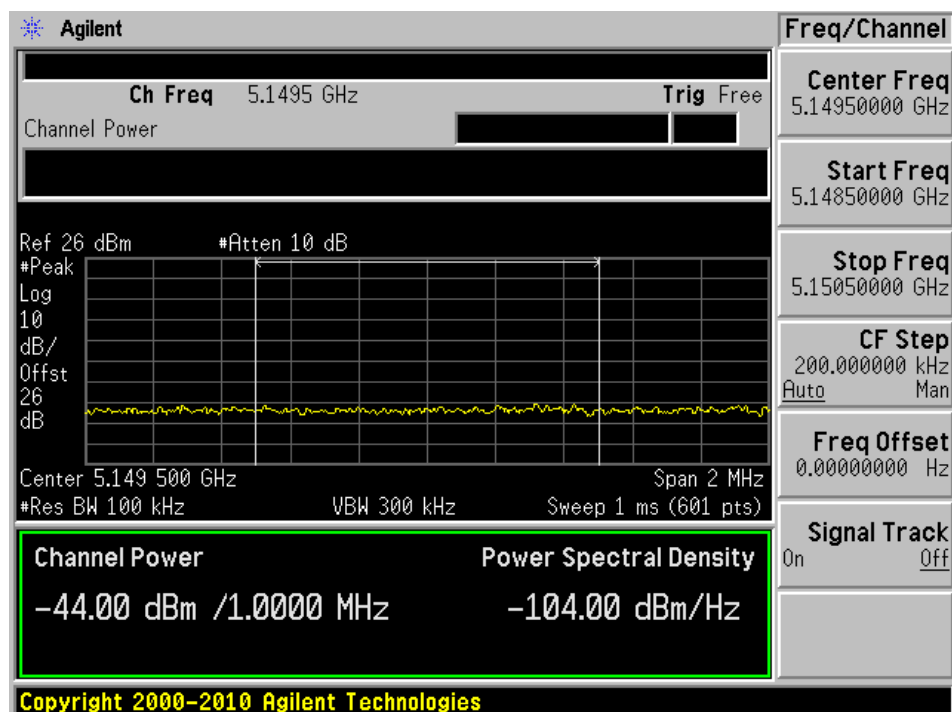


802.11a High channel: 5240 MHz

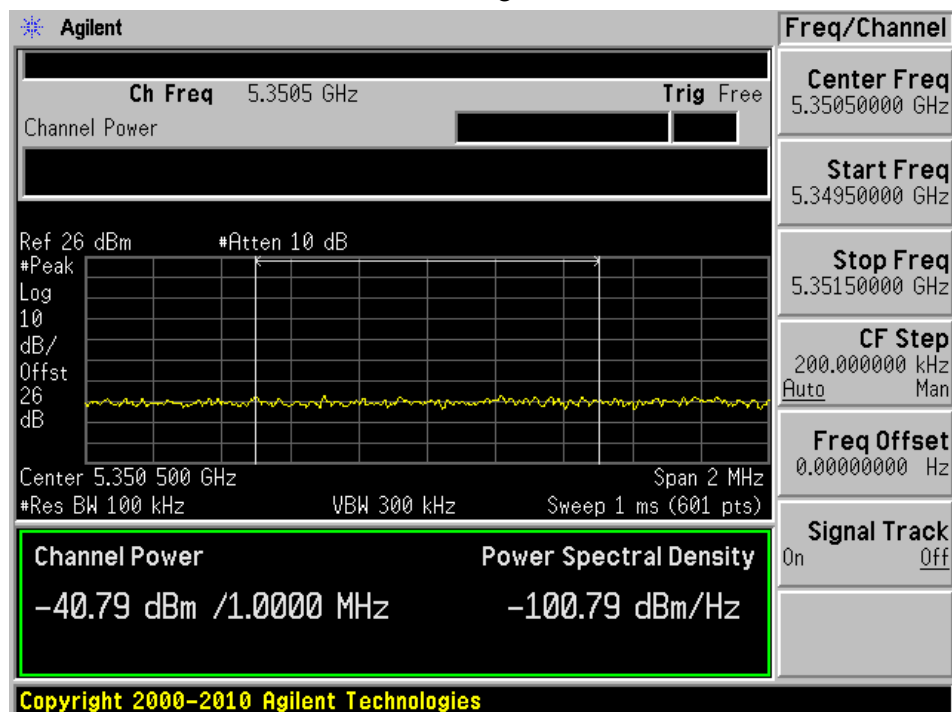


802.11n20 mode

802.11n HT20 Low channel: 5180 MHz

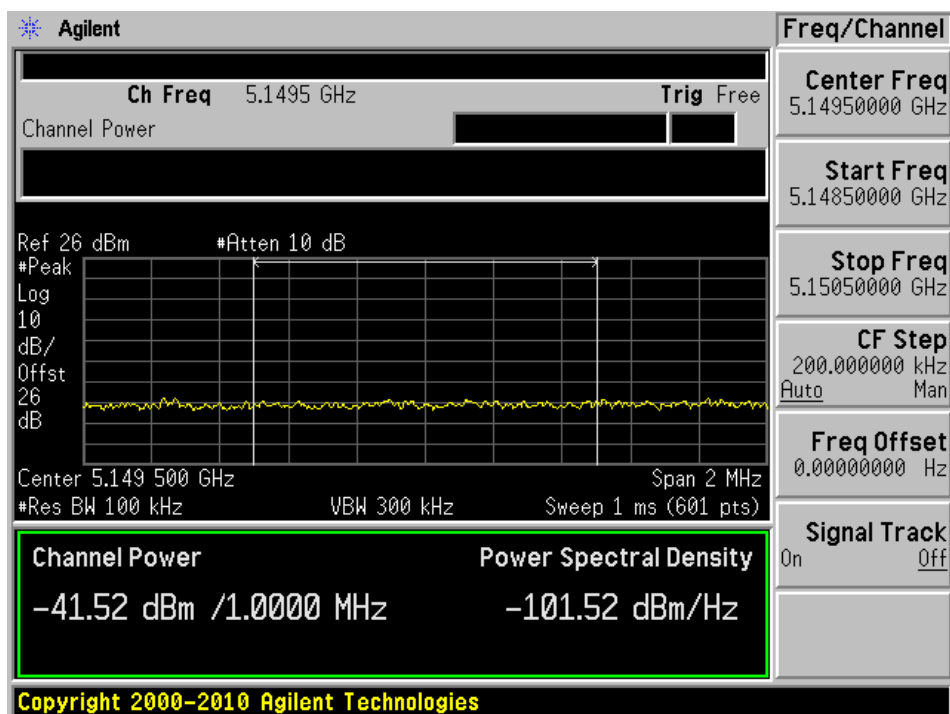


802.11n HT20 High channel: 5240 MHz

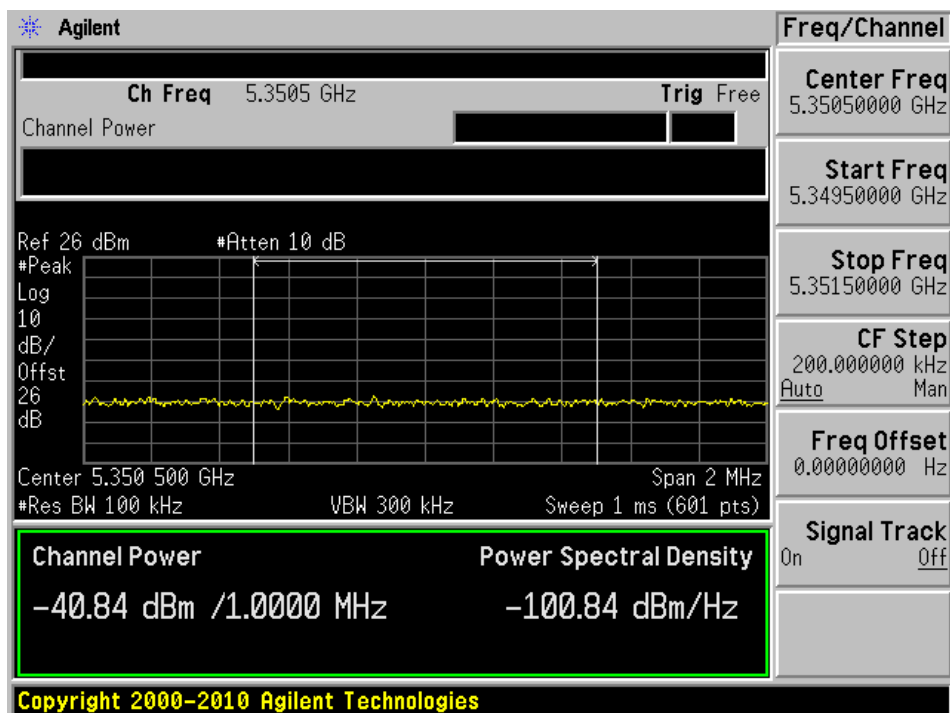


802.11n40 mode

802.11n HT40 Low channel: 5190 MHz



802.11n HT40 High channel: 5230 MHz



5.8 GHz Band, 3 dBi antenna gain

Within 10 MHz

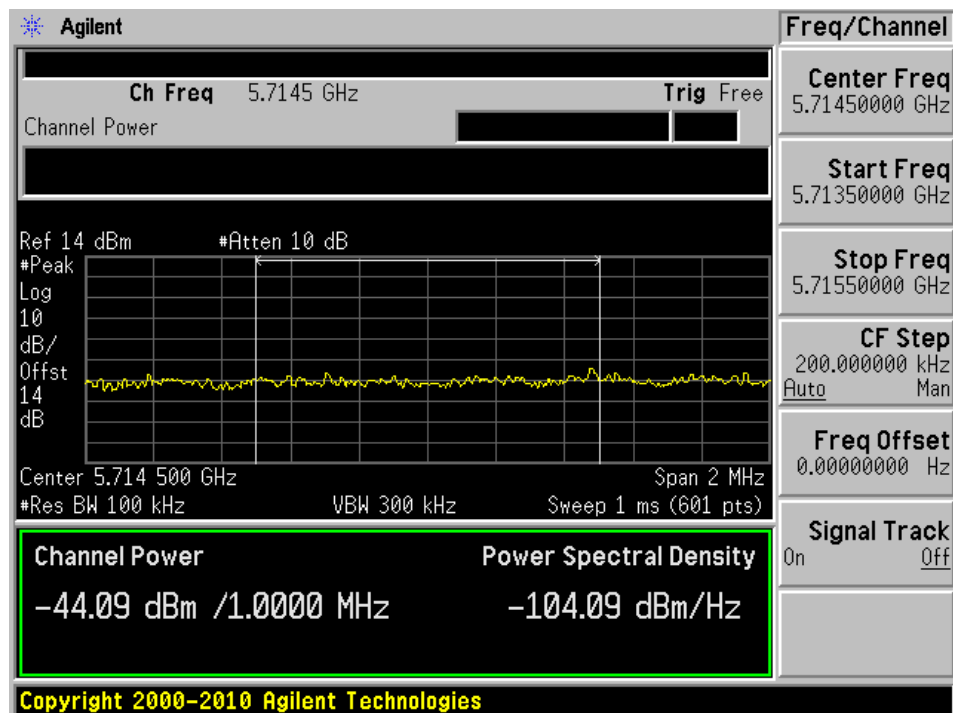
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-33.49	-35.4	-29.56	-17	Pass
High	5825	-39.15	-41.39	-36.04	-17	Pass
802.11n HT20 mode						
Low	5745	-31.16	-35.84	-31.83	-17	Pass
High	5825	-35.15	-39.92	-34.12	-17	Pass
802.11n HT40 mode						
Low	5755	-38.58	-41.47	-37.57	-17	Pass
High	5795	-39.61	-45.37	-37.76	-17	Pass

Outside 10 MHz

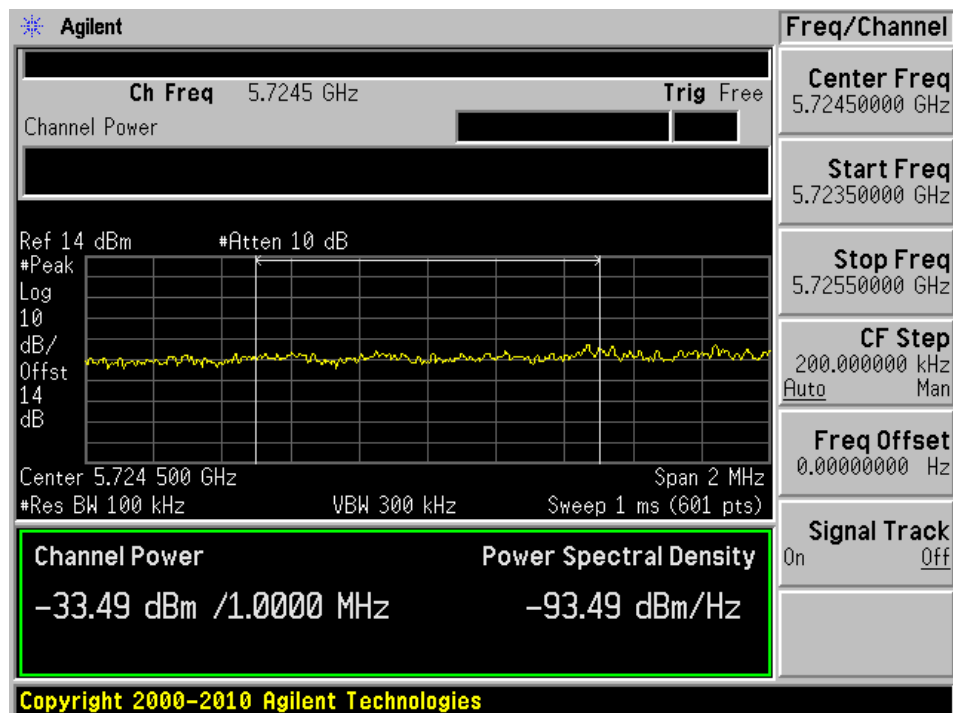
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-44.09	-45.46	-40.16	-27	Pass
High	5825	-47.51	-49.92	-43.99	-27	Pass
802.11n HT20 mode						
Low	5745	-43.2	-45.25	-41.23	-27	Pass
High	5825	-45.21	-48.43	-42.45	-27	Pass
802.11n HT40 mode						
Low	5755	-46.34	-46.58	-40.59	-27	Pass
High	5795	-43.62	-47.91	-40.32	-27	Pass

**5.8 GHz Band
802.11a
3 dBi Antenna Chain 0**

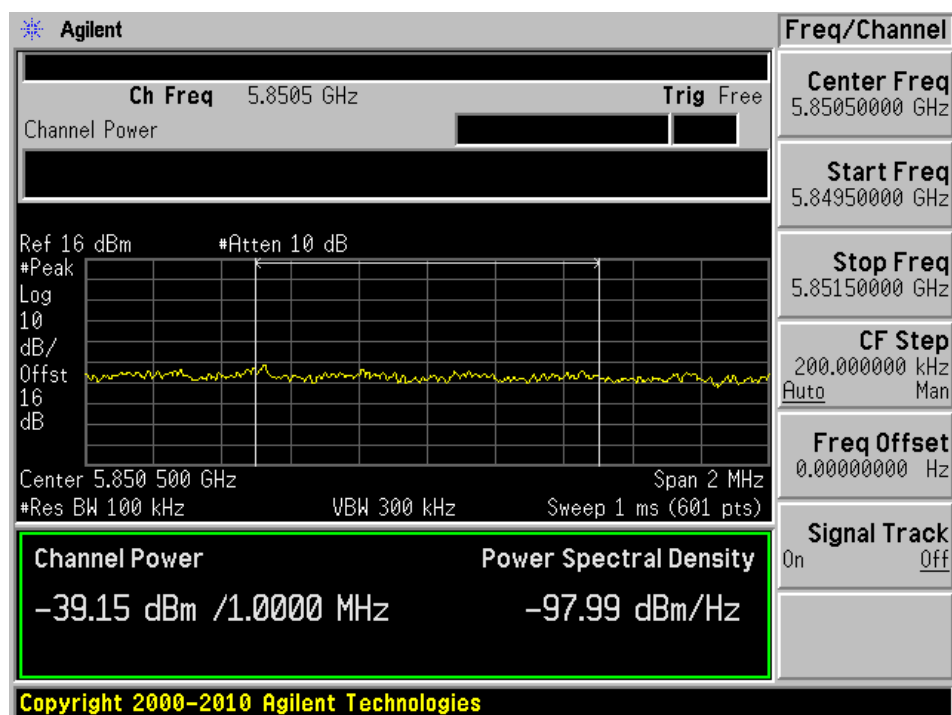
Low channel: 5745 MHz – 5714.5 MHz



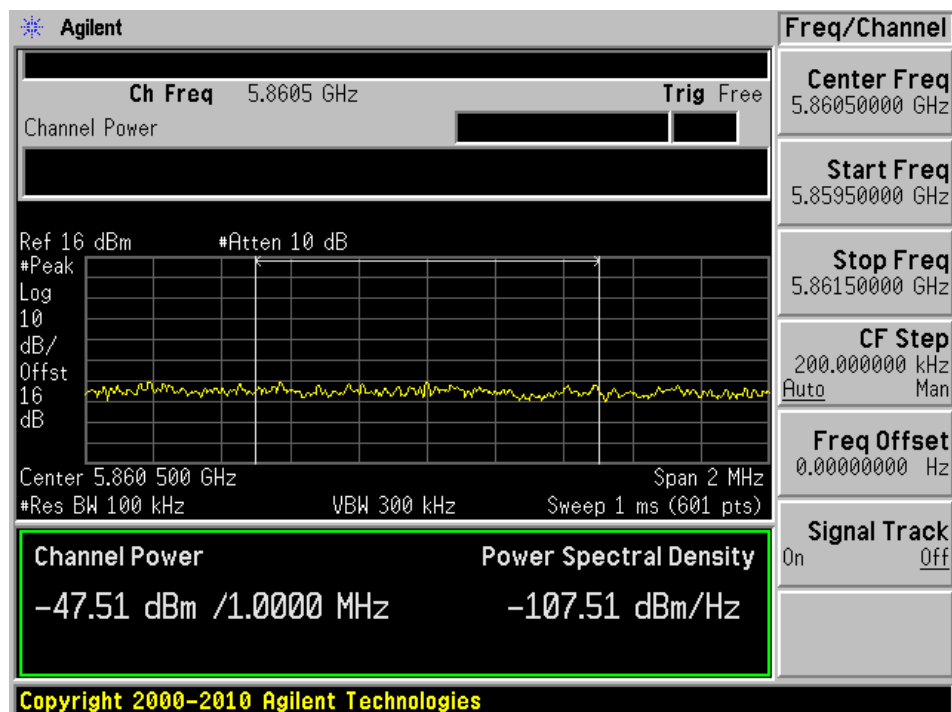
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

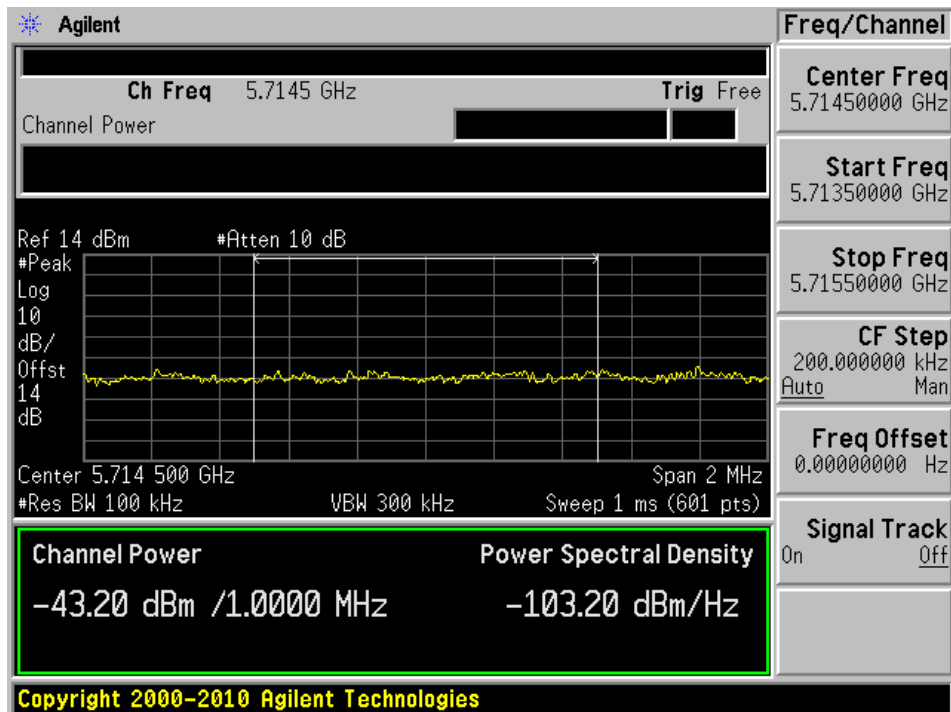


High channel: 5825 MHz – 5860.5 MHz

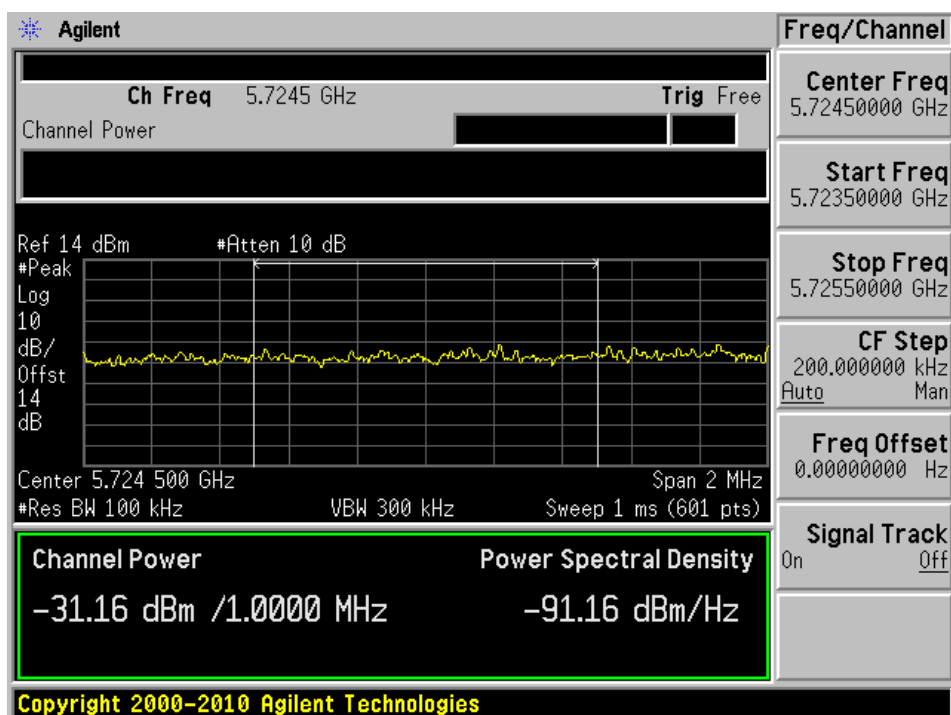


5.8 GHz Band
802.11n20
3 dBi Antenna Chain 0

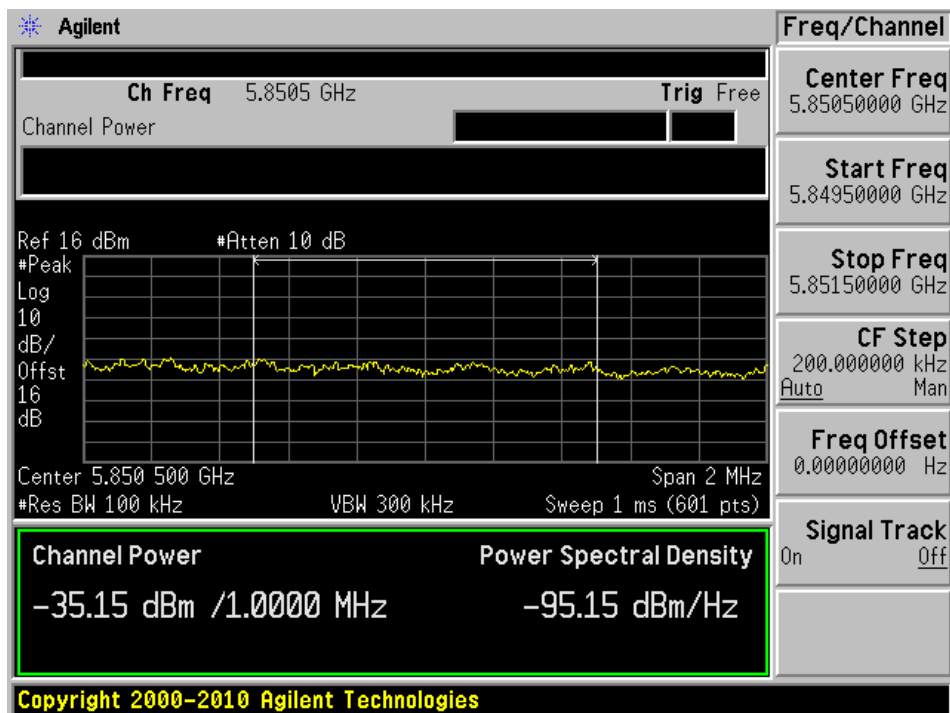
Low channel: 5745 MHz – 5714.5 MHz



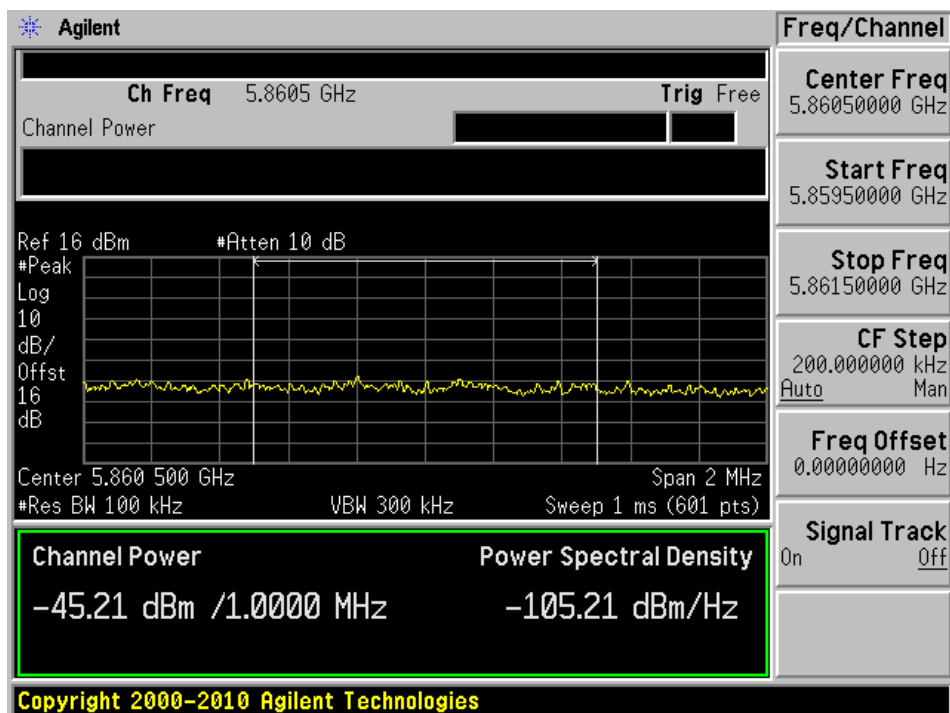
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

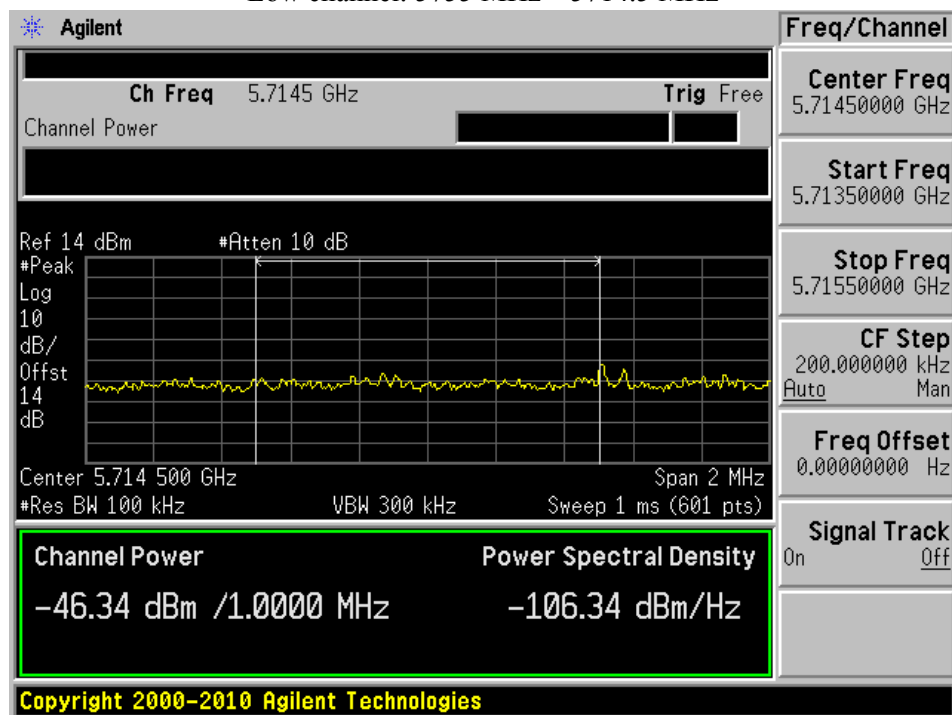


High channel: 5825 MHz – 5860.5 MHz

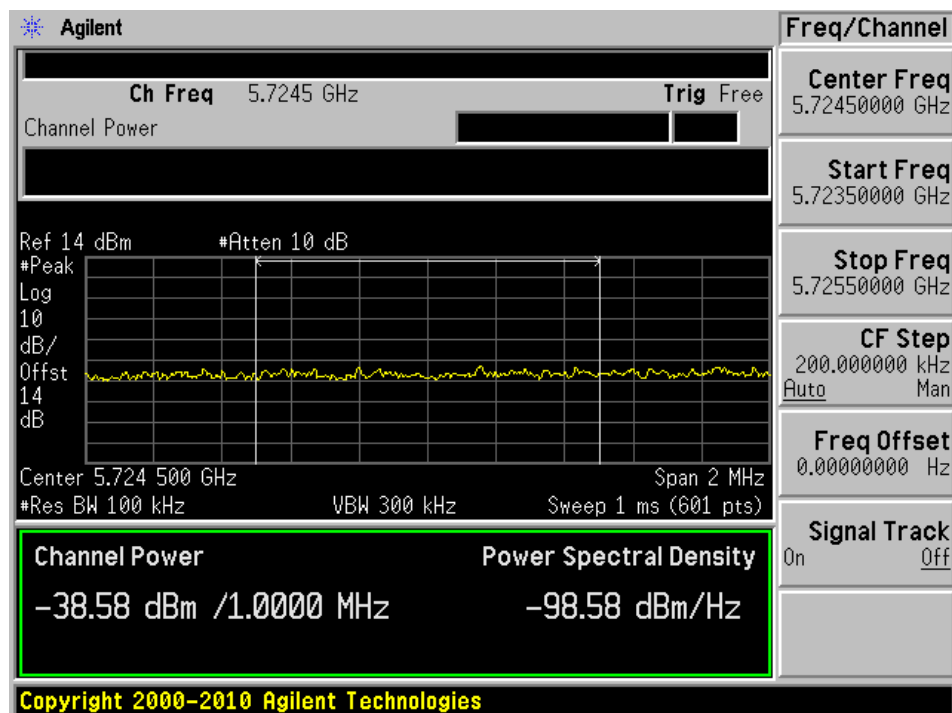


5.8 GHz Band
802.11n40
3 dBi Antenna Chain 0

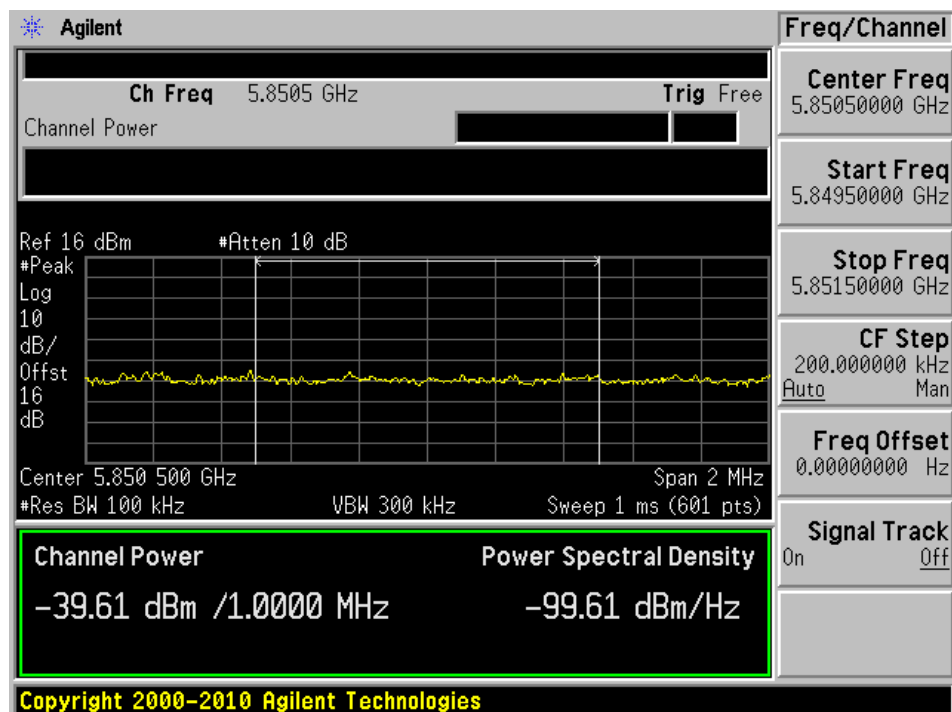
Low channel: 5755 MHz – 5714.5 MHz



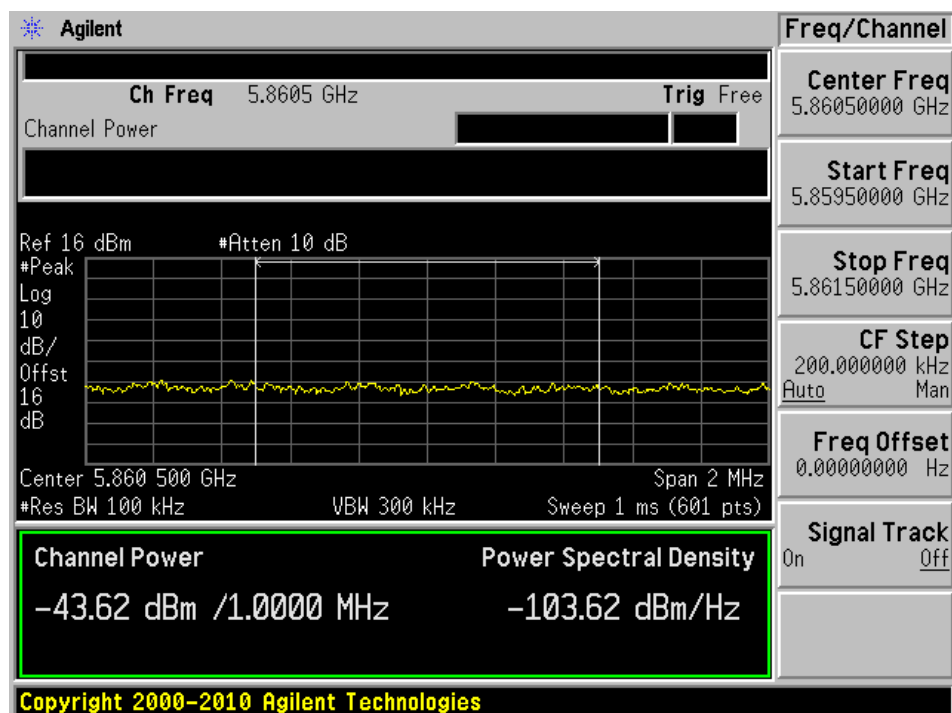
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

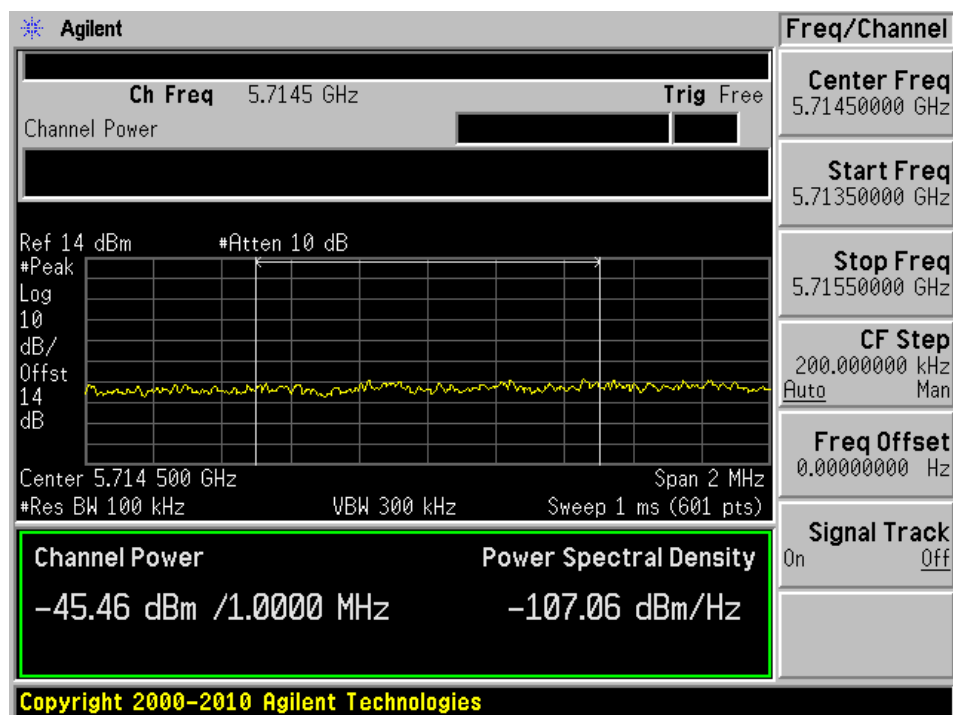


High channel: 5795 MHz – 5860.5 MHz

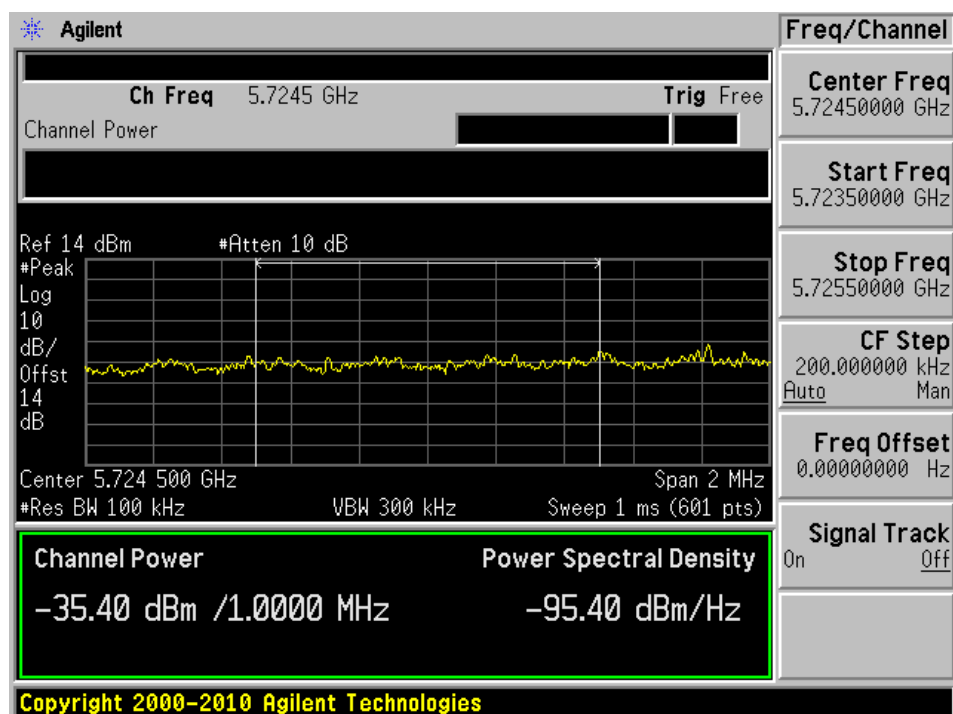


**5.8 GHz Band
802.11a
3 dBi Antenna Chain 1**

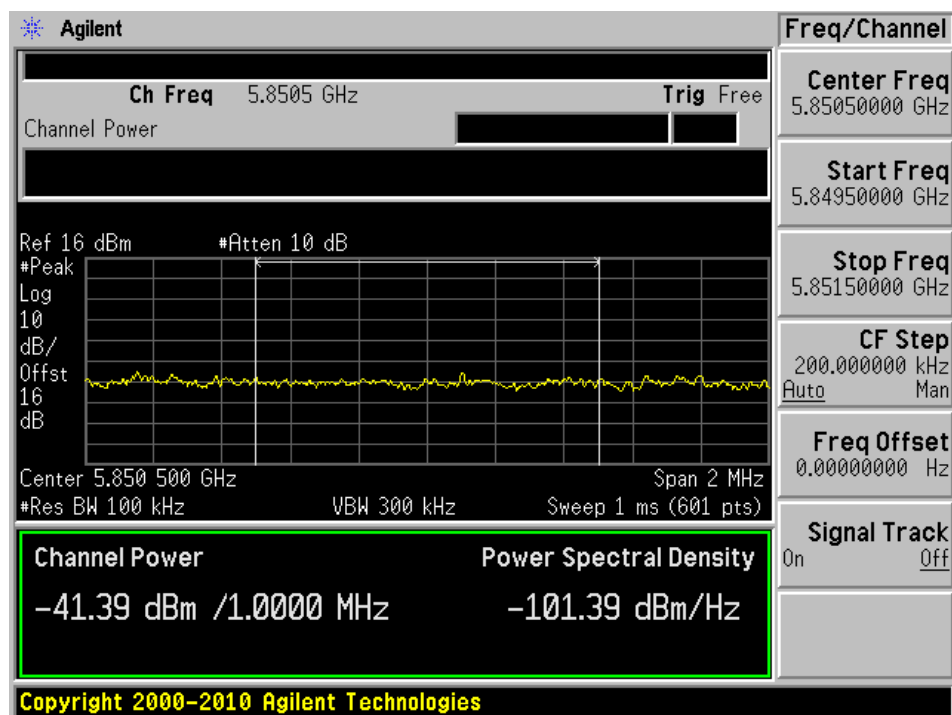
Low channel: 5745 MHz – 5714.5 MHz



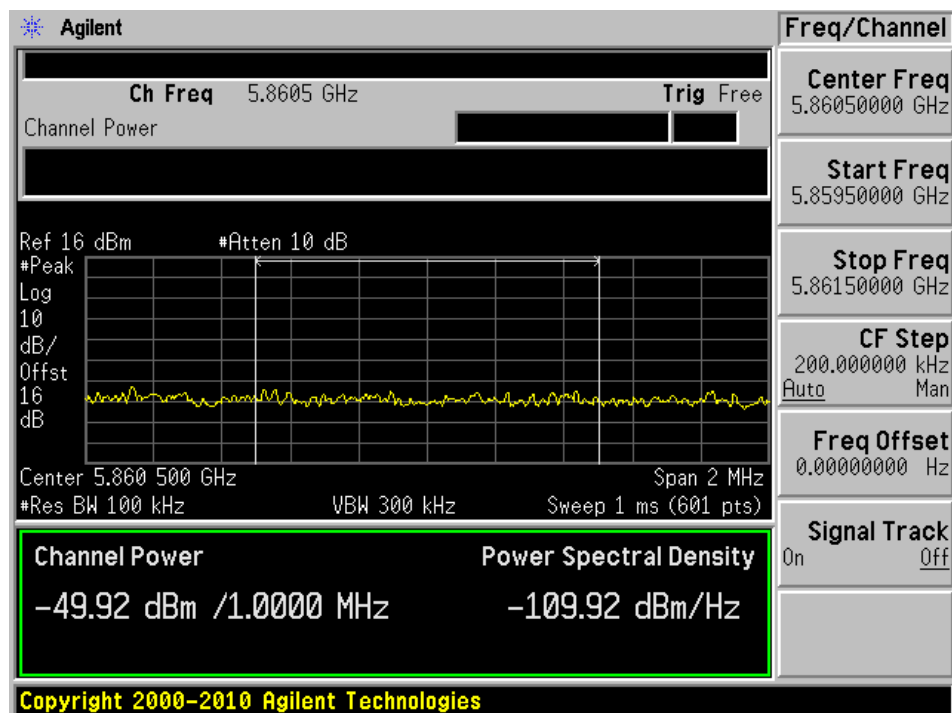
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

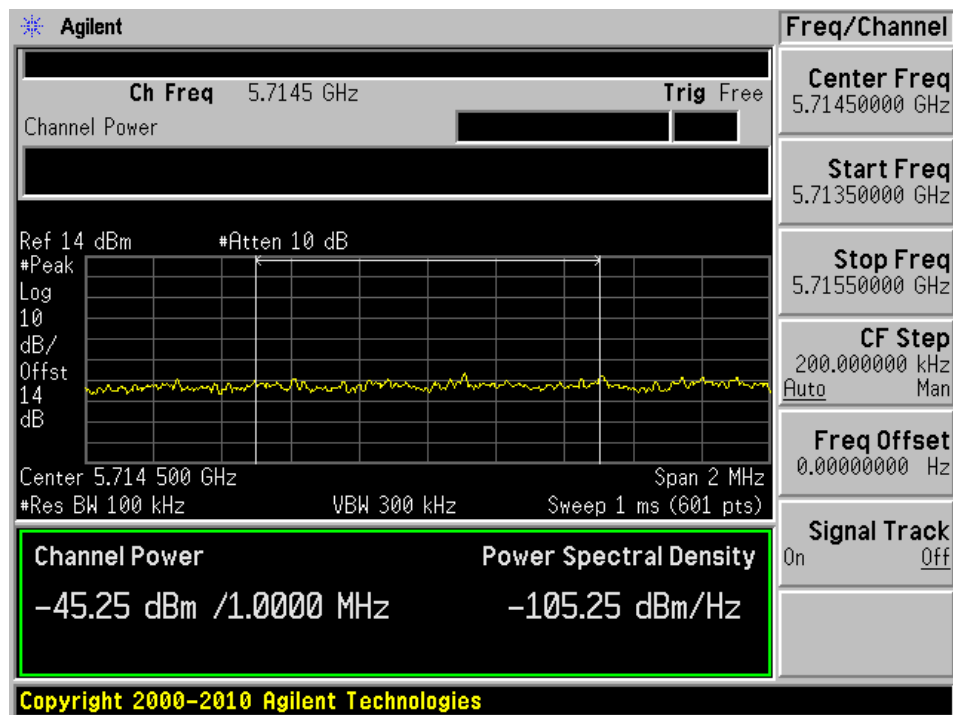


High channel: 5825 MHz – 5860.5 MHz

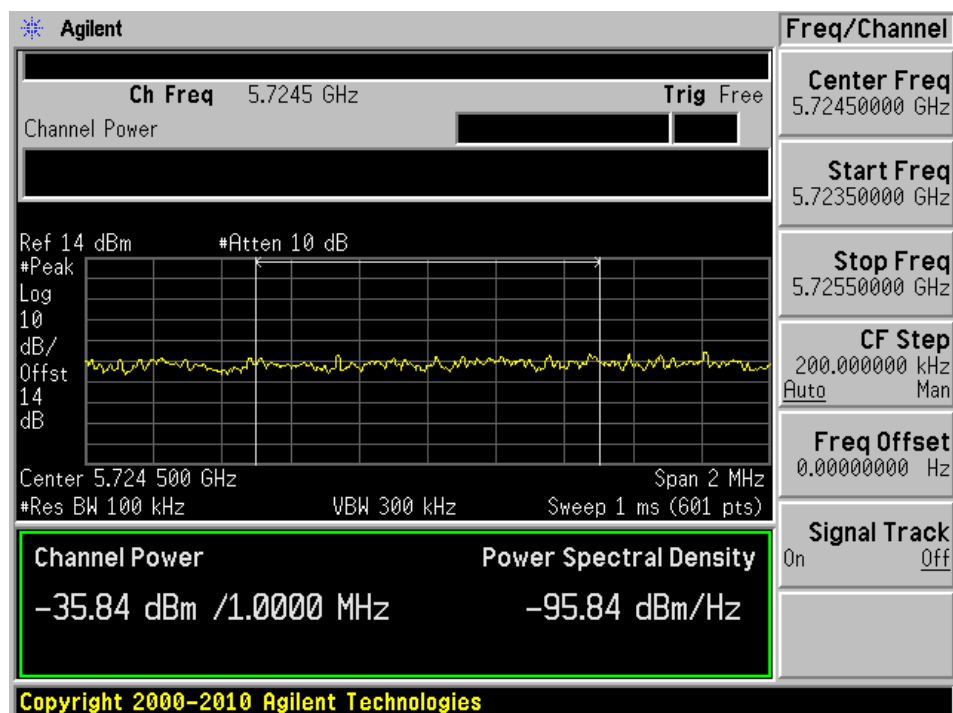


5.8 GHz Band
802.11n20
3 dBi Antenna Chain 1

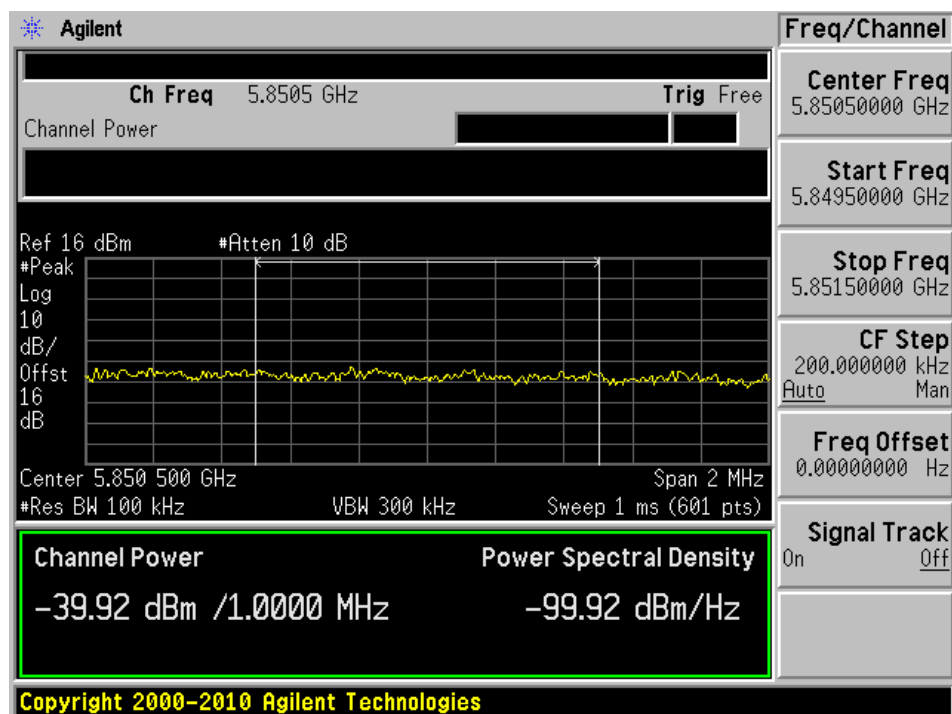
Low channel: 5745 MHz – 5714.5 MHz



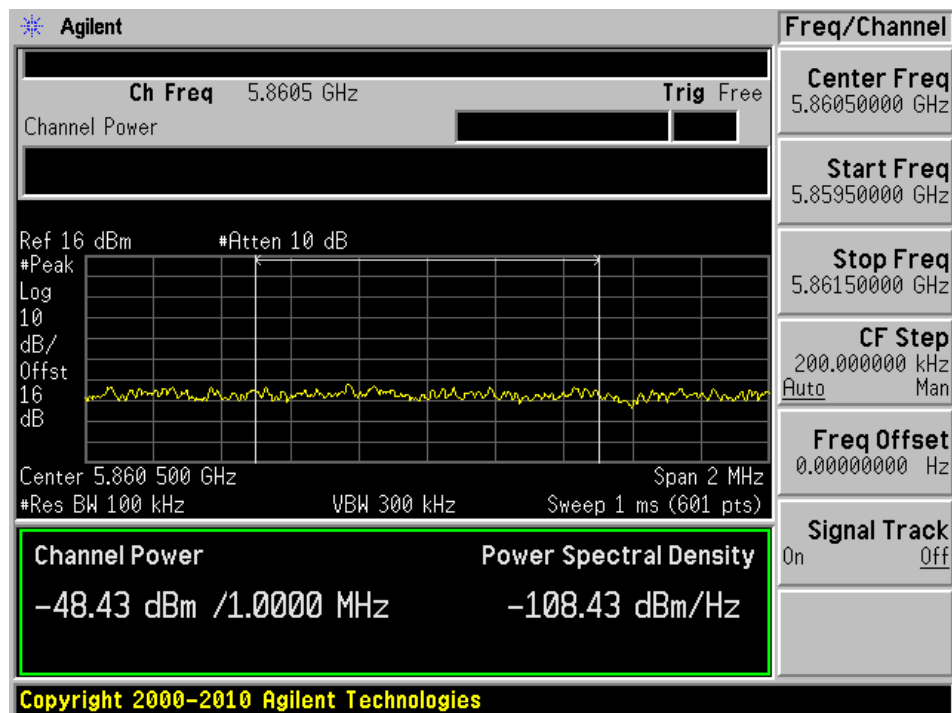
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

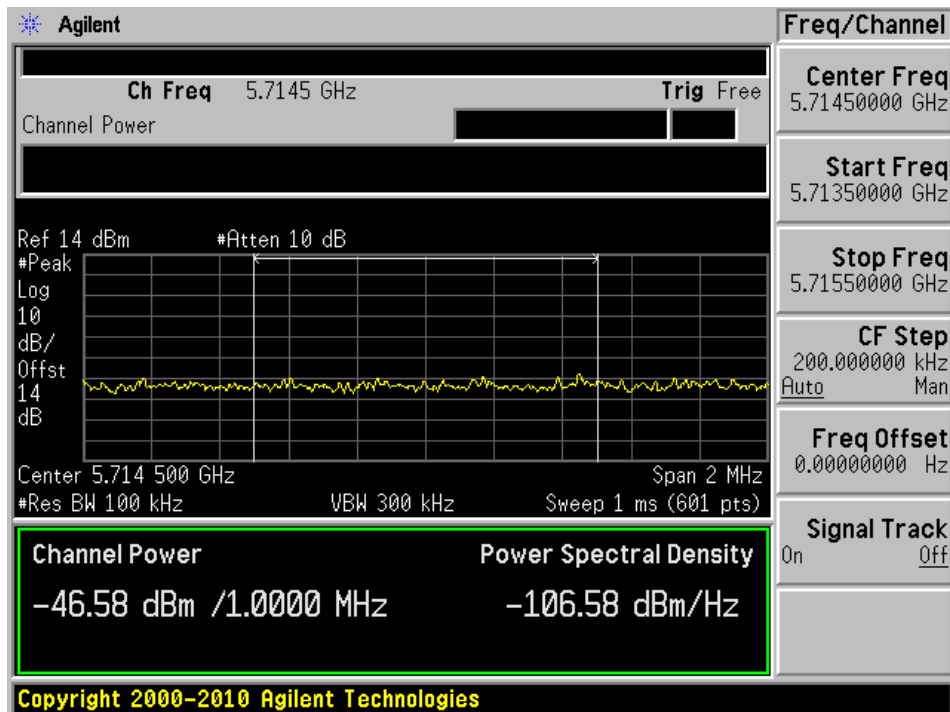


High channel: 5825 MHz – 5860.5 MHz

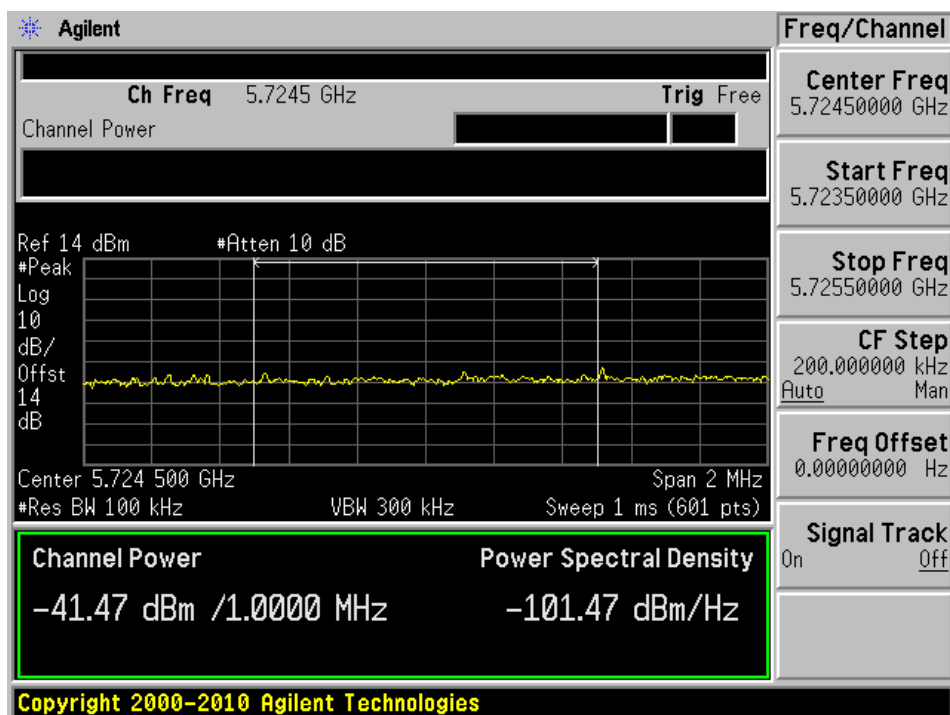


5.8 GHz Band
802.11n40
3 dBi Antenna Chain 1

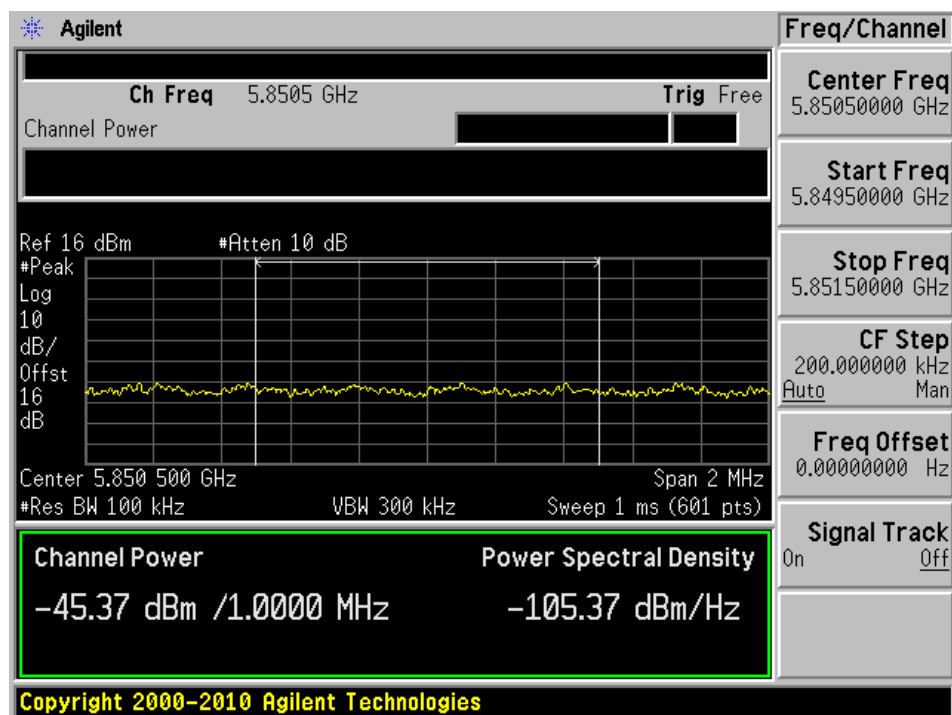
Low channel: 5755 MHz – 5714.5 MHz



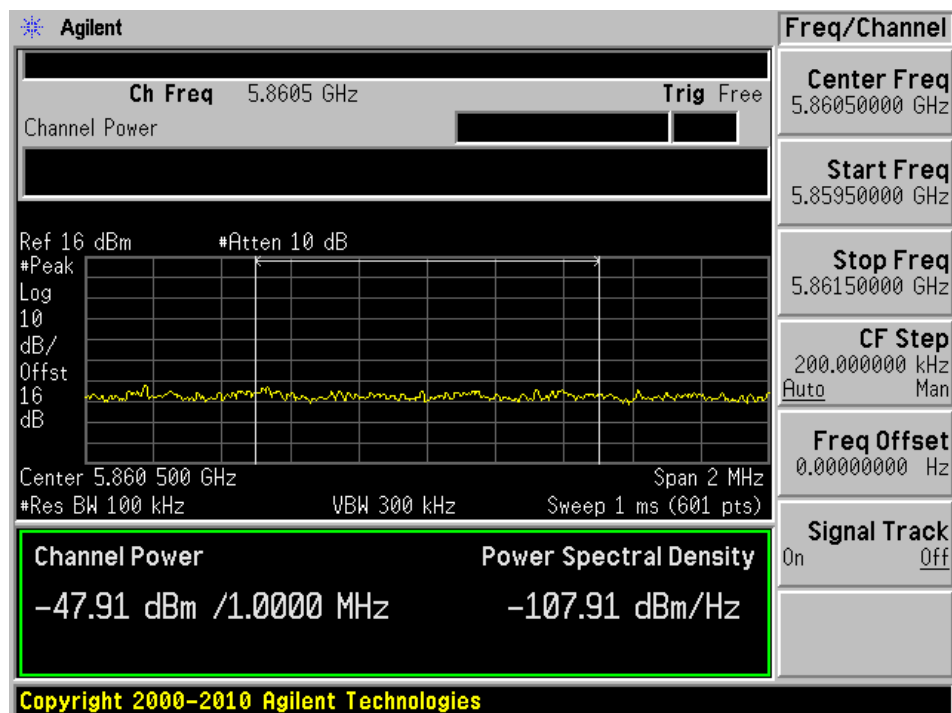
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

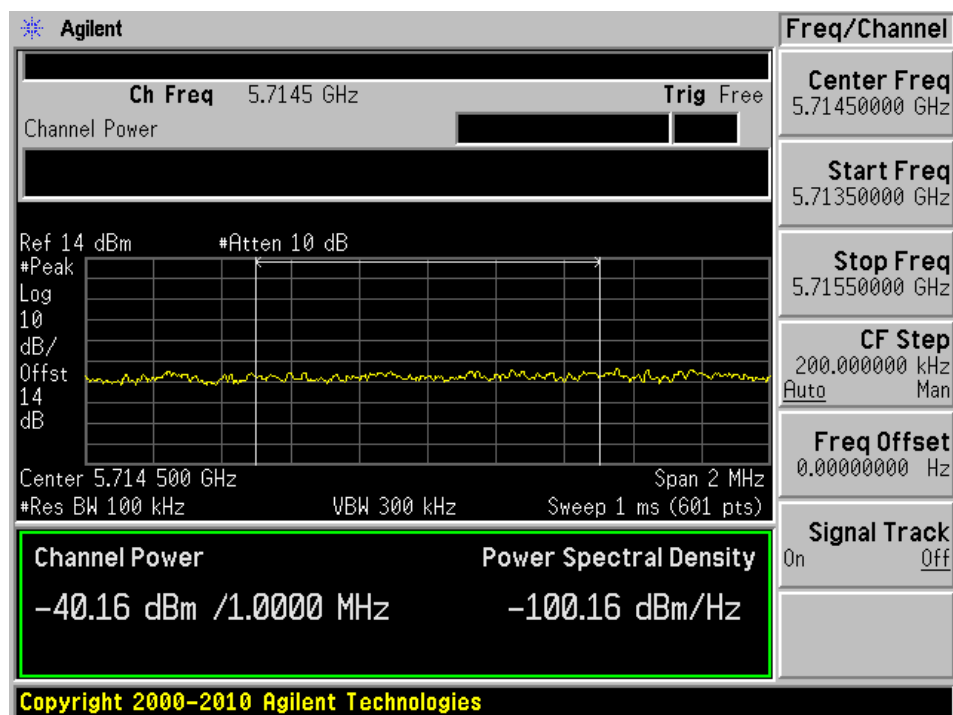


High channel: 5795 MHz – 5860.5 MHz

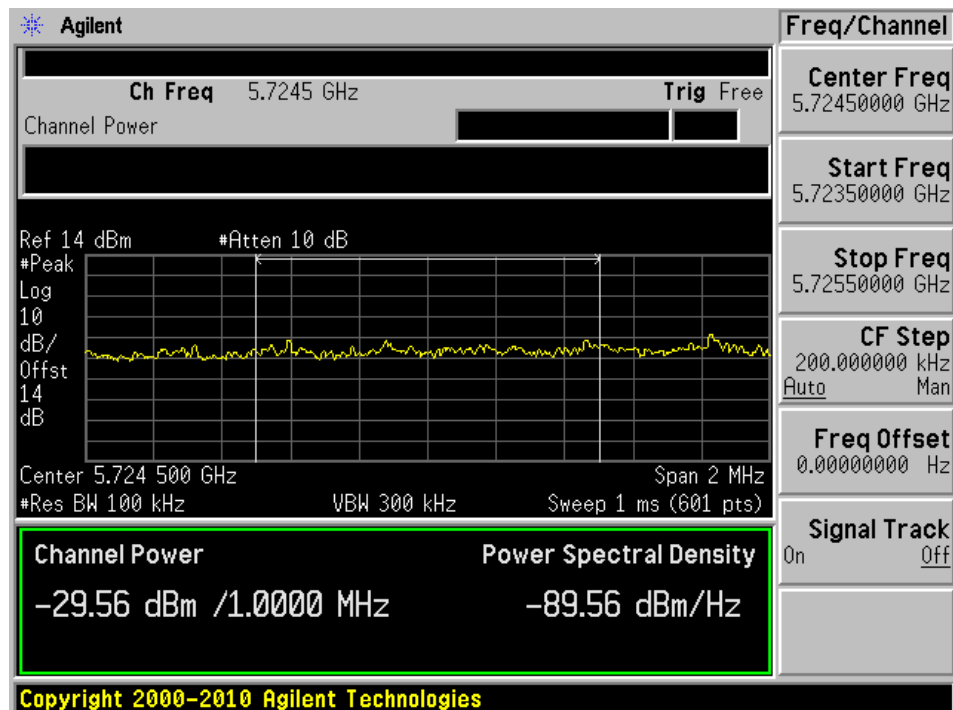


**5.8 GHz Band
802.11a
3 dBi Antenna Chain 2**

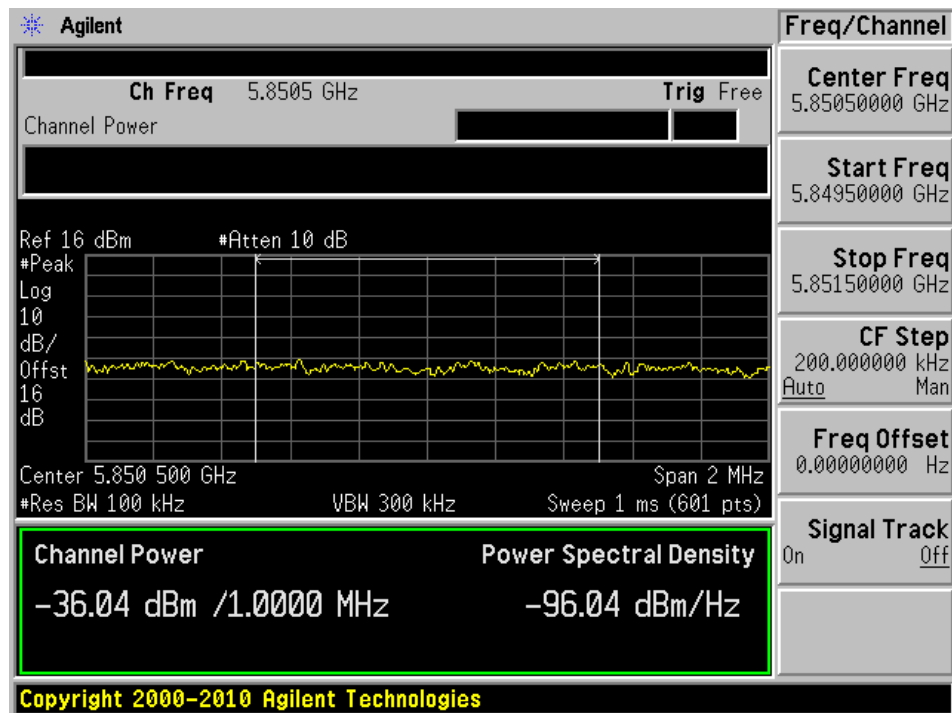
Low channel: 5745 MHz – 5714.5 MHz



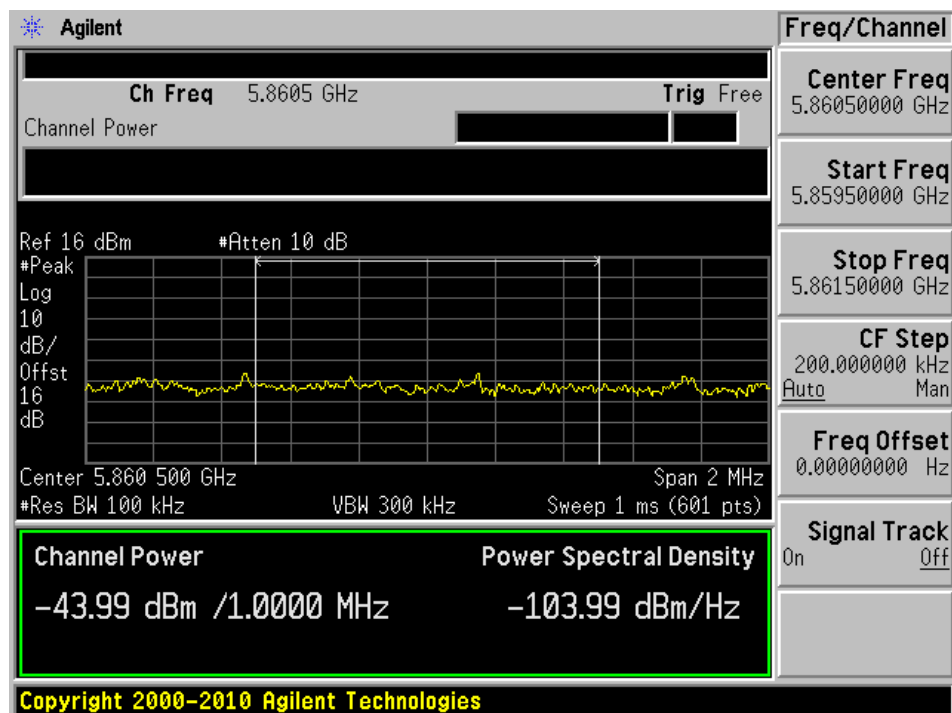
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

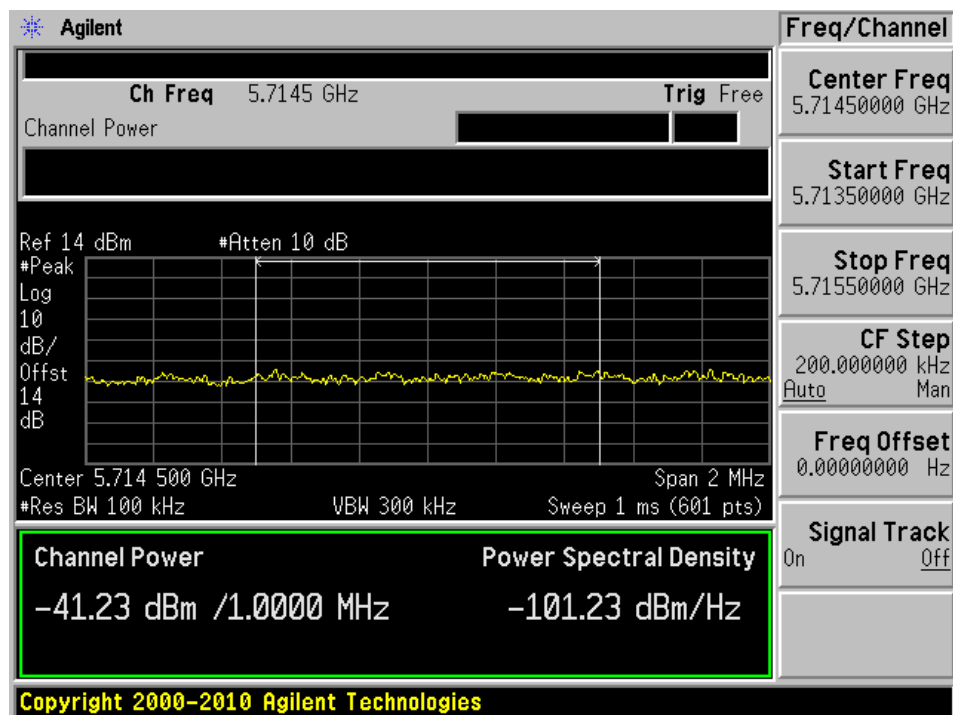


High channel: 5825 MHz – 5860.5 MHz

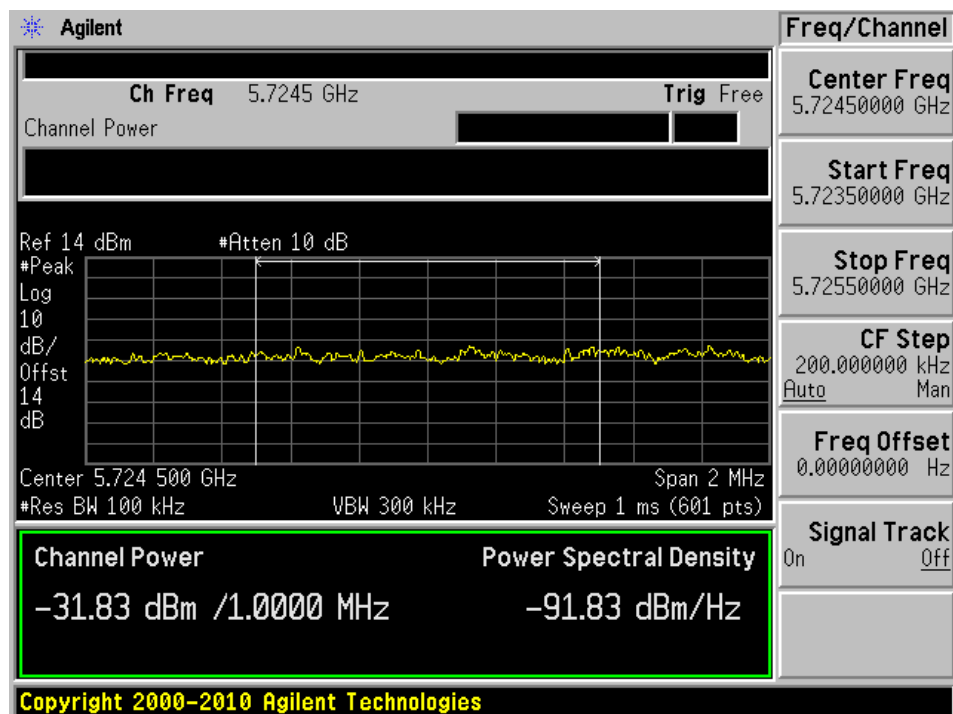


**5.8 GHz Band
802.11n20
3 dBi Antenna Chain 2**

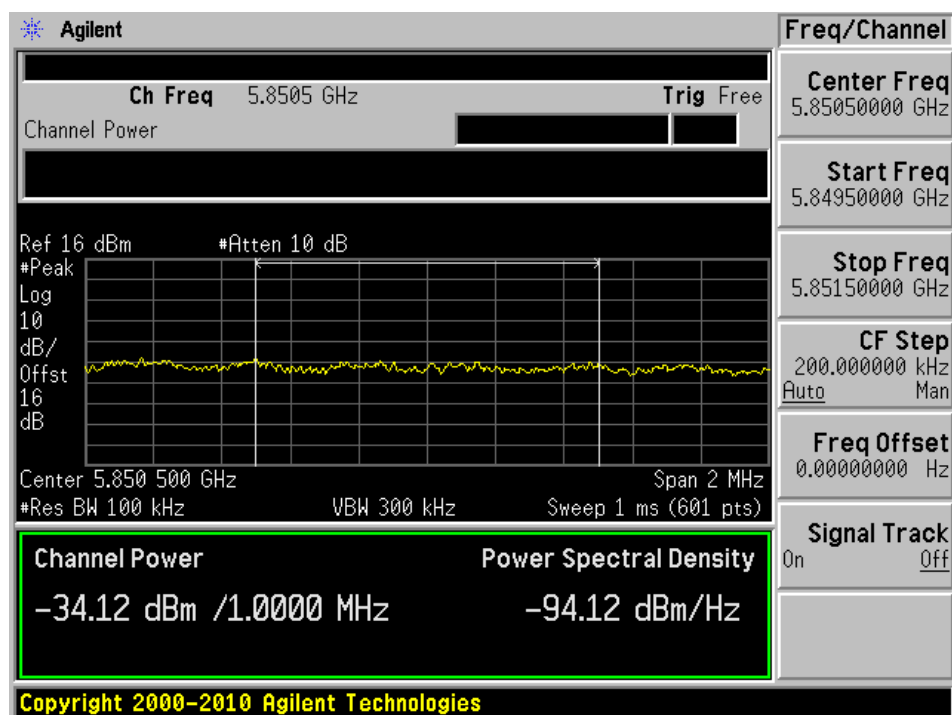
Low channel: 5745 MHz – 5714.5 MHz



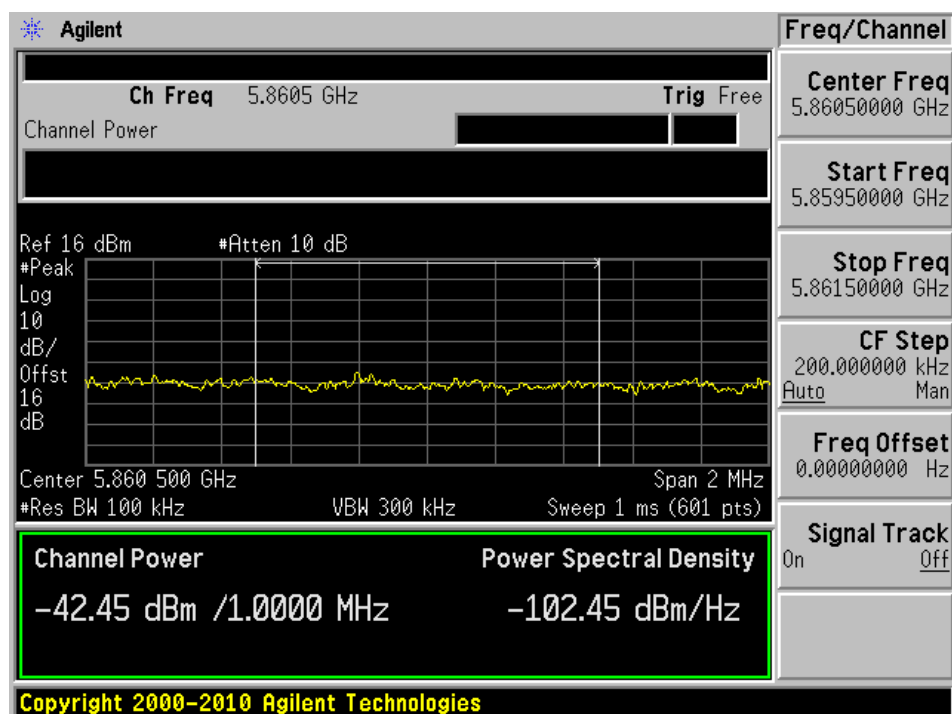
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

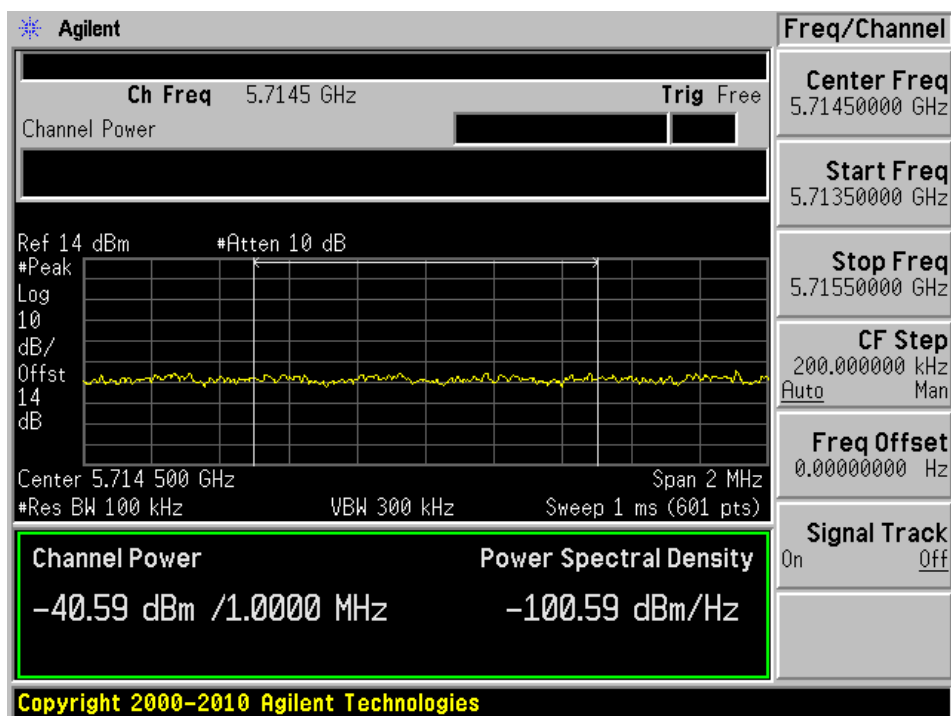


High channel: 5825 MHz – 5860.5 MHz

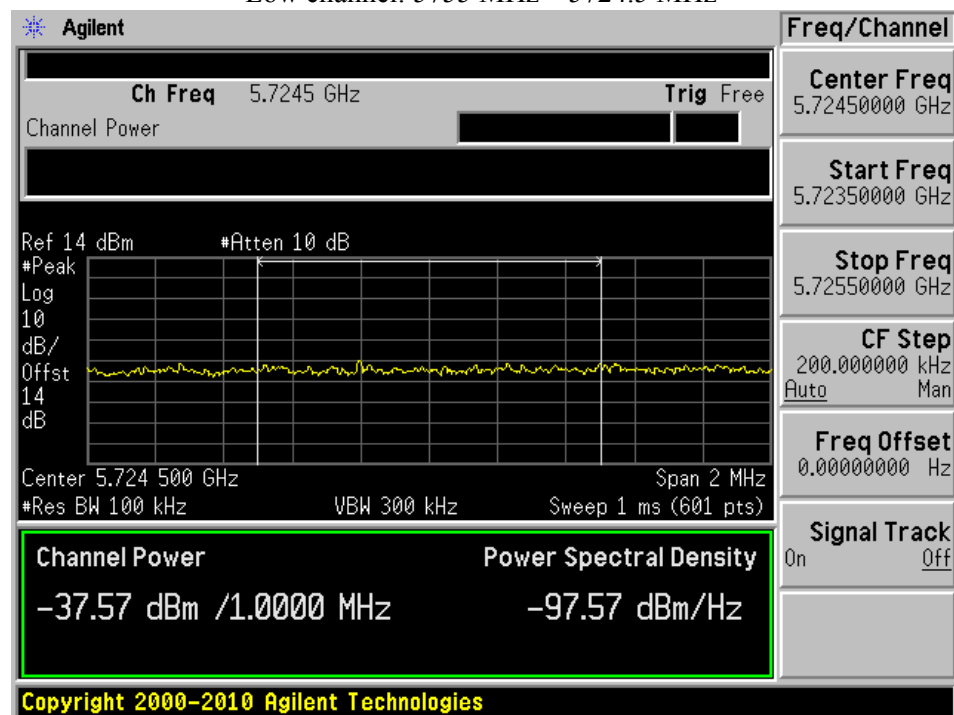


5.8 GHz Band
802.11n40
3 dBi Antenna Chain 2

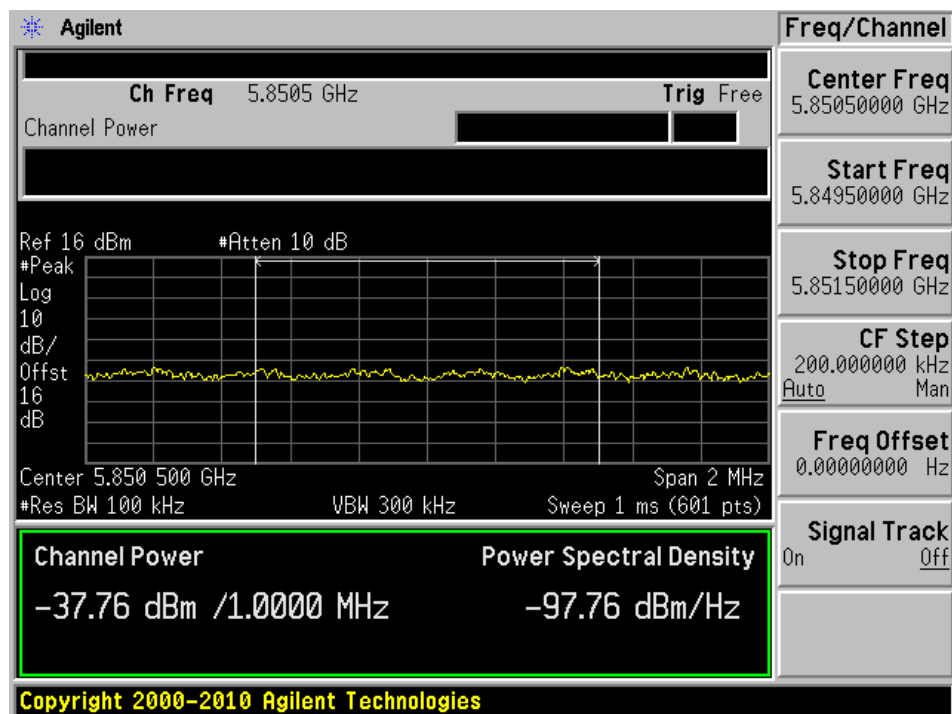
Low channel: 5755 MHz – 5714.5 MHz



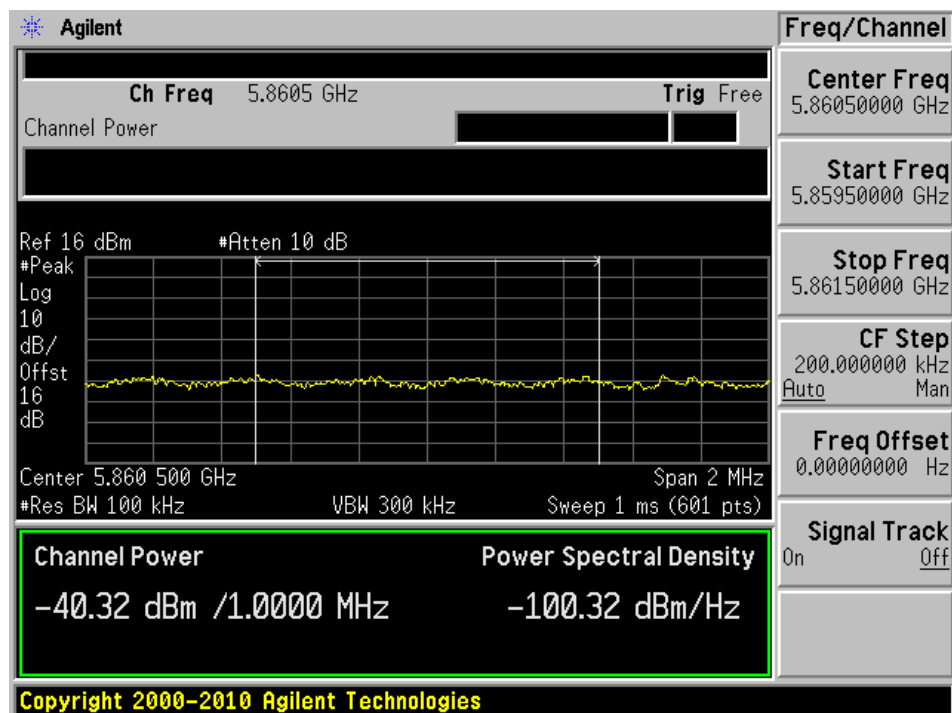
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz



High channel: 5795 MHz – 5860.5 MHz



5.8 GHz Band, 5 dBi antenna gain

Within 10 MHz

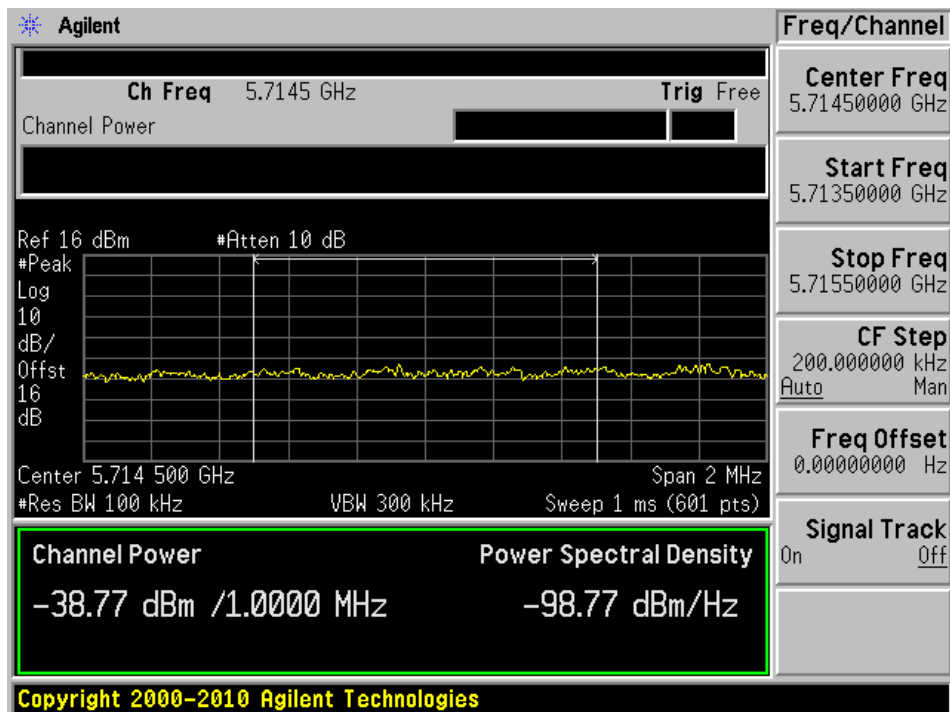
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-26.04	-28.3	-24.05	-17	Pass
High	5825	-39.15	-41.39	-36.04	-17	Pass
802.11n HT20 mode						
Low	5745	-23.86	-29.35	-25.42	-17	Pass
High	5825	-35.15	-39.92	-34.12	-17	Pass
802.11n HT40 mode						
Low	5755	-28.18	-30.52	-26.44	-17	Pass
High	5795	-39.61	-45.37	-37.76	-17	Pass

Outside 10 MHz

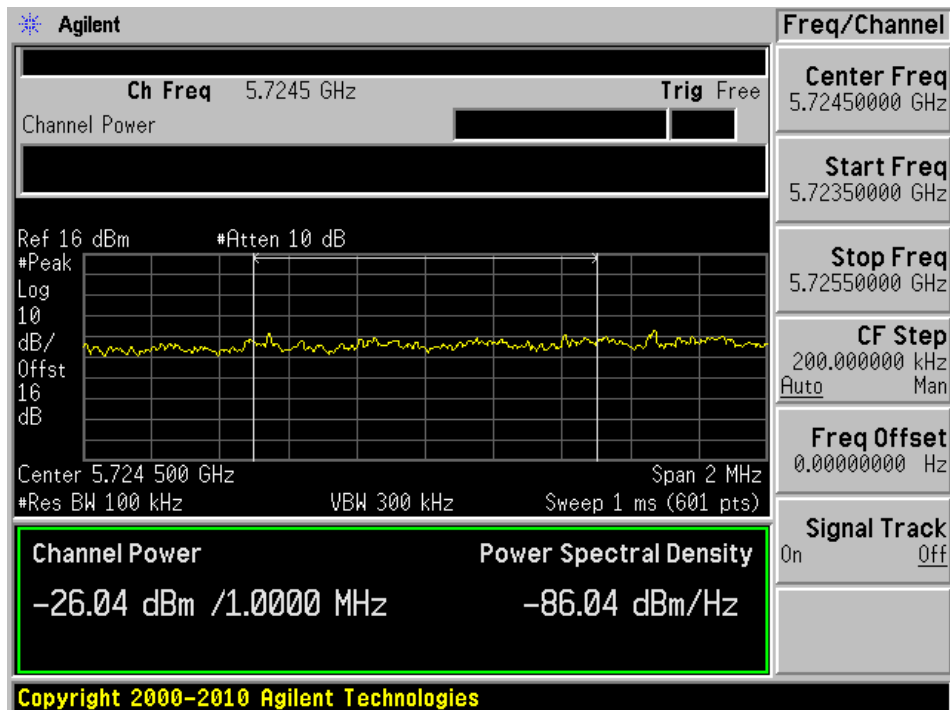
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-38.77	-42.02	-37.88	-27	Pass
High	5825	-47.51	-49.92	-43.99	-27	Pass
802.11n HT20 mode						
Low	5745	-37.85	-40.93	-37.59	-27	Pass
High	5825	-45.21	-48.43	-42.45	-27	Pass
802.11n HT40 mode						
Low	5755	-32.11	-35.48	-30.85	-27	Pass
High	5795	-43.62	-47.91	-40.32	-27	Pass

**5.8 GHz Band
802.11a
5 dBi Antenna Chain 0**

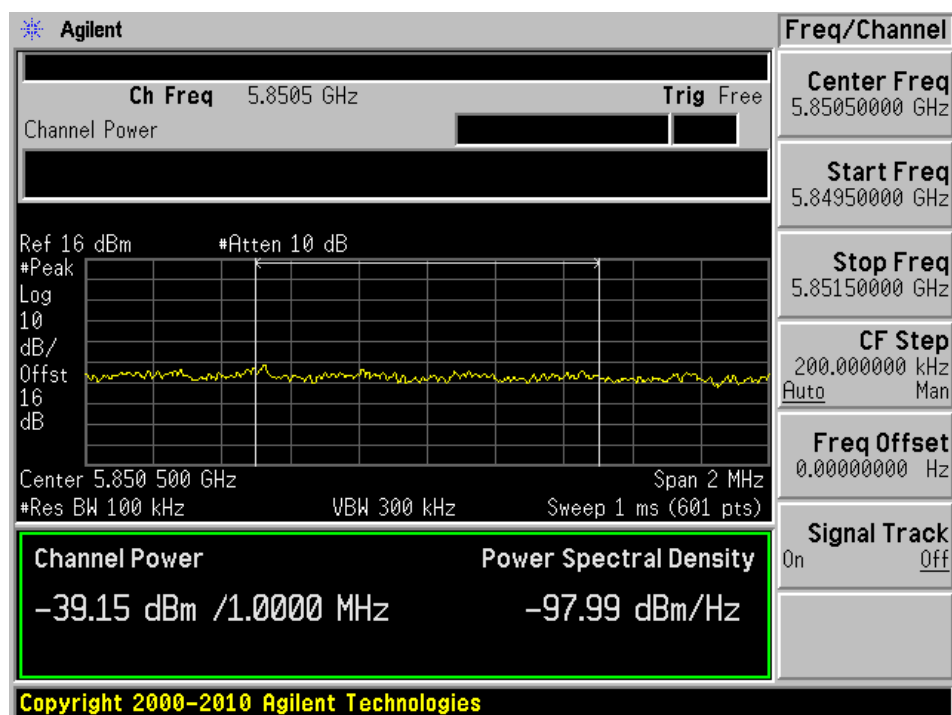
Low channel: 5745 MHz – 5714.5 MHz



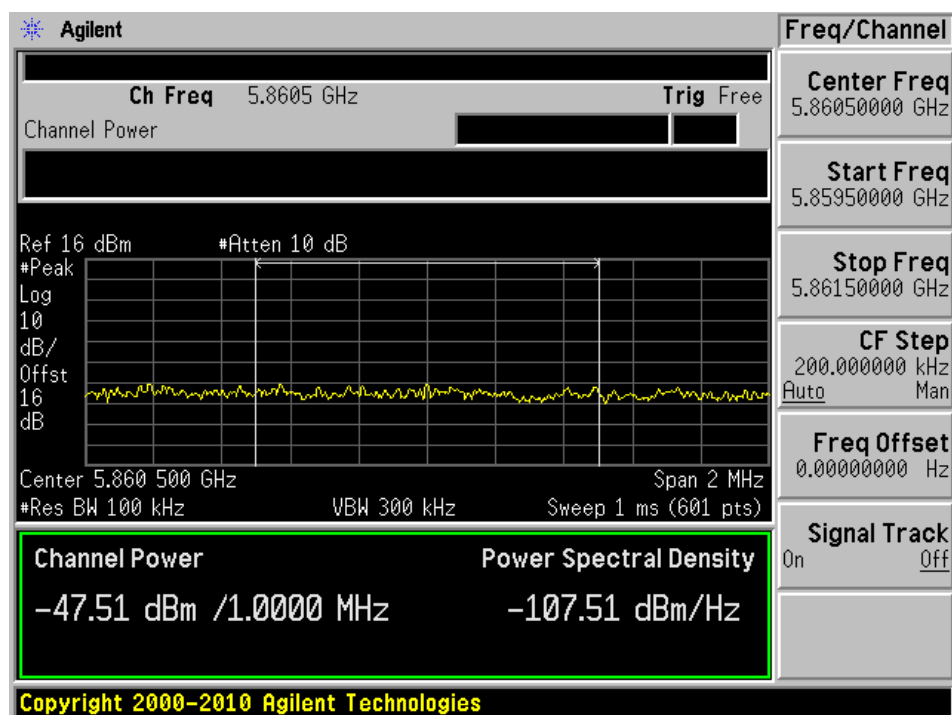
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

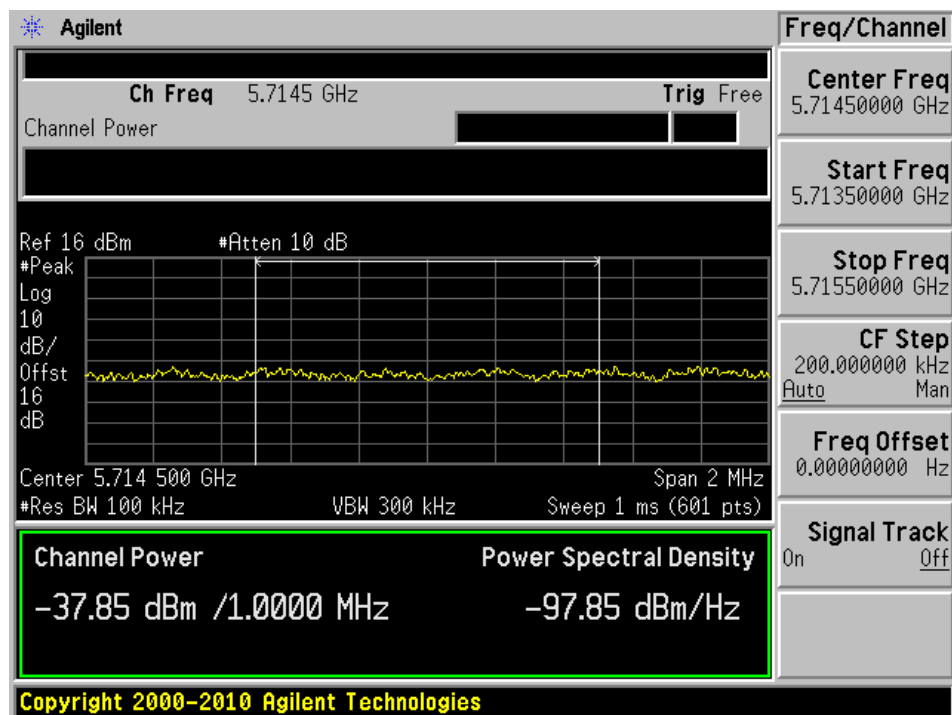


High channel: 5825 MHz – 5860.5 MHz

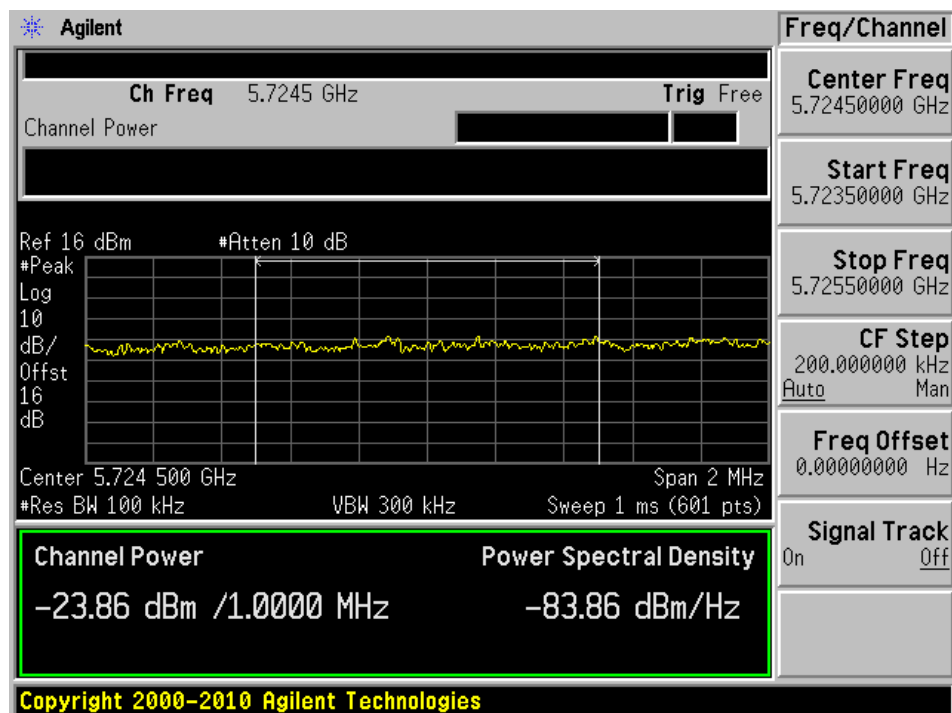


5.8 GHz Band
802.11n20
5 dBi Antenna Chain 0

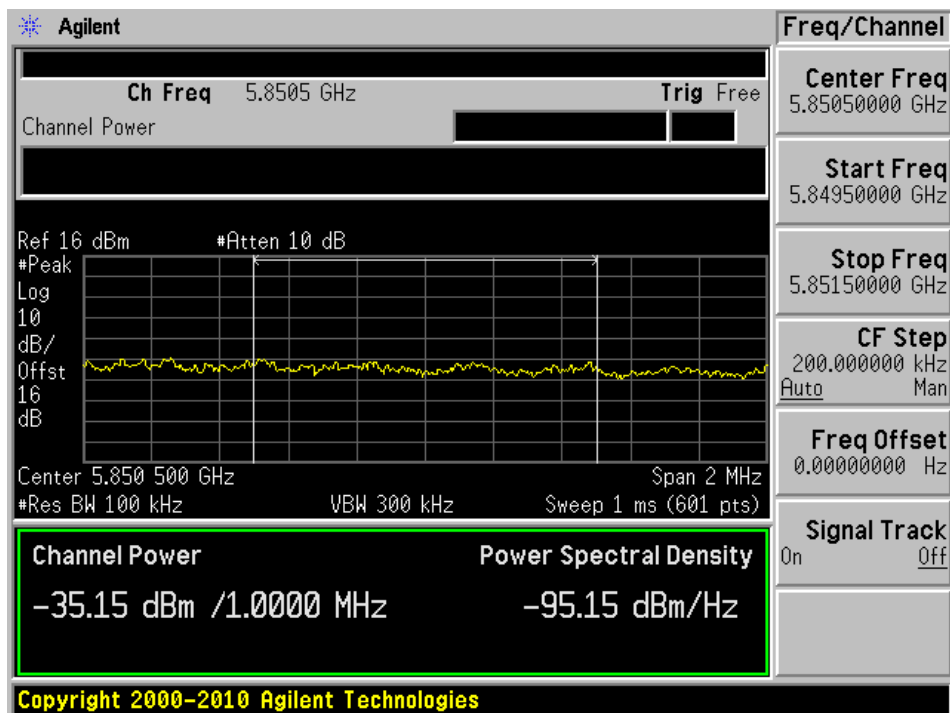
Low channel: 5745 MHz – 5714.5 MHz



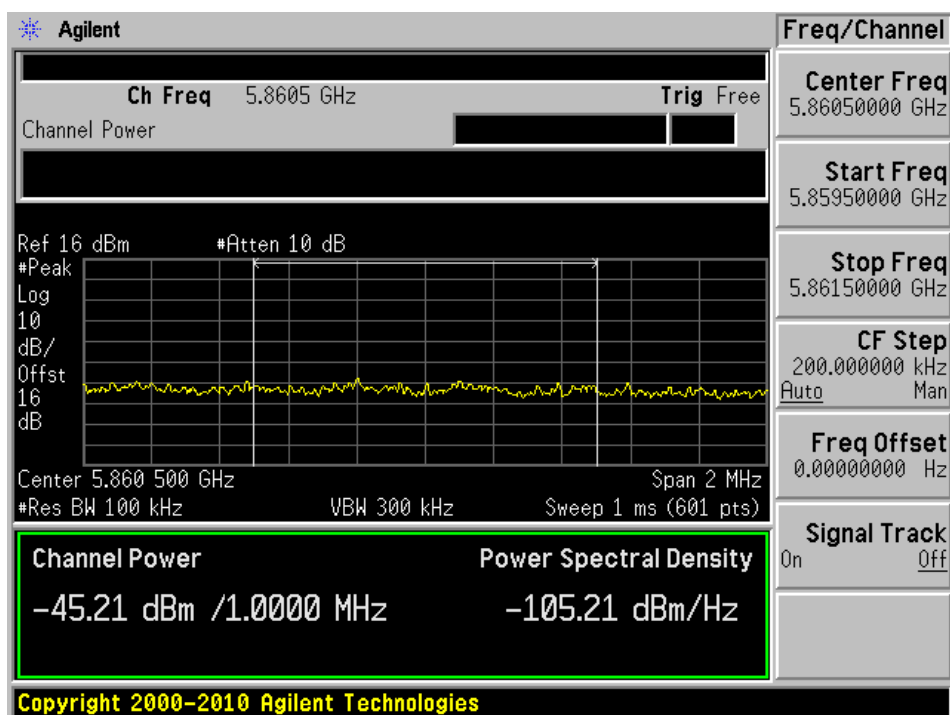
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

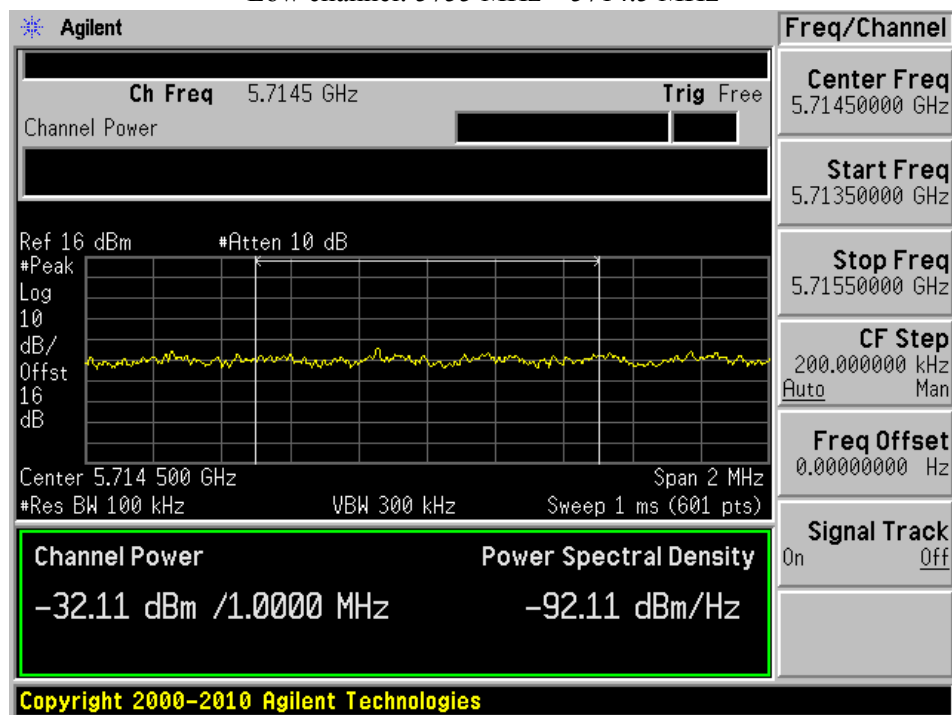


High channel: 5825 MHz – 5860.5 MHz

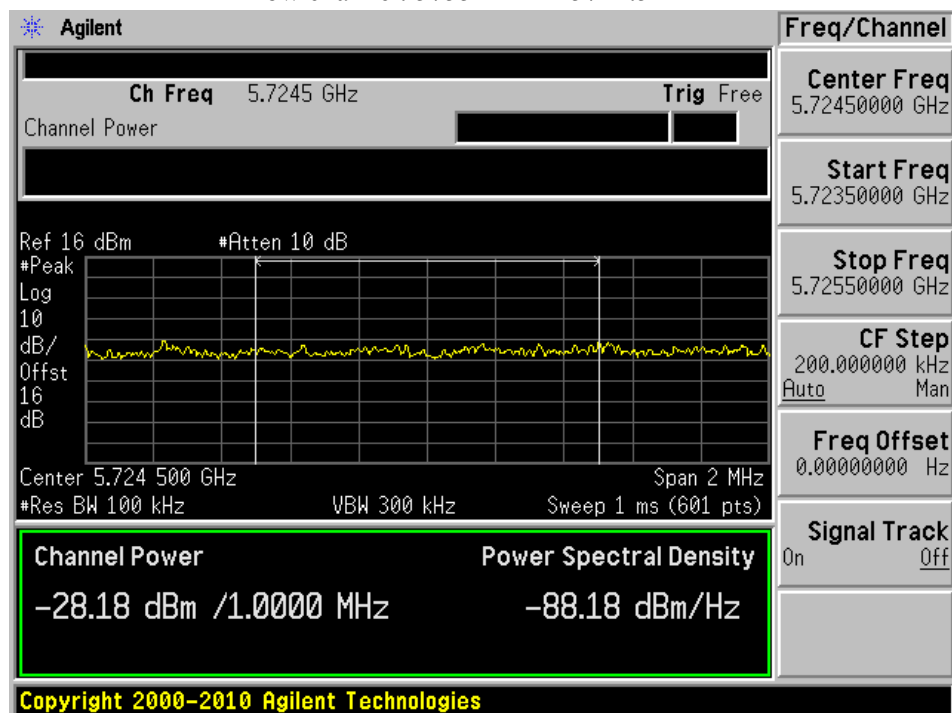


5.8 GHz Band
802.11n40
5 dBi Antenna Chain 0

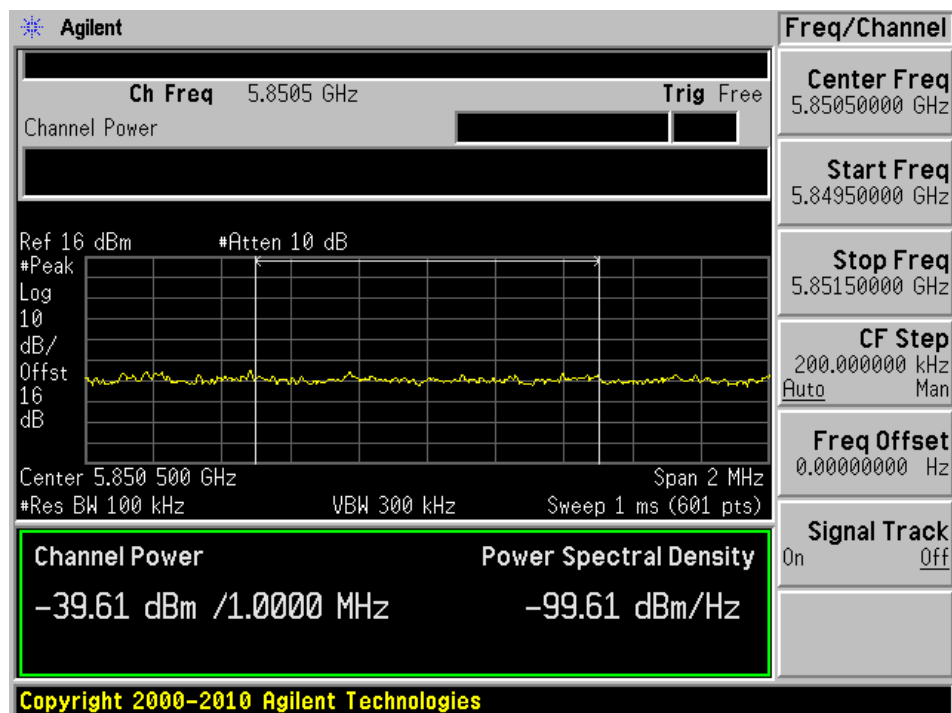
Low channel: 5755 MHz – 5714.5 MHz



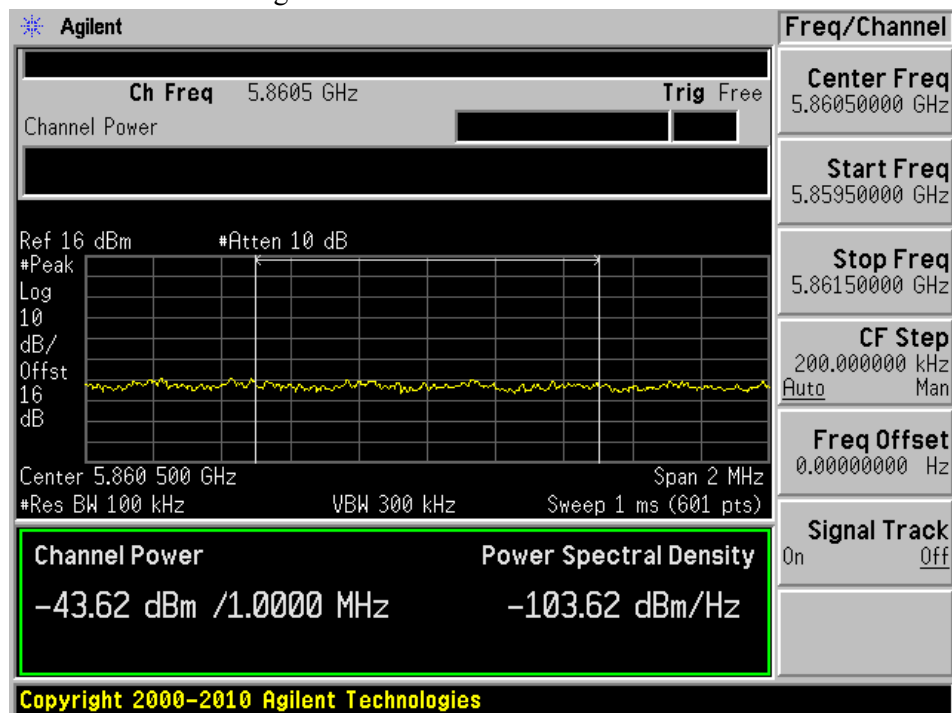
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

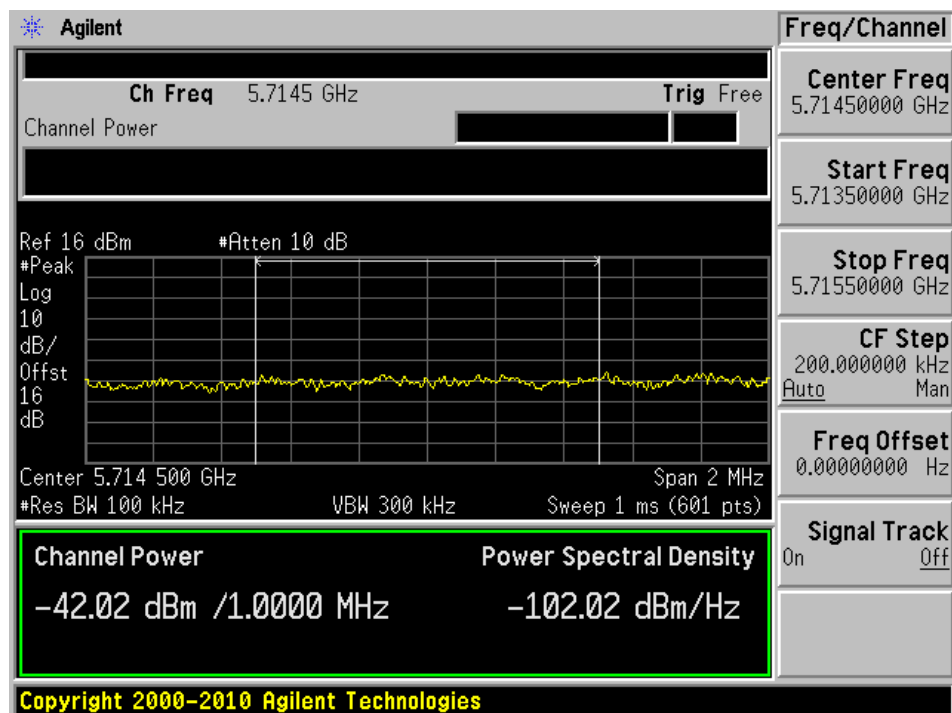


High channel: 5795 MHz – 5860.5 MHz

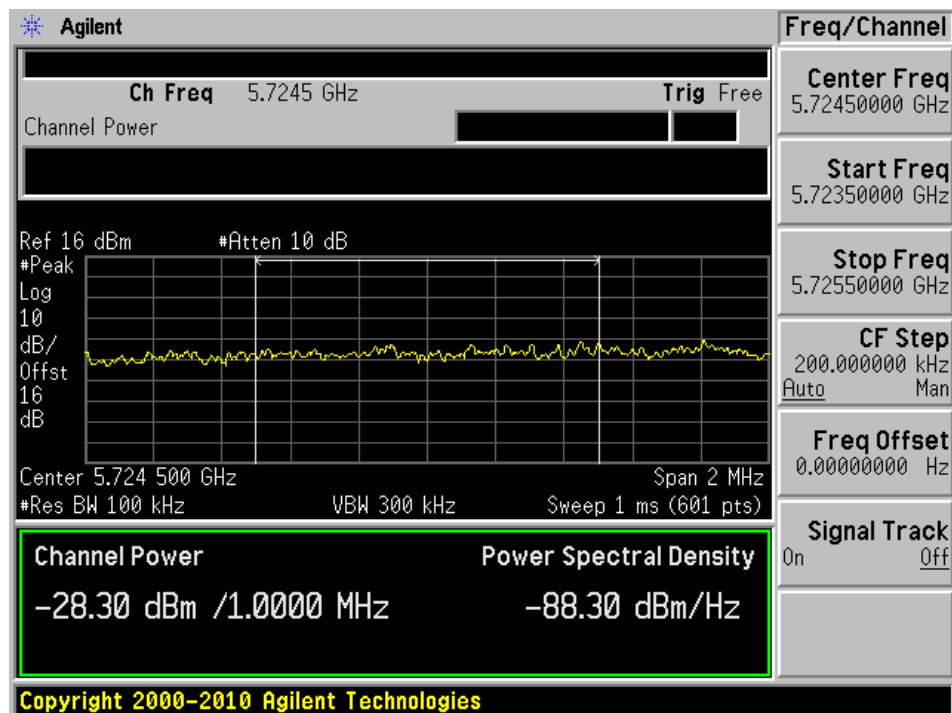


**5.8 GHz Band
802.11a
5 dBi Antenna Chain 1**

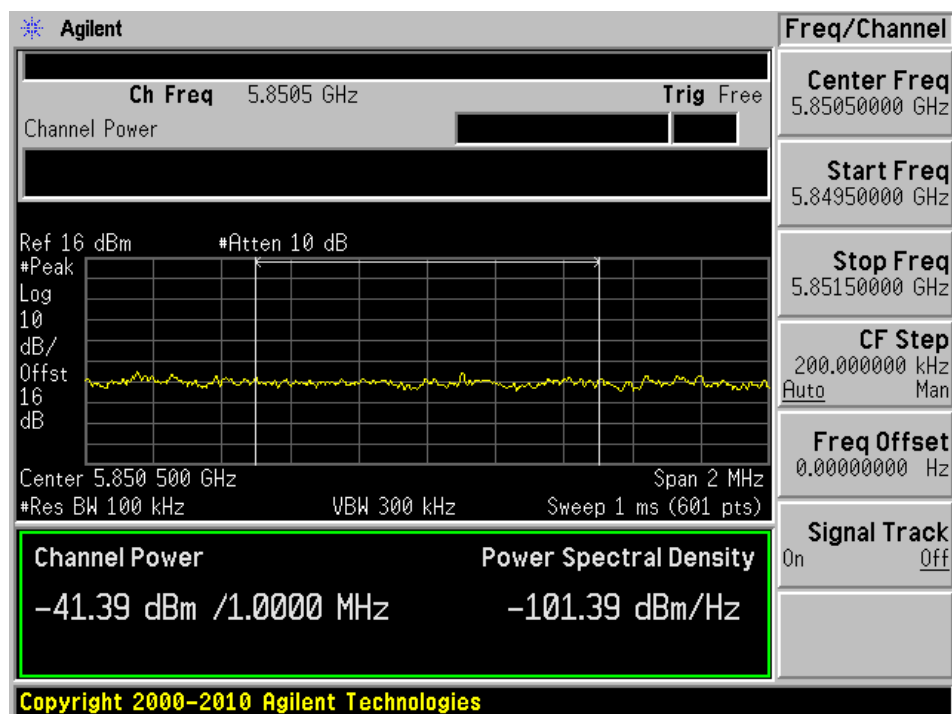
Low channel: 5745 MHz – 5714.5 MHz



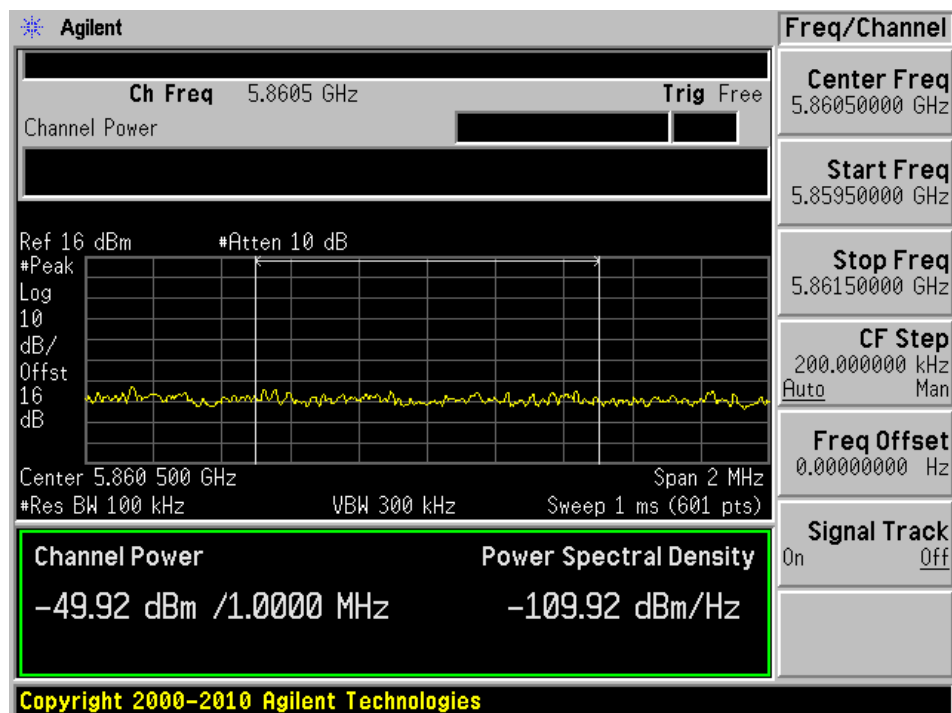
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

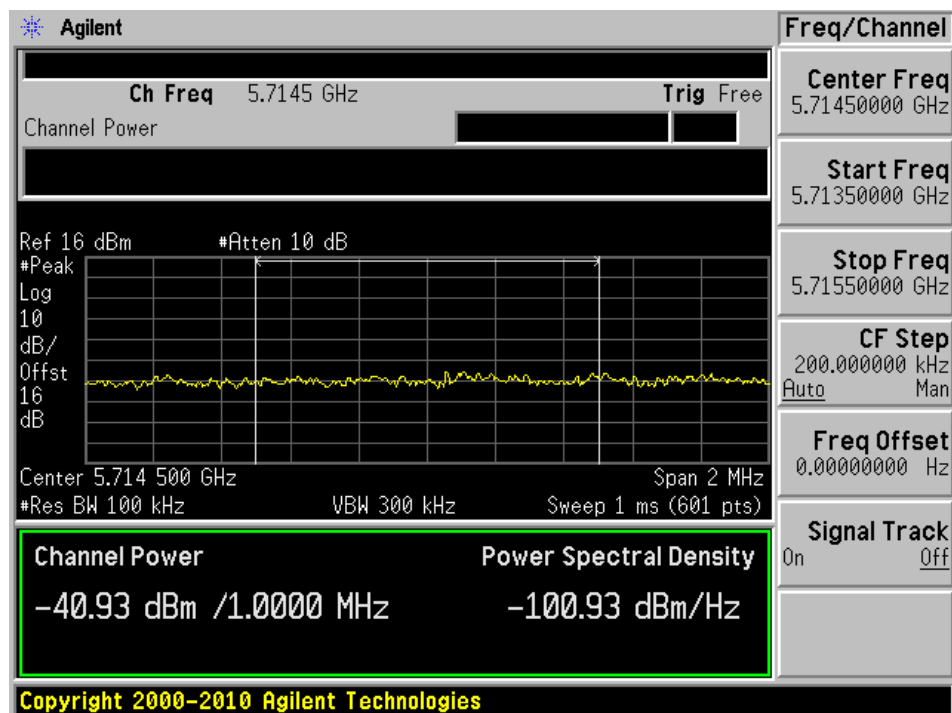


High channel: 5825 MHz – 5860.5 MHz

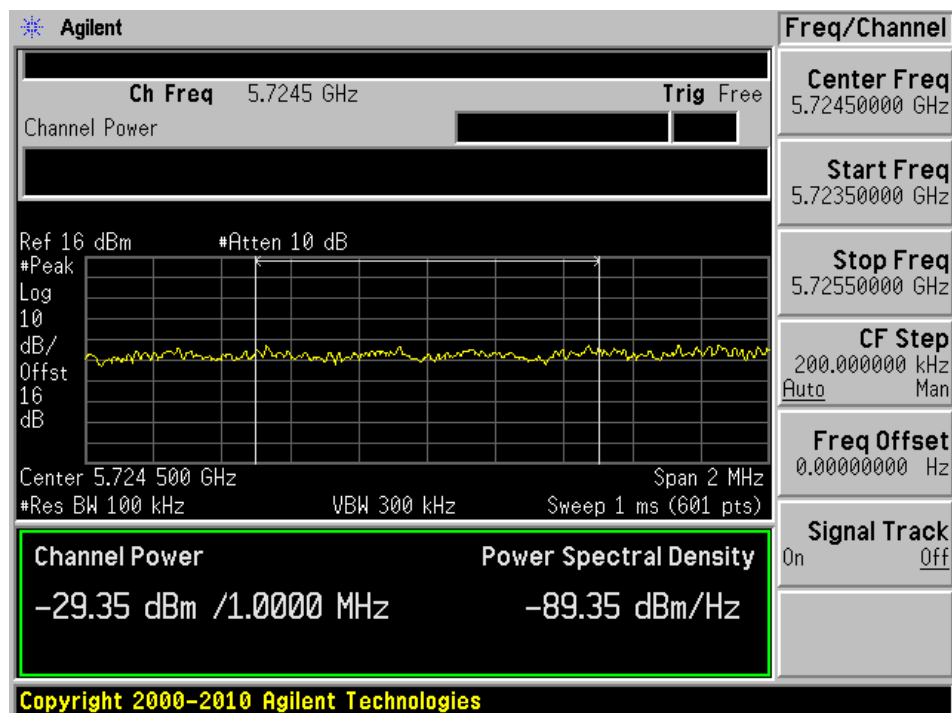


5.8 GHz Band
802.11n20
5 dBi Antenna Chain 1

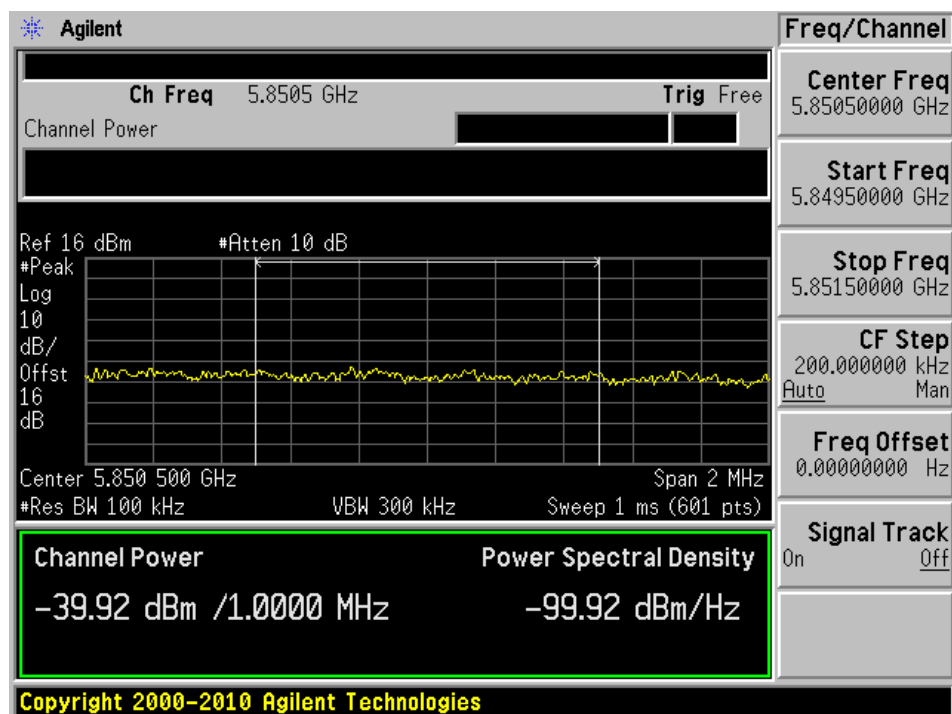
Low channel: 5745 MHz – 5714.5 MHz



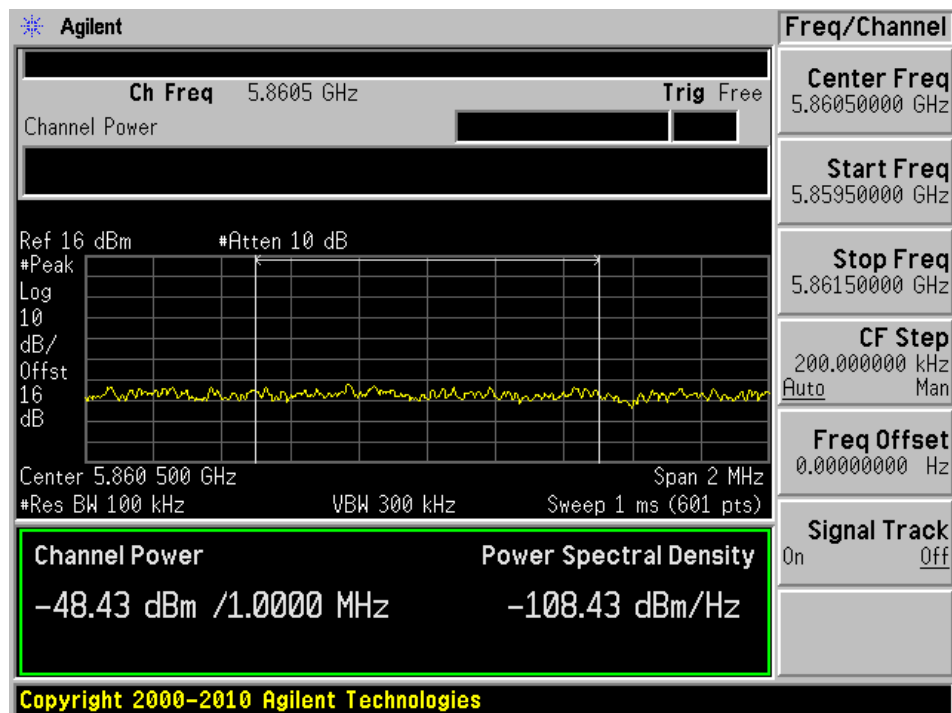
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

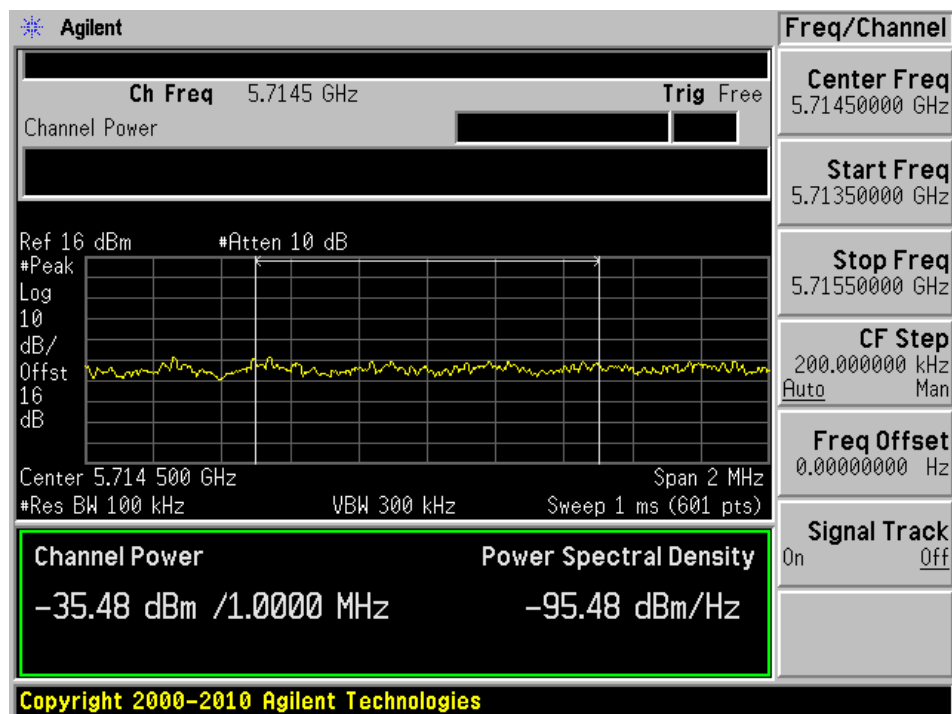


High channel: 5825 MHz – 5860.5 MHz

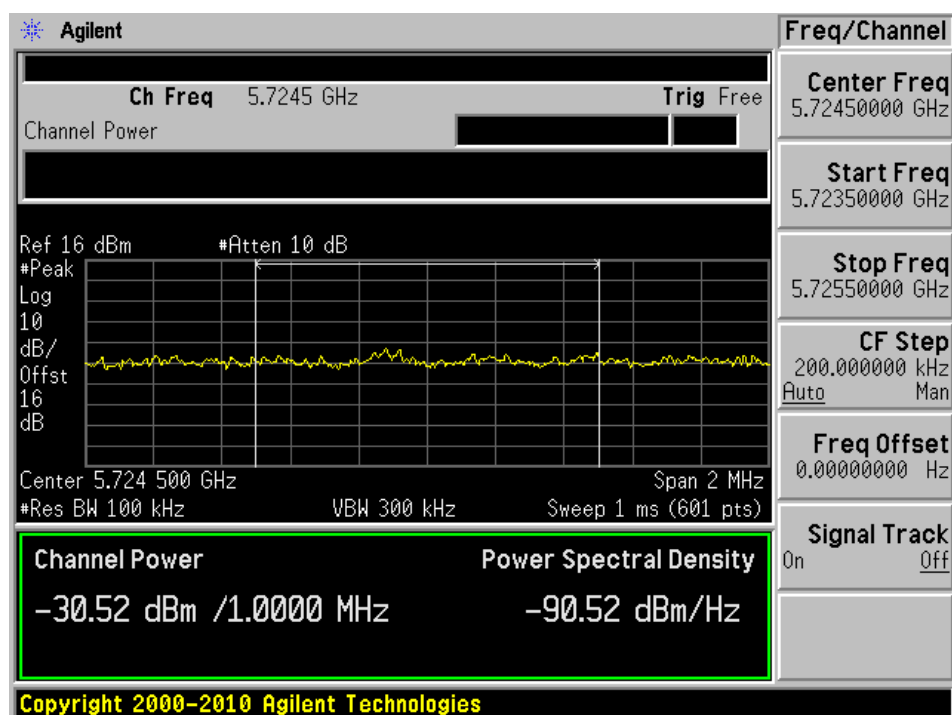


5.8 GHz Band
802.11n40
5 dBi Antenna Chain 1

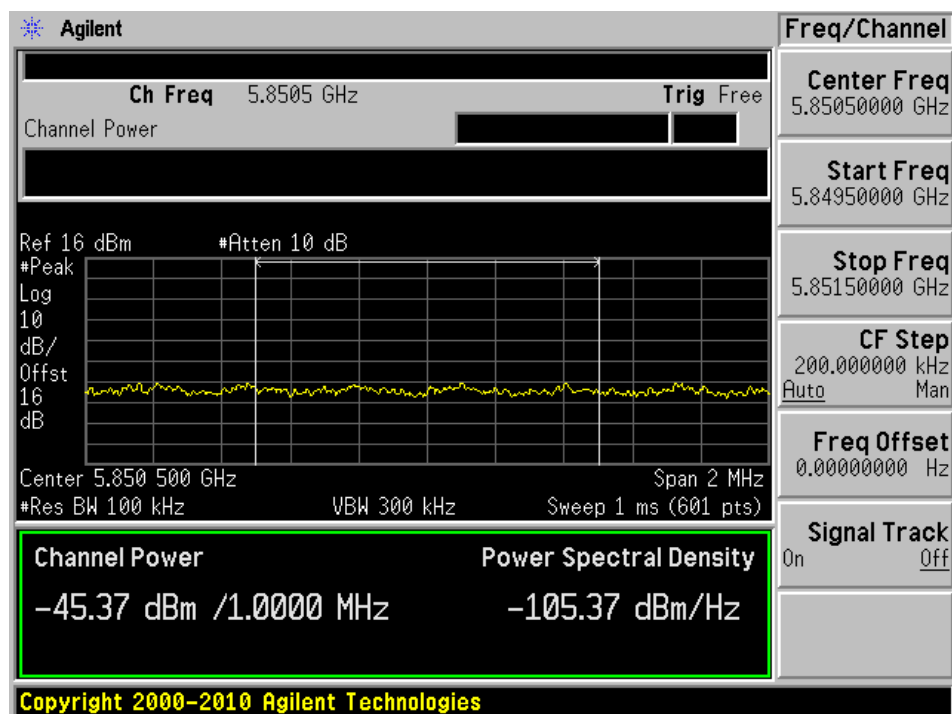
Low channel: 5755 MHz – 5714.5 MHz



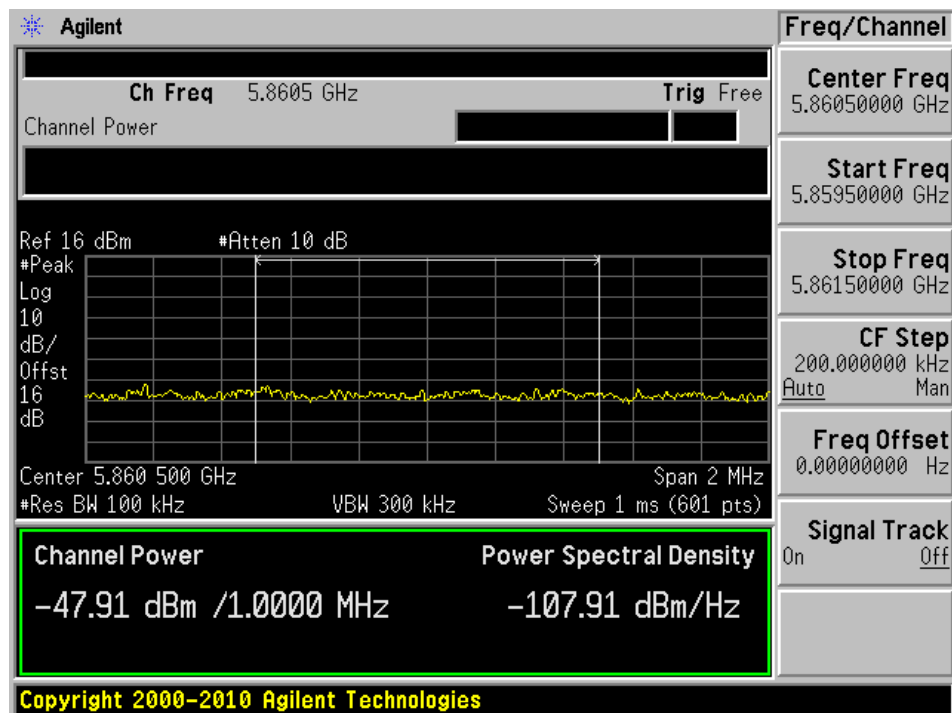
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

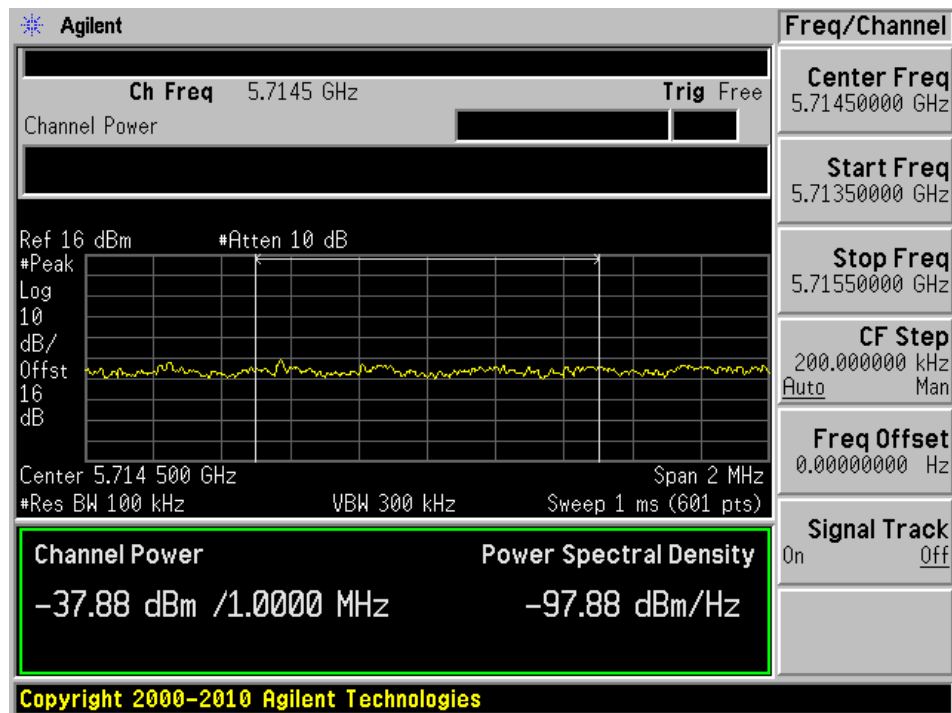


High channel: 5795 MHz – 5860.5 MHz

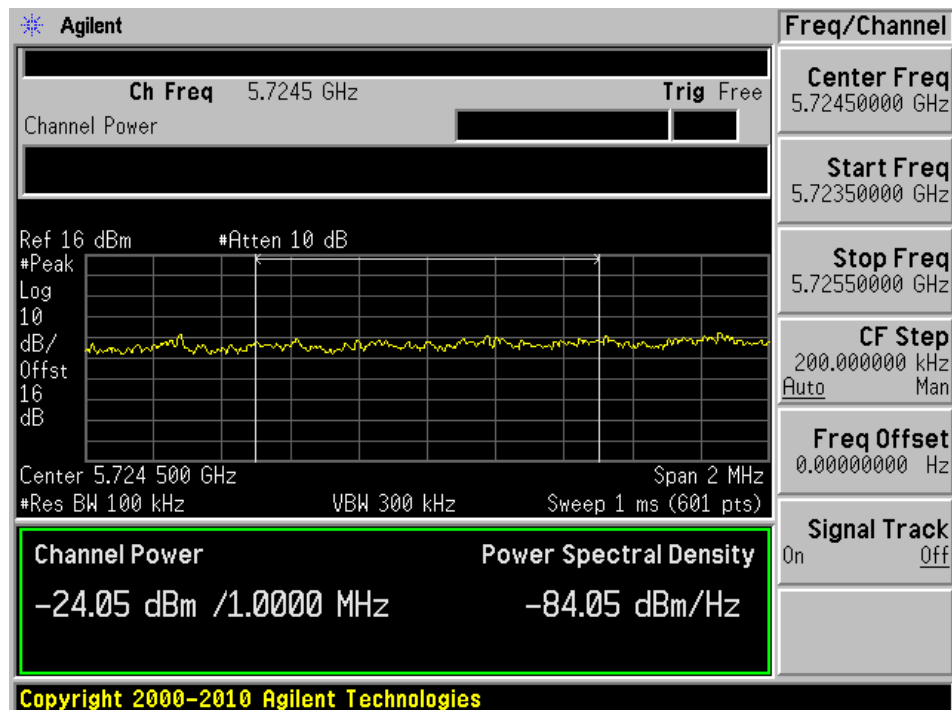


5.8 GHz Band
802.11a
5 dBi Antenna Chain 2

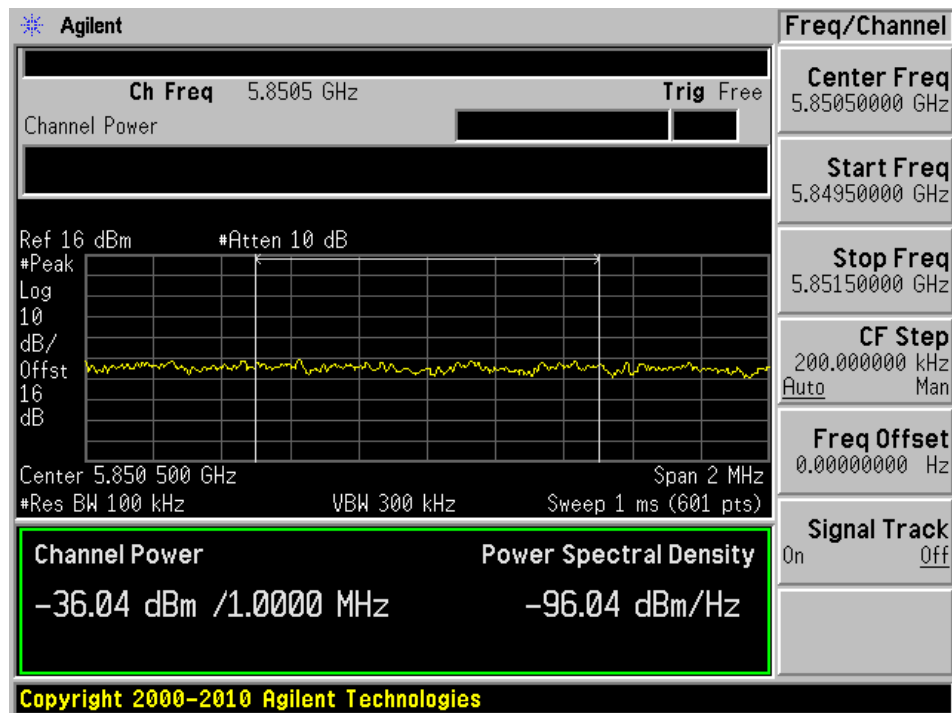
Low channel: 5745 MHz – 5714.5 MHz



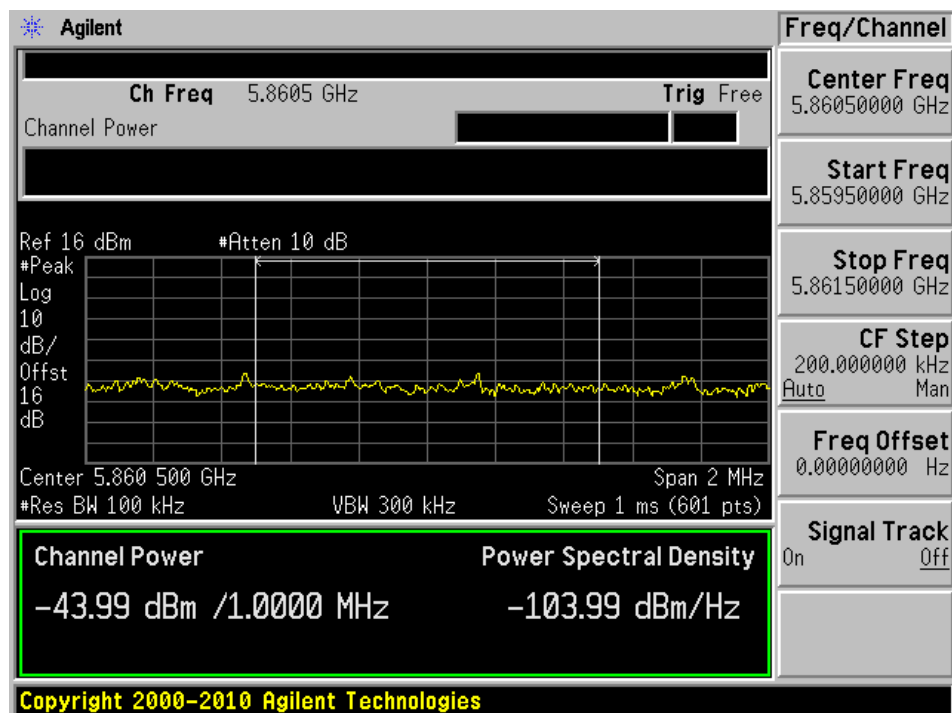
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

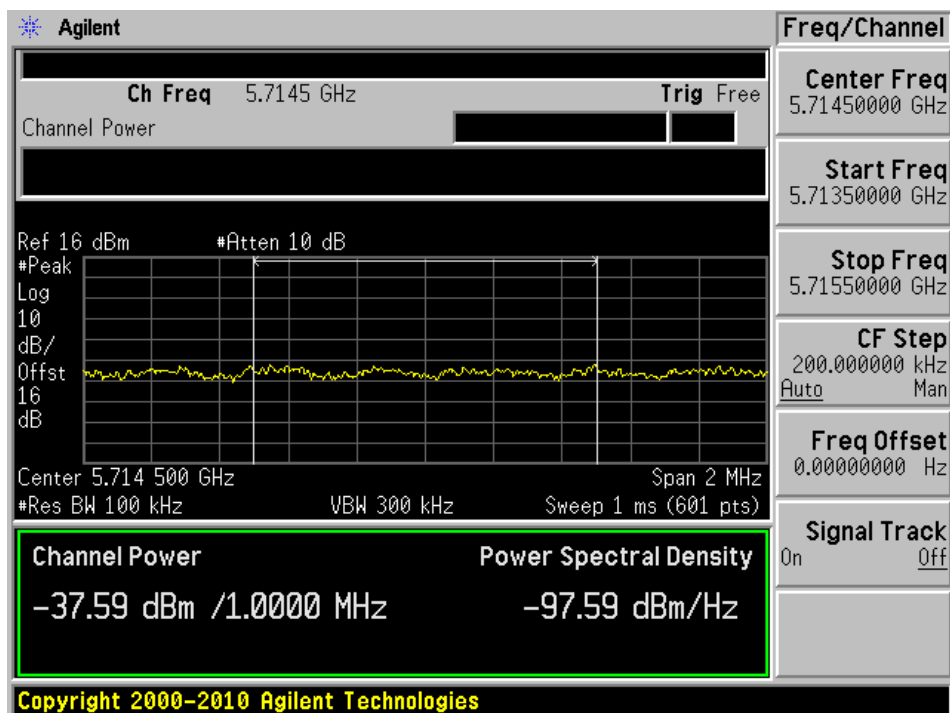


High channel: 5825 MHz – 5860.5 MHz

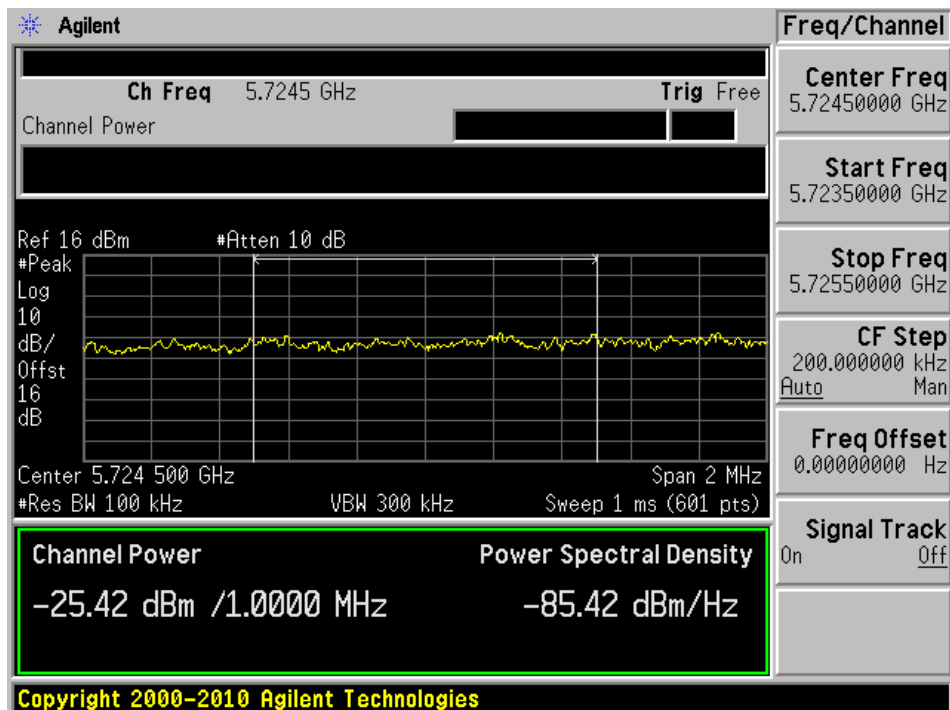


5.8 GHz Band
802.11n20
5 dBi Antenna Chain 2

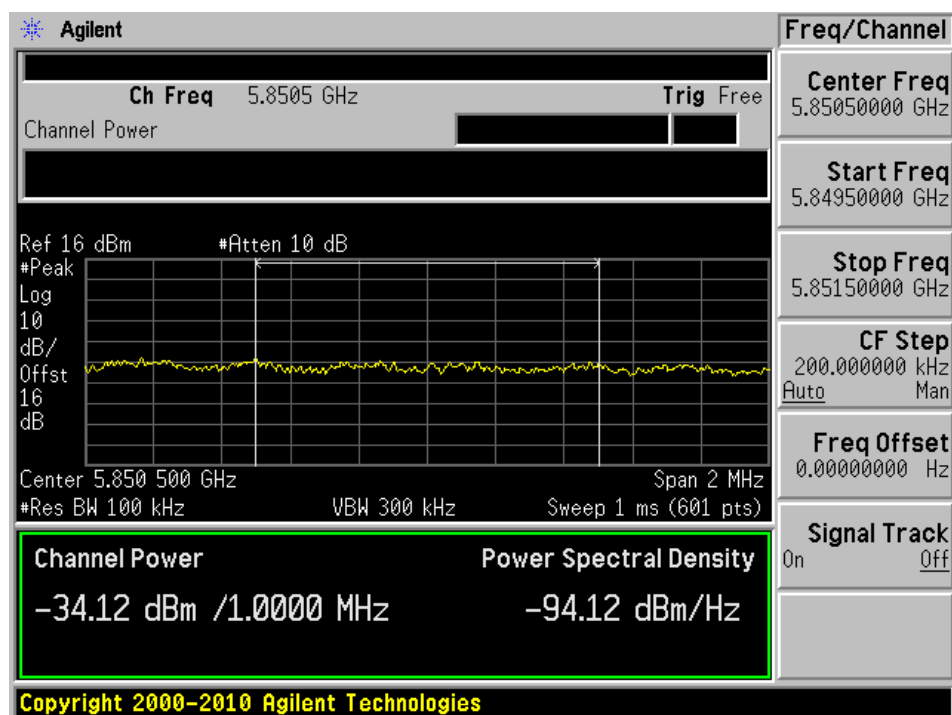
Low channel: 5745 MHz – 5714.5 MHz



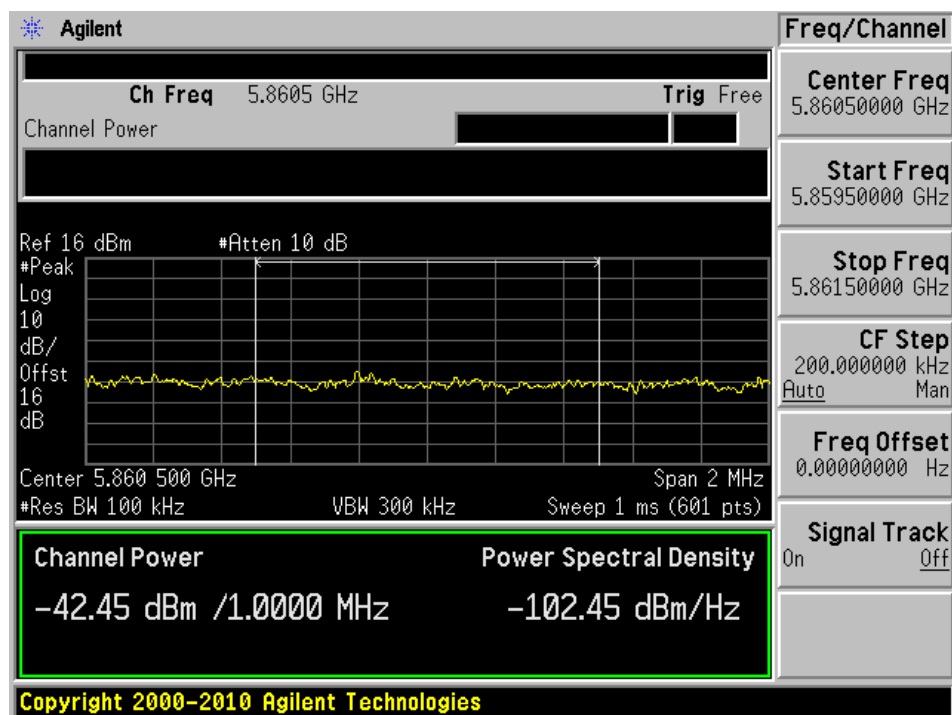
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

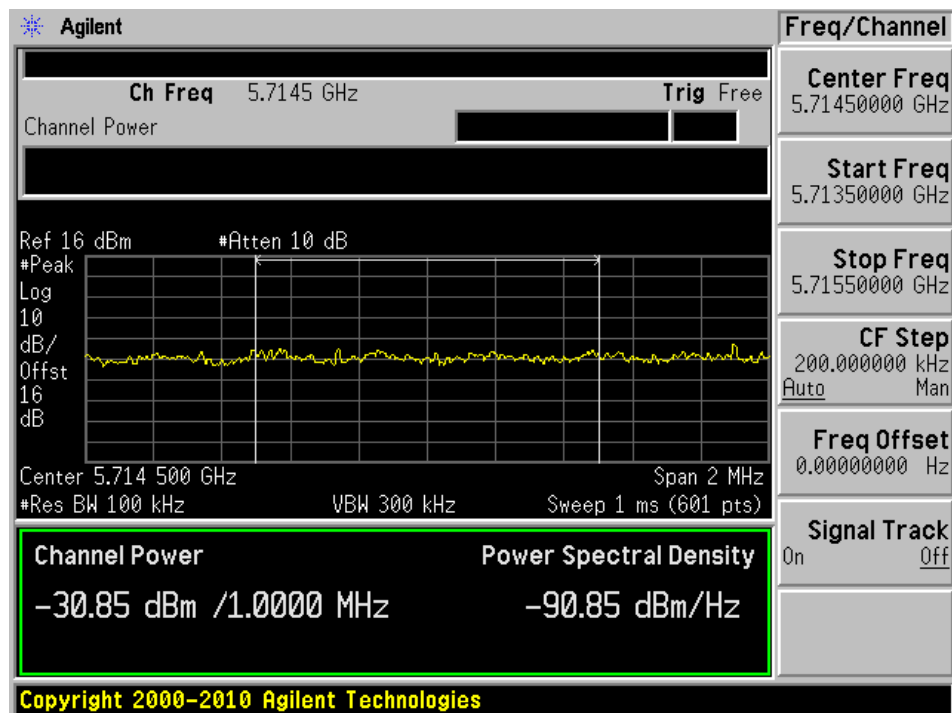


High channel: 5825 MHz – 5860.5 MHz

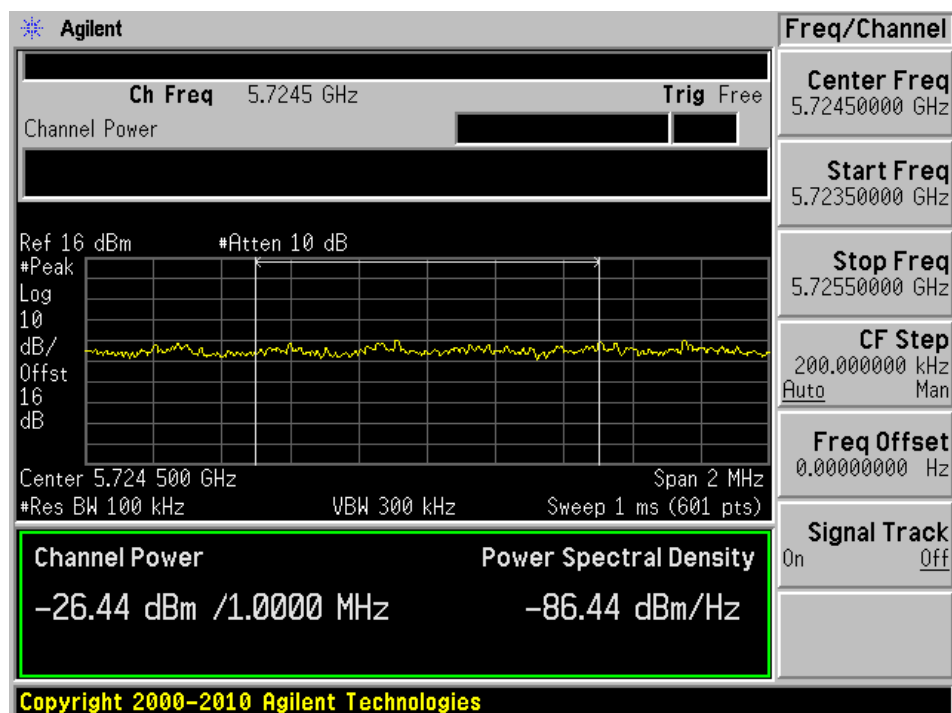


5.8 GHz Band
802.11n40
5 dBi Antenna Chain 2

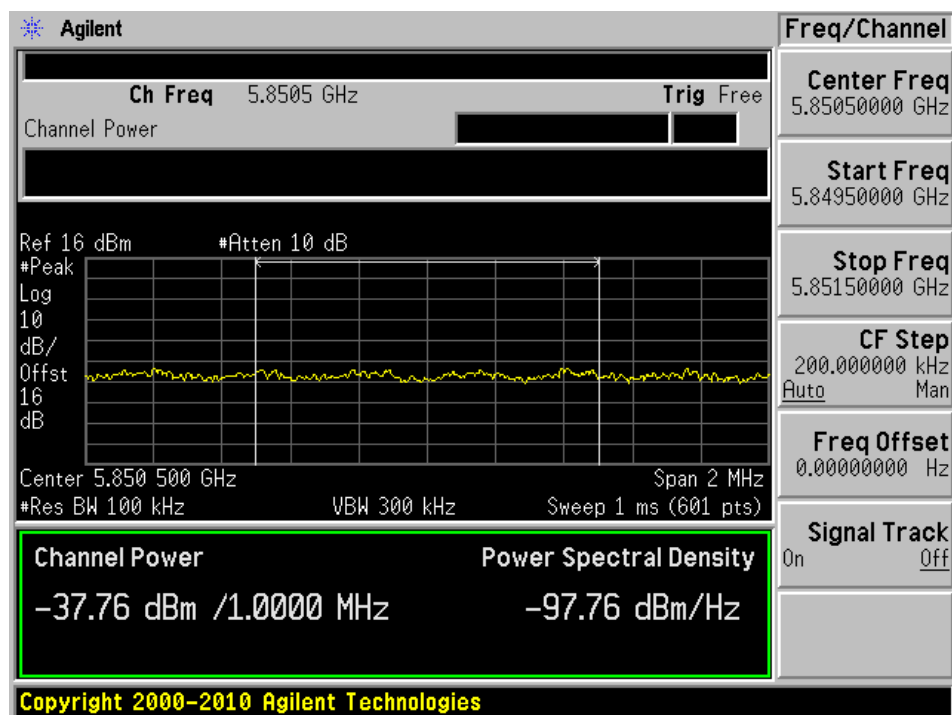
Low channel: 5755 MHz – 5714.5 MHz



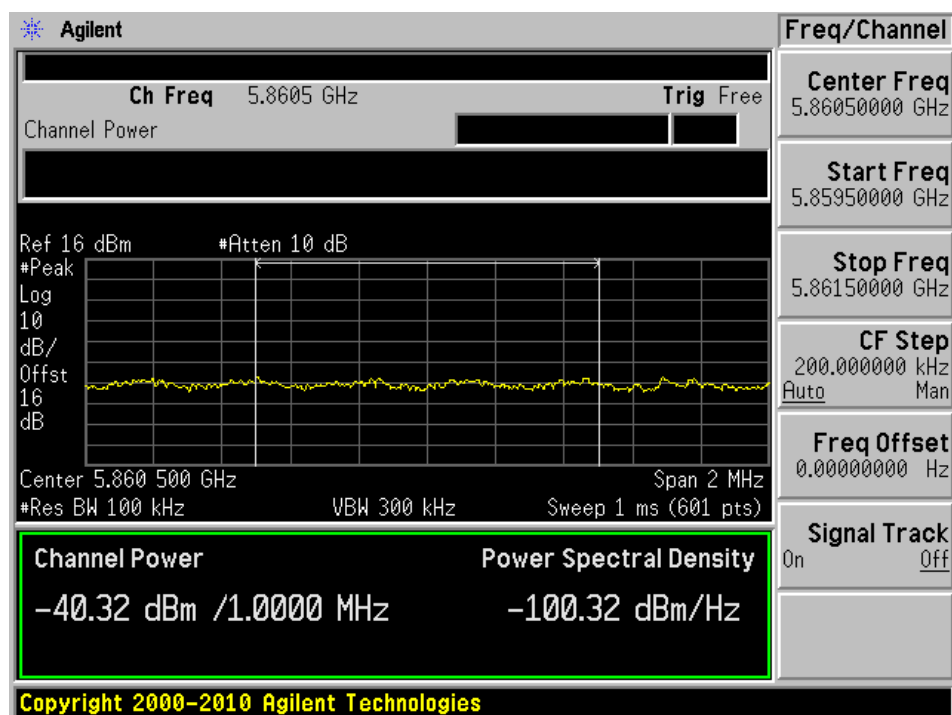
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz



High channel: 5795 MHz – 5860.5 MHz



5.8 GHz, 8 dBi antenna gain

Within 10 MHz

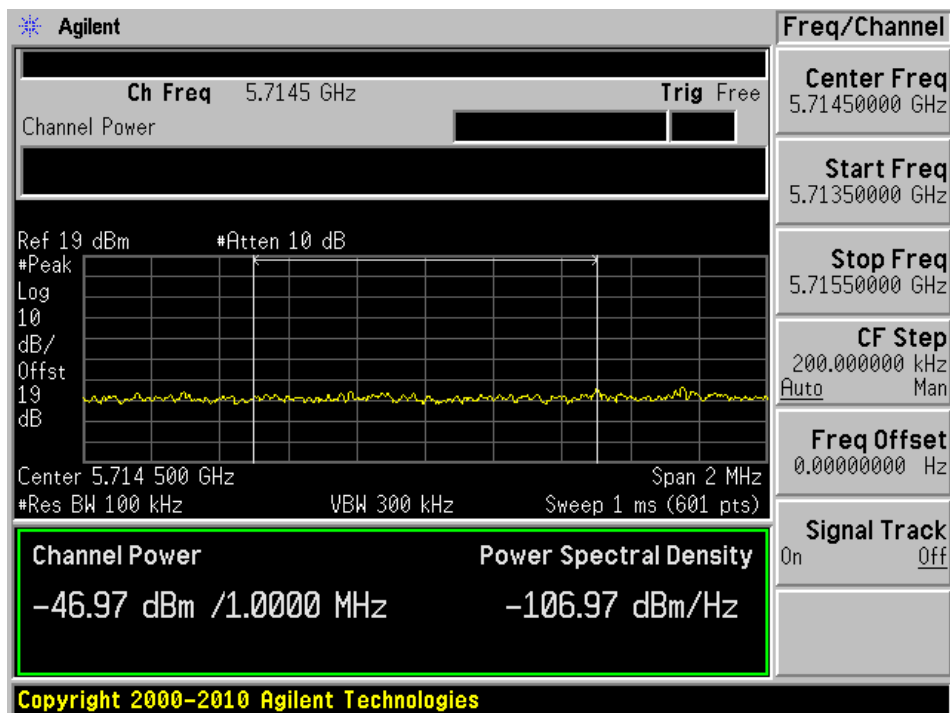
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-37.95	-43.95	-38.18	-17	Pass
High	5825	-41.63	-43.72	-35.04	-17	Pass
802.11n HT20 mode						
Low	5745	-36.26	-40.83	-33.77	-17	Pass
High	5825	-40.42	-43.68	-36.39	-17	Pass
802.11n HT40 mode						
Low	5755	-37.9	-39.54	-35.83	-17	Pass
High	5795	-37.48	-42.45	-34.19	-17	Pass

Outside 10 MHz

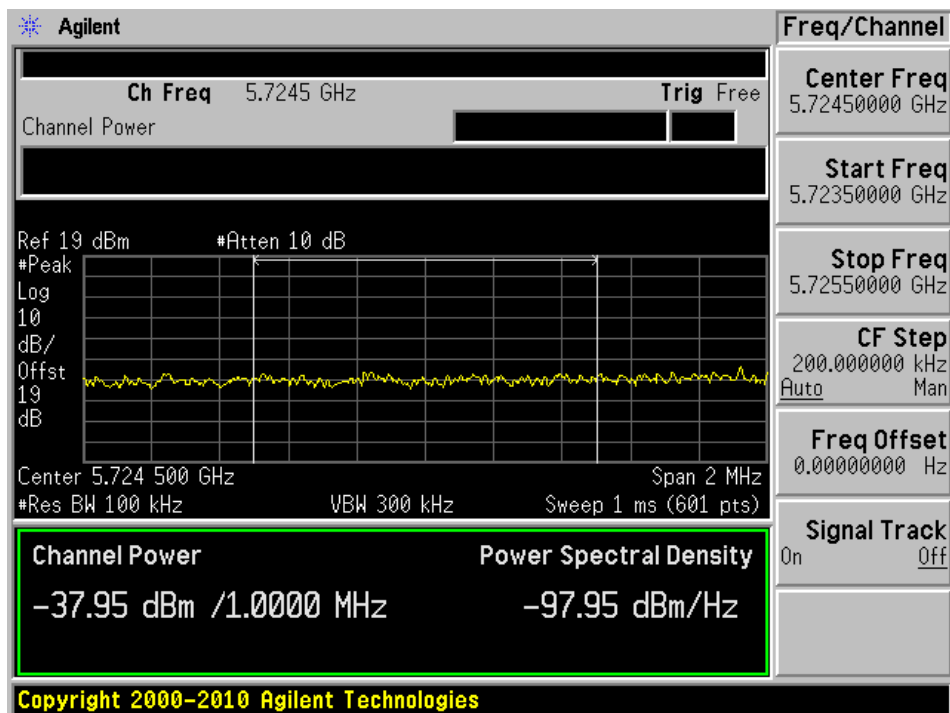
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-46.97	-47.31	-46.23	-27	Pass
High	5825	-49.54	-51.65	-46.34	-27	Pass
802.11n HT20 mode						
Low	5745	-42.39	-45.47	-42.18	-27	Pass
High	5825	-48.9	-52.1	-47.11	-27	Pass
802.11n HT40 mode						
Low	5755	-43.08	-47.89	-41.28	-27	Pass
High	5795	-42.00	-45.66	-39.27	-27	Pass

5.8 GHz Band
802.11a
8 dBi Antenna Chain 0

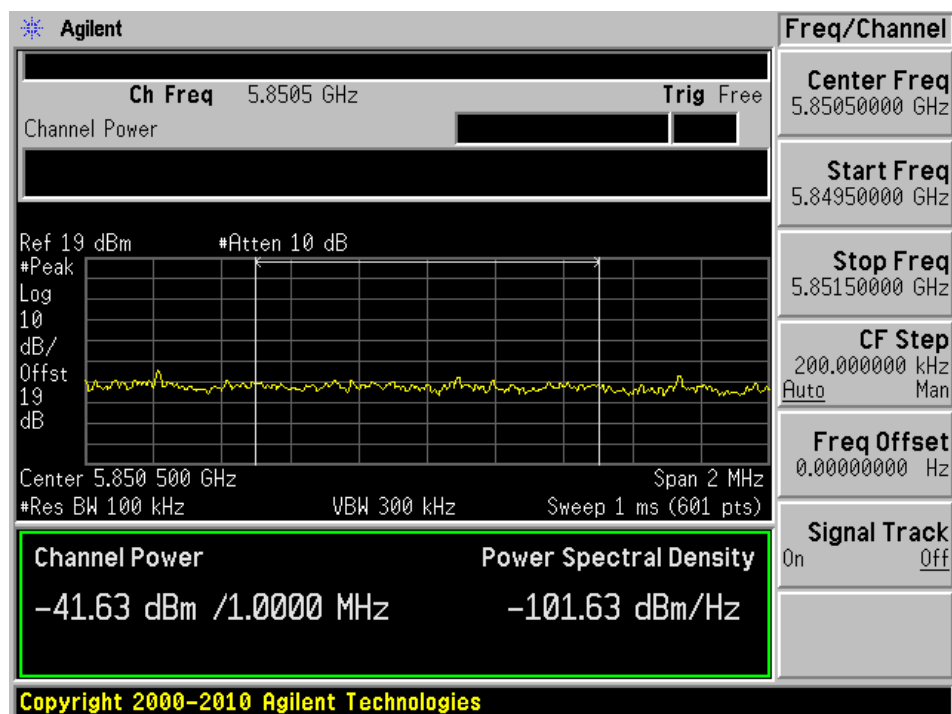
Low channel: 5745 MHz – 5714.5 MHz



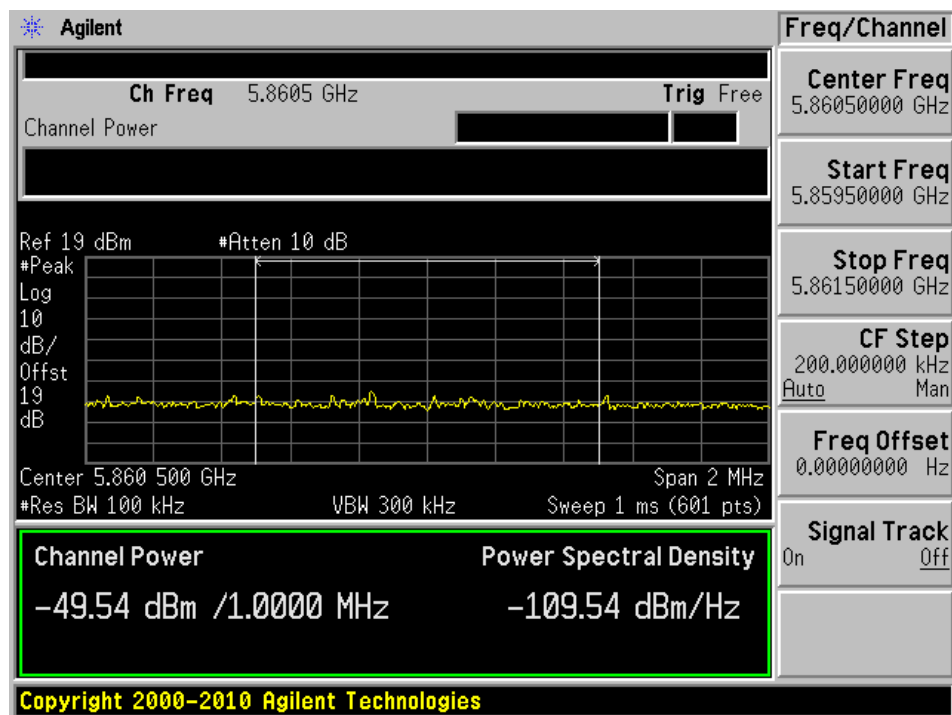
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

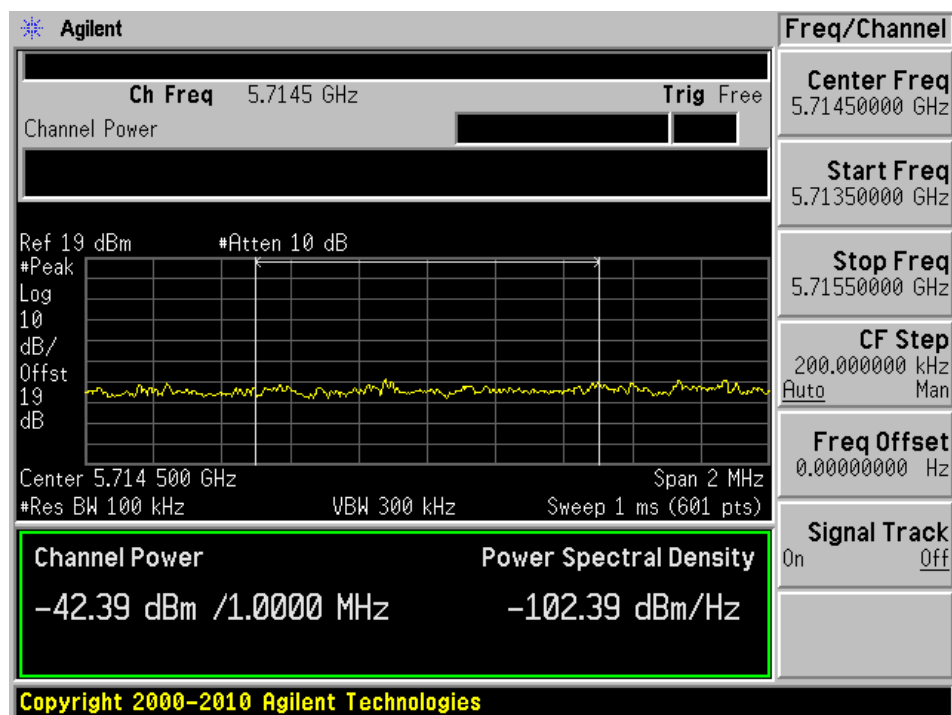


High channel: 5825 MHz – 5860.5 MHz

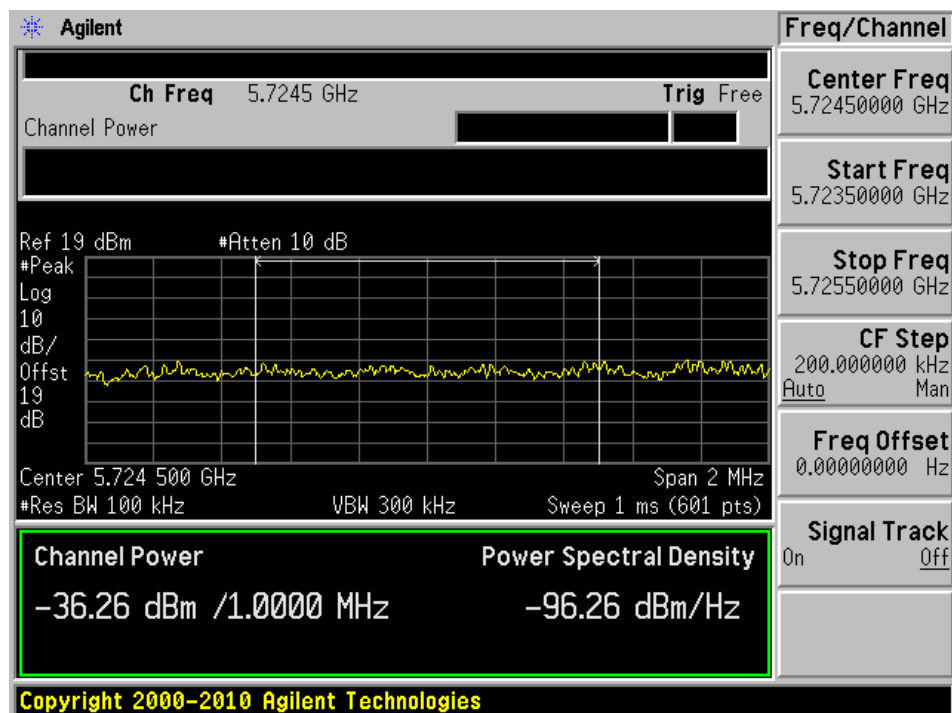


5.8 GHz Band
802.11n20
8 dBi Antenna Chain 0

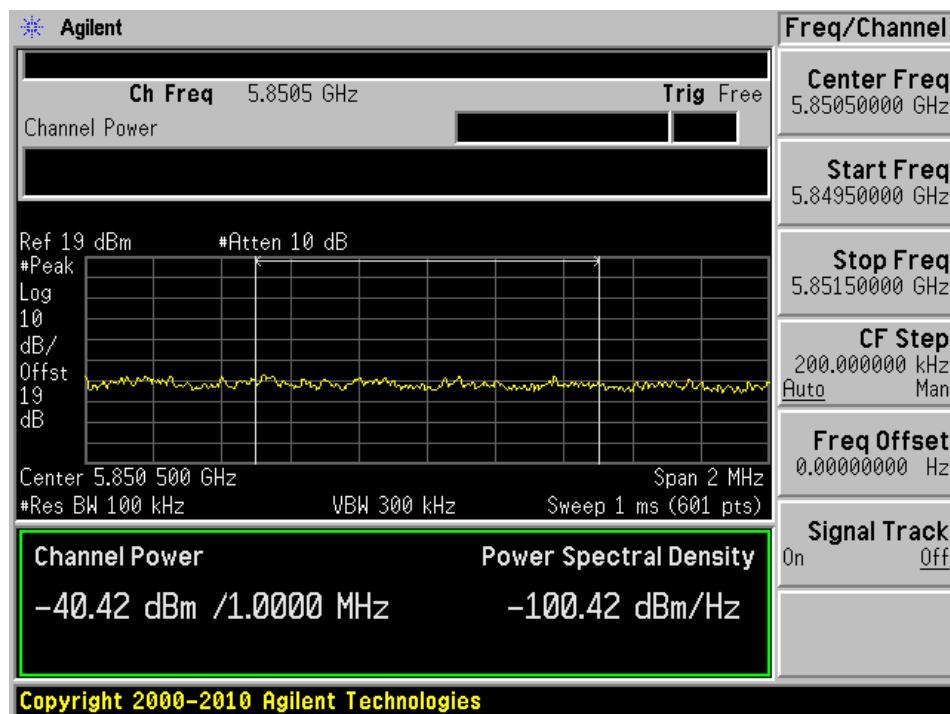
Low channel: 5745 MHz – 5714.5 MHz



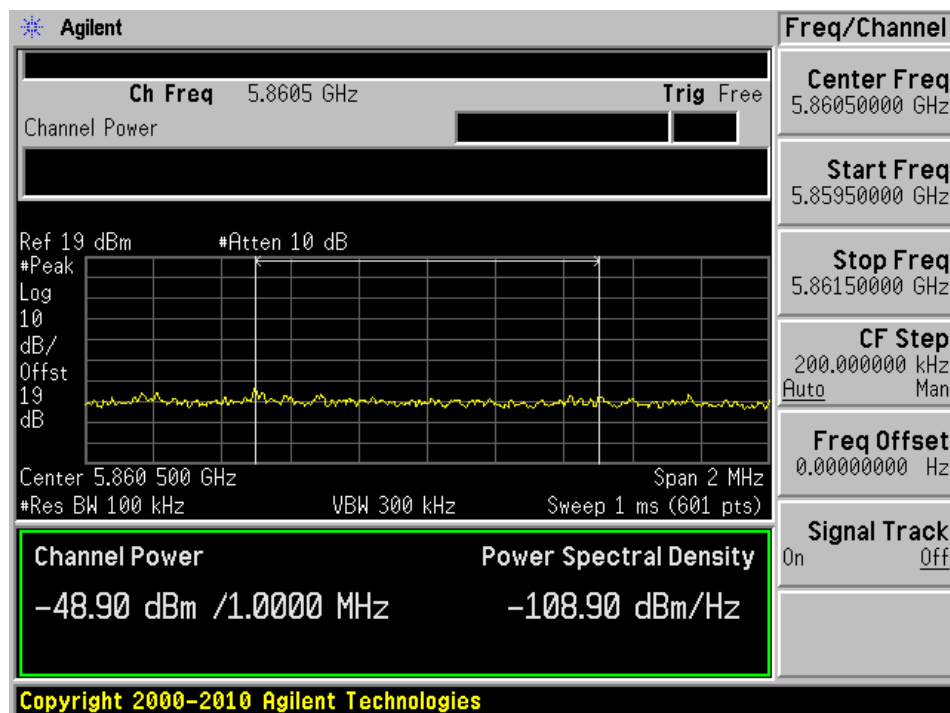
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

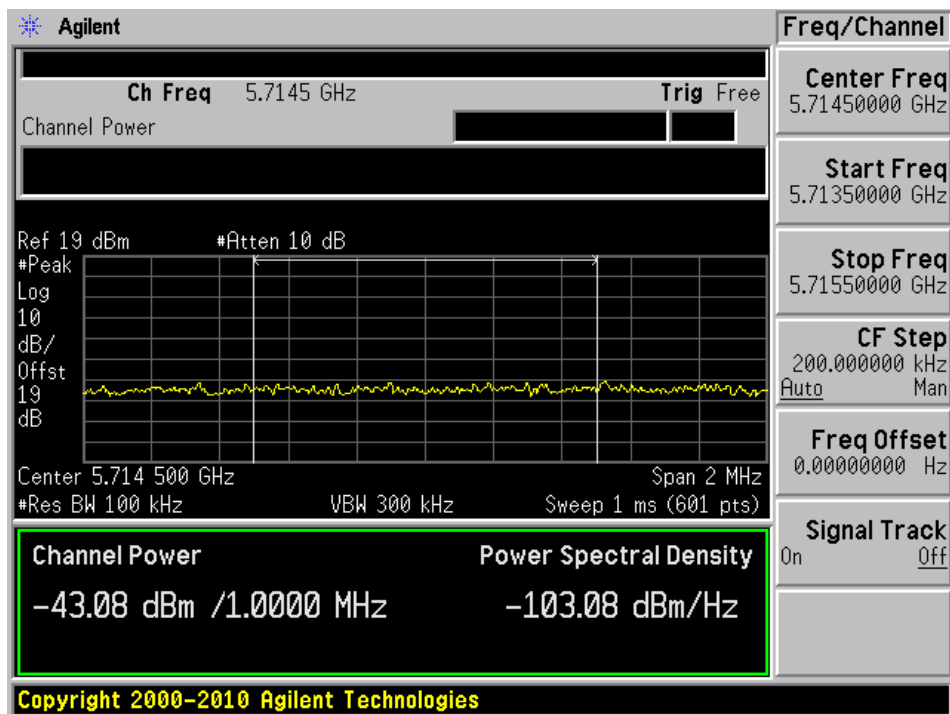


High channel: 5825 MHz – 5860.5 MHz

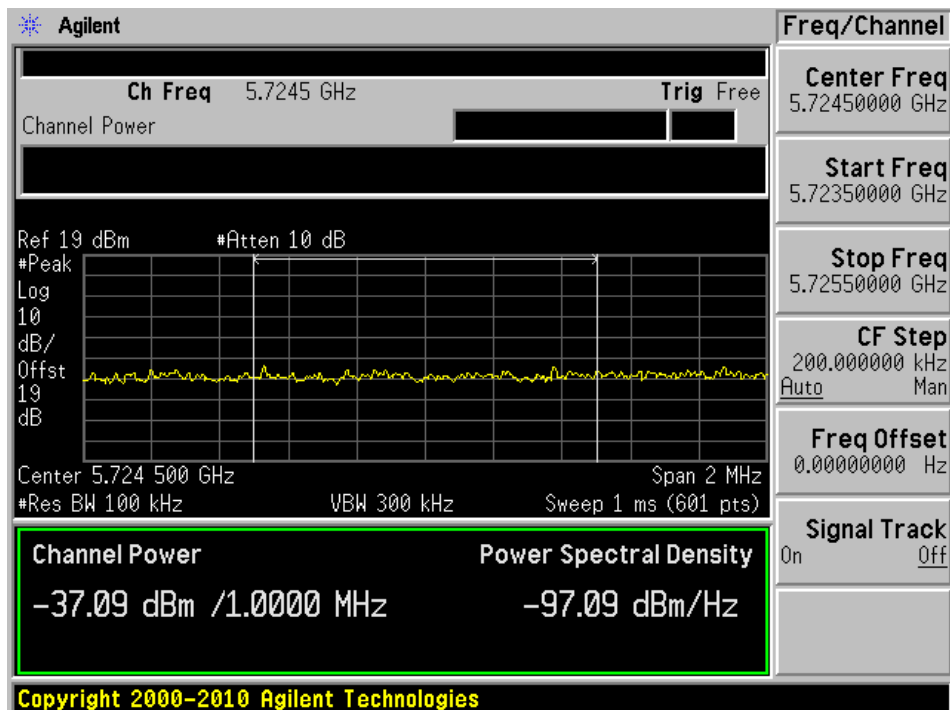


5.8 GHz Band
802.11n40
8 dBi Antenna Chain 0

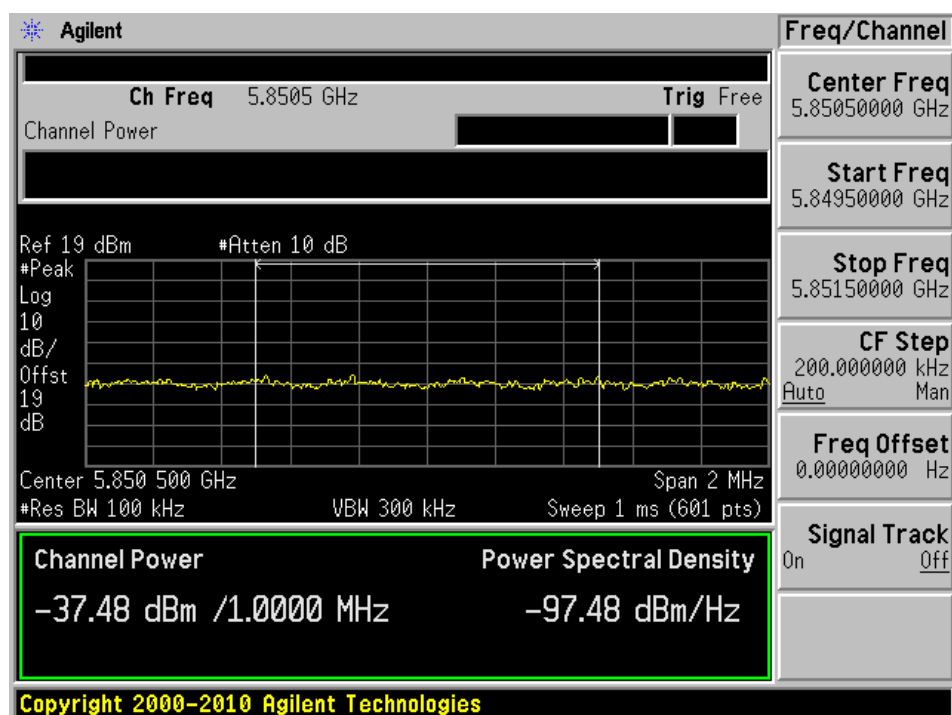
Low channel: 5755 MHz – 5714.5 MHz



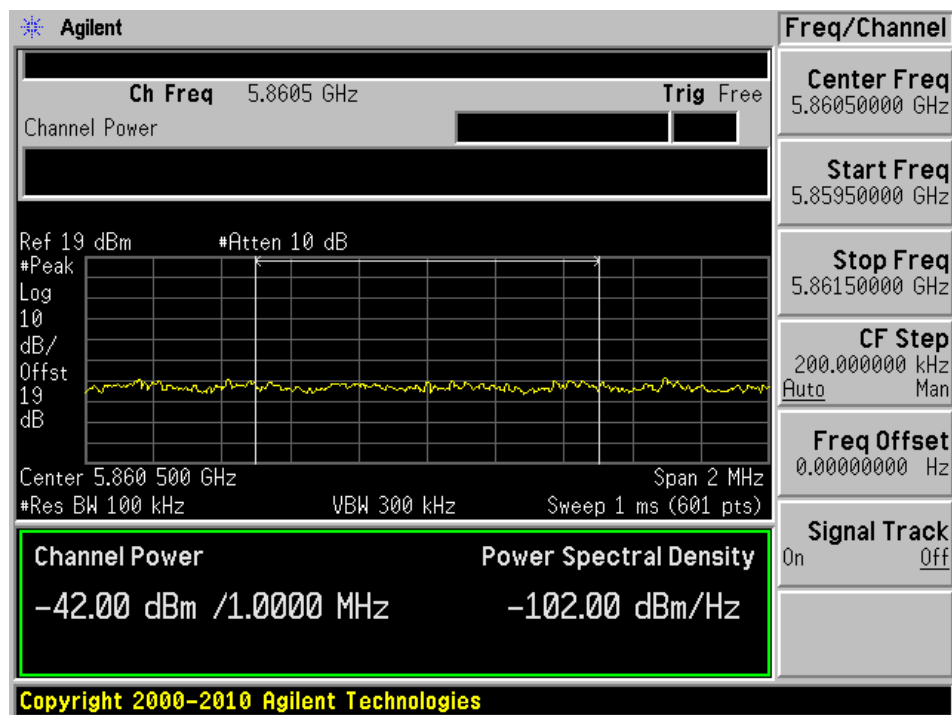
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

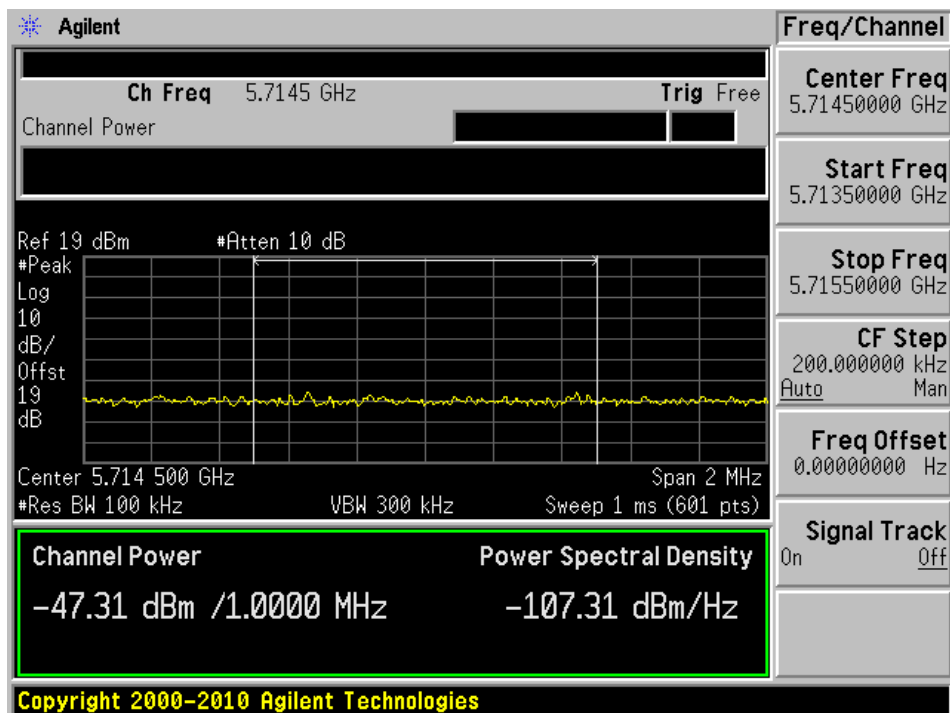


High channel: 5795 MHz – 5860.5 MHz

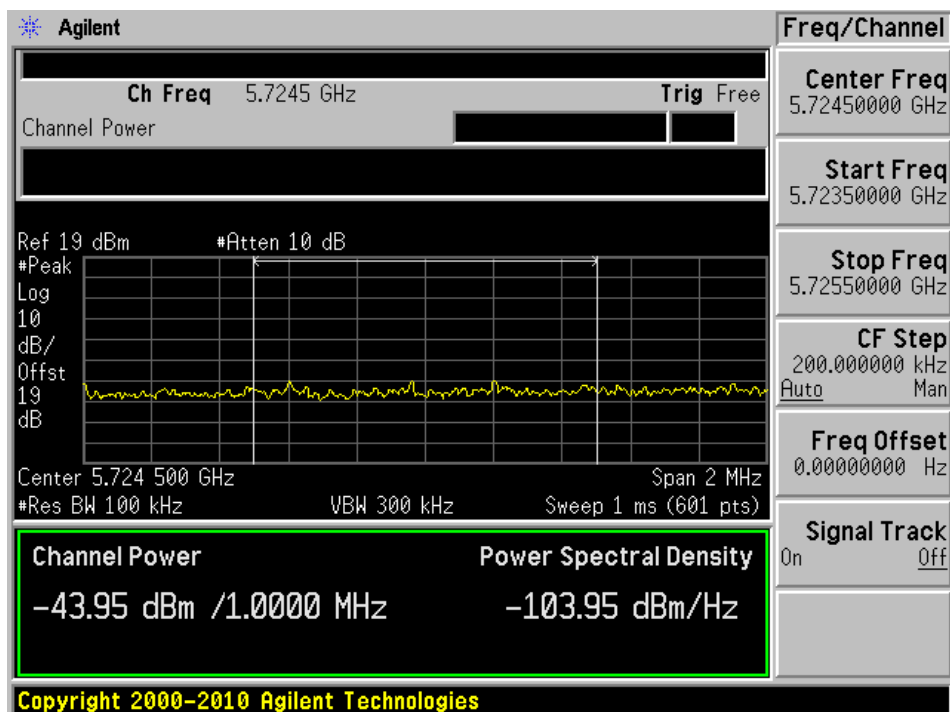


5.8 GHz Band
802.11a
8 dBi Antenna Chain 1

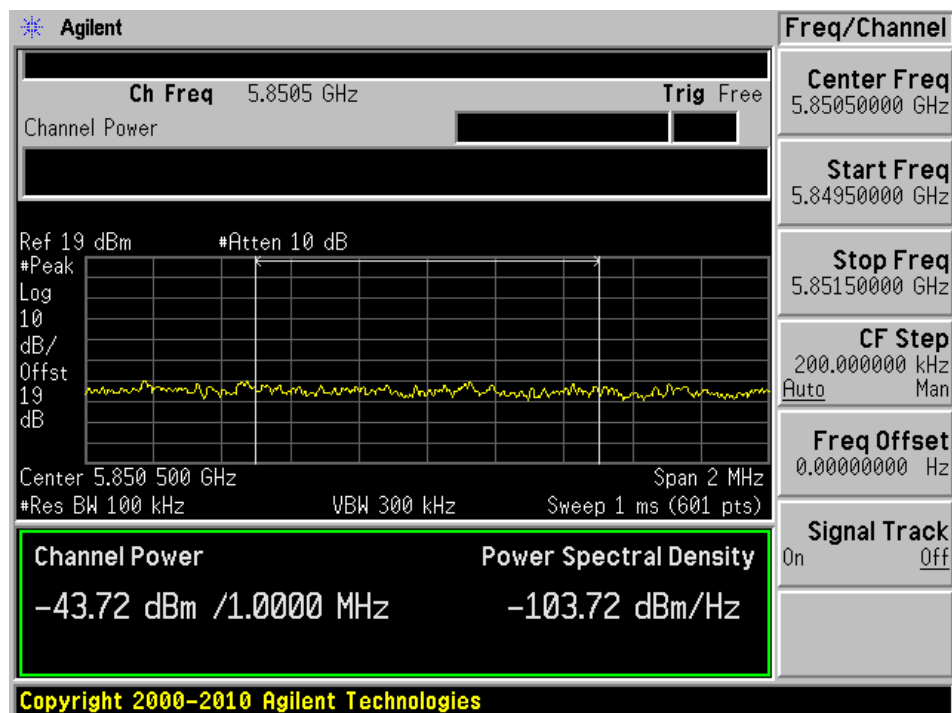
Low channel: 5745 MHz – 5714.5 MHz



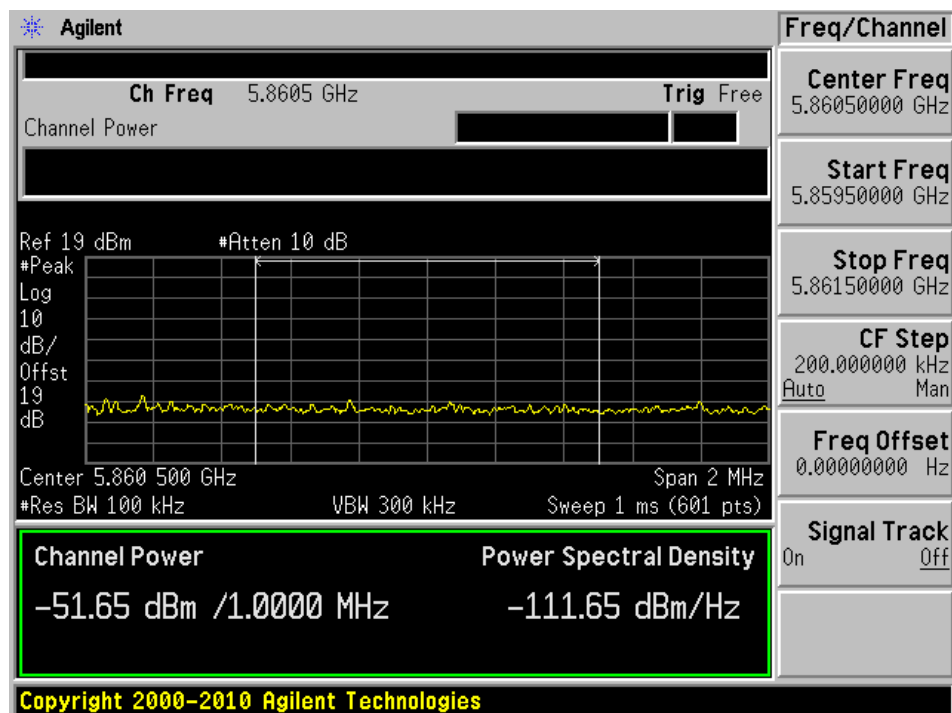
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

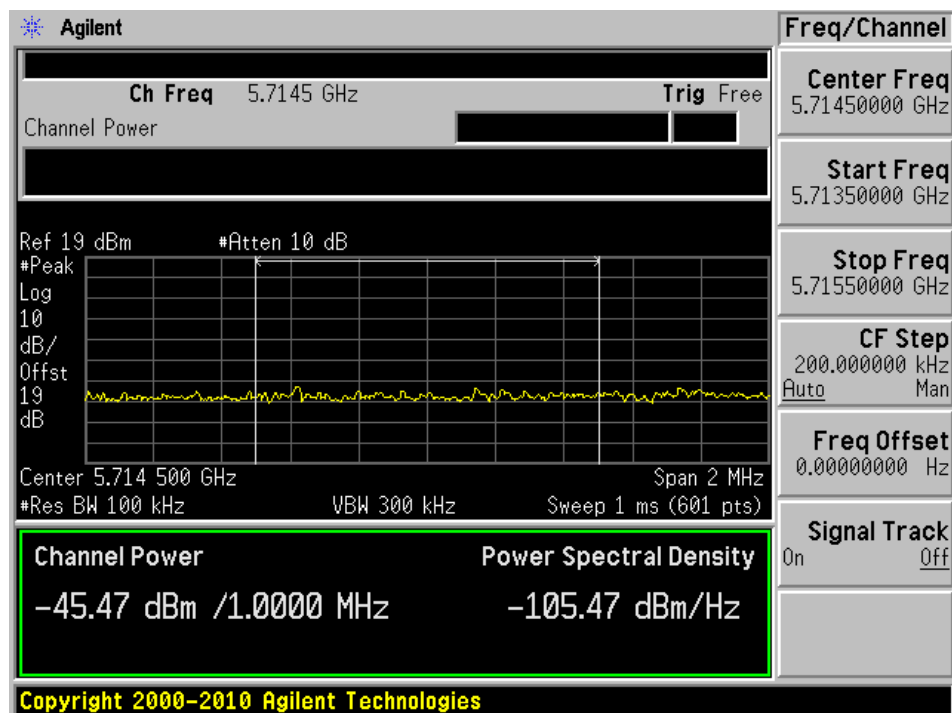


High channel: 5825 MHz – 5860.5 MHz

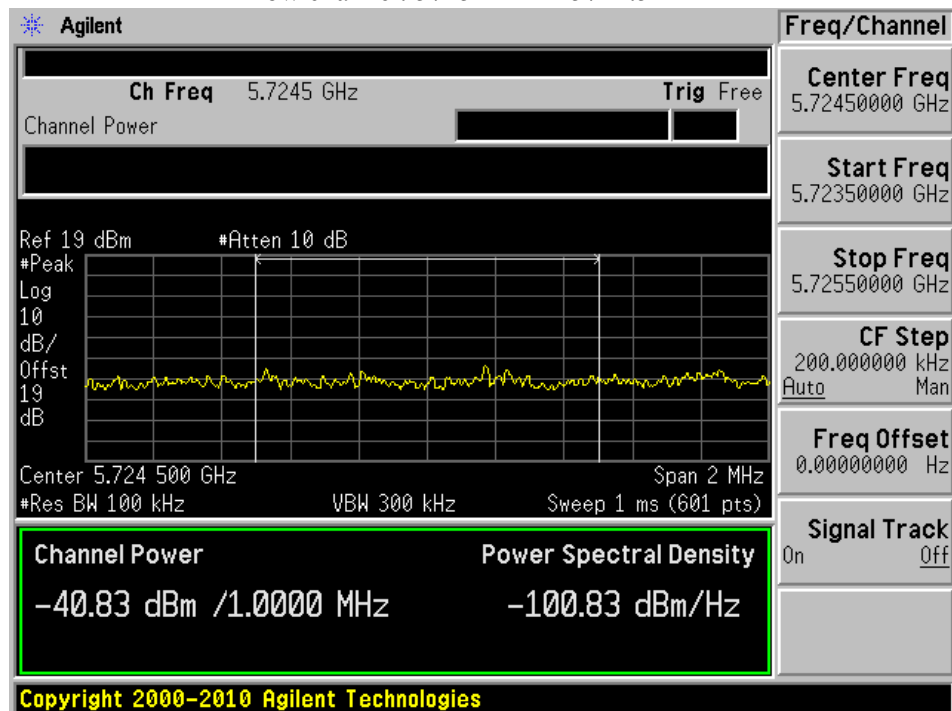


5.8 GHz Band
802.11n20
8 dBi Antenna Chain 1

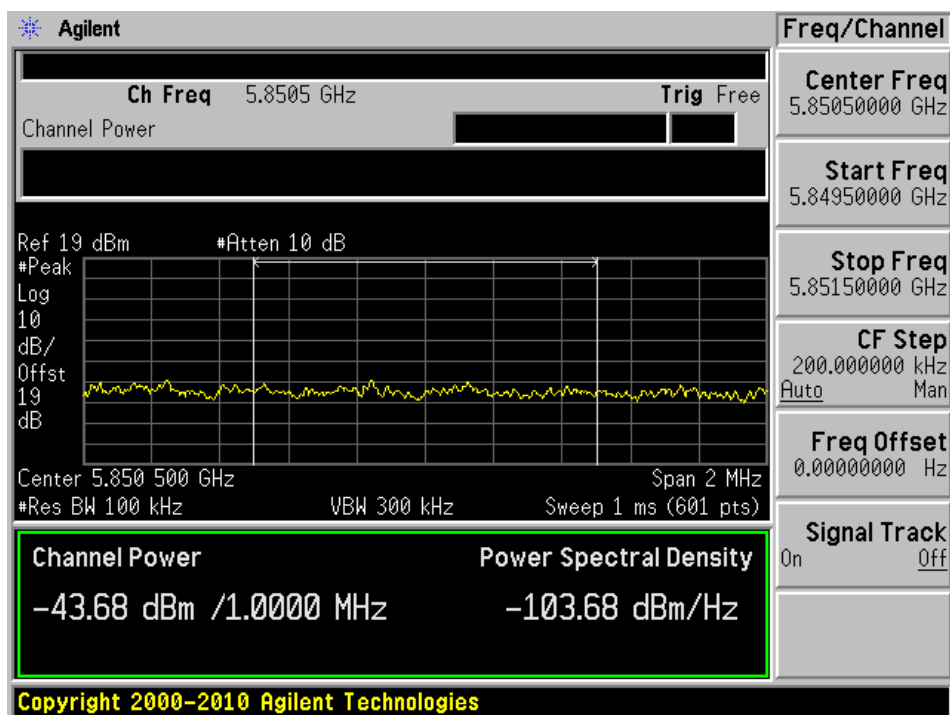
Low channel: 5745 MHz – 5714.5 MHz



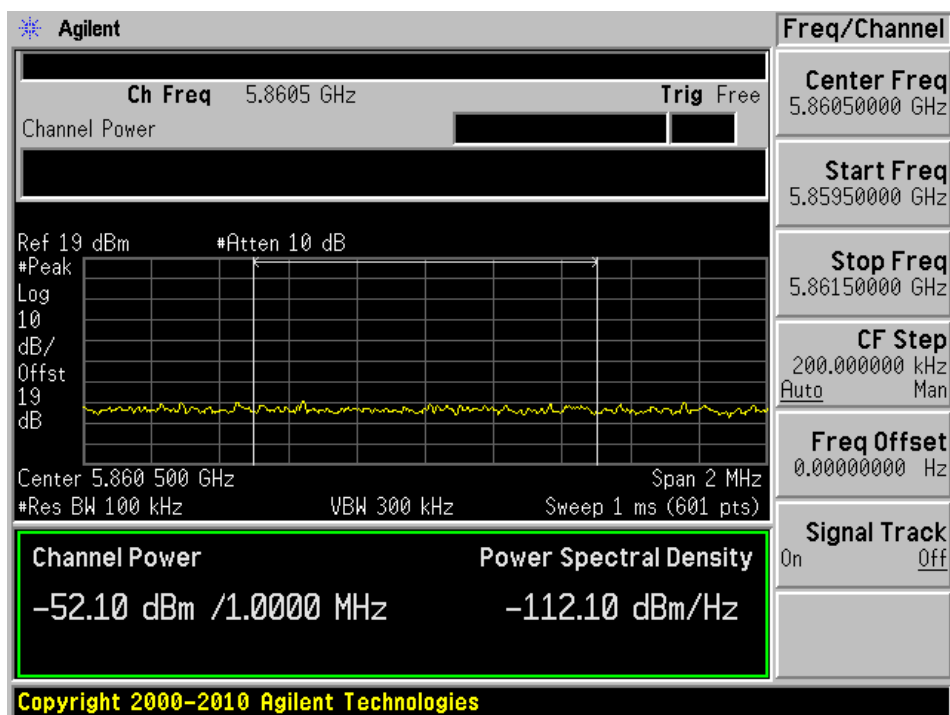
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

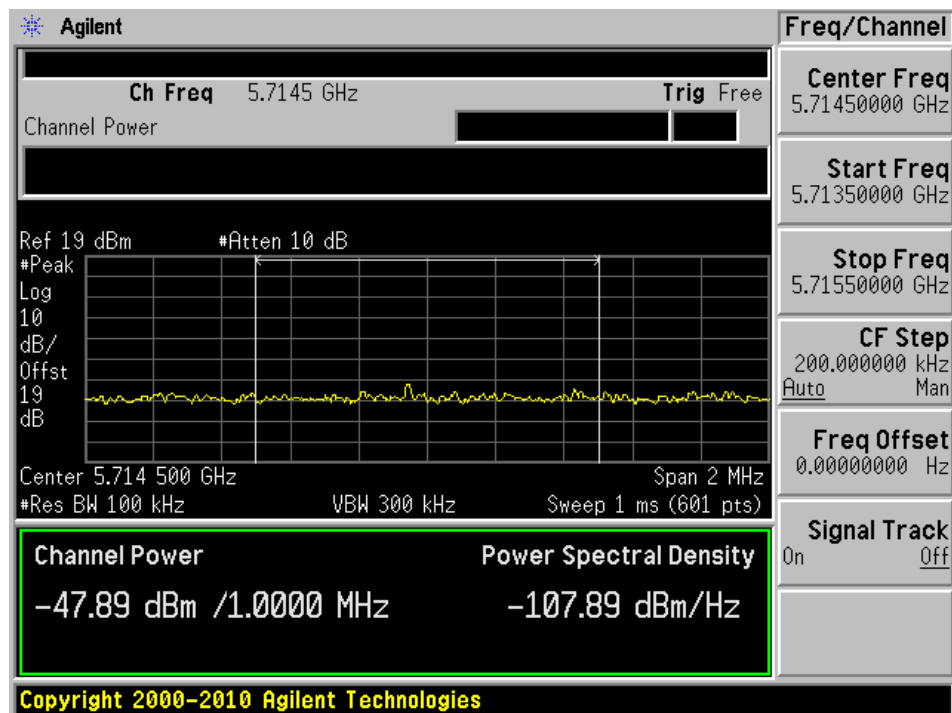


High channel: 5825 MHz – 5860.5 MHz

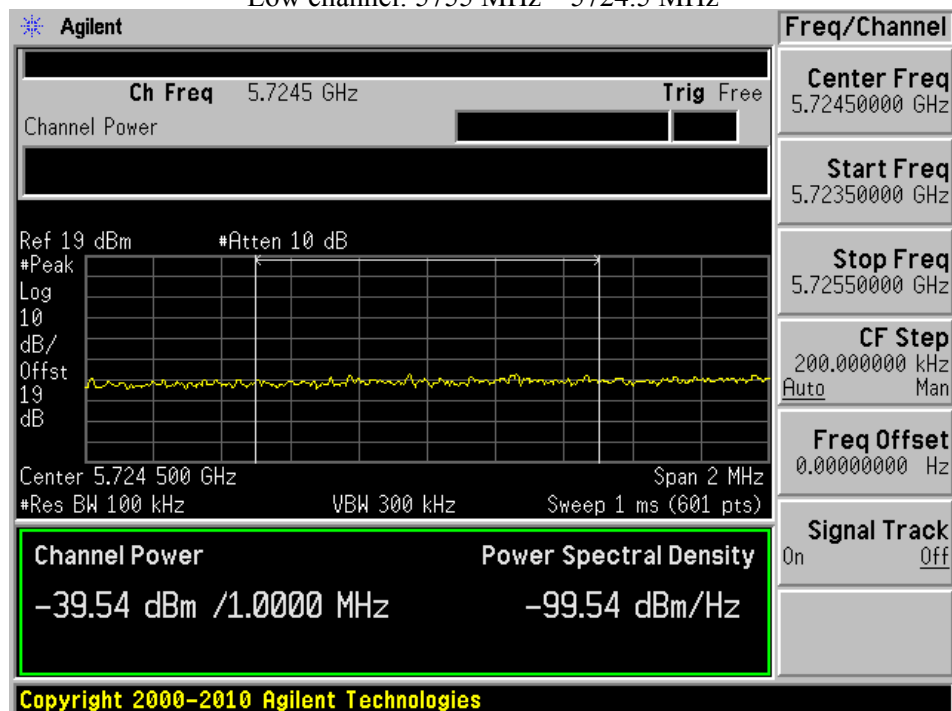


5.8 GHz Band
802.11n40
8 dBi Antenna Chain 1

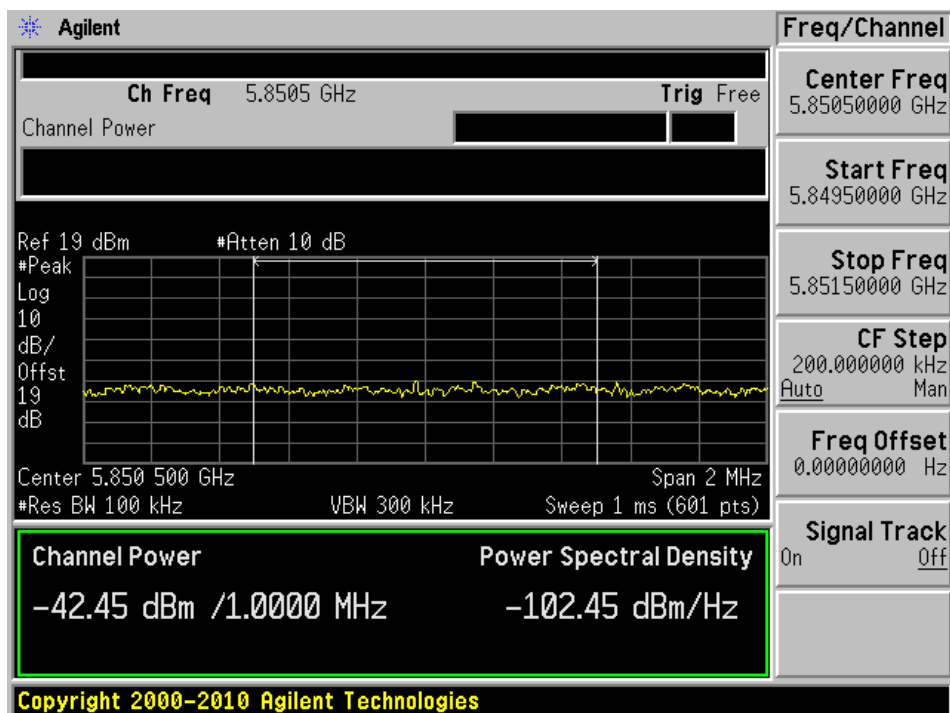
Low channel: 5755 MHz – 5714.5 MHz



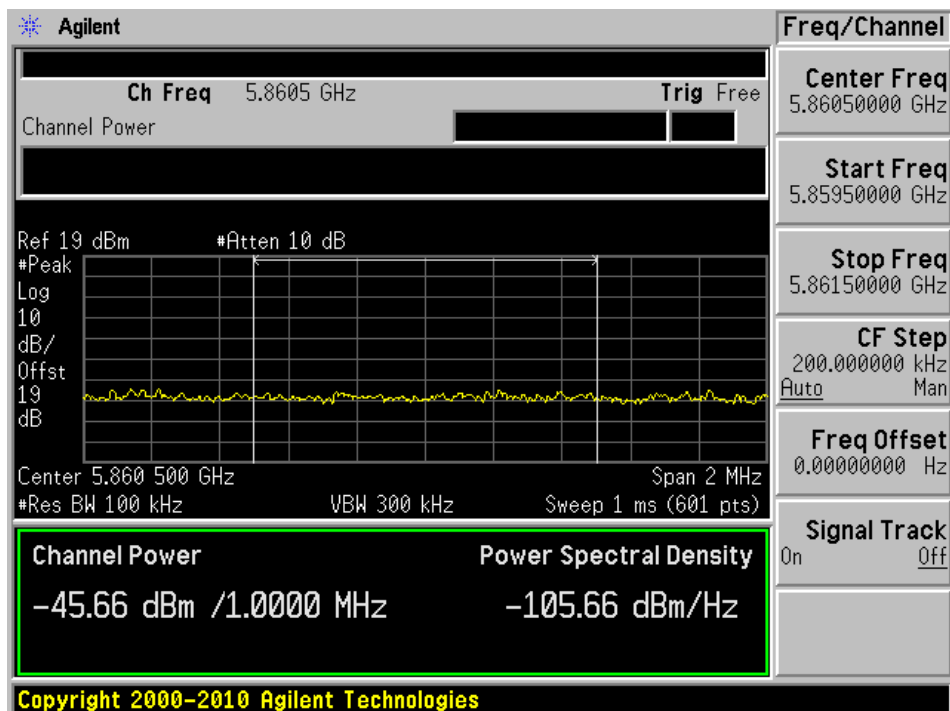
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

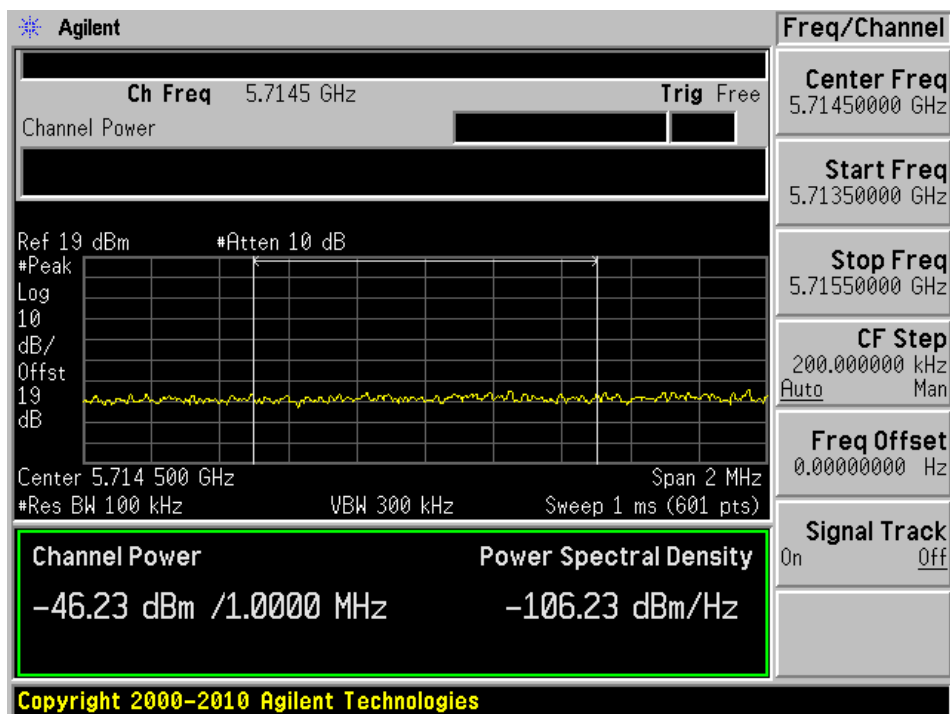


High channel: 5795 MHz – 5860.5 MHz

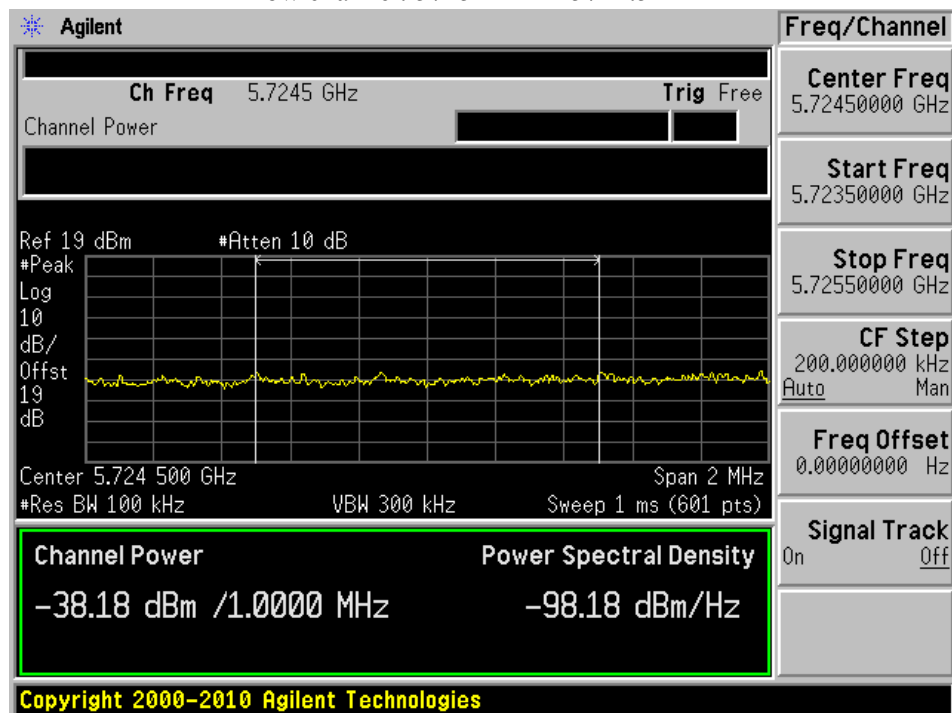


5.8 GHz Band
802.11a
8 dBi Antenna Chain 2

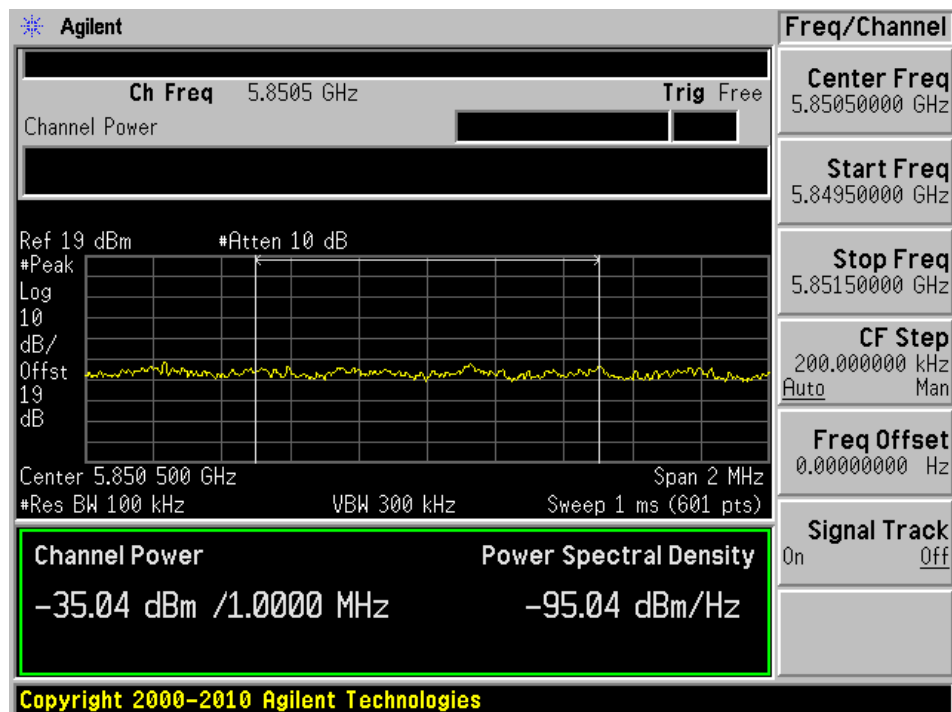
Low channel: 5745 MHz – 5714.5 MHz



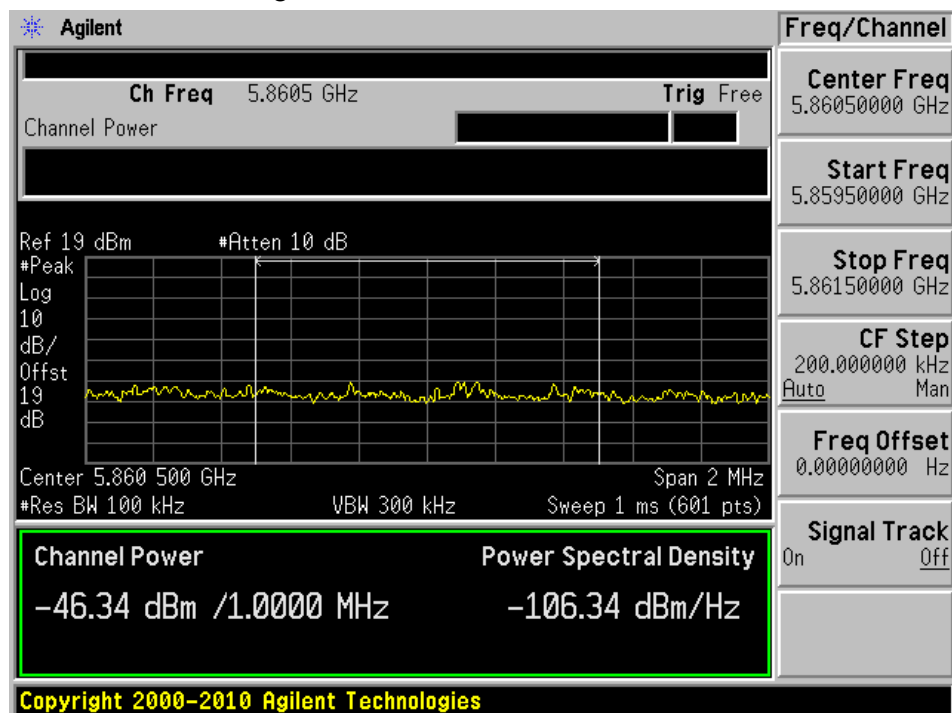
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

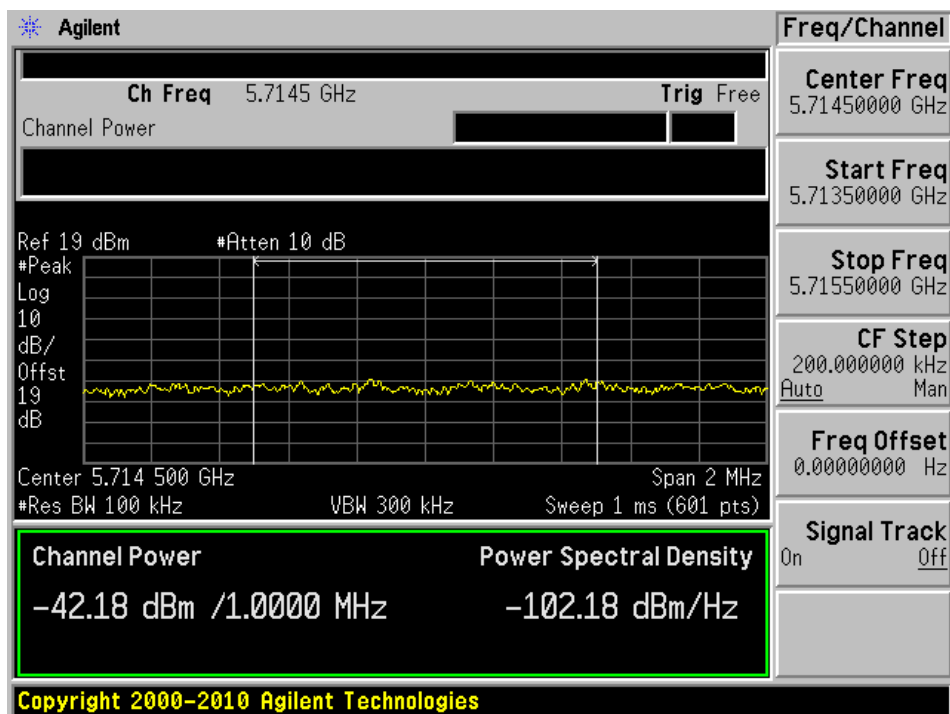


High channel: 5825 MHz – 5860.5 MHz

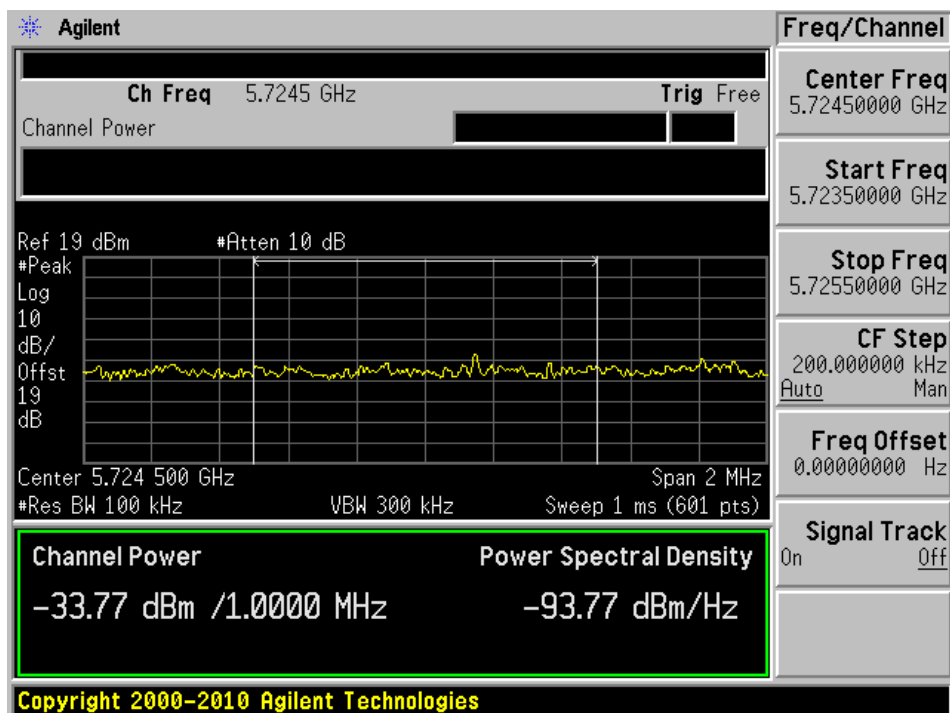


5.8 GHz Band
802.11n20
8 dBi Antenna Chain 2

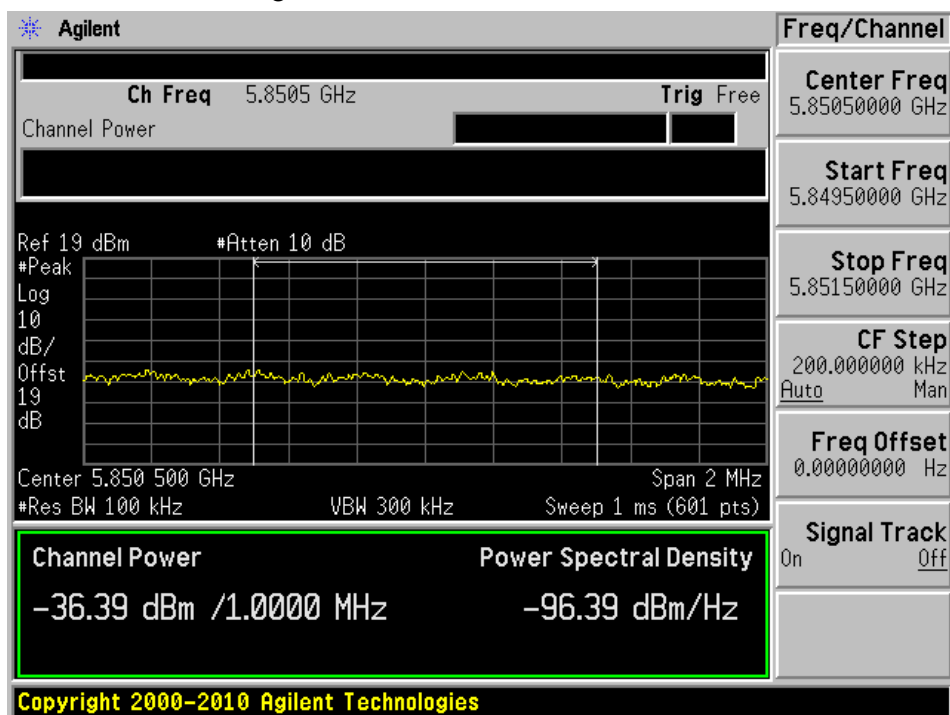
Low channel: 5745 MHz – 5714.5 MHz



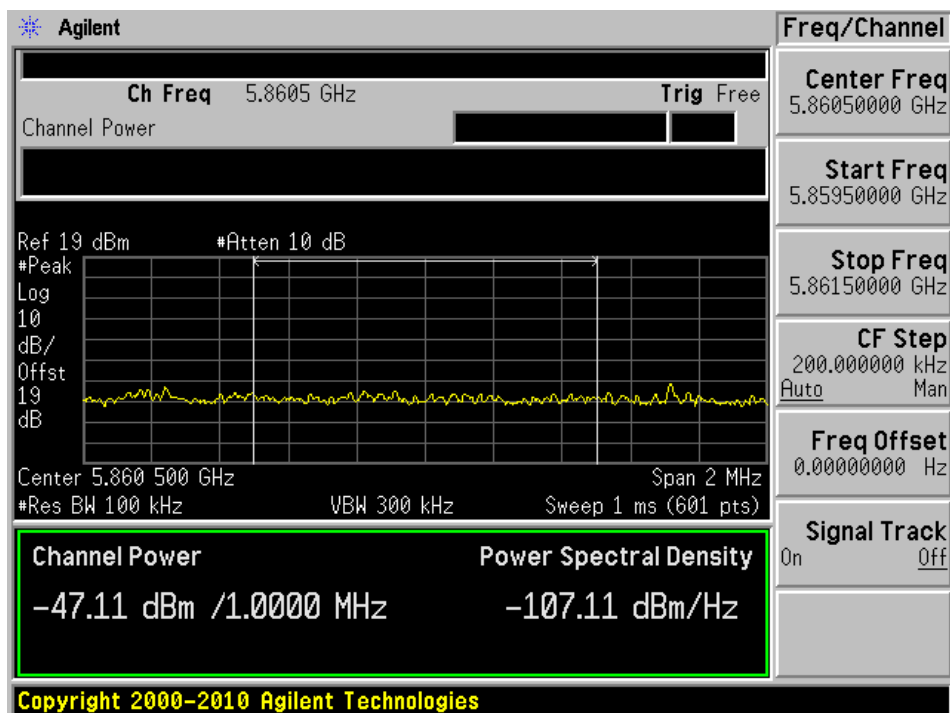
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

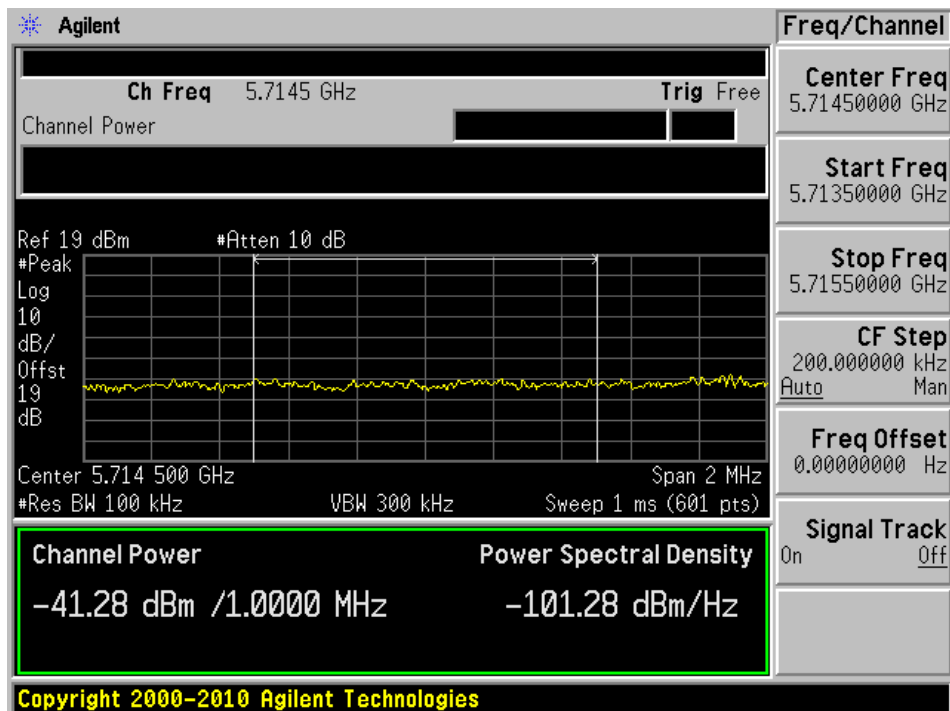


High channel: 5825 MHz – 5860.5 MHz

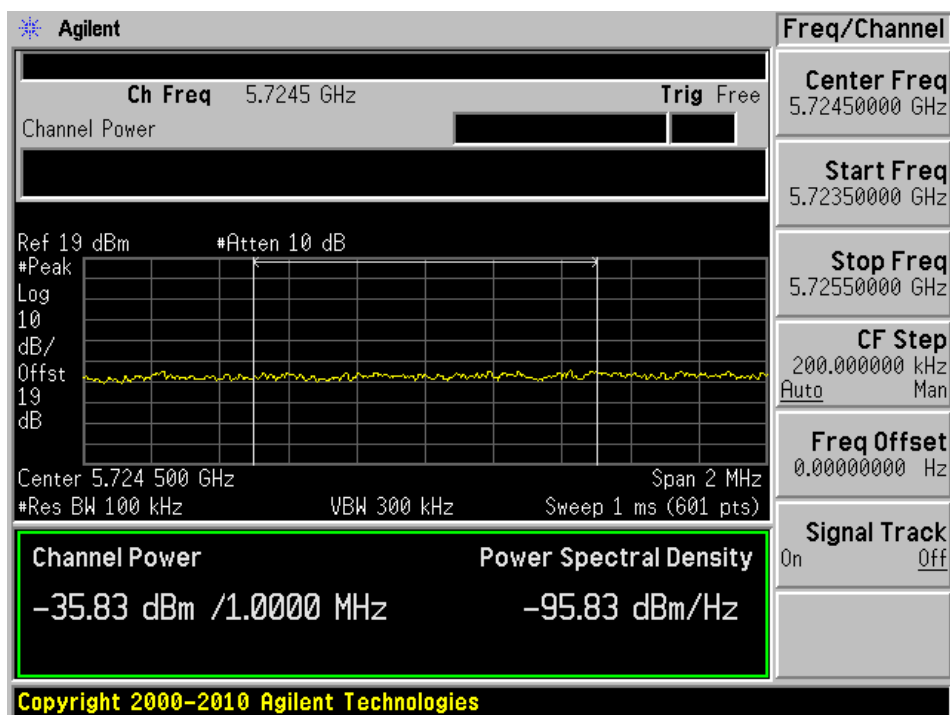


5.8 GHz Band
802.11n40
8 dBi Antenna Chain 2

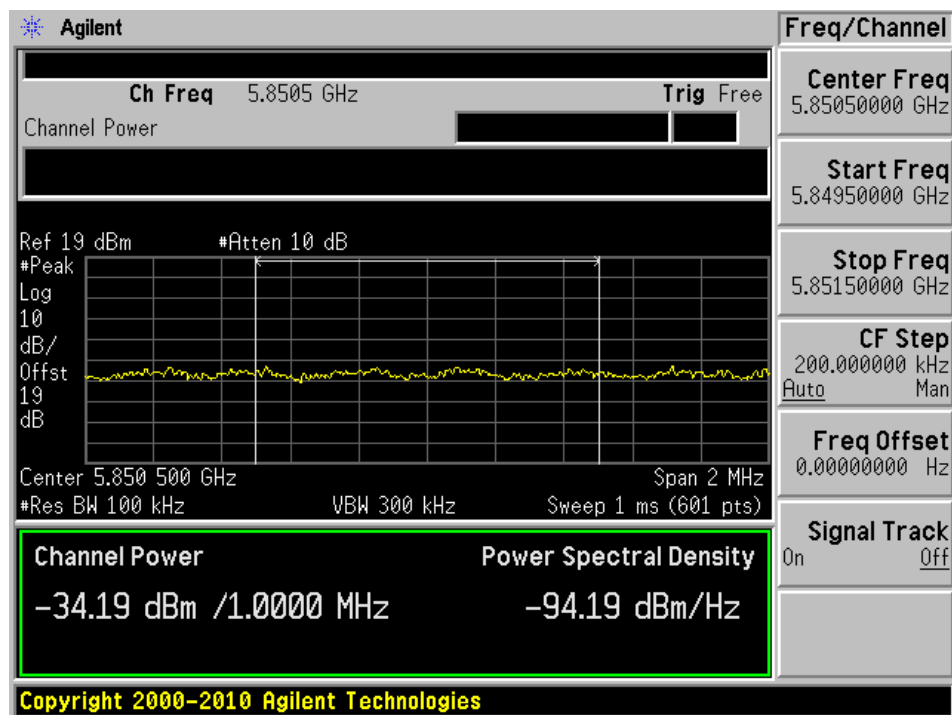
Low channel: 5755 MHz – 5714.5 MHz



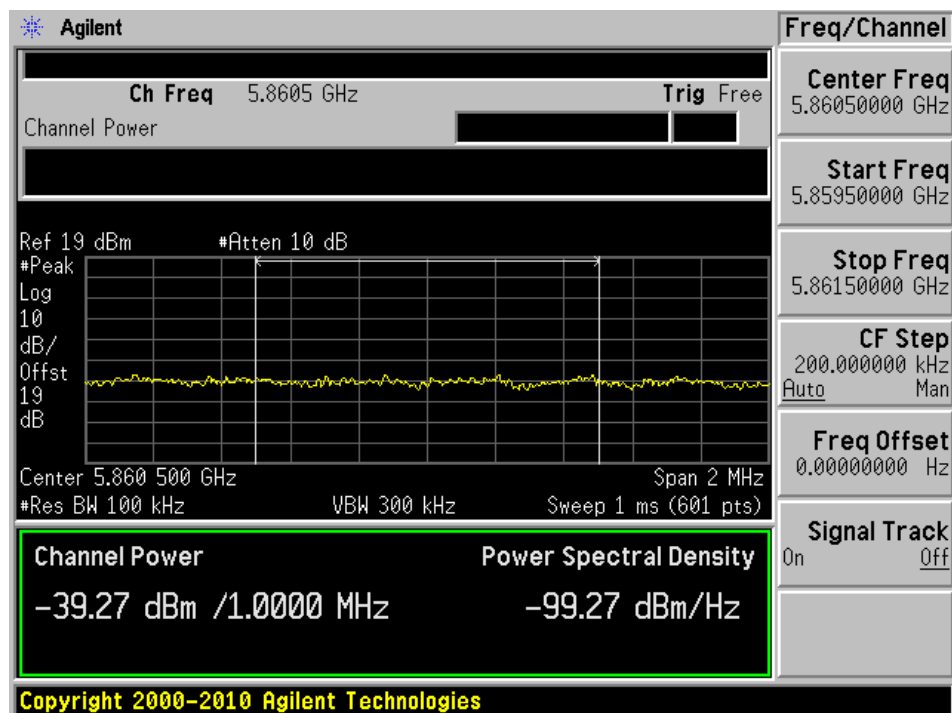
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz



High channel: 5795 MHz – 5860.5 MHz



5.8 GHz, 12 dBi antenna gain

Within 10 MHz

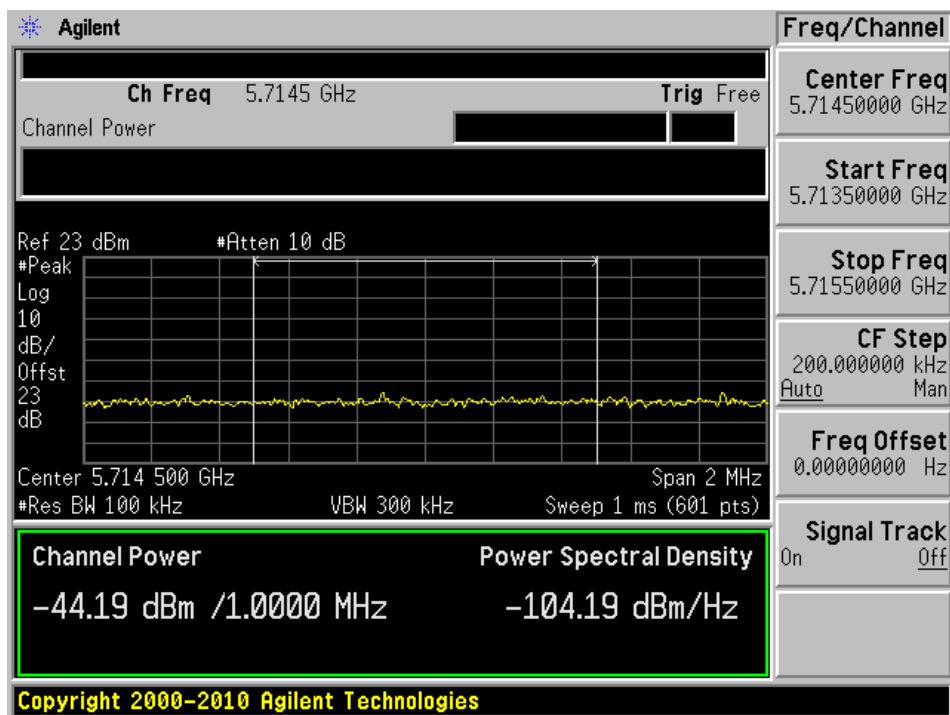
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-37.91	-41.00	-34.97	-17	Pass
High	5825	-47.36	-47.58	-45.73	-17	Pass
802.11n HT20 mode						
Low	5745	-40.01	-41.11	-36.03	-17	Pass
High	5825	-45.8	-46.91	-45.68	-17	Pass
802.11n HT40 mode						
Low	5755	-36.18	-38.46	-33.22	-17	Pass
High	5795	-47.08	-48.31	-44.53	-17	Pass

Outside 10 MHz

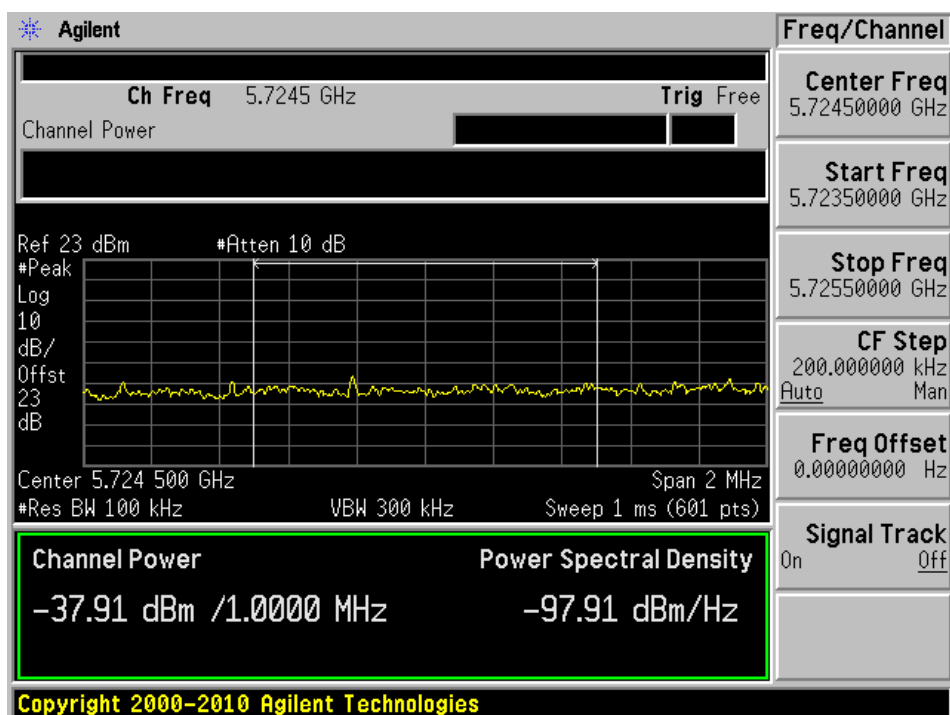
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-44.19	-46.27	-43.24	-27	Pass
High	5825	-48.72	-48.57	-49.34	-27	Pass
802.11n HT20 mode						
Low	5745	-44.89	-46.5	-43.89	-27	Pass
High	5825	-49.24	-48.3	-48.58	-27	Pass
802.11n HT40 mode						
Low	5755	-44.11	-45.83	-40.56	-27	Pass
High	5795	-48.27	-49.36	-45.84	-27	Pass

5.8 GHz Band
802.11a
12 dBi Antenna Chain 0

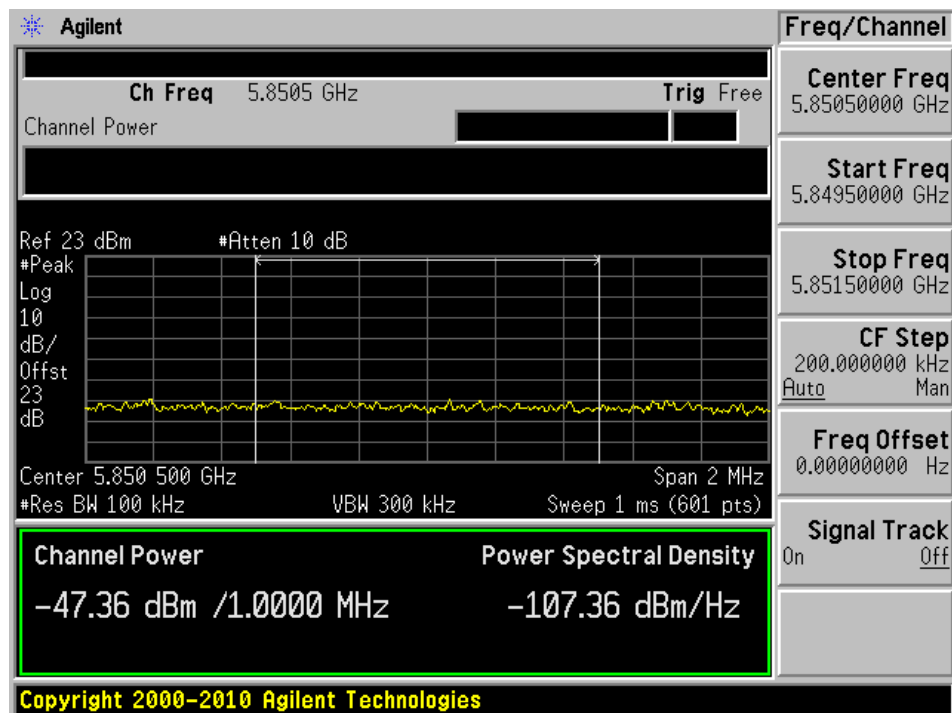
Low channel: 5745 MHz – 5714.5 MHz



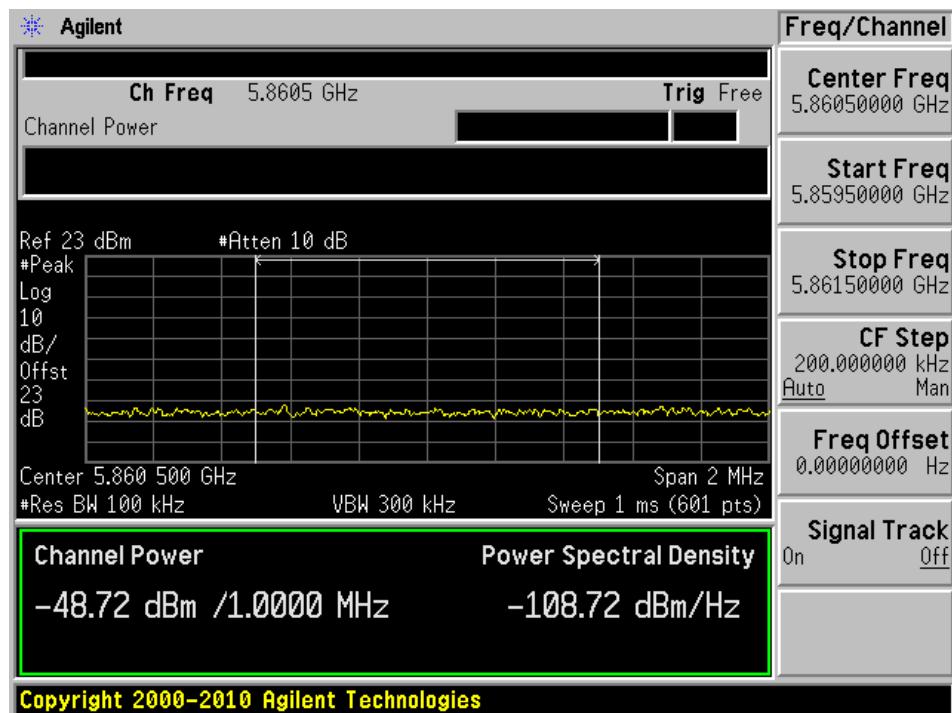
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

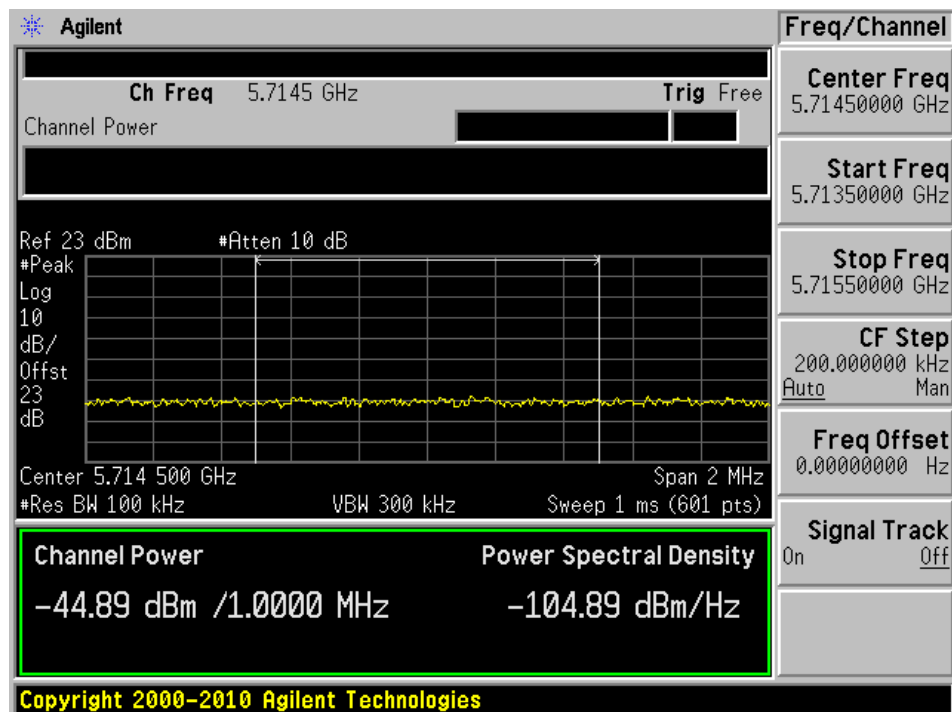


High channel: 5825 MHz – 5860.5 MHz

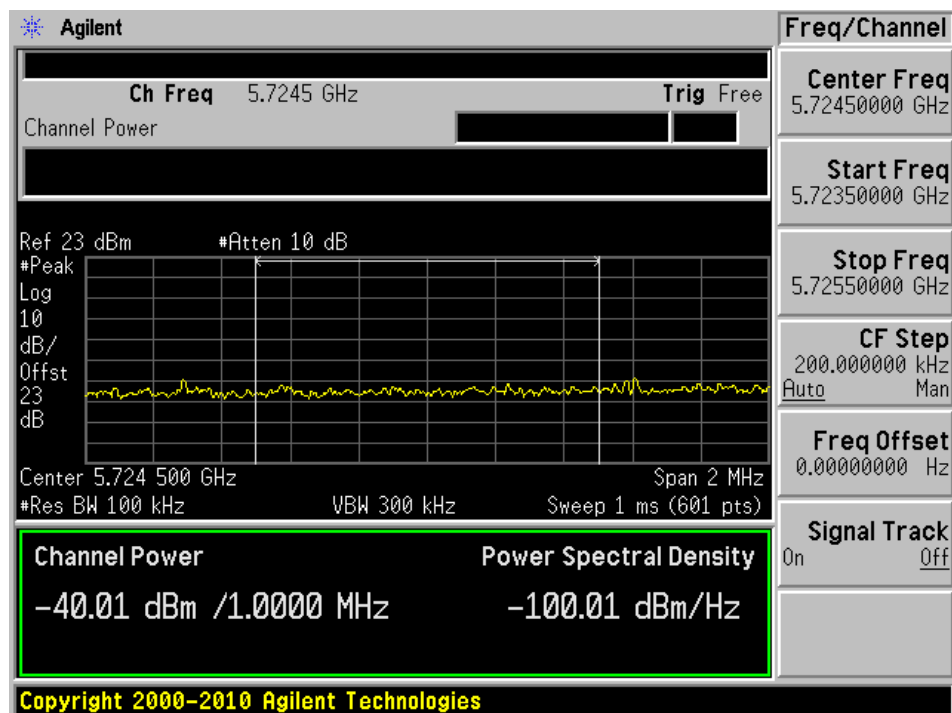


5.8 GHz Band
802.11n20
12 dBi Antenna Chain 0

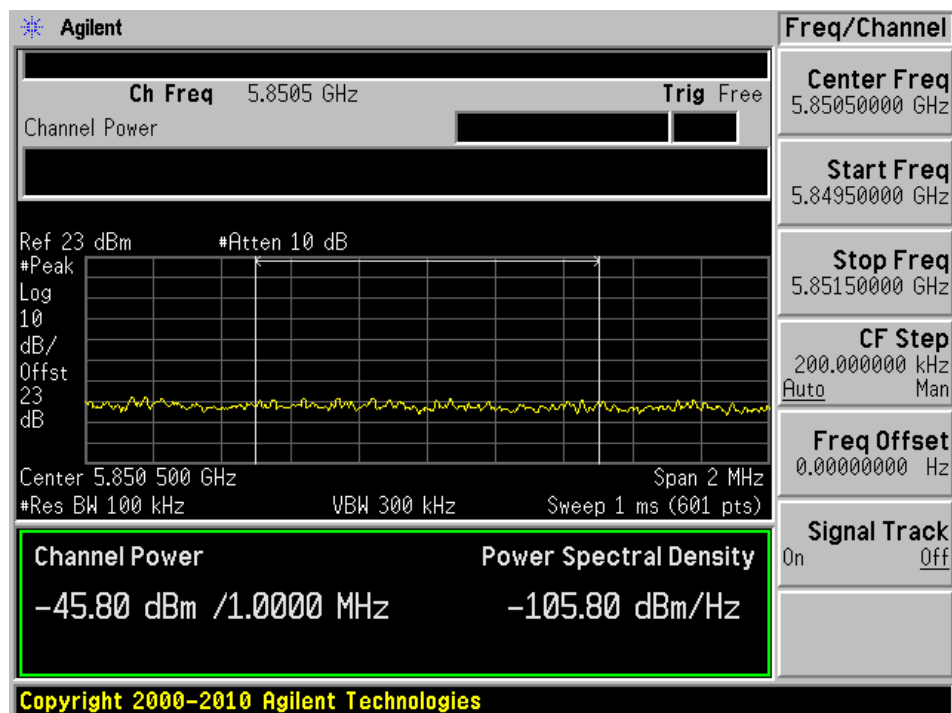
Low channel: 5745 MHz – 5714.5 MHz



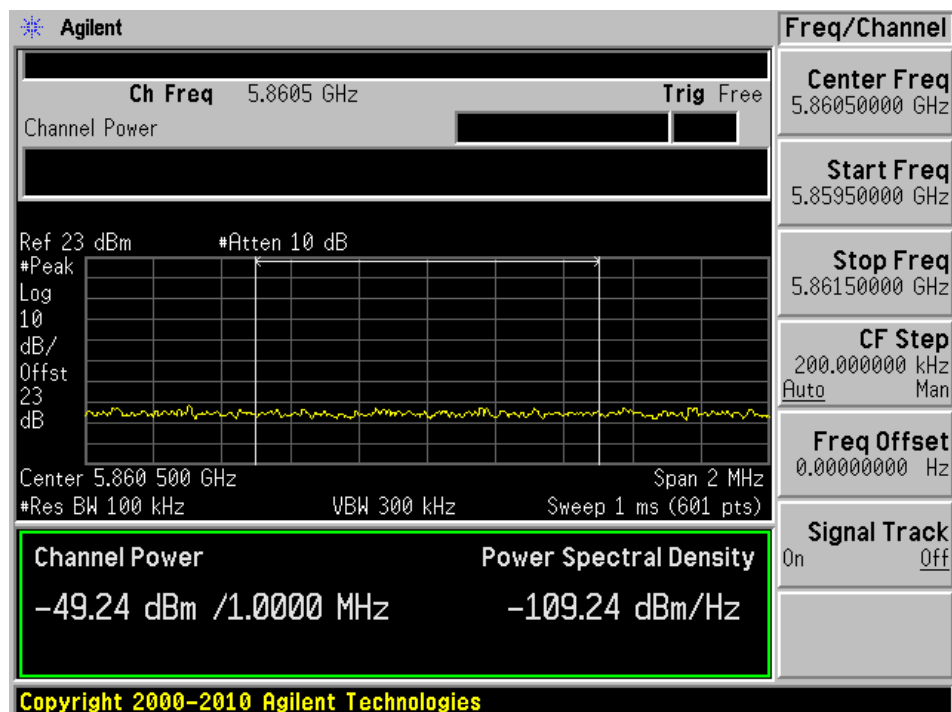
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

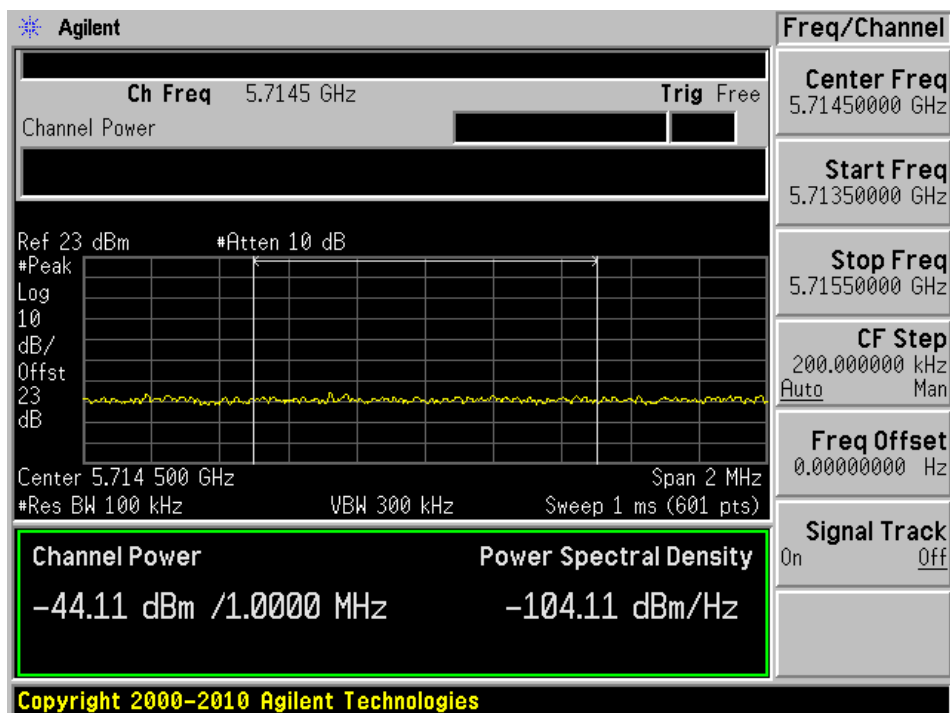


High channel: 5825 MHz – 5860.5 MHz

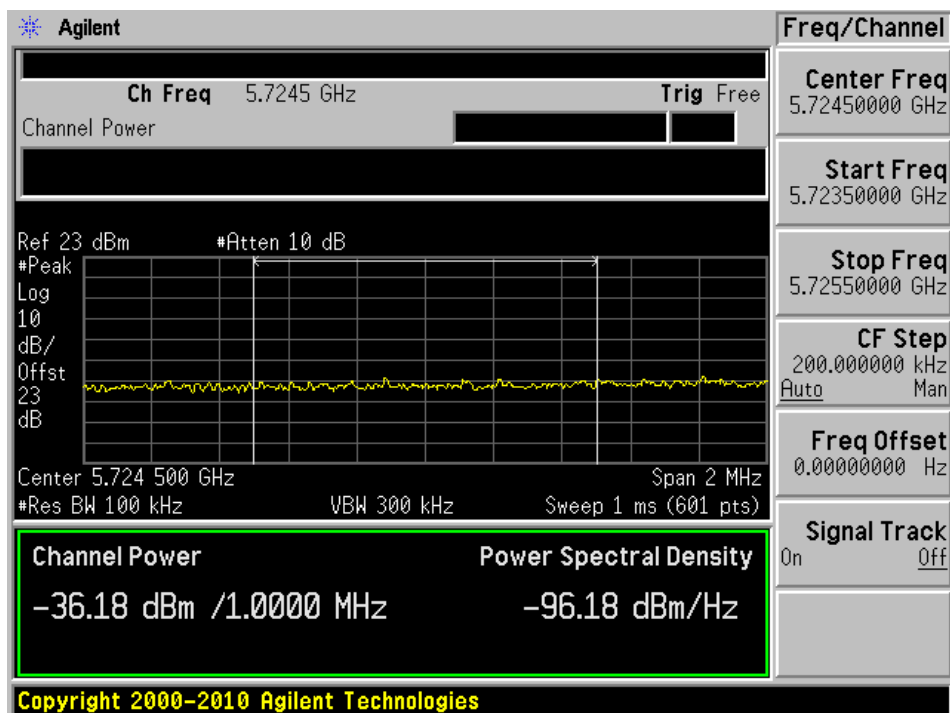


5.8 GHz Band
802.11n40
12 dBi Antenna Chain 0

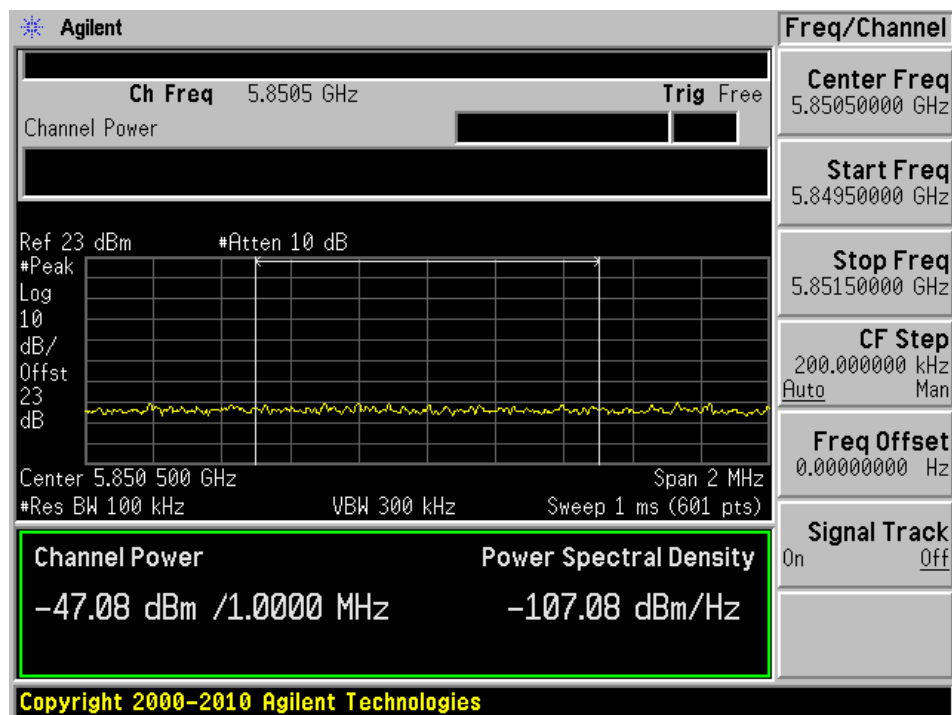
Low channel: 5755 MHz – 5714.5 MHz



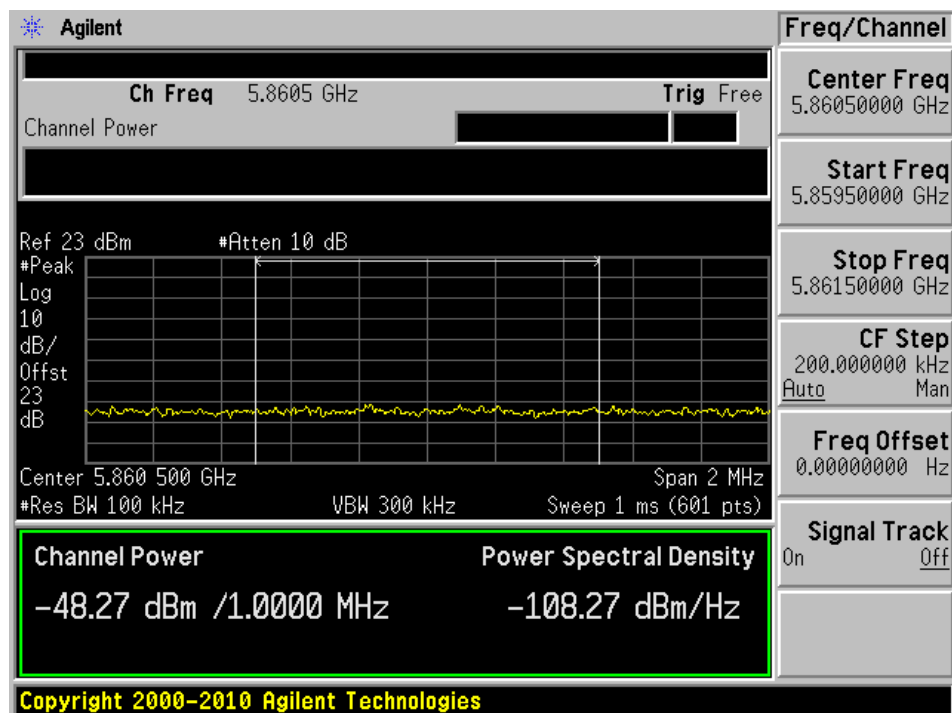
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

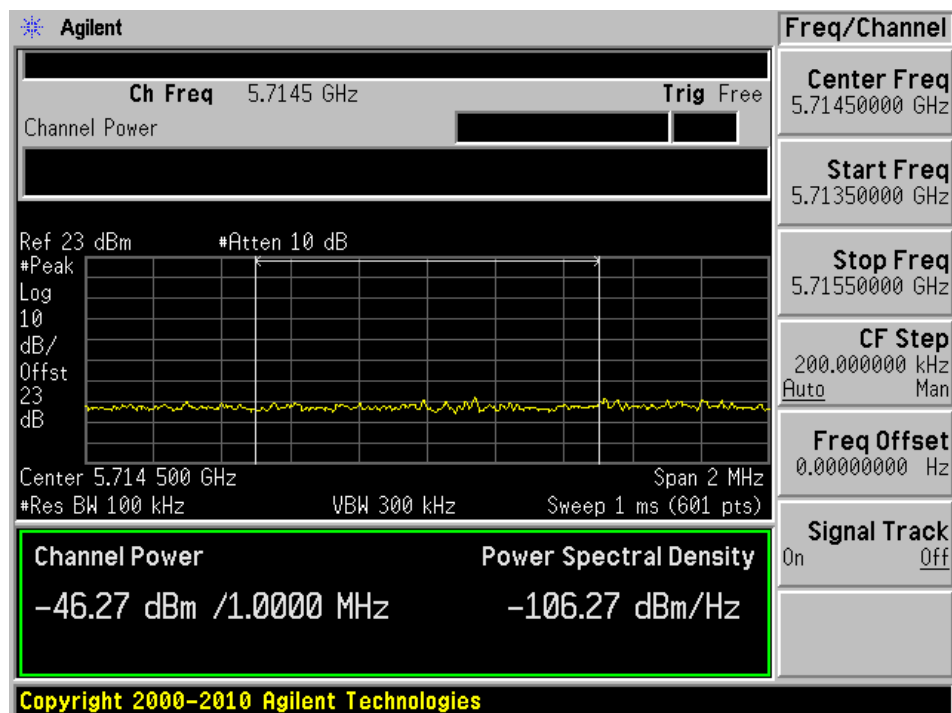


High channel: 5795 MHz – 5860.5 MHz

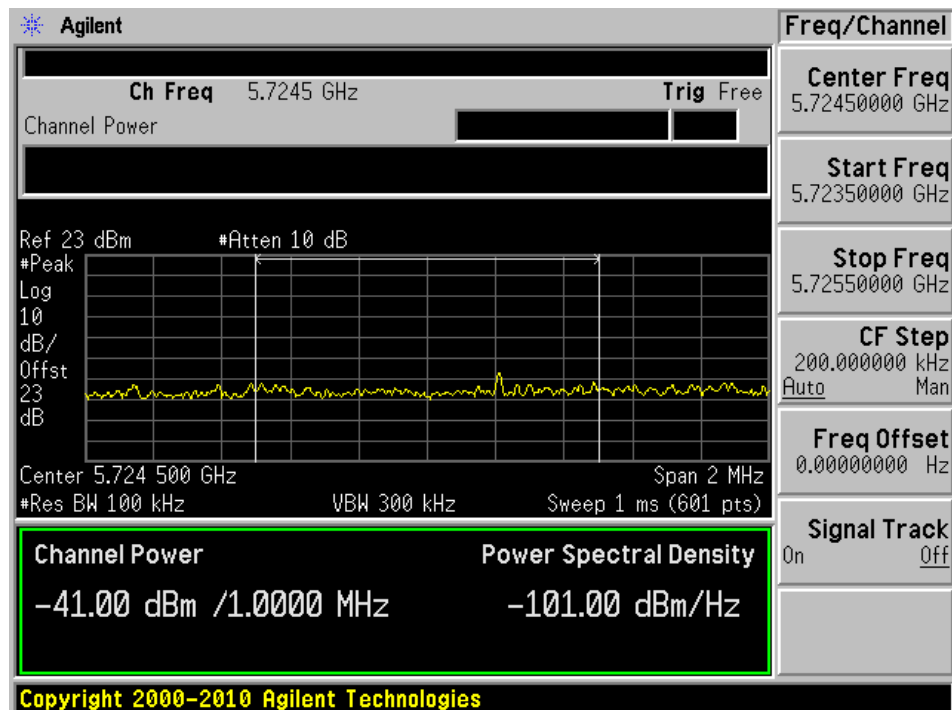


5.8 GHz Band
802.11a
12 dBi Antenna Chain 1

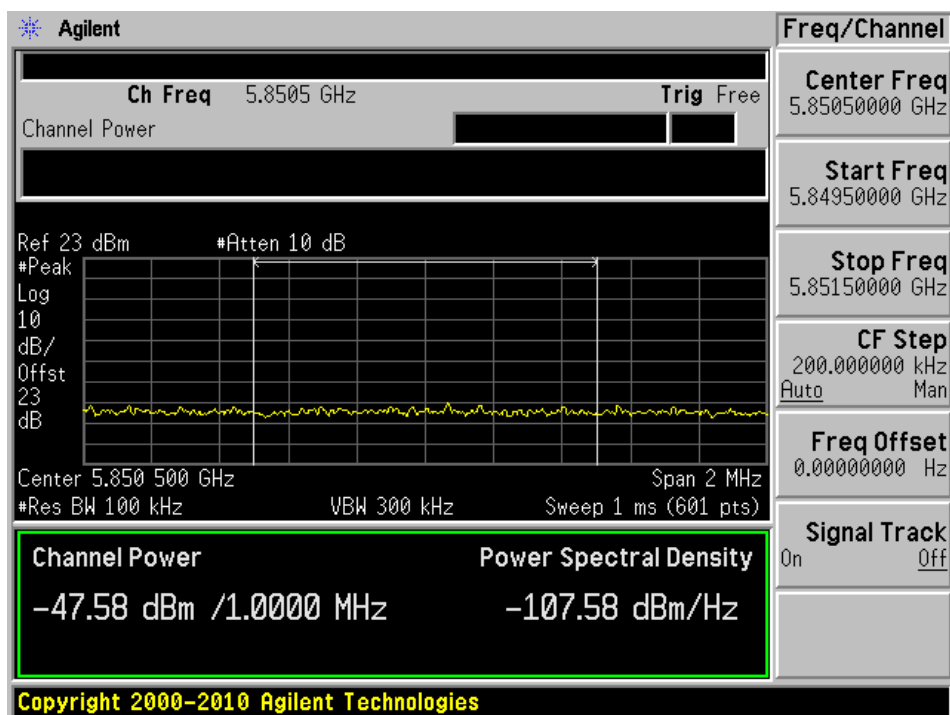
Low channel: 5745 MHz – 5714.5 MHz



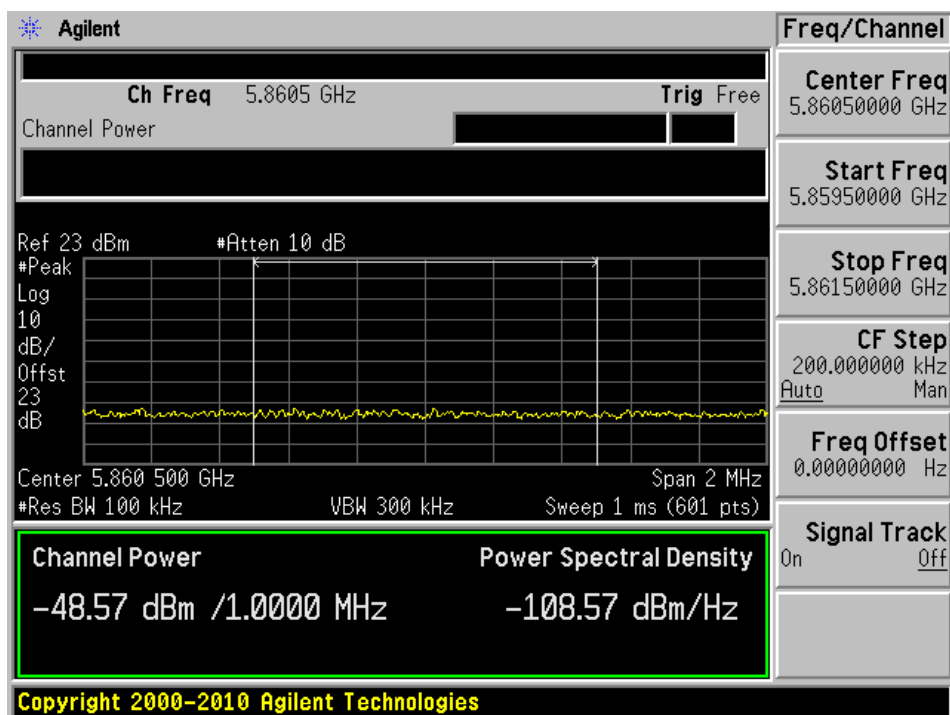
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

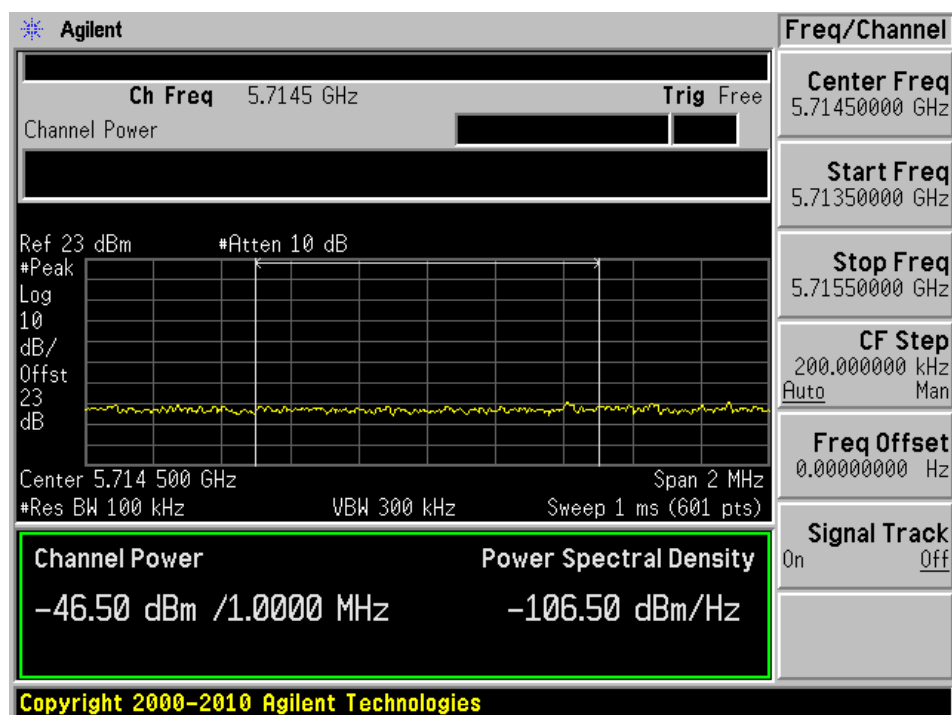


High channel: 5825 MHz – 5860.5 MHz

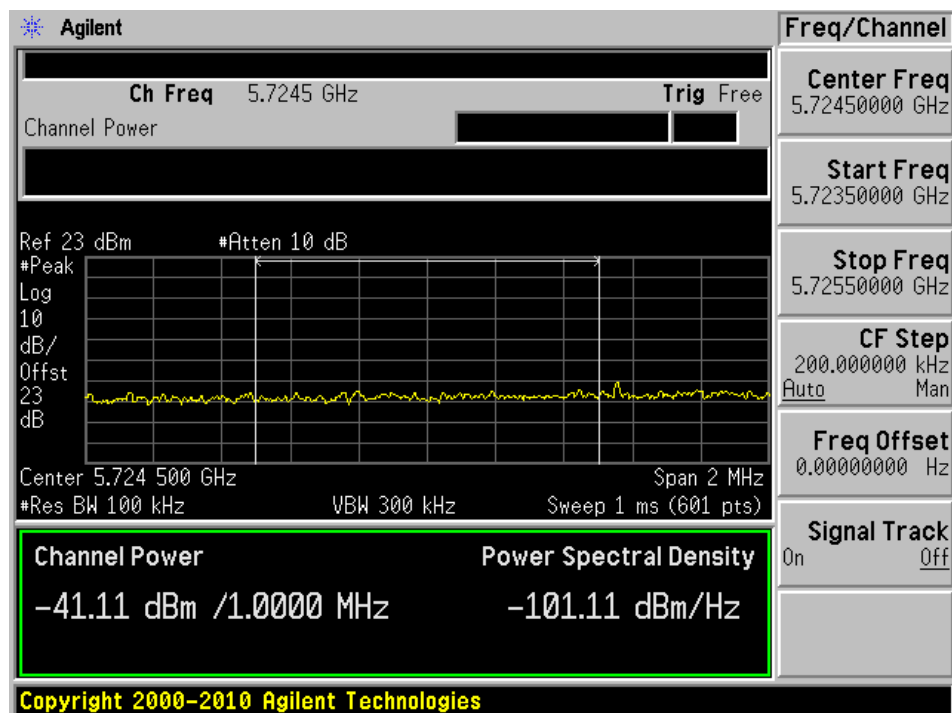


5.8 GHz Band
802.11n20
12 dBi Antenna Chain 1

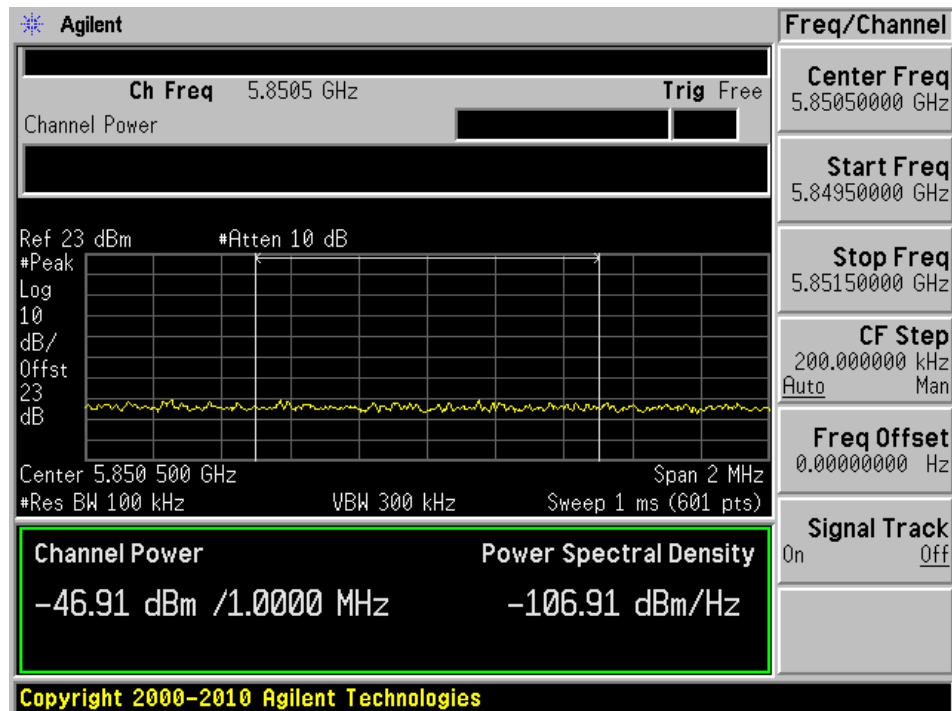
Low channel: 5745 MHz – 5714.5 MHz



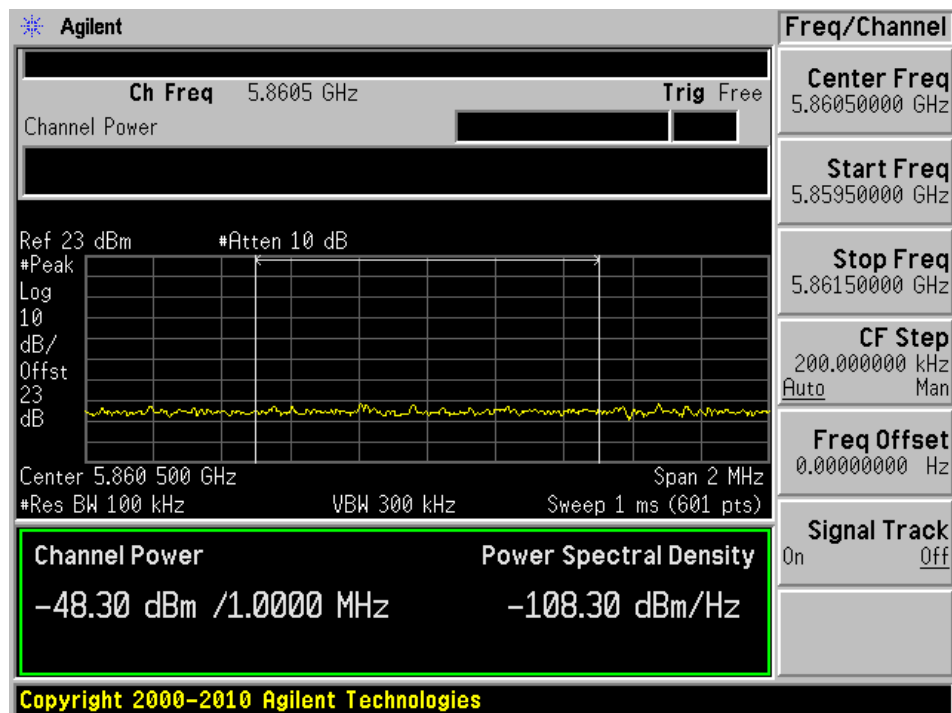
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

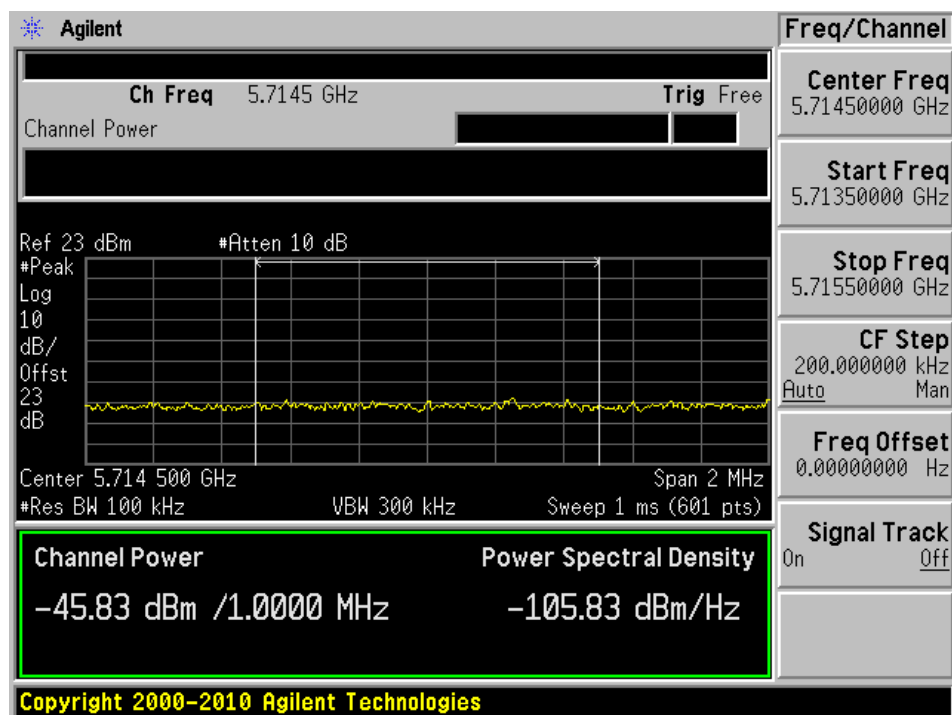


High channel: 5825 MHz – 5860.5 MHz

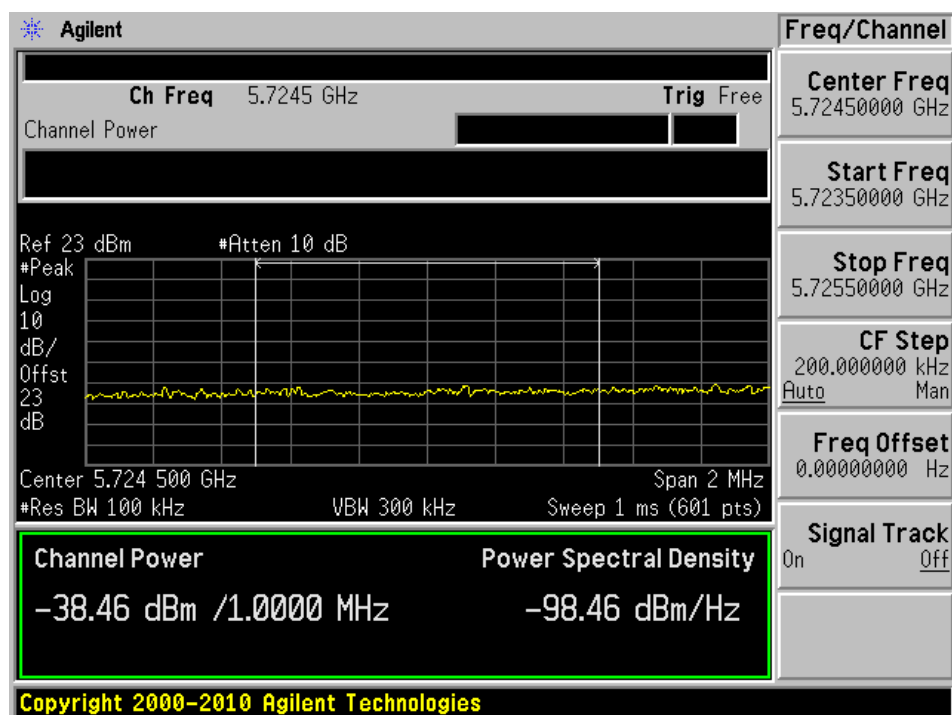


5.8 GHz Band
802.11n40
12 dBi Antenna Chain 1

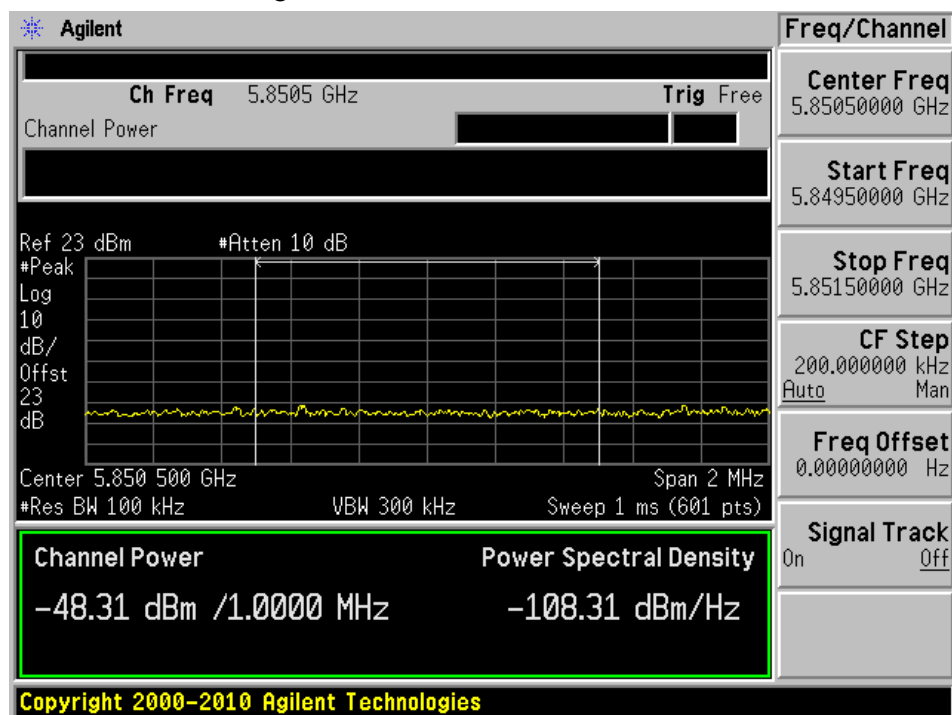
Low channel: 5755 MHz – 5714.5 MHz



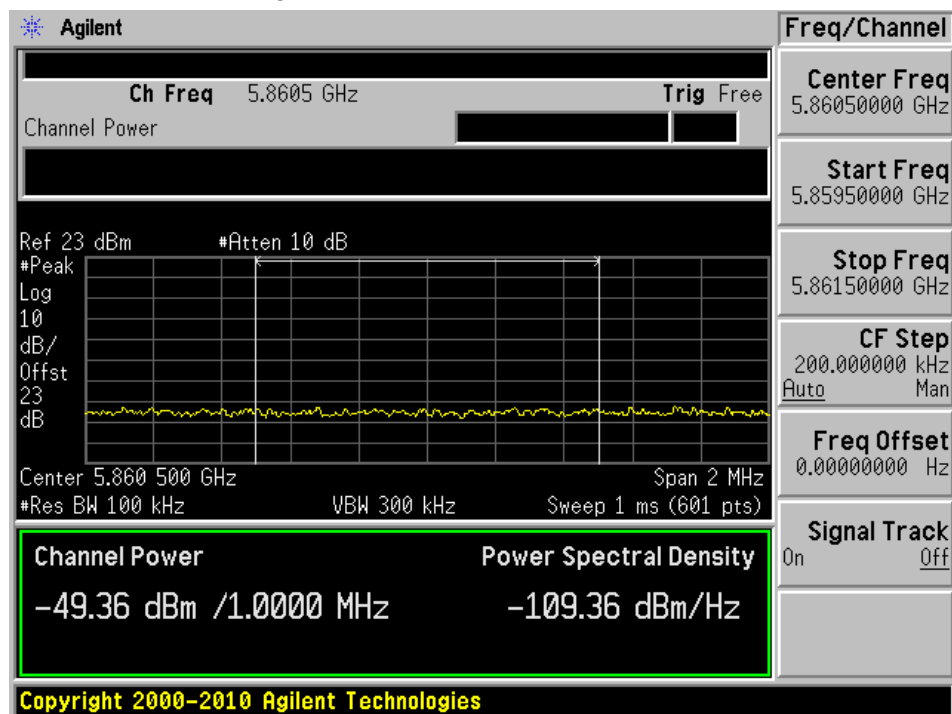
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

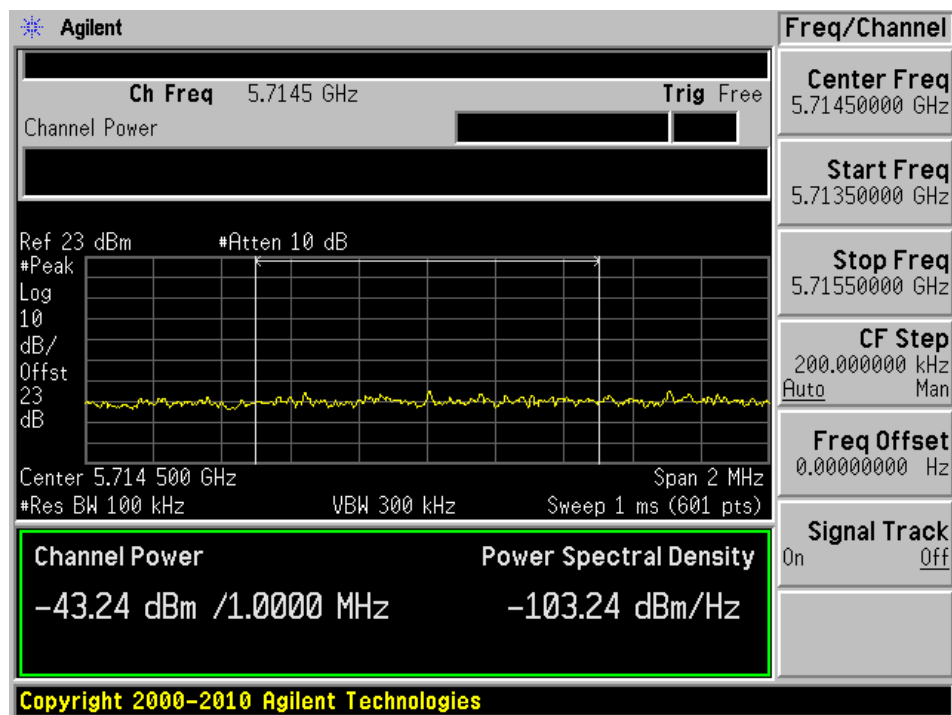


High channel: 5795 MHz – 5860.5 MHz

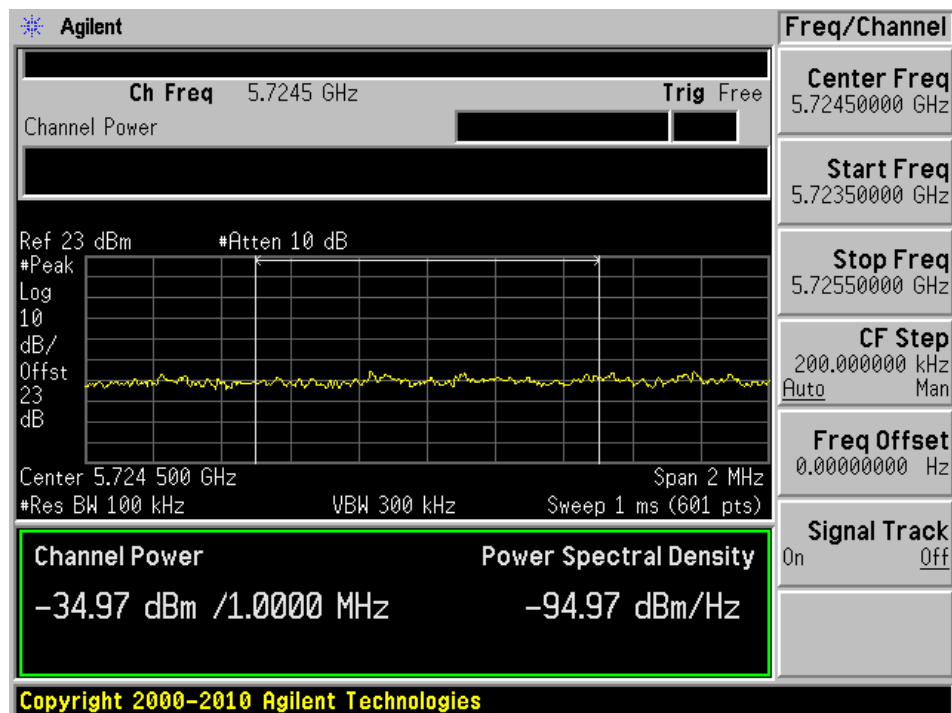


5.8 GHz Band
802.11a
12 dBi Antenna Chain 2

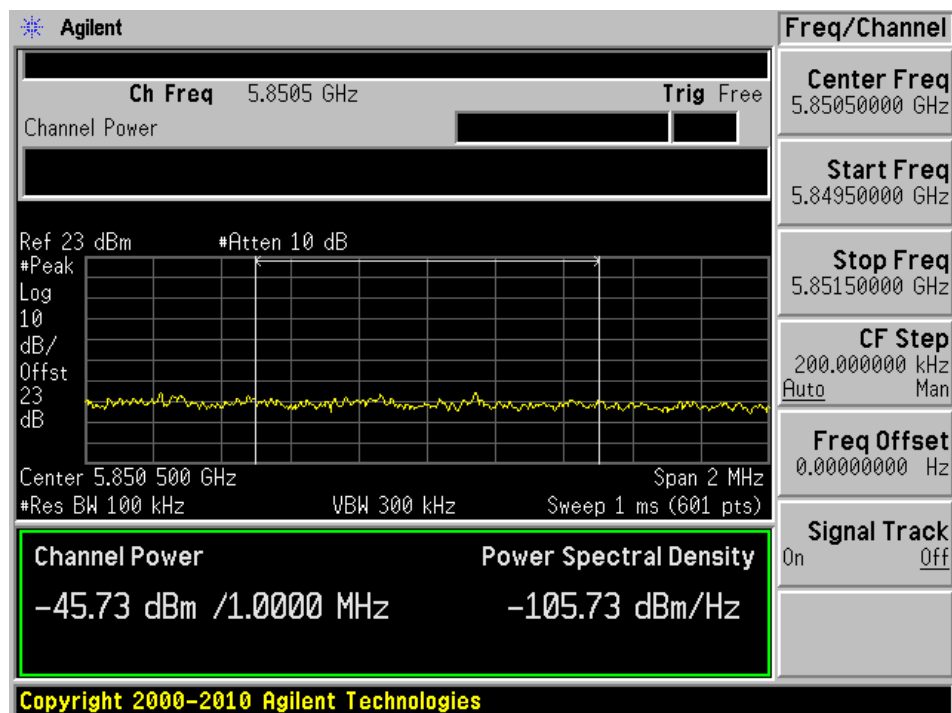
Low channel: 5745 MHz – 5714.5 MHz



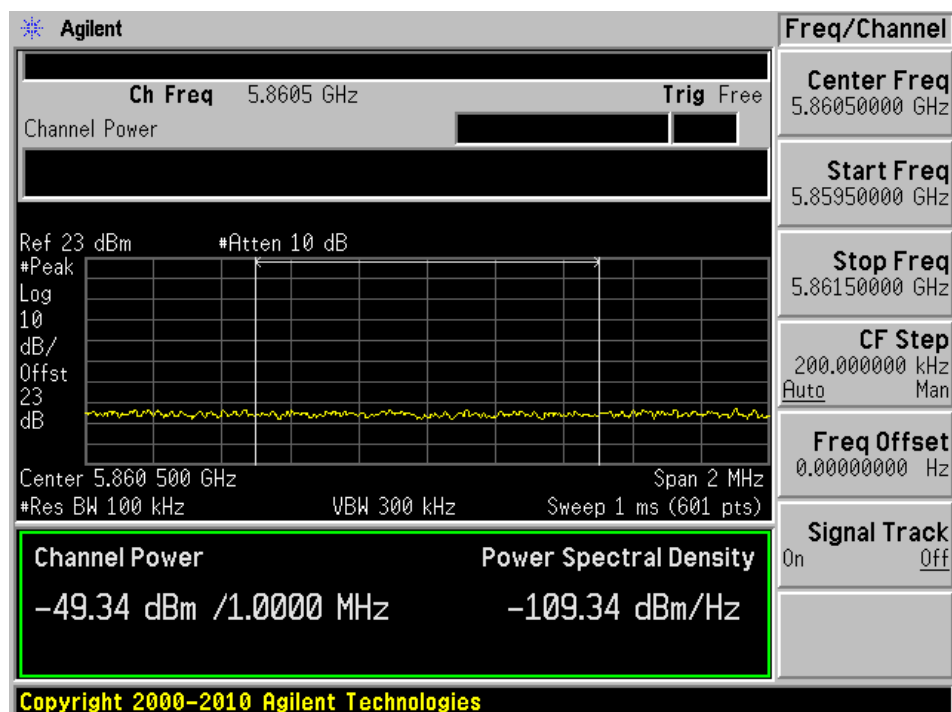
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

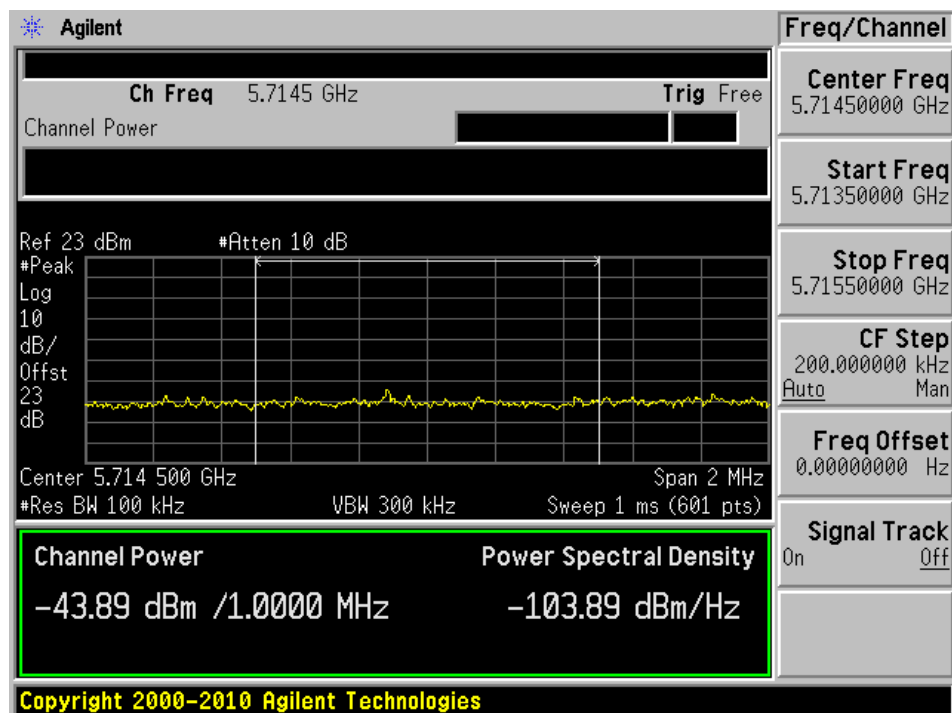


High channel: 5825 MHz – 5860.5 MHz

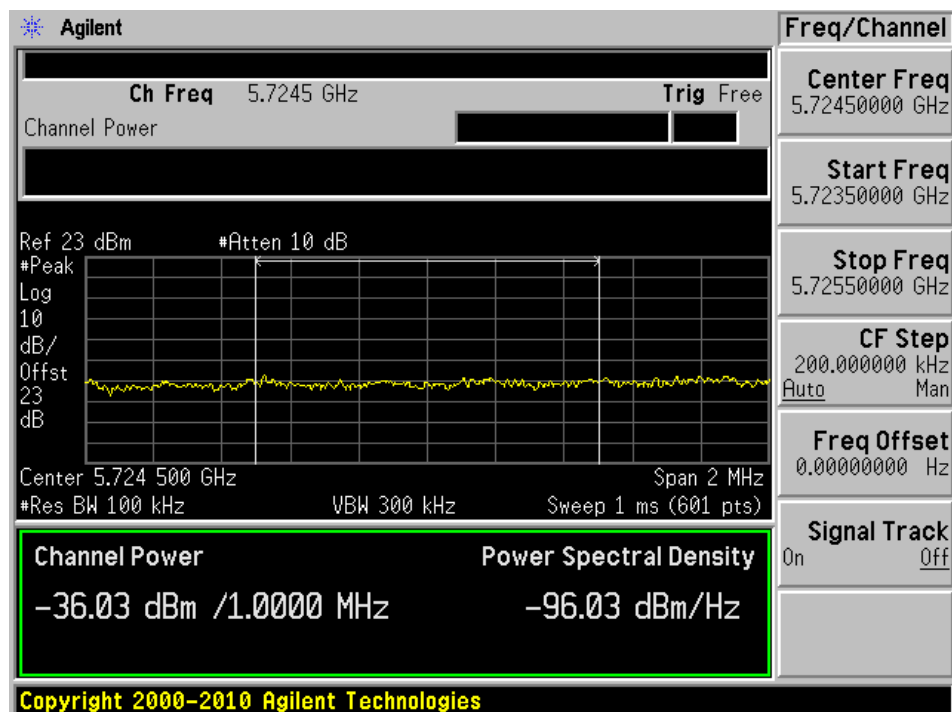


5.8 GHz Band
802.11n20
12 dBi Antenna Chain 2

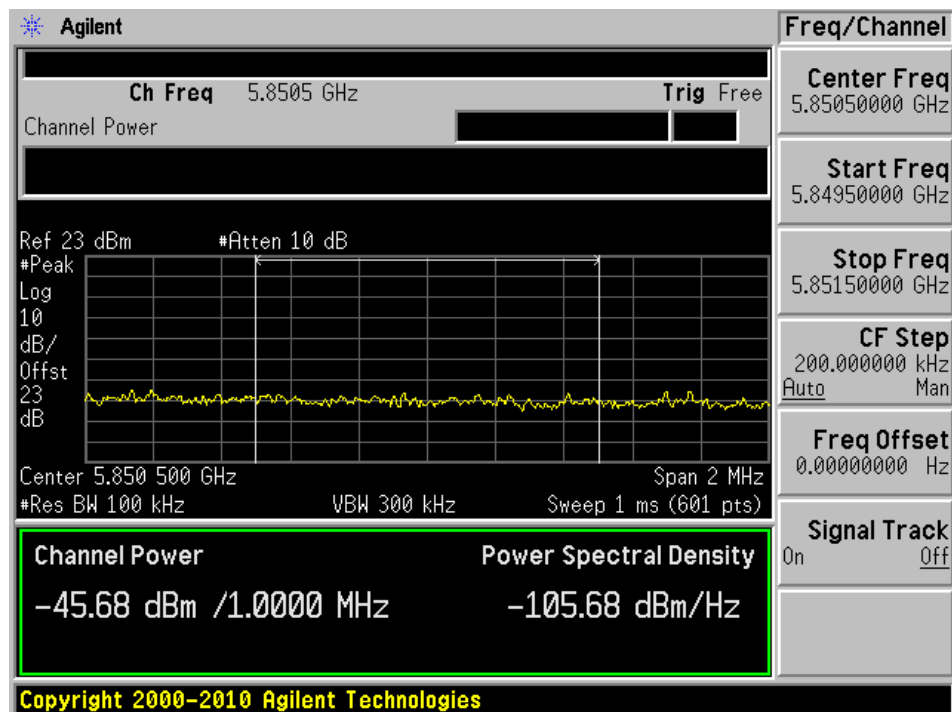
Low channel: 5745 MHz – 5714.5 MHz



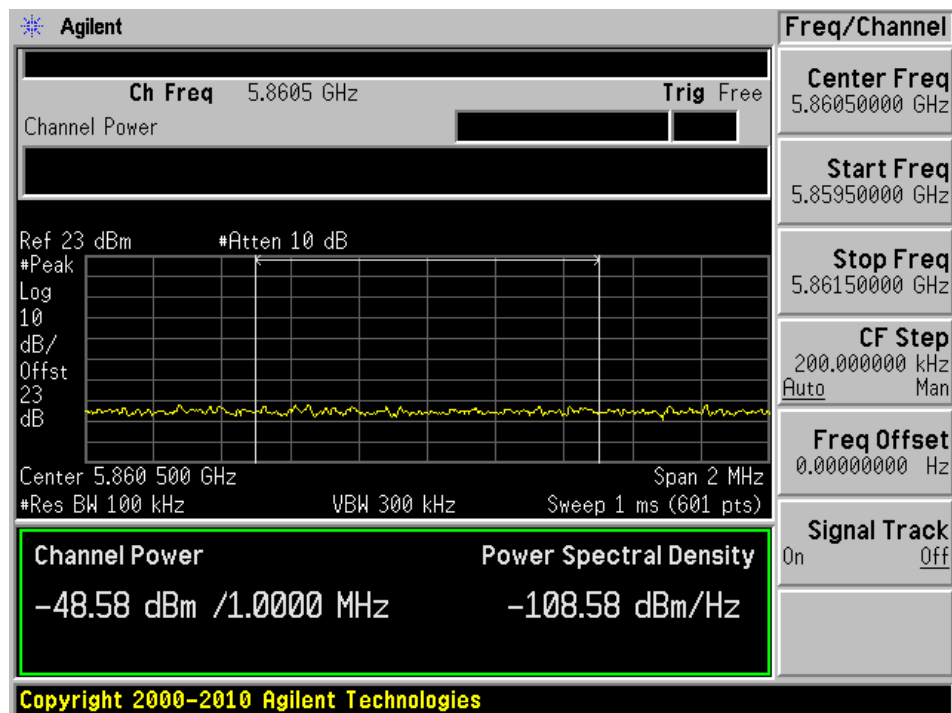
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

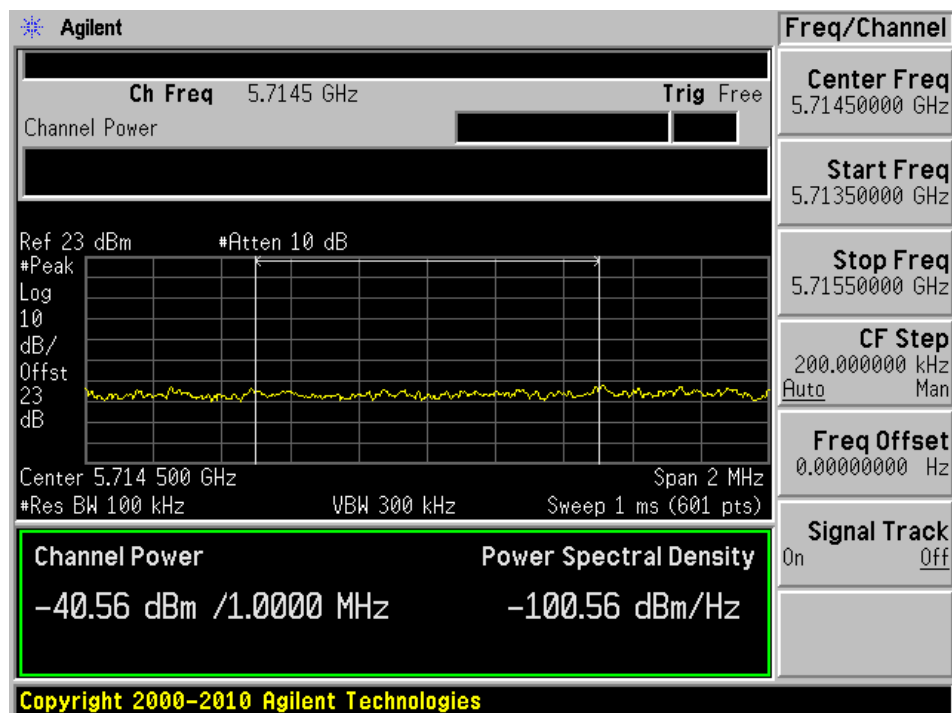


High channel: 5825 MHz – 5860.5 MHz

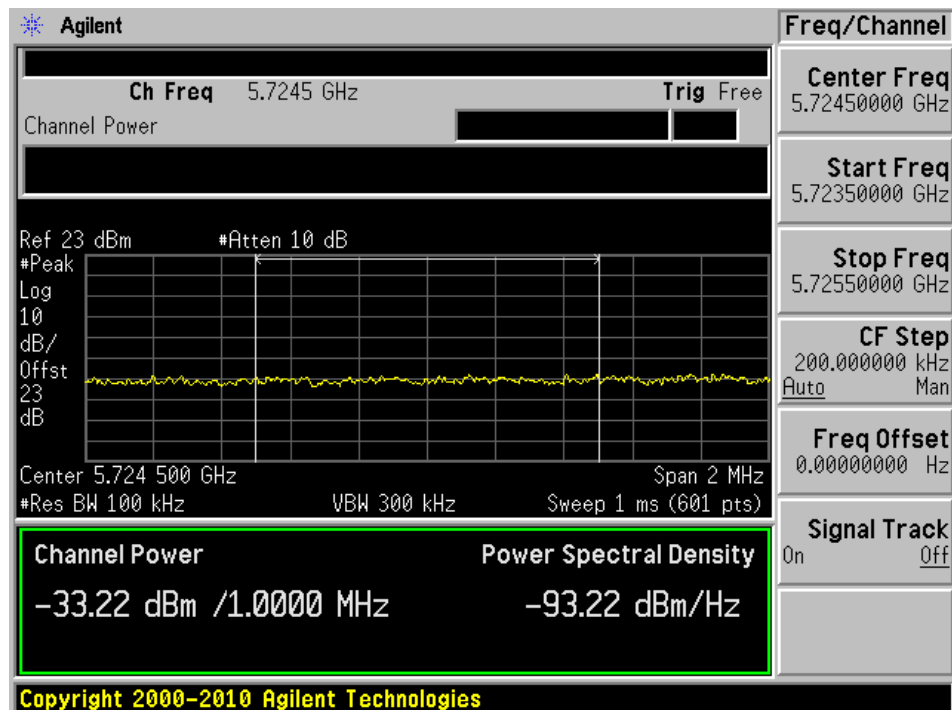


5.8 GHz Band
802.11n40
12 dBi Antenna Chain 2

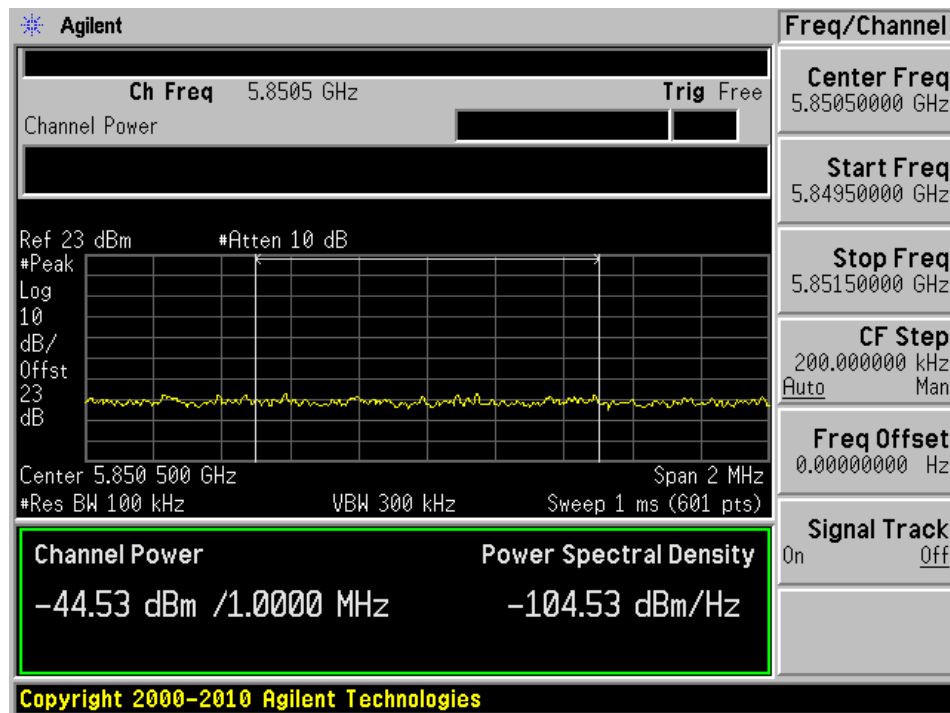
Low channel: 5755 MHz – 5714.5 MHz



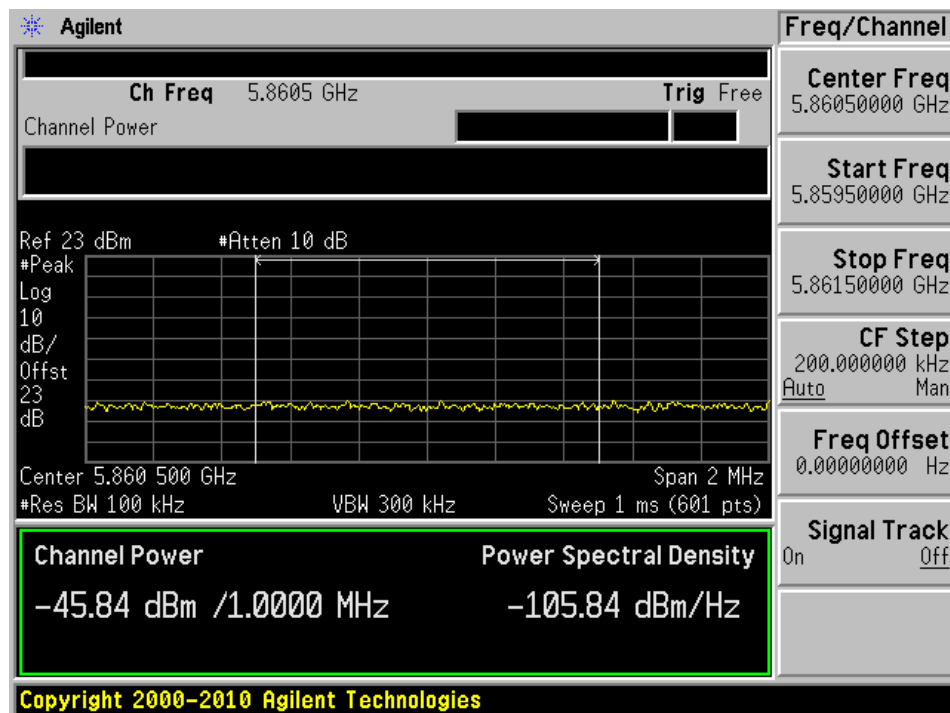
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz



High channel: 5795 MHz – 5860.5 MHz



5.8 GHz Band, 15 dBi antenna gain

Within 10 MHz

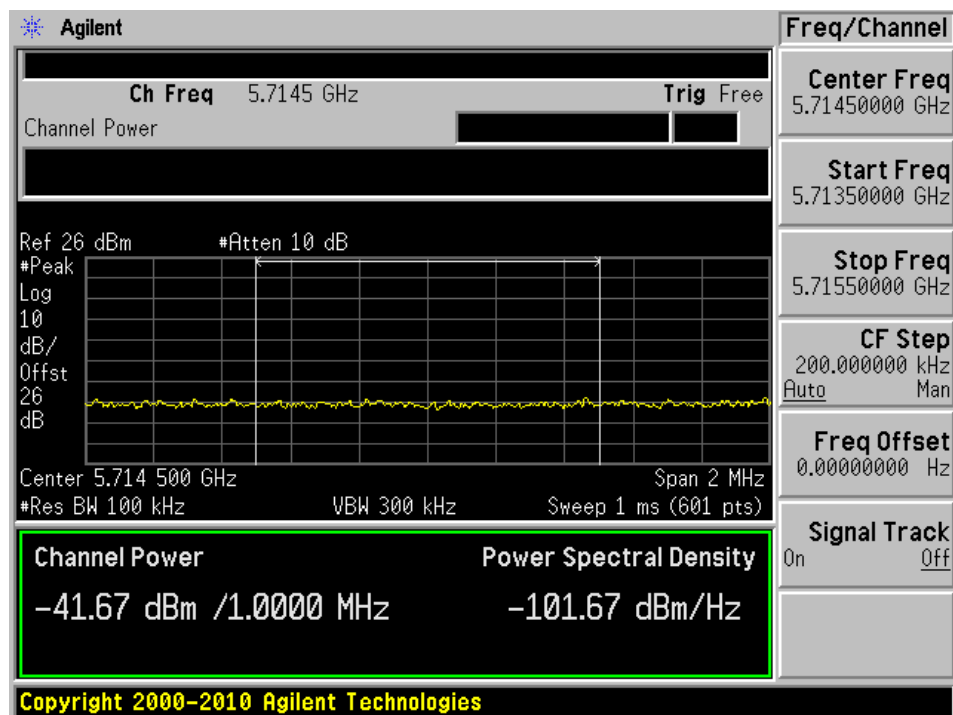
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-38.89	-40.22	-36.23	-17	Pass
High	5825	-45.47	-47.27	-44.23	-17	Pass
802.11n HT20 mode						
Low	5745	-37.57	-39.1	-33.7	-17	Pass
High	5825	-45.72	-46.42	-44.67	-17	Pass
802.11n HT40 mode						
Low	5755	-29.71	-32.05	-28.54	-17	Pass
High	5795	-46.61	-47.86	-45.06	-17	Pass

Outside 10 MHz

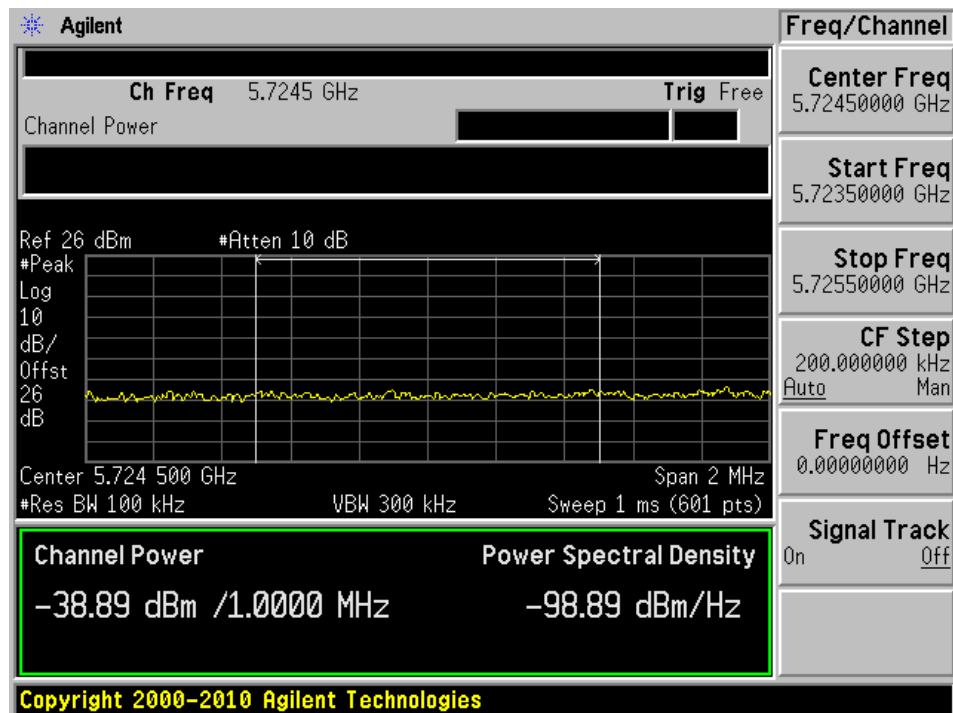
Channel	Frequency (MHz)	Band Edge Chain 0 (dBm/MHz)	Band Edge Chain 1 (dBm/MHz)	Band Edge Chain 2 (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a mode						
Low	5745	-41.67	-42.72	-42.18	-27	Pass
High	5825	-45.52	-48.49	-45.76	-27	Pass
802.11n HT20 mode						
Low	5745	-41.37	-42.94	-42.15	-27	Pass
High	5825	-46.53	-47.68	-46.94	-27	Pass
802.11n HT40 mode						
Low	5755	-36.86	-38.92	-33.44	-27	Pass
High	5795	-46.53	-48.45	-45.58	-27	Pass

**5.8 GHz Band
802.11a
15 dBi Antenna Chain 0**

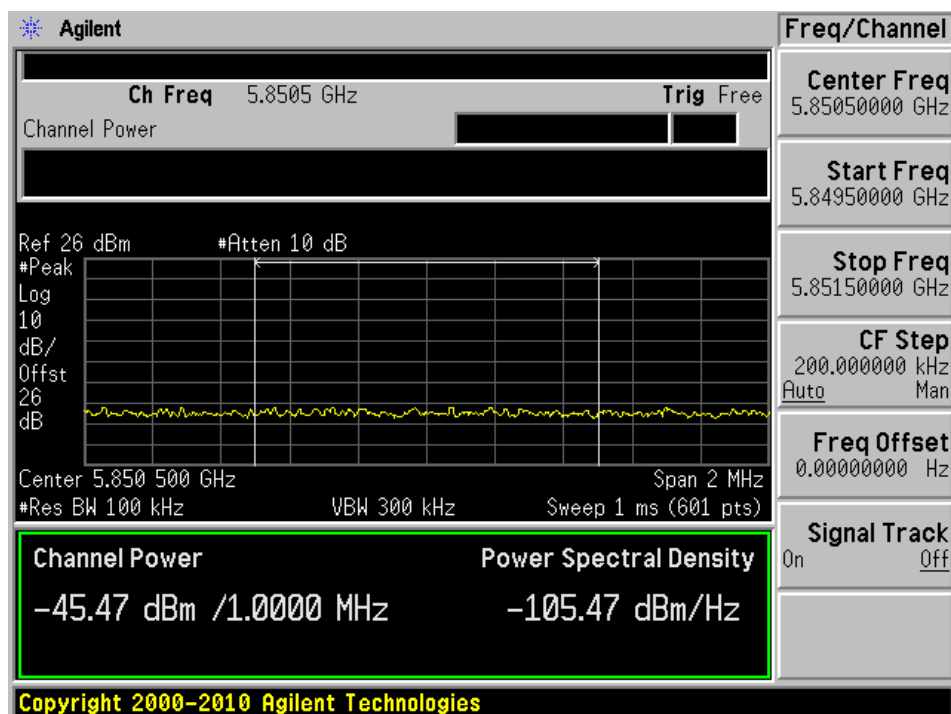
Low channel: 5745 MHz – 5714.5 MHz



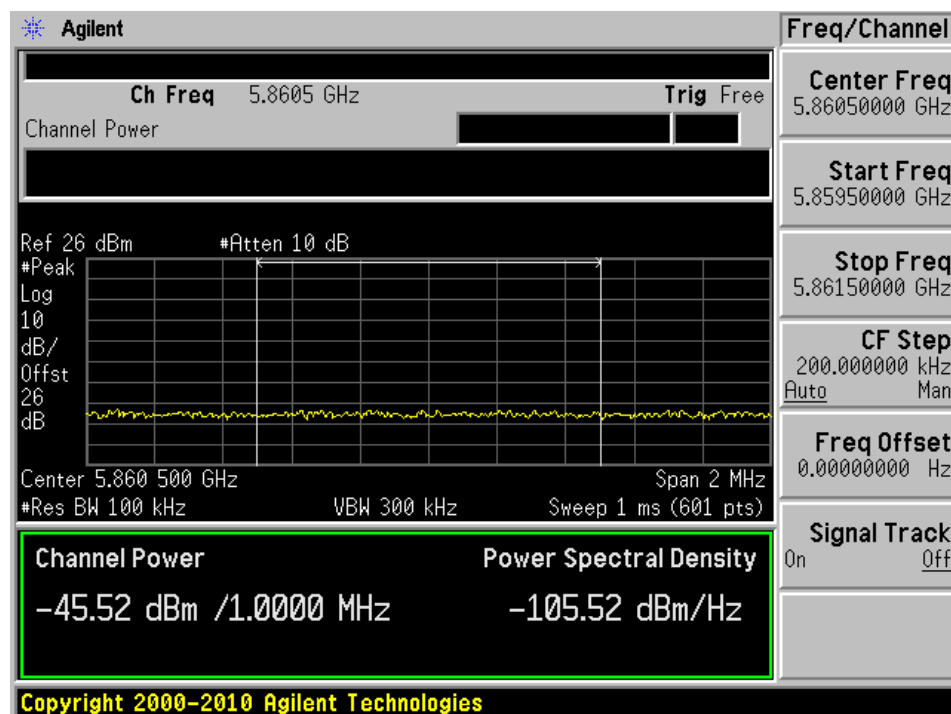
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

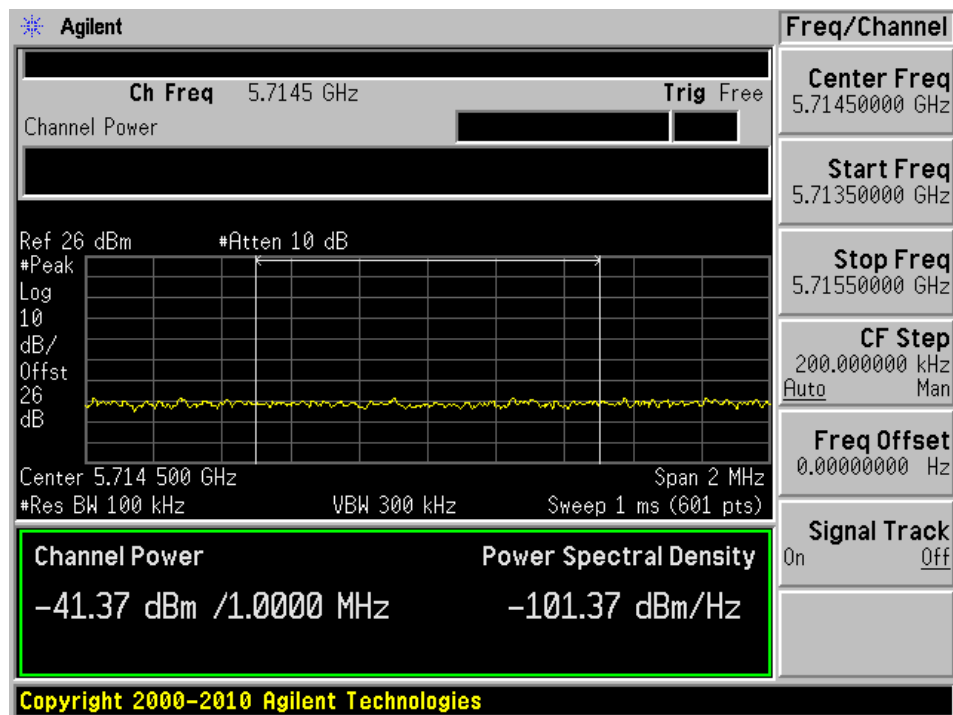


High channel: 5825 MHz – 5860.5 MHz

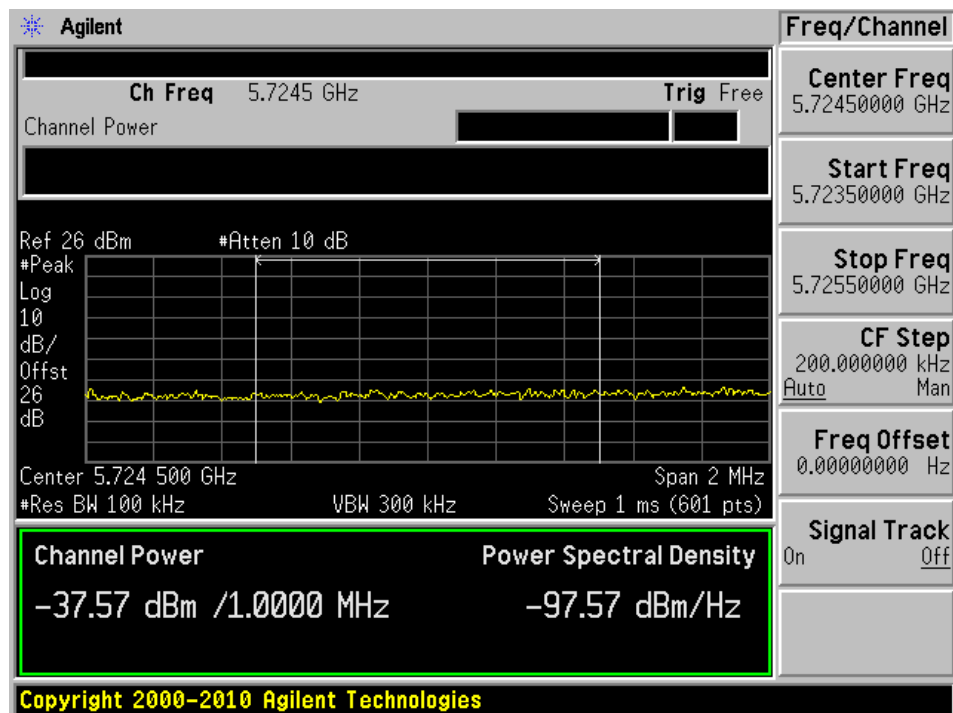


5.8 GHz Band
802.11n20
15 dBi Antenna Chain 0

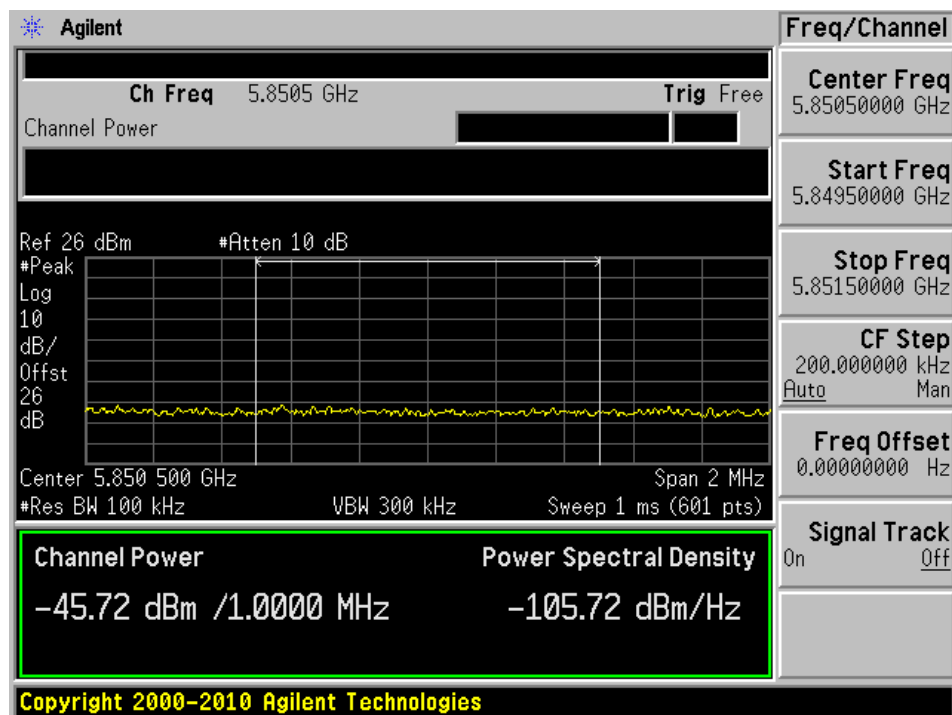
Low channel: 5745 MHz – 5714.5 MHz



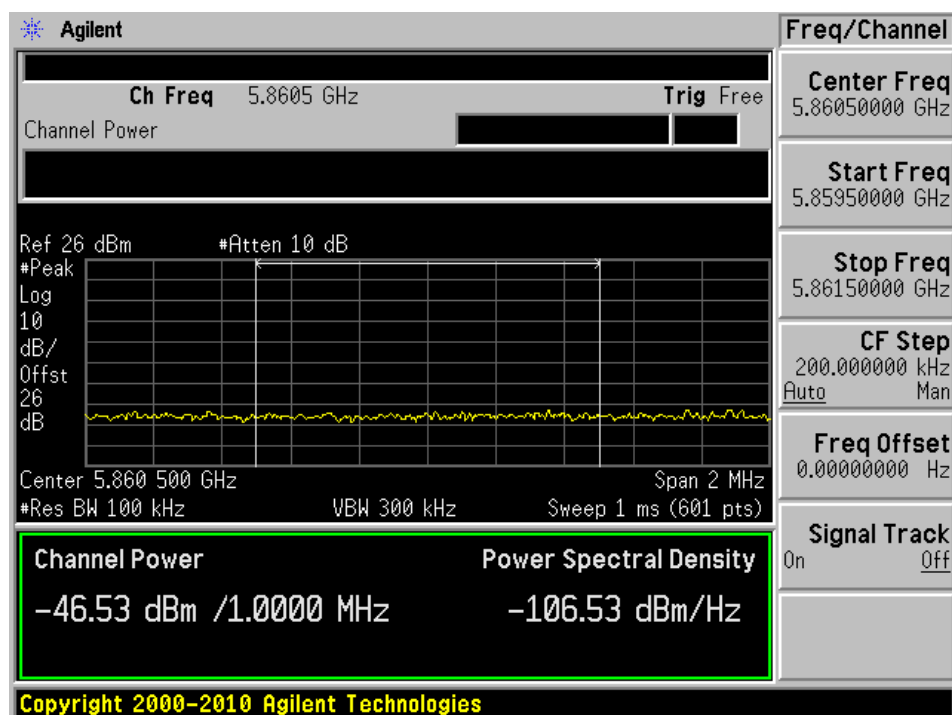
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

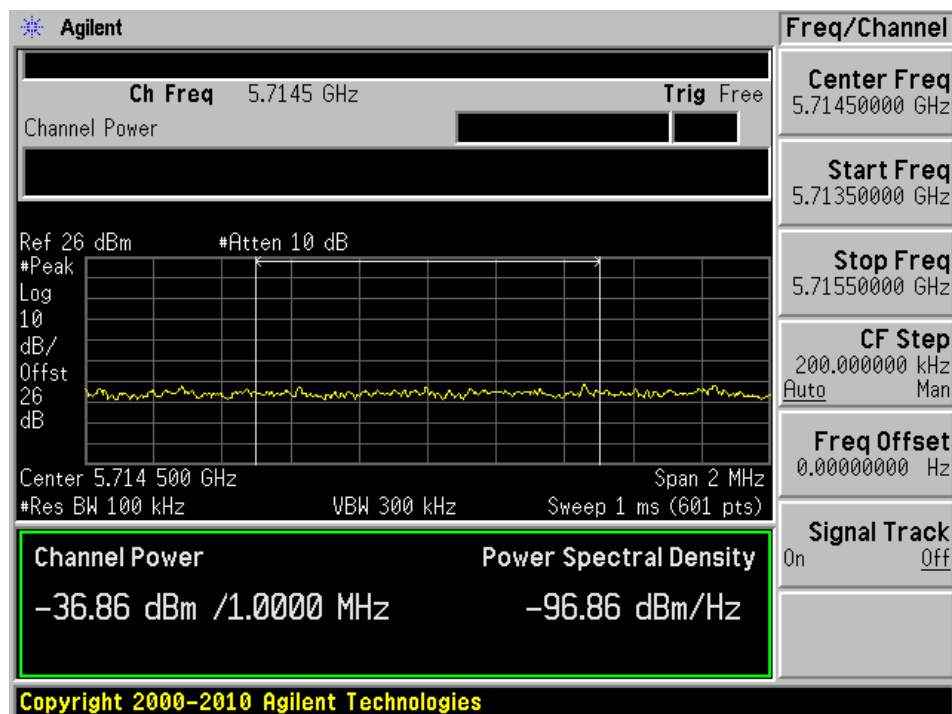


High channel: 5825 MHz – 5860.5 MHz

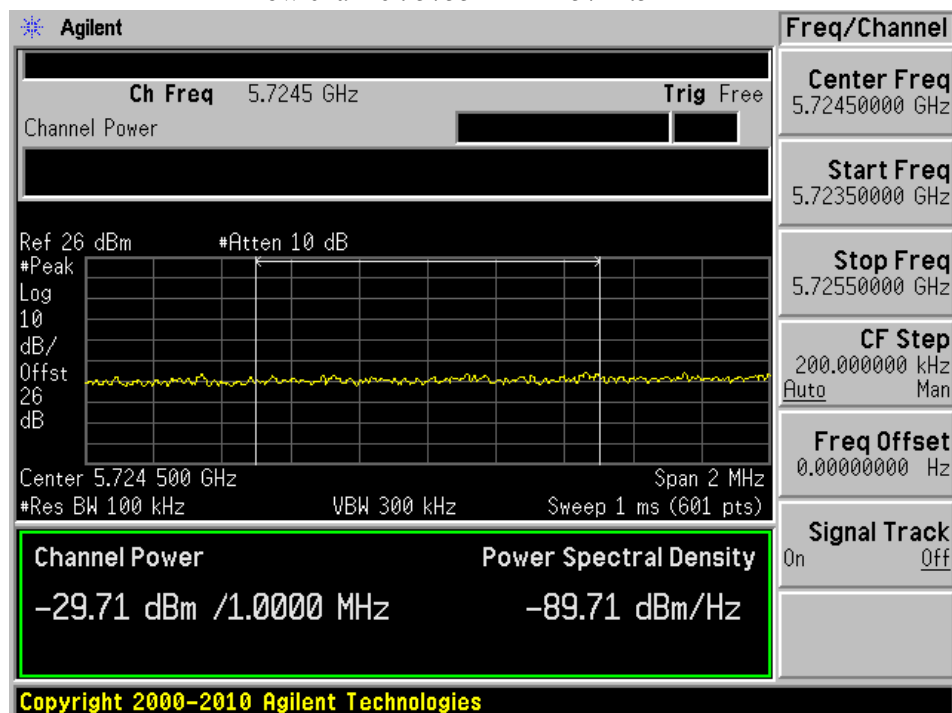


5.8 GHz Band
802.11n40
15 dBi Antenna Chain 0

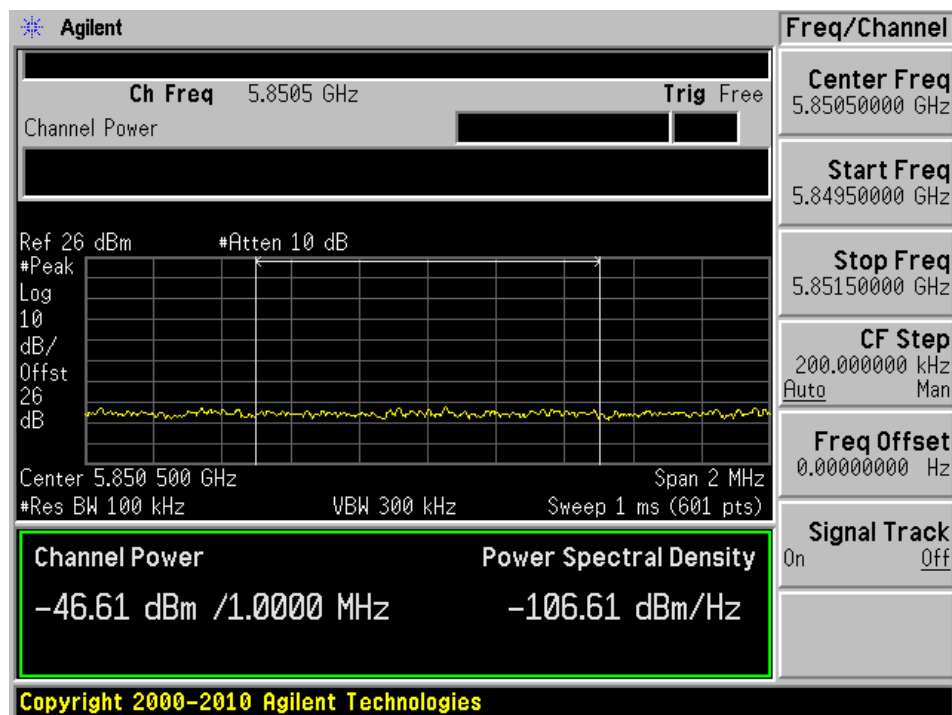
Low channel: 5755 MHz – 5714.5 MHz



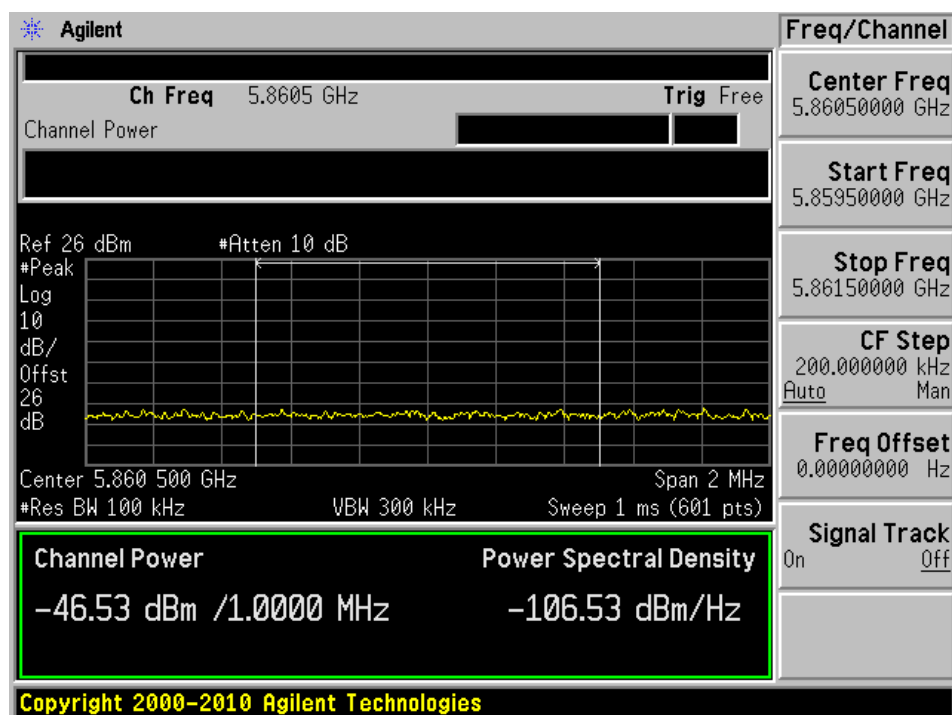
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

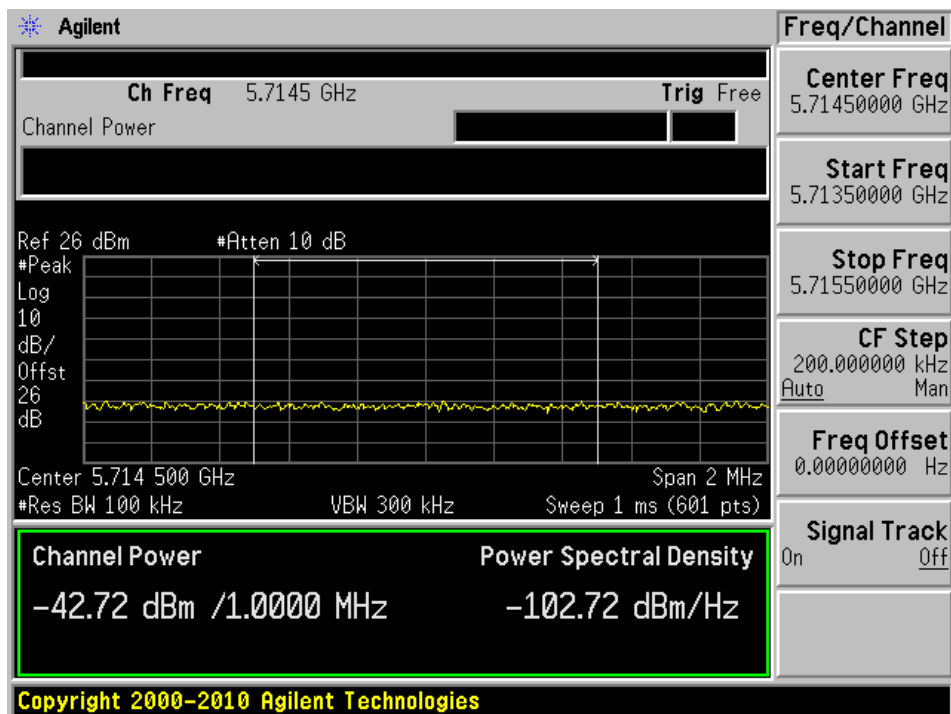


High channel: 5795 MHz – 5860.5 MHz

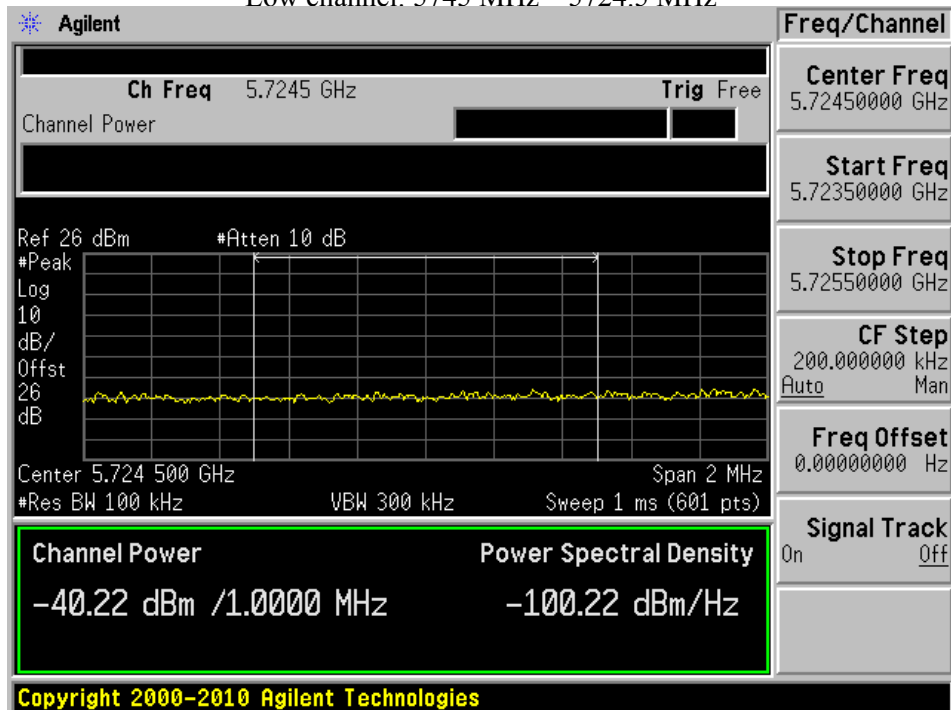


5.8 GHz Band
802.11a
15 dBi Antenna Chain 1

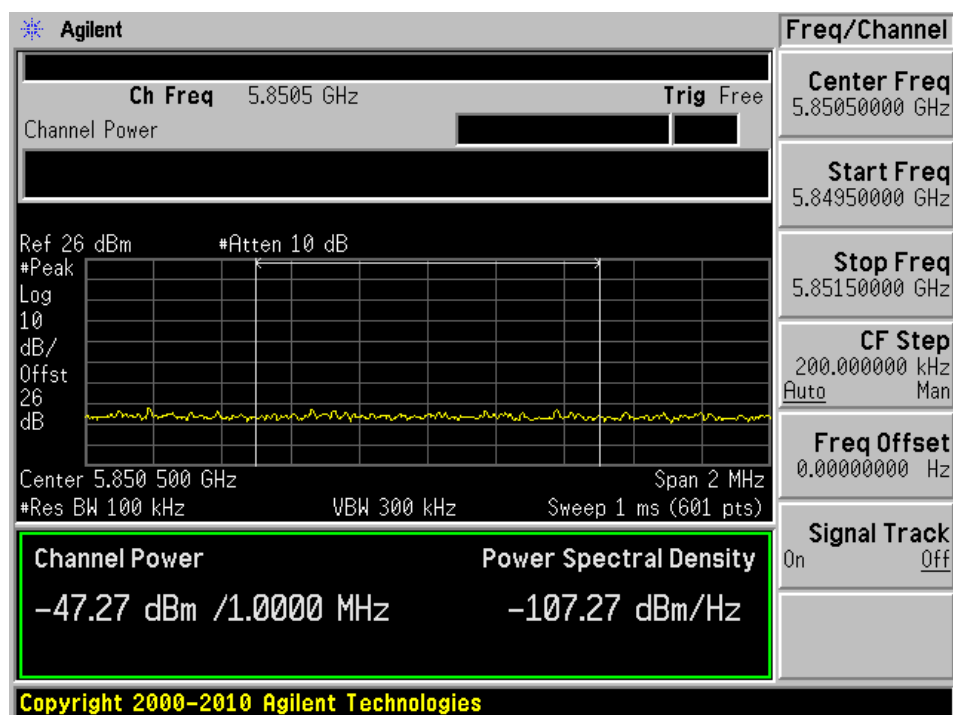
Low channel: 5745 MHz – 5714.5 MHz



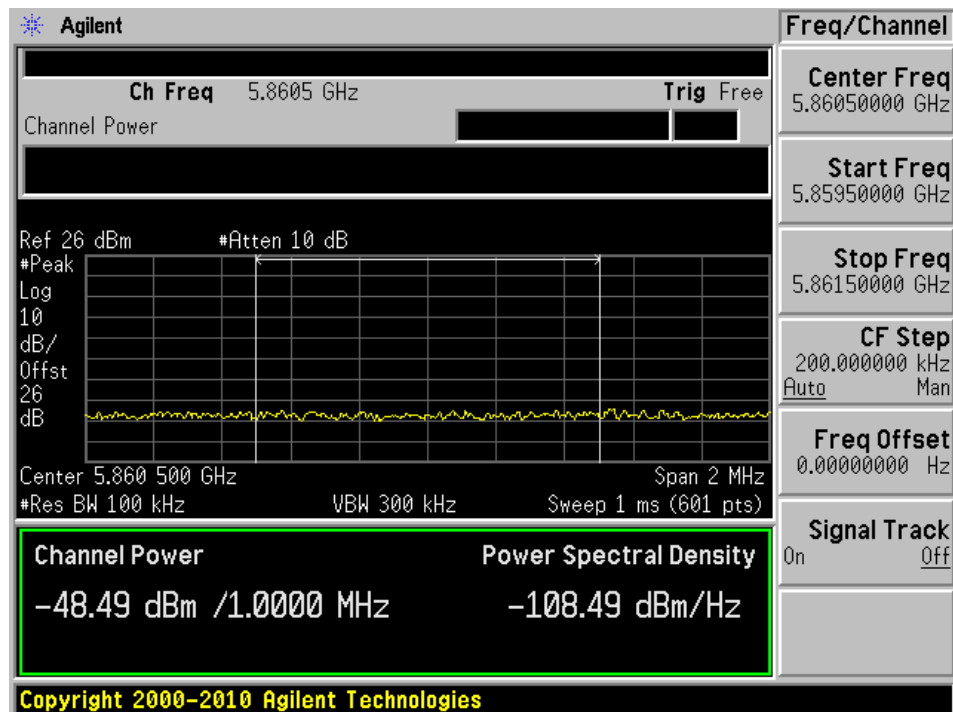
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

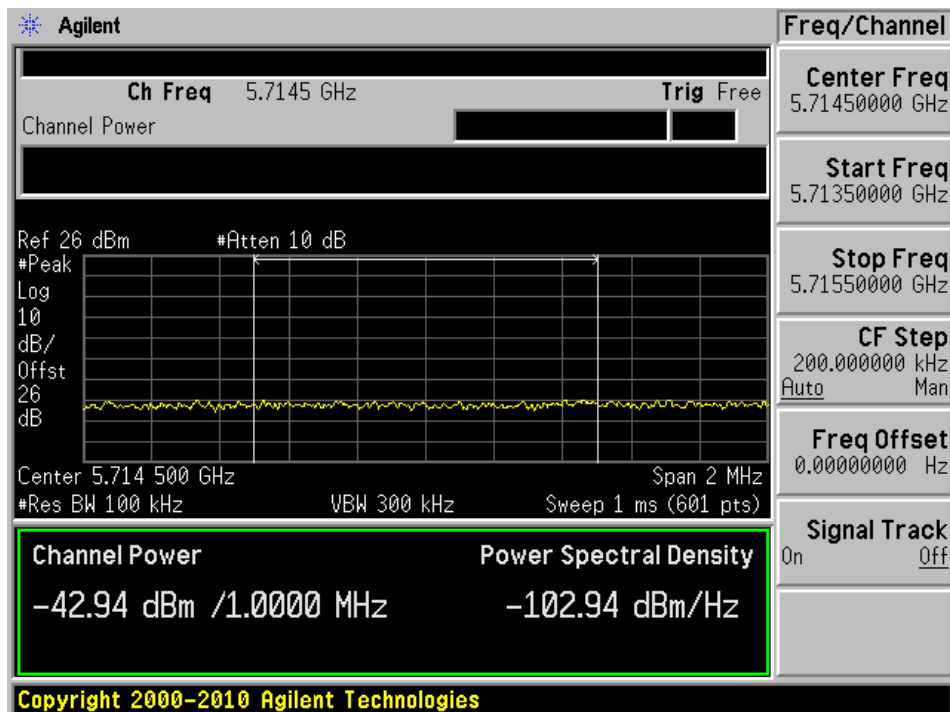


High channel: 5825 MHz – 5860.5 MHz

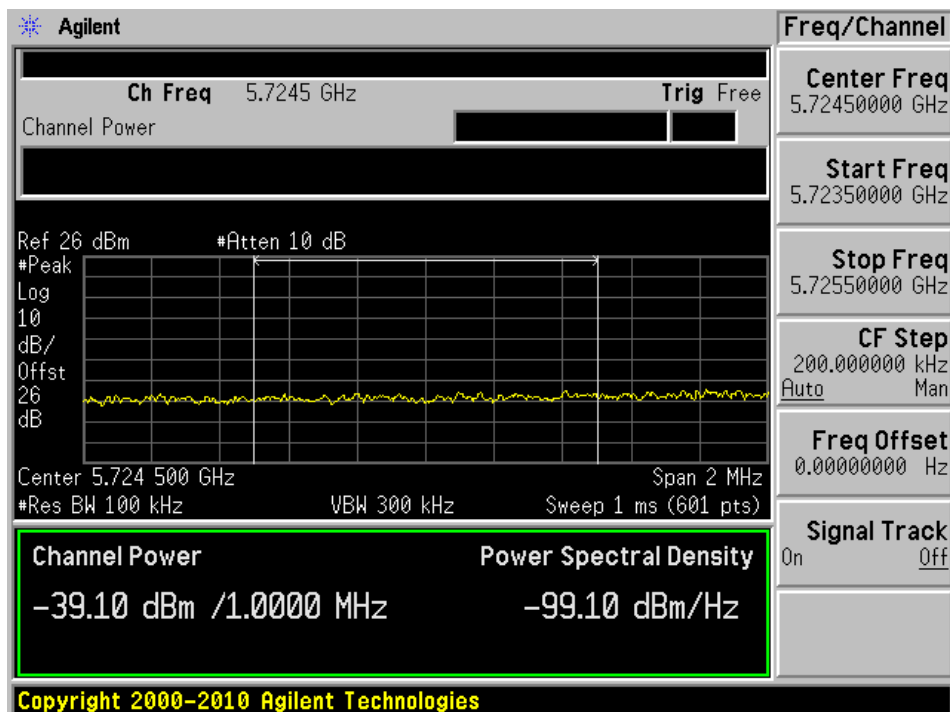


5.8 GHz Band
802.11n20
15 dBi Antenna Chain 1

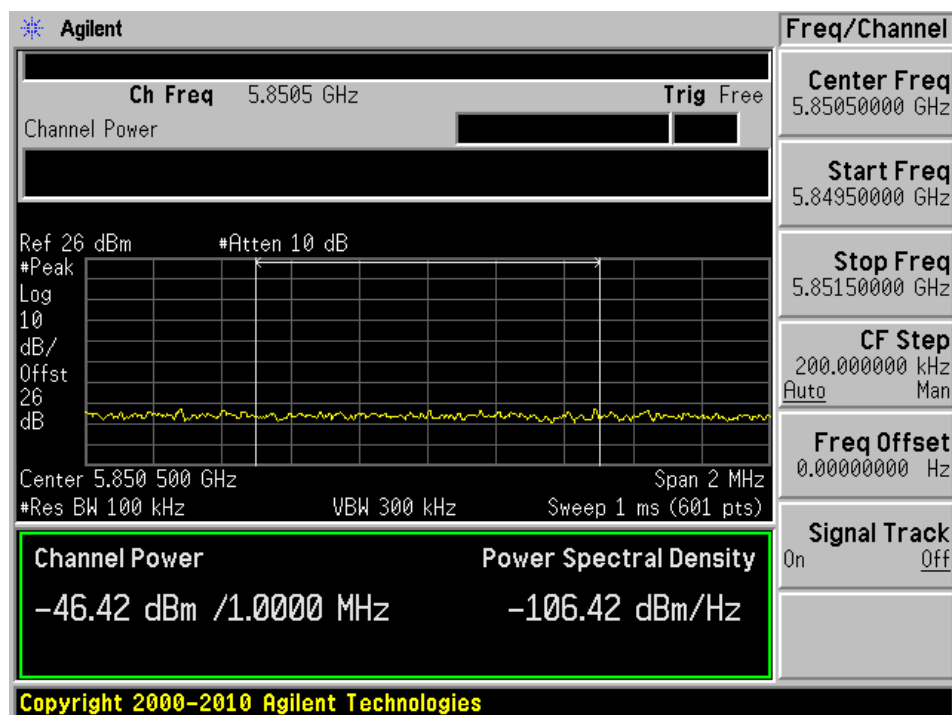
Low channel: 5745 MHz – 5714.5 MHz



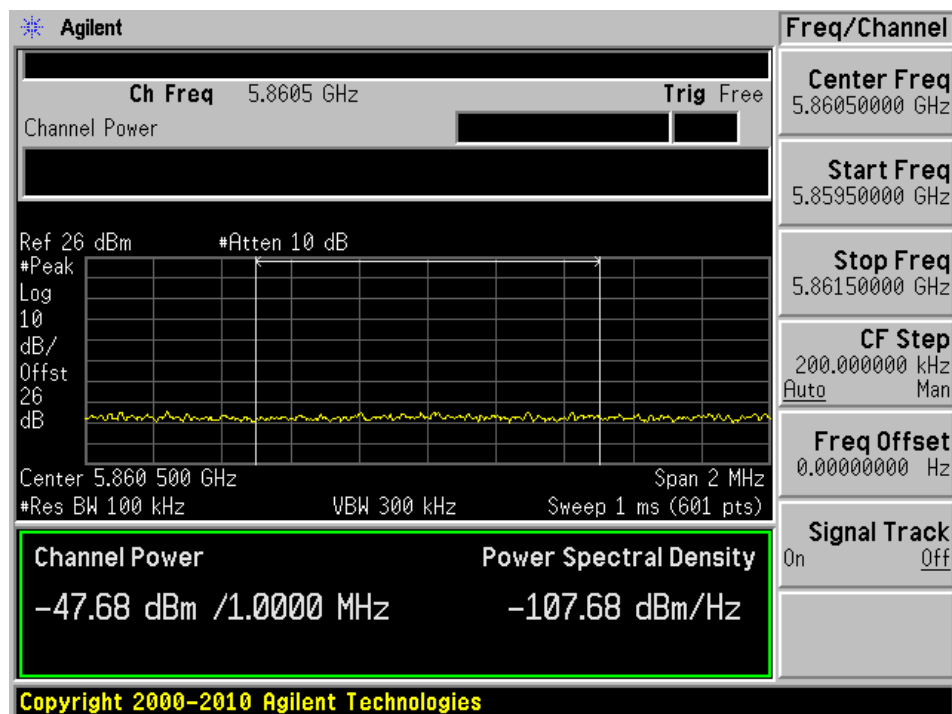
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

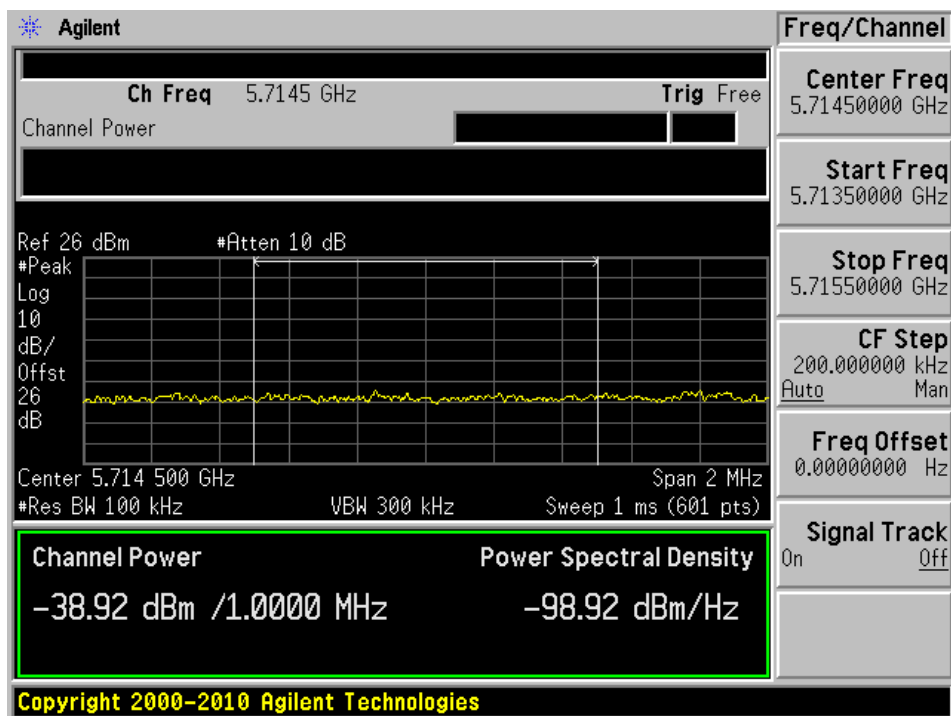


High channel: 5825 MHz – 5860.5 MHz

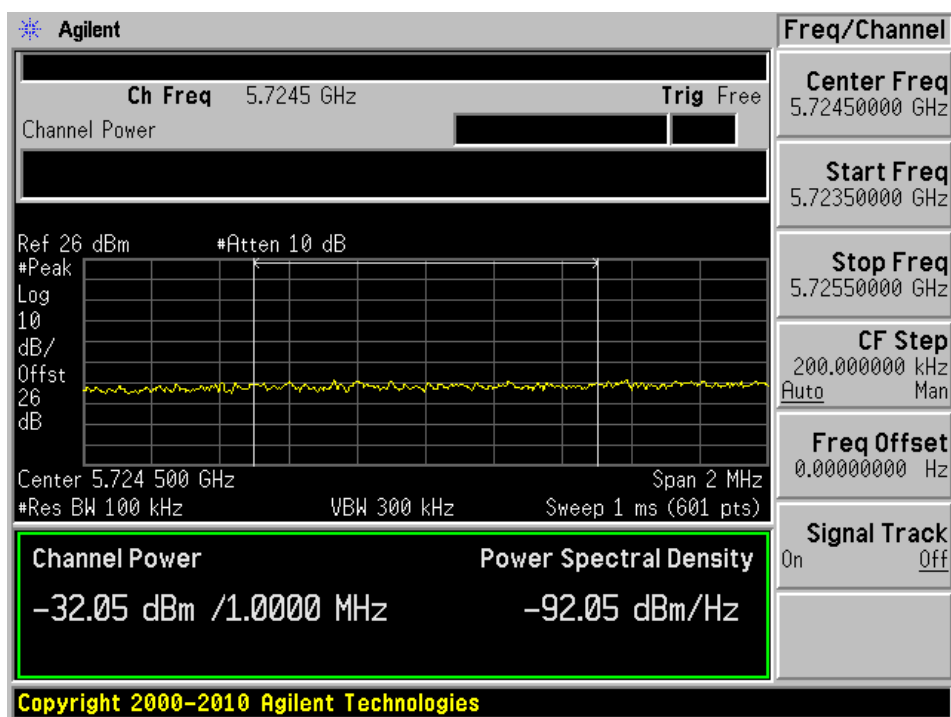


5.8 GHz Band
802.11n40
15 dBi Antenna Chain 1

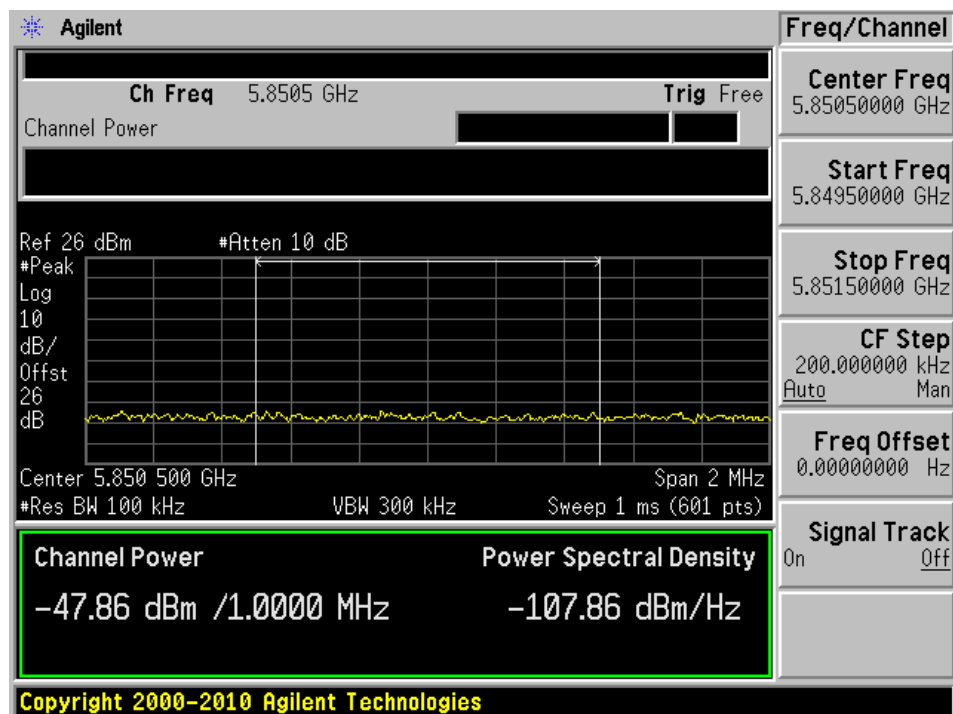
Low channel: 5755 MHz – 5714.5 MHz



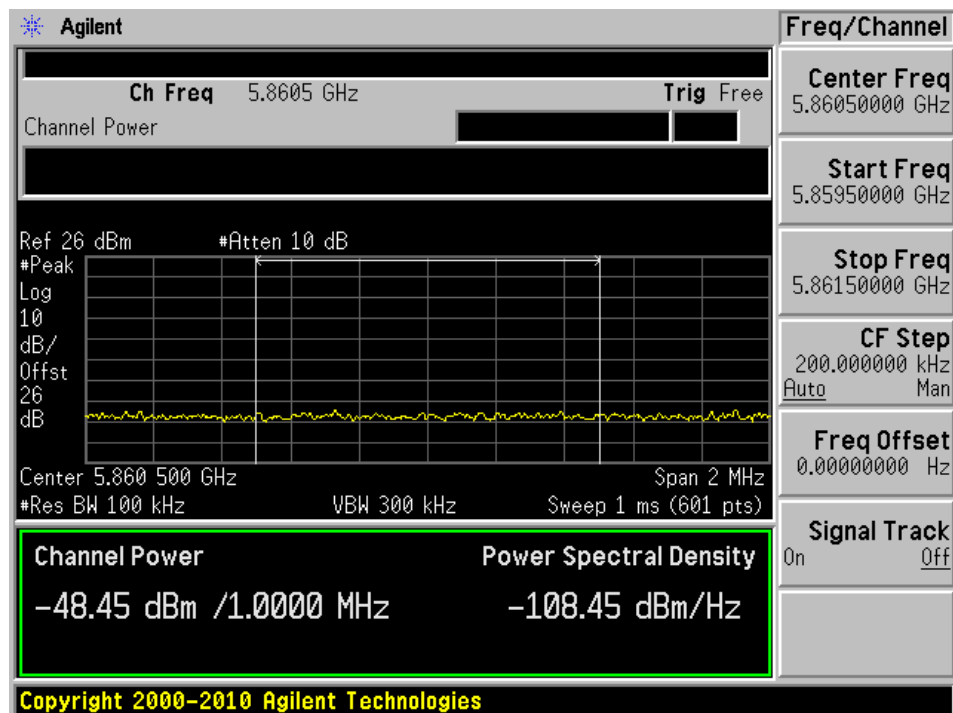
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz

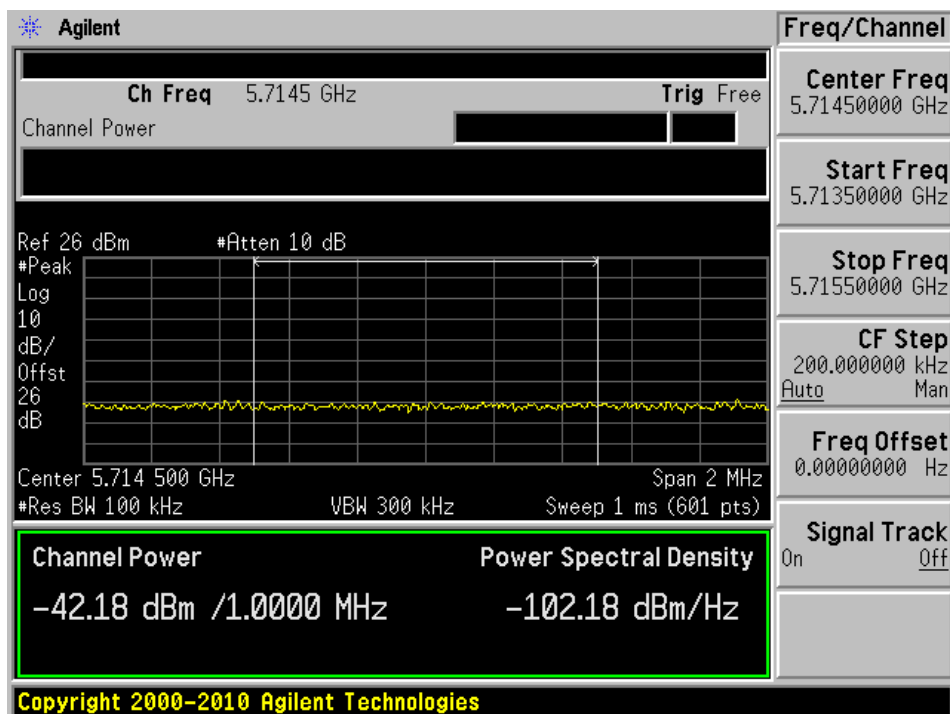


High channel: 5795 MHz – 5860.5 MHz

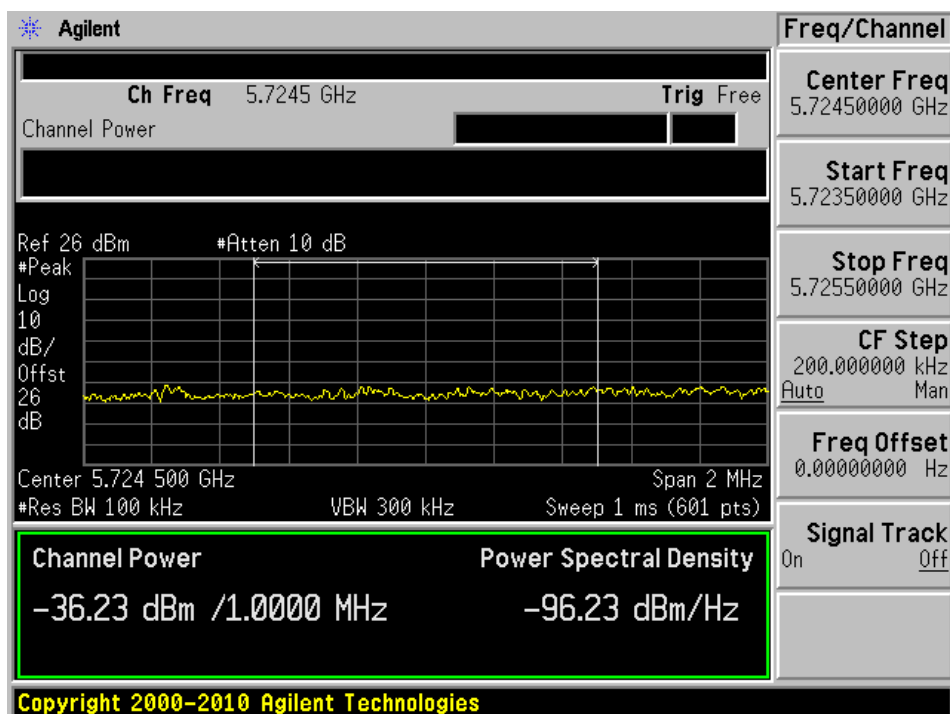


5.8 GHz Band
802.11a
15 dBi Antenna Chain 2

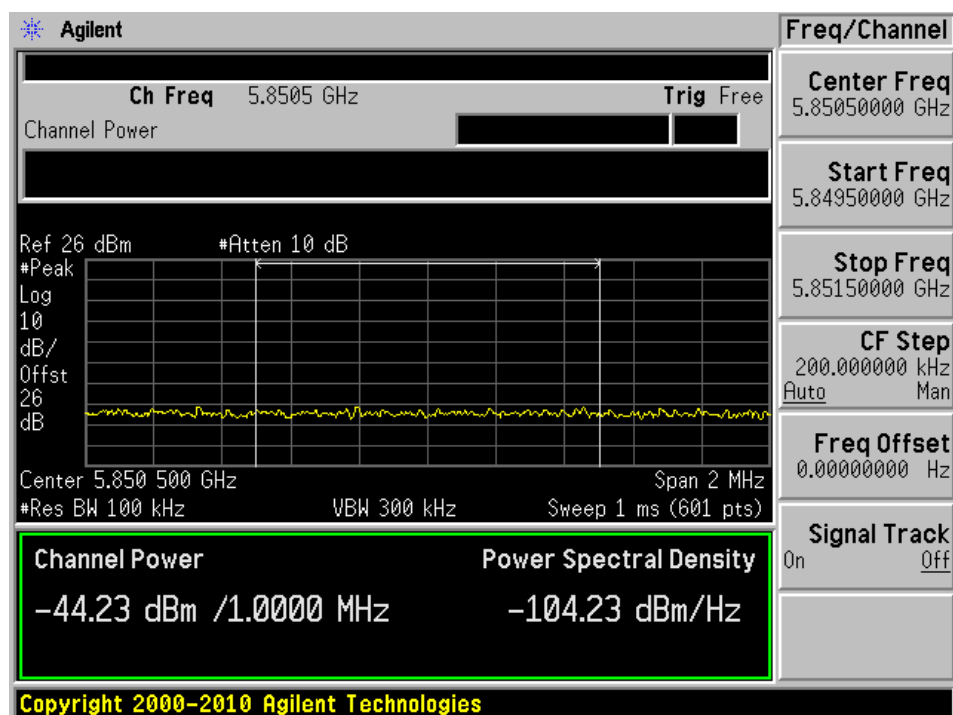
Low channel: 5745 MHz – 5714.5 MHz



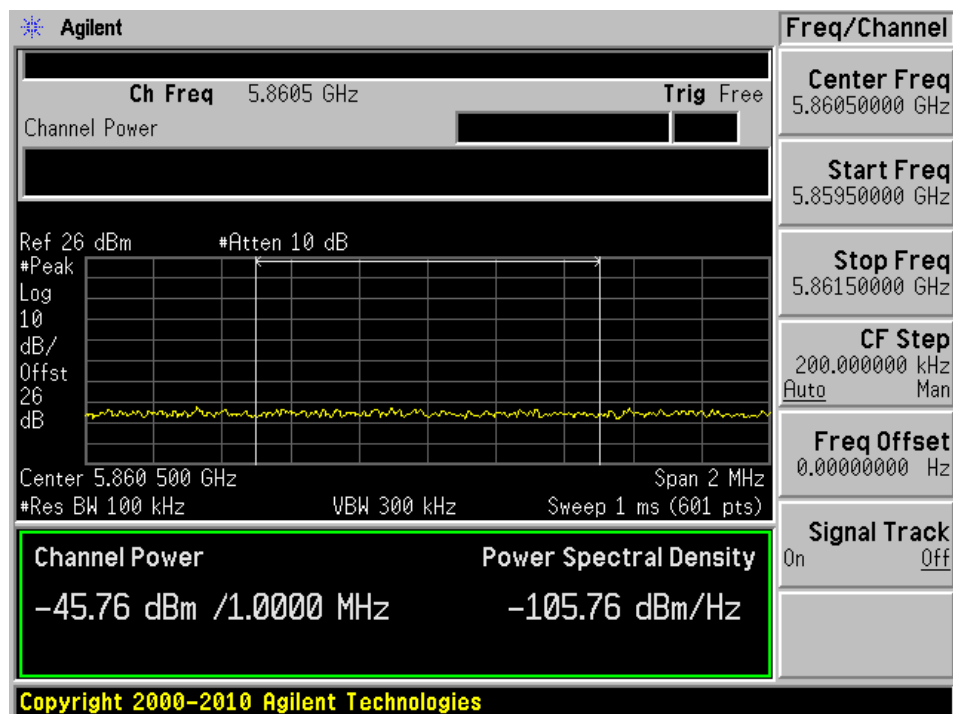
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

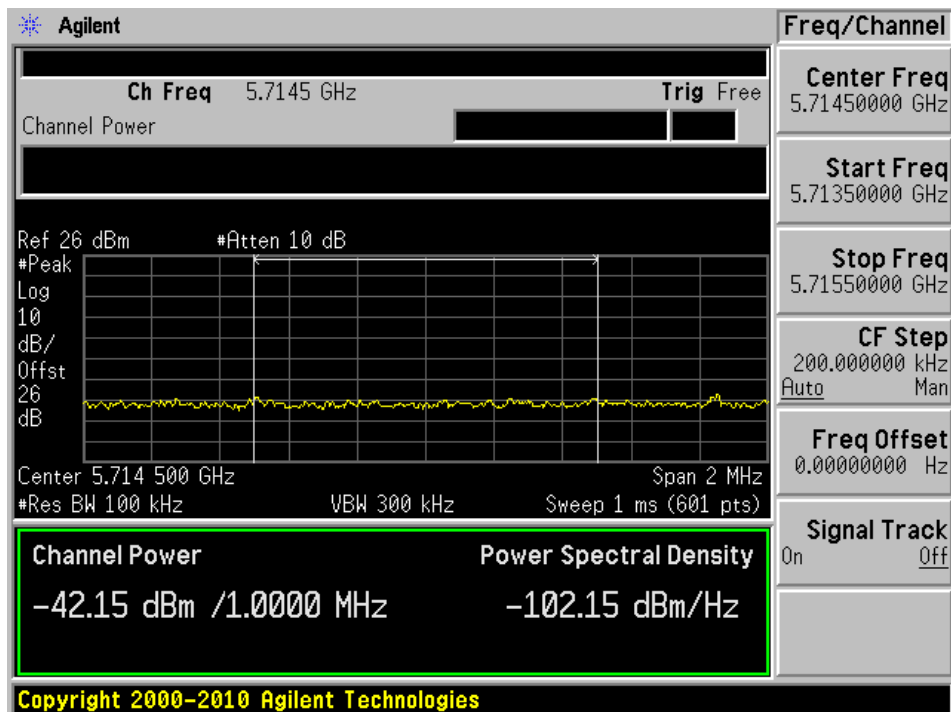


High channel: 5825 MHz – 5860.5 MHz

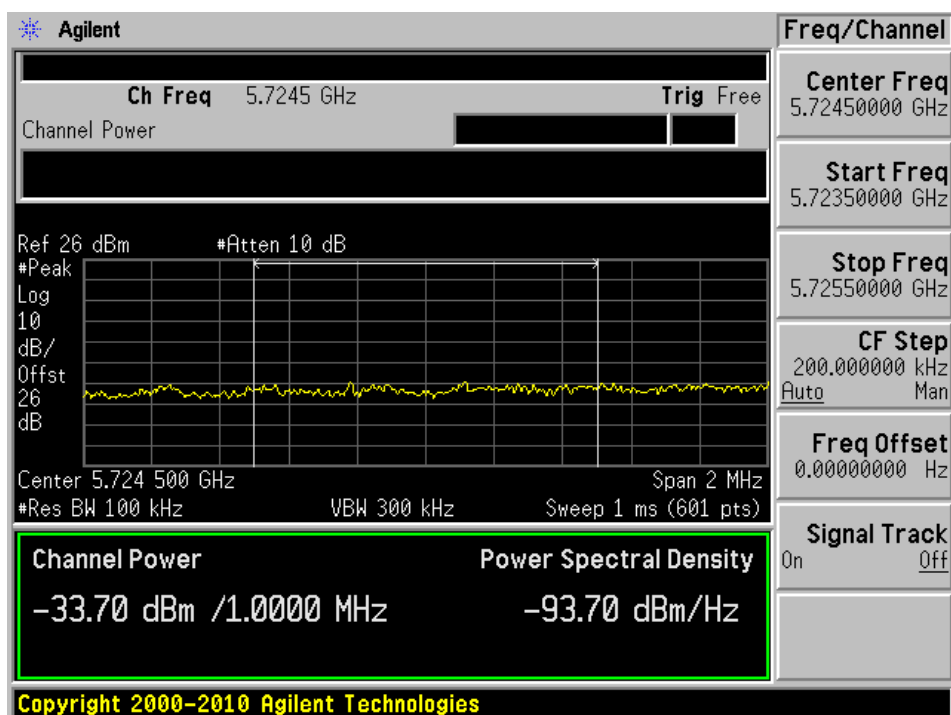


5.8 GHz Band
802.11n20
15 dBi Antenna Chain 2

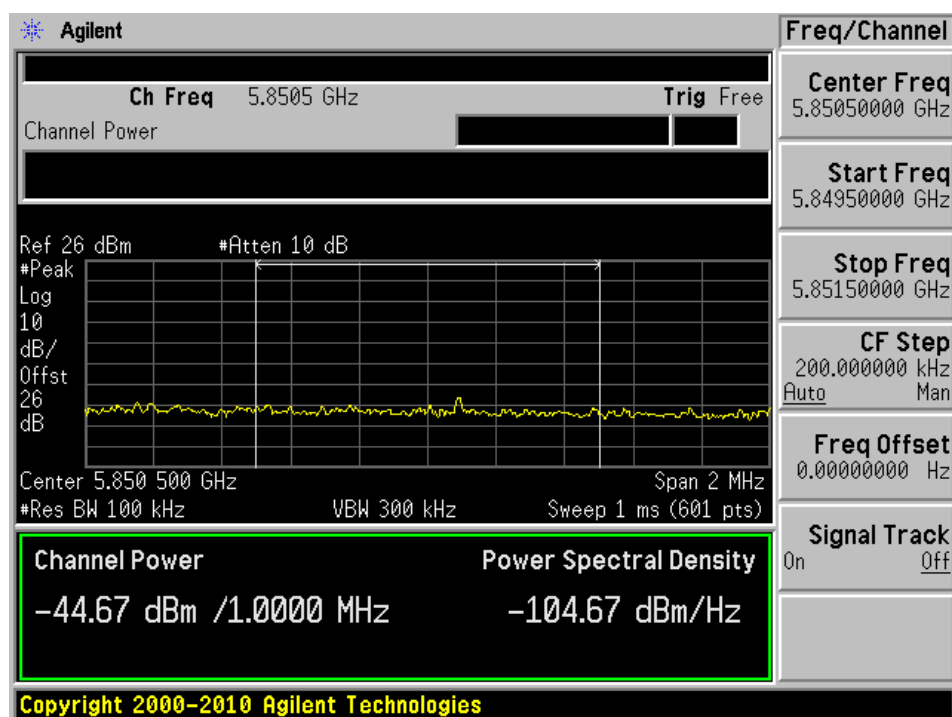
Low channel: 5745 MHz – 5714.5 MHz



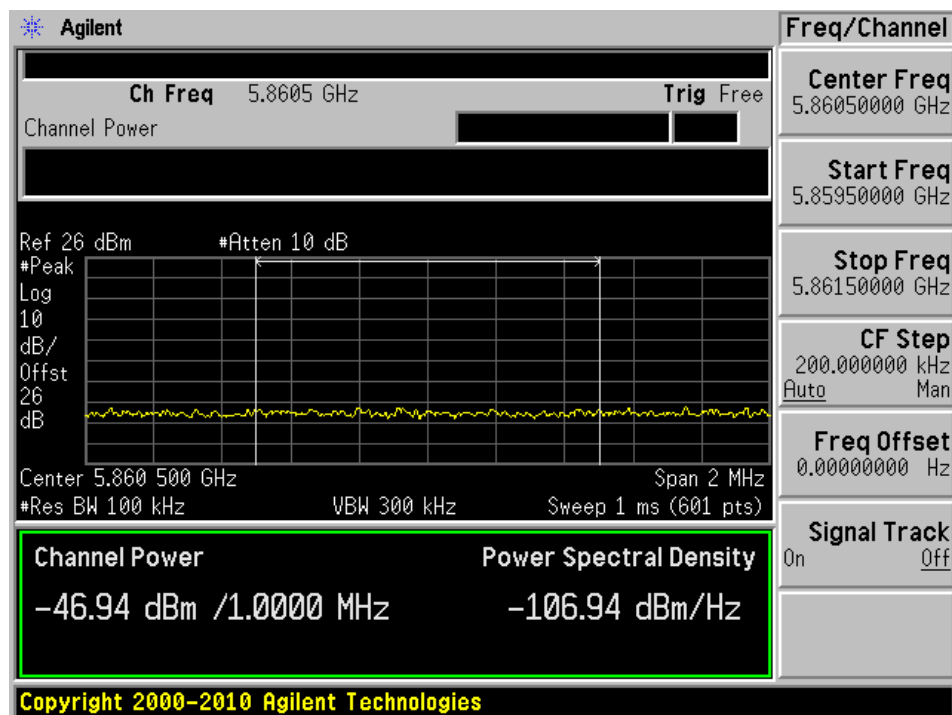
Low channel: 5745 MHz – 5724.5 MHz



High channel: 5825 MHz – 5850.5 MHz

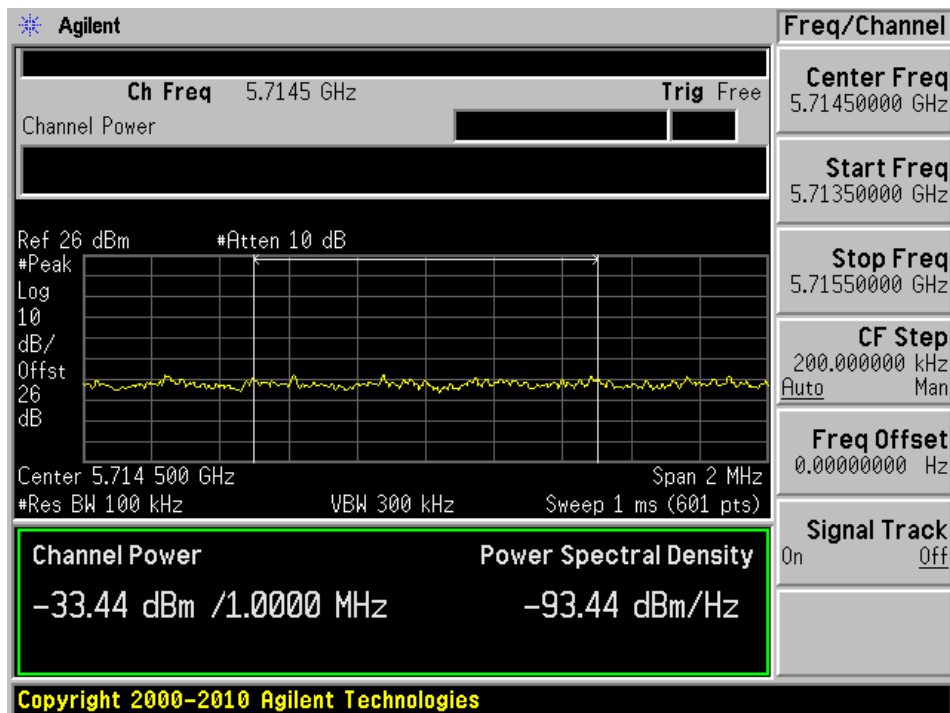


High channel: 5825 MHz – 5860.5 MHz

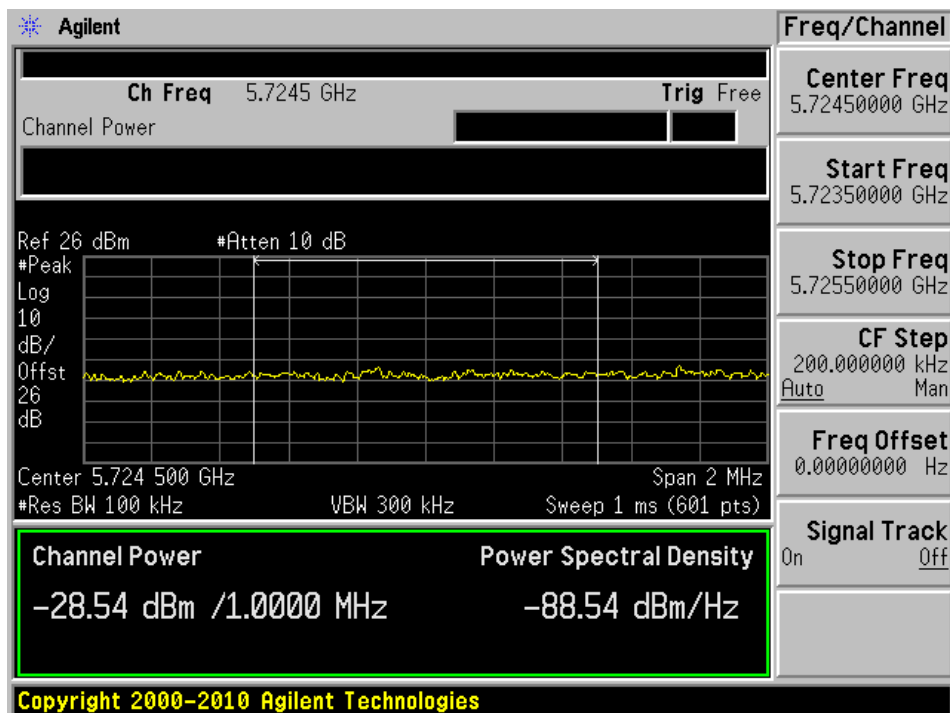


5.8 GHz Band
802.11n40
15 dBi Antenna Chain 2

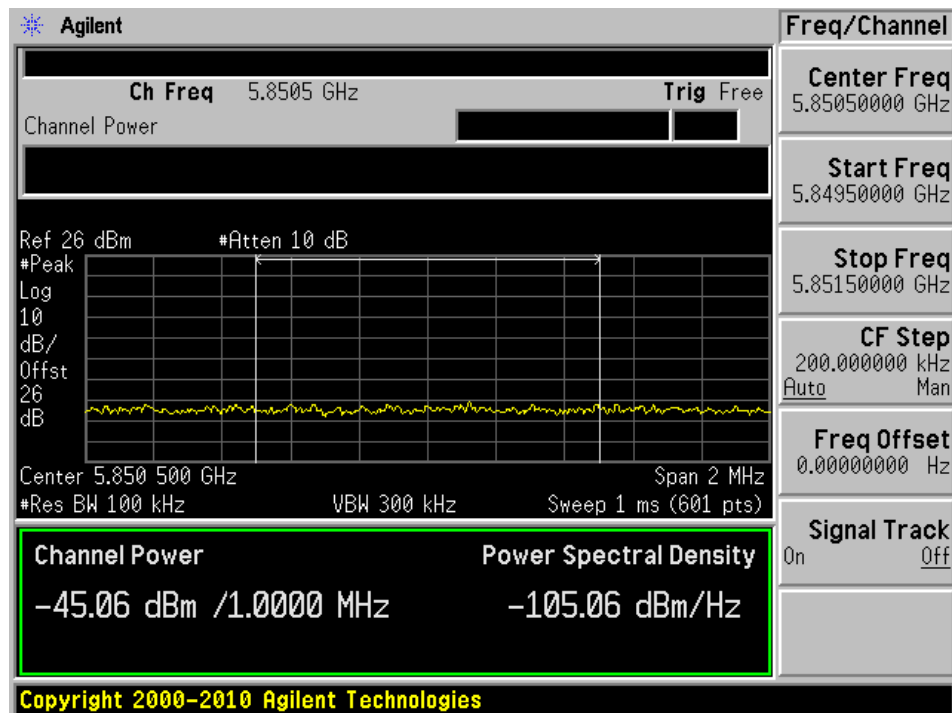
Low channel: 5755 MHz – 5714.5 MHz



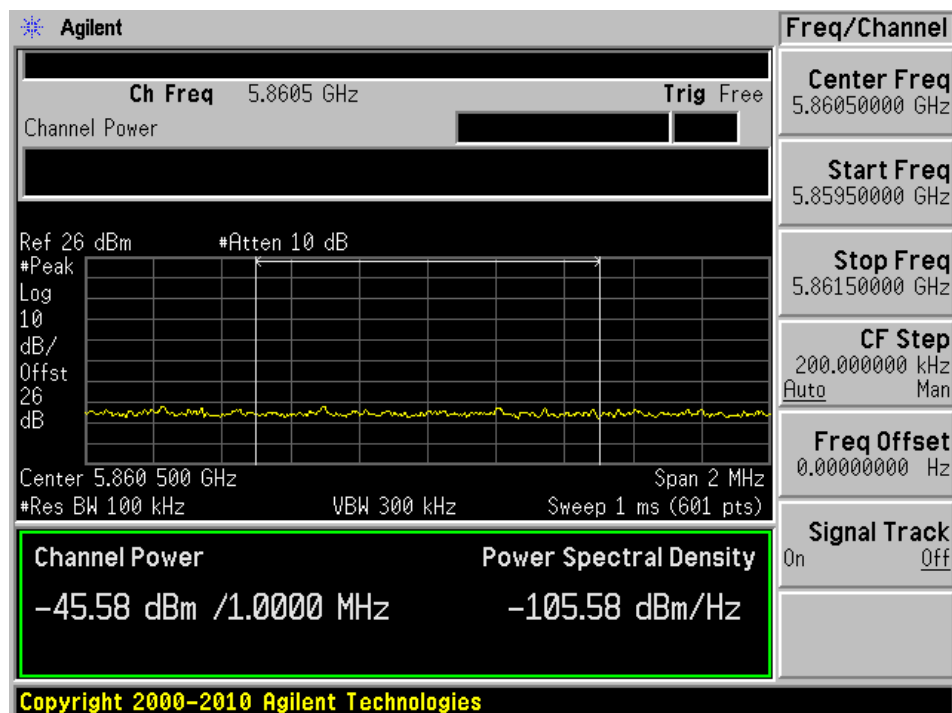
Low channel: 5755 MHz – 5724.5 MHz



High channel: 5795 MHz – 5850.5 MHz



High channel: 5795 MHz – 5860.5 MHz



11 FCC §15.407(b) - Spurious Emissions at Antenna Terminals

11.1 Applicable Standards

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 5.725-5.85 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 not exceed an e.i.r.p. of -27 dBm/MHz

11.2 Measurement Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Procedures New Rules v01: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section H: Unwanted emissions measurement

11.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Spectrum Analyzer	E4446A	MY48250238	09-03-2015	1 year
-	RF cable	-	00609	06-05-2015	1year

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

11.4 Test Environmental Conditions

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

The testing was performed by Jin Yang on 2015-10-29 at RF site.

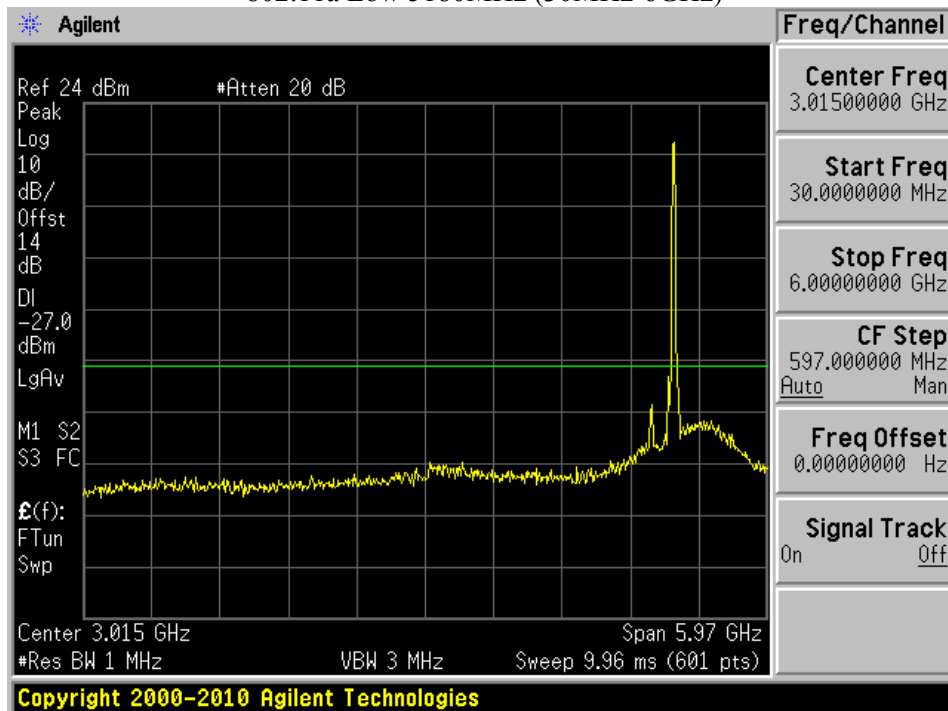
11.5 Test Results

Please refer to following plots of spurious emissions.

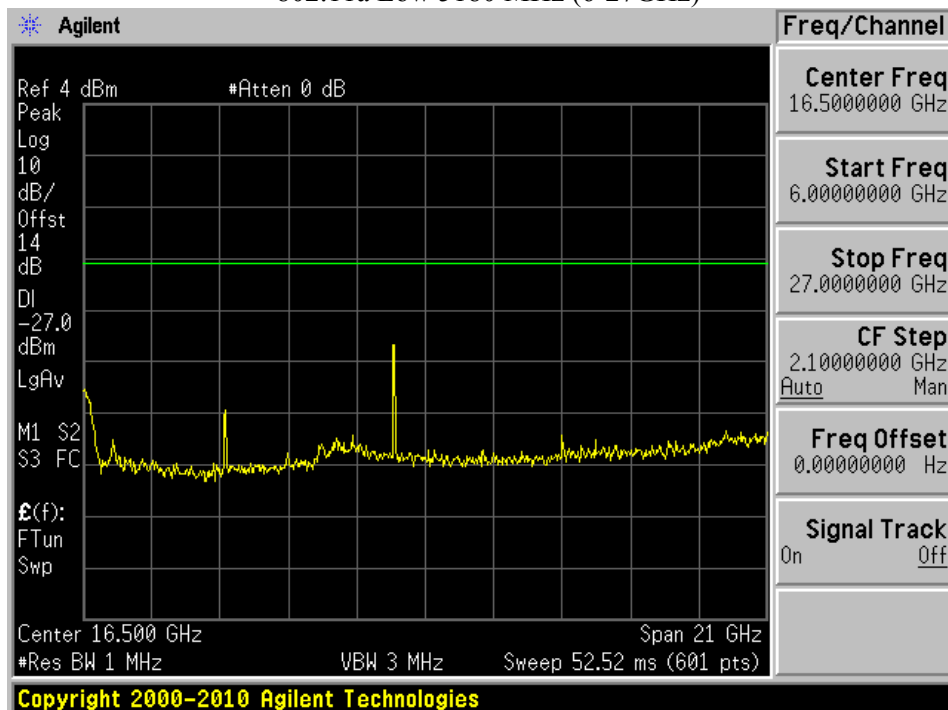
Note: above 27 GHz, no spurious emissins were found.

**5.2 GHz Band
802.11a mode
3dBi Antenna Chain 0**

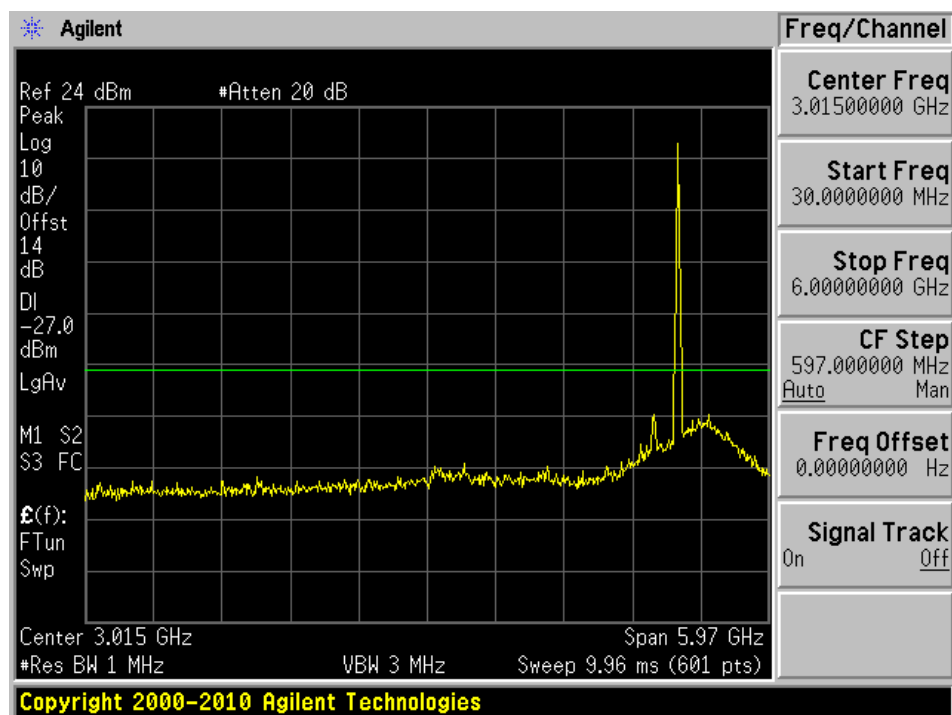
802.11a Low 5180MHz (30MHz-6GHz)



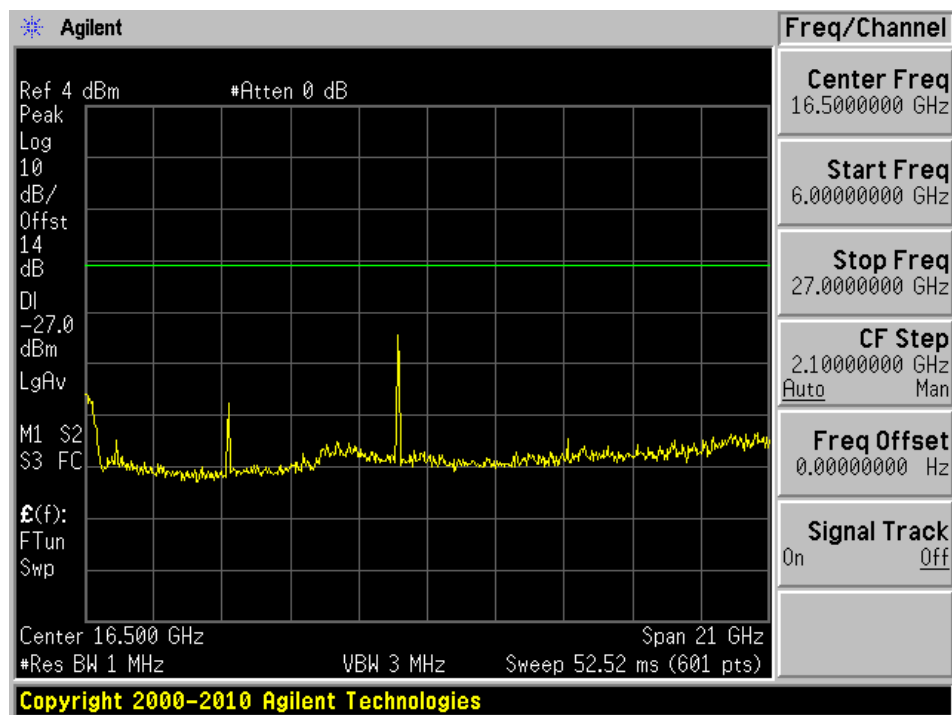
802.11a Low 5180 MHz (6-27GHz)



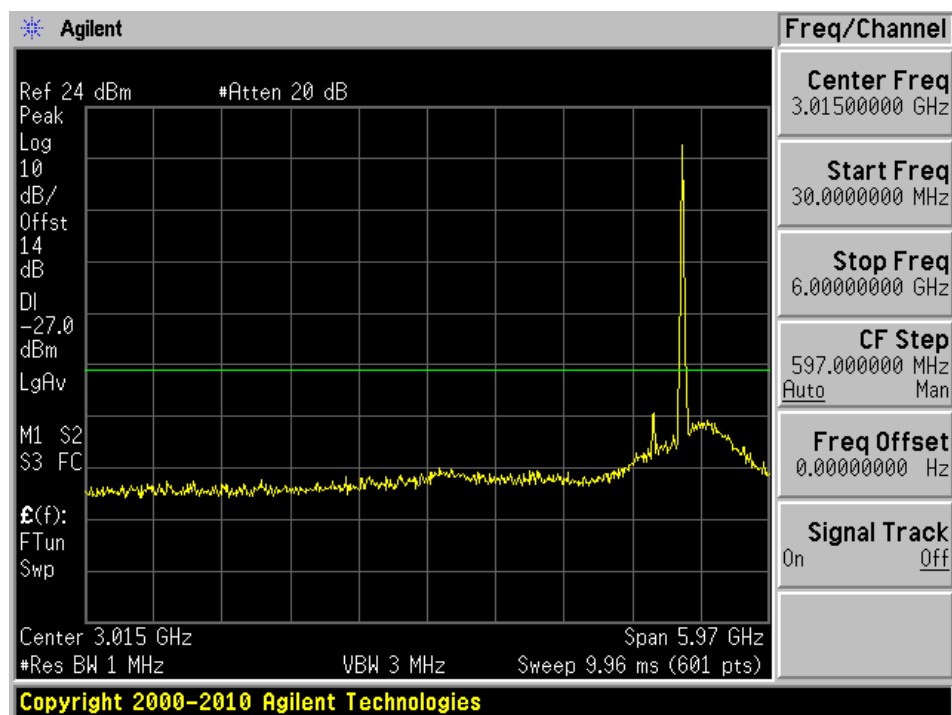
802.11a Middle 5200MHz (30MHz-6GHz)



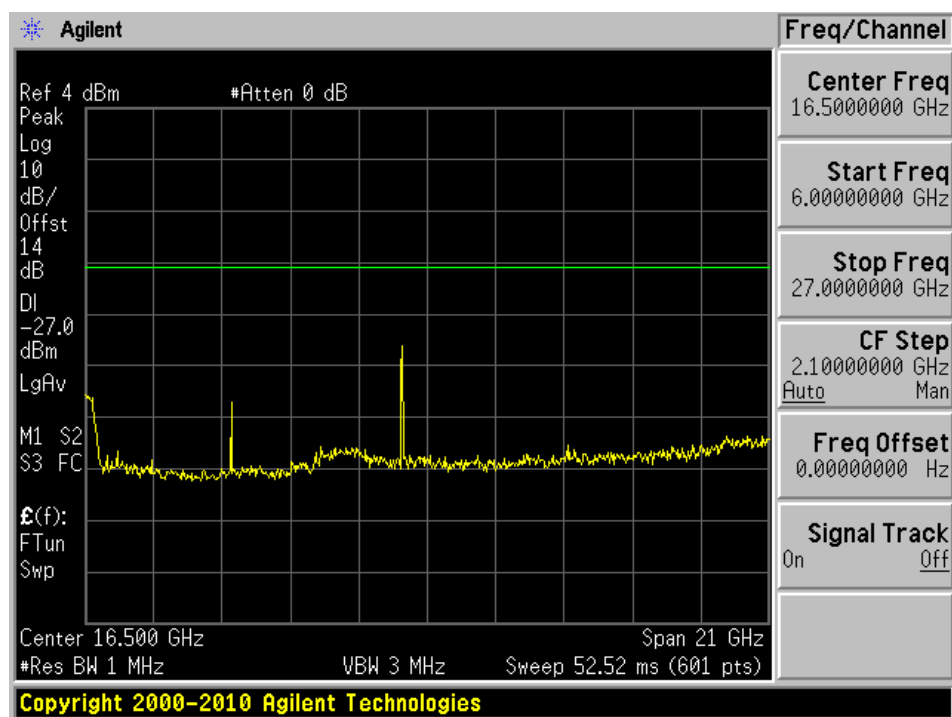
802.11a Middle 5200 MHz (6-27GHz)



802.11a High 5240MHz (30MHz-6GHz)

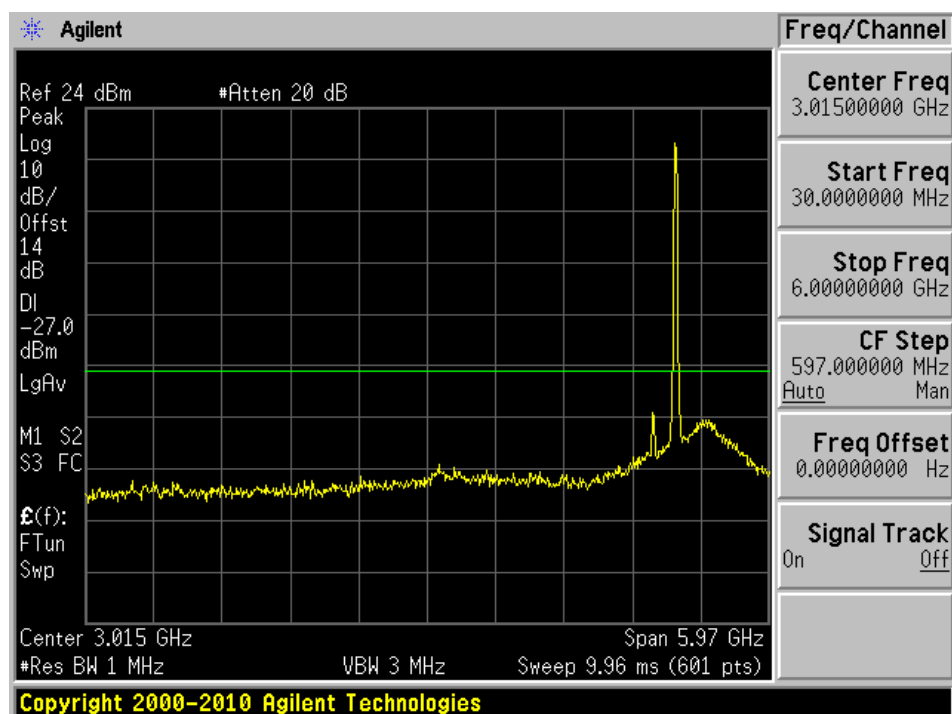


802.11a High 5240 MHz (6-27GHz)

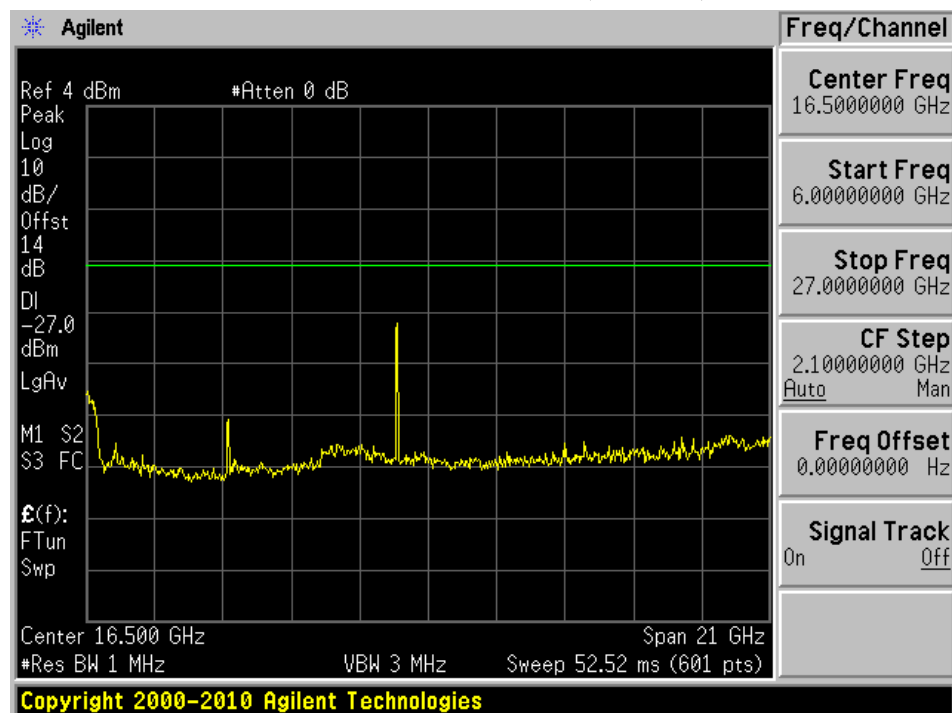


802.11n20 mode

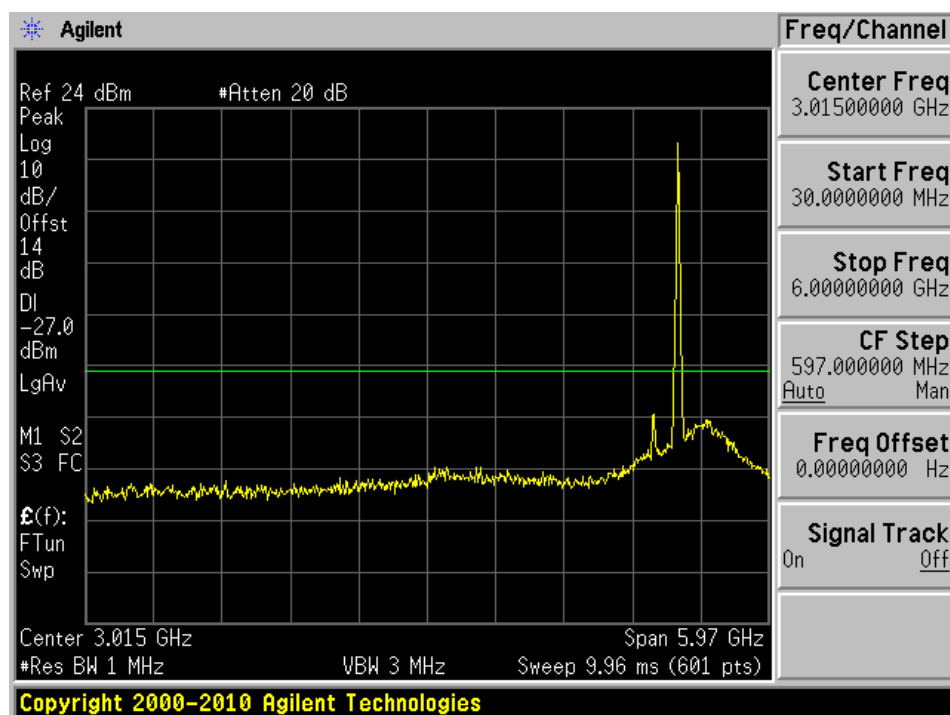
802.11n20 Low 5180MHz (30MHz-6GHz)



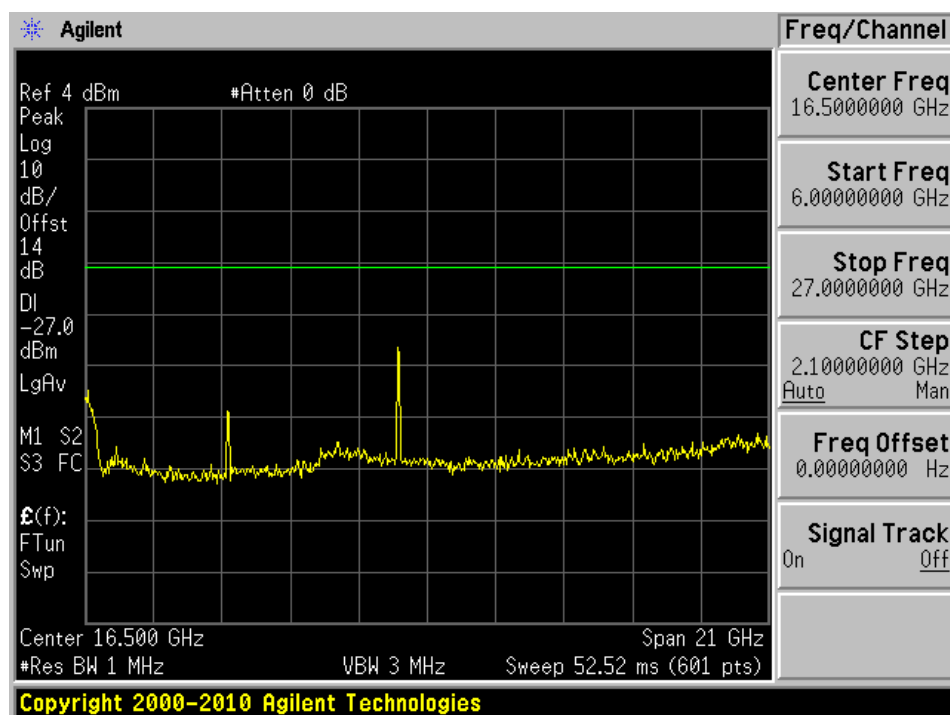
802.11n20 Low 5180 MHz (6-27GHz)



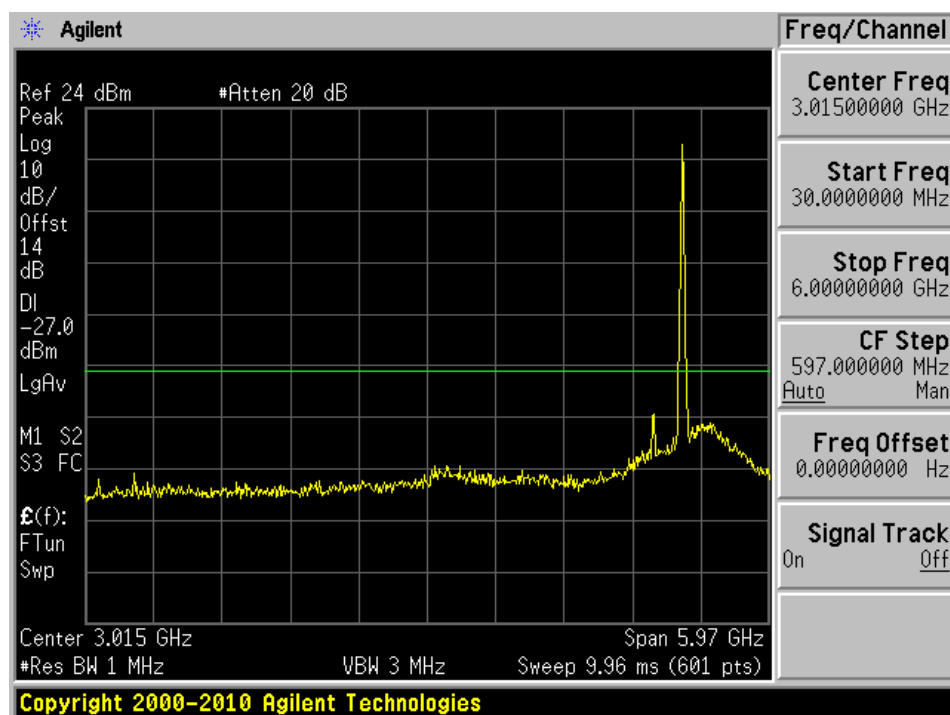
802.11n20 Middle 5200MHz (30MHz-6GHz)



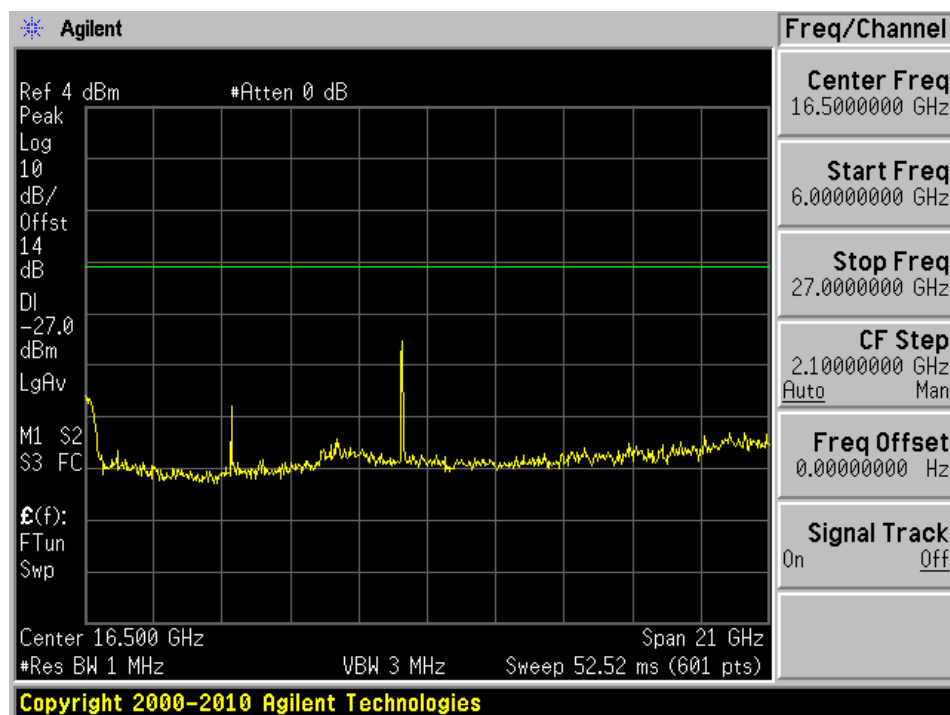
802.11n20 Middle 5200 MHz (6-27GHz)



802.11n20 High 5240 MHz (30MHz-6GHz)

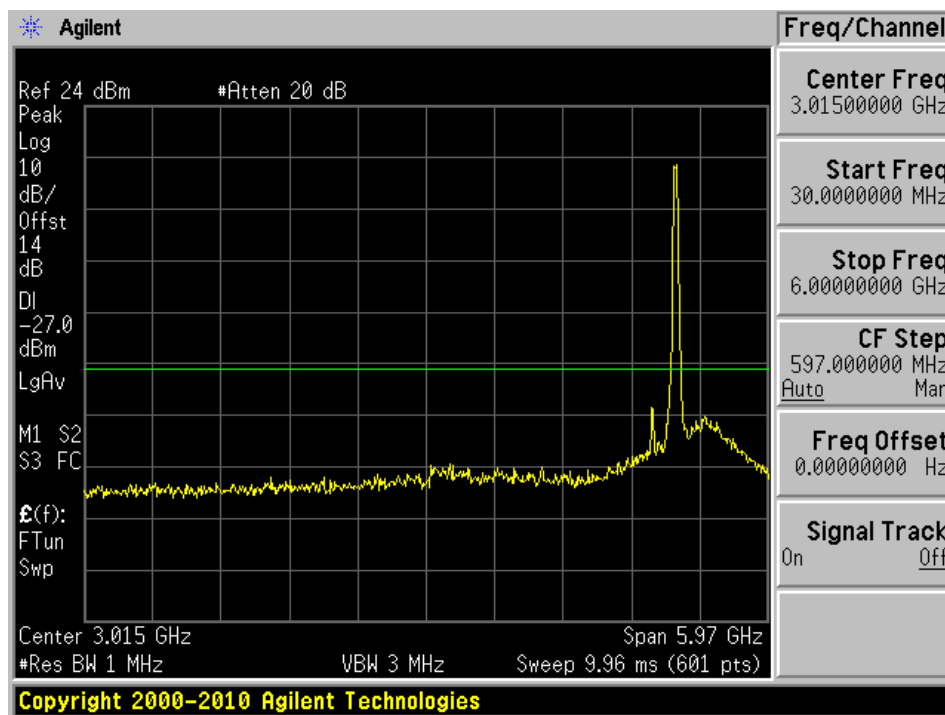


802.11n20 High 5240 MHz (6-27GHz)

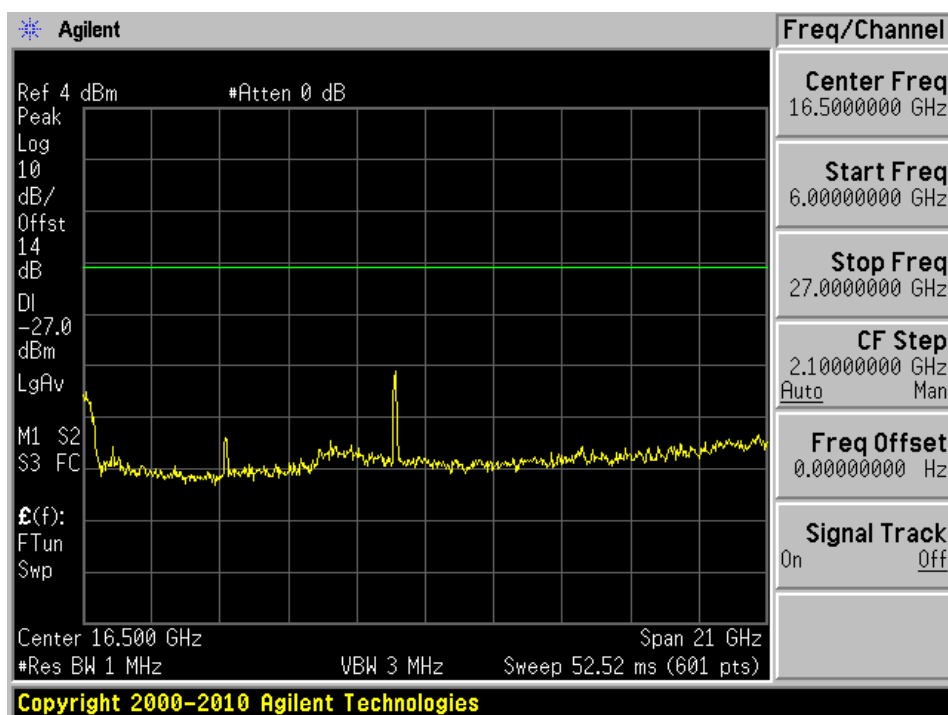


802.11n40 mode

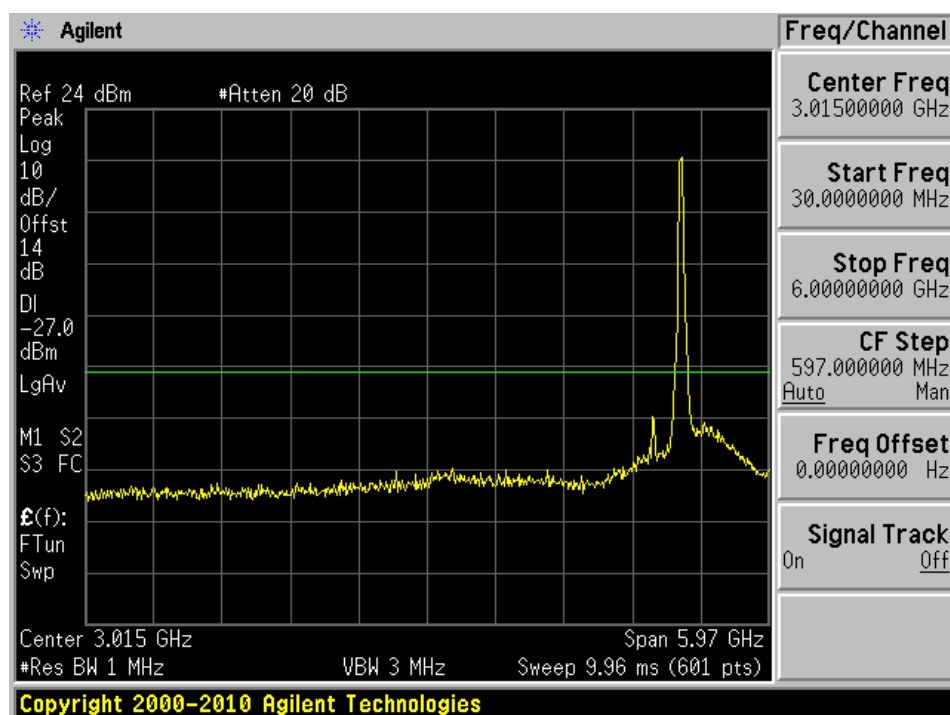
802.11n40 Low 5190MHz (30MHz-6GHz)



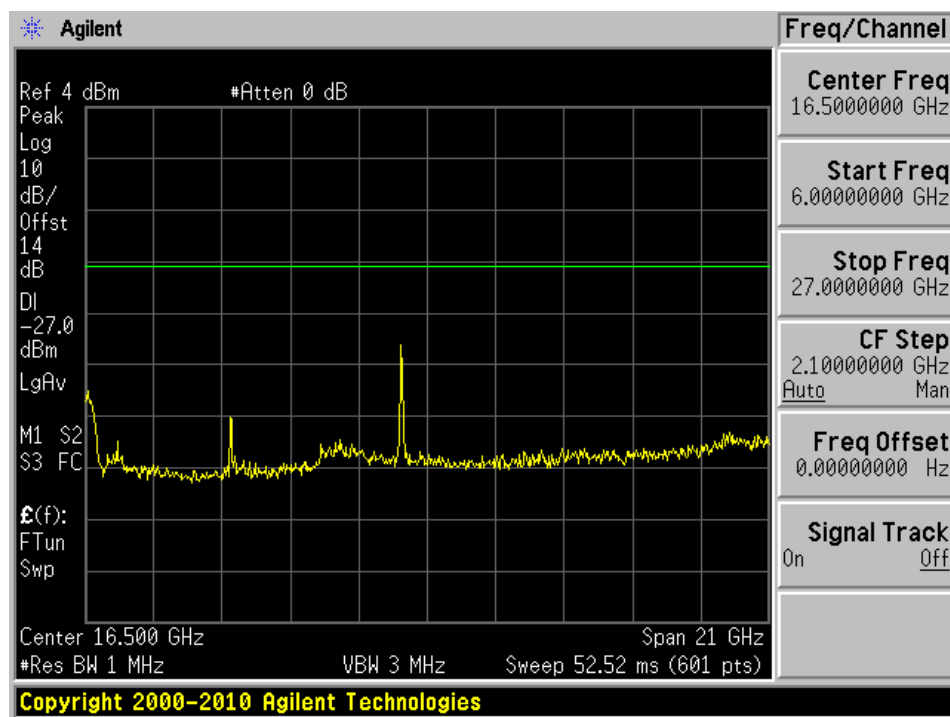
802.11n20 Low 5190 MHz (6-27GHz)



802.11n40 High 5230 MHz (30MHz-6GHz)

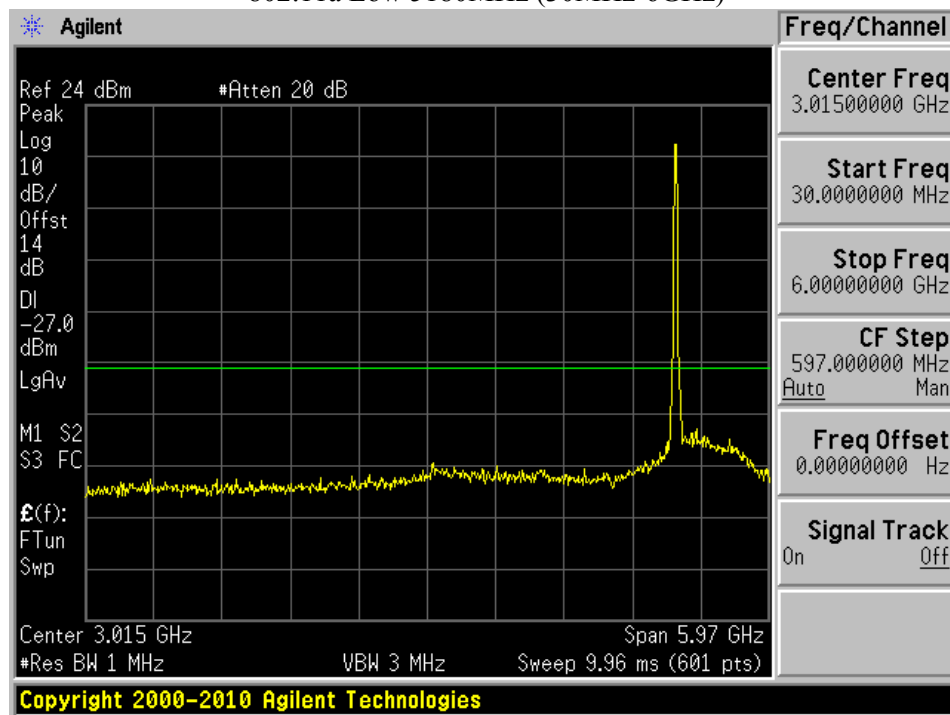


802.11n40 High 5230 MHz (6-27GHz)

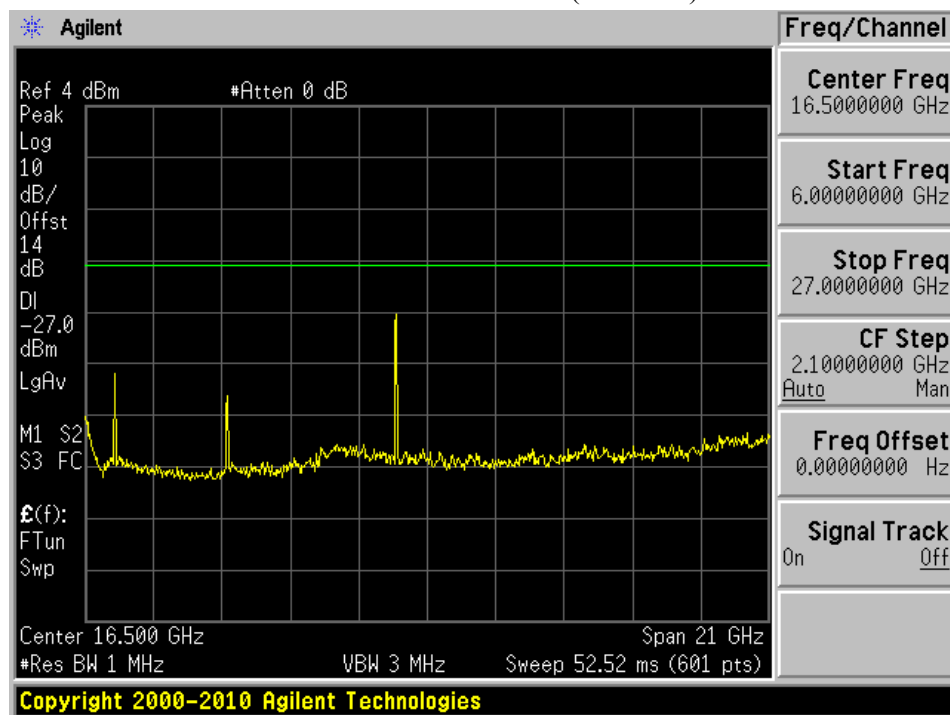


**5.2 GHz Band
802.11a mode
3dBi Antenna Chain 1**

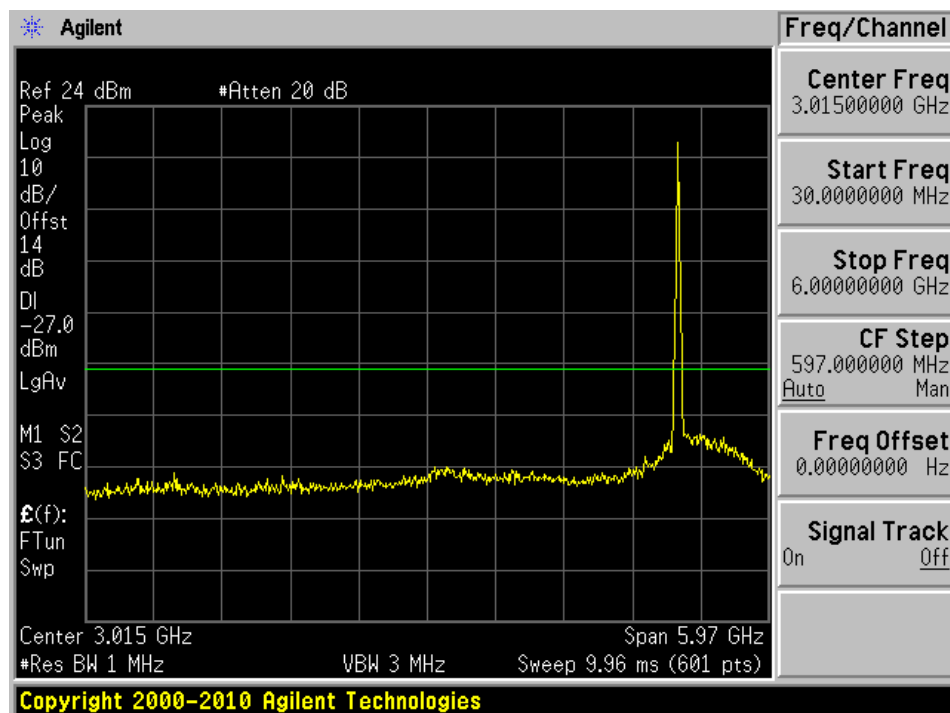
802.11a Low 5180MHz (30MHz-6GHz)



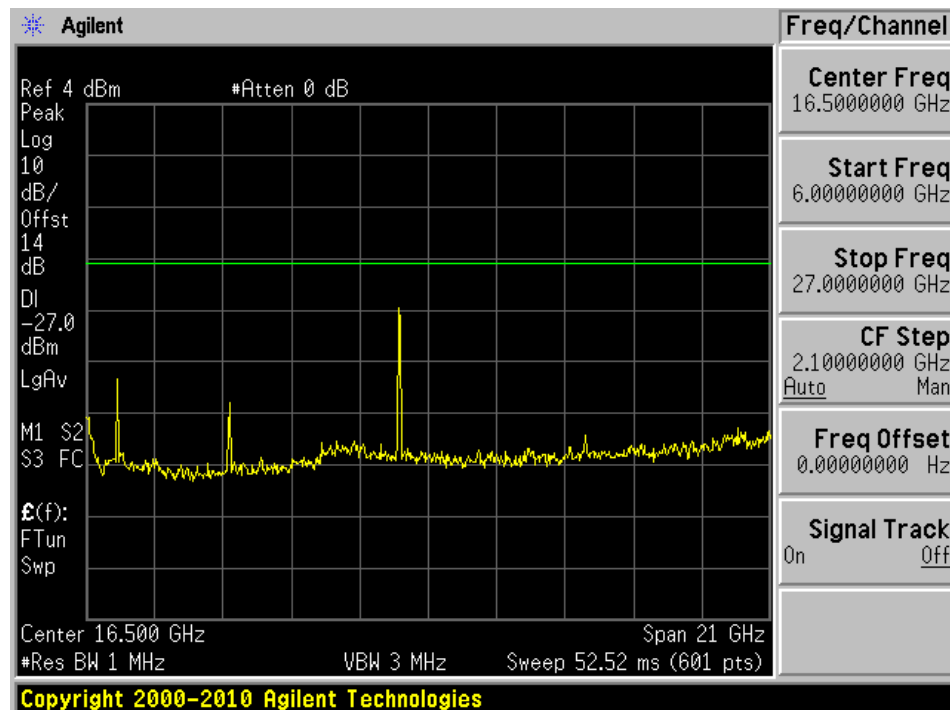
802.11a Low 5180 MHz (6-27GHz)



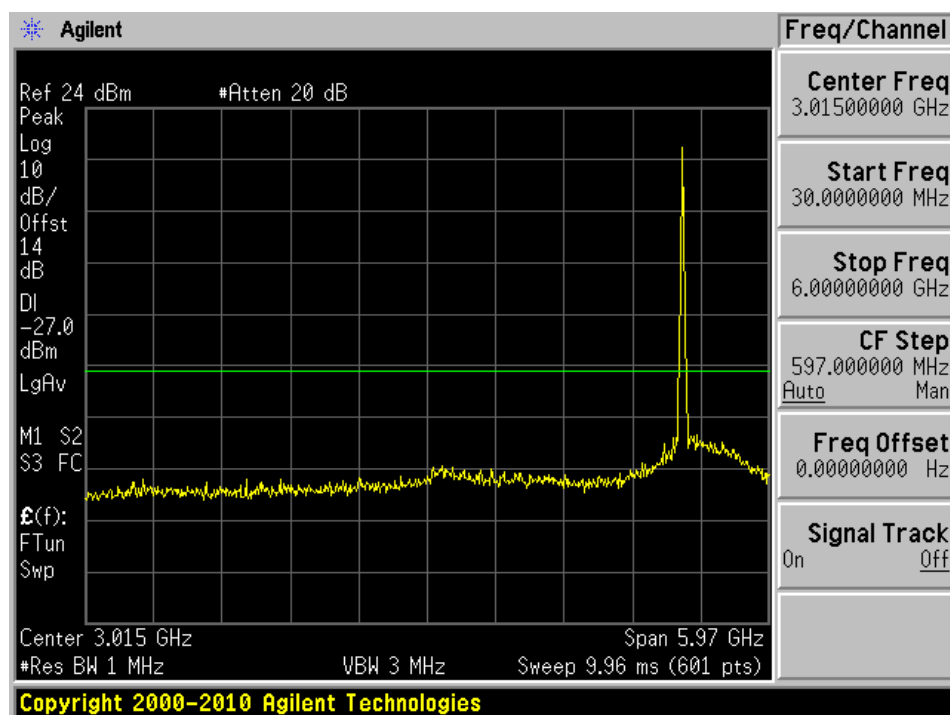
802.11a Middle 5200MHz (30MHz-6GHz)



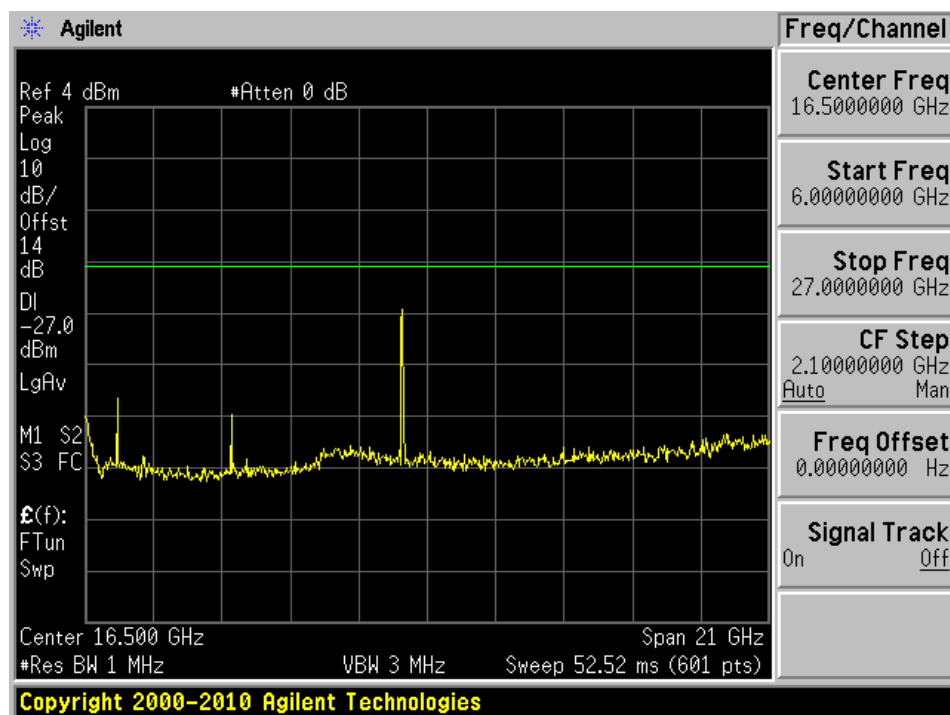
802.11a Middle 5200 MHz (6-27GHz)



802.11a High 5240MHz (30MHz-6GHz)

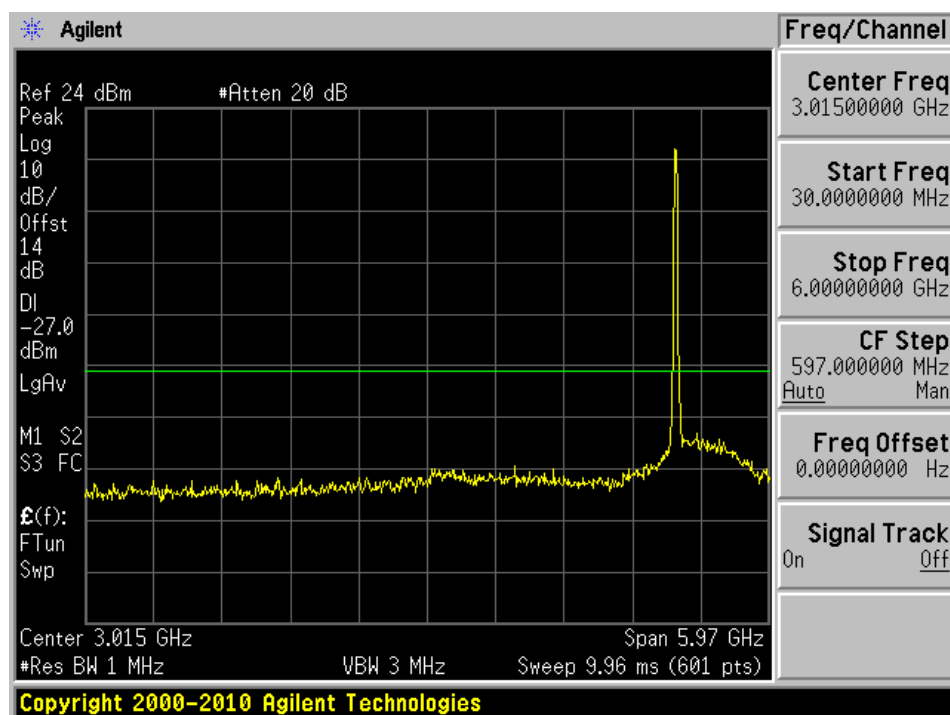


802.11a High 5240 MHz (6-27GHz)

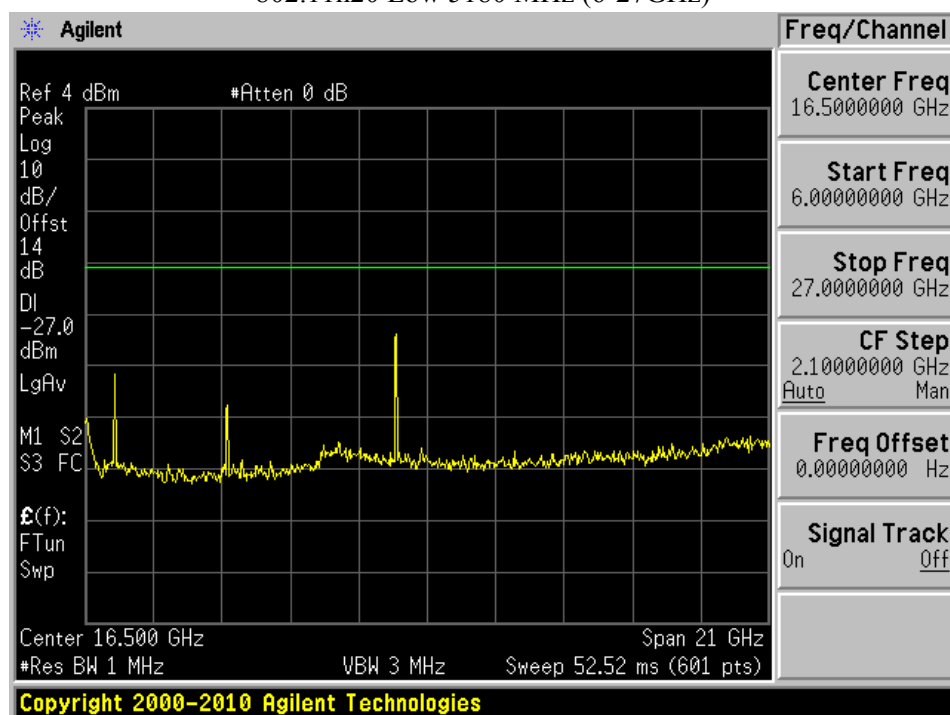


802.11n20 mode

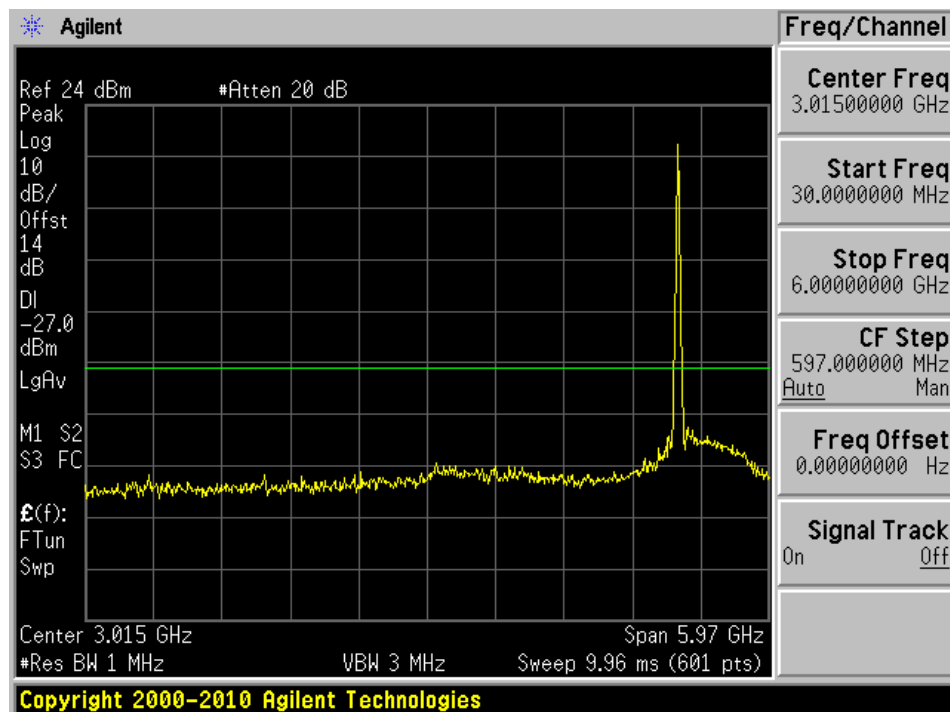
802.11n20 Low 5180MHz (30MHz-6GHz)



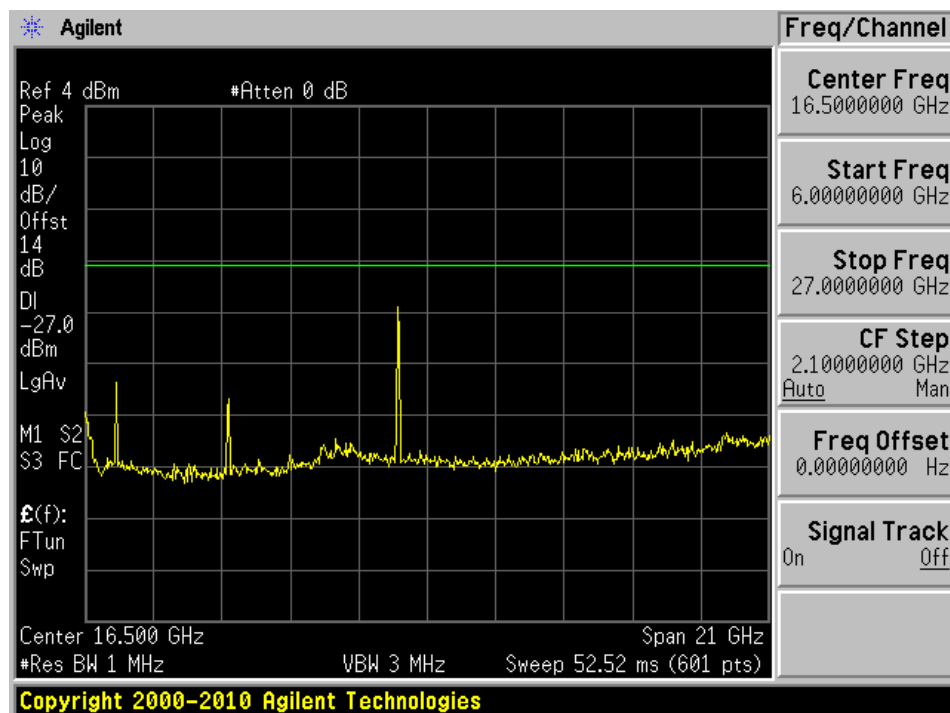
802.11n20 Low 5180 MHz (6-27GHz)



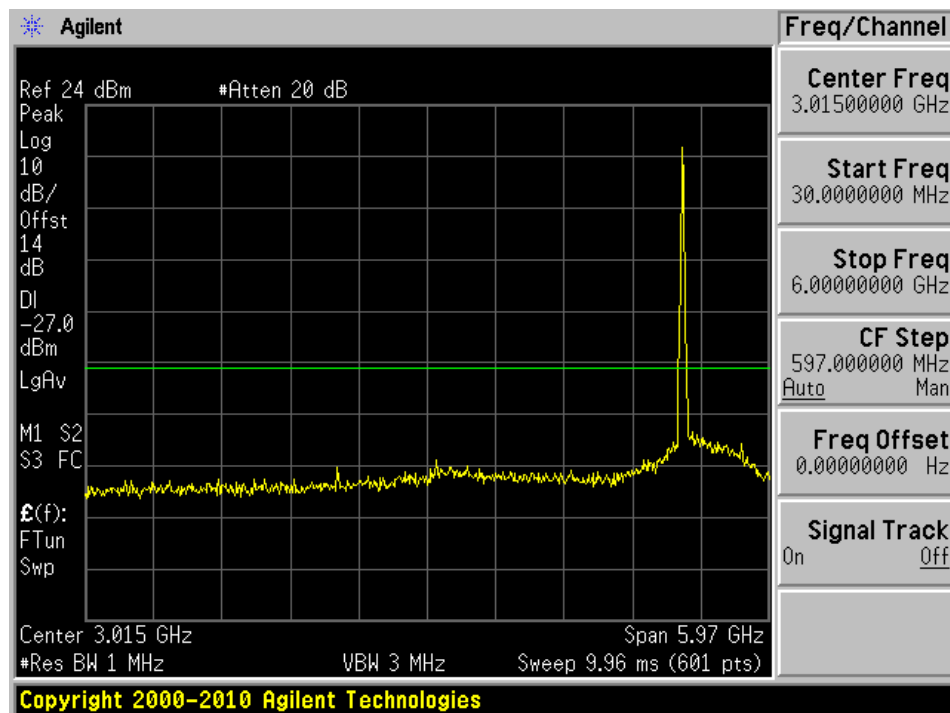
802.11n20 Middle 5200MHz (30MHz-6GHz)



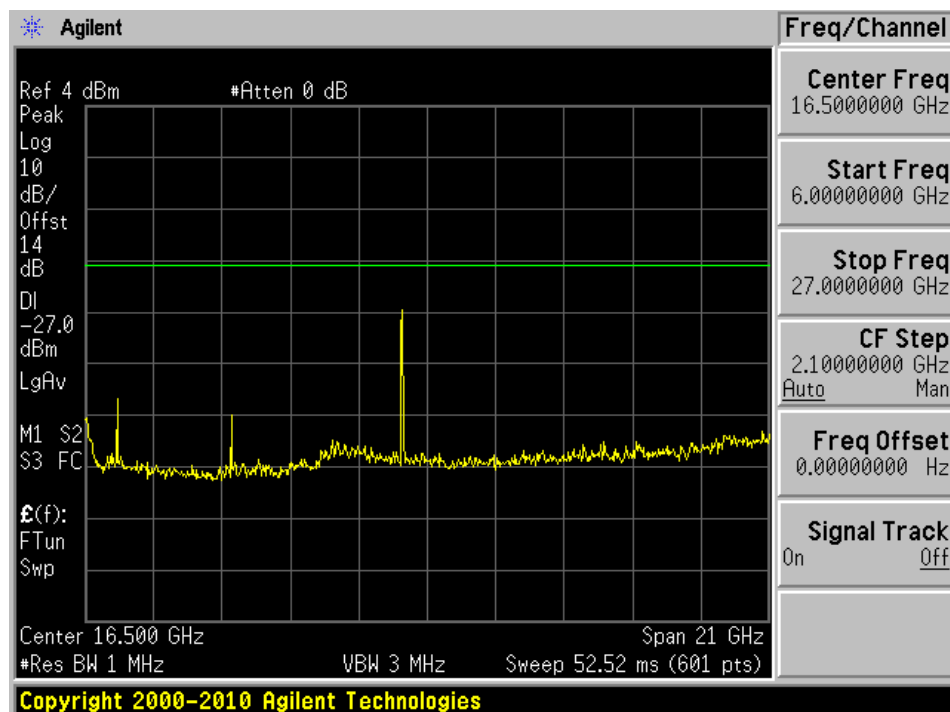
802.11n20 Middle 5200 MHz (6-27GHz)



802.11n20 High 5240MHz (30MHz-6GHz)

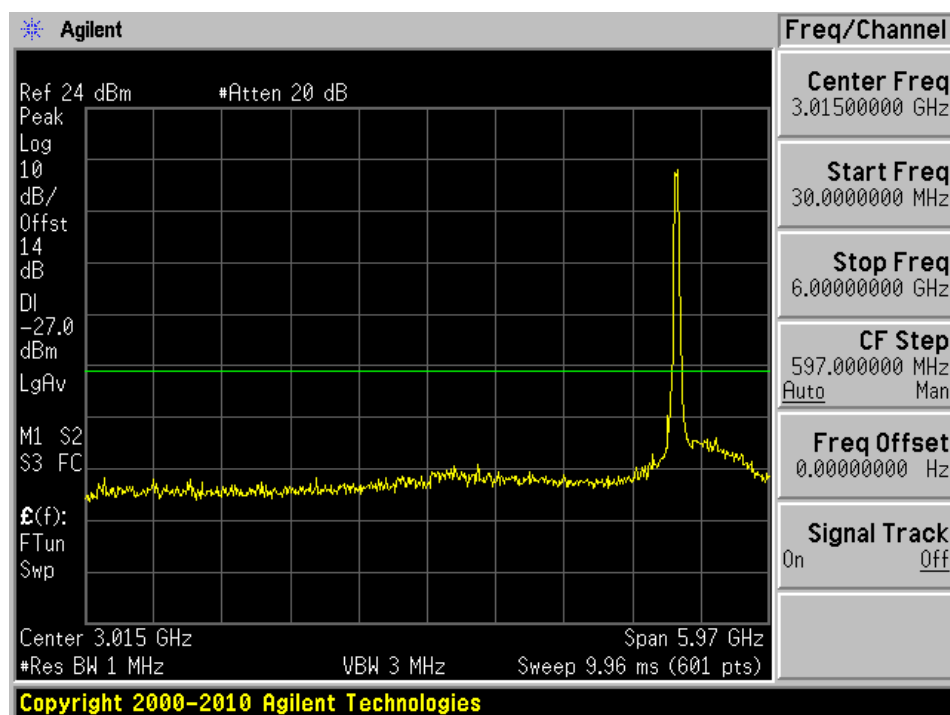


802.11n20 High 5240 MHz (6-27GHz)

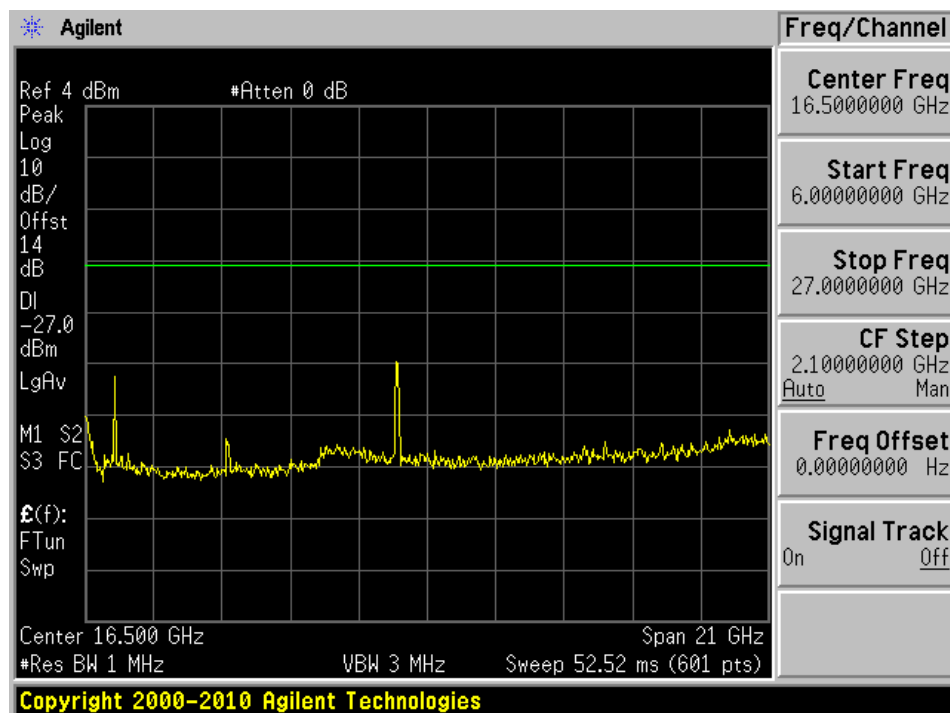


802.11n40 mode

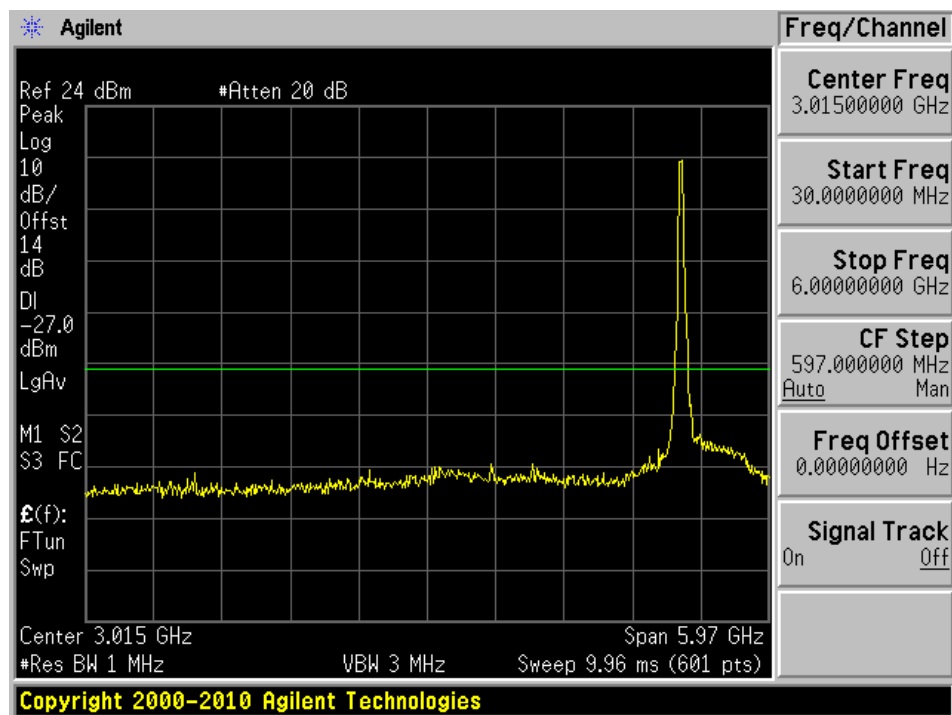
802.11n40 Low 5190MHz (30MHz-6GHz)



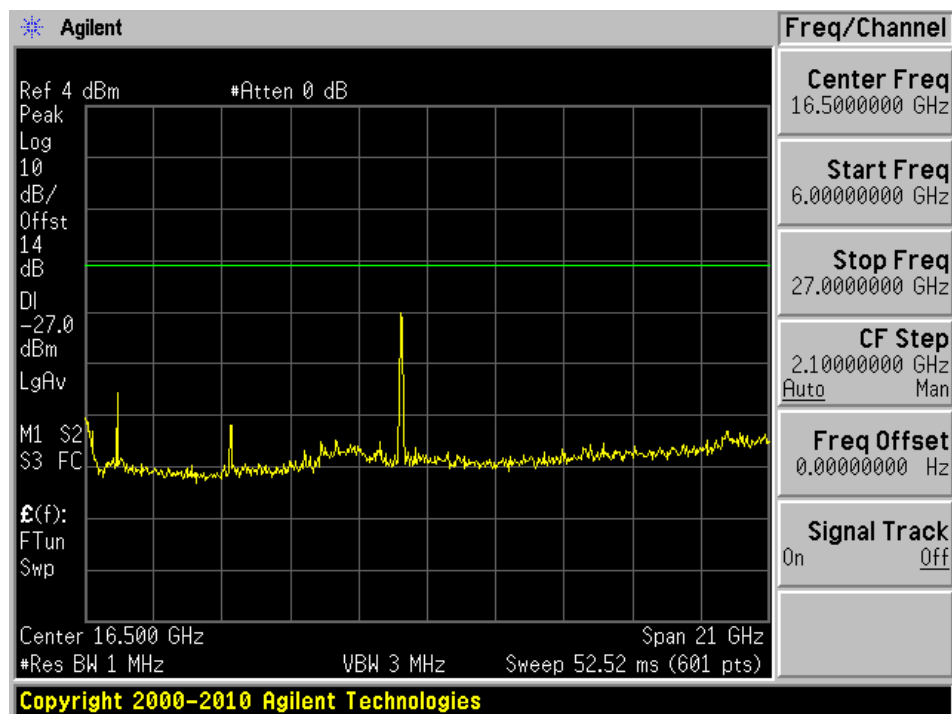
802.11n20 Low 5190 MHz (6-27GHz)



802.11n40 High 5230MHz (30MHz-6GHz)

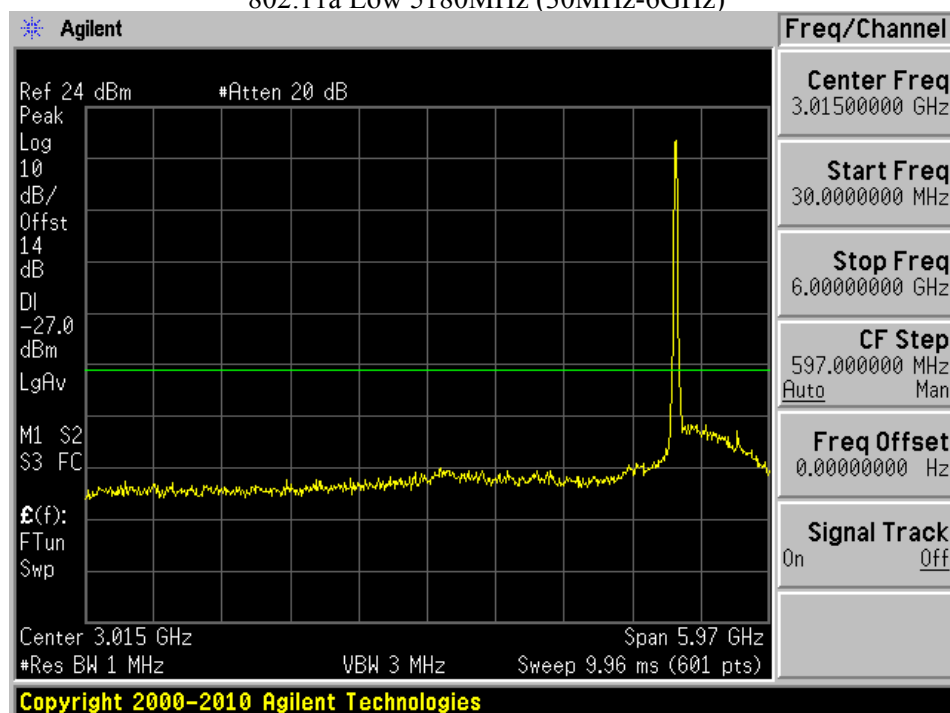


802.11n40 High 5230 MHz (6-27GHz)

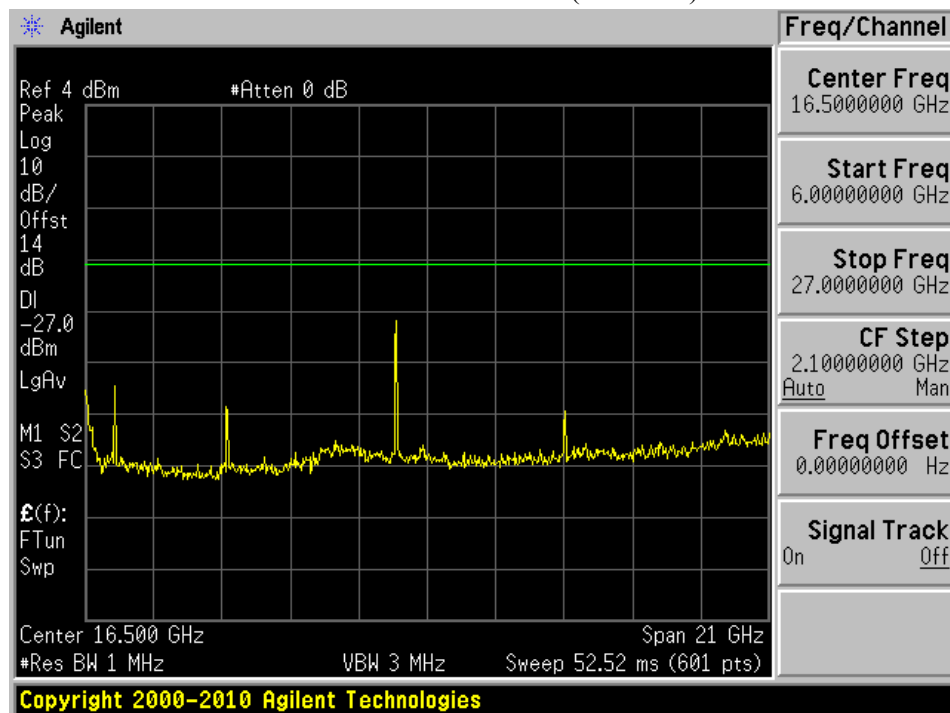


**5.2 GHz Band
802.11a mode
3dBi Antenna Chain 2**

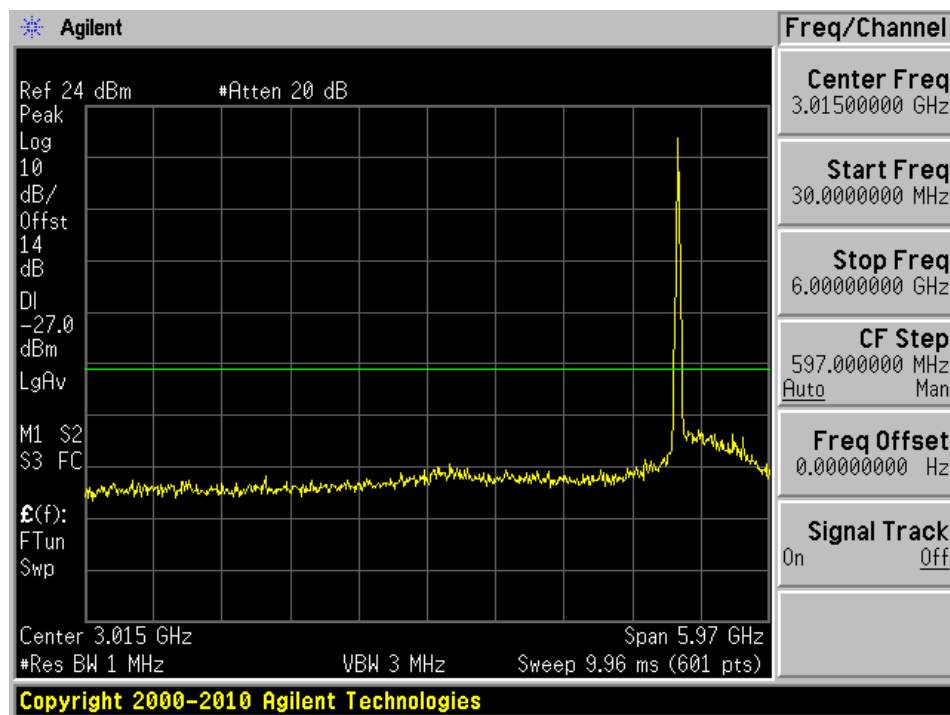
802.11a Low 5180MHz (30MHz-6GHz)



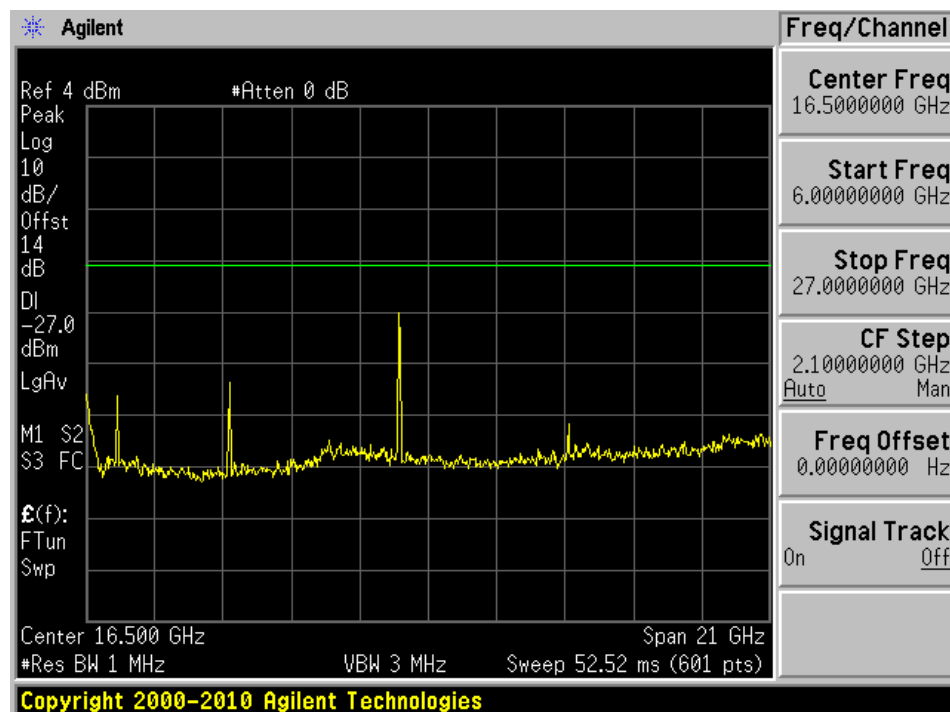
802.11a Low 5180 MHz (6-27GHz)



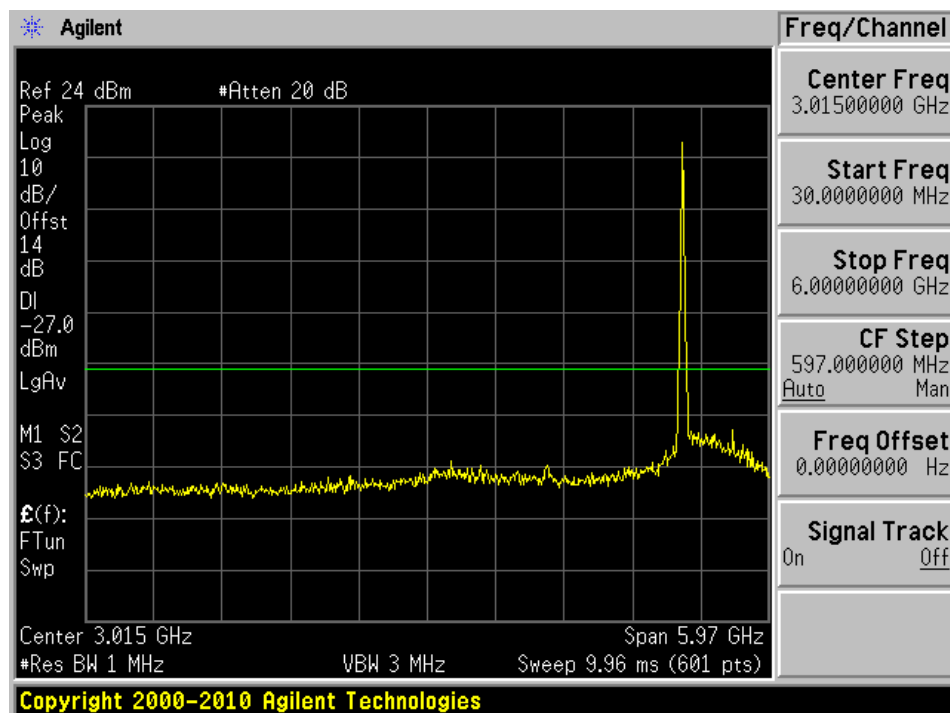
802.11a Middle 5200MHz (30MHz-6GHz)



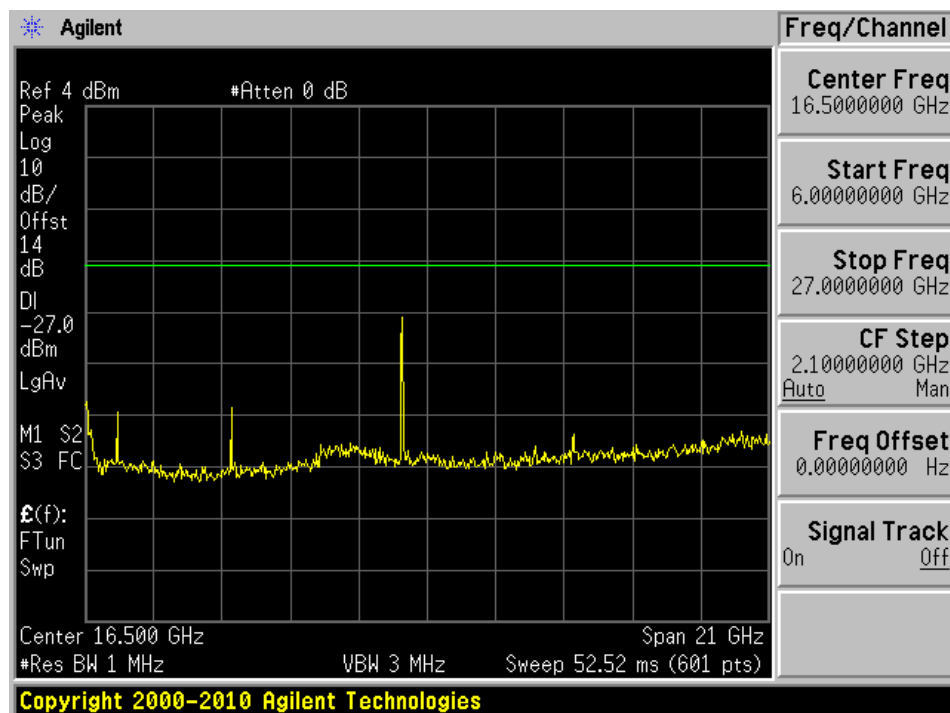
802.11a Middle 5200 MHz (6-27GHz)



802.11a High 5240MHz (30MHz-6GHz)

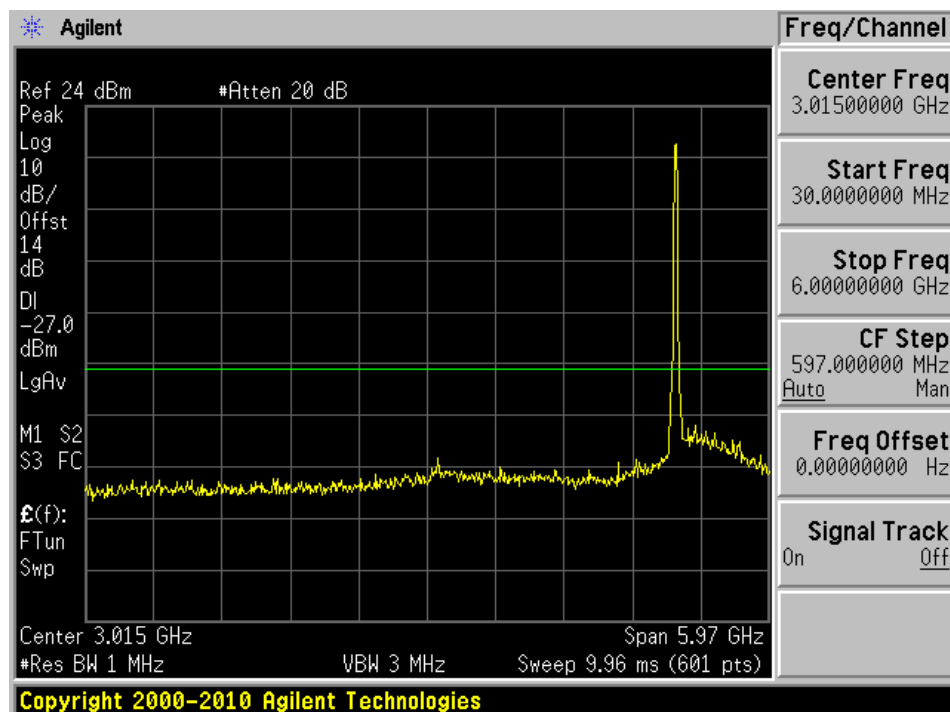


802.11a High 5240 MHz (6-27GHz)

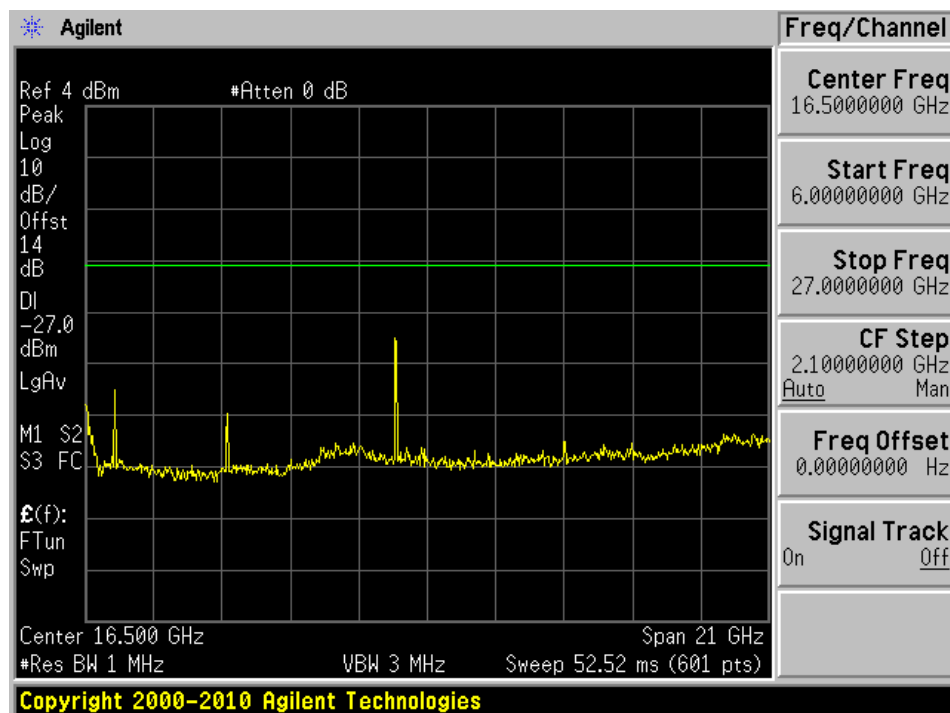


802.11n20 mode

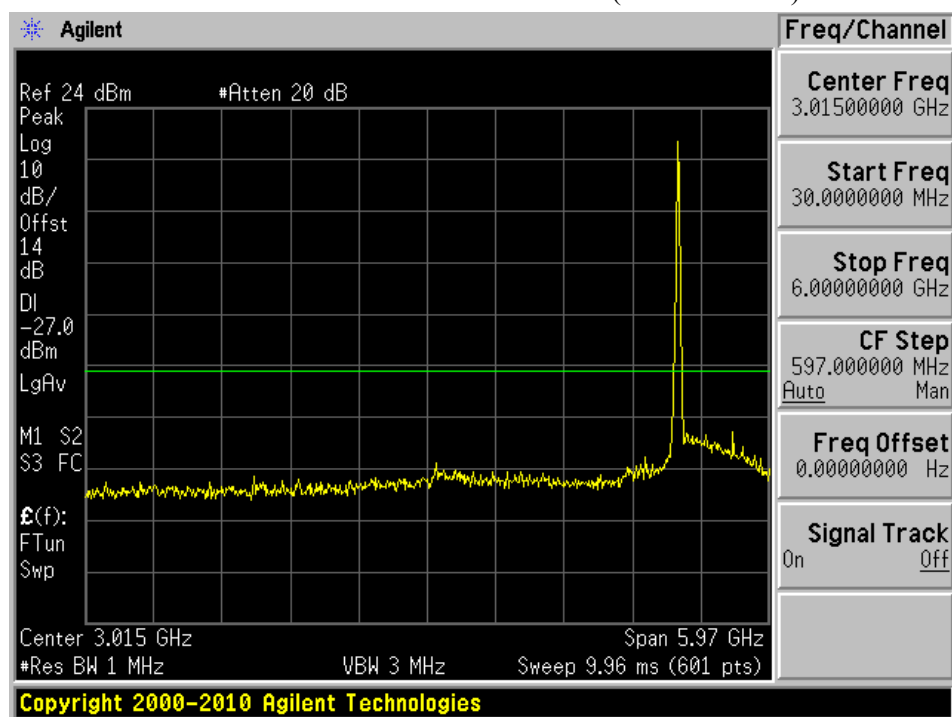
802.11n20 Low 5180MHz (30MHz-6GHz)



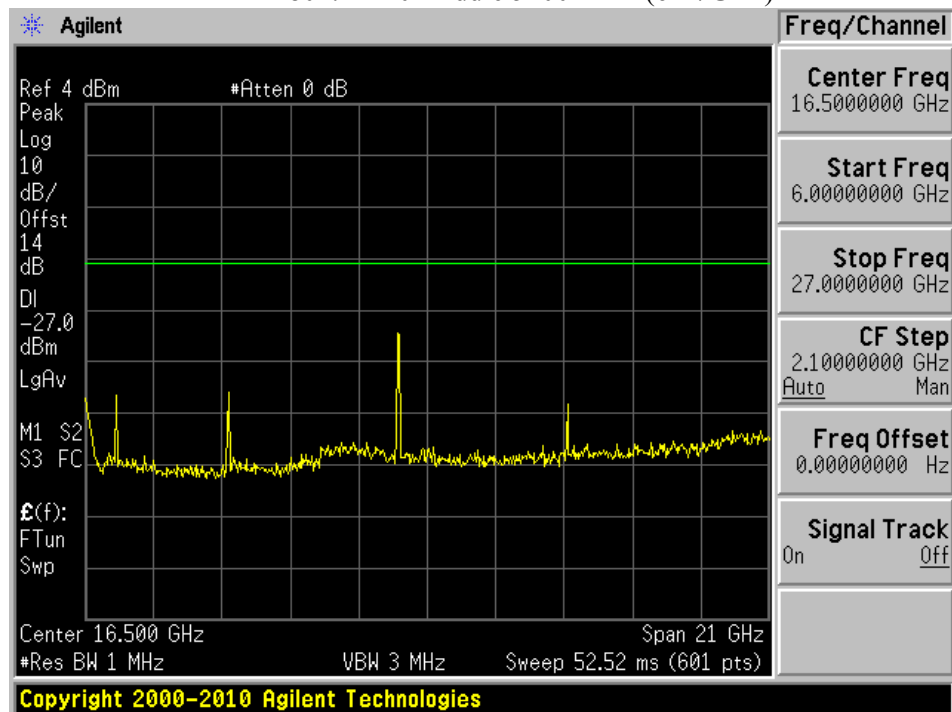
802.11n20 Low 5180 MHz (6-27GHz)



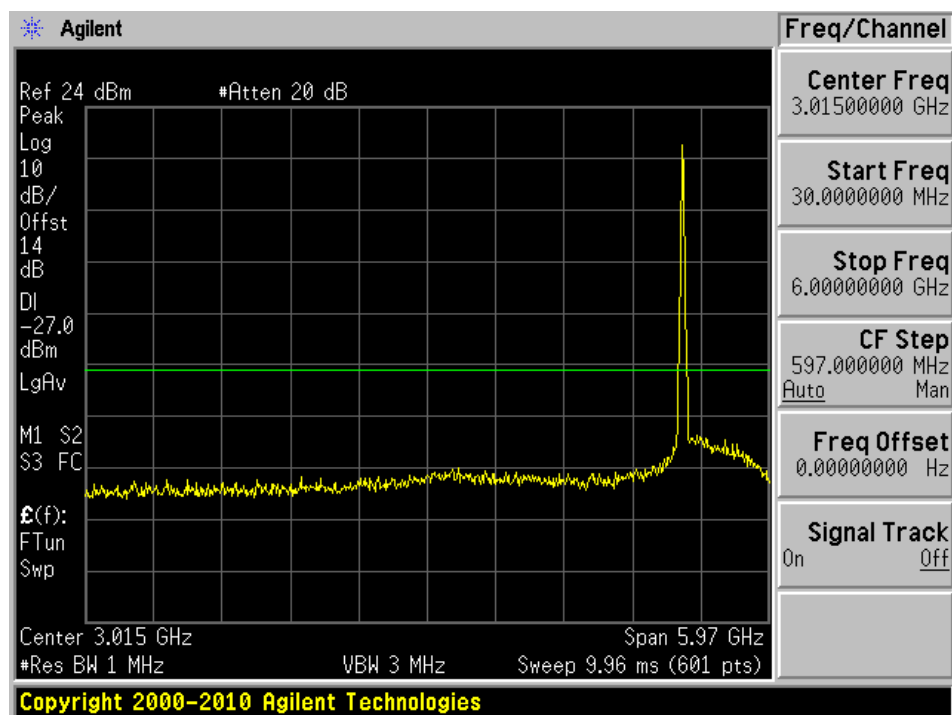
802.11n20 Middle 5200MHz (30MHz-6GHz)



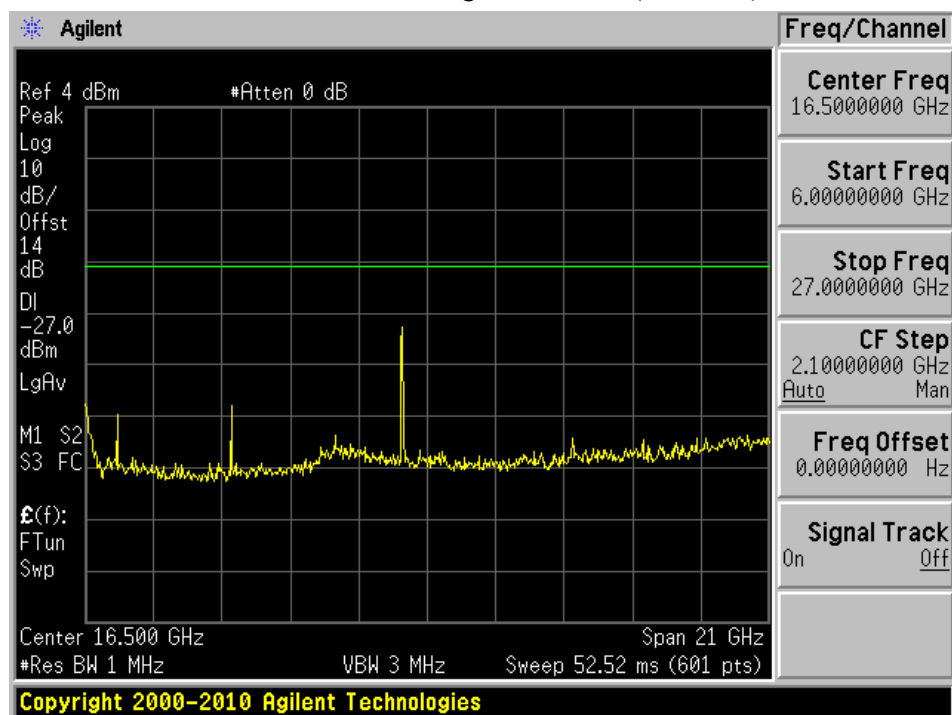
802.11n20 Middle 5200 MHz (6-27GHz)



802.11n20 High 5240MHz (30MHz-6GHz)

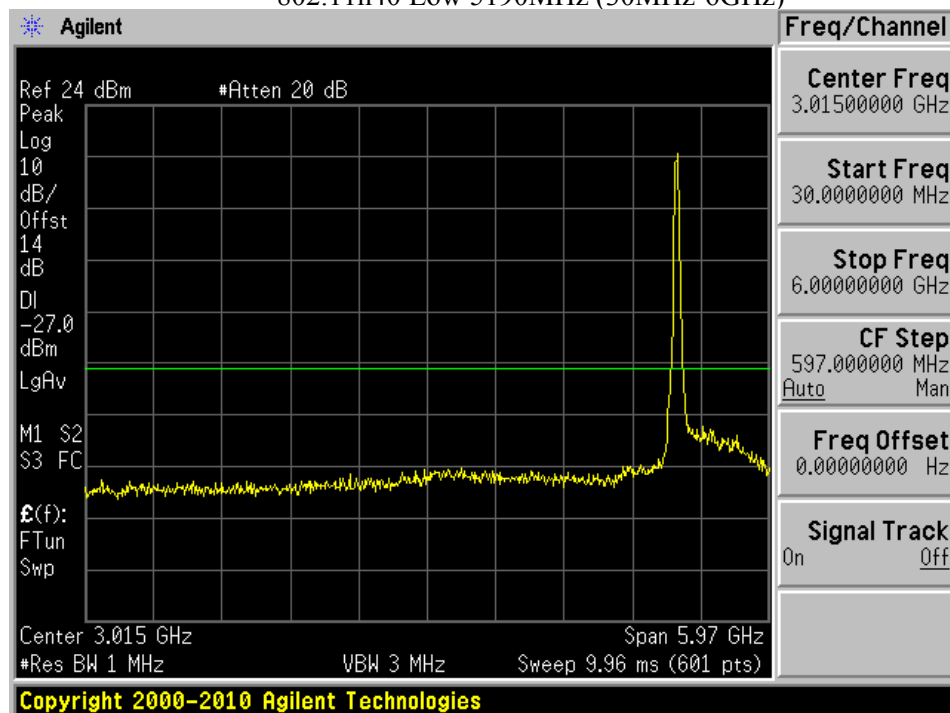


802.11n20 High 5240 MHz (6-27GHz)

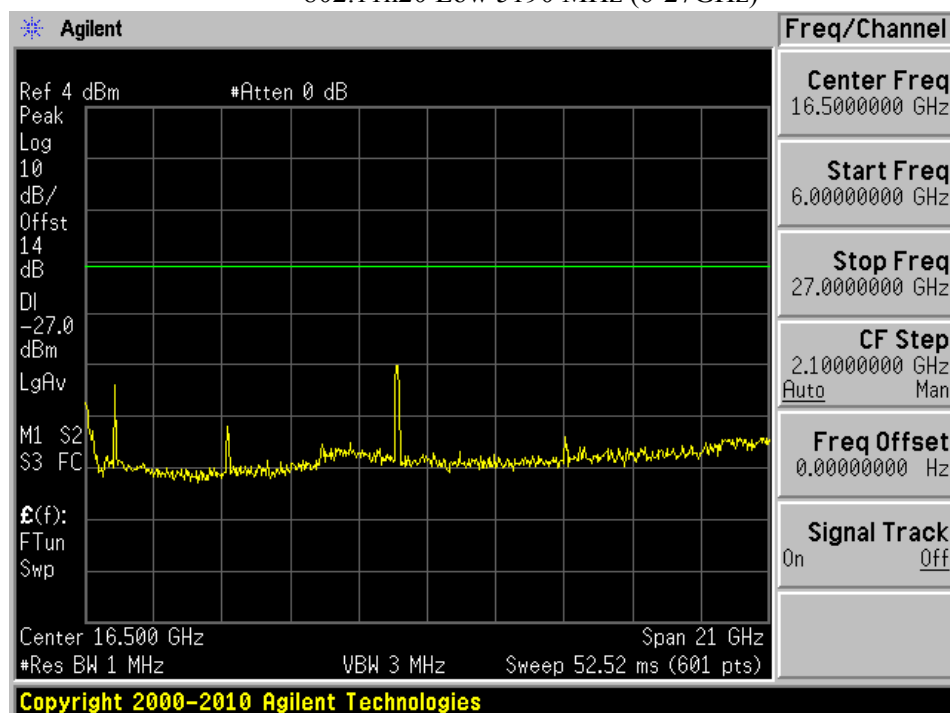


802.11n40 mode

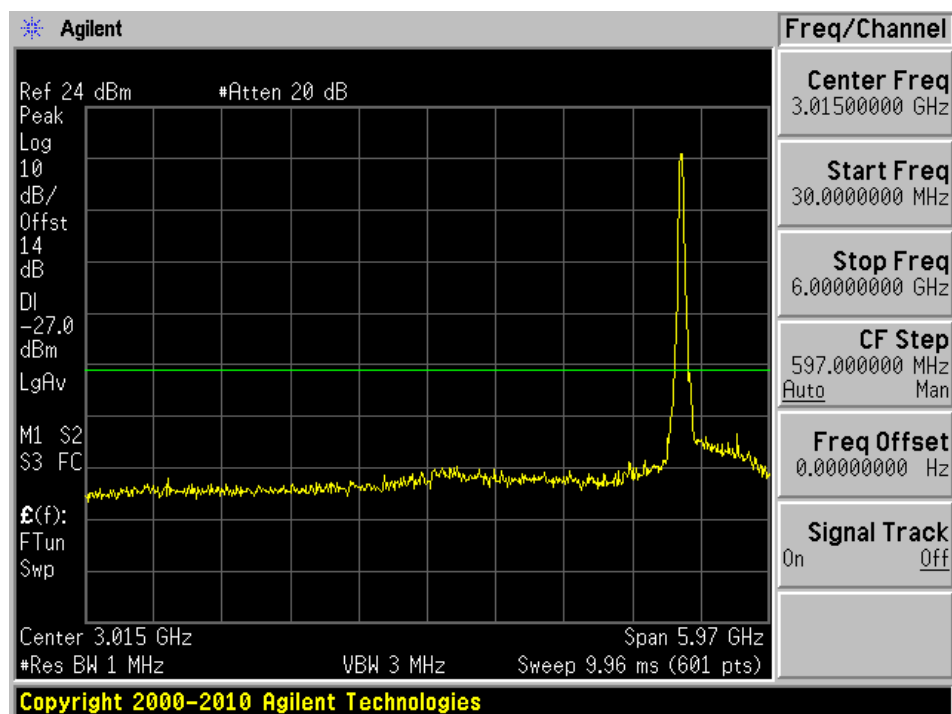
802.11n40 Low 5190MHz (30MHz-6GHz)



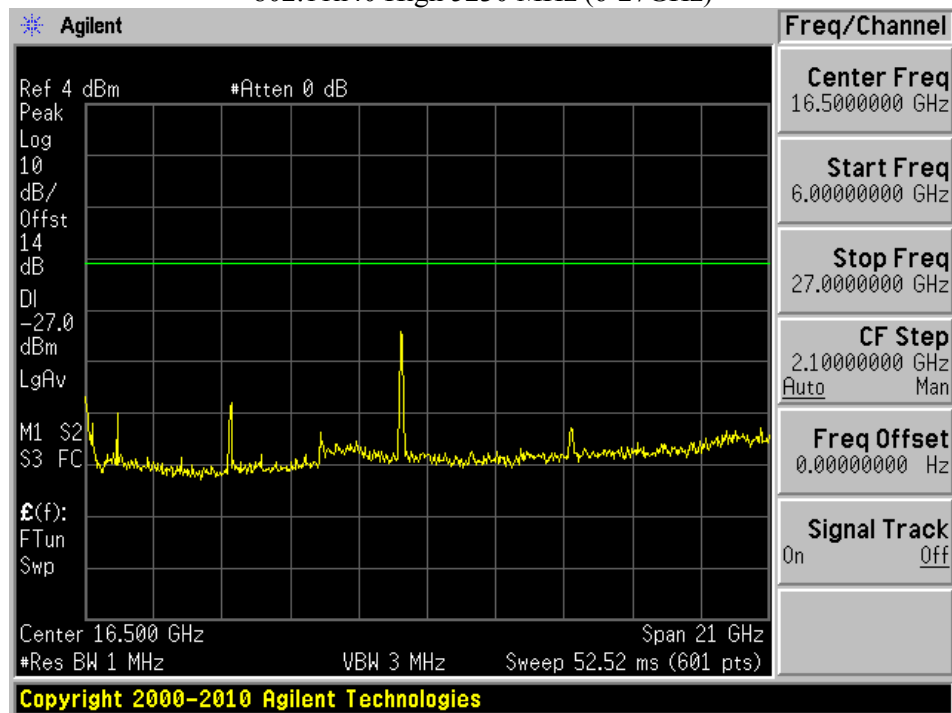
802.11n20 Low 5190 MHz (6-27GHz)



802.11n40 High 5230MHz (30MHz-6GHz)

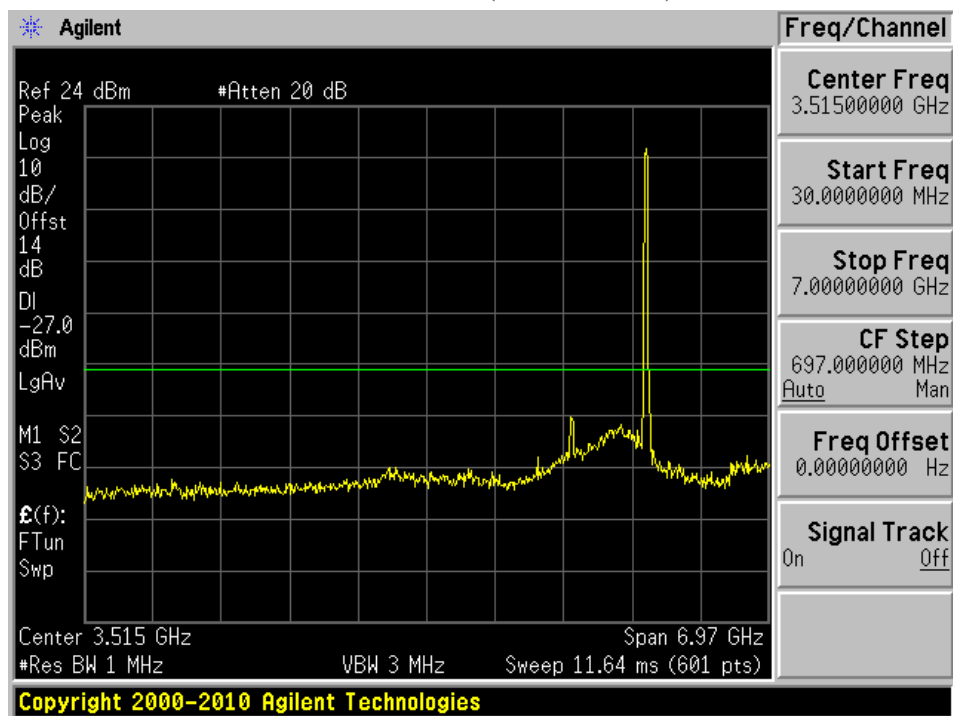


802.11n40 High 5230 MHz (6-27GHz)

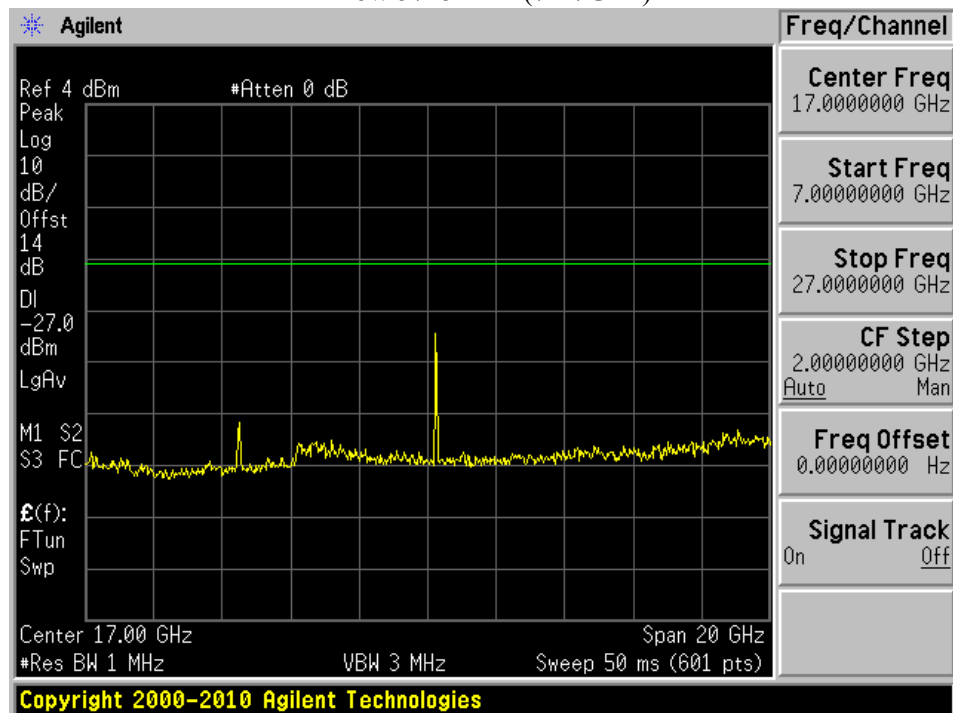


**5.8 GHz Band
802.11a
3dBi Antenna Chain 0**

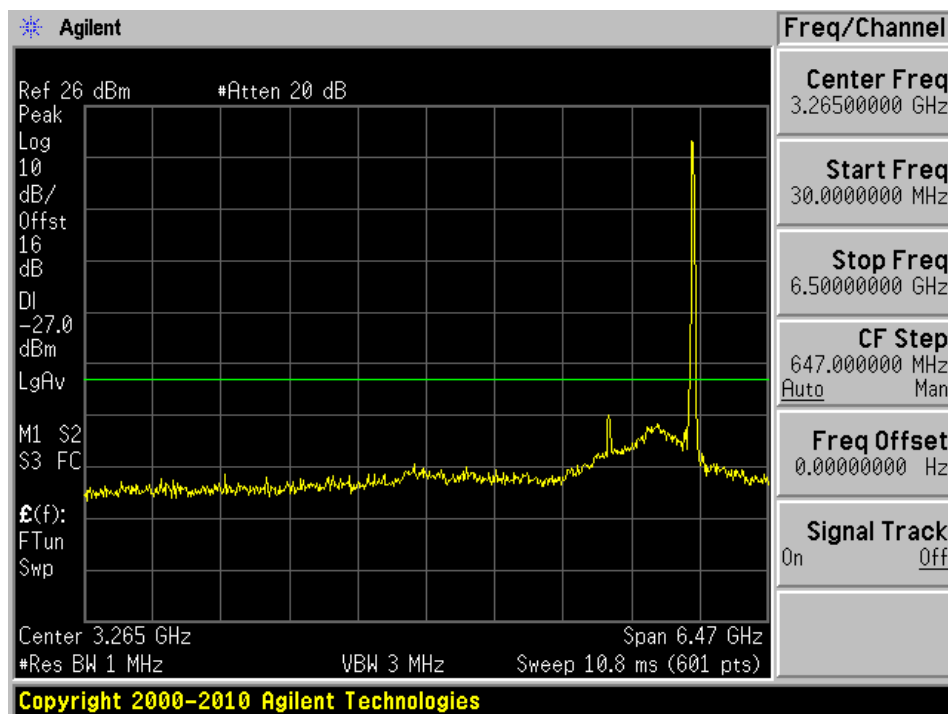
Low 5745MHz (30MHz-7GHz)



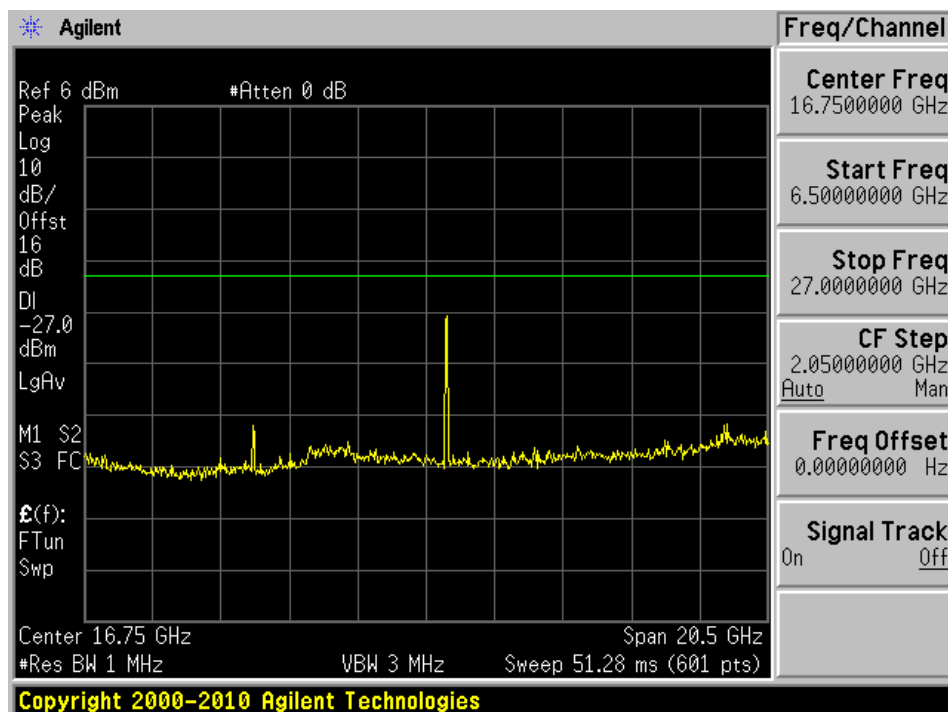
Low 5745MHz (7-27GHz)



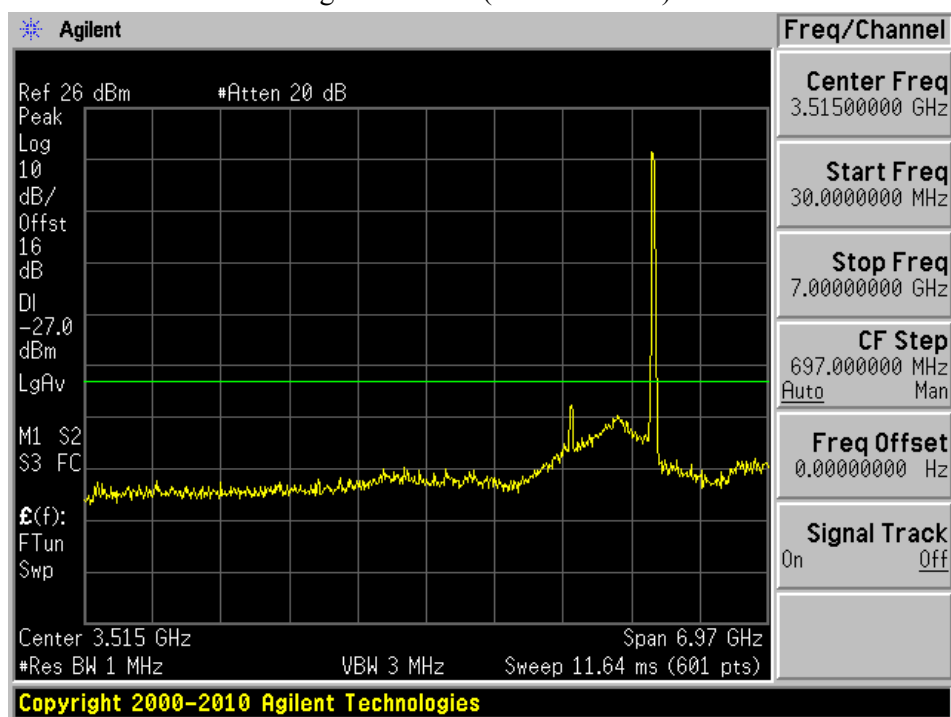
Middle 5785MHz (30MHz-6.5GHz)



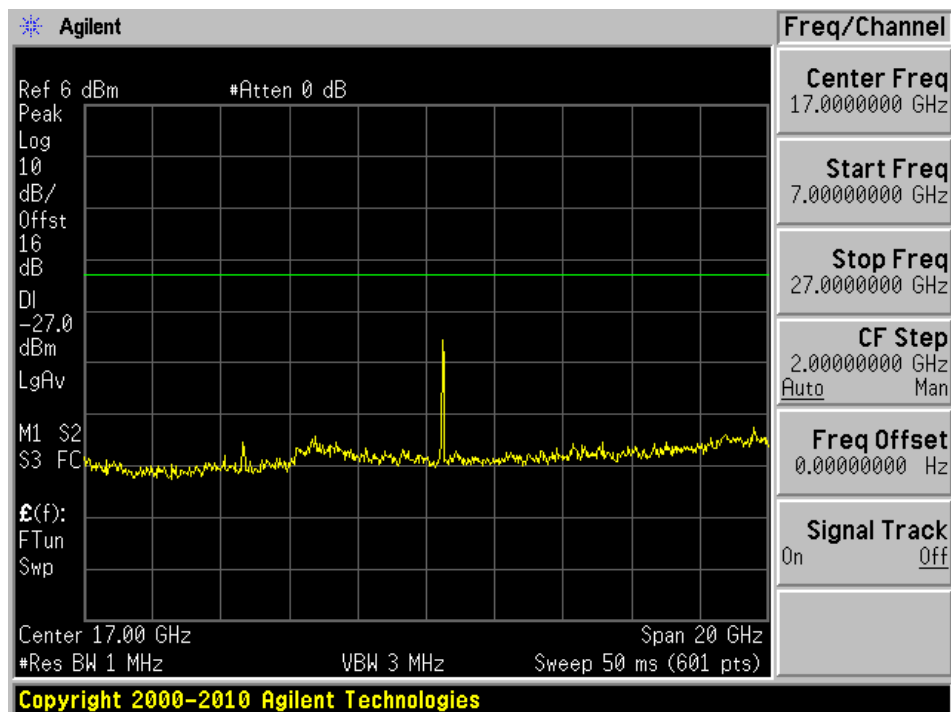
Middle 5785MHz (6.5-27GHz)



High 5825MHz (30MHz-7GHz)

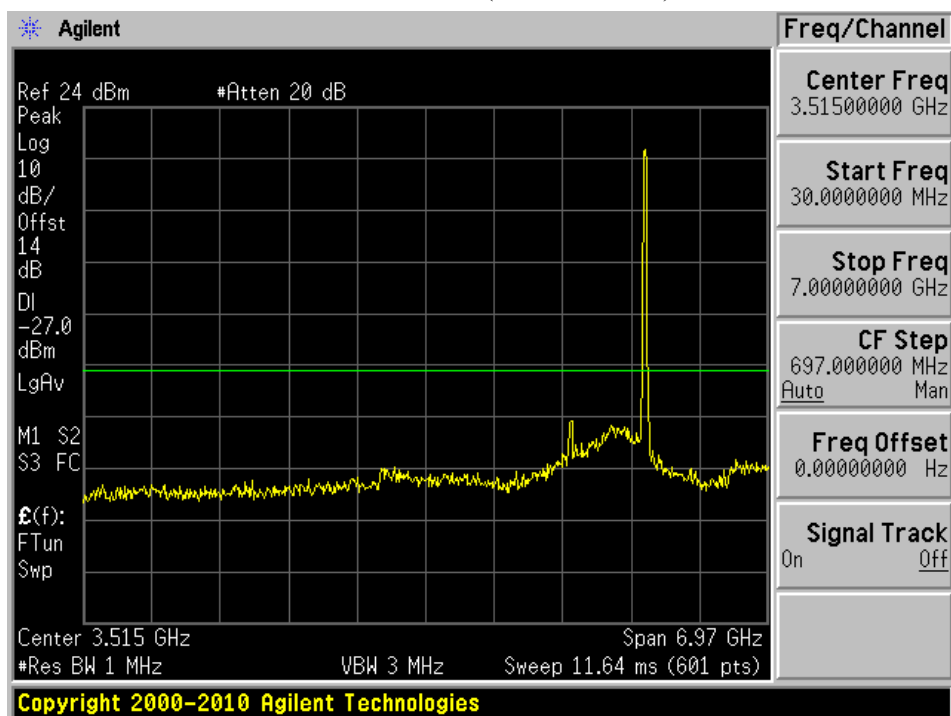


High 5825MHz (7-27GHz)

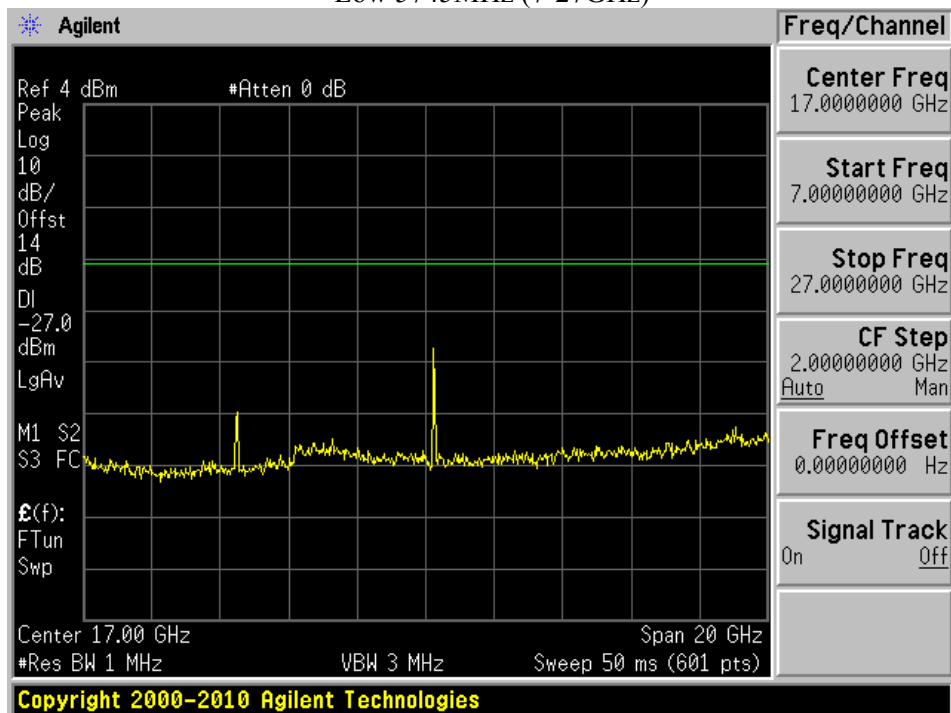


5.8 GHz Band
802.11n20
3dBi Antenna Chain 0

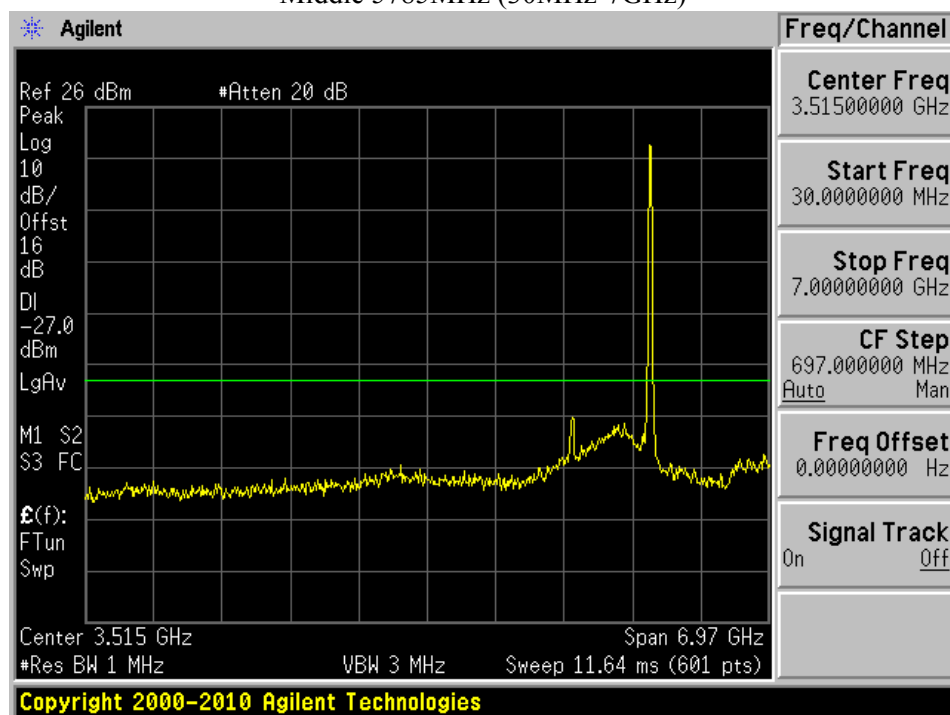
Low 5745MHz (30MHz-7GHz)



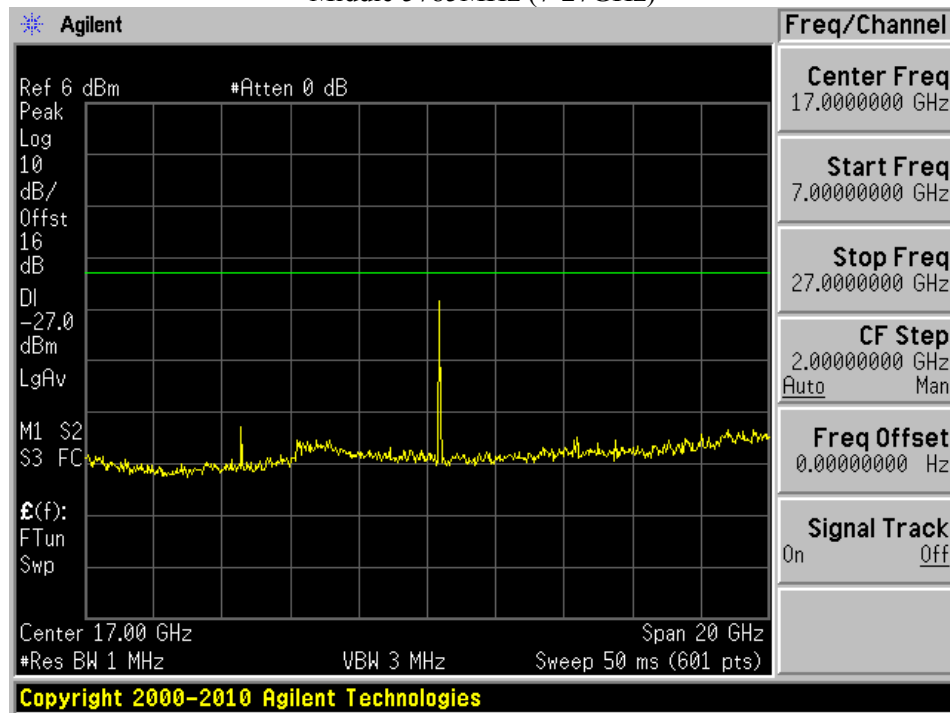
Low 5745MHz (7-27GHz)



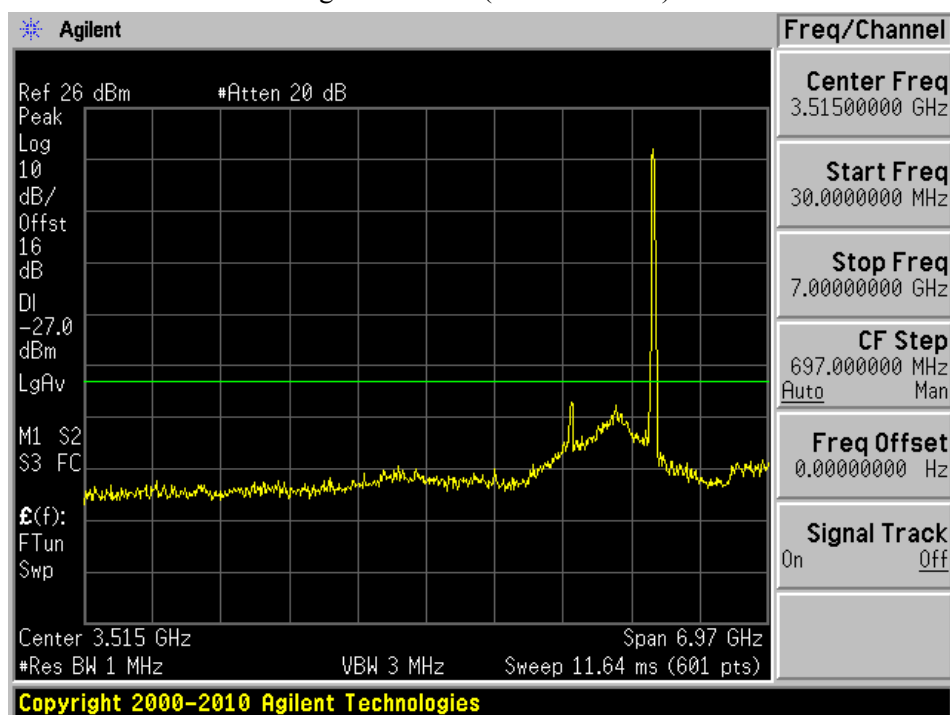
Middle 5785MHz (30MHz-7GHz)



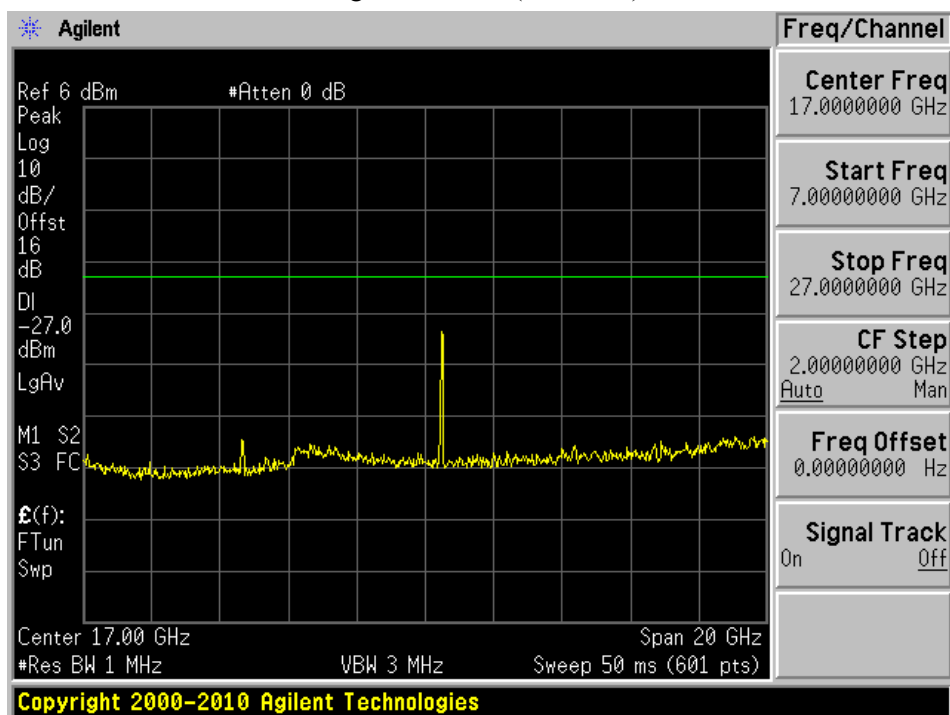
Middle 5785MHz (7-27GHz)



High 5825MHz (30MHz-7GHz)

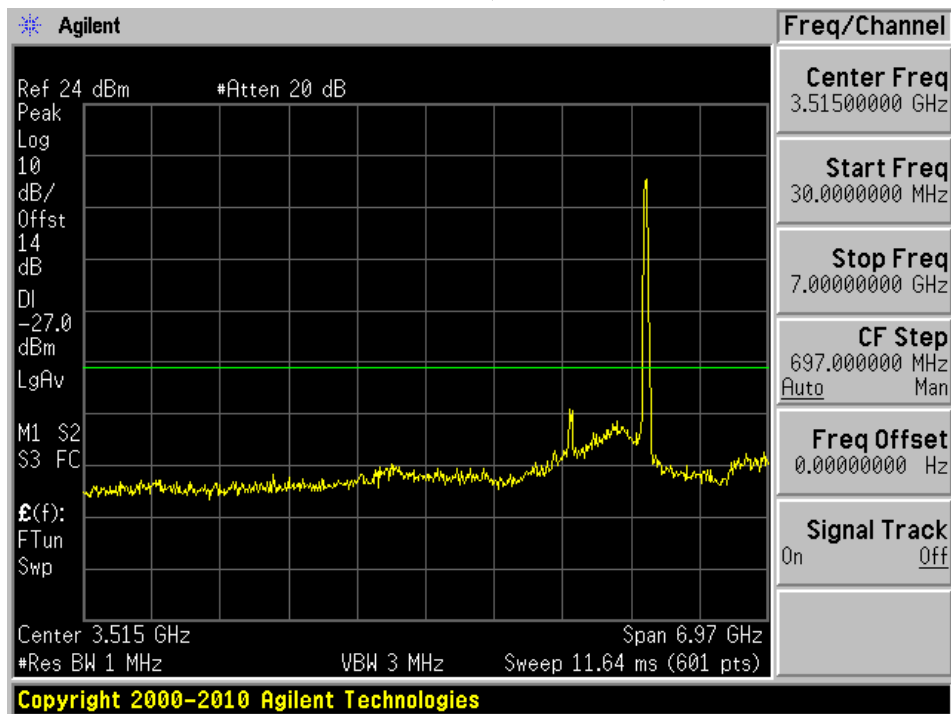


High 5825MHz (7-27GHz)

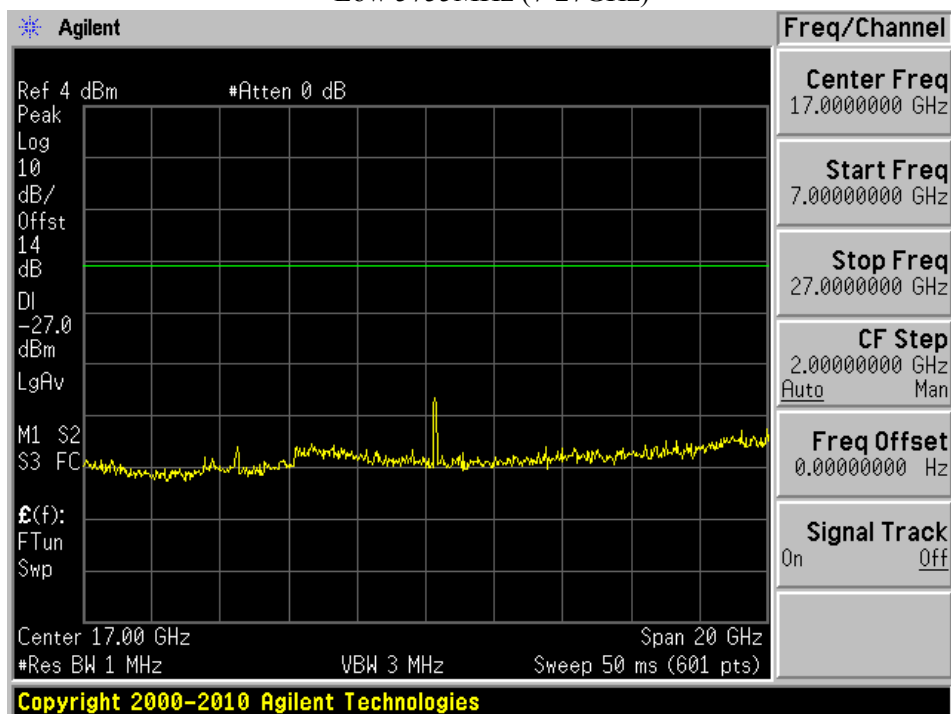


**5.8 GHz Band
802.11n40
3dBi Antenna Chain 0**

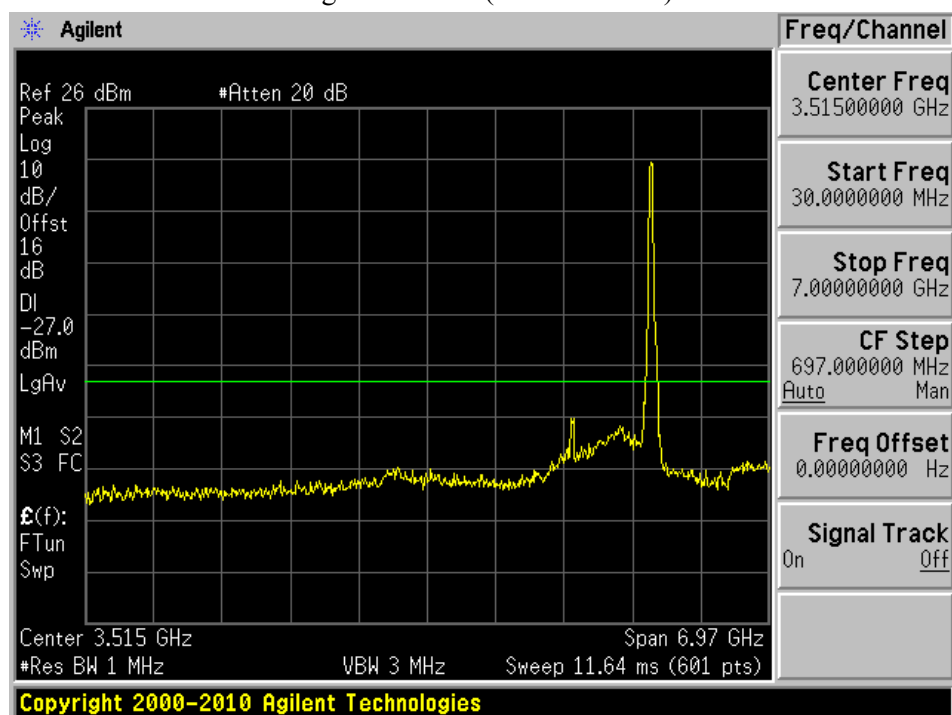
Low 5755MHz (30MHz-7GHz)



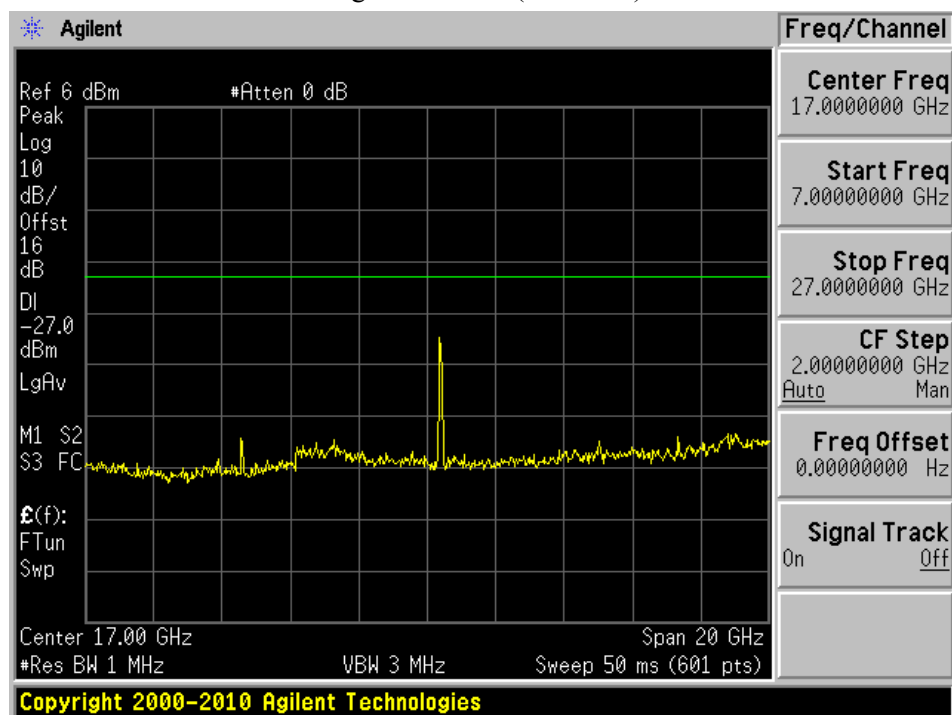
Low 5755MHz (7-27GHz)



High 5795MHz (30MHz-7GHz)

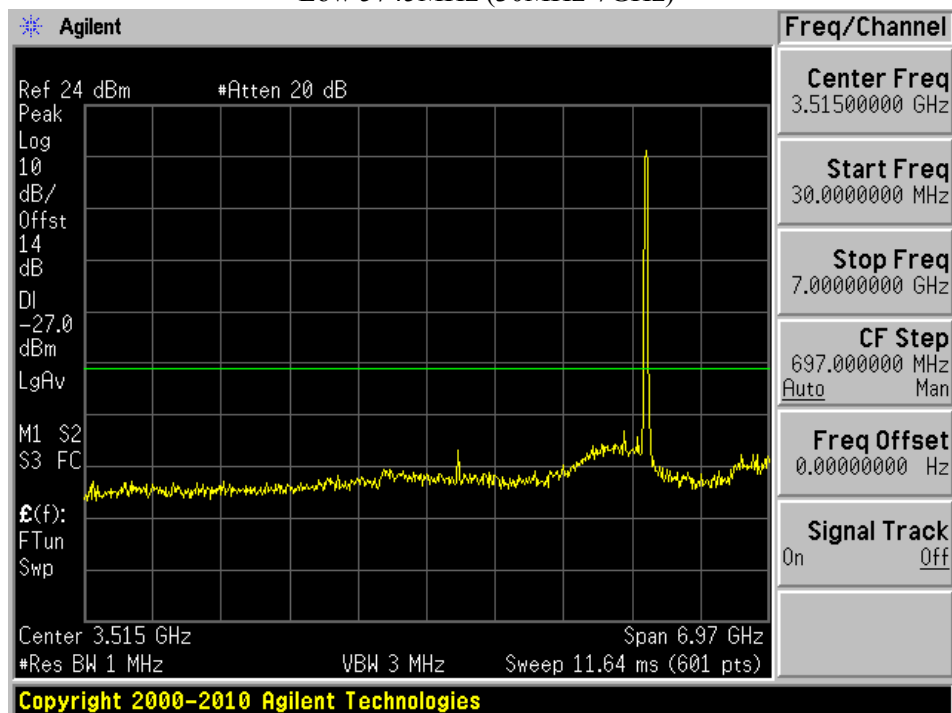


High 5795MHz (7-27GHz)

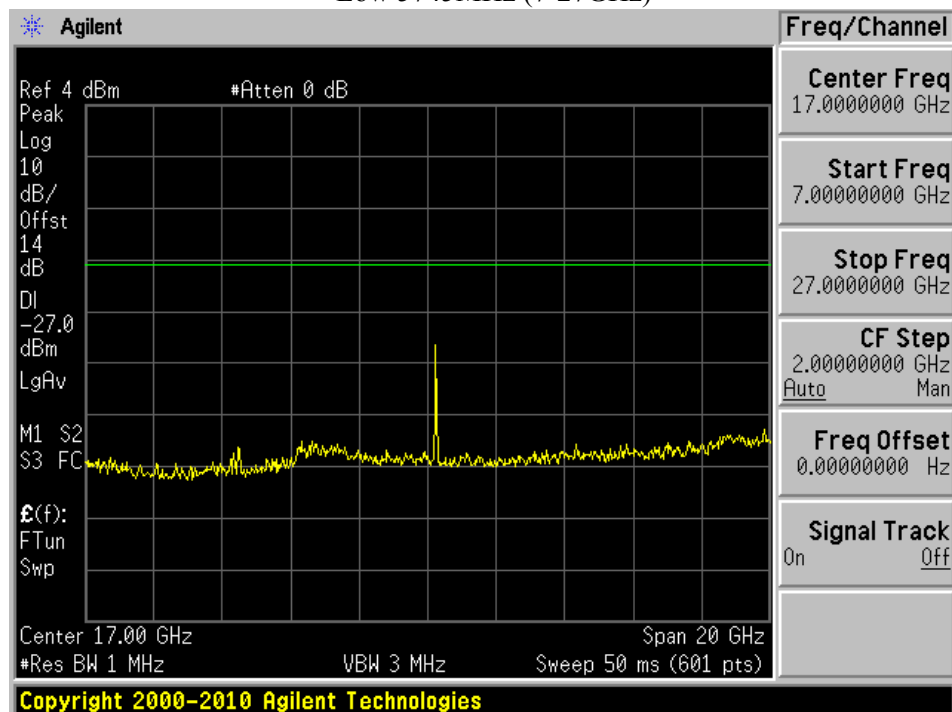


**5.8 GHz Band
802.11a
3dBi Antenna Chain 1**

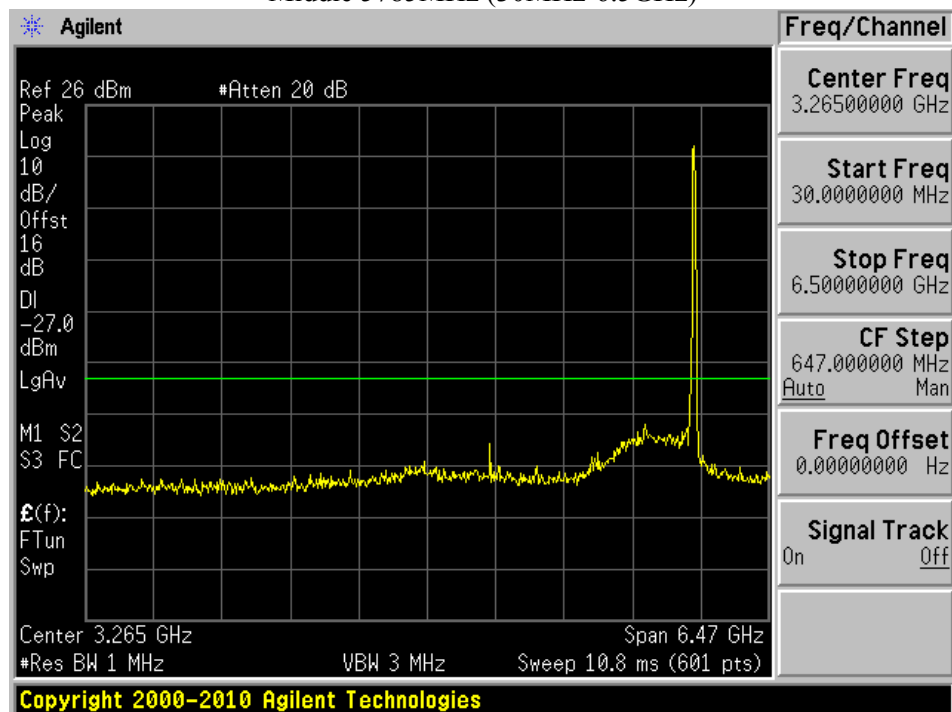
Low 5745MHz (30MHz-7GHz)



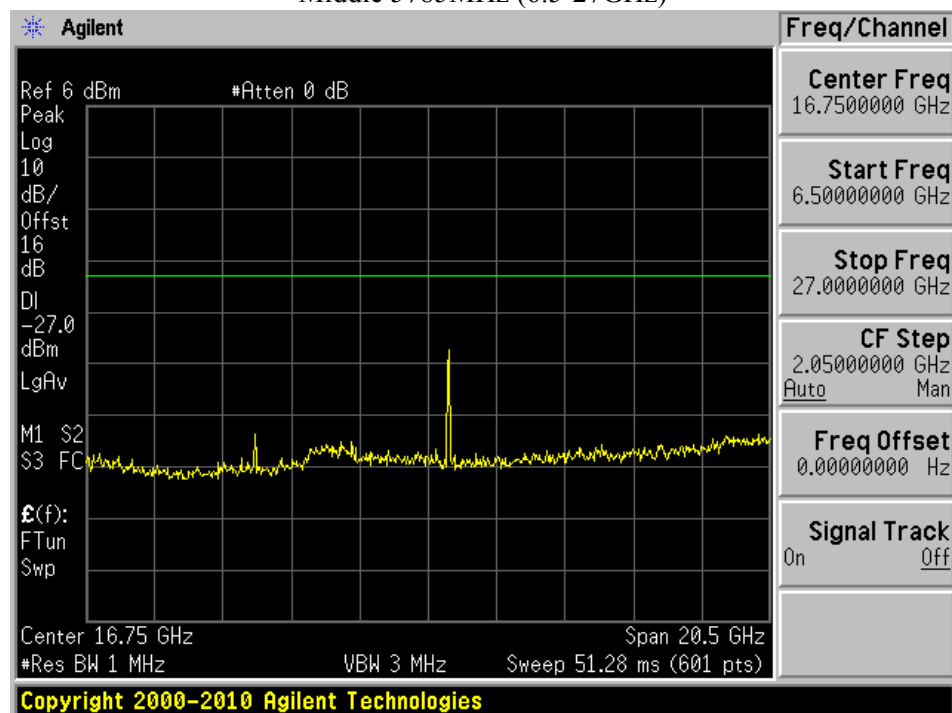
Low 5745MHz (7-27GHz)



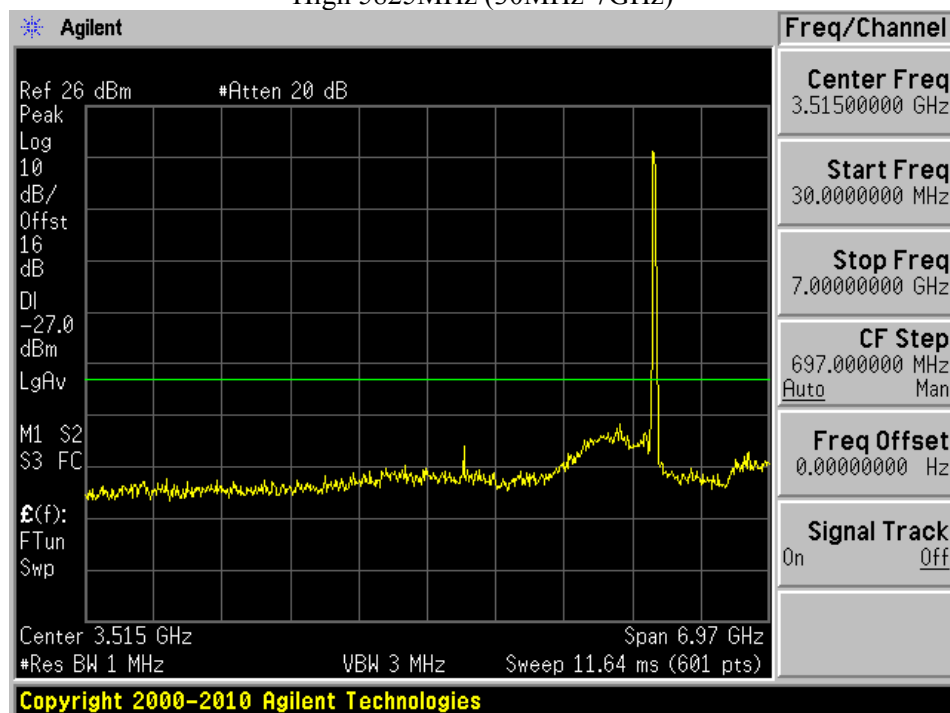
Middle 5785MHz (30MHz-6.5GHz)



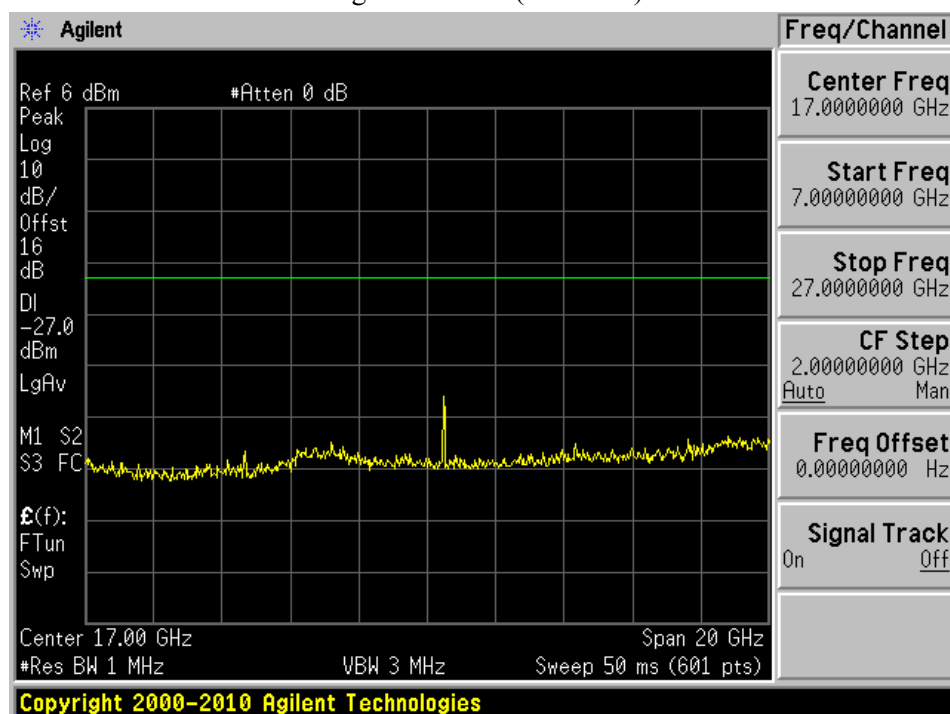
Middle 5785MHz (6.5-27GHz)



High 5825MHz (30MHz-7GHz)

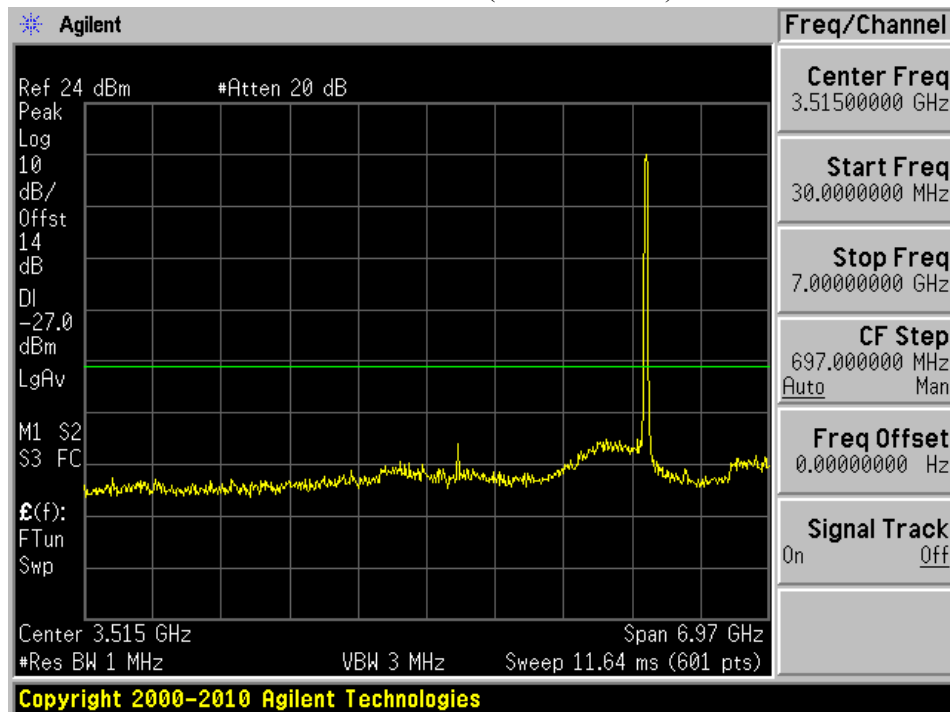


High 5825MHz (7-27GHz)

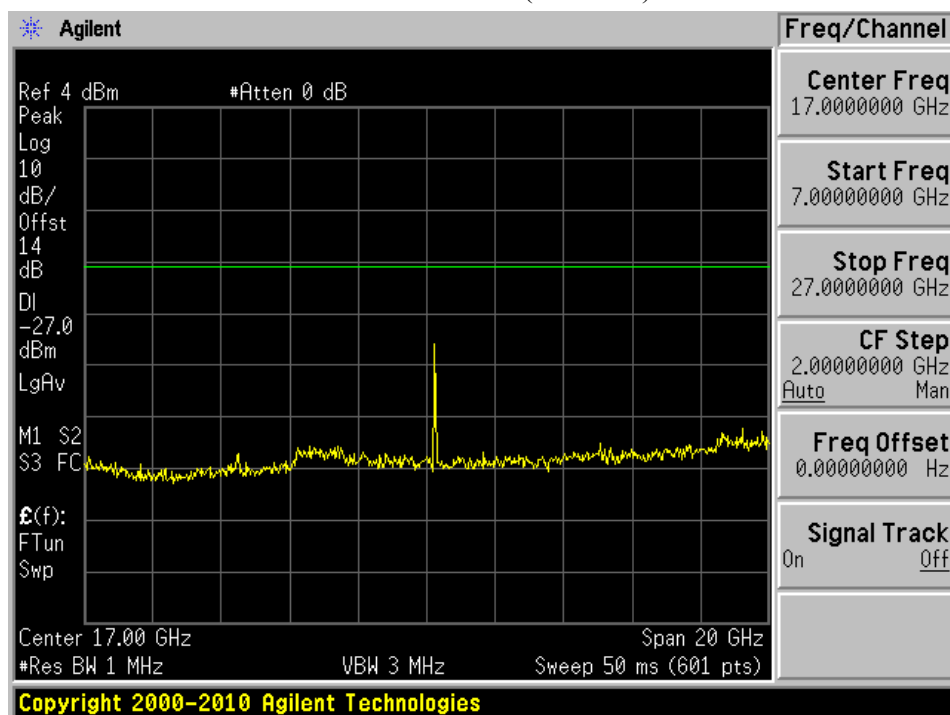


**5.8 GHz Band
802.11n20
3dBi Antenna Chain 1**

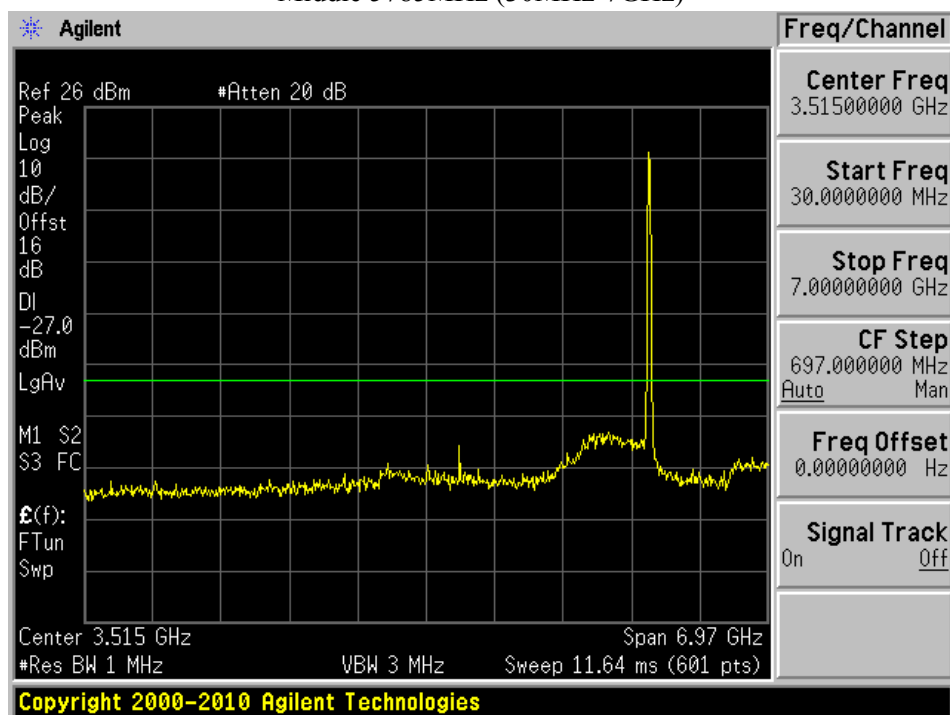
Low 5745MHz (30MHz-7GHz)



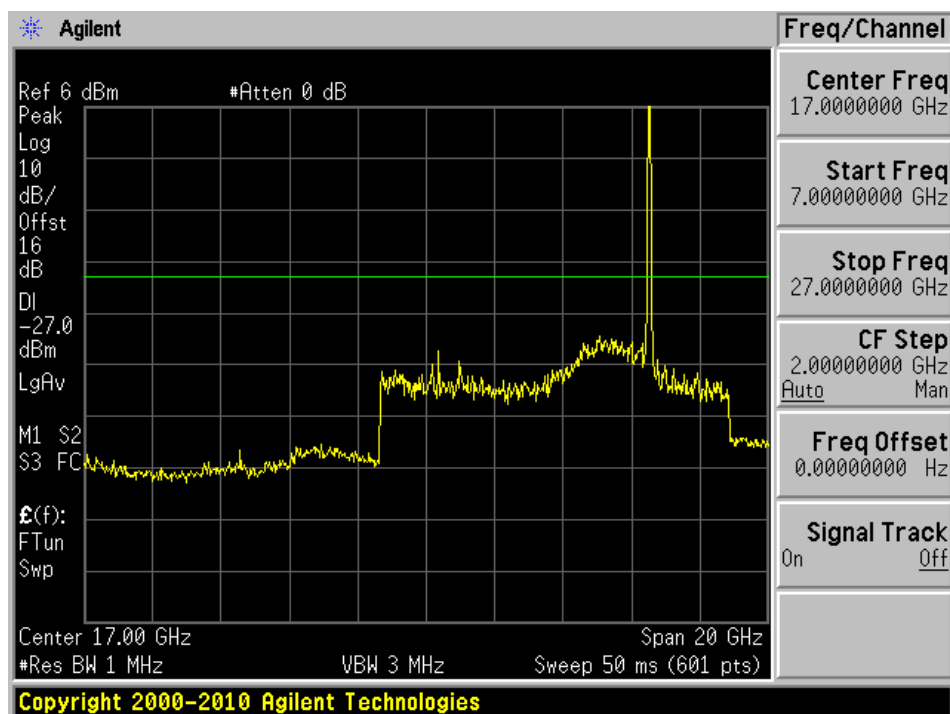
Low 5745MHz (7-27GHz)



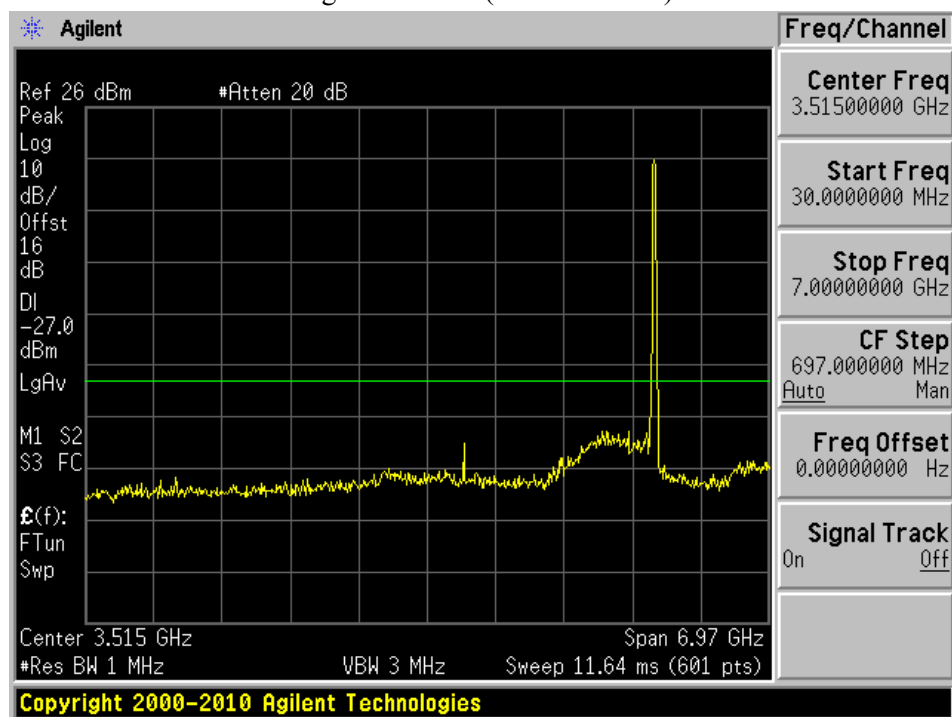
Middle 5785MHz (30MHz-7GHz)



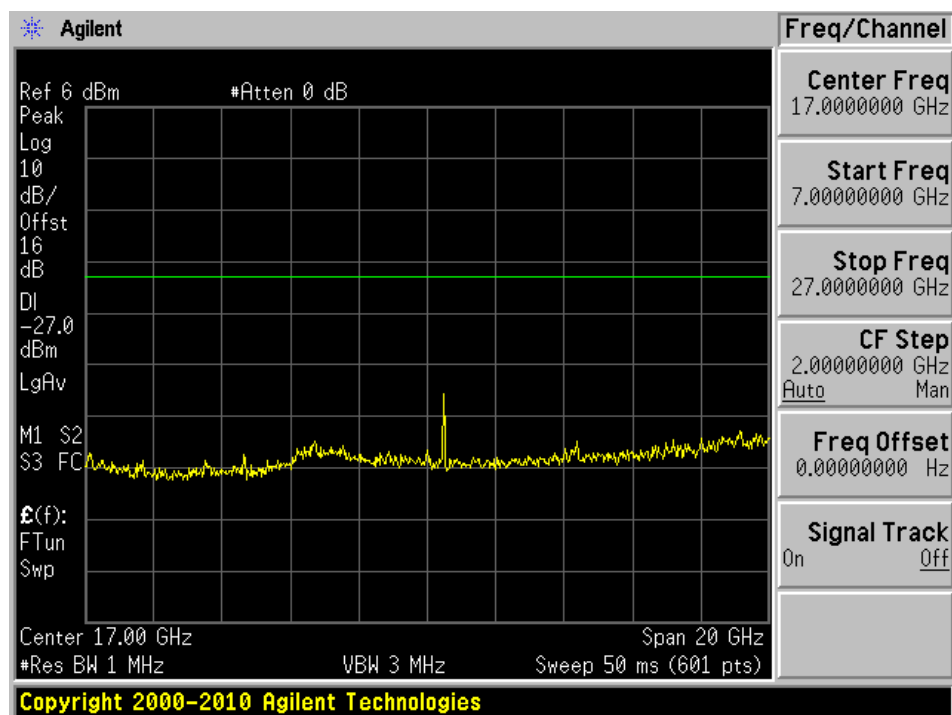
Middle 5785MHz (7-27GHz)



High 5825MHz (30MHz-7GHz)

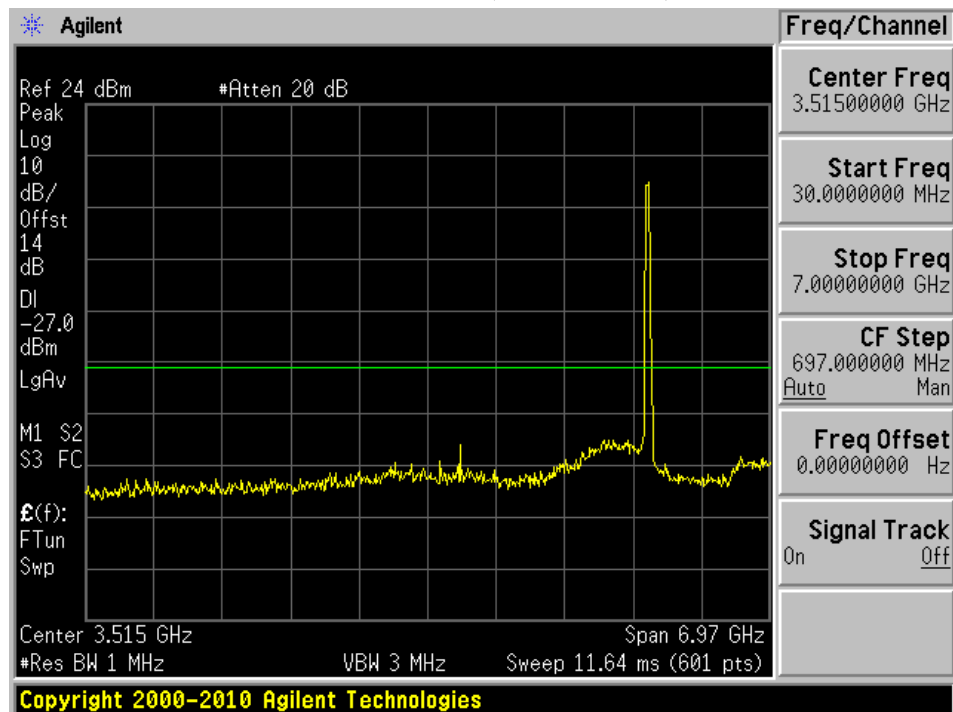


High 5825MHz (7-27GHz)

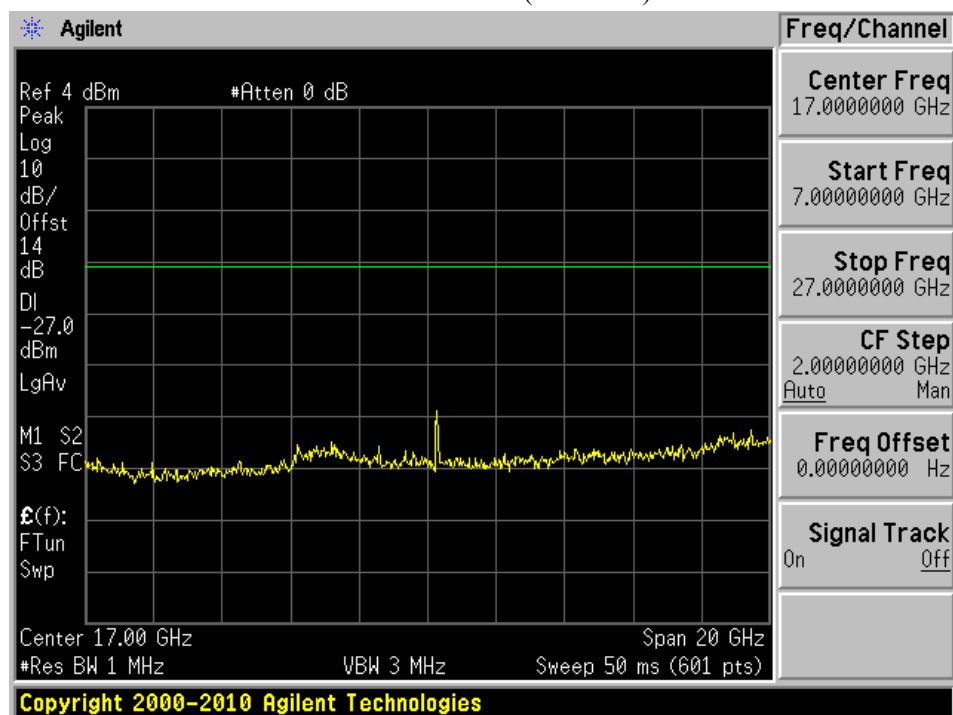


**5.8 GHz Band
802.11n40
3dBi Antenna Chain 1**

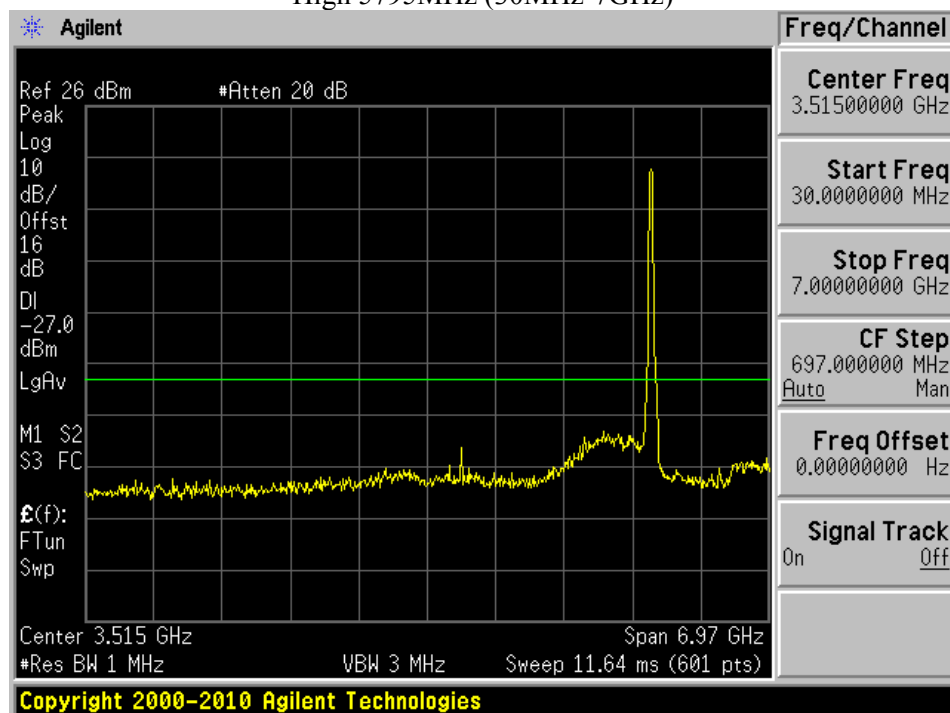
Low 5755MHz (30MHz-7GHz)



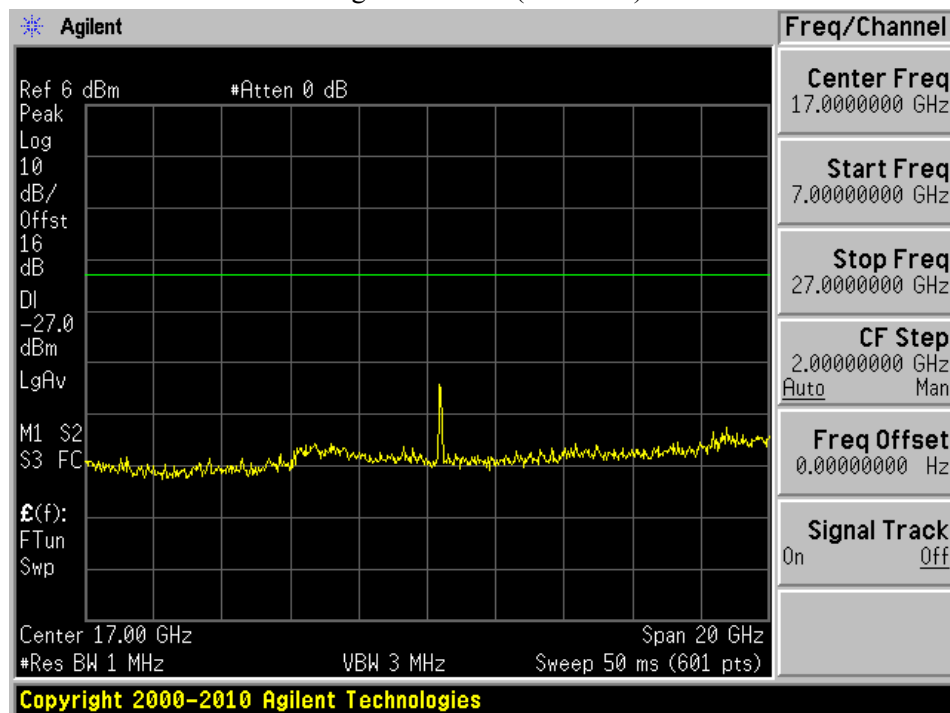
Low 5755MHz (7-27GHz)



High 5795MHz (30MHz-7GHz)

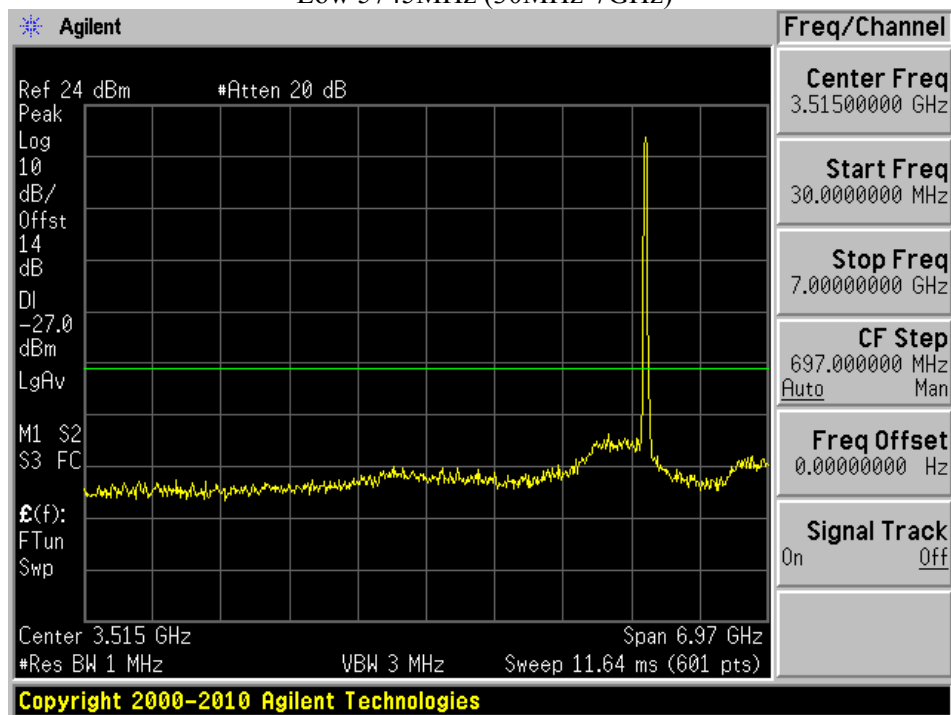


High 5795MHz (7-27GHz)

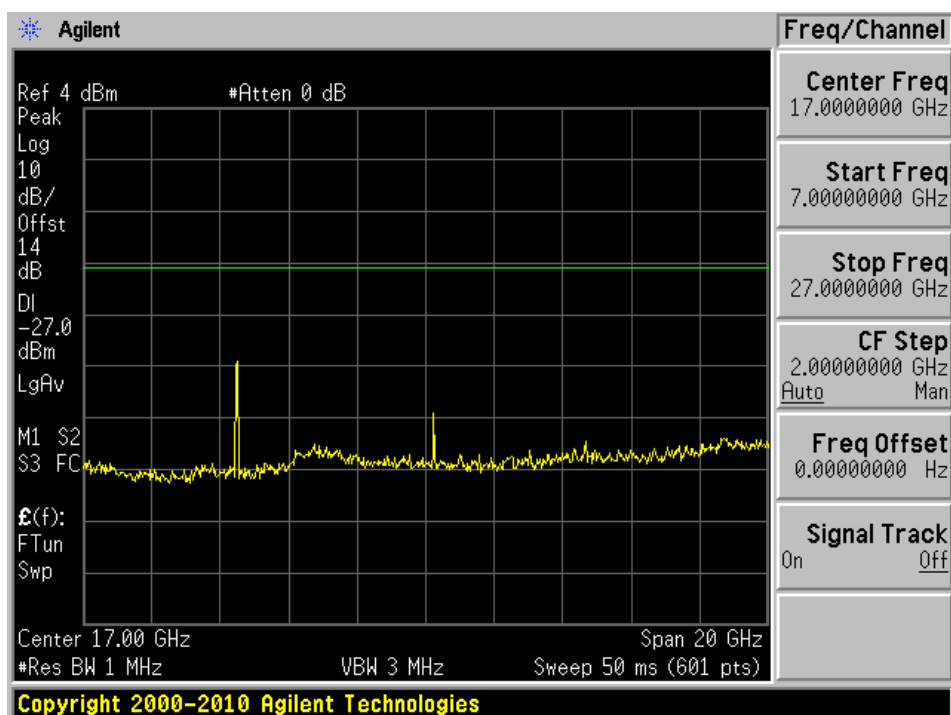


**5.8 GHz Band
802.11a
3dBi Antenna Chain 2**

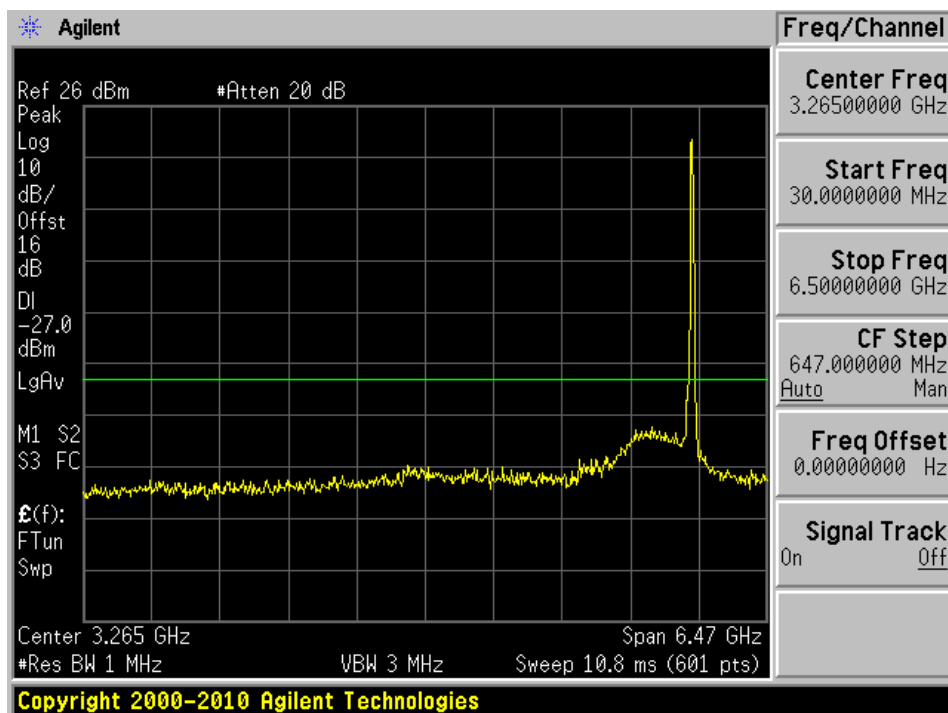
Low 5745MHz (30MHz-7GHz)



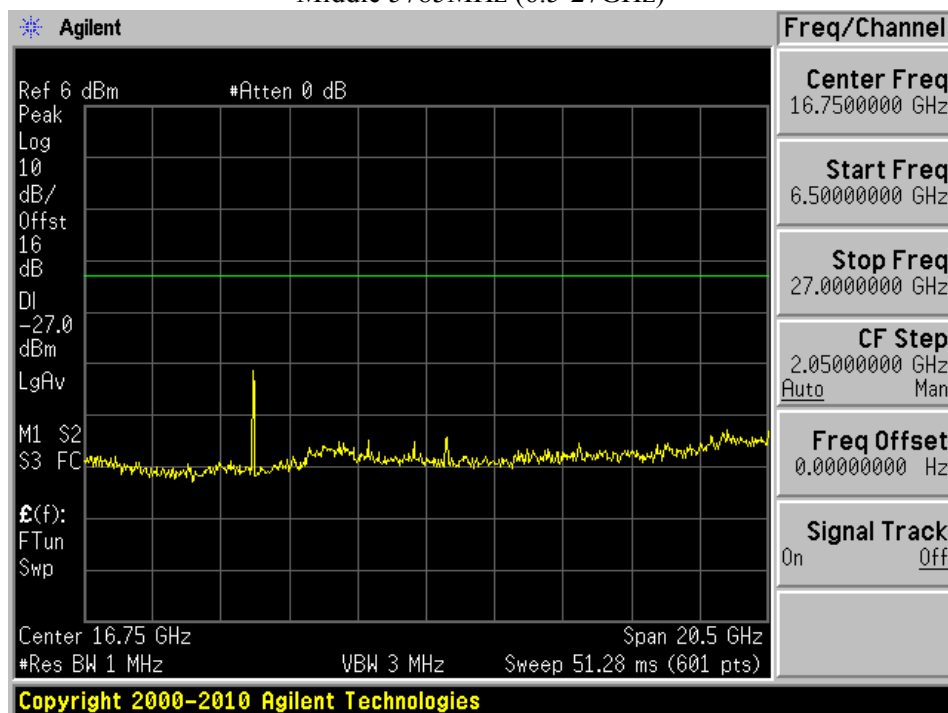
Low 5745MHz (7-27GHz)



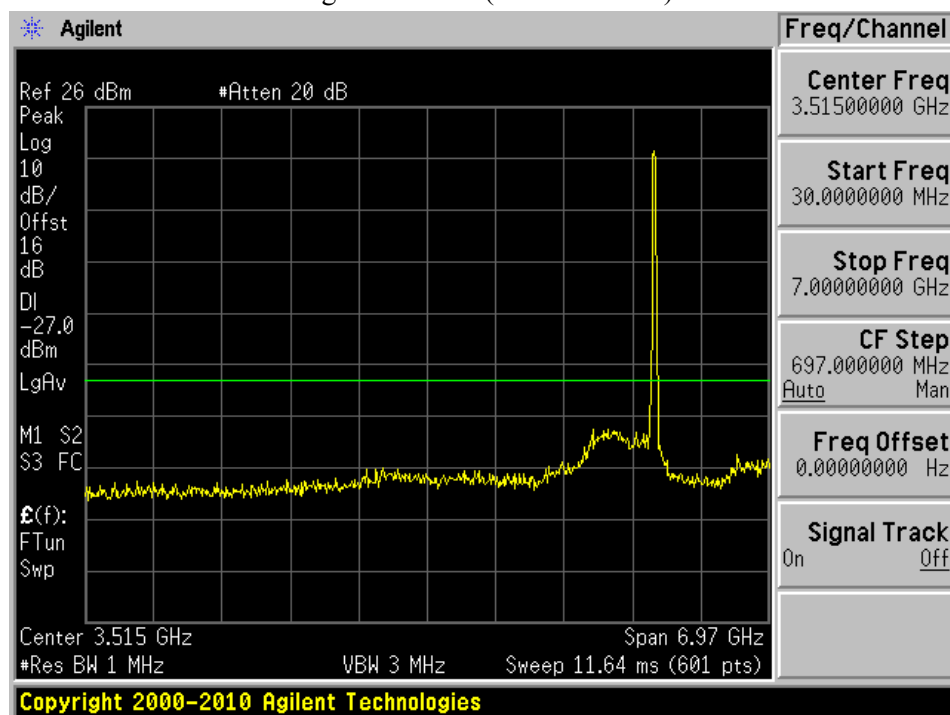
Middle 5785MHz (30MHz-6.5GHz)



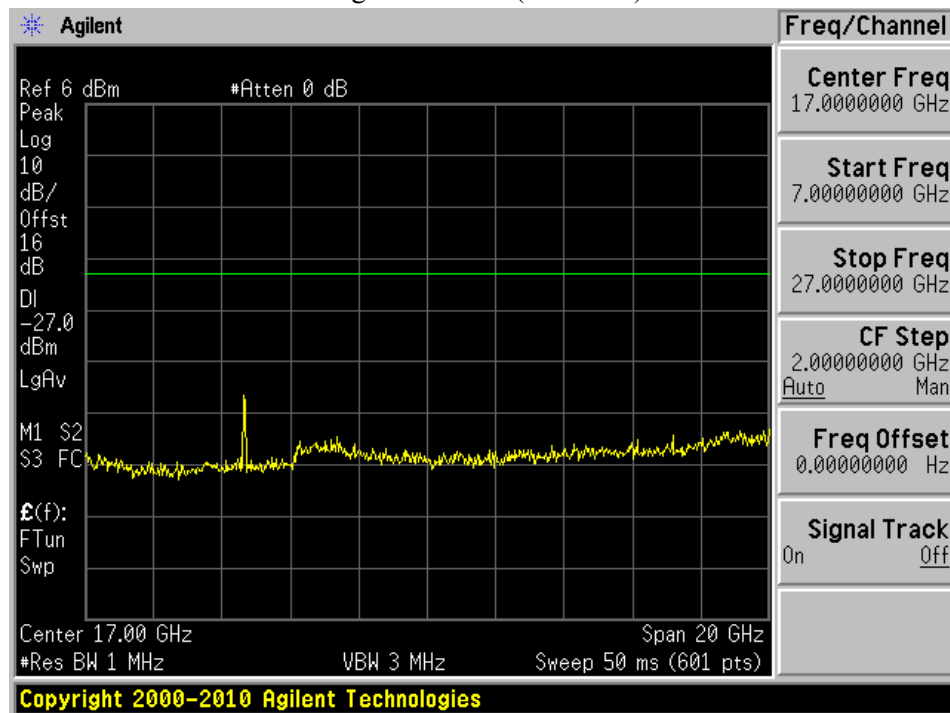
Middle 5785MHz (6.5-27GHz)



High 5825MHz (30MHz-7GHz)

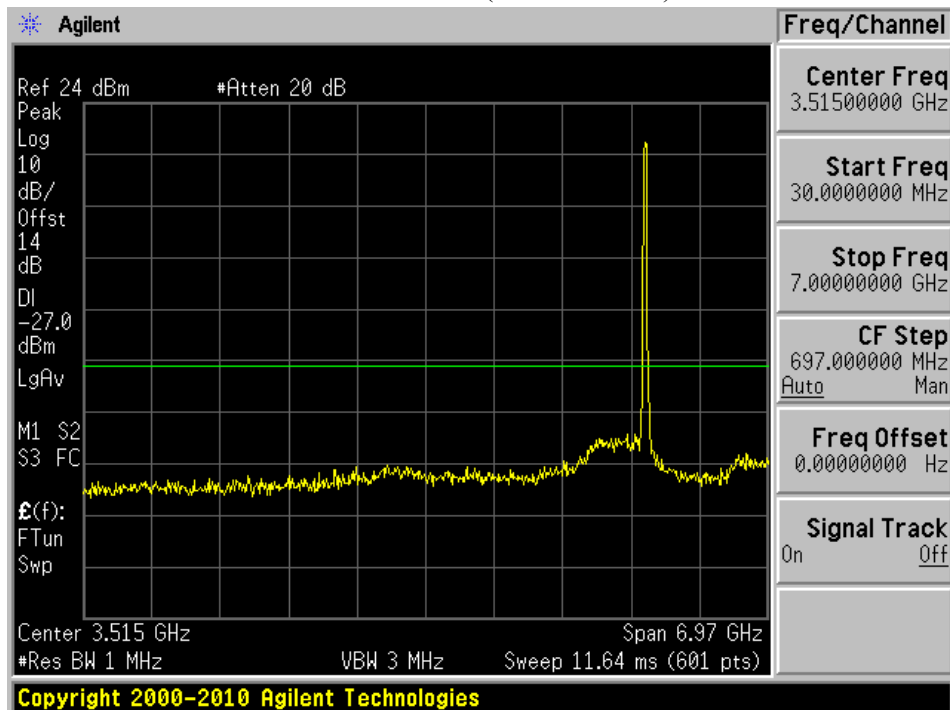


High 5825MHz (7-27GHz)

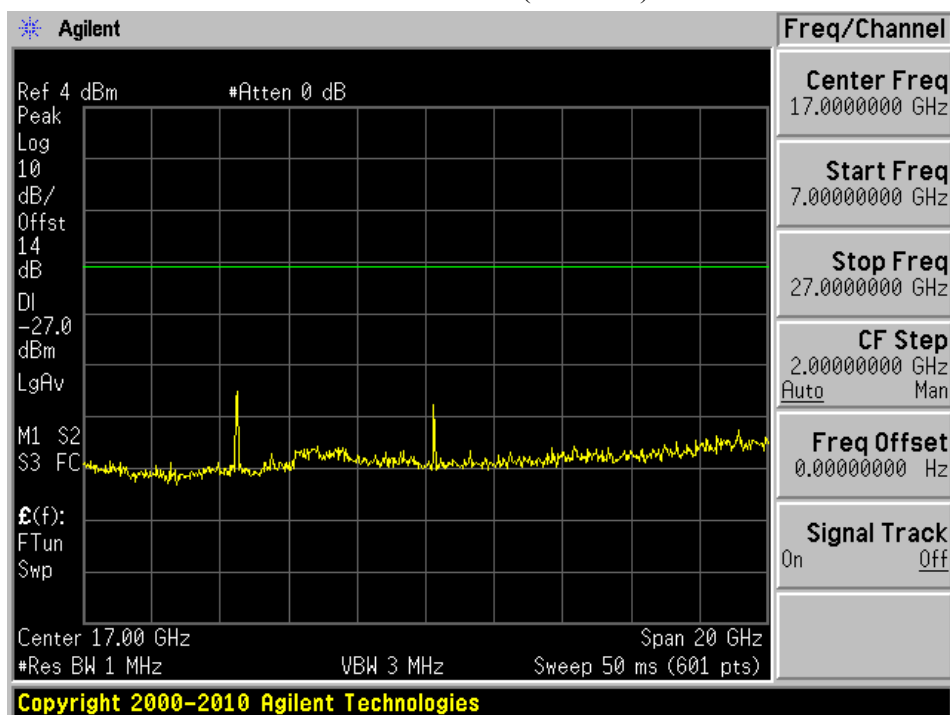


**5.8 GHz Band
802.11n20
3dBi Antenna Chain 2**

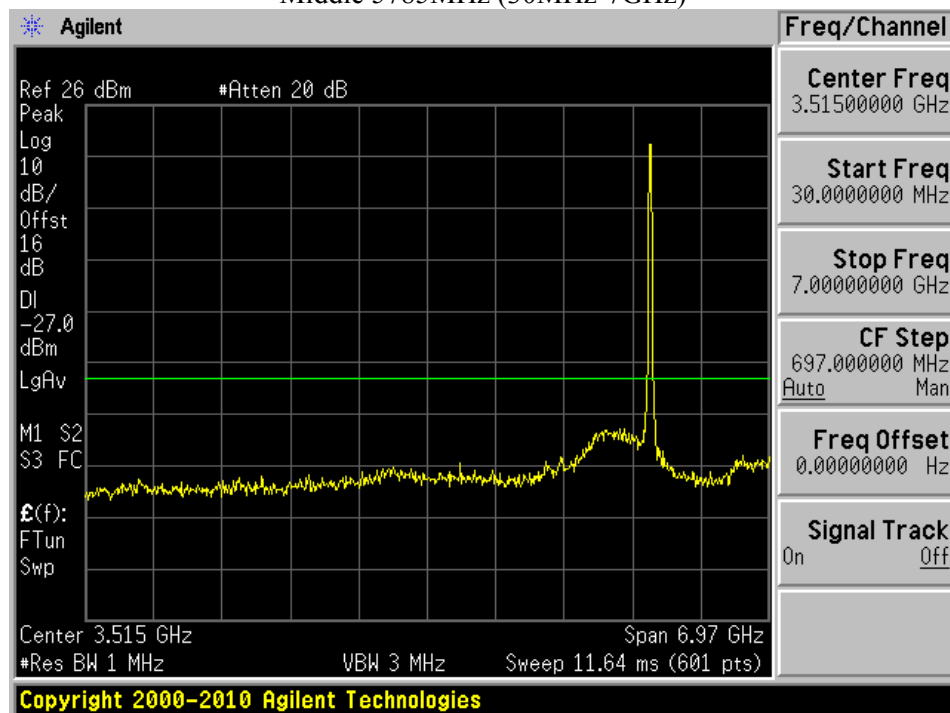
Low 5745MHz (30MHz-7GHz)



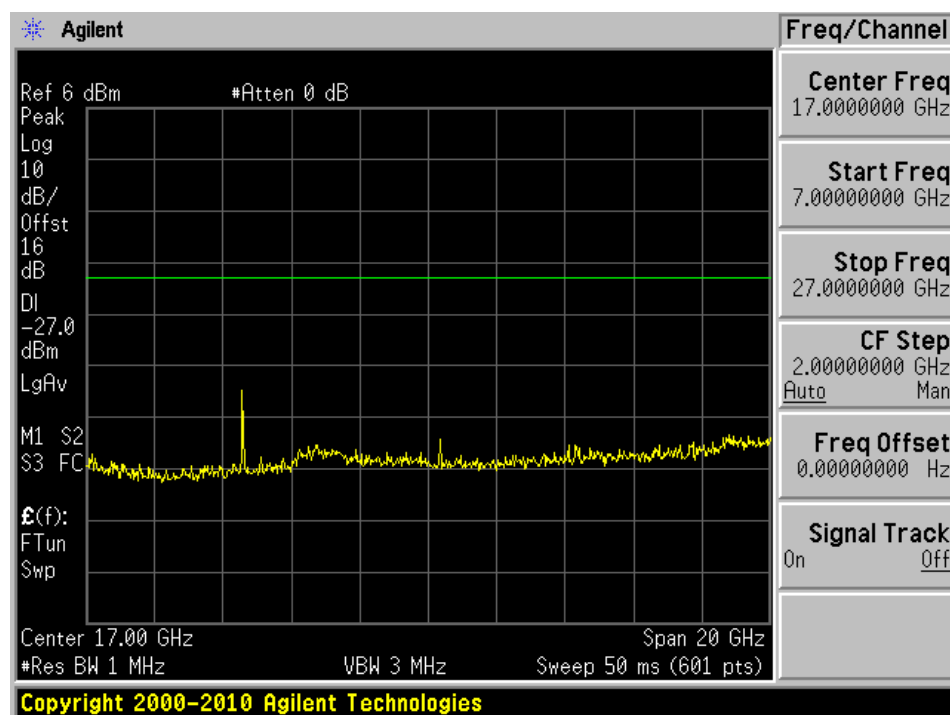
Low 5745MHz (7-27GHz)



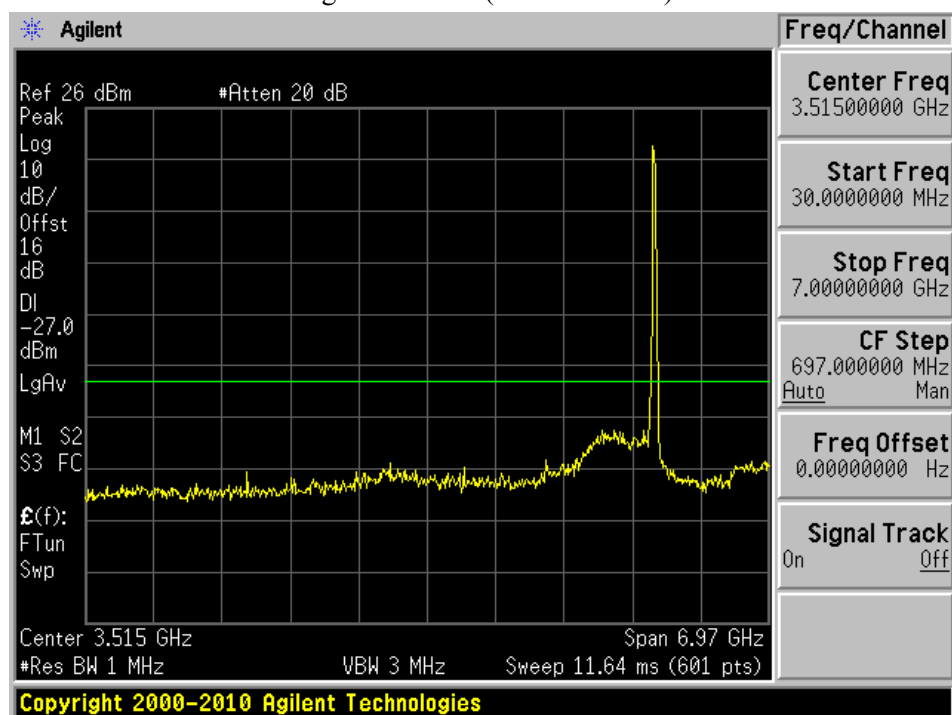
Middle 5785MHz (30MHz-7GHz)



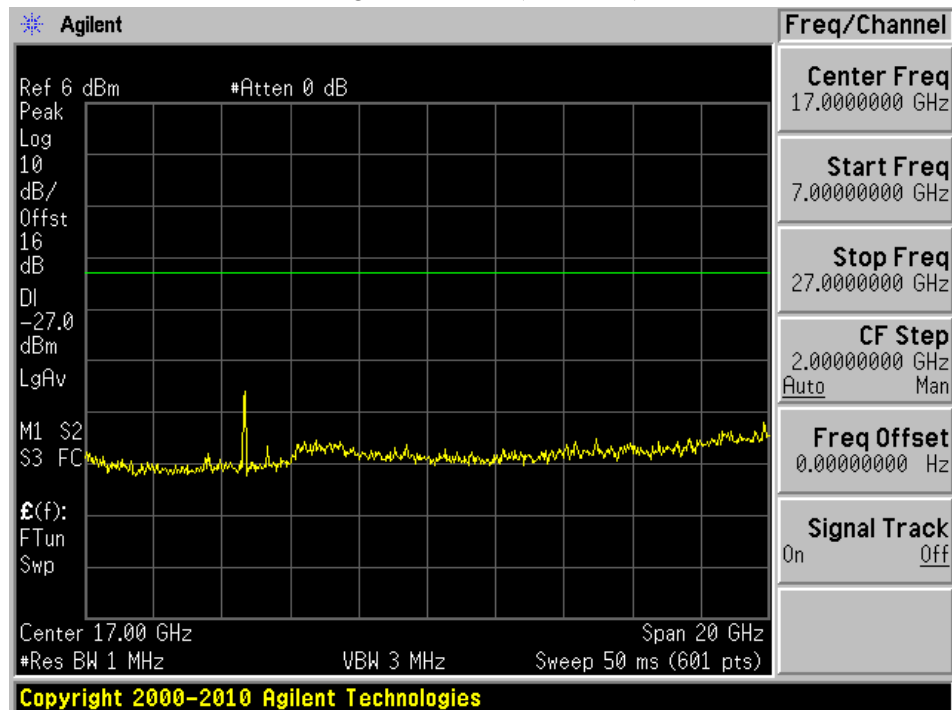
Middle 5785MHz (7-27GHz)



High 5825MHz (30MHz-7GHz)

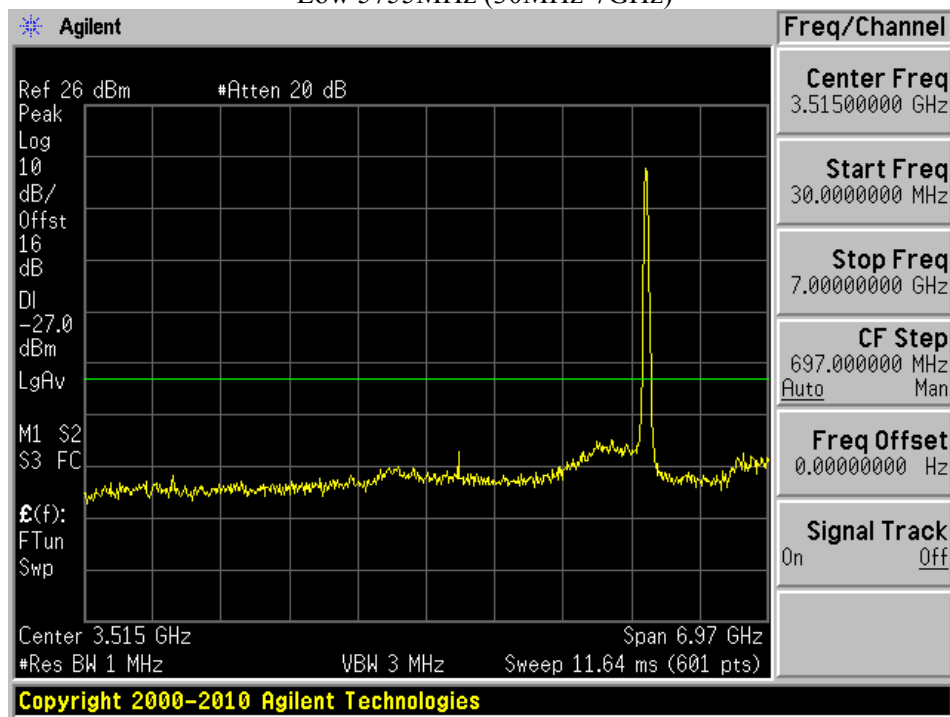


High 5825MHz (7-27GHz)

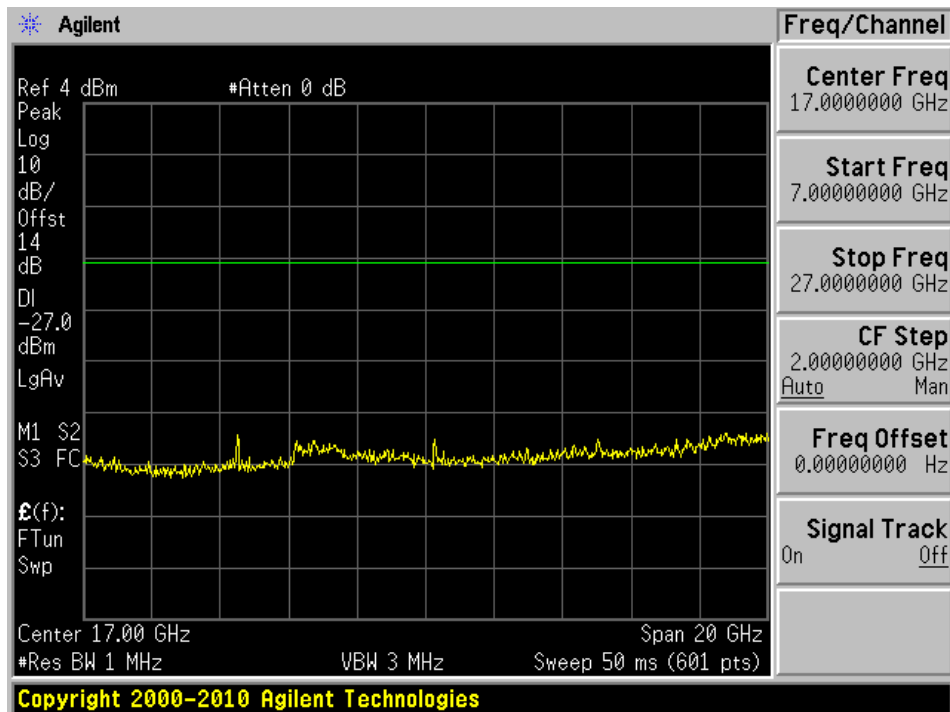


5.8 GHz Band
802.11n40
3dBi Antenna Chain 2

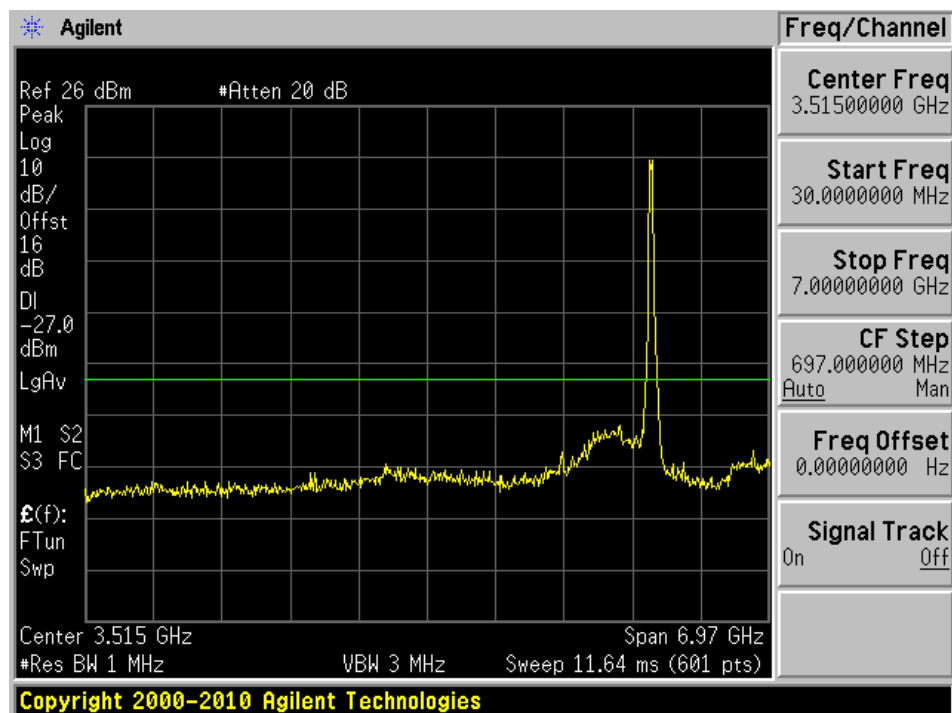
Low 5755MHz (30MHz-7GHz)



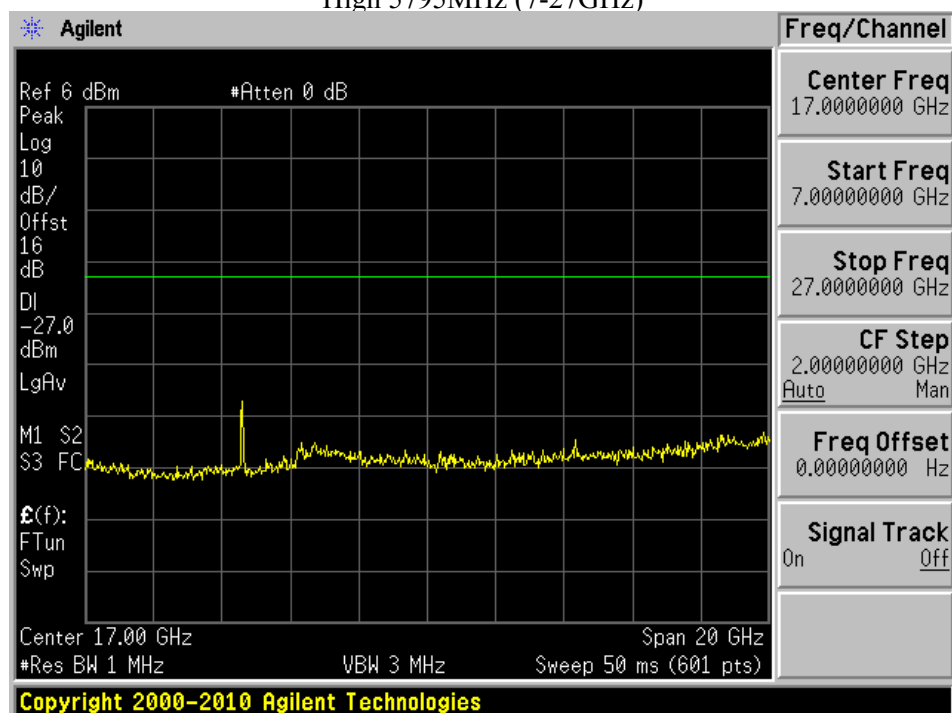
Low 5755MHz (7-27GHz)



High 5795MHz (30MHz-7GHz)



High 5795MHz (7-27GHz)



12 FCC §15.407(a) - Power Spectral Density

12.1 Applicable Standards

According to FCC §15.407(a)(1)

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 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 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(iv) 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.

(3) 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.

12.2 Measurement Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Procedures New Rules v01:
Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section
F: Peak power spectral density (PPSD)

12.3 Test Equipment List and Details

Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
Agilent	Spectrum Analyzer	E4446A	MY48250238	09-03-2015	1 year
-	RF cable	-	00609	06-05-2015	1year

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

12.4 Test Environmental Conditions

Temperature:	22-24° C
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 KPa

The testing was performed by Jin Yang on 2015-10-29 at RF site.

12.5 Test Results

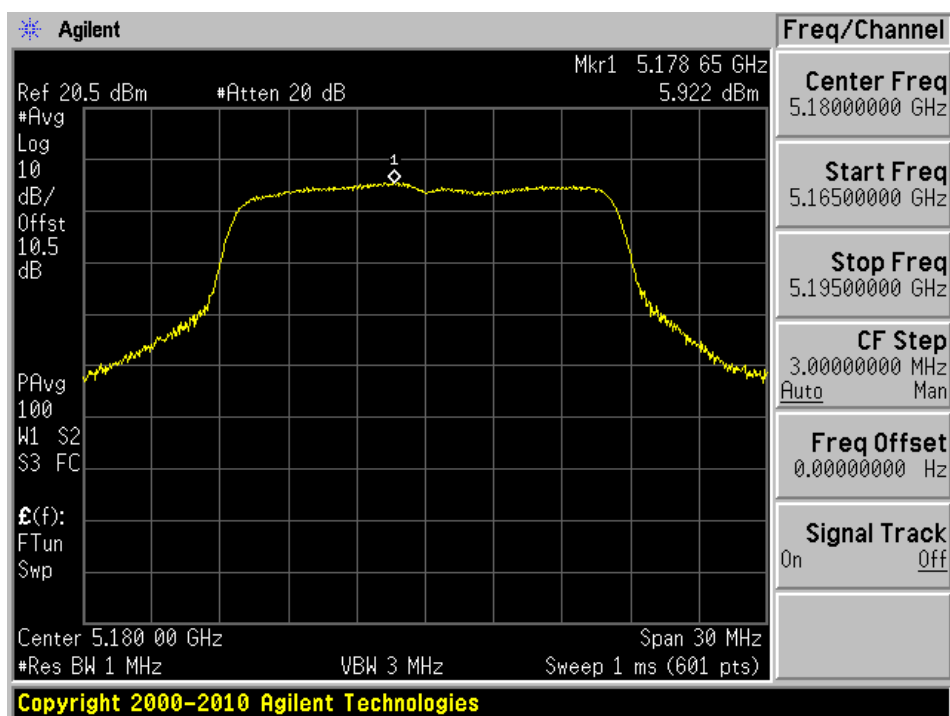
Please refer to the following tables and plots

5.2 GHz Band, 3 dBi Antenna

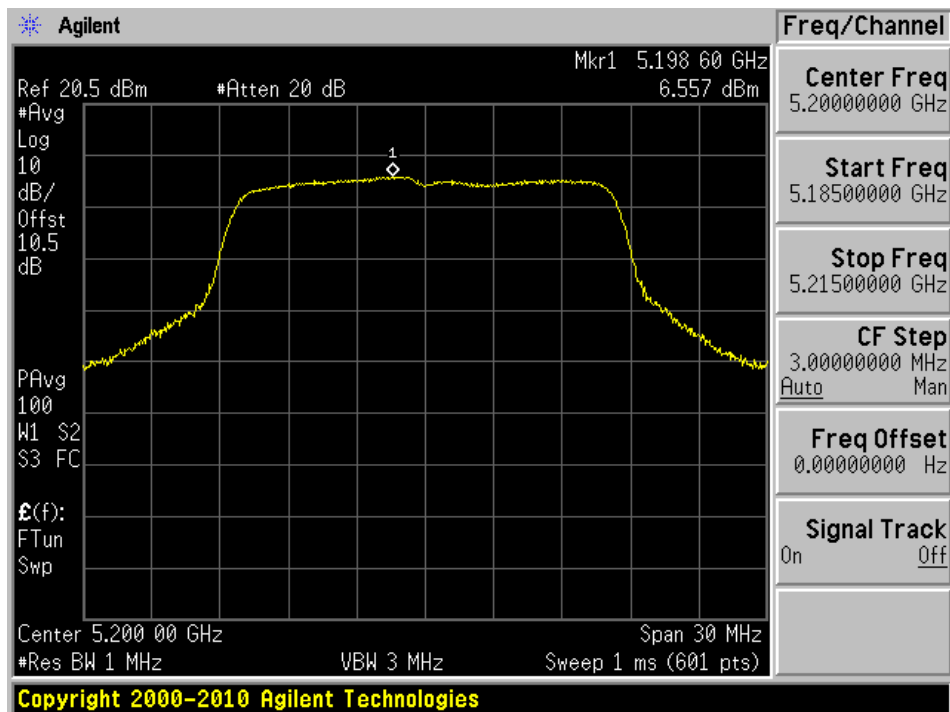
Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/MHz)	Conducted PSD Chain1 (dBm/MHz)	Conducted PSD Chain2 (dBm/MHz)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
802.11 a mode							
Low	5180	5.922	5.418	6.525	10.75	17	-6.25
Middle	5200	6.557	6.012	7.073	11.34	17	-5.66
High	5240	5.411	5.226	6.090	10.36	17	-6.64
802.11n HT20 mode							
Low	5180	5.964	5.073	5.669	10.36	17	-6.64
Middle	5200	5.944	5.671	6.559	10.85	17	-6.15
High	5240	5.655	5.097	5.594	10.23	17	-6.77
802.11n HT40 mode							
Low	5190	1.712	1.234	3.552	7.06	17	-9.94
High	5230	3.776	3.049	3.954	8.38	17	-8.62

5.2 GHz Band
802.11a mode
3dBi Antenna Chain 0

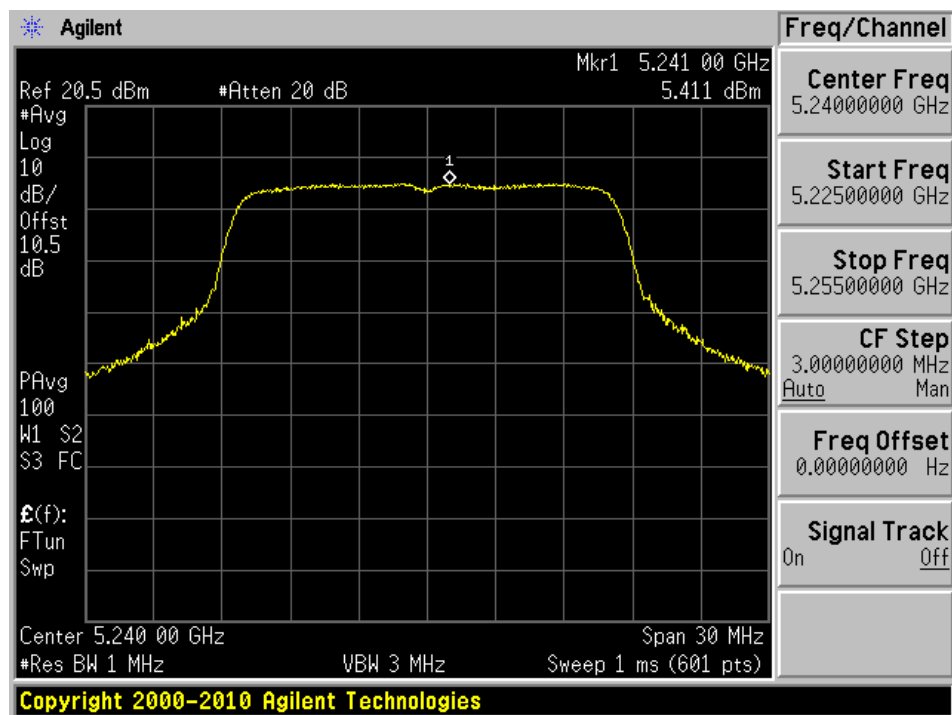
Low channel: 5180 MHz



Middle channel: 5200 MHz

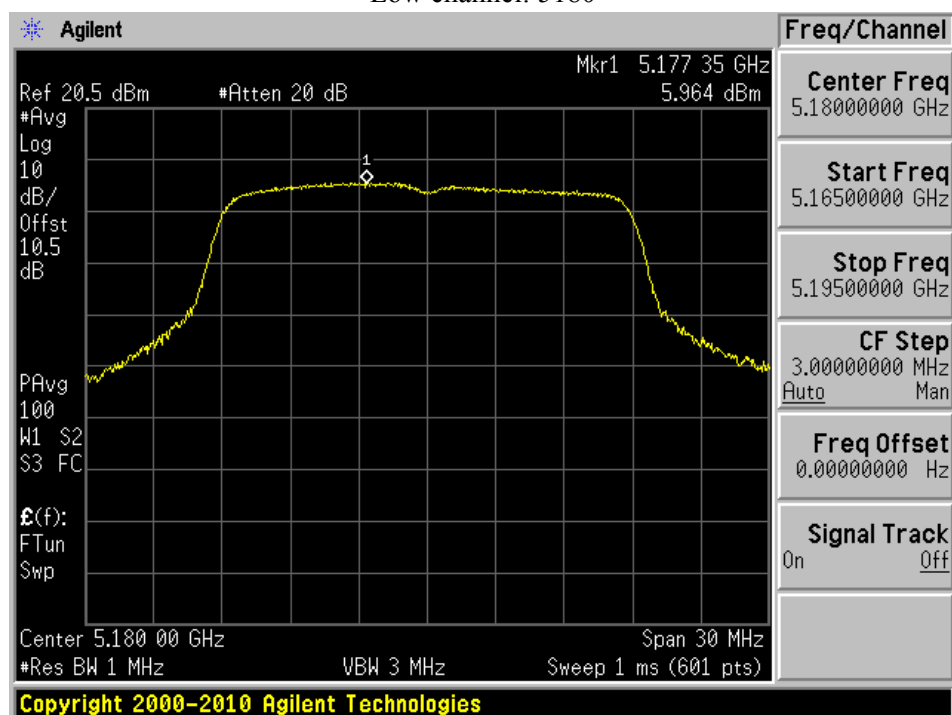


High channel: 5240 MHz

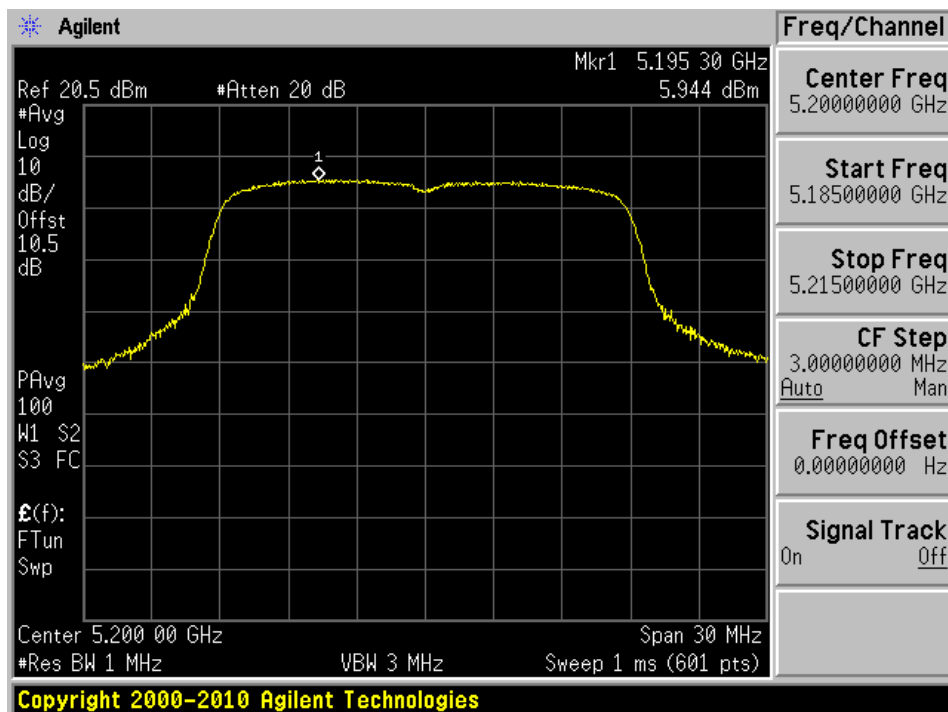


802.11 HT20 mode

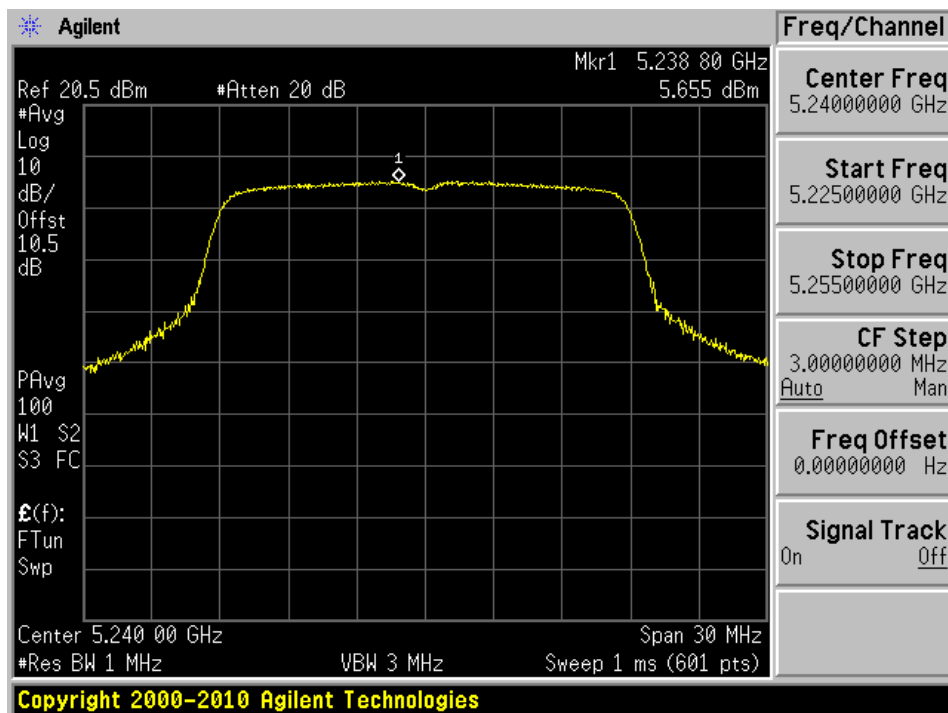
Low channel: 5180



Middle channel: 5200 MHz

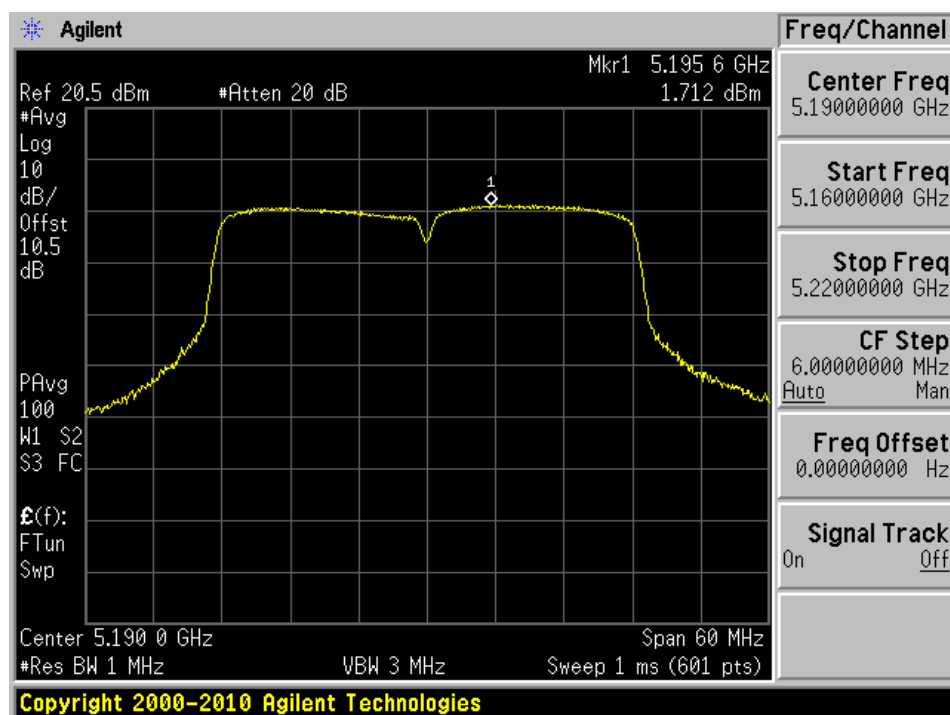


High channel: 5240 MHz

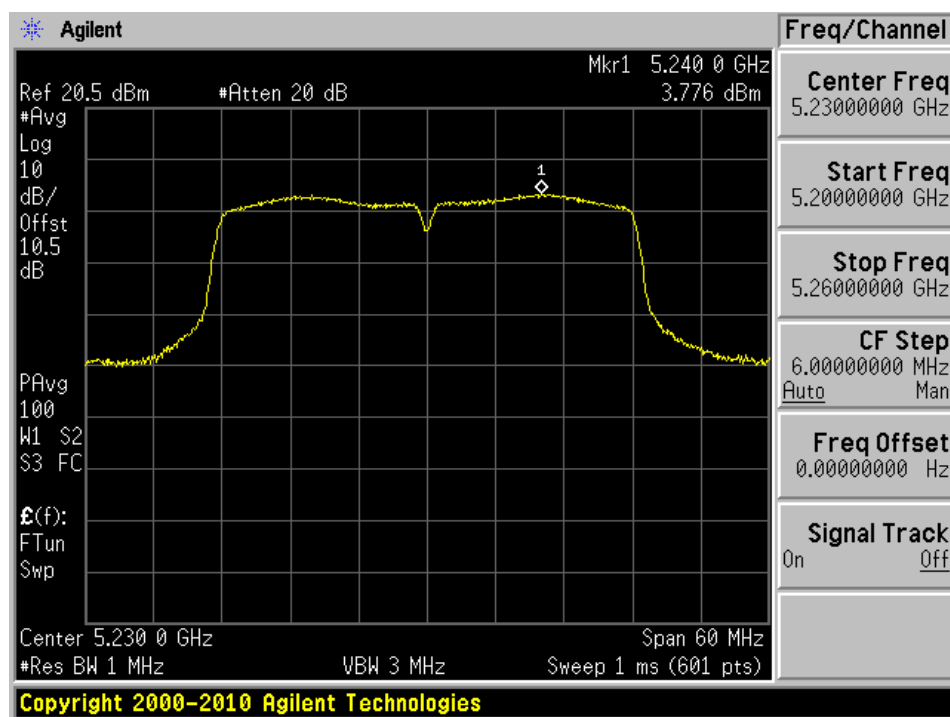


802.11n HT40 mode

Low channel: 5190 MHz

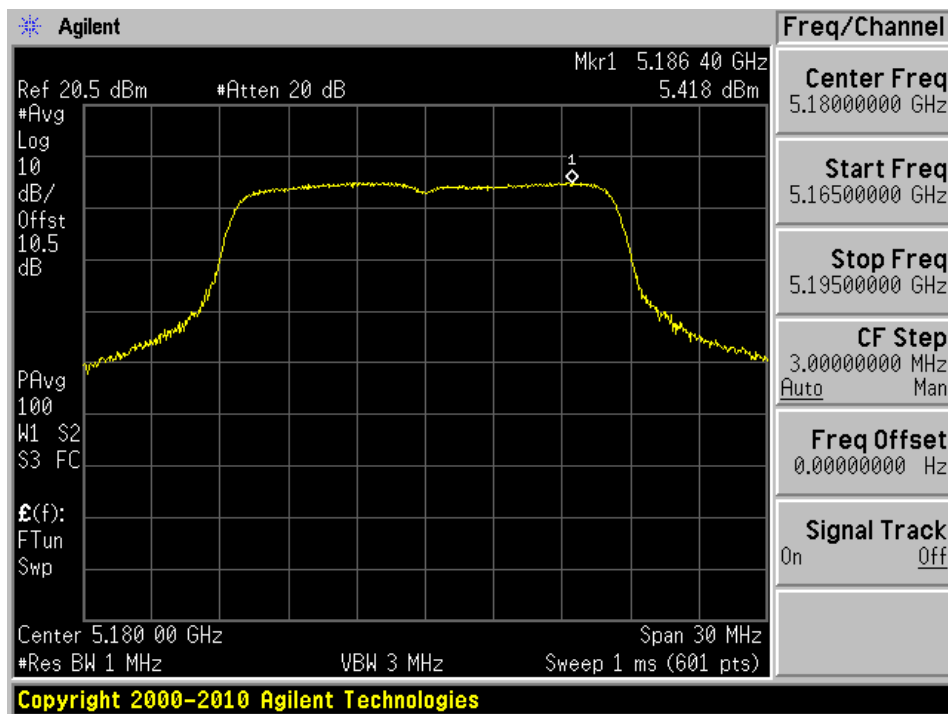


High channel: 5230 MHz

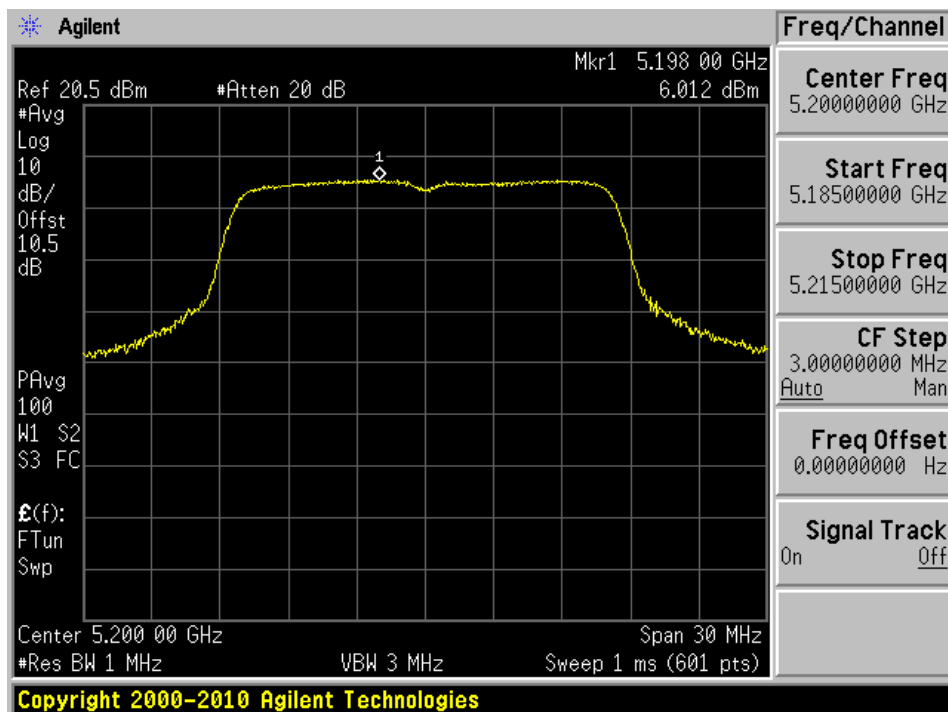


**5.2 GHz Band
802.11a mode
3dBi Antenna Chain 1**

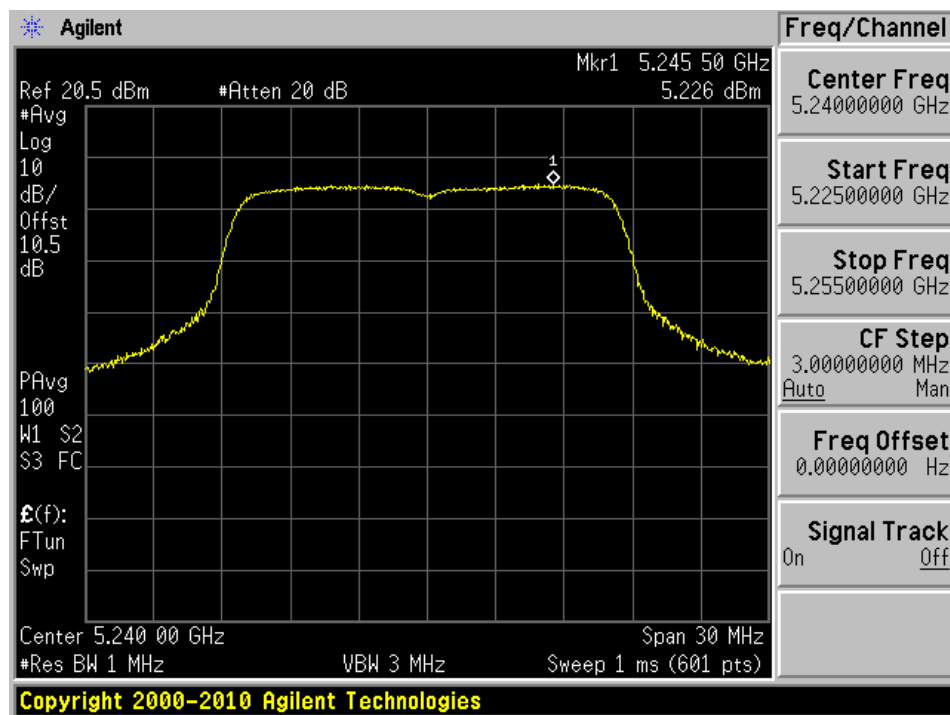
Low channel: 5180 MHz



Middle channel: 5200 MHz

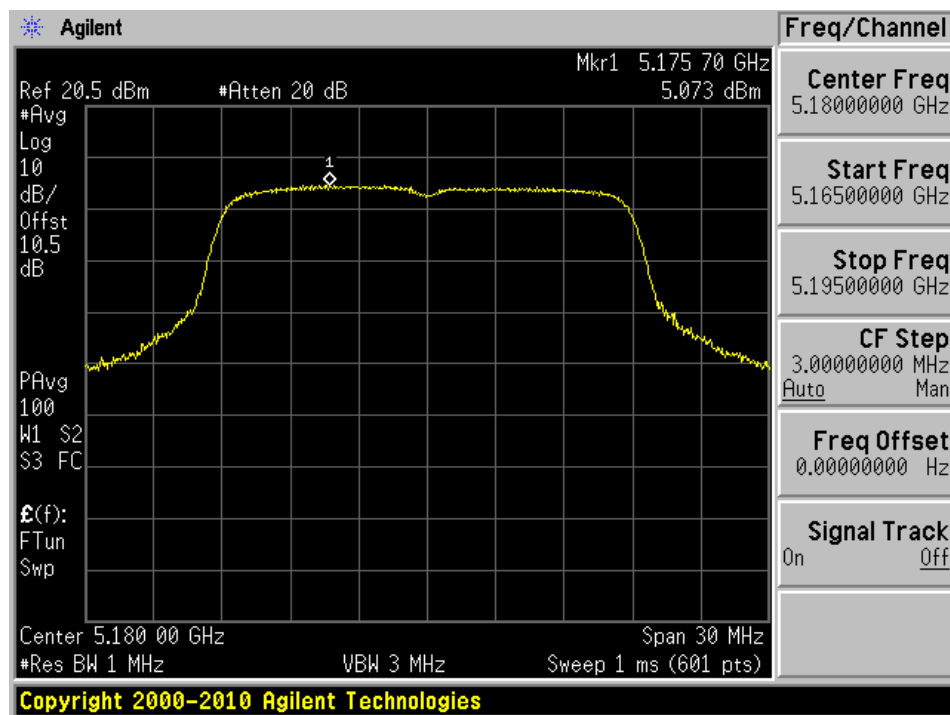


High channel: 5240 MHz

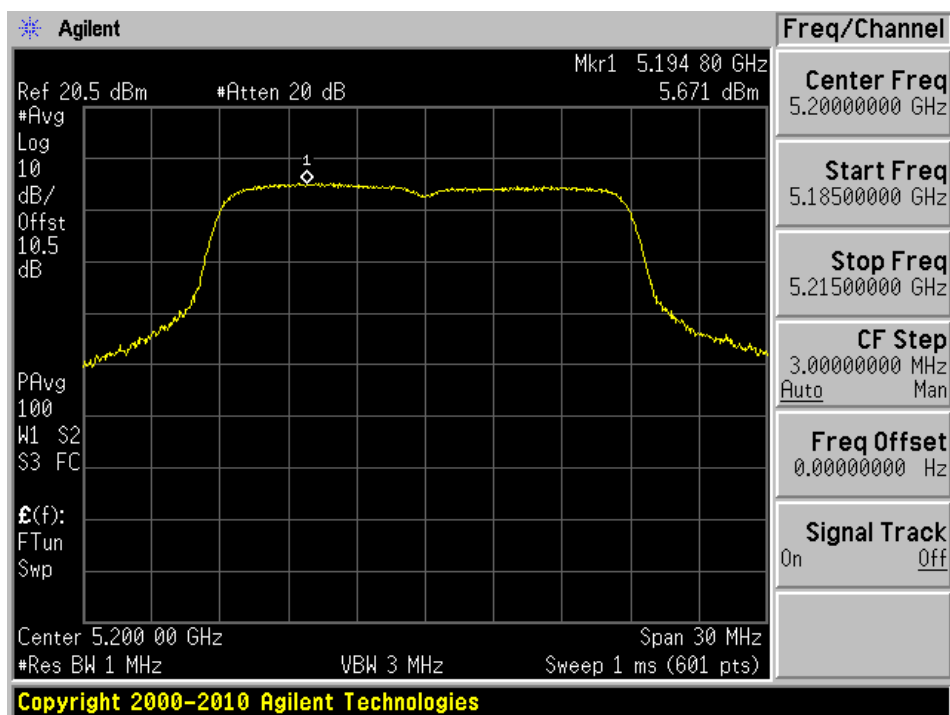


802.11 HT20 mode

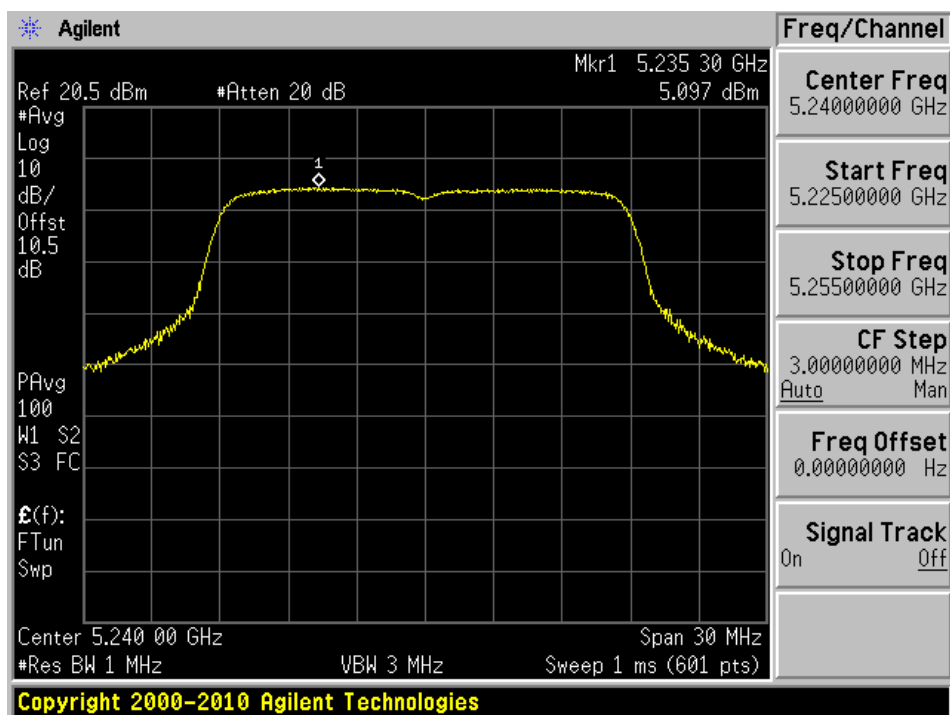
Low channel: 5180



Middle channel: 5200 MHz

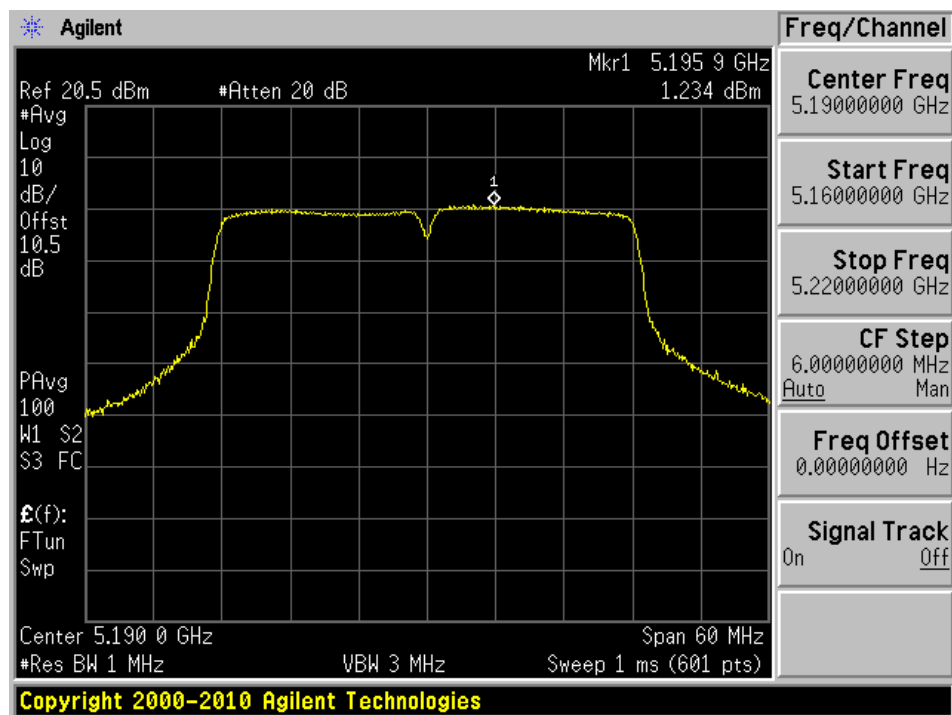


High channel: 5240 MHz

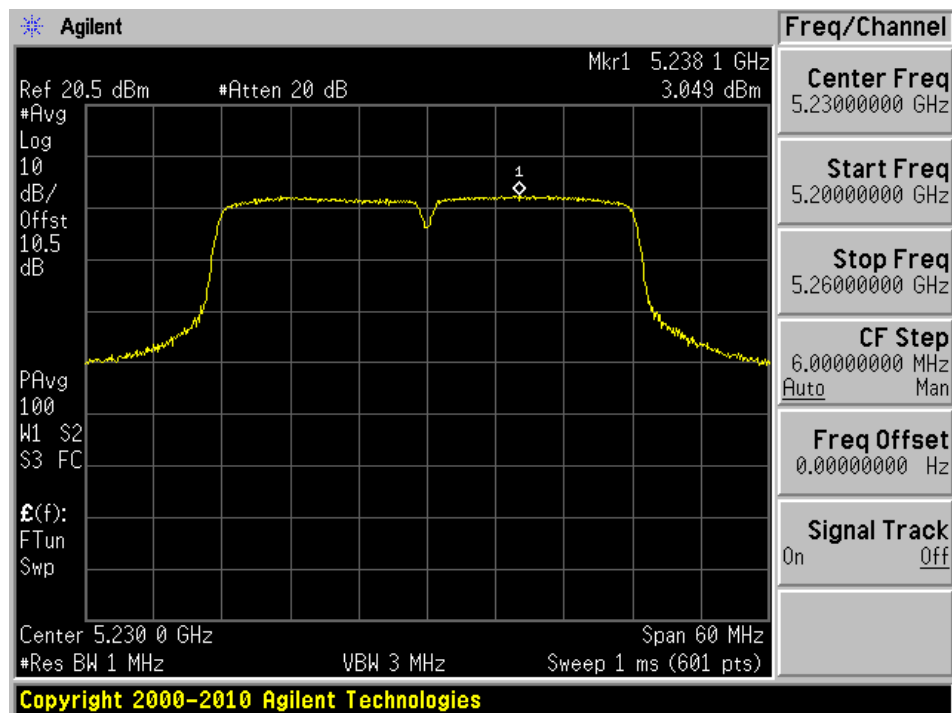


802.11n HT40 mode

Low channel: 5190 MHz

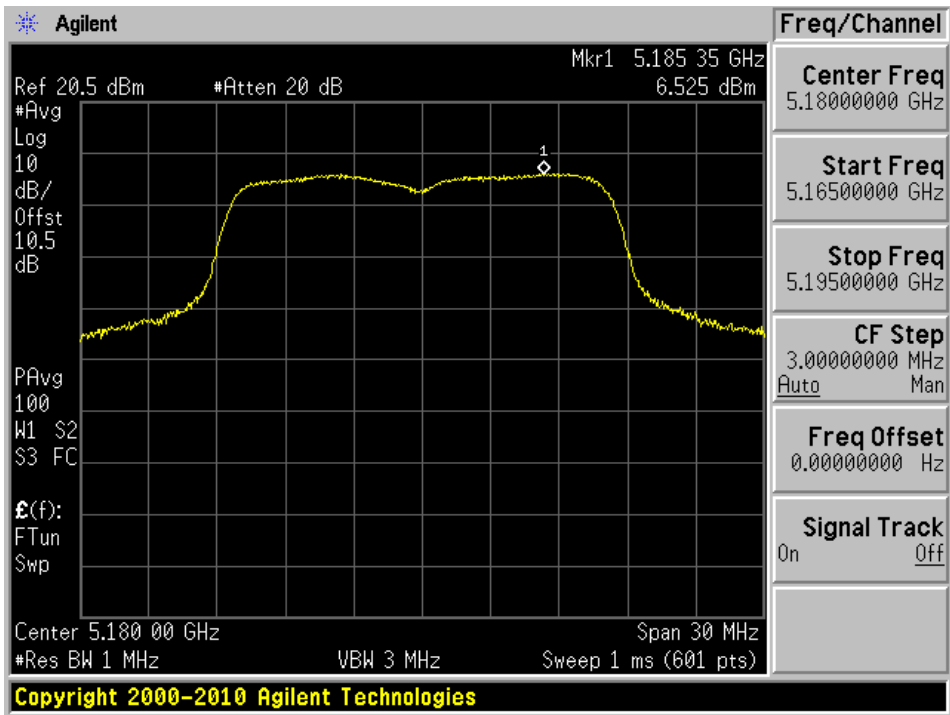


High channel: 5230 MHz

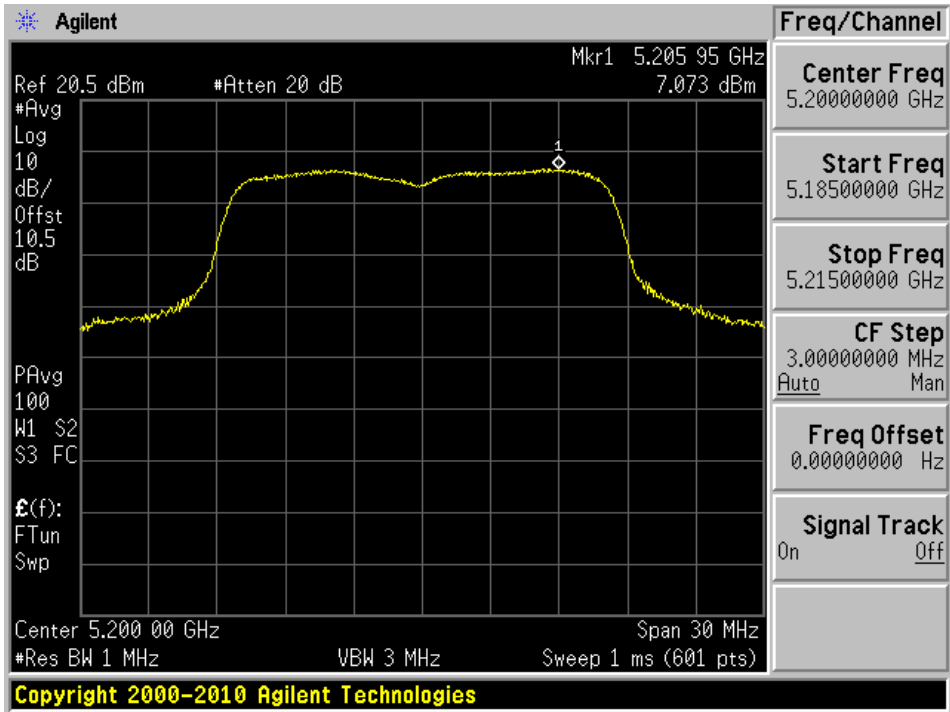


5.2 GHz Band
802.11a mode
3dBi Antenna Chain 2

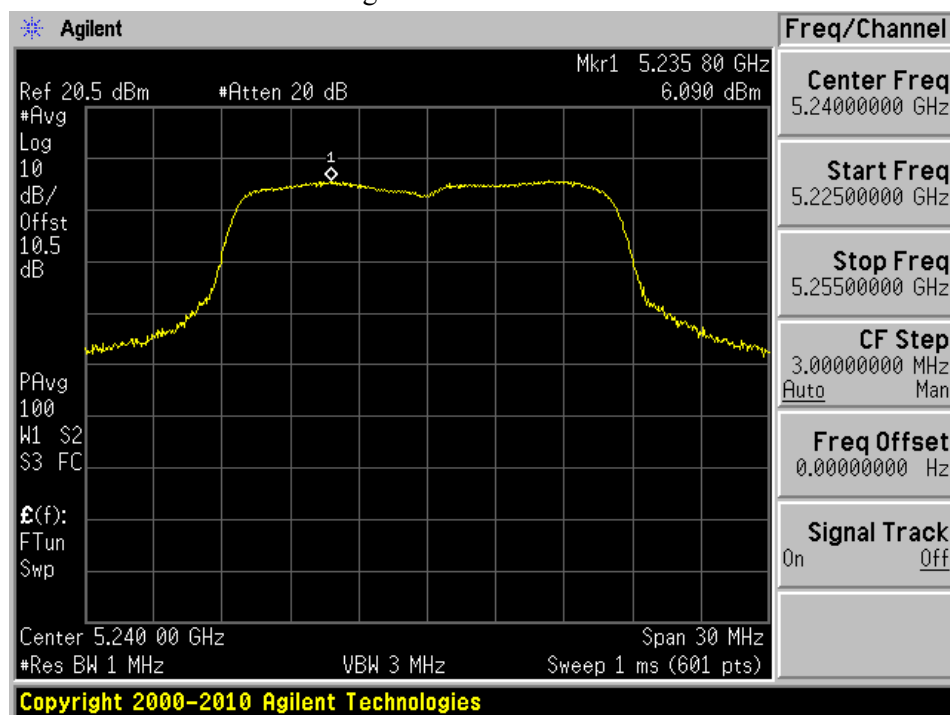
Low channel: 5180 MHz



Middle channel: 5200 MHz

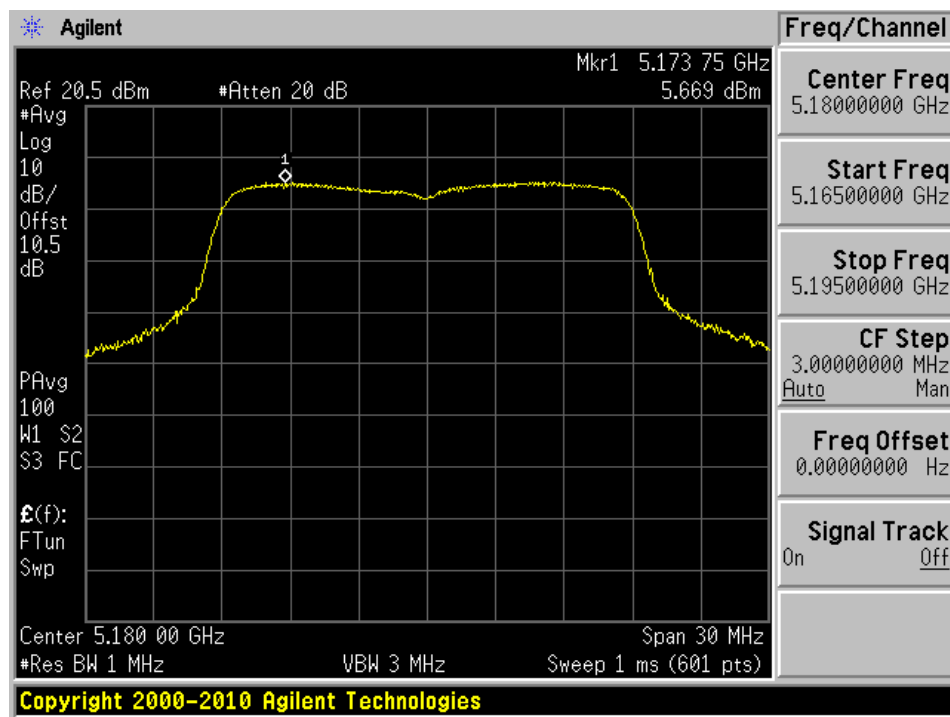


High channel: 5240 MHz

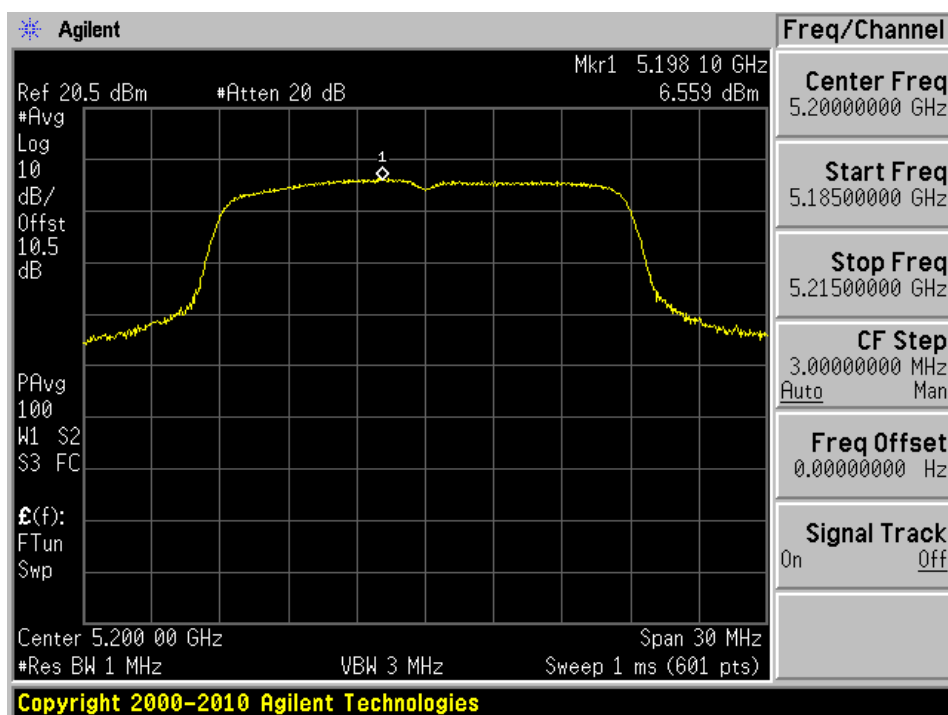


802.11 HT20 mode

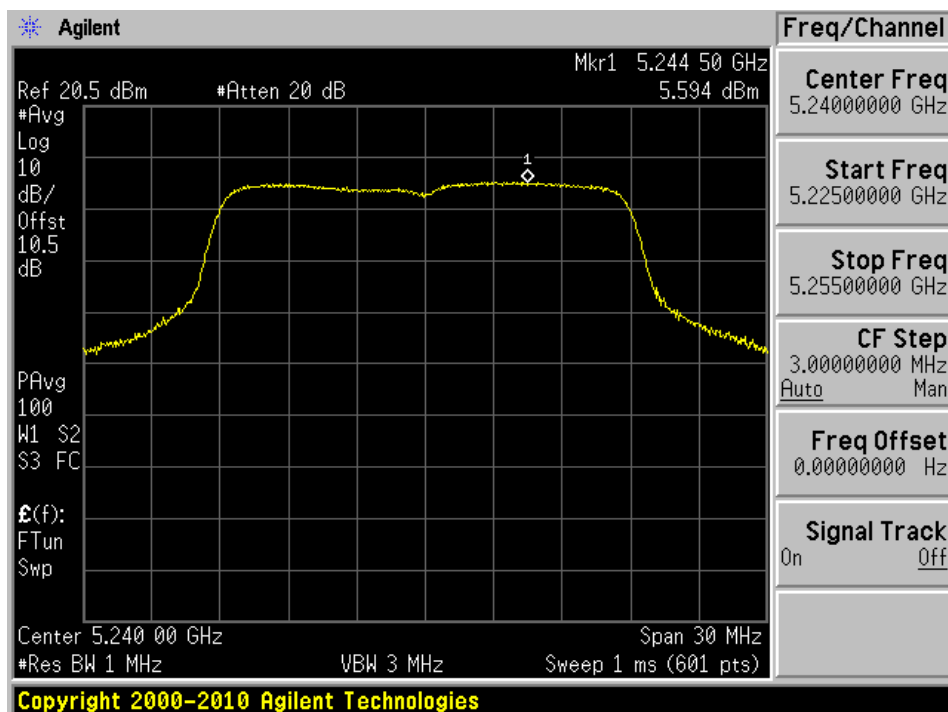
Low channel: 5180



Middle channel: 5200 MHz

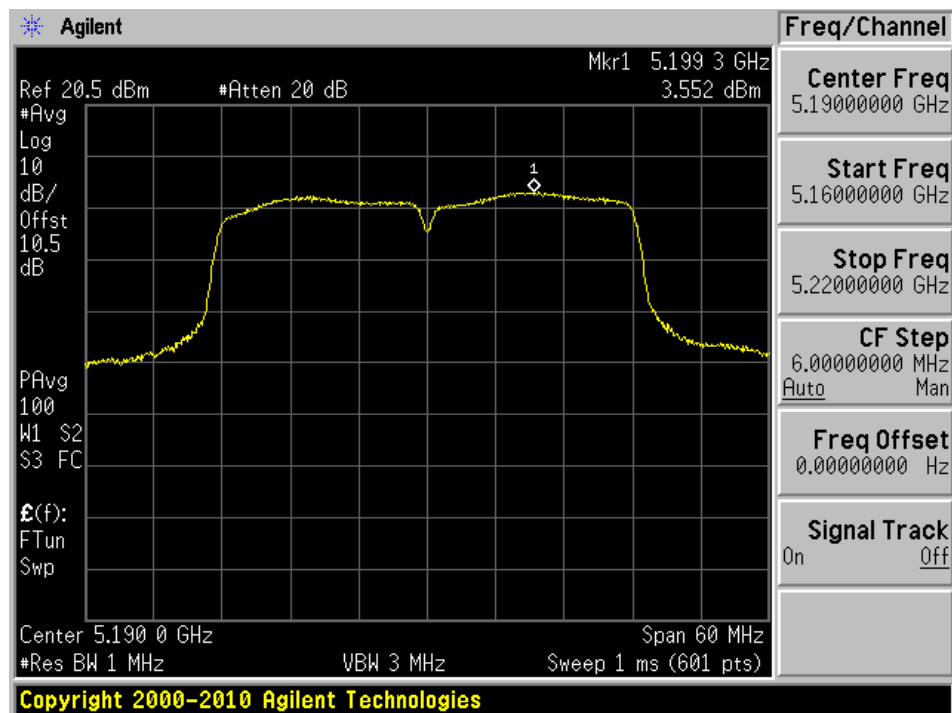


High channel: 5240 MHz

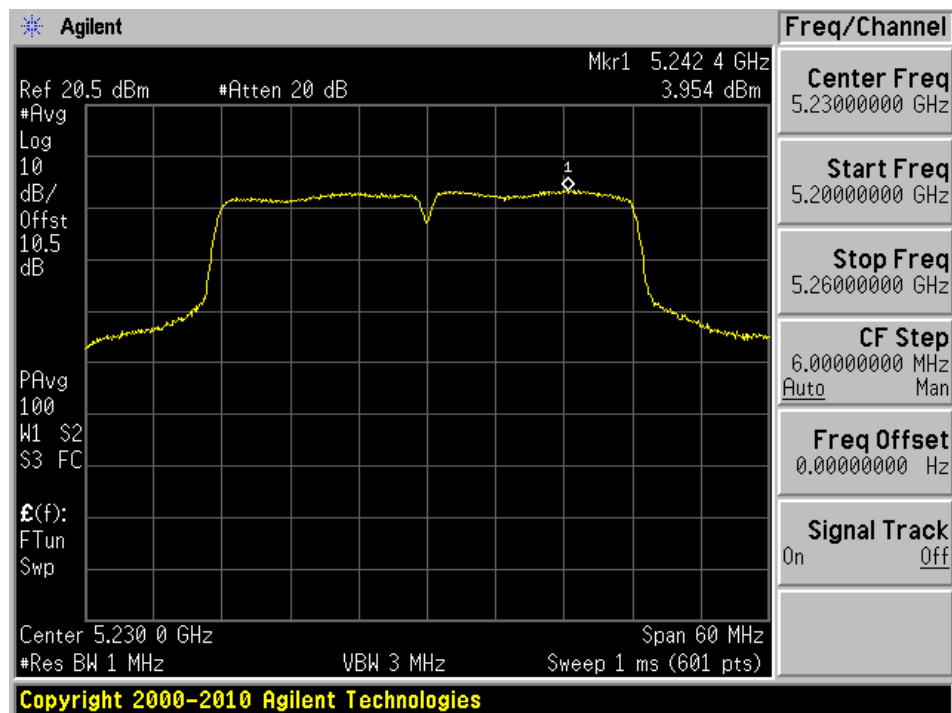


802.11n HT40 mode

Low channel: 5190 MHz



High channel: 5230 MHz

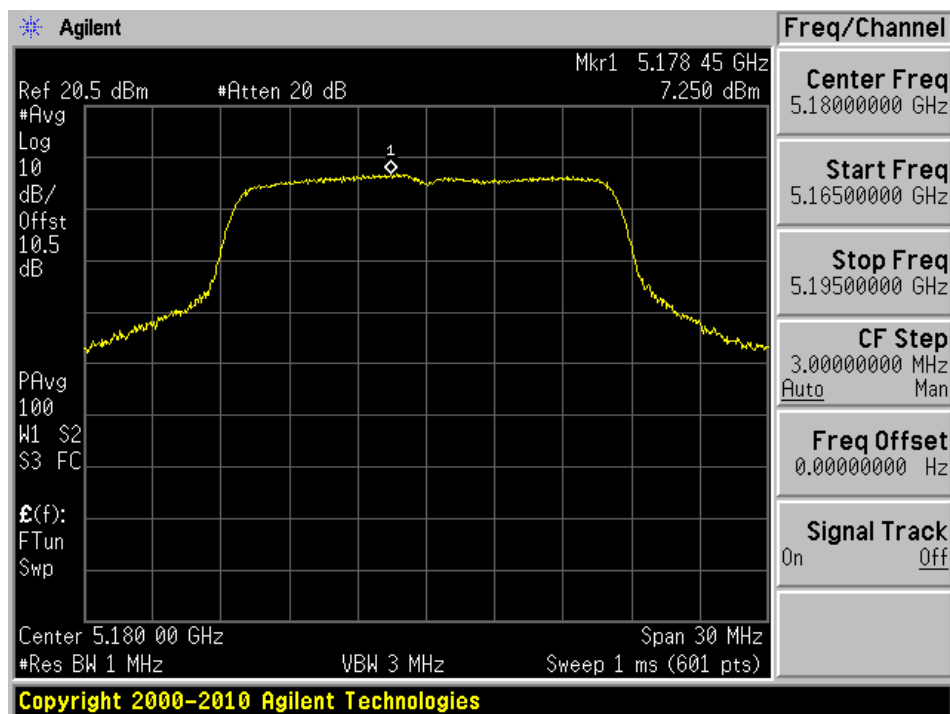


5.2GHz Band, 5 dBi Antenna

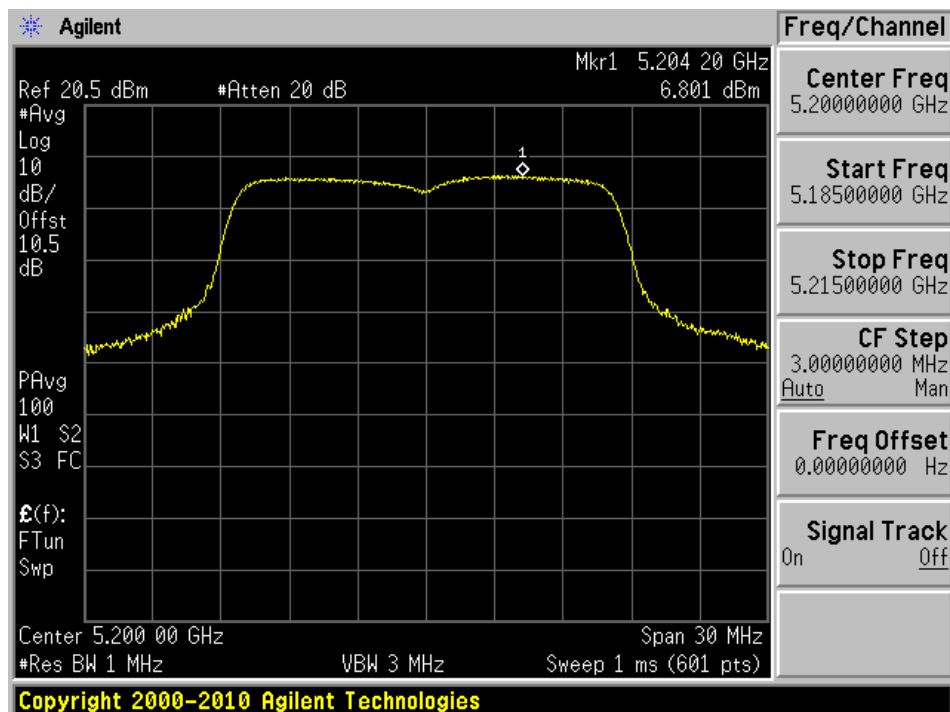
Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/MHz)	Conducted PSD Chain1 (dBm/MHz)	Conducted PSD Chain2 (dBm/MHz)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
802.11 a mode							
Low	5180	7.250	6.973	7.563	12.04	17	-4.96
Middle	5200	6.801	6.635	7.444	11.75	17	-5.25
High	5240	6.442	5.595	5.922	10.77	17	-6.23
802.11n HT20 mode							
Low	5180	7.482	6.858	7.245	11.97	17	-5.03
Middle	5200	6.606	6.579	6.836	11.45	17	-5.55
High	5240	6.121	5.896	6.386	10.91	17	-6.09
802.11n HT40 mode							
Low	5190	1.958	1.429	3.239	7.05	17	-9.95
High	5230	4.759	4.186	4.559	9.28	17	-7.72

**5.2 GHz Band
802.11a mode
5dBi Antenna Chain 0**

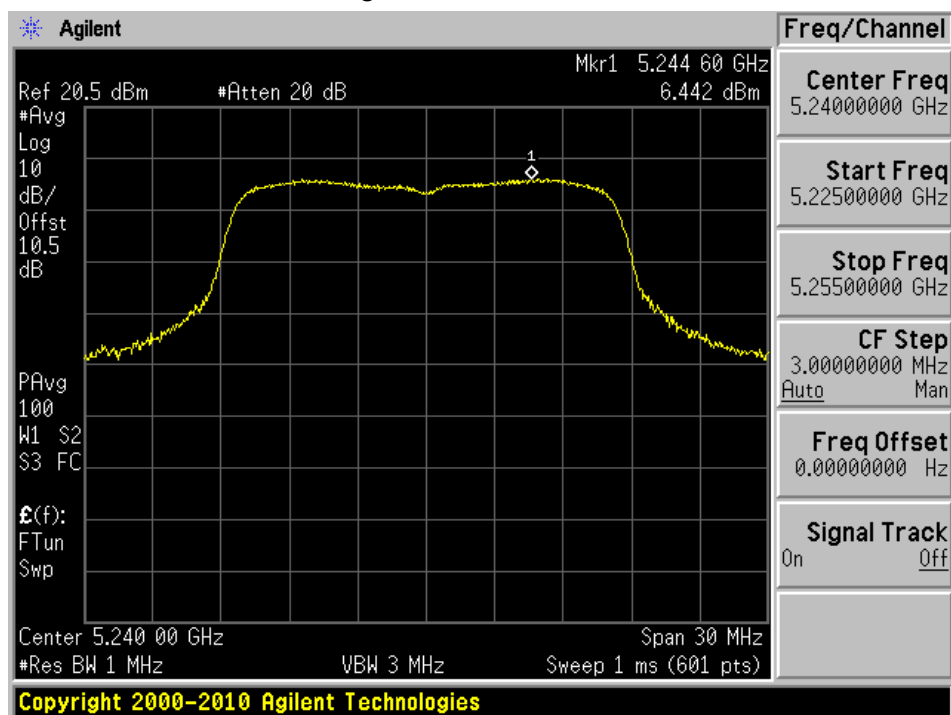
Low channel: 5180 MHz



Middle channel: 5200 MHz

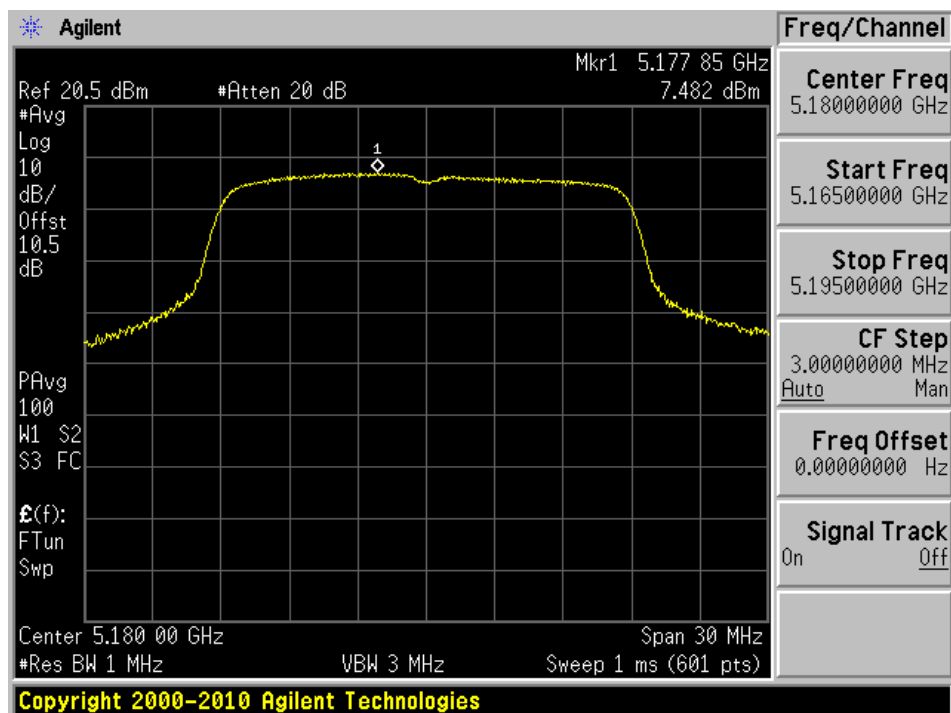


High channel: 5240 MHz

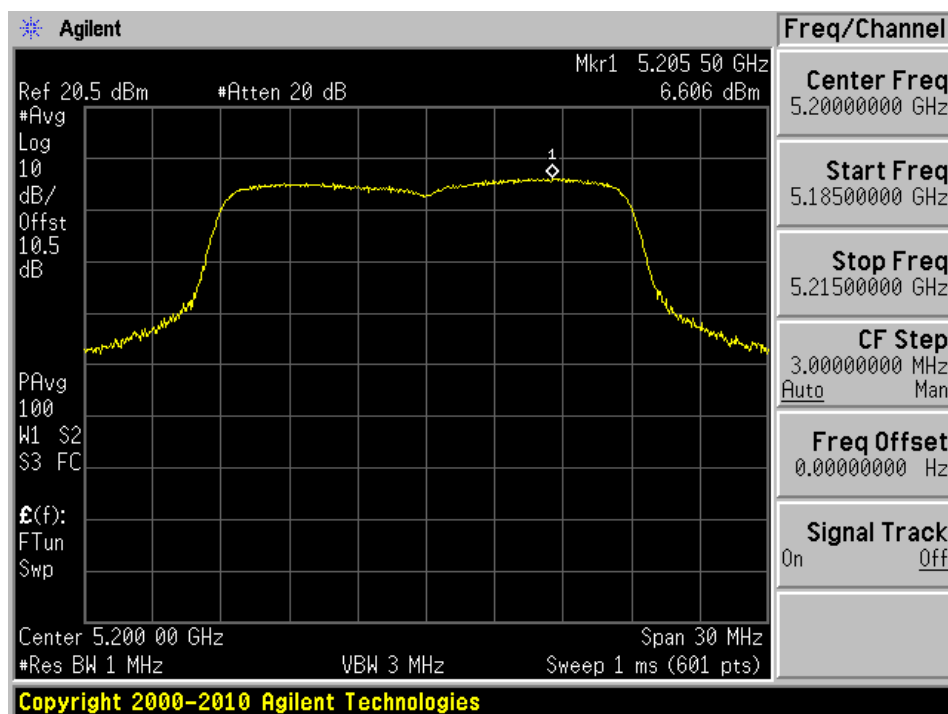


802.11 HT20 mode

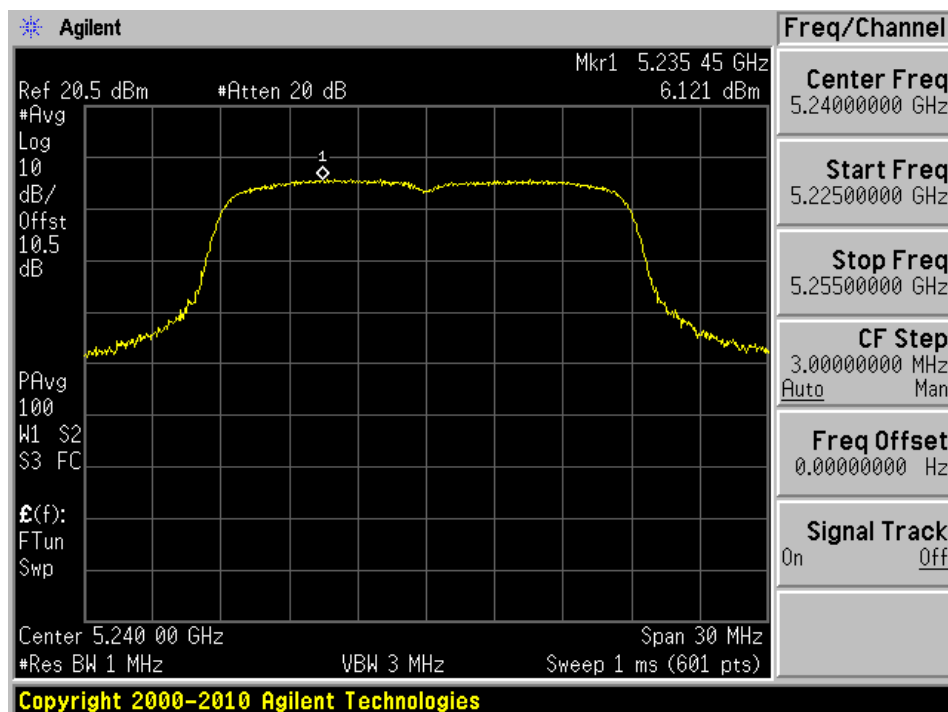
Low channel: 5180



Middle channel: 5200 MHz

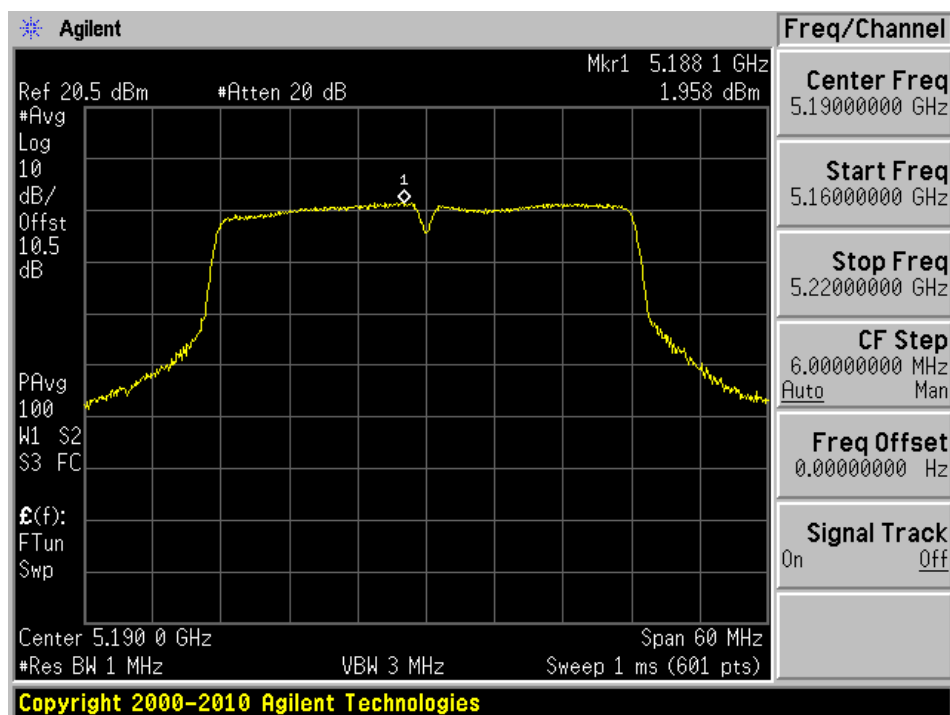


High channel: 5240 MHz

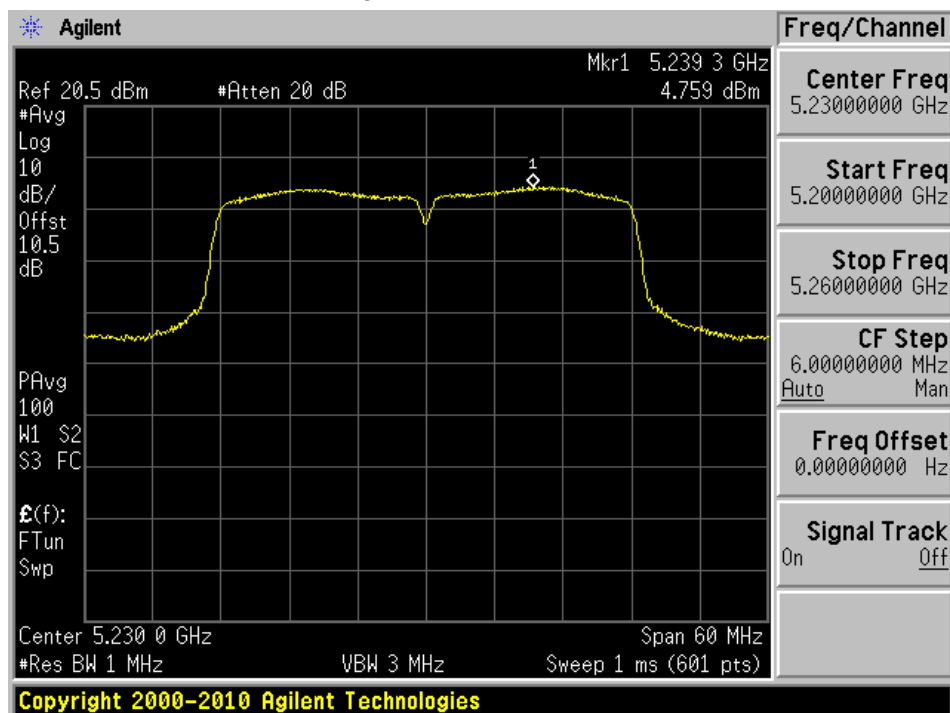


802.11n HT40 mode

Low channel: 5190 MHz

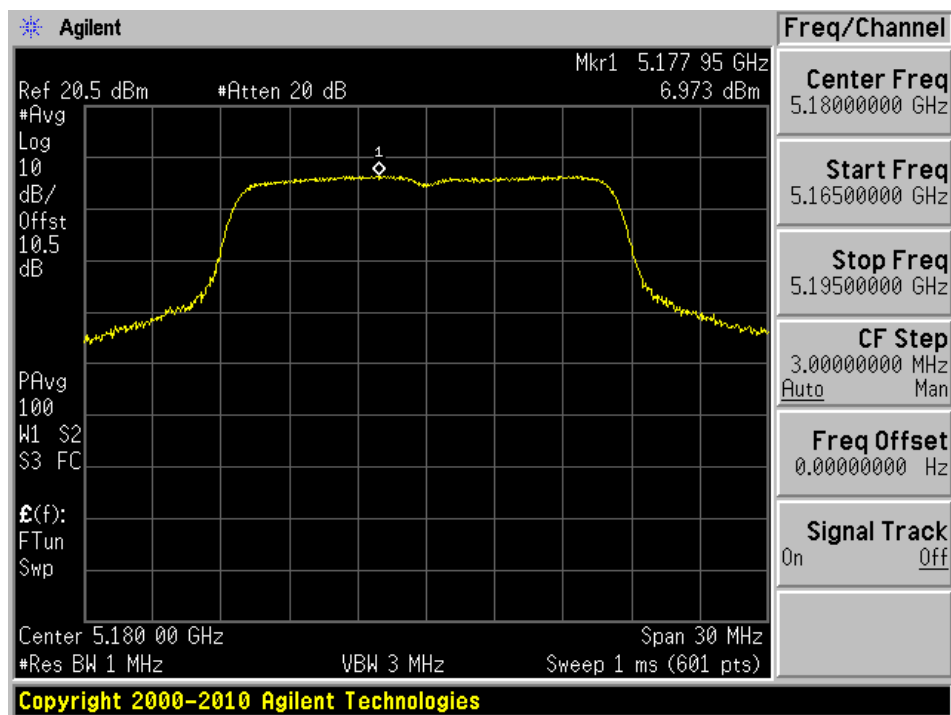


High channel: 5230 MHz

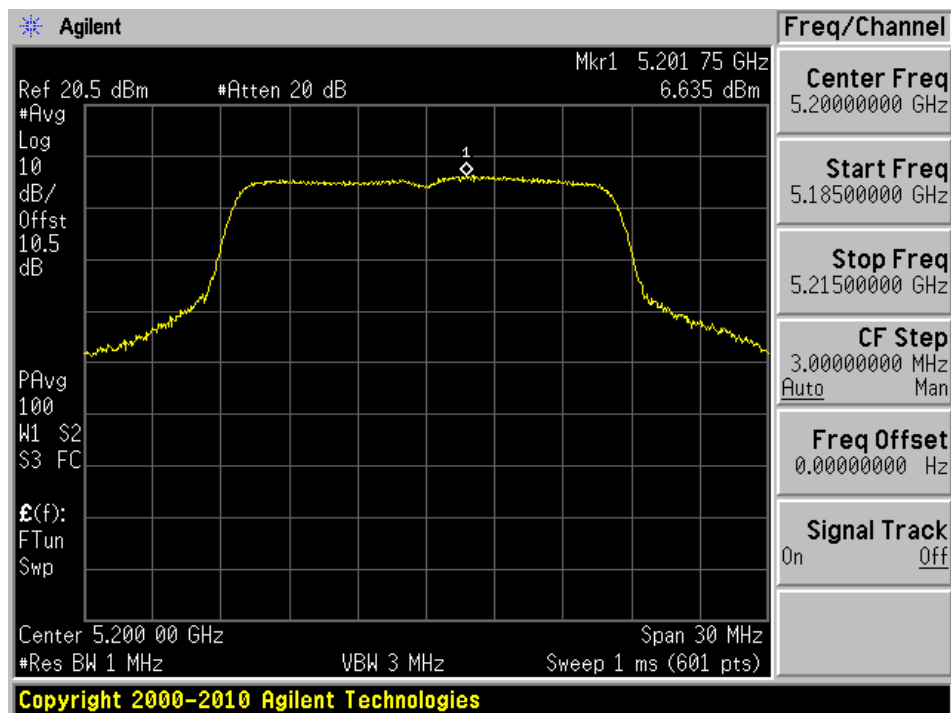


**5.2 GHz Band
802.11a mode
5dBi Antenna Chain 1**

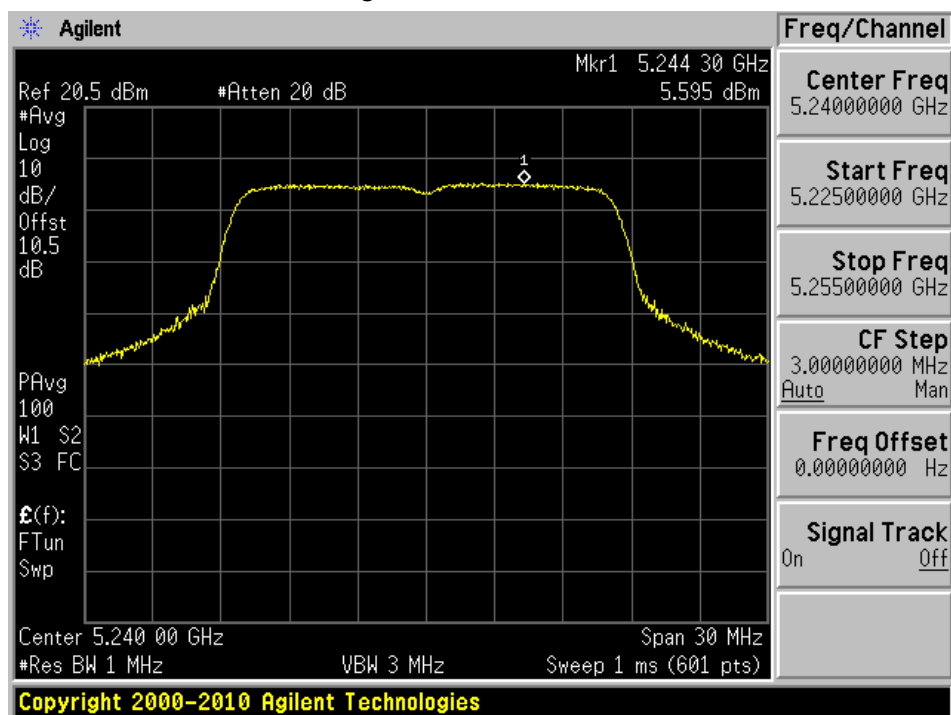
Low channel: 5180 MHz



Middle channel: 5200 MHz

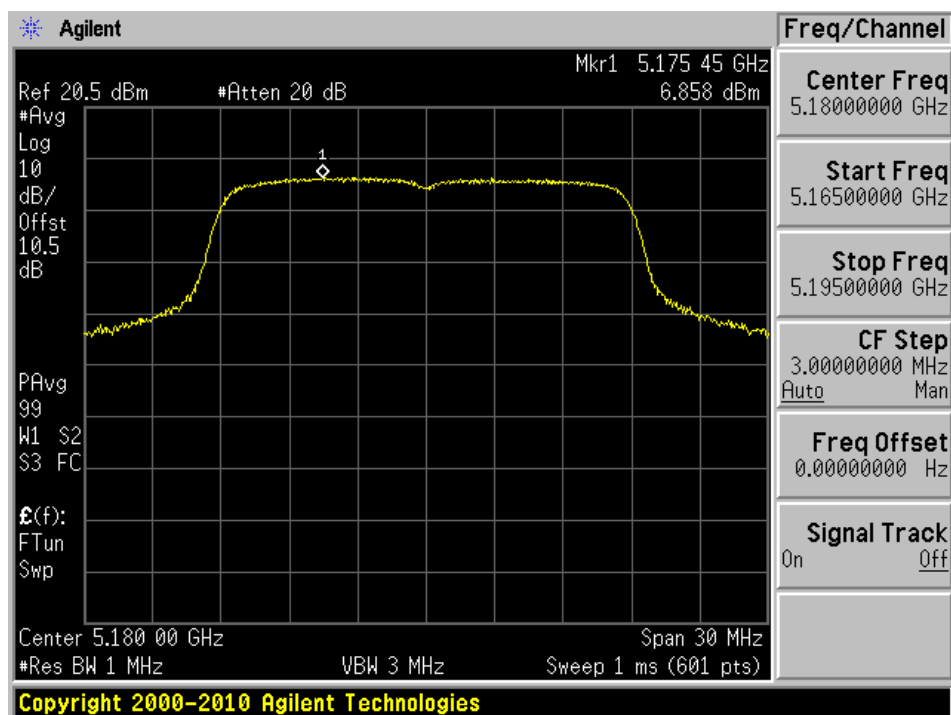


High channel: 5240 MHz

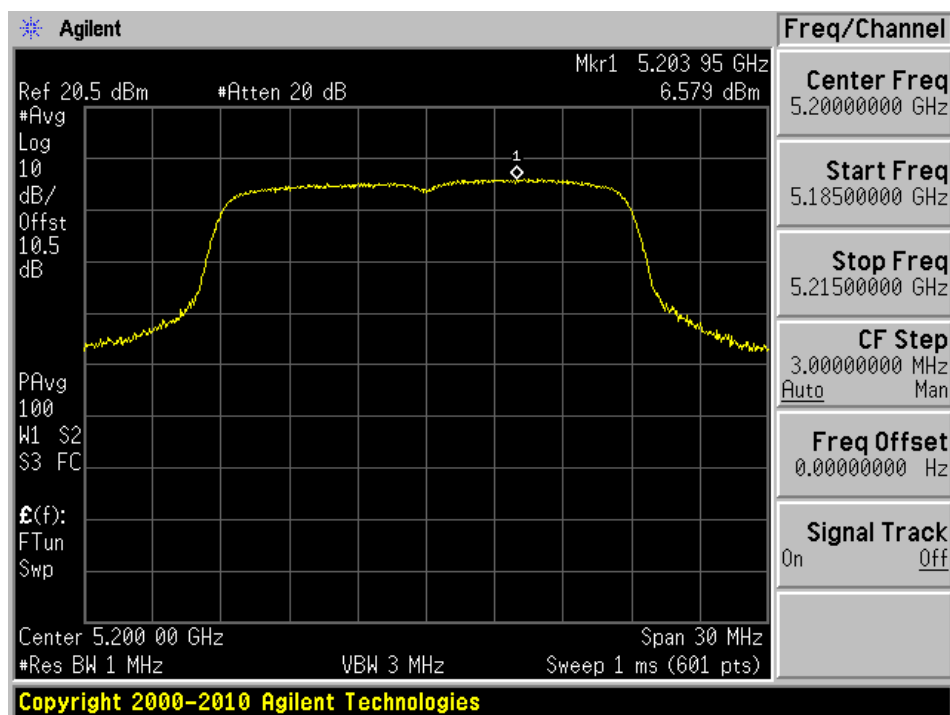


802.11 HT20 mode

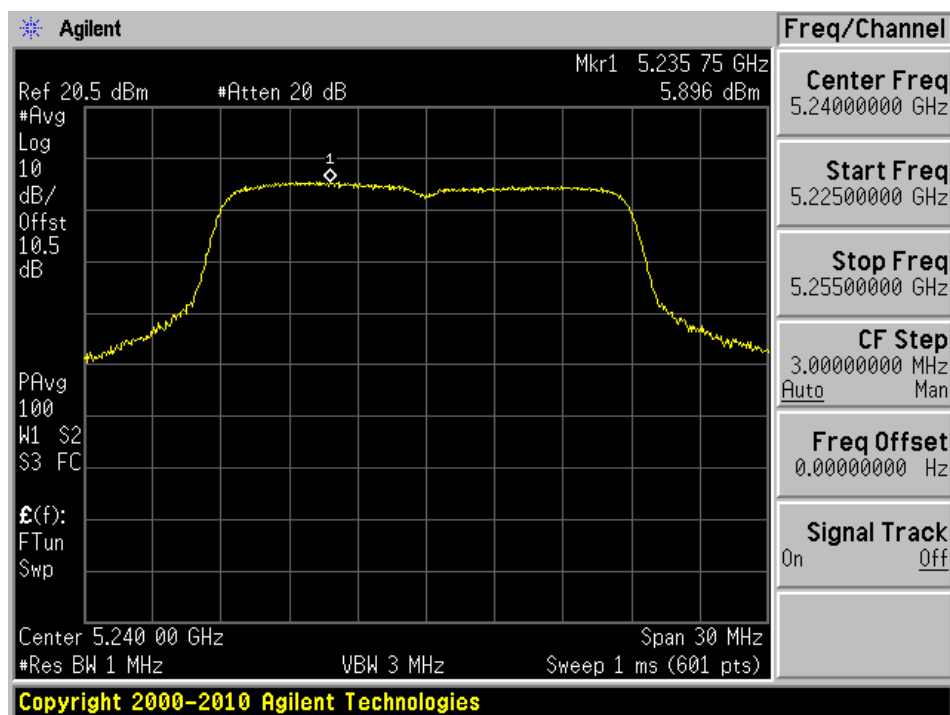
Low channel: 5180



Middle channel: 5200 MHz

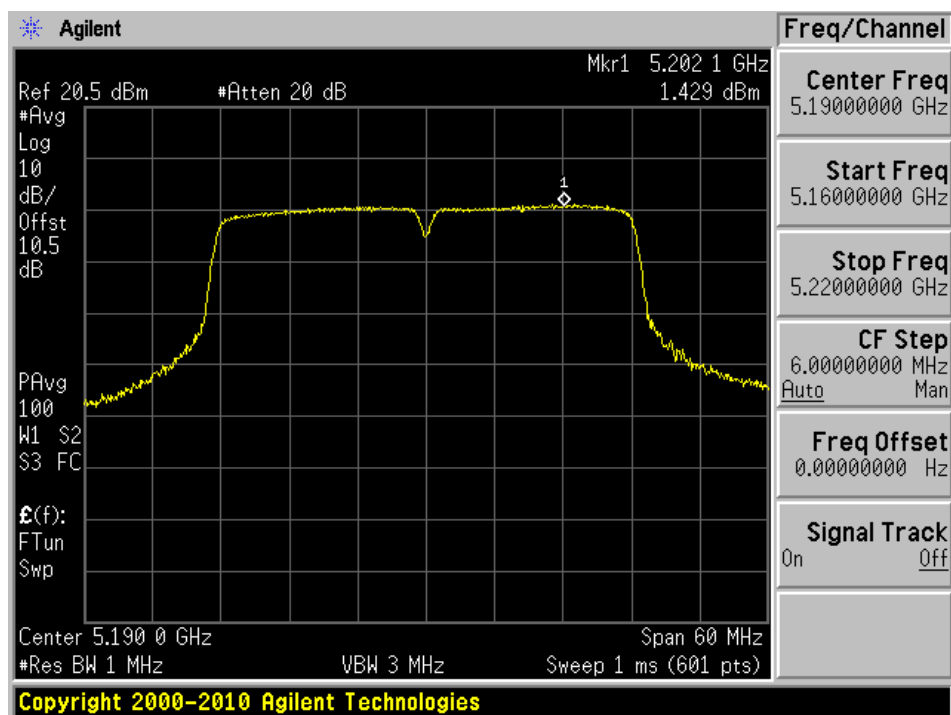


High channel: 5240 MHz

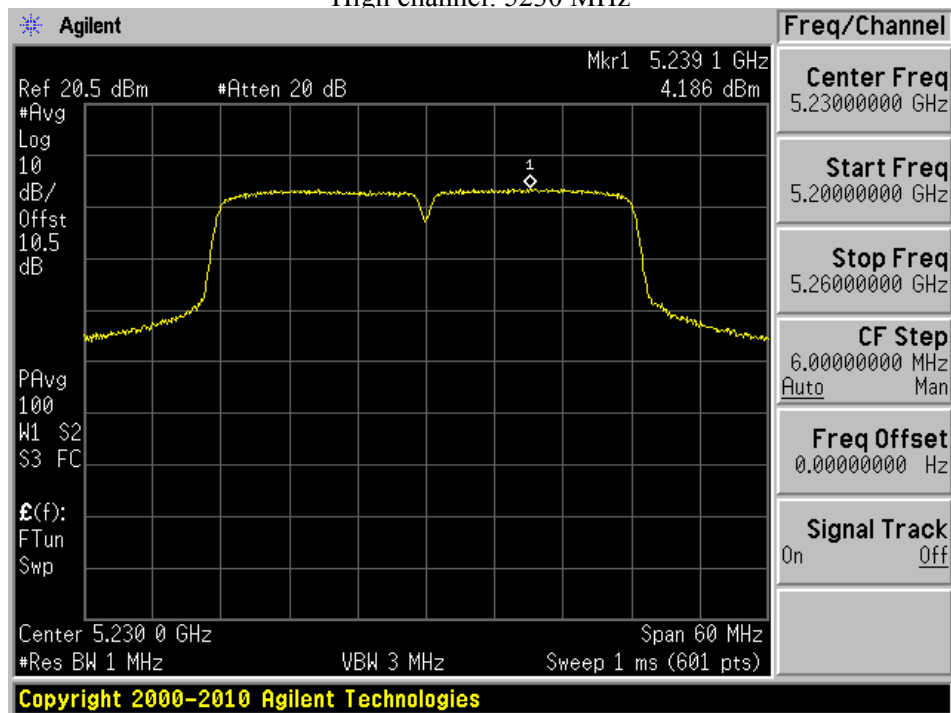


802.11n HT40 mode

Low channel: 5190 MHz

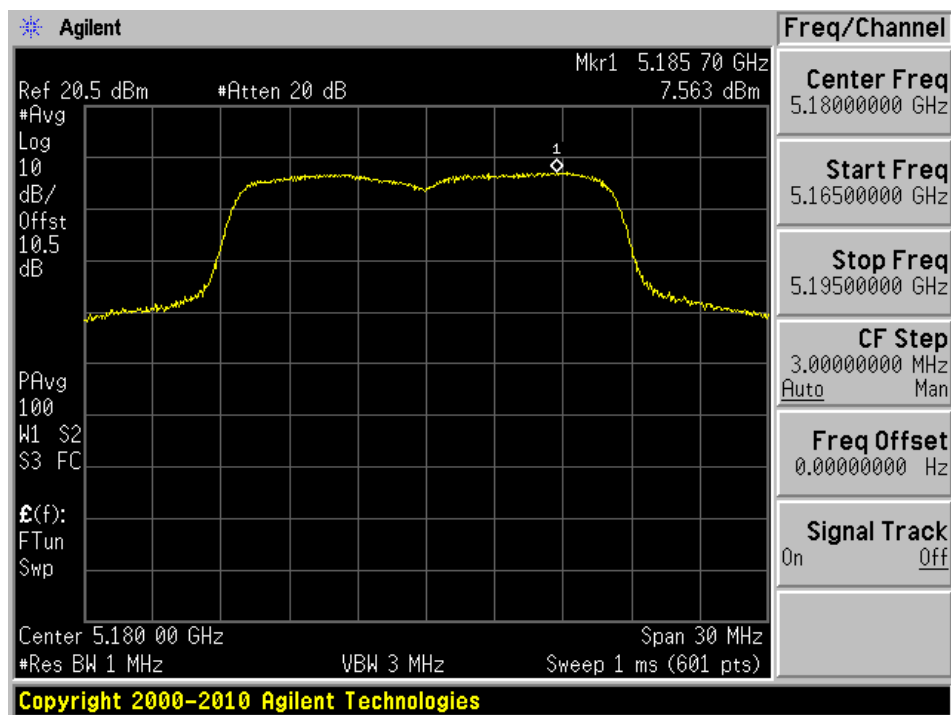


High channel: 5230 MHz

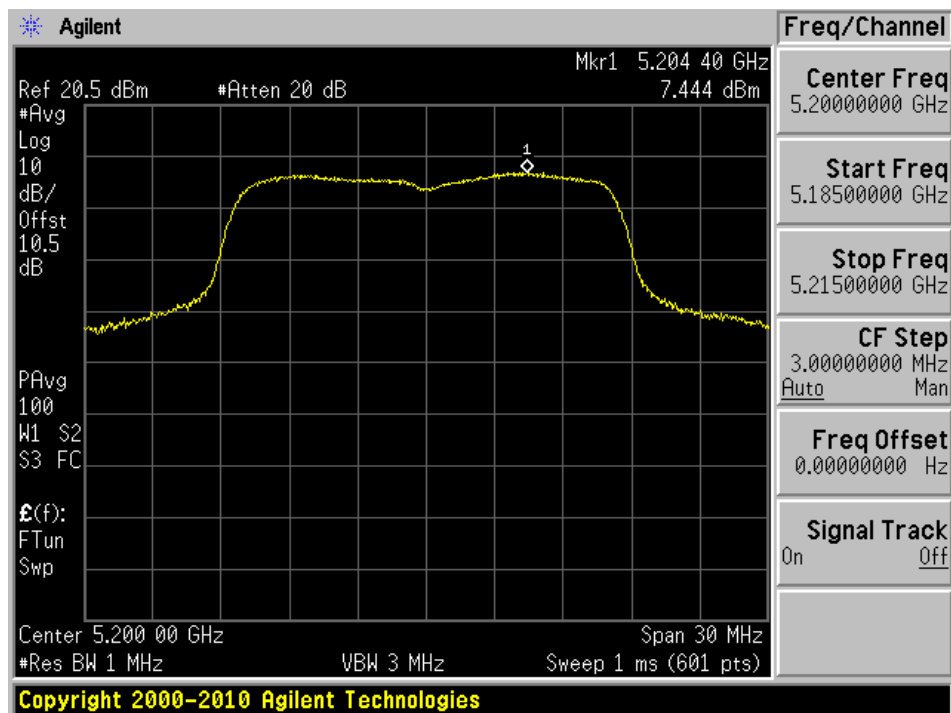


5.2 GHz Band
802.11a mode
5dBi Antenna Chain 2

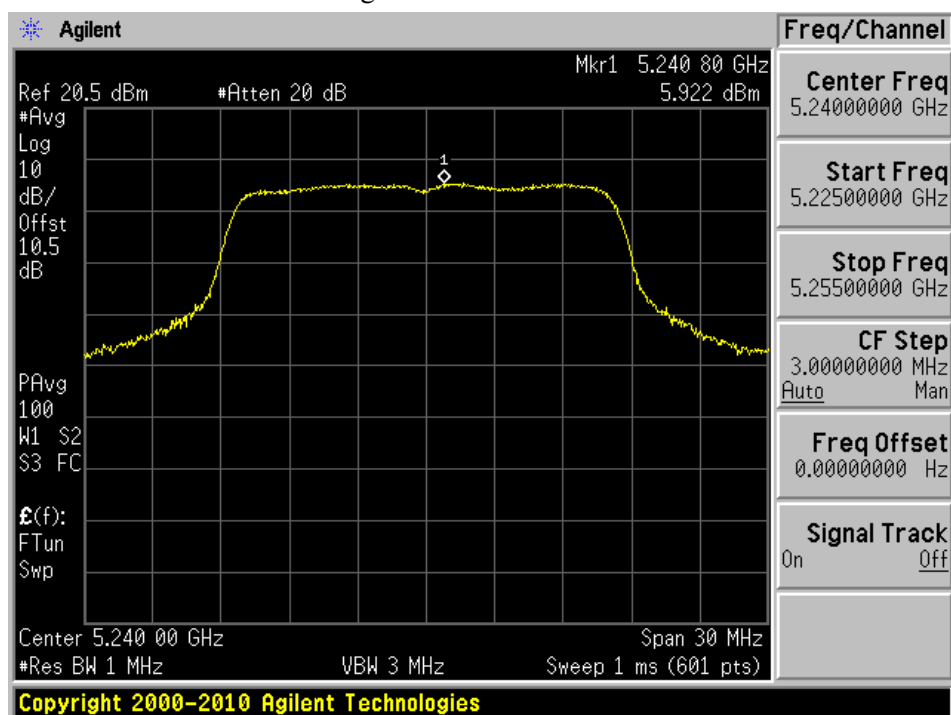
Low channel: 5180 MHz



Middle channel: 5200 MHz

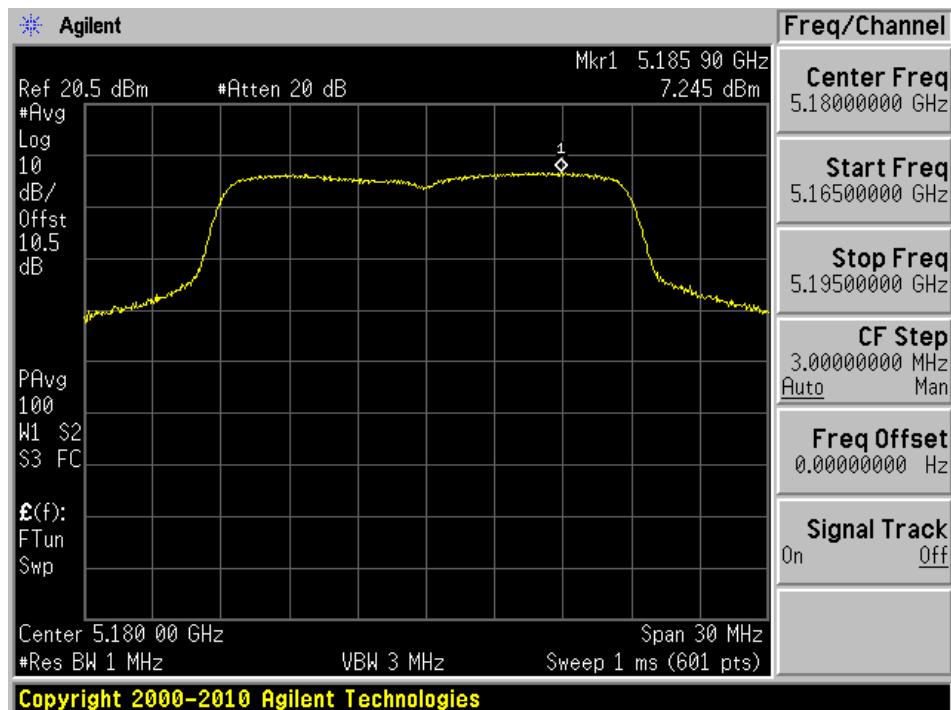


High channel: 5240 MHz

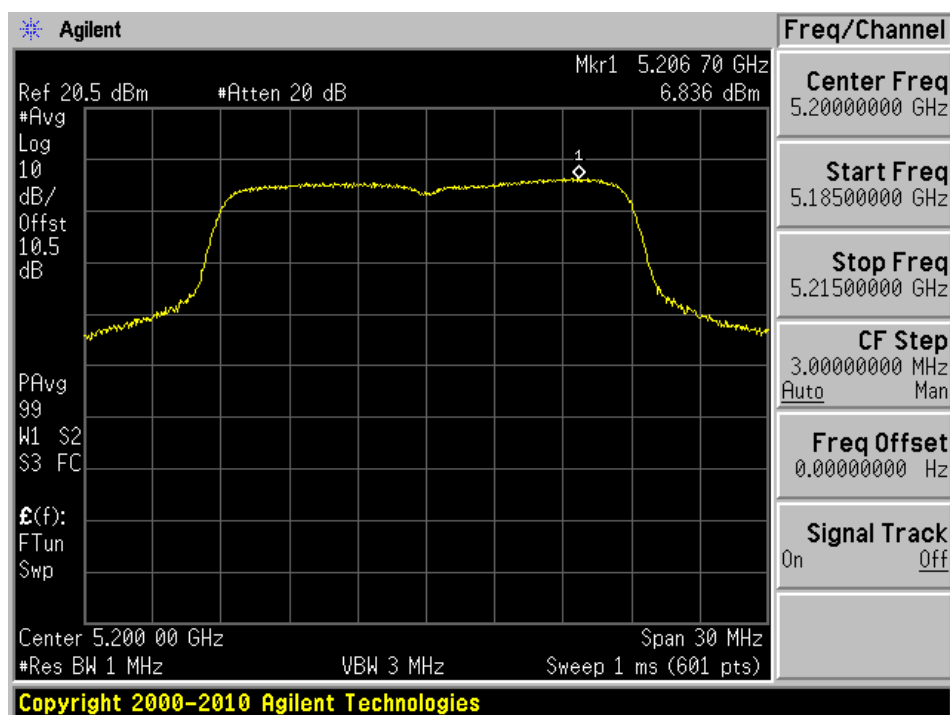


802.11 HT20 mode

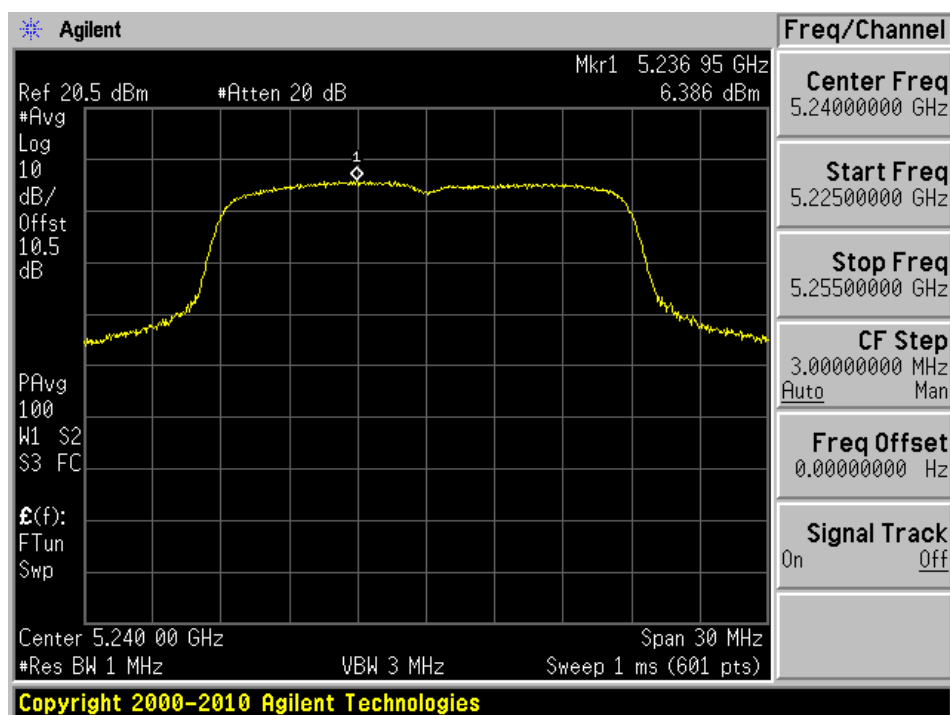
Low channel: 5180



Middle channel: 5200 MHz

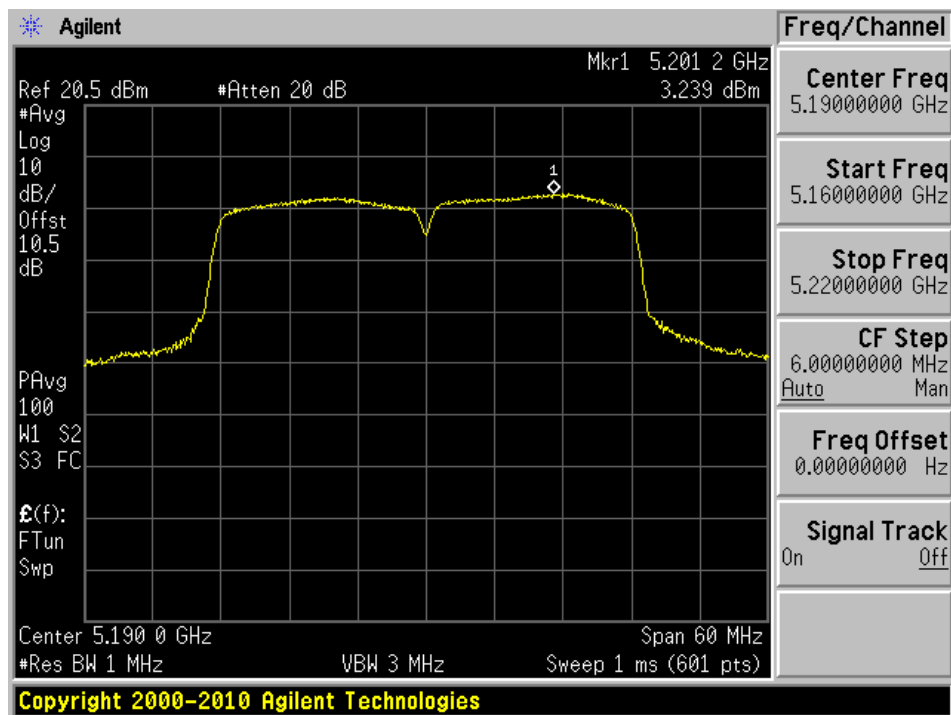


High channel: 5240 MHz

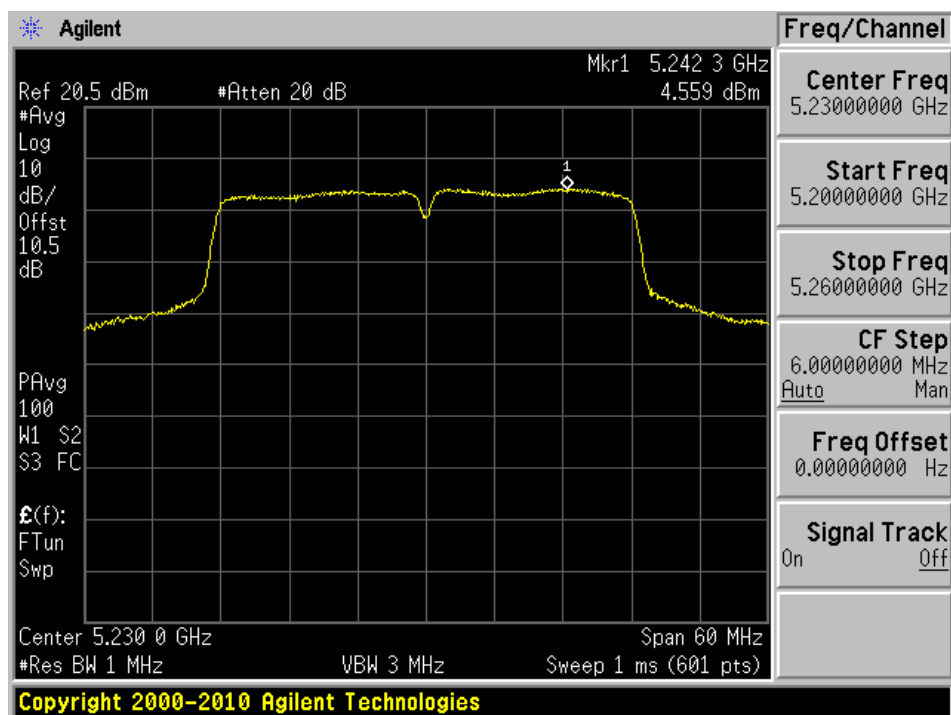


802.11n HT40 mode

Low channel: 5190 MHz



High channel: 5230 MHz



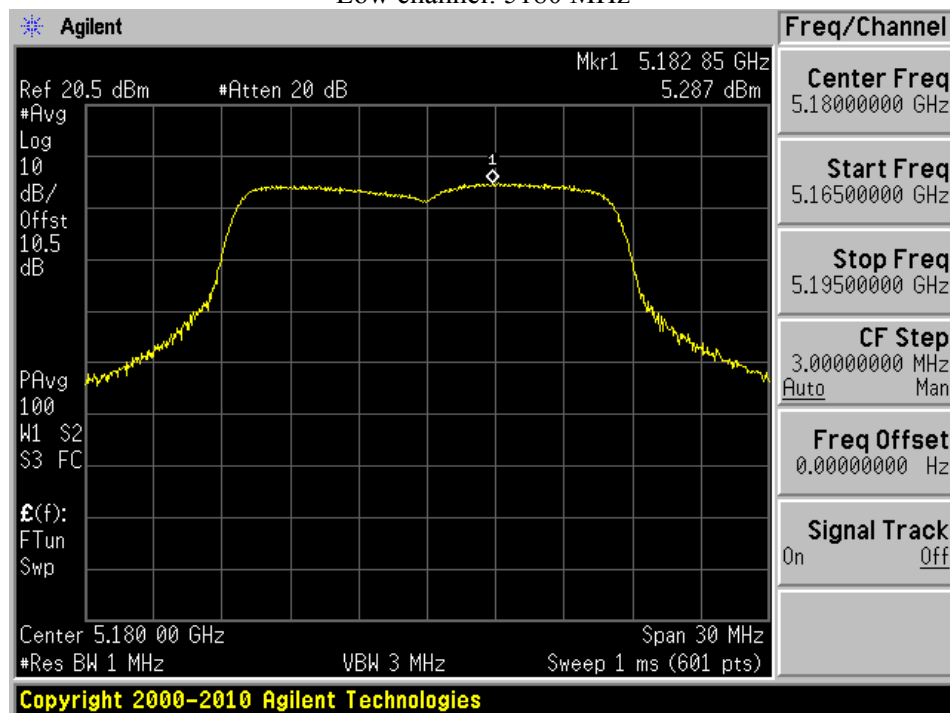
5.2 GHz Band, 8 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/MHz)	Conducted PSD Chain1 (dBm/MHz)	Conducted PSD Chain2 (dBm/MHz)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
802.11 a mode							
Low	5180	5.287	4.649	5.585	9.96	15	-5.04
Middle	5200	5.286	4.840	4.951	9.80	15	-5.20
High	5240	4.587	4.423	5.489	9.63	15	-5.37
802.11n HT20 mode							
Low	5180	5.231	4.709	5.567	9.95	15	-5.05
Middle	5200	5.825	4.993	4.850	10.02	15	-4.98
High	5240	5.219	5.087	5.308	9.98	15	-5.02
802.11n HT40 mode							
Low	5190	-1.065	-1.383	-0.928	3.65	15	-11.35
High	5230	3.663	3.158	4.366	8.53	15	-6.47

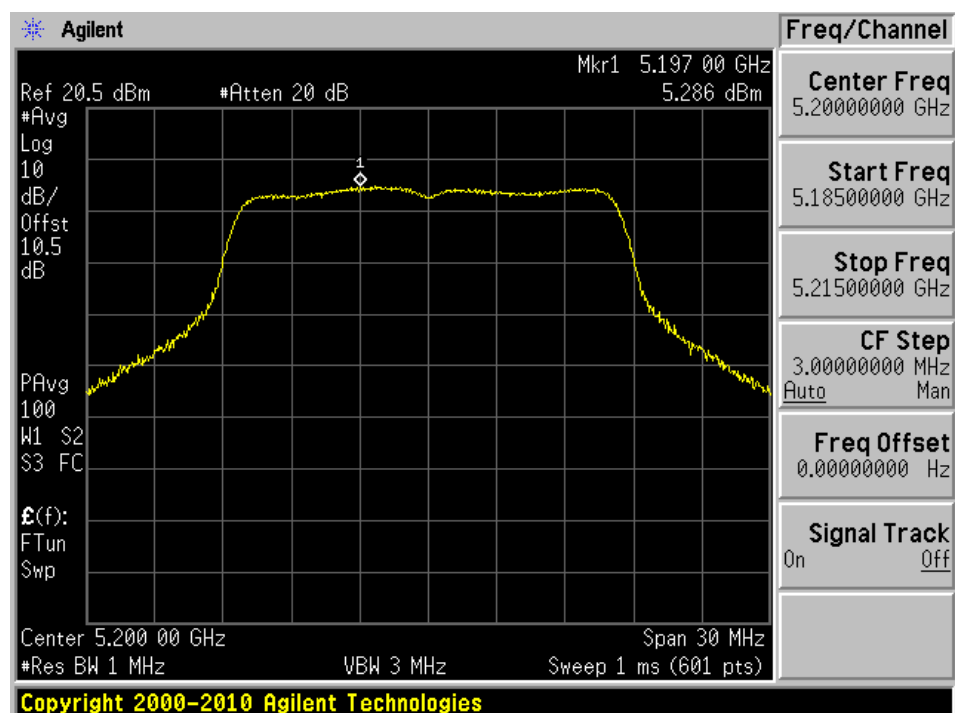
Note: Antenna Gain exceed 6dBi, therefore the limit should be $17-(8-6)=15$ dBm

**5.2 GHz Band
802.11a mode
8dBi Antenna Chain 0**

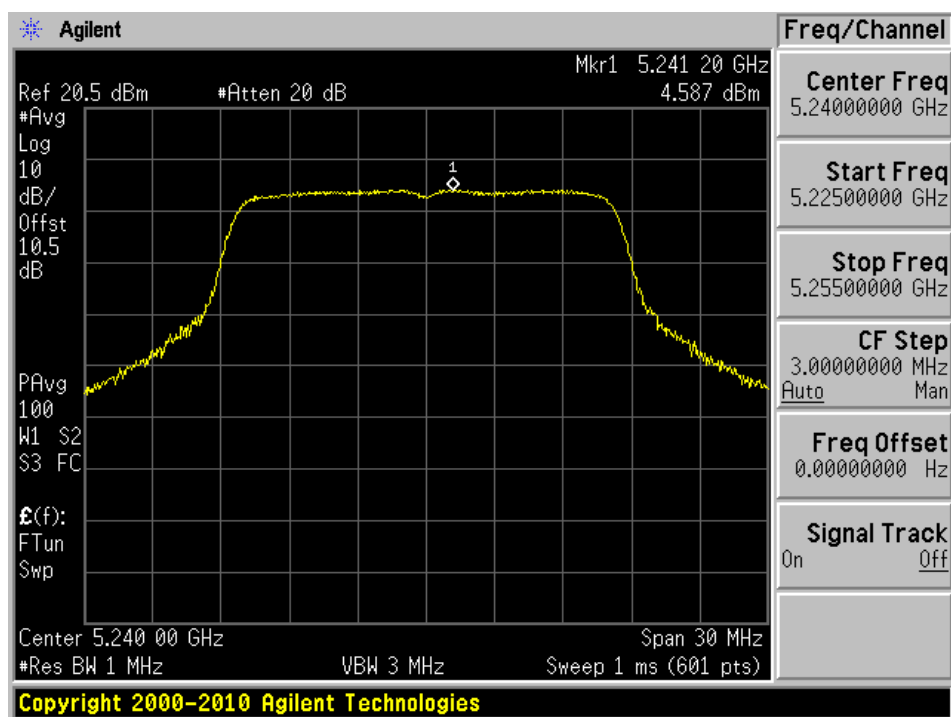
Low channel: 5180 MHz



Middle channel: 5200 MHz

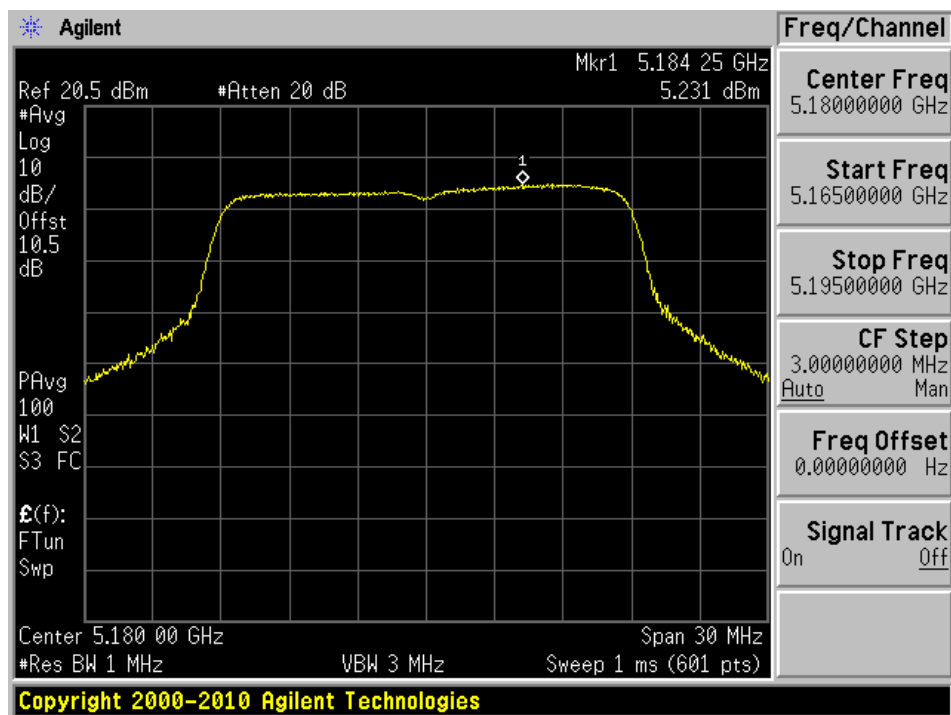


High channel: 5240 MHz

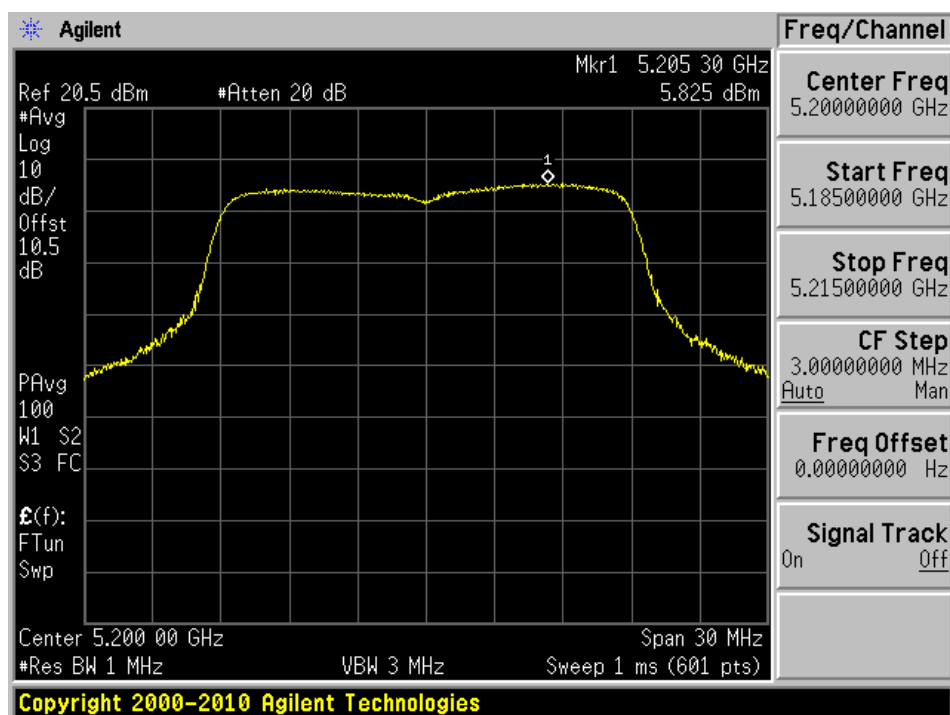


802.11 HT20 mode

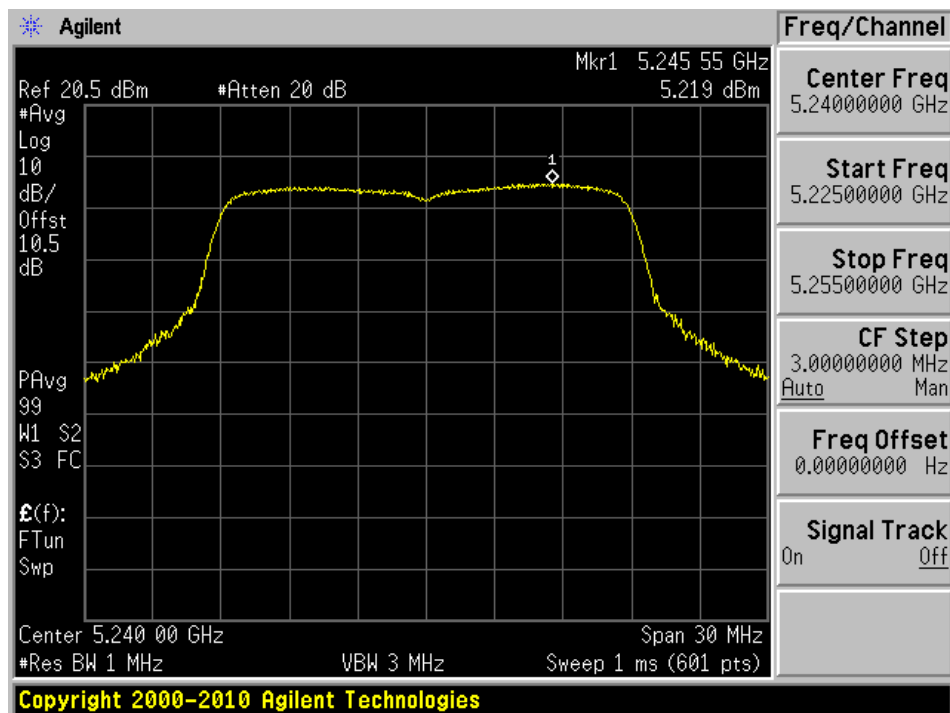
Low channel: 5180



Middle channel: 5200 MHz

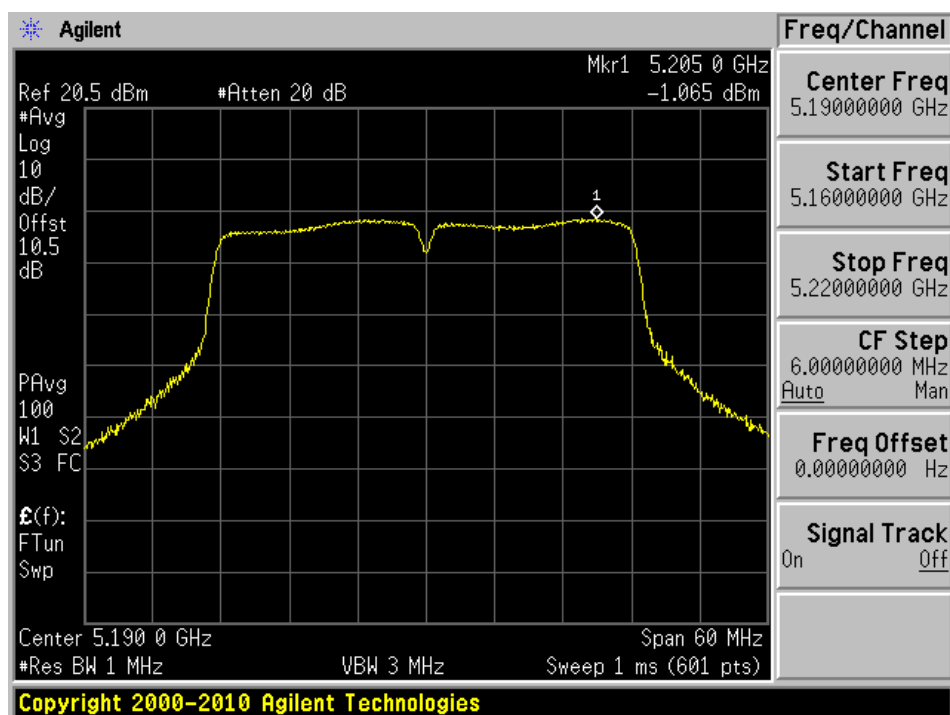


High channel: 5240 MHz

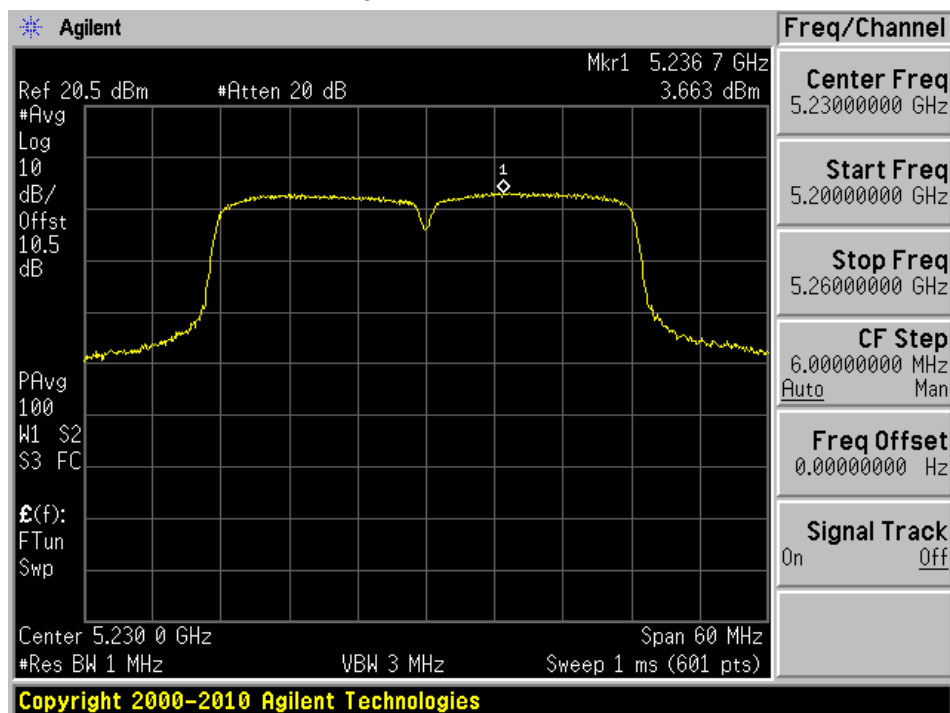


802.11n HT40 mode

Low channel: 5190 MHz

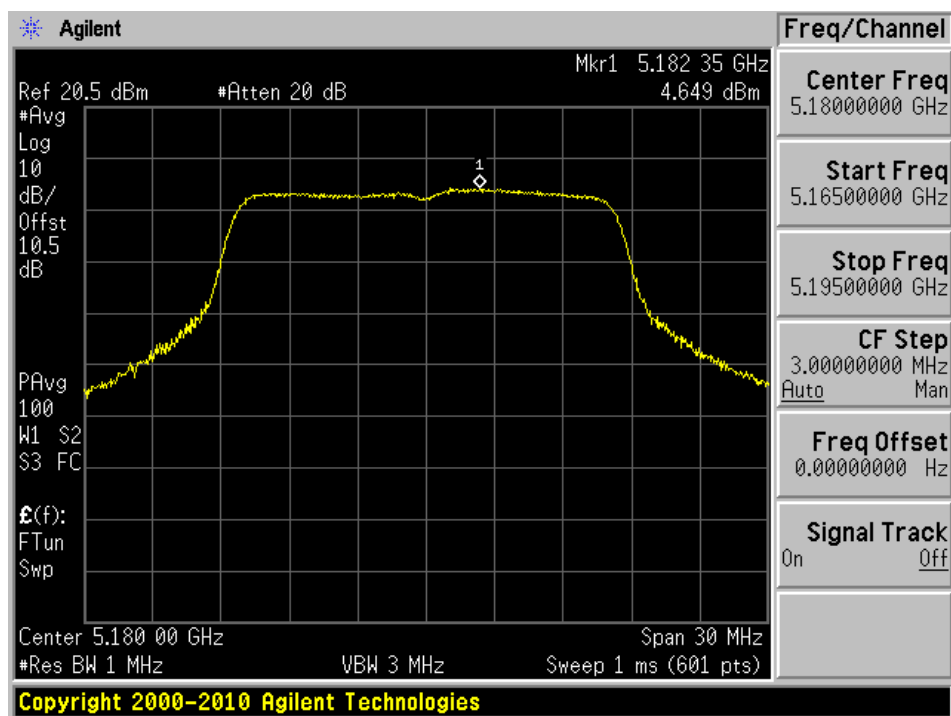


High channel: 5230 MHz

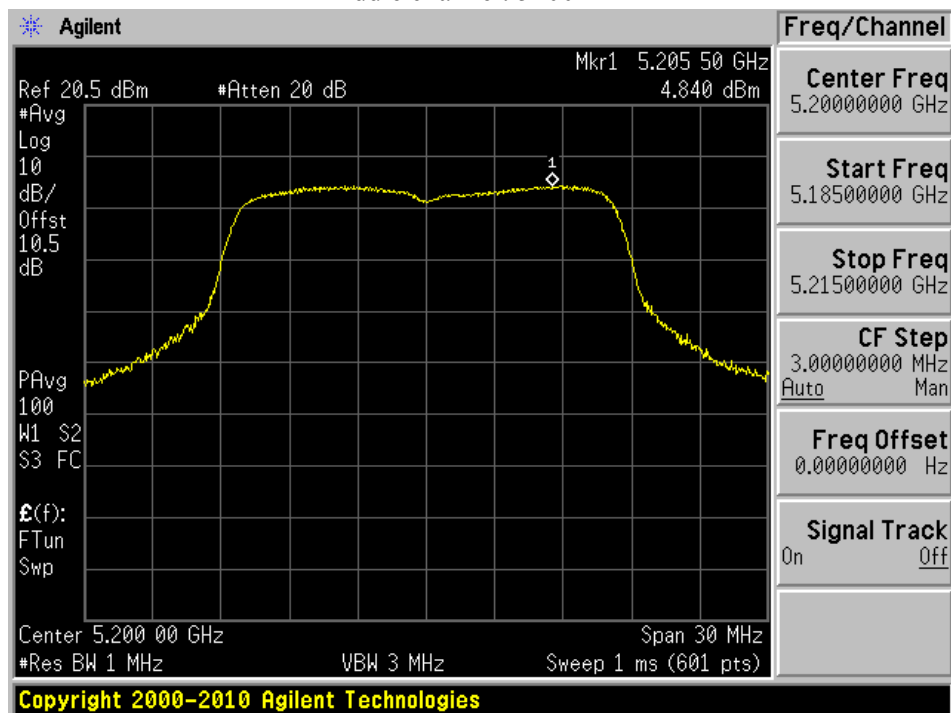


5.2 GHz Band
802.11a mode
8dBi Antenna Chain 1

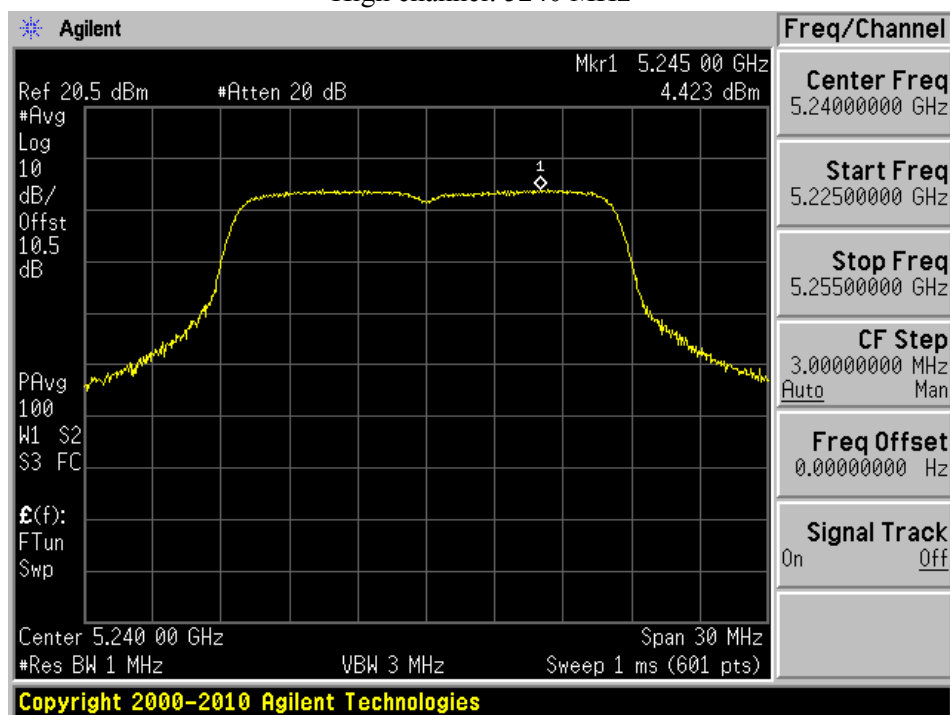
Low channel: 5180 MHz



Middle channel: 5200 MHz

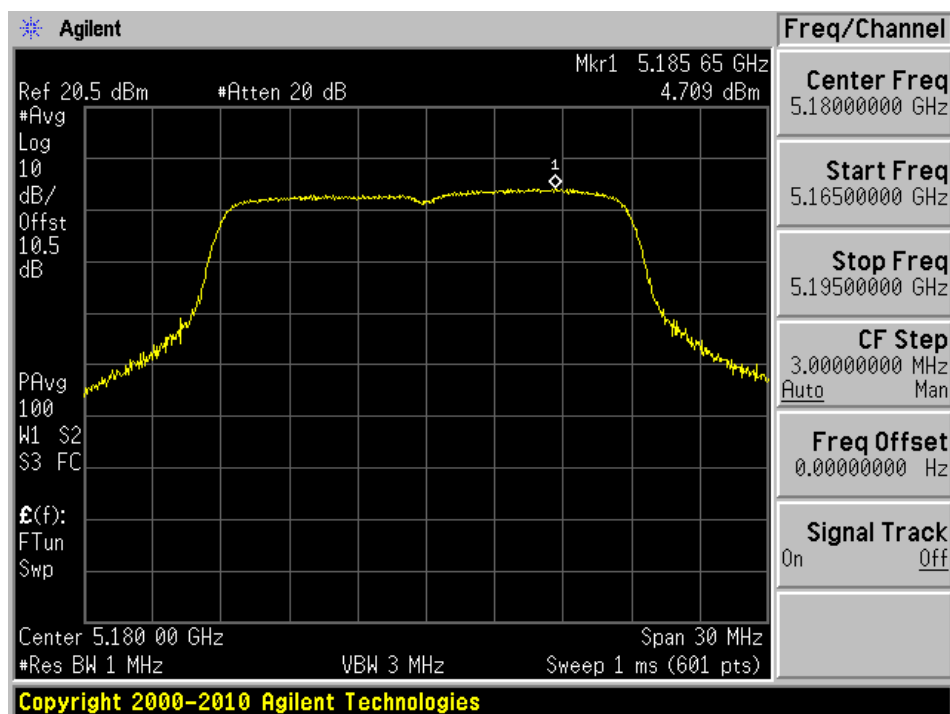


High channel: 5240 MHz

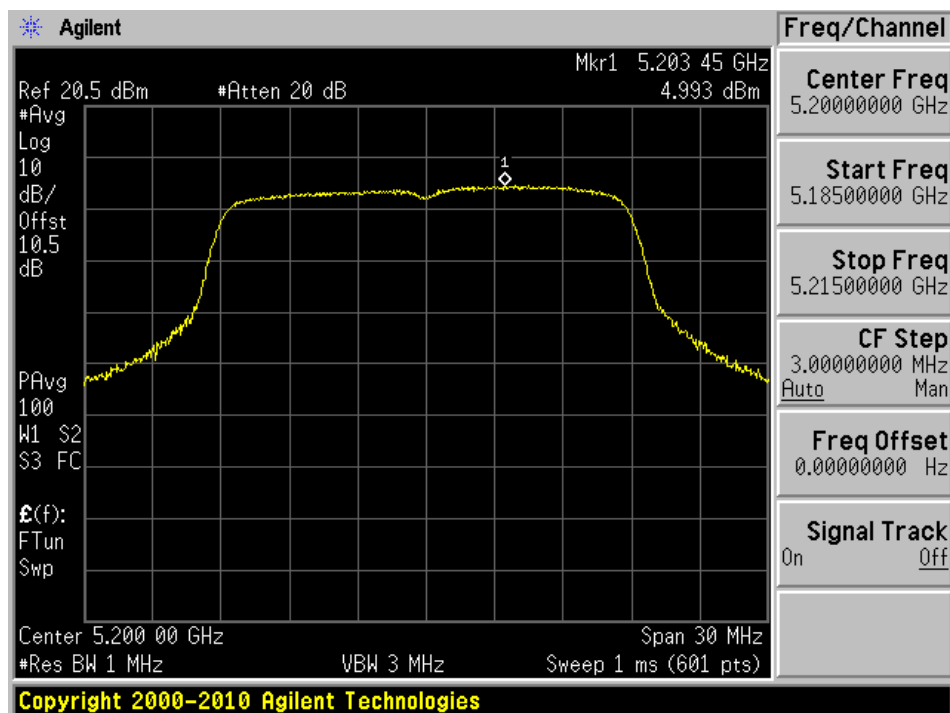


802.11 HT20 mode

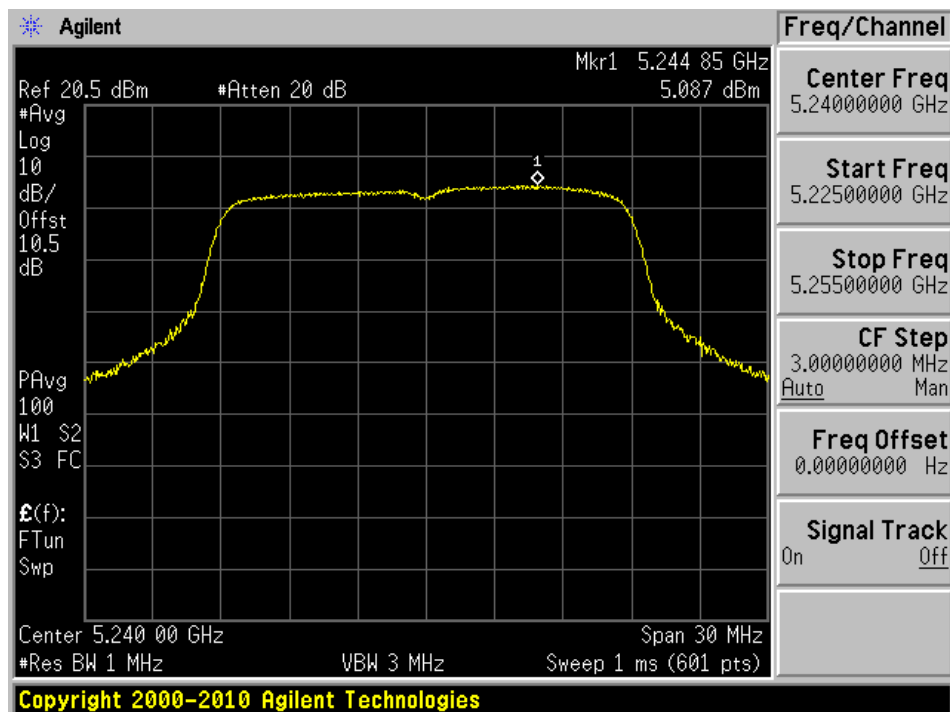
Low channel: 5180



Middle channel: 5200 MHz

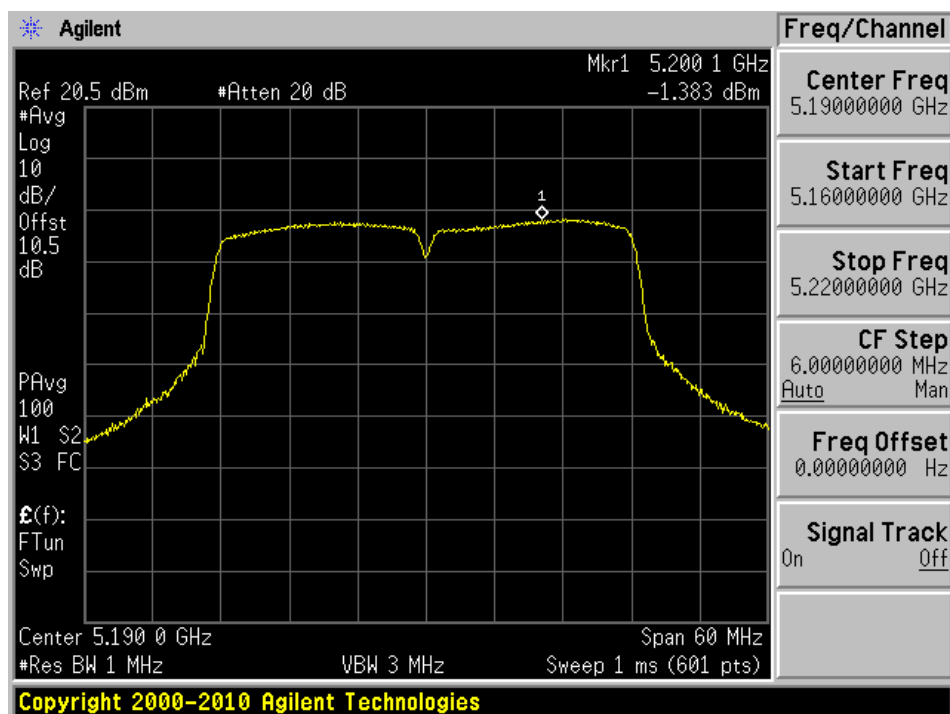


High channel: 5240 MHz

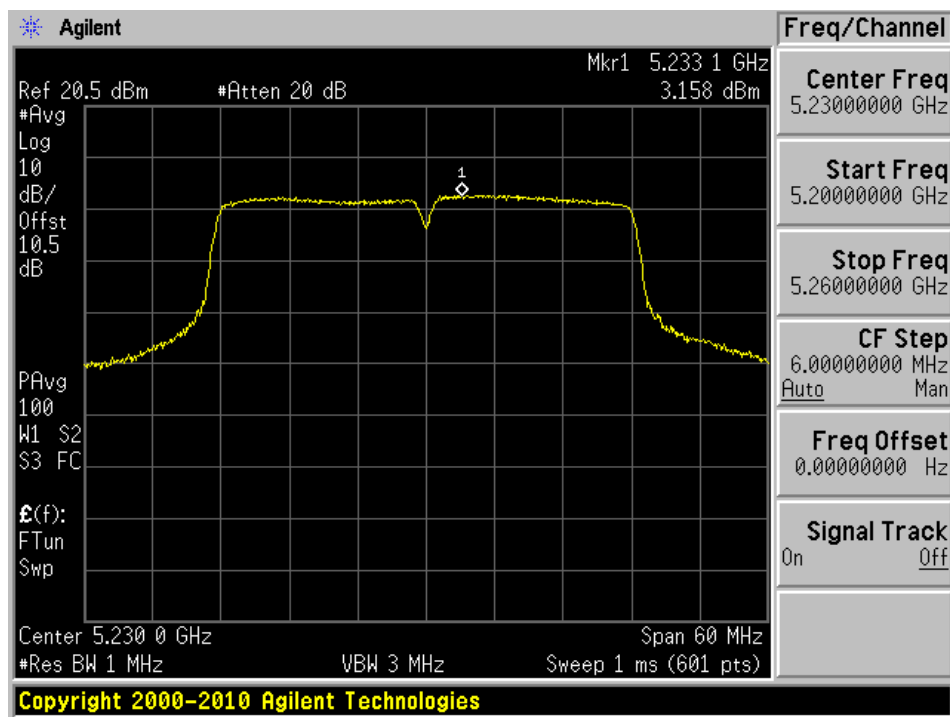


802.11n HT40 mode

Low channel: 5190 MHz

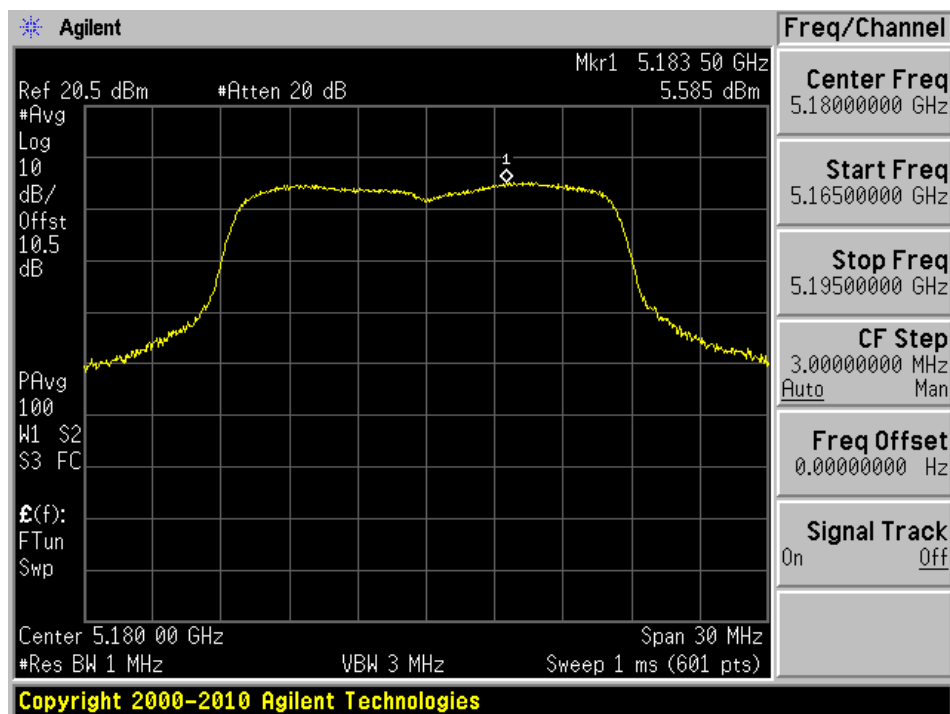


High channel: 5230 MHz

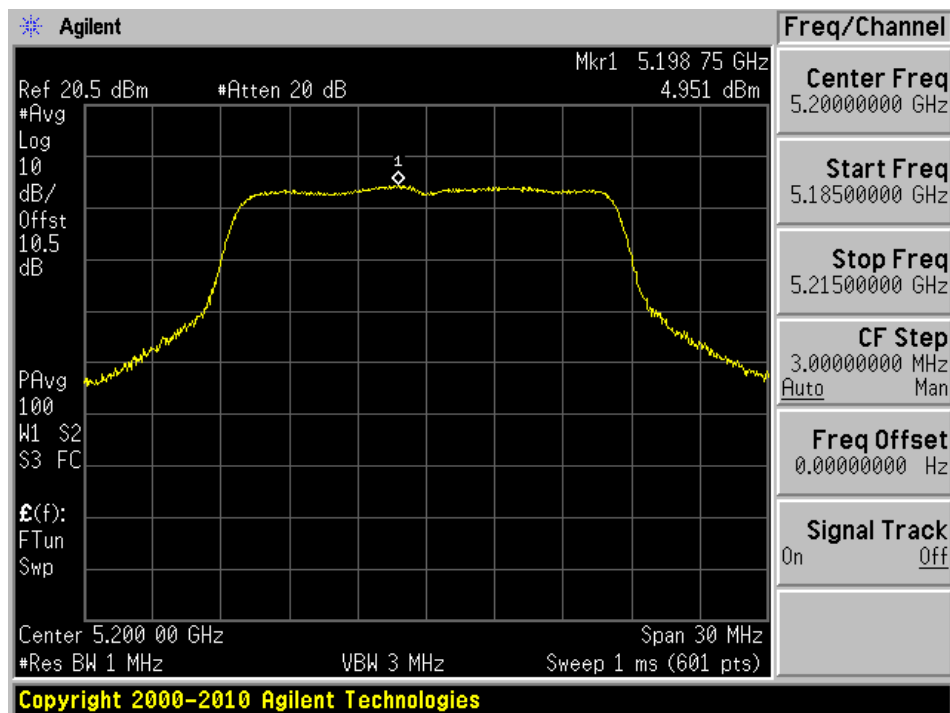


5.2 GHz Band
802.11a mode
8dBi Antenna Chain 2

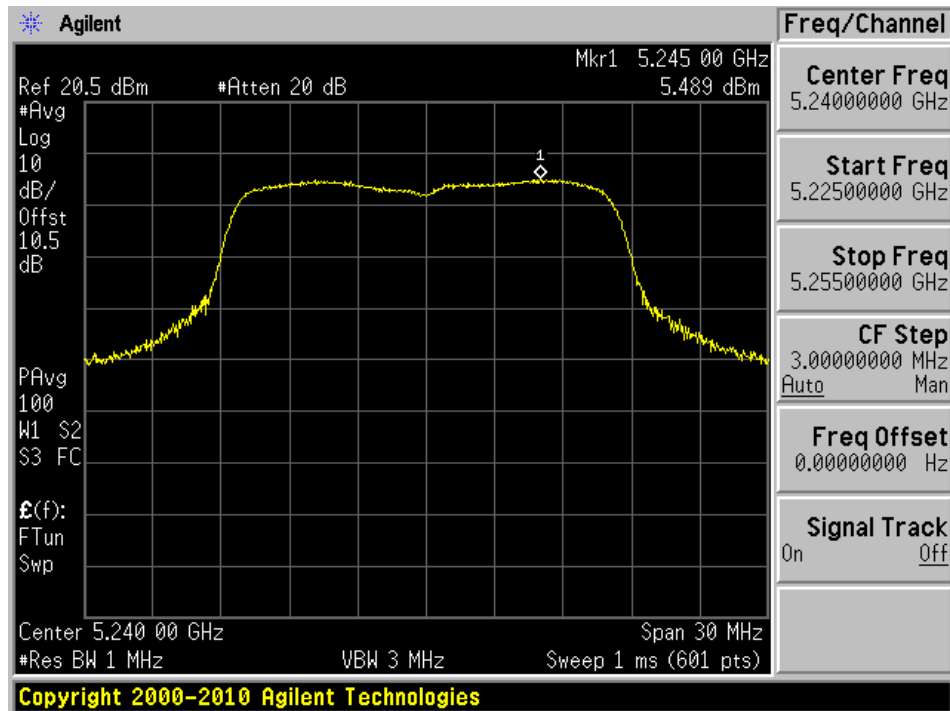
Low channel: 5180 MHz



Middle channel: 5200 MHz

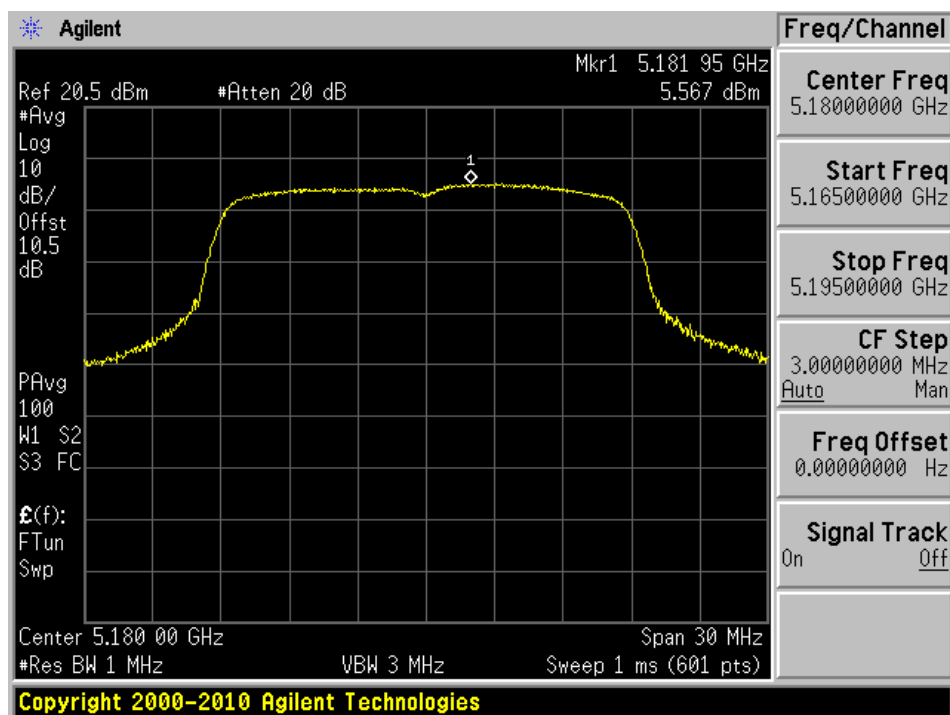


High channel: 5240 MHz

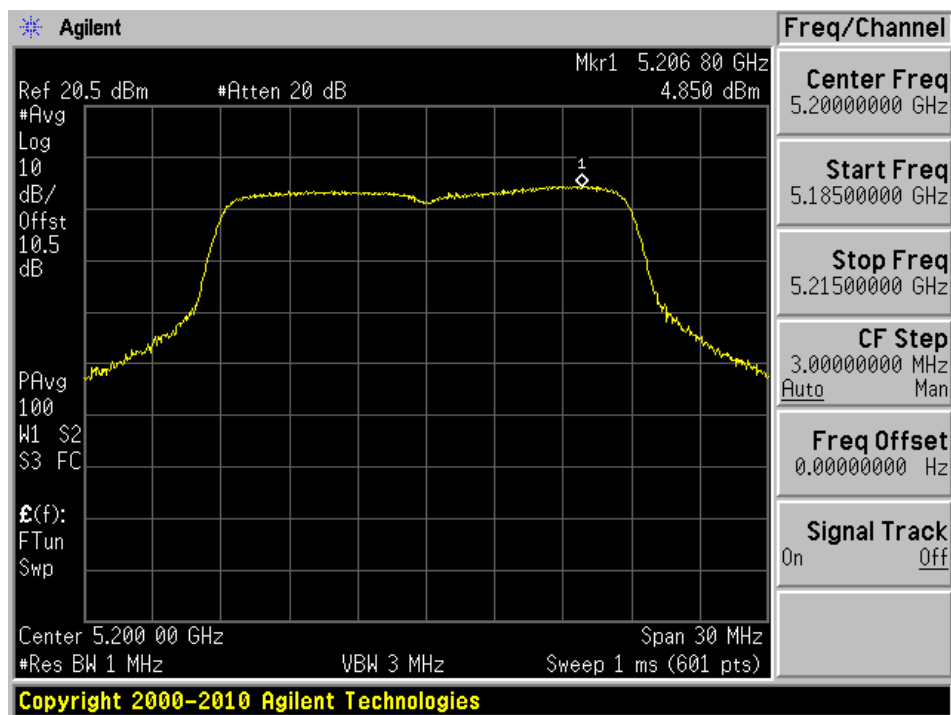


802.11 HT20 mode

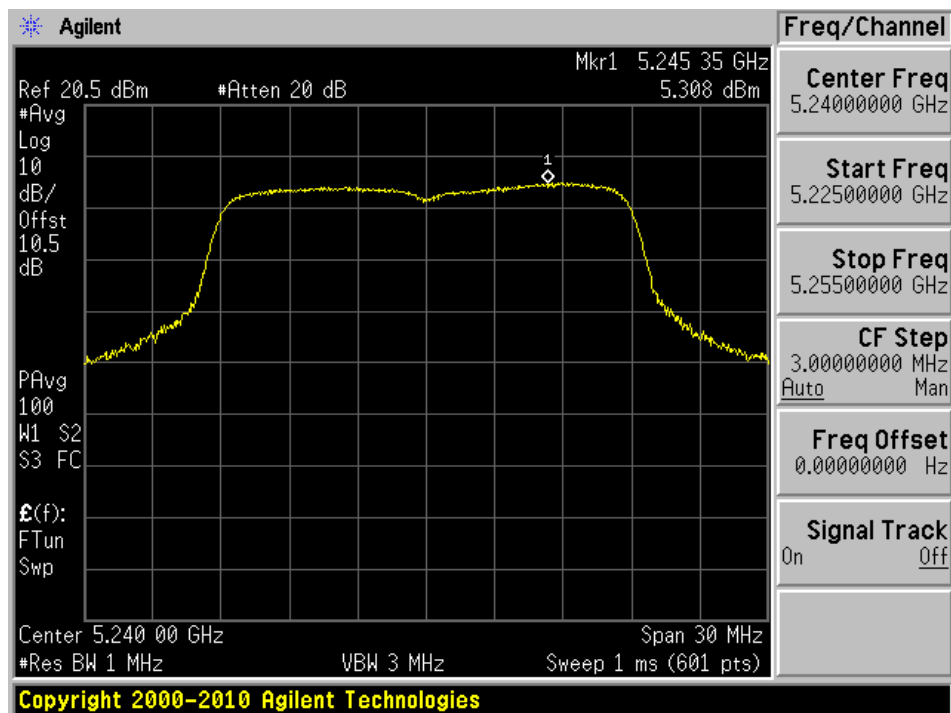
Low channel: 5180



Middle channel: 5200 MHz

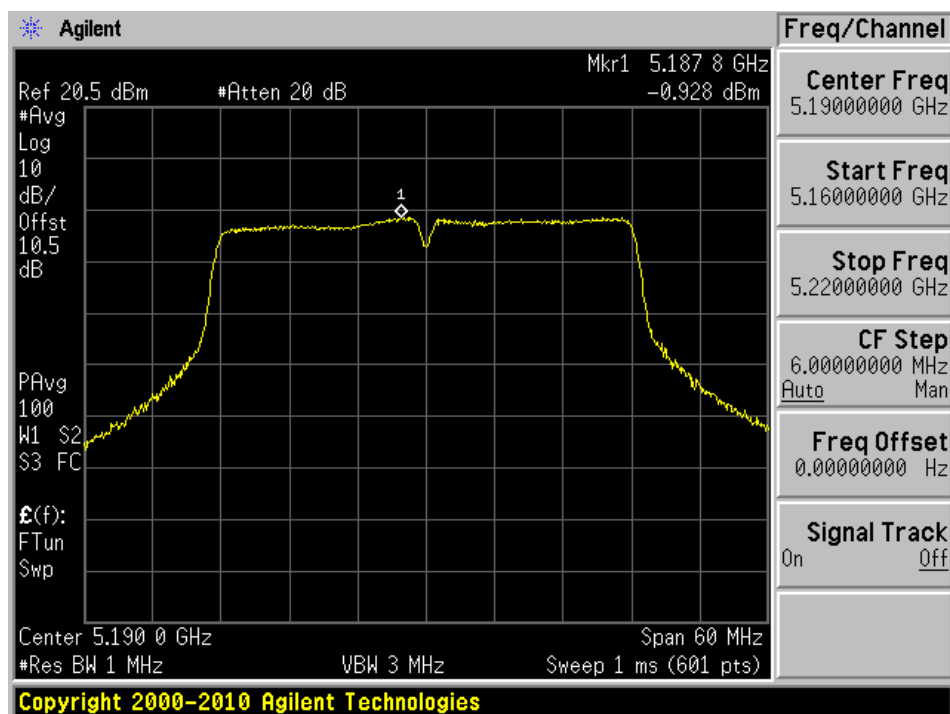


High channel: 5240 MHz

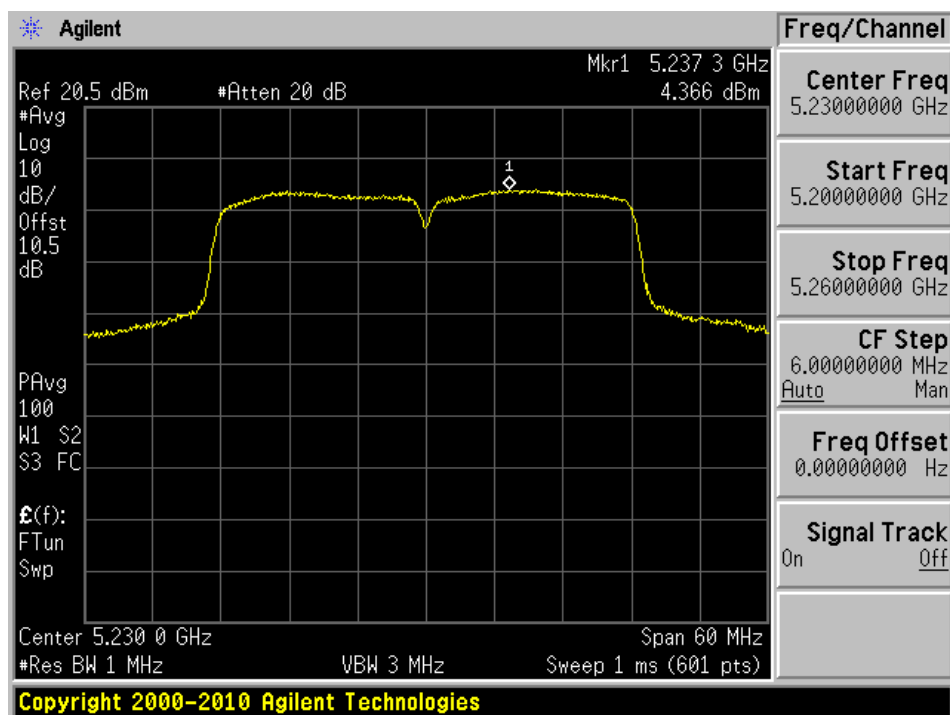


802.11n HT40 mode

Low channel: 5190 MHz



High channel: 5230 MHz



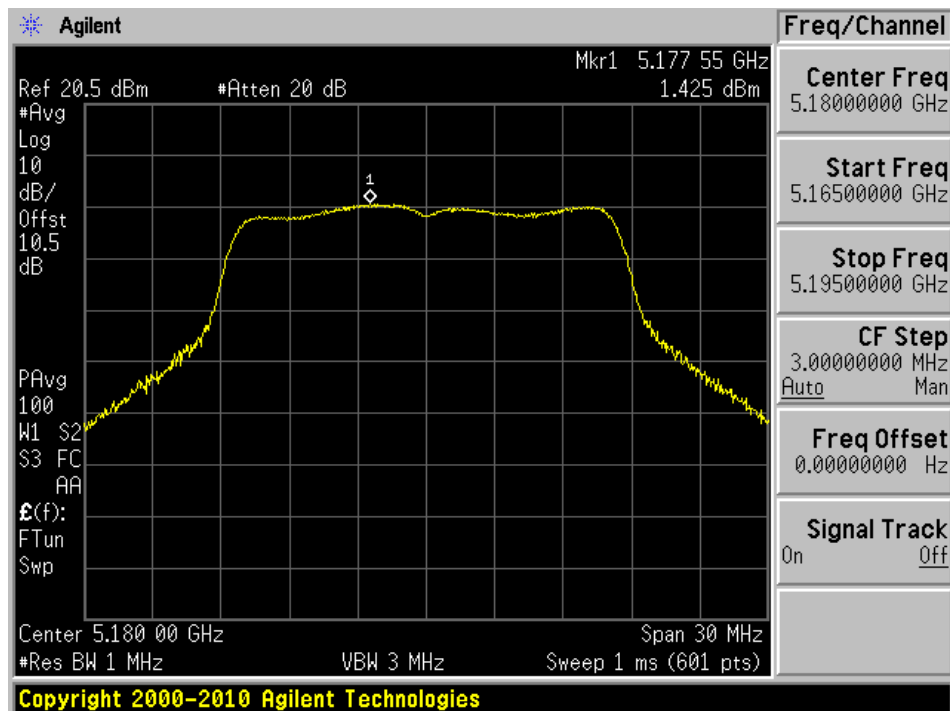
5.2 GHz Band, 12 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/MHz)	Conducted PSD Chain1 (dBm/MHz)	Conducted PSD Chain2 (dBm/MHz)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
802.11 a mode							
Low	5180	1.425	0.058	0.701	5.54	11	-5.46
Middle	5200	2.008	0.609	1.508	6.18	11	-4.82
High	5240	1.687	0.880	1.629	6.19	11	-4.81
802.11n HT20 mode							
Low	5180	1.013	-0.056	0.502	5.28	11	-5.72
Middle	5200	1.372	0.328	0.950	5.68	11	-5.32
High	5240	1.397	0.712	1.283	5.91	11	-5.09
802.11n HT40 mode							
Low	5190	-2.415	-3.425	-2.109	2.16	11	-8.84
High	5230	-0.431	-0.837	0.203	4.44	11	-6.56

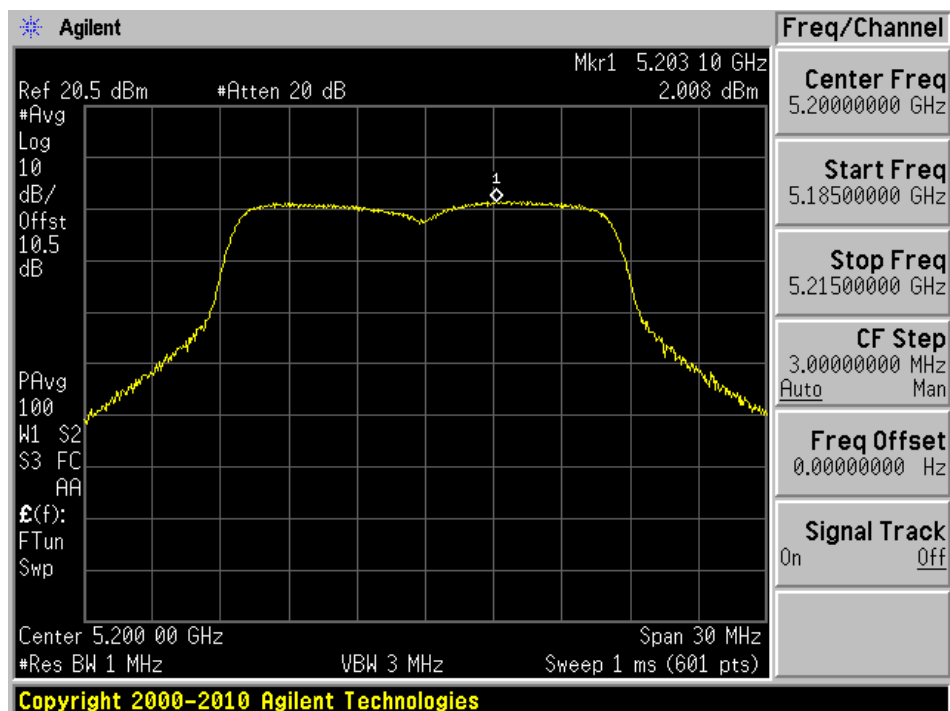
Note: Antenna Gain exceed 6dBi, therefore the limit should be $17-(12-6)=11$ dBm

**5.2 GHz Band
802.11a mode
12dBi Antenna Chain 0**

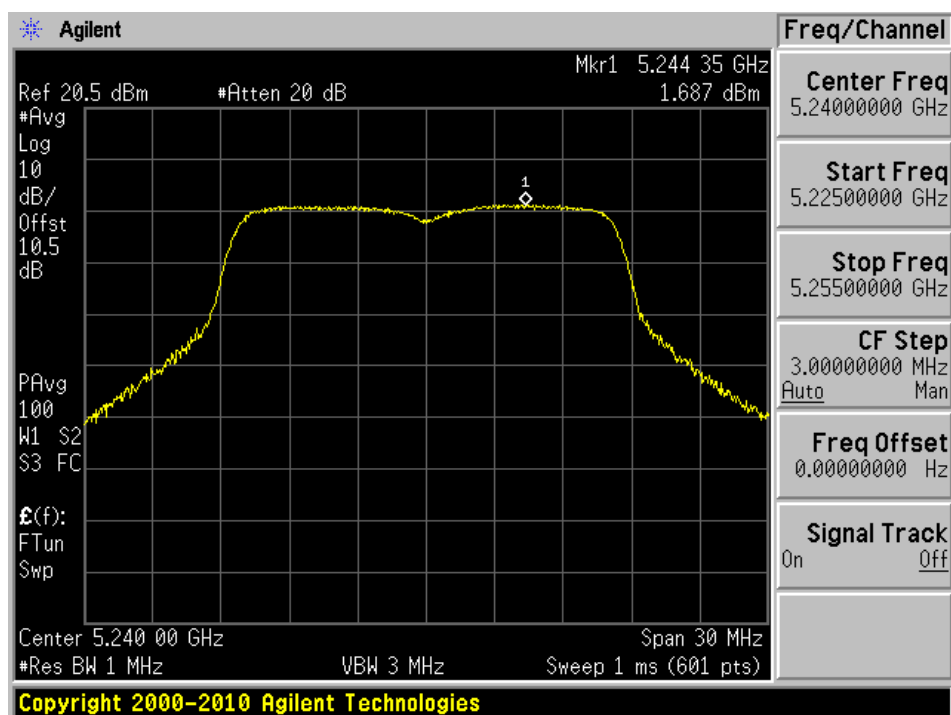
Low channel: 5180 MHz



Middle channel: 5200 MHz

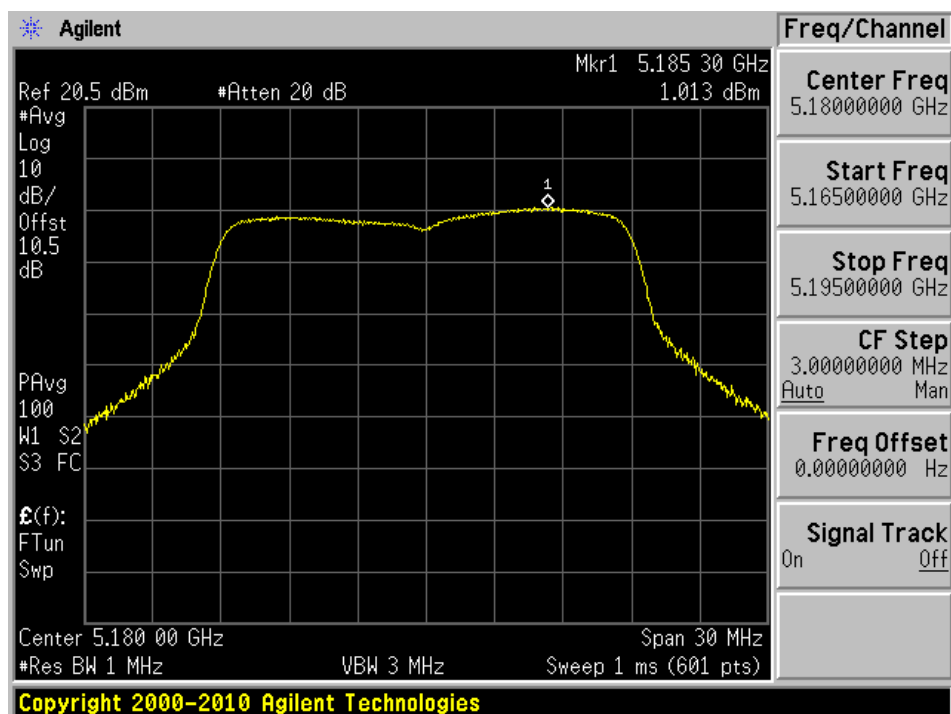


High channel: 5240 MHz



802.11 HT20 mode

Low channel: 5180



Agilent

Ref 20.5 dBm #Atten 20 dB Mkr1 5.195 30 GHz 1.372 dBm

#Avg Log 10 dB/Offst 10.5 dB

PAvg 100 W1 S2 S3 FC

£(f): FTun Swp

Center 5.200 00 GHz Span 30 MHz

#Res BW 1 MHz VBW 3 MHz Sweep 1 ms (601 pts)

Freq/Channel

Center Freq 5.20000000 GHz

Start Freq 5.18500000 GHz

Stop Freq 5.21500000 GHz

CF Step 3.00000000 MHz Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

Agilent

Ref 20.5 dBm #Atten 20 dB Mkr1 5.235 00 GHz 1.397 dBm

#Avg Log 10 dB/ Offst 10.5 dB

PAvg 100 W1 S2 S3 FC

£(f): FTun Swp

Center 5.240 00 GHz Span 30 MHz

#Res BW 1 MHz VBW 3 MHz Sweep 1 ms (601 pts)

Freq/Channel

Center Freq 5.24000000 GHz

Start Freq 5.22500000 GHz

Stop Freq 5.25500000 GHz

CF Step 3.00000000 MHz Auto Man

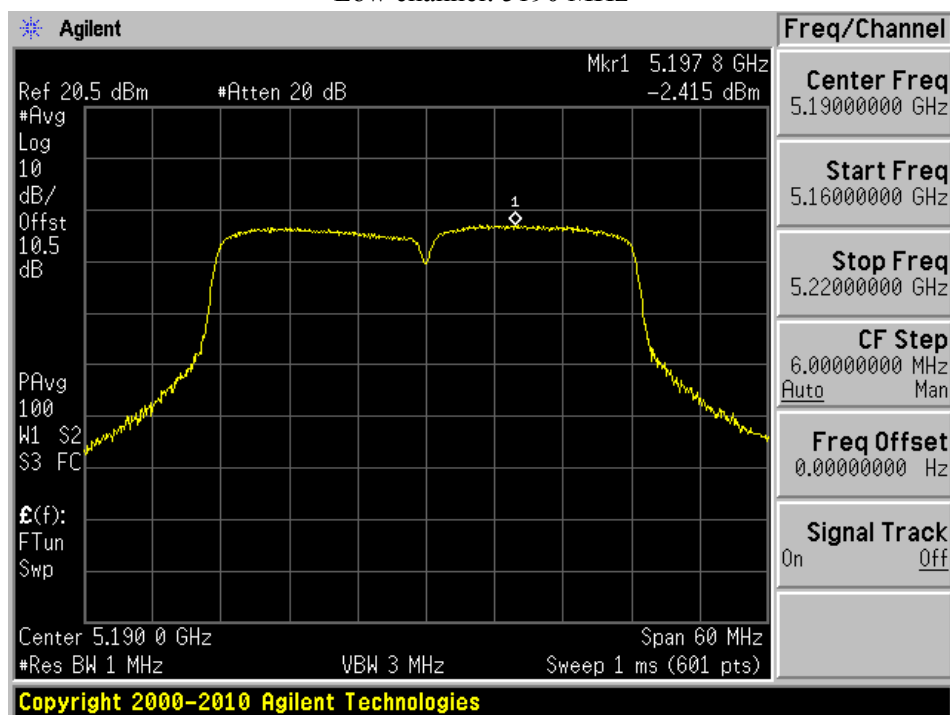
Freq Offset 0.00000000 Hz

Signal Track On Off

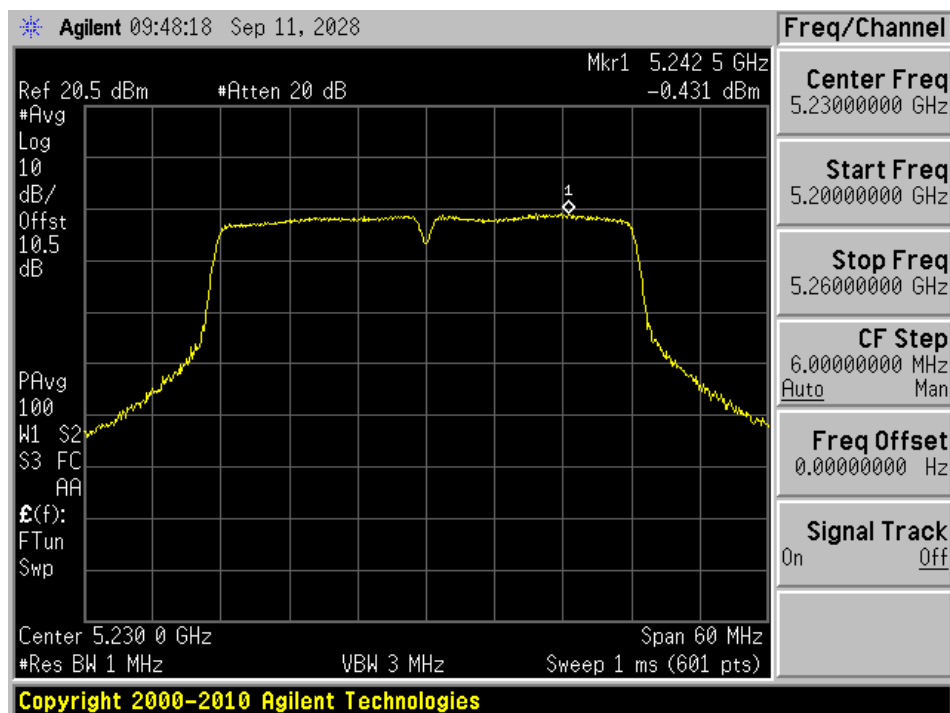
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802.11n HT40 mode

Low channel: 5190 MHz



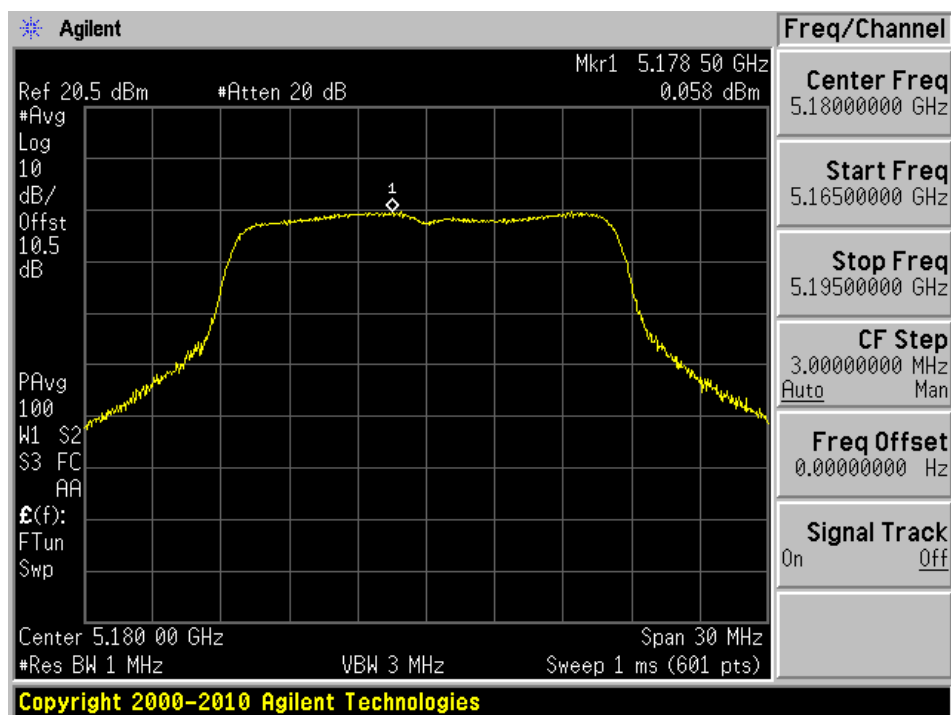
High channel: 5230 MHz



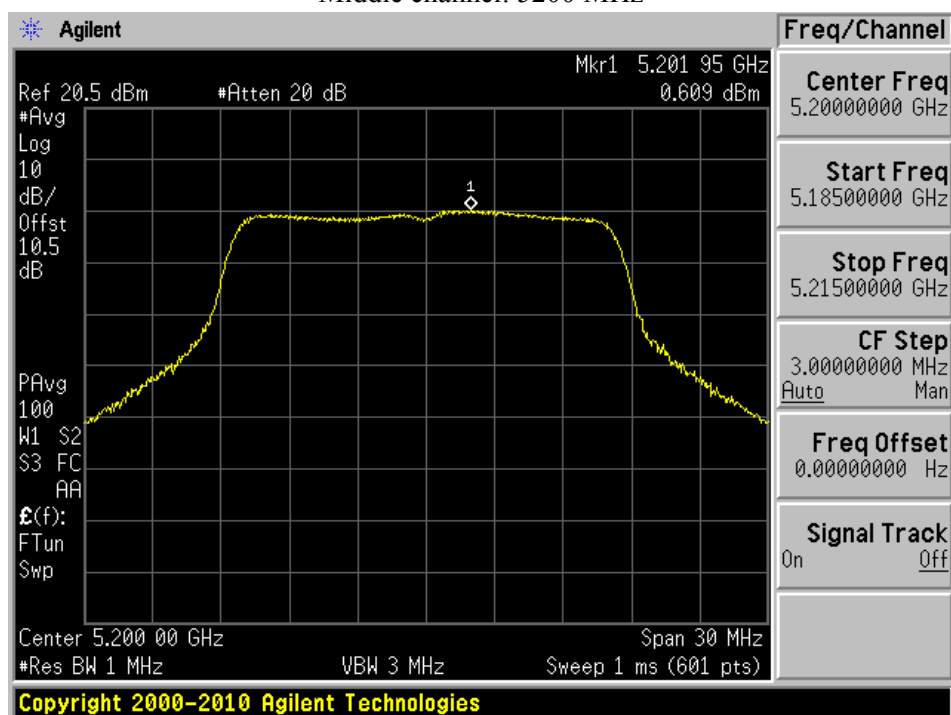
5.2 GHz Band

**802.11a mode
12dBi Antenna Chain 1**

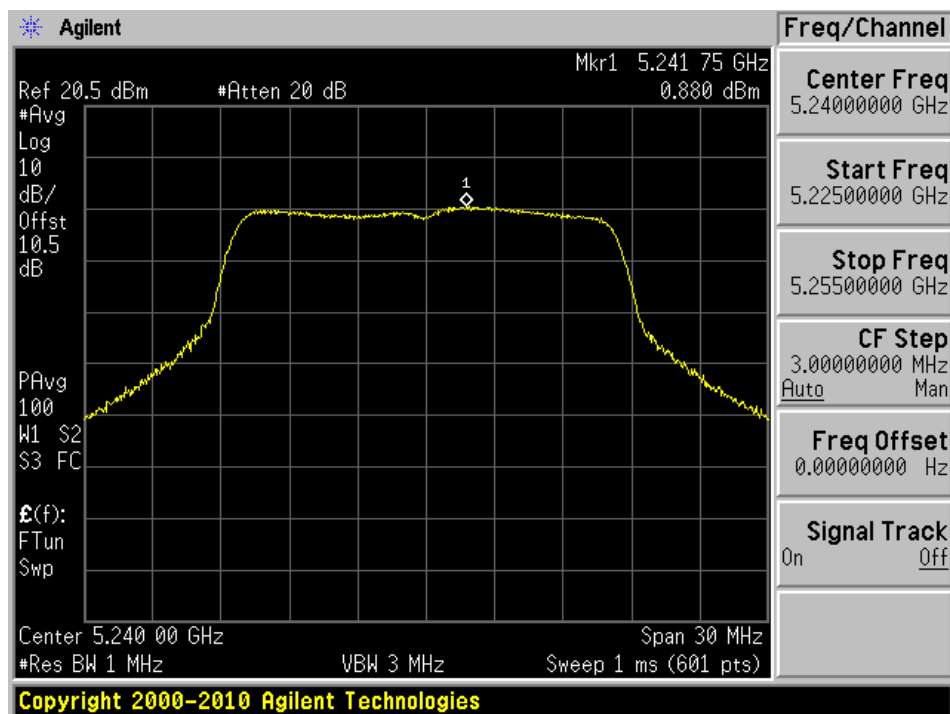
Low channel: 5180 MHz



Middle channel: 5200 MHz

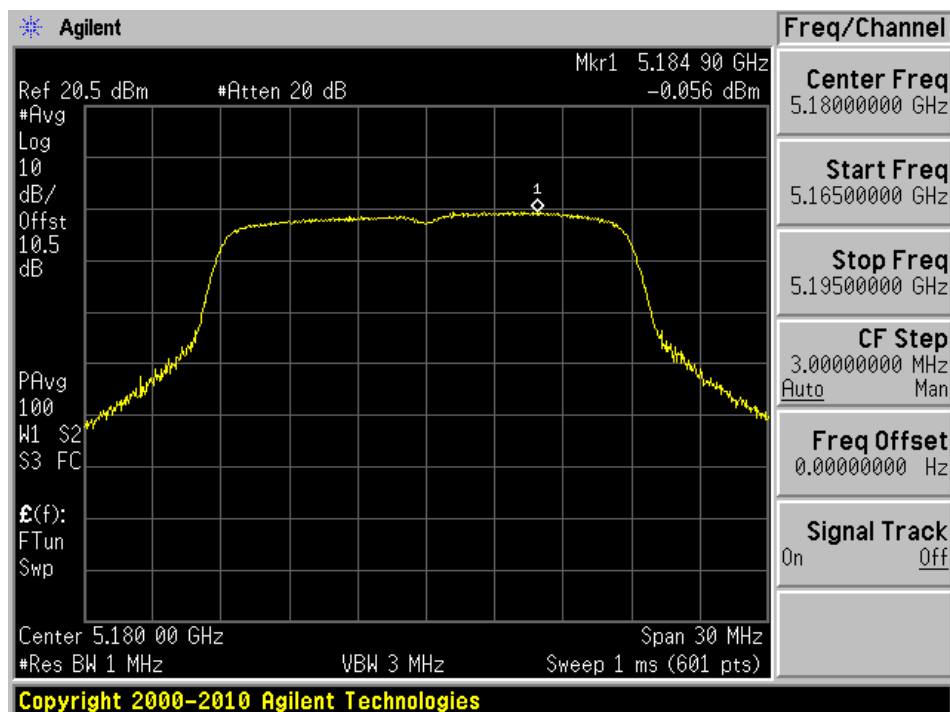


High channel: 5240 MHz

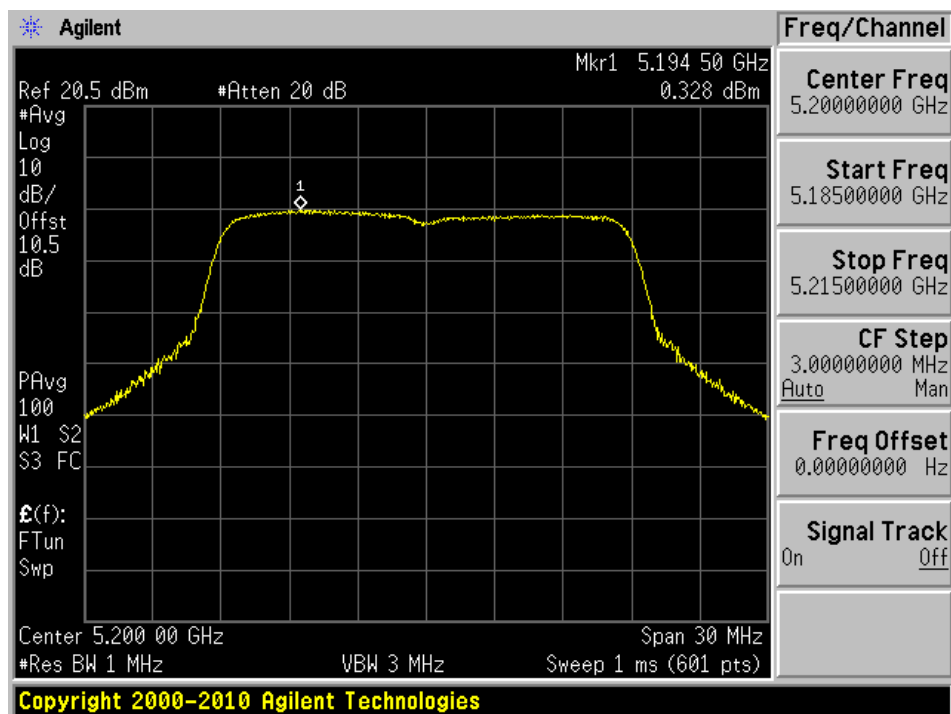


802.11 HT20 mode

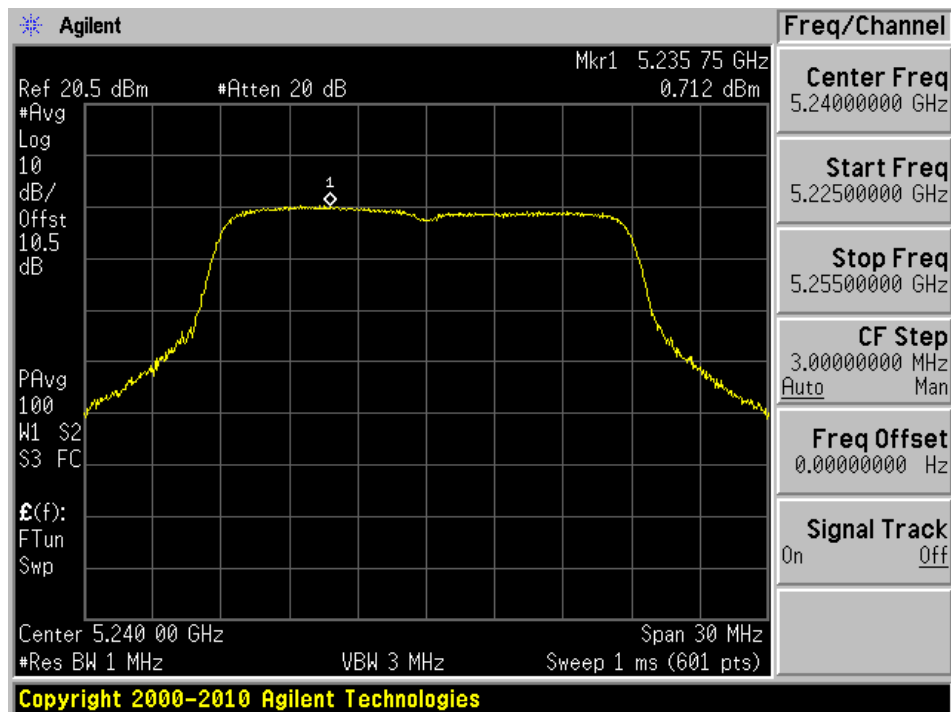
Low channel: 5180 MHz



Middle channel: 5200 MHz

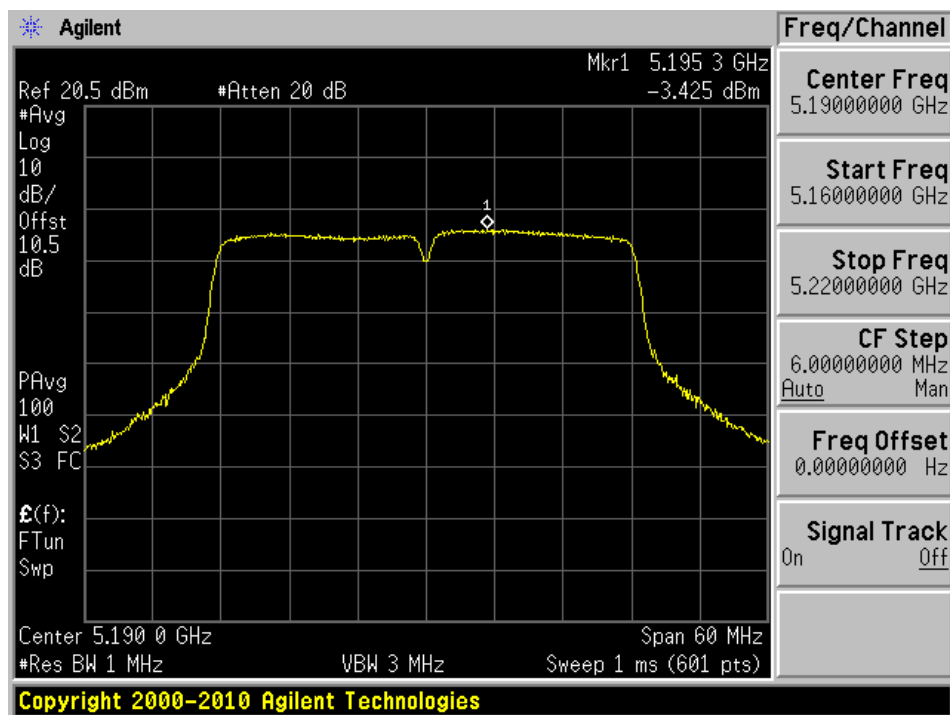


High channel: 5240 MHz

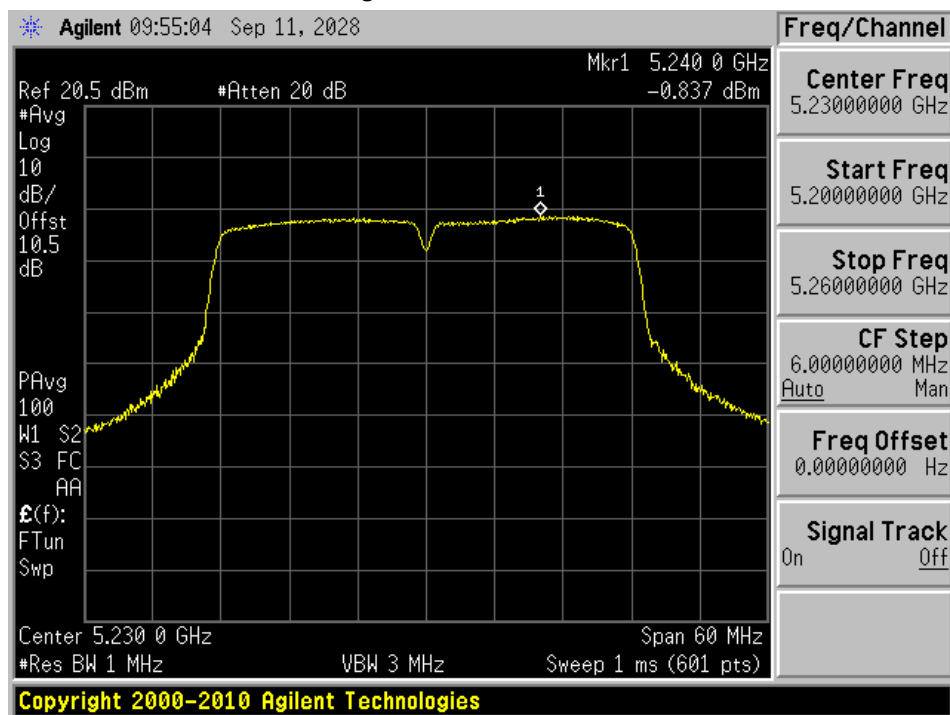


802.11n HT40 mode

Low channel: 5190 MHz

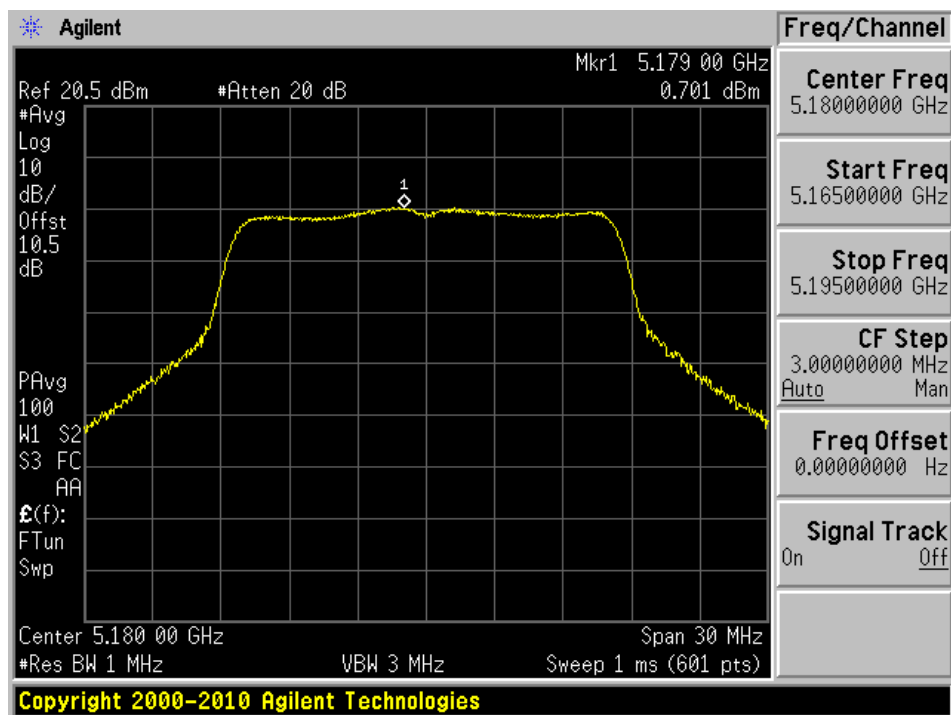


High channel: 5230 MHz

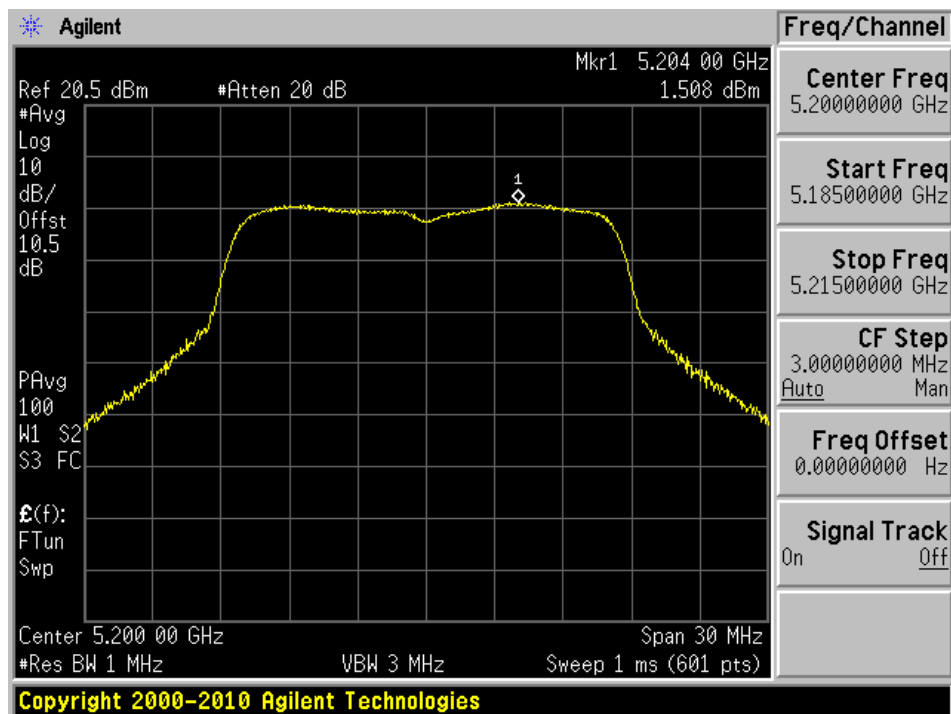


5.2 GHz Band
802.11a mode
12dBi Antenna Chain 2

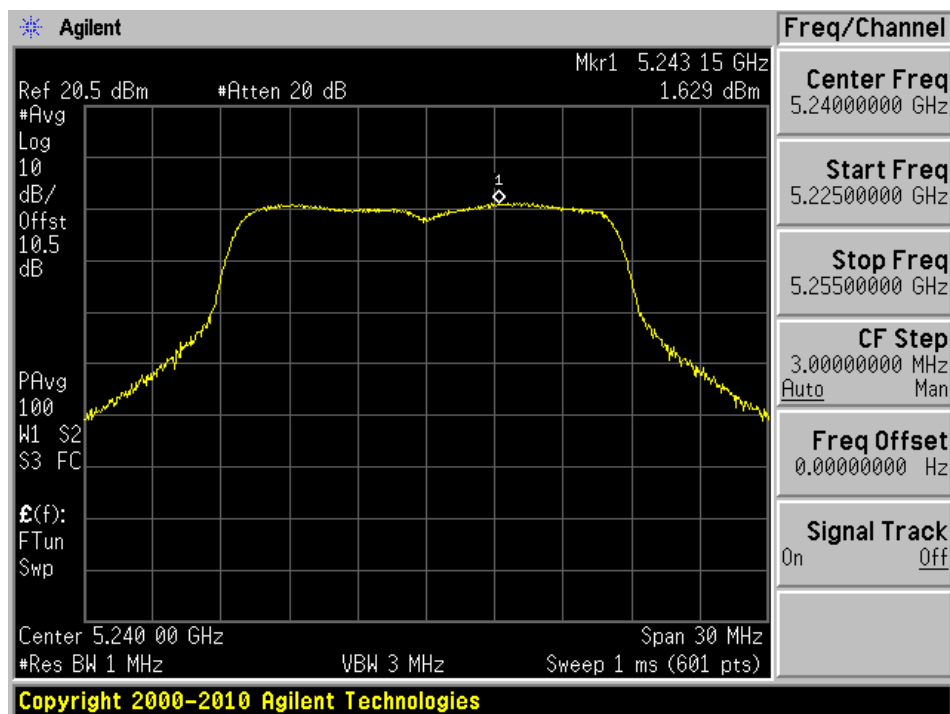
Low channel: 5180 MHz



Middle channel: 5200 MHz

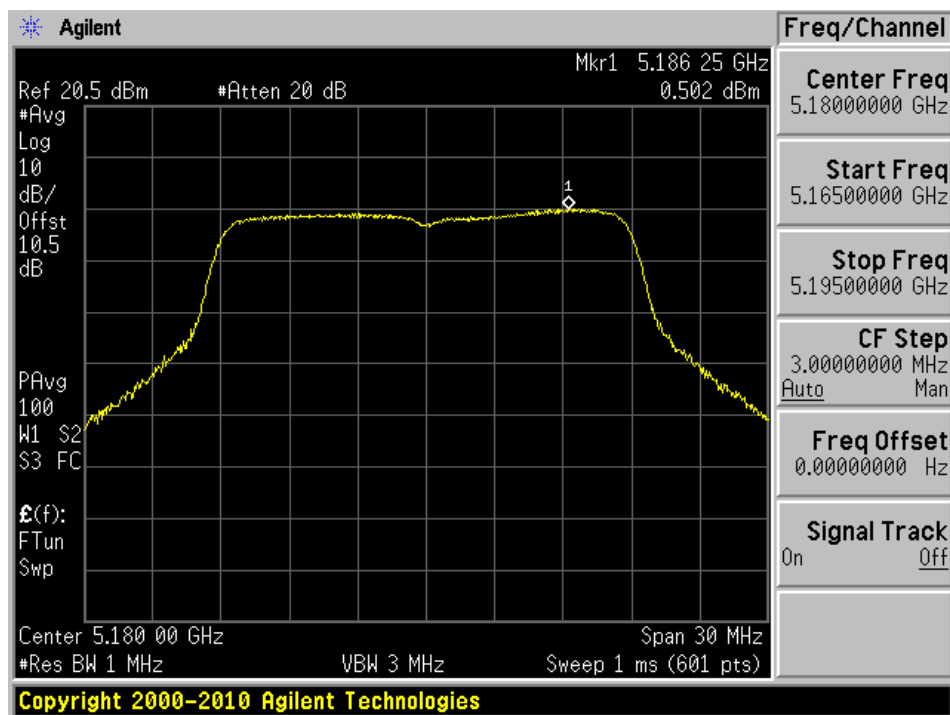


High channel: 5240 MHz

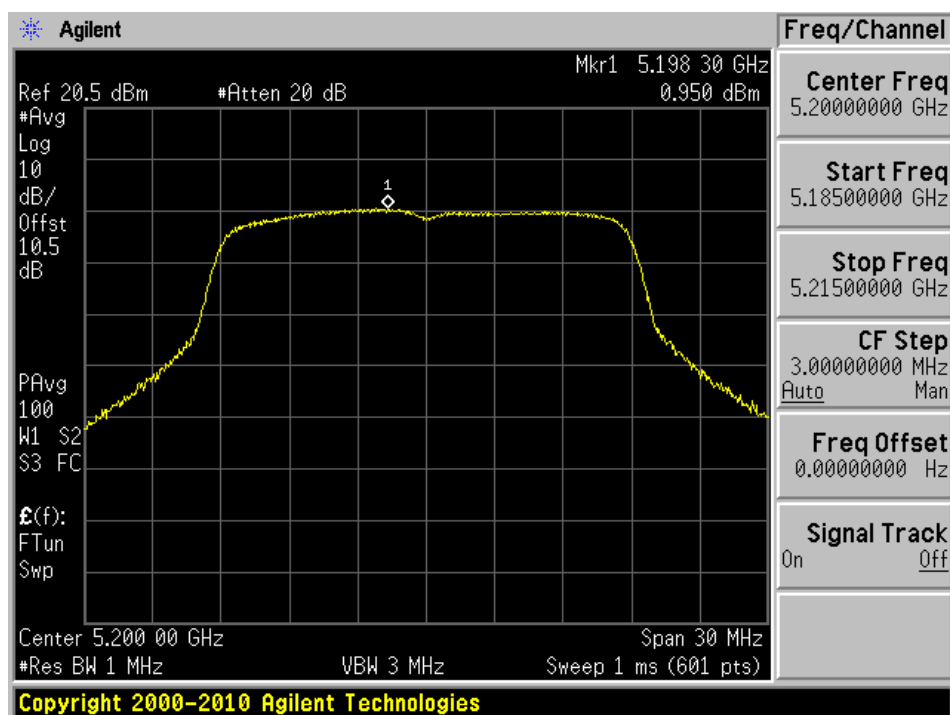


802.11 HT20 mode

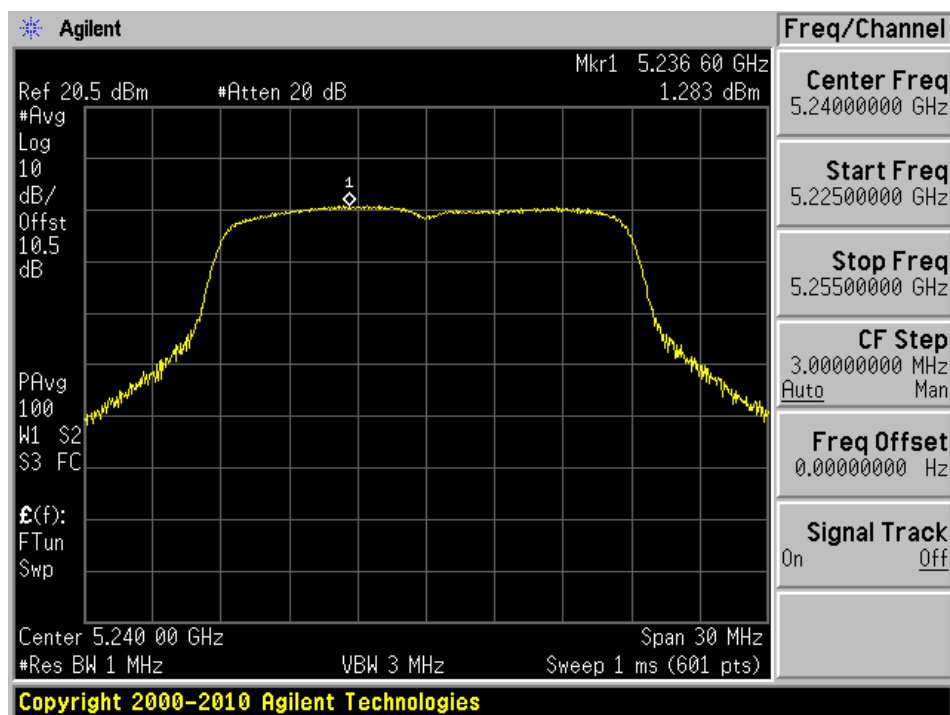
Low channel: 5180



Middle channel: 5200 MHz

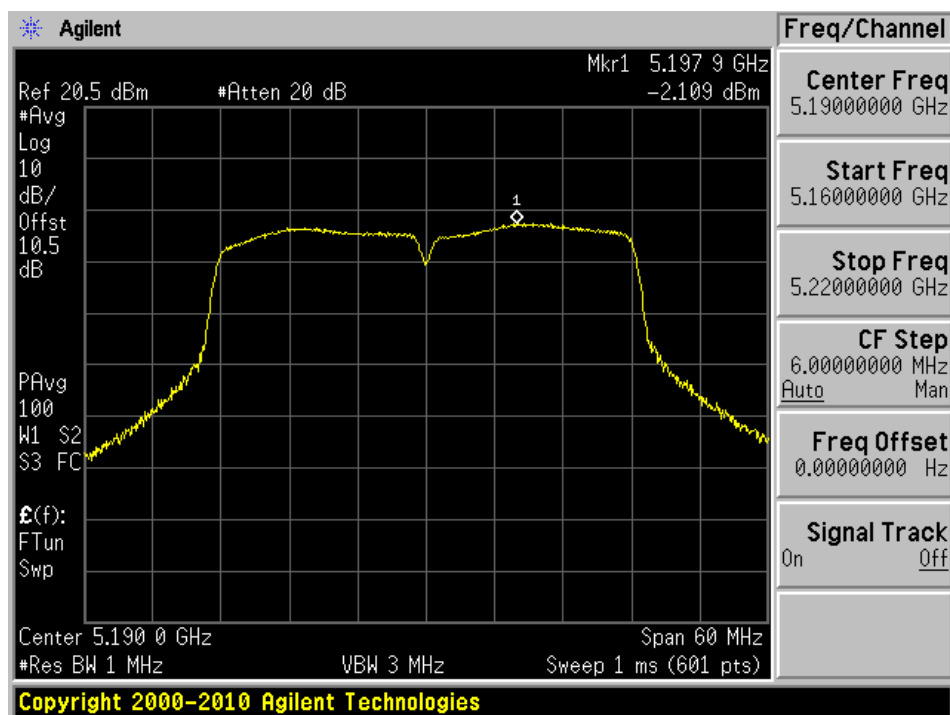


High channel: 5240 MHz

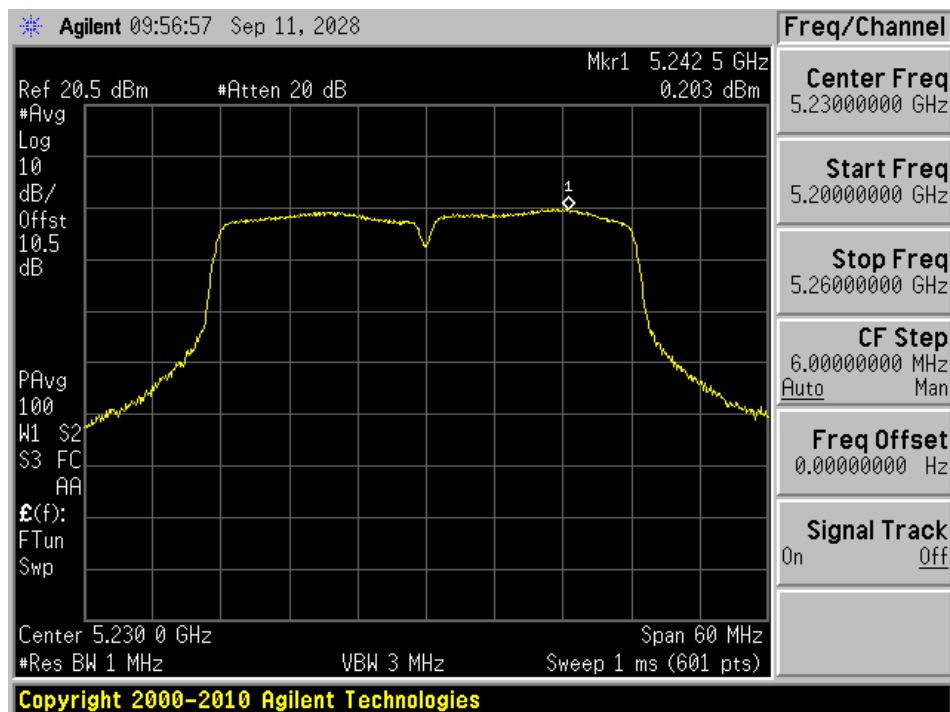


802.11n HT40 mode

Low channel: 5190 MHz



High channel: 5230 MHz



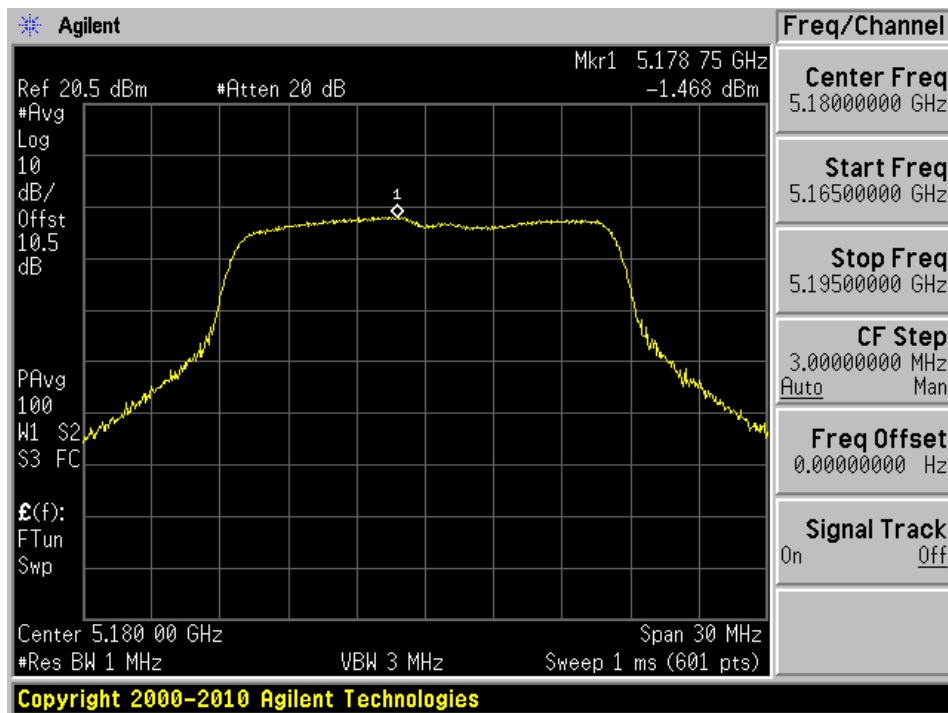
5.2 GHz Band, 15 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/MHz)	Conducted PSD Chain1 (dBm/MHz)	Conducted PSD Chain2 (dBm/MHz)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
802.11 a mode							
Low	5180	-1.468	-2.531	-0.866	3.20	8	-4.80
Middle	5200	-1.242	-2.093	-0.733	3.45	8	-4.55
High	5240	-0.890	-1.415	-1.135	3.63	8	-4.37
802.11n HT20 mode							
Low	5180	-1.658	-2.635	-1.406	2.90	8	-5.10
Middle	5200	-1.383	-2.259	-1.829	2.96	8	-5.04
High	5240	-2.006	-2.225	-1.112	3.02	8	-4.98
802.11n HT40 mode							
Low	5190	-4.885	-5.623	-3.790	0.07	8	-7.93
High	5230	-3.288	-4.409	-3.101	1.21	8	-6.79

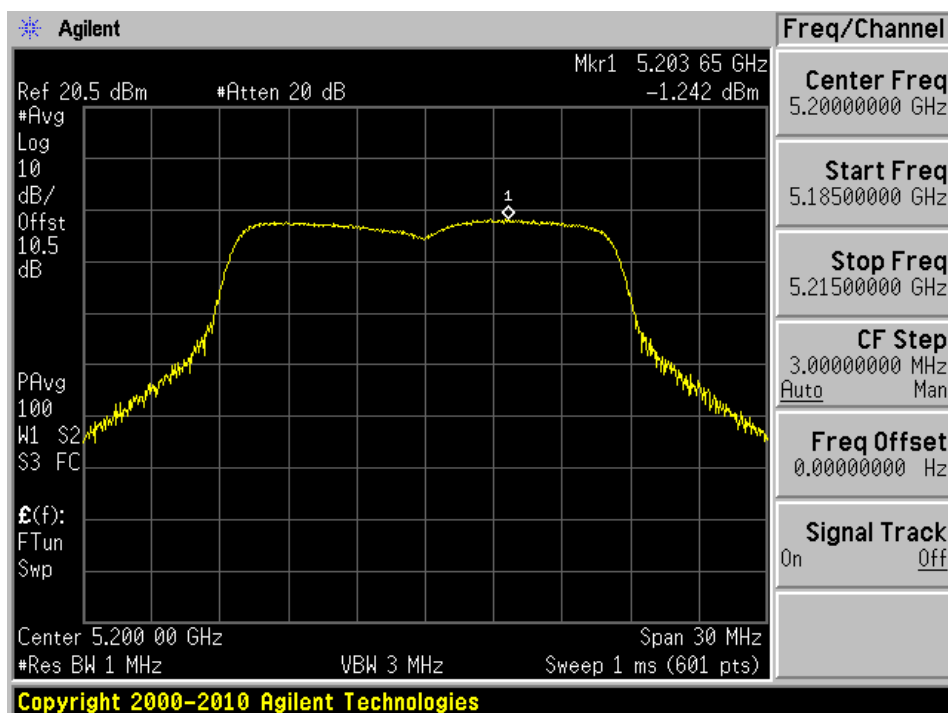
Note: Antenna Gain exceed 6dBi, therefore the limit should be $17-(15-6)=8\text{dBm}$

**5.2 GHz Band
802.11a mode
15dBi Antenna Chain 0**

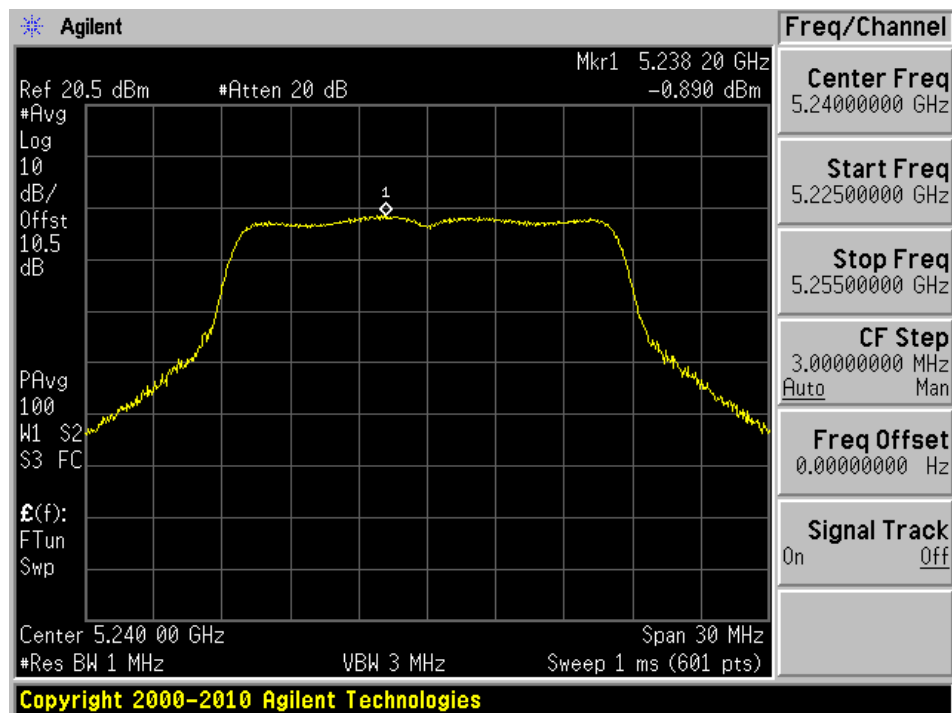
Low channel: 5180 MHz



Middle channel: 5200 MHz

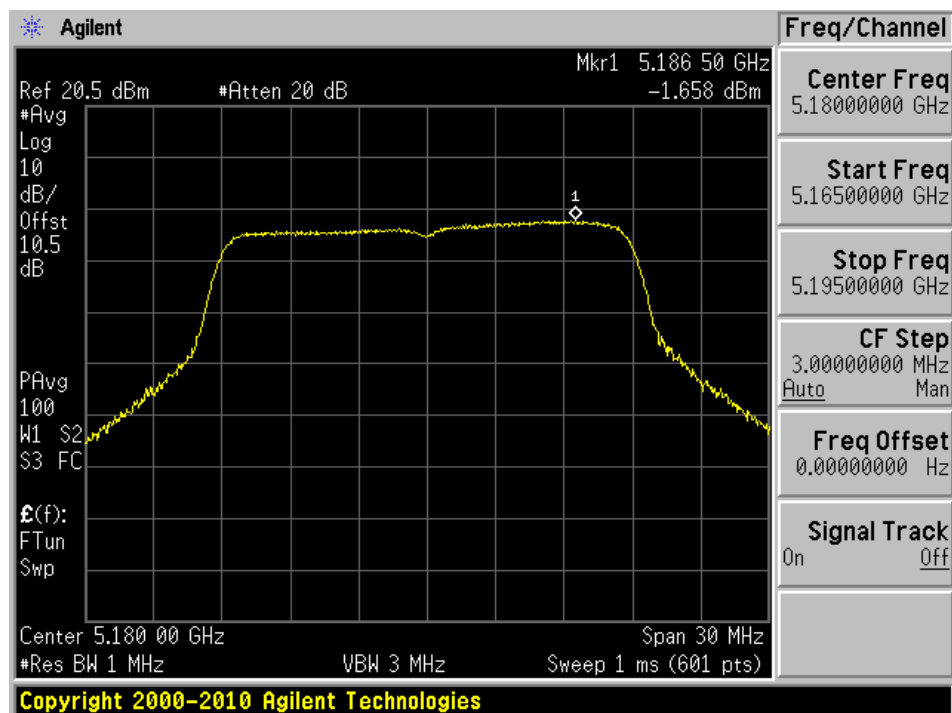


High channel: 5240 MHz

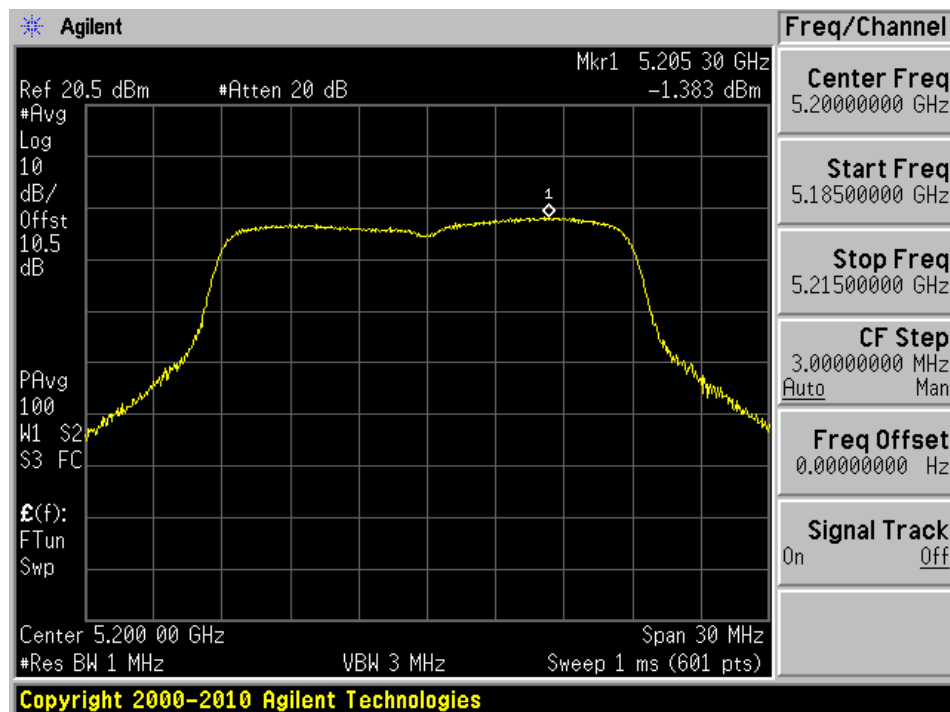


802.11 HT20 mode

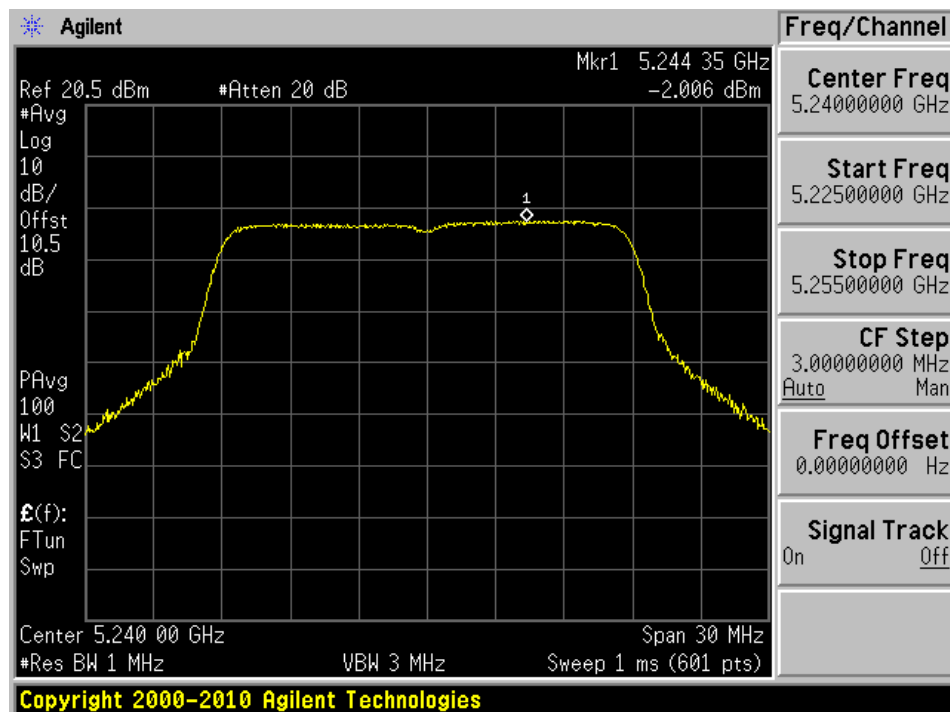
Low channel: 5180



Middle channel: 5200 MHz

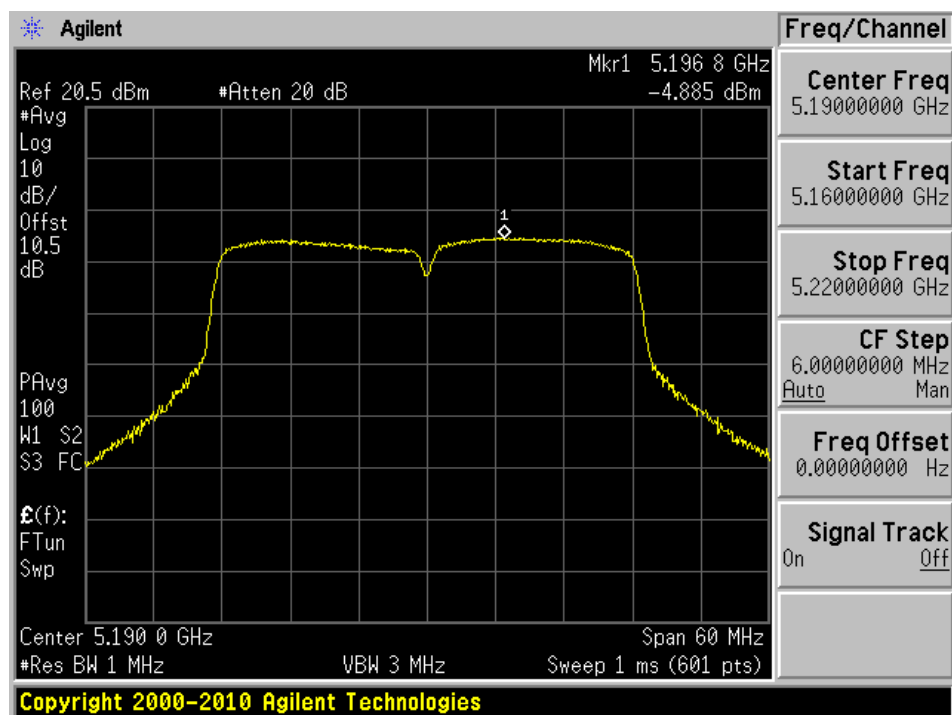


High channel: 5240 MHz

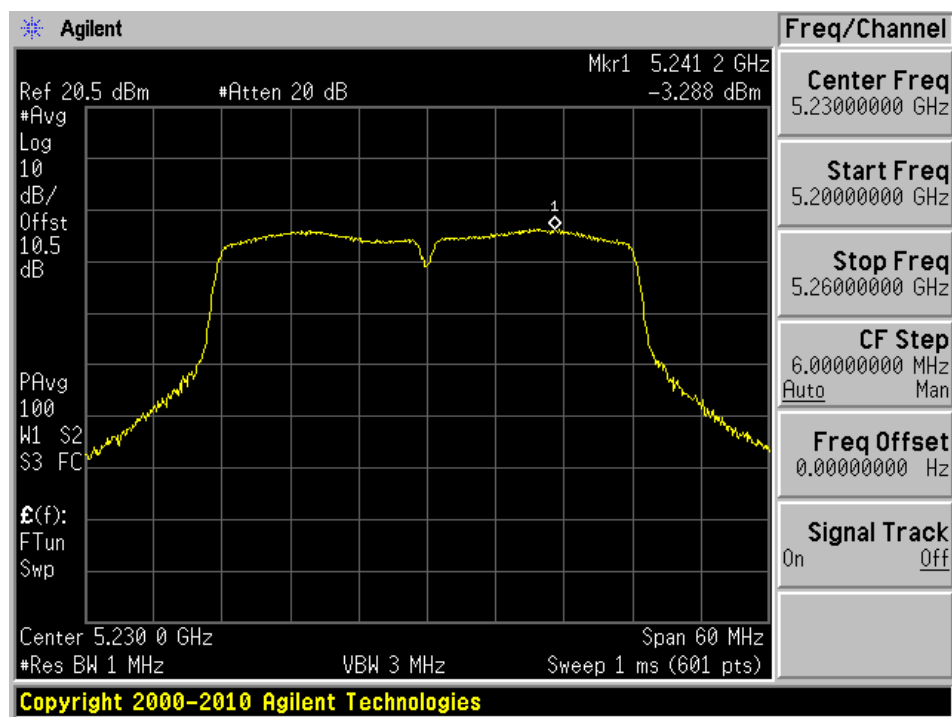


802.11n HT40 mode

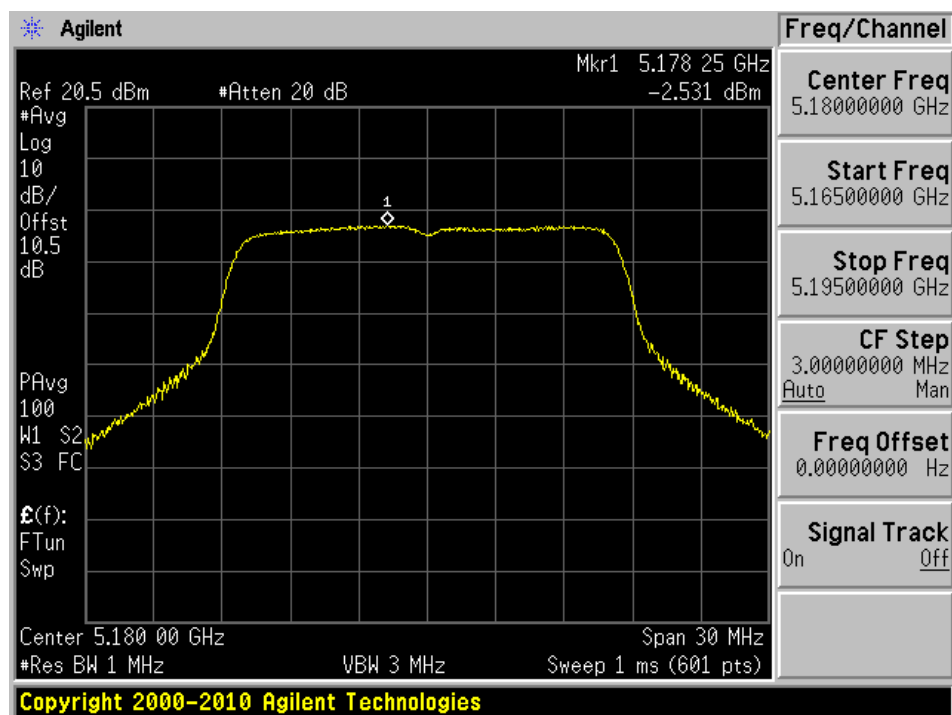
Low channel: 5190 MHz



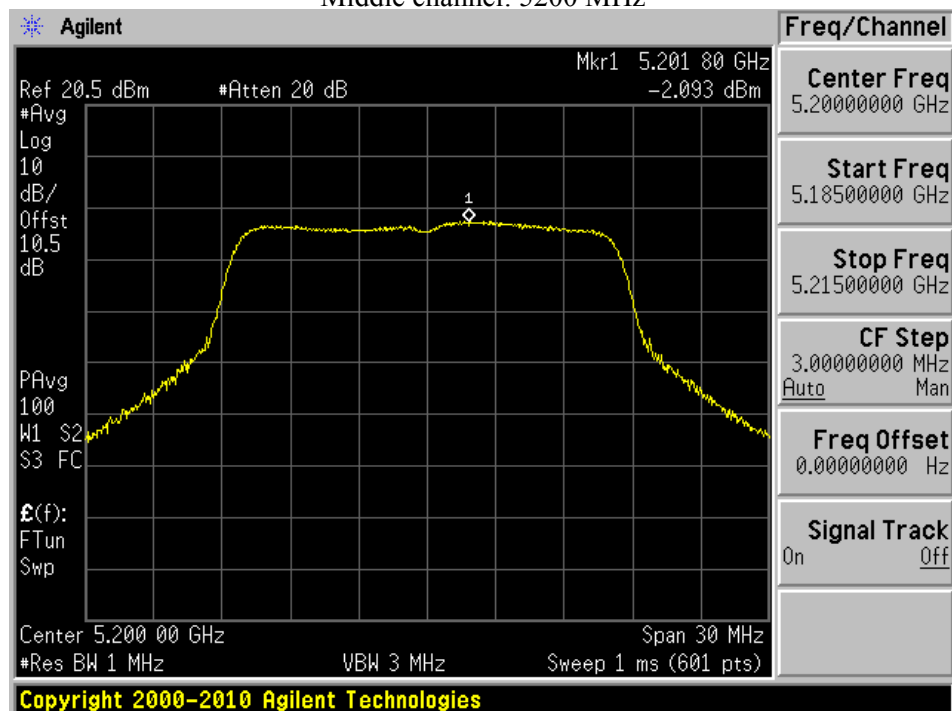
High channel: 5230 MHz



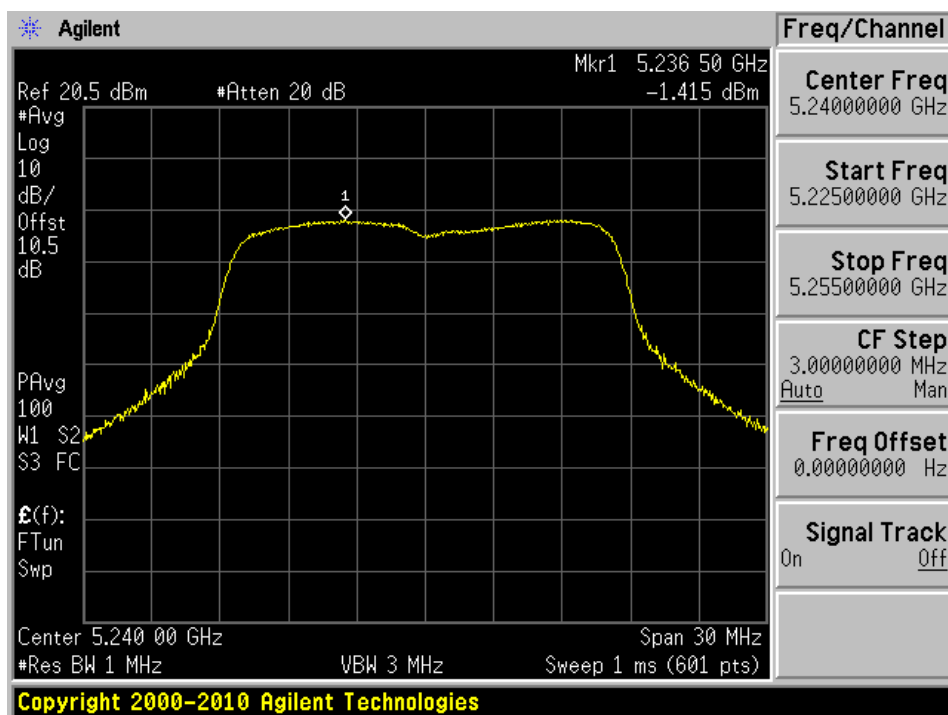
5.2 GHz Band
802.11a mode
15dBi Antenna Chain 1
Low channel: 5180 MHz



Middle channel: 5200 MHz

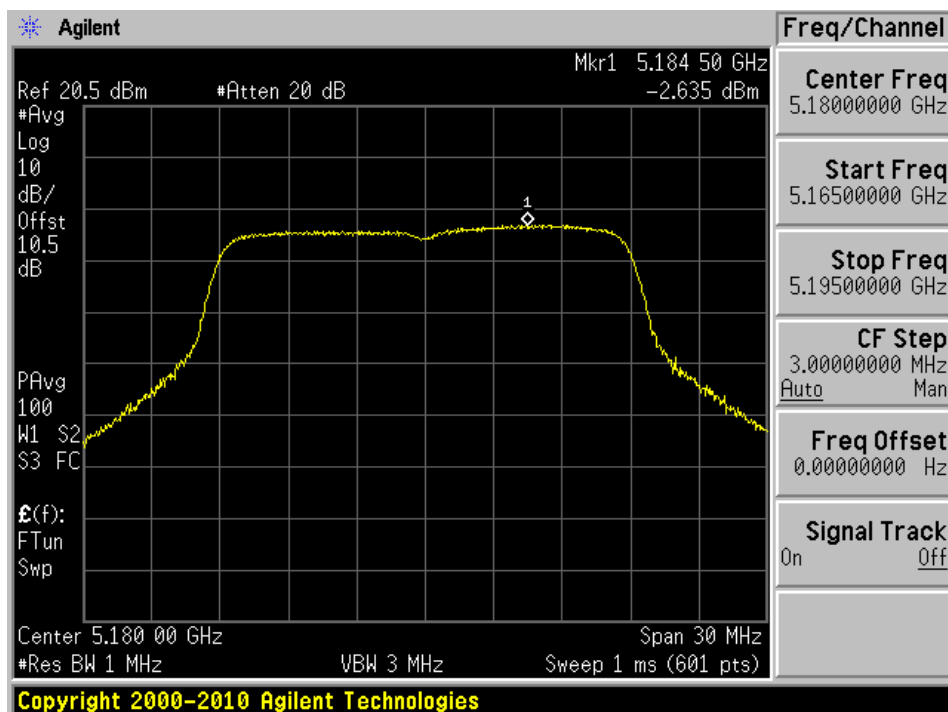


High channel: 5240 MHz

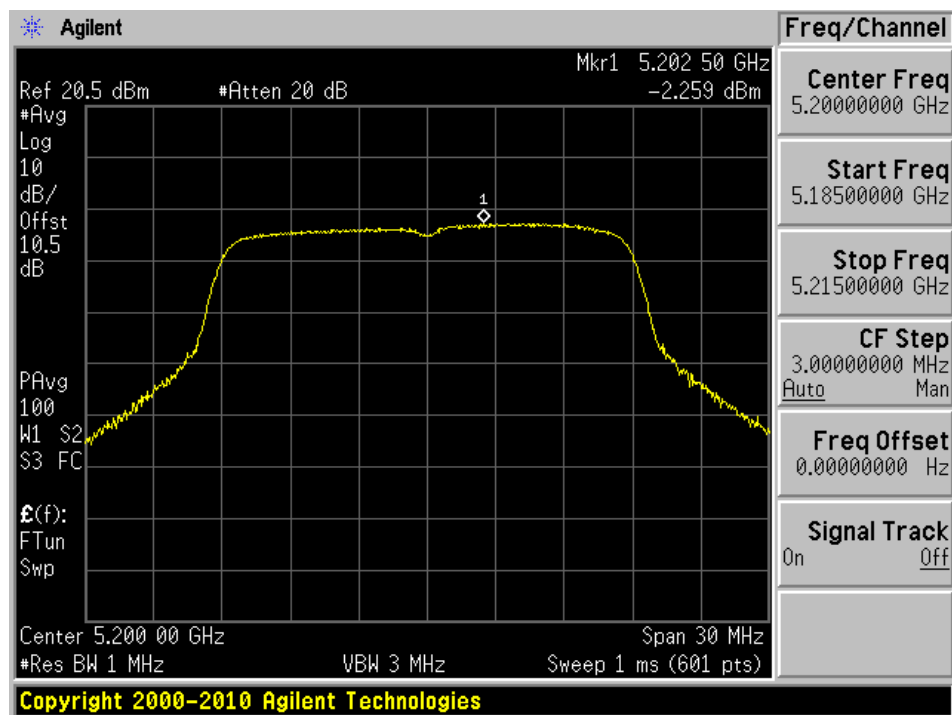


802.11 HT20 mode

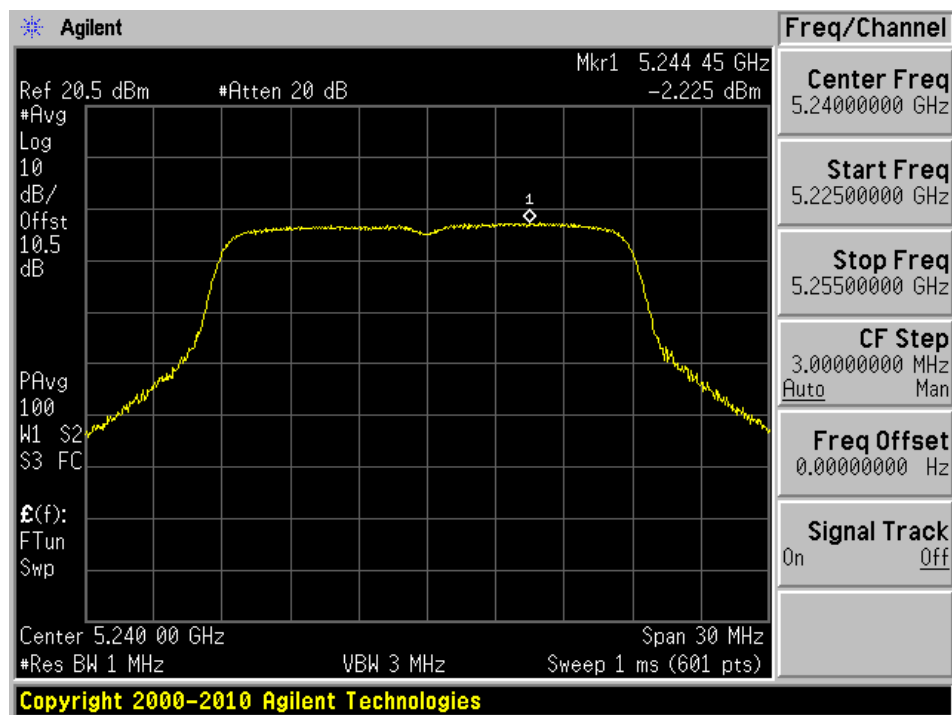
Low channel: 5180



Middle channel: 5200 MHz

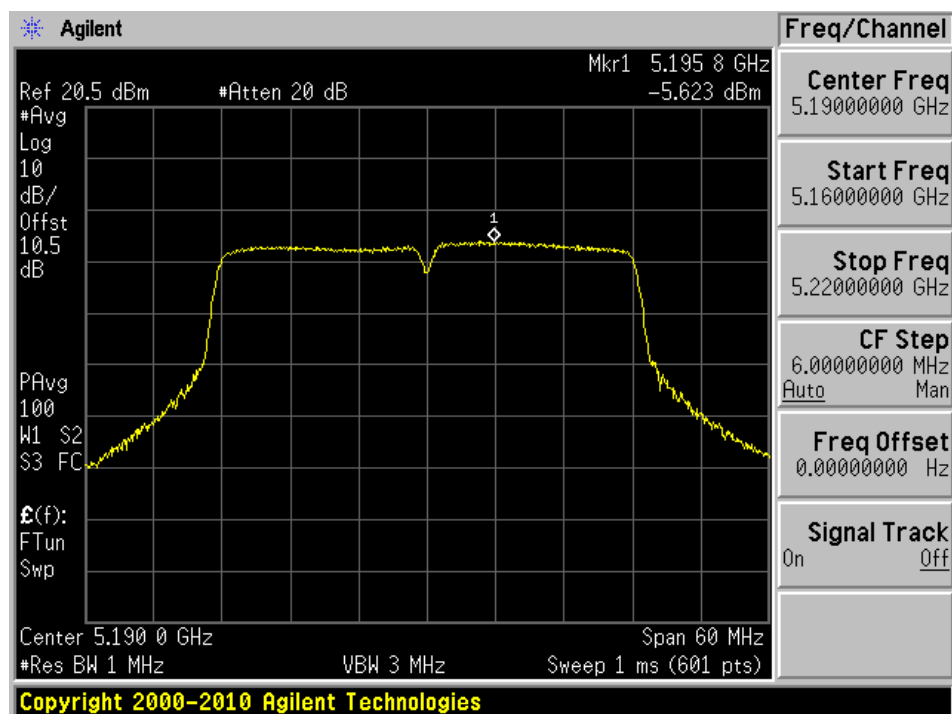


High channel: 5240 MHz

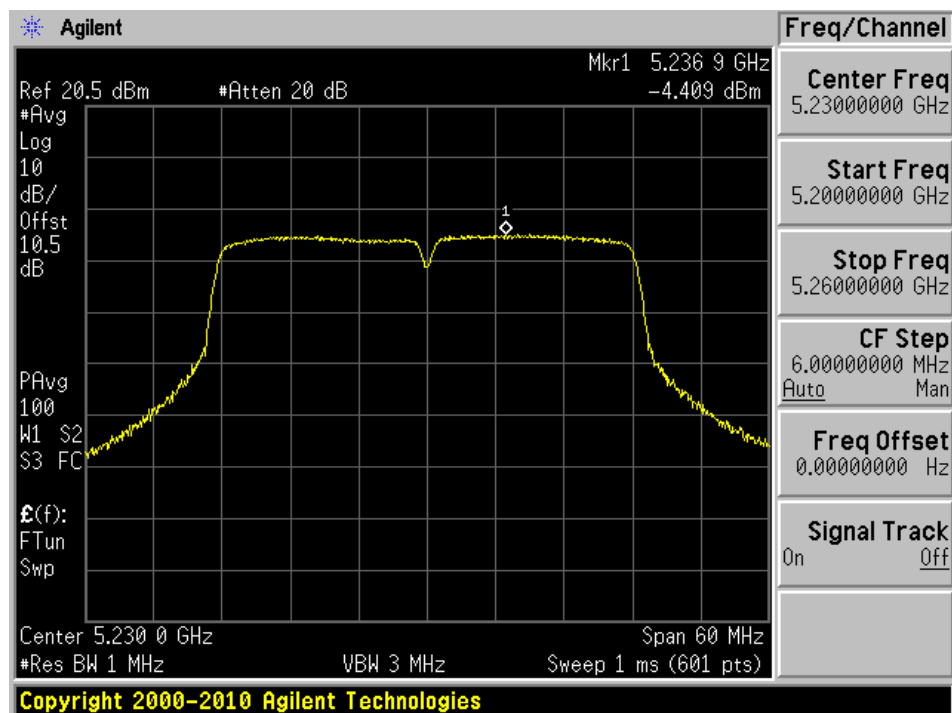


802.11n HT40 mode

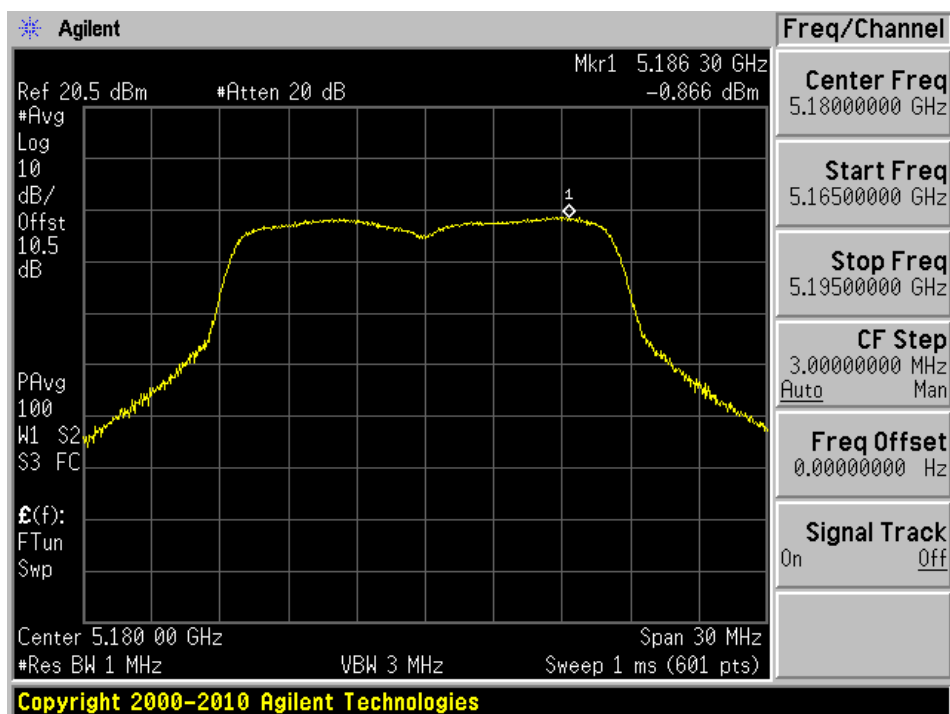
Low channel: 5190 MHz



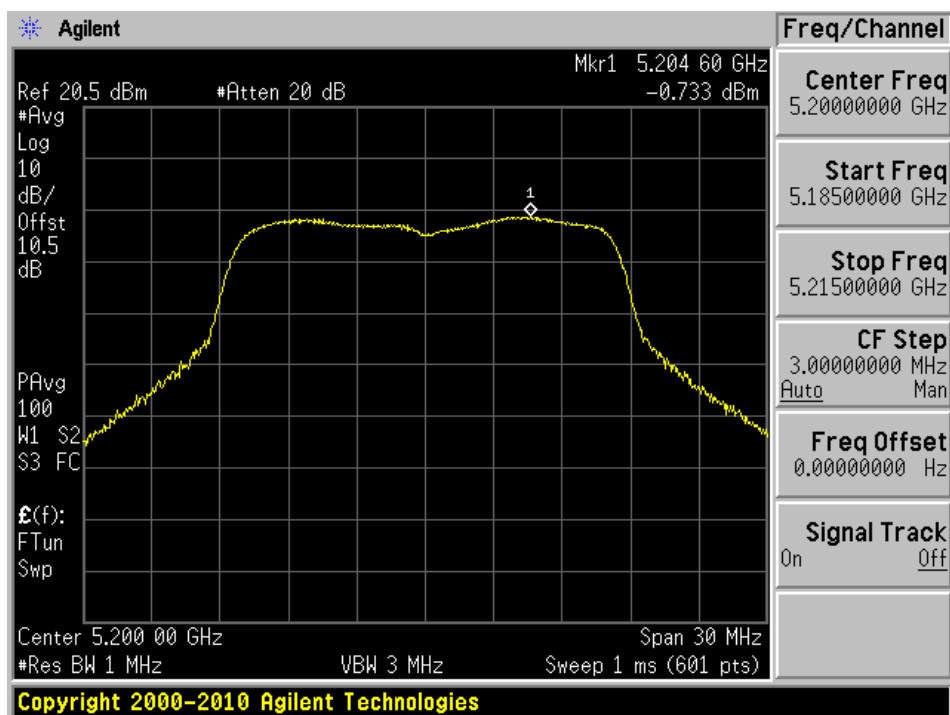
High channel: 5230 MHz



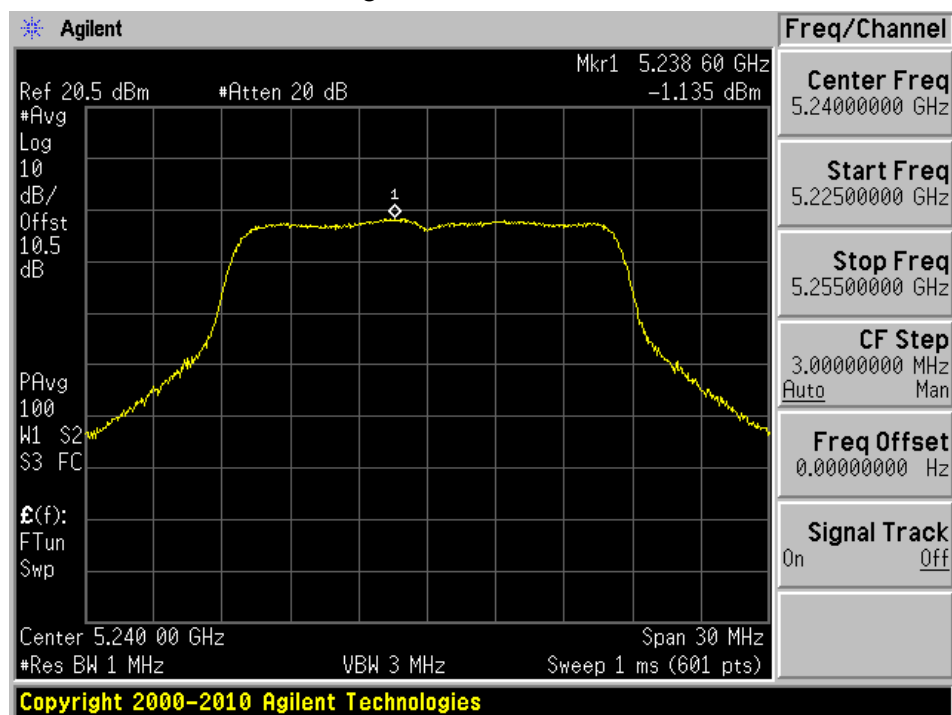
5.2 GHz Band
802.11a mode
15dBi Antenna Chain 2
Low channel: 5180 MHz



Middle channel: 5200 MHz

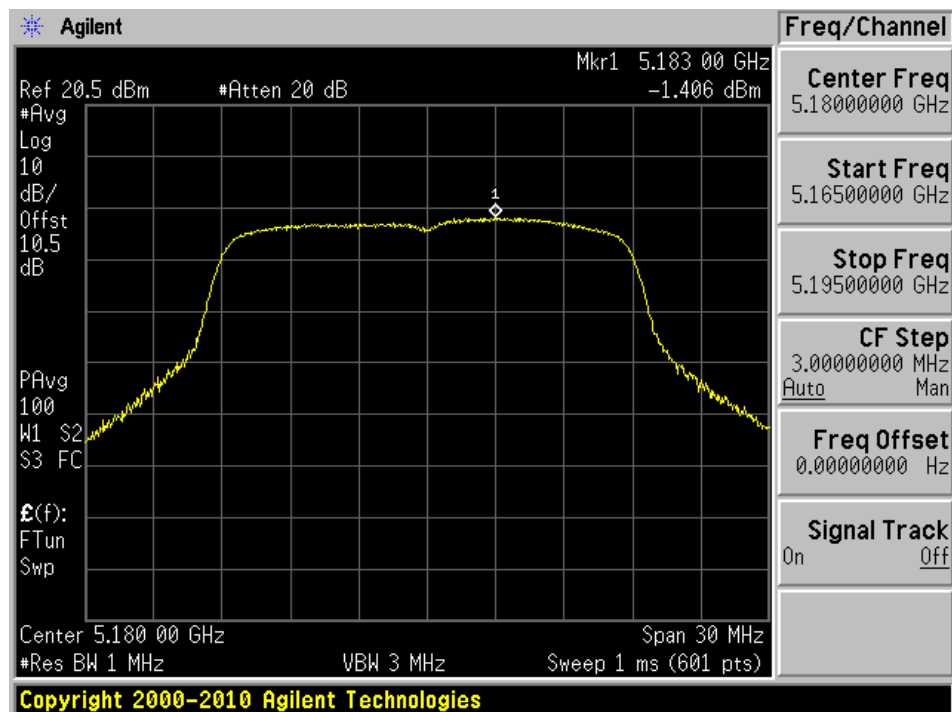


High channel: 5240 MHz

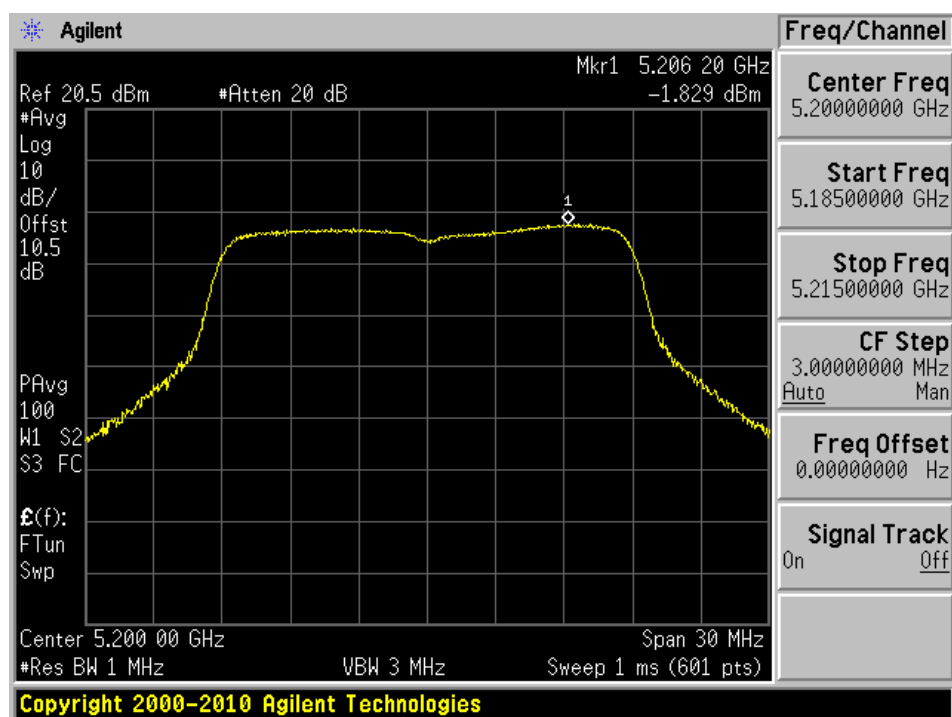


802.11 HT20 mode

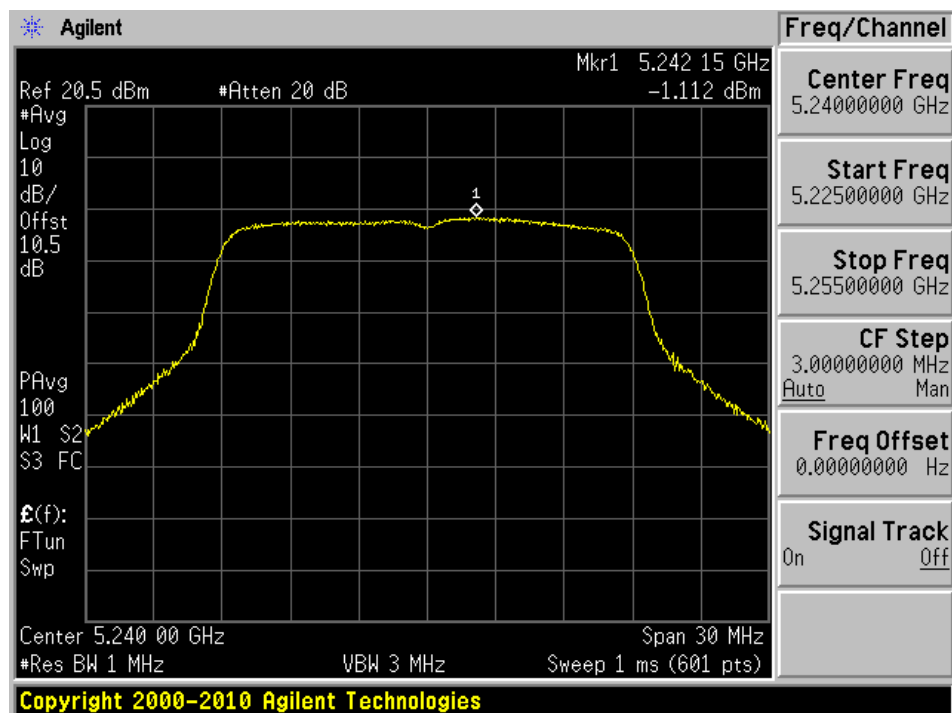
Low channel: 5180 MHz



Middle channel: 5200 MHz

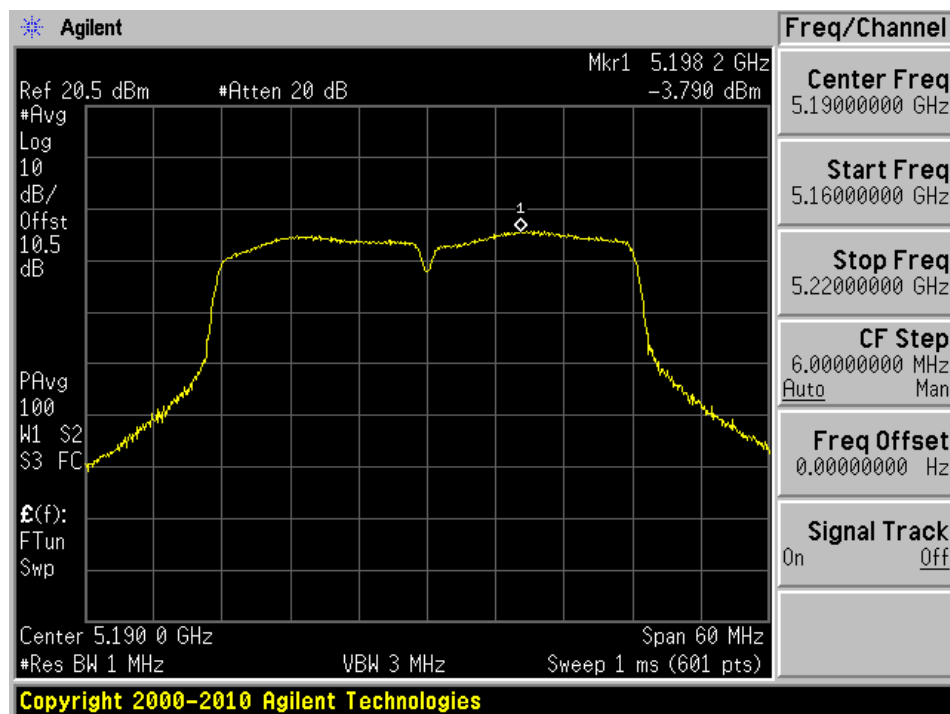


High channel: 5240 MHz

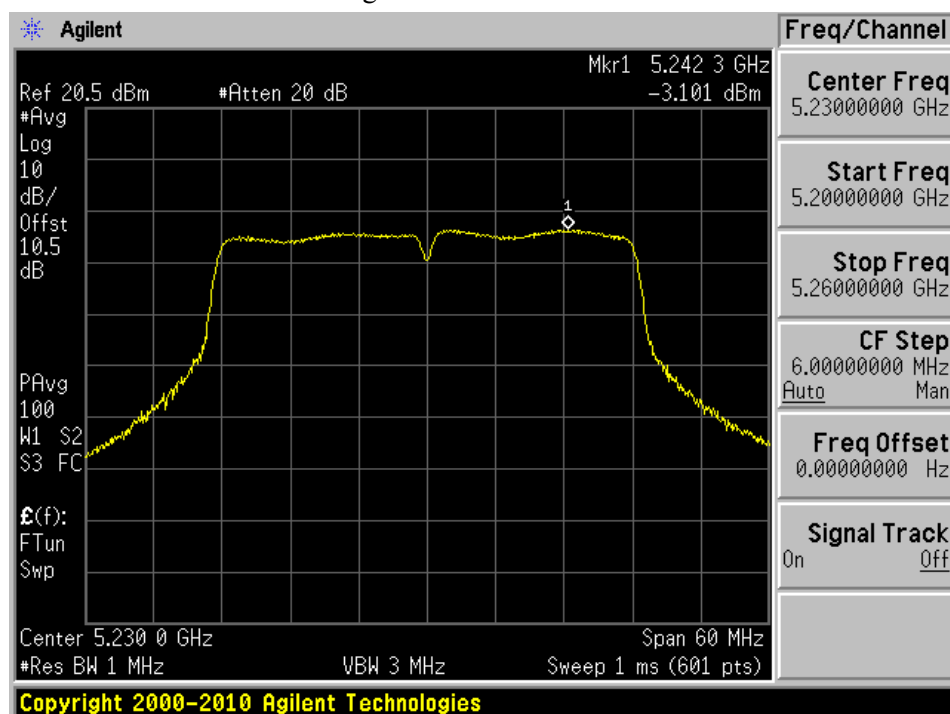


802.11n HT40 mode

Low channel: 5190 MHz



High channel: 5230 MHz

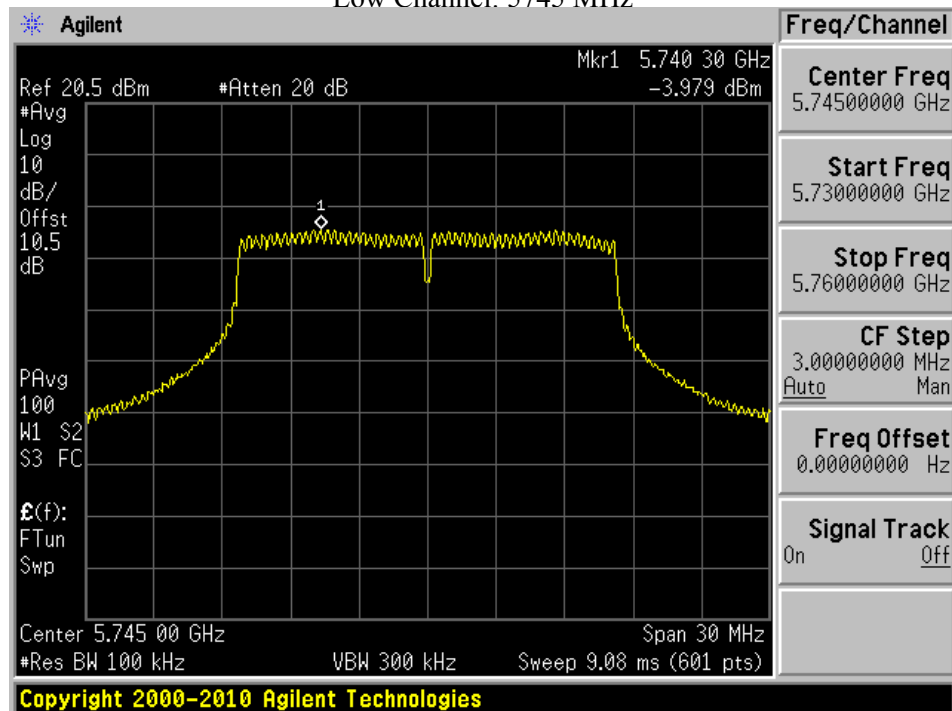


5.8 GHz Band, 3 dBi Antenna

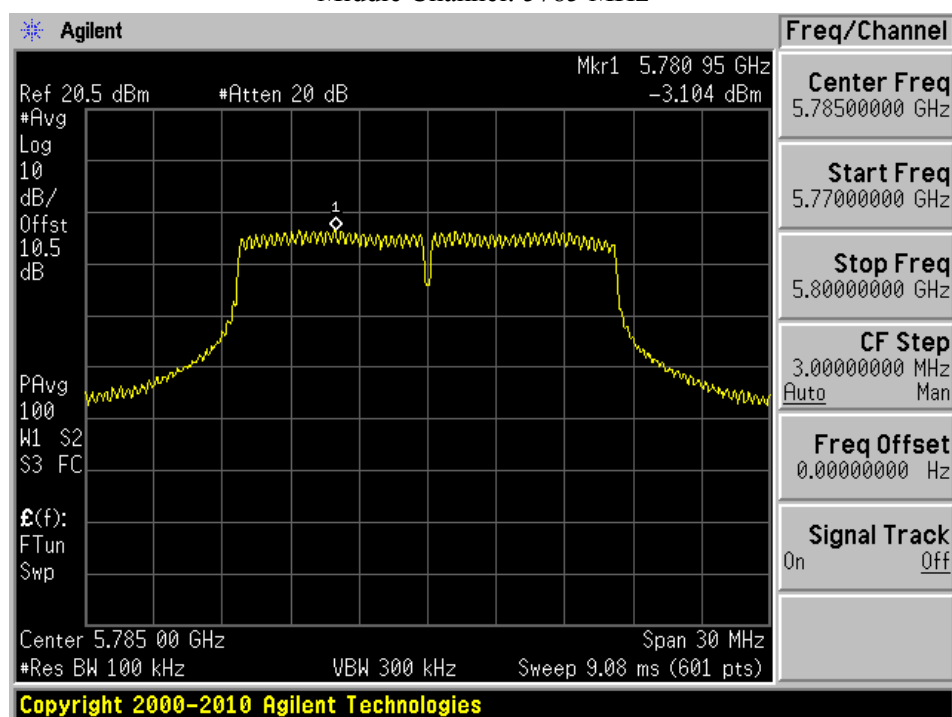
Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/100kHz)	Conducted PSD Chain1 (dBm/100kHz)	Conducted PSD Chain2 (dBm/100kHz)	Total PSD (dBm/100kHz)	RBW factor (dB)	Limit (dBm/500k Hz)	Margin (dB)
802.11 a mode								
Low	5745	-3.979	-4.957	-2.962	0.88	6.99	30	-22.13
Middle	5785	-3.104	-3.977	-2.539	1.60	6.99	30	-21.41
High	5825	-3.988	-4.939	-3.696	0.60	6.99	30	-22.41
802.11n HT20 mode								
Low	5745	-4.669	-4.746	-3.905	0.35	6.99	30	-22.66
Middle	5785	-2.792	-4.117	-2.883	1.55	6.99	30	-21.46
High	5825	-3.793	-5.560	-3.509	0.57	6.99	30	-22.44
802.11n HT40 mode								
Low	5755	-10.725	-11.388	-9.638	-5.75	6.99	30	-28.76
High	5795	-6.521	-8.164	-6.457	-2.21	6.99	30	-25.22

**5.8 GHz Band
802.11a
3dBi Antenna Chain 0**

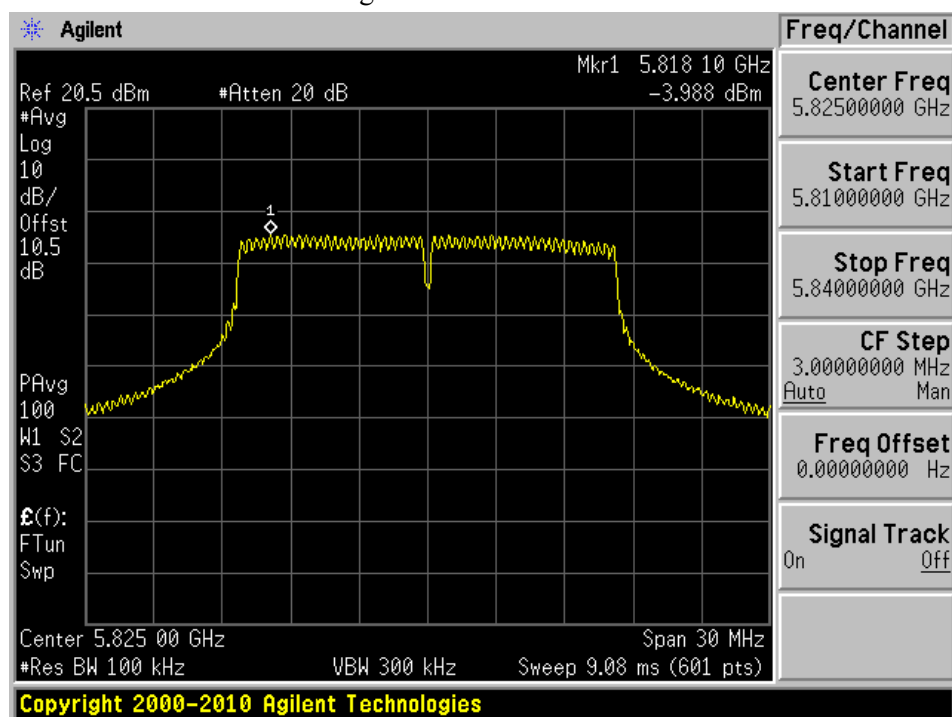
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

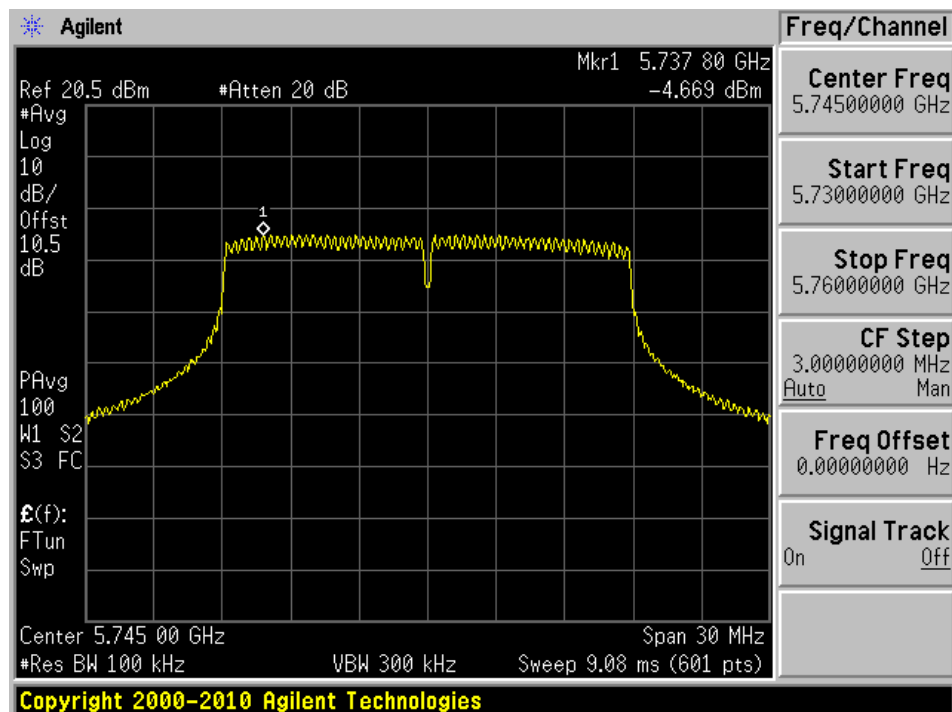


High Channel: 5825 MHz

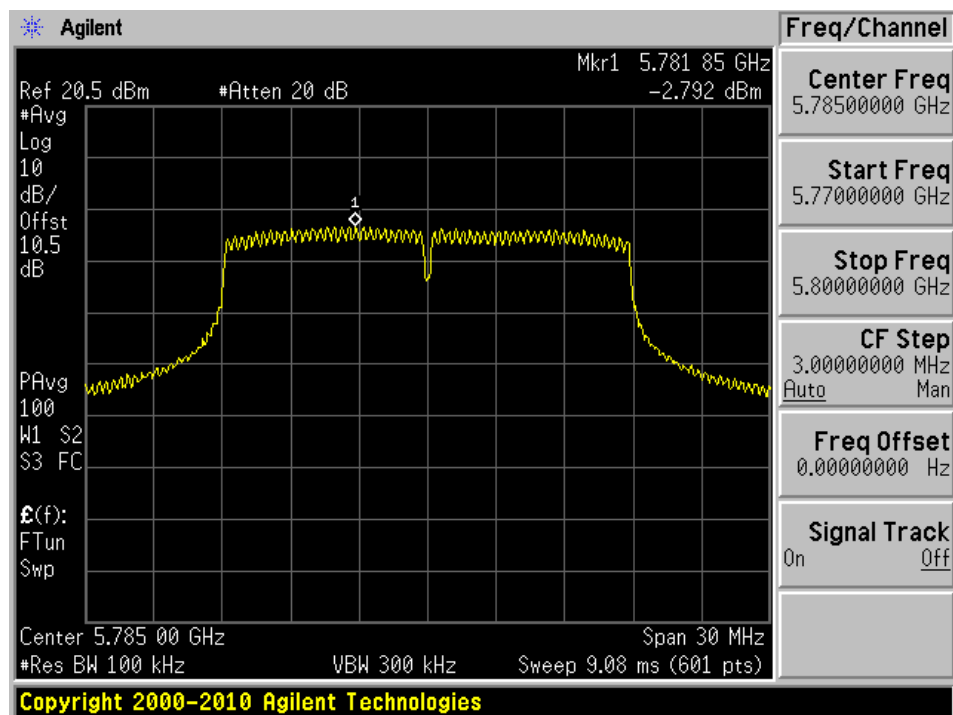


5.8 GHz Band
802.11n20
3dBi Antenna Chain 0

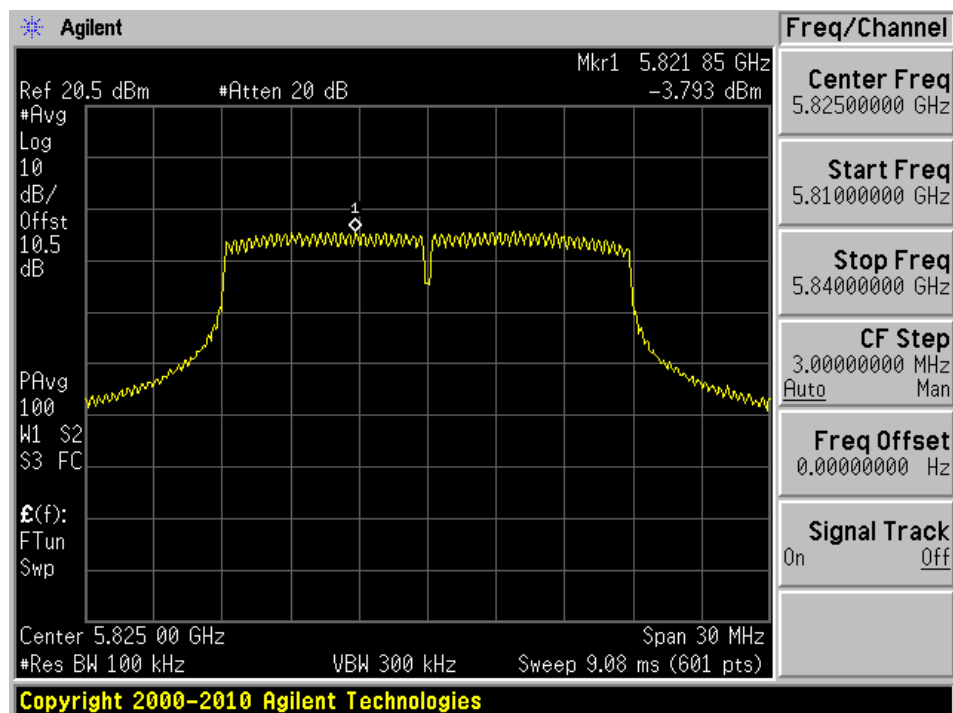
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

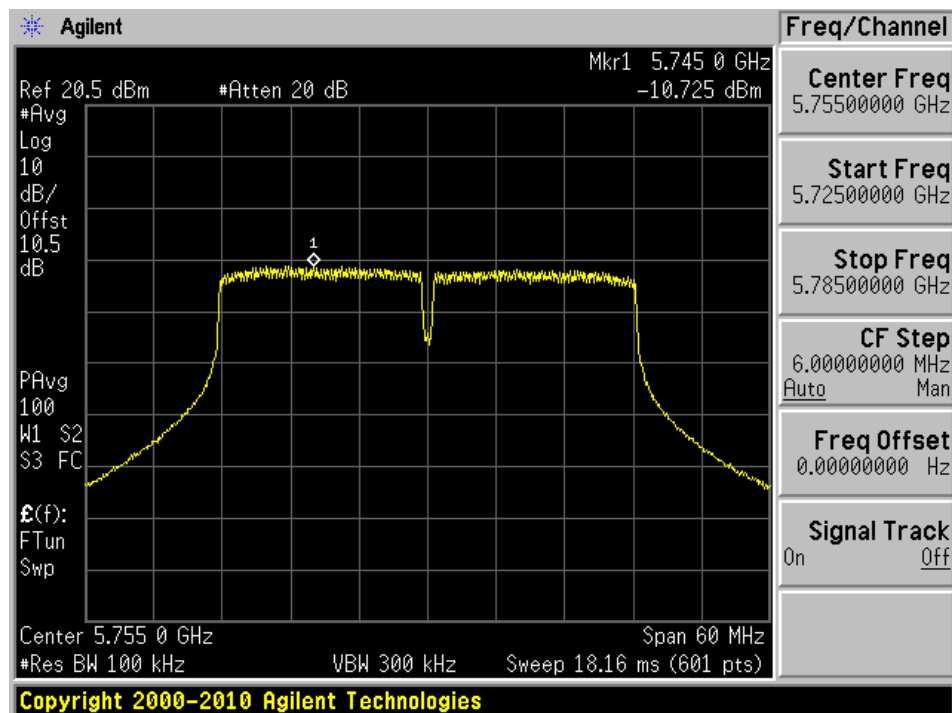


High Channel: 5825 MHz

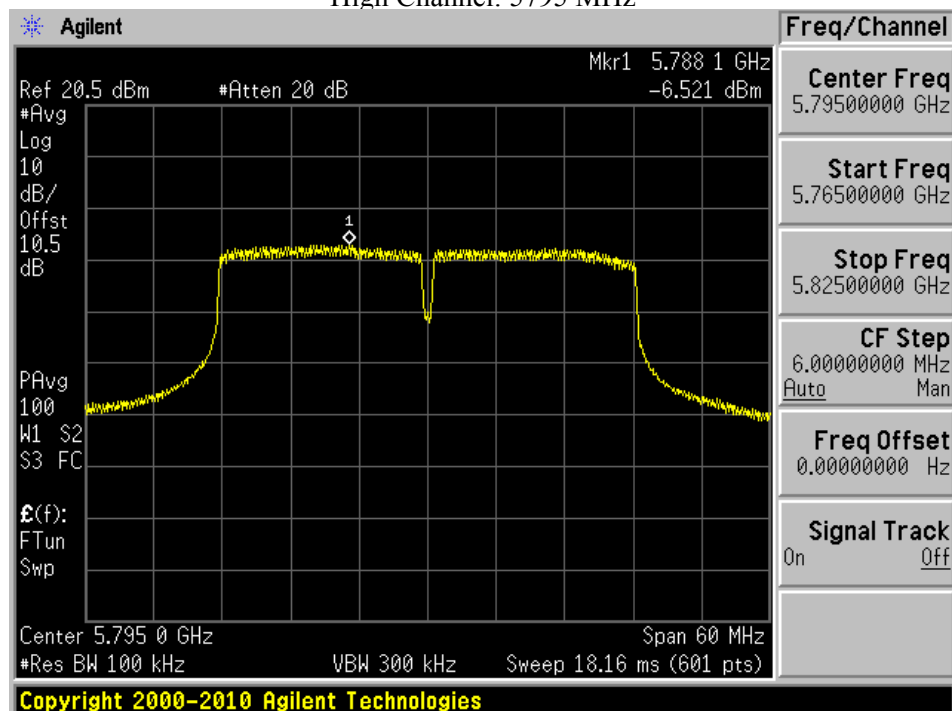


5.8 GHz Band
802.11n40
3dBi Antenna Chain 0

Low Channel: 5755 MHz

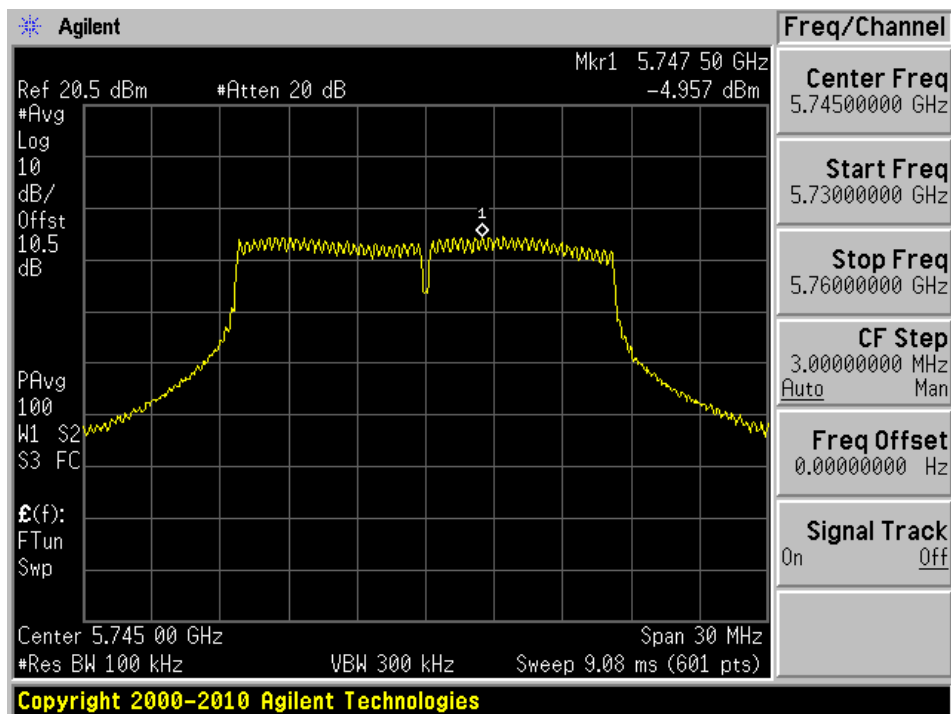


High Channel: 5795 MHz

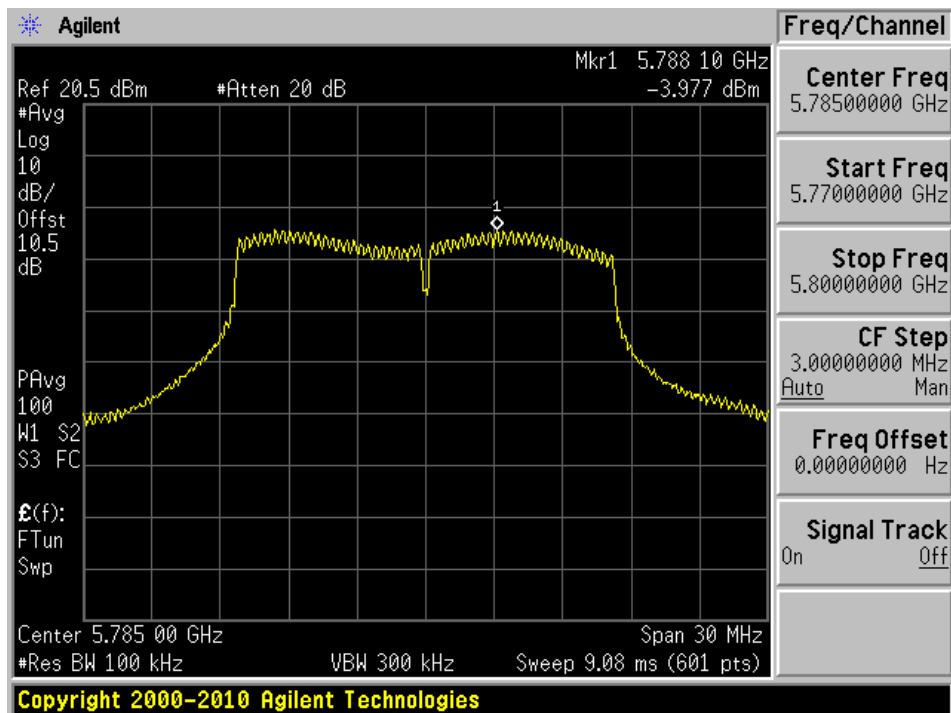


**5.8 GHz Band
802.11a
3dBi Antenna Chain 1**

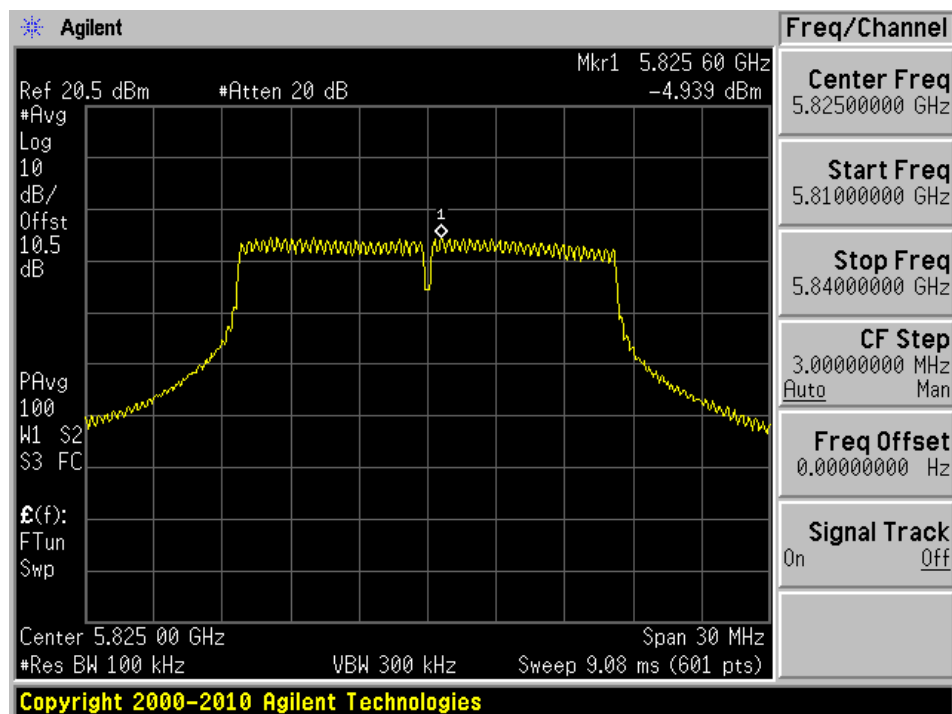
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

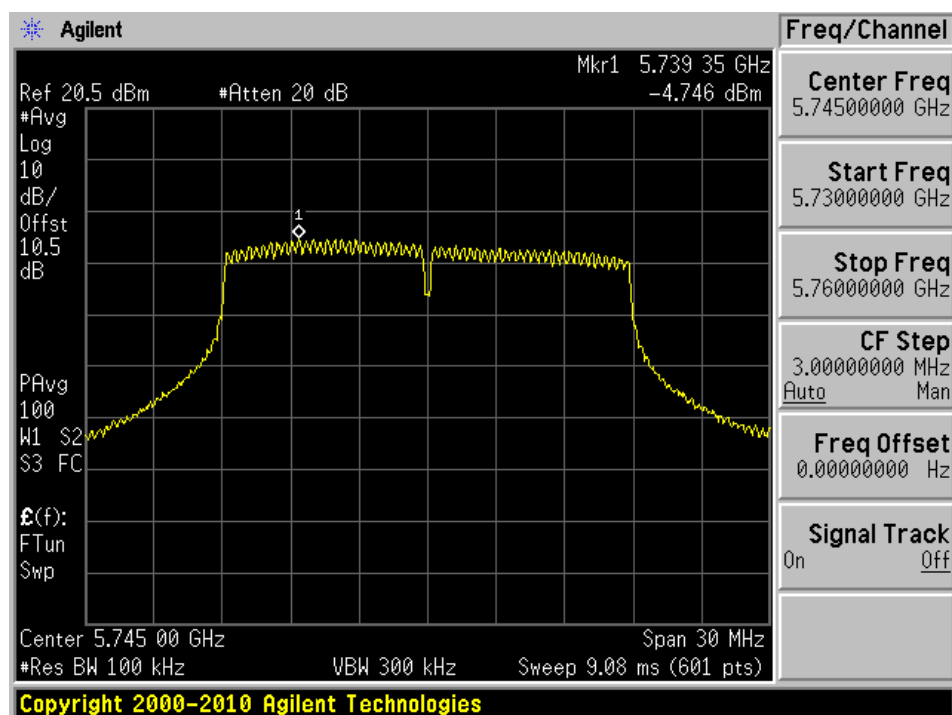


High Channel: 5825 MHz

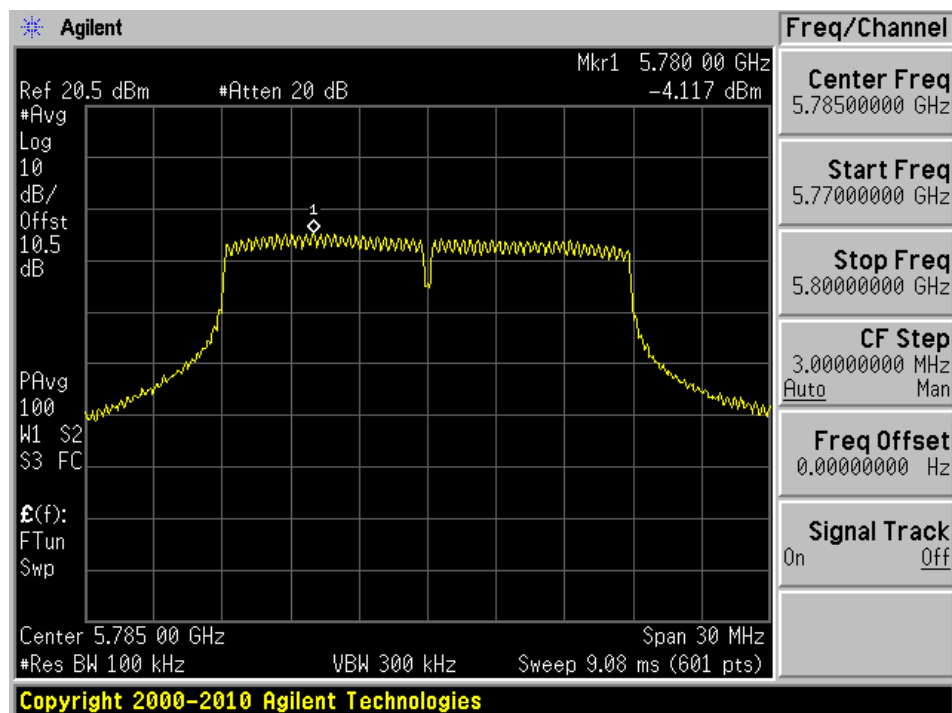


5.8 GHz Band
802.11n20
3dBi Antenna Chain 1

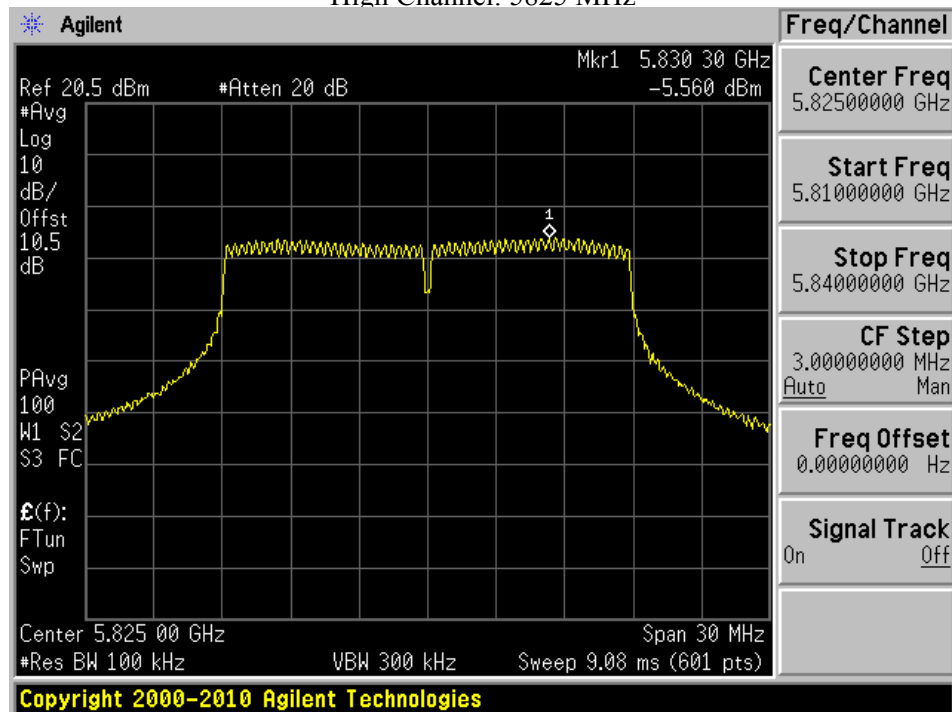
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

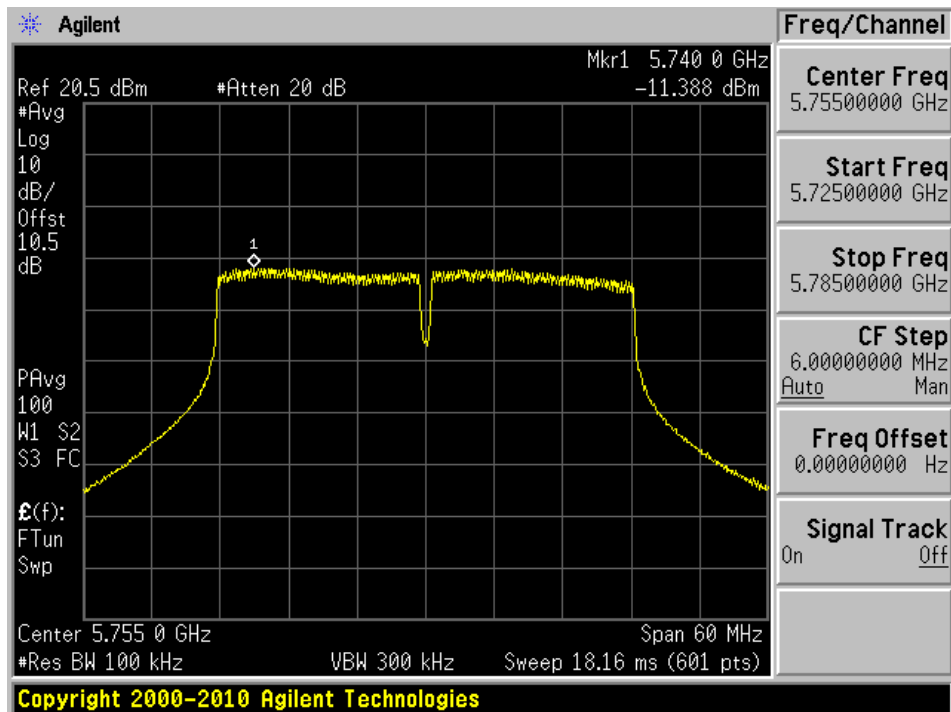


High Channel: 5825 MHz

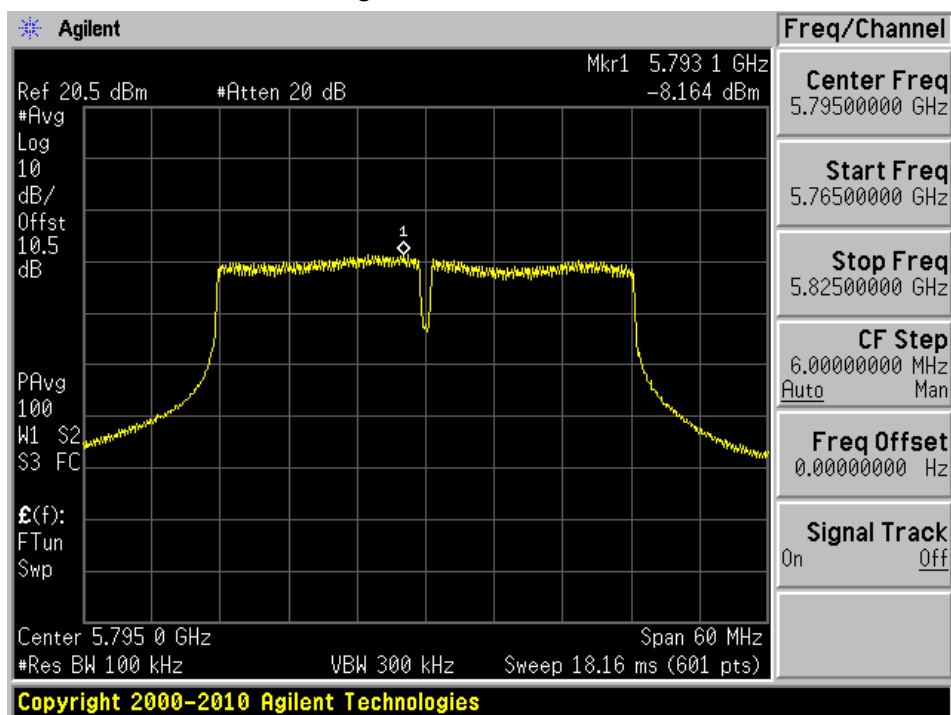


5.8 GHz Band
802.11n40
3dBi Antenna Chain 1

Low Channel: 5755 MHz

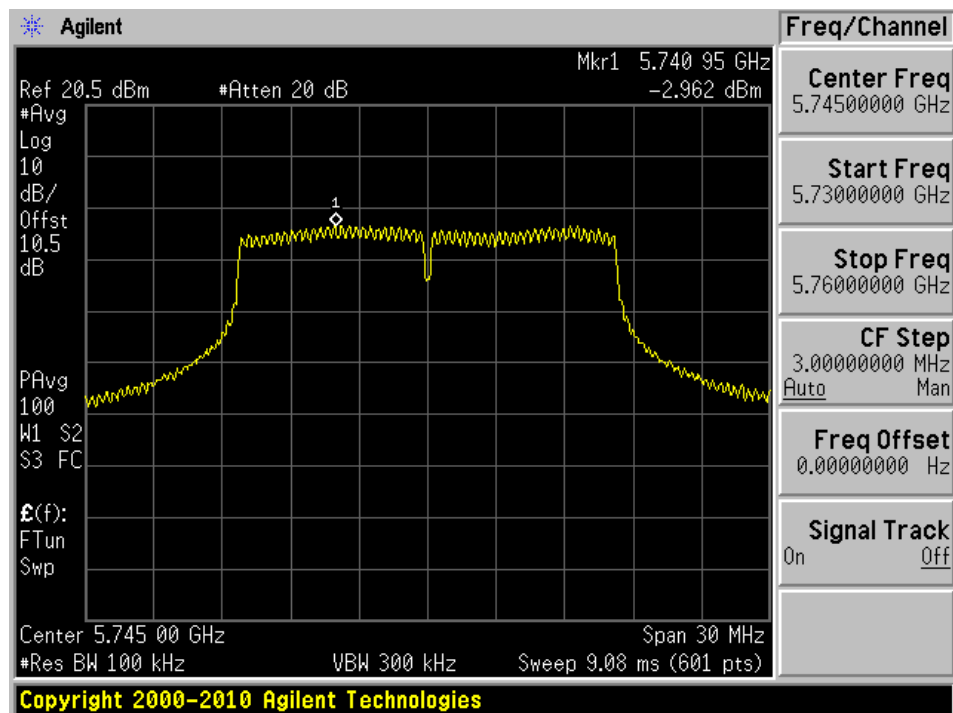


High Channel: 5795 MHz

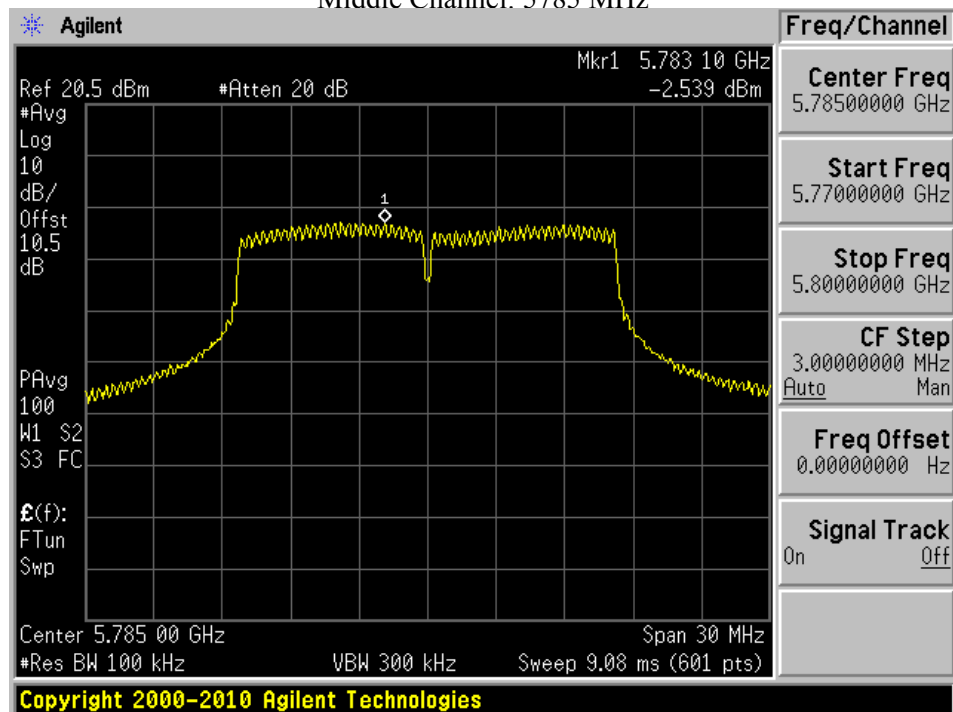


5.8 GHz Band
802.11a
3dBi Antenna Chain 2

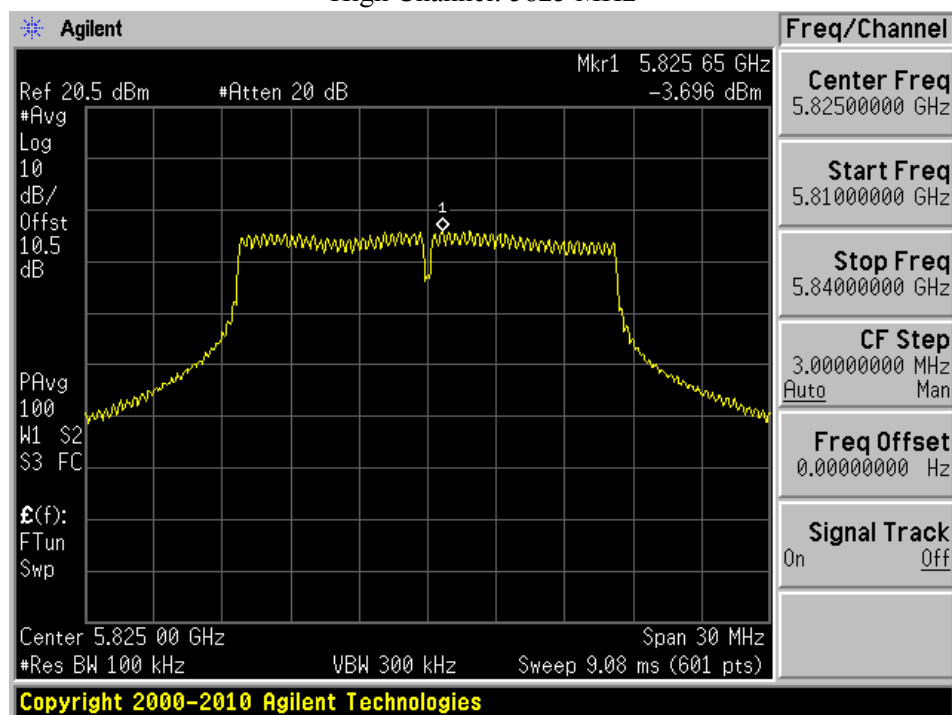
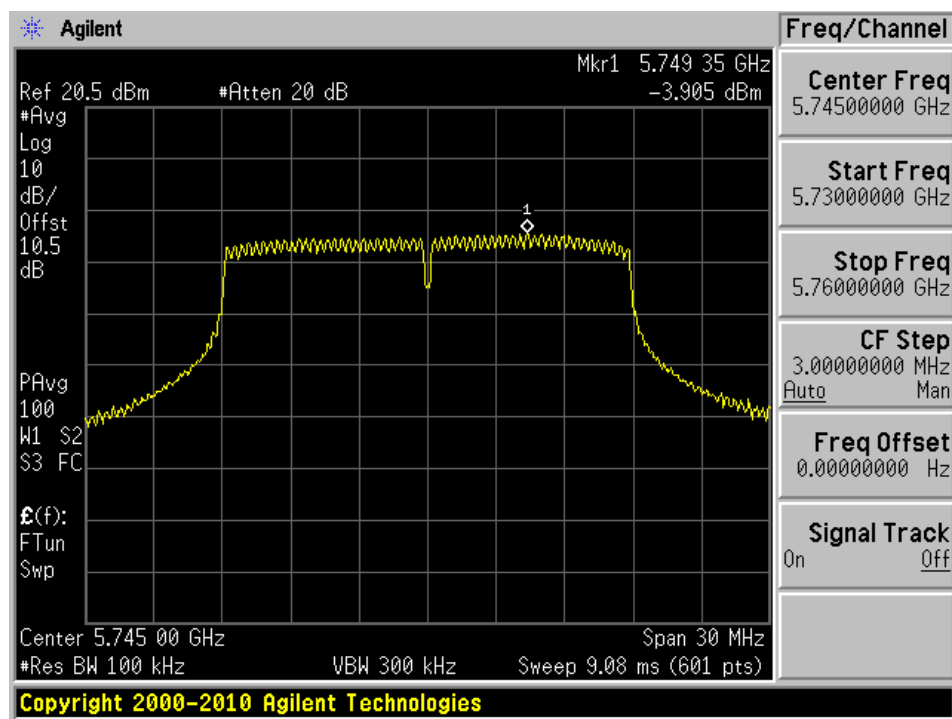
Low Channel: 5745 MHz



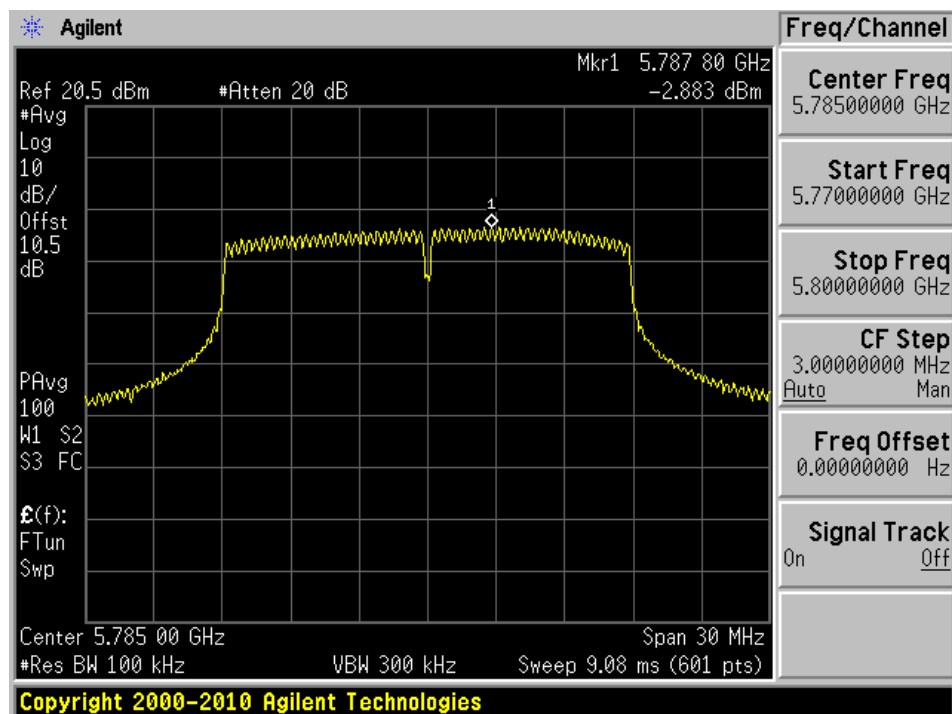
Middle Channel: 5785 MHz



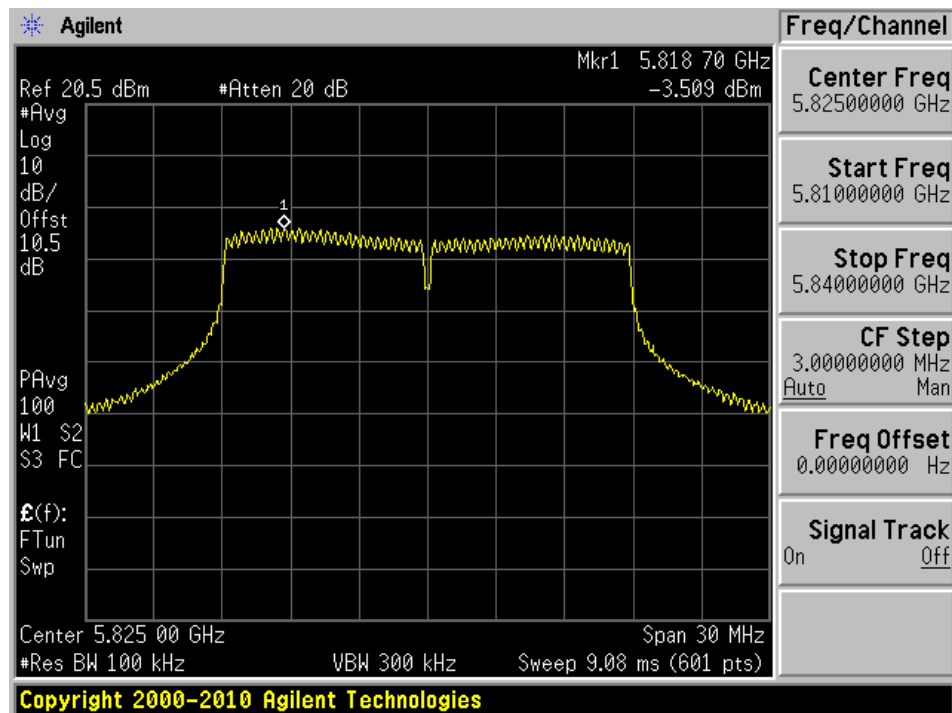
High Channel: 5825 MHz

5.8 GHz Band
802.11n20
3dBi Antenna Chain 2

Middle Channel: 5785 MHz

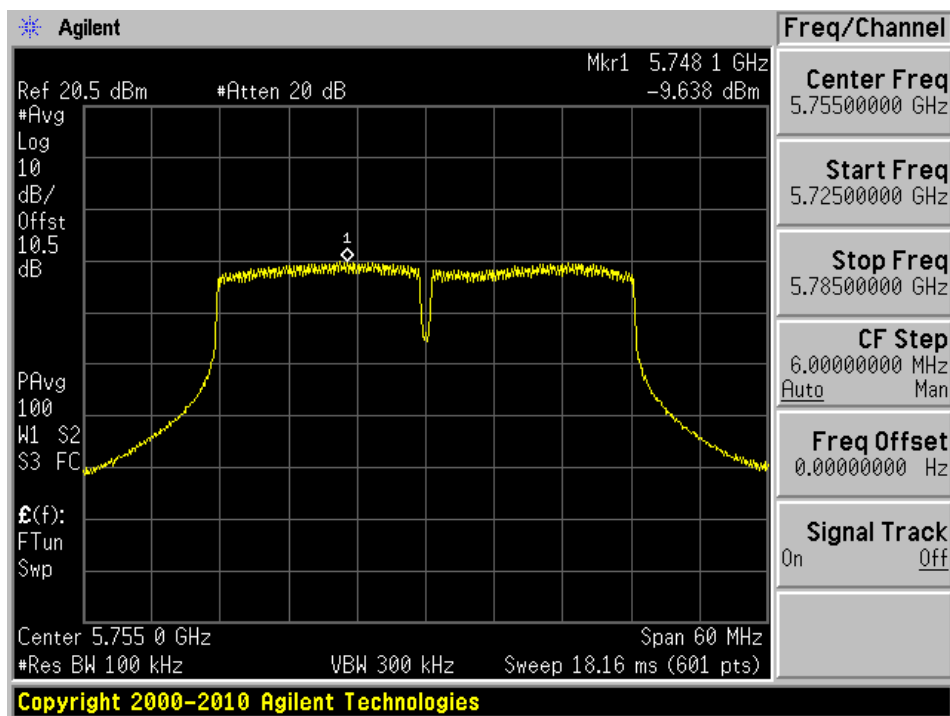


High Channel: 5825 MHz

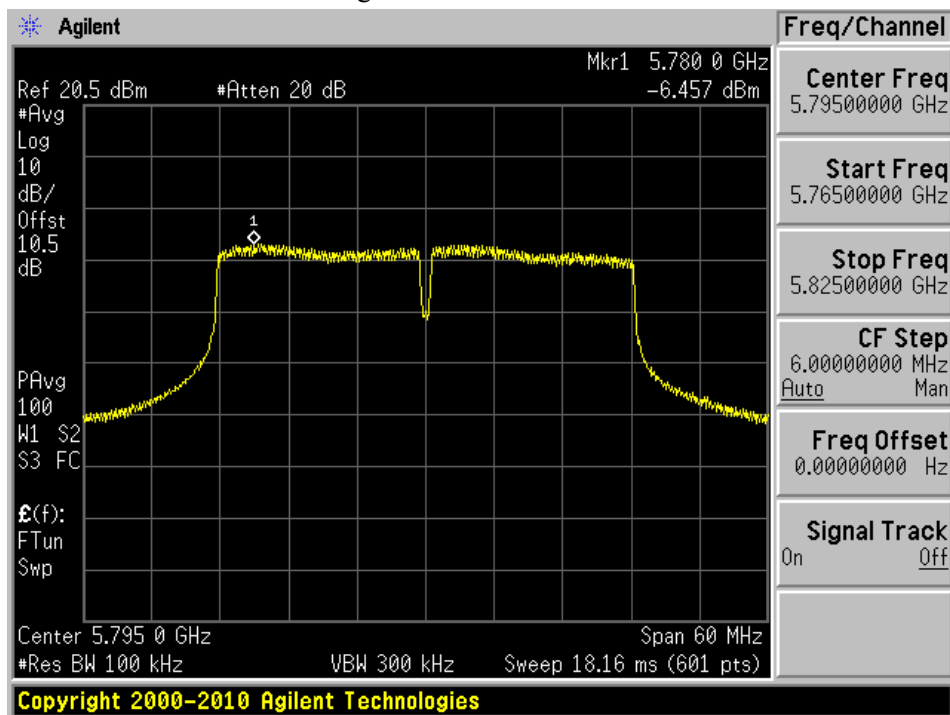


5.8 GHz Band
802.11n40
3dBi Antenna Chain 2

Low Channel: 5755 MHz



High Channel: 5795 MHz

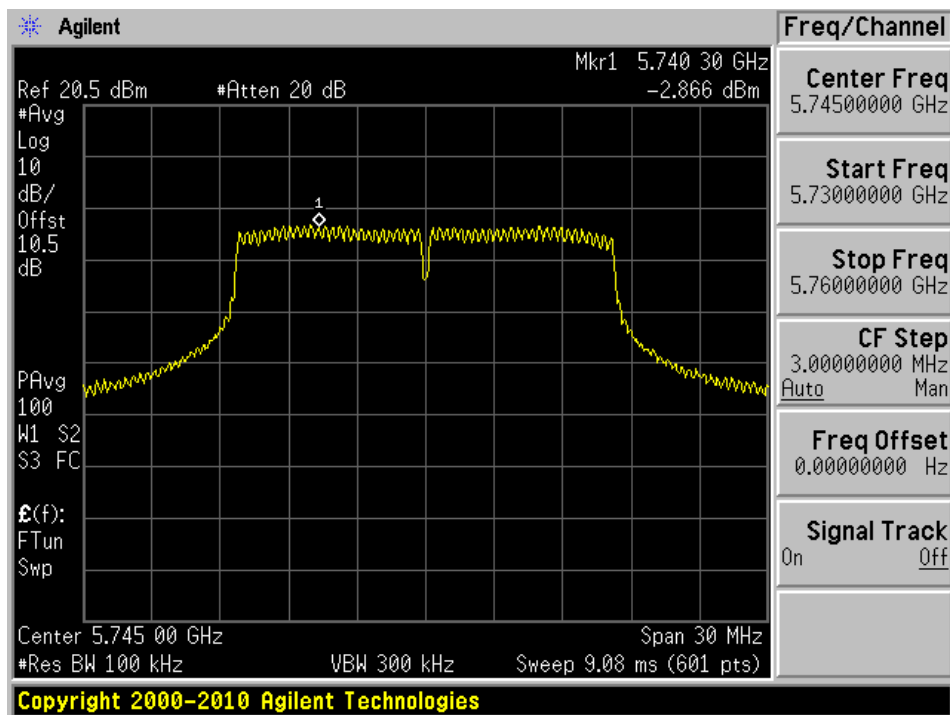


5.8 GHz Band, 5 dBi Antenna

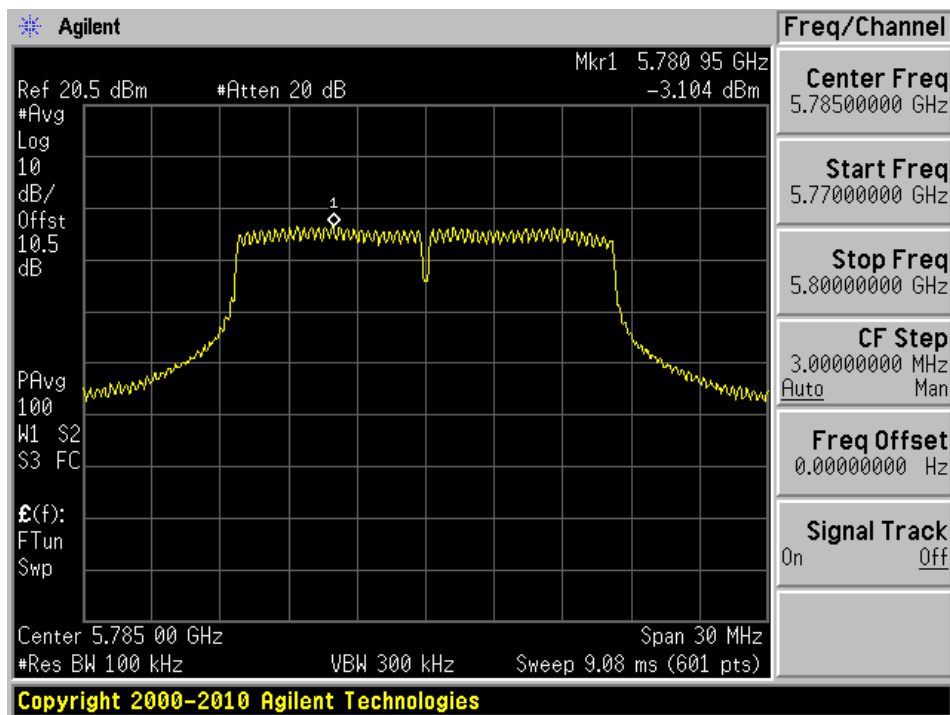
Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/100kHz)	Conducted PSD Chain1 (dBm/100kHz)	Conducted PSD Chain2 (dBm/100kHz)	Total PSD (dBm/100kHz)	RBW factor (dB)	Limit (dBm/500kHz)	Margin (dB)
802.11 a mode								
Low	5745	-2.866	-4.034	-2.324	1.75	6.99	30	-21.26
Middle	5785	-3.104	-3.977	-2.539	1.60	6.99	30	-21.41
High	5825	-3.988	-4.939	-3.696	0.60	6.99	30	-22.41
802.11n HT20 mode								
Low	5745	-3.091	-4.127	-2.387	1.63	6.99	30	-21.38
Middle	5785	-2.792	-4.117	-2.883	1.55	6.99	30	-21.46
High	5825	-3.793	-5.560	-3.509	0.57	6.99	30	-22.44
802.11n HT40 mode								
Low	5755	-7.447	-8.777	-6.862	-2.85	6.99	30	-25.86
High	5795	-6.521	-8.164	-6.457	-2.21	6.99	30	-25.22

5.8 GHz Band
802.11a
5dBi Antenna Chain 0

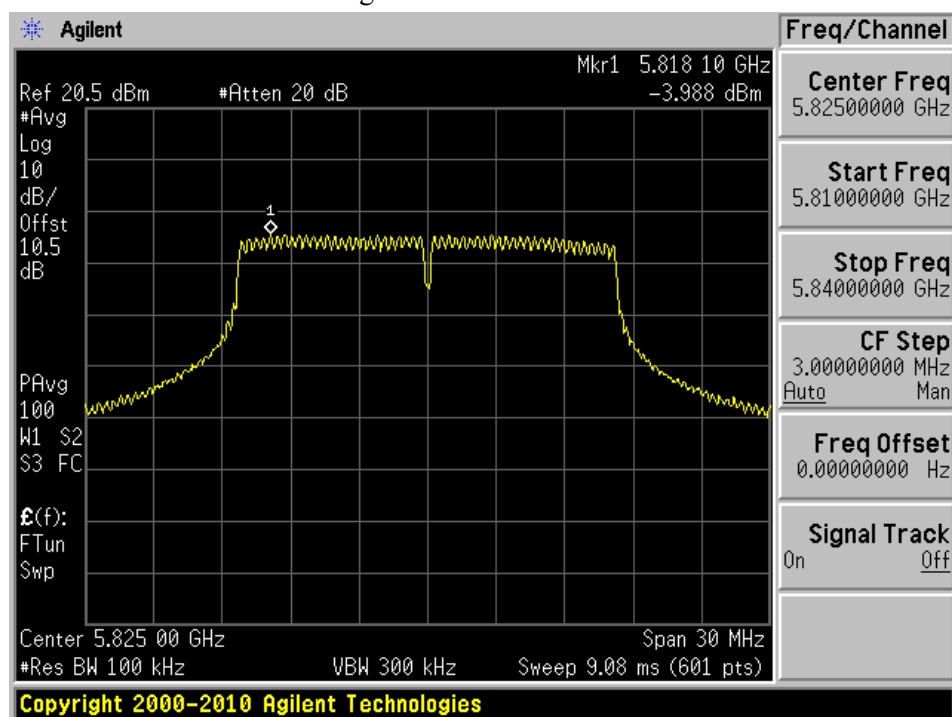
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

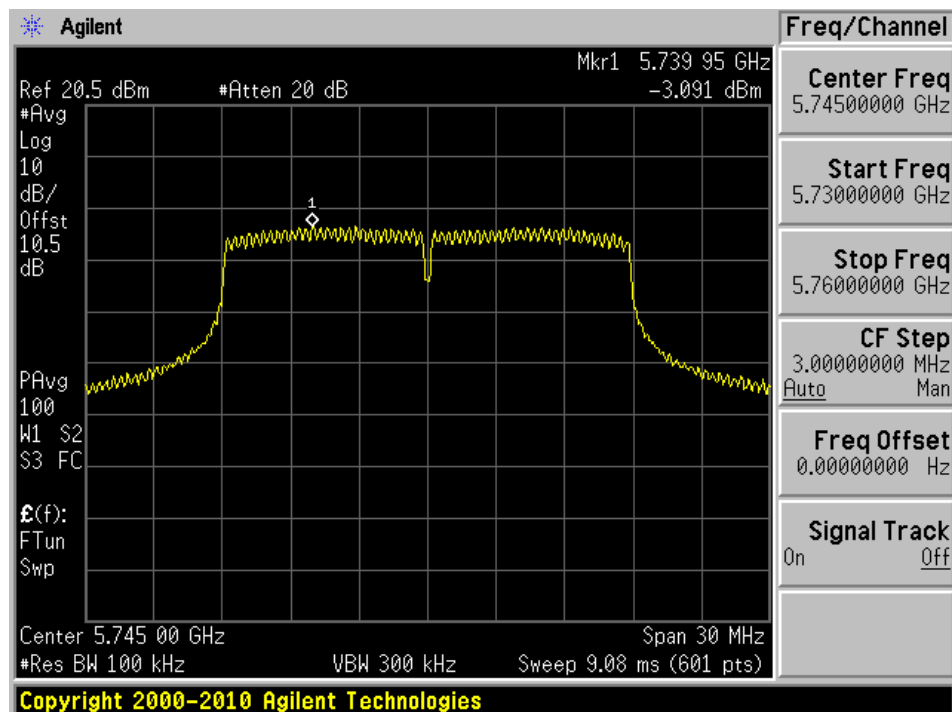


High Channel: 5825 MHz

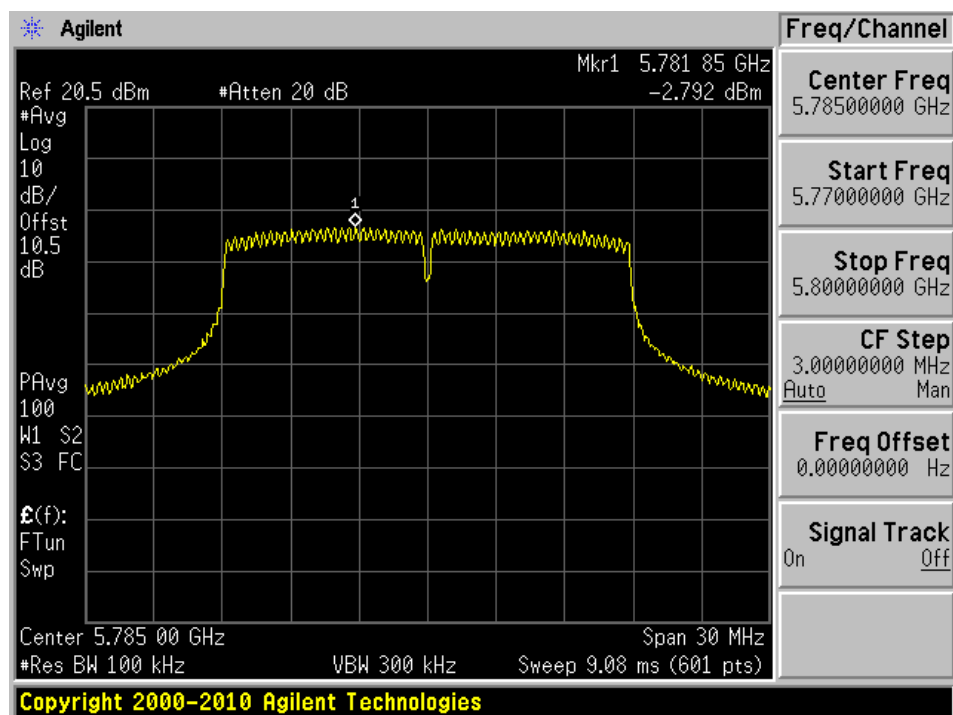


5.8 GHz Band
802.11n20
5dBi Antenna Chain 0

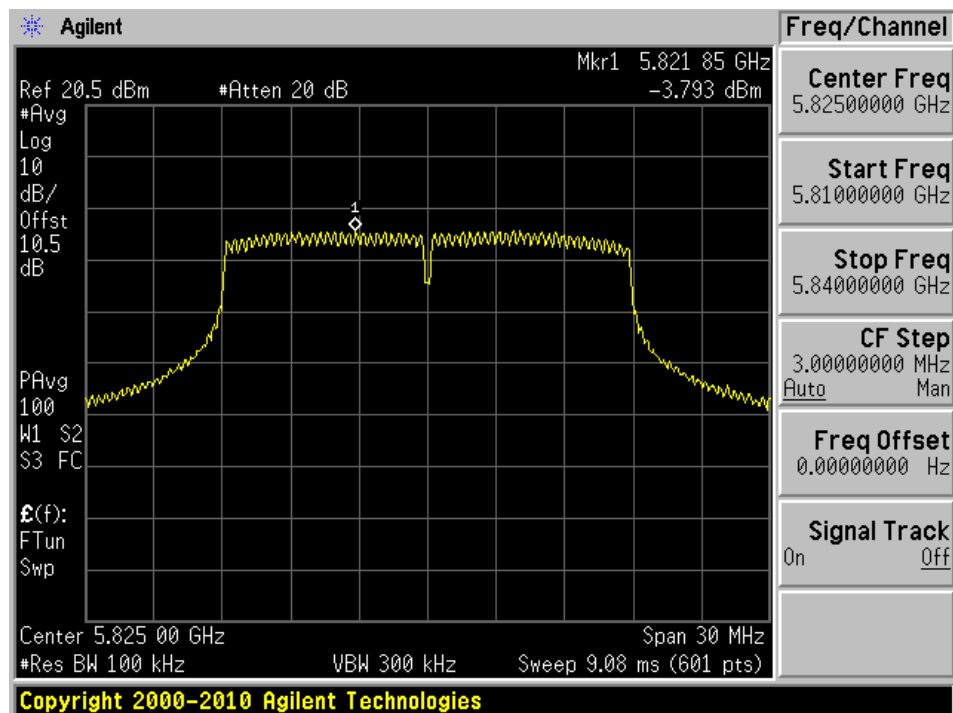
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

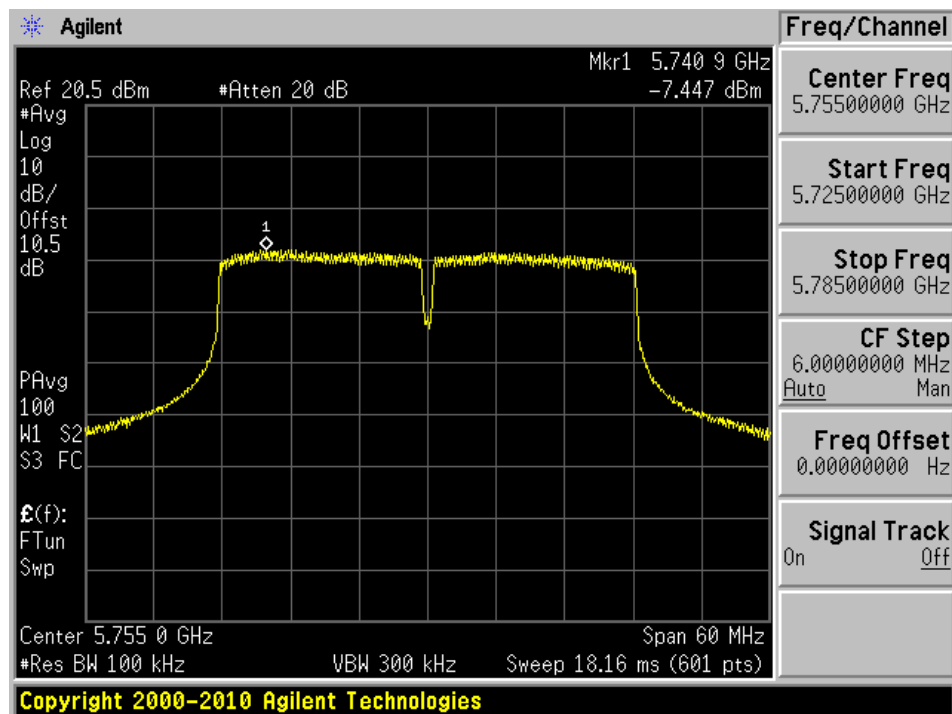


High Channel: 5825 MHz

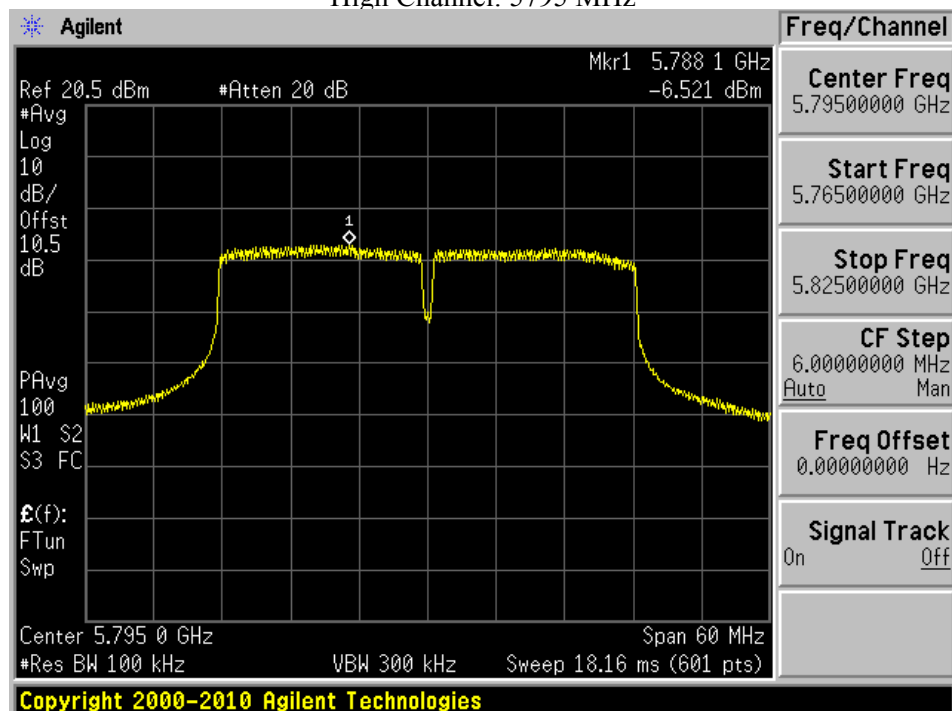


5.8 GHz Band
802.11n40
5dBi Antenna Chain 0

Low Channel: 5755 MHz

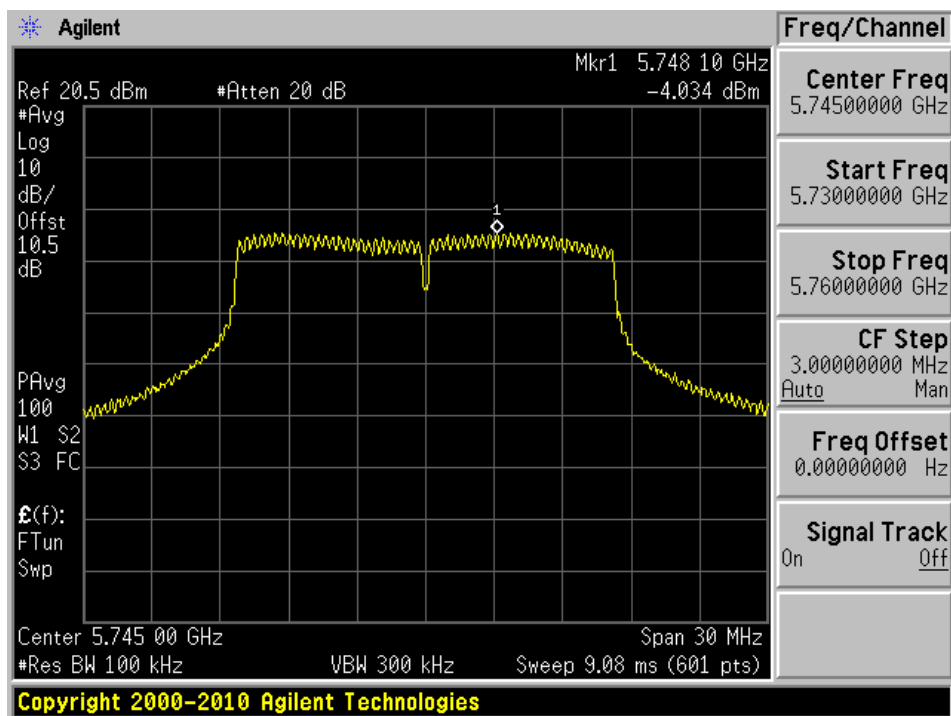


High Channel: 5795 MHz

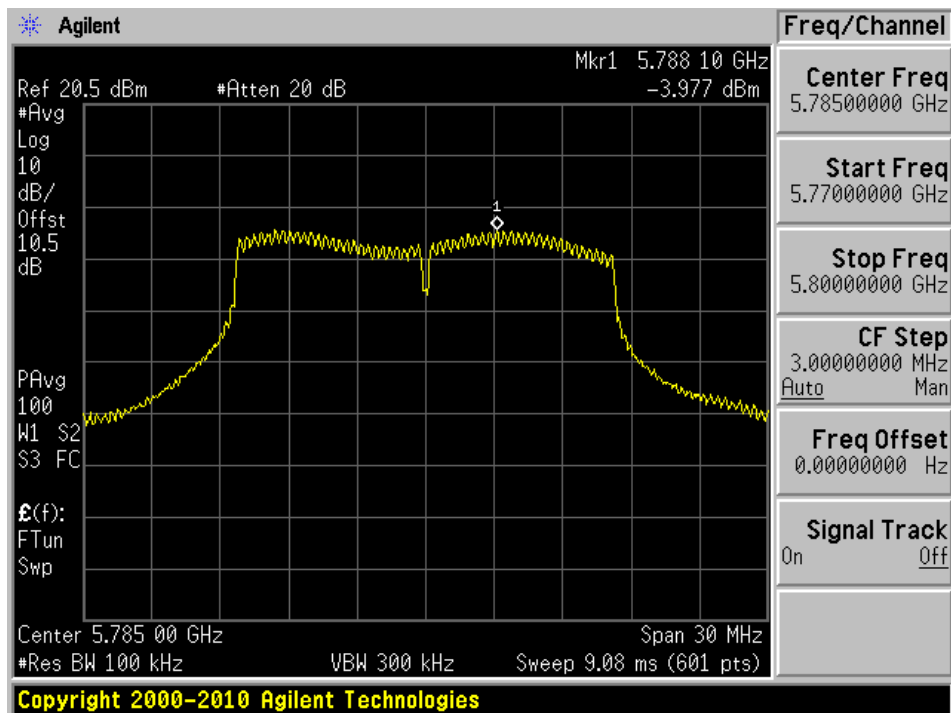


5.8 GHz Band
802.11a
5dBi Antenna Chain 1

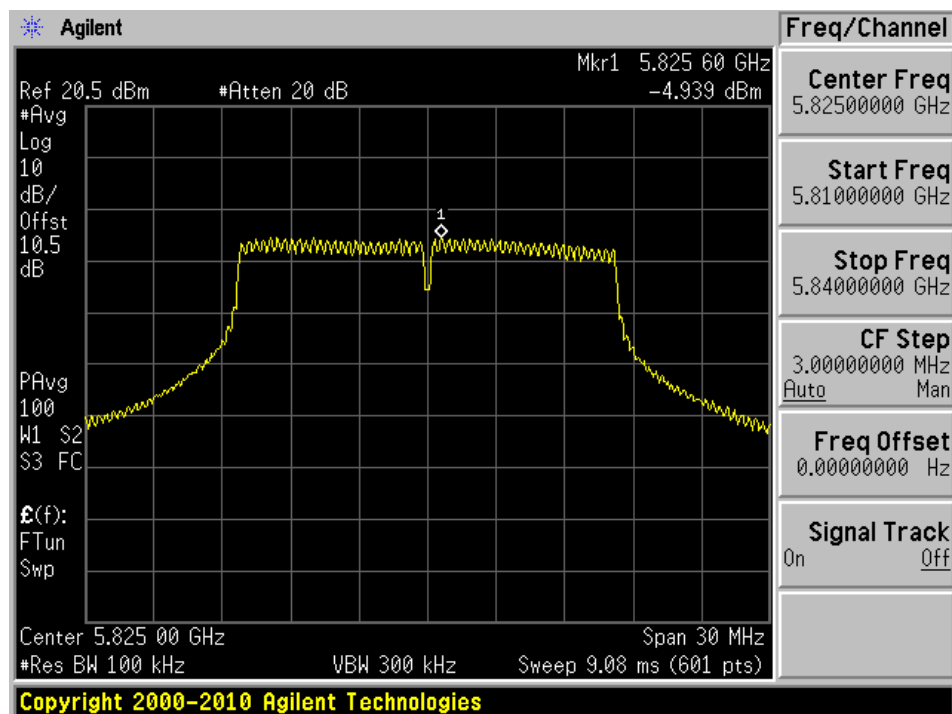
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

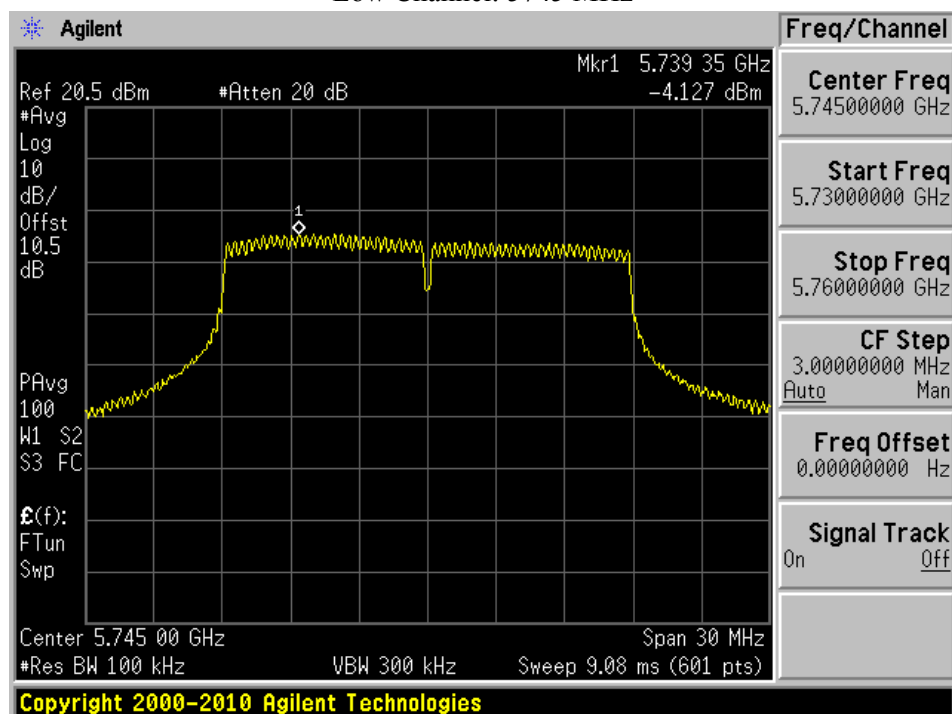


High Channel: 5825 MHz

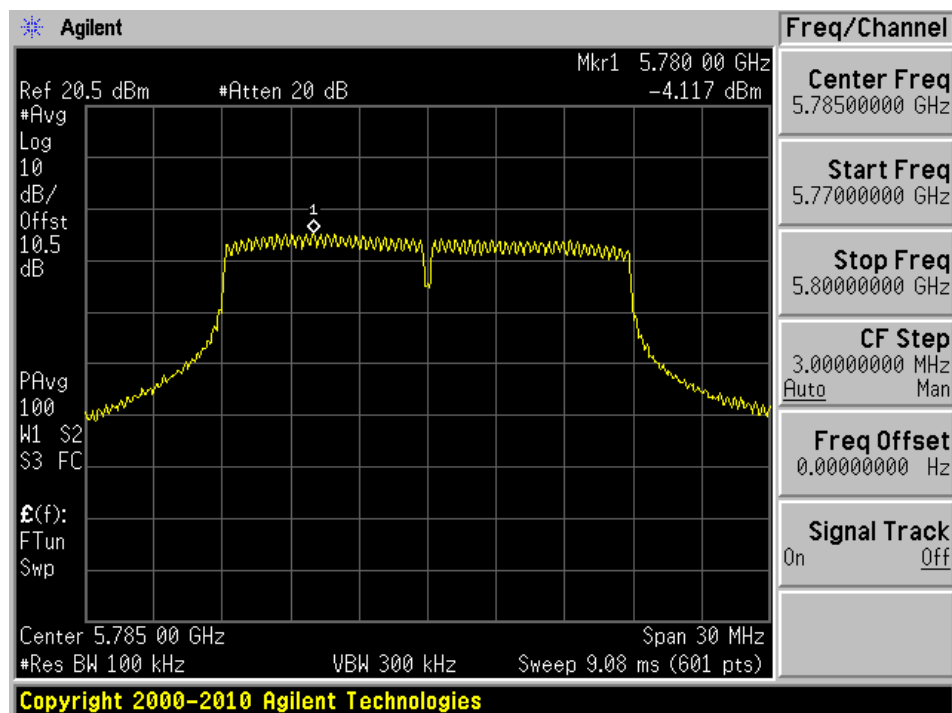


5.8 GHz Band
802.11n20
5dBi Antenna Chain 1

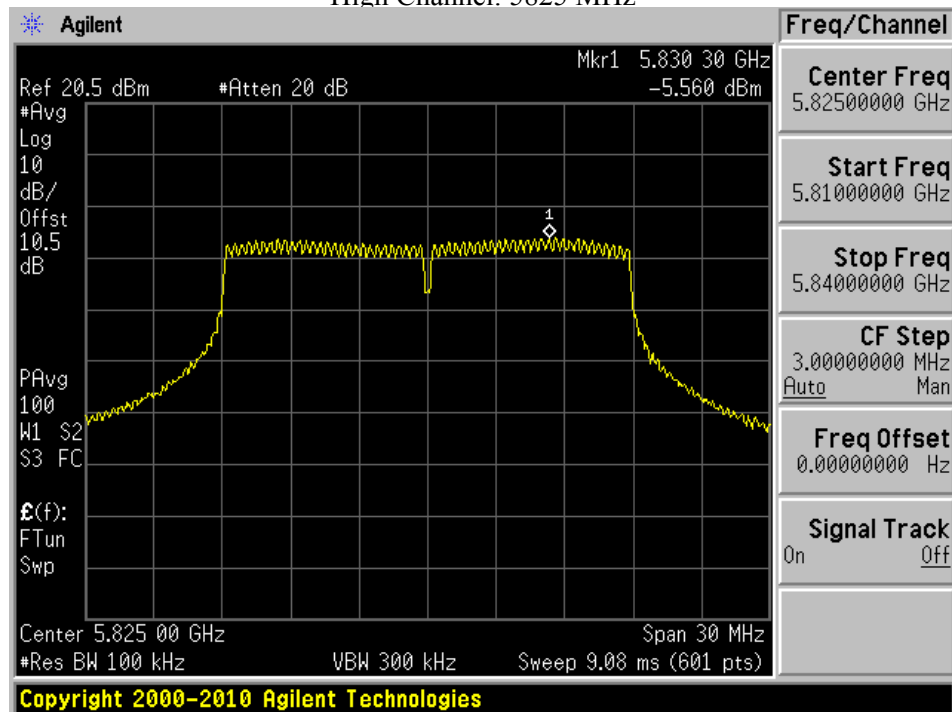
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

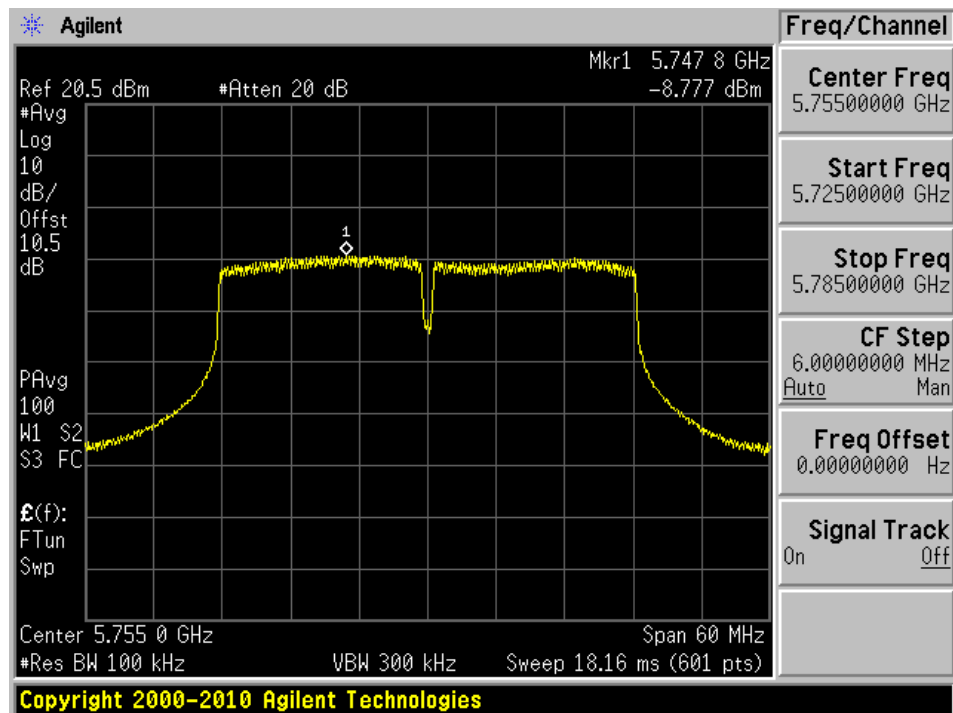


High Channel: 5825 MHz

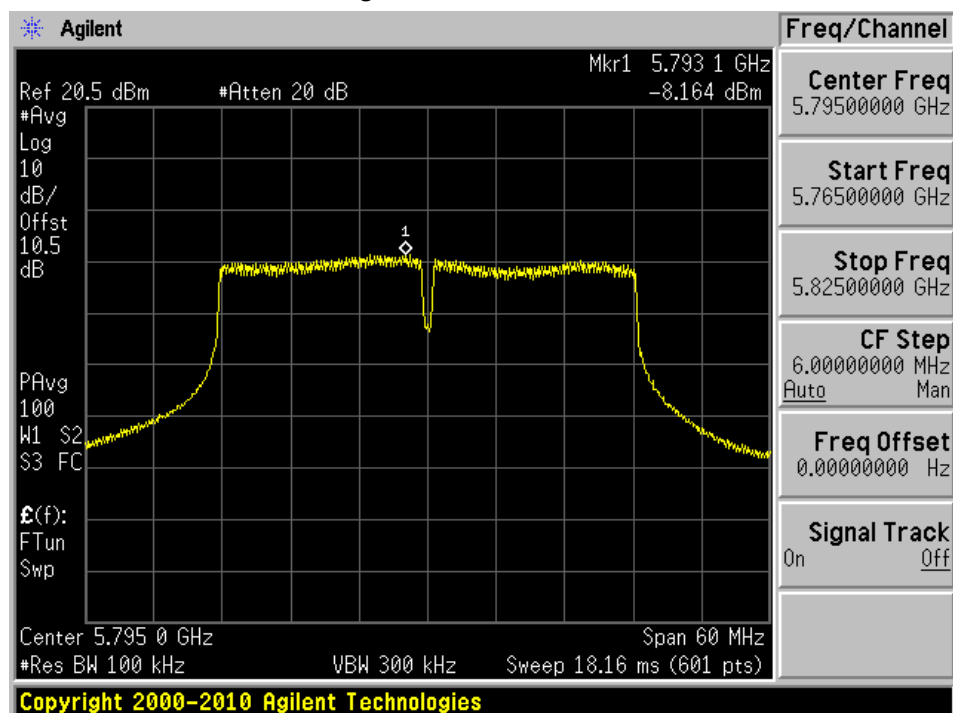


5.8 GHz Band
802.11n40
5dBi Antenna Chain 1

Low Channel: 5755 MHz

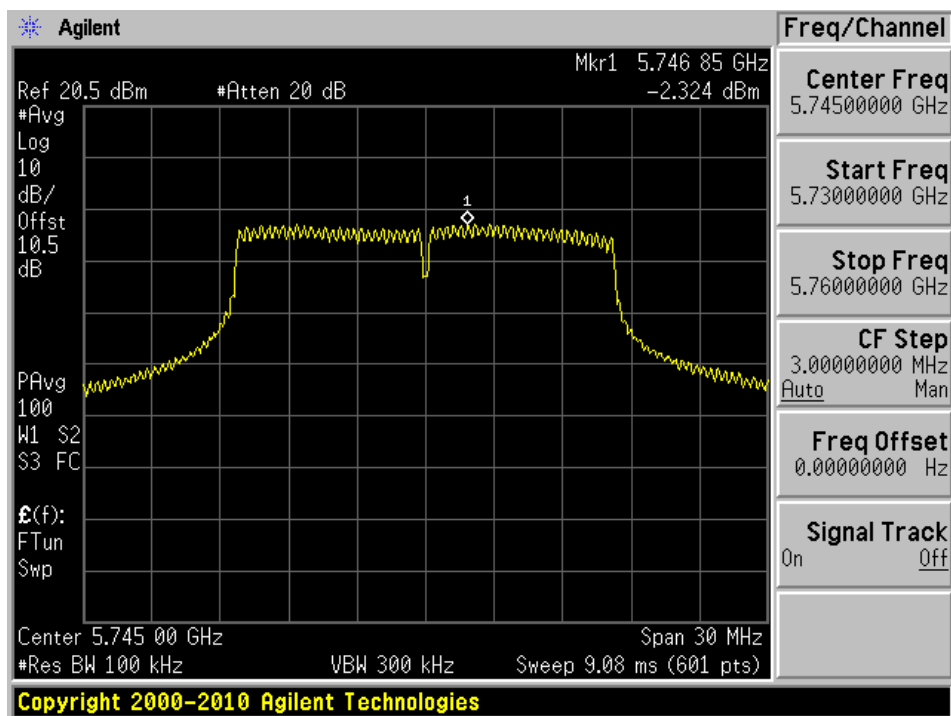


High Channel: 5795 MHz

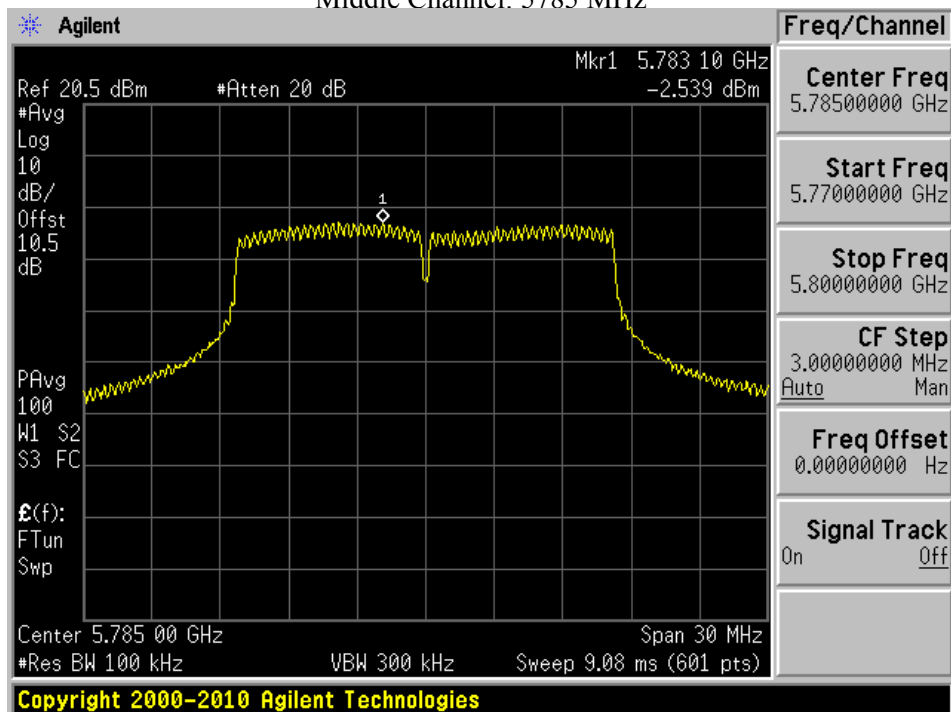


5.8 GHz Band
802.11a
5dBi Antenna Chain 2

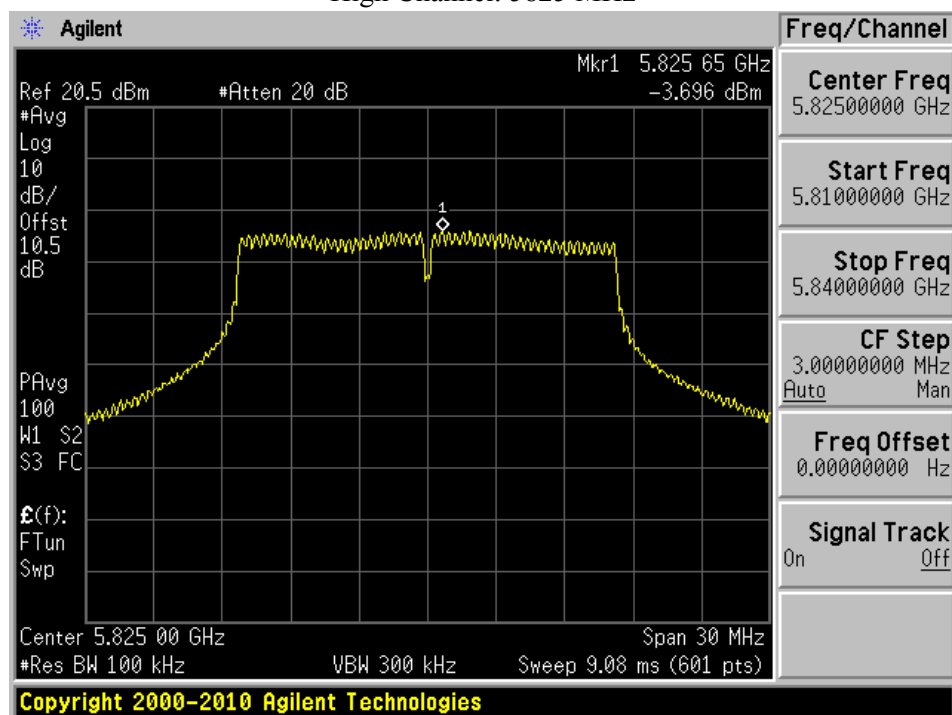
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

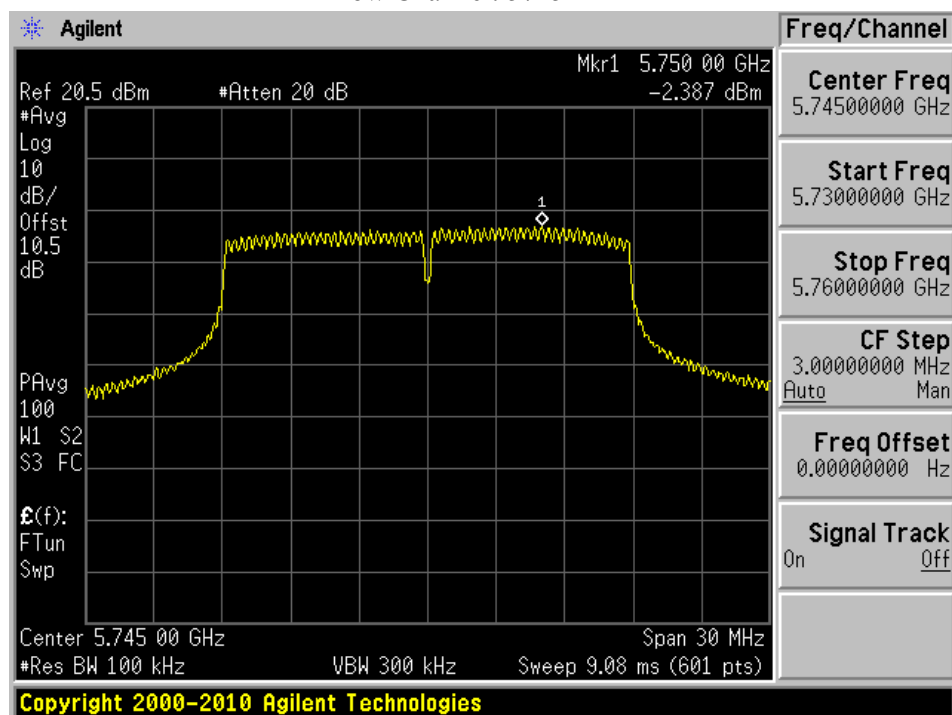


High Channel: 5825 MHz

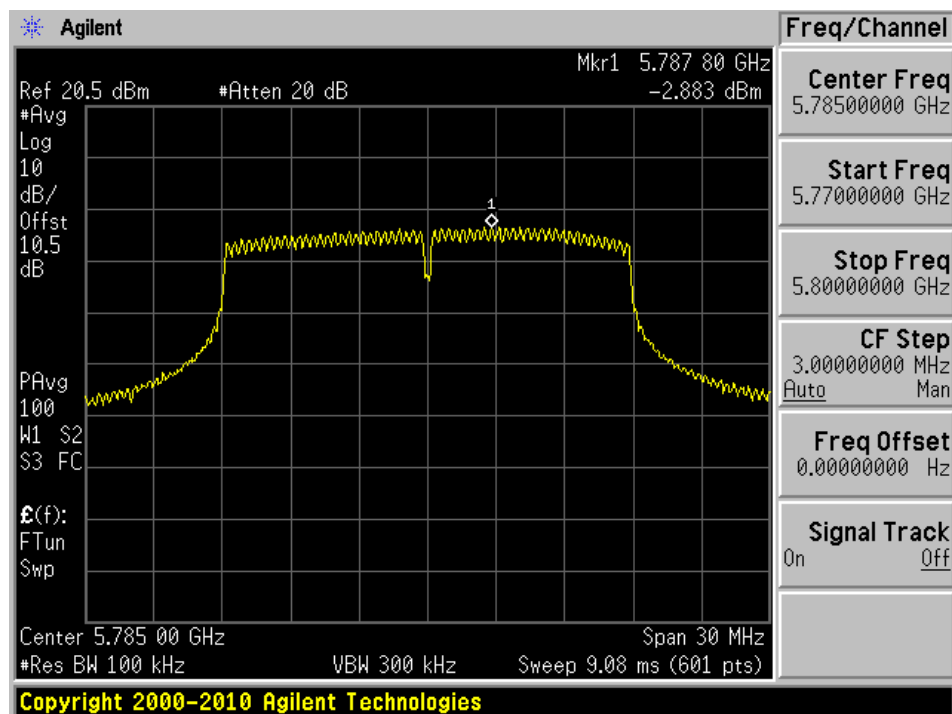


5.8 GHz Band
802.11n20
5dBi Antenna Chain 2

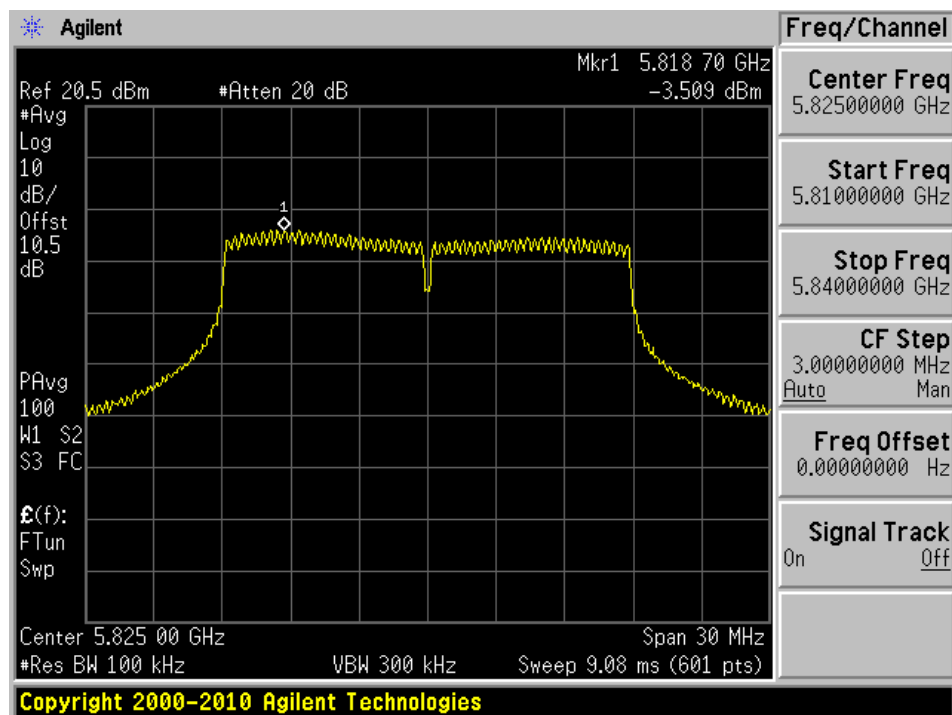
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

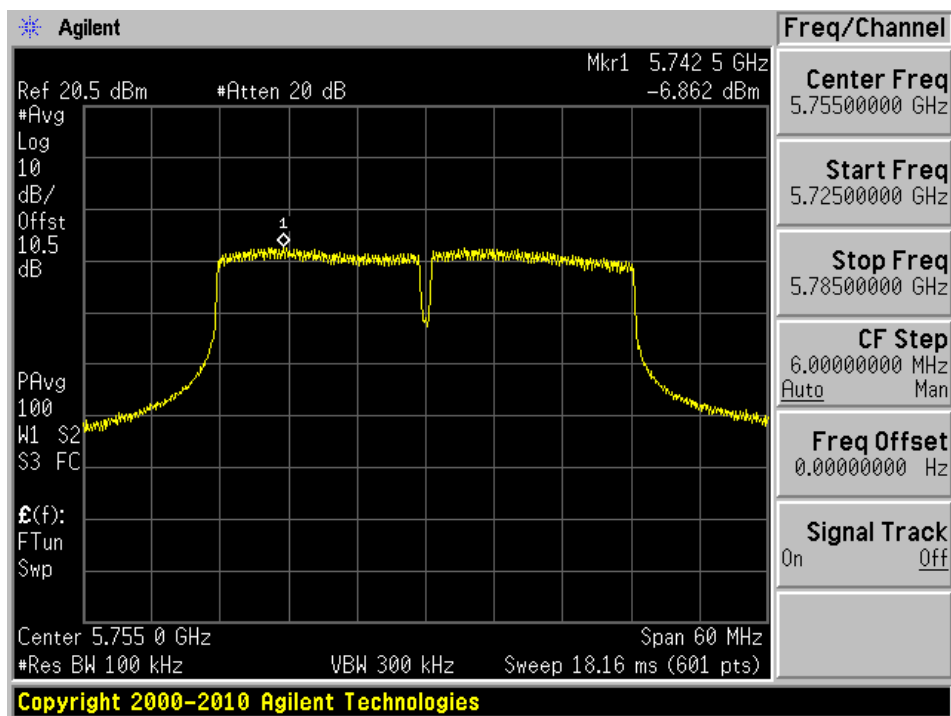


High Channel: 5825 MHz

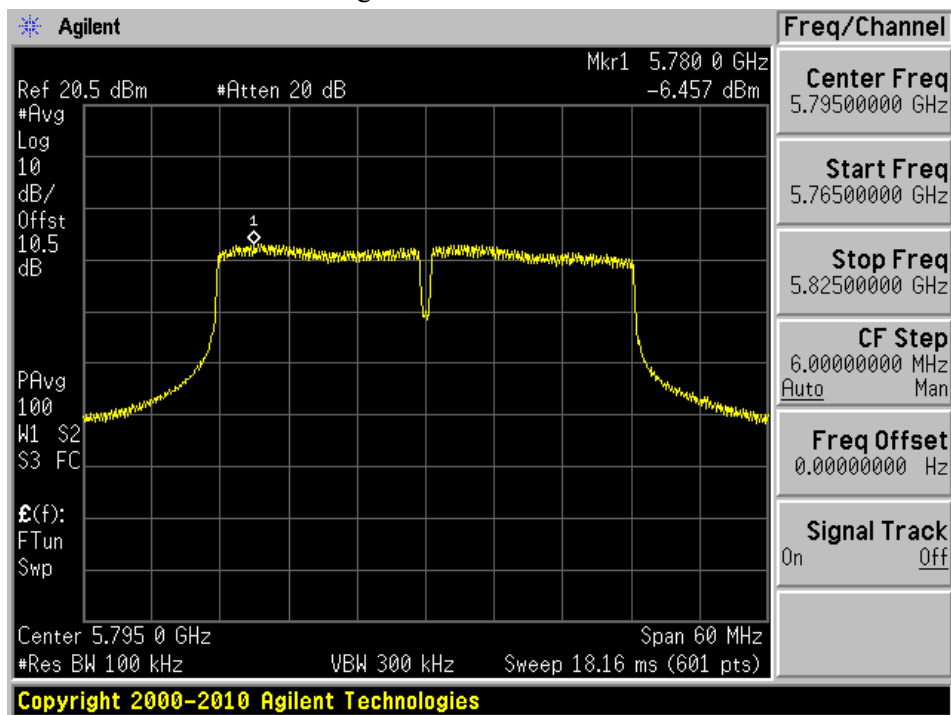


5.8 GHz Band
802.11n40
5dBi Antenna Chain 2

Low Channel: 5755 MHz



High Channel: 5795 MHz



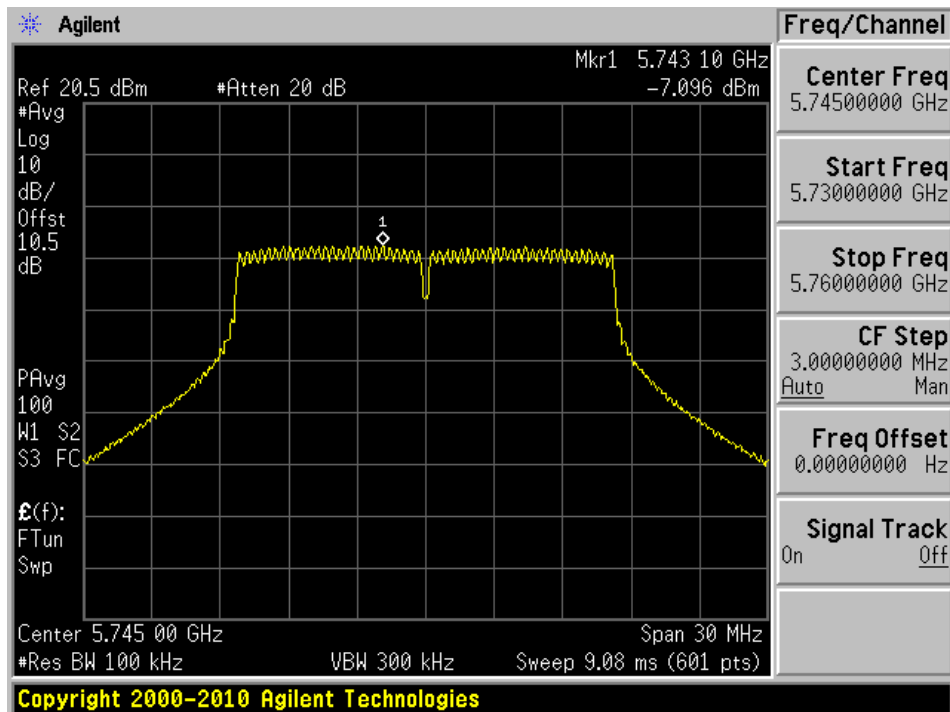
5.8 GHz Band, 8 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/100kHz)	Conducted PSD Chain1 (dBm/100kHz)	Conducted PSD Chain2 (dBm/100kHz)	Total PSD (dBm/100kHz)	RBW factor (dB)	Limit (dBm/500kHz)	Margin (dB)
802.11 a mode								
Low	5745	-7.096	-9.320	-7.900	-3.24	6.99	28	-24.25
Middle	5785	-2.966	-4.611	-2.615	1.46	6.99	28	-19.55
High	5825	-5.795	-7.168	-4.283	-0.82	6.99	28	-21.83
802.11n HT20 mode								
Low	5745	-6.381	-7.476	-6.469	-1.98	6.99	28	-22.99
Middle	5785	-3.274	-4.660	-2.848	1.24	6.99	28	-19.77
High	5825	-6.325	-7.059	-5.938	-1.64	6.99	28	-22.65
802.11n HT40 mode								
Low	5755	-11.940	-12.930	-12.343	-7.61	6.99	28	-28.62
High	5795	-6.626	-8.751	-6.337	-2.34	6.99	28	-23.35

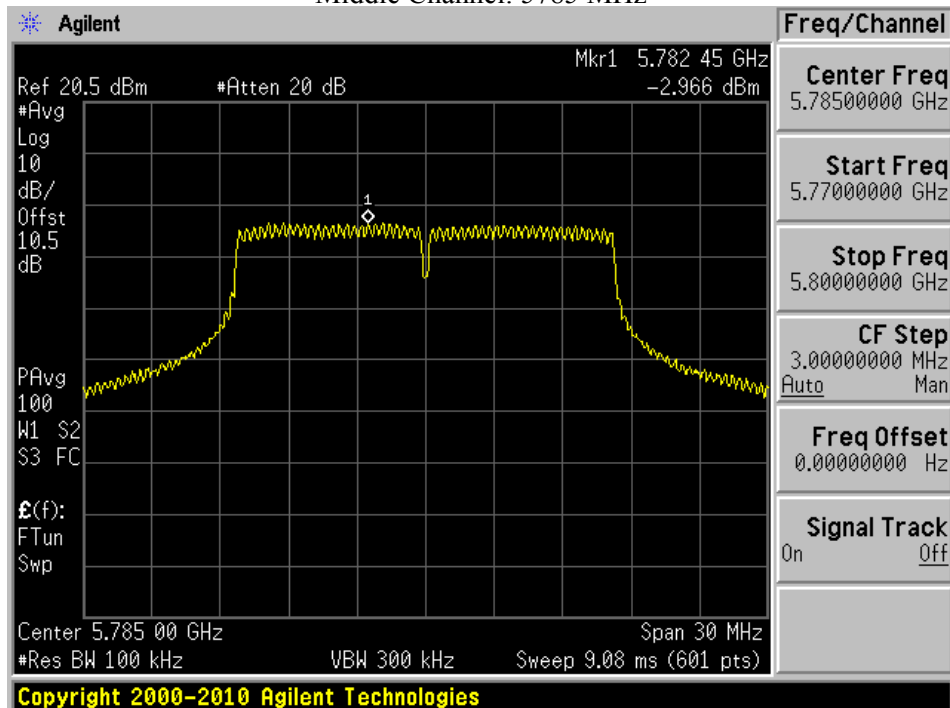
Note: Antenna gain exceed 6dBi, therefore the limit should be $30-(8-6)=28\text{dBm}$

5.8 GHz Band
802.11a
8dBi Antenna Chain 0

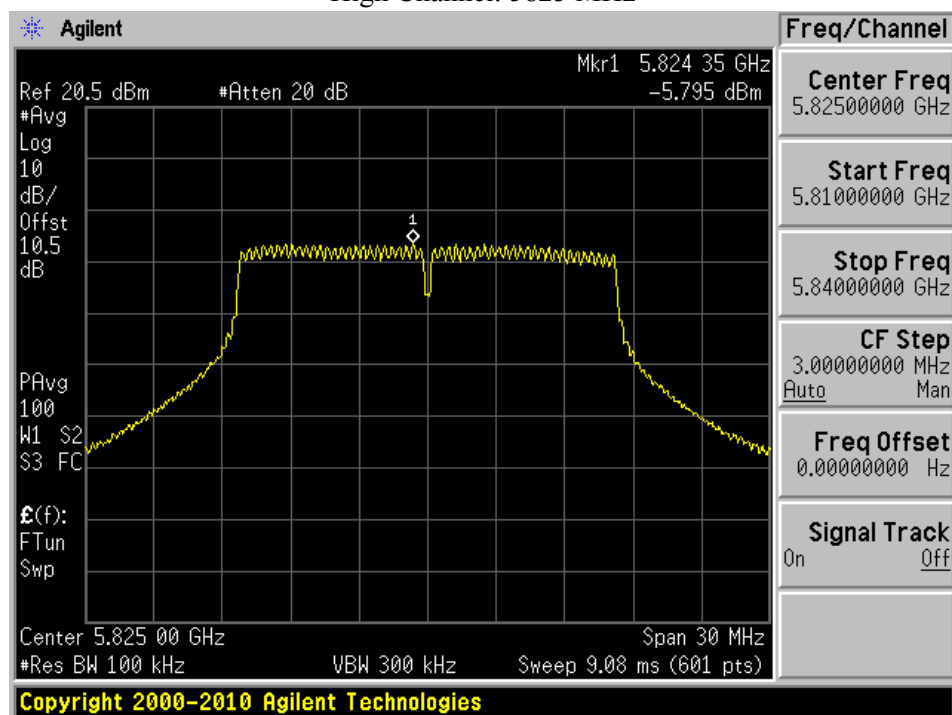
Low Channel: 5745 MHz



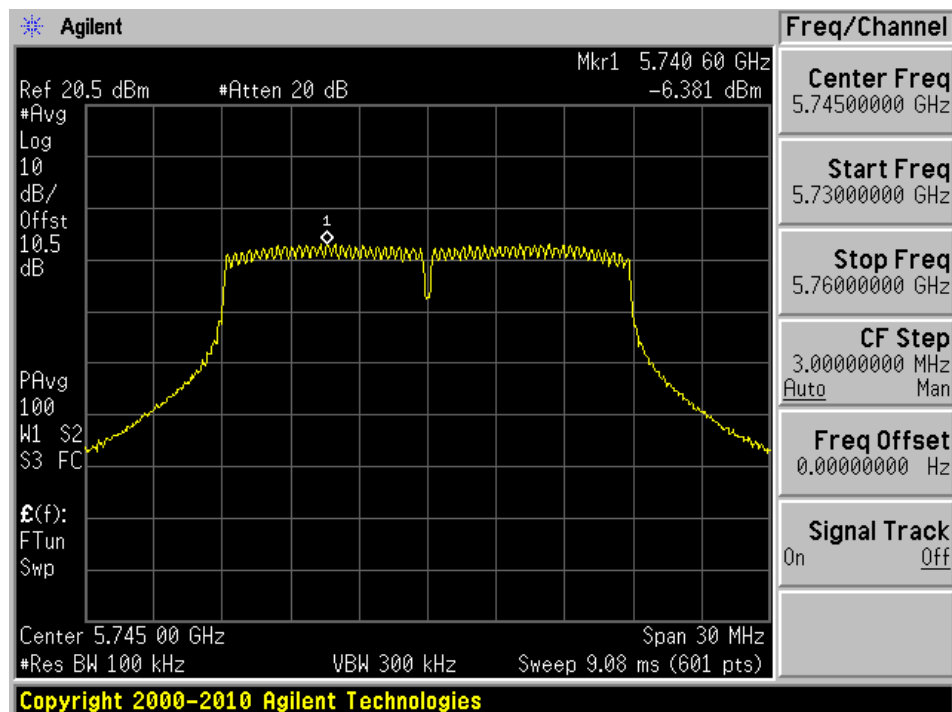
Middle Channel: 5785 MHz



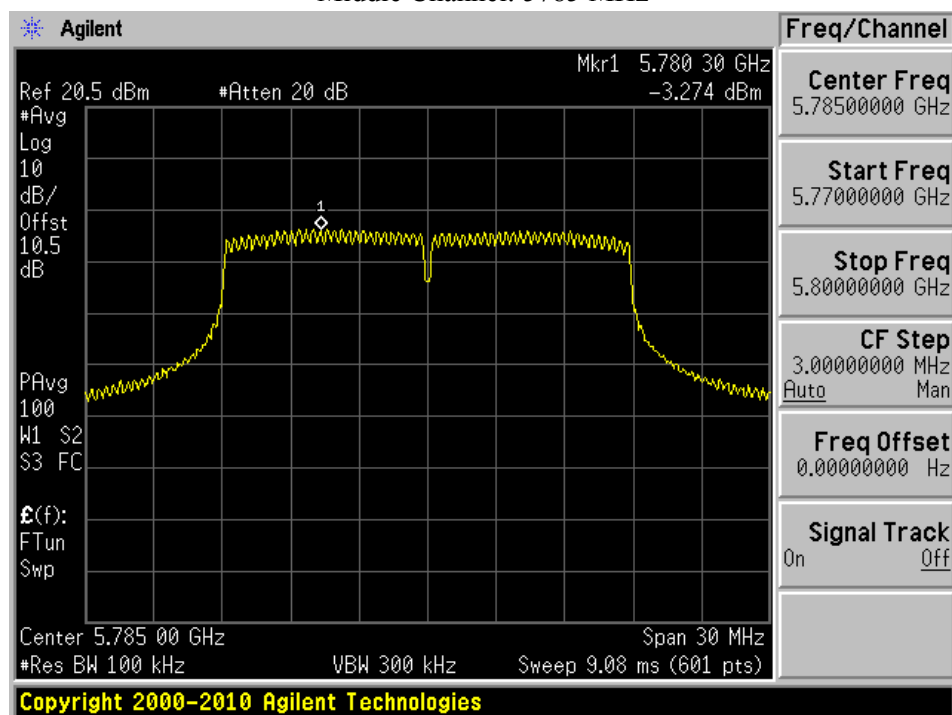
High Channel: 5825 MHz



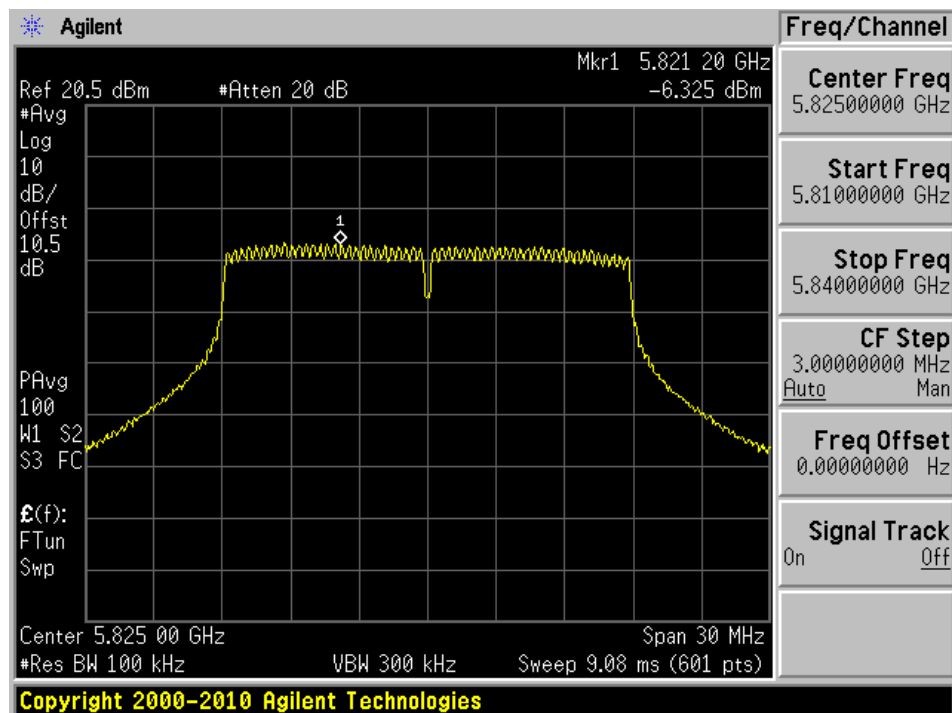
5.8 GHz Band
802.11n20
8dBi Antenna Chain 0
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

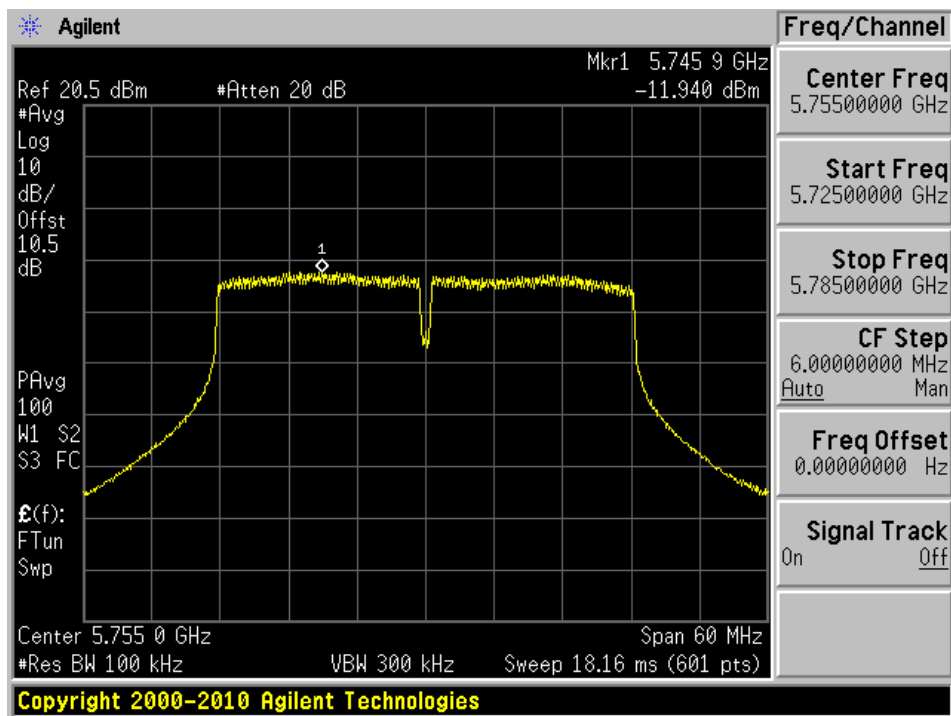


High Channel: 5825 MHz

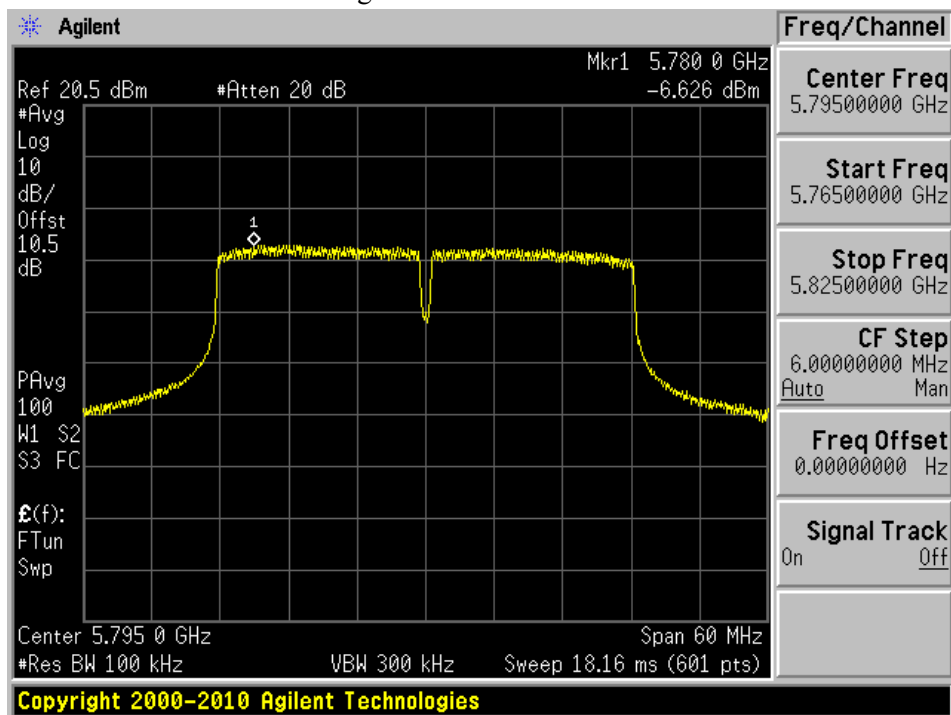


5.8 GHz Band
802.11n40
8dBi Antenna Chain 0

Low Channel: 5755 MHz

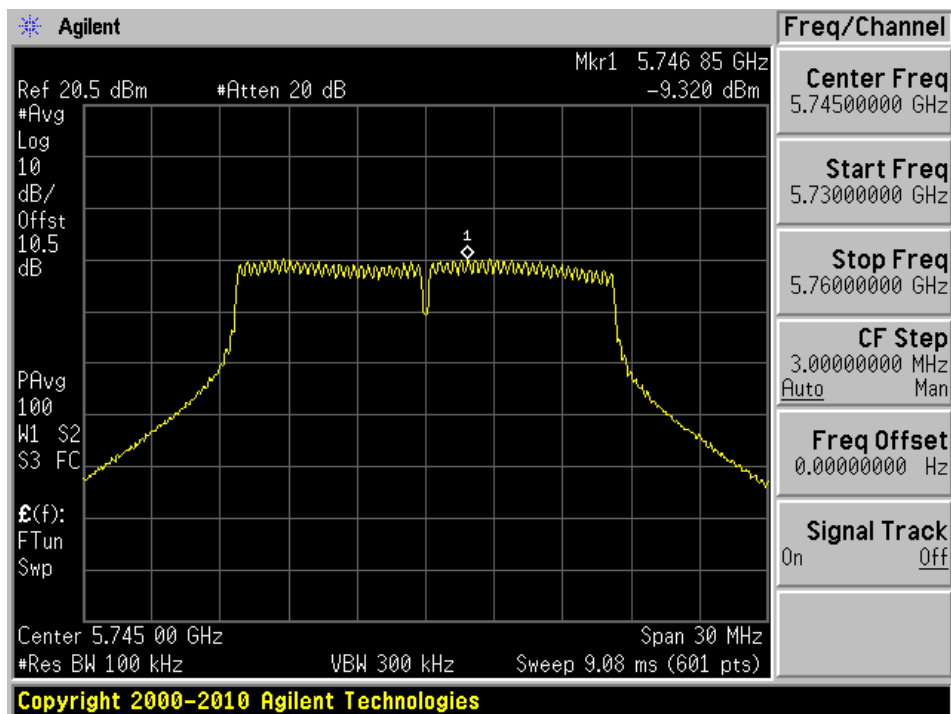


High Channel: 5795 MHz

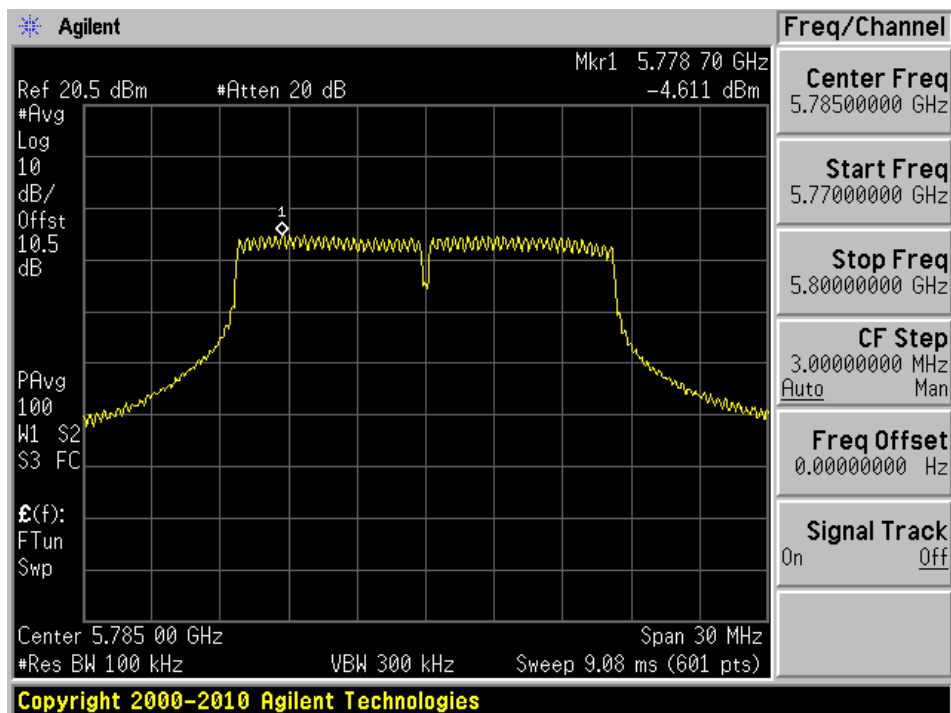


5.8 GHz Band
802.11a
8dBi Antenna Chain 1

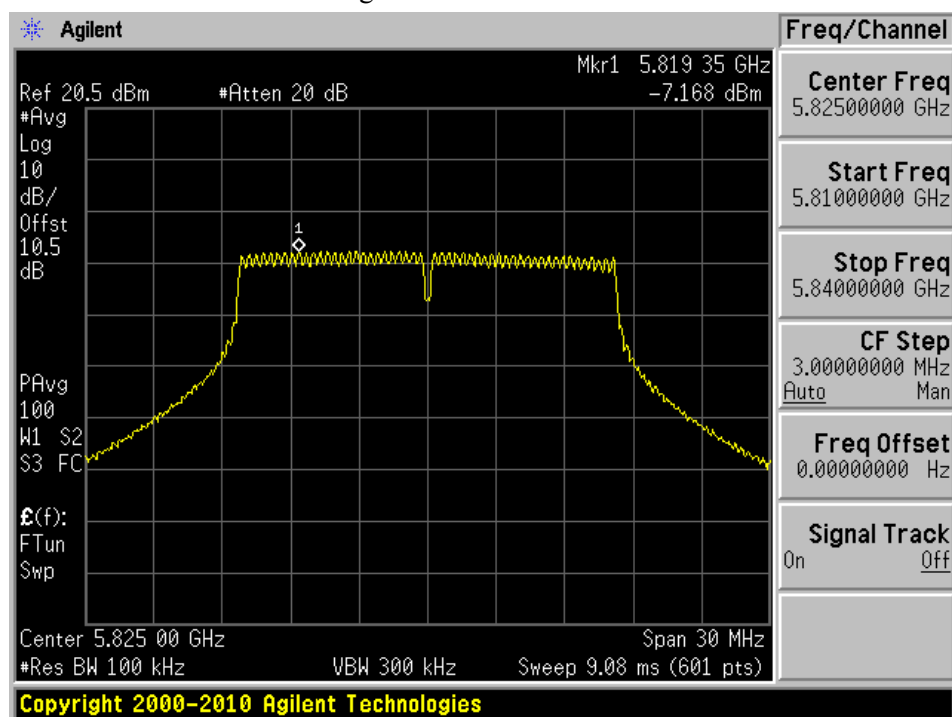
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

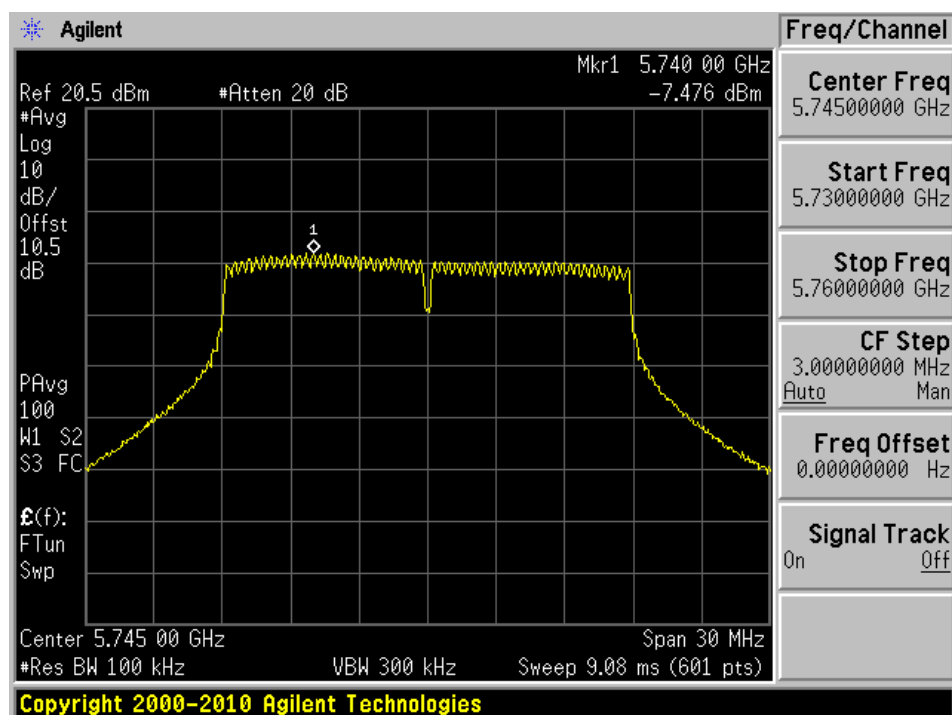


High Channel: 5825 MHz

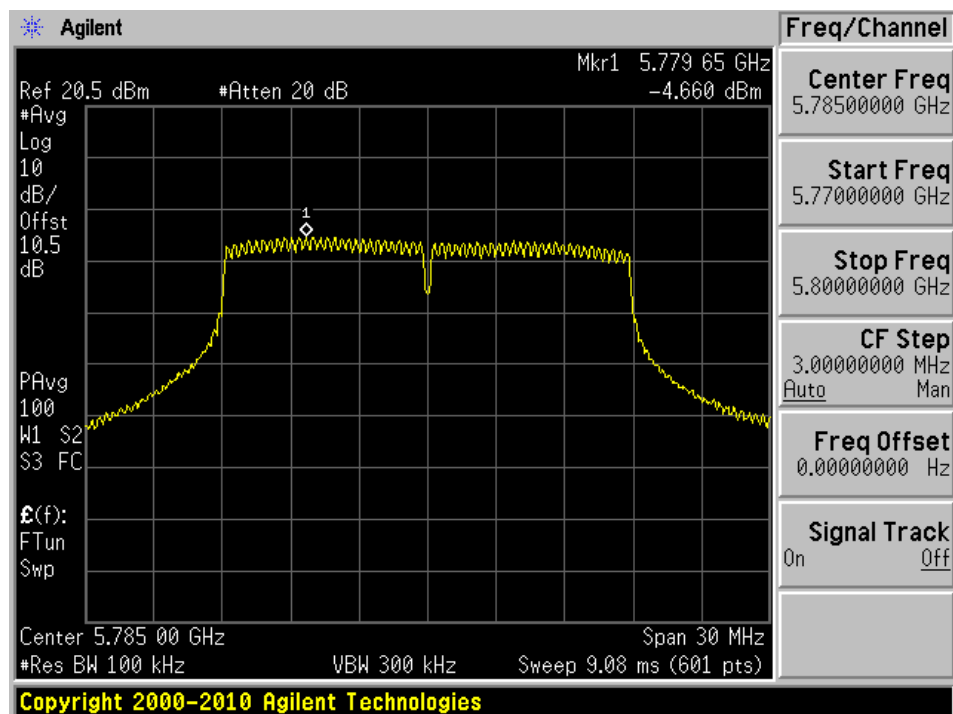


5.8 GHz Band
802.11n20
8dBi Antenna Chain 1

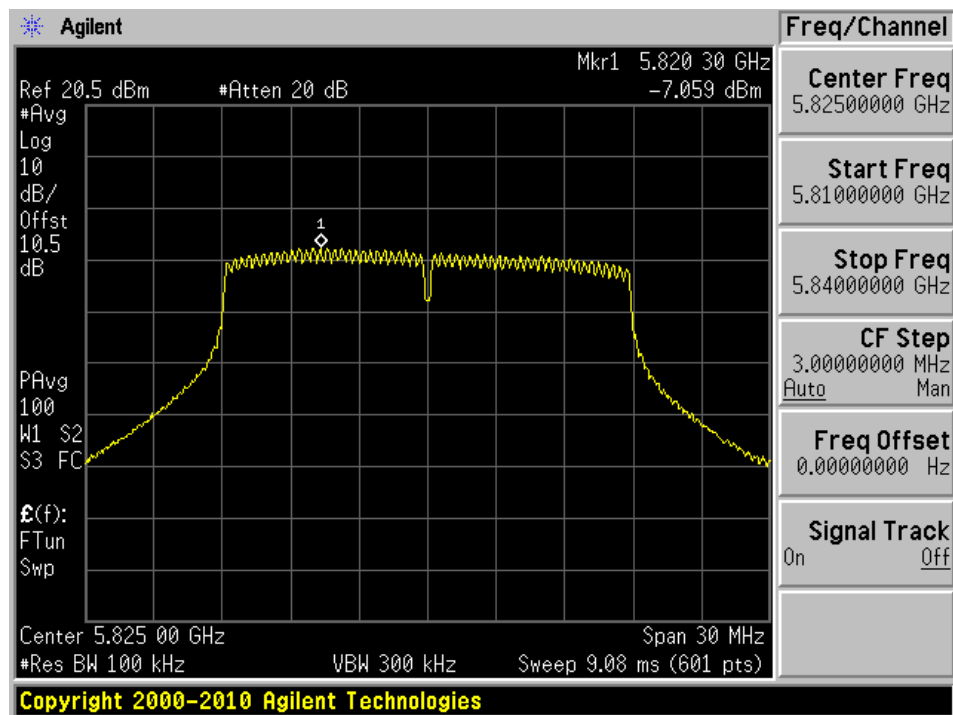
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

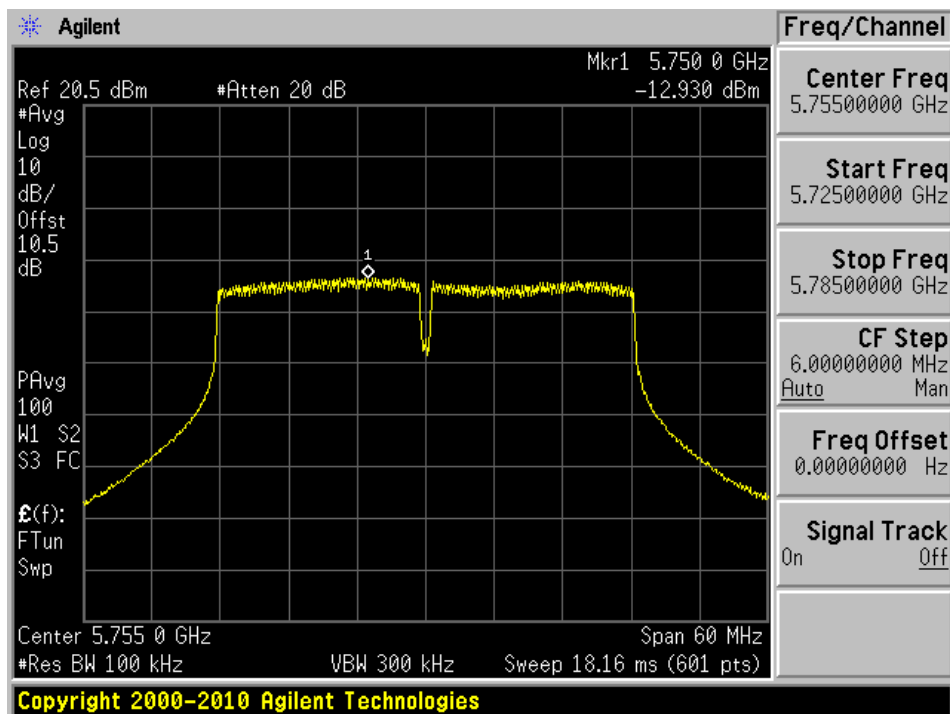


High Channel: 5825 MHz

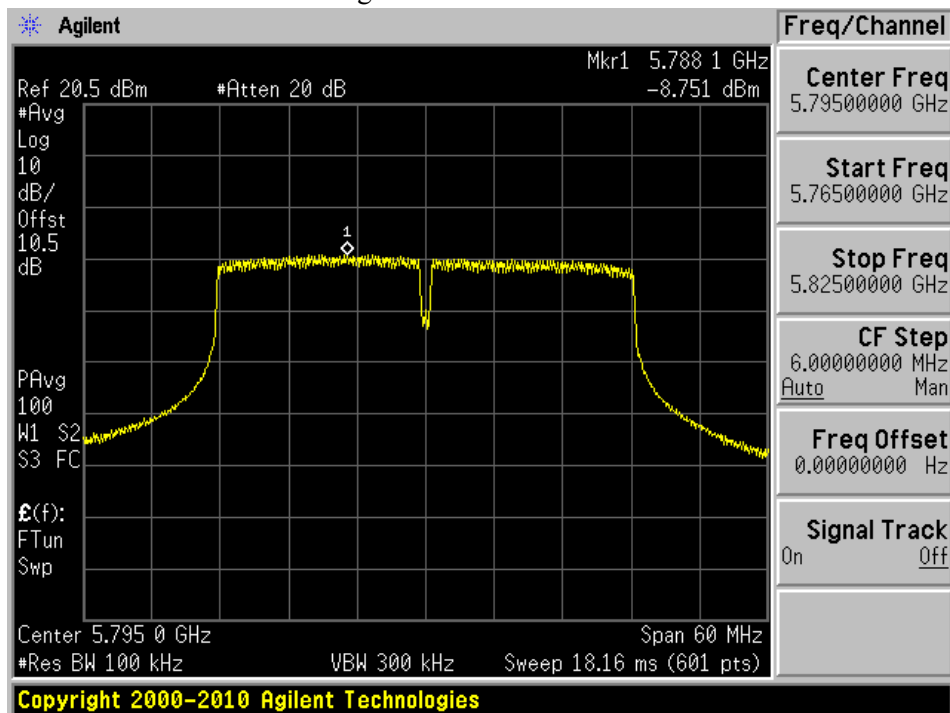


5.8 GHz Band
802.11n40
8dBi Antenna Chain 1

Low Channel: 5755 MHz

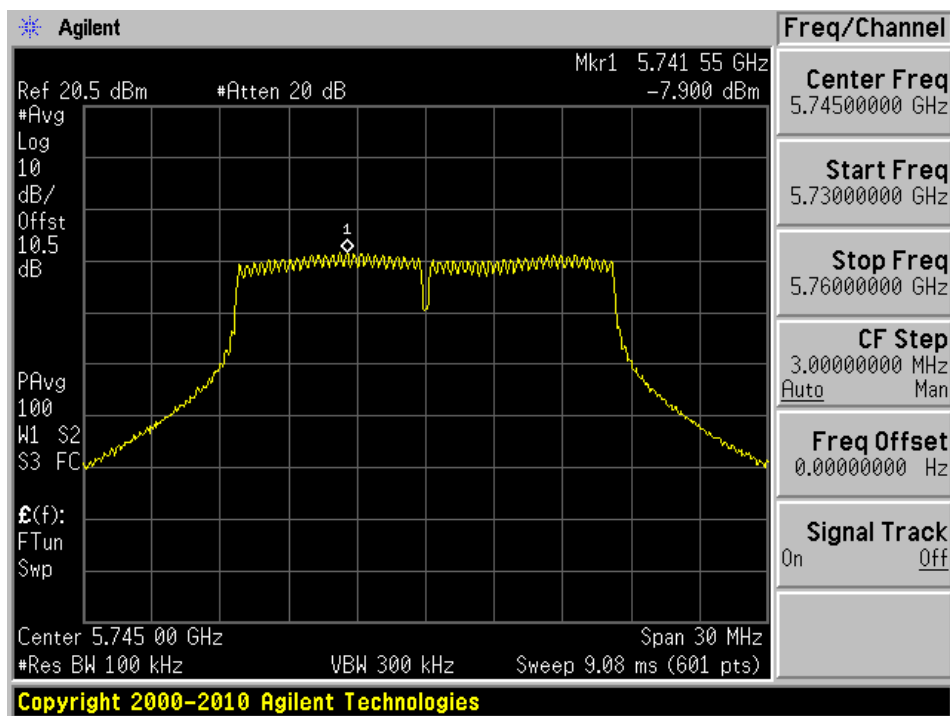


High Channel: 5795 MHz

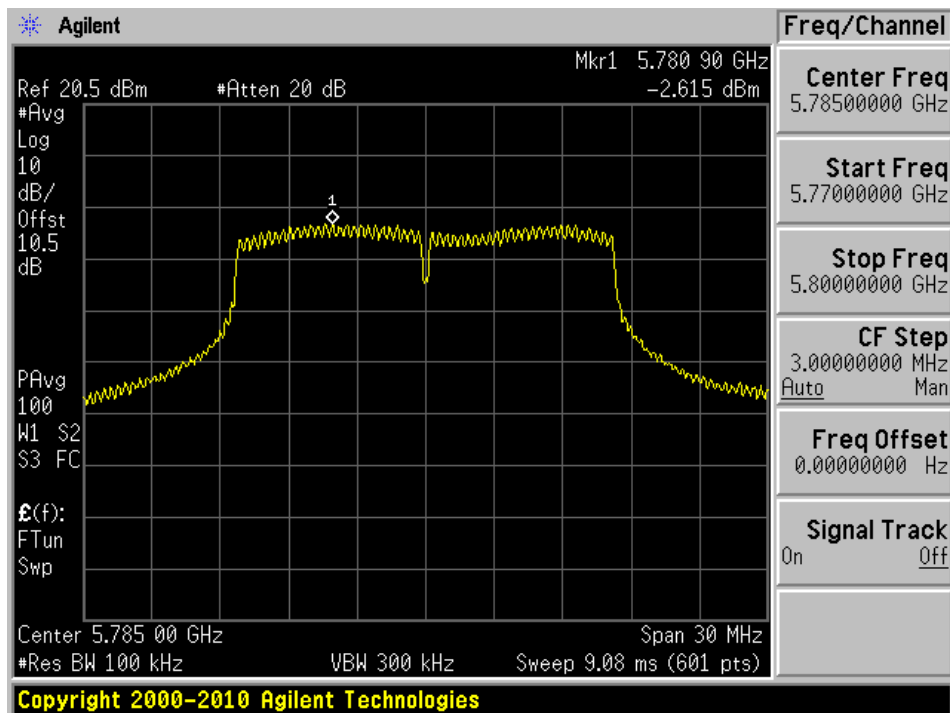


5.8 GHz Band
802.11a
8dBi Antenna Chain 2

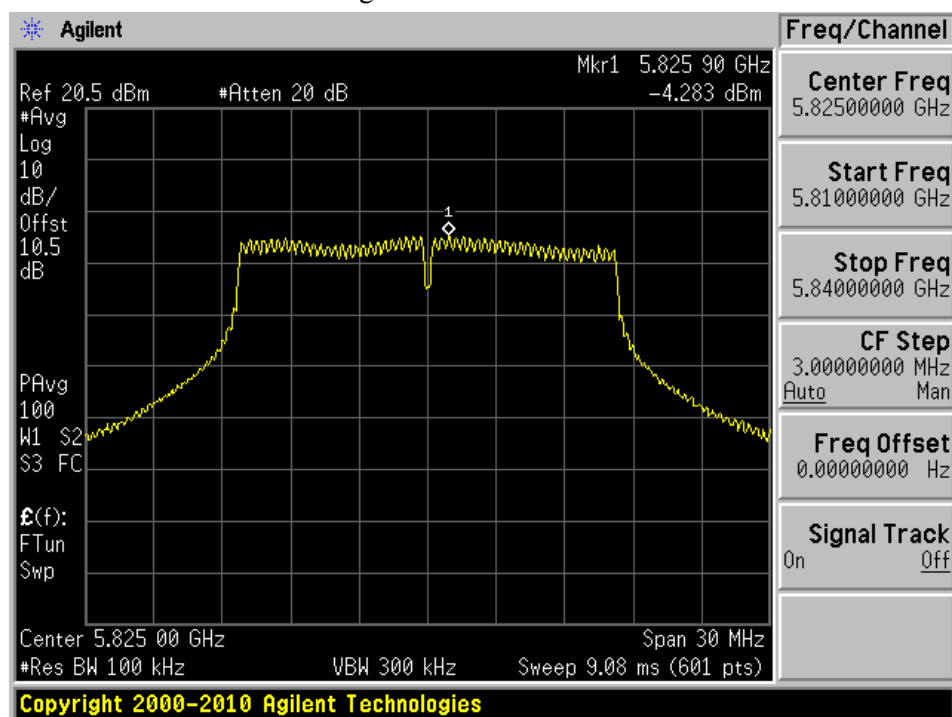
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

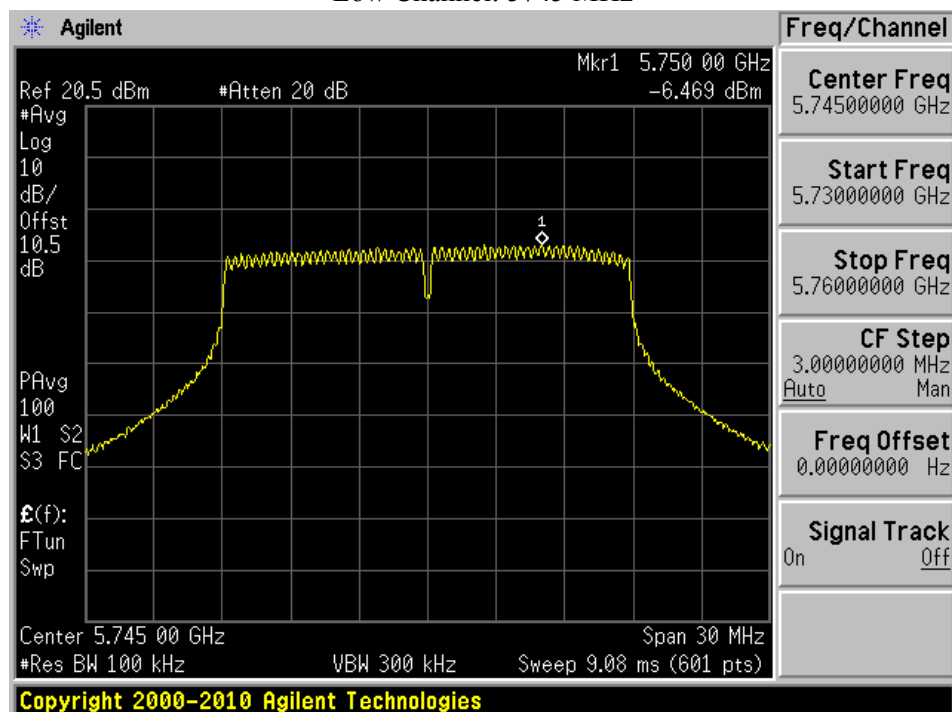


High Channel: 5825 MHz

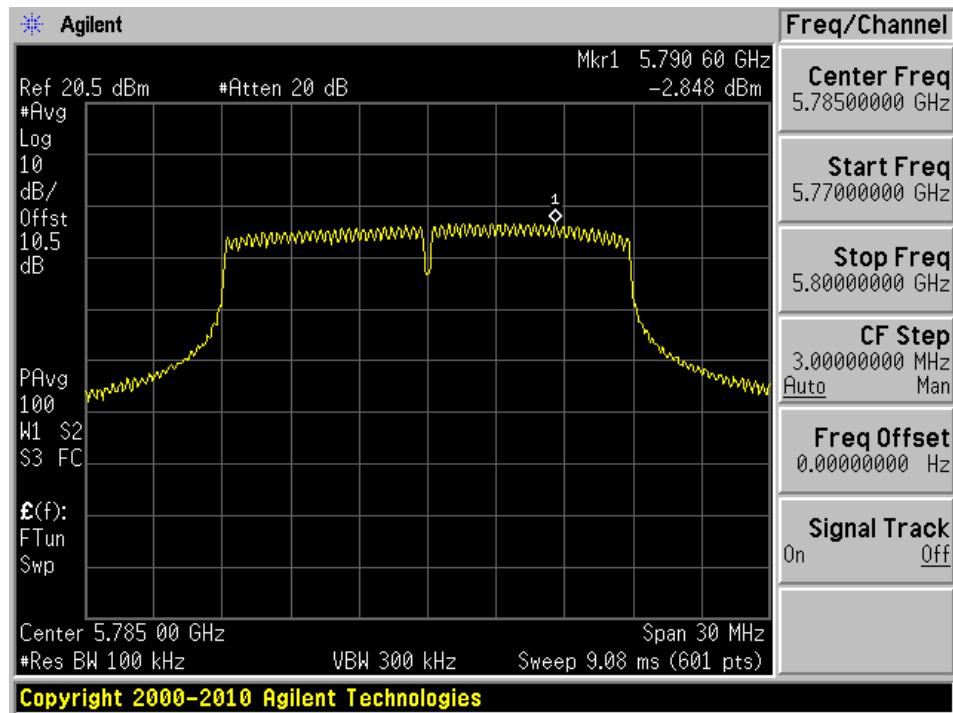


5.8 GHz Band
802.11n20
8dBi Antenna Chain 2

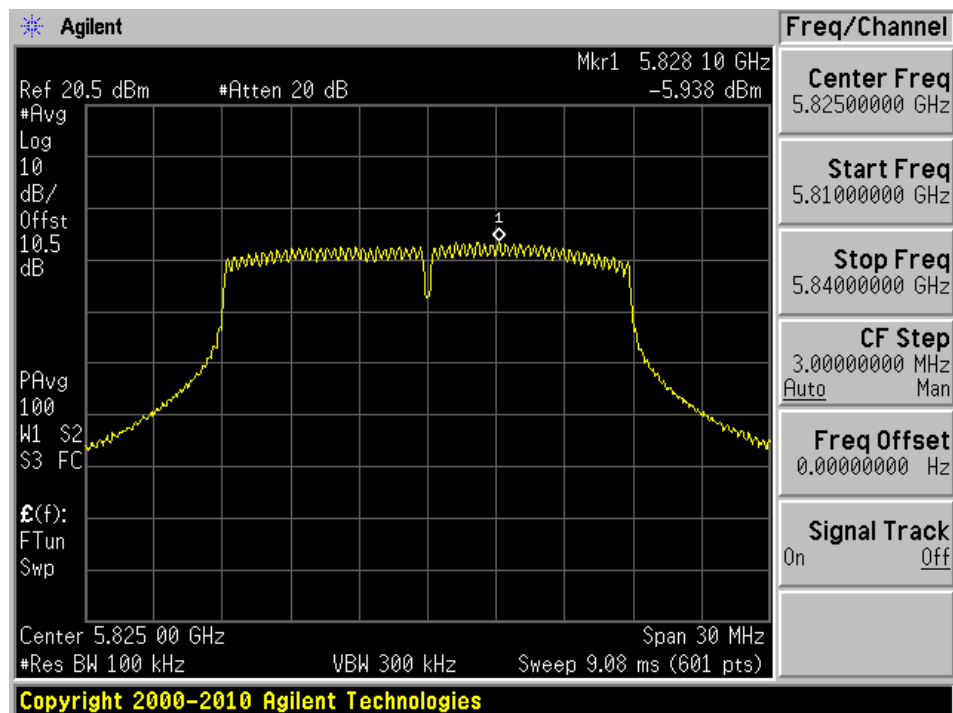
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

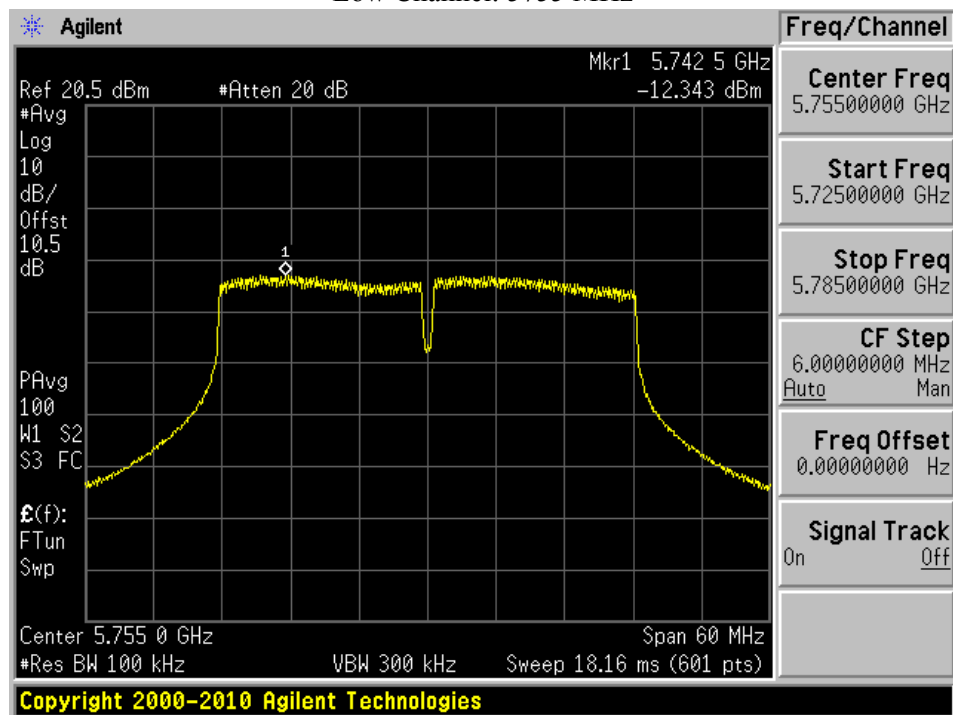


High Channel: 5825 MHz

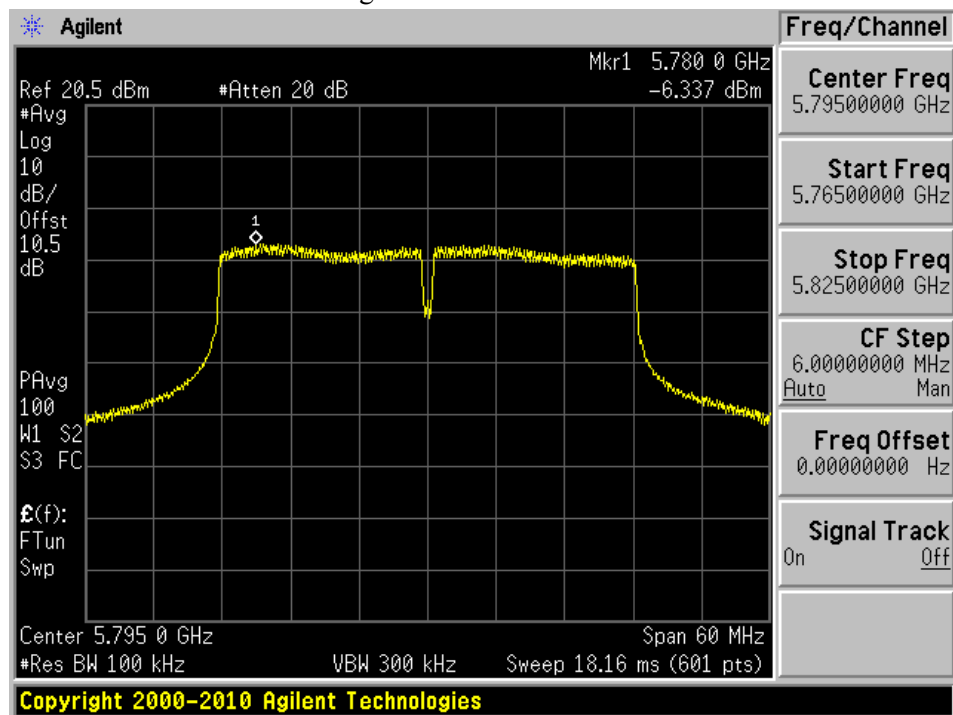


5.8 GHz Band
802.11n40
8dBi Antenna Chain 2

Low Channel: 5755 MHz



High Channel: 5795 MHz



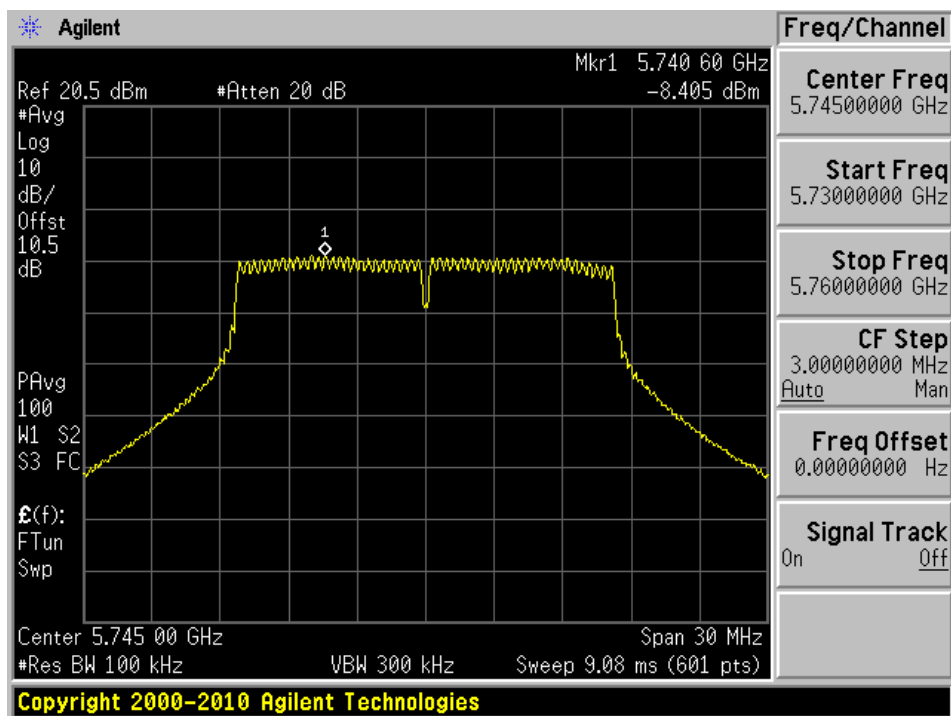
5.8 GHz Band, 12 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/100kHz)	Conducted PSD Chain1 (dBm/100kHz)	Conducted PSD Chain2 (dBm/100kHz)	Total PSD (dBm/100kHz)	RBW factor (dB)	Limit (dBm/500k Hz)	Margin (dB)
802.11 a mode								
Low	5745	-8.405	-9.528	-8.301	-3.94	6.99	24	-20.95
Middle	5785	-8.993	-10.636	-8.825	-4.64	6.99	24	-21.65
High	5825	-10.023	-12.011	-10.151	-5.87	6.99	24	-22.88
802.11n HT20 mode								
Low	5745	-9.985	-10.648	-9.426	-5.22	6.99	24	-22.23
Middle	5785	-9.072	-10.676	-9.088	-4.78	6.99	24	-21.79
High	5825	-10.312	-11.773	-10.387	-6.00	6.99	24	-23.01
802.11n HT40 mode								
Low	5755	-14.858	-16.160	-14.810	-10.46	6.99	24	-27.47
High	5795	-12.515	-13.840	-12.564	-8.16	6.99	24	-25.17

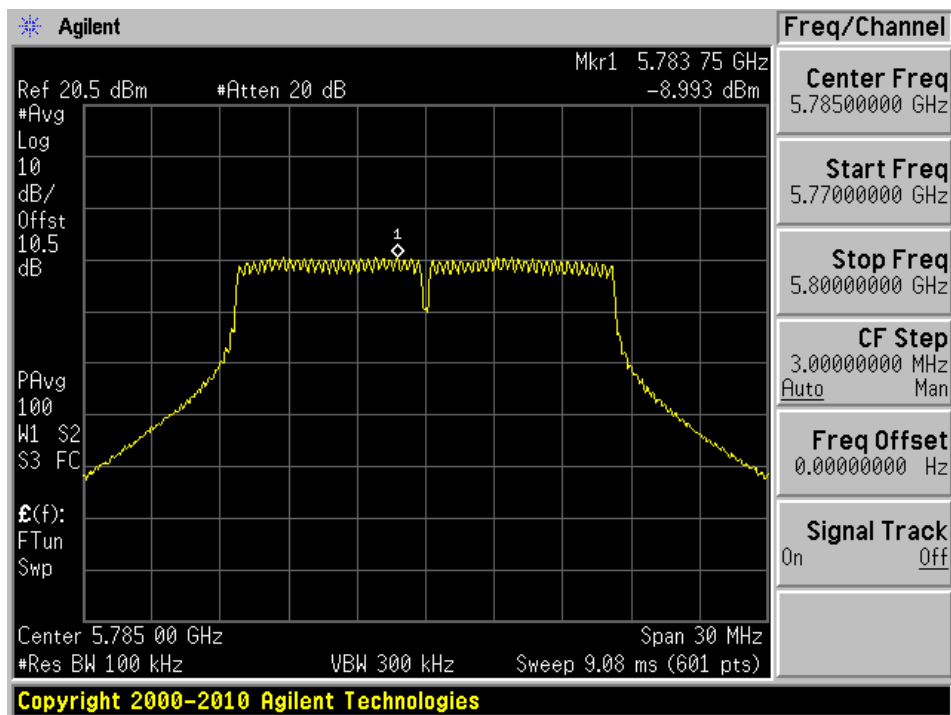
Note: Antenna gain exceed 6dBi, therefore the limit should be $30-(12-6)=24\text{dBm}$

**5.8 GHz Band
802.11a
12dBi Antenna Chain 0**

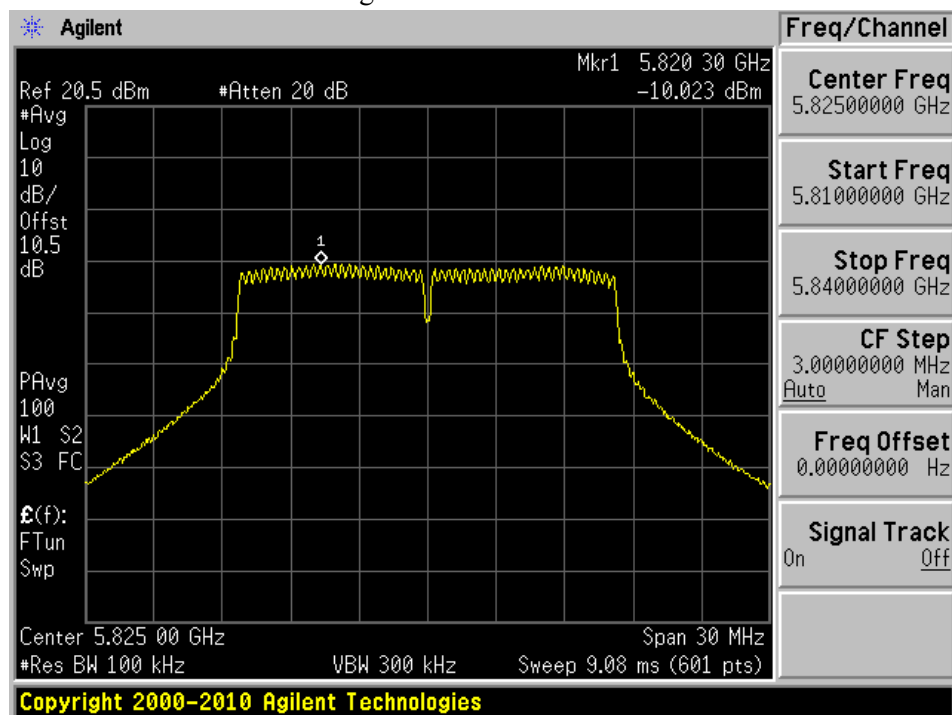
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

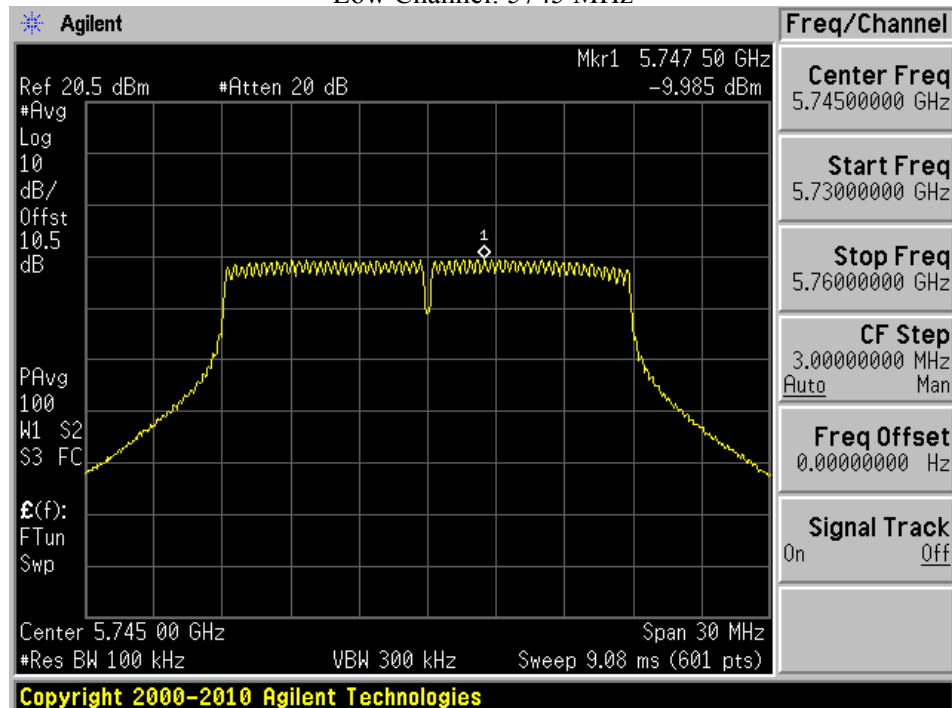


High Channel: 5825 MHz

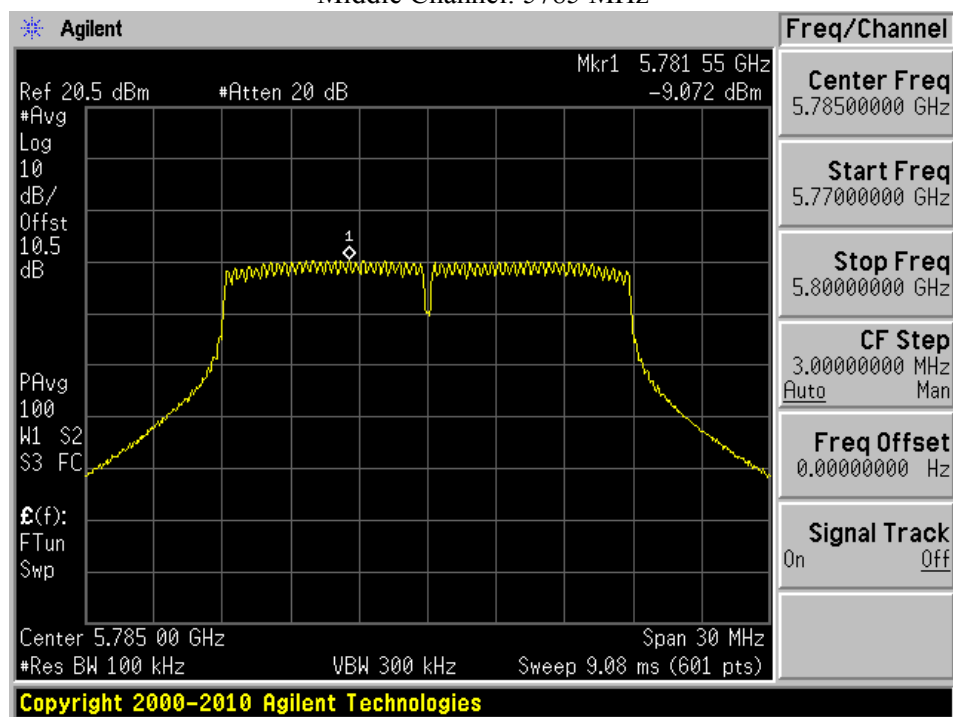


5.8 GHz Band
802.11n20
12dBi Antenna Chain 0

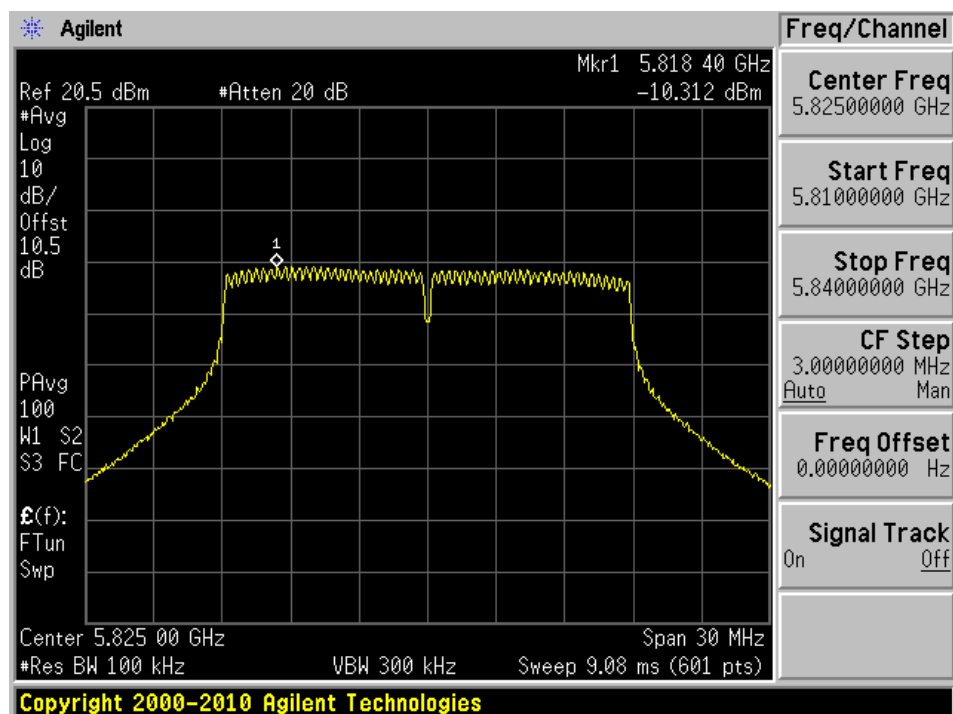
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

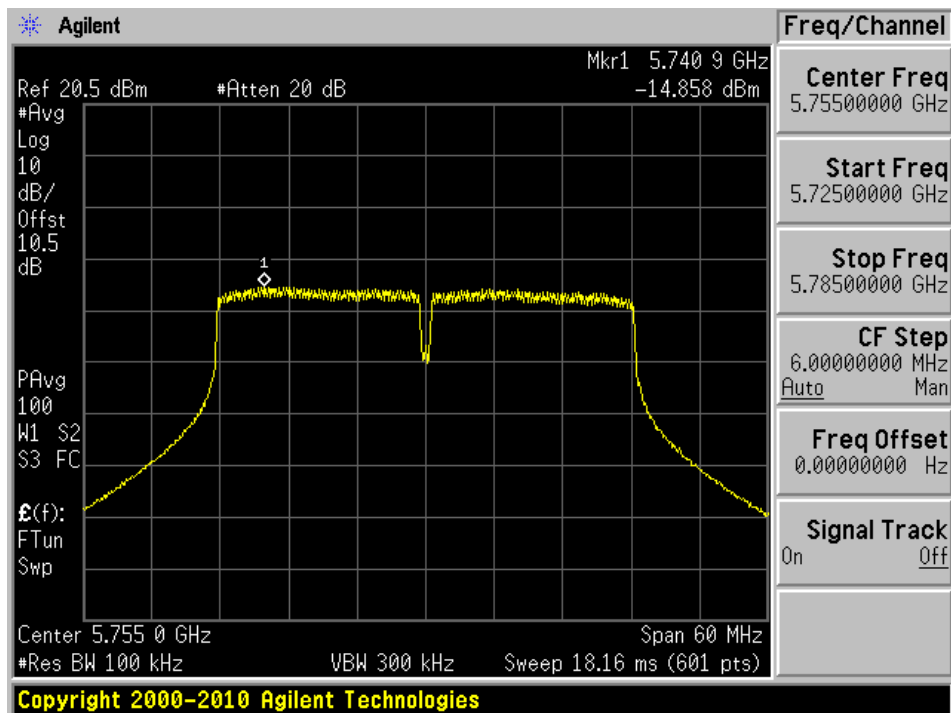


High Channel: 5825 MHz

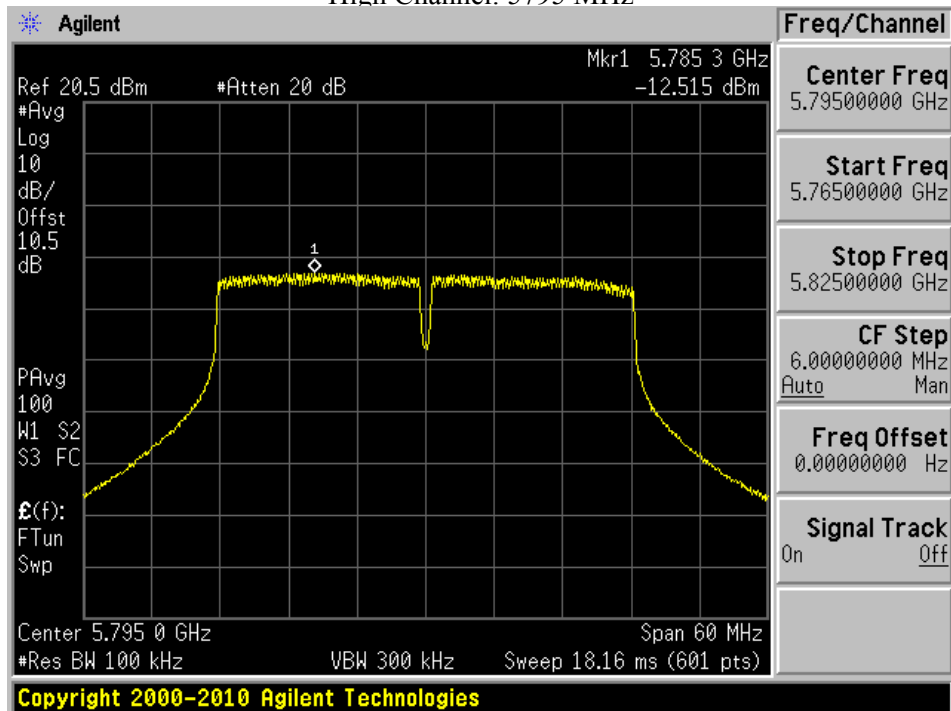


5.8 GHz Band
802.11n40
12dBi Antenna Chain 0

Low Channel: 5755 MHz

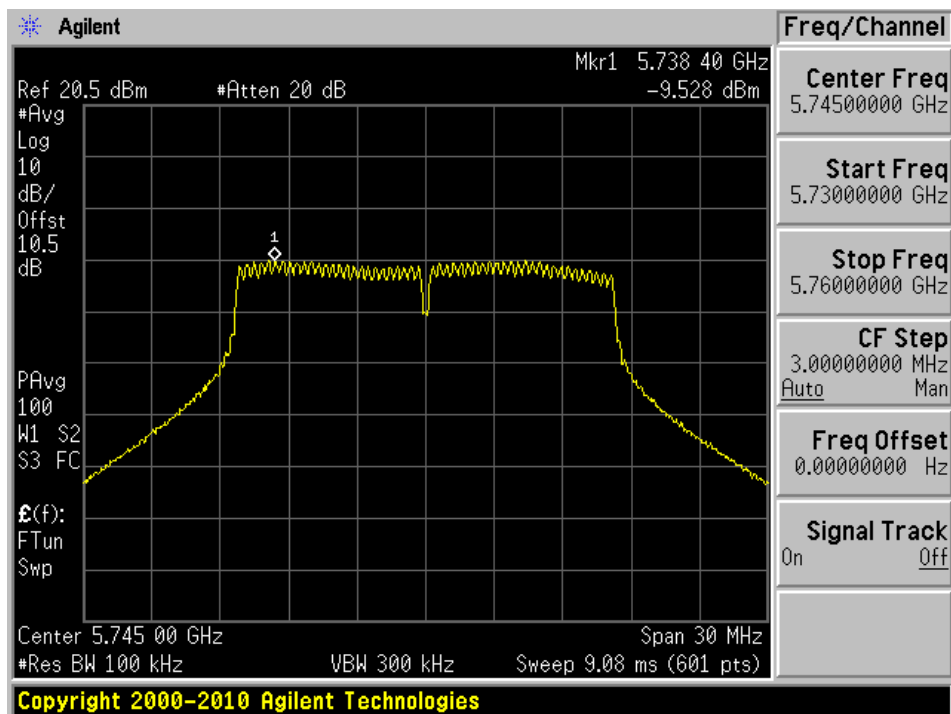


High Channel: 5795 MHz

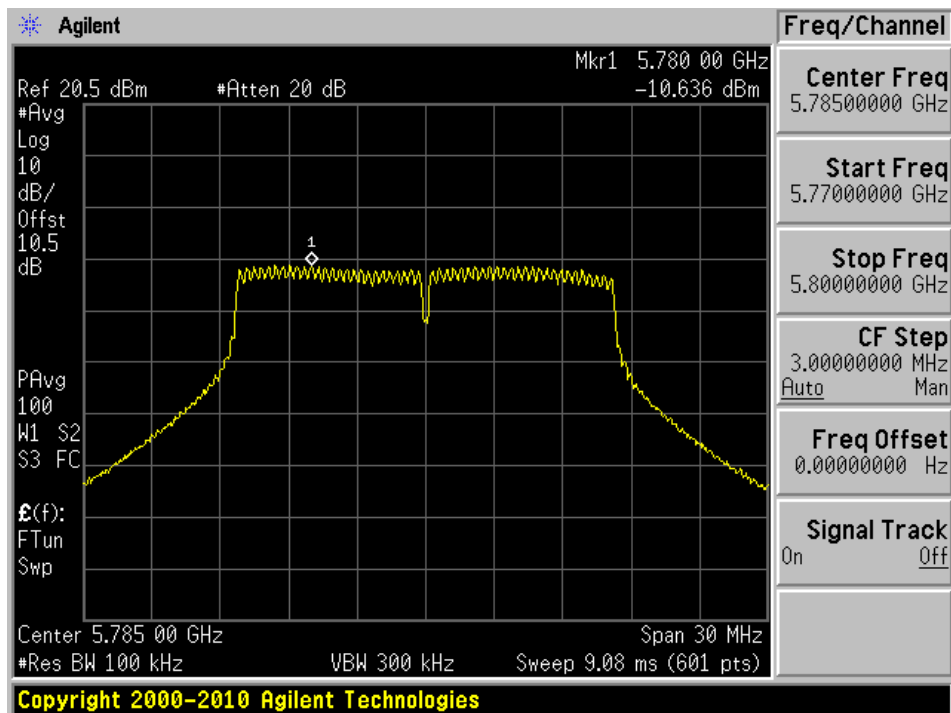


5.8 GHz Band
802.11a
12dBi Antenna Chain 1

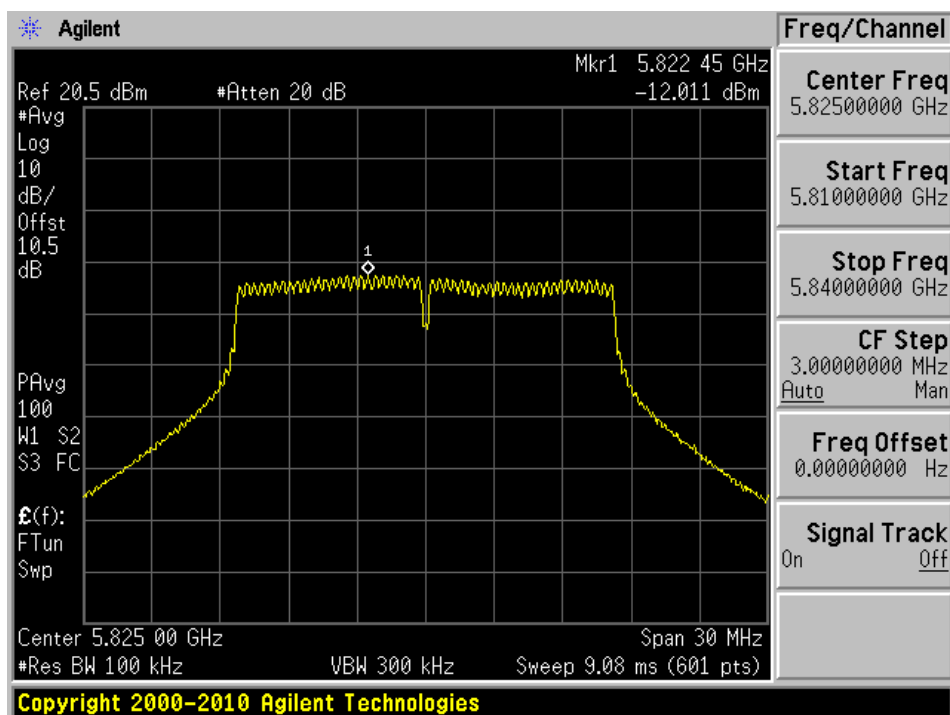
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

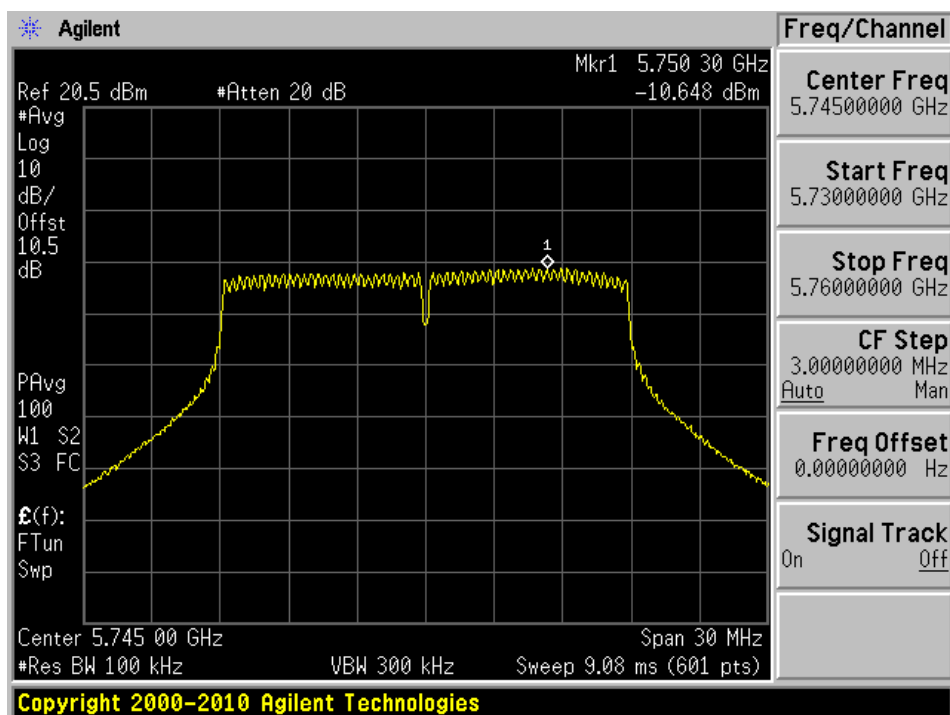


High Channel: 5825 MHz

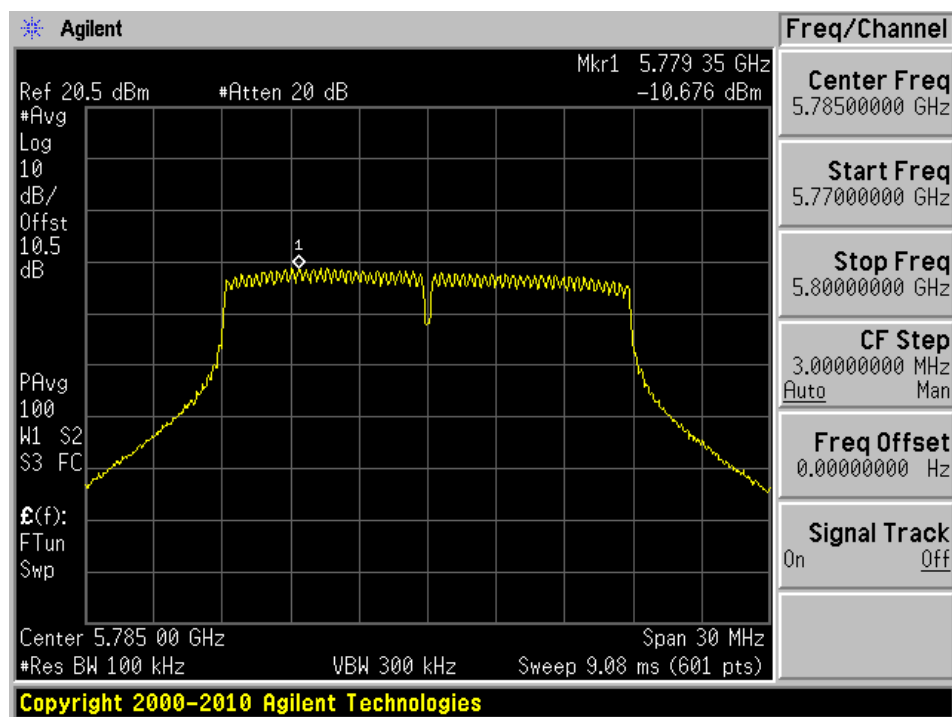


5.8 GHz Band
802.11n20
12dBi Antenna Chain 1

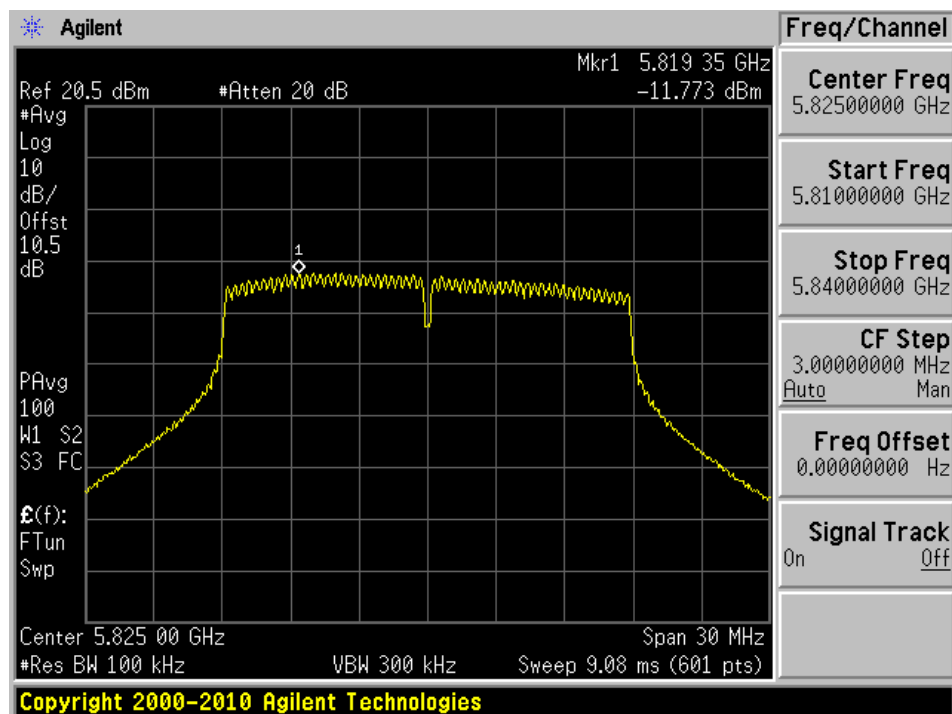
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

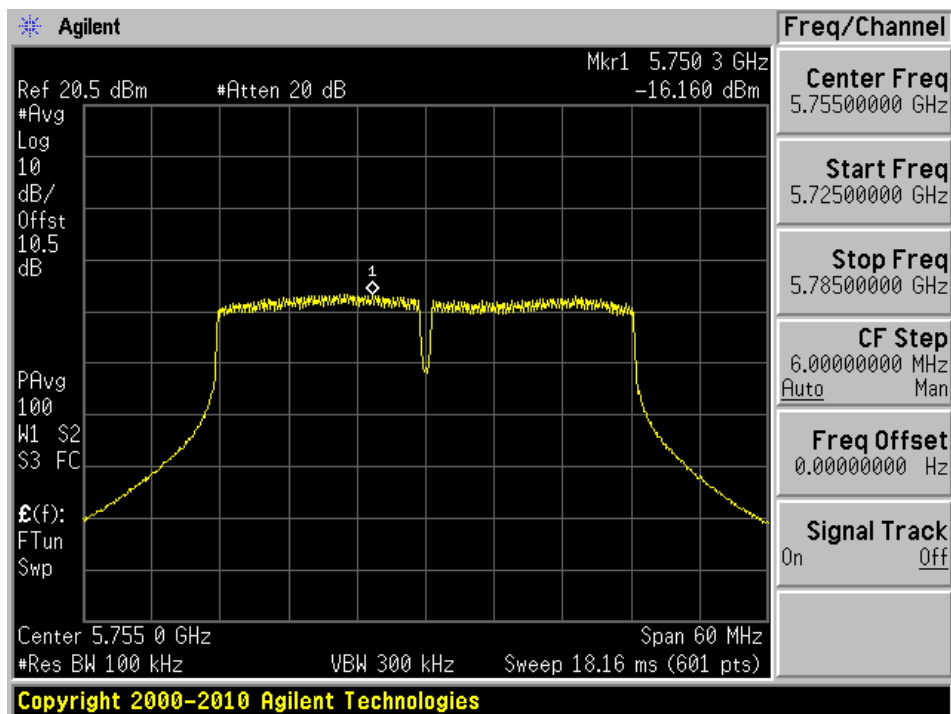


High Channel: 5825 MHz

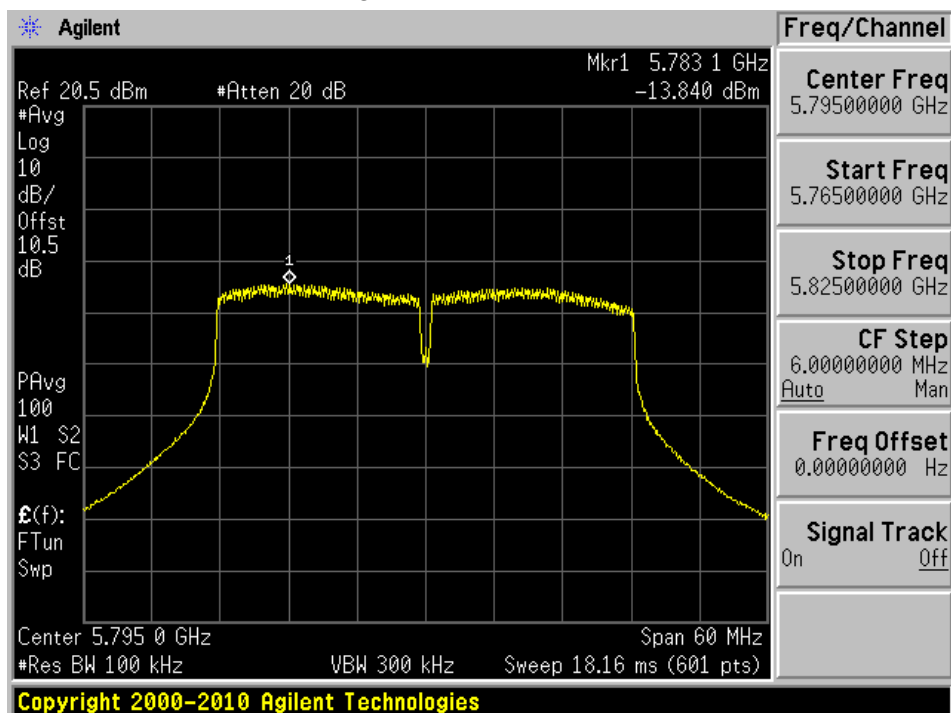


5.8 GHz Band
802.11n40
12dBi Antenna Chain 1

Low Channel: 5755 MHz

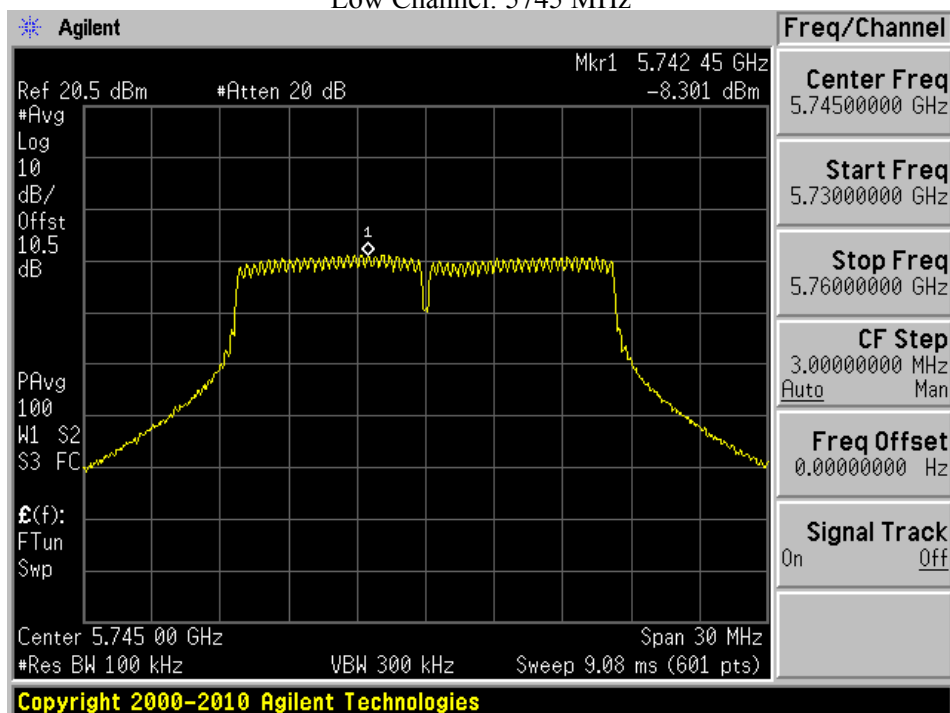


High Channel: 5795 MHz

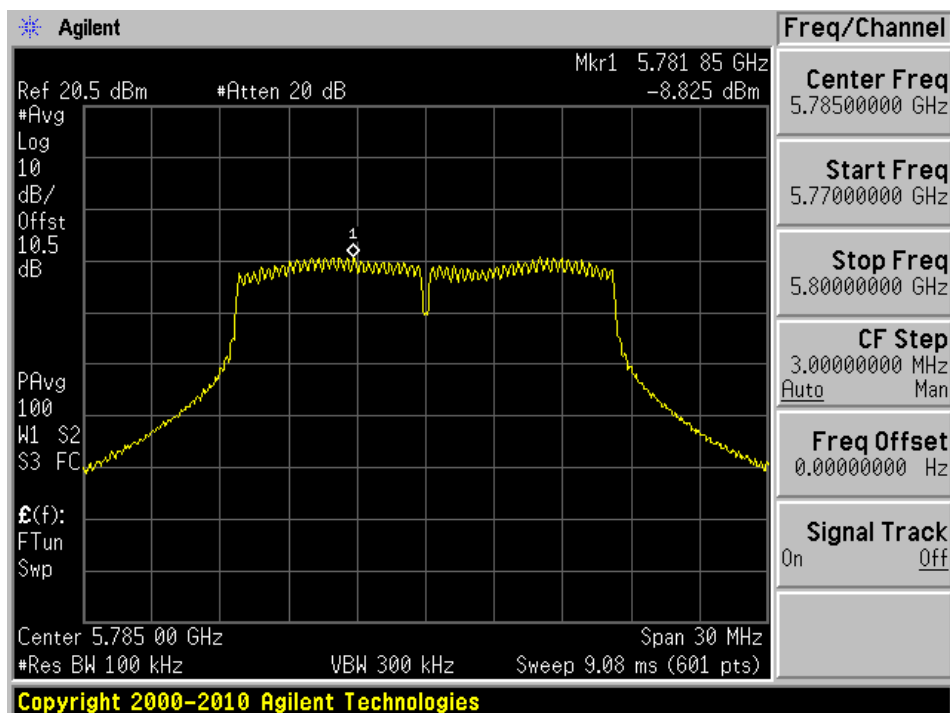


**5.8 GHz Band
802.11a
12dBi Antenna Chain 2**

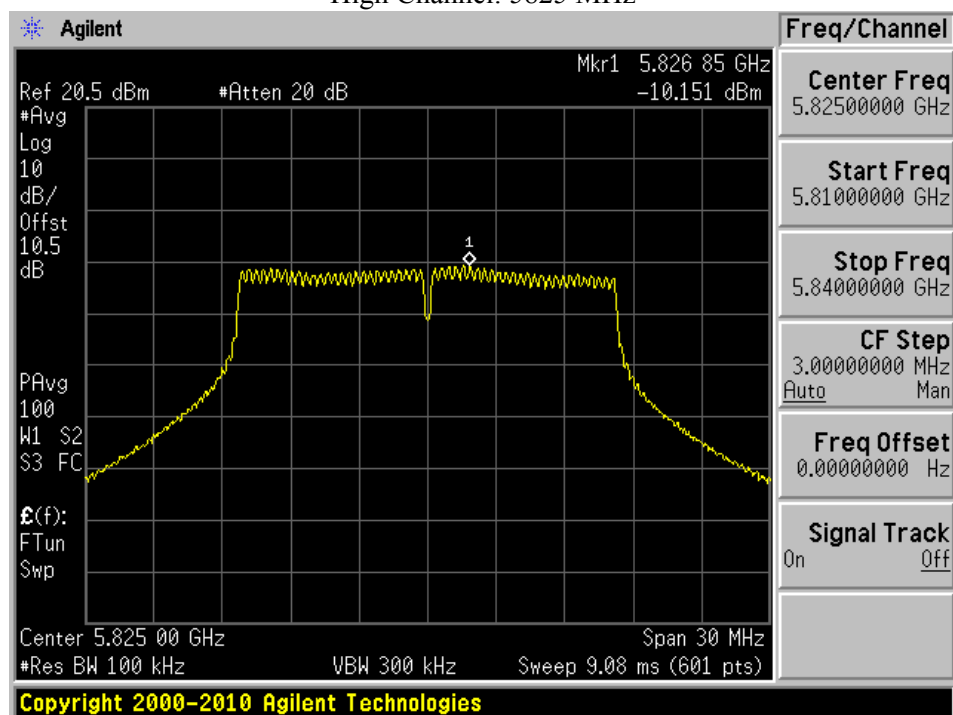
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

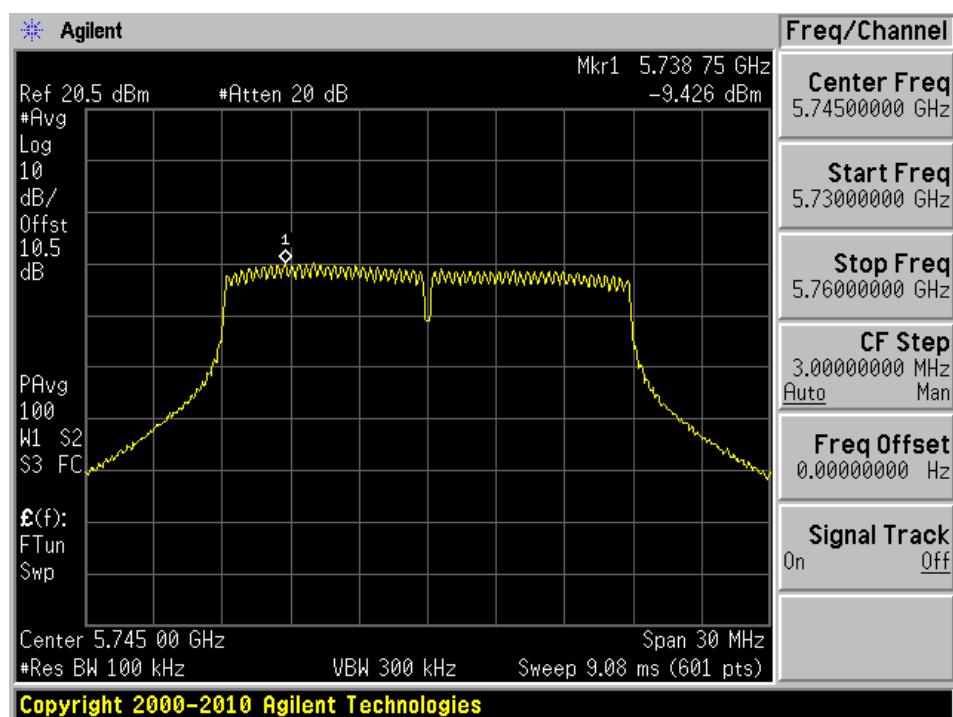


High Channel: 5825 MHz

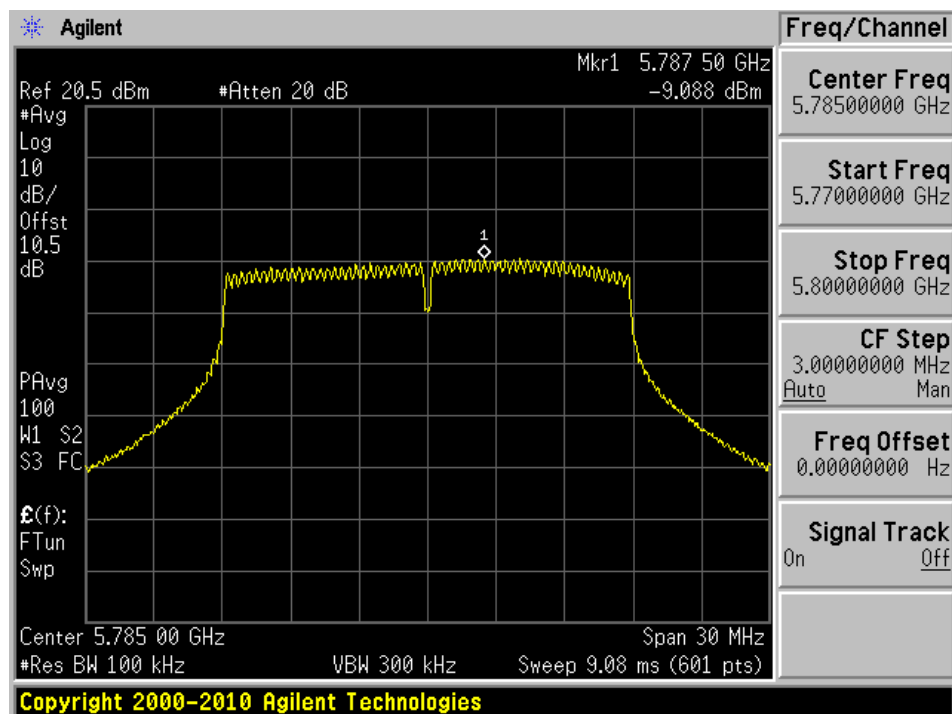


5.8 GHz Band
802.11n20
12dBi Antenna Chain 2

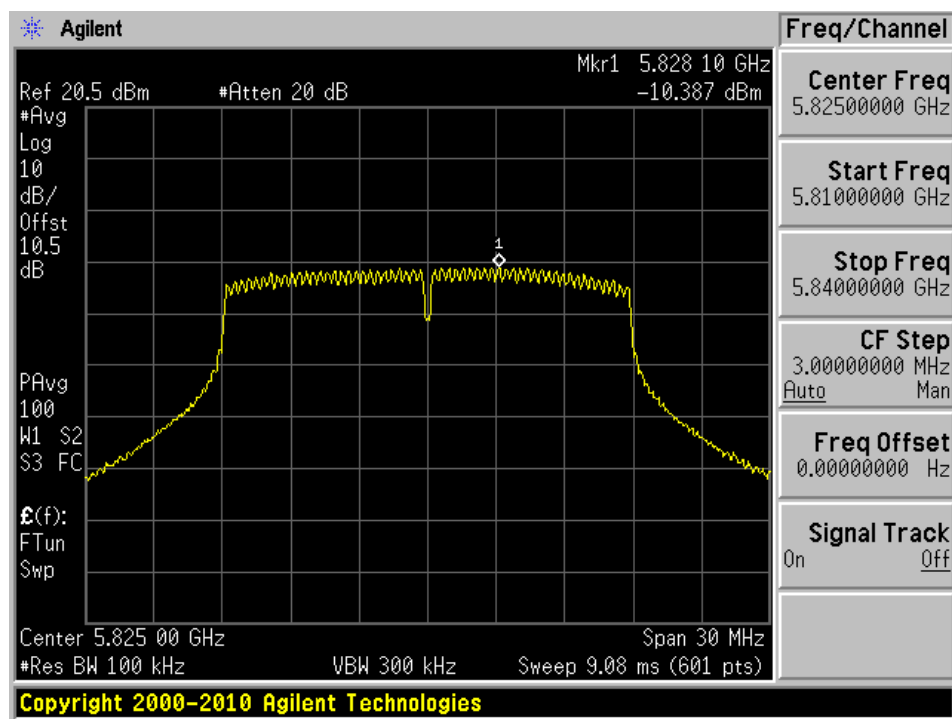
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

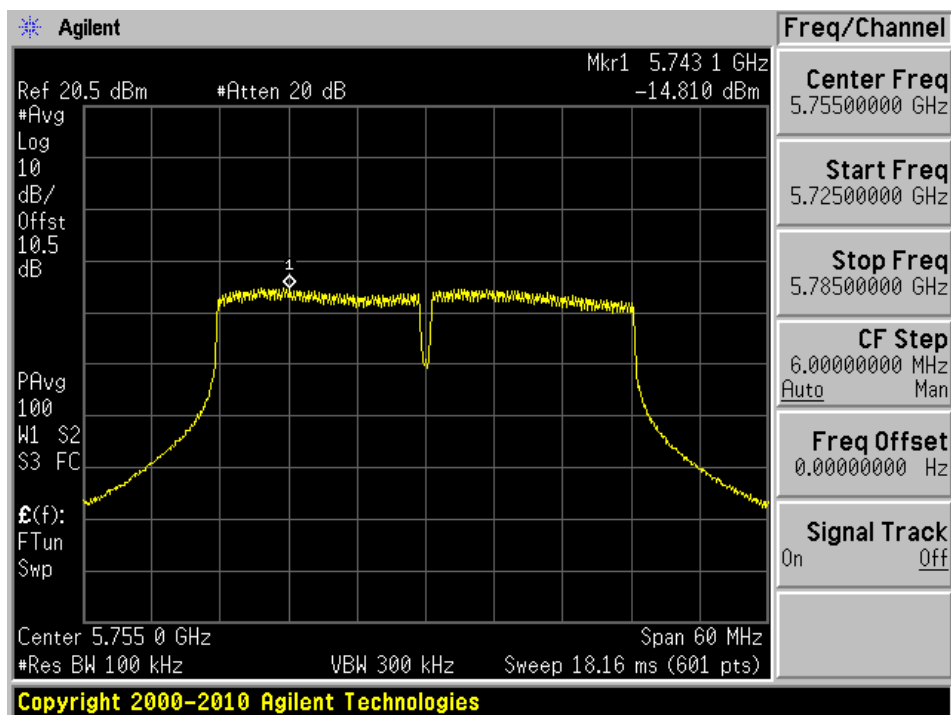


High Channel: 5825 MHz

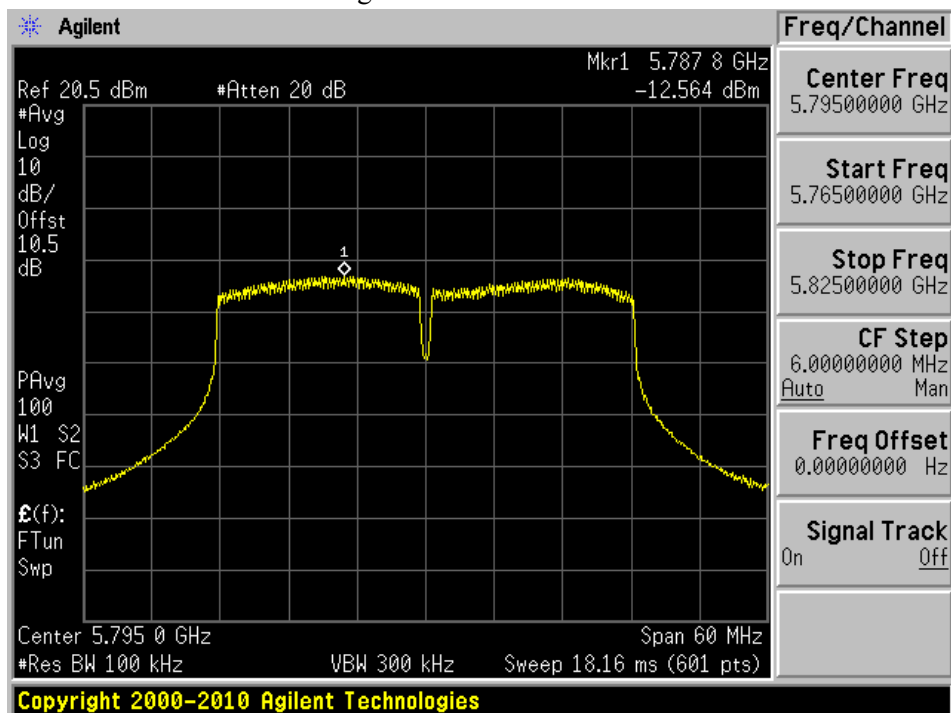


5.8 GHz Band
802.11n40
12dBi Antenna Chain 2

Low Channel: 5755 MHz



High Channel: 5795 MHz



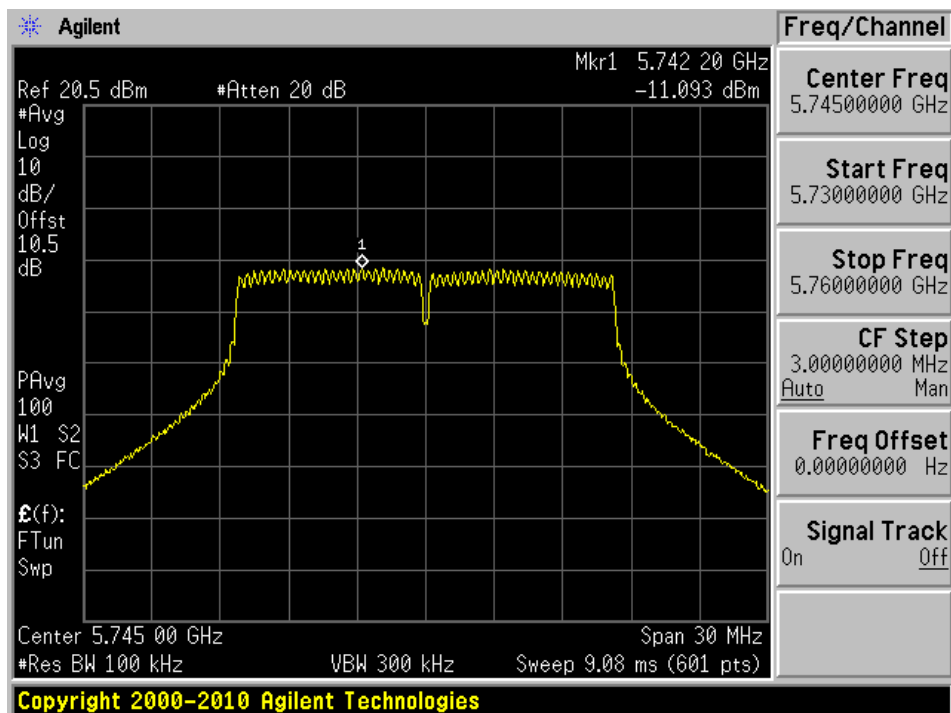
5.8 GHz Band, 15 dBi Antenna

Channel	Frequency (MHz)	Conducted PSD Chain0 (dBm/100kHz)	Conducted PSD Chain1 (dBm/100kHz)	Conducted PSD Chain2 (dBm/100kHz)	Total PSD (dBm/100kHz)	RBW factor (dB)	Limit (dBm/500kHz)	Margin (dB)
802.11 a mode								
Low	5745	-11.093	-12.099	-10.750	-6.51	6.99	21	-20.52
Middle	5785	-11.471	-12.528	-10.893	-6.81	6.99	21	-20.82
High	5825	-12.092	-13.009	-11.940	-7.55	6.99	21	-21.56
802.11n HT20 mode								
Low	5745	-11.616	-11.770	-11.119	-6.72	6.99	21	-20.73
Middle	5785	-11.087	-11.737	-10.259	-6.21	6.99	21	-20.22
High	5825	-13.021	-13.926	-12.435	-8.31	6.99	21	-22.32
802.11n HT40 mode								
Low	5755	-12.274	-13.427	-11.760	-7.66	6.99	21	-21.67
High	5795	-14.561	-15.452	-14.404	-10.01	6.99	21	-24.02

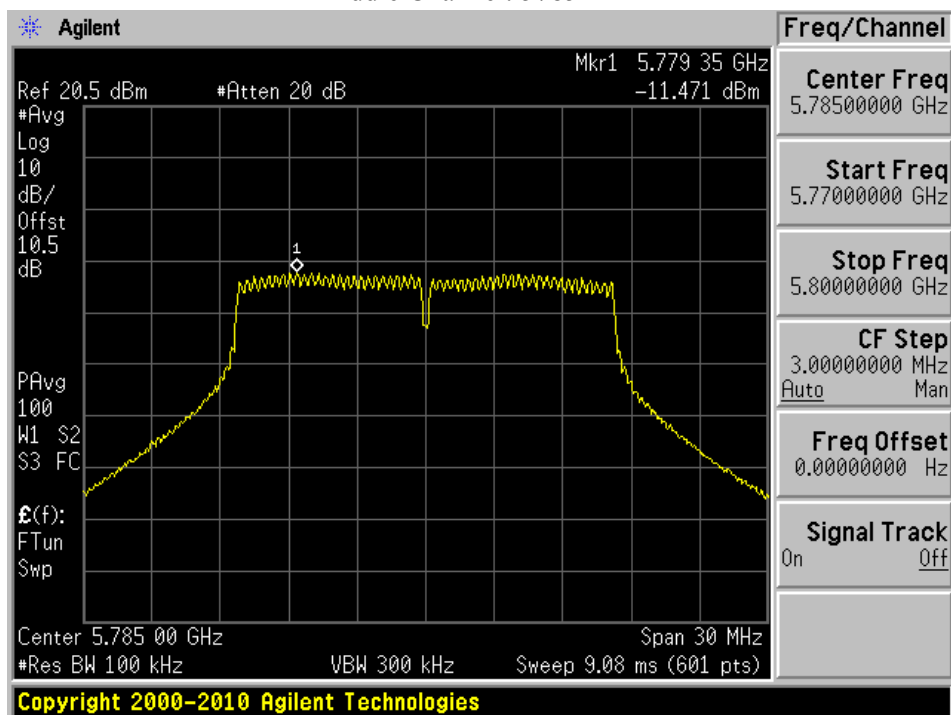
Note: Antenna gain exceed 6dBi, therefore the limit should be $30-(15-6)=21\text{dBm}$

5.8 GHz Band
802.11a
15dBi Antenna Chain 0

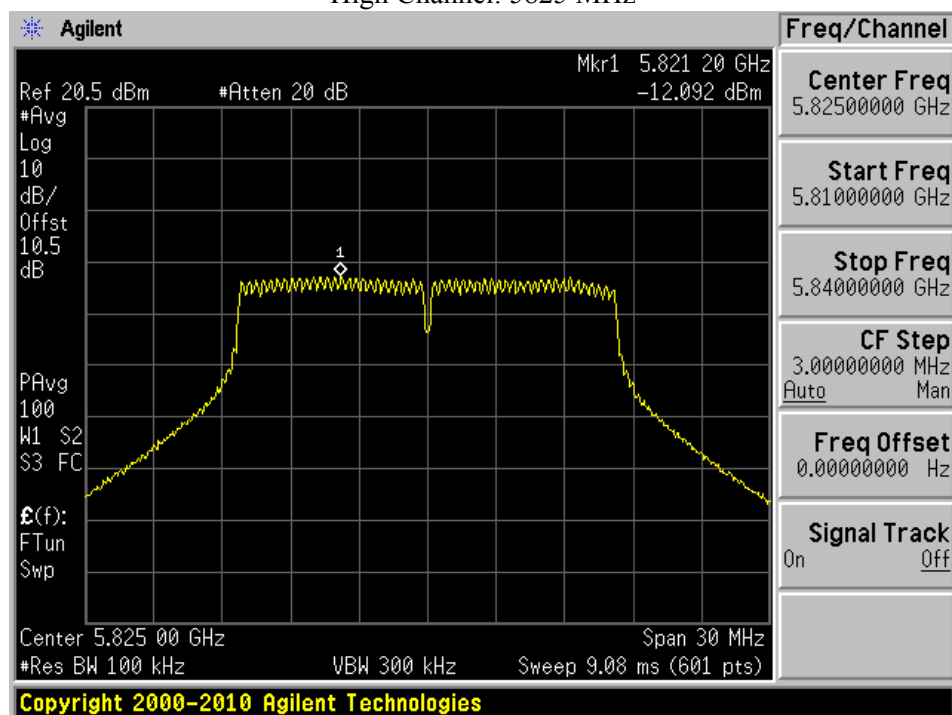
Low Channel: 5745 MHz



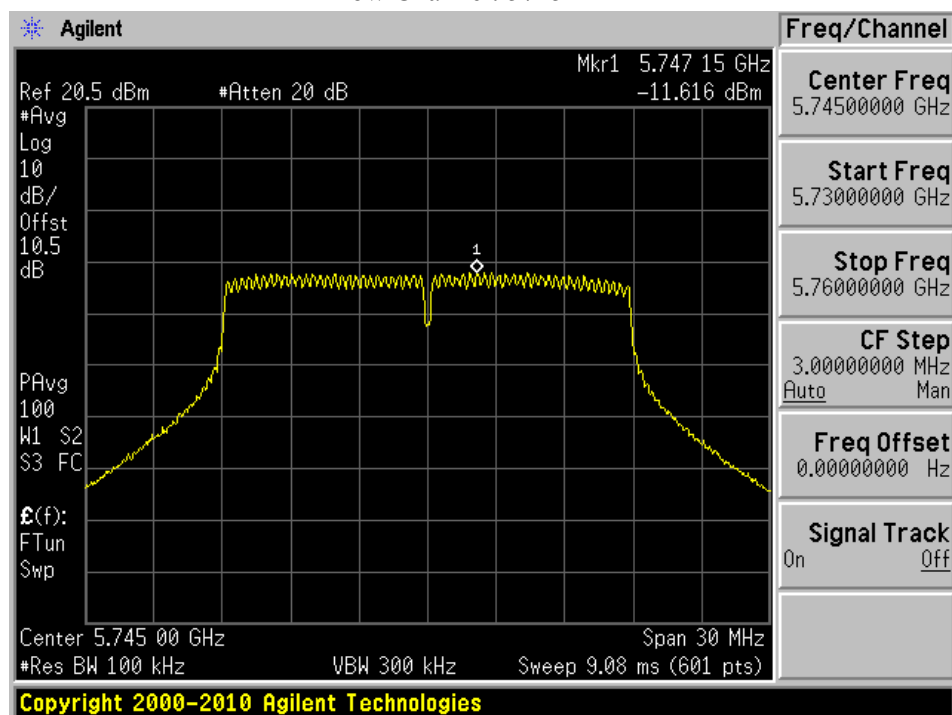
Middle Channel: 5785 MHz



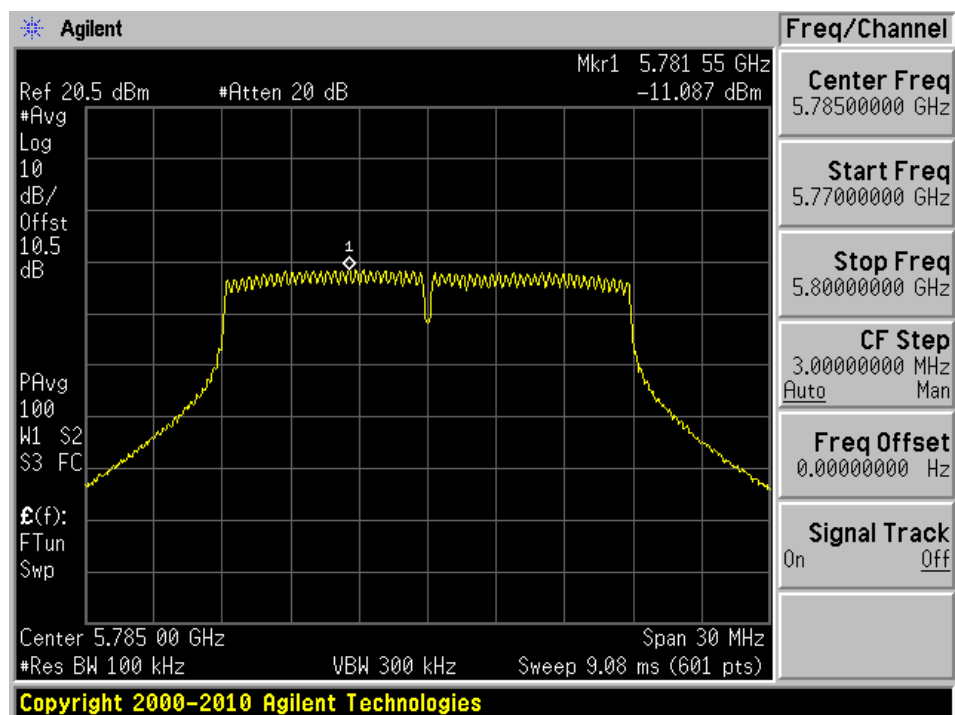
High Channel: 5825 MHz



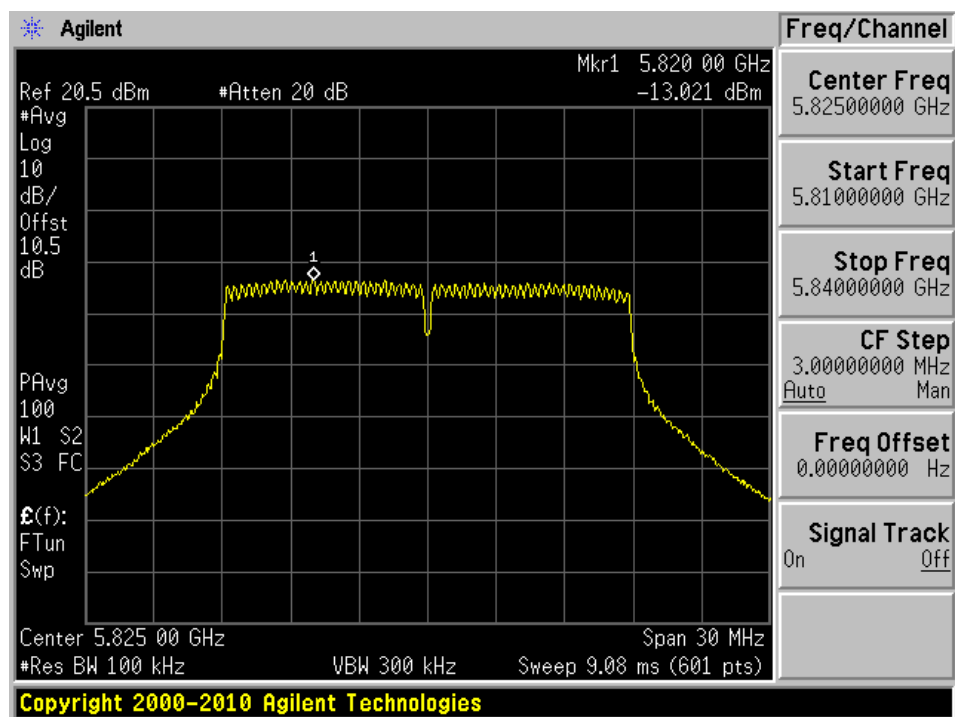
5.8 GHz Band
802.11n20
15dBi Antenna Chain 0
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

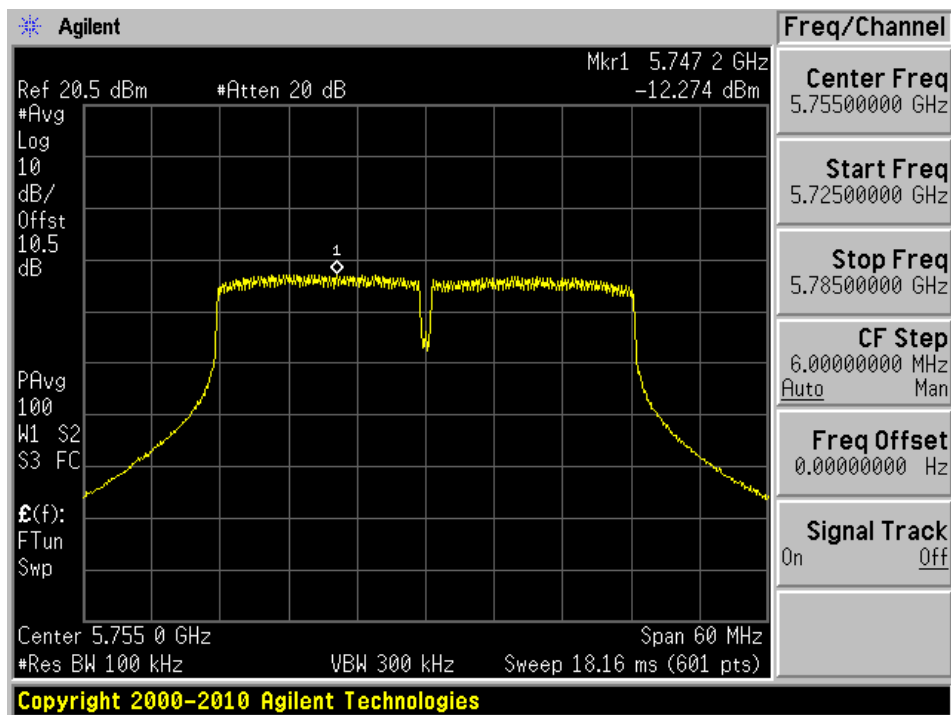


High Channel: 5825 MHz

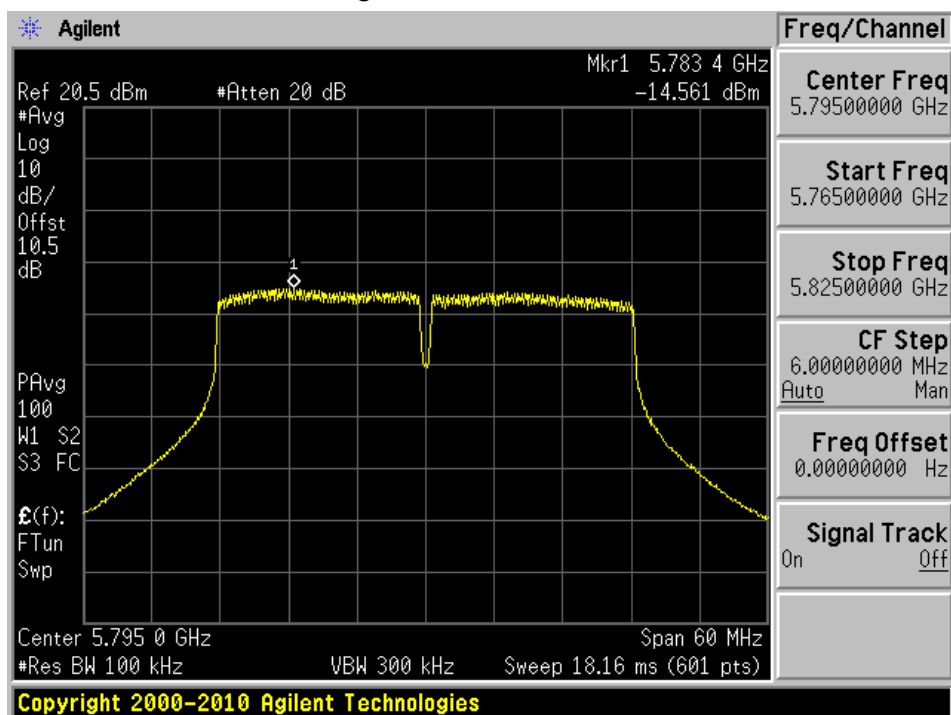


5.8 GHz Band
802.11n40
15dBi Antenna Chain 0

Low Channel: 5755 MHz

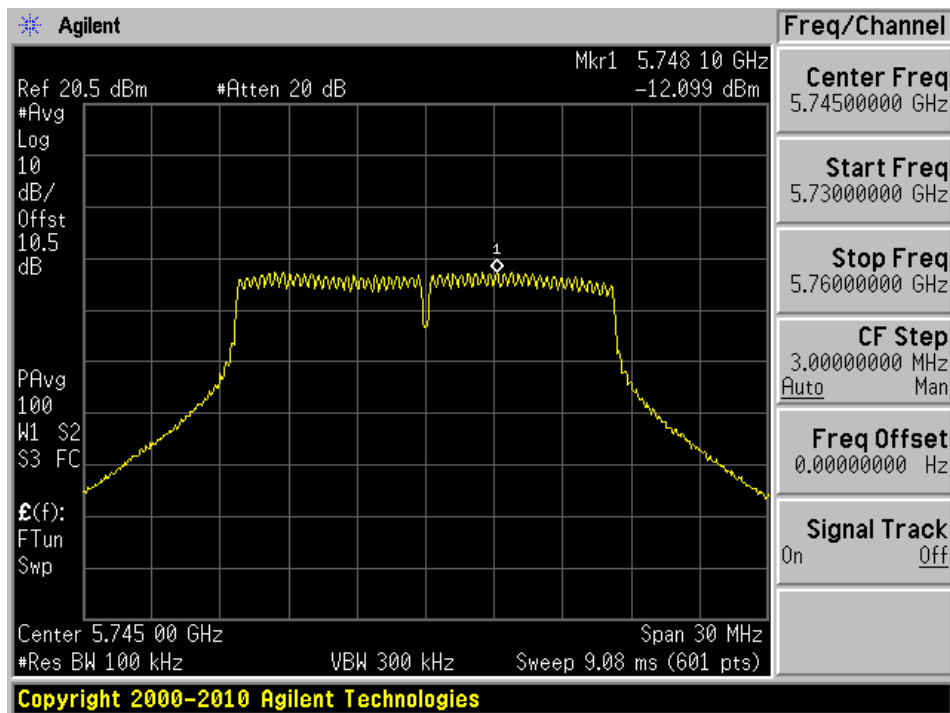


High Channel: 5795 MHz

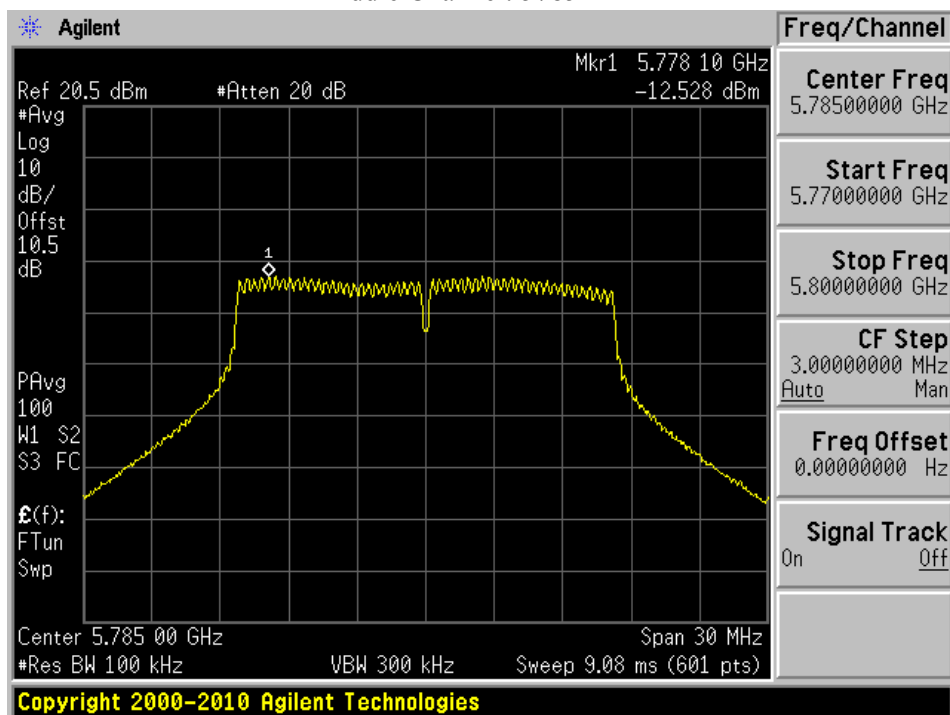


**5.8 GHz Band
802.11a
15dBi Antenna Chain 1**

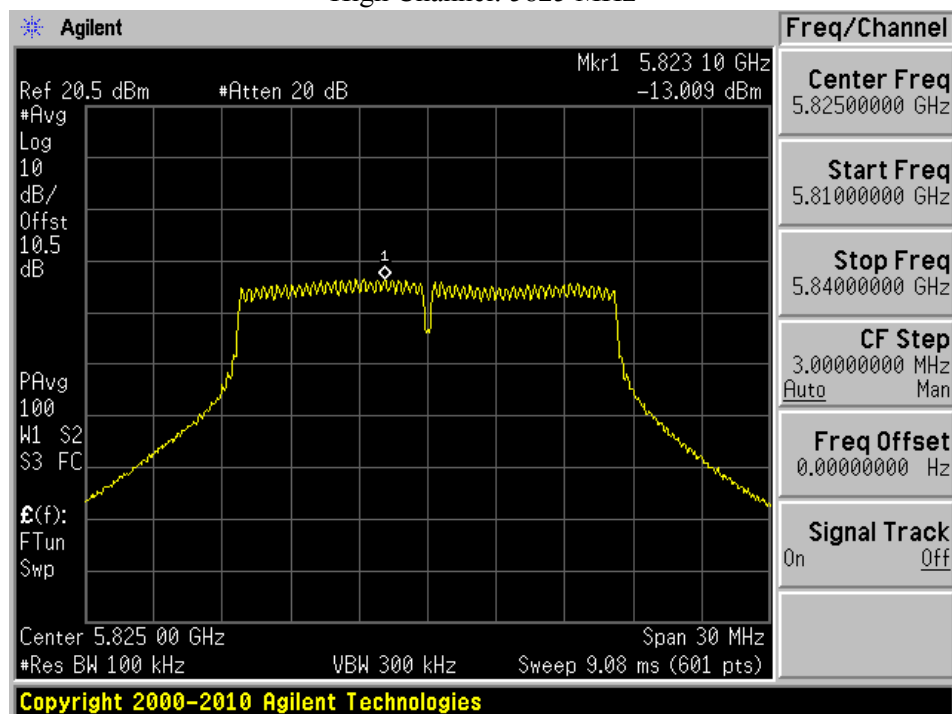
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

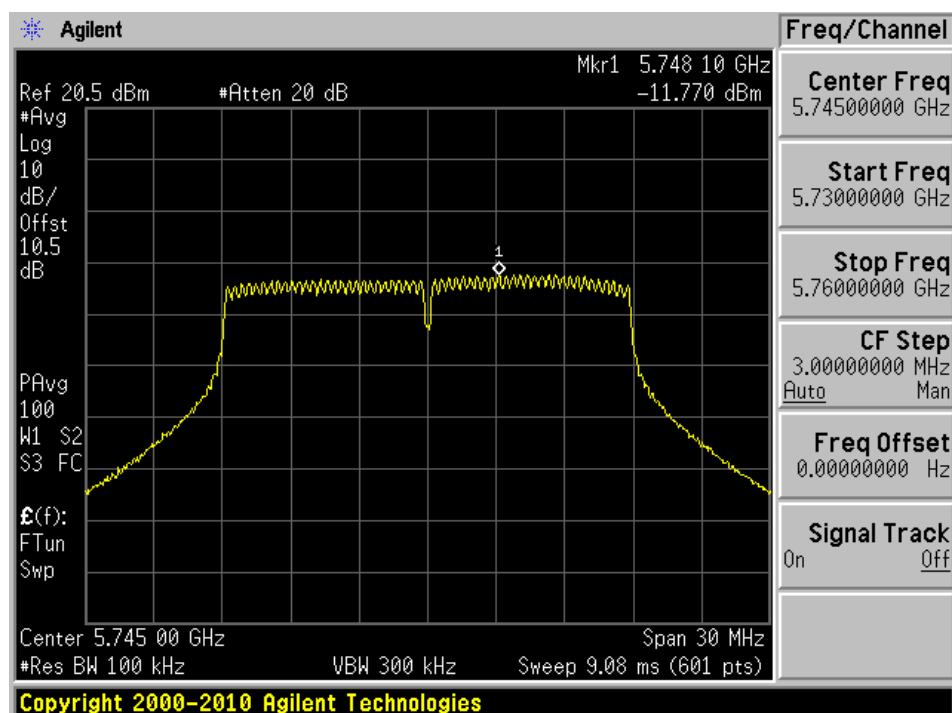


High Channel: 5825 MHz

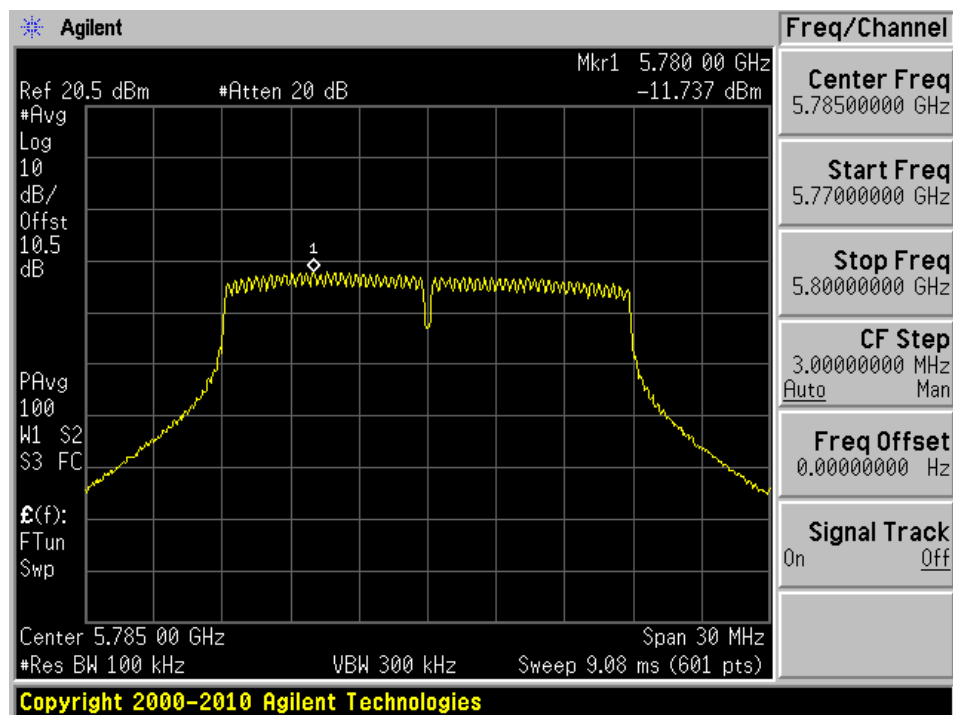


5.8 GHz Band
802.11n20
15dBi Antenna Chain 1

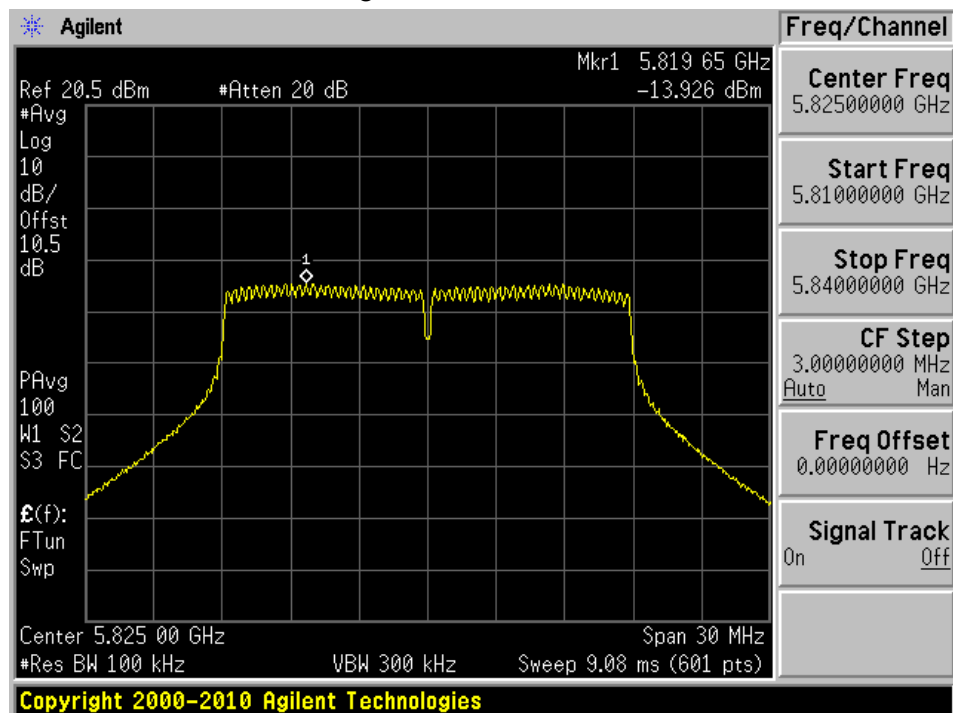
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

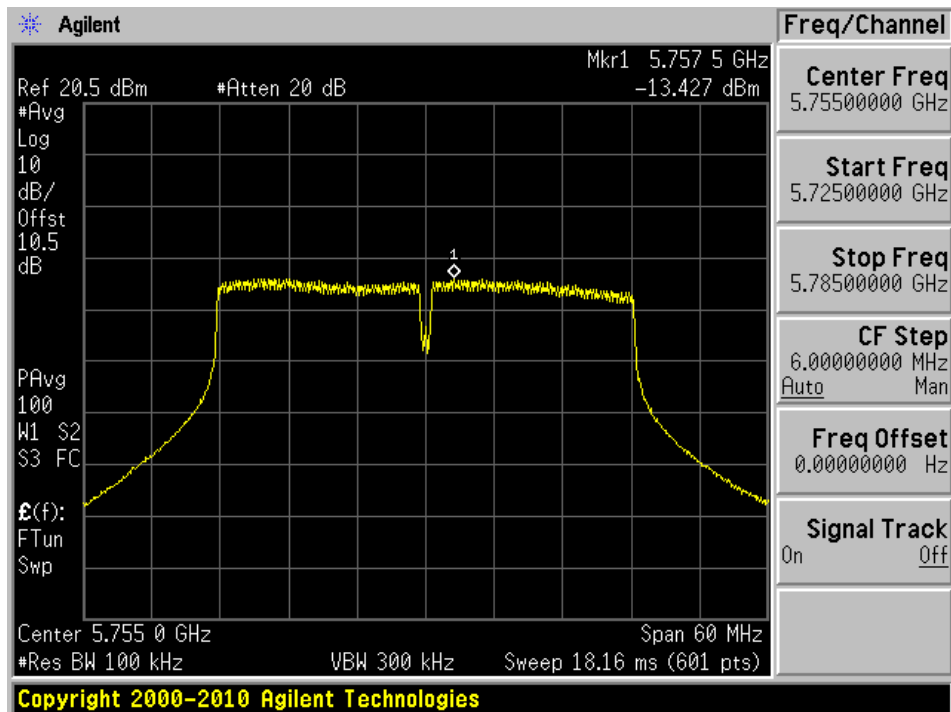


High Channel: 5825 MHz

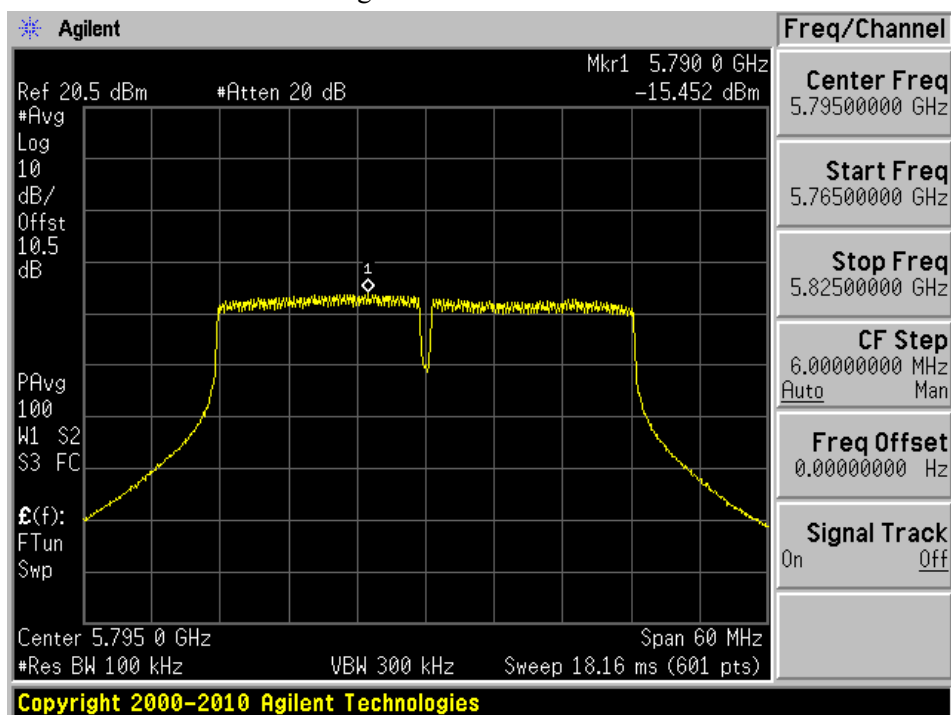


5.8 GHz Band
802.11n40
15dBi Antenna Chain 1

Low Channel: 5755 MHz

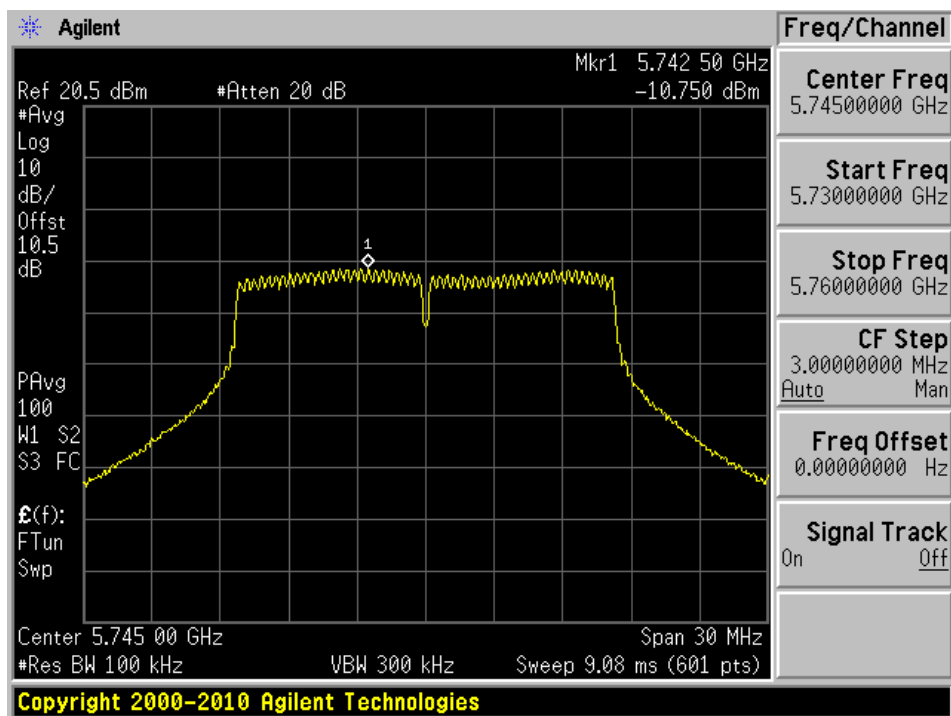


High Channel: 5795 MHz

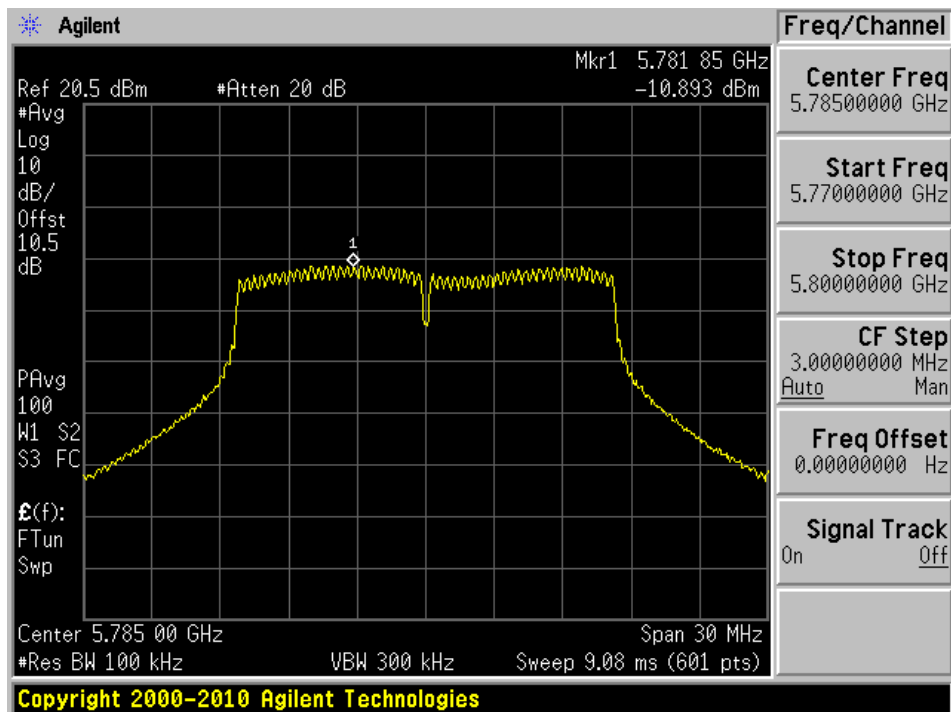


5.8 GHz Band
802.11a
15dBi Antenna Chain 2

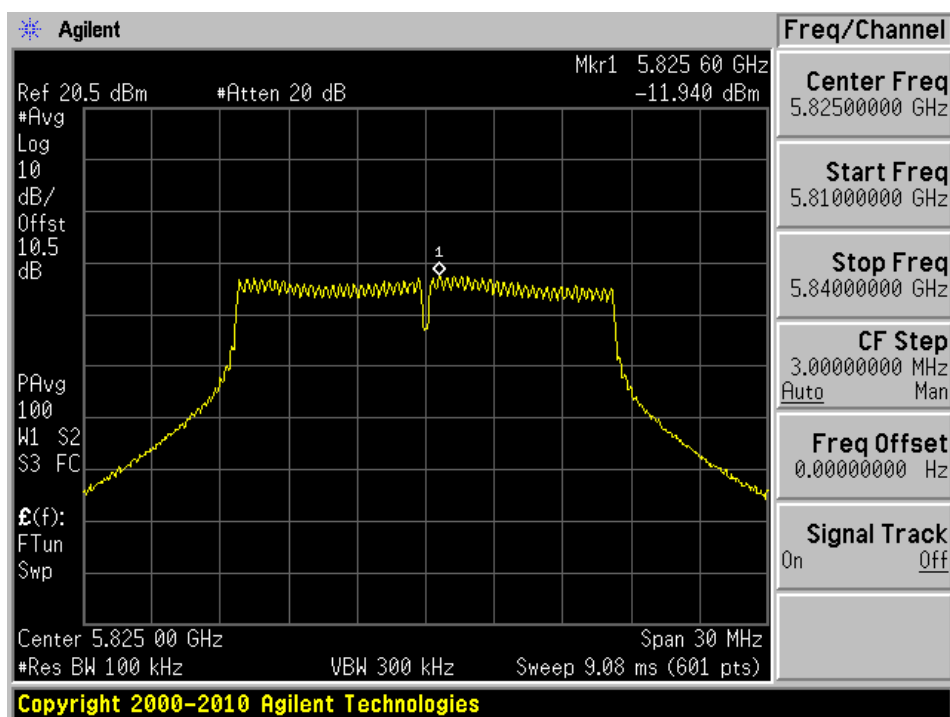
Low Channel: 5745 MHz



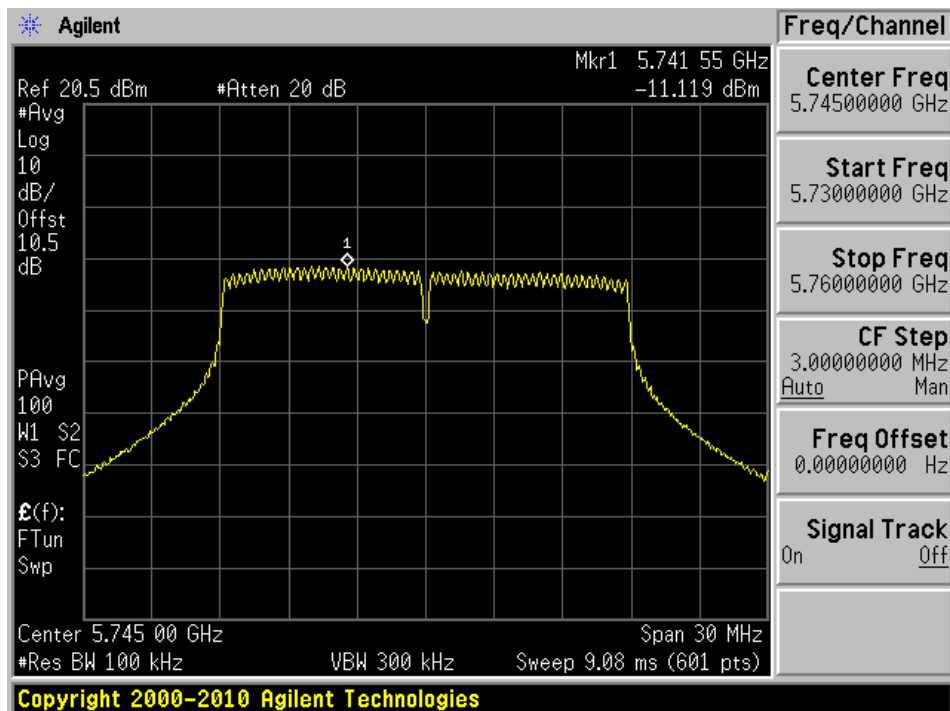
Middle Channel: 5785 MHz



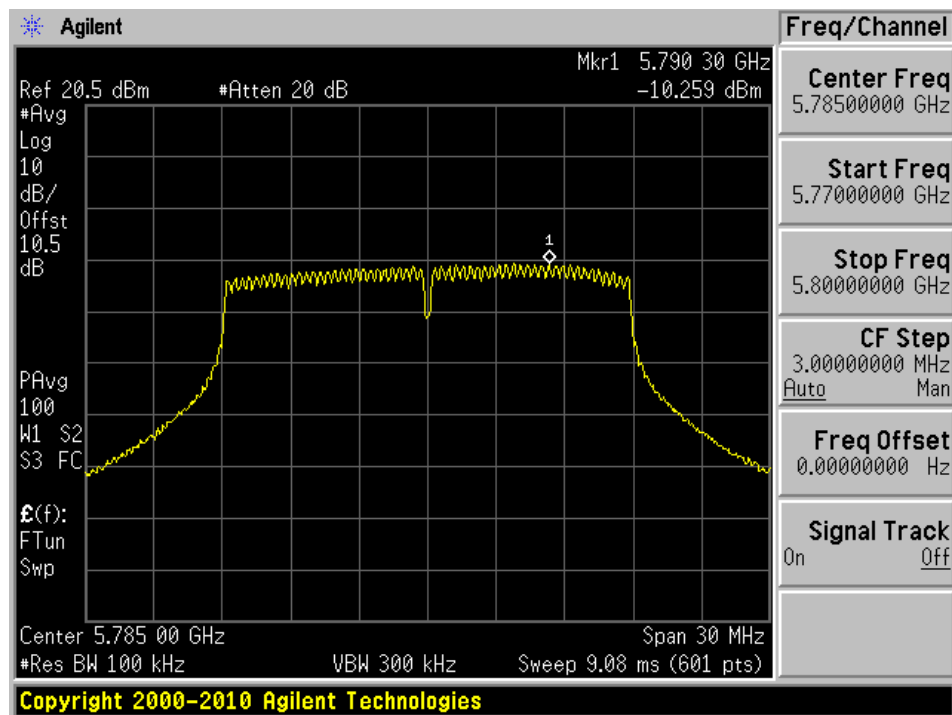
High Channel: 5825 MHz

5.8 GHz Band
802.11n20
15dBi Antenna Chain 2

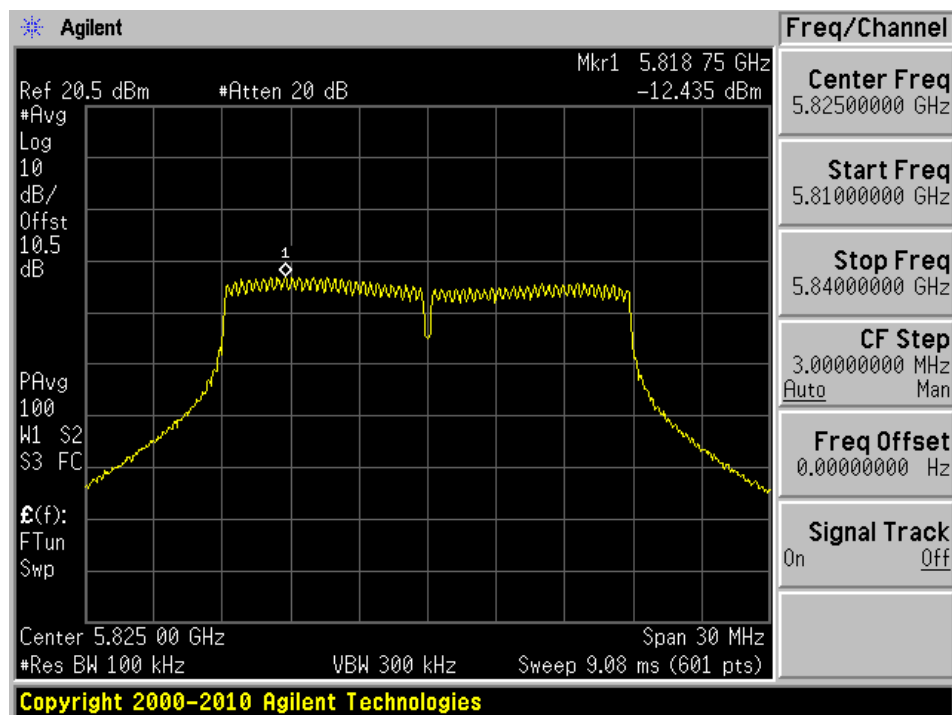
Low Channel: 5745 MHz



Middle Channel: 5785 MHz

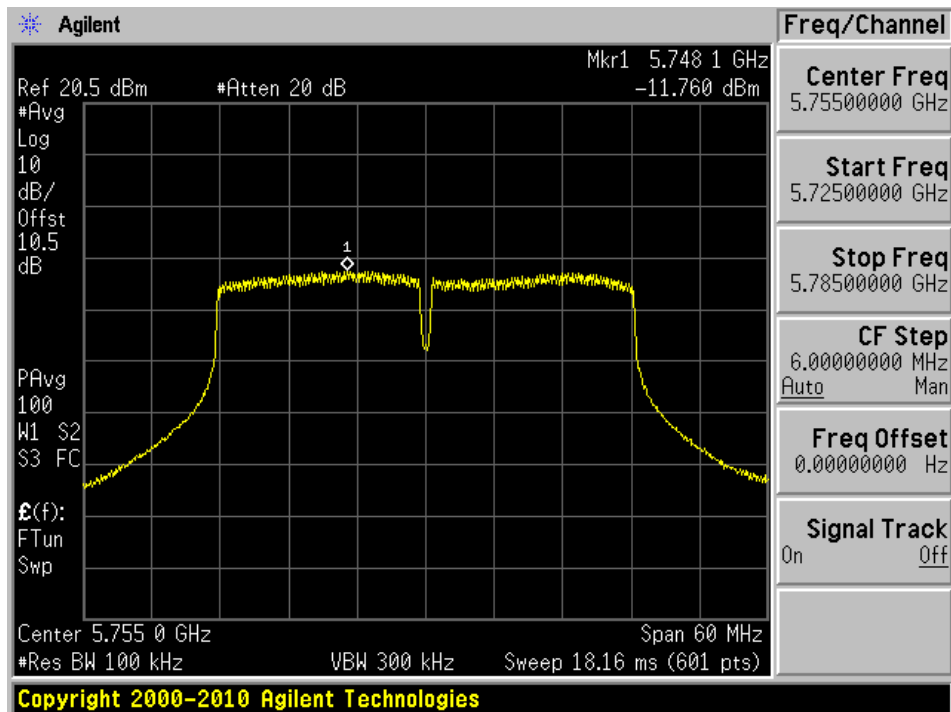


High Channel: 5825 MHz



5.8 GHz Band
802.11n40
15dBi Antenna Chain 2

Low Channel: 5755 MHz



High Channel: 5795 MHz

