Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Antenna 0:

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 19.925MHz, CH High: 22.287MHz
4. Frequency Range: 5490.0375MHz, 5711.1435MHz

Antenna 1:

1. Operating Frequency: 5500-5700MHz
2. CH Low: 5500MHz, CH High: 5700MHz
3. 26dB bandwidth: CH Low: 21.028MHz, CH High: 21.418MHz
4. Frequency Range: 5489.486MHz, 5710.709MHz

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

Antenna 0:

1. Operating Frequency: 5745-5805MHz
2. CH Low: 5745MHz, CH High: 5805MHz
3. 26dB bandwidth: CH Low: 25.764MHz, CH High: 28.032MHz
4. Frequency Range: 5732.118MHz, 5819.016MHz

Antenna 1:

1. Operating Frequency: 5745-5805MHz
2. CH Low: 5745MHz, CH High: 5805MHz
3. 26dB bandwidth: CH Low: 19.841MHz, CH High: 22.973MHz
4. Frequency Range: 5735.0795MHz, 5816.4865MHz

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Antenna 0:

1. Operating Frequency: 5755-5795MHz
2. CH Low: 5755MHz, CH High: 5795MHz
3. 26dB bandwidth: CH Low: 46.038MHz, CH High: 46.714MHz
4. Frequency Range: 5731.981MHz, 5818.357MHz

Antenna 1:

1. Operating Frequency: 5755-5795MHz
2. CH Low: 5755MHz, CH High: 5795MHz
3. 26dB bandwidth: CH Low: 45.715MHz, CH High: 44.863MHz
4. Frequency Range: 5732.1425MHz, 5817.4315MHz

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Antenna 0:

1. Operating Frequency: 5755-5795MHz
2. CH Low: 5755MHz, CH High: 5795MHz
3. 26dB bandwidth: CH Low: 49.252MHz, CH High: 49.963MHz
4. Frequency Range: 5730.374MHz, 5819.9818MHz

Antenna 1:

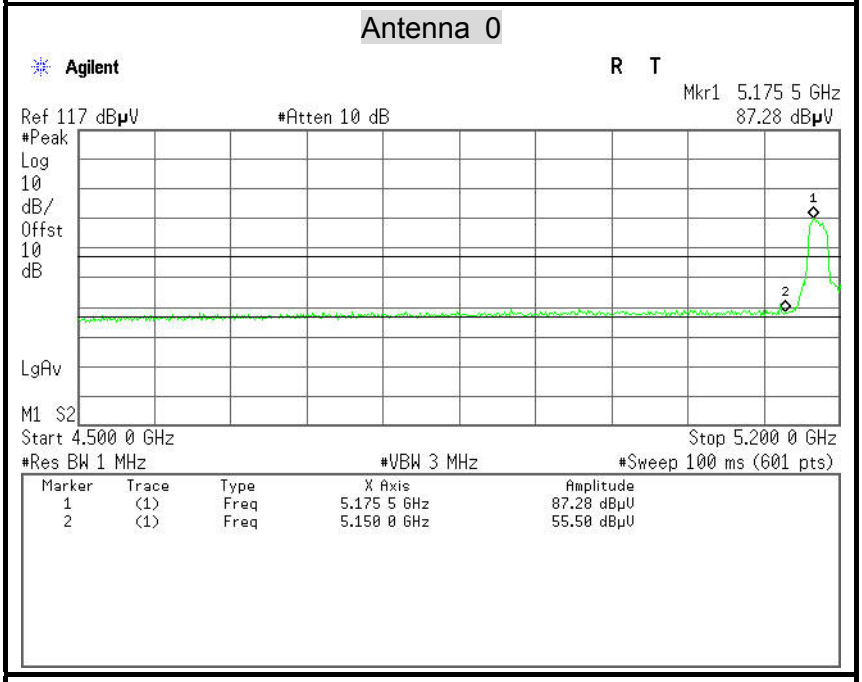
1. Operating Frequency: 5755-5795MHz
2. CH Low: 5755MHz, CH High: 5795MHz
3. 26dB bandwidth: CH Low: 45.934MHz, CH High: 45.598MHz
4. Frequency Range: 5732.033MHz, 5817.799MHz

Because the mentioned conditions, the test is not applicable.

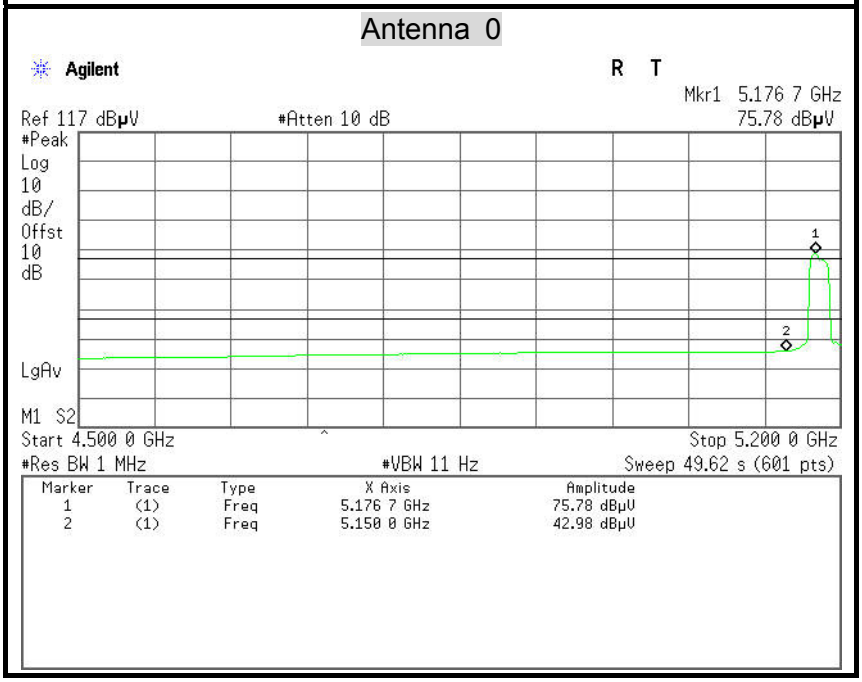
Test Plot

IEEE 802.11a mode / 5180 MHz mode
Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**

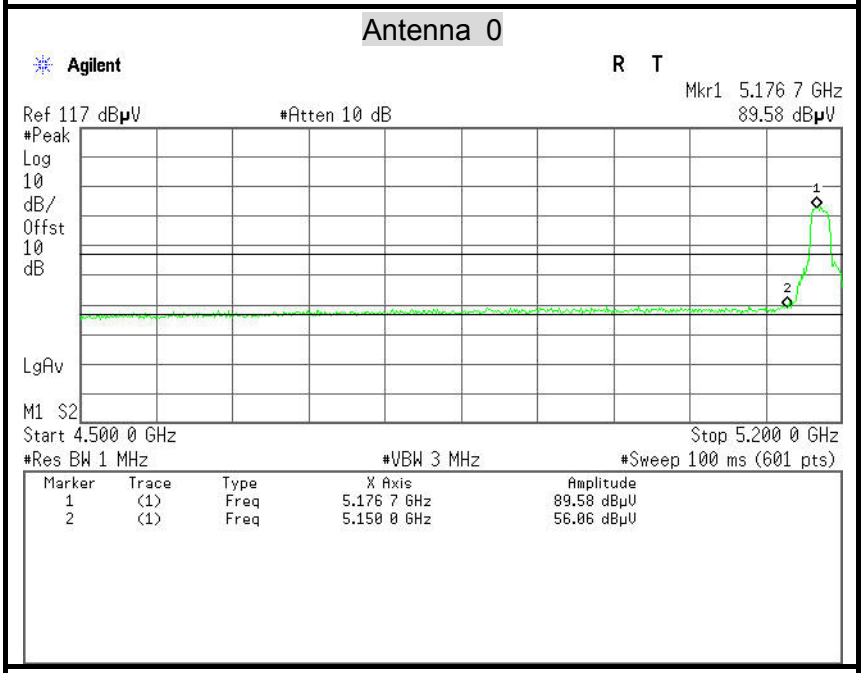


Detector mode: Average **Polarity: Vertical**

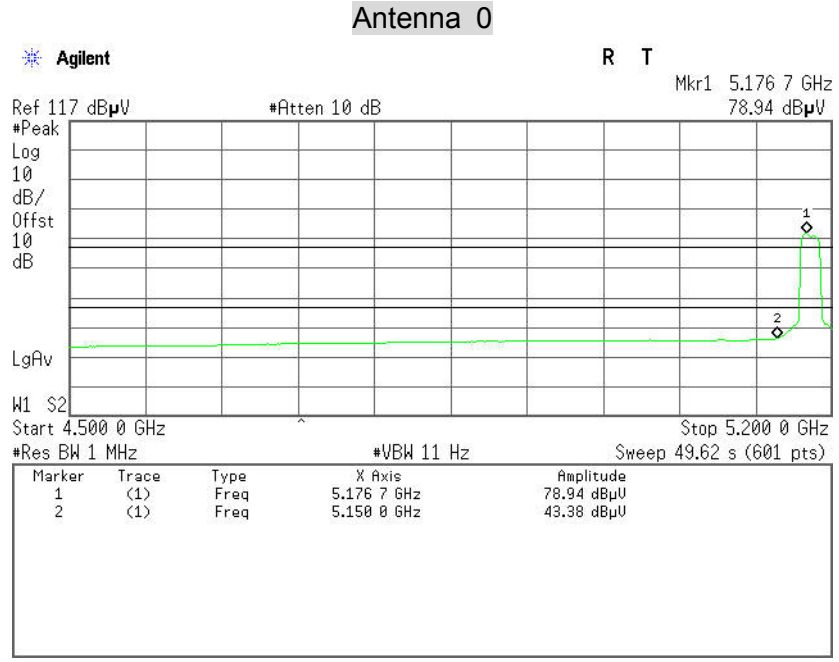


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	48.90	-6.60	55.50	74.00	-18.50	Peak	Vertical
2	5150.0000	36.38	-6.60	42.98	54.00	-11.02	Average	Vertical

Detector mode: Peak **Polarity: Horizontal**



Detector mode: Average **Polarity: Horizontal**

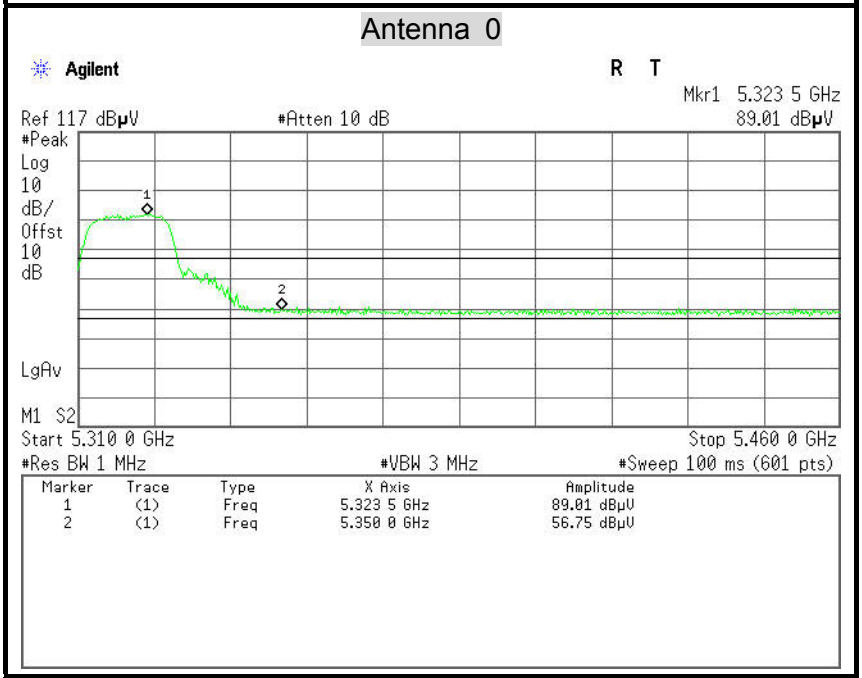


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	49.46	-6.60	56.06	74.00	-17.94	Peak	Horizontal
2	5150.0000	36.78	-6.60	43.38	54.00	-10.62	Average	Horizontal

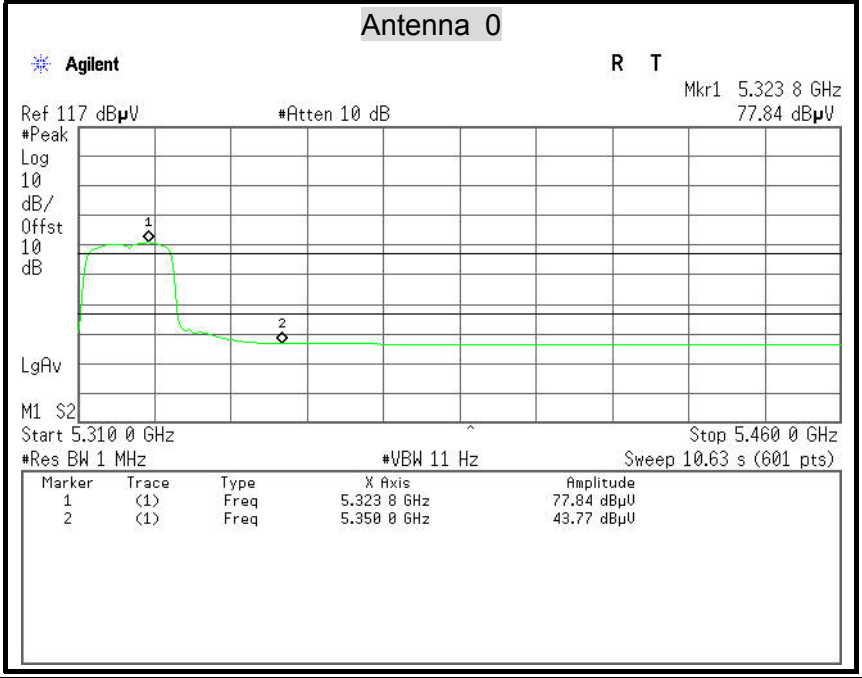
IEEE 802.11a mode / 5320 MHz mode

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**



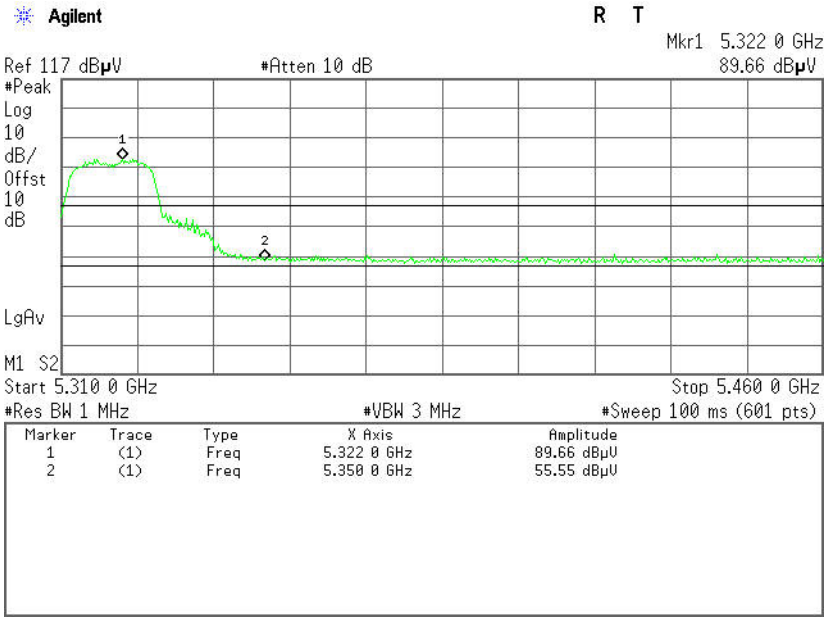
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	50.51	-6.24	56.75	74.00	-17.25	Peak	Vertical
2	5350.0000	37.53	-6.24	43.77	54.00	-10.23	Average	Vertical

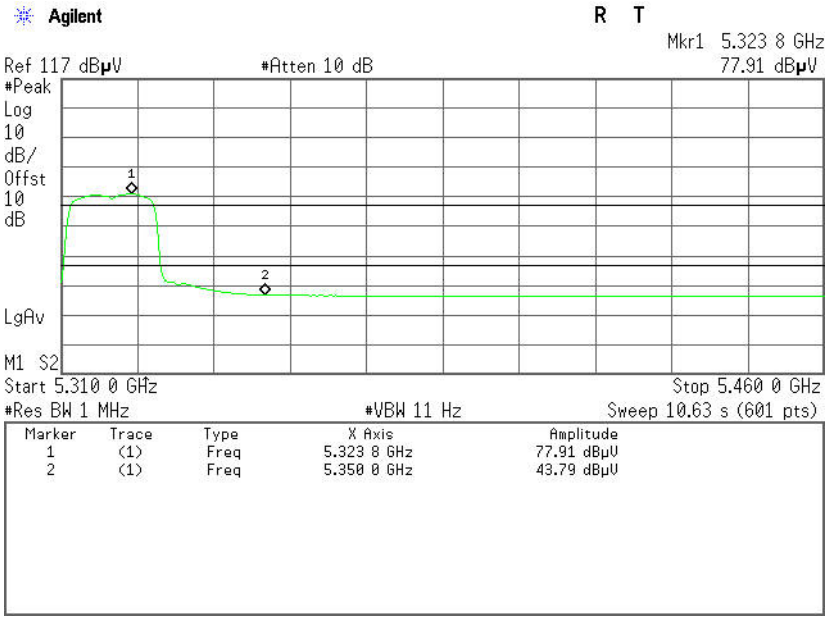
Detector mode: Peak **Polarity: Horizontal**

Antenna 0



Detector mode: Average **Polarity: Horizontal**

Antenna 0

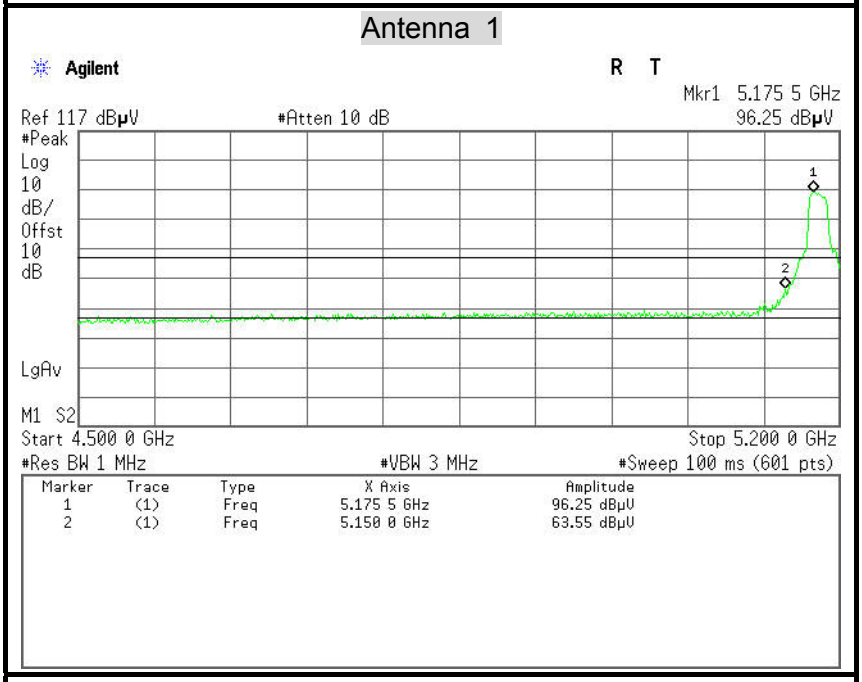


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	49.31	-6.24	55.55	74.00	-18.45	Peak	Horizontal
2	5350.0000	37.55	-6.24	43.79	54.00	-10.21	Average	Horizontal

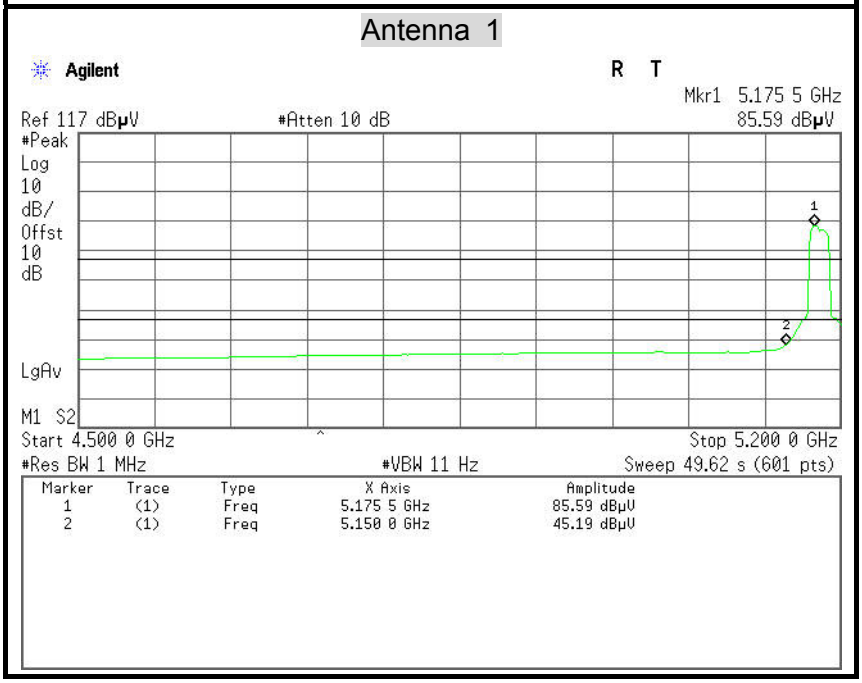
IEEE 802.11a mode / 5180 MHz mode

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**



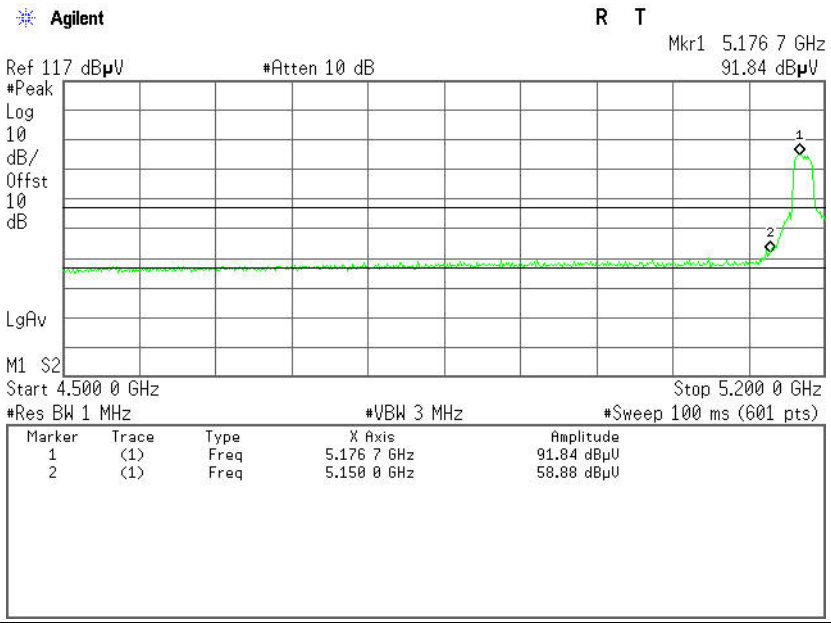
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	56.95	-6.60	63.55	74.00	-10.45	Peak	Vertical
2	5150.0000	38.59	-6.60	45.19	54.00	-8.81	Average	Vertical

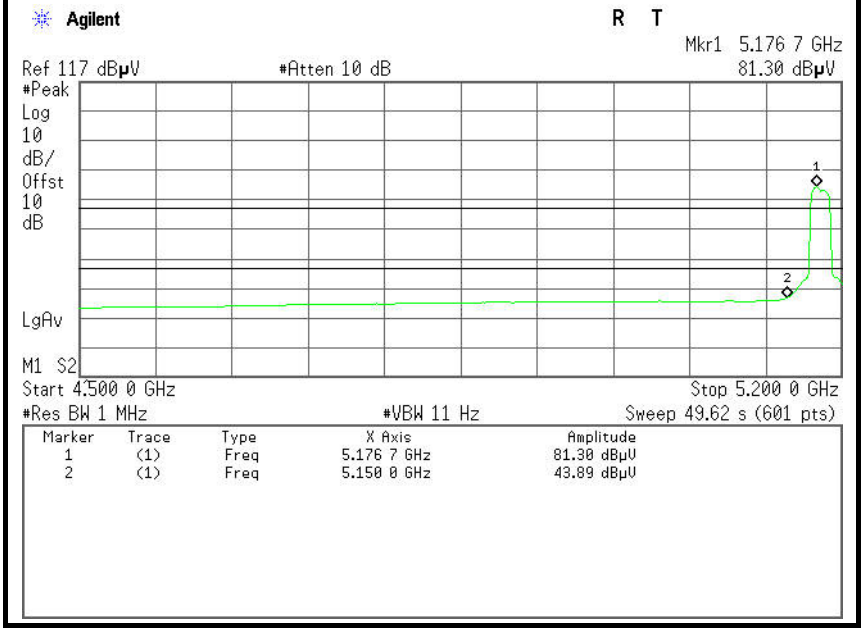
Detector mode: Peak **Polarity: Horizontal**

Antenna 1



Detector mode: Average **Polarity: Horizontal**

Antenna 1

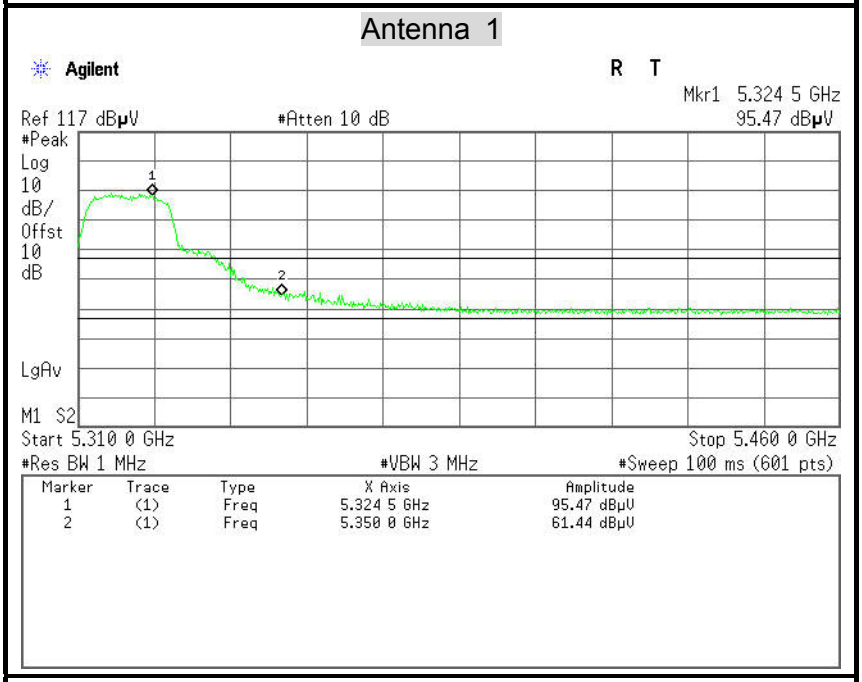


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	52.28	-6.60	58.88	74.00	-15.12	Peak	Horizontal
2	5150.0000	37.29	-6.60	43.89	54.00	-10.11	Average	Horizontal

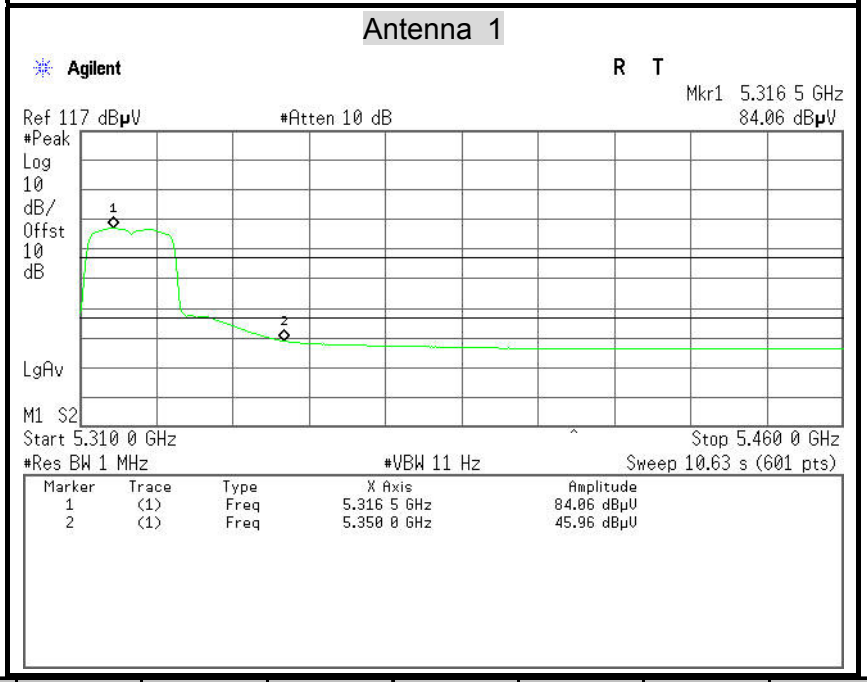
IEEE 802.11a mode / 5320 MHz

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**



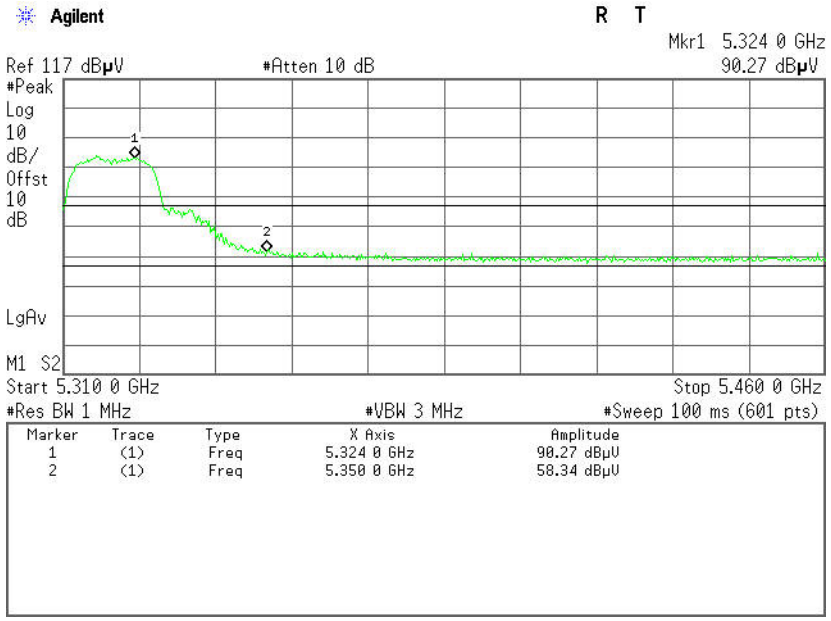
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	55.20	-6.24	61.44	74.00	-12.56	Peak	Vertical
2	5350.0000	39.72	-6.24	45.96	54.00	-8.04	Average	Vertical

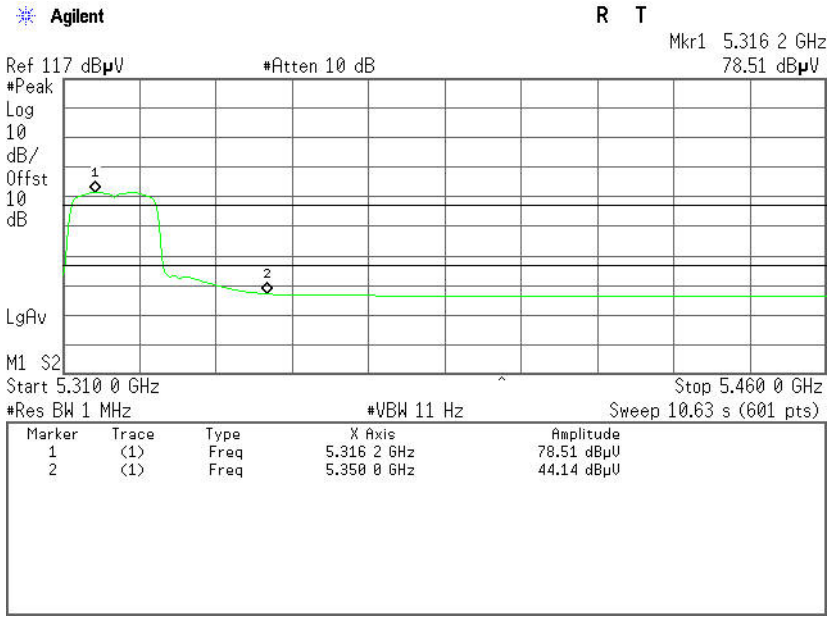
Detector mode: Peak **Polarity: Horizontal**

Antenna 1



Detector mode: Average **Polarity: Horizontal**

Antenna 1

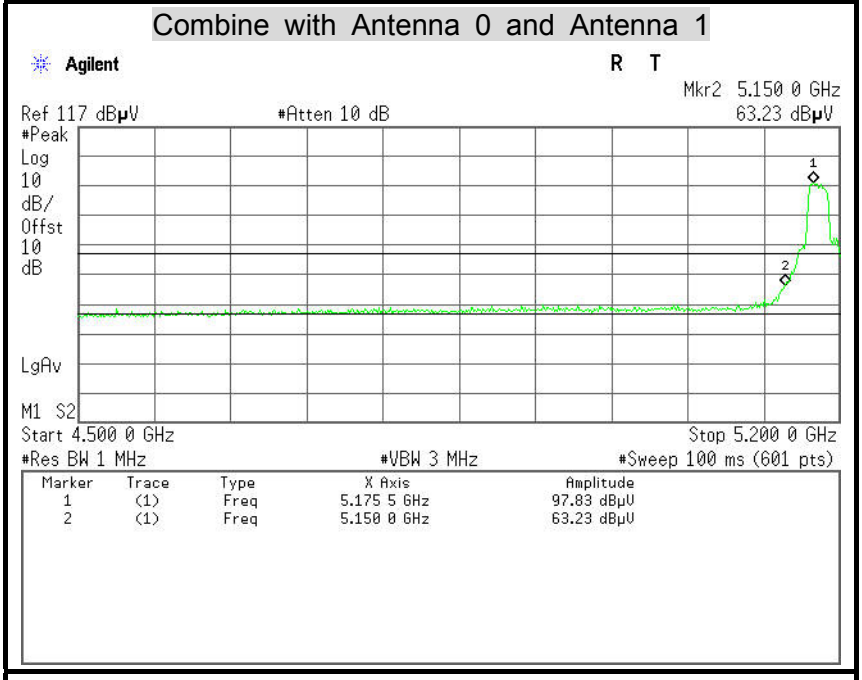


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	52.10	-6.24	58.34	74.00	-15.66	Peak	Horizontal
2	5350.0000	37.90	-6.24	44.14	54.00	-9.86	Average	Horizontal

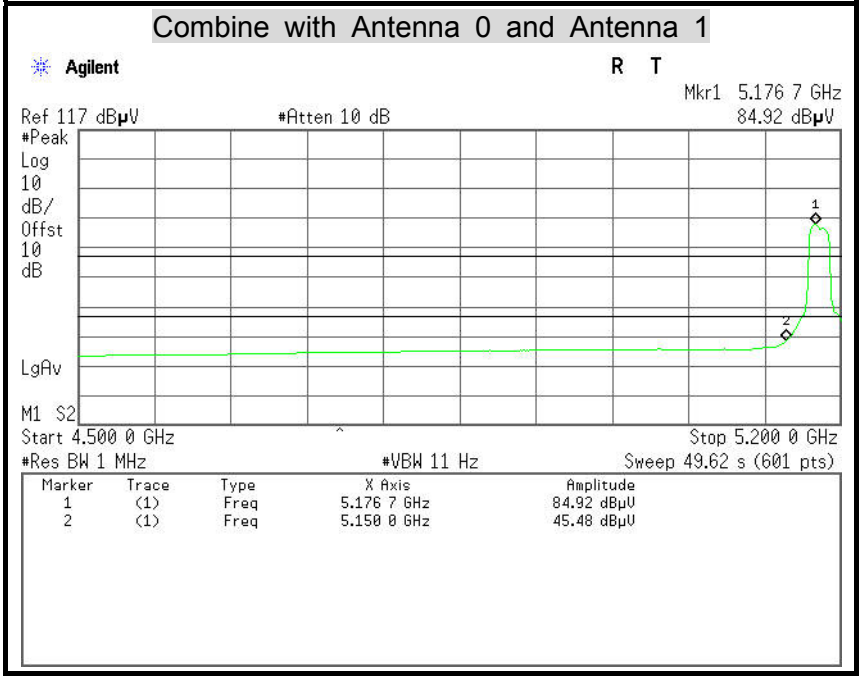
IEEE 802.11n HT 20 MHz mode / 5180 MHz

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**



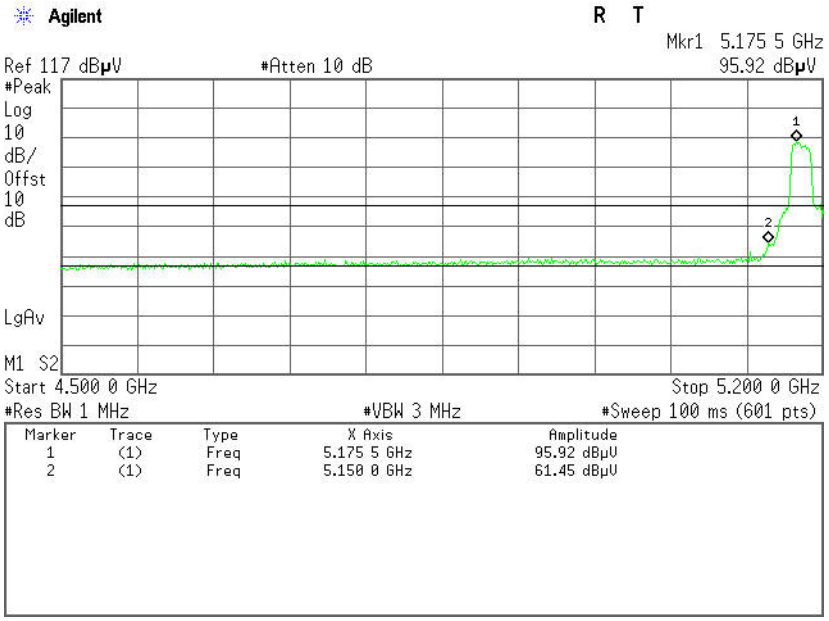
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	56.63	-6.60	63.23	74.00	-10.77	Peak	Vertical
2	5150.0000	38.88	-6.60	45.48	54.00	-8.52	Average	Vertical

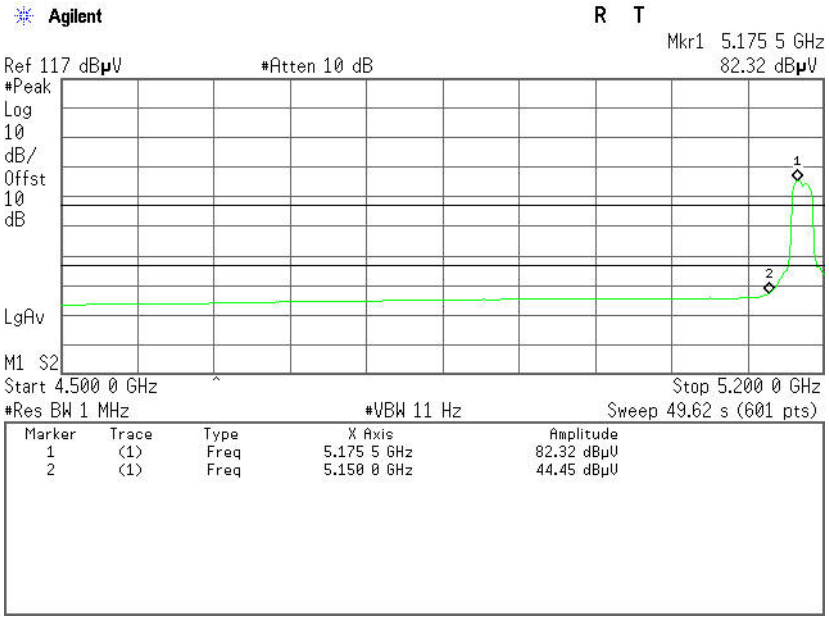
Detector mode: Peak **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1



Detector mode: Average **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1

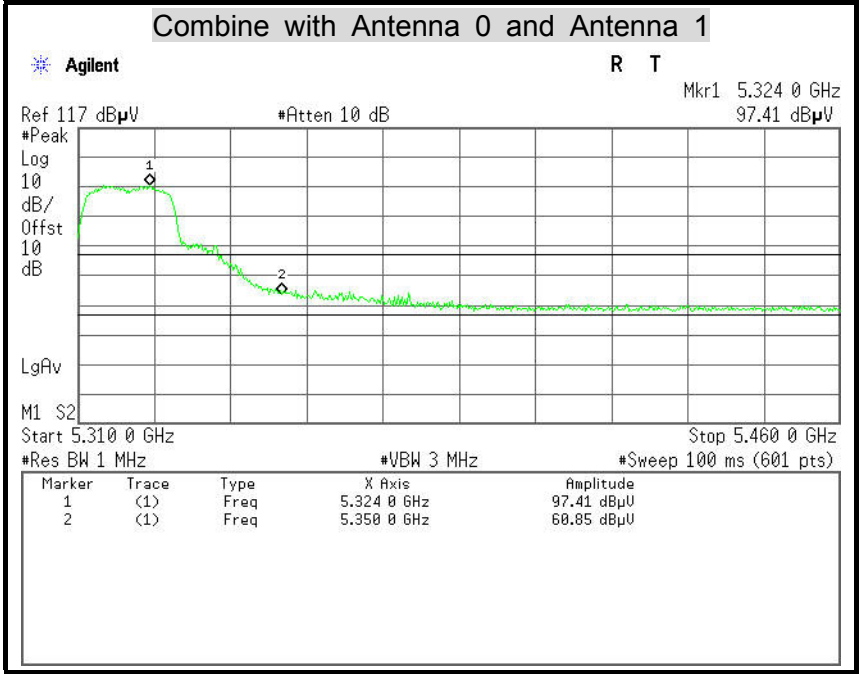


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	54.85	-6.60	61.45	74.00	-12.55	Peak	Horizontal
2	5150.0000	37.85	-6.60	44.45	54.00	-9.55	Average	Horizontal

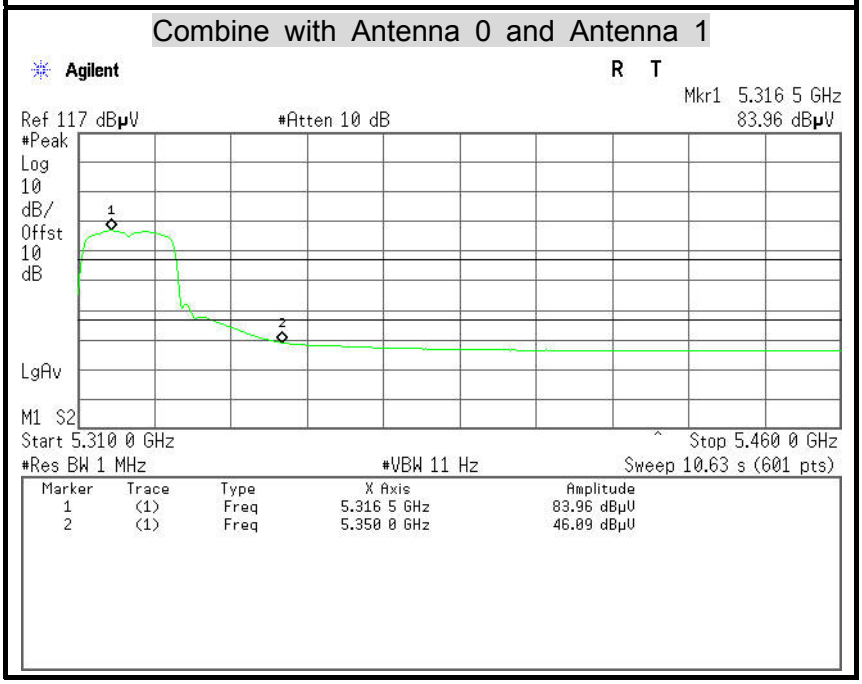
IEEE 802.11n HT 20 MHz mode / 5320 MHz

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**



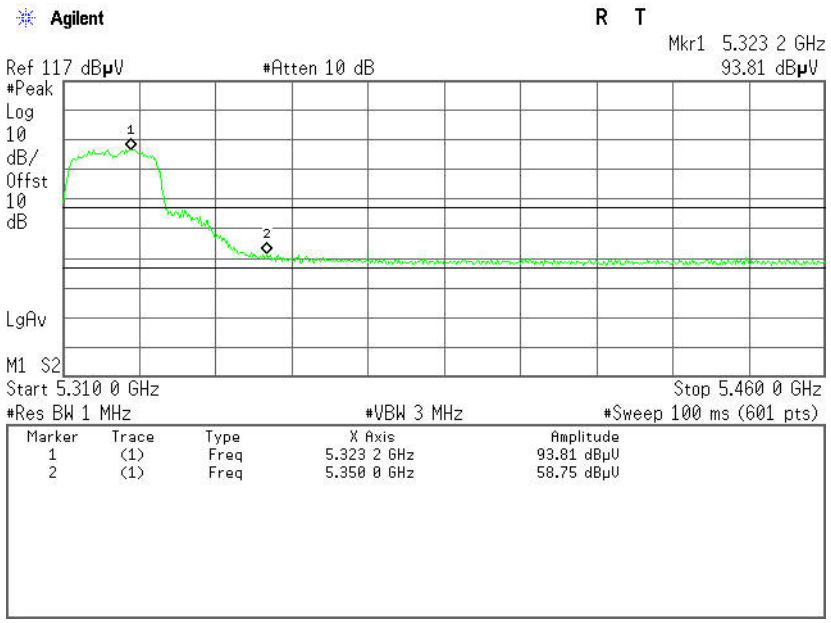
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	54.61	-6.24	60.85	74.00	-13.15	Peak	Vertical
2	5350.0000	39.85	-6.24	46.09	54.00	-7.91	Average	Vertical

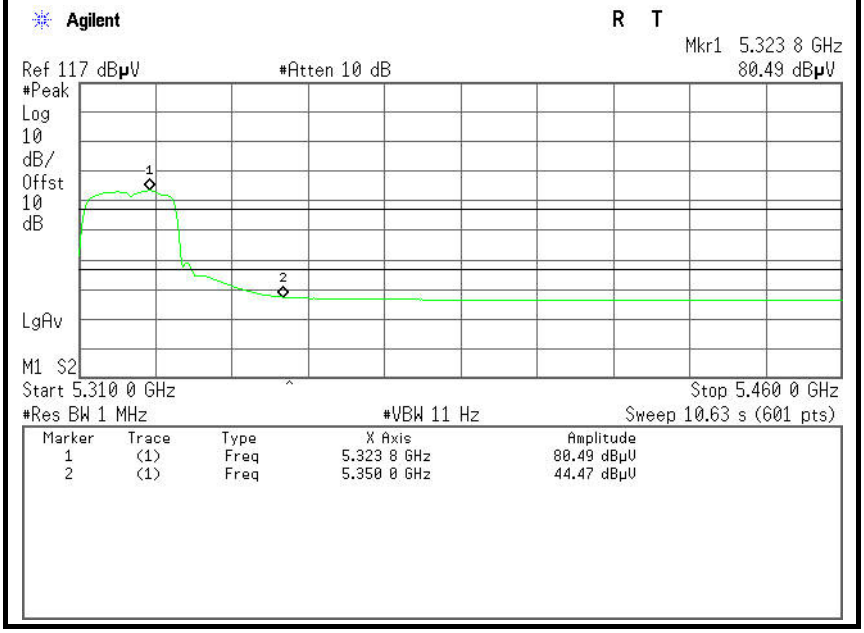
Detector mode: Peak **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1



Detector mode: Average **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1

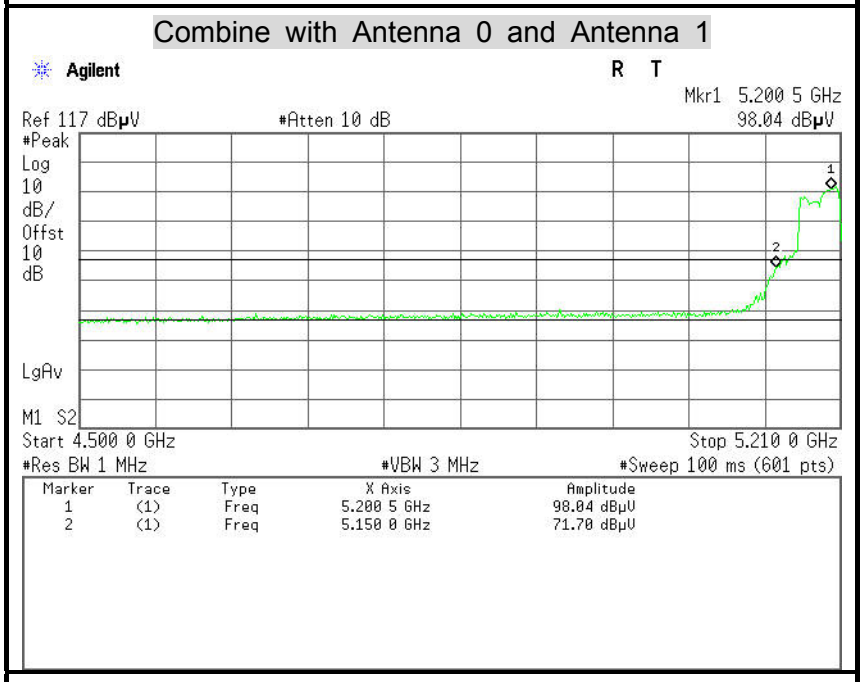


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	52.51	-6.24	58.75	74.00	-15.25	Peak	Horizontal
2	5350.0000	38.23	-6.24	44.47	54.00	-9.53	Average	Horizontal

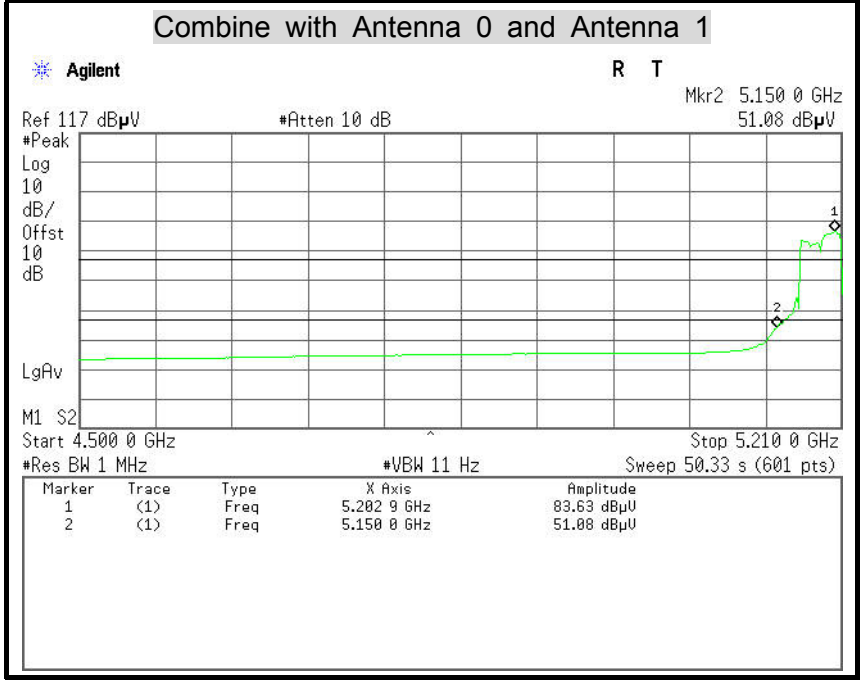
IEEE 802.11n HT 40 MHz mode / 5190 MHz

Band Edges (CH Low)

Detector mode: Peak **Polarity: Vertical**



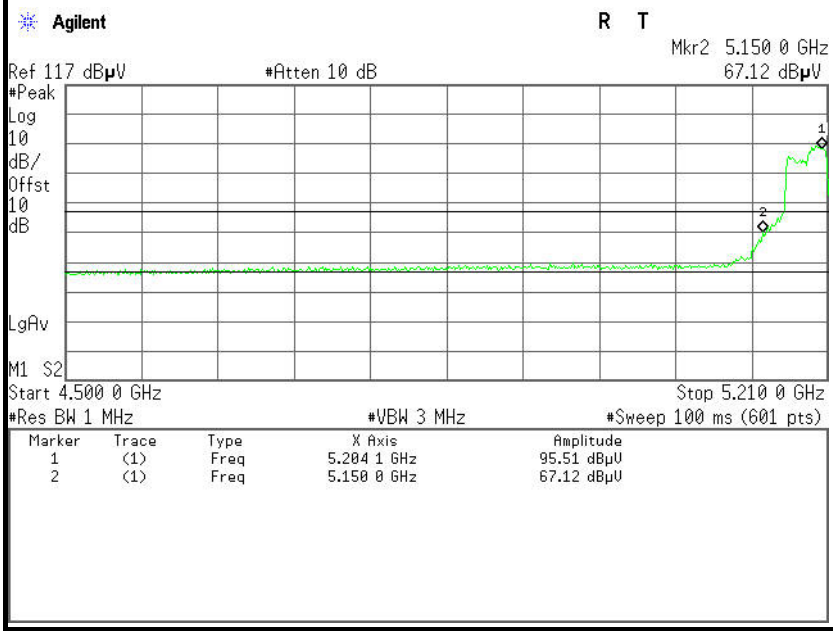
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	65.10	-6.60	71.70	74.00	-2.30	Peak	Vertical
2	5150.0000	44.48	-6.60	51.08	54.00	-2.92	Average	Vertical

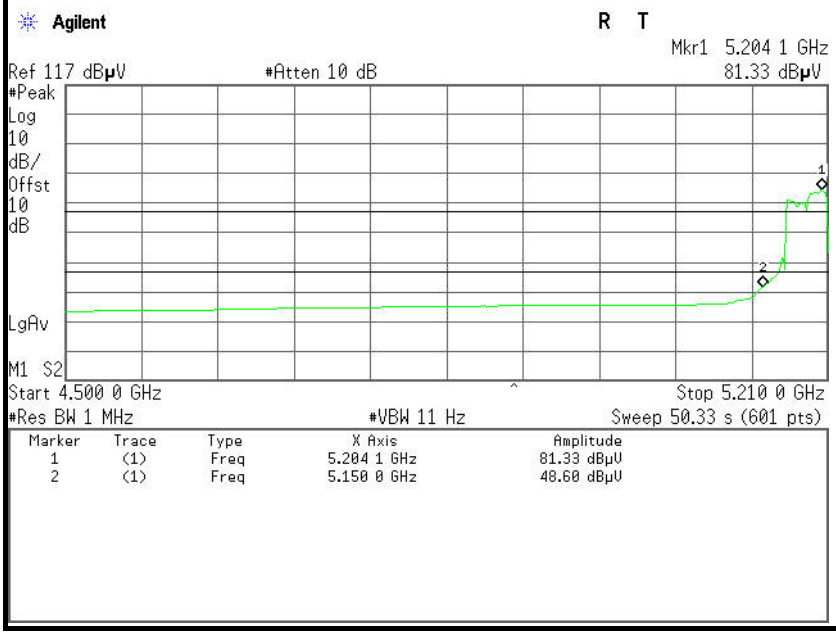
Detector mode: Peak **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1



Detector mode: Average **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1

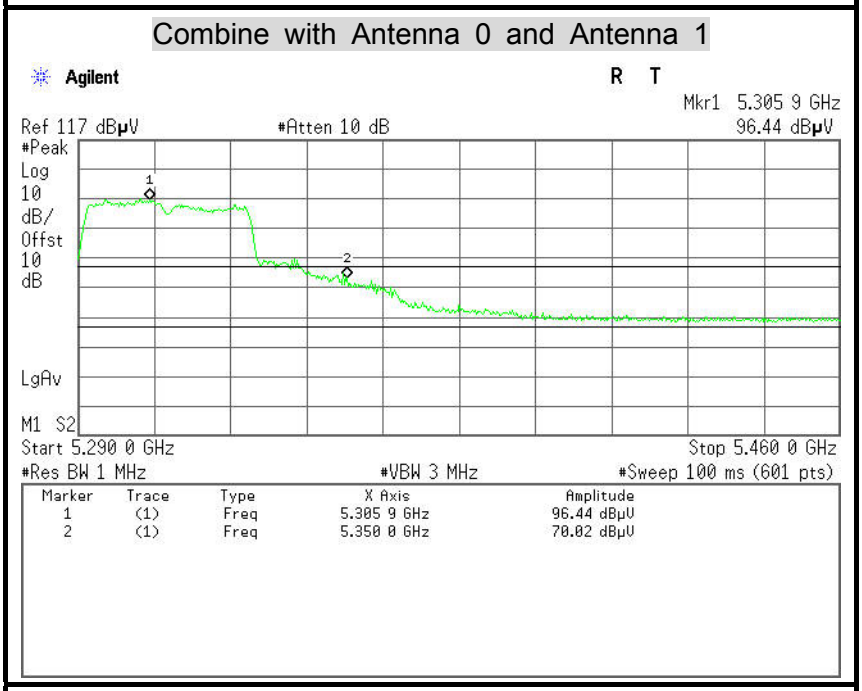


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5150.0000	60.52	-6.60	67.12	74.00	-6.88	Peak	Horizontal
2	5150.0000	42.00	-6.60	48.60	54.00	-5.40	Average	Horizontal

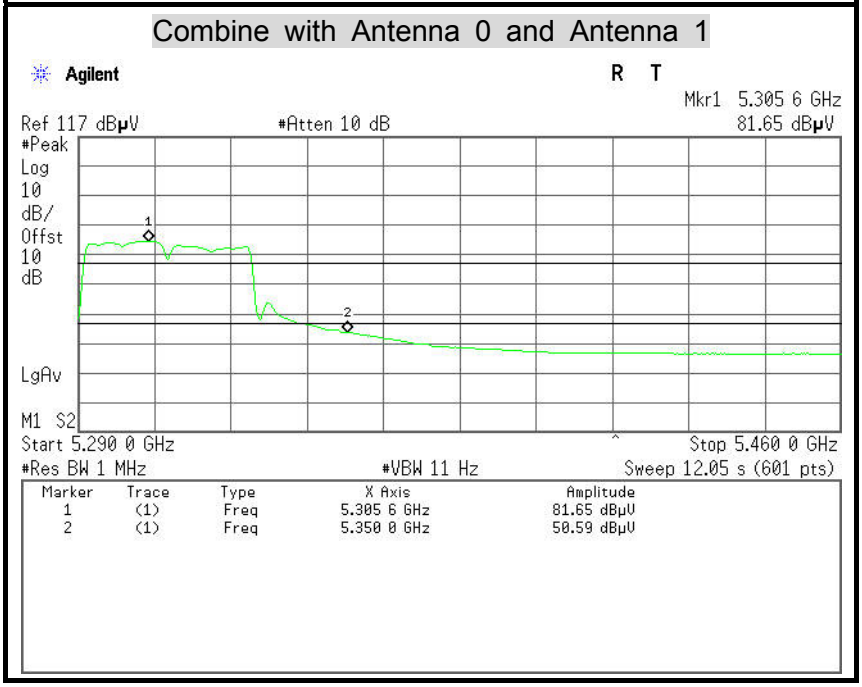
IEEE 802.11n HT 40 MHz mode / 5310 MHz

Band Edges (CH High)

Detector mode: Peak **Polarity: Vertical**



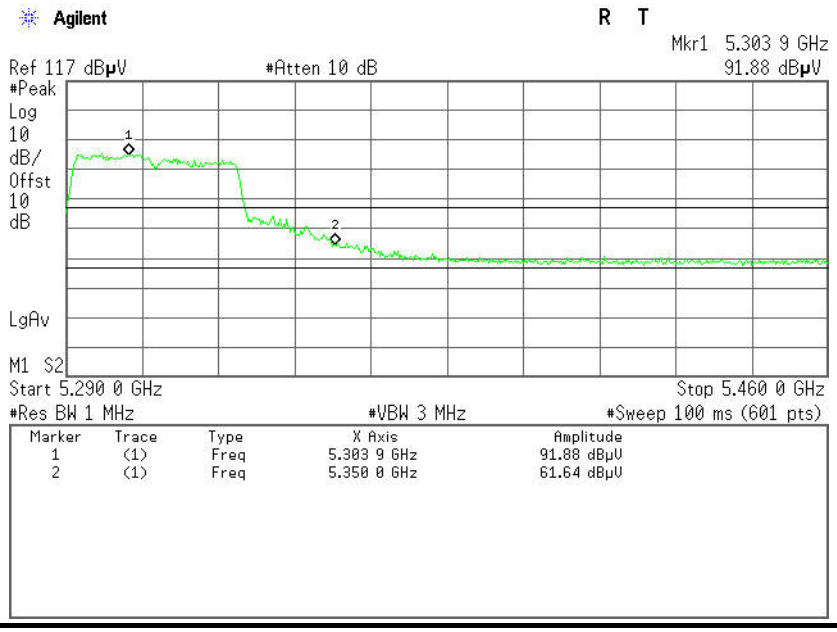
Detector mode: Average **Polarity: Vertical**



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	63.78	-6.24	70.02	74.00	-3.98	Peak	Vertical
2	5350.0000	44.35	-6.24	50.59	54.00	-3.41	Average	Vertical

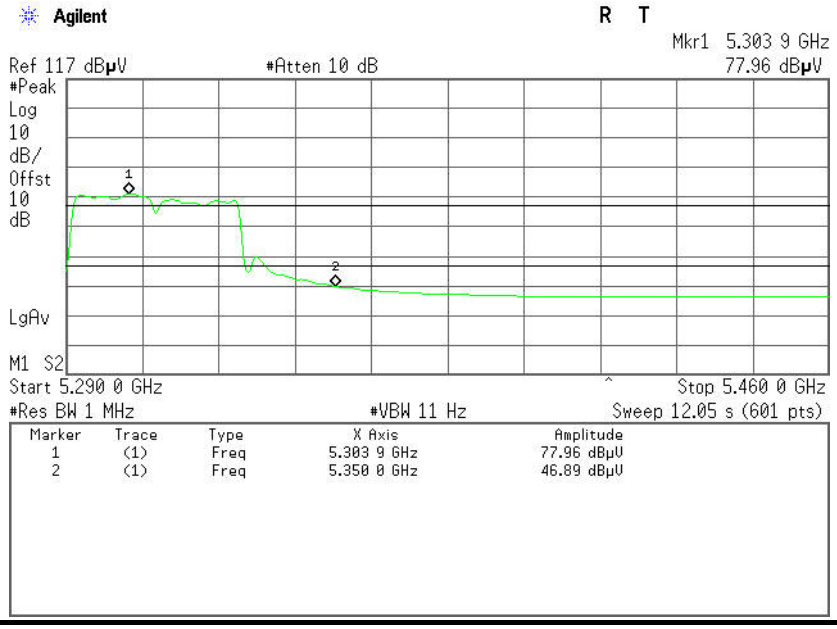
Detector mode: Peak **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1



Detector mode: Average **Polarity: Horizontal**

Combine with Antenna 0 and Antenna 1



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	5350.0000	55.40	-6.24	61.64	74.00	-12.36	Peak	Horizontal
2	5350.0000	40.65	-6.24	46.89	54.00	-7.11	Average	Horizontal

7.5 PEAK POWER SPECTAL DENSITY

7.5.1LIMIT

According to §15.407(a)

(1) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4dBm in any 1MHz band.

(2) For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11dBm in any 1MHz band.

(3) For the band 5.725–5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1MHz band.

According to RSS-210 §A9.2,

(1) For the band 5150-5250 MHz, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

(2) For the band 5250-5350 MHz and 5470-5725 MHz, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

(3) For the band 5725-5825 MHz, the power spectral density shall not exceed 17 dBm in any 1.0 MHz band.

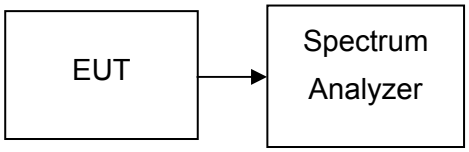
If transmitting antennas of directional gain greater than 6dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

7.5.2MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015

Remark: *Each piece of equipment is scheduled for calibration once a year.*

7.5.3TEST CONFIGURATION



7.5.4TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
   Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Span = Sweep= AUTO
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed

7.5.5TEST RESULTS

Test Data

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	PPSD (dBm)		Limit (dBm)	Margain		Result
		Antenna 0	Antenna 1		Antenna 0	Antenna 1	
Low	5180	1.859	2.578	4	-2.141	-1.422	PASS
Mid	5220	1.825	2.326		-2.175	-1.674	PASS
High	5240	1.849	2.927		-2.151	-1.073	PASS

Test mode: IEEE 802.11a mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	PPSD (dBm)		Limit (dBm)	Margain		Result
		Antenna 0	Antenna 1		Antenna 0	Antenna 1	
Low	5260	3.450	1.716	11	-7.550	-9.284	PASS
Mid	5280	4.252	4.411		-6.748	-6.589	PASS
High	5320	5.066	4.128		-5.934	-6.872	PASS

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	PPSD (dBm)		Limit (dBm)	Margain		Result
		Antenna 0	Antenna 1		Antenna 0	Antenna 1	
Low	5500	3.301	3.195	11	-7.699	-7.805	PASS
Mid	5580	4.548	4.145		-6.452	-6.855	PASS
High	5700	4.703	4.486		-6.297	-6.514	PASS

Test mode: IEEE 802.11a mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	PPSD (dBm)		Limit (dBm)	Margain		Result
		Antenna 0	Antenna 1		Antenna 0	Antenna 1	
Low	5745	5.653	4.373	17	-11.347	-12.627	PASS
Mid	5785	6.703	5.269		-10.297	-11.731	PASS
High	5805	7.379	5.488		-9.621	-11.512	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5180	0.644	1.714	4.222	4	0.222	PASS
Mid	5220	0.346	1.843	4.169		0.169	PASS
High	5240	2.234	1.821	5.043		1.043	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5260	2.019	3.232	5.678	11	-5.322	PASS
Mid	5280	2.022	2.600	5.331		-5.669	PASS
High	5320	3.356	3.874	6.633		-4.367	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5500	2.119	1.937	5.039	11	-5.961	PASS
Mid	5580	4.276	4.047	7.173		-3.827	PASS
High	5700	3.365	4.243	6.836		-4.164	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5745	4.486	4.098	7.307	17	-9.693	PASS
Mid	5785	4.327	4.504	7.427		-9.573	PASS
High	5805	6.746	5.197	9.050		-7.950	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5190	-2.403	-2.228	0.696	4	-3.304	PASS
High	5230	-1.089	-0.985	1.974		-2.026	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5270	-1.523	-1.229	1.637	11	-9.363	PASS
High	5310	-4.932	-0.410	0.903		-10.097	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5510	-1.962	-1.874	1.093	11	-9.907	PASS
Mid	5550	-3.886	-0.210	1.340		-9.660	PASS
High	5670	-3.075	-0.914	1.149		-9.851	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

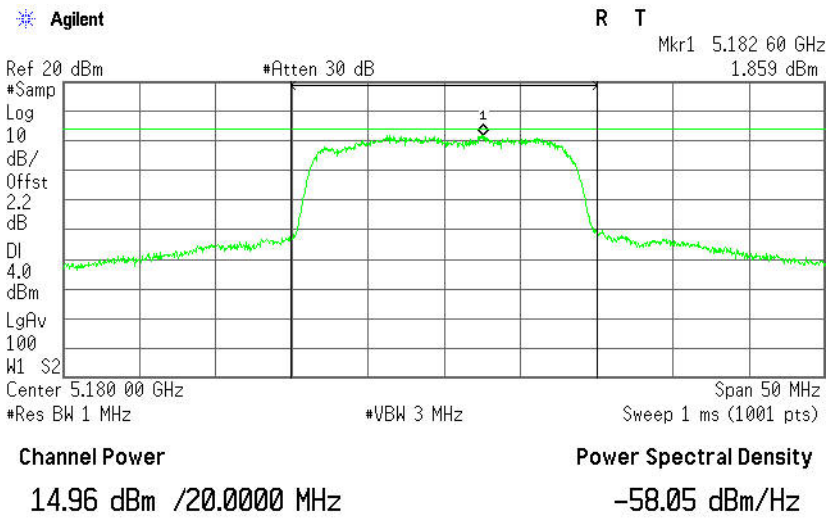
Channel	Frequency (MHz)	PPSD (dBm)		Total (dBm)	Limit (dBm)	Margain	Result
		Antenna 0	Antenna 1				
Low	5755	-1.822	-0.726	1.771	17	-15.229	PASS
High	5795	-3.060	-0.252	1.577		-15.423	PASS

Test Plot

IEEE 802.11a mode / 5180 ~ 5240MHz

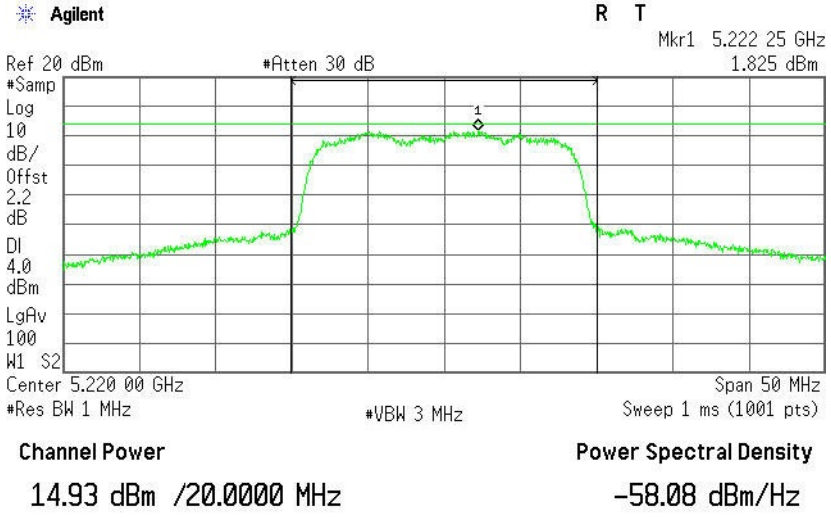
PPSD (CH Low)

Antenna 0



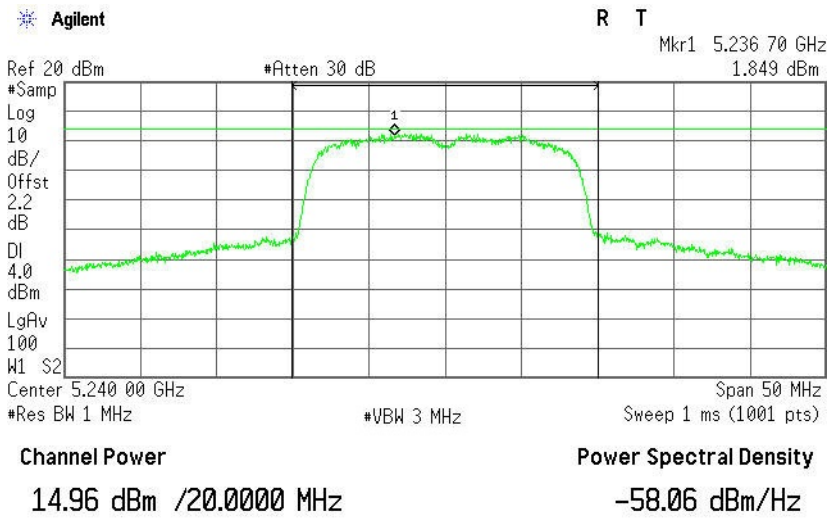
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

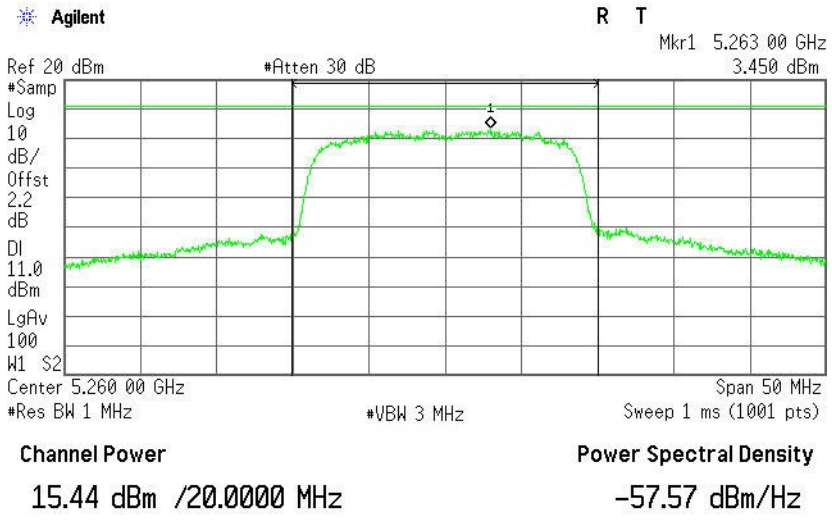
Antenna 0



IEEE 802.11a mode / 5260 ~ 5320MHz

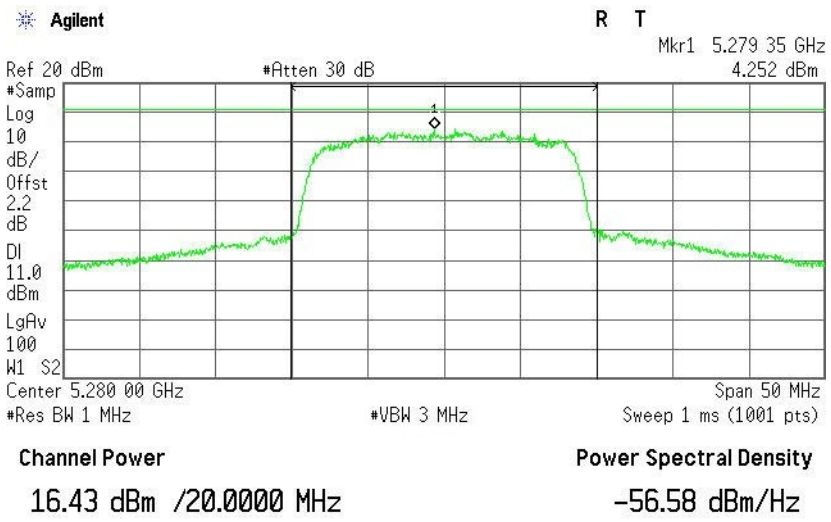
PPSD (CH Low)

Antenna 0



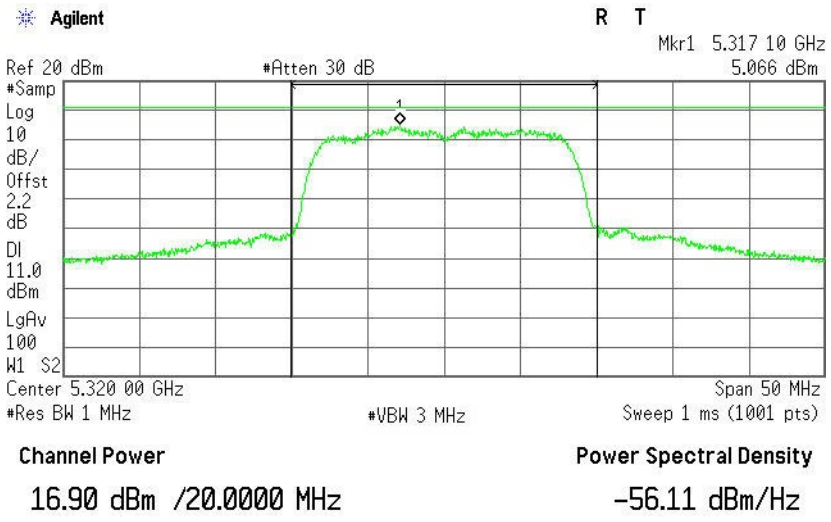
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

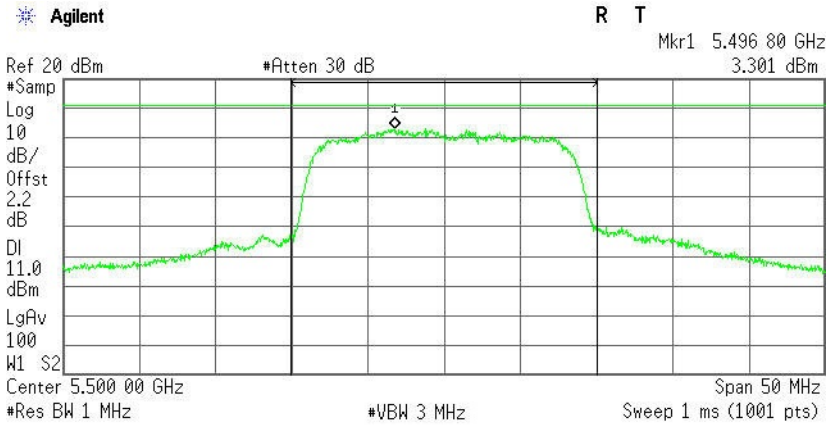
Antenna 0



IEEE 802.11a mode / 5500 ~ 5700MHz

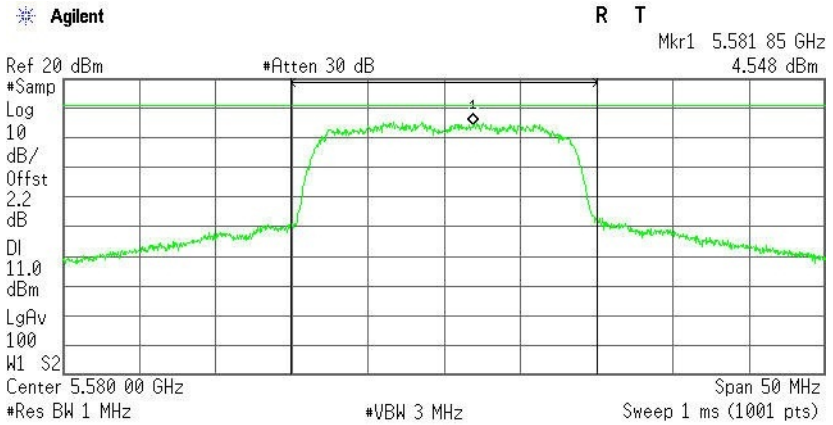
PPSD (CH Low)

Antenna 0



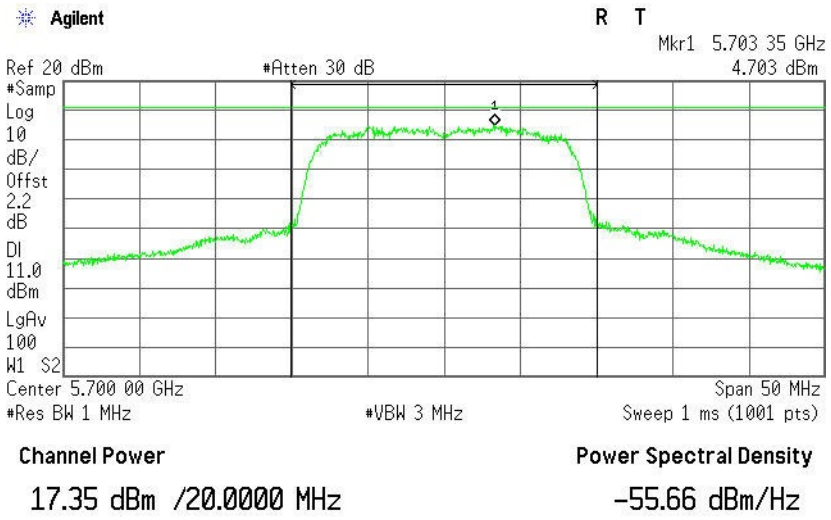
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

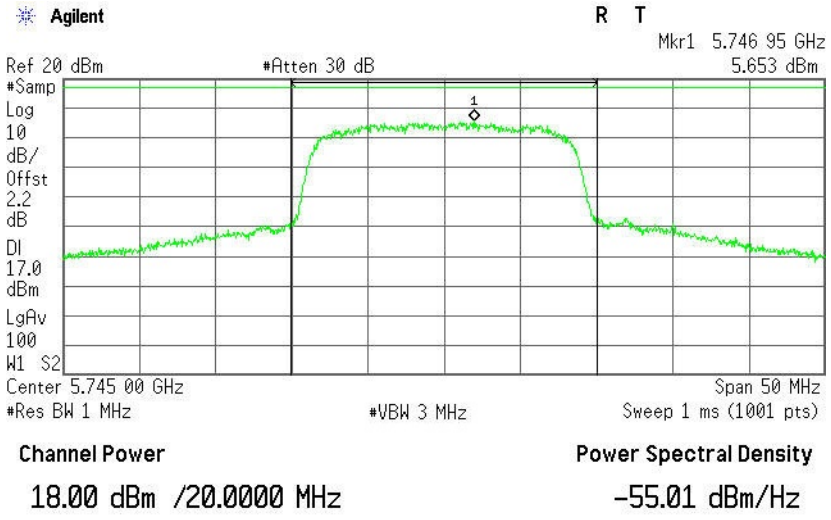
Antenna 0



IEEE 802.11a mode / 5745 ~ 5805MHz

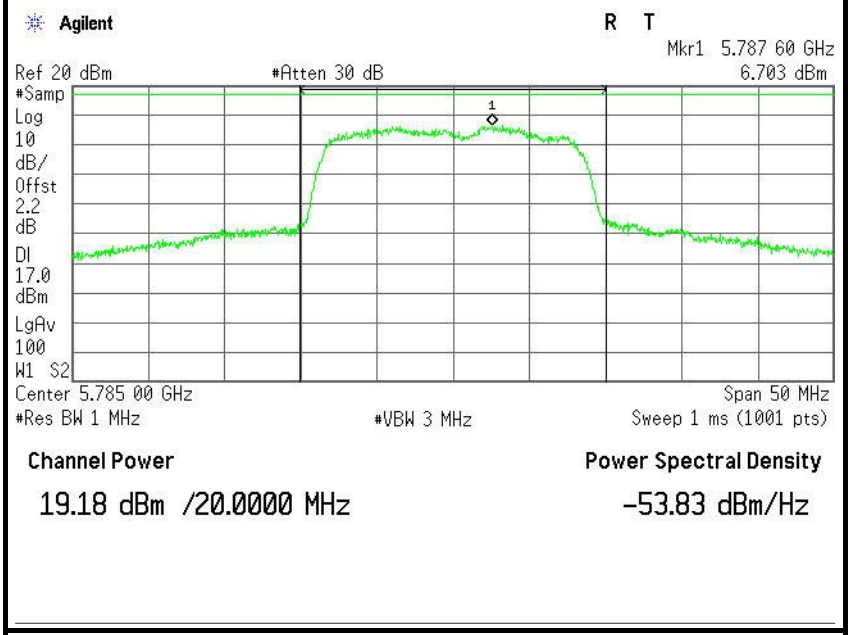
PPSD (CH Low)

Antenna 0



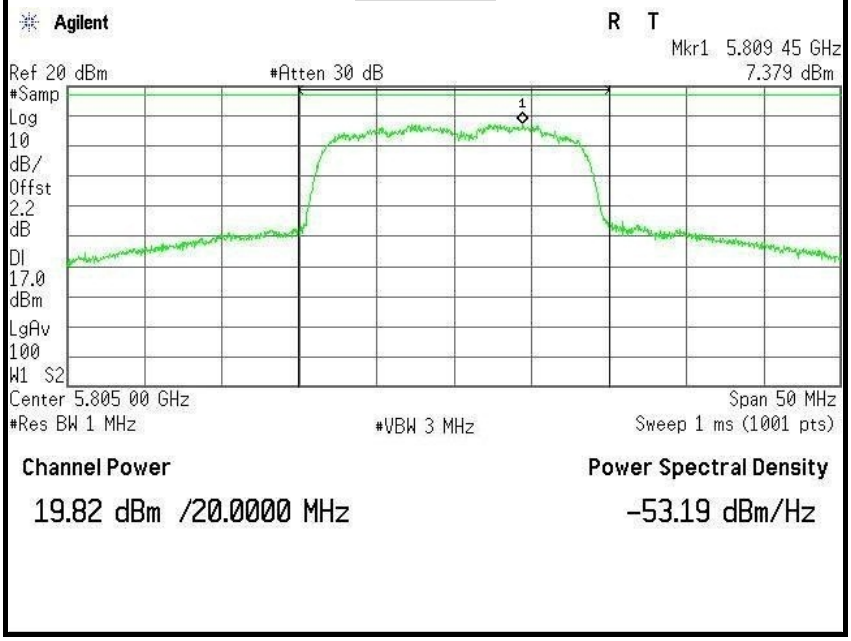
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

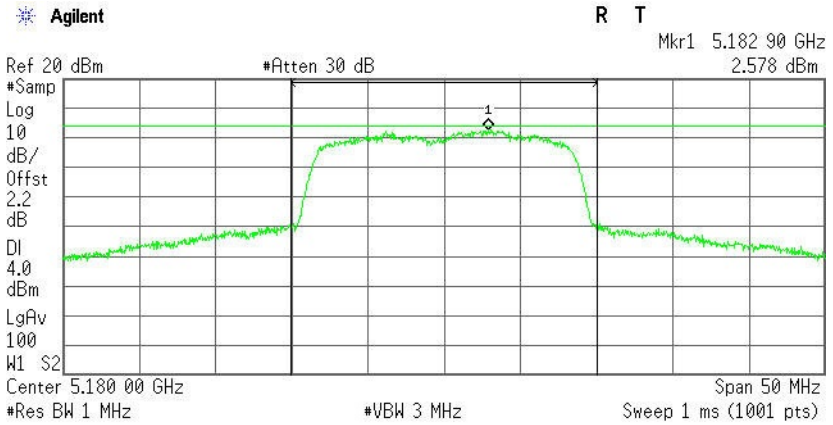
Antenna 0



IEEE 802.11a mode / 5180 ~ 5240MHz

PPSD (CH Low)

Antenna 1



Channel Power

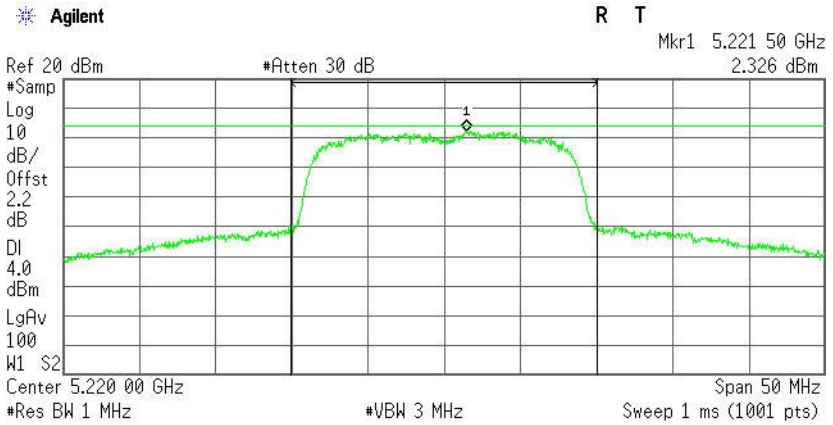
14.86 dBm /20.0000 MHz

Power Spectral Density

-58.15 dBm/Hz

PPSD (CH Mid)

Antenna 1



Channel Power

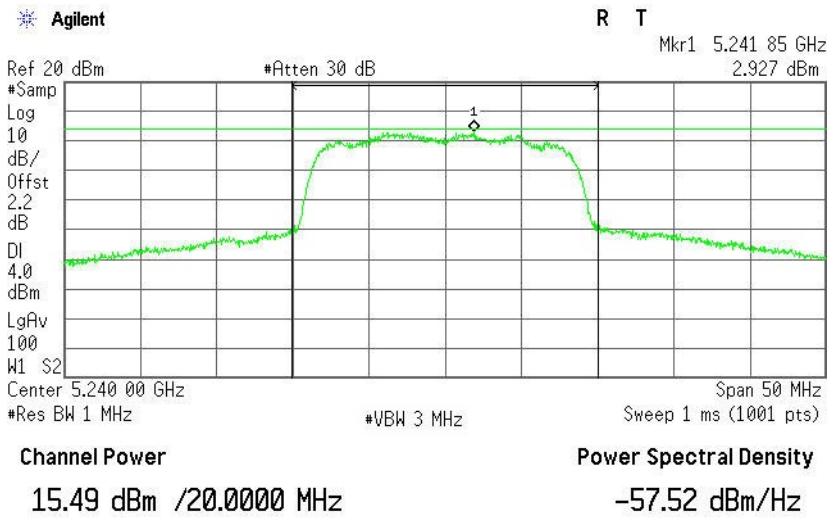
15.01 dBm /20.0000 MHz

Power Spectral Density

-58.00 dBm/Hz

PPSD (CH High)

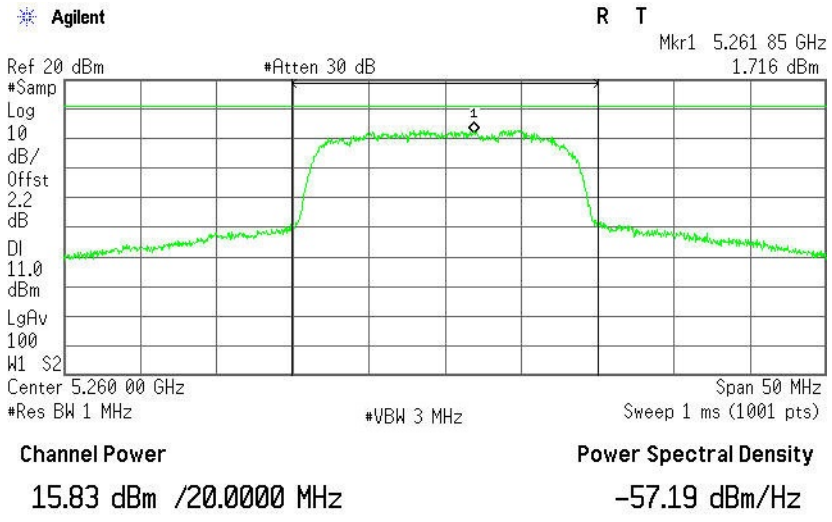
Antenna 1



IEEE 802.11a mode / 5260 ~ 5320MHz

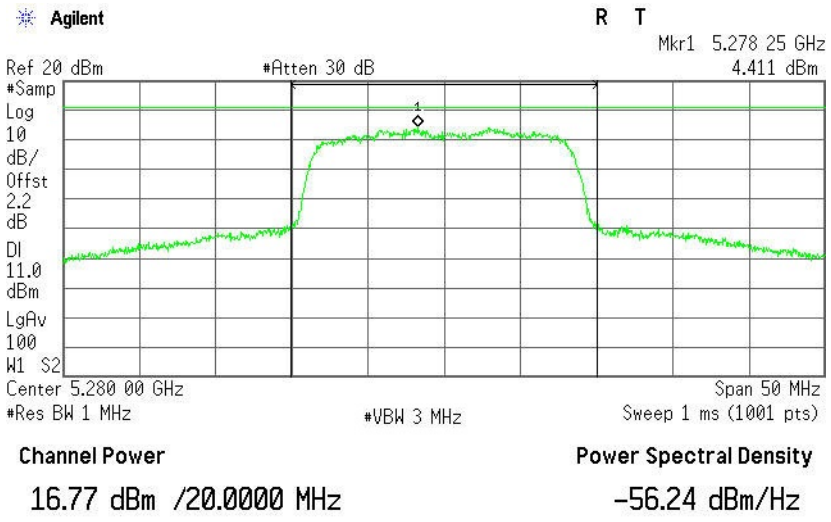
PPSD (CH Low)

Antenna 1



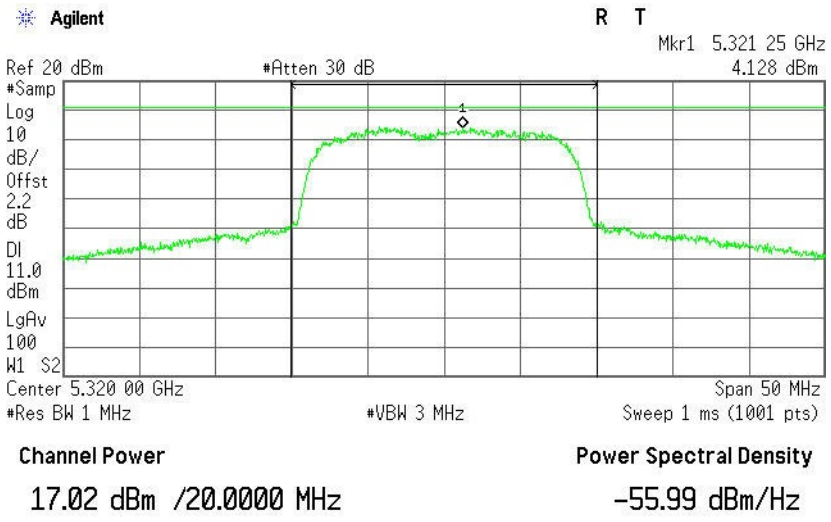
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

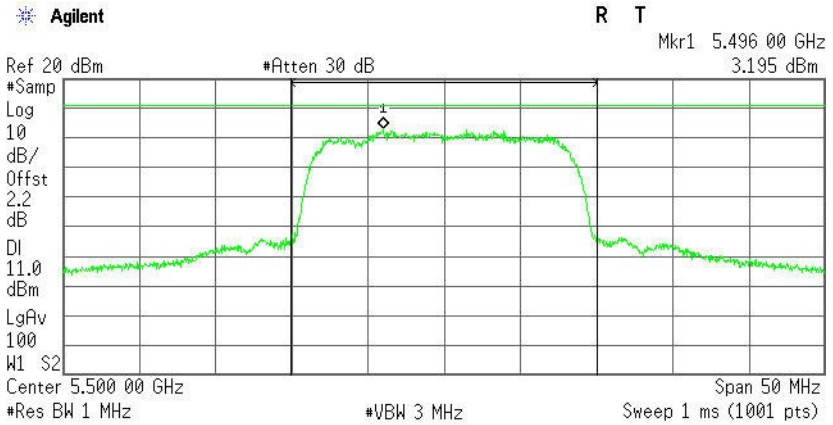
Antenna 1



IEEE 802.11a mode / 5500 ~ 5700MHz

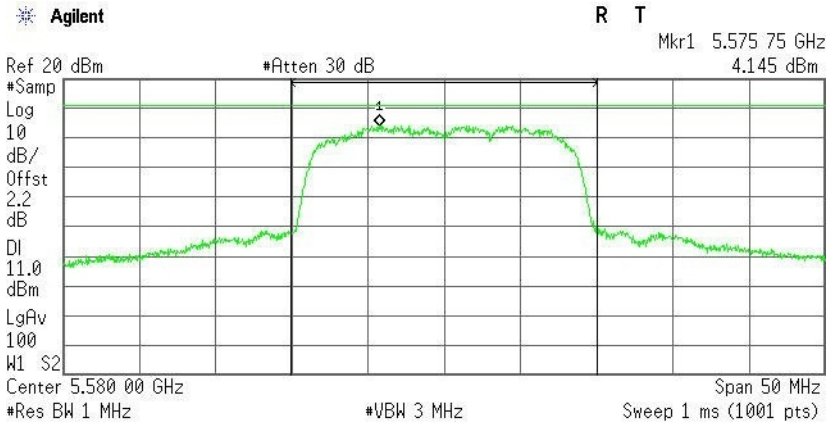
PPSD (CH Low)

Antenna 1



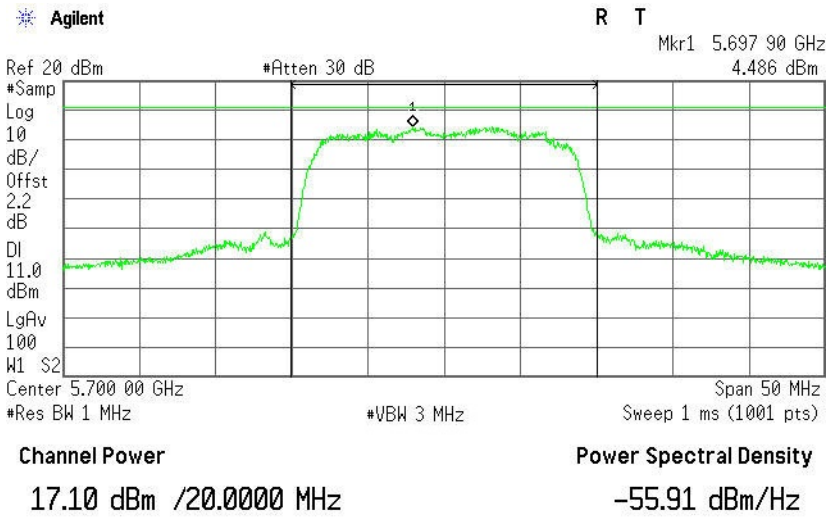
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

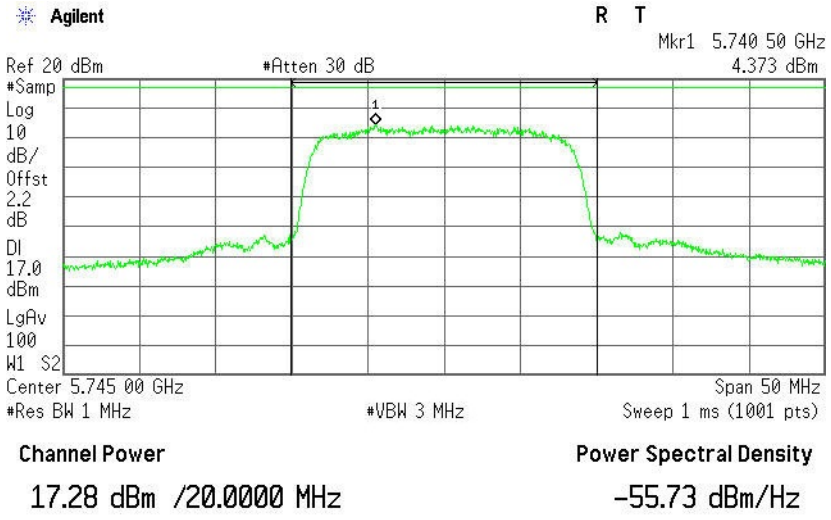
Antenna 1



IEEE 802.11a mode / 5745 ~ 5805MHz

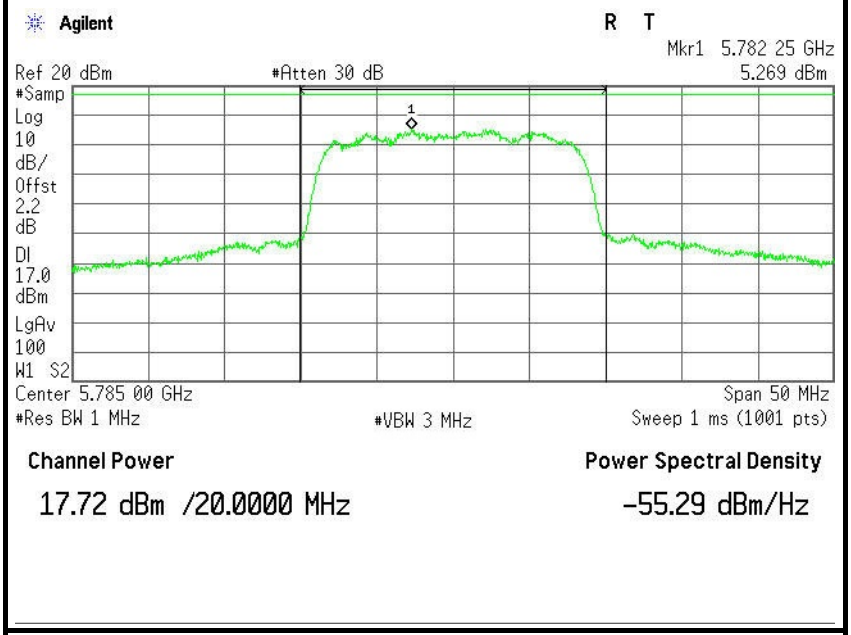
PPSD (CH Low)

Antenna 1



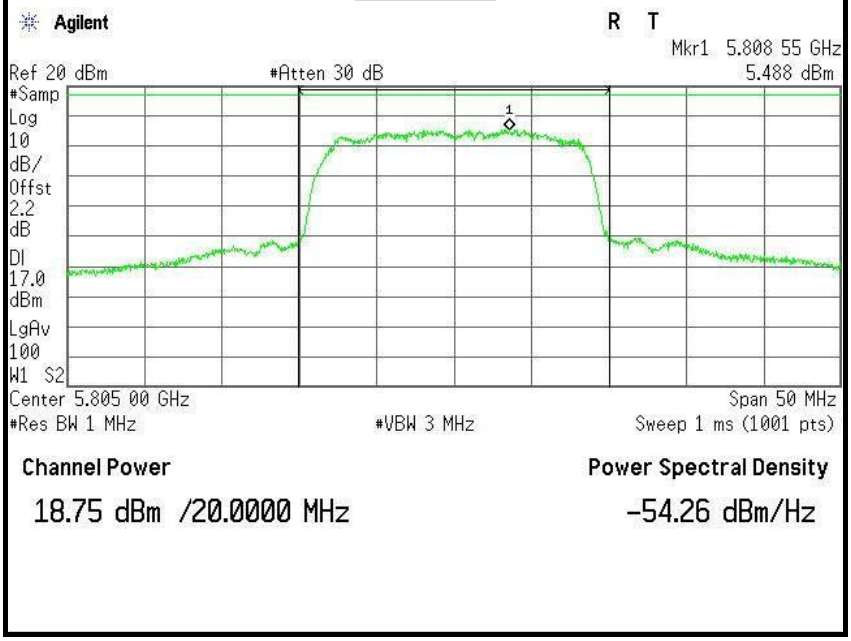
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

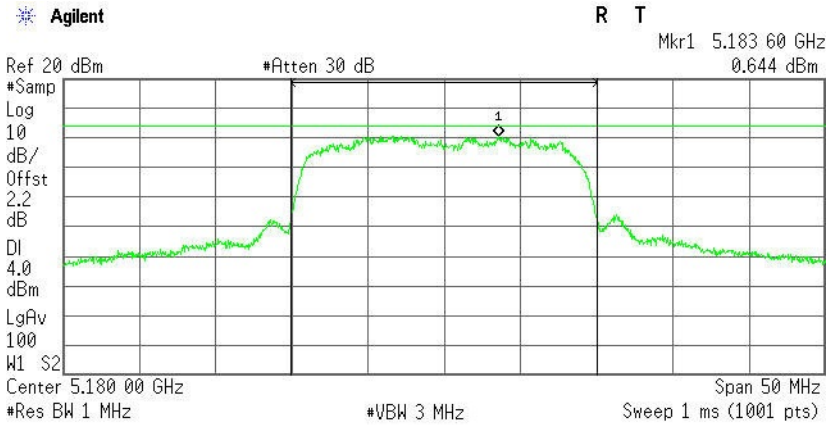
Antenna 1



IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

PPSD (CH Low)

Antenna 0



Channel Power

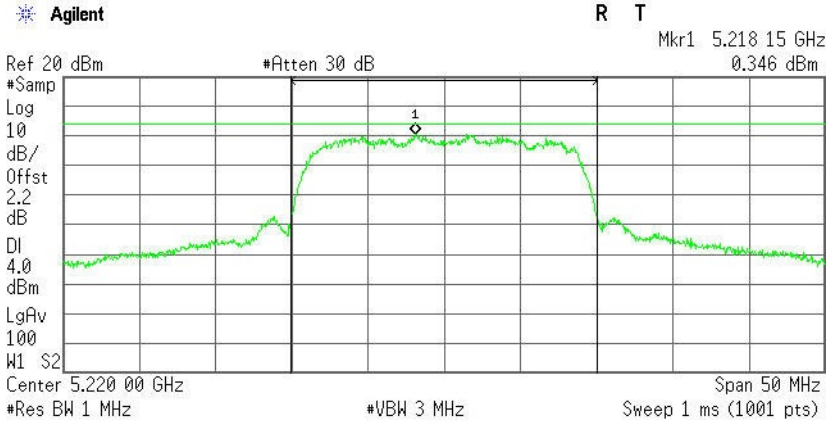
14.62 dBm /20.0000 MHz

Power Spectral Density

-58.39 dBm/Hz

PPSD (CH Mid)

Antenna 0



Channel Power

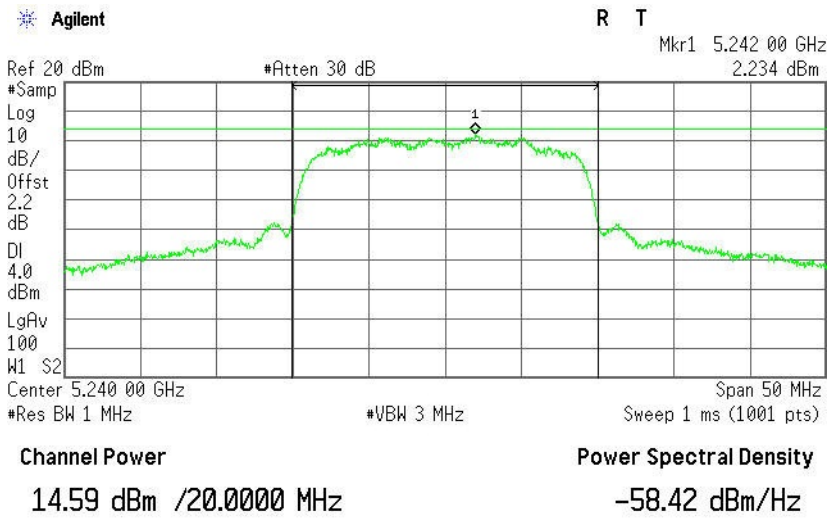
14.12 dBm /20.0000 MHz

Power Spectral Density

-58.89 dBm/Hz

PPSD (CH High)

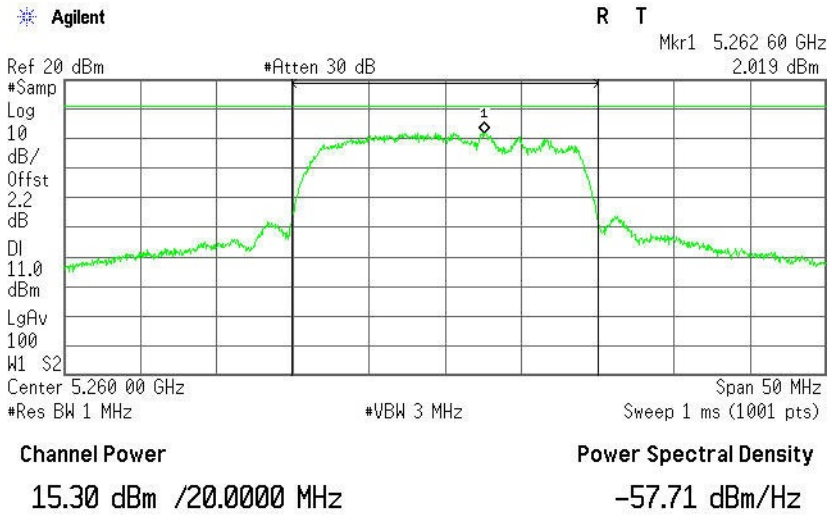
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5260 ~ 5320MHz

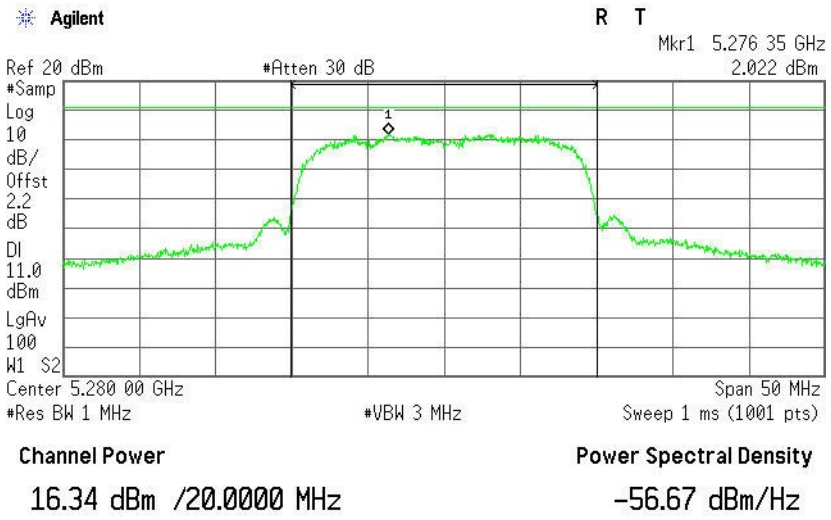
PPSD (CH Low)

Antenna 0



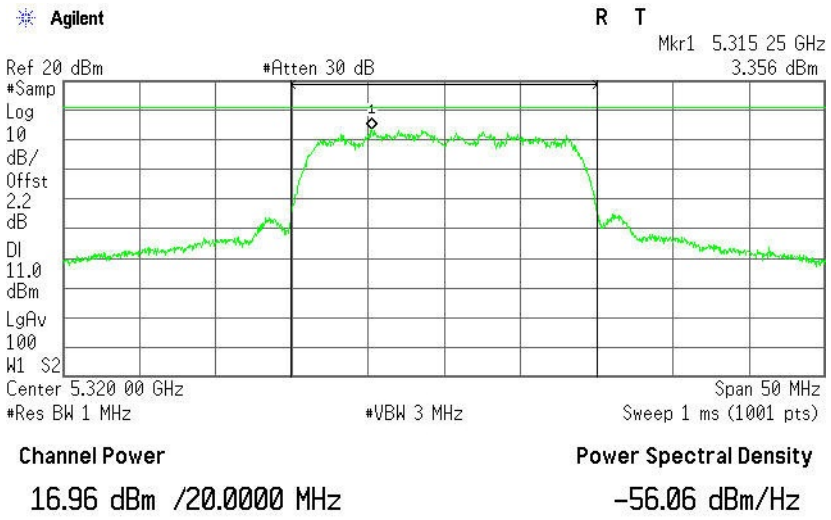
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

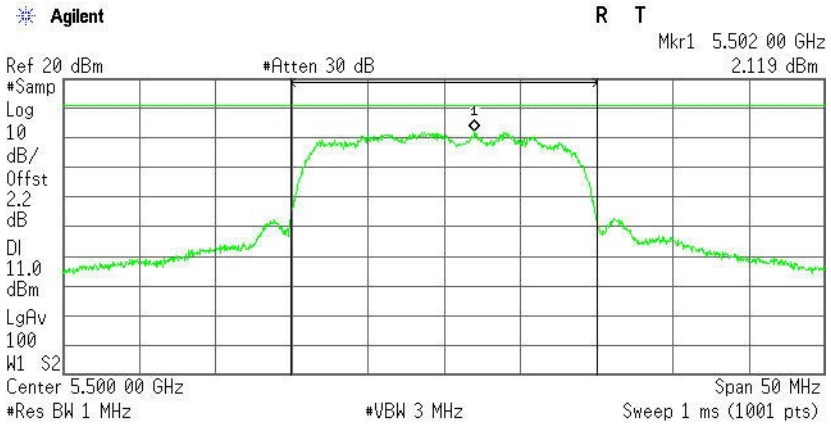
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

PPSD (CH Low)

Antenna 0



Channel Power

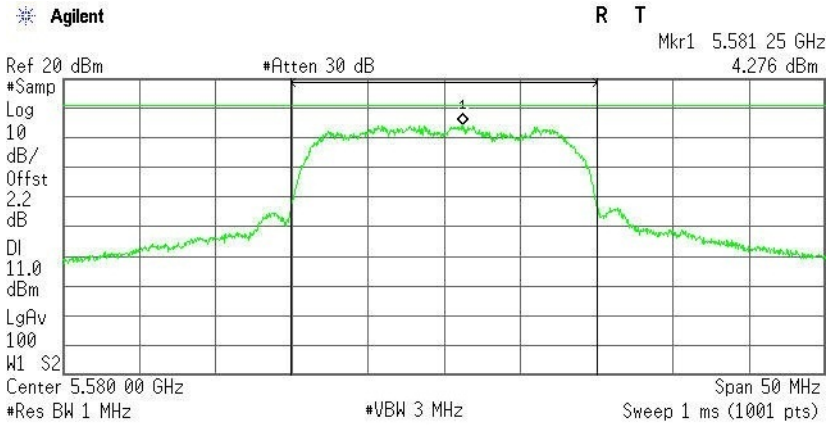
15.52 dBm /20.0000 MHz

Power Spectral Density

-57.49 dBm/Hz

PPSD (CH Mid)

Antenna 0



Channel Power

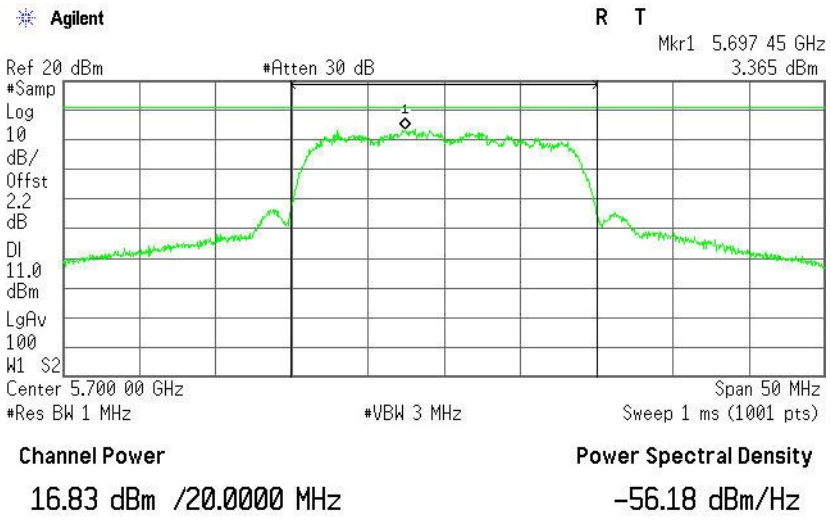
17.77 dBm /20.0000 MHz

Power Spectral Density

-55.24 dBm/Hz

PPSD (CH High)

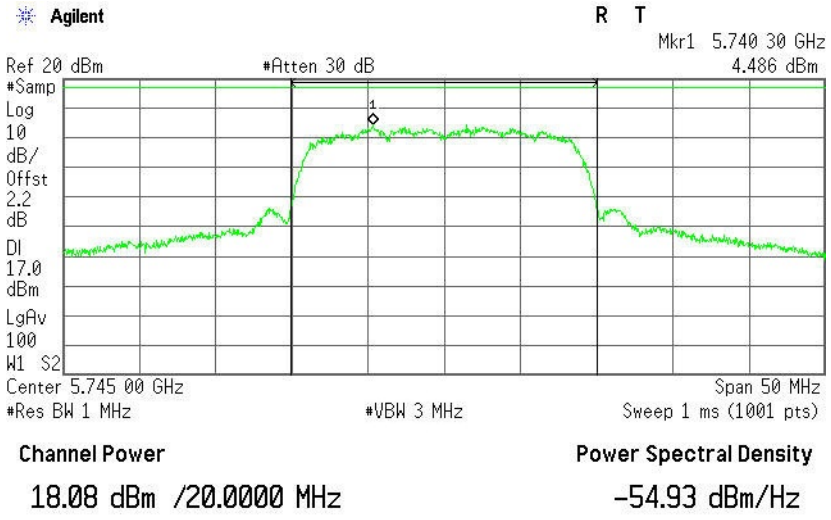
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5745 ~ 5805MHz

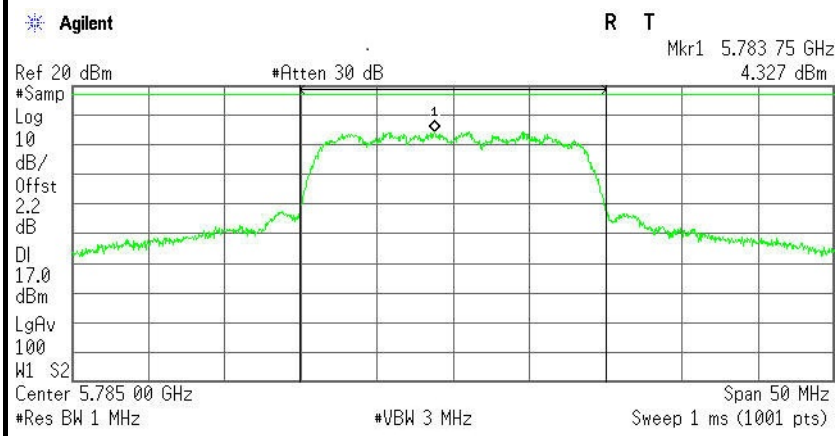
PPSD (CH Low)

Antenna 0



PPSD (CH Mid)

Antenna 0



PPSD (CH High)

Antenna 0