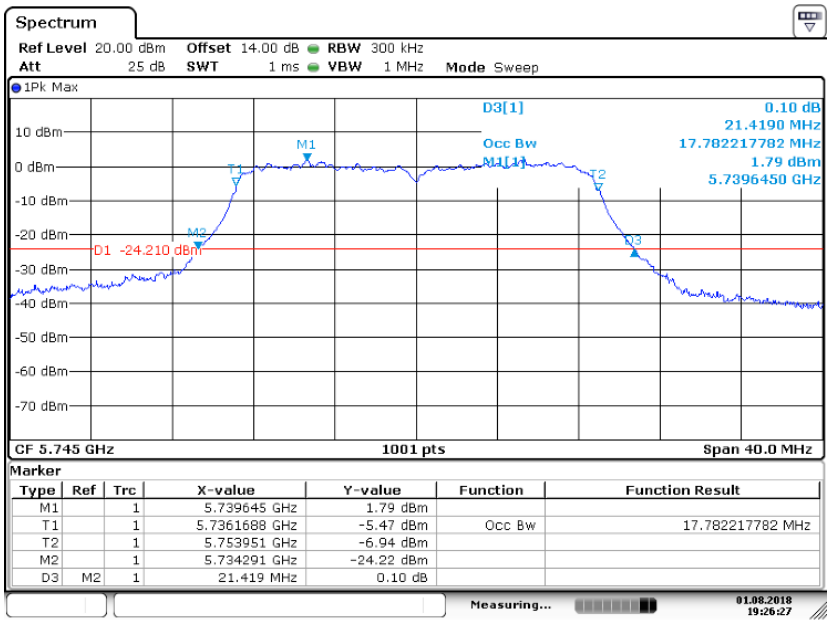
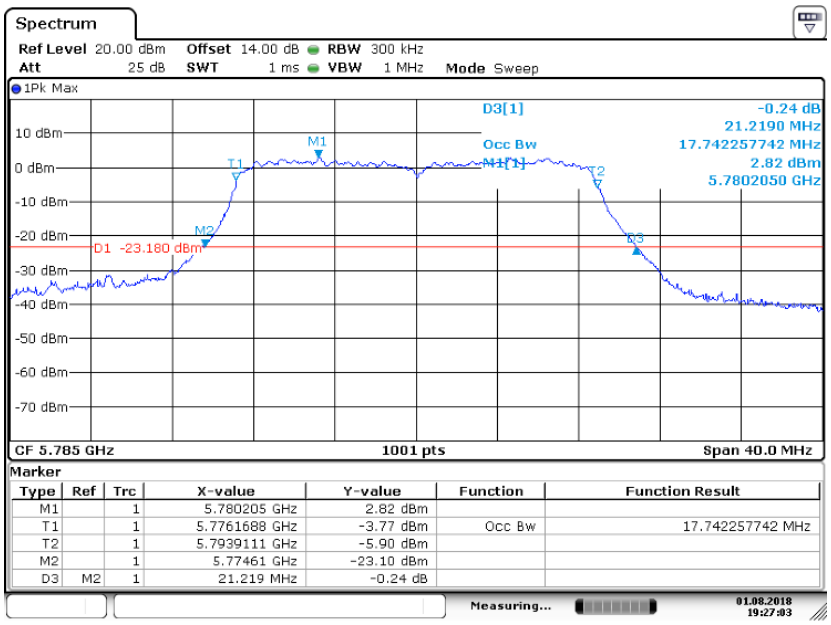
Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5745



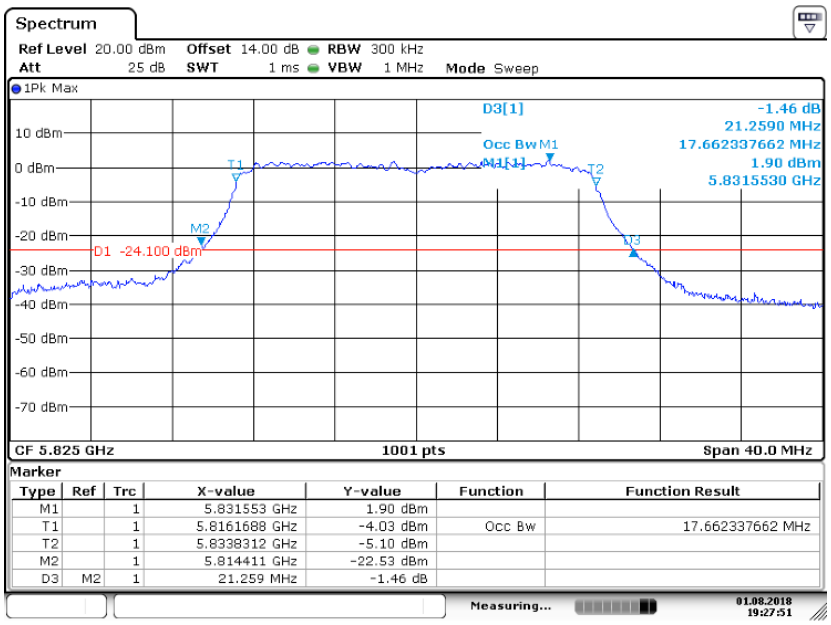
Date: 1.AUG.2018 19:26:26

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5785



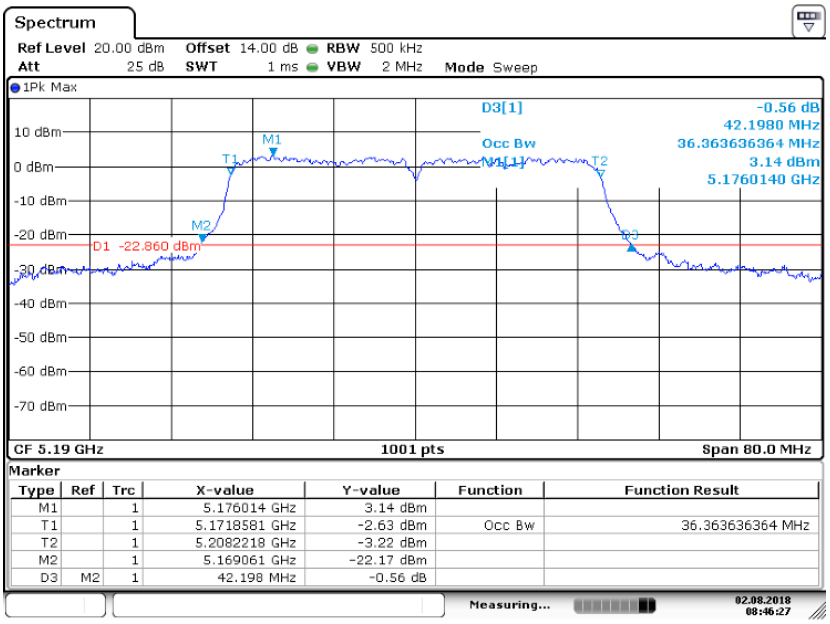
Date: 1.AUG.2018 19:27:03

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5825



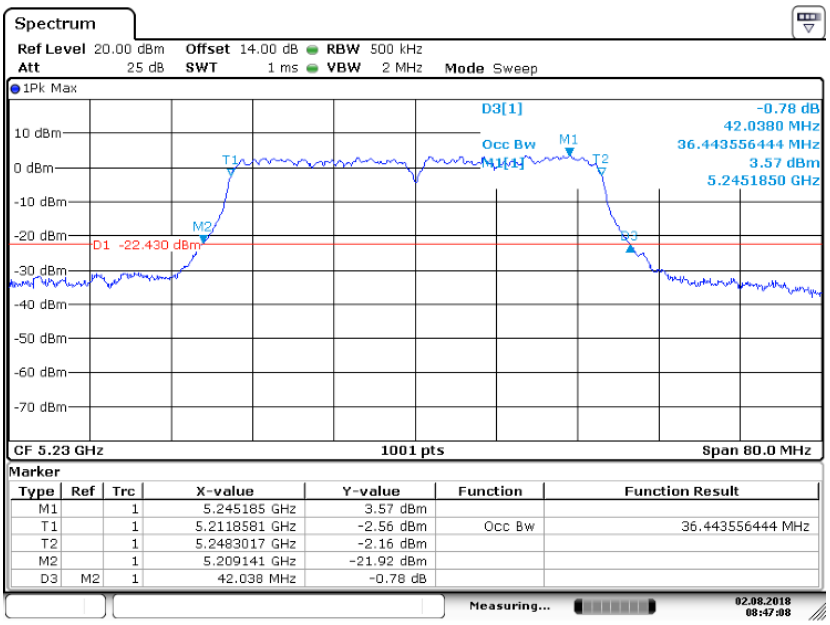
Date: 1.AUG.2018 19:27:50

Emission Bandwidth&99% Occupied Bandwidth		UNII Band I	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5190



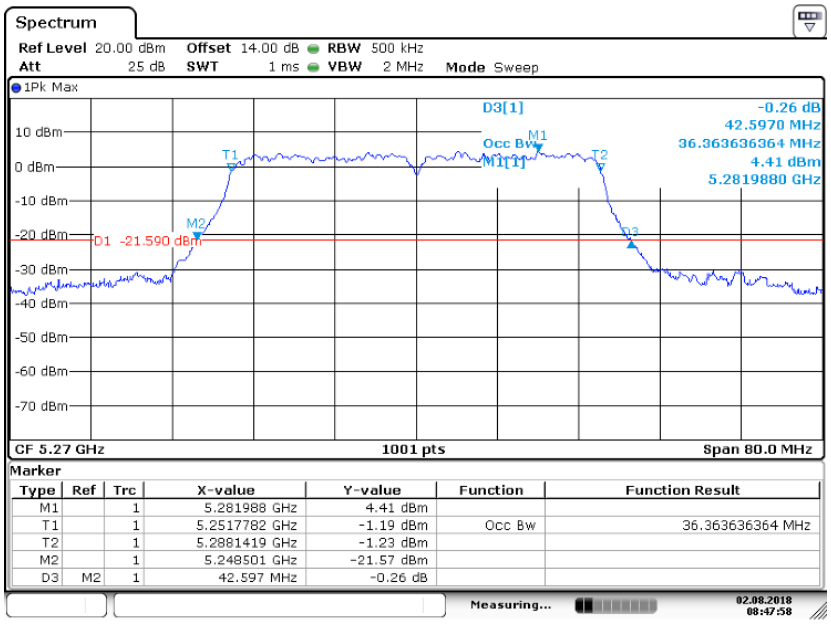
Date: 2.AUG.2018 08:46:26

Emission Bandwidth&99% Occupied Bandwidth		UNII Band I	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5230



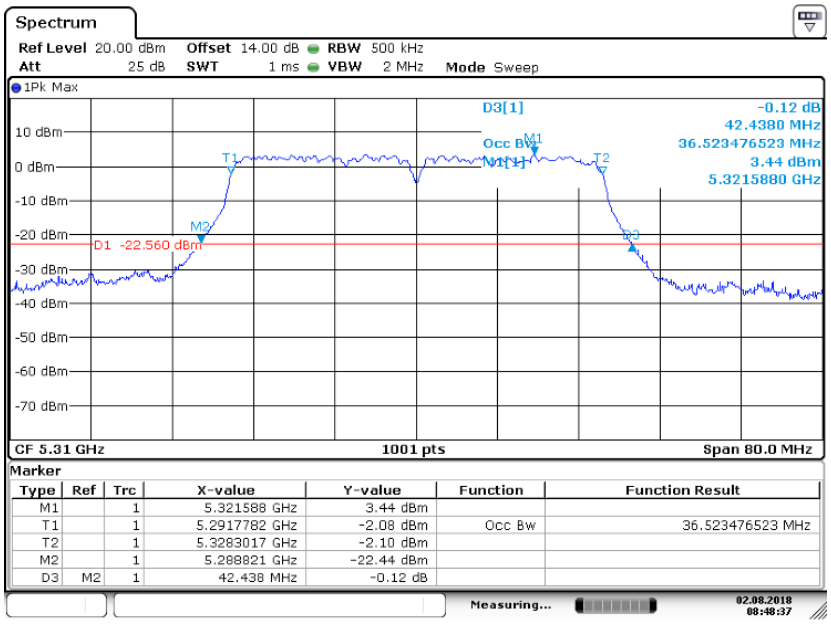
Date: 2.AUG.2018 08:47:09

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-A	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5270



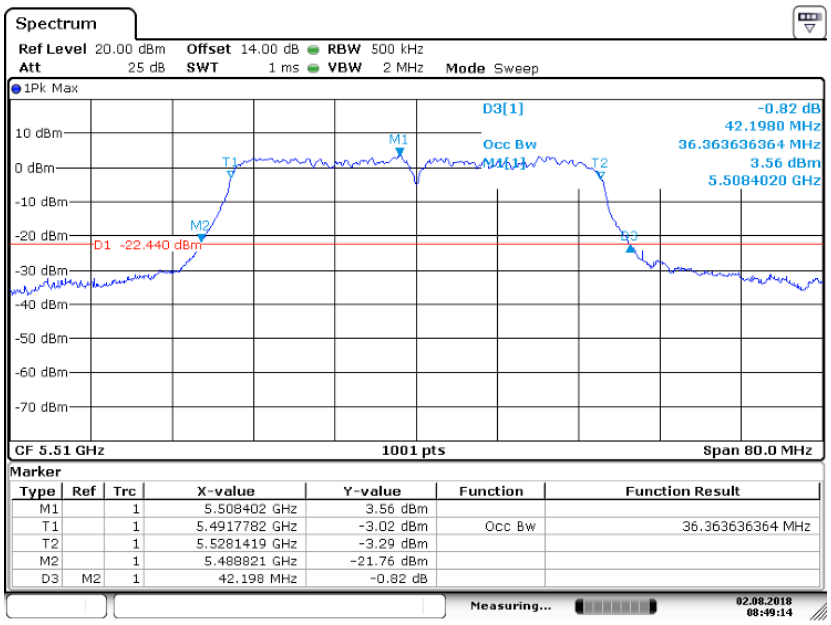
Date: 2.AUG.2018 08:47:58

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-A	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5310



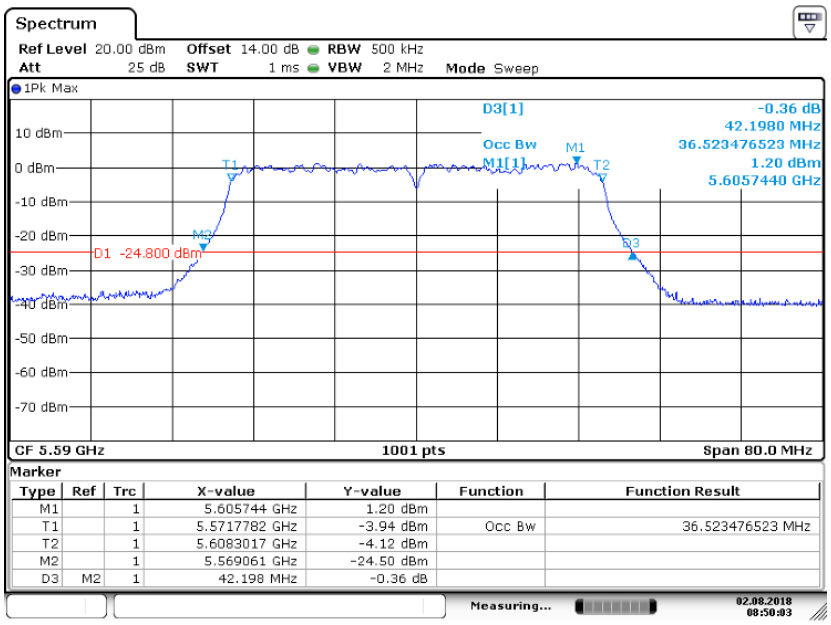
Date: 2.AUG.2018 08:48:36

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5510



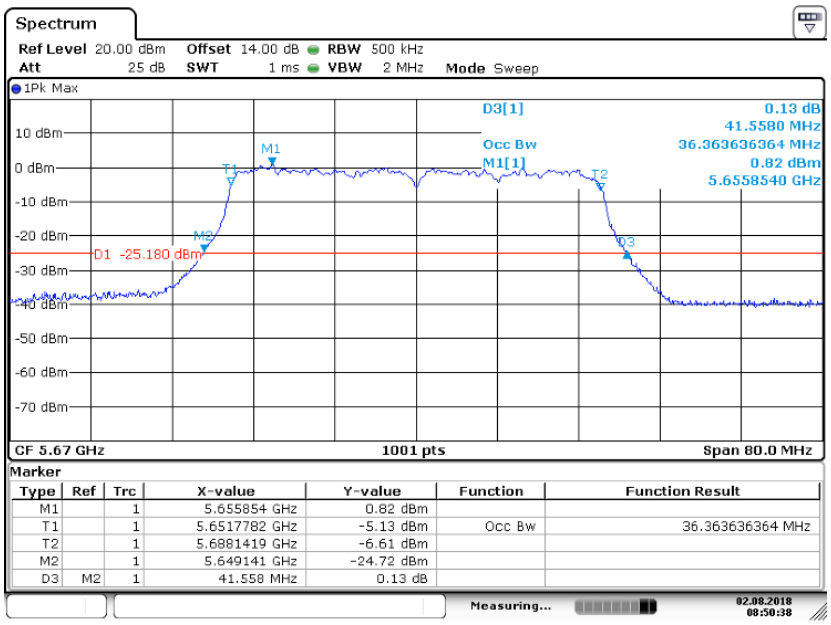
Date: 2.AUG.2018 08:49:14

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5590



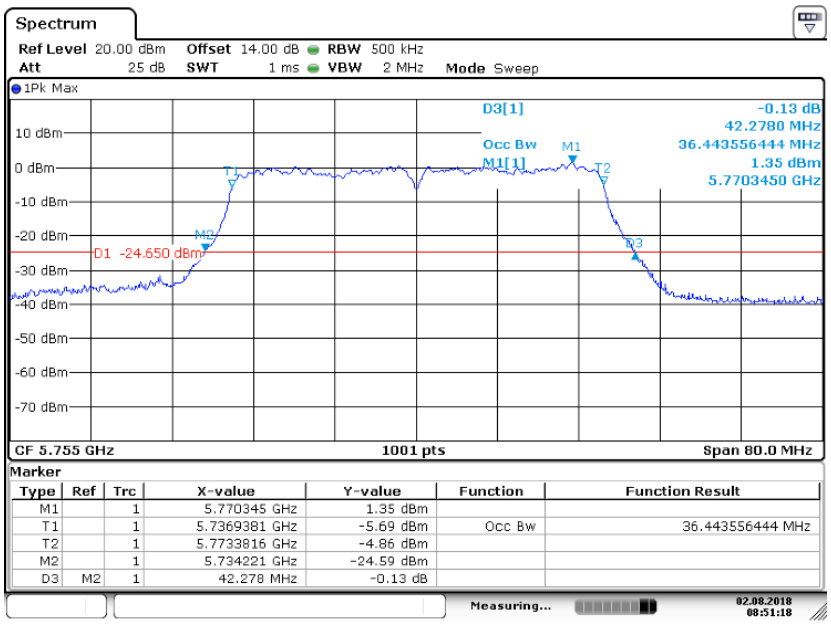
Date: 2.AUG.2018 08:50:02

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5670



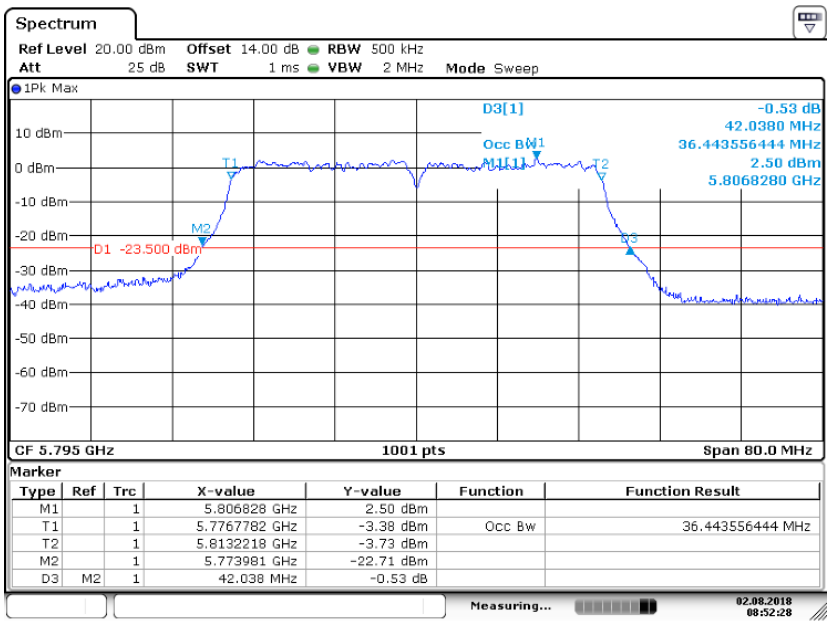
Date: 2.AUG.2018 08:50:37

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5755



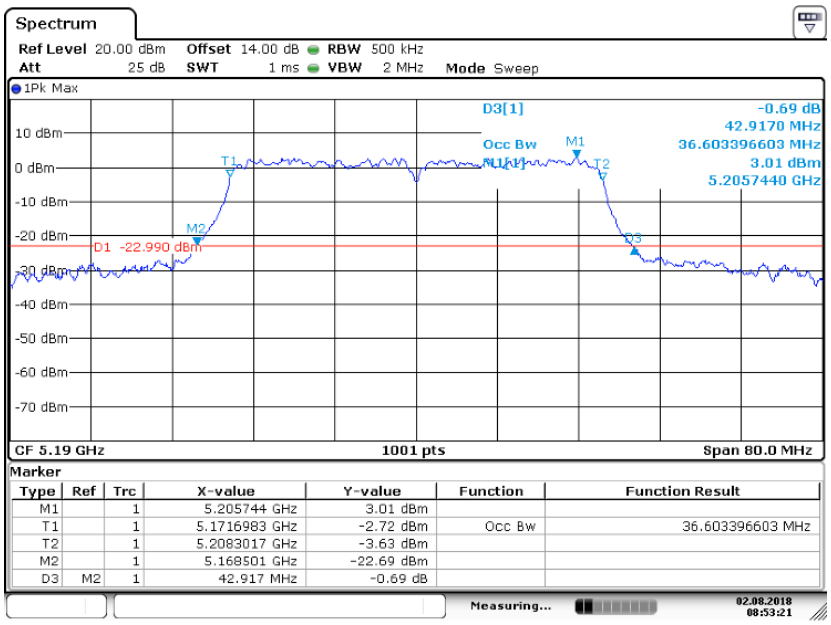
Date: 2.AUG.2018 08:51:18

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5795



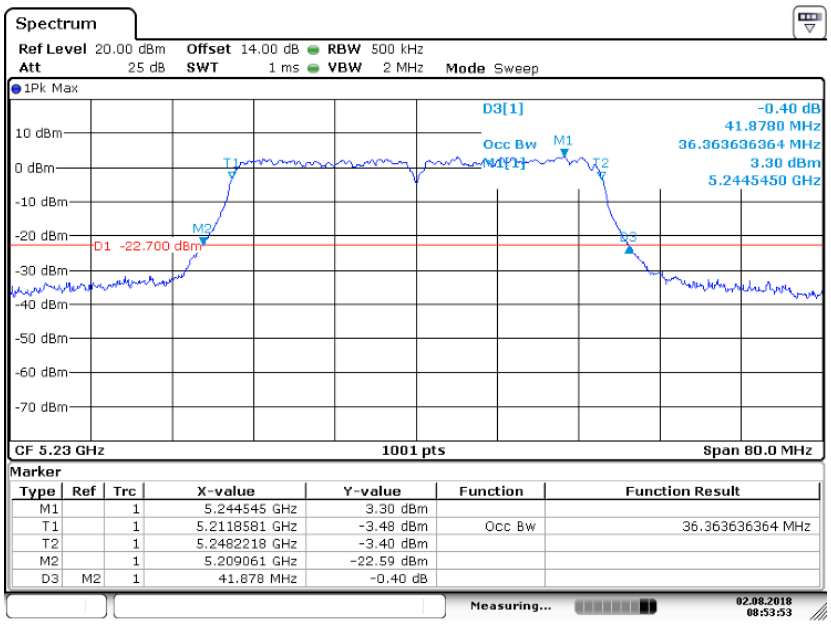
Date: 2.AUG.2018 08:52:28

Emission Bandwidth&99% Occupied Bandwidth		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5190



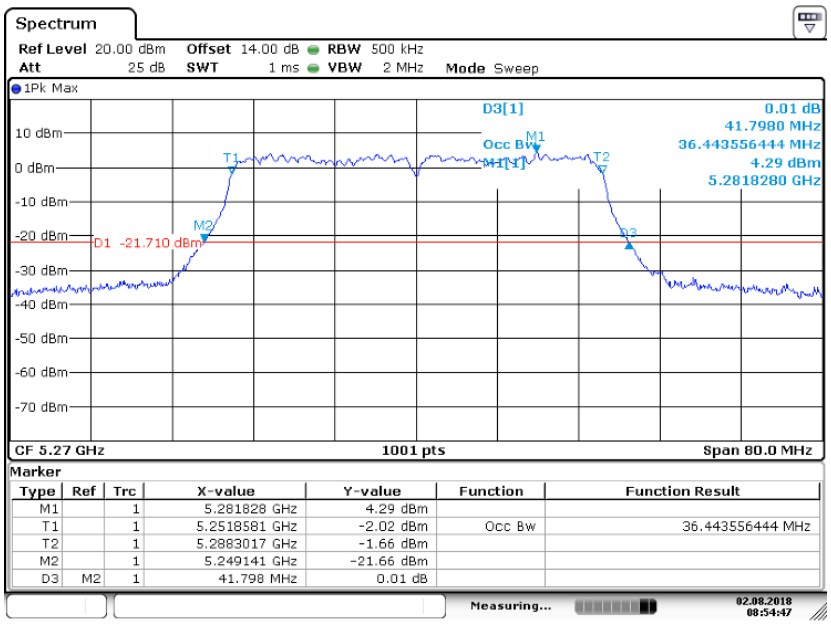
Date: 2.AUG.2018 08:53:20

Emission Bandwidth&99% Occupied Bandwidth		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5230



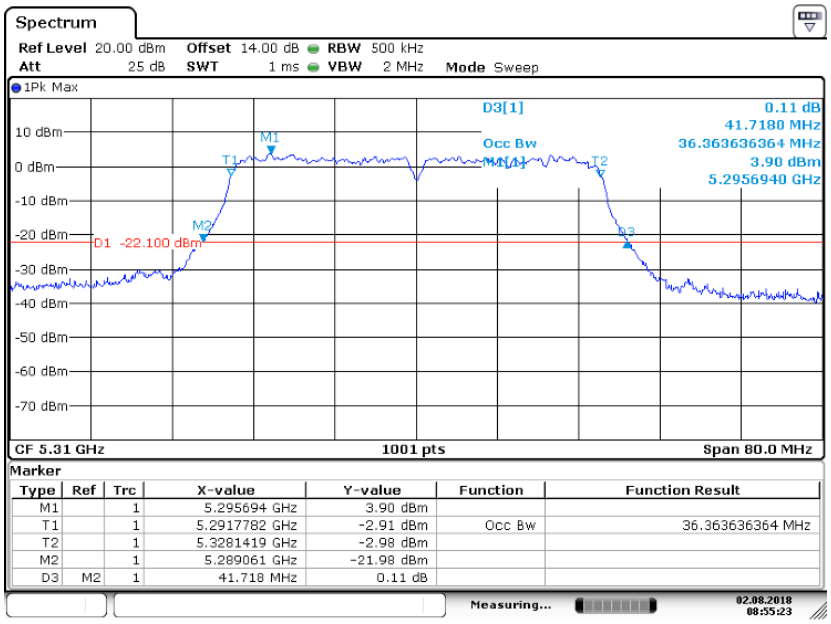
Date: 2.AUG.2018 08:53:53

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-A	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5270



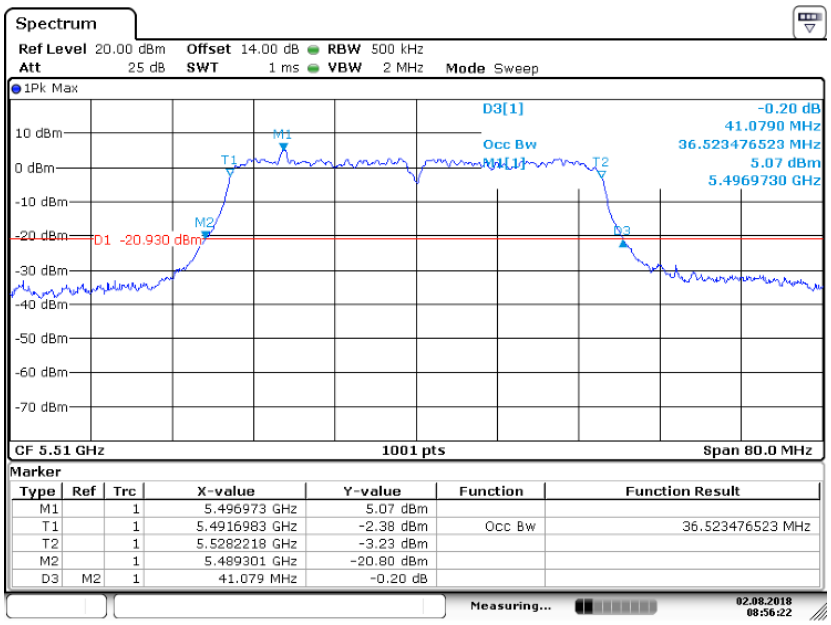
Date: 2.AUG.2018 08:54:46

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-A	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5310



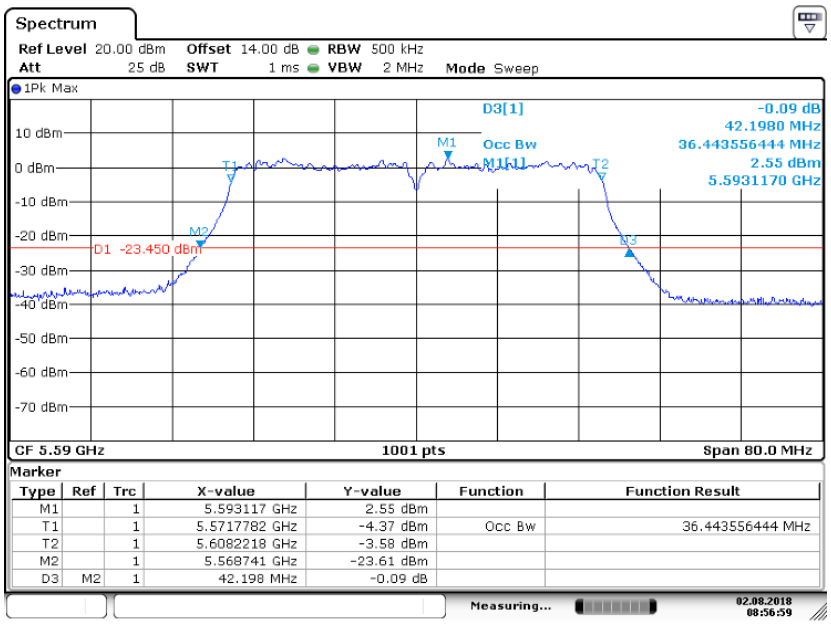
Date: 2.AUG.2018 08:55:23

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5510



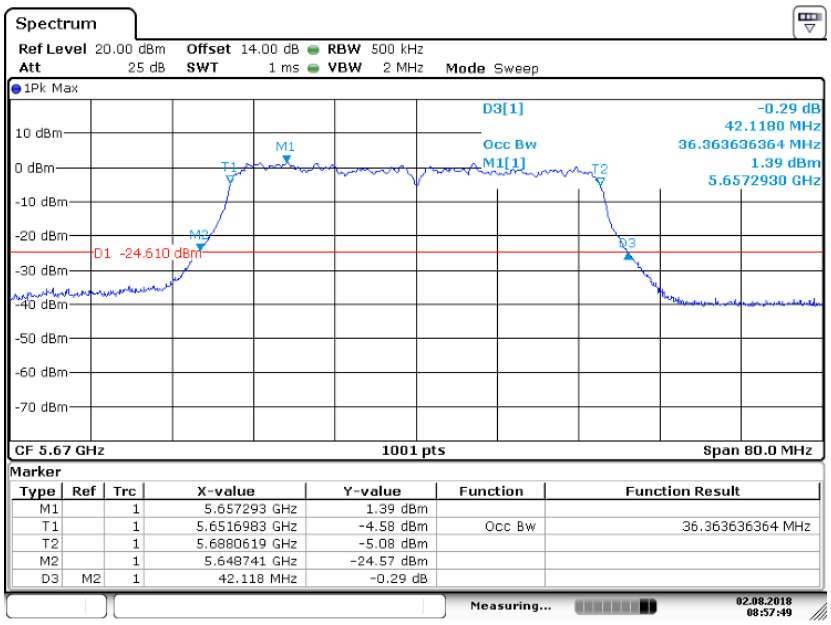
Date: 2.AUG.2018 08:56:21

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5590



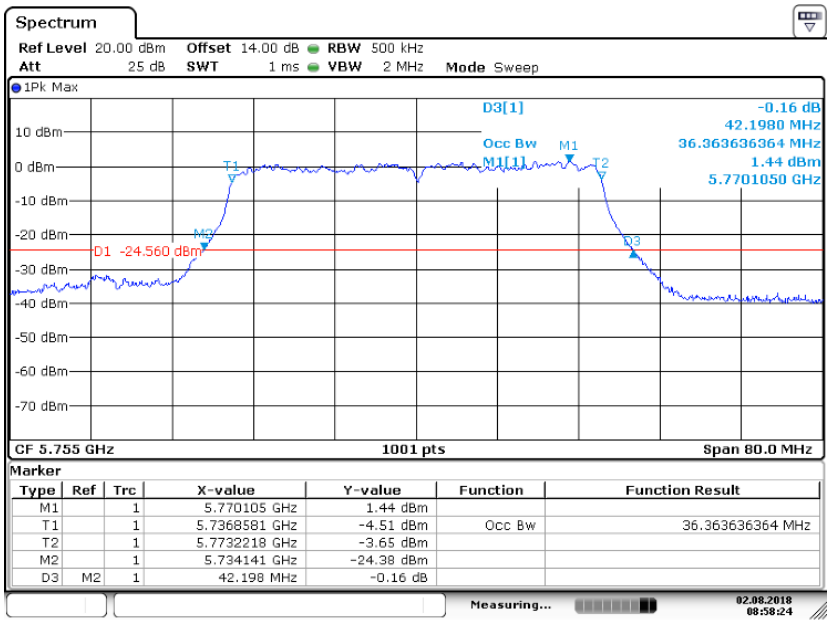
Date: 2.AUG.2018 08:56:59

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5670



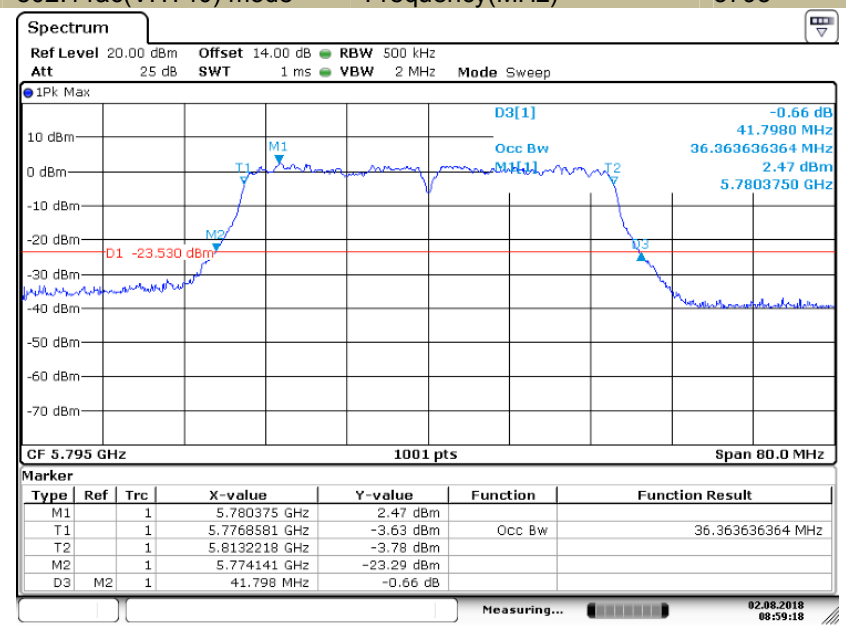
Date: 2.AUG.2018 08:57:49

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5755



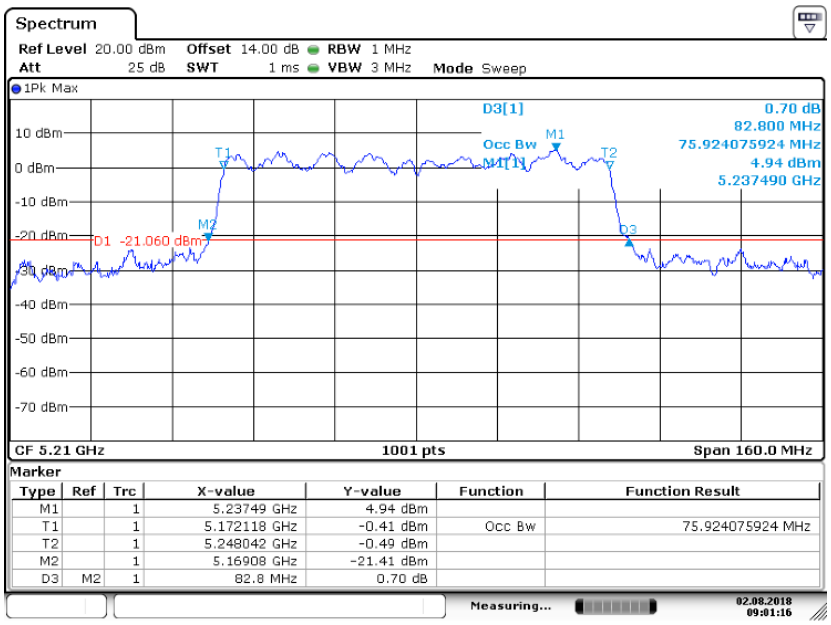
Date: 2.AUG.2018 08:58:23

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795



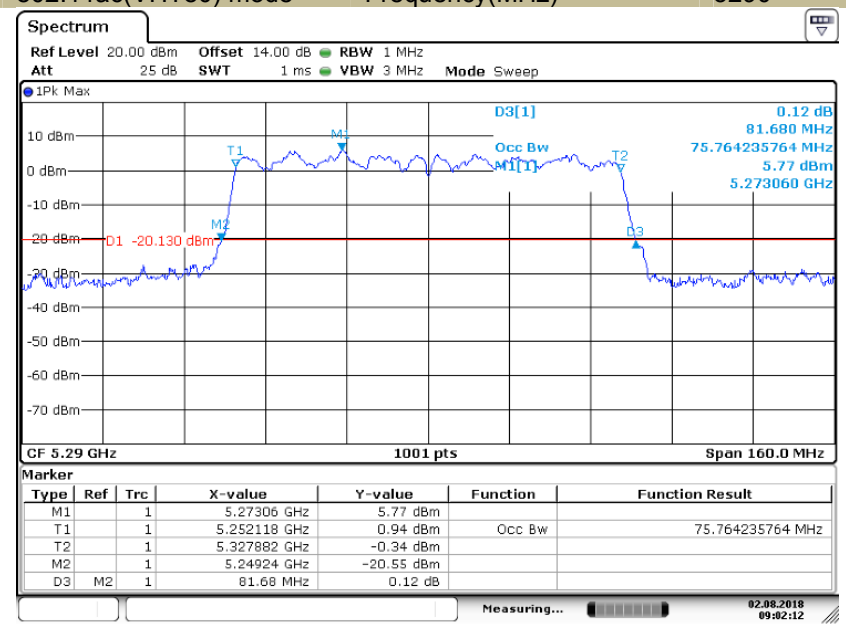
Date: 2.AUG.2018 08:59:18

Emission Bandwidth&99% Occupied Bandwidth		UNII Band I	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210



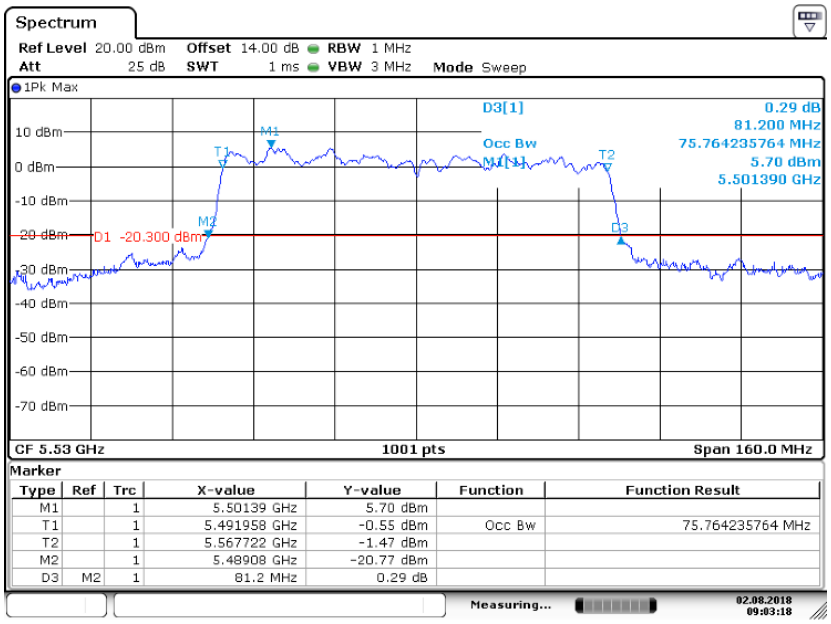
Date: 2.AUG.2018 09:01:15

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-A	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5290



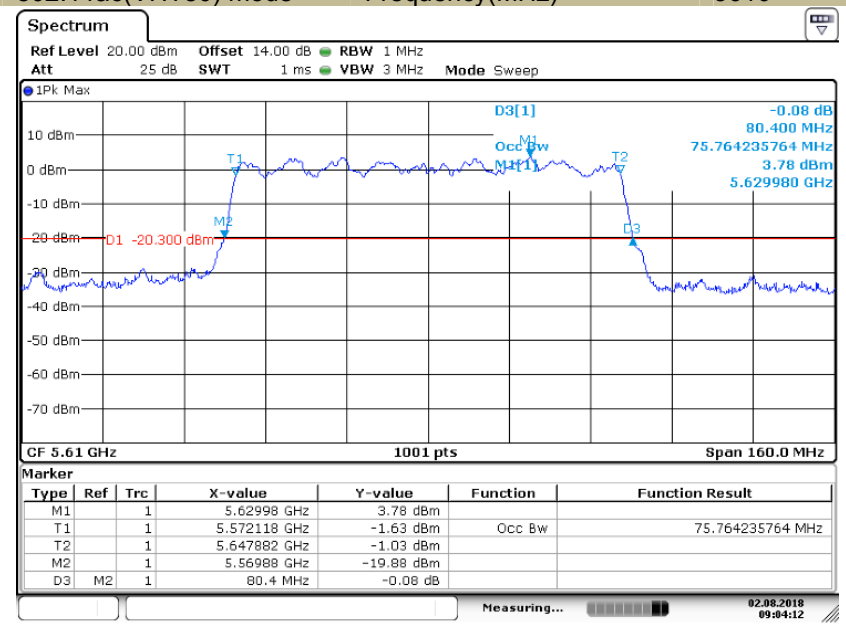
Date: 2.AUG.2018 09:02:12

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5530



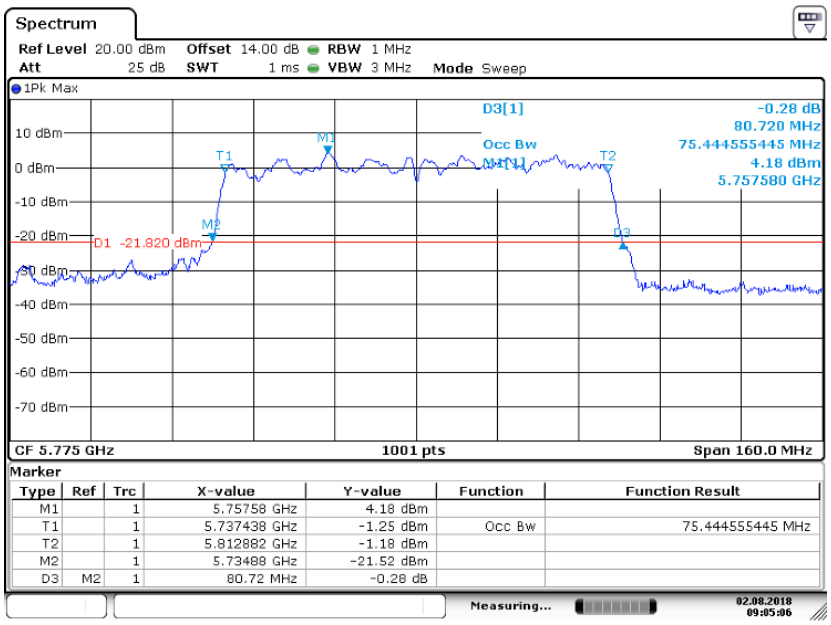
Date: 2.AUG.2018 09:03:18

Emission Bandwidth&99% Occupied Bandwidth		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5610



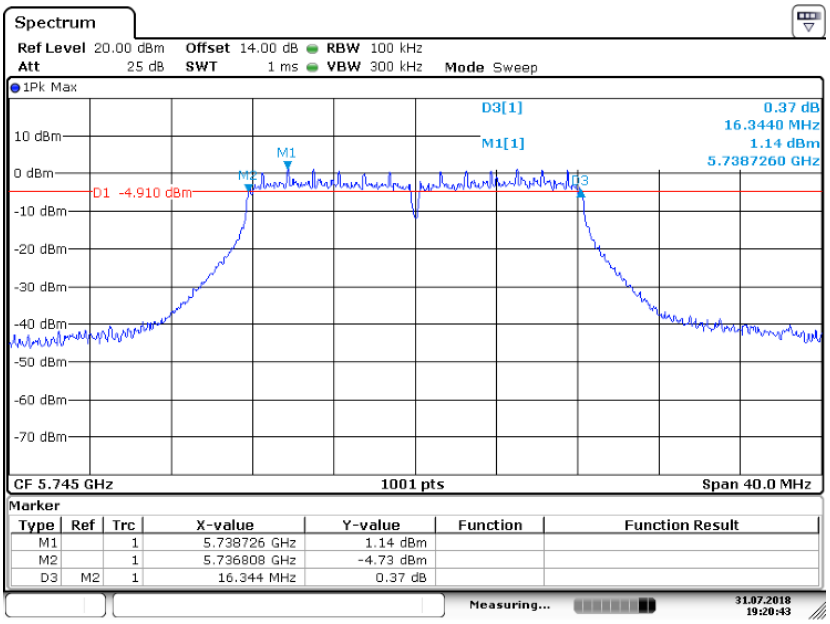
Date: 2.AUG.2018 09:04:11

Emission Bandwidth&99% Occupied Bandwidth		UNII Band III	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5775



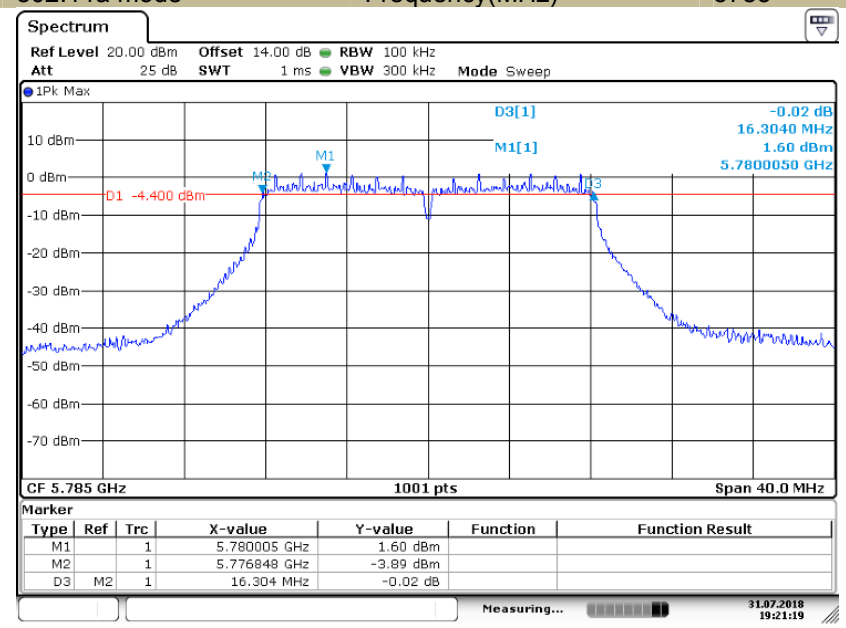
Date: 2.AUG.2018 09:05:06

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11a mode	Frequency(MHz)	5745



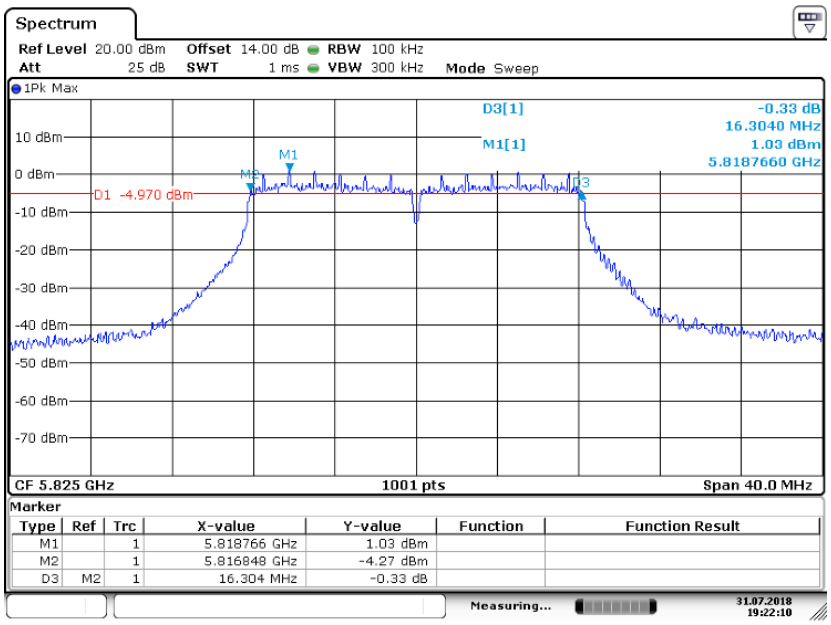
Date: 31.JUL.2018 19:20:43

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11a mode	Frequency(MHz)	5785



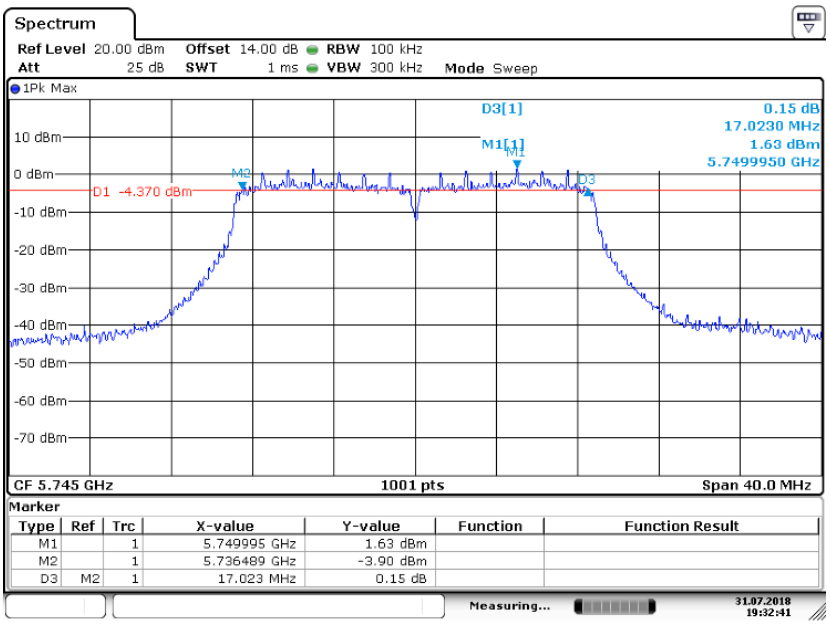
Date: 31.JUL.2018 19:21:20

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11a mode	Frequency(MHz)	5825



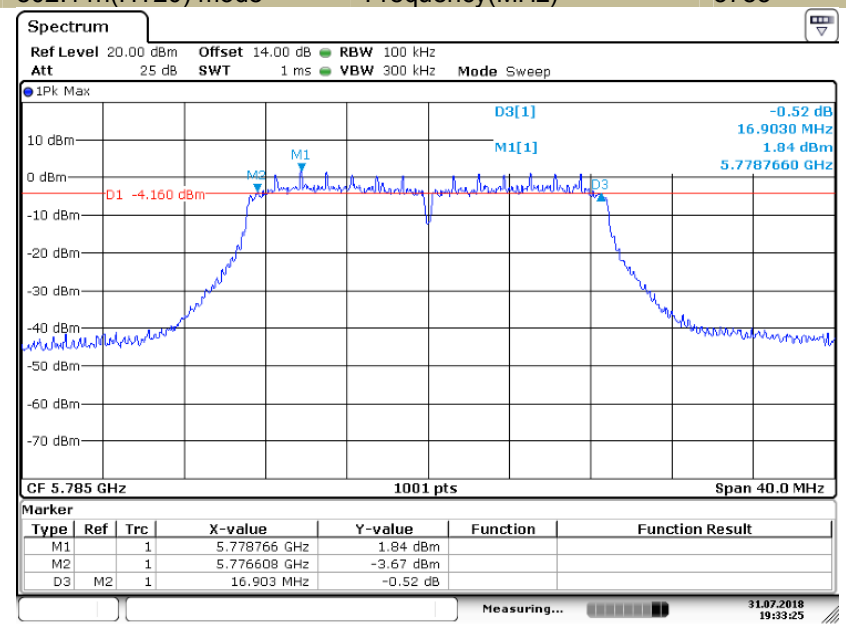
Date: 31.JUL.2018 19:22:10

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5745



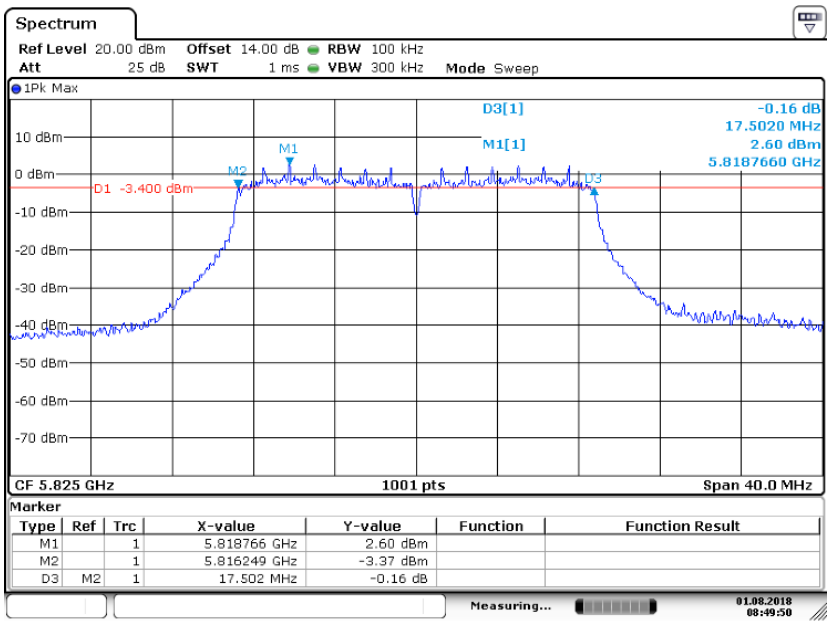
Date: 31.JUL.2018 19:32:40

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5785



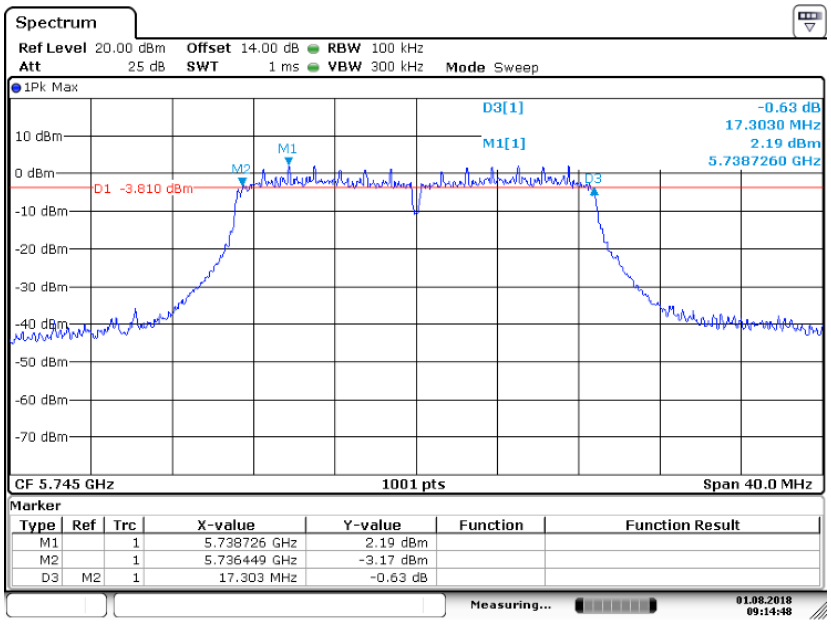
Date: 31.JUL.2018 19:33:25

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5825



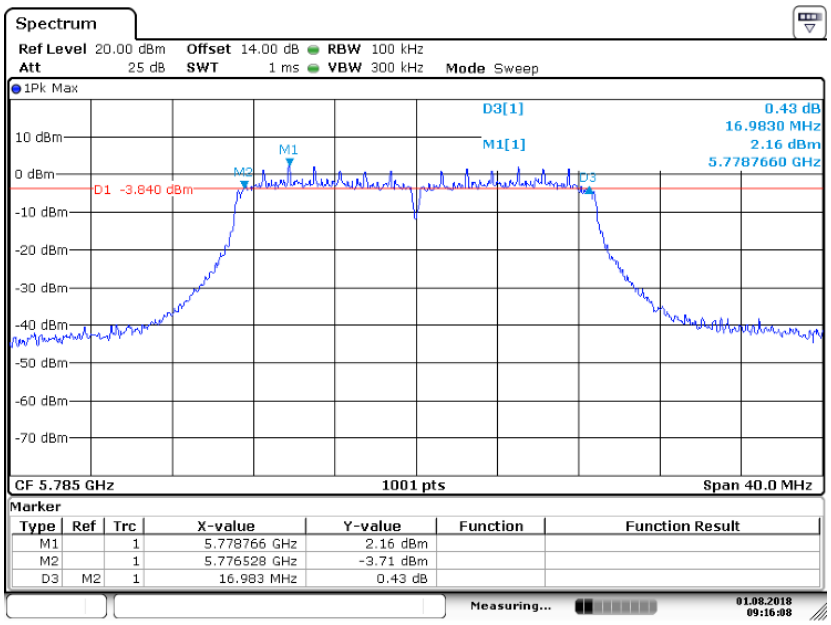
Date: 1.AUG.2018 08:49:50

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5745



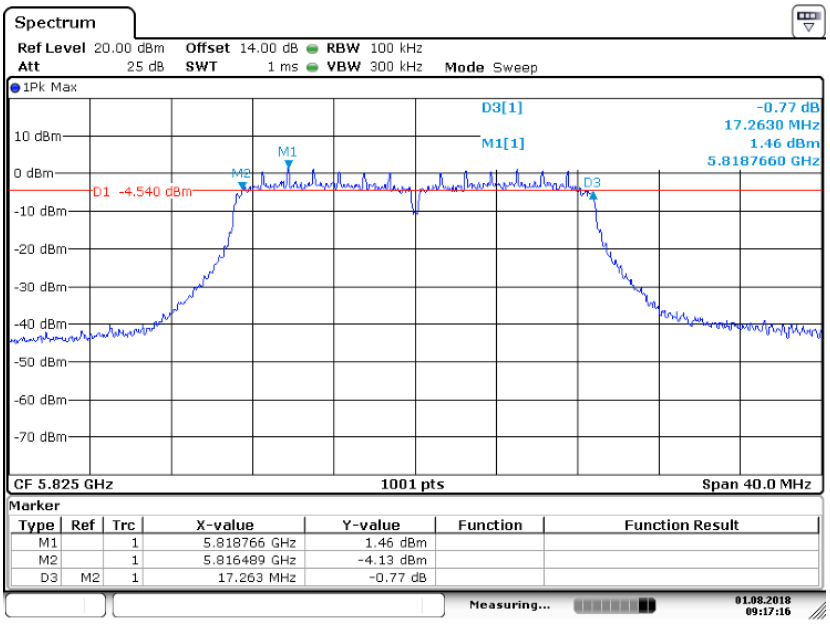
Date: 1.AUG.2018 09:14:48

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5785



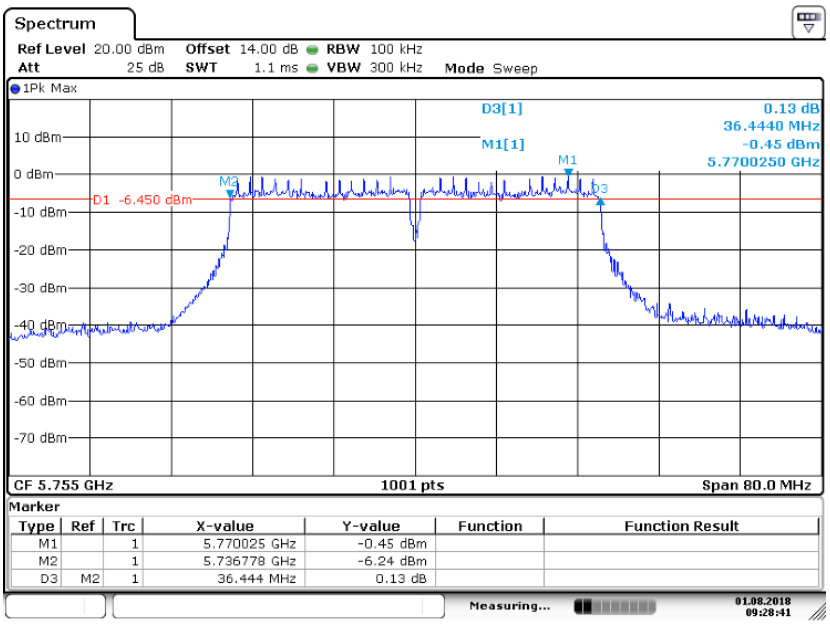
Date: 1.AUG.2018 09:16:07

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5825



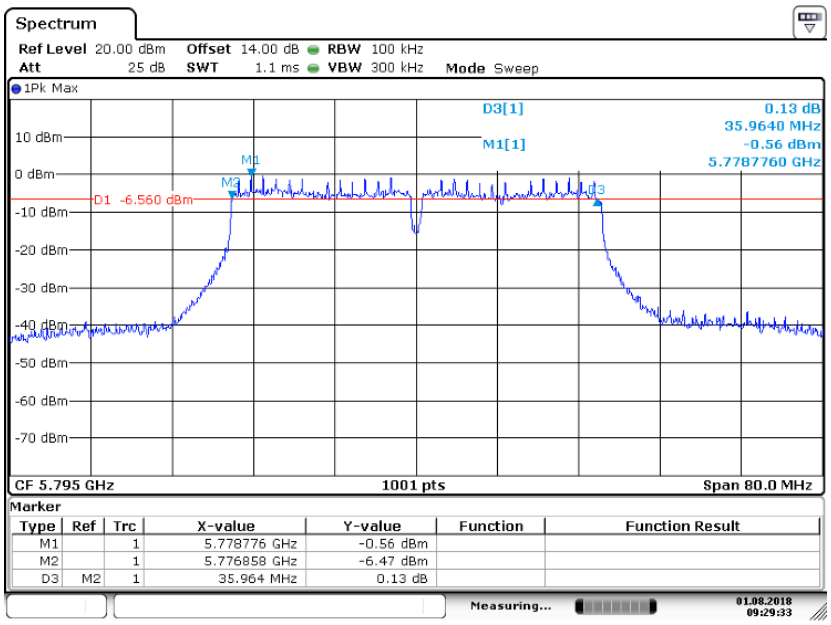
Date: 1.AUG.2018 09:17:15

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5755



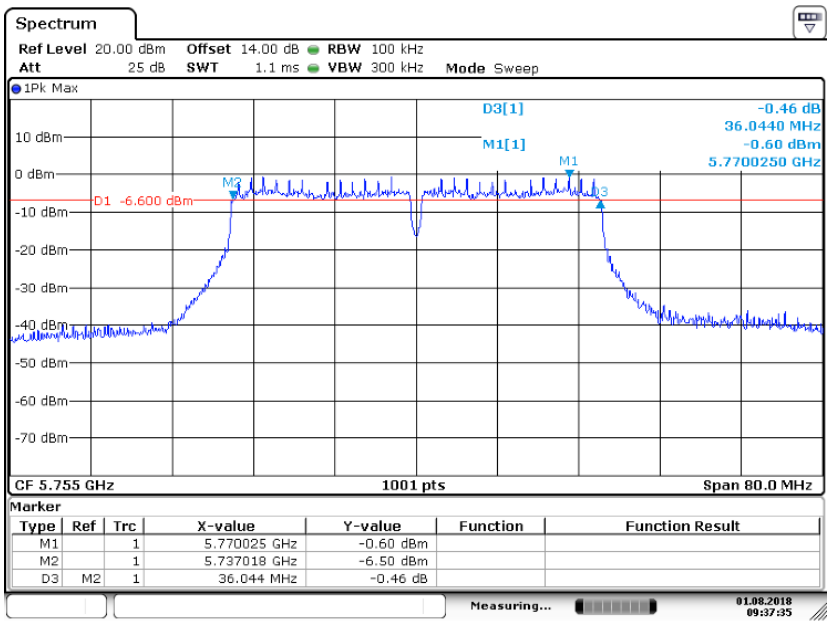
Date: 1.AUG.2018 09:28:41

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5795



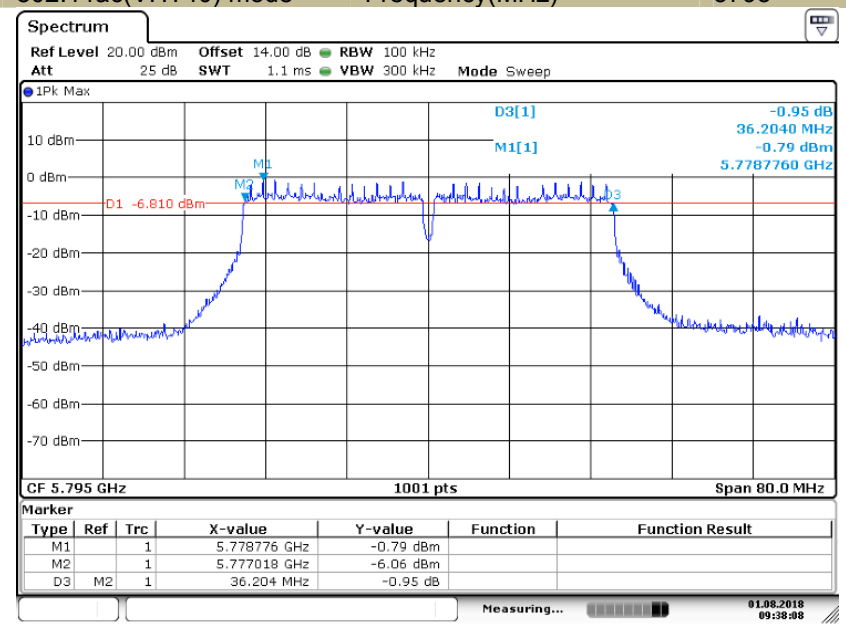
Date: 1.AUG.2018 09:29:32

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5755



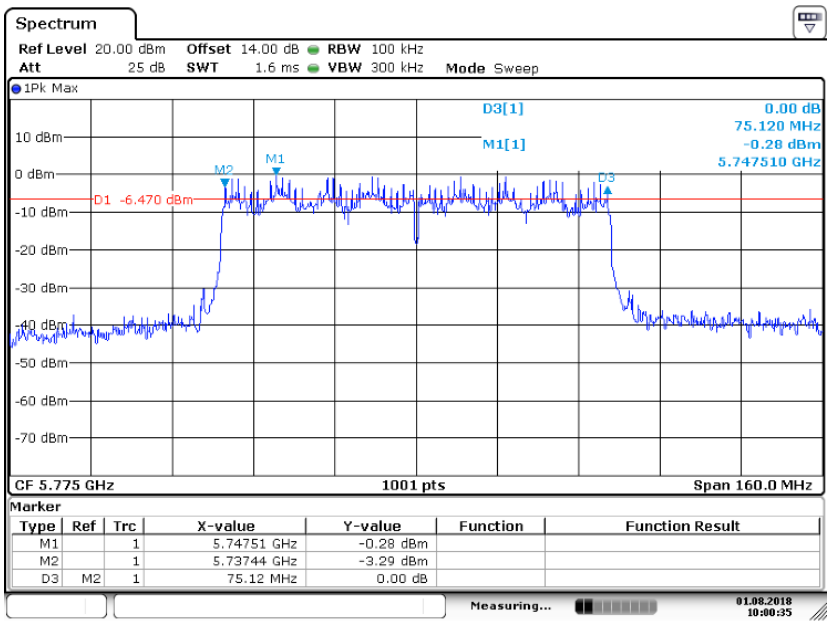
Date: 1.AUG.2018 09:37:35

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795



Date: 1.AUG.2018 09:38:08

Minimum Emission Bandwidth		UNII Band III	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5775



Date: 1.AUG.2018 10:00:34

8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(E)

8.2.2 Conformance Limit

■ For the band 5.15-5.25 GHz,
(a) (1) (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. 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).
(a) (1) (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. 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.
(a) (1) (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. 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.
(a) (1) (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. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands
(a) (2) the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the band 5.725-5.85 GHz
(a) (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.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

Method 1 For Normal Bandwidth 20MHz, 40MHz

The maximum average conducted output power can be measured using Method PM-G (Measurement using an RF average power meter):

a. The Transmitter output (antenna port) was connected to the power meter.
b. Turn on the EUT and power meter and then record the power value.
c. Repeat above procedures on all channels needed to be tested.

Method 2 For Normal Bandwidth 80MHz

Measurement of maximum conducted output power using a spectrum analyzer (Method SA-1 from KDB 789033)

a. Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set RBW = 1 MHz.
c. Set VBW ⩾ 3 MHz.
d. Number of points in sweep ⩾ 2 × span / RBW. (This ensures that bin-to-bin spacing is ⩽ RBW/2, so that narrowband signals are not lost between frequency bins.)
e. Sweep time = auto.
f. Detector = power averaging (rms)
g. Trace average at least 100 traces in power averaging (rms) mode.
h. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

8.2.5 Test Results

☒ 802.11a mode			
Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)		Limit (dBm)	Verdict
			Ant0	Ant1		
UNII Band I	CH36	5180	15.83	15.09	24.00	Pass
	CH40	5200	15.64	14.88	24.00	Pass
	CH48	5240	14.80	13.54	24.00	Pass
UNII Band II-A	CH52	5260	14.77	13.34	24.00	Pass
	CH56	5280	15.05	13.76	24.00	Pass
	CH64	5320	14.42	13.73	24.00	Pass
UNII Band II-C	CH100	5500	15.86	15.87	24.00	Pass
	CH120	5600	15.41	14.63	24.00	Pass
	CH140	5700	14.19	14.06	24.00	Pass
UNII Band III	CH149	5745	13.36	11.59	24.00	Pass
	CH157	5785	13.63	12.43	24.00	Pass
	CH165	5825	13.50	12.66	24.00	Pass
Note: N/A (Not Applicable)						

☒ 802.11n(HT20) mode			
Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH36	5180	14.12	13.47	16.817	24.00	Pass
	CH40	5200	13.92	13.35	16.655	24.00	Pass
	CH48	5240	13.11	11.79	15.510	24.00	Pass
UNII Band II-A	CH52	5260	13.08	11.78	15.489	24.00	Pass
	CH56	5280	13.27	12.23	15.791	24.00	Pass
	CH64	5320	12.56	12.23	15.408	24.00	Pass
UNII Band II-C	CH100	5500	14.19	14.48	17.348	24.00	Pass
	CH120	5600	13.89	13.19	16.564	24.00	Pass
	CH140	5700	12.62	12.63	15.64	24.00	Pass
UNII Band III	CH149	5745	11.57	10.38	14.026	24.00	Pass
	CH157	5785	11.94	11.30	14.642	24.00	Pass
	CH165	5825	11.92	11.00	14.495	24.00	Pass

☒ 802.11ac(VHT20) mode

Temperature : 28℃ Test By: King Kong
Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH36	5180	13.77	13.40	16.599	24.00	Pass
	CH40	5200	13.66	13.29	16.489	24.00	Pass
	CH48	5240	12.85	11.90	15.411	24.00	Pass
UNII Band II-A	CH52	5260	12.84	11.86	15.388	24.00	Pass
	CH56	5280	13.04	12.29	15.691	24.00	Pass
	CH64	5320	12.37	12.24	15.316	24.00	Pass
UNII Band II-C	CH100	5500	13.96	14.40	17.196	24.00	Pass
	CH120	5600	13.67	13.15	16.428	24.00	Pass
	CH140	5700	12.47	12.57	15.531	24.00	Pass
UNII Band III	CH149	5745	11.35	10.01	13.742	24.00	Pass
	CH157	5785	11.65	10.58	14.158	24.00	Pass
	CH165	5825	11.66	10.61	14.177	24.00	Pass

☒ 802.11n(HT40) mode

Temperature : 28℃ Test By: King Kong
Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	13.48	13.68	16.591	24.00	Pass
	CH46	5230	12.86	12.28	15.590	24.00	Pass
UNII Band II-A	CH54	5270	12.80	12.29	15.563	24.00	Pass
	CH62	5310	12.57	12.65	15.620	24.00	Pass
UNII Band II-C	CH102	5510	13.74	14.48	17.136	24.00	Pass
	CH118	5590	13.53	13.28	16.417	24.00	Pass
	CH134	5670	11.71	12.56	15.166	24.00	Pass
UNII Band III	CH151	5755	11.20	10.16	13.721	24.00	Pass
	CH159	5795	11.96	10.95	14.495	24.00	Pass

☒ 802.11ac(VHT40) mode

Temperature : 28℃ Test By: King Kong
Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (MHz)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	13.45	13.49	16.480	24.00	Pass
	CH46	5230	12.83	12.21	15.541	24.00	Pass
UNII Band II-A	CH54	5270	12.75	12.19	15.489	24.00	Pass
	CH62	5310	12.55	12.63	15.600	24.00	Pass
UNII Band II-C	CH102	5510	13.75	14.47	17.135	24.00	Pass
	CH118	5590	13.58	13.36	16.482	24.00	Pass
	CH134	5670	12.00	12.21	15.117	24.00	Pass
UNII Band III	CH151	5755	11.19	10.17	13.720	24.00	Pass
	CH159	5795	11.94	10.95	14.483	24.00	Pass

☒ 802.11ac(VHT80) mode

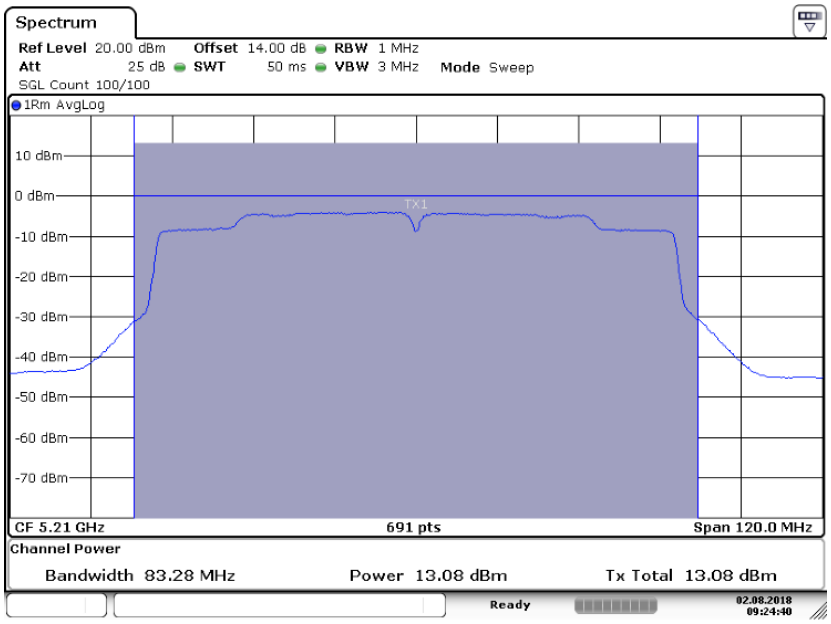
Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH42	5210	13.08	13.06	16.080	24.00	Pass
UNII Band II-A	CH58	5290	13.47	13.33	16.411	24.00	Pass
UNII Band II-C	CH106	5530	13.77	13.78	16.785	24.00	Pass
	CH122	5610	13.16	12.91	16.047	24.00	Pass
UNII Band III	CH155	5775	12.21	12.21	15.220	24.00	Pass

For 802.11ac (VHT80) Test Plots see the follow pages;

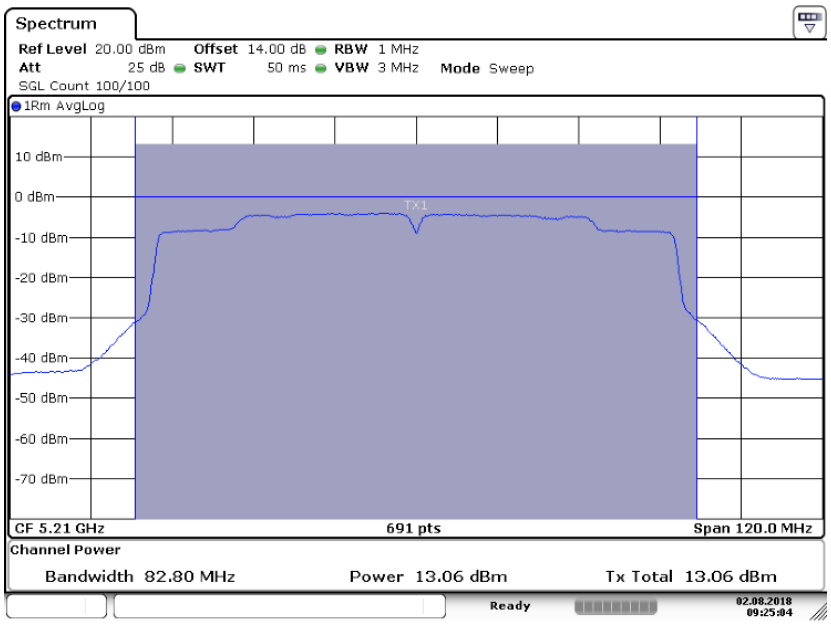
MAXIMUM CONDUCTED OUTPUT POWER		UNII Band I	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210

Ant0



Date: 2.AUG.2018 09:24:39

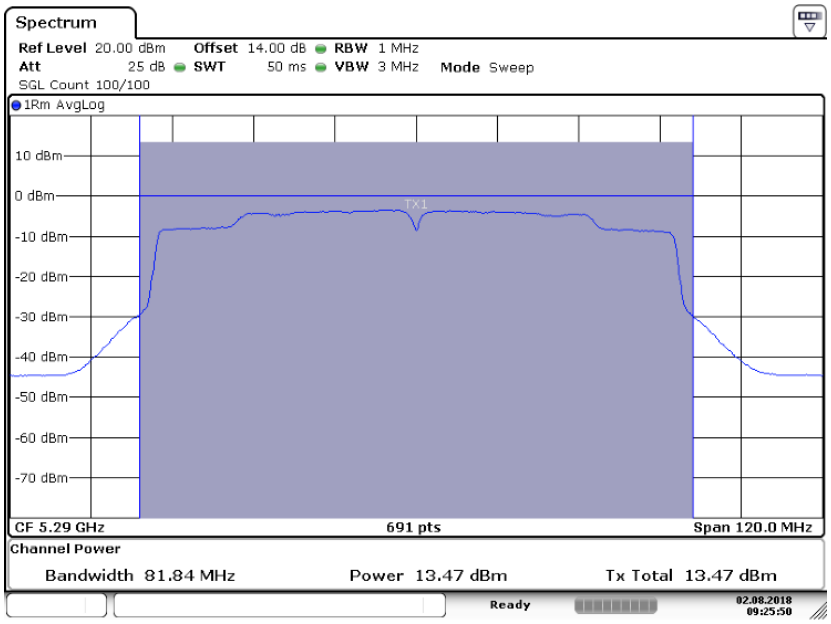
Ant1



Date: 2.AUG.2018 09:25:04

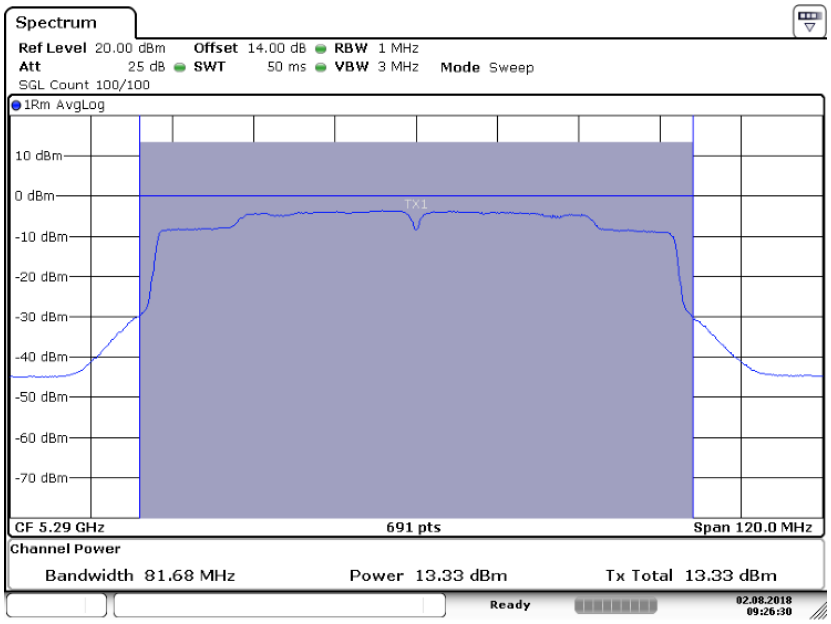
MAXIMUM CONDUCTED OUTPUT POWER		UNII Band II-A	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5290

Ant0



Date: 2.AUG.2018 09:25:49

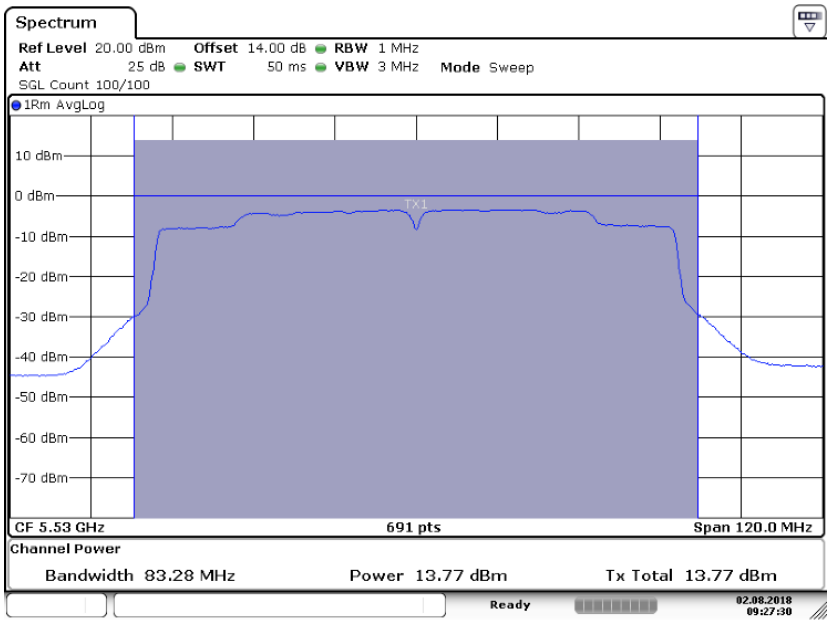
Ant1



Date: 2.AUG.2018 09:26:29

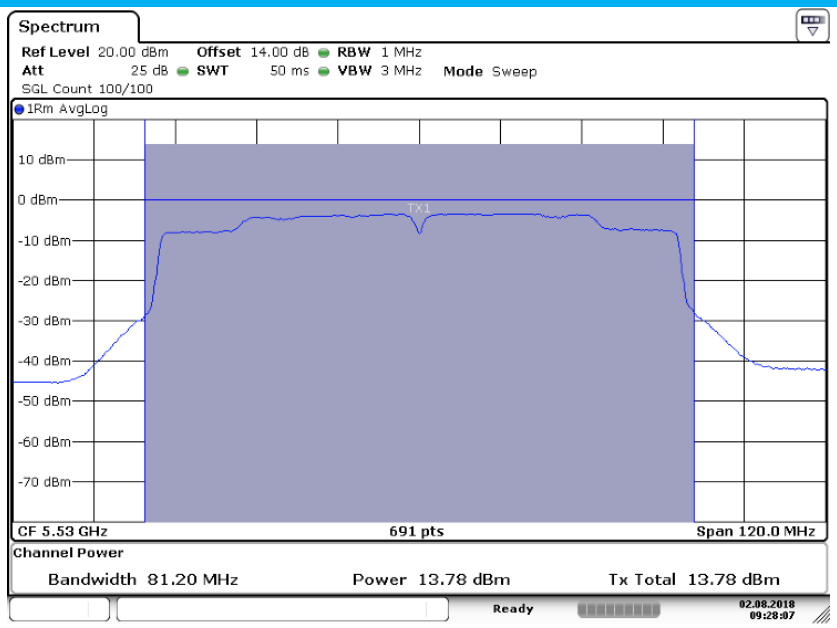
MAXIMUM CONDUCTED OUTPUT POWER		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5530

Ant0



Date: 2.AUG.2018 09:27:29

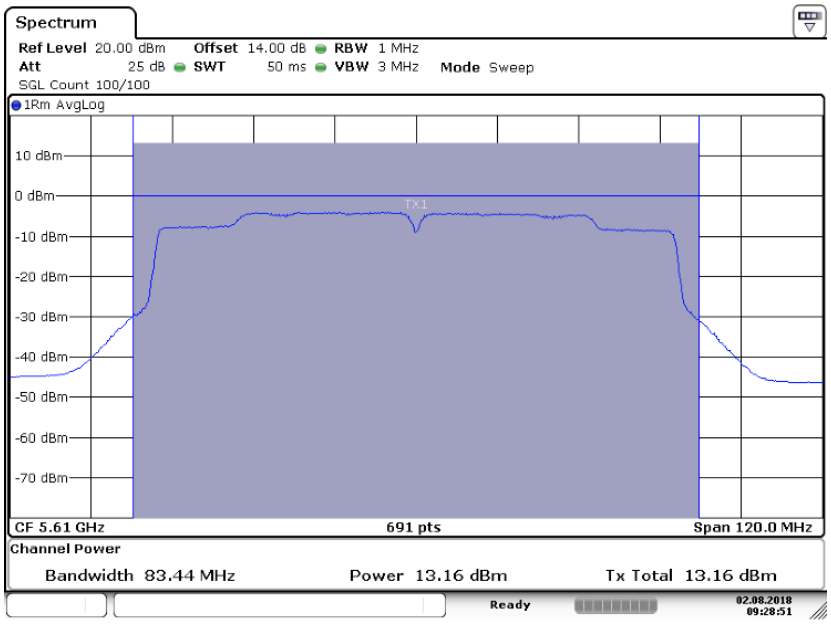
Ant1



Date: 2.AUG.2018 09:28:06

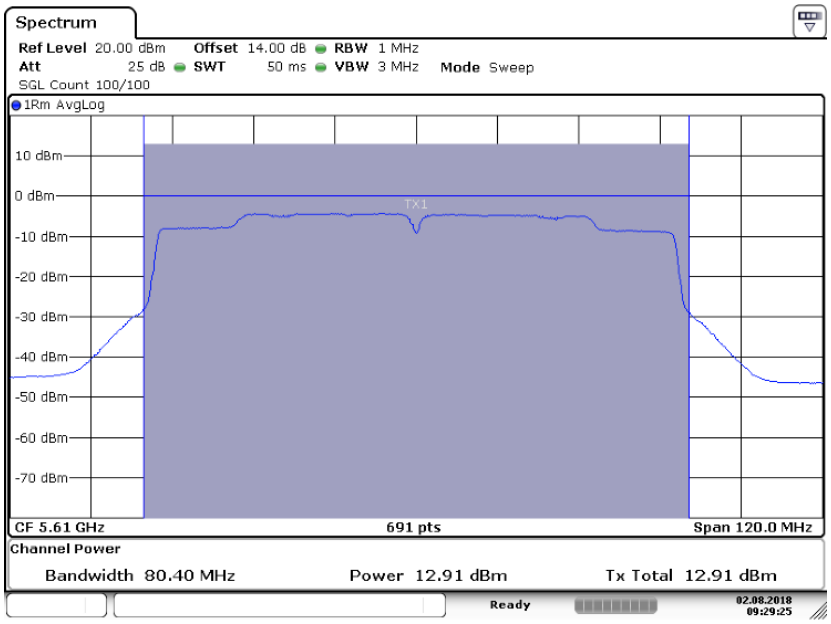
MAXIMUM CONDUCTED OUTPUT POWER		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5610

Ant0



Date: 2.AUG.2018 09:28:51

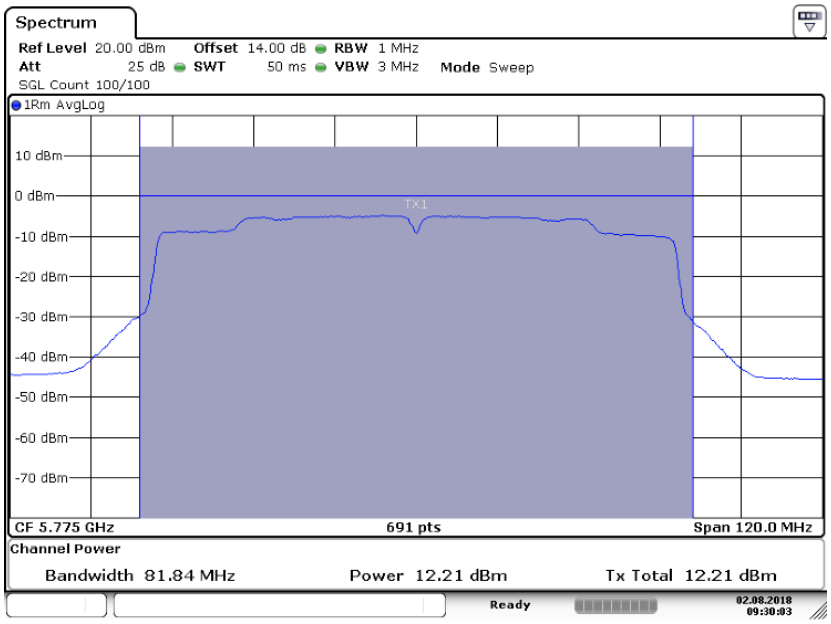
Ant1



Date: 2.AUG.2018 09:29:24

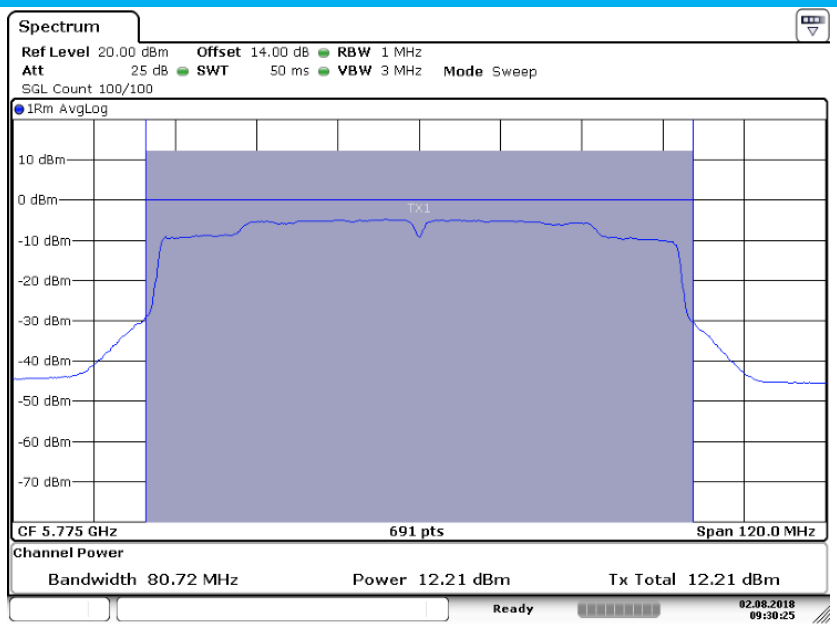
MAXIMUM CONDUCTED OUTPUT POWER		UNII Band III	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5775

Ant0



Date: 2.AUG.2018 09:30:03

Ant1



Date: 2.AUG.2018 09:30:24

8.3 MAXIMUM PEAK POWER DENSITY

8.3.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(F)

8.3.2 Conformance Limit

- For the band 5.15-5.25 GHz,

(a) (1) (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. 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).
(a) (1) (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. 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.
(a) (1) (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. 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.
(a) (1) (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. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

- For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(b) (2) the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

- For the band 5.725-5.85 GHz

(a) (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.

8.3.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.3.4 Test Procedure

Methods refer to FCC KDB 789033

1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power…”.

2) Use the peak search function on the instrument to find the peak of the spectrum.

3) The result is the PPSD.
4) The above procedures make use of 500kHz resolution bandwidth to satisfy the 500kHz measurement bandwidth specified in the 15.407(a)(5). That rule section also permits use of resolution bandwidths less than 1 MHz “provided that the measured power is integrated to show the total power over the measurement bandwidth” (i.e., 1 MHz). If measurements are performed using a reduced resolution bandwidth and integrated over 500kHz bandwidth
Note: As a practical matter, it is recommended to use reduced RBW of 500 kHz for the sections 5.c) and 5.d) above, since RBW=500 kHz is available on nearly all spectrum analyzers.

8.3.5 Test Results

☒ 802.11a mode			
Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density		Limit	Verdict
			Ant0	Ant1		
UNII Band I	CH36	5180	1.10	0.54	≤11dBm/1MHz	Pass
	CH40	5200	0.74	0.68	≤11dBm/1MHz	Pass
	CH48	5240	0.73	0.66	≤11dBm/1MHz	Pass
UNII Band II-A	CH52	5260	0.95	0.98	≤11dBm/1MHz	Pass
	CH56	5280	0.94	0.87	≤11dBm/1MHz	Pass
	CH64	5320	0.23	0.00	≤11dBm/1MHz	Pass
UNII Band II-C	CH100	5500	1.60	1.04	≤11dBm/1MHz	Pass
	CH120	5600	-0.62	0.00	≤11dBm/1MHz	Pass
	CH140	5700	-1.79	-1.70	≤11dBm/1MHz	Pass
UNII Band III	CH149	5745	-2.77	-2.57	≤30dBm/500KHz	Pass
	CH157	5785	-1.87	-2.69	≤30dBm/500KHz	Pass
	CH165	5825	-2.57	-3.37	≤30dBm/500KHz	Pass
Note: N/A (Not Applicable)						

☒ 802.11n(VHT20) mode			
Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density			Limit	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH36	5180	0.56	0.53	3.555	≤11dBm/1MHz	Pass
	CH40	5200	0.54	0.21	3.388	≤11dBm/1MHz	Pass
	CH48	5240	1	0.36	3.702	≤11dBm/1MHz	Pass
UNII Band II-A	CH52	5260	0.87	0.62	3.757	≤11dBm/1MHz	Pass
	CH56	5280	1.09	0.57	3.848	≤11dBm/1MHz	Pass
	CH64	5320	0.34	-0.26	3.061	≤11dBm/1MHz	Pass
UNII Band II-C	CH100	5500	1.82	1.07	4.471	≤11dBm/1MHz	Pass
	CH120	5600	0.56	-0.22	3.198	≤11dBm/1MHz	Pass
	CH140	5700	-2.2	-2.22	0.800	≤11dBm/1MHz	Pass
UNII Band III	CH149	5745	-3.23	-3.03	-0.119	≤30dBm/500KHz	Pass
	CH157	5785	-2.34	-3.06	0.325	≤30dBm/500KHz	Pass
	CH165	5825	-2.96	-3.78	-0.340	≤30dBm/500KHz	Pass

☒ 802.11ac(VHT20) mode

Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density			Limit	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH36	5180	0.18	0.67	3.442	≤11dBm/1MHz	Pass
	CH40	5200	0.29	0.30	3.305	≤11dBm/1MHz	Pass
	CH48	5240	0.68	0.31	3.509	≤11dBm/1MHz	Pass
UNII Band II-A	CH52	5260	0.76	0.78	3.780	≤11dBm/1MHz	Pass
	CH56	5280	0.84	1.03	3.946	≤11dBm/1MHz	Pass
	CH64	5320	0.72	0.00	3.385	≤11dBm/1MHz	Pass
UNII Band II-C	CH100	5500	1.54	1.08	4.326	≤11dBm/1MHz	Pass
	CH120	5600	-0.21	-0.12	2.846	≤11dBm/1MHz	Pass
	CH140	5700	-2.28	-2.25	0.745	≤11dBm/1MHz	Pass
UNII Band III	CH149	5745	-3.55	-3.06	-0.288	≤30dBm/500KHz	Pass
	CH157	5785	-2.57	-3.15	0.160	≤30dBm/500KHz	Pass
	CH165	5825	-3.03	-3.87	-0.419	≤30dBm/500KHz	Pass

☒ 802.11n(VHT40) mode

Temperature :	28℃	Test By:	King Kong
Humidity :	65 %		

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density			Limit	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	-1.41	-0.8	1.916	≤11dBm/1MHz	Pass
	CH46	5230	-1.31	-0.96	1.879	≤11dBm/1MHz	Pass
UNII Band II-A	CH54	5270	-0.75	-0.83	2.220	≤11dBm/1MHz	Pass
	CH62	5310	-1.47	-1.38	1.586	≤11dBm/1MHz	Pass
UNII Band II-C	CH102	5510	-0.54	-1.04	2.227	≤11dBm/1MHz	Pass
	CH118	5590	-2.81	-2.08	0.581	≤11dBm/1MHz	Pass
	CH134	5670	-3.17	-3.13	-0.140	≤11dBm/1MHz	Pass
UNII Band III	CH151	5755	-5.26	-4.94	-2.087	≤30dBm/500KHz	Pass
	CH159	5795	-5.04	-5.00	-2.010	≤30dBm/500KHz	Pass

☒ 802.11ac(VHT40) mode

Temperature : 28℃ Test By: King Kong
Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density			Limit	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	-2.1	-0.64	1.701	≤11dBm/1MHz	Pass
	CH46	5230	-1.85	-1.06	1.573	≤11dBm/1MHz	Pass
UNII Band II-A	CH54	5270	-1.22	-0.97	1.917	≤11dBm/1MHz	Pass
	CH62	5310	-1.49	-1.32	1.606	≤11dBm/1MHz	Pass
UNII Band II-C	CH102	5510	-0.58	-0.98	2.235	≤11dBm/1MHz	Pass
	CH118	5590	-2.76	-2.25	0.513	≤11dBm/1MHz	Pass
	CH134	5670	-3.27	-3.05	-0.148	≤11dBm/1MHz	Pass
UNII Band III	CH151	5755	-5.36	-4.89	-2.108	≤30dBm/500KHz	Pass
	CH159	5795	-5.19	-5.00	-2.084	≤30dBm/500KHz	Pass

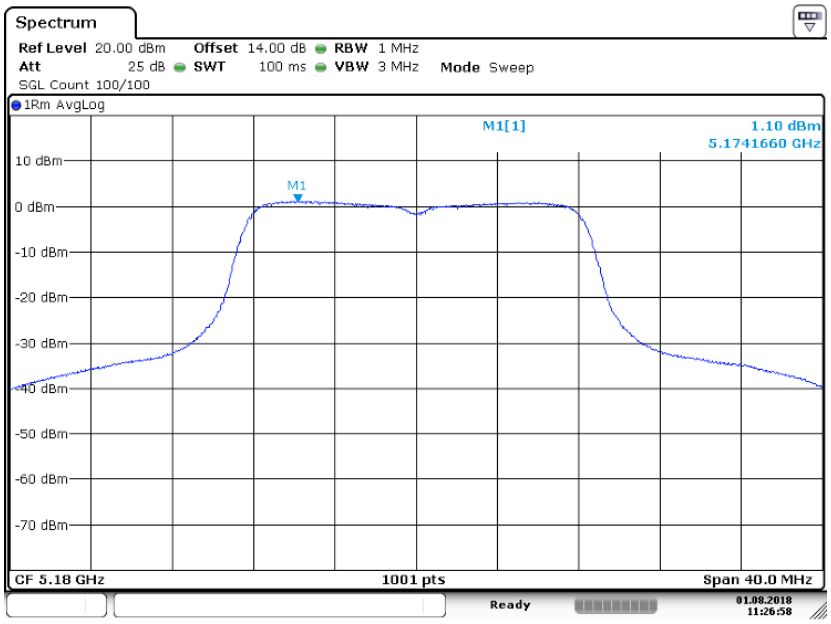
☒ 802.11ac(VHT80) mode

Temperature : 28℃ Test By: King Kong
Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density			Limit	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH42	5210	-3.04	-2.03	0.505	≤11.00dBm/1MHz	Pass
UNII Band II-A	CH58	5290	-2.33	-2.14	0.776	≤11.00dBm/1MHz	Pass
UNII Band II-C	CH106	5530	-1.78	-2.18	1.035	≤11.00dBm/1MHz	Pass
	CH122	5610	-3.88	-3.37	-0.607	≤11.00dBm/1MHz	Pass
UNII Band III	CH155	5775	-5.41	-5.02	-2.200	≤30dBm/500KHz	Pass

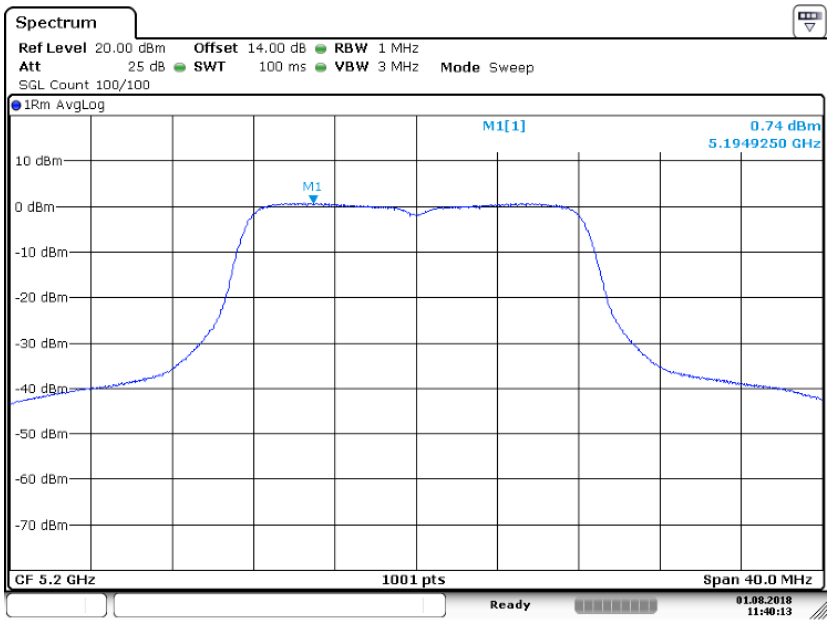
A. Antenna 0

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5180



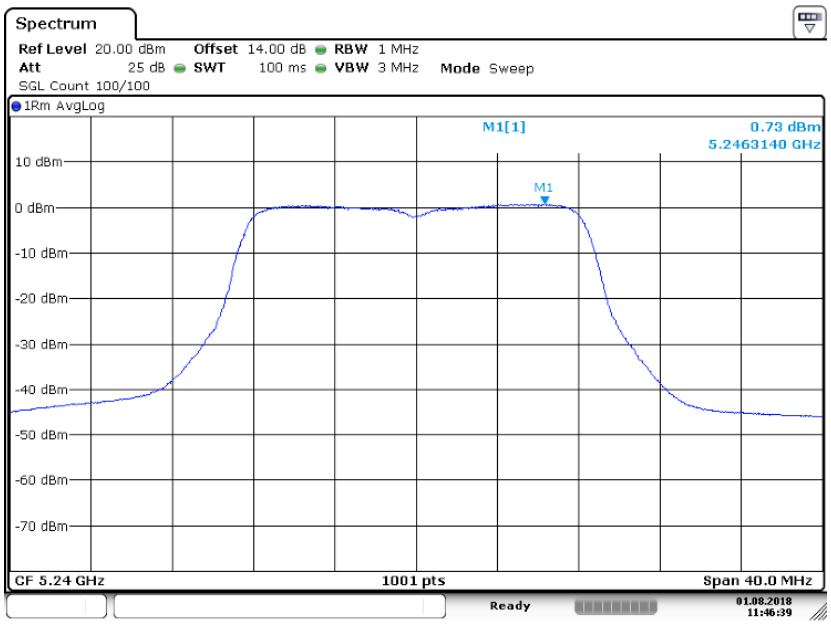
Date: 1.AUG.2018 11:26:58

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5200



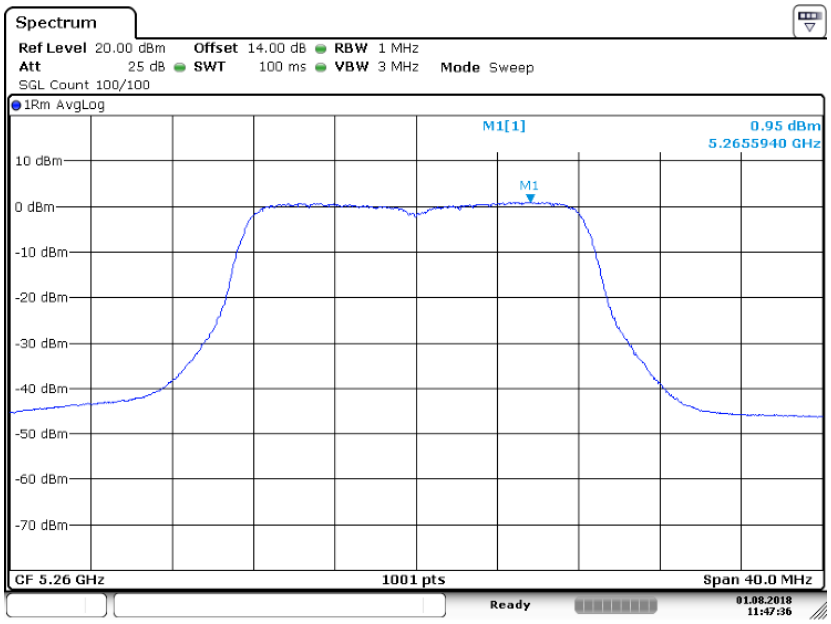
Date: 1.AUG.2018 11:40:13

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5240



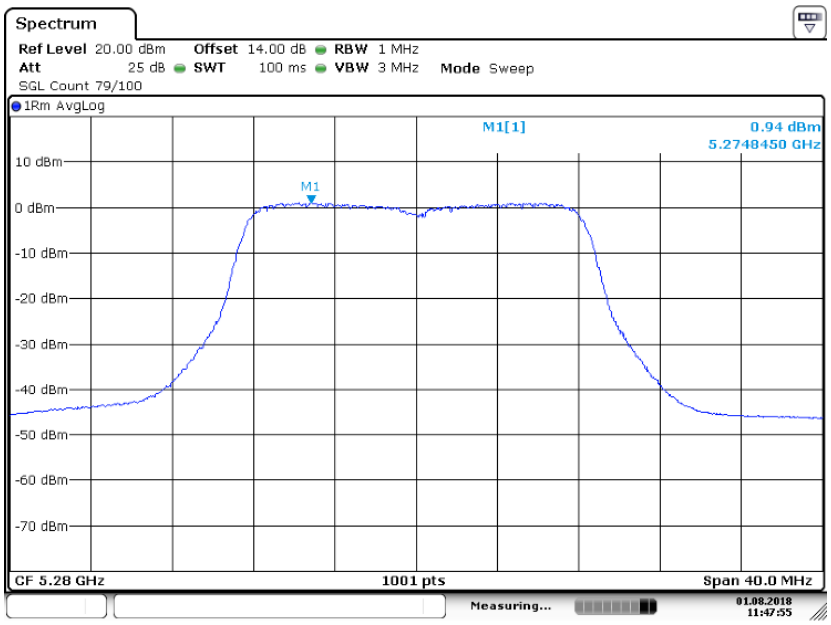
Date: 1.AUG.2018 11:46:40

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5260



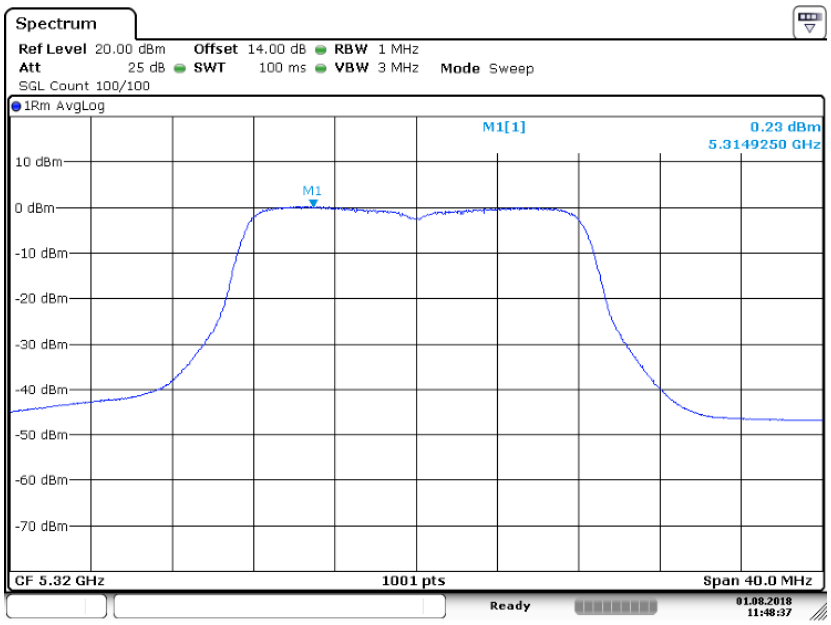
Date: 1.AUG.2018 11:47:36

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5280



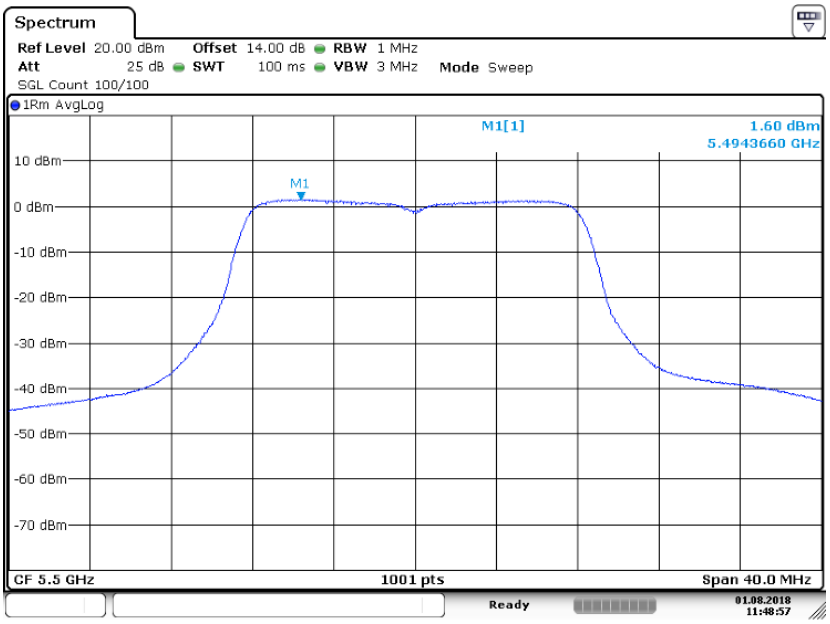
Date: 1.AUG.2018 11:47:56

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5320



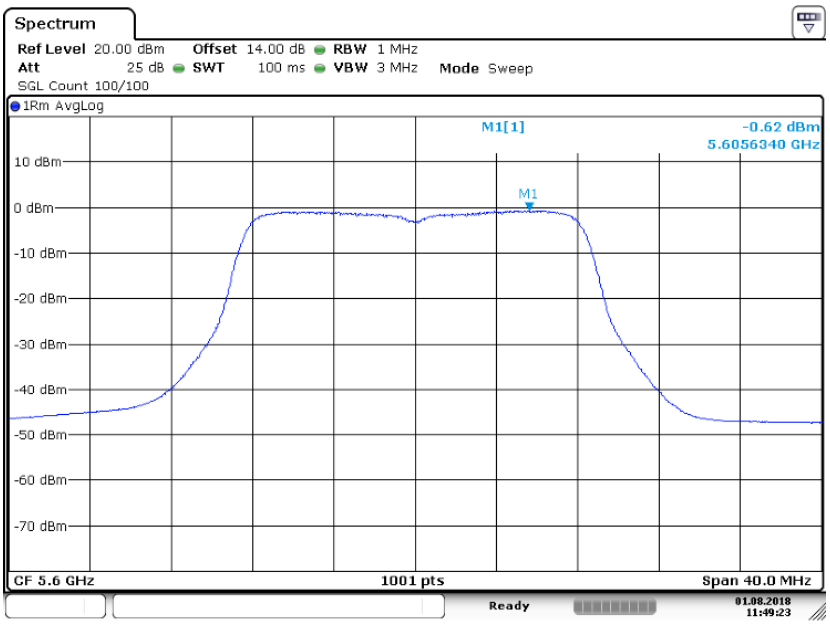
Date: 1.AUG.2018 11:48:37

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5500



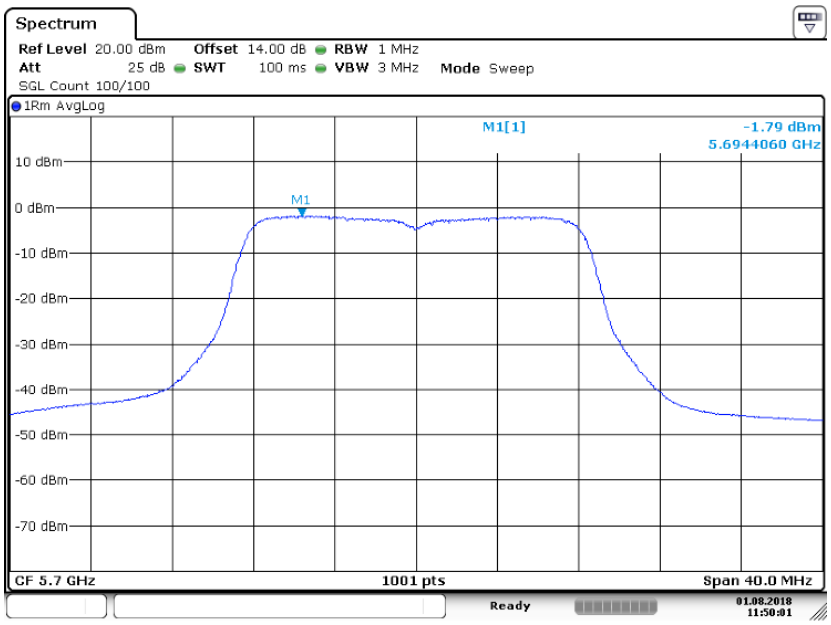
Date: 1.AUG.2018 11:48:58

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5600



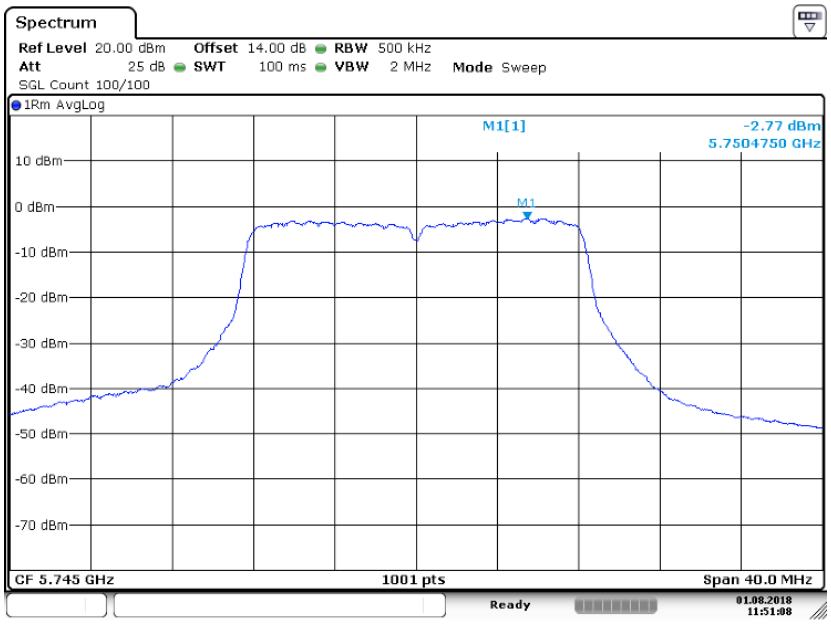
Date: 1.AUG.2018 11:49:22

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5700



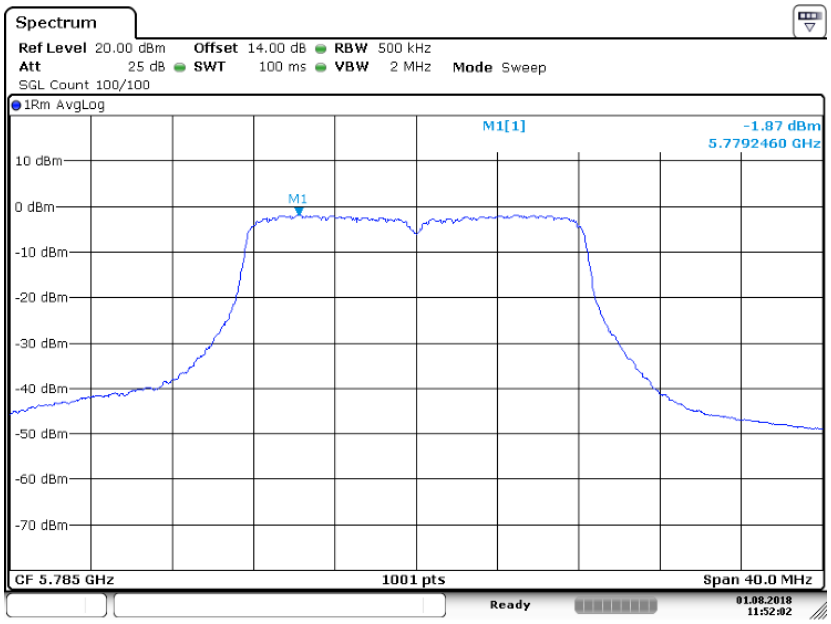
Date: 1.AUG.2018 11:50:01

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5745



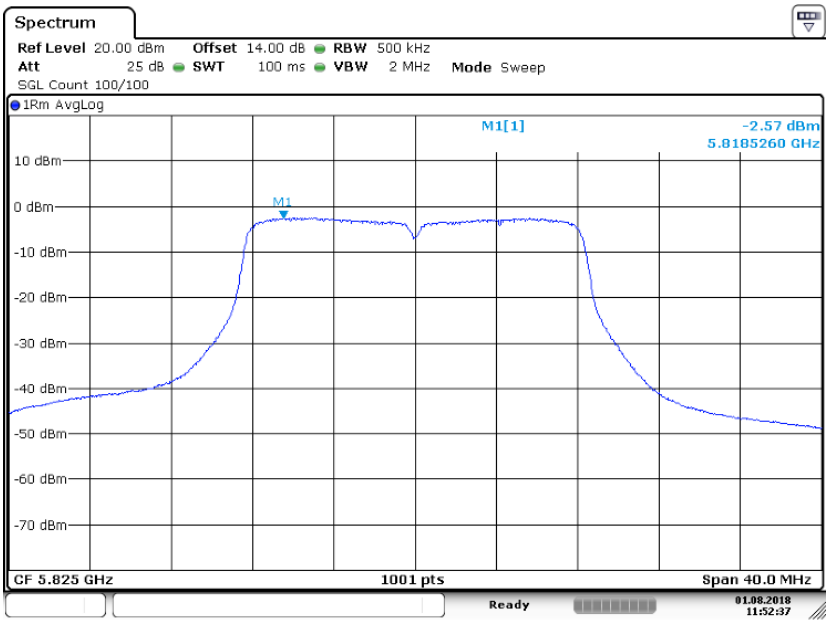
Date: 1.AUG.2018 11:51:08

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5785



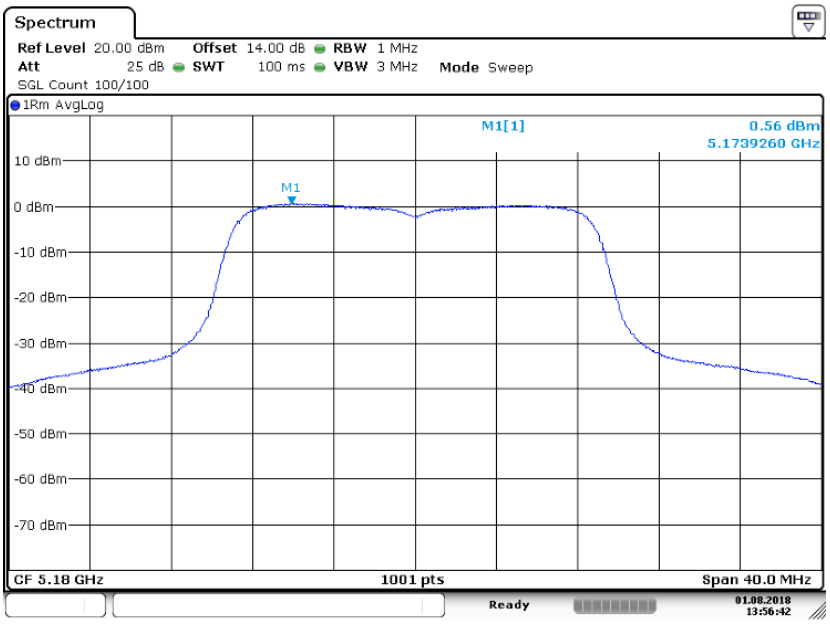
Date: 1.AUG.2018 11:52:01

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5825



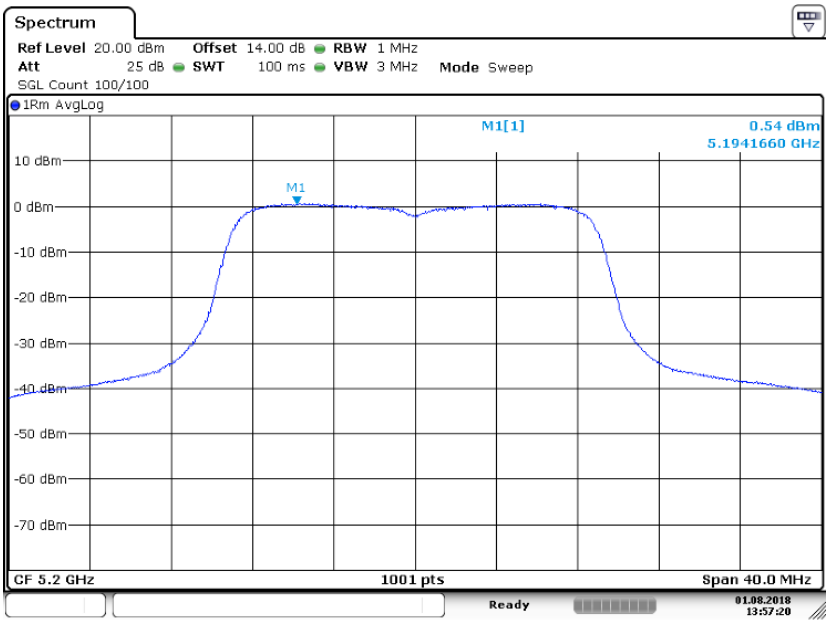
Date: 1.AUG.2018 11:52:37

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5180



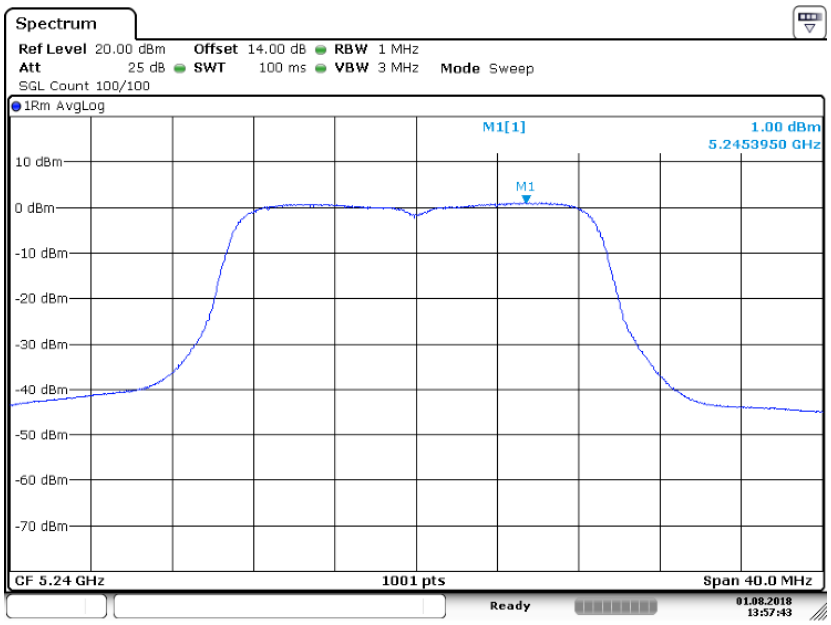
Date: 1.AUG.2018 13:56:42

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5200



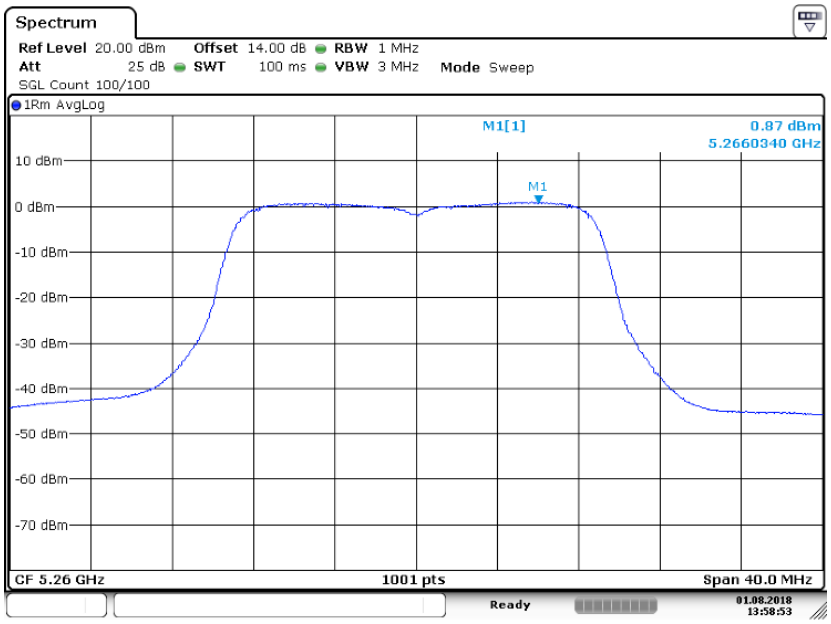
Date: 1.AUG.2018 13:57:19

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5240



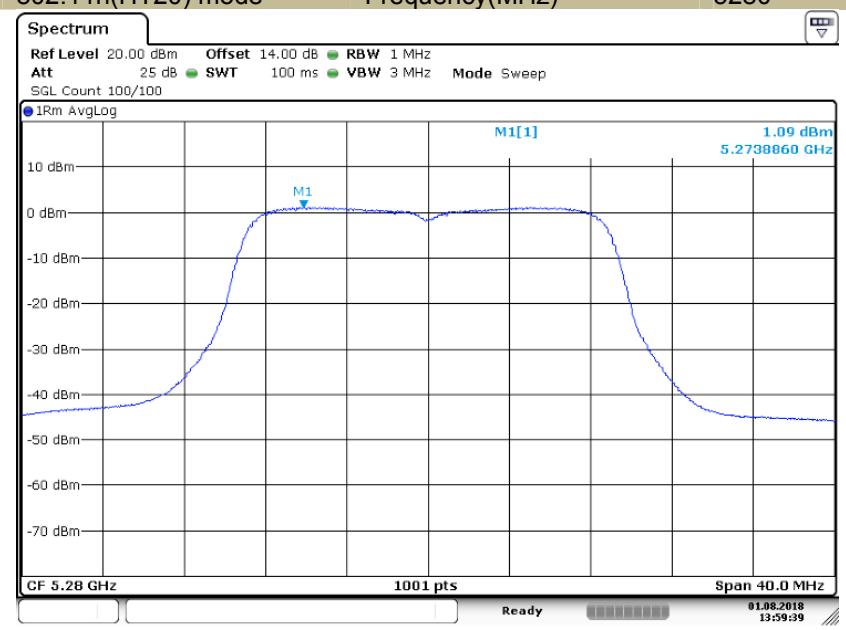
Date: 1.AUG.2018 13:57:43

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5260



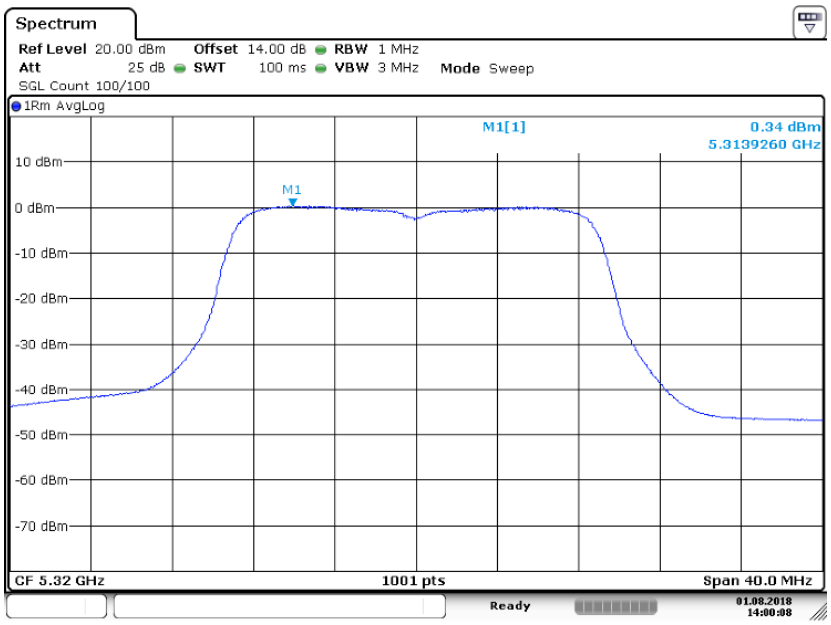
Date: 1.AUG.2018 13:58:53

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5280



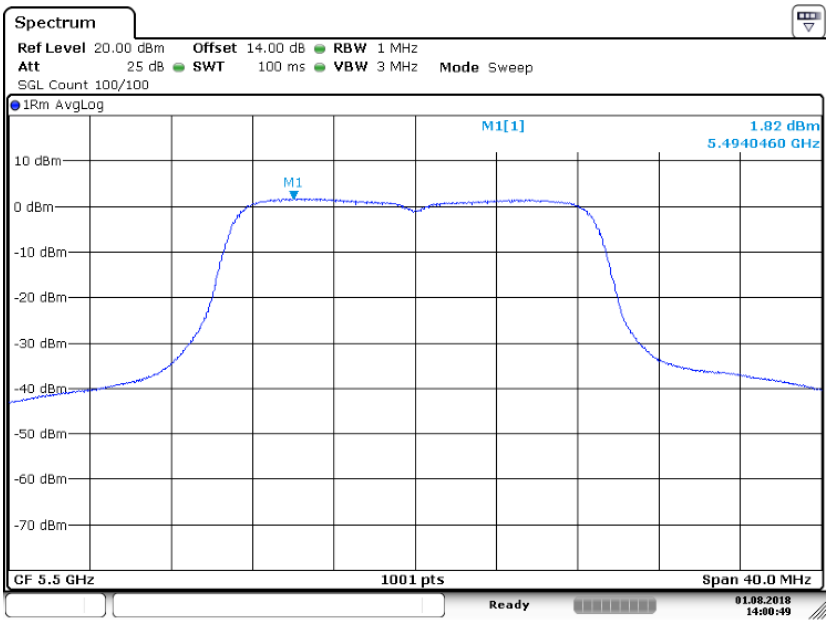
Date: 1.AUG.2018 13:59:39

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5320



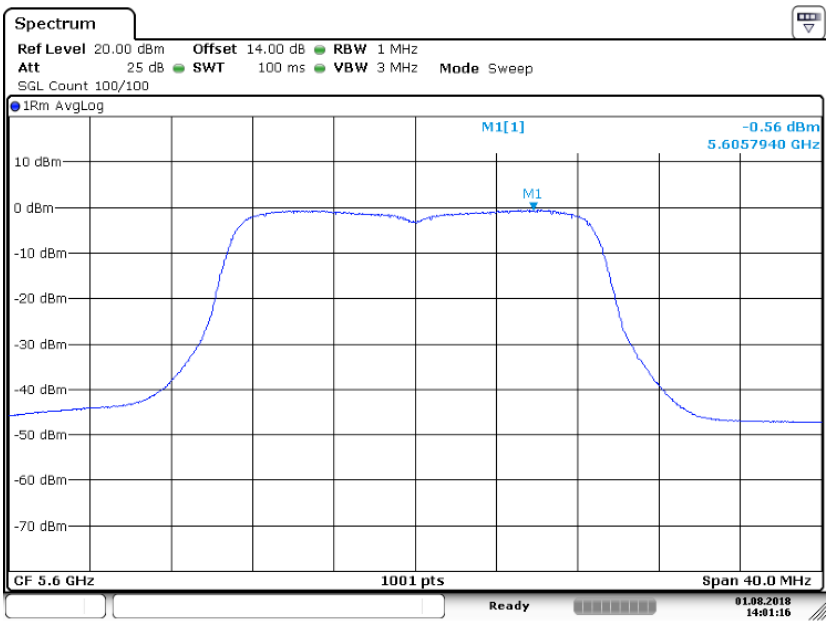
Date: 1.AUG.2018 14:00:08

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5500



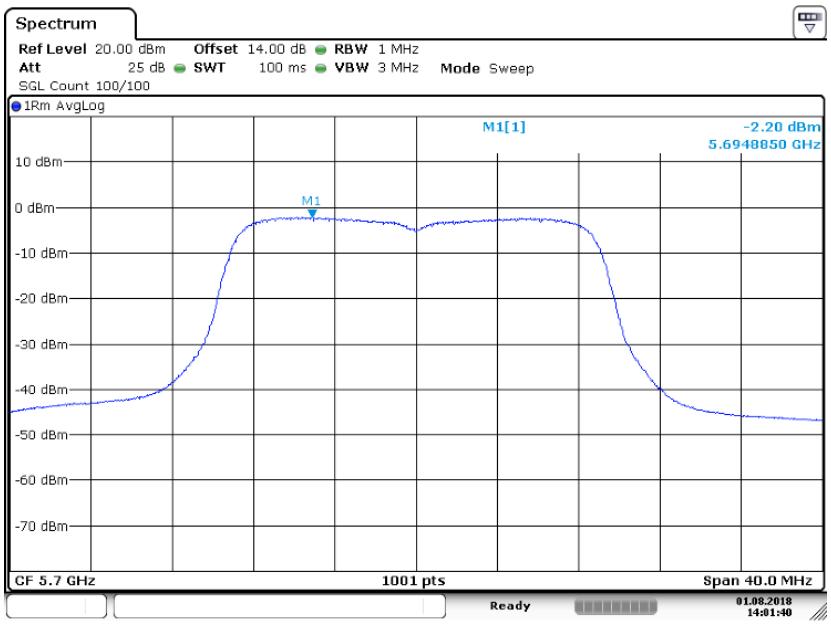
Date: 1.AUG.2018 14:00:49

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5600



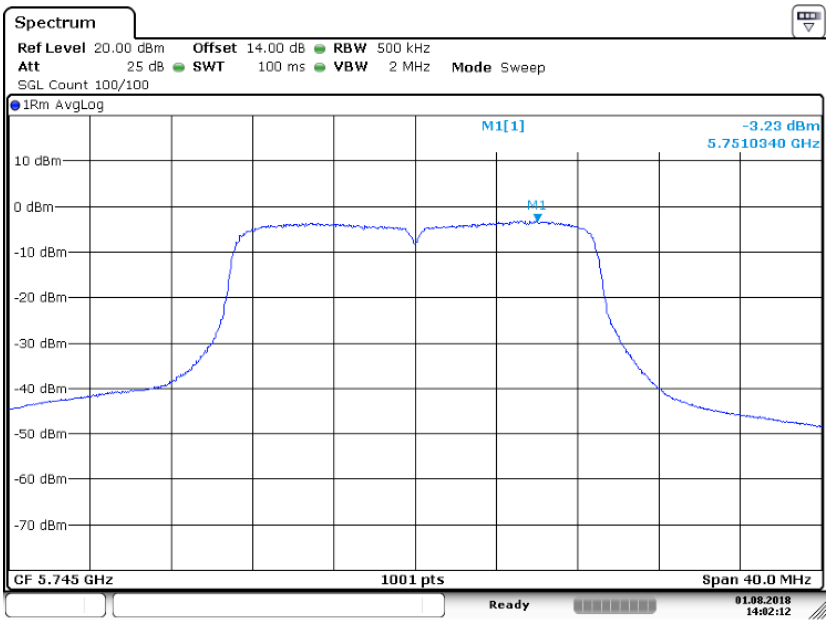
Date: 1.AUG.2018 14:01:16

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5700



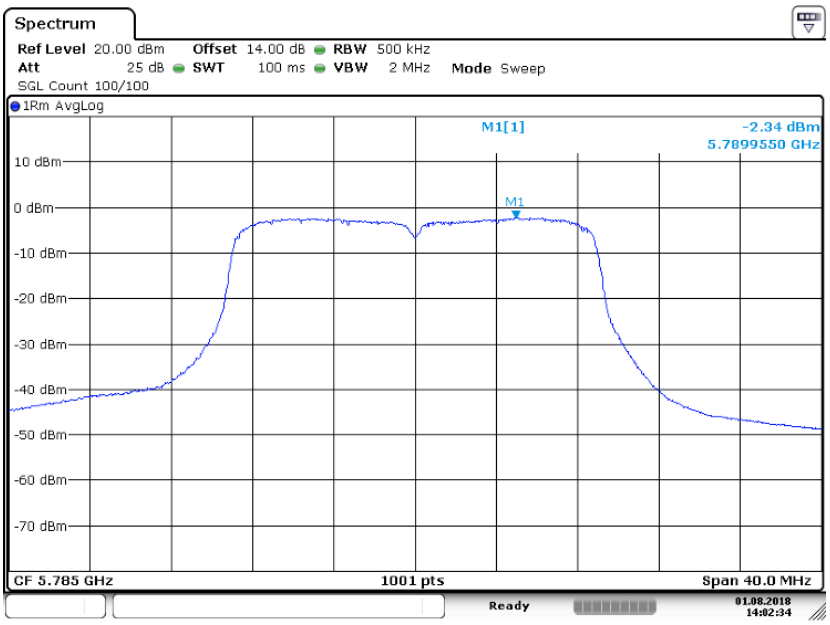
Date: 1.AUG.2018 14:01:41

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5745



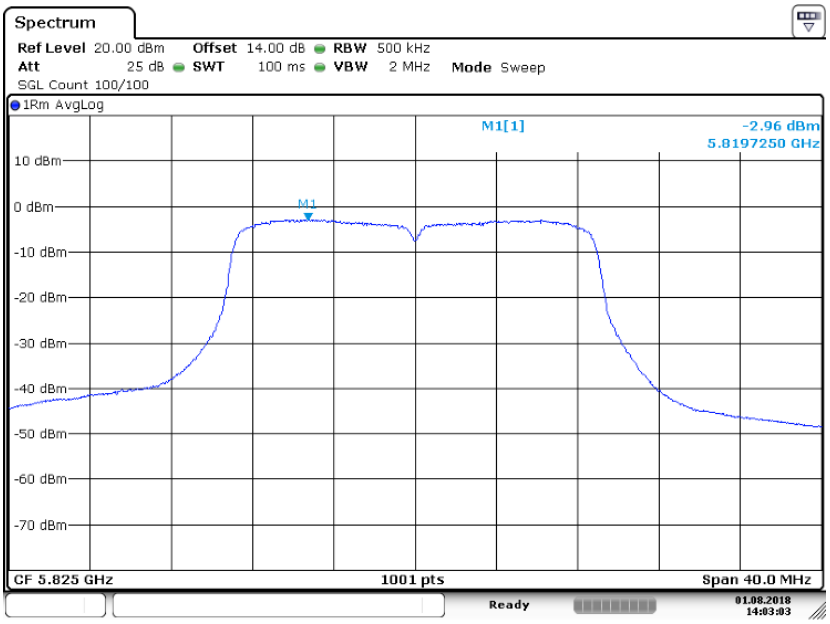
Date: 1.AUG.2018 14:02:11

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5785



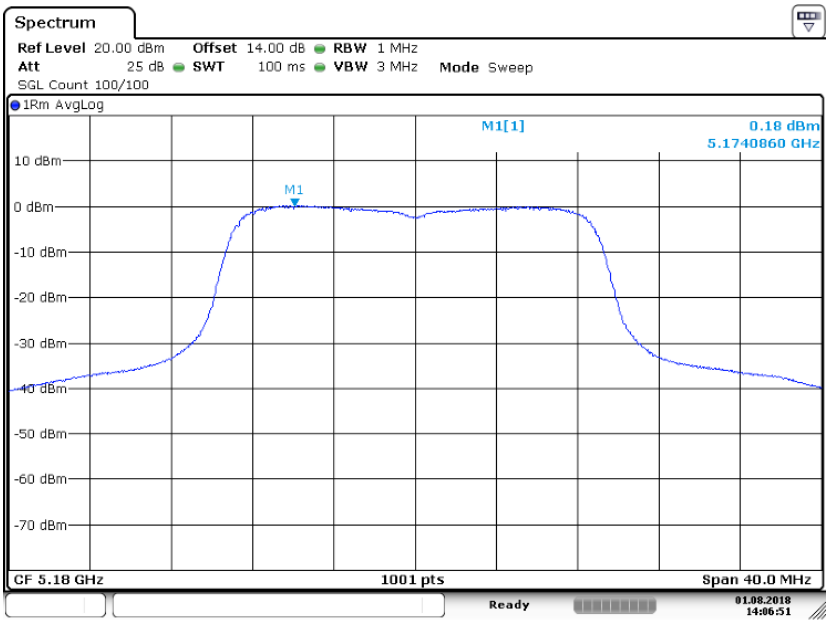
Date: 1.AUG.2018 14:02:34

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5825



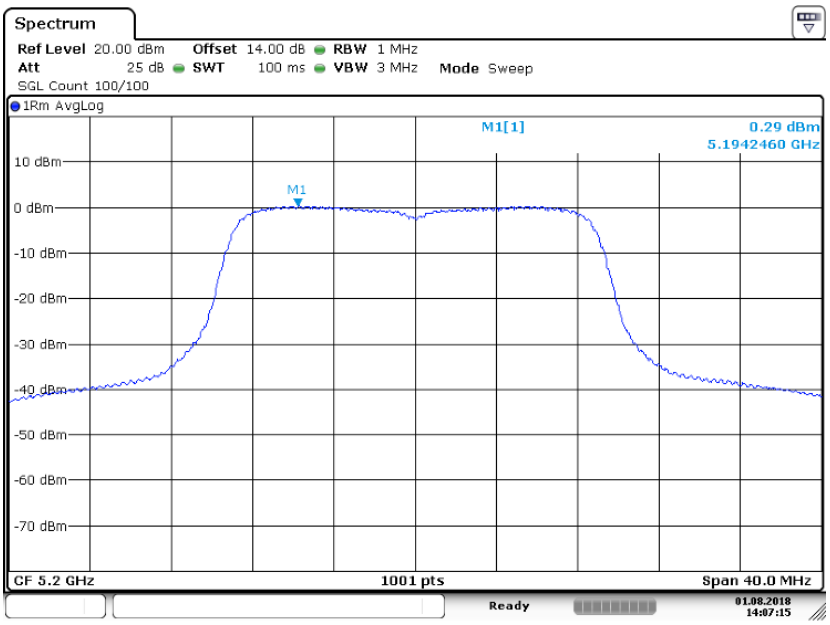
Date: 1.AUG.2018 14:03:02

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5180



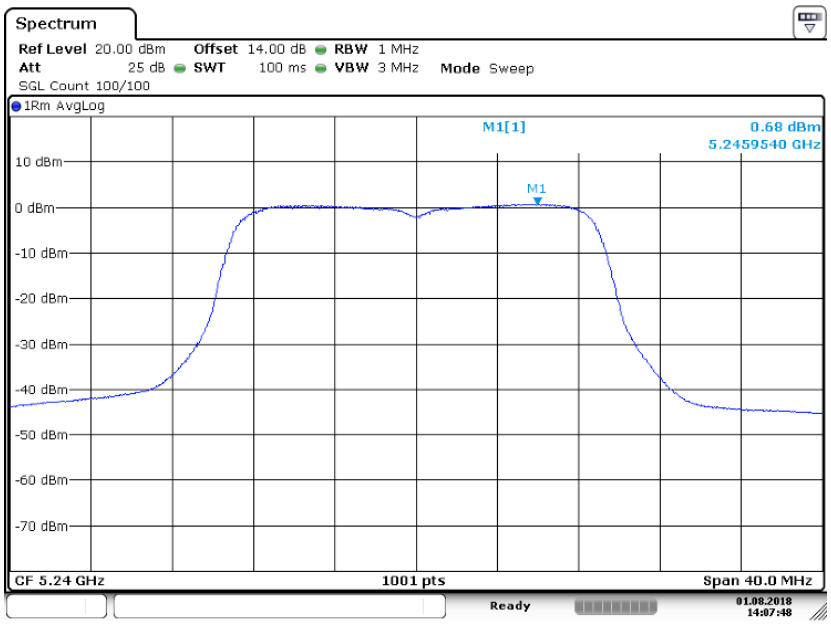
Date: 1.AUG.2018 14:06:51

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5200



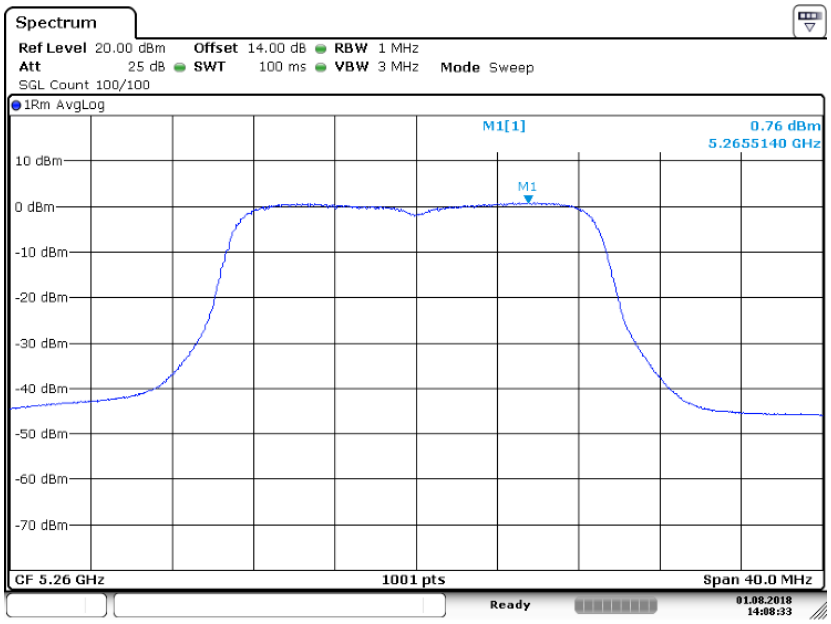
Date: 1.AUG.2018 14:07:15

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5240



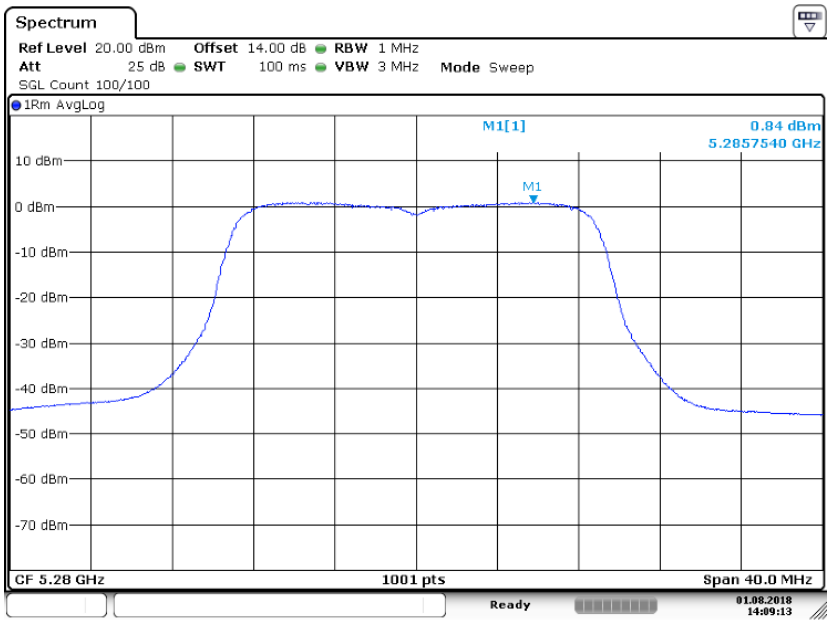
Date: 1.AUG.2018 14:07:48

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5260



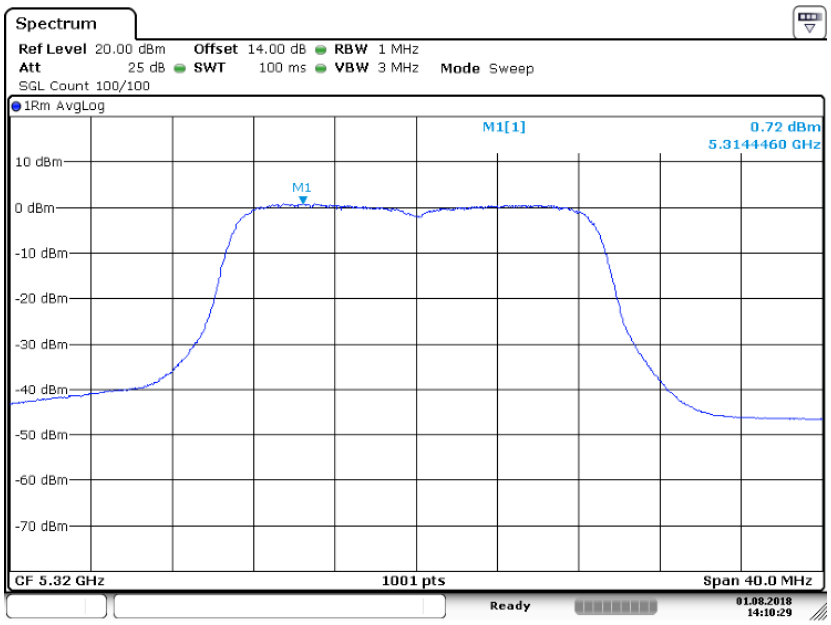
Date: 1.AUG.2018 14:08:33

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5280



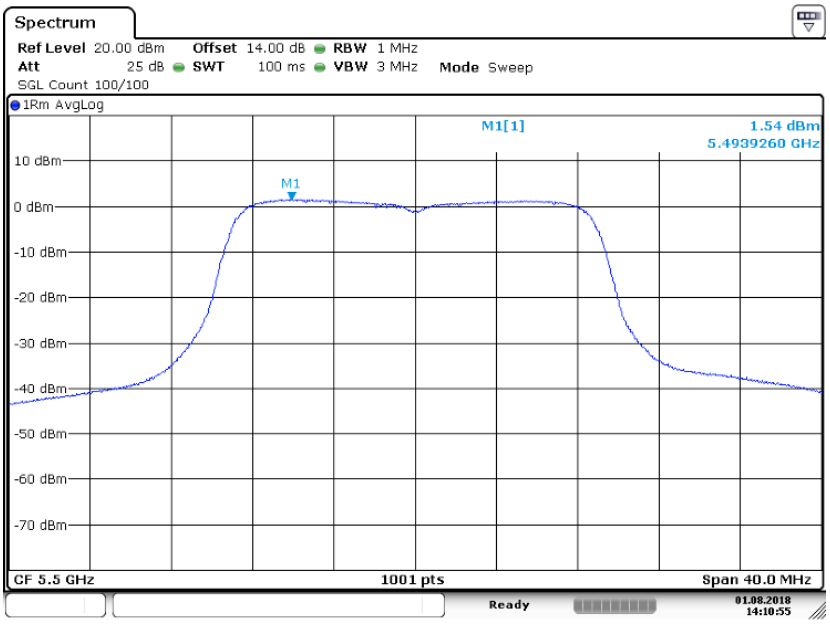
Date: 1.AUG.2018 14:09:12

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5320



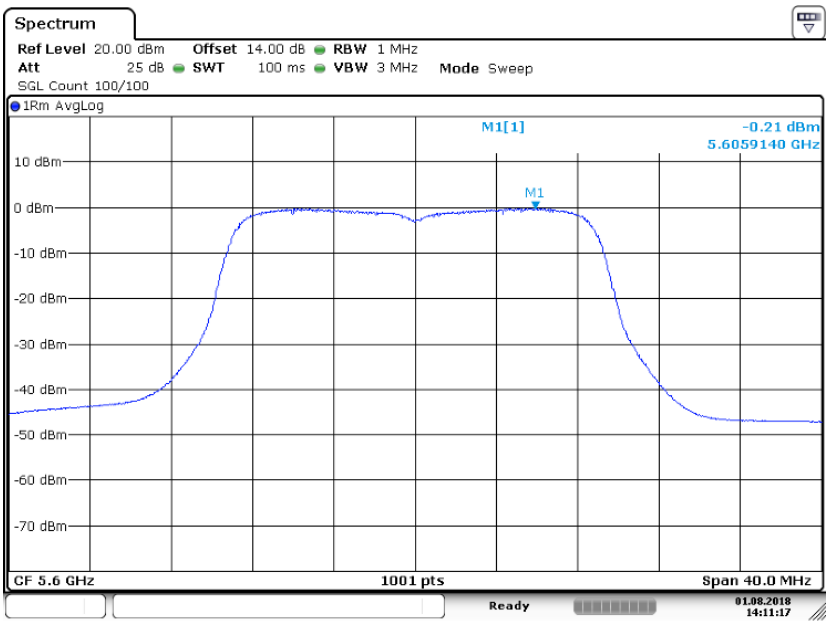
Date: 1.AUG.2018 14:10:29

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5500



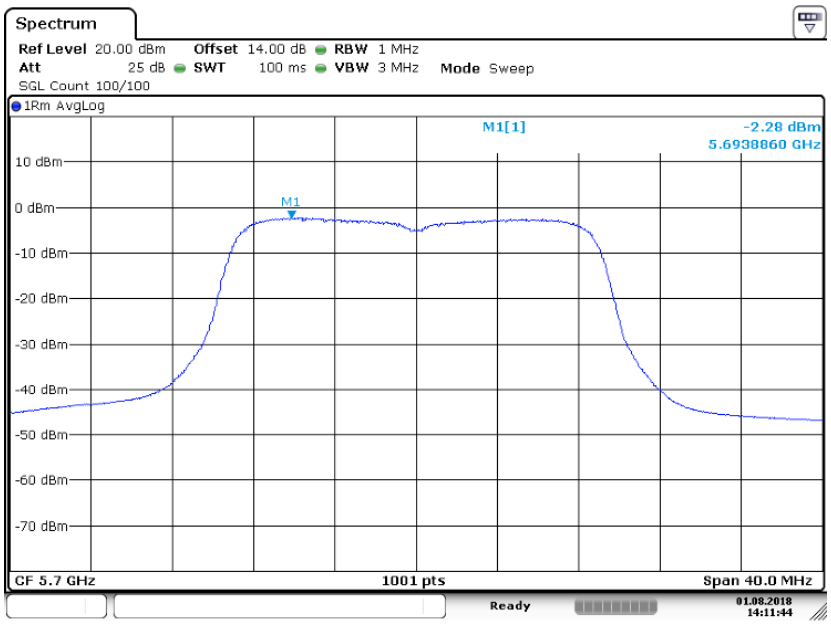
Date: 1.AUG.2018 14:10:55

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5600



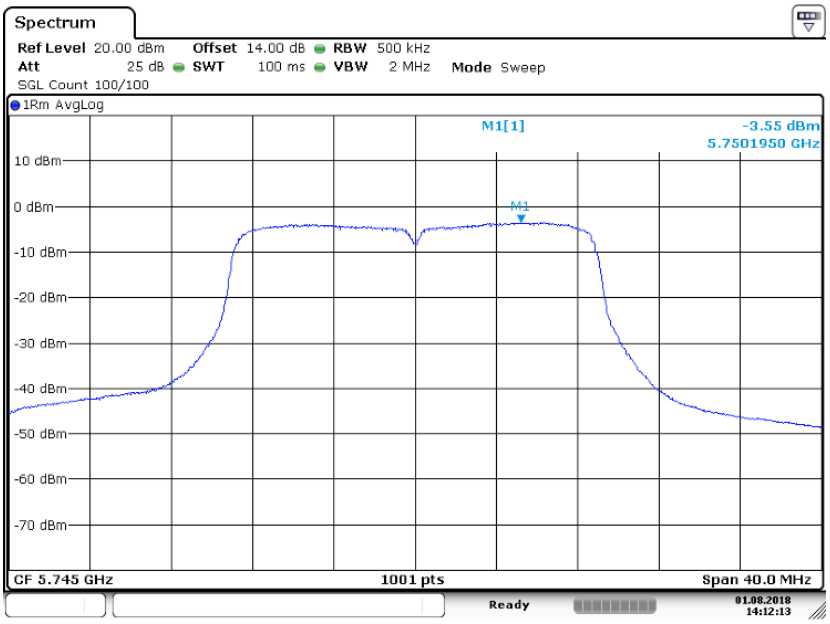
Date: 1.AUG.2018 14:11:17

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5700



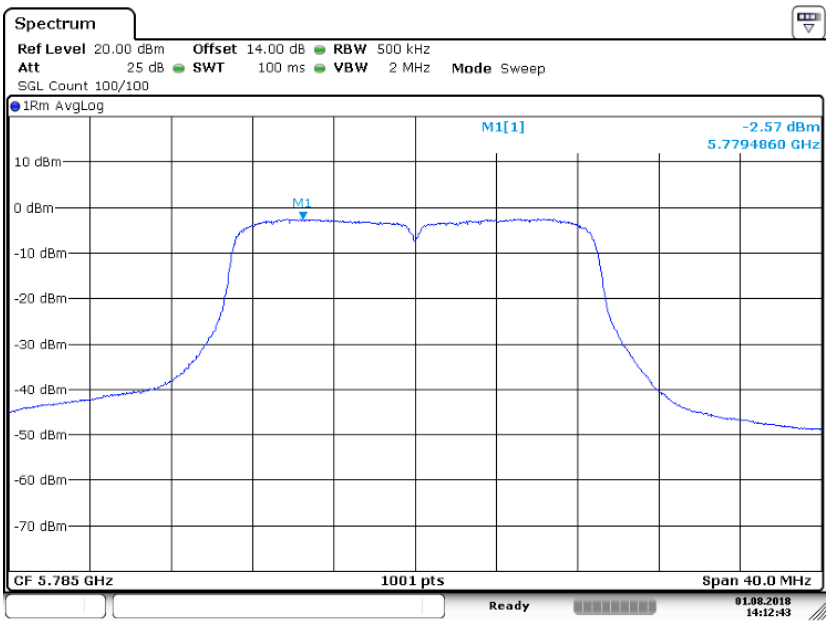
Date: 1.AUG.2018 14:11:44

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5745



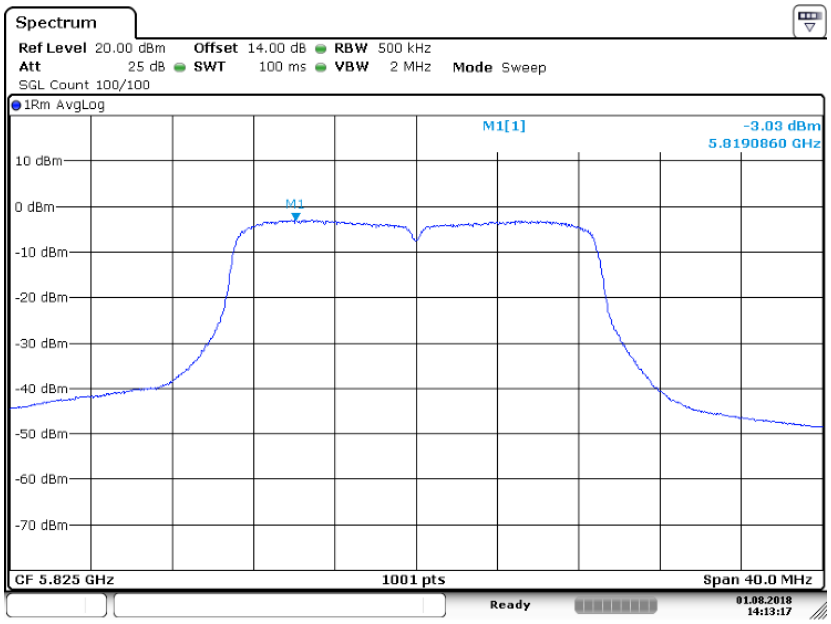
Date: 1.AUG.2018 14:12:13

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5785



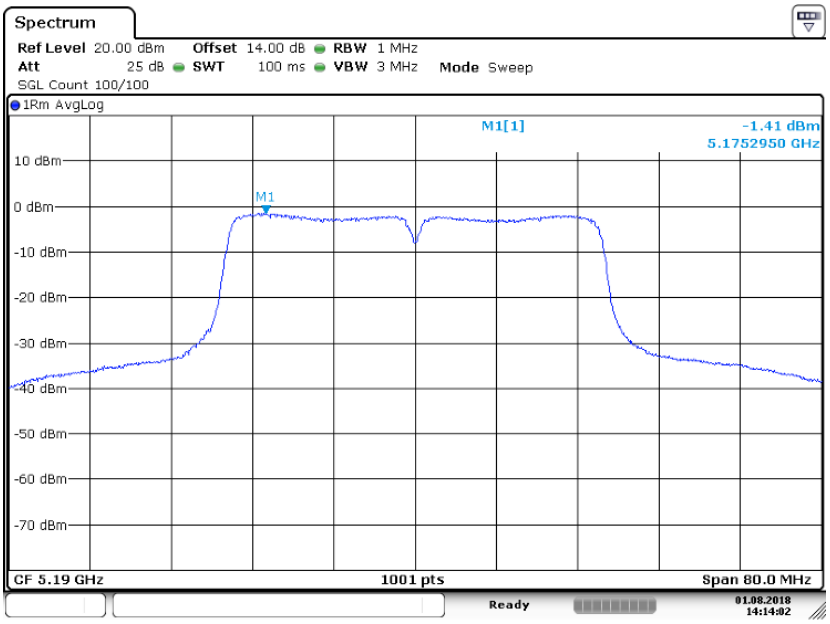
Date: 1.AUG.2018 14:12:43

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5825



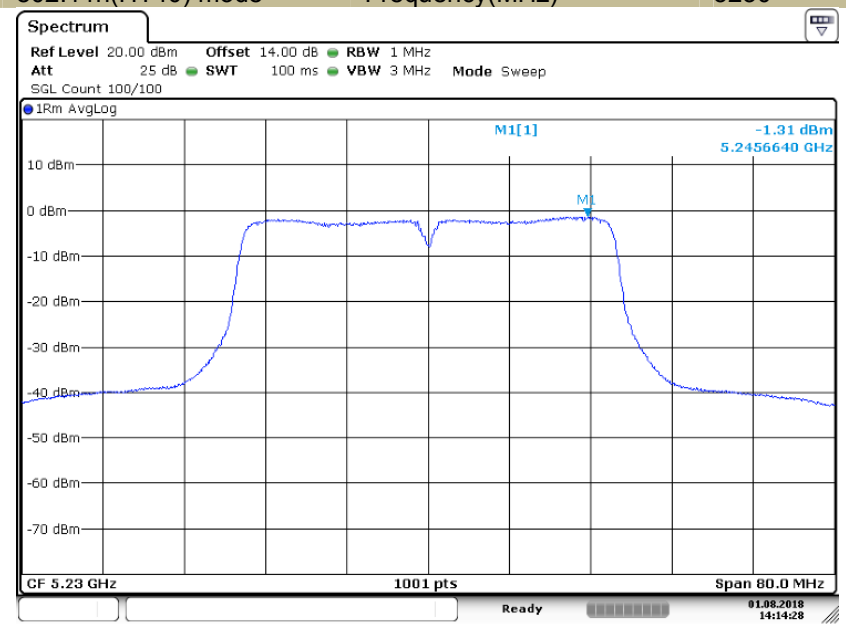
Date: 1.AUG.2018 14:13:16

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5190



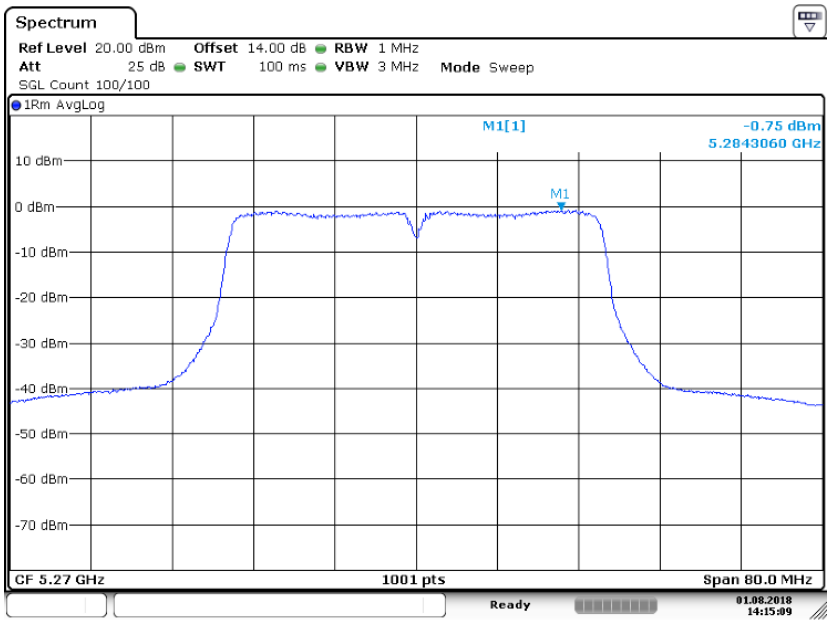
Date: 1.AUG.2018 14:14:02

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5230



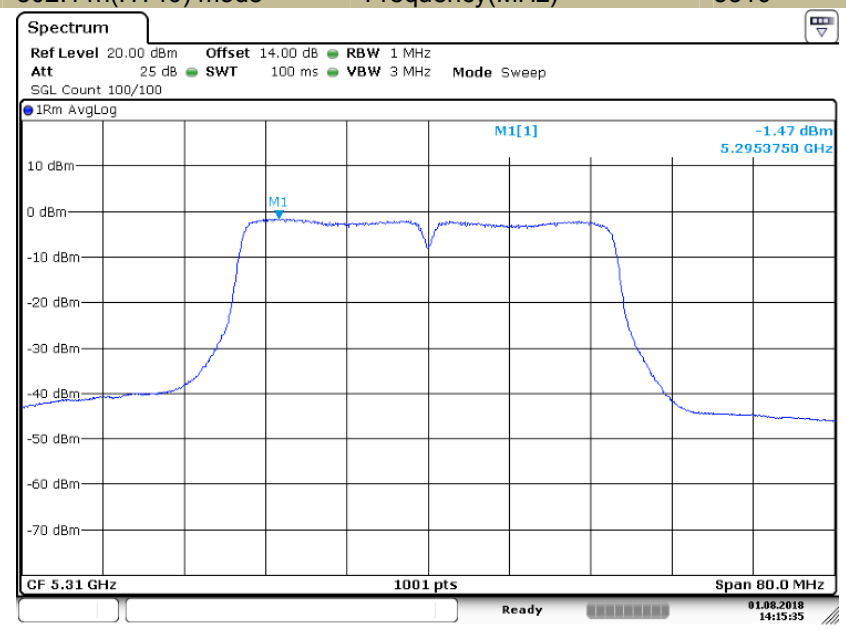
Date: 1.AUG.2018 14:14:28

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5270



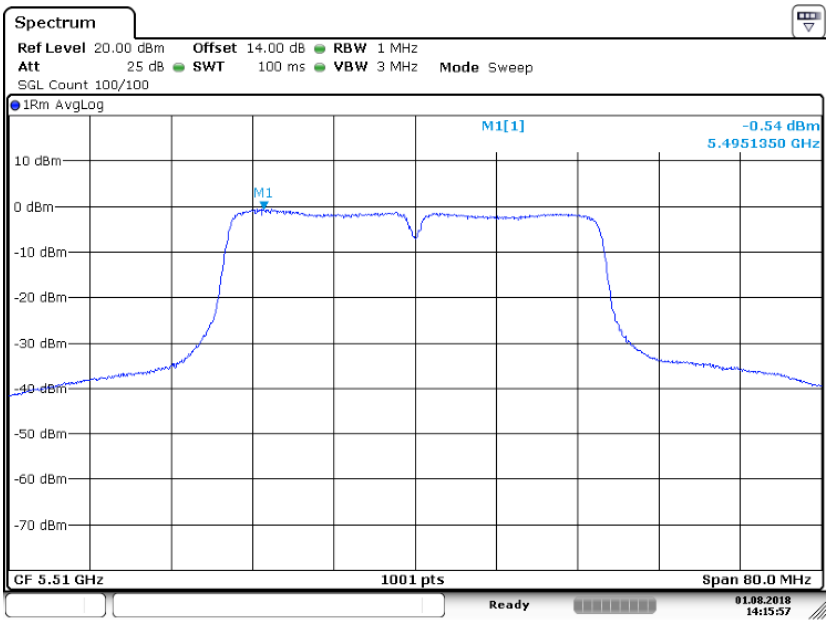
Date: 1.AUG.2018 14:15:08

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5310



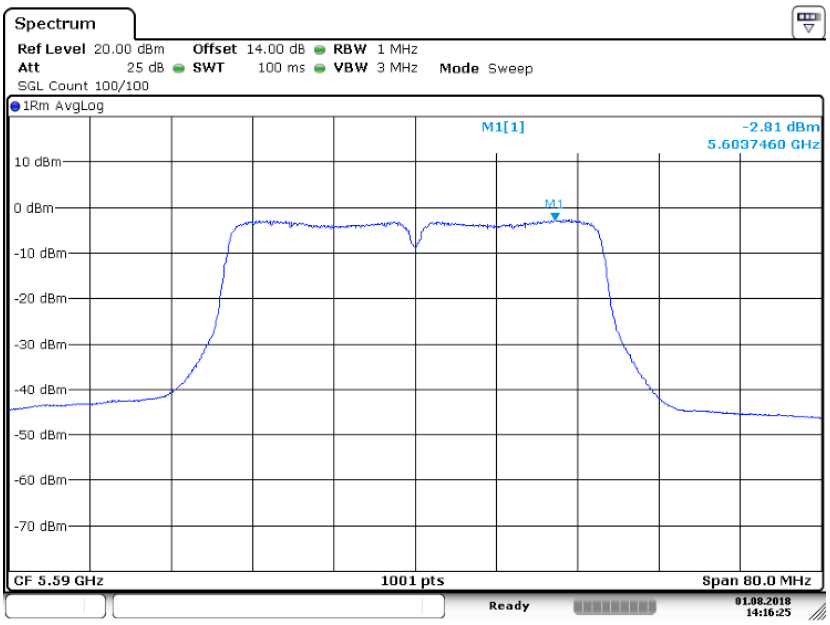
Date: 1.AUG.2018 14:15:34

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5510



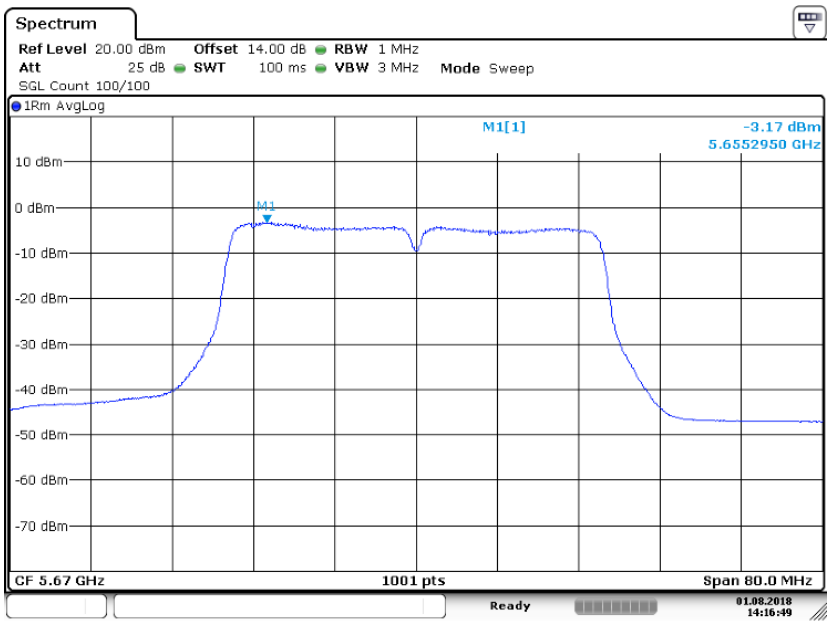
Date: 1.AUG.2018 14:15:56

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5590



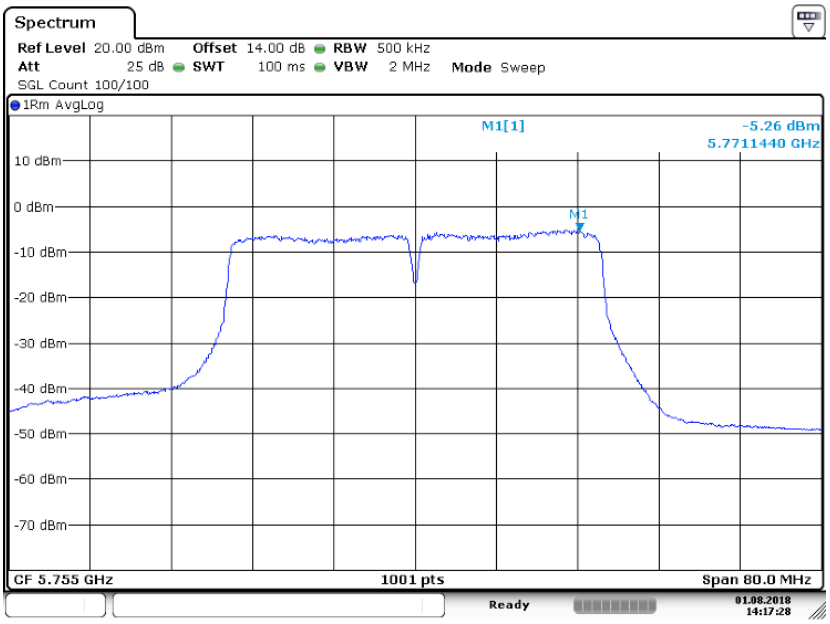
Date: 1.AUG.2018 14:16:24

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5670



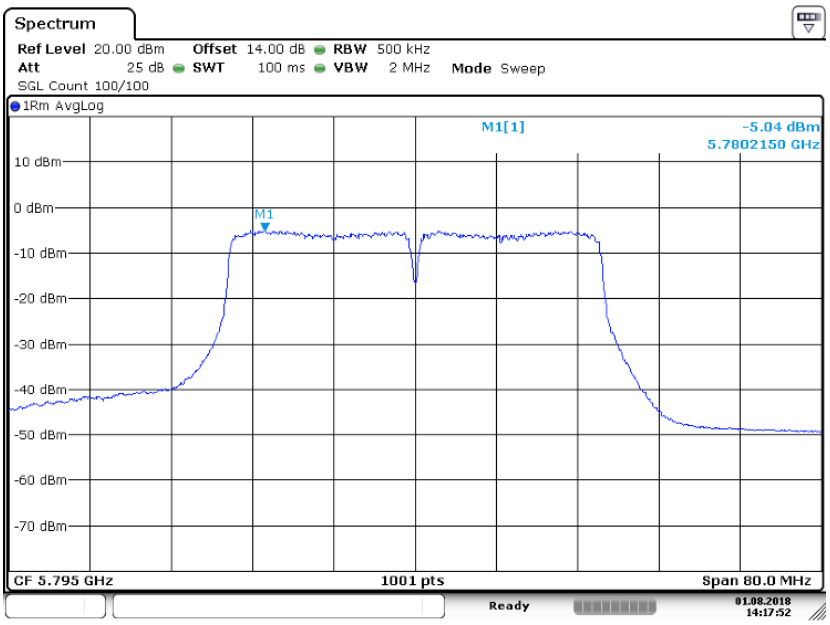
Date: 1.AUG.2018 14:16:49

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5755



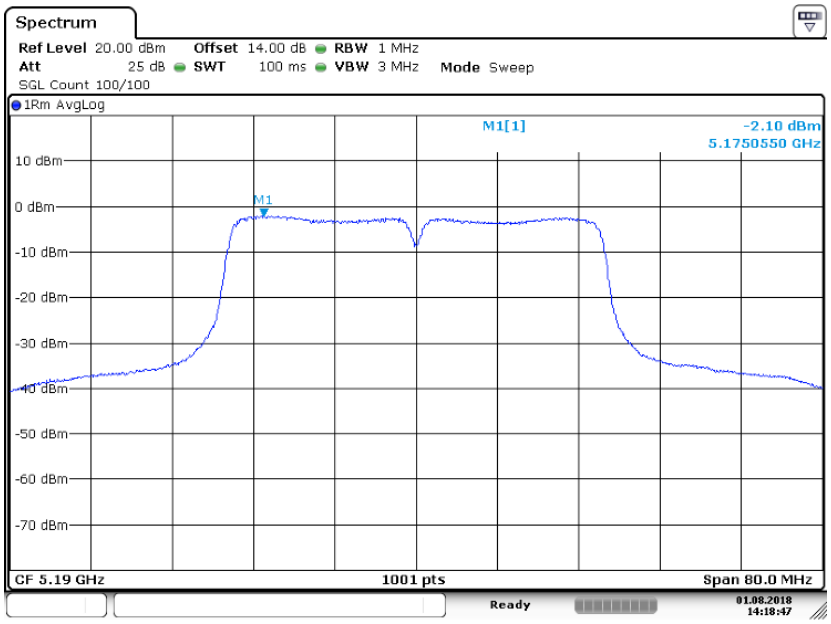
Date: 1.AUG.2018 14:17:27

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT40) mode	Frequency(MHz)	5795



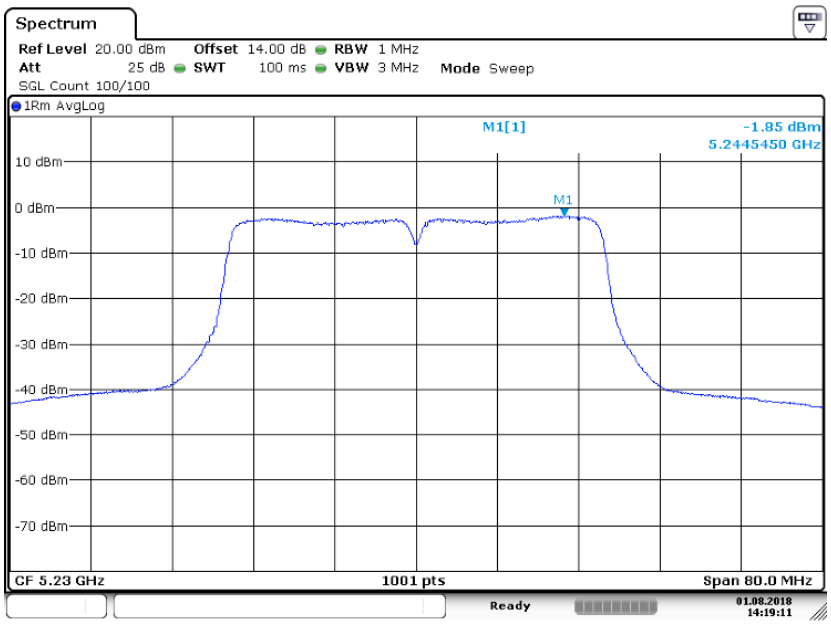
Date: 1.AUG.2018 14:17:52

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5190



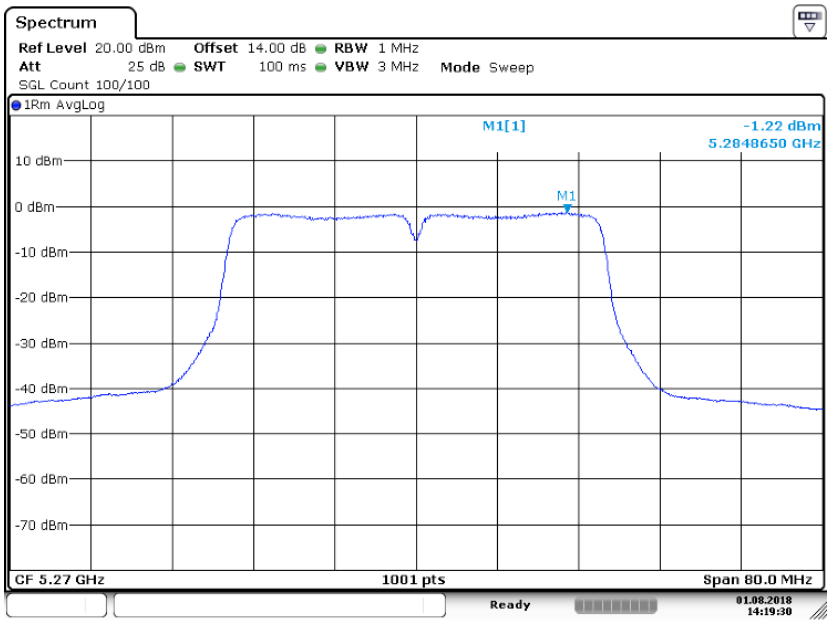
Date: 1.AUG.2018 14:18:47

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5230



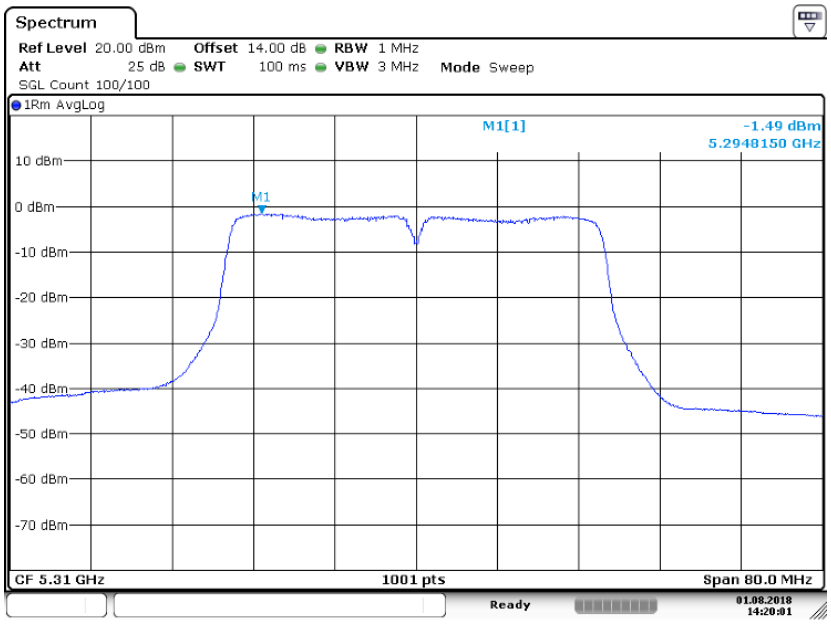
Date: 1.AUG.2018 14:19:10

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5270



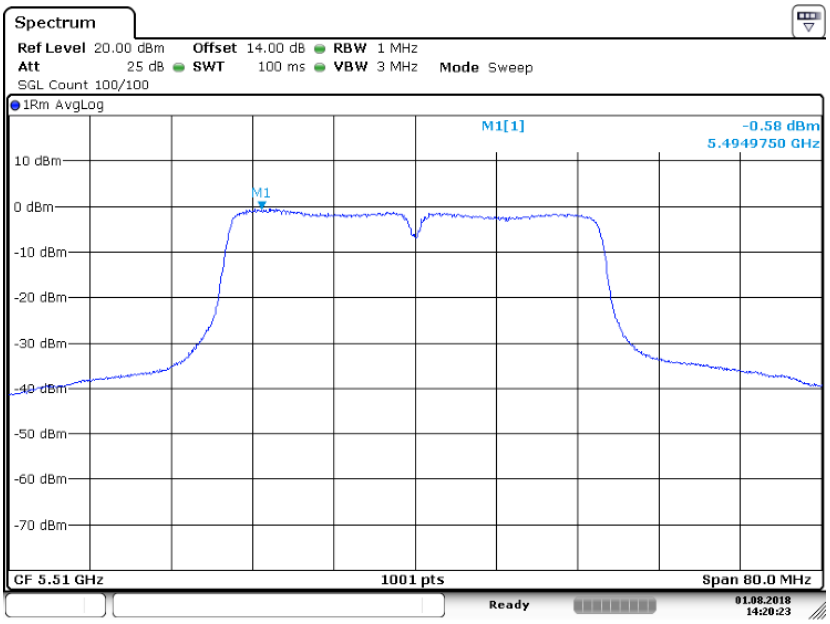
Date: 1.AUG.2018 14:19:30

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5310



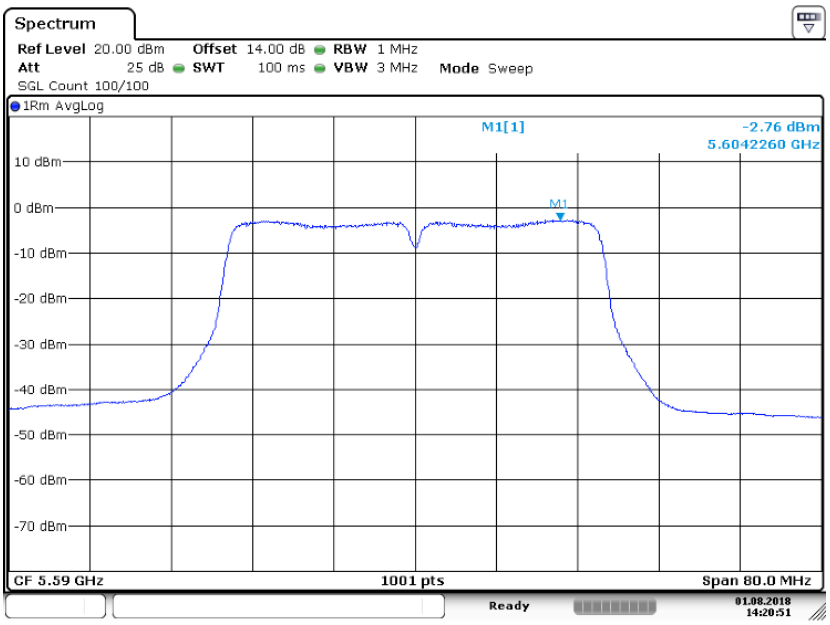
Date: 1.AUG.2018 14:20:01

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5510



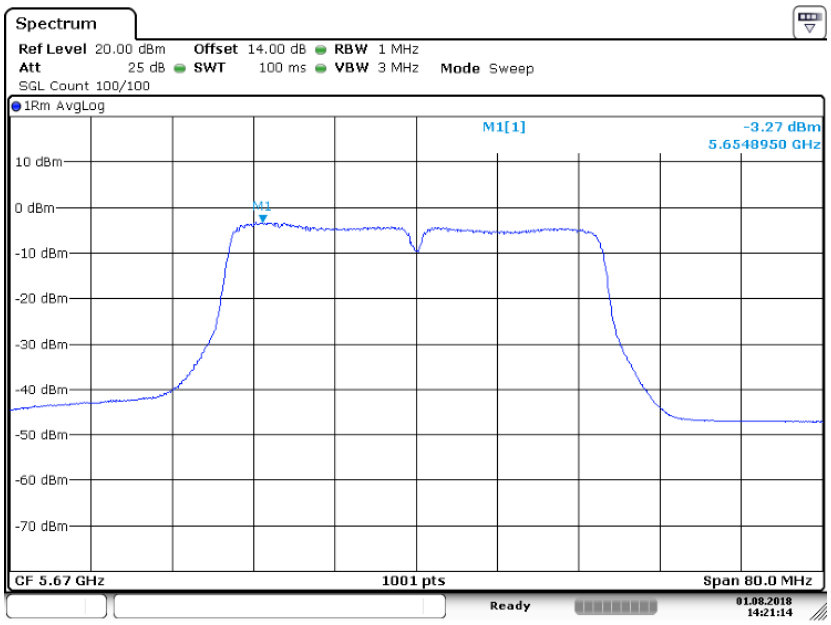
Date: 1.AUG.2018 14:20:23

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5590



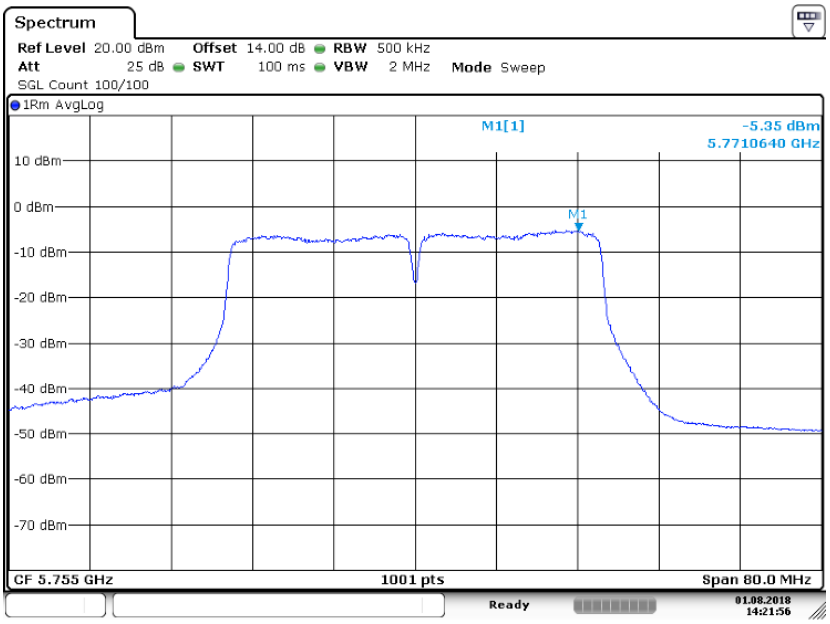
Date: 1.AUG.2018 14:20:51

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5670



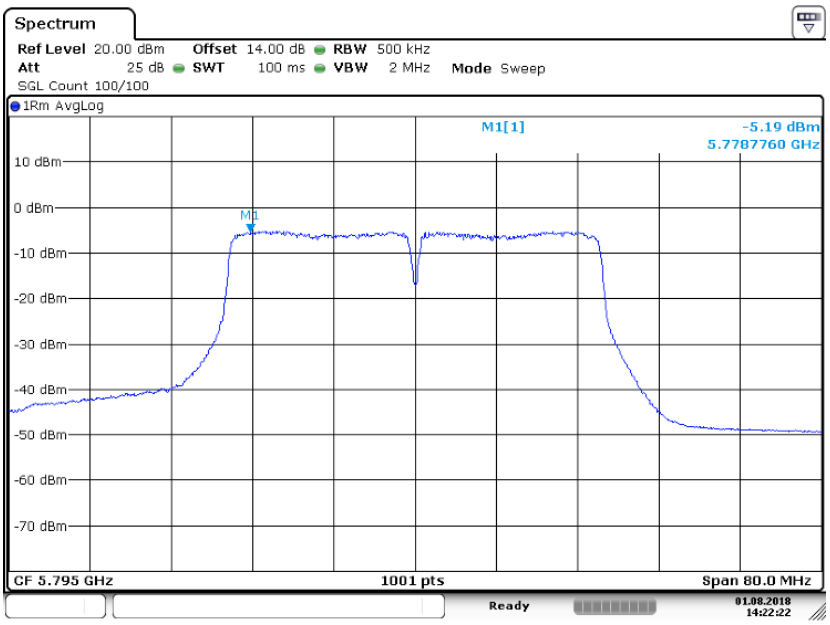
Date: 1.AUG.2018 14:21:13

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5755



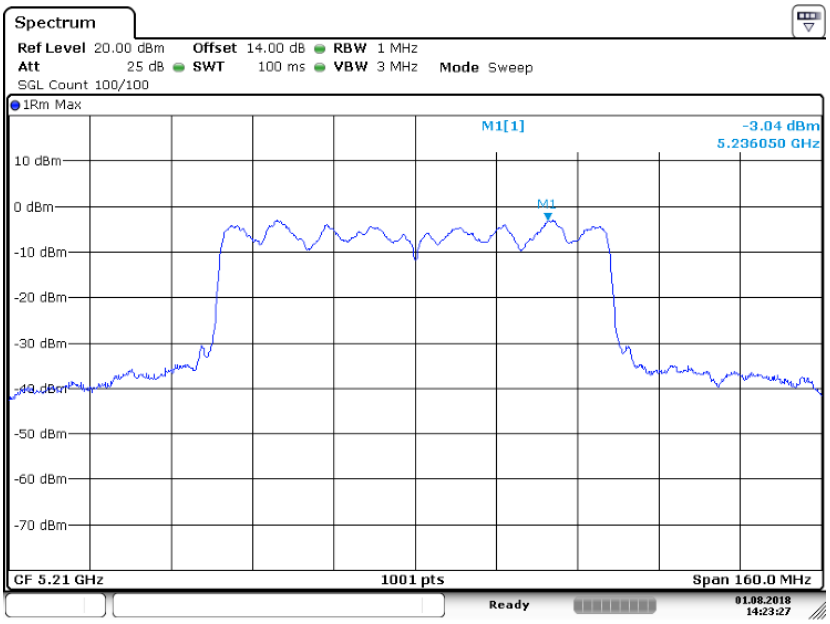
Date: 1.AUG.2018 14:21:56

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795



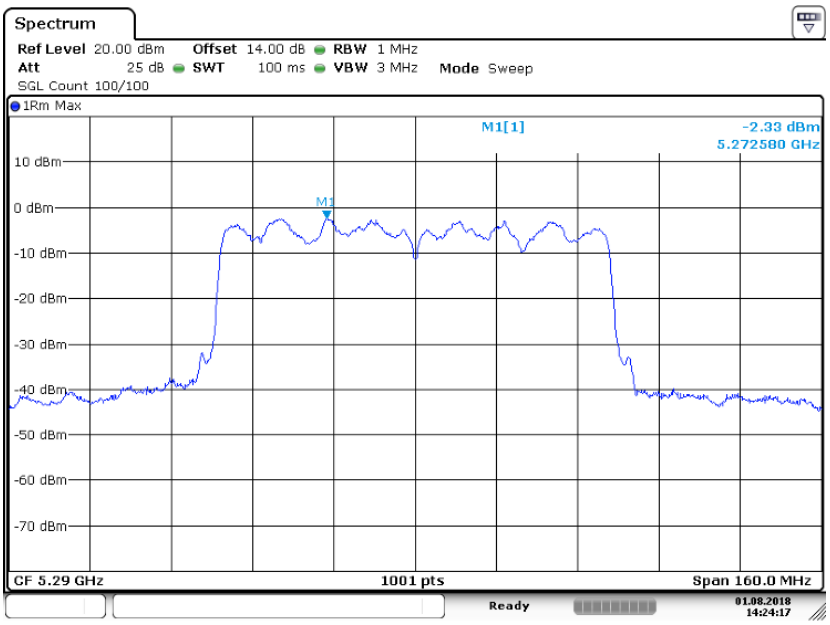
Date: 1.AUG.2018 14:22:21

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210



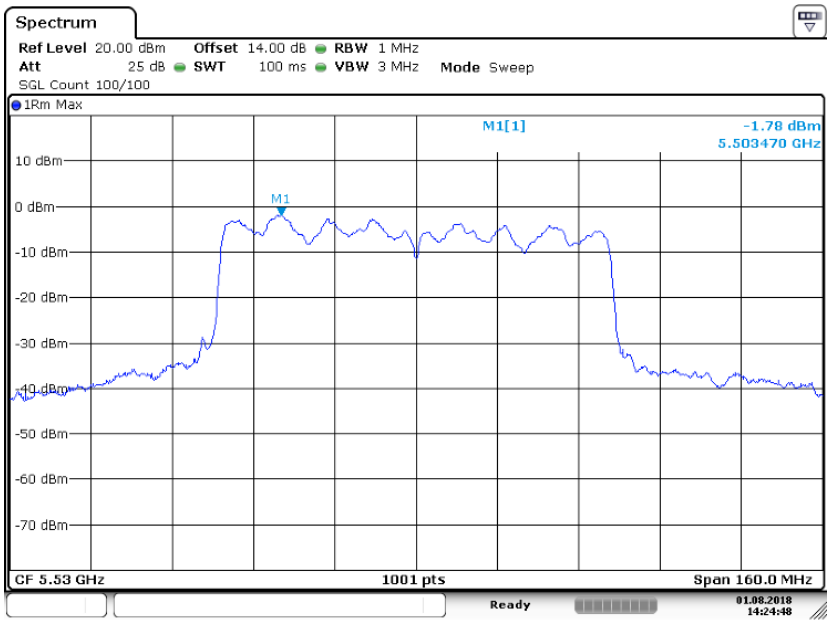
Date: 1.AUG.2018 14:23:26

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5290



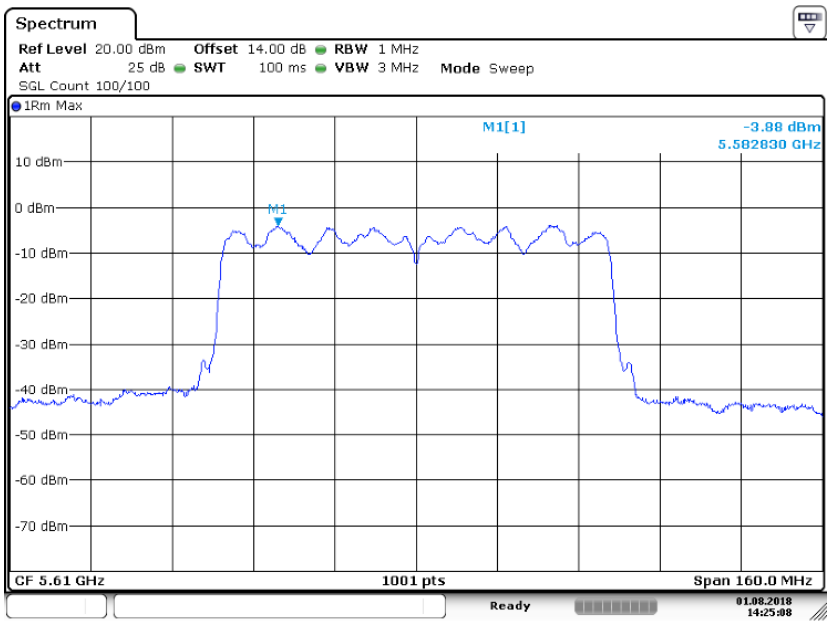
Date: 1.AUG.2018 14:24:17

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5530



Date: 1.AUG.2018 14:24:47

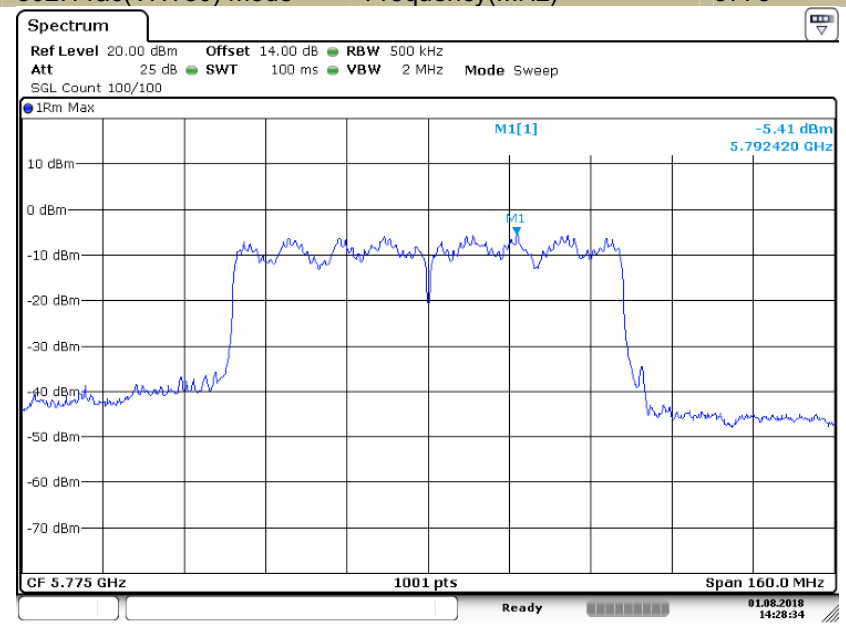
Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5610



Date: 1.AUG.2018 14:25:07

Power Spectral Density	UNII Band III

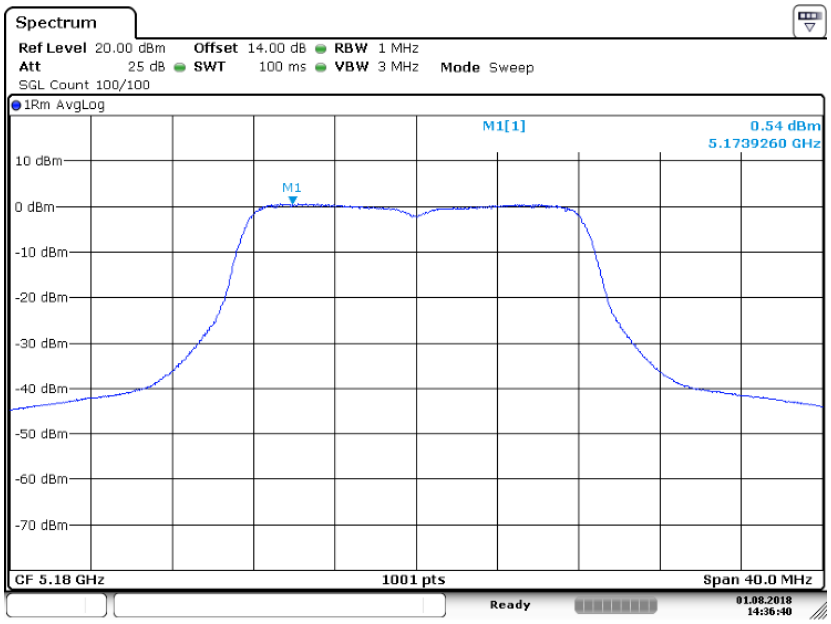
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5775



Date: 1.AUG.2018 14:28:34

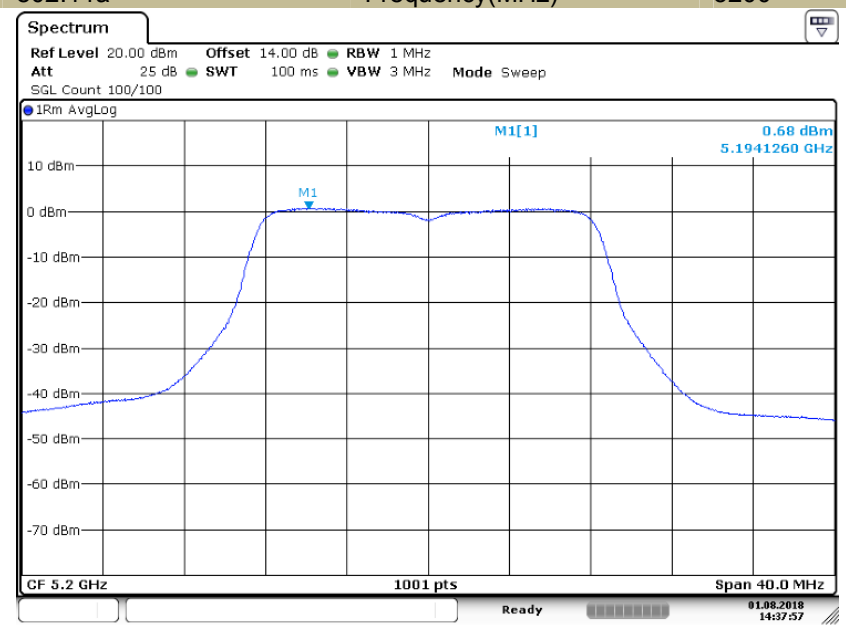
B. Antenna 1

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5180



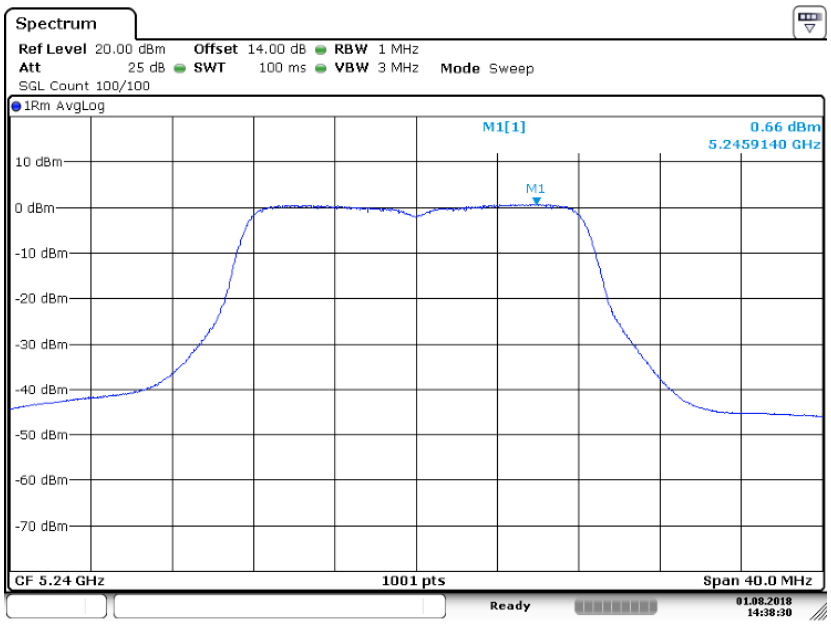
Date: 1.AUG.2018 14:36:39

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5200



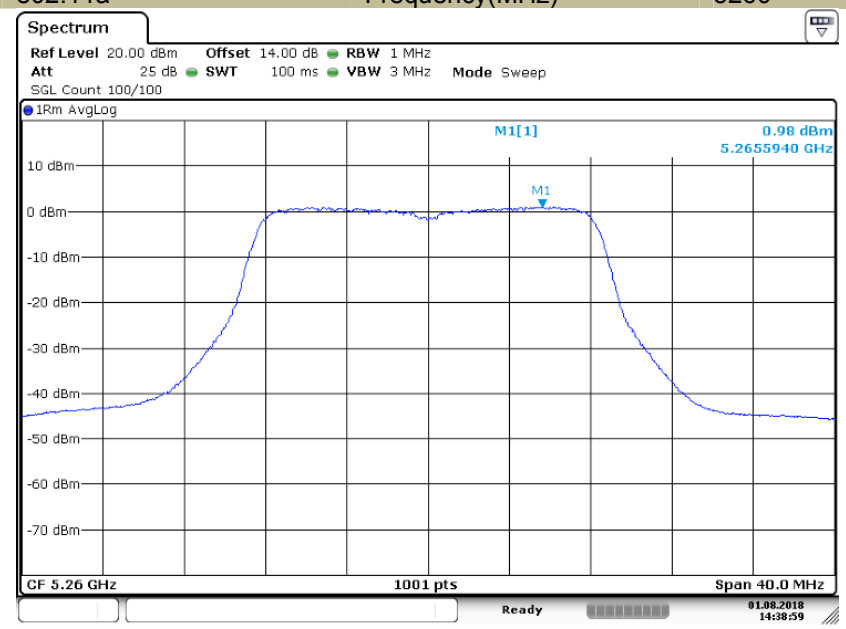
Date: 1.AUG.2018 14:37:56

Power Spectral Density		UNII Band I	
Test Model	802.11a	Frequency(MHz)	5240



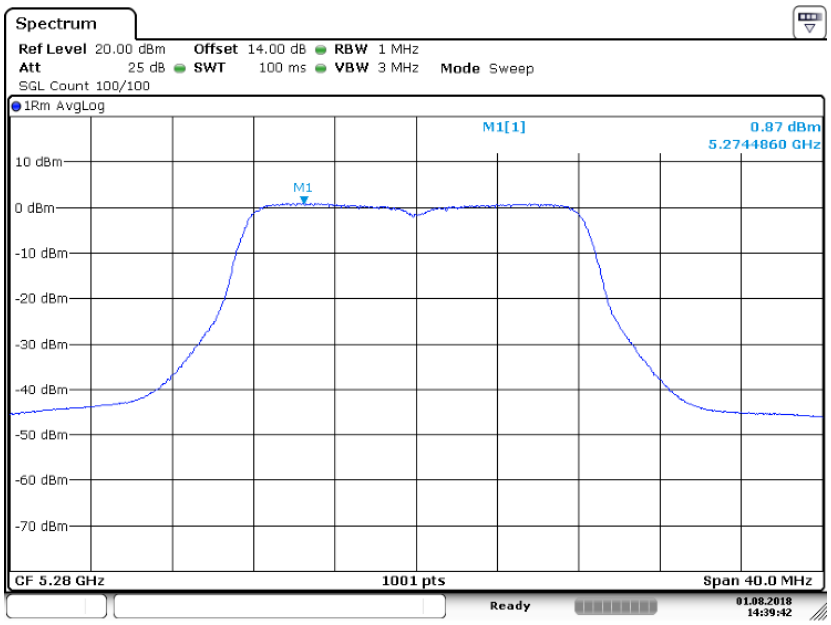
Date: 1.AUG.2018 14:38:30

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5260



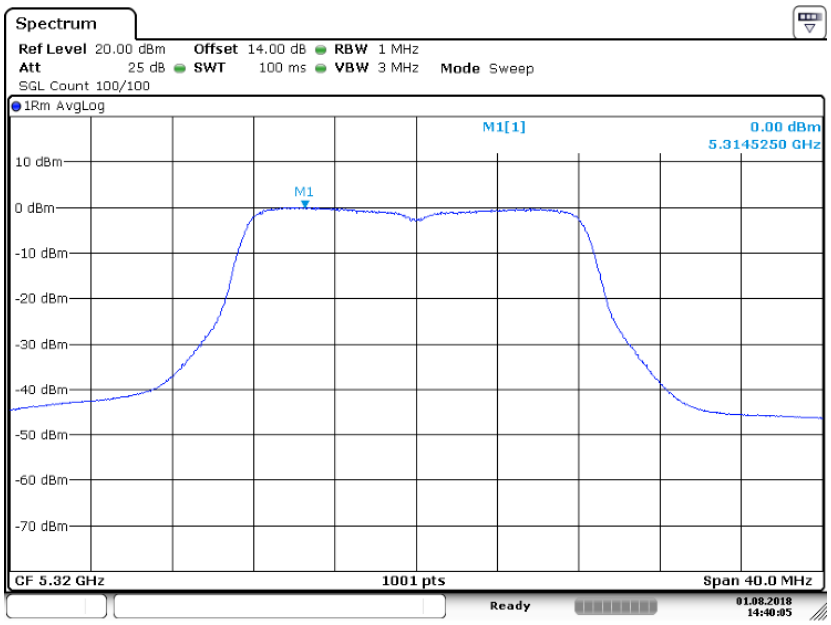
Date: 1.AUG.2018 14:38:58

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5280



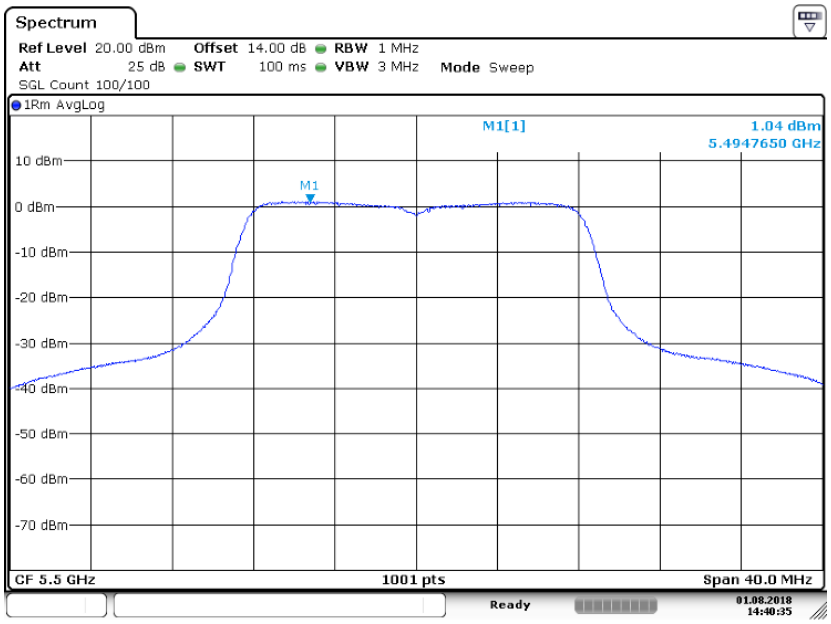
Date: 1.AUG.2018 14:39:42

Power Spectral Density		UNII Band II-A	
Test Model	802.11a	Frequency(MHz)	5320



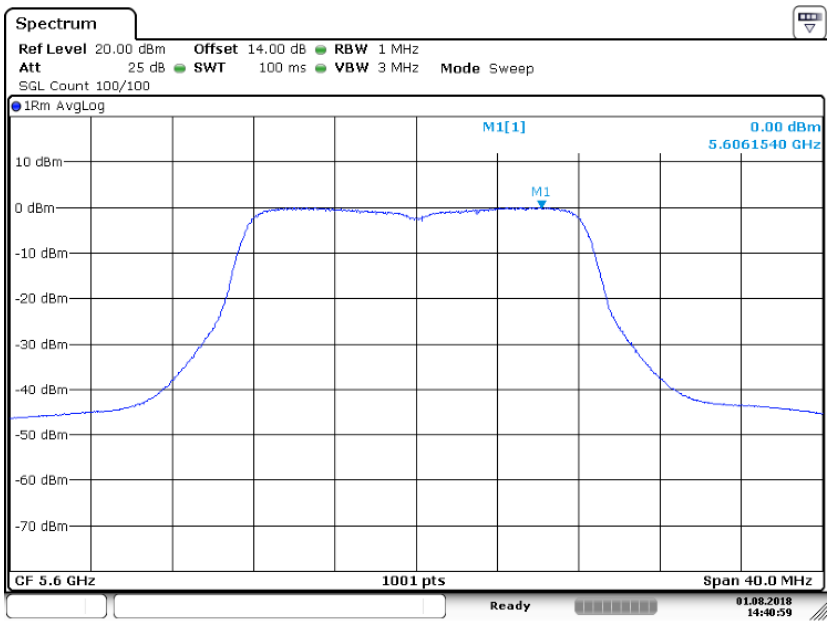
Date: 1.AUG.2018 14:40:05

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5500



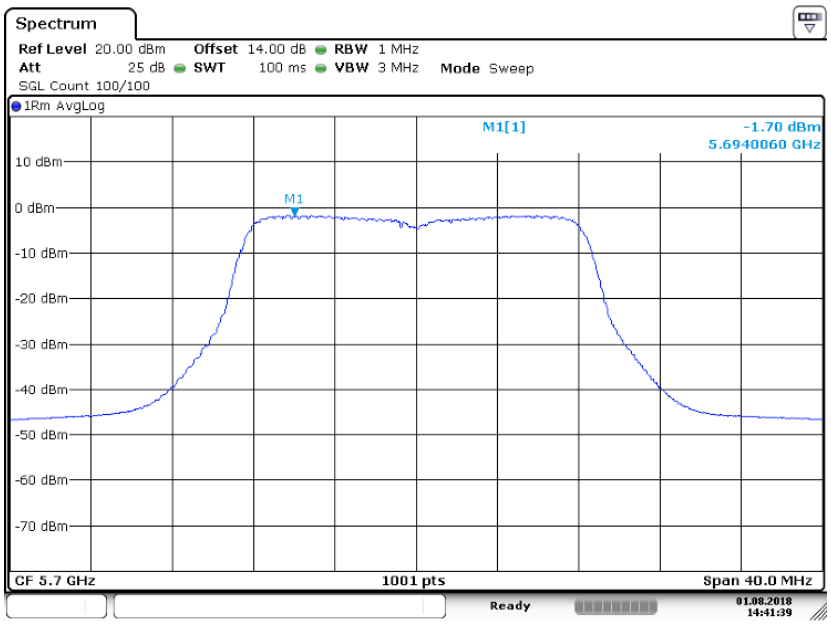
Date: 1.AUG.2018 14:40:34

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5600



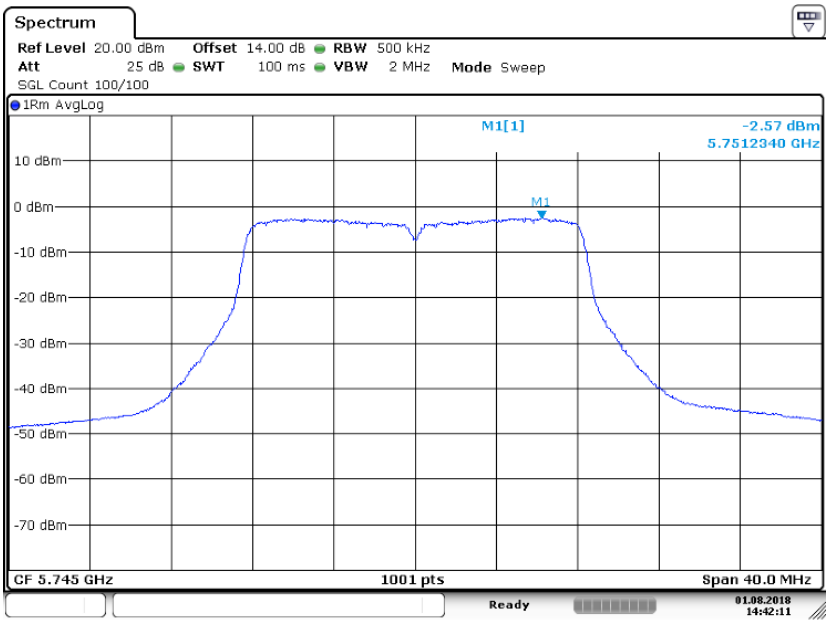
Date: 1.AUG.2018 14:40:59

Power Spectral Density		UNII Band II-C	
Test Model	802.11a	Frequency(MHz)	5700



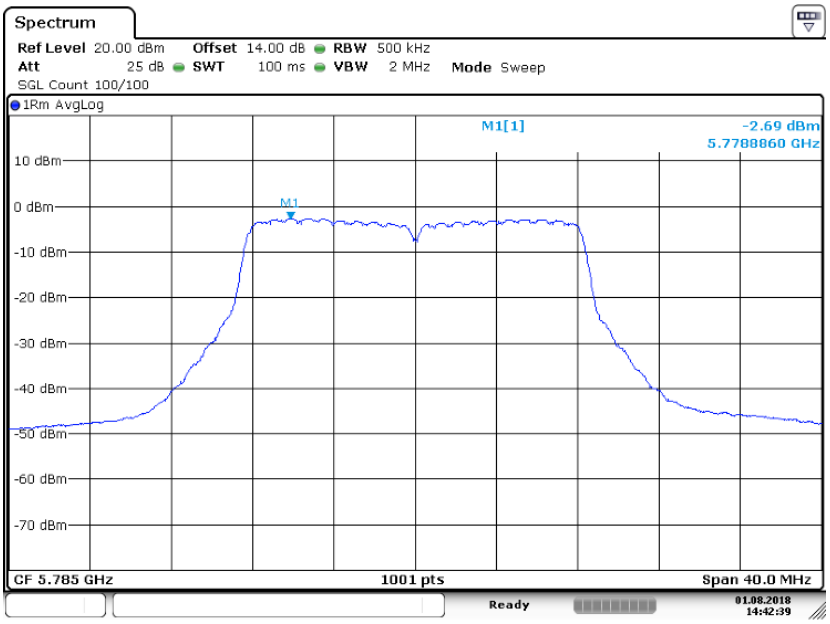
Date: 1.AUG.2018 14:41:38

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5745



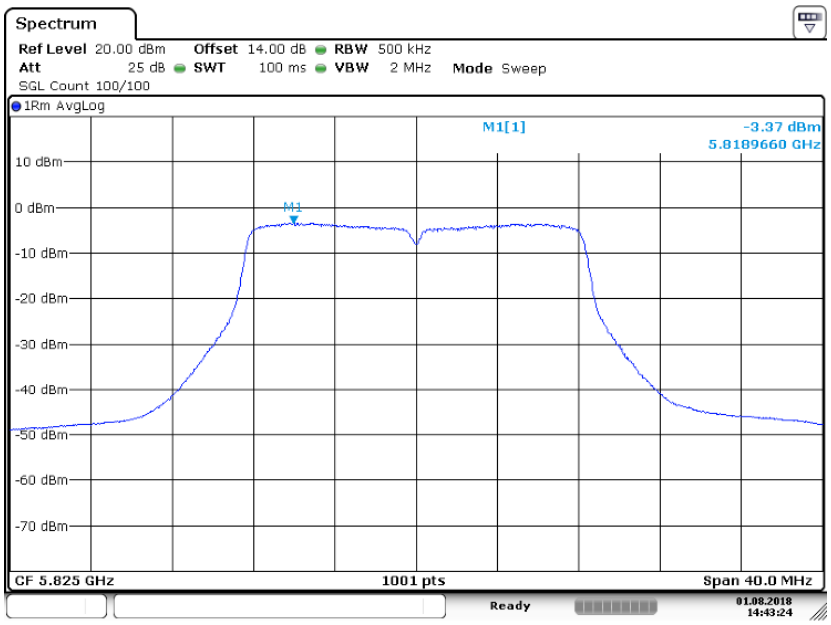
Date: 1.AUG.2018 14:42:11

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5785



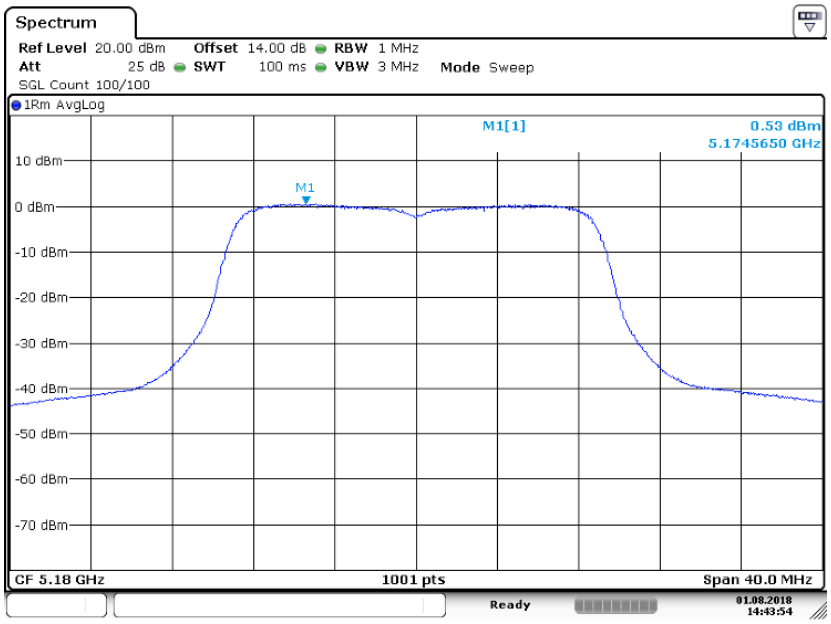
Date: 1.AUG.2018 14:42:38

Power Spectral Density		UNII Band III	
Test Model	802.11a	Frequency(MHz)	5825



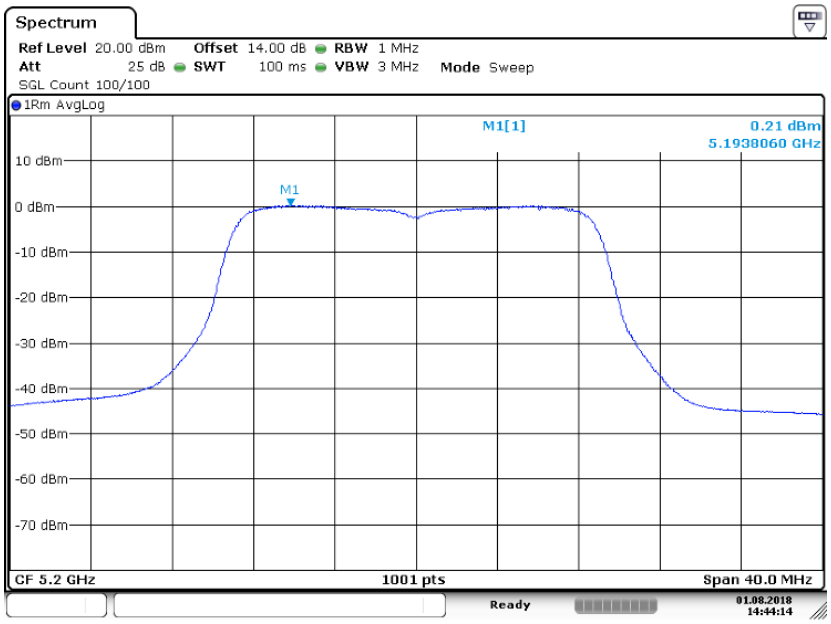
Date: 1.AUG.2018 14:43:24

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5180



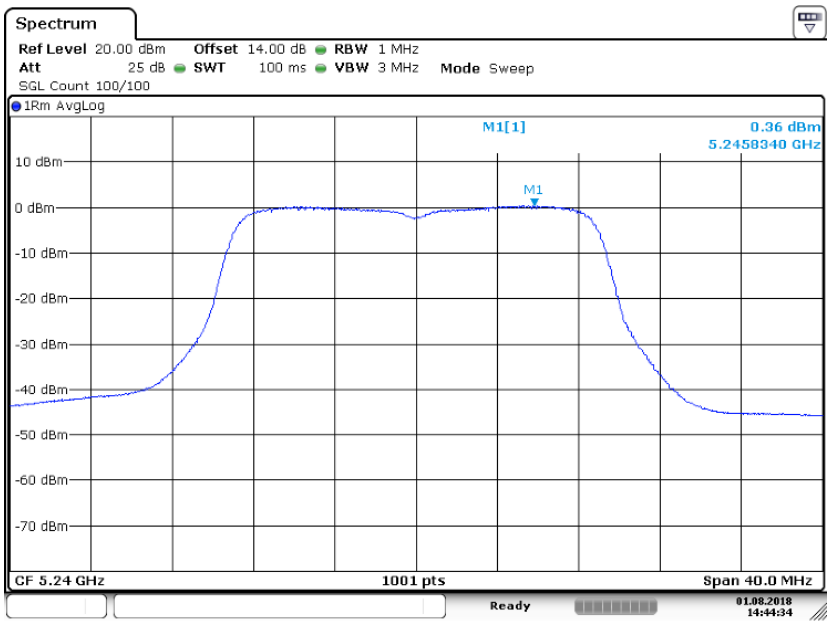
Date: 1.AUG.2018 14:43:53

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5200



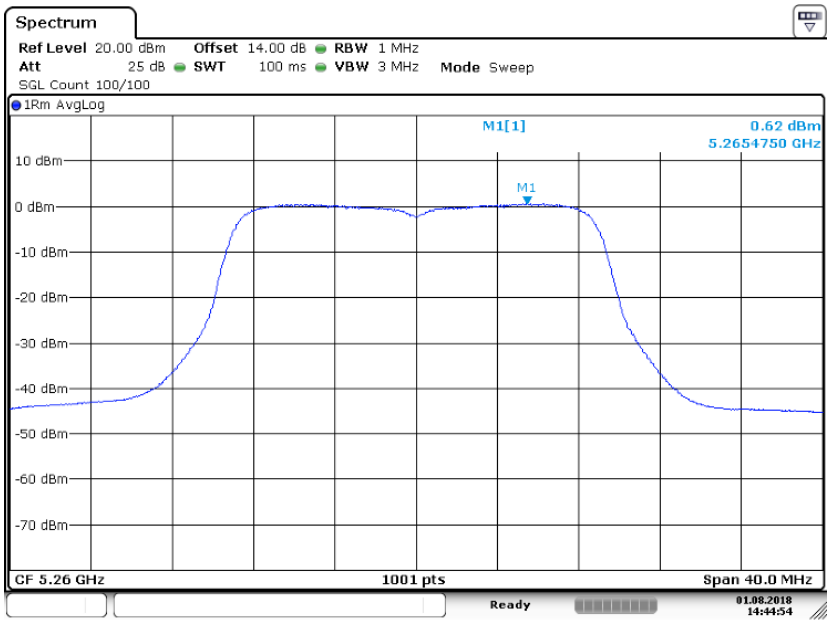
Date: 1.AUG.2018 14:44:13

Power Spectral Density		UNII Band I	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5240



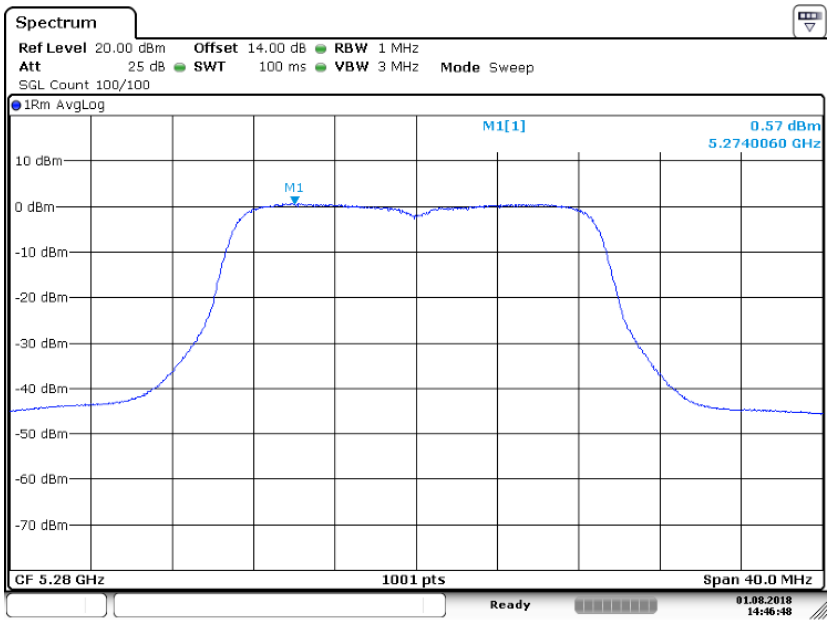
Date: 1.AUG.2018 14:44:34

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5260



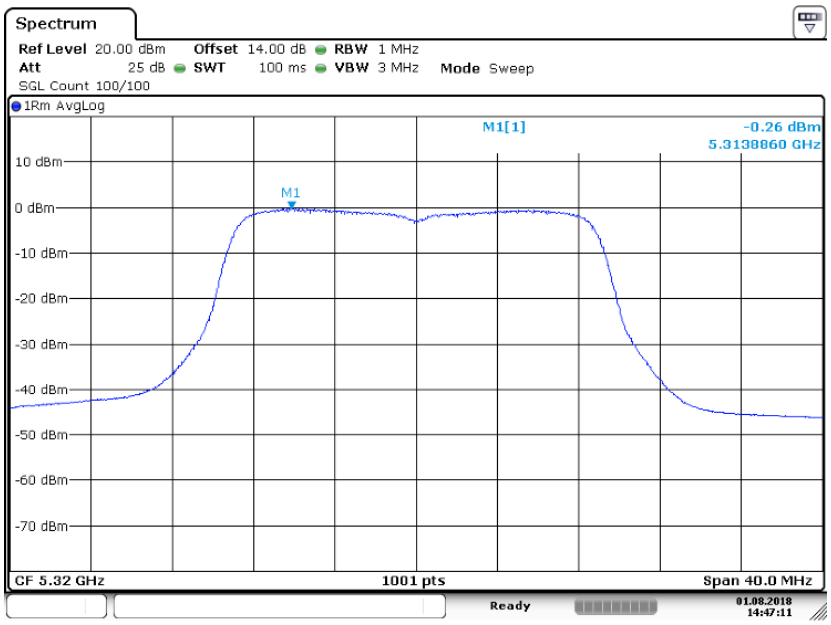
Date: 1.AUG.2018 14:44:54

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5280



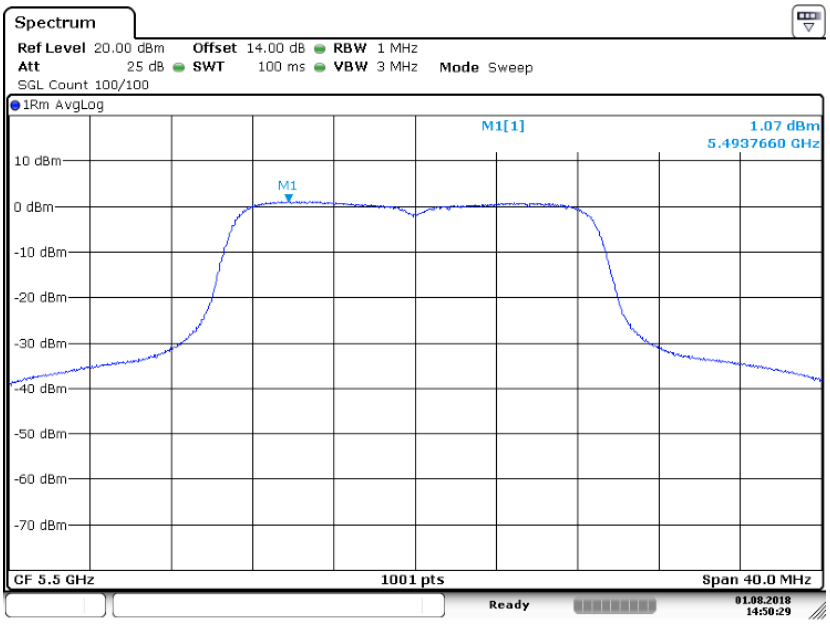
Date: 1.AUG.2018 14:46:47

Power Spectral Density		UNII Band II-A	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5320



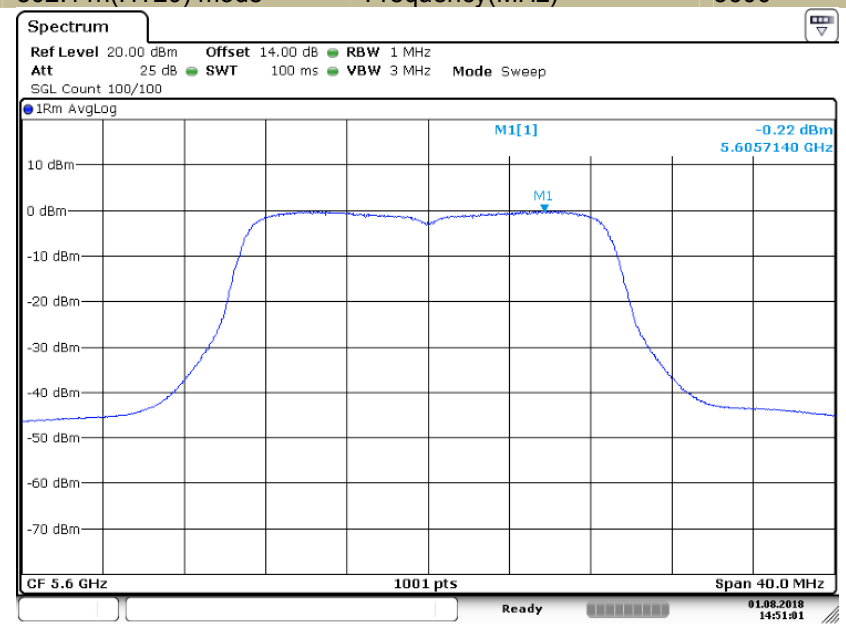
Date: 1.AUG.2018 14:47:11

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5500



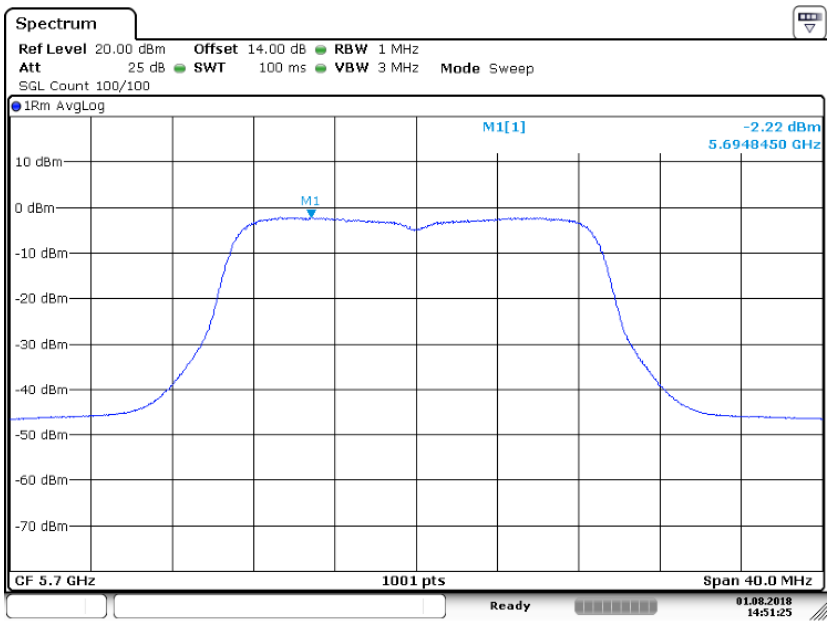
Date: 1.AUG.2018 14:50:29

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5600



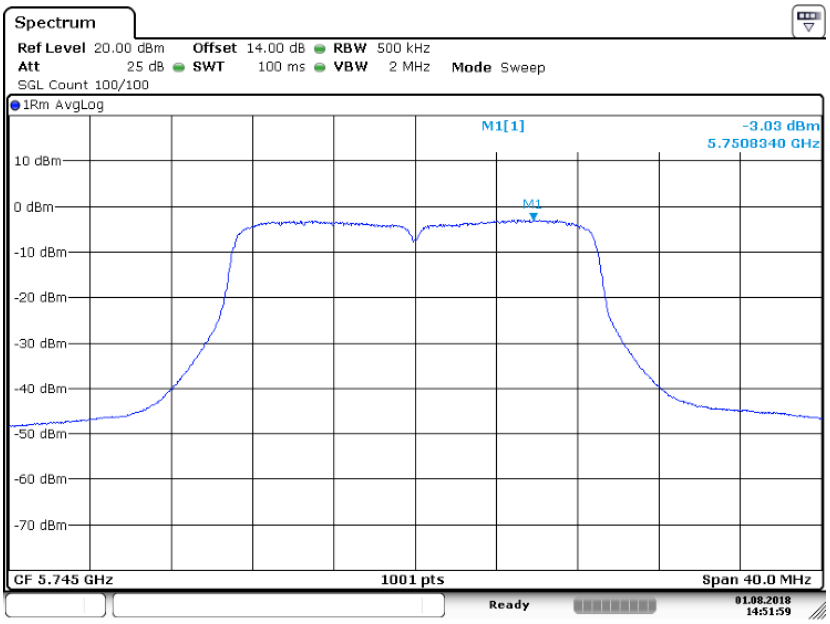
Date: 1.AUG.2018 14:51:01

Power Spectral Density		UNII Band II-C	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5700



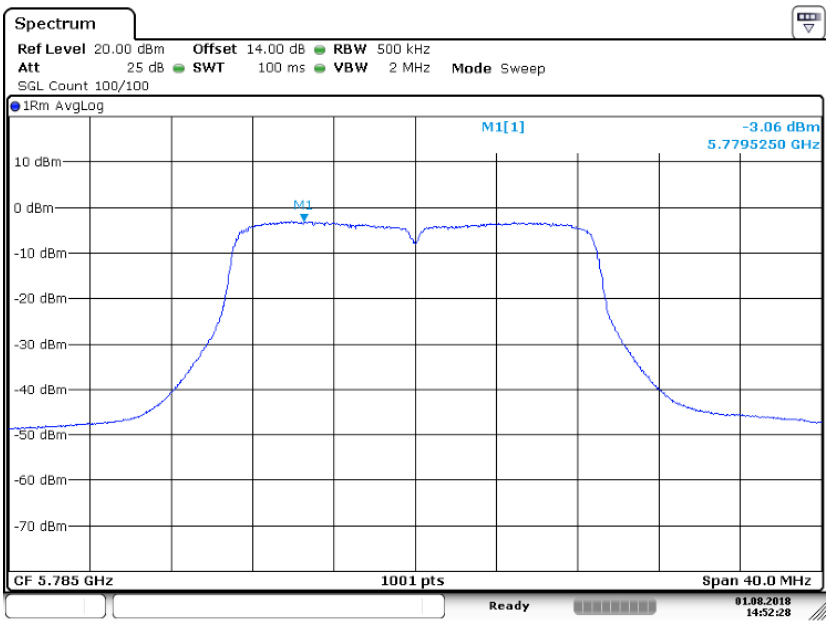
Date: 1.AUG.2018 14:51:24

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5745



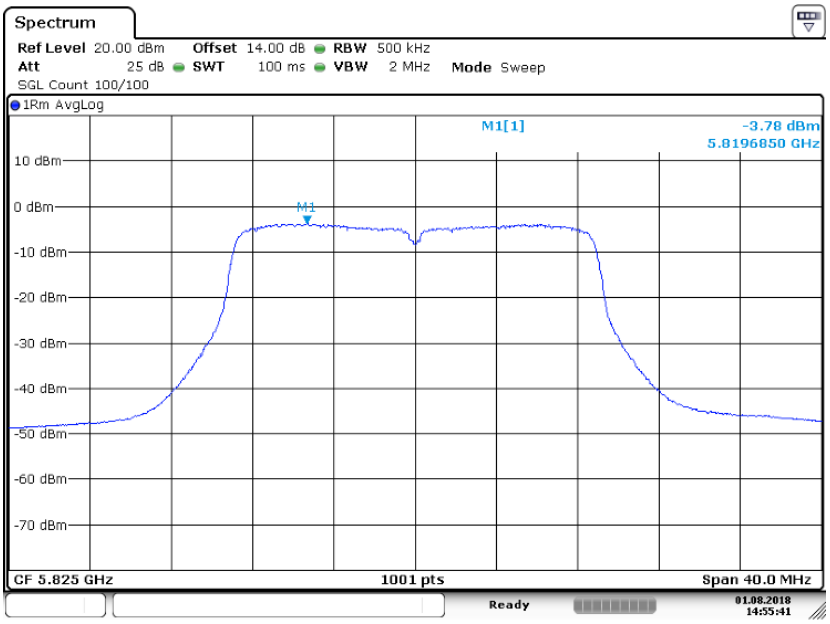
Date: 1.AUG.2018 14:51:59

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5785



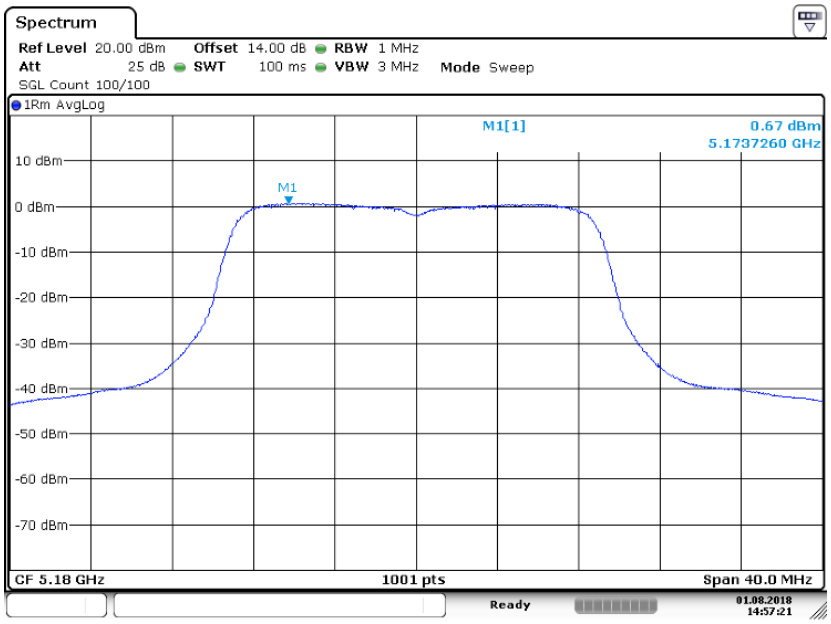
Date: 1.AUG.2018 14:52:28

Power Spectral Density		UNII Band III	
Test Model	802.11n(HT20) mode	Frequency(MHz)	5825



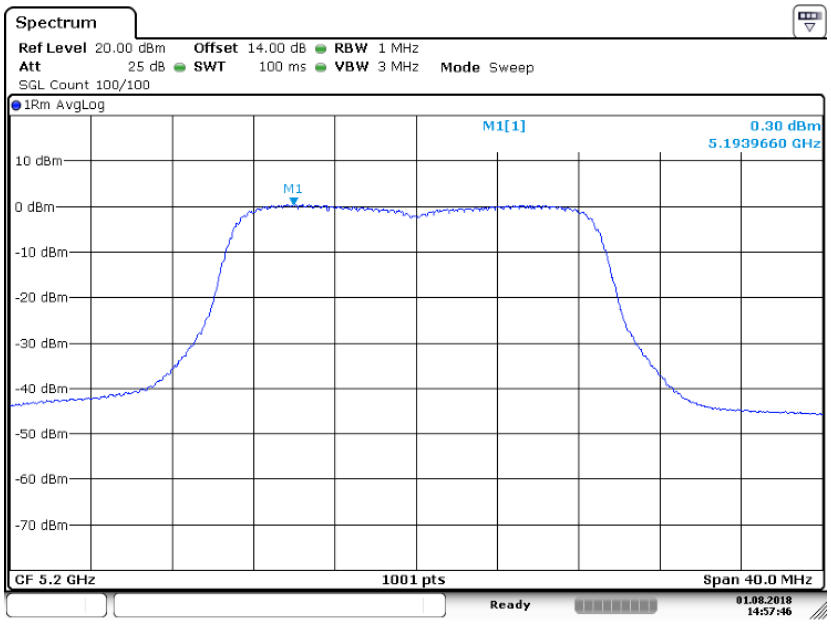
Date: 1.AUG.2018 14:55:41

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5180



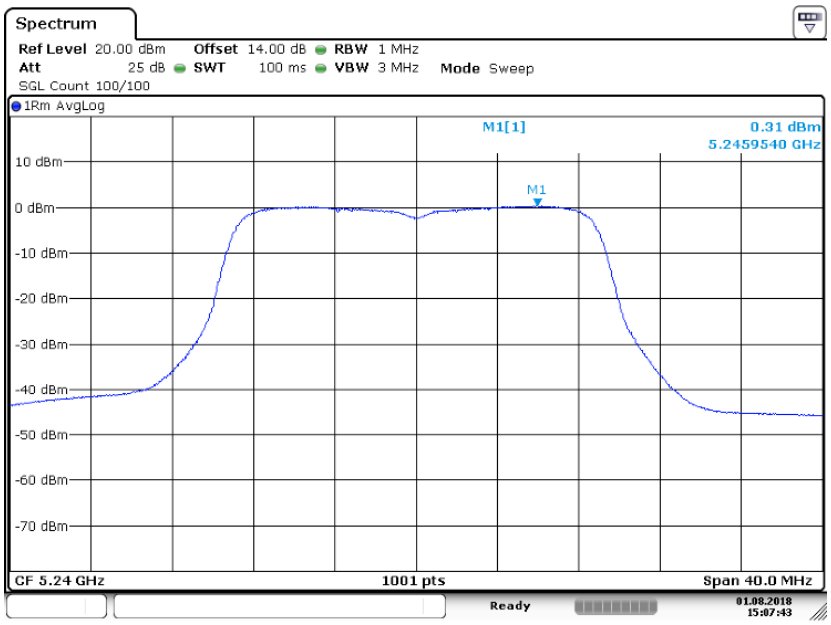
Date: 1.AUG.2018 14:57:20

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5200



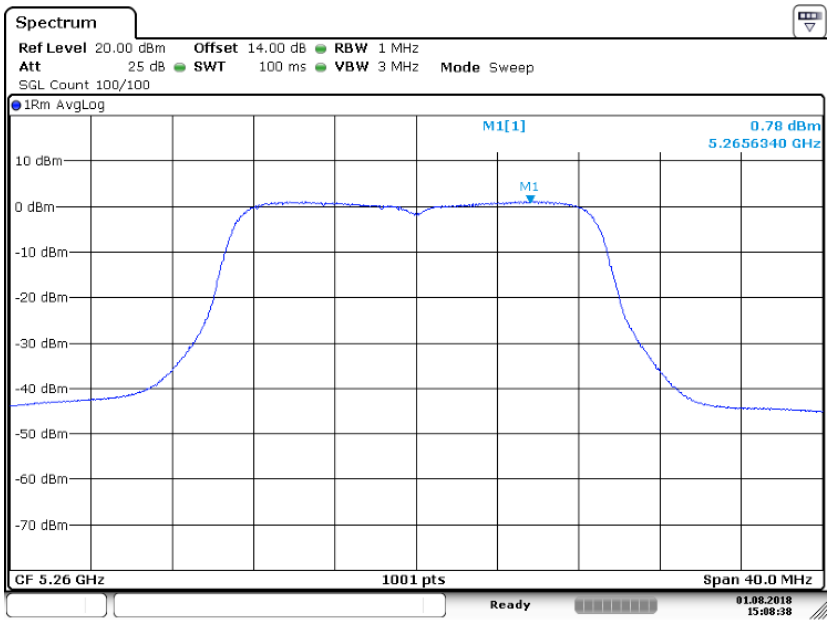
Date: 1.AUG.2018 14:57:46

Power Spectral Density		UNII Band I	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5240



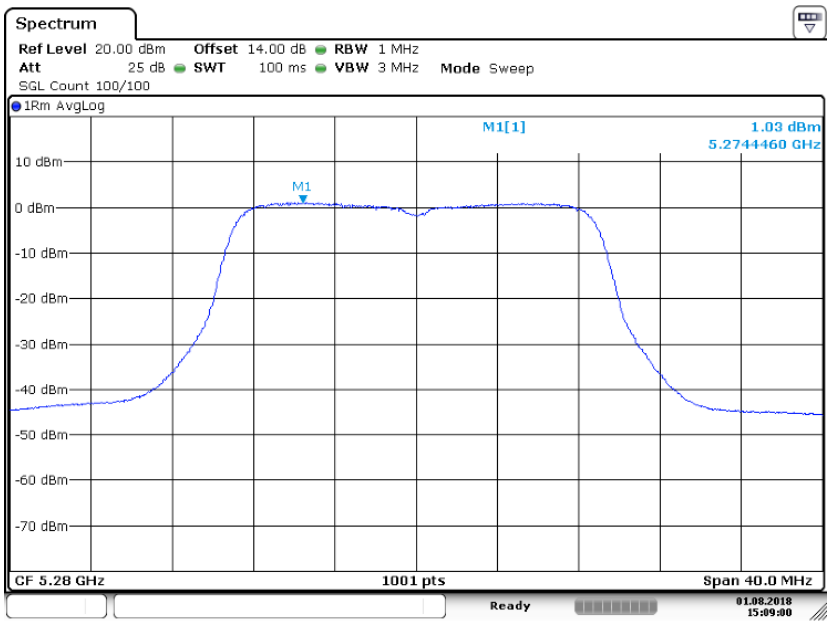
Date: 1.AUG.2018 15:07:43

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5260



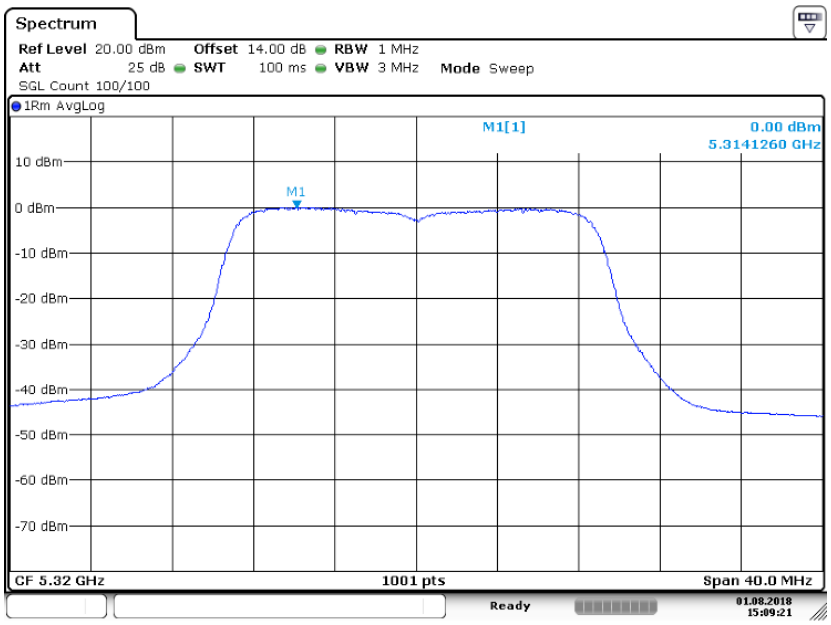
Date: 1.AUG.2018 15:08:38

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5280



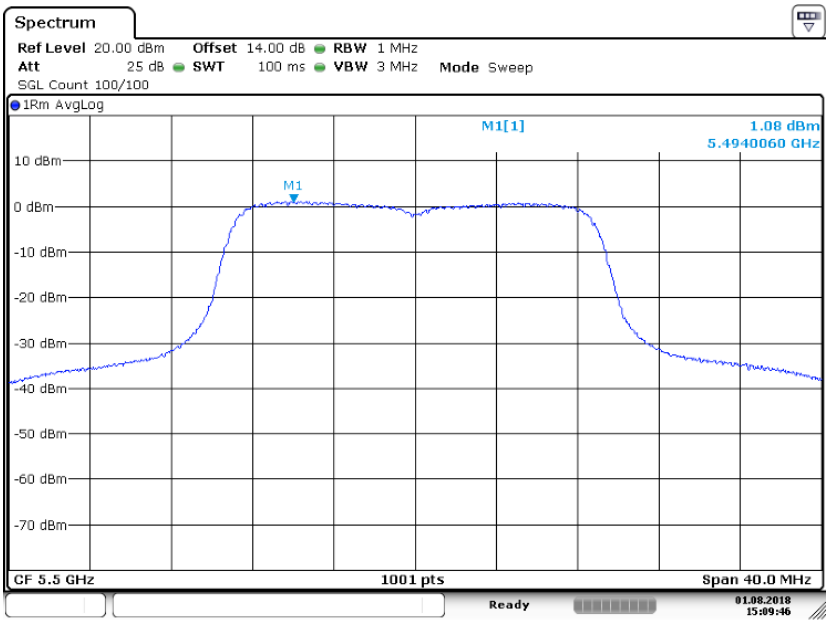
Date: 1.AUG.2018 15:09:00

Power Spectral Density		UNII Band II-A	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5320



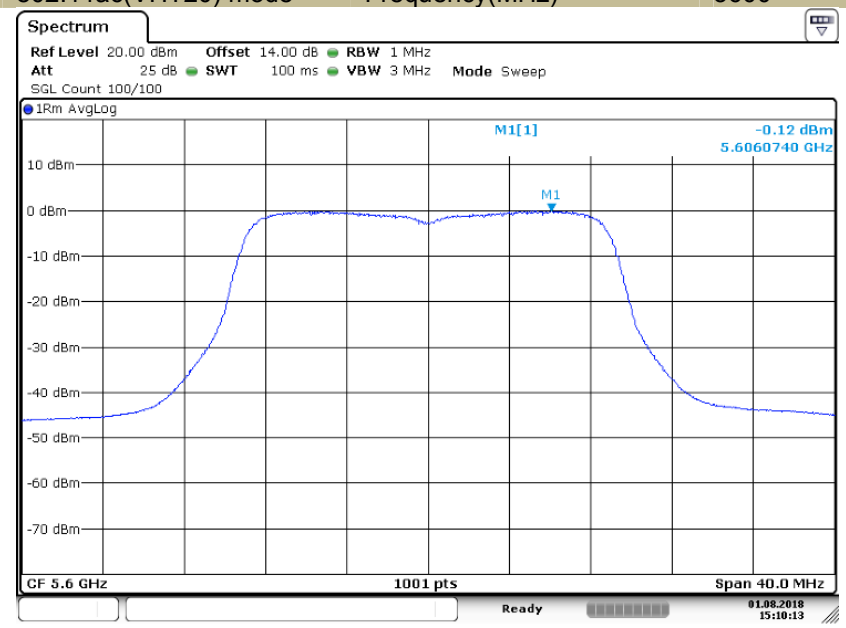
Date: 1.AUG.2018 15:09:21

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5500



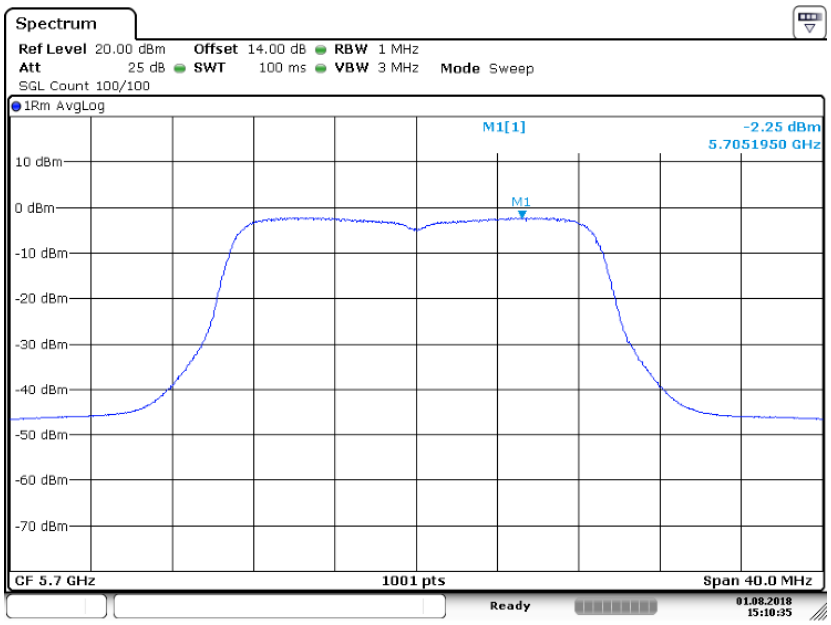
Date: 1.AUG.2018 15:09:46

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5600



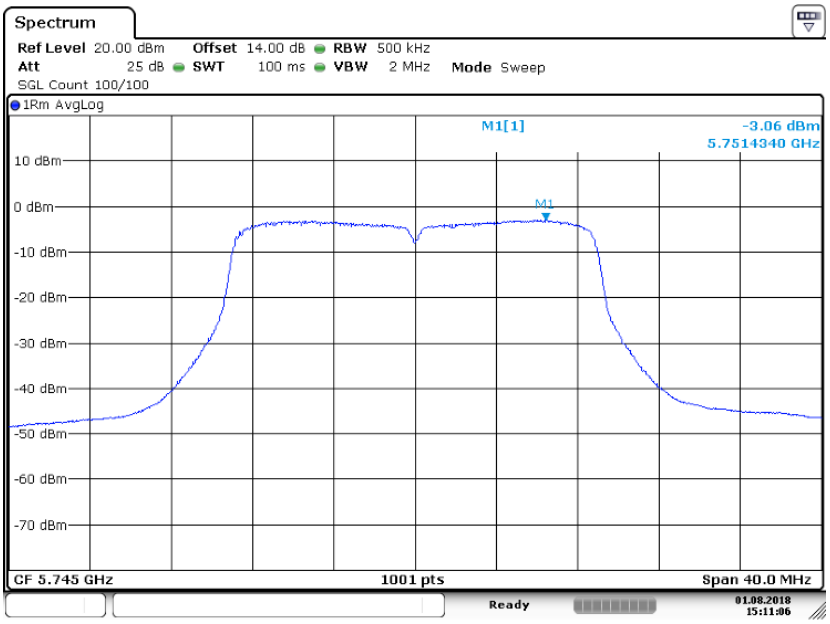
Date: 1.AUG.2018 15:10:12

Power Spectral Density		UNII Band II-C	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5700



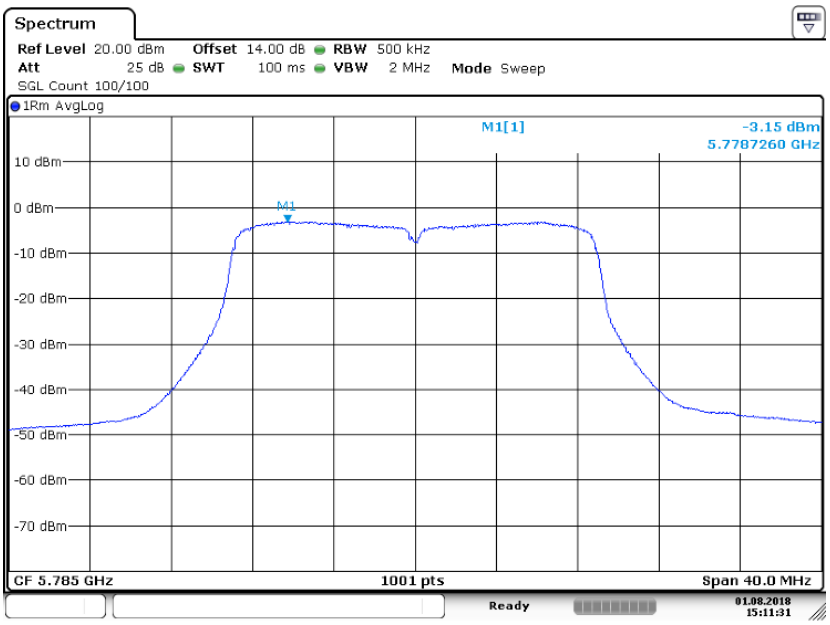
Date: 1.AUG.2018 15:10:34

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5745



Date: 1.AUG.2018 15:11:06

Power Spectral Density		UNII Band III	
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5785



Date: 1.AUG.2018 15:11:30