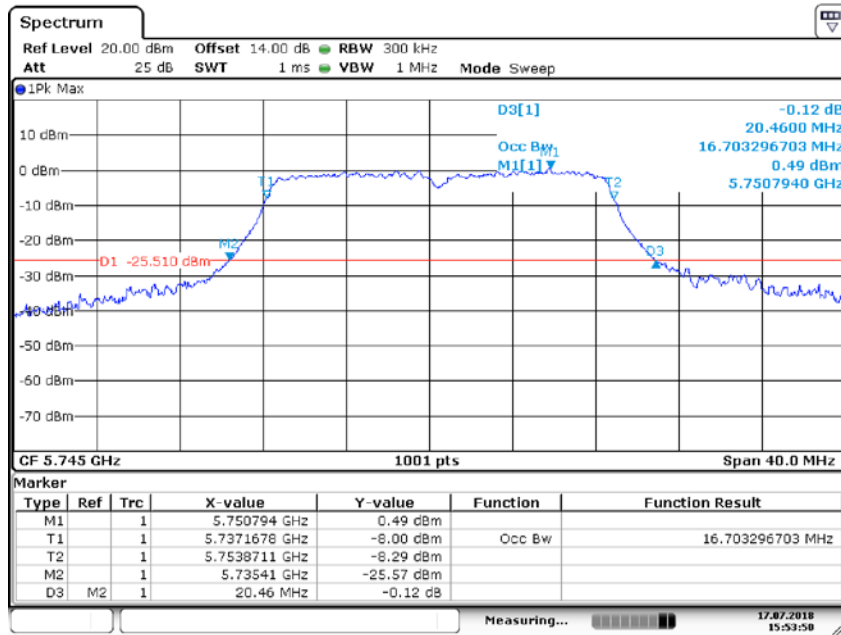
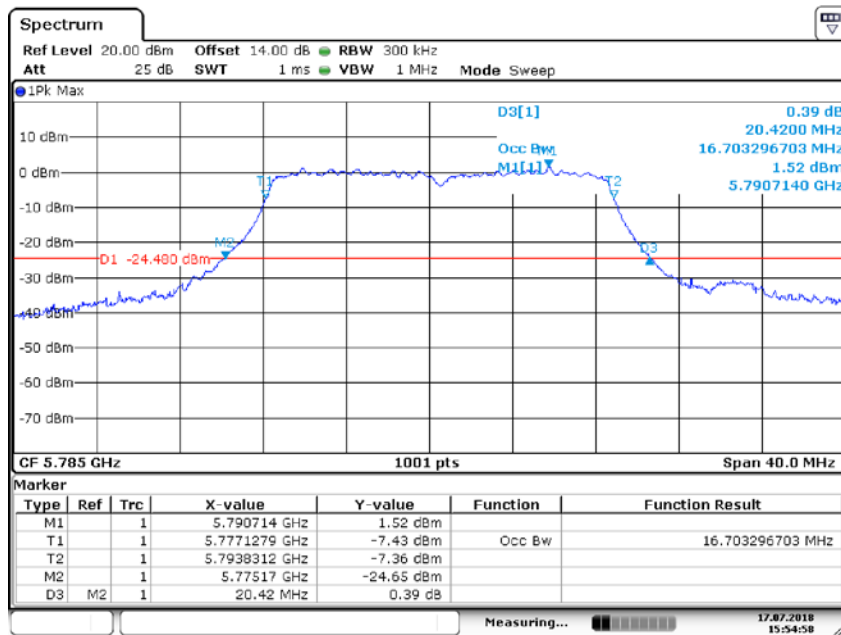


Emission Bandwidth&99% Occupied Bandwidth      UNII Band III  
 Test Model      802.11a      Frequency(MHz)      5745



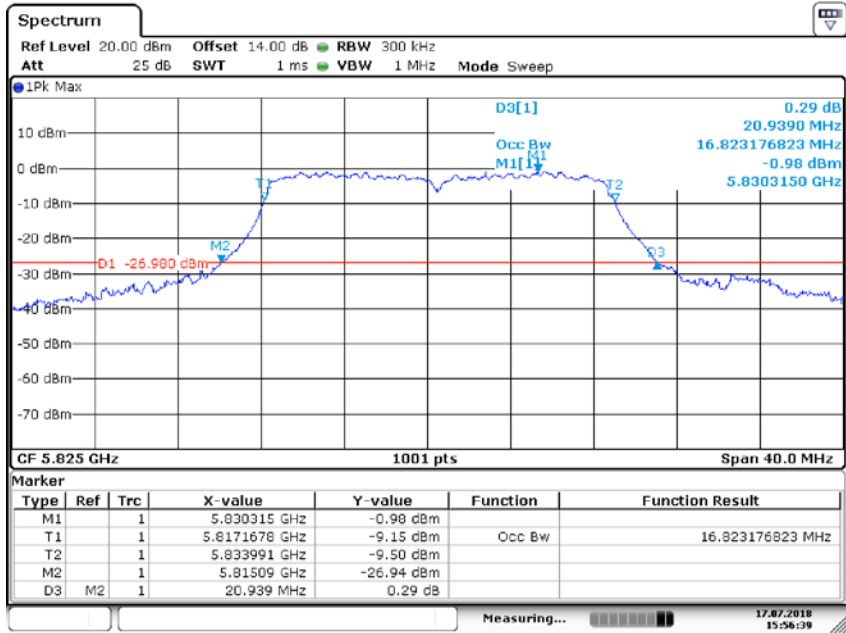
Date: 17.JUL.2018 15:53:50

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



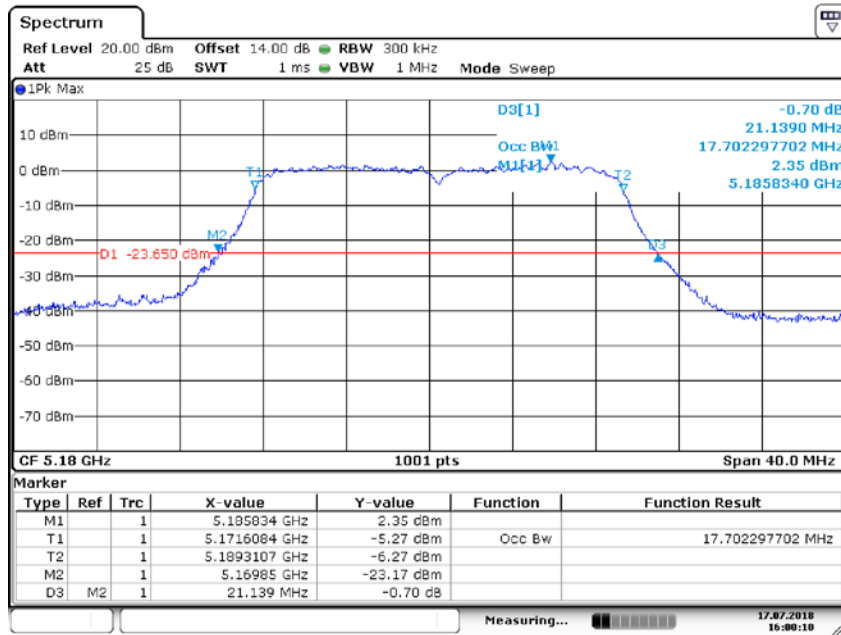
Date: 17.JUL.2018 15:54:58

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



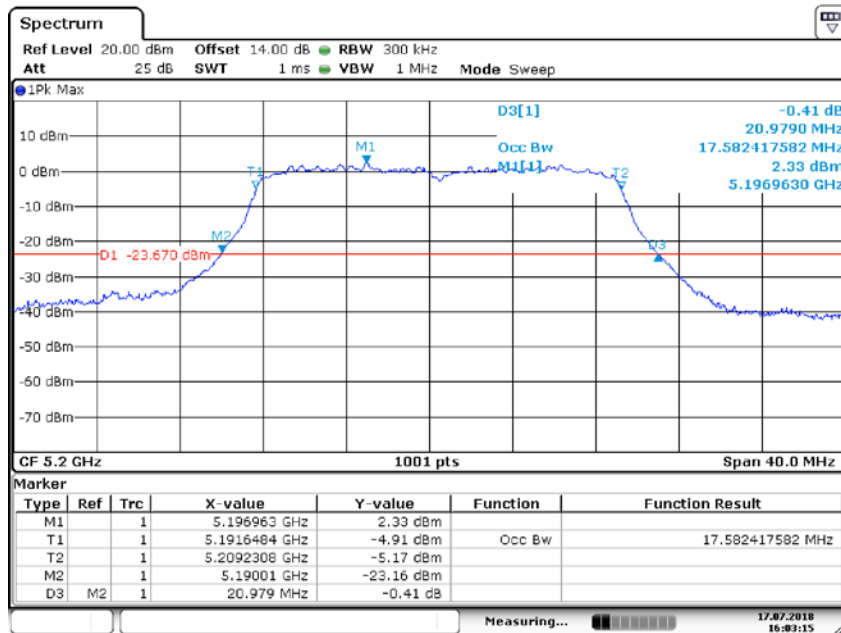
Date: 17.JUL.2018 15:56:39

Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5180



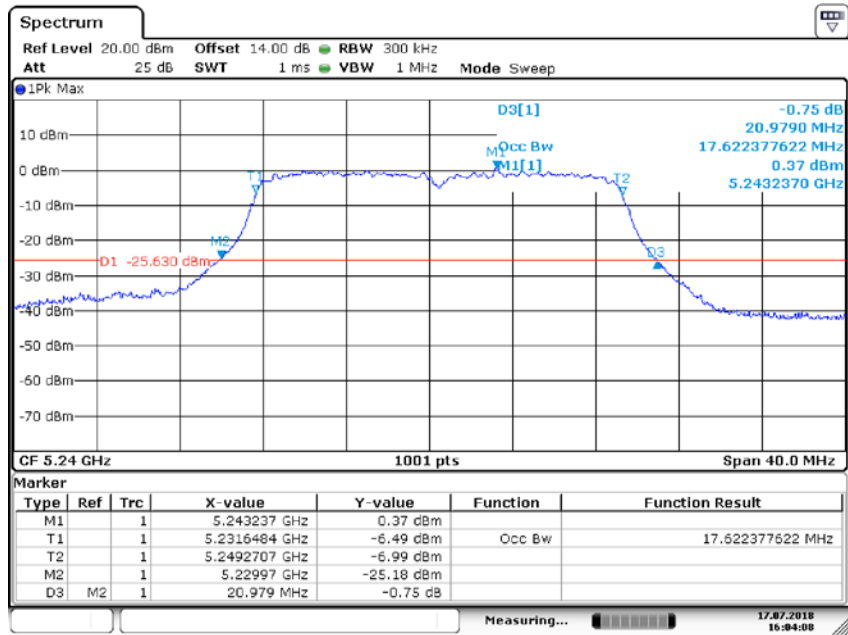
Date: 17.JUL.2018 16:00:10

Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5200



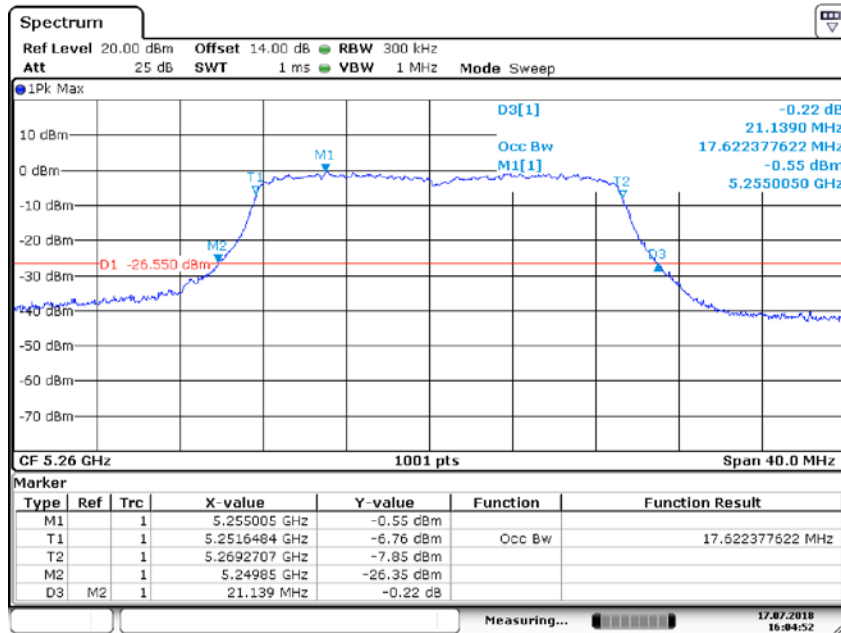
Date: 17.JUL.2018 16:03:14

Emission Bandwidth & 99% Occupied Bandwidth UNII Band I  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5240



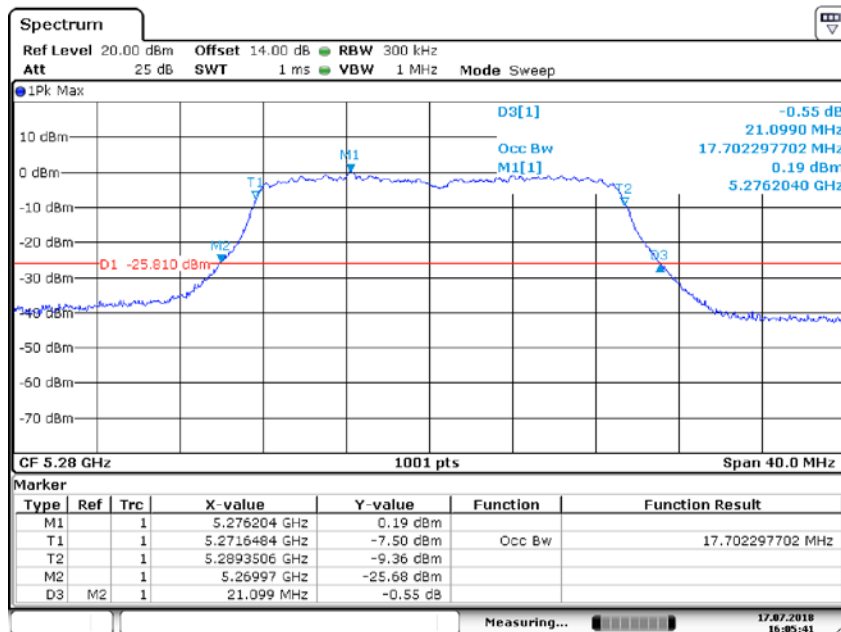
Date: 17.JUL.2018 16:04:08

Emission Bandwidth&99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5260



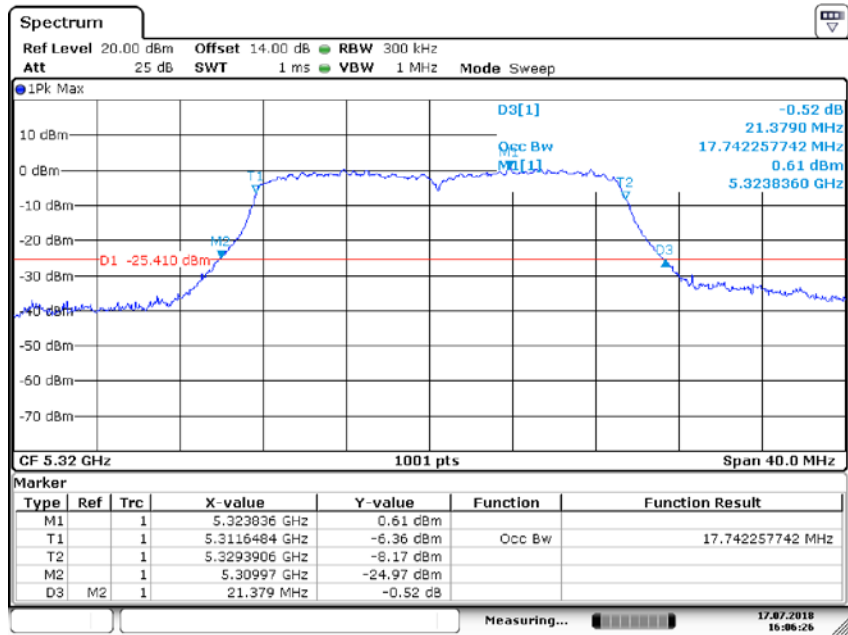
Date: 17.JUL.2018 16:04:52

Emission Bandwidth&99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5280



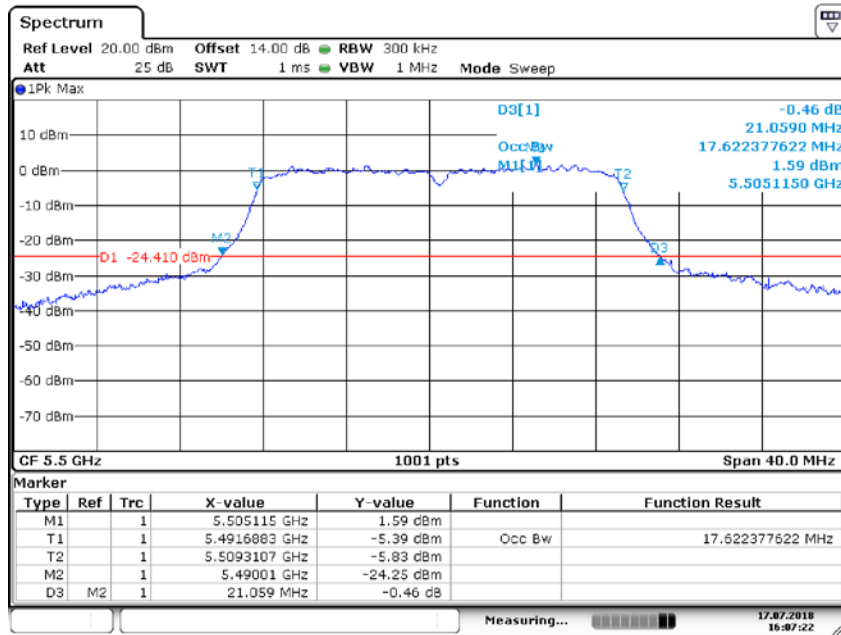
Date: 17.JUL.2018 16:05:40

Emission Bandwidth & 99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5320



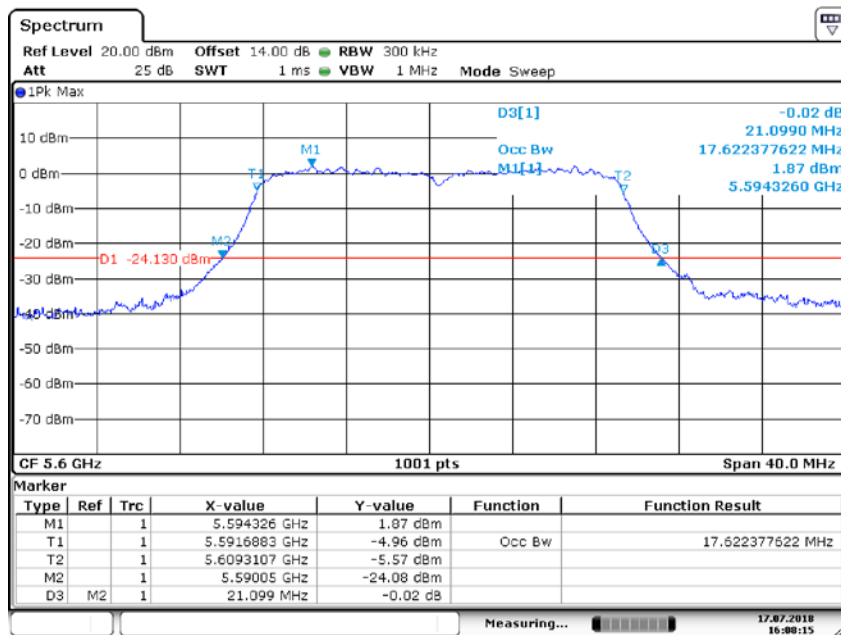
Date: 17.JUL.2018 16:06:25

Emission Bandwidth&99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11n(HT20) mode      Frequency(MHz)      5500



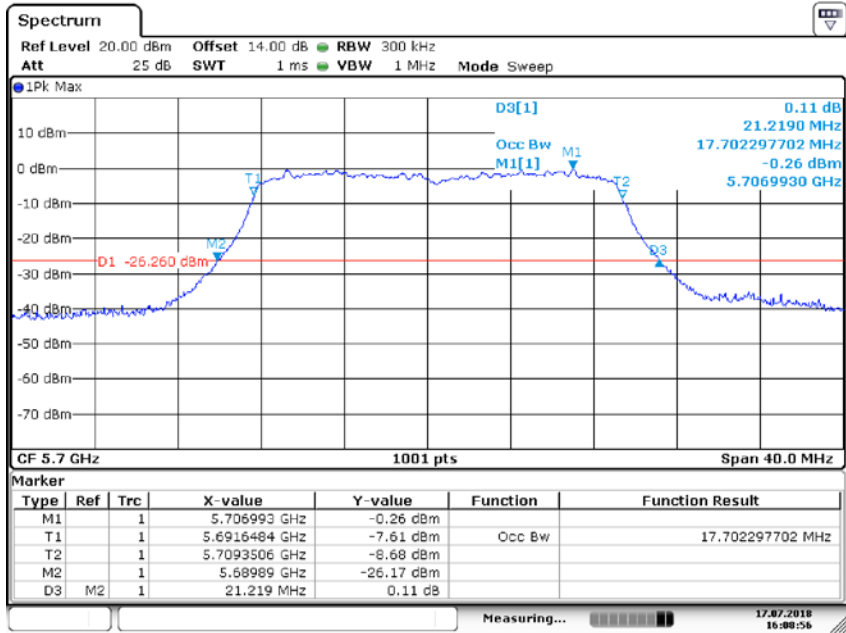
Date: 17.JUL.2018 16:07:22

Emission Bandwidth&99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11n(HT20) mode      Frequency(MHz)      5600



Date: 17.JUL.2018 16:08:14

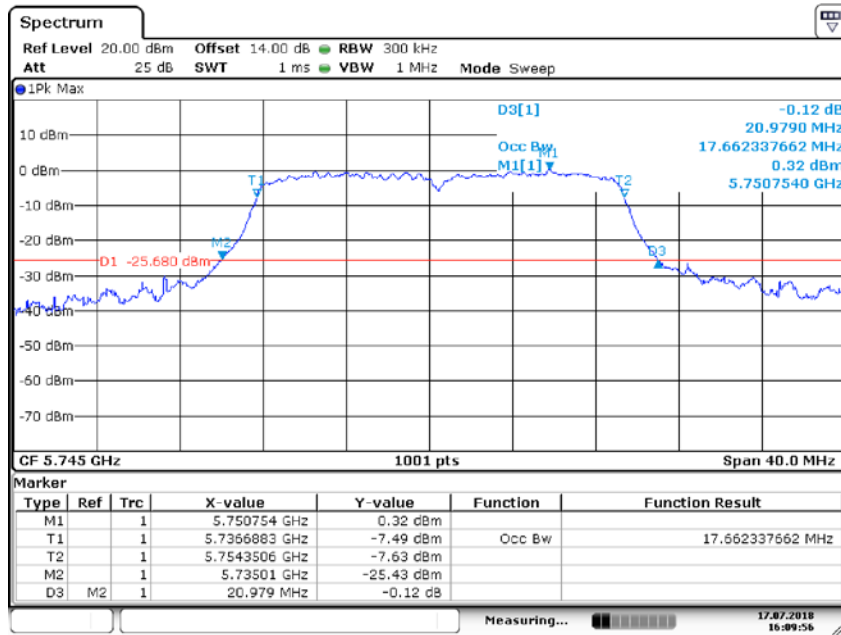
Emission Bandwidth & 99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11n(HT20) mode      Frequency(MHz)      5700



Date: 17.JUL.2018 16:08:56

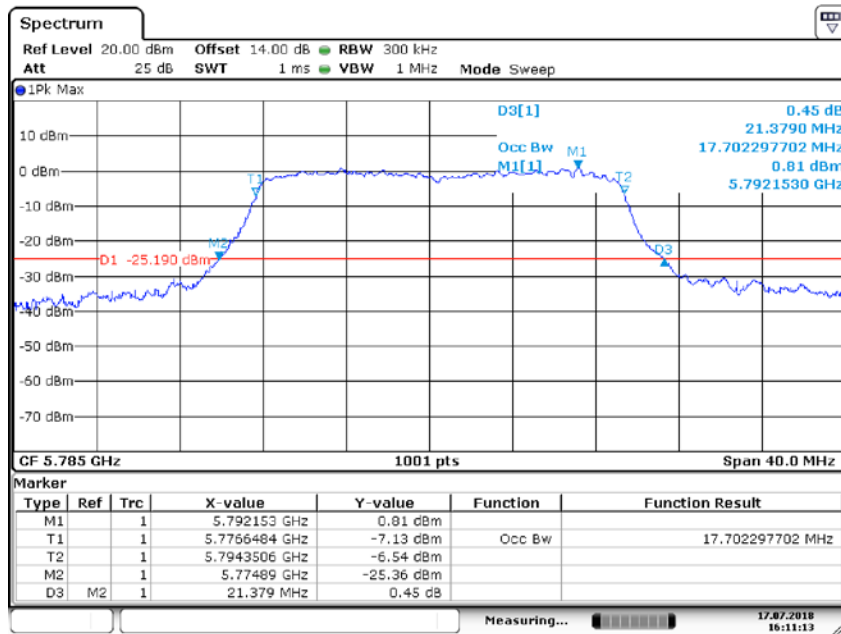


Emission Bandwidth&99% Occupied Bandwidth UNII Band III  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5745



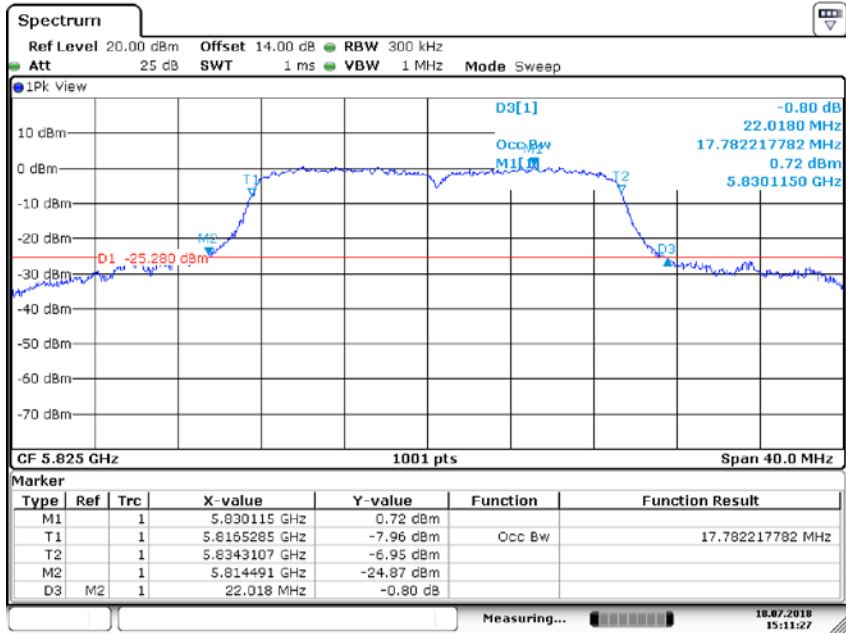
Date: 17.JUL.2018 16:09:56

Emission Bandwidth&99% Occupied Bandwidth UNII Band III  
 Test Model 802.11n(HT20) mode Frequency(MHz) 5785



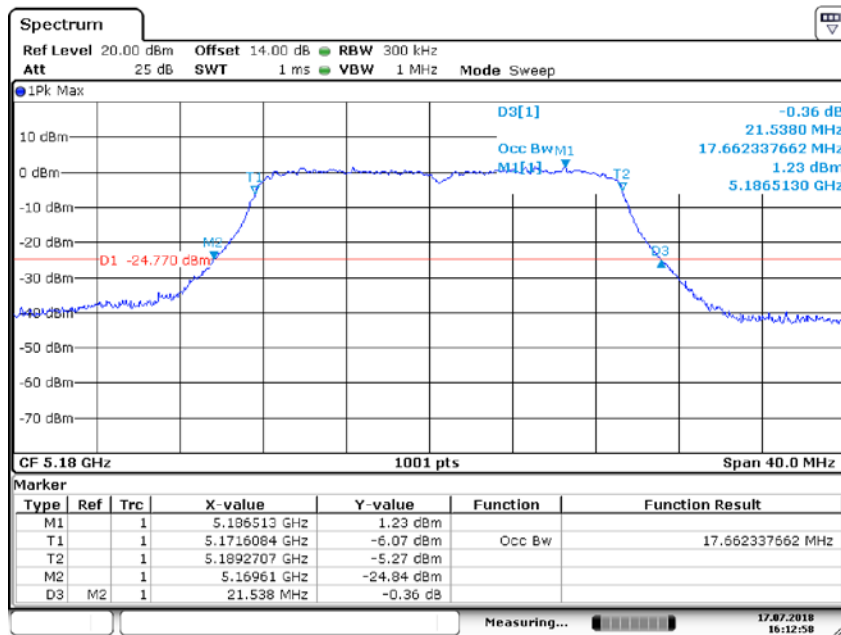
Date: 17.JUL.2018 16:11:13

Emission Bandwidth & 99% Occupied Bandwidth      UNII Band III  
 Test Model      802.11n(HT20) mode      Frequency(MHz)      5825



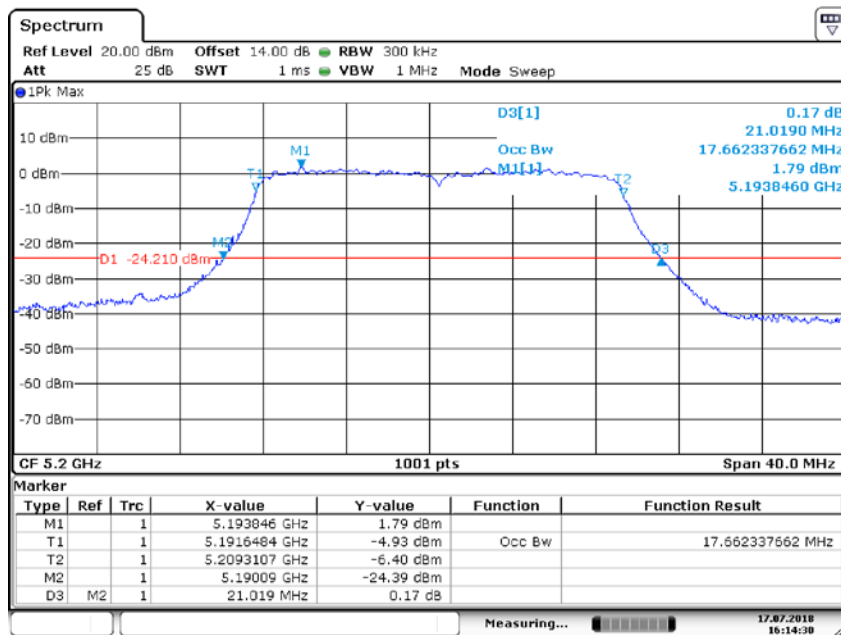
Date: 18 JUL 2018 15:11:27

Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5180



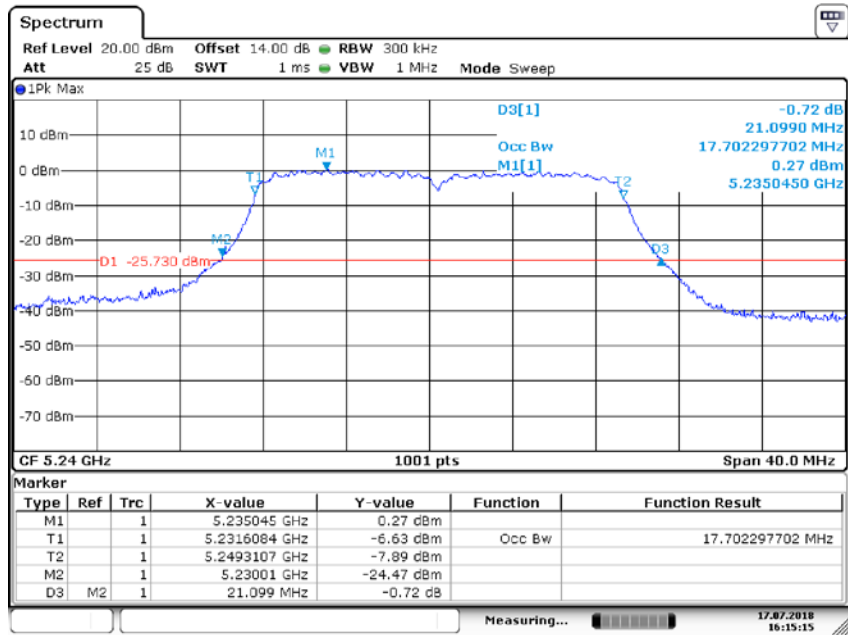
Date: 17.JUL.2018 16:12:58

Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5200



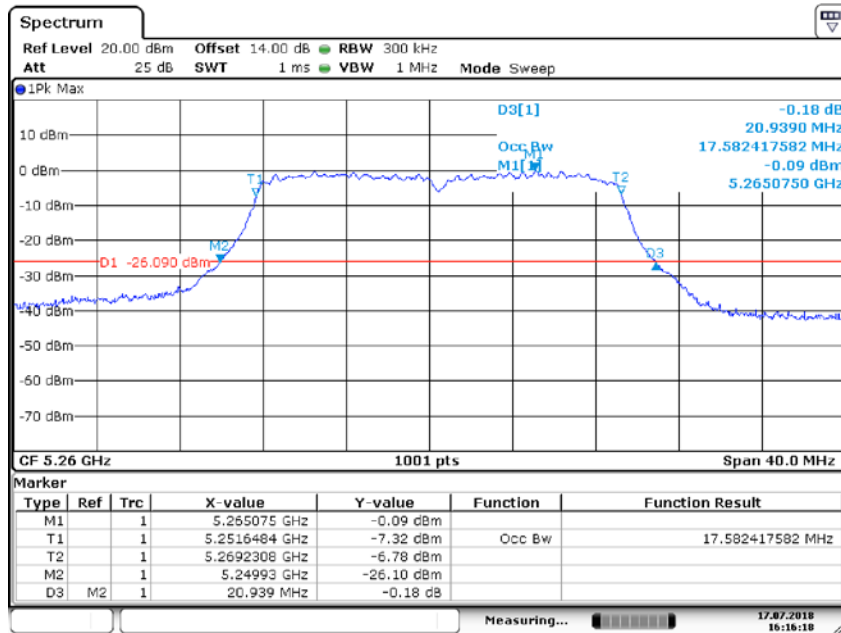
Date: 17.JUL.2018 16:14:29

Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5240



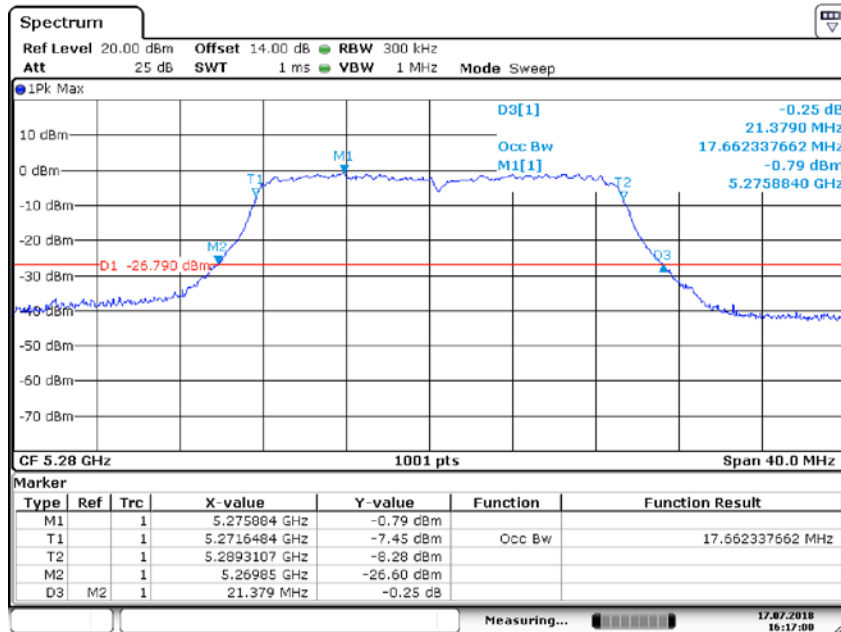
Date: 17.JUL.2018 16:15:14

Emission Bandwidth&99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5260



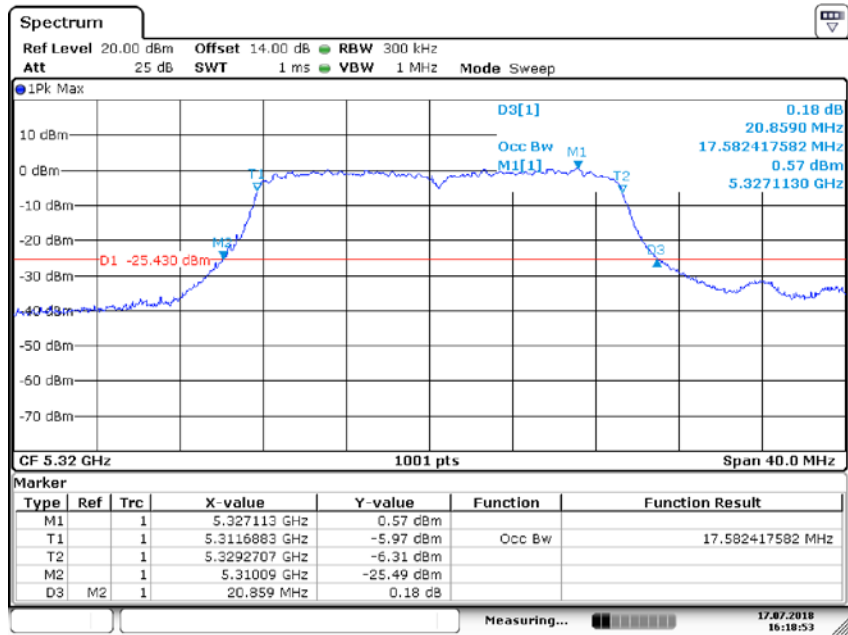
Date: 17.JUL.2018 16:16:16

Emission Bandwidth&99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5280



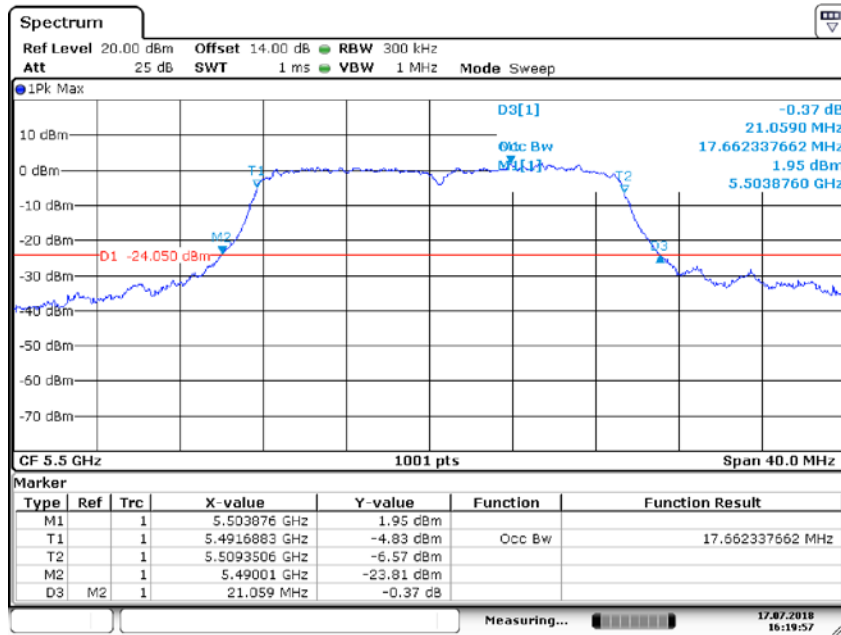
Date: 17.JUL.2018 16:16:59

Emission Bandwidth & 99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5320



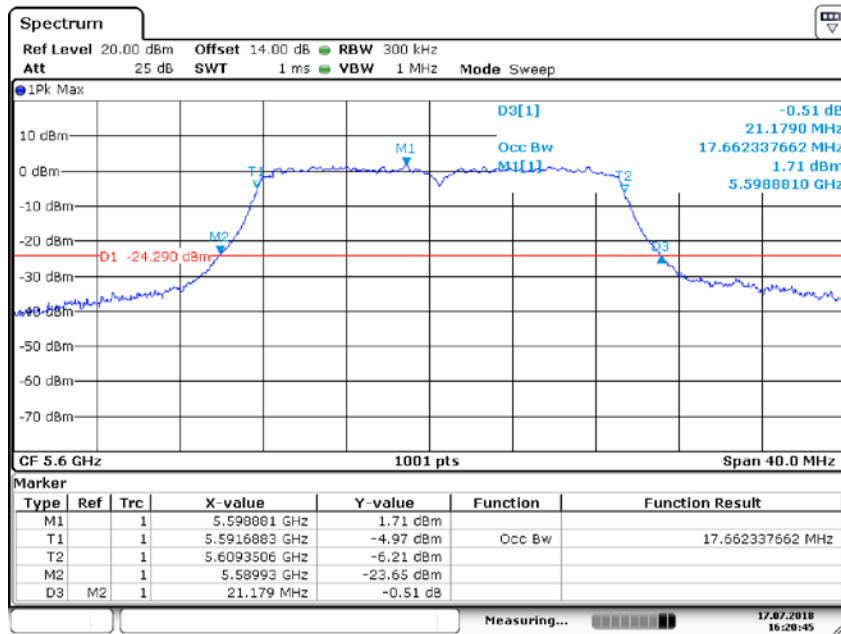
Date: 17.JUL.2018 16:18:52

Emission Bandwidth&99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11ac(VHT20) mode      Frequency(MHz)      5500



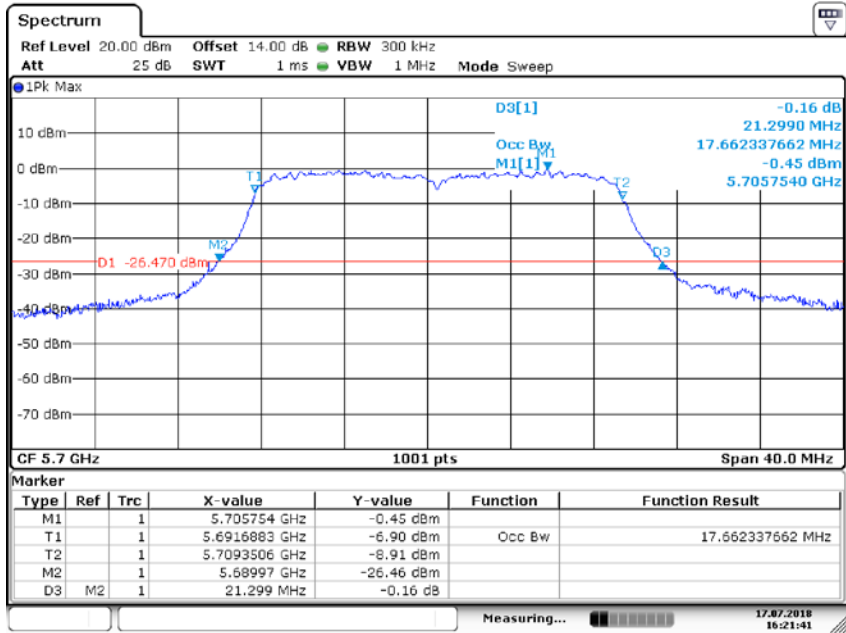
Date: 17.JUL.2018 16:19:56

Emission Bandwidth&99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11ac(VHT20) mode      Frequency(MHz)      5600



Date: 17.JUL.2018 16:20:45

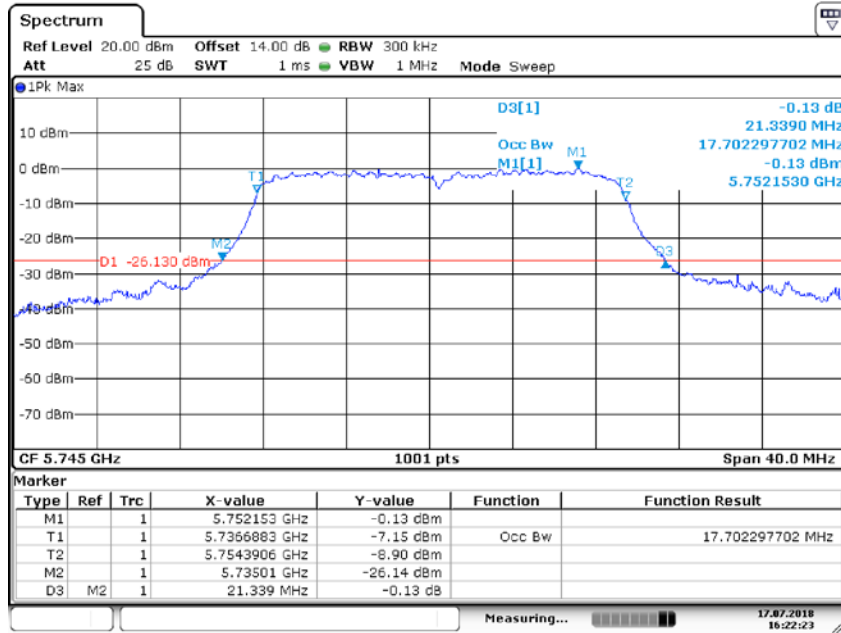
Emission Bandwidth & 99% Occupied Bandwidth      UNII Band II-C  
 Test Model      802.11ac(VHT20) mode      Frequency(MHz)      5700



Date: 17.JUL.2018 16:21:40

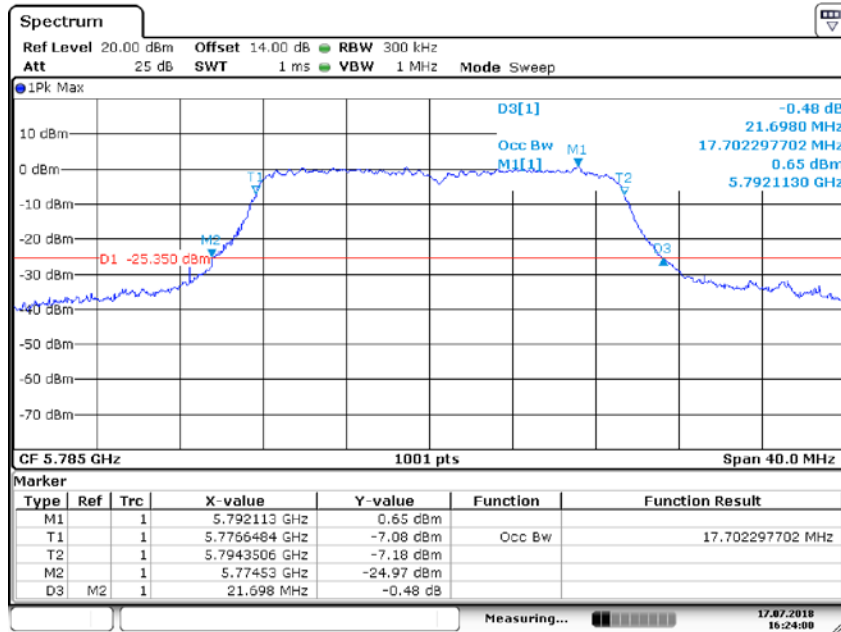


Emission Bandwidth&99% Occupied Bandwidth UNII Band III  
 Test Model 802.11ac(VHT20) mode Frequency(MHz) 5745



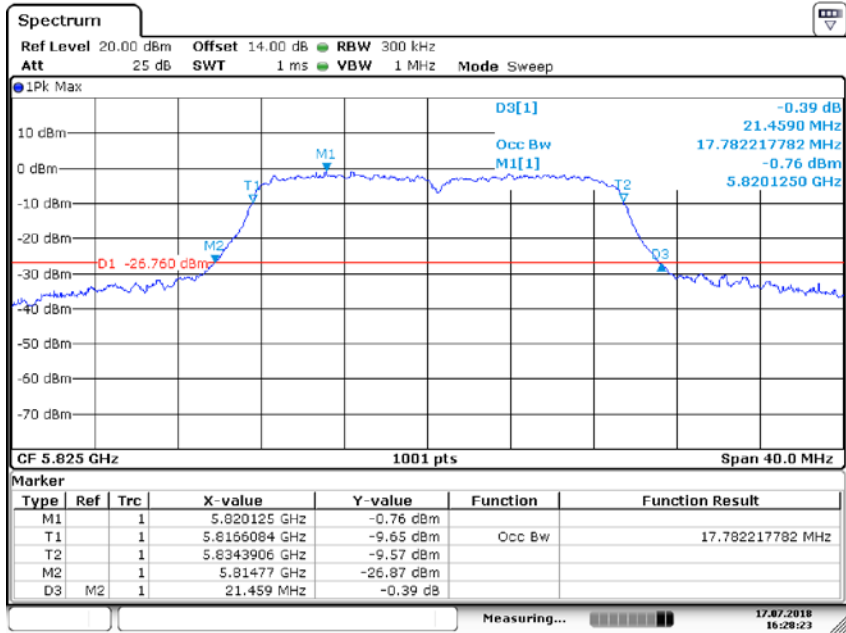
Date: 17 JUL 2018 16:22:22

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



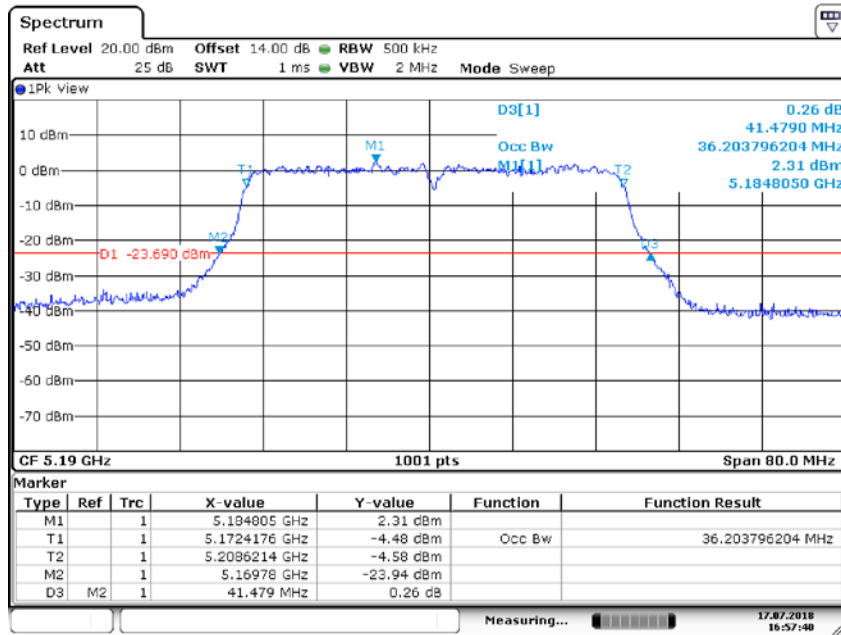
Date: 17 JUL 2018 16:23:59

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



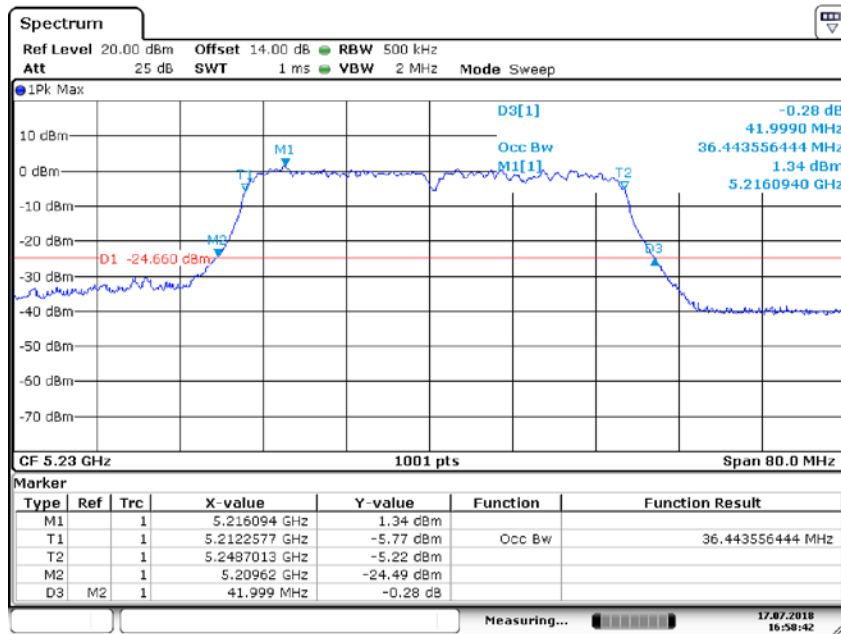
Date: 17.JUL.2018 16:28:22

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



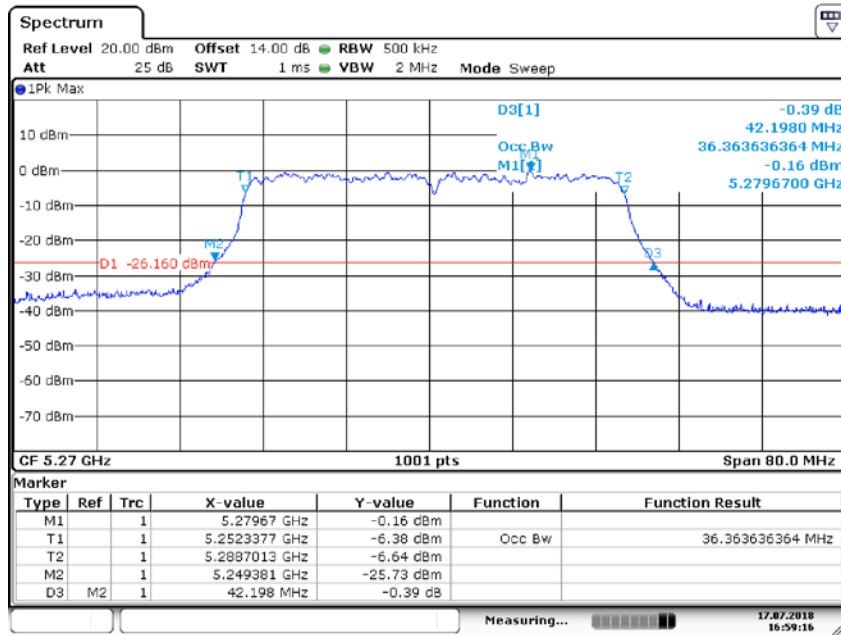
Date: 17 JUL 2018 16:57:39

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



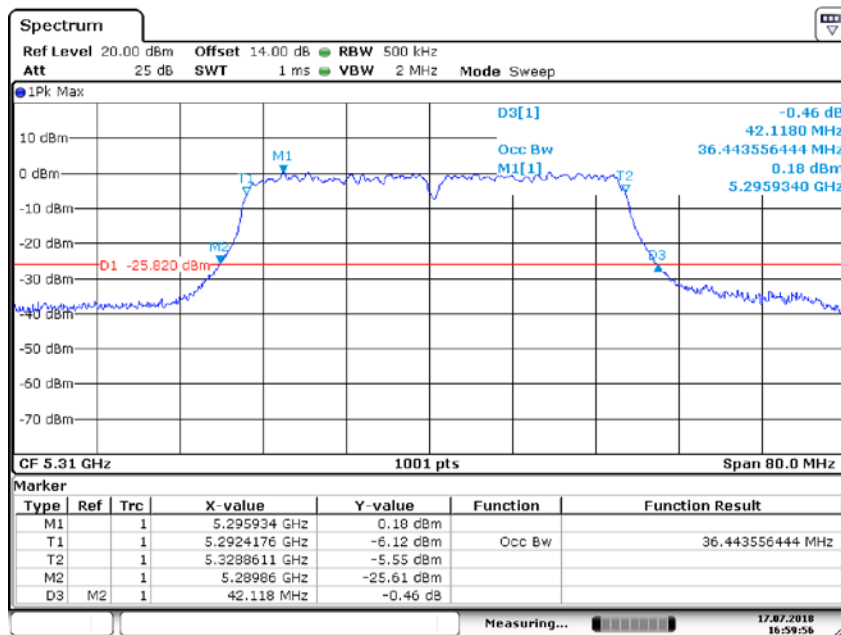
Date: 17 JUL 2018 16:58:41

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



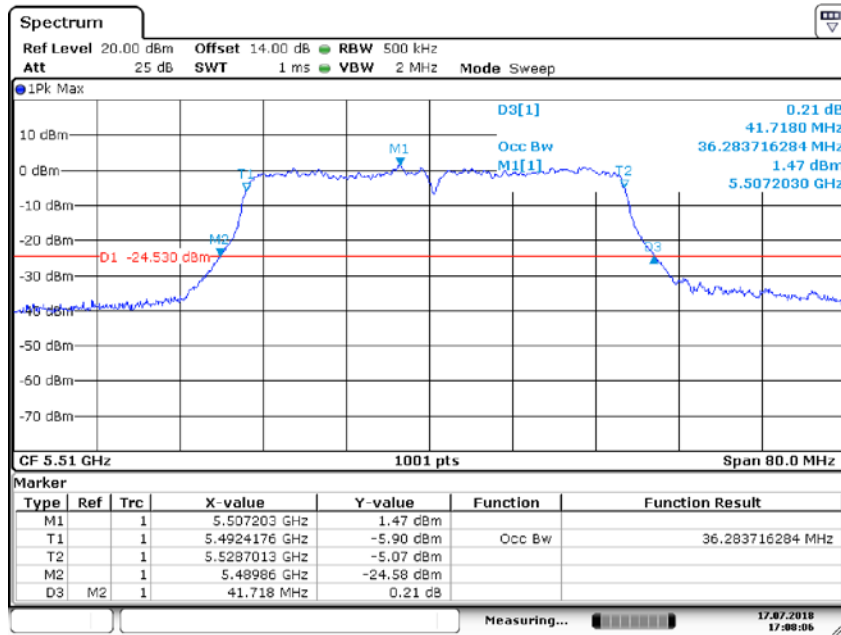
Date: 17.JUL.2018 16:59:16

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



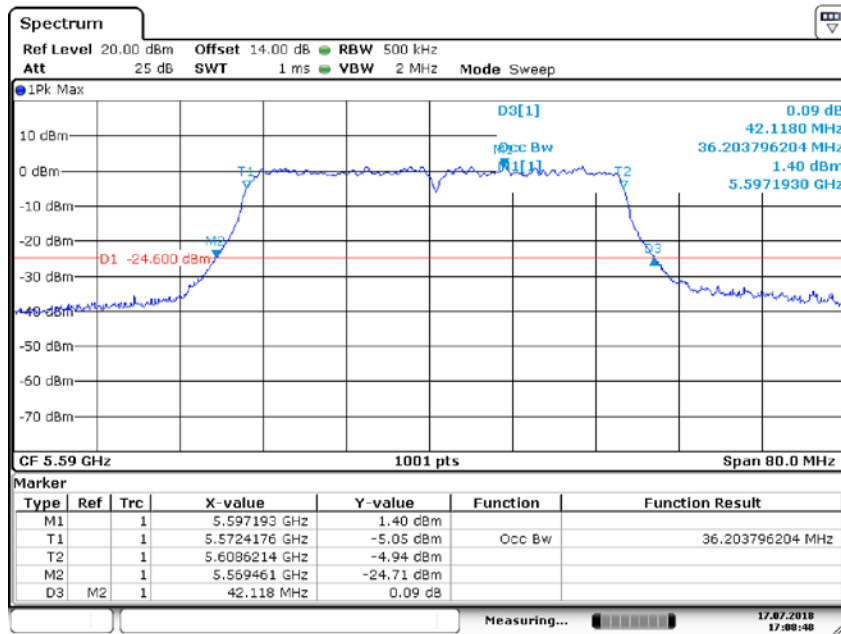
Date: 17.JUL.2018 16:59:56

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



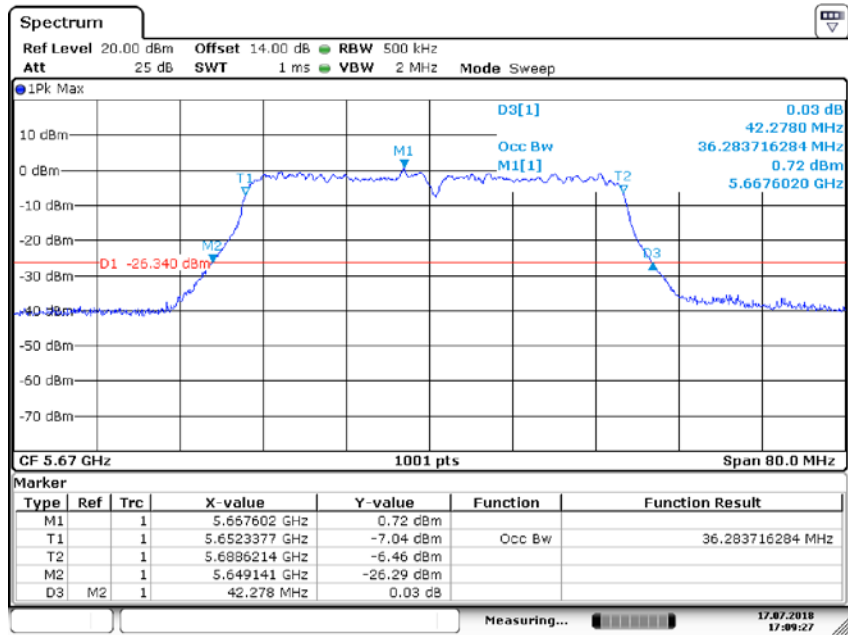
Date: 17 JUL 2018 17:08:05

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



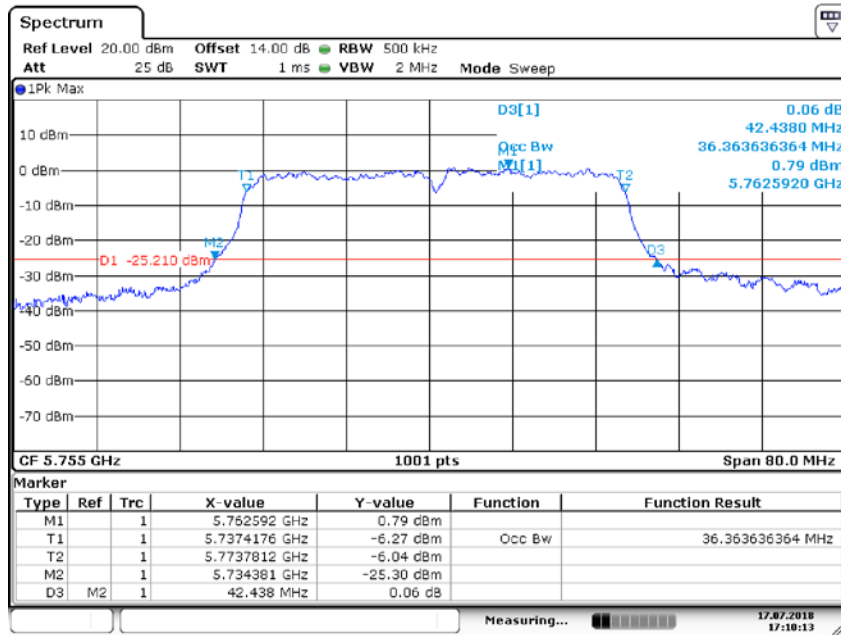
Date: 17 JUL 2018 17:08:48

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



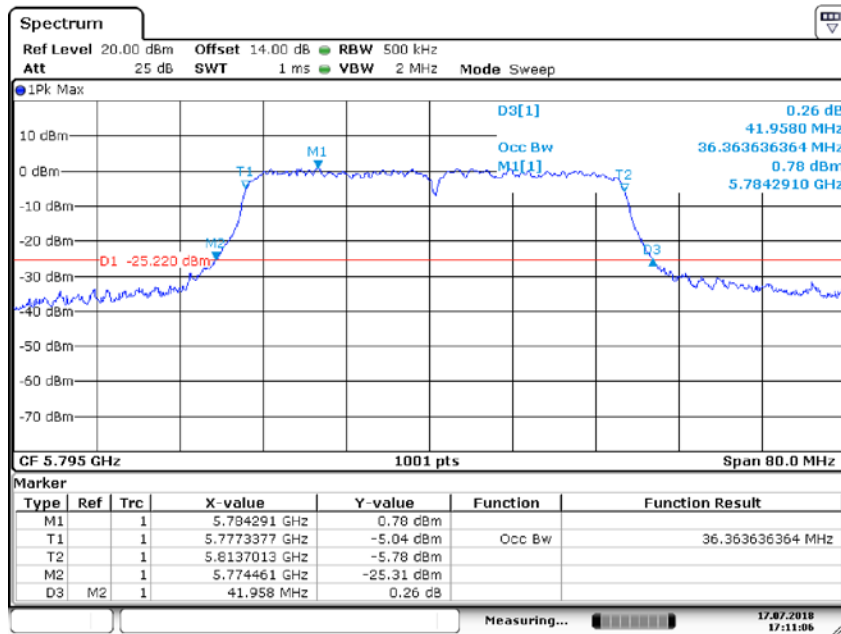
Date: 17 JUL 2018 17:09:27

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



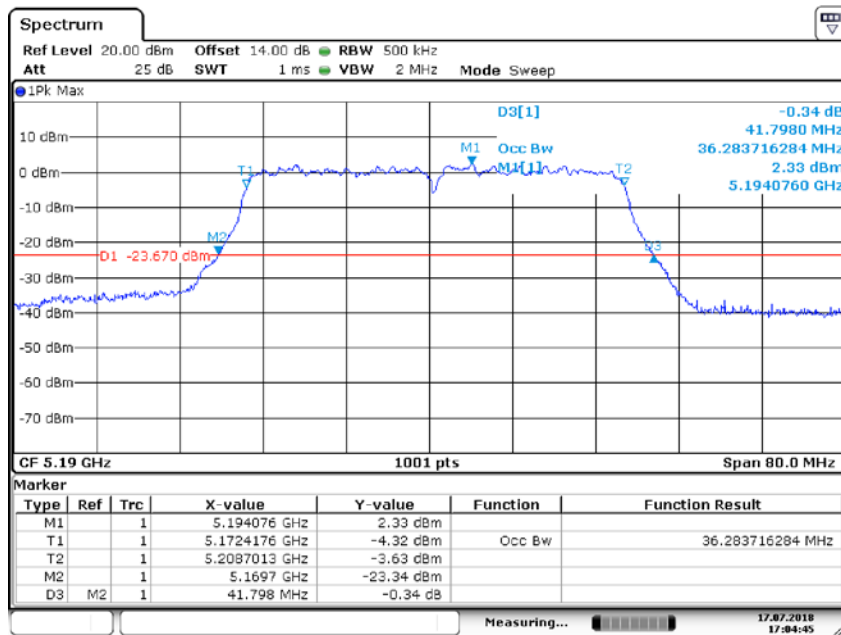
Date: 17 JUL 2018 17:10:12

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



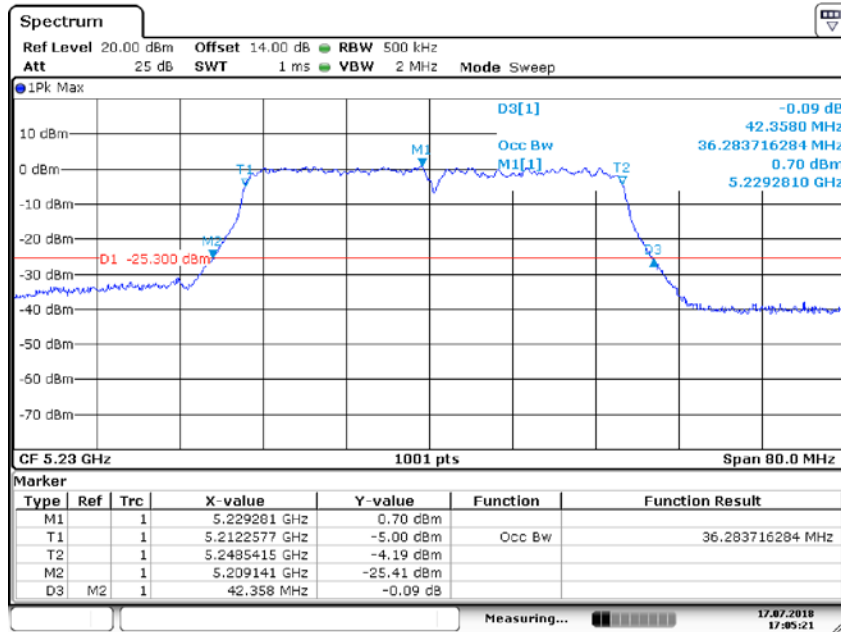
Date: 17 JUL 2018 17:11:05

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



Date: 17.JUL.2018 17:04:44

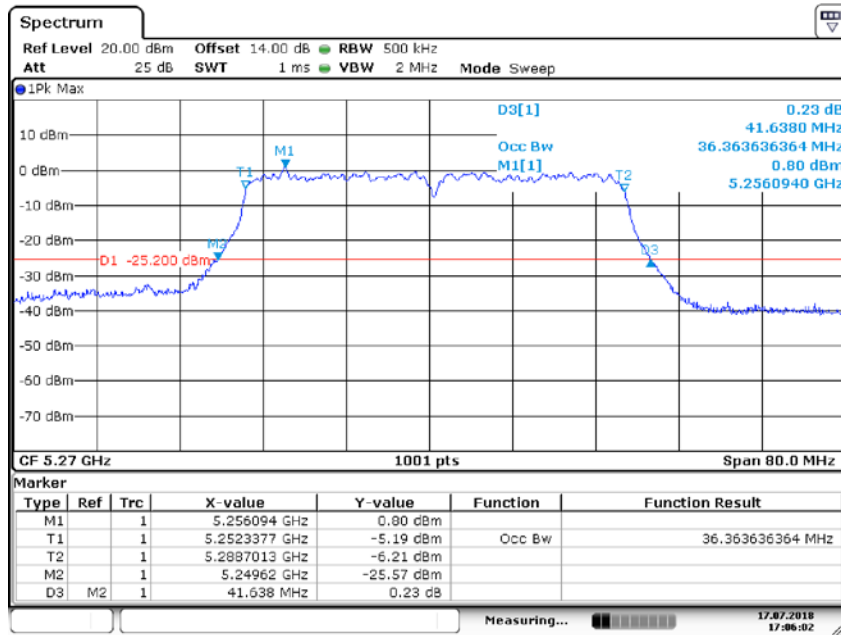
Emission Bandwidth&99% Occupied Bandwidth UNII Band I  
 Test Model 802.11ac(VHT40) mode Frequency(MHz) 5230



Date: 17.JUL.2018 17:05:21

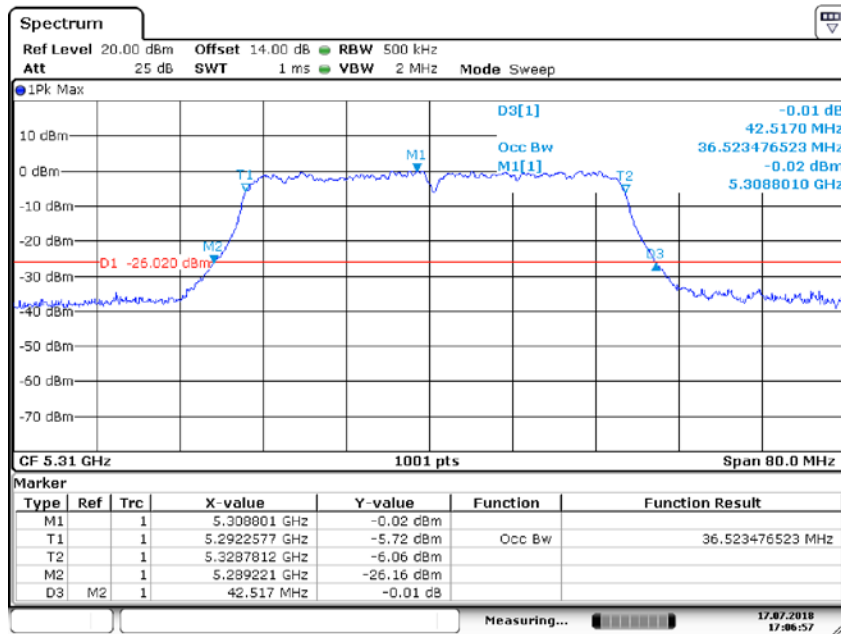


Emission Bandwidth&99% Occupied Bandwidth UNII Band II-A  
 Test Model 802.11ac(VHT40) mode Frequency(MHz) 5270



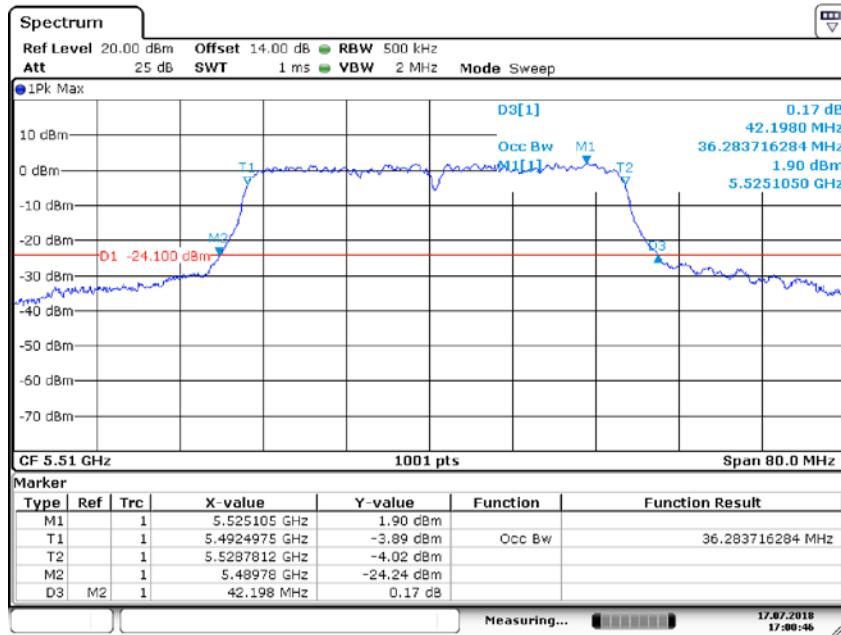
Date: 17 JUL 2018 17:06:01

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



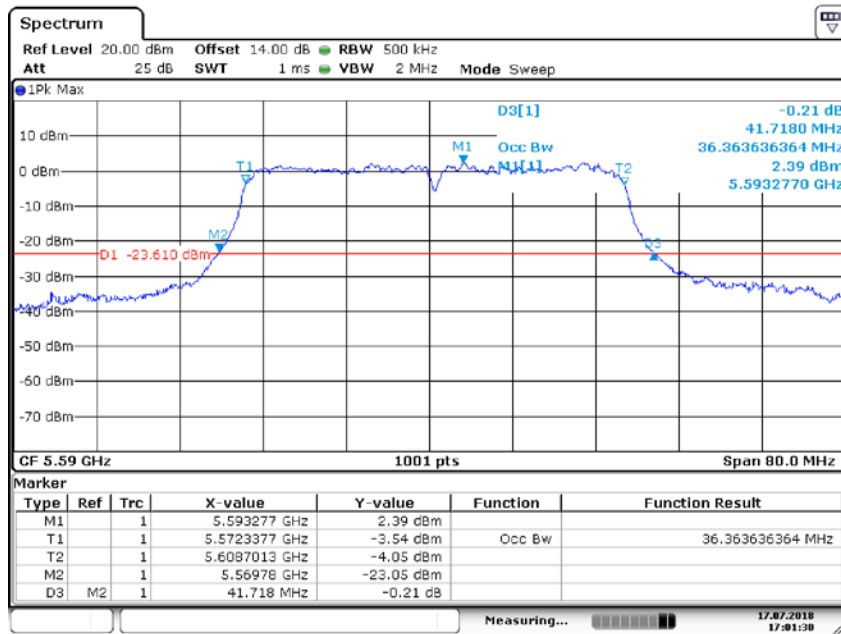
Date: 17 JUL 2018 17:06:56

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



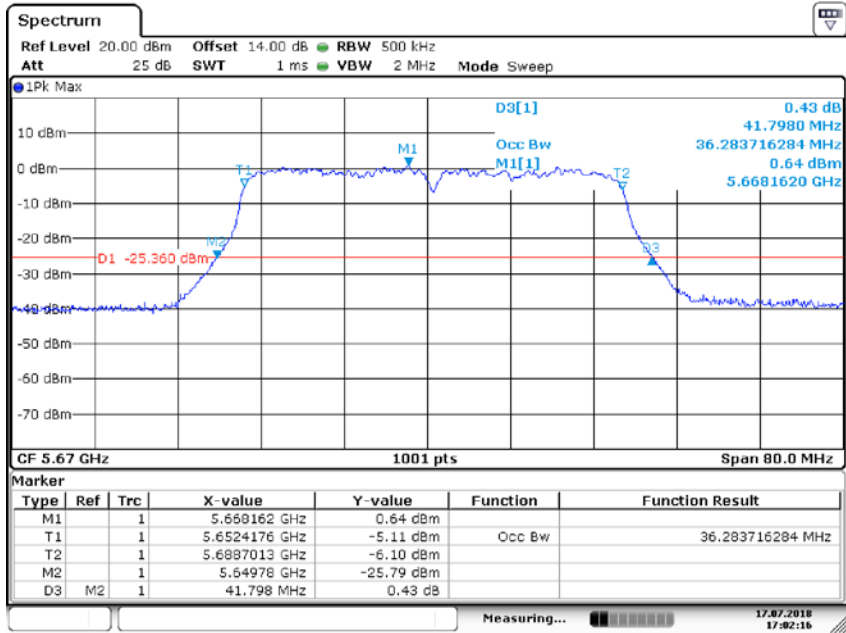
Date: 17 JUL 2018 17:00:46

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



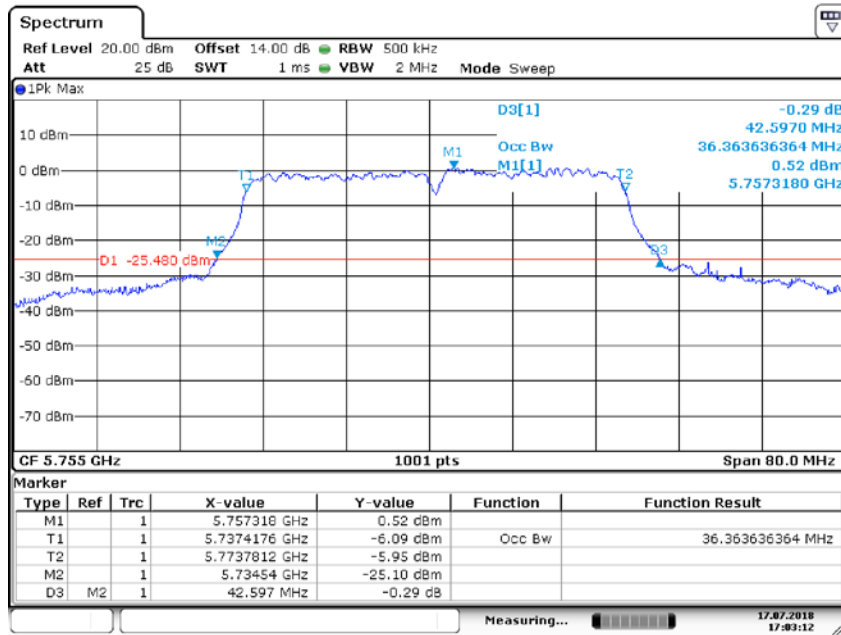
Date: 17 JUL 2018 17:01:30

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



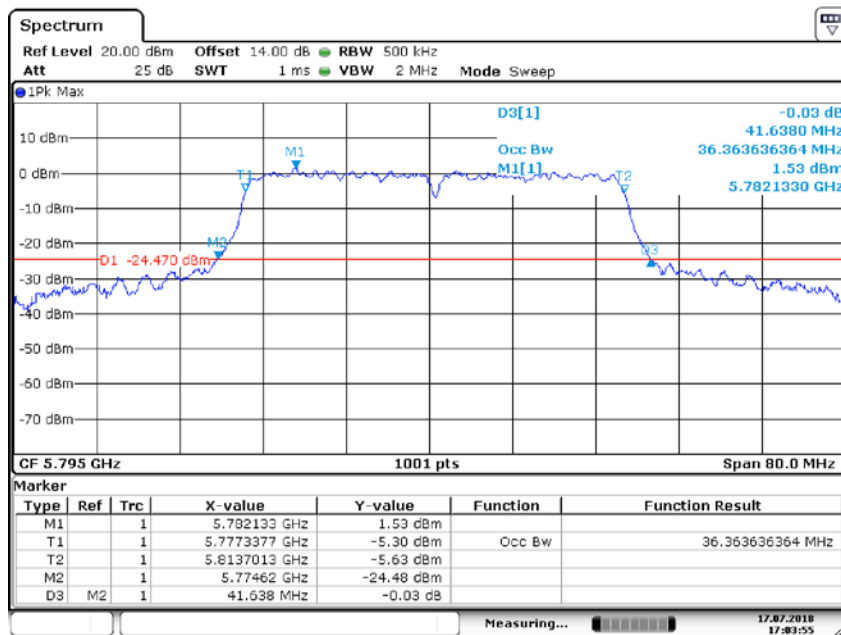
Date: 17.JUL.2018 17:02:15

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



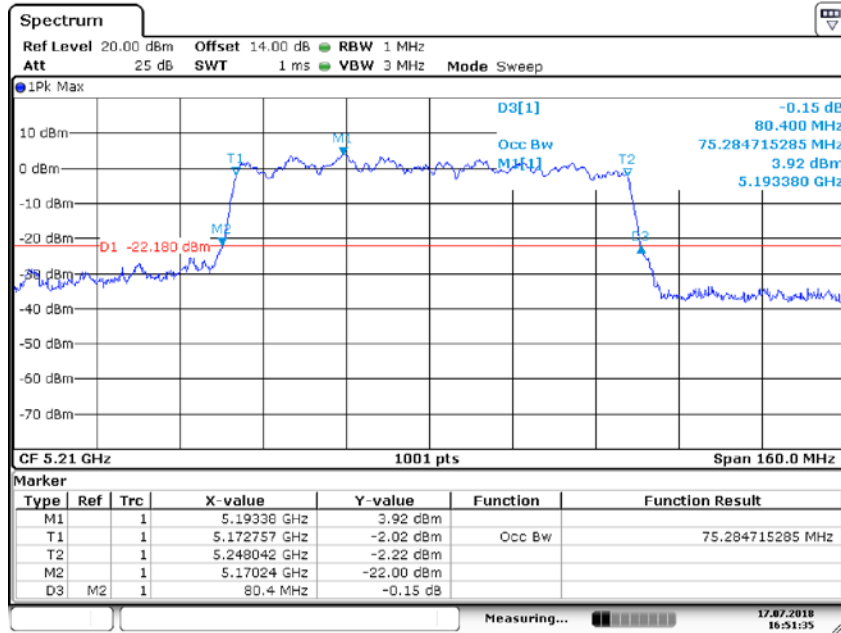
Date: 17.JUL.2018 17:03:12

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



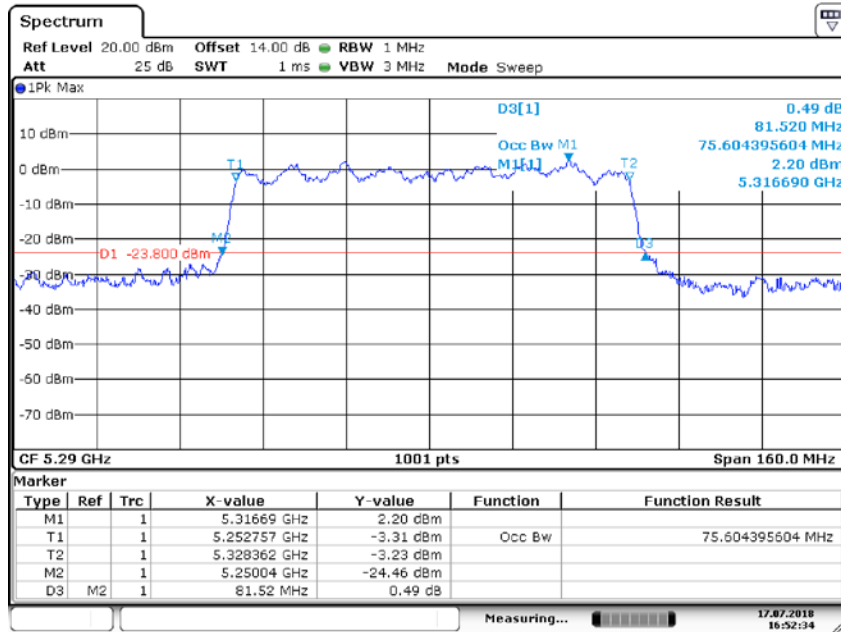
Date: 17.JUL.2018 17:03:55

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



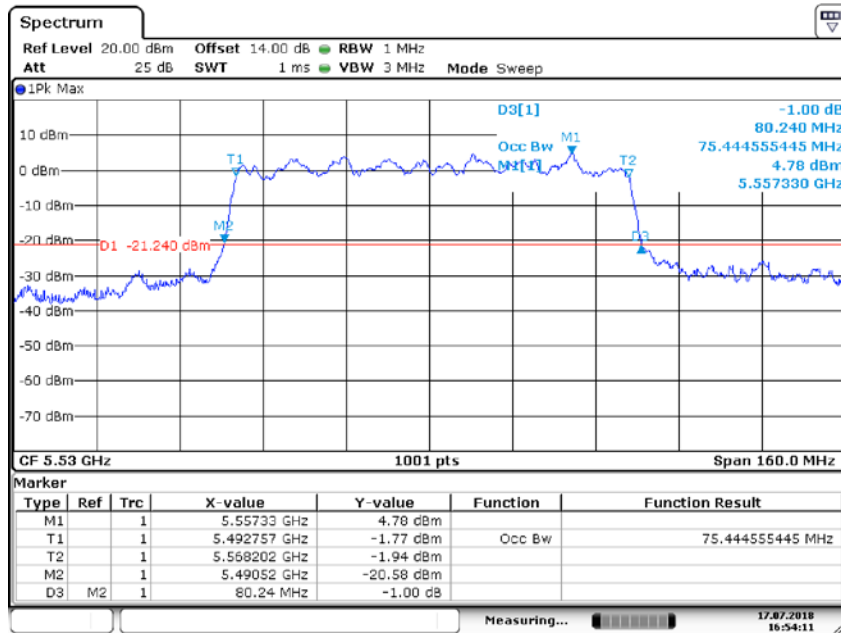
Date: 17 JUL 2018 16:51:34

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



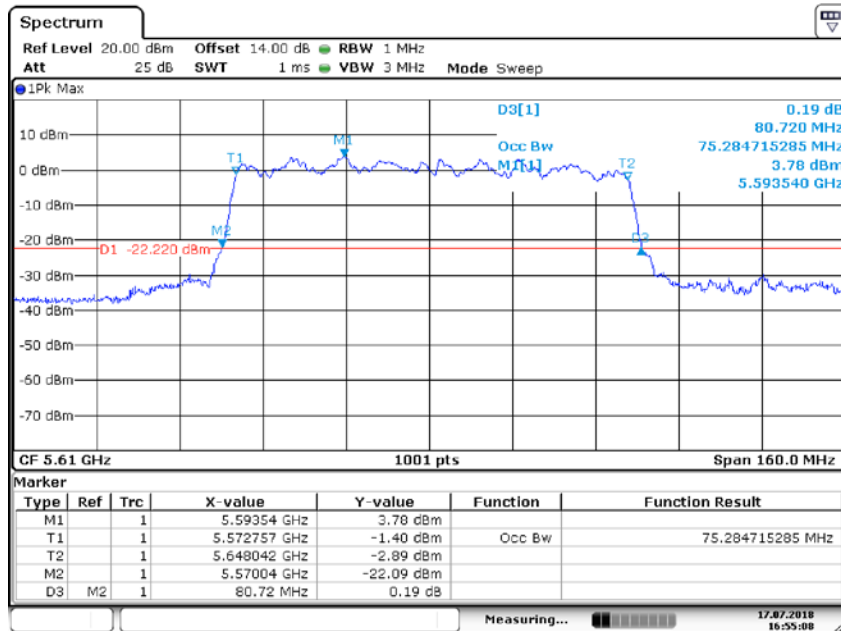
Date: 17 JUL 2018 16:52:33

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



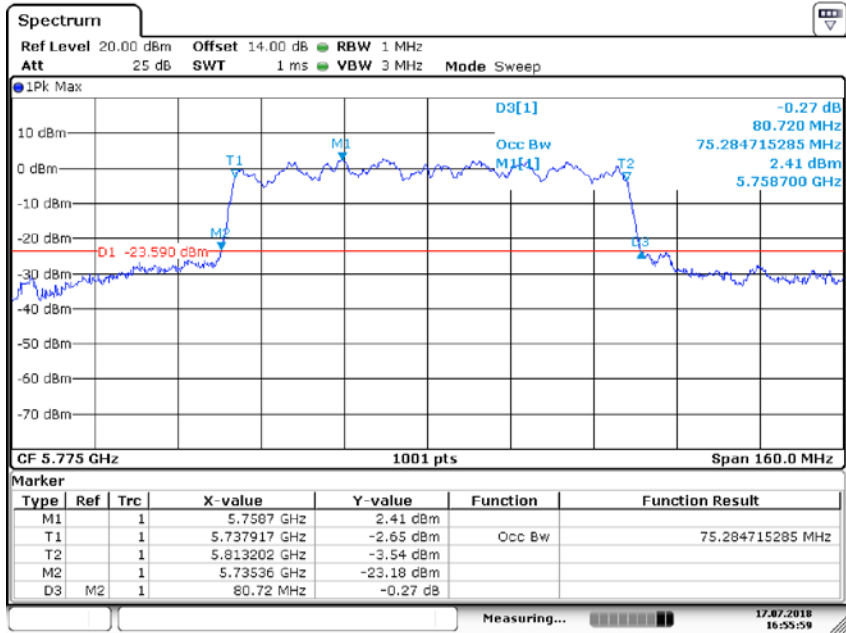
Date: 17.JUL.2018 16:54:11

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



Date: 17.JUL.2018 16:55:07

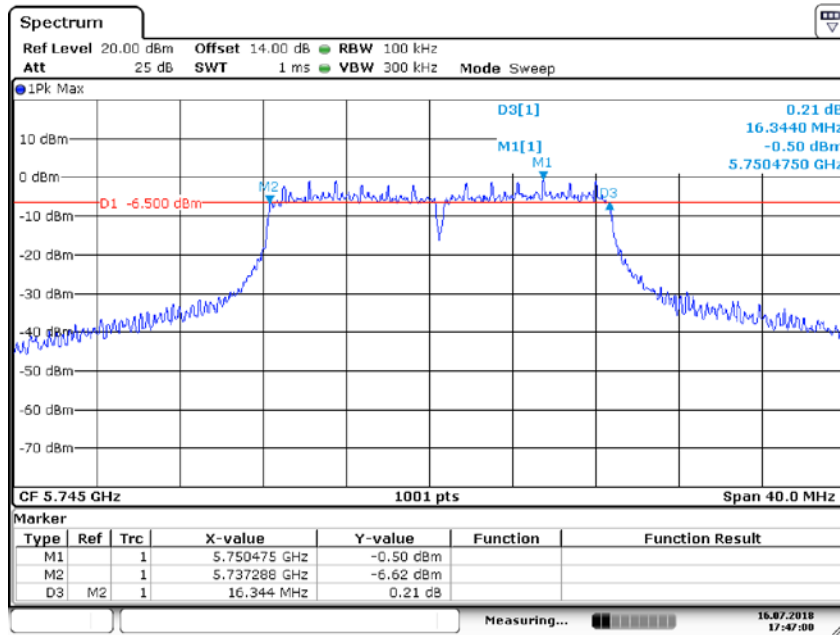
Emission Bandwidth&99% Occupied Bandwidth      UNII Band III  
 Test Model      802.11ac(VHT80) mode      Frequency(MHz)      5775



Date: 17.JUL.2018 16:55:59

Minimum Emission Bandwidth  
Test Model 802.11a mode

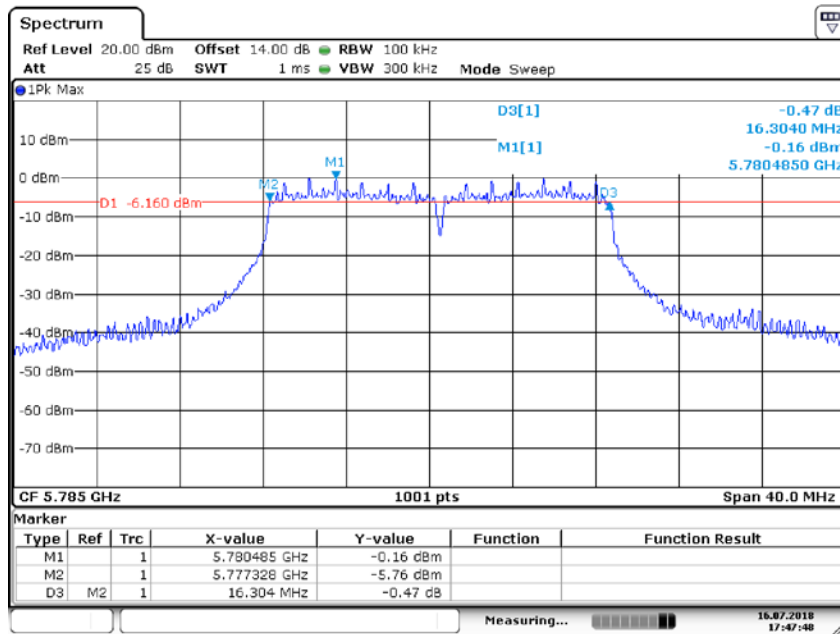
UNII Band III  
Frequency(MHz) 5745



Date: 16 JUL 2018 17:46:59

Minimum Emission Bandwidth  
Test Model 802.11a mode

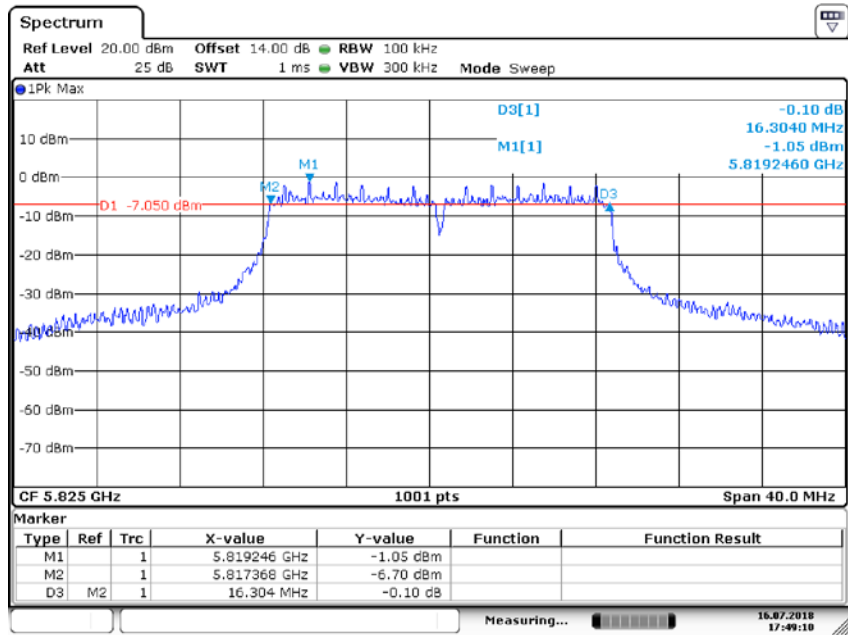
UNII Band III  
Frequency(MHz) 5785



Date: 16 JUL 2018 17:47:48

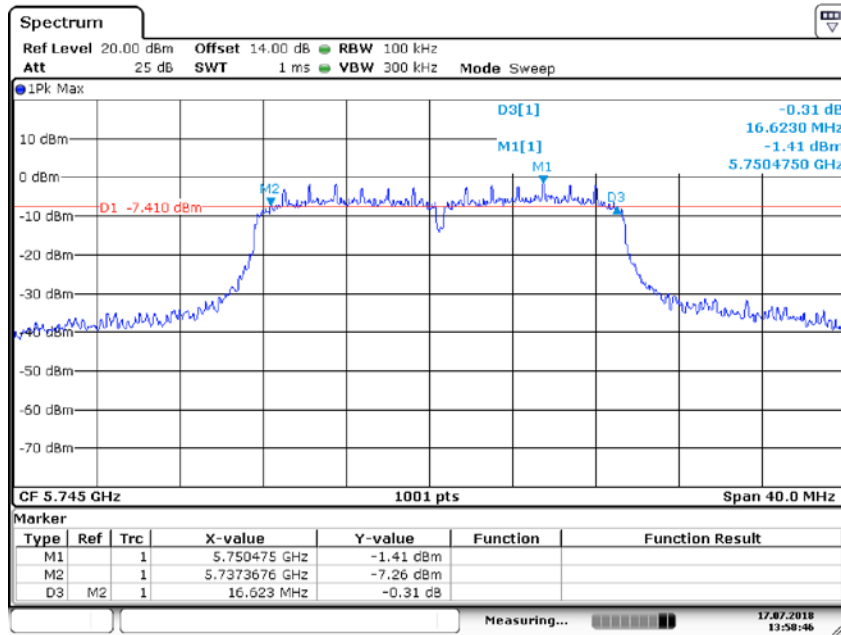


Minimum Emission Bandwidth UNII Band III  
 Test Model 802.11a mode Frequency(MHz) 5825



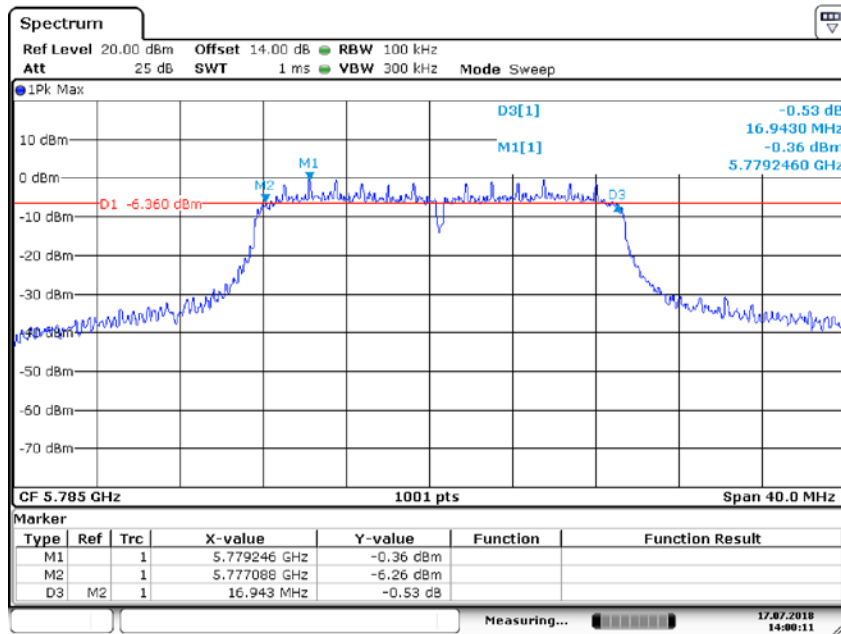
Date: 16 JUL 2018 17:49:09

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



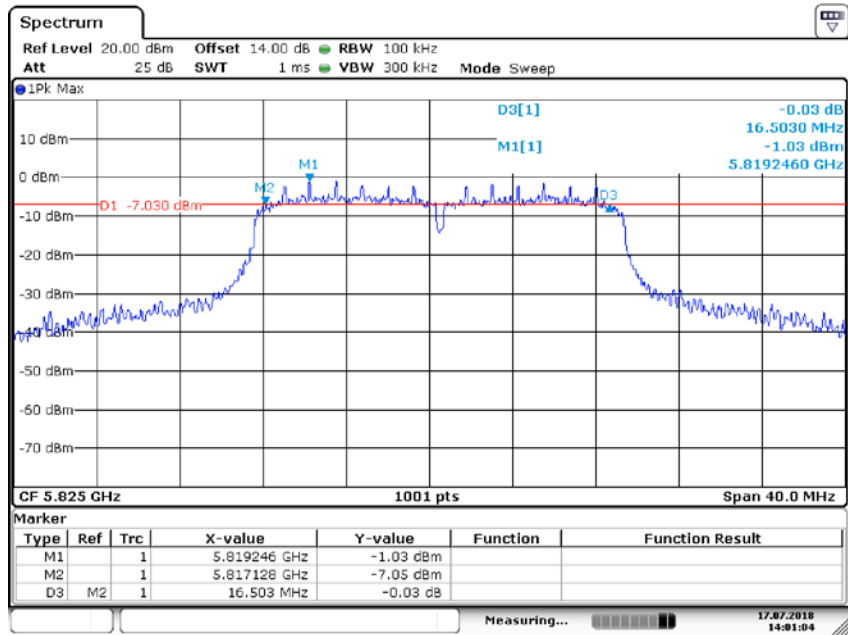
Date: 17.JUL.2018 13:58:46

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



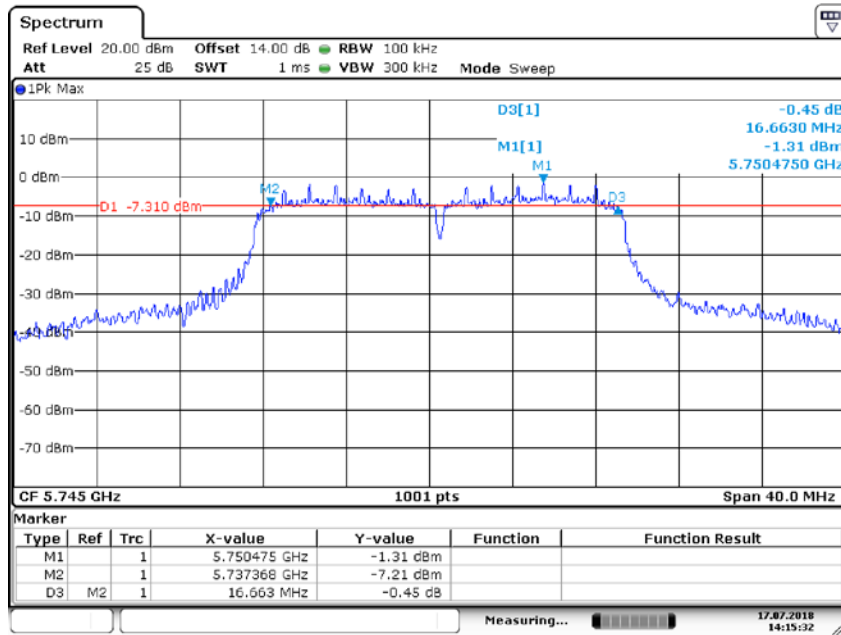
Date: 17.JUL.2018 14:00:11

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



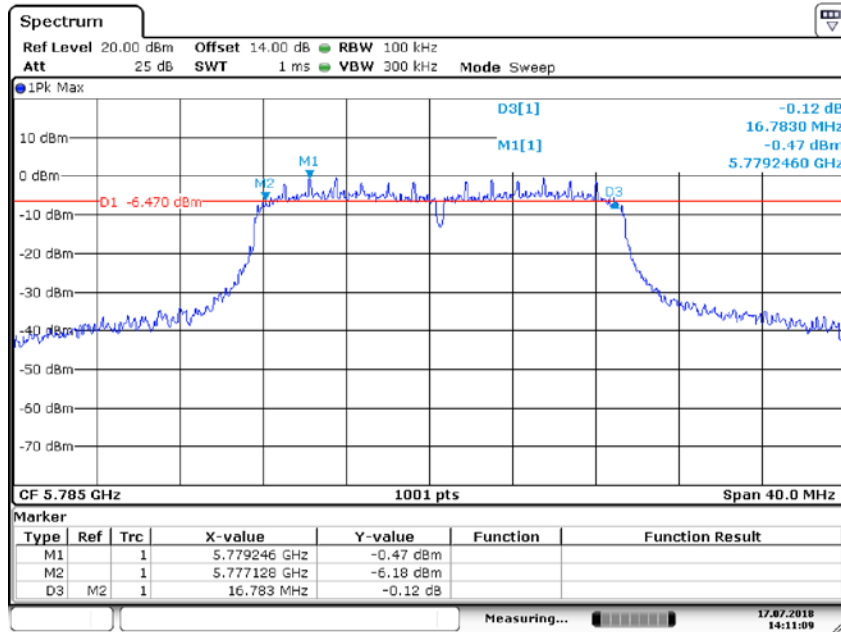
Date: 17.JUL.2018 14:01:05

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



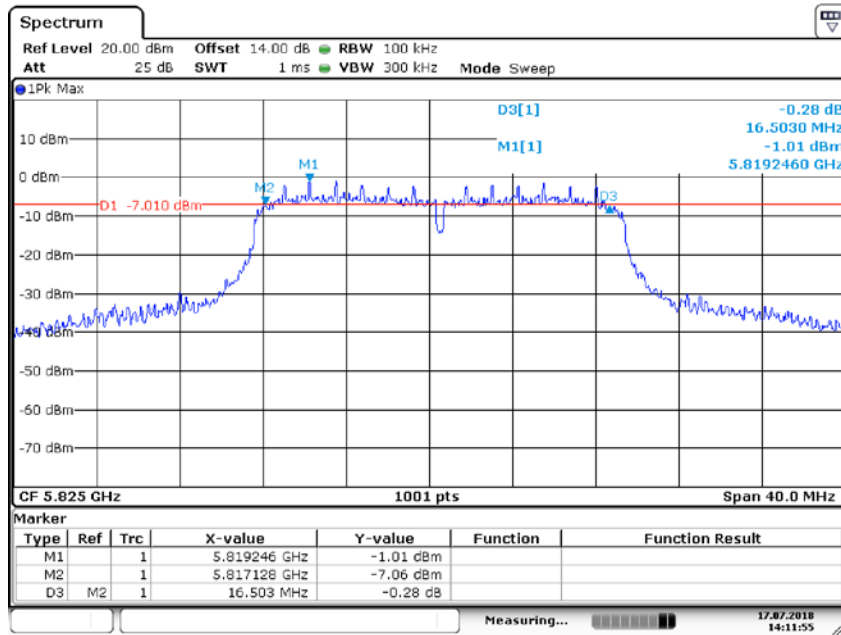
Date: 17 JUL 2018 14:15:32

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



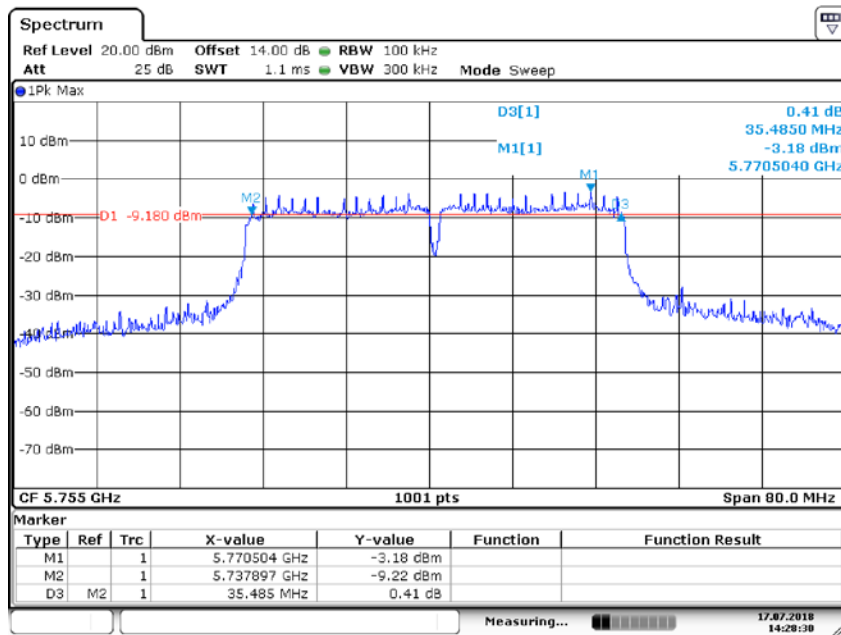
Date: 17 JUL 2018 14:11:09

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



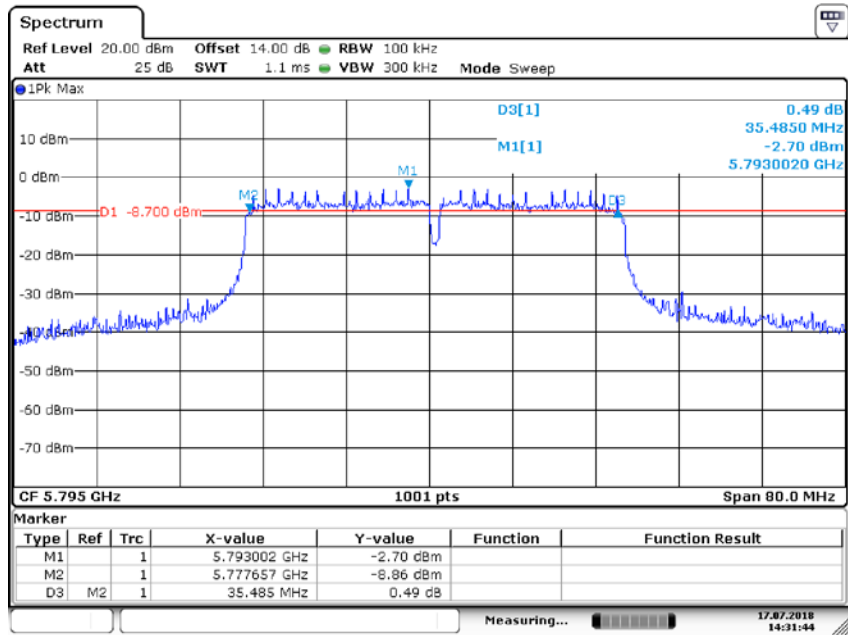
Date: 17.JUL.2018 14:11:55

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



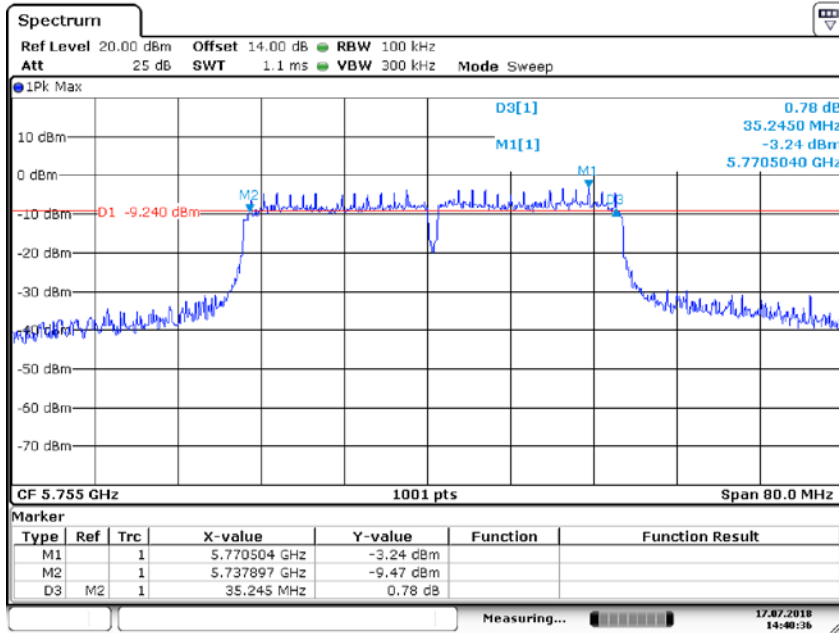
Date: 17.JUL.2018 14:28:30

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



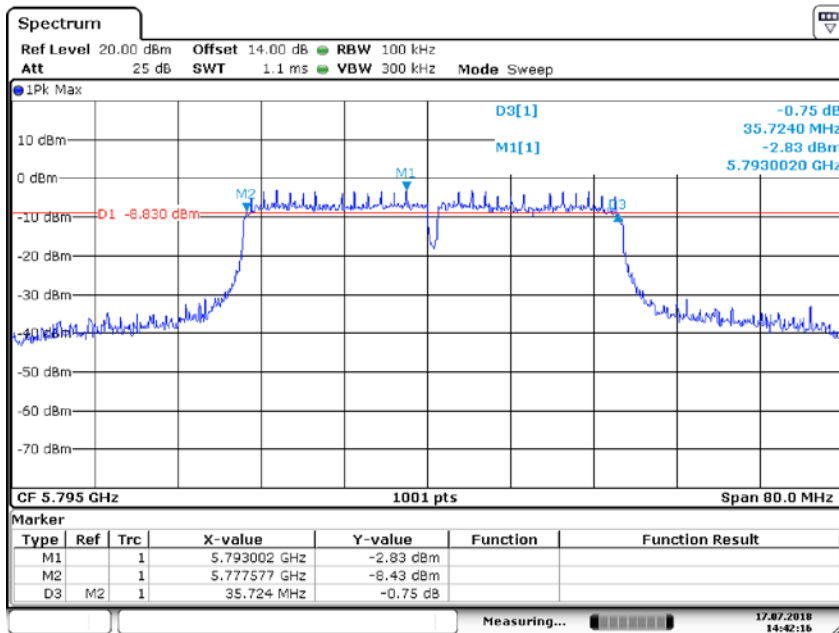
Date: 17.JUL.2018 14:31:44

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



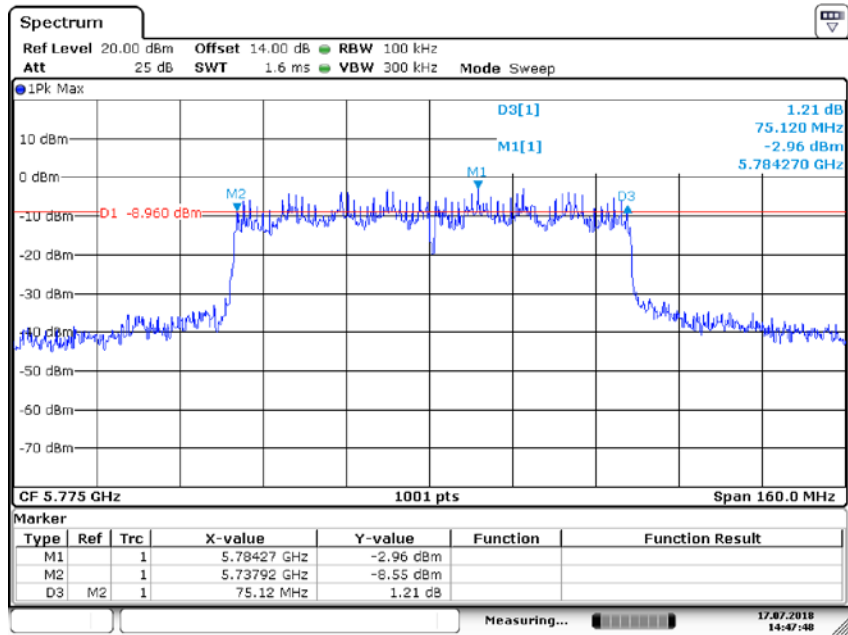
Date: 17 JUL 2018 14:40:36

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



Date: 17 JUL 2018 14:42:17

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



Date: 17 JUL 2018 14:47:48



## 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  $11 \text{ dBm} + 10 \log B$ , 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  $\geq$  3 MHz.
- d. Number of points in sweep  $\geq 2 \times$  span / RBW. (This ensures that bin-to-bin spacing is  $\leq$  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°C		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	14.70	13.36	24.00	Pass
	CH40	5200	14.61	13.57	24.00	Pass
	CH48	5240	13.94	12.67	24.00	Pass
UNII Band II-A	CH52	5260	13.01	11.65	24.00	Pass
	CH56	5280	12.66	11.32	24.00	Pass
	CH64	5320	13.88	12.54	24.00	Pass
UNII Band II-C	CH100	5500	16.14	14.83	23.89	Pass
	CH120	5600	16.77	15.41	23.89	Pass
	CH140	5700	15.66	14.57	23.89	Pass
UNII Band III	CH149	5745	16.62	15.28	29.76	Pass
	CH157	5785	15.29	14.05	29.76	Pass
	CH165	5825	16.00	14.88	29.76	Pass
Note: N/A (Not Applicable)						

☒ 802.11n(HT20) mode							
Temperature :		28°C		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	13.33	12.01	15.730	24.00	Pass
	CH40	5200	13.37	11.97	15.736	24.00	Pass
	CH48	5240	12.59	11.16	14.944	24.00	Pass
UNII Band II-A	CH52	5260	11.71	10.27	14.060	24.00	Pass
	CH56	5280	11.27	10.02	13.632	24.00	Pass
	CH64	5320	12.55	11.06	14.879	24.00	Pass
UNII Band II-C	CH100	5500	14.88	13.44	17.230	23.89	Pass
	CH120	5600	15.43	14.06	17.809	23.89	Pass
	CH140	5700	14.37	13.3	16.878	23.89	Pass
UNII Band III	CH149	5745	15.35	14.13	17.793	29.76	Pass
	CH157	5785	14.17	12.99	16.630	29.76	Pass
	CH165	5825	14.93	13.84	17.429	29.76	Pass

802.11ac(VHT20) modeTemperature : 28°C  
Humidity : 65 %

Test By: King Kong

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH36	5180	13.21	12.00	15.657	24.00	Pass
	CH40	5200	13.11	11.99	15.596	24.00	Pass
	CH48	5240	12.36	11.18	14.820	24.00	Pass
UNII Band II-A	CH52	5260	11.45	10.31	13.928	24.00	Pass
	CH56	5280	11.03	9.93	13.525	24.00	Pass
	CH64	5320	12.37	11.18	14.826	24.00	Pass
UNII Band II-C	CH100	5500	14.64	13.50	17.118	23.89	Pass
	CH120	5600	15.18	14.12	17.693	23.89	Pass
	CH140	5700	14.2	13.31	16.788	23.89	Pass
UNII Band III	CH149	5745	15.25	14.10	17.723	29.76	Pass
	CH157	5785	14.01	13.04	16.562	29.76	Pass
	CH165	5825	14.75	13.88	17.347	29.76	Pass

 802.11n(HT40) modeTemperature : 28°C  
Humidity : 65 %

Test By: King Kong

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	12.44	12.07	15.269	24.00	Pass
	CH46	5230	11.99	11.54	14.781	24.00	Pass
UNII Band II-A	CH54	5270	10.67	10.30	13.499	24.00	Pass
	CH62	5310	11.42	10.96	14.206	24.00	Pass
UNII Band II-C	CH102	5510	14.11	13.86	16.997	23.89	Pass
	CH118	5590	14.47	14.33	17.411	23.89	Pass
	CH134	5670	13.87	13.8	16.845	23.89	Pass
UNII Band III	CH151	5755	13.85	14.03	16.951	29.76	Pass
	CH159	5795	13.03	13.10	16.075	29.76	Pass

 802.11ac(VHT40) modeTemperature : 28°C  
Humidity : 65 %

Test By: King Kong

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (MHz)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH38	5190	12.18	12.23	15.215	24.00	Pass
	CH46	5230	11.55	11.64	14.606	24.00	Pass
UNII Band II-A	CH54	5270	10.35	10.36	13.365	24.00	Pass
	CH62	5310	11.00	11.07	14.045	24.00	Pass
UNII Band II-C	CH102	5510	13.77	13.80	16.795	23.89	Pass
	CH118	5590	14.16	14.36	17.271	23.89	Pass
	CH134	5670	13.71	13.81	16.771	23.89	Pass
UNII Band III	CH151	5755	13.85	13.99	16.931	29.76	Pass
	CH159	5795	12.95	13.07	16.021	29.76	Pass

802.11ac(VHT80) mode

Temperature : 28°C

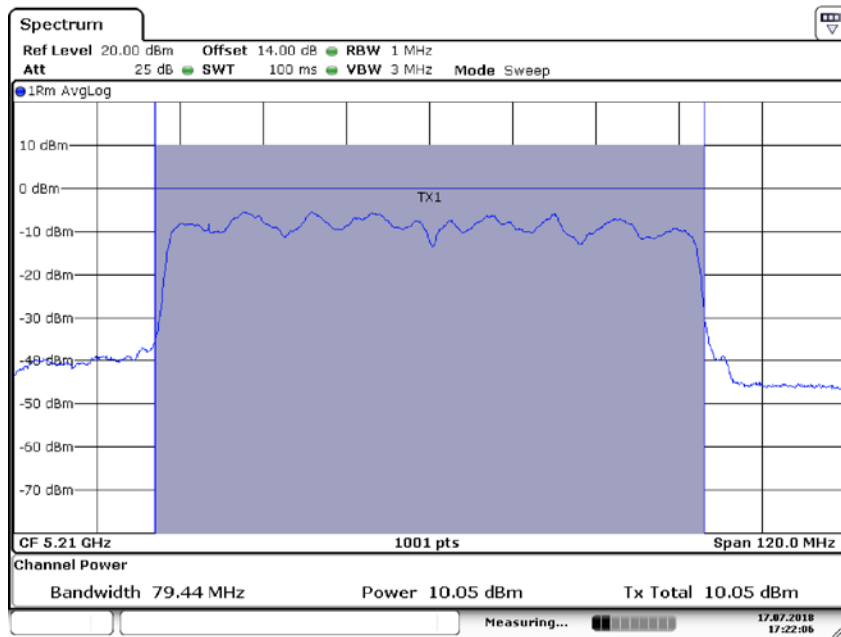
Test By: King Kong

Humidity : 65 %

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
UNII Band I	CH42	5210	10.05	10.00	13.04	24.00	Pass
UNII Band II-A	CH58	5290	10.62	10.07	13.36	24.00	Pass
UNII Band II-C	CH106	5530	12.42	12.37	15.41	23.89	Pass
	CH122	5610	12.07	12.08	15.09	23.89	Pass
UNII Band III	CH155	5775	12.68	12.64	15.67	29.76	Pass

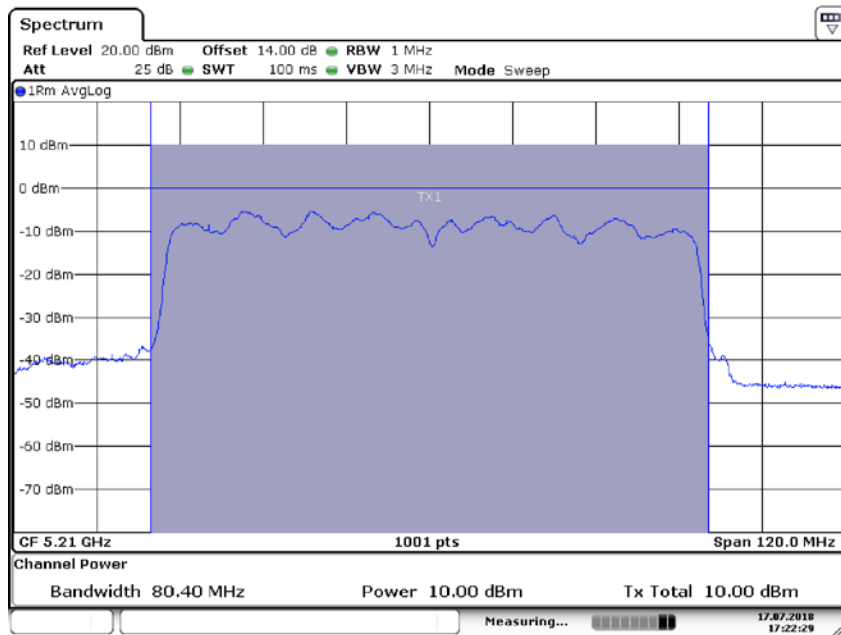
For 802.11ac (VHT80) Test Plots see the follow pages;

<b>MAXIMUM CONDUCTED OUTPUT POWER</b>		<b>UNII Band I</b>	
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210
<b>Ant0</b>			



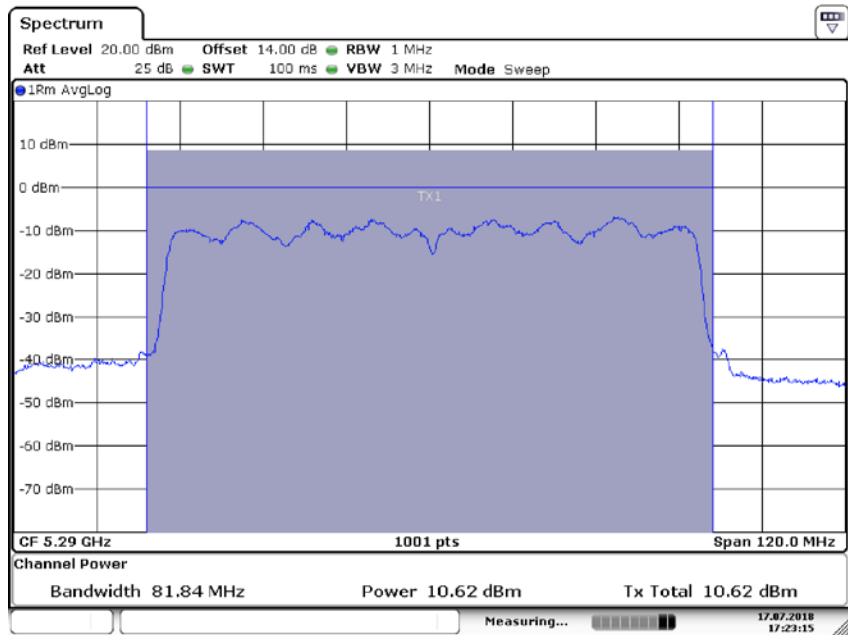
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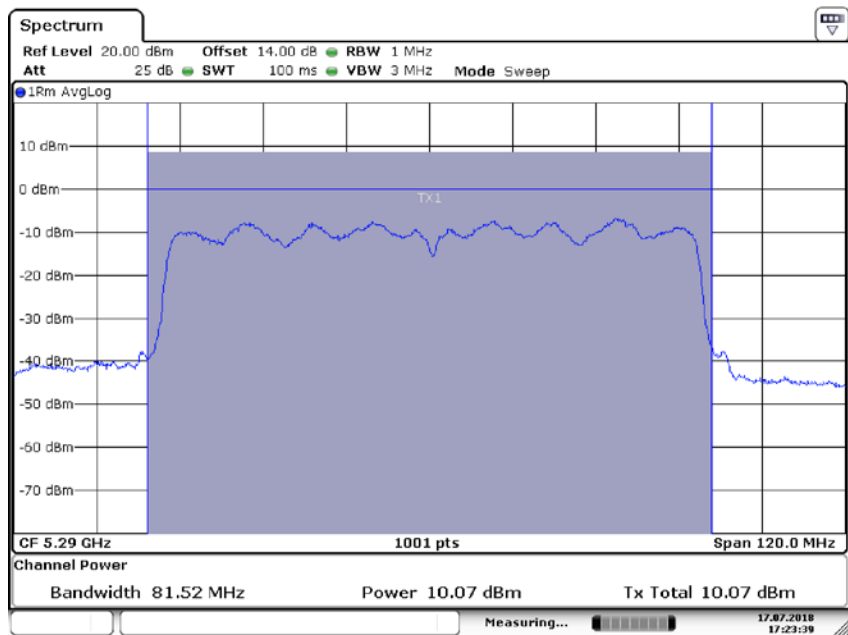
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**MAXIMUM CONDUCTED OUTPUT POWER** UNII Band II-A  
 Test Model 802.11ac(VHT80) mode Frequency(MHz) 5290  
**Ant0**



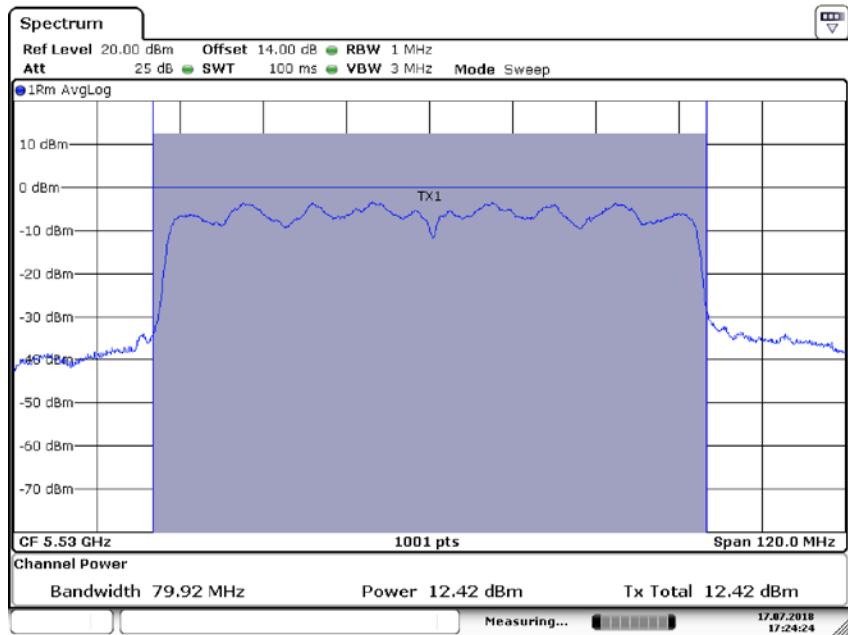
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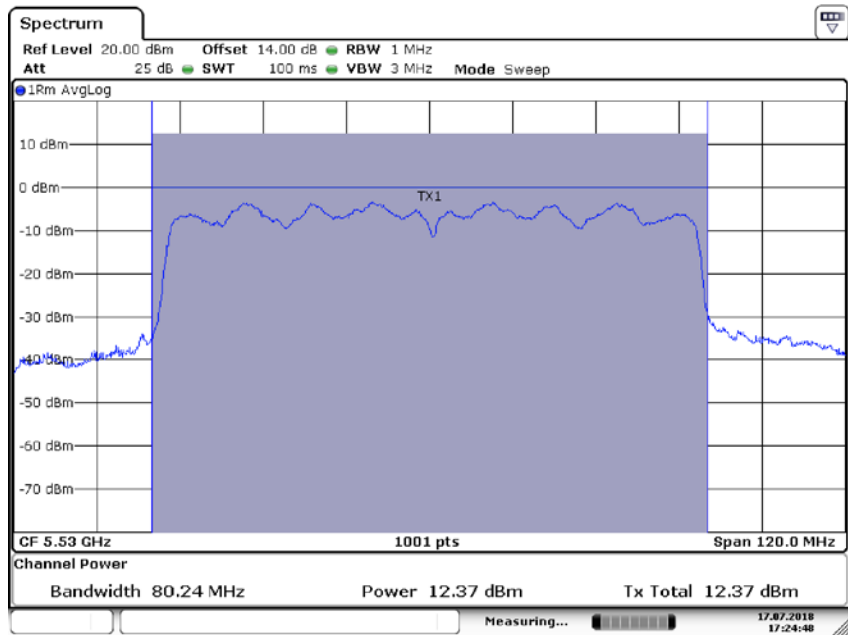
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**MAXIMUM CONDUCTED OUTPUT POWER**      **UNII Band II-C**  
 Test Model    802.11ac(VHT80) mode      Frequency(MHz)      5530  
**Ant0**



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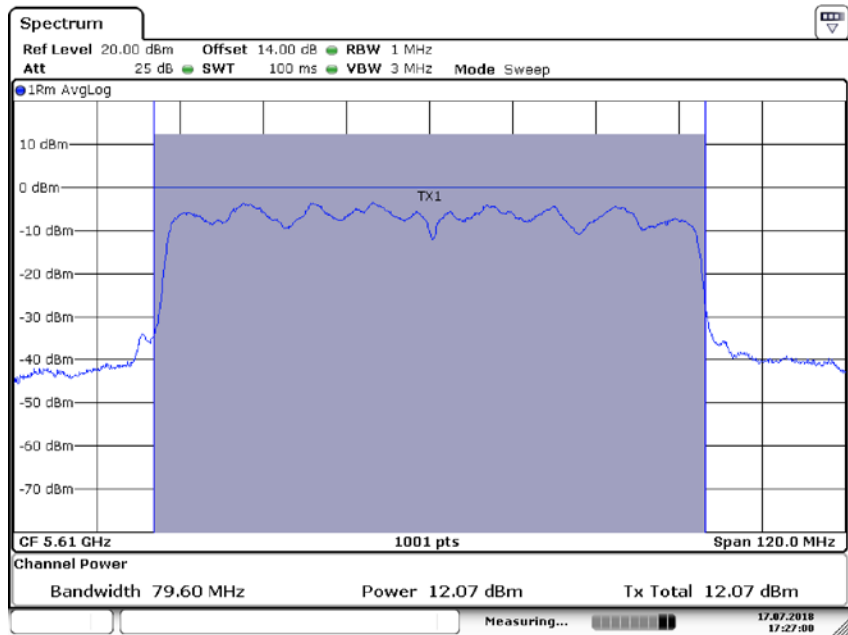
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Date: 17.JUL.2018 17:24:48

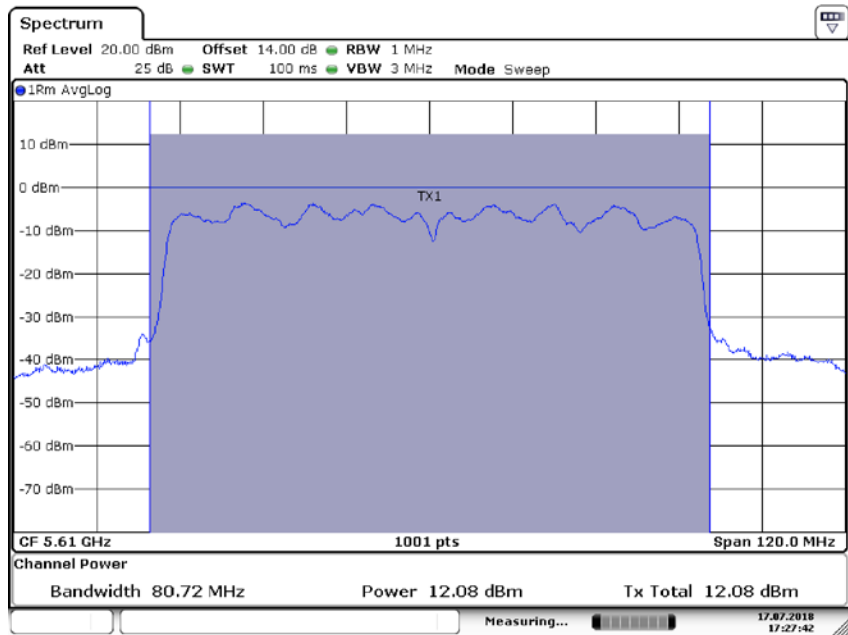


**MAXIMUM CONDUCTED OUTPUT POWER**      **UNII Band II-C**  
 Test Model    802.11ac(VHT80) mode      Frequency(MHz)      5610  
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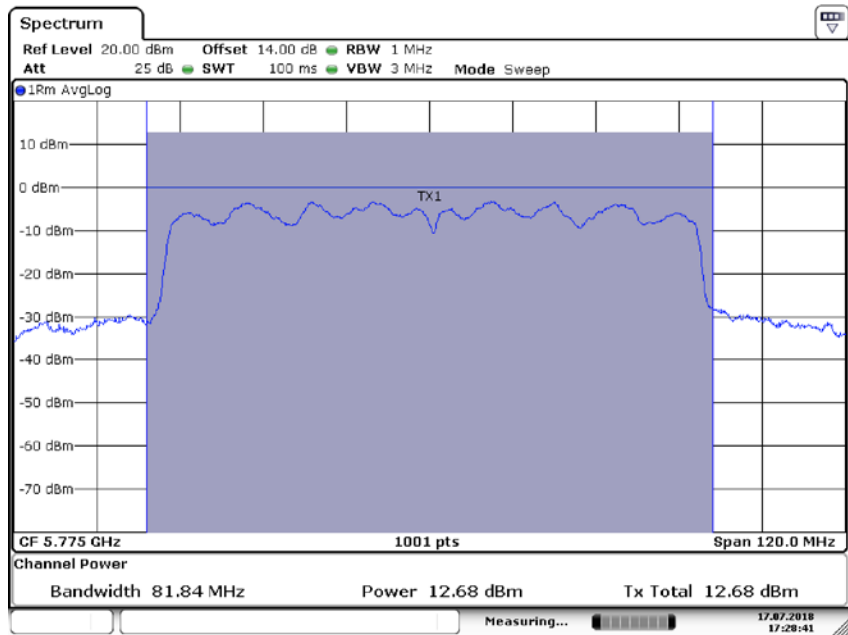
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**Ant1**



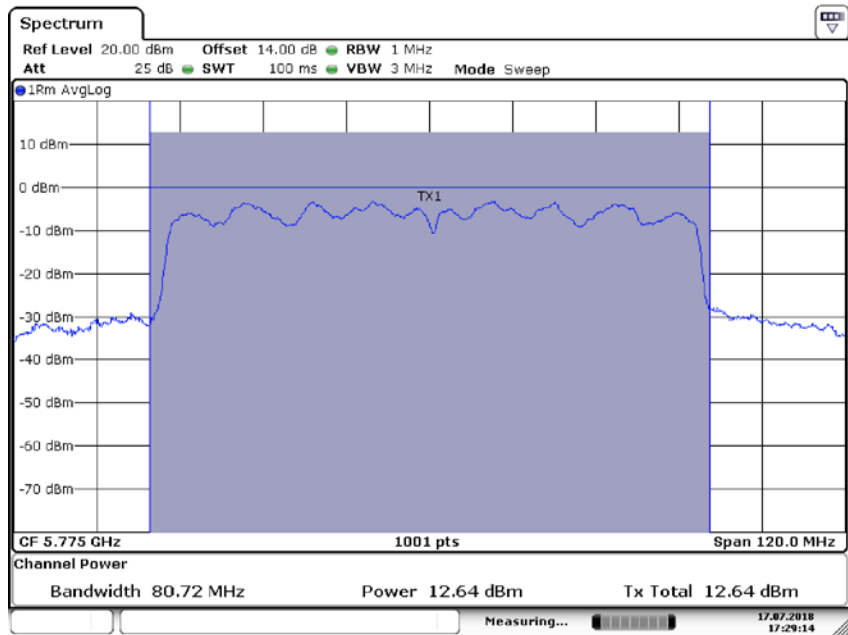
Date: 17.JUL.2018 17:27:41

**MAXIMUM CONDUCTED OUTPUT POWER UNII Band III**  
 Test Model 802.11ac(VHT80) mode Frequency(MHz) 5775  
**Ant0**



Date: 17.JUL.2018 17:28:41

**Ant1**



Date: 17.JUL.2018 17:29:13

## 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  $11 \text{ dBm} + 10 \log B$ , 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.