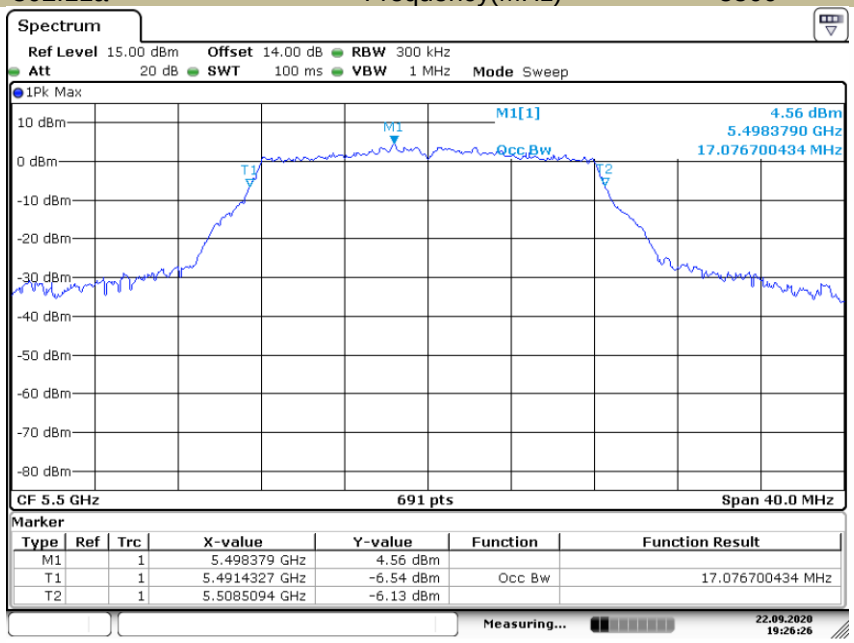
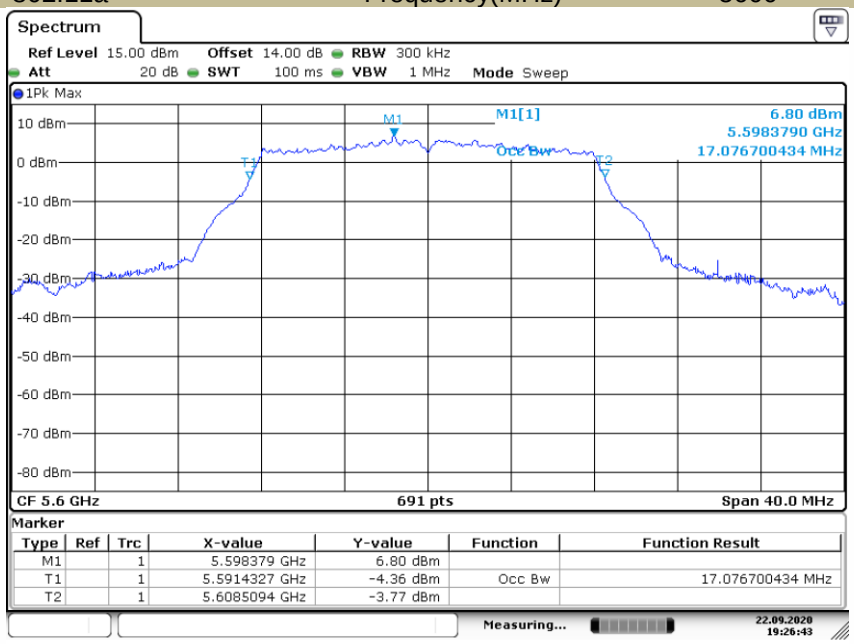
99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5500



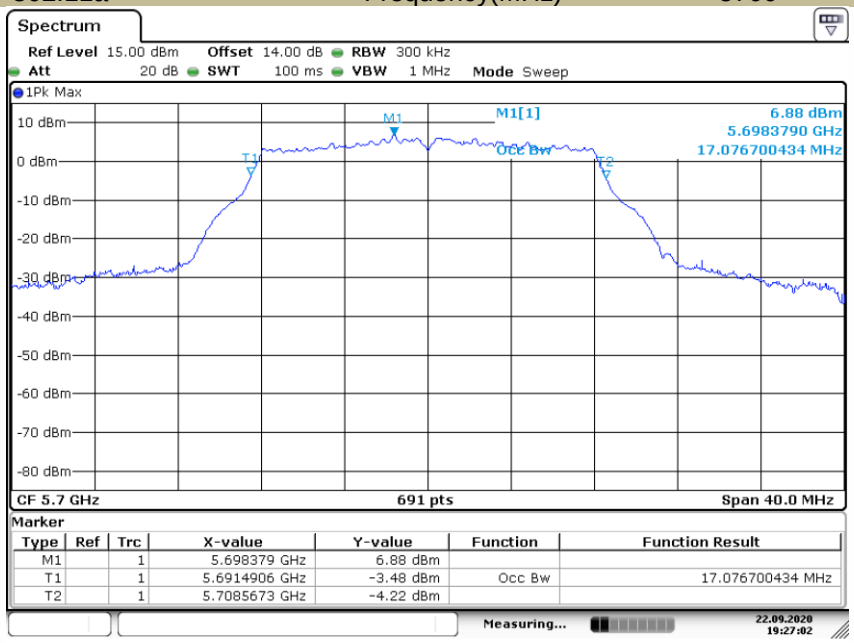
Date: 22.SEP.2020 19:26:26

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5600



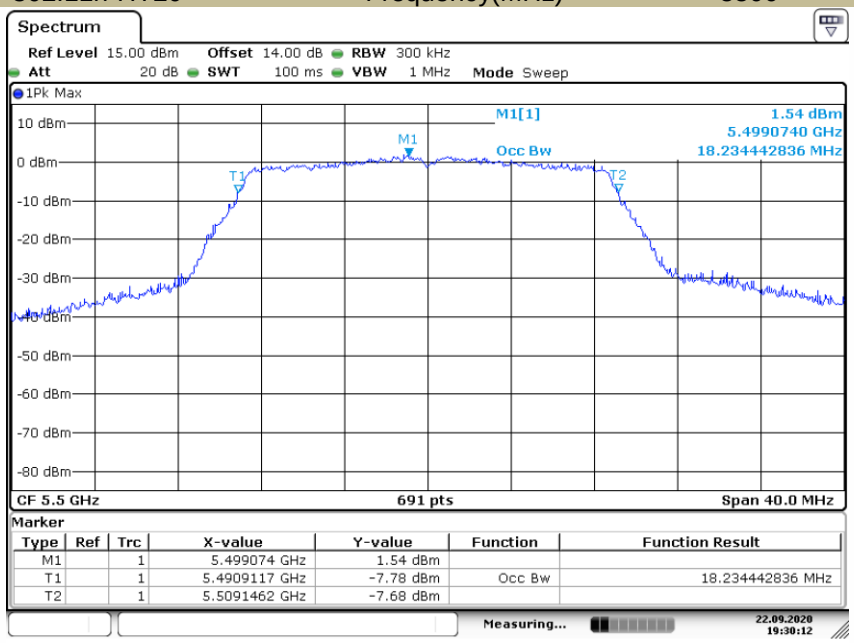
Date: 22.SEP.2020 19:26:43

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5700



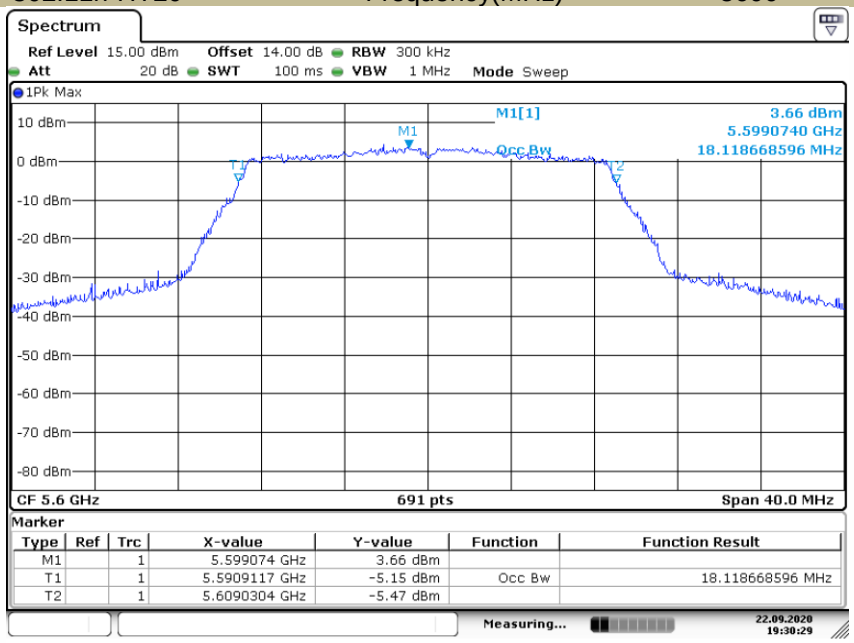
Date: 22.SEP.2020 19:27:01

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5500



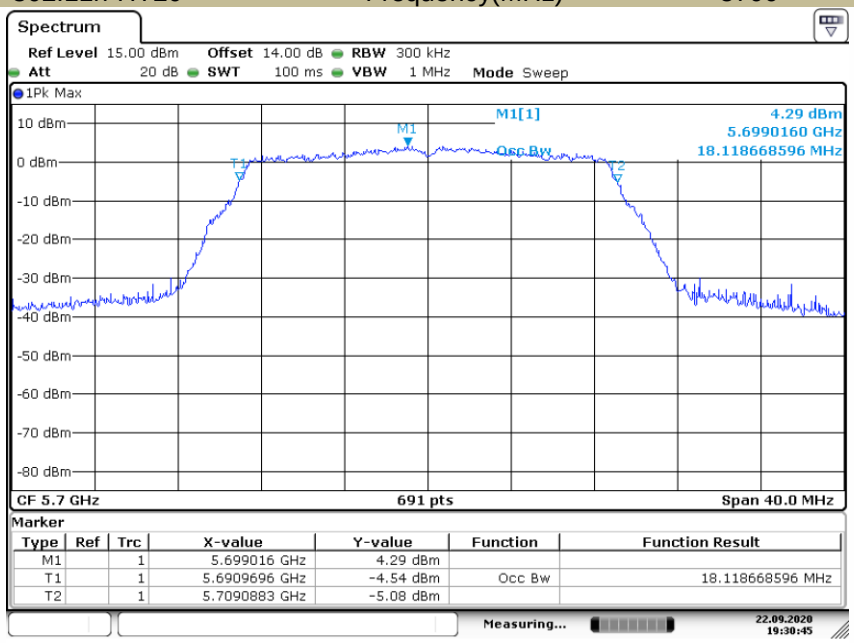
Date: 22.SEP.2020 19:30:13

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5600



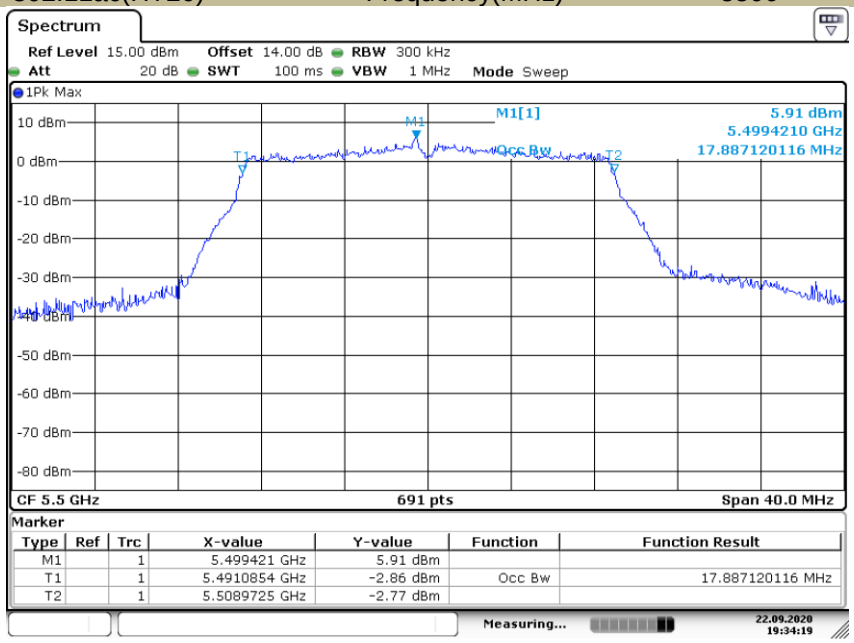
Date: 22.SEP.2020 19:30:30

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5700



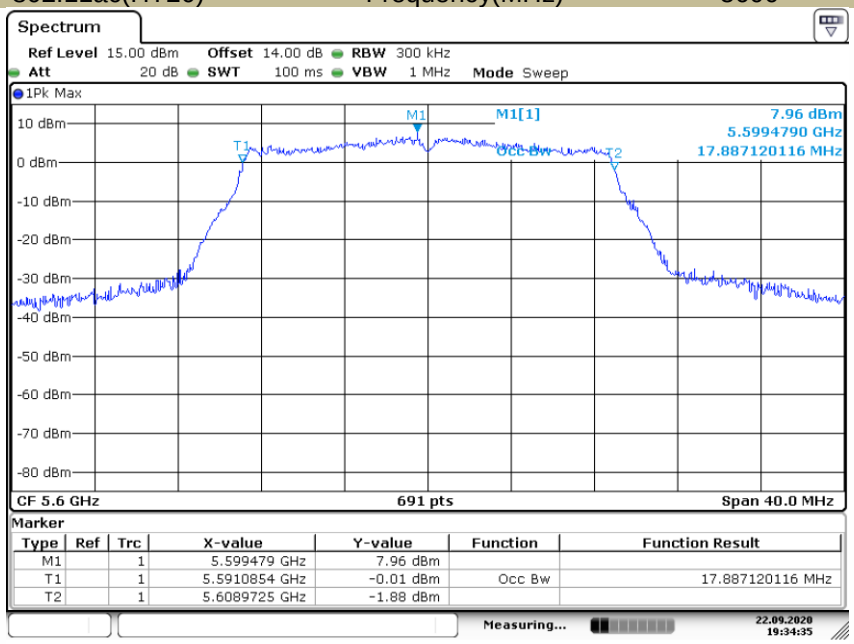
Date: 22.SEP.2020 19:30:45

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5500



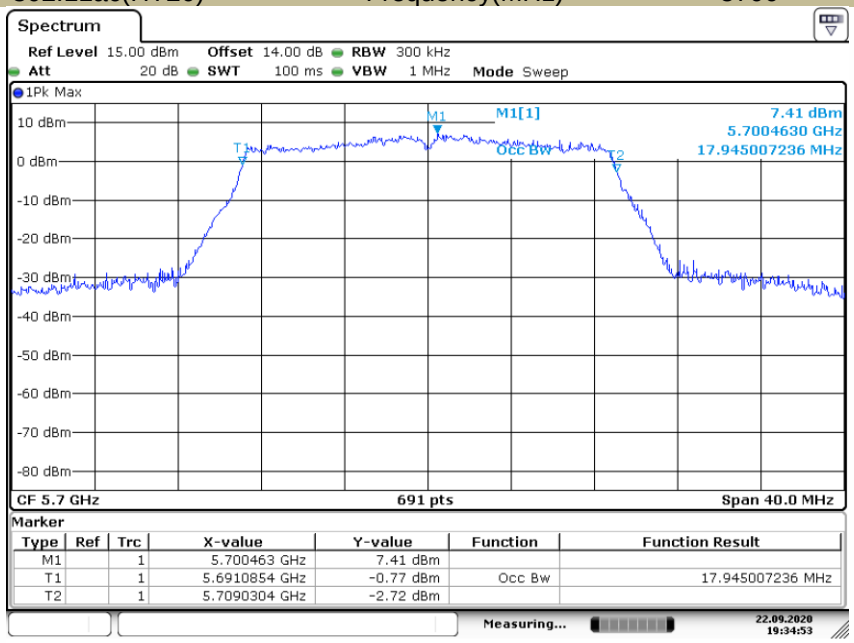
Date: 22.SEP.2020 19:34:19

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5600



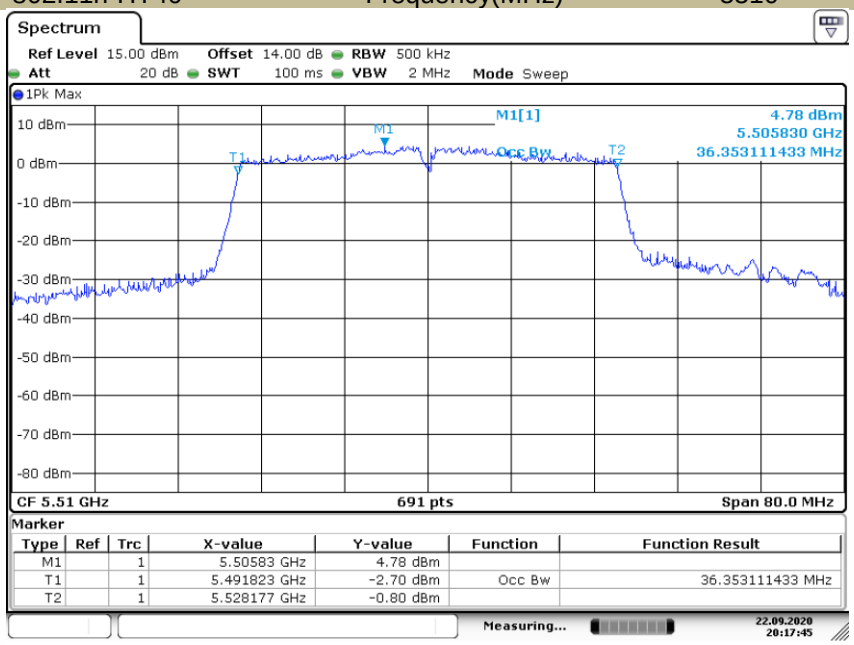
Date: 22.SEP.2020 19:34:35

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5700



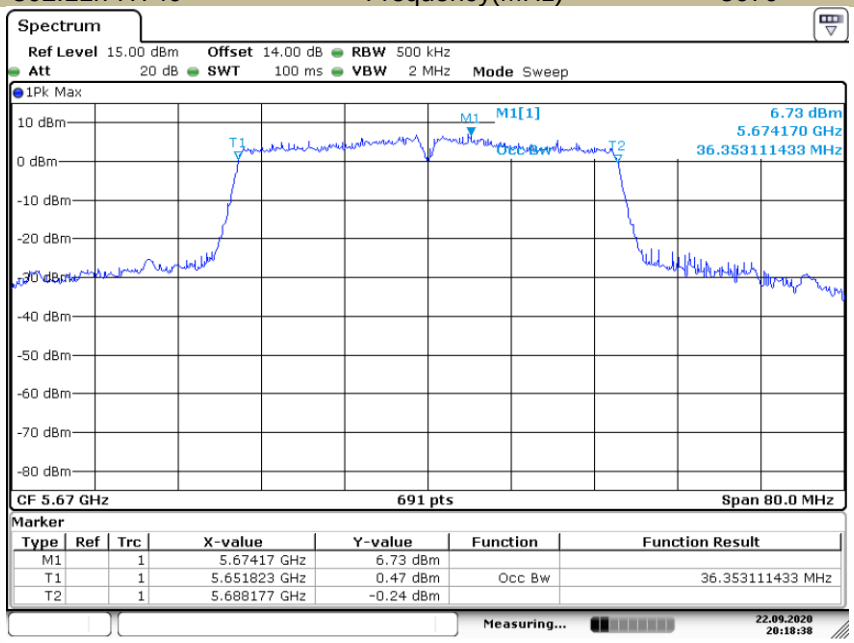
Date: 22.SEP.2020 19:34:54

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5510



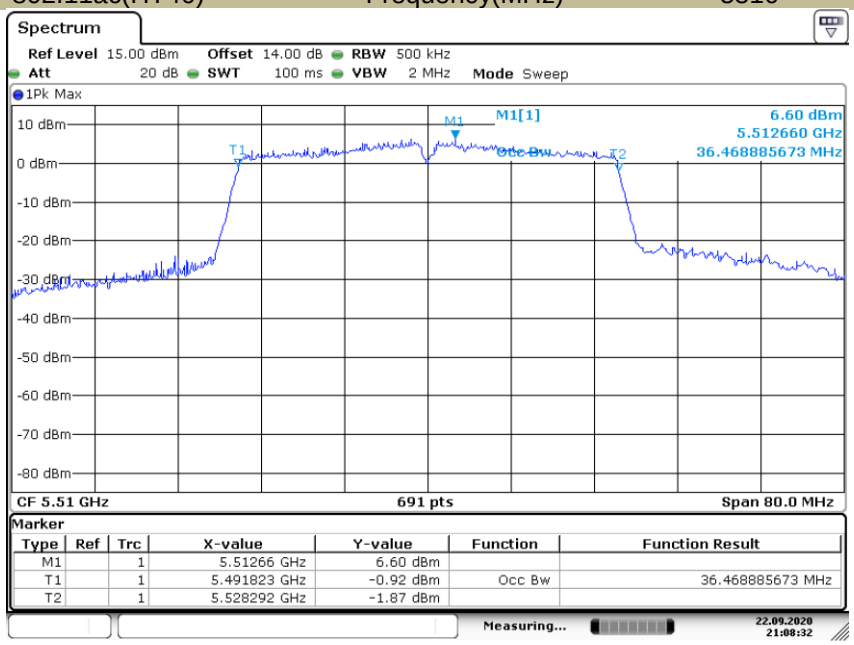
Date: 22.SEP.2020 20:17:44

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5670



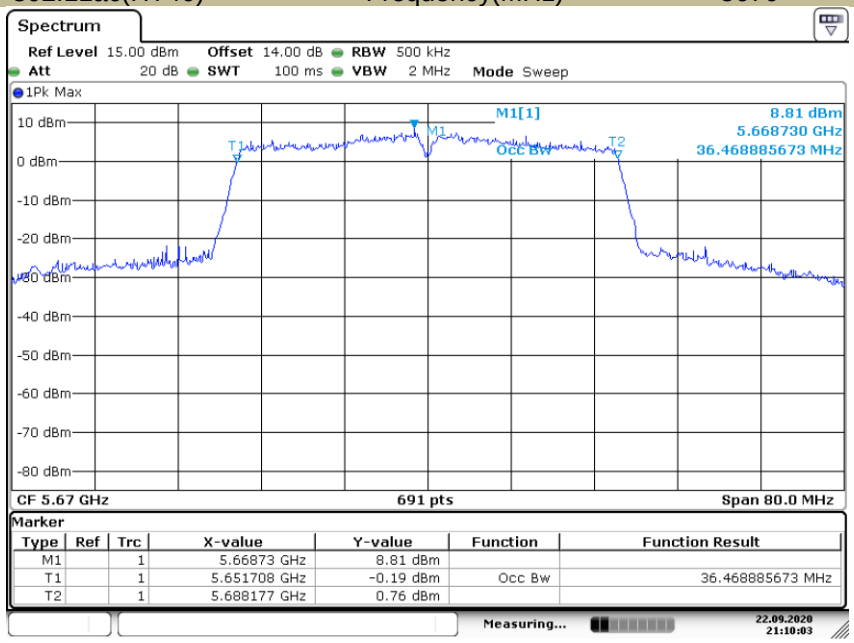
Date: 22.SEP.2020 20:18:38

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5510



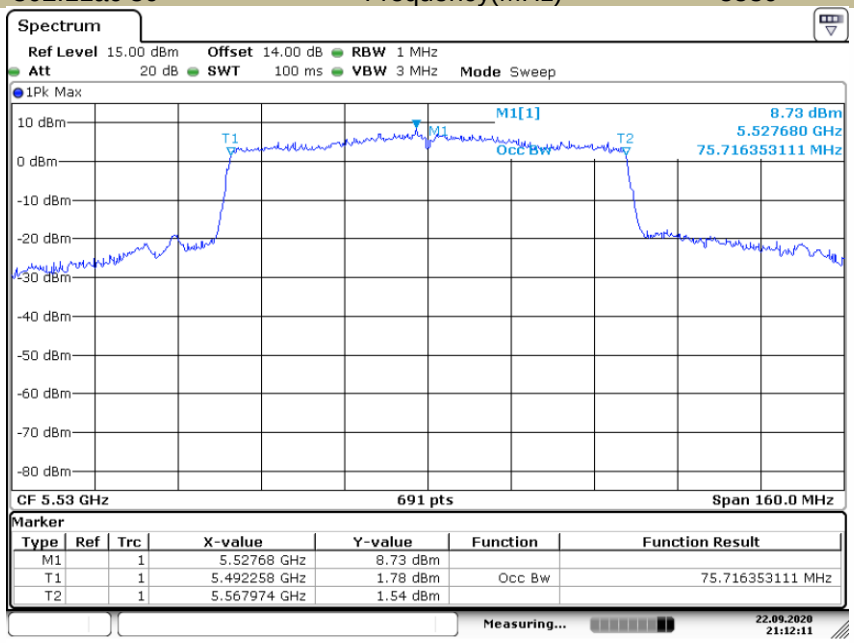
Date: 22.SEP.2020 21:08:32

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5670



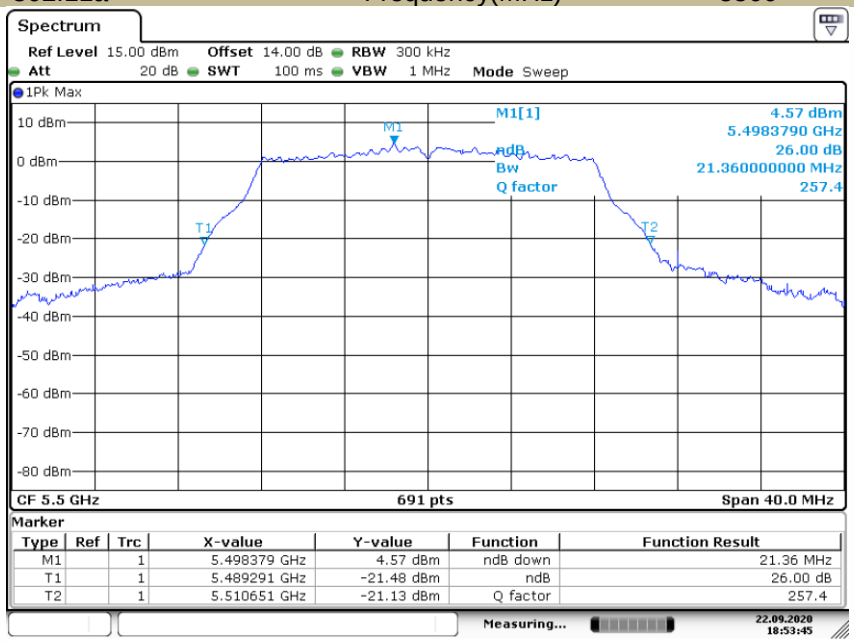
Date: 22.SEP.2020 21:10:03

99% Occupied Bandwidth		U-NII – 2C	
Test Model	802.11ac 80	Frequency(MHz)	5530



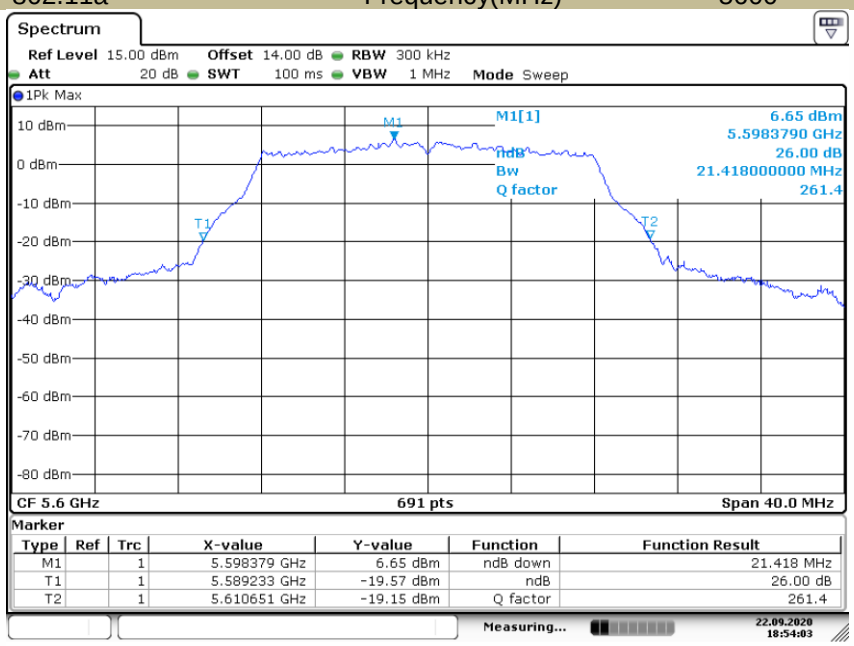
Date: 22.SEP.2020 21:12:11

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5500



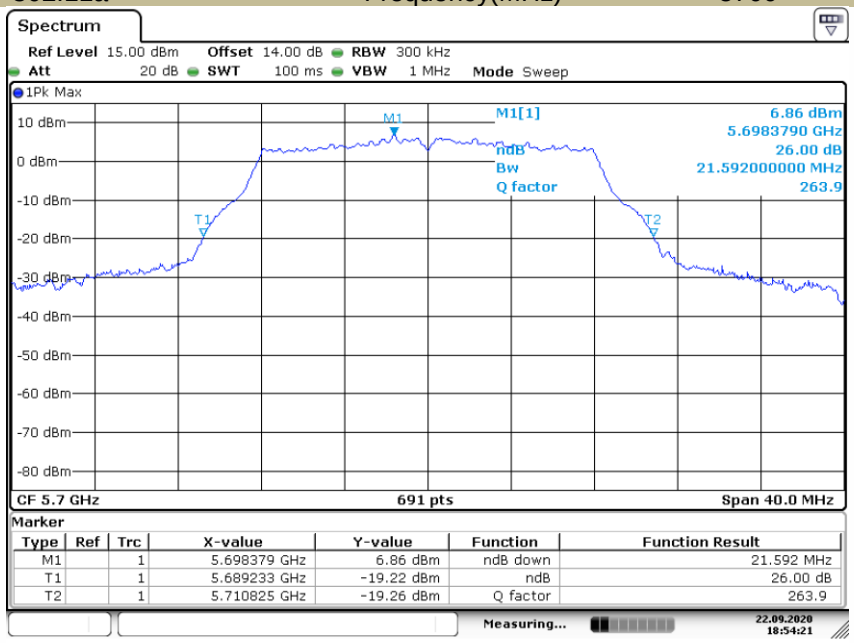
Date: 22.SEP.2020 18:53:45

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5600



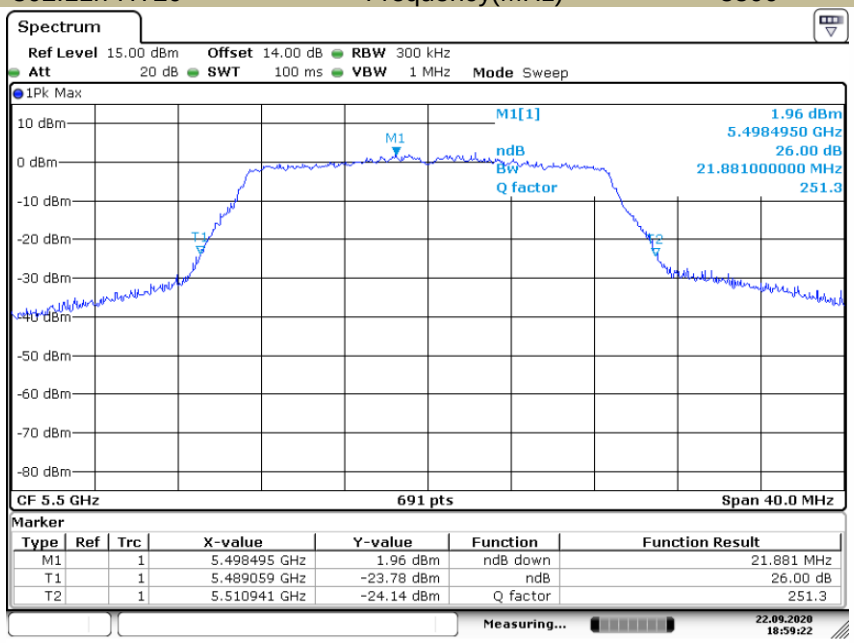
Date: 22.SEP.2020 18:54:03

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11a	Frequency(MHz)	5700



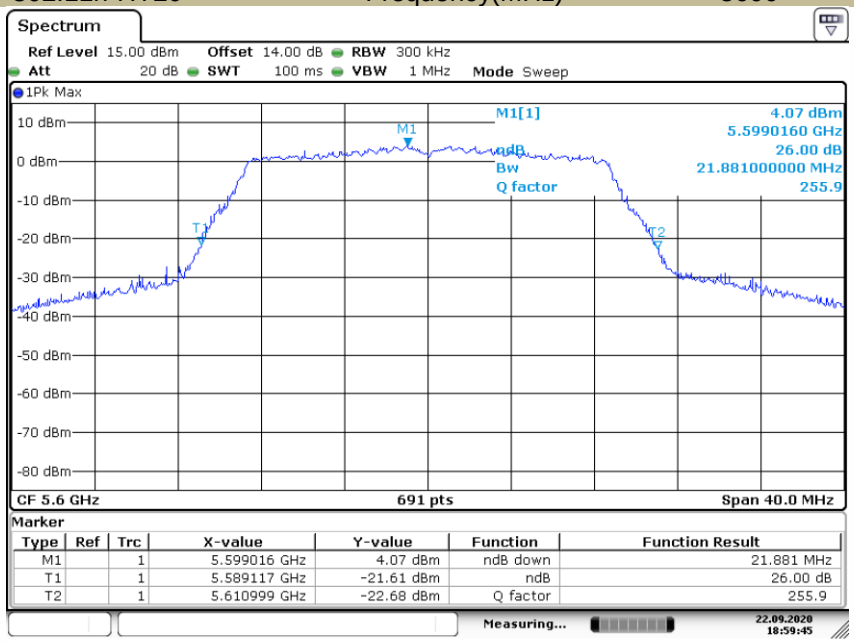
Date: 22.SEP.2020 18:54:21

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5500



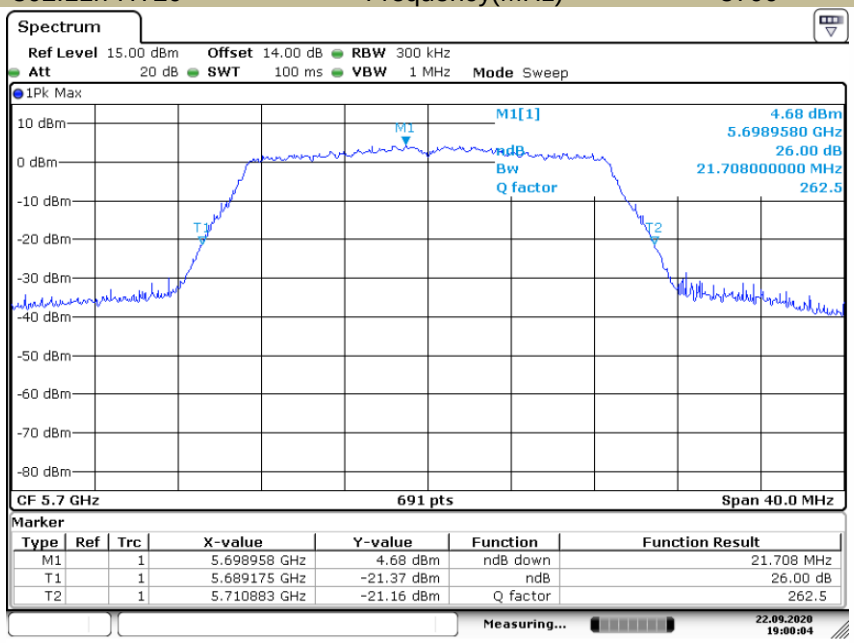
Date: 22.SEP.2020 18:59:22

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5600



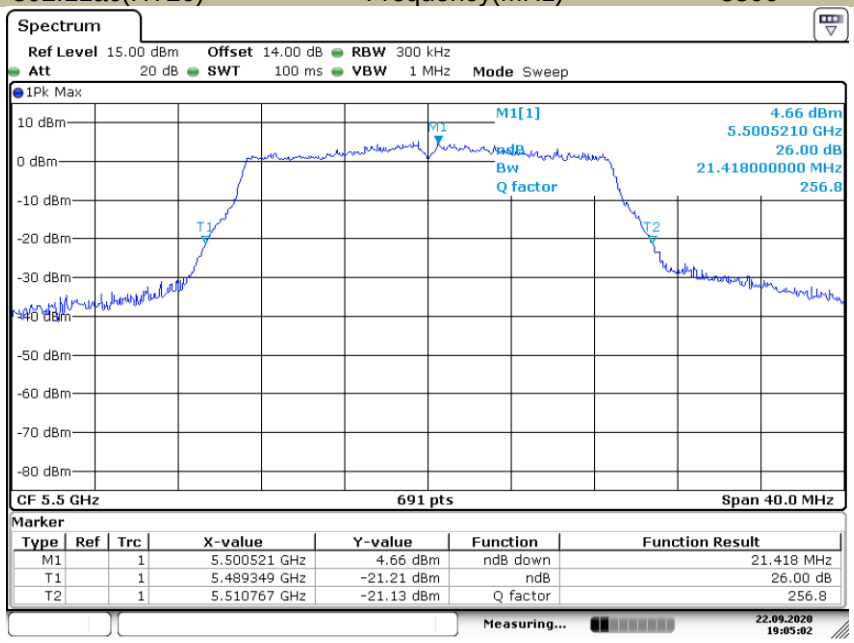
Date: 22.SEP.2020 18:59:45

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11n-HT20	Frequency(MHz)	5700



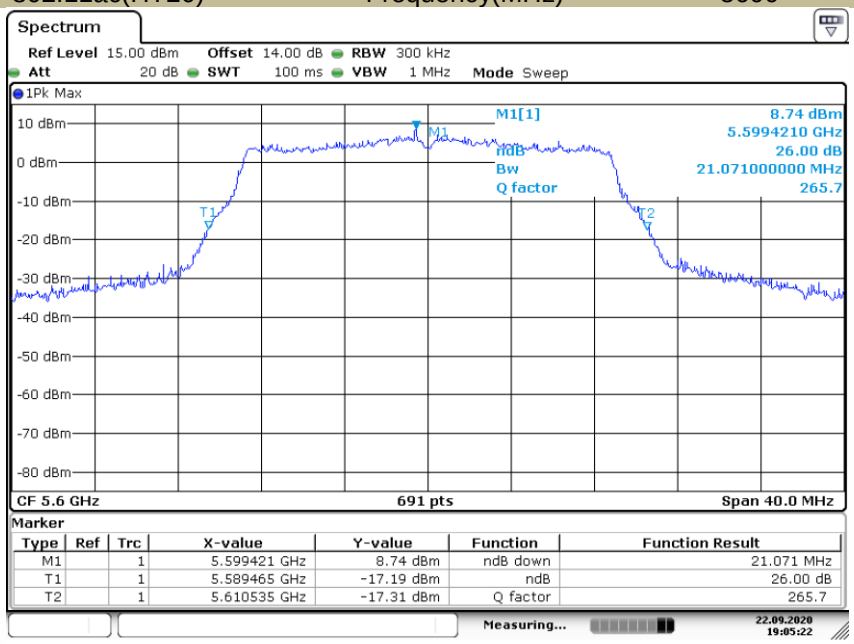
Date: 22.SEP.2020 19:00:05

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5500



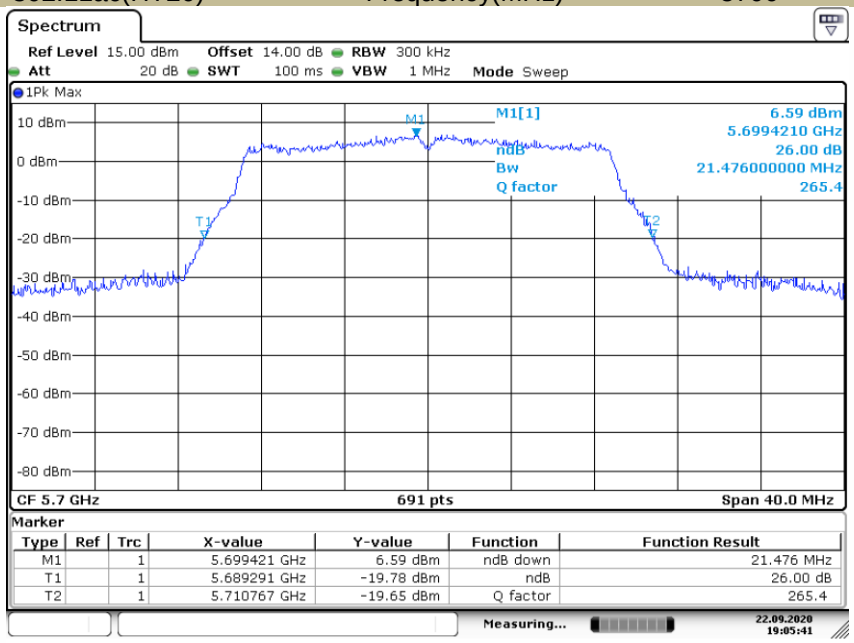
Date: 22.SEP.2020 19:05:02

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5600



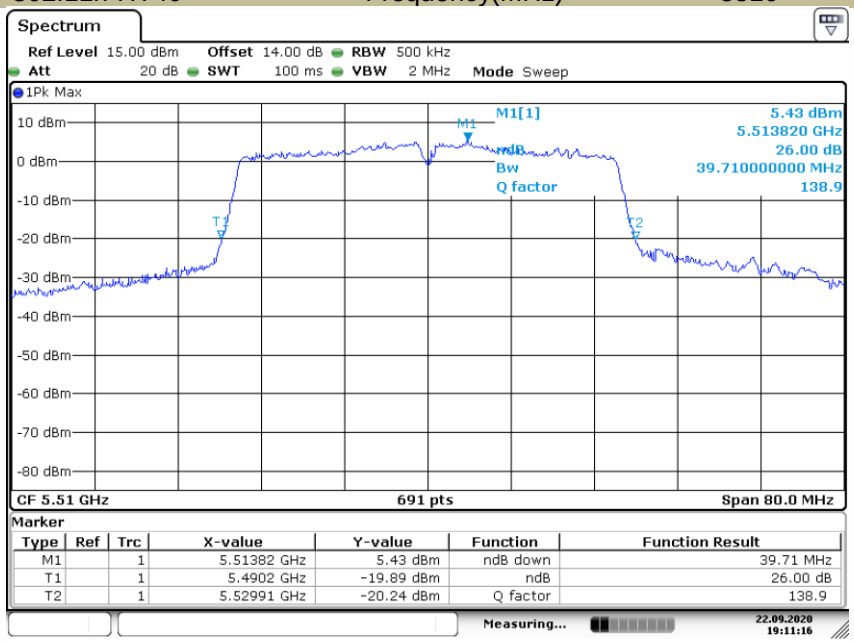
Date: 22.SEP.2020 19:05:22

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT20)	Frequency(MHz)	5700



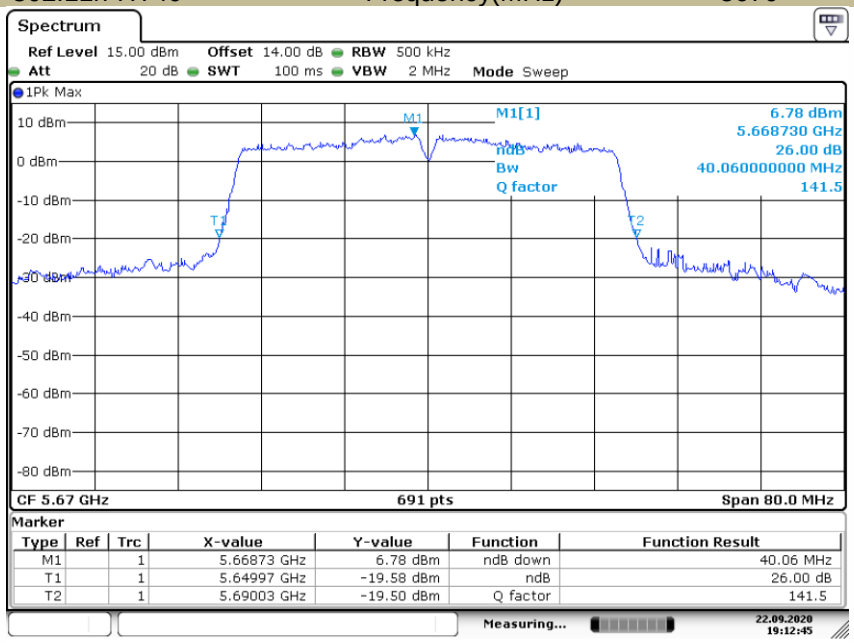
Date: 22.SEP.2020 19:05:41

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5510



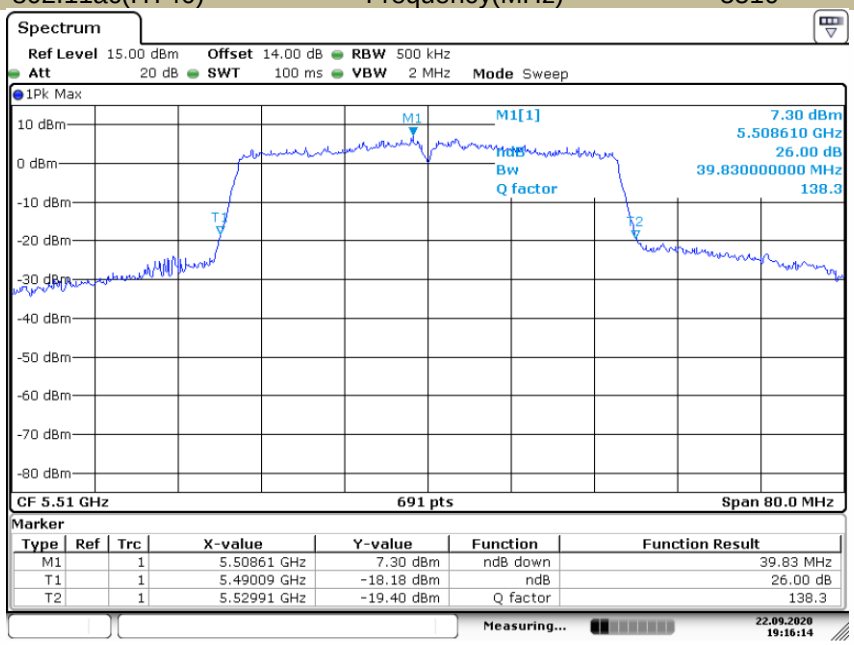
Date: 22.SEP.2020 19:11:16

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11n-HT40	Frequency(MHz)	5670



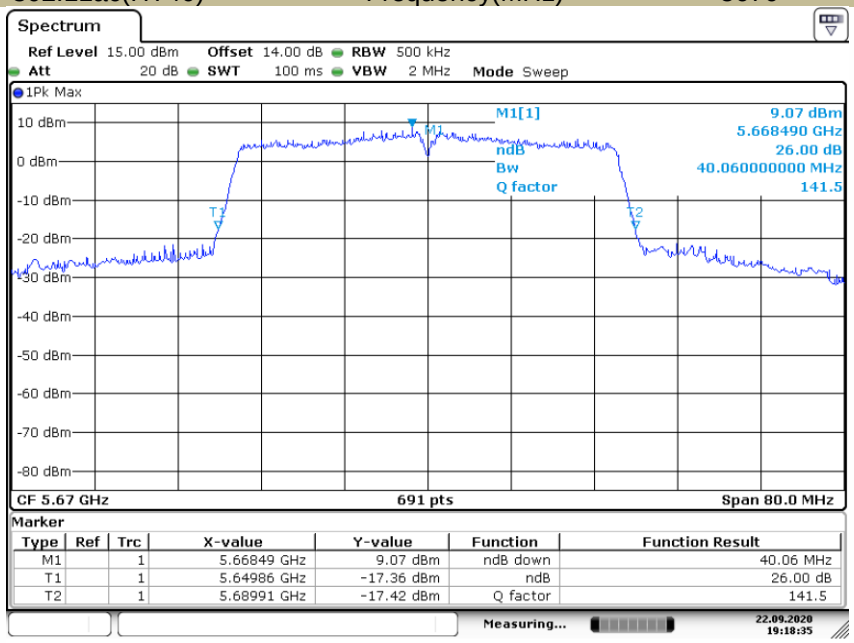
Date: 22.SEP.2020 19:12:44

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5510



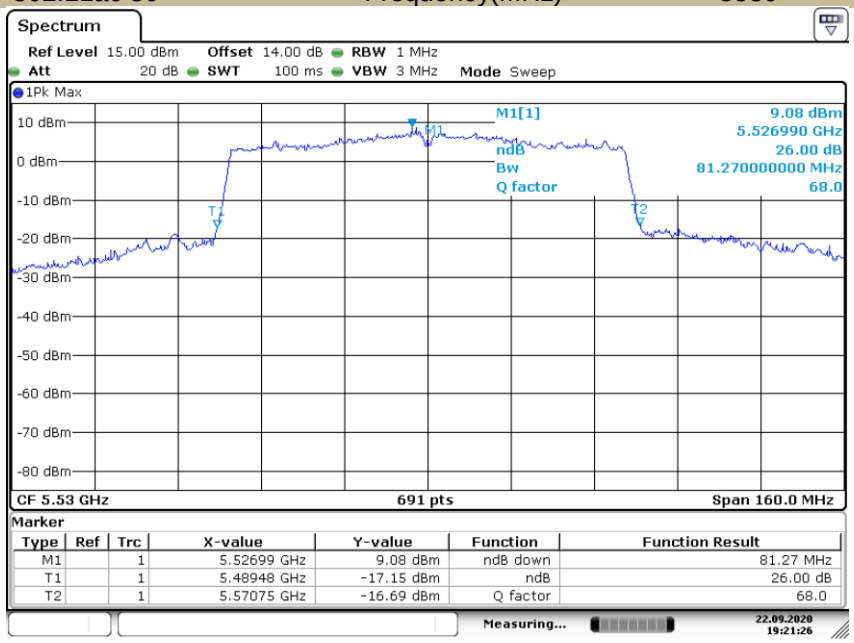
Date: 22.SEP.2020 19:16:14

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac(HT40)	Frequency(MHz)	5670



Date: 22.SEP.2020 19:18:35

26dB Emission Bandwidth		U-NII – 2C	
Test Model	802.11ac 80	Frequency(MHz)	5530

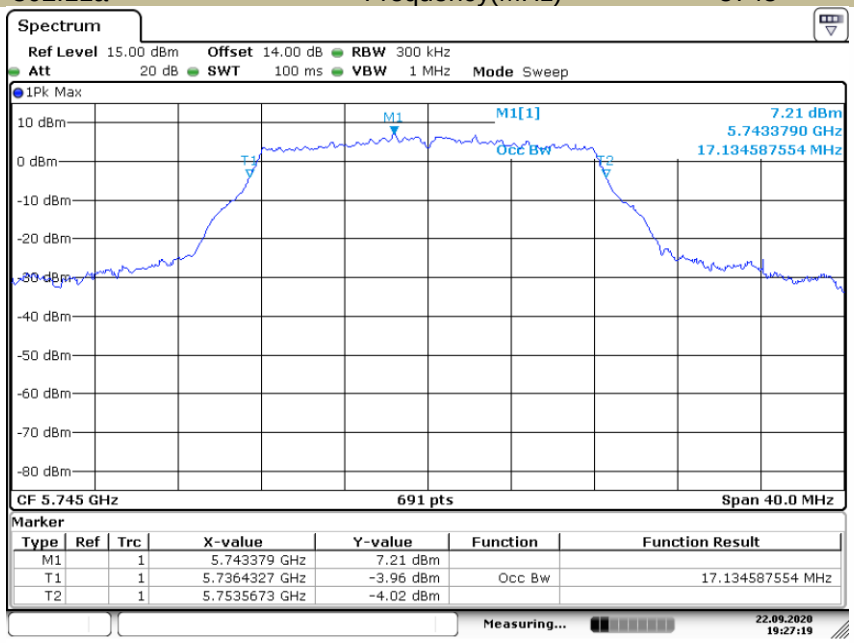


Date: 22.SEP.2020 19:21:26

5725-5850MHz

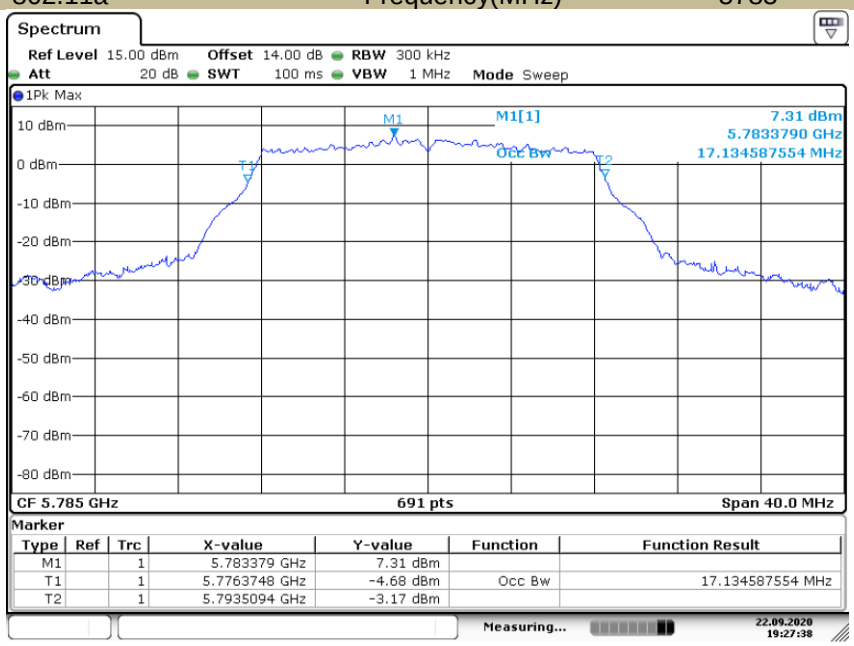
Test Mode	Test Channel MHz		6 dB Bandwidth MHz	26dB Bandwidth MHz	99% Bandwidth MHz	Limit kHz
802.11a	CH149	5745	16.382	21.534	17.135	≥500
	CH157	5785	16.382	21.476	17.135	≥500
	CH165	5825	16.324	21.418	17.077	≥500
802.11n-HT20	CH149	5745	17.540	21.766	18.119	≥500
	CH157	5785	17.598	21.997	18.119	≥500
	CH165	5825	17.482	21.823	18.234	≥500
802.11ac(HT20)	CH149	5745	17.713	21.302	17.887	≥500
	CH157	5785	17.713	21.302	17.887	≥500
	CH165	5825	17.713	21.476	17.887	≥500
802.11n-HT40	CH151	5755	36.440	39.710	36.237	≥500
	CH159	5795	36.580	39.710	36.353	≥500
802.11ac(HT40)	CH151	5755	36.470	40.290	36.469	≥500
	CH159	5795	36.580	39.940	36.585	≥500
802.11ac(HT80)	CH155	5775	76.180	81.040	75.716	≥500

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5745



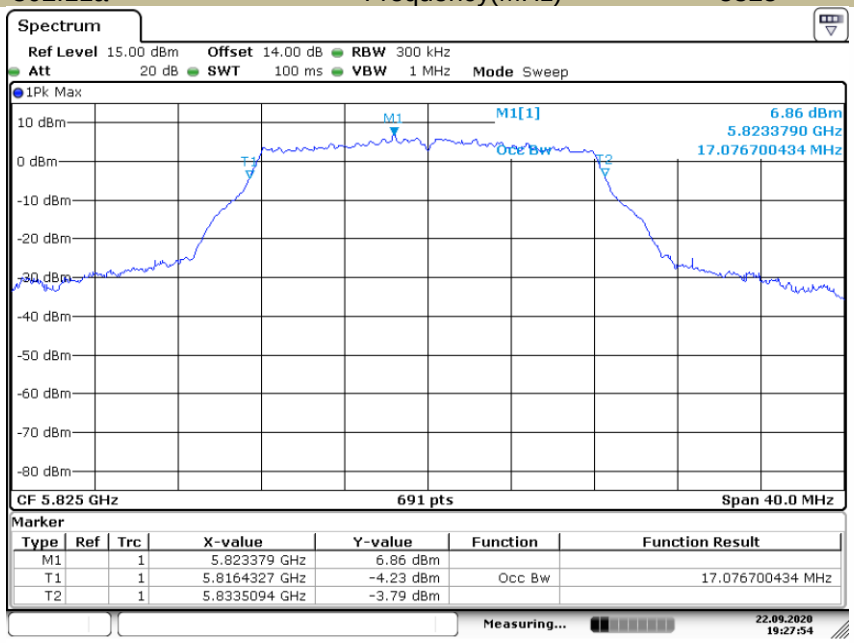
Date: 22.SEP.2020 19:27:19

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5785



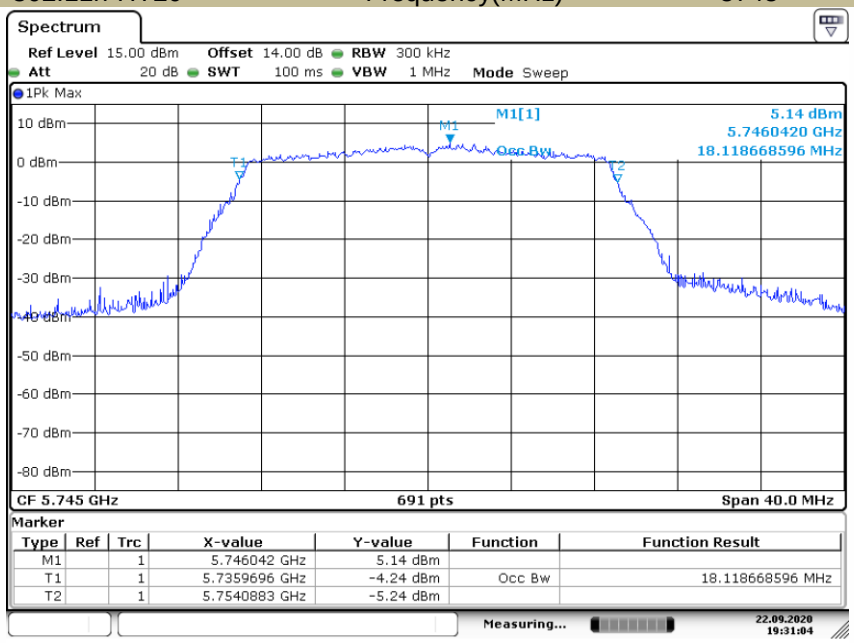
Date: 22.SEP.2020 19:27:38

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5825



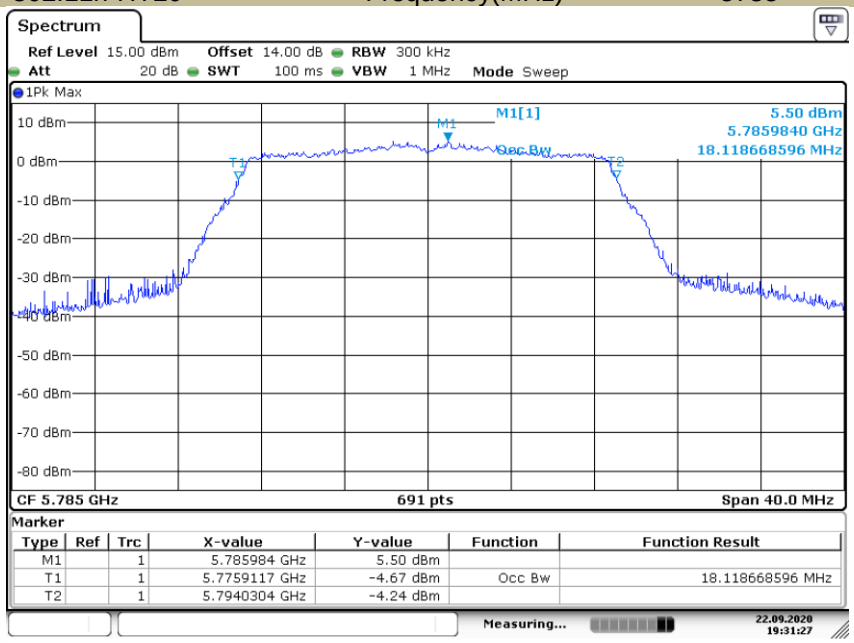
Date: 22.SEP.2020 19:27:54

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5745



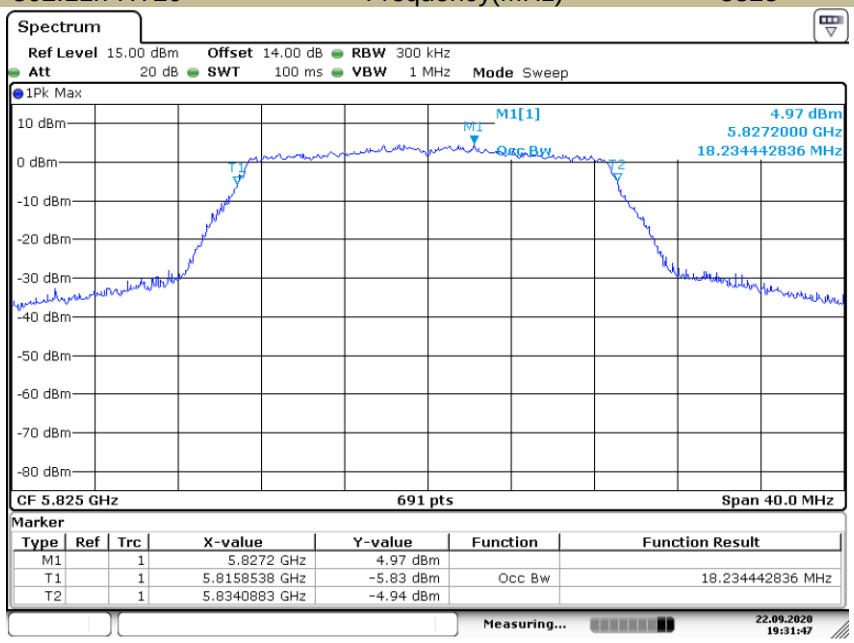
Date: 22.SEP.2020 19:31:04

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5785



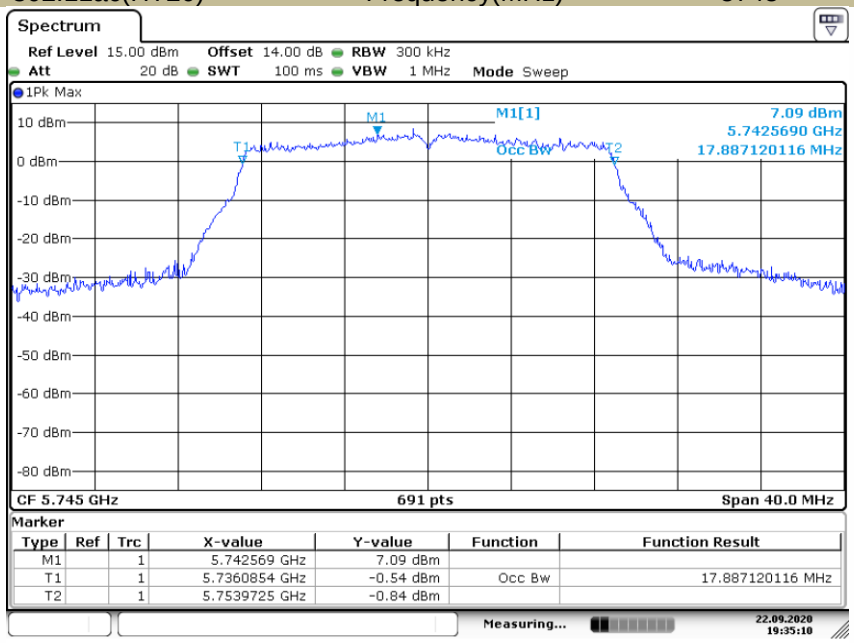
Date: 22.SEP.2020 19:31:27

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11n-HT20	Frequency(MHz)	5825



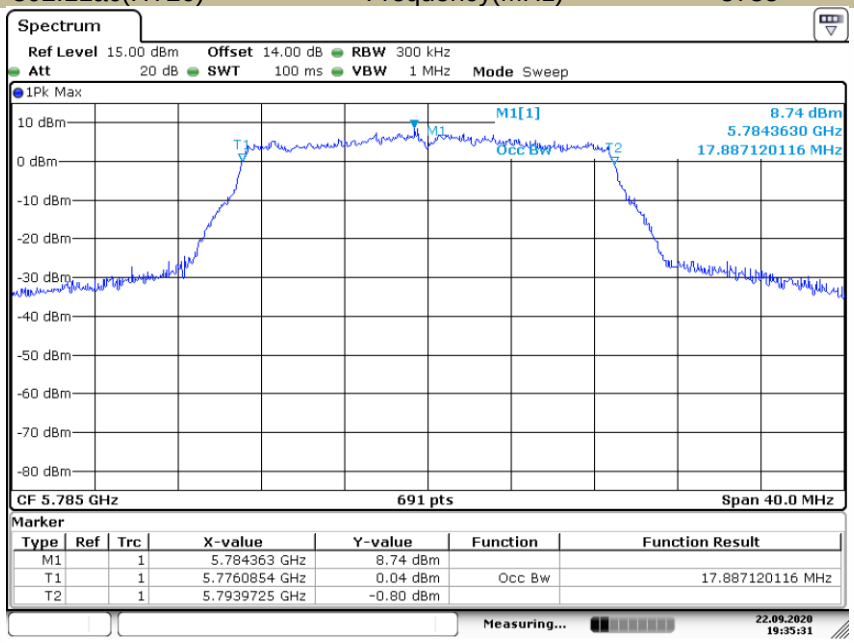
Date: 22.SEP.2020 19:31:47

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5745



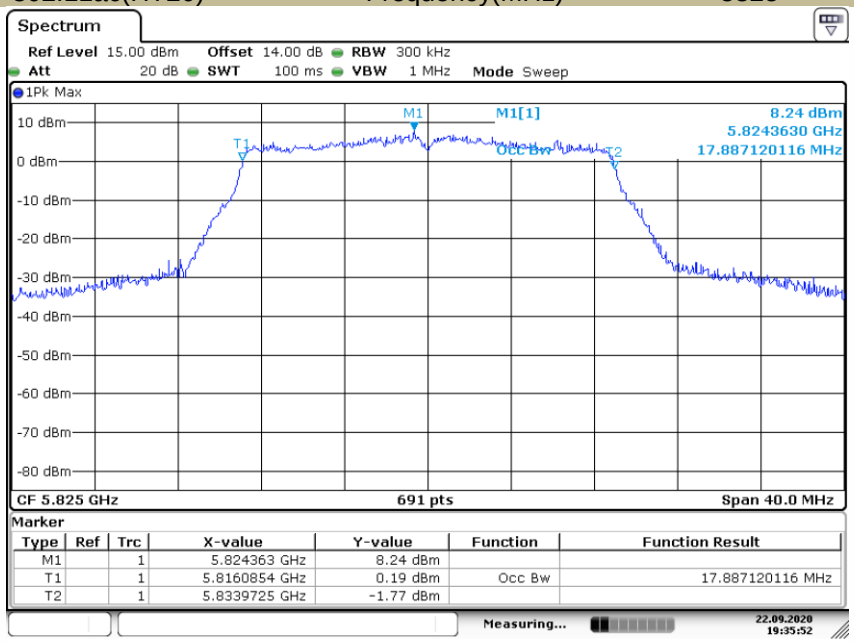
Date: 22.SEP.2020 19:35:10

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5785



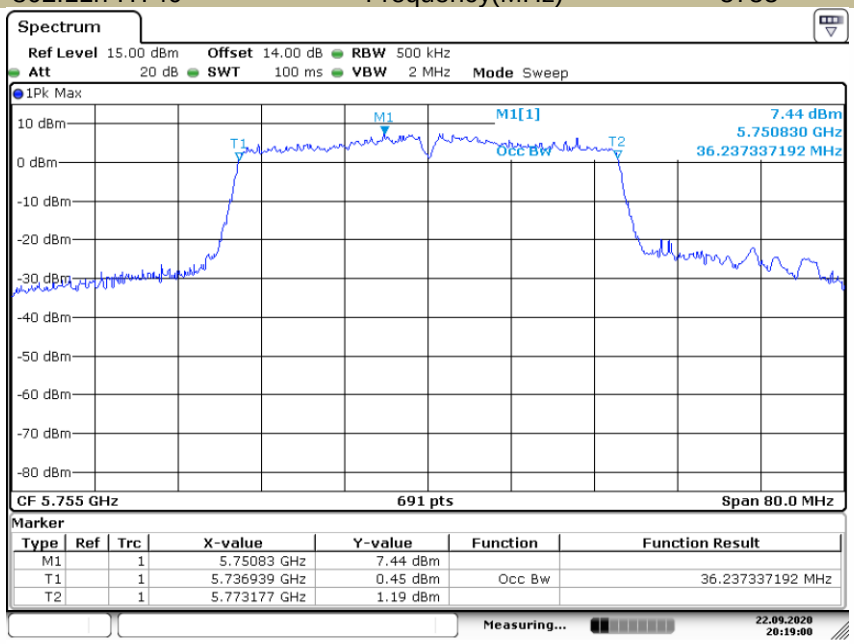
Date: 22.SEP.2020 19:35:31

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5825



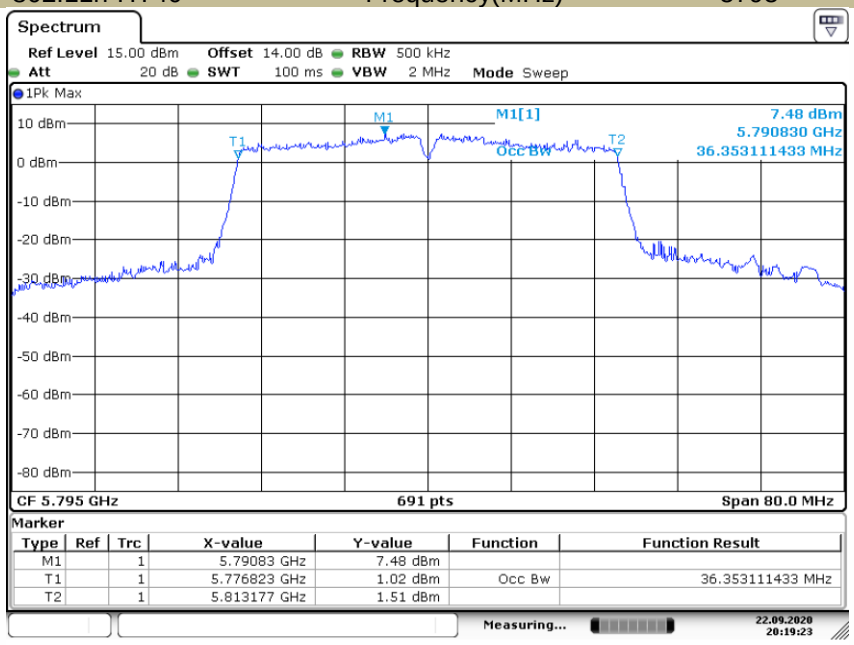
Date: 22.SEP.2020 19:35:52

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5755



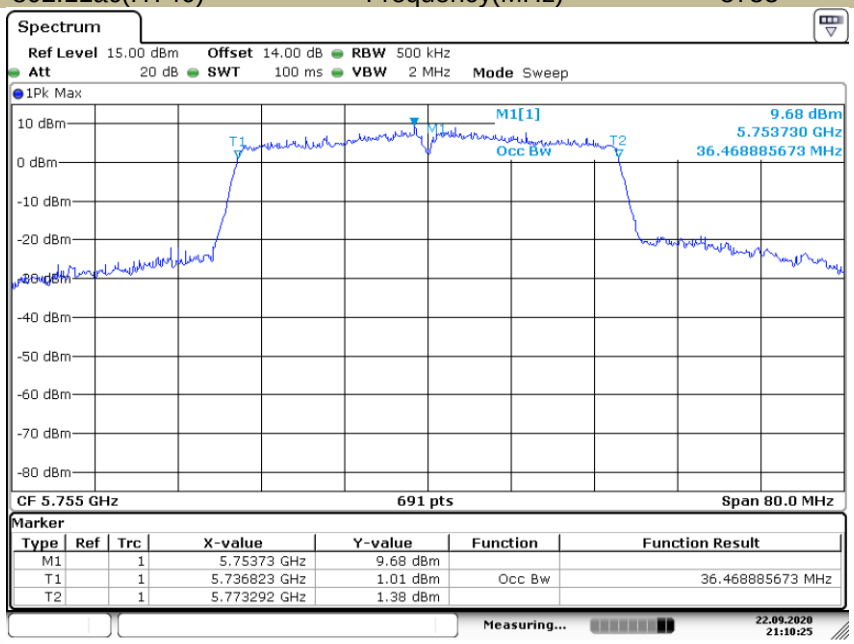
Date: 22.SEP.2020 20:18:59

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5795



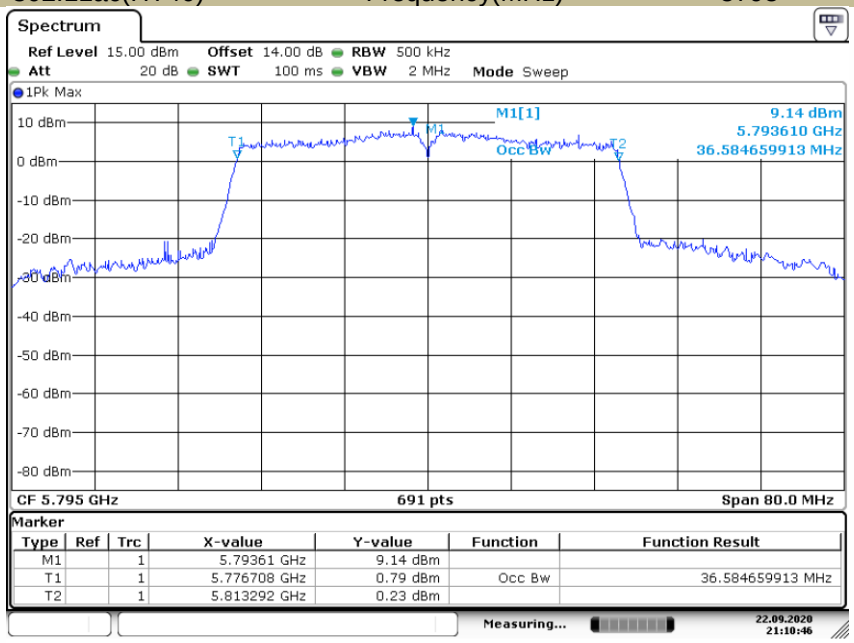
Date: 22.SEP.2020 20:19:23

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5755



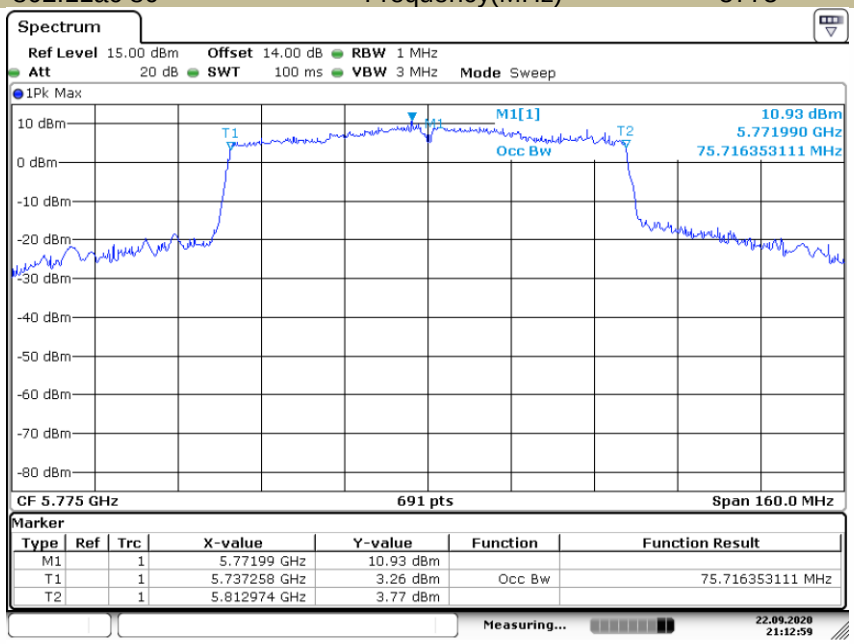
Date: 22.SEP.2020 21:10:25

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5795



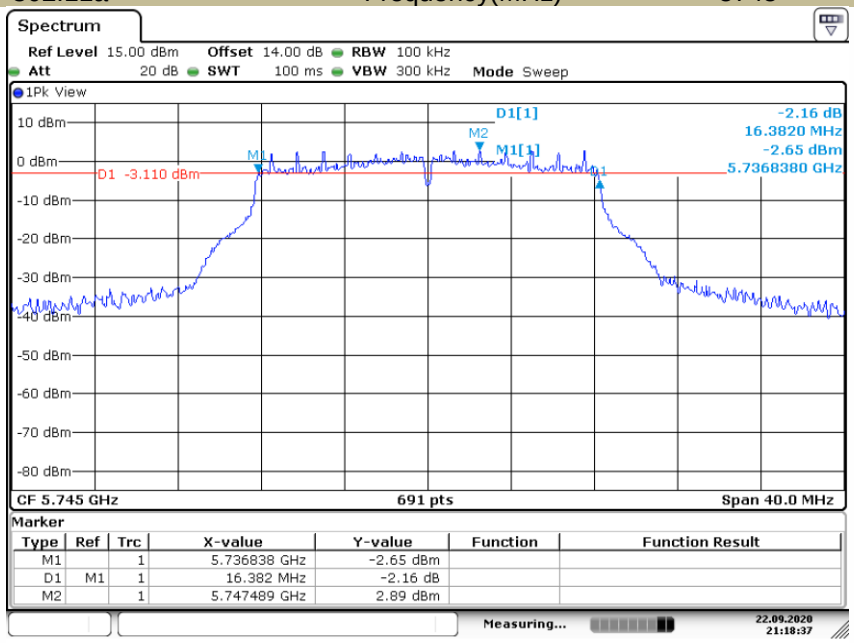
Date: 22.SEP.2020 21:10:45

99% Occupied Bandwidth		U-NII - 3	
Test Model	802.11ac 80	Frequency(MHz)	5775



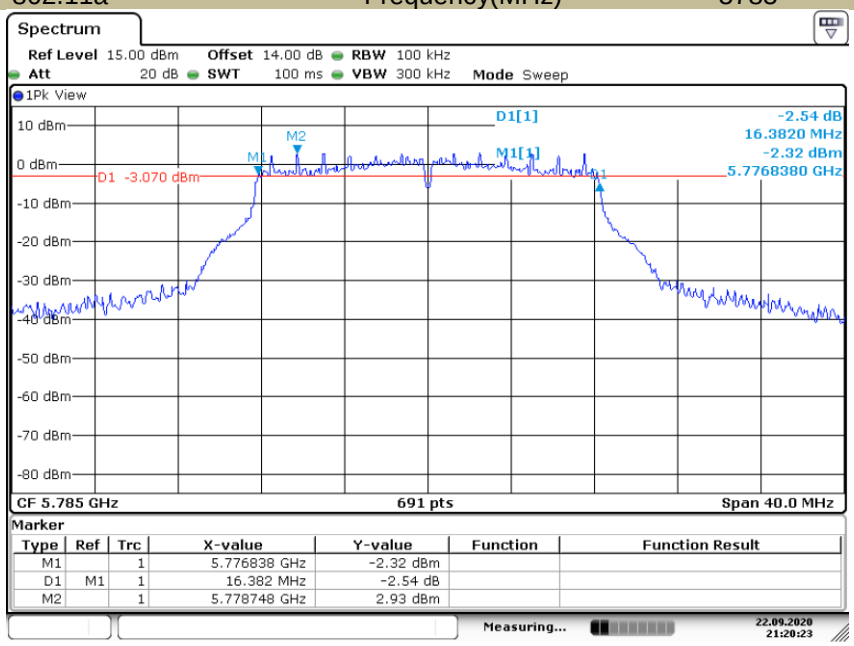
Date: 22.SEP.2020 21:12:59

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5745



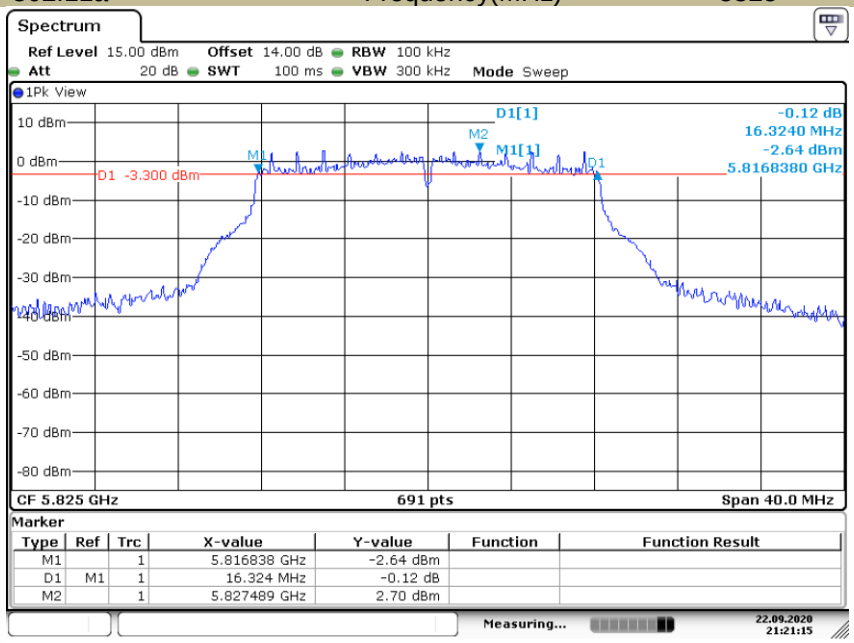
Date: 22.SEP.2020 21:18:37

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5785



Date: 22.SEP.2020 21:20:24

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5825



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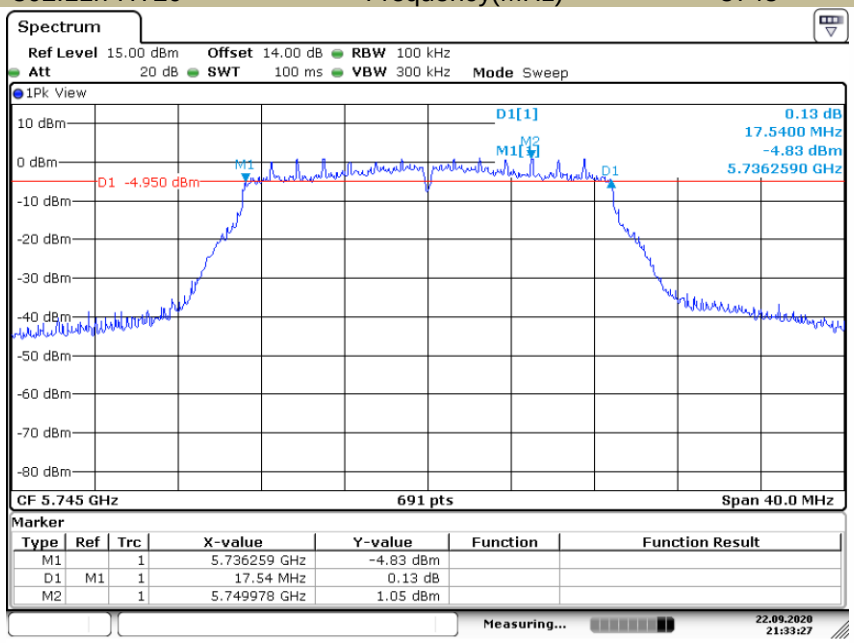
Test Model	802.11n-HT20	Frequency(MHz)	5745



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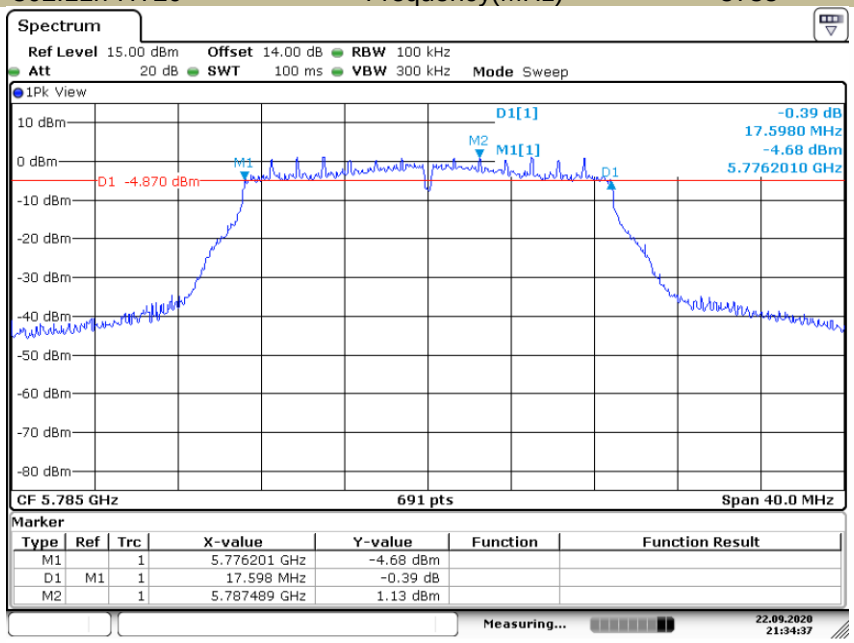
Test Model	802.11n-HT20	Frequency(MHz)	5785



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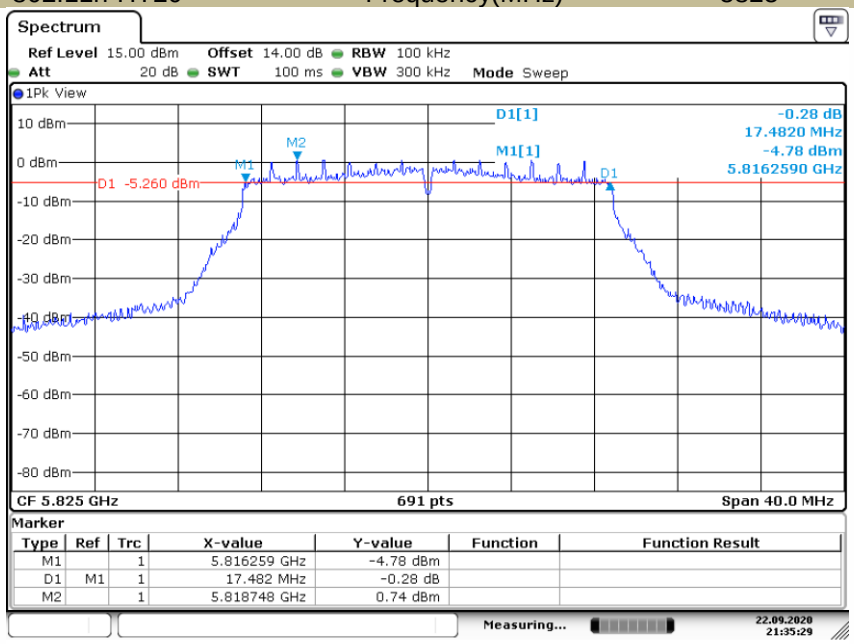
Test Model	802.11n-HT20	Frequency(MHz)	5825



Date: 22.SEP.2020 21:35:29

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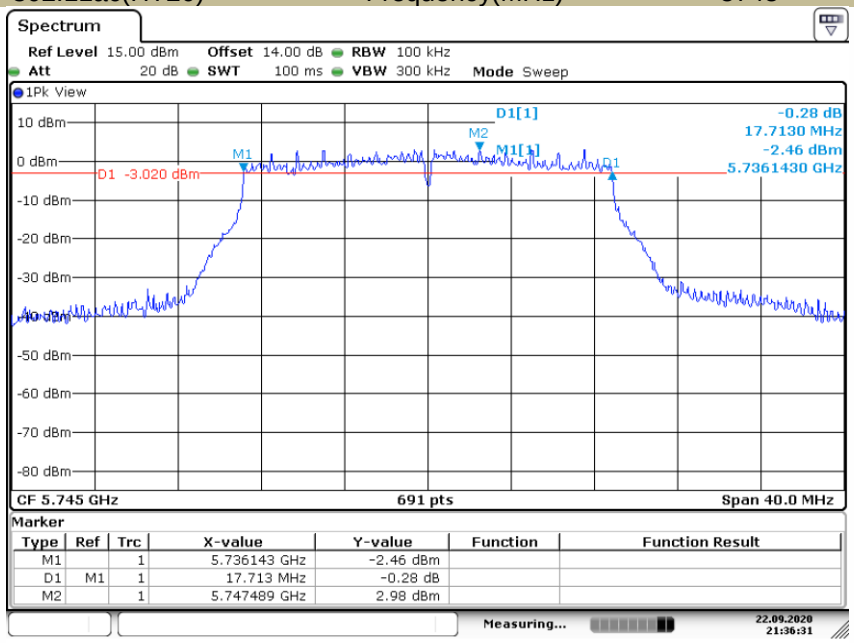
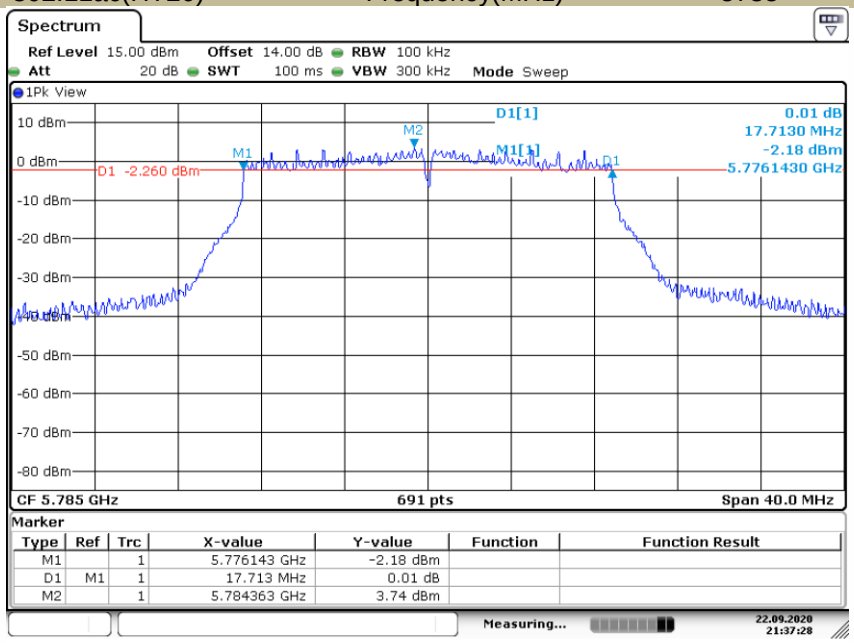
Test Model	802.11ac(HT20)	Frequency(MHz)	5745



Date: 22.SEP.2020 21:36:31

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5785



Date: 22.SEP.2020 21:37:28

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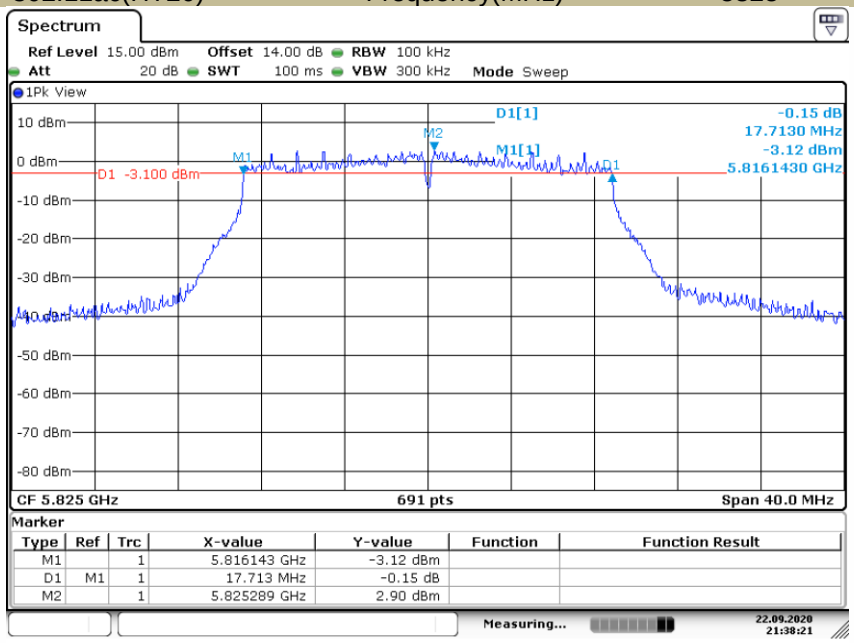
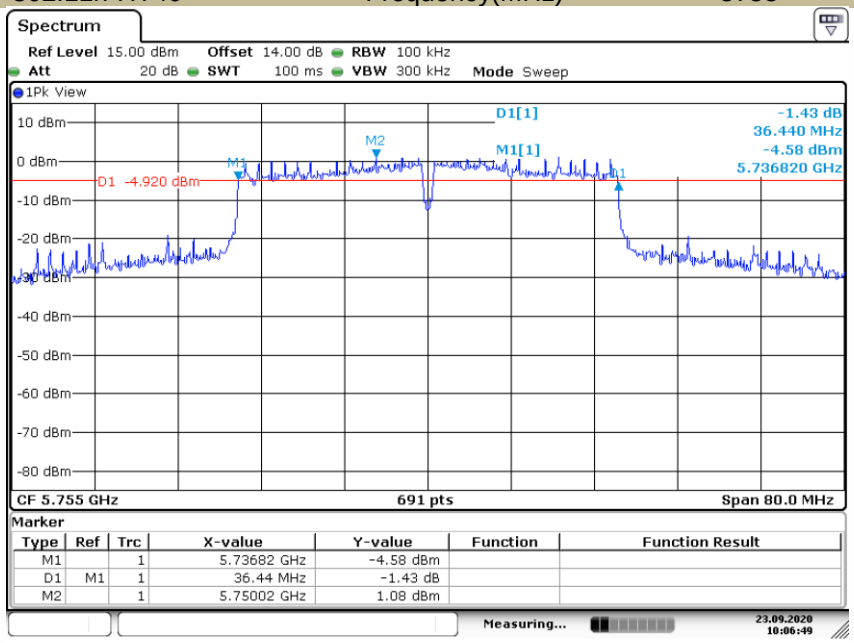
Test Model	802.11ac(HT20)	Frequency(MHz)	5825



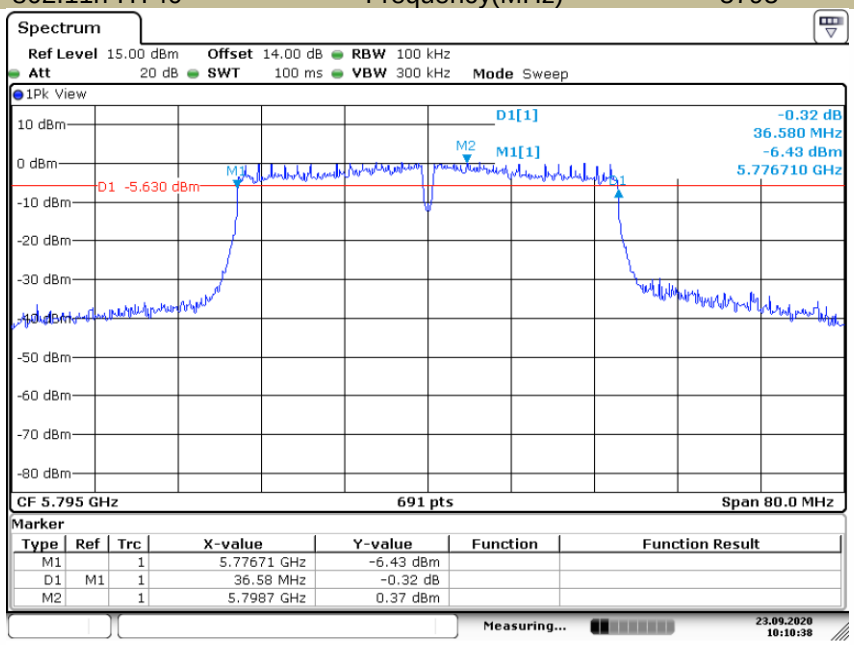
Date: 22.SEP.2020 21:38:21

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5755



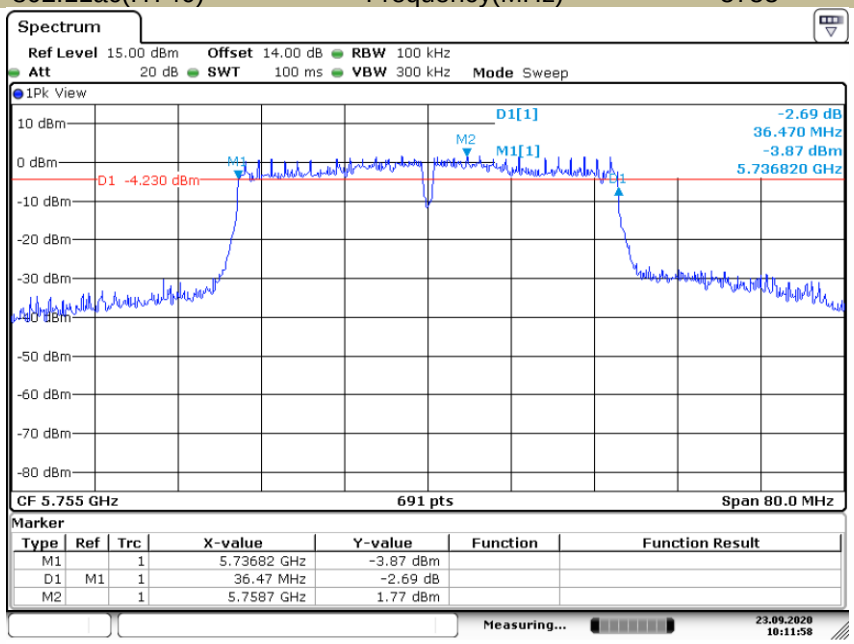
Date: 23.SEP.2020 10:06:50

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5795



Date: 23.SEP.2020 10:10:38

6db Emission Bandwidth		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5755



Date: 23.SEP.2020 10:11:58

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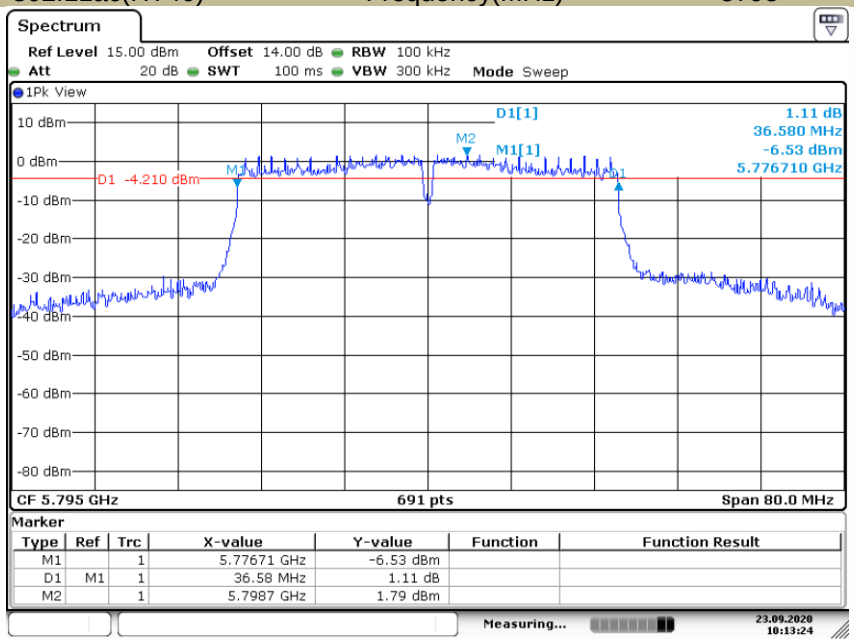

Date: 23.SEP.2020 10:13:24

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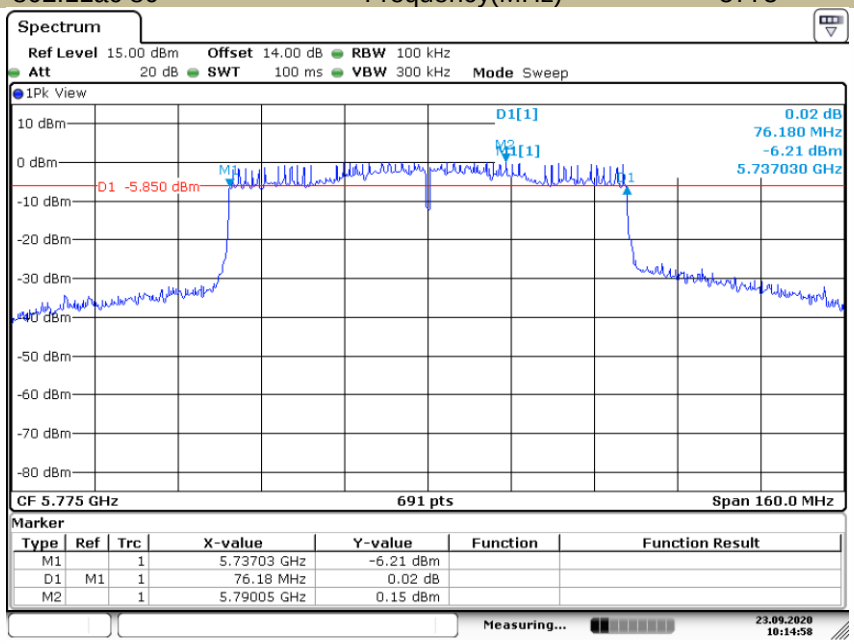

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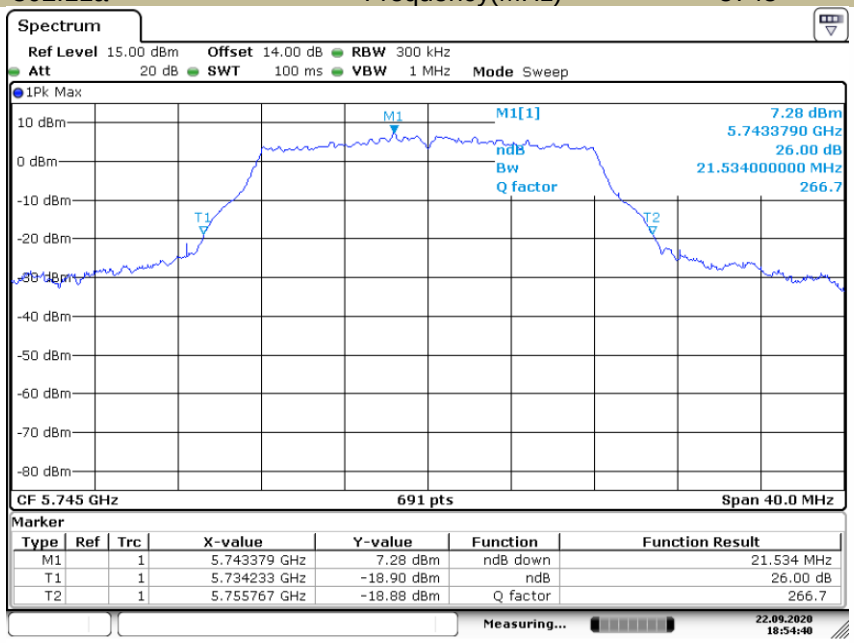
26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11a	Frequency(MHz)	5745



Date: 22.SEP.2020 18:54:40

26dB Emission Bandwidth		U-NII - 3	
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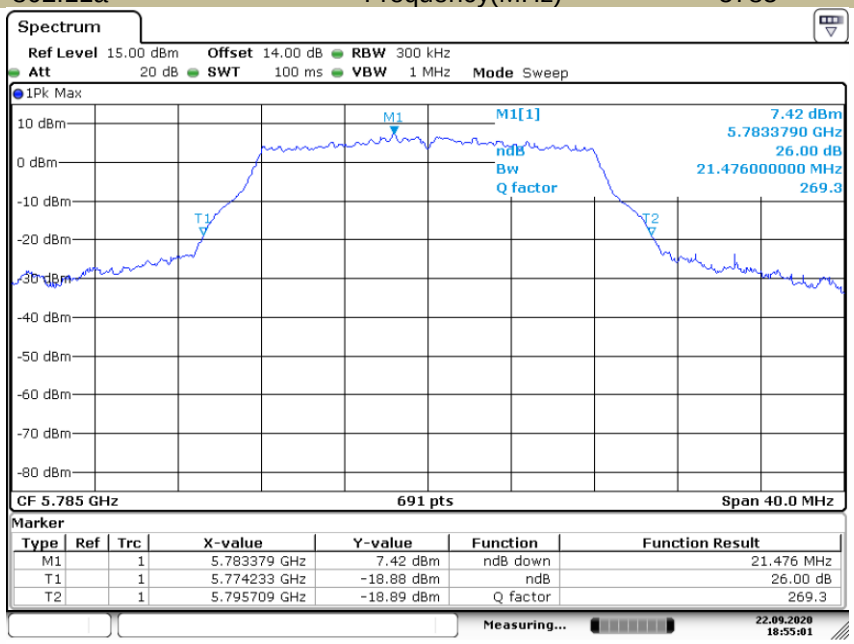

Date: 22.SEP.2020 18:55:01

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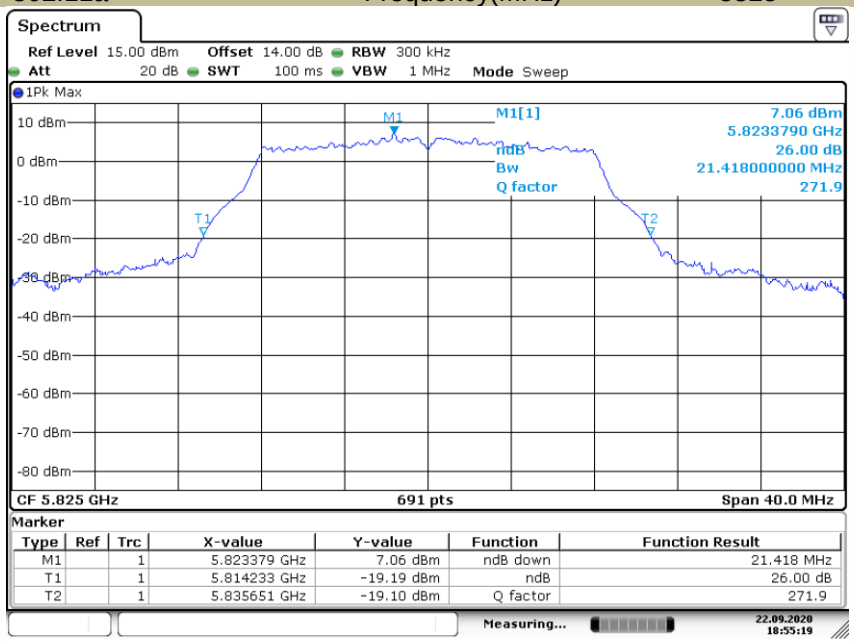
Test Model	802.11a	Frequency(MHz)	5825



Date: 22.SEP.2020 18:55:19

26dB Emission Bandwidth		U-NII - 3	
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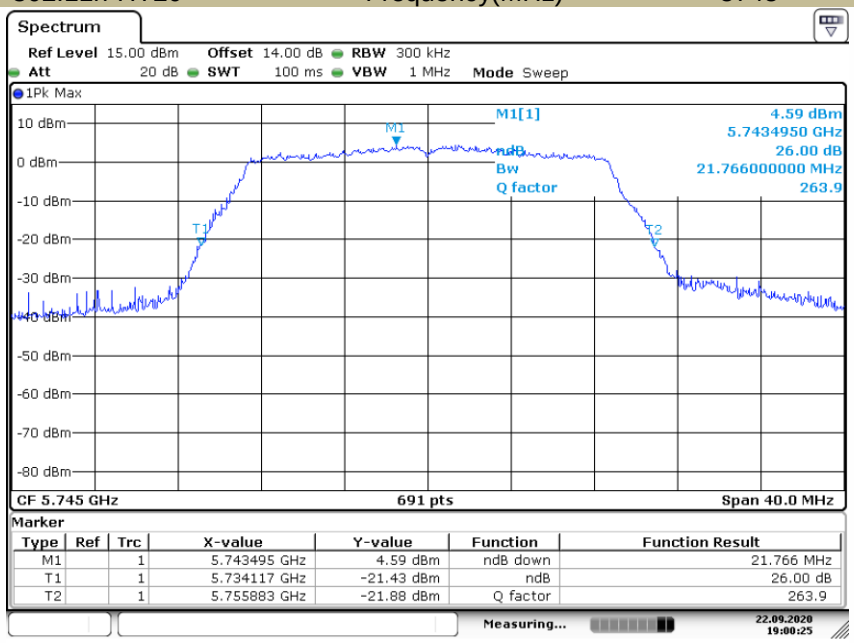

Date: 22.SEP.2020 19:00:26

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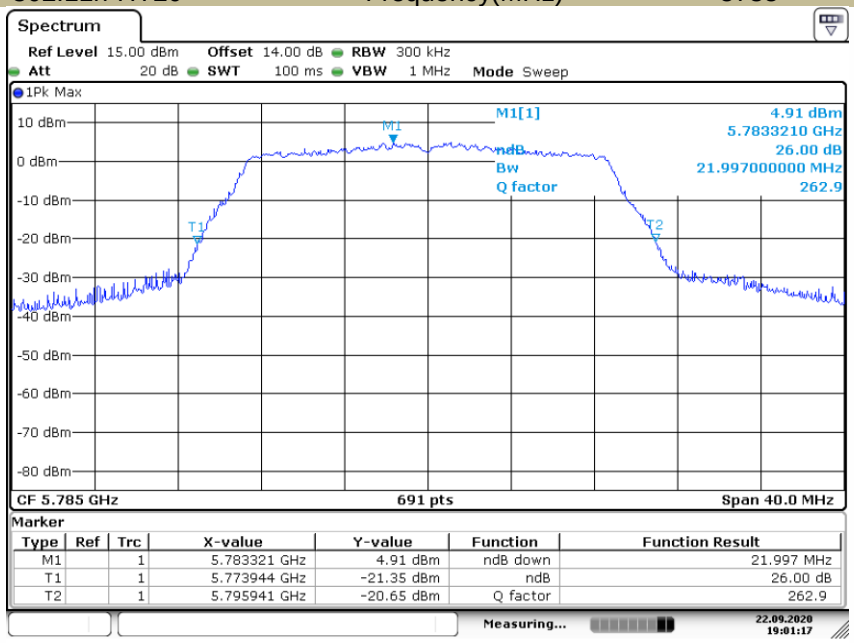

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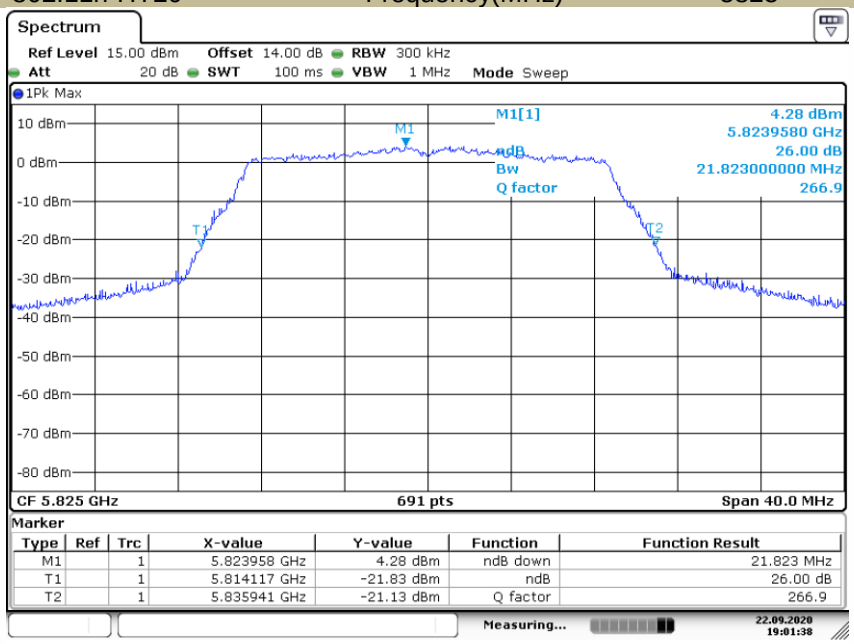

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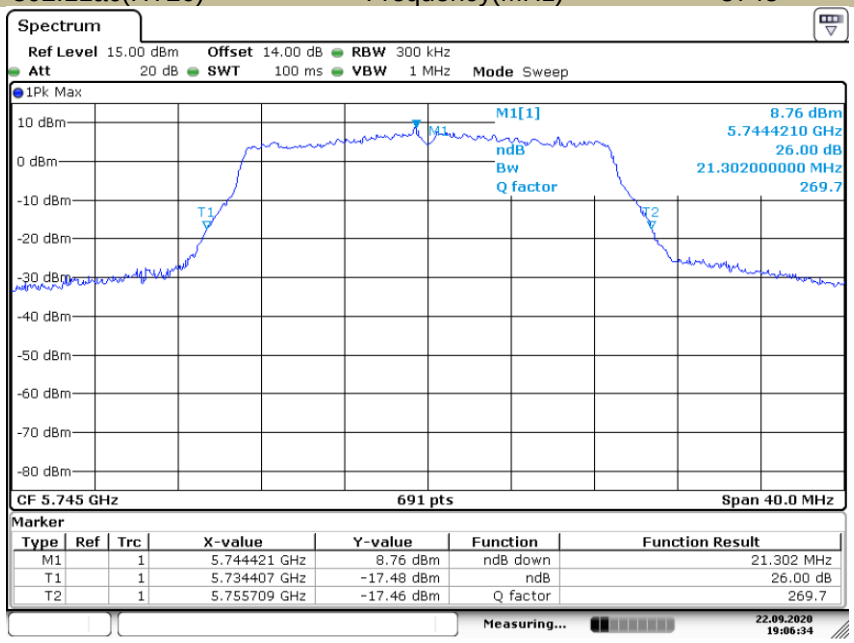
26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5745



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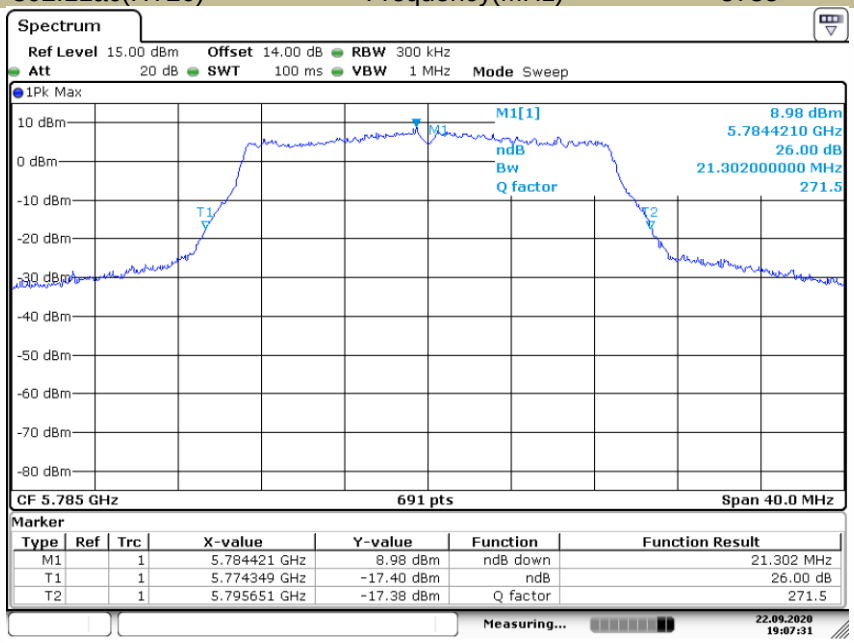
26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11ac(HT20)	Frequency(MHz)	5785



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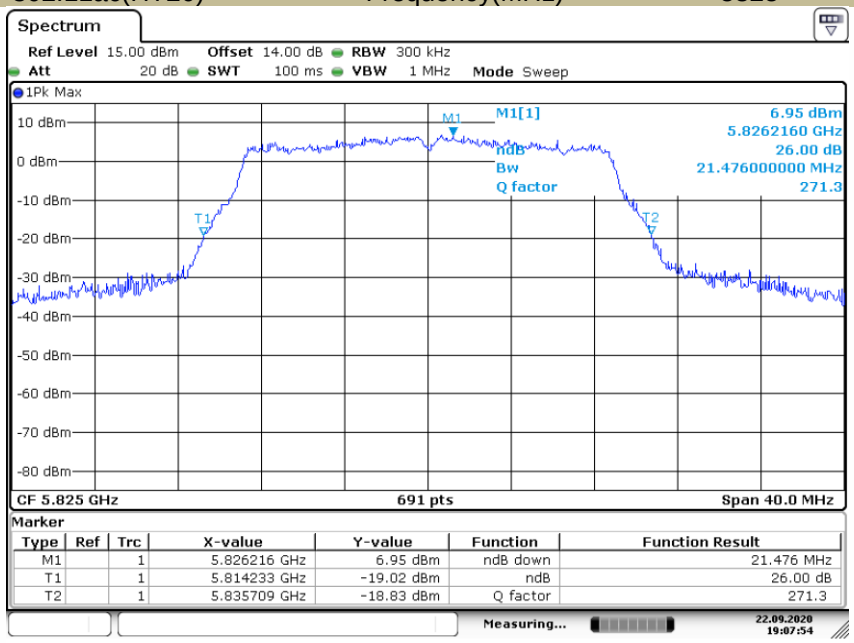
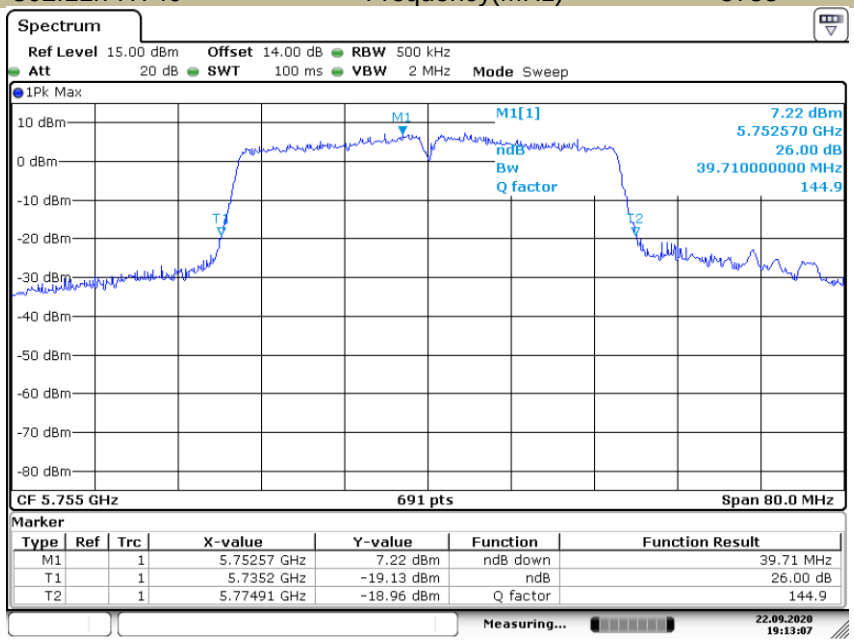


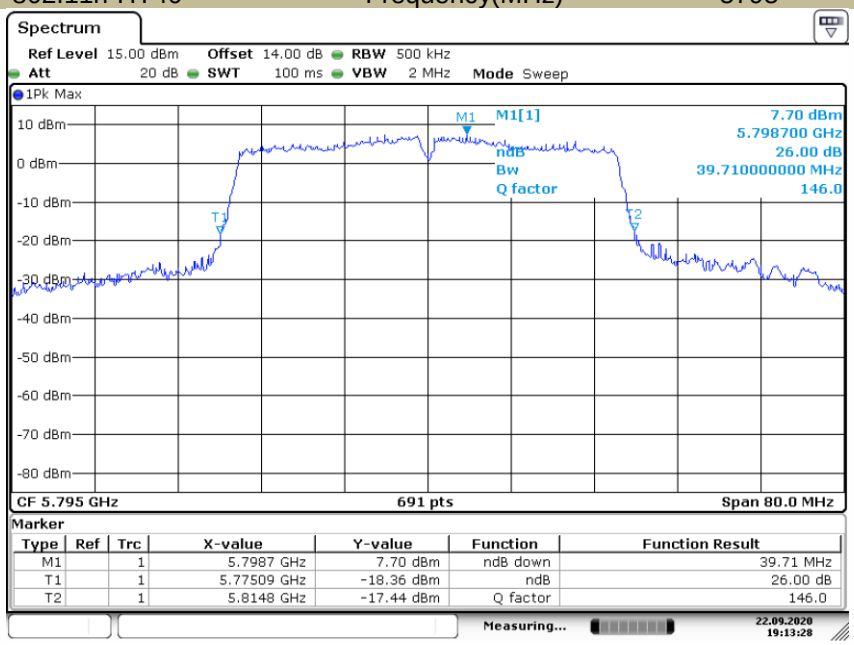
Date: 22.SEP.2020 19:07:53

26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5755



Date: 22.SEP.2020 19:13:07

26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11n-HT40	Frequency(MHz)	5795



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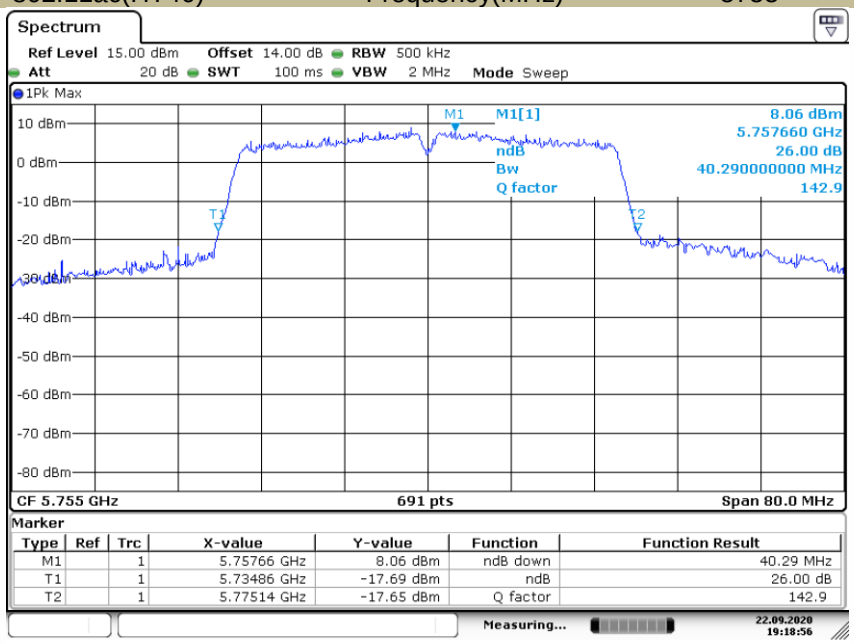
26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11ac(HT40)	Frequency(MHz)	5755



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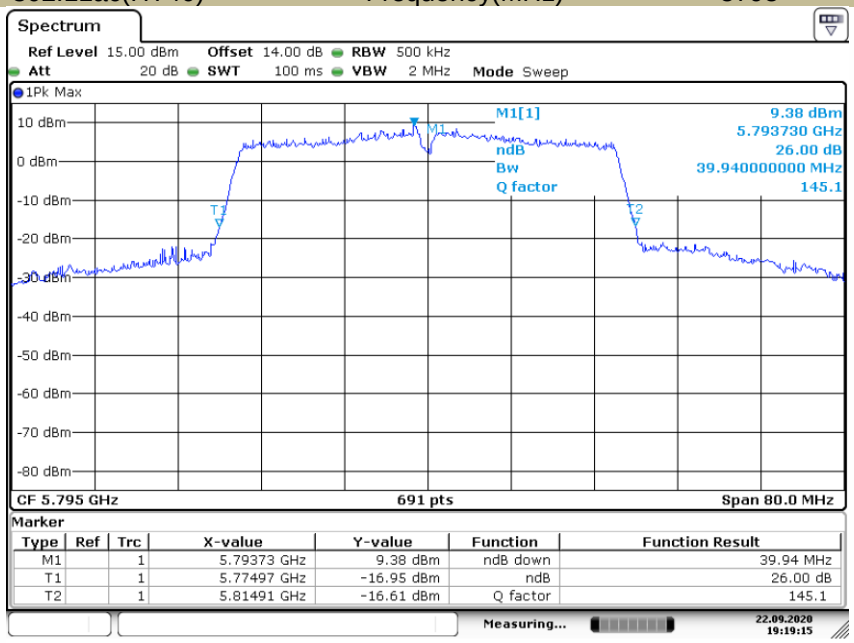
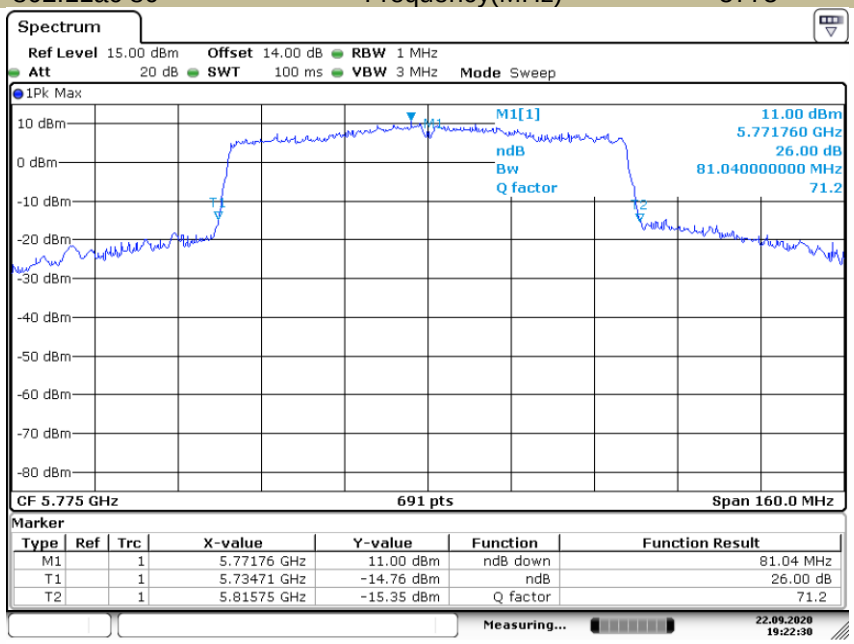


Date: 22.SEP.2020 19:19:15

26dB Emission Bandwidth		U-NII - 3	
Test Model	802.11ac 80	Frequency(MHz)	5775



Date: 22.SEP.2020 19:22:30

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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(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. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(a) (1) (iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands
(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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):
Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

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.

8.2.5 Test Results

For 1T1R - Antenna 0

☒ 802.11a mode

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH36	5180	16.77	24	Pass
	CH40	5200	16.20	24	Pass
	CH48	5240	16.18	24	Pass

☒ 802.11n-HT20

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH36	5180	16.56	24	Pass
	CH40	5200	15.99	24	Pass
	CH48	5240	16.11	24	Pass

☒ 802.11 ac (HT20)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH36	5180	16.27	24	Pass
	CH40	5200	15.92	24	Pass
	CH48	5240	16.06	24	Pass

☒ 802.11n-HT40

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH38	5190	16.28	24	Pass
	CH46	5230	15.91	24	Pass

☒ 802.11 ac (HT40)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH38	5190	16.14	24	Pass
	CH46	5230	15.80	24	Pass

☒ 802.11 ac (HT80)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII - 1	CH42	5210	14.96	24	Pass

☒ 802.11a mode

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH52	5260	15.58	24	Pass
	CH56	5280	15.49	24	Pass
	CH64	5320	15.96	24	Pass

☒ 802.11n-HT20

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH52	5260	15.52	24	Pass
	CH56	5280	15.04	24	Pass
	CH64	5320	15.50	24	Pass

☒ 802.11 ac (HT20)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH52	5260	15.30	24	Pass
	CH56	5280	15.00	24	Pass
	CH64	5320	15.50	24	Pass

☒ 802.11n-HT40

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH54	5270	15.20	24	Pass
	CH62	5310	15.45	24	Pass

☒ 802.11 ac (HT40)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH54	5270	14.95	24	Pass
	CH62	5310	15.33	24	Pass

☒ 802.11 ac (HT80)

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	Limit (dBm)	Verdict
U-NII – 2A	CH58	5290	15.86	24	Pass