

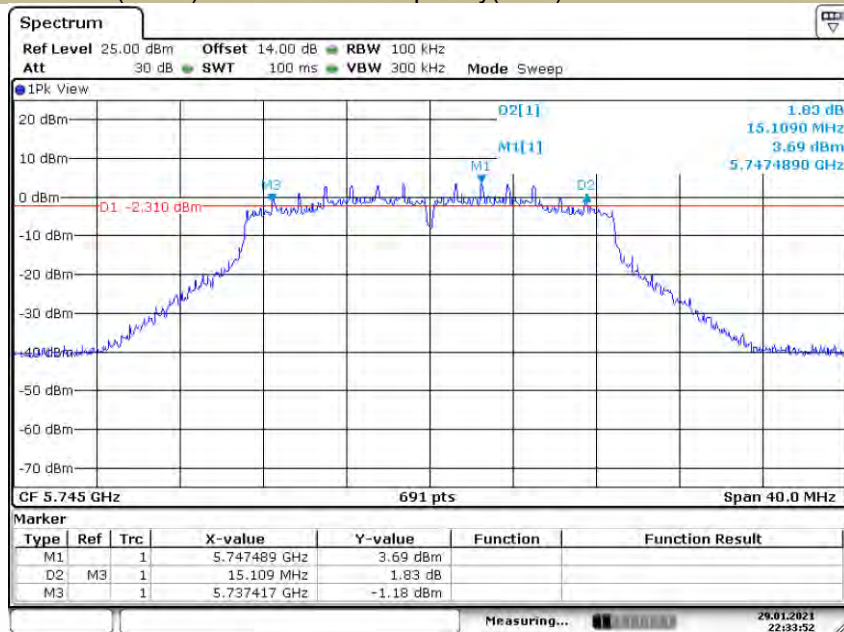
6db Emission Bandwidth

Test Model 802.11ac(HT20)

U-NII - 3

Frequency(MHz)

5745



Date: 29 JAN 2021 22:33:52

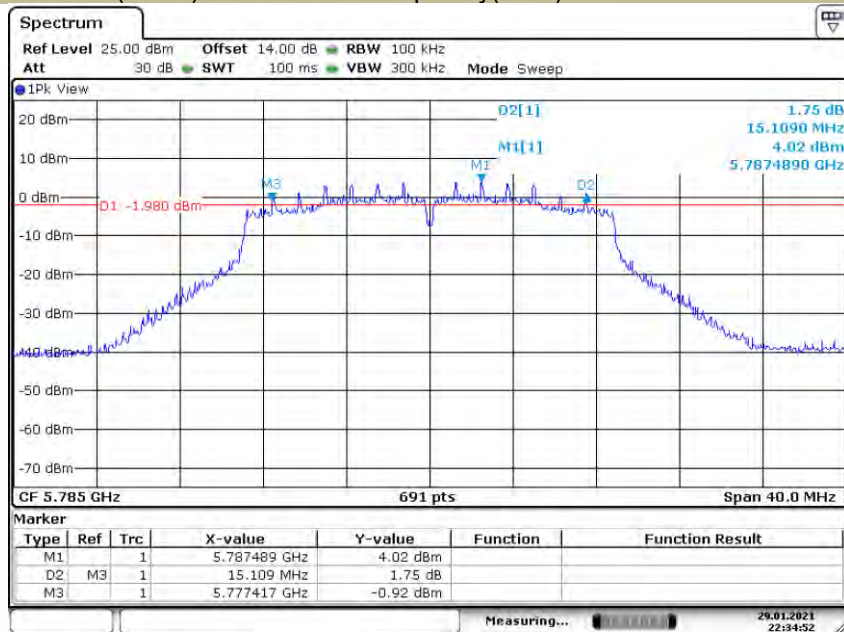
6db Emission Bandwidth

Test Model 802.11ac(HT20)

U-NII - 3

Frequency(MHz)

5785



Date: 29 JAN 2021 22:34:52

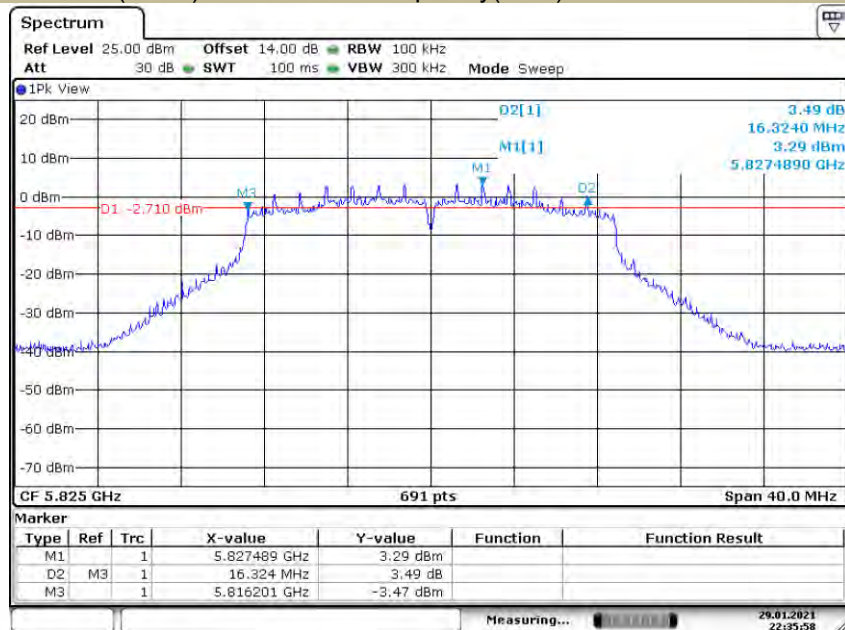
6db Emission Bandwidth

Test Model 802.11ac(HT20)

U-NII - 3

Frequency(MHz)

5825



Date: 29 JAN 2021 22:35:58

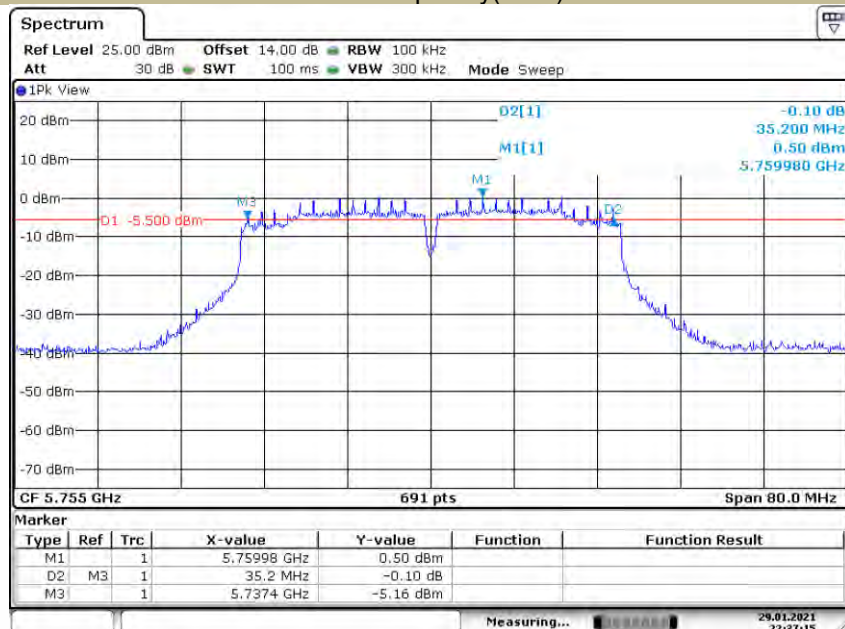
6db Emission Bandwidth

Test Model 802.11n-HT40

U-NII - 3

Frequency(MHz)

5755



Date: 29 JAN 2021 22:37:16

6db Emission Bandwidth

Test Model 802.11n-HT40

U-NII - 3
Frequency(MHz)

5795



Date: 29 JAN 2021 22:38:29

6db Emission Bandwidth

Test Model 802.11ac(HT40)

U-NII - 3
Frequency(MHz)

5755



Date: 29 JAN 2021 22:39:40

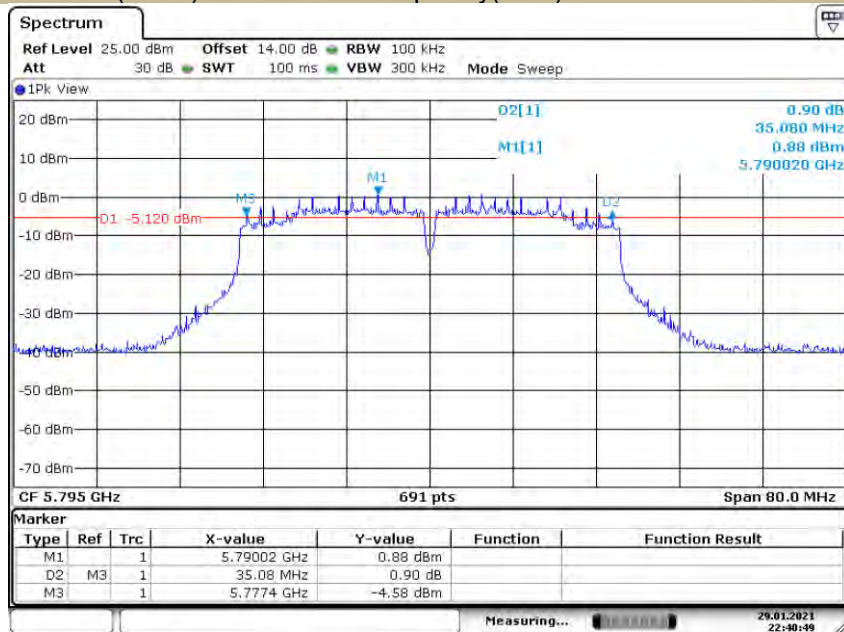
6db Emission Bandwidth

Test Model 802.11ac(HT40)

U-NII - 3

Frequency(MHz)

5795



Date: 29 JAN 2021 22:40:50

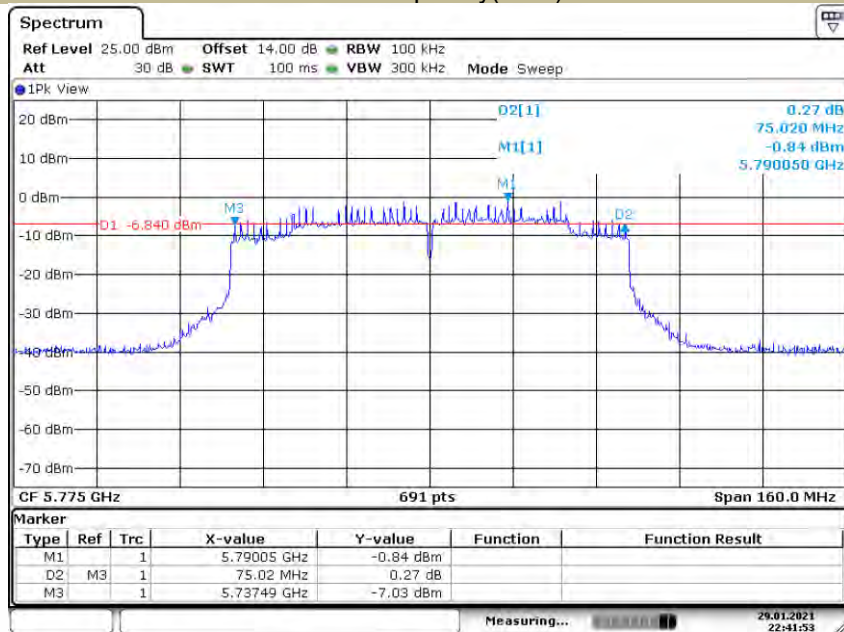
6db Emission Bandwidth

Test Model 802.11ac 80

U-NII - 3

Frequency(MHz)

5775



Date: 29 JAN 2021 22:41:53

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 $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, 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

UNII Band I		
Temperature :	28℃	Test By: TOM
Humidity :	56%	
Antenna 1		

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH36	5180	13.07	24	Pass
	CH40	5200	13.41	24	Pass
	CH48	5240	12.52	24	Pass
802.11n (HT20)	CH36	5180	13.01	24	Pass
	CH40	5200	13.31	24	Pass
	CH48	5240	12.48	24	Pass
802.11AC (VHT20)	CH36	5180	12.95	24	Pass
	CH40	5200	13.33	24	Pass
	CH48	5240	12.46	24	Pass
802.11n (HT40)	CH38	5190	13.34	24	Pass
	CH46	5230	12.98	24	Pass
802.11AC (VHT40)	CH38	5190	13.32	24	Pass
	CH46	5230	13.02	24	Pass
802.11AC (VHT80)	CH42	5210	13.43	24	Pass
802.11AC (VHT160)	CH50	5250	13.04	24	Pass

UNII Band I		
Temperature :	28℃	Test By: TOM
Humidity :	56%	
Antenna 2		

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH36	5180	13.23	24	Pass
	CH40	5200	13.55	24	Pass
	CH48	5240	12.71	24	Pass
802.11n (HT20)	CH36	5180	13.32	24	Pass
	CH40	5200	13.47	24	Pass
	CH48	5240	12.74	24	Pass
802.11AC (VHT20)	CH36	5180	13.31	24	Pass
	CH40	5200	13.52	24	Pass
	CH48	5240	12.71	24	Pass
802.11n (HT40)	CH38	5190	13.72	24	Pass
	CH46	5230	12.95	24	Pass
802.11AC (VHT40)	CH38	5190	13.62	24	Pass
	CH46	5230	12.98	24	Pass
802.11AC (VHT80)	CH42	5210	13.47	24	Pass
802.11AC (VHT160)	CH50	5250	12.06	24	Pass

Temperature : 28℃		UNII Band I	
Humidity : 56%		Test By: TOM	
Antenna 1+2			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11n (HT20)	CH36	5180	16.18	24	Pass
	CH40	5200	16.40	24	Pass
	CH48	5240	15.62	24	Pass
802.11AC (VHT20)	CH36	5180	16.14	24	Pass
	CH40	5200	16.44	24	Pass
	CH48	5240	15.60	24	Pass
802.11n (HT40)	CH38	5190	16.54	24	Pass
	CH46	5230	15.98	24	Pass
802.11AC (VHT40)	CH38	5190	16.48	24	Pass
	CH46	5230	16.01	24	Pass
802.11AC (VHT80)	CH42	5210	16.46	24	Pass
802.11AC (VHT160)	CH50	5250	15.59	24	Pass

Temperature :	28℃	UNII Band II-A	Test By:	TOM
Humidity :	56%			
Antenna 1				

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH52	5260	12.29	24	Pass
	CH56	5280	12.55	24	Pass
	CH64	5320	12.65	24	Pass
802.11n (HT20)	CH52	5260	12.28	24	Pass
	CH56	5280	12.52	24	Pass
	CH64	5320	12.51	24	Pass
802.11AC (VHT20)	CH52	5260	12.29	24	Pass
	CH56	5280	12.55	24	Pass
	CH64	5320	12.55	24	Pass
802.11n (HT40)	CH54	5270	12.70	24	Pass
	CH62	5310	13.00	24	Pass
802.11AC (VHT40)	CH54	5270	12.62	24	Pass
	CH62	5310	12.90	24	Pass
802.11AC (VHT80)	CH42	5290	13.05	24	Pass

Temperature :	28℃	UNII Band II-A	Test By:	TOM
Humidity :	56%			
Antenna 2				

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH52	5260	12.71	24	Pass
	CH56	5280	12.99	24	Pass
	CH64	5320	13.18	24	Pass
802.11n (HT20)	CH52	5260	12.69	24	Pass
	CH56	5280	12.97	24	Pass
	CH64	5320	13.14	24	Pass
802.11AC (VHT20)	CH52	5260	12.69	24	Pass
	CH56	5280	12.93	24	Pass
	CH64	5320	13.16	24	Pass
802.11n (HT40)	CH54	5270	13.02	24	Pass
	CH62	5310	13.55	24	Pass
802.11AC (VHT40)	CH54	5270	12.84	24	Pass
	CH62	5310	13.39	24	Pass
802.11AC (VHT80)	CH42	5290	13.38	24	Pass

Temperature :	28℃	UNII Band II-A	
Humidity :	56%	Test By:	TOM
Antenna 1+2			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11n (HT20)	CH52	5260	15.50	24	Pass
	CH56	5280	15.76	24	Pass
	CH64	5320	15.85	24	Pass
802.11AC (VHT20)	CH52	5260	15.50	24	Pass
	CH56	5280	15.75	24	Pass
	CH64	5320	15.88	24	Pass
802.11n (HT40)	CH54	5270	15.87	24	Pass
	CH62	5310	16.29	24	Pass
802.11AC (VHT40)	CH54	5270	15.74	24	Pass
	CH62	5310	16.16	24	Pass
802.11AC (VHT80)	CH42	5290	16.23	24	Pass

Temperature :	28℃	UNII Band II-C	Test By:	TOM
Humidity :	56%			
Antenna 1				

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH100	5500	13.51	24	Pass
	CH116	5580	13.46	24	Pass
	CH140	5700	14.03	24	Pass
802.11n (HT20)	CH100	5500	13.44	24	Pass
	CH116	5580	13.42	24	Pass
	CH140	5700	14.07	24	Pass
802.11AC (VHT20)	CH100	5500	13.45	24	Pass
	CH116	5580	13.41	24	Pass
	CH140	5700	14.09	24	Pass
802.11n (HT40)	CH102	5510	13.75	24	Pass
	CH134	5670	13.78	24	Pass
802.11AC (VHT40)	CH102	5510	13.70	24	Pass
	CH134	5670	13.70	24	Pass
802.11AC (VHT80)	CH106	5530	13.57	24	Pass
802.11AC (VHT160)	CH114	5570	11.93	24	Pass

Temperature :	28℃	UNII Band II-C	Test By:	TOM
Humidity :	56%			
Antenna 2				

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH100	5500	13.57	24	Pass
	CH116	5580	13.60	24	Pass
	CH140	5700	14.25	24	Pass
802.11n (HT20)	CH100	5500	13.52	24	Pass
	CH116	5580	13.56	24	Pass
	CH140	5700	14.20	24	Pass
802.11AC (VHT20)	CH100	5500	13.52	24	Pass
	CH116	5580	13.56	24	Pass
	CH140	5700	14.20	24	Pass
802.11n (HT40)	CH102	5510	13.70	24	Pass
	CH134	5670	13.88	24	Pass
802.11AC (VHT40)	CH102	5510	13.67	24	Pass
	CH134	5670	13.75	24	Pass
802.11AC (VHT80)	CH106	5530	13.62	24	Pass
802.11AC (VHT160)	CH114	5570	11.04	24	Pass

Temperature :	28℃	UNII Band II-C	
Humidity :	56%	Test By:	TOM
Antenna 1+2			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11n (HT20)	CH100	5500	16.49	23.41	Pass
	CH116	5580	16.50	23.41	Pass
	CH140	5700	17.15	23.41	Pass
802.11AC (VHT20)	CH100	5500	16.50	23.41	Pass
	CH116	5580	16.50	23.41	Pass
	CH140	5700	17.16	23.41	Pass
802.11n (HT40)	CH102	5510	16.74	23.41	Pass
	CH134	5670	16.84	23.41	Pass
802.11AC (VHT40)	CH102	5510	16.70	23.41	Pass
	CH134	5670	16.74	23.41	Pass
802.11AC (VHT80)	CH106	5530	16.61	23.41	Pass
802.11AC (VHT160)	CH114	5570	14.52	23.41	Pass

Temperature :	28℃	UNII Band III	
Humidity :	56%	Test By:	TOM
Antenna 1			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH149	5745	13.49	30.00	Pass
	CH157	5785	13.54	30.00	Pass
	CH165	5825	13.71	30.00	Pass
802.11n (HT20)	CH149	5745	13.44	30.00	Pass
	CH157	5785	13.44	30.00	Pass
	CH165	5825	13.74	30.00	Pass
802.11AC (VHT20)	CH149	5745	13.49	30.00	Pass
	CH157	5785	13.59	30.00	Pass
	CH165	5825	13.75	30.00	Pass
802.11n (HT40)	CH151	5755	13.62	30.00	Pass
	CH159	5795	13.92	30.00	Pass
802.11AC (VHT40)	CH151	5755	13.54	30.00	Pass
	CH159	5795	13.84	30.00	Pass
802.11AC (VHT80)	CH155	5775	13.82	30.00	Pass

Temperature :	28℃	UNII Band III	
Humidity :	56%	Test By:	TOM
Antenna 2			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11a	CH149	5745	14.03	30.00	Pass
	CH157	5785	13.88	30.00	Pass
	CH165	5825	13.97	30.00	Pass
802.11n (HT20)	CH149	5745	14.02	30.00	Pass
	CH157	5785	13.87	30.00	Pass
	CH165	5825	13.95	30.00	Pass
802.11AC (VHT20)	CH149	5745	14.02	30.00	Pass
	CH157	5785	13.80	30.00	Pass
	CH165	5825	13.89	30.00	Pass
802.11n (HT40)	CH151	5755	13.96	30.00	Pass
	CH159	5795	14.16	30.00	Pass
802.11AC (VHT40)	CH151	5755	13.89	30.00	Pass
	CH159	5795	14.00	30.00	Pass
802.11AC (VHT80)	CH155	5775	14.07	30.00	Pass

Temperature :	28℃	UNII Band III	
Humidity :	56%	Test By:	TOM
Antenna 1+2			

Band	Channel Number	Channel Freq. (MHz)	Conducted Power dBm	Limit (dBm)	Verdict
802.11n (HT20)	CH149	5745	16.75	29.41	Pass
	CH157	5785	16.67	29.41	Pass
	CH165	5825	16.86	29.41	Pass
802.11AC (VHT20)	CH149	5745	16.77	29.41	Pass
	CH157	5785	16.71	29.41	Pass
	CH165	5825	16.83	29.41	Pass
802.11n (HT40)	CH151	5755	16.80	29.41	Pass
	CH159	5795	17.05	29.41	Pass
802.11AC (VHT40)	CH151	5755	16.73	29.41	Pass
	CH159	5795	16.93	29.41	Pass
802.11AC (VHT80)	CH155	5775	16.96	29.41	Pass

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

MAXIMUM CONDUCTED OUTPUT POWER

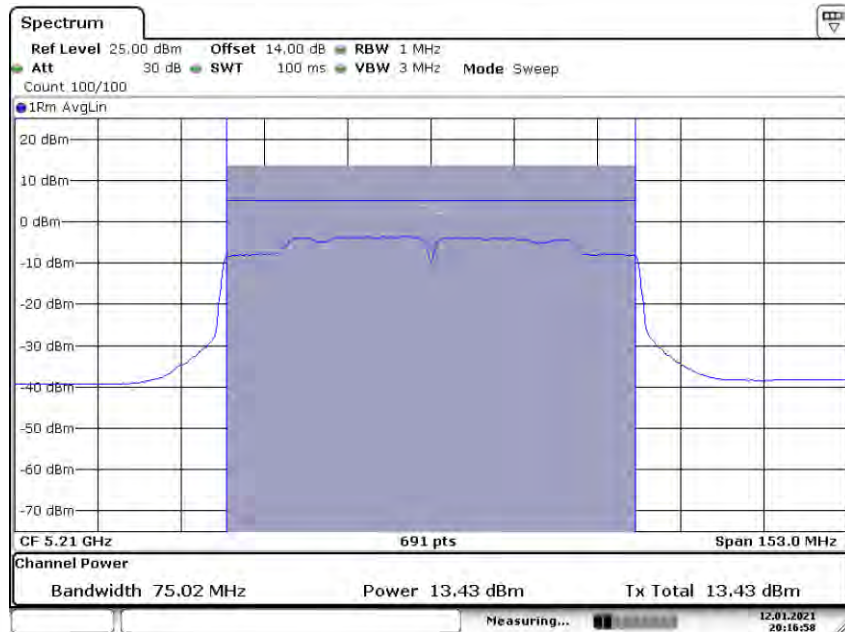
UNII Band I

Test Model 802.11ac(VHT80) mode

Frequency(MHz)

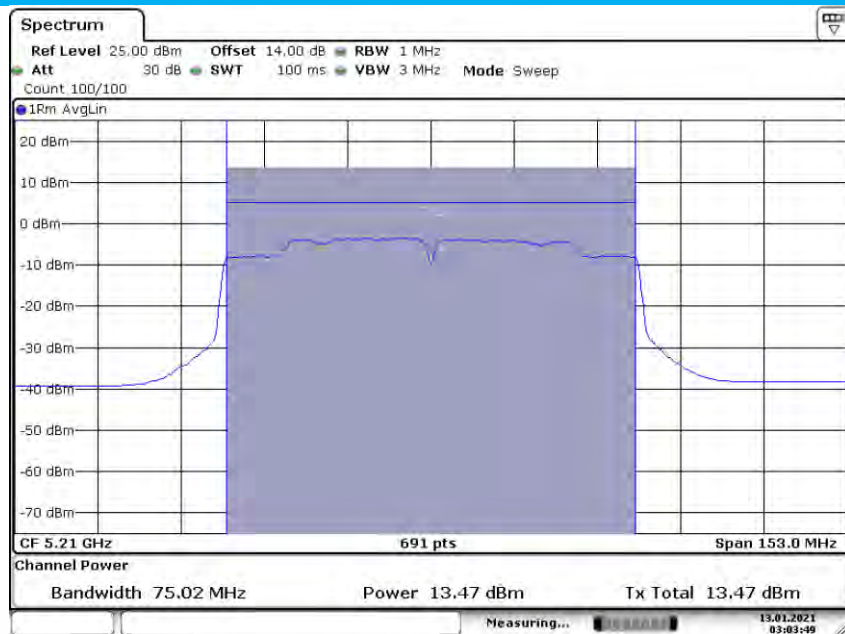
5210

Ant1



Date: 12 JAN 2021 20:16:58

Ant2



Date: 13 JAN 2021 03:03:49

MAXIMUM CONDUCTED OUTPUT POWER

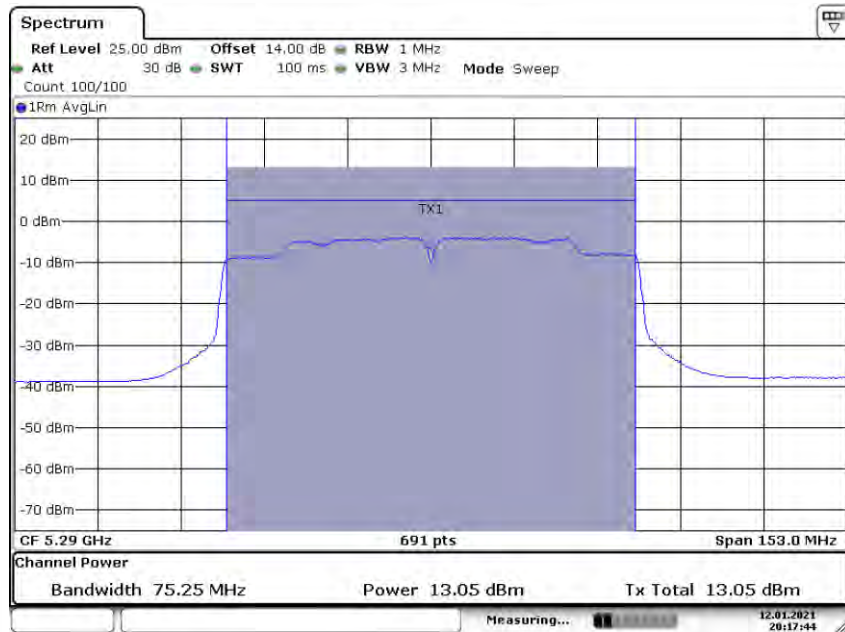
UNII Band II-A

Test Model 802.11ac(VHT80) mode

Frequency(MHz)

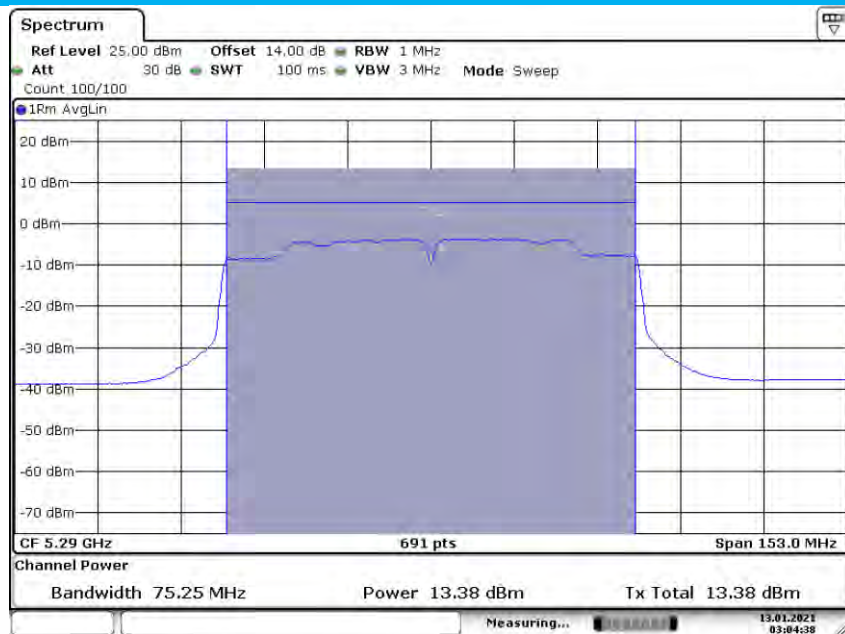
5290

Ant1



Date: 12.JAN.2021 20:17:44

Ant2



Date: 13.JAN.2021 03:04:38

MAXIMUM CONDUCTED OUTPUT POWER

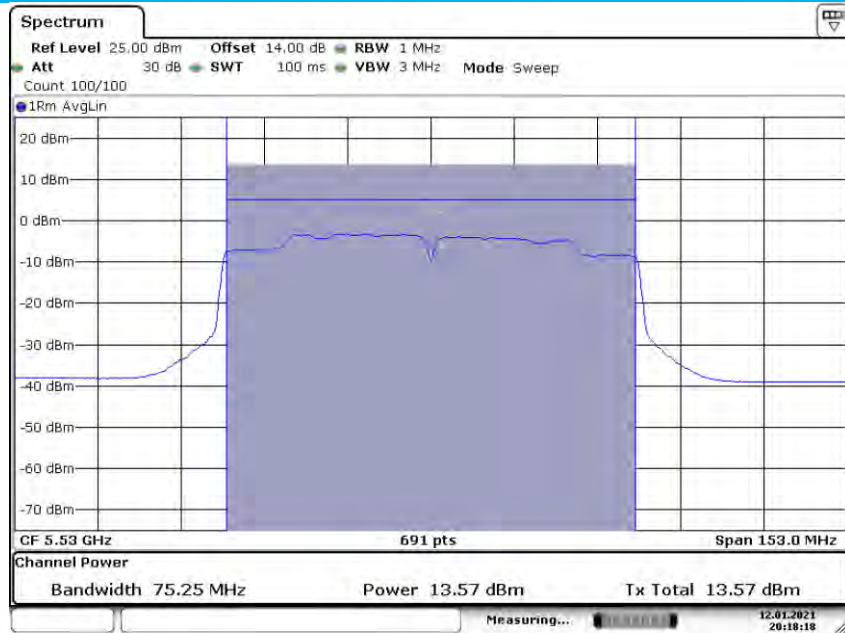
UNII Band II-C

Test Model 802.11ac(VHT80) mode

Frequency(MHz)

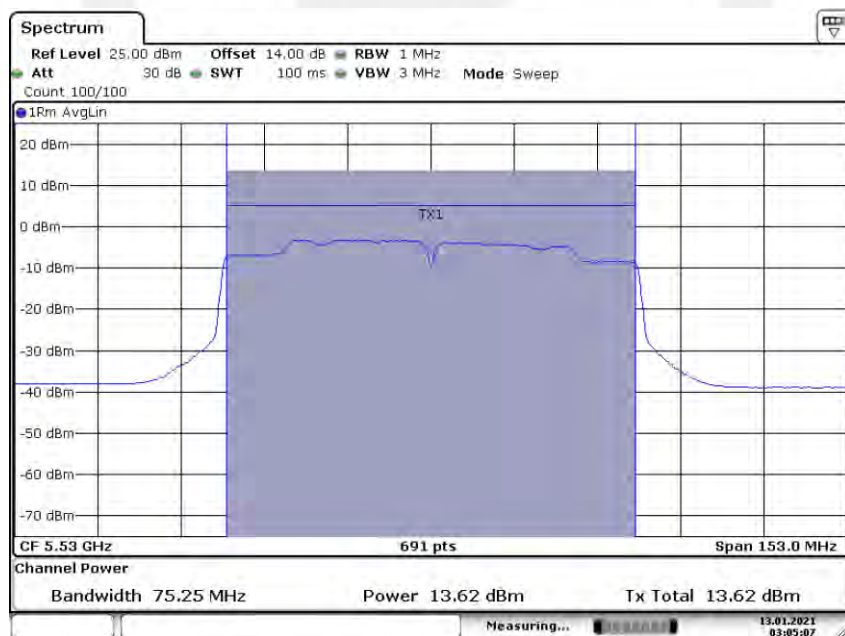
5530

Ant1



Date: 12 JAN 2021 20:18:18

Ant2



Date: 13 JAN 2021 03:05:07

MAXIMUM CONDUCTED OUTPUT POWER

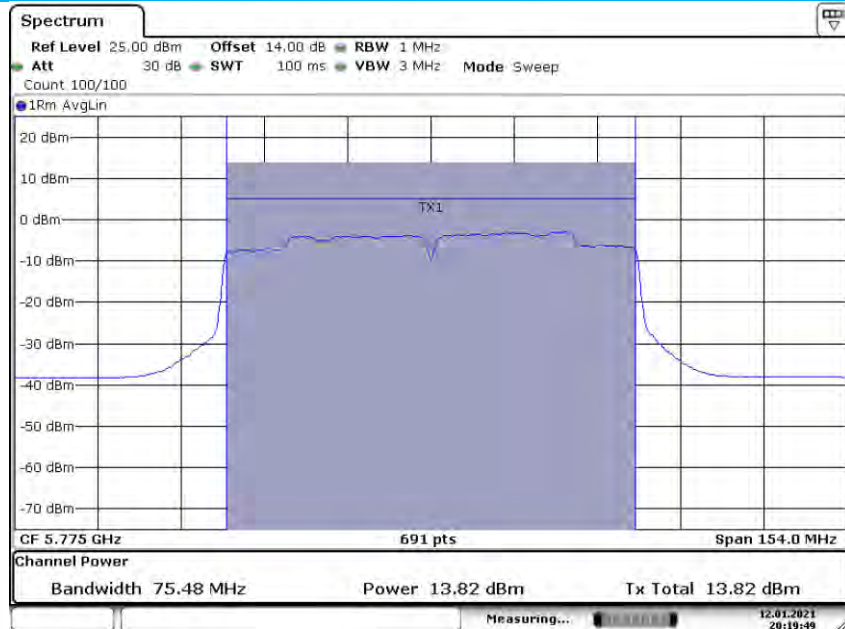
UNII Band III

Test Model 802.11ac(VHT80) mode

Frequency(MHz)

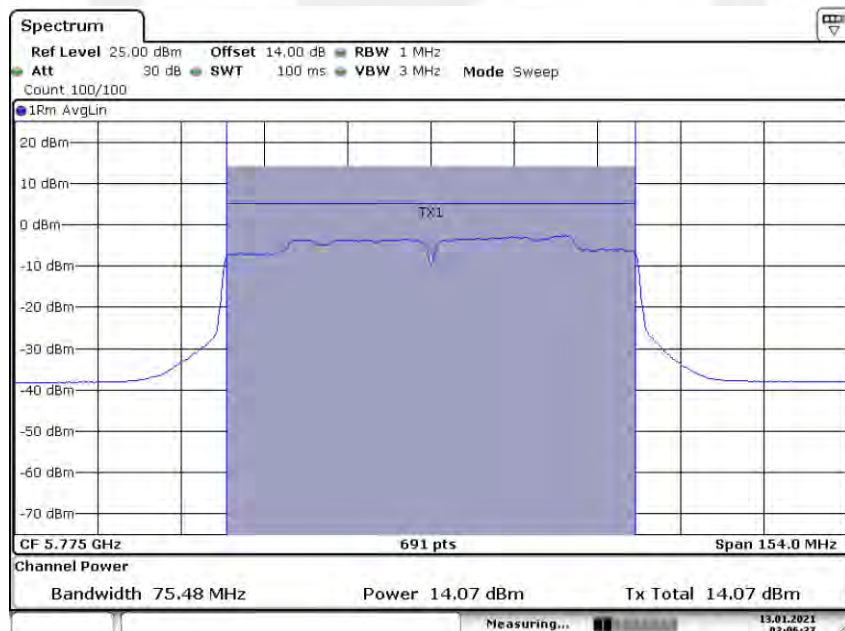
5775

Ant1



Date: 12 JAN 2021 20:19:50

Ant2



Date: 13 JAN 2021 03:06:36

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

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ KHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ KHz}$ is available on nearly all spectrum analyzers.

8.3.5 Test Results

1T1R - Antenna 1

5150-5250MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	2.41	11
	5200	2.74	11
	5240	1.84	11
802.11n-HT20	5180	-0.68	11
	5200	-0.74	11
	5240	-0.57	11
802.11ac(HT20)	5180	-0.13	11
	5200	-0.24	11
	5240	0.15	11
802.11n-HT40	5190	-1.05	11
	5230	-1.34	11
802.11ac(HT40)	5190	-1.01	11
	5230	-1.34	11
802.11ac(HT80)	5210	-3.66	11
802.11ac(HT160)	5250	-6.65	11

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5180



Date: 12 JAN 2021 20:21:22

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5200



Date: 12 JAN 2021 20:22:02

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5240



Date: 12 JAN 2021 20:22:44

Power Spectral Density
Test Model 802.11n-HT20

U-NII - 1
Frequency(MHz)

5180



Date: 12 JAN 2021 20:29:20

Power Spectral Density U-NII - 1
Test Model 802.11n-HT20 Frequency(MHz) 5200



Date: 12 JAN 2021 20:30:03

Power Spectral Density U-NII - 1
Test Model 802.11n-HT20 Frequency(MHz) 5240



Date: 12 JAN 2021 20:30:41

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5180



Date: 12 JAN 2021 20:37:16

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5200



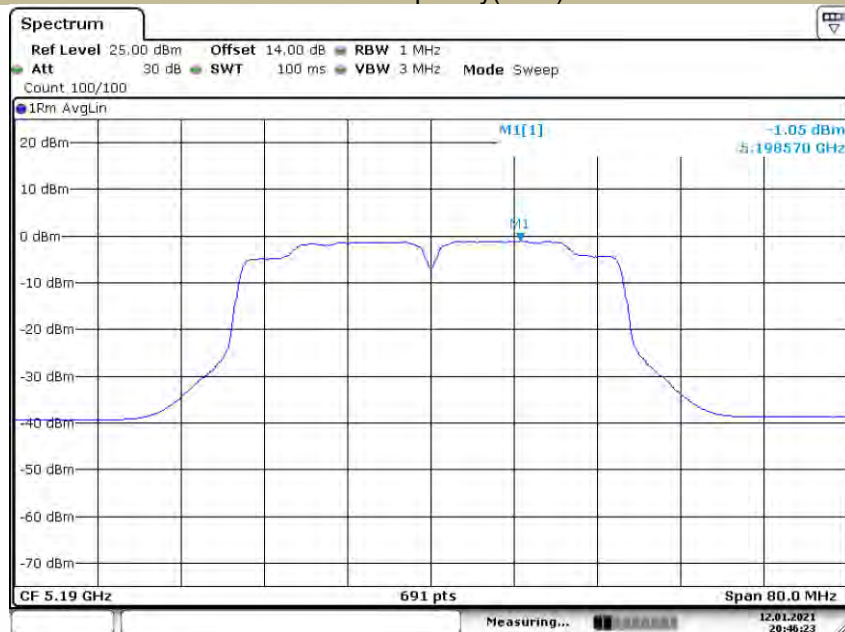
Date: 12 JAN 2021 20:37:52

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5240



Date: 12 JAN 2021 20:38:28

Power Spectral Density U-NII - 1
Test Model 802.11n-HT40 Frequency(MHz) 5190



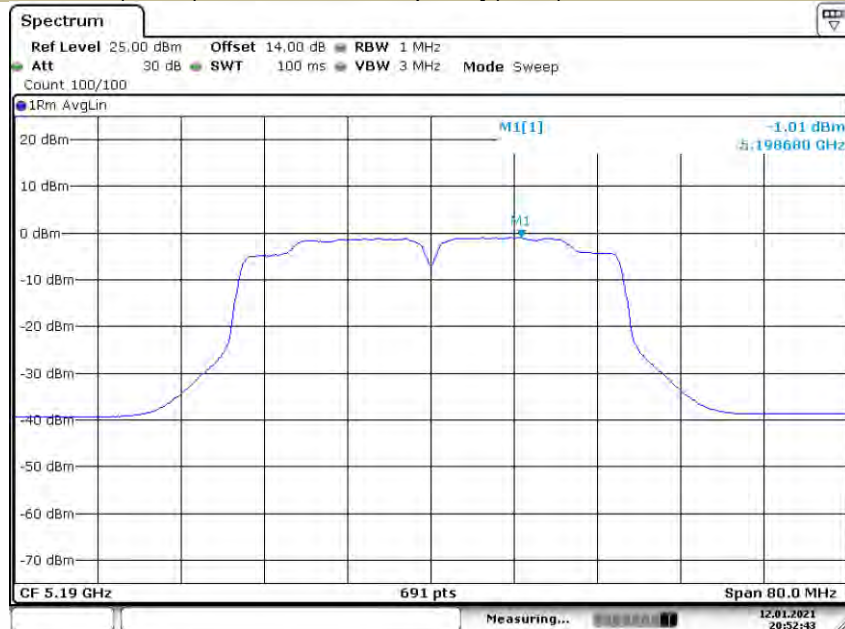
Date: 12 JAN 2021 20:46:23

Power Spectral Density U-NII - 1
Test Model 802.11n-HT40 Frequency(MHz) 5230



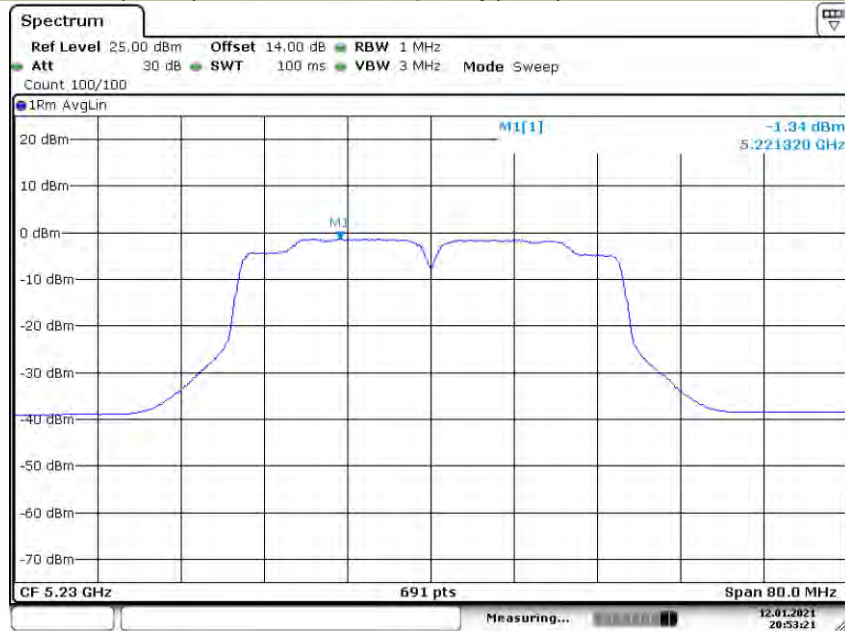
Date: 12 JAN 2021 20:47:12

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT40) Frequency(MHz) 5190



Date: 12 JAN 2021 20:52:43

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT40) Frequency(MHz) 5230



Date: 12 JAN 2021 20:53:22

Power Spectral Density U-NII - 1
Test Model 802.11ac 80 Frequency(MHz) 5210



Date: 12 JAN 2021 20:58:27

Power Spectral Density

Test Model 802.11ac 160

U-NII - 1

Frequency(MHz)

5250



Date: 26 MAR. 2021 00:02:30

5250-5350MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	1.74	11
	5280	2.03	11
	5320	1.93	11
802.11n-HT20	5260	1.48	11
	5280	1.79	11
	5320	1.72	11
802.11ac(HT20)	5260	1.45	11
	5280	1.82	11
	5320	1.55	11
802.11n-HT40	5270	-1.63	11
	5310	-1.33	11
802.11ac(HT40)	5270	-1.76	11
	5310	-1.47	11
802.11ac(HT80)	5290	-4.29	11

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5260



Date: 12 JAN 2021 20:23:15

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5280



Date: 12 JAN 2021 20:24:15

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5320



Date: 12 JAN 2021 20:24:49

Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2A
Frequency(MHz)

5260



Date: 12 JAN 2021 20:31:13

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT20 Frequency(MHz) 5280



Date: 12 JAN 2021 20:31:43

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT20 Frequency(MHz) 5320



Date: 12 JAN 2021 20:32:16

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5260



Date: 12 JAN 2021 20:39:08

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5280



Date: 12 JAN 2021 20:39:45

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5320



Date: 12 JAN 2021 20:40:21

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT40 Frequency(MHz) 5270



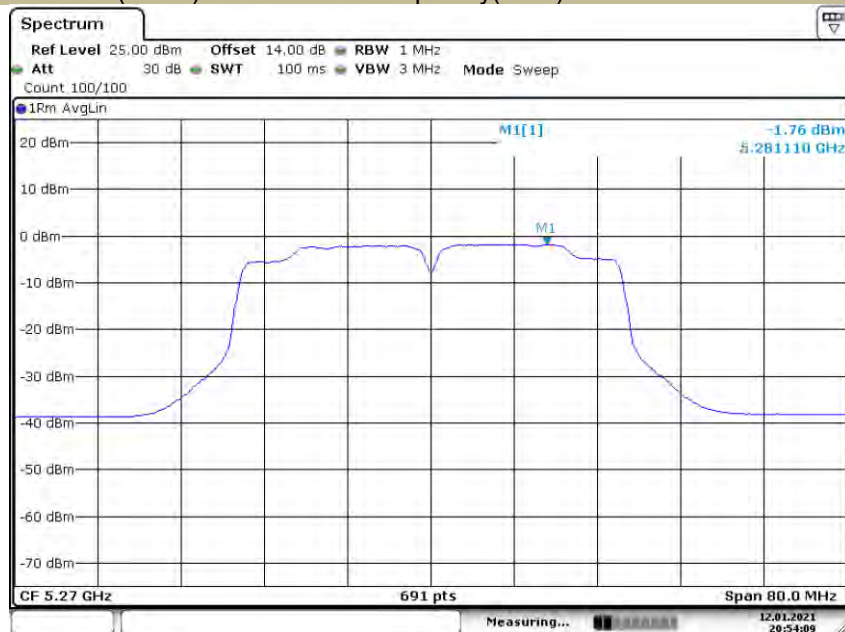
Date: 12 JAN 2021 20:47:48

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT40 Frequency(MHz) 5310



Date: 12 JAN 2021 20:48:23

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT40) Frequency(MHz) 5270



Date: 12 JAN 2021 20:54:08

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT40) Frequency(MHz) 5310



Date: 12 JAN 2021 20:54:46

Power Spectral Density U-NII – 2A
Test Model 802.11ac 80 Frequency(MHz) 5290



Date: 12 JAN 2021 20:59:07

5470-5725MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	2.76	11
	5580	2.60	11
	5700	3.38	11
802.11n-HT20	5500	2.50	11
	5580	2.50	11
	5700	3.17	11
802.11ac(HT20)	5500	2.41	11
	5580	2.42	11
	5700	3.22	11
802.11n-HT40	5510	-0.69	11
	5670	-0.61	11
802.11ac(HT40)	5510	-0.73	11
	5670	-0.46	11
802.11ac(HT80)	5530	-3.28	11
802.11ac(HT160)	5570	-7.80	11

Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz)

5500



Date: 12 JAN 2021 20:25:23

Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz)

5580



Date: 12 JAN 2021 20:26:01

Power Spectral Density U-NII – 2C
Test Model 802.11a Frequency(MHz) 5700



Date: 12 JAN 2021 20:26:36

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT20 Frequency(MHz) 5500



Date: 12 JAN 2021 20:33:01

Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2C
Frequency(MHz)

5580



Date: 12 JAN 2021 20:33:37

Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2C
Frequency(MHz)

5700



Date: 12 JAN 2021 20:34:11

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5580



Date: 12 JAN 2021 20:40:55

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5580



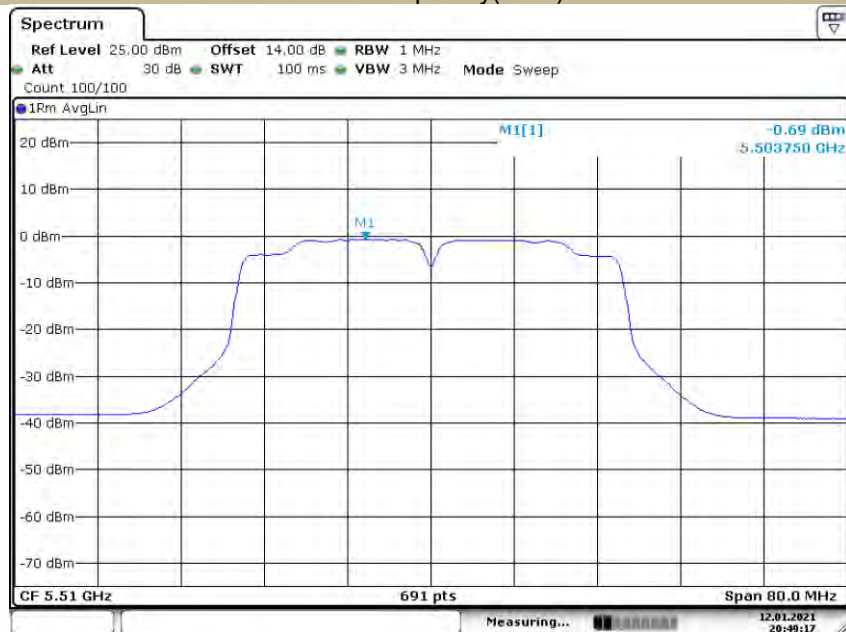
Date: 12 JAN 2021 20:41:28

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5700



Date: 12 JAN 2021 20:42:07

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT40 Frequency(MHz) 5510



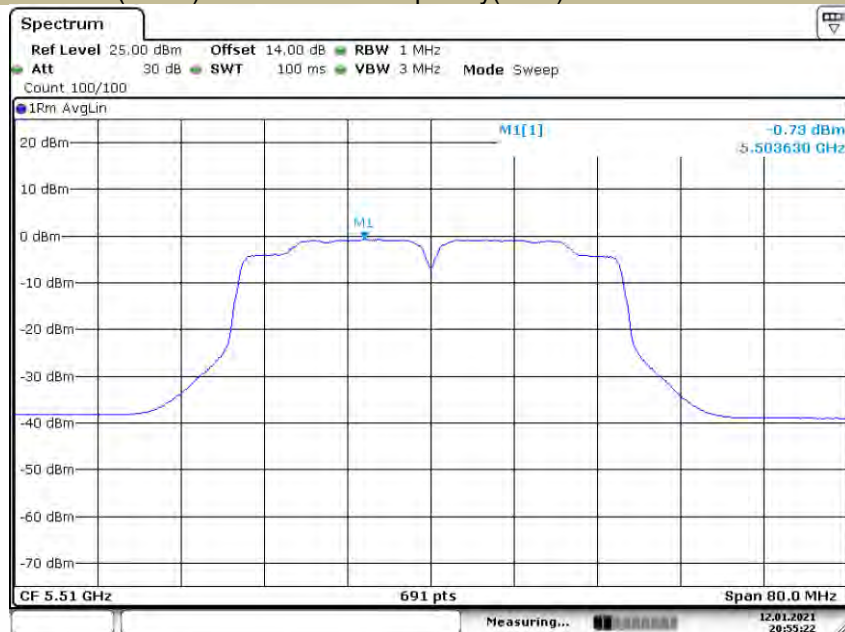
Date: 12 JAN 2021 20:49:17

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT40 Frequency(MHz) 5670



Date: 12 JAN 2021 20:50:38

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT40) Frequency(MHz) 5510



Date: 12 JAN 2021 20:50:22

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT40) Frequency(MHz) 5670



Date: 12 JAN 2021 20:56:24

Power Spectral Density U-NII – 2C
Test Model 802.11ac 80 Frequency(MHz) 5530



Date: 12 JAN 2021 20:59:38

Power Spectral Density

Test Model 802.11ac 160

U-NII – 2C

Frequency(MHz)

5570



Date: 26 MAR. 2021 00:03:25

5725-5850MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5745	-0.18	30
	5785	-0.02	30
	5825	0.22	30
802.11n-HT20	5745	-0.14	30
	5785	0.00	30
	5825	0.10	30
802.11ac(VHT20)	5745	-0.30	30
	5785	-0.04	30
	5825	-0.05	30
802.11n-HT40	5755	-3.76	30
	5795	-3.15	30
802.11ac(VHT40)	5755	-3.58	30
	5795	-3.10	30
802.11ac(VHT80)	5775	-5.70	30

Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

5745



Date: 12 JAN 2021 20:27:24

Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

5785



Date: 12 JAN 2021 20:27:59

Power Spectral Density
Test Model 802.11a

U-NII - 3
Frequency(MHz)

5825



Date: 12 JAN 2021 20:28:30

Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

5745



Date: 12 JAN 2021 20:34:55

Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

5785



Date: 12 JAN 2021 20:35:27

Power Spectral Density
Test Model 802.11n-HT20

U-NII - 3
Frequency(MHz)

5825



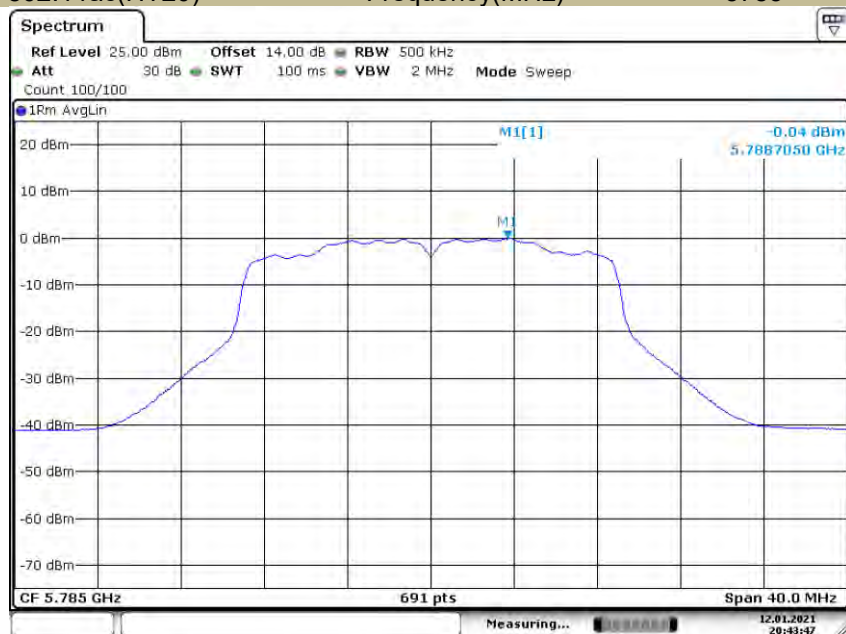
Date: 12 JAN 2021 20:36:03

Power Spectral Density U-NII - 3
Test Model 802.11ac(HT20) Frequency(MHz) 5745



Date: 12 JAN 2021 20:44:45

Power Spectral Density U-NII - 3
Test Model 802.11ac(HT20) Frequency(MHz) 5785



Date: 12 JAN 2021 20:43:47

Power Spectral Density U-NII - 3
Test Model 802.11ac(HT20) Frequency(MHz) 5825



Date: 12 JAN 2021 20:45:28

Power Spectral Density U-NII - 3
Test Model 802.11n-HT40 Frequency(MHz) 5755



Date: 12 JAN 2021 20:51:22

Power Spectral Density U-NII - 3
Test Model 802.11n-HT40 Frequency(MHz) 5795



Date: 12 JAN 2021 20:51:53

Power Spectral Density U-NII - 3
Test Model 802.11ac(HT40) Frequency(MHz) 5755



Date: 12 JAN 2021 20:57:02

Power Spectral Density U-NII - 3
Test Model 802.11ac(HT40) Frequency(MHz) 5795



Date: 12 JAN 2021 20:57:36

Power Spectral Density U-NII - 3
Test Model 802.11ac 80 Frequency(MHz) 5775



Date: 12 JAN 2021 21:01:23

1T1R - Antenna 2

5150-5250MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	2.63	11
	5200	2.85	11
	5240	1.98	11
802.11n-HT20	5180	-0.26	11
	5200	-0.17	11
	5240	-0.01	11
802.11ac(HT20)	5180	-0.63	11
	5200	-0.61	11
	5240	-0.51	11
802.11n-HT40	5190	-0.55	11
	5230	-1.16	11
802.11ac(HT40)	5190	-0.65	11
	5230	-1.19	11
802.11ac(HT80)	5210	-3.42	11
802.11ac(HT160)	5250	-7.52	11

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5180



Date: 13 JAN 2021 01:46:42

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5200



Date: 13 JAN 2021 01:47:21

Power Spectral Density
Test Model 802.11a

U-NII - 1
Frequency(MHz)

5240



Date: 13 JAN 2021 01:47:55

Power Spectral Density
Test Model 802.11n-HT20

U-NII - 1
Frequency(MHz)

5180



Date: 13 JAN 2021 01:55:06

Power Spectral Density U-NII - 1
Test Model 802.11n-HT20 Frequency(MHz) 5200



Date: 13 JAN 2021 01:55:40

Power Spectral Density U-NII - 1
Test Model 802.11n-HT20 Frequency(MHz) 5240



Date: 13 JAN 2021 01:56:10

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5180



Date: 13 JAN 2021 02:02:39

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5200



Date: 13 JAN 2021 02:03:15

Power Spectral Density U-NII - 1
Test Model 802.11ac(HT20) Frequency(MHz) 5240



Date: 13 JAN 2021 02:03:45

Power Spectral Density U-NII - 1
Test Model 802.11n-HT40 Frequency(MHz) 5190

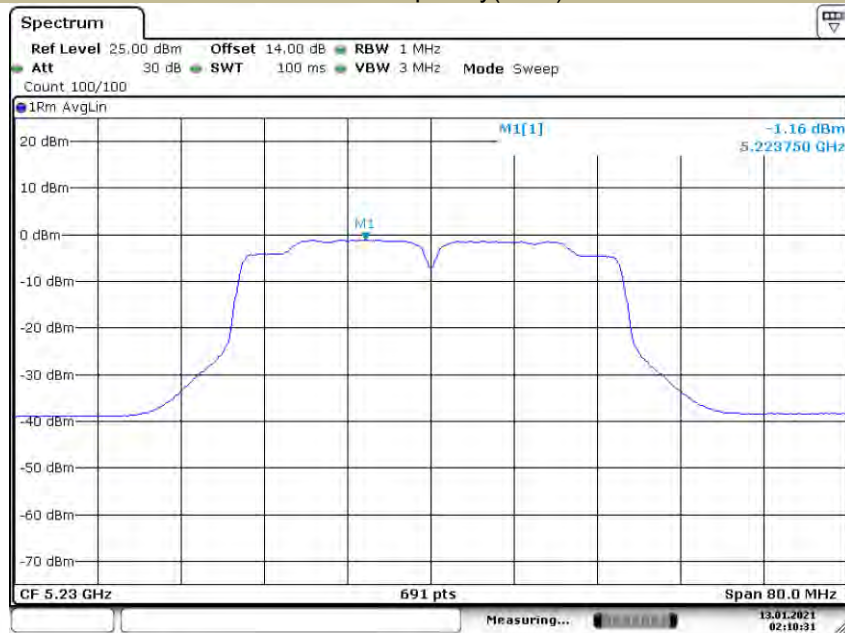


Date: 13 JAN 2021 02:09:57

Power Spectral Density
Test Model 802.11n-HT40

U-NII - 1
Frequency(MHz)

5230



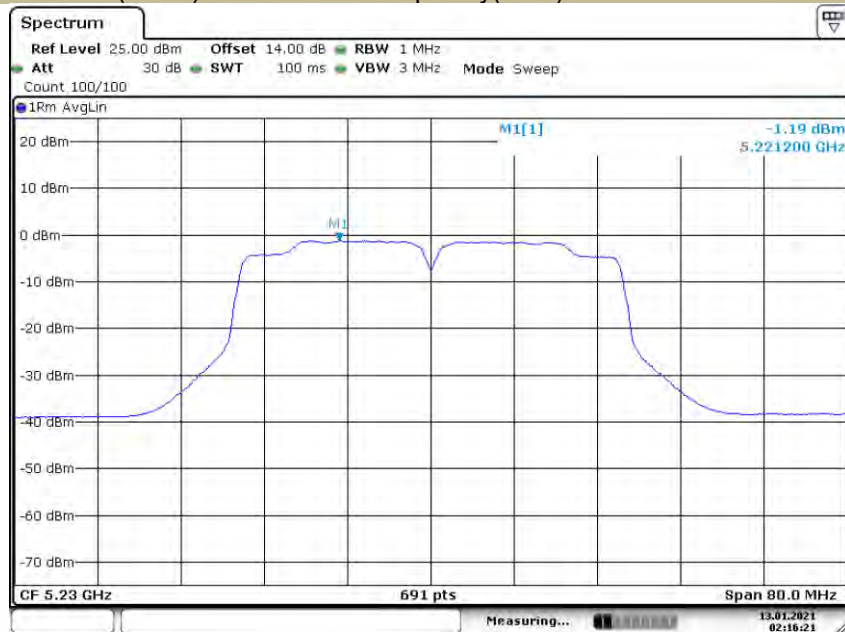
Power Spectral Density
Test Model 802.11ac(HT40)

U-NII - 1
Frequency(MHz)

5190



Power Spectral Density U-NII - 1
Test Model 802.11ac(HT40) Frequency(MHz) 5230



Date: 13 JAN 2021 02:16:21

Power Spectral Density U-NII - 1
Test Model 802.11ac 80 Frequency(MHz) 5210



Date: 13 JAN 2021 02:21:33

Power Spectral Density

Test Model 802.11ac 160

U-NII - 1

Frequency(MHz)

5250



Date: 26 MAR.2021 00:15:28

5250-5350MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	2.08	11
	5280	2.44	11
	5320	2.56	11
802.11n-HT20	5260	1.96	11
	5280	2.22	11
	5320	2.23	11
802.11ac(HT20)	5260	1.97	11
	5280	2.26	11
	5320	2.27	11
802.11n-HT40	5270	-1.02	11
	5310	-0.72	11
802.11ac(HT40)	5270	-1.23	11
	5310	-0.66	11
802.11ac(HT80)	5290	-3.67	11

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5260



Date: 13 JAN 2021 01:48:36

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5280



Date: 13 JAN 2021 01:49:43

Power Spectral Density
Test Model 802.11a

U-NII – 2A
Frequency(MHz)

5320



Date: 13 JAN 2021 01:50:18

Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2A
Frequency(MHz)

5260



Date: 13 JAN 2021 01:56:42

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT20 Frequency(MHz) 5280



Date: 13 JAN 2021 01:57:14

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT20 Frequency(MHz) 5320



Date: 13 JAN 2021 01:57:44

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5260



Date: 13 JAN 2021 02:04:16

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5280



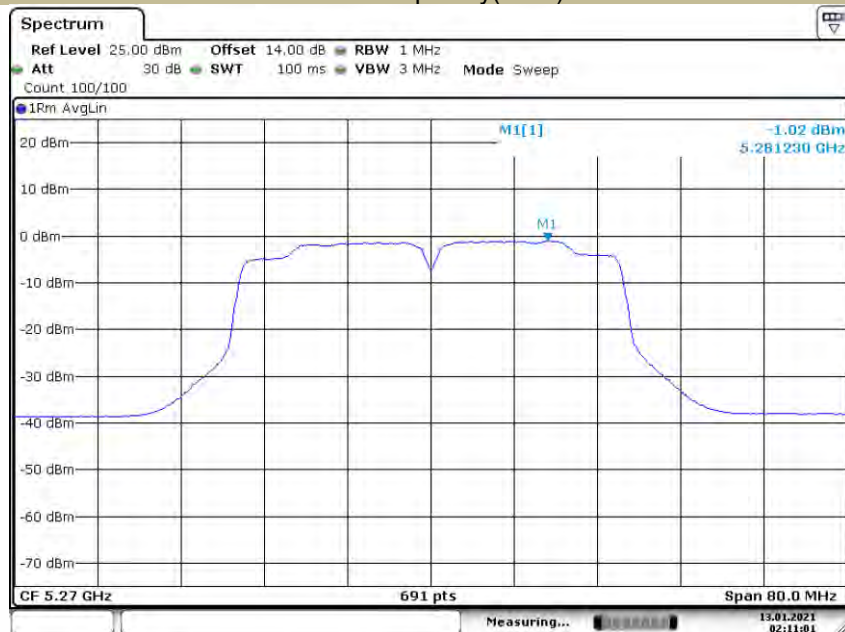
Date: 13 JAN 2021 02:04:46

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT20) Frequency(MHz) 5320



Date: 13 JAN 2021 02:05:18

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT40 Frequency(MHz) 5270



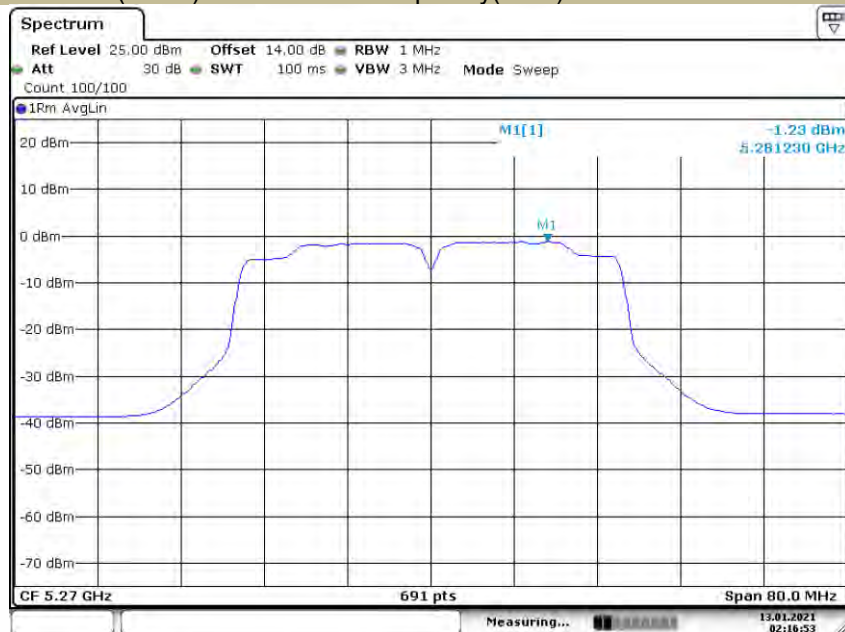
Date: 13 JAN 2021 02:11:02

Power Spectral Density U-NII – 2A
Test Model 802.11n-HT40 Frequency(MHz) 5310



Date: 13 JAN 2021 02:11:31

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT40) Frequency(MHz) 5270



Date: 13 JAN 2021 02:16:53

Power Spectral Density U-NII – 2A
Test Model 802.11ac(HT40) Frequency(MHz) 5310



Date: 13 JAN 2021 02:17:24

Power Spectral Density U-NII – 2A
Test Model 802.11ac 80 Frequency(MHz) 5290



Date: 13 JAN 2021 02:22:46

5470-5725MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	2.69	11
	5580	2.87	11
	5700	3.61	11
802.11n-HT20	5500	2.65	11
	5580	2.67	11
	5700	3.33	11
802.11ac(HT20)	5500	2.63	11
	5580	2.70	11
	5700	3.43	11
802.11n-HT40	5510	-0.64	11
	5670	-0.37	11
802.11ac(HT40)	5510	-0.51	11
	5670	-0.41	11
802.11ac(HT80)	5530	-3.26	11
802.11ac(HT160)	5570	-8.78	11

Power Spectral Density U-NII – 2C
Test Model 802.11a Frequency(MHz) 5500



Date: 13 JAN 2021 01:50:55

Power Spectral Density U-NII – 2C
Test Model 802.11a Frequency(MHz) 5580



Date: 13 JAN 2021 01:51:32

Power Spectral Density
Test Model 802.11a

U-NII – 2C
Frequency(MHz)

5700



Date: 13 JAN 2021 01:52:04

Power Spectral Density
Test Model 802.11n-HT20

U-NII – 2C
Frequency(MHz)

5500



Date: 13 JAN 2021 01:58:18

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT20 Frequency(MHz) 5580



Date: 13 JAN 2021 01:59:03

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT20 Frequency(MHz) 5700



Date: 13 JAN 2021 01:59:44

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5500



Date: 13 JAN 2021 02:05:48

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5580



Date: 13 JAN 2021 02:06:26

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT20) Frequency(MHz) 5700



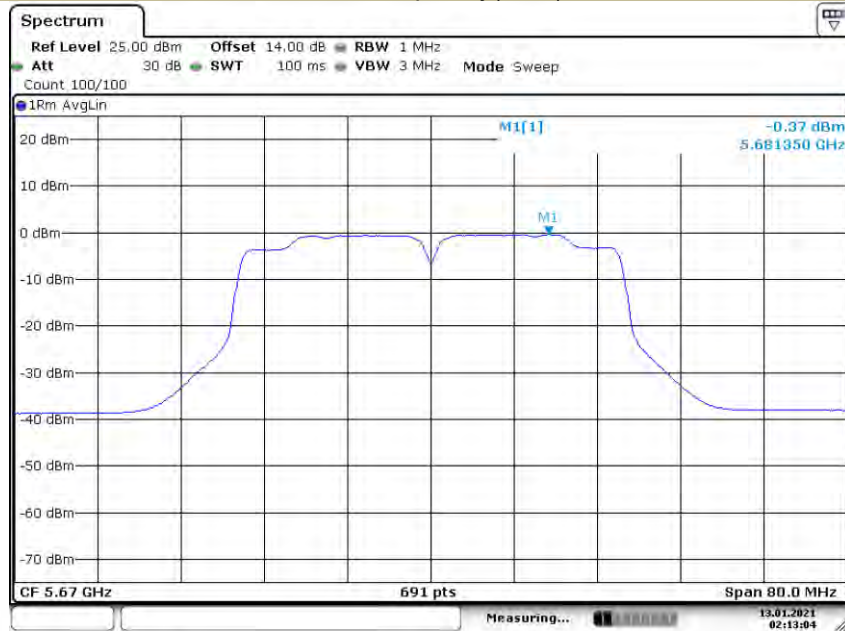
Date: 13 JAN 2021 02:07:00

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT40 Frequency(MHz) 5510



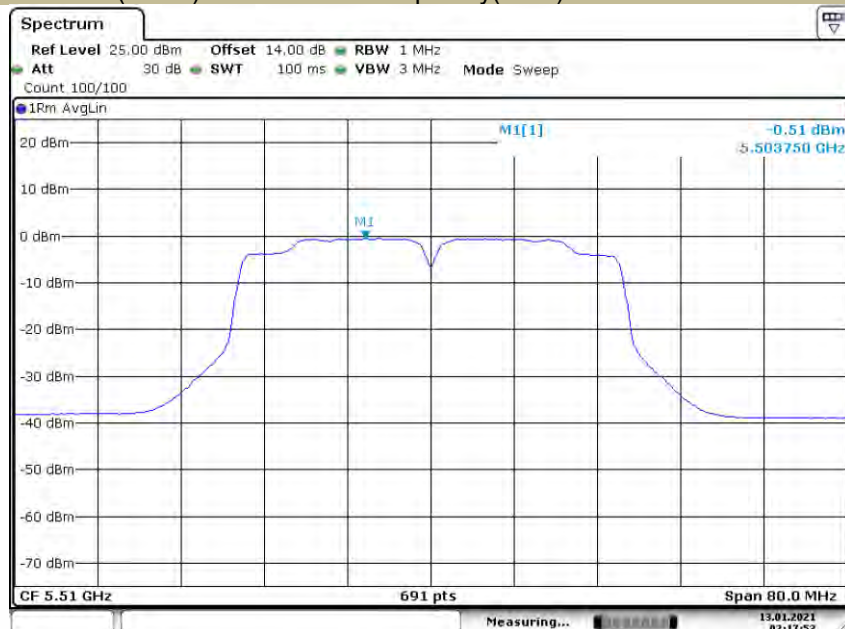
Date: 13 JAN 2021 02:12:04

Power Spectral Density U-NII – 2C
Test Model 802.11n-HT40 Frequency(MHz) 5670



Date: 13 JAN 2021 02:13:04

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT40) Frequency(MHz) 5510



Date: 13 JAN 2021 02:17:53

Power Spectral Density U-NII – 2C
Test Model 802.11ac(HT40) Frequency(MHz) 5670



Date: 13 JAN 2021 02:19:14

Power Spectral Density U-NII – 2C
Test Model 802.11ac 80 Frequency(MHz) 5530



Date: 13 JAN 2021 02:23:26

Power Spectral Density

Test Model 802.11ac 160

U-NII – 2C

Frequency(MHz)

5570



Date: 26 MAR.2021 00:16:04

5725-5850MHz

Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5745	0.43	30
	5785	0.41	30
	5825	0.40	30
802.11n-HT20	5745	0.38	30
	5785	0.30	30
	5825	0.34	30
802.11ac(VHT20)	5745	0.20	30
	5785	0.21	30
	5825	0.37	30
802.11n-HT40	5755	-3.16	30
	5795	-2.58	30
802.11ac(VHT40)	5755	-3.08	30
	5795	-2.75	30
802.11ac(VHT80)	5775	-5.16	30