

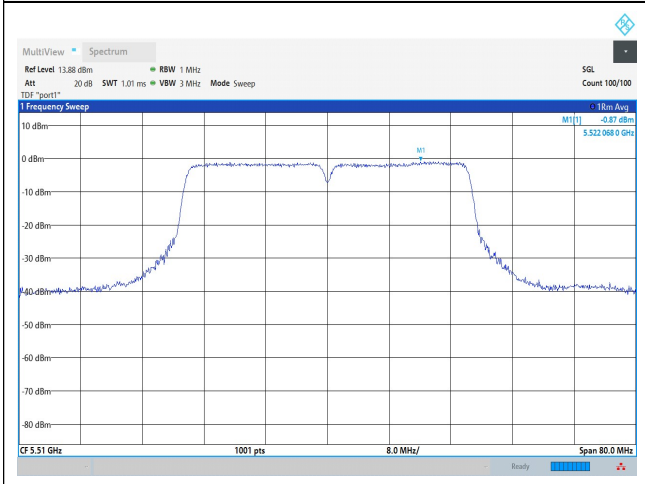
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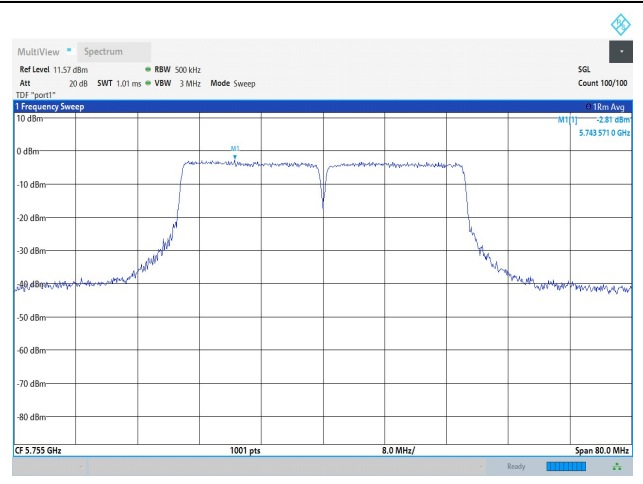
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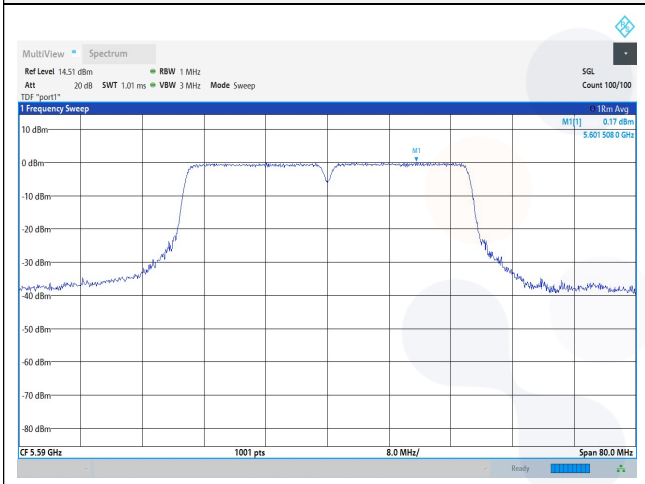
UNII-2C / 802.11ac VHT40 / Low ch.



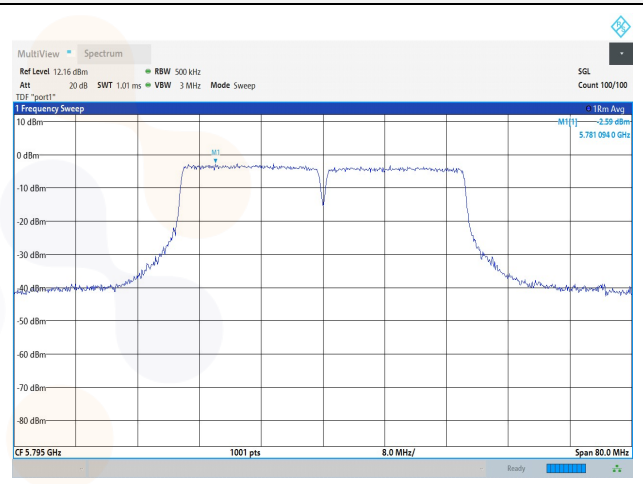
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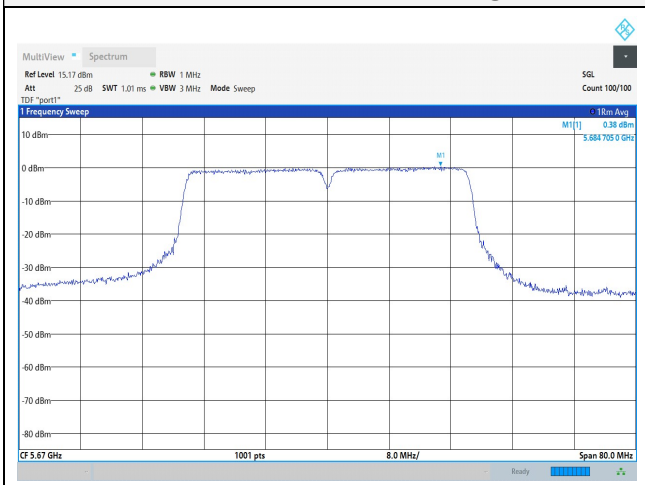
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UNII-3 / 802.11ac VHT40 / High ch.



UNII-2C / 802.11ac VHT40 / High ch.



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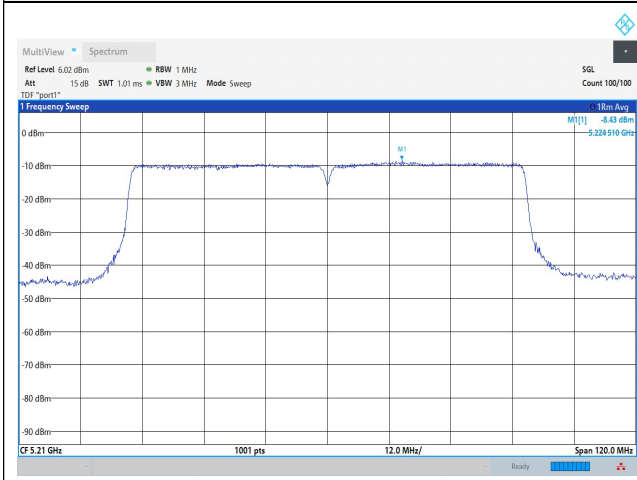
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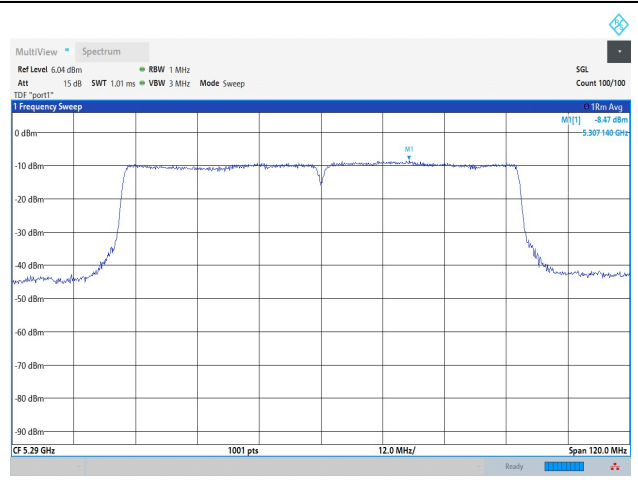
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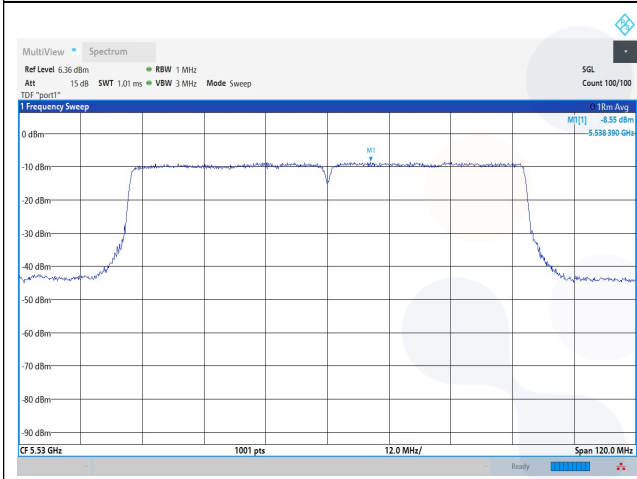
UNII-1 / 802.11ac VHT80 / Low ch.



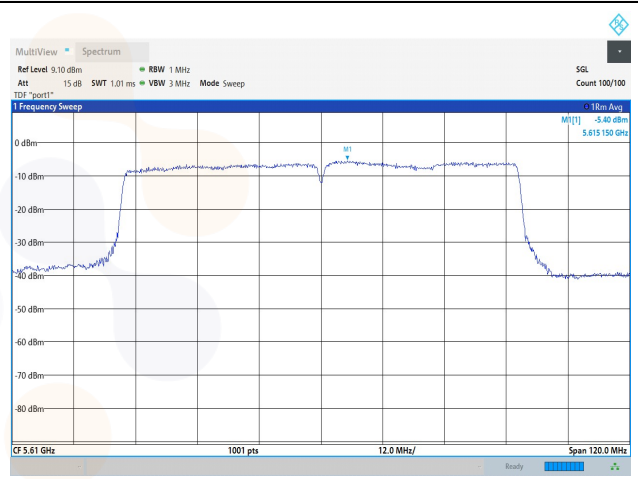
UNII-2A / 802.11ac VHT80 / Low ch.



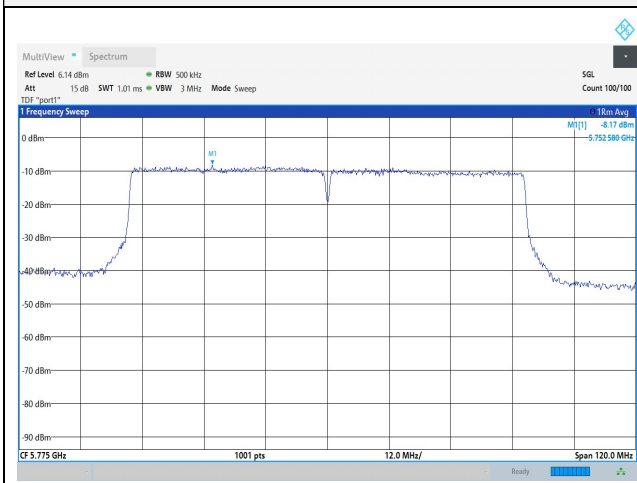
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UNII-2C / 802.11ac VHT80 / High ch.



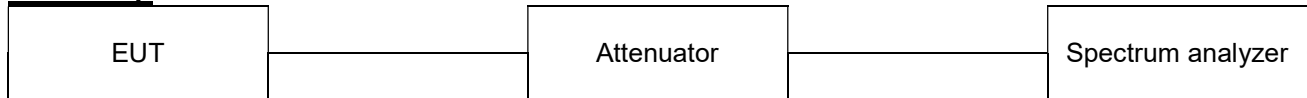
UNII-3 / 802.11ac VHT80 / Low ch.



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7.3. 26 dB Bandwidth & 99% Bandwidth

Test setup



Limit

N/A

Test procedure

ANSI C63.10-2013 Section 12.4

KDB 789033 D02 v02r01 - Section C.1 (26dB bandwidth)

KDB 789033 D02 v02r01 - Section D (99% bandwidth)

Test settings

1. 26 dB Bandwidth

- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. 99% Occupied Bandwidth

- a. Set center frequency to the nominal EUT channel center frequency.
- b. Set span = 1.5 times to 5.0 times the OBW.
- c. Set RBW = 1% to 5% of the OBW
- d. Set VBW $\geq 3 \times$ RBW
- e. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f. Use the 99% power bandwidth function of the instrument (if available).
- g. If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

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Test results**26 dB bandwidth**

Test mode	Band	Frequency(MHz)	Measured Bandwidth (MHz)
802.11a	UNII-1	5 180	20.70
		5 200	20.80
		5 240	21.40
	UNII-2A	5 260	20.60
		5 280	20.70
		5 320	20.80
	UNII-2C	5 500	20.60
		5 600	21.50
		5 700	20.55
802.11n HT20	UNII-1	5 180	22.40
		5 200	26.15
		5 240	27.20
	UNII-2A	5 260	26.25
		5 280	26.10
		5 320	22.75
	UNII-2C	5 500	23.50
		5 600	29.55
		5 700	21.75
802.11n HT40	UNII-1	5 190	46.30
		5 230	62.90
	UNII-2A	5 270	50.20
		5 310	46.80
	UNII-2C	5 510	50.30
		5 590	67.70
		5 670	52.90

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Test mode	Band	Frequency(MHz)	Measured Bandwidth (MHz)
802.11ac VHT20	UNII-1	5 180	21.75
		5 200	23.05
		5 240	28.20
	UNII-2A	5 260	26.10
		5 280	24.80
		5 320	22.20
	UNII-2C	5 500	23.40
		5 600	27.35
		5 700	21.50
802.11ac VHT40	UNII-1	5 190	46.80
		5 230	47.50
	UNII-2A	5 270	47.30
		5 310	46.60
	UNII-2C	5 510	46.20
		5 590	46.10
802.11ac VHT80	UNII-1	5 210	87.36
	UNII-2A	5 290	87.84
	UNII-2C	5 530	87.72
		5 610	87.84

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**99% bandwidth**

Test mode	Band	Frequency(MHz)	Measured Bandwidth (MHz)
802.11a	UNII-1	5 240	16.74
	UNII-2A	5 260	16.72
802.11n HT20	UNII-1	5 240	17.96
	UNII-2A	5 260	17.92
802.11n HT40	UNII-1	5 230	37.20
	UNII-2A	5 270	37.17
802.11ac VHT20	UNII-1	5 240	17.96
	UNII-2A	5 260	17.91
802.11ac VHT40	UNII-1	5 230	37.06
	UNII-2A	5 270	37.03
802.11ac VHT80	UNII-1	5 210	76.51
	UNII-2A	5 290	76.54

Note.

If 26dB Bandwidth across Band 2A or Band 1 but 99% test results are within the band no addition DFS test is needed on band 1.

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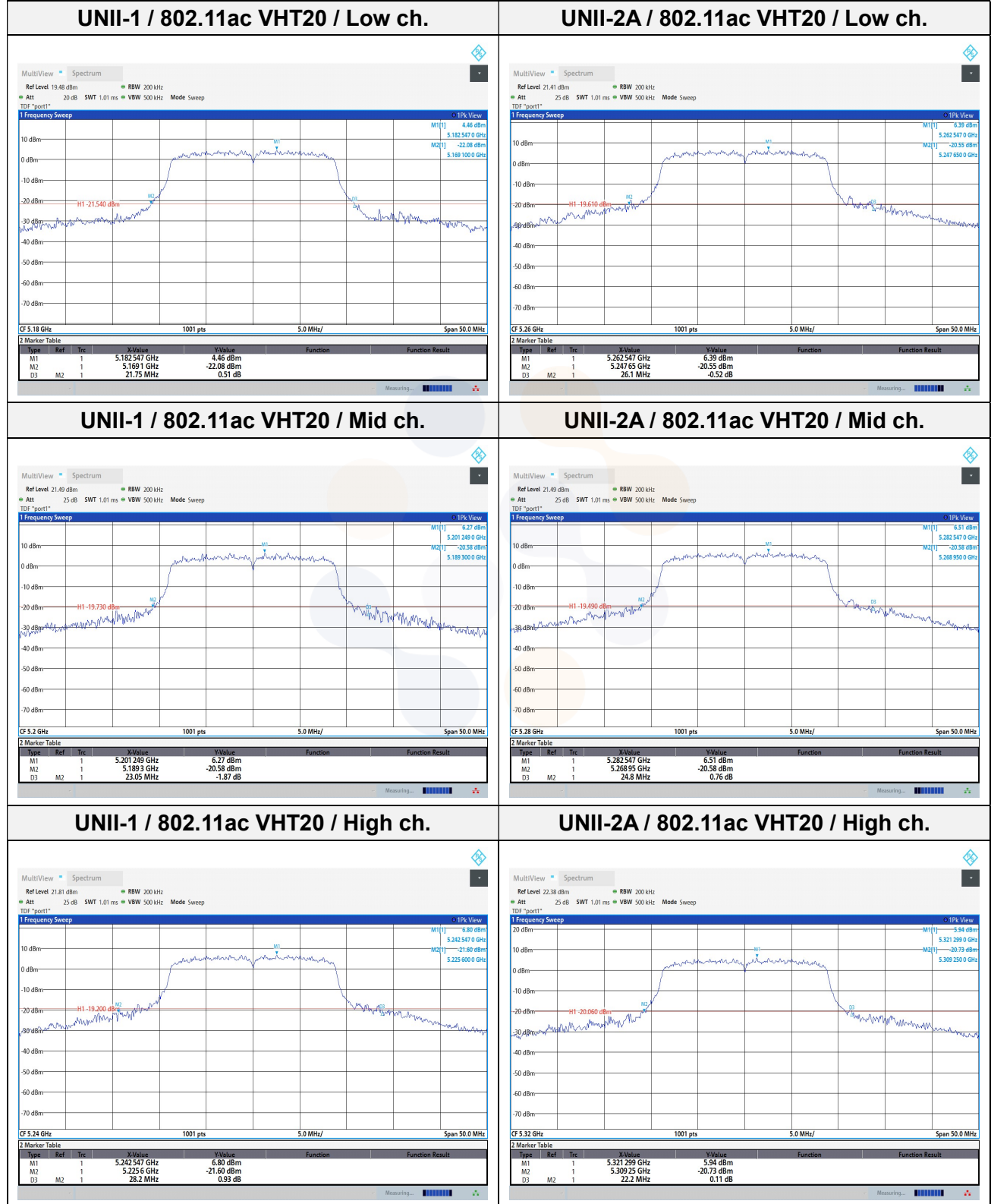
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26 dB bandwidth

In order to simplify the report, only ac mode test plots are attached.



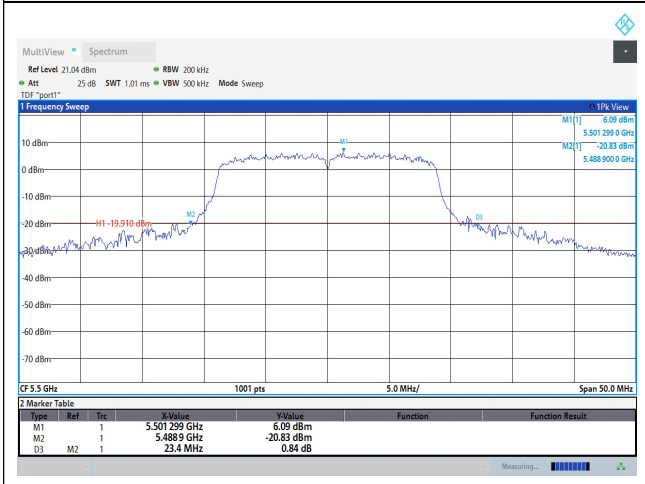
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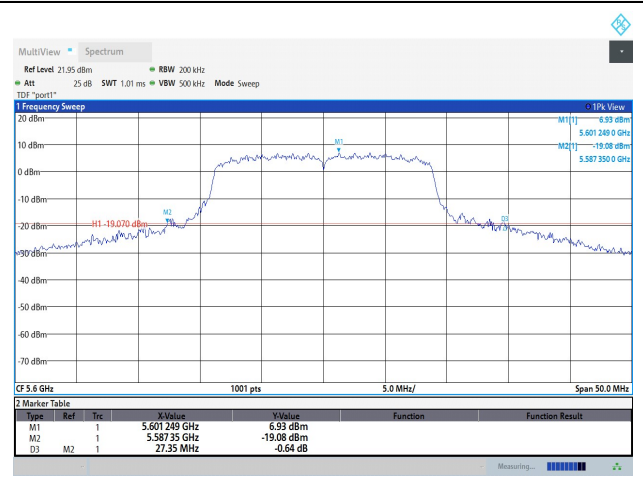
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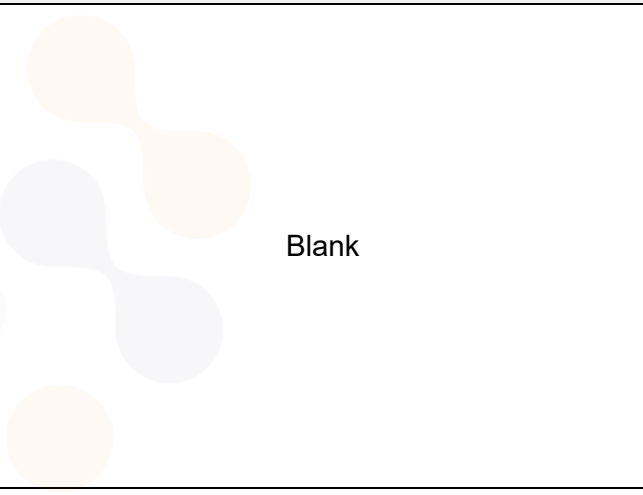
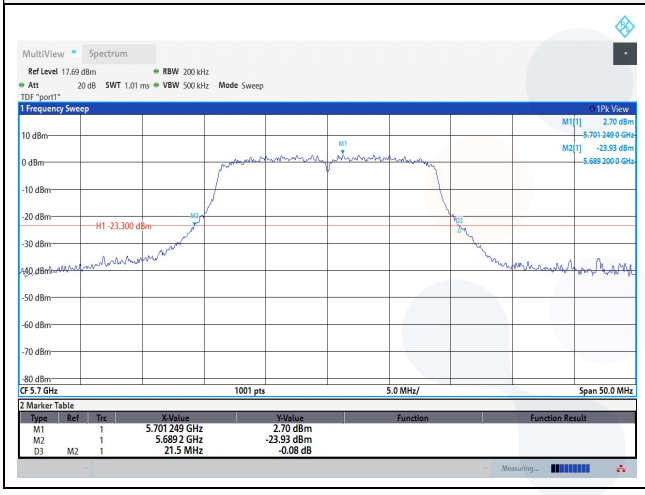
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UNII-2C / 802.11ac VHT20 / Mid ch.



UNII-2C / 802.11ac VHT20 / High ch.



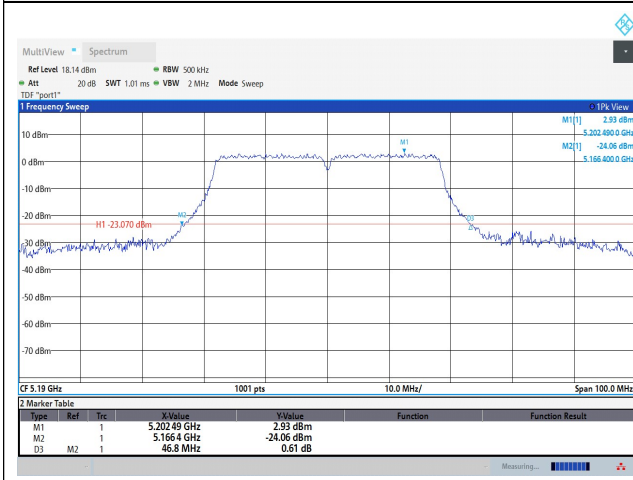
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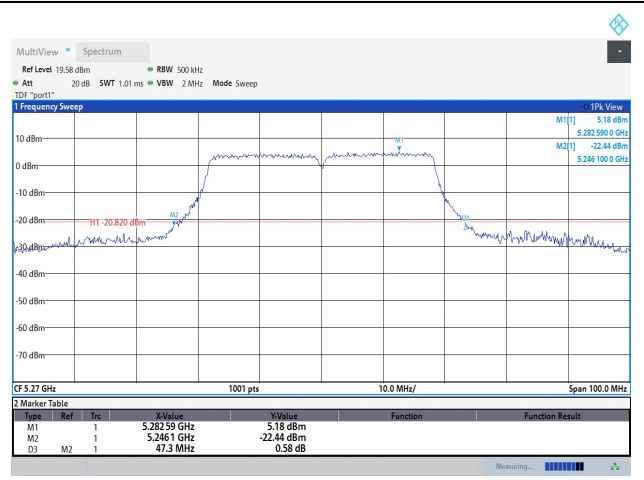
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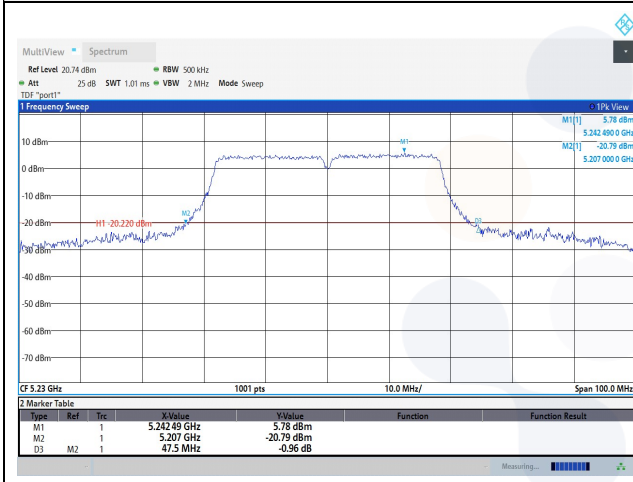
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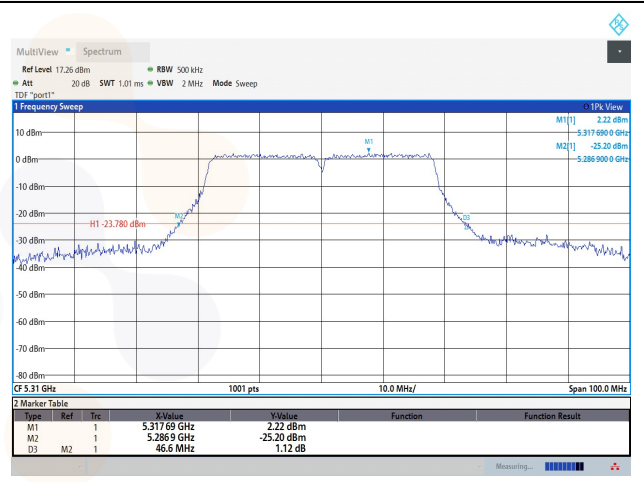
UNII-2A / 802.11ac VHT40 / Low ch.



UNII-1 / 802.11ac VHT40 / High ch.



UNII-2A / 802.11ac VHT40 / High ch.



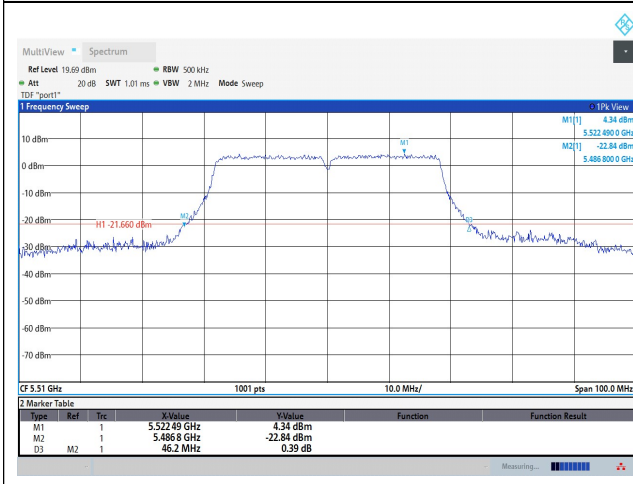
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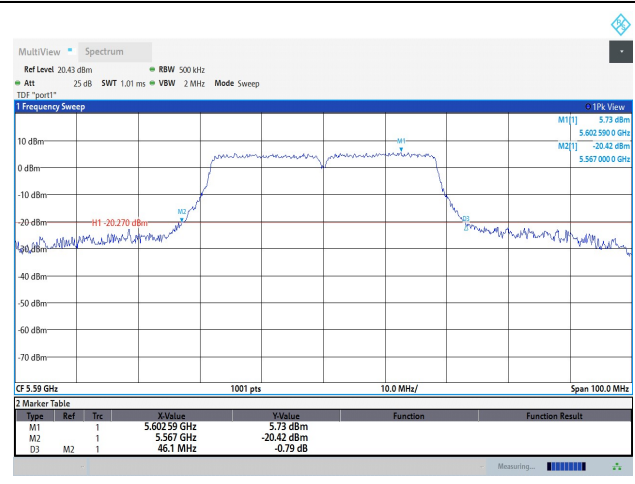
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UNII-2C / 802.11ac VHT40 / Low ch.



UNII-2C / 802.11ac VHT40 / Mid ch.



UNII-2C / 802.11ac VHT40 / High ch.

