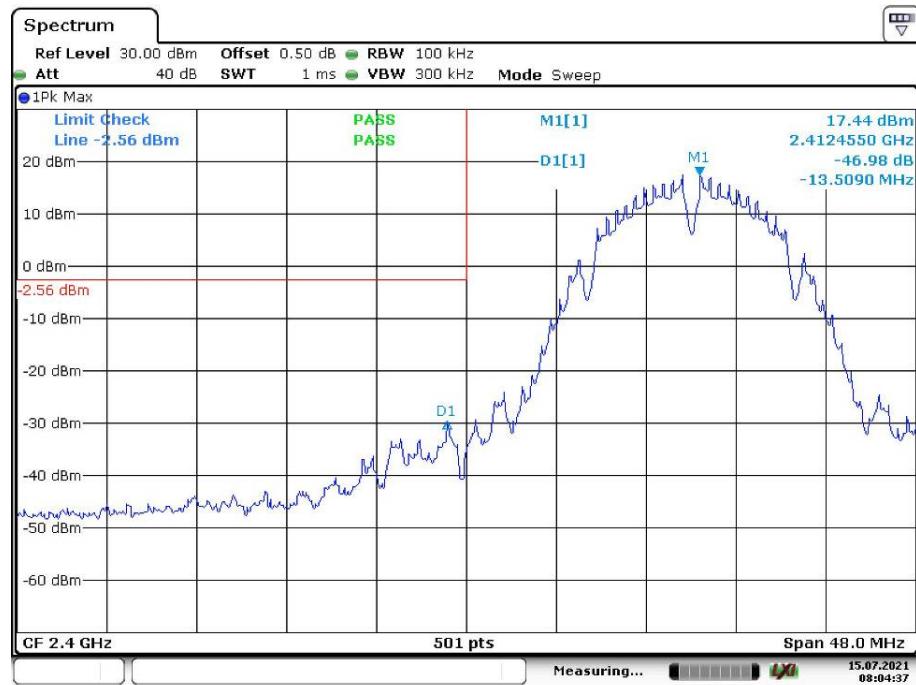
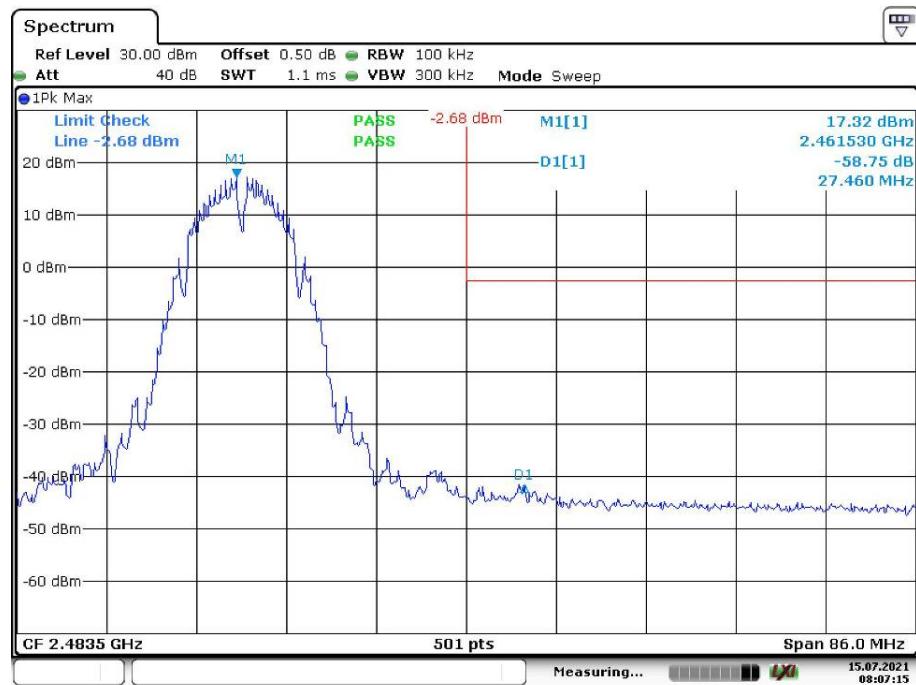


Chain 1, 802.11b: Band Edge, Left Side



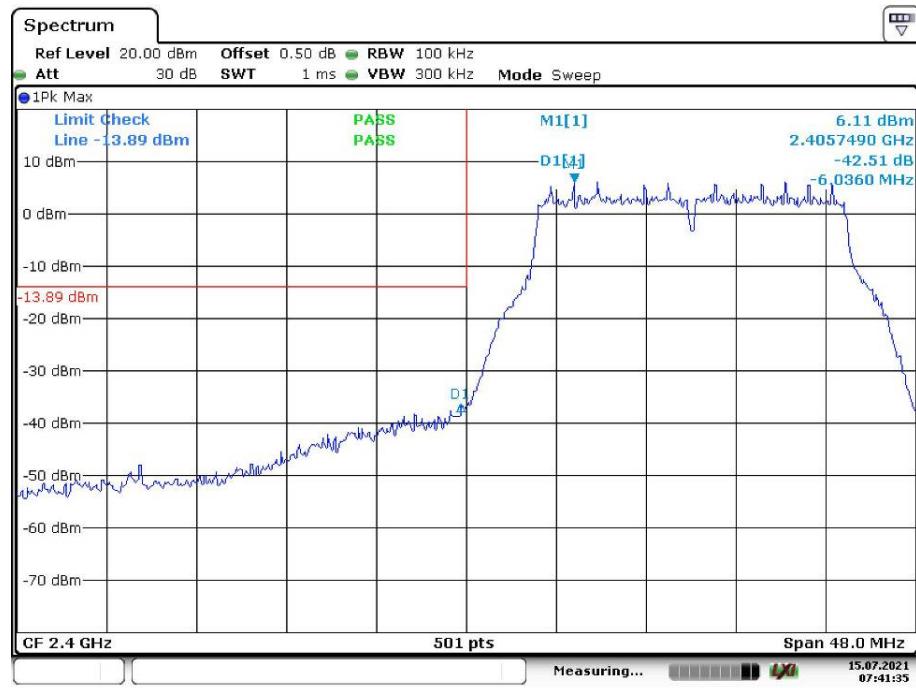
Date: 15.JUL.2021 08:04:38

Chain 1, 802.11b: Band Edge, Right Side



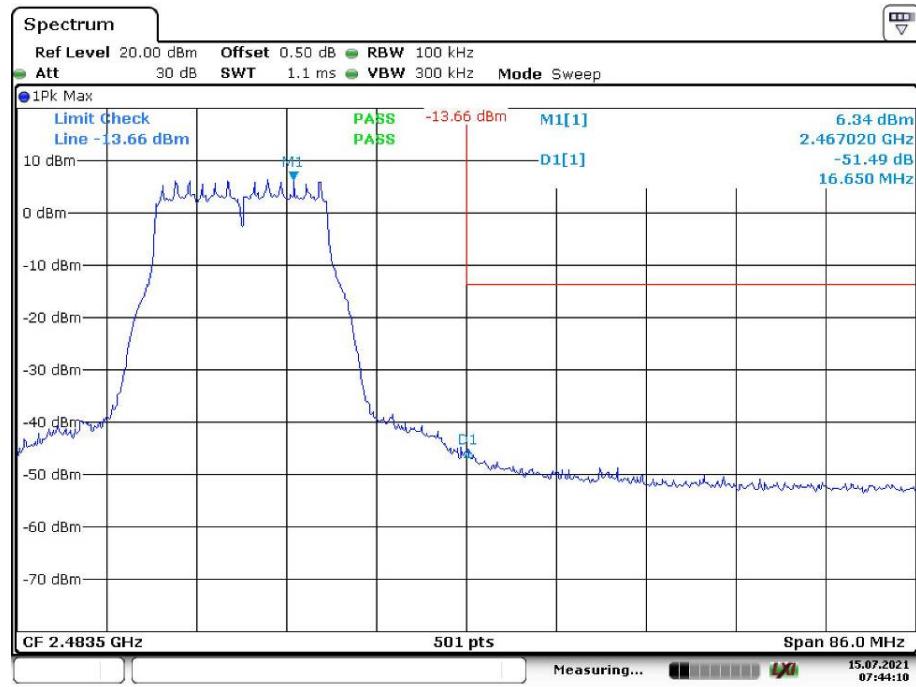
Date: 15.JUL.2021 08:07:15

Chain 1,802.11g: Band Edge, Left Side



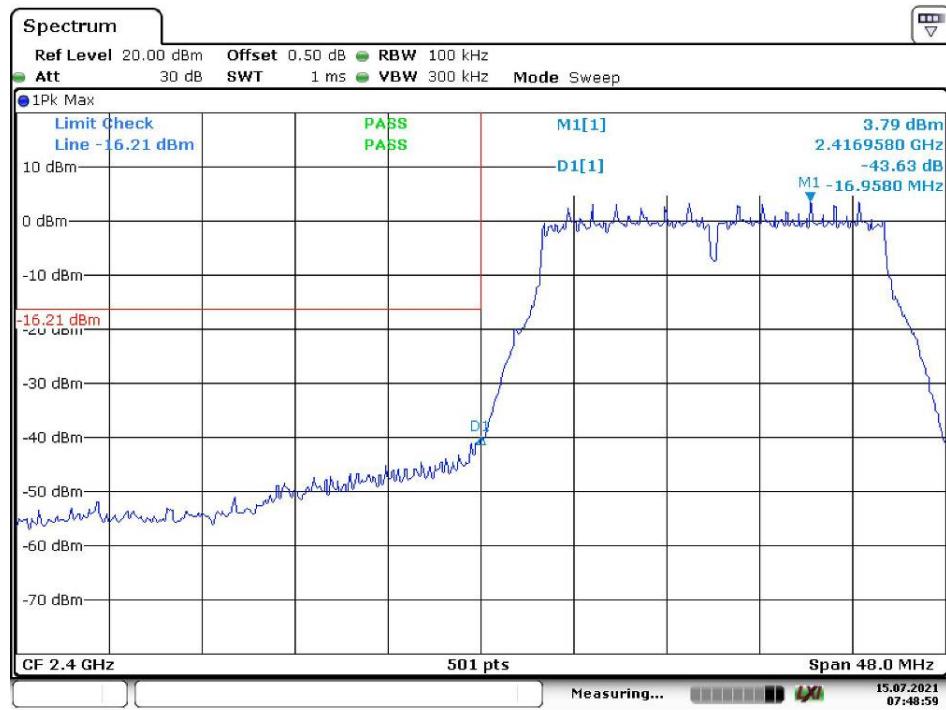
Date: 15.JUL.2021 07:41:35

Chain 1,802.11g: Band Edge, Right Side



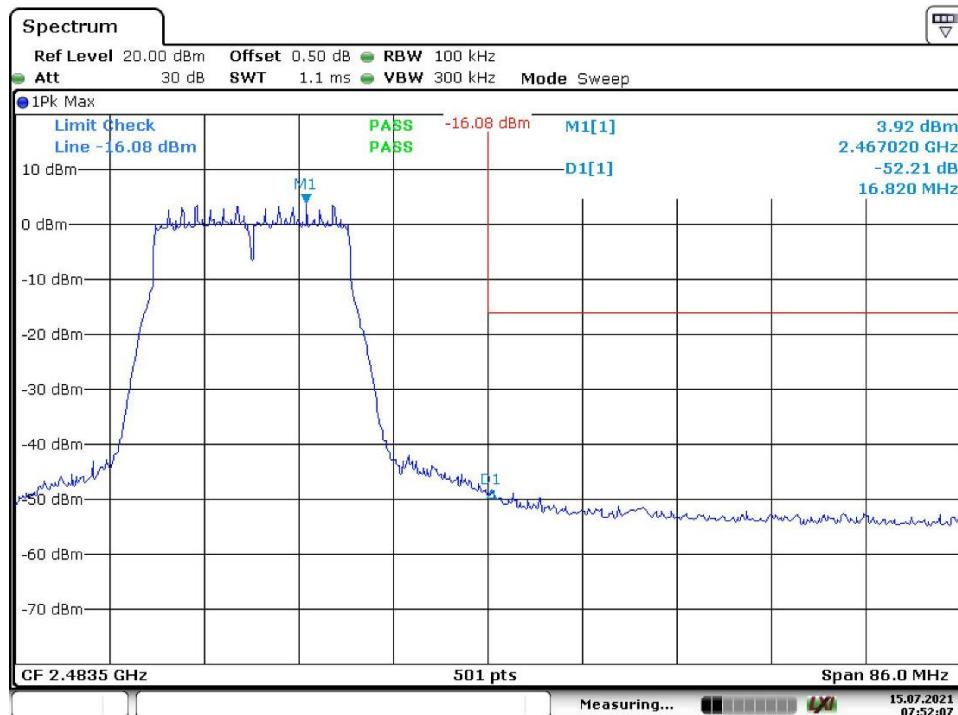
Date: 15.JUL.2021 07:44:11

Chain 1,802.11n ht20 Band Edge, Left Side



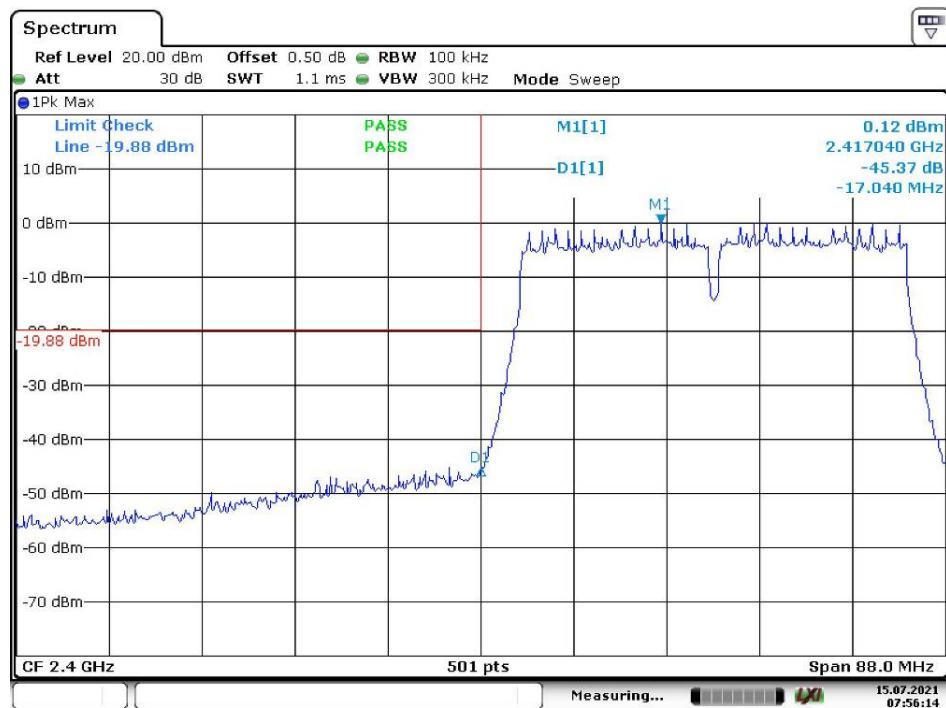
Date: 15.JUL.2021 07:49:00

Chain 1,802.11n ht20 Band Edge, Right Side



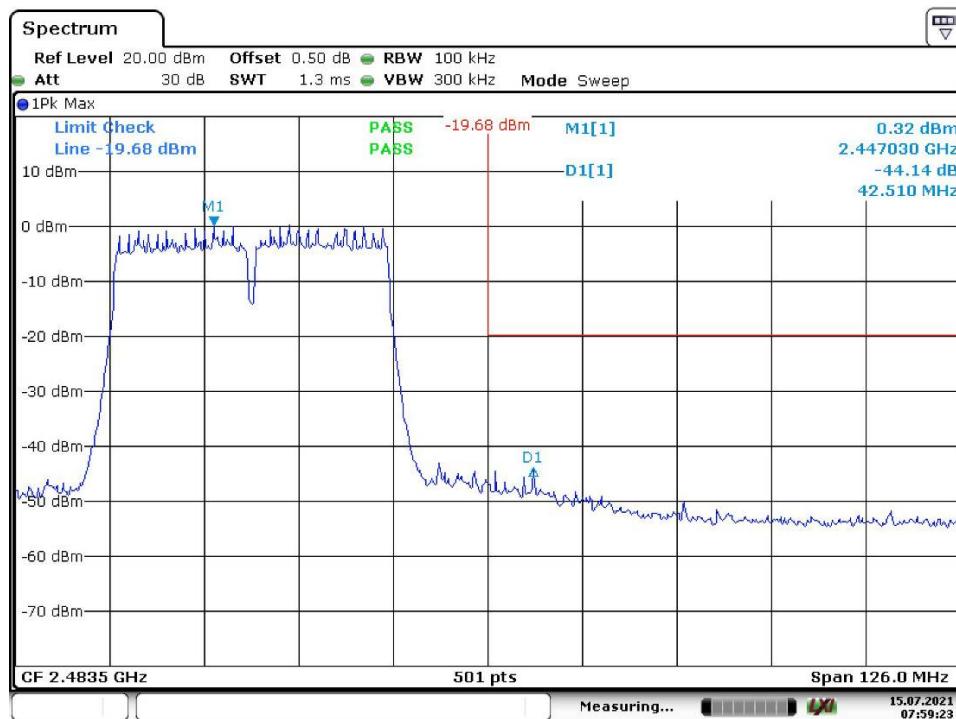
Date: 15.JUL.2021 07:52:08

Chain 1,802.11n ht40 Band Edge, Left Side



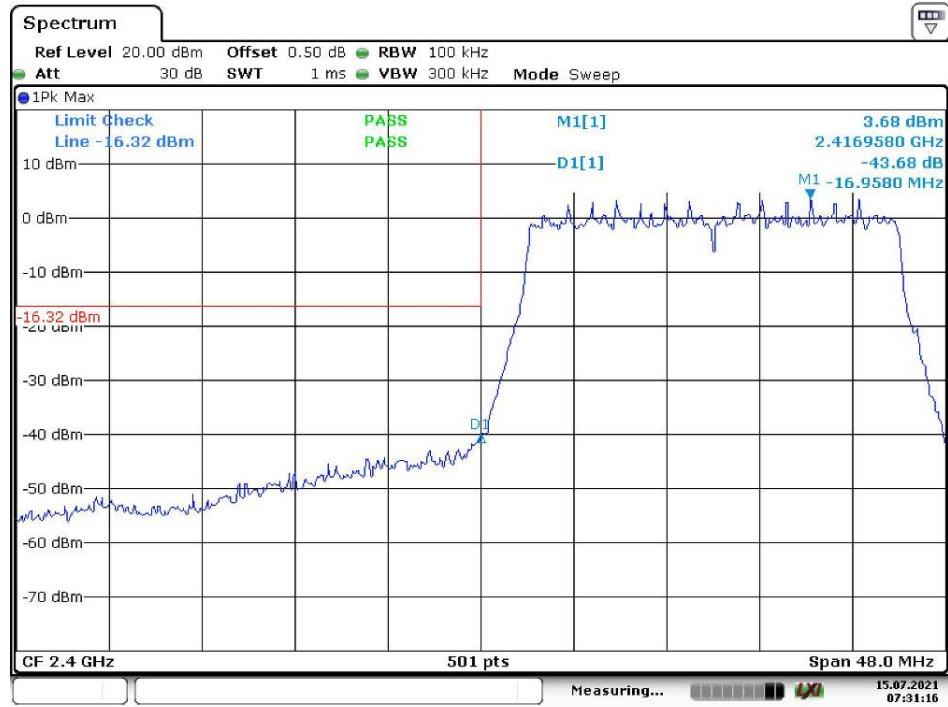
Date: 15.JUL.2021 07:56:15

Chain 1,802.11n ht40 Band Edge, Right Side



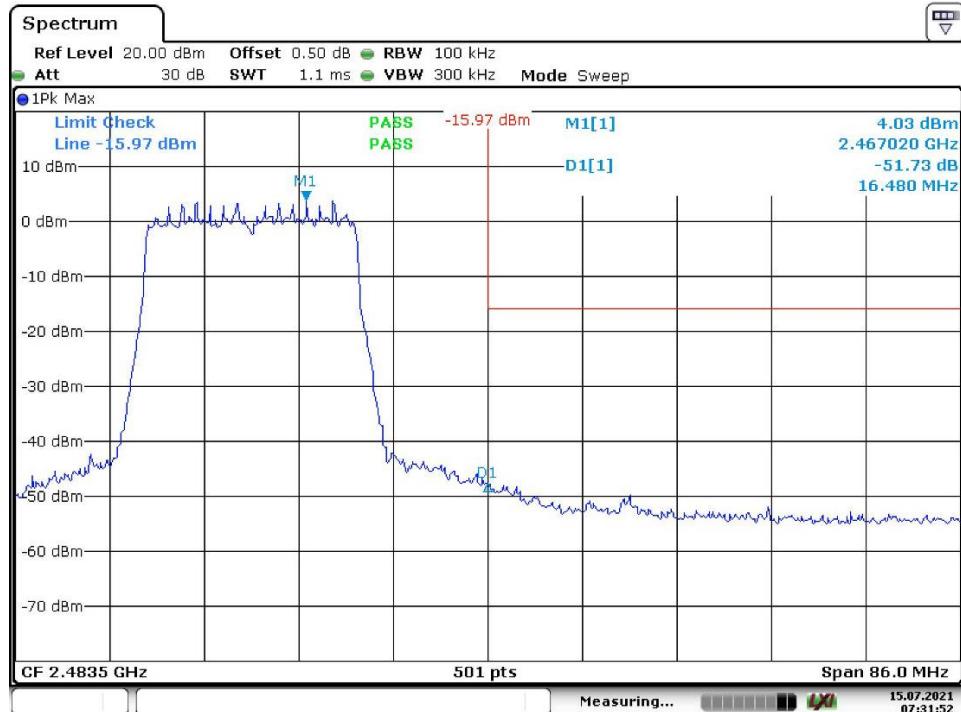
Date: 15.JUL.2021 07:59:23

Chain 1,802.11ax hew20 Band Edge, Left Side



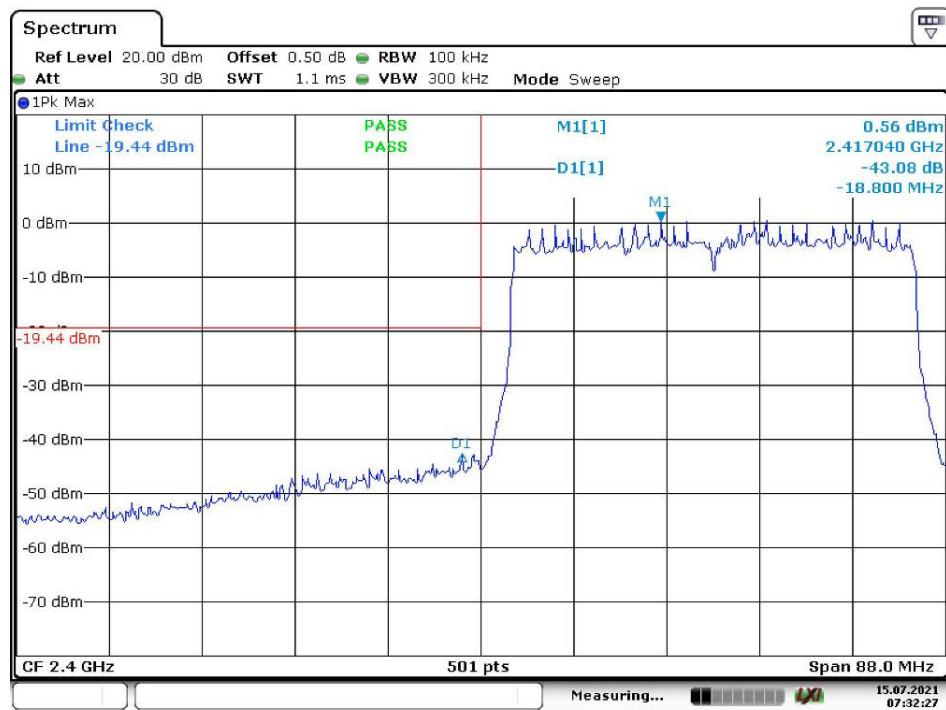
Date: 15.JUL.2021 07:31:17

Chain 1,802.11ax hew20 Band Edge, Right Side



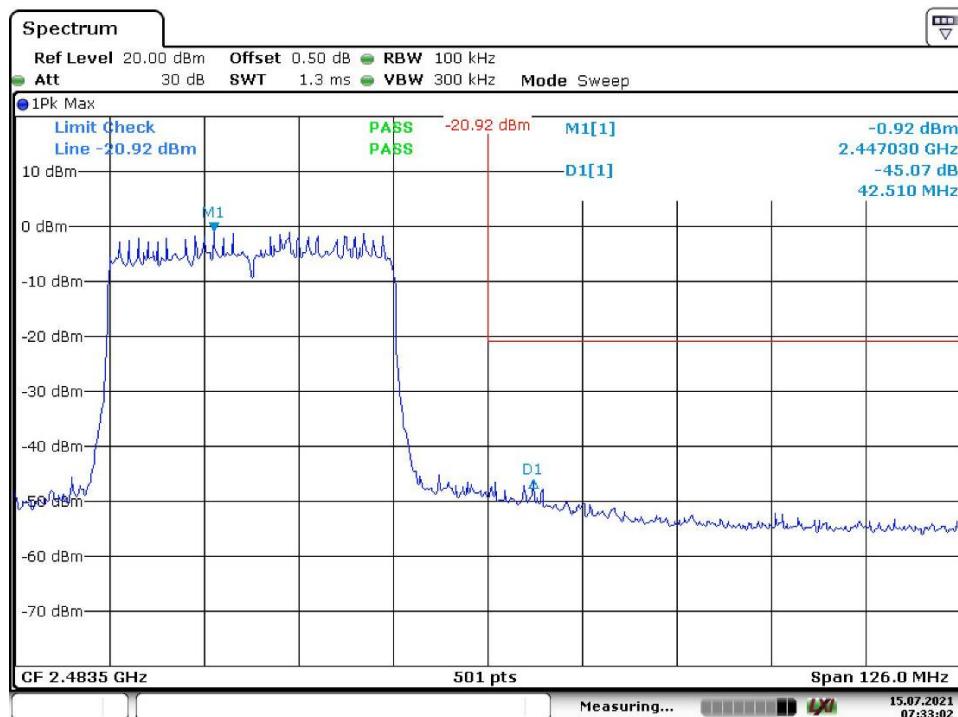
Date: 15.JUL.2021 07:31:53

Chain 1,802.11ax hew40 Band Edge, Left Side



Date: 15.JUL.2021 07:32:28

Chain 1,802.11ax hew40 Band Edge, Right Side



Date: 15.JUL.2021 07:33:03

FCC §15.247(e) - Power Spectral Density

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set the RBW = 3 kHz, VBW = 10 kHz, Set the span to 1.5 times the DTS bandwidth.
4. Use the peak marker function to determine the maximum amplitude level.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESR3	102453	2020-09-12	2021-09-12
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each time	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	25.4 °C
Relative Humidity:	45 %
ATM Pressure:	100.3kPa
Tester:	Tiger Mo
Test Date:	2021-07-15

Test Result: Compliance. Please refer to the following table and plots

Test Mode: Transmitting

Test mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)			Limit (dBm/3kHz)
			Chain 0	Chain 1	Total	
802.11b	Low	2412	4.50	4.38	/	≤8
	Middle	2437	4.92	3.91	/	≤8
	High	2462	3.83	4.21	/	≤8
802.11g	Low	2412	-7.65	-7.65	/	≤8
	Middle	2437	-7.78	-7.89	/	≤8
	High	2462	-7.80	-7.90	/	≤8
802.11n ht20	Low	2412	-10.65	-10.06	-7.33	≤4
	Middle	2437	-10.77	-10.35	-7.54	≤4
	High	2462	-10.80	-10.30	-7.53	≤4
802.11n ht40	Low	2422	-13.78	-13.93	-10.84	≤4
	Middle	2437	-13.95	-13.24	-10.57	≤4
	High	2452	-13.60	-13.45	-10.51	≤4
802.11ax hew20	Low	2412	-10.80	-10.35	-7.56	≤4
	Middle	2437	-10.77	-10.42	-7.58	≤4
	High	2462	-10.65	-10.35	-7.49	≤4
802.11ax hew40	Low	2422	-14.14	-14.81	-11.45	≤4
	Middle	2437	-15.03	-14.90	-11.95	≤4
	High	2452	-16.27	-16.53	-13.39	≤4

Note 1: The maximum antenna gain is 4.0 dBi. And beamforming gain is 3dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

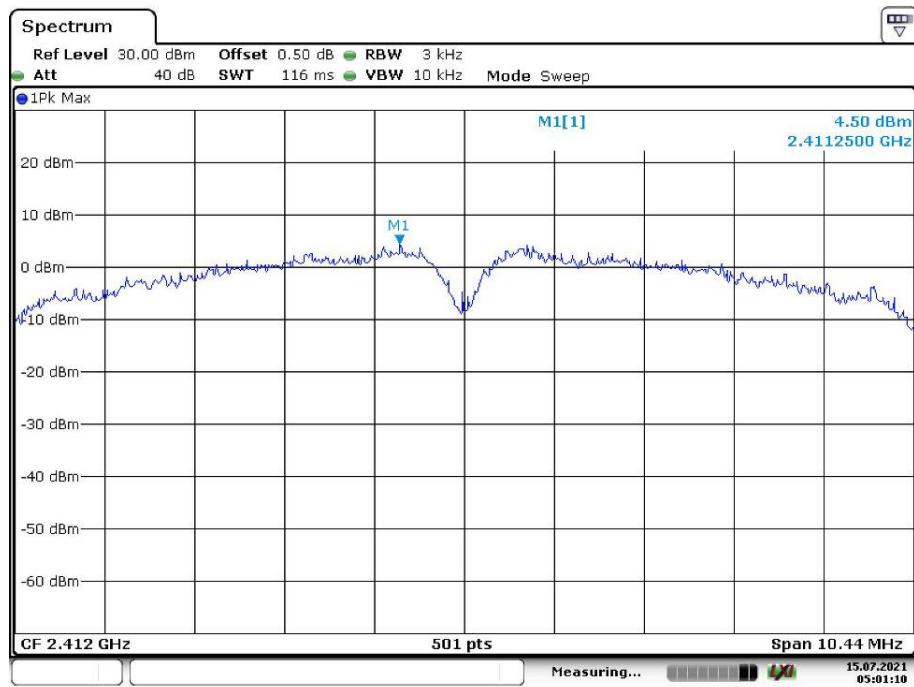
$$\text{Array Gain} = 10 \log(N_{\text{ANT}}/N_{\text{SS}}) \text{ dB.}$$

So:

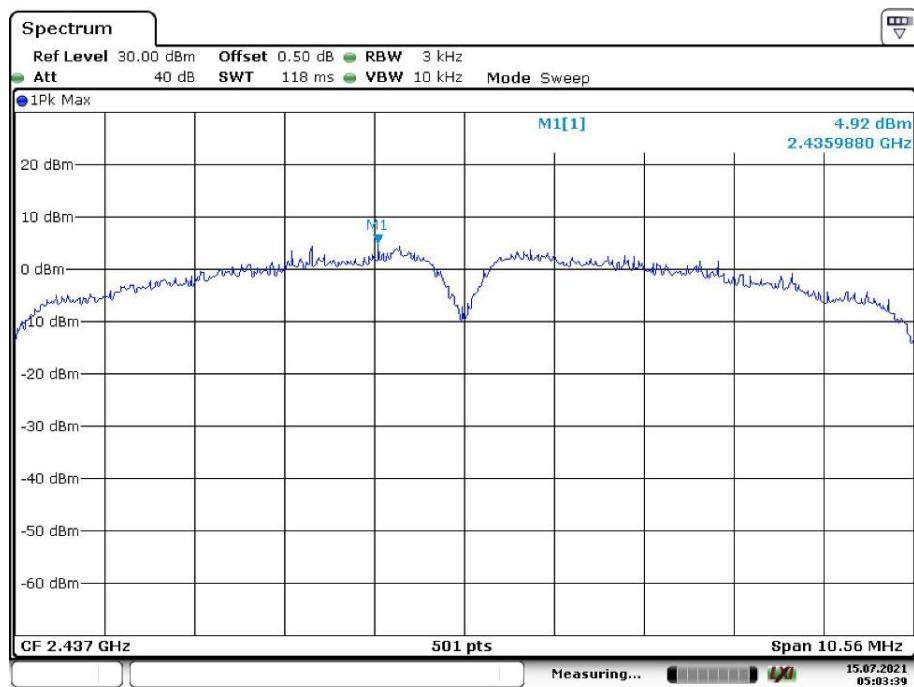
$$\text{Directional gain} = G_{\text{ANT}} + \text{Array Gain} = 4.0 + 10 * \log(2/1) = 7.0 \text{ dBi} \text{ for Non-beamforming mode}$$

$$\text{Directional gain} = G_{\text{ANT}} + \text{Array Gain} = 4.0 + 3 + 10 * \log(2/1) = 10.0 \text{ dBi} \text{ for Beamforming mode}$$

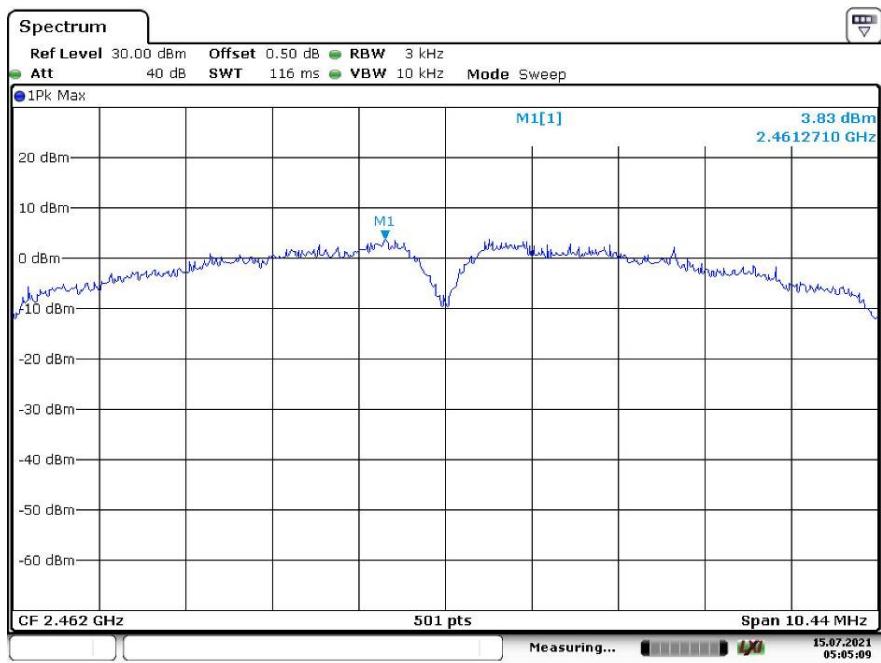
The worst limit Beamforming mode was used in the table.

Chain 0, Power Spectral Density, 802.11b Low Channel

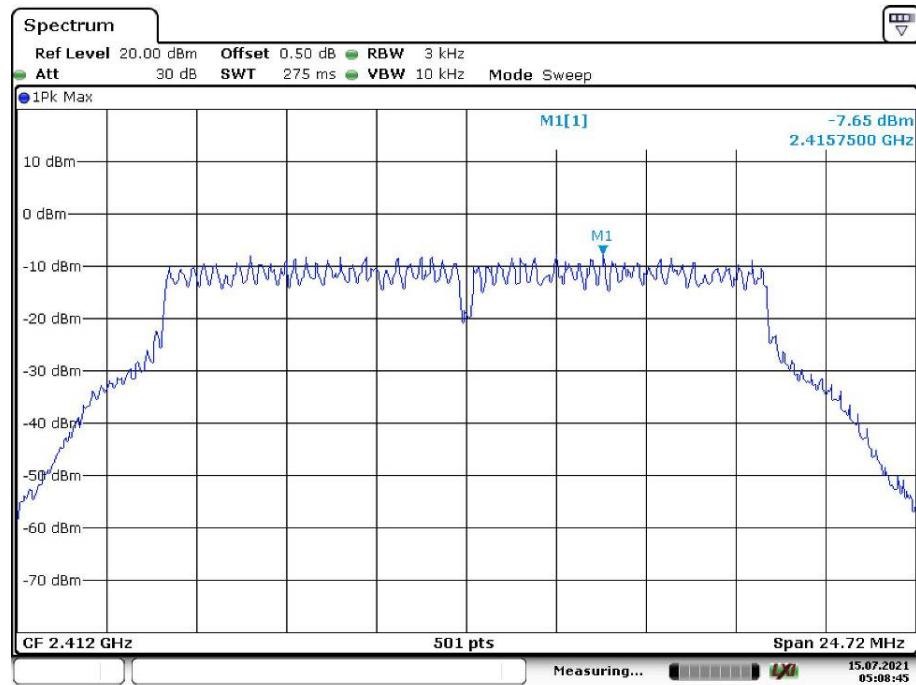
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Chain 0, Power Spectral Density, 802.11b Middle Channel

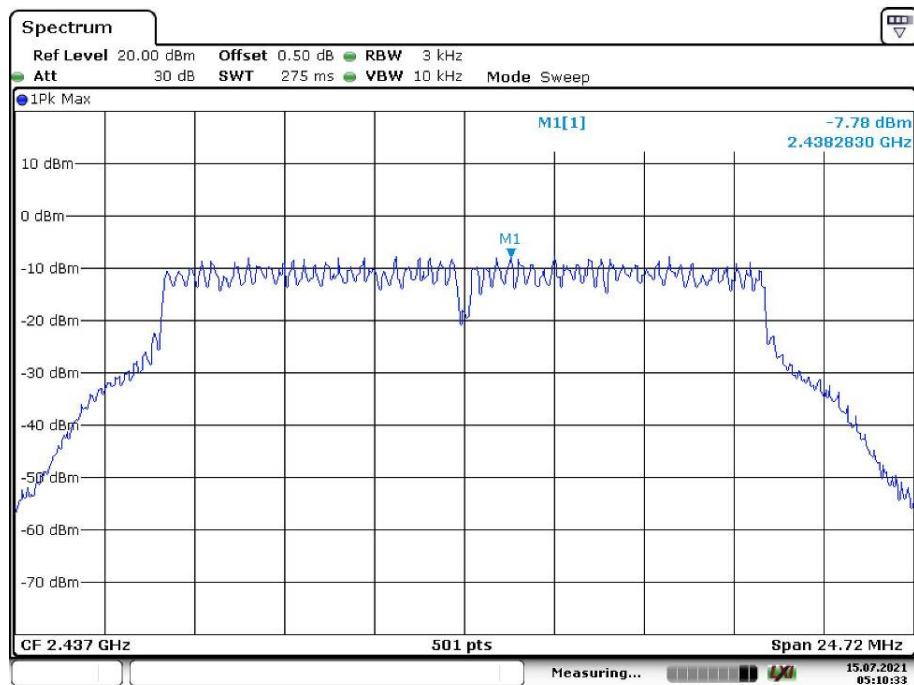
Date: 15.JUL.2021 05:03:39

Chain 0,Power Spectral Density, 802.11b High Channel

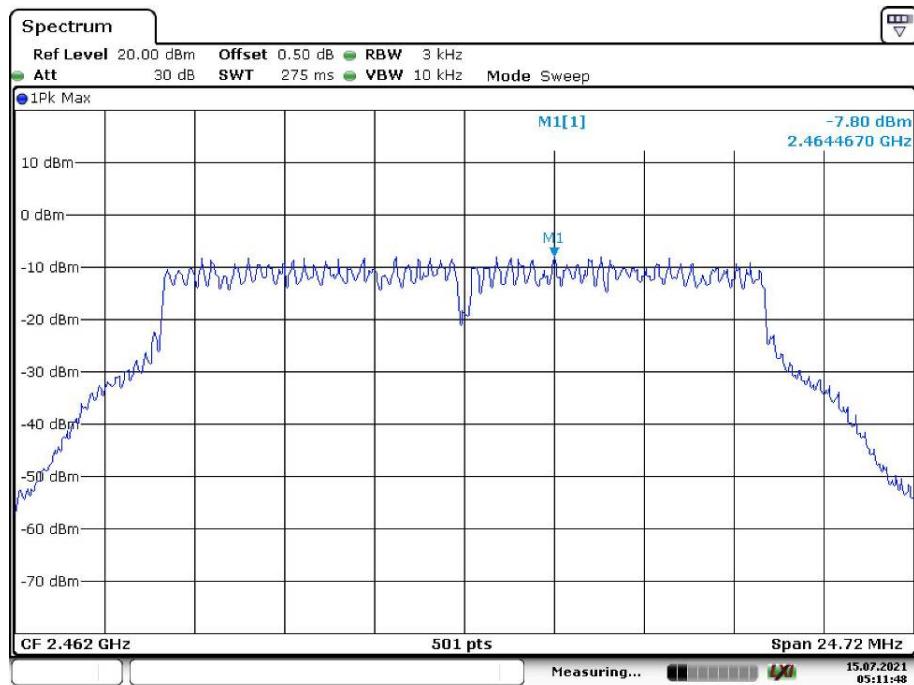
Date: 15.JUL.2021 05:05:10

Chain 0,Power Spectral Density, 802.11g Low Channel

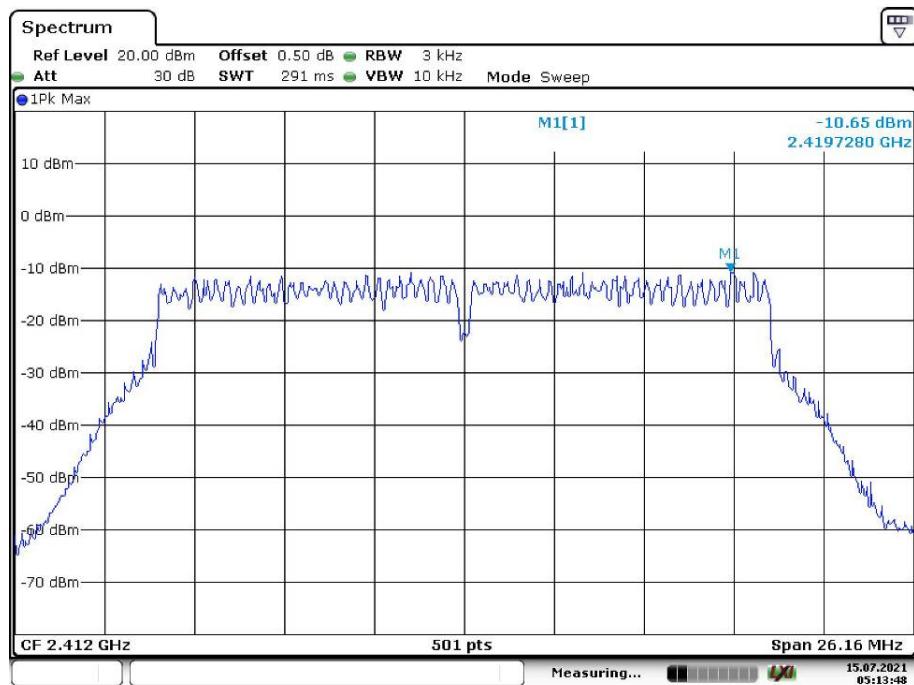
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Chain 0,Power Spectral Density, 802.11g Middle Channel

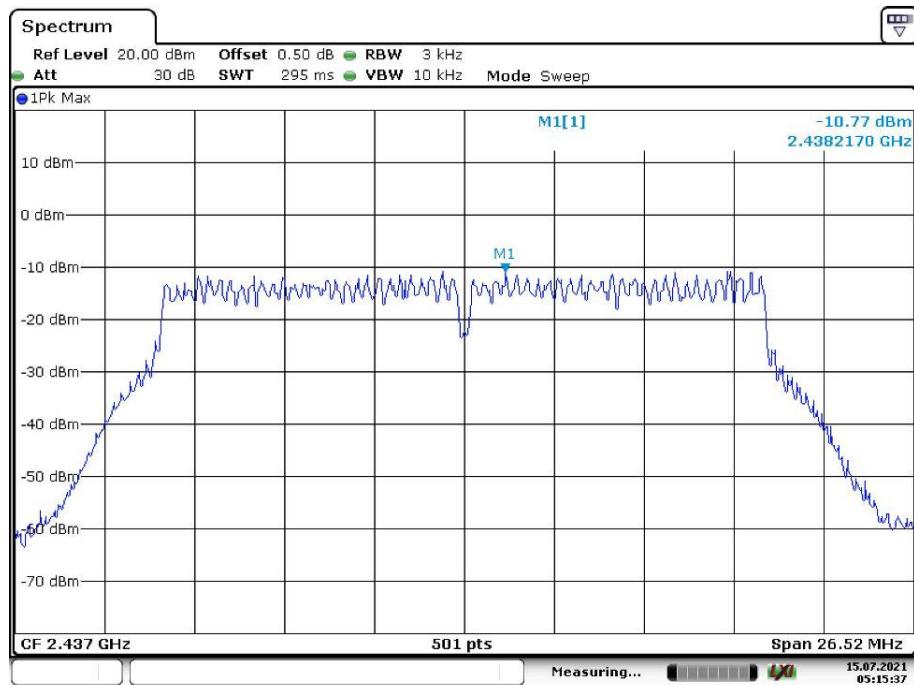
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Chain 0,Power Spectral Density, 802.11g High Channel

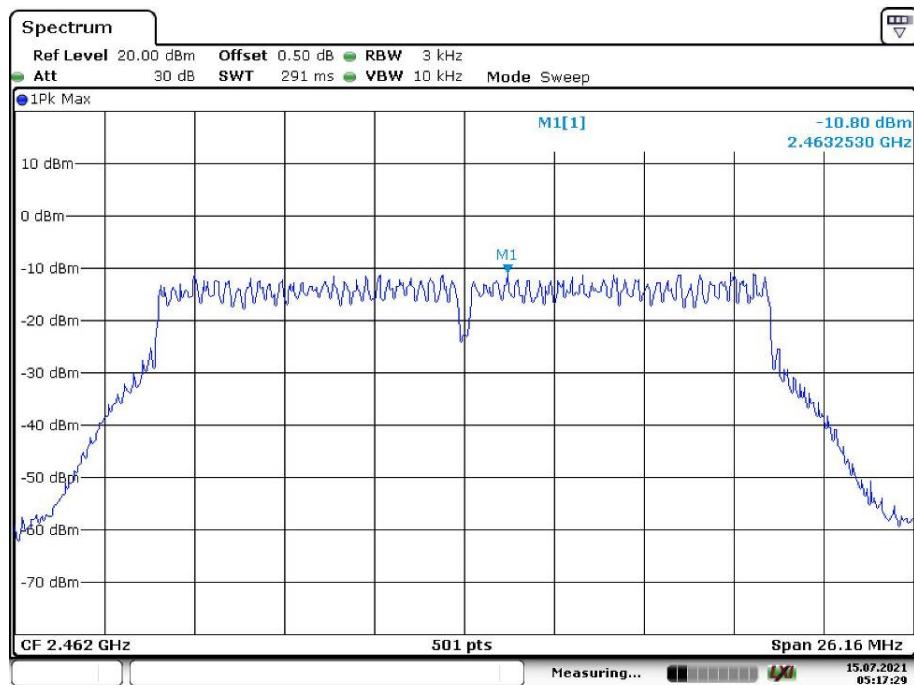
Date: 15.JUL.2021 05:11:49

Chain 0,Power Spectral Density, 802.11n ht20 Low Channel

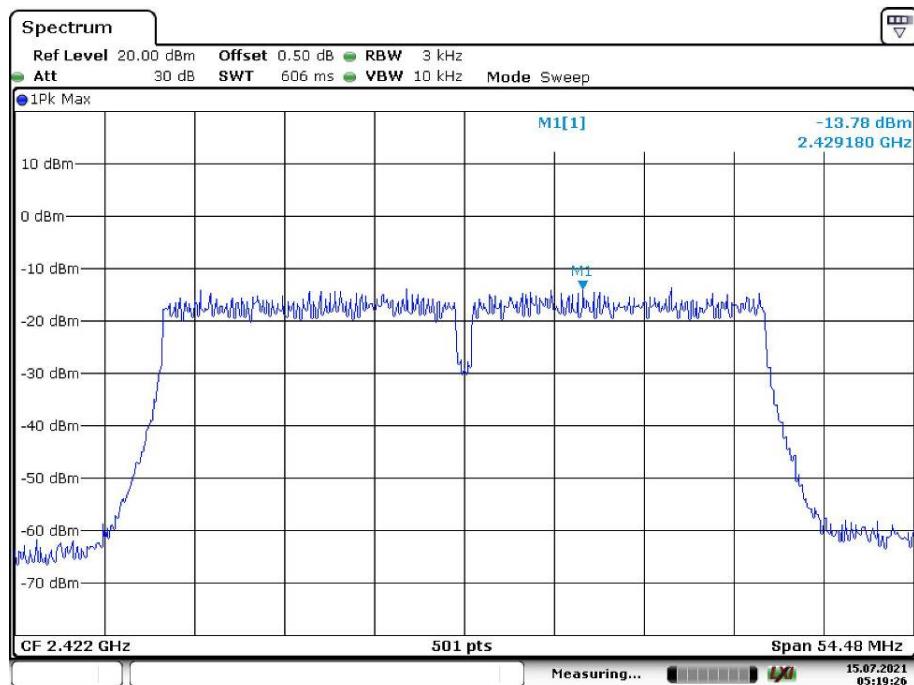
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Chain 0,Power Spectral Density, 802.11n ht20 Middle Channel

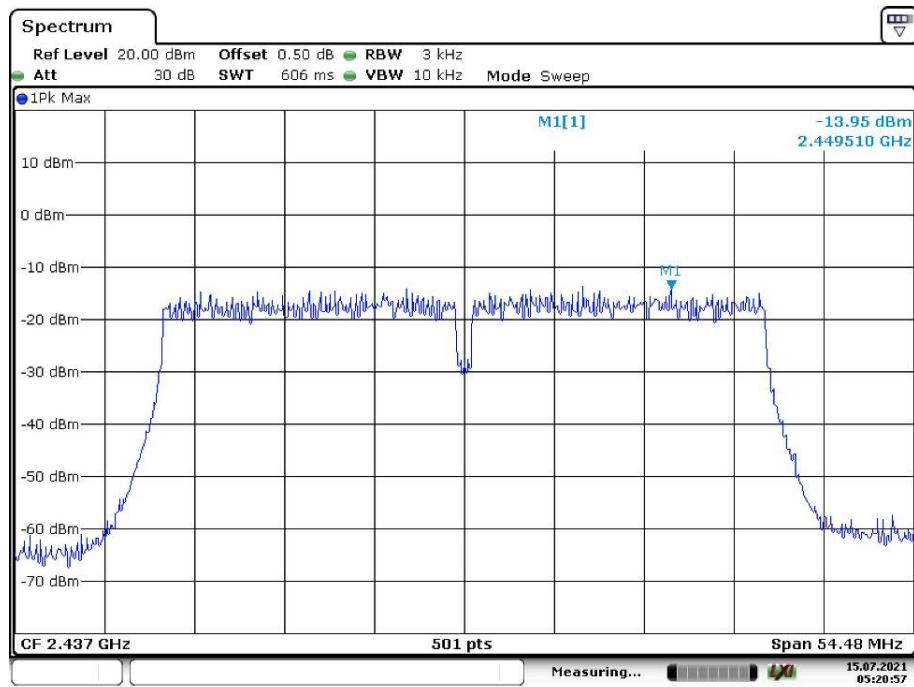
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Chain 0,Power Spectral Density, 802.11n ht20 High Channel

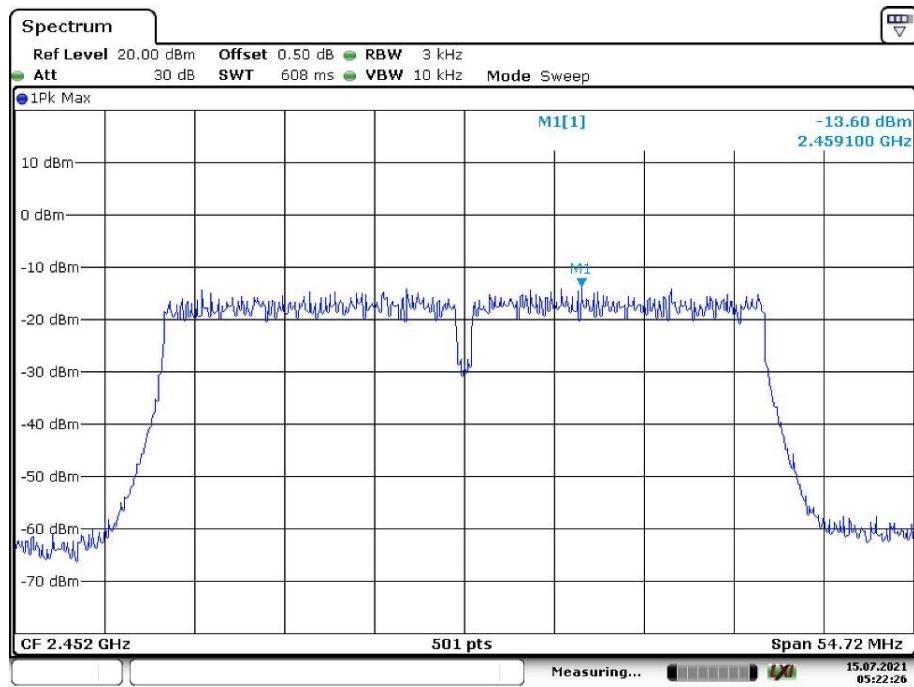
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Chain 0,Power Spectral Density, 802.11n ht40 Low Channel

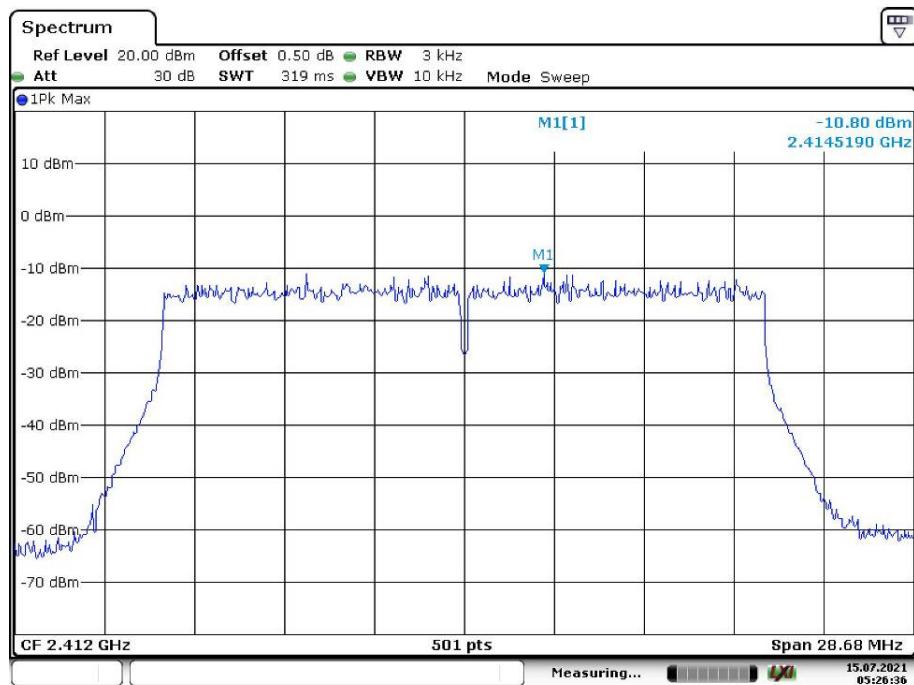
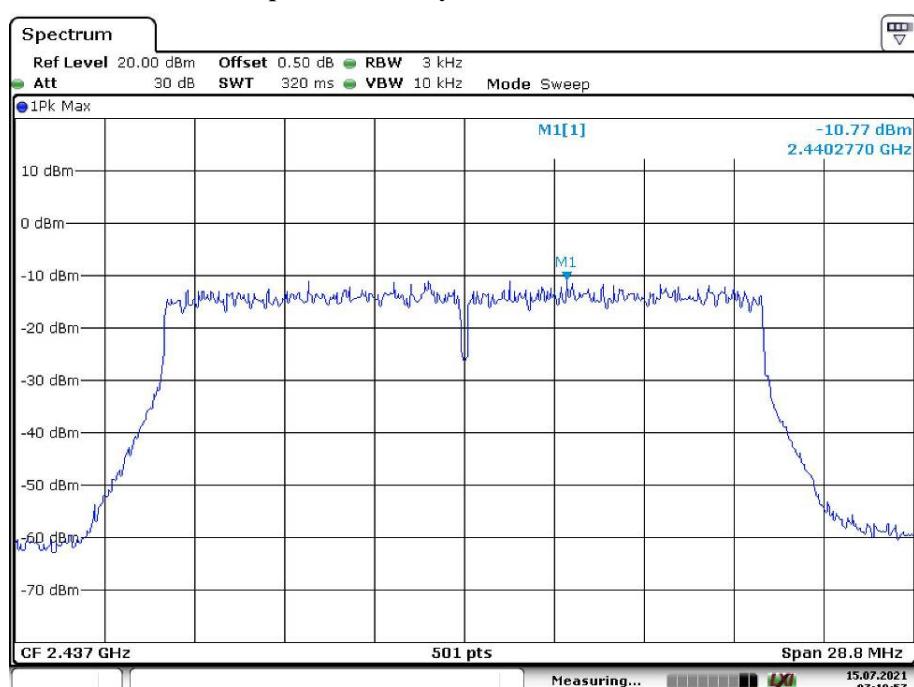
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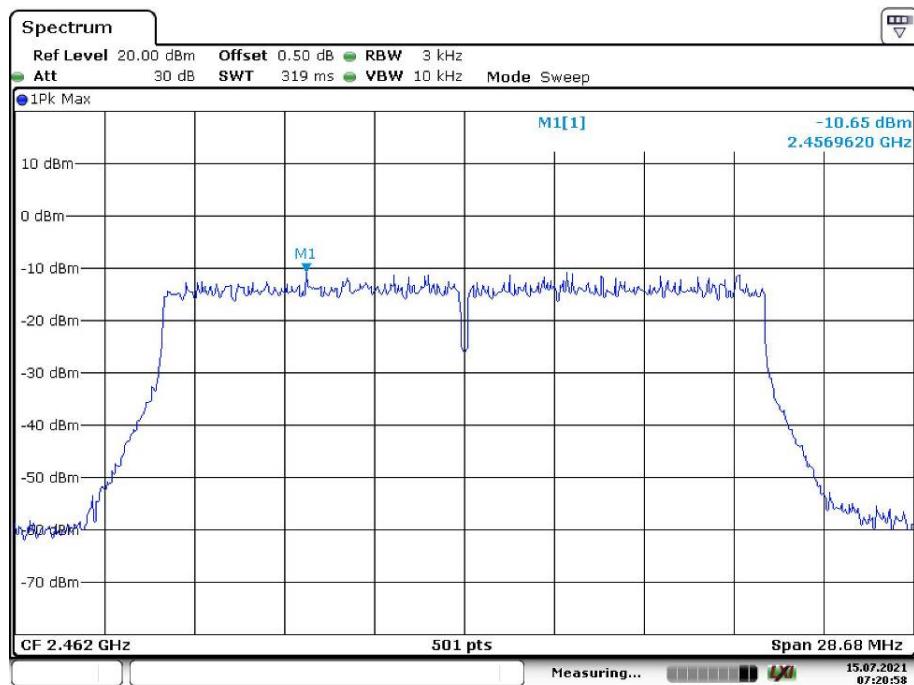
Chain 0,Power Spectral Density, 802.11n ht40 Middle Channel

Date: 15.JUL.2021 05:20:57

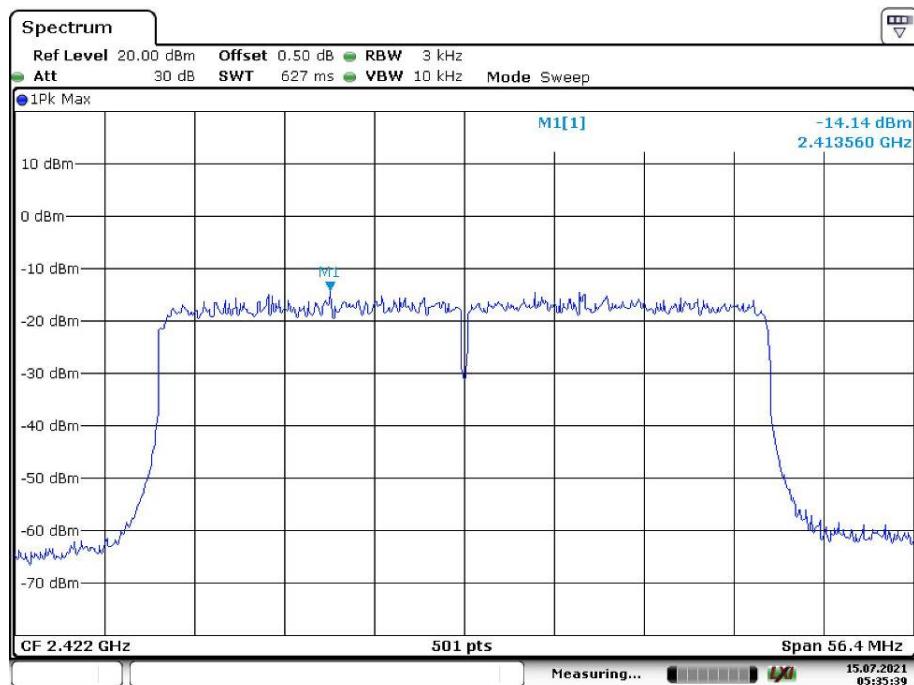
Chain 0,Power Spectral Density, 802.11n ht40 High Channel

Date: 15.JUL.2021 05:22:27

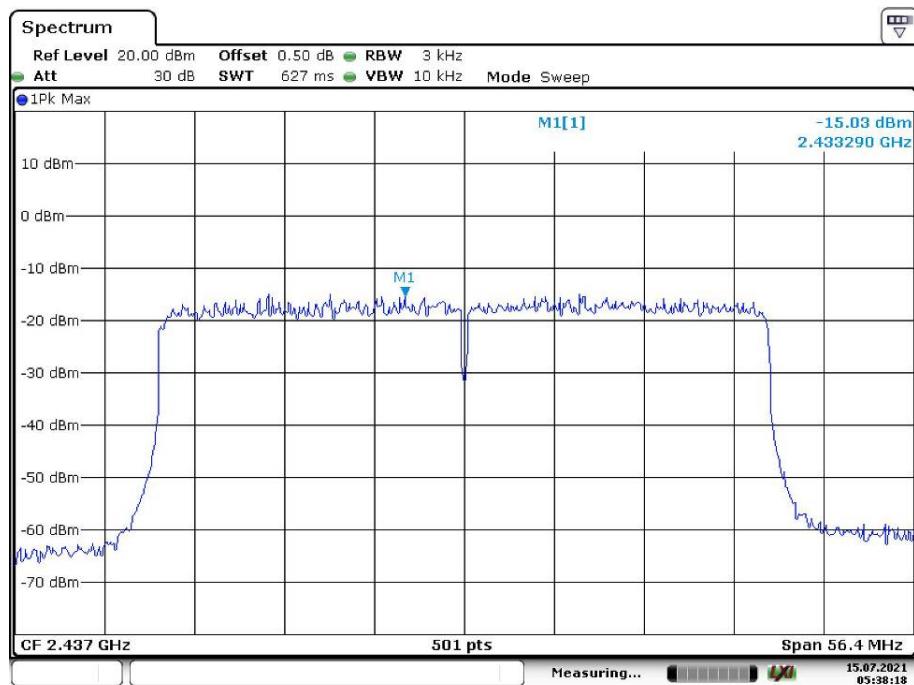
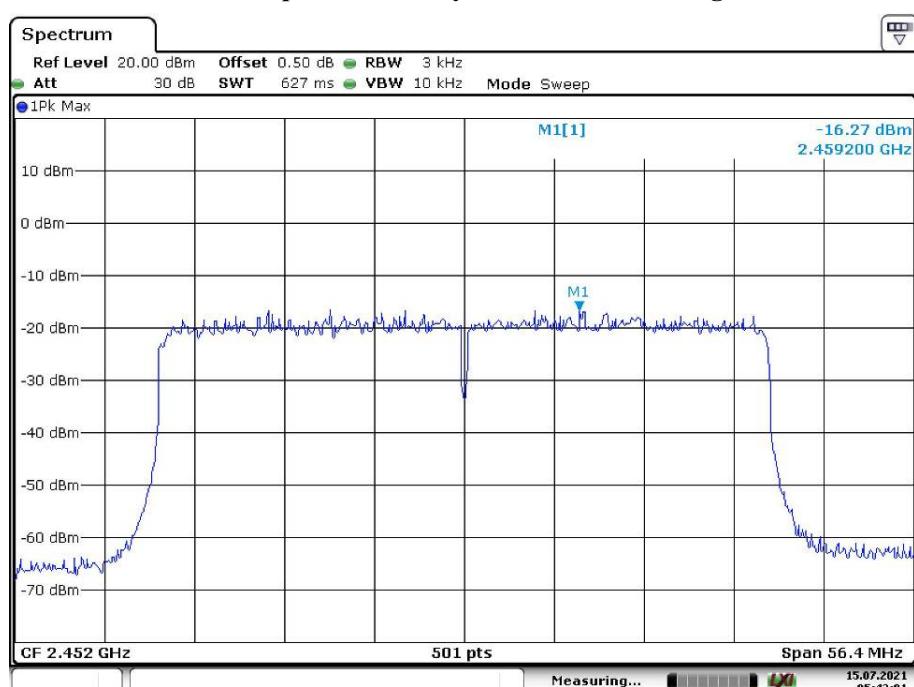
Chain 0,Power Spectral Density, 802.11ax hew20 Low Channel**Chain 0,Power Spectral Density, 802.11ax hew20 Middle Channel**

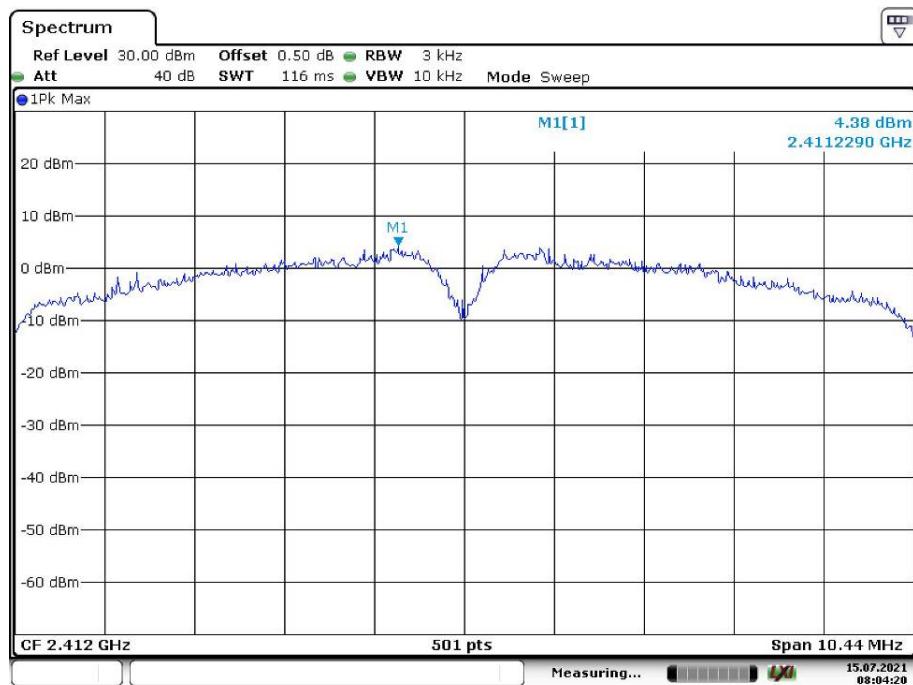
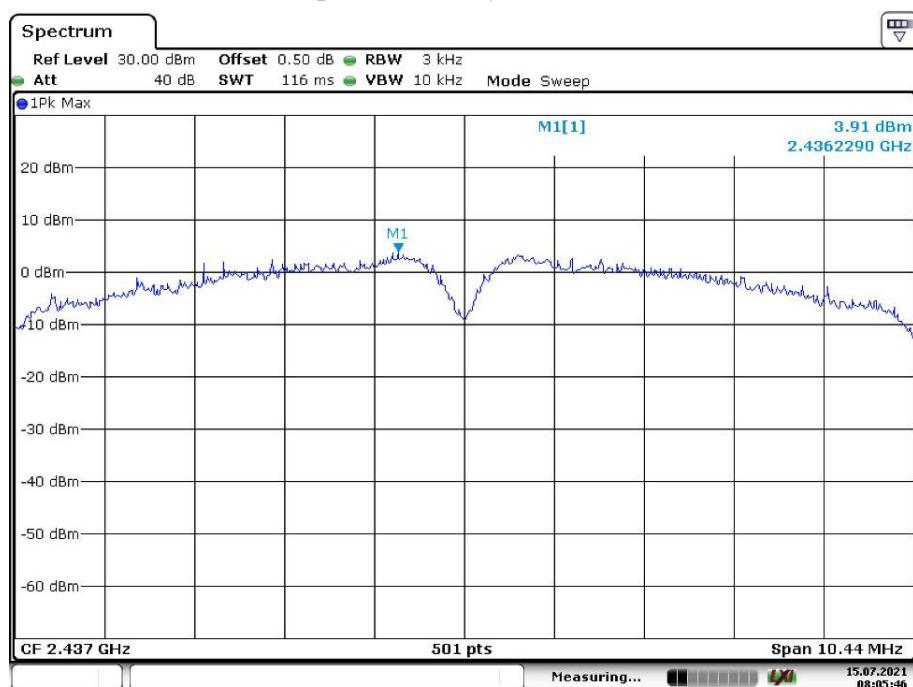
Chain 0,Power Spectral Density, 802.11ax hew20 High Channel

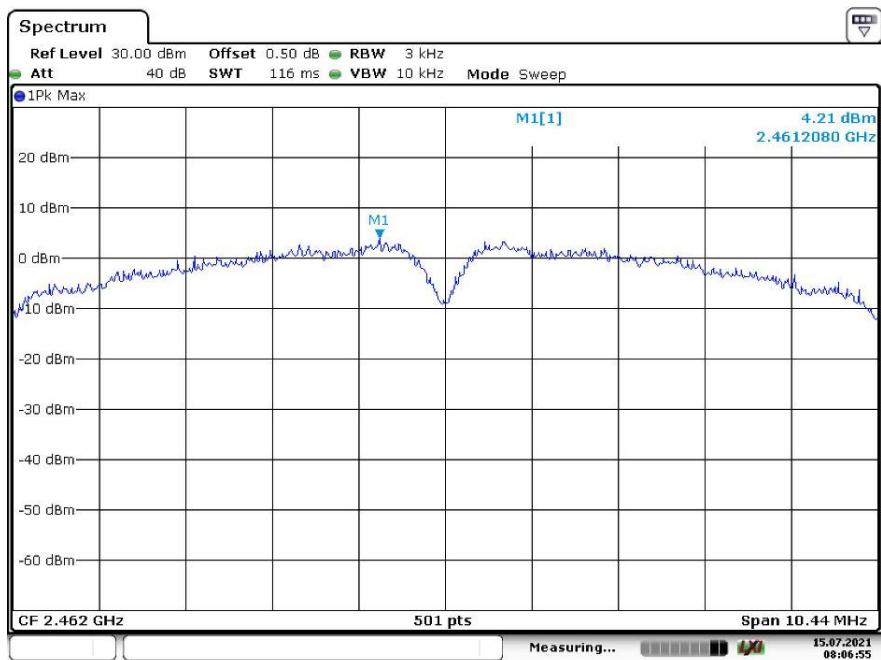
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Chain 0,Power Spectral Density, 802.11ax hew40 Low Channel

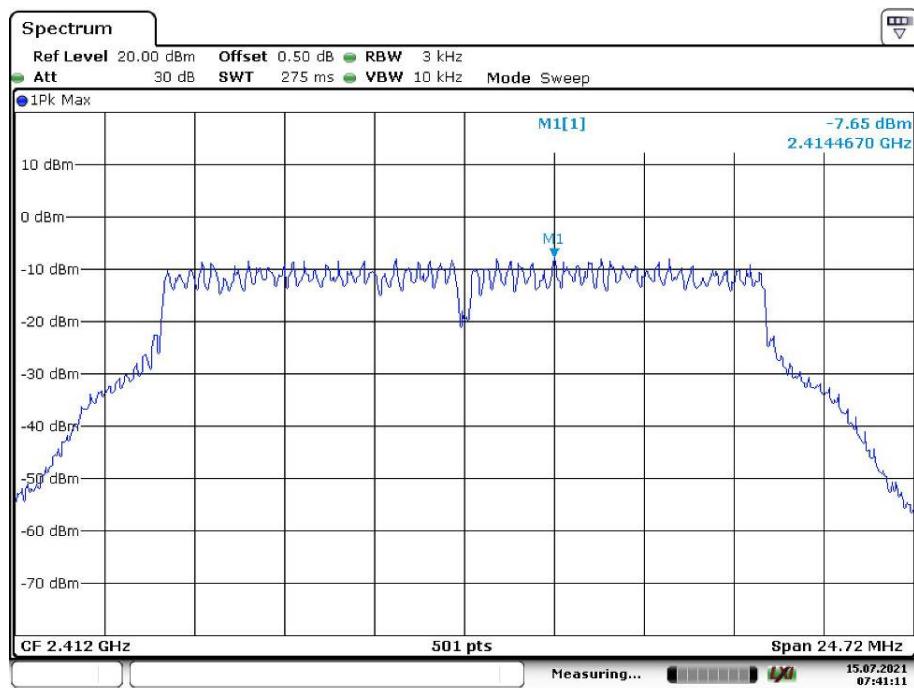
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Chain 0,Power Spectral Density, 802.11ax hew40 Middle Channel**Chain 0,Power Spectral Density, 802.11ax hew40 High Channel**

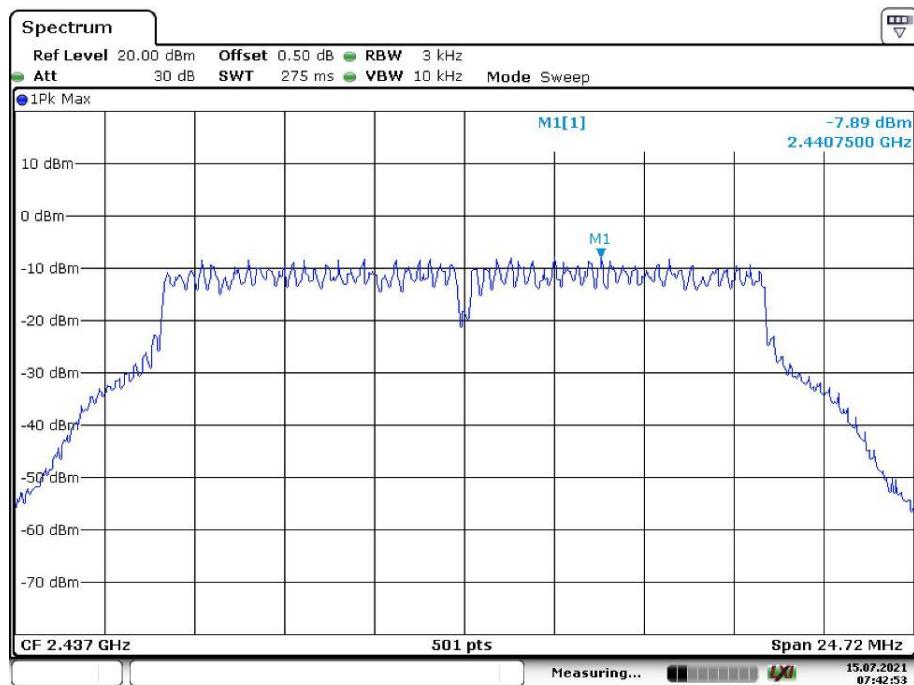
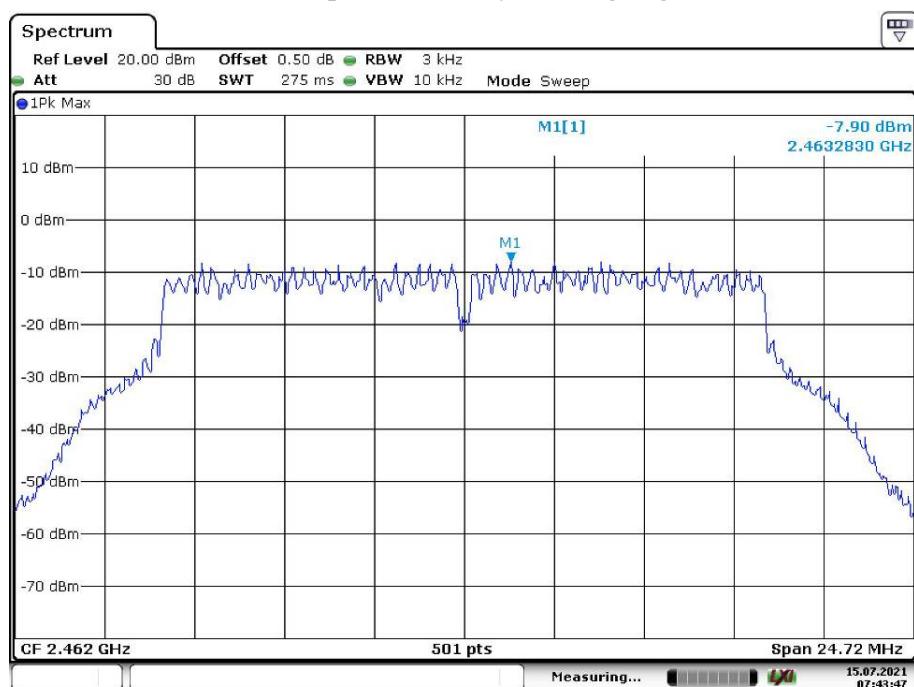
Chain 1, Power Spectral Density, 802.11b Low Channel**Chain 1, Power Spectral Density, 802.11b Middle Channel**

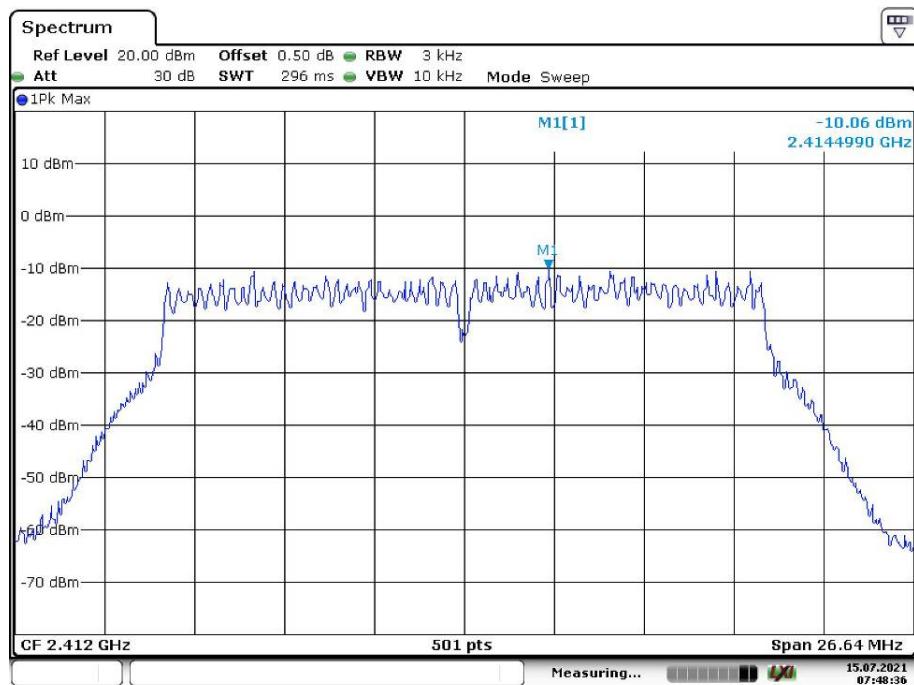
Chain 1,Power Spectral Density, 802.11b High Channel

Date: 15.JUL.2021 08:06:55

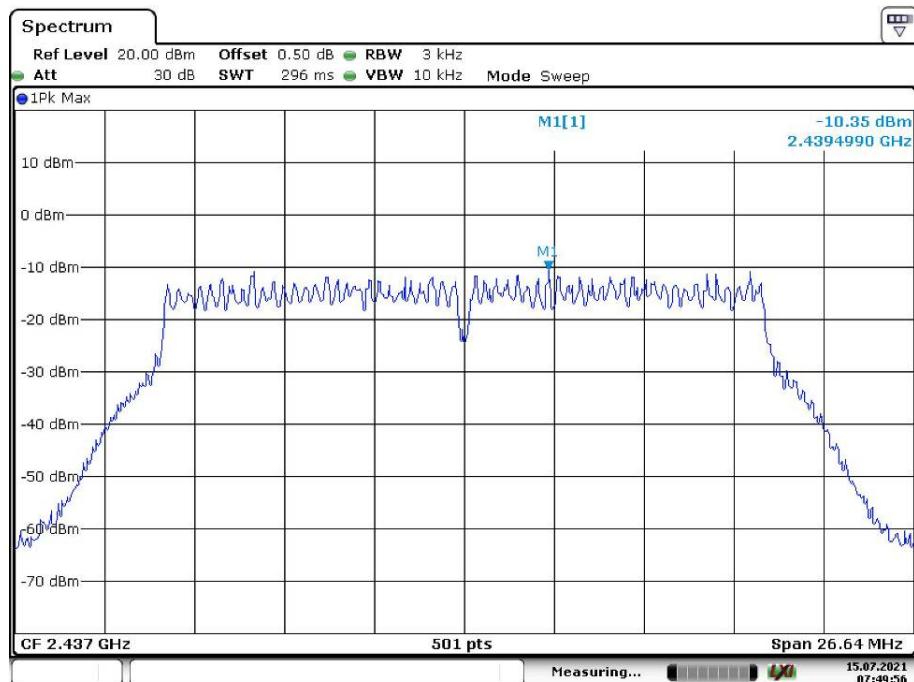
Chain1,Power Spectral Density, 802.11g Low Channel

Date: 15.JUL.2021 07:41:12

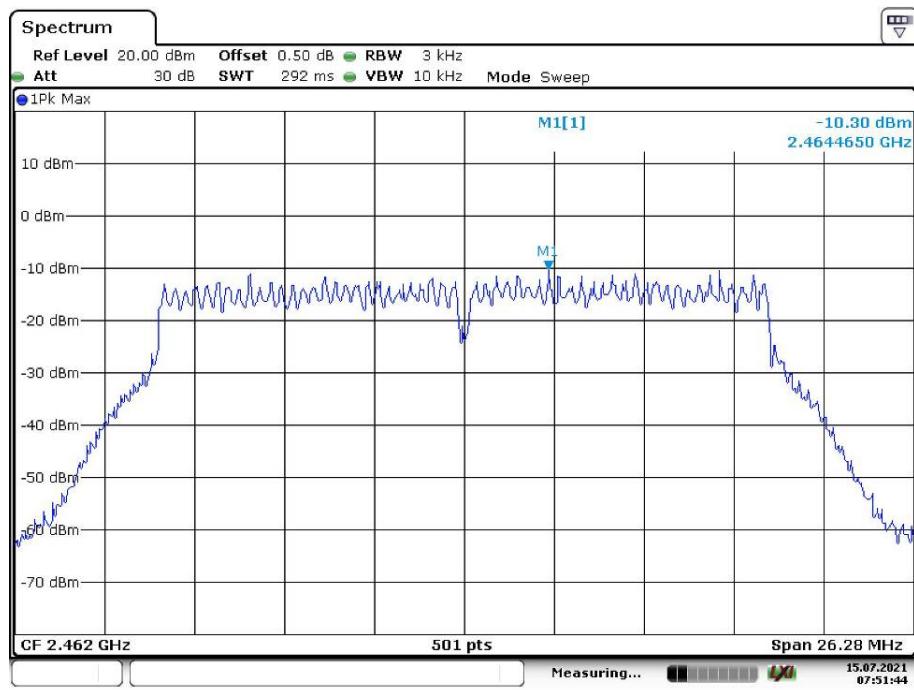
Chain 1,Power Spectral Density, 802.11g Middle Channel**Chain1,Power Spectral Density, 802.11g High Channel**

Chain1,Power Spectral Density, 802.11n ht20 Low Channel

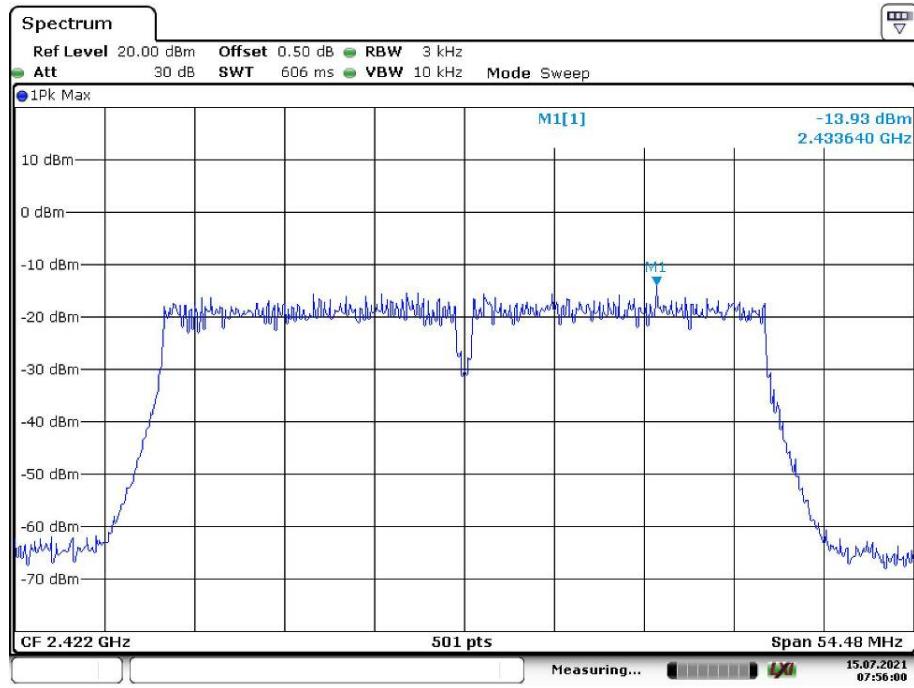
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Chain 1,Power Spectral Density, 802.11n ht20 Middle Channel

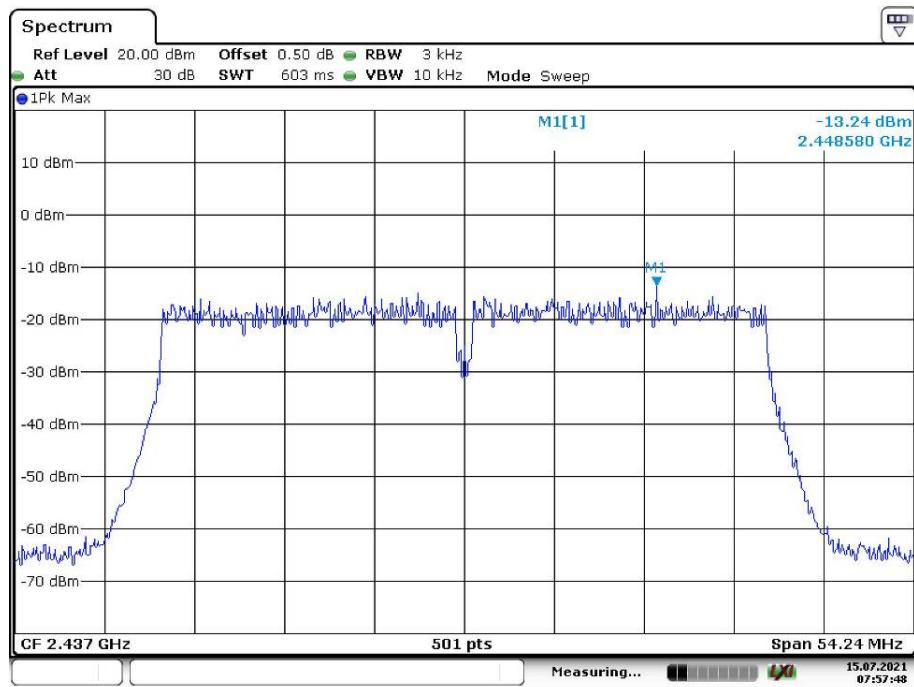
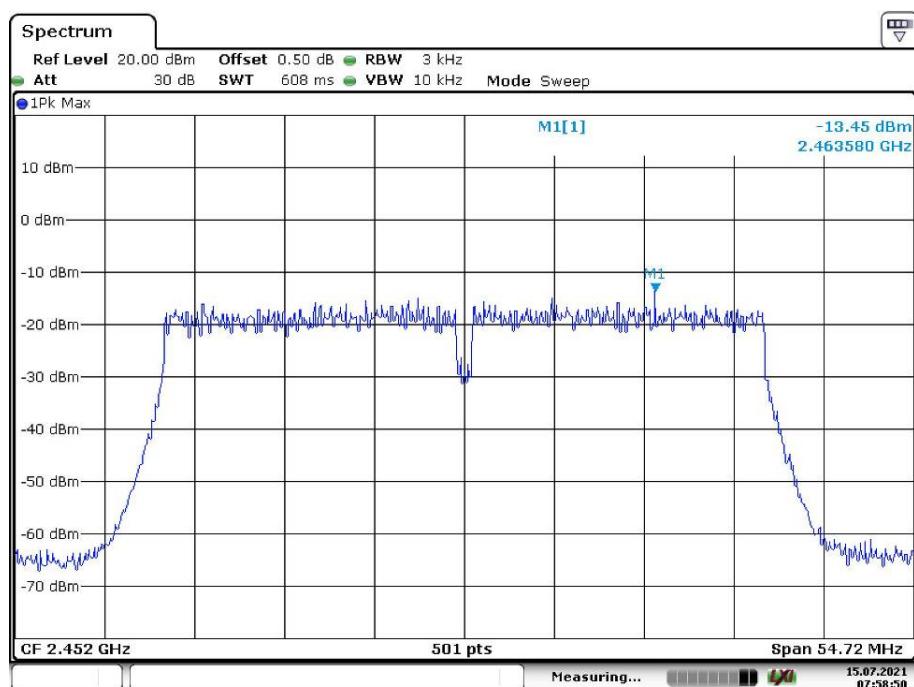
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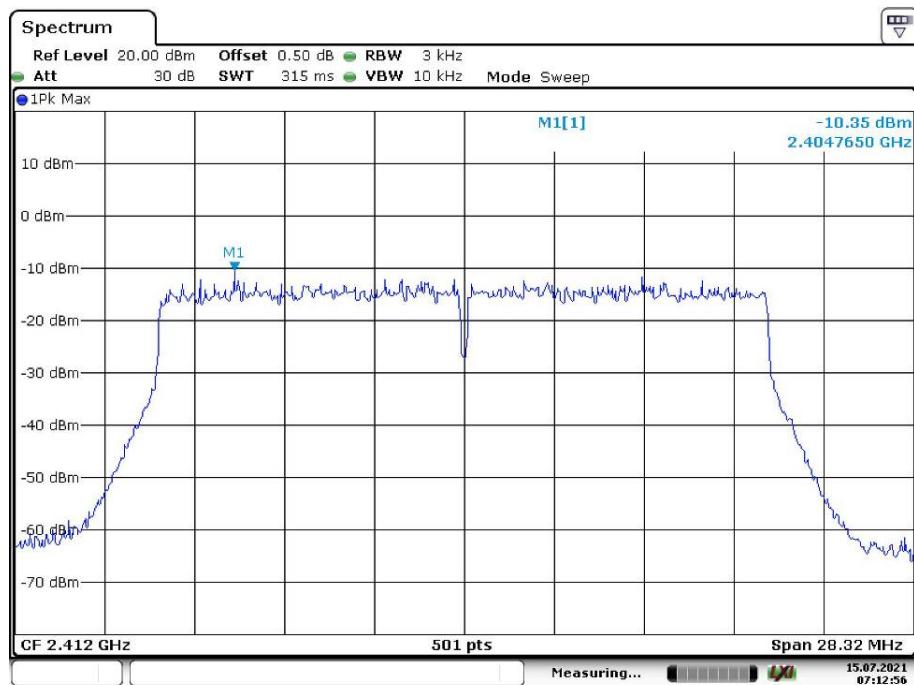
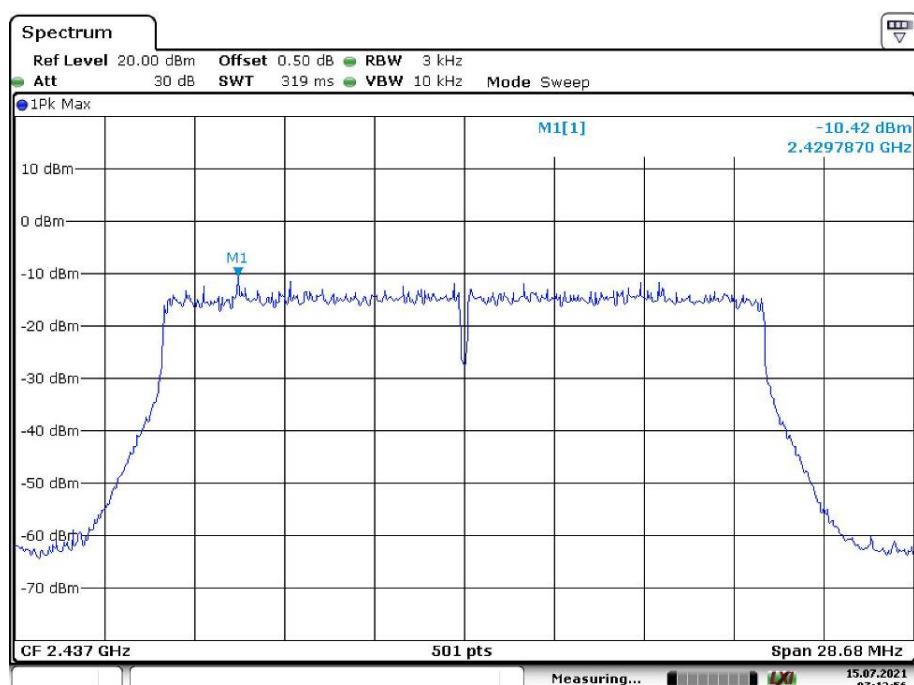
Chain 1,Power Spectral Density, 802.11n ht20 High Channel

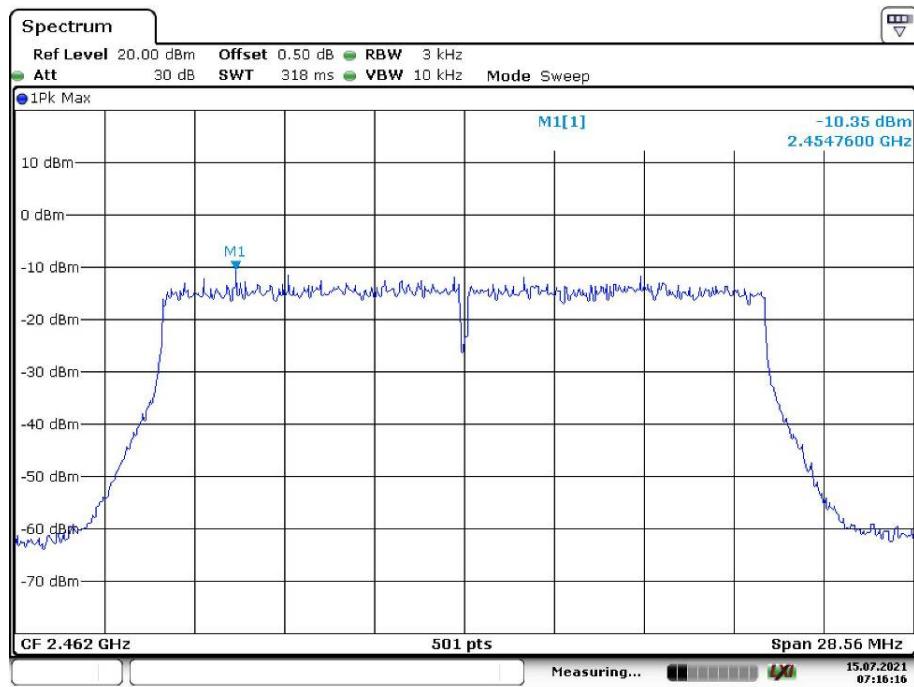
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Chain 1,Power Spectral Density, 802.11n ht40 Low Channel

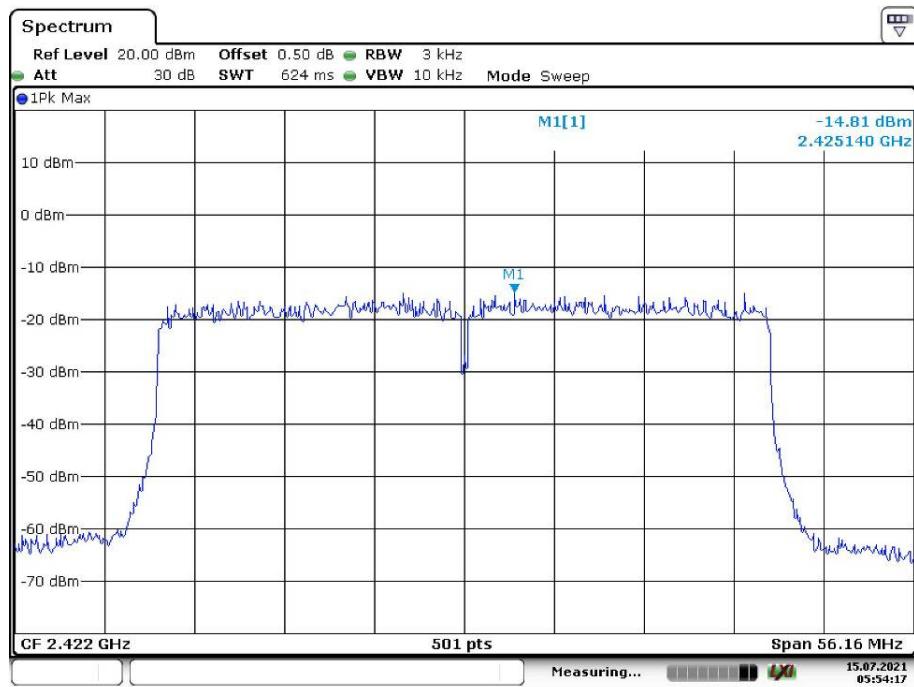
Date: 15.JUL.2021 07:56:01

Chain 1,Power Spectral Density, 802.11n ht40 Middle Channel**Chain 1,Power Spectral Density, 802.11n ht40 High Channel**

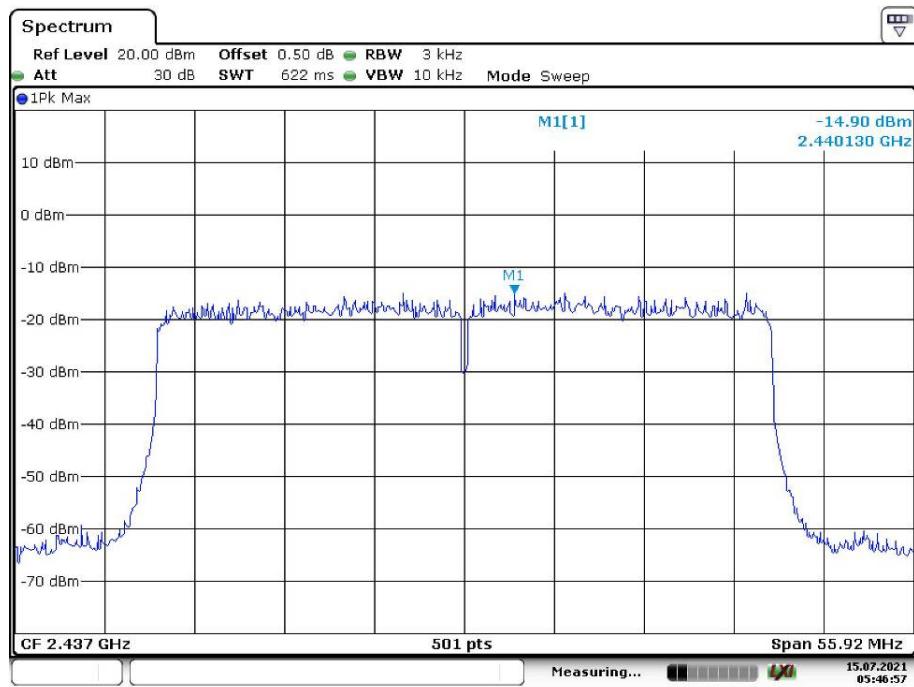
Chain 1,Power Spectral Density, 802.11ax hew20 Low Channel**Chain 1,Power Spectral Density, 802.11ax hew20 Middle Channel**

Chain 1,Power Spectral Density, 802.11ax hew20 High Channel

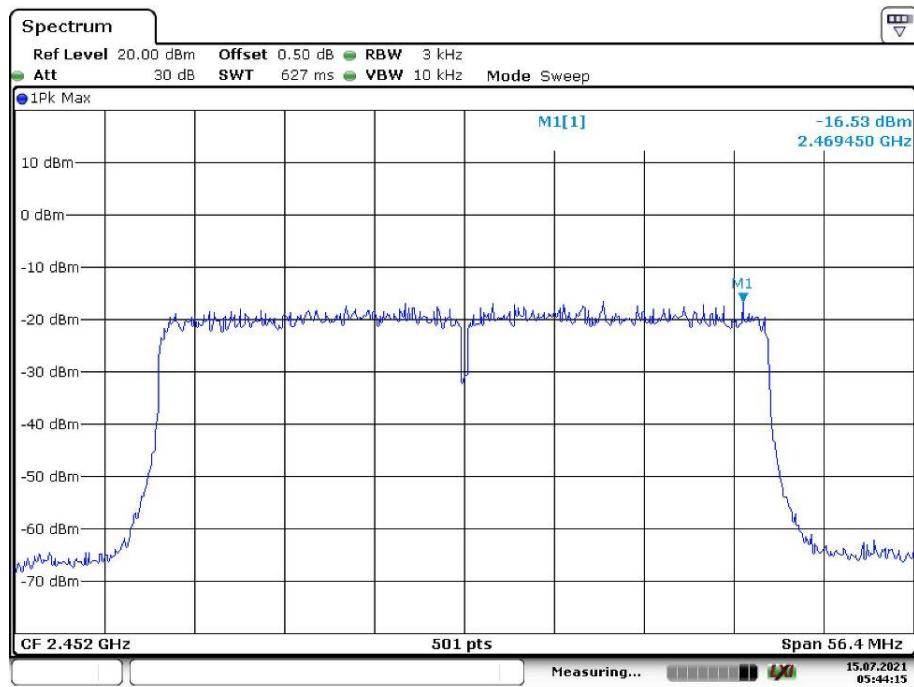
Date: 15.JUL.2021 07:16:17

Chain 1,Power Spectral Density, 802.11ax hew40 Low Channel

Date: 15.JUL.2021 05:54:17

Chain 1,Power Spectral Density, 802.11ax hew40 Middle Channel

Date: 15.JUL.2021 05:46:57

Chain 1,Power Spectral Density, 802.11ax hew40 High Channel

Date: 15.JUL.2021 05:44:16

******* END OF REPORT *******