

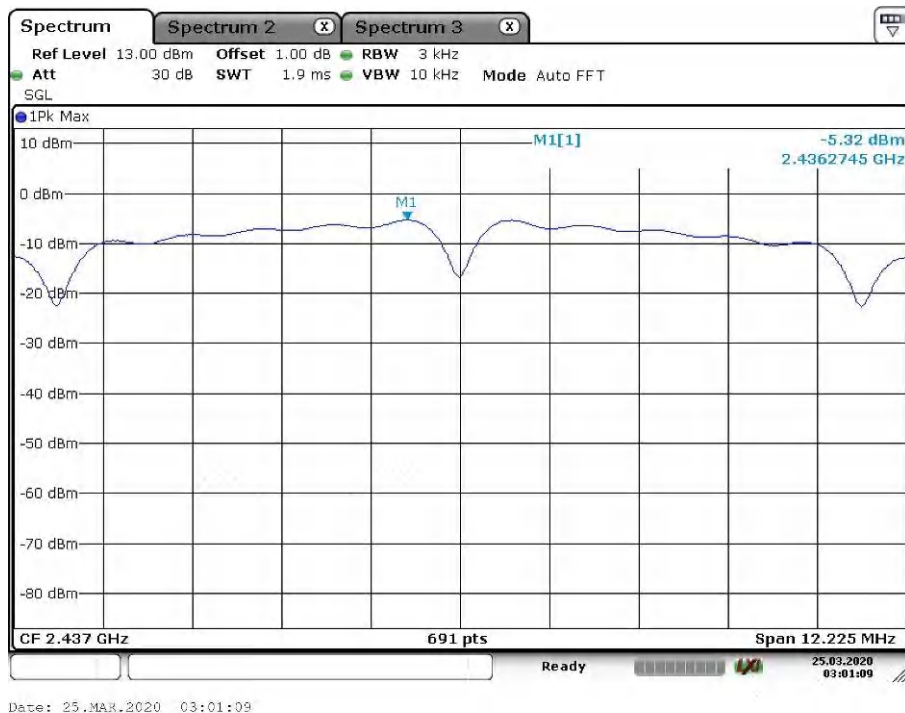
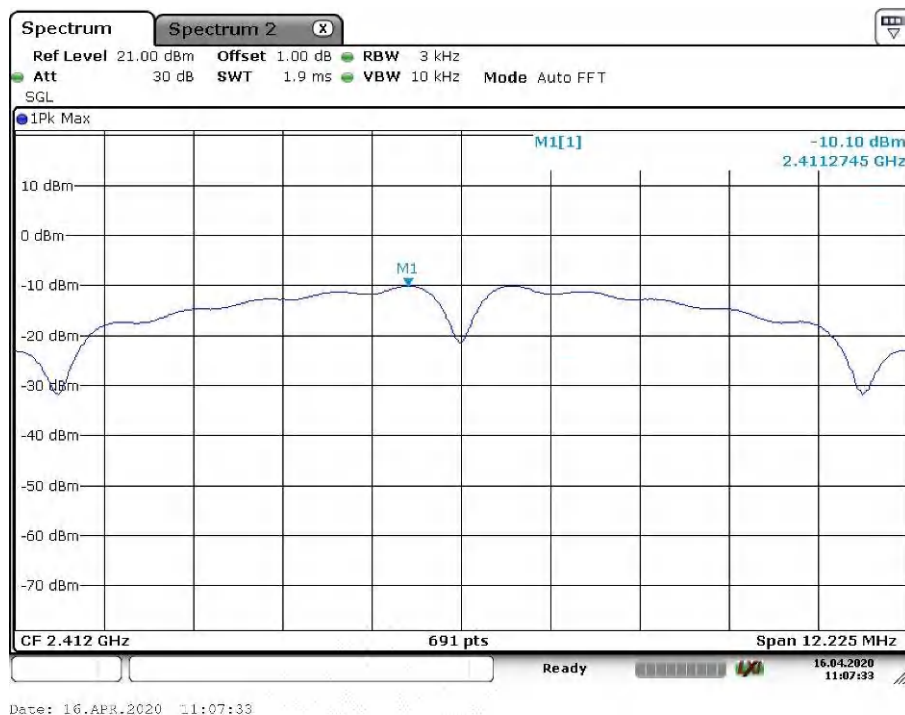
Appendix B: Test Results of Wi-Fi 802.11 b/g/n

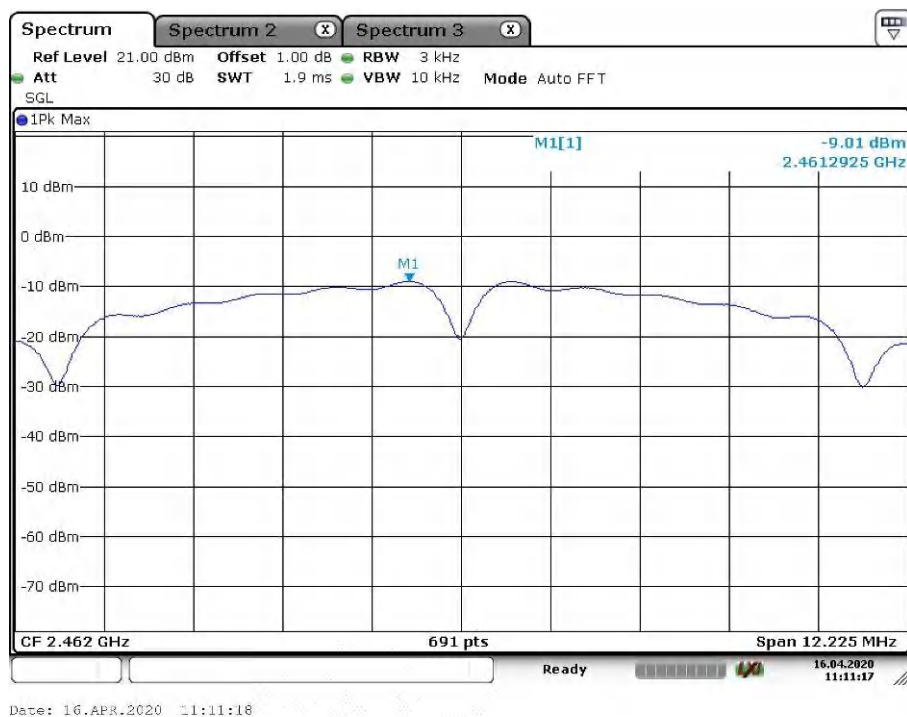
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Appendix B.1: Test Results of Conducted Power Spectral Density

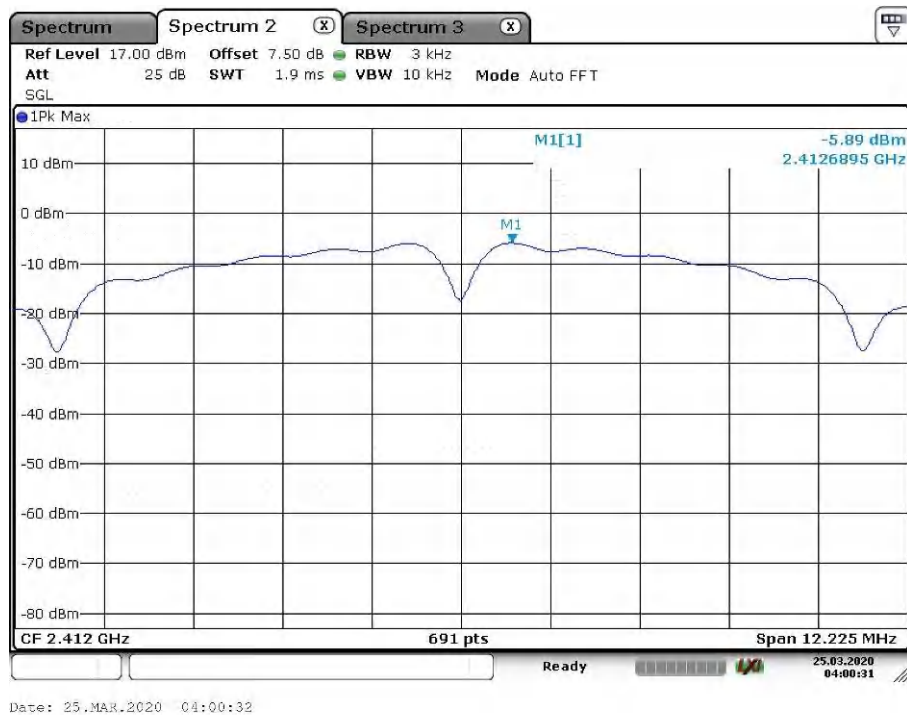
Wi-Fi 802.11 b mode, 1 Mbps

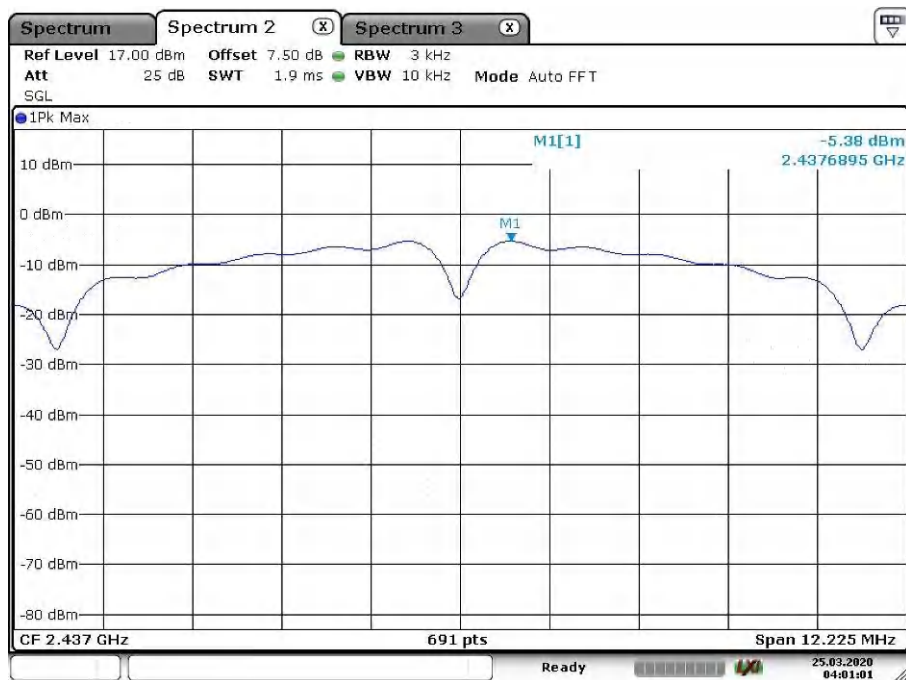
SISO_Chain 2



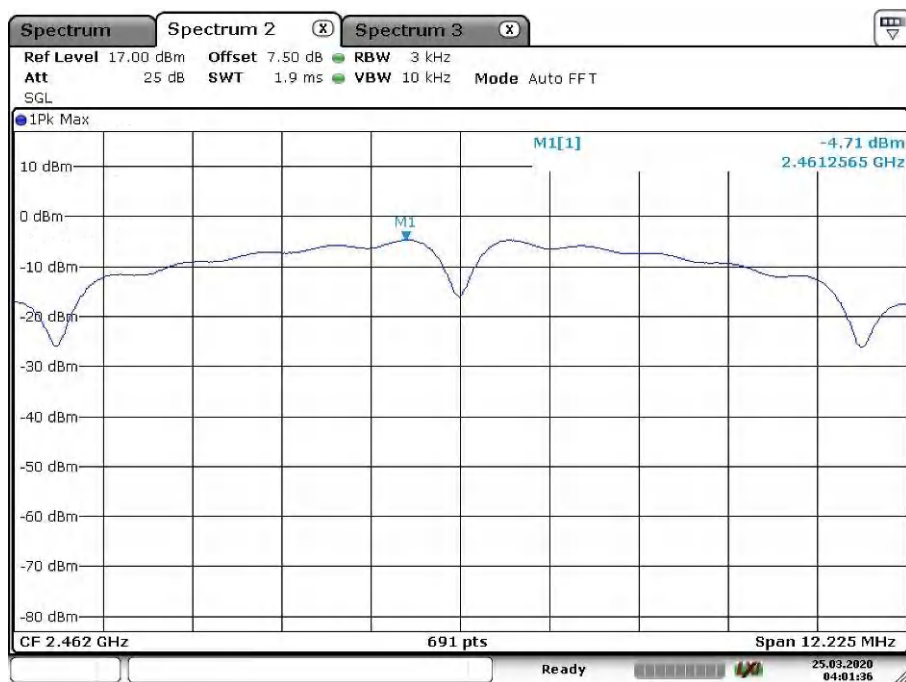


MIMO_Chain 0,1,2,3



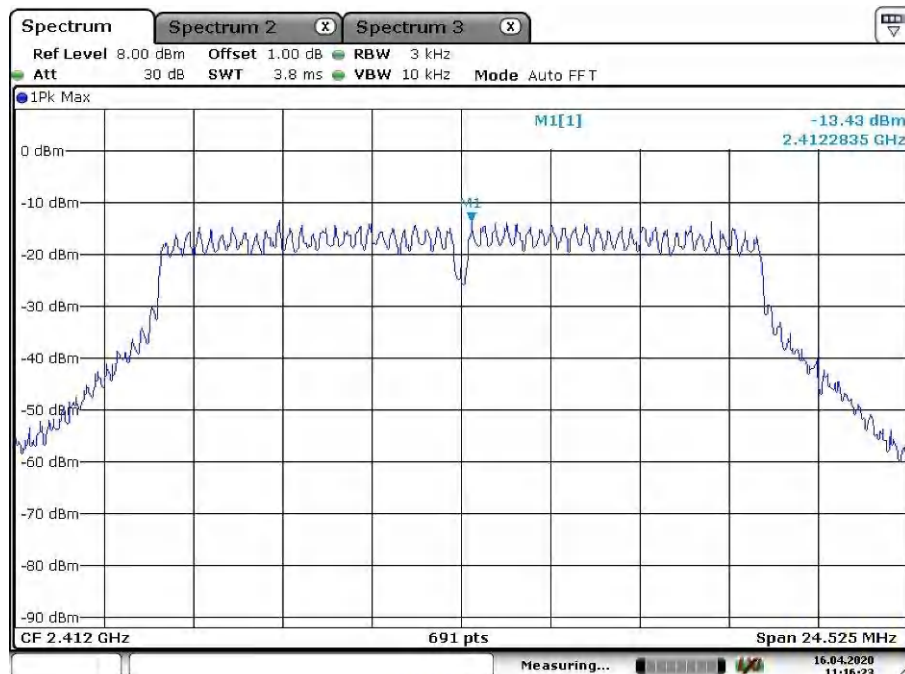


Date: 25.MAR.2020 04:01:01

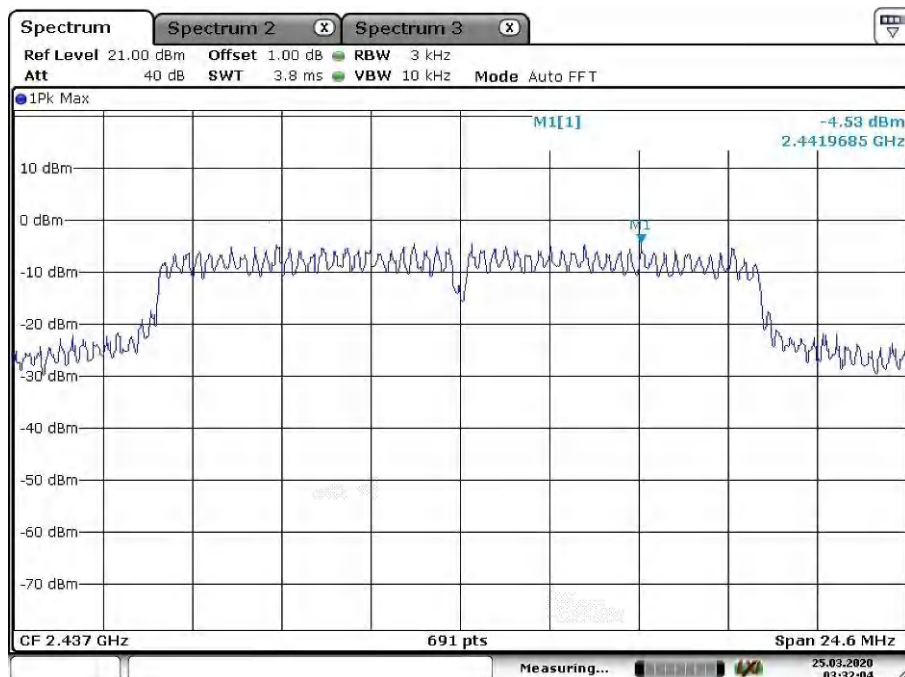


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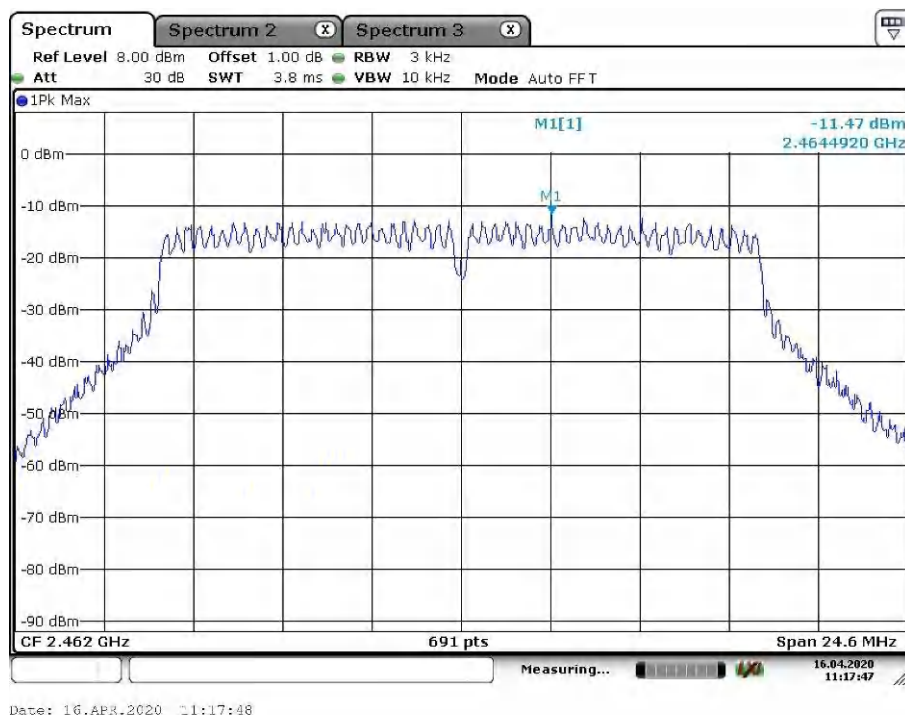
Wi-Fi 802.11 g mode, 6 Mbps
SISO_Chain 2



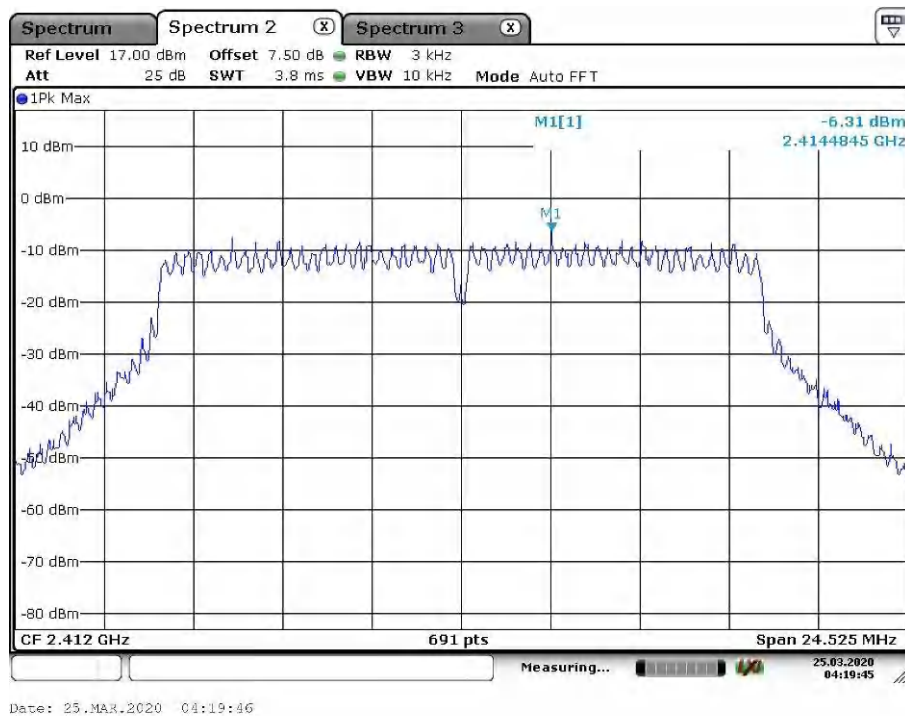
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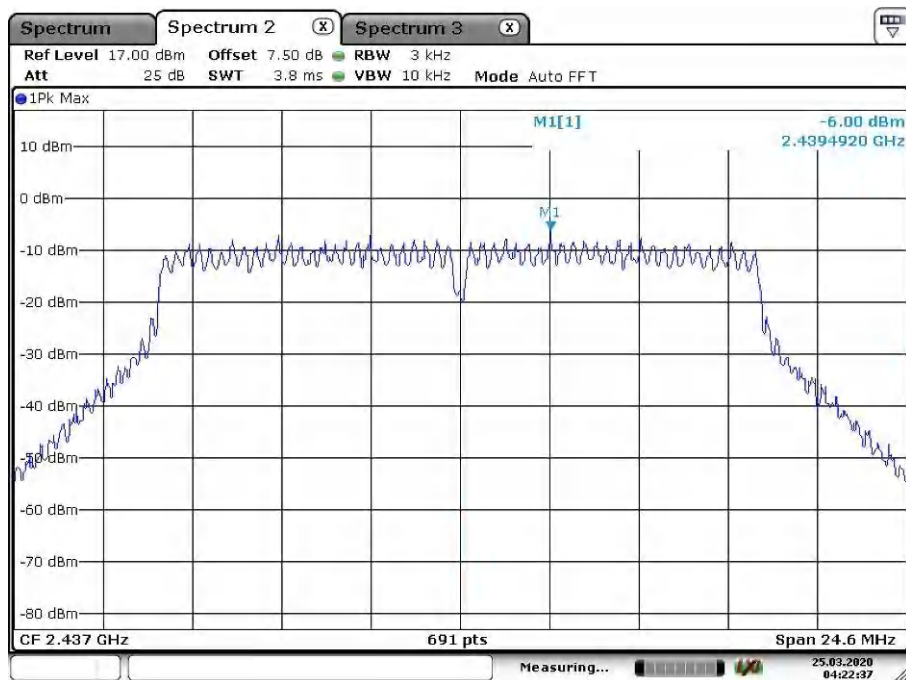


Date: 25.MAR.2020 03:32:04

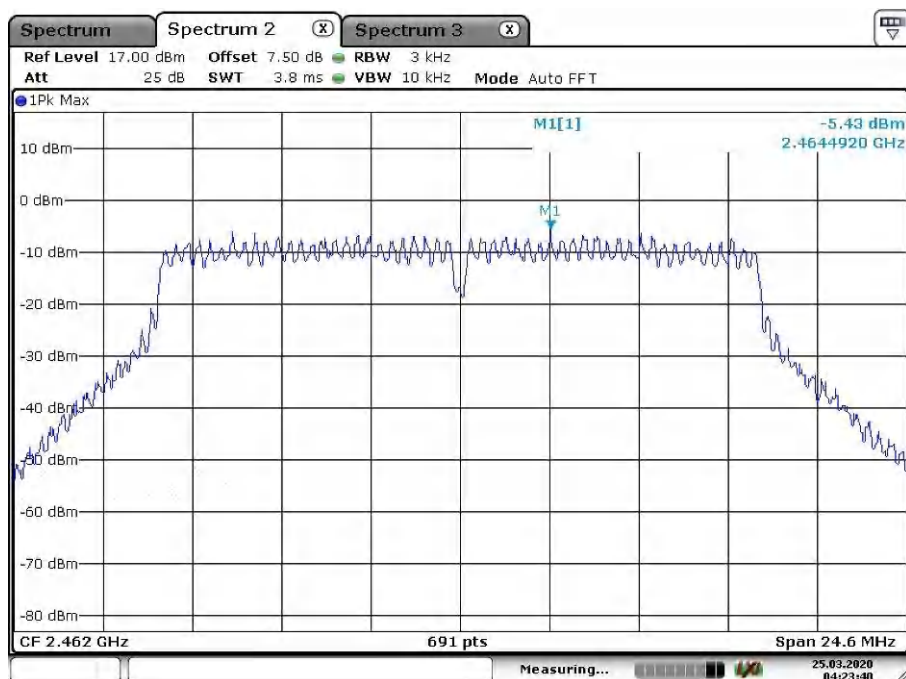


MIMO_Chain 0,1,2,3



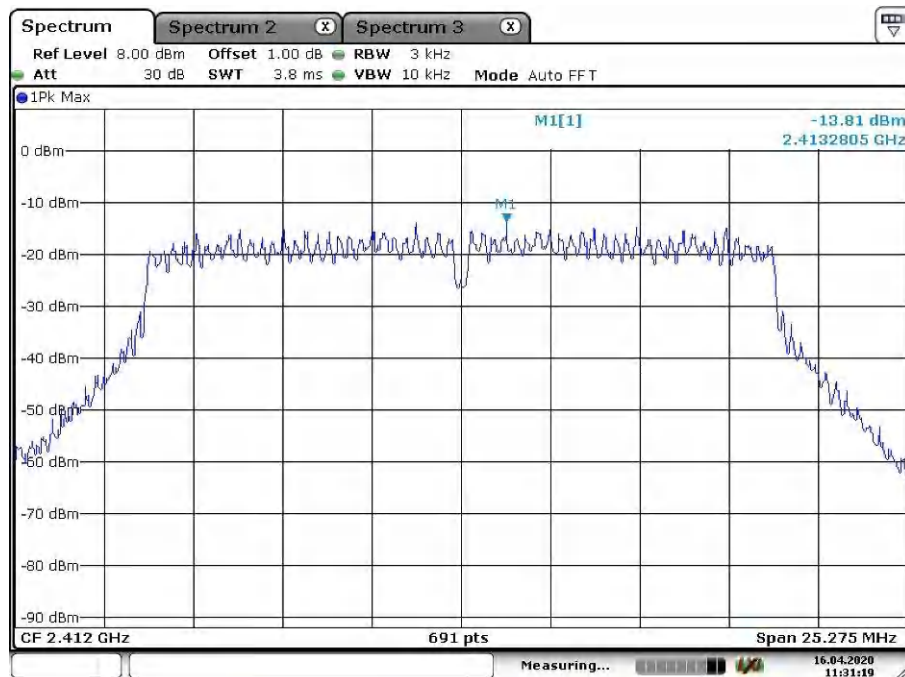


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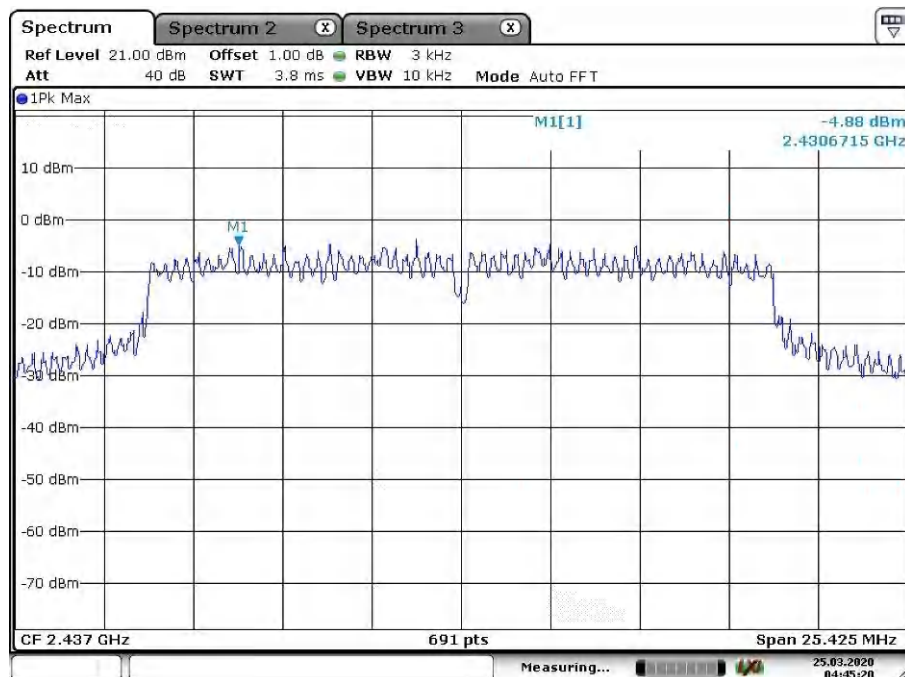


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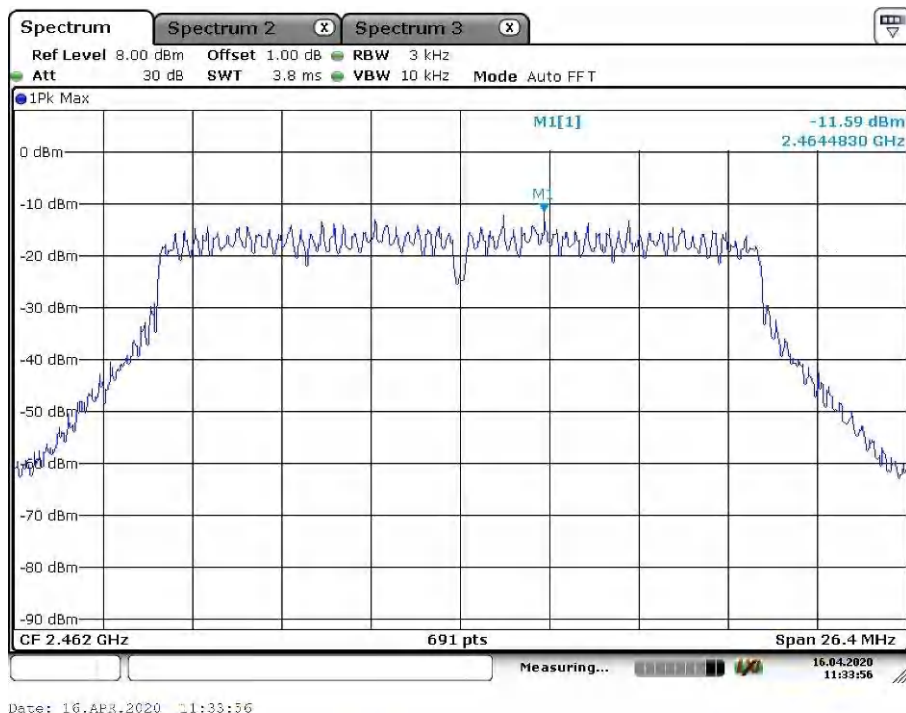
Wi-Fi 802.11 n(HT20) mode, MCS0
SISO_Chain 2



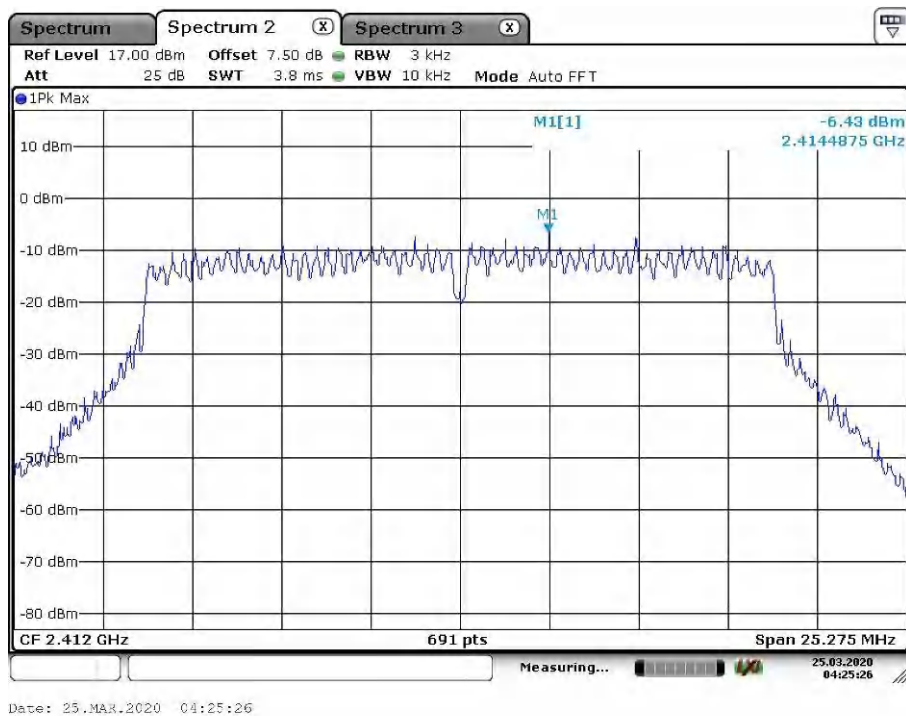
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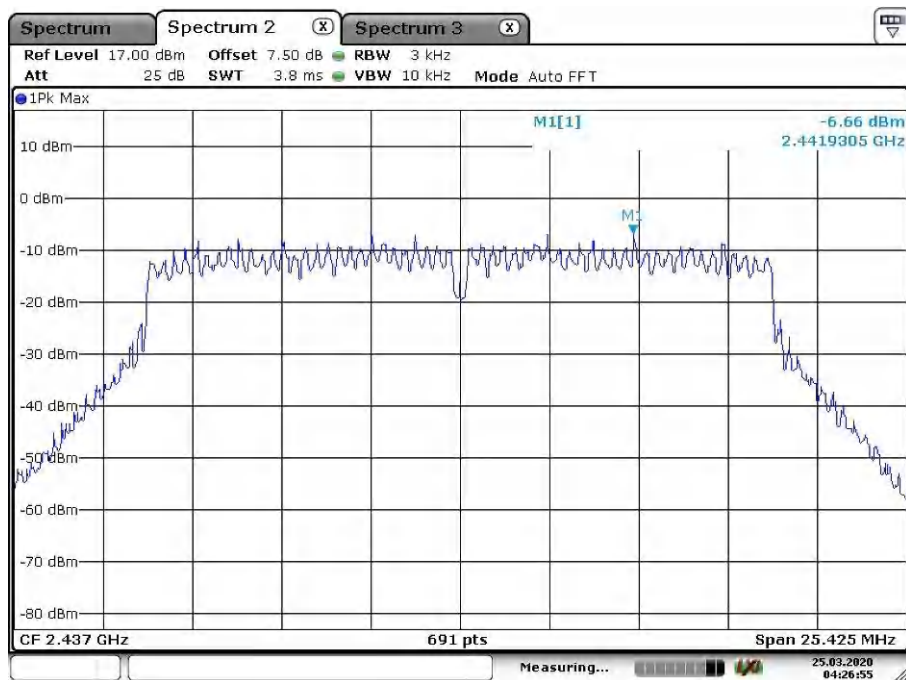


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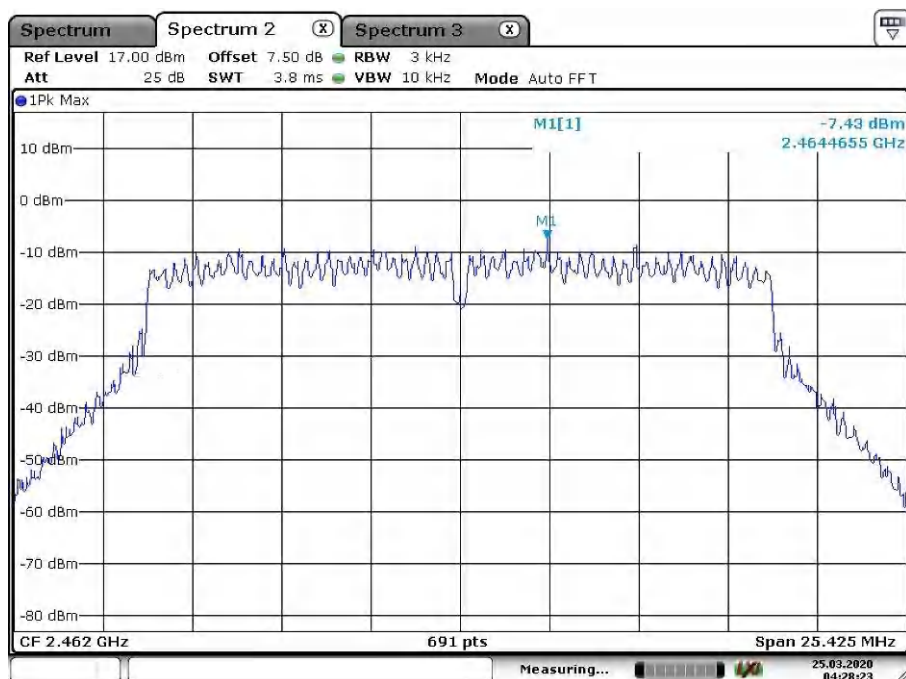


MIMO_Chain 0,1,2,3



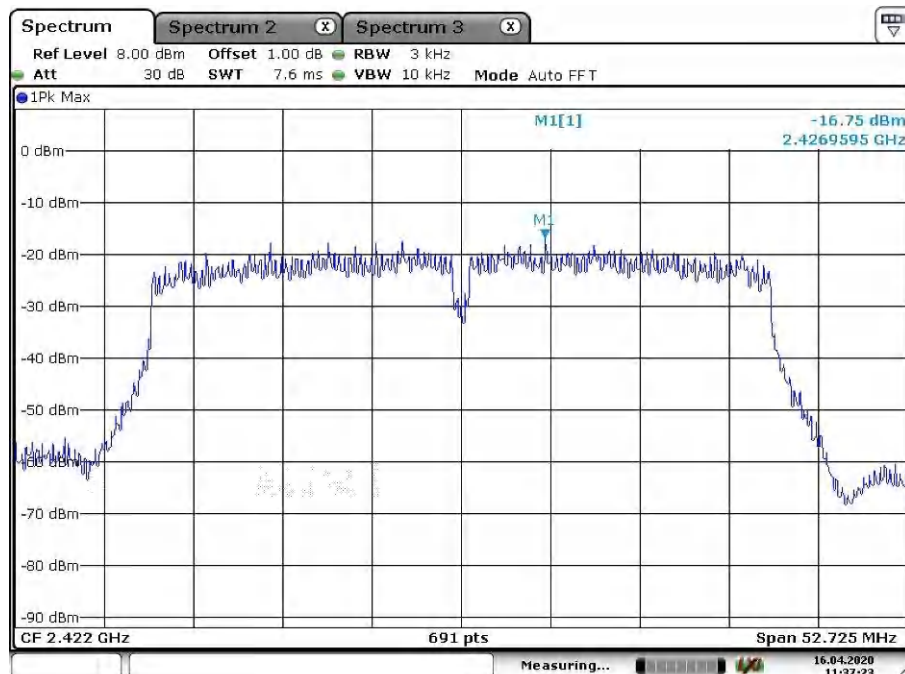


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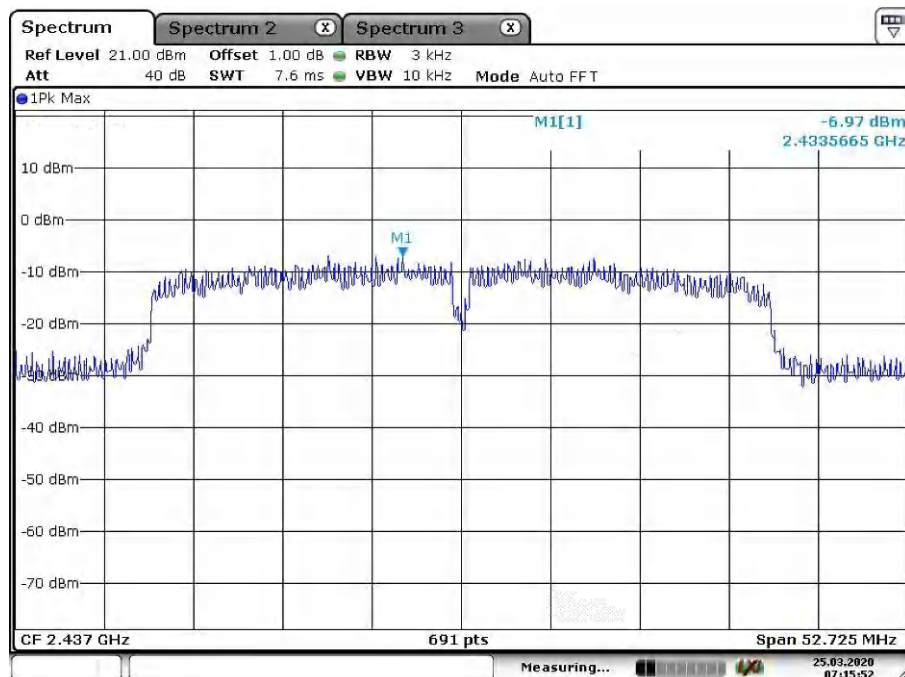


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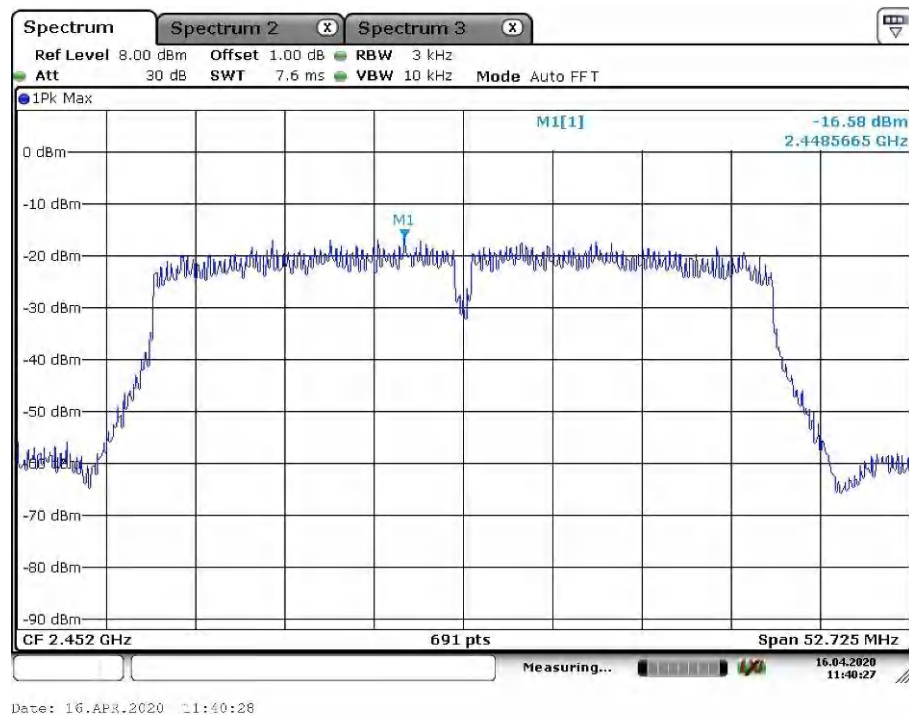
Wi-Fi 802.11 n(HT40) mode, MCS0
SISO_Chain 2



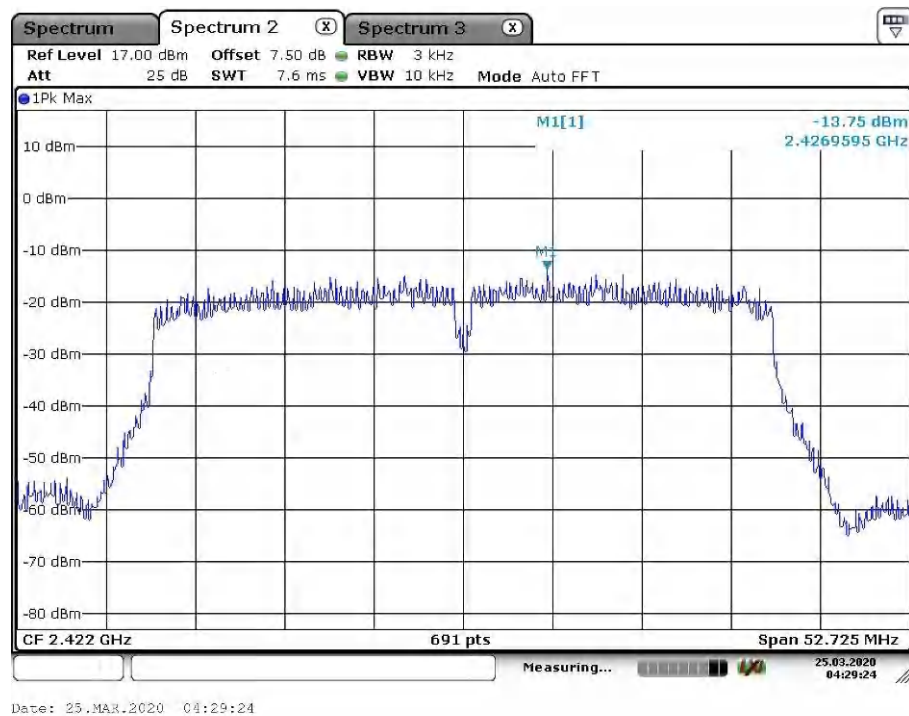
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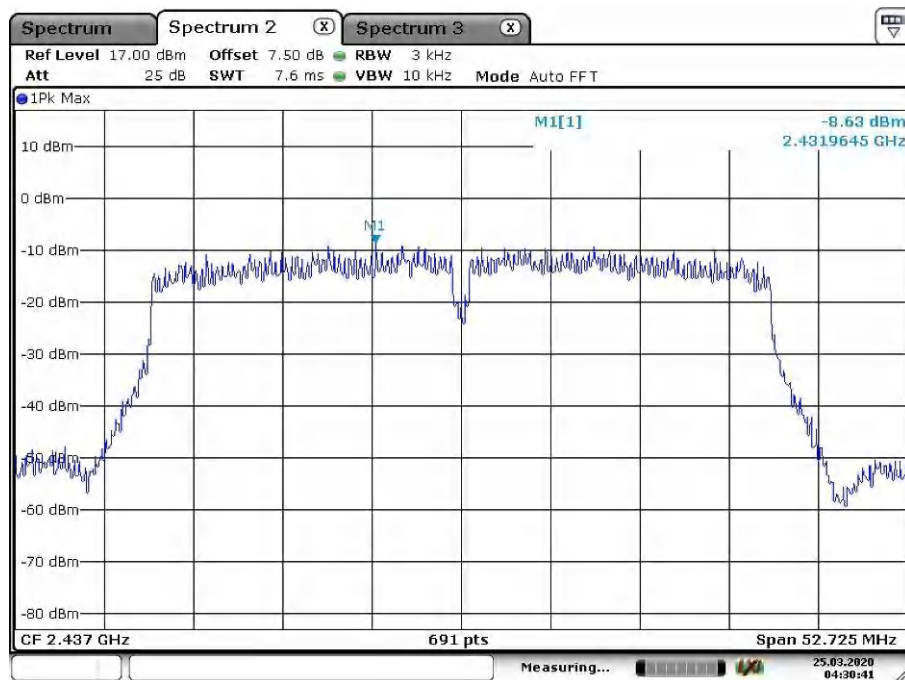


Date: 25.MAR.2020 07:15:52

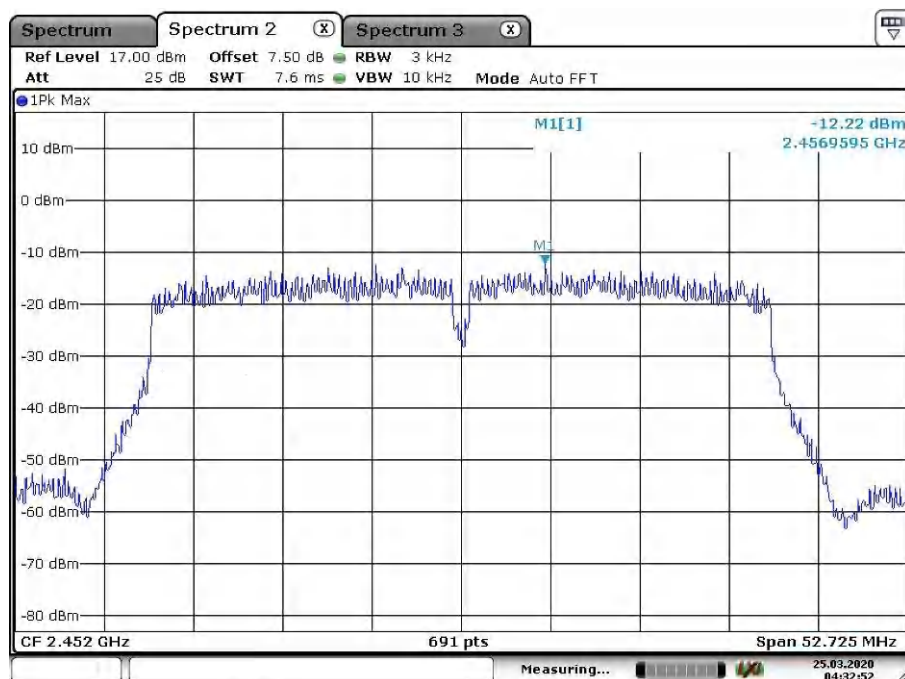


MIMO_Chain 0,1,2,3





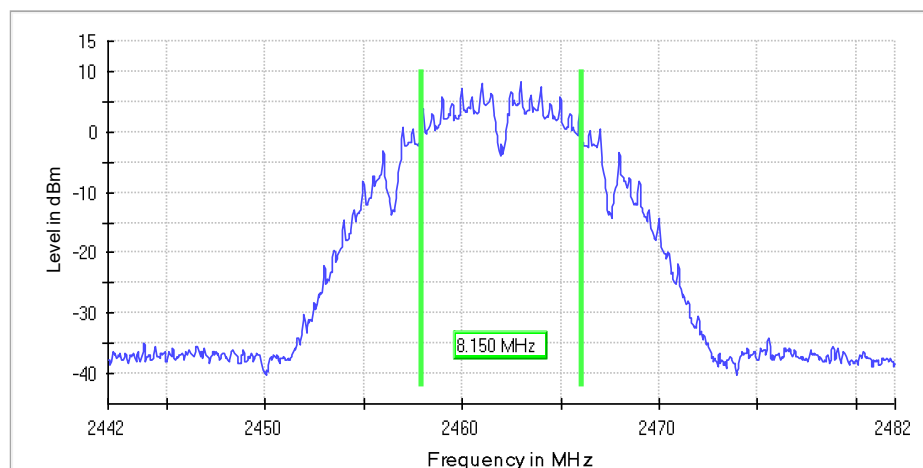
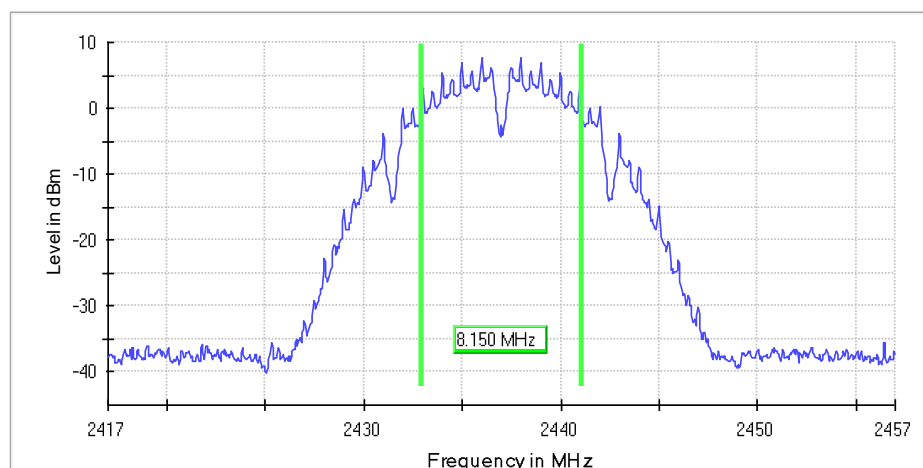
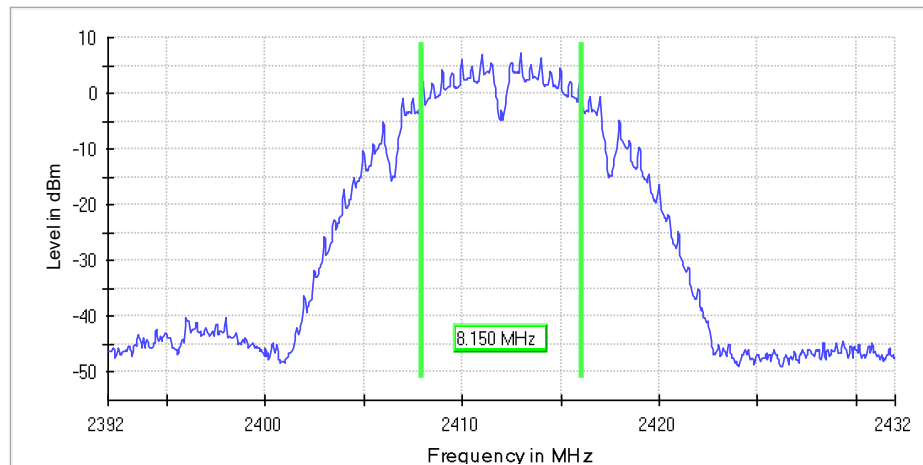
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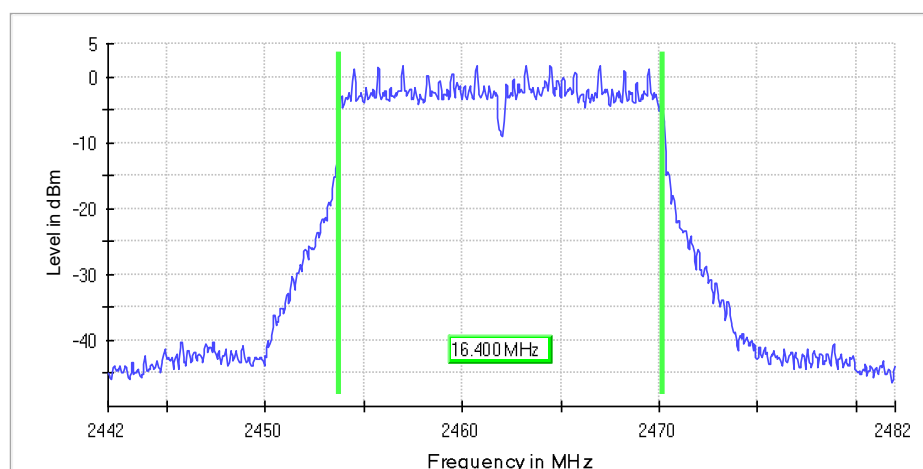
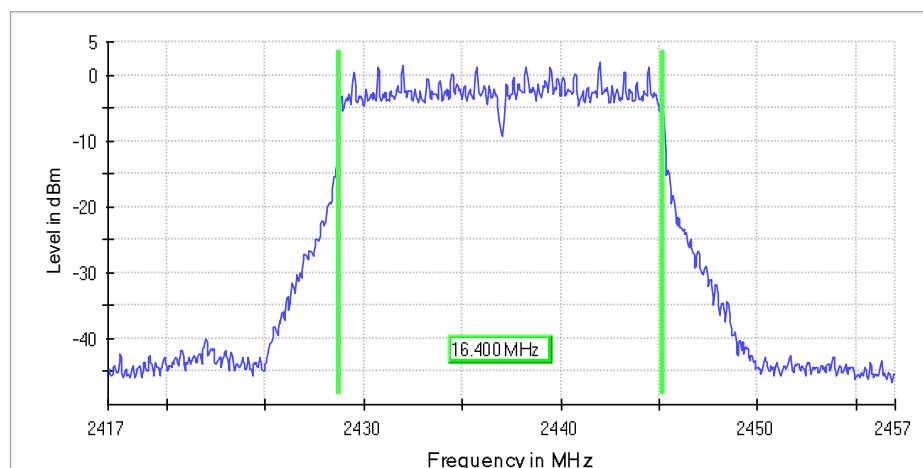
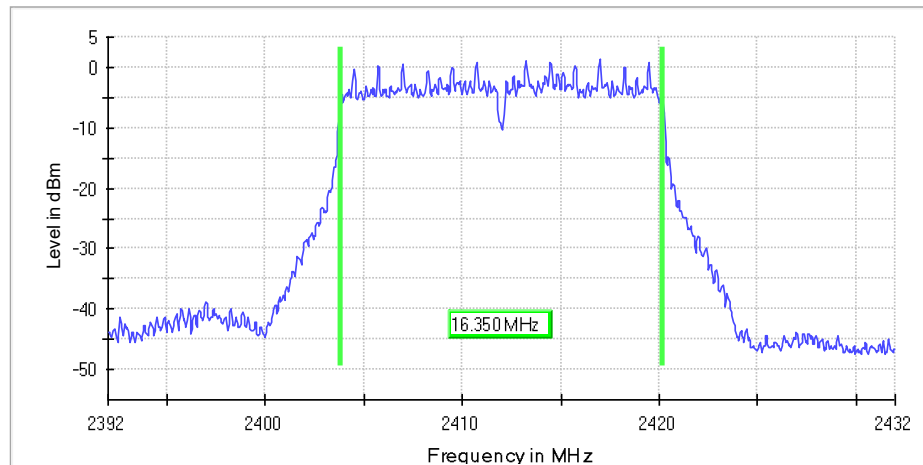
Date: 25.MAR.2020 04:32:52

Appendix B.2: Test Results of 6dB Bandwidth

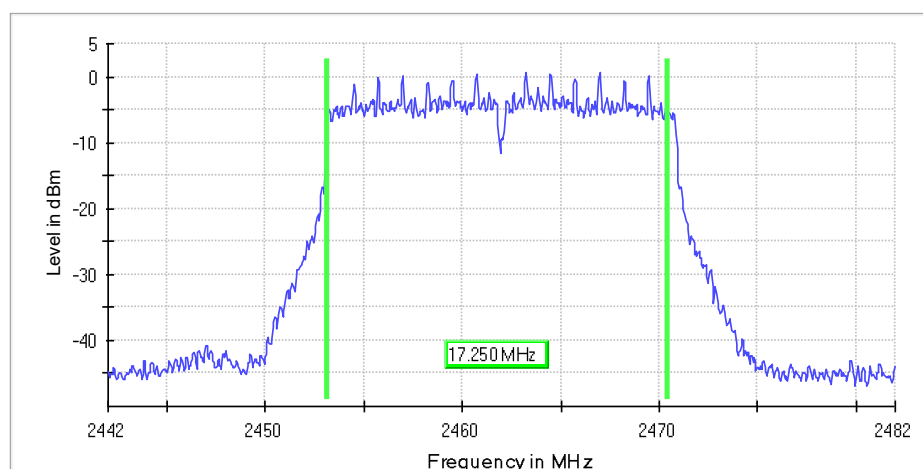
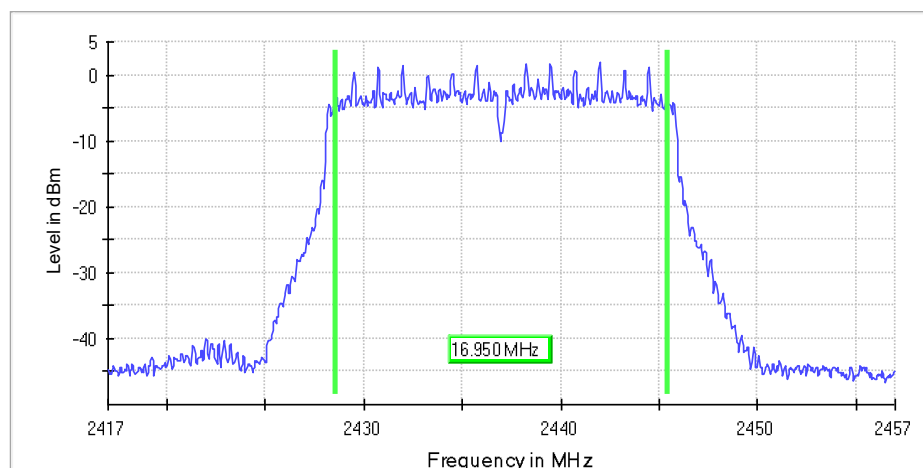
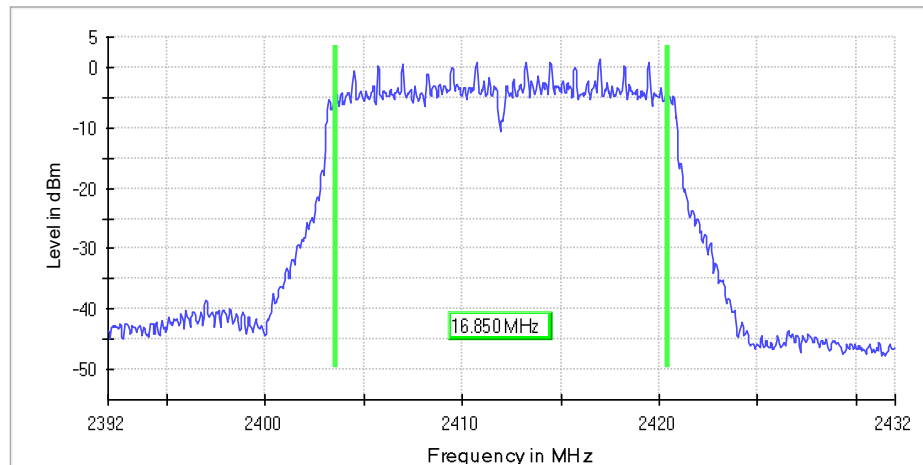
Wi-Fi 802.11 b mode, 1 Mbps
(RBW=100KHz, VBW=300KHz)



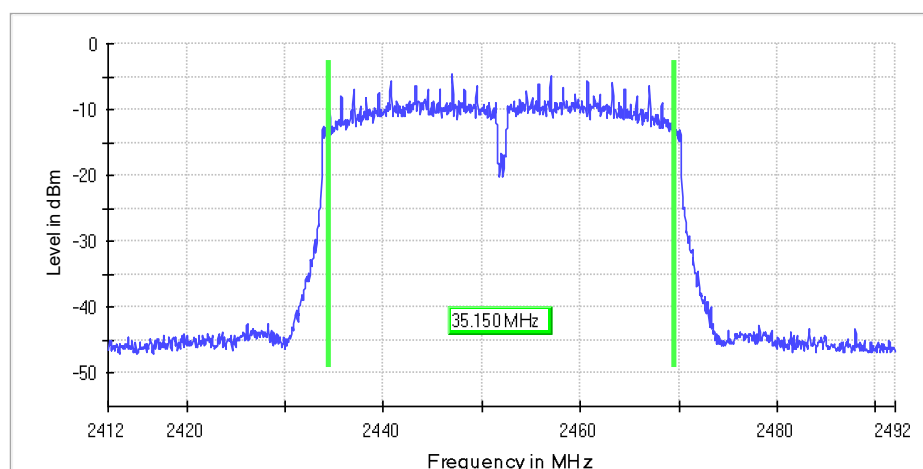
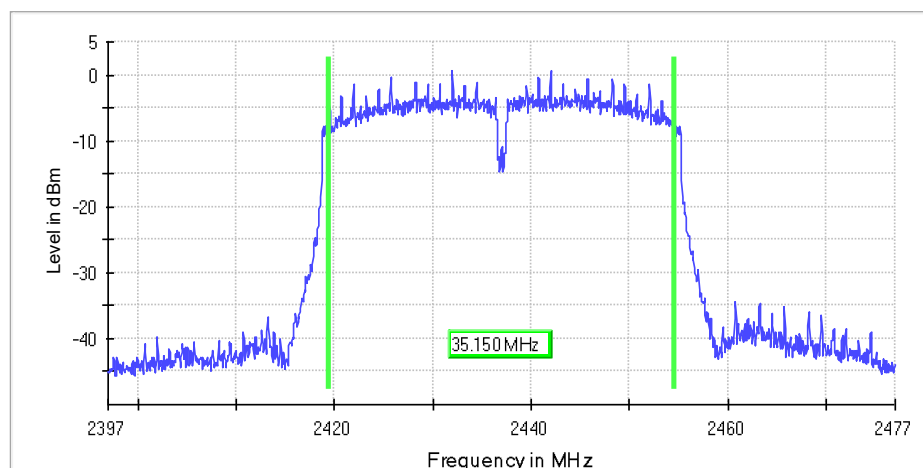
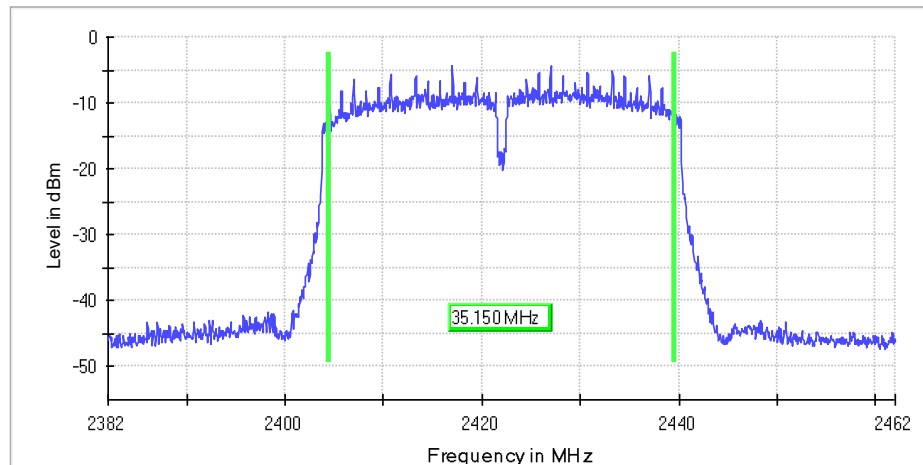
Wi-Fi 802.11 g mode, 6 Mbps
(RBW=100KHz, VBW=300KHz)



Wi-Fi 802.11 n(HT20) mode, MCS0
(RBW=100KHz, VBW=300KHz)

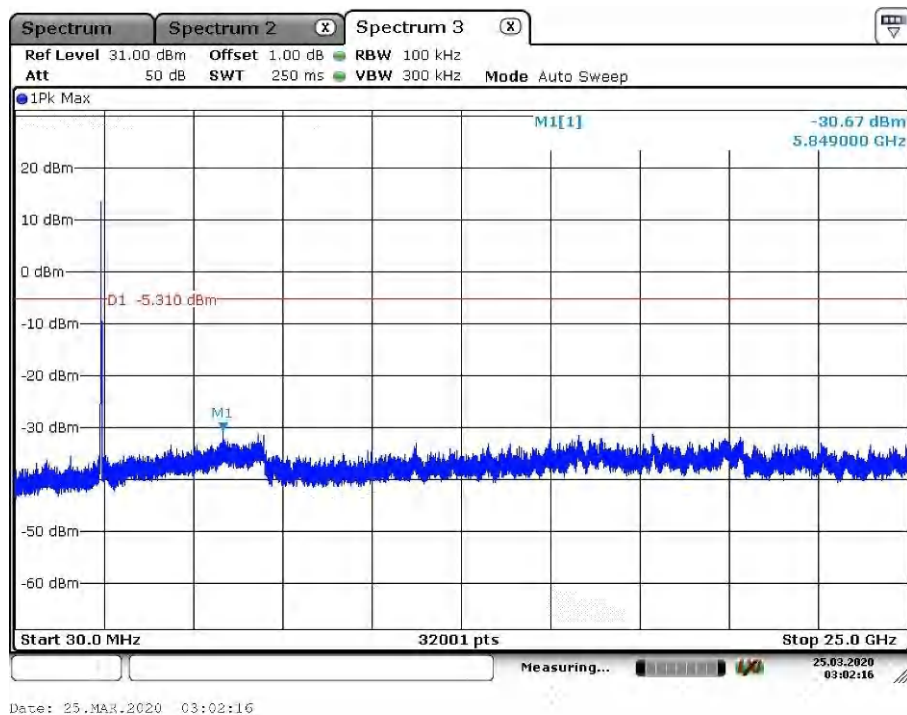
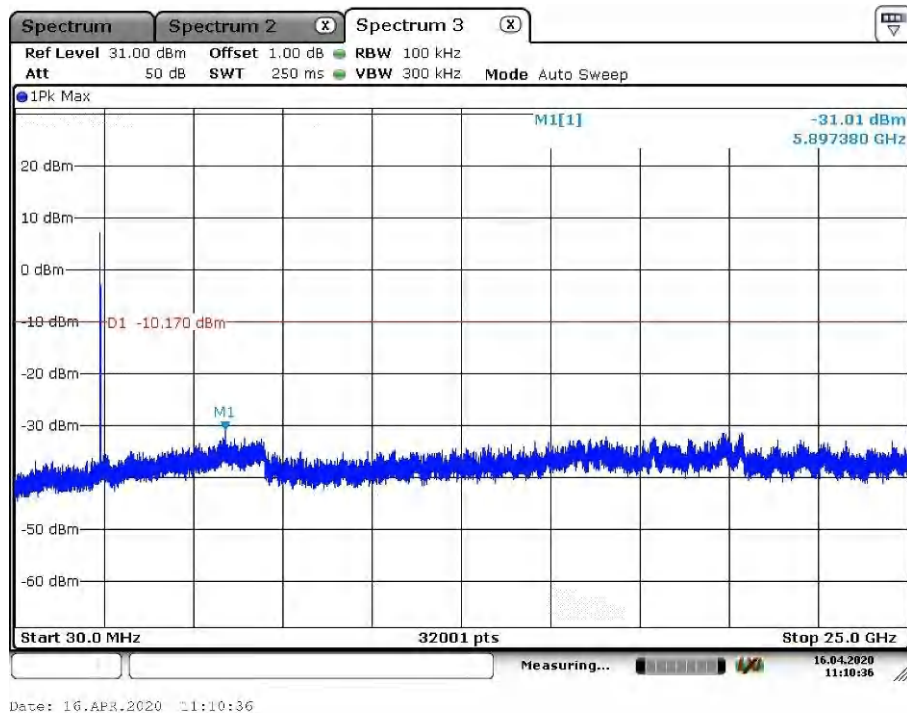


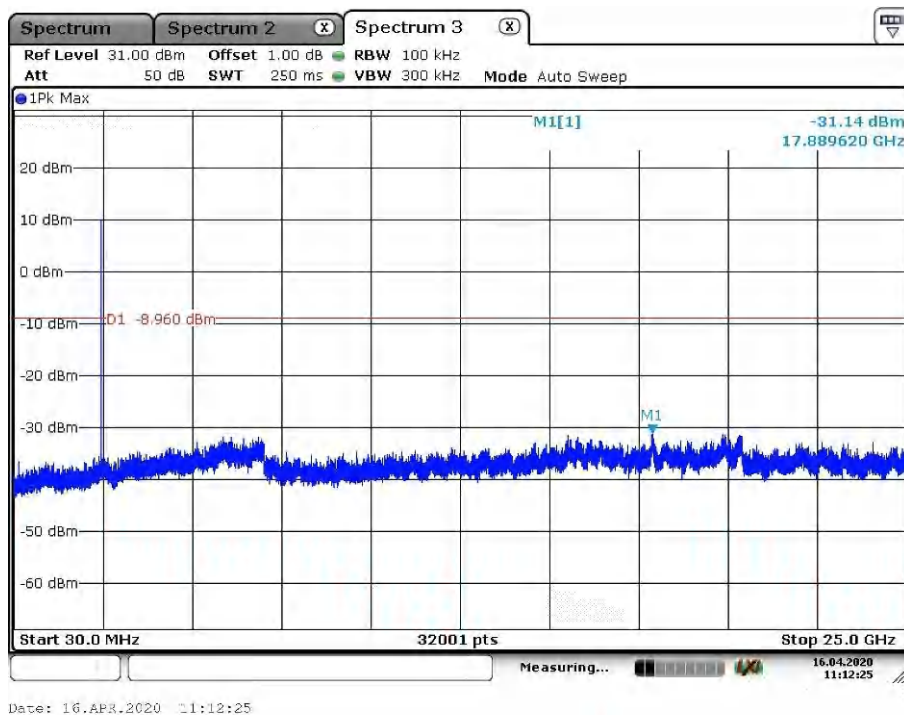
Wi-Fi 802.11 n(HT40) mode, MCS0
(RBW=100KHz, VBW=300KHz)



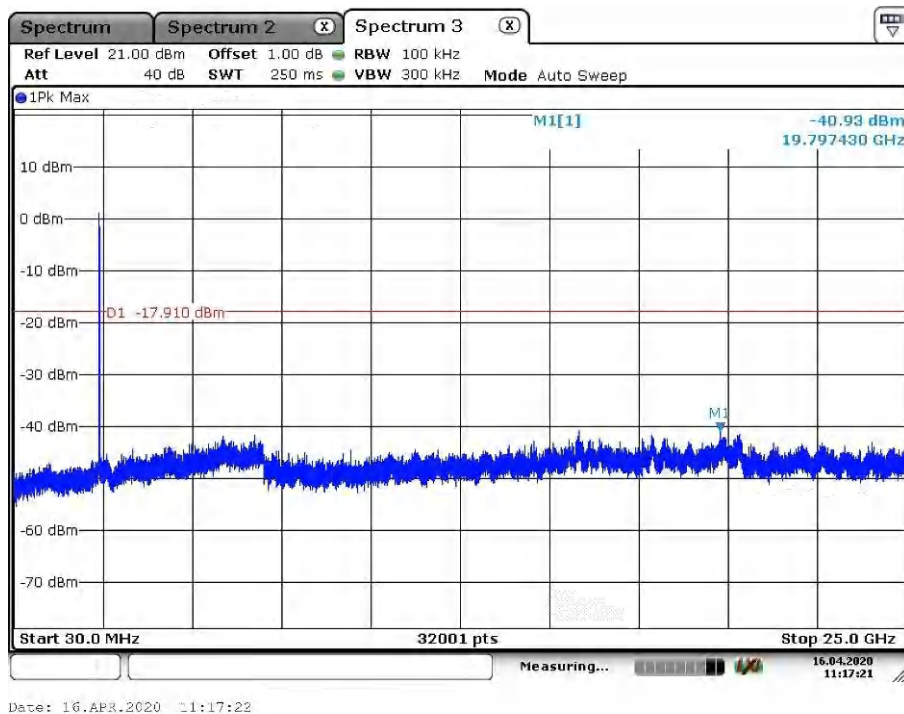
Appendix B.3: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

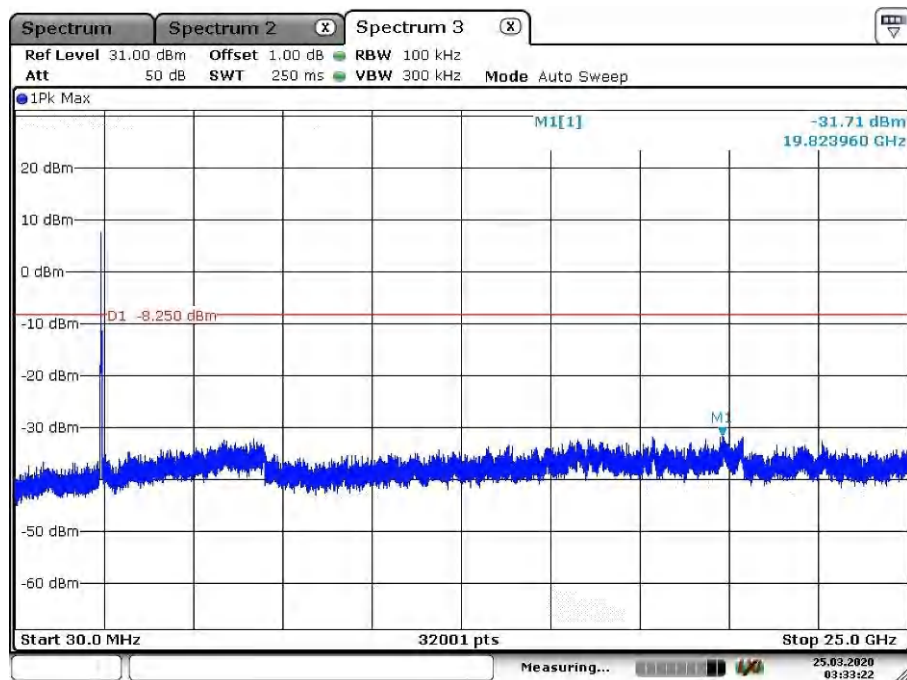
Wi-Fi 802.11 b mode, 1 Mbps



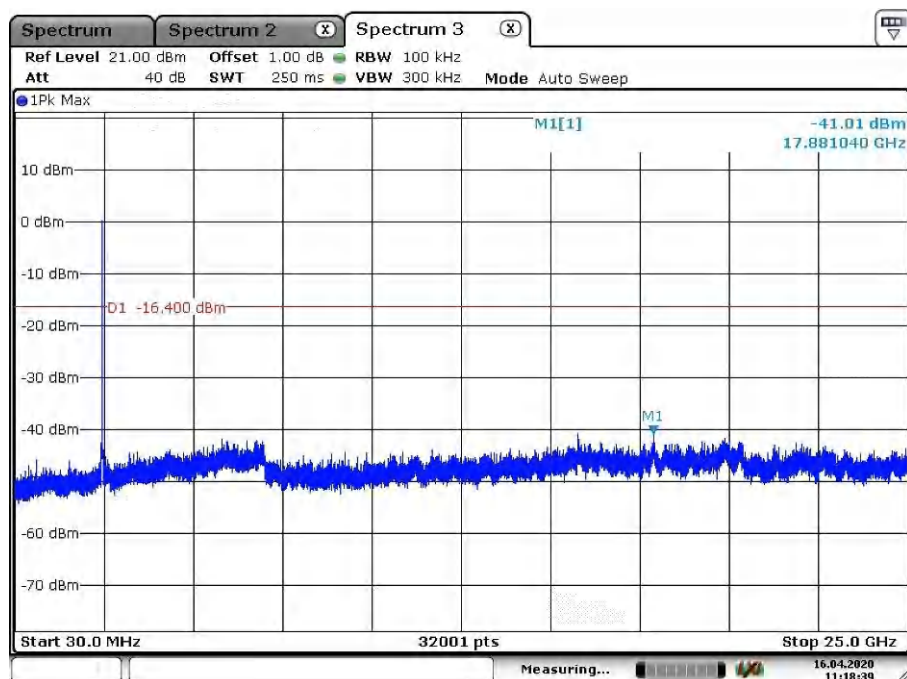


Wi-Fi 802.11 g mode, 6 Mbps



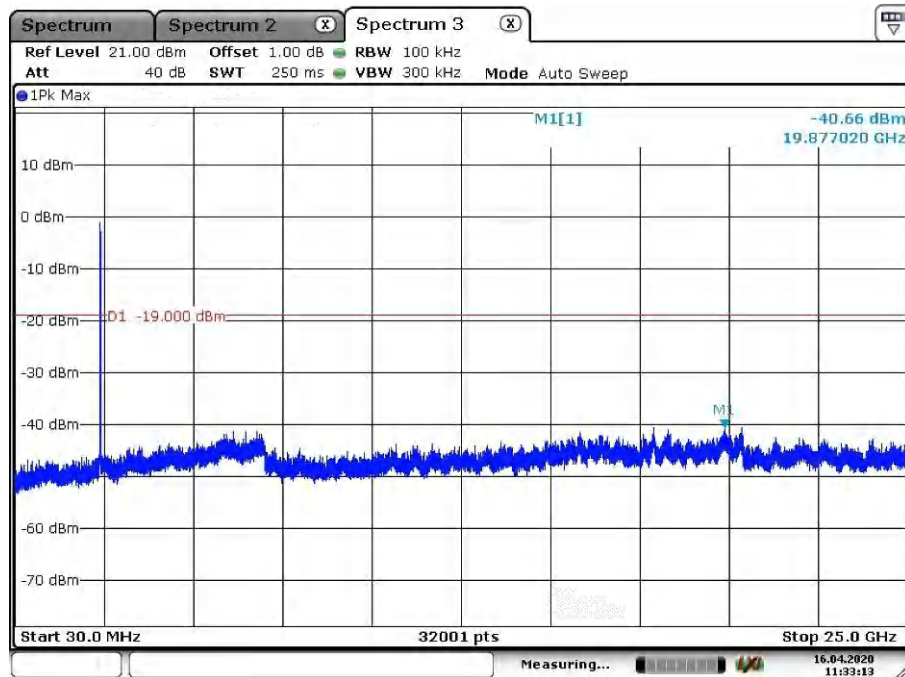


Date: 25.MAR.2020 03:33:22

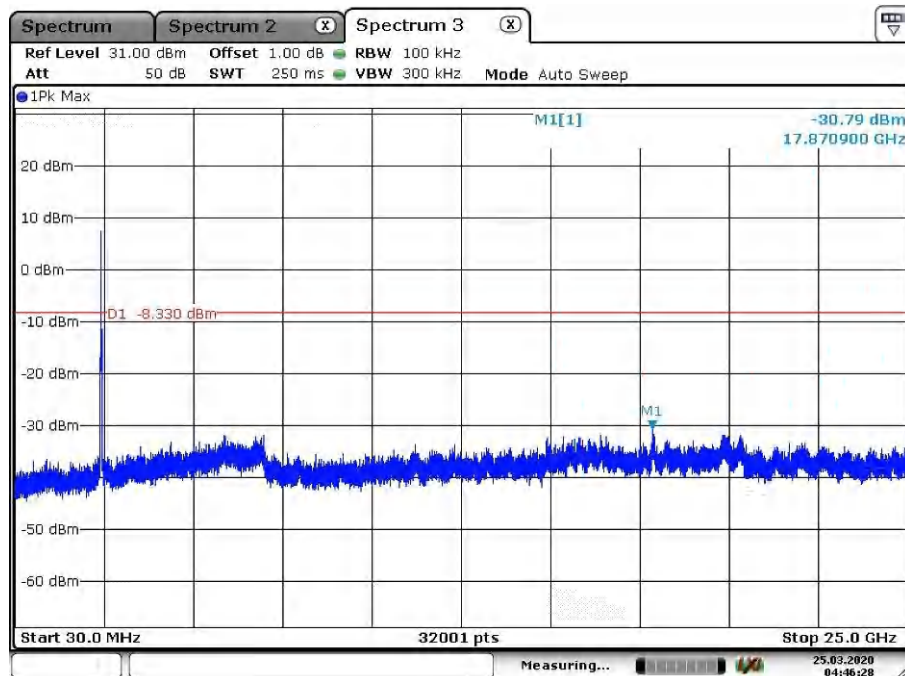


Date: 16.APR.2020 11:18:39

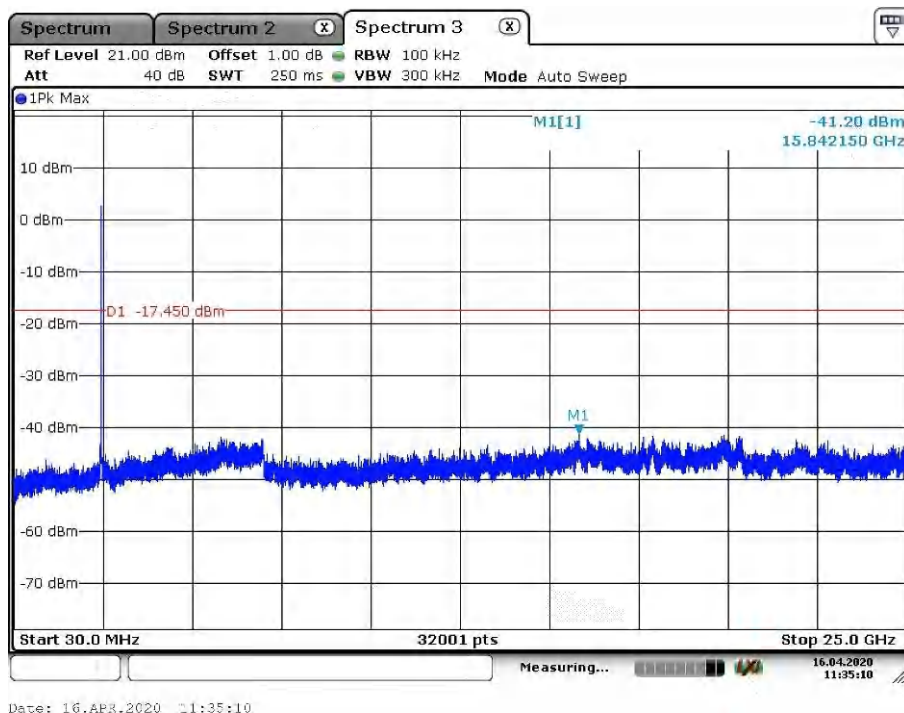
Wi-Fi 802.11 n(HT20) mode, MCS0



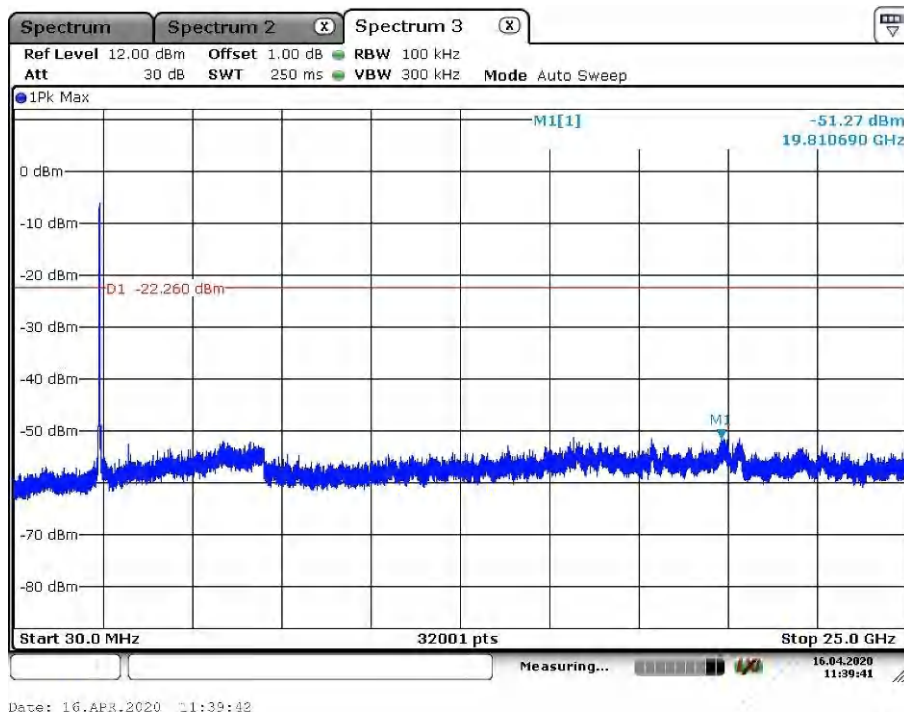
Date: 16.APR.2020 11:33:14

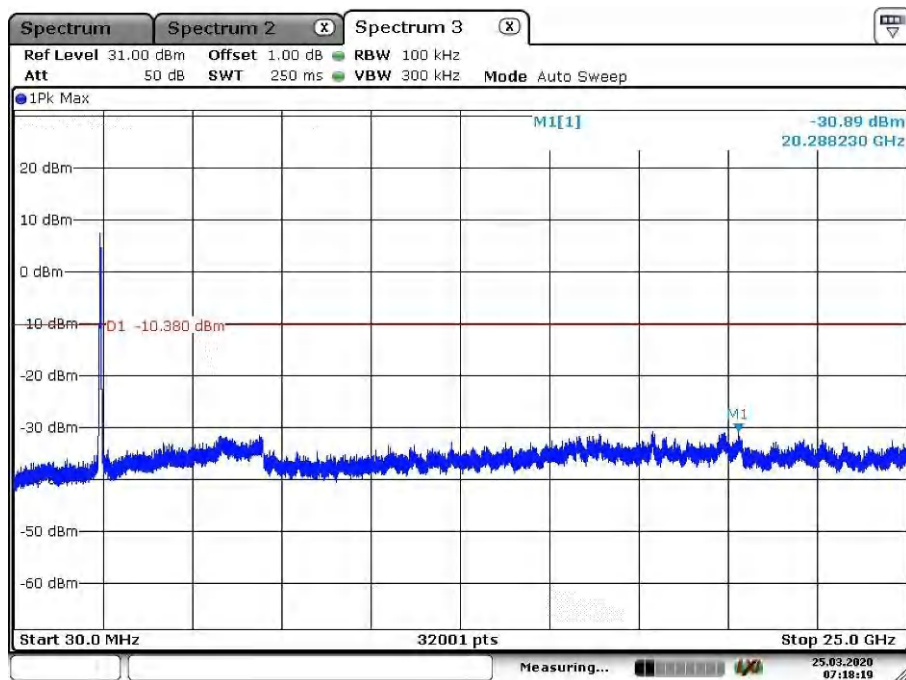


Date: 25.MAR.2020 04:46:28

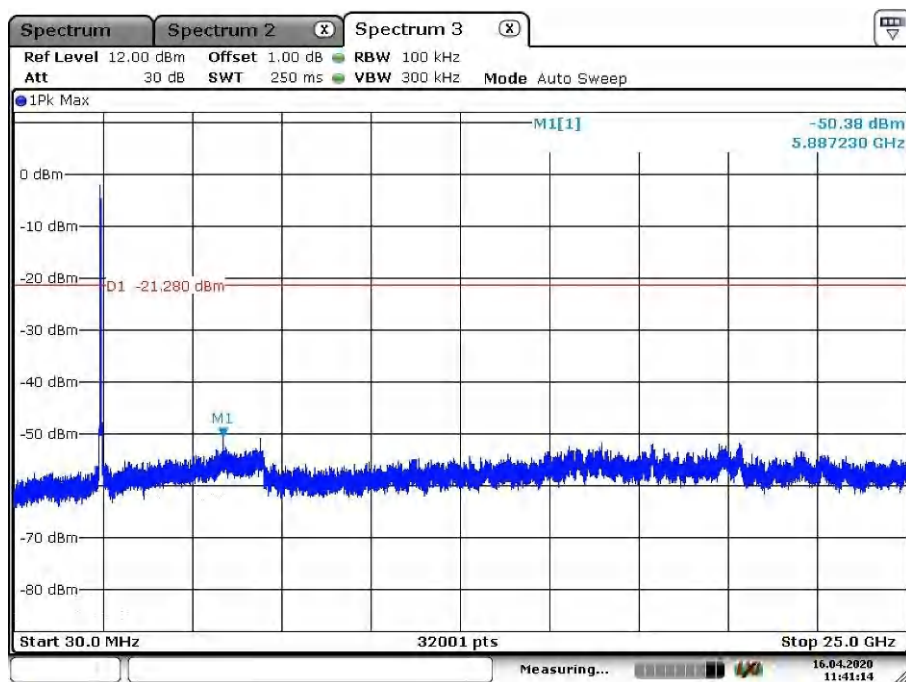


Wi-Fi 802.11 n(HT40) mode, MCS0



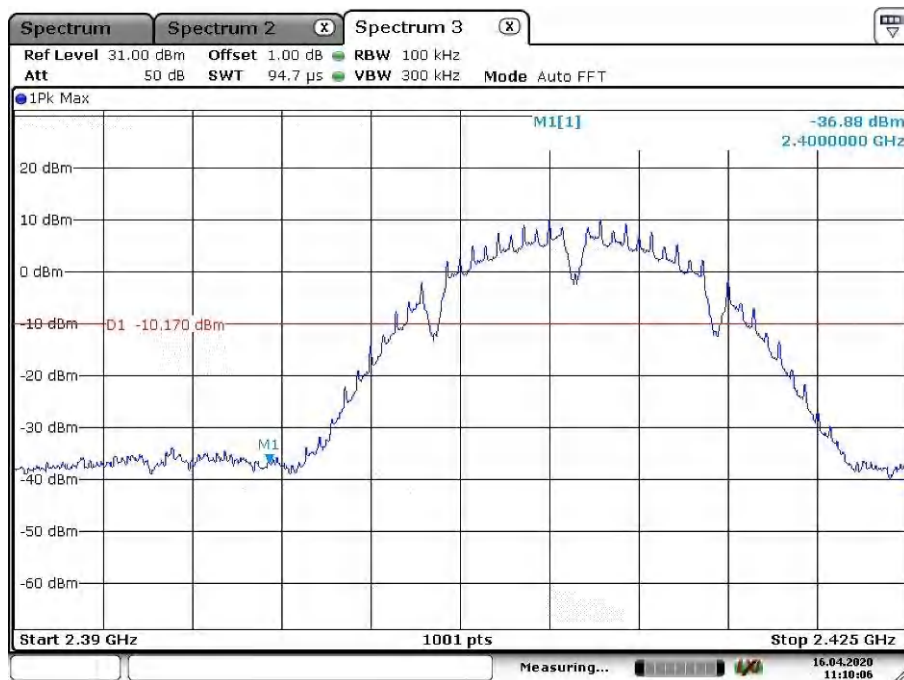


Date: 25.MAR.2020 07:18:19

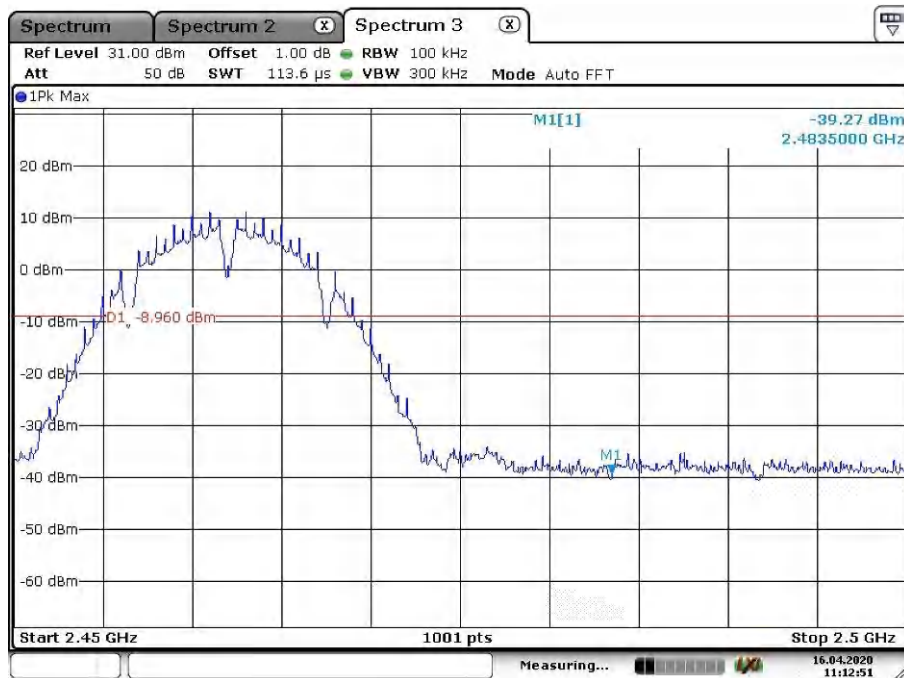


Date: 16.APR.2020 11:41:14

Wi-Fi 802.11 b mode, Band Edge

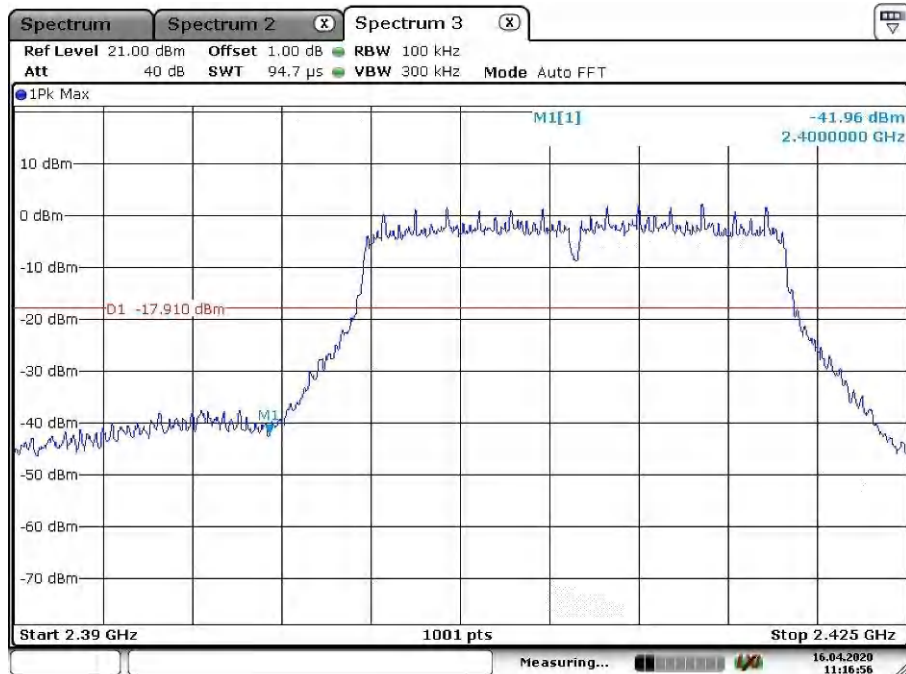


Date: 16.APR.2020 11:10:06

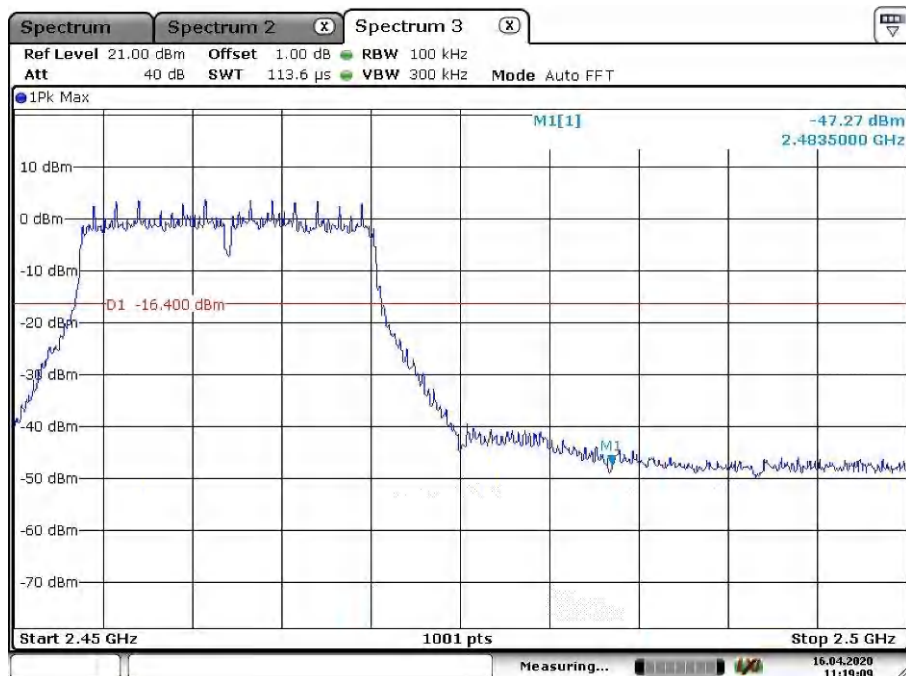


Date: 16.APR.2020 11:12:52

Wi-Fi 802.11 g mode, Band Edge

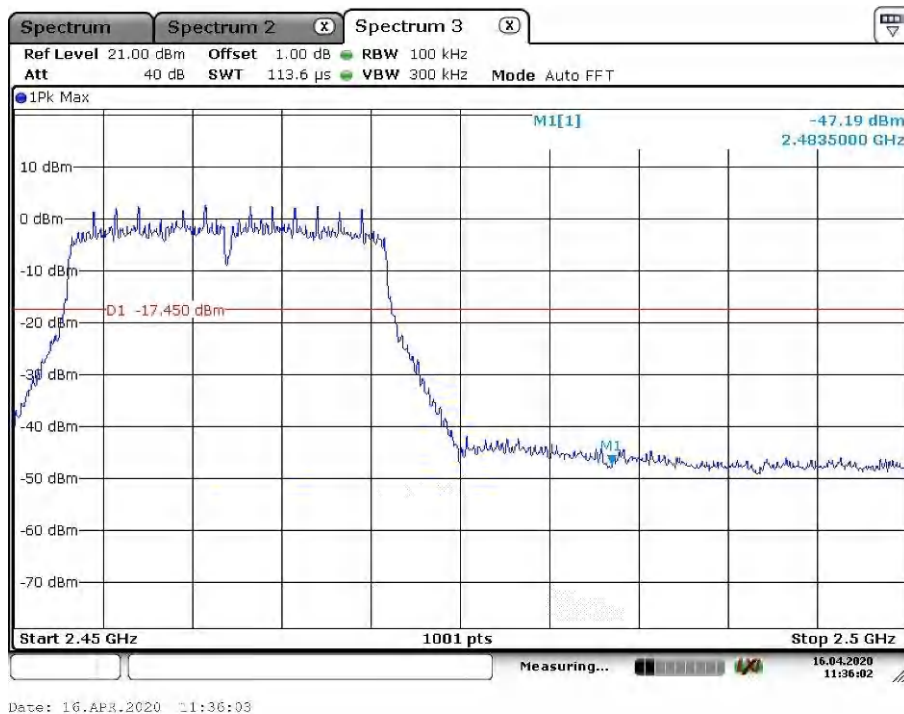
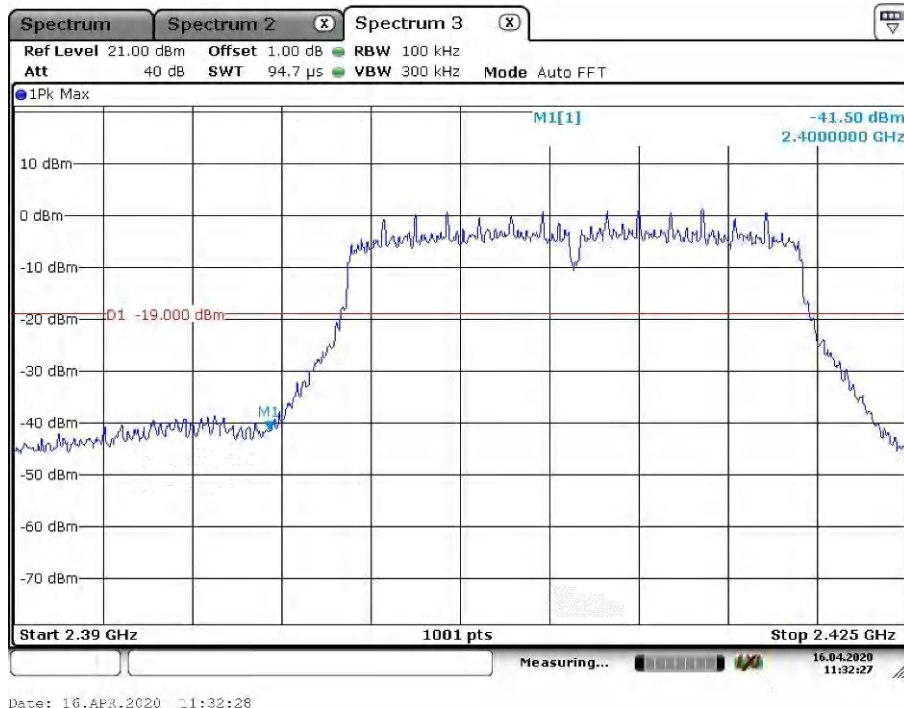


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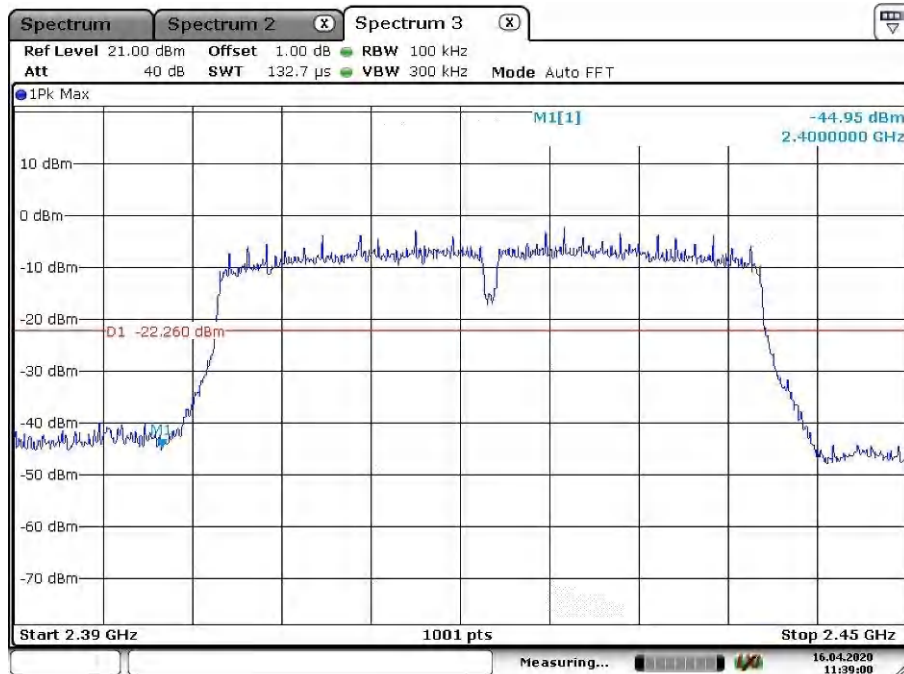


Date: 16.APR.2020 11:19:09

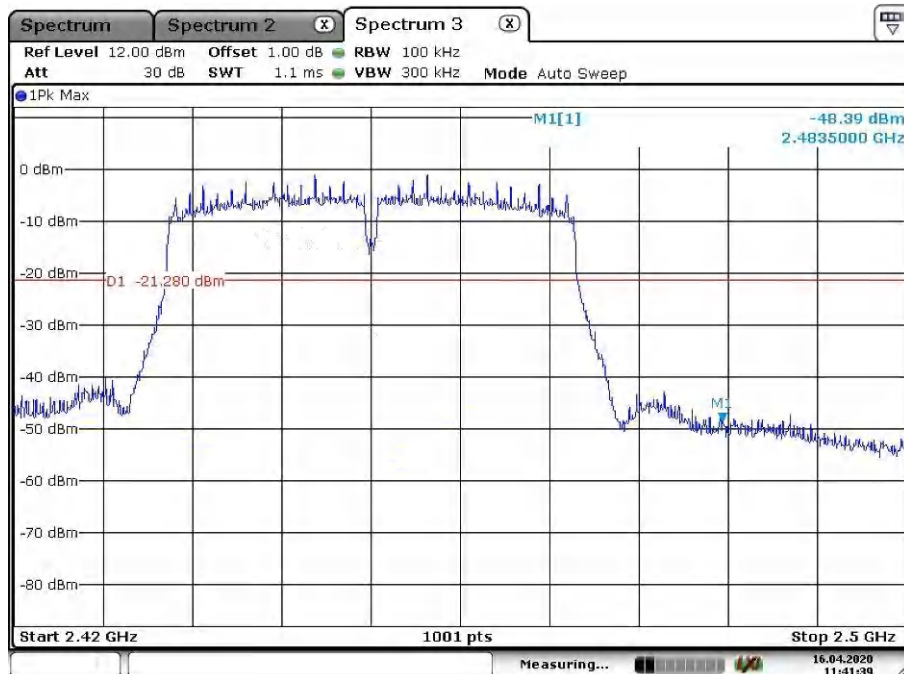
Wi-Fi 802.11 n(HT20) mode, Band Edge



Wi-Fi 802.11 n(HT40) mode, Band Edge



Date: 16.APR.2020 11:39:01



Date: 16.APR.2020 11:41:39

Note: Testing was carried out within frequency range 9 kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Appendix B.4: Test Results of Radiated Spurious Emissions

30MHz - 1GHz (Worst case)
Wi-Fi 802.11 b mode, 1 Mbps

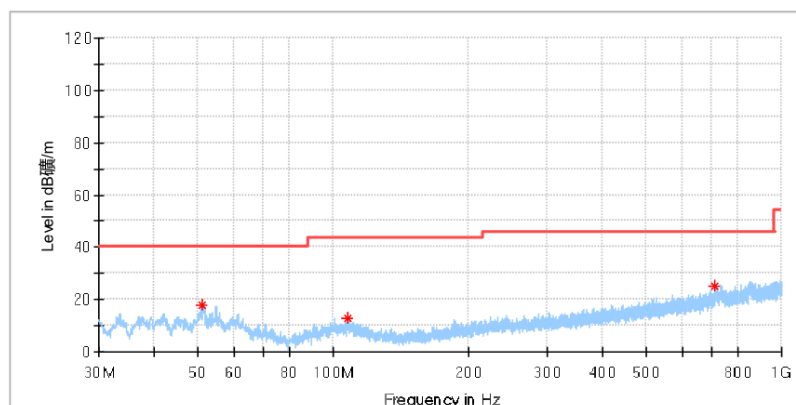
Test

1 / 4

Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
TestMode:	Wi-Fi 2.4G 11b_TX_Low
TestVoltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
TestStandard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
51.049000	17.96	—	40.00	22.04	100.0	H	167.0	-18.6
107.939500	13.05	—	43.50	30.45	100.0	H	109.0	-19.3
709.388000	25.27	—	46.00	20.73	100.0	H	63.0	-8.3

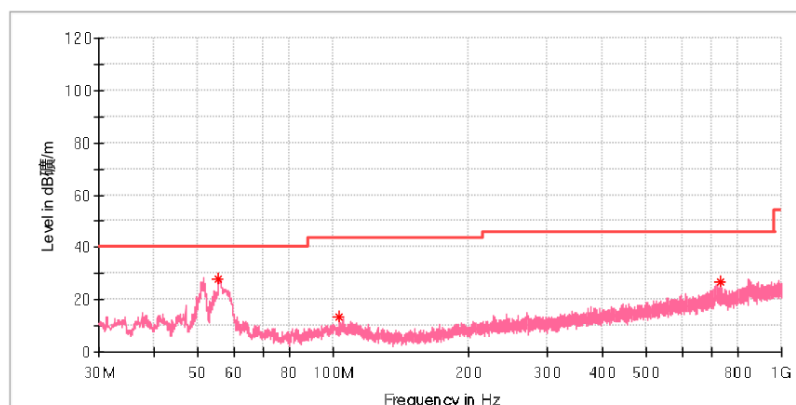
Test

2 / 4

Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_Low
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
55.511000	28.06	—	40.00	11.94	100.0	V	0.0	-18.8
103.138000	13.28	—	43.50	30.22	100.0	V	190.0	-19.2
728.400000	26.55	—	46.00	19.45	100.0	V	72.0	-7.9

20/3/2020

9:16:15 AM

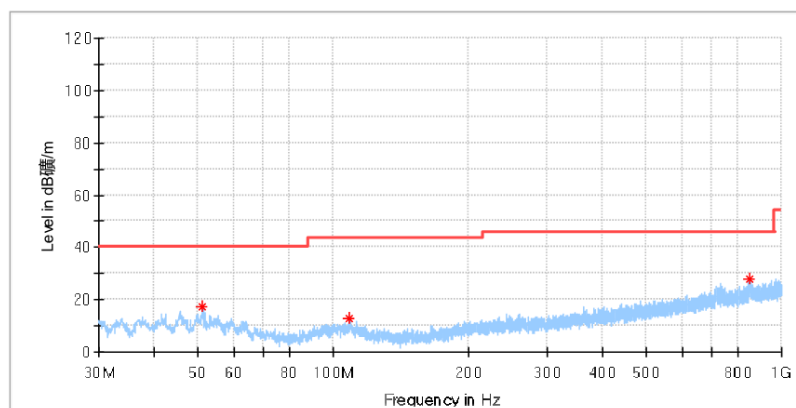
Test

3 / 4

Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_High
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
51.049000	17.57	---	40.00	22.43	100.0	H	276.0	-18.6
108.521500	12.75	---	43.50	30.75	100.0	H	242.0	-19.3
845.624500	28.03	---	46.00	17.97	100.0	H	68.0	-6.0

20/3/2020

9:16:15 AM

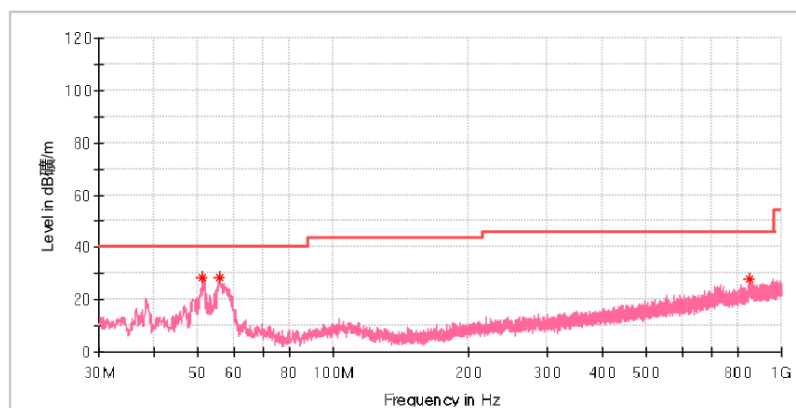
Test

4 / 4

Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_High
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
51.097500	28.58	—	40.00	11.42	100.0	V	69.0	-18.6
55.753500	28.62	—	40.00	11.38	100.0	V	331.0	-18.8
845.867000	27.81	—	46.00	18.19	100.0	V	258.0	-6.0

20/3/2020

9:16:15 AM

1GHz - 18GHz
Wi-Fi 802.11 b mode, 1 Mbps

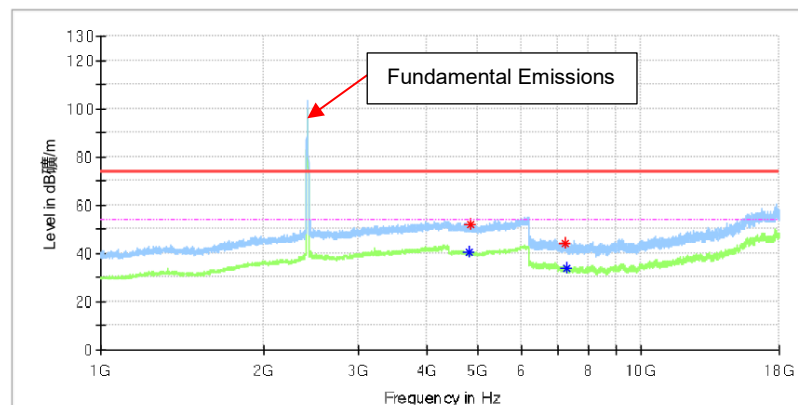
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_Low
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4809.000000	---	40.34	54.00	13.66	100.0	H	3.0	13.6
4830.000000	52.02	---	74.00	21.98	100.0	H	7.0	13.5
7238.400000	43.96	---	74.00	30.04	100.0	H	288.0	8.6
7261.508333	---	33.92	54.00	20.08	100.0	H	190.0	8.5

20/3/2020

2:20:43 PM

Note: The highest waveform in the figure is Wi-Fi Fundamental.

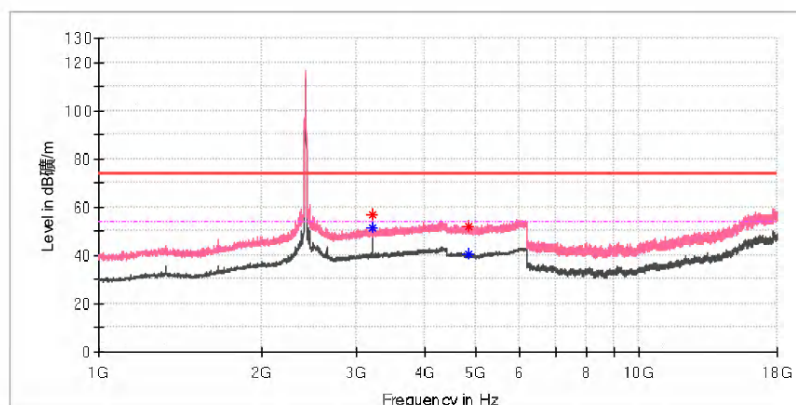
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_Low
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3216.000000	56.65	—	74.00	17.35	100.0	V	277.0	8.6
3216.500000	—	51.48	54.00	2.52	100.0	V	277.0	8.6
4820.000000	—	40.41	54.00	13.59	100.0	V	181.0	13.5
4827.000000	52.18	—	74.00	21.82	100.0	V	1.0	13.5

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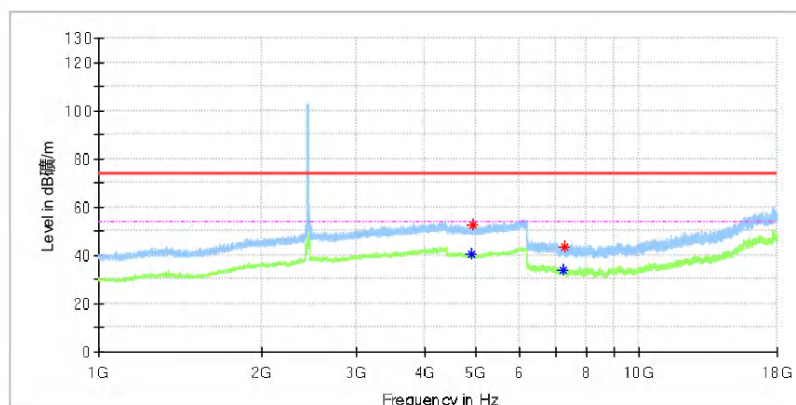
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_Mid
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4900.500000	---	40.51	54.00	13.49	100.0	H	275.0	13.3
4932.500000	52.39	---	74.00	21.61	100.0	H	359.0	13.3
7218.733333	---	33.95	54.00	20.05	100.0	H	265.0	8.7
7261.016667	43.77	---	74.00	30.23	100.0	H	89.0	8.5

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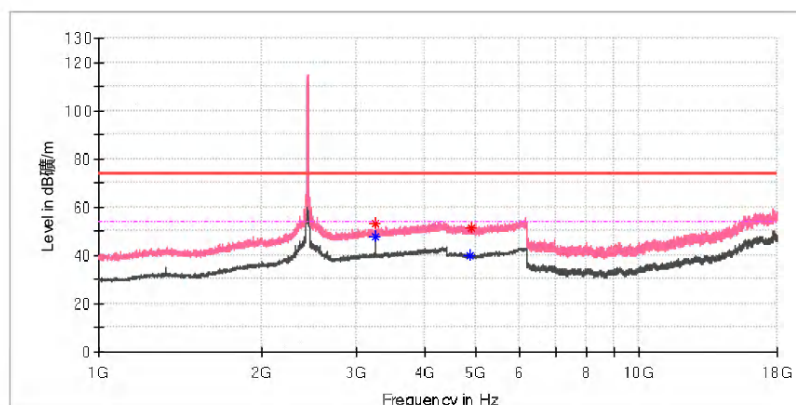
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_Mid
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3249.500000	53.20	—	74.00	20.80	100.0	V	277.0	8.5
3249.500000	—	47.78	54.00	6.22	100.0	V	277.0	8.5
4869.500000	—	40.19	54.00	13.81	100.0	V	77.0	13.4
4882.000000	51.43	—	74.00	22.57	100.0	V	105.0	13.4

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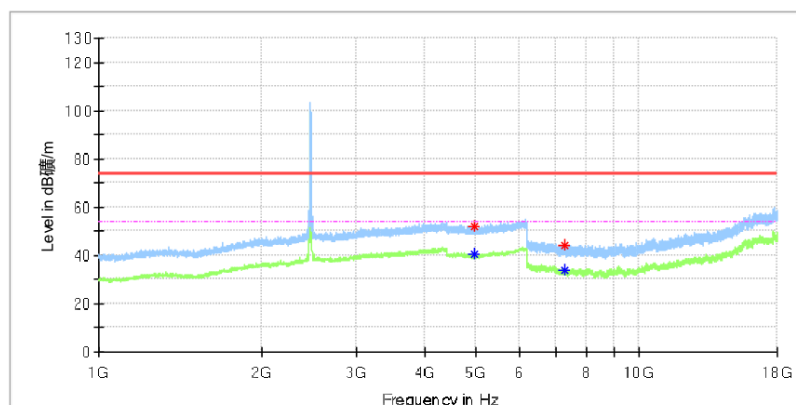
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_High
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4948.500000	---	40.70	54.00	13.30	100.0	H	225.0	13.2
4955.000000	51.71	---	74.00	22.29	100.0	H	342.0	13.2
7295.925000	---	33.91	54.00	20.09	100.0	H	0.0	8.3
7299.366667	44.08	---	74.00	29.92	100.0	H	356.0	8.3

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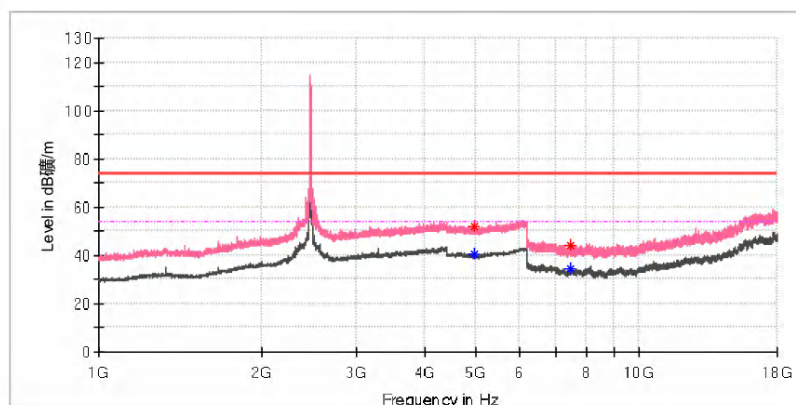
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11b_TX_High
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4950.500000	---	40.62	54.00	13.38	100.0	V	189.0	13.2
4952.000000	51.77	---	74.00	22.23	100.0	V	96.0	13.2
7441.950000	---	34.37	54.00	19.63	100.0	V	297.0	8.4
7448.833333	44.07	---	74.00	29.93	100.0	V	92.0	8.5

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Wi-Fi 802.11 g mode, 6 Mbps

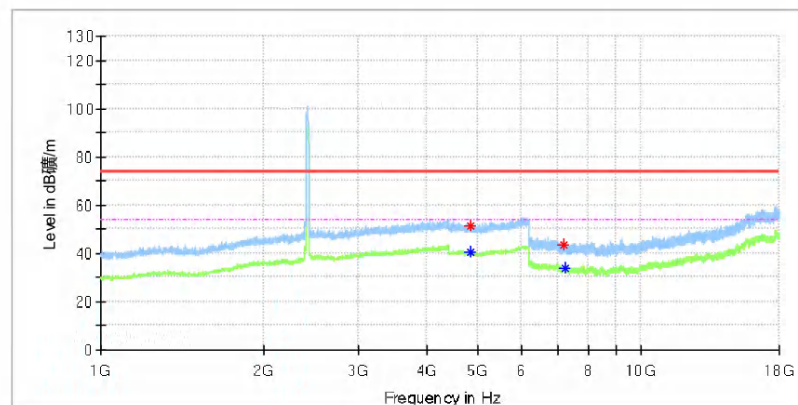
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_Low
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4842.000000	---	40.32	54.00	13.68	100.0	H	331.0	13.4
4847.500000	51.44	---	74.00	22.56	100.0	H	171.0	13.4
7207.916667	43.40	---	74.00	30.60	100.0	H	102.0	8.8
7214.308333	---	33.72	54.00	20.28	100.0	H	268.0	8.7

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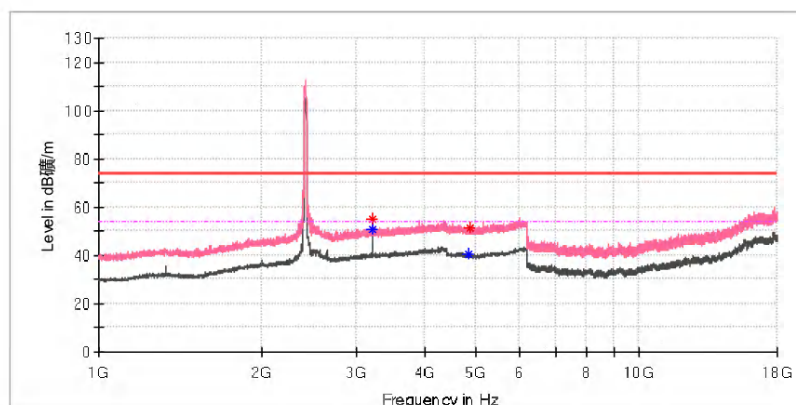
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_Low
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3216.000000	54.85	—	74.00	19.15	100.0	V	279.0	8.6
3216.000000	—	50.56	54.00	3.44	100.0	V	279.0	8.6
4828.000000	—	40.43	54.00	13.57	100.0	V	14.0	13.5
4855.500000	51.40	—	74.00	22.60	100.0	V	38.0	13.4

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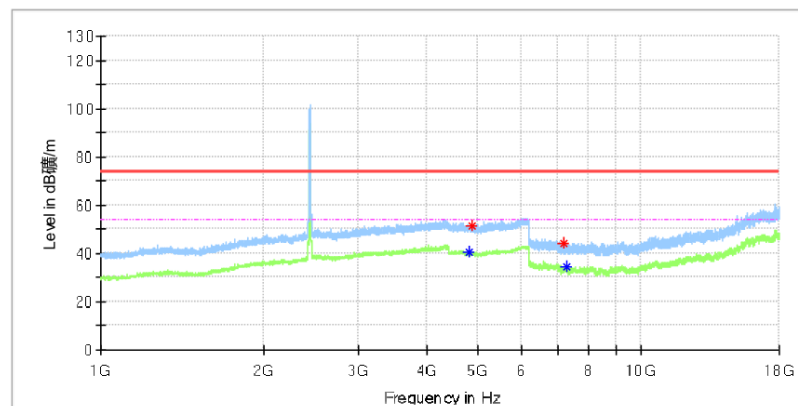
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_Mid
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4811.500000	---	40.52	54.00	13.48	100.0	H	256.0	13.6
4874.000000	51.62	---	74.00	22.38	100.0	H	7.0	13.4
7208.900000	43.95	---	74.00	30.05	100.0	H	168.0	8.8
7263.966667	---	34.21	54.00	19.79	100.0	H	357.0	8.5

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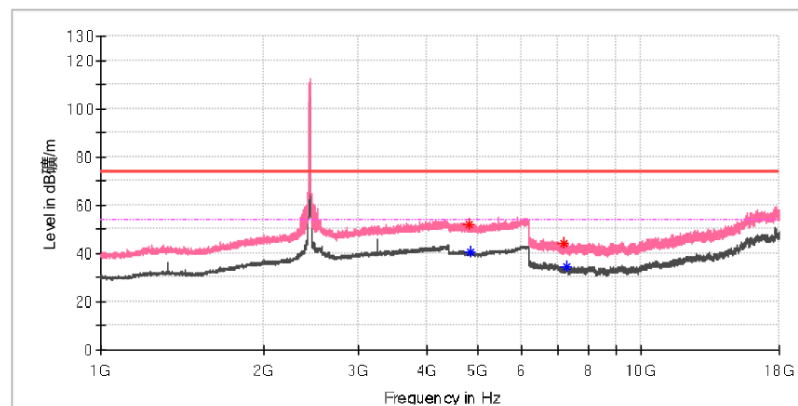
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_Mid
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4808.000000	51.74	---	74.00	22.26	100.0	V	0.0	13.6
4821.500000	---	40.71	54.00	13.29	100.0	V	205.0	13.5
7189.233333	44.17	---	74.00	29.83	100.0	V	46.0	8.8
7289.533333	---	34.29	54.00	19.71	100.0	V	144.0	8.4

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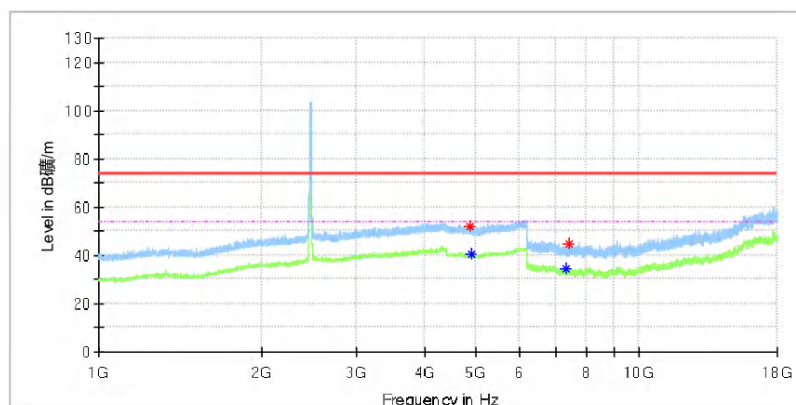
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_High
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4849.000000	51.85	---	74.00	22.15	100.0	H	293.0	13.4
4899.000000	---	40.51	54.00	13.49	100.0	H	356.0	13.3
7312.641667	---	34.63	54.00	19.37	100.0	H	350.0	8.2
7407.533333	44.54	---	74.00	29.46	100.0	H	314.0	8.3

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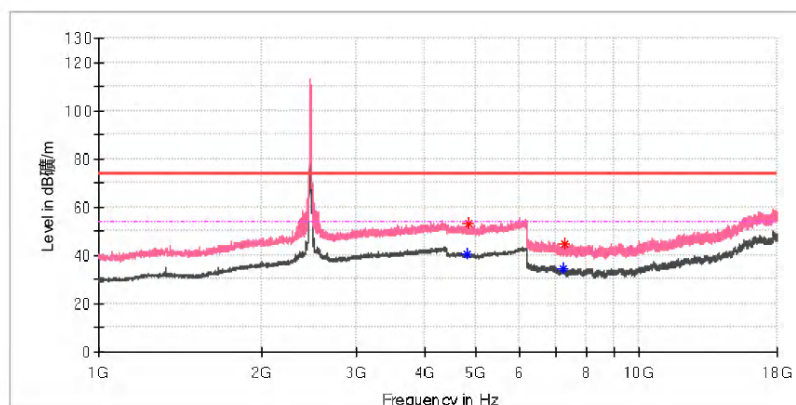
Test

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Test Report

EUT Information

EUT Name:	MeshBox Tesla
Model:	SMMB1007
Test Mode:	Wi-Fi 2.4G 11g_TX_High
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4807.000000	---	40.52	54.00	13.48	100.0	V	311.0	13.6
4820.500000	53.00	---	74.00	21.00	100.0	V	286.0	13.5
7236.433333	---	34.32	54.00	19.68	100.0	V	0.0	8.6
7262.000000	44.75	---	74.00	29.25	100.0	V	163.0	8.5

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