

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Occupied Channel Bandwidth 99% (2437 MHz; 30.000 dBm; 20 MHz(11n_20Mhz))

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

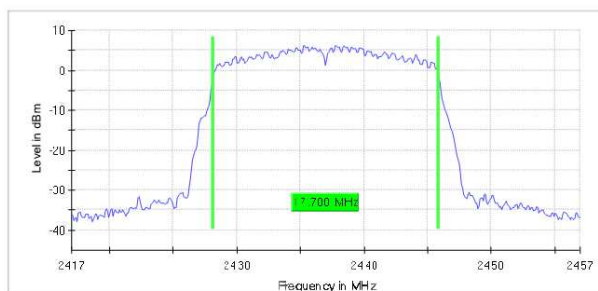
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	17.700000	---	---	2428.150000	2445.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2437.000000	PASS

99 % Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	55 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Occupied Channel Bandwidth 99% (2462 MHz; 30.000 dBm; 20 MHz(11n_20Mhz))

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

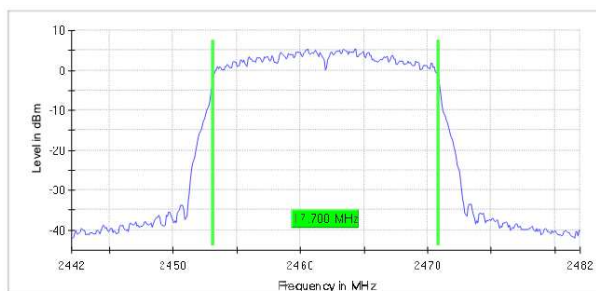
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	17.700000	---	---	2453.150000	2470.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2462.000000	PASS

99 % Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	53 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.17 dB	0.30 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Occupied Channel Bandwidth 99% (2467 MHz; 30.000 dBm; 20 MHz(11n_20Mhz))

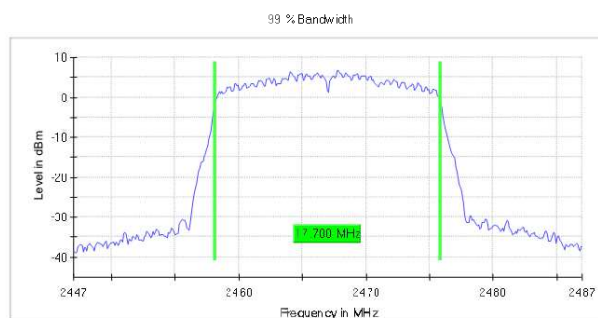
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2467.000000	17.700000	---	---	2458.150000	2475.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2467.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44700 GHz	2.44700 GHz
Stop Frequency	2.48700 GHz	2.48700 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	36 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.26 dB	0.30 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Occupied Channel Bandwidth 99% (2472 MHz; 30.000 dBm; 20 MHz(11n_20MHz))

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

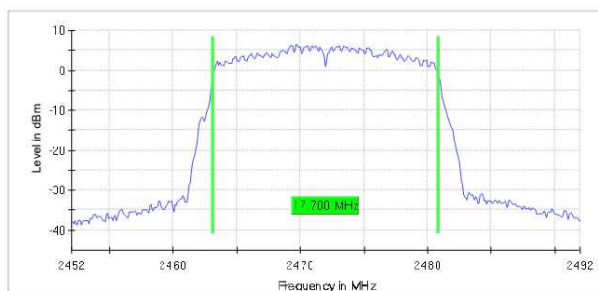
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2472.000000	17.700000	---	---	2463.150000	2480.850000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2472.000000	PASS

99 % Bandwidth

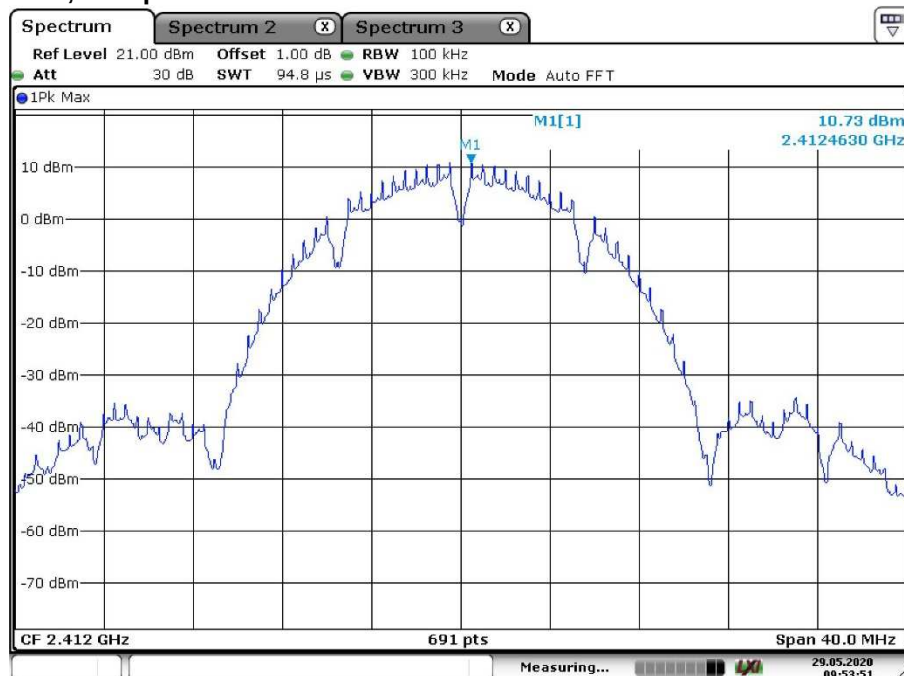


Measurement

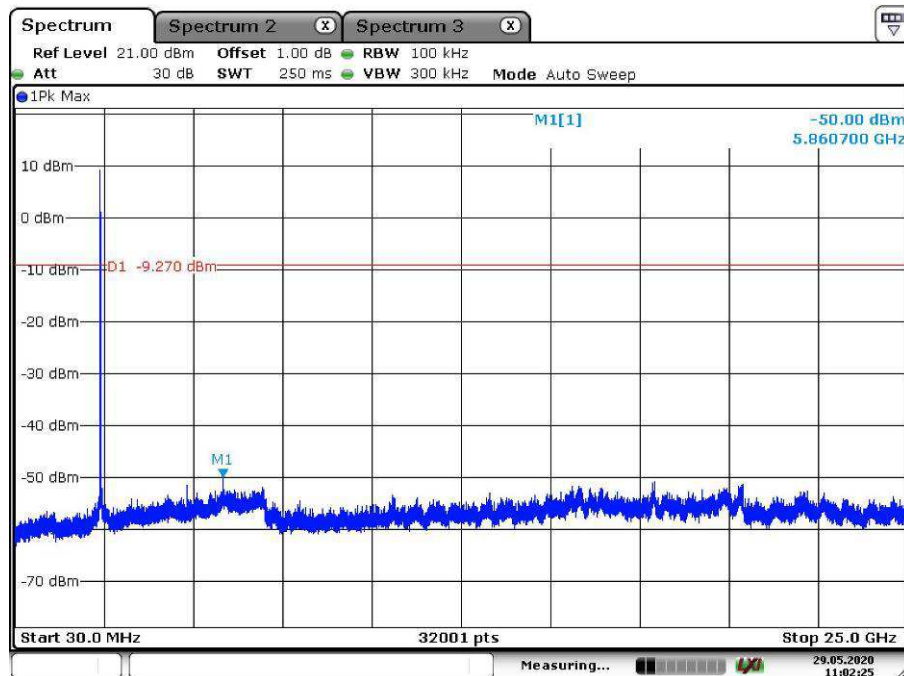
Setting	Instrument Value	Target Value
Start Frequency	2.45200 GHz	2.45200 GHz
Stop Frequency	2.49200 GHz	2.49200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	49 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.25 dB	0.30 dB

Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

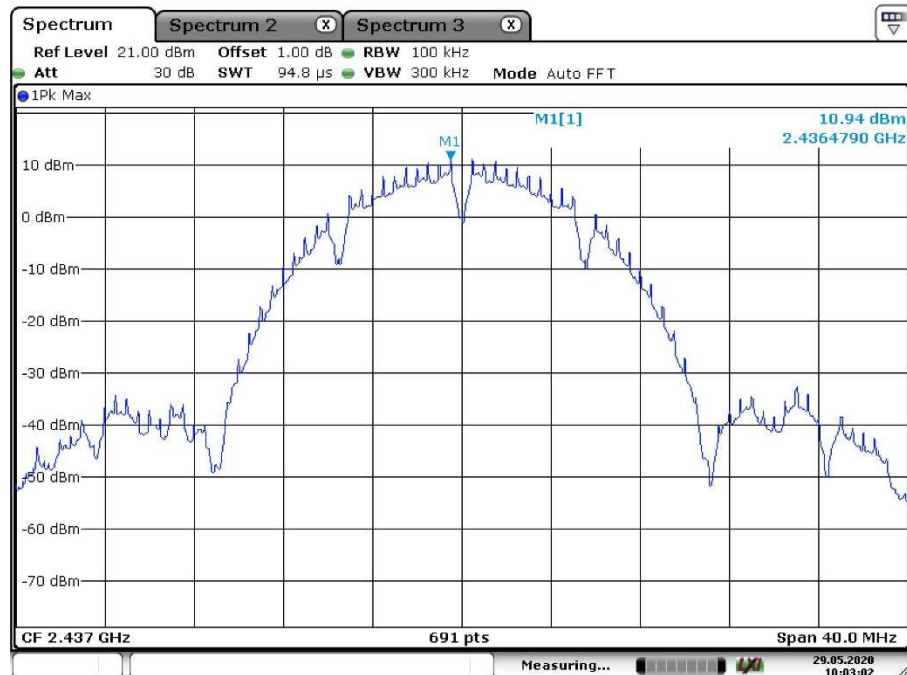
Wi-Fi 802.11 b mode, 1 Mbps



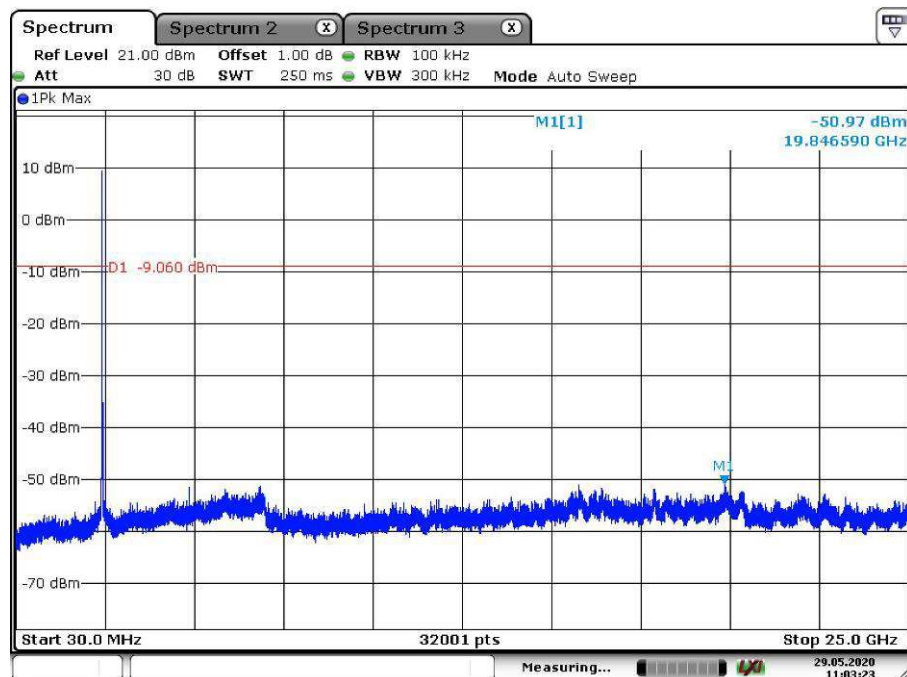
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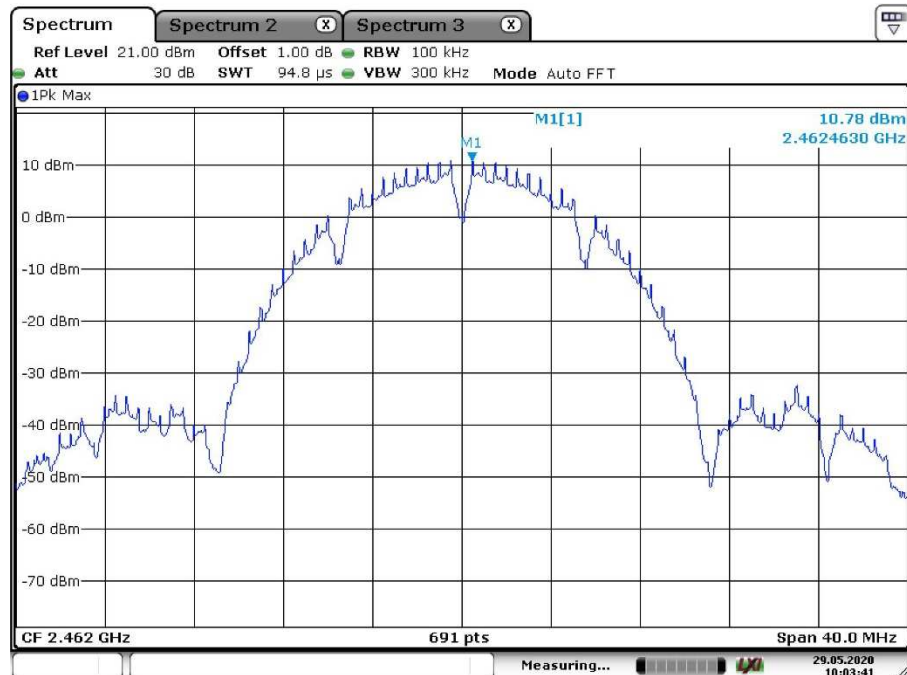
Date: 29.MAY.2020 11:02:25



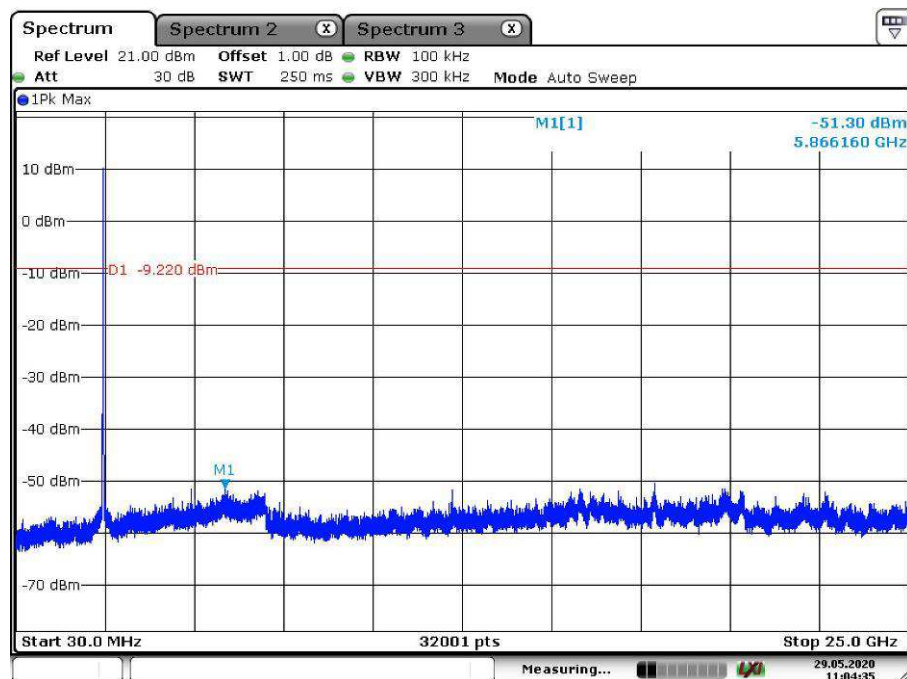
Date: 29.MAY.2020 10:03:02



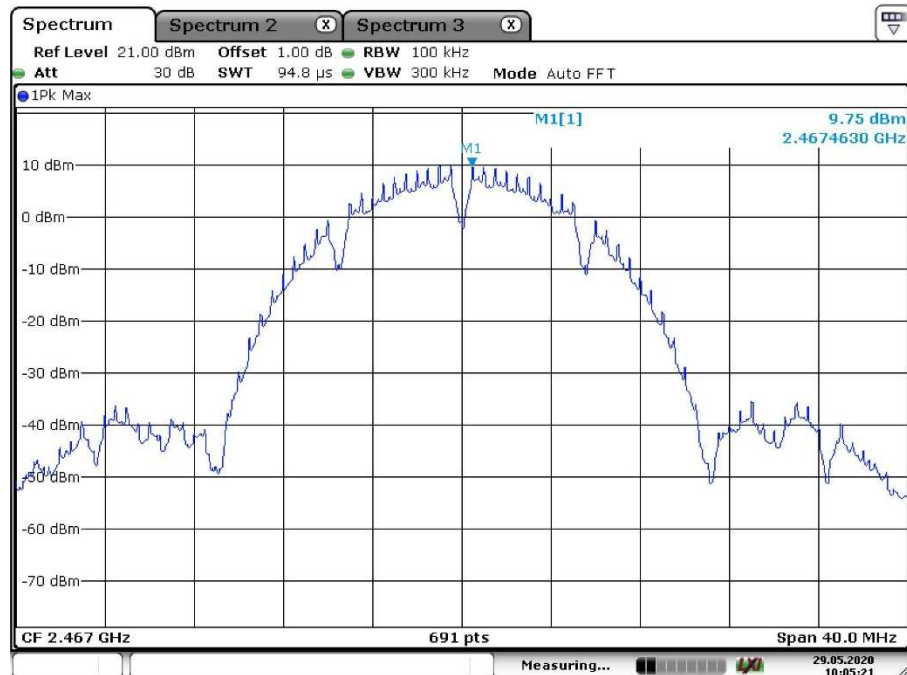
Date: 29.MAY.2020 11:03:23



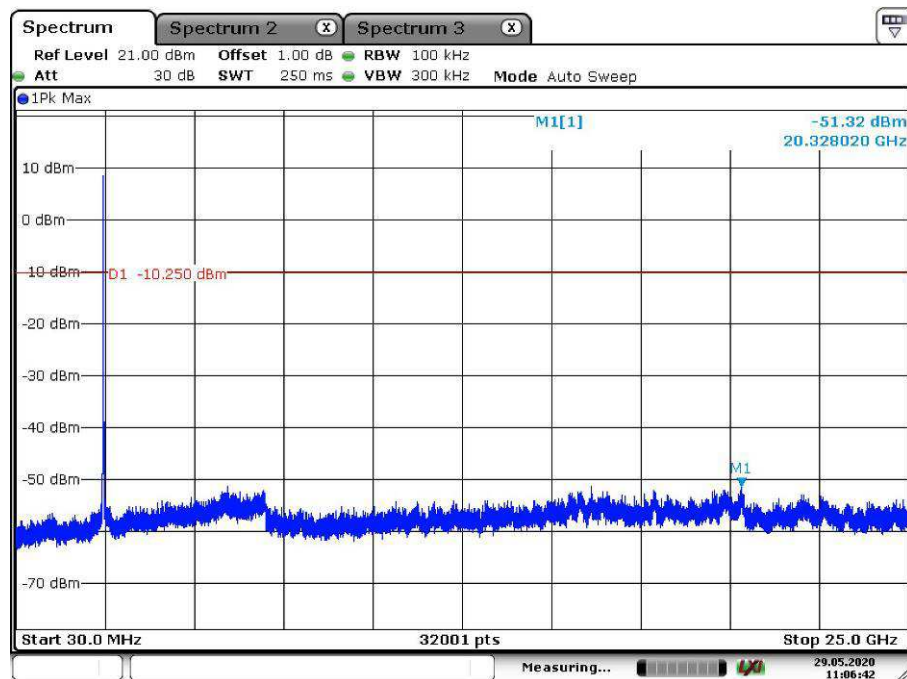
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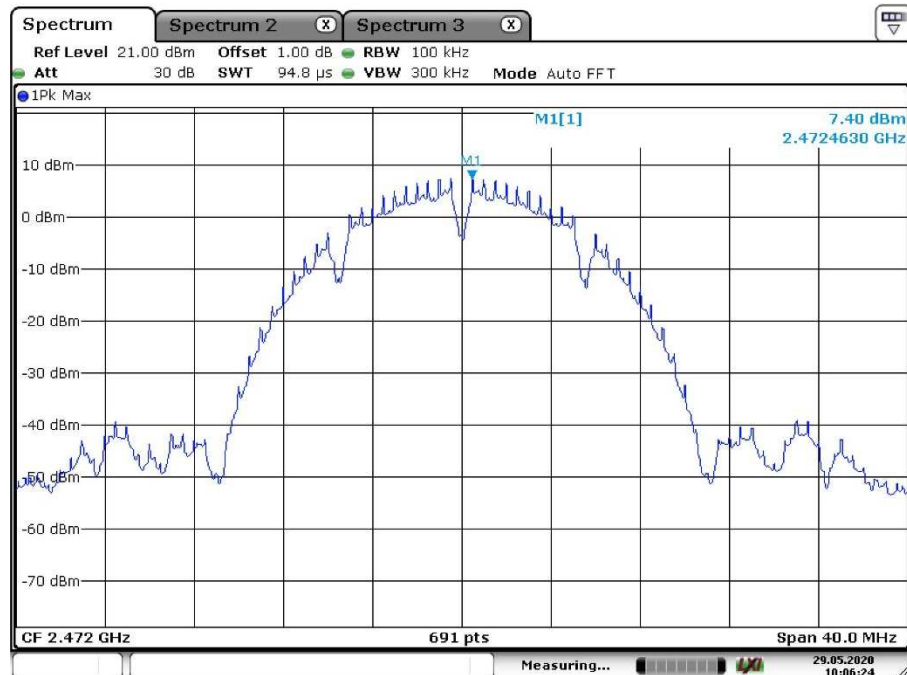
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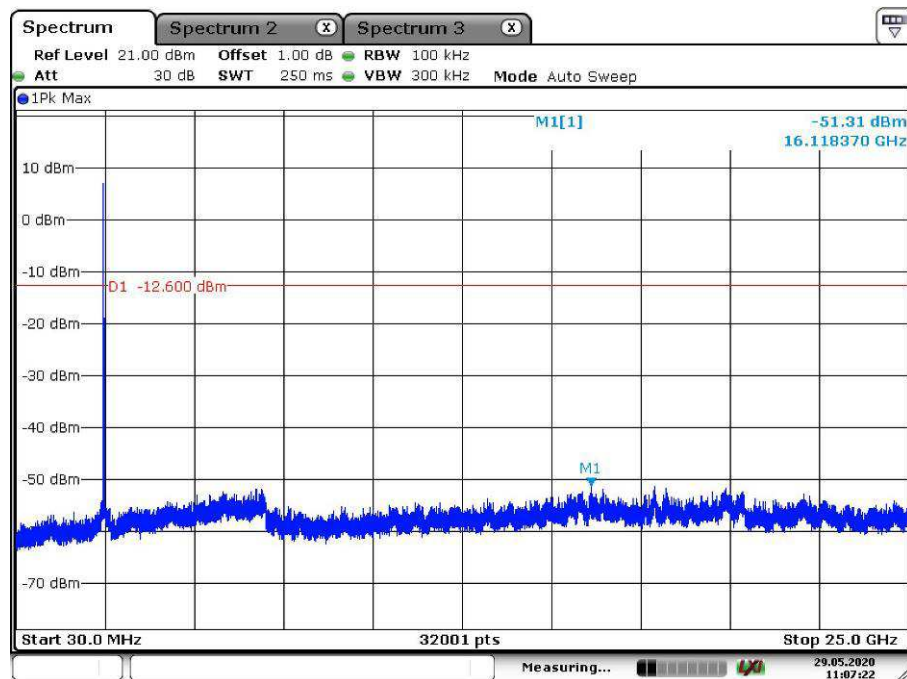
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Date: 29.MAY.2020 11:06:42

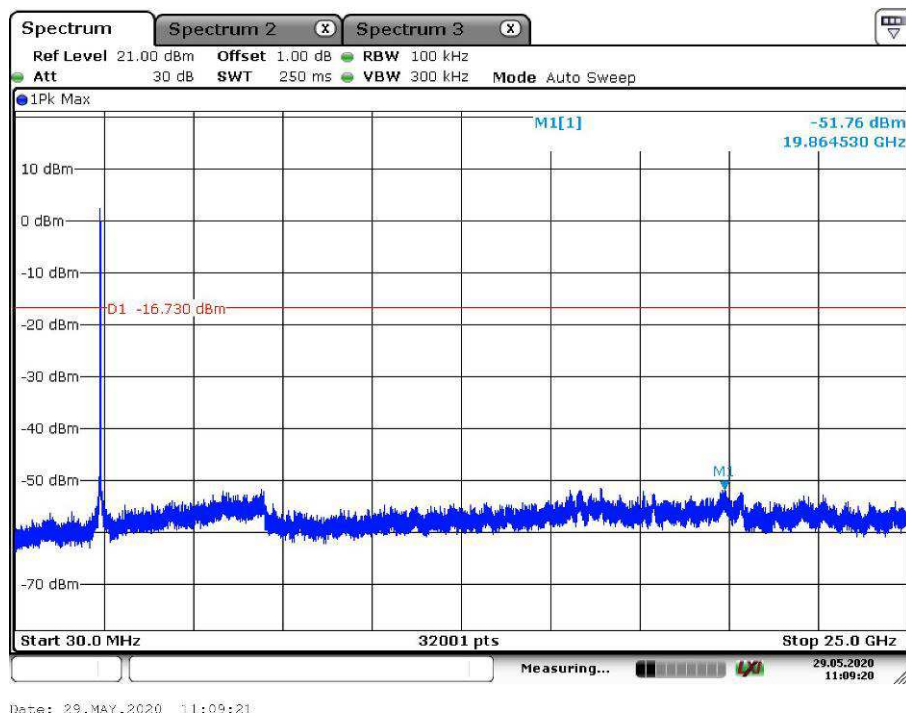
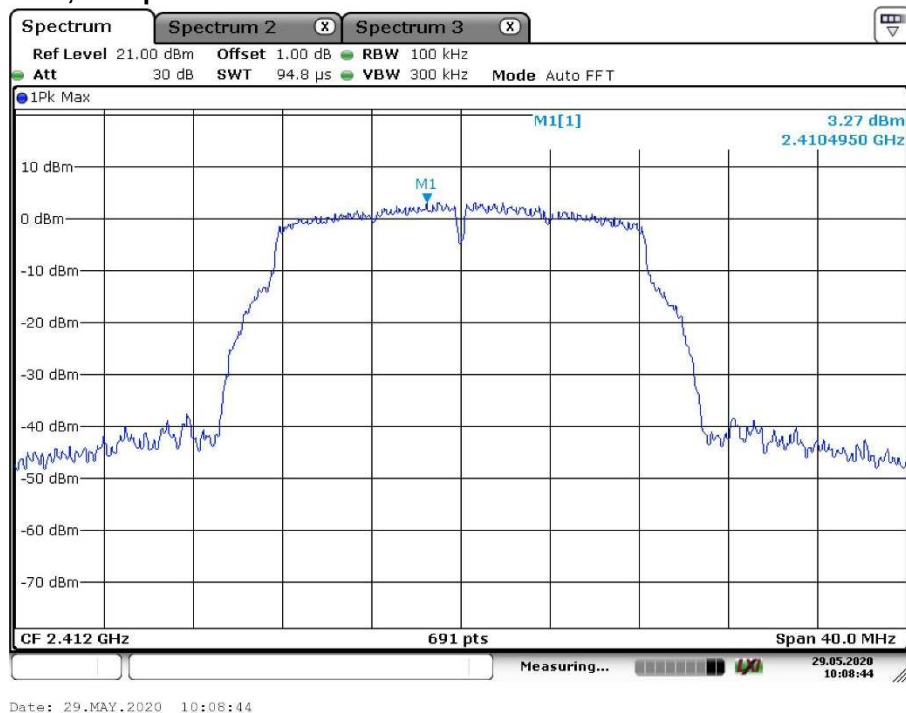


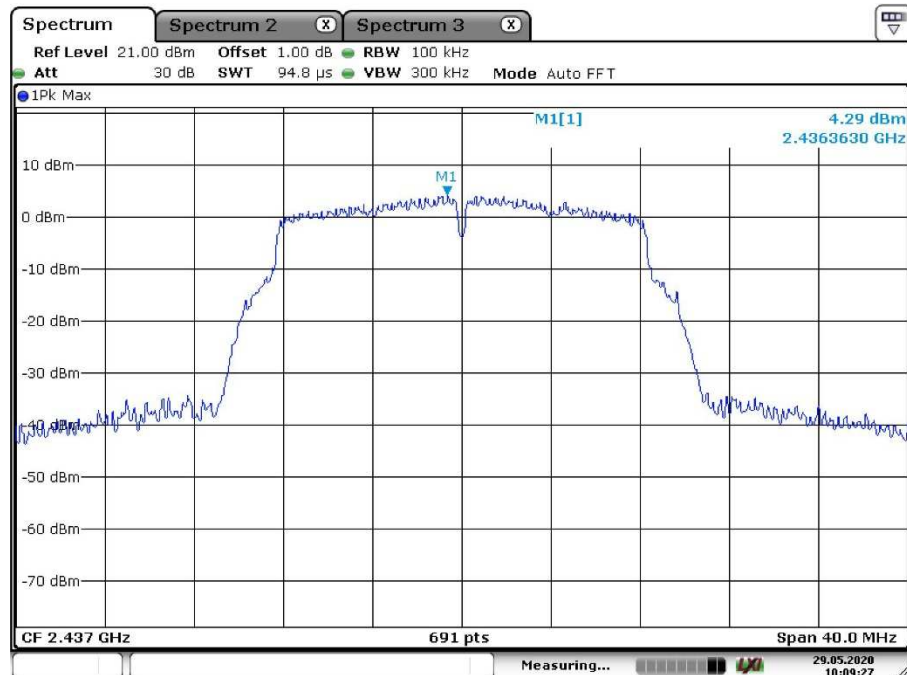
Date: 29.MAY.2020 10:06:23



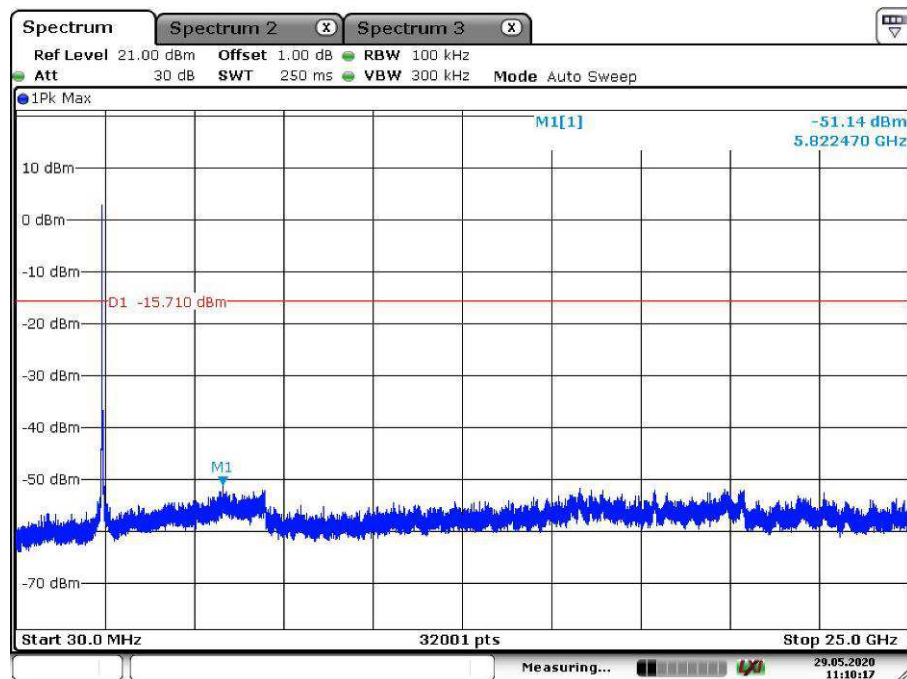
Date: 29.MAY.2020 11:07:22

Wi-Fi 802.11 g mode, 6 Mbps

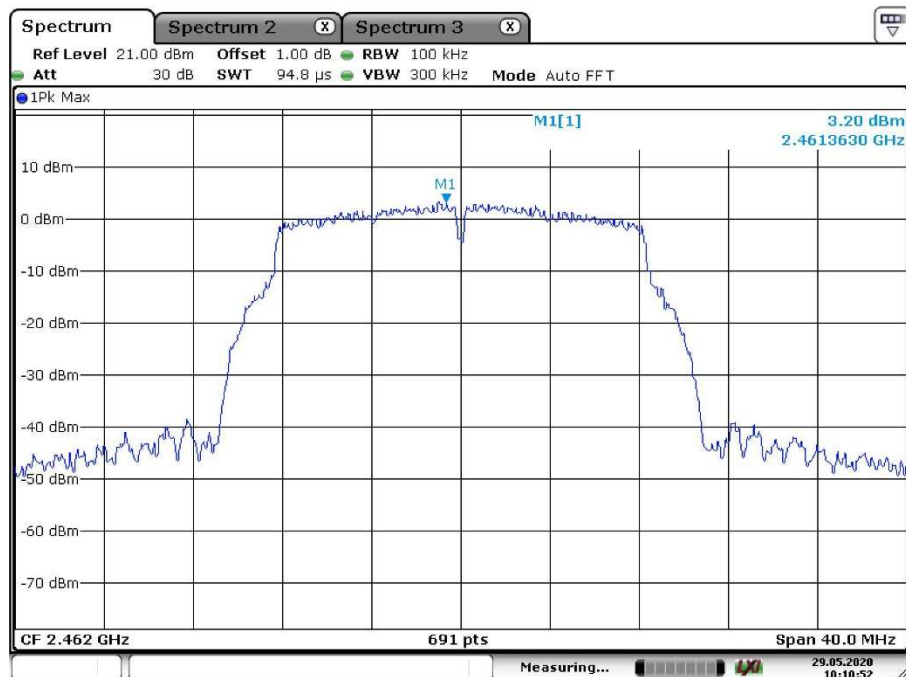




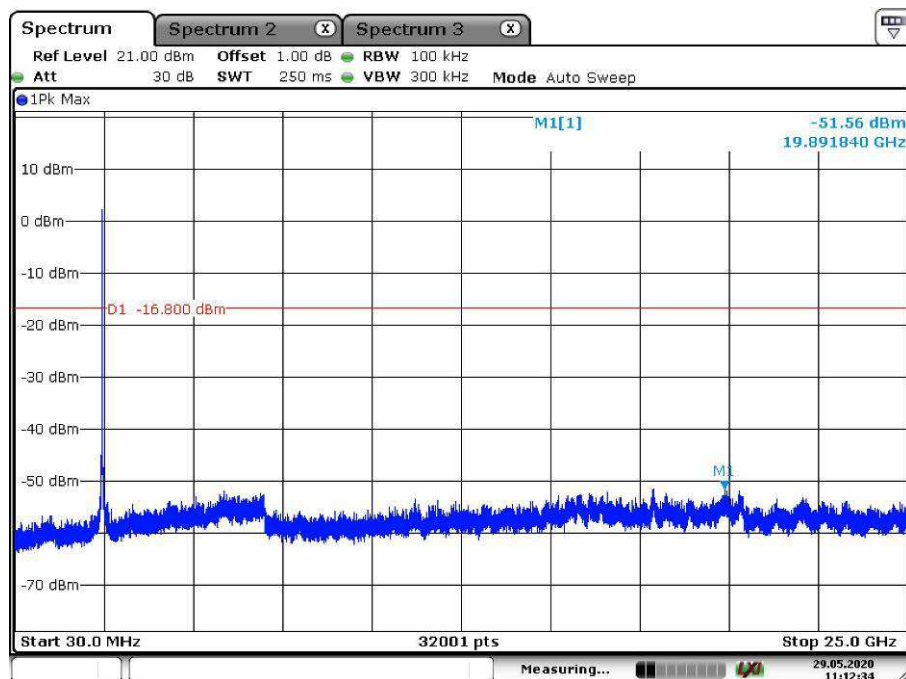
Date: 29.MAY.2020 10:09:27



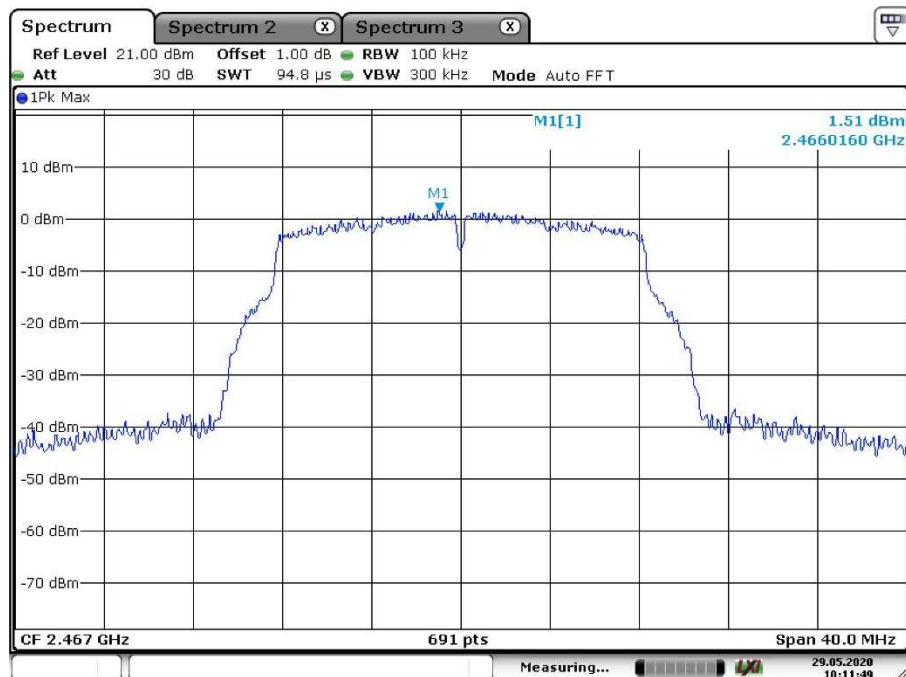
Date: 29.MAY.2020 11:10:17



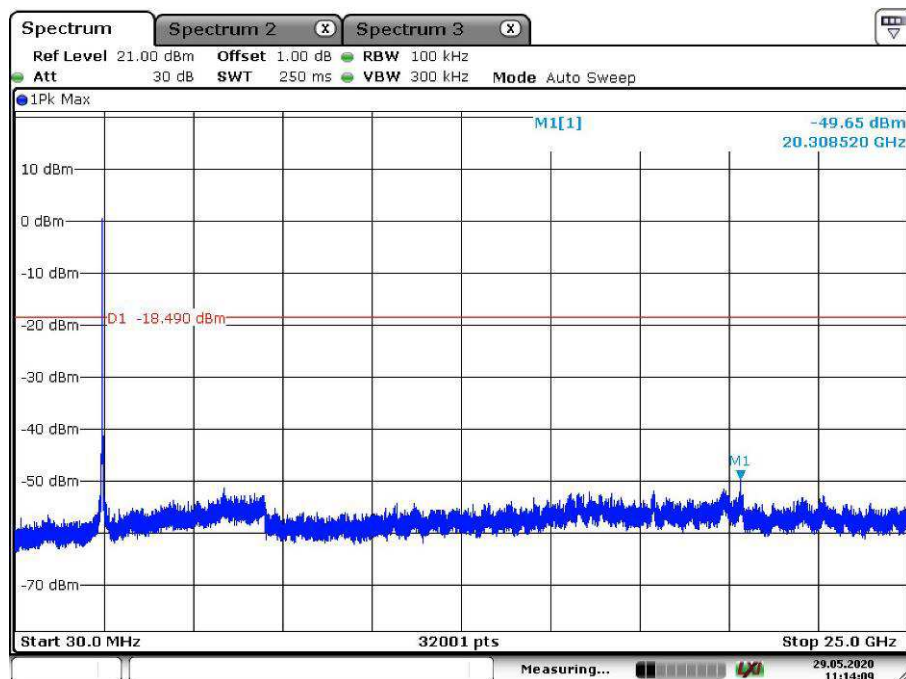
Date: 29.MAY.2020 10:10:52



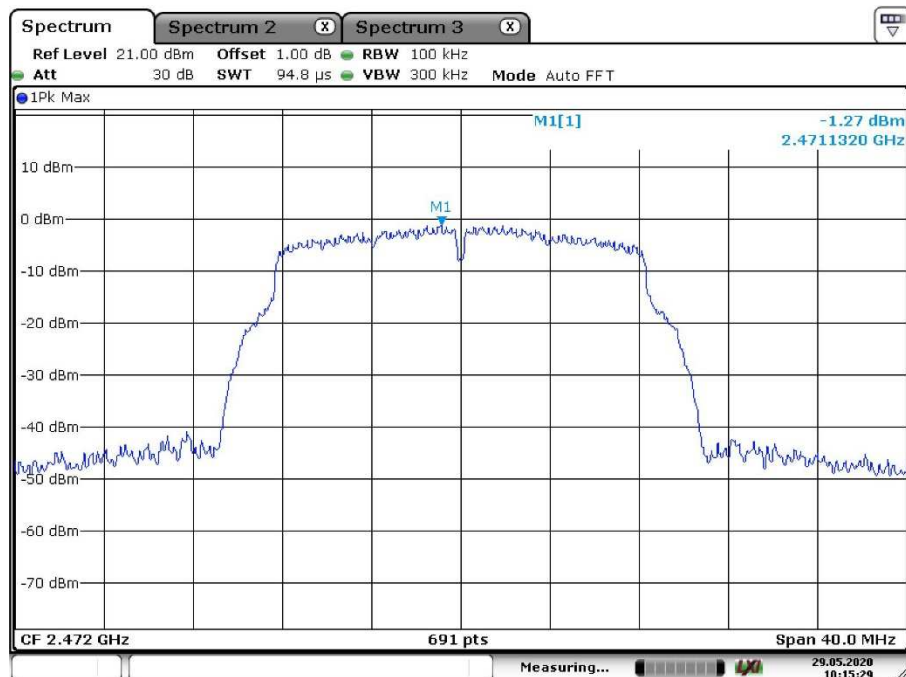
Date: 29.MAY.2020 11:12:34



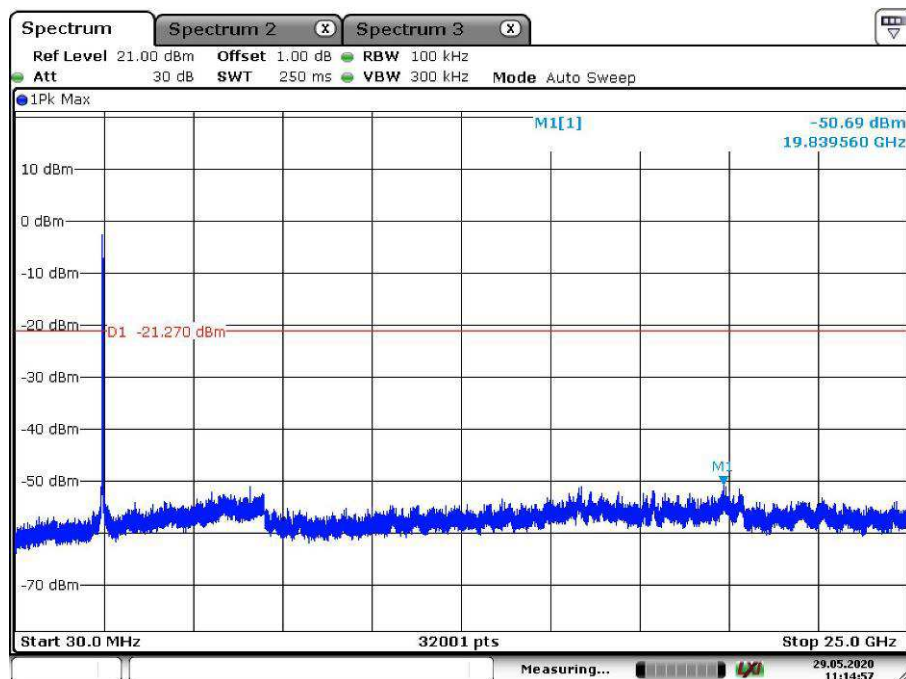
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Date: 29.MAY.2020 11:14:09

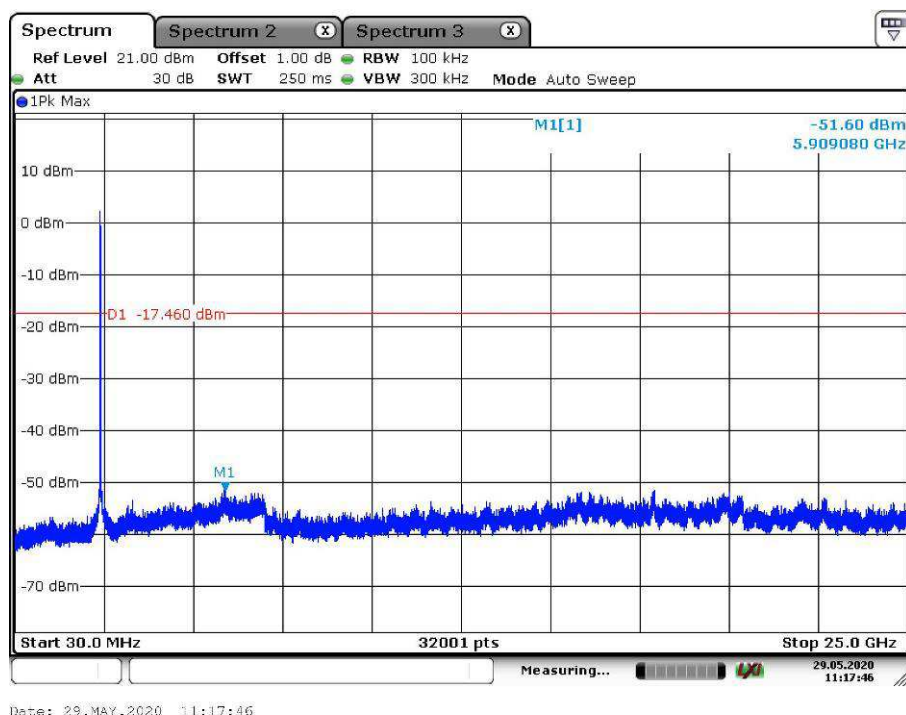
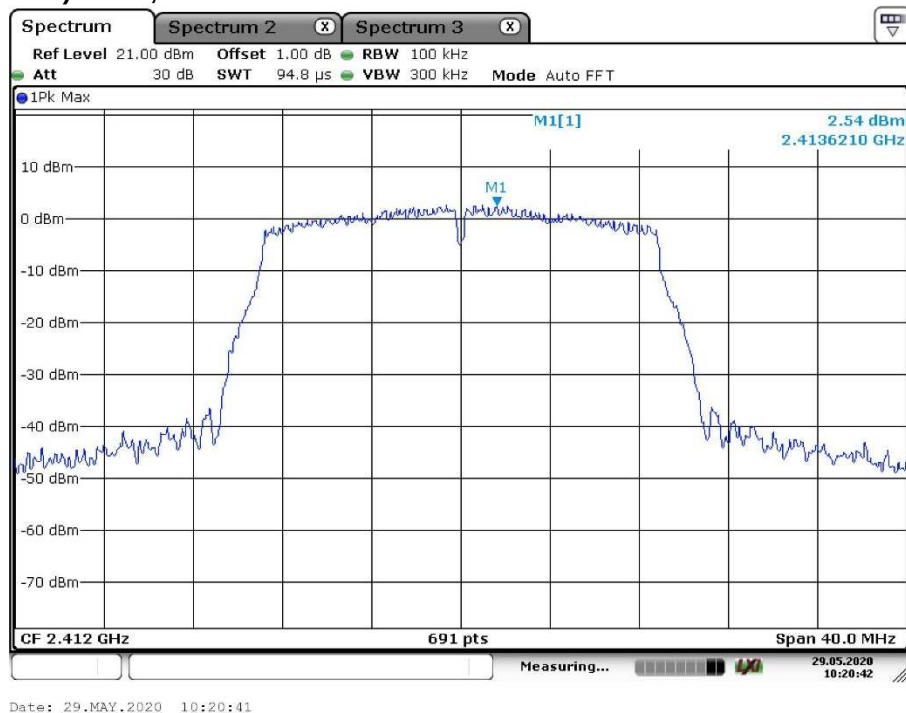


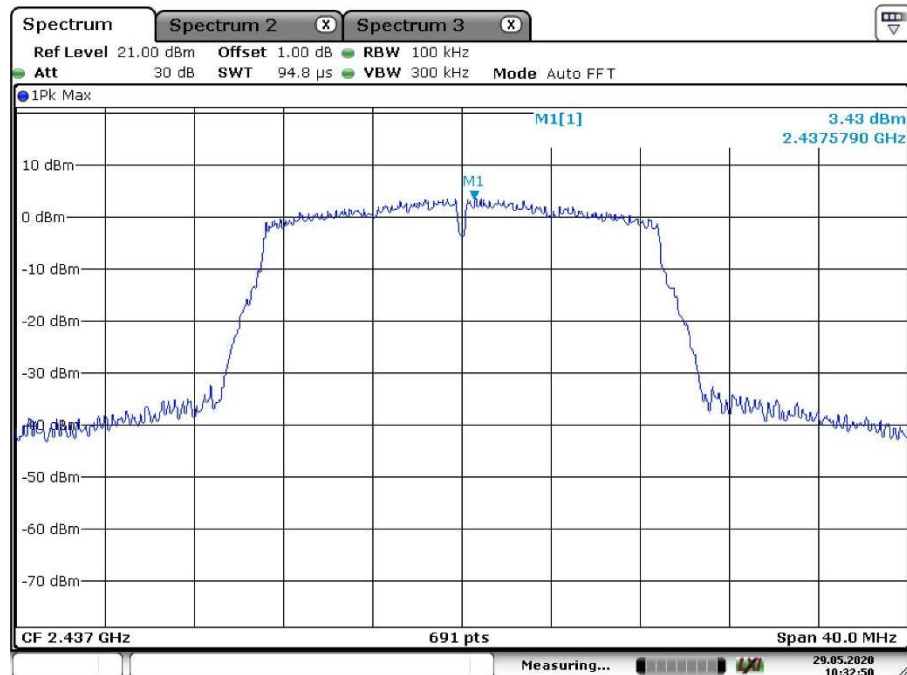
Date: 29.MAY.2020 10:15:29



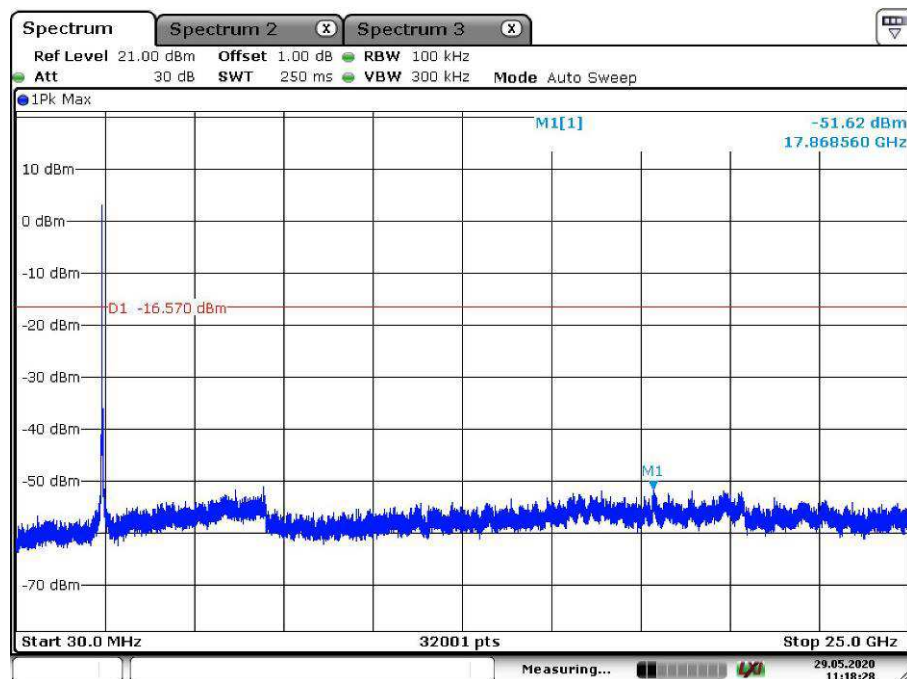
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Wi-Fi 802.11 n(HT20) mode, MCS0

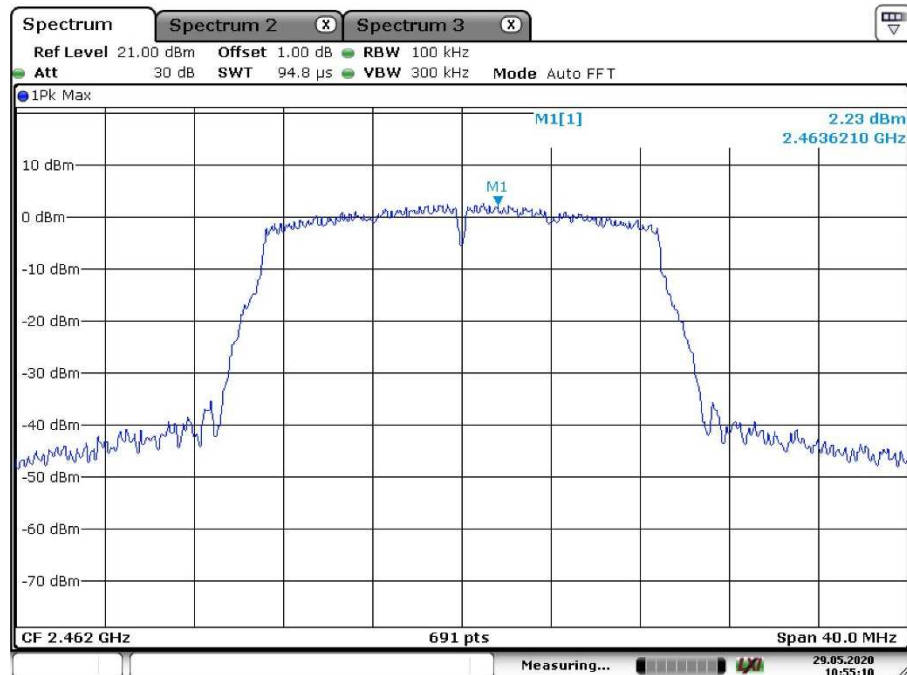




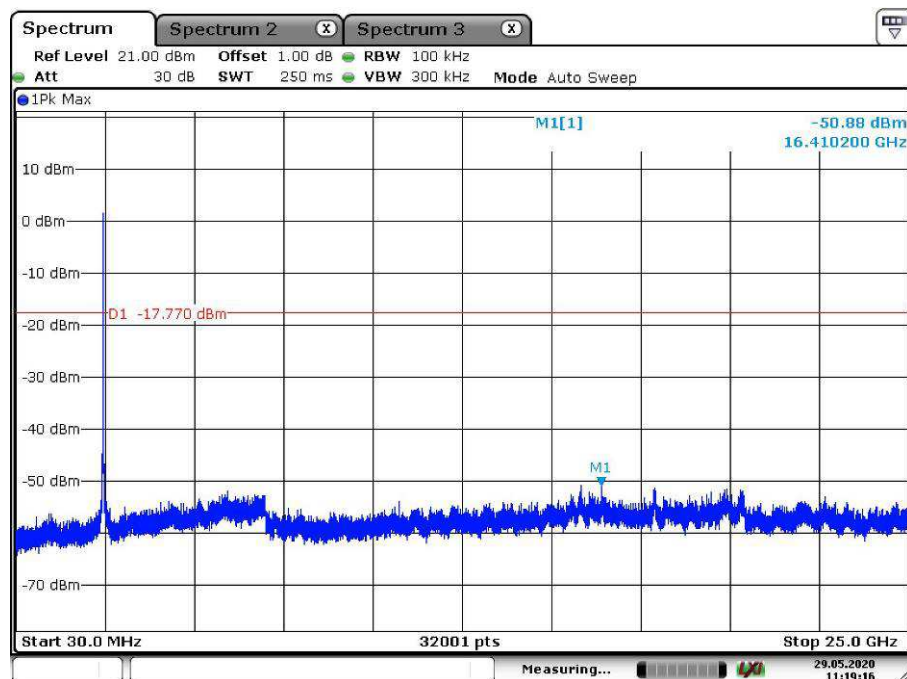
Date: 29.MAY.2020 10:32:50



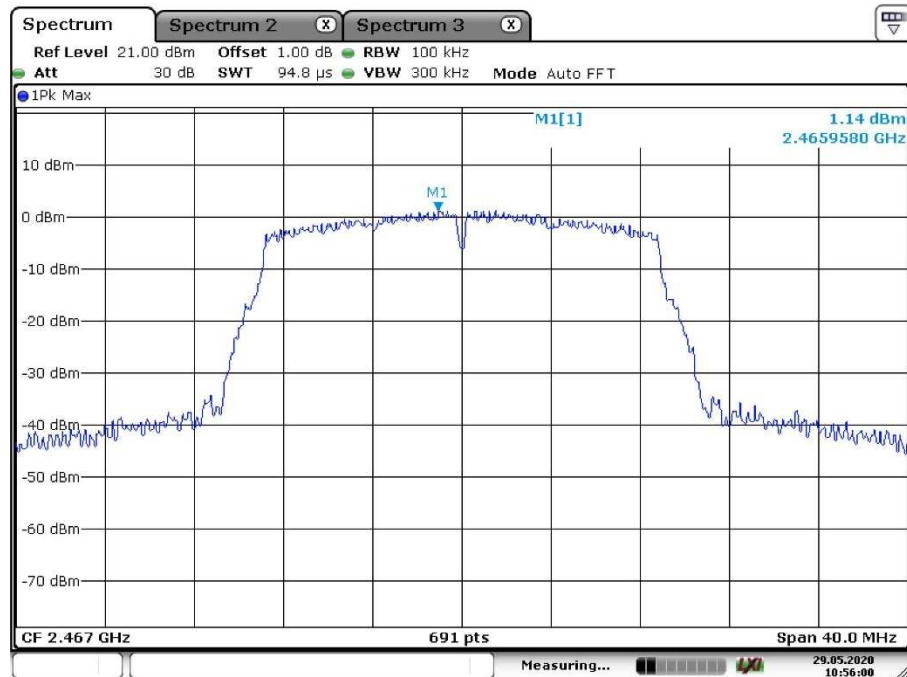
Date: 29.MAY.2020 11:18:29



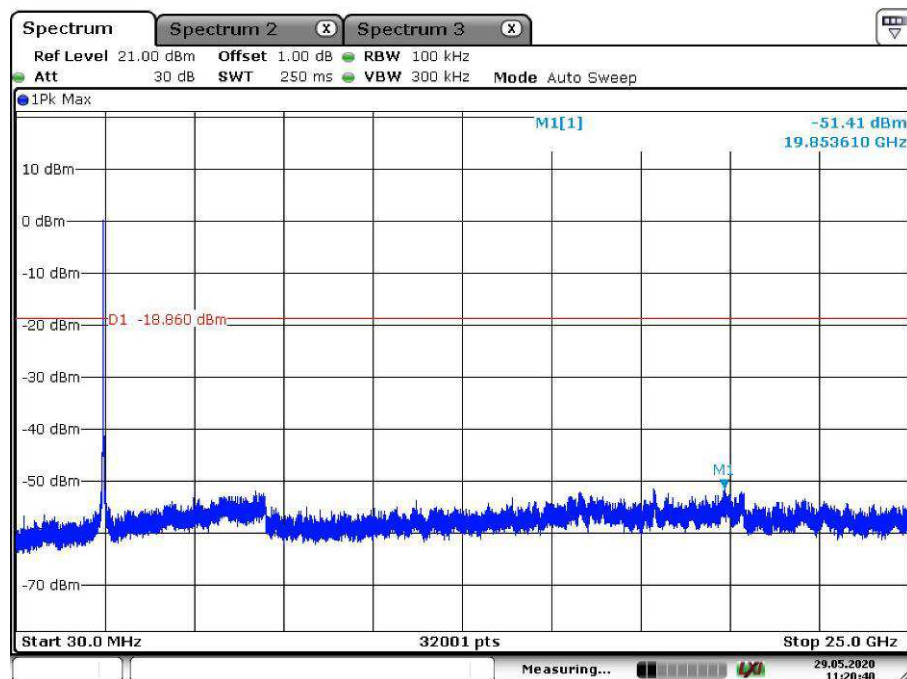
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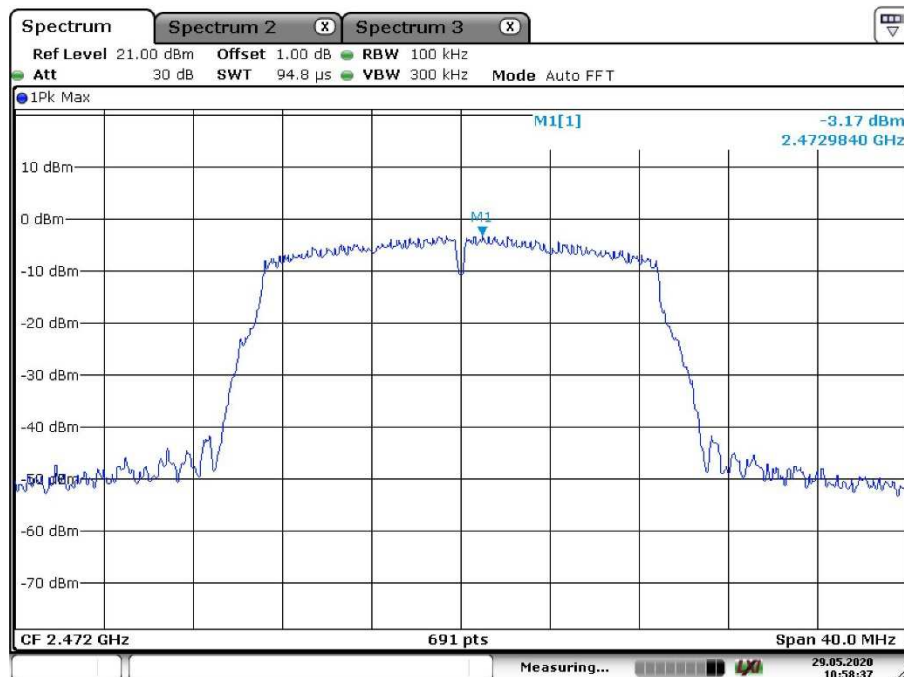
Date: 29.MAY.2020 11:19:16



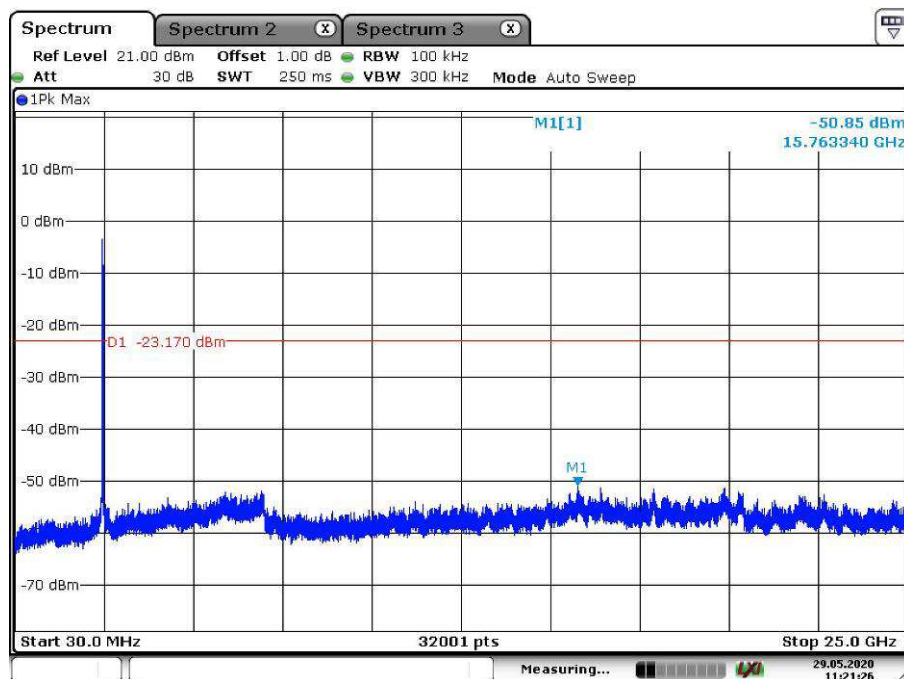
Date: 29.MAY.2020 10:56:00



Date: 29.MAY.2020 11:20:40

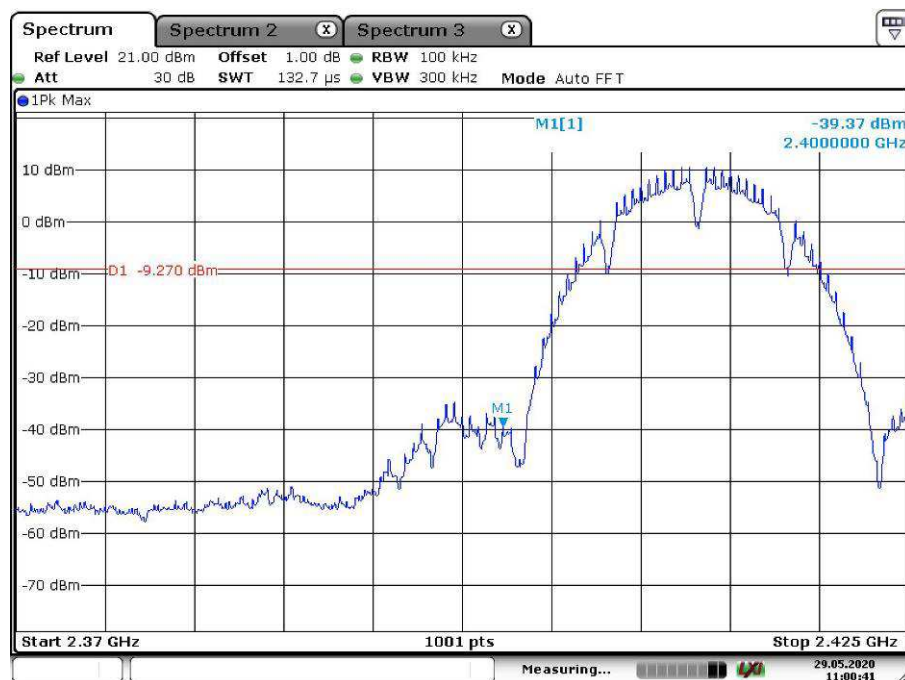


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Date: 29.MAY.2020 11:21:27

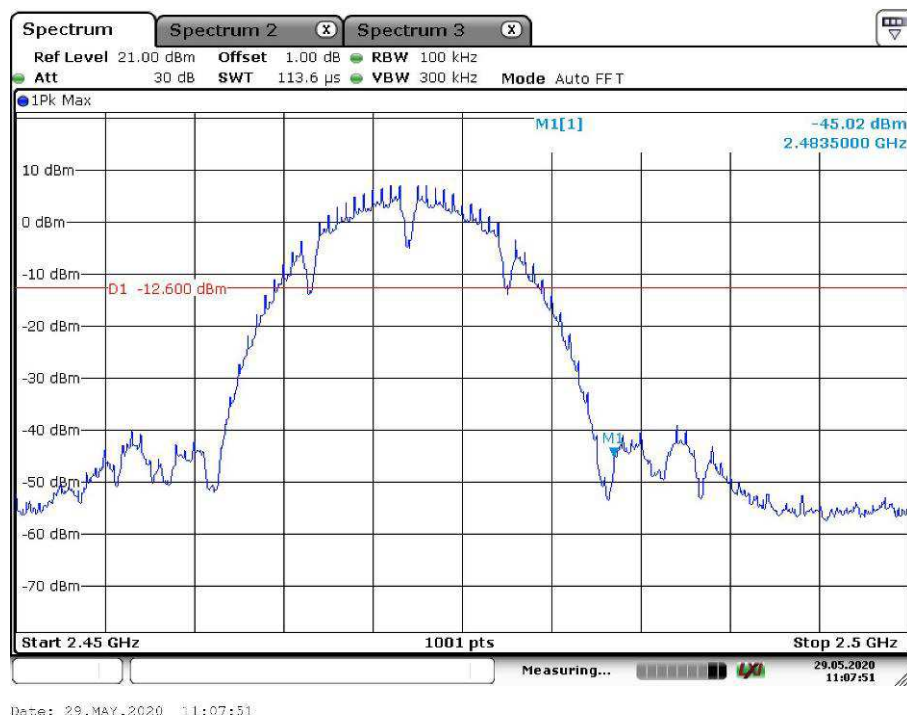
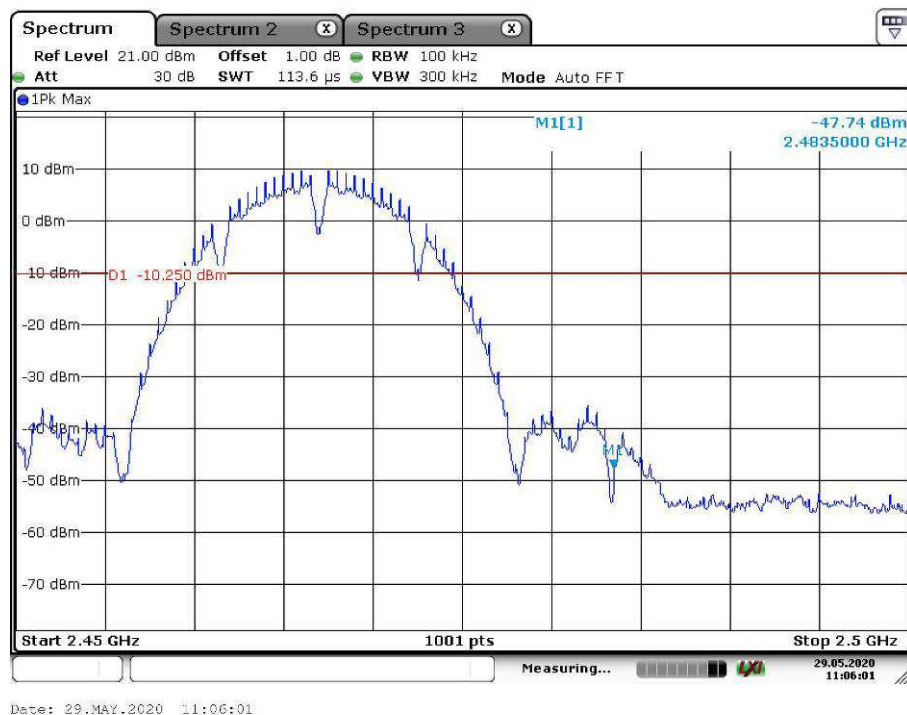
Wi-Fi 802.11 b mode, Band Edge



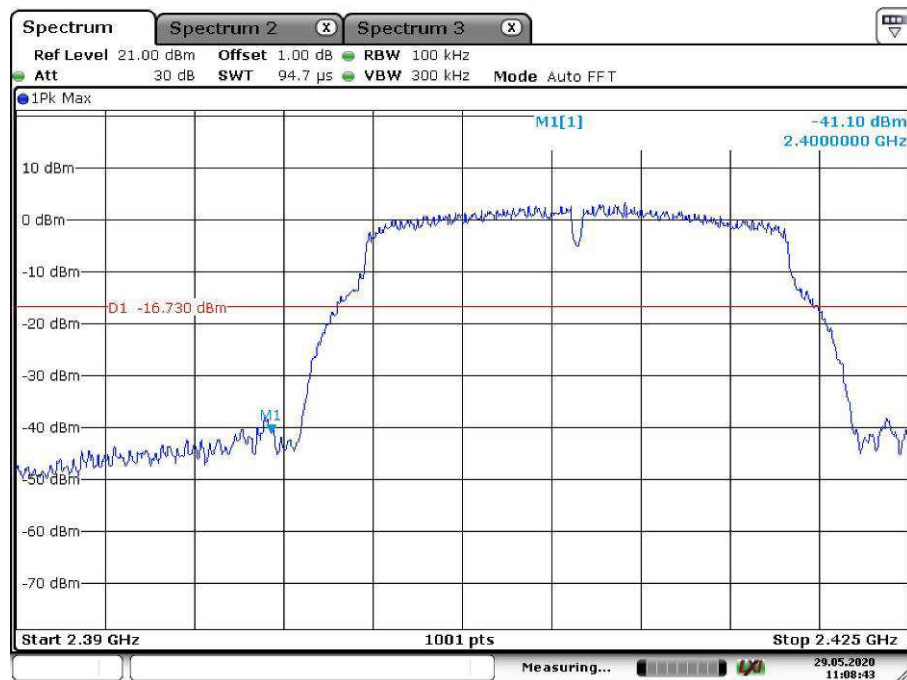
Date: 29.MAY.2020 11:00:41



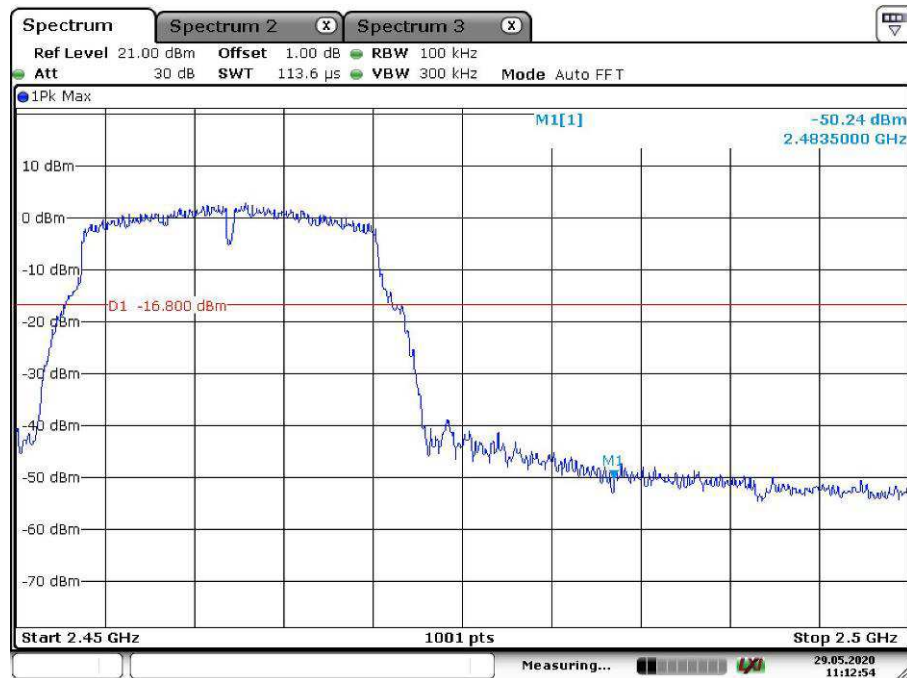
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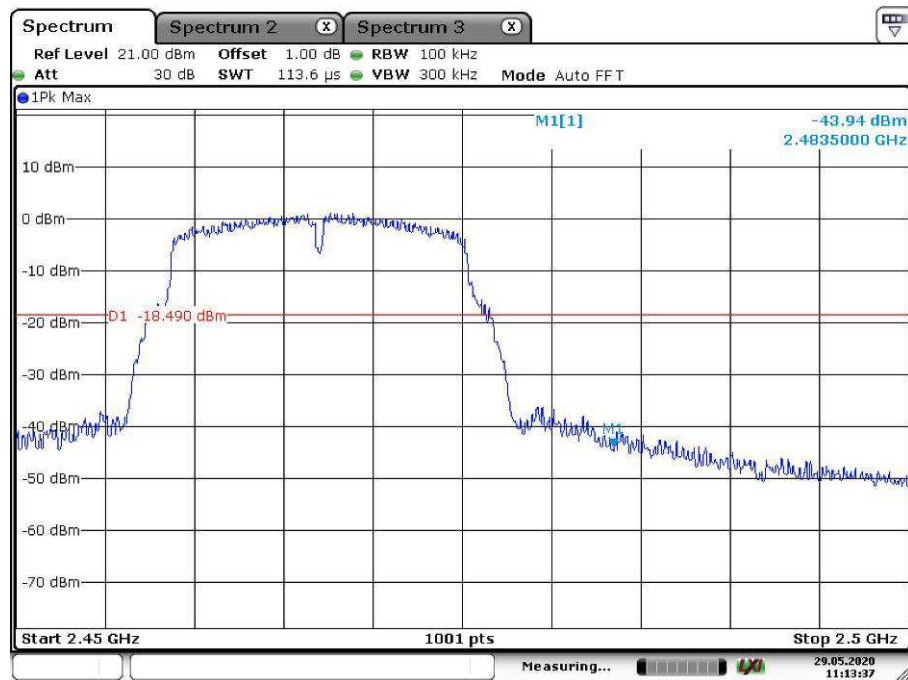
Wi-Fi 802.11 g mode, Band Edge



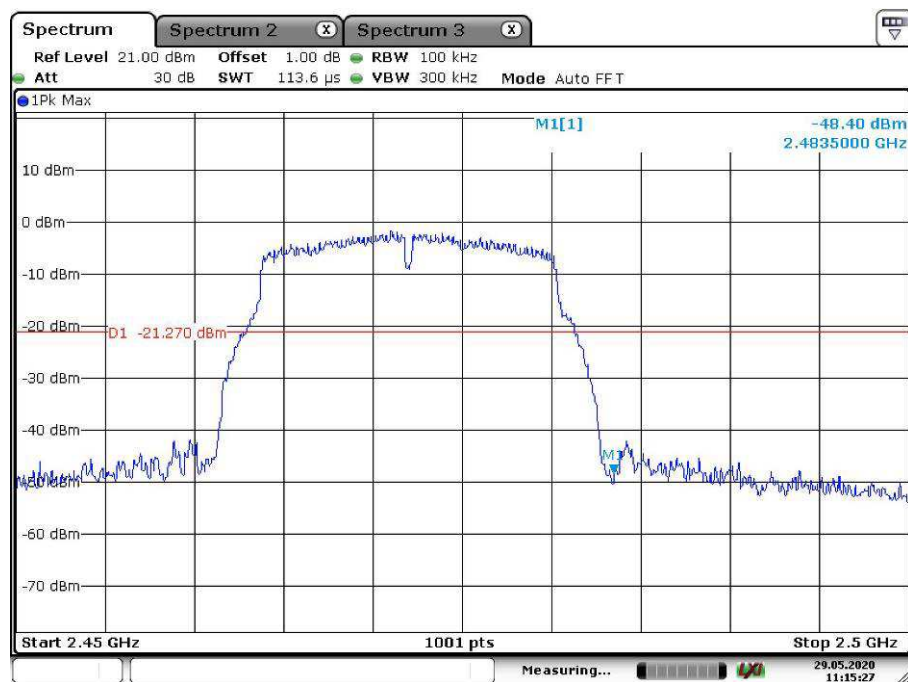
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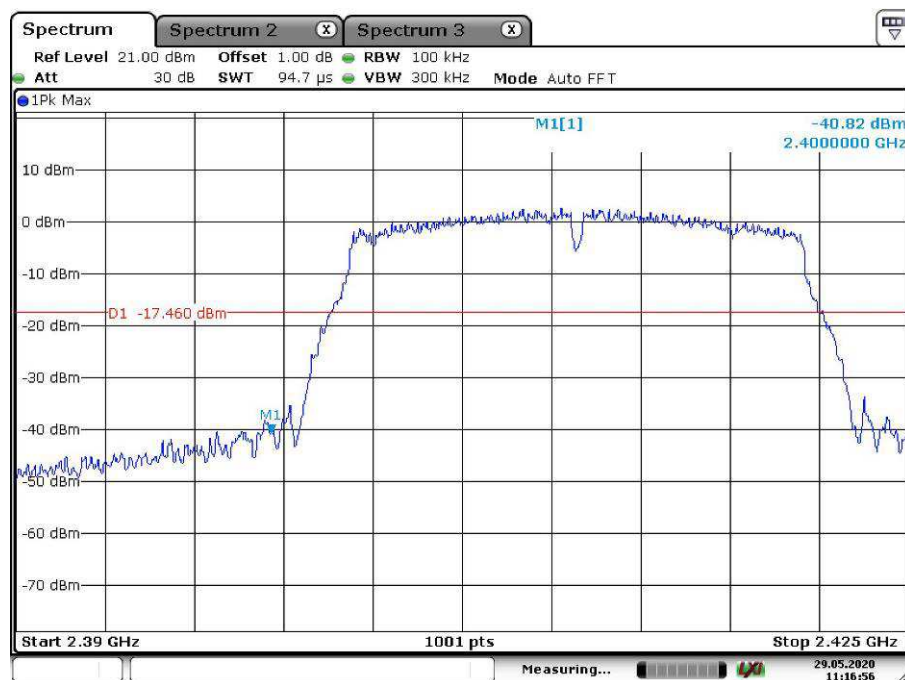


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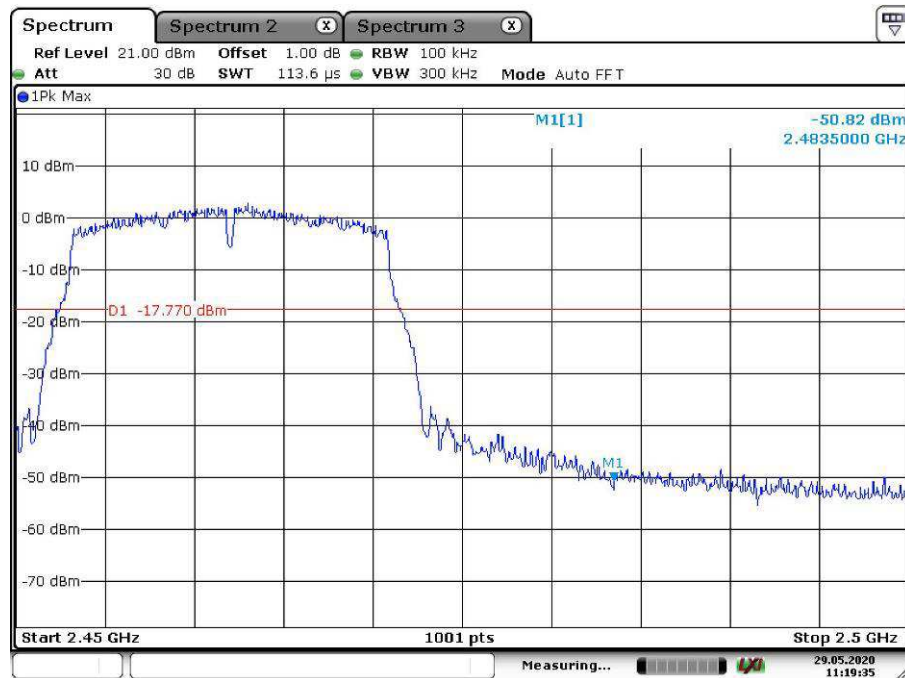


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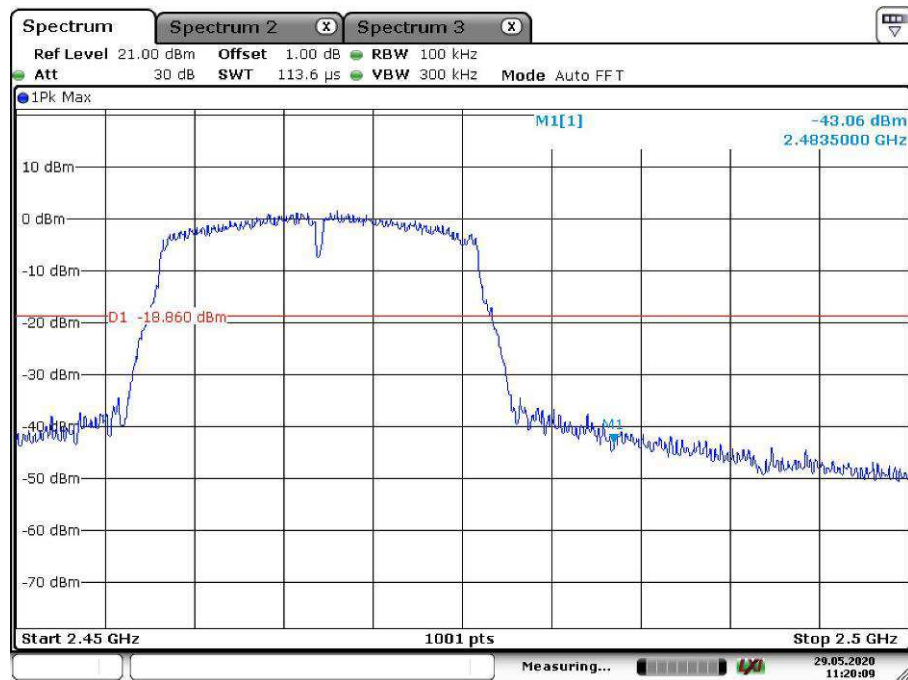
Wi-Fi 802.11 n(HT20) mode, Band Edge



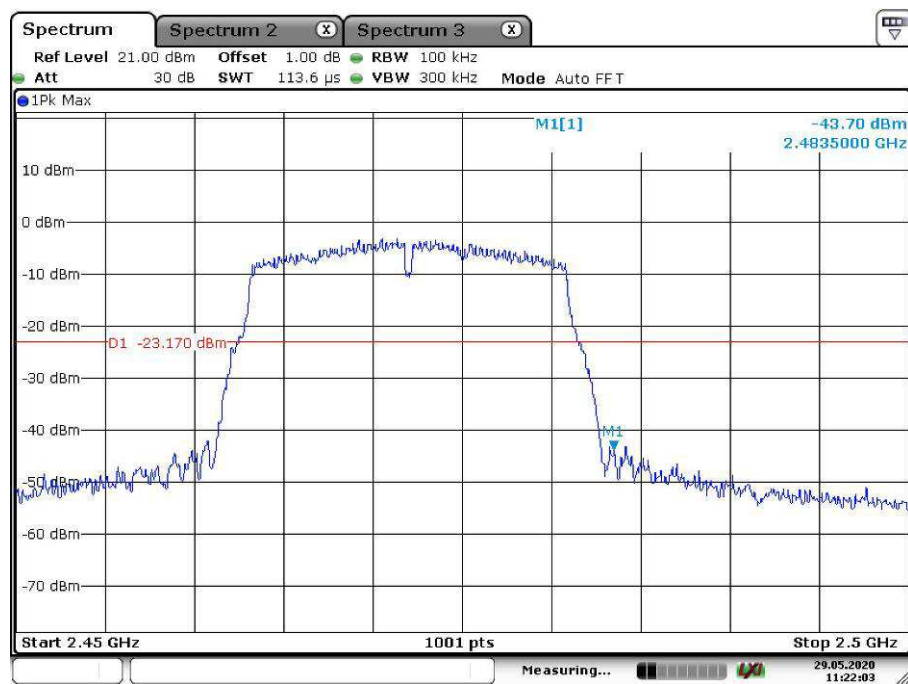
Date: 29.MAY.2020 11:16:56



Date: 29.MAY.2020 11:19:35



Date: 29.MAY.2020 11:20:09



Date: 29.MAY.2020 11:22:03

Note: Testing was carried out within frequency range 9kHz 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.5: Test Results of Radiated Spurious Emissions

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

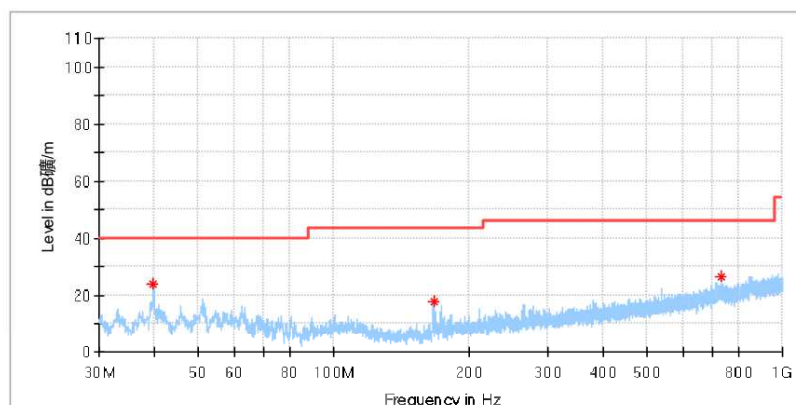
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W644
TestMode:	Wi-Fi 2.4G_Low Ch
TestVoltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:42%
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)
39.700000	23.80	---	40.00	16.20	100.0	H	339.0	-20.5
167.061000	17.73	---	43.50	25.77	100.0	H	95.0	-21.7
729.176000	26.42	---	46.00	19.58	100.0	H	214.0	-7.9

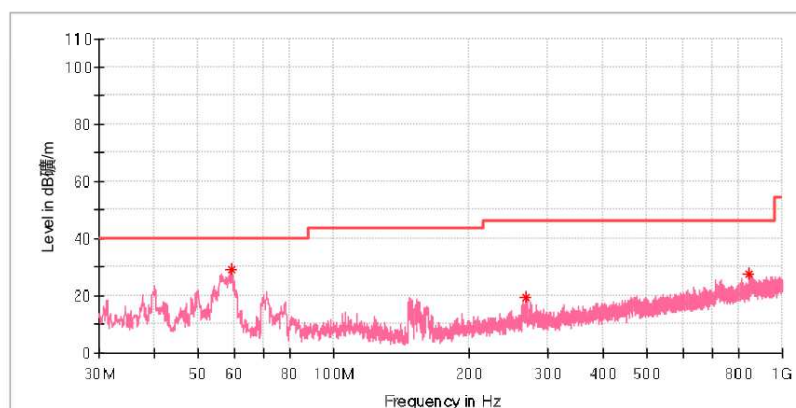
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W644
TestMode:	Wi-Fi 2.4G_Low Ch
Test Voltage::	AC 120V@60Hz
Remark:	Temp 23 Humi:42%
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)
59.391000	28.92	---	40.00	11.08	100.0	V	1.0	-19.2
269.202000	19.64	---	46.00	26.36	100.0	V	355.0	-17.3
845.139500	27.50	---	46.00	18.50	100.0	V	85.0	-6.0

2/7/2020

5:36:47 PM

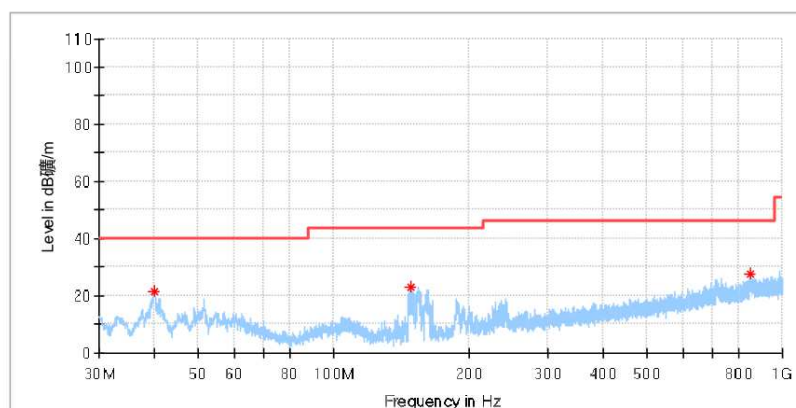
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W644
Test Mode:	Wi-Fi 2.4G_High Ch
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:42%
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)
39.748500	21.48	---	40.00	18.52	100.0	H	42.0	-20.5
148.582500	23.00	---	43.50	20.50	100.0	H	74.0	-22.5
845.285000	27.60	---	46.00	18.40	100.0	H	353.0	-6.0

2/7/2020

5:36:47 PM

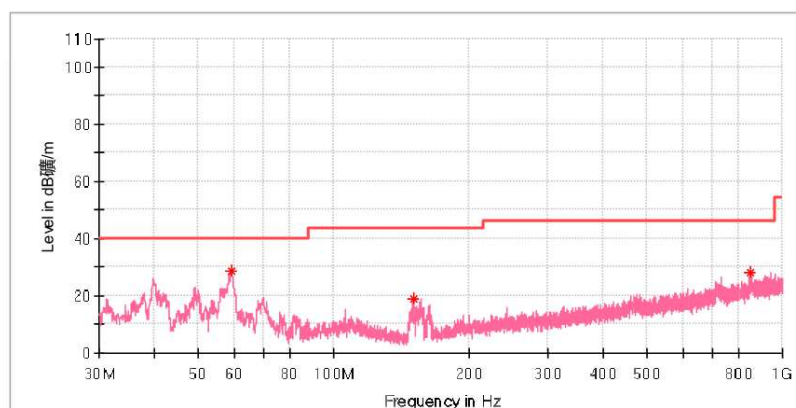
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W644
Test Mode:	Wi-Fi 2.4G_High Ch
Test Voltage:	AC 120V@60Hz
Remark:	Temp 23 Humi:42%
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)
59.100000	28.63	---	40.00	11.37	100.0	V	191.0	-19.2
151.056000	19.00	---	43.50	24.50	100.0	V	44.0	-22.5
845.382000	27.95	---	46.00	18.05	100.0	V	331.0	-6.0

2/7/2020

5:36:47 PM

1GHz - 18GHz

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

Wi-Fi 802.11 b mode, 1 Mbps

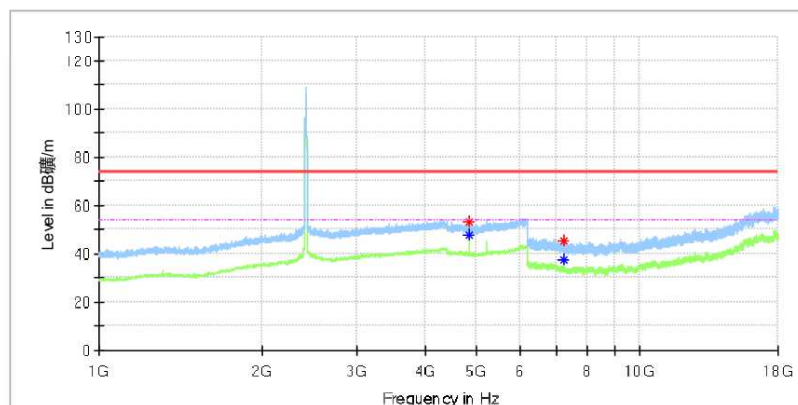
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W644
TestMode:	Wi-Fi 2.4G 11b_Ch1
TestVoltage::	AC 120V@60Hz
Remark:	Temp 24 Humi:45%
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)
4823.500000	53.05	---	74.00	20.95	100.0	H	47.0	13.5
4824.000000	---	47.92	54.00	6.08	100.0	H	1.0	13.5
7234.958333	45.06	---	74.00	28.94	100.0	H	293.0	8.6
7234.958333	---	37.67	54.00	16.33	100.0	H	293.0	8.6

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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