

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

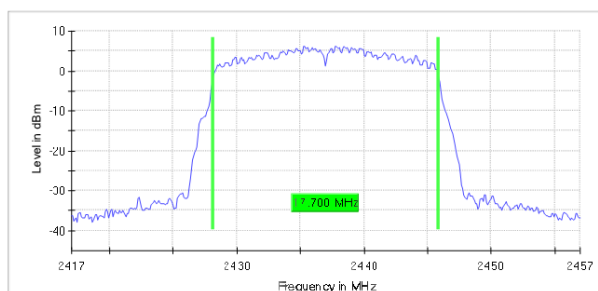
99 % Bandwidth

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

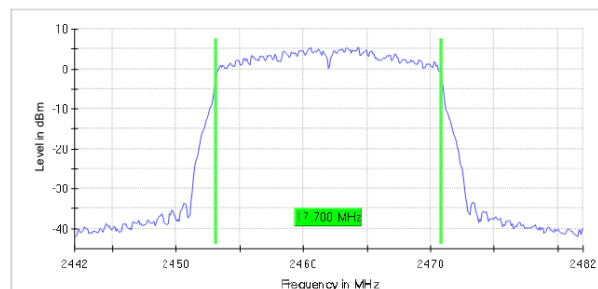
99 % Bandwidth

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

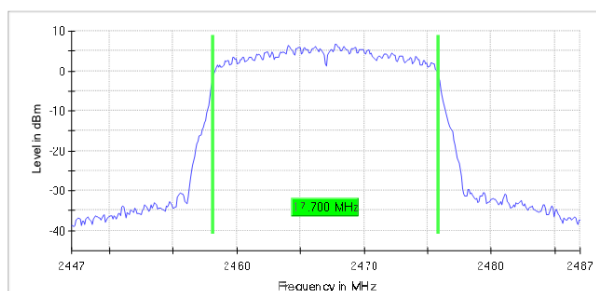
99 % Bandwidth

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

99 % Bandwidth



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

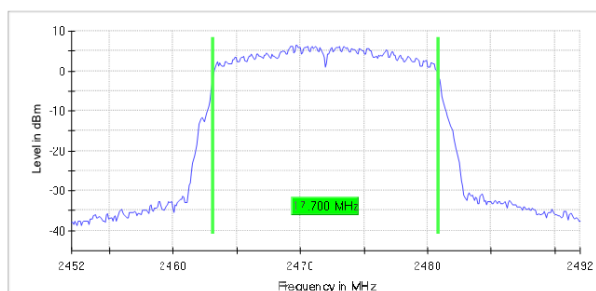
99 % Bandwidth

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

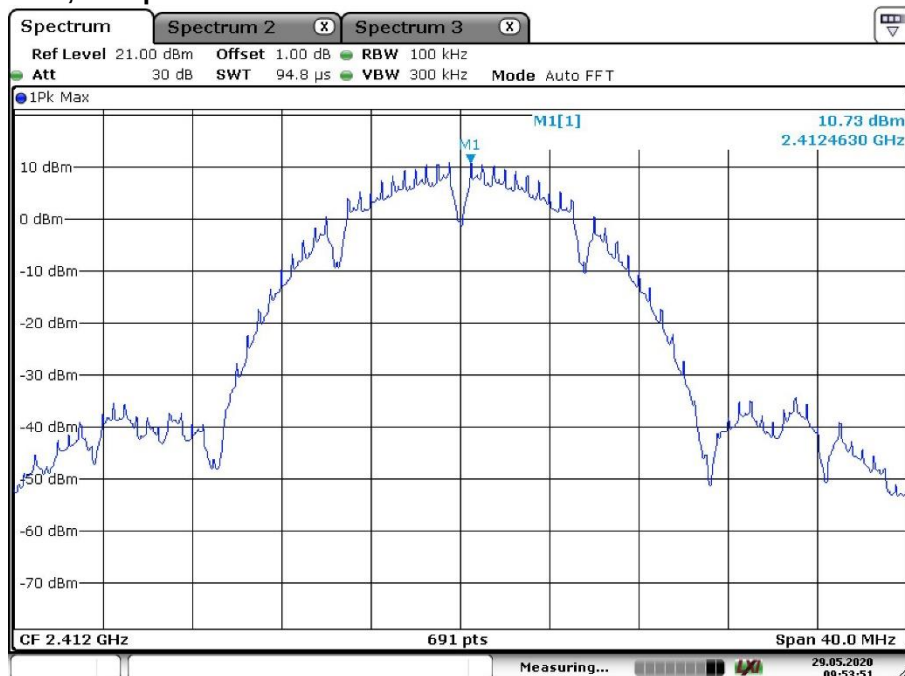


Measurement

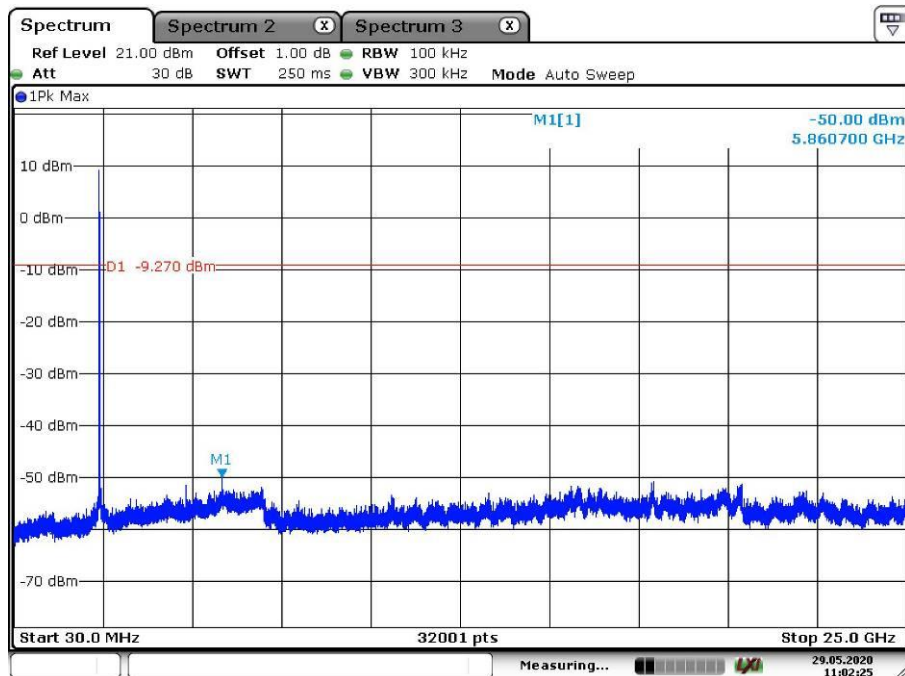
Setting	Instrument Value	Target Value
Start Frequency	2.45200 GHz	2.45200 GHz
Stop Frequency	2.49200 GHz	2.49200 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	47.266 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	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

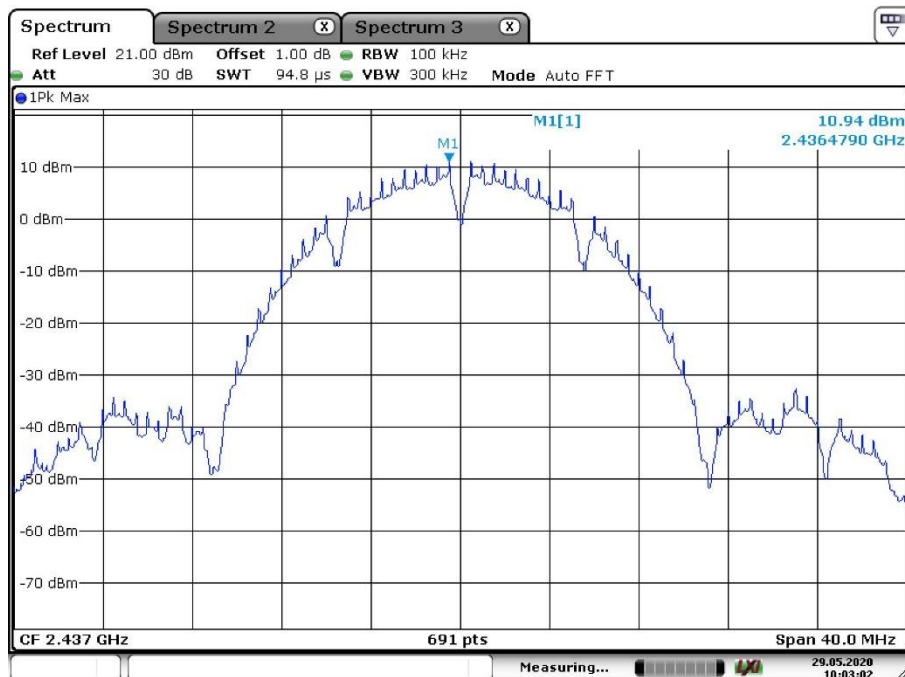
Wi-Fi 802.11 b mode, 1 Mbps



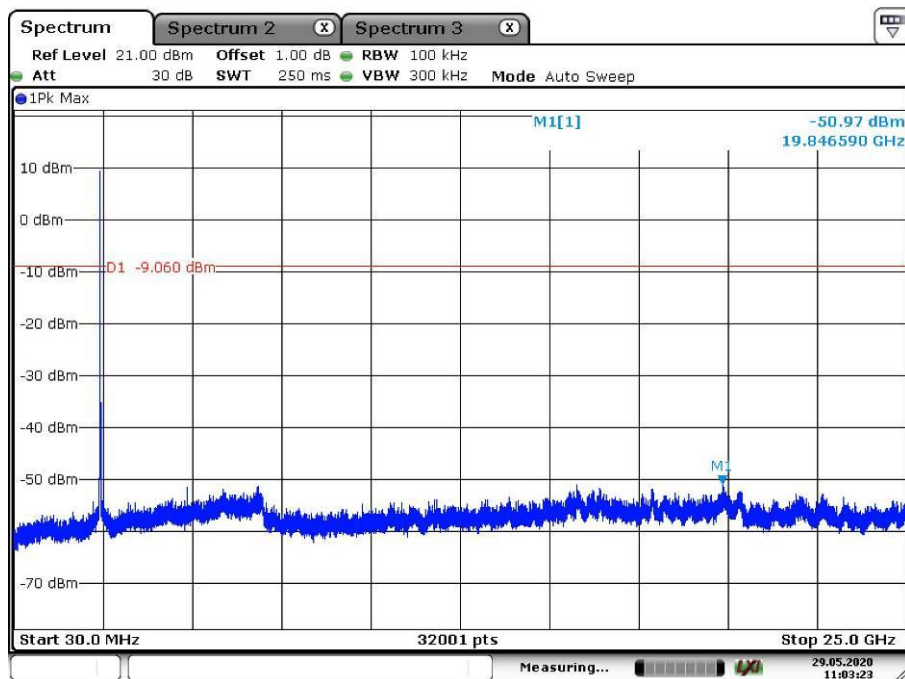
Date: 29.MAY.2020 09:53:51



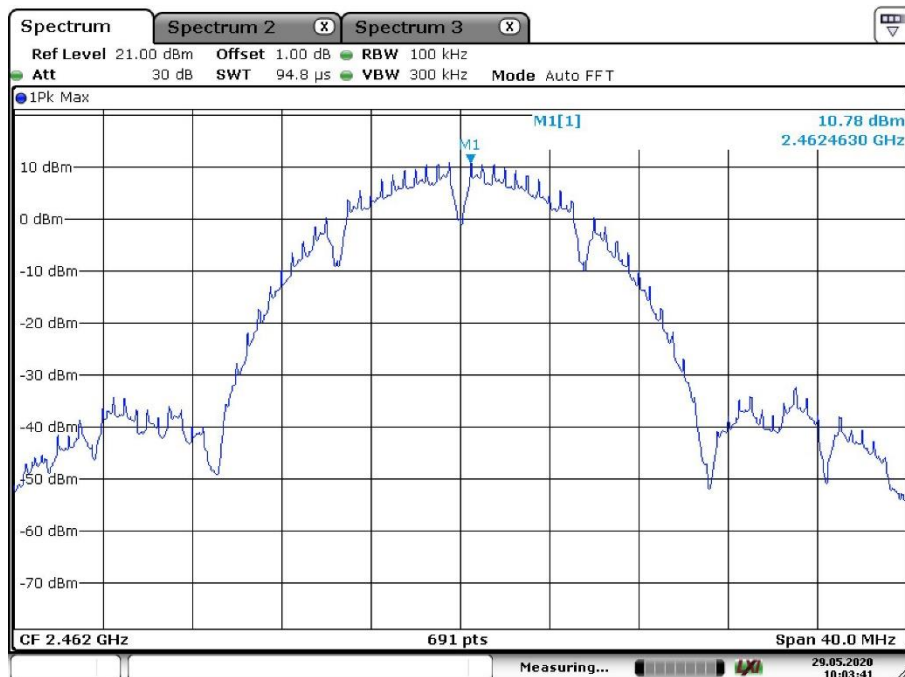
Date: 29.MAY.2020 11:02:25



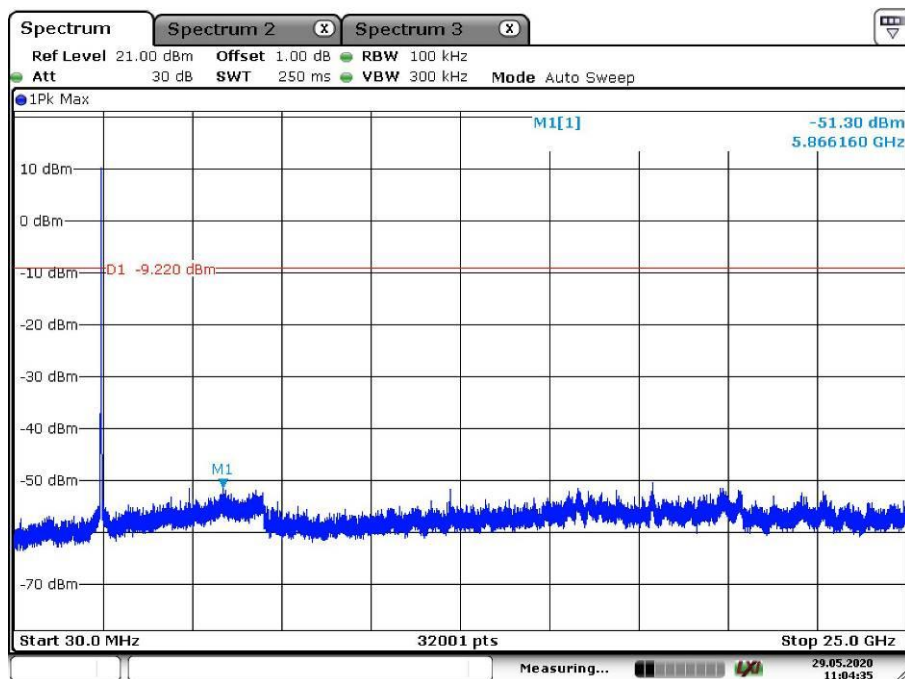
Date: 29.MAY.2020 10:03:02



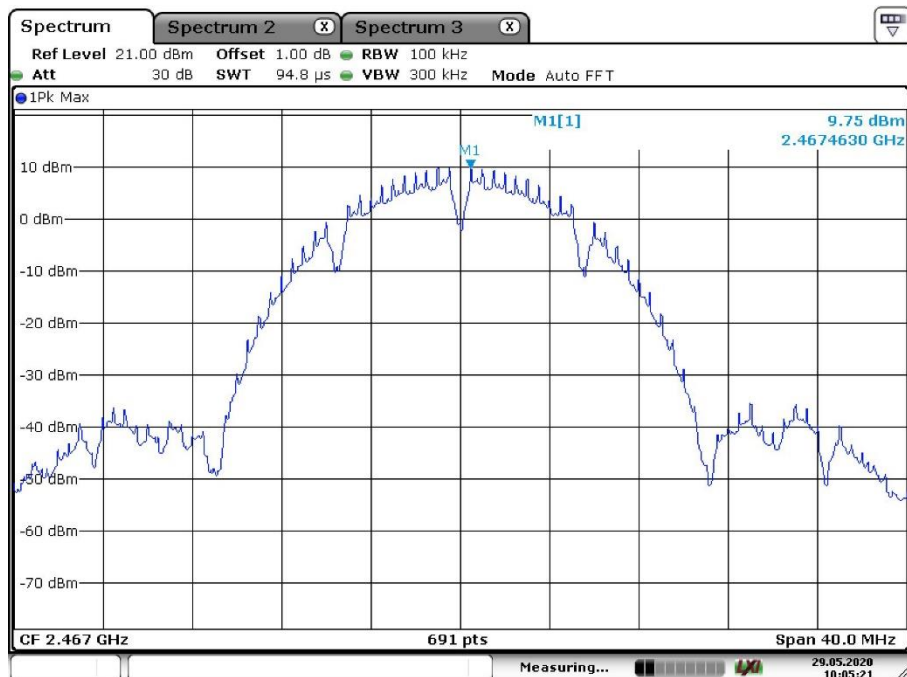
Date: 29.MAY.2020 11:03:23



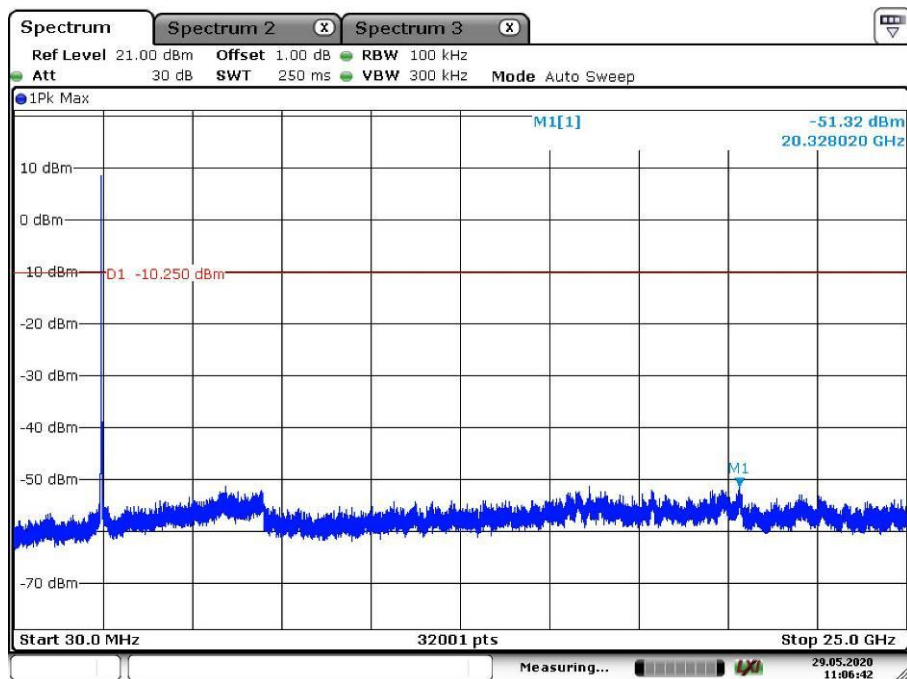
Date: 29.MAY.2020 10:03:41



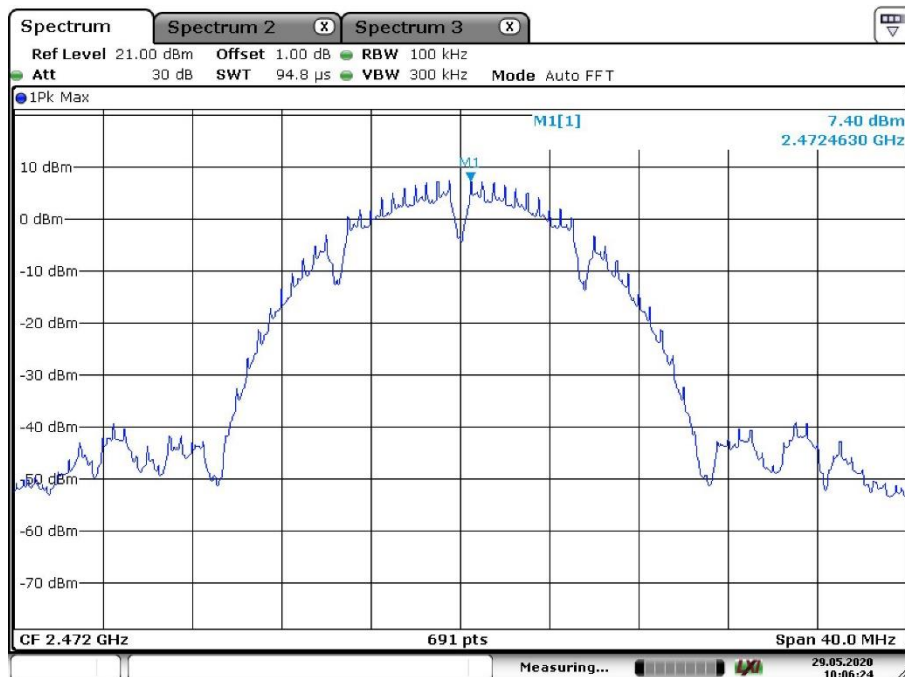
Date: 29.MAY.2020 11:04:35



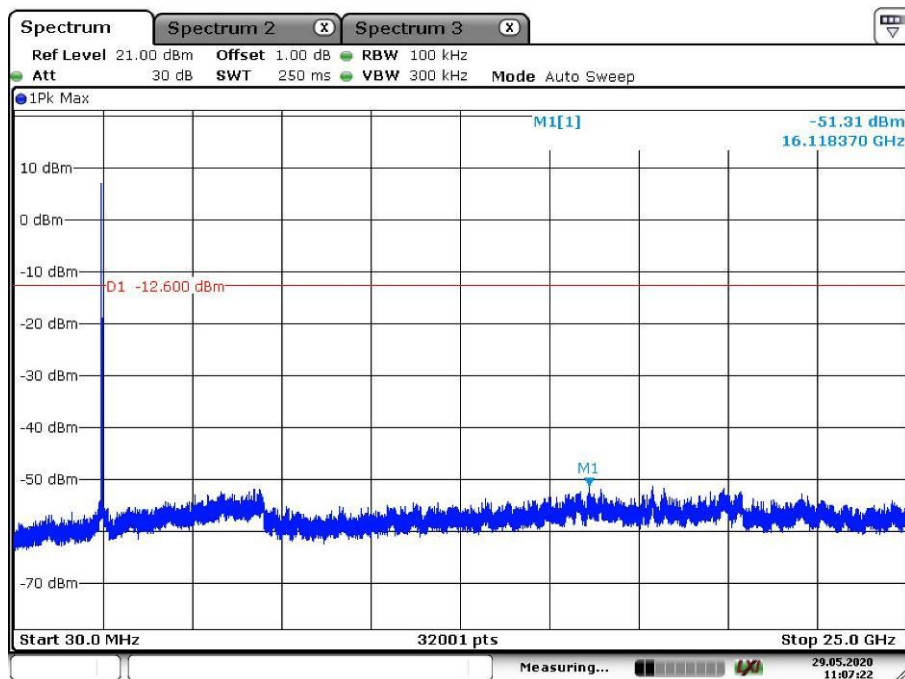
Date: 29.MAY.2020 10:05:20



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

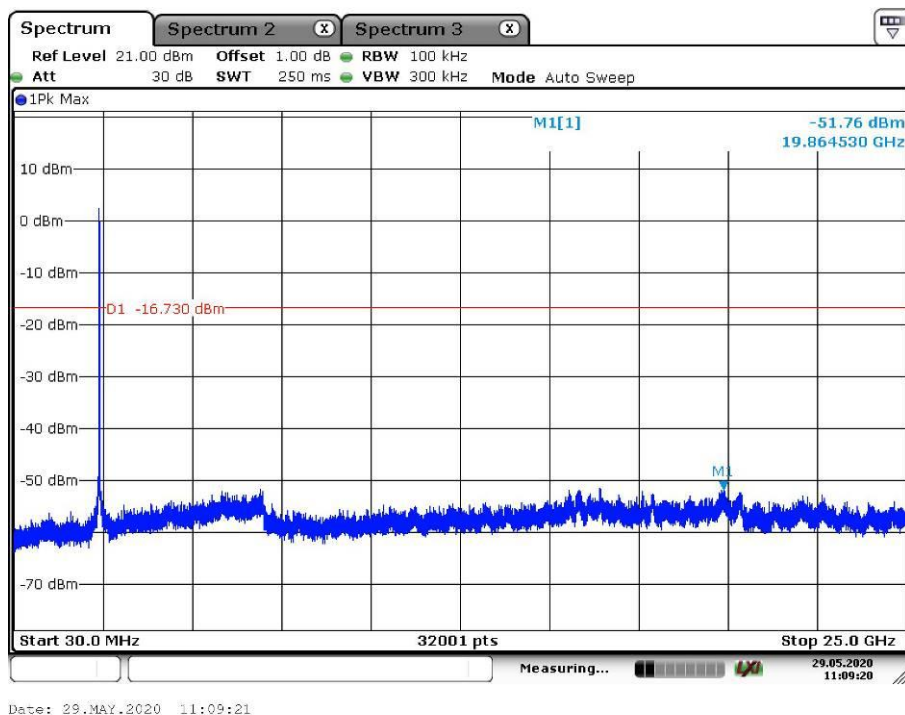
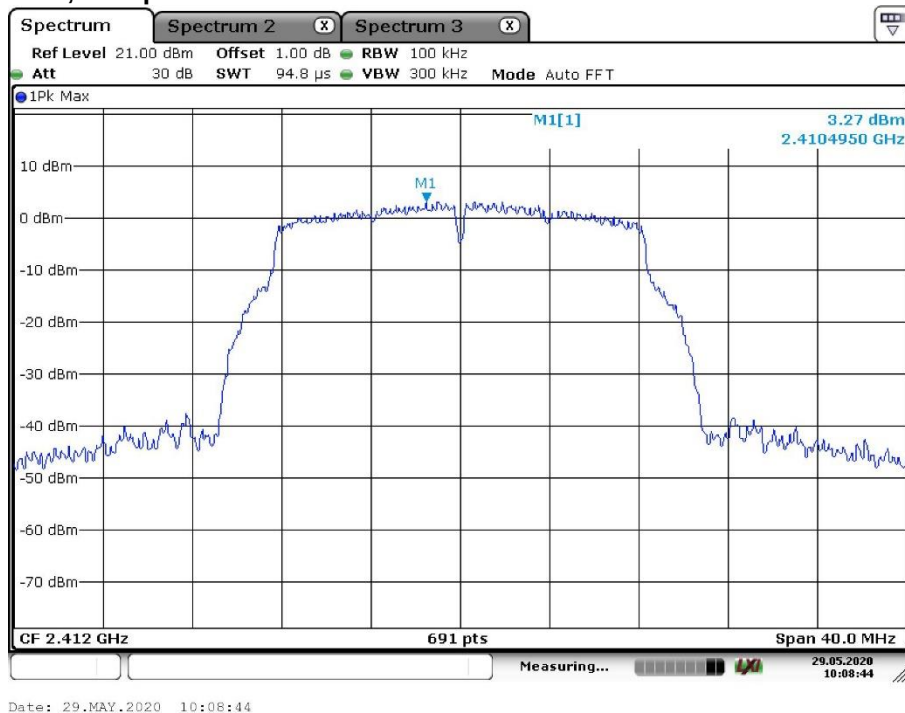


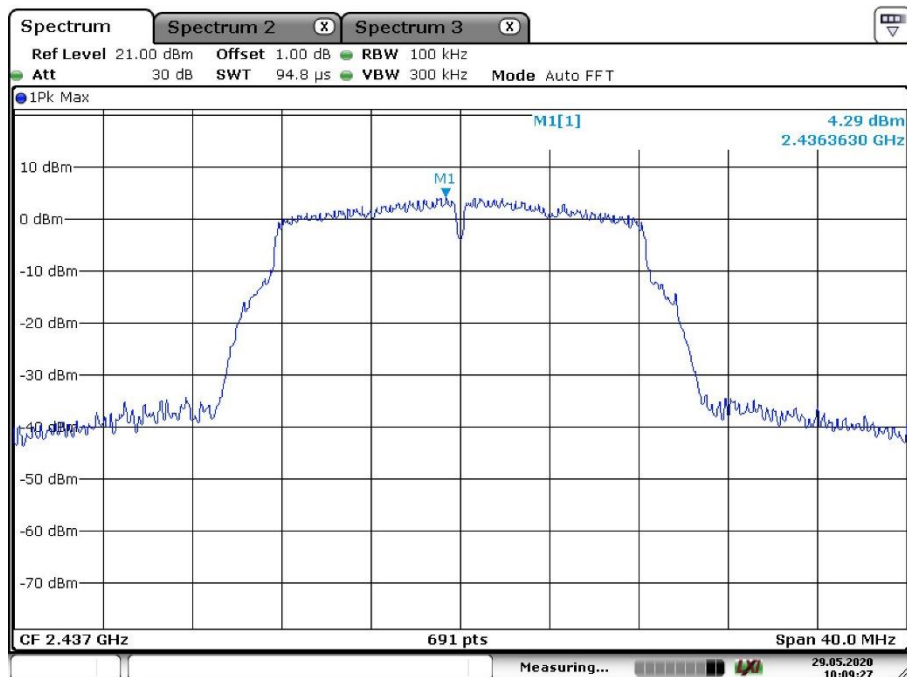
Date: 29.MAY.2020 10:06:23



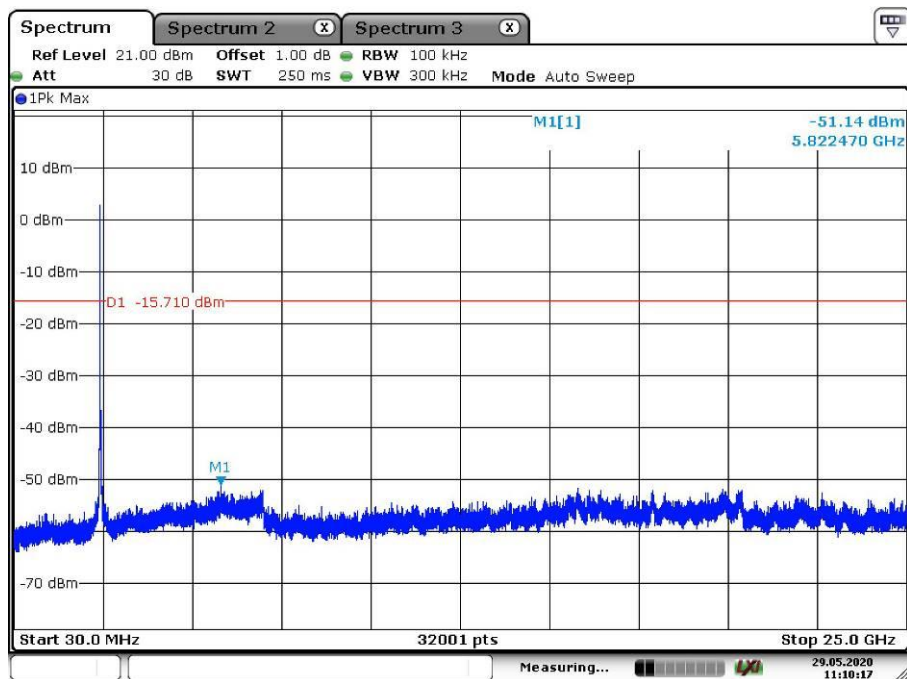
Date: 29.MAY.2020 11:07:22

Wi-Fi 802.11 g mode, 6 Mbps

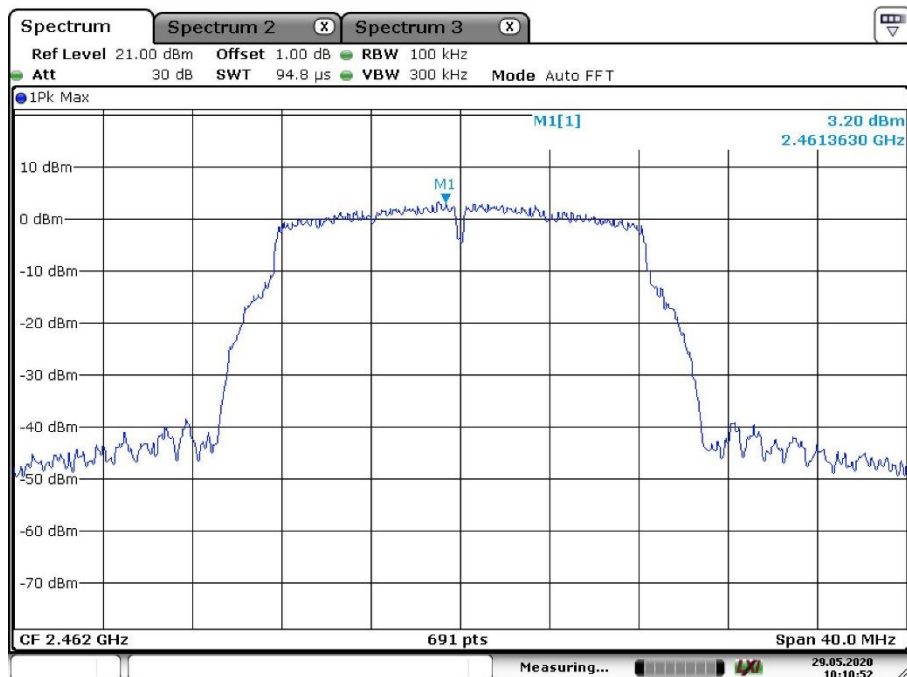




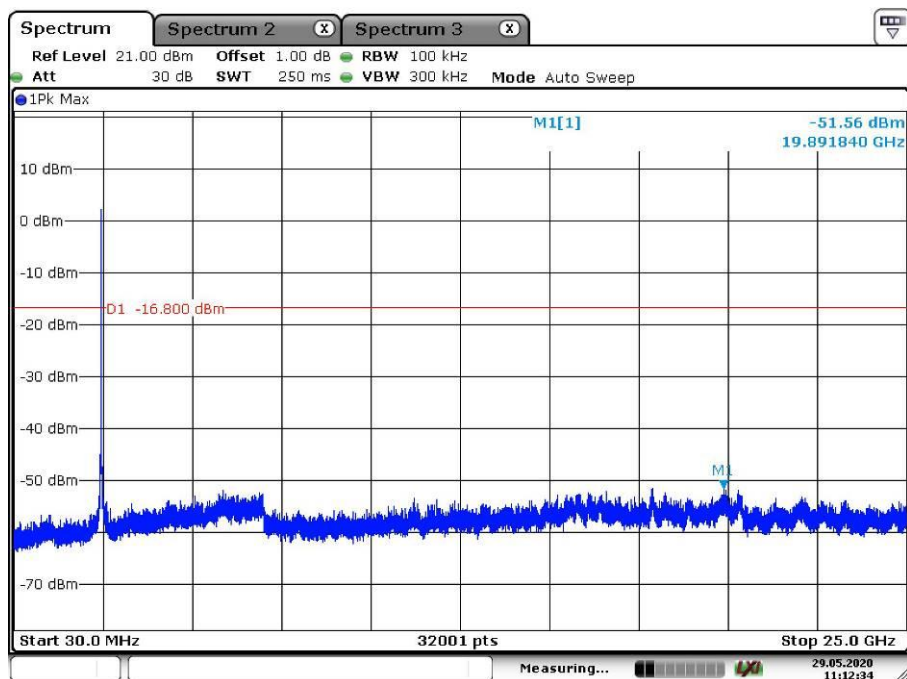
Date: 29.MAY.2020 10:09:27



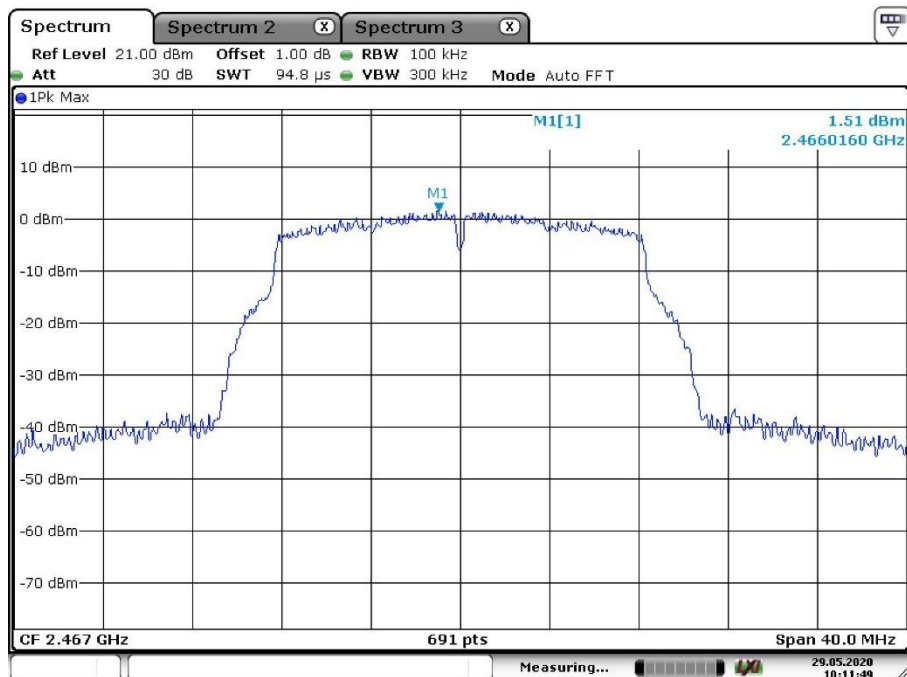
Date: 29.MAY.2020 11:10:17



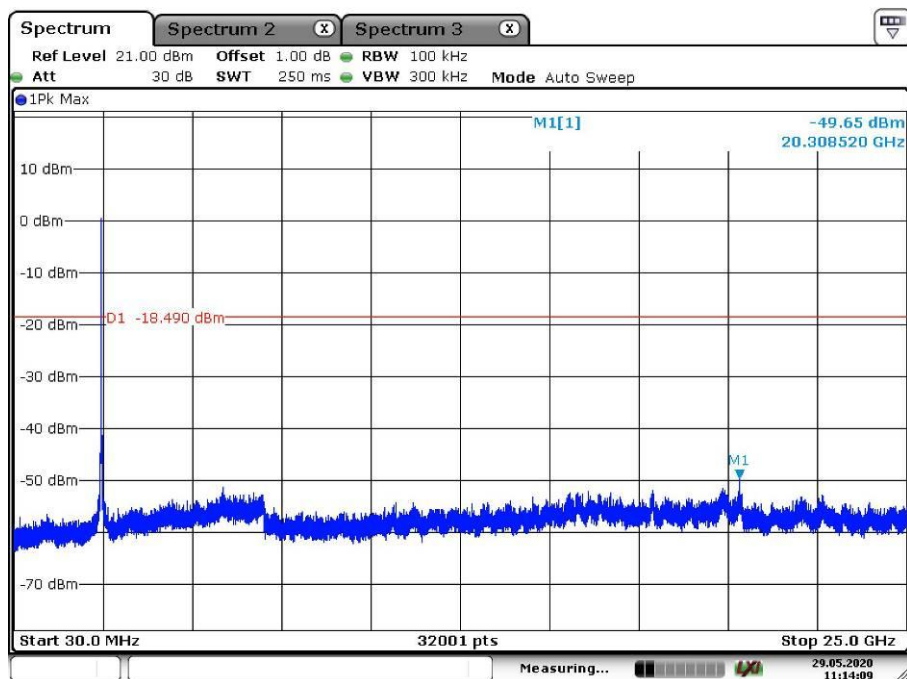
Date: 29.MAY.2020 10:10:52



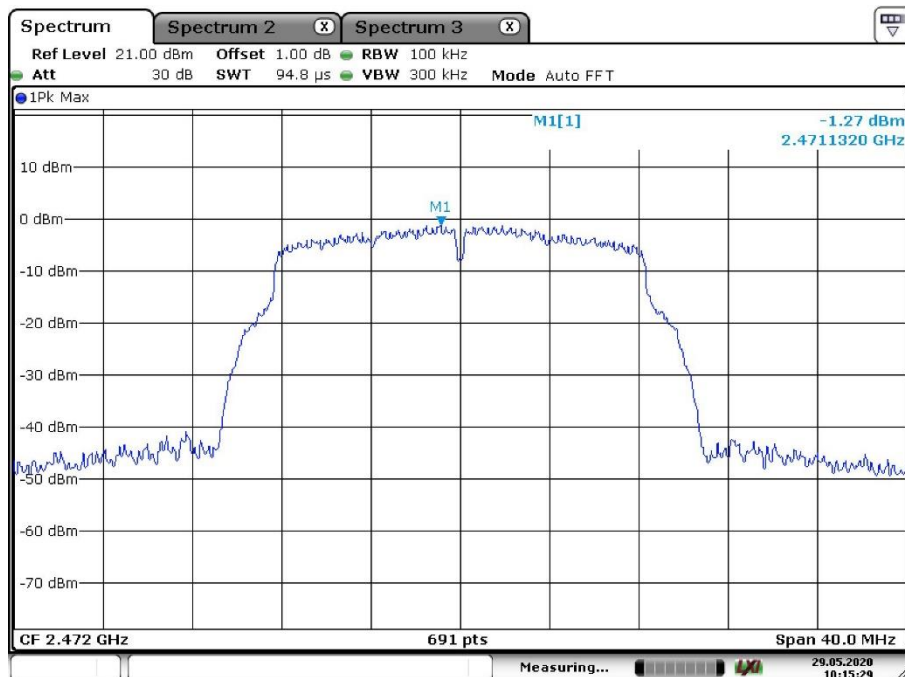
Date: 29.MAY.2020 11:12:34



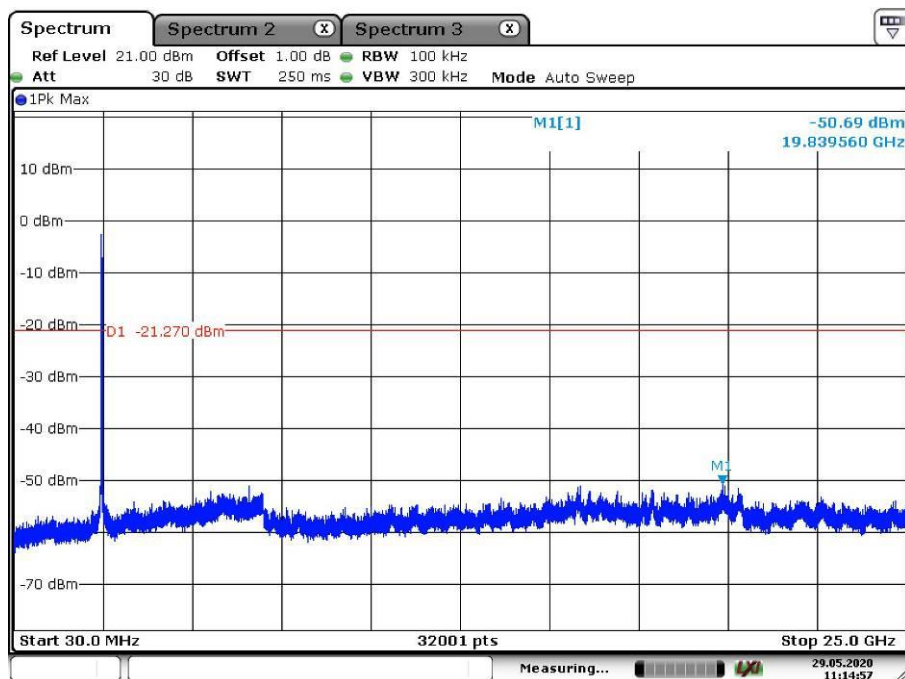
Date: 29.MAY.2020 10:11:49



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

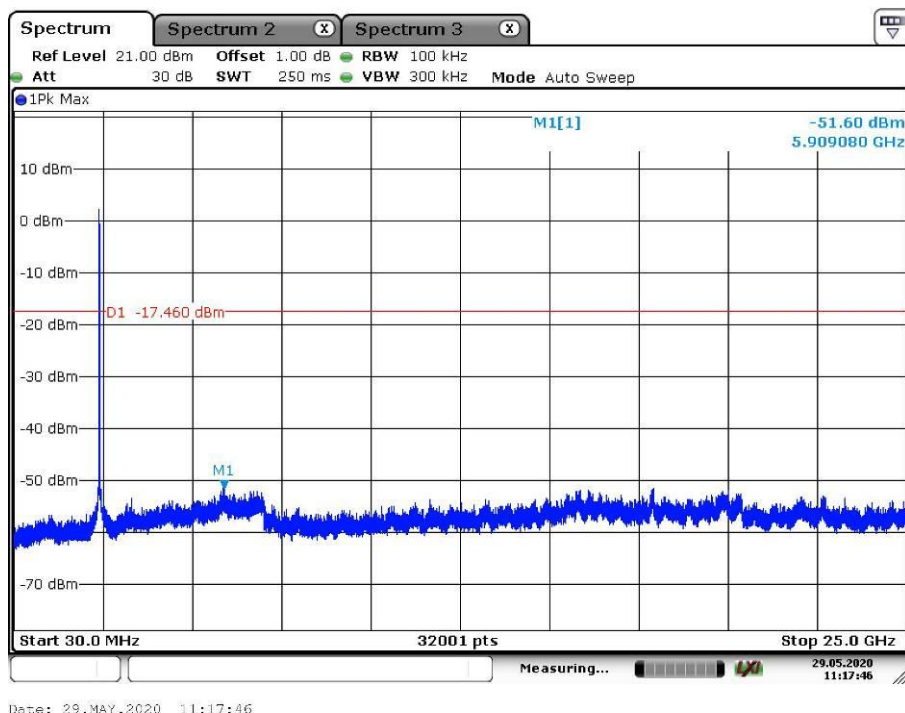
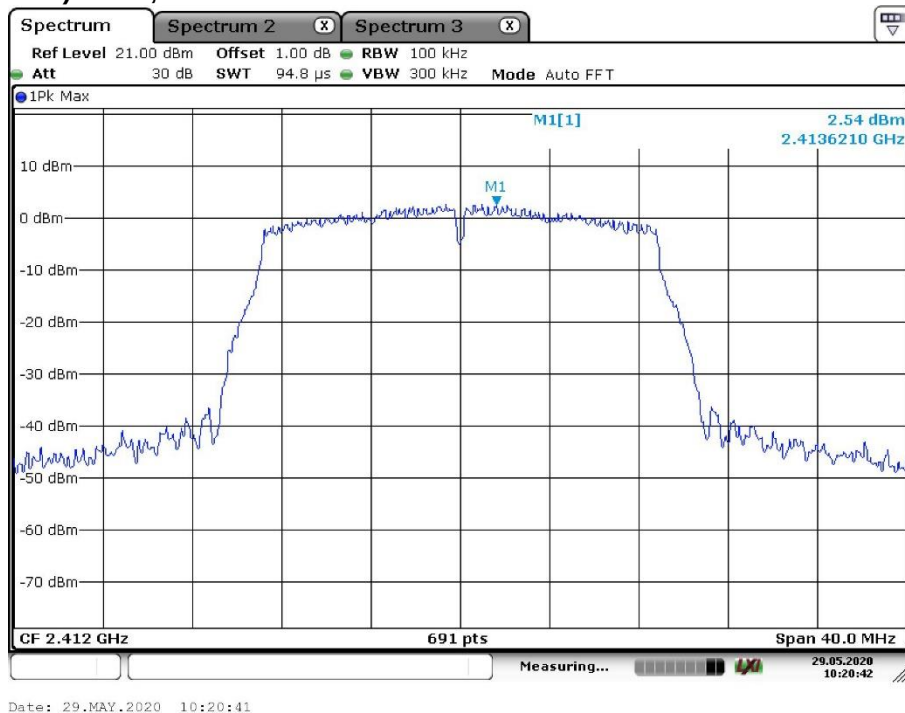


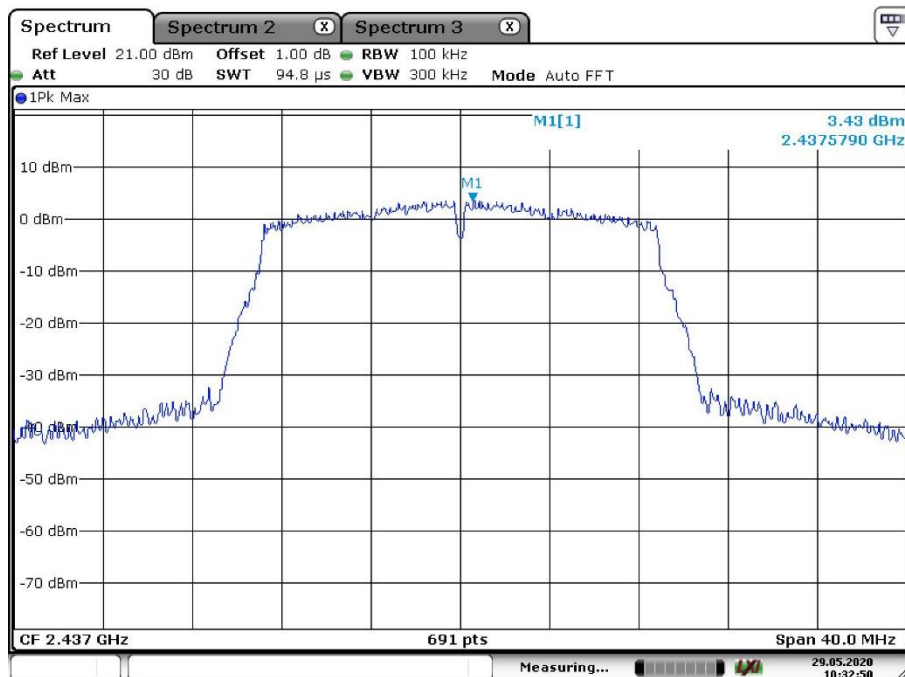
Date: 29.MAY.2020 10:15:29



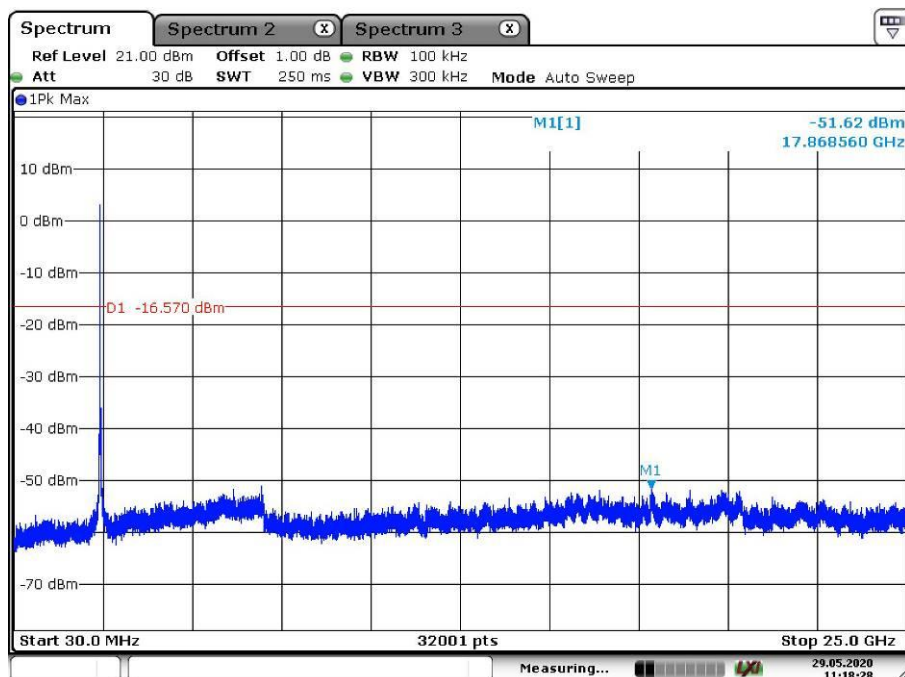
Date: 29.MAY.2020 11:14:57

Wi-Fi 802.11 n(HT20) mode, MCS0

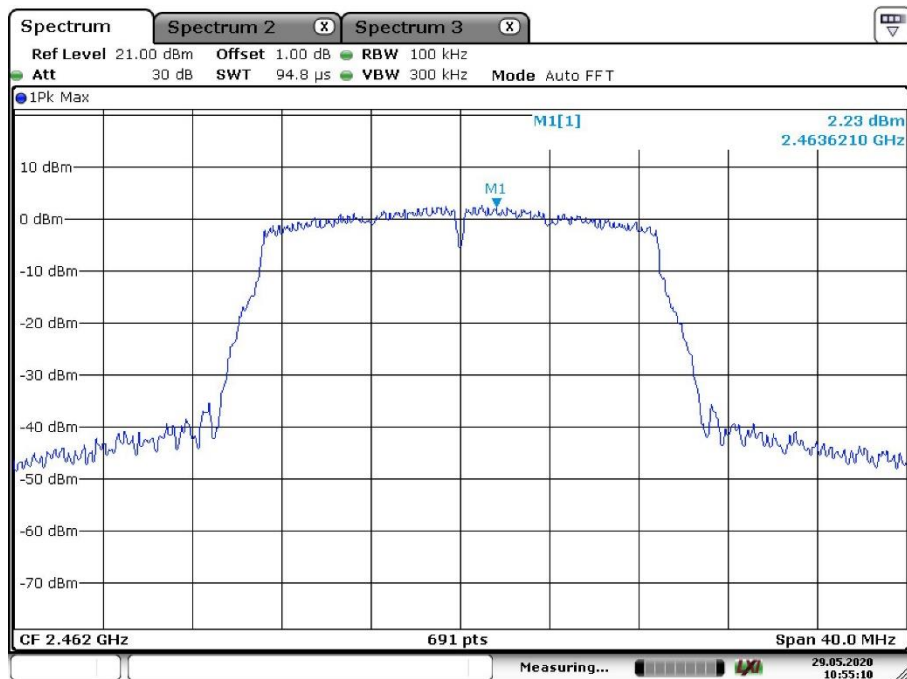




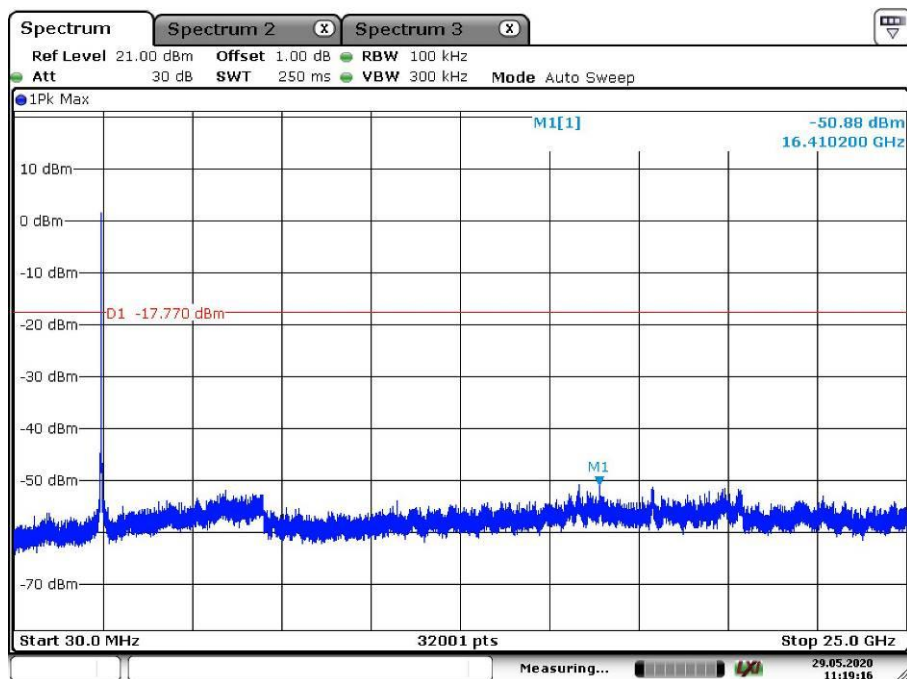
Date: 29.MAY.2020 10:32:50



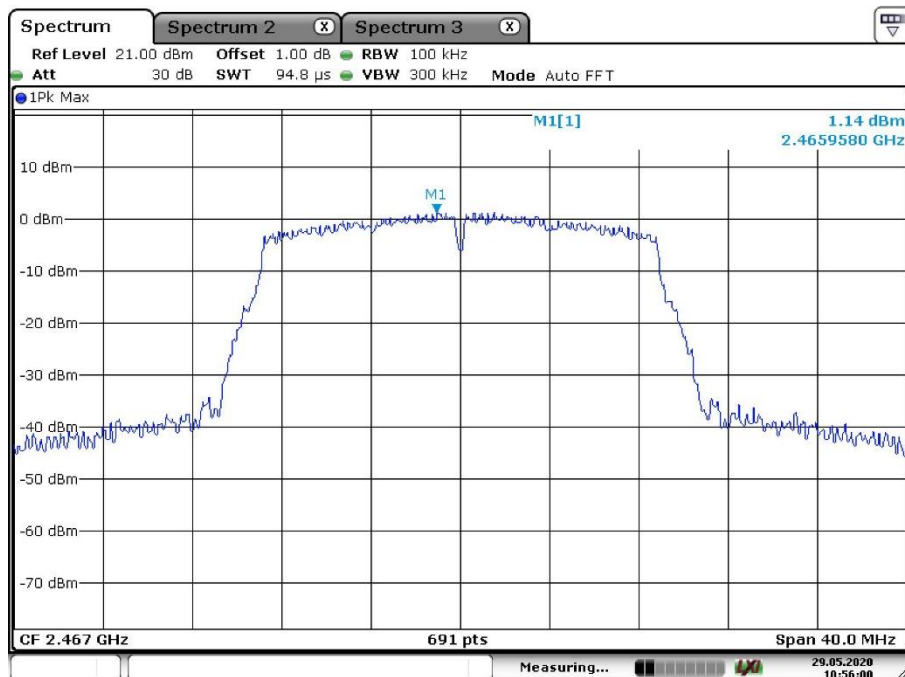
Date: 29.MAY.2020 11:18:29



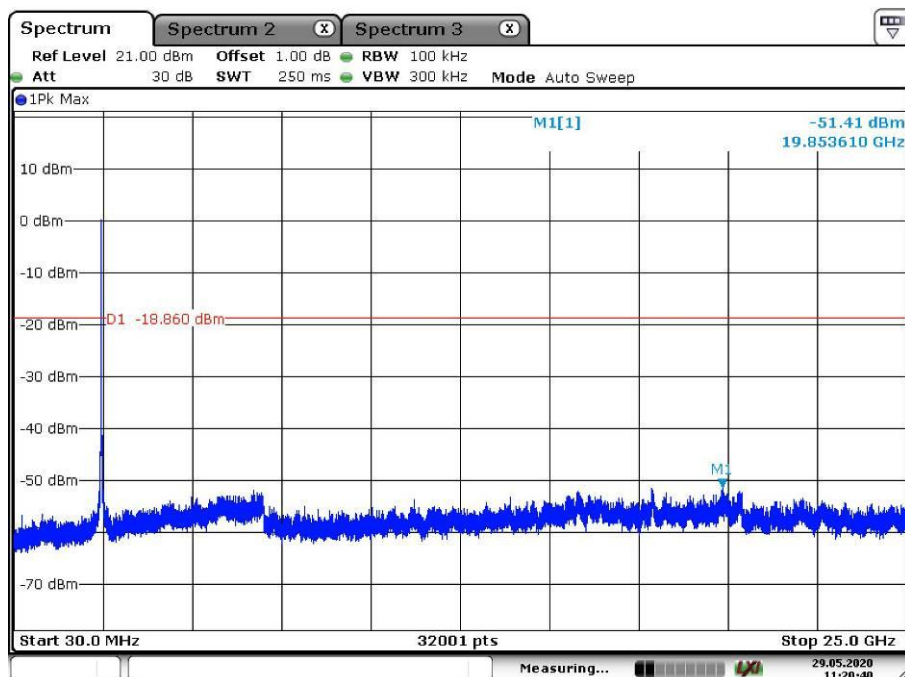
Date: 29.MAY.2020 10:55:11



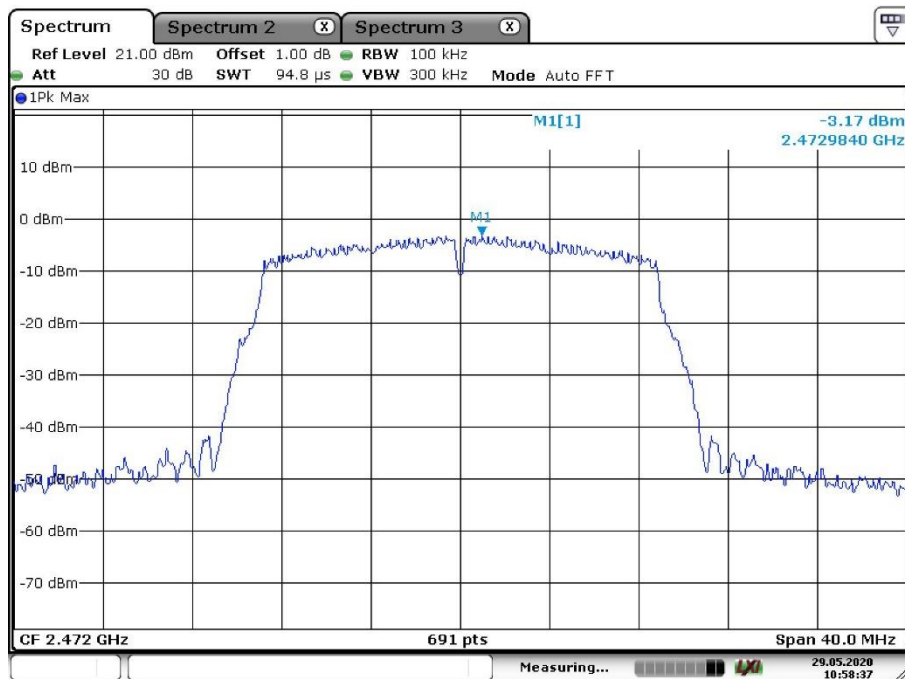
Date: 29.MAY.2020 11:19:16



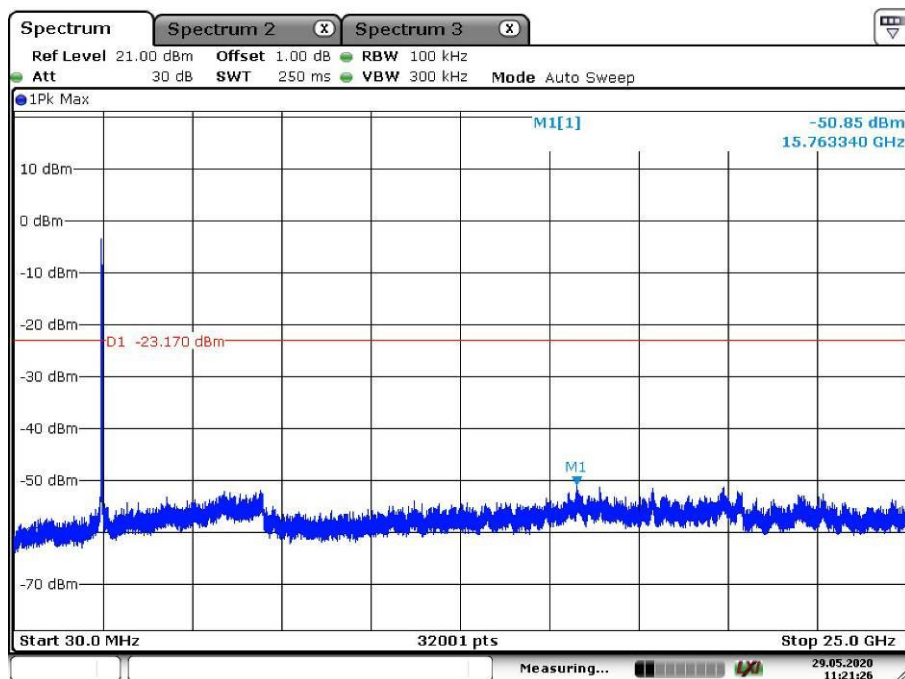
Date: 29.MAY.2020 10:56:00



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

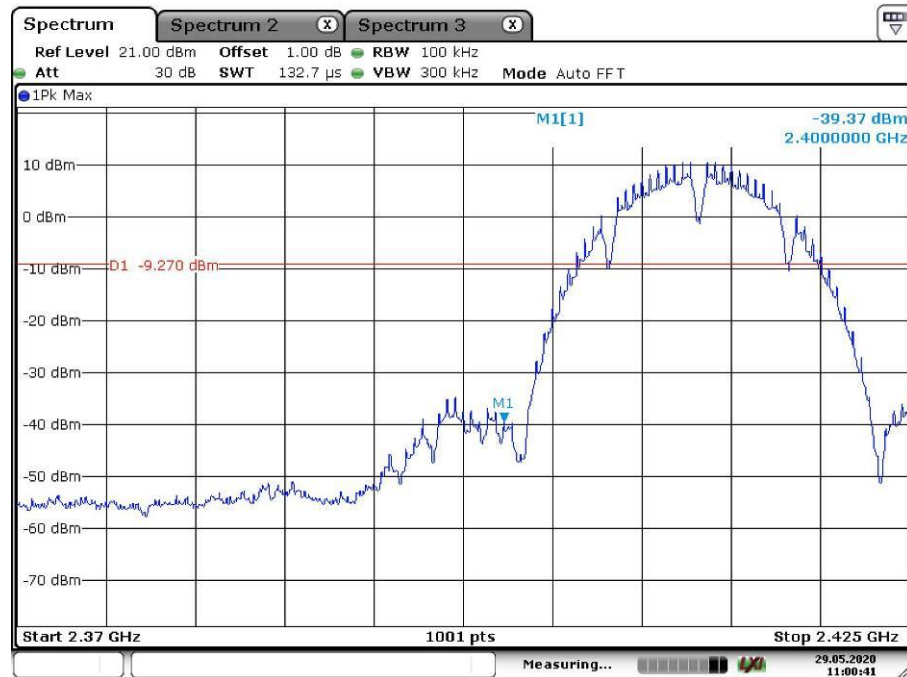


Date: 29.MAY.2020 10:58:37



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

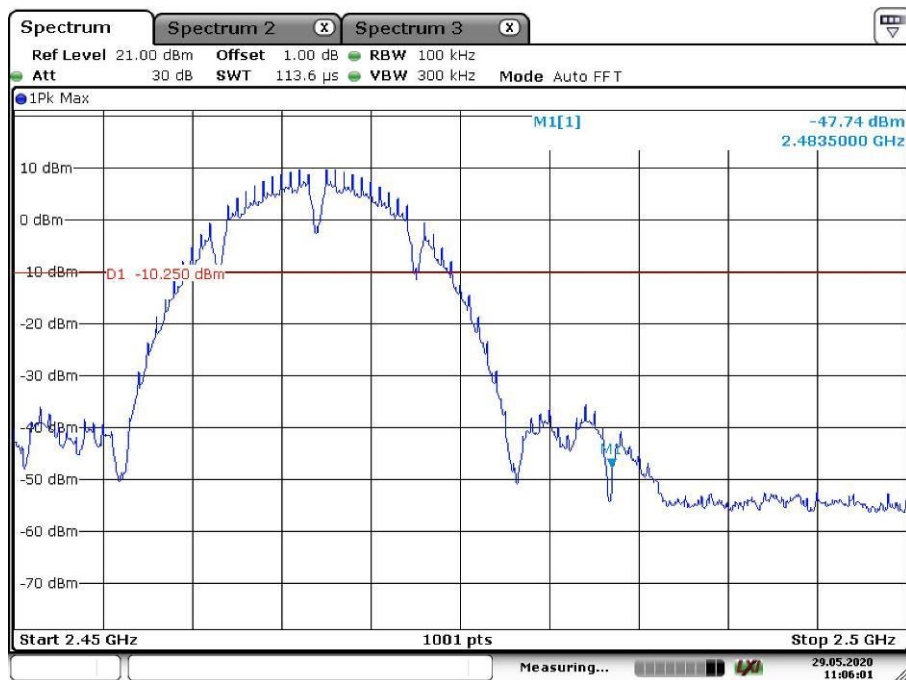
Wi-Fi 802.11 b mode, Band Edge



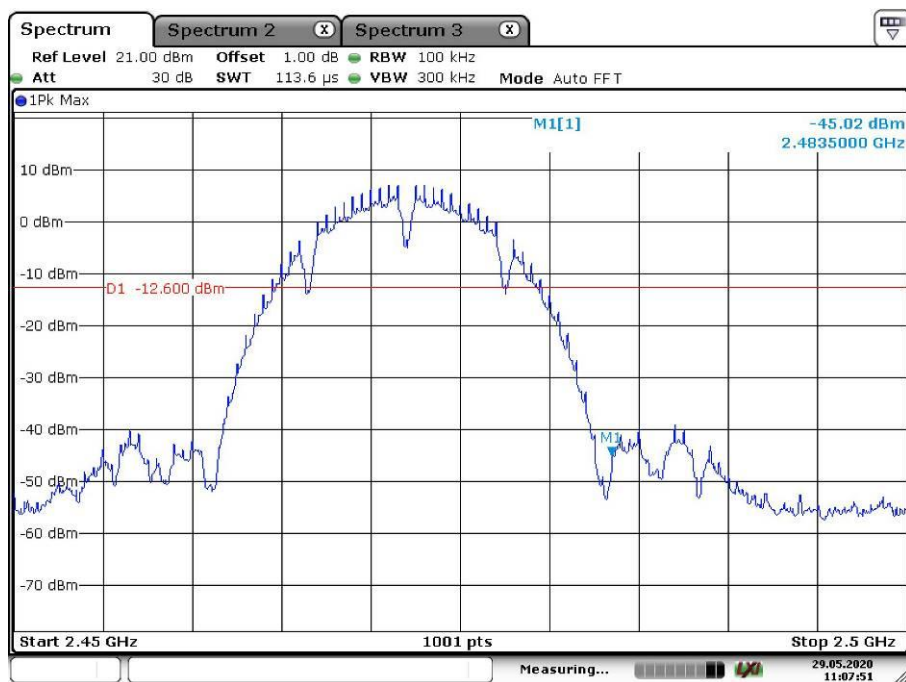
Date: 29.MAY.2020 11:00:41



Date: 29.MAY.2020 11:05:02

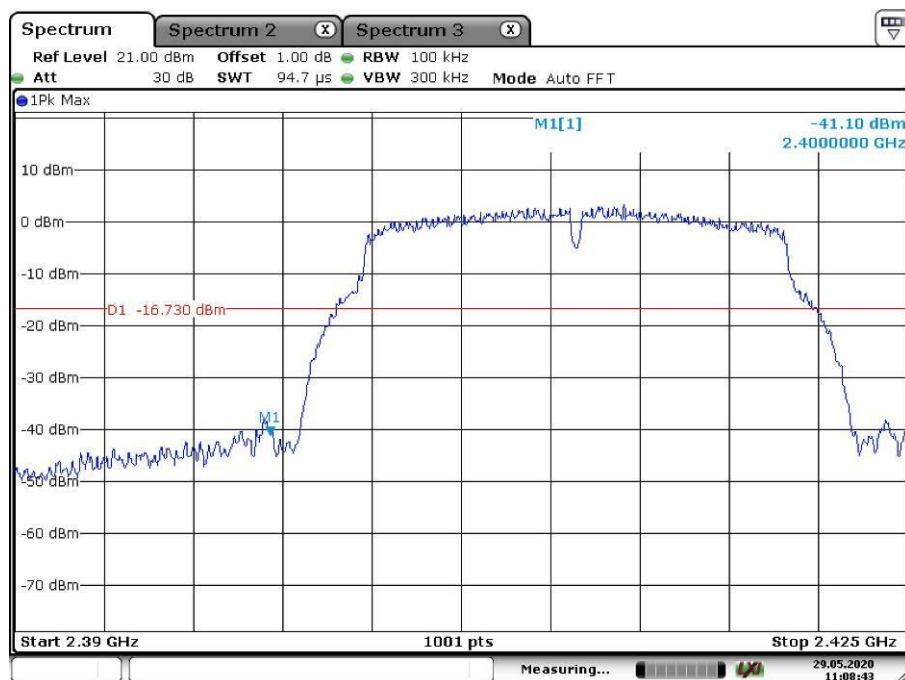


Date: 29.MAY.2020 11:06:01

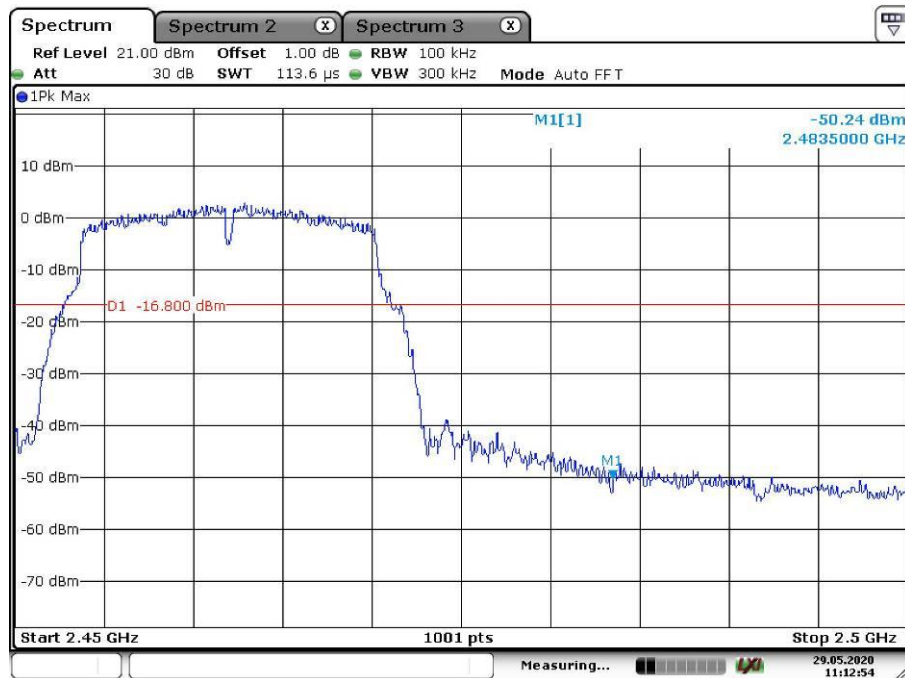


Date: 29.MAY.2020 11:07:51

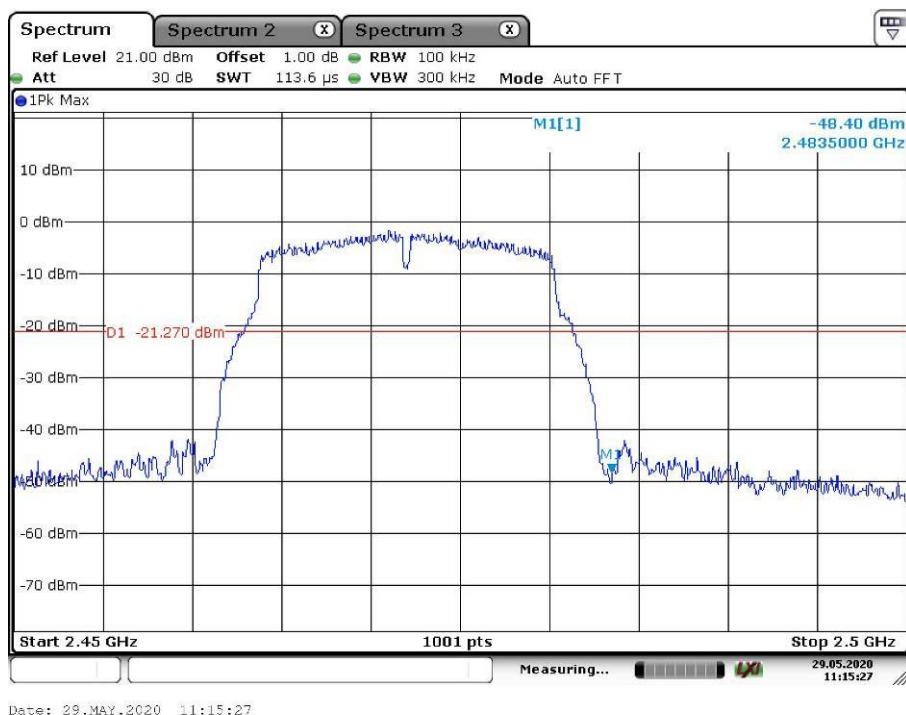
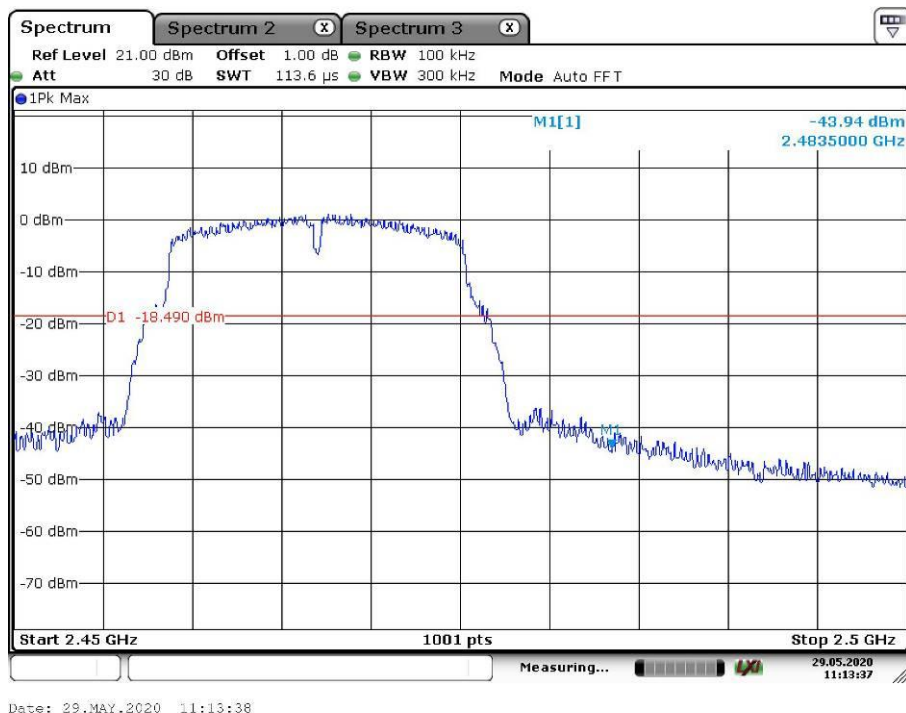
Wi-Fi 802.11 g mode, Band Edge



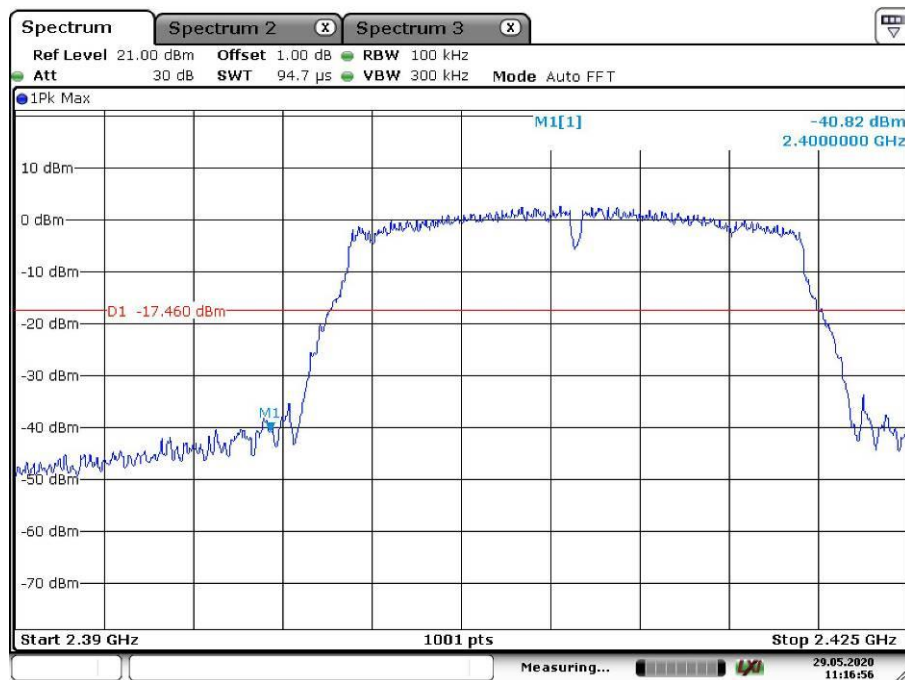
Date: 29.MAY.2020 11:08:44



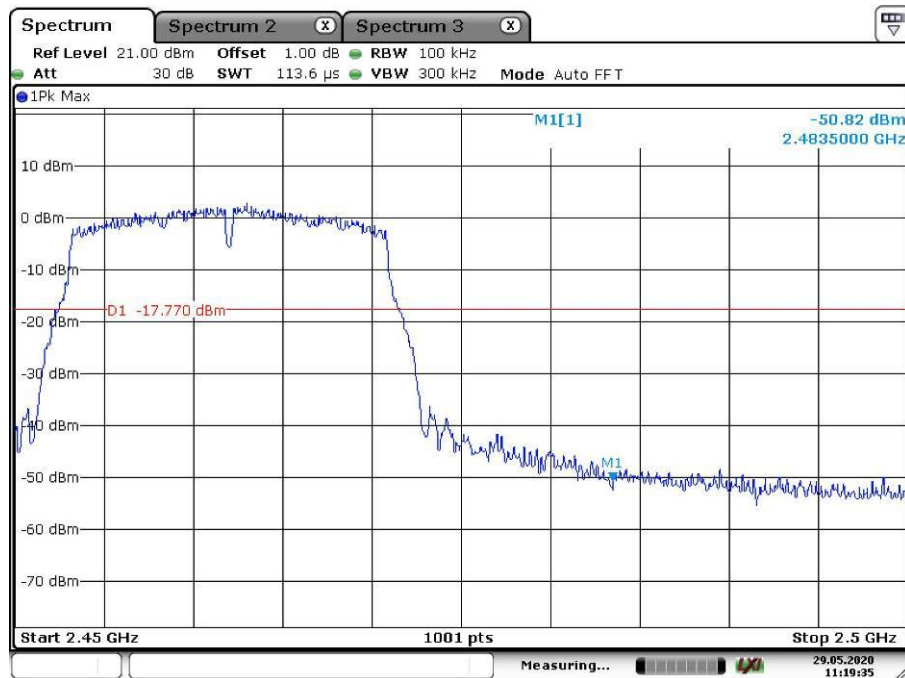
Date: 29.MAY.2020 11:12:55



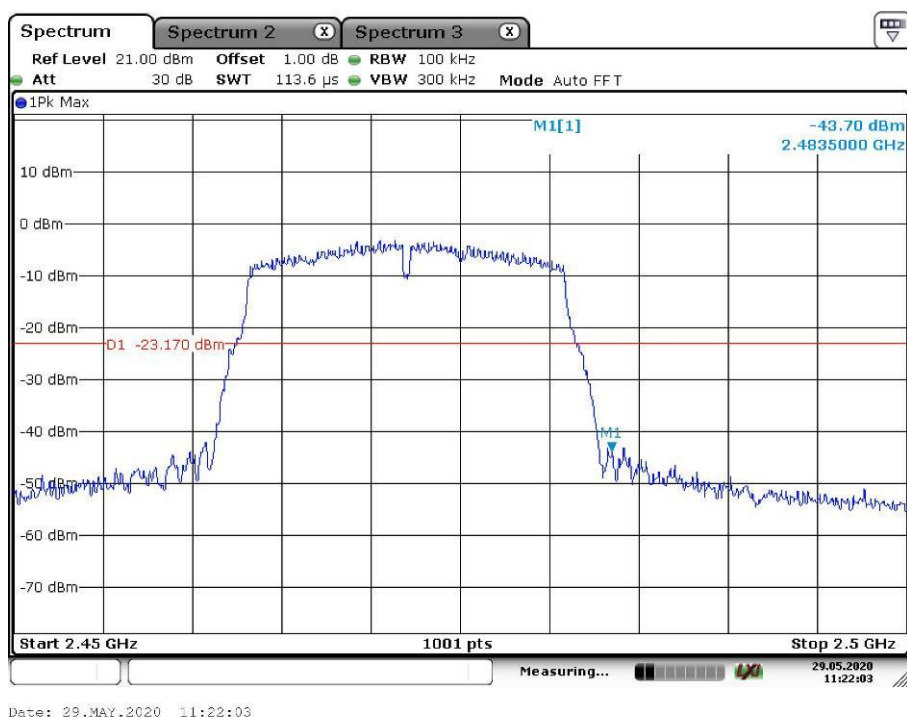
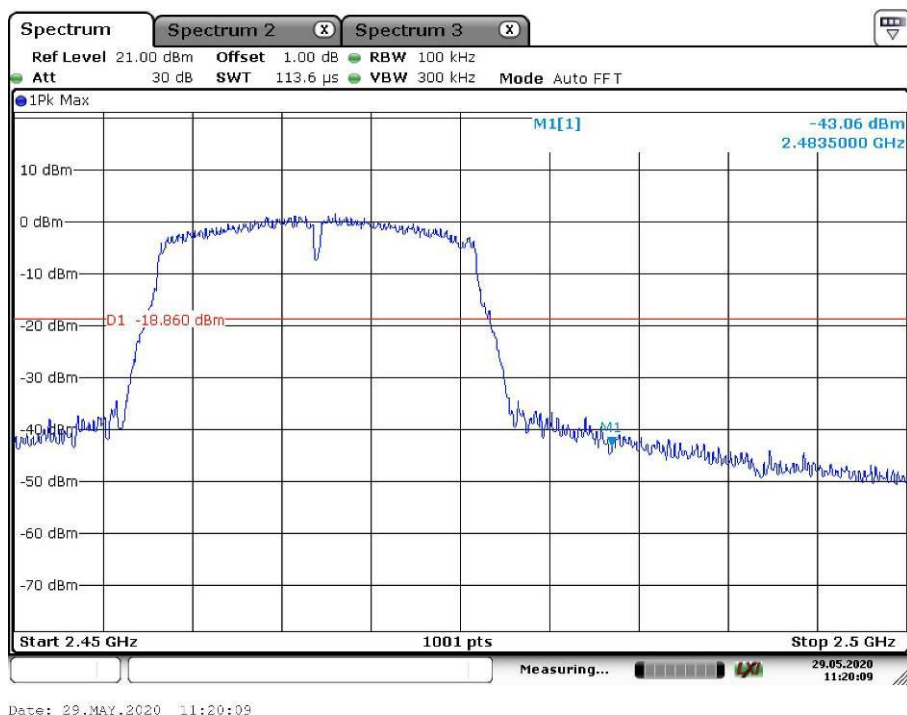
Wi-Fi 802.11 n(HT20) mode, Band Edge



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



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



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

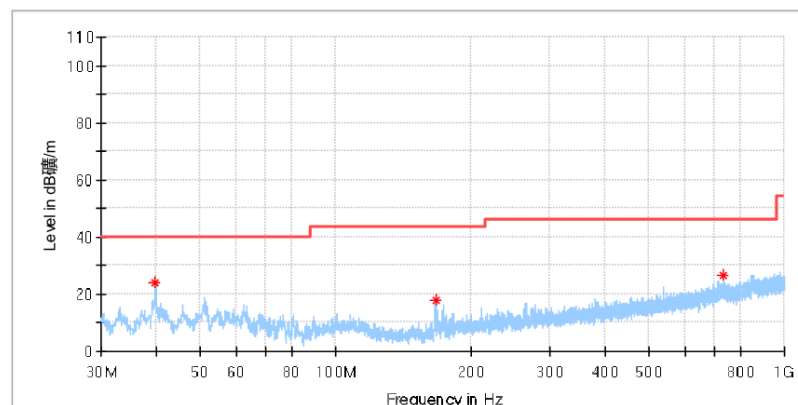
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W64E
Test Mode:	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)
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

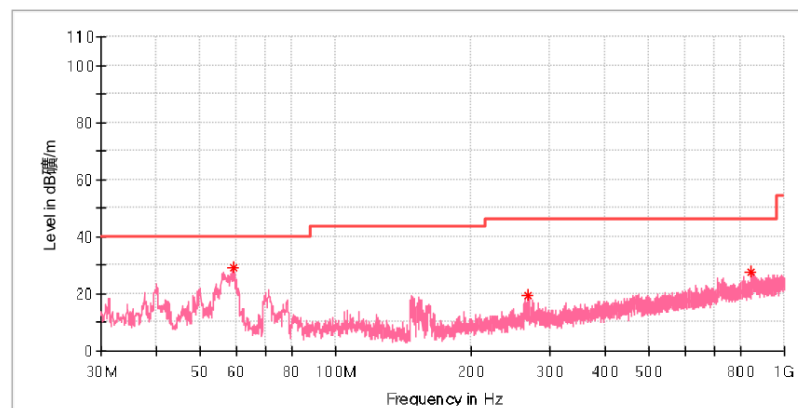
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W64E
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

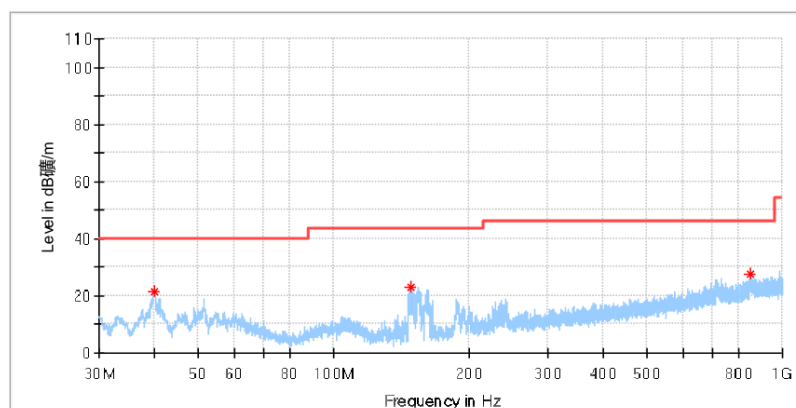
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W64E
TestMode:	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

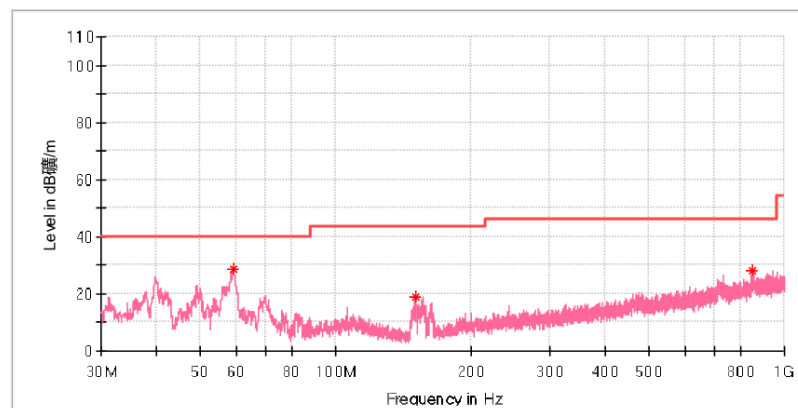
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W64E
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

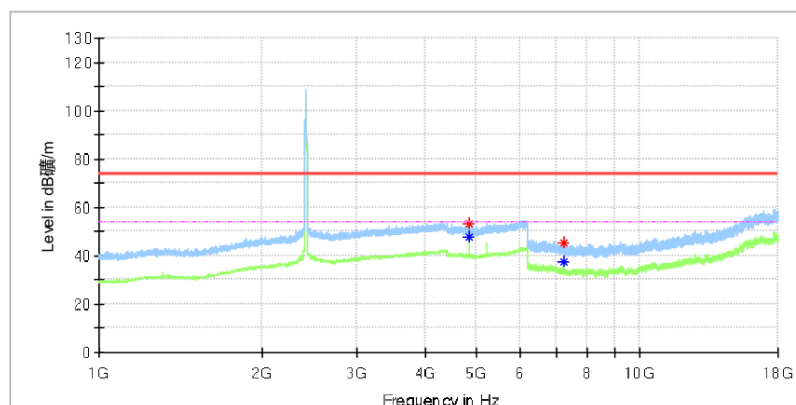
EMI Auto Test(1)

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Test Report

EUT Information

EUT Name:	Digital media receiver
Model:	B7W64E
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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