

TEST REPORT ADDENDUM – CONDUCTED

FROM



Test of: Hewlett Packard Enterprise APIN0344, APIN0345

To: FCC Subpart C 15.247 (DTS), ISED RSS-247

Test Report Serial No.: HPEN111-U5_Conducted WiFi Rev A

Issue Date: 22nd August 2017

Master Document Number	Addendum Reports
HPEN111-U5_Master WiFi	HPEN111-U5_Conducted WiFi
	HPEN111-U5_Radiated WiFi

This report is only valid in conjunction with the reports listed in the above table. Together these reports address the requirements for the type of device operating under the standard as listed.

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To: FCC 15.247 DTS & ISED RSS-247
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1. TEST RESULTS

1.1. 6 dB & 99% Bandwidth

Conducted Test Conditions for 6 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	6 dB and 99 % Bandwidth	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.247 (a)(2)	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		
Test Procedure for 6 dB and 99% Bandwidth Measurement The bandwidth at 6 dB and 99 % was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported. Test configuration and setup used for the measurement was per the Conducted Test Set-up specified in this document. Limits for 6 dB and 99% Bandwidth (a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions: (2) Systems using digital modulation techniques may operate in the 902-928 MHz and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.			

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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11b	Duty Cycle (%):	99
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	Not Applicable
Modulation:	CCK	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
	Port(s)				Highest	Lowest	KHz	MHz
MHz	a	b	c	d				
2412.0	9.000	9.000	9.000	9.000	9.000	9.000	≥500.0	-8.50
2437.0	10.000	11.000	10.930	11.000	11.000	10.000	≥500.0	-9.50
2462.0	9.000	8.470	8.930	8.470	9.000	8.470	≥500.0	-7.97

Test Frequency	Measured 99% Bandwidth (MHz)				Maximum 99% Bandwidth (MHz)		
	Port(s)						
MHz	a	b	c	d			
2412.0	12.305	12.175	12.189	12.050	12.305		
2437.0	26.407	29.355	28.197	30.743	30.743		
2462.0	11.907	11.681	11.698	11.539	11.907		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11g	Duty Cycle (%):	99
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	Not Applicable
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
	Port(s)				Highest	Lowest		
MHz	a	b	c	d			KHz	MHz
2412.0	16.270	16.270	16.270	16.200	16.270	16.200	≥500.0	-15.70
2437.0	16.270	16.270	16.270	16.270	16.270	16.270	≥500.0	-15.77
2462.0	16.270	16.270	16.270	16.270	16.270	16.270	≥500.0	-15.77

Test Frequency	Measured 99% Bandwidth (MHz)				Maximum 99% Bandwidth (MHz)		
	Port(s)						
MHz	a	b	c	d			
2412.0	16.592	16.594	16.582	16.548	16.594		
2437.0	33.899	34.817	33.745	35.979	35.979		
2462.0	16.535	16.485	16.452	16.430	16.535		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11n HT-20	Duty Cycle (%):	99
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	Not Applicable
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
	Port(s)				Highest	Lowest	KHz	MHz
MHz	a	b	c	d				
2412.0	17.530	17.530	17.530	17.530	17.530	17.530	≥500.0	-17.03
2437.0	17.330	17.530	17.470	17.470	17.530	17.330	≥500.0	-16.83
2462.0	17.530	17.530	17.530	17.470	17.530	17.470	≥500.0	-16.97

Test Frequency	Measured 99% Bandwidth (MHz)				Maximum 99% Bandwidth (MHz)		
	Port(s)						
MHz	a	b	c	d			
2412.0	17.814	17.782	17.816	17.761	17.816		
2437.0	35.011	35.664	35.022	36.837	36.837		
2462.0	17.765	17.685	17.664	17.652	17.765		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11n HT-40	Duty Cycle (%):	99
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	Not Applicable
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
	Port(s)				Highest	Lowest	KHz	MHz
MHz	a	b	c	d				
2422.0	36.130	36.130	35.870	35.330	36.130	35.330	≥500.0	-34.83
2437.0	35.870	36.130	36.130	36.270	36.270	35.870	≥500.0	-35.37
2452.0	35.870	36.130	36.130	36.130	36.130	35.870	≥500.0	-35.37

Test Frequency	Measured 99% Bandwidth (MHz)				Maximum 99% Bandwidth (MHz)		
	Port(s)						
MHz	a	b	c	d			
2422.0	36.092	36.109	36.045	35.998	36.109		
2437.0	70.042	71.446	69.239	71.511	71.511		
2452.0	36.095	36.137	36.120	36.082	36.137		

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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1.2. Conducted Output Power

Conducted Test Conditions for Fundamental Emission Output Power			
Standard:	FCC CFR 47:15.247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Output Power	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.247 (b) & (c)	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Fundamental Emission Output Power Measurement
In the case of average power measurements an average power sensor was utilized.

For peak power measurements the spectrum analyzer built-in power function was used to integrate peak power over the 20 dB bandwidth.

Testing was performed under ambient conditions at nominal voltage only. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured, summed (Σ) and reported.

Test configuration and setup used for the measurement was per the Conducted Test Set-up specified in this document.

Supporting Information
Calculated Power = A + G + Y+ 10 log (1/x) dBm

A = Total Power [10*Log10 (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})]
G = Antenna Gain
Y = Beamforming Gain
x = Duty Cycle (average power measurements only)

Limits for Fundamental Emission Output Power
(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following for non-frequency hopping systems:

(3) For systems using digital modulation in the 902-928 MHz and 2400-2483.5 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

(iii) Fixed, point-to-point operation, as used in paragraphs (c)(1)(i) and (c)(1)(ii) of this section, excludes the use of point-to-multipoint systems, omnidirectional applications, and multiple co-located intentional radiators transmitting the same information. The operator of the spread spectrum or digitally modulated intentional radiator or, if the equipment is professionally installed, the installer is responsible for ensuring that the system is used exclusively for fixed, point-to-point operations. The instruction manual furnished with the intentional radiator shall contain language in the installation

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instructions informing the operator and the installer of this responsibility.

(2) In addition to the provisions in paragraphs (b)(3), (b)(4) and (c)(1)(i) of this section, transmitters operating in the 2400-2483.5 MHz band that emit multiple directional beams, simultaneously or sequentially, for the purpose of directing signals to individual receivers or to groups of receivers provided the emissions comply with the following:

(i) Different information must be transmitted to each receiver.

(ii) If the transmitter employs an antenna system that emits multiple directional beams but does not do emit multiple directional beams simultaneously, the total output power conducted to the array or arrays that comprise the device, i.e., the sum of the power supplied to all antennas, antenna elements, staves, etc. and summed across all carriers or frequency channels, shall not exceed the limit specified in paragraph (b)(1) or (b)(3) of this section, as applicable. However, the total conducted output power shall be reduced by 1 dB below the specified limits for each 3 dB that the directional gain of the antenna/antenna array exceeds 6 dBi. The directional antenna gain shall be computed as follows:

(A) The directional gain shall be calculated as the sum of 10 log (number of array elements or staves) plus the directional gain of the element or stave having the highest gain.

(B) A lower value for the directional gain than that calculated in paragraph (c)(2)(ii)(A) of this section will be accepted if sufficient evidence is presented, e.g., due to shading of the array or coherence loss in the beamforming.

(iii) If a transmitter employs an antenna that operates simultaneously on multiple directional beams using the same or different frequency channels, the power supplied to each emission beam is subject to the power limit specified in paragraph (c)(2)(ii) of this section. If transmitted beams overlap, the power shall be reduced to ensure that their aggregate power does not exceed the limit specified in paragraph (c)(2)(ii) of this section. In addition, the aggregate power transmitted simultaneously on all beams shall not exceed the limit specified in paragraph (c)(2)(ii) of this section by more than 8 dB.

(iv) Transmitters that emit a single directional beam shall operate under the provisions of paragraph (c)(1) of this section.



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Equipment Configuration for Average Output Power

Variant:	802.11b	Duty Cycle (%):	99.0
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	CCK	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Output Power (dBm)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
	Port(s)							
MHz	a	b	c	d	dBm	dBm	dB	
2412.0	18.24	17.52	17.33	17.45	23.67	30.00	-6.33	75.00
2437.0	21.67	21.21	20.63	20.37	27.02	30.00	-2.98	100.00
2462.0	17.86	17.15	17.01	16.99	23.29	30.00	-6.71	75.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Power restrictions (power setting <100) are due to radiated measurements namely spurious or band-edge measurements

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Equipment Configuration for Average Output Power

Variant:	802.11g	Duty Cycle (%):	99.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Output Power (dBm)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
	Port(s)							
MHz	a	b	c	d	dBm	dBm	dB	
2412.0	14.47	13.85	13.88	13.80	20.03	30.00	-9.97	61.00
2437.0	22.01	21.61	20.98	20.84	27.41	30.00	-2.59	100.00
2462.0	13.75	12.88	12.85	12.94	19.14	30.00	-10.86	58.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Power restrictions (power setting <100) are due to radiated measurements namely spurious or band-edge measurements

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Equipment Configuration for Average Output Power

Variant:	802.11n HT-20	Duty Cycle (%):	99.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Output Power (dBm)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
	Port(s)							
MHz	a	b	c	d	dBm	dBm	dB	
2412.0	16.06	15.47	15.31	15.40	21.59	29.00	-7.41	68.00
2437.0	21.99	21.57	20.95	20.85	27.39	29.00	-1.61	100.00
2462.0	14.26	13.38	13.27	13.33	19.60	29.00	-9.40	60.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	± 1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Power restrictions (power setting <100) are due to radiated measurements namely spurious or band-edge measurements

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Equipment Configuration for Average Output Power

Variant:	802.11n HT-40	Duty Cycle (%):	99.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Output Power (dBm)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
	Port(s)							
MHz	a	b	c	d	dBm	dBm	dB	
2422.0	15.22	14.39	14.31	14.21	20.57	29.00	-8.43	63.00
2437.0	21.90	21.48	21.08	21.29	27.47	29.00	-1.53	100.00
2452.0	12.00	11.09	10.98	10.75	17.25	29.00	-11.75	50.00

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	± 1.33 dB

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Power restrictions (power setting <100) are due to radiated measurements namely spurious or band-edge measurements

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1.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Power Spectral Density	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.247 (e)	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Power Spectral Density

The transmitter output was connected to a spectrum analyzer and the measured made in a 3 kHz resolution bandwidth using the analyzer auto-coupled sweep-time. A peak value was found over the full emission bandwidth and the spectrum downloaded for post processing purposes.

Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. The Peak Power Spectral Density is the highest level found across the emission bandwidth. With multiple antenna port measurements the numerical analyzer data from each port is summed (â) and a link to this additional graphic is provided.

Testing was performed under ambient conditions at nominal voltage only.

Test configuration and setup used for the measurement was per the Conducted Test Set-up specified in this document.

Measure and sum the spectra across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The individual spectra are then summed mathematically in linear power units. Unlike in-band power measurements, in which the sum involves a single measured value (output power) from each output, measurements for compliance with PSD limits involve summing entire spectra across corresponding frequency bins on the various outputs. Consistency is maintained for any device with multiple transmitter outputs to be certain the individual outputs are all aligned with the same span and same number of points. In this instance, the linear power spectrum value within the first spectral bin of output 0 is summed with that in the first spectral bin of output 1, and the first spectral bin of output 2, and so on up to the Nth output to obtain the true value for the first frequency bin of the summed spectrum. The summed spectrum value for each frequency bin is computed in this fashion. These summed spectral values were post processed and the resulting numerical and graphical data presented.

NOTE:

It may be observed that the spectrum in some antenna port plots break the limit line however this in itself does NOT constitute a failure. In all cases a spectrum summation plot is provided in order to prove compliance. A failure occurs only after the summation of all spectrum plots have been summed and are found to be greater than the limit line.

Supporting Information

Calculated Power = A + 10 log (1/x) dBm

A = Total Power Spectral Density [10 Log10 (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})]

x = Duty Cycle

Limits Power Spectral Density

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.

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Equipment Configuration for Power Spectral Density - Average

Variant:	802.11b	Duty Cycle (%):	99.0
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	CCK	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/3KHz)						
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
2412.0	-12.407	-13.540	-13.420	-13.084	-7.387	8.0	-15.4
2437.0	-11.572	-11.512	-12.375	-12.959	-6.348	8.0	-14.4
2462.0	-14.479	-14.635	-14.802	-14.445	-8.856	8.0	-16.9

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Power Spectral Density - Average

Variant:	802.11g	Duty Cycle (%):	99.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/3KHz)						
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
2412.0	-18.567	-19.396	-19.335	-19.093	-13.059	8.0	-21.1
2437.0	-12.809	-13.128	-13.768	-14.203	-7.416	8.0	-15.4
2462.0	-20.950	-21.194	-21.176	-21.114	-15.198	8.0	-23.2

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Power Spectral Density - Average

Variant:	802.11n HT-20	Duty Cycle (%):	99.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/3KHz)						
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
2412.0	-18.819	-19.214	-19.314	-18.841	-13.523	8.0	-21.5
2437.0	-12.677	-13.307	-13.319	-13.432	-7.721	8.0	-15.7
2462.0	-20.070	-21.321	-21.356	-21.215	-15.369	8.0	-23.4

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Power Spectral Density - Average

Variant:	802.11n HT-40	Duty Cycle (%):	99.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Amplitude Summation + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/3KHz)						
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
2422.0	-22.565	-23.402	-22.945	-23.252	-17.087	8.0	-25.1
2437.0	-16.117	-15.956	-15.531	-16.235	-10.129	8.0	-18.1
2452.0	-25.491	-26.832	-26.700	-26.972	-20.654	8.0	-28.7

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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1.4. Emissions

1.4.1. Conducted Emissions

1.4.1.1. Conducted Spurious Emissions

Conducted Test Conditions for Transmitter Conducted Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Max Unwanted Emission Levels	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.247 (d)	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Transmitter Conducted Spurious and Band-Edge Emissions Measurement

Transmitter Conducted Spurious and Band-Edge emissions were measured at a limit of 30 dBc (average detector) or 20 dBc (peak detector) below the highest in-band spectral density measured with a spectrum analyzer connected to the antenna terminal. Measurements were made while EUT was operating in transmit mode of operation at the appropriate centre frequency closest to the band-edge. Emissions were maximized during the measurement and limits derived from the peak spectral power and drawn on each plot.

Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. Testing was performed under ambient conditions at nominal voltage only.

Test configuration and setup used for the measurement was per the Conducted Test Set-up specified in this document.

Limits Transmitter Conducted Spurious and Band-Edge Emissions

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).



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Equipment Configuration for Conducted Spurious Emissions - Average

Variant:	802.11b	Duty Cycle (%):	99
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	CCK	Beam Forming Gain (Y):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Frequency Range	Conducted Spurious Emissions - Average (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-56.724	-36.76	-57.294	-37.56	-57.014	-38.06	-56.839	-37.56
2437.0	30.0 - 26000.0	-56.763	-34.78	-57.279	-35.21	-57.092	-35.85	-56.858	-36.69
2462.0	30.0 - 26000.0	-56.819	-38.61	-57.348	-39.09	-57.105	-39.26	-56.881	-39.28

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Spurious Emissions - Average

Variant:	802.11g	Duty Cycle (%):	99
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	OFDM	Beam Forming Gain (Y):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Frequency Range	Conducted Spurious Emissions - Average (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-56.716	-39.96	-57.219	-40.56	-57.120	-39.47	-56.839	-40.42
2437.0	30.0 - 26000.0	-56.706	-35.66	-57.291	-36.14	-57.066	-36.80	-56.834	-36.79
2462.0	30.0 - 26000.0	-56.770	-42.66	-57.362	-43.35	-57.135	-43.41	-56.829	-43.28

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

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Equipment Configuration for Conducted Spurious Emissions - Average

Variant:	802.11n HT-20	Duty Cycle (%):	99
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Frequency Range	Conducted Spurious Emissions - Average (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-56.966	-39.78	-57.512	-40.50	-57.249	-40.60	-57.092	-40.46
2437.0	30.0 - 26000.0	-57.032	-35.48	-57.540	-36.14	-57.207	-36.62	-57.022	-36.83
2462.0	30.0 - 26000.0	-56.884	-42.08	-57.446	-42.90	-57.224	-43.01	-56.996	-42.92

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

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Equipment Configuration for Conducted Spurious Emissions - Average

Variant:	802.11n HT-40	Duty Cycle (%):	99
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Test Frequency	Frequency Range	Conducted Spurious Emissions - Average (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2422.0	30.0 - 26000.0	-56.918	-41.69	-57.443	-42.44	-57.204	-42.51	-57.054	-42.64
2437.0	30.0 - 26000.0	-56.978	-36.85	-57.446	-37.29	-57.301	-37.91	-57.112	-37.44
2452.0	30.0 - 26000.0	-56.916	-44.23	-57.370	-45.00	-57.262	-45.25	-56.980	-45.49

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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1.4.1.2. Conducted Band-Edge Emissions

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11b	Duty Cycle (%):	99.0
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	CCK	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2412.0 MHz					
Band-Edge Frequency:	2400.0 MHz					
Test Frequency Range:	2350.0 - 2422.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin (MHz)
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	
a	-37.27	-27.99	2403.80	--	--	-3.800
b	-37.38	-28.84	2403.90	--	--	-3.900
c	-37.25	-29.05	2403.80	--	--	-3.800
d	-39.61	-28.71	2404.00	--	--	-4.000

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11g	Duty Cycle (%):	99.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2412.0 MHz					
Band-Edge Frequency:	2400.0 MHz					
Test Frequency Range:	2350.0 - 2422.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-37.31	-34.35	2400.90	--	--	-0.900
b	-37.94	-34.97	2400.90	--	--	-0.900
c	-36.86	-35.01	2400.60	--	--	-0.600
d	-38.03	-34.73	2401.10	--	--	-1.100

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-20	Duty Cycle (%):	99.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2412.0 MHz					
Band-Edge Frequency:	2400.0 MHz					
Test Frequency Range:	2350.0 - 2422.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-37.06	-34.63	2400.80	--	--	-0.800
b	-37.57	-35.07	2400.90	--	--	-0.900
c	-37.33	-35.37	2400.60	--	--	-0.600
d	-38.19	-34.69	2401.00	--	--	-1.000

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-40	Duty Cycle (%):	99.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2422.0 MHz					
Band-Edge Frequency:	2400.0 MHz					
Test Frequency Range:	2292.0 - 2442.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-43.55	-38.73	2401.80	--	--	-1.800
b	-44.46	-39.44	2401.80	--	--	-1.800
c	-44.54	-39.32	2401.80	--	--	-1.800
d	-45.48	-39.32	2402.00	--	--	-2.000

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

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Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11b	Duty Cycle (%):	99.0
Data Rate:	1.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	CCK	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes: Mode 1: Radio 1 Enabled; Radio 0 Disabled			

Test Measurement Results

Channel Frequency:	2462.0 MHz					
Band-Edge Frequency:	2483.5 MHz					
Test Frequency Range:	2452.0 - 2524.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-55.98	-29.55	2469.90	--	--	-13.600
b	-56.37	-30.06	2469.80	--	--	-13.700
c	-57.44	-30.09	2469.60	--	--	-13.900
d	-56.30	-30.19	2469.60	--	--	-13.900

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

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Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11g	Duty Cycle (%):	99.0
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	2.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes: Mode 1: Radio 1 Enabled; Radio 0 Disabled			

Test Measurement Results

Channel Frequency:	2462.0 MHz					
Band-Edge Frequency:	2483.5 MHz					
Test Frequency Range:	2452.0 - 2524.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-51.73	-36.86	2472.80	--	--	-10.700
b	-60.11	-37.26	2472.60	--	--	-10.860
c	-54.12	-37.36	2472.60	--	--	-10.900
d	-53.75	-37.06	2472.50	--	--	-11.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz 2.37 dB, > 40 GHz 4.6 dB

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Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11n HT-20	Duty Cycle (%):	99.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2462.0 MHz					
Band-Edge Frequency:	2483.5 MHz					
Test Frequency Range:	2452.0 - 2524.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-49.16	-36.65	2472.90	--	--	-10.600
b	-50.84	-37.35	2472.90	--	--	-10.600
c	-50.65	-37.19	2472.80	--	--	-10.700
d	-51.04	-36.98	2472.60	--	--	-10.900

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

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Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11n HT-40	Duty Cycle (%):	99.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	4.00
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	3.00
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Mode 1: Radio 1 Enabled; Radio 0 Disabled		

Test Measurement Results

Channel Frequency:	2452.0 MHz					
Band-Edge Frequency:	2483.5 MHz					
Test Frequency Range:	2432.0 - 2582.0 MHz					
Port(s)	Band-Edge Markers and Limit			Revised Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-54.02	-41.78	2471.80	--	--	-11.700
b	-54.78	-42.59	2471.50	--	--	-12.000
c	-55.97	-42.61	2471.50	--	--	-12.000
d	-55.00	-42.91	2471.50	--	--	-12.000

Traceability to Industry Recognized Test Methodologies

Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	<=40 GHz ± 2.37 dB, > 40 GHz ± 4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

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Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
Issue Date: 22nd August 2017
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A. APPENDIX - GRAPHICAL IMAGES

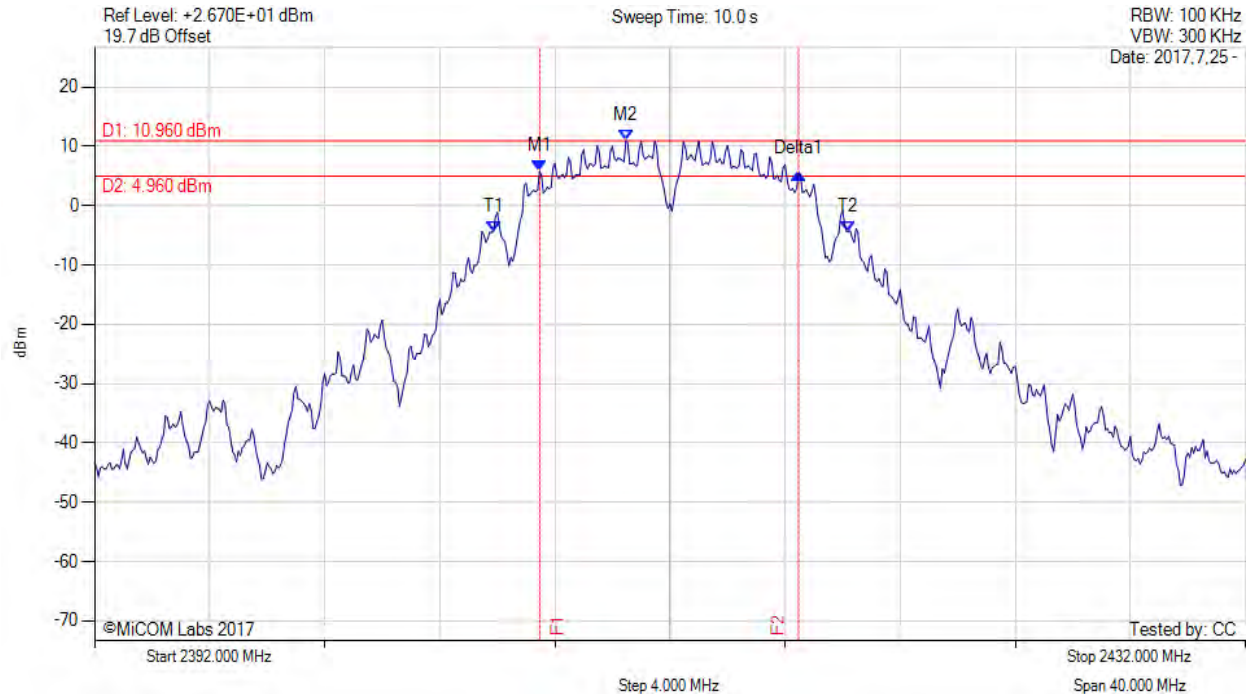
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A.1. 6 dB & 99% Bandwidth



6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2407.470 MHz : 5.775 dBm M2 : 2410.470 MHz : 10.960 dBm Delta1 : 9.000 MHz : -0.366 dB T1 : 2405.867 MHz : -4.339 dBm T2 : 2418.200 MHz : -4.461 dBm OBW : 12.305 MHz	Measured 6 dB Bandwidth: 9.000 MHz Limit: ≥500.0 kHz Margin: -8.50 MHz

[back to matrix](#)

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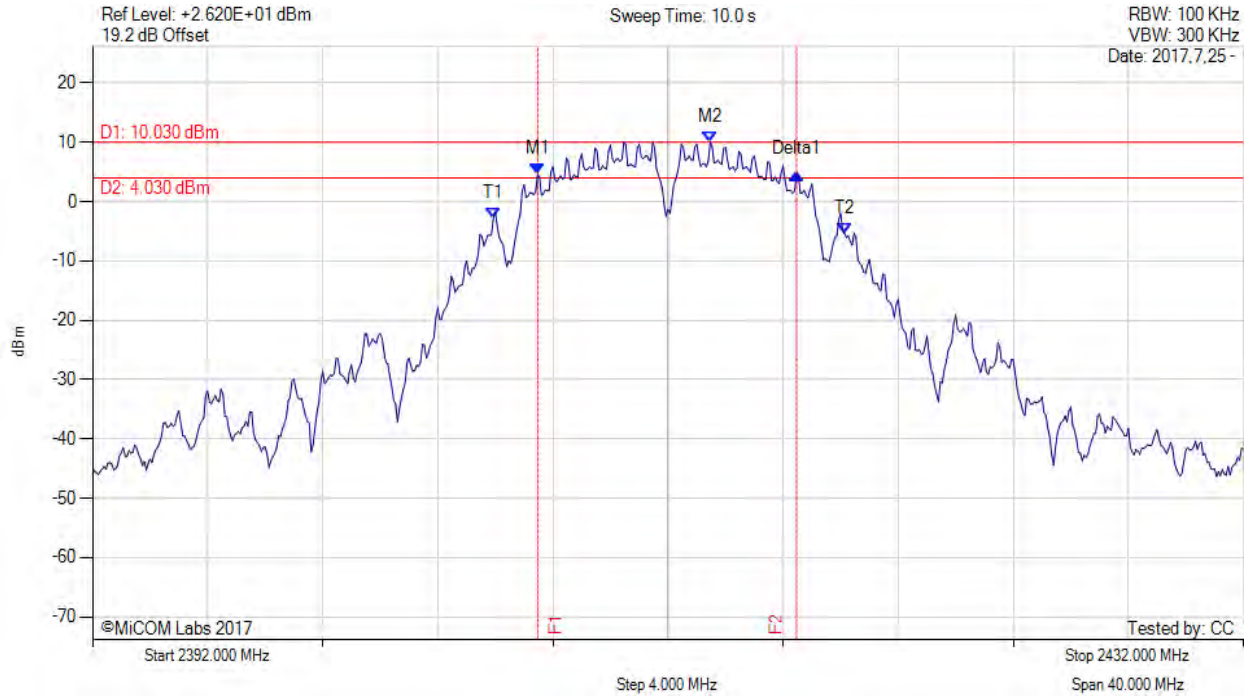


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
Issue Date: 22nd August 2017
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2407.470 MHz : 4.615 dBm M2 : 2413.470 MHz : 10.030 dBm Delta1 : 9.000 MHz : 0.063 dB T1 : 2405.933 MHz : -2.744 dBm T2 : 2418.133 MHz : -5.361 dBm OBW : 12.175 MHz	Measured 6 dB Bandwidth: 9.000 MHz Limit: ≥500.0 kHz Margin: -8.50 MHz

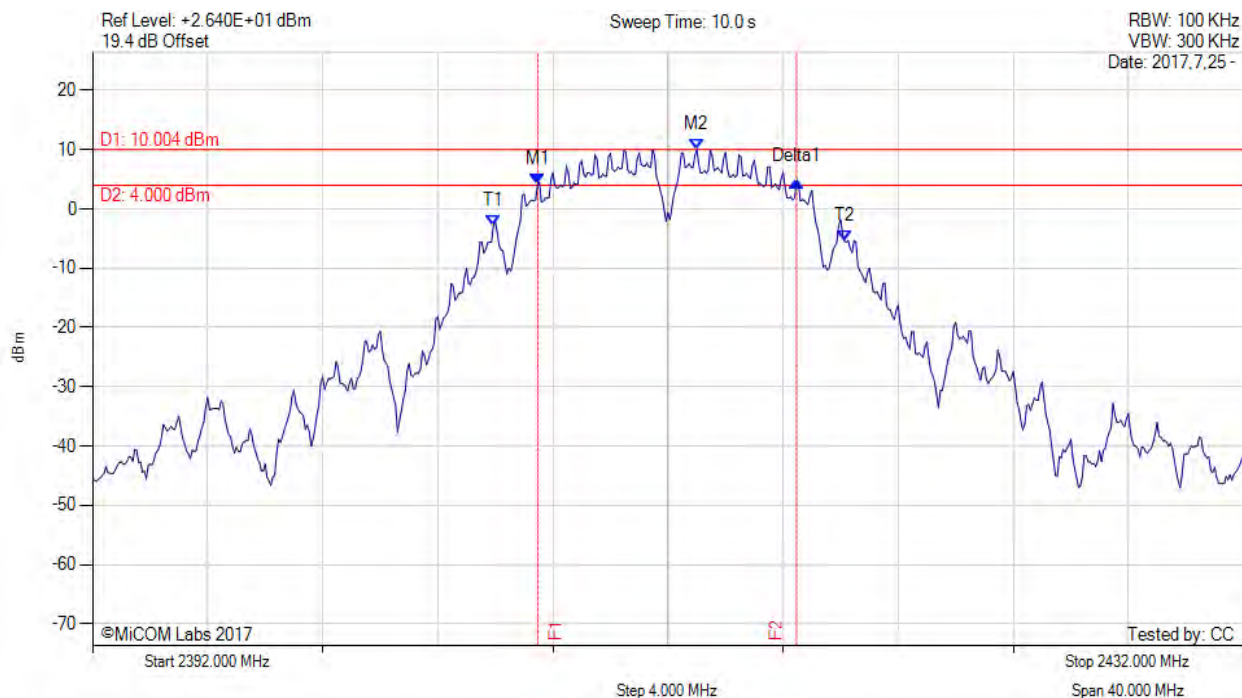
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2407.470 MHz : 4.194 dBm M2 : 2413.000 MHz : 10.004 dBm Delta1 : 9.000 MHz : 0.408 dB T1 : 2405.933 MHz : -2.816 dBm T2 : 2418.133 MHz : -5.421 dBm OBW : 12.189 MHz	Measured 6 dB Bandwidth: 9.000 MHz Limit: ≥500.0 kHz Margin: -8.50 MHz

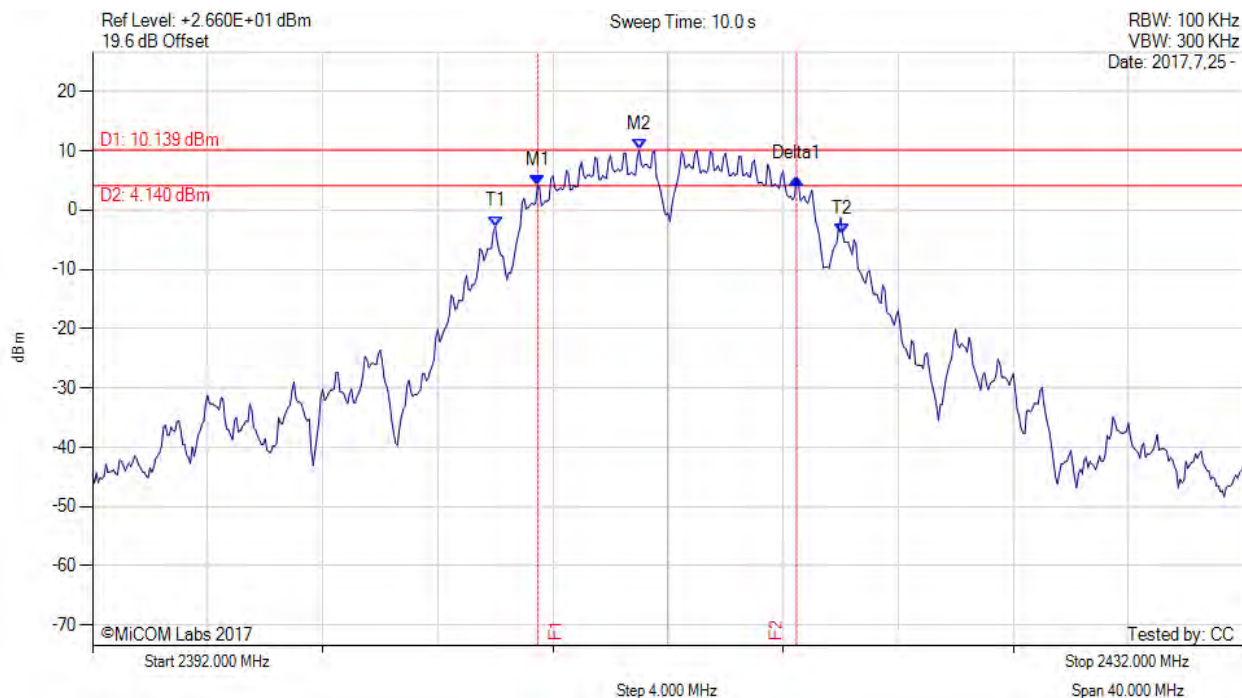
[back to matrix](#)

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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2407.470 MHz : 4.204 dBm M2 : 2411.000 MHz : 10.139 dBm Delta1 : 9.000 MHz : 1.158 dB T1 : 2406.000 MHz : -2.760 dBm T2 : 2418.067 MHz : -3.990 dBm OBW : 12.050 MHz	Measured 6 dB Bandwidth: 9.000 MHz Limit: ≥500.0 kHz Margin: -8.50 MHz

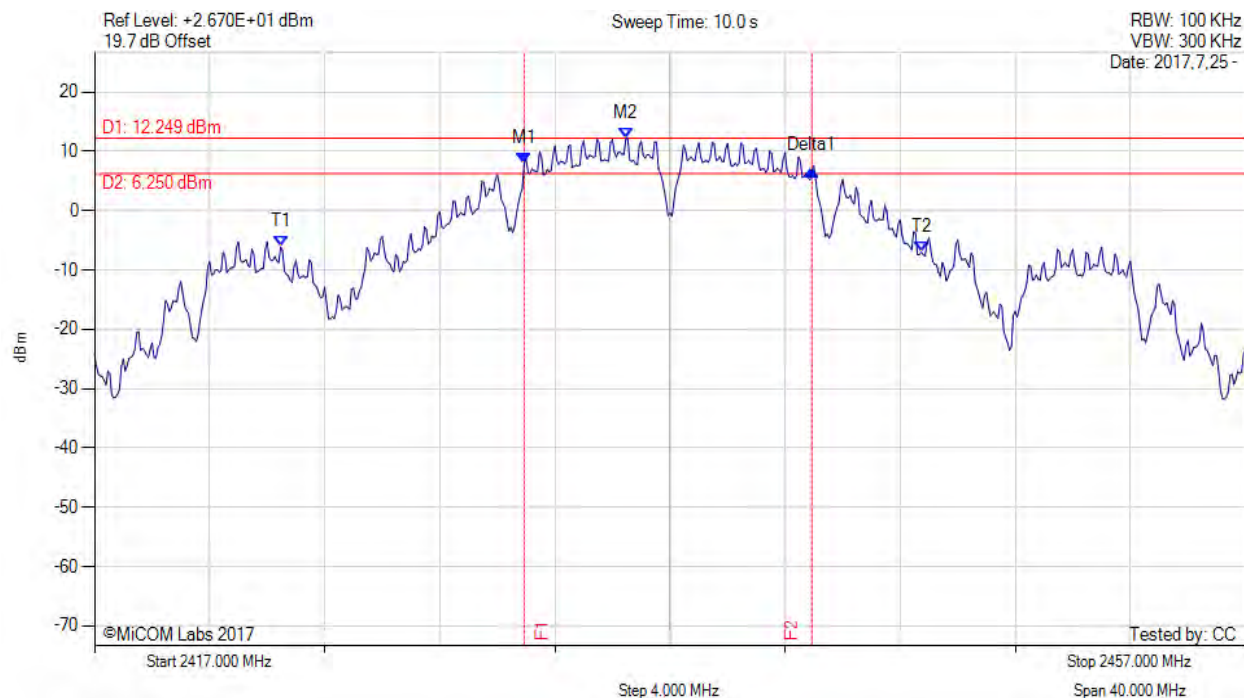
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2431.930 MHz : 7.935 dBm M2 : 2435.470 MHz : 12.249 dBm Delta1 : 10.000 MHz : -1.179 dB T1 : 2423.467 MHz : -6.118 dBm T2 : 2445.733 MHz : -7.010 dBm OBW : 26.407 MHz	Measured 6 dB Bandwidth: 10.000 MHz Limit: ≥500.0 kHz Margin: -9.50 MHz

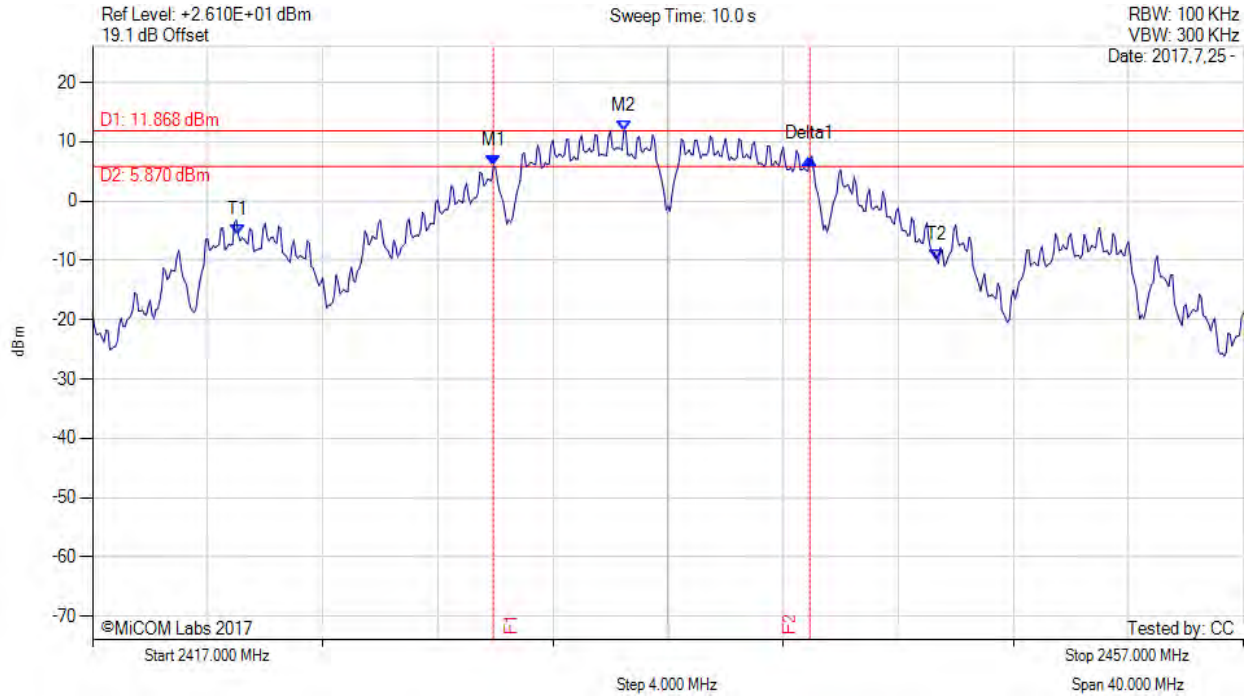
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2430.930 MHz : 5.898 dBm M2 : 2435.470 MHz : 11.868 dBm Delta1 : 11.000 MHz : 1.175 dB T1 : 2422.067 MHz : -5.753 dBm T2 : 2446.333 MHz : -9.859 dBm OBW : 29.355 MHz	Measured 6 dB Bandwidth: 11.000 MHz Limit: ≥500.0 kHz Margin: -10.50 MHz

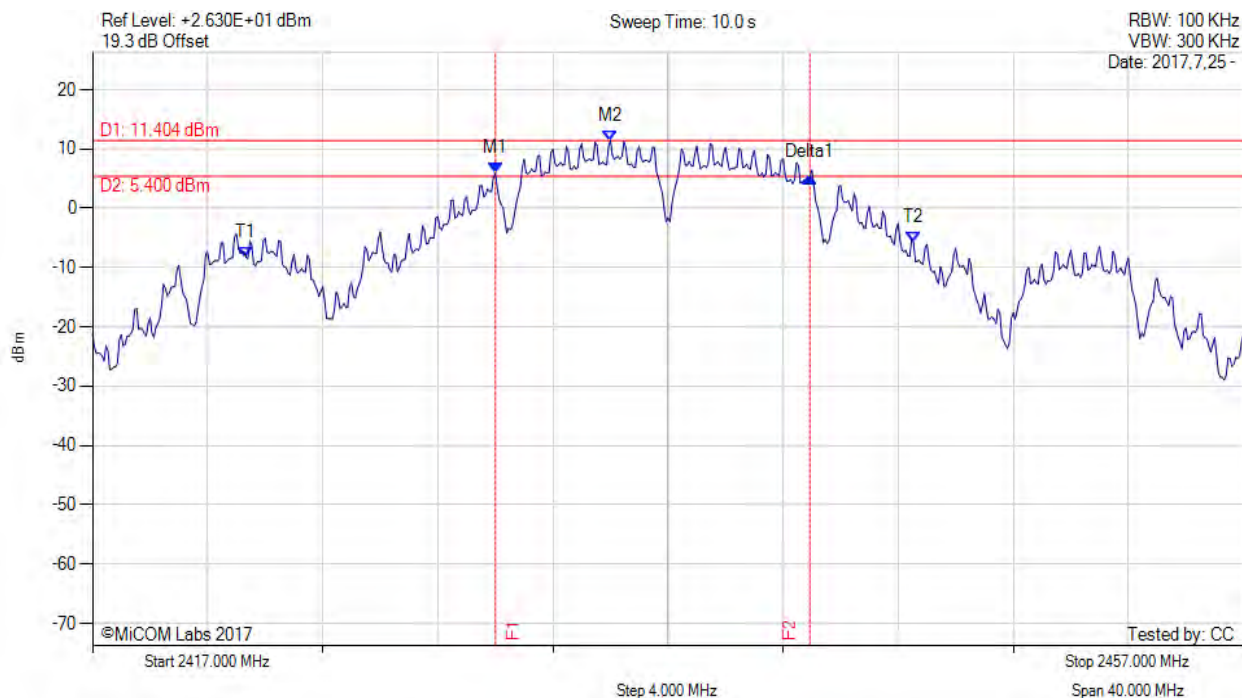
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2431.000 MHz : 5.908 dBm M2 : 2435.000 MHz : 11.404 dBm Delta1 : 10.930 MHz : -0.577 dB T1 : 2422.333 MHz : -8.219 dBm T2 : 2445.533 MHz : -5.764 dBm OBW : 28.197 MHz	Measured 6 dB Bandwidth: 10.930 MHz Limit: ≥500.0 kHz Margin: -10.43 MHz

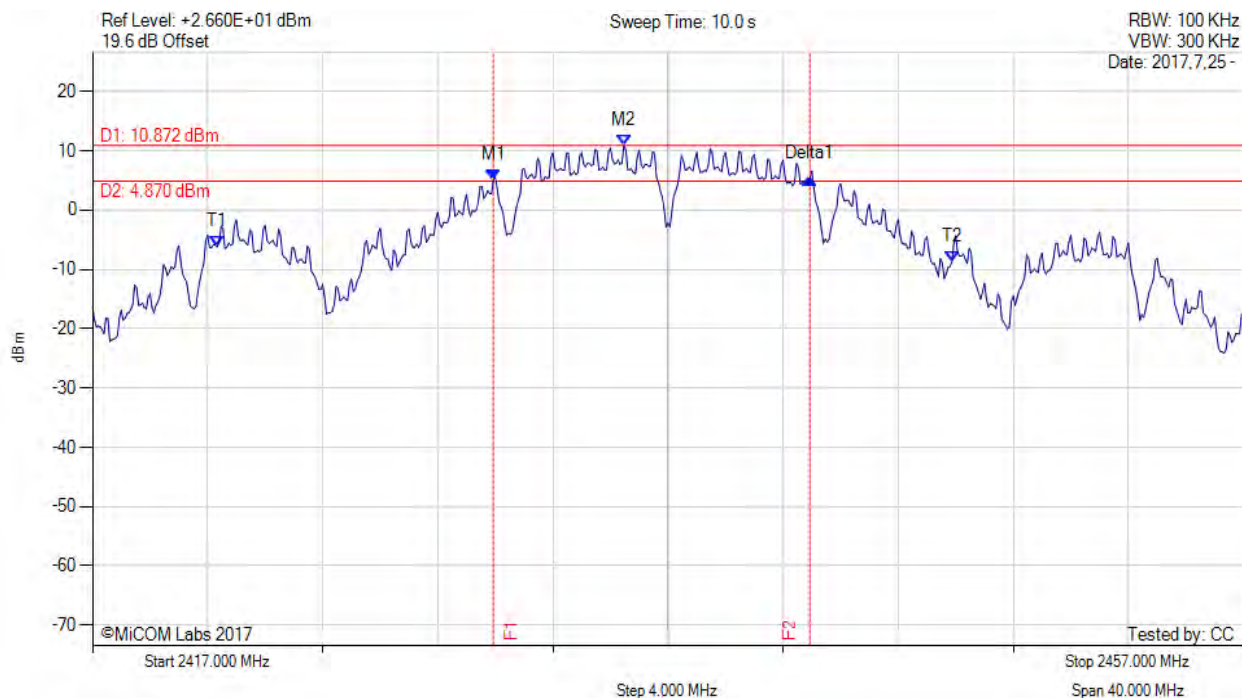
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2430.930 MHz : 5.110 dBm M2 : 2435.470 MHz : 10.872 dBm Delta1 : 11.000 MHz : 0.274 dB T1 : 2421.333 MHz : -6.182 dBm T2 : 2446.867 MHz : -8.776 dBm OBW : 30.743 MHz	Measured 6 dB Bandwidth: 11.000 MHz Limit: ≥500.0 kHz Margin: -10.50 MHz

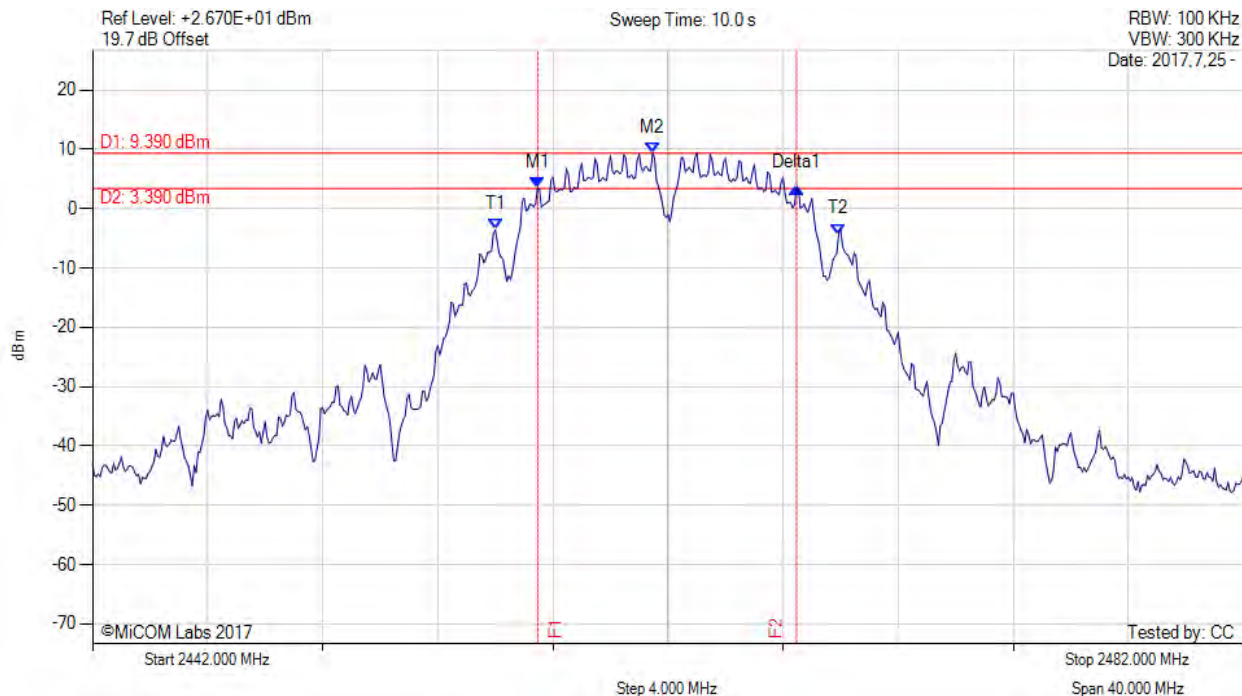
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2457.470 MHz : 3.463 dBm M2 : 2461.470 MHz : 9.390 dBm Delta1 : 9.000 MHz : -0.011 dB T1 : 2456.000 MHz : -3.566 dBm T2 : 2467.933 MHz : -4.299 dBm OBW : 11.907 MHz	Measured 6 dB Bandwidth: 9.000 MHz Limit: ≥500.0 kHz Margin: -8.50 MHz

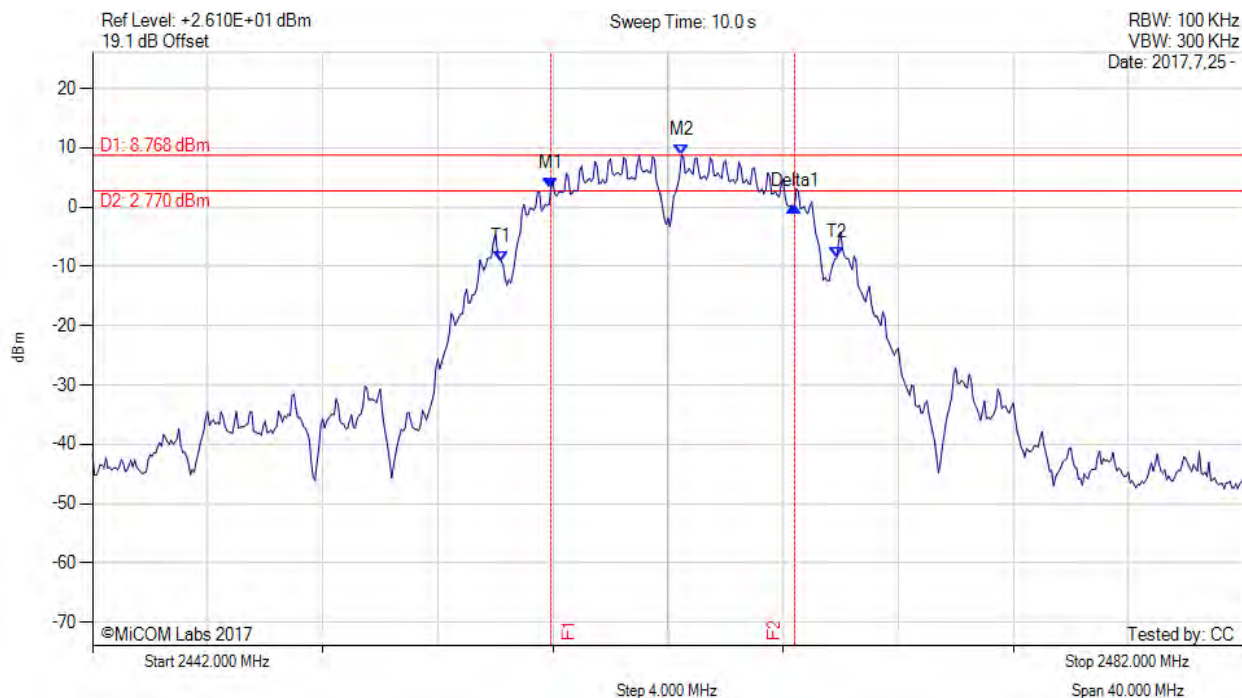
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2457.930 MHz : 3.145 dBm M2 : 2462.470 MHz : 8.768 dBm Delta1 : 8.470 MHz : -3.027 dB T1 : 2456.200 MHz : -9.128 dBm T2 : 2467.867 MHz : -8.524 dBm OBW : 11.681 MHz	Measured 6 dB Bandwidth: 8.470 MHz Limit: ≥500.0 kHz Margin: -7.97 MHz

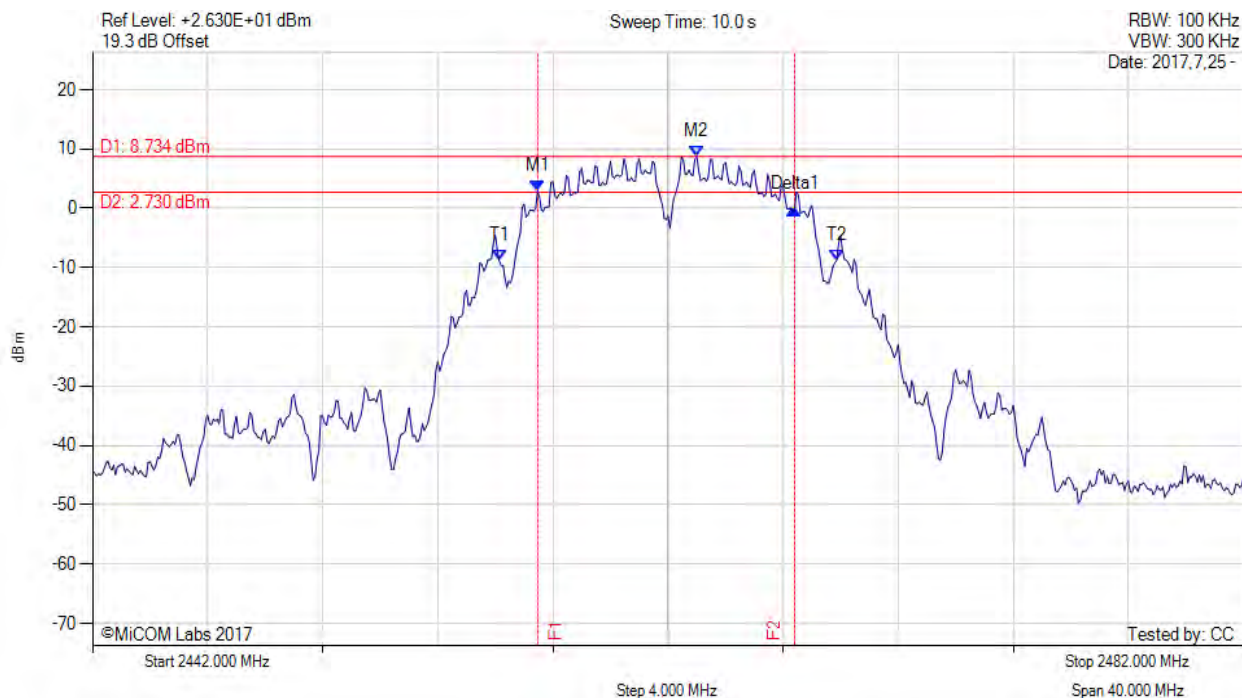
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2457.470 MHz : 2.925 dBm M2 : 2463.000 MHz : 8.734 dBm Delta1 : 8.930 MHz : -3.091 dB T1 : 2456.133 MHz : -8.855 dBm T2 : 2467.867 MHz : -8.741 dBm OBW : 11.698 MHz	Measured 6 dB Bandwidth: 8.930 MHz Limit: ≥500.0 kHz Margin: -8.43 MHz

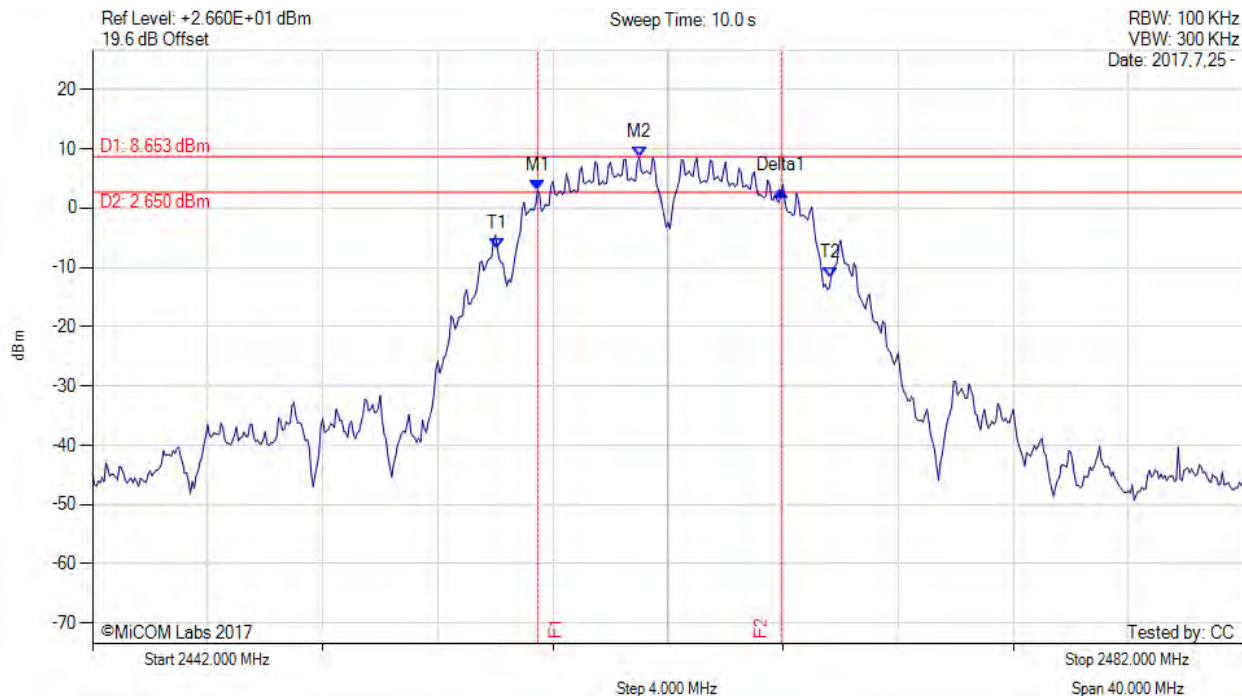
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6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2457.470 MHz : 2.977 dBm M2 : 2461.000 MHz : 8.653 dBm Delta1 : 8.470 MHz : -0.029 dB T1 : 2456.067 MHz : -6.780 dBm T2 : 2467.667 MHz : -11.734 dBm OBW : 11.539 MHz	Measured 6 dB Bandwidth: 8.470 MHz Limit: ≥500.0 kHz Margin: -7.97 MHz

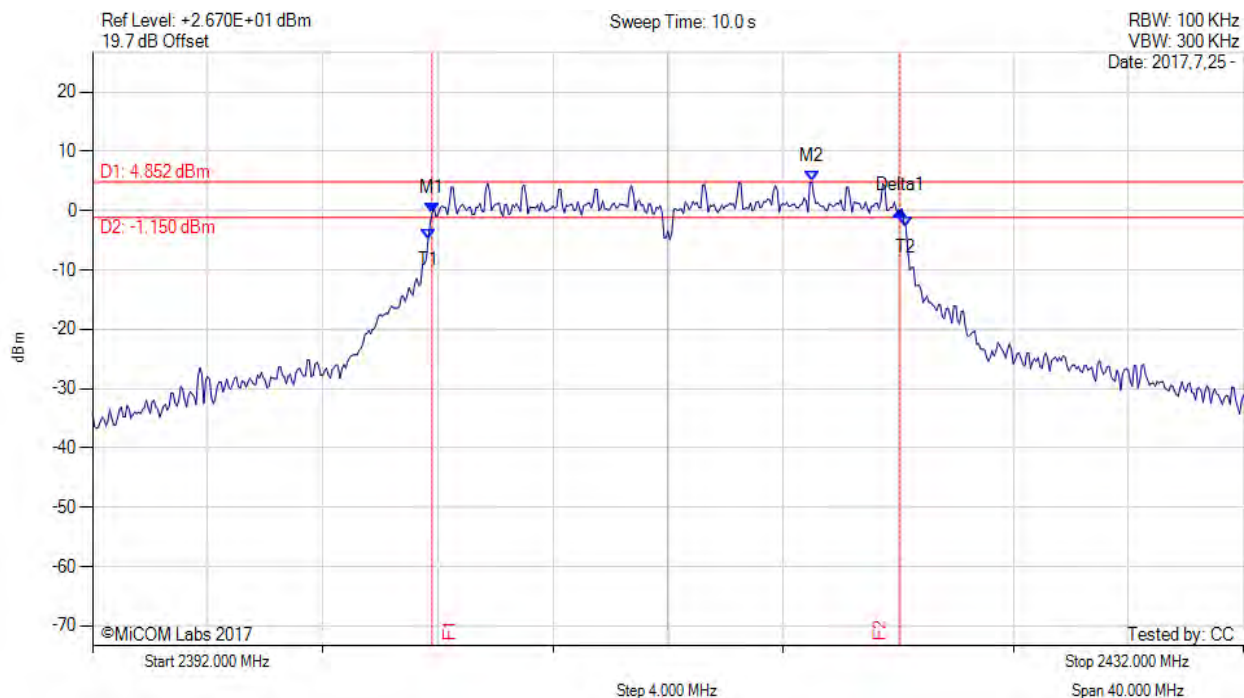
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.800 MHz : -0.472 dBm M2 : 2417.000 MHz : 4.852 dBm Delta1 : 16.270 MHz : 0.477 dB T1 : 2403.667 MHz : -4.809 dBm T2 : 2420.267 MHz : -2.713 dBm OBW : 16.592 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

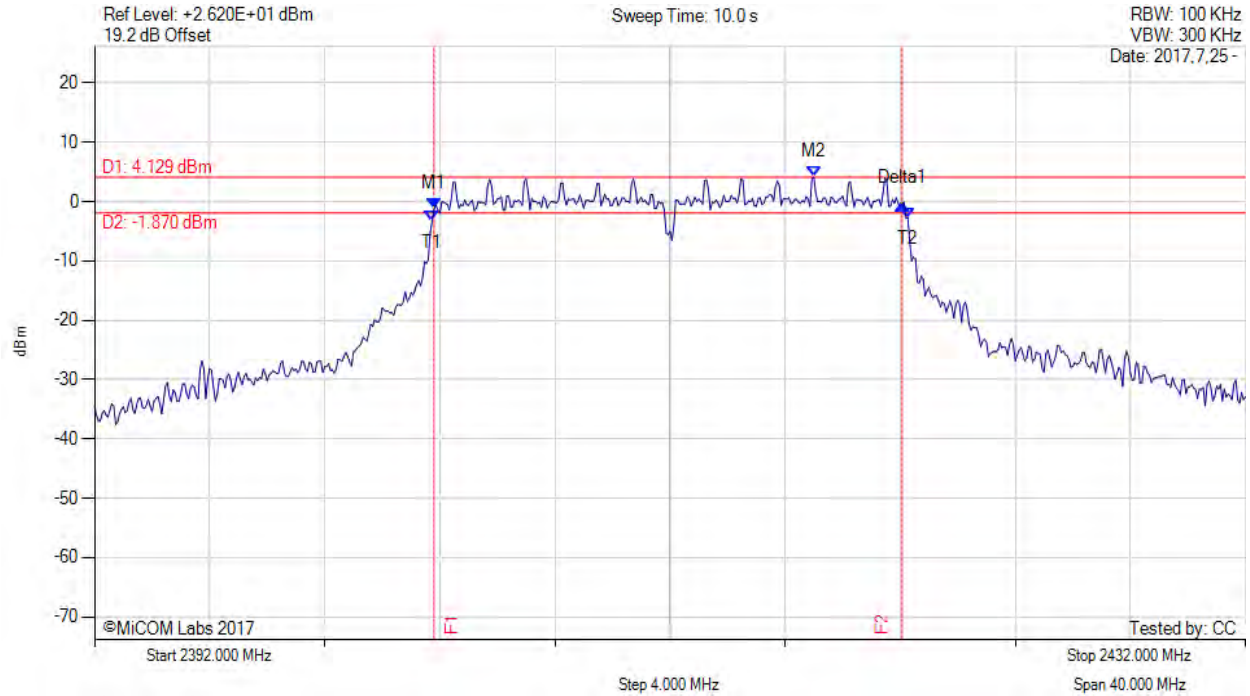
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.800 MHz : -1.273 dBm M2 : 2417.000 MHz : 4.129 dBm Delta1 : 16.270 MHz : 0.909 dB T1 : 2403.733 MHz : -3.251 dBm T2 : 2420.267 MHz : -2.739 dBm OBW : 16.594 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

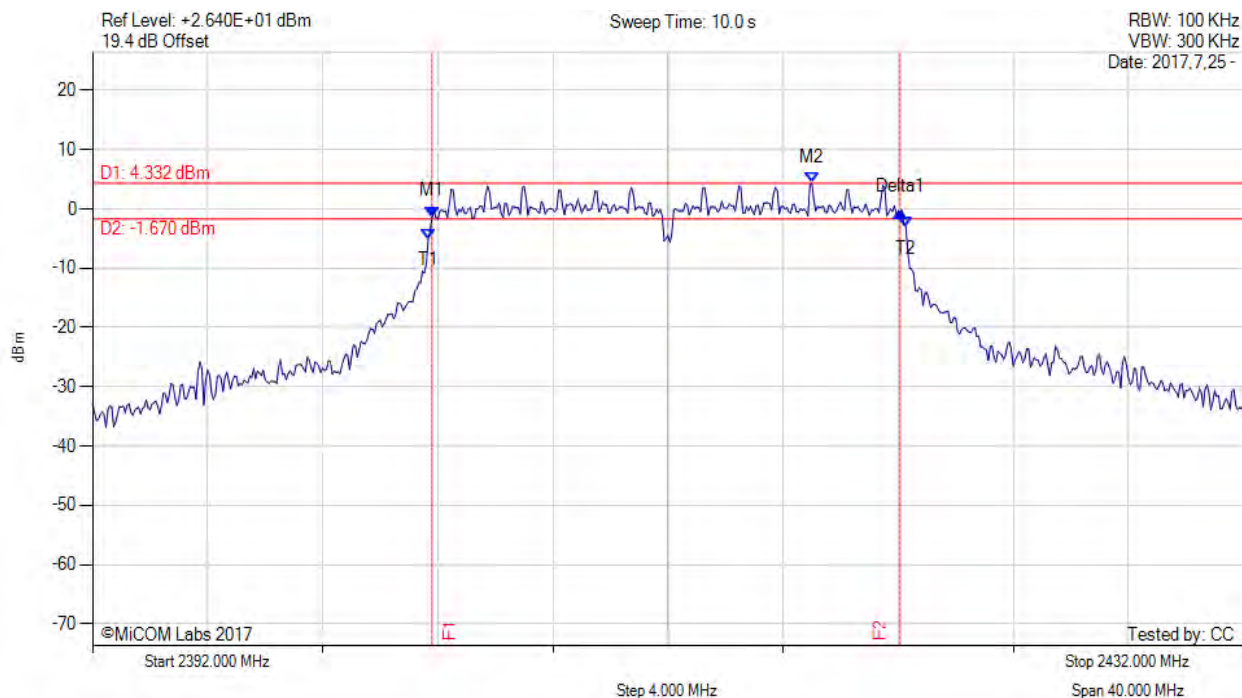
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.800 MHz : -1.320 dBm M2 : 2417.000 MHz : 4.332 dBm Delta1 : 16.270 MHz : 0.907 dB T1 : 2403.667 MHz : -5.117 dBm T2 : 2420.267 MHz : -3.051 dBm OBW : 16.582 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

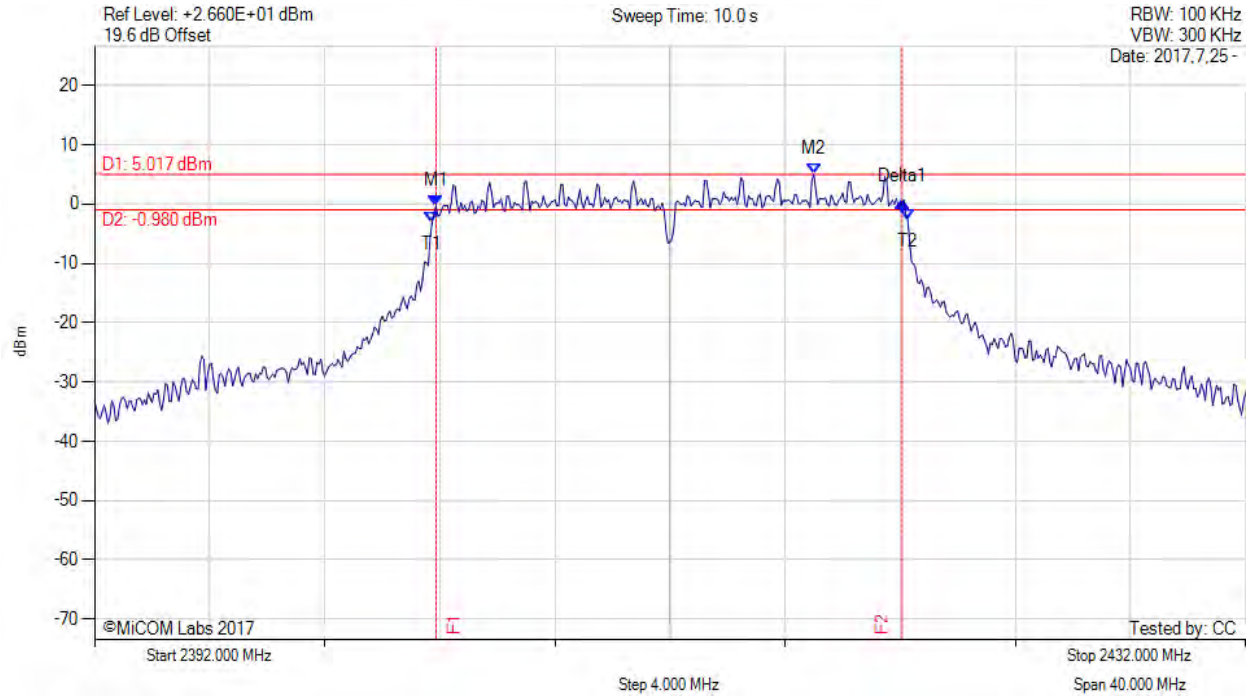
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.870 MHz : -0.347 dBm M2 : 2417.000 MHz : 5.017 dBm Delta1 : 16.200 MHz : 0.826 dB T1 : 2403.733 MHz : -3.198 dBm T2 : 2420.267 MHz : -2.737 dBm OBW : 16.548 MHz	Measured 6 dB Bandwidth: 16.200 MHz Limit: ≥500.0 kHz Margin: -15.70 MHz

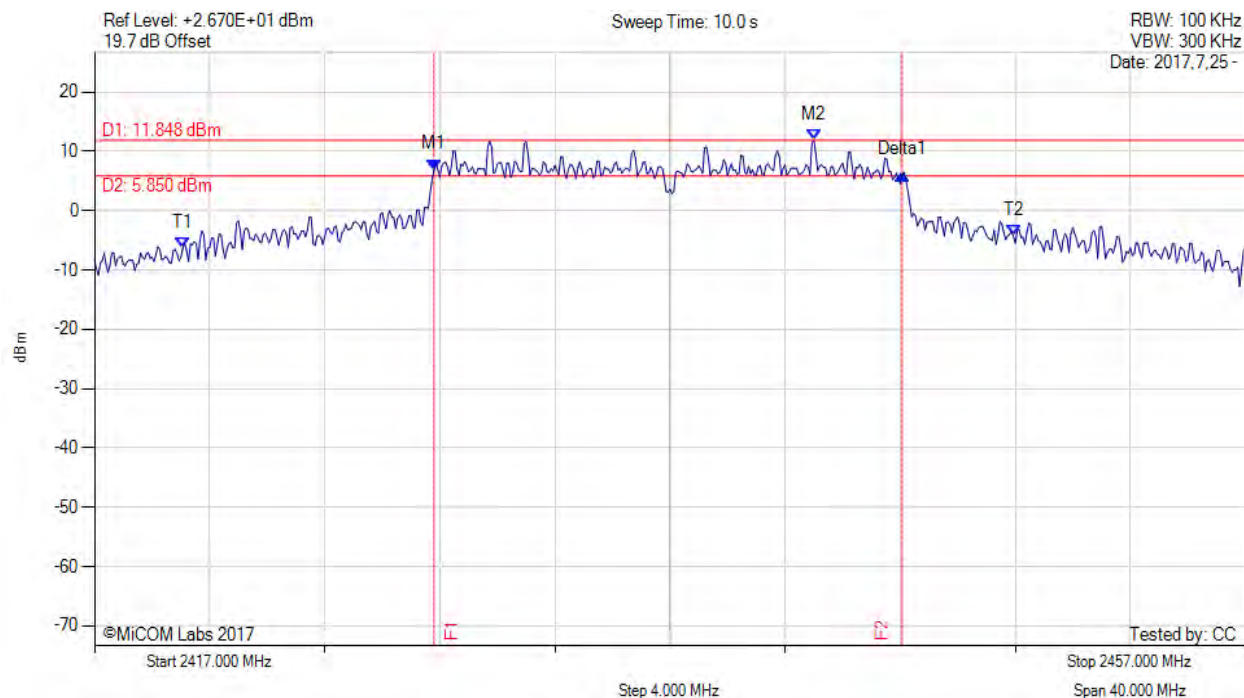
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.800 MHz : 6.928 dBm M2 : 2442.000 MHz : 11.848 dBm Delta1 : 16.270 MHz : -0.897 dB T1 : 2420.067 MHz : -6.273 dBm T2 : 2448.933 MHz : -4.261 dBm OBW : 33.899 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

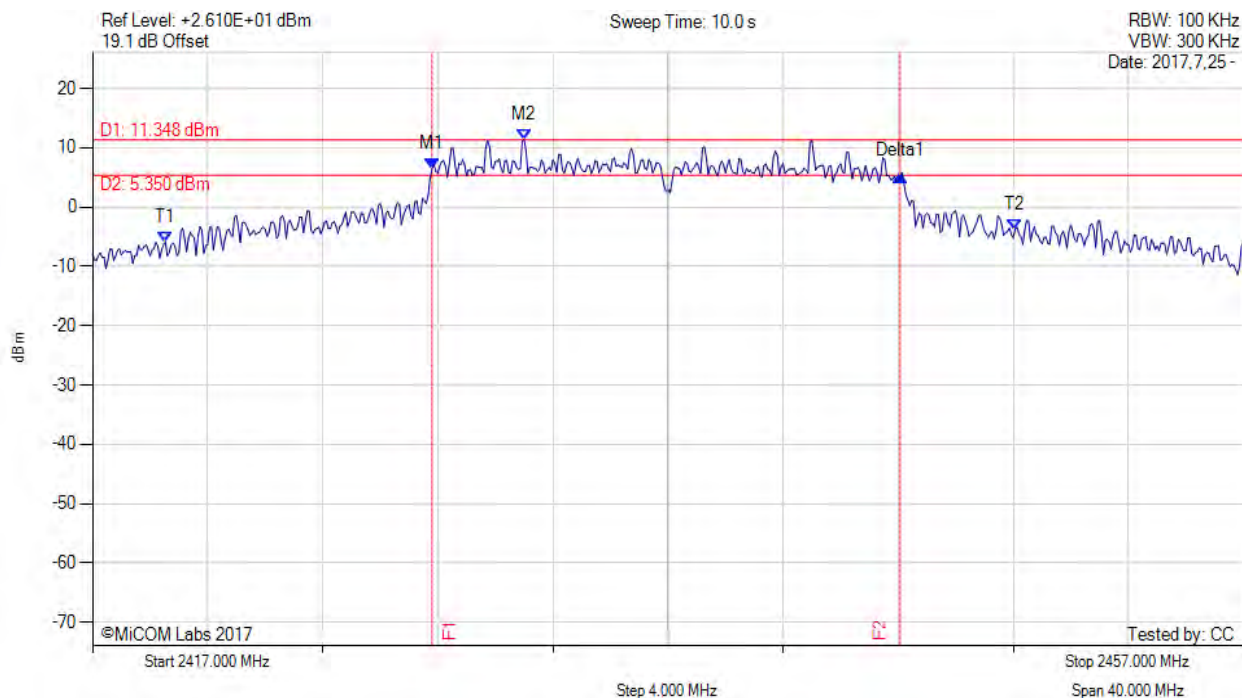
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.800 MHz : 6.457 dBm M2 : 2432.000 MHz : 11.348 dBm Delta1 : 16.270 MHz : -1.120 dB T1 : 2419.533 MHz : -5.918 dBm T2 : 2449.067 MHz : -3.744 dBm OBW : 34.817 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

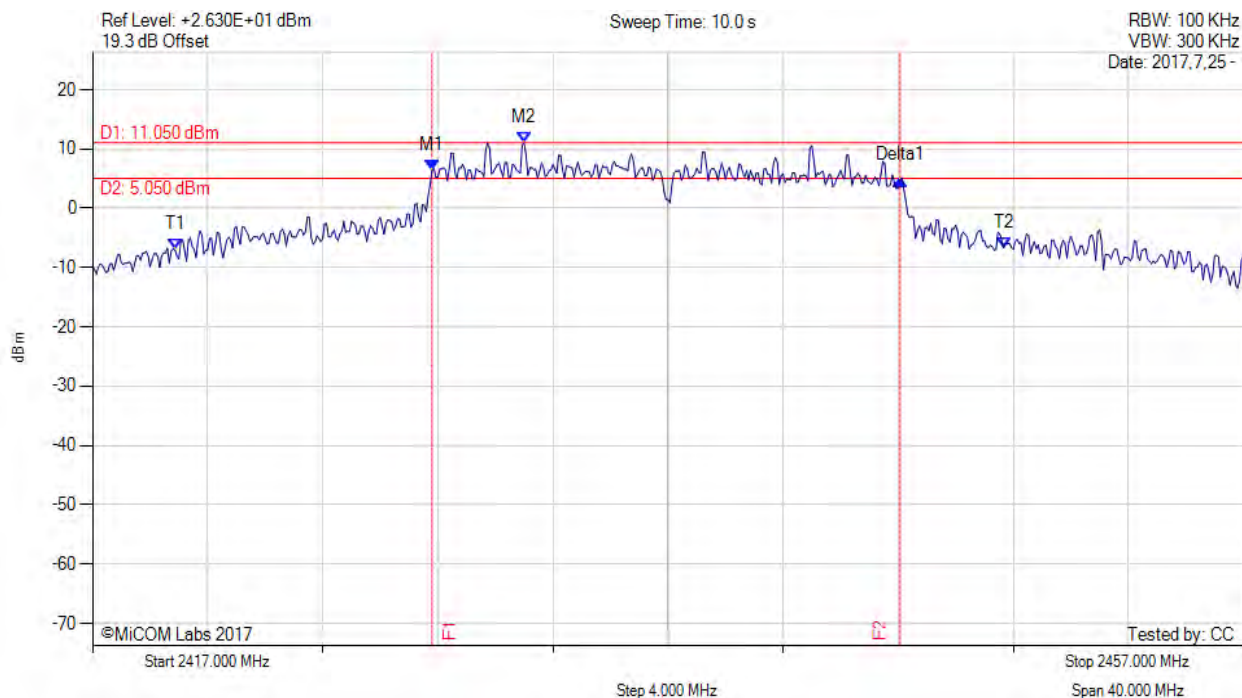
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.800 MHz : 6.365 dBm M2 : 2432.000 MHz : 11.050 dBm Delta1 : 16.270 MHz : -1.615 dB T1 : 2419.867 MHz : -7.017 dBm T2 : 2448.667 MHz : -6.640 dBm OBW : 33.745 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

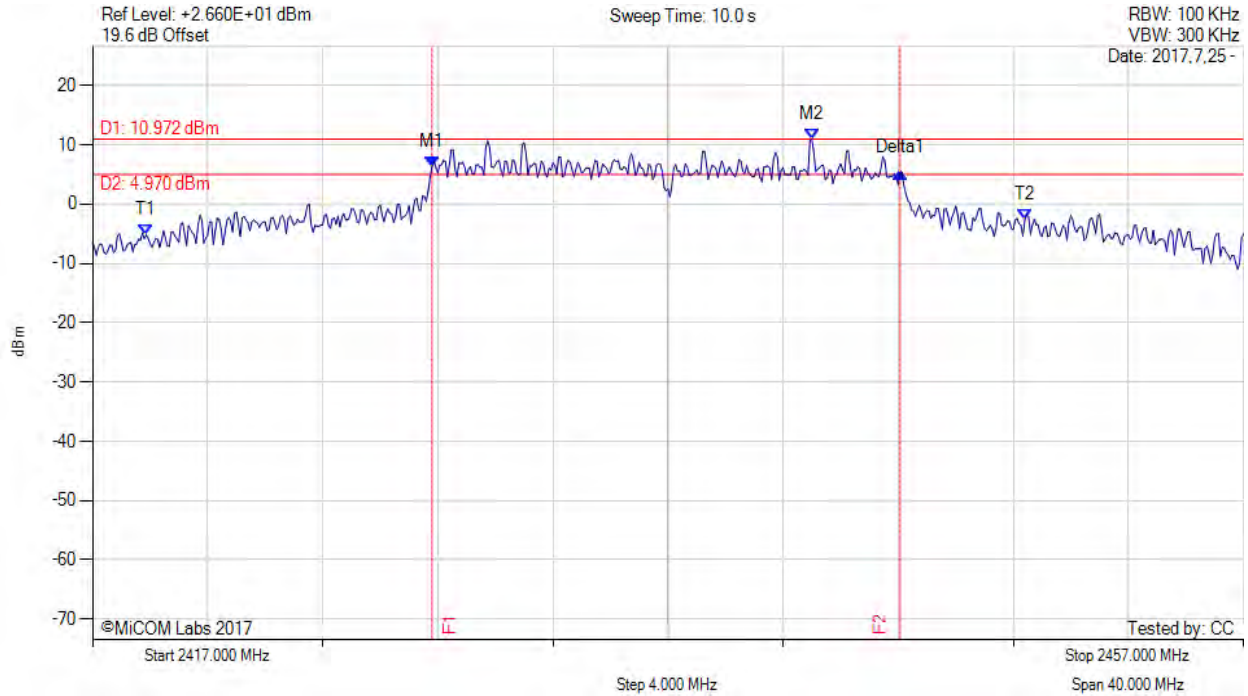
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.800 MHz : 6.313 dBm M2 : 2442.000 MHz : 10.972 dBm Delta1 : 16.270 MHz : -1.088 dB T1 : 2418.867 MHz : -5.197 dBm T2 : 2449.400 MHz : -2.672 dBm OBW : 35.979 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

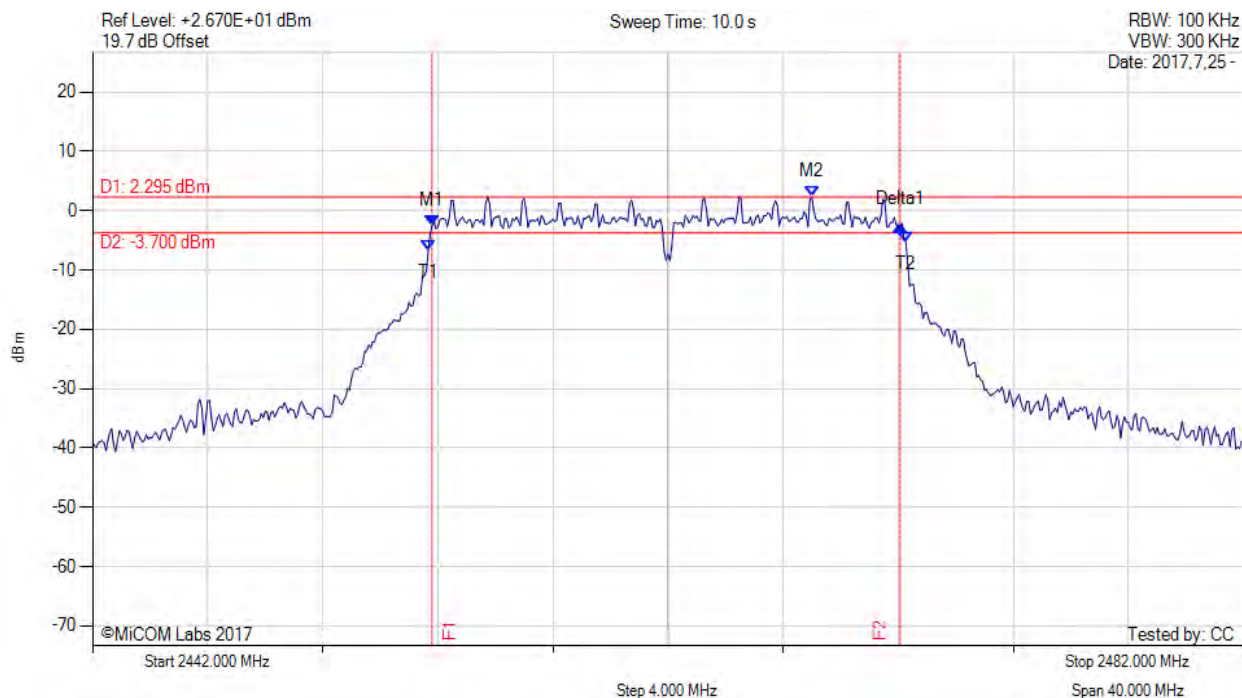
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.800 MHz : -2.517 dBm M2 : 2467.000 MHz : 2.295 dBm Delta1 : 16.270 MHz : 0.085 dB T1 : 2453.667 MHz : -6.755 dBm T2 : 2470.267 MHz : -5.315 dBm OBW : 16.535 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

[back to matrix](#)

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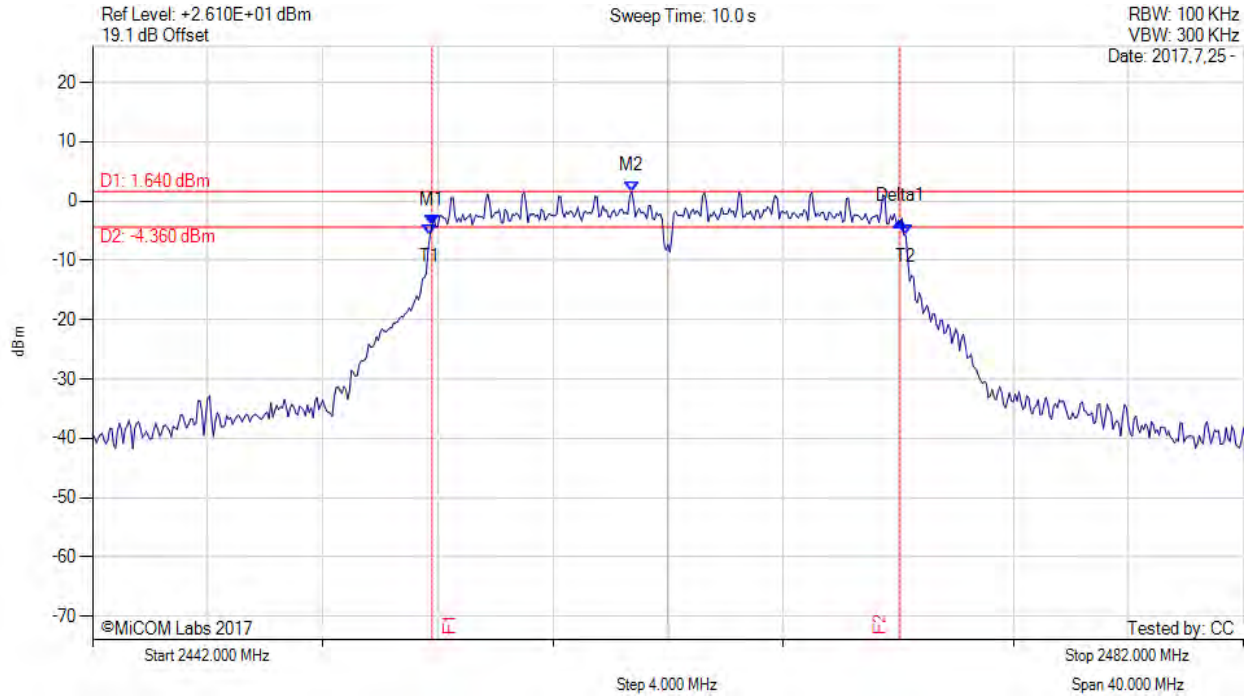


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.800 MHz : -4.047 dBm M2 : 2460.730 MHz : 1.640 dBm Delta1 : 16.270 MHz : 0.669 dB T1 : 2453.733 MHz : -5.731 dBm T2 : 2470.267 MHz : -5.793 dBm OBW : 16.485 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

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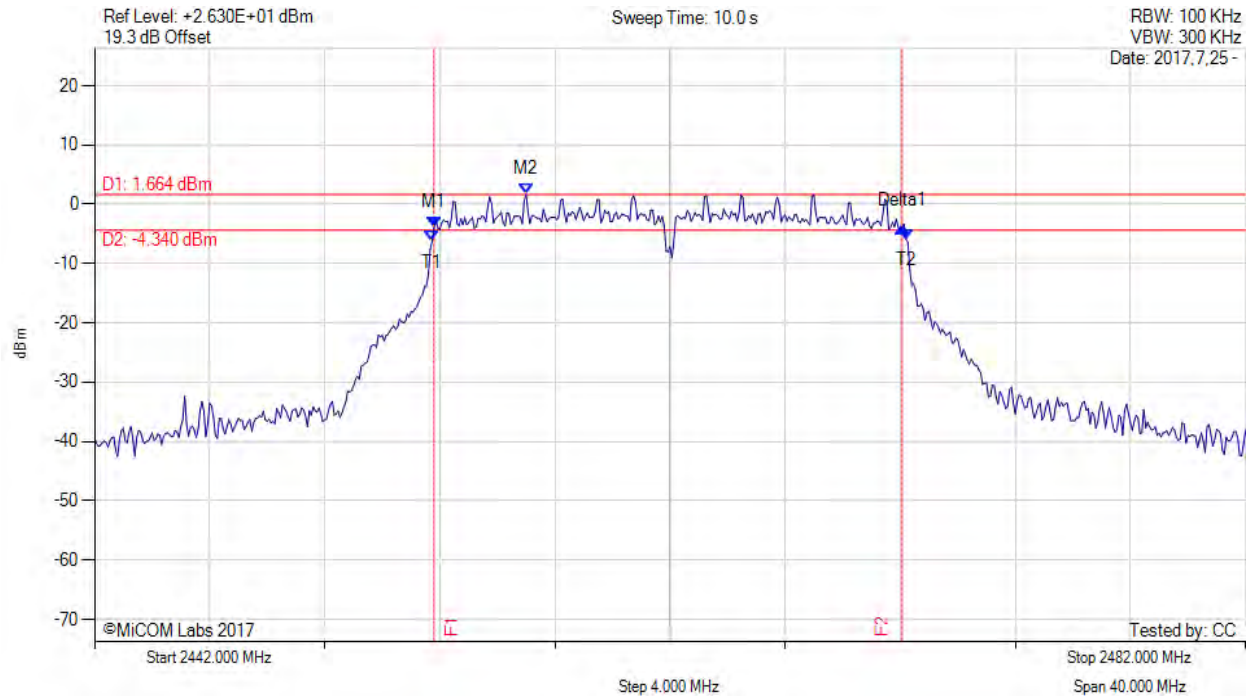


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.800 MHz : -3.933 dBm M2 : 2457.000 MHz : 1.664 dBm Delta1 : 16.270 MHz : 0.168 dB T1 : 2453.733 MHz : -6.257 dBm T2 : 2470.200 MHz : -5.860 dBm OBW : 16.452 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

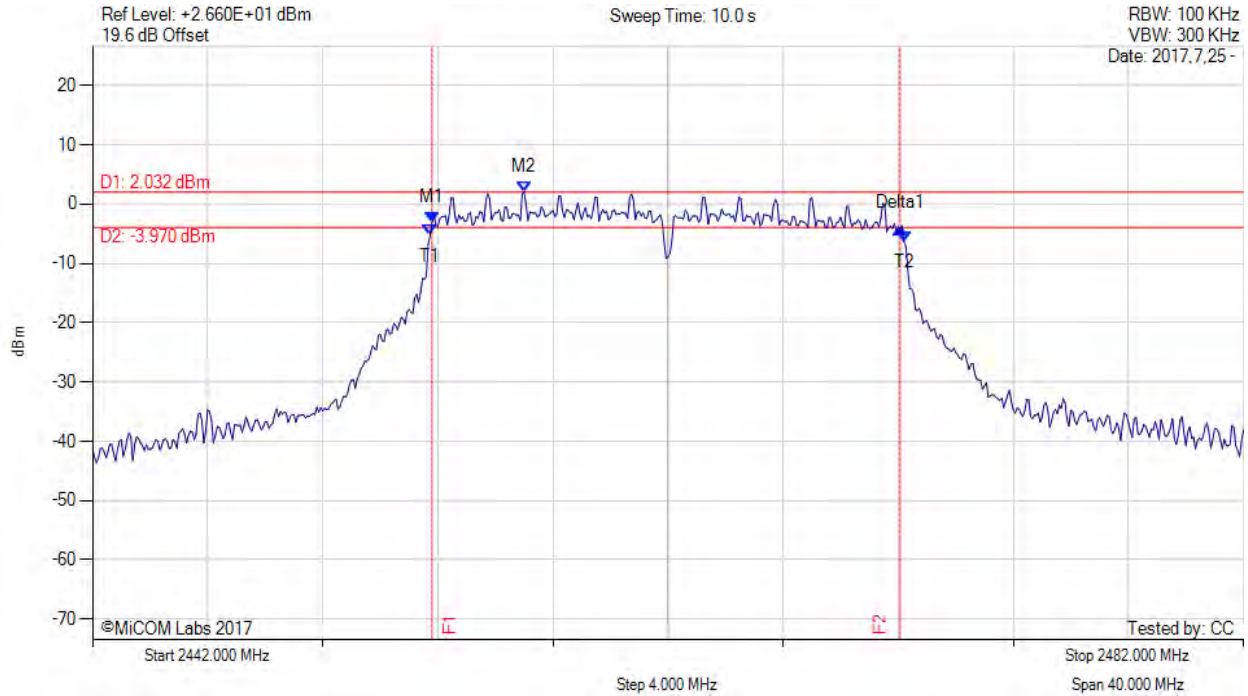
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6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.800 MHz : -3.118 dBm M2 : 2457.000 MHz : 2.032 dBm Delta1 : 16.270 MHz : -0.875 dB T1 : 2453.733 MHz : -5.290 dBm T2 : 2470.200 MHz : -6.268 dBm OBW : 16.430 MHz	Measured 6 dB Bandwidth: 16.270 MHz Limit: ≥500.0 kHz Margin: -15.77 MHz

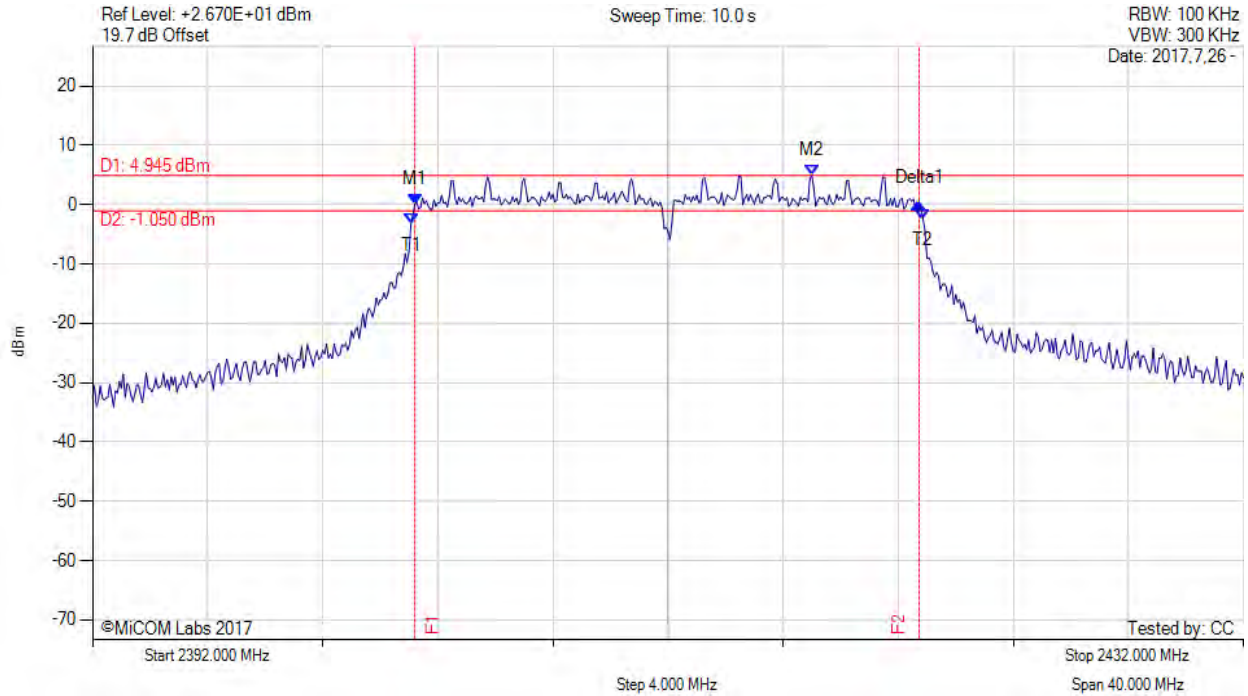
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.200 MHz : 0.043 dBm M2 : 2417.000 MHz : 4.945 dBm Delta1 : 17.530 MHz : 0.123 dB T1 : 2403.067 MHz : -3.283 dBm T2 : 2420.867 MHz : -2.493 dBm OBW : 17.814 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

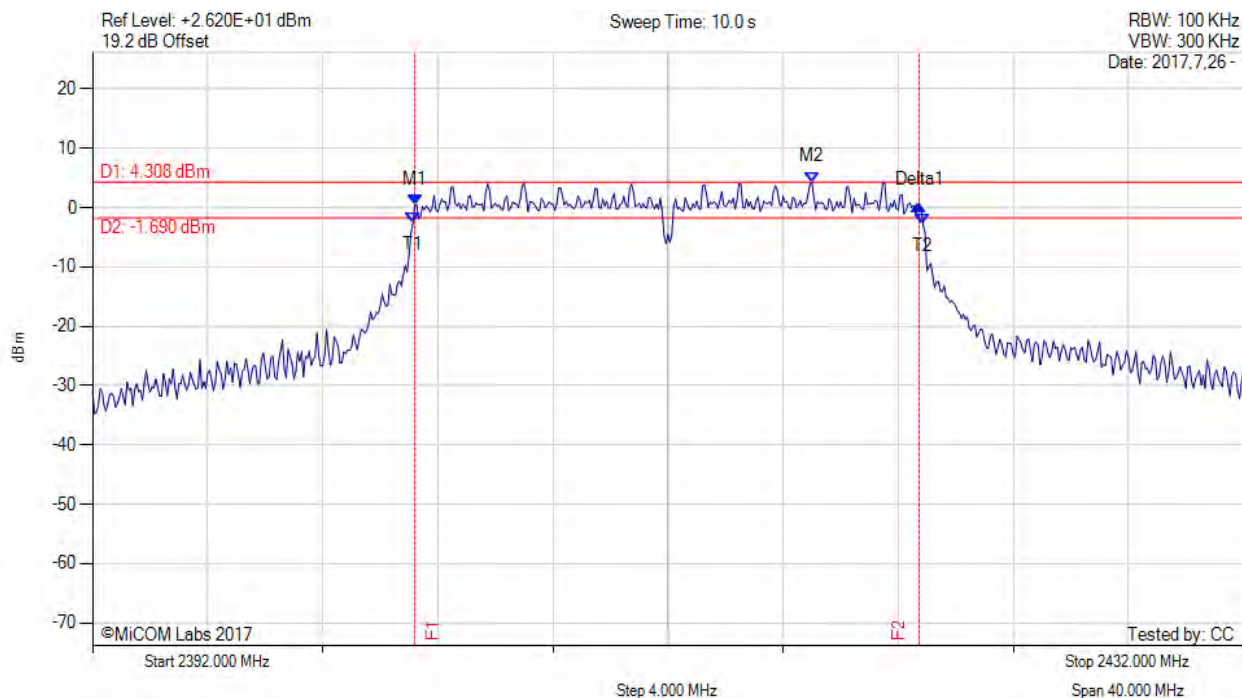
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.200 MHz : 0.403 dBm M2 : 2417.000 MHz : 4.308 dBm Delta1 : 17.530 MHz : -0.036 dB T1 : 2403.133 MHz : -2.662 dBm T2 : 2420.867 MHz : -2.827 dBm OBW : 17.782 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

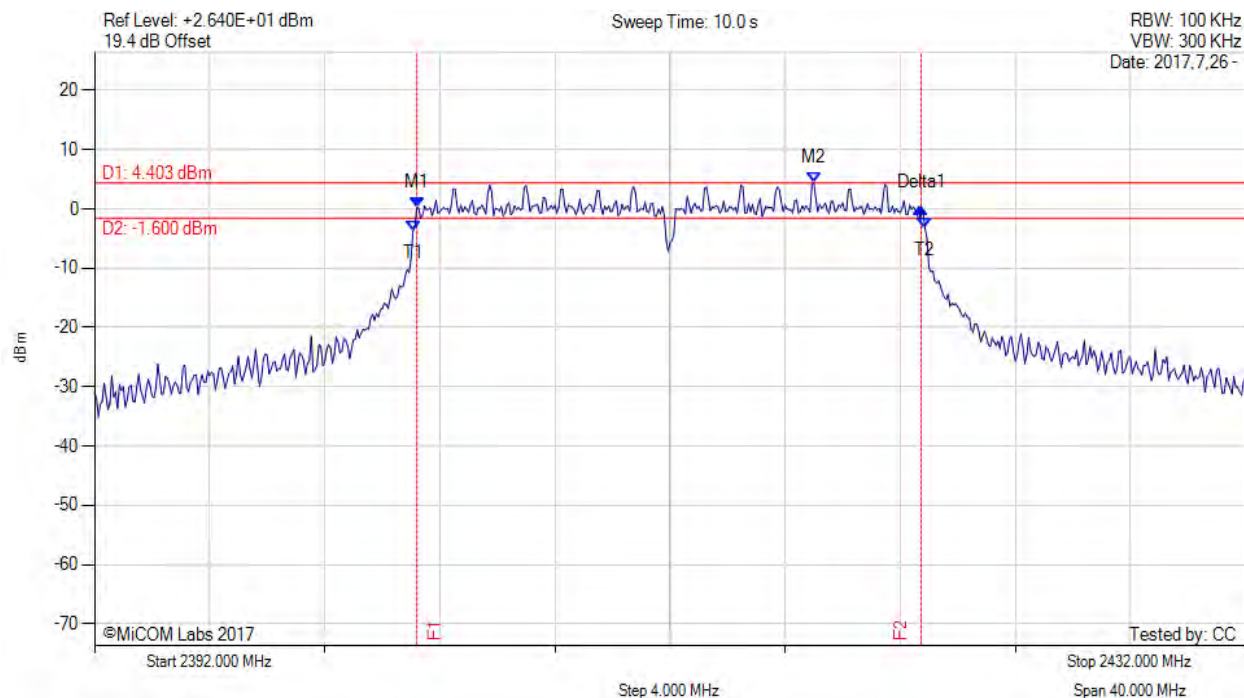
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.200 MHz : 0.184 dBm M2 : 2417.000 MHz : 4.403 dBm Delta1 : 17.530 MHz : 0.097 dB T1 : 2403.067 MHz : -3.820 dBm T2 : 2420.867 MHz : -3.313 dBm OBW : 17.816 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

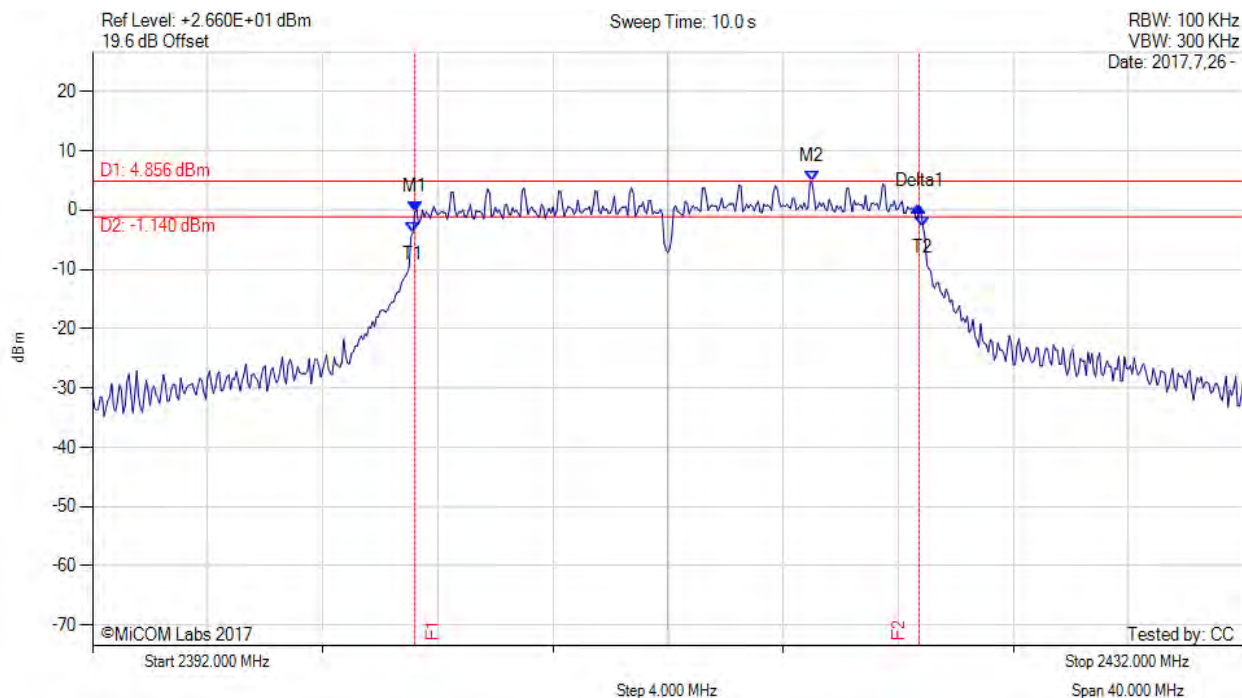
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.200 MHz : -0.312 dBm M2 : 2417.000 MHz : 4.856 dBm Delta1 : 17.530 MHz : 0.907 dB T1 : 2403.133 MHz : -3.808 dBm T2 : 2420.867 MHz : -2.749 dBm OBW : 17.761 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

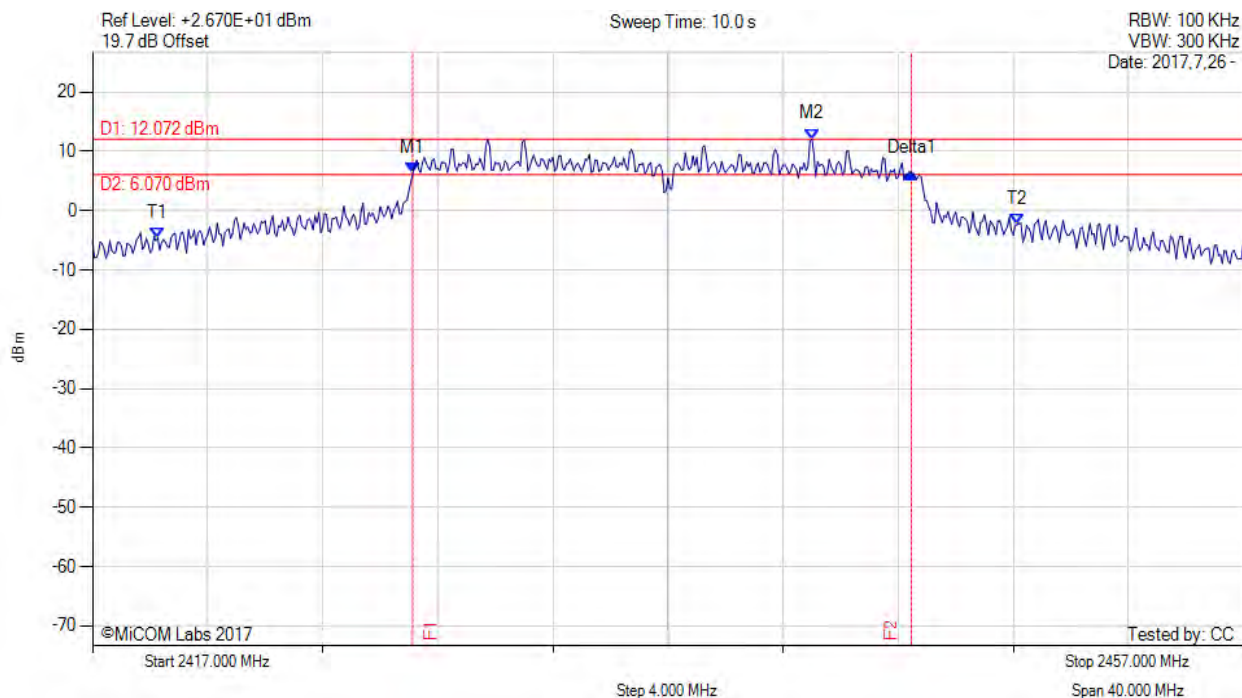
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.130 MHz : 6.284 dBm M2 : 2442.000 MHz : 12.072 dBm Delta1 : 17.330 MHz : 0.093 dB T1 : 2419.267 MHz : -4.629 dBm T2 : 2449.133 MHz : -2.327 dBm OBW : 35.011 MHz	Measured 6 dB Bandwidth: 17.330 MHz Limit: ≥500.0 kHz Margin: -16.83 MHz

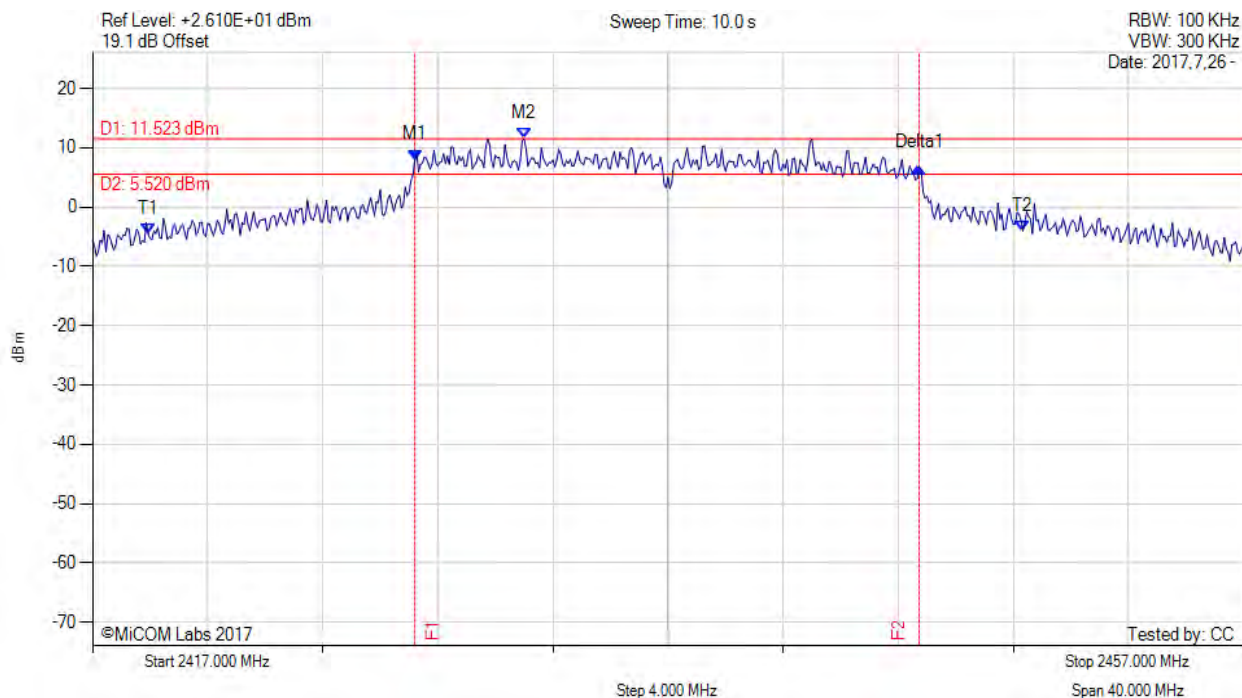
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.200 MHz : 7.960 dBm M2 : 2432.000 MHz : 11.523 dBm Delta1 : 17.530 MHz : -1.276 dB T1 : 2418.933 MHz : -4.583 dBm T2 : 2449.333 MHz : -3.985 dBm OBW : 35.664 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

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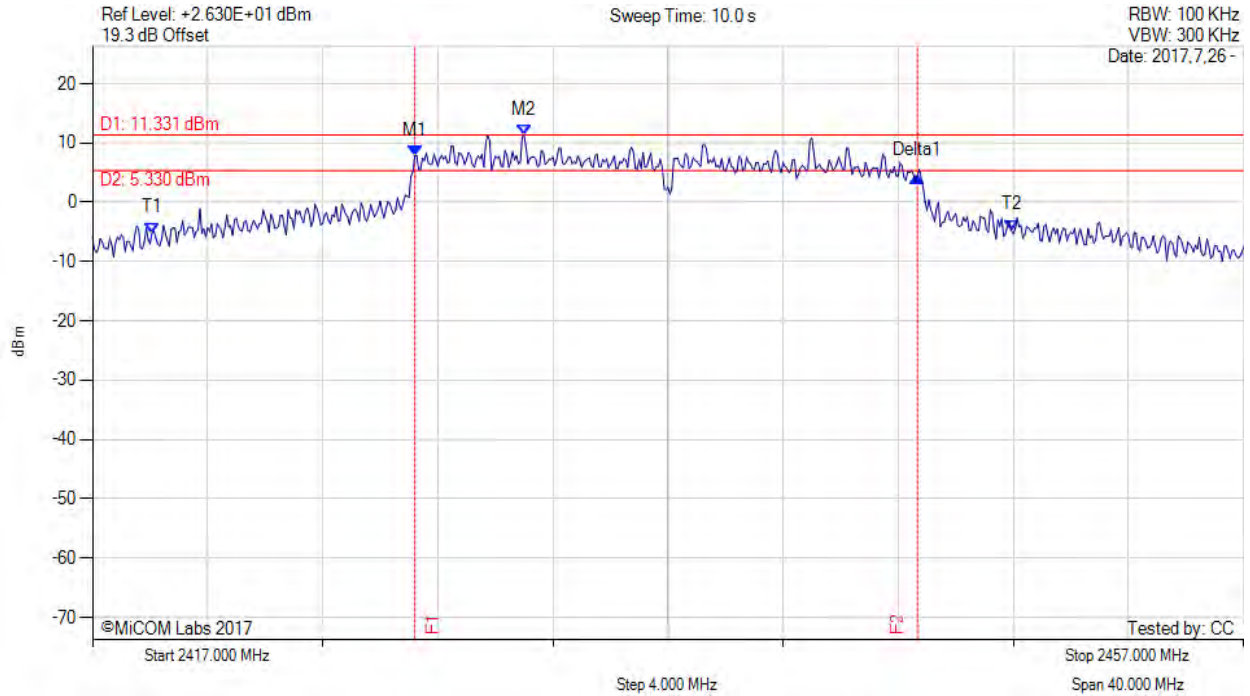


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.200 MHz : 7.880 dBm M2 : 2432.000 MHz : 11.331 dBm Delta1 : 17.470 MHz : -3.465 dB T1 : 2419.067 MHz : -5.169 dBm T2 : 2448.933 MHz : -4.709 dBm OBW : 35.022 MHz	Measured 6 dB Bandwidth: 17.470 MHz Limit: ≥500.0 kHz Margin: -16.97 MHz

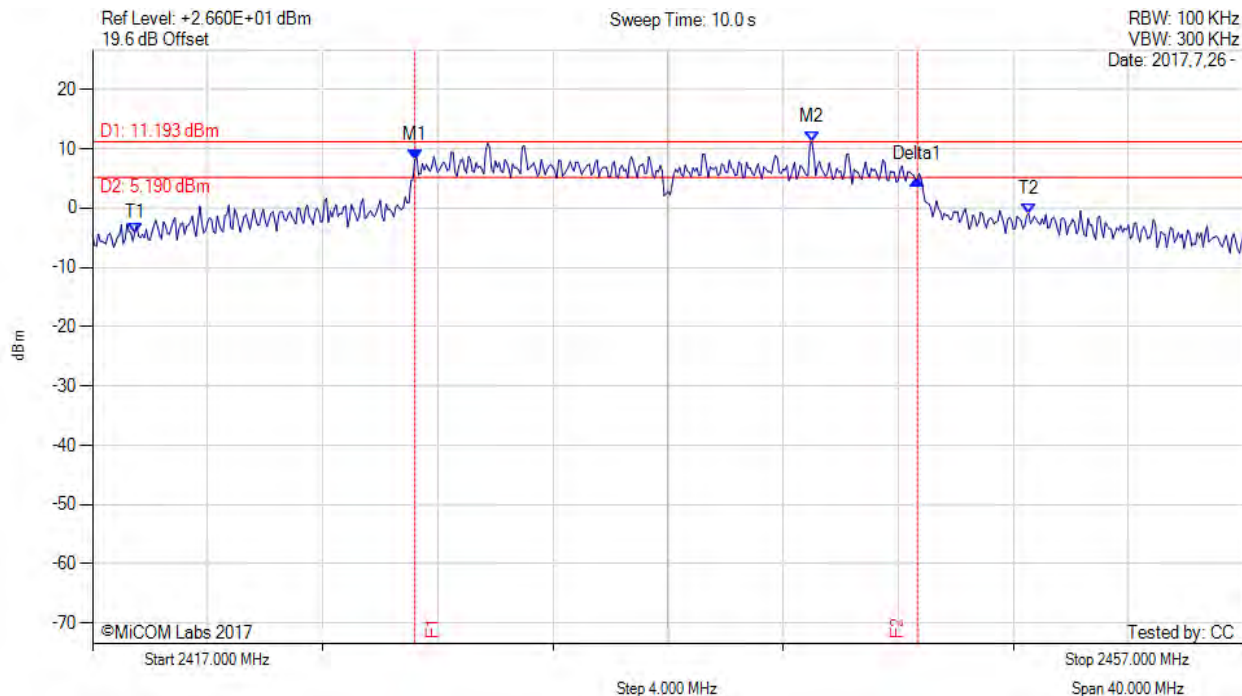
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2428.200 MHz : 8.148 dBm M2 : 2442.000 MHz : 11.193 dBm Delta1 : 17.470 MHz : -3.278 dB T1 : 2418.467 MHz : -4.226 dBm T2 : 2449.533 MHz : -0.911 dBm OBW : 36.837 MHz	Measured 6 dB Bandwidth: 17.470 MHz Limit: ≥500.0 kHz Margin: -16.97 MHz

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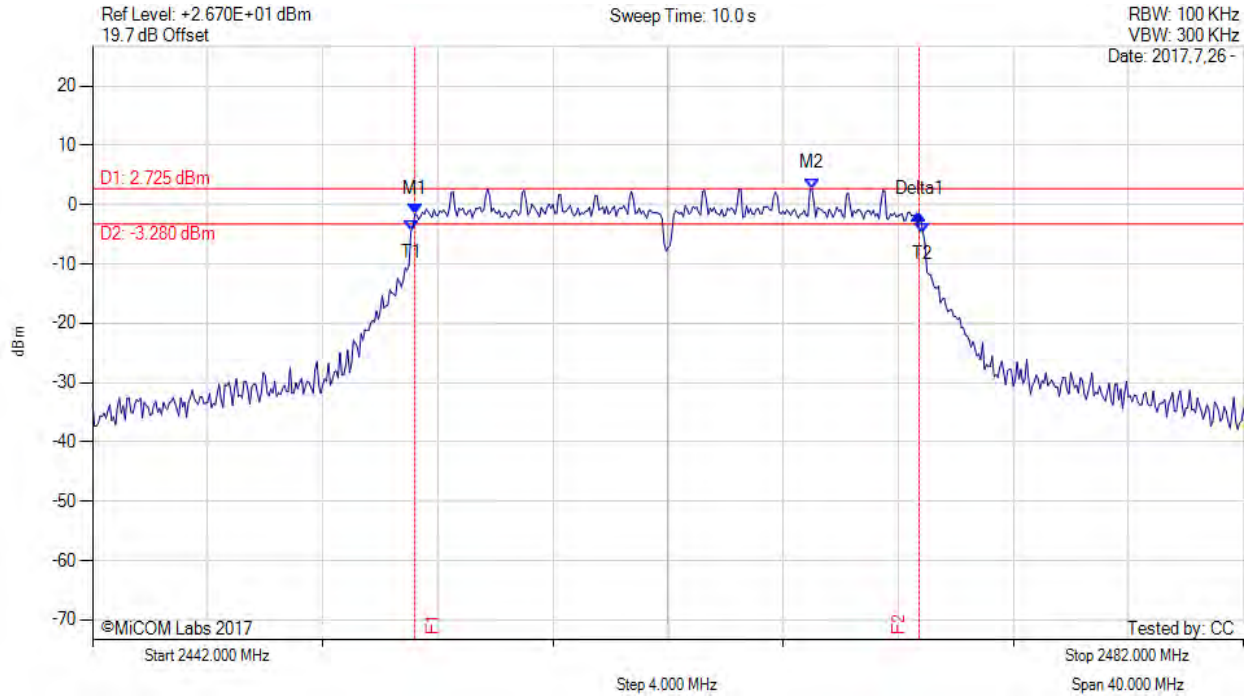


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.200 MHz : -1.535 dBm M2 : 2467.000 MHz : 2.725 dBm Delta1 : 17.530 MHz : -0.144 dB T1 : 2453.067 MHz : -4.434 dBm T2 : 2470.867 MHz : -4.768 dBm OBW : 17.765 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

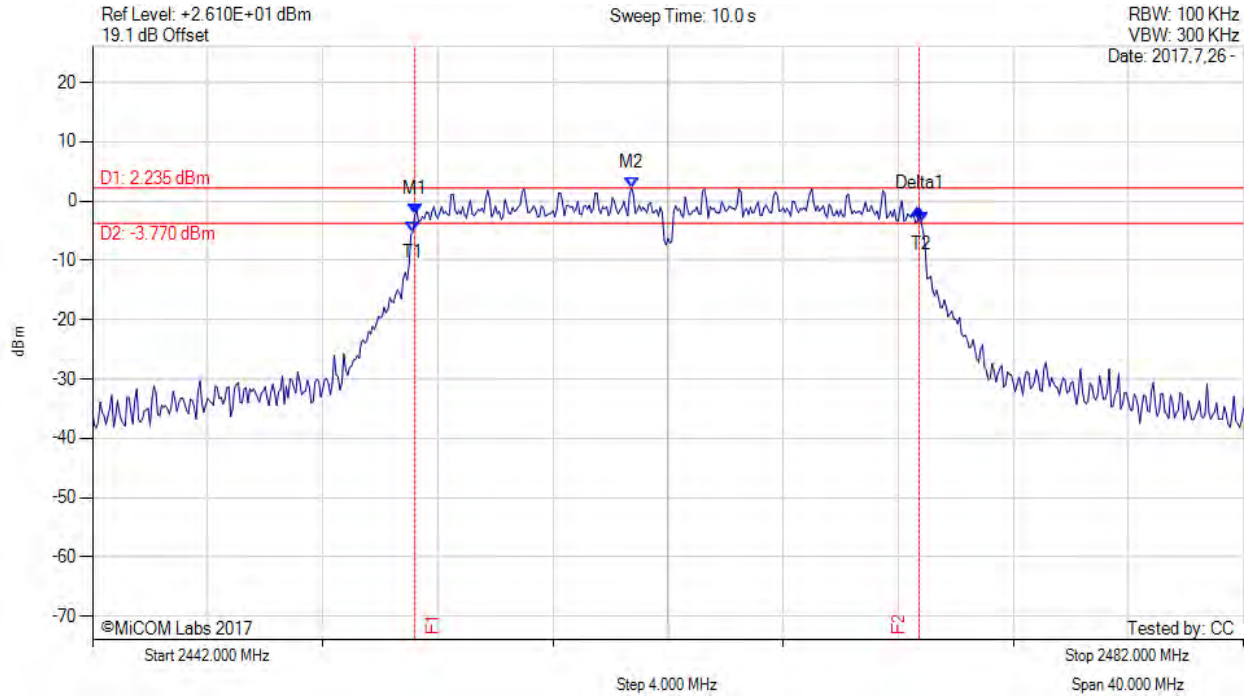
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.200 MHz : -2.274 dBm M2 : 2460.730 MHz : 2.235 dBm Delta1 : 17.530 MHz : 0.958 dB T1 : 2453.133 MHz : -5.169 dBm T2 : 2470.800 MHz : -3.578 dBm OBW : 17.685 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

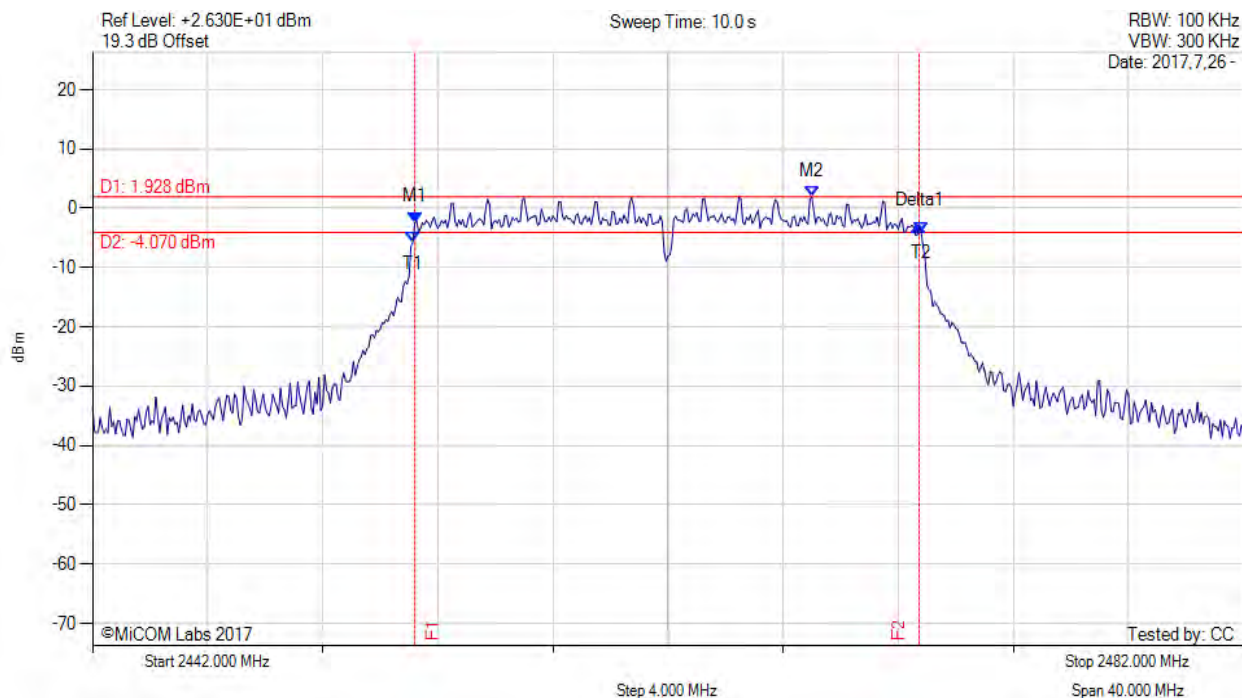
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.200 MHz : -2.370 dBm M2 : 2467.000 MHz : 1.928 dBm Delta1 : 17.530 MHz : -0.649 dB T1 : 2453.133 MHz : -5.749 dBm T2 : 2470.800 MHz : -4.022 dBm OBW : 17.664 MHz	Measured 6 dB Bandwidth: 17.530 MHz Limit: ≥500.0 kHz Margin: -17.03 MHz

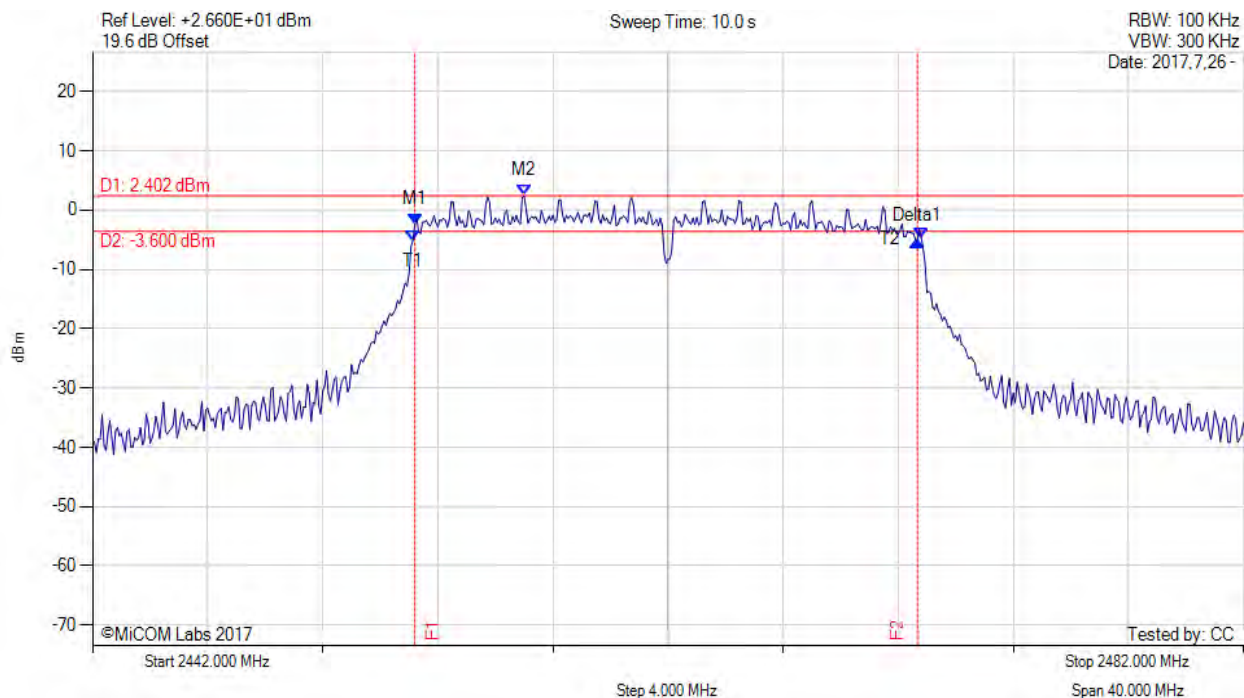
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2453.200 MHz : -2.503 dBm M2 : 2457.000 MHz : 2.402 dBm Delta1 : 17.470 MHz : -2.644 dB T1 : 2453.133 MHz : -5.100 dBm T2 : 2470.800 MHz : -4.711 dBm OBW : 17.652 MHz	Measured 6 dB Bandwidth: 17.470 MHz Limit: ≥500.0 kHz Margin: -16.97 MHz

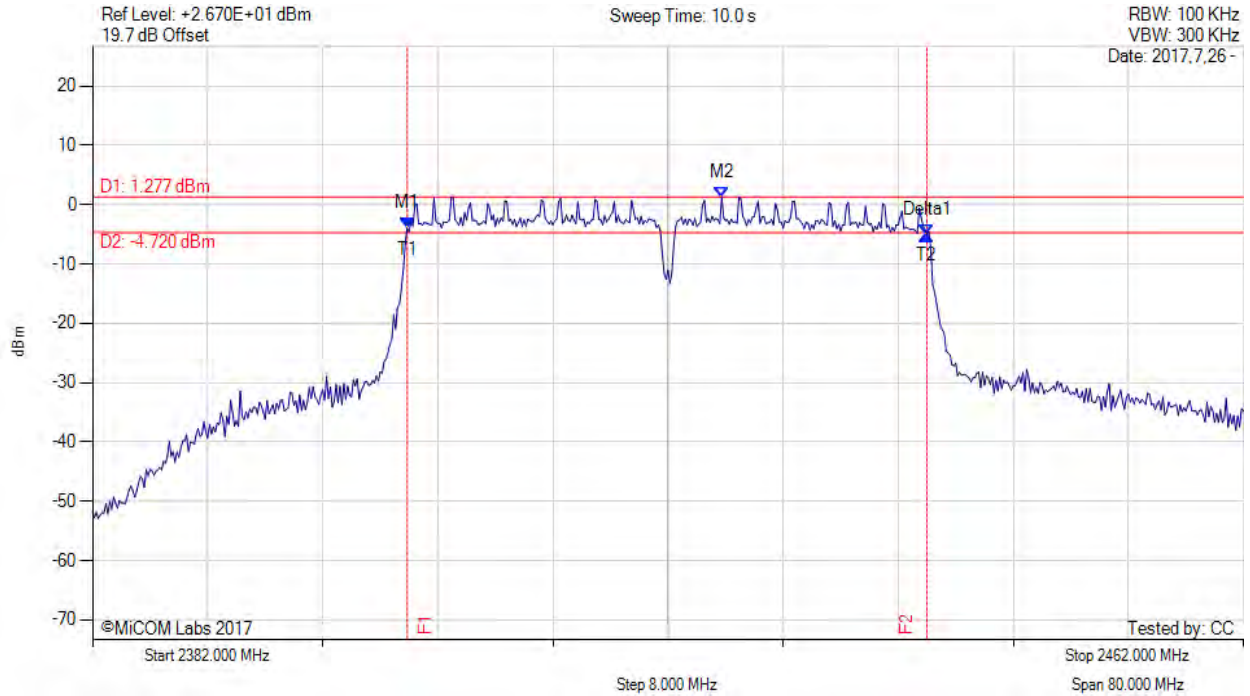
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.870 MHz : -4.006 dBm M2 : 2425.730 MHz : 1.277 dBm Delta1 : 36.130 MHz : -1.032 dB T1 : 2403.867 MHz : -4.006 dBm T2 : 2440.000 MHz : -5.038 dBm OBW : 36.092 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

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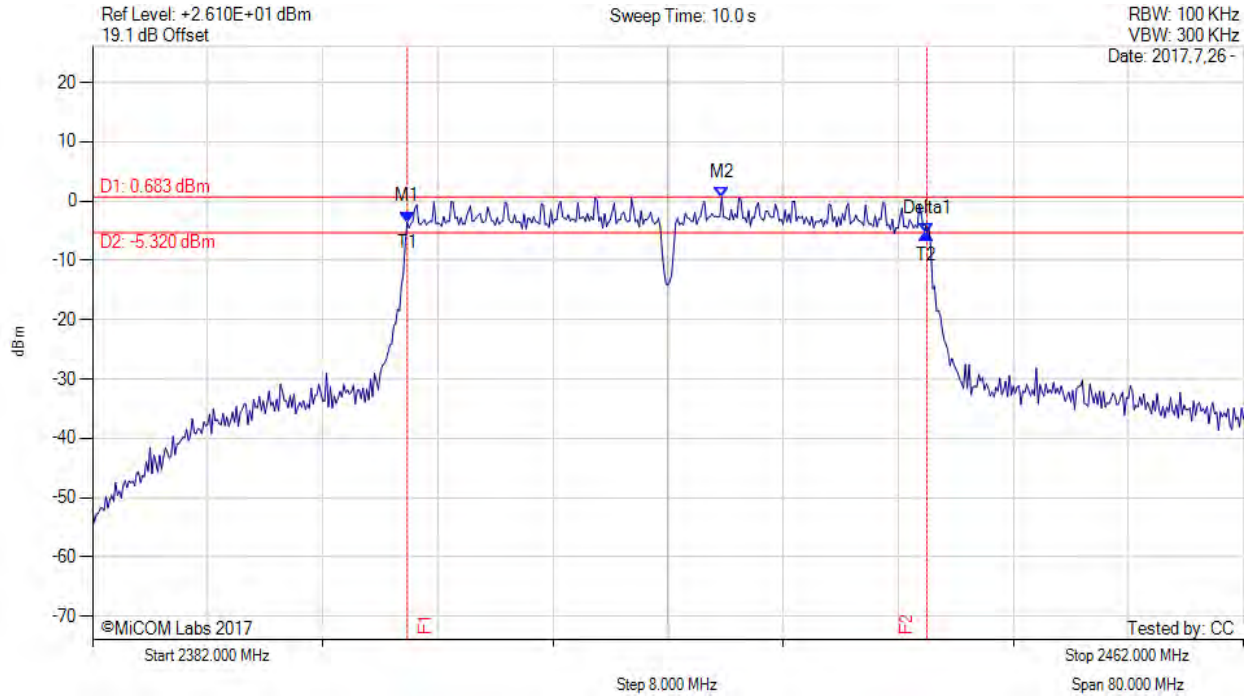


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.870 MHz : -3.496 dBm M2 : 2425.730 MHz : 0.683 dBm Delta1 : 36.130 MHz : -2.006 dB T1 : 2403.867 MHz : -3.496 dBm T2 : 2440.000 MHz : -5.502 dBm OBW : 36.109 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

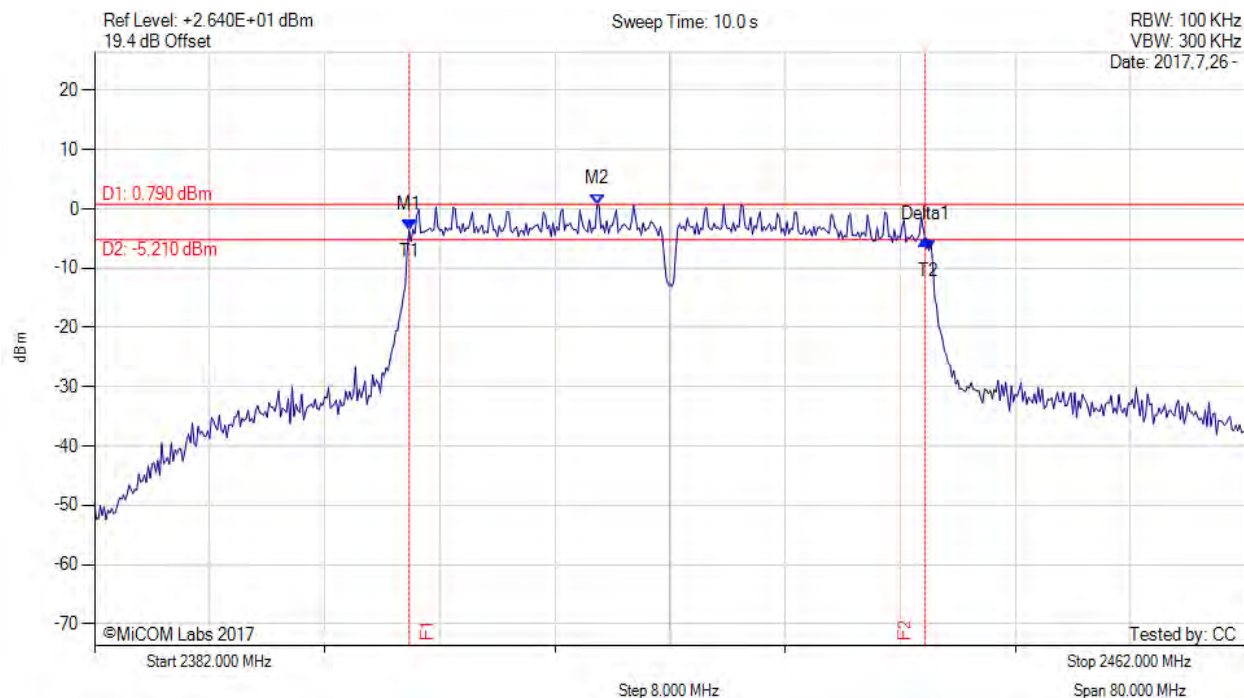
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2403.870 MHz : -3.528 dBm M2 : 2416.930 MHz : 0.790 dBm Delta1 : 35.870 MHz : -1.574 dB T1 : 2403.867 MHz : -3.528 dBm T2 : 2440.000 MHz : -6.970 dBm OBW : 36.045 MHz	Measured 6 dB Bandwidth: 35.870 MHz Limit: ≥500.0 kHz Margin: -35.37 MHz

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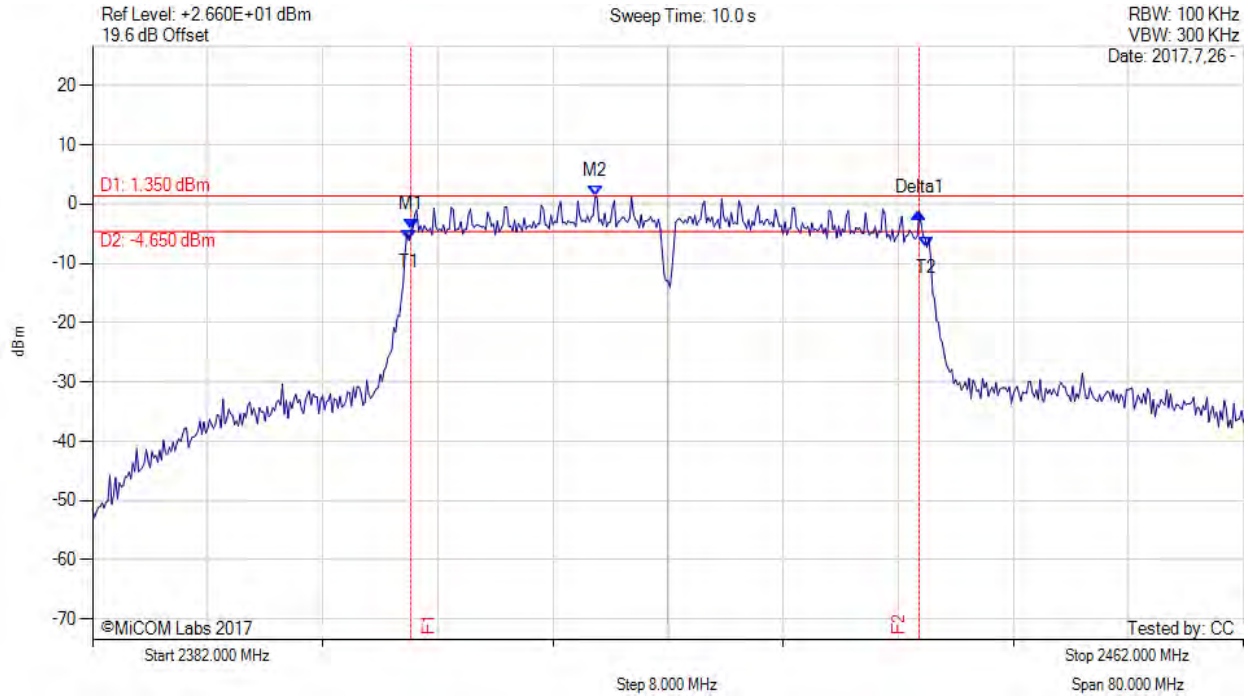


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2404.130 MHz : -4.331 dBm M2 : 2416.930 MHz : 1.350 dBm Delta1 : 35.330 MHz : 2.874 dB T1 : 2404.000 MHz : -6.134 dBm T2 : 2440.000 MHz : -7.245 dBm OBW : 35.998 MHz	Measured 6 dB Bandwidth: 35.330 MHz Limit: ≥500.0 kHz Margin: -34.83 MHz

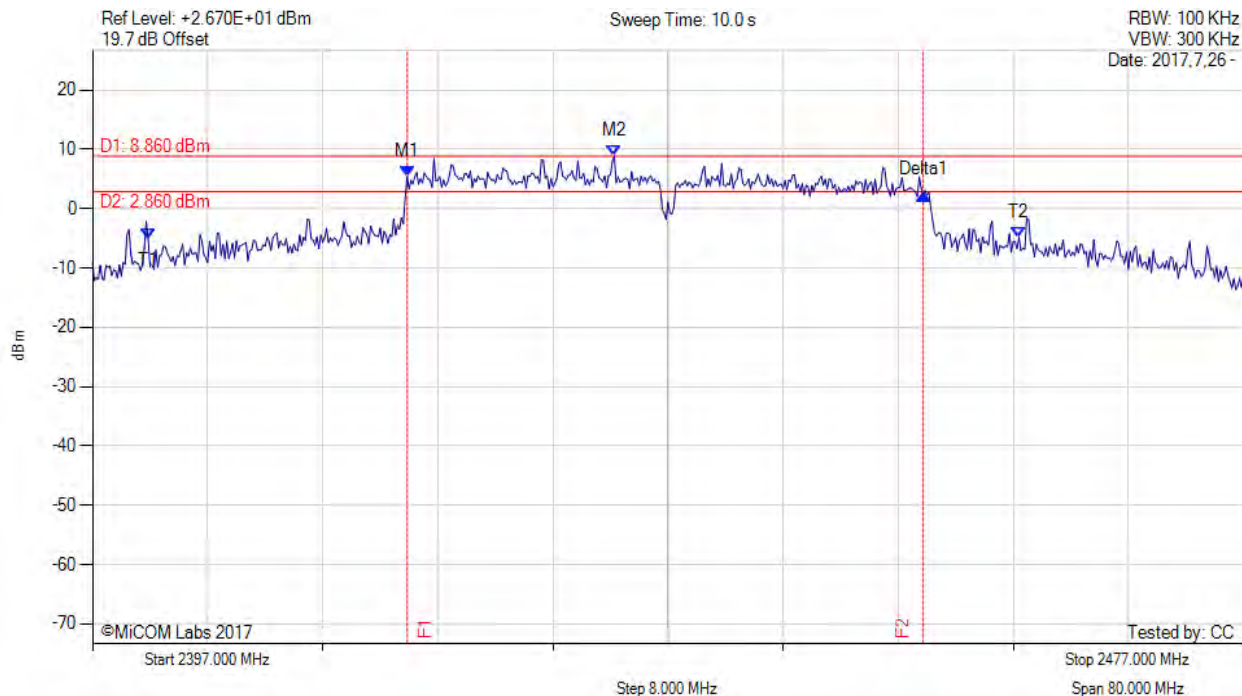
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2418.870 MHz : 5.430 dBm M2 : 2433.270 MHz : 8.860 dBm Delta1 : 35.870 MHz : -2.989 dB T1 : 2400.867 MHz : -5.176 dBm T2 : 2461.400 MHz : -4.849 dBm OBW : 70.042 MHz	Measured 6 dB Bandwidth: 35.870 MHz Limit: ≥500.0 kHz Margin: -35.37 MHz

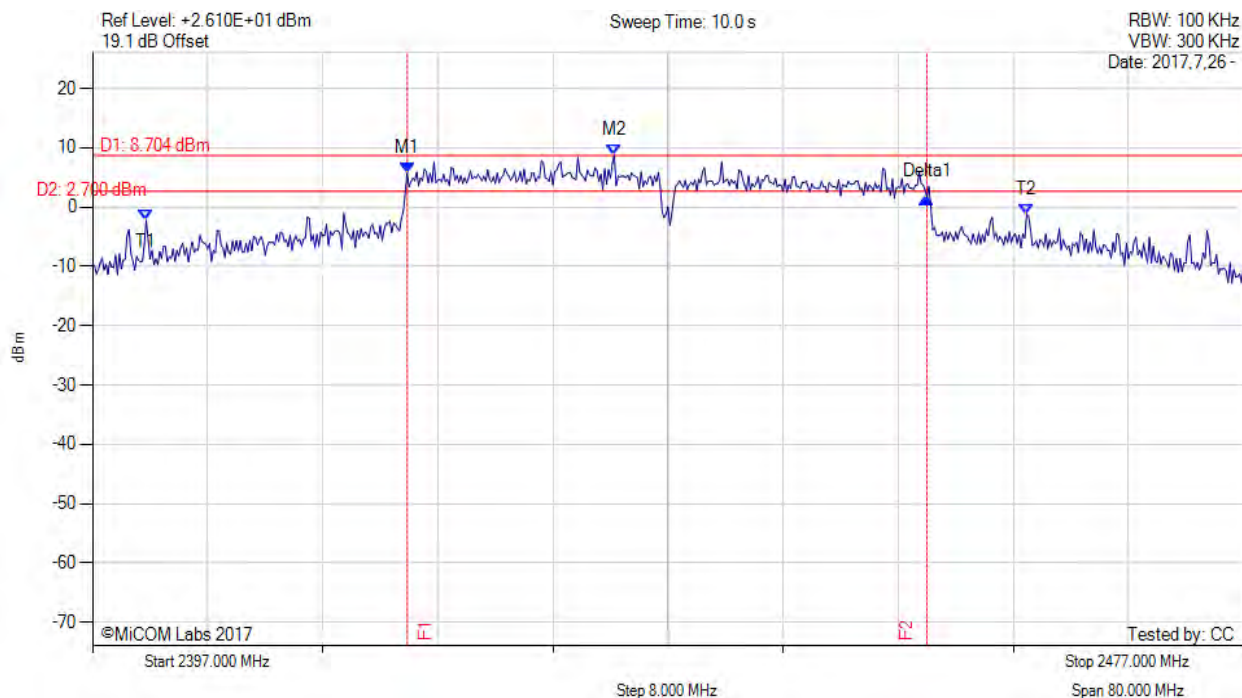
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2418.870 MHz : 5.787 dBm M2 : 2433.270 MHz : 8.704 dBm Delta1 : 36.130 MHz : -4.141 dB T1 : 2400.733 MHz : -2.225 dBm T2 : 2461.933 MHz : -1.211 dBm OBW : 71.446 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

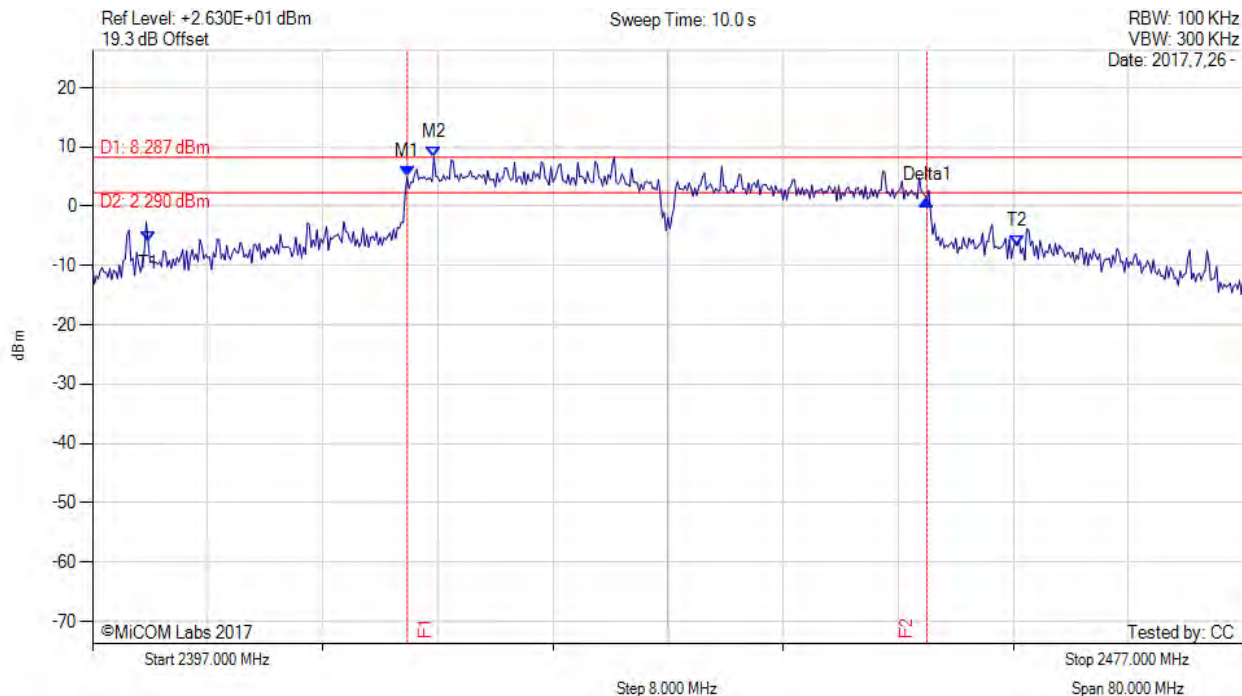
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2418.870 MHz : 4.941 dBm M2 : 2420.730 MHz : 8.287 dBm Delta1 : 36.130 MHz : -3.972 dB T1 : 2400.867 MHz : -6.046 dBm T2 : 2461.267 MHz : -6.709 dBm OBW : 69.239 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

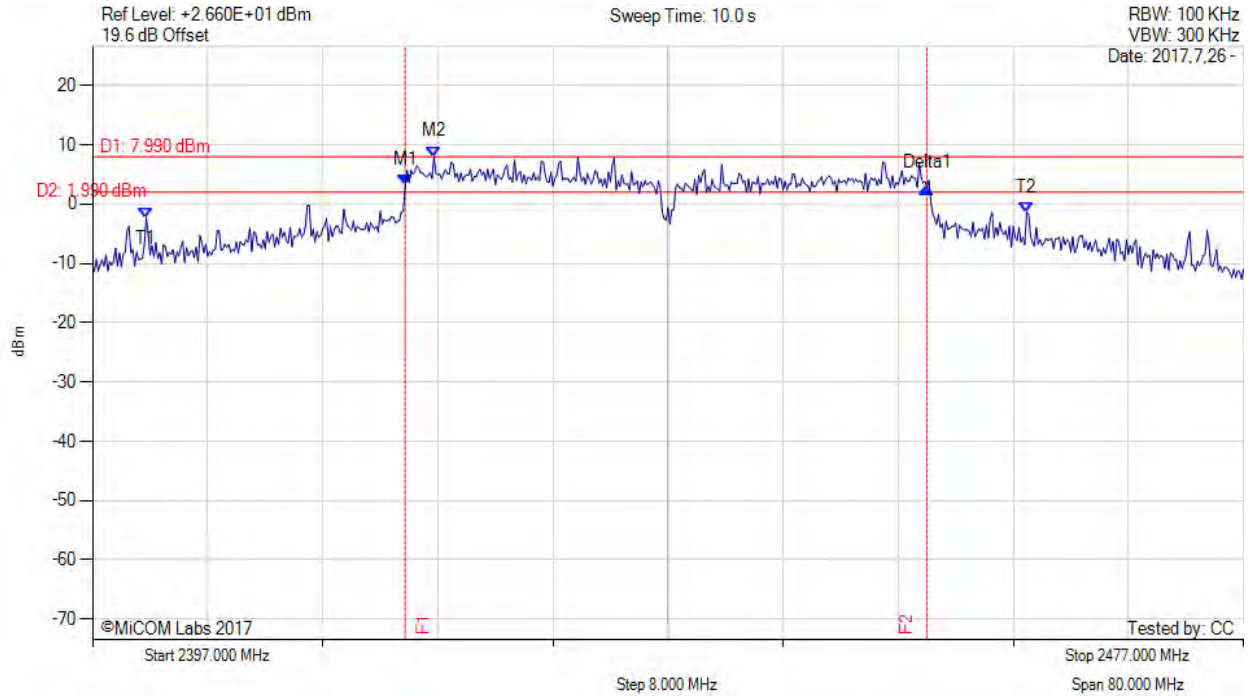
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2418.730 MHz : 3.142 dBm M2 : 2420.730 MHz : 7.990 dBm Delta1 : 36.270 MHz : -0.391 dB T1 : 2400.733 MHz : -2.332 dBm T2 : 2461.933 MHz : -1.396 dBm OBW : 71.511 MHz	Measured 6 dB Bandwidth: 36.270 MHz Limit: ≥500.0 kHz Margin: -35.77 MHz

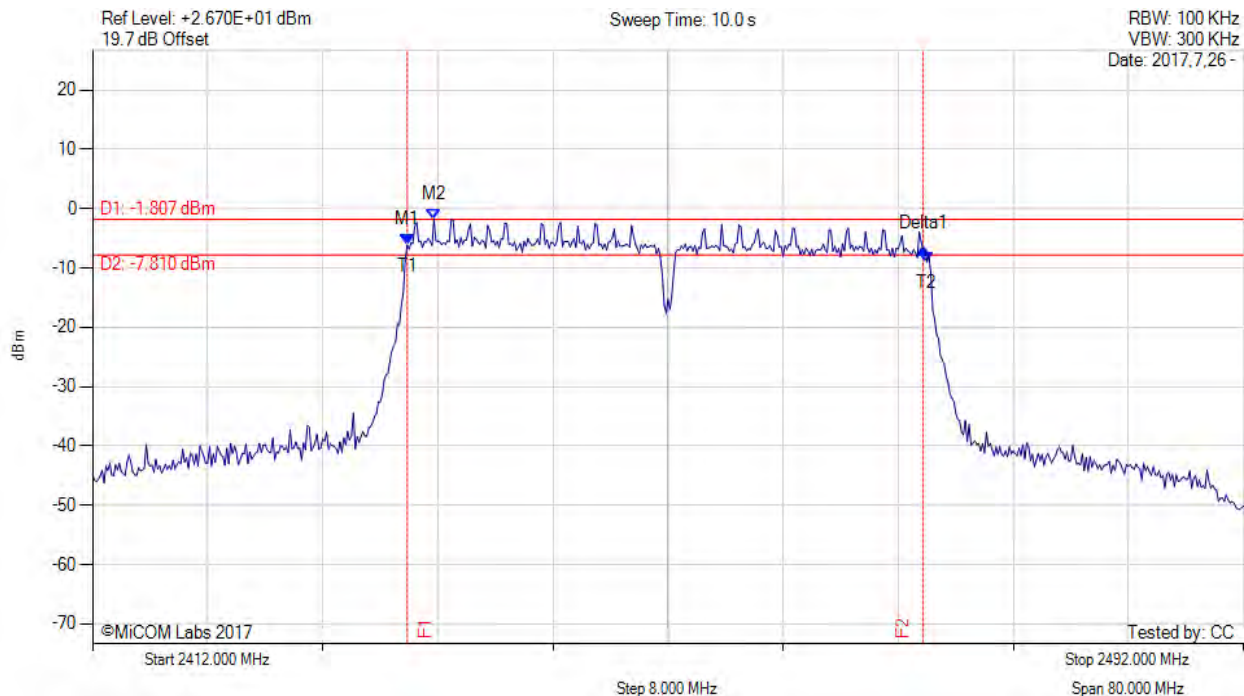
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2433.870 MHz : -6.138 dBm M2 : 2435.730 MHz : -1.807 dBm Delta1 : 35.870 MHz : -0.613 dB T1 : 2433.867 MHz : -6.138 dBm T2 : 2470.000 MHz : -8.985 dBm OBW : 36.095 MHz	Measured 6 dB Bandwidth: 35.870 MHz Limit: ≥500.0 kHz Margin: -35.37 MHz

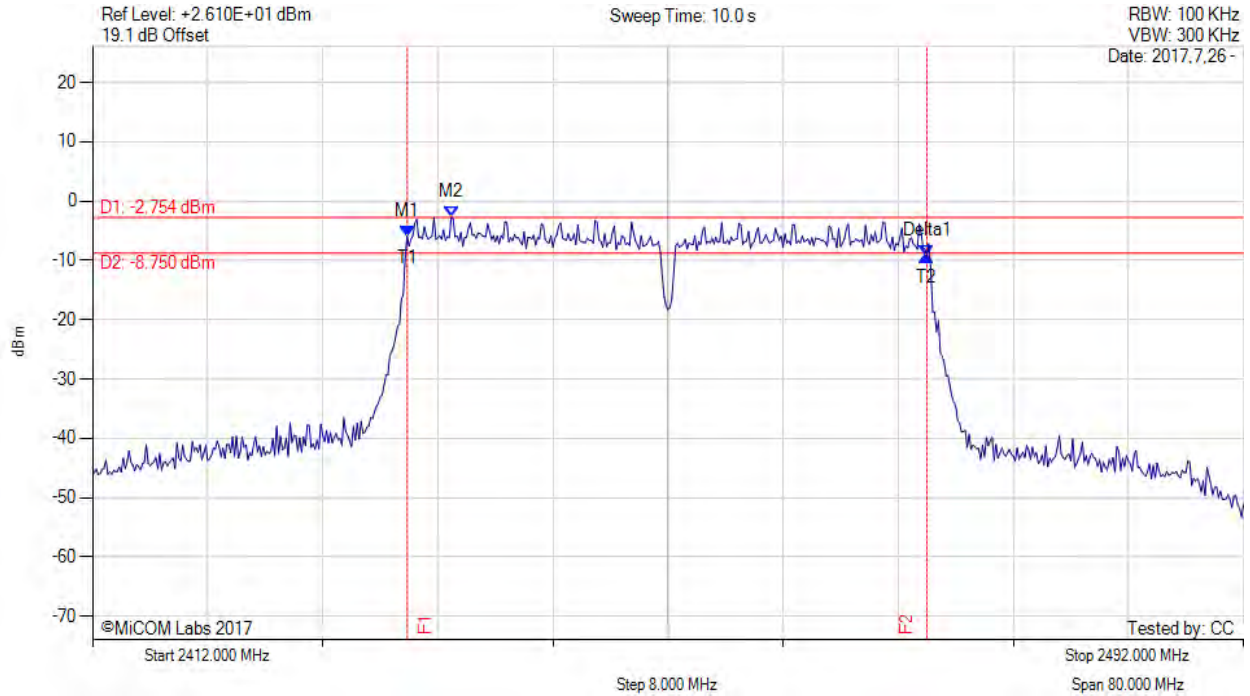
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2433.870 MHz : -5.927 dBm M2 : 2436.930 MHz : -2.754 dBm Delta1 : 36.130 MHz : -3.371 dB T1 : 2433.867 MHz : -5.927 dBm T2 : 2470.000 MHz : -9.298 dBm OBW : 36.137 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

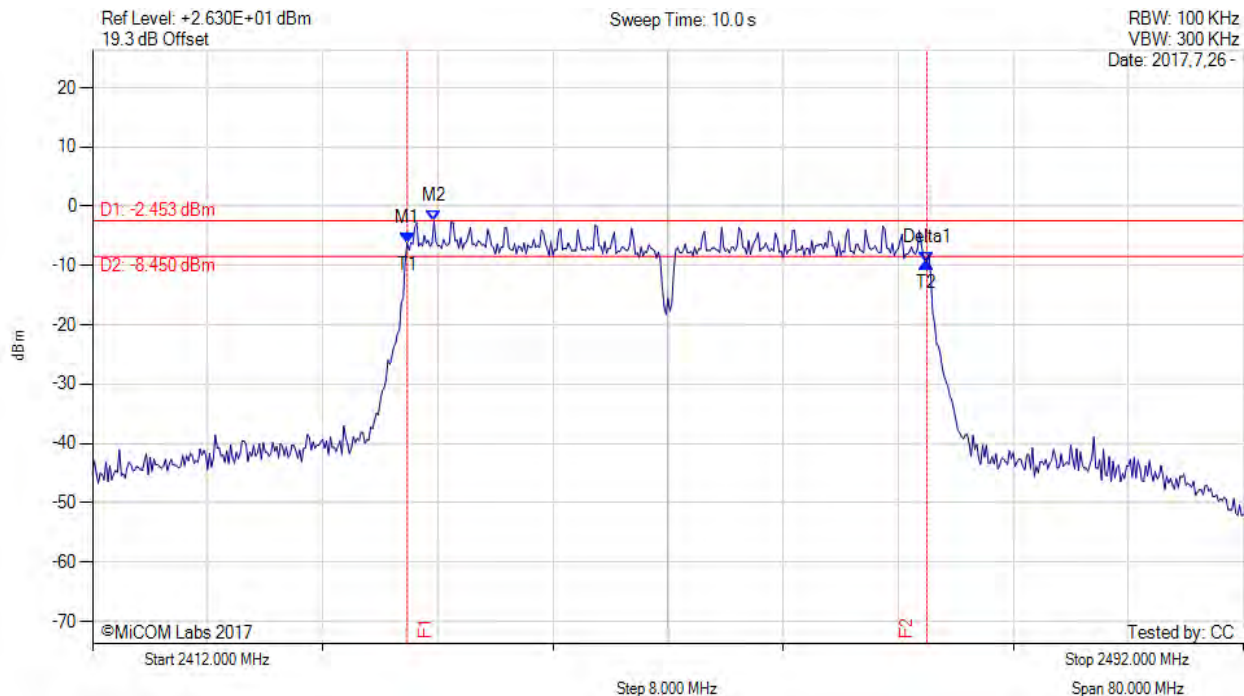
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2433.870 MHz : -6.236 dBm M2 : 2435.730 MHz : -2.453 dBm Delta1 : 36.130 MHz : -3.202 dB T1 : 2433.867 MHz : -6.236 dBm T2 : 2470.000 MHz : -9.438 dBm OBW : 36.120 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

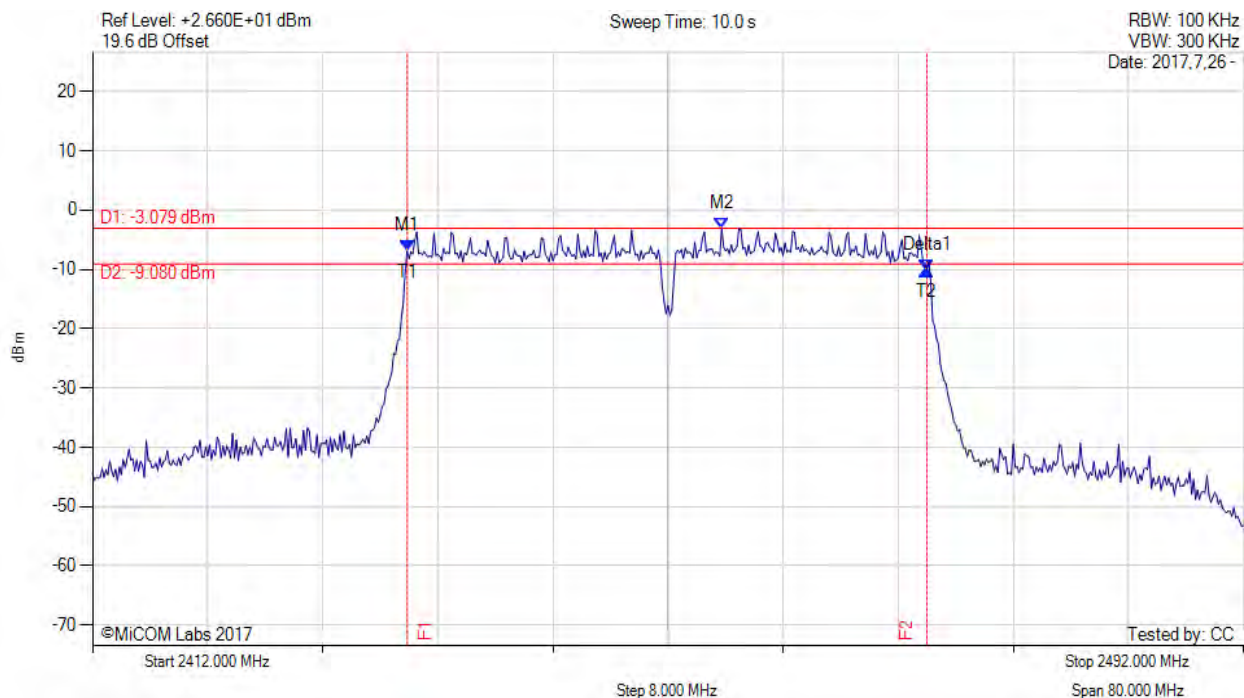
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6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 2433.870 MHz : -6.945 dBm M2 : 2455.730 MHz : -3.079 dBm Delta1 : 36.130 MHz : -3.214 dB T1 : 2433.867 MHz : -6.945 dBm T2 : 2470.000 MHz : -10.159 dBm OBW : 36.082 MHz	Measured 6 dB Bandwidth: 36.130 MHz Limit: ≥500.0 kHz Margin: -35.63 MHz

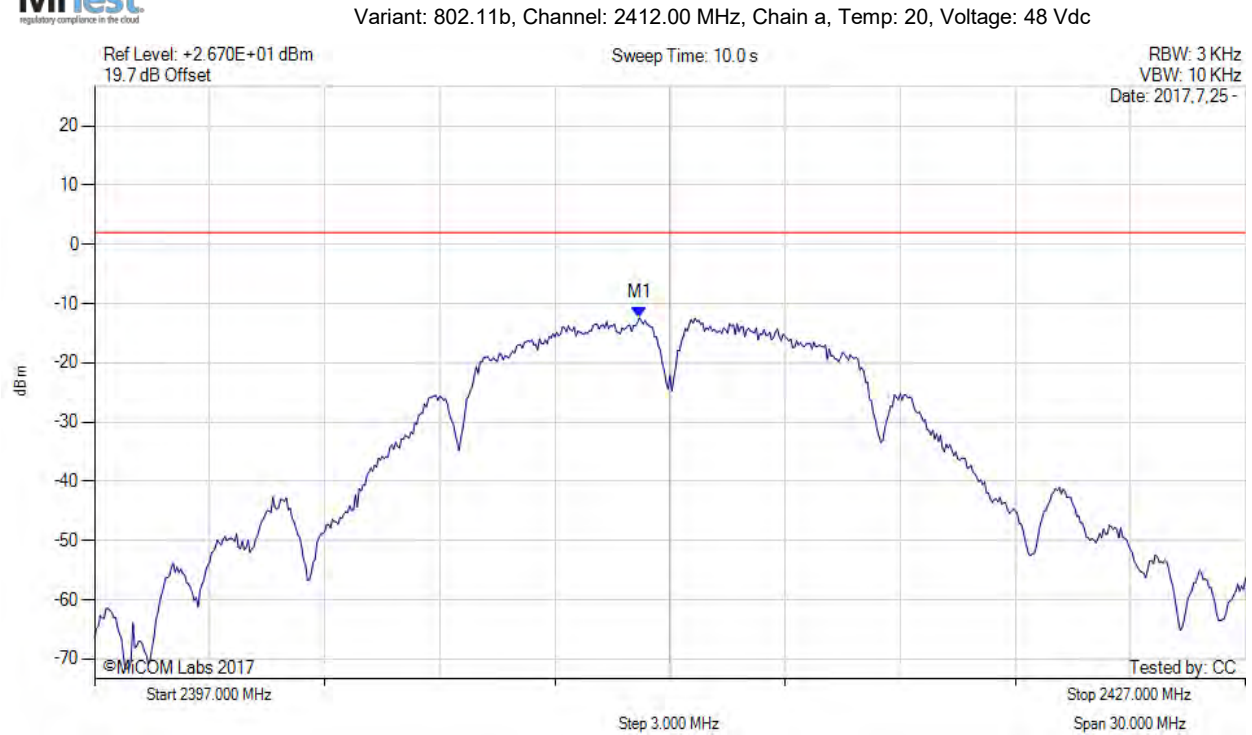
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A.2. Power Spectral Density



POWER SPECTRAL DENSITY - AVERAGE



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2411.200 MHz : -12.407 dBm	Limit: ≤ 1.980 dBm

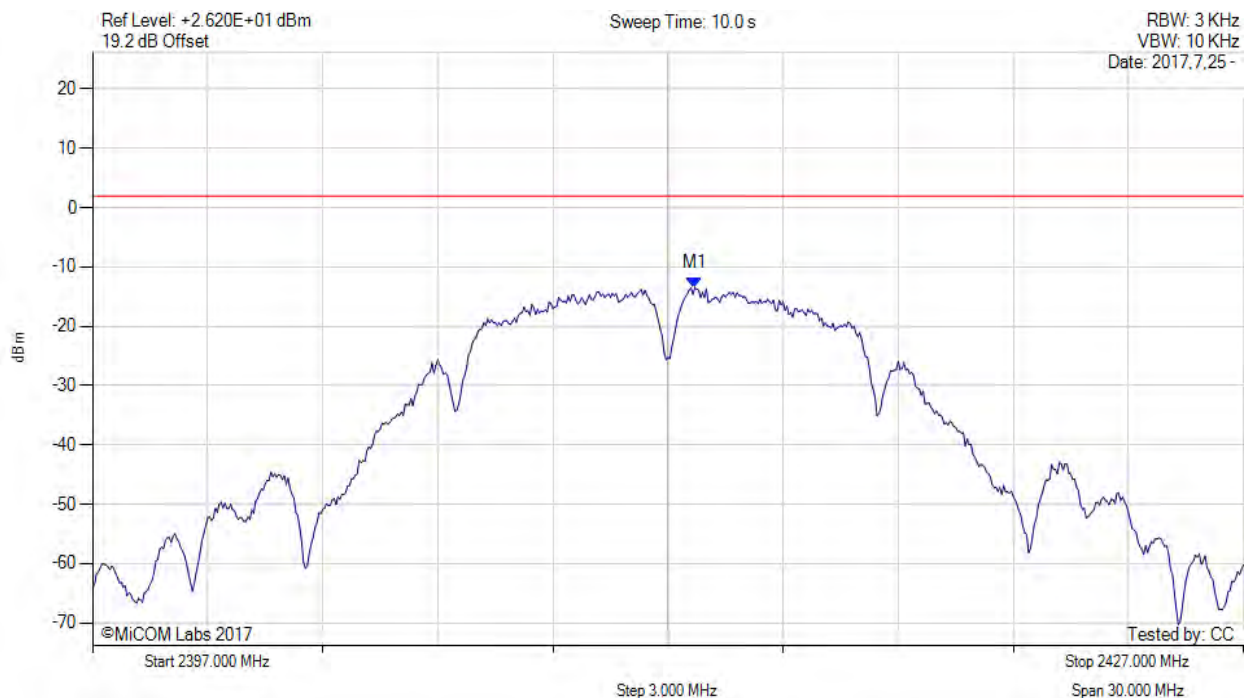
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.700 MHz : -13.540 dBm	Limit: ≤ 1.980 dBm

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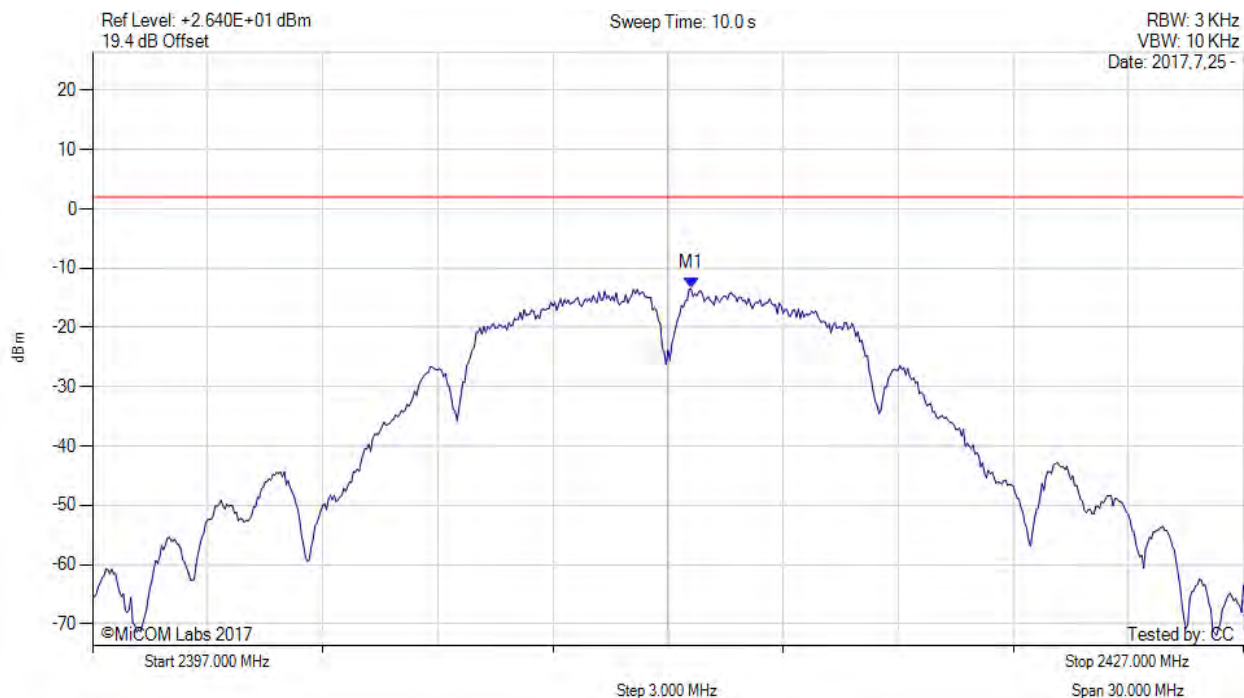


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.600 MHz : -13.420 dBm	Limit: ≤ 1.980 dBm

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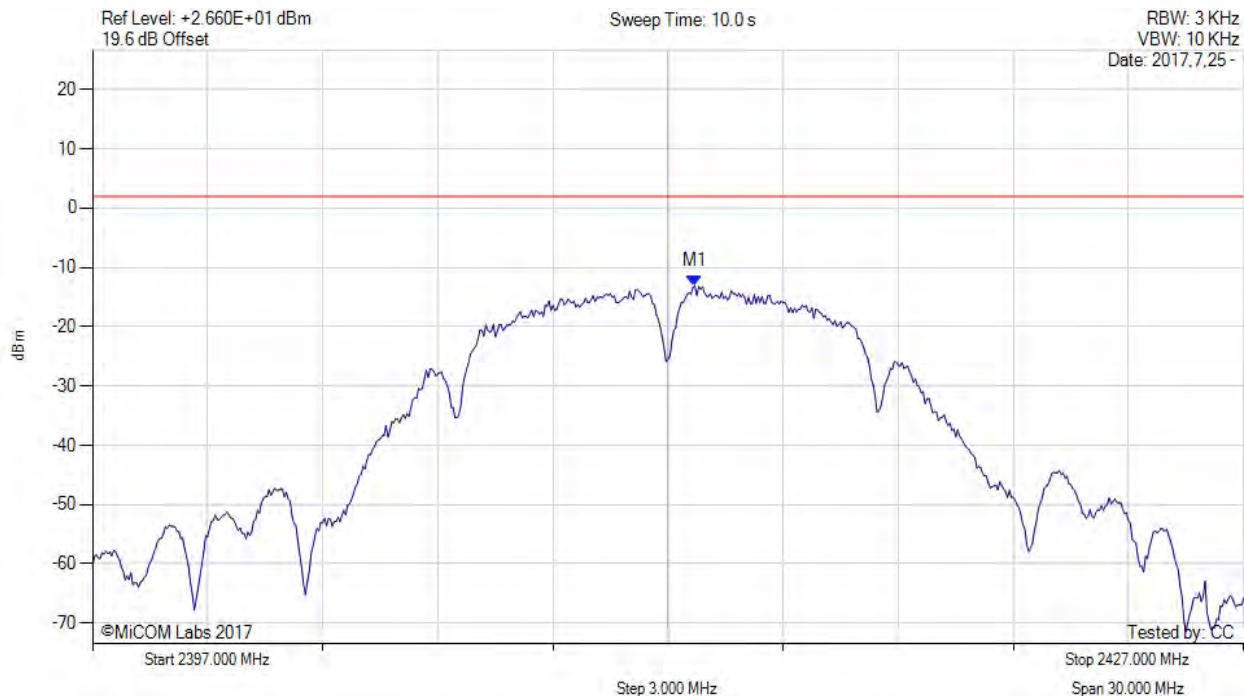


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.700 MHz : -13.084 dBm	Limit: ≤ 1.980 dBm

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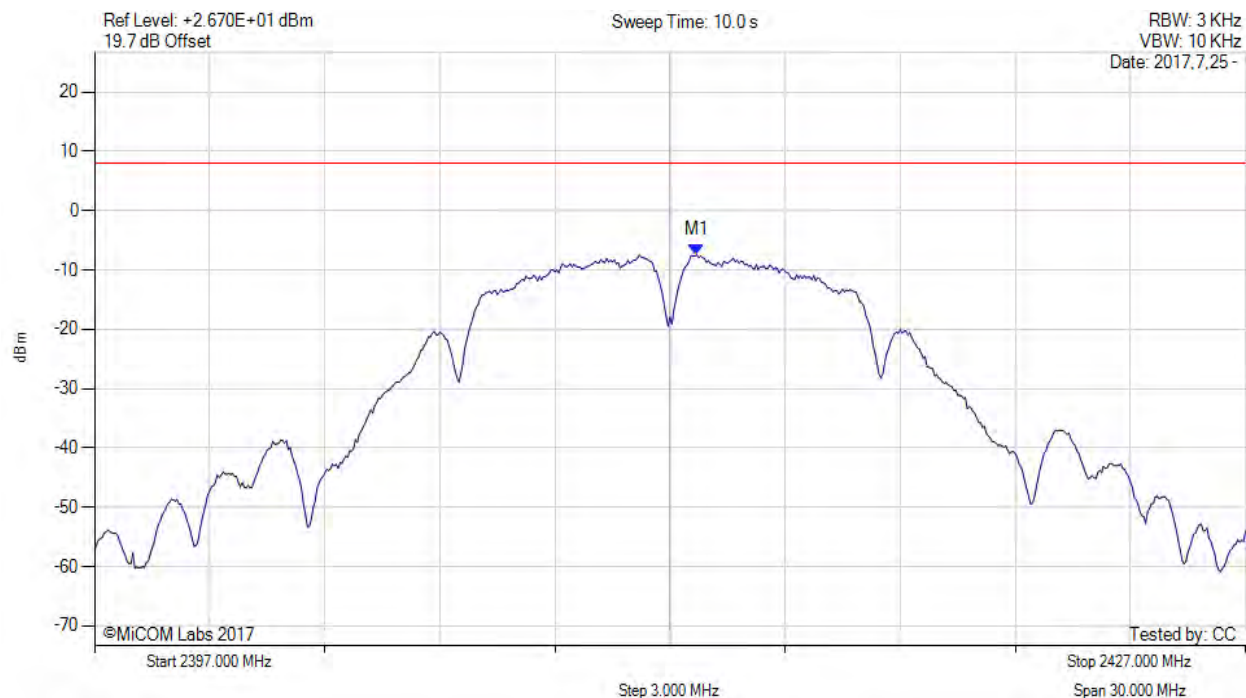


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.700 MHz : -7.431 dBm M1 + DCCF : 2412.700 MHz : -7.387 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -15.4 dB

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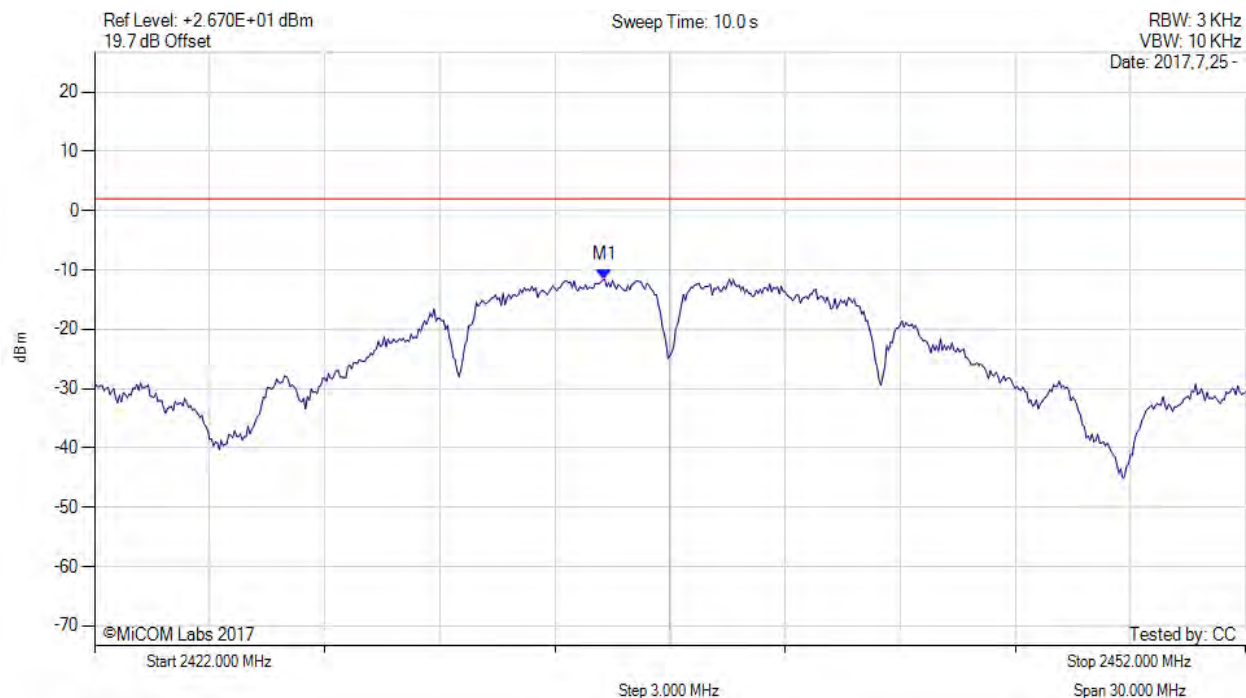


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.300 MHz : -11.572 dBm	Limit: ≤ 1.980 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.150 MHz : -11.512 dBm	Limit: ≤ 1.980 dBm

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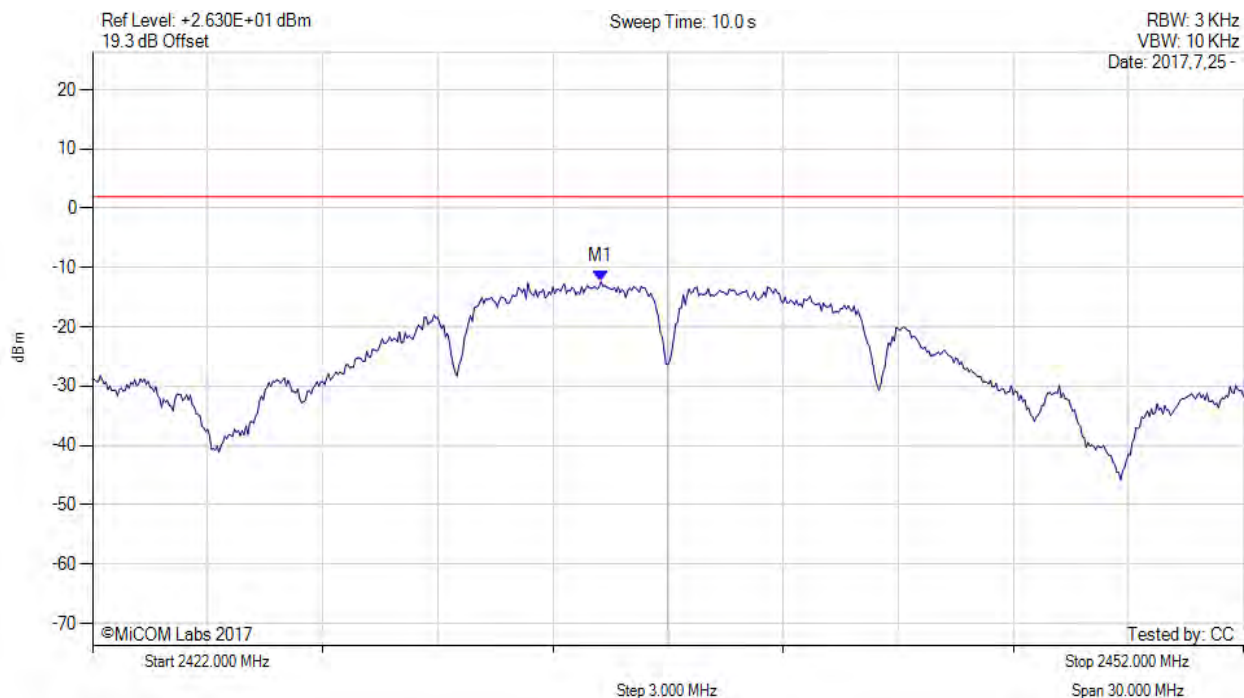


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.250 MHz : -12.375 dBm	Limit: ≤ 1.980 dBm

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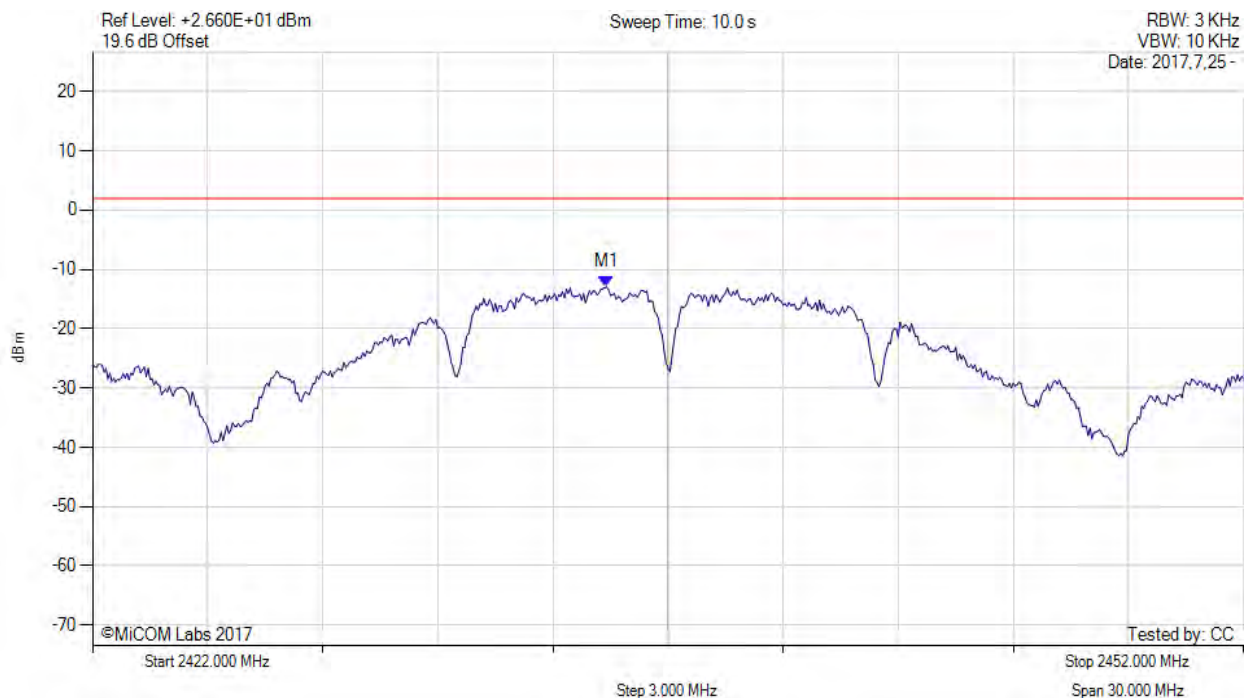


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.400 MHz : -12.959 dBm	Limit: ≤ 1.980 dBm

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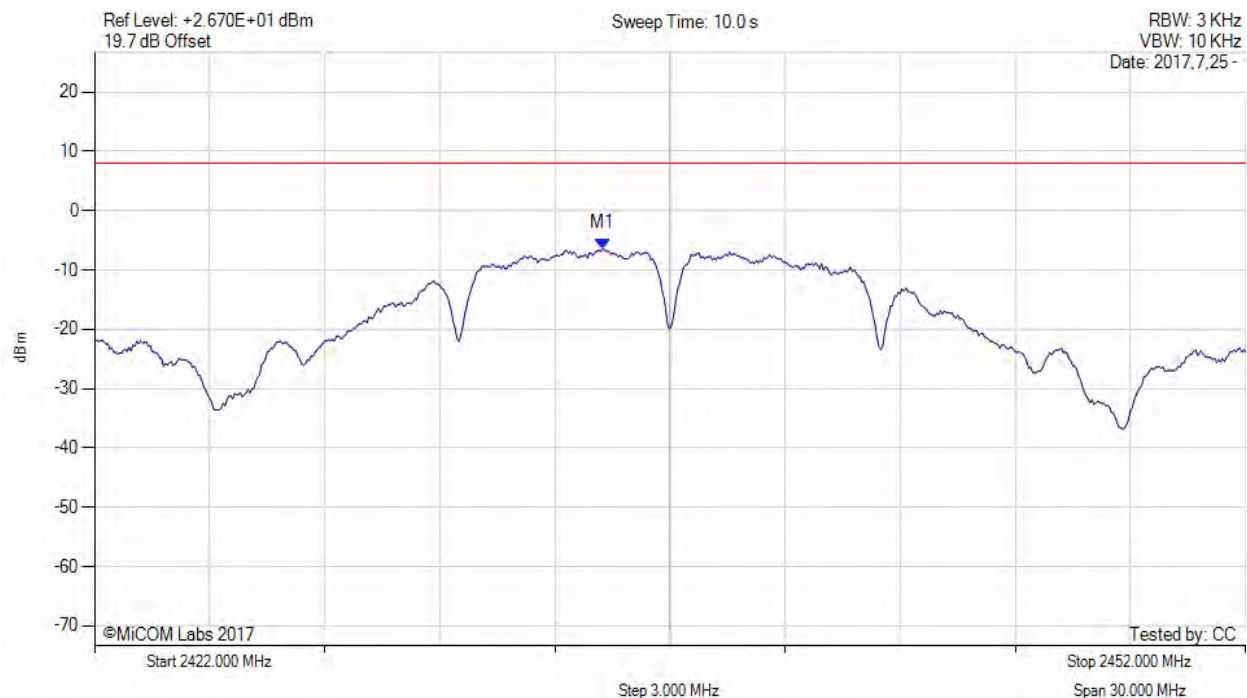


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.300 MHz : -6.392 dBm M1 + DCCF : 2435.300 MHz : -6.348 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -14.4 dB

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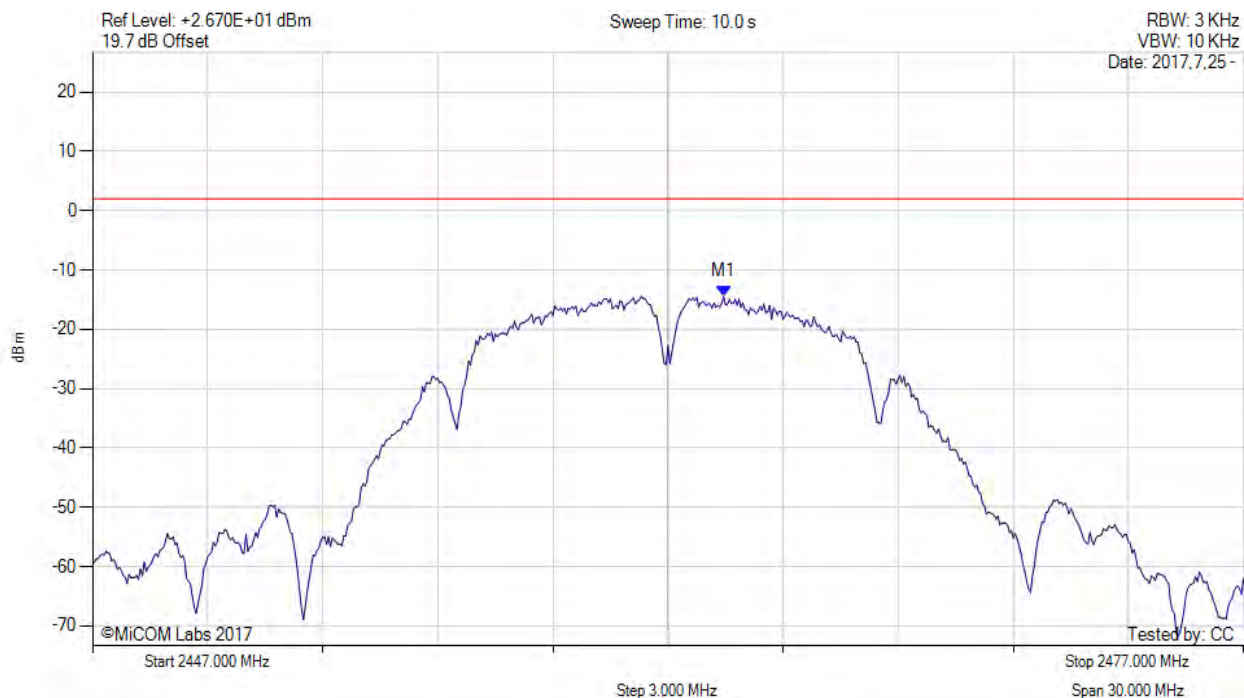


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.450 MHz : -14.479 dBm	Limit: ≤ 1.980 dBm

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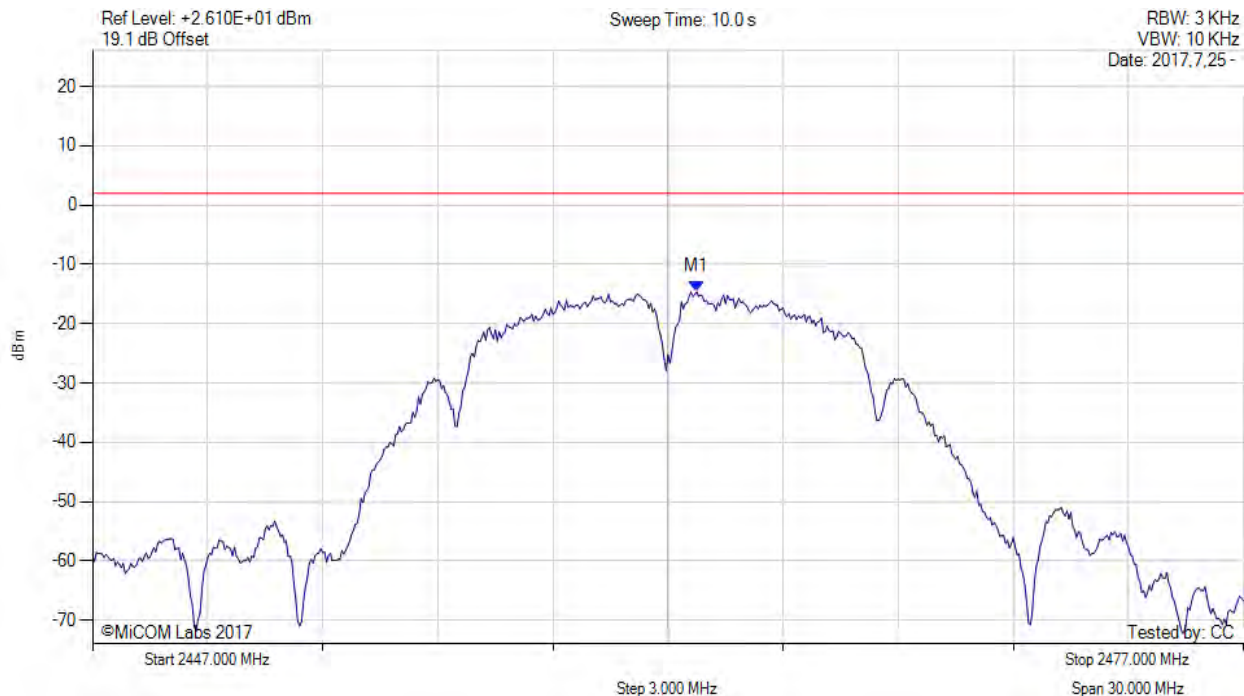


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.750 MHz : -14.635 dBm	Limit: ≤ 1.980 dBm

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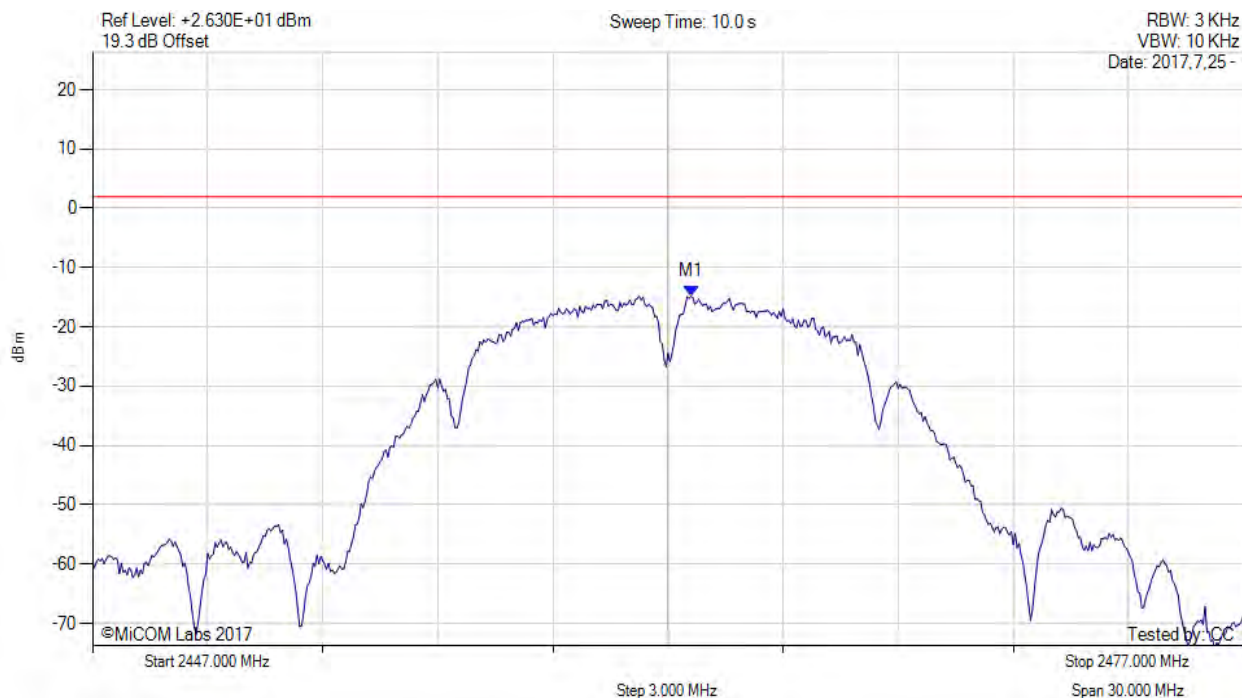


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.600 MHz : -14.802 dBm	Limit: ≤ 1.980 dBm

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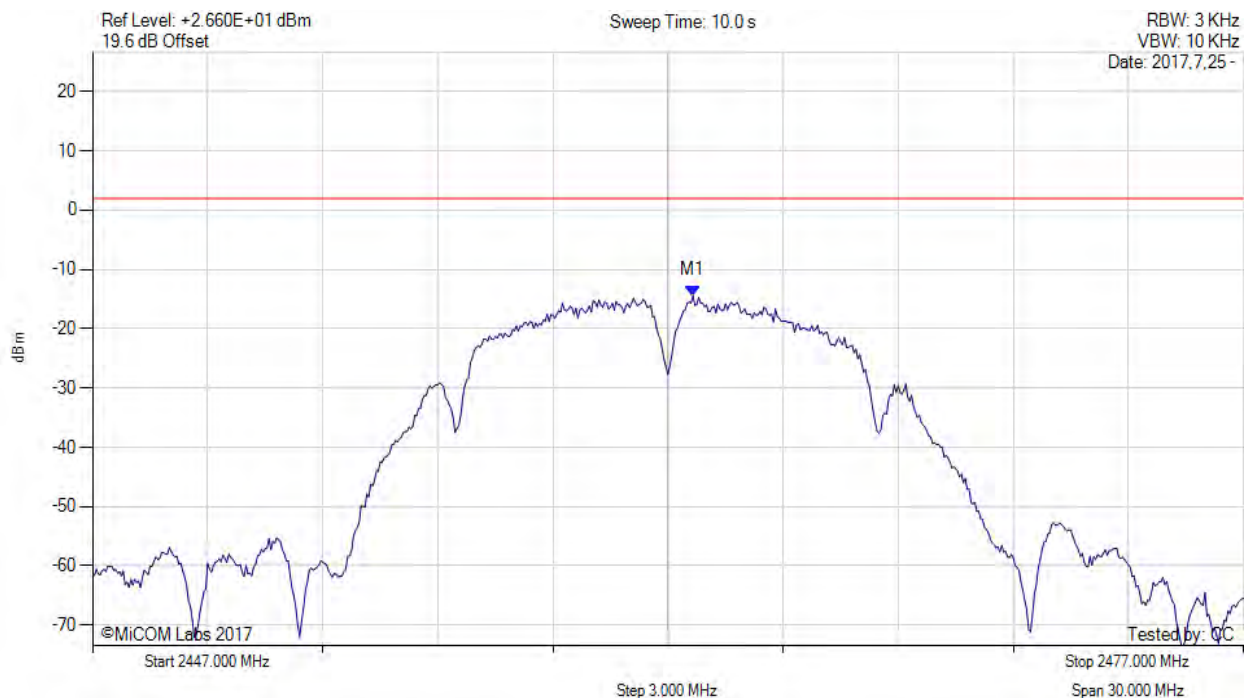


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.650 MHz : -14.445 dBm	Limit: ≤ 1.980 dBm

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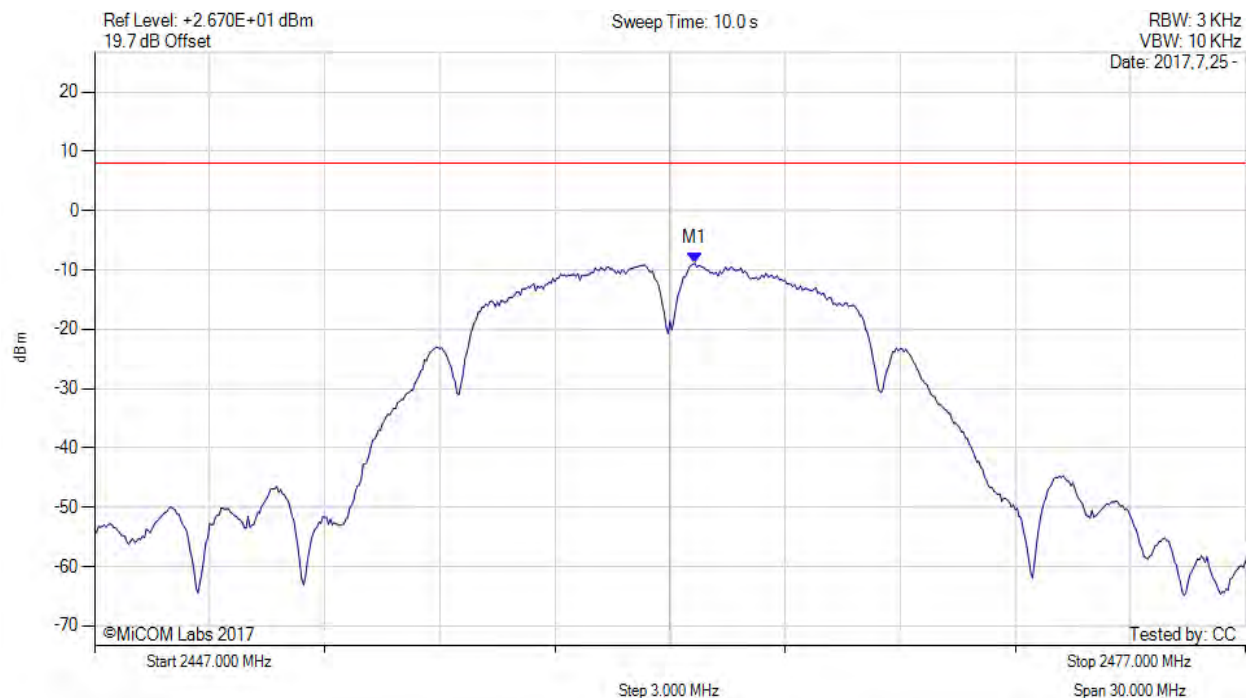


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.700 MHz : -8.900 dBm M1 + DCCF : 2462.700 MHz : -8.856 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -16.9 dB

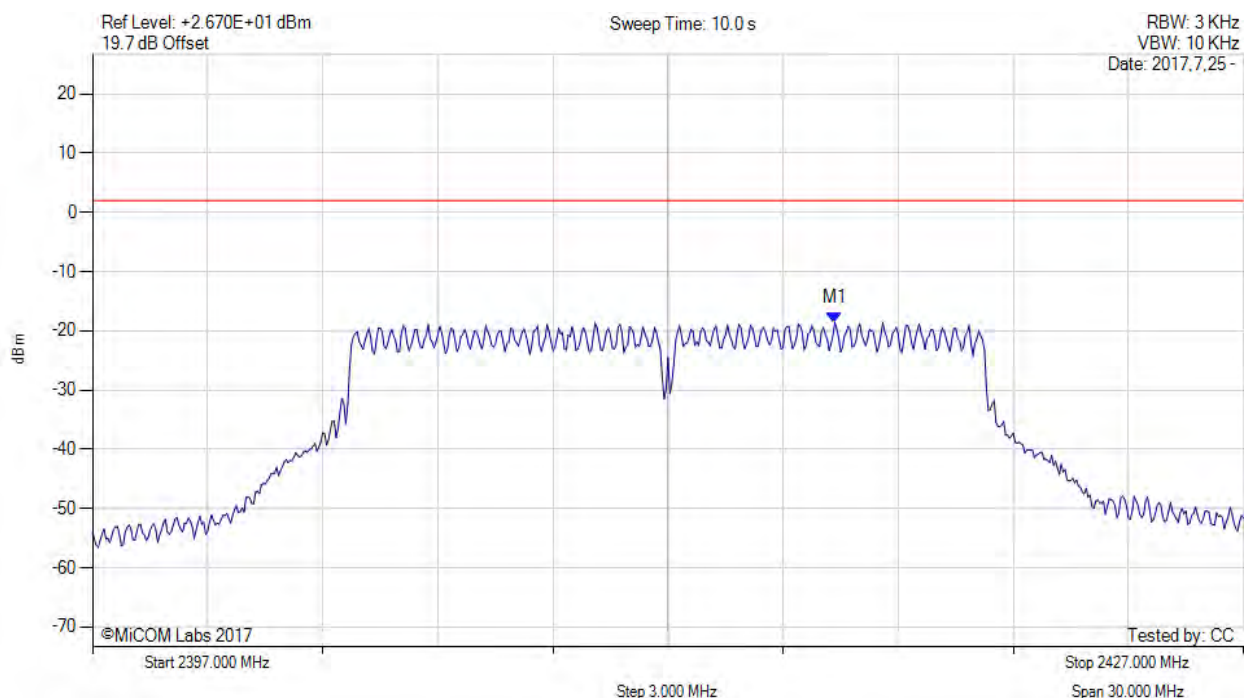
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2416.350 MHz : -18.567 dBm	Limit: ≤ 1.980 dBm

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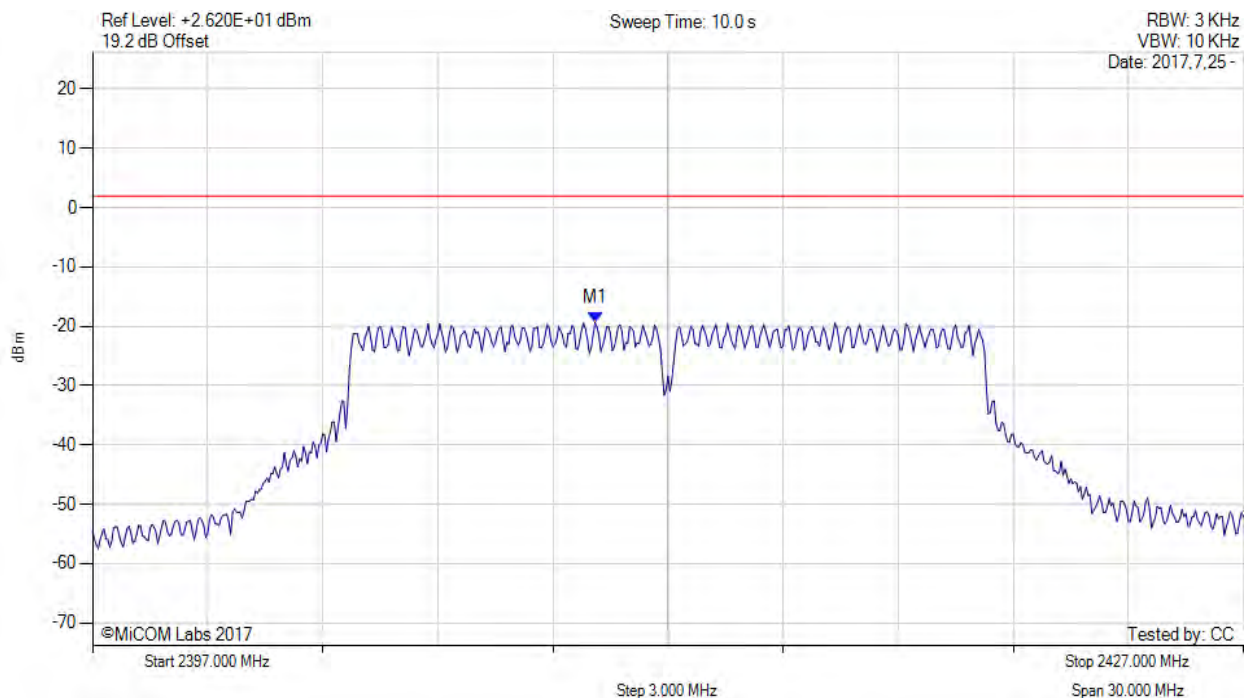


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



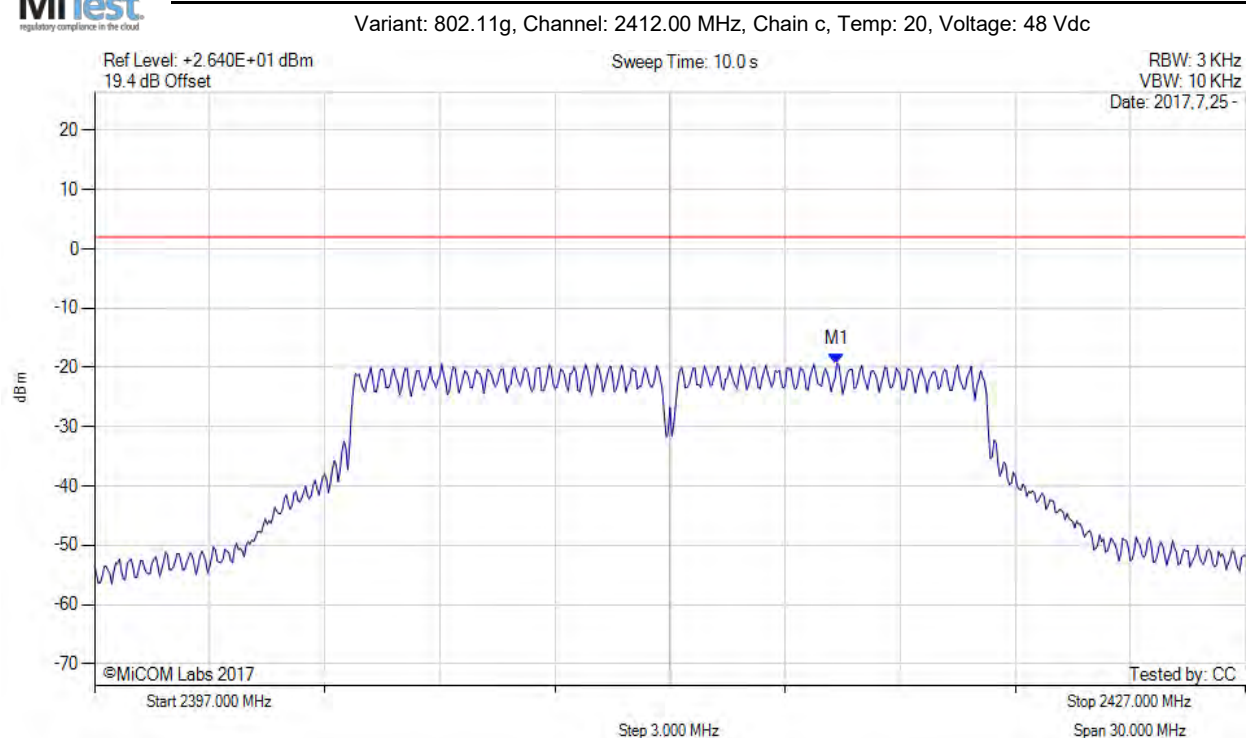
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.100 MHz : -19.396 dBm	Limit: ≤ 1.980 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2416.350 MHz : -19.335 dBm	Limit: ≤ 1.980 dBm

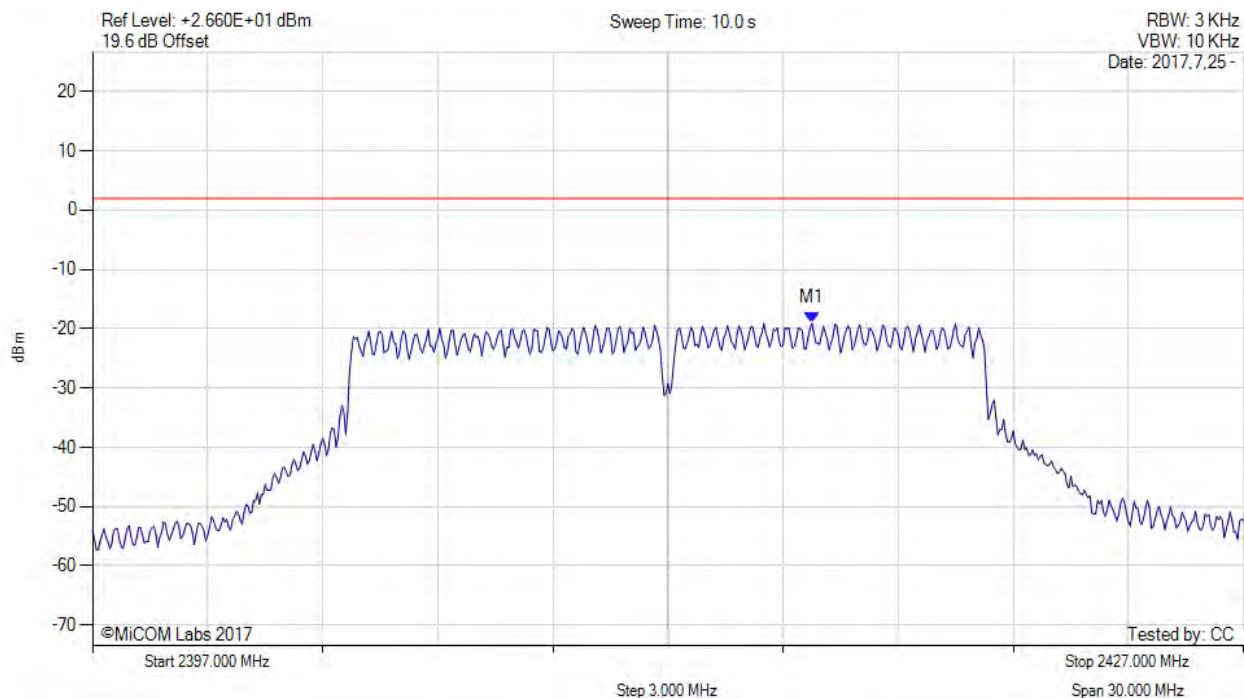
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2415.750 MHz : -19.093 dBm	Limit: ≤ 1.980 dBm

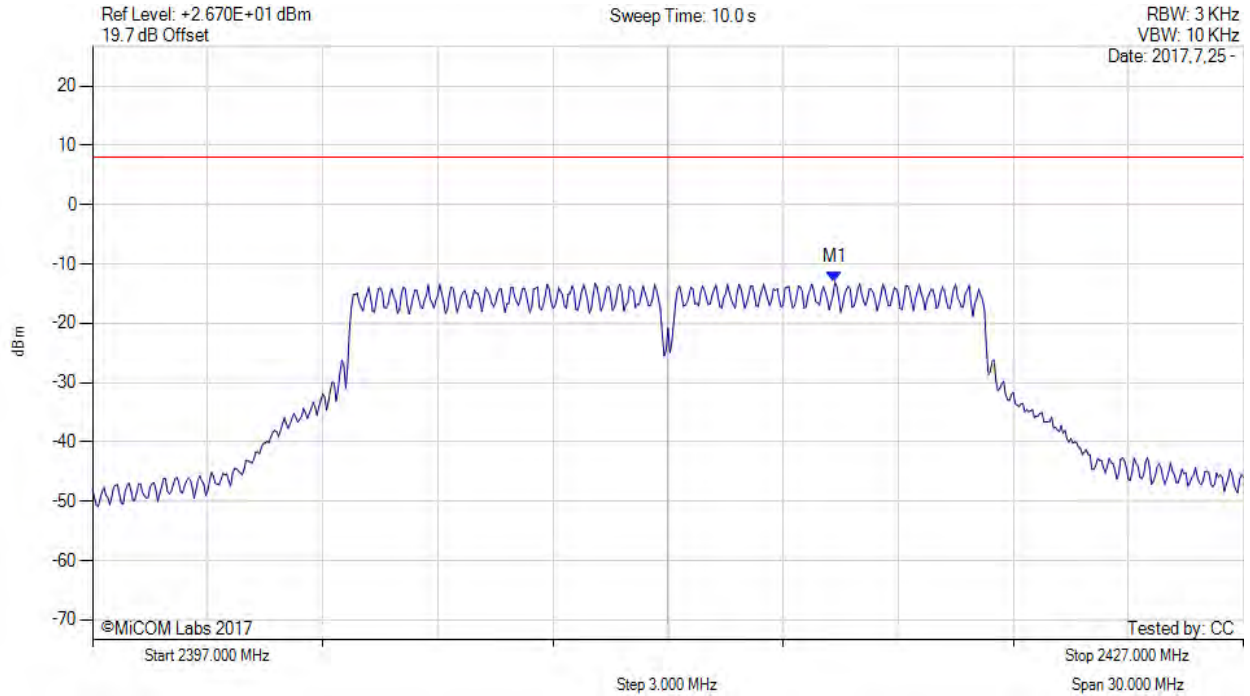
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2416.400 MHz : -13.103 dBm M1 + DCCF : 2416.400 MHz : -13.059 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -21.1 dB

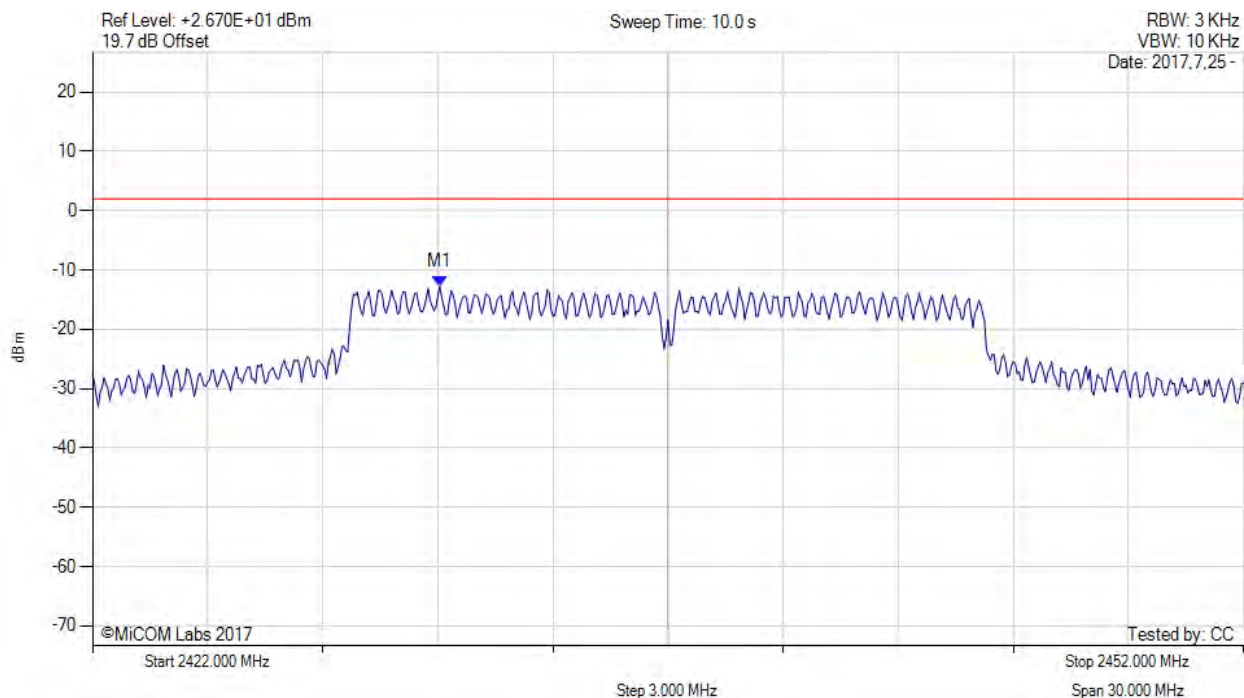
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2431.050 MHz : -12.809 dBm	Limit: ≤ 1.980 dBm

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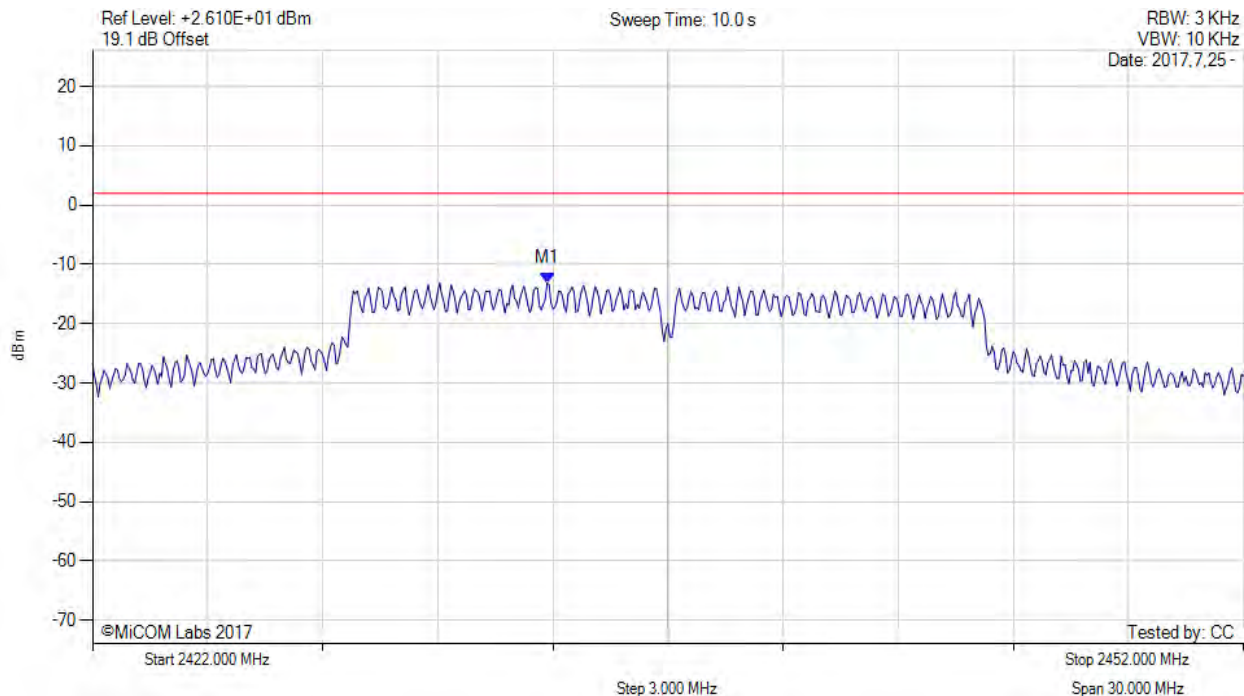


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2433.850 MHz : -13.128 dBm	Limit: ≤ 1.980 dBm

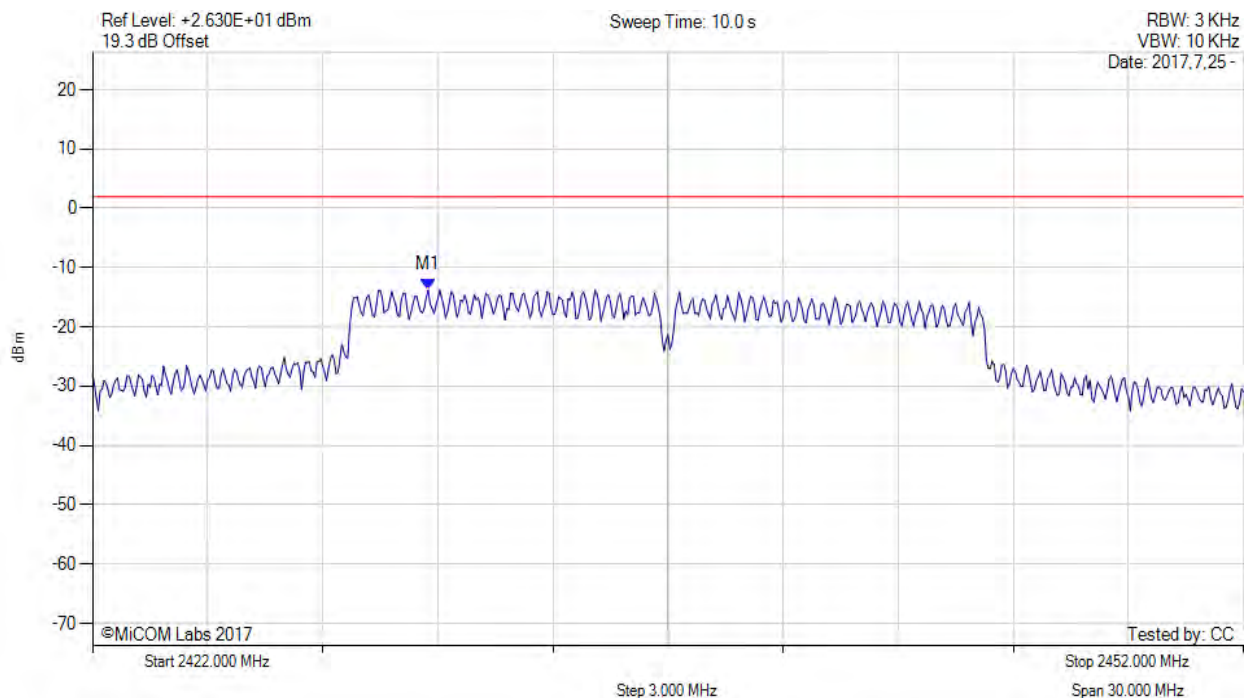
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2430.750 MHz : -13.768 dBm	Limit: ≤ 1.980 dBm

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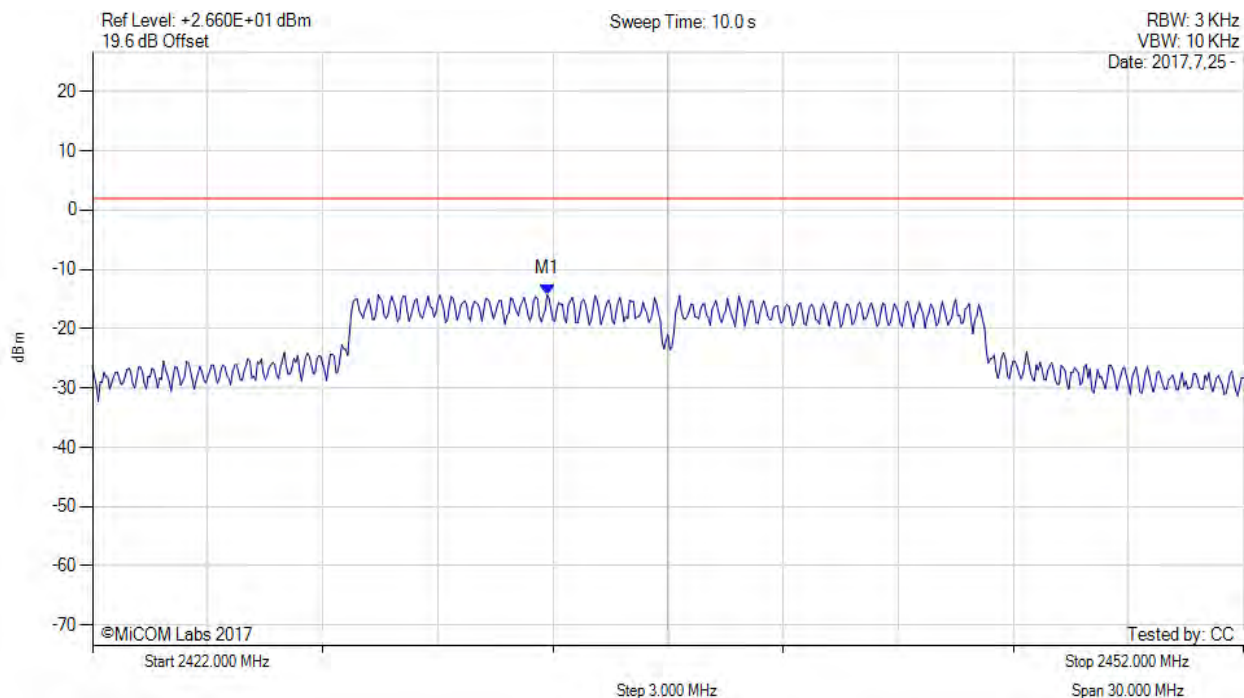


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2433.850 MHz : -14.203 dBm	Limit: ≤ 1.980 dBm

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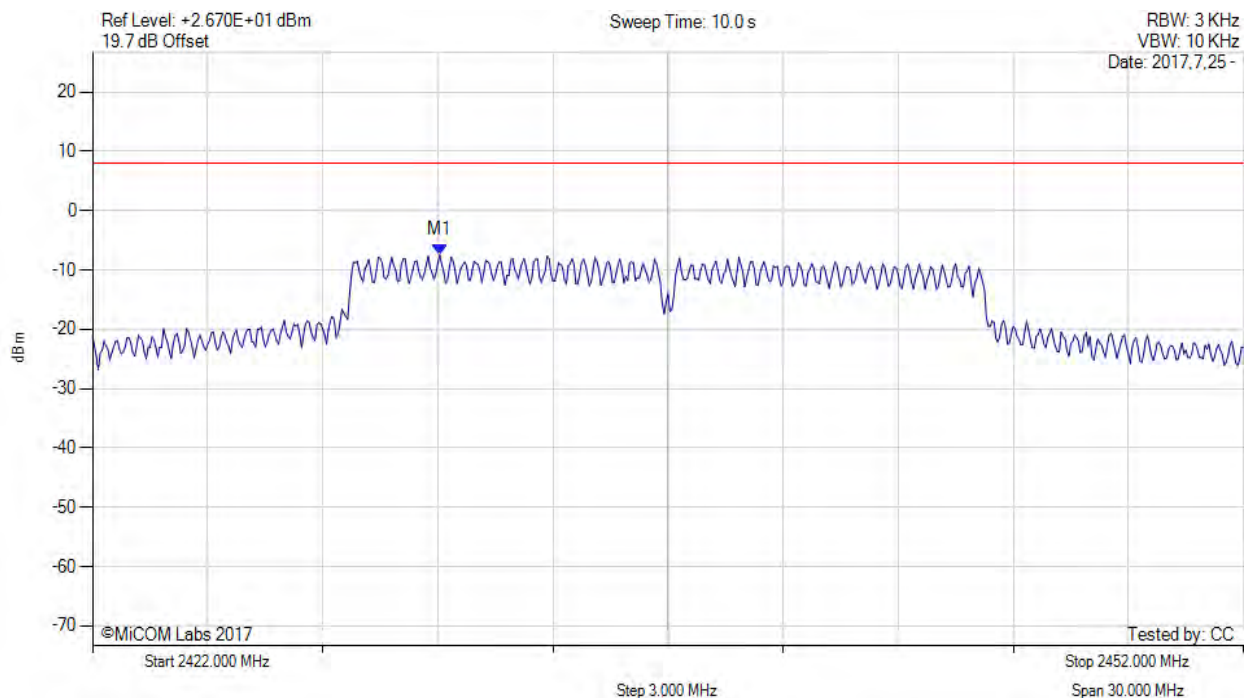


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2431.100 MHz : -7.460 dBm M1 + DCCF : 2431.100 MHz : -7.416 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -15.4 dB

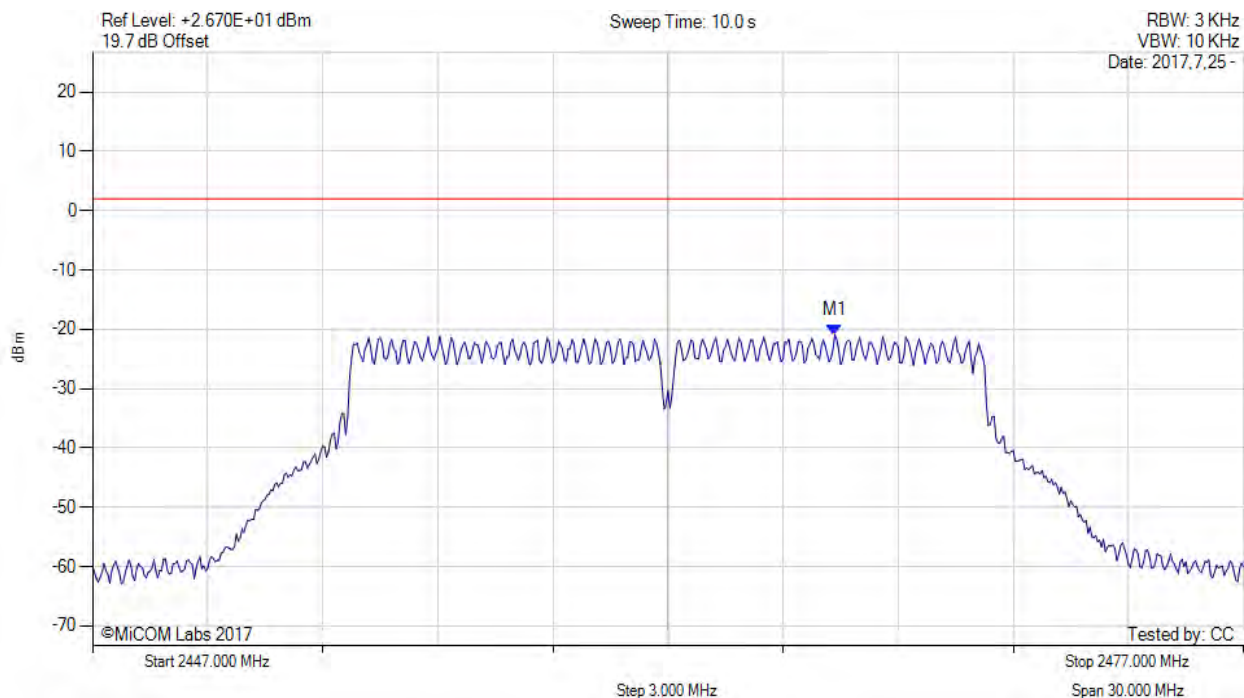
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2466.350 MHz : -20.950 dBm	Limit: ≤ 1.980 dBm

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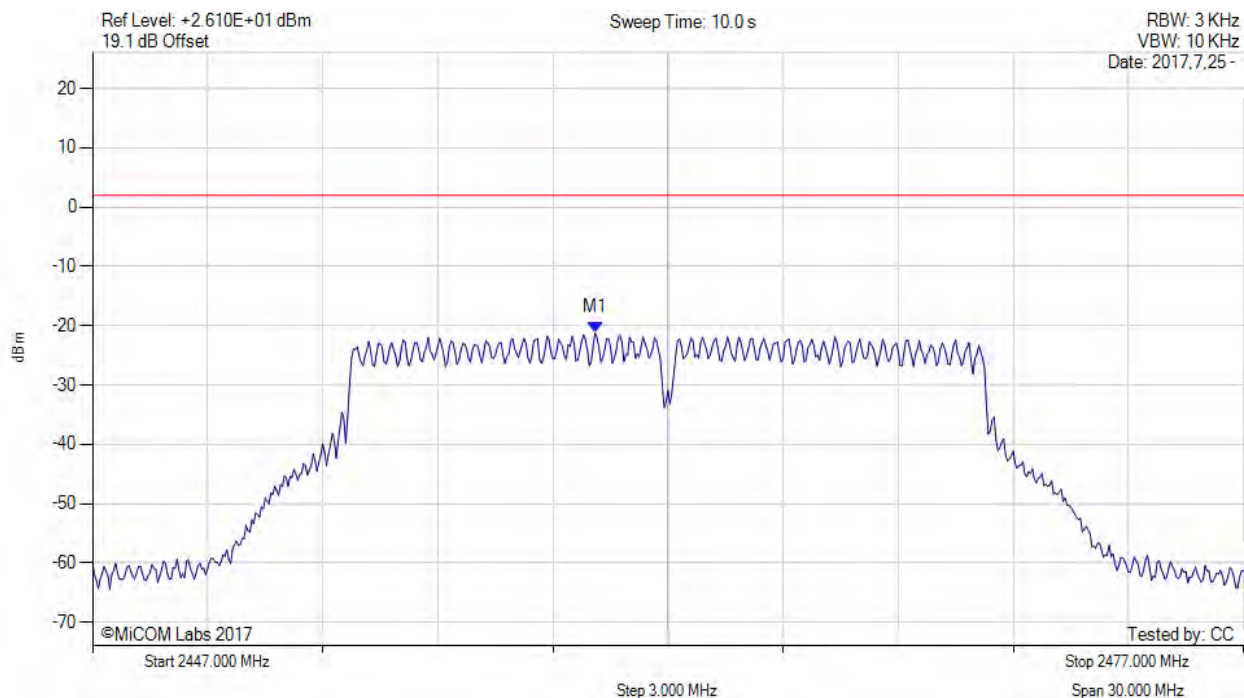


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2460.100 MHz : -21.194 dBm	Limit: ≤ 1.980 dBm

[back to matrix](#)

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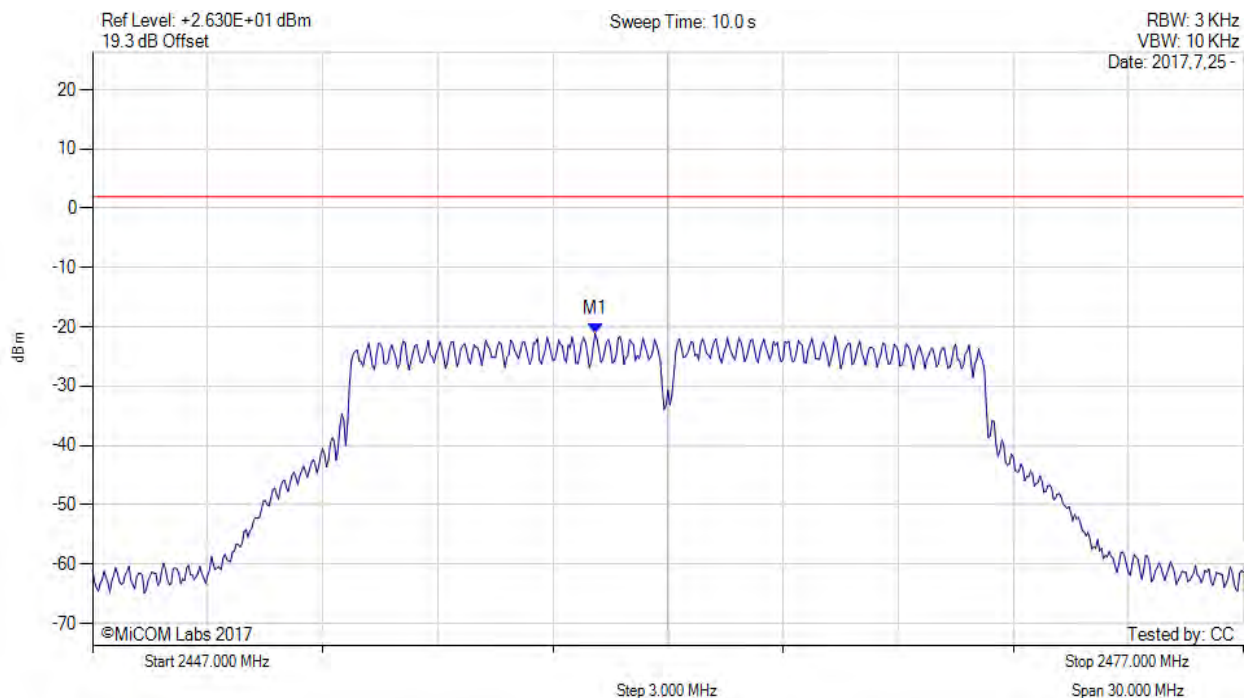


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2460.100 MHz : -21.176 dBm	Limit: ≤ 1.980 dBm

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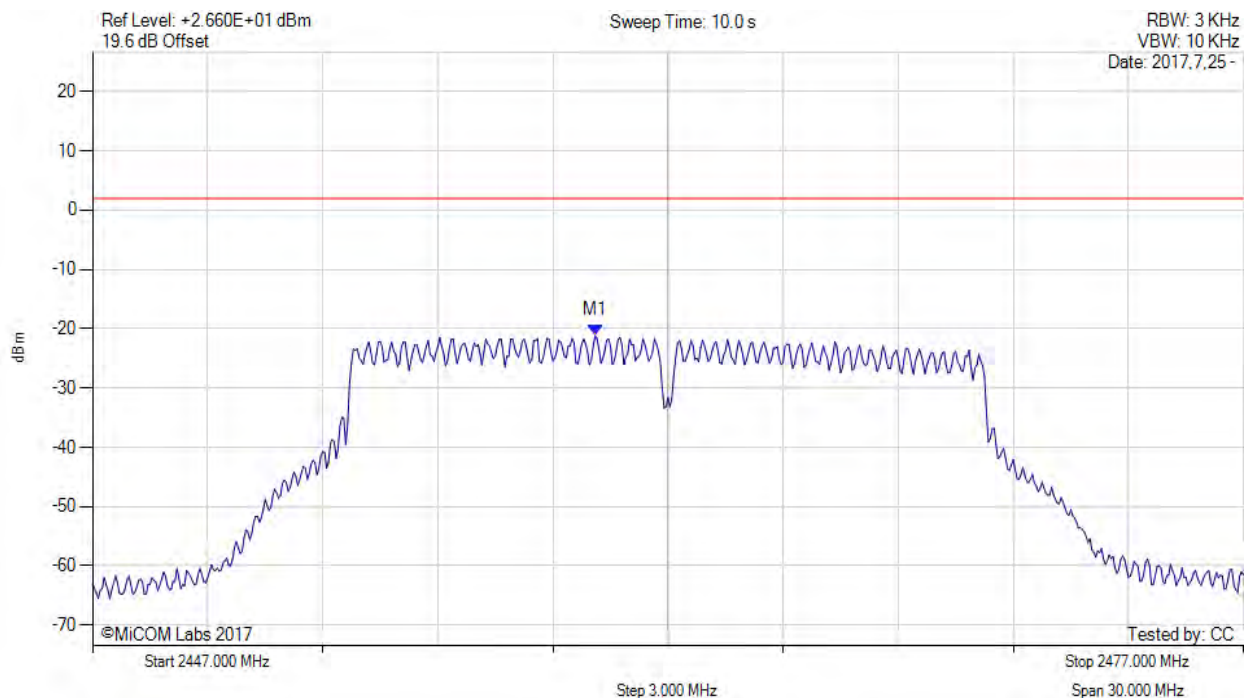


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2460.100 MHz : -21.114 dBm	Limit: ≤ 1.980 dBm

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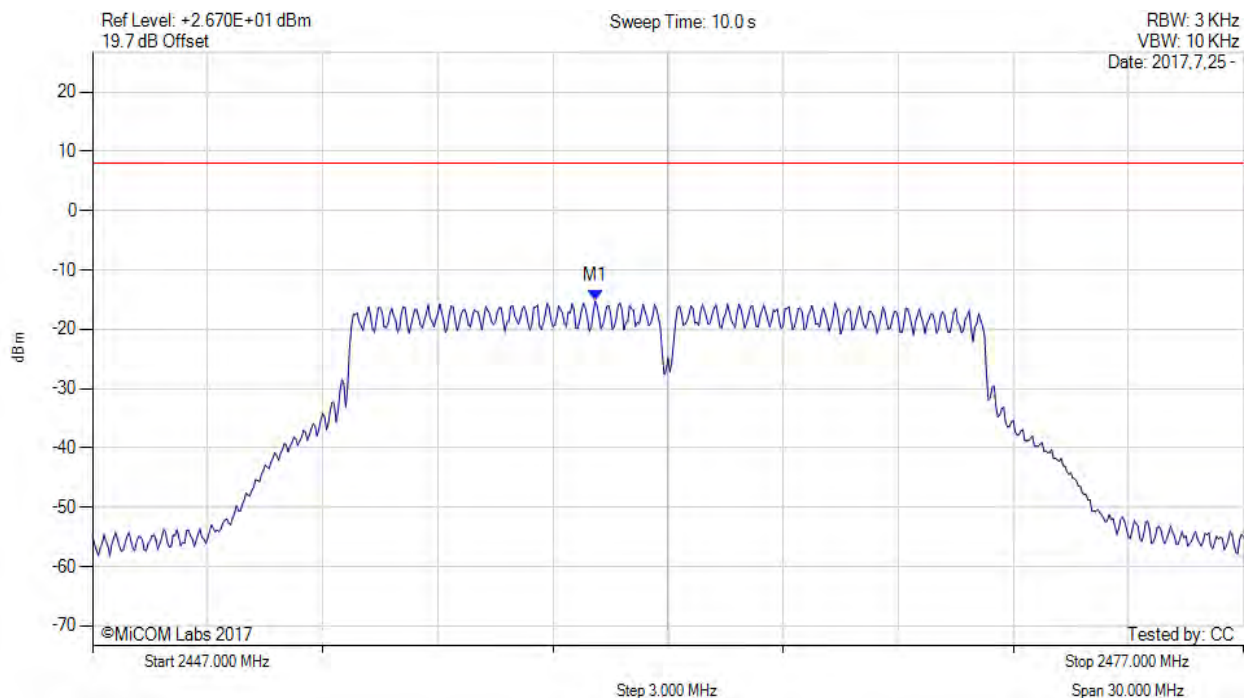


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2460.100 MHz : -15.242 dBm M1 + DCCF : 2460.100 MHz : -15.198 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -23.2 dB

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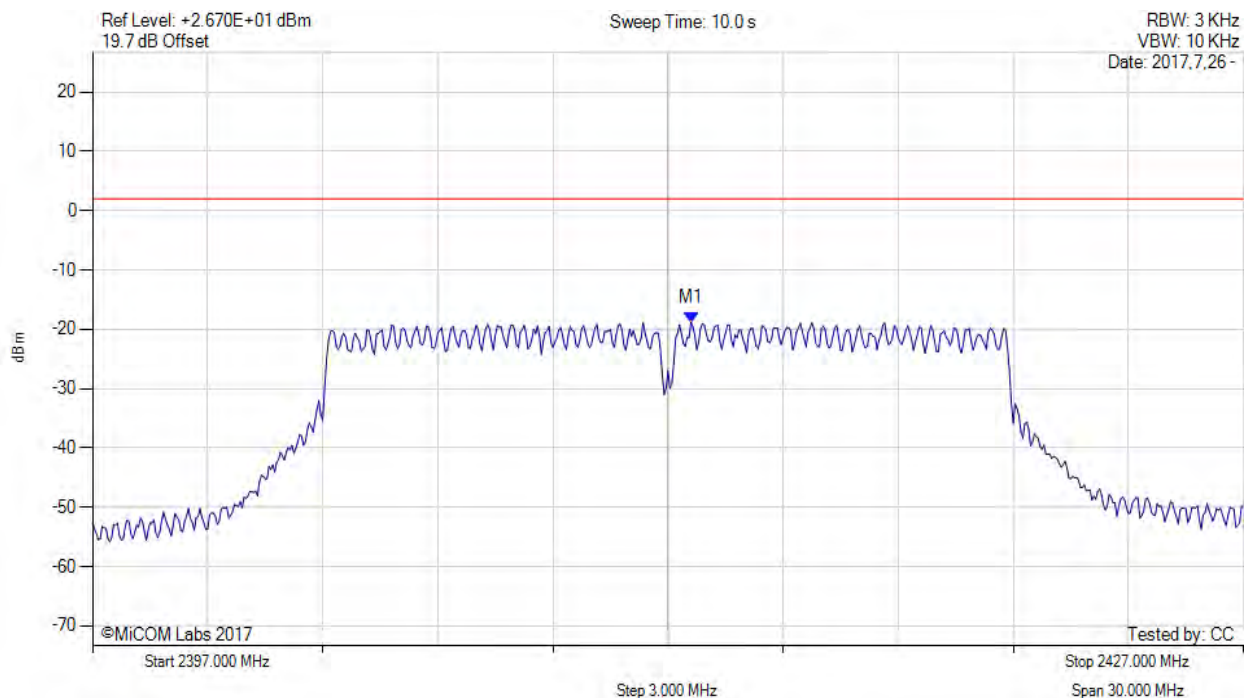


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.600 MHz : -18.819 dBm	Limit: ≤ 1.980 dBm

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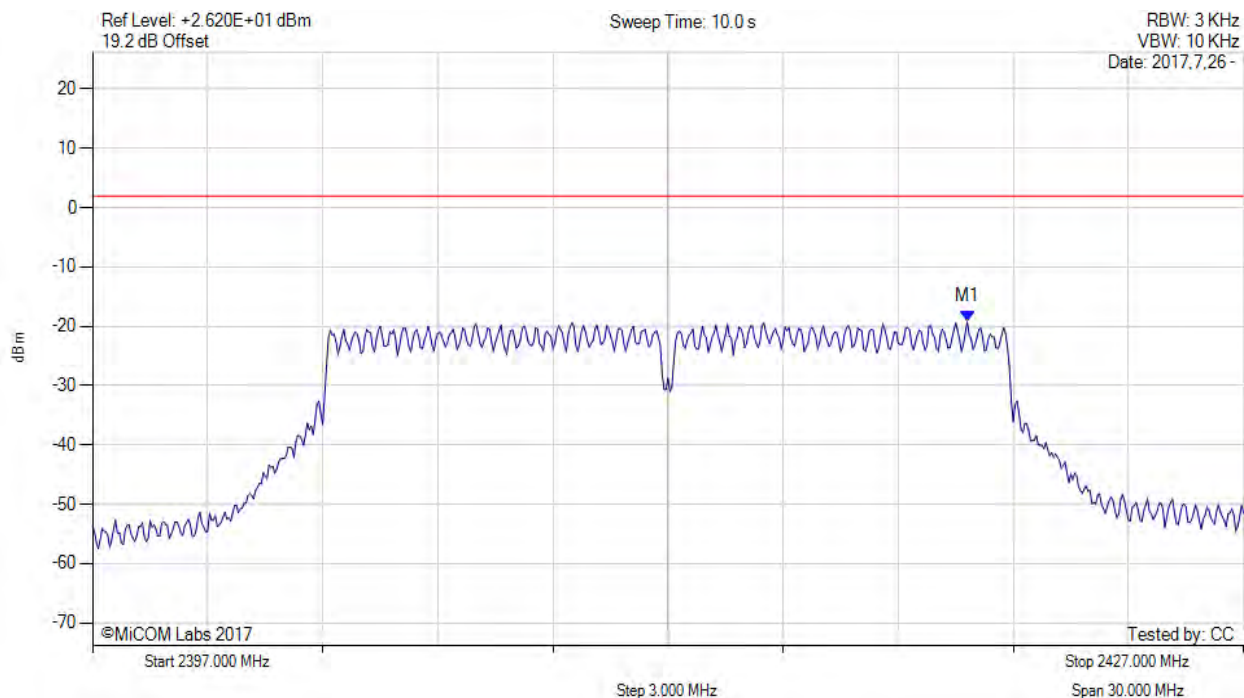


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2419.800 MHz : -19.214 dBm	Limit: ≤ 1.980 dBm

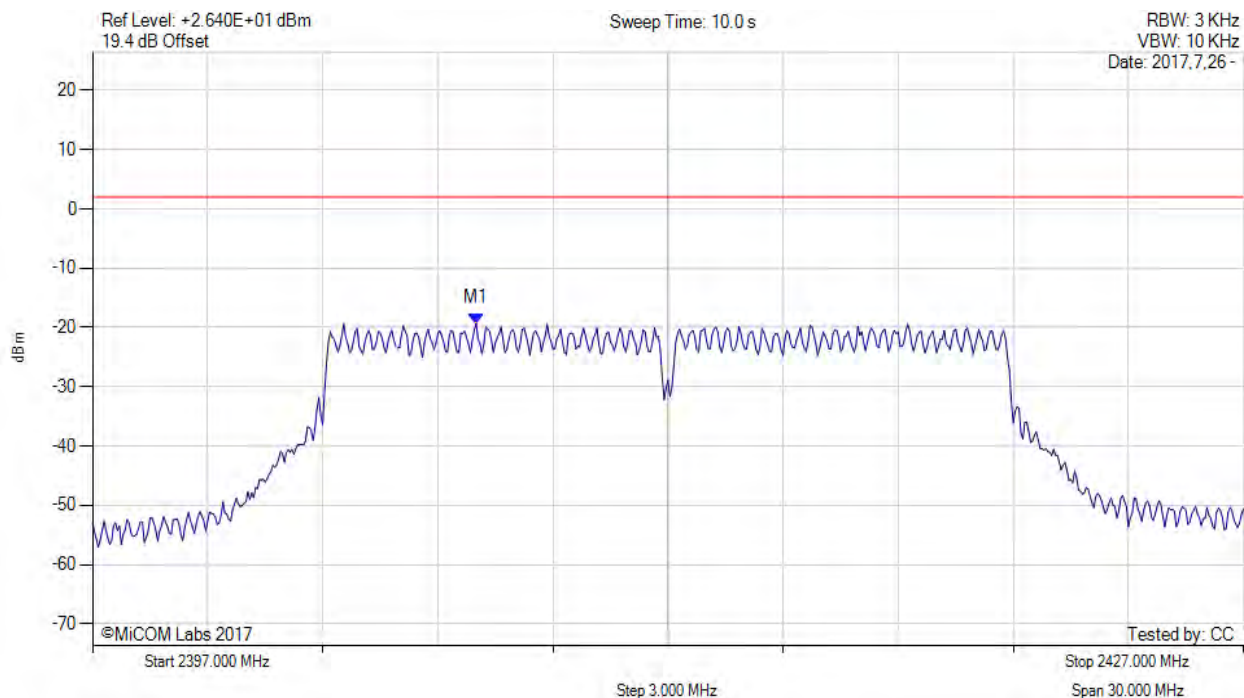
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2407.000 MHz : -19.314 dBm	Limit: ≤ 1.980 dBm

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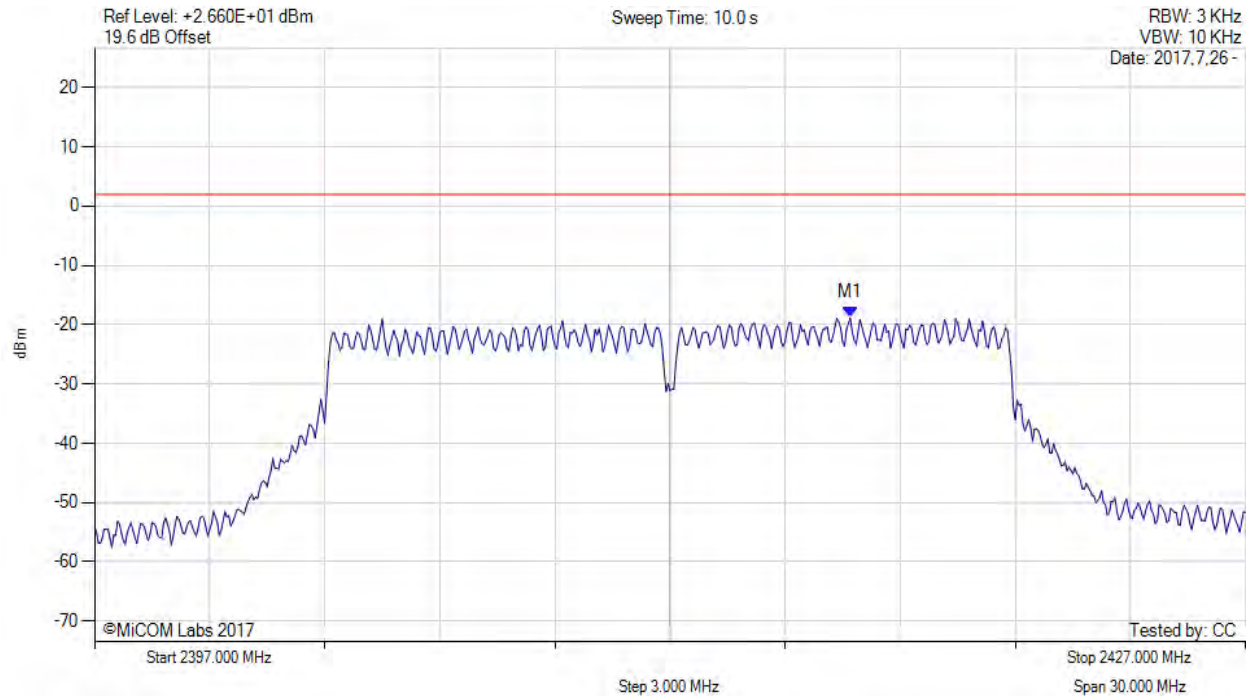


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2416.700 MHz : -18.841 dBm	Limit: ≤ 1.980 dBm

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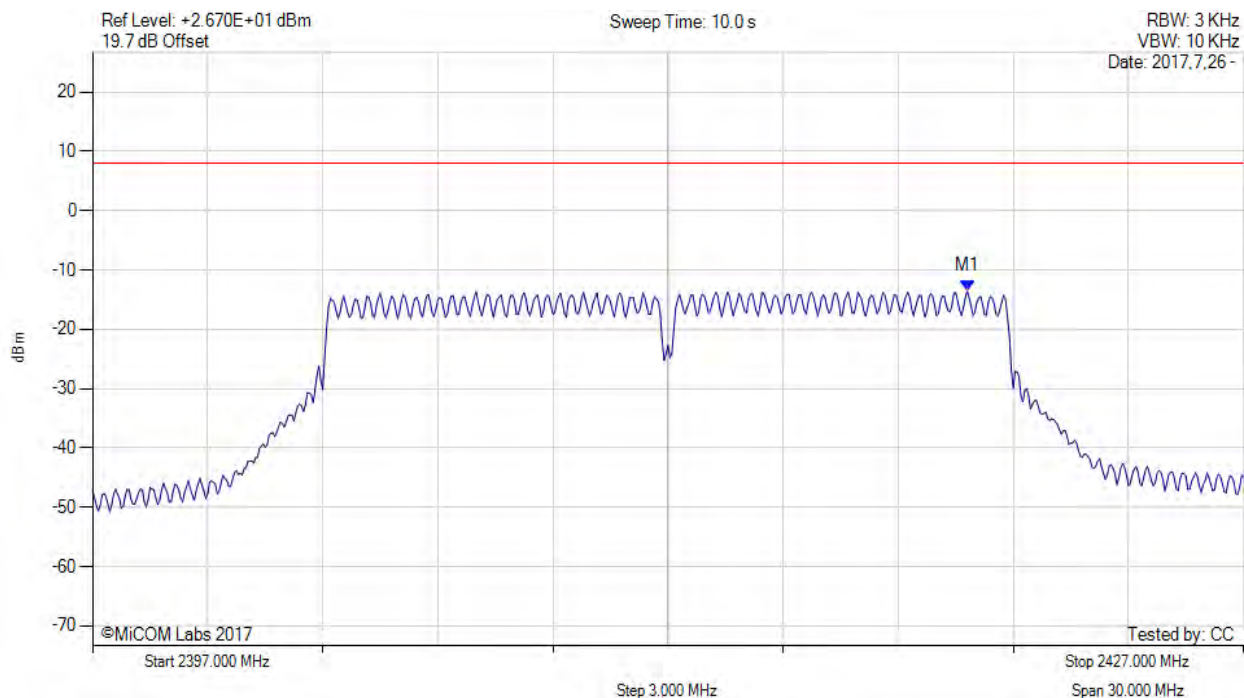


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2419.800 MHz : -13.567 dBm M1 + DCCF : 2419.800 MHz : -13.523 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -21.5 dB

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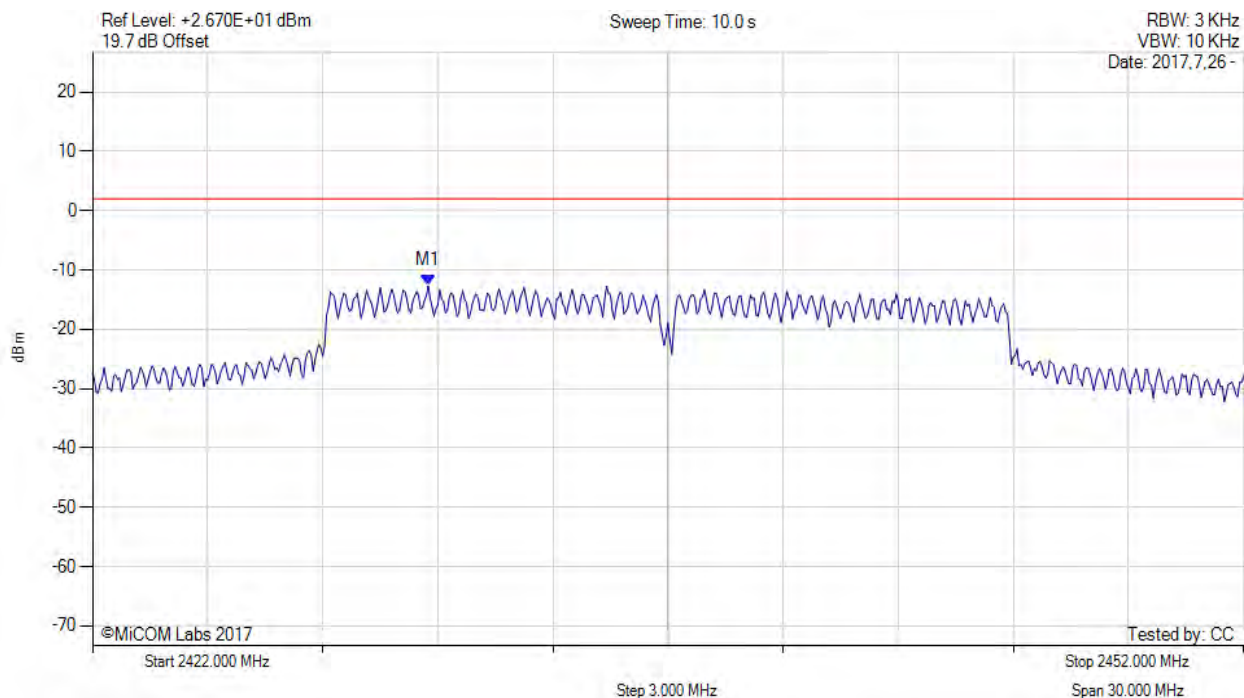


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2430.750 MHz : -12.677 dBm	Limit: ≤ 1.980 dBm

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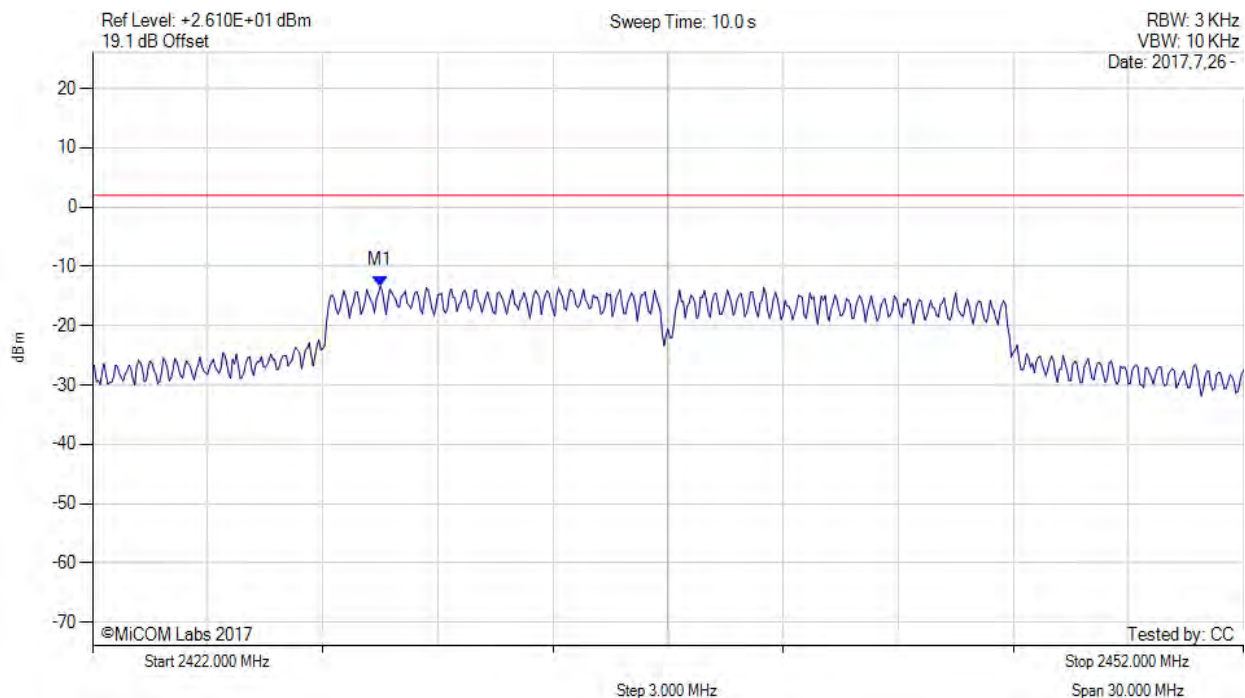


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2429.500 MHz : -13.307 dBm	Limit: ≤ 1.980 dBm

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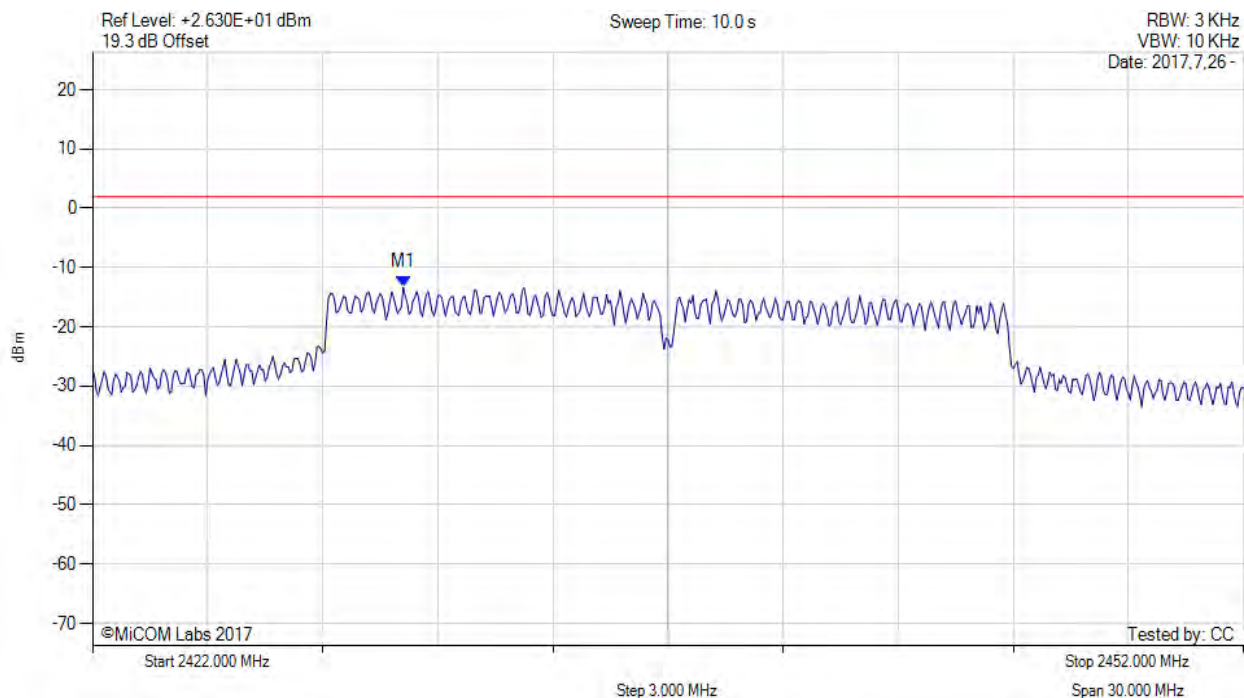


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2430.100 MHz : -13.319 dBm	Limit: ≤ 1.980 dBm

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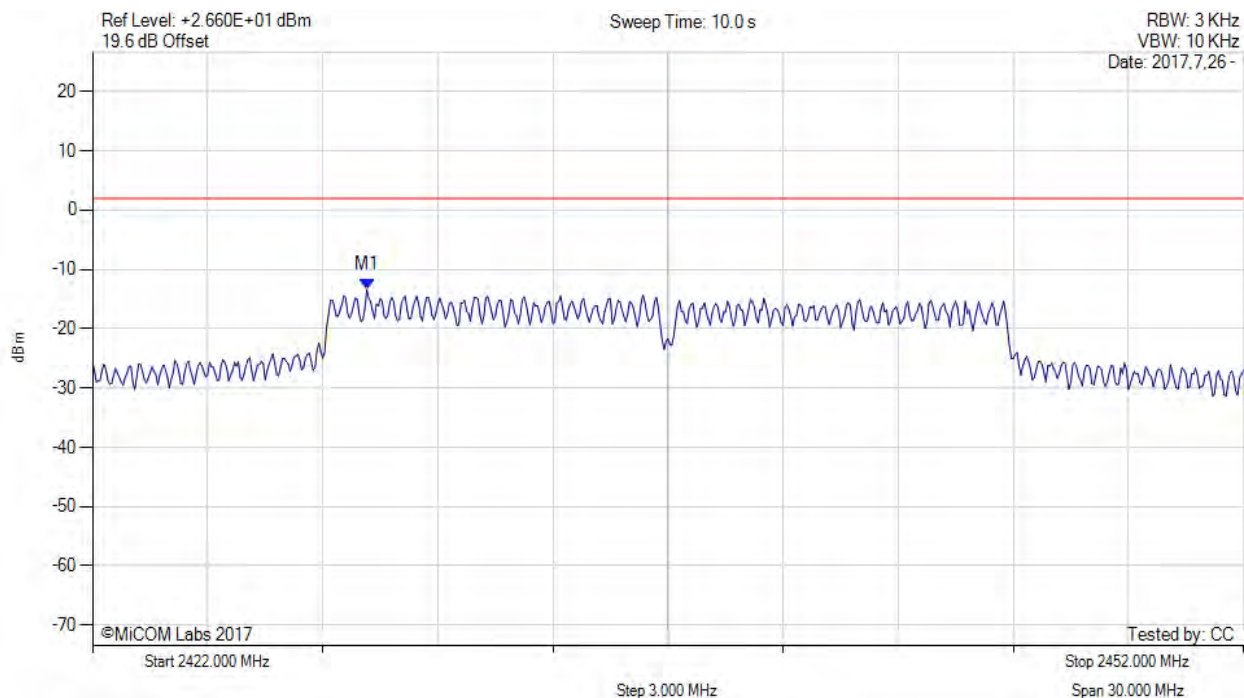


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2429.150 MHz : -13.432 dBm	Limit: ≤ 1.980 dBm

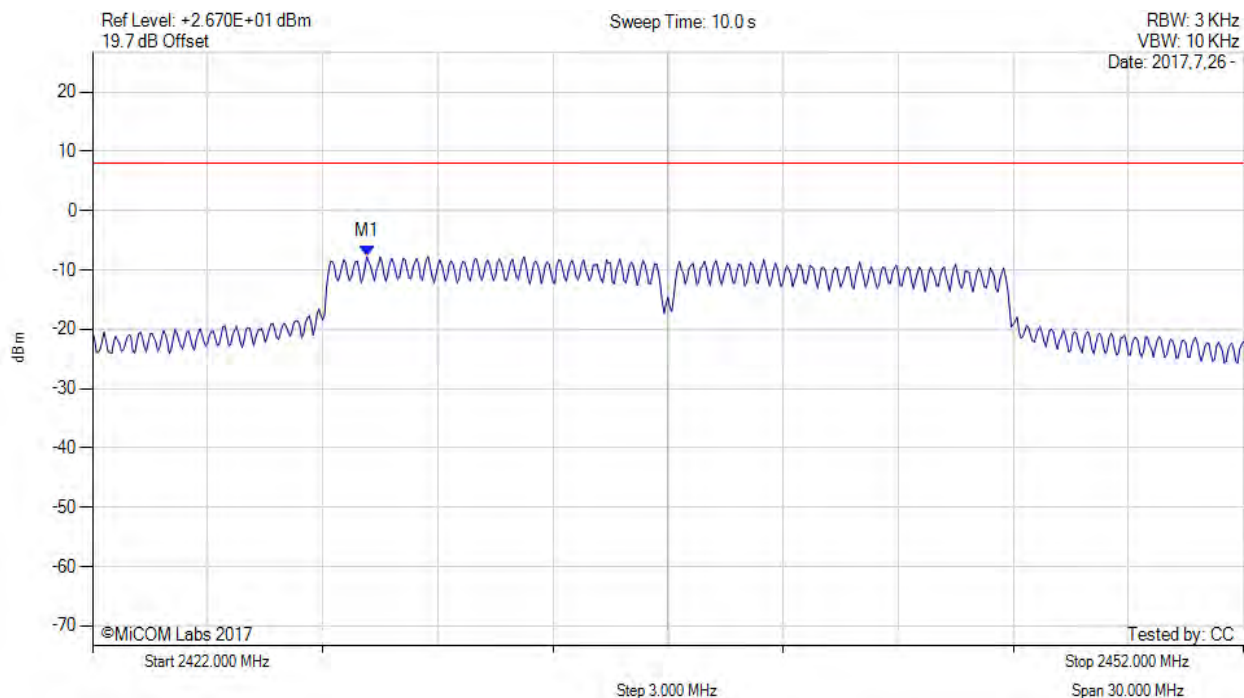
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2429.200 MHz : -7.765 dBm M1 + DCCF : 2429.200 MHz : -7.721 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -15.7 dB

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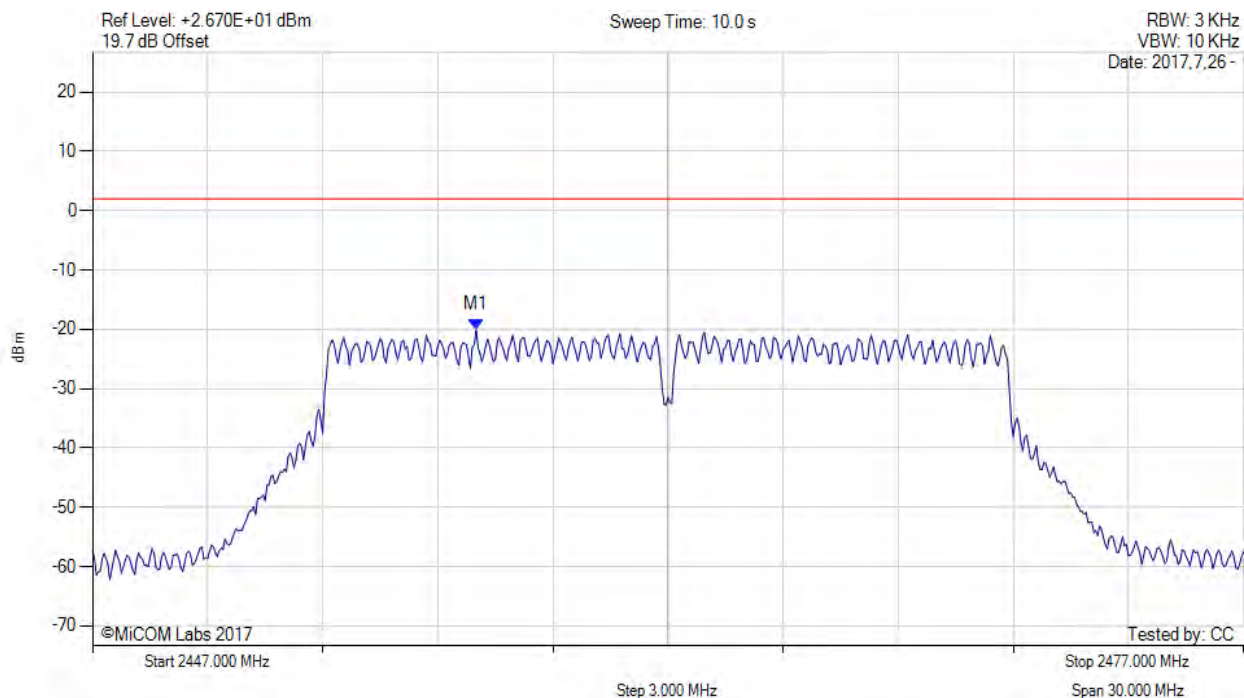


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2457.000 MHz : -20.070 dBm	Limit: ≤ 1.980 dBm

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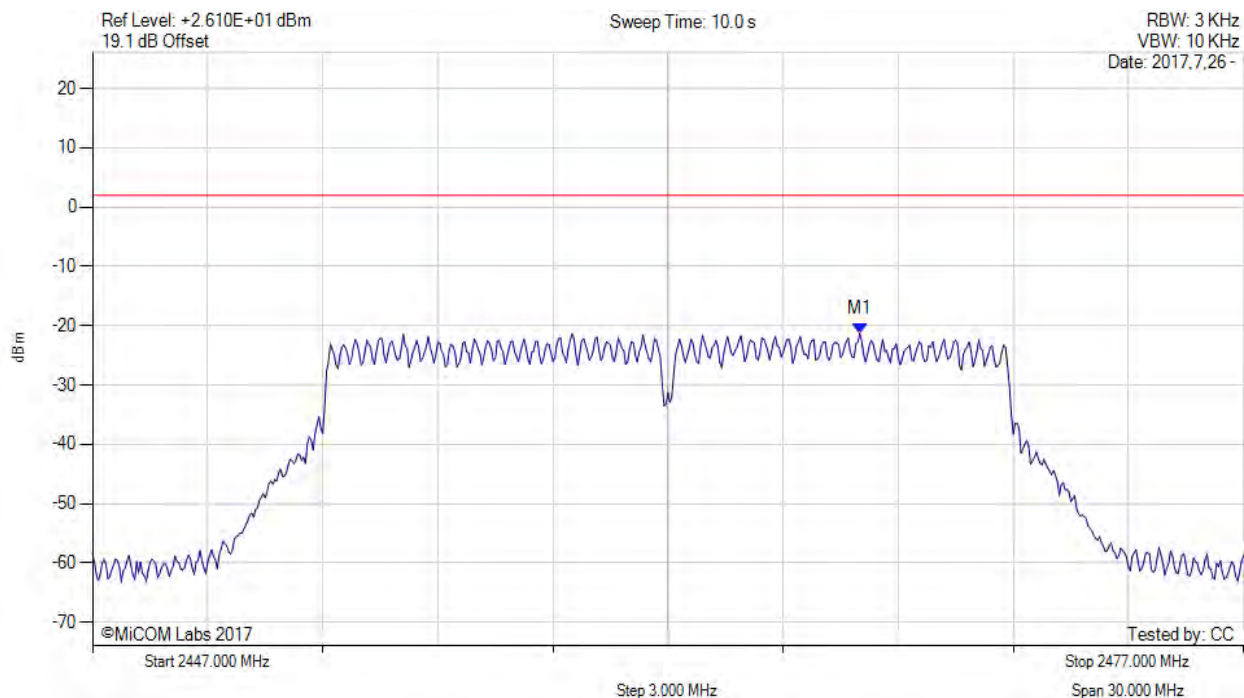


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2467.000 MHz : -21.321 dBm	Limit: ≤ 1.980 dBm

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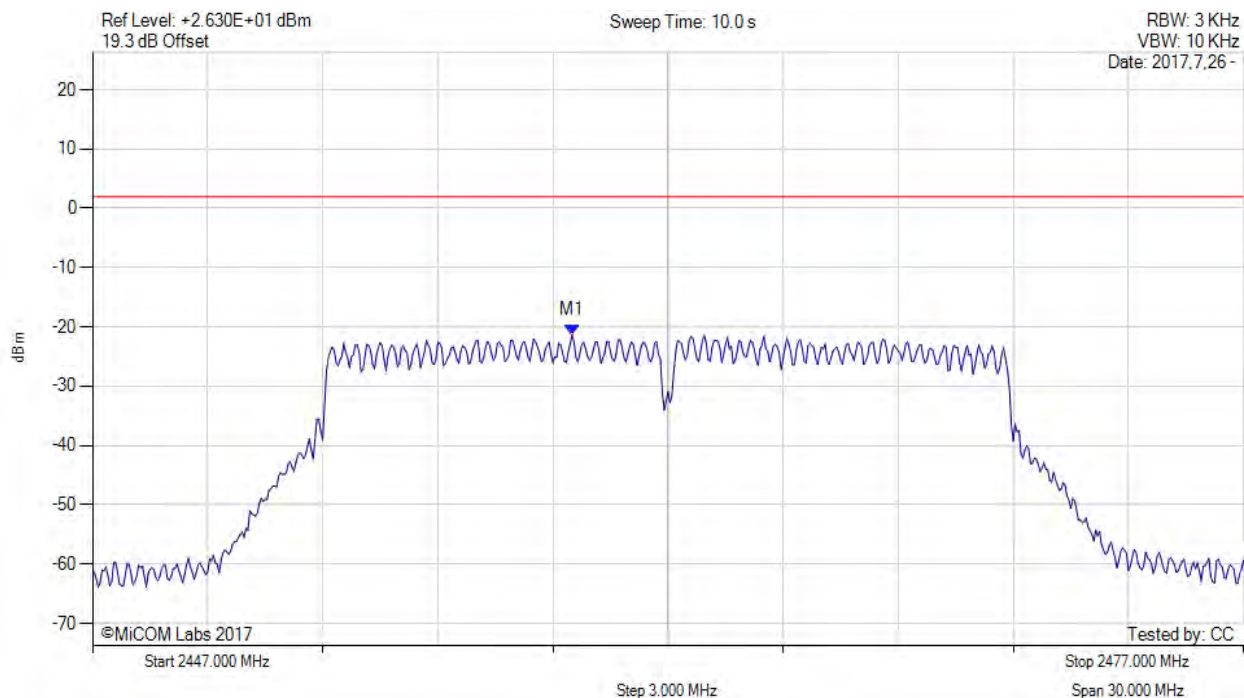


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2459.500 MHz : -21.356 dBm	Limit: ≤ 1.980 dBm

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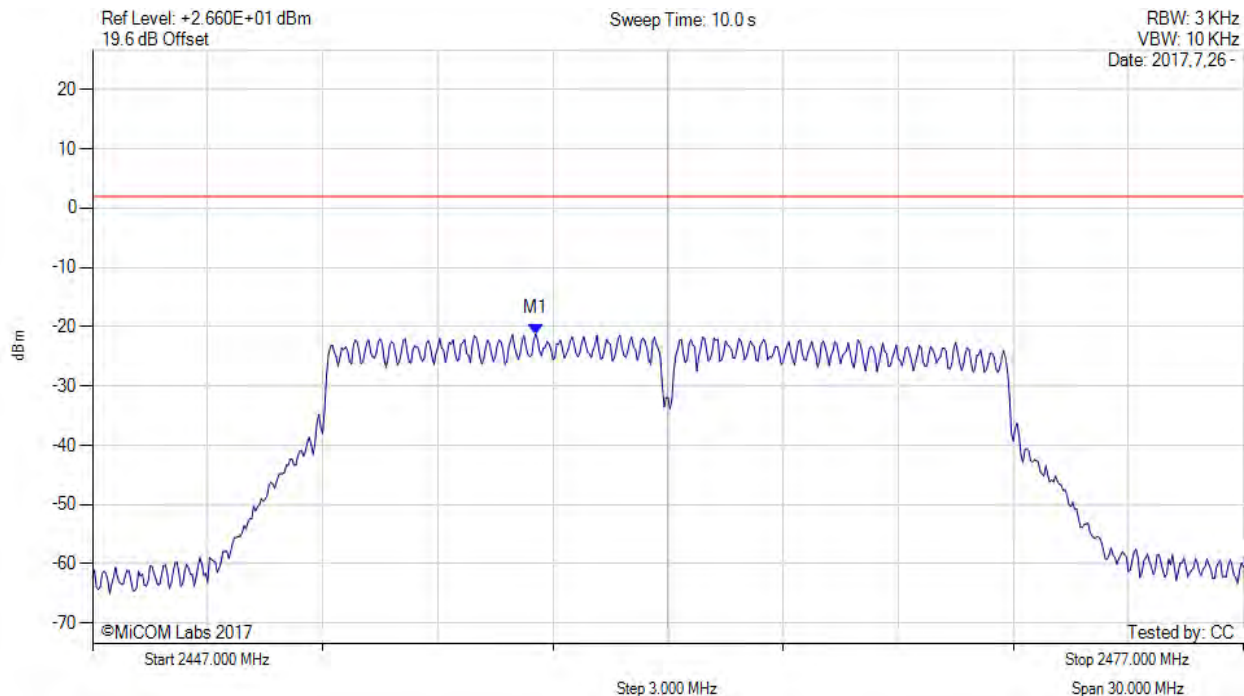


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2458.550 MHz : -21.215 dBm	Limit: ≤ 1.980 dBm

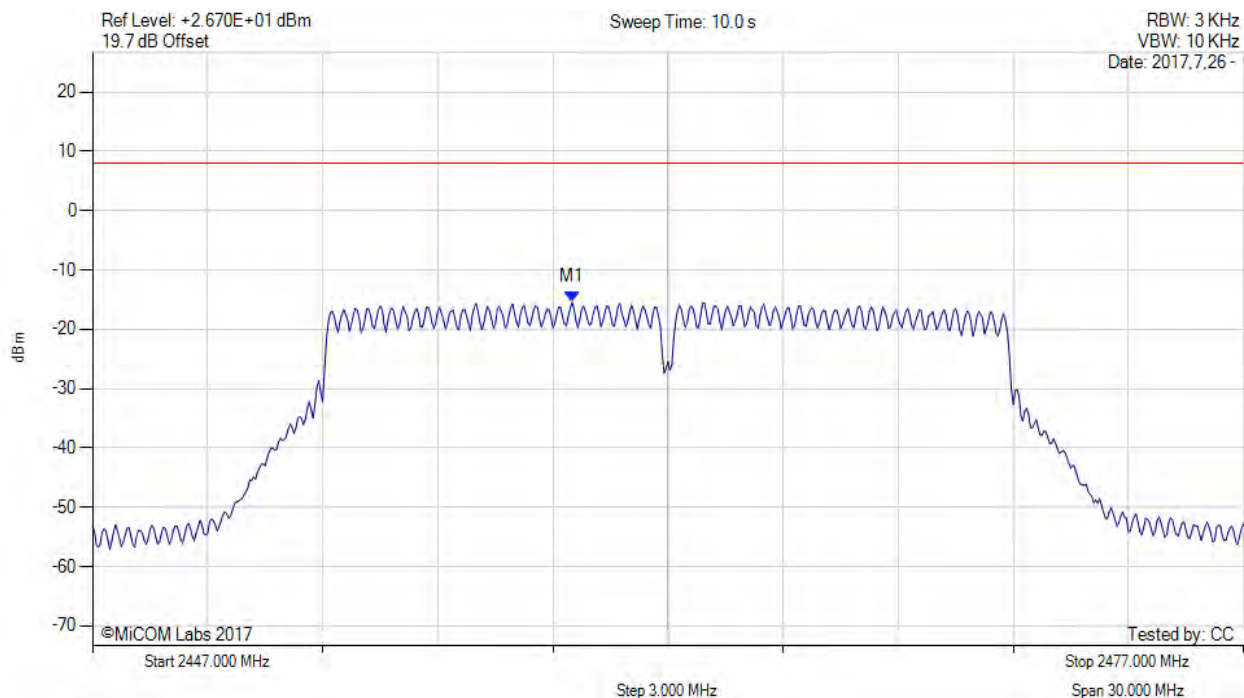
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2459.500 MHz : -15.413 dBm M1 + DCCF : 2459.500 MHz : -15.369 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -23.4 dB

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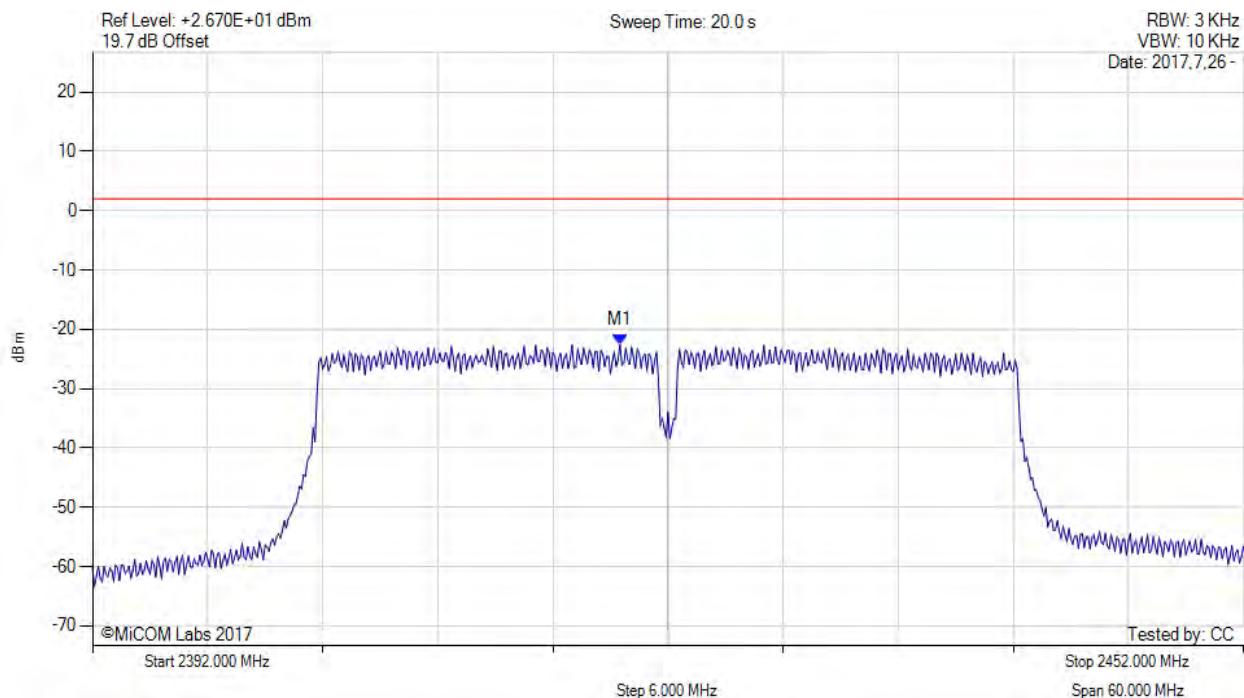


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2419.500 MHz : -22.565 dBm	Limit: ≤ 1.980 dBm

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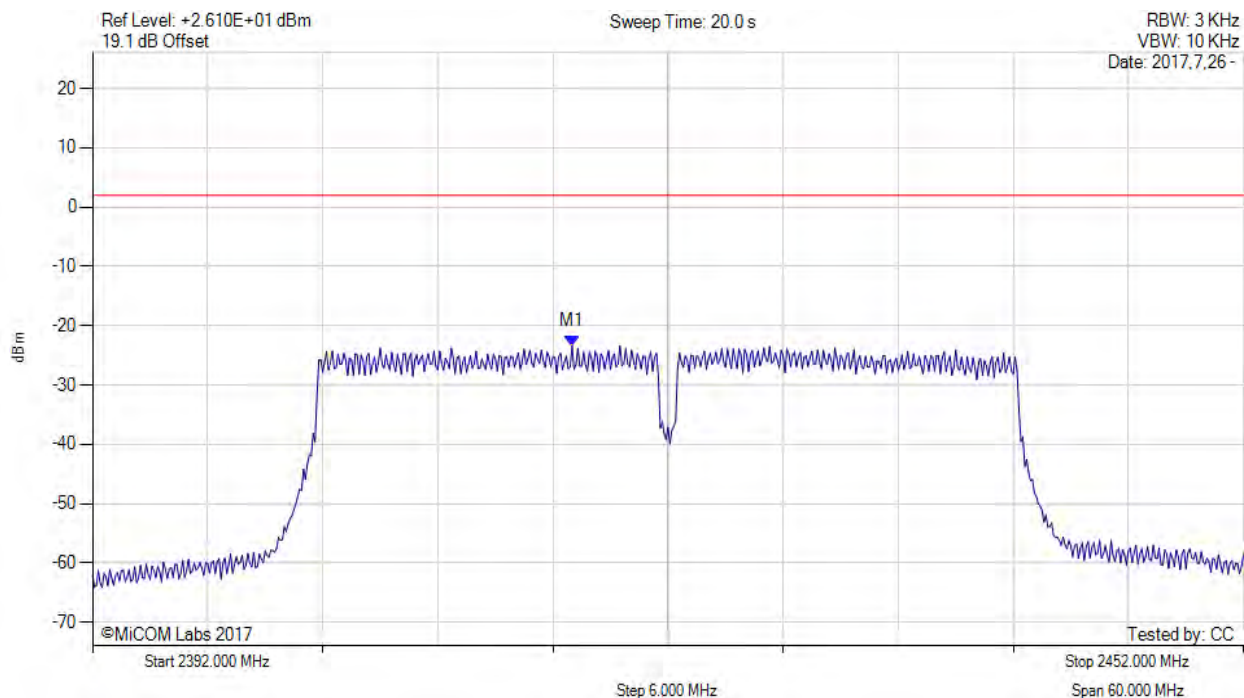


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2417.000 MHz : -23.402 dBm	Limit: ≤ 1.980 dBm

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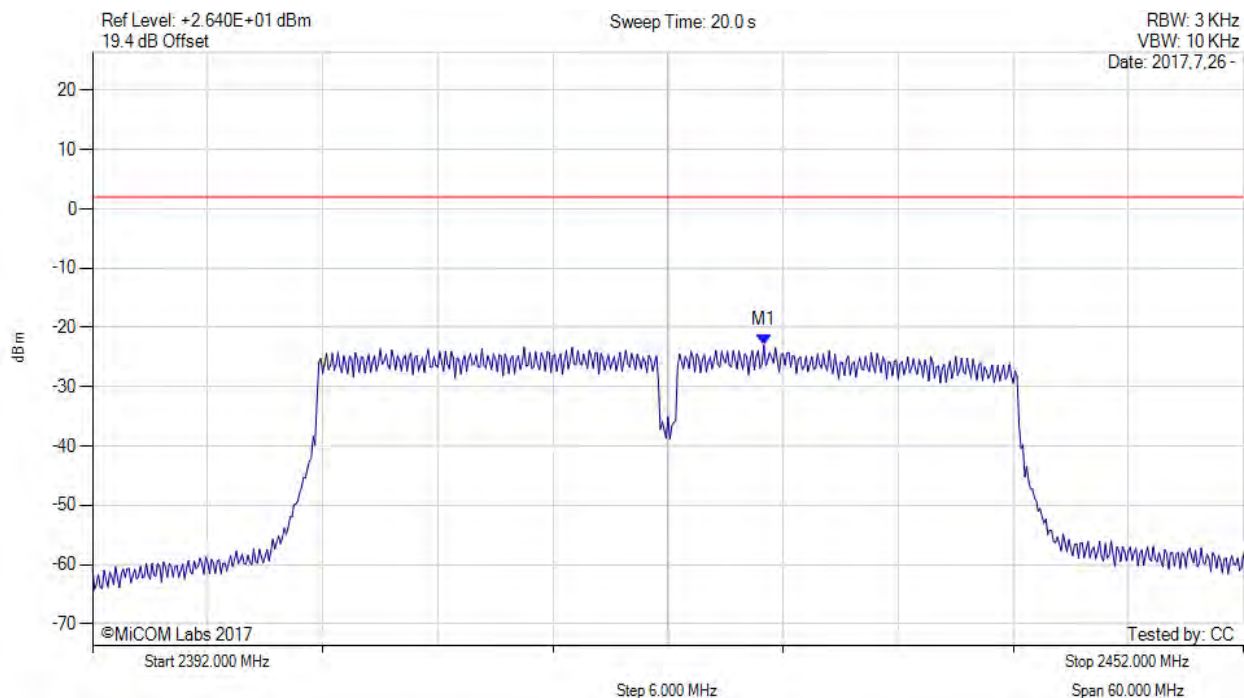


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2427.000 MHz : -22.945 dBm	Limit: ≤ 1.980 dBm

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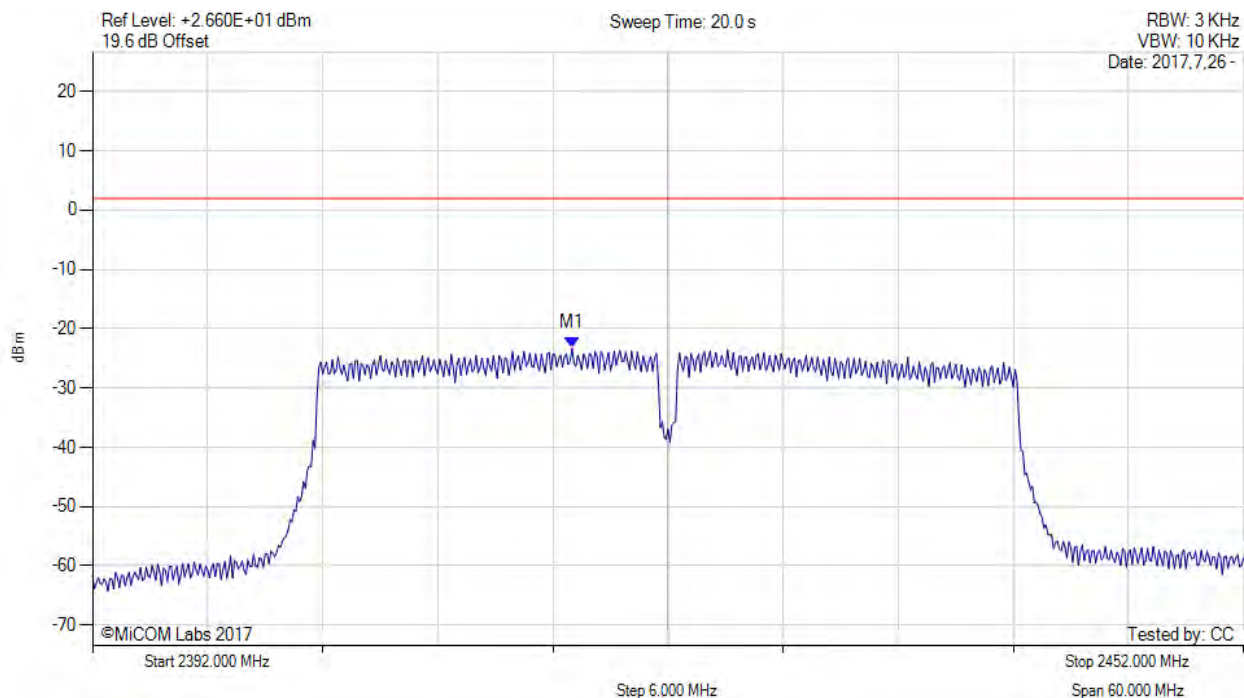


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2417.000 MHz : -23.252 dBm	Limit: ≤ 1.980 dBm

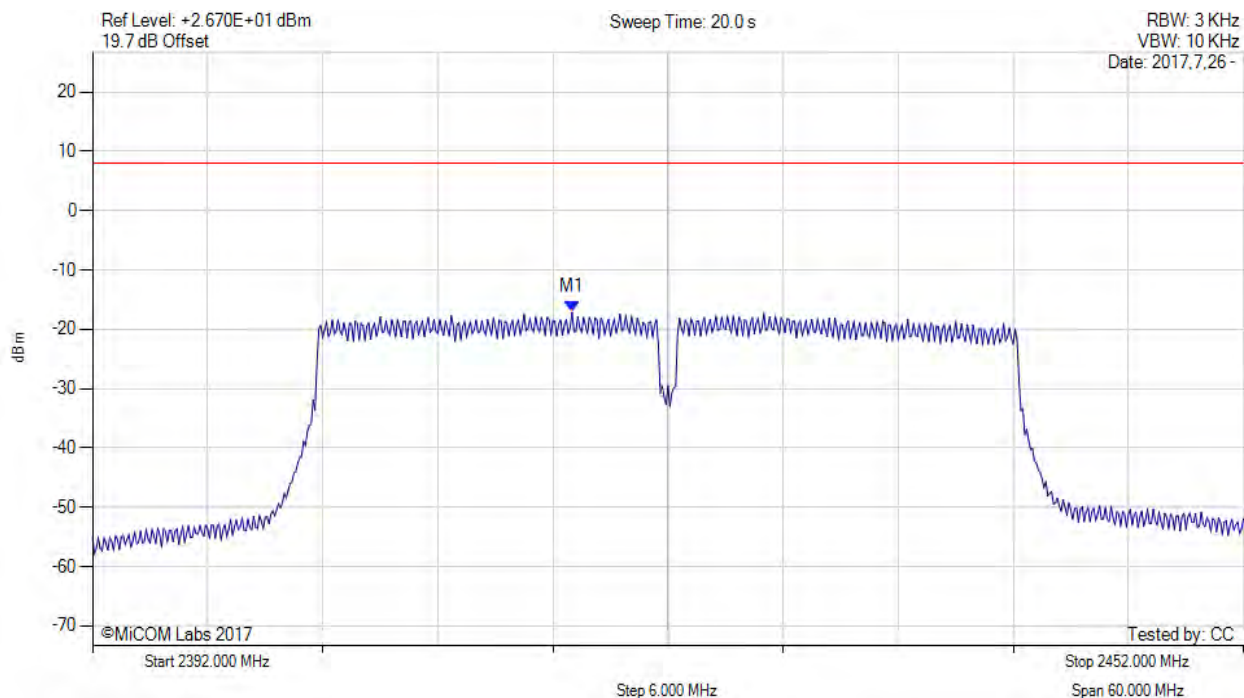
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2417.000 MHz : -17.131 dBm M1 + DCCF : 2417.000 MHz : -17.087 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -25.1 dB

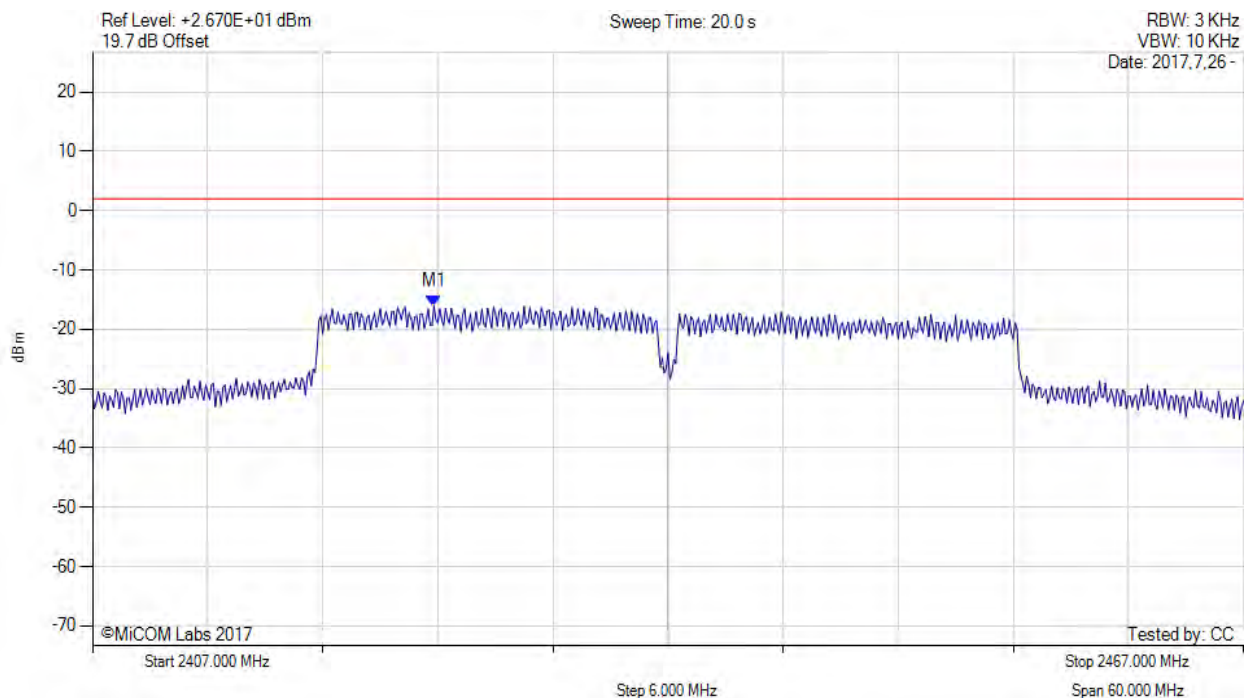
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2424.800 MHz : -16.117 dBm	Limit: ≤ 1.980 dBm

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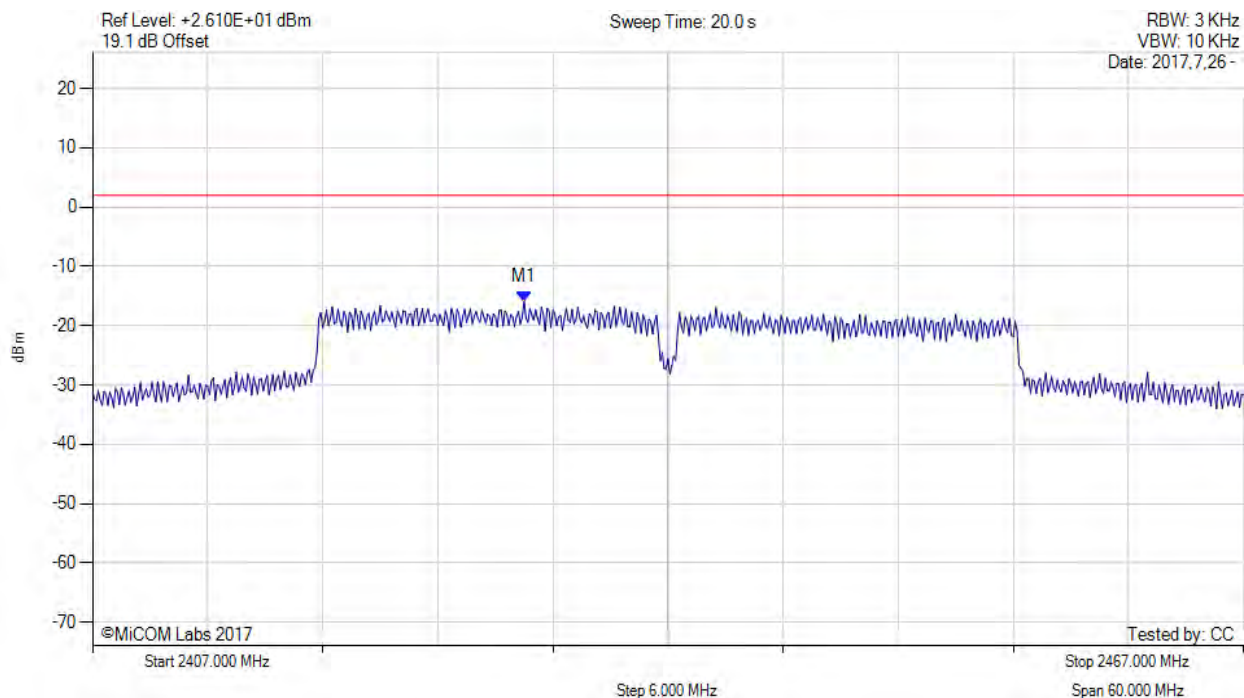


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2429.500 MHz : -15.956 dBm	Limit: ≤ 1.980 dBm

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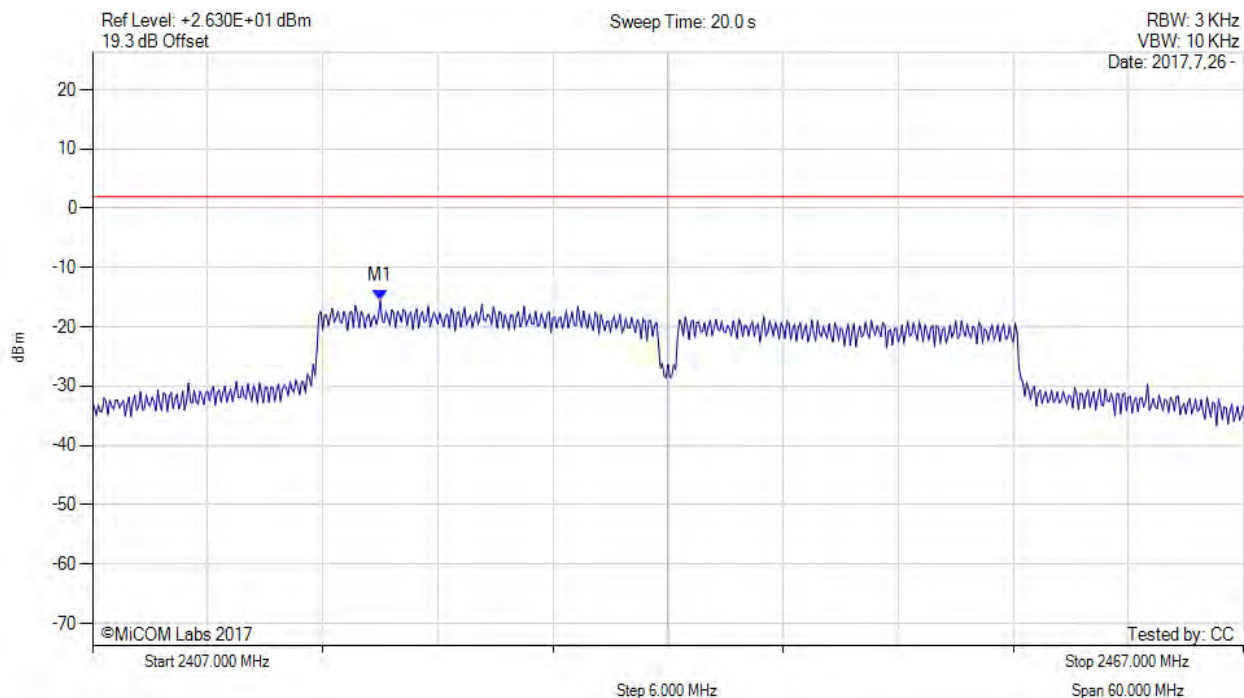


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2422.000 MHz : -15.531 dBm	Limit: ≤ 1.980 dBm

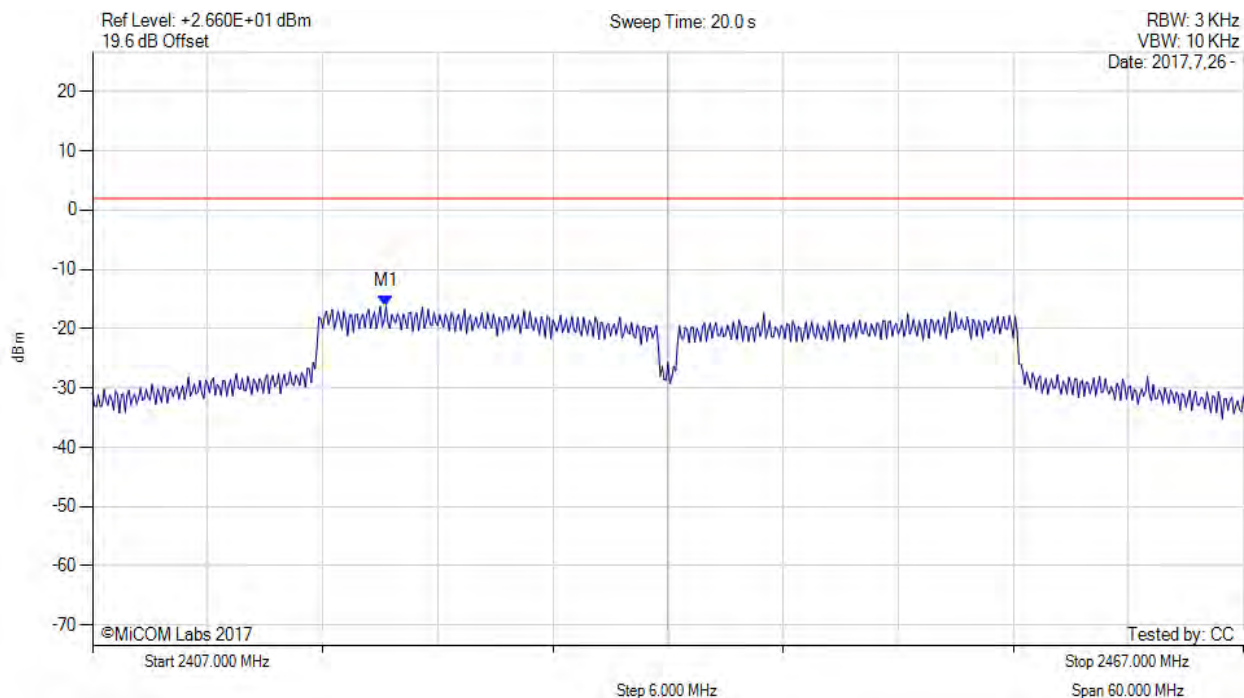
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2422.300 MHz : -16.235 dBm	Limit: ≤ 1.980 dBm

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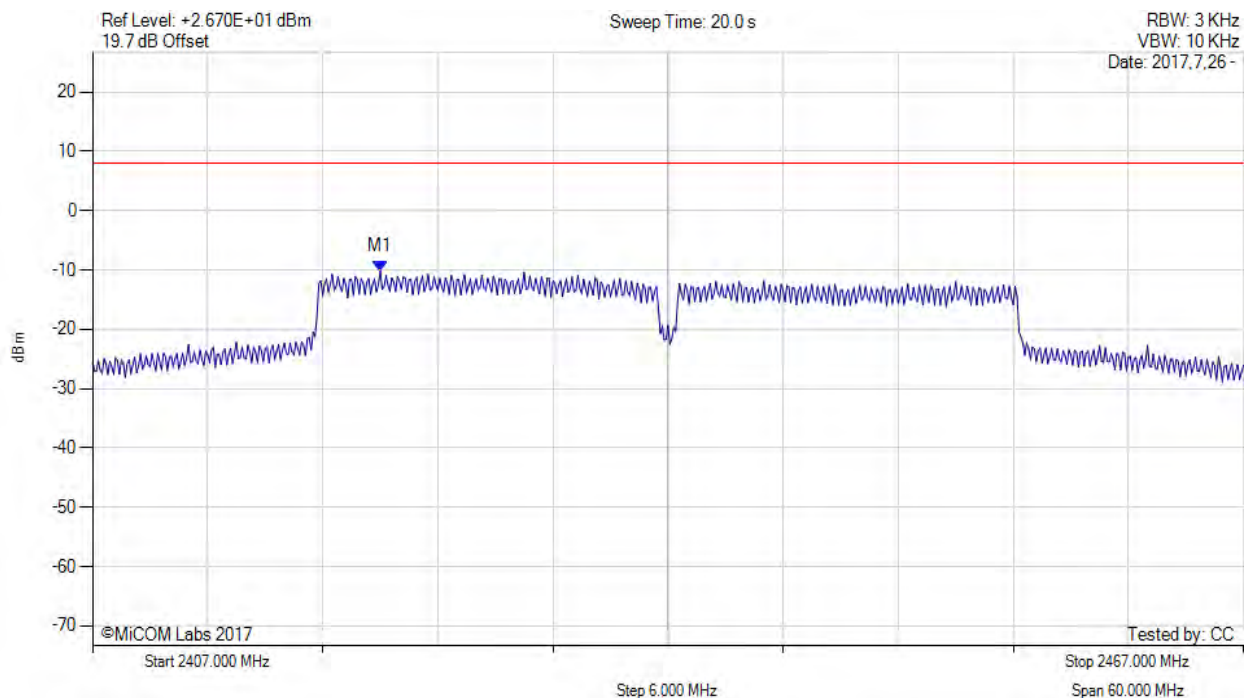


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2422.000 MHz : -10.173 dBm M1 + DCCF : 2422.000 MHz : -10.129 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -18.1 dB

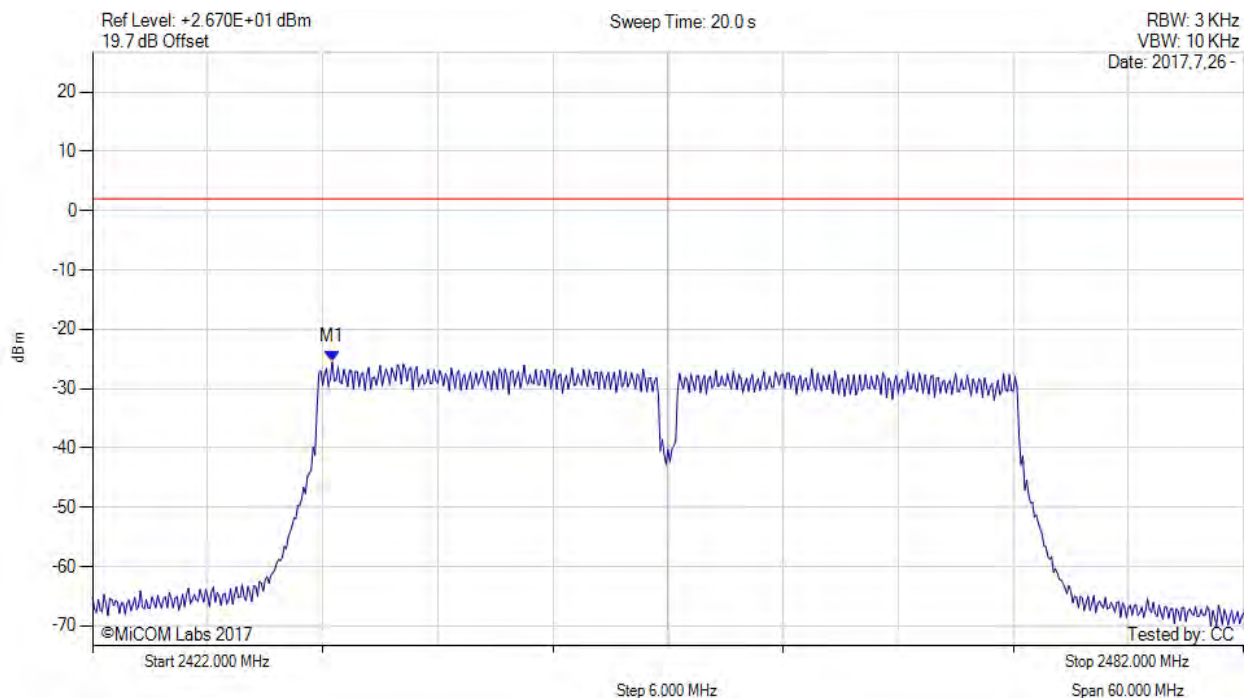
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2434.500 MHz : -25.491 dBm	Limit: ≤ 1.980 dBm

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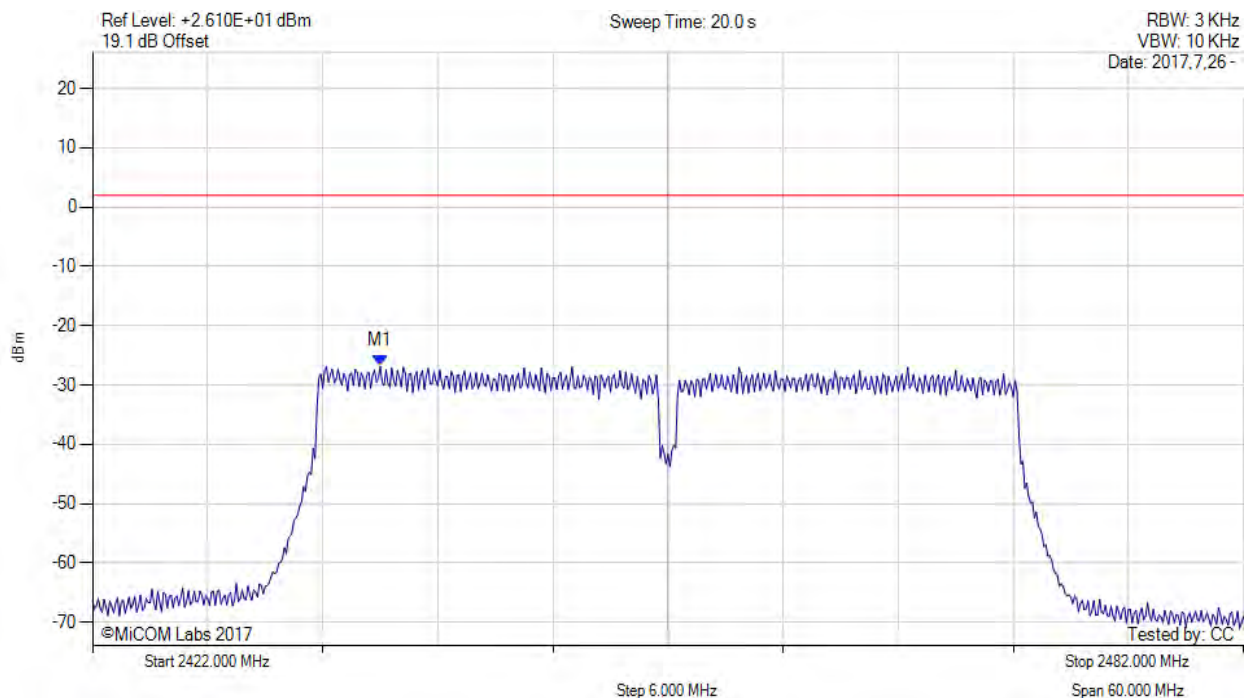


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2437.000 MHz : -26.832 dBm	Limit: ≤ 1.980 dBm

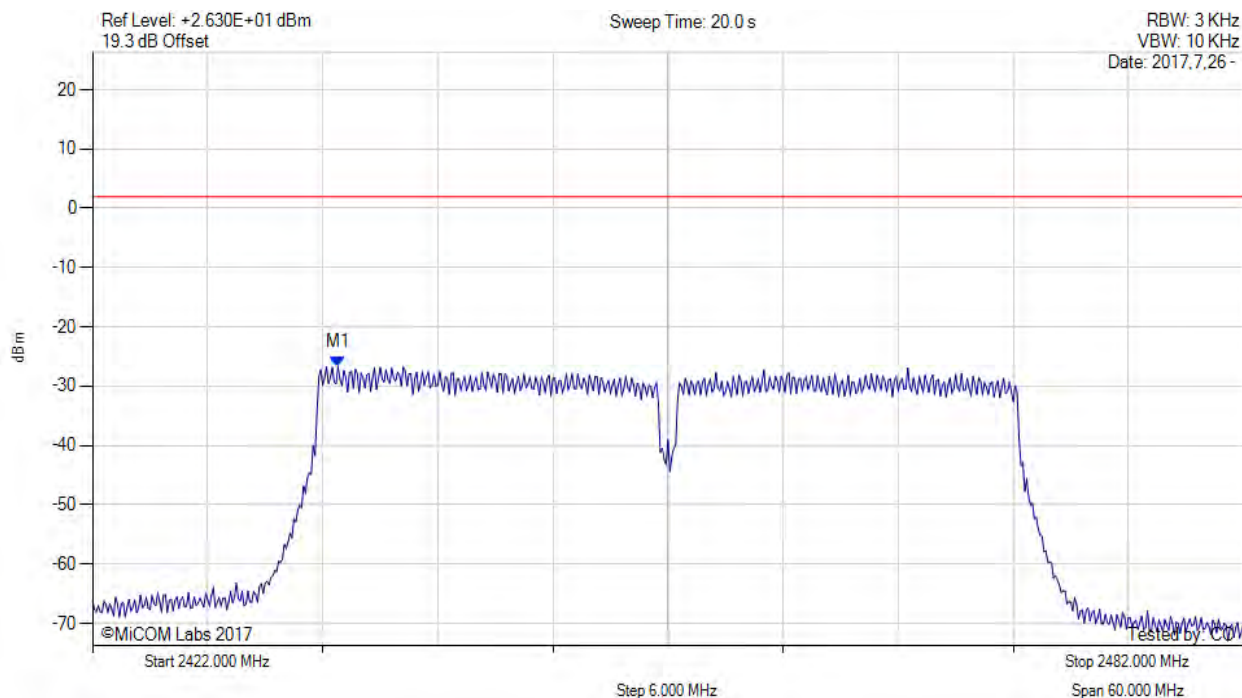
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2434.800 MHz : -26.700 dBm	Limit: ≤ 1.980 dBm

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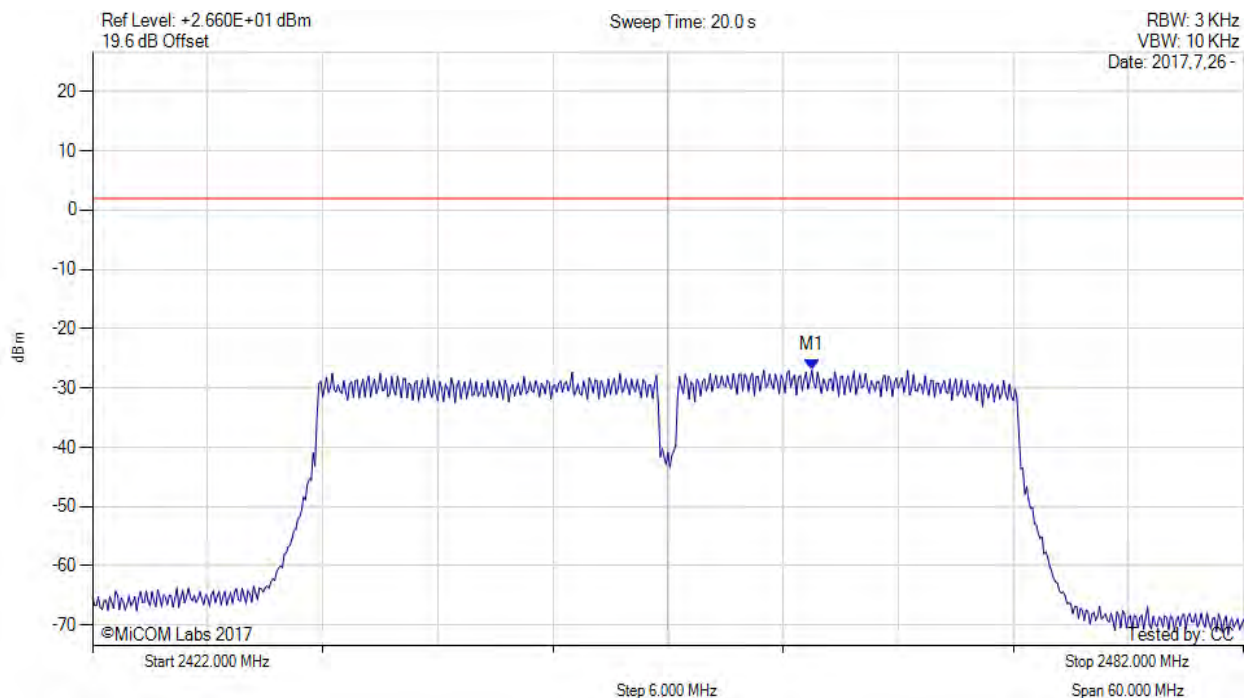


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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2459.500 MHz : -26.972 dBm	Limit: ≤ 1.980 dBm

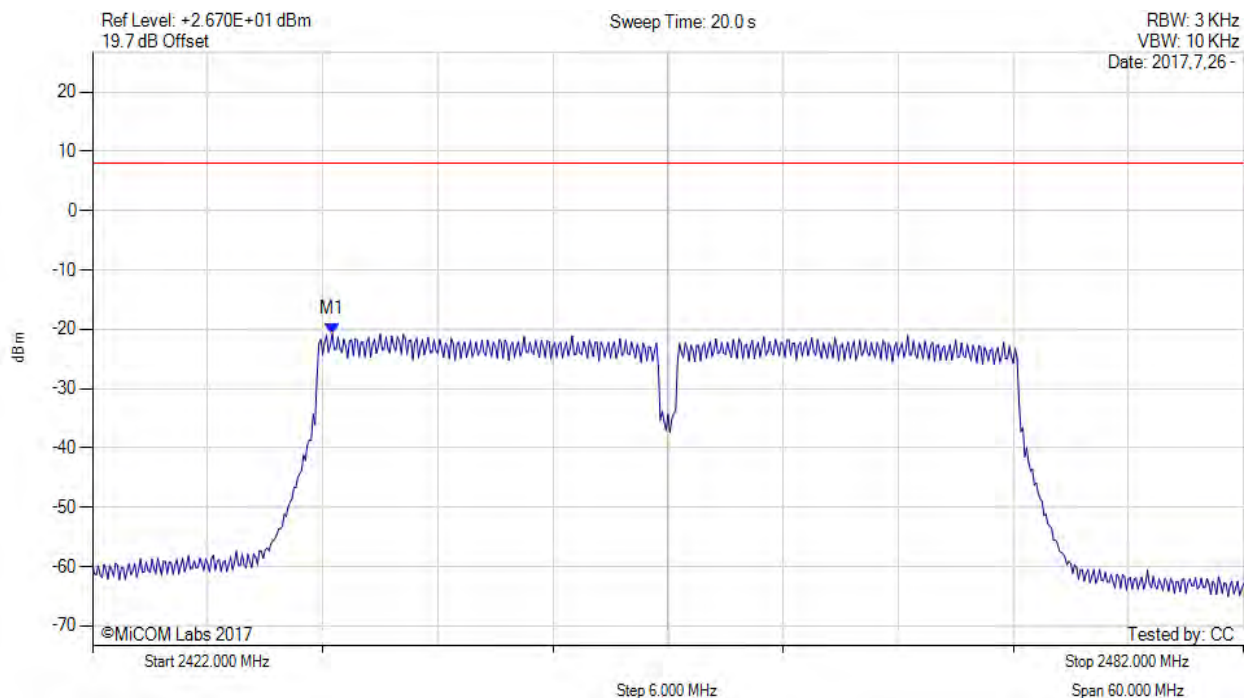
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POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2434.500 MHz : -20.698 dBm M1 + DCCF : 2434.500 MHz : -20.654 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 8.0 dBm Margin: -28.7 dB

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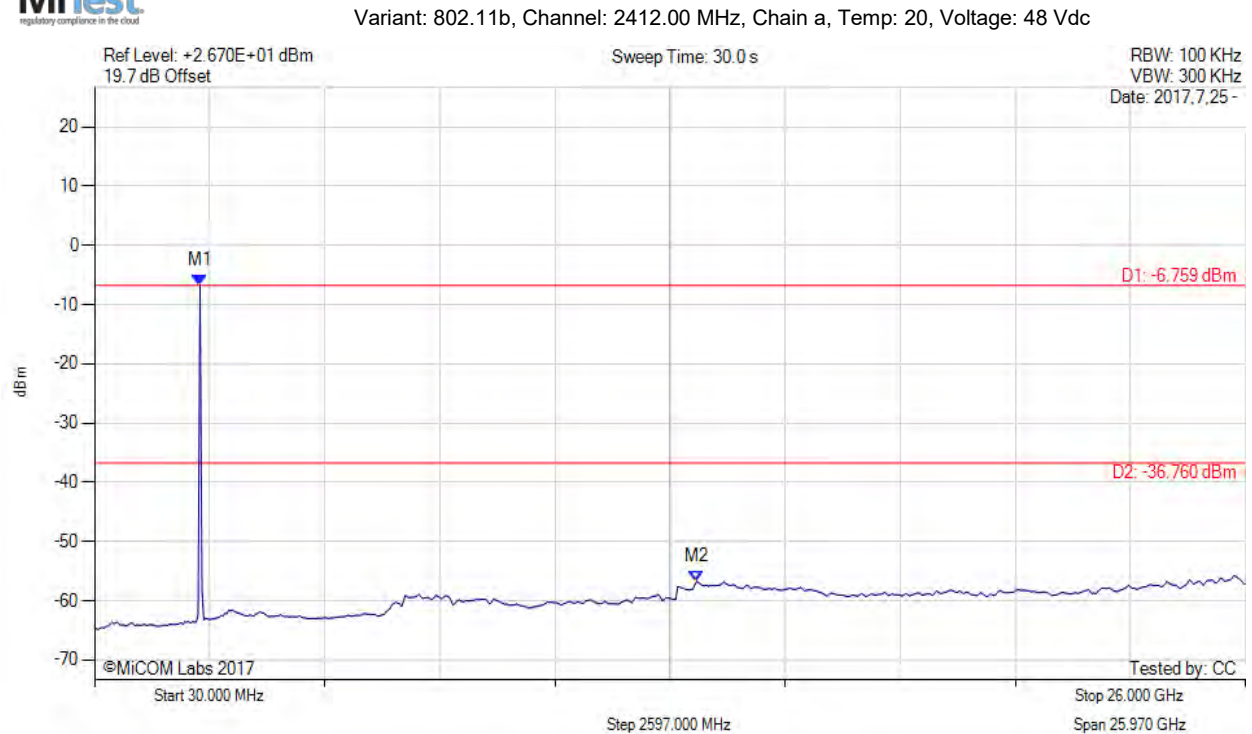
A.3. Emissions

A.3.1. Conducted Emissions

A.3.1.1. Conducted Spurious Emissions



CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -6.759 dBm M2 : 13.620 GHz : -56.724 dBm	Limit: -36.76 dBm Margin: -19.96 dB

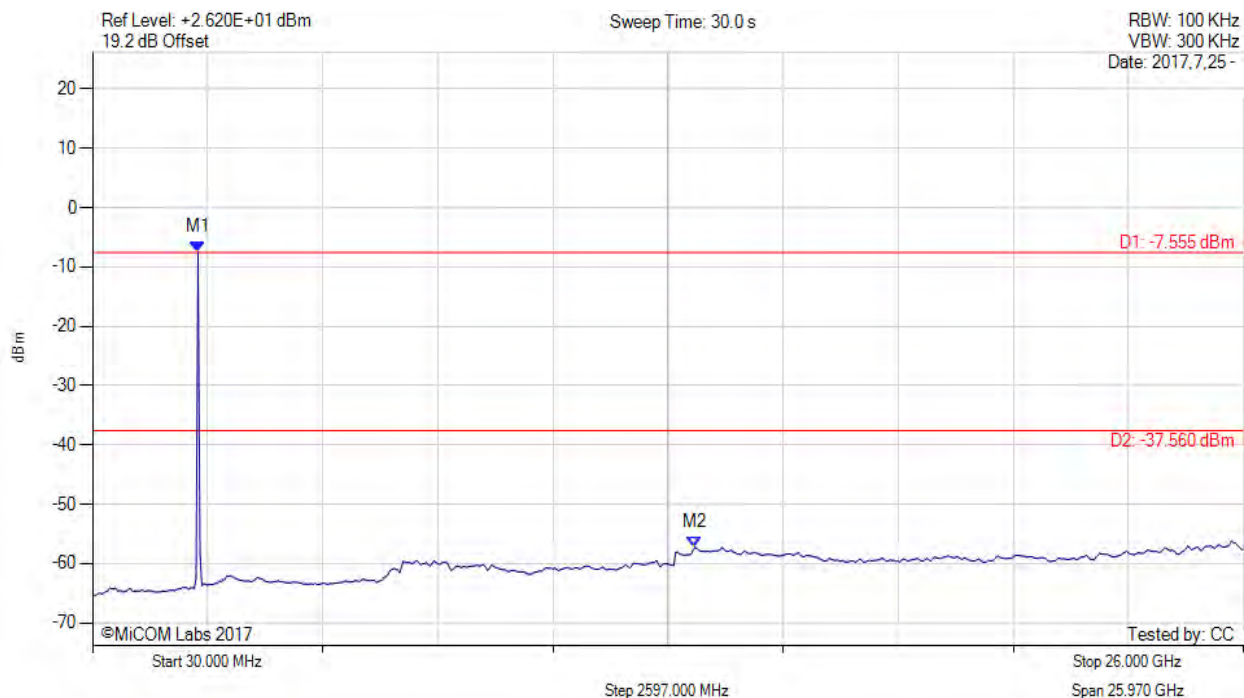
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -7.555 dBm M2 : 13.620 GHz : -57.294 dBm	Limit: -37.56 dBm Margin: -19.73 dB

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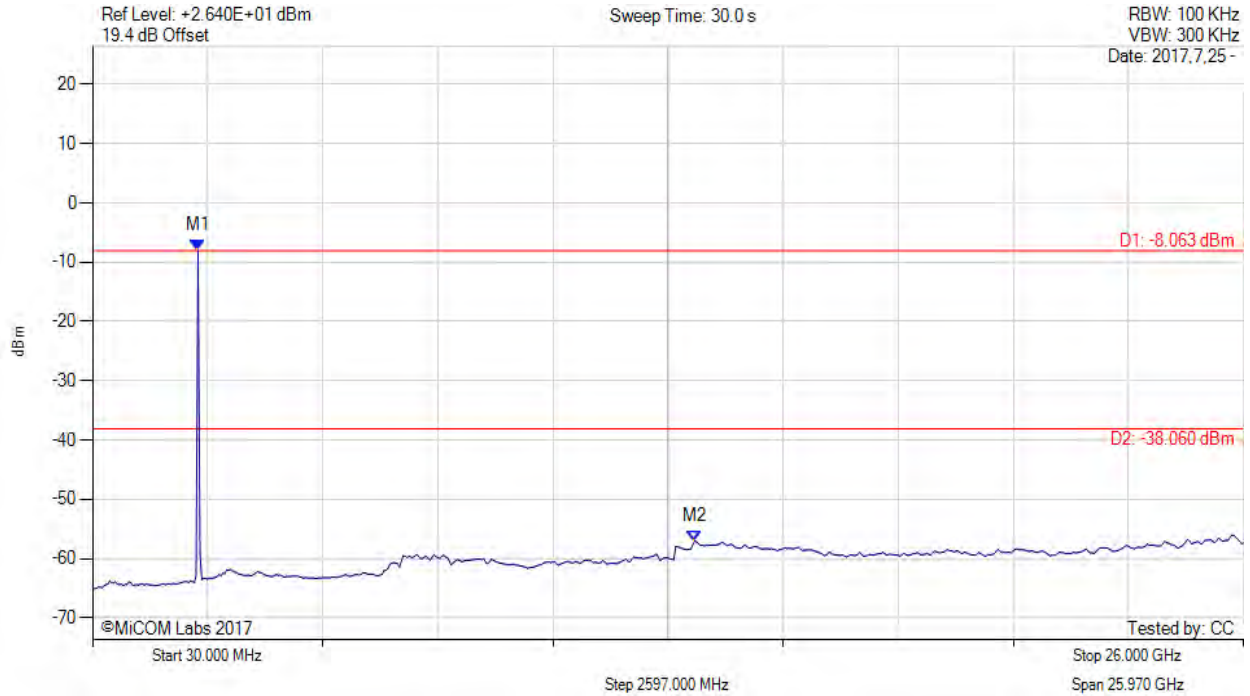


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -8.063 dBm M2 : 13.620 GHz : -57.014 dBm	Limit: -38.06 dBm Margin: -18.95 dB

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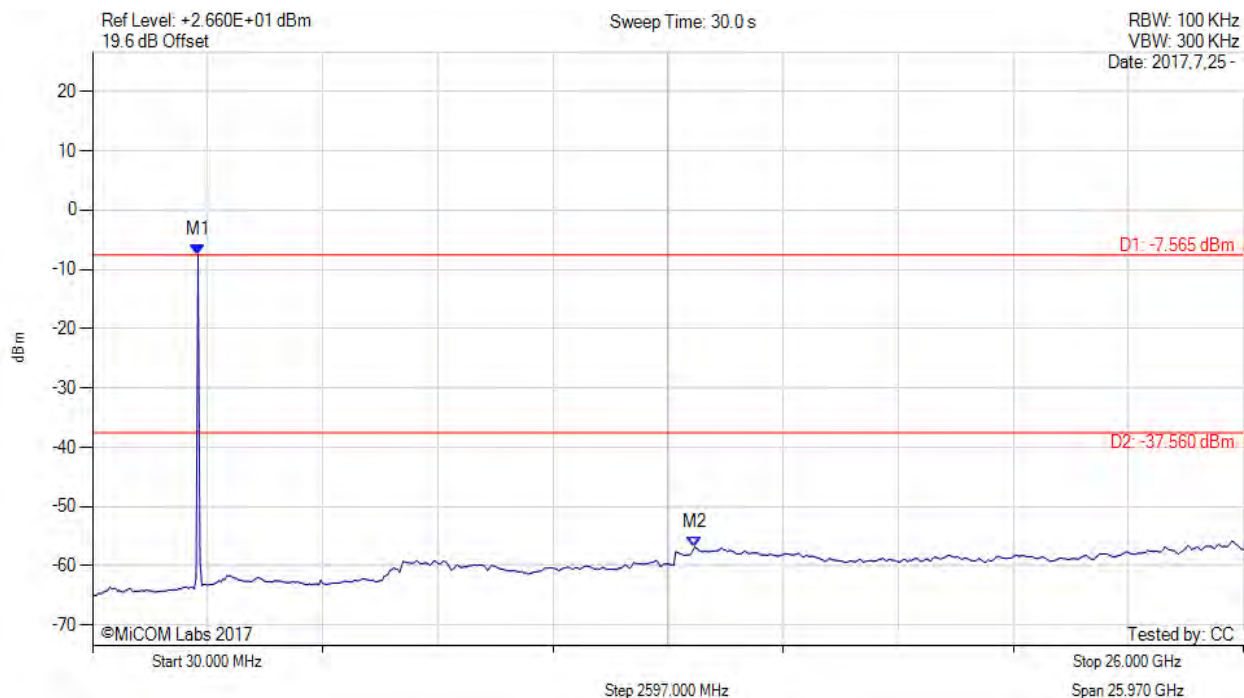


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -7.565 dBm M2 : 13.620 GHz : -56.839 dBm	Limit: -37.56 dBm Margin: -19.28 dB

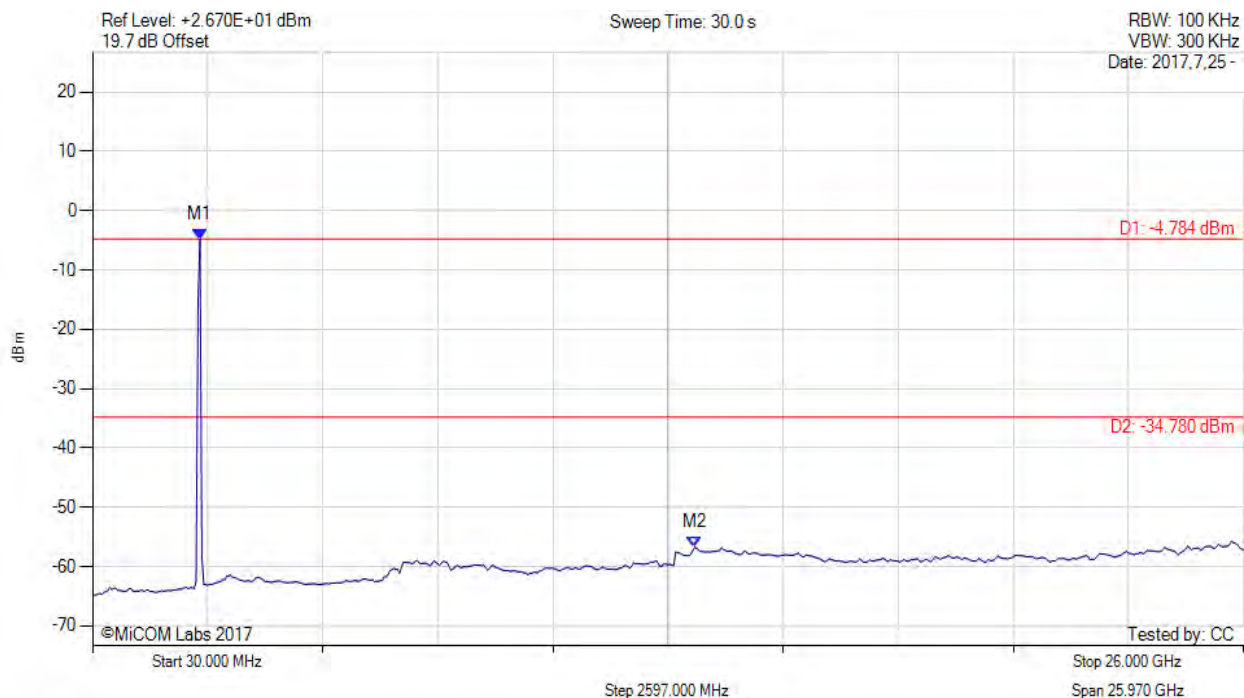
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -4.784 dBm M2 : 13.620 GHz : -56.763 dBm	Limit: -34.78 dBm Margin: -21.98 dB

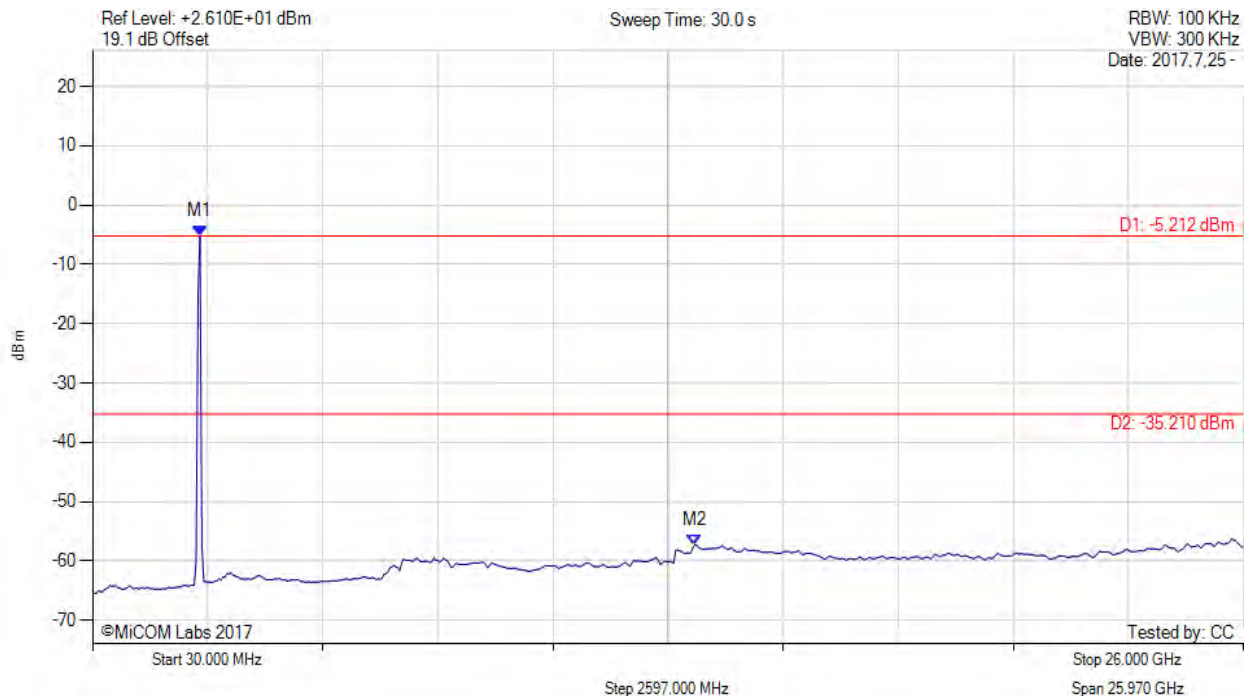
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -5.212 dBm M2 : 13.620 GHz : -57.279 dBm	Limit: -35.21 dBm Margin: -22.07 dB

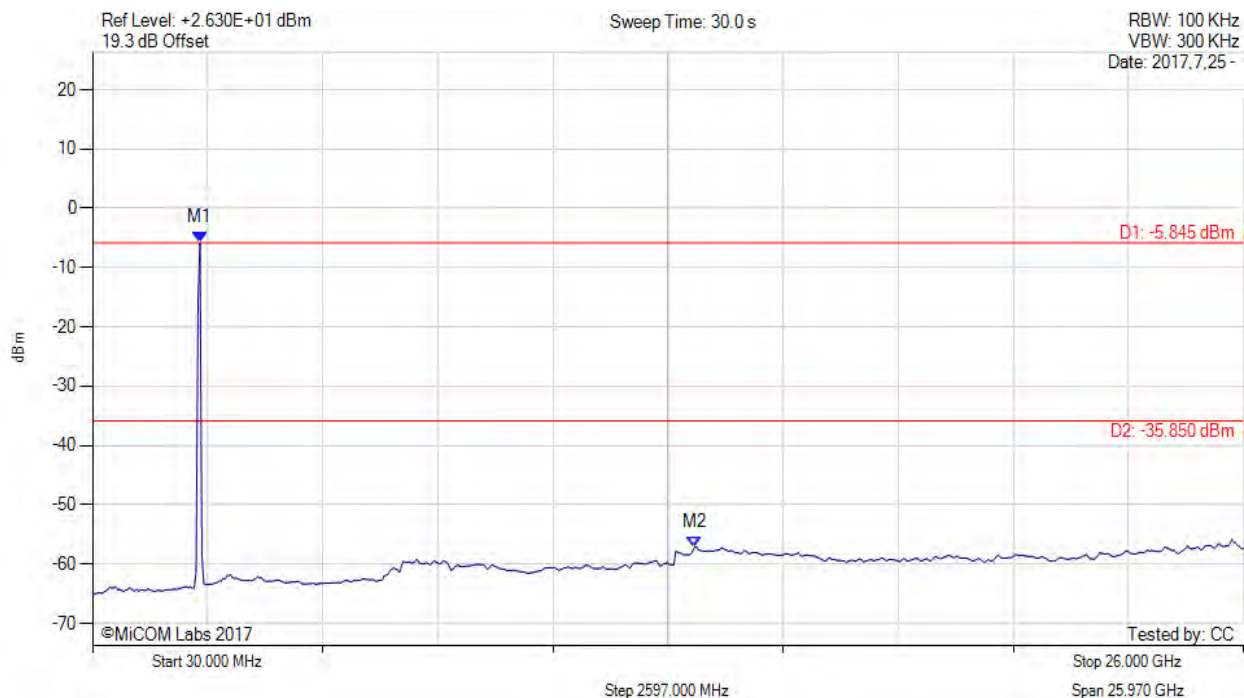
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -5.845 dBm M2 : 13.620 GHz : -57.092 dBm	Limit: -35.85 dBm Margin: -21.24 dB

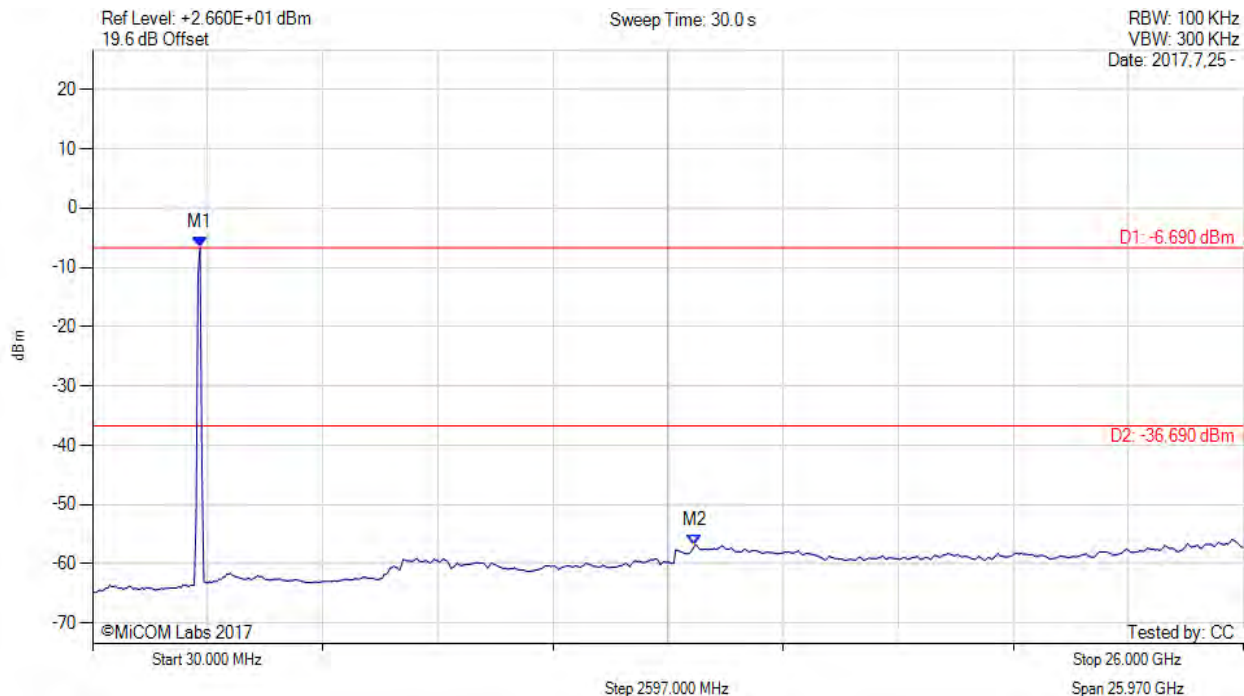
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.690 dBm M2 : 13.620 GHz : -56.858 dBm	Limit: -36.69 dBm Margin: -20.17 dB

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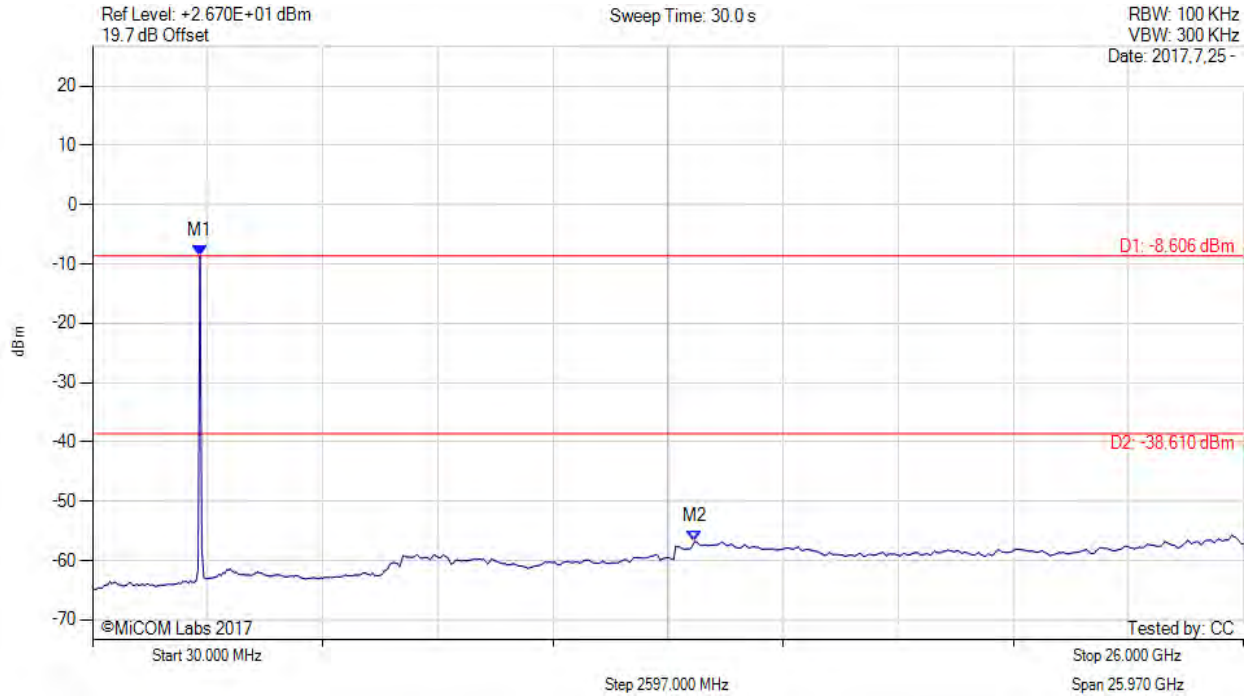


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -8.606 dBm M2 : 13.620 GHz : -56.819 dBm	Limit: -38.61 dBm Margin: -18.21 dB

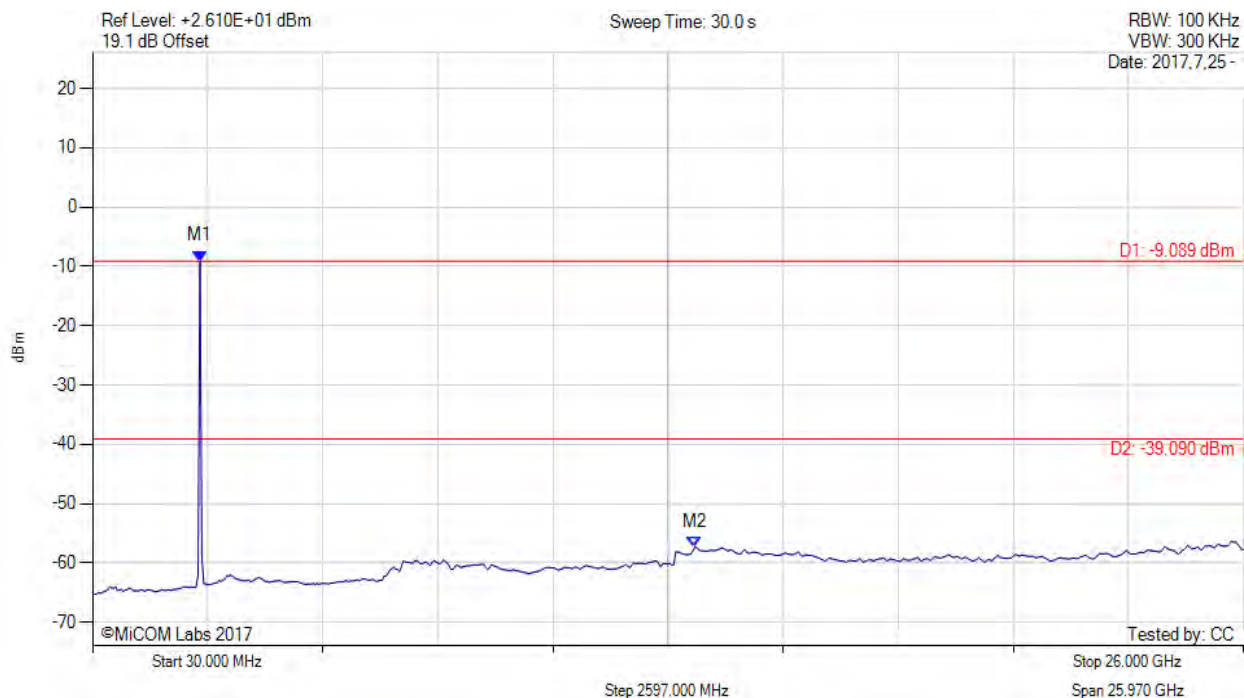
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -9.089 dBm M2 : 13.620 GHz : -57.348 dBm	Limit: -39.09 dBm Margin: -18.26 dB

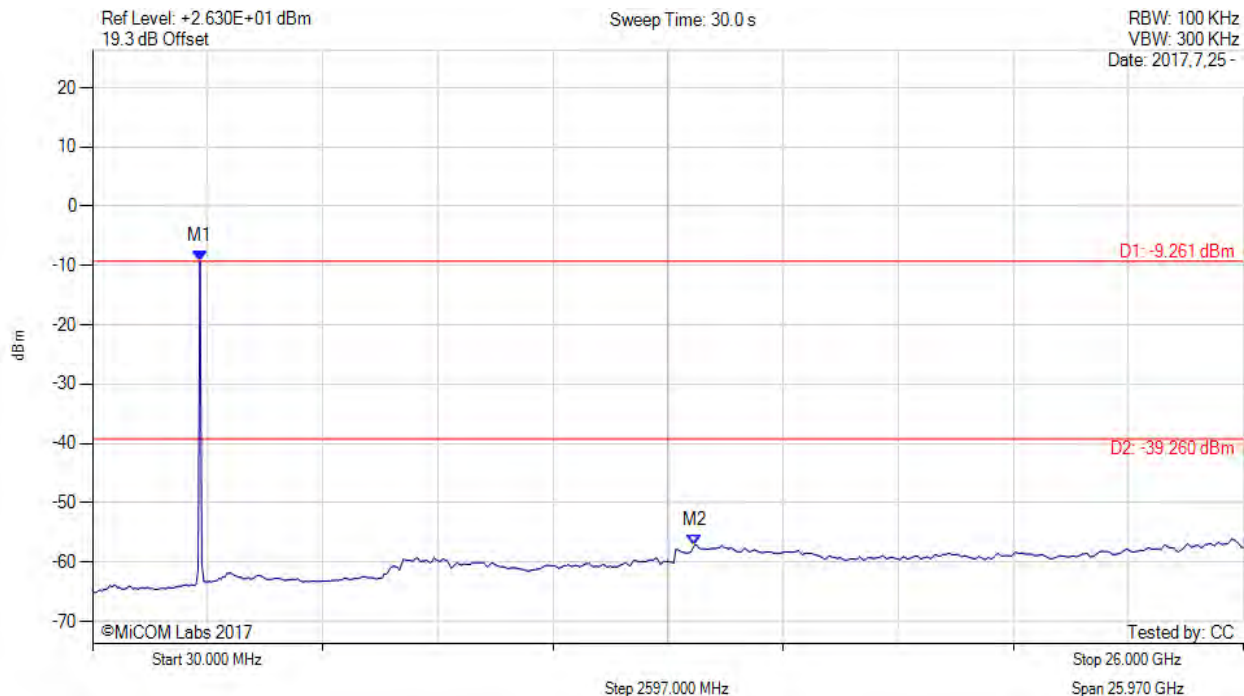
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -9.261 dBm M2 : 13.620 GHz : -57.105 dBm	Limit: -39.26 dBm Margin: -17.84 dB

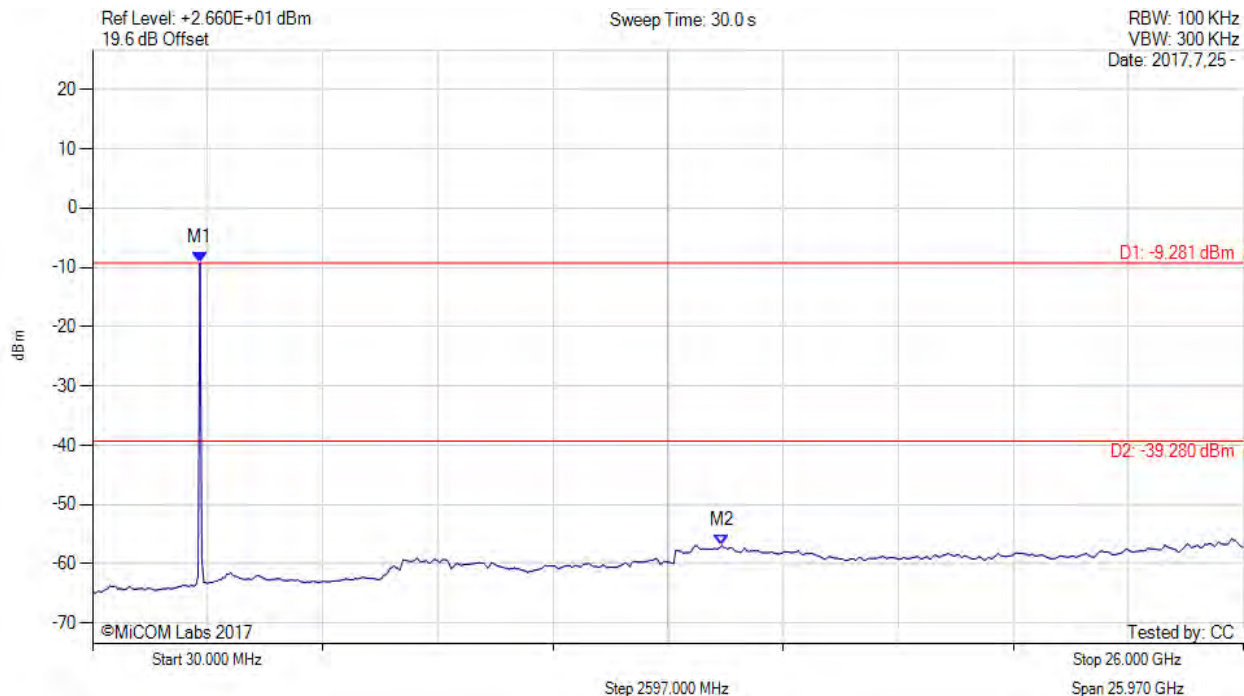
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -9.281 dBm M2 : 14.230 GHz : -56.881 dBm	Limit: -39.28 dBm Margin: -17.60 dB

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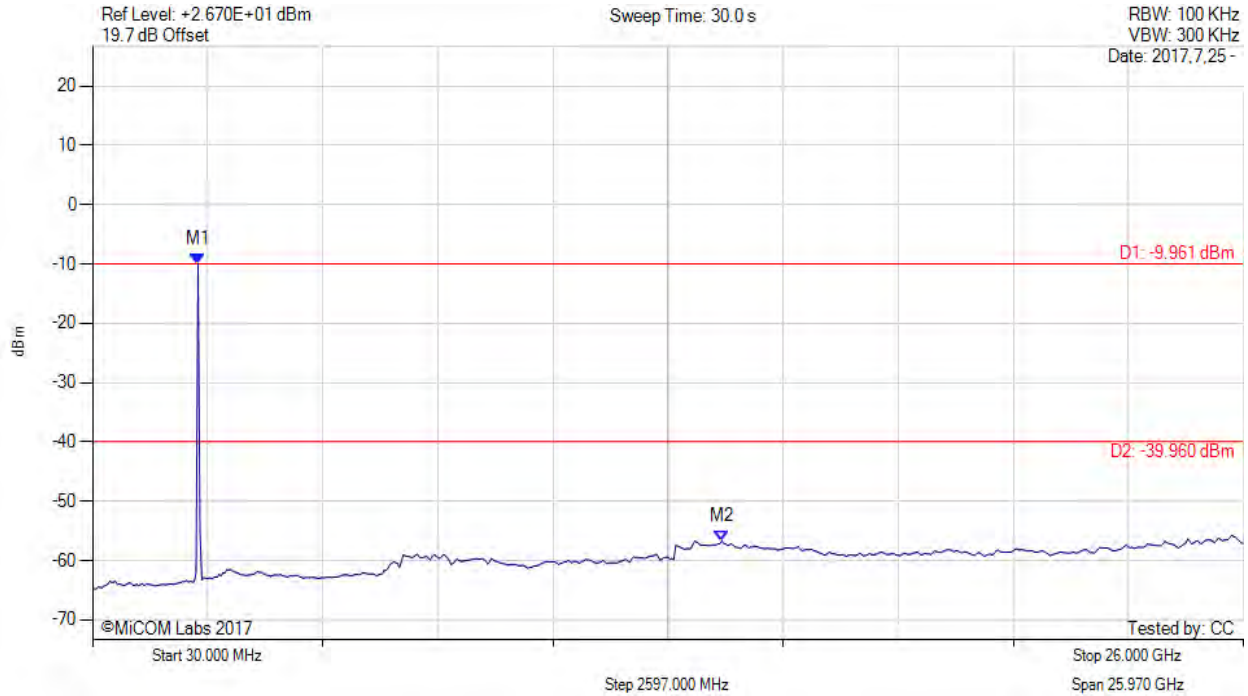


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -9.961 dBm M2 : 14.230 GHz : -56.716 dBm	Limit: -39.96 dBm Margin: -16.76 dB

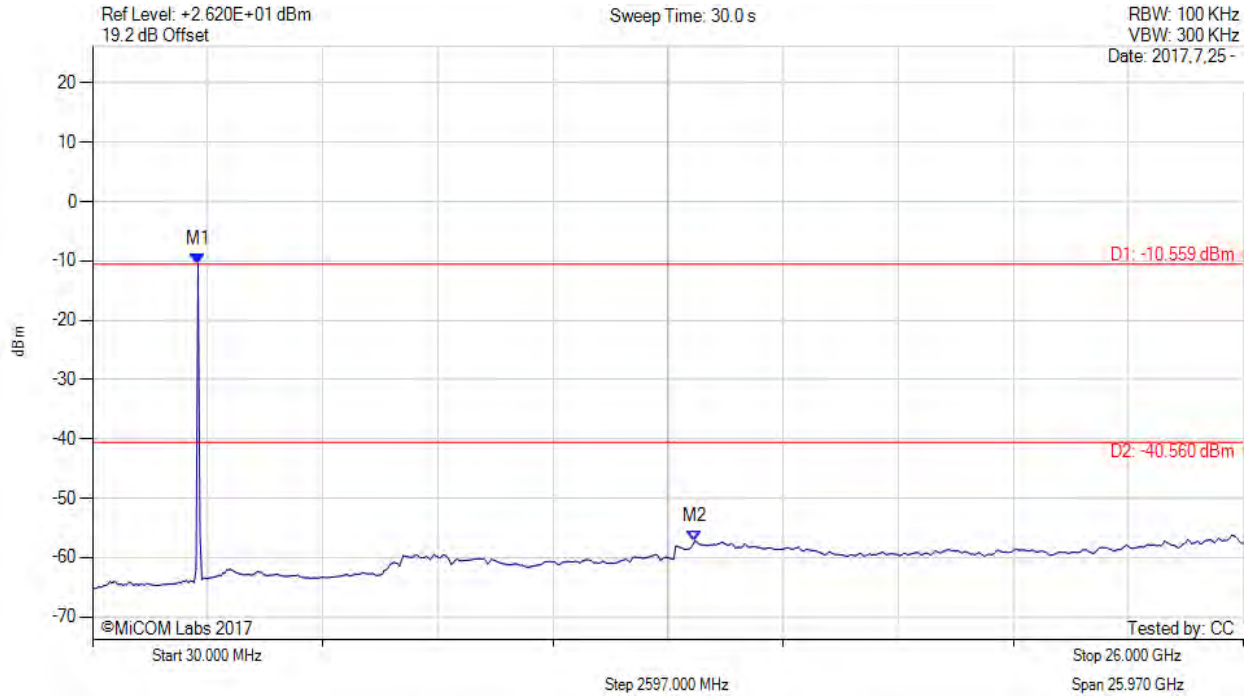
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -10.559 dBm M2 : 13.620 GHz : -57.219 dBm	Limit: -40.56 dBm Margin: -16.66 dB

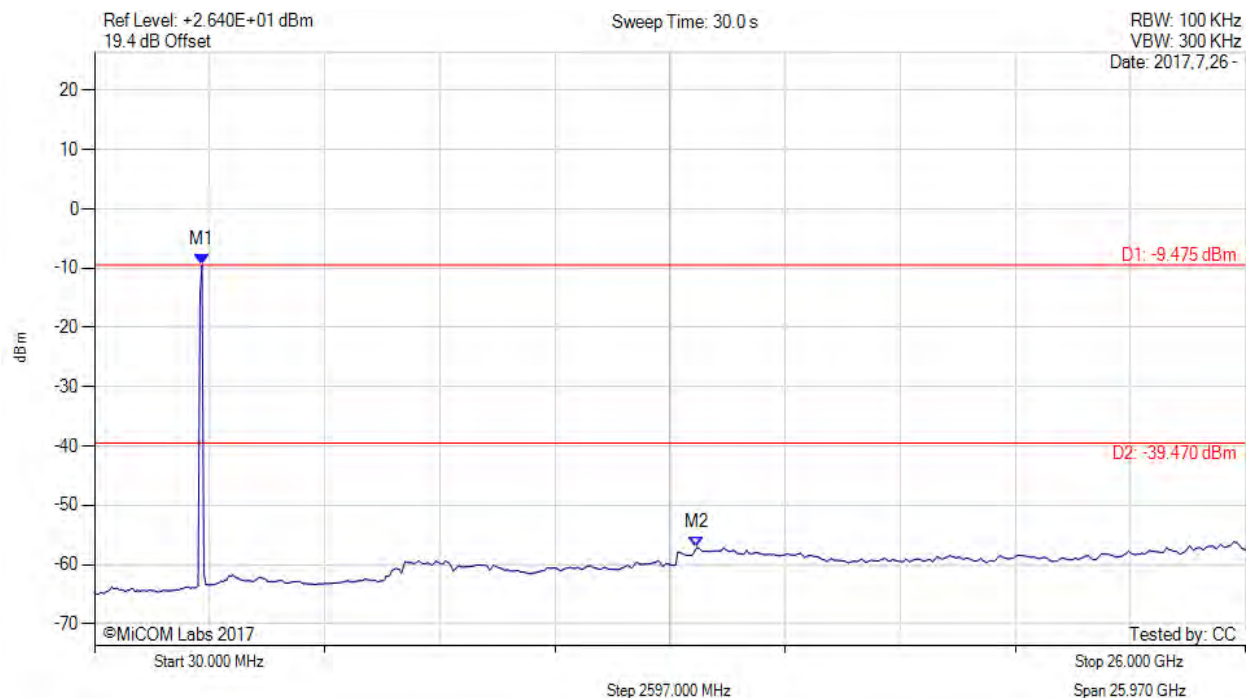
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -9.475 dBm M2 : 13.620 GHz : -57.120 dBm	Limit: -39.47 dBm Margin: -17.65 dB

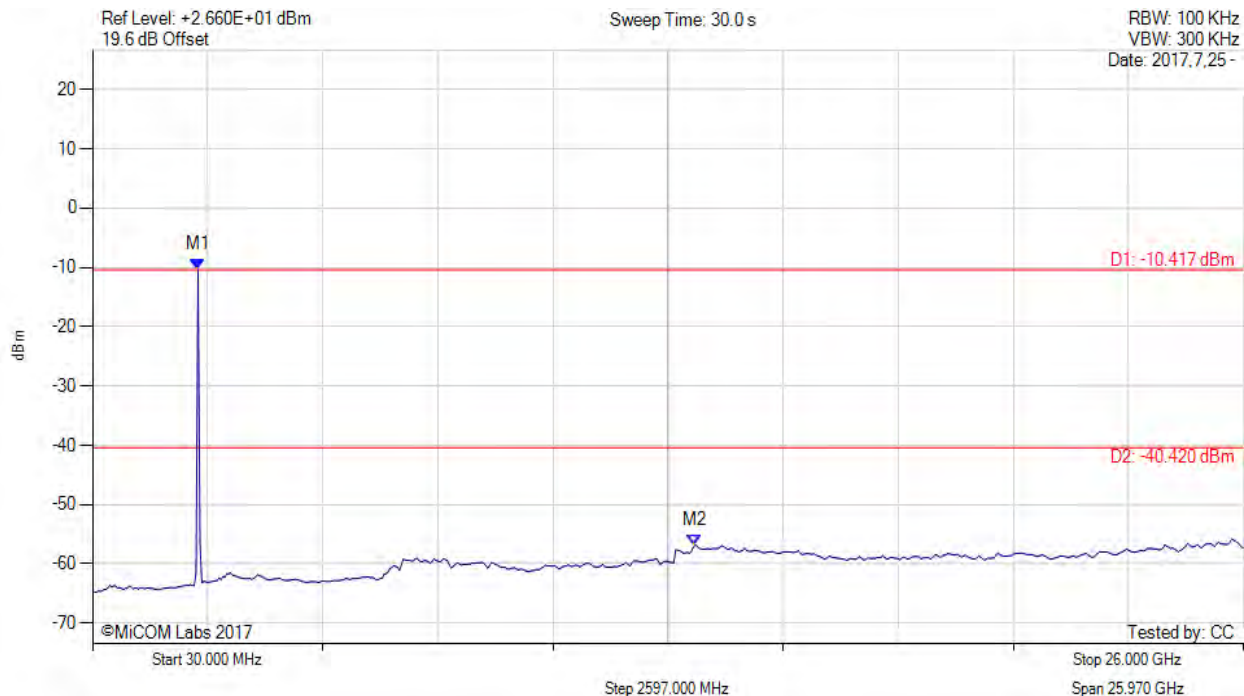
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -10.417 dBm M2 : 13.620 GHz : -56.839 dBm	Limit: -40.42 dBm Margin: -16.42 dB

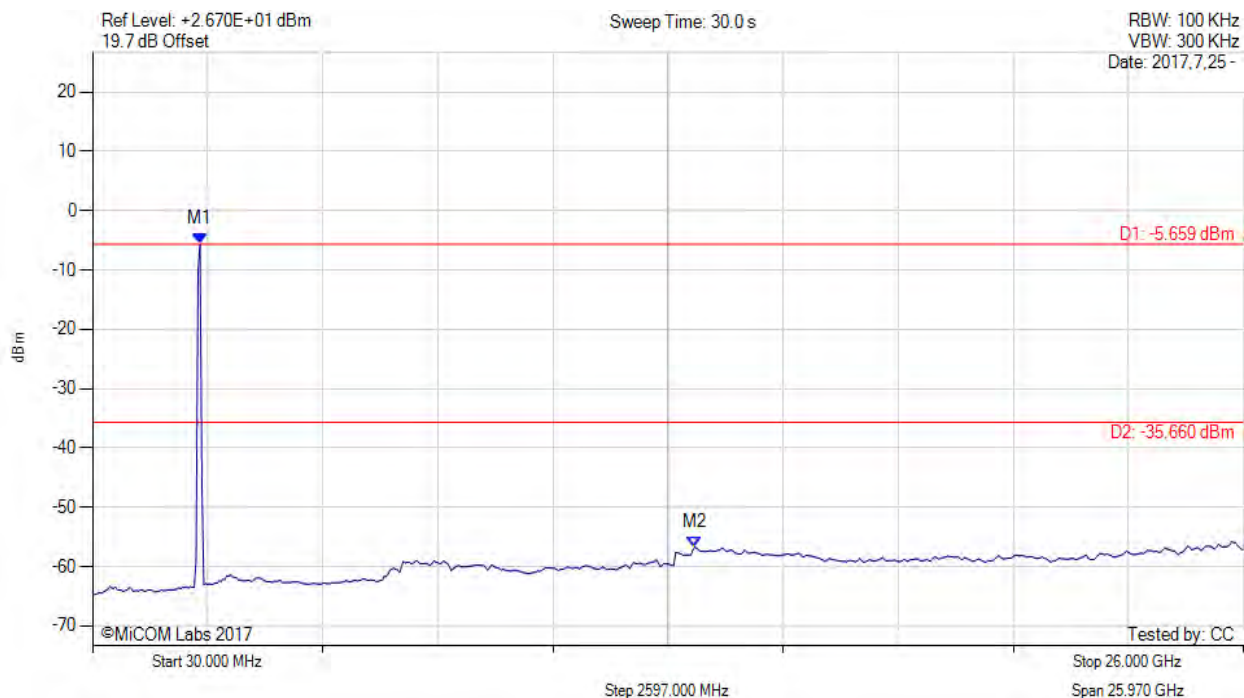
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -5.659 dBm M2 : 13.620 GHz : -56.706 dBm	Limit: -35.66 dBm Margin: -21.05 dB

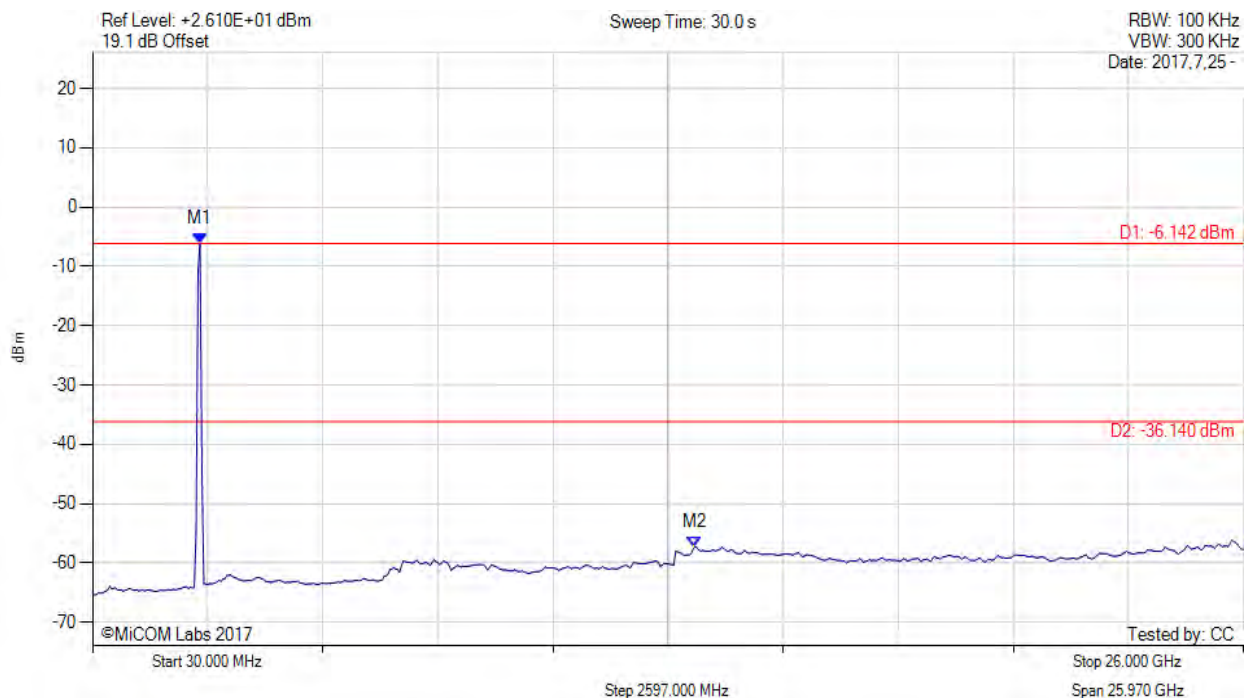
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.142 dBm M2 : 13.620 GHz : -57.291 dBm	Limit: -36.14 dBm Margin: -21.15 dB

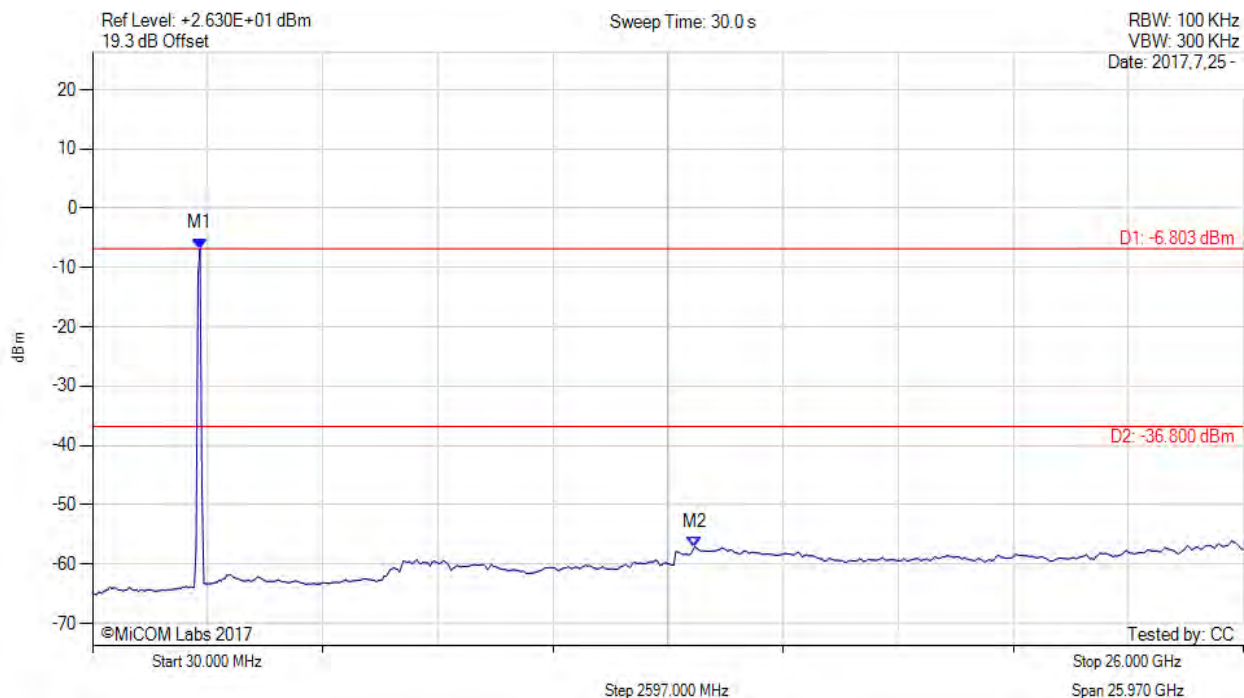
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.803 dBm M2 : 13.620 GHz : -57.066 dBm	Limit: -36.80 dBm Margin: -20.27 dB

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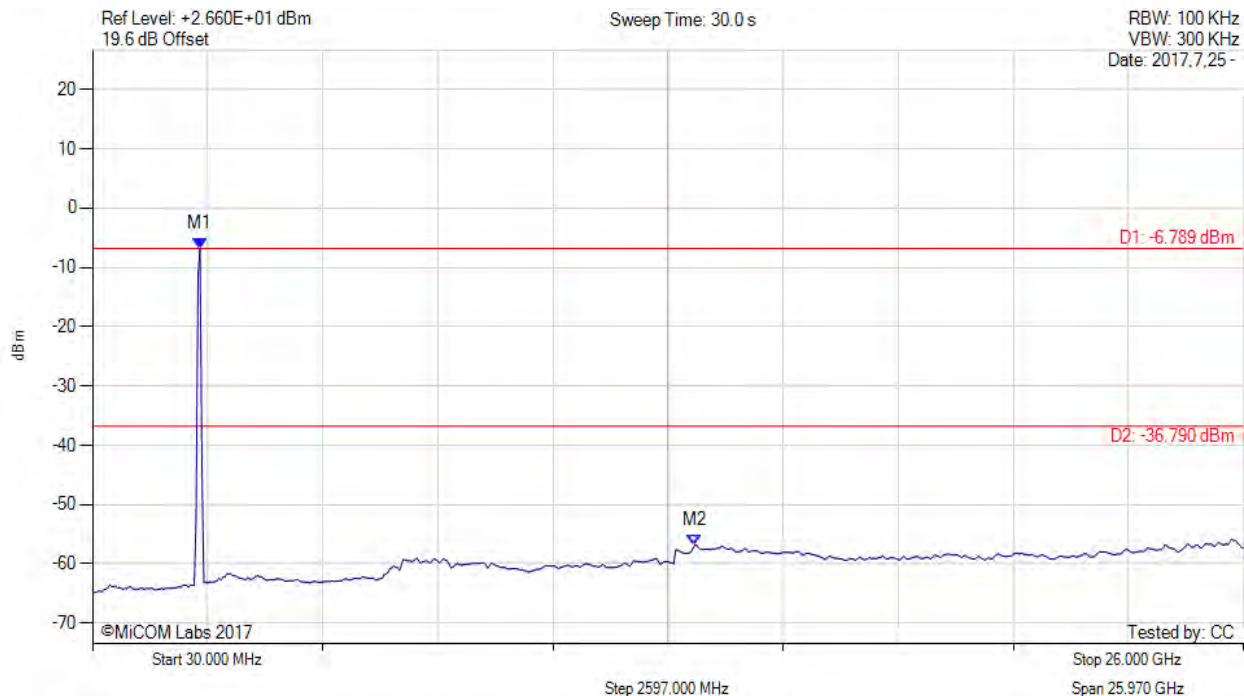


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Variant: 802.11g, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.789 dBm M2 : 13.620 GHz : -56.834 dBm	Limit: -36.79 dBm Margin: -20.04 dB

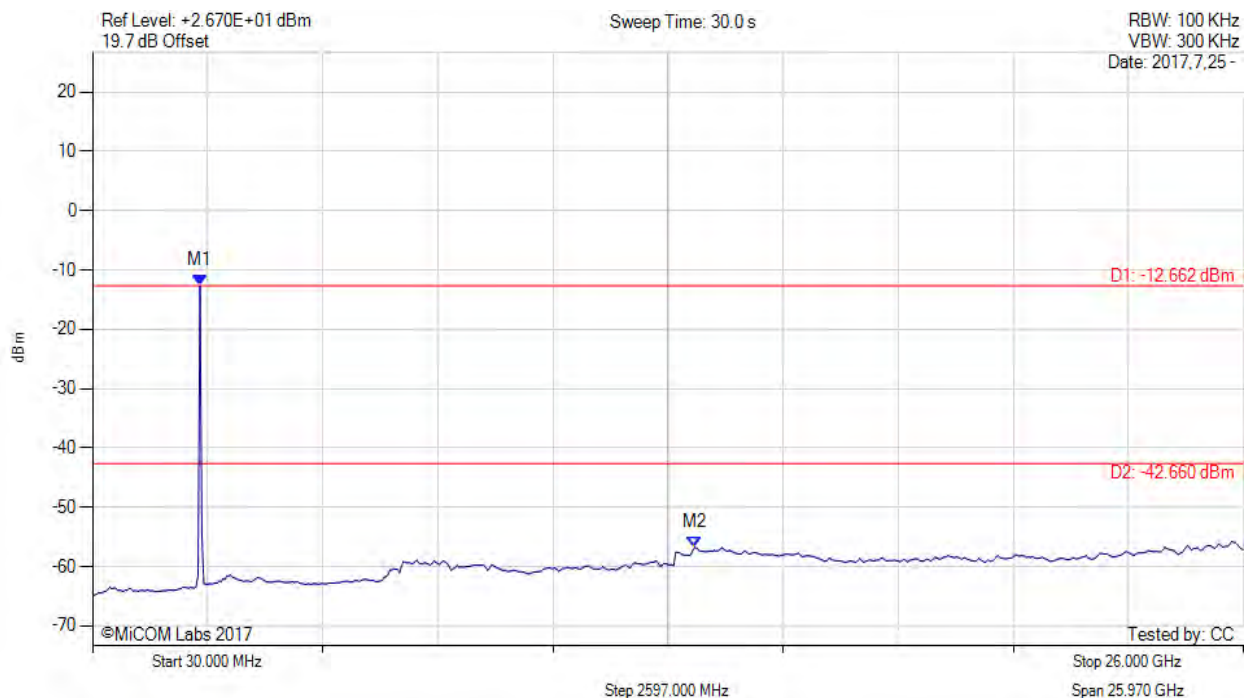
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -12.662 dBm M2 : 13.620 GHz : -56.770 dBm	Limit: -42.66 dBm Margin: -14.11 dB

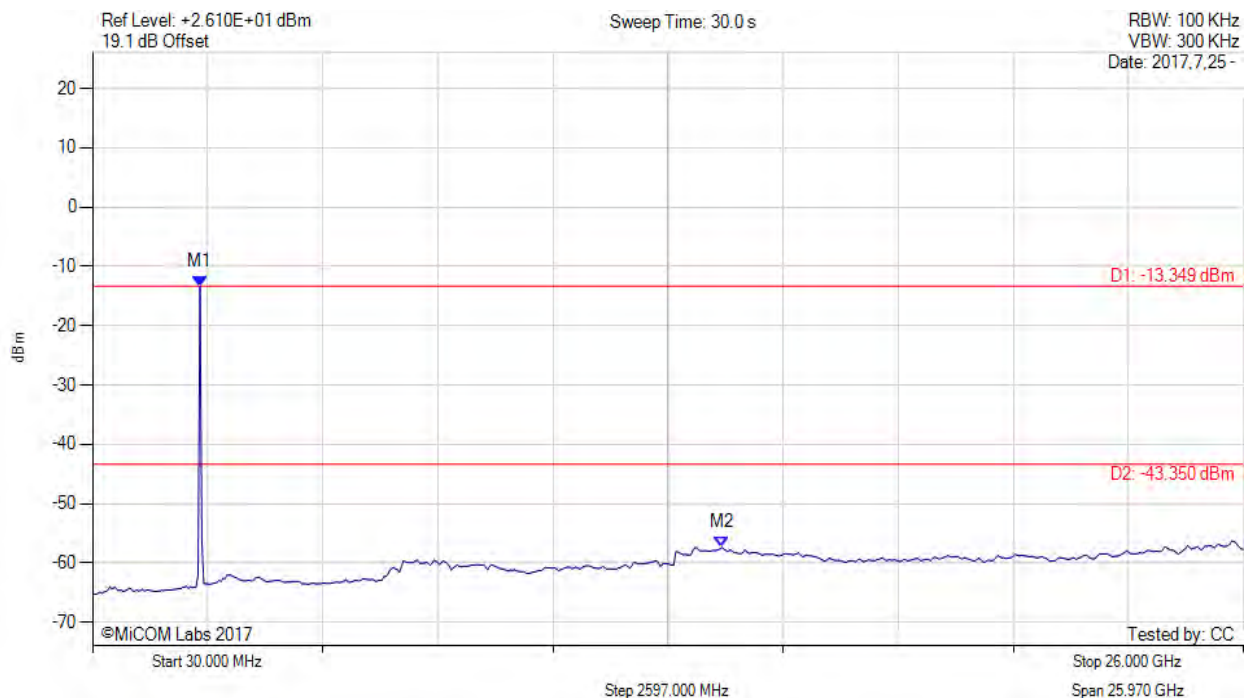
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -13.349 dBm M2 : 14.230 GHz : -57.362 dBm	Limit: -43.35 dBm Margin: -14.01 dB

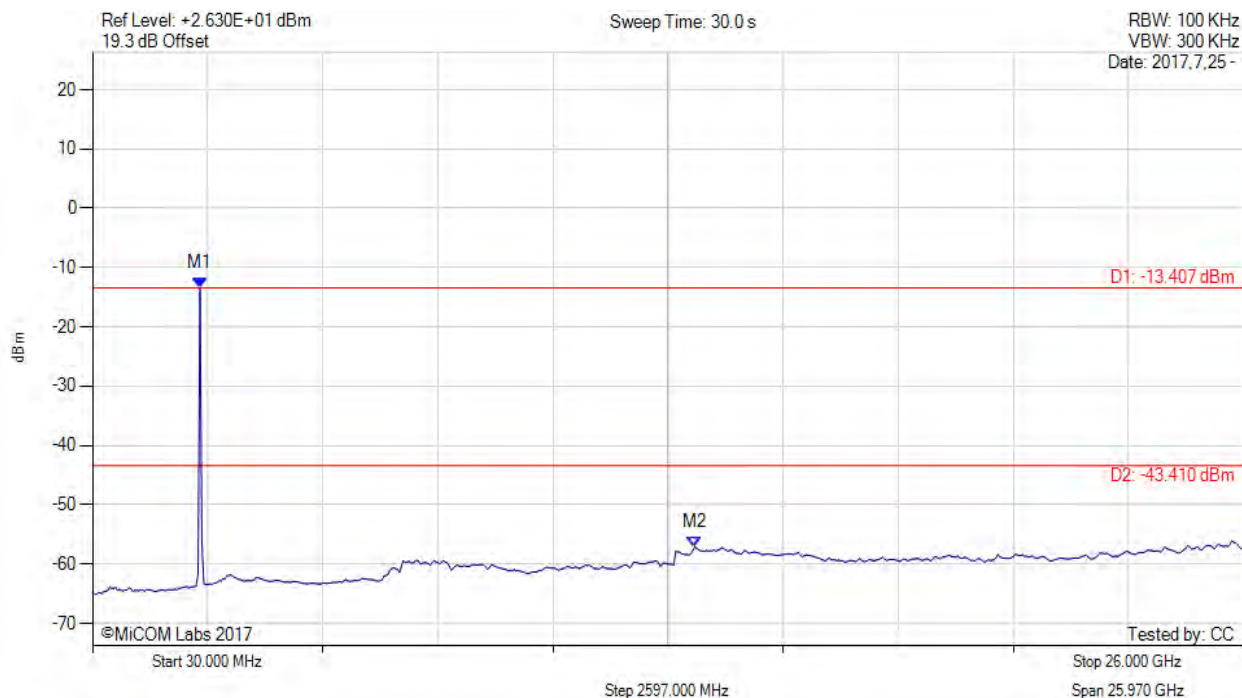
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -13.407 dBm M2 : 13.620 GHz : -57.135 dBm	Limit: -43.41 dBm Margin: -13.73 dB

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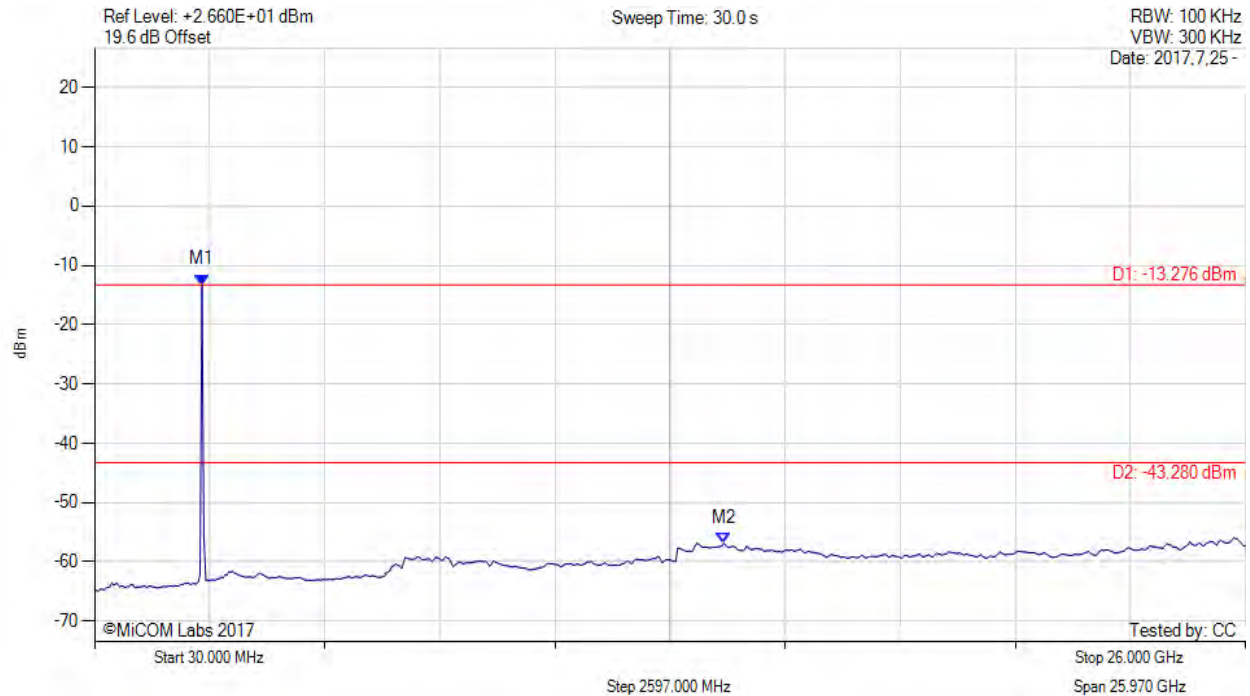


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -13.276 dBm M2 : 14.230 GHz : -56.829 dBm	Limit: -43.28 dBm Margin: -13.55 dB

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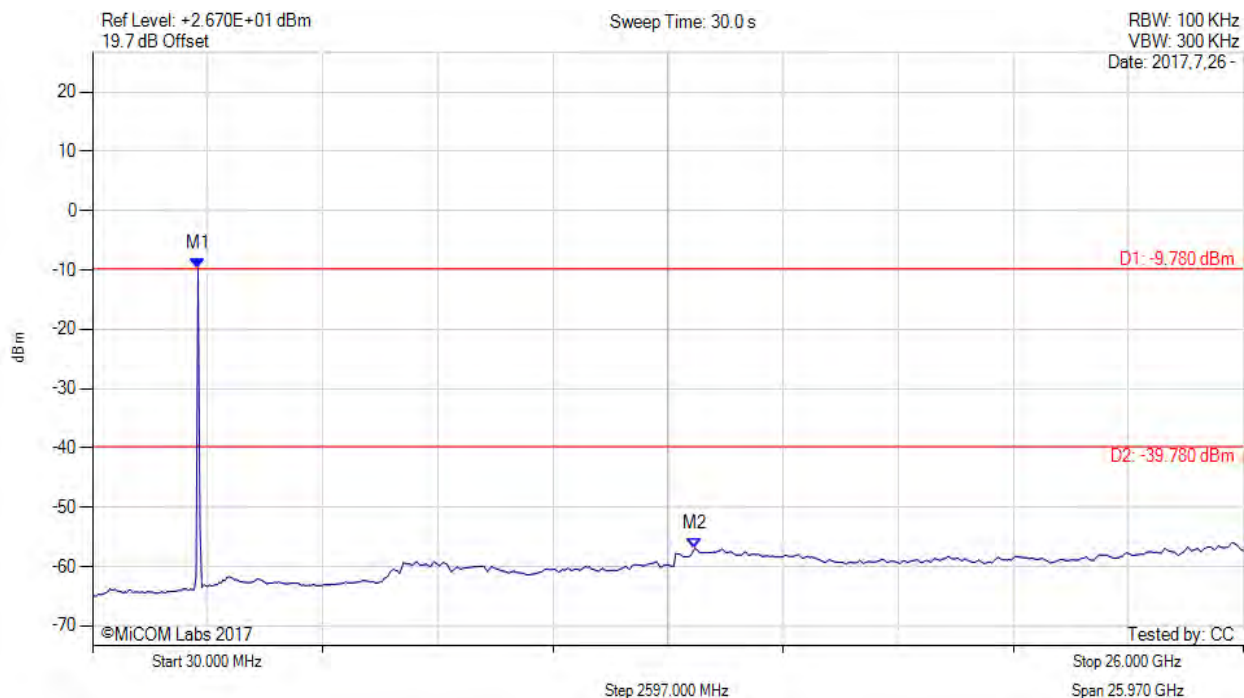


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -9.780 dBm M2 : 13.620 GHz : -56.966 dBm	Limit: -39.78 dBm Margin: -17.19 dB

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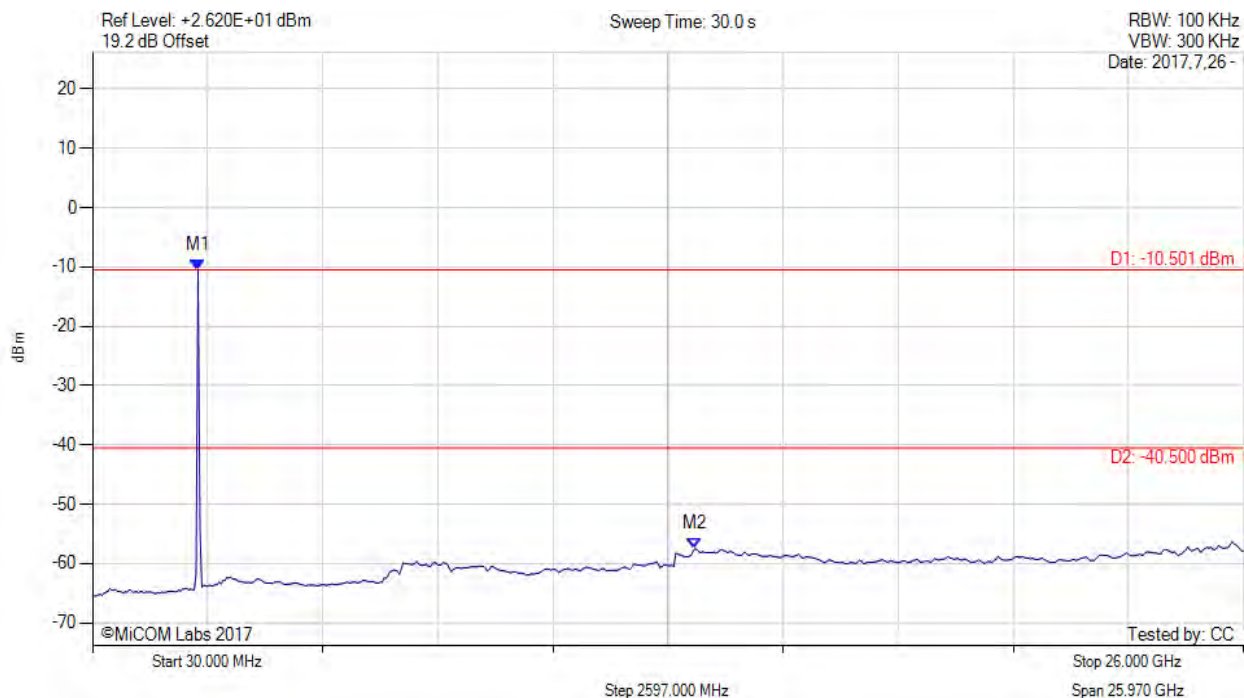


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -10.501 dBm M2 : 13.620 GHz : -57.512 dBm	Limit: -40.50 dBm Margin: -17.01 dB

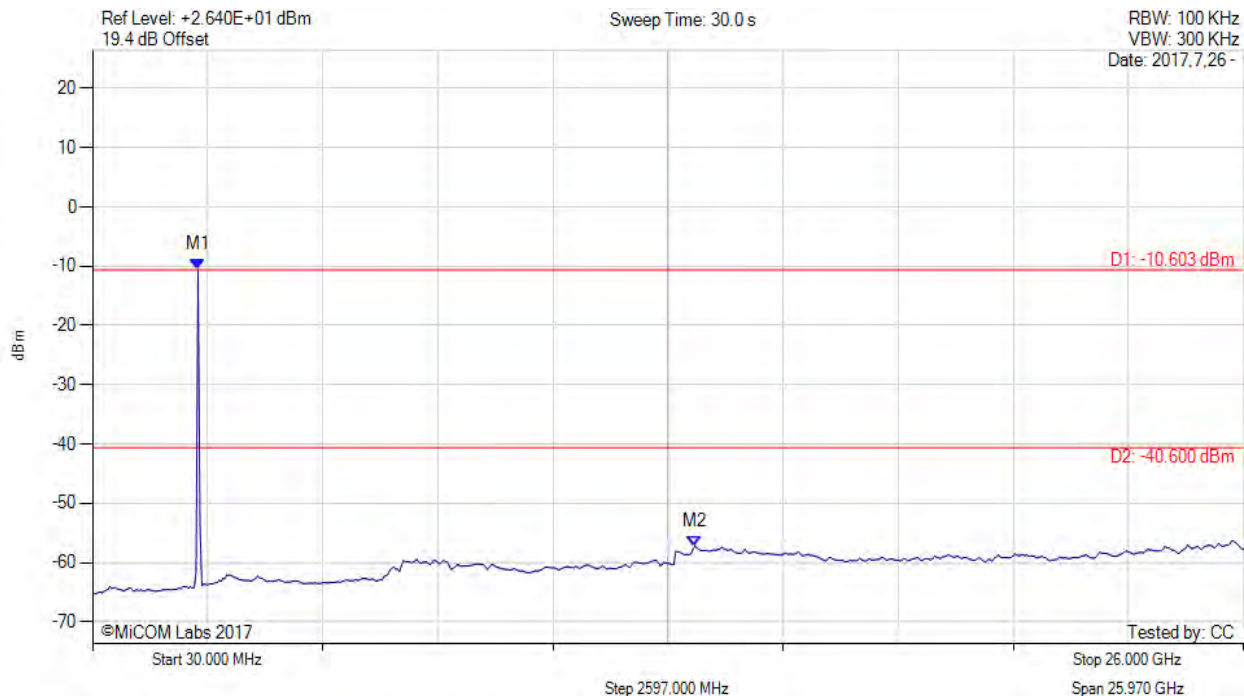
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -10.603 dBm M2 : 13.620 GHz : -57.249 dBm	Limit: -40.60 dBm Margin: -16.65 dB

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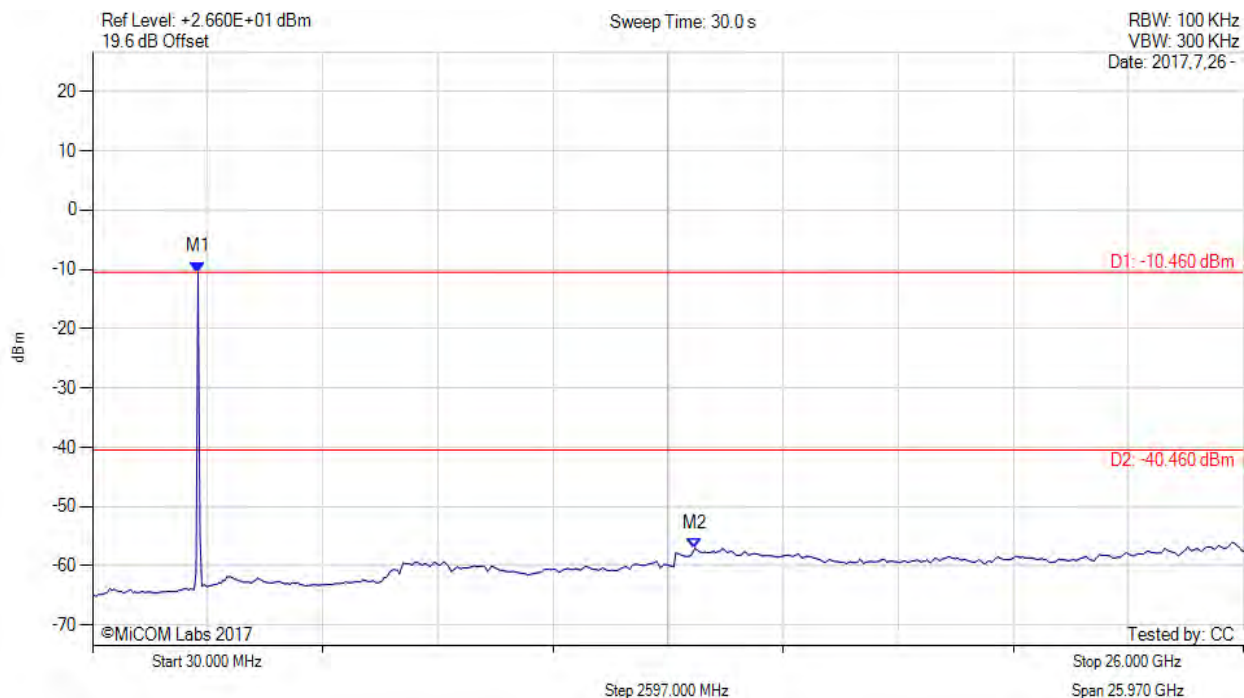


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -10.460 dBm M2 : 13.620 GHz : -57.092 dBm	Limit: -40.46 dBm Margin: -16.63 dB

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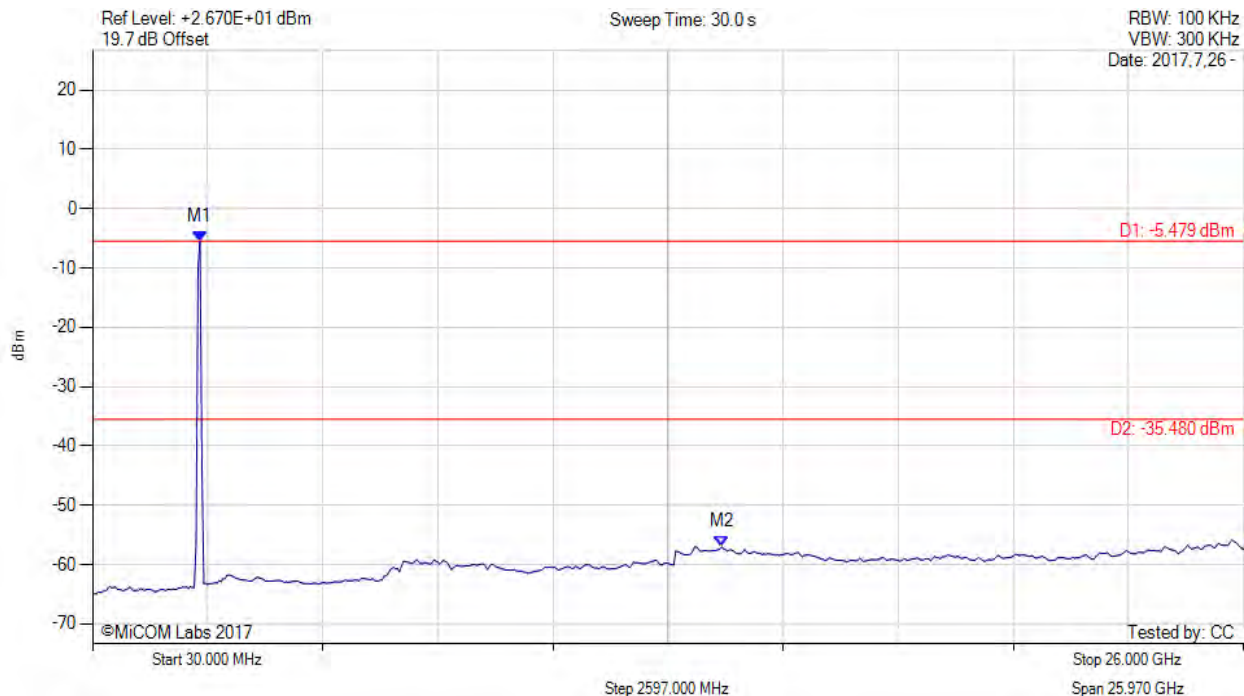


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -5.479 dBm M2 : 14.230 GHz : -57.032 dBm	Limit: -35.48 dBm Margin: -21.55 dB

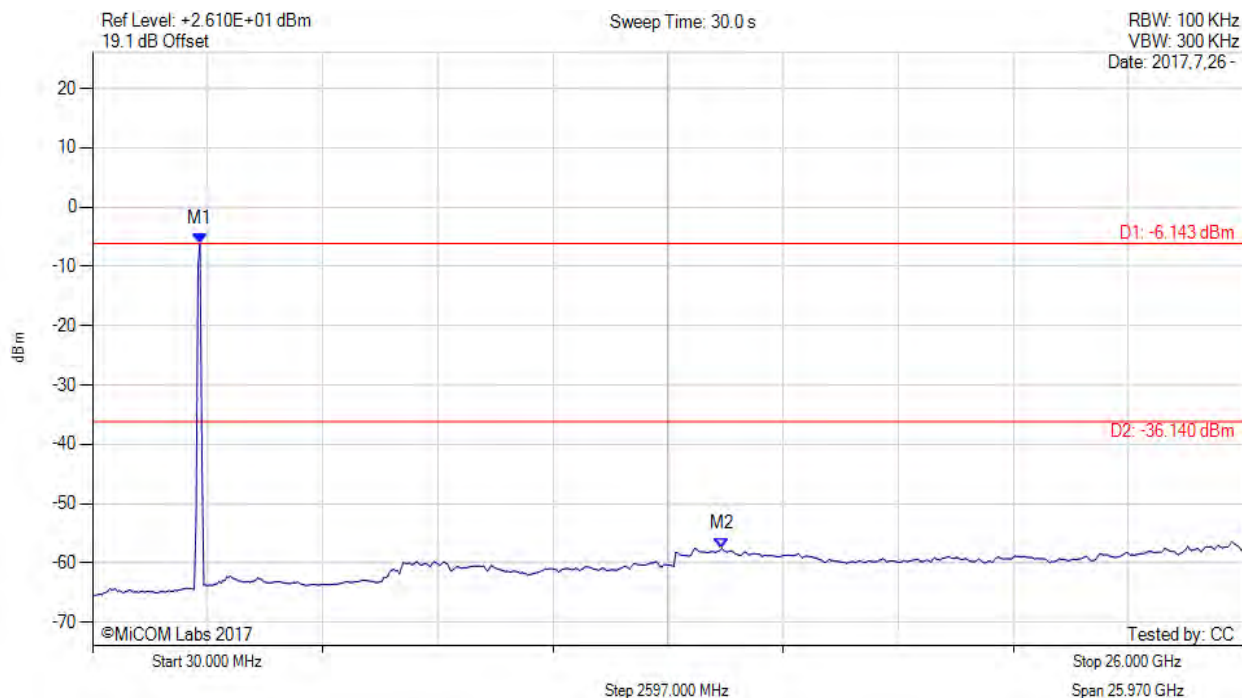
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.143 dBm M2 : 14.230 GHz : -57.540 dBm	Limit: -36.14 dBm Margin: -21.40 dB

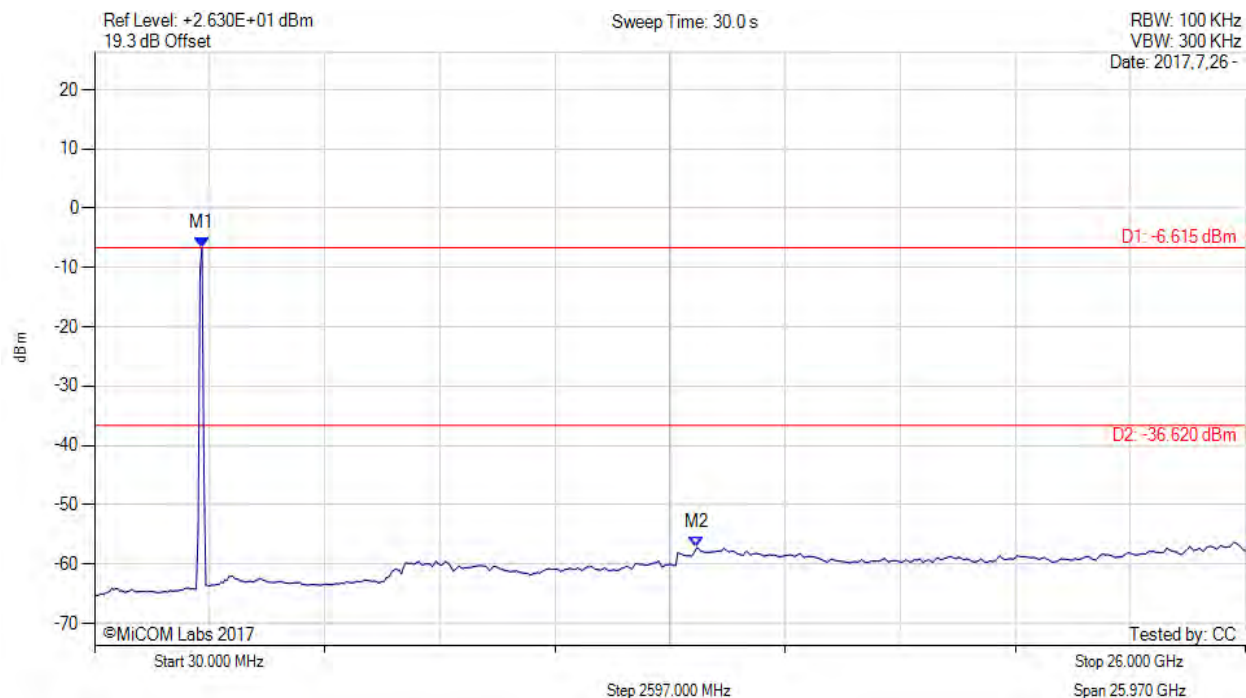
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.615 dBm M2 : 13.620 GHz : -57.207 dBm	Limit: -36.62 dBm Margin: -20.59 dB

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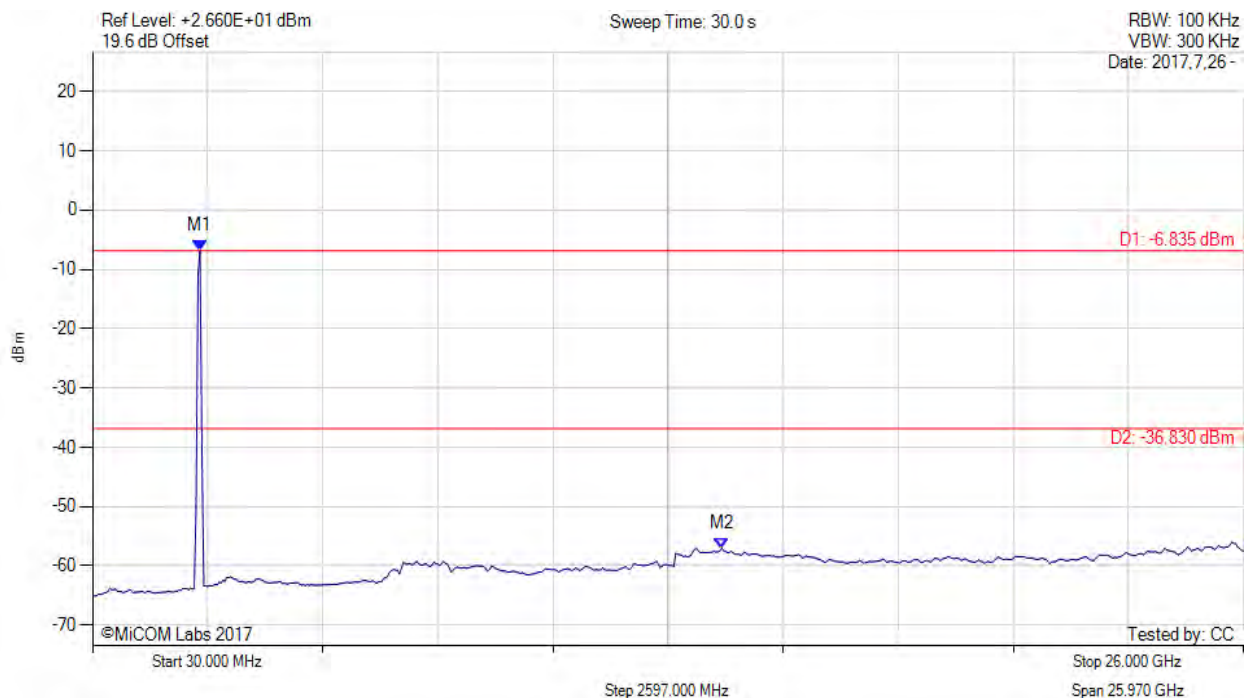


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.835 dBm M2 : 14.230 GHz : -57.022 dBm	Limit: -36.83 dBm Margin: -20.19 dB

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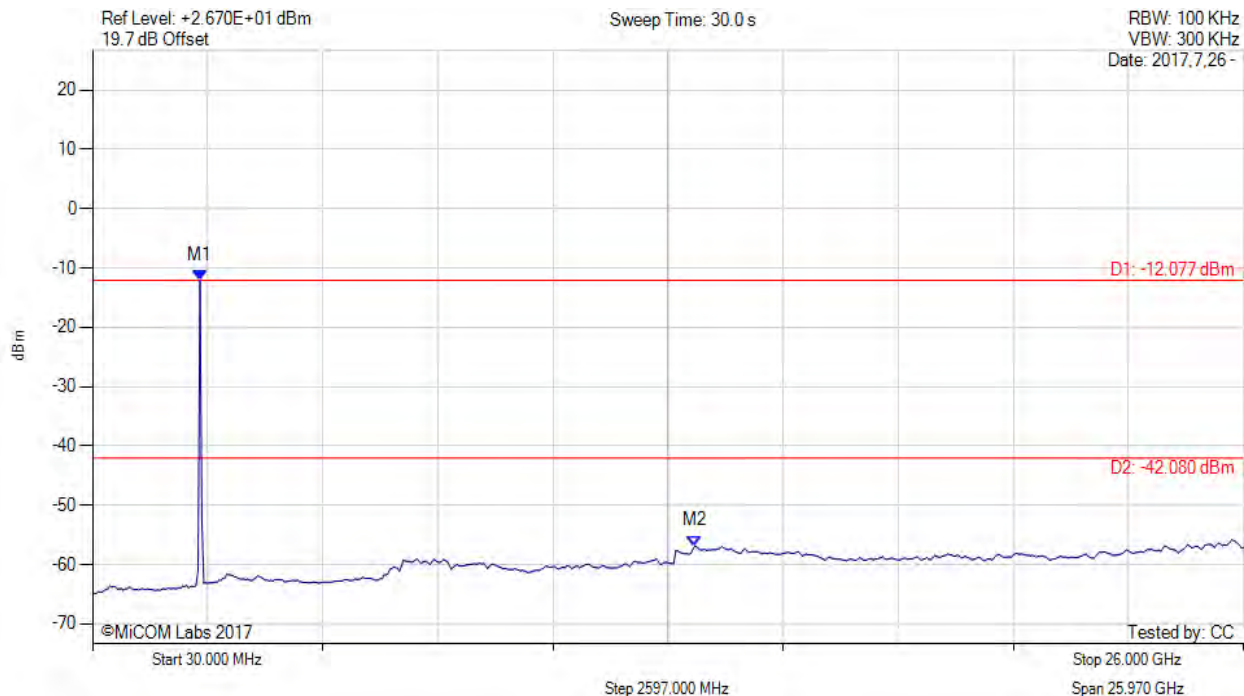


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -12.077 dBm M2 : 13.620 GHz : -56.884 dBm	Limit: -42.08 dBm Margin: -14.80 dB

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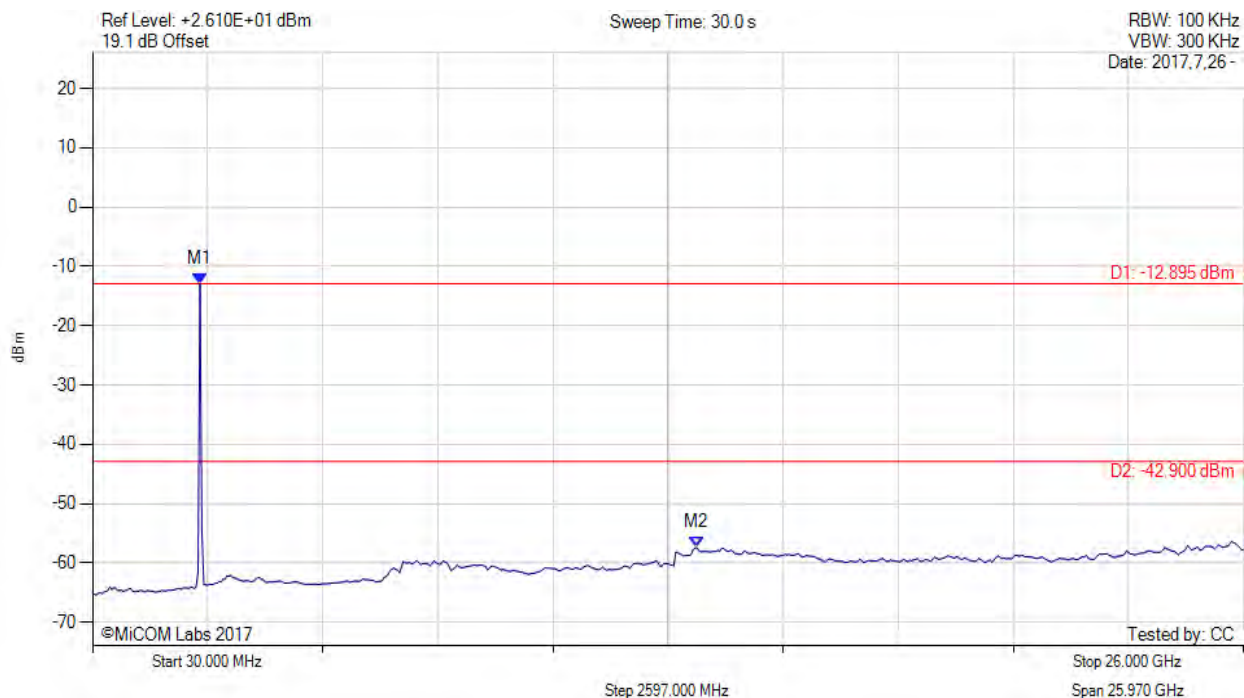


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -12.895 dBm M2 : 13.660 GHz : -57.446 dBm	Limit: -42.90 dBm Margin: -14.55 dB

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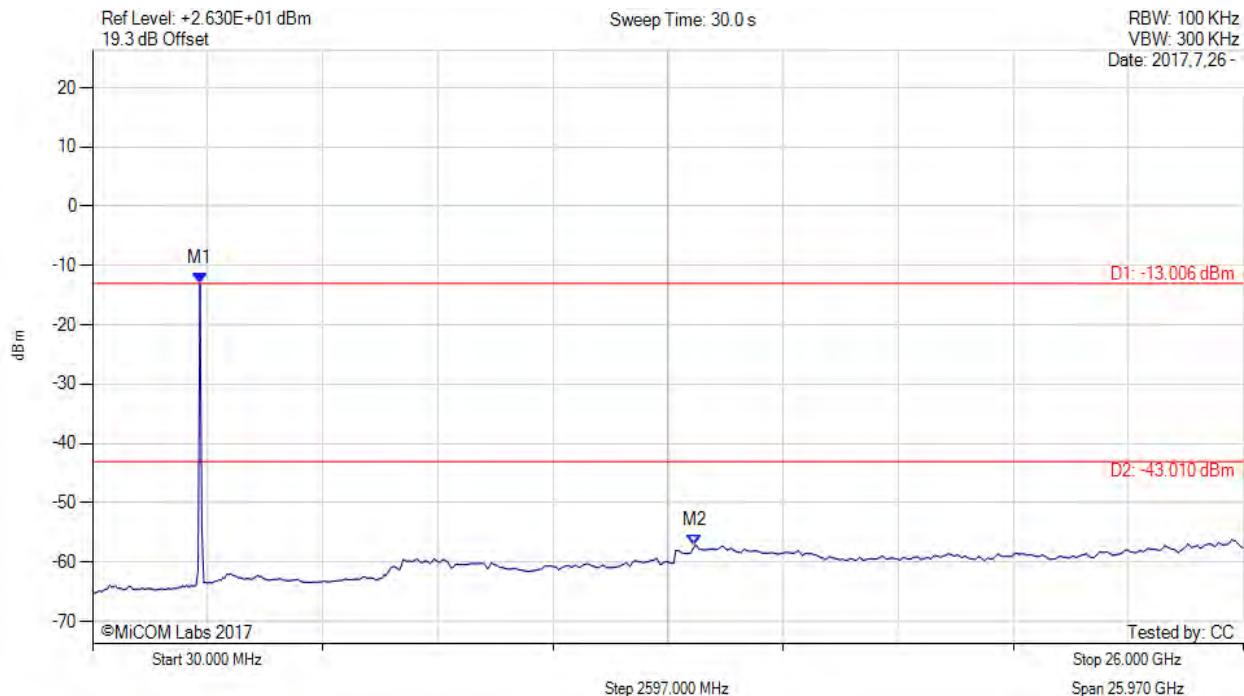


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -13.006 dBm M2 : 13.620 GHz : -57.224 dBm	Limit: -43.01 dBm Margin: -14.21 dB

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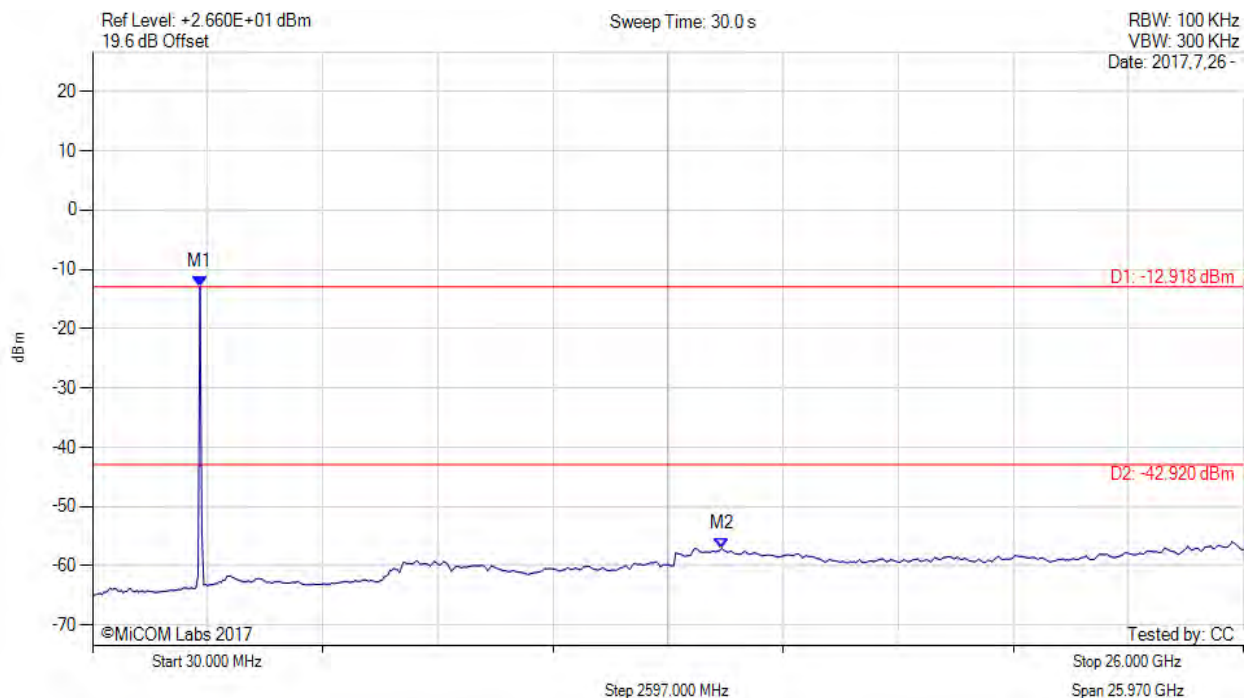


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -12.918 dBm M2 : 14.230 GHz : -56.996 dBm	Limit: -42.92 dBm Margin: -14.08 dB

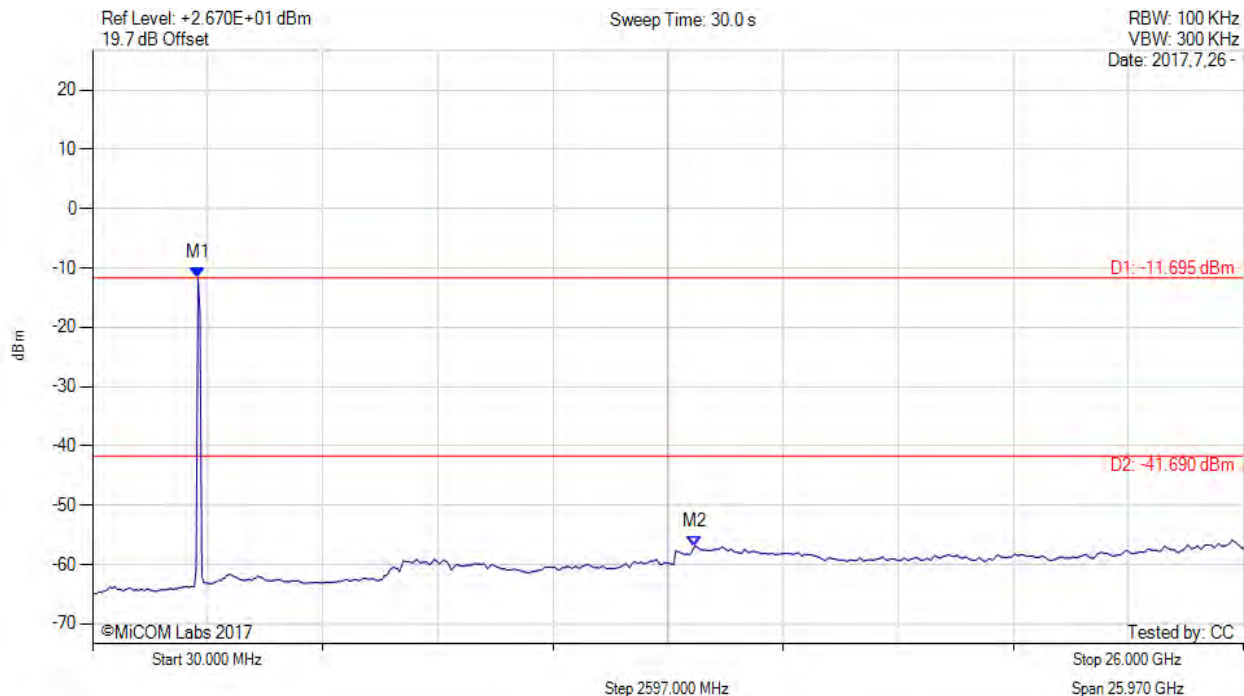
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -11.695 dBm M2 : 13.620 GHz : -56.918 dBm	Limit: -41.69 dBm Margin: -15.23 dB

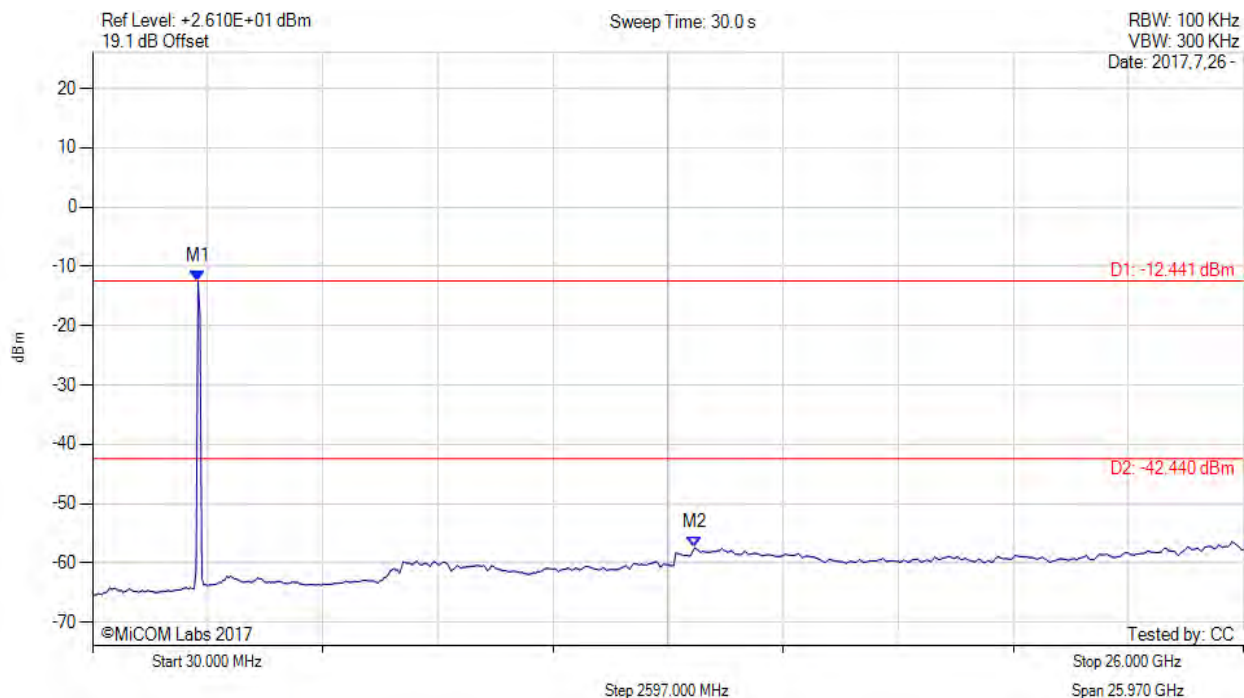
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -12.441 dBm M2 : 13.620 GHz : -57.443 dBm	Limit: -42.44 dBm Margin: -15.00 dB

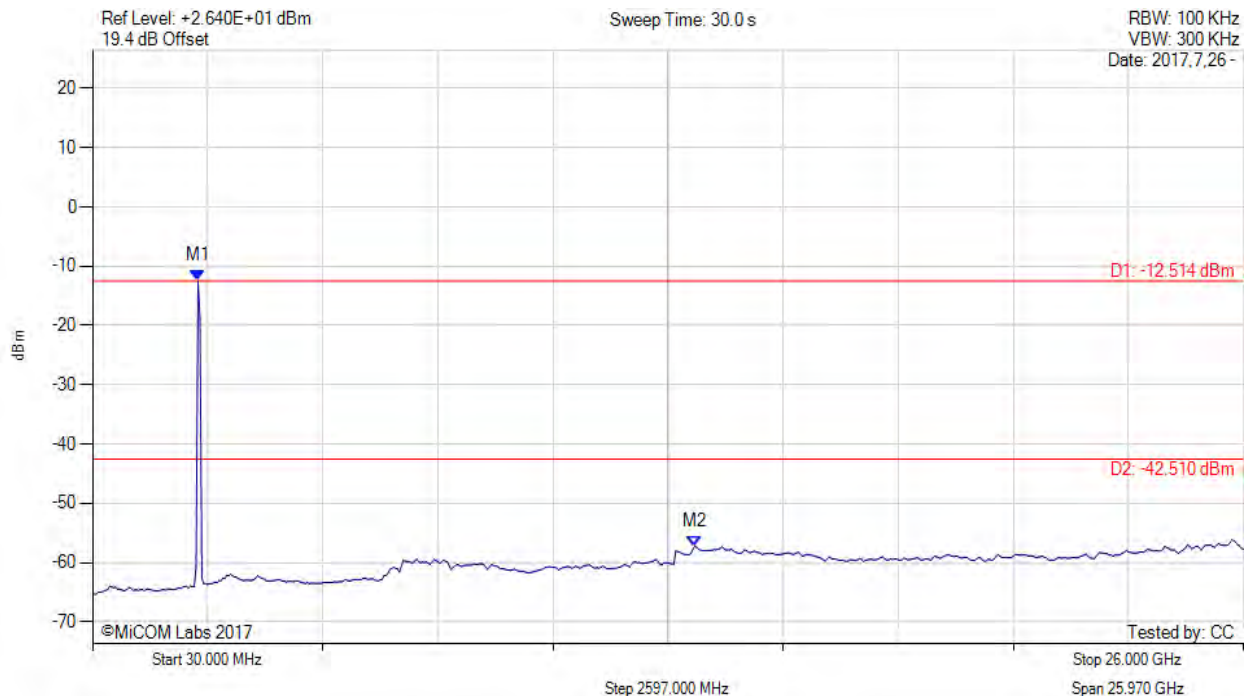
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -12.514 dBm M2 : 13.620 GHz : -57.204 dBm	Limit: -42.51 dBm Margin: -14.69 dB

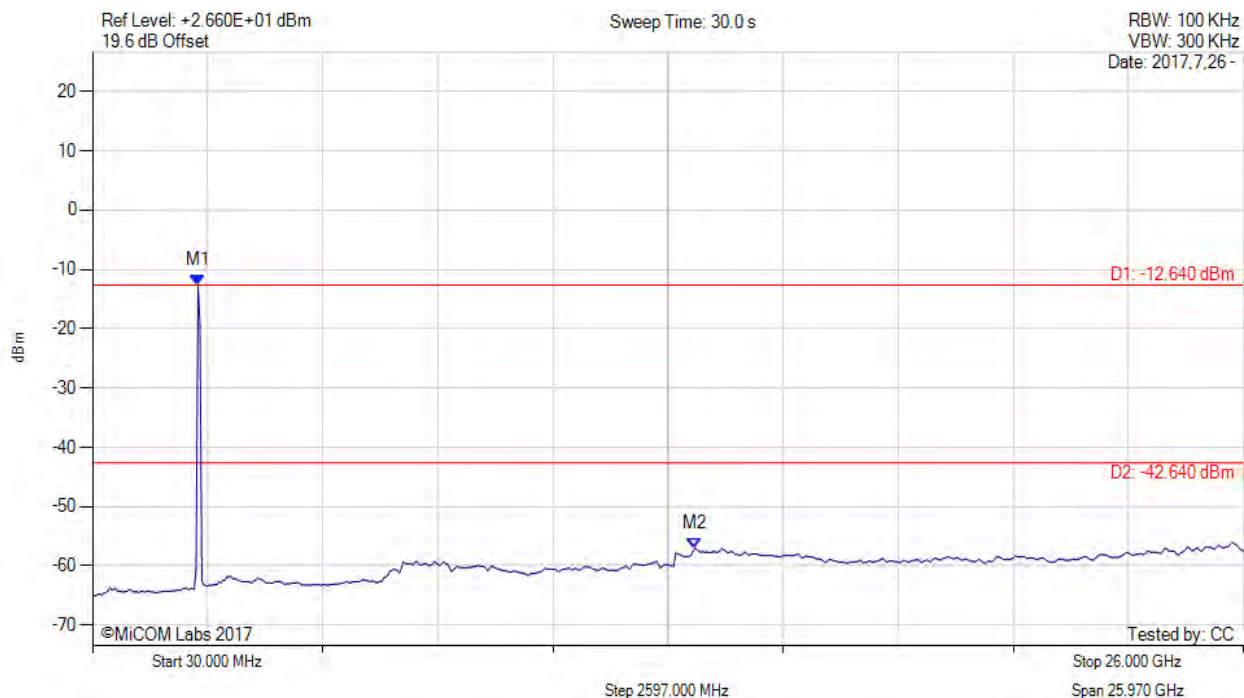
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.000 MHz : -12.640 dBm M2 : 13.620 GHz : -57.054 dBm	Limit: -42.64 dBm Margin: -14.41 dB

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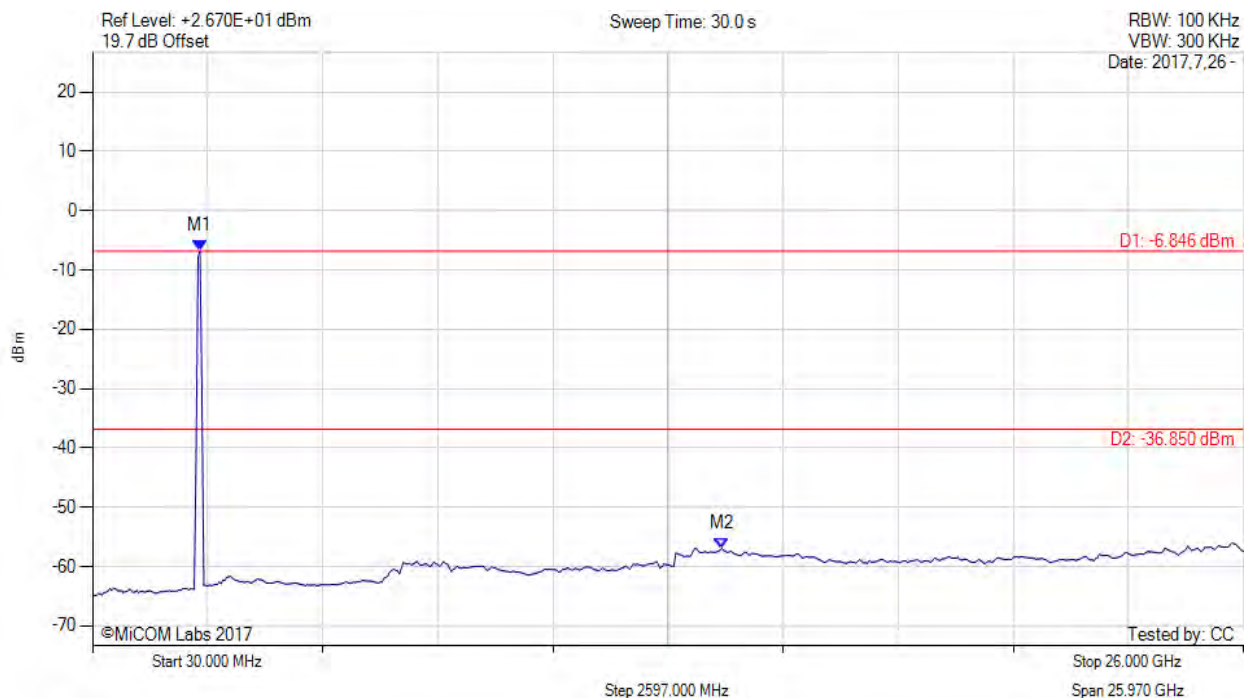


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -6.846 dBm M2 : 14.230 GHz : -56.978 dBm	Limit: -36.85 dBm Margin: -20.13 dB

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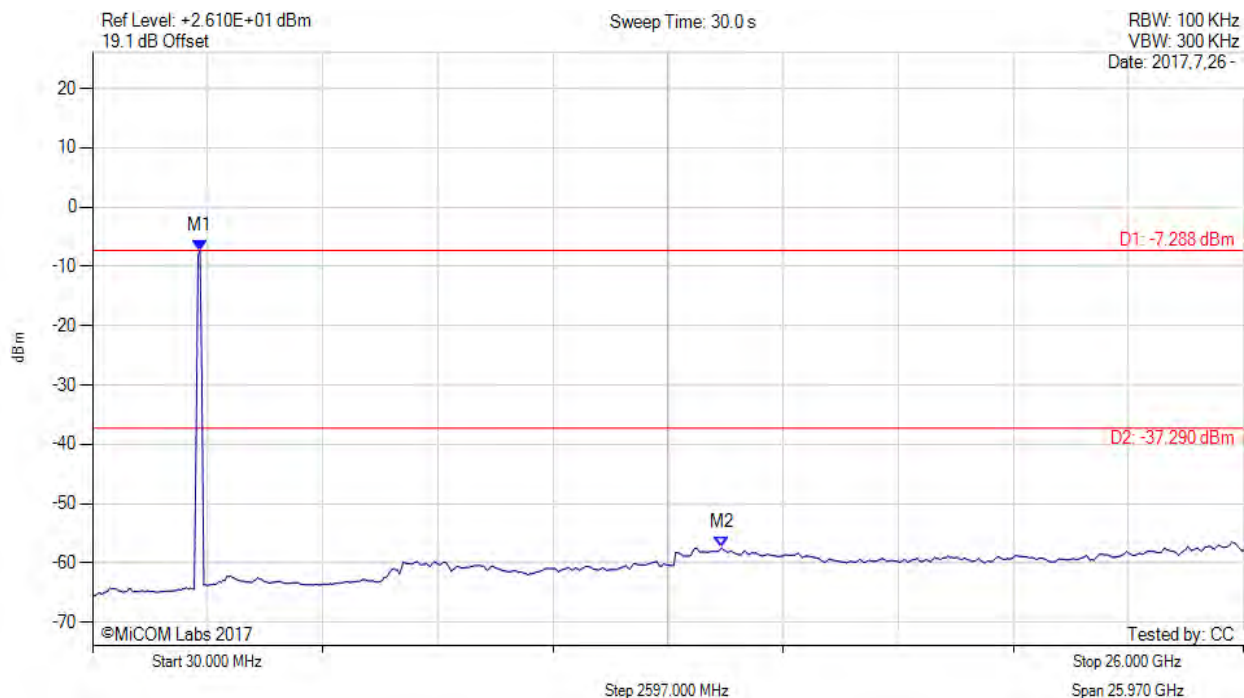


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -7.288 dBm M2 : 14.230 GHz : -57.446 dBm	Limit: -37.29 dBm Margin: -20.16 dB

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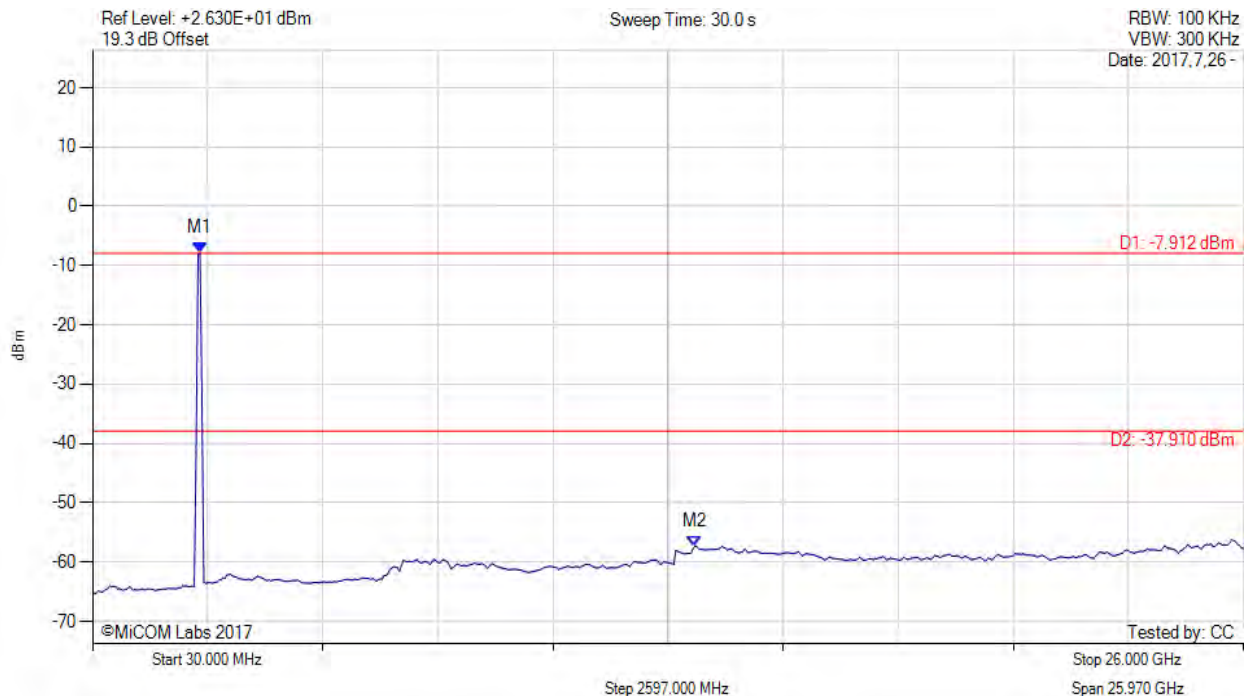


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -7.912 dBm M2 : 13.620 GHz : -57.301 dBm	Limit: -37.91 dBm Margin: -19.39 dB

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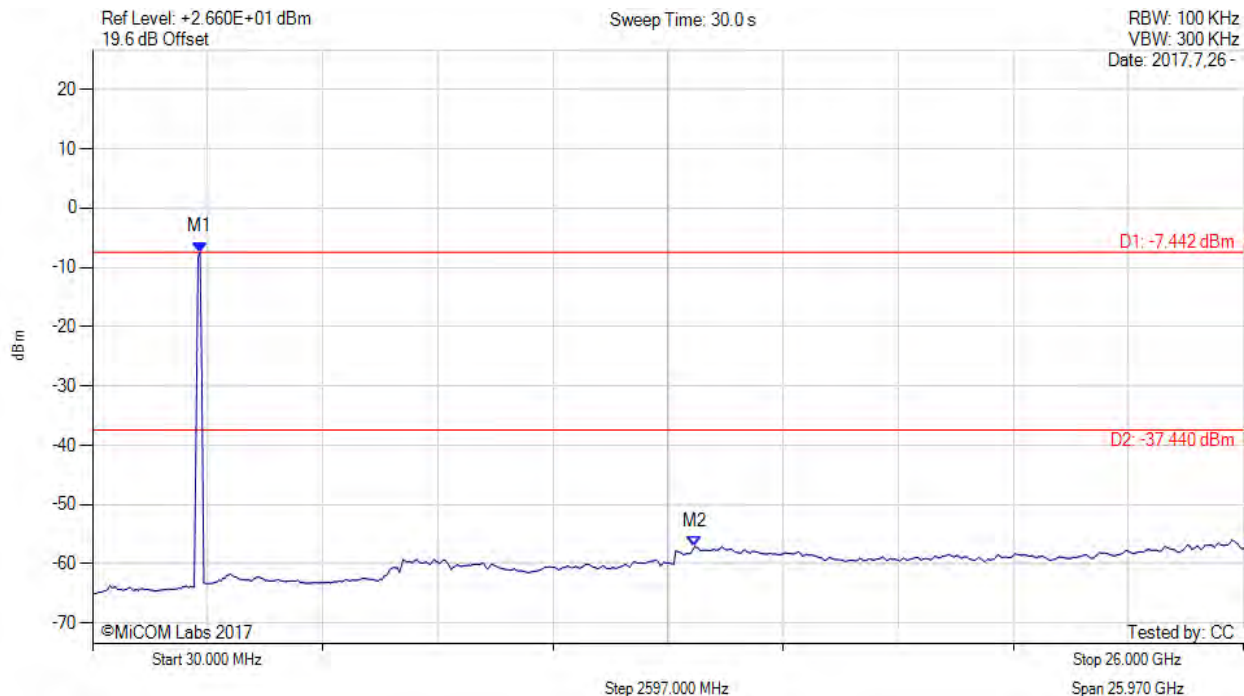


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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -7.442 dBm M2 : 13.620 GHz : -57.112 dBm	Limit: -37.44 dBm Margin: -19.67 dB

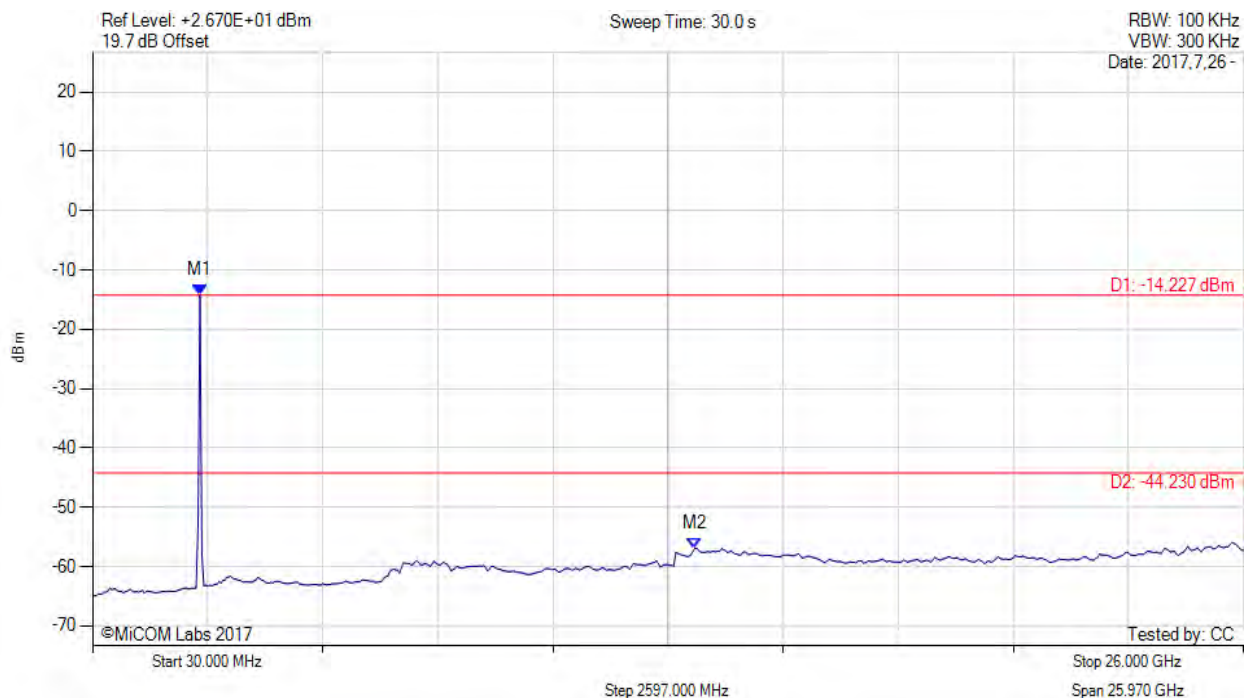
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -14.227 dBm M2 : 13.620 GHz : -56.916 dBm	Limit: -44.23 dBm Margin: -12.69 dB

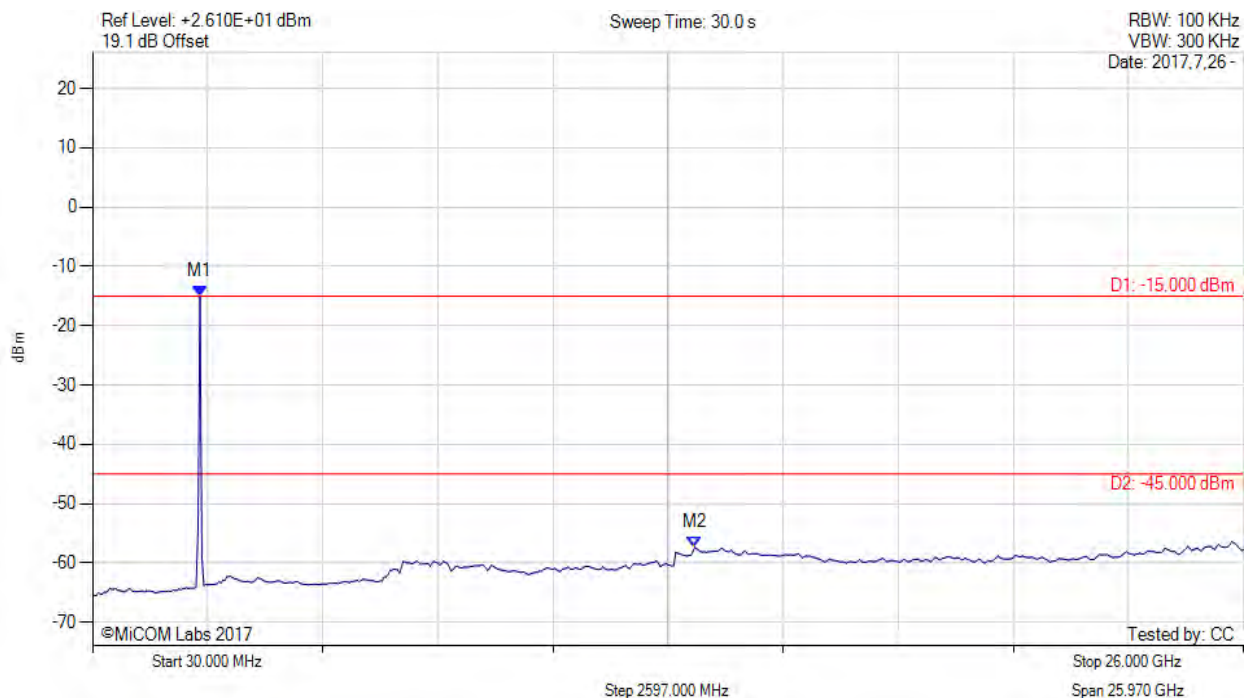
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -15.000 dBm M2 : 13.620 GHz : -57.370 dBm	Limit: -45.00 dBm Margin: -12.37 dB

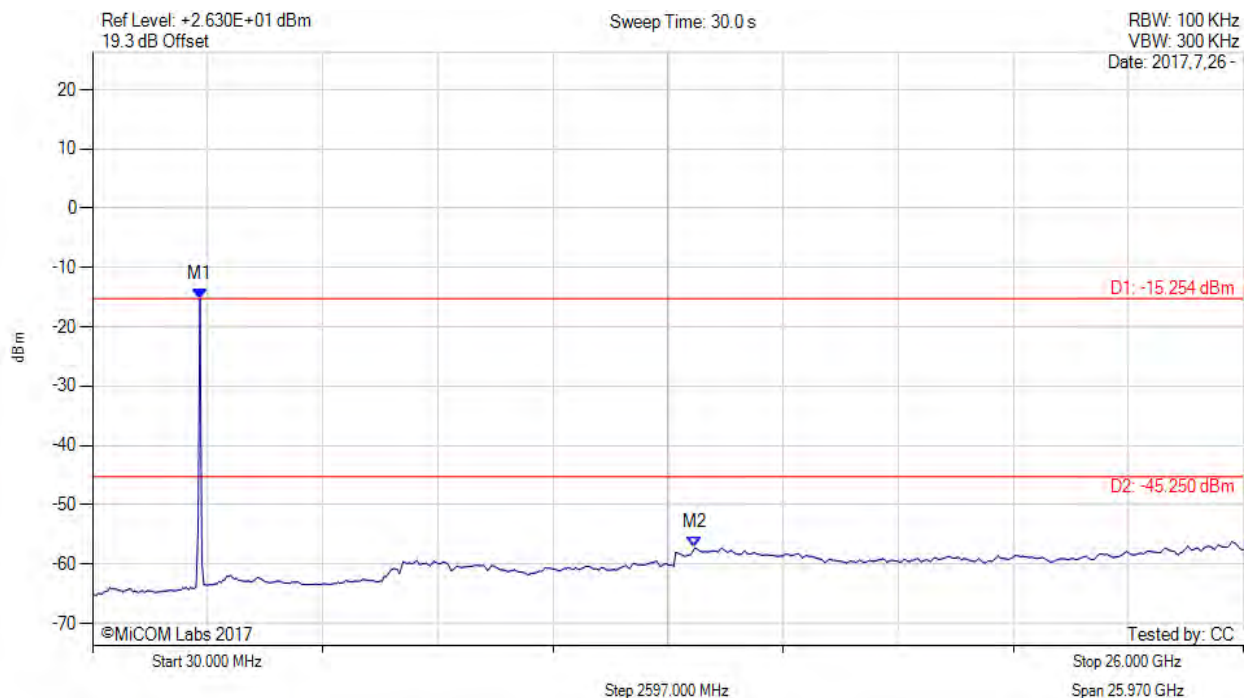
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CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -15.254 dBm M2 : 13.620 GHz : -57.262 dBm	Limit: -45.25 dBm Margin: -12.01 dB

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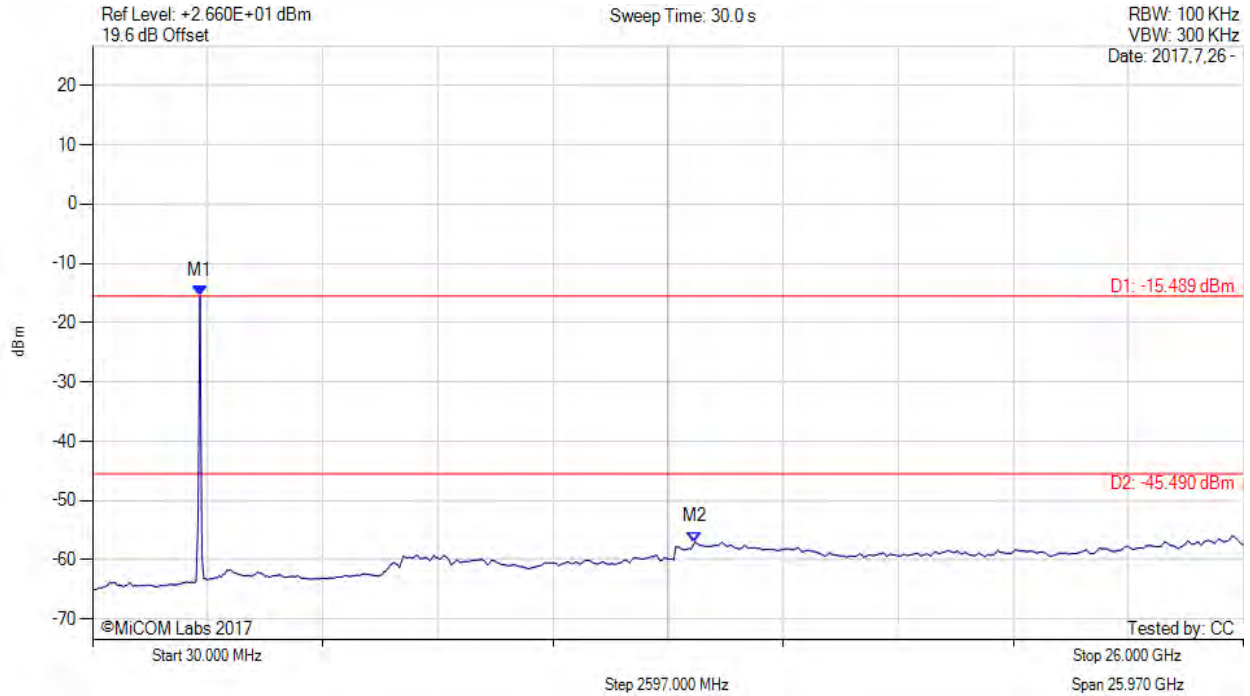


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Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.000 MHz : -15.489 dBm M2 : 13.620 GHz : -56.980 dBm	Limit: -45.49 dBm Margin: -11.49 dB

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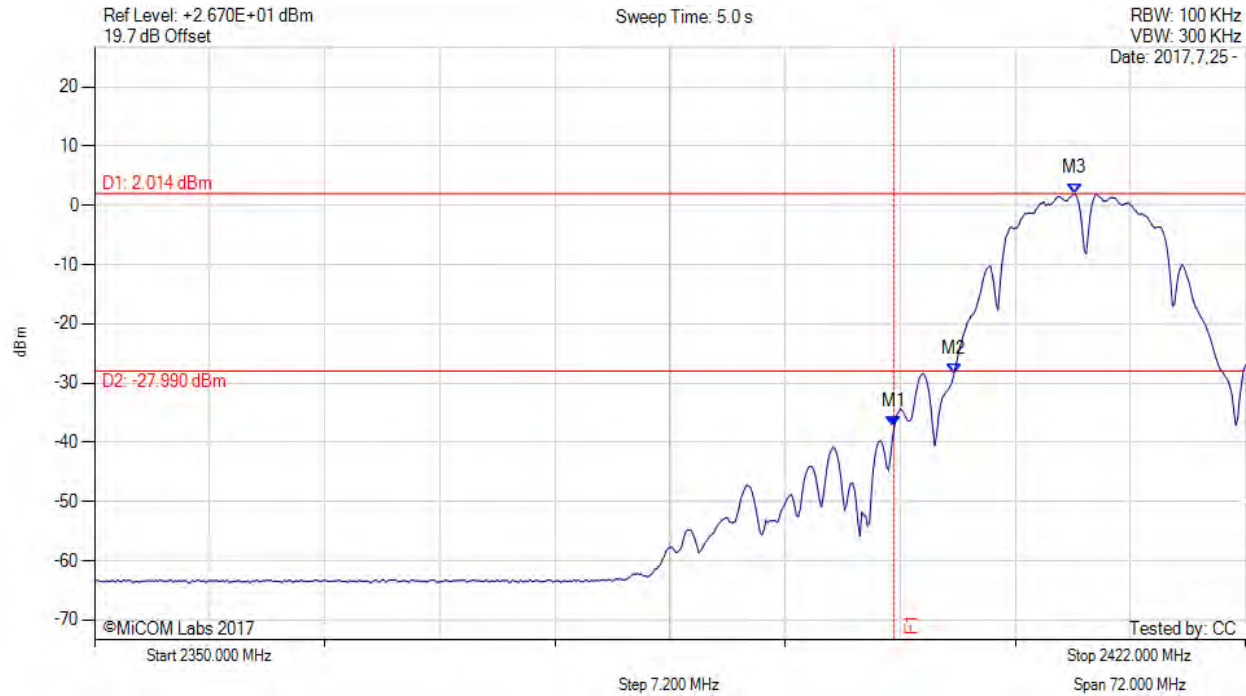
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A.3.1.2. Conducted Band-Edge Emissions



CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.271 dBm M2 : 2403.760 MHz : -28.495 dBm M3 : 2411.320 MHz : 2.014 dBm	Channel Frequency: 2412.00 MHz

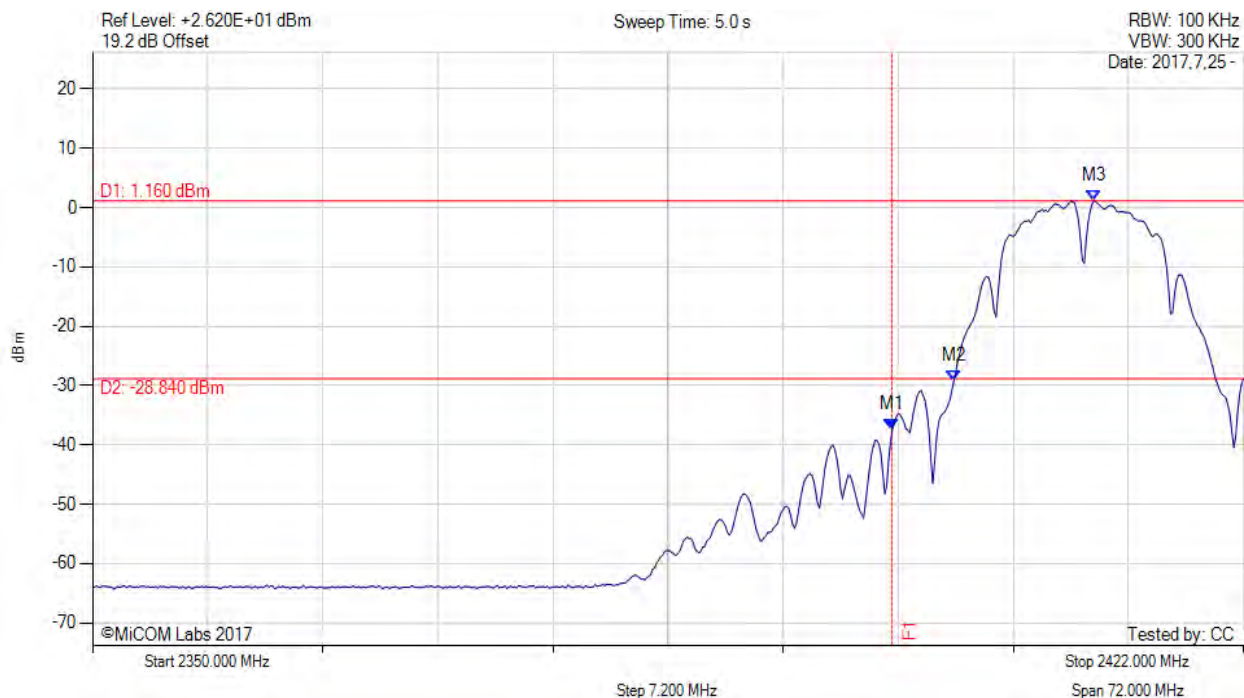
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE



Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.380 dBm M2 : 2403.880 MHz : -29.212 dBm M3 : 2412.640 MHz : 1.160 dBm	Channel Frequency: 2412.00 MHz

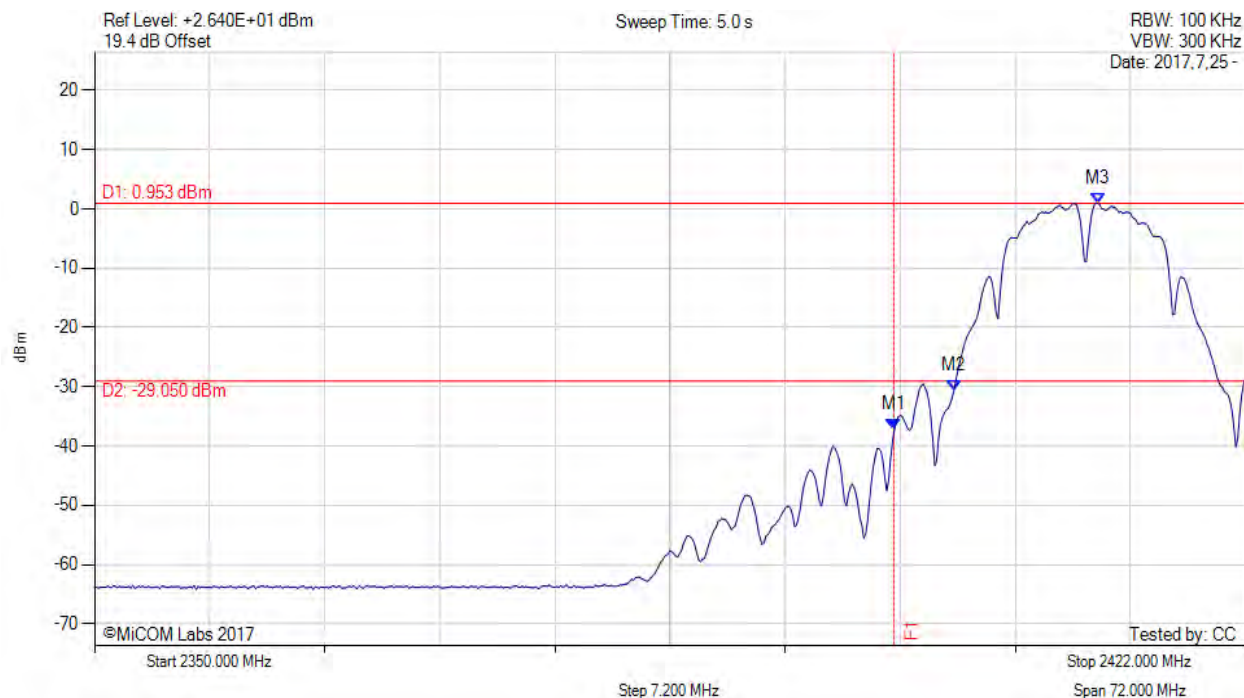
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.245 dBm M2 : 2403.760 MHz : -30.628 dBm M3 : 2412.760 MHz : 0.953 dBm	Channel Frequency: 2412.00 MHz

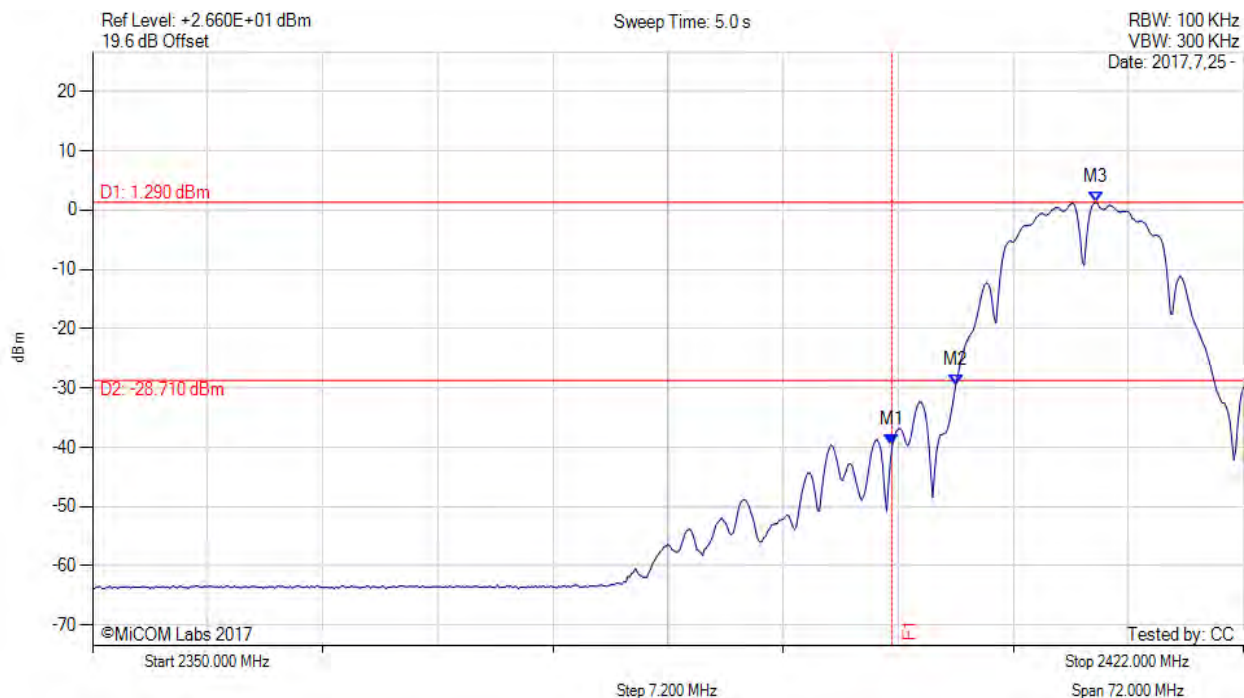
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE



Variant: 802.11b, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -39.606 dBm M2 : 2404.000 MHz : -29.515 dBm M3 : 2412.760 MHz : 1.290 dBm	Channel Frequency: 2412.00 MHz

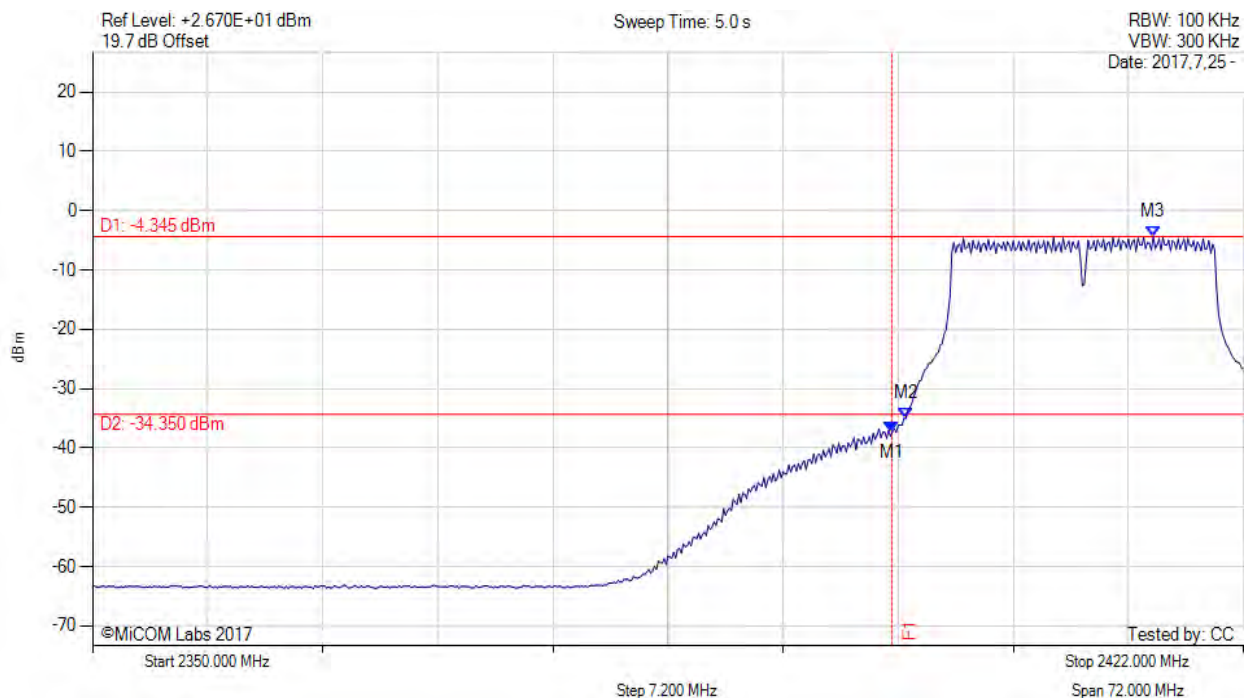
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.306 dBm M2 : 2400.880 MHz : -35.040 dBm M3 : 2416.360 MHz : -4.345 dBm	Channel Frequency: 2412.00 MHz

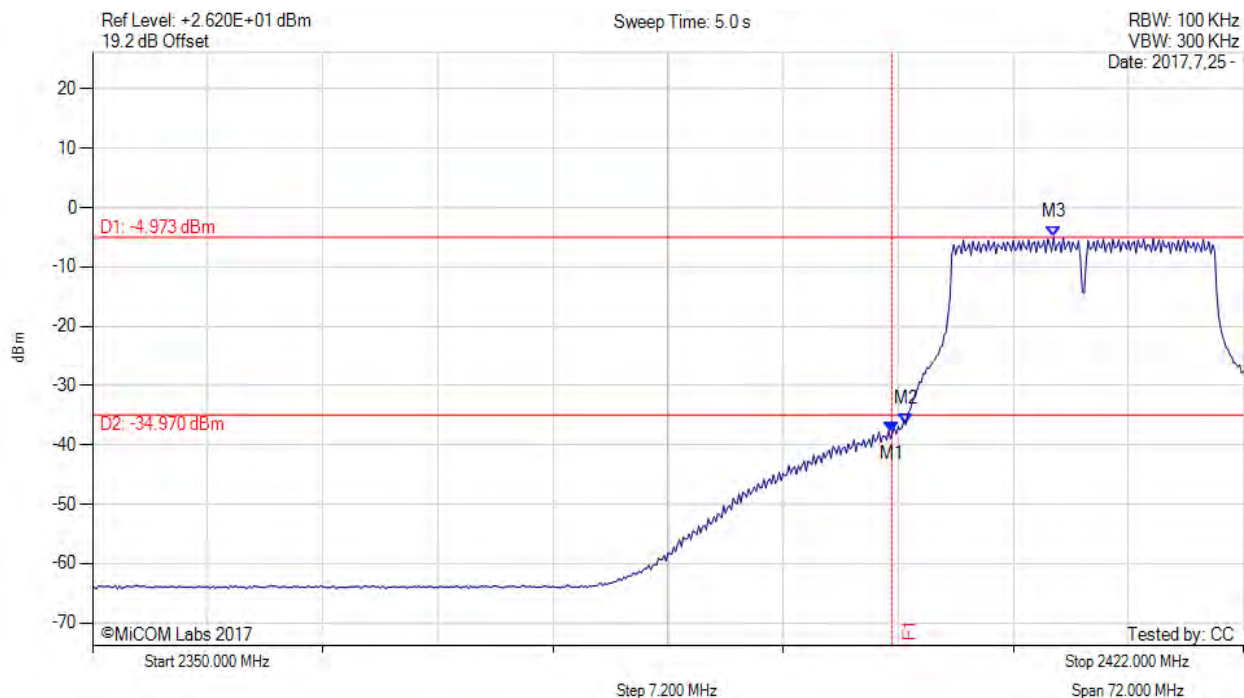
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.941 dBm M2 : 2400.880 MHz : -36.542 dBm M3 : 2410.120 MHz : -4.973 dBm	Channel Frequency: 2412.00 MHz

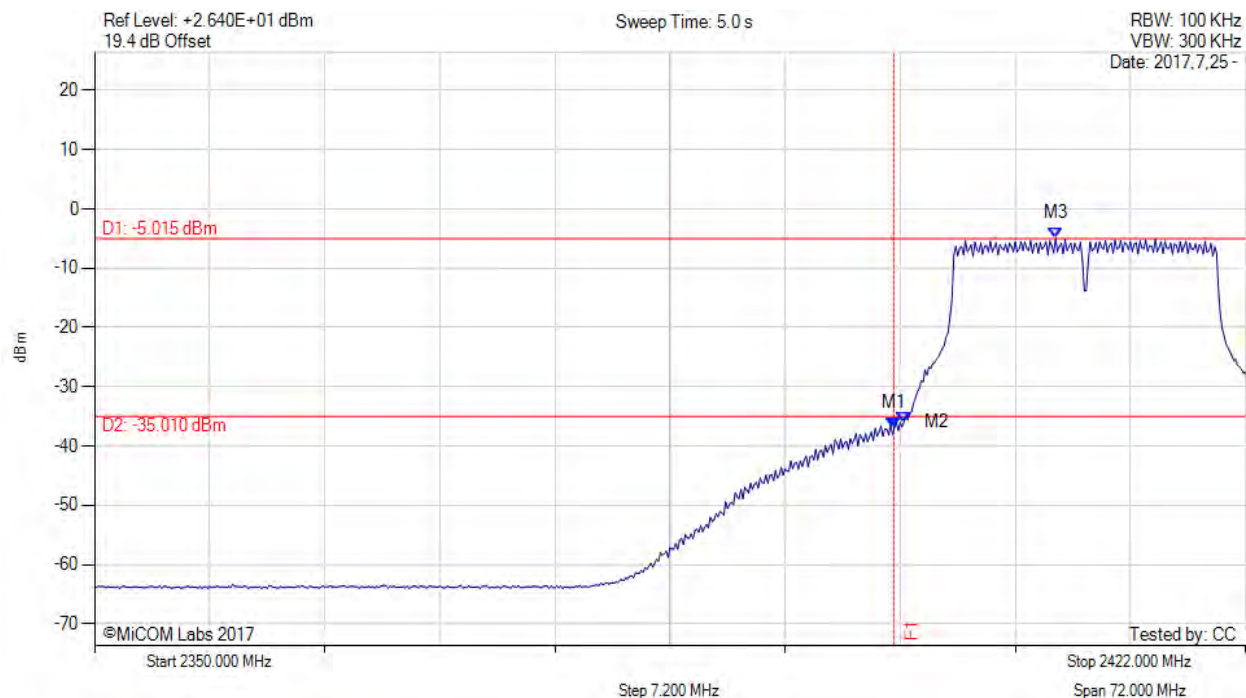
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -36.864 dBm M2 : 2400.640 MHz : -35.930 dBm M3 : 2410.120 MHz : -5.015 dBm	Channel Frequency: 2412.00 MHz

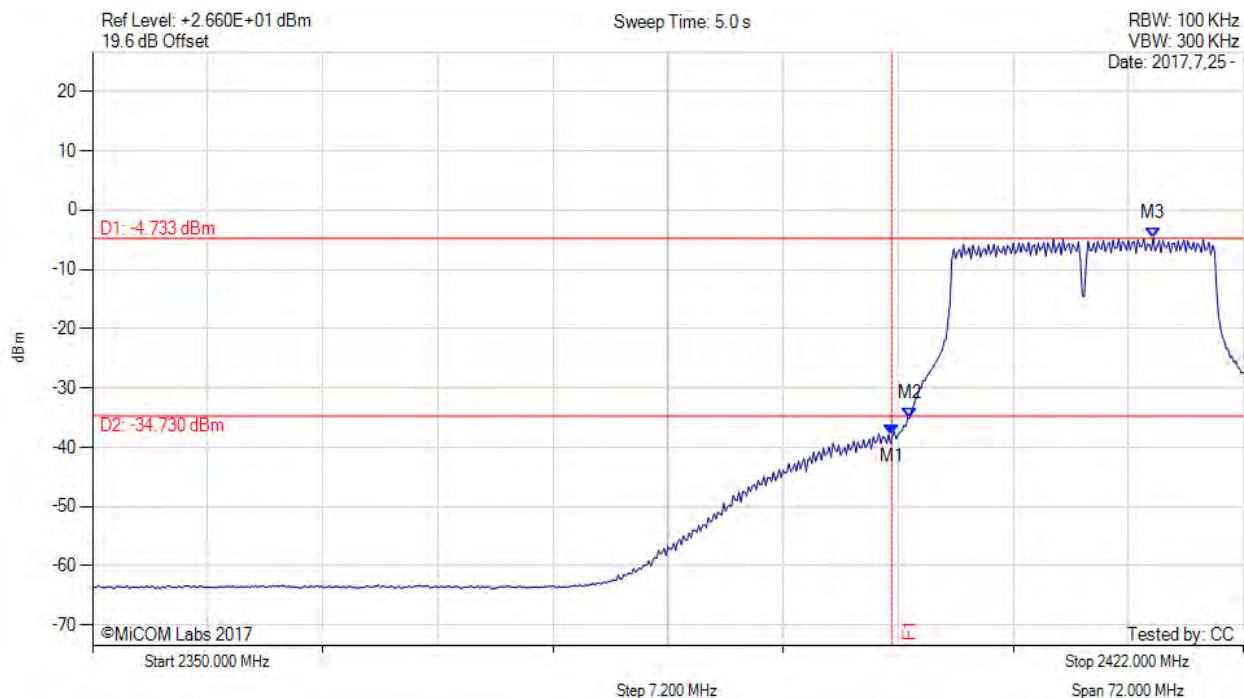
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -38.029 dBm M2 : 2401.120 MHz : -35.091 dBm M3 : 2416.360 MHz : -4.733 dBm	Channel Frequency: 2412.00 MHz

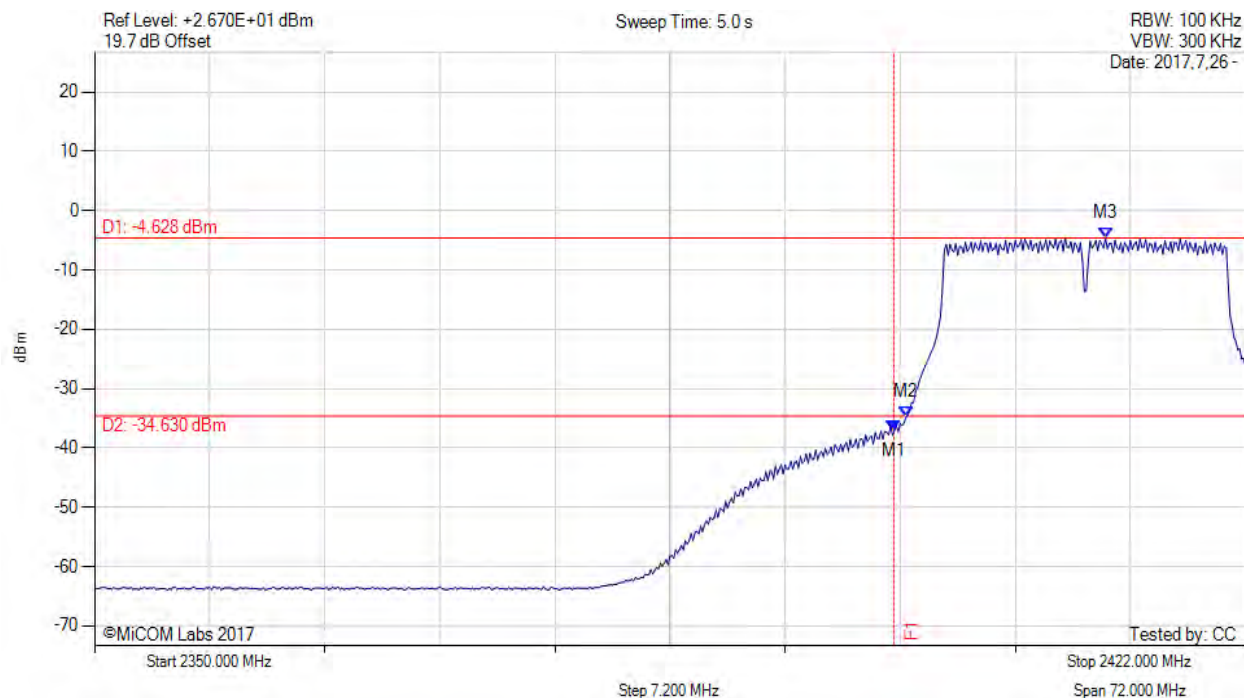
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.059 dBm M2 : 2400.760 MHz : -34.859 dBm M3 : 2413.240 MHz : -4.628 dBm	Channel Frequency: 2412.00 MHz

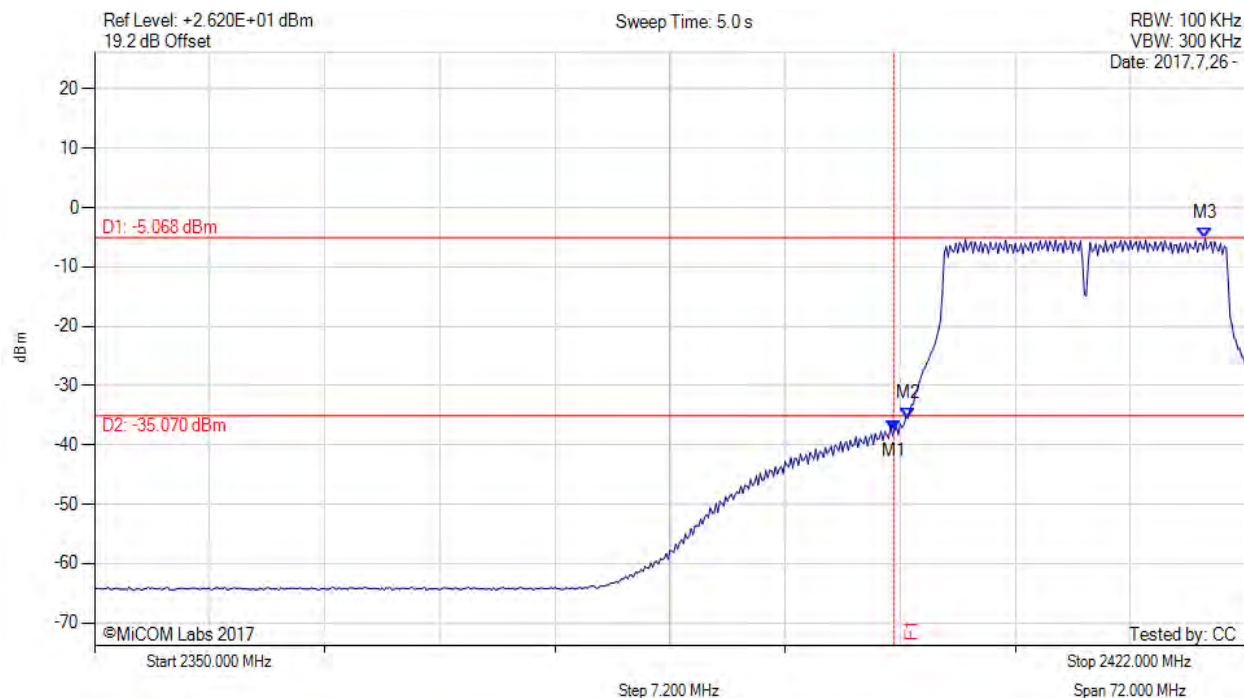
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.569 dBm M2 : 2400.880 MHz : -35.540 dBm M3 : 2419.480 MHz : -5.068 dBm	Channel Frequency: 2412.00 MHz

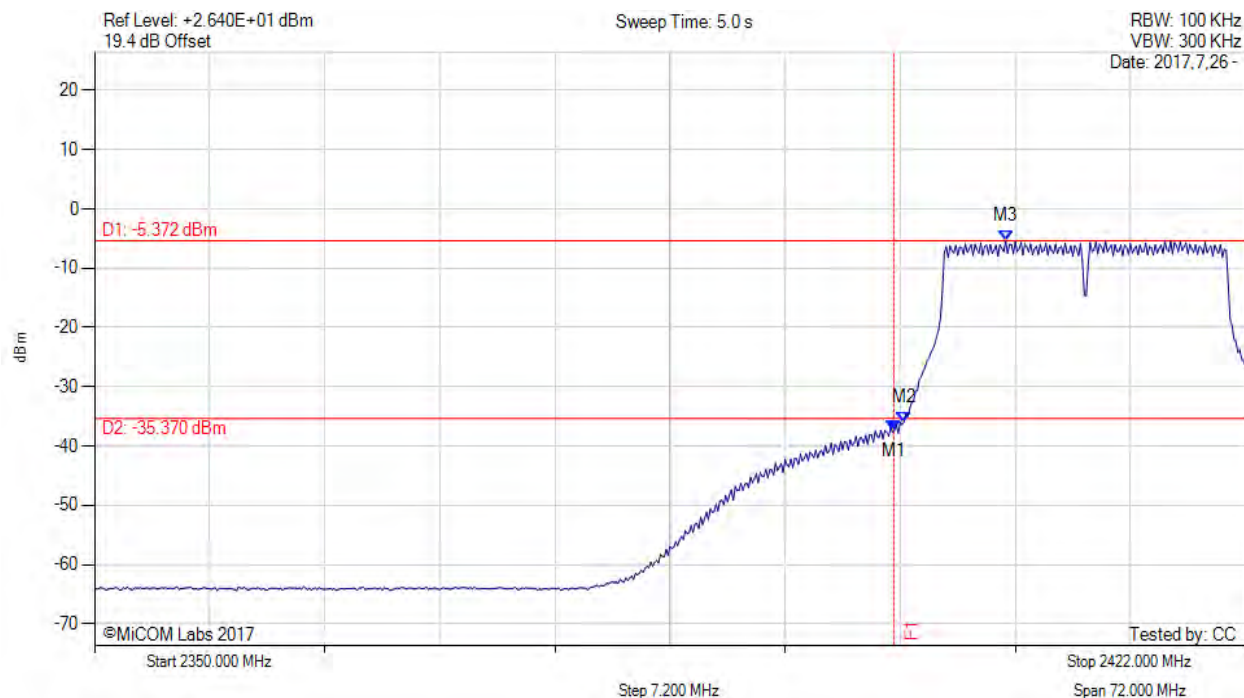
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -37.325 dBm M2 : 2400.640 MHz : -35.931 dBm M3 : 2407.000 MHz : -5.372 dBm	Channel Frequency: 2412.00 MHz

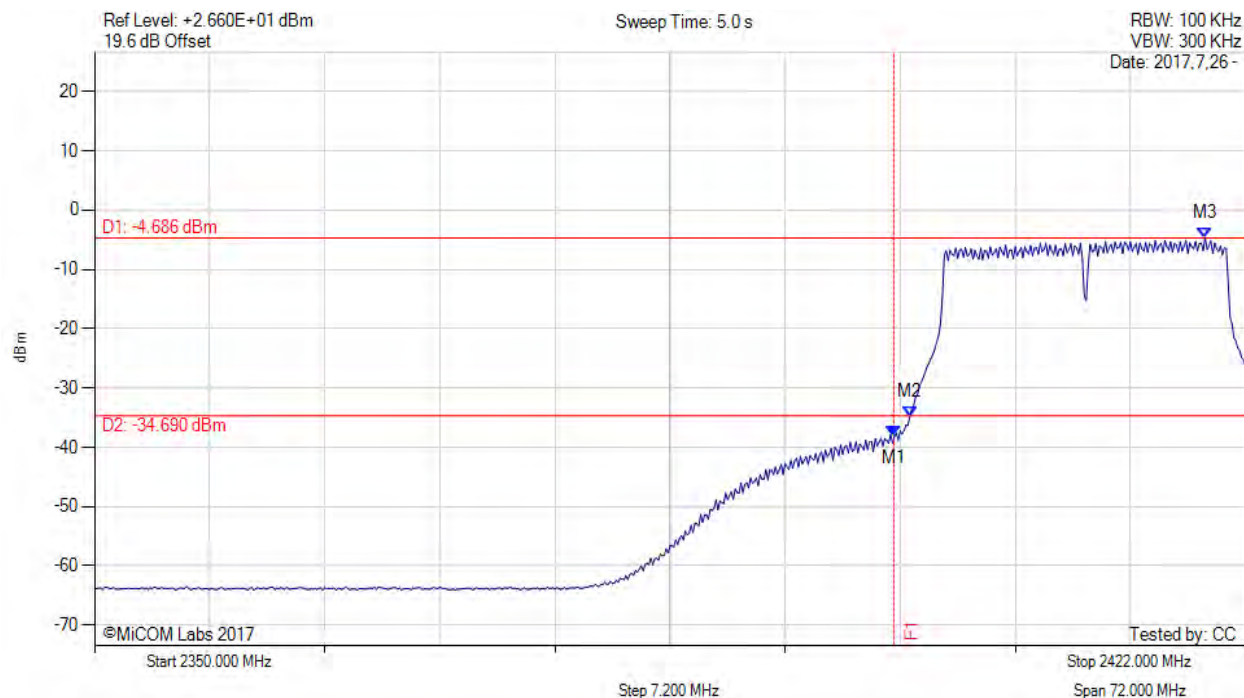
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -38.186 dBm M2 : 2401.000 MHz : -34.834 dBm M3 : 2419.480 MHz : -4.686 dBm	Channel Frequency: 2412.00 MHz

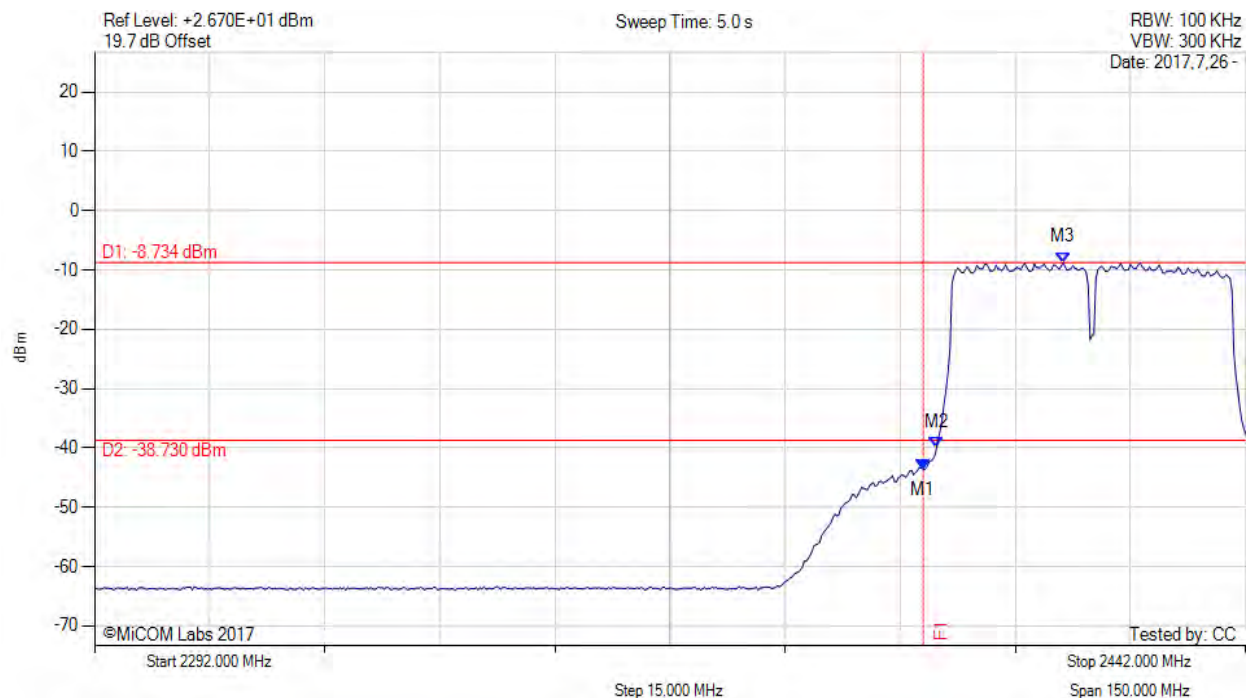
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -43.547 dBm M2 : 2401.750 MHz : -40.036 dBm M3 : 2418.250 MHz : -8.734 dBm	Channel Frequency: 2422.00 MHz

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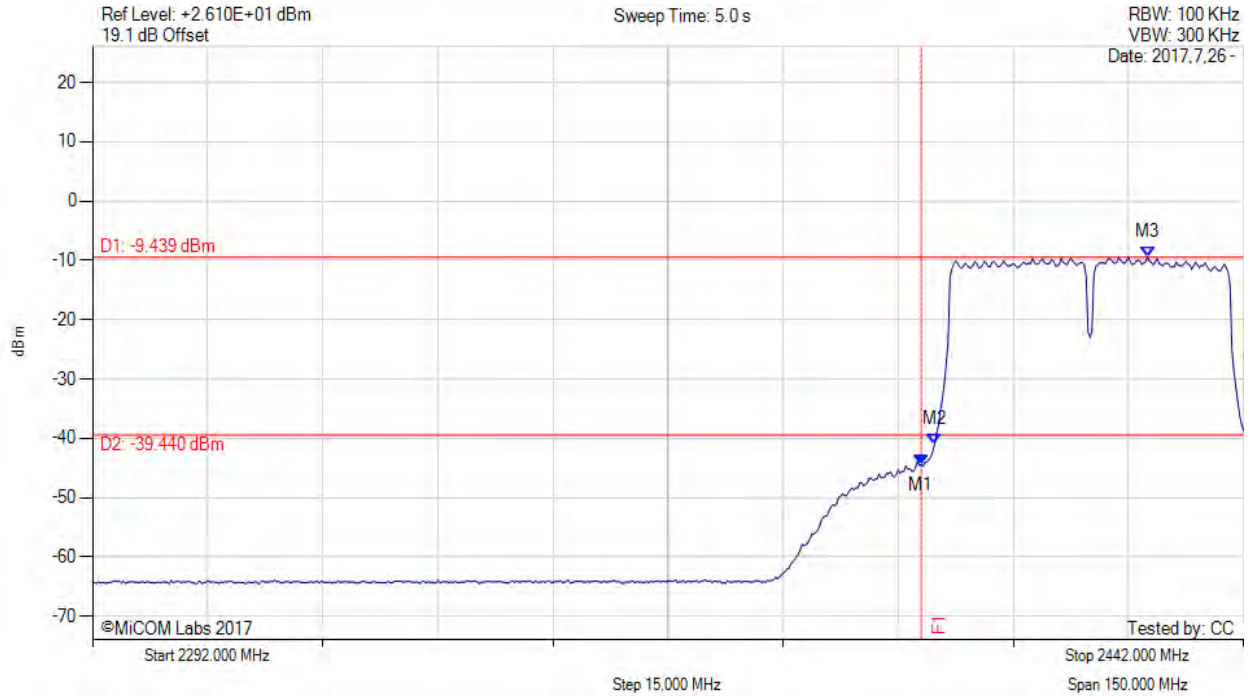


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISSED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
Issue Date: 22nd August 2017
Page: 202 of 221



CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -44.455 dBm M2 : 2401.750 MHz : -40.998 dBm M3 : 2429.500 MHz : -9.439 dBm	Channel Frequency: 2422.00 MHz

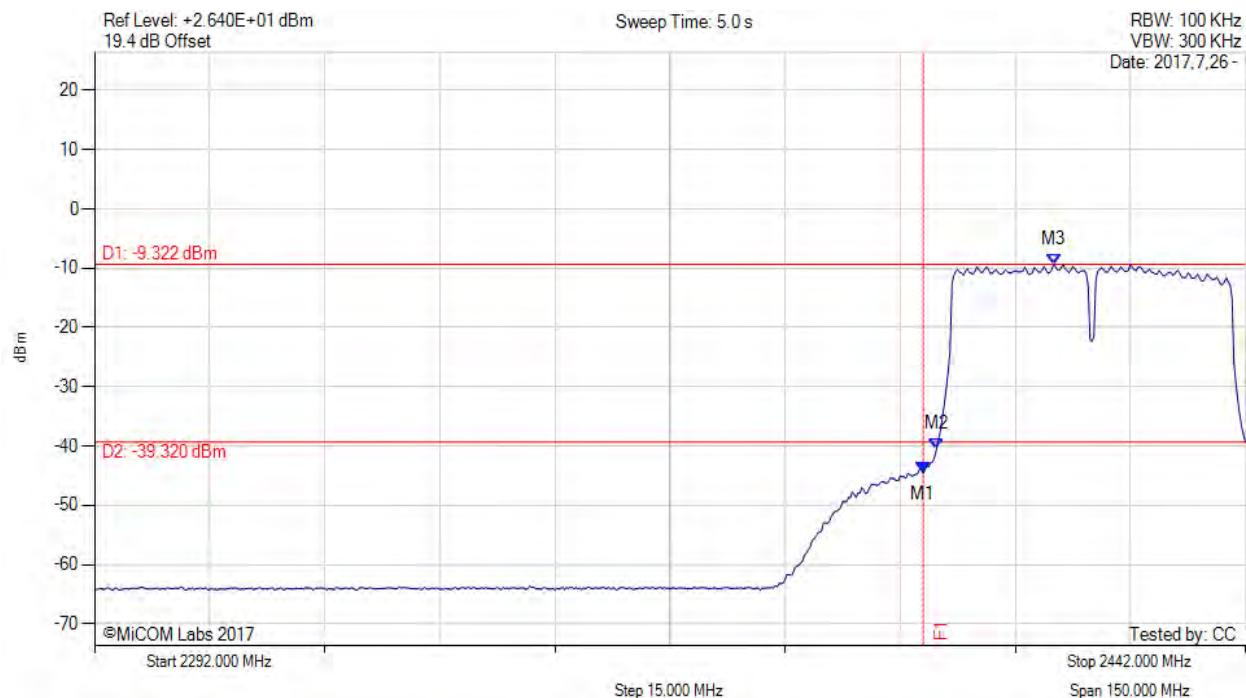
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -44.541 dBm M2 : 2401.750 MHz : -40.422 dBm M3 : 2417.000 MHz : -9.322 dBm	Channel Frequency: 2422.00 MHz

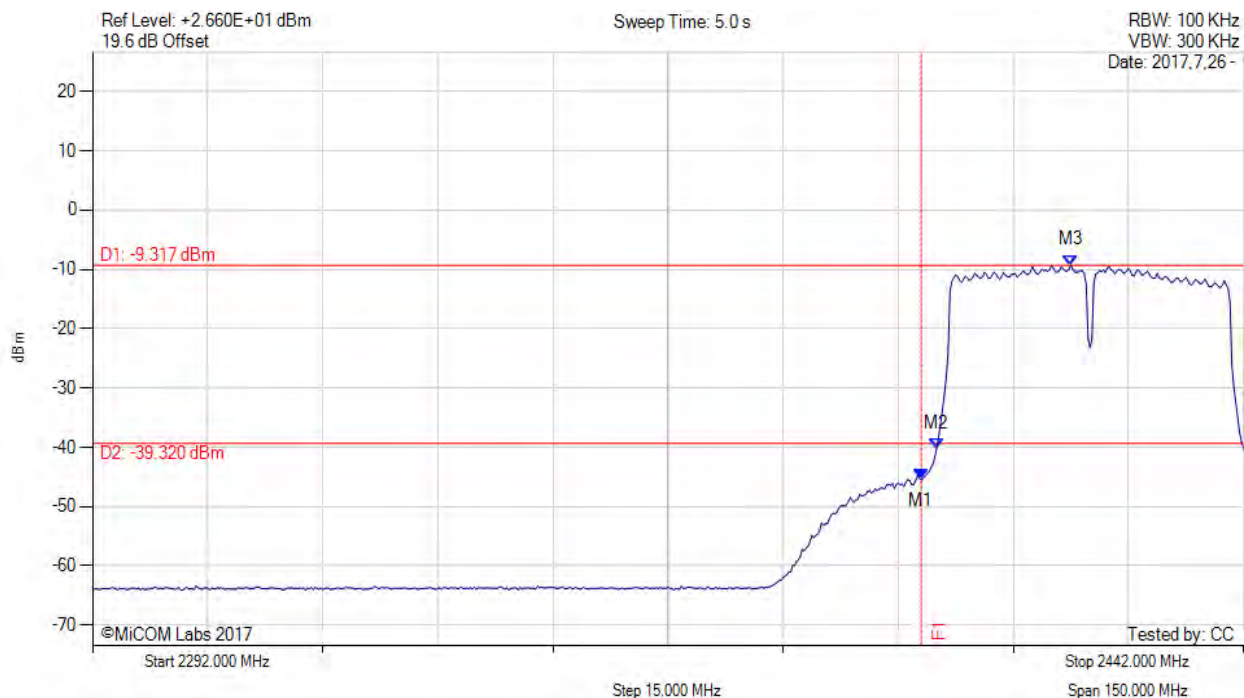
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CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -45.482 dBm M2 : 2402.000 MHz : -40.213 dBm M3 : 2419.500 MHz : -9.317 dBm	Channel Frequency: 2422.00 MHz

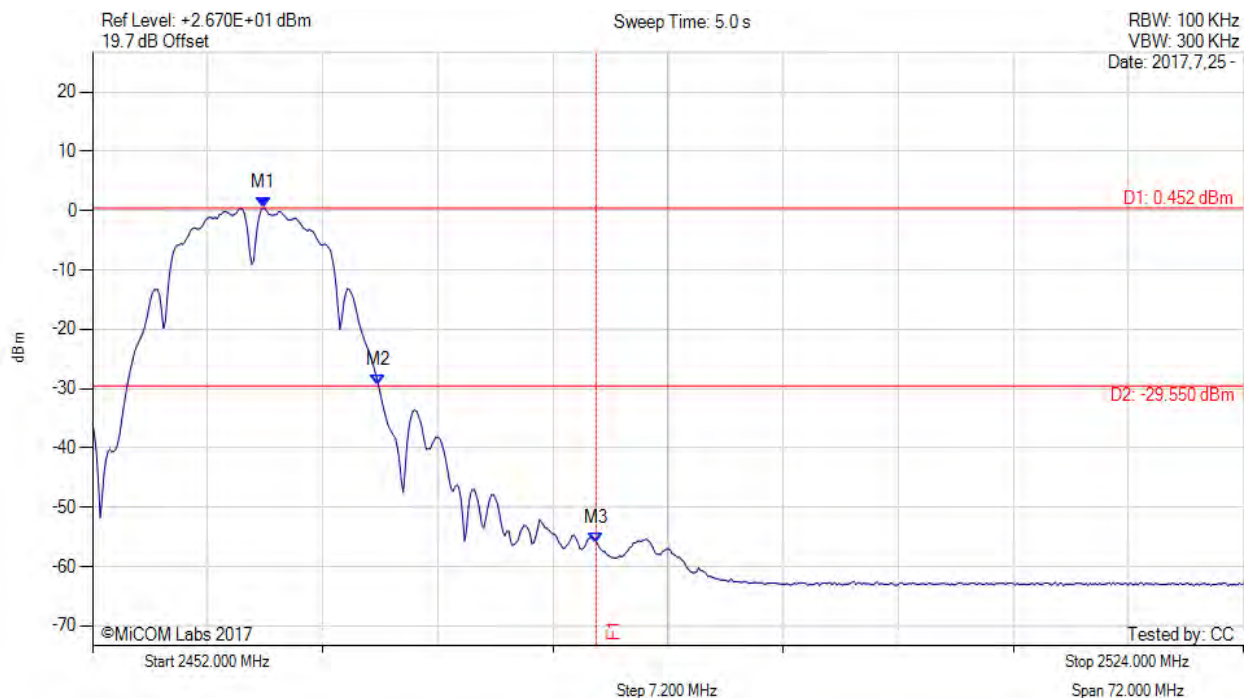
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.680 MHz : 0.452 dBm M2 : 2469.880 MHz : -29.367 dBm M3 : 2483.500 MHz : -55.982 dBm	Channel Frequency: 2462.00 MHz

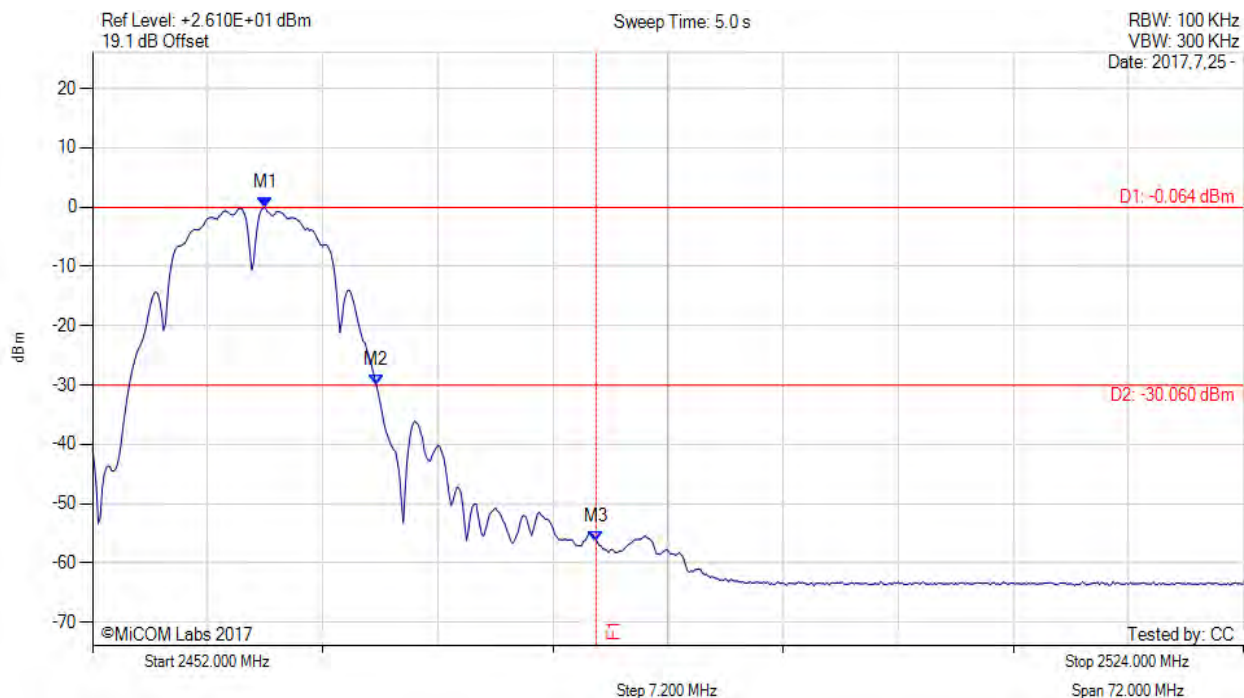
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.800 MHz : -0.064 dBm M2 : 2469.760 MHz : -30.050 dBm M3 : 2483.500 MHz : -56.366 dBm	Channel Frequency: 2462.00 MHz

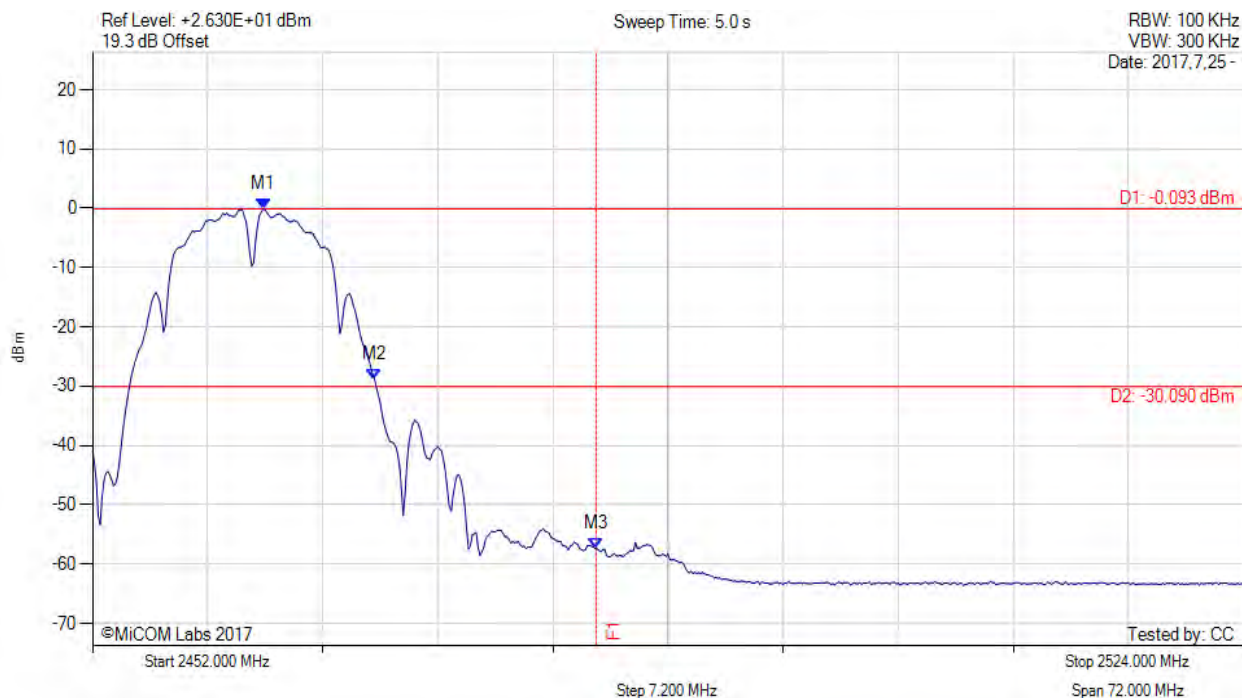
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.680 MHz : -0.093 dBm M2 : 2469.640 MHz : -28.796 dBm M3 : 2483.500 MHz : -57.435 dBm	Channel Frequency: 2462.00 MHz

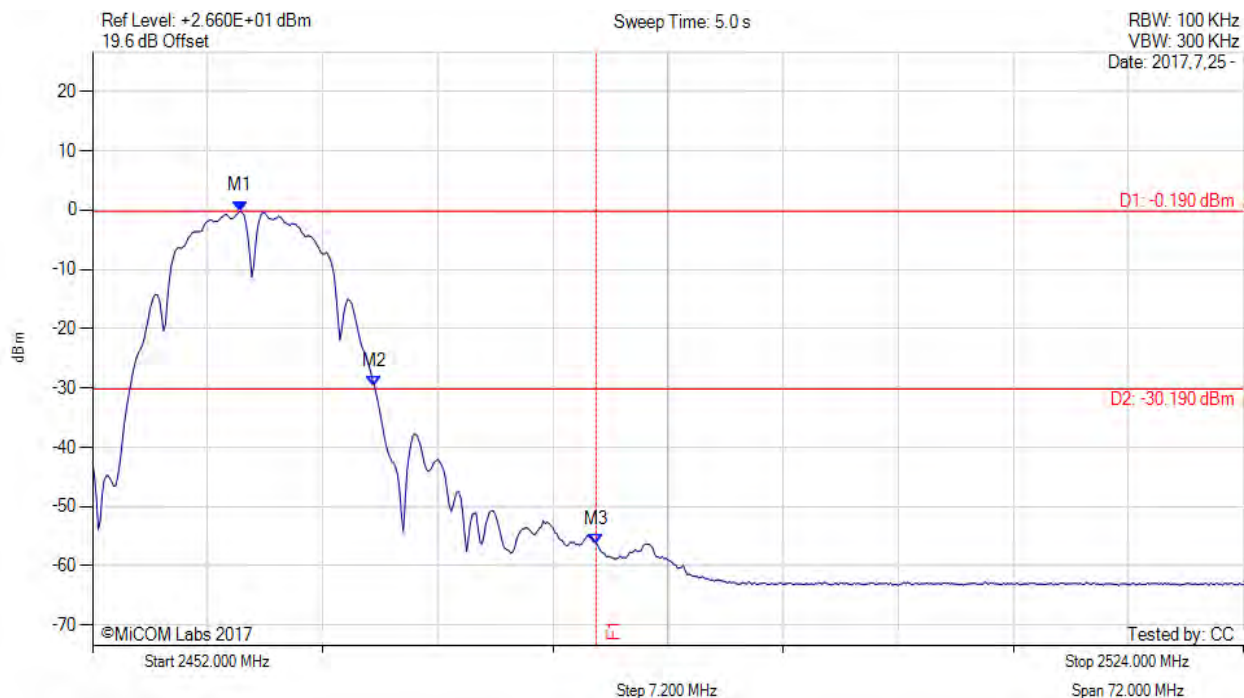
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2461.240 MHz : -0.190 dBm M2 : 2469.640 MHz : -29.670 dBm M3 : 2483.500 MHz : -56.297 dBm	Channel Frequency: 2462.00 MHz

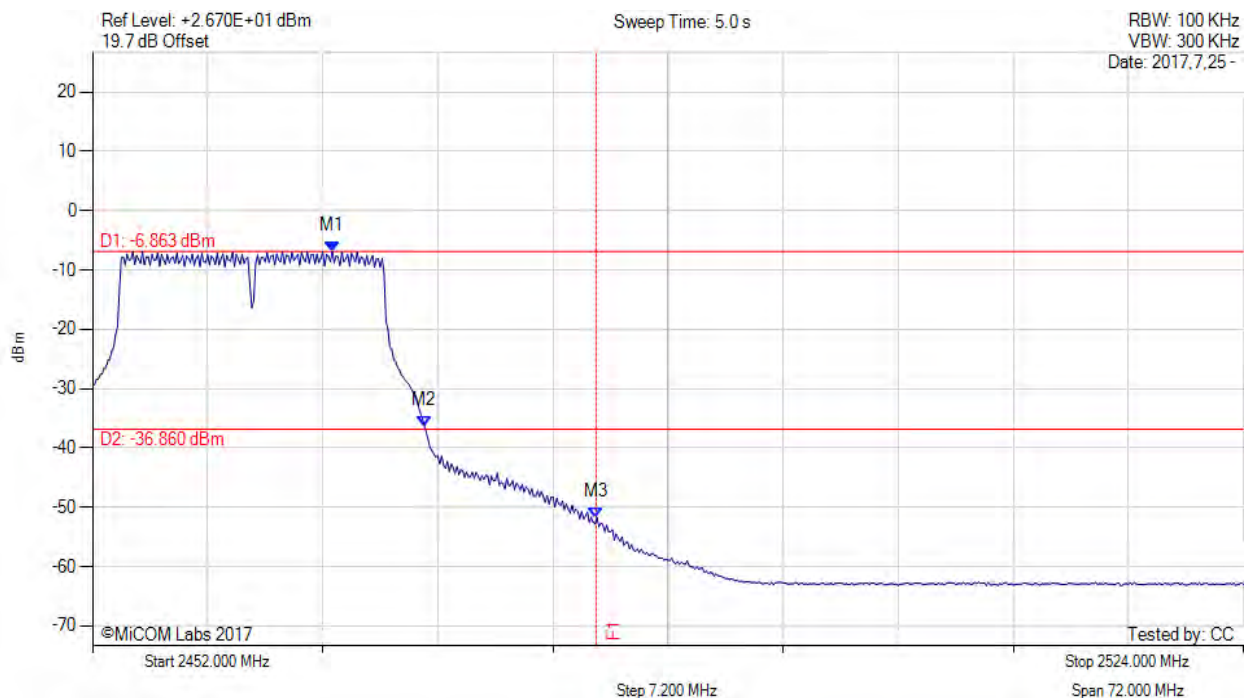
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2467.000 MHz : -6.863 dBm M2 : 2472.760 MHz : -36.316 dBm M3 : 2483.500 MHz : -51.731 dBm	Channel Frequency: 2462.00 MHz

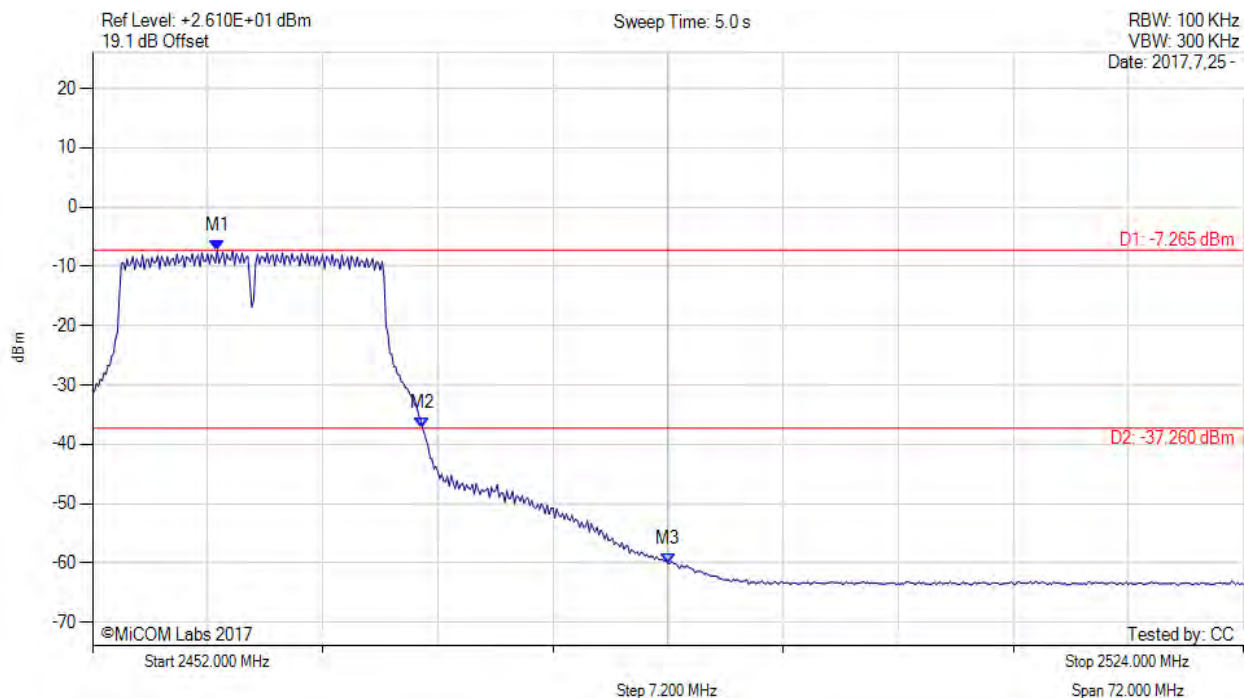
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2459.800 MHz : -7.265 dBm M2 : 2472.640 MHz : -37.234 dBm M3 : 2483.500 MHz : -60.106 dBm	Channel Frequency: 2462.00 MHz

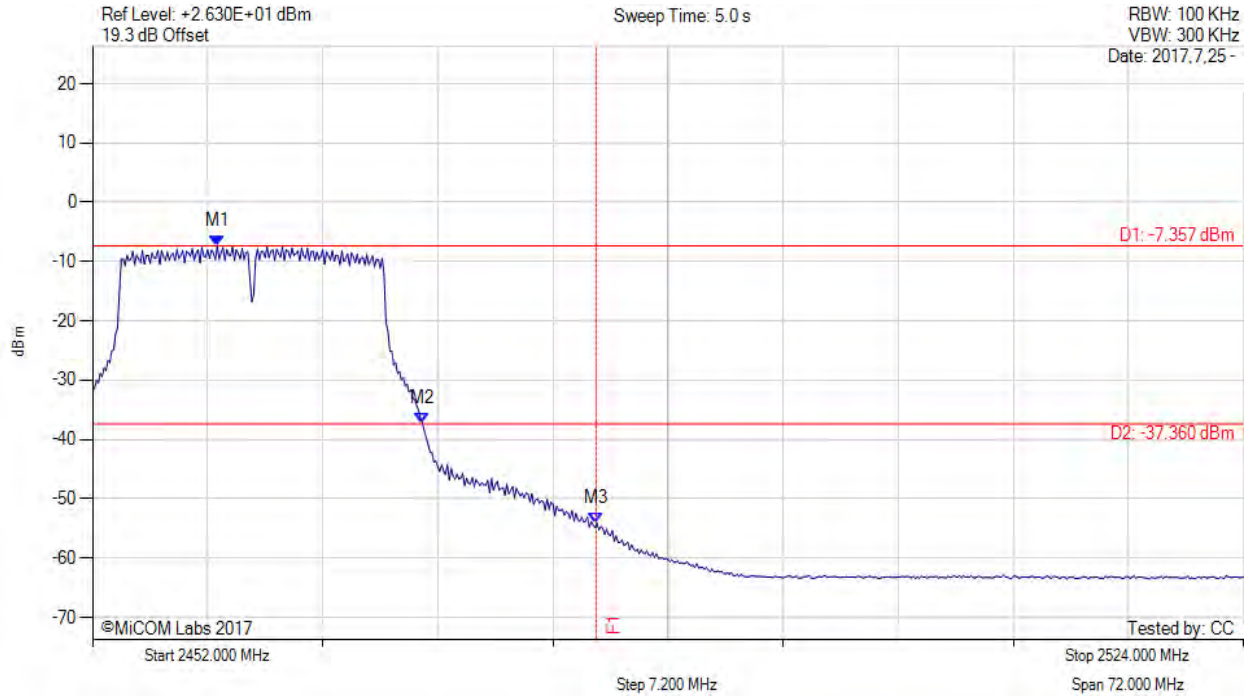
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2459.800 MHz : -7.357 dBm M2 : 2472.640 MHz : -37.249 dBm M3 : 2483.500 MHz : -54.121 dBm	Channel Frequency: 2462.00 MHz

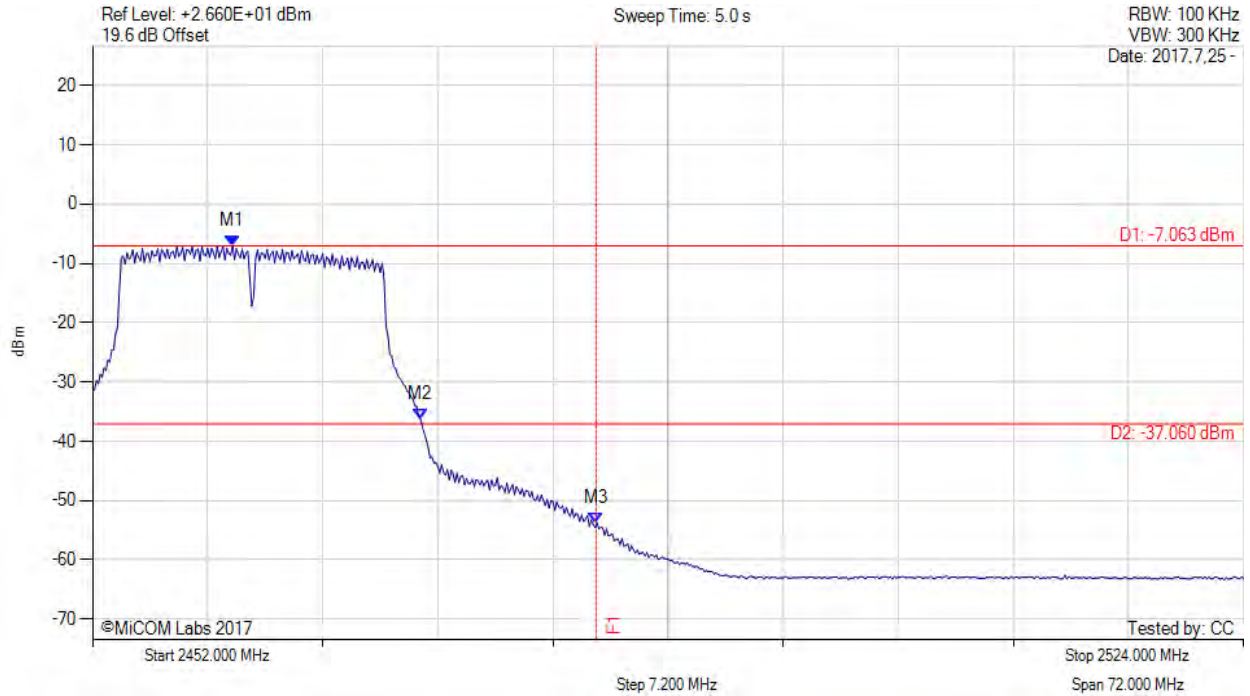
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2460.760 MHz : -7.063 dBm M2 : 2472.520 MHz : -36.289 dBm M3 : 2483.500 MHz : -53.752 dBm	Channel Frequency: 2462.00 MHz

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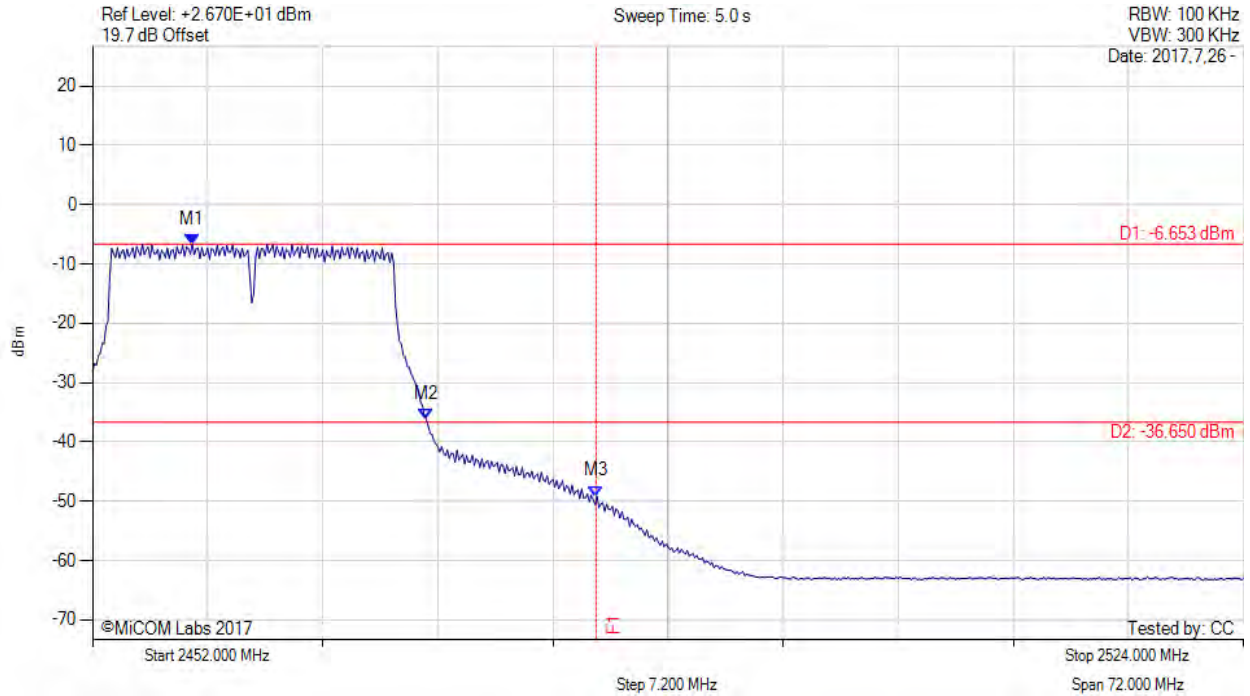


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
Issue Date: 22nd August 2017
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2458.240 MHz : -6.653 dBm M2 : 2472.880 MHz : -36.230 dBm M3 : 2483.500 MHz : -49.157 dBm	Channel Frequency: 2462.00 MHz

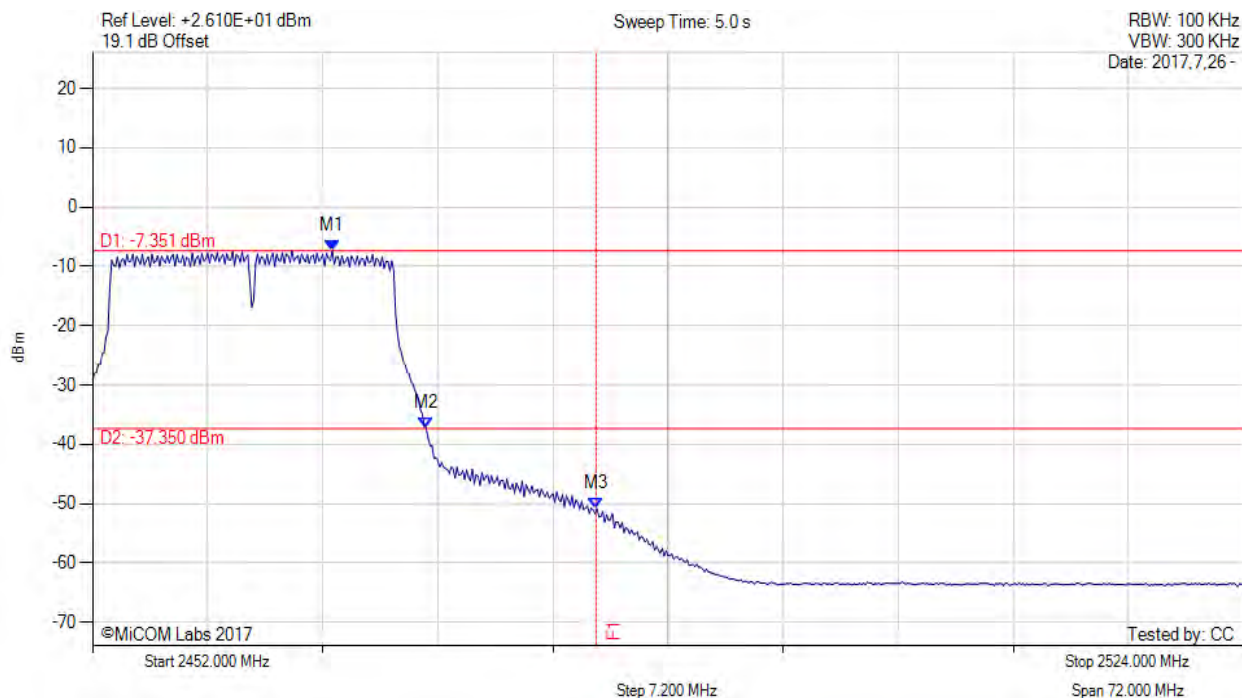
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2467.000 MHz : -7.351 dBm M2 : 2472.880 MHz : -37.308 dBm M3 : 2483.500 MHz : -50.839 dBm	Channel Frequency: 2462.00 MHz

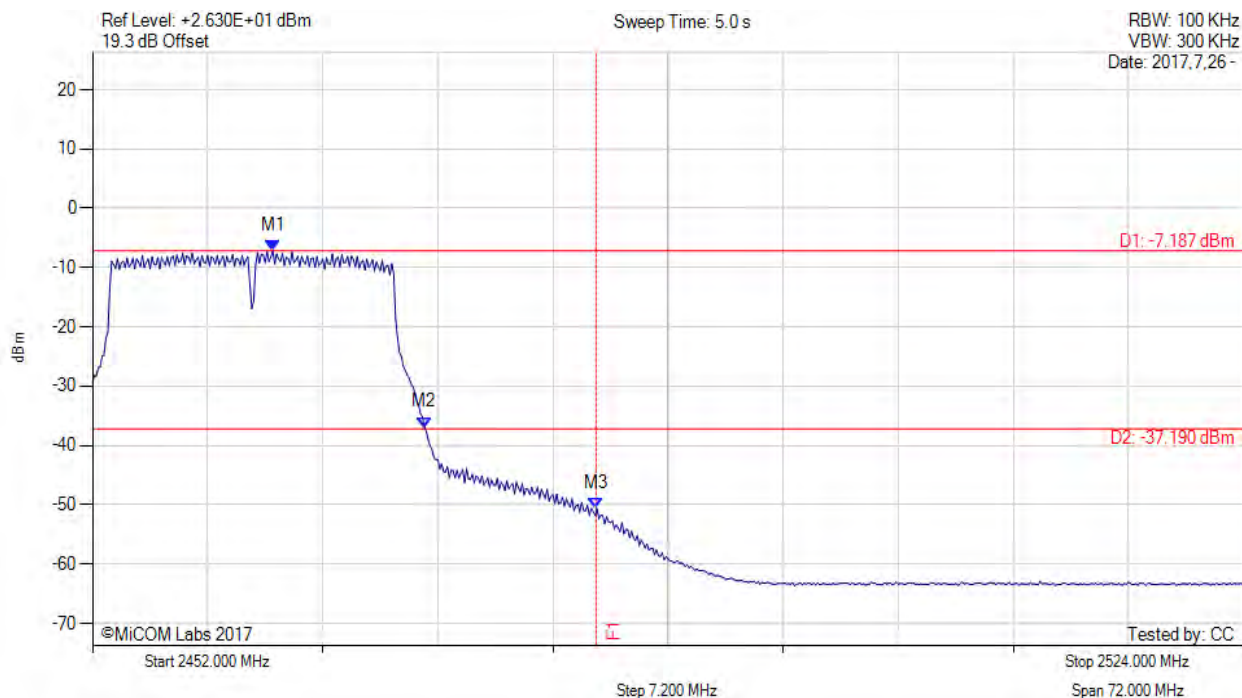
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.280 MHz : -7.187 dBm M2 : 2472.760 MHz : -36.950 dBm M3 : 2483.500 MHz : -50.650 dBm	Channel Frequency: 2462.00 MHz

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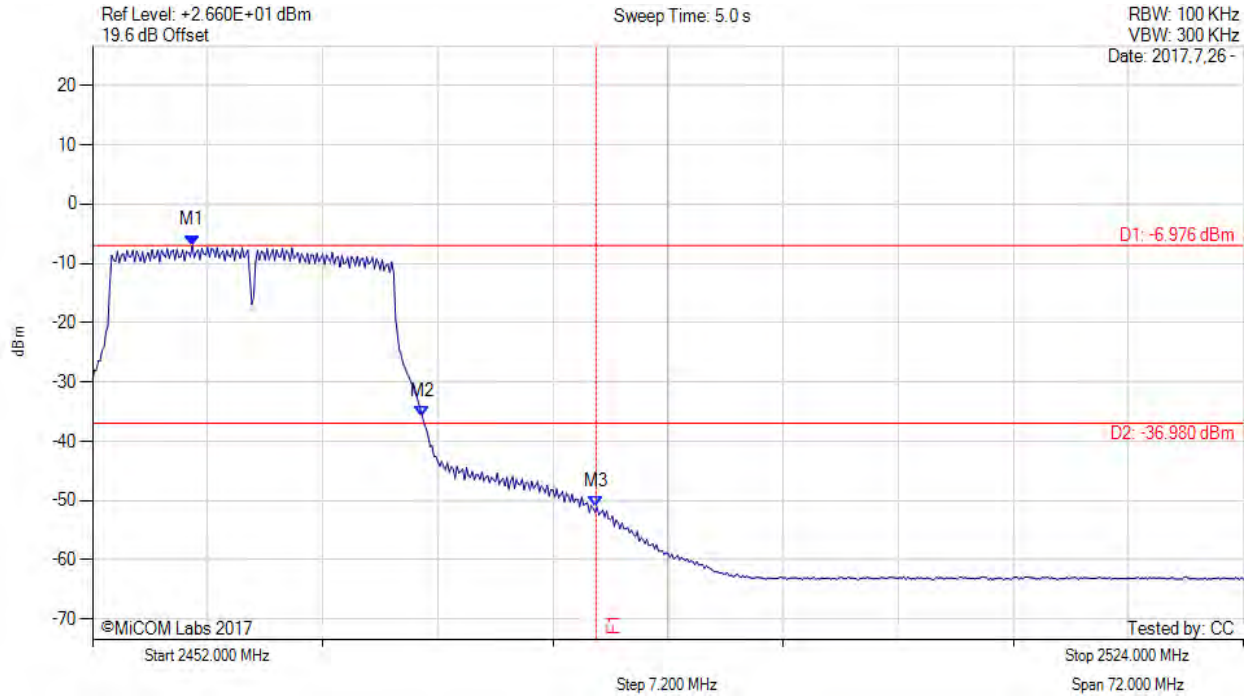


Title: Hewlett Packard Enterprise APIN0344 & APIN0345
To: FCC 15.247 DTS & ISED RSS-247
Serial #: HPEN111-U5_Conducted Rev A
Issue Date: 22nd August 2017
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

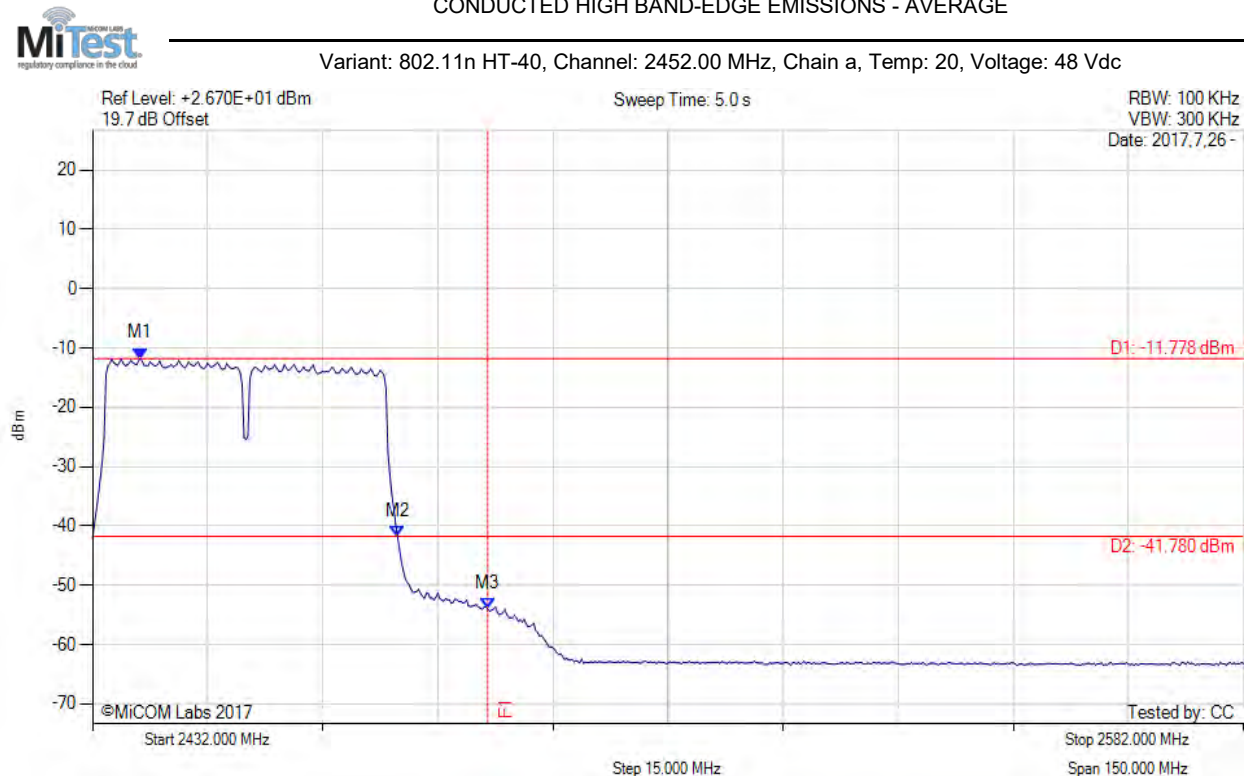


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2458.240 MHz : -6.976 dBm M2 : 2472.640 MHz : -35.835 dBm M3 : 2483.500 MHz : -51.043 dBm	Channel Frequency: 2462.00 MHz

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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2438.250 MHz : -11.778 dBm M2 : 2471.750 MHz : -41.740 dBm M3 : 2483.500 MHz : -54.015 dBm	Channel Frequency: 2452.00 MHz

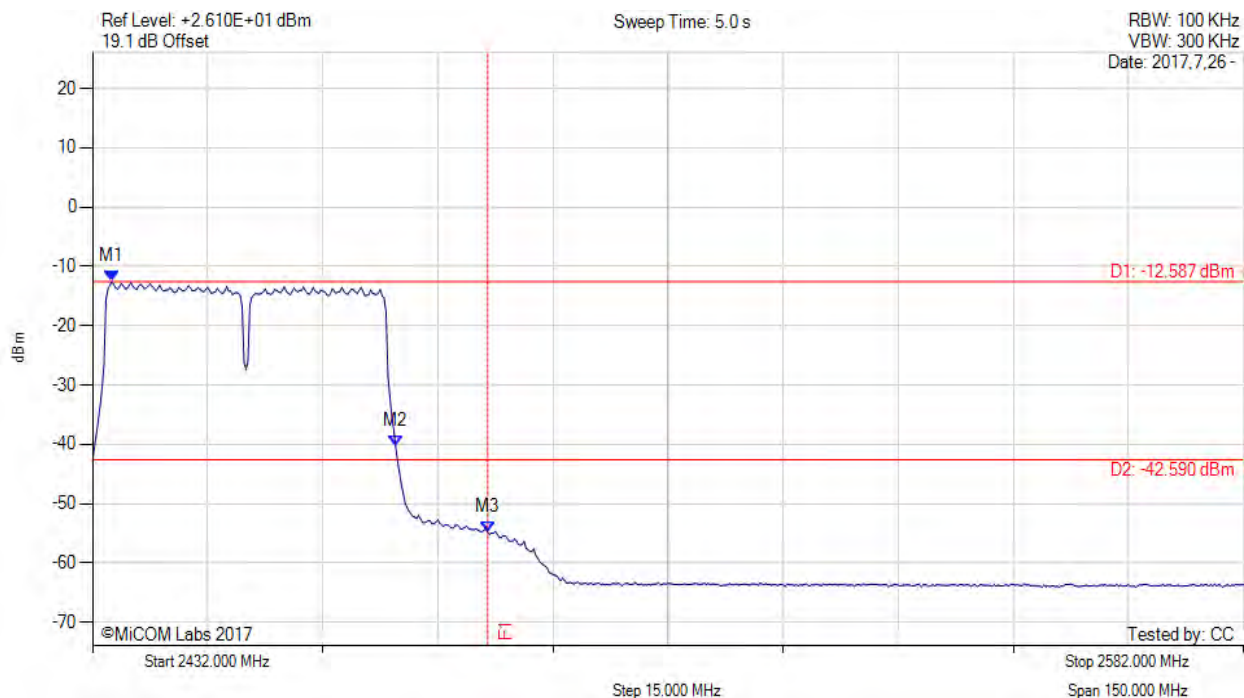
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2434.500 MHz : -12.587 dBm M2 : 2471.500 MHz : -40.329 dBm M3 : 2483.500 MHz : -54.776 dBm	Channel Frequency: 2452.00 MHz

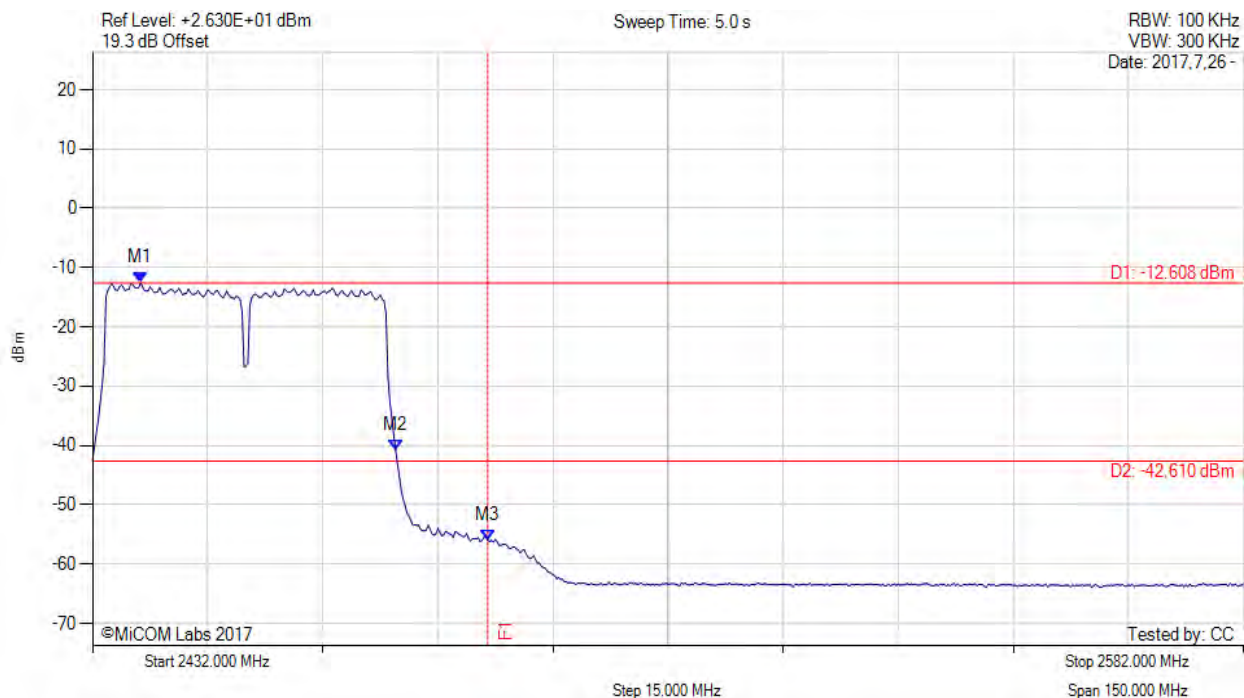
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2438.250 MHz : -12.608 dBm M2 : 2471.500 MHz : -40.716 dBm M3 : 2483.500 MHz : -55.968 dBm	Channel Frequency: 2452.00 MHz

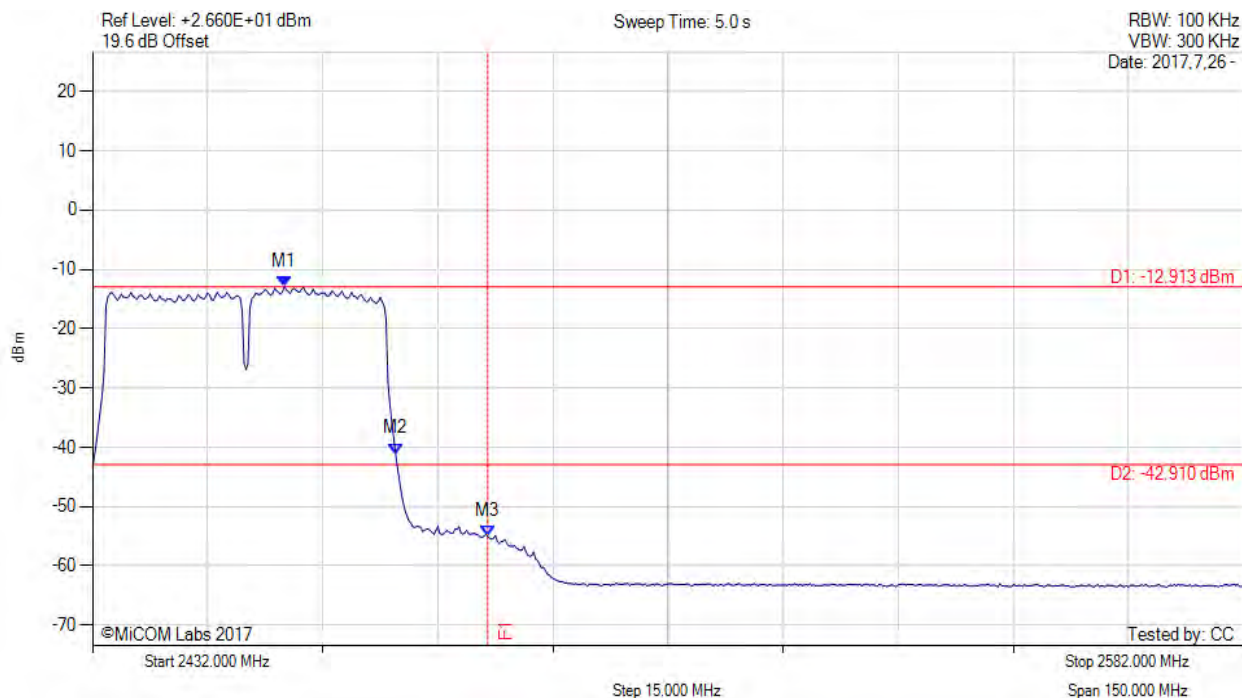
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CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2457.000 MHz : -12.913 dBm M2 : 2471.500 MHz : -41.090 dBm M3 : 2483.500 MHz : -55.000 dBm	Channel Frequency: 2452.00 MHz

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