



CONDUCTED#2 ADDENDUM

Test of: Sonos, Inc S26

To: FCC CFR 47 Part 15 Subpart E 15.407

Test Report Serial No.: SONO01-U9_Conducted#2 Rev A

This report supersedes: NONE

Applicant: Sonos, Inc
614 Chapala St.
Santa Barbara, California 93101
USA

Generated Reports	Document Number
Master:	<input type="checkbox"/> SONO01-U9_Master
Conducted:	<input type="checkbox"/> SONO01-U9_Conducted#1_Addendum <input checked="" type="checkbox"/> SONO01-U9_Conducted#2_Addendum
Radiated:	<input type="checkbox"/> SONO01-U9_Radiated_Addendum
DFS:	<input type="checkbox"/> SONO01-U9_DFS_Addendum

Issue Date: 13th April 2020

Table of Contents

1. TEST SUMMARY	3
2. TEST RESULTS	4
2.1. Control of Test Item.....	4
2.2. Operational Mode Duty Cycle(s)	4
2.3. Power Spectral Density.....	5
2.4. Frequency Stability.....	15
2.5. Dynamic Frequency Selection (DFS)	16
2.5.1. <i>Dynamic Frequency Selection (DFS) Overview</i>	16
2.5.2. <i>Channel Close / Transmission Time</i>	20
2.5.3. <i>Non-Occupancy Period</i>	22
APPENDIX - GRAPHICAL IMAGES	23
A.1. Power Spectral Density	24

1. TEST SUMMARY

List of Measurements

Test Header	Result	Data Link
Power Spectral Density	Complies	View Data
Frequency Stability	*Complies	-
Dynamic Frequency Selection (DFS)	Complies	-
Channel Close/Channel Shutdown	Complies	View Data
Non-Occupancy Period	Complies	View Data

*Frequency Stability – Manufacturer Declaration

NOTE: In this report antenna chains are reported as chains 'a' through 'd'. This is equivalent to CH0-CH3 on all Sonos documentation.

2. TEST RESULTS

2.1. Control of Test Item

The EUT was controlled via the Sonos GUI. This gave access to operational channels, output power and antenna port activation. As the device was a 4x4 MIMO all the antenna ports were activated to operate simultaneously during conducted and radiated testing.

The power setting reported in Section 9.3 Conducted Output Power is the final power setting found in order to prove compliance for radiated and conducted testing for the Sonos S26.

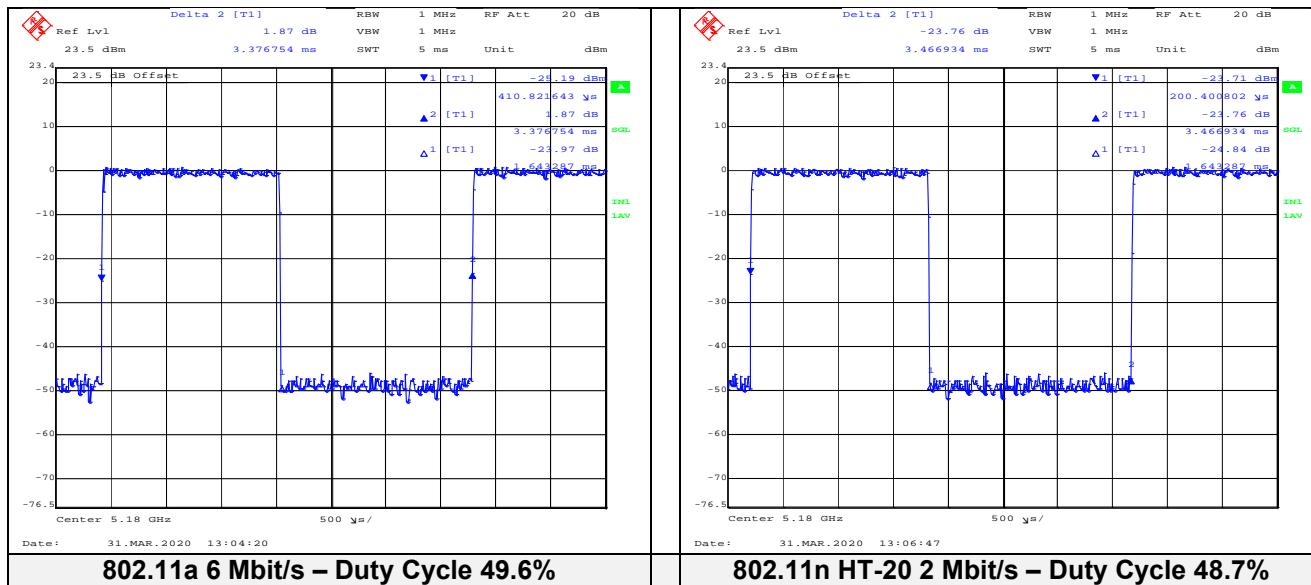
Output Power

In the case of average power measurements an average power sensor was utilized using connected to each antenna port. Power measurements on all ports were measured simultaneously, the EUT was set to transmit maximum power during the test program (compliant power setting logged for each test mode). The duty cycle correction factor was used to correct all power readings.

The lowest data rate for each operational mode was used to exercise the test sample.

2.2. Operational Mode Duty Cycle(s)

Results for system Duty Cycle for the following configurations are measured and reported below:



2.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Power Spectral Density	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.407 (a)	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Power Spectral Density

The in-band power spectral density was measured using the test technique specified in KDB 789033. A 1 MHz measurement bandwidth was implemented for the analyzer sweep. Once the sweep is complete the analyzer trace data is downloaded and used 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 (a) and a link to this additional graphic is provided.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section 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 spectrum in some 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 = $A + 10 \log (1/x) \text{ dBm}$

$A = \text{Total Power Spectral Density } [10^* \log_{10} (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})]$

$x = \text{Duty Cycle}$

Limits Power Spectral Density

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1

megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

15. 407 (a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 – 5850 MHz

15. 407 (a)(3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	49.6
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	6.29
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.05 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	1.854	2.182	1.756	-2.560	10.202	10.71	-0.51
5200.0	1.508	1.488	1.221	-2.212	9.751	10.71	-0.96
5240.0	1.411	1.070	0.813	-1.219	9.674	10.71	-1.04

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.05 dB

A Total Correction Factor of 3.05 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

Correlated limit = 11 - (6.29 - 6) = 10.71 dBm/MHz

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

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	48.7
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	6.29
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.1 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5180.0	1.819	2.160	1.610	-3.629	10.048	10.71	-0.66
5200.0	1.909	2.099	1.592	-3.013	10.105	10.71	-0.61
5240.0	1.620	1.500	0.937	-1.289	9.922	10.71	-0.79

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.12 dB

A Total Correction Factor of 3.12 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

Correlated limit = 11 - (6.29 - 6) = 10.71 dBm/MHz

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

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	49.5
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	6.63
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.05 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	1.687	2.091	1.561	-1.812	10.139	10.37	-0.23
5300.0	1.590	1.719	1.440	-3.283	9.775	10.37	-0.59
5320.0	2.282	1.882	1.664	-2.554	10.143	10.37	-0.23

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.05 dB

A Total Correction Factor of 3.05 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

Correlated limit = 11 - (6.63 - 6) = 10.37 dBm/MHz

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

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	48.8
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	6.63
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.1 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	1.533	1.839	0.969	-1.895	9.859	10.37	-0.51
5300.0	1.059	1.370	0.874	-2.324	9.531	10.37	-0.84
5320.0	1.757	1.386	0.977	-1.843	9.809	10.37	-0.56

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.12 dB

A Total Correction Factor of 3.12 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

Correlated limit = 11 - (6.63 - 6) = 10.37 dBm/MHz

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

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	50.1
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	5.81
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.00 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5500.0	1.862	1.936	1.046	2.045	10.694	11.00	-0.31
5580.0	1.105	2.596	1.042	0.958	10.456	11.00	-0.54
5700.0	1.164	1.799	0.689	2.220	10.389	11.00	-0.61

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.00 dB

A Total Correction Factor of 3.00 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

The maximum directional gain = 5.81 dBi (< 6 dBi)

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

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	50.1
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	5.81
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.00 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5500.0	2.167	2.089	0.859	-0.648	10.194	11.00	-0.81
5580.0	1.235	2.211	0.379	2.016	10.356	11.00	-0.64
5700.0	1.768	1.732	1.355	-1.244	9.918	11.00	-1.08

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.00 dB

A Total Correction Factor of 3.00 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

The maximum directional gain = 5.81 dBi (< 6 dBi)

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

Equipment Configuration for Power Spectral Density

Variant:	802.11a	Duty Cycle (%):	49.2
Data Rate:	6.00 MBit/s	Antenna Gain (dBi):	5.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.08 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	0.440	1.073	0.134	-2.667	8.990	30.00	-21.01
5785.0	0.505	0.577	-0.125	-3.979	5.593	30.00	-24.41
5825.0	-0.089	0.434	-0.202	-4.584	5.263	30.00	-24.74

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.08 dB

A Total Correction Factor of 3.08 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

The maximum directional gain = 5.90 dBi (< 6 dBi)

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

Equipment Configuration for Power Spectral Density

Variant:	802.11n HT-20	Duty Cycle (%):	48.9
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	5.90
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+3.1 dB)	Limit	Margin
	Port(s) (dBm/500 KHz)						
MHz	a	b	c	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	0.007	0.470	-0.290	-4.423	8.312	30.00	-21.69
5785.0	0.030	0.464	-0.561	-4.456	5.174	30.00	-24.83
5825.0	-0.698	0.087	-0.890	-4.144	4.776	30.00	-25.23

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

Duty Cycle Correction Factor: 3.11 dB

A Total Correction Factor of 3.11 dB was added to the Summation Peak Marker to give the true Power Density

Based on FCC KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band Section F) 2) d) (i) Unequal antenna gains, with equal transmit powers, for antenna gains given by G1, G2, ..., GN dBi the PSD directional gain limit calculation

The maximum directional gain = 5.90 dBi (< 6 dBi)

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

2.4. Frequency Stability

Test Procedure

The manufacturer of the equipment is responsible for ensuring that the frequency stability is such that emissions are always maintained within the band of operation under all conditions.

Manufacturer Declaration

The frequency stability of the reference oscillator sets the frequency stability of the RF transceiver signals. Therefore, all RF signals should have better than ± 20 ppm stability.

This stability accounts for room temperature tolerance of the crystal oscillator circuit, frequency variation across temperature, and crystal ageing.

± 20 ppm at 5.250 GHz translates to a maximum frequency shift of ± 105 KHz. As the channel band-edge is at least 1 MHz from either of the band edges, ± 105 KHz is more than sufficient to guarantee that the intentional emission will remain in the band over the entire operating range of the EUT.

Specification

Limits

§15.407 (g) Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

2.5. Dynamic Frequency Selection (DFS)

2.5.1. Dynamic Frequency Selection (DFS) Overview

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands. Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode. The following tables summarize the requirements.

Requirement	Master Device or Client with Radar Detection	Client without Radar Detection
	Operational Mode	
DFS Detection Threshold	Yes	Not Required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not Required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

NOTE: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

The operational behavior and individual DFS requirements associated with these modes are as follows:

Client Devices

- a) A Client Device will not transmit before having received appropriate control signals from a Master Device.
- b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.
- c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.
- d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.
- e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shutdown (rather than moving channels), no beacons should appear.

Response Requirements

The following table provides the response requirements for Master and Client Devices incorporating DFS.

DFS Response Requirement Values

Parameter	Value
Non-Occupancy Period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds, see NOTE 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period, see NOTES 1 and 2
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth, see NOTE 3

NOTE 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

NOTE 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

NOTE 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Radar Test Waveforms

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μS)	PRI (μS)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	Roundup $\left\lceil \left(\frac{1}{360} \cdot \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\rceil$	60%	30
		Test B: 15 unique PRI values randomly selected in the range 518-3066 μS, with a minimum increment of 1 μS, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Radar Pulse Type 0 should be used for the Detection Bandwidth test, Channel Move Time and Channel Closing Time tests

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B.

Only radar type 0 is needed for a client device with no radar detection.

2.5.2. Channel Close / Transmission Time

The steps below define the procedure to determine the above-mentioned parameters when a radar burst with a level of up to 10 dB above the DFS detection threshold is injected on the Operating Channel of the EUT.

Observe the transmissions of the EUT at the end of the Radar Burst on the Operating Channel for a duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and the Channel Closing Transmission Time results to the limits defined in the DFS requirement values table.

Channel Closing Transmission Time – Measurement

The reference radar signature was introduced to the EUT, from which an 11 second transmission record was captured, as well as 1000ms of pre-trigger data. The reference radar type was triggered to play at the exact time allowing the end of the pulse to occur at time t=0.

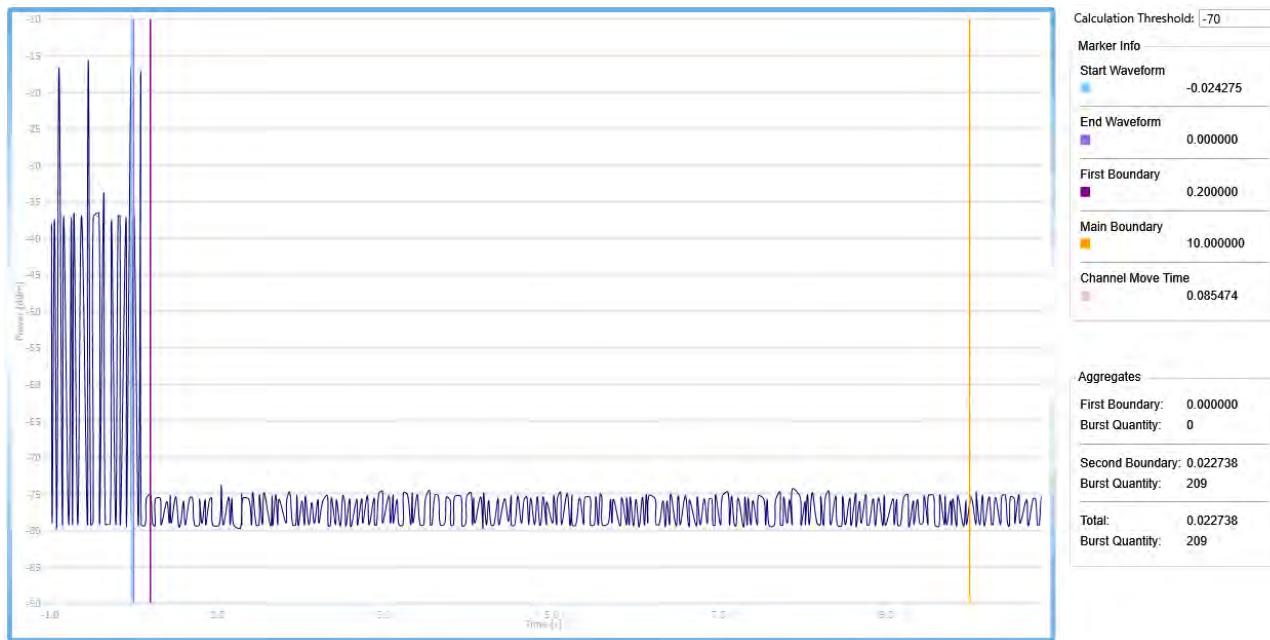
The system was setup to capture data for all transmission events above a given threshold level as determined and adjusted by the test engineer. The system time stamps all captured events with respect to T0 (zero time indicating the start of the measurement sequence) starting at the end of the radar pulse indicated by the purple vertical marker line in the plot (on the next page).

The system captured data over a 12 second period at 10 points per microsecond. The data is analyzed by counting all “bursts” that occur above the threshold limit aggregating the time each burst is on. The data is then compressed for presentation in one 12 second segment showing all the activity recorded over the period.

802.11a Channel 5500 MHz; Observed Frequency 5500 MHz

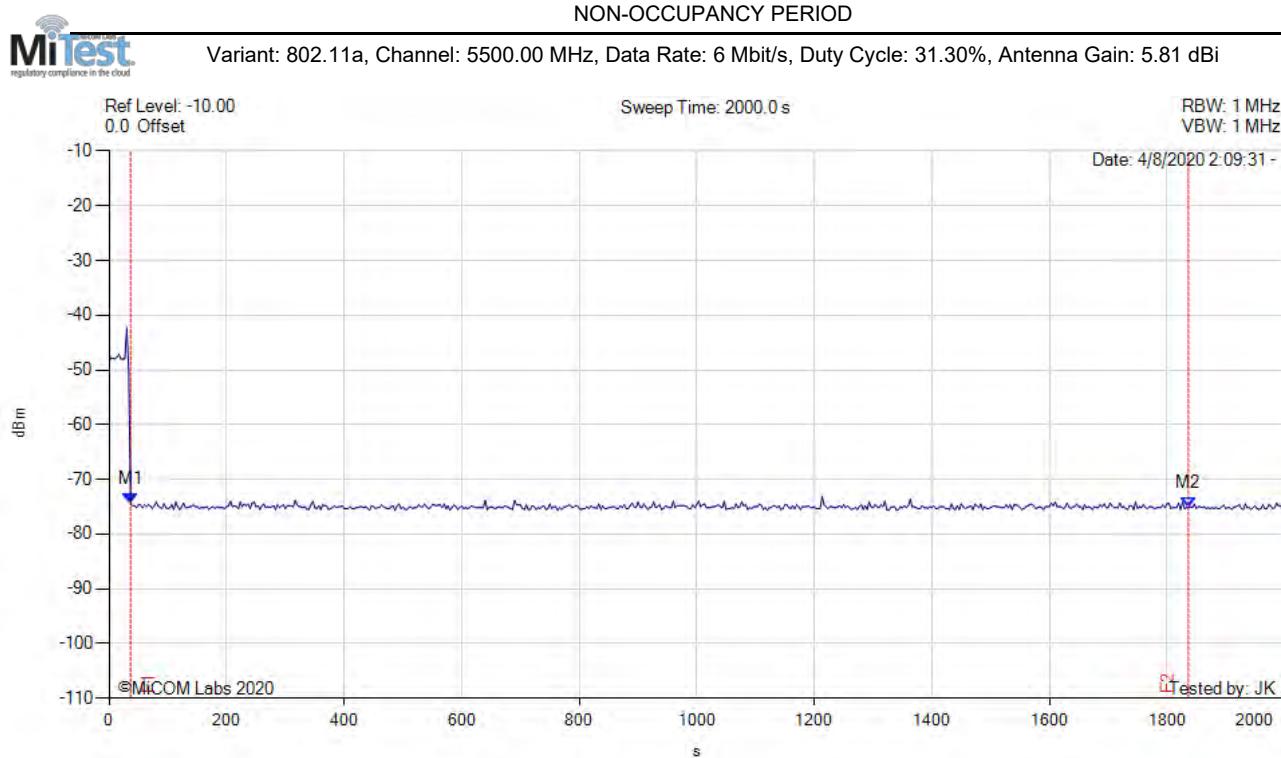
The system measures and aggregates the pulses occurring after the end of the radar pulse to determine the following parameters: -

Test Heading	Time (Secs)	Limit (Secs)	Status
Channel Closing Transmission Time	0.022738	0.260	Complies
Channel Move Time	0.085474	10.0	Complies



2.5.3. Non-Occupancy Period

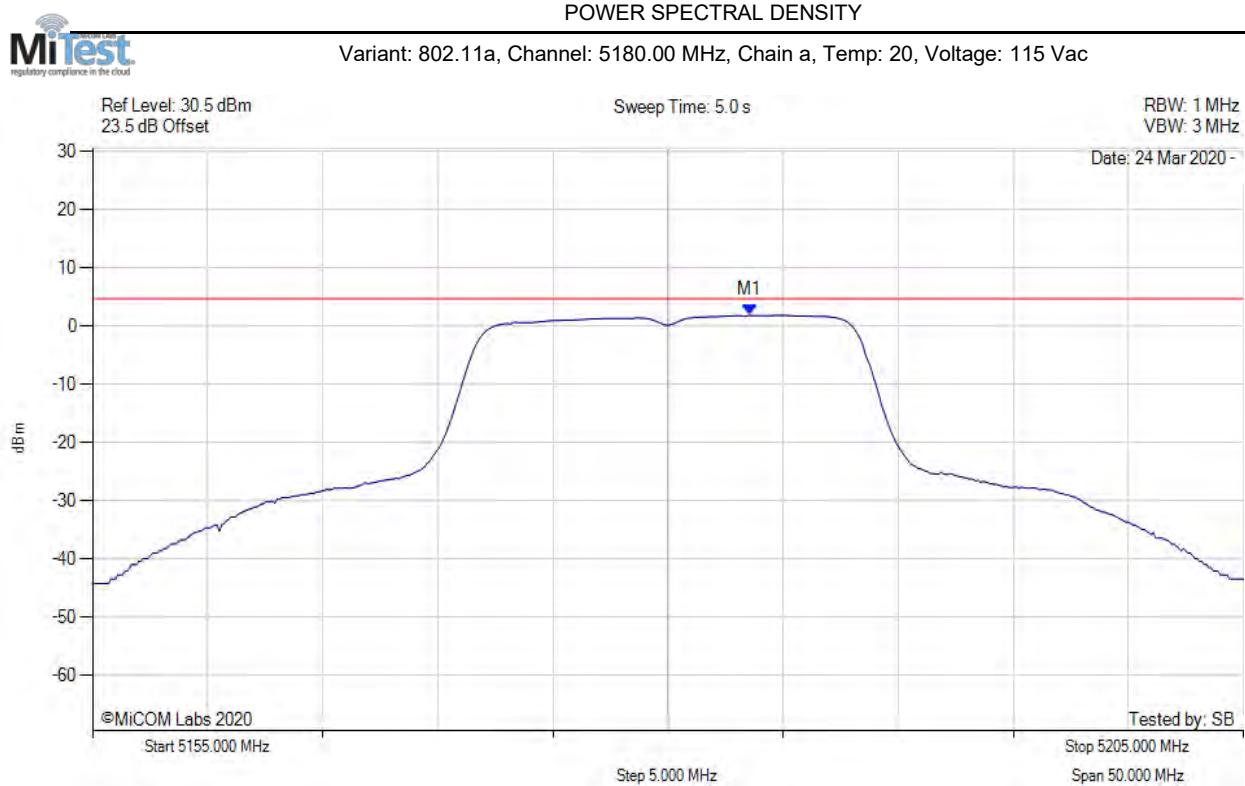
The EUT is monitored for more than 30 minutes following the channel close/move time to verify no transmissions resume on this Channel. There should be no transmissions on the frequency of interest during the non-occupancy period.



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = POS Sweep Count = View RF Atten (dB) = 0 Trace Mode = 0	M1 : 36.667 s : -74.500 dBm M2 : 1836.667 s : -75.160 dBm	Channel Frequency: 5500.00 MHz F2 – F1 = 1836.667 s – 36.667 s = 1800.00 s

APPENDIX - GRAPHICAL IMAGES

A.1. Power Spectral Density



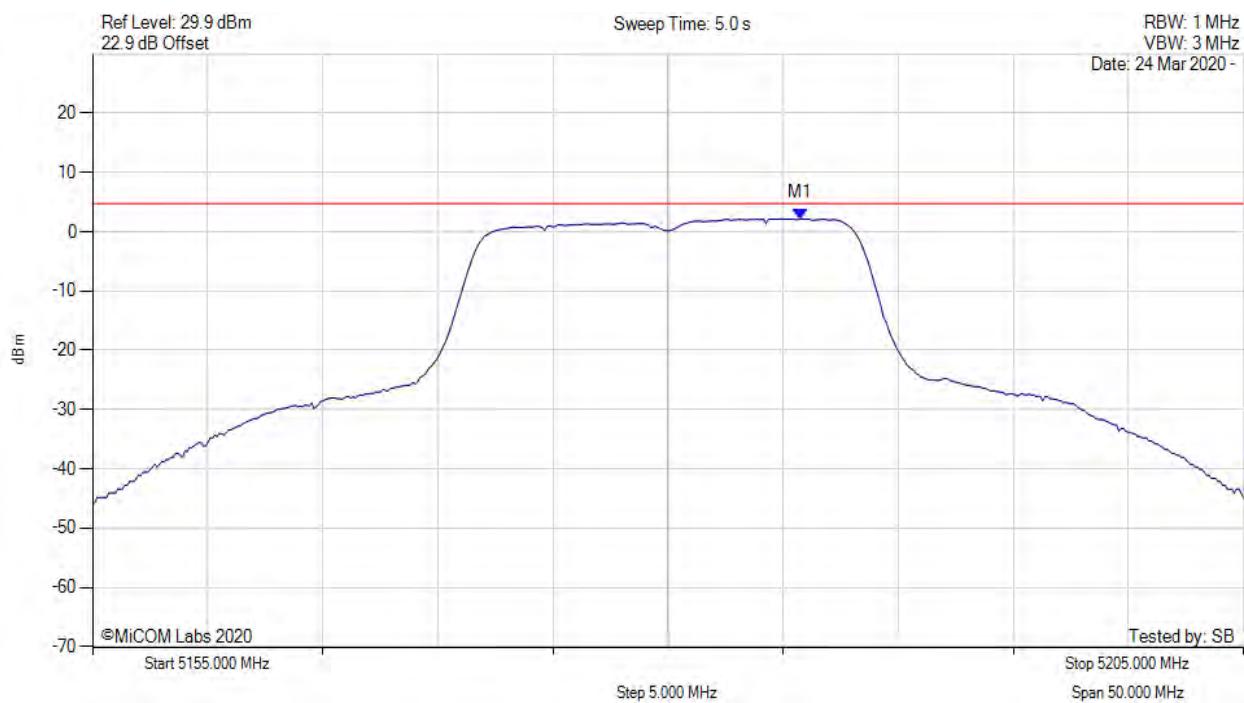
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 5183.557 MHz : 1.854 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5180.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



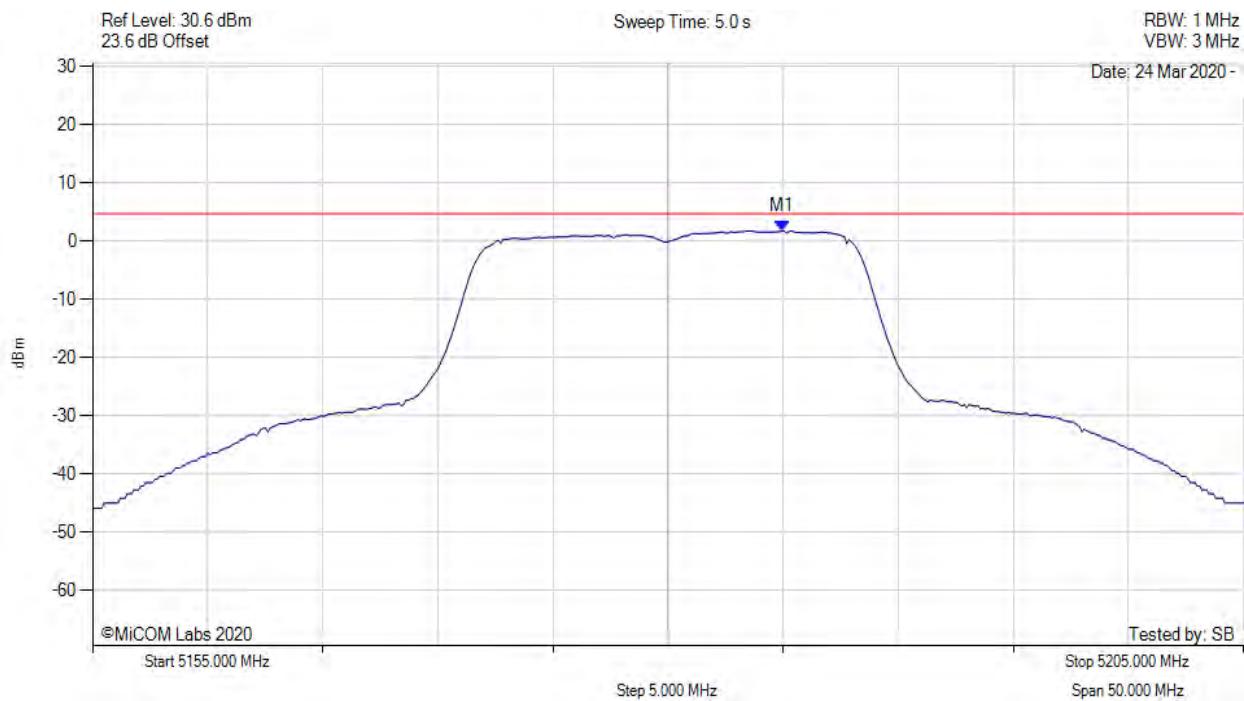
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 5185.762 MHz : 2.182 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5180.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



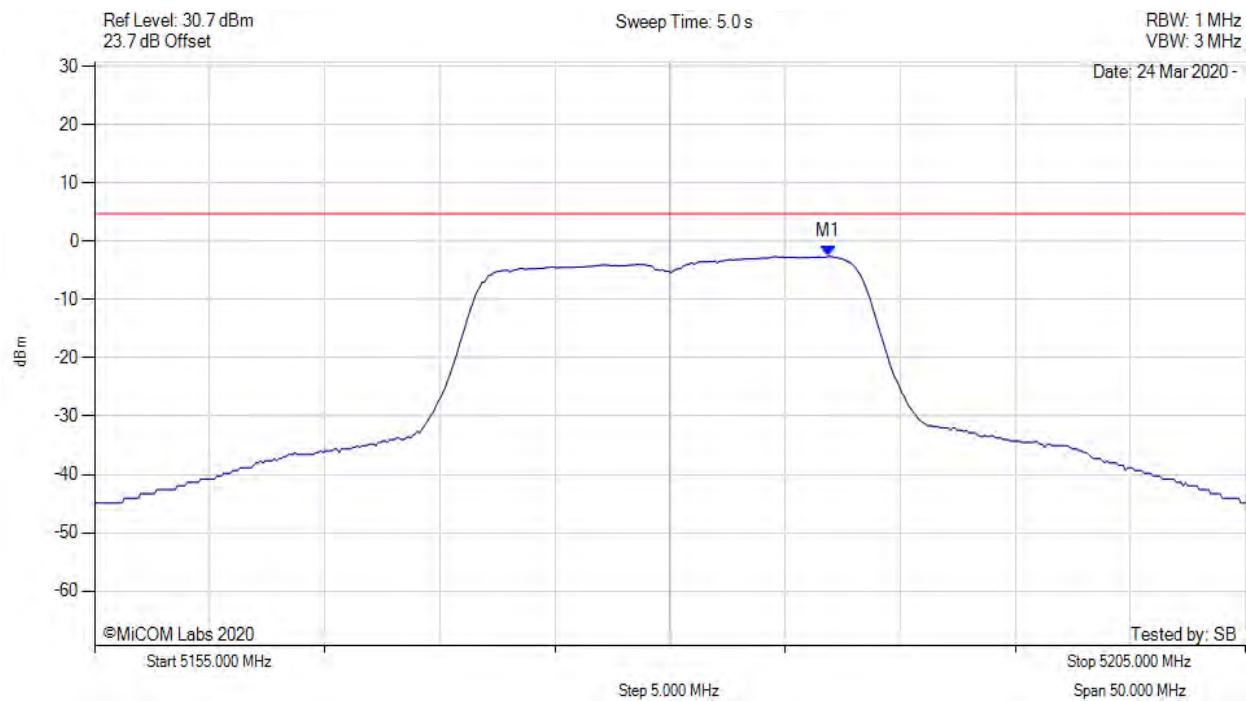
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 5184.960 MHz : 1.756 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5180.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



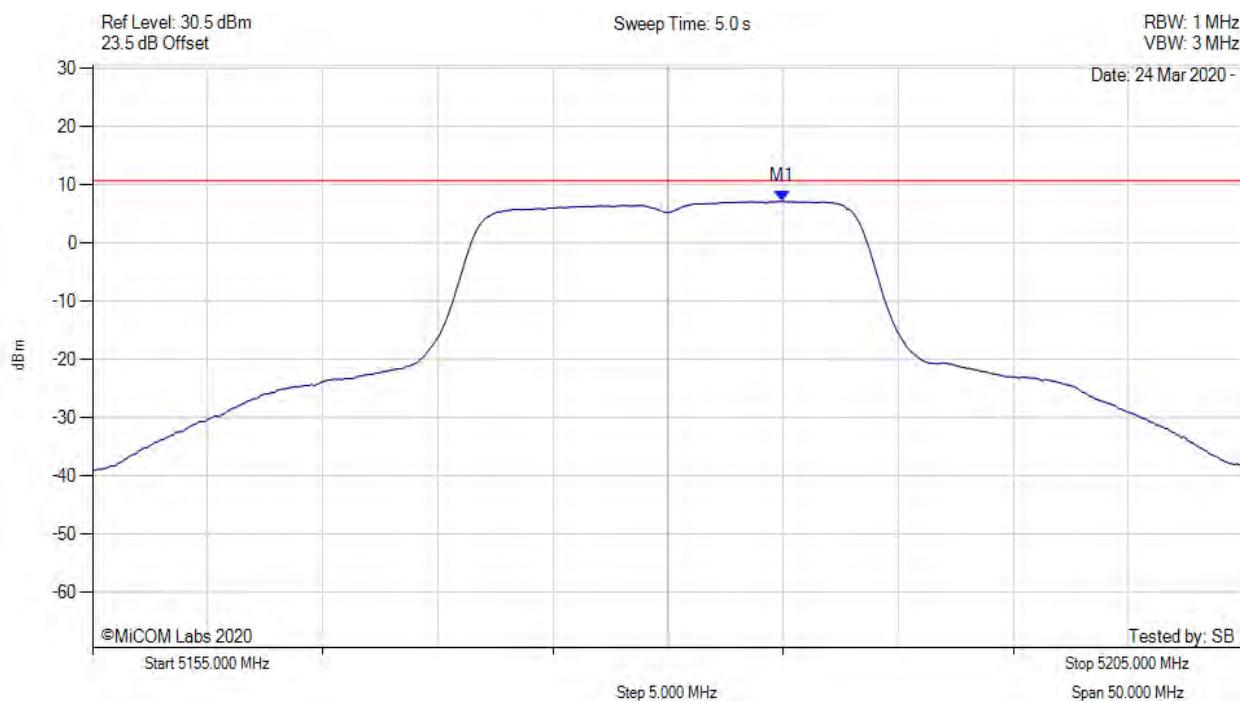
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 5186.864 MHz : -2.560 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5180.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



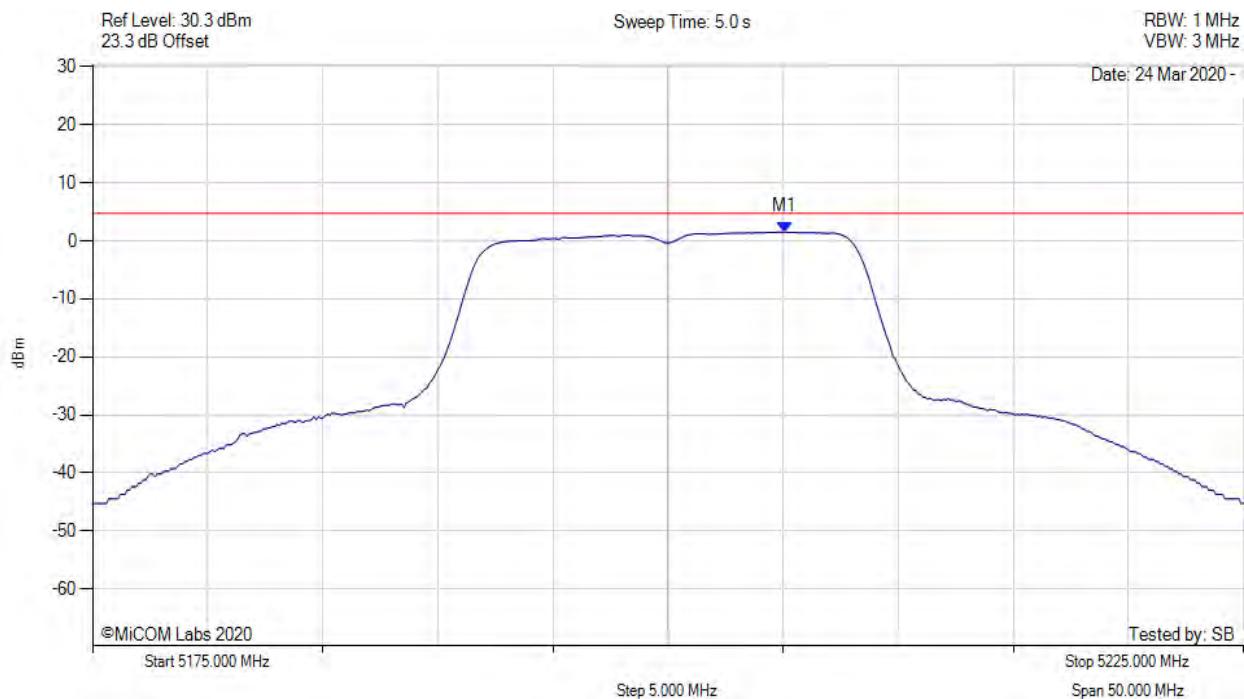
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 5185.000 MHz : 7.157 dBm M1 + DCCF : 5185.000 MHz : 10.202 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.7 dBm Margin: -0.5 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



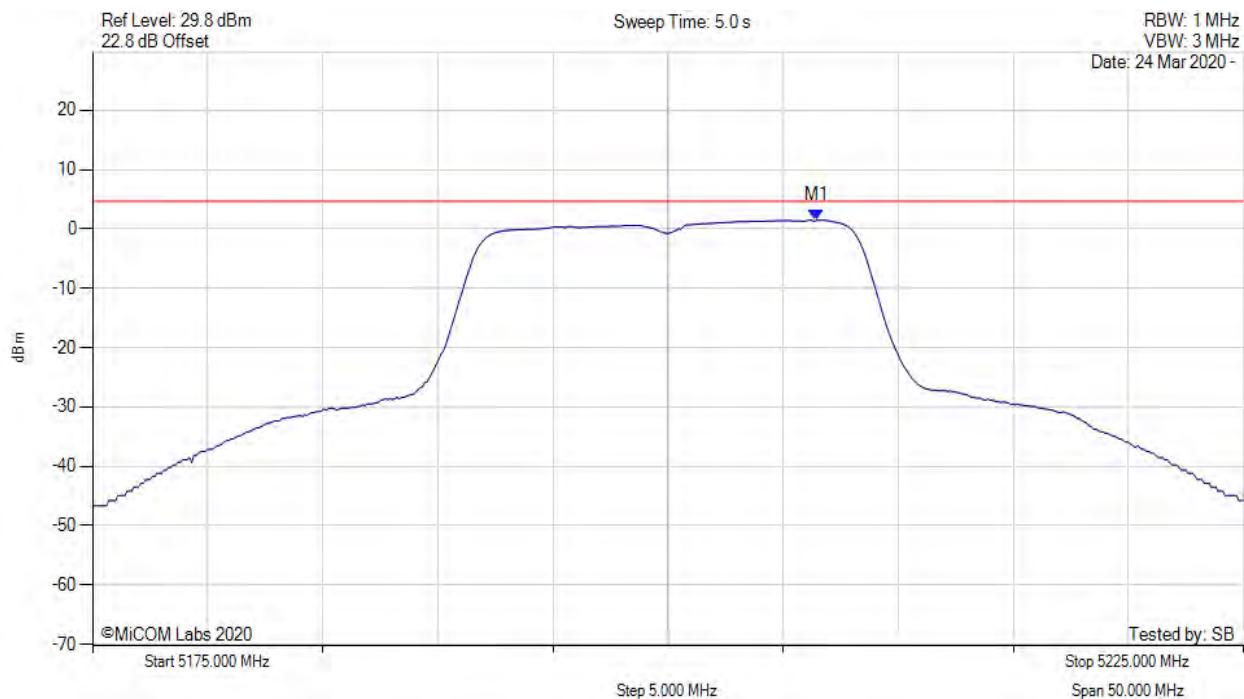
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.060 MHz : 1.508 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



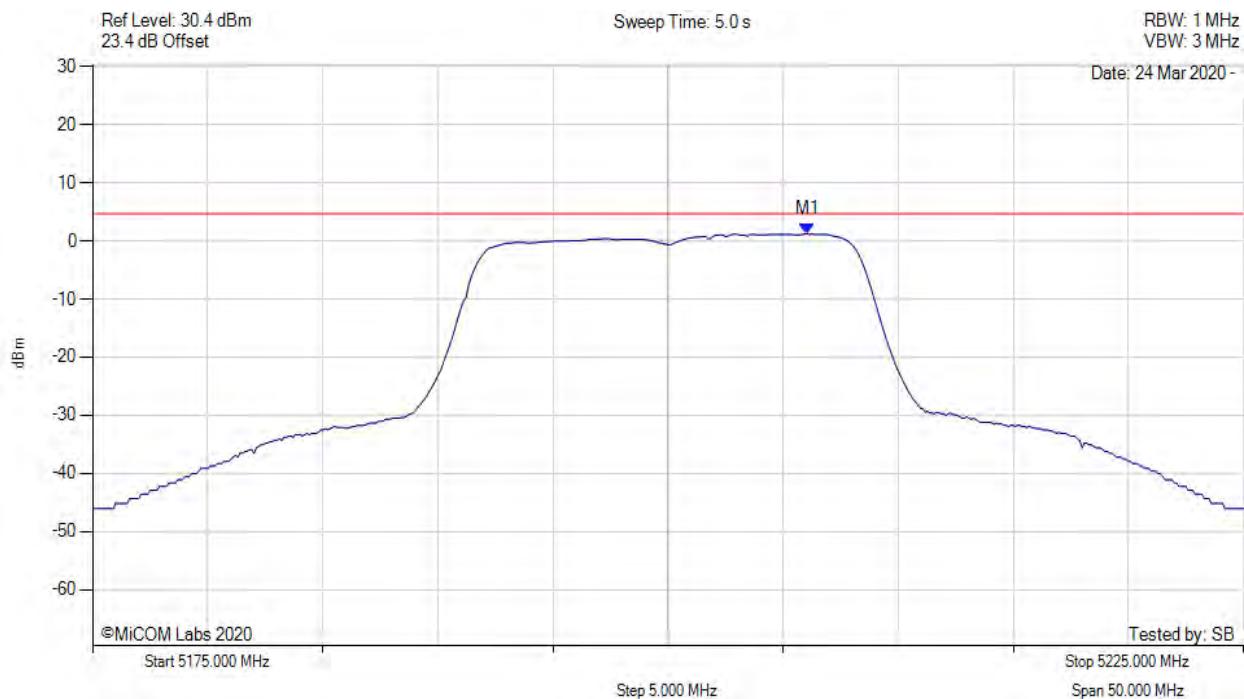
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.463 MHz : 1.488 dBm	Channel Frequency: 5200.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5200.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



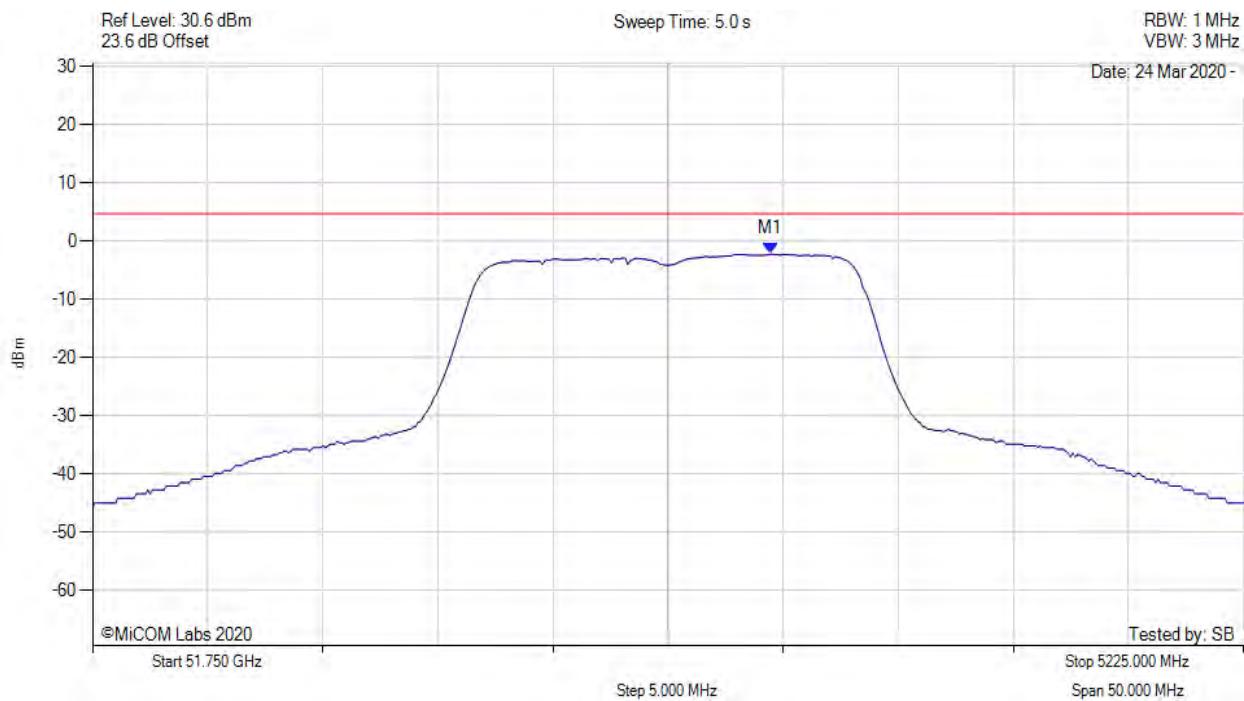
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.062 MHz : 1.221 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5200.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



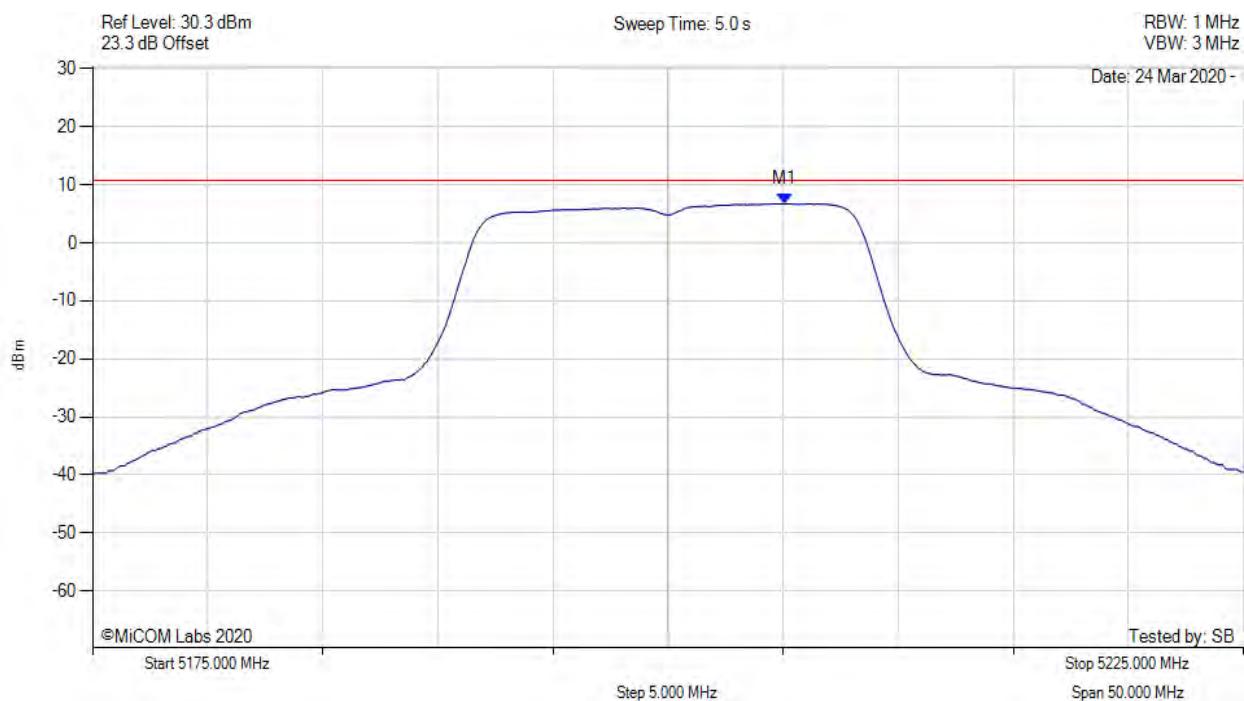
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5204.459 MHz : -2.212 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



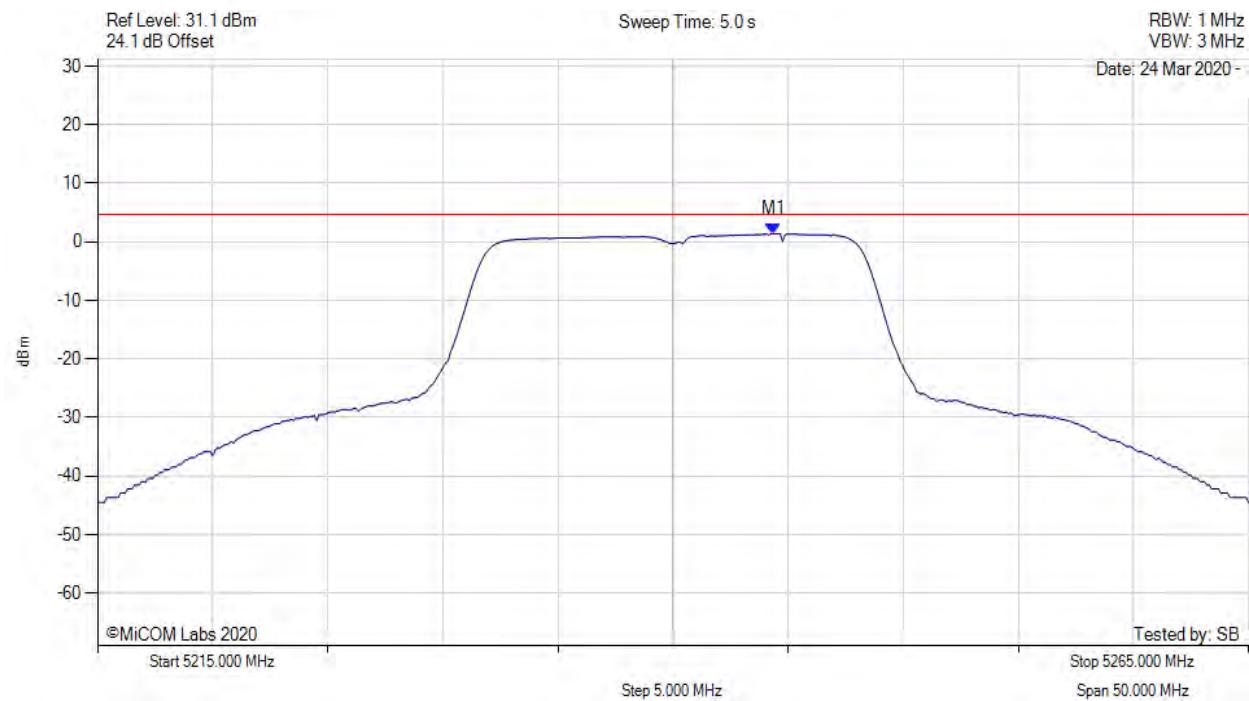
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.100 MHz : 6.706 dBm M1 + DCCF : 5205.100 MHz : 9.751 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.7 dBm Margin: -1.0 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



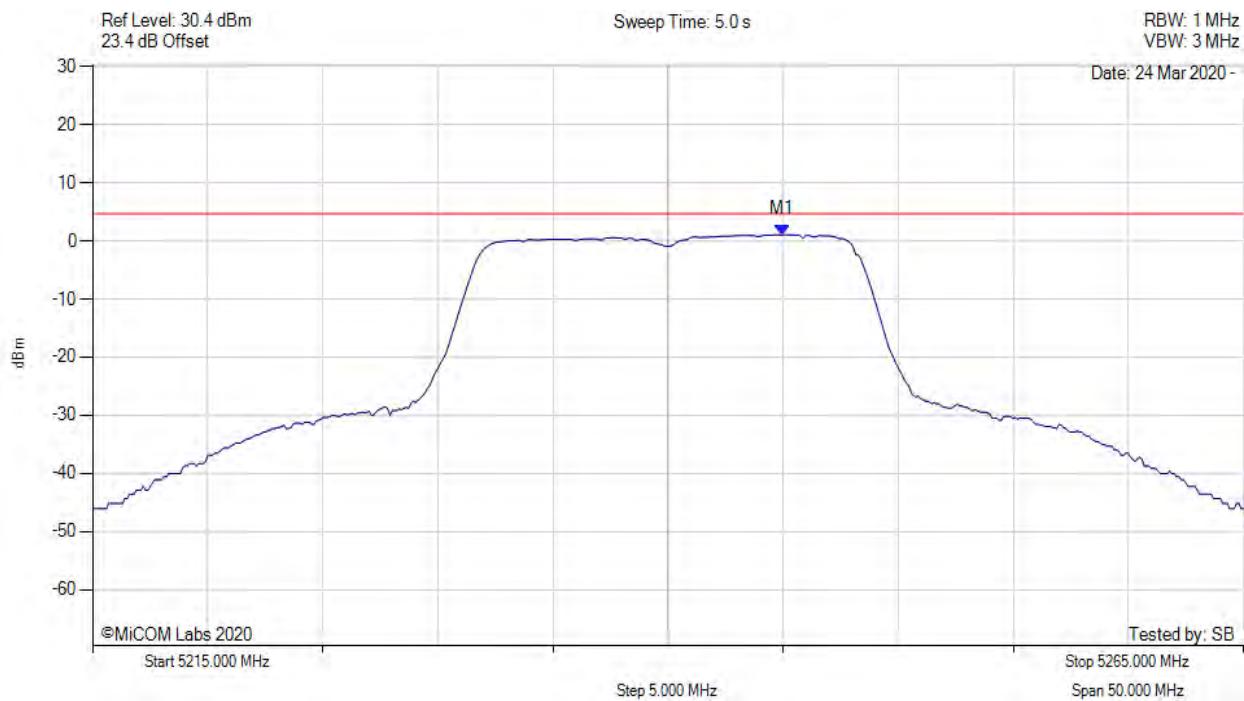
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.359 MHz : 1.411 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



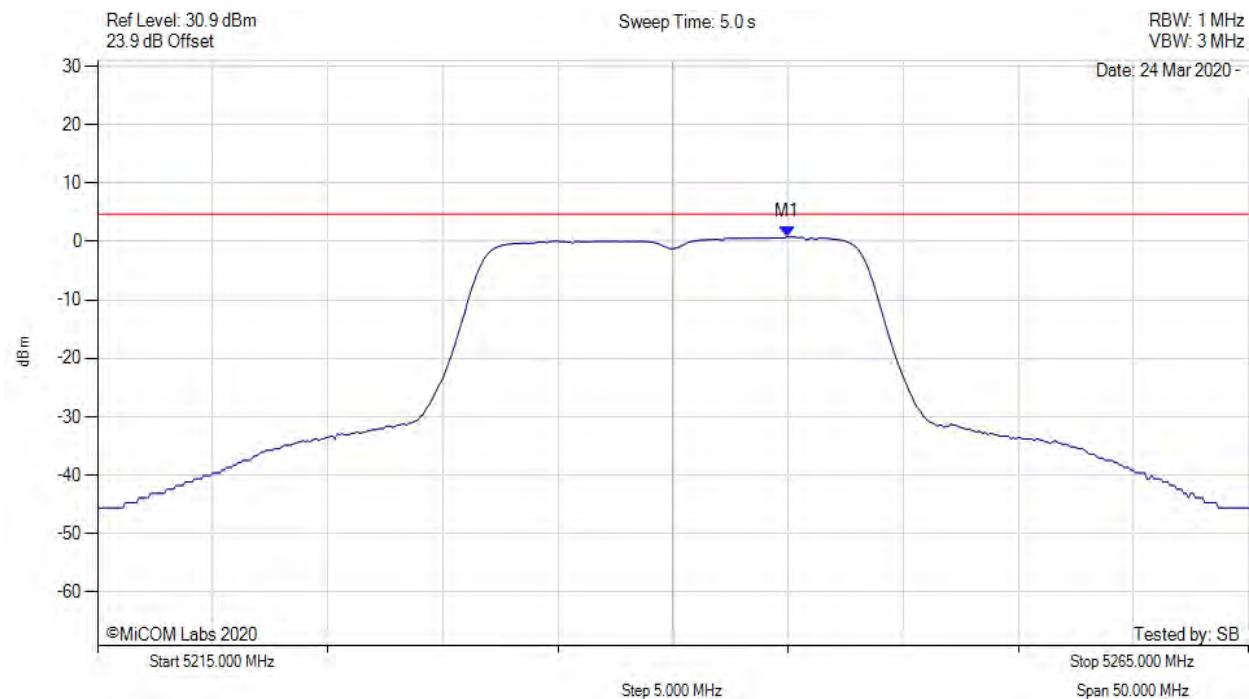
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.960 MHz : 1.070 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5240.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



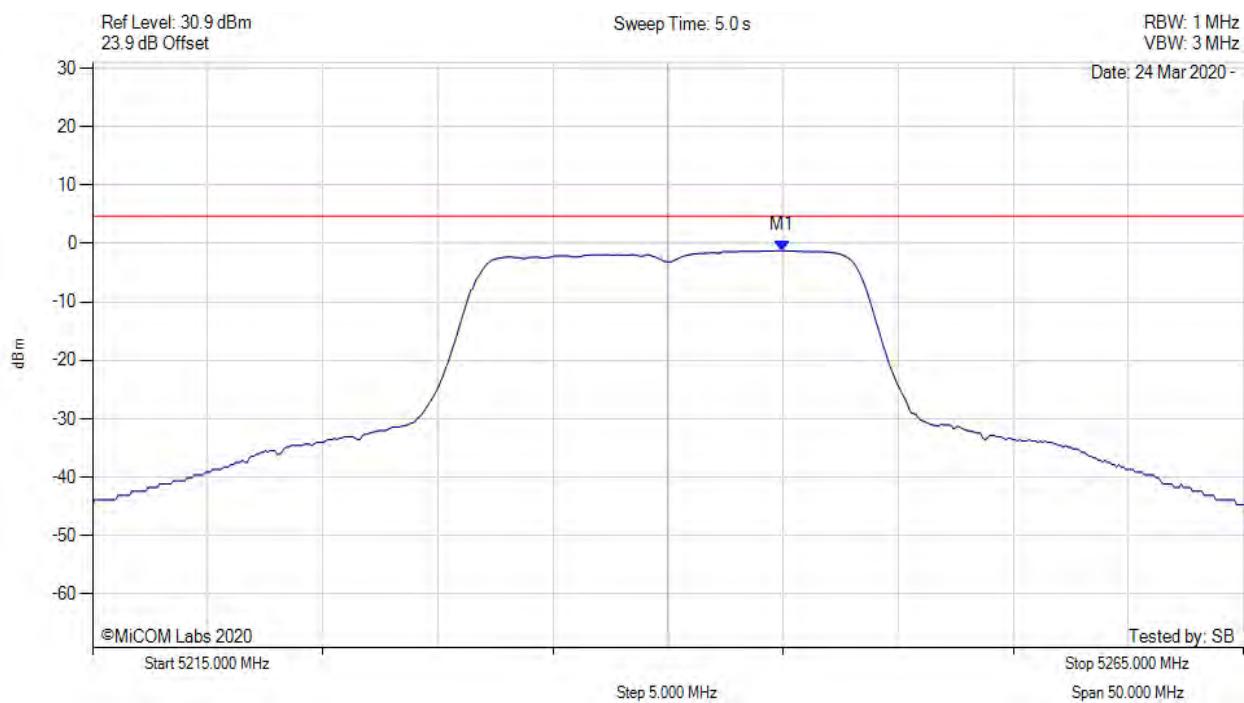
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.960 MHz : 0.813 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5240.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



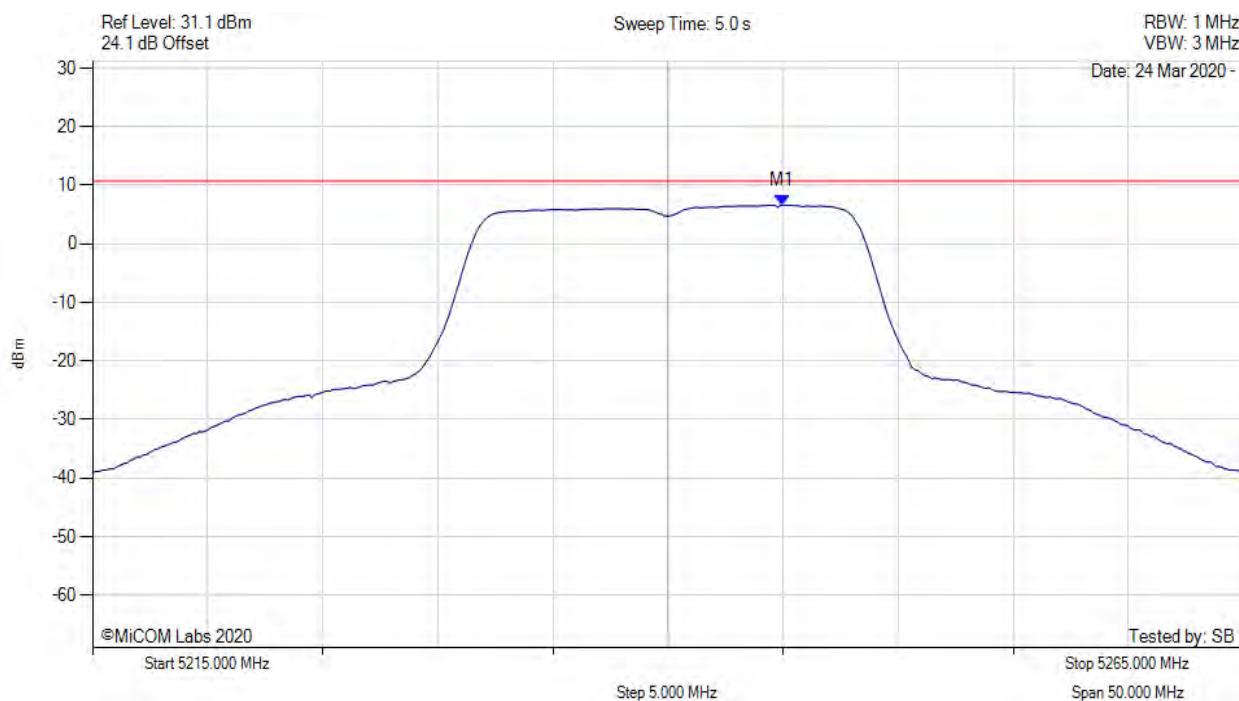
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.960 MHz : -1.219 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5240.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



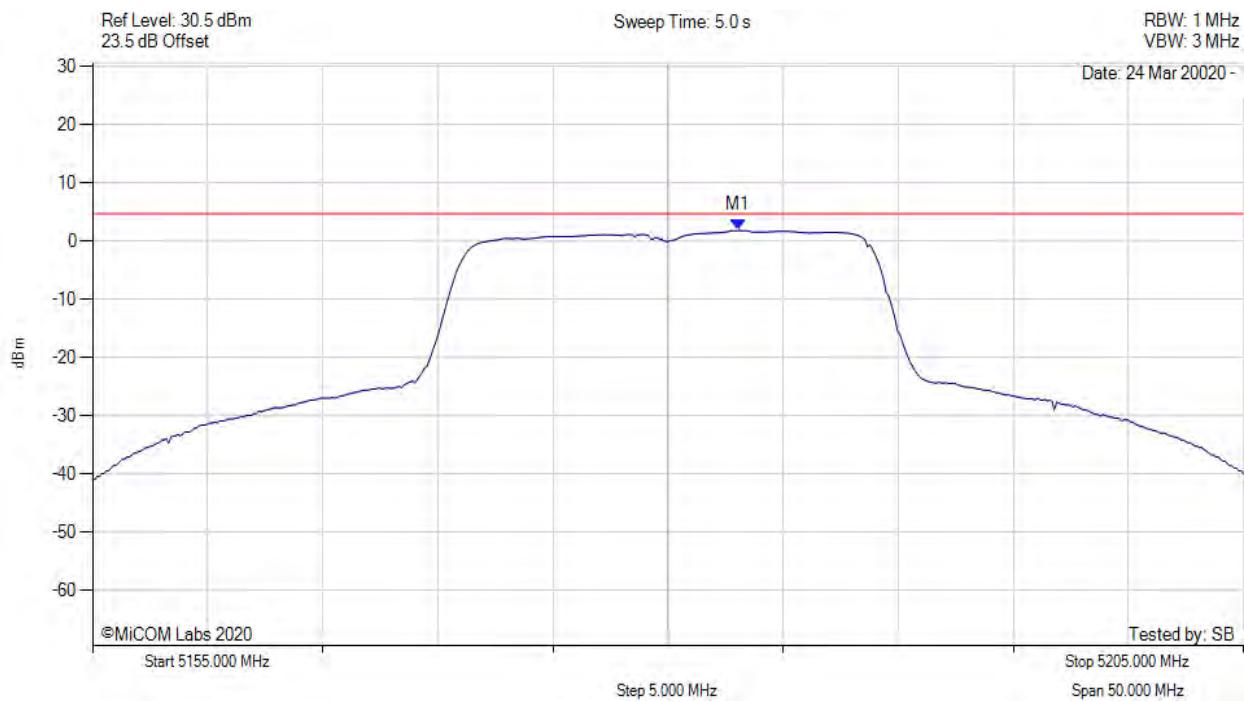
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5245.000 MHz : 6.629 dBm M1 + DCCF : 5245.000 MHz : 9.674 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.7 dBm Margin: -1.0 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



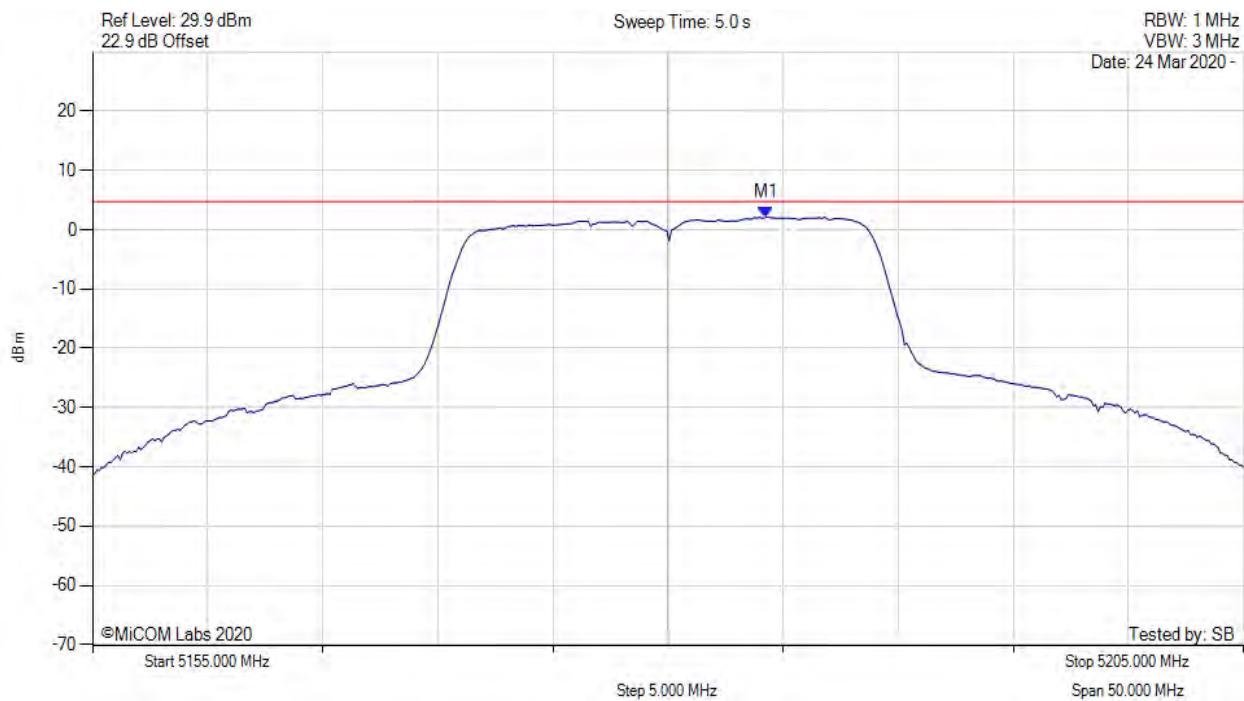
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5183.056 MHz : 1.819 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



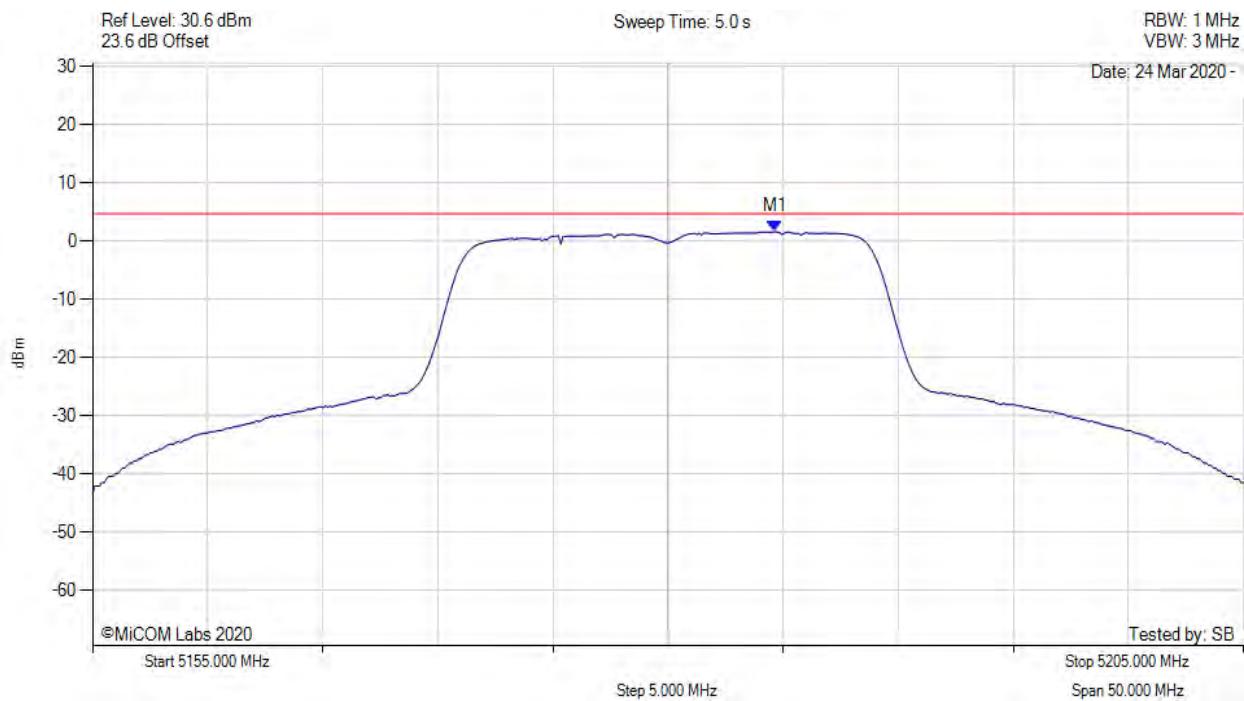
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.259 MHz : 2.160 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



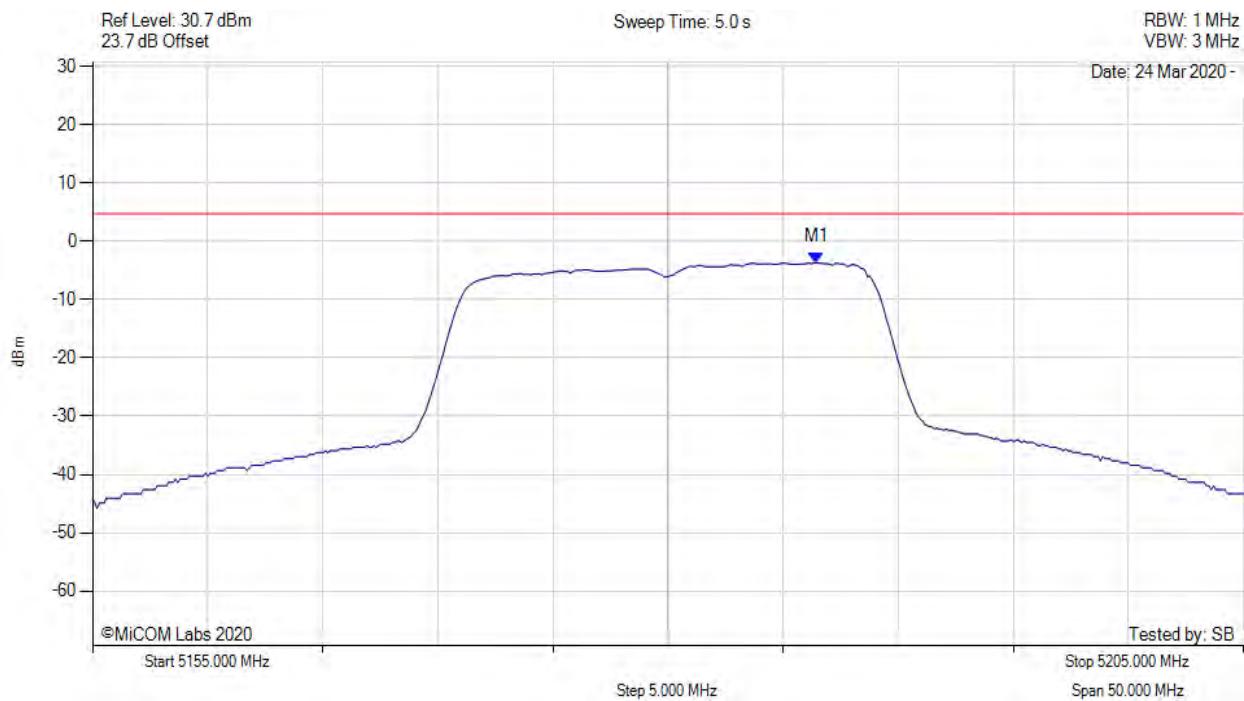
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.659 MHz : 1.610 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5180.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



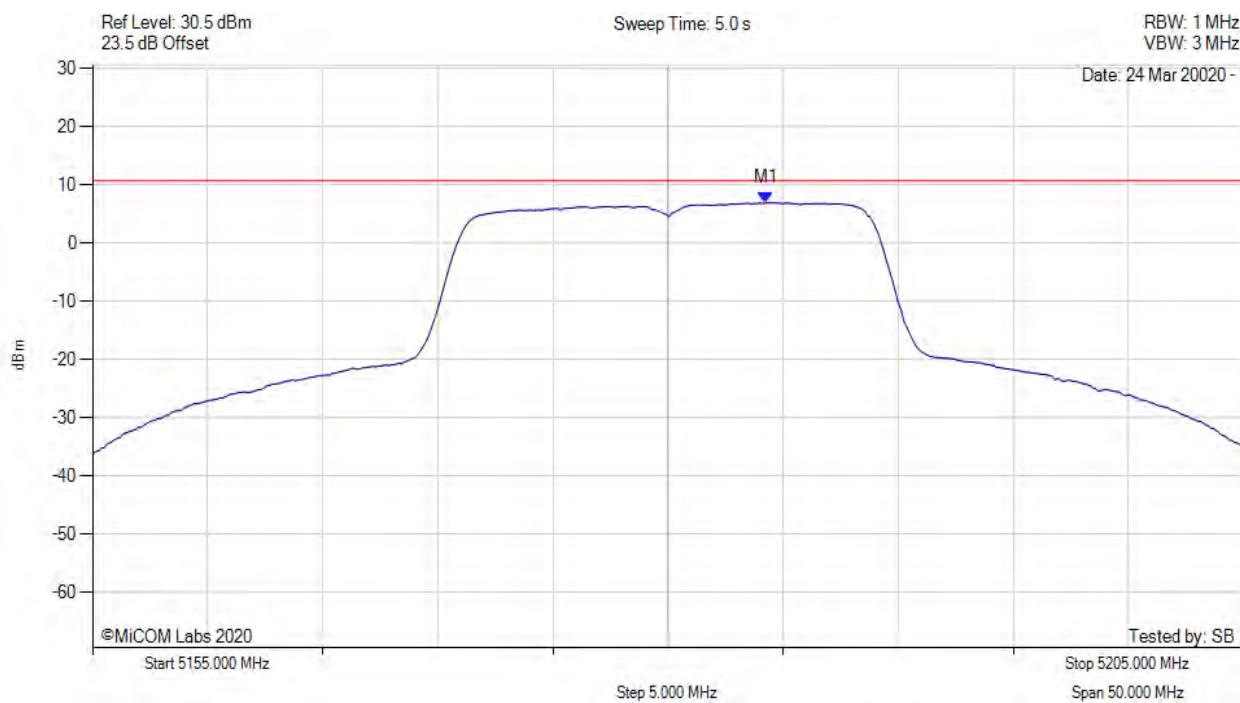
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5186.463 MHz : -3.629 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5180.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



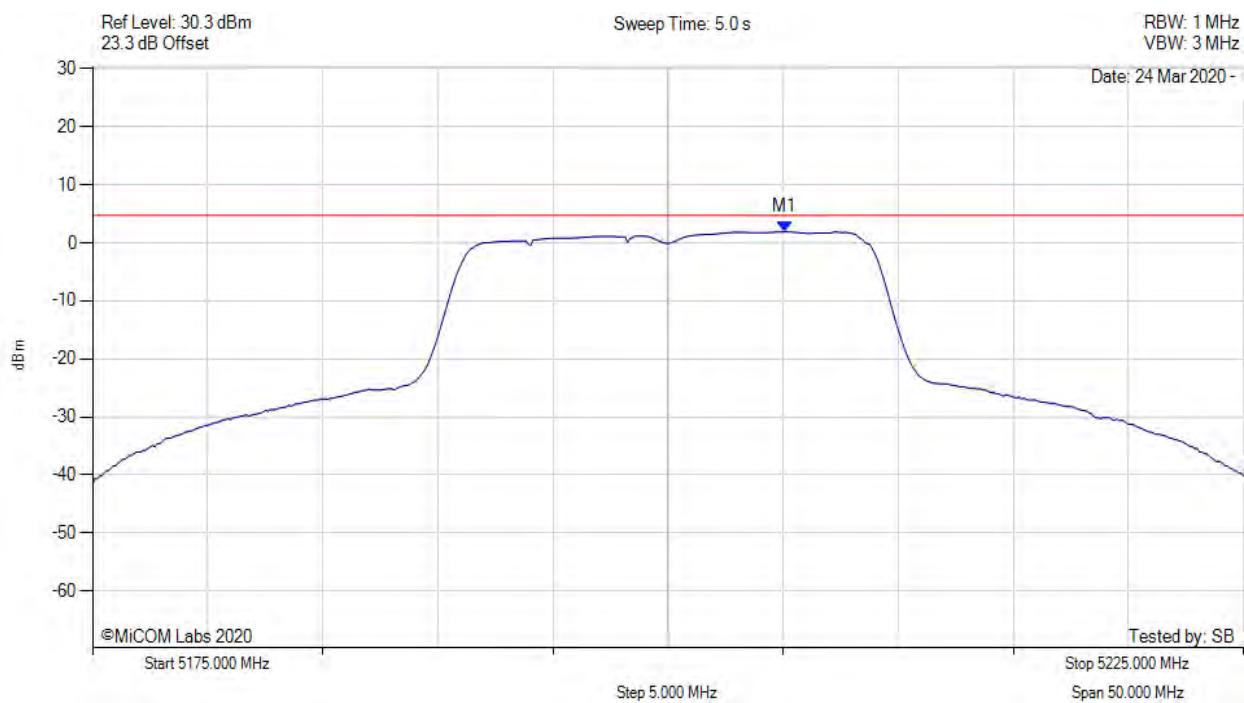
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5184.300 MHz : 6.923 dBm M1 + DCCF : 5184.300 MHz : 10.048 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.7 dBm Margin: -0.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



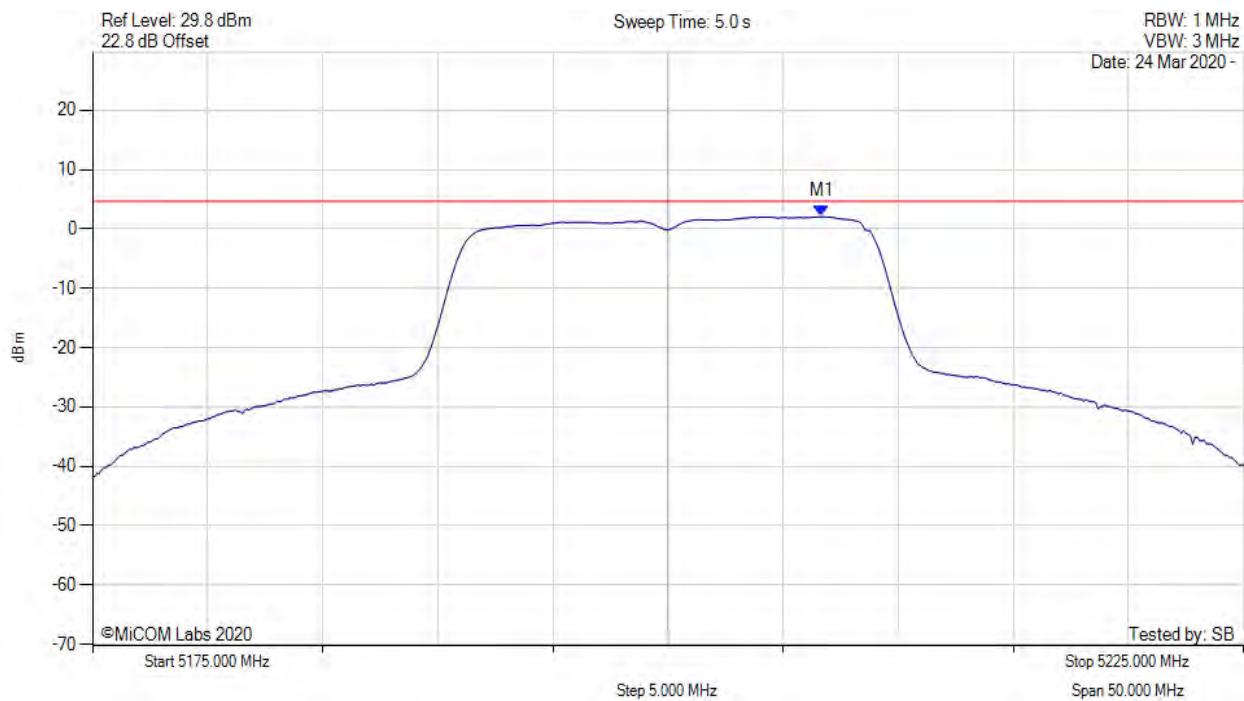
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5205.060 MHz : 1.909 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



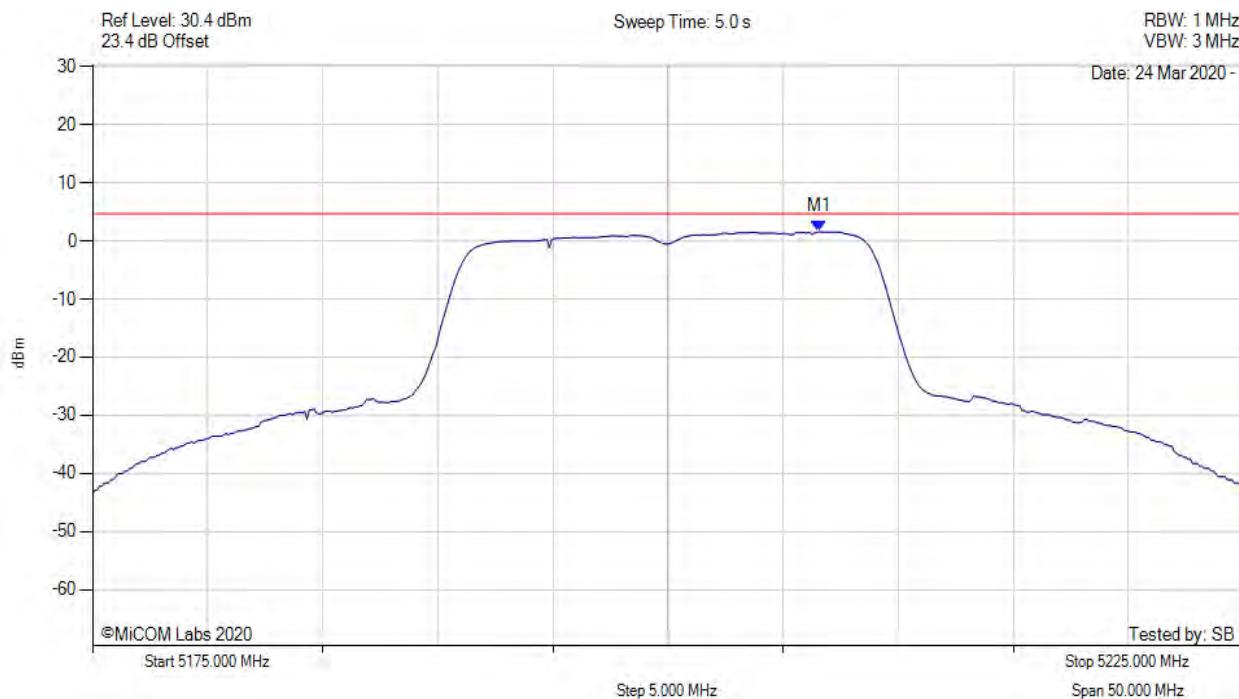
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.663 MHz : 2.099 dBm	Channel Frequency: 5200.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



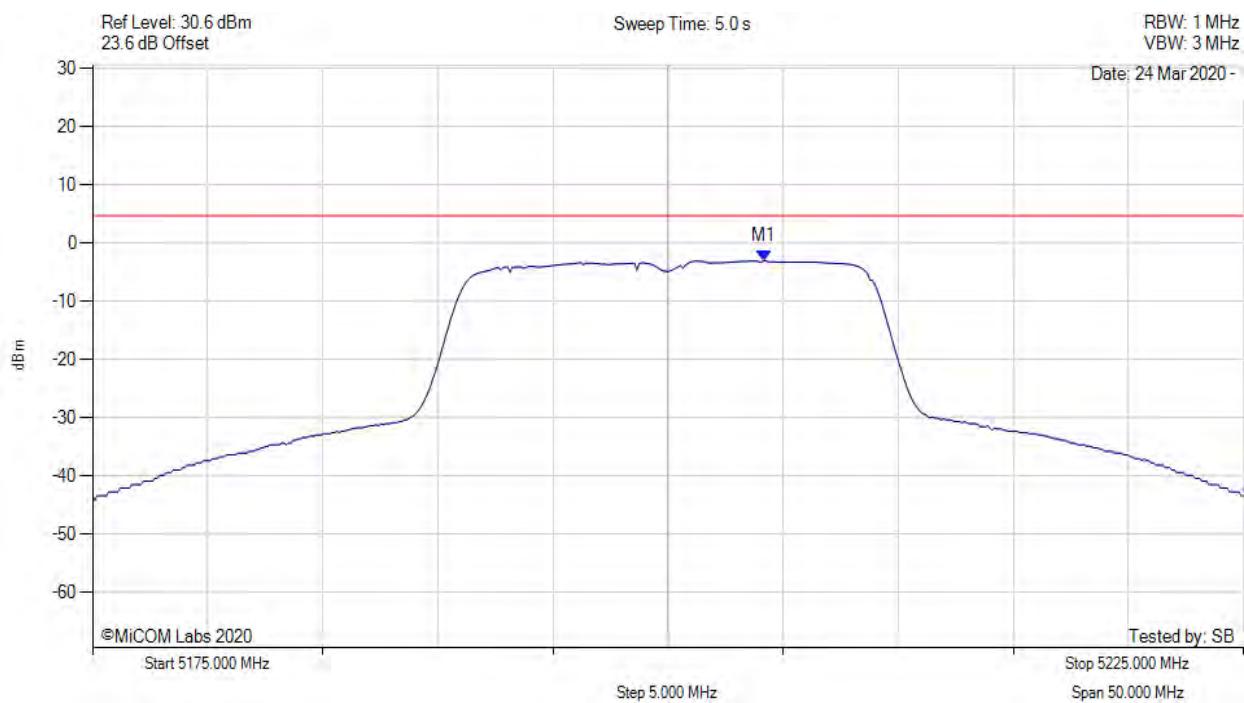
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.563 MHz : 1.592 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5200.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



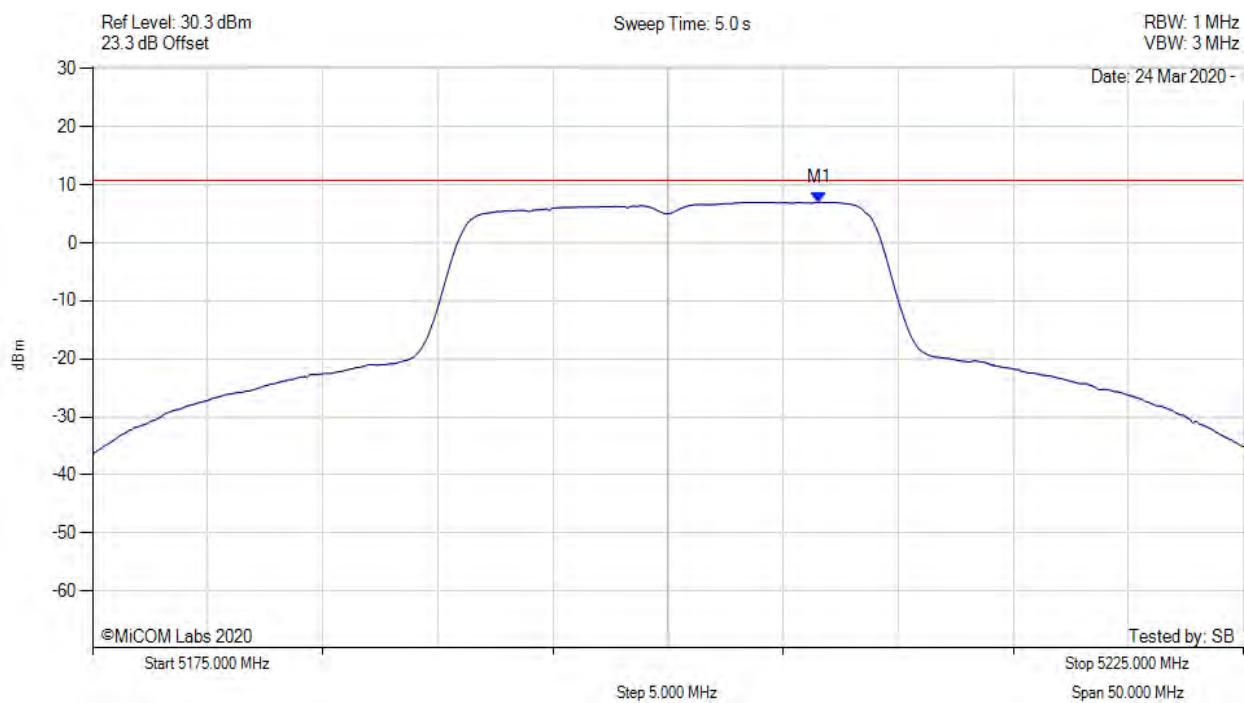
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5204.158 MHz : -3.013 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5200.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



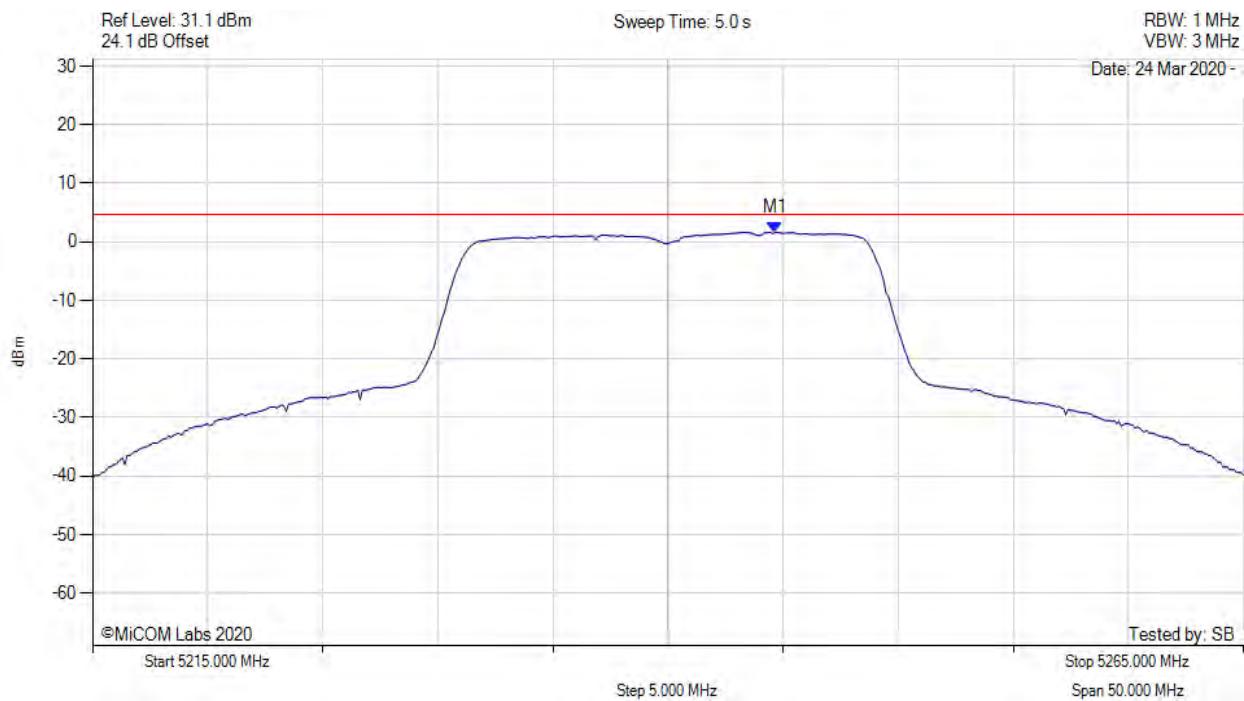
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5206.600 MHz : 6.980 dBm M1 + DCCF : 5206.600 MHz : 10.105 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.7 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



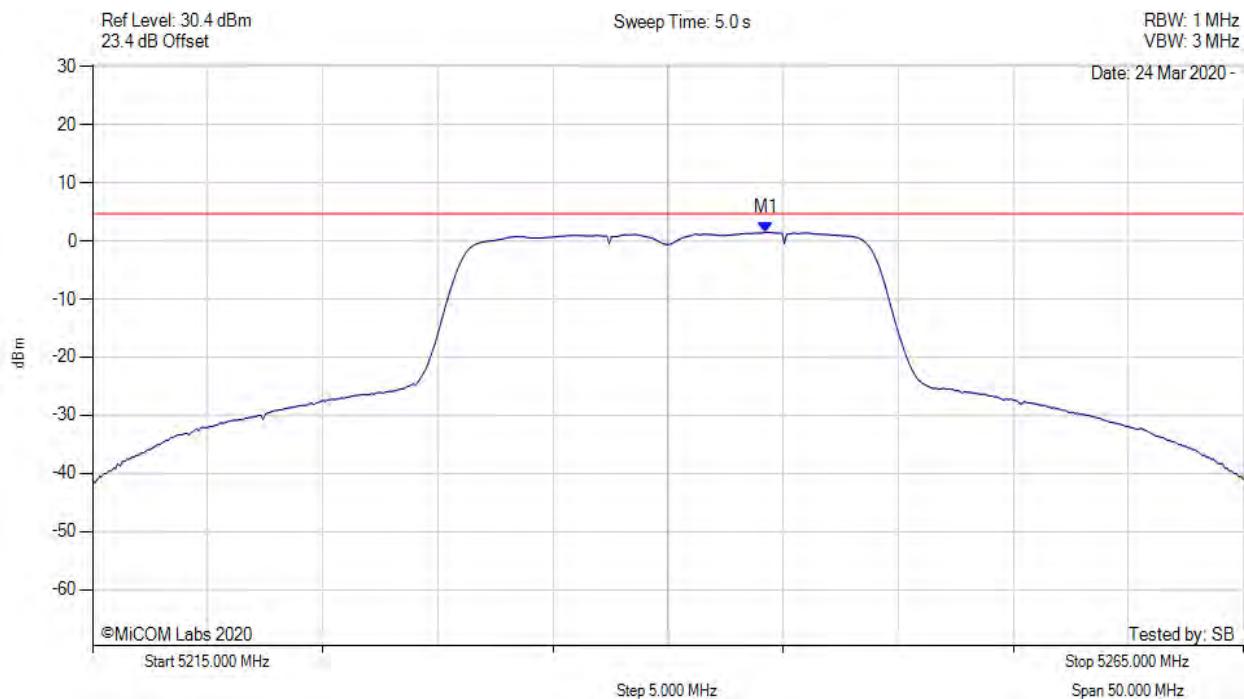
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.659 MHz : 1.620 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



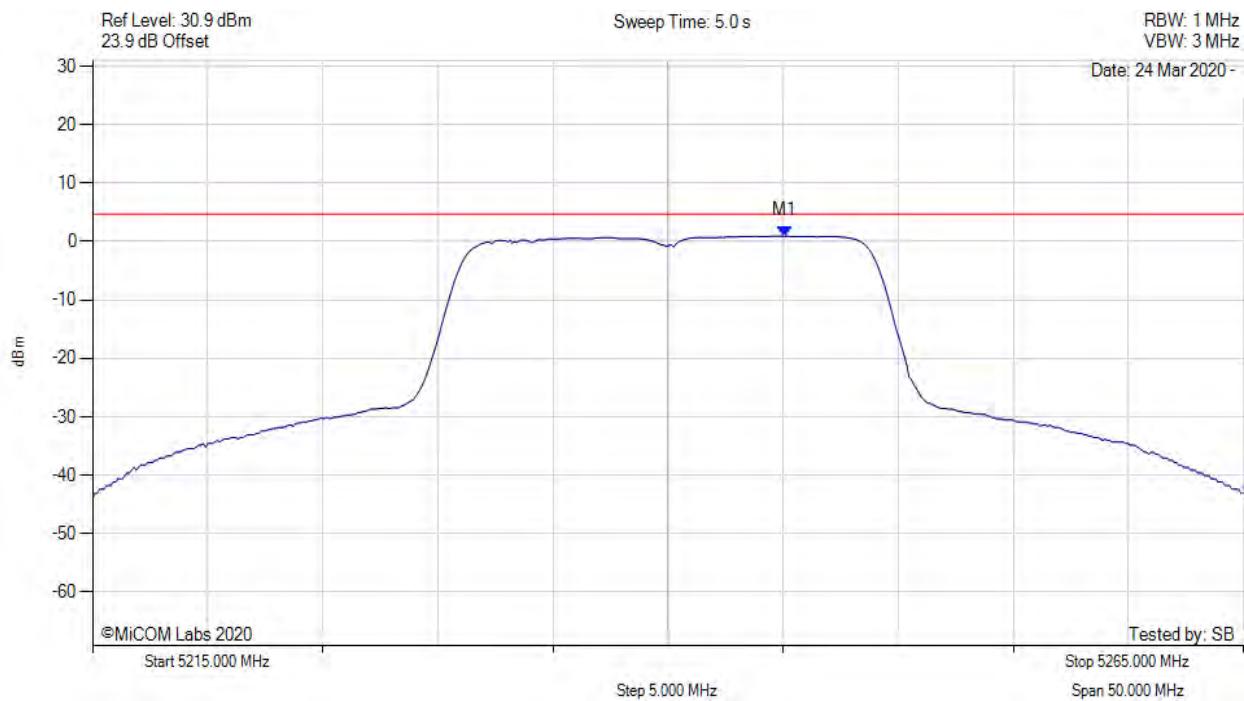
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.259 MHz : 1.500 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



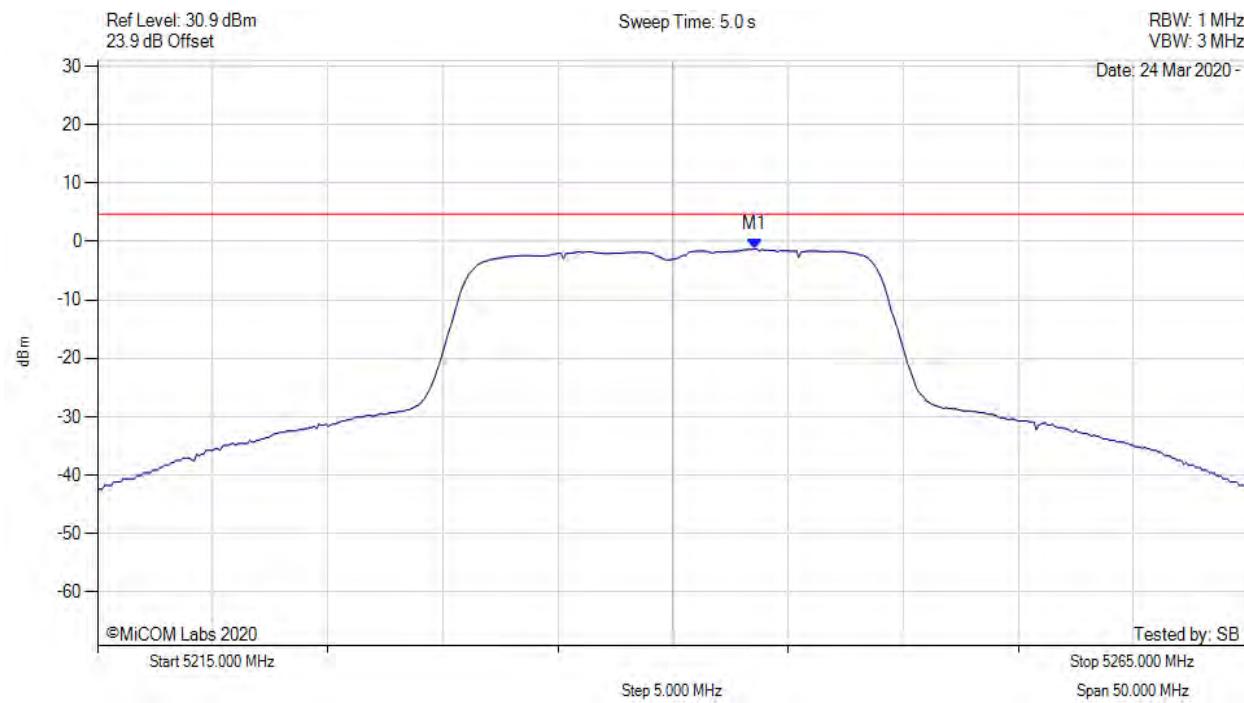
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5245.060 MHz : 0.937 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



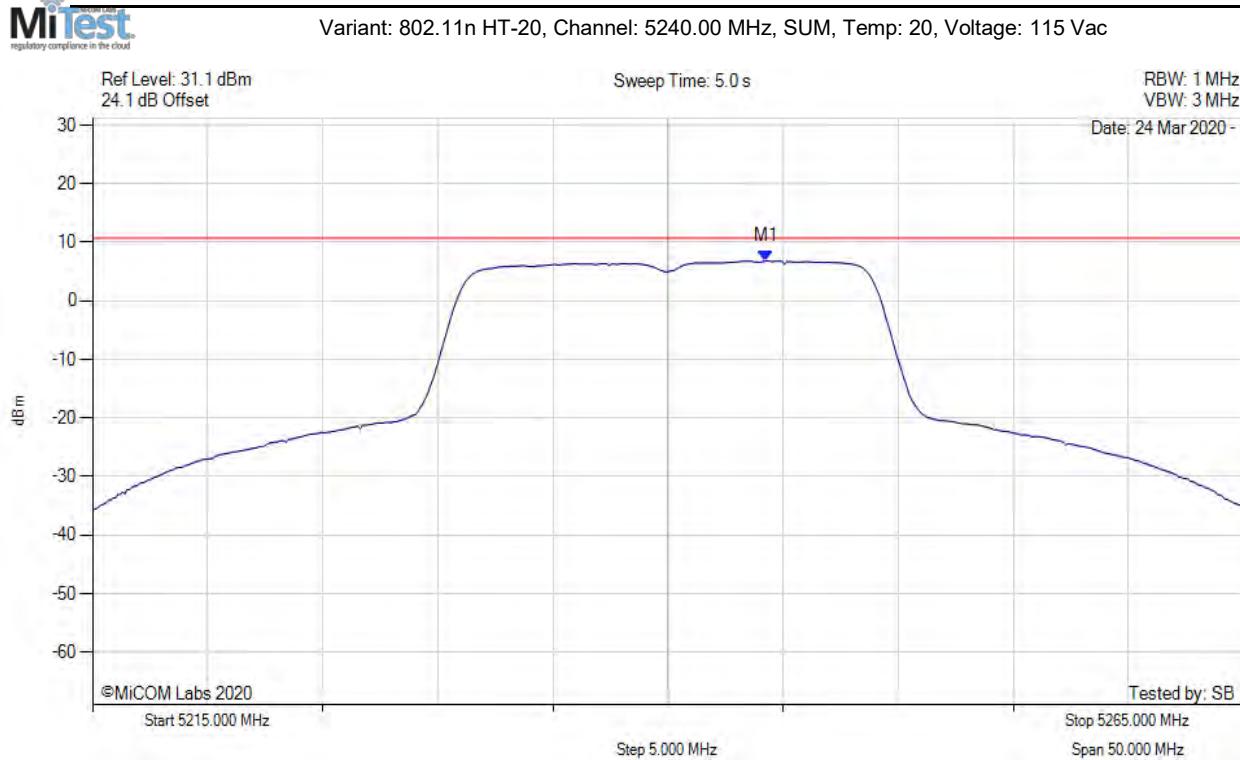
Variant: 802.11n HT-20, Channel: 5240.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5243.557 MHz : -1.289 dBm	Limit: ≤ 4.710 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



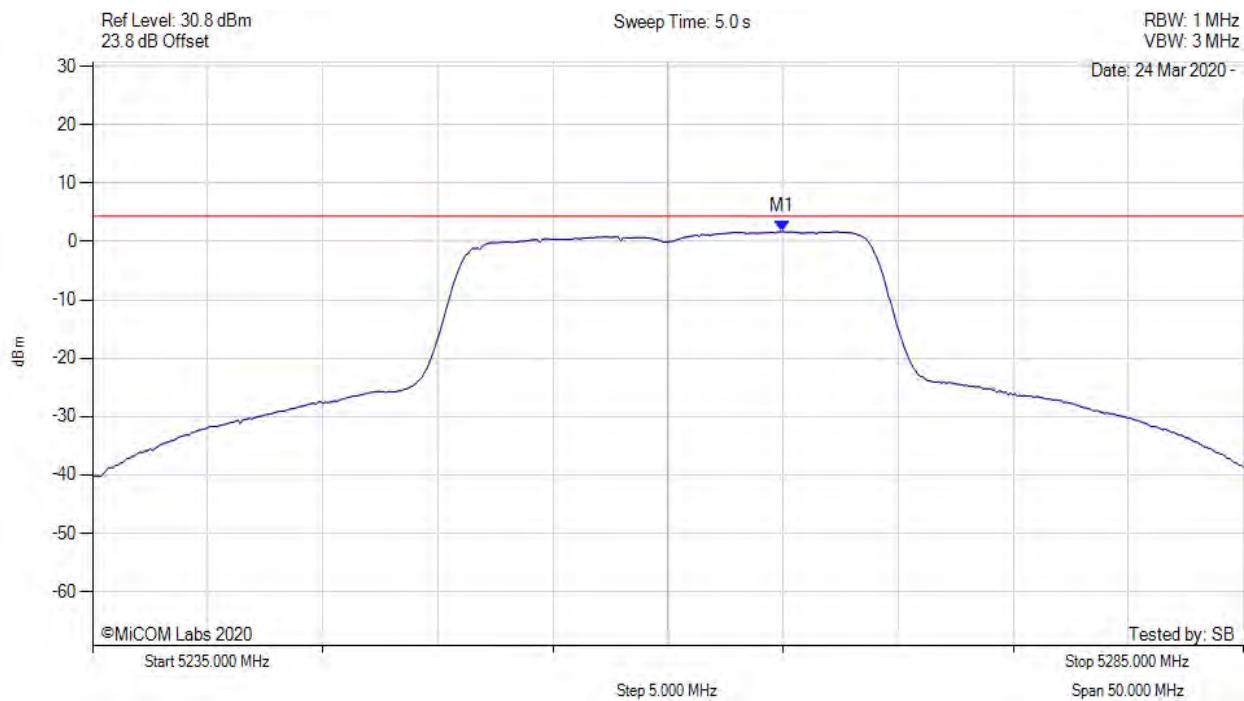
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5244.300 MHz : 6.797 dBm M1 + DCCF : 5244.300 MHz : 9.922 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.7 dBm Margin: -0.8 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



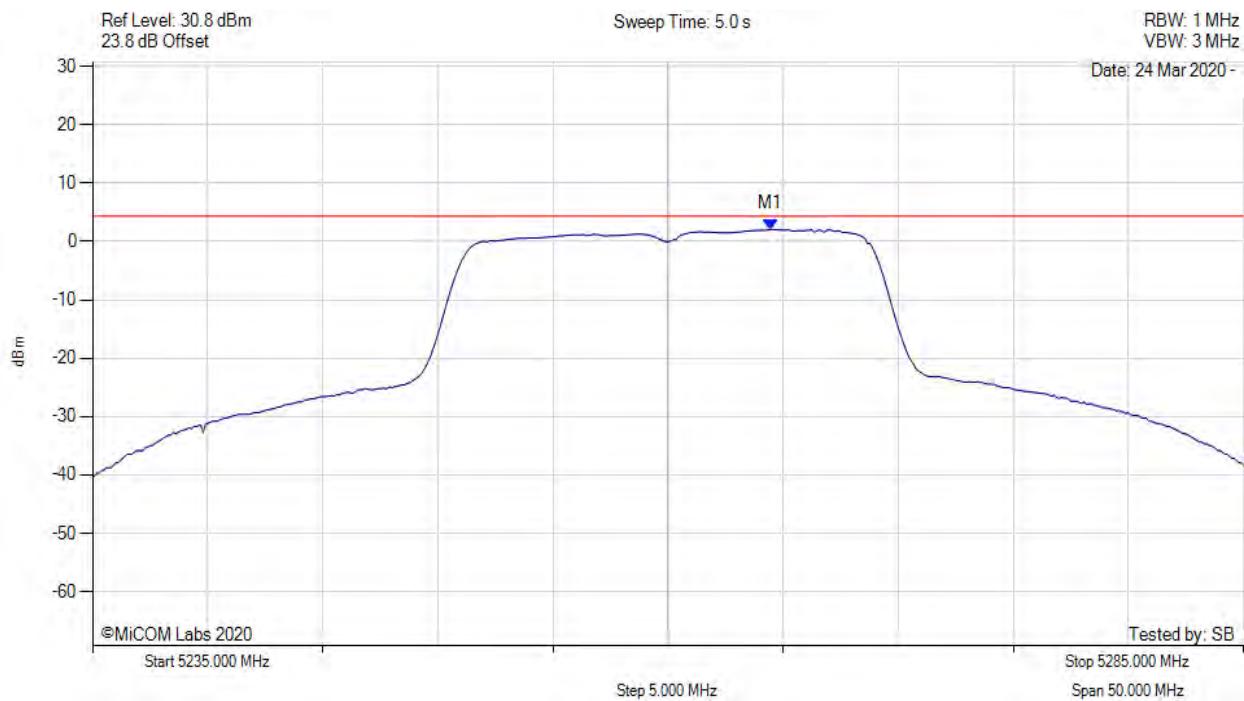
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5264.960 MHz : 1.687 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



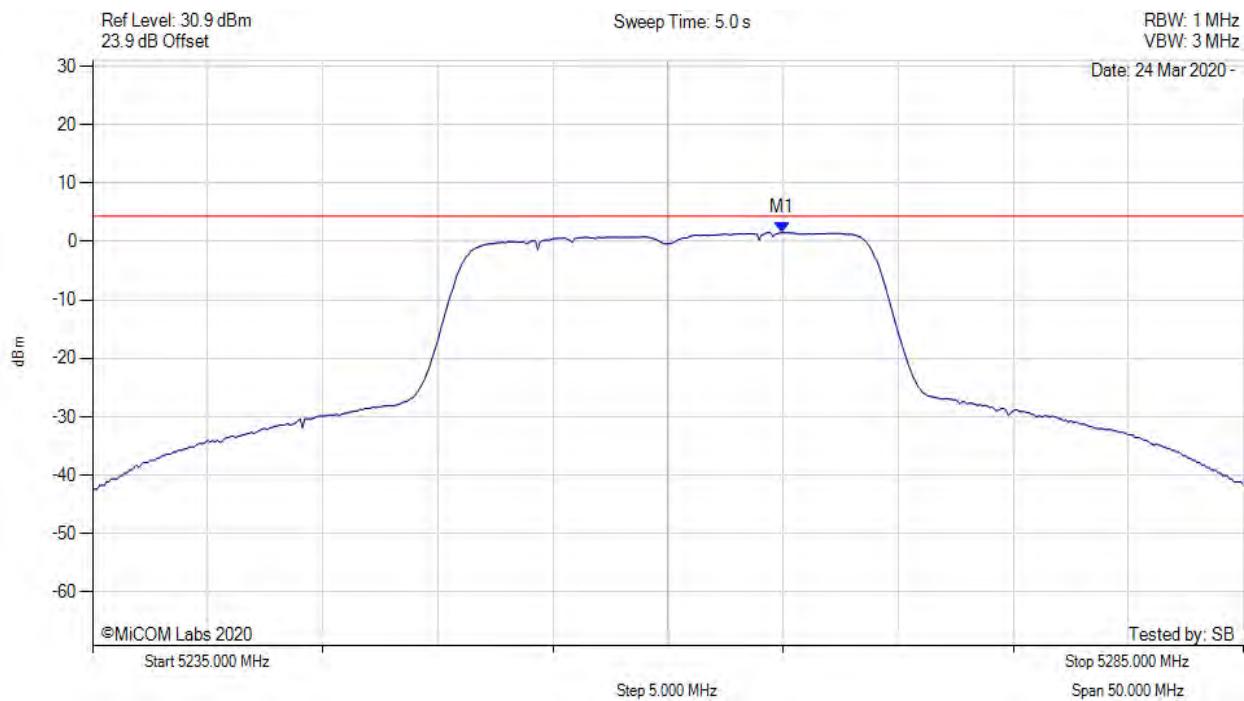
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5264.459 MHz : 2.091 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



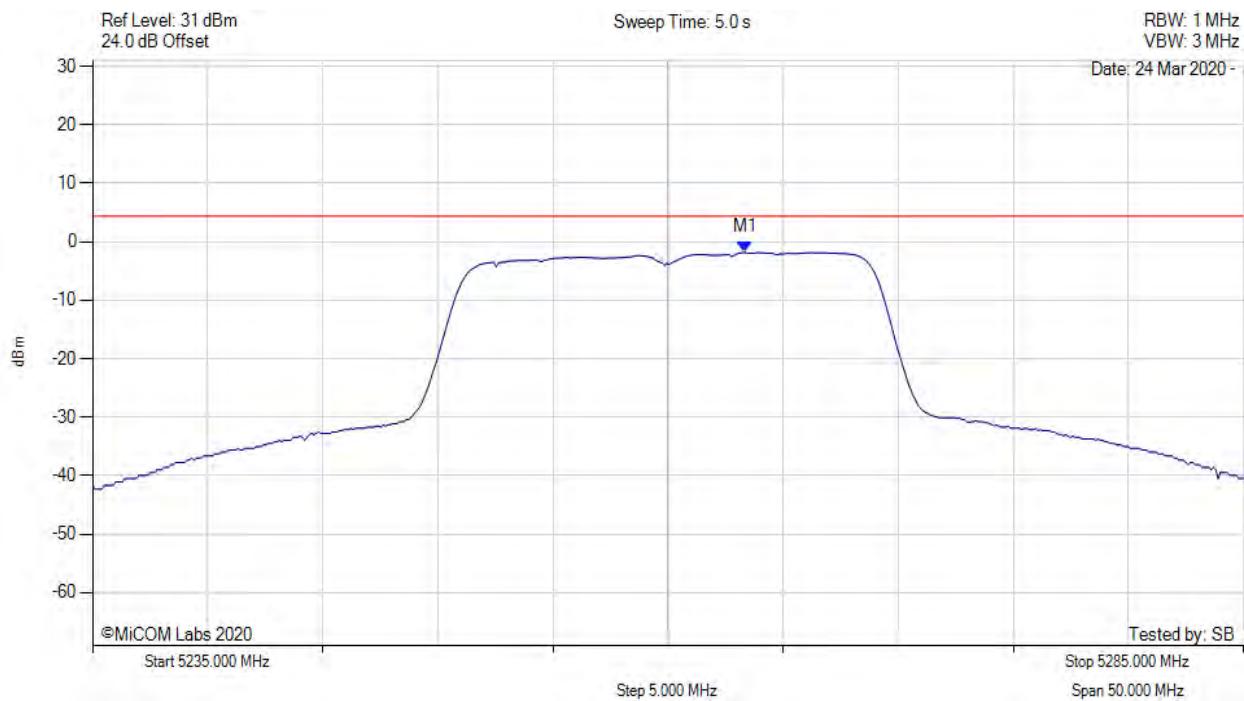
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5264.960 MHz : 1.561 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5260.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



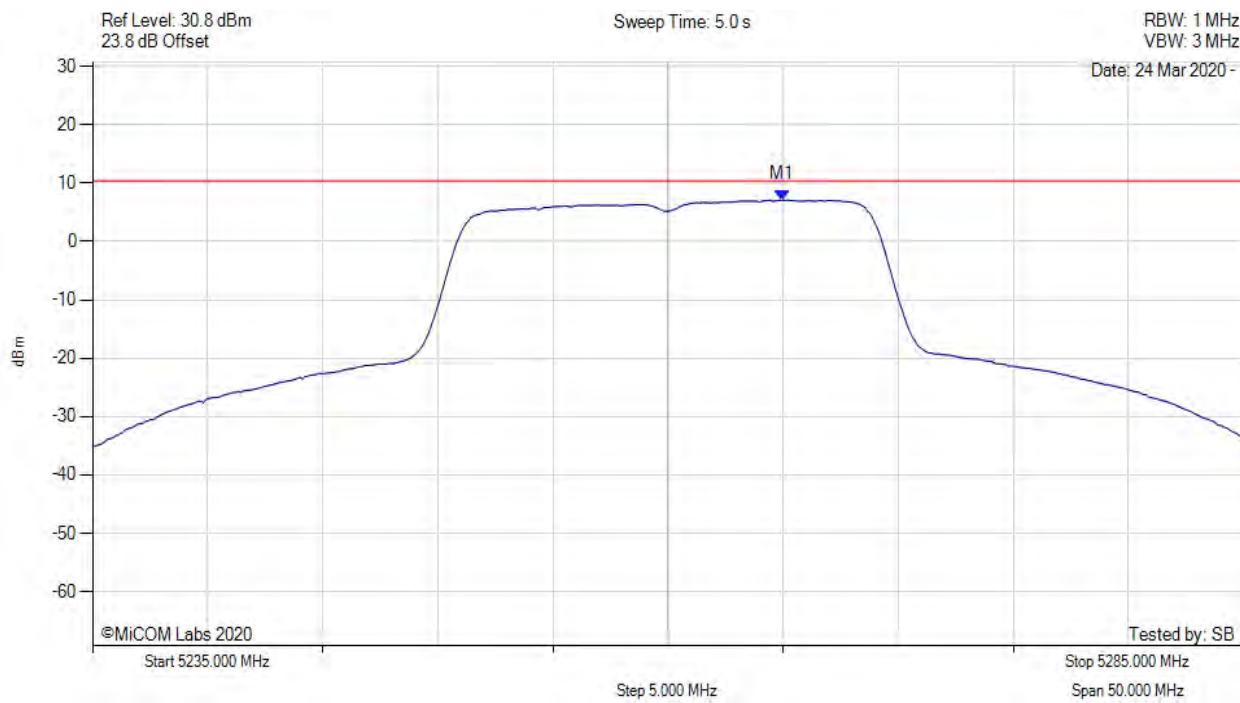
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5263.357 MHz : -1.812 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



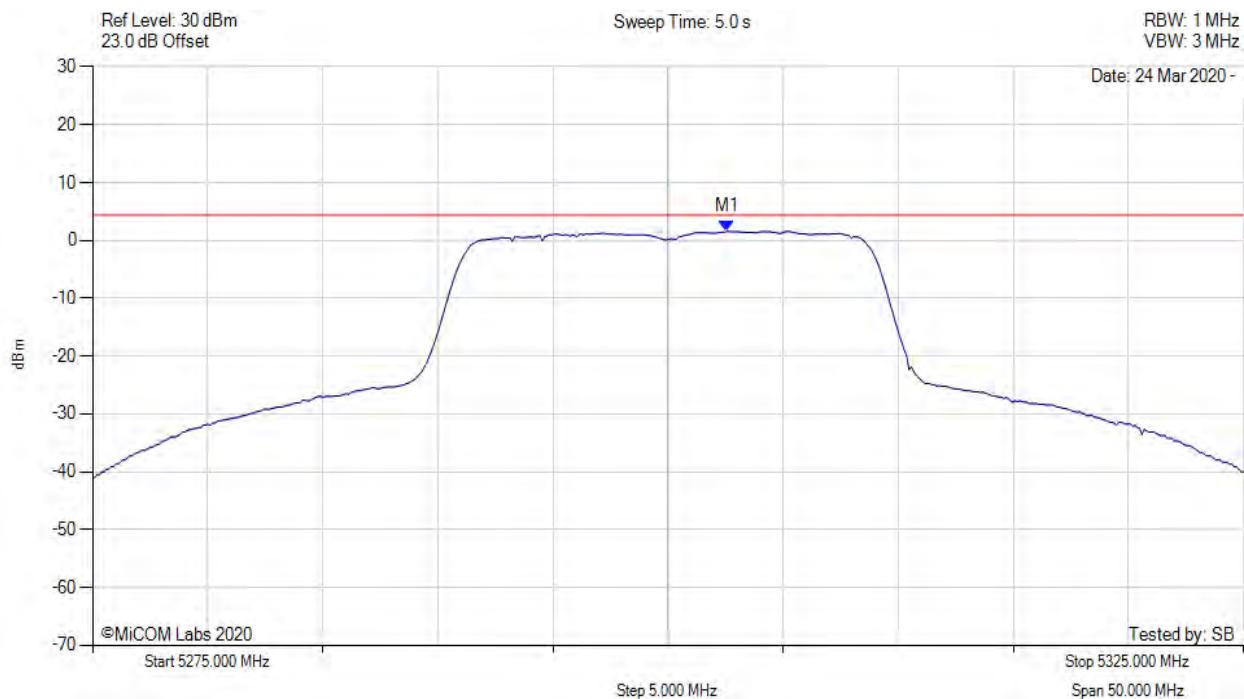
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5265.000 MHz : 7.085 dBm M1 + DCCF : 5265.000 MHz : 10.139 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.4 dBm Margin: -0.3 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



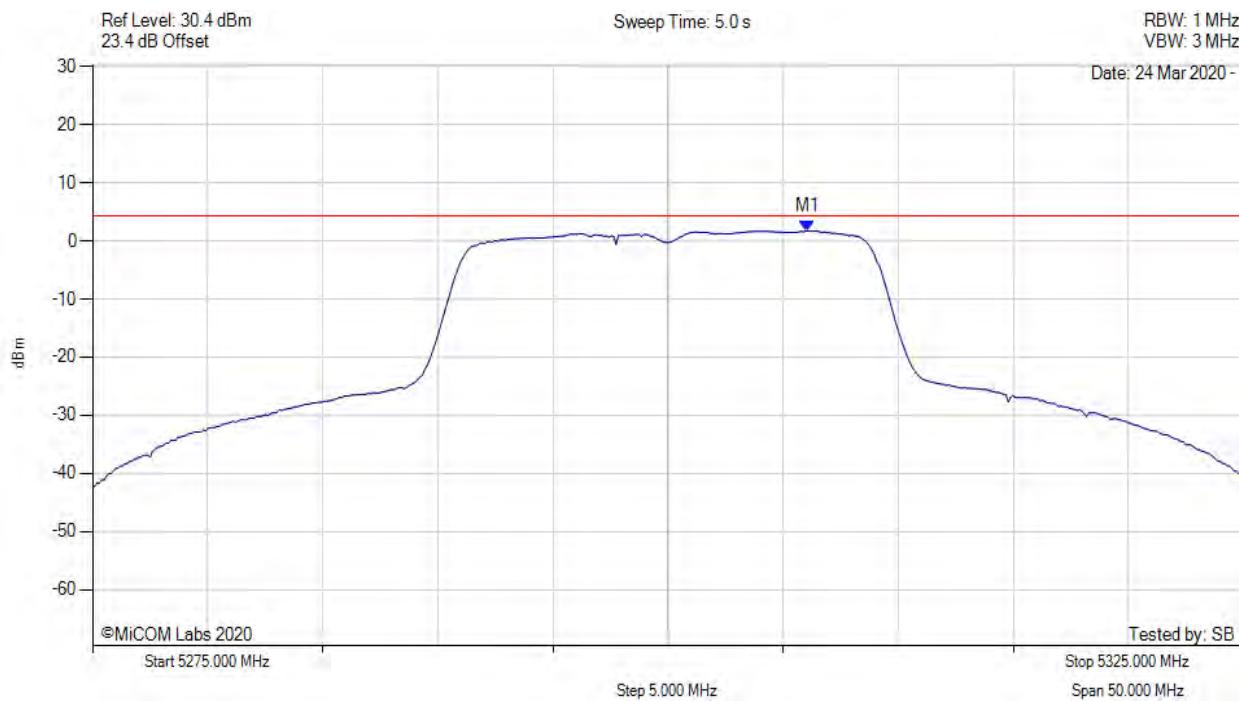
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.555 MHz : 1.590 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



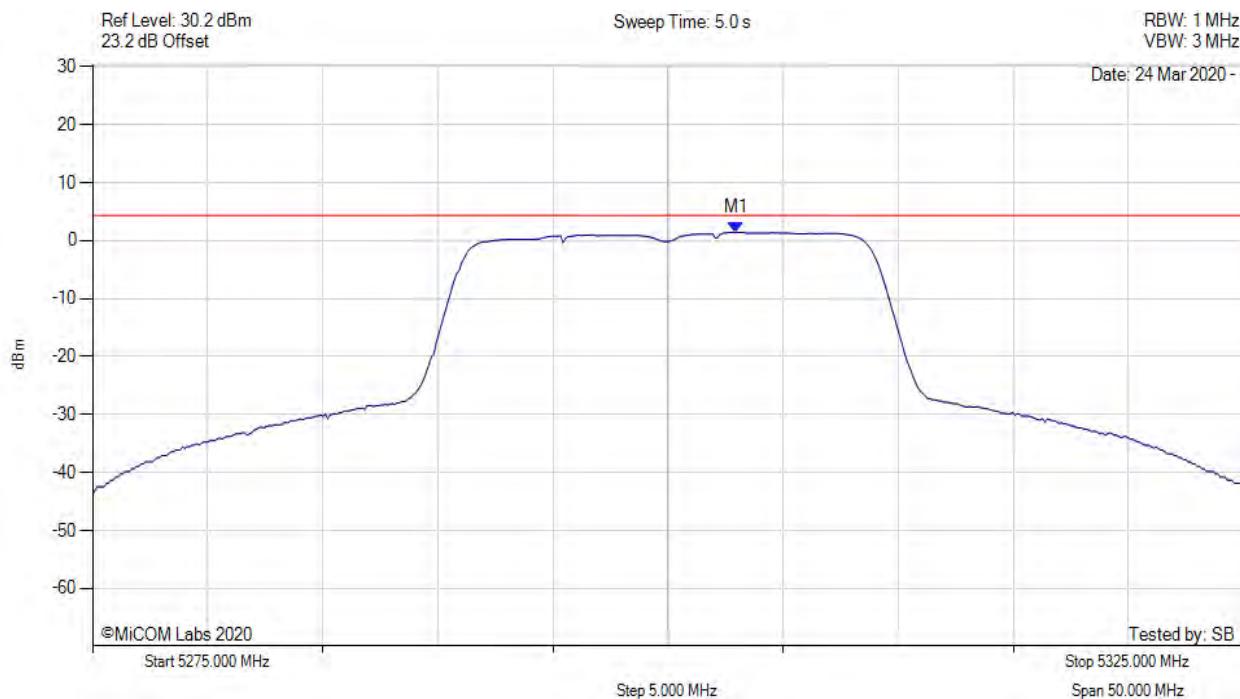
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5306.062 MHz : 1.719 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



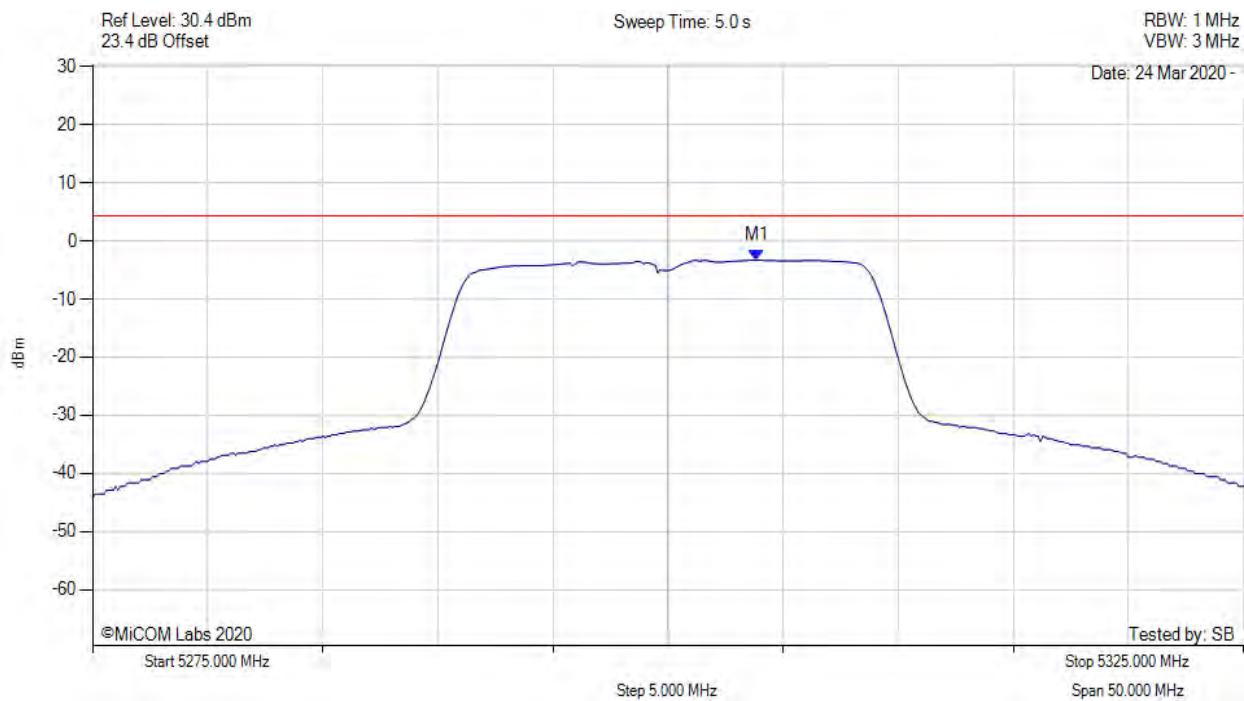
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.956 MHz : 1.440 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5300.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



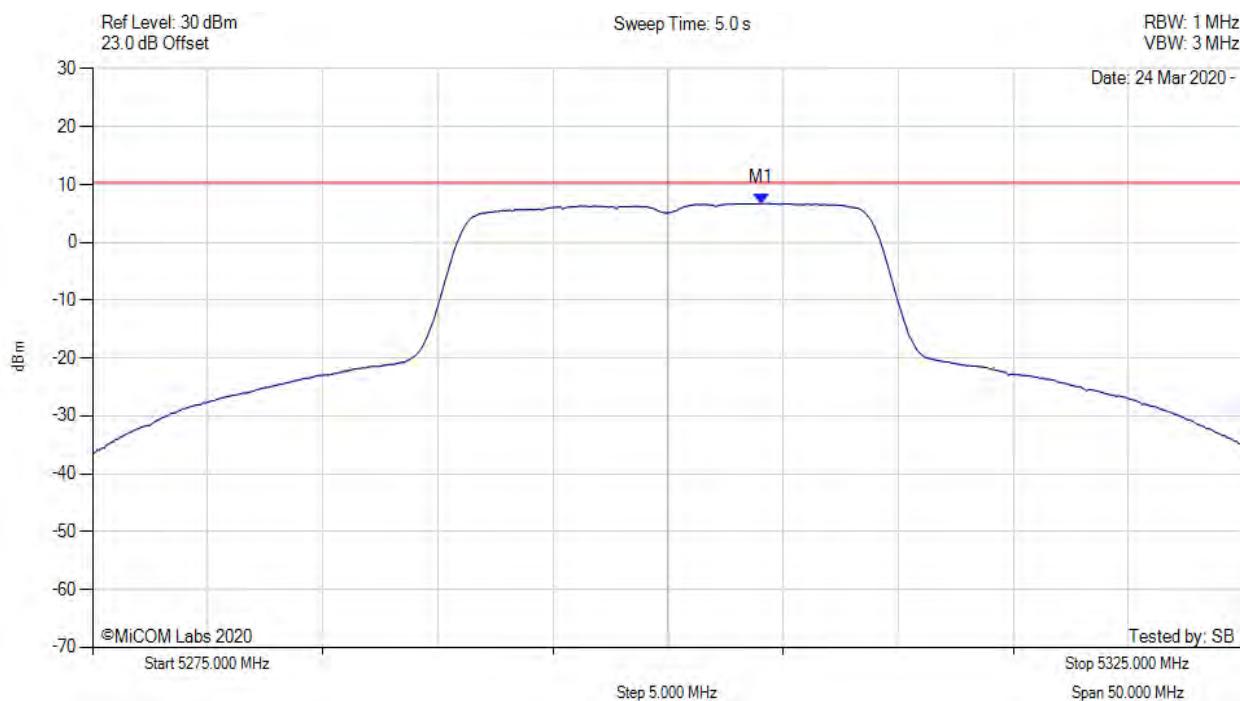
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5303.858 MHz : -3.283 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



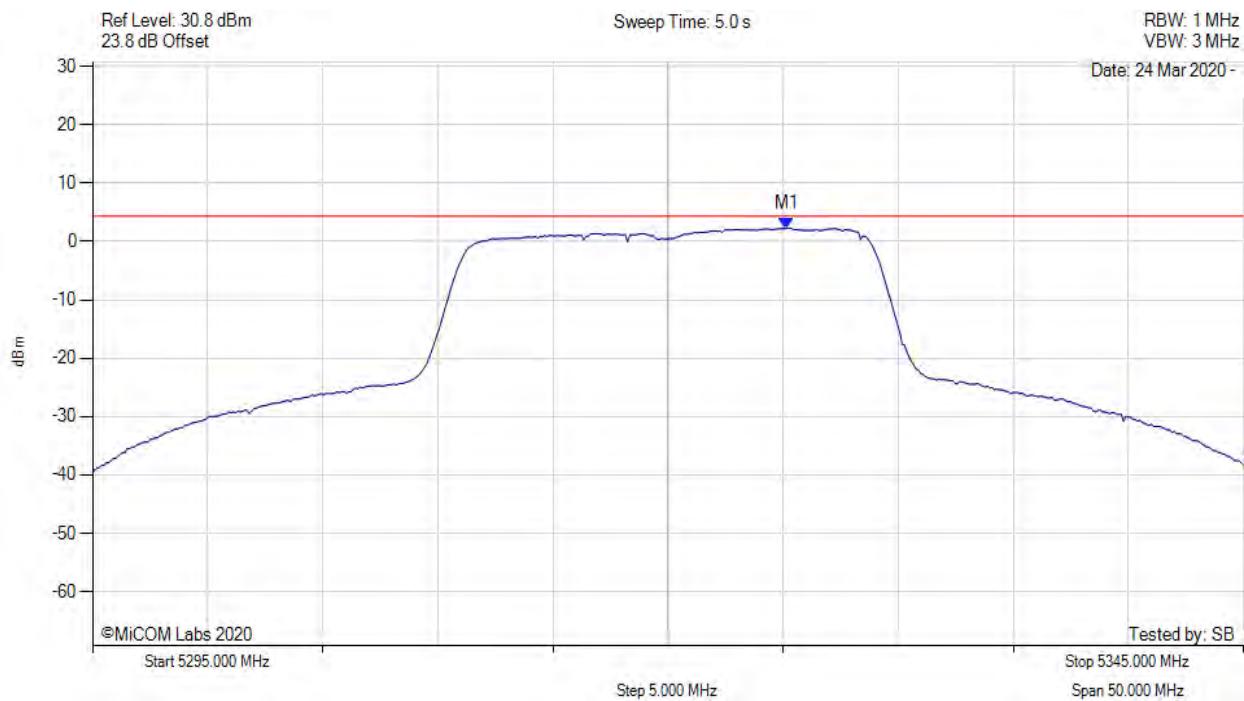
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5304.100 MHz : 6.721 dBm M1 + DCCF : 5304.100 MHz : 9.775 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.4 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



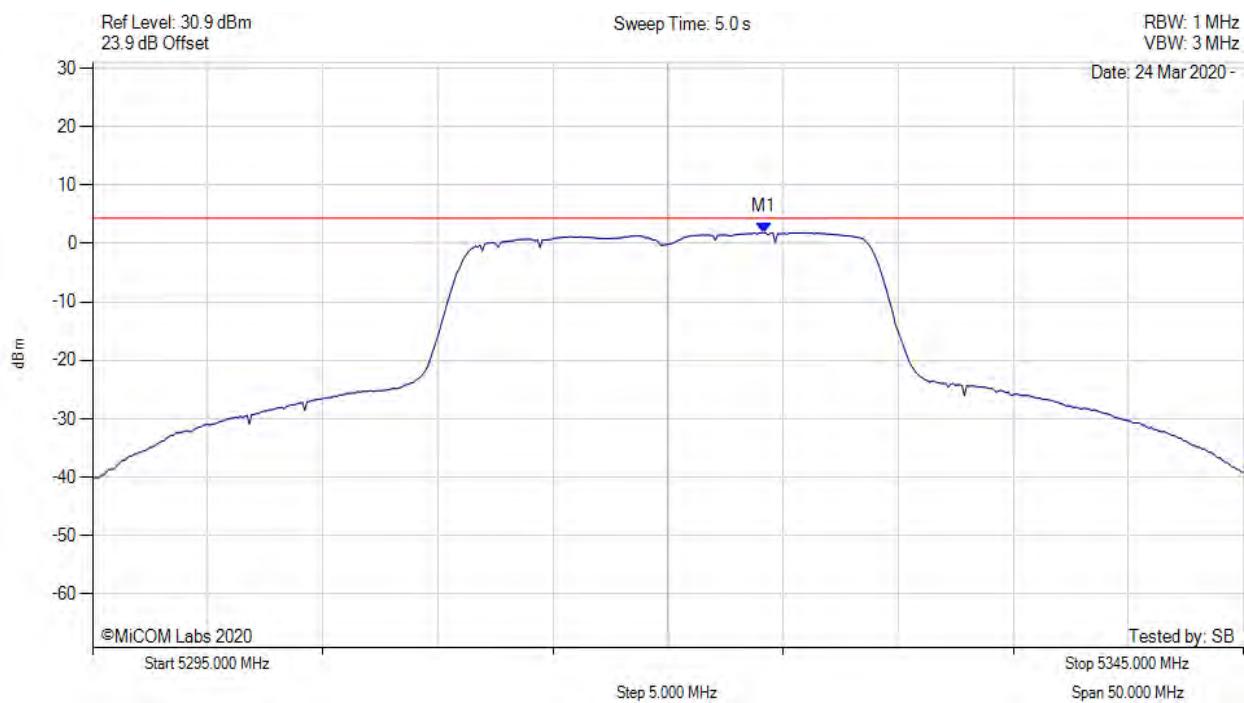
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5325.160 MHz : 2.282 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



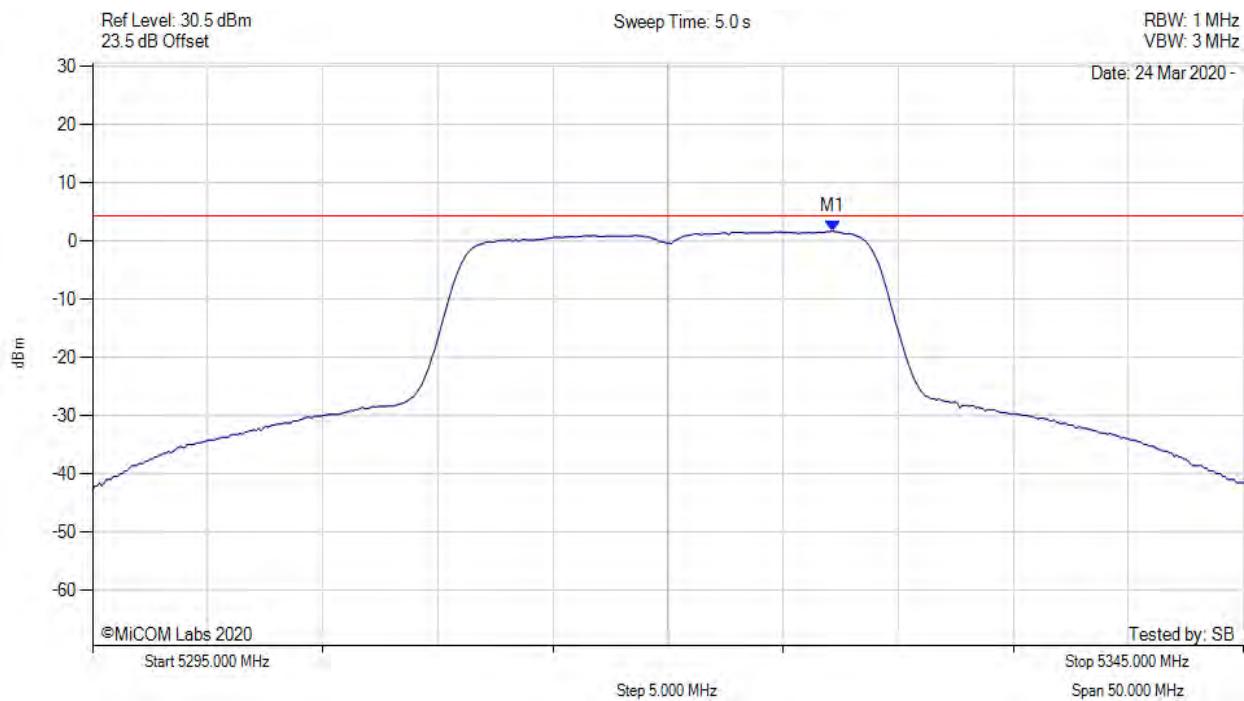
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5324.158 MHz : 1.882 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



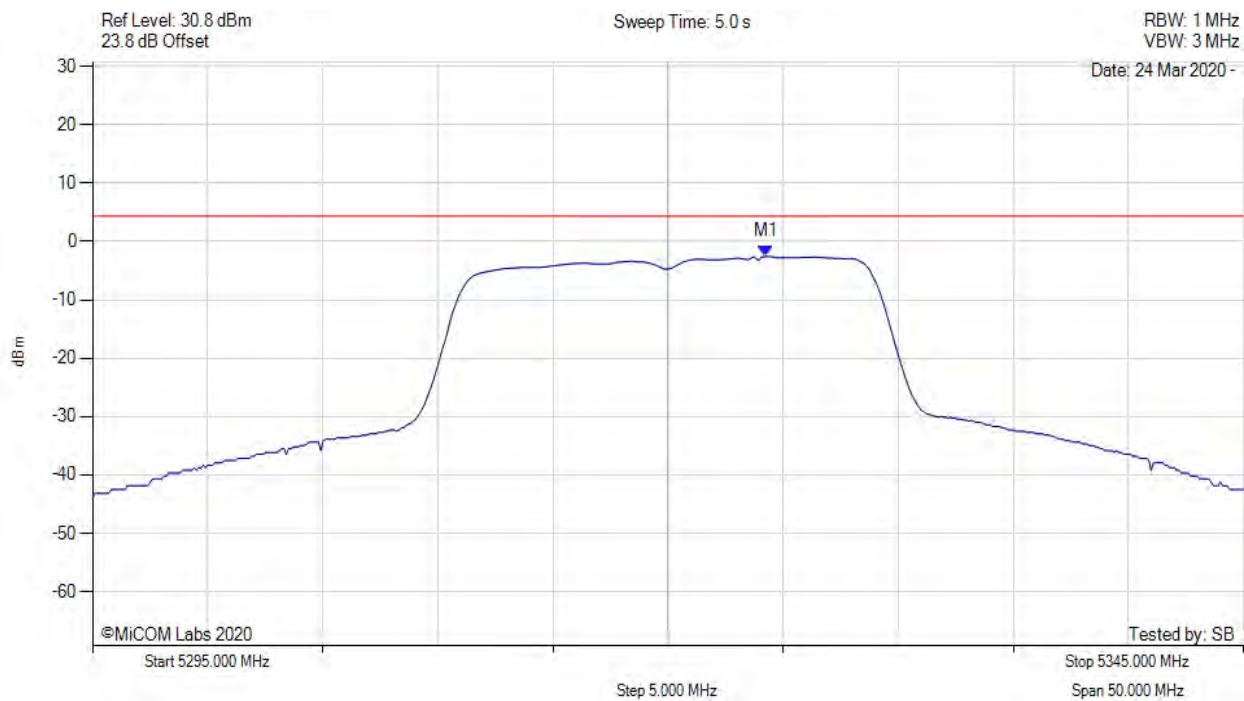
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5327.164 MHz : 1.664 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5320.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac

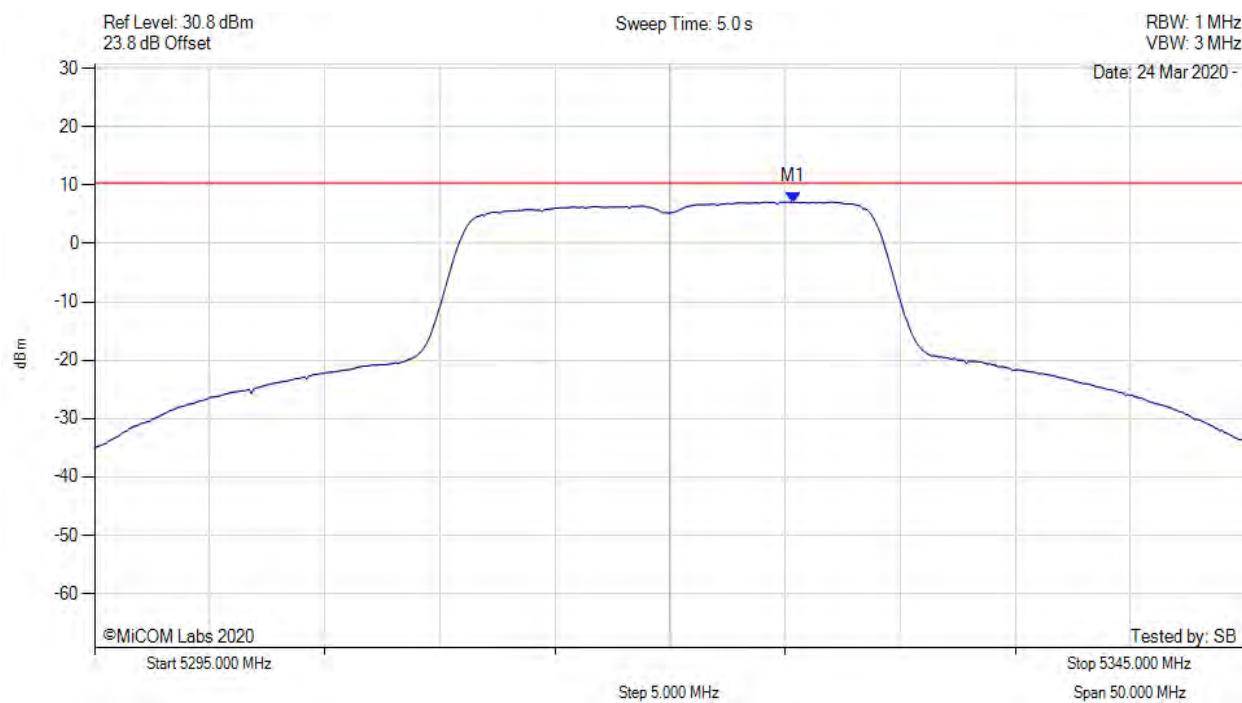


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5324.259 MHz : -2.554 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



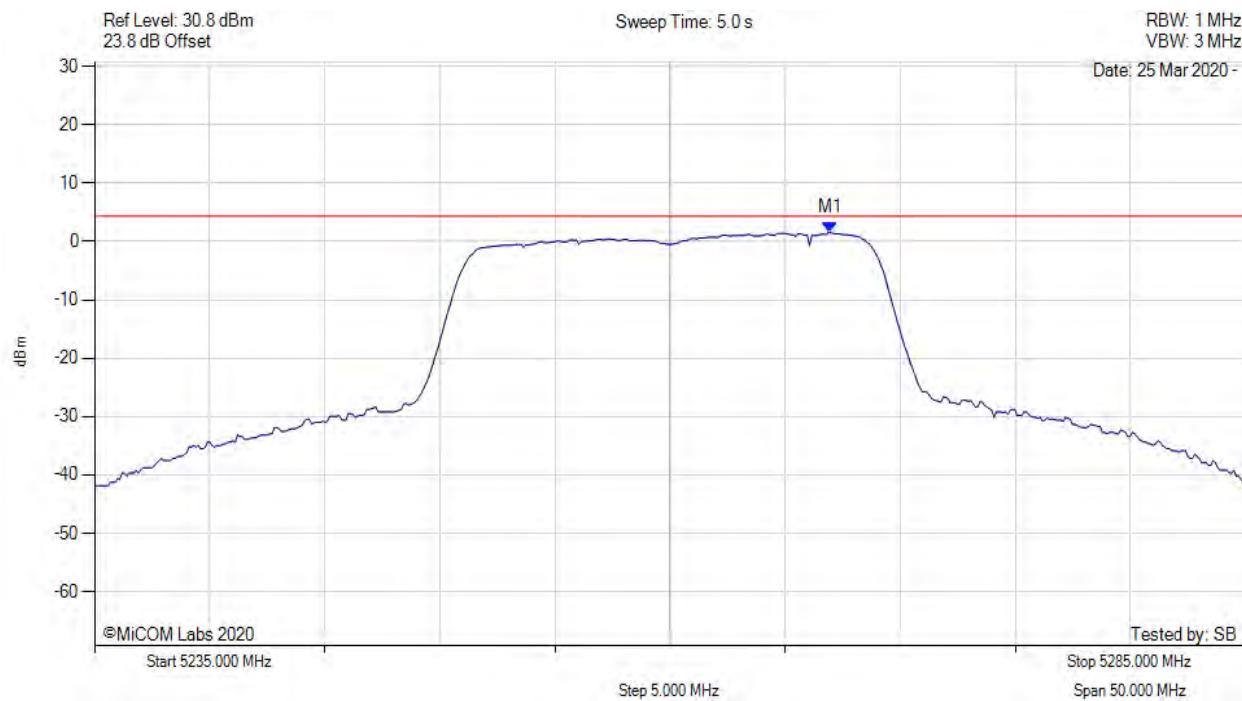
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5325.400 MHz : 7.089 dBm M1 + DCCF : 5325.400 MHz : 10.143 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 10.4 dBm Margin: -0.3 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



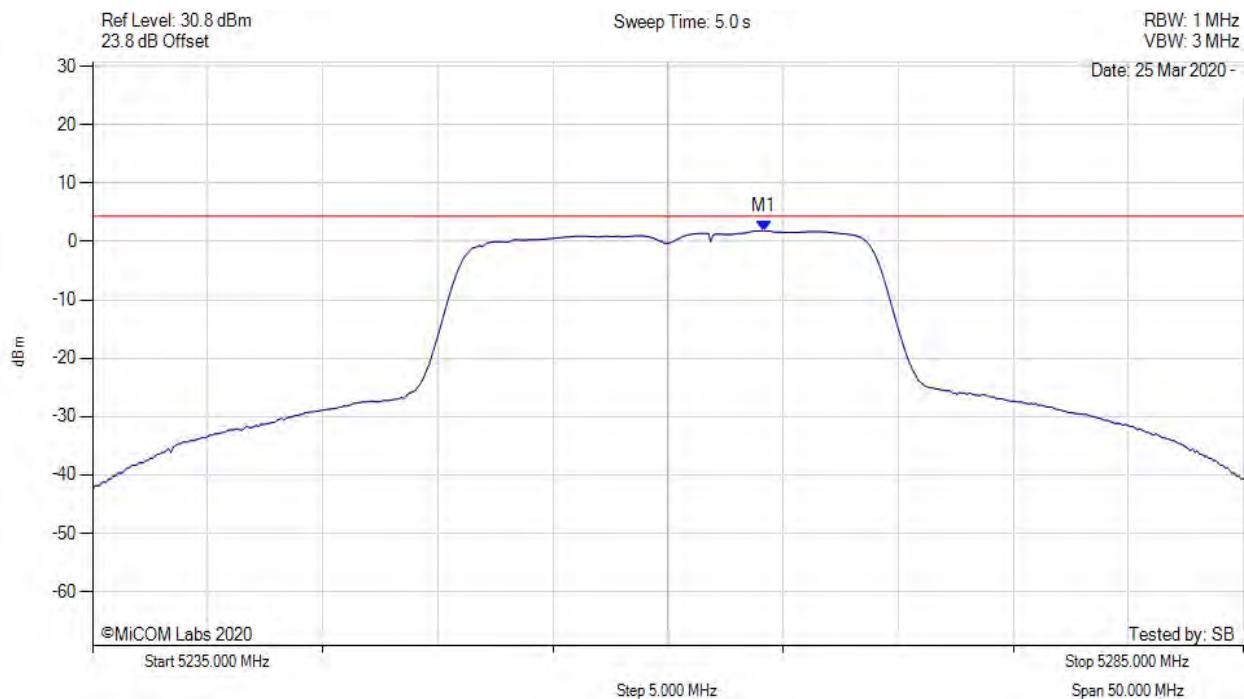
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.964 MHz : 1.533 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



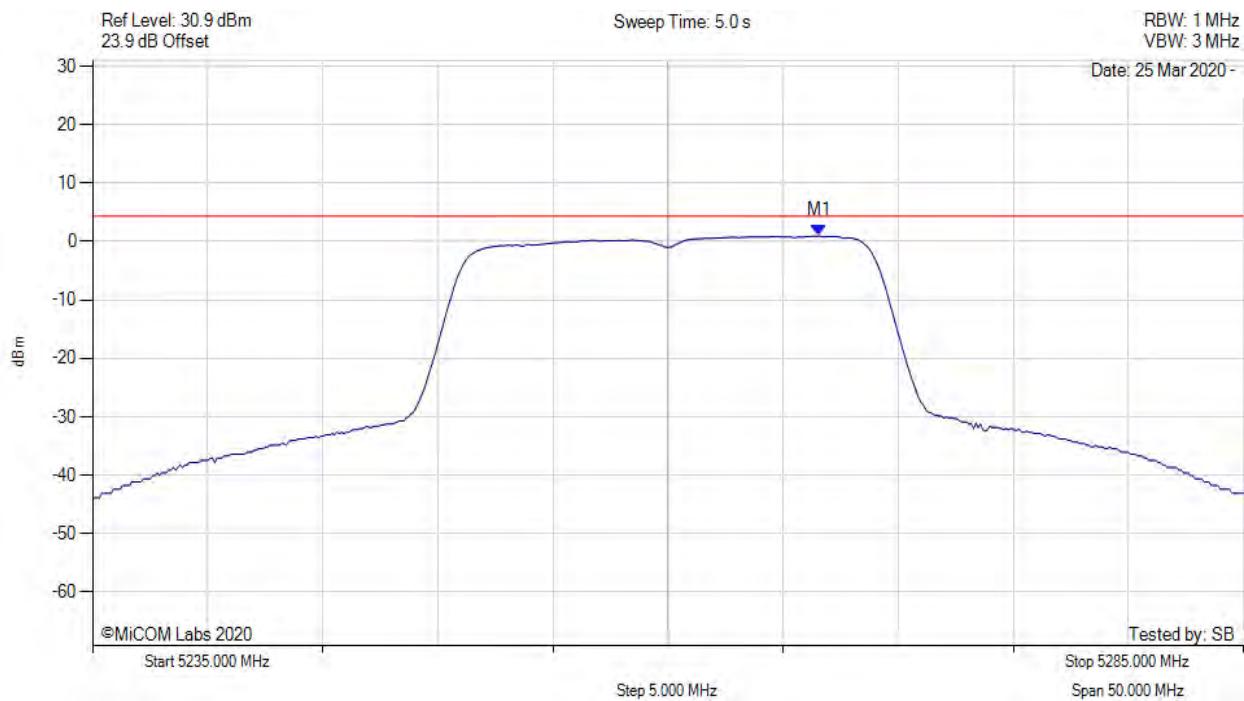
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5264.158 MHz : 1.839 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



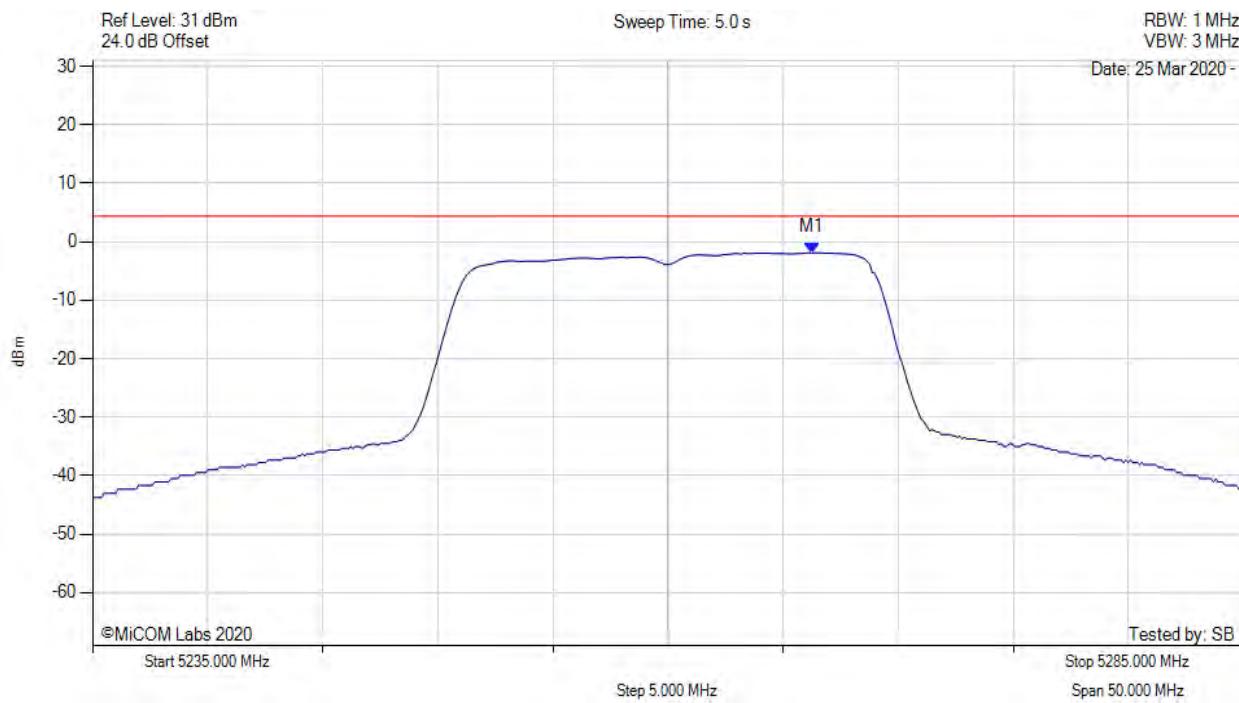
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.563 MHz : 0.969 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



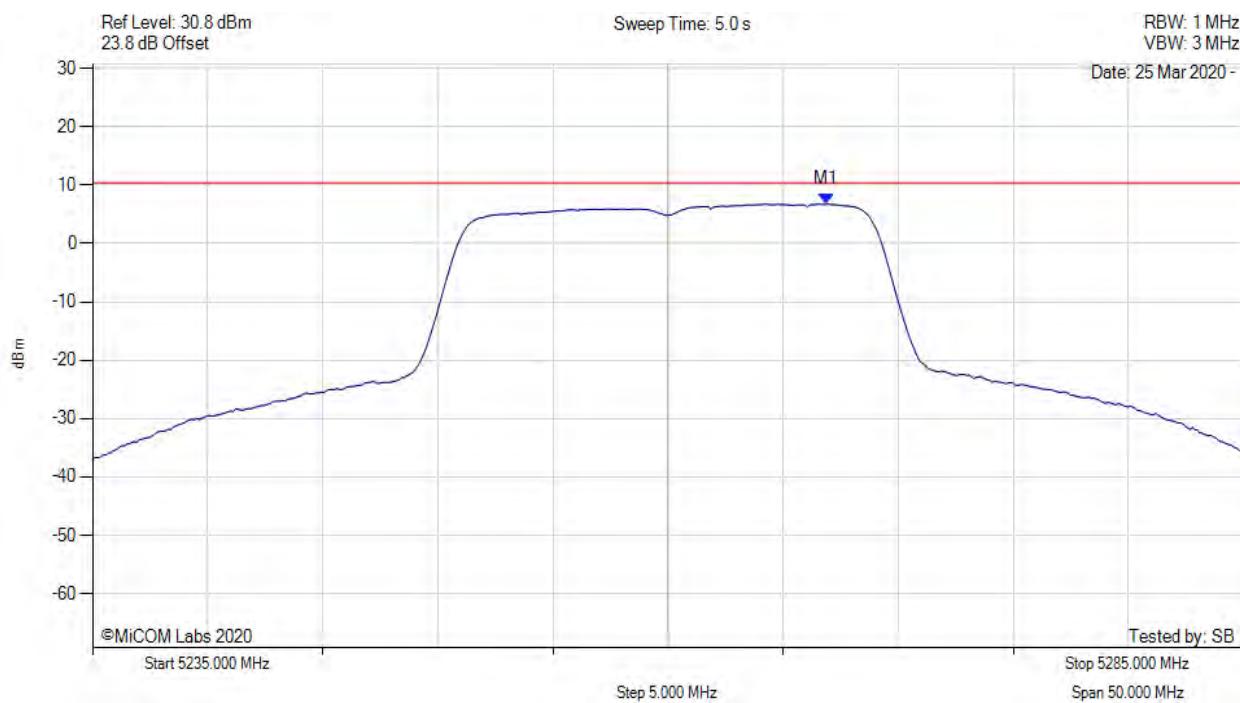
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.263 MHz : -1.895 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



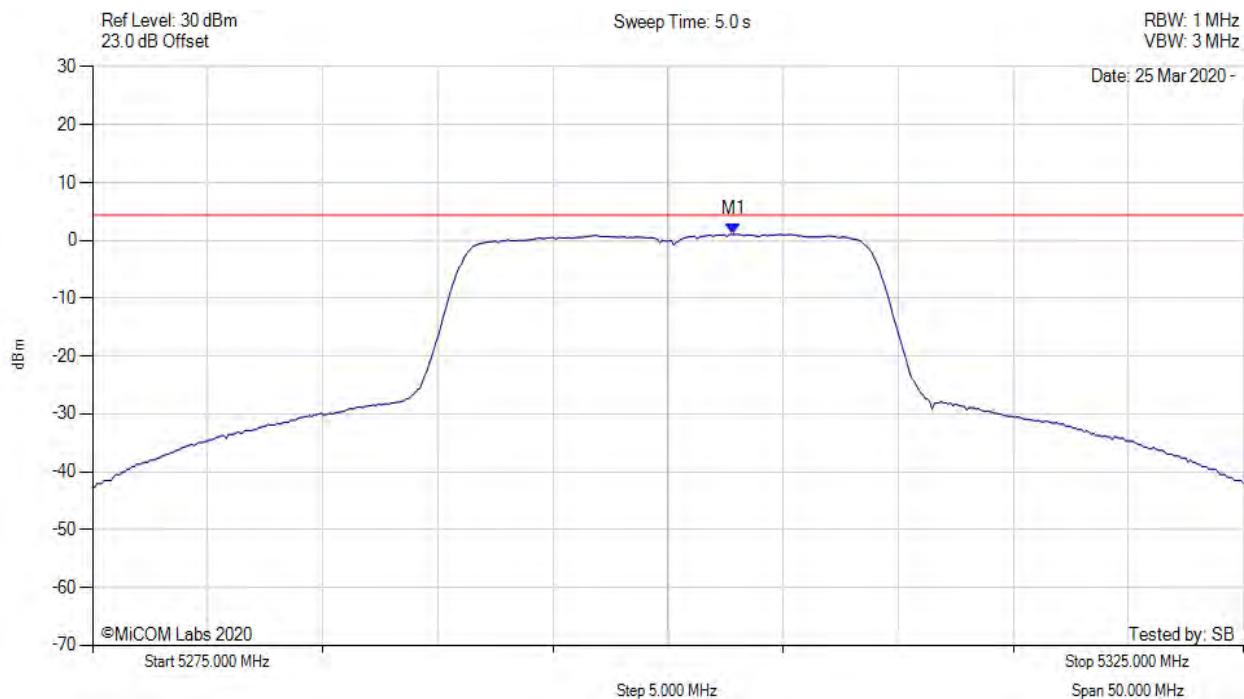
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.900 MHz : 6.743 dBm M1 + DCCF : 5266.900 MHz : 9.859 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.4 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



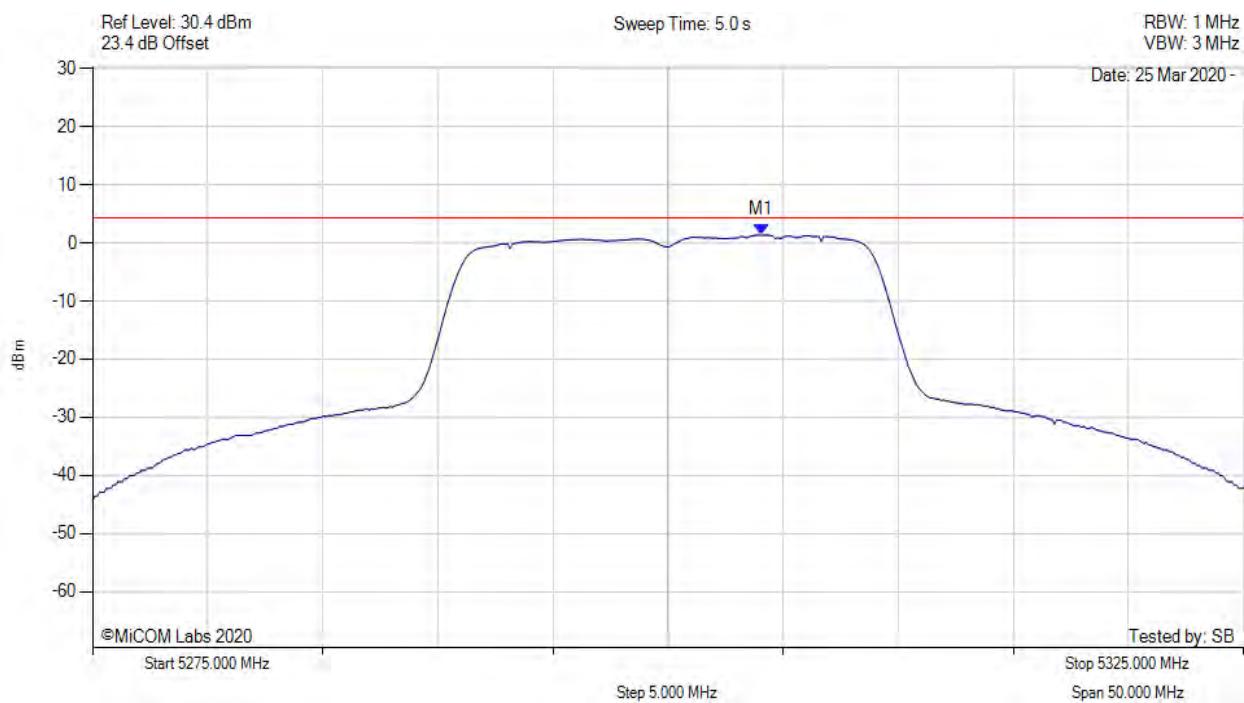
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.856 MHz : 1.059 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



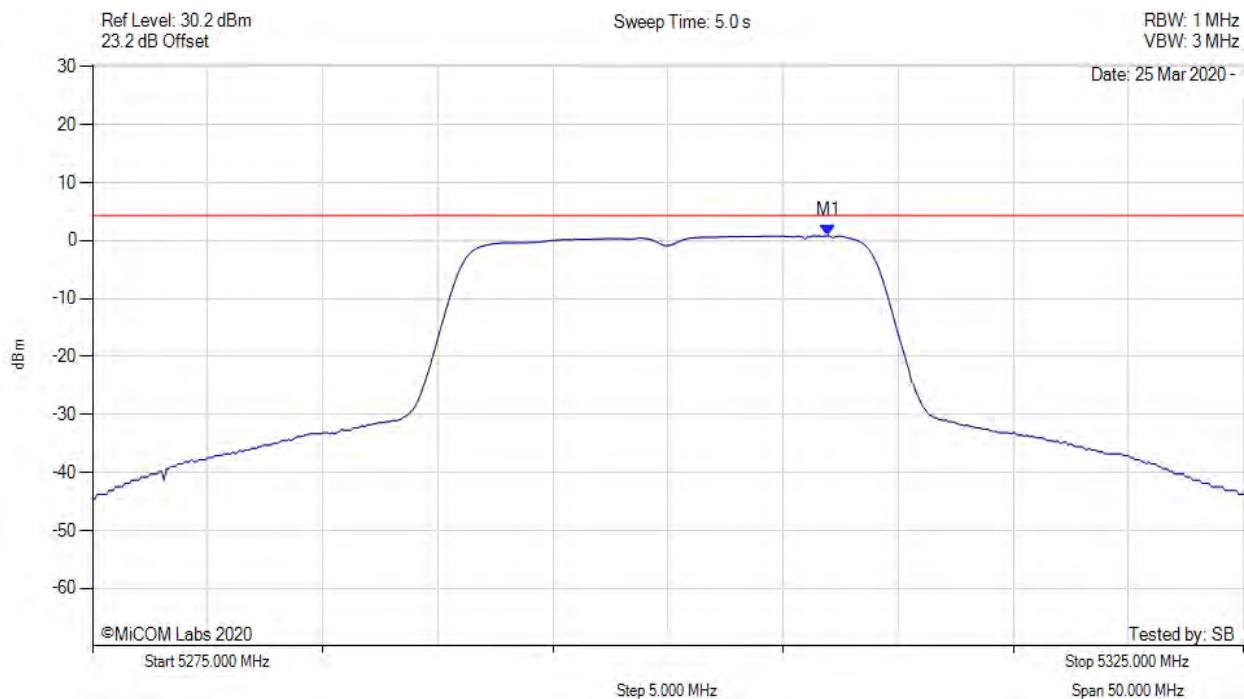
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5304.058 MHz : 1.370 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



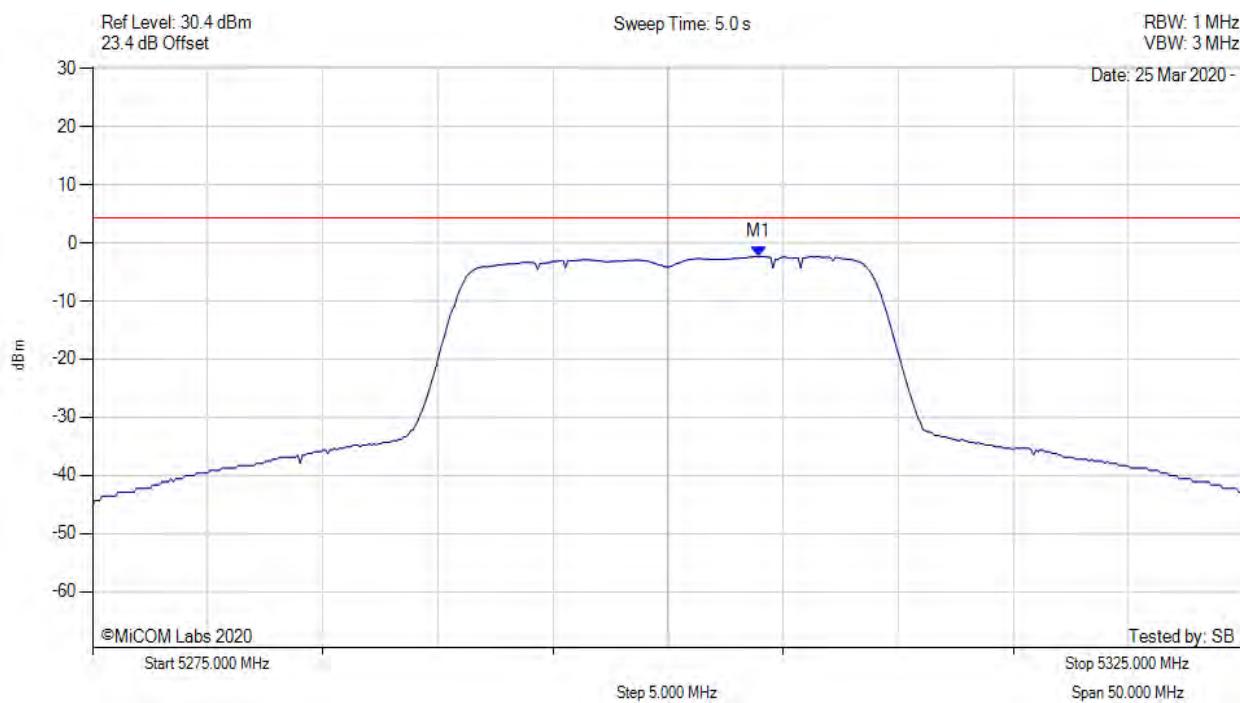
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5306.964 MHz : 0.874 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



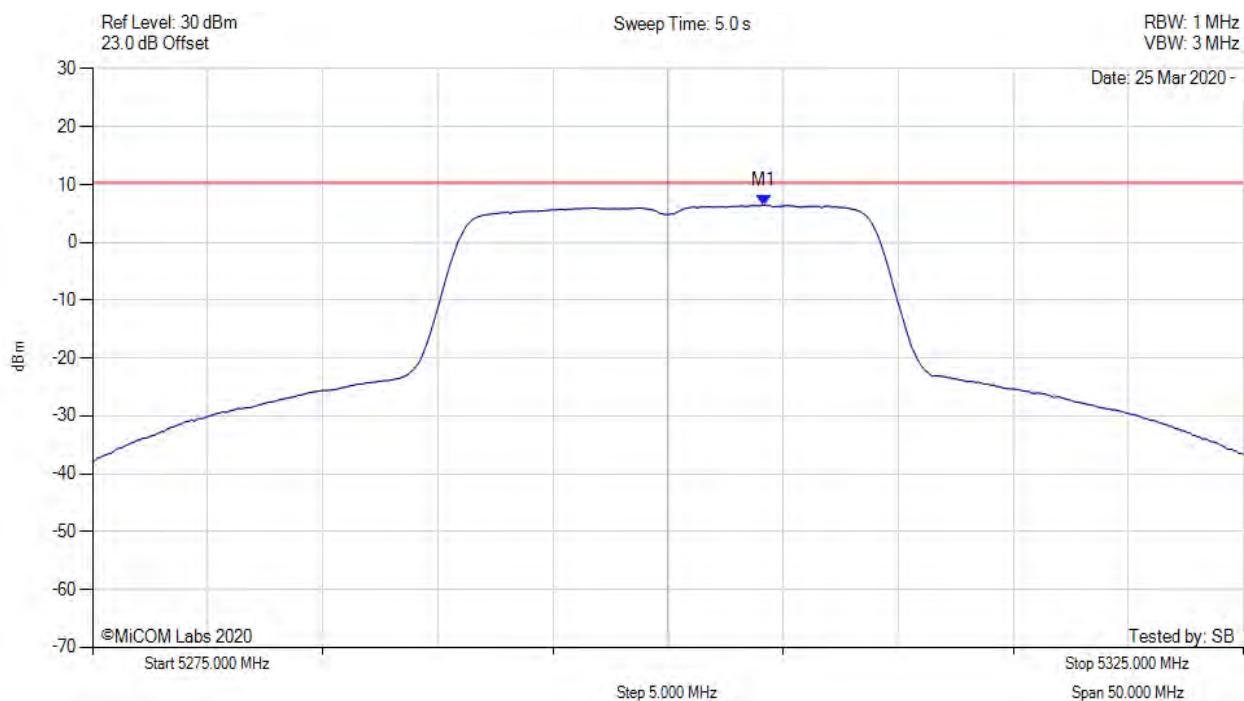
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5303.958 MHz : -2.324 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



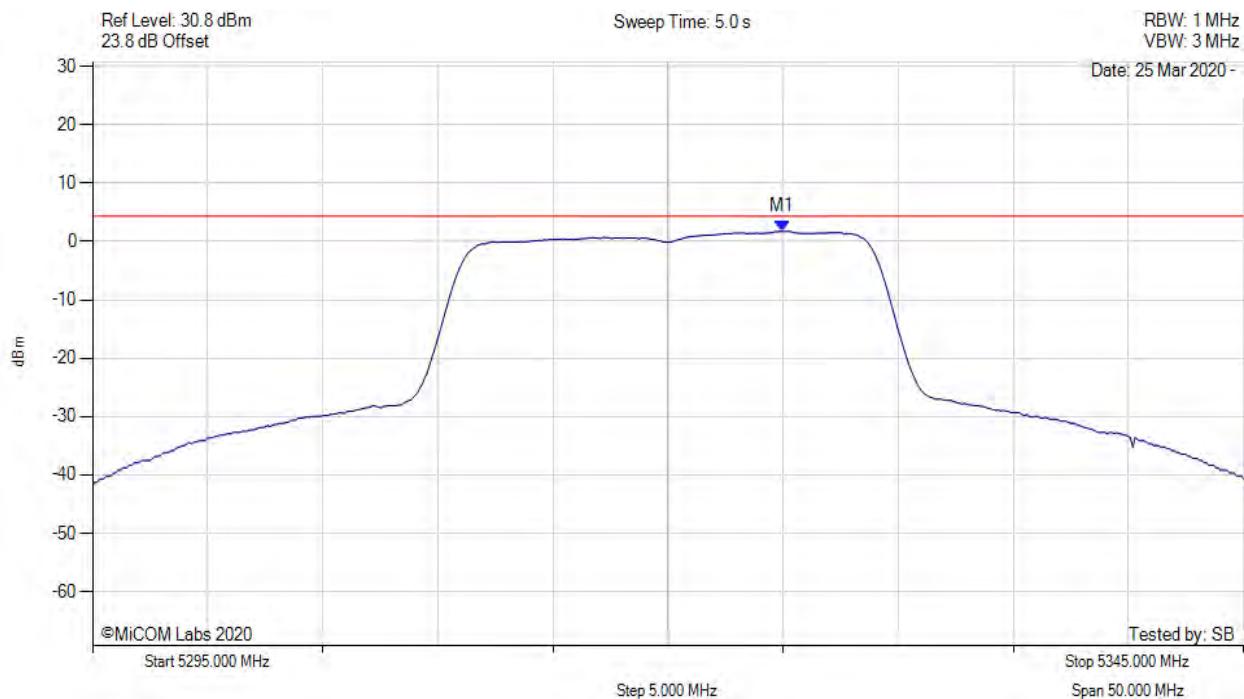
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5304.200 MHz : 6.415 dBm M1 + DCCF : 5304.200 MHz : 9.531 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.4 dBm Margin: -0.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



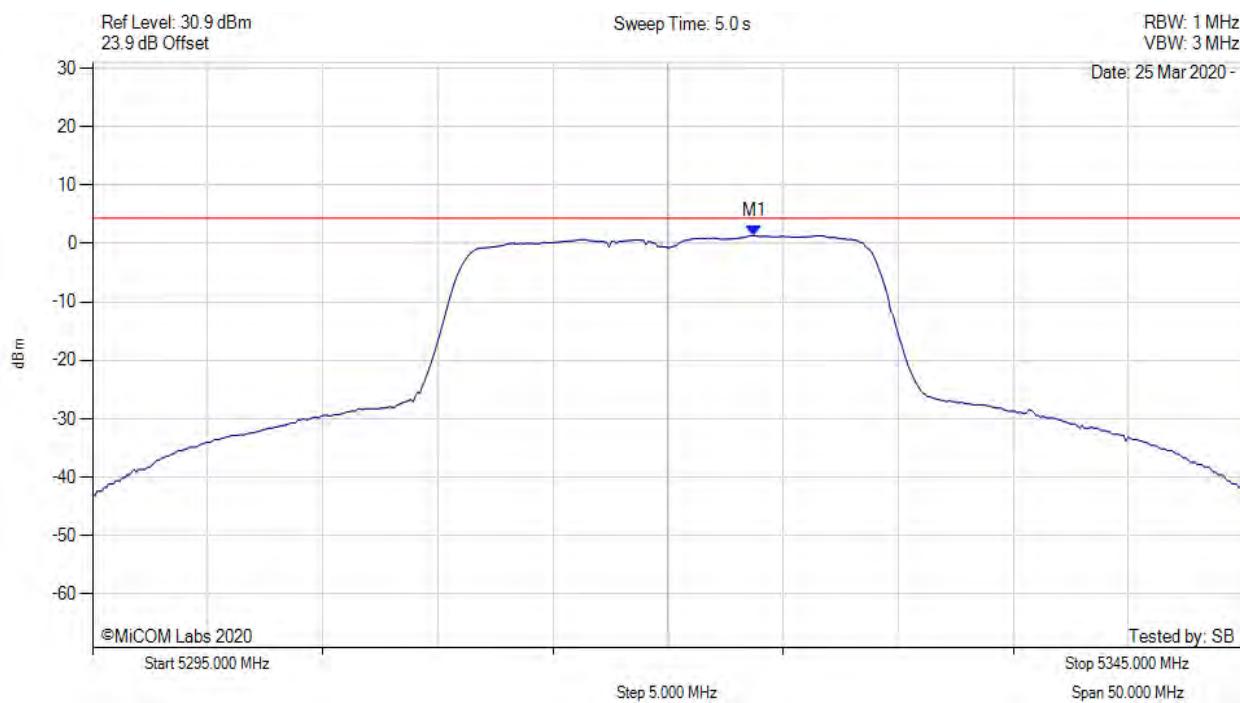
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5324.960 MHz : 1.757 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



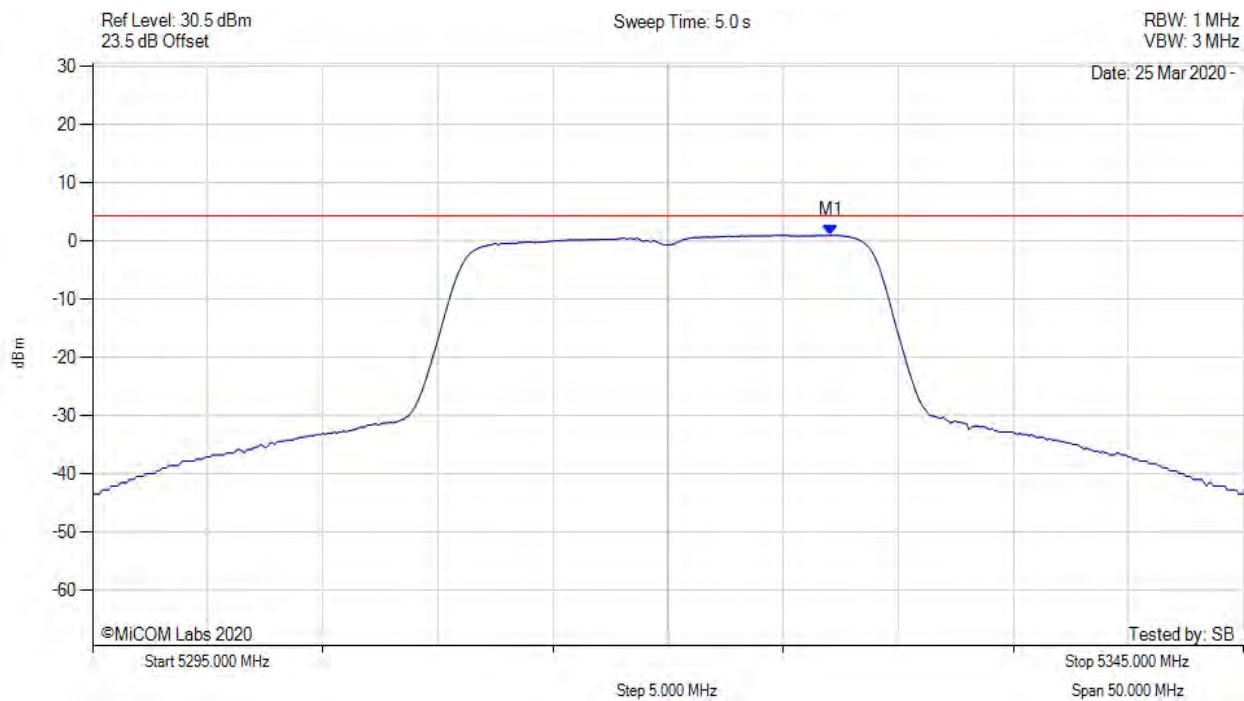
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5323.758 MHz : 1.386 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



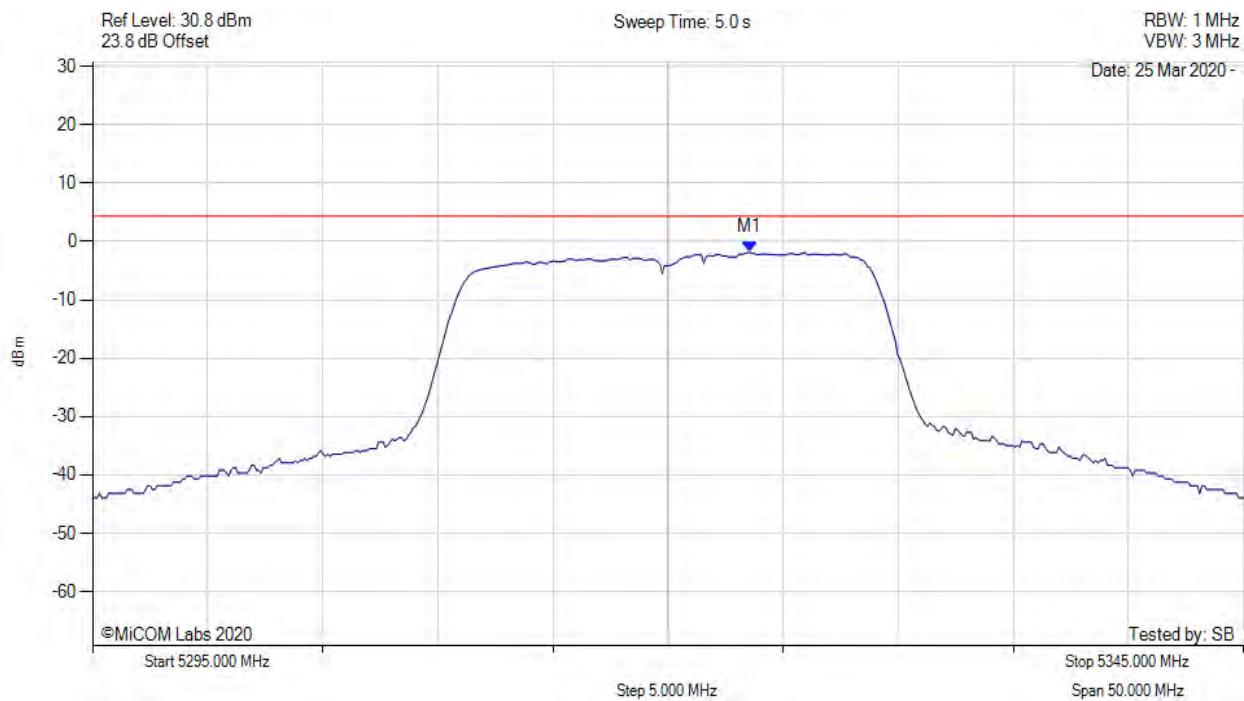
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5327.064 MHz : 0.977 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



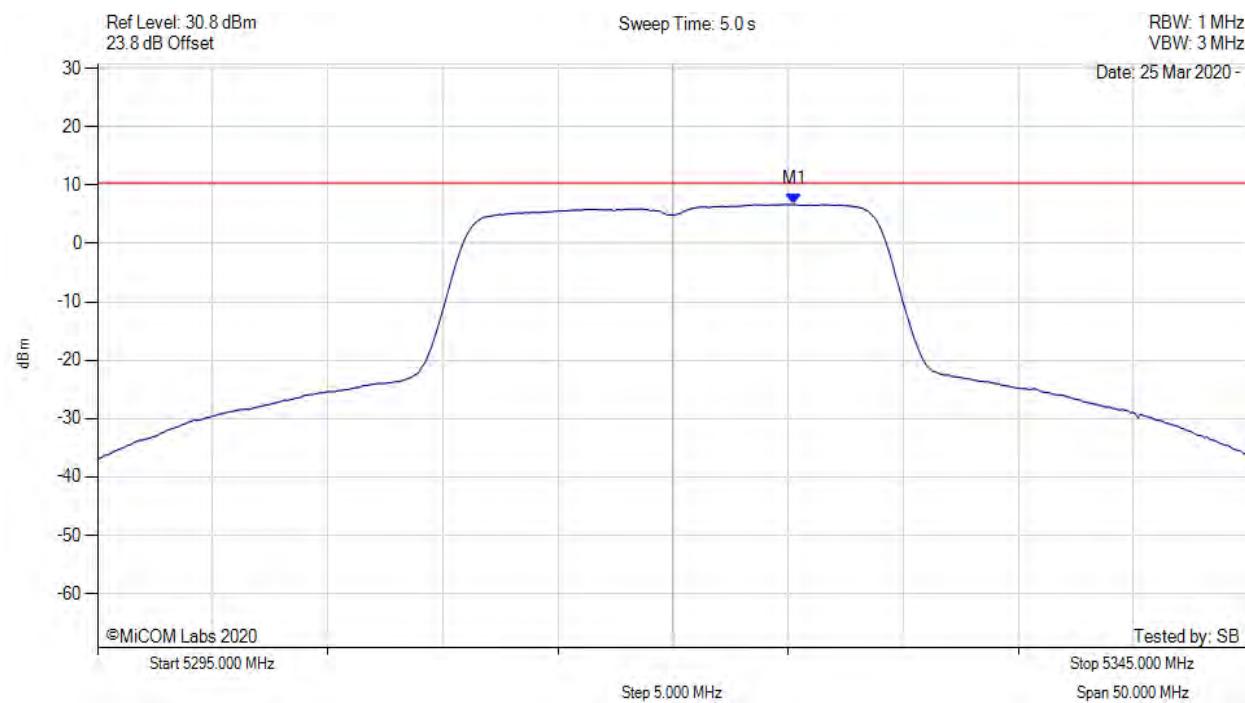
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5323.557 MHz : -1.843 dBm	Limit: ≤ 4.350 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



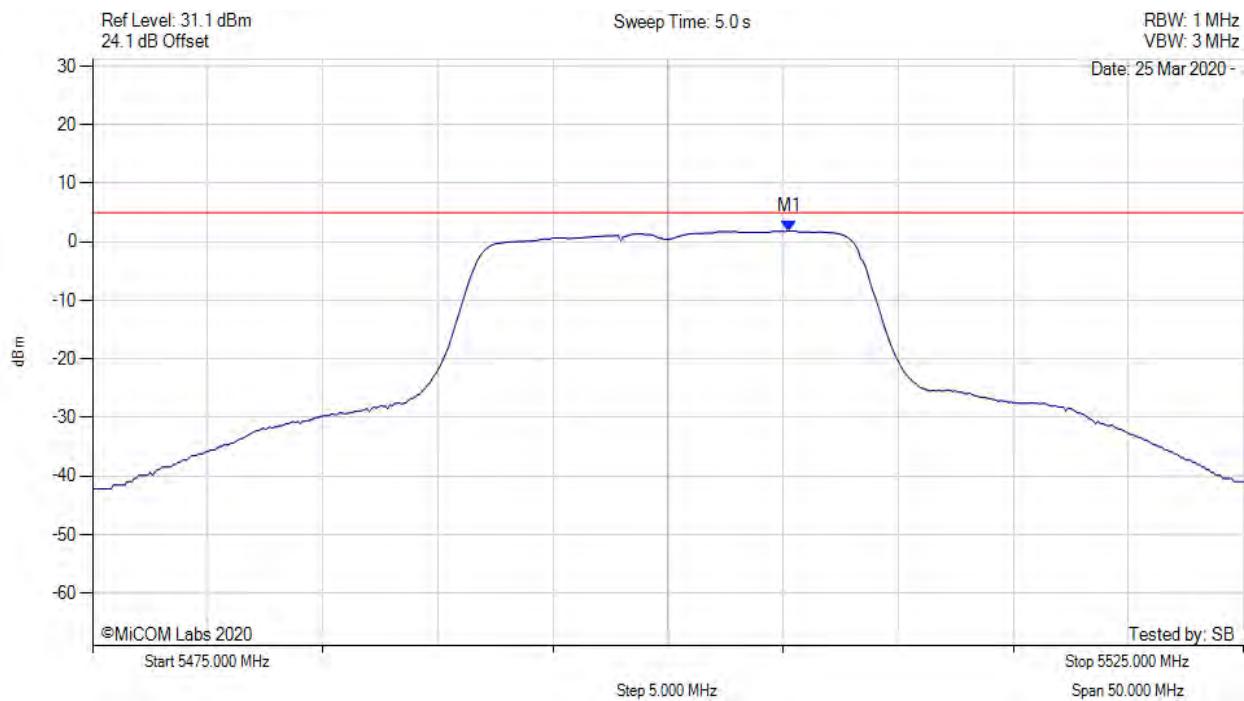
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5325.300 MHz : 6.693 dBm M1 + DCCF : 5325.300 MHz : 9.809 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 10.4 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



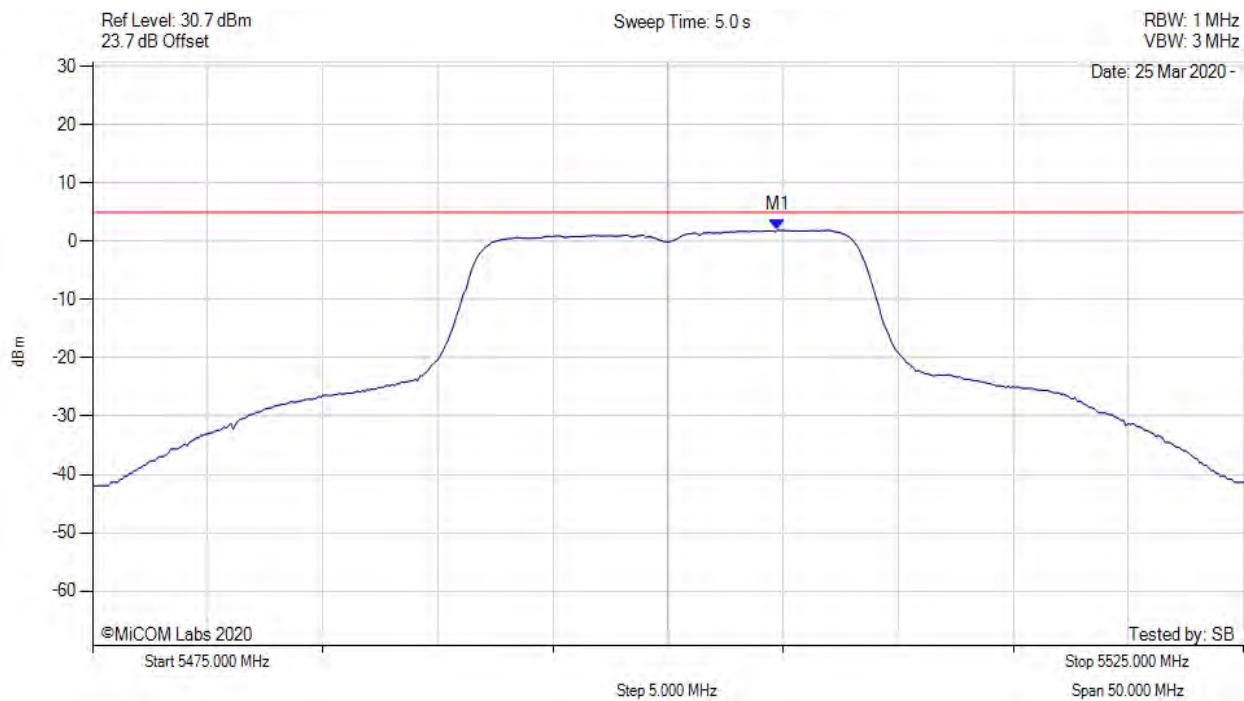
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5505.261 MHz : 1.862 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



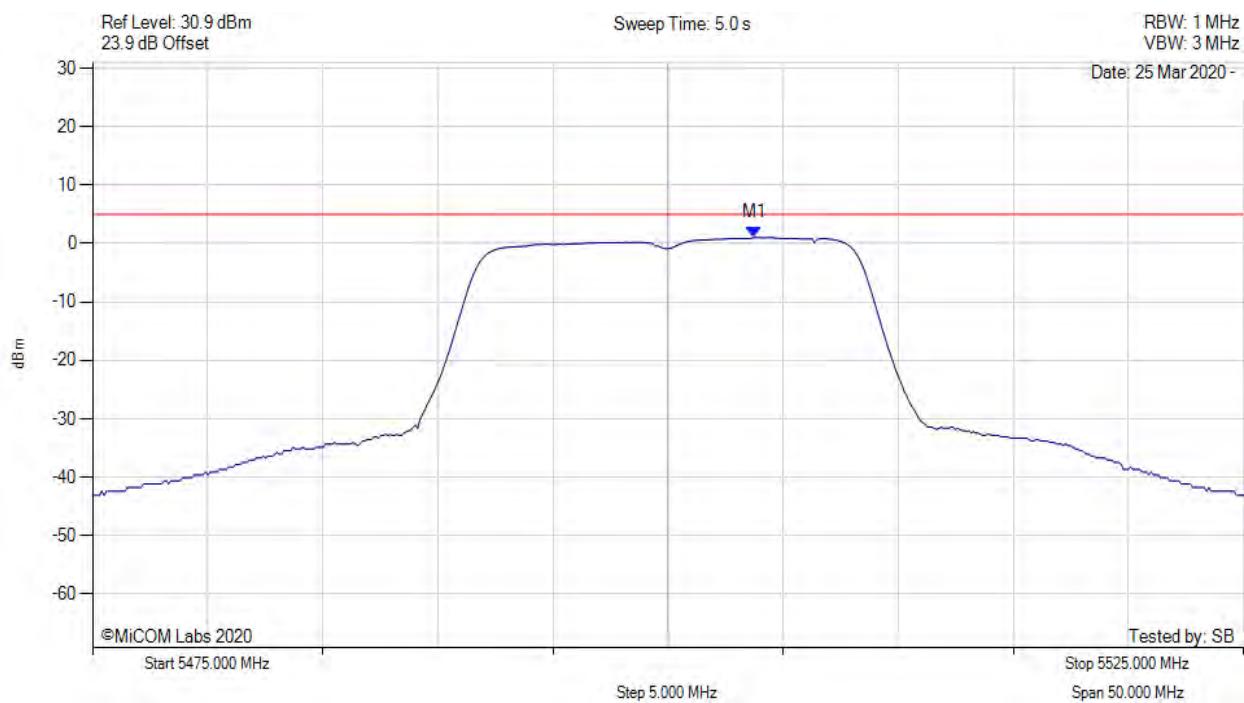
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5504.760 MHz : 1.936 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



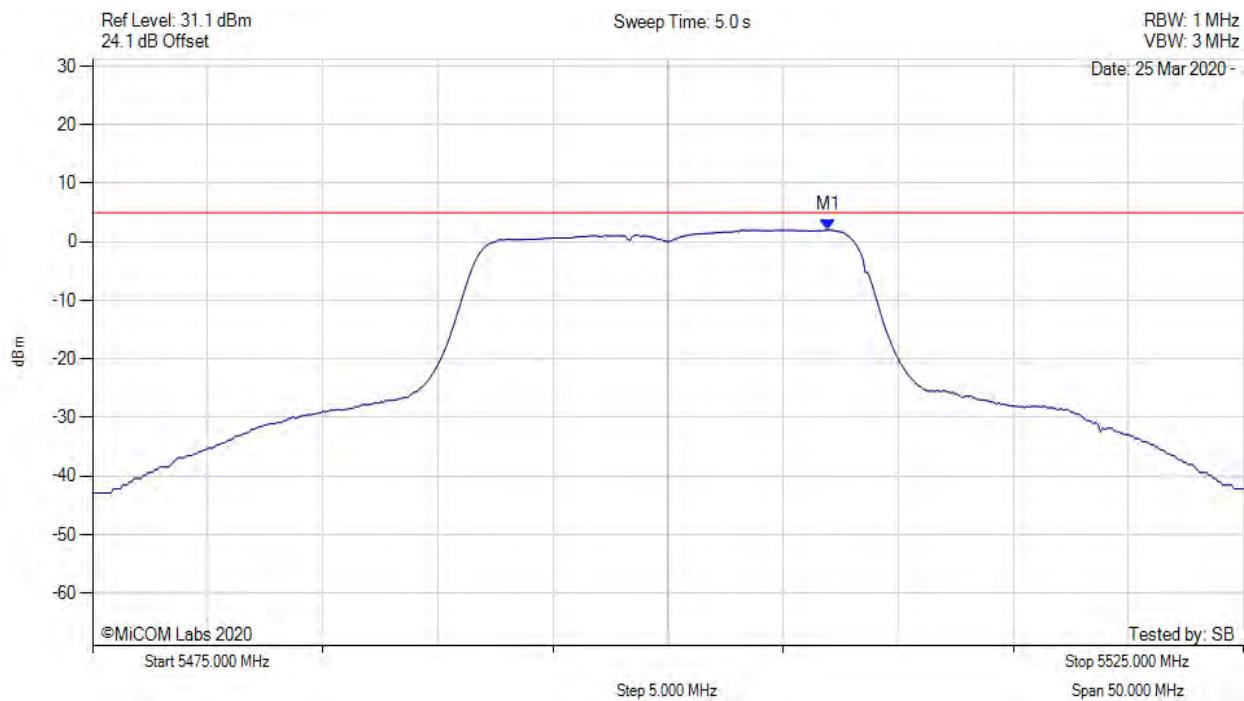
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5503.758 MHz : 1.046 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5500.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



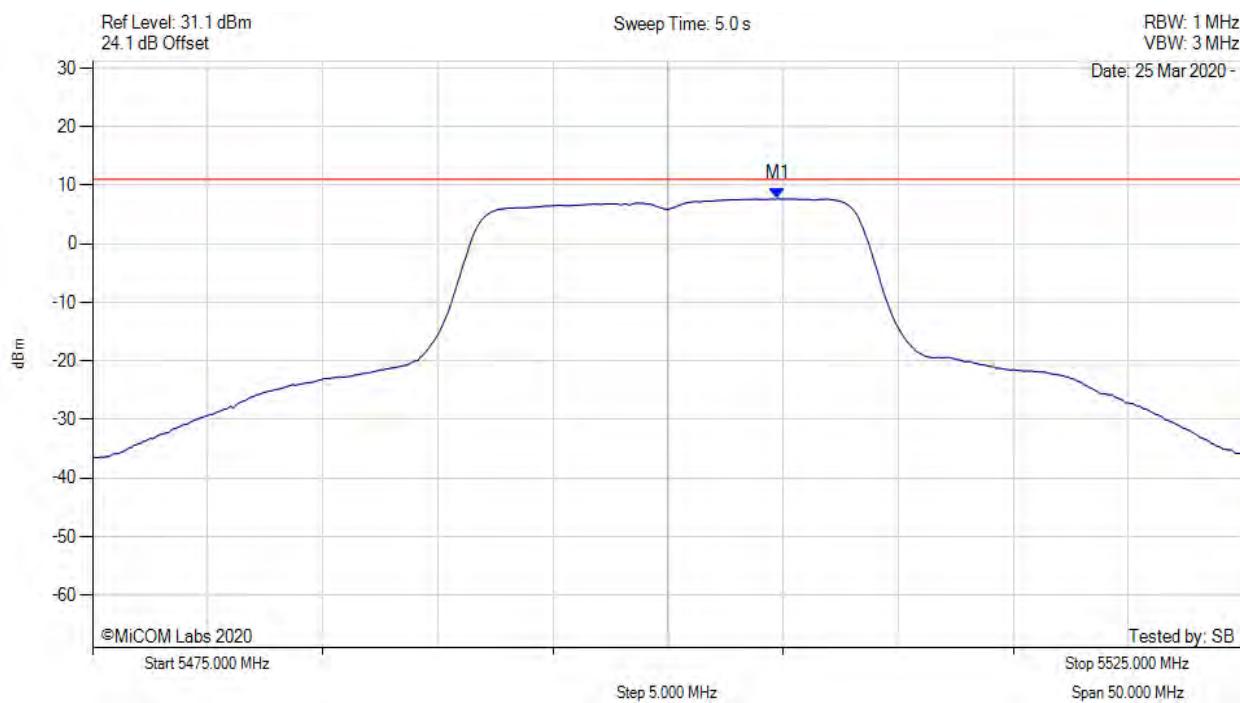
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5506.964 MHz : 2.045 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



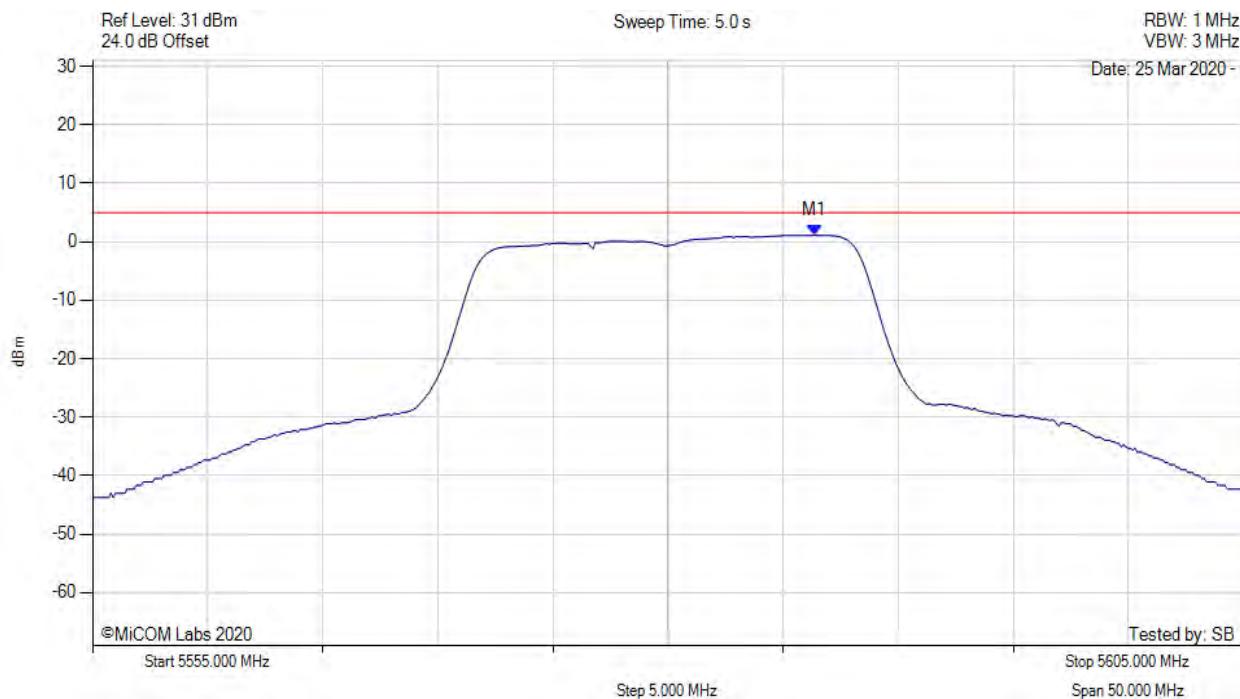
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5504.800 MHz : 7.692 dBm M1 + DCCF : 5504.800 MHz : 10.694 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -0.3 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



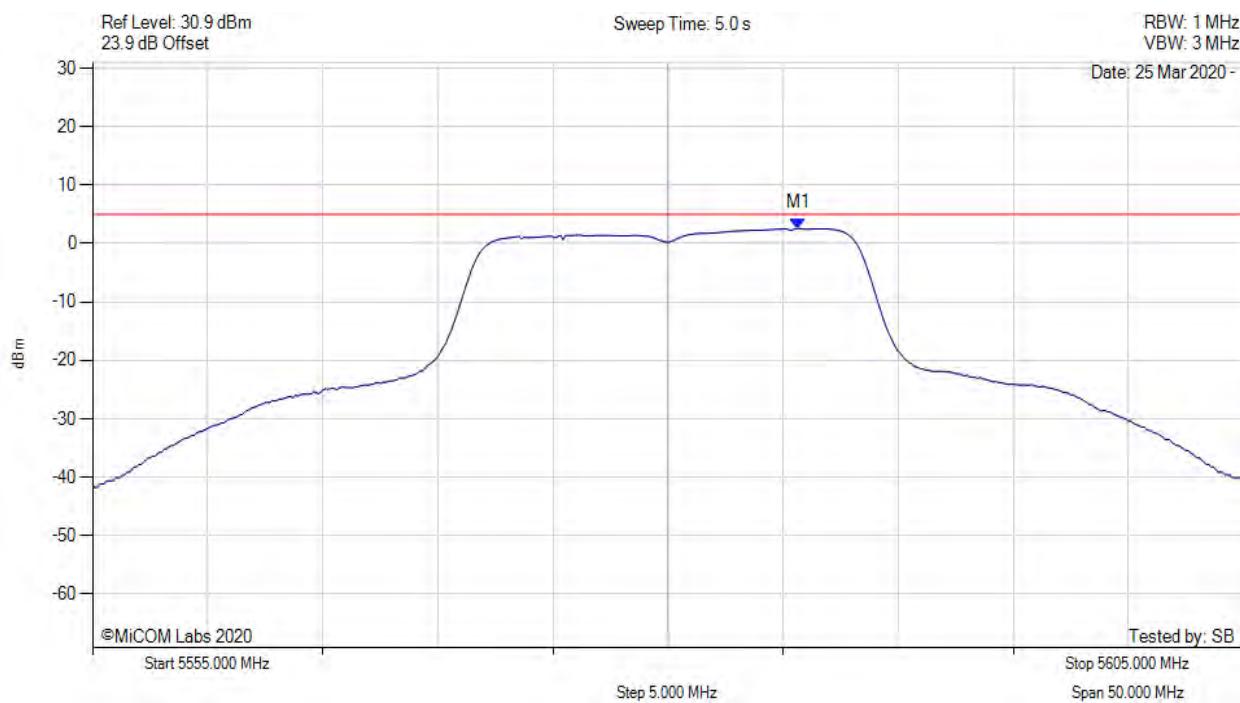
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5586.363 MHz : 1.105 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



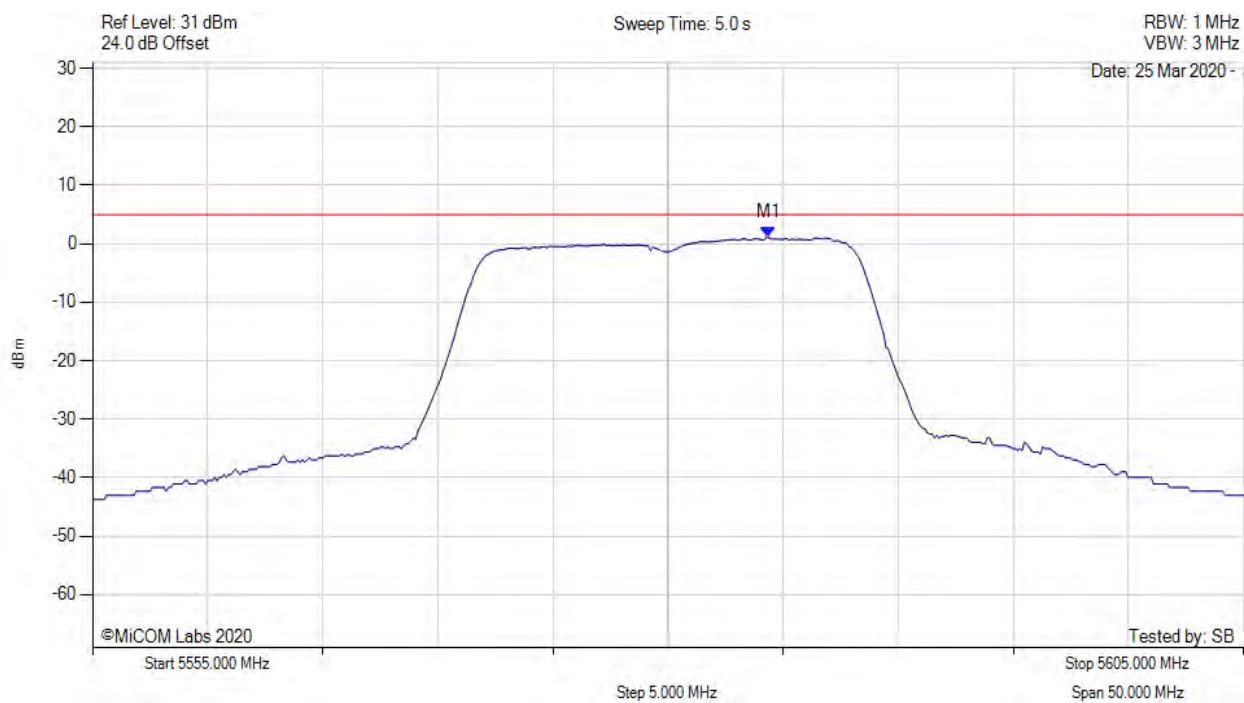
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5585.661 MHz : 2.596 dBm	Channel Frequency: 5580.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



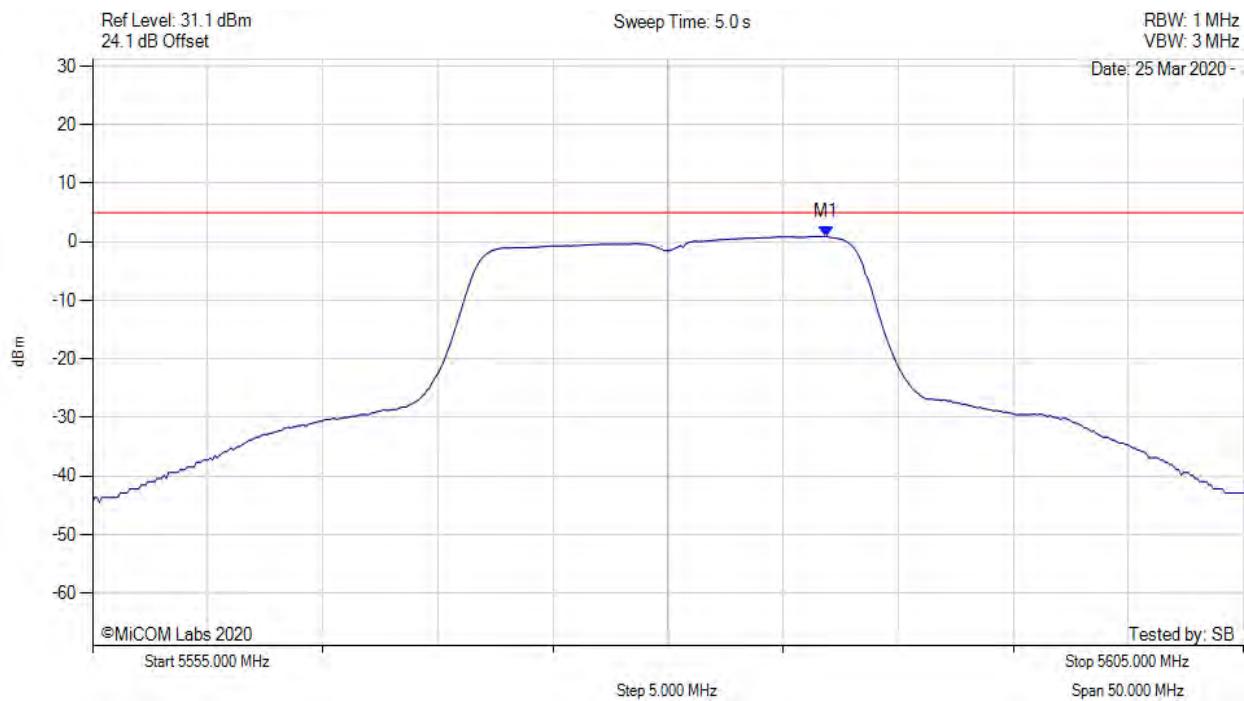
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5584.359 MHz : 1.042 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5580.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



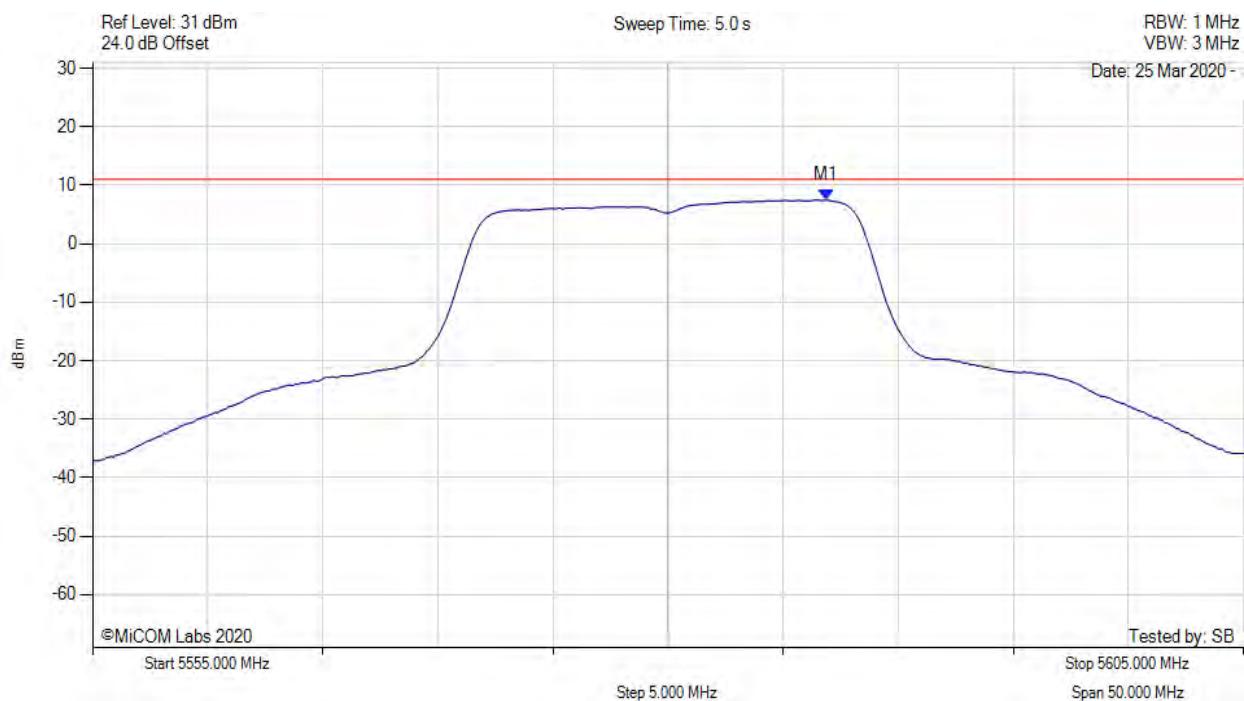
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5586.864 MHz : 0.958 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



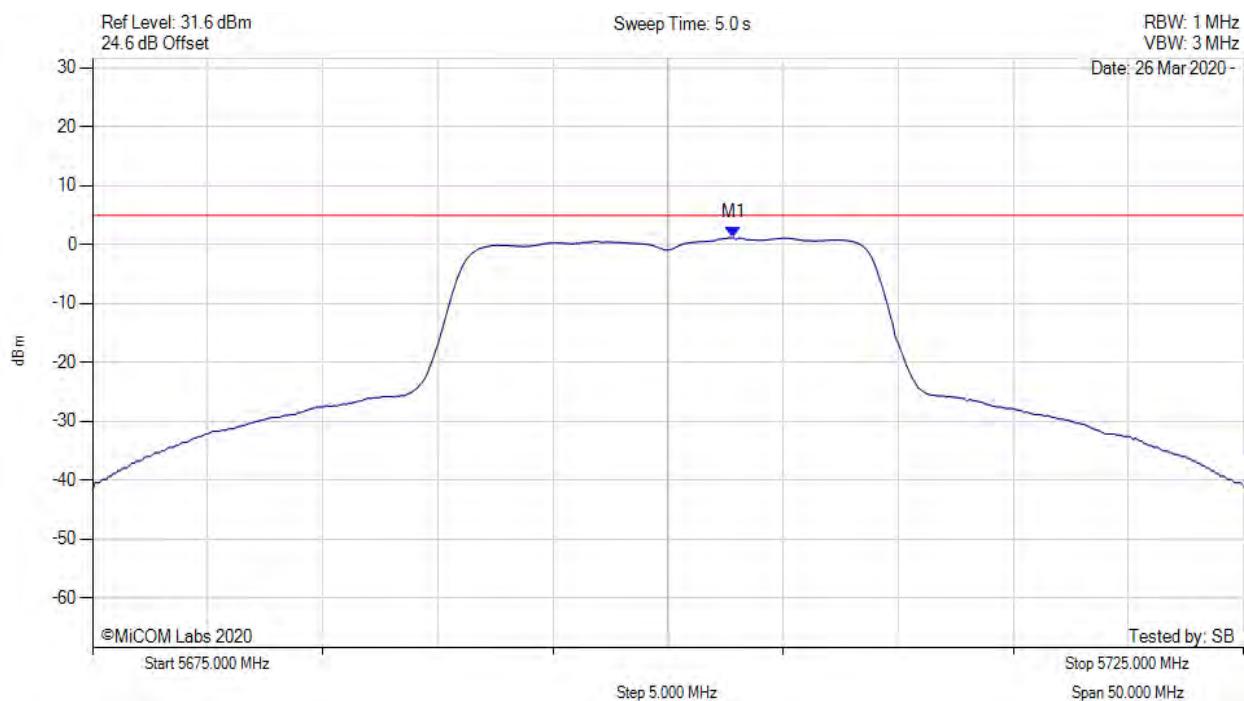
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5586.900 MHz : 7.454 dBm M1 + DCCF : 5586.900 MHz : 10.456 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



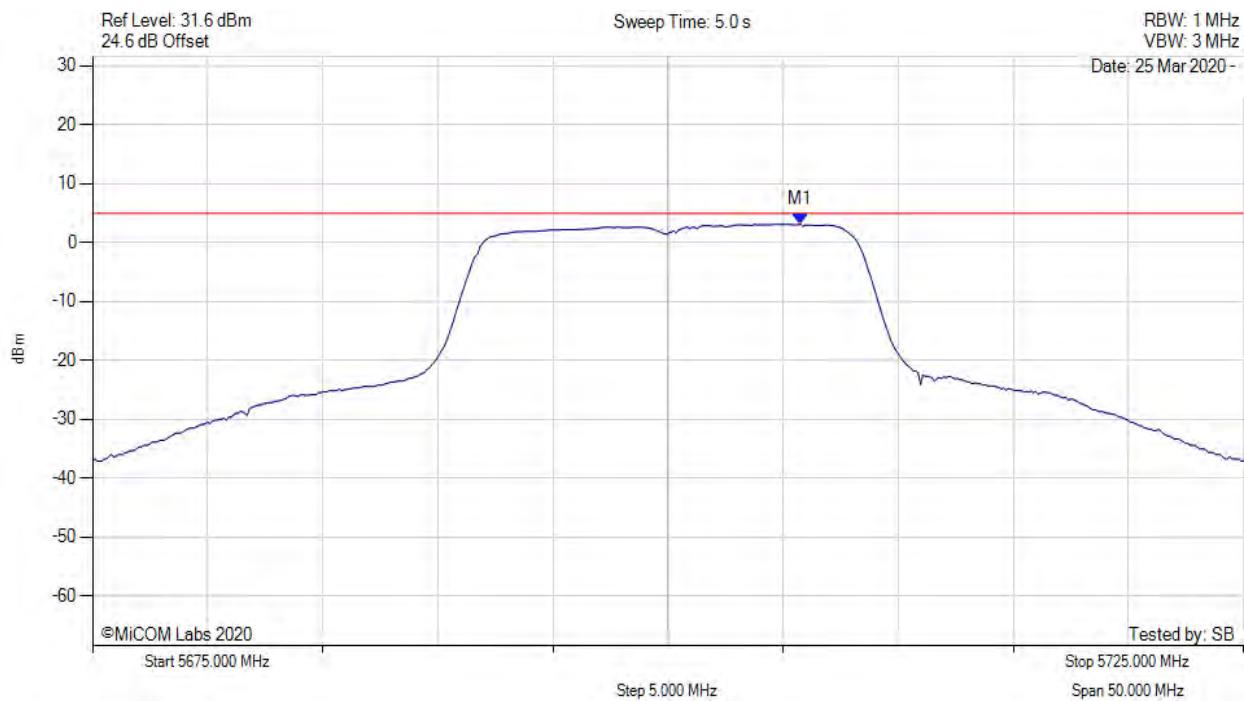
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.856 MHz : 1.164 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



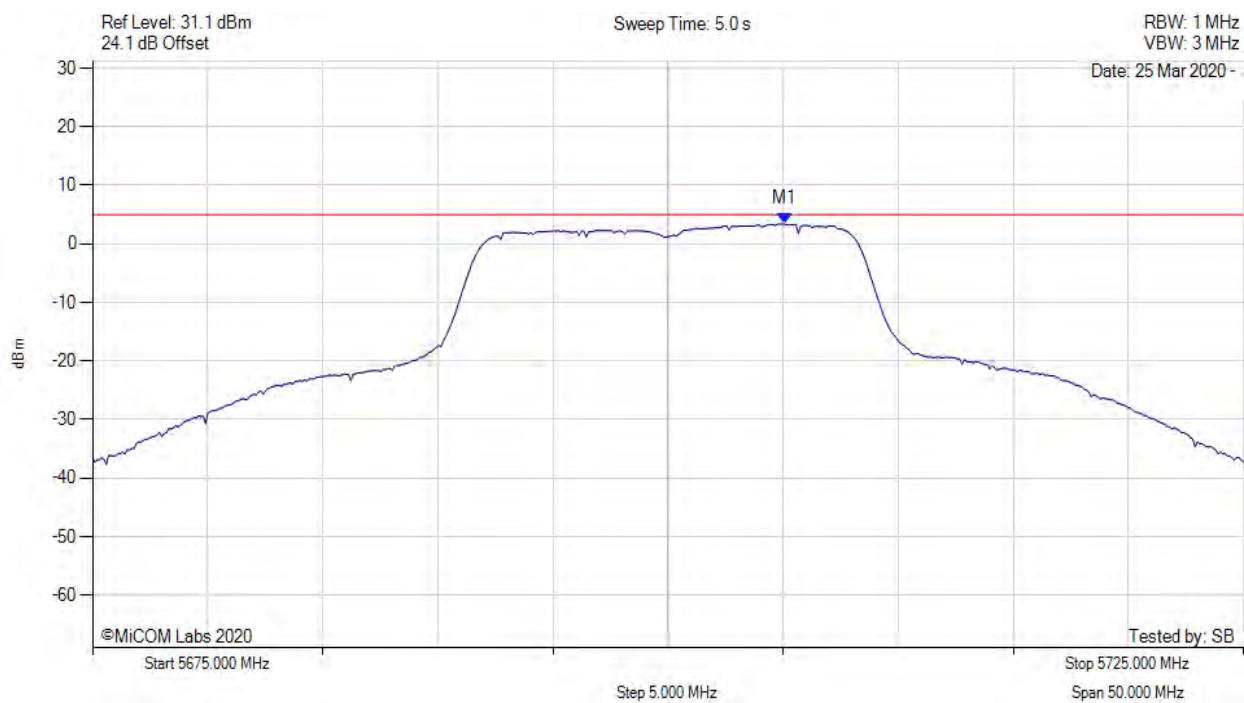
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.762 MHz : 3.159 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



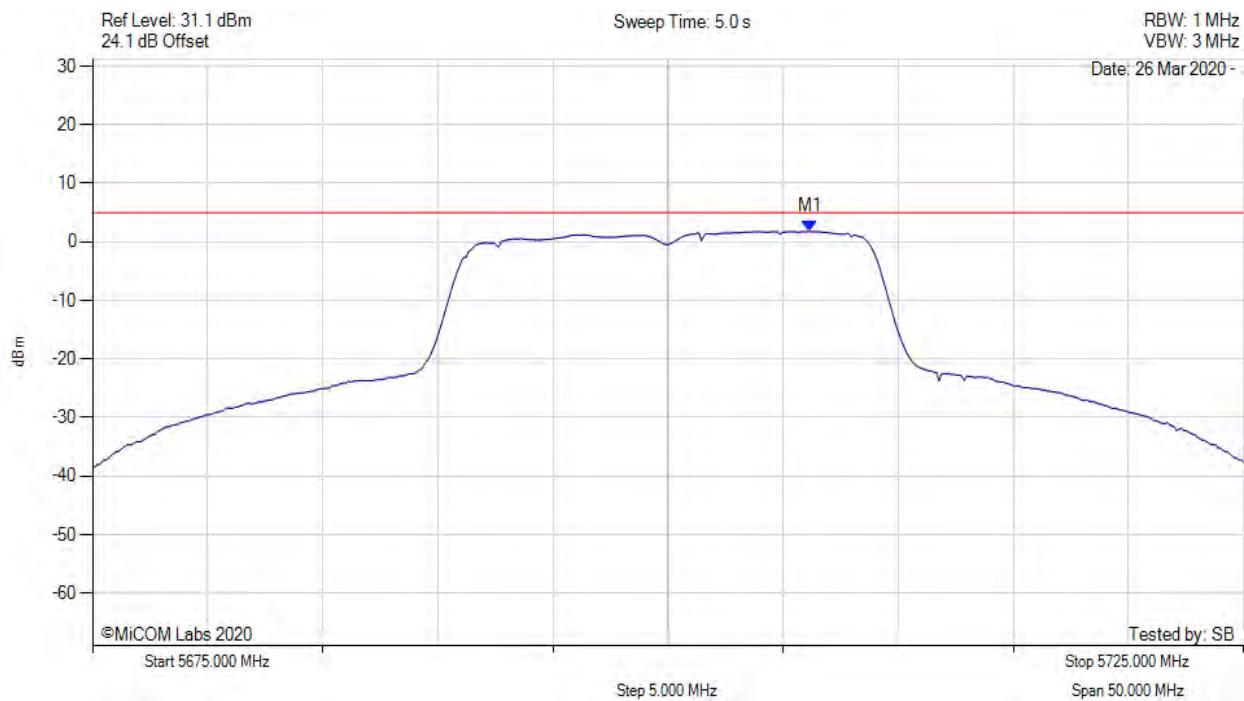
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.060 MHz : 3.420 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



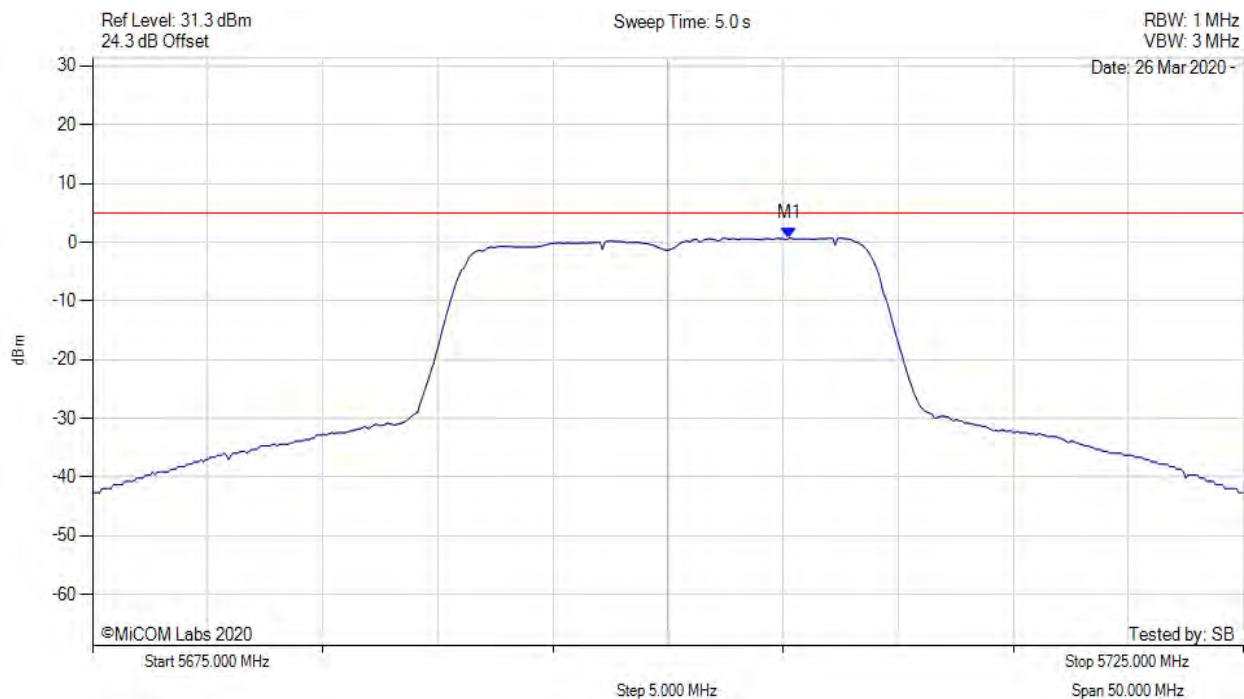
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.162 MHz : 1.799 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



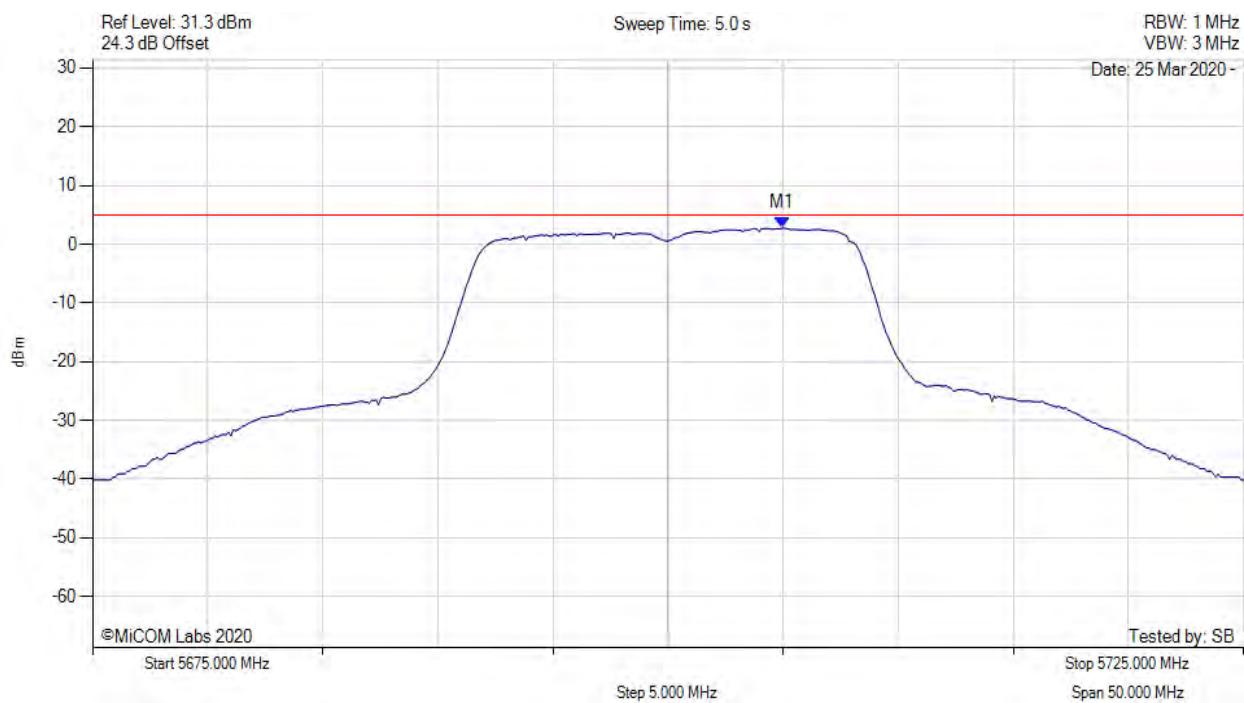
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.261 MHz : 0.689 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



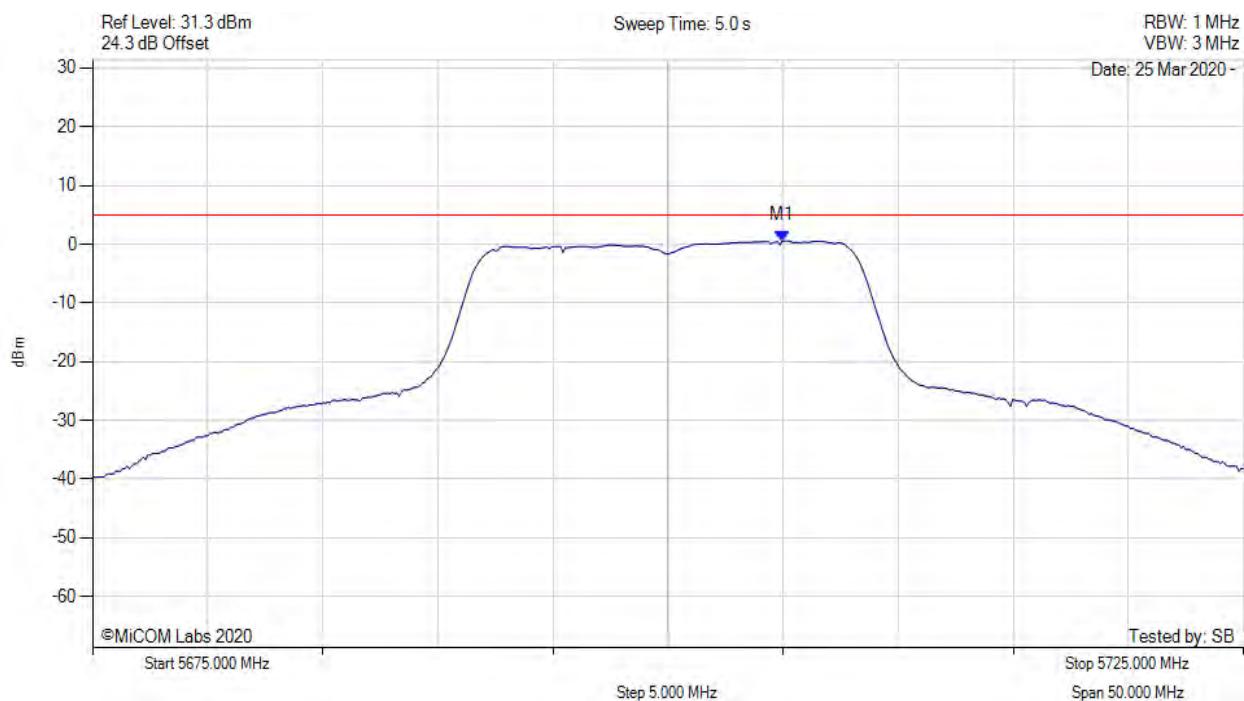
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5704.960 MHz : 2.743 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



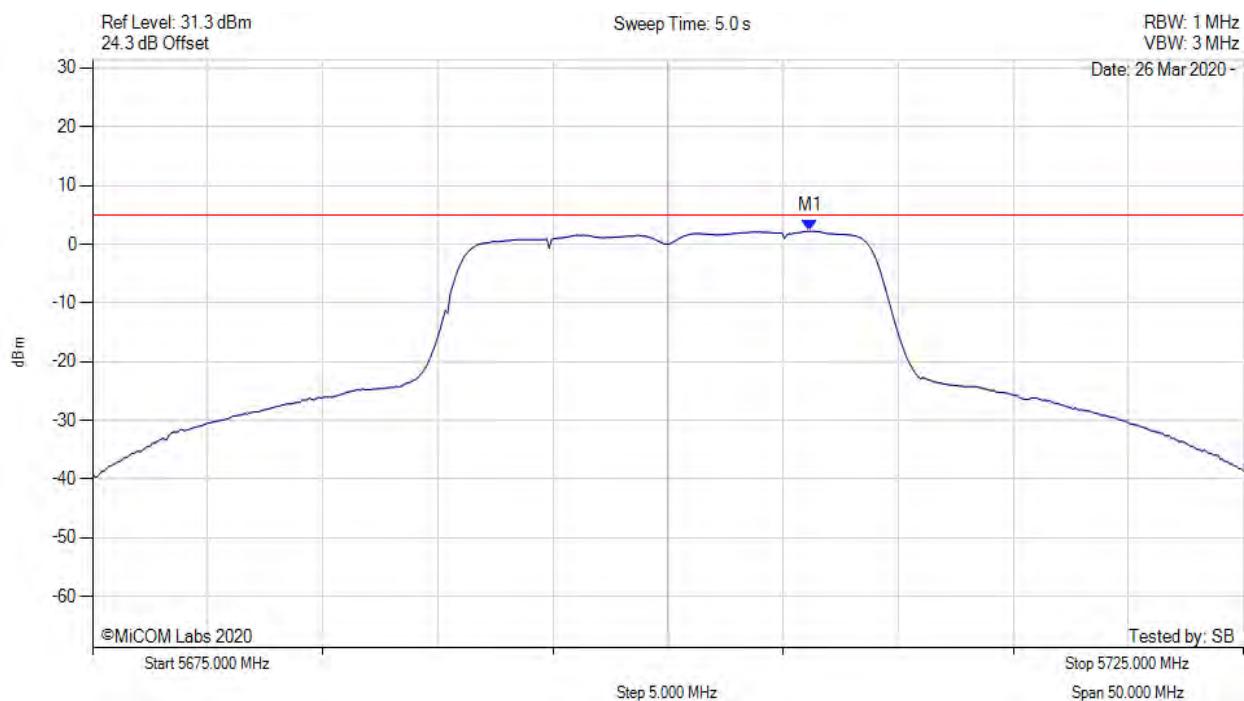
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5704.960 MHz : 0.546 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



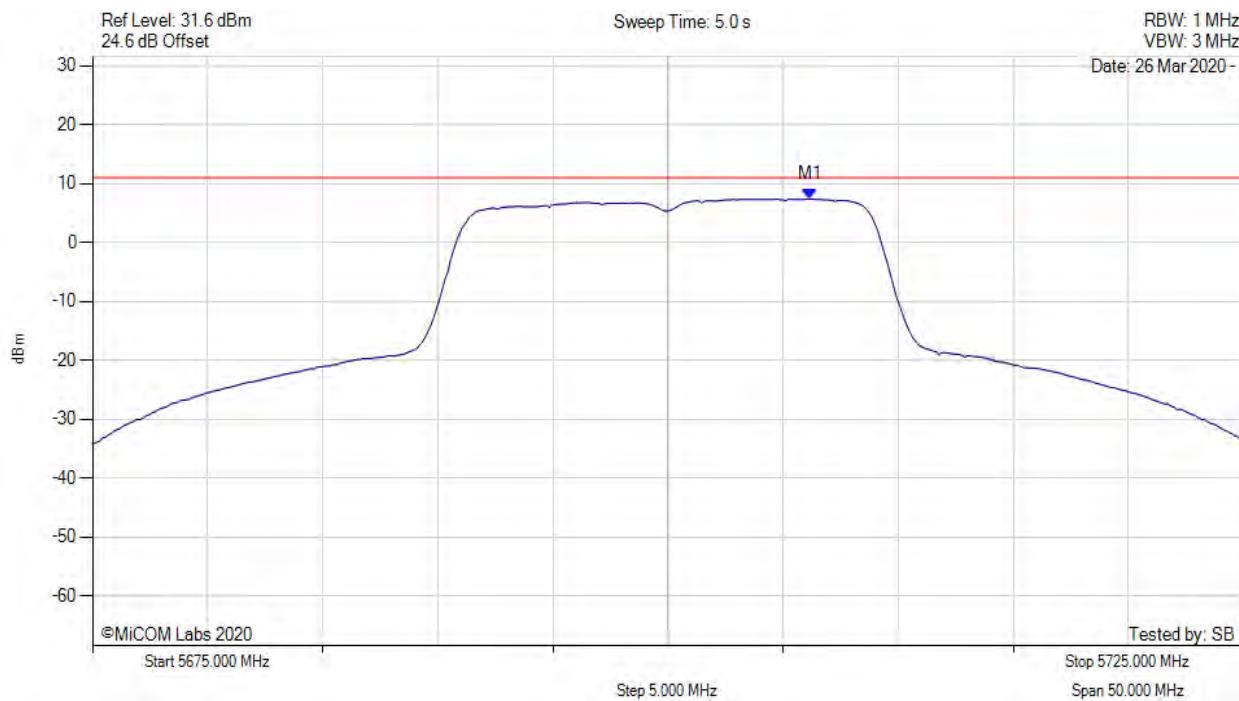
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.162 MHz : 2.220 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



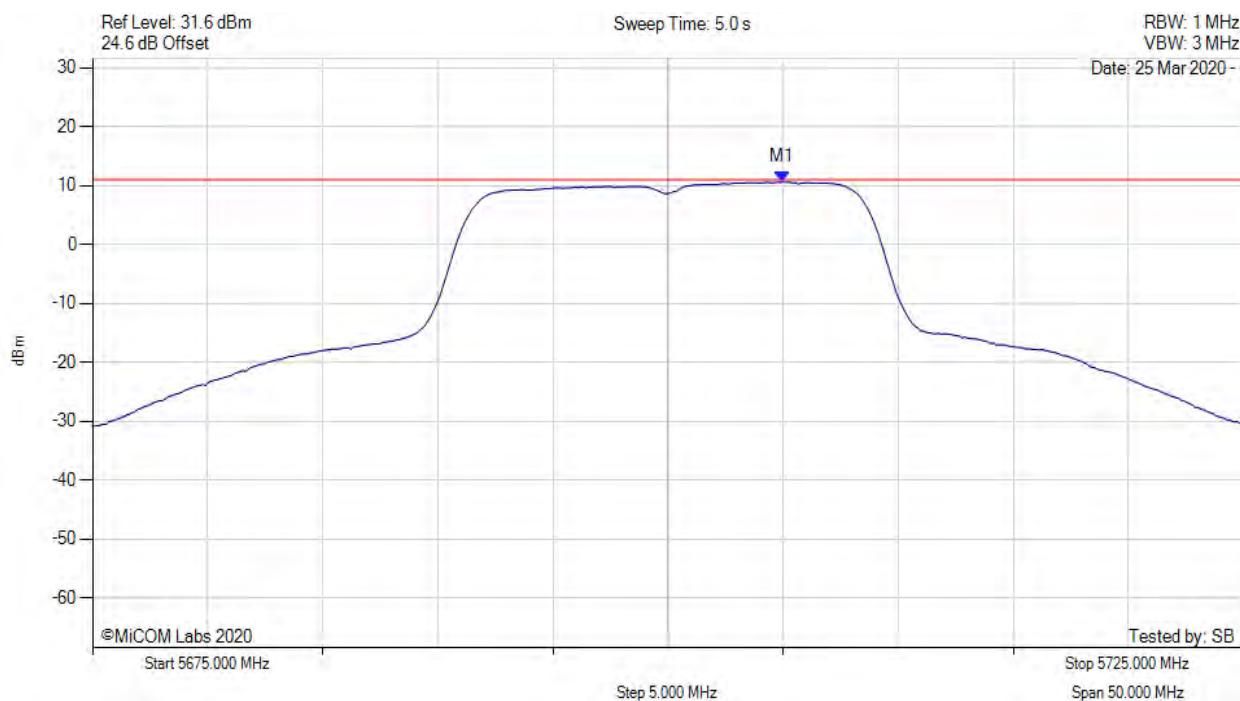
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.200 MHz : 7.387 dBm M1 + DCCF : 5706.200 MHz : 10.389 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



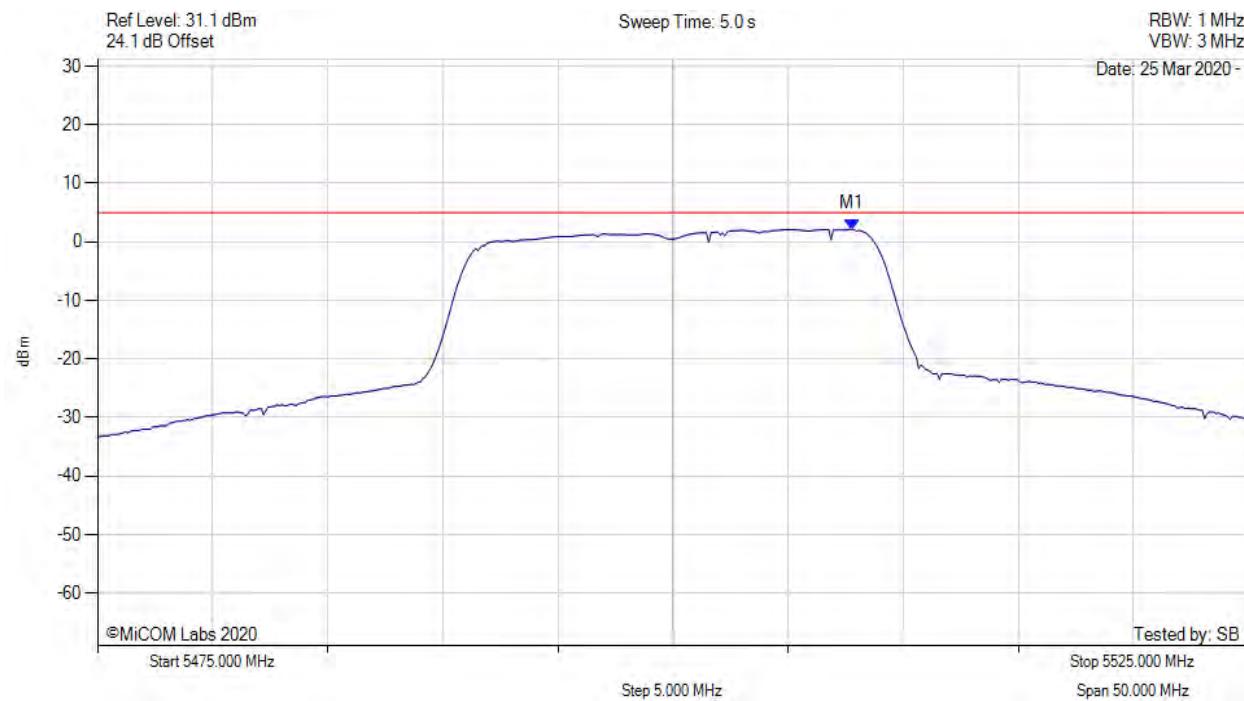
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5704.960 MHz : 10.637 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



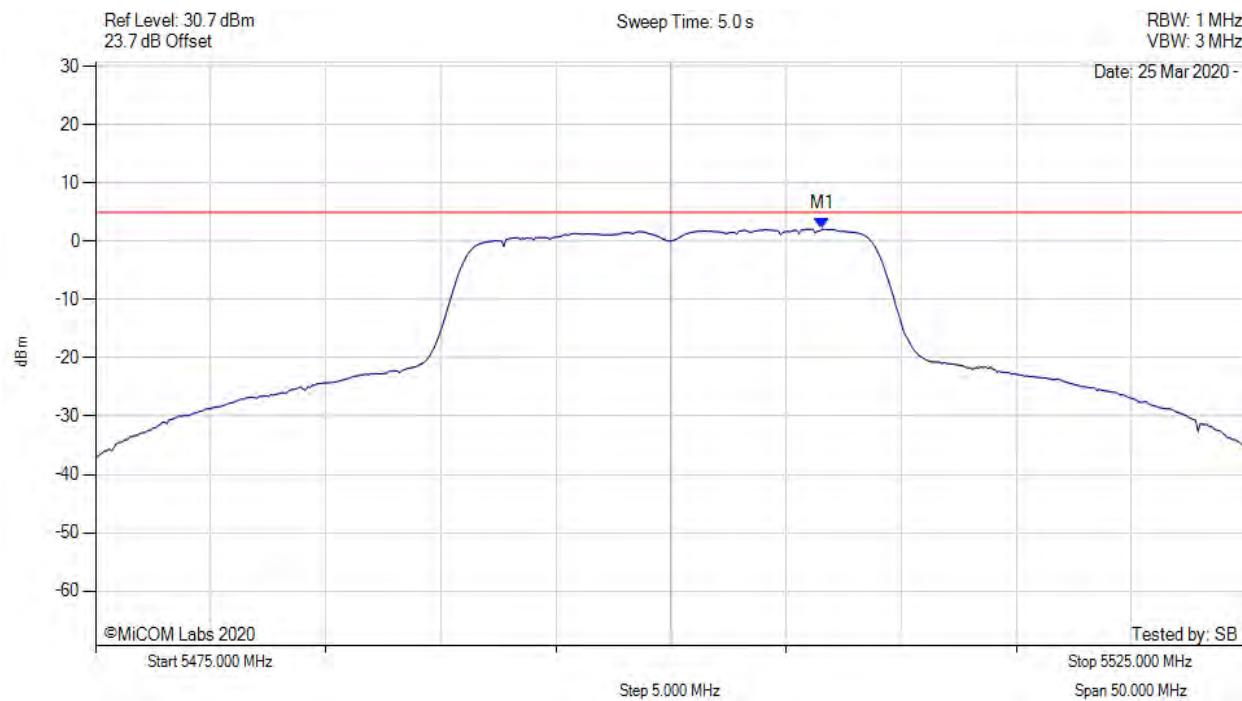
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5507.766 MHz : 2.167 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



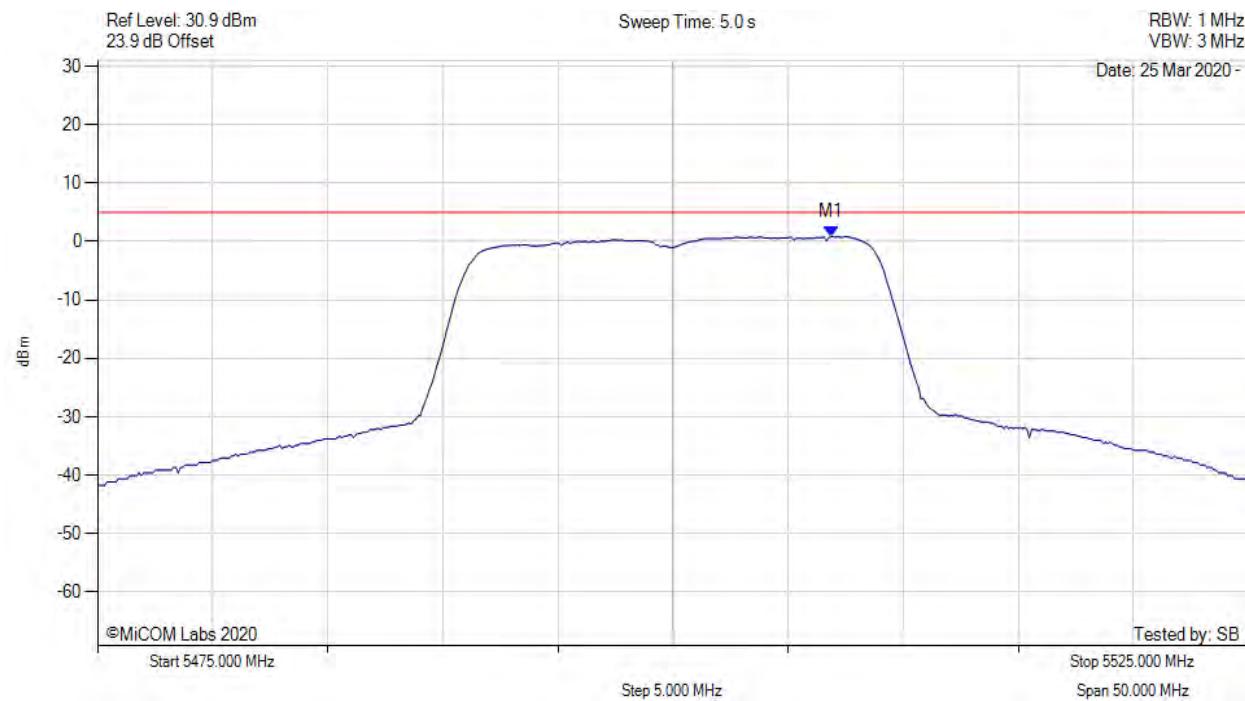
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5506.563 MHz : 2.089 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



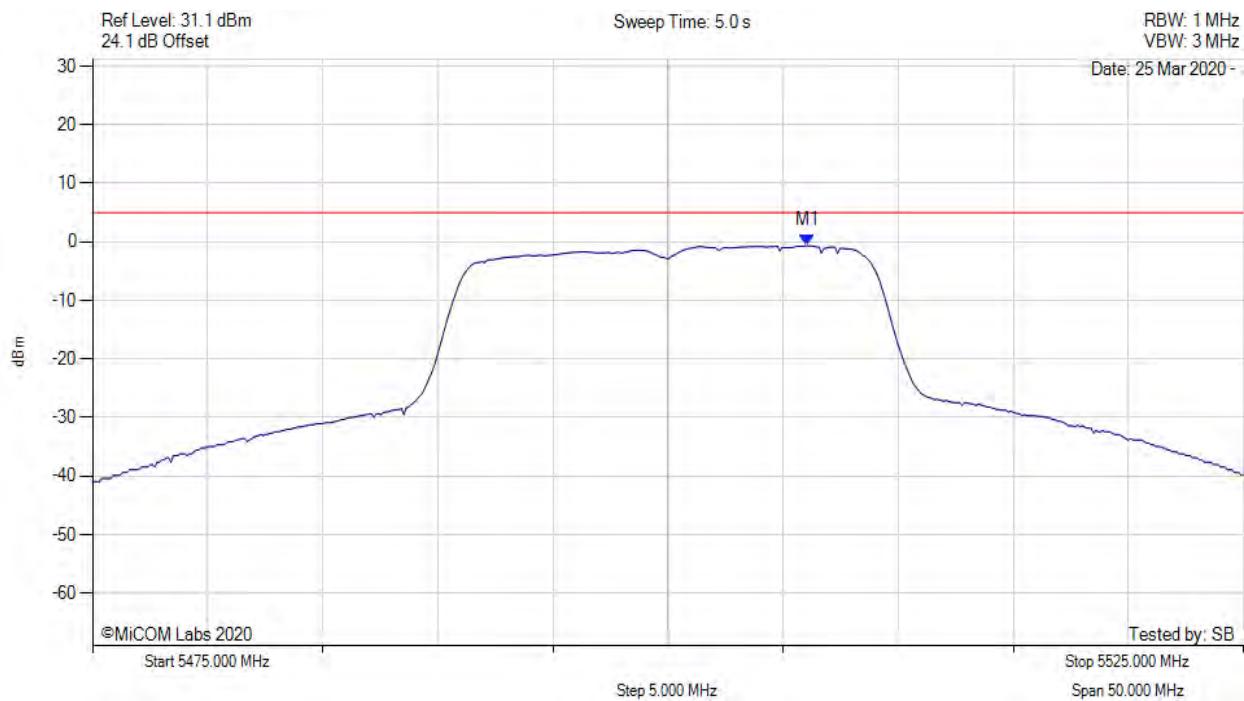
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5506.864 MHz : 0.859 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



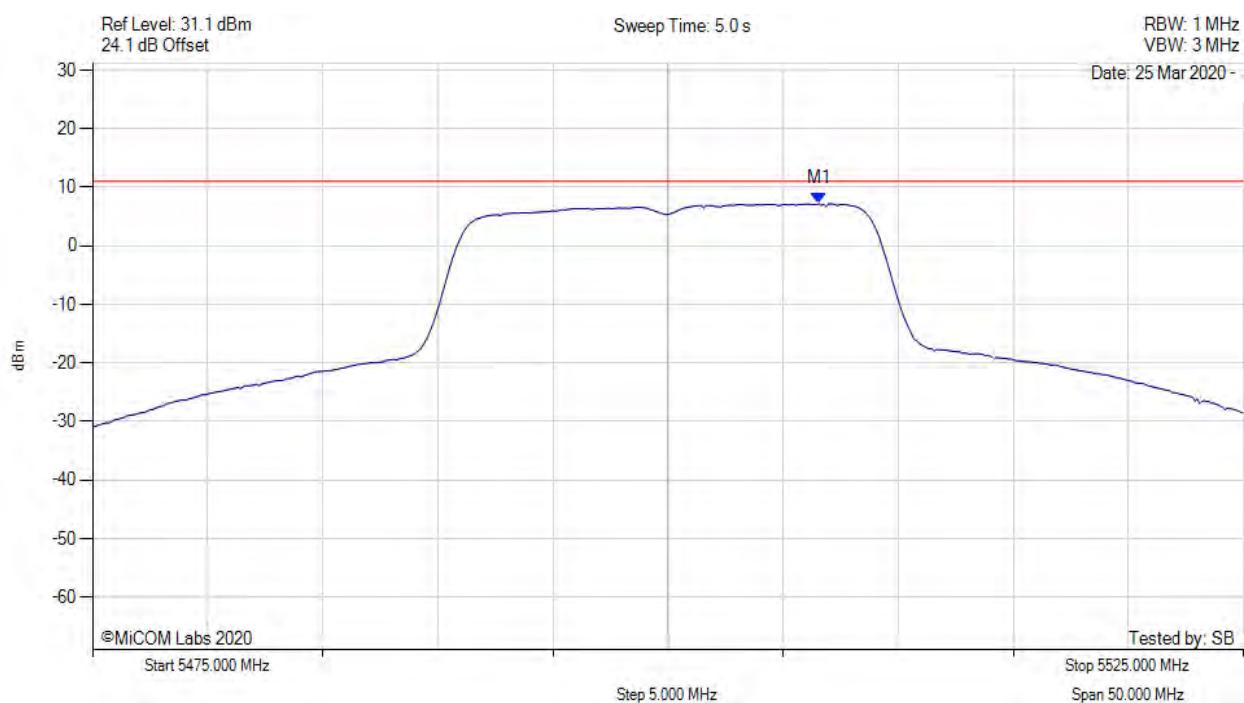
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5506.062 MHz : -0.648 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



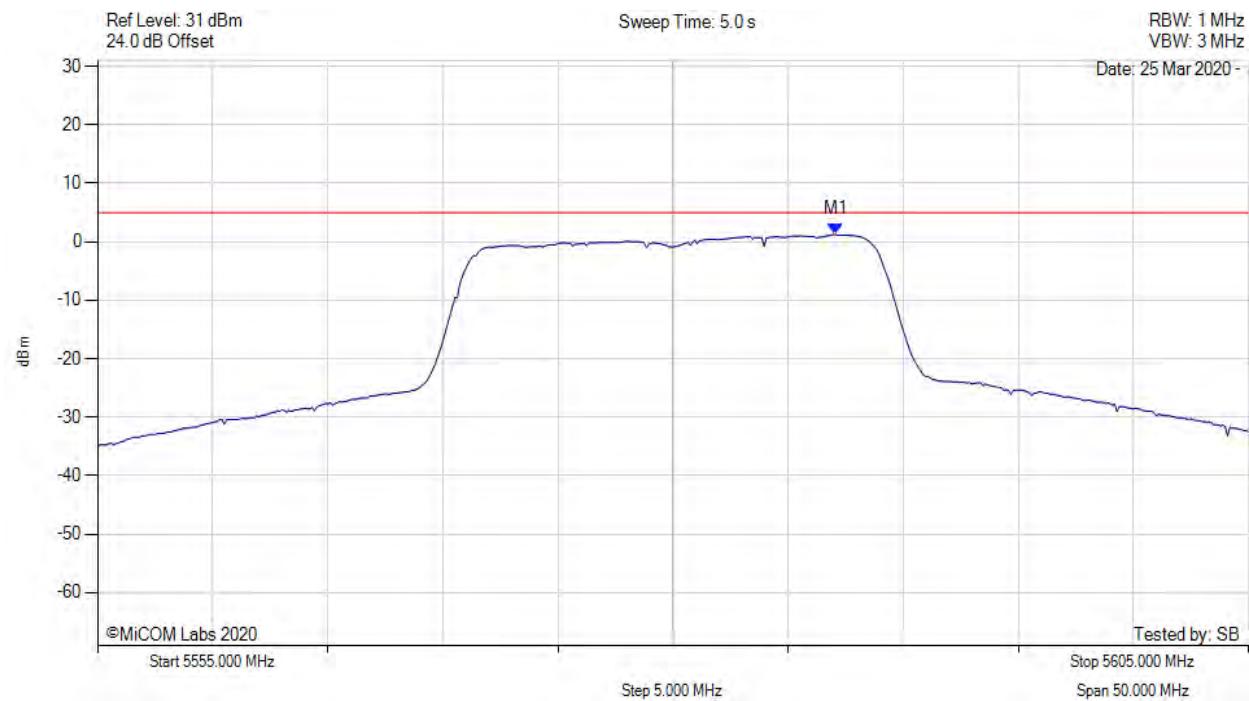
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5506.600 MHz : 7.192 dBm M1 + DCCF : 5506.600 MHz : 10.194 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -0.8 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



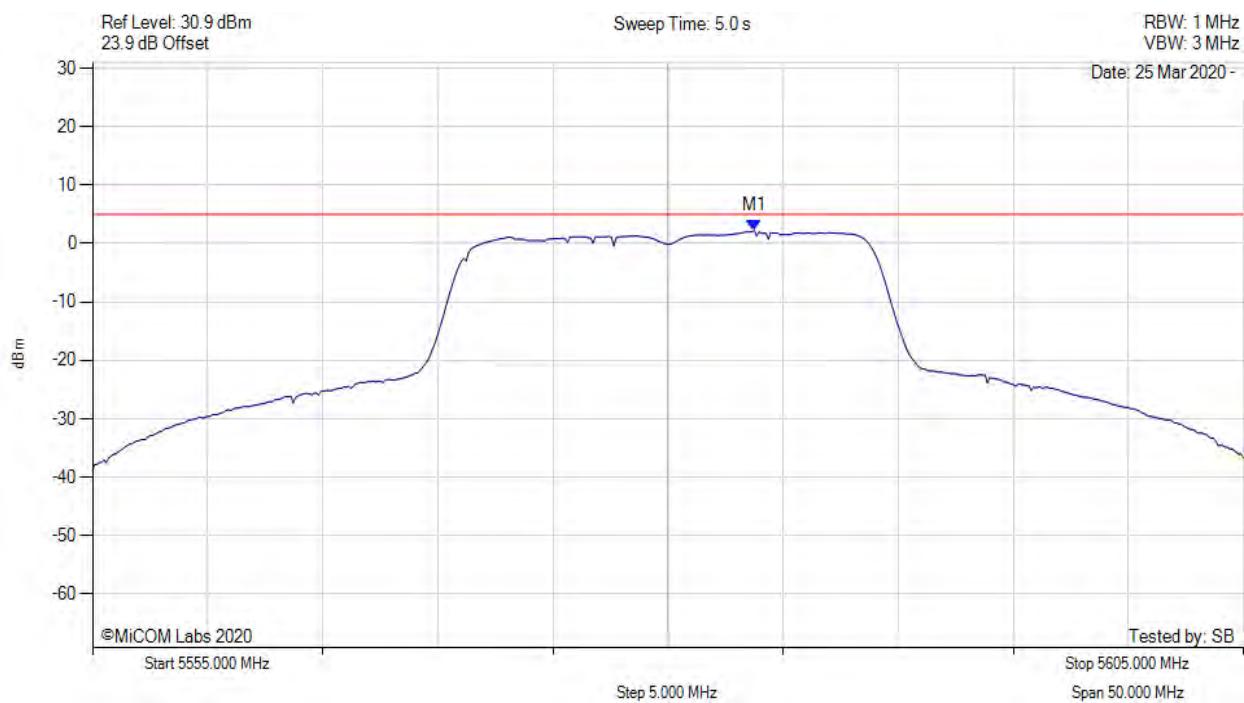
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5587.064 MHz : 1.235 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



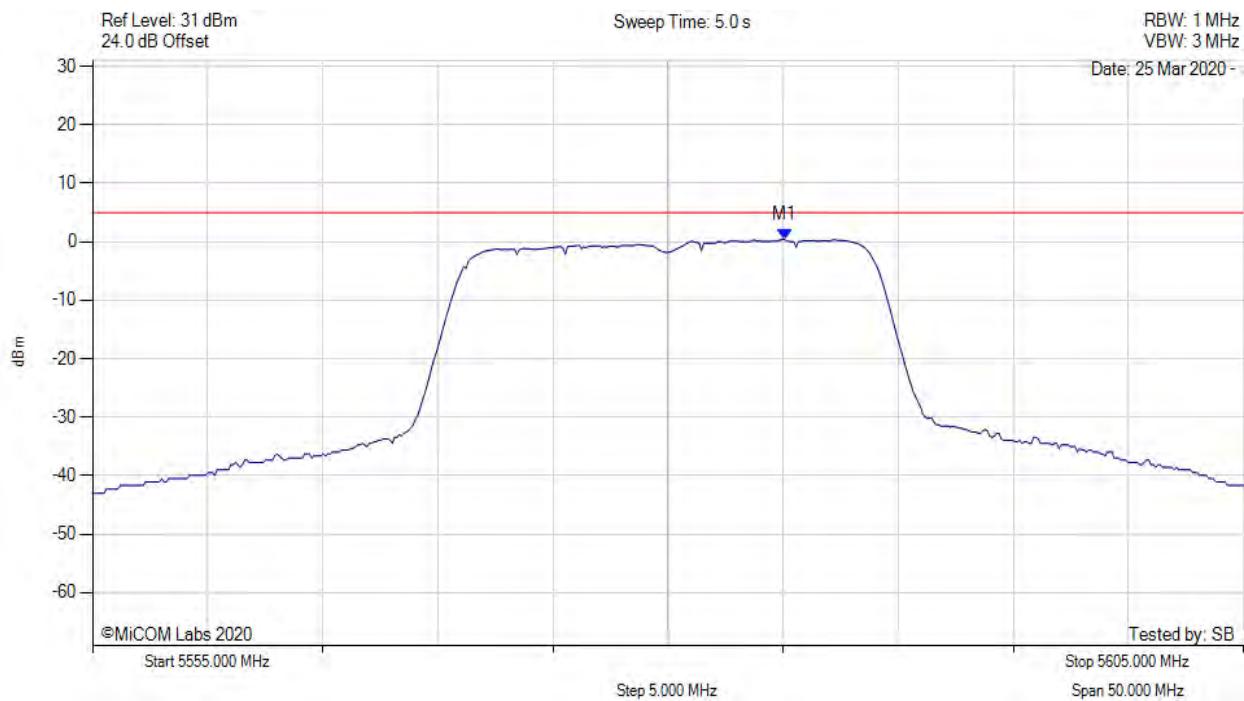
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5583.758 MHz : 2.211 dBm	Channel Frequency: 5580.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



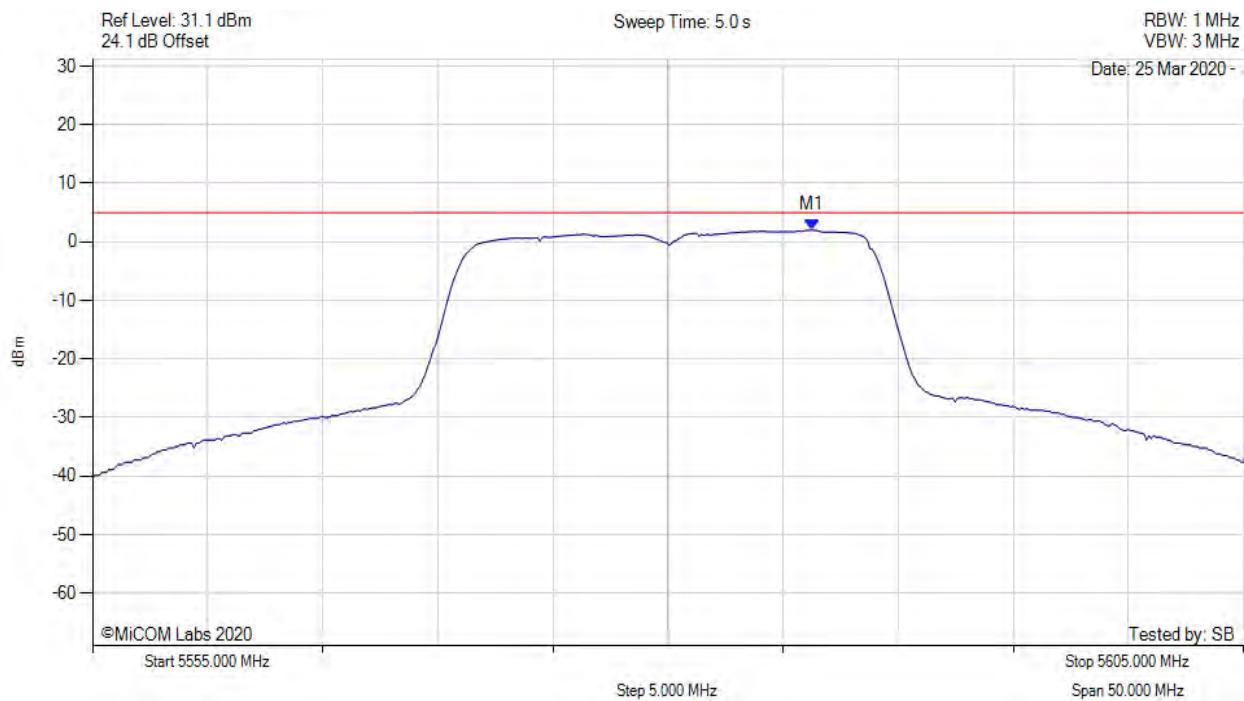
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5585.060 MHz : 0.379 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



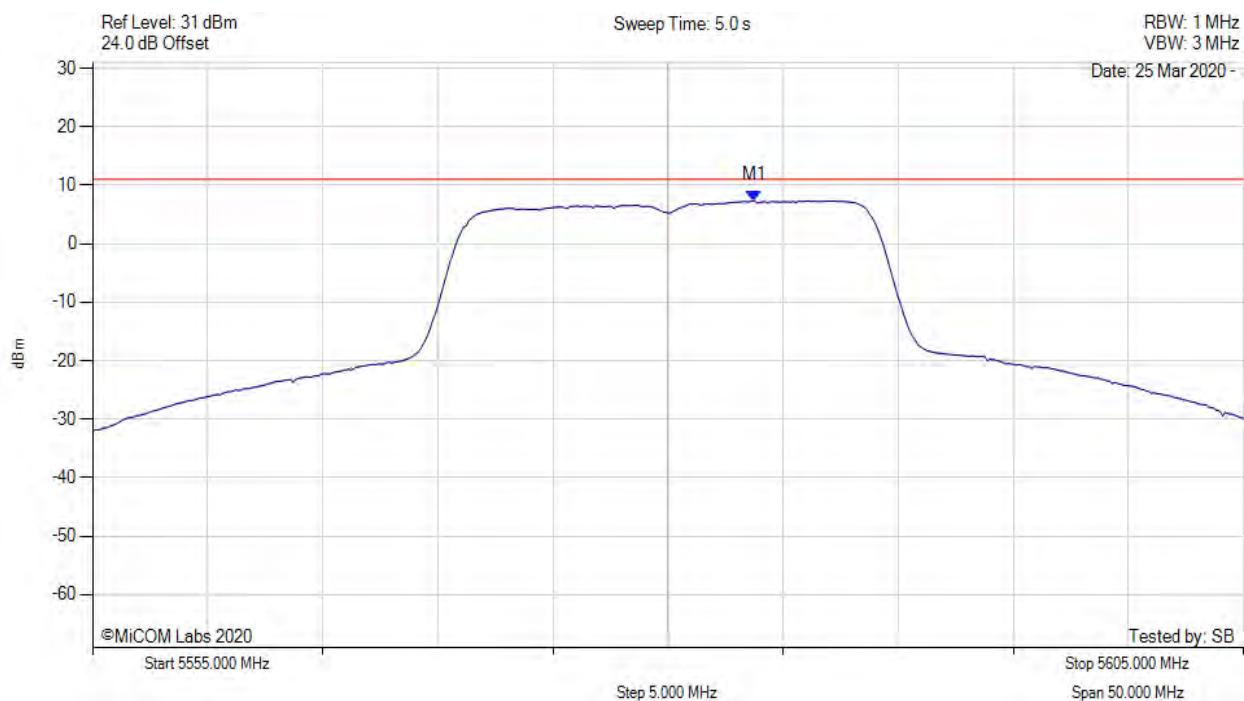
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5586.263 MHz : 2.016 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



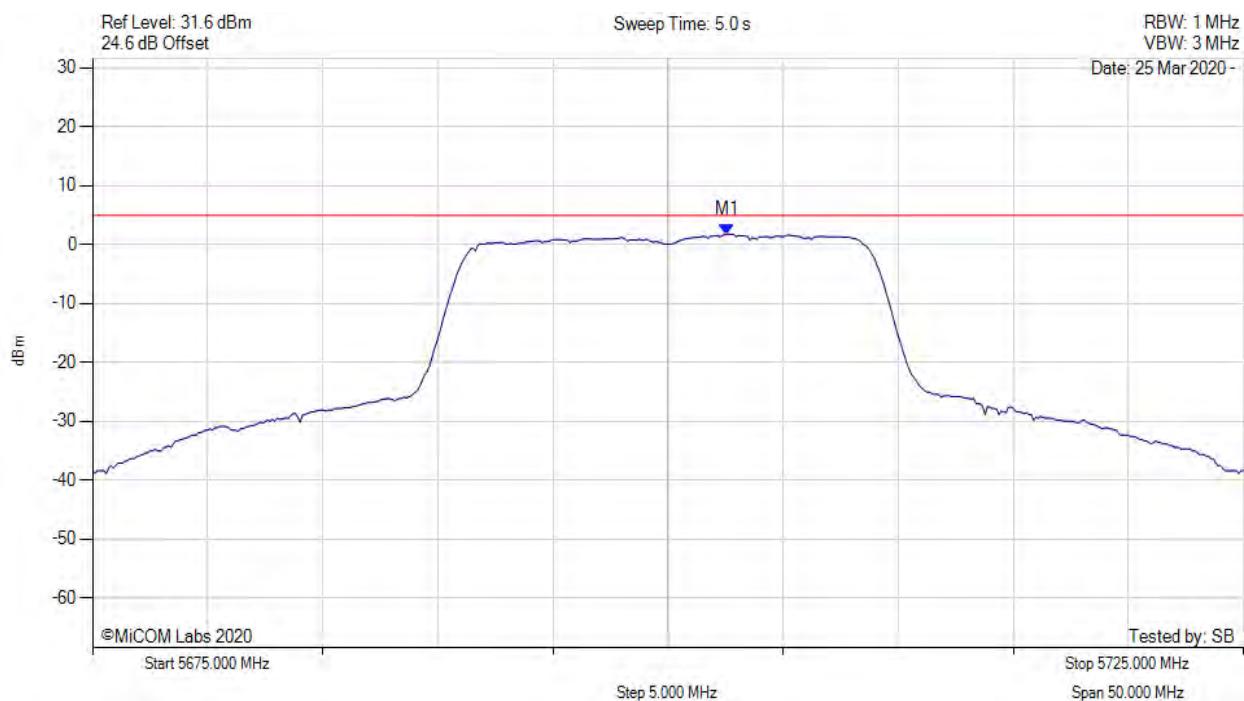
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5583.800 MHz : 7.354 dBm M1 + DCCF : 5583.800 MHz : 10.356 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -0.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



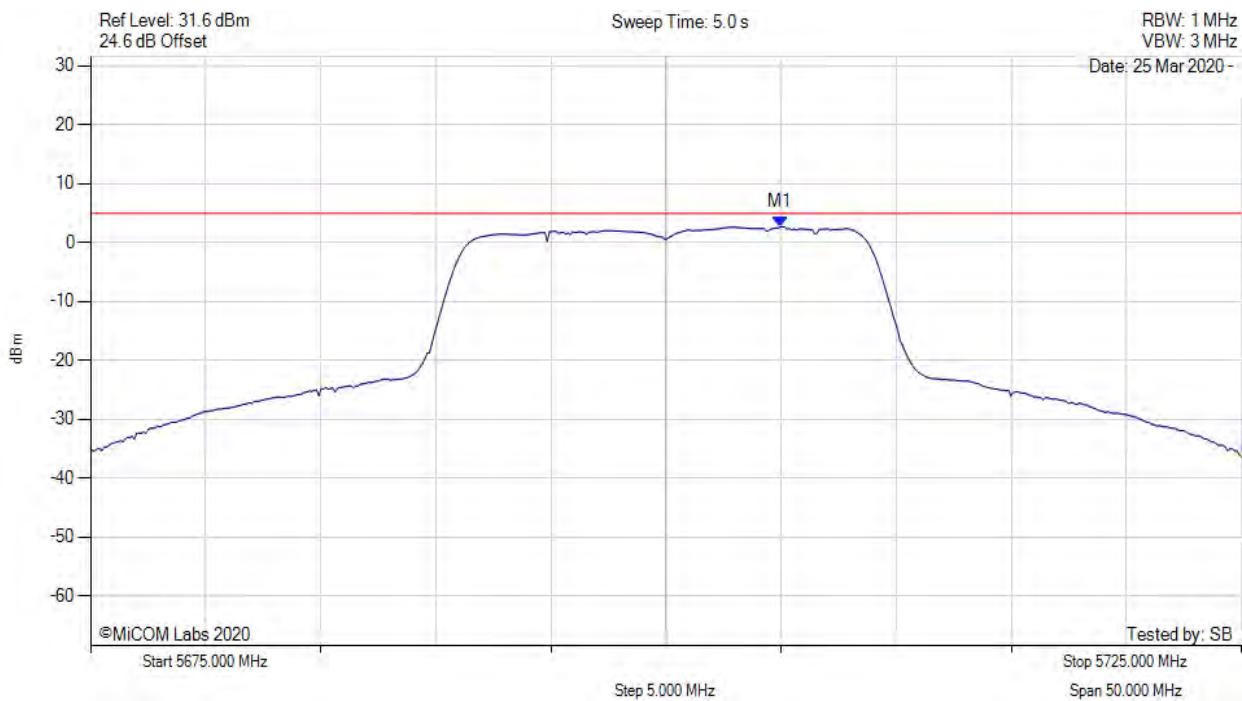
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5702.555 MHz : 1.768 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



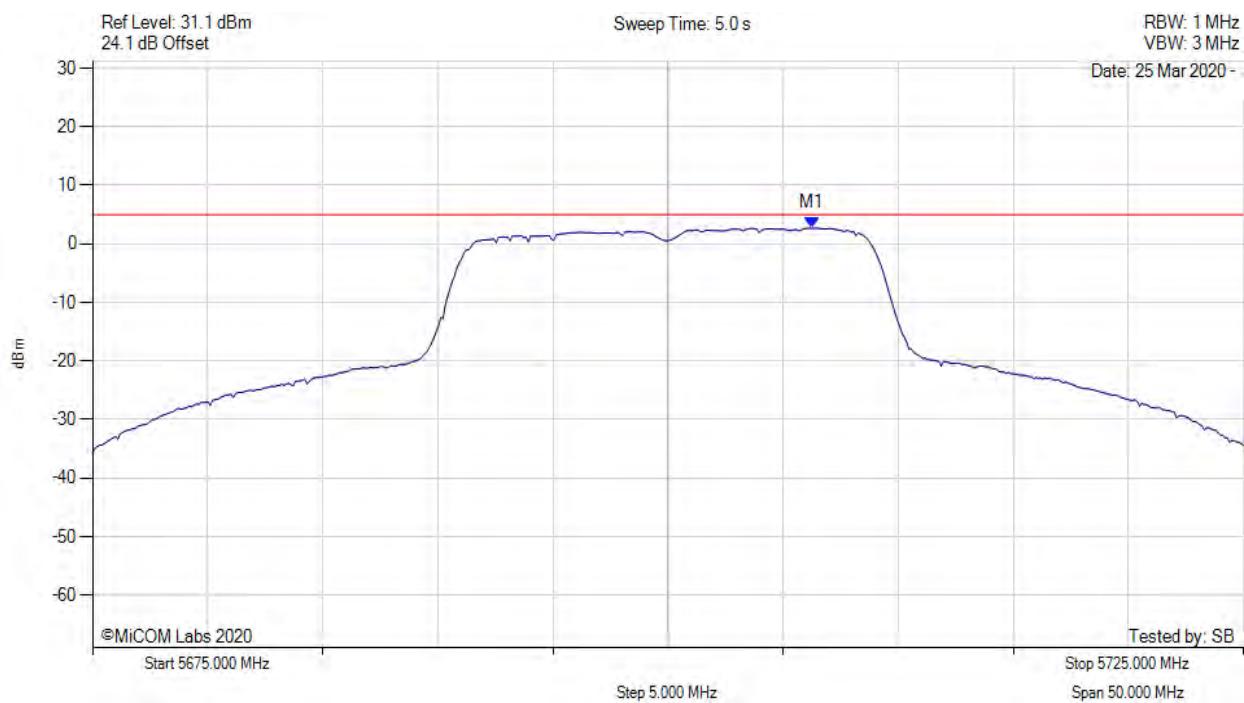
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5704.960 MHz : 2.655 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



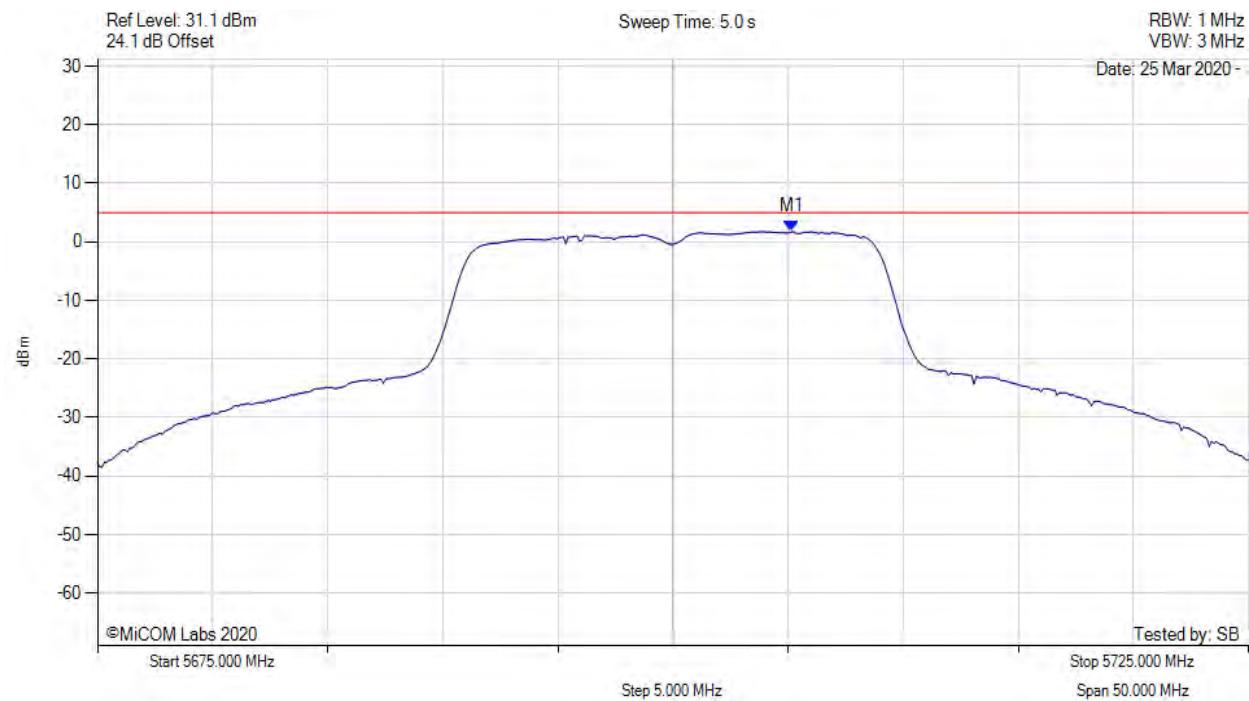
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.263 MHz : 2.686 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



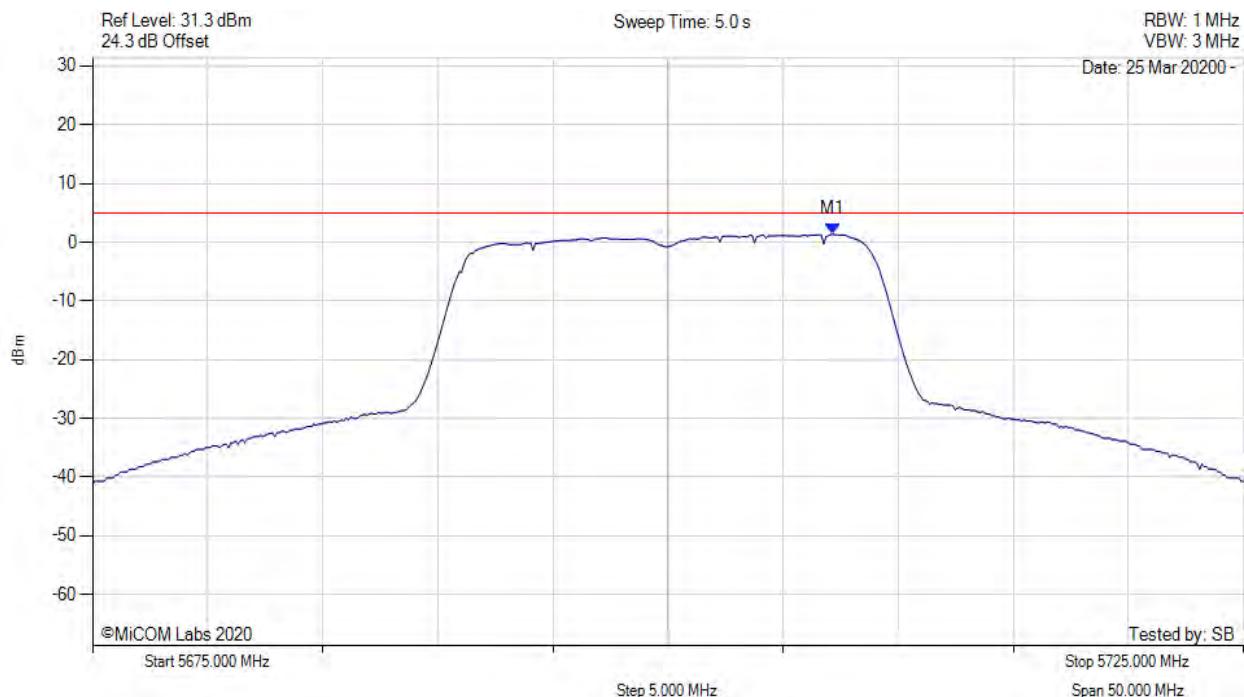
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.160 MHz : 1.732 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



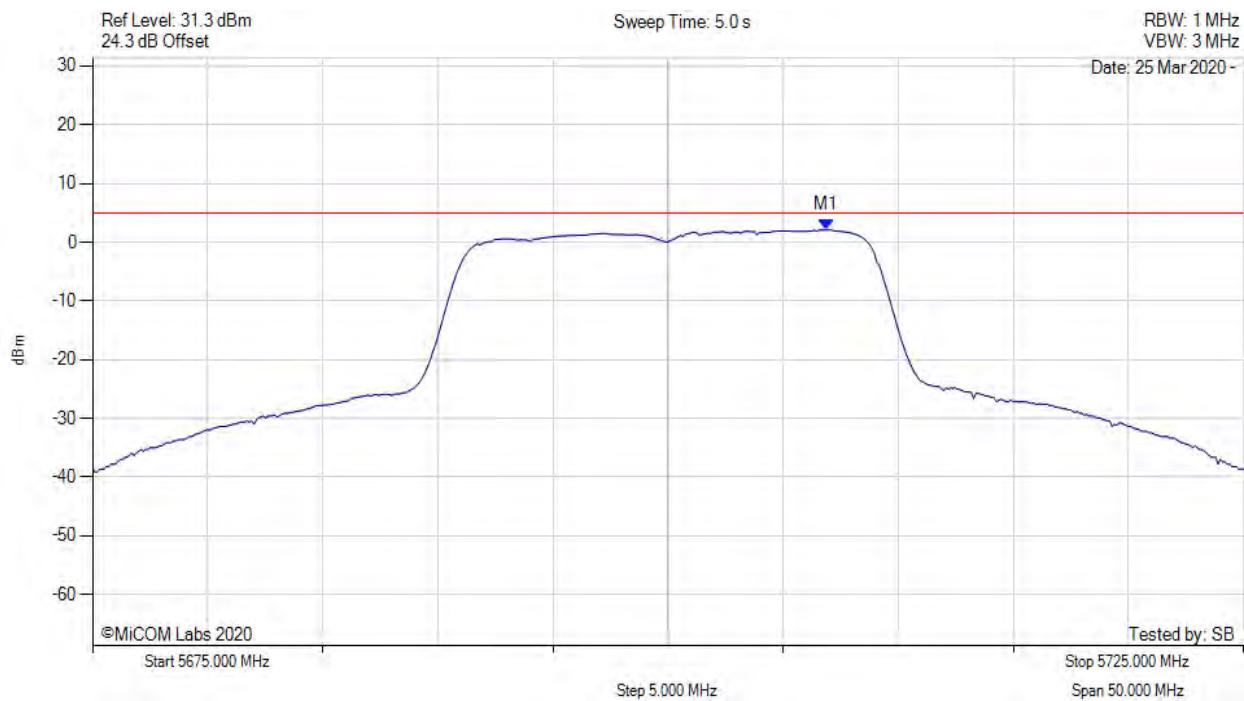
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5707.164 MHz : 1.355 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



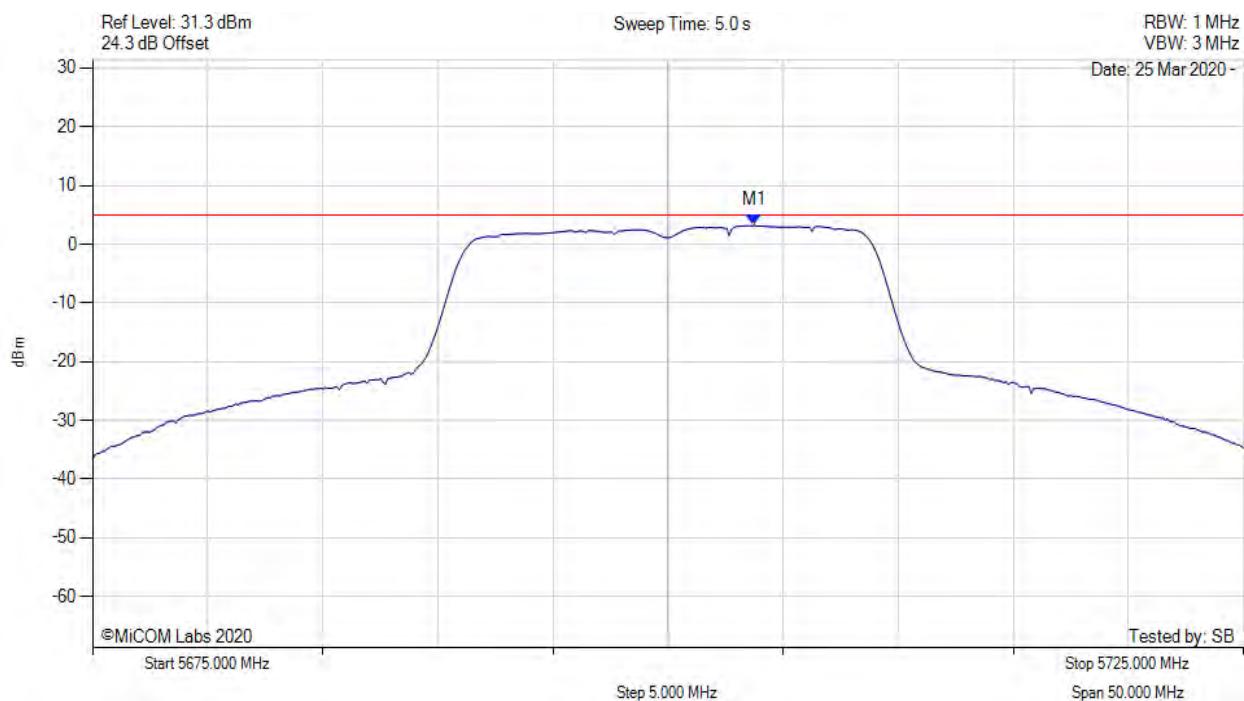
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.864 MHz : 2.088 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



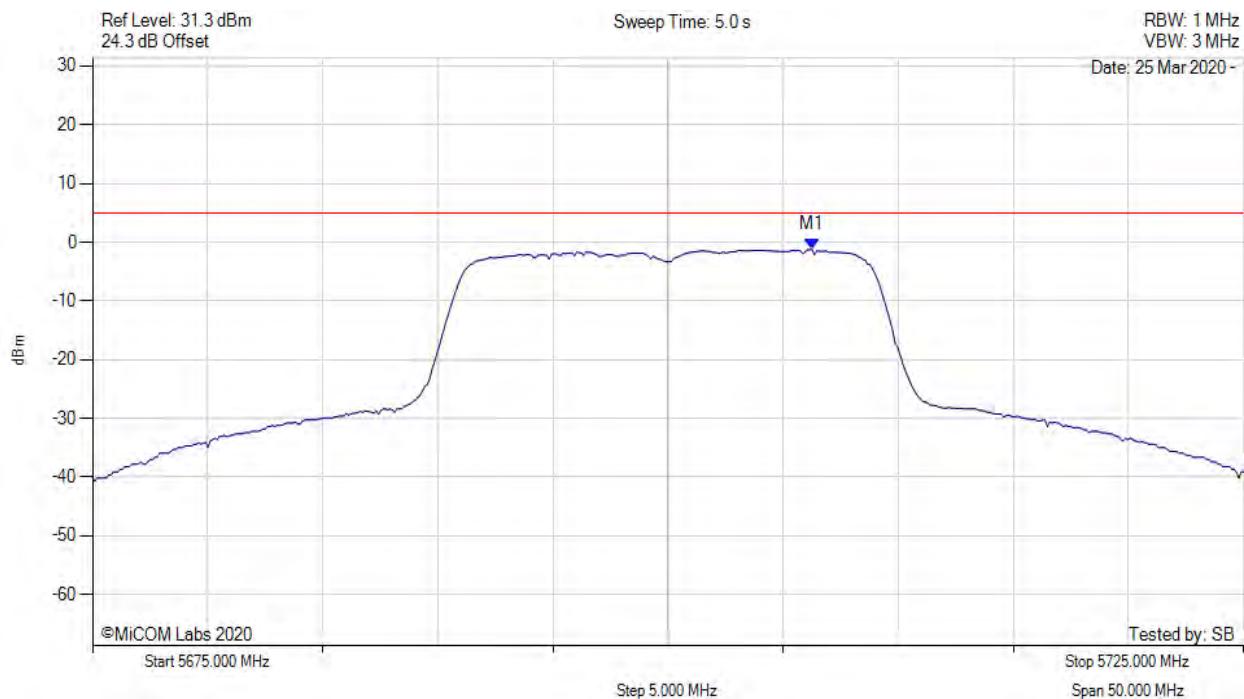
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5703.758 MHz : 3.211 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



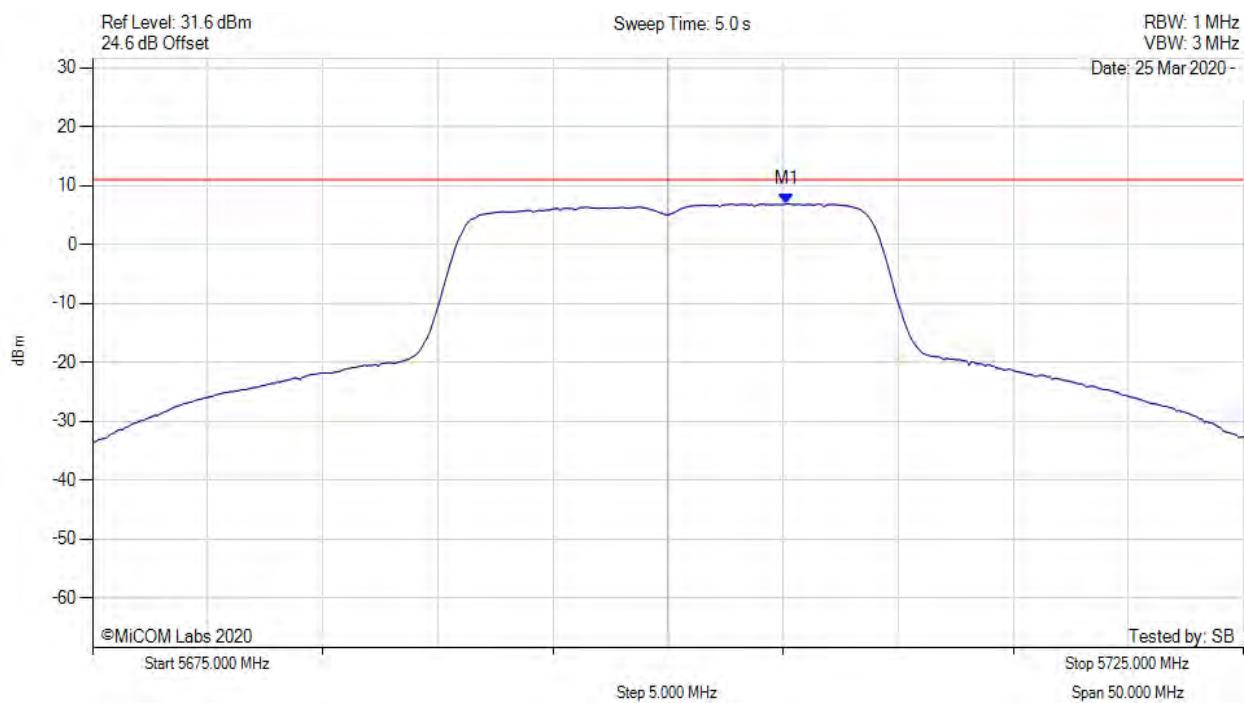
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5706.263 MHz : -1.244 dBm	Limit: ≤ 4.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



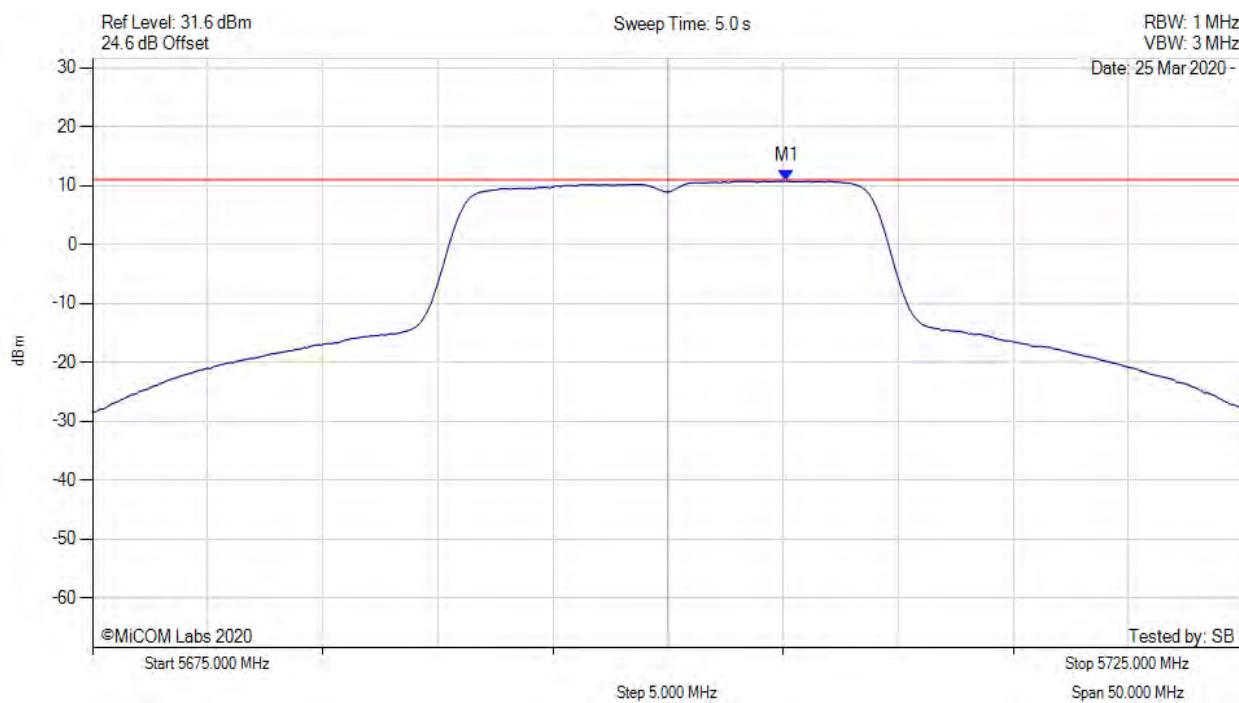
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.200 MHz : 6.916 dBm M1 + DCCF : 5705.200 MHz : 9.918 dBm Duty Cycle Correction Factor : +3.01 dB	Limit: ≤ 11.0 dBm Margin: -1.1 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5700.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



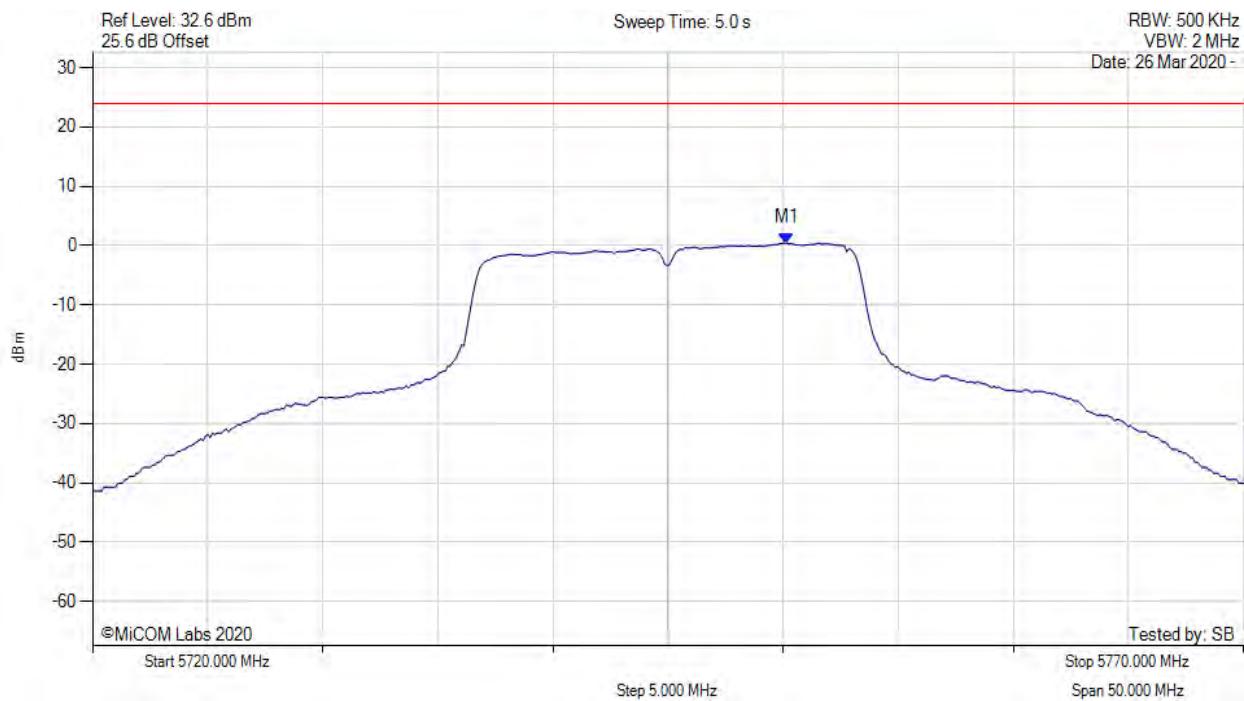
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5705.160 MHz : 10.785 dBm	Channel Frequency: 5700.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



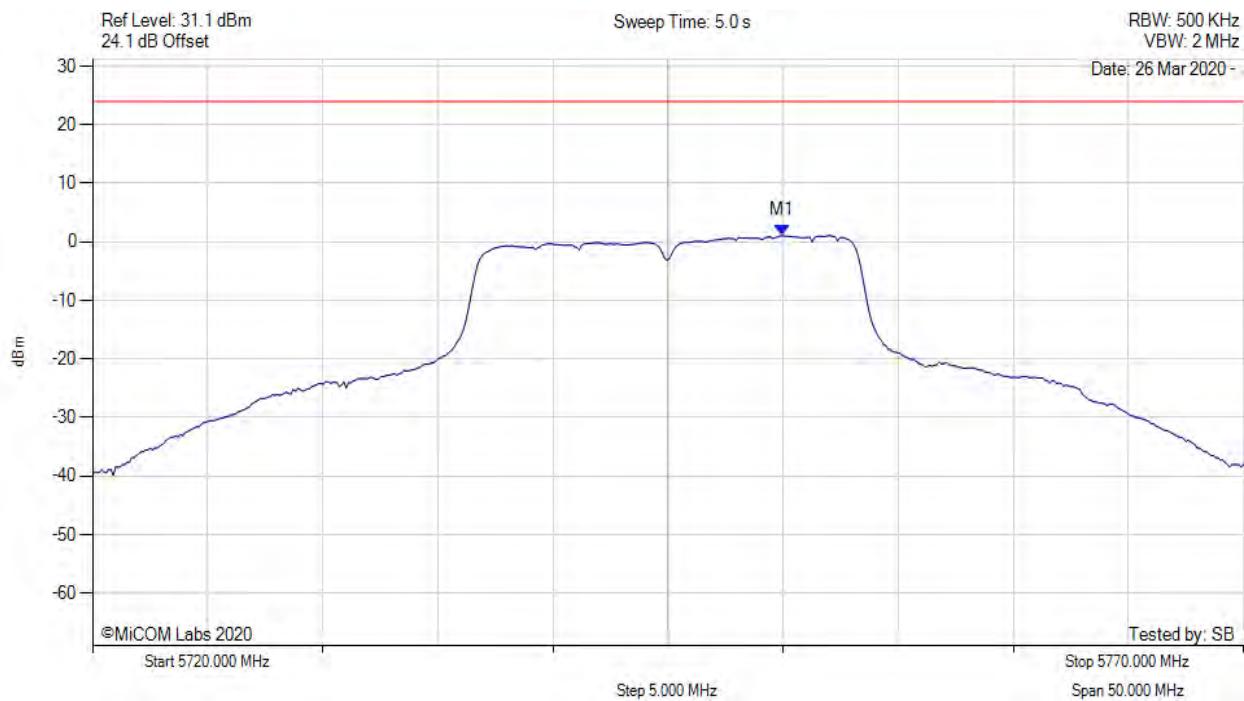
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.160 MHz : 0.440 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



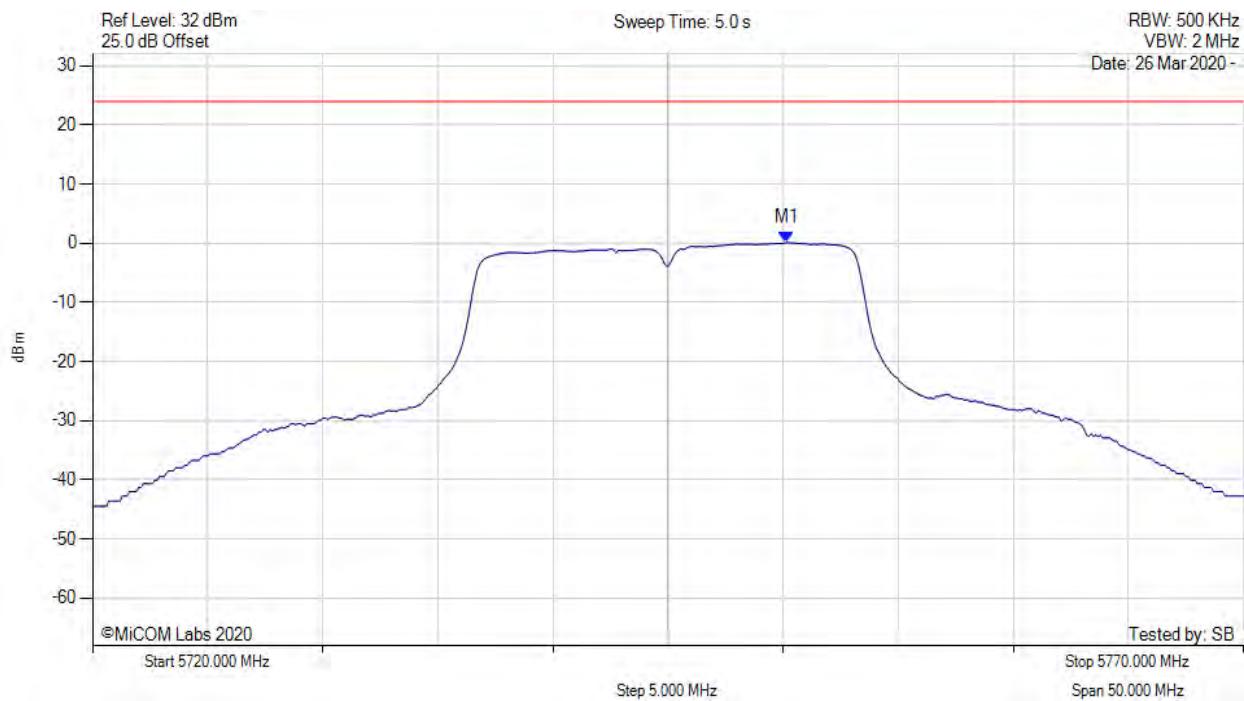
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5749.960 MHz : 1.073 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5745.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



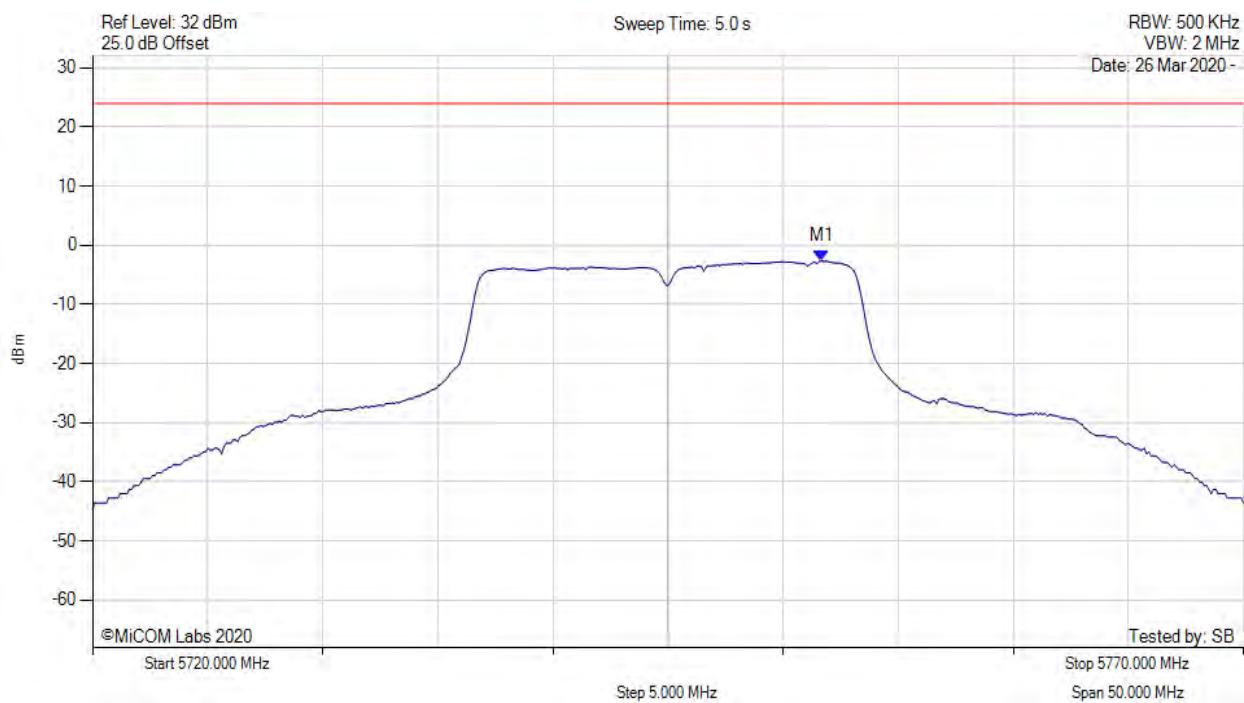
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.160 MHz : 0.134 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5745.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



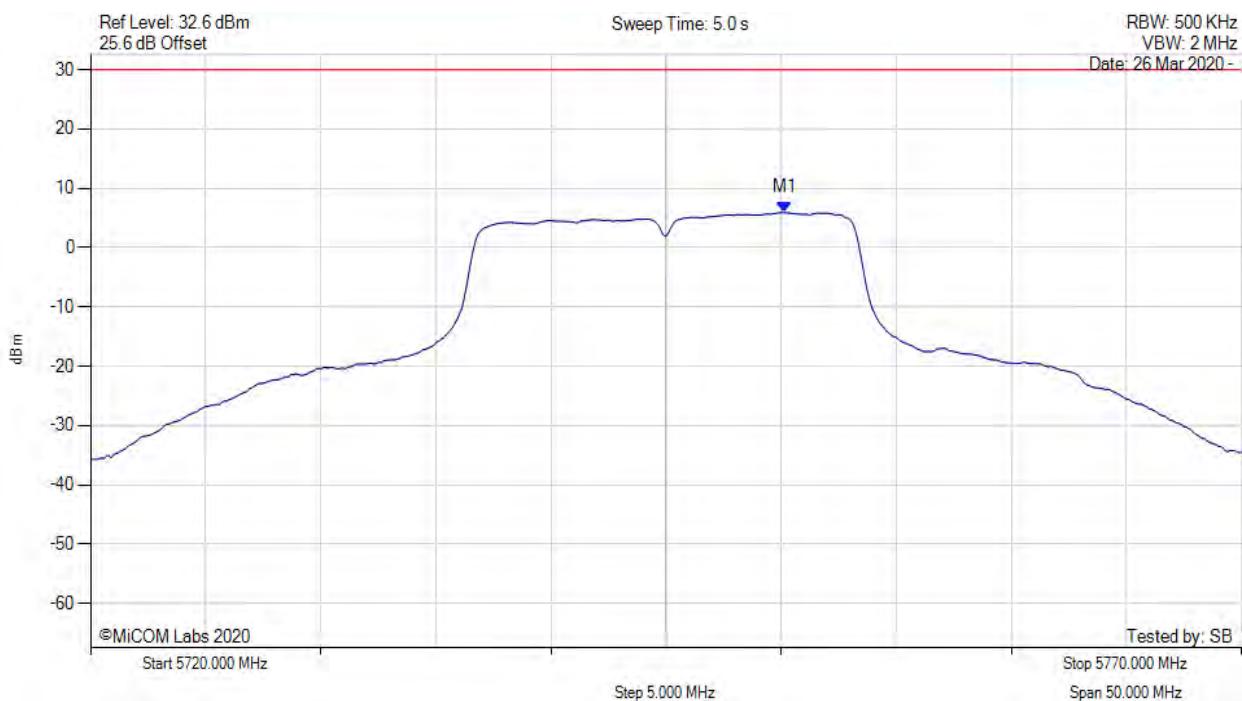
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5751.663 MHz : -2.667 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



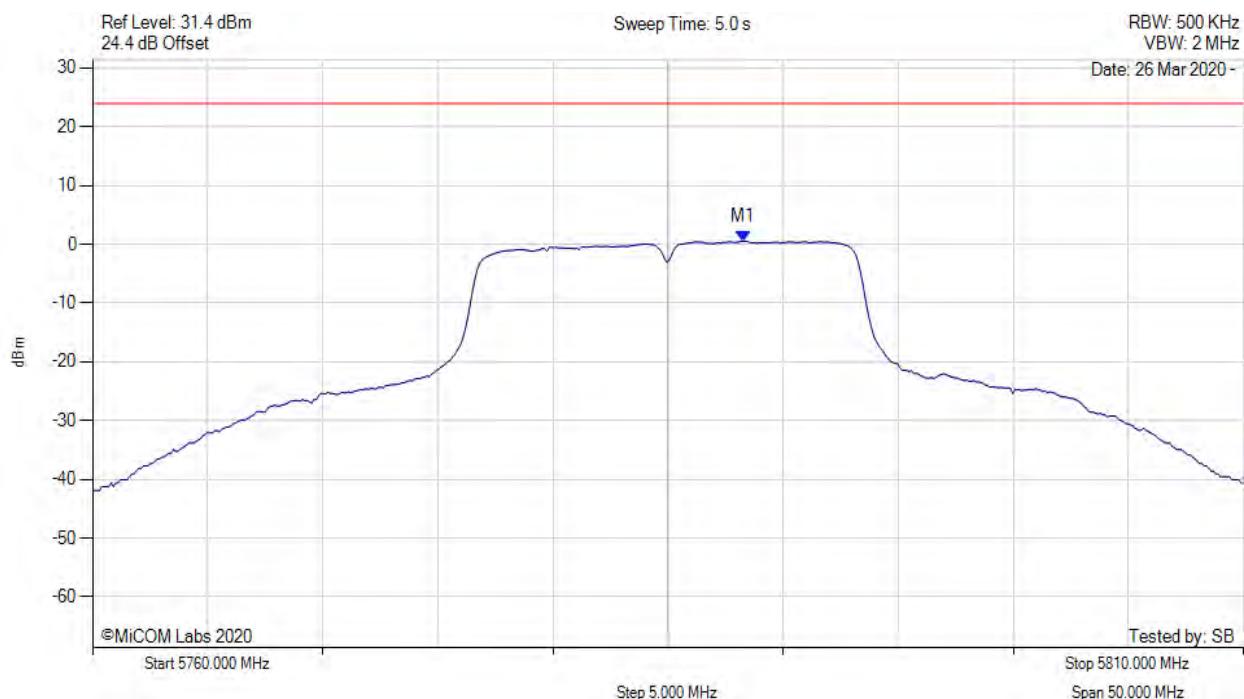
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.200 MHz : 5.910 dBm M1 + DCCF : 5750.200 MHz : 8.990 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -21.0 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



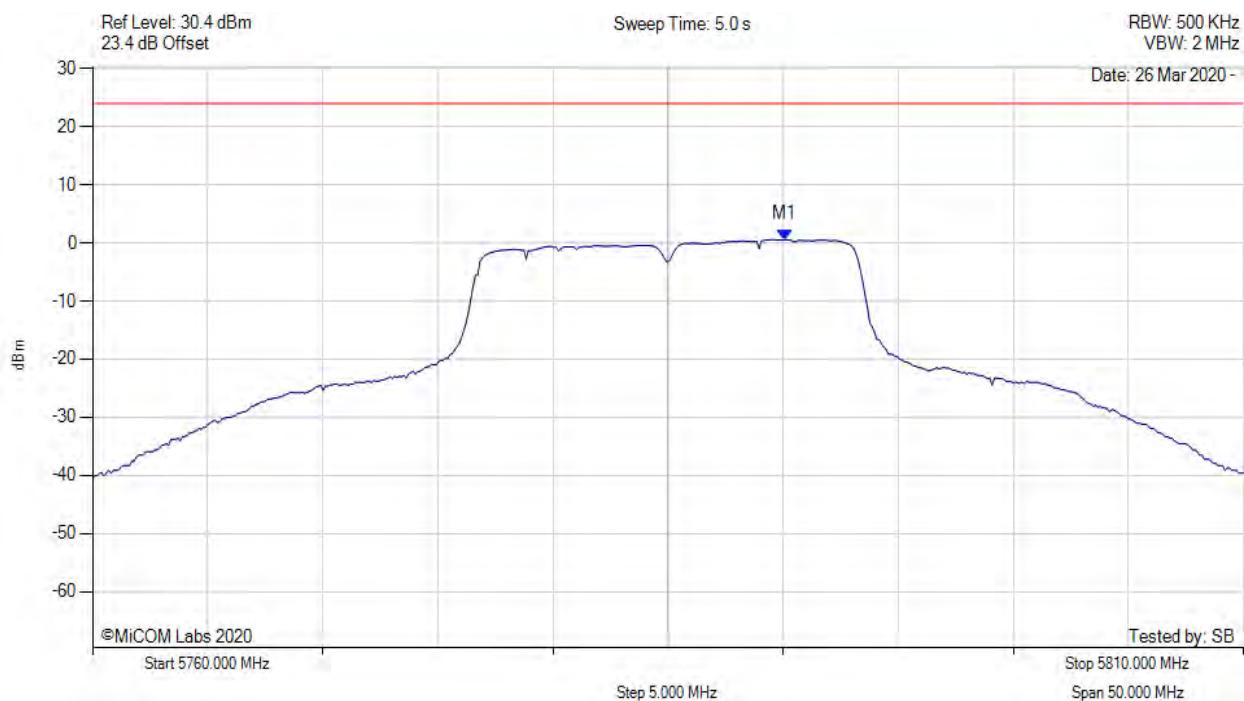
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5788.257 MHz : 0.505 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



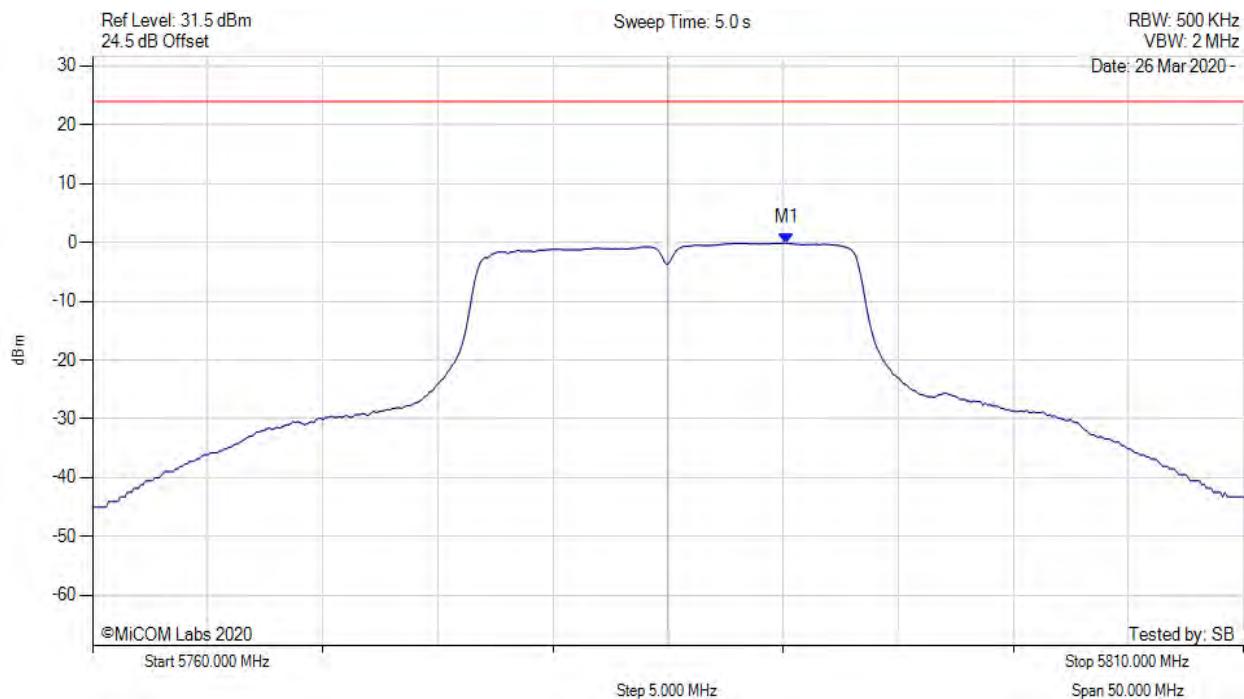
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.060 MHz : 0.577 dBm	Channel Frequency: 5785.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5785.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



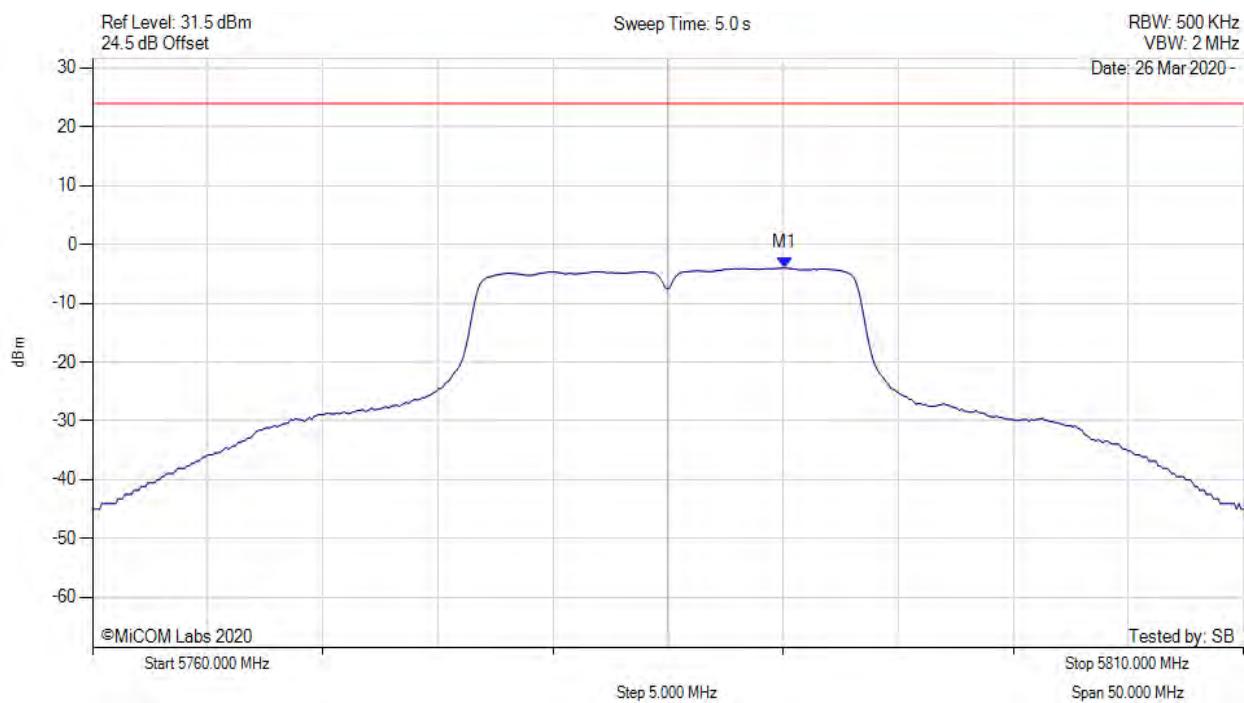
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.160 MHz : -0.125 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5785.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac

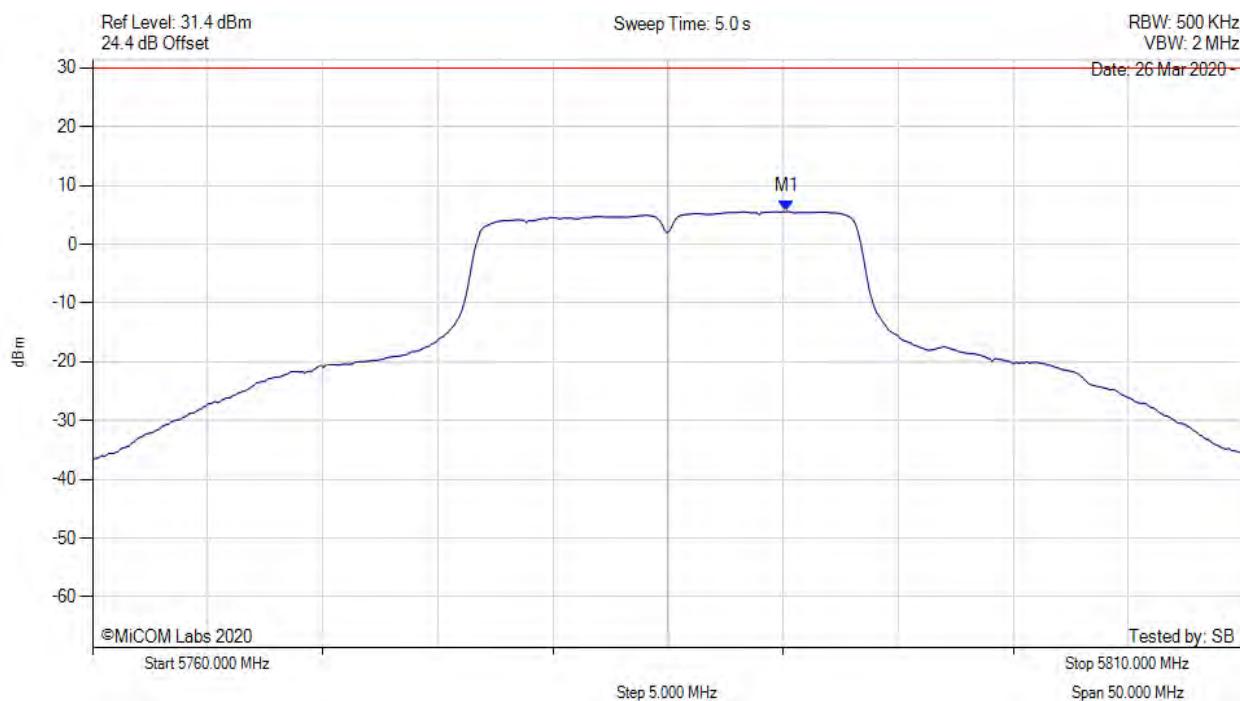


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.060 MHz : -3.979 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



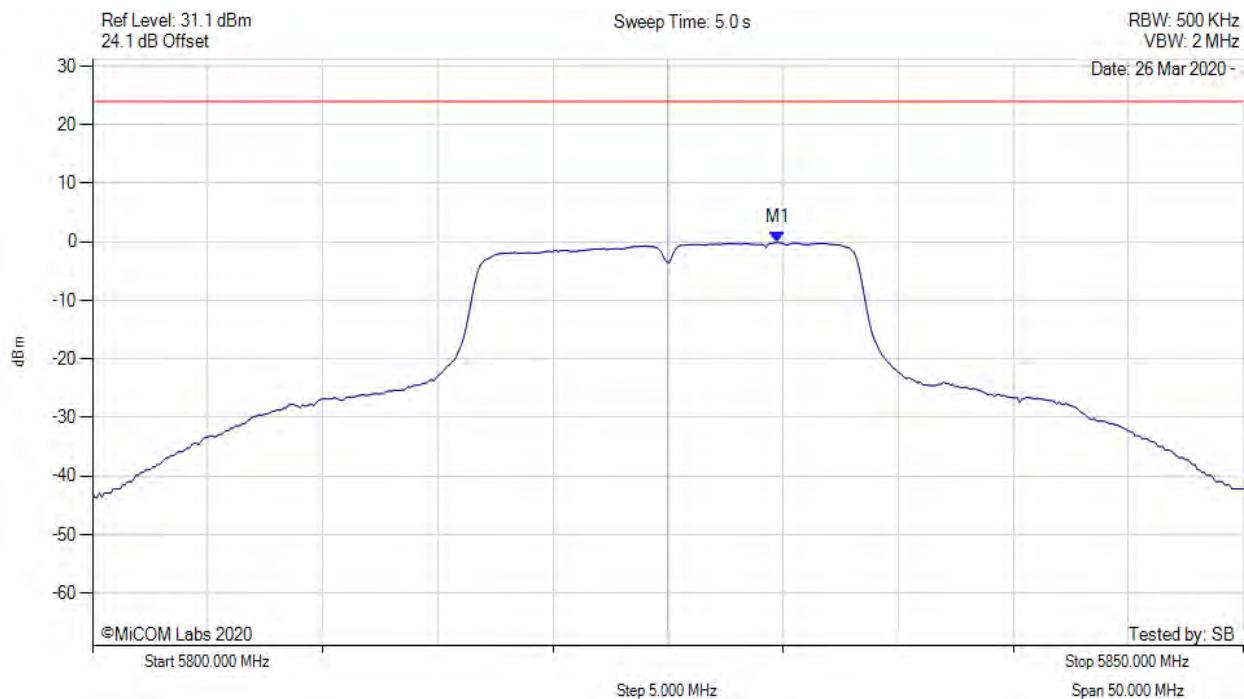
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.200 MHz : 5.549 dBm M1 + DCCF : 5790.200 MHz : 5.593 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -24.4 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac

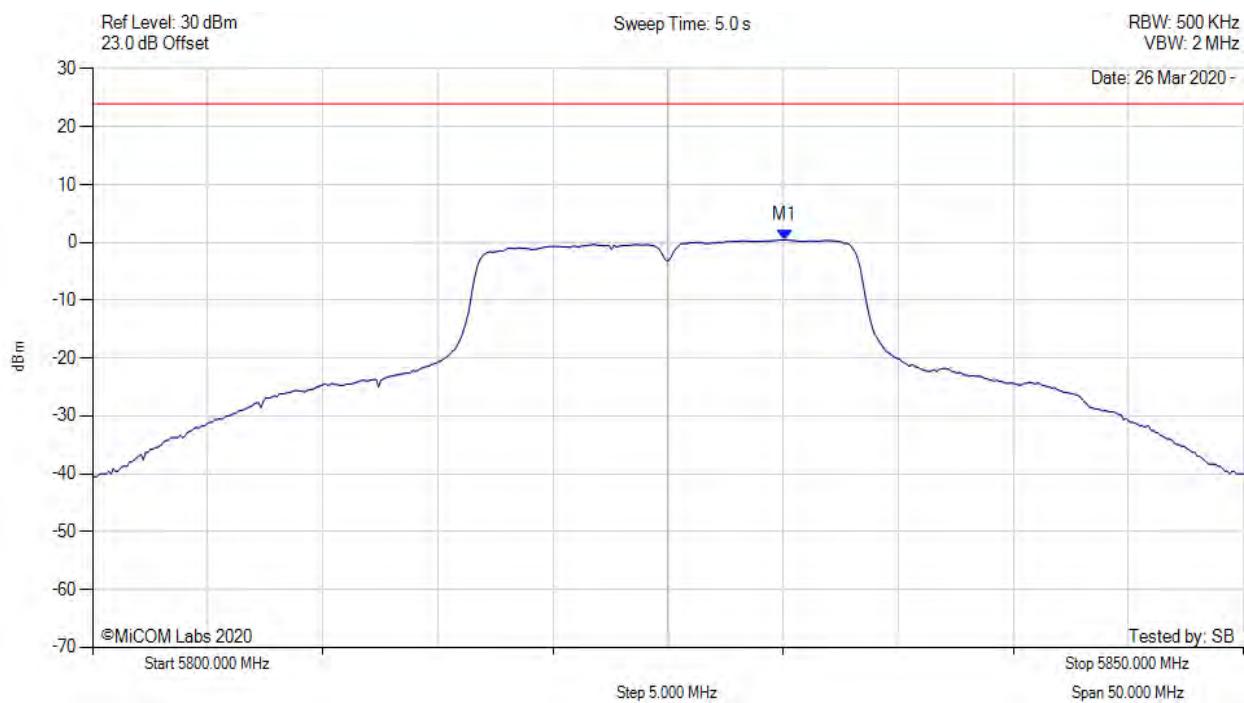


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5829.760 MHz : -0.089 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



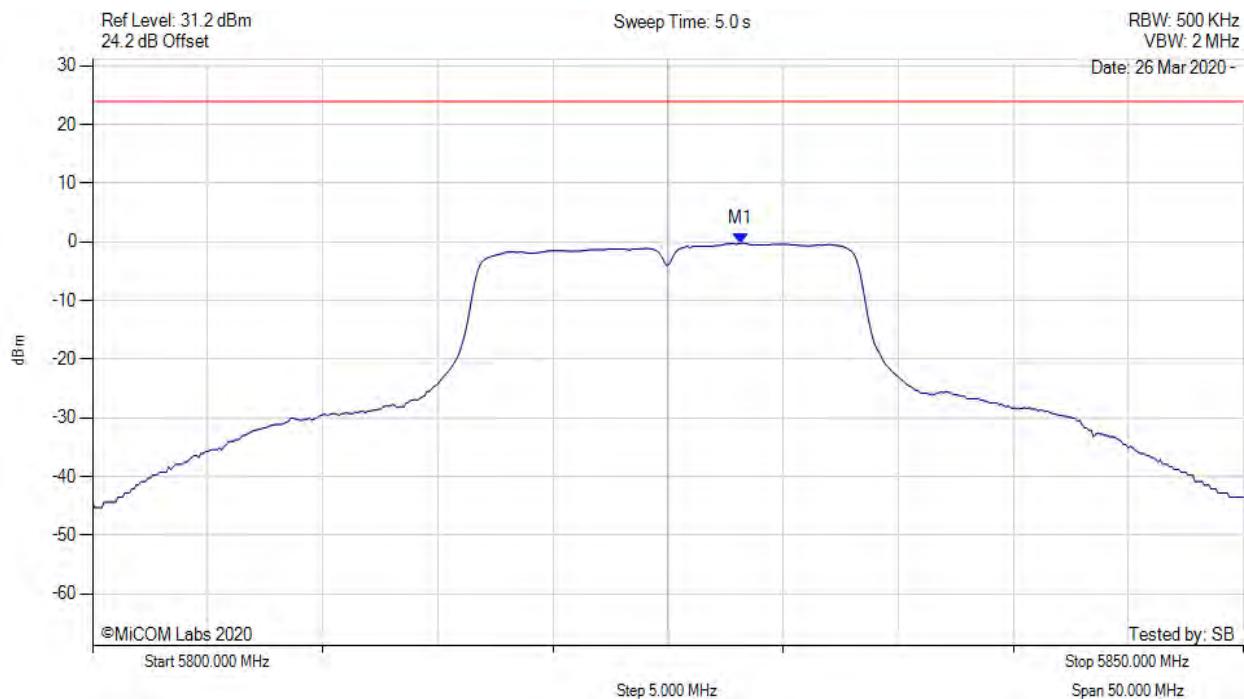
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5830.060 MHz : 0.434 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5825.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



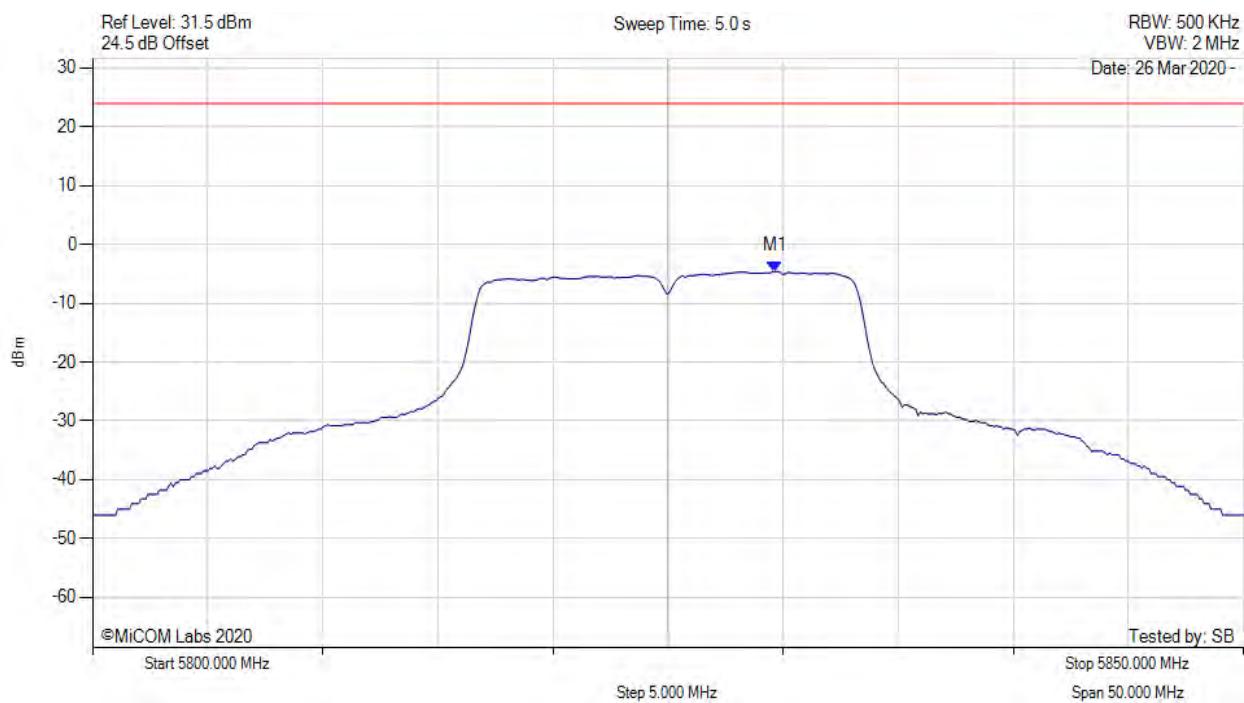
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5828.156 MHz : -0.202 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11a, Channel: 5825.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac

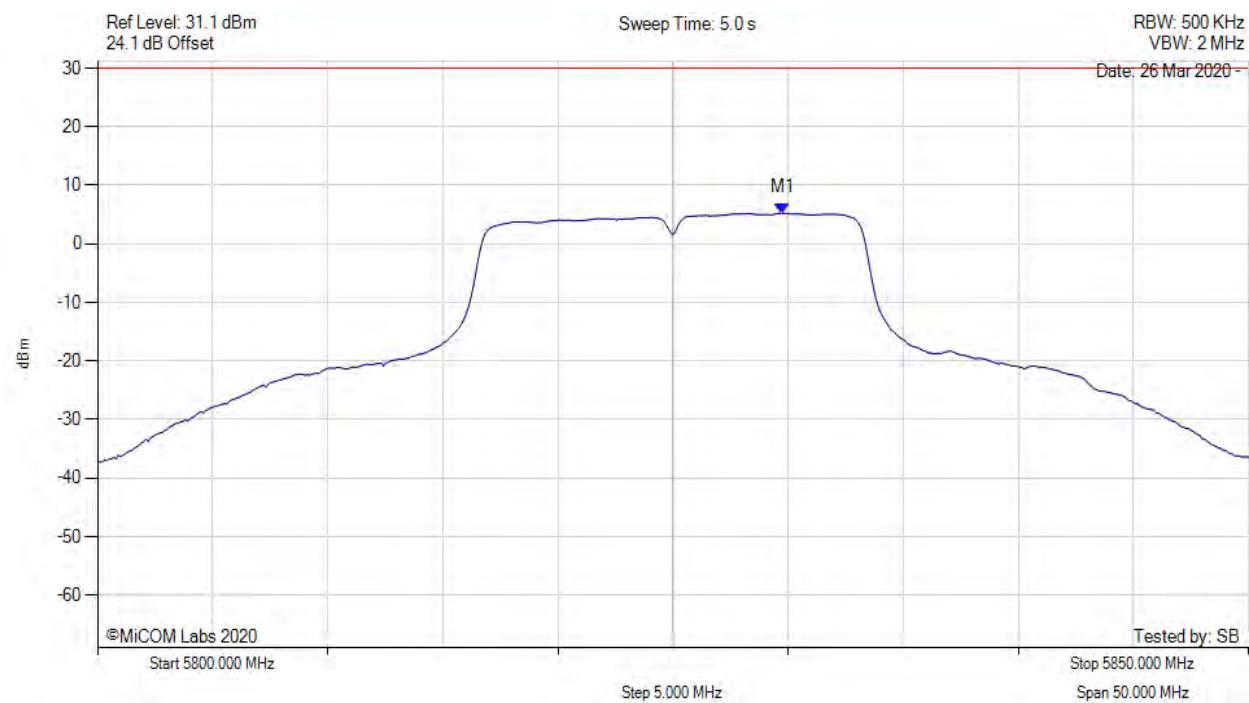


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5829.659 MHz : -4.584 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5825.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



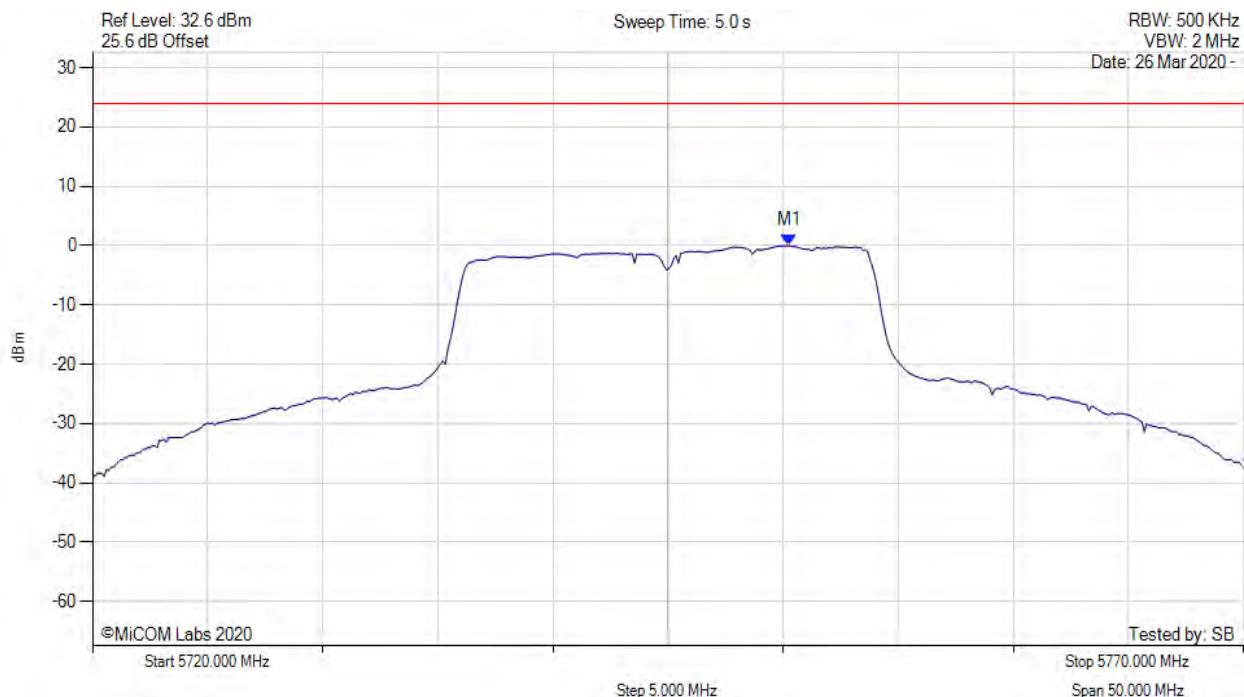
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5829.800 MHz : 5.219 dBm M1 + DCCF : 5829.800 MHz : 5.263 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -24.8 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



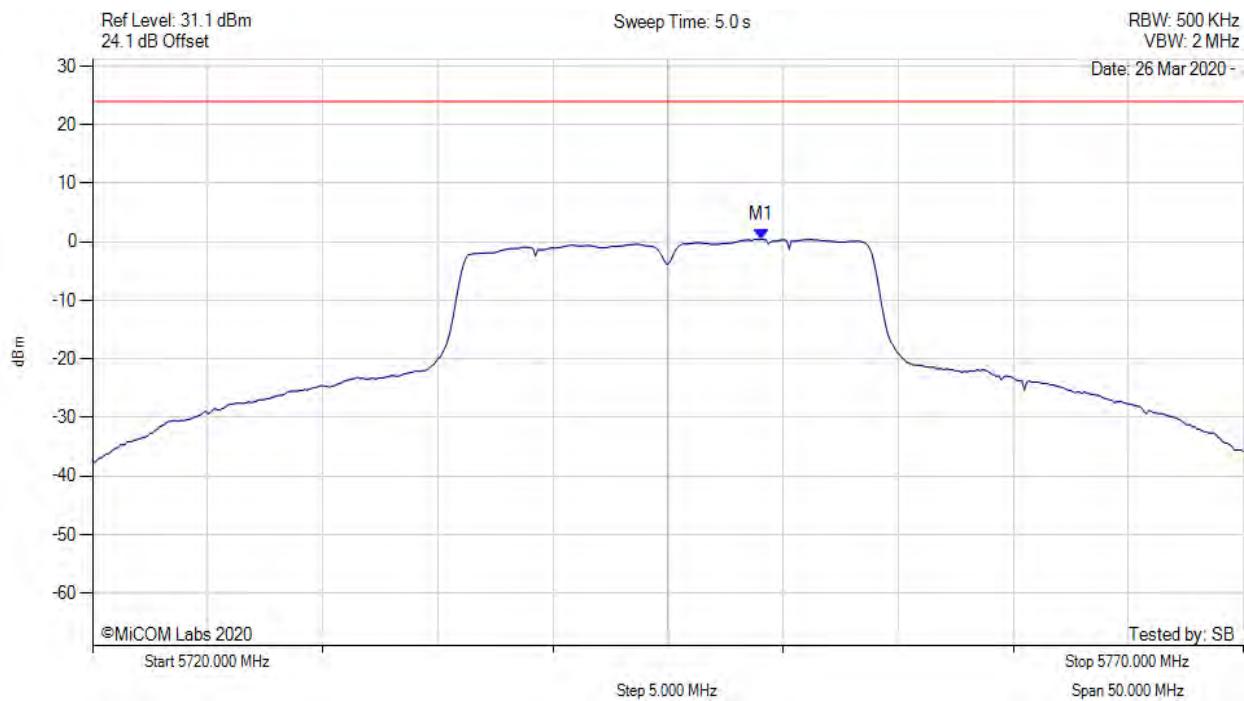
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.261 MHz : 0.007 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



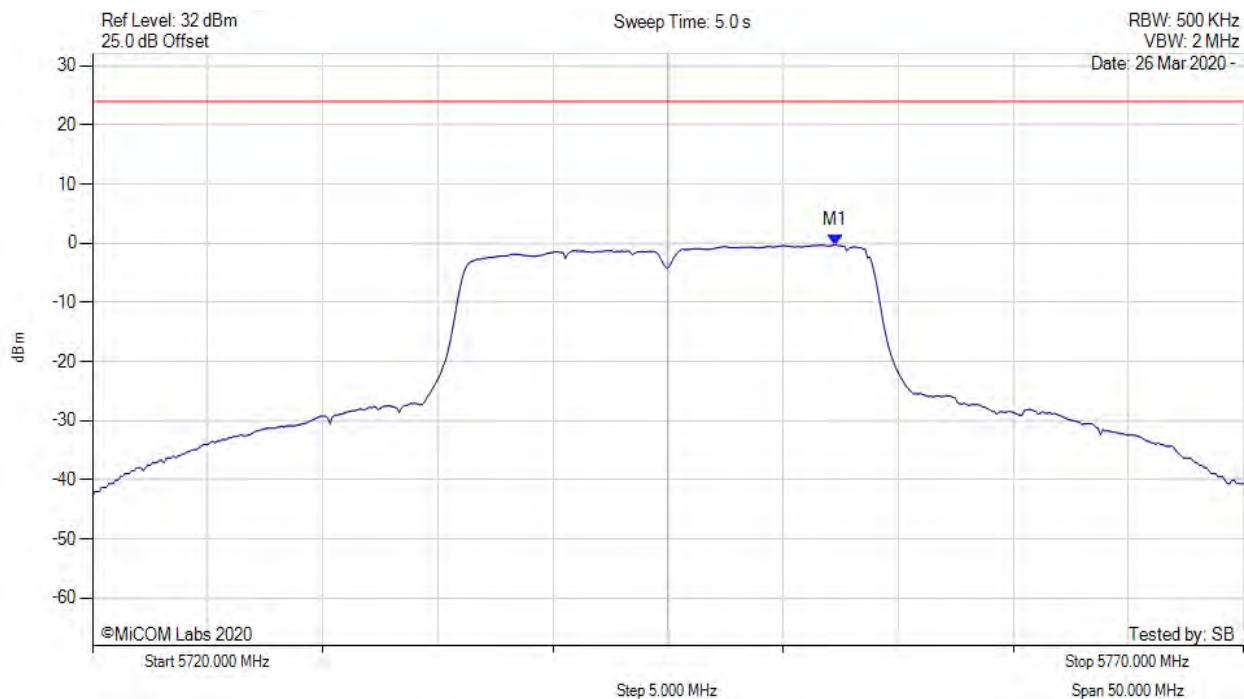
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5749.058 MHz : 0.470 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



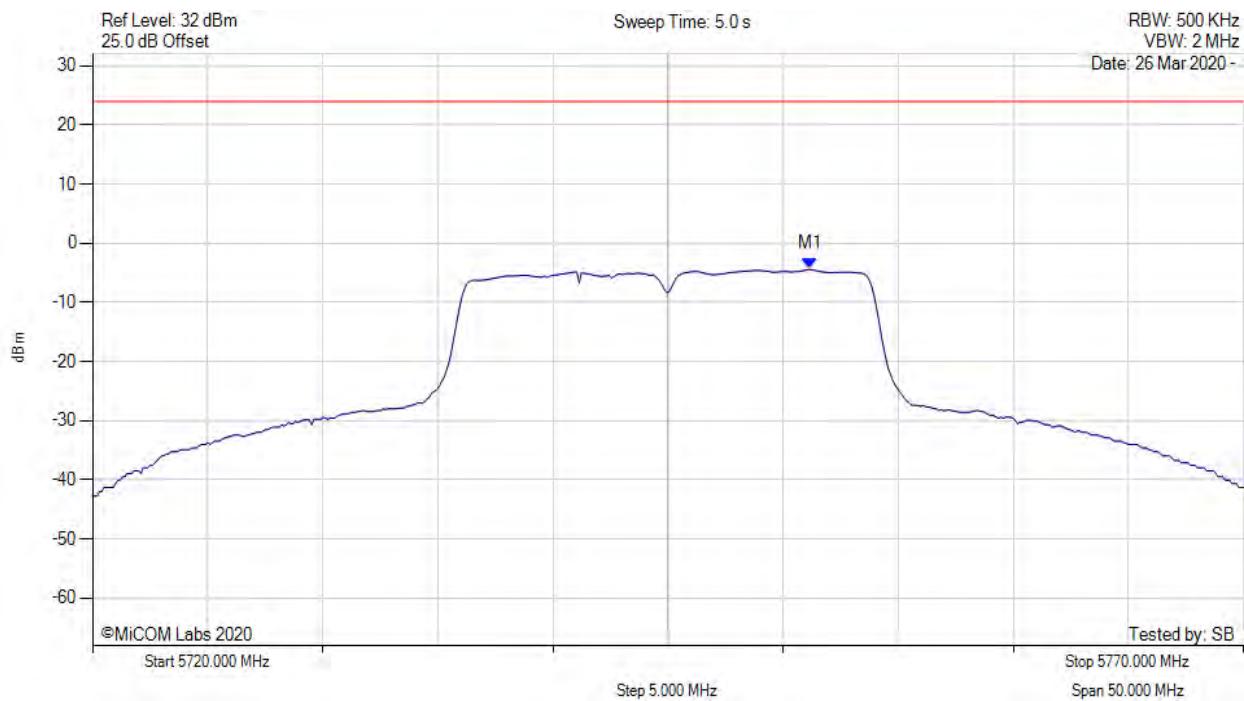
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5752.265 MHz : -0.290 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



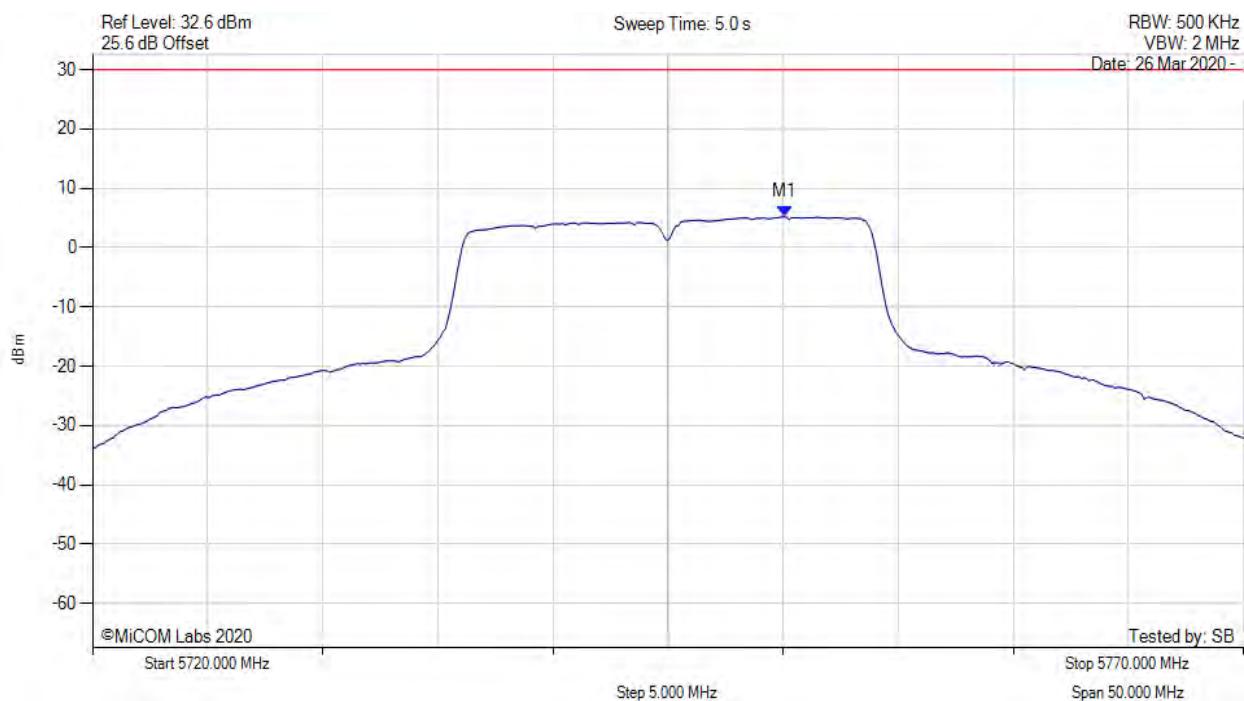
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5751.162 MHz : -4.423 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 115 Vac



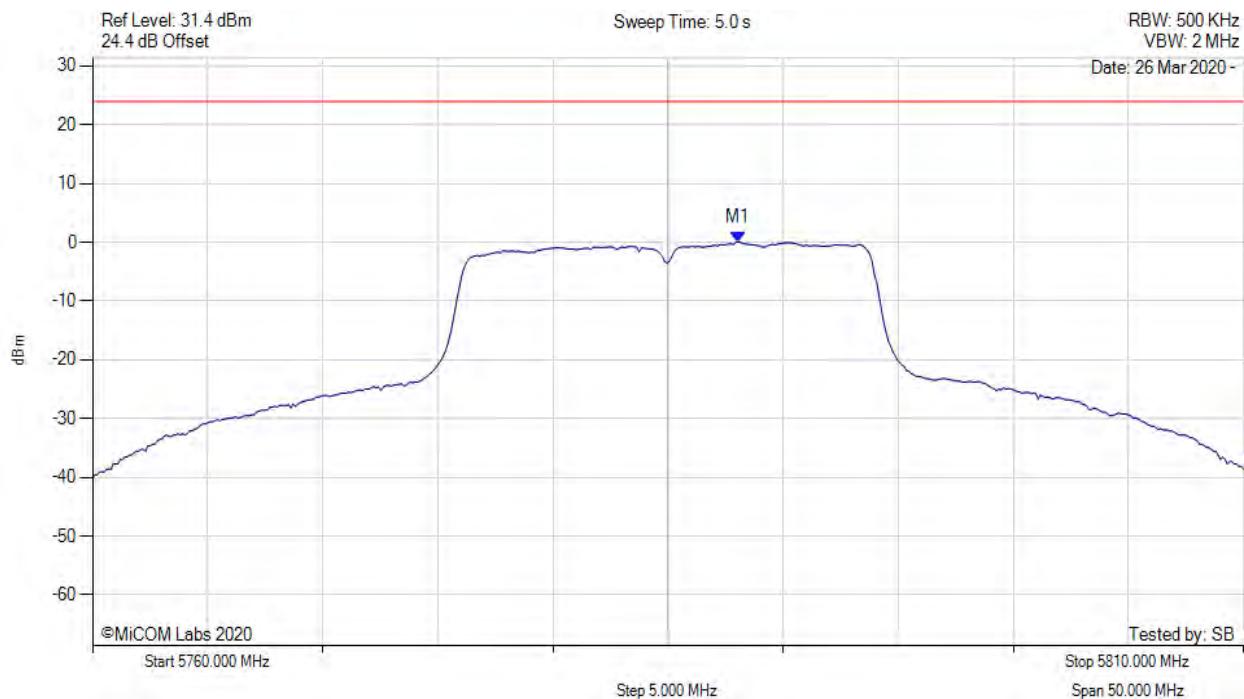
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.100 MHz : 5.205 dBm M1 + DCCF : 5750.100 MHz : 8.312 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -21.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



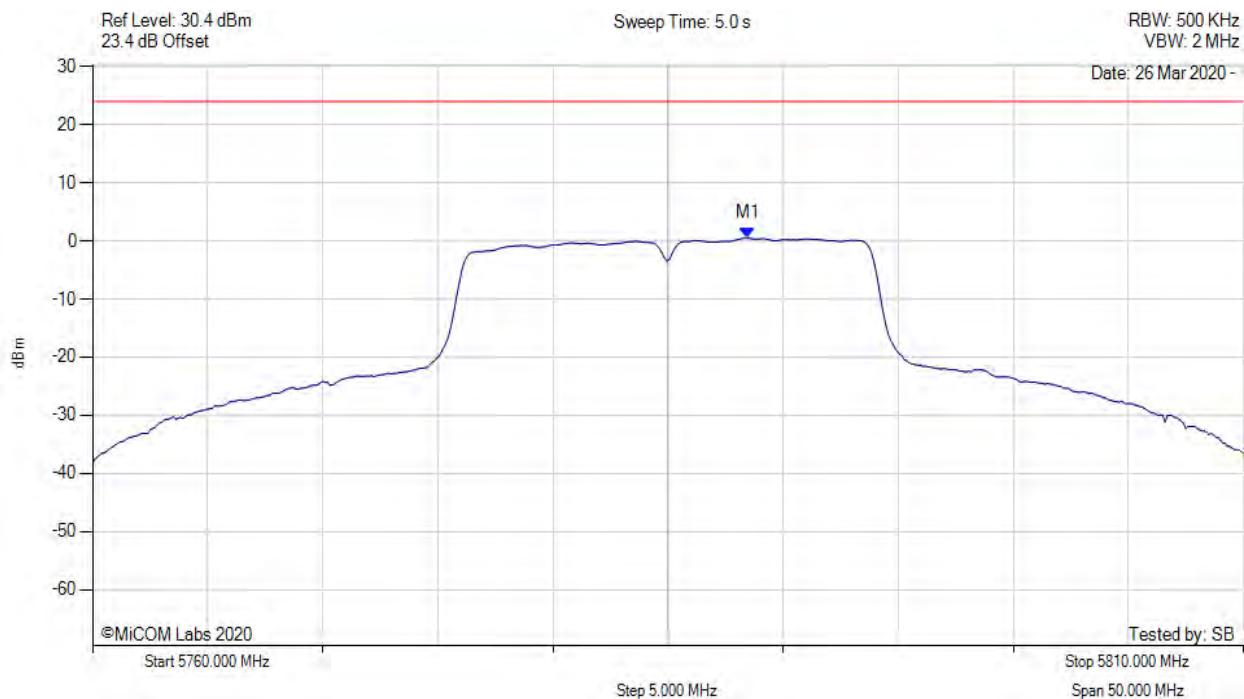
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5788.056 MHz : 0.030 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



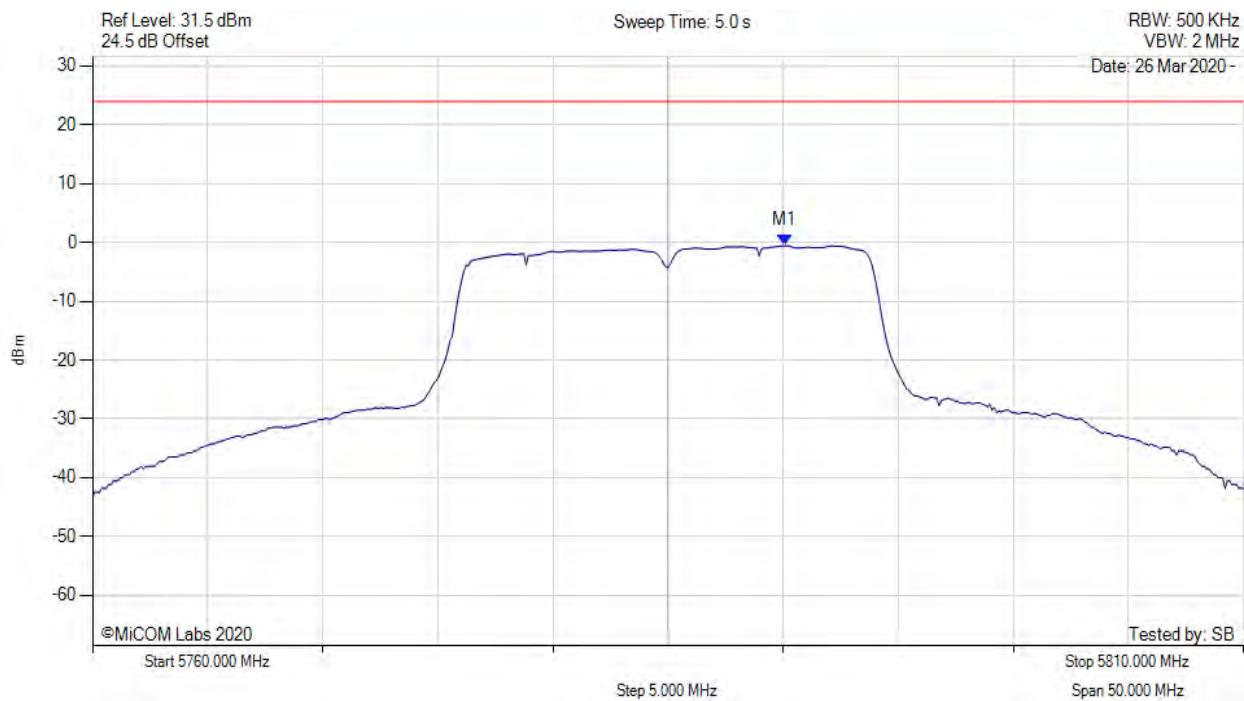
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5788.457 MHz : 0.464 dBm	Channel Frequency: 5785.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



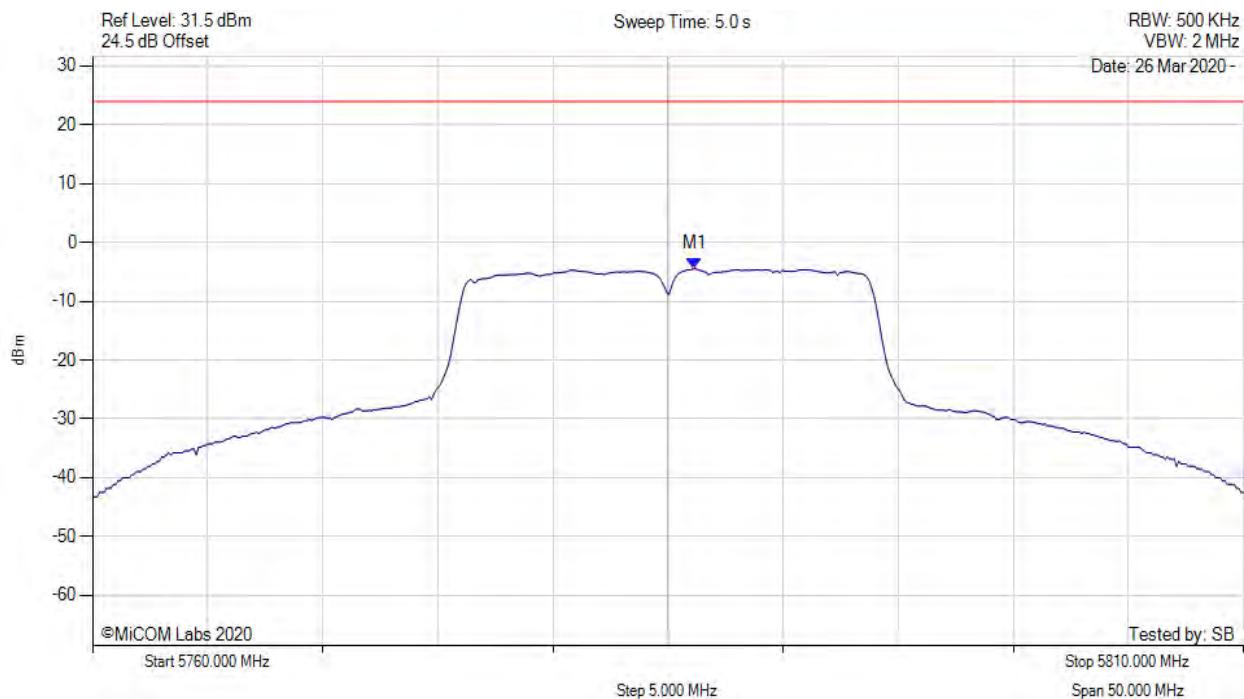
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5790.060 MHz : -0.561 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



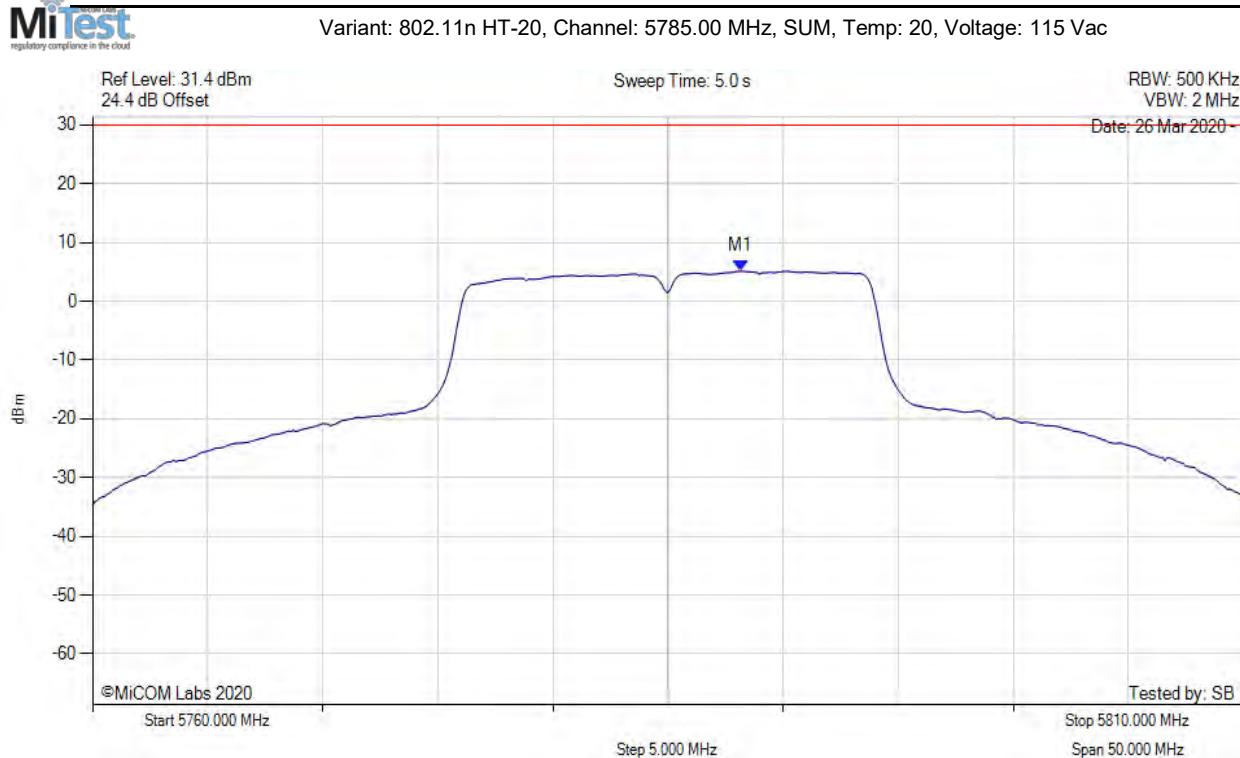
Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5786.152 MHz : -4.456 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



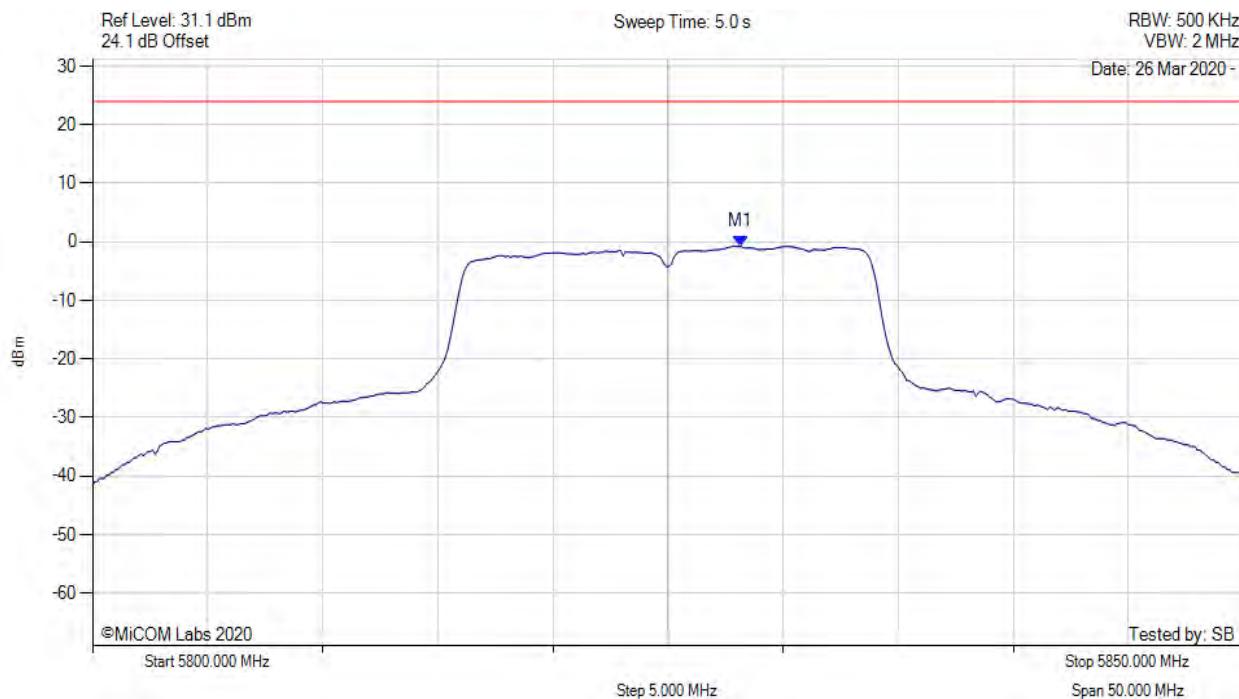
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5788.200 MHz : 5.130 dBm M1 + DCCF : 5788.200 MHz : 5.174 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -24.8 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: 20, Voltage: 115 Vac



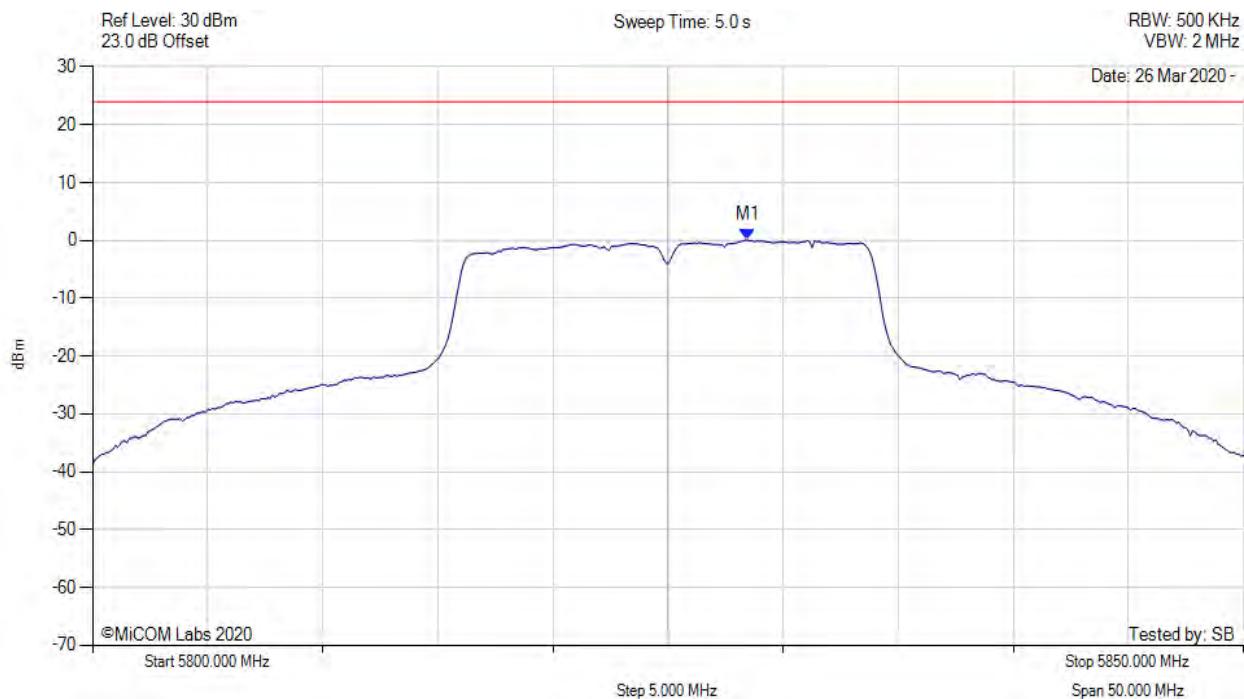
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5828.156 MHz : -0.698 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: 20, Voltage: 115 Vac



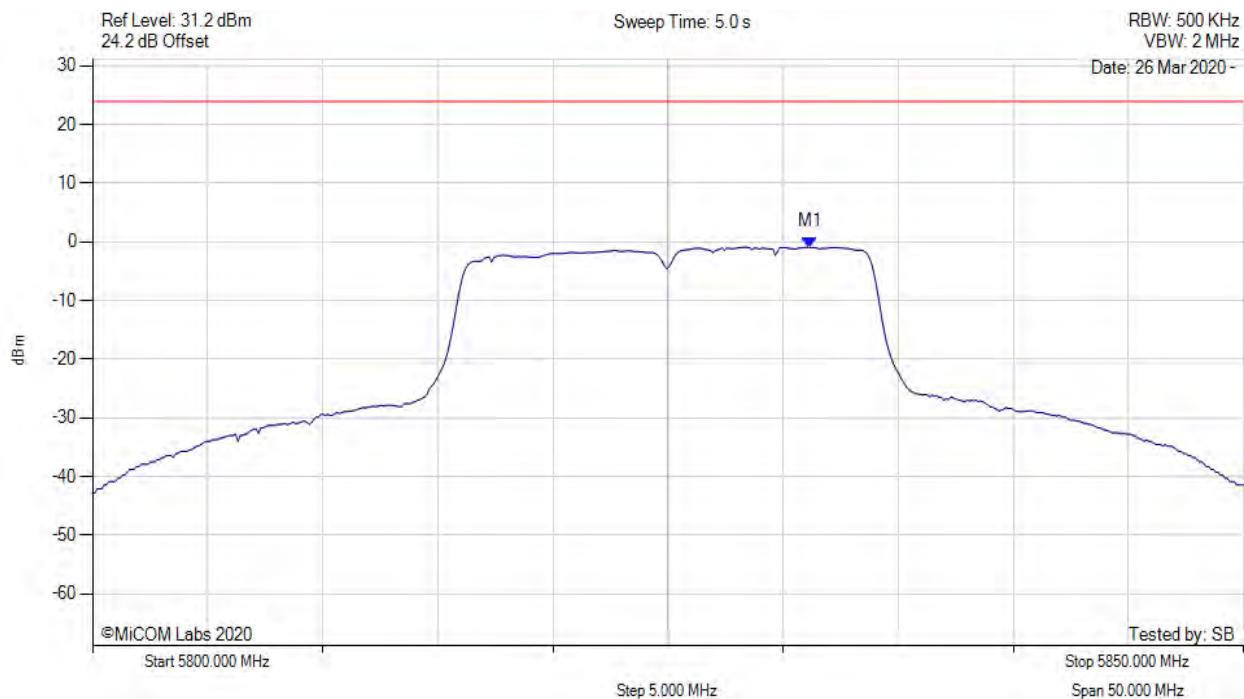
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5828.457 MHz : 0.087 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain c, Temp: 20, Voltage: 115 Vac



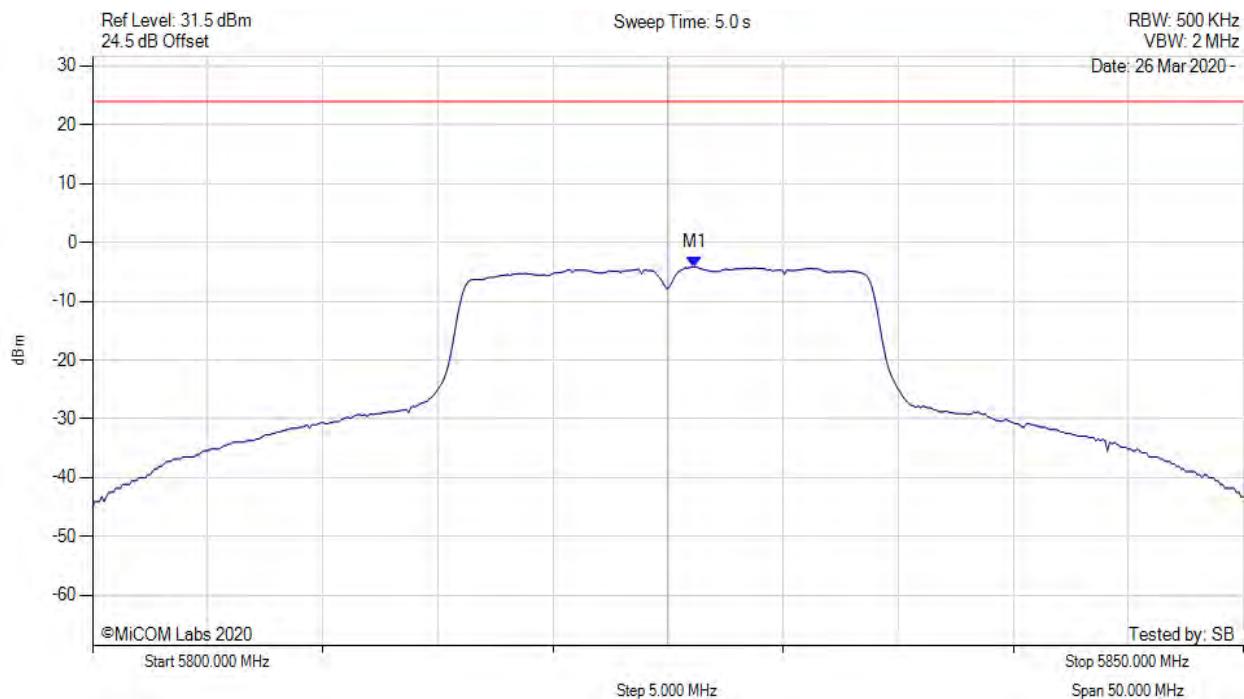
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5831.162 MHz : -0.890 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



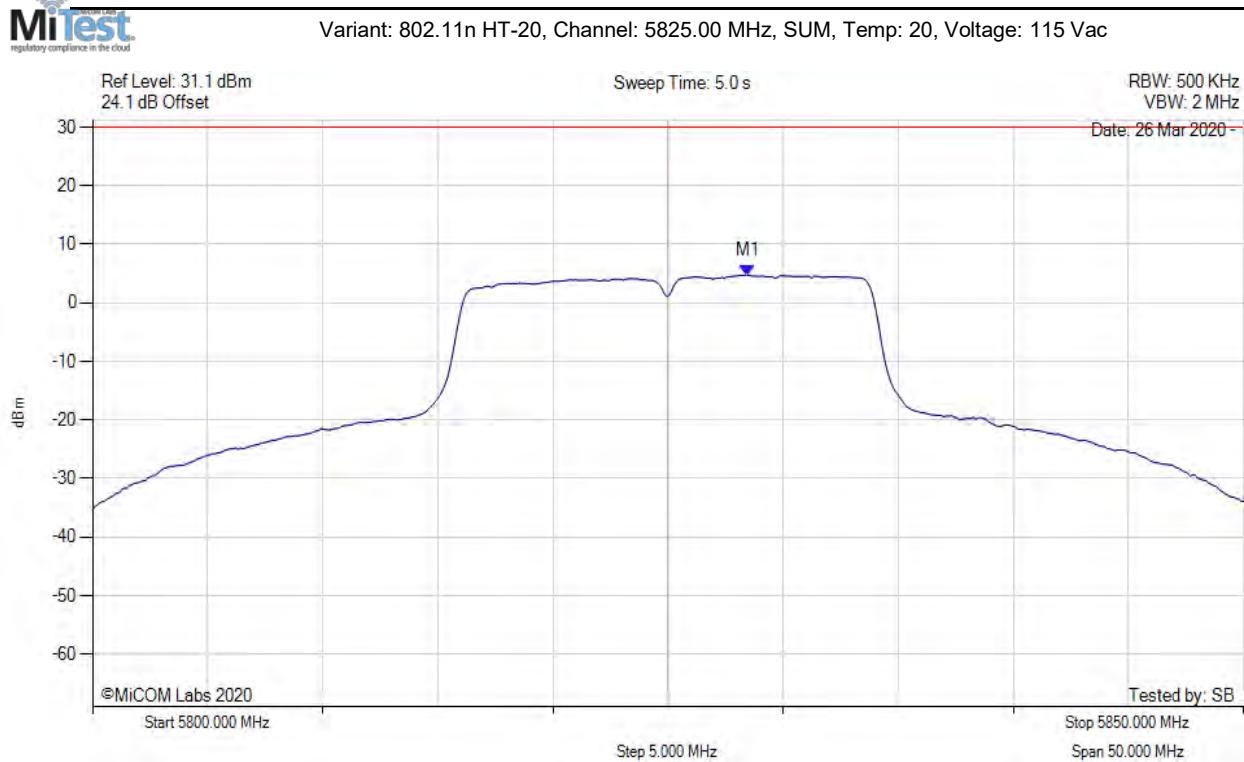
Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain d, Temp: 20, Voltage: 115 Vac



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5826.152 MHz : -4.144 dBm	Limit: ≤ 23.980 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5828.500 MHz : 4.732 dBm M1 + DCCF : 5828.500 MHz : 4.776 dBm Duty Cycle Correction Factor : +3.1 dB	Limit: ≤ 30.0 dBm Margin: -25.2 dB

[back to matrix](#)



575 Boulder Court
Pleasanton, California 94566, USA
Tel: +1 (925) 462 0304
Fax: +1 (925) 462 0306
www.micomlabs.com