REGULATORY COMPLIANCE TEST REPORT

FCC CFR 47 Part 15.407 & ISED RSS-247

Report No.: MIKO114-U6 Rev A RF Report

Company: Mikrotikls SIA

Model Name: RB962UiGS-5HacT2HnT-US

REGULATORY COMPLIANCE TEST REPORT

Company Name: Mikrotikls SIA

Model Name: RB962UiGS-5HacT2HnT-US

To: FCC CFR 47 Part 15.407 & ISED RSS-247

Test Report Serial No.: MIKO114-U6 Rev A RF Report

This report supersedes: NONE

Applicant: Mikrotikls SIA
Brivibas gatve 214i
Riga, LV-1039
Latvia

Issue Date: 24th May 2021

Test Report Sections	Document Number
Master:	☐ MIKO114-U6 Master
RF Report:	☒ MIKO114-U6 RF Report
DFS:	☐ MIKO114-U6_DFS_Addendum

This Test Report is Issued Under the Authority of:

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A2LA ACCREDITED
TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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1. ACCREDITATION, LISTINGS & RECOGNITION

1.1. TESTING ACCREDITATION

MiCOM Labs, Inc. is an accredited Electrical testing laboratory per the international standard ISO/IEC 17025:2017. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.01. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-01.pdf

Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 24th day of February 2020.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2021

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

1.2. RECOGNITION

MiCOM Labs, Inc is widely recognized for its wireless testing and certification capabilities. In addition to being recognized for Testing and Certification under Phase 2 Mutual Recognition Agreements (MRA) with Canada, Europe, United Kingdom and Japan, our international recognition includes Conformity Assessment Body (CAB) designation status under agreements with Asia Pacific (APEC) MRA Phase 1 countries giving acceptance of MiCOM Labs test reports. MiCOM Labs test reports are accepted globally.

Country	Recognition Body	Status	MRA Phase	Identification No.
USA	Federal Communications Commission (FCC)	TCB	-	US0159 Test Firm Designation#: US1084
Canada	Industry Canada (ISED)	FCB	APEC MRA 2	US0159 ISED#: 4143A
Japan	MIC (Ministry of Internal Affairs and Communication)	CAB	Japan MRA 2	RCB 210
	Japan Approvals Institute for Telecommunication Equipment (JATE)			
	VCCI	--	--	A-0012
Europe	European Commission	NB	EU MRA 2	NB 2280
United Kingdom	Department for Business, Energy & Industrial Strategy (BEIS)	AB	UK MRA 2	AB 2280
Mexico	Instituto Federal de Telecomunicaciones (IFT)	CAB	Mexico MRA 1	US0159
Australia	Australian Communications and Media Authority (ACMA)	CAB	APEC MRA 1	US0159
Hong Kong	Office of the Telecommunication Authority (OFTA)			
Korea	Ministry of Information and Communication Radio Research Laboratory (RRL)			
Singapore	Infocomm Development Authority (IDA)			
Taiwan	National Communications Commission (NCC) Bureau of Standards, Metrology and Inspection (BSMI)			
Vietnam	Ministry of Communication (MIC)			

TCB – Telecommunications Certification Bodies (TCB)
FCB – Foreign Certification Body
CAB – Conformity Assessment Body
NB – Notified Body
AB – Approved Body
MRA – Mutual Recognition Agreement
MRA Phase I - recognition for product testing
MRA Phase II – recognition for both product testing and certification

1.3. PRODUCT CERTIFICATION

MiCOM Labs, Inc. is an accredited Product Certification Body per the international standard ISO/IEC 17065:2012. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.02. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-02.pdf

Accredited Product Certification Body

A2LA has accredited

MiCOM LABS

Pleasanton, CA

This product certification body is accredited in accordance with the recognized International Standard ISO/IEC 17065:2012 *Requirements for bodies certifying products, processes and services*. This product certification body also meets the A2LA R322 – *Specific Requirements – Notified Body Accreditation Requirements* and A2LA R308 - *Specific Requirements - ISO-IEC 17065 - Telecommunication Certification Body Accreditation Program*. This accreditation demonstrates technical competence for a defined scope and the operation of a management system.

Presented this 24th day of February 2020

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.02
Valid to November 30, 2021

For the product certification schemes to which this accreditation applies, please refer to the organization's Product Certification Scope of Accreditation.

United States of America – Telecommunication Certification Body (TCB)
Industry Canada – Certification Body, CAB Identifier – US0159
Europe – Notified Body (NB), NB Identifier - 2280
UK – Approved Body (AB), AB Identifier - 2280
Japan – Recognized Certification Body (RCB), RCB Identifier - 210

2. DOCUMENT HISTORY

Document History		
Revision	Date	Comments
Draft	11th May 2021	Draft report for client review.
Rev A	24th May 2021	Initial release.
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In the above table the latest report revision will replace all earlier versions.

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3. TEST SUMMARY

List of Measurements

Test Header	Result	Data Link
Peak Transmit Power	Complies	View Data
26 dB & 99% Bandwidth	Complies	View Data
6 dB & 99% Bandwidth	Not Tested	-
Power Spectral Density	Complies	View Data
Frequency Stability	Not Tested	-
Transmit Power Control (TPC)	Not Tested	-
Dynamic Frequency Selection (DFS)	Complies	Refer to DFS addendum report
Channel Availability Check	Complies	-
Initial CAC	Complies	
Beginning CAC	Complies	
End CAC	Complies	
Channel Close / Transmission Time	Complies	
Non-Occupancy Period	Complies	
Probability of Detection	Complies	
Detection Bandwidth	Complies	
Radiated	Complies	-
TX Spurious & Restricted Band Emissions	Complies	-
MikroTik 95XKAA15.GN2	Complies	View Data
Restricted Edge & Band-Edge Emissions	Complies	-
MikroTik 95XKAA15.GN2	Complies	View Data
Digital Emissions	Not Tested	Note 1*
AC Wireline	Not Tested	Note 1*

Note 1:
Refer to Rogers Labs Test report # File:Mikrotikls RB962UiGS5HacT2HnT UNII TstRpt 160514b3 Rev 3 Dated August 19 2016.

4. TEST RESULTS

4.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407 ISED RSS 247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) 6.2.2.1 ; 6.2.3.1.	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Maximum Conducted Output Power Measurement
Method PM (Measurement using an RF average power meter). KDB 789033 defines a methodology using an average wideband power meter. Measurements were made while the EUT was operating in a continuous transmission mode (100% duty cycle) at the appropriate center frequency. All operational modes and frequency bands were measured independently and the resultant calculated. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported separately. A summation (Σ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.
Supporting Information
Calculated Power = A + G + Y+ 10 log (1/x) dBm

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

Limits Maximum Conducted Output Power

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 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 Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	99.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.03	15.50	15.35		20.41	22.000	24.00	-3.59	25.00
5300.0	15.83	15.46	15.27		20.30	22.270	24.00	-3.70	25.00
5320.0	15.76	15.44	15.09		20.21	22.130	24.00	-3.79	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5290.0	15.90	15.46	15.19		20.30	87.470	24.00	-3.70	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5260.0	16.97	16.13	16.24		21.23	23.270	24.00	-2.77	25.00
5300.0	16.60	16.09	15.95		20.99	23.130	24.00	-3.01	25.00
5320.0	16.11	15.69	15.57		20.57	23.470	24.00	-3.43	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5270.0	15.37	14.74	14.79		19.75	43.730	24.00	-4.25	25.00
5310.0	15.18	14.69	14.66		19.62	44.530	24.00	-4.38	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11a	**Duty Cycle (%):**	92.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	15.43	14.99	14.84		19.87	22.000	24.00	-4.13	25.00
5580.0	15.57	15.07	14.90		19.96	22.330	24.00	-4.04	25.00
5720.0	15.22	15.30	15.34		20.06	22.000	24.00	-3.94	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5530.0	13.89	13.48	13.19		18.30	86.400	24.00	-5.70	25.00
5610.0	14.17	13.38	13.68		18.53	86.670	24.00	-5.47	25.00
5690.0	13.98	13.82	13.84		18.65	87.470	24.00	-5.35	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5500.0	17.42	16.75	16.72		21.75	23.200	24.00	-2.25	25.00
5580.0	16.87	16.44	16.24		21.30	22.870	24.00	-2.70	25.00
5720.0	17.59	16.31	16.37		21.57	22.800	24.00	-2.43	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5510.0	15.26	14.85	14.80		19.75	45.070	24.00	-4.25	25.00
5550.0	15.21	14.79	14.72		19.68	44.270	24.00	-4.32	25.00
5710.0	14.50	14.92	14.80		19.51	44.270	24.00	-4.49	25.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

4.2. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	26 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) 6.2.2.1 ; 6.2.3.1.	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 26 dB and 99% Bandwidth Measurement
The bandwidth at 26 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to approximately 1% of the emission bandwidth.
Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11a	**Duty Cycle (%):**	99.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	22.200	22.000	23.600		23.600	22.000		
5300.0	22.600	22.270	22.600		22.600	22.270		
5320.0	22.130	22.330	22.930		22.930	22.130		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	16.786	16.864	17.041		17.041	16.786		
5300.0	16.738	16.877	16.970		16.970	16.738		
5320.0	16.808	16.869	17.007		17.007	16.808		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5290.0	87.470	90.400	89.600		90.400	87.470		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5290.0	75.955	76.331	76.206		76.331	75.955		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	23.330	23.800	23.270		23.800	23.270		
5300.0	23.130	23.200	23.270		23.270	23.130		
5320.0	23.600	23.800	23.470		23.800	23.470		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5260.0	17.956	18.018	18.075		18.075	17.956		
5300.0	17.955	18.012	18.102		18.102	17.955		
5320.0	18.030	18.079	18.115		18.115	18.030		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5270.0	43.730	45.200	45.600		45.600	43.730		
5310.0	44.530	45.730	46.800		46.800	44.530		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5270.0	36.720	36.914	37.066		37.066	36.720		
5310.0	36.819	36.912	37.011		37.011	36.819		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11a	**Duty Cycle (%):**	92.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	22.330	22.000	23.200		23.200	22.000		
5580.0	22.330	22.400	22.930		22.930	22.330		
5720.0	22.270	22.000	22.400		22.400	22.000		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	16.792	16.873	17.021		17.021	16.792		
5580.0	16.762	16.851	16.981		16.981	16.762		
5720.0	16.784	16.837	16.988		16.988	16.784		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5530.0	86.400	89.330	90.400		90.400	86.400		
5610.0	86.670	90.400	90.400		90.400	86.670		
5690.0	87.470	88.800	90.130		90.130	87.470		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5530.0	75.716	76.399	76.330		76.399	75.716		
5610.0	75.915	76.580	76.325		76.580	75.915		
5690.0	76.187	76.170	76.362		76.362	76.170		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	23.200	23.470	23.670		23.670	23.200		
5580.0	22.870	23.200	23.330		23.330	22.870		
5720.0	23.670	23.130	22.800		23.670	22.800		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5500.0	17.993	18.094	18.161		18.161	17.993		
5580.0	17.906	17.969	18.065		18.065	17.906		
5720.0	17.992	18.005	18.077		18.077	17.992		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5510.0	45.070	45.070	45.600		45.600	45.070		
5550.0	44.270	45.330	45.870		45.870	44.270		
5710.0	45.070	44.270	45.870		45.870	44.270		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5510.0	36.707	36.858	36.932		36.932	36.707		
5550.0	36.785	36.858	36.898		36.898	36.785		
5710.0	36.757	36.832	36.996		36.996	36.757		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

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

4.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) 6.2.2.1 ; 6.2.3.1.	**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 (å) 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) dBm
A = Total Power Spectral Density [10*Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]
x = Duty Cycle

Limits Power Spectral Density

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 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 (%):**	99.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	3.612	2.792	3.127		7.818	11.0	-3.2
5300.0	3.854	2.958	3.240		8.071	11.0	-2.9
5320.0	3.680	3.251	2.830		7.946	11.0	-3.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)**				**Summation Peak Marker + DCCF (+0.86 dB)**	**Limit**	**Margin**
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5290.0	-2.627	-3.262	-3.280		2.254	11.0	-8.7

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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 (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5260.0	4.372	3.305	3.896		8.613	11.0	-2.4
5300.0	4.455	3.673	3.573		8.614	11.0	-2.4
5320.0	3.839	3.285	3.281		7.936	11.0	-3.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.36 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5270.0	0.195	-0.775	-0.353		4.622	11.0	-6.3
5310.0	0.201	-0.366	-0.495		4.684	11.0	-6.3

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	92.0
Data Rate:	6.00 MBit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.36 dB)	Limit	Margin
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5500.0	3.378	3.142	3.144		8.253	11.0	-2.7
5580.0	3.116	2.685	2.903		7.589	11.0	-3.4
5720.0	3.819	3.726	3.588		8.372	11.0	-2.6

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11ac-80	**Duty Cycle (%):**	82.0
Data Rate:	29.30 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.86 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5530.0	-4.477	-4.852	-4.922		0.528	11.0	-10.4
5610.0	-4.236	-5.023	-4.760		0.566	11.0	-10.4
5690.0	-3.699	-3.833	-3.795		1.518	11.0	-9.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99.0
Data Rate:	6.50 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5500.0	4.736	4.056	4.173		9.119	11.0	-1.9
5580.0	4.121	3.715	3.897		8.529	11.0	-2.4
5720.0	5.838	4.195	3.979		9.469	11.0	-1.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	92.0
Data Rate:	13.50 MBit/s	**Antenna Gain (dBi):**	2.00
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 Port(s) (dBm/MHz)				Summation Peak Marker + DCCF (+0.36 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/MHz**	**dBm/MHz**	**dB**
5510.0	-0.114	-0.462	-0.542		4.595	11.0	-6.4
5550.0	1.005	-0.014	-0.007		5.248	11.0	-5.7
5710.0	0.348	0.180	-0.271		4.933	11.0	-6.0

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

DCCF - Duty Cycle Correction Factor

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

4.4. Radiated

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	20.0 - 24.5
Test Heading:	Radiated Spurious and Band-Edge Emissions	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (b), 15.205, 15.209 6.2.2.2 ; 6.2.4.2.	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Spurious and Band-Edge Emissions
Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned.
Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Test configuration and setup for Undesirable Measurement were per the Radiated Test Set-up specified in this document.

15.407 (b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Limits for Restricted Bands (15.205, 15.209)
Peak emission: 74 dBuV/m
Average emission: 54 dBuV/m

Field Strength Calculation
The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.
FS = R + AF + CORR - FO

where:
FS = Field Strength
R = Measured Spectrum analyzer Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain
FO = Distance Falloff Factor
NFL = Notch Filter Loss

Example:
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBµV/m);

$$E = \frac{1000000 \times \sqrt{30P}}{3}$$ µV/m

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBuV/m

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:
Level (dBmV/m) = 20 * Log (level (mV/m))

40 dBmV/m = 100 mV/m
48 dBmV/m = 250 mV/m

Restricted Bands of Operation (15.205)
(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Frequency Band			
MHz	**MHz**	**MHz**	**GHz**
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(c) Except as provided in paragraphs (d) and (e) of this section, regardless of the field strength limits specified elsewhere in this subpart, the provisions of this section apply to emissions from any intentional radiator.

(d) The following devices are exempt from the requirements of this section:

(1) Swept frequency field disturbance sensors operating between 1.705 and 37 MHz provided their emissions only sweep through the bands listed in paragraph (a) of this section, the sweep is never stopped with the fundamental emission within the bands listed in paragraph (a) of this section, and the fundamental emission is outside of the bands listed in paragraph (a) of this section more than 99% of the time the device is actively transmitting, without compensation for duty cycle.

(2) Transmitters used to detect buried electronic markers at 101.4 kHz which are employed by telephone companies.

(3) Cable locating equipment operated pursuant to §15.213.

(4) Any equipment operated under the provisions of §15.253, 15.255, and 15.256 in the frequency band 75-85 GHz, or §15.257 of this part.

(5) Biomedical telemetry devices operating under the provisions of §15.242 of this part are not subject to the restricted band 608-614 MHz but are subject to compliance within the other restricted bands.

(6) Transmitters operating under the provisions of subparts D or F of this part.

(7) Devices operated pursuant to §15.225 are exempt from complying with this section for the 13.36-13.41 MHz band only.

(8) Devices operated in the 24.075-24.175 GHz band under §15.245 are exempt from complying with the requirements of this section for the 48.15-48.35 GHz and 72.225-72.525 GHz bands only, and shall not exceed the limits specified in §15.245(b).

(9) Devices operated in the 24.0-24.25 GHz band under §15.249 are exempt from complying with the requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in §15.249(a).

(e) Harmonic emissions appearing in the restricted bands above 17.7 GHz from field disturbance sensors operating under the provisions of §15.245 shall not exceed the limits specified in §15.245(b).

4.4.1. TX Spurious & Restricted Band Emissions

4.4.1.1. MikroTik 95XKAA15.GN2

Equipment Configuration for TX Spurious & Restricted Band Emissions			
Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5260.00	**Data Rate:**	6.00 MBit/s
Power Setting:	18	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5266.74	71.23	2.91	-12.21	61.93	Fundamental	Horizontal	100	0	--	--	
#2	7013.32	70.01	3.47	-7.71	65.77	Max Peak	Horizontal	136	77	68.2	-2.5	Pass
#3	10521.26	47.44	4.50	-5.12	46.82	Peak (NRB)	Horizontal	156	10	--	--	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overloads.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5300.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5297.82	74.62	3.03	-12.00	65.65	Fundamental	Horizontal	151	0	--	--	
#2	7066.66	69.63	3.55	-7.57	65.61	Max Peak	Vertical	129	83	68.2	-2.6	Pass
#3	10604.11	62.61	4.39	-4.94	62.06	Max Peak	Horizontal	198	13	68.2	-6.2	Pass
#4	10604.11	47.54	4.39	-4.94	46.99	Max Avg	Horizontal	198	13	54.0	-7.0	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5320.88	71.12	2.97	-12.00	62.09	Fundamental	Horizontal	148	0	--	--	
#2	7093.33	70.44	3.46	-7.89	66.01	Max Peak	Vertical	124	10	68.2	-2.2	Pass
#3	10639.48	60.54	4.45	-4.54	60.45	Max Peak	Horizontal	196	236	68.2	-7.8	Pass
#4	10639.48	45.76	4.45	-4.54	45.67	Max Avg	Horizontal	196	236	54.0	-8.3	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5505.79	64.64	3.07	-11.66	56.05	Fundamental	Vertical	100	0	--	--	
#2	7333.43	60.60	3.57	-8.09	56.08	Max Peak	Vertical	114	23	68.2	-12.2	Pass
#3	7333.43	56.61	3.57	-8.09	52.09	Max Avg	Vertical	114	23	54.0	-1.9	Pass
#4	10999.66	56.87	4.59	-4.67	56.79	Max Peak	Horizontal	198	332	68.2	-11.4	Pass
#5	10999.66	45.57	4.59	-4.67	45.49	Max Avg	Horizontal	198	332	54.0	-8.5	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5580.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5576.98	71.20	3.21	-11.57	62.84	Fundamental	Vertical	151	0	--	--	
#2	7440.04	59.25	3.62	-7.72	55.15	Max Peak	Horizontal	115	74	68.2	-13.1	Pass
#3	7440.04	55.80	3.62	-7.72	51.70	Max Avg	Horizontal	115	74	54.0	-2.3	Pass
#4	11160.41	55.39	4.54	-5.00	54.93	Max Peak	Horizontal	195	333	68.2	-13.3	Pass
#5	11160.41	44.51	4.54	-5.00	44.05	Max Avg	Horizontal	195	333	54.0	-10.0	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.												

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5720.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5714.59	61.38	3.16	-11.29	53.25	Fundamental	Horizontal	100	0	--	--	
#2	7626.60	58.14	3.79	-7.48	54.45	Max Peak	Horizontal	146	74	68.2	-13.8	Pass
#3	7626.60	53.89	3.79	-7.48	50.20	Max Avg	Horizontal	146	74	54.0	-3.8	Pass
#4	11444.73	59.17	4.51	-5.67	56.01	Max Peak	Horizontal	186	208	68.2	-12.2	Pass
#5	11444.73	44.42	4.51	-5.67	45.26	Max Avg	Horizontal	186	208	54.0	-8.7	Pass
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.												

4.4.2. Restricted Edge & Band-Edge Emissions

4.4.2.2. MikroTik 95XKAA15.GN2

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5470 - 5725 MHz

MikroTik 95XKAA15.GN2		Restricted-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5500.00	5460.00	62.86	49.13	24
802.11ac-80	5530.00	5460.00	65.12	50.64	19
802.11n HT-20	5500.00	5460.00	67.52	49.45	22
802.11n HT-40	5510.00	5460.00	66.83	50.51	21

MikroTik 95XKAA15.GN2		Band-Edge Freq	Limit 68.23dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	
802.11a	5500.00	5470.00	62.86	24
802.11ac-80	5530.00	5470.00	65.12	19
802.11n HT-20	5500.00	5470.00	67.52	22
802.11n HT-40	5510.00	5470.00	66.83	21

5250 - 5350 MHz

MikroTik 95XKAA15.GN2		Band-Edge Freq	Limit 74.0dBµV/m	Limit 54.0dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5320.00	5350.00	63.33	49.54	24
802.11ac-80	5290.00	5350.00	66.17	52.91	23
802.11n HT-20	5320.00	5350.00	62.91	49.54	24
802.11n HT-40	5310.00	5350.00	65.10	51.46	24

Click on the links to view the data.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5460.00	11.54	3.06	34.53	49.13	Max Avg	Horizontal	102	125	54.0	-4.9	Pass
#3	5466.01	25.24	3.08	34.54	62.86	Max Peak	Horizontal	102	125	68.2	-5.4	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11ac-80
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	76
Channel Frequency (MHz):	5530.00	**Data Rate:**	29.30 MBit/s
Power Setting:	19	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5455.19	13.08	3.05	34.51	50.64	Max Avg	Horizontal	102	125	54.0	-3.4	Pass
#3	5470.00	27.51	3.06	34.55	65.12	Max Peak	Horizontal	102	125	68.2	-3.1	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 1.19 DCCF added to average measurement												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5500.00	**Data Rate:**	6.50 MBit/s
Power Setting:	22	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5460.00	11.86	3.06	34.53	49.45	Max Avg	Horizontal	102	125	54.0	-4.6	Pass
#3	5469.02	29.91	3.06	34.55	67.52	Max Peak	Horizontal	102	125	68.2	-0.7	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.												

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	84
Channel Frequency (MHz):	5510.00	**Data Rate:**	13.50 MBit/s
Power Setting:	21	**Tested By:**	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5460.00	12.92	3.06	34.53	50.51	Max Avg	Horizontal	102	125	54.0	-3.5	Pass
#3	5468.42	29.21	3.07	34.55	66.83	Max Peak	Horizontal	102	125	68.2	-1.4	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 0.76 DCCF added to average measurement												

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

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11a
Antenna Gain (dBi):	2.00	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.00 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5350.00	12.02	3.06	34.46	49.54	Max Avg	Horizontal	102	125	54.0	-4.5	Pass
#3	5355.15	25.81	3.05	34.47	63.33	Max Peak	Horizontal	102	125	74.0	-11.7	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.												

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11ac-80
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	76
Channel Frequency (MHz):	5290.00	**Data Rate:**	29.30 MBit/s
Power Setting:	23	**Tested By:**	JMH

Test Measurement Results

5250.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#2	5359.00	15.40	3.04	34.47	52.91	Max Avg	Horizontal	102	125	54.0	-1.1	Pass
#3	5359.82	28.65	3.04	34.48	66.17	Max Peak	Horizontal	102	125	74.0	-7.8	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 1.19 DCCF added to average measurement												

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11n HT-20
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5320.00	**Data Rate:**	6.50 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#1	5350.00	12.02	3.06	34.46	49.54	Max Avg	Horizontal	102	125	54.0	-4.5	Pass
#3	5437.56	25.28	3.12	34.51	62.91	Max Peak	Horizontal	102	125	74.0	-11.1	Pass
#2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.												

Equipment Configuration for Restricted Upper Band-Edge Emissions

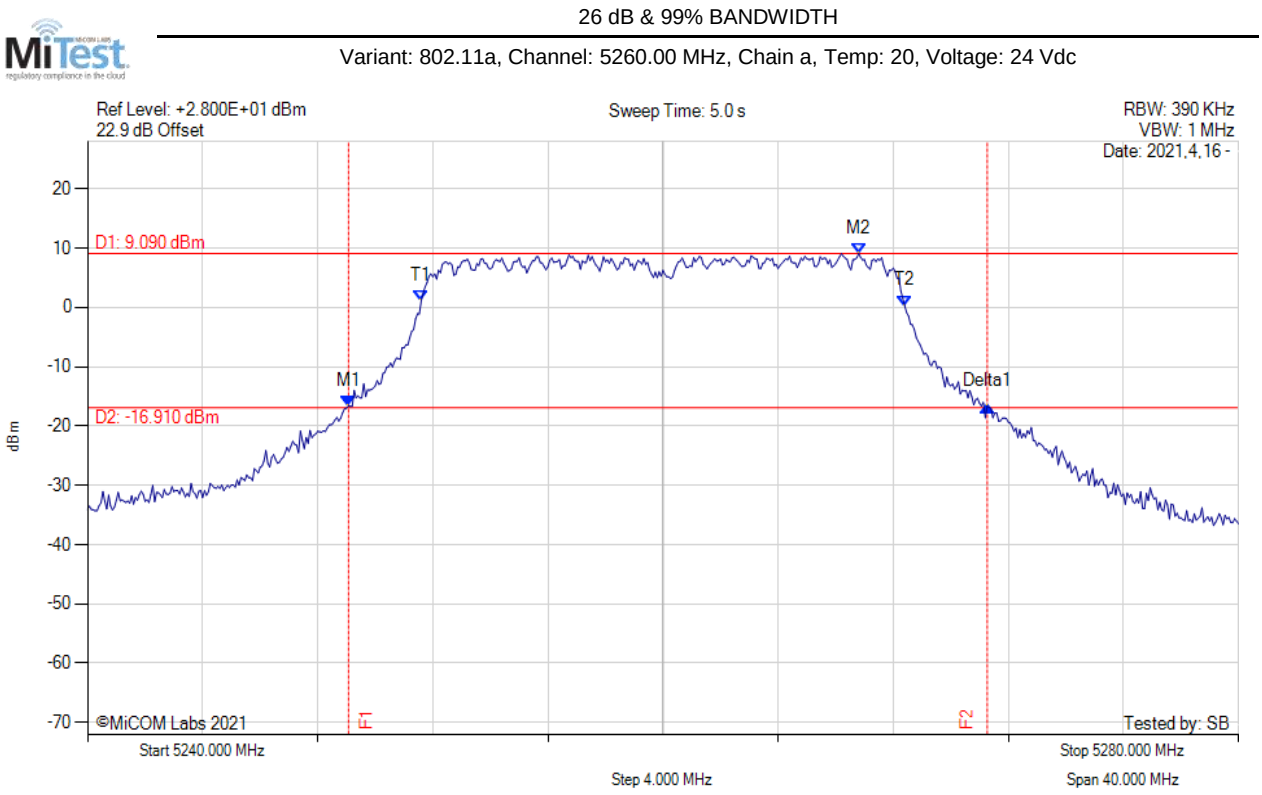
Antenna:	MikroTik 95XKAA15.GN2	**Variant:**	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	84
Channel Frequency (MHz):	5310.00	**Data Rate:**	13.50 MBit/s
Power Setting:	24	**Tested By:**	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
#2	5350.66	27.58	3.06	34.46	65.10	Max Peak	Horizontal	102	125	74.0	-8.9	Pass
#3	5354.49	13.94	3.05	34.47	51.46	Max Avg	Horizontal	102	125	54.0	-2.5	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 0.76 DCCF added to average measurement												

A. APPENDIX - GRAPHICAL IMAGES

A.1. 26 dB & 99% Bandwidth

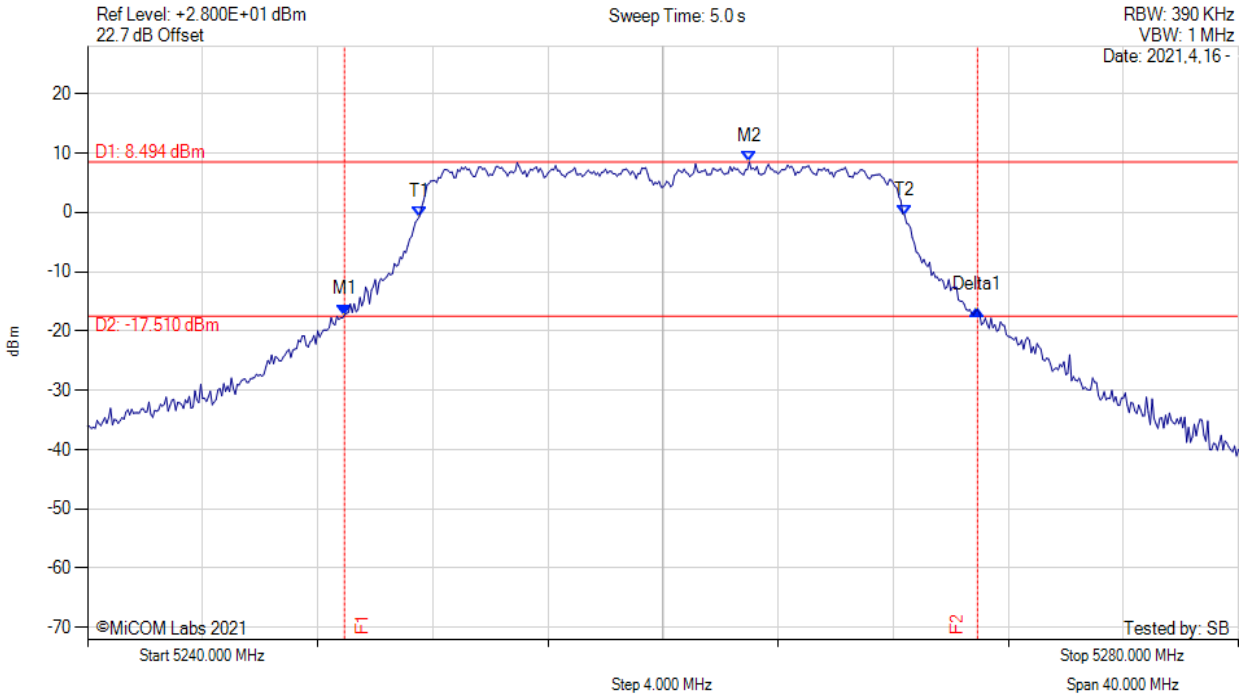


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5249.070 MHz : -16.602 dBm M2 : 5266.800 MHz : 9.090 dBm Delta1 : 22.200 MHz : -0.097 dB T1 : 5251.600 MHz : 1.172 dBm T2 : 5268.400 MHz : 0.275 dBm OBW : 16.786 MHz	Measured 26 dB Bandwidth: 22.200 MHz Measured 99% Bandwidth: 16.786 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

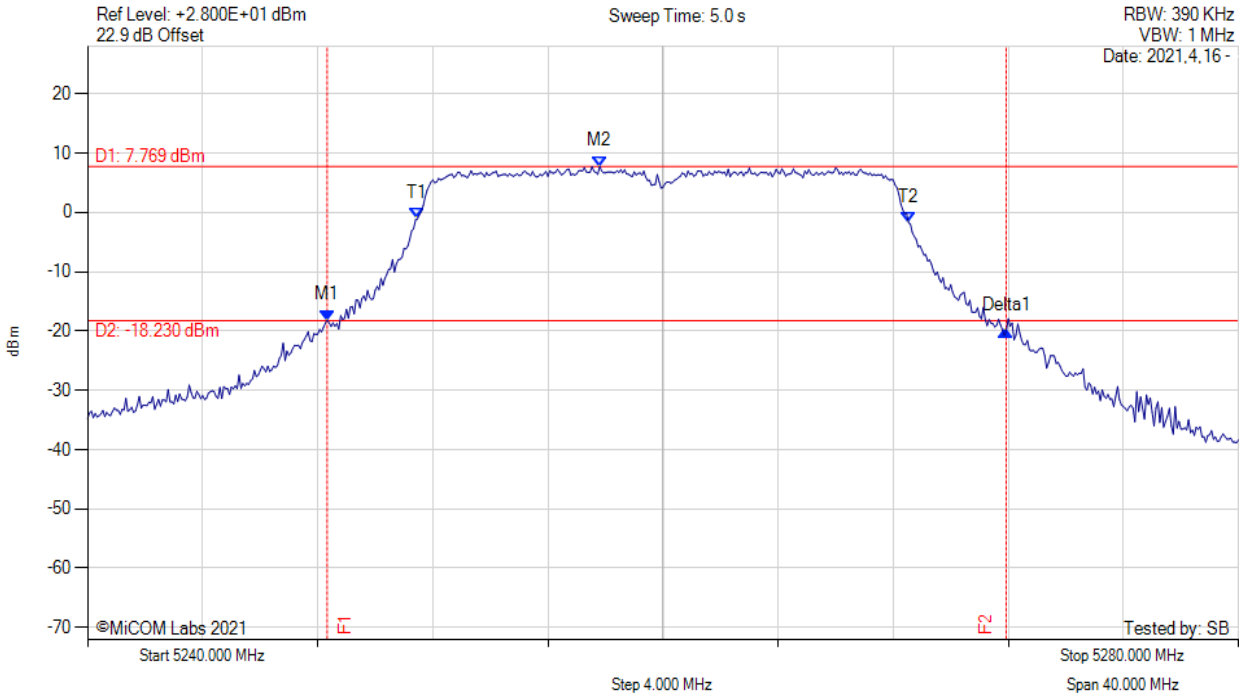


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.930 MHz : -17.262 dBm M2 : 5263.000 MHz : 8.494 dBm Delta1 : 22.000 MHz : 0.833 dB T1 : 5251.533 MHz : -0.699 dBm T2 : 5268.400 MHz : -0.526 dBm OBW : 16.864 MHz	Measured 26 dB Bandwidth: 22.000 MHz Measured 99% Bandwidth: 16.864 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

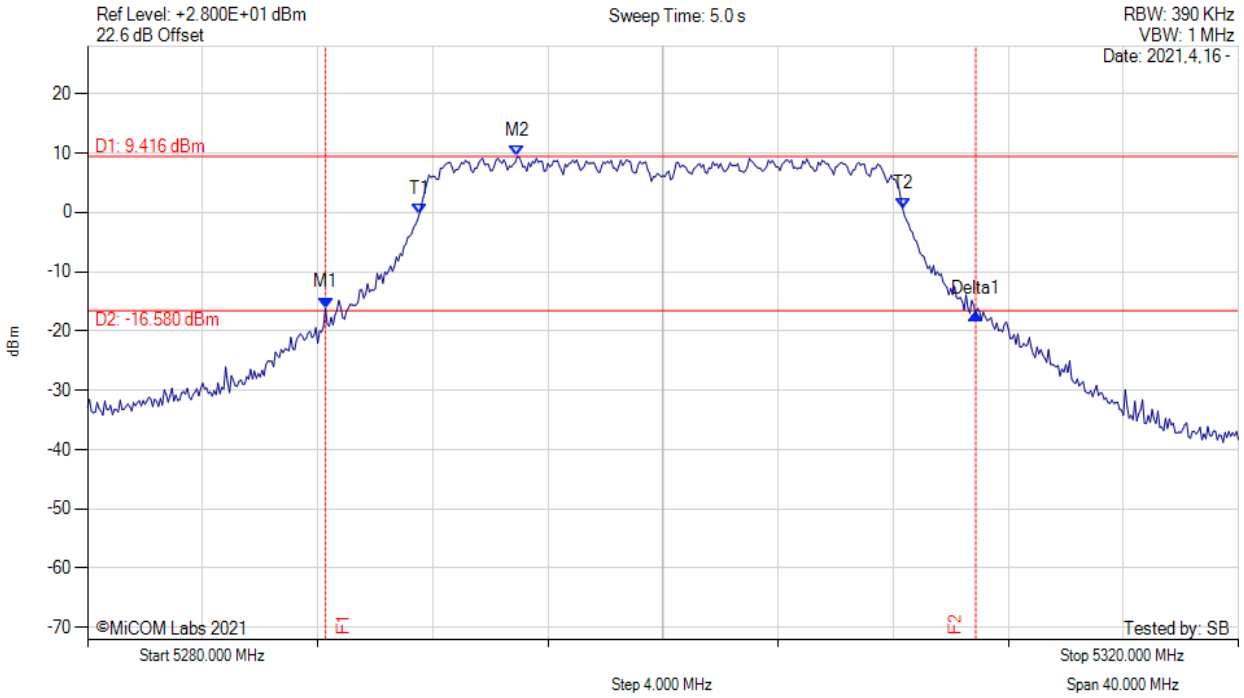


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.330 MHz : -18.179 dBm M2 : 5257.800 MHz : 7.769 dBm Delta1 : 23.600 MHz : -1.737 dB T1 : 5251.467 MHz : -1.089 dBm T2 : 5268.533 MHz : -1.735 dBm OBW : 17.041 MHz	Measured 26 dB Bandwidth: 23.600 MHz Measured 99% Bandwidth: 17.041 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

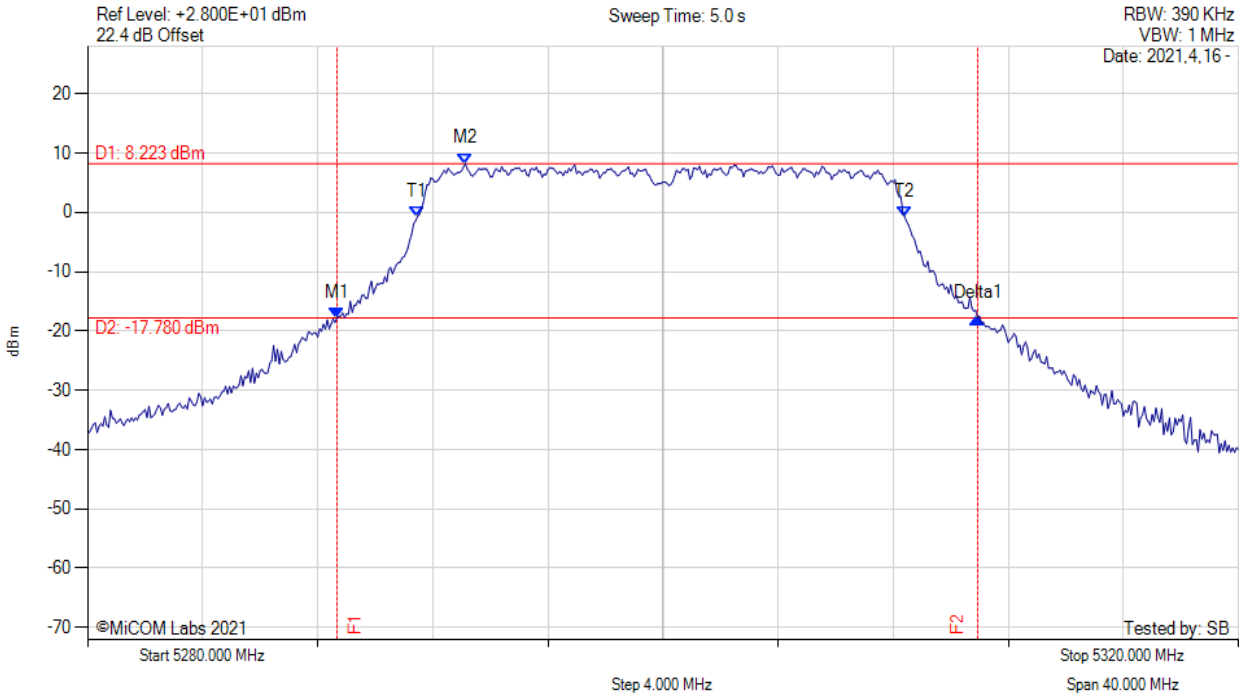


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.270 MHz : -16.091 dBm M2 : 5294.930 MHz : 9.416 dBm Delta1 : 22.600 MHz : -1.096 dB T1 : 5291.533 MHz : -0.277 dBm T2 : 5308.333 MHz : 0.673 dBm OBW : 16.738 MHz	Measured 26 dB Bandwidth: 22.600 MHz Measured 99% Bandwidth: 16.738 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

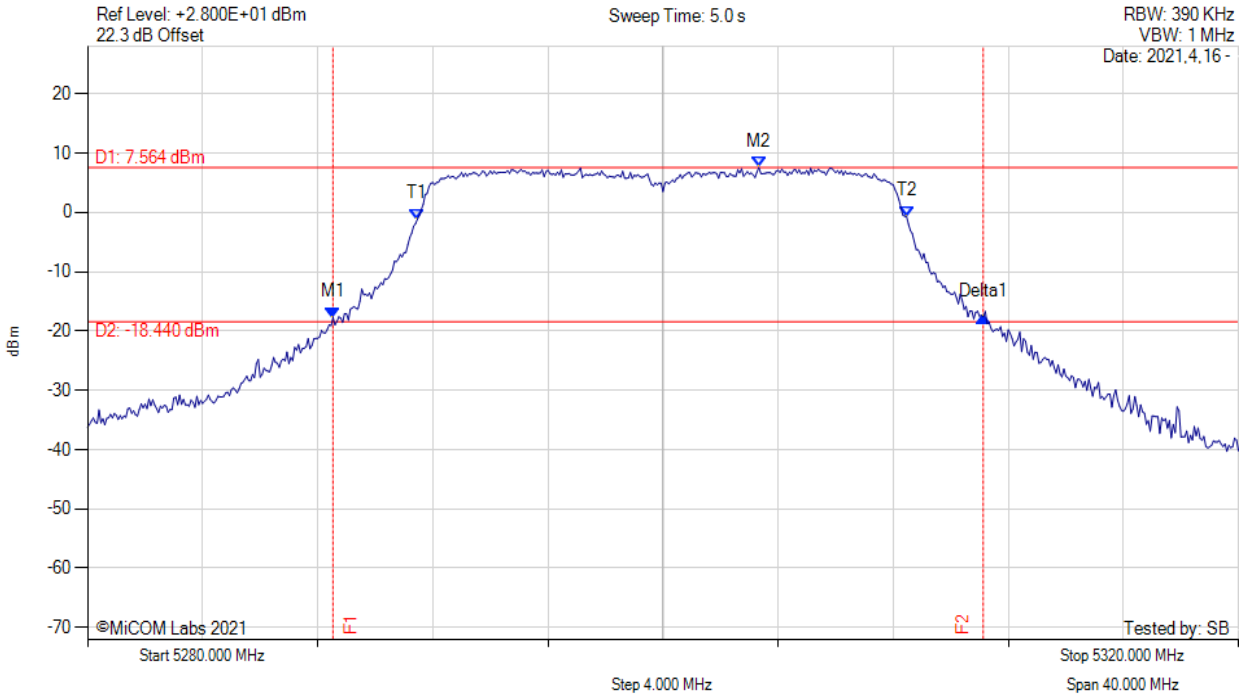


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.670 MHz : -17.739 dBm M2 : 5293.130 MHz : 8.223 dBm Delta1 : 22.270 MHz : -0.016 dB T1 : 5291.467 MHz : -0.676 dBm T2 : 5308.400 MHz : -0.811 dBm OBW : 16.877 MHz	Measured 26 dB Bandwidth: 22.270 MHz Measured 99% Bandwidth: 16.877 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

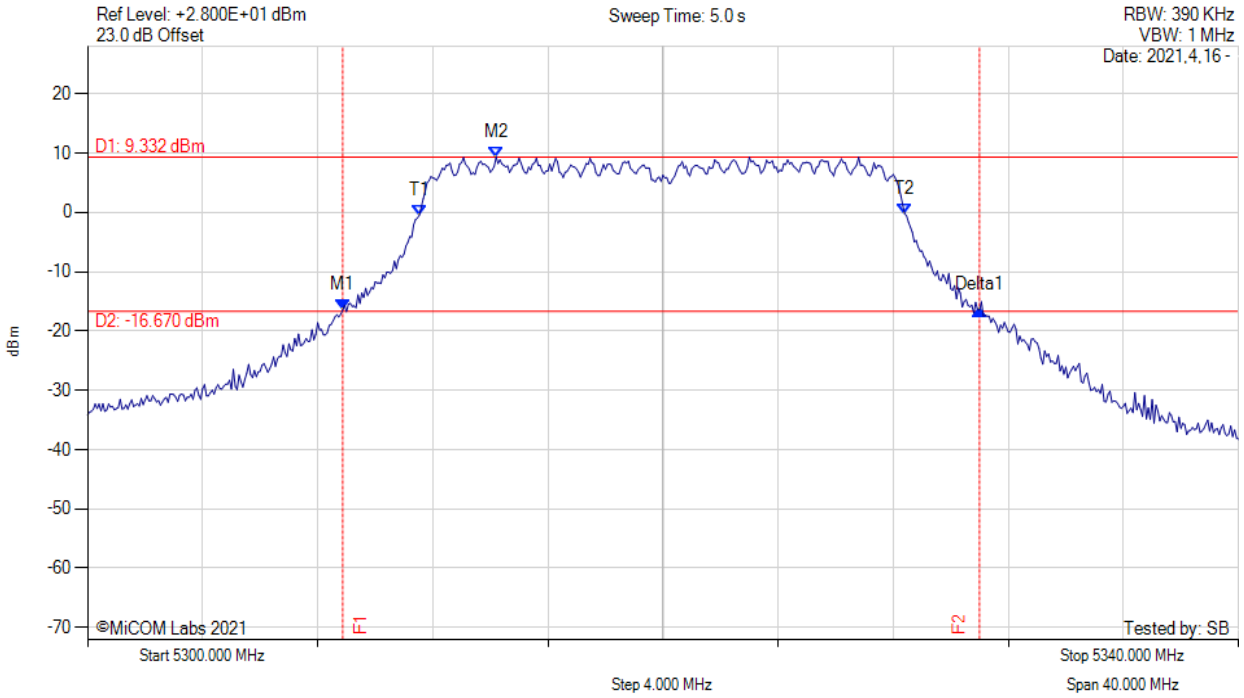


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.530 MHz : -17.718 dBm M2 : 5303.330 MHz : 7.564 dBm Delta1 : 22.600 MHz : 0.120 dB T1 : 5291.467 MHz : -1.122 dBm T2 : 5308.467 MHz : -0.669 dBm OBW : 16.970 MHz	Measured 26 dB Bandwidth: 22.600 MHz Measured 99% Bandwidth: 16.970 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

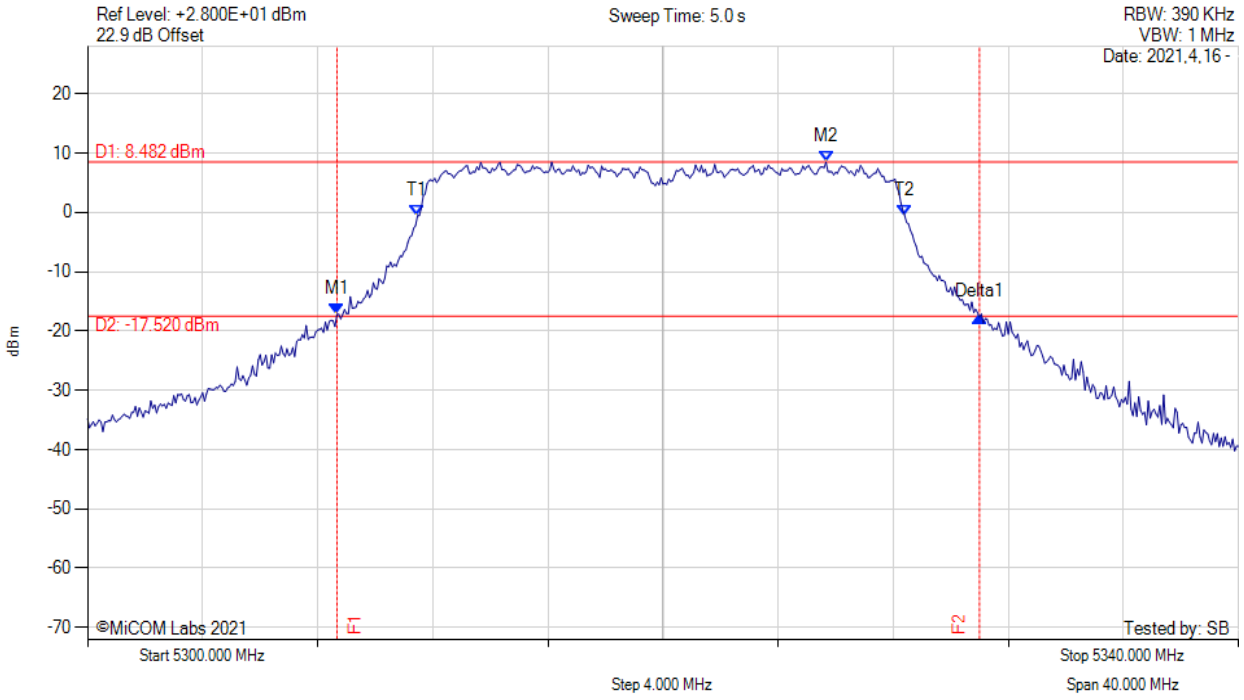


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.870 MHz : -16.481 dBm M2 : 5314.200 MHz : 9.332 dBm Delta1 : 22.130 MHz : 0.043 dB T1 : 5311.533 MHz : -0.482 dBm T2 : 5328.400 MHz : -0.266 dBm OBW : 16.808 MHz	Measured 26 dB Bandwidth: 22.130 MHz Measured 99% Bandwidth: 16.808 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

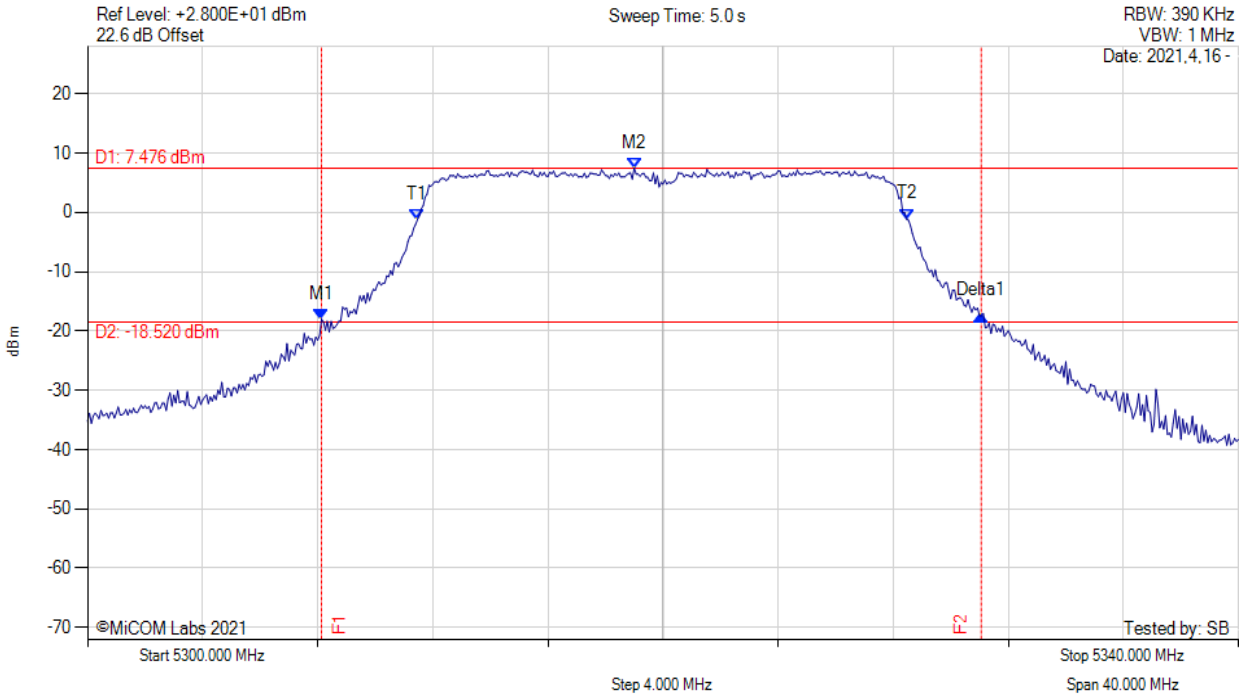


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.670 MHz : -17.210 dBm M2 : 5325.670 MHz : 8.482 dBm Delta1 : 22.330 MHz : -0.444 dB T1 : 5311.467 MHz : -0.583 dBm T2 : 5328.400 MHz : -0.570 dBm OBW : 16.869 MHz	Measured 26 dB Bandwidth: 22.330 MHz Measured 99% Bandwidth: 16.869 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

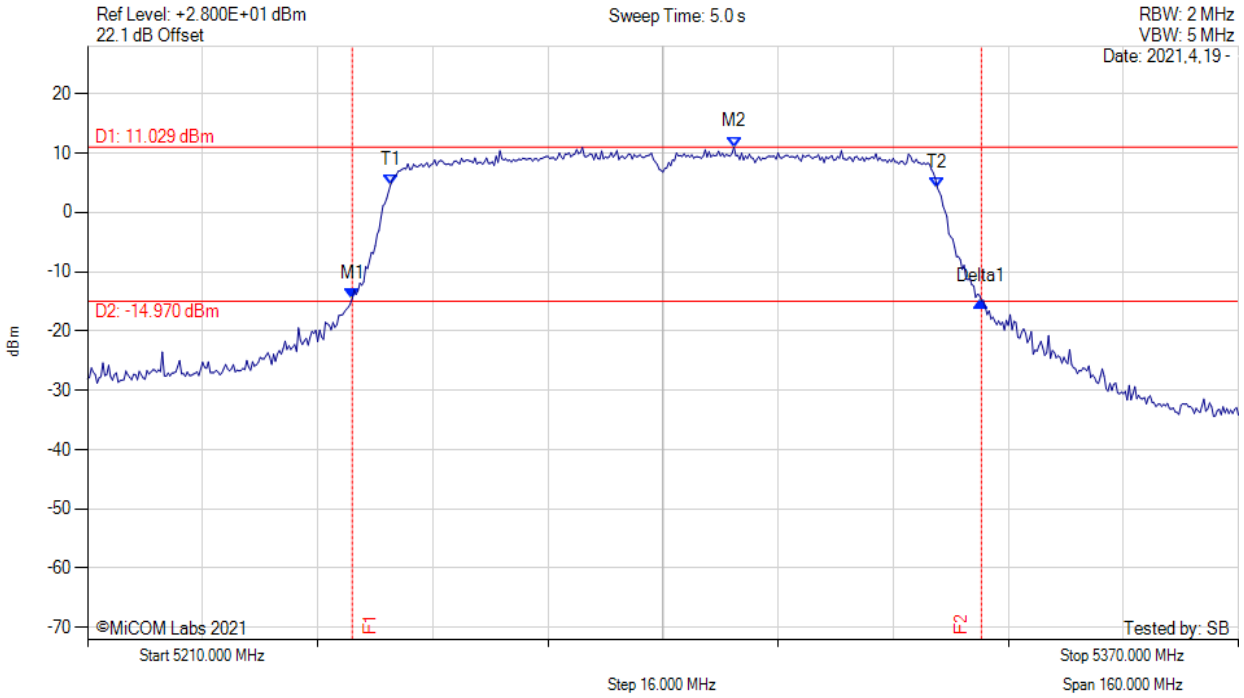


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.130 MHz : -17.991 dBm M2 : 5319.000 MHz : 7.476 dBm Delta1 : 22.930 MHz : 0.528 dB T1 : 5311.467 MHz : -1.199 dBm T2 : 5328.467 MHz : -1.132 dBm OBW : 17.007 MHz	Measured 26 dB Bandwidth: 22.930 MHz Measured 99% Bandwidth: 17.007 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

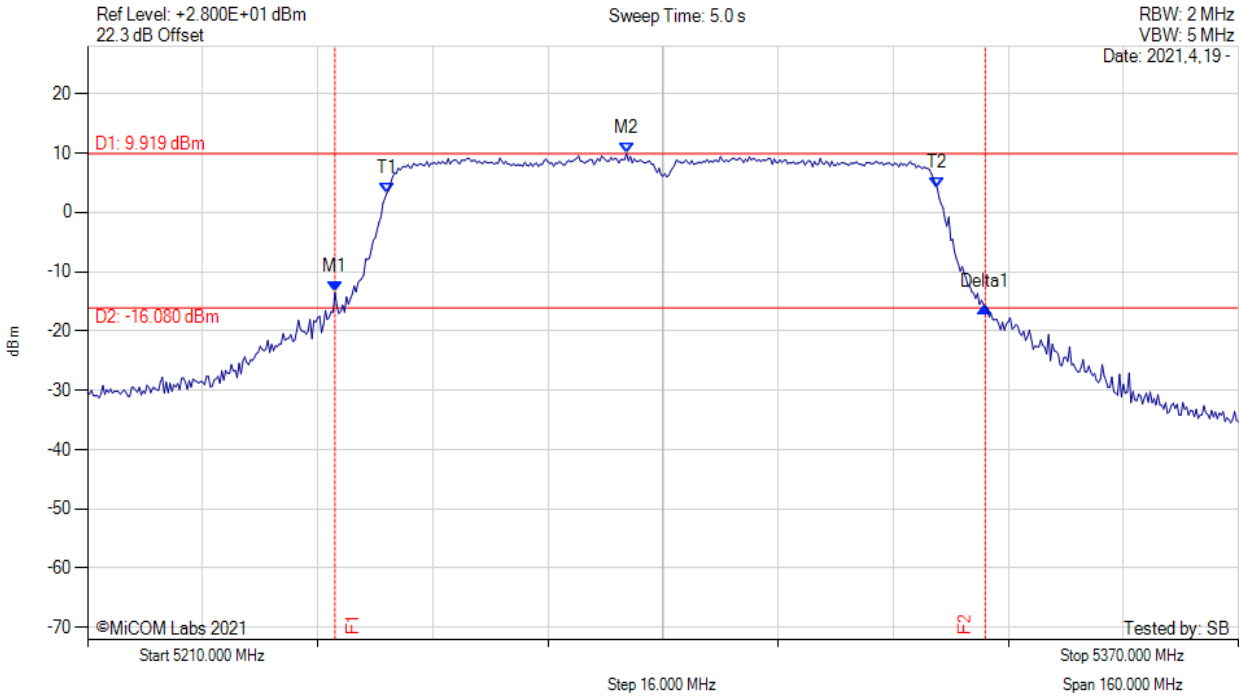


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5246.800 MHz : -14.514 dBm M2 : 5299.870 MHz : 11.029 dBm Delta1 : 87.470 MHz : -0.419 dB T1 : 5252.133 MHz : 4.655 dBm T2 : 5328.133 MHz : 4.158 dBm OBW : 75.955 MHz	Measured 26 dB Bandwidth: 87.470 MHz Measured 99% Bandwidth: 75.955 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

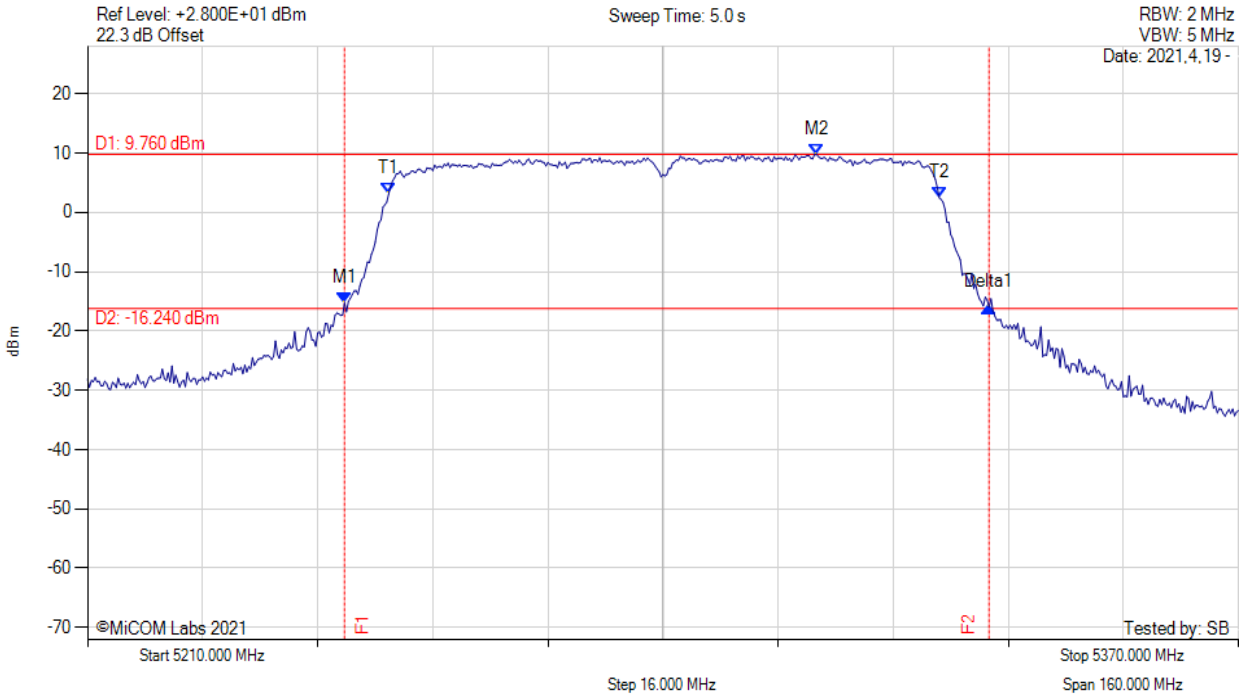


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5244.400 MHz : -13.474 dBm M2 : 5284.930 MHz : 9.919 dBm Delta1 : 90.400 MHz : -2.526 dB T1 : 5251.600 MHz : 3.246 dBm T2 : 5328.133 MHz : 4.079 dBm OBW : 76.331 MHz	Measured 26 dB Bandwidth: 90.400 MHz Measured 99% Bandwidth: 76.331 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

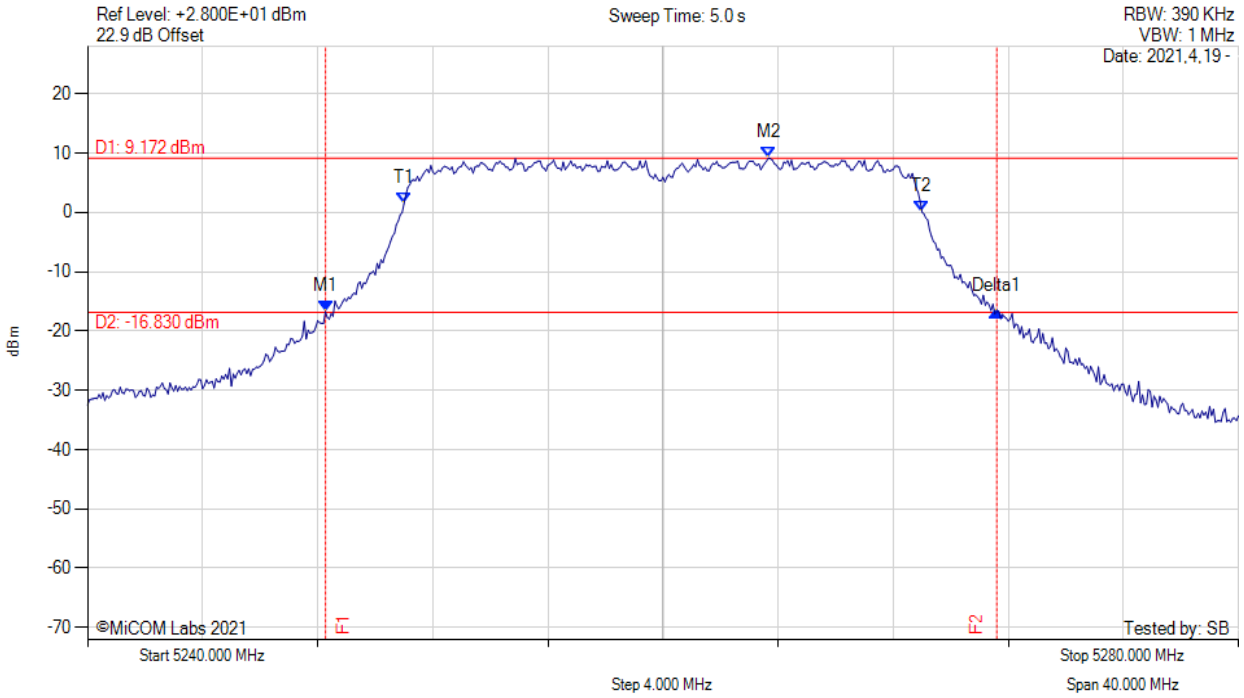


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5245.730 MHz : -15.255 dBm M2 : 5311.330 MHz : 9.760 dBm Delta1 : 89.600 MHz : -0.714 dB T1 : 5251.867 MHz : 3.128 dBm T2 : 5328.400 MHz : 2.465 dBm OBW : 76.206 MHz	Measured 26 dB Bandwidth: 89.600 MHz Measured 99% Bandwidth: 76.206 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.270 MHz : -16.751 dBm M2 : 5263.670 MHz : 9.172 dBm Delta1 : 23.330 MHz : 0.016 dB T1 : 5251.000 MHz : 1.495 dBm T2 : 5269.000 MHz : 0.078 dBm OBW : 17.956 MHz	Measured 26 dB Bandwidth: 23.330 MHz Measured 99% Bandwidth: 17.956 MHz

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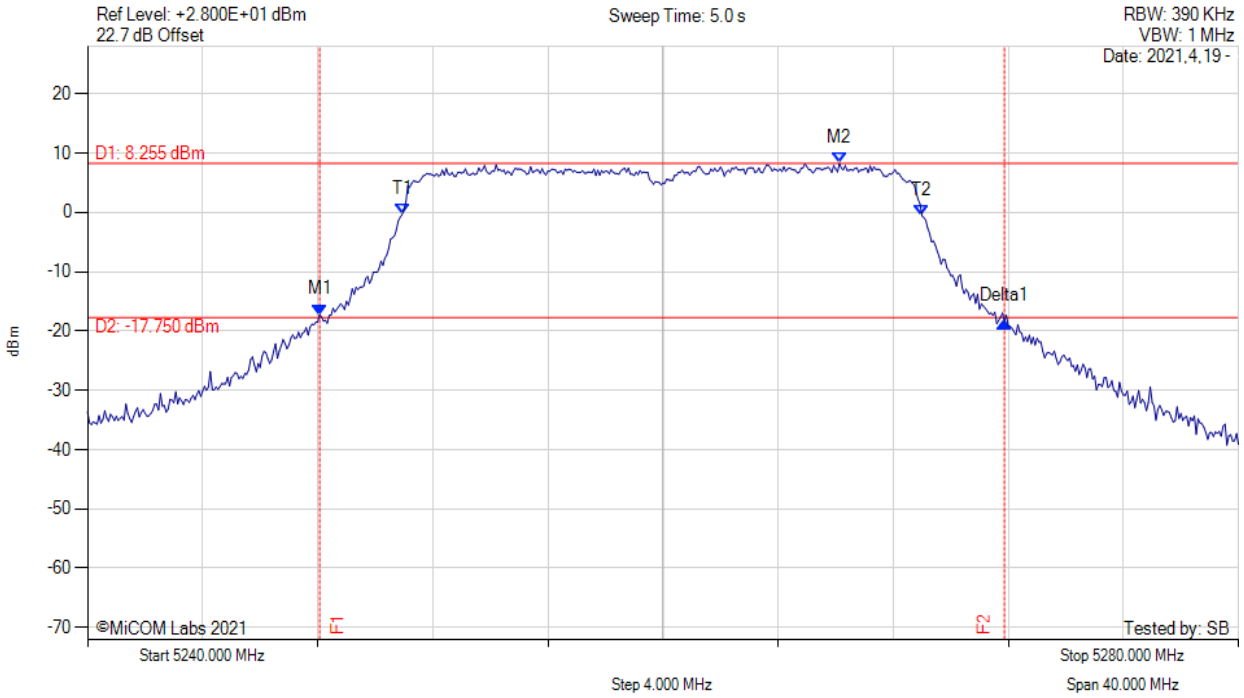
26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.070 MHz : -17.240 dBm M2 : 5266.130 MHz : 8.255 dBm Delta1 : 23.800 MHz : -1.184 dB T1 : 5250.933 MHz : -0.355 dBm T2 : 5269.000 MHz : -0.581 dBm OBW : 18.018 MHz	Measured 26 dB Bandwidth: 23.800 MHz Measured 99% Bandwidth: 18.018 MHz

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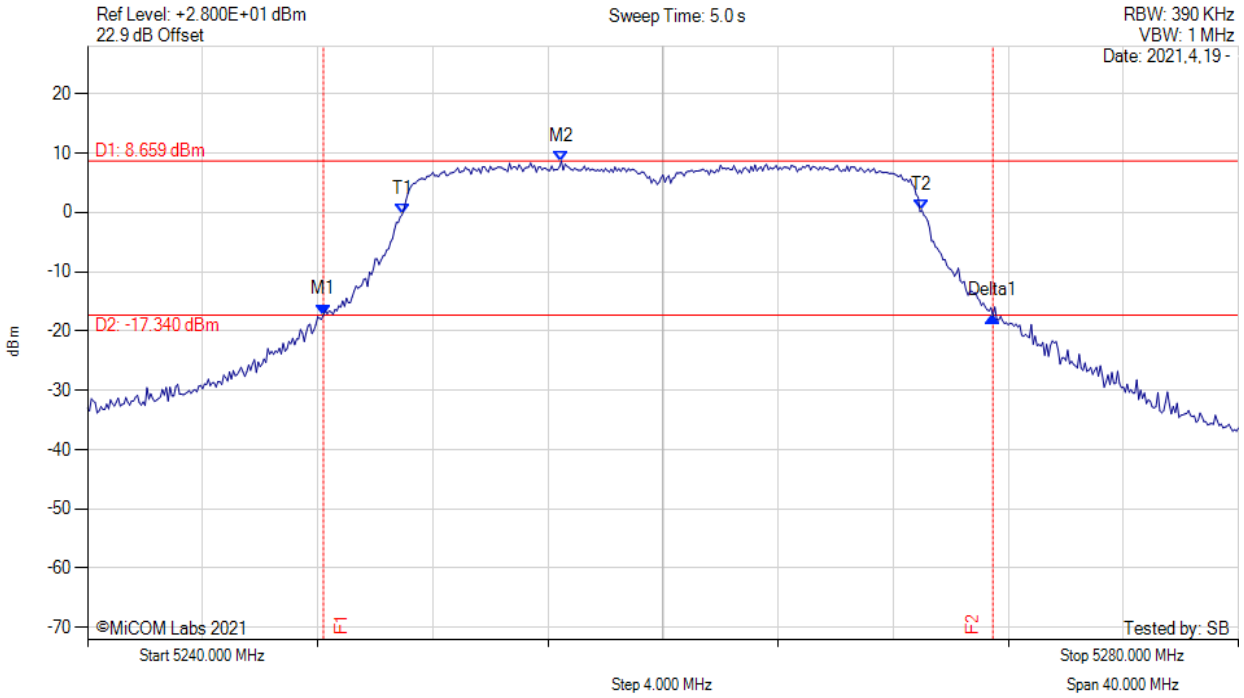
26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

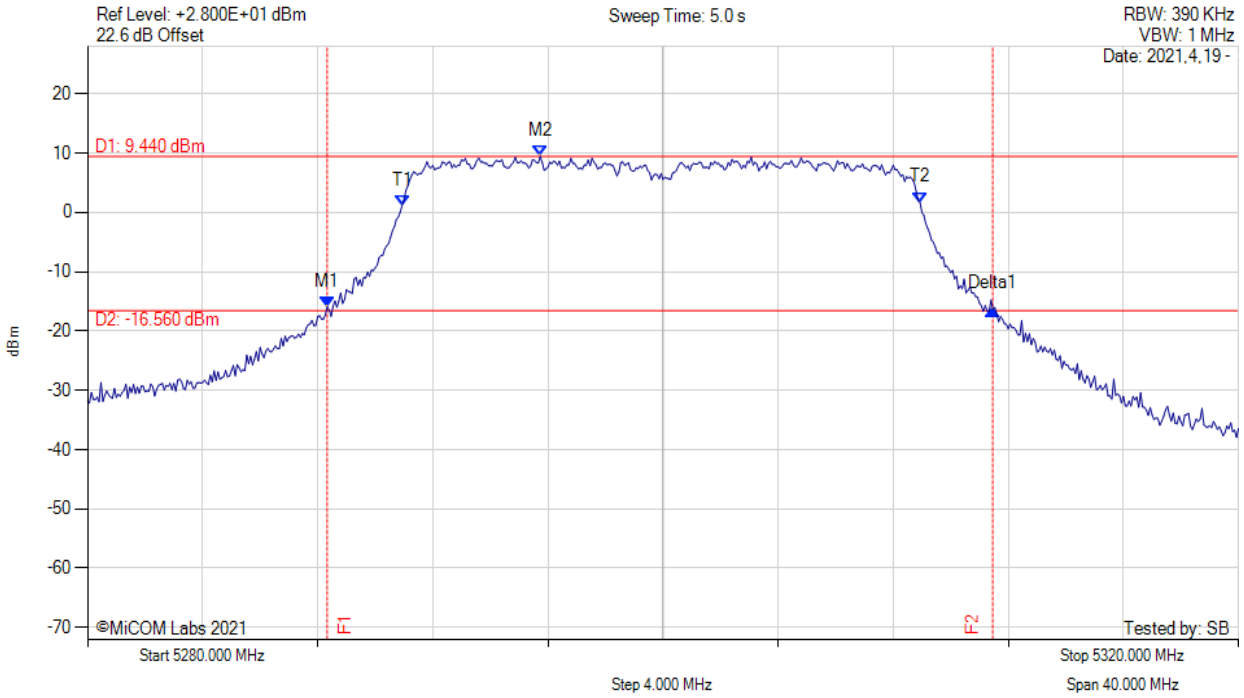


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.200 MHz : -17.246 dBm M2 : 5256.470 MHz : 8.659 dBm Delta1 : 23.270 MHz : -0.247 dB T1 : 5250.933 MHz : -0.400 dBm T2 : 5269.000 MHz : 0.347 dBm OBW : 18.075 MHz	Measured 26 dB Bandwidth: 23.270 MHz Measured 99% Bandwidth: 18.075 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

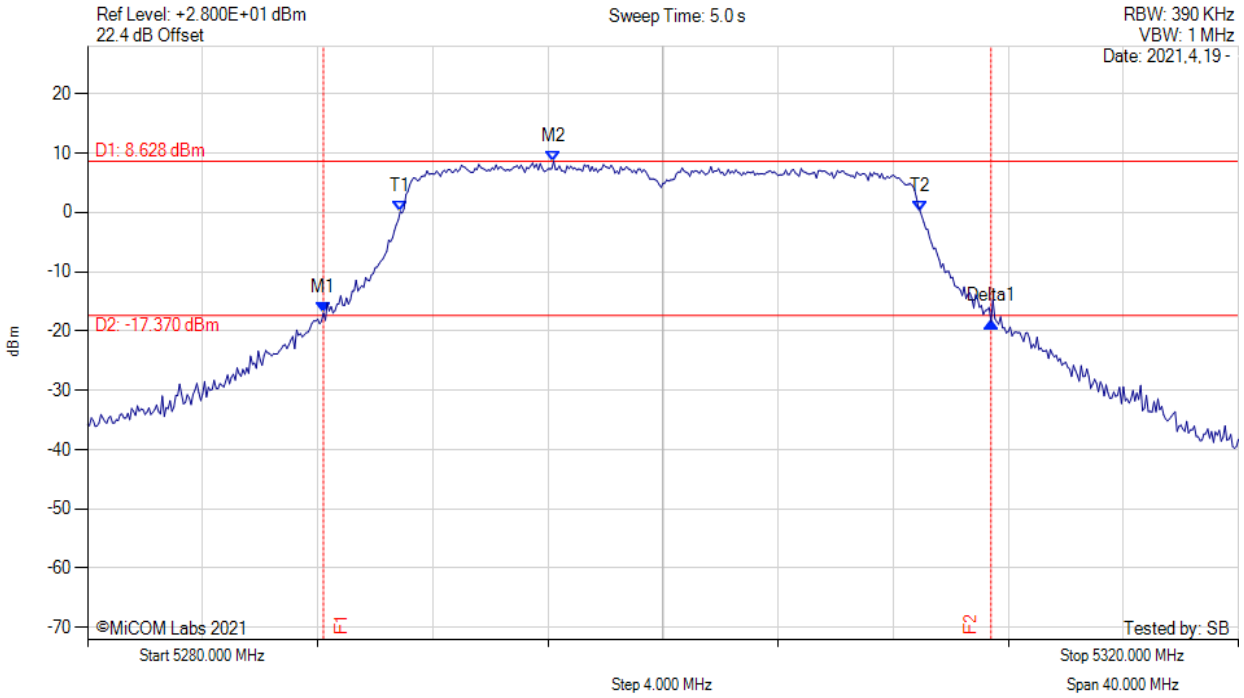


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.330 MHz : -15.932 dBm M2 : 5295.730 MHz : 9.440 dBm Delta1 : 23.130 MHz : -0.387 dB T1 : 5290.933 MHz : 1.180 dBm T2 : 5308.933 MHz : 1.669 dBm OBW : 17.955 MHz	Measured 26 dB Bandwidth: 23.130 MHz Measured 99% Bandwidth: 17.955 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

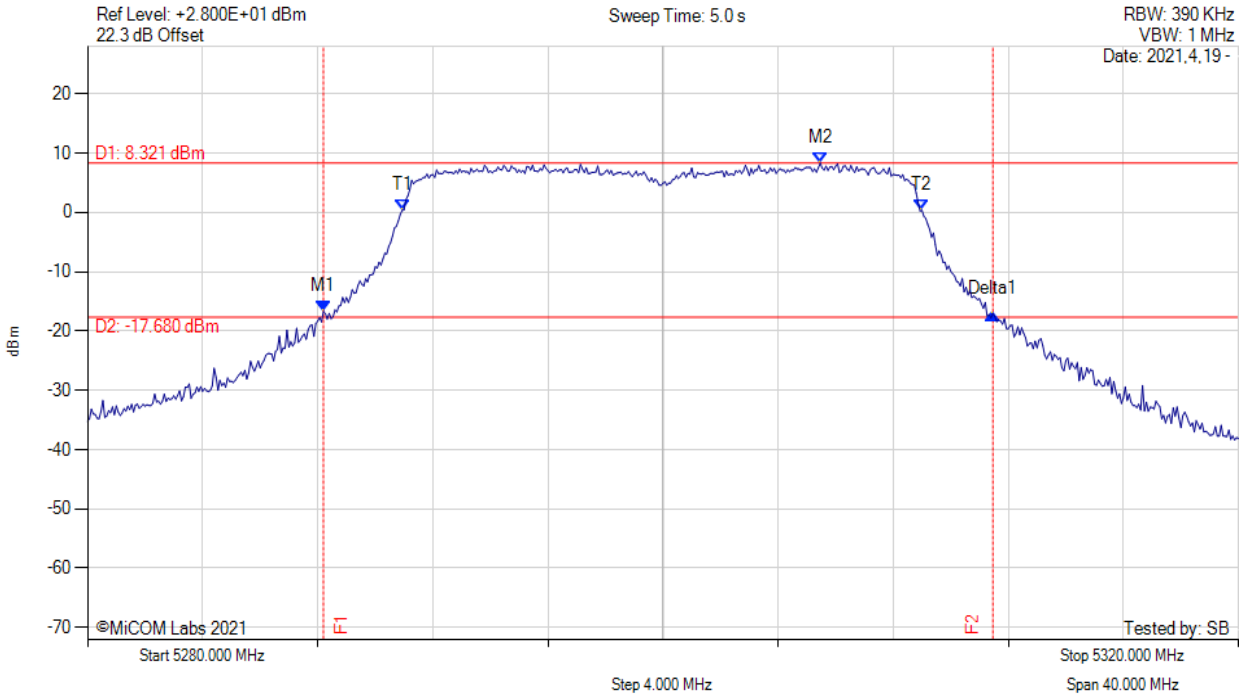


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.200 MHz : -16.930 dBm M2 : 5296.200 MHz : 8.628 dBm Delta1 : 23.200 MHz : -1.492 dB T1 : 5290.867 MHz : 0.134 dBm T2 : 5308.933 MHz : 0.244 dBm OBW : 18.012 MHz	Measured 26 dB Bandwidth: 23.200 MHz Measured 99% Bandwidth: 18.012 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5288.200 MHz : -16.691 dBm M2 : 5305.470 MHz : 8.321 dBm Delta1 : 23.270 MHz : -0.356 dB T1 : 5290.933 MHz : 0.364 dBm T2 : 5309.000 MHz : 0.358 dBm OBW : 18.102 MHz	Measured 26 dB Bandwidth: 23.270 MHz Measured 99% Bandwidth: 18.102 MHz

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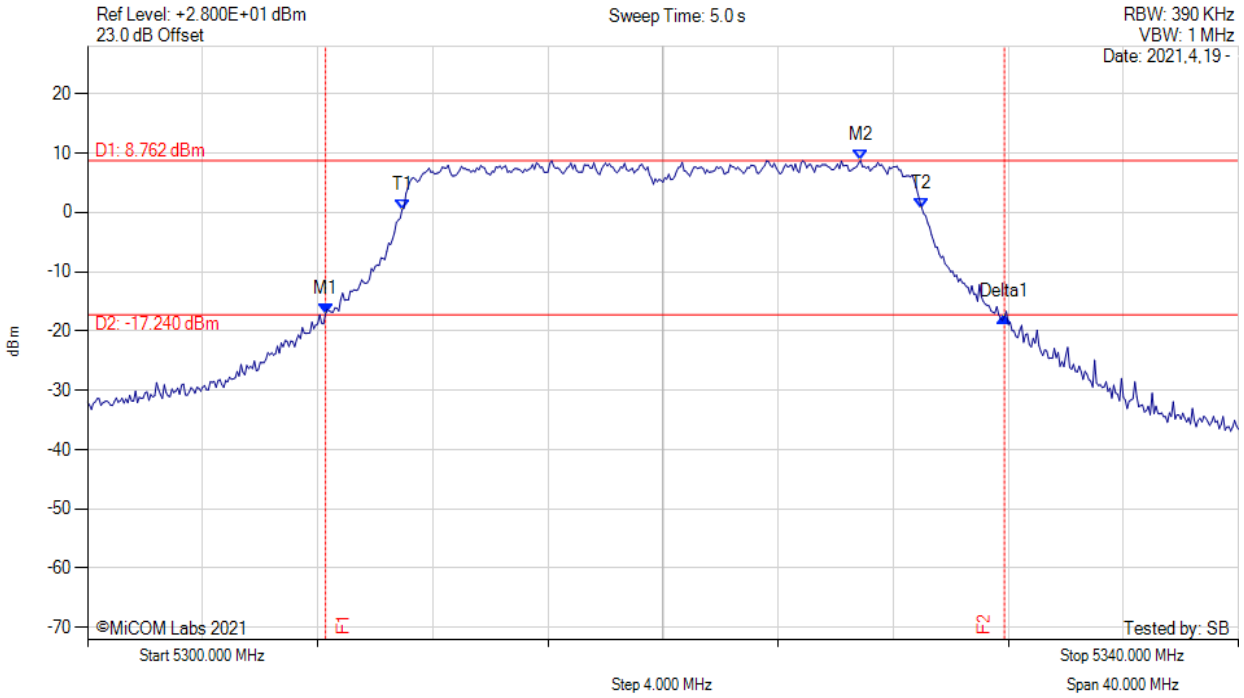
26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

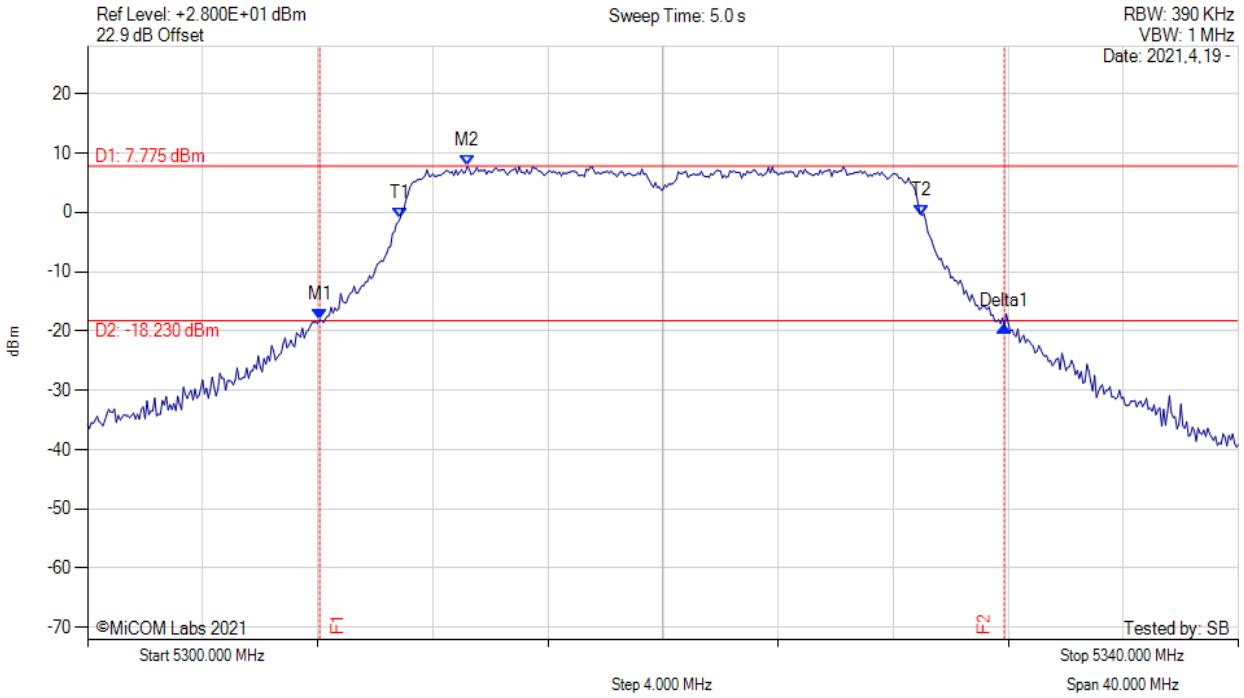


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.270 MHz : -17.177 dBm M2 : 5326.870 MHz : 8.762 dBm Delta1 : 23.600 MHz : -0.413 dB T1 : 5310.933 MHz : 0.472 dBm T2 : 5329.000 MHz : 0.646 dBm OBW : 18.030 MHz	Measured 26 dB Bandwidth: 23.600 MHz Measured 99% Bandwidth: 18.030 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

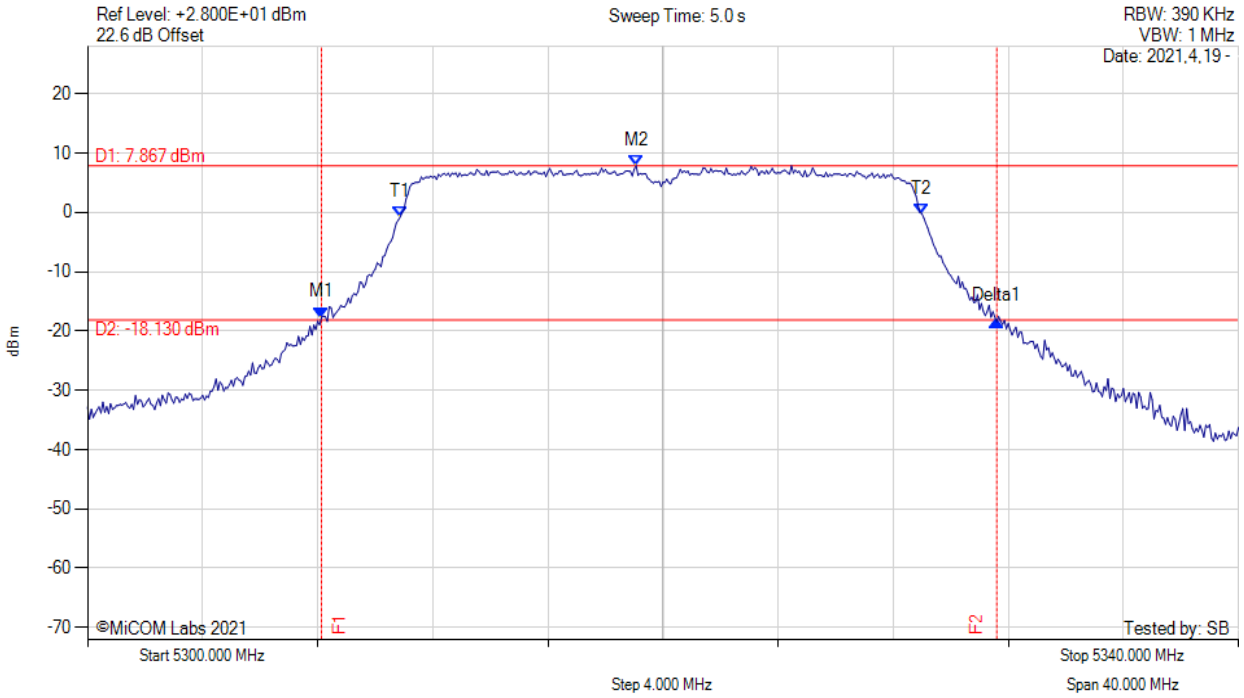


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.070 MHz : -18.126 dBm M2 : 5313.200 MHz : 7.775 dBm Delta1 : 23.800 MHz : -1.182 dB T1 : 5310.867 MHz : -0.956 dBm T2 : 5329.000 MHz : -0.508 dBm OBW : 18.079 MHz	Measured 26 dB Bandwidth: 23.800 MHz Measured 99% Bandwidth: 18.079 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5308.130 MHz : -17.718 dBm M2 : 5319.070 MHz : 7.867 dBm Delta1 : 23.470 MHz : -0.676 dB T1 : 5310.867 MHz : -0.773 dBm T2 : 5329.000 MHz : -0.235 dBm OBW : 18.115 MHz	Measured 26 dB Bandwidth: 23.470 MHz Measured 99% Bandwidth: 18.115 MHz

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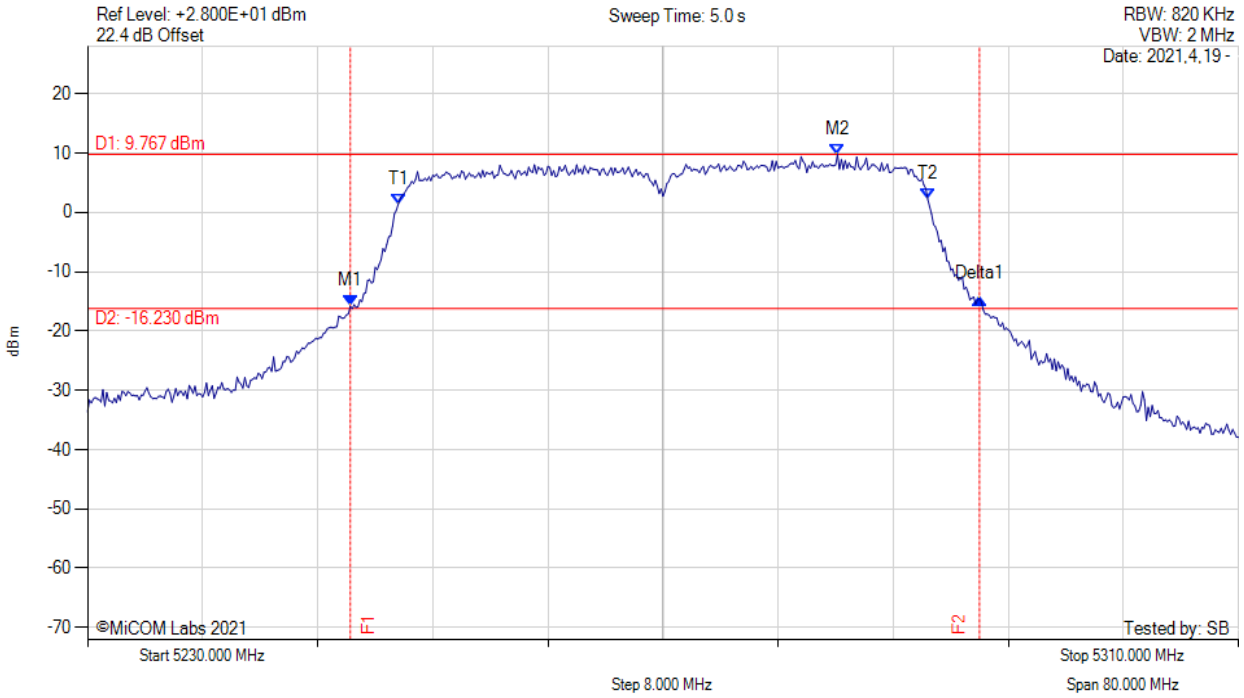
26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

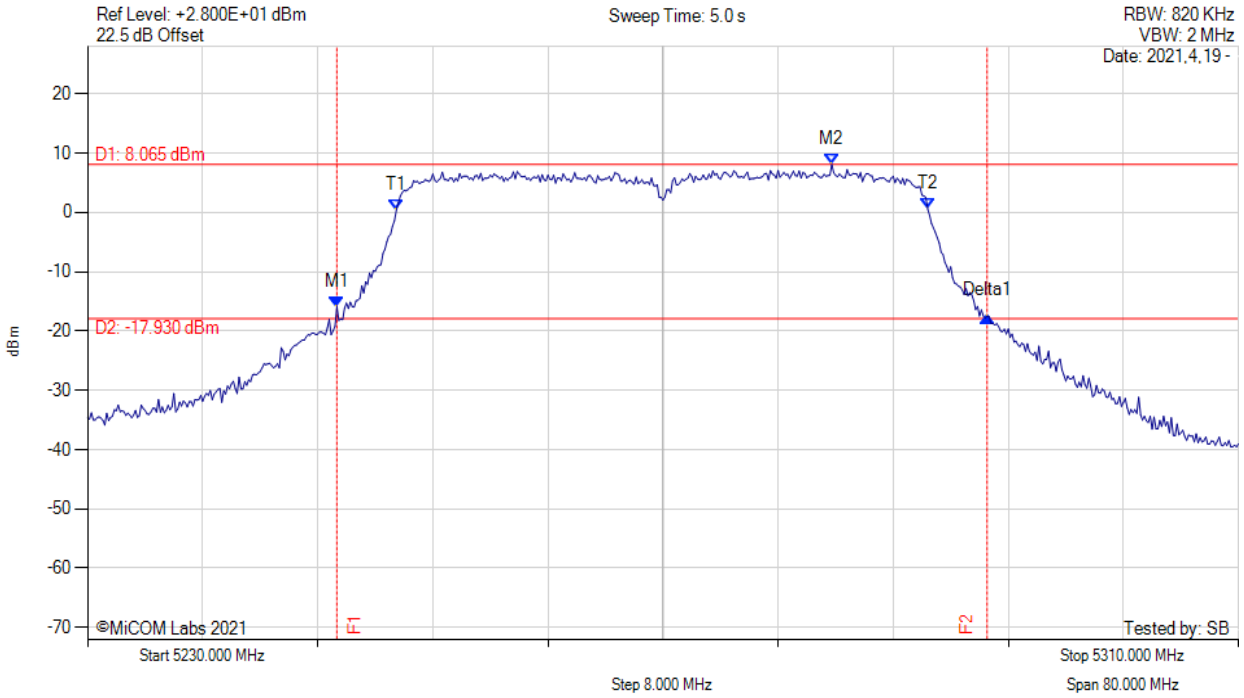


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5248.270 MHz : -15.828 dBm M2 : 5282.130 MHz : 9.767 dBm Delta1 : 43.730 MHz : 1.287 dB T1 : 5251.600 MHz : 1.392 dBm T2 : 5288.400 MHz : 2.208 dBm OBW : 36.720 MHz	Measured 26 dB Bandwidth: 43.730 MHz Measured 99% Bandwidth: 36.720 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

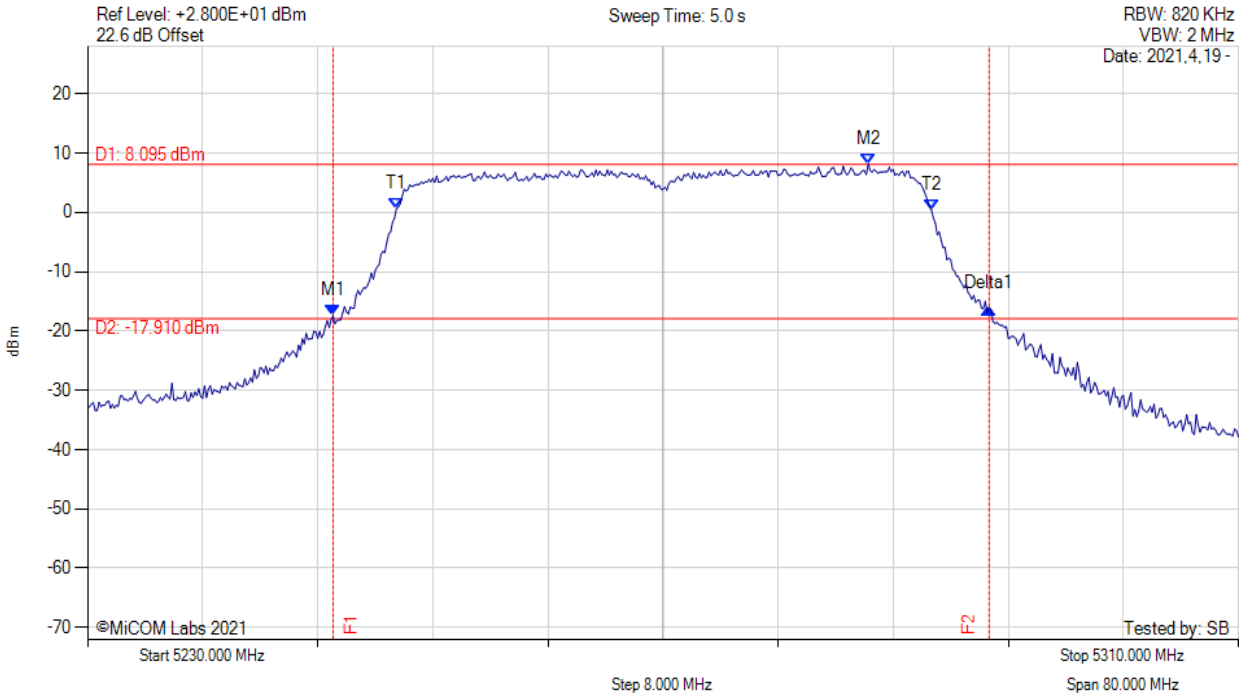


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5247.330 MHz : -15.914 dBm M2 : 5281.730 MHz : 8.065 dBm Delta1 : 45.200 MHz : -1.584 dB T1 : 5251.467 MHz : 0.359 dBm T2 : 5288.400 MHz : 0.578 dBm OBW : 36.914 MHz	Measured 26 dB Bandwidth: 45.200 MHz Measured 99% Bandwidth: 36.914 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

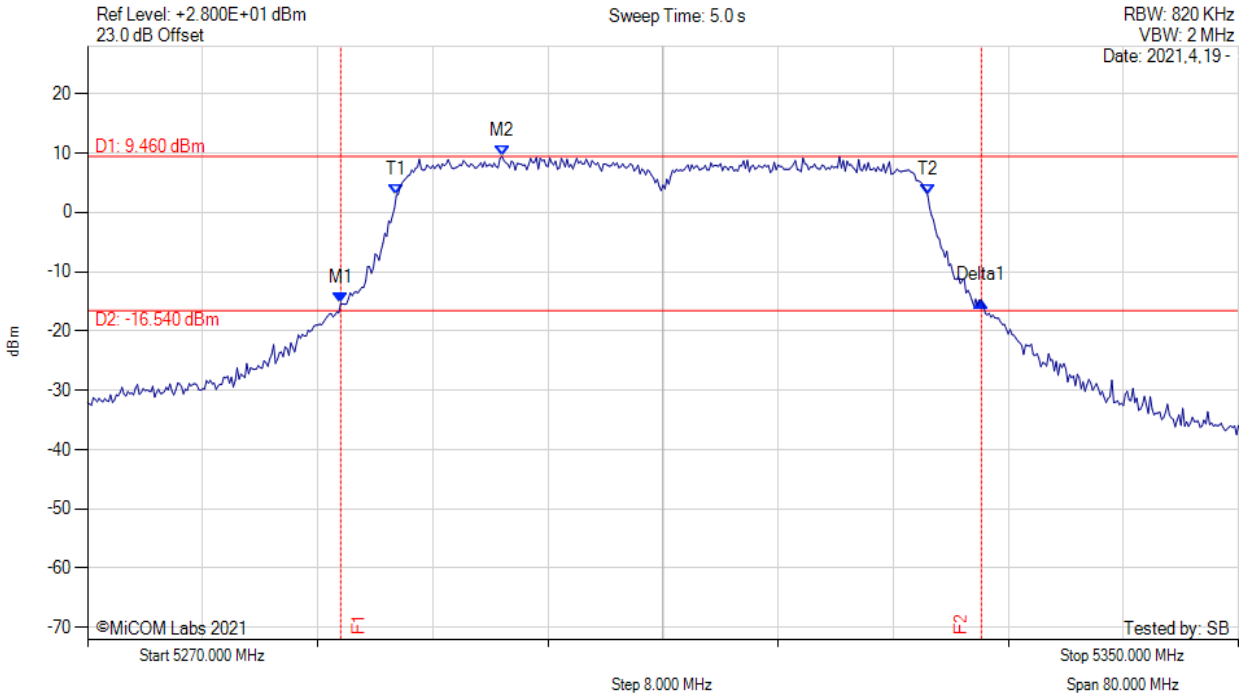


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5247.070 MHz : -17.438 dBm M2 : 5284.270 MHz : 8.095 dBm Delta1 : 45.600 MHz : 1.321 dB T1 : 5251.467 MHz : 0.592 dBm T2 : 5288.667 MHz : 0.312 dBm OBW : 37.066 MHz	Measured 26 dB Bandwidth: 45.600 MHz Measured 99% Bandwidth: 37.066 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

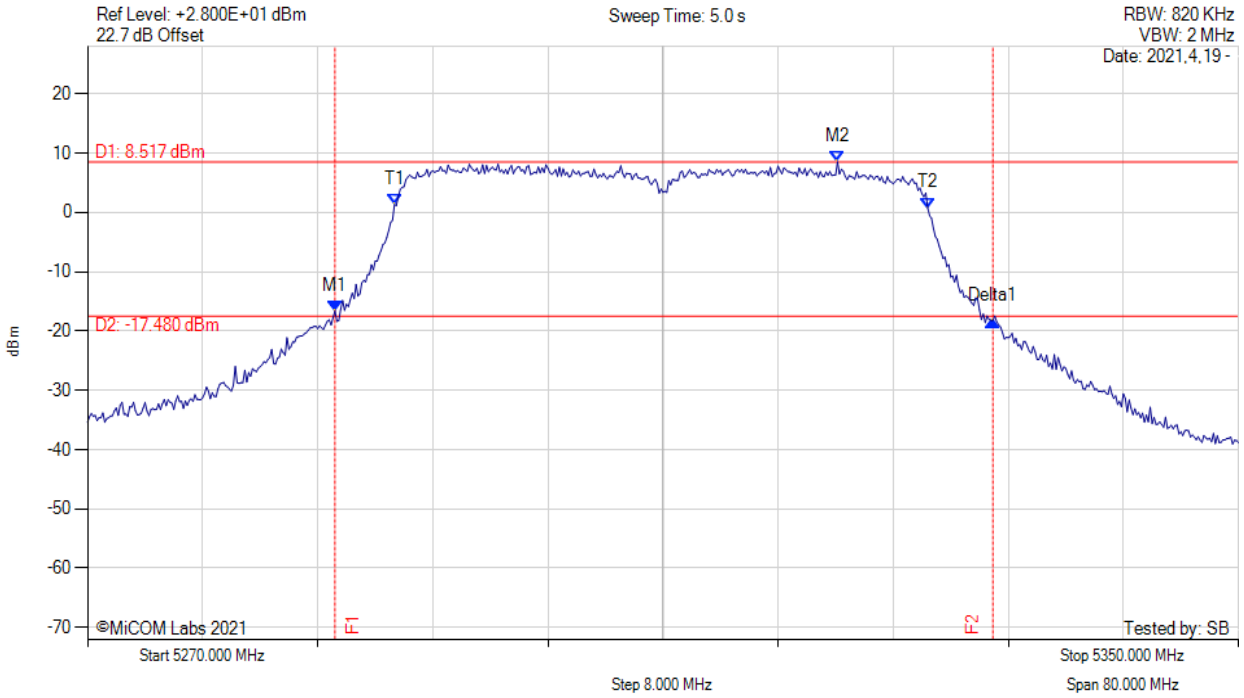


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5287.600 MHz : -15.311 dBm M2 : 5298.800 MHz : 9.460 dBm Delta1 : 44.530 MHz : 0.406 dB T1 : 5291.467 MHz : 2.885 dBm T2 : 5328.400 MHz : 2.890 dBm OBW : 36.819 MHz	Measured 26 dB Bandwidth: 44.530 MHz Measured 99% Bandwidth: 36.819 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5287.200 MHz : -16.623 dBm M2 : 5322.130 MHz : 8.517 dBm Delta1 : 45.730 MHz : -1.579 dB T1 : 5291.333 MHz : 1.336 dBm T2 : 5328.400 MHz : 0.757 dBm OBW : 36.912 MHz	Measured 26 dB Bandwidth: 45.730 MHz Measured 99% Bandwidth: 36.912 MHz

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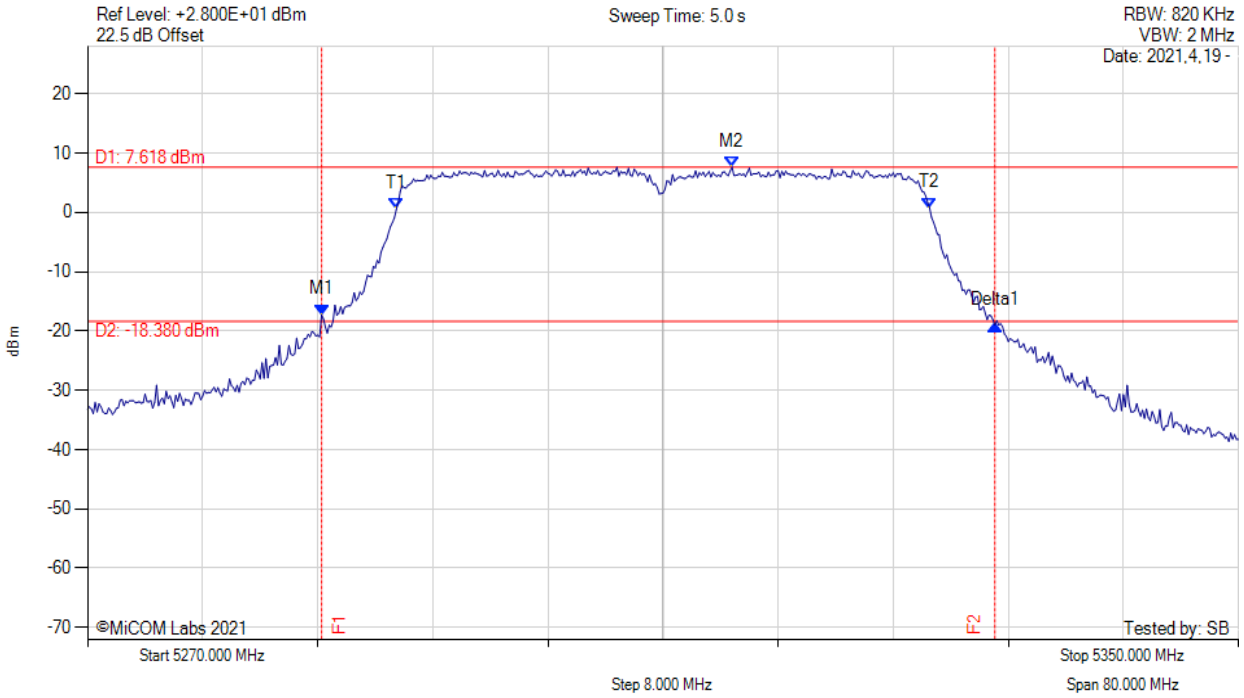
26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

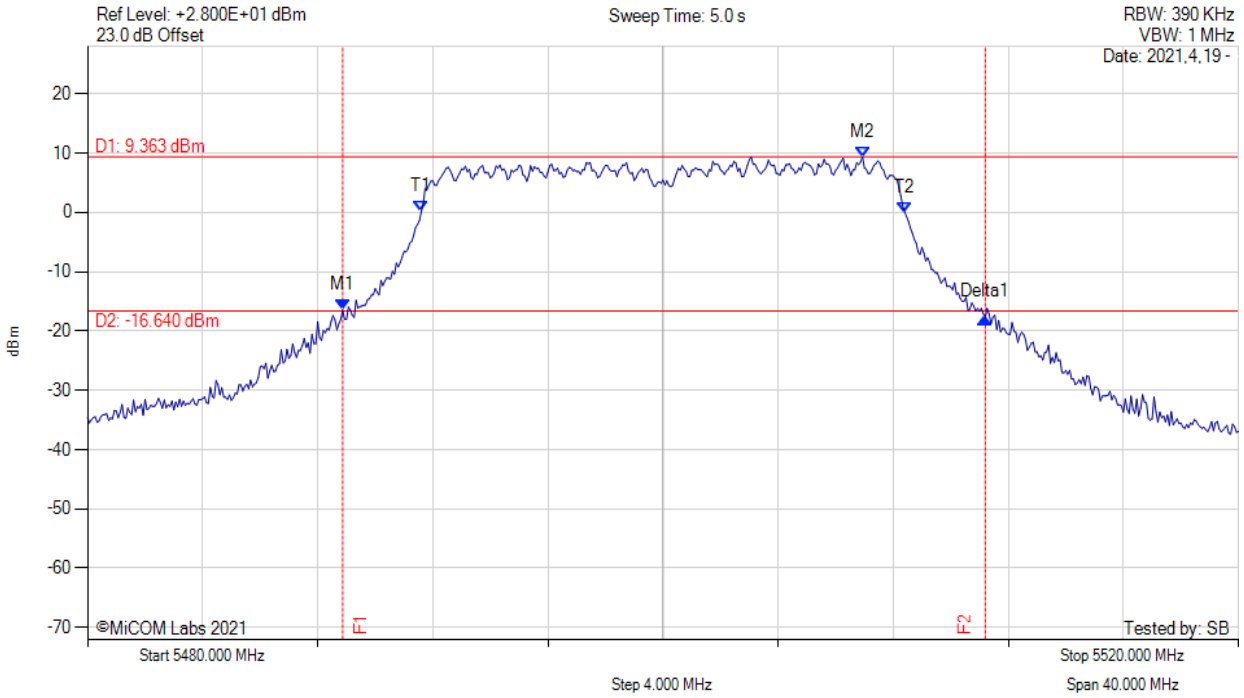


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5286.270 MHz : -17.261 dBm M2 : 5314.800 MHz : 7.618 dBm Delta1 : 46.800 MHz : -1.727 dB T1 : 5291.467 MHz : 0.533 dBm T2 : 5328.533 MHz : 0.750 dBm OBW : 37.011 MHz	Measured 26 dB Bandwidth: 46.800 MHz Measured 99% Bandwidth: 37.011 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

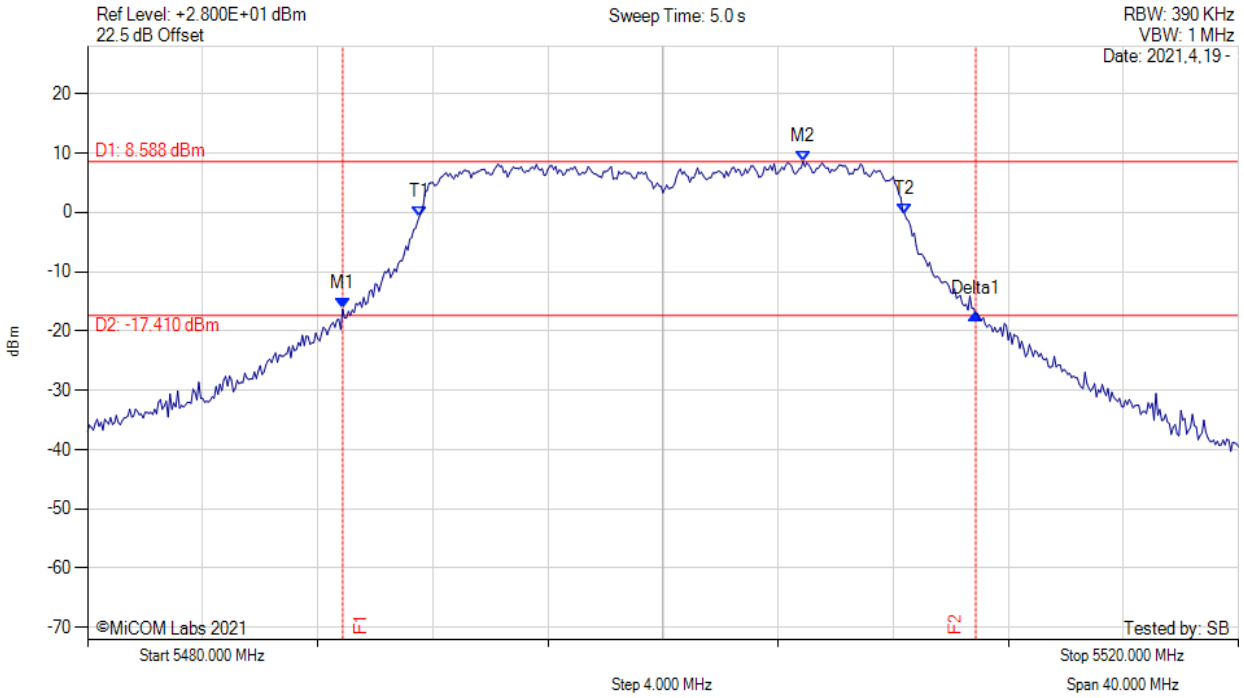


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.870 MHz : -16.510 dBm M2 : 5506.930 MHz : 9.363 dBm Delta1 : 22.330 MHz : -1.196 dB T1 : 5491.600 MHz : 0.092 dBm T2 : 5508.400 MHz : -0.004 dBm OBW : 16.792 MHz	Measured 26 dB Bandwidth: 22.330 MHz Measured 99% Bandwidth: 16.792 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

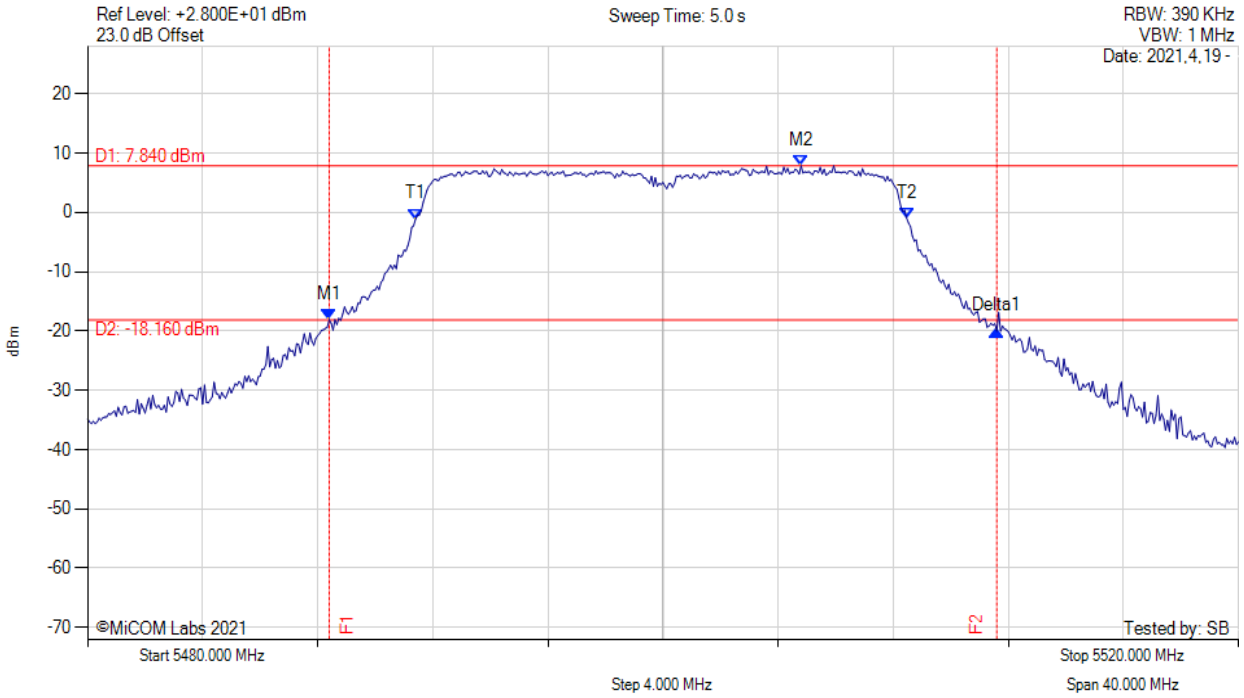


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.870 MHz : -16.294 dBm M2 : 5504.870 MHz : 8.588 dBm Delta1 : 22.000 MHz : -0.804 dB T1 : 5491.533 MHz : -0.712 dBm T2 : 5508.400 MHz : -0.302 dBm OBW : 16.873 MHz	Measured 26 dB Bandwidth: 22.000 MHz Measured 99% Bandwidth: 16.873 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

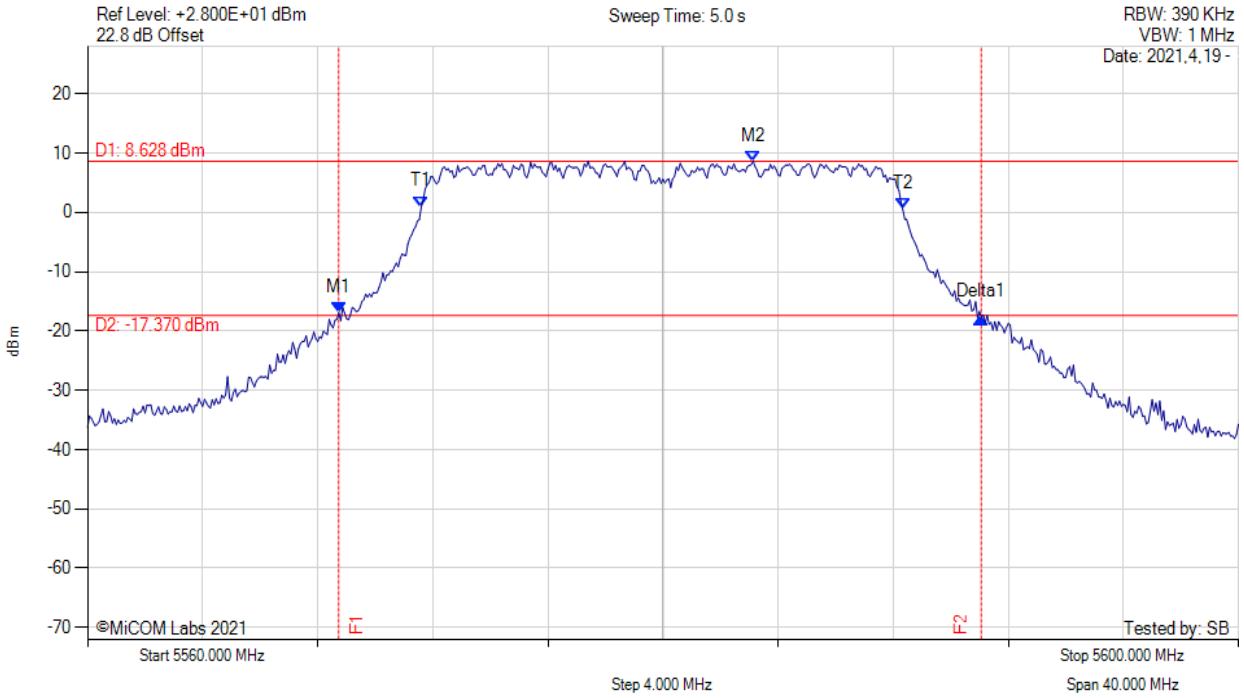


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.400 MHz : -18.075 dBm M2 : 5504.800 MHz : 7.840 dBm Delta1 : 23.200 MHz : -1.943 dB T1 : 5491.400 MHz : -1.118 dBm T2 : 5508.467 MHz : -0.925 dBm OBW : 17.021 MHz	Measured 26 dB Bandwidth: 23.200 MHz Measured 99% Bandwidth: 17.021 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

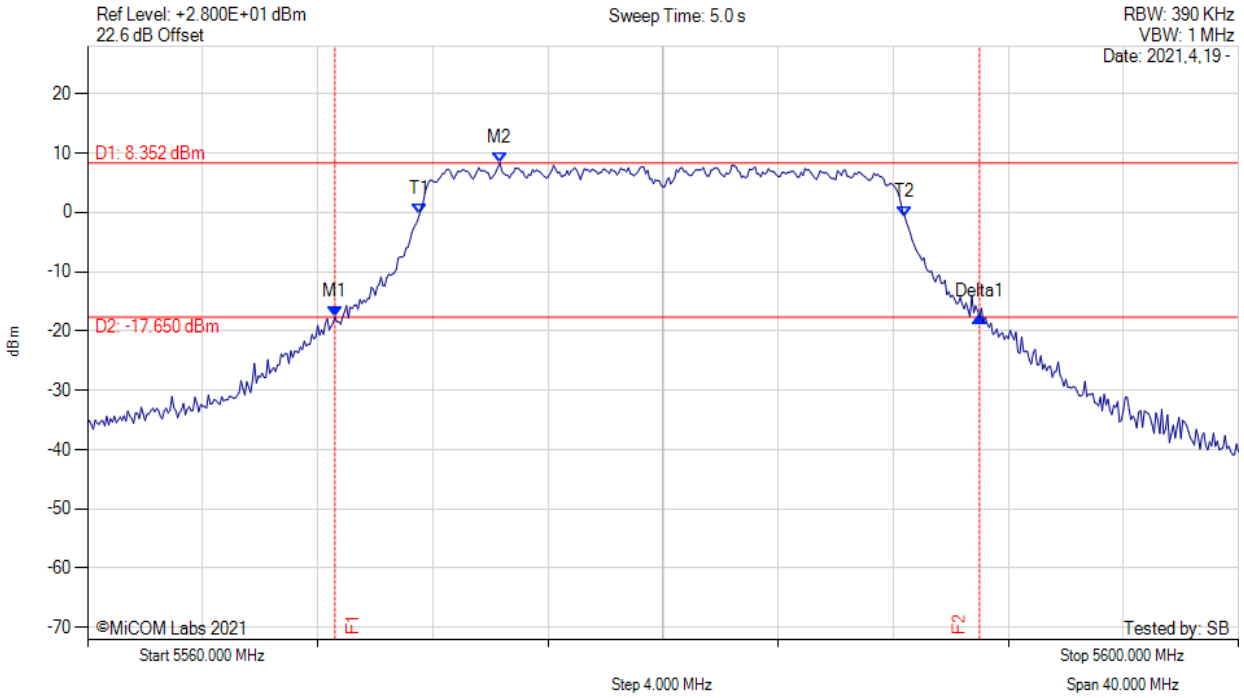


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.730 MHz : -16.909 dBm M2 : 5583.130 MHz : 8.628 dBm Delta1 : 22.330 MHz : -0.809 dB T1 : 5571.600 MHz : 0.971 dBm T2 : 5588.333 MHz : 0.534 dBm OBW : 16.762 MHz	Measured 26 dB Bandwidth: 22.330 MHz Measured 99% Bandwidth: 16.762 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

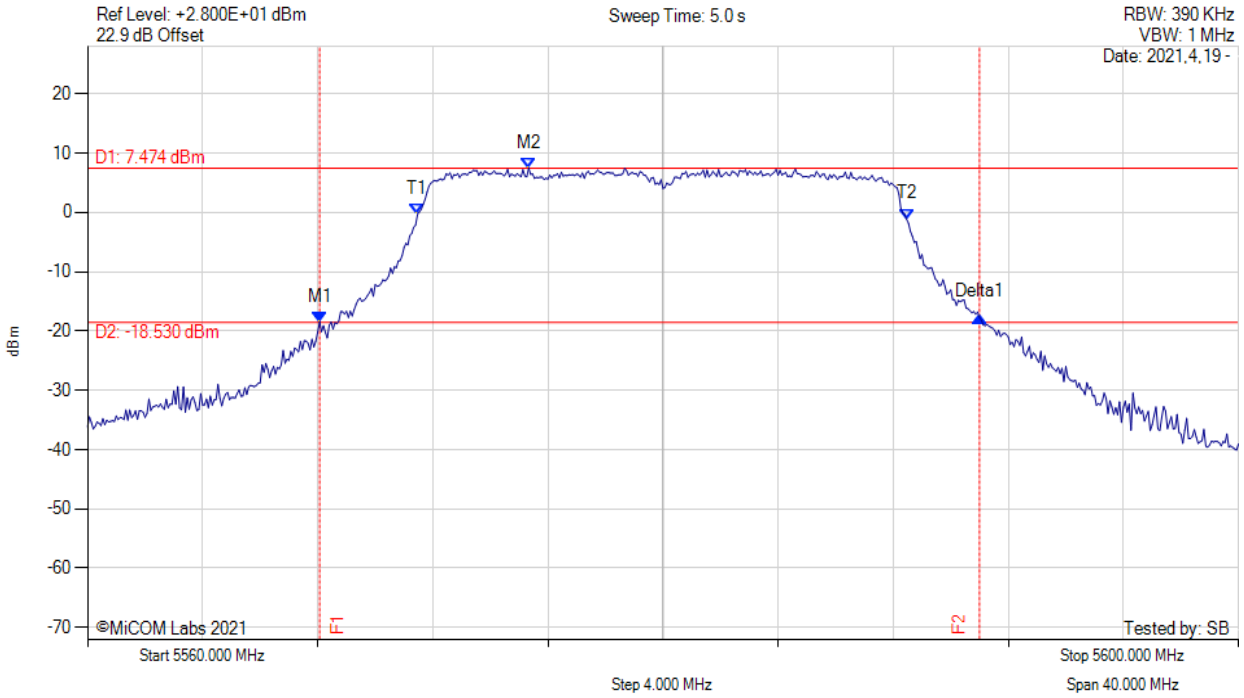


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.600 MHz : -17.635 dBm M2 : 5574.330 MHz : 8.352 dBm Delta1 : 22.400 MHz : -0.038 dB T1 : 5571.533 MHz : -0.377 dBm T2 : 5588.400 MHz : -0.685 dBm OBW : 16.851 MHz	Measured 26 dB Bandwidth: 22.400 MHz Measured 99% Bandwidth: 16.851 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

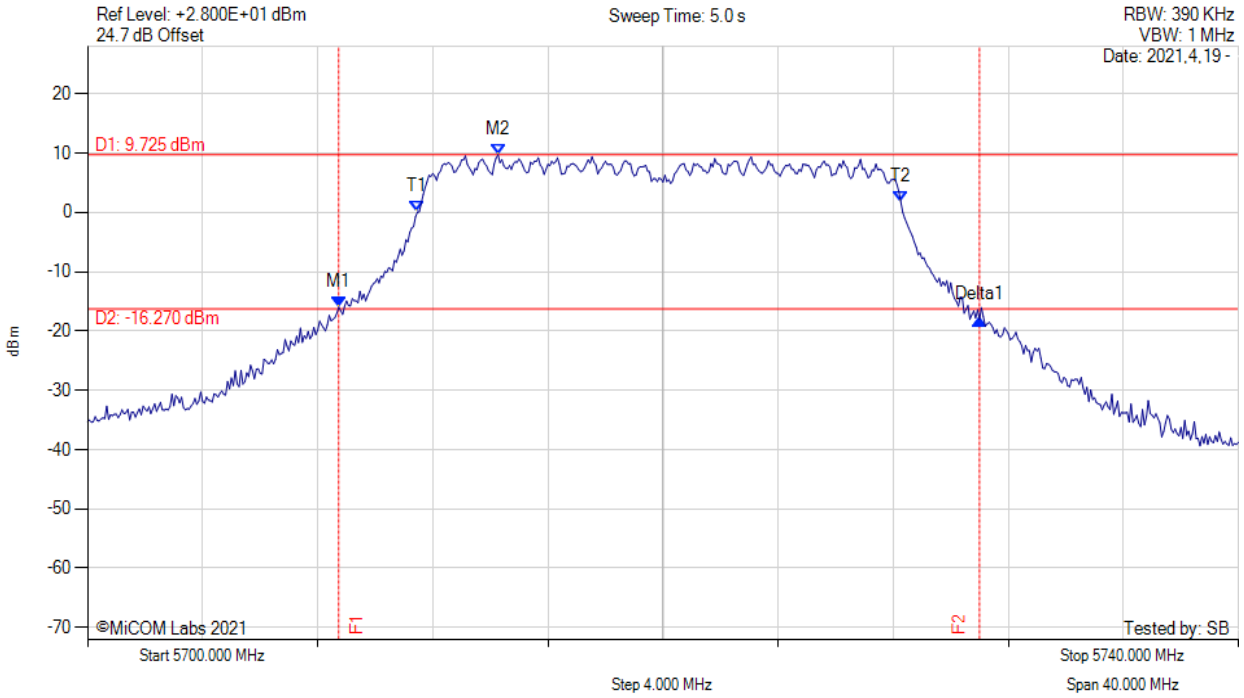


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.070 MHz : -18.440 dBm M2 : 5575.330 MHz : 7.474 dBm Delta1 : 22.930 MHz : 0.755 dB T1 : 5571.467 MHz : -0.362 dBm T2 : 5588.467 MHz : -1.138 dBm OBW : 16.981 MHz	Measured 26 dB Bandwidth: 22.930 MHz Measured 99% Bandwidth: 16.981 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5720.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

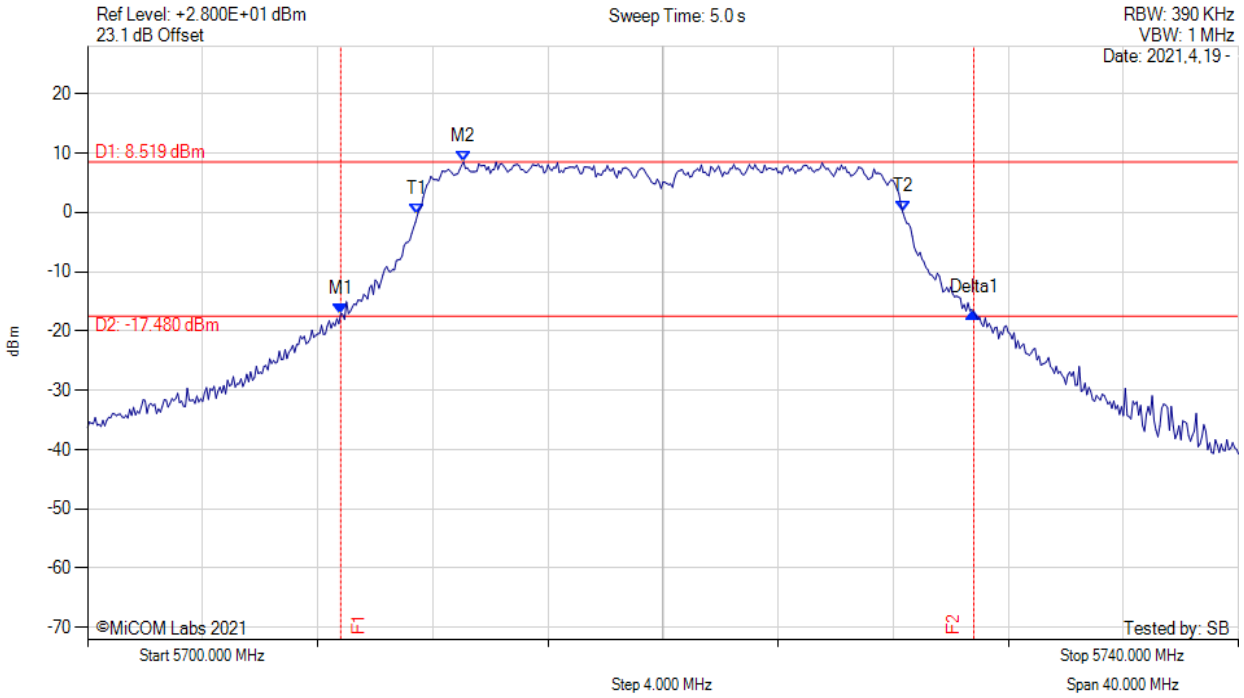


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5708.730 MHz : -15.971 dBm M2 : 5714.270 MHz : 9.725 dBm Delta1 : 22.270 MHz : -2.041 dB T1 : 5711.467 MHz : 0.085 dBm T2 : 5728.267 MHz : 1.772 dBm OBW : 16.784 MHz	Measured 26 dB Bandwidth: 22.270 MHz Measured 99% Bandwidth: 16.784 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5720.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

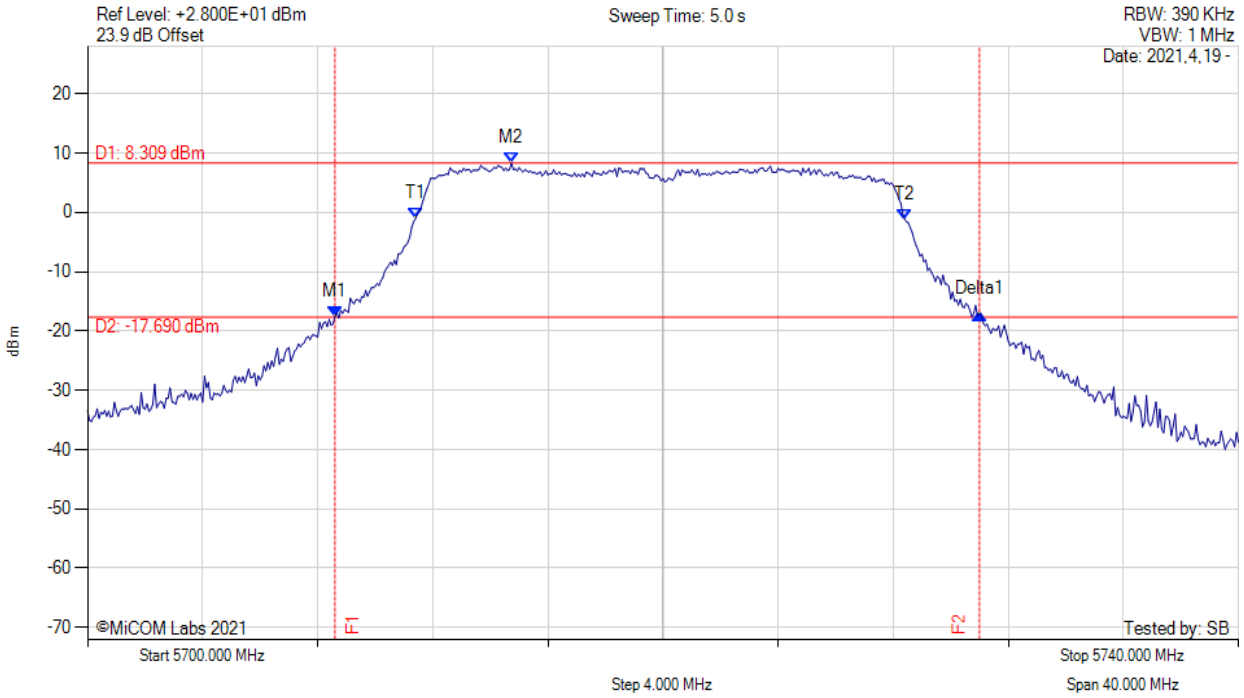


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5708.800 MHz : -17.112 dBm M2 : 5713.070 MHz : 8.519 dBm Delta1 : 22.000 MHz : 0.279 dB T1 : 5711.467 MHz : -0.376 dBm T2 : 5728.333 MHz : 0.058 dBm OBW : 16.837 MHz	Measured 26 dB Bandwidth: 22.000 MHz Measured 99% Bandwidth: 16.837 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5720.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

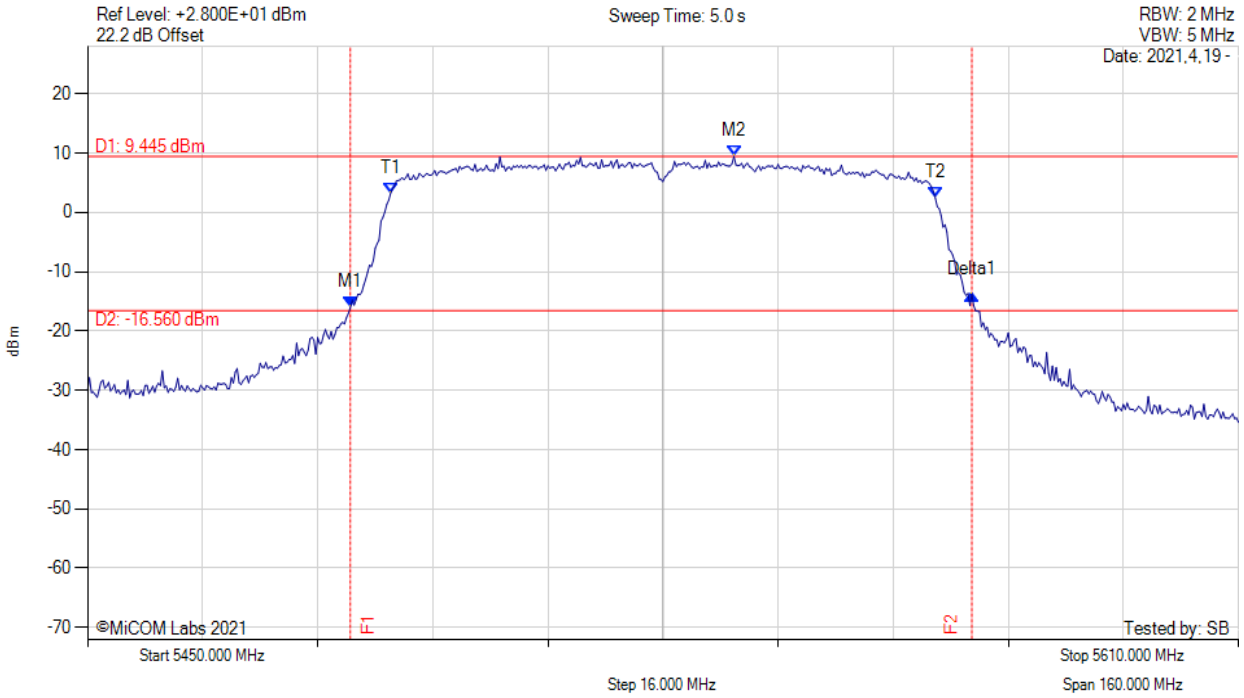


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5708.600 MHz : -17.558 dBm M2 : 5714.730 MHz : 8.309 dBm Delta1 : 22.400 MHz : 0.451 dB T1 : 5711.400 MHz : -1.025 dBm T2 : 5728.400 MHz : -1.174 dBm OBW : 16.988 MHz	Measured 26 dB Bandwidth: 22.400 MHz Measured 99% Bandwidth: 16.988 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

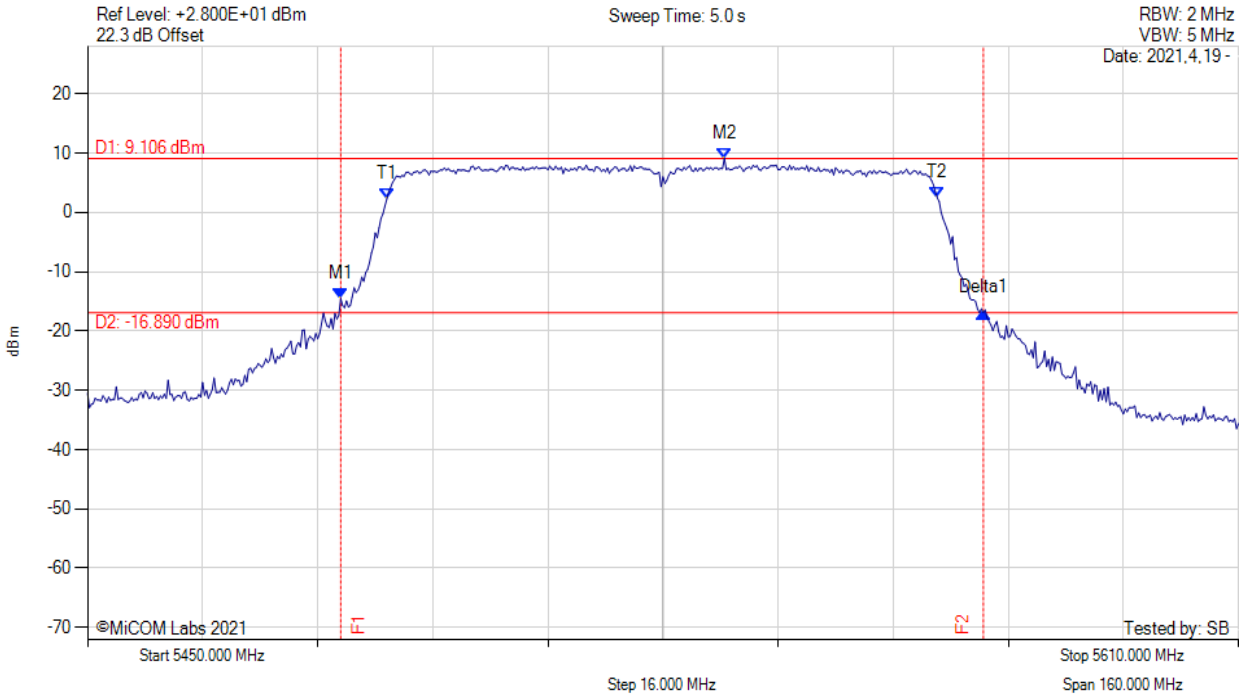


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5486.530 MHz : -16.062 dBm M2 : 5539.870 MHz : 9.445 dBm Delta1 : 86.400 MHz : 2.243 dB T1 : 5492.133 MHz : 3.196 dBm T2 : 5567.867 MHz : 2.418 dBm OBW : 75.716 MHz	Measured 26 dB Bandwidth: 86.400 MHz Measured 99% Bandwidth: 75.716 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

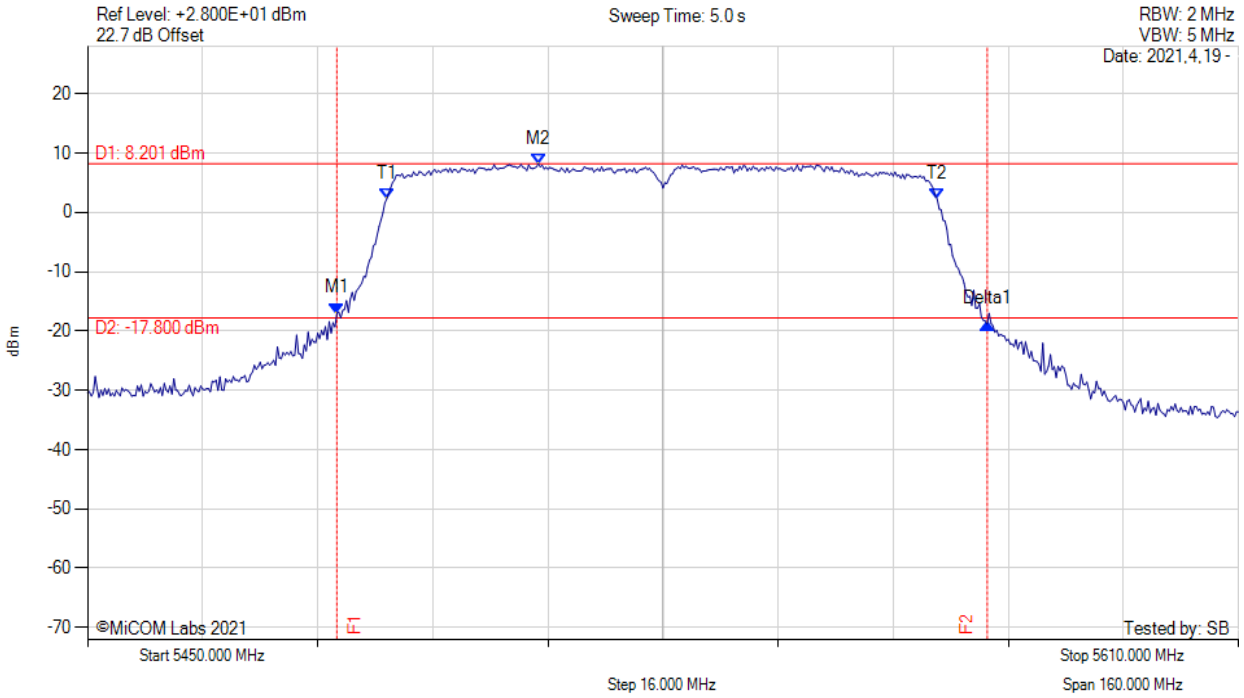


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5485.200 MHz : -14.563 dBm M2 : 5538.530 MHz : 9.106 dBm Delta1 : 89.330 MHz : -2.317 dB T1 : 5491.600 MHz : 2.230 dBm T2 : 5568.133 MHz : 2.475 dBm OBW : 76.399 MHz	Measured 26 dB Bandwidth: 89.330 MHz Measured 99% Bandwidth: 76.399 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

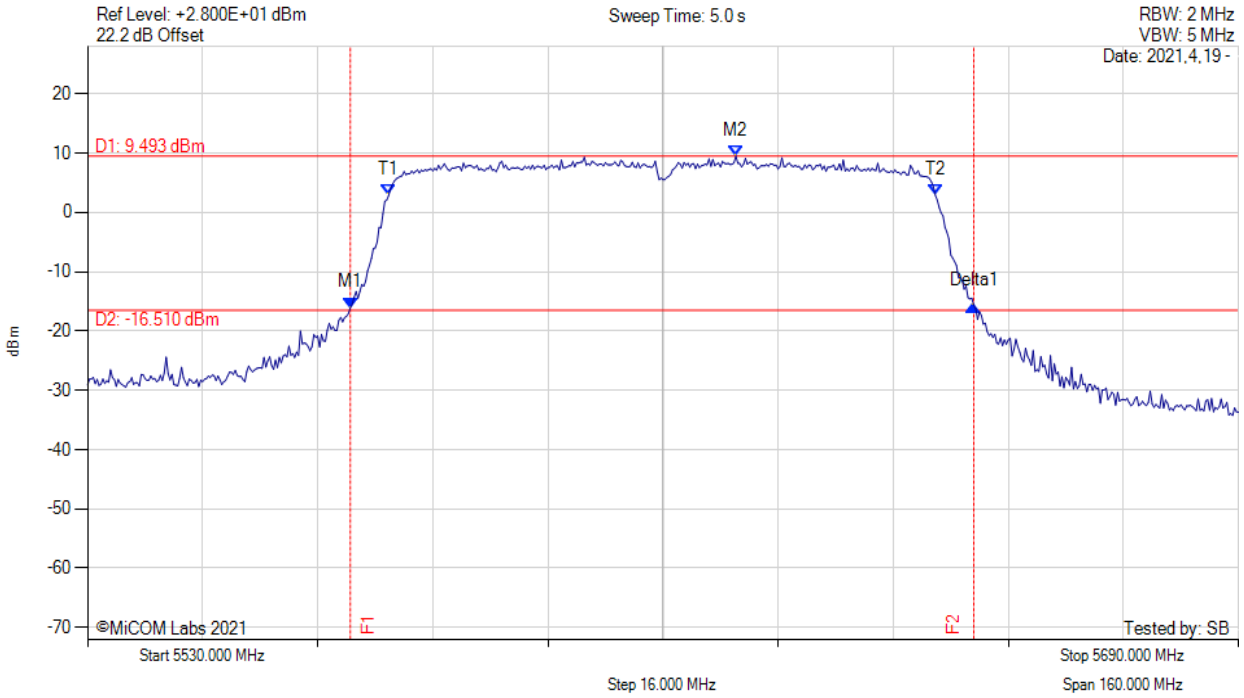


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5484.670 MHz : -17.018 dBm M2 : 5512.670 MHz : 8.201 dBm Delta1 : 90.400 MHz : -1.802 dB T1 : 5491.600 MHz : 2.278 dBm T2 : 5568.133 MHz : 2.177 dBm OBW : 76.330 MHz	Measured 26 dB Bandwidth: 90.400 MHz Measured 99% Bandwidth: 76.330 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

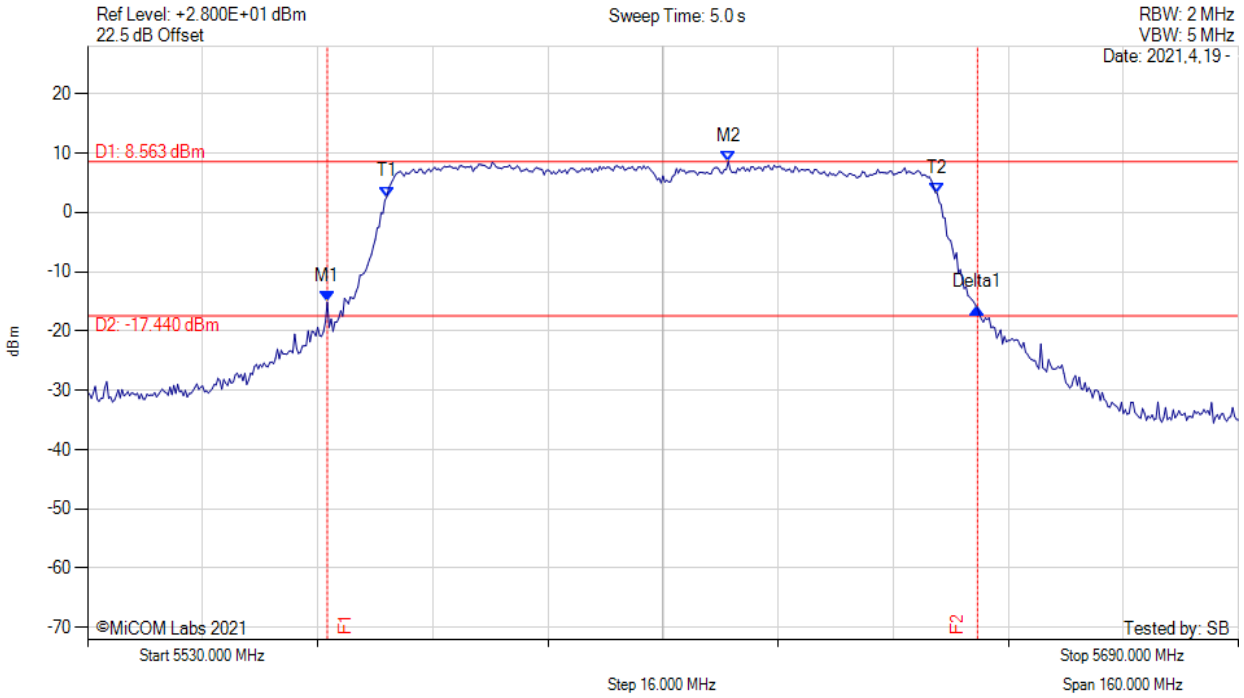


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5566.530 MHz : -16.082 dBm M2 : 5620.130 MHz : 9.493 dBm Delta1 : 86.670 MHz : 0.396 dB T1 : 5571.867 MHz : 2.890 dBm T2 : 5647.867 MHz : 2.919 dBm OBW : 75.915 MHz	Measured 26 dB Bandwidth: 86.670 MHz Measured 99% Bandwidth: 75.915 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

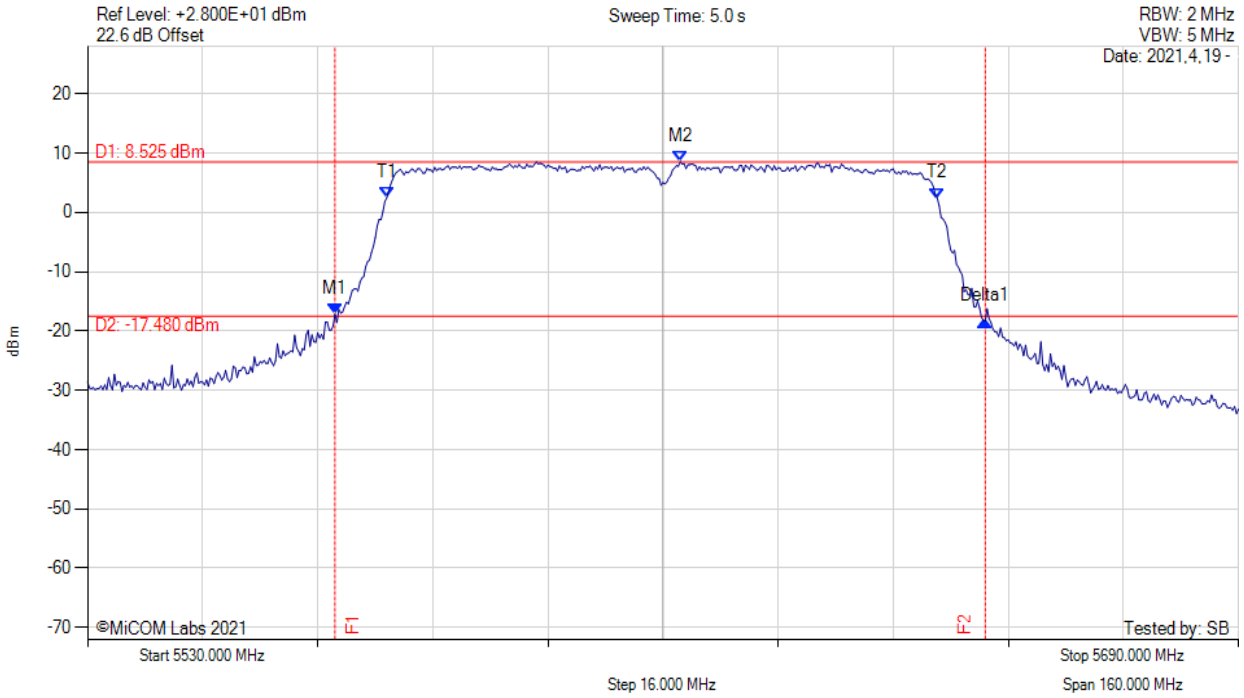


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5563.330 MHz : -15.104 dBm M2 : 5619.070 MHz : 8.563 dBm Delta1 : 90.400 MHz : -0.971 dB T1 : 5571.600 MHz : 2.620 dBm T2 : 5648.133 MHz : 3.176 dBm OBW : 76.580 MHz	Measured 26 dB Bandwidth: 90.400 MHz Measured 99% Bandwidth: 76.580 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

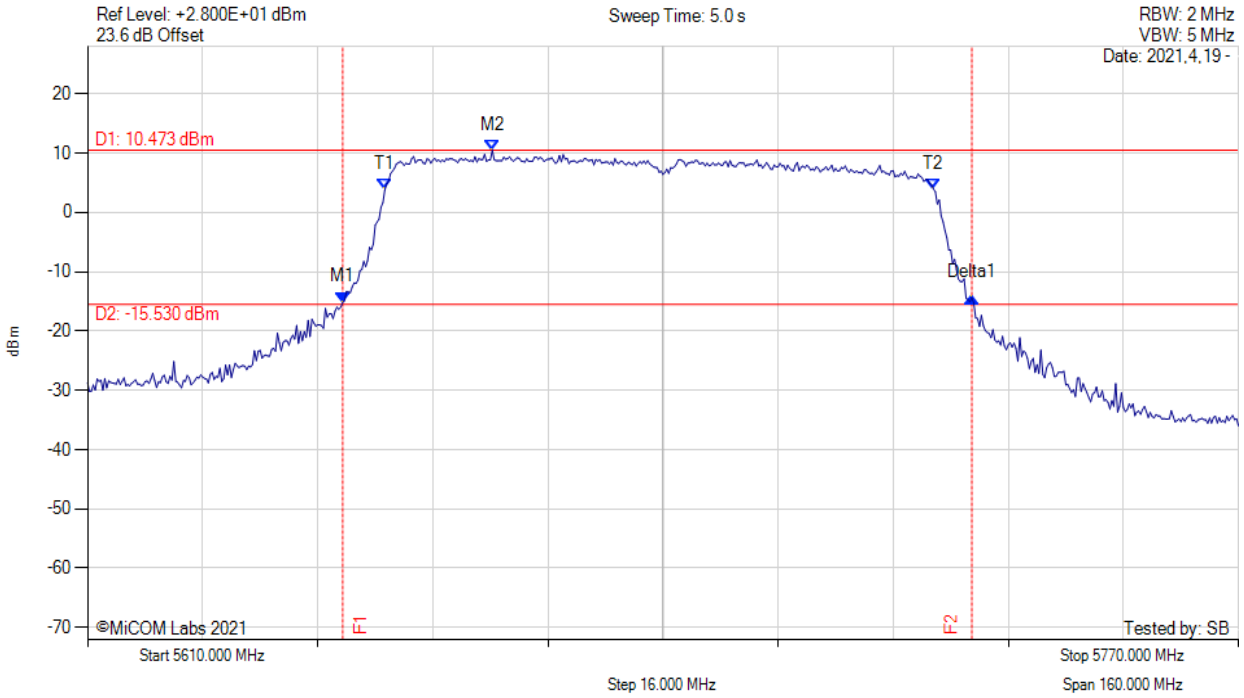


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5564.400 MHz : -17.161 dBm M2 : 5612.400 MHz : 8.525 dBm Delta1 : 90.400 MHz : -1.143 dB T1 : 5571.600 MHz : 2.443 dBm T2 : 5648.133 MHz : 2.388 dBm OBW : 76.325 MHz	Measured 26 dB Bandwidth: 90.400 MHz Measured 99% Bandwidth: 76.325 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

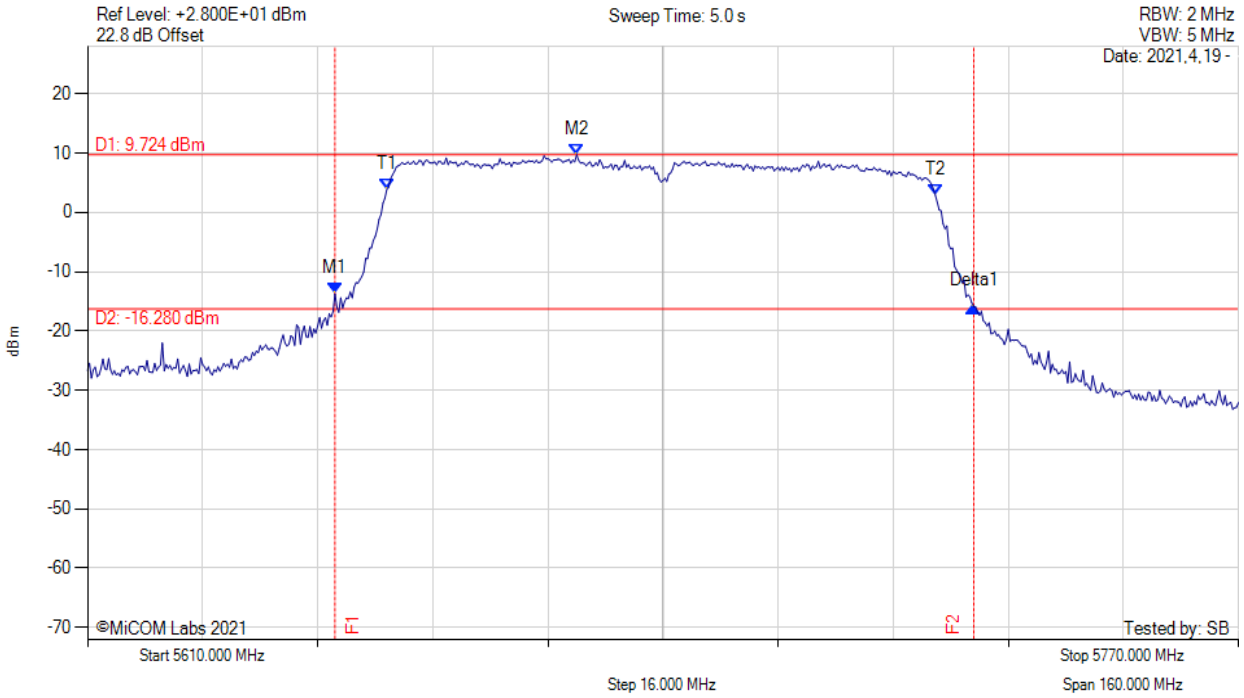


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5645.470 MHz : -15.151 dBm M2 : 5666.270 MHz : 10.473 dBm Delta1 : 87.470 MHz : 0.772 dB T1 : 5651.333 MHz : 3.806 dBm T2 : 5727.600 MHz : 3.917 dBm OBW : 76.187 MHz	Measured 26 dB Bandwidth: 87.470 MHz Measured 99% Bandwidth: 76.187 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

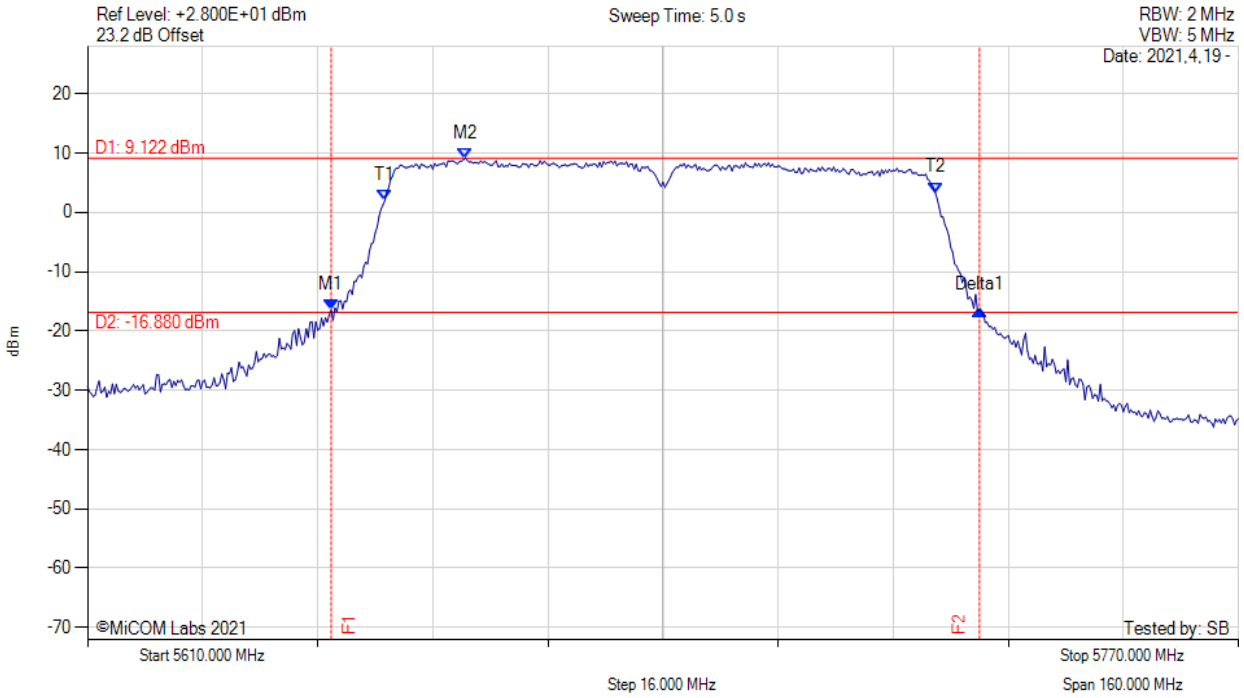


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5644.400 MHz : -13.730 dBm M2 : 5678.000 MHz : 9.724 dBm Delta1 : 88.800 MHz : -2.115 dB T1 : 5651.600 MHz : 3.848 dBm T2 : 5727.867 MHz : 2.907 dBm OBW : 76.170 MHz	Measured 26 dB Bandwidth: 88.800 MHz Measured 99% Bandwidth: 76.170 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

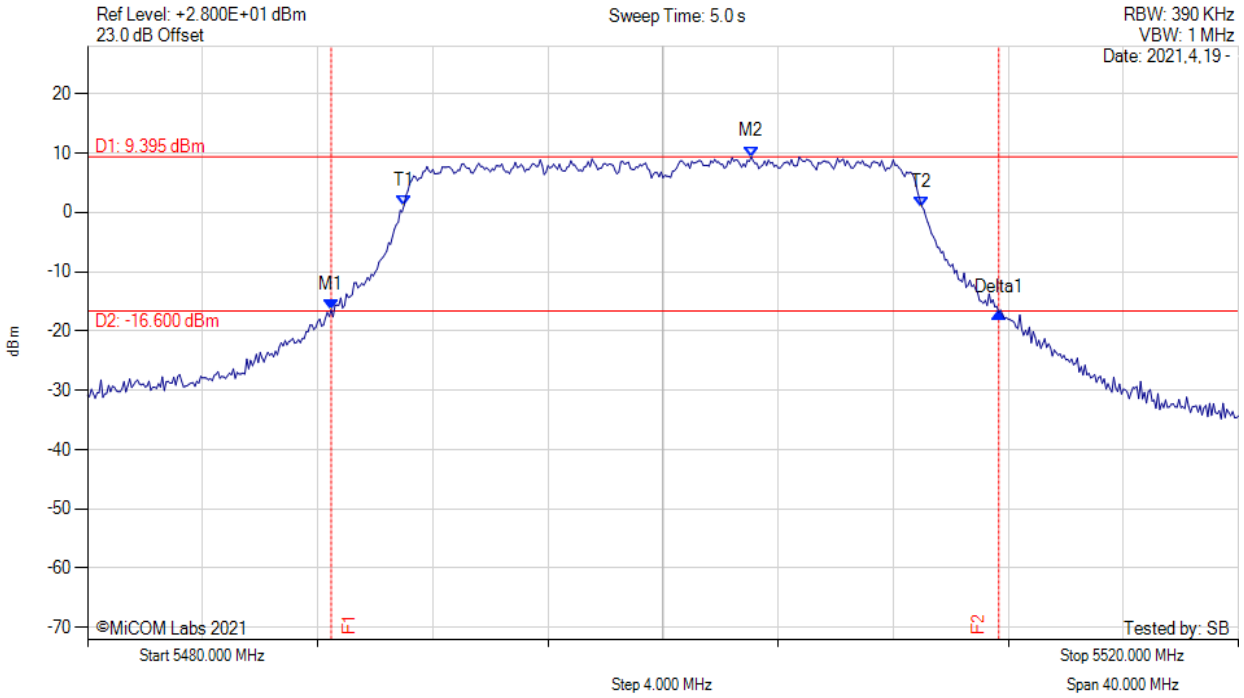


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5643.870 MHz : -16.493 dBm M2 : 5662.530 MHz : 9.122 dBm Delta1 : 90.130 MHz : 0.107 dB T1 : 5651.333 MHz : 1.985 dBm T2 : 5727.867 MHz : 3.309 dBm OBW : 76.362 MHz	Measured 26 dB Bandwidth: 90.130 MHz Measured 99% Bandwidth: 76.362 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

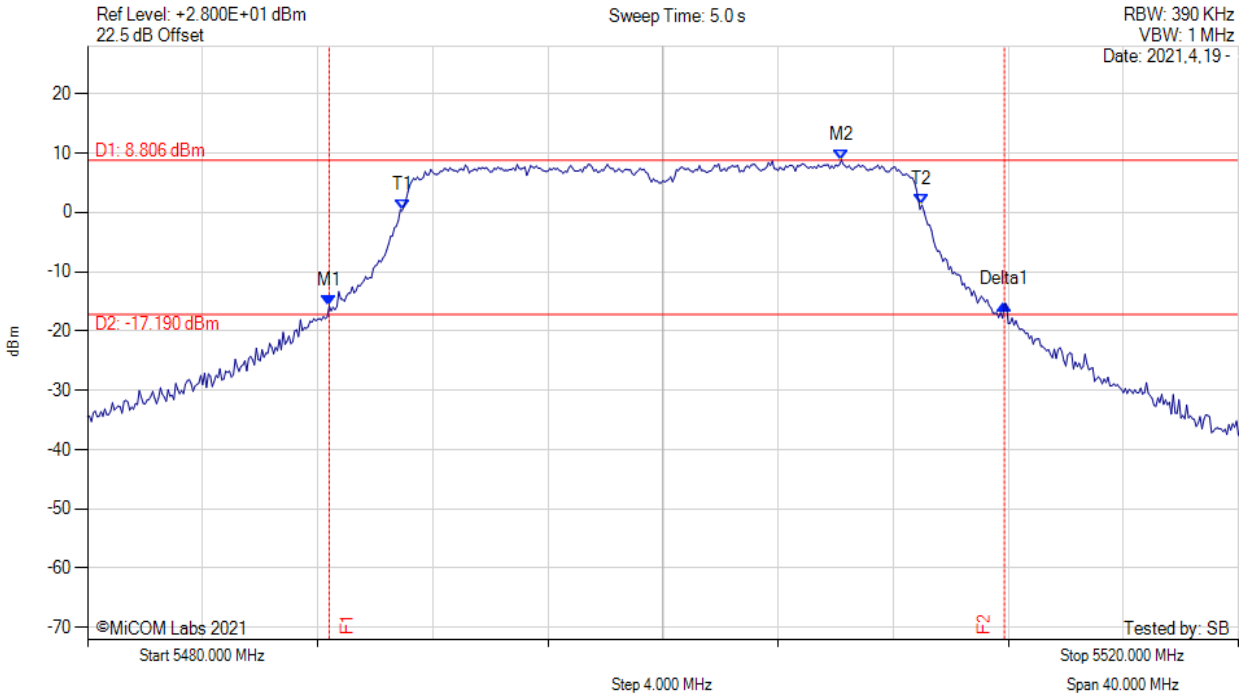


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.470 MHz : -16.448 dBm M2 : 5503.070 MHz : 9.395 dBm Delta1 : 23.200 MHz : -0.368 dB T1 : 5491.000 MHz : 1.196 dBm T2 : 5509.000 MHz : 0.963 dBm OBW : 17.993 MHz	Measured 26 dB Bandwidth: 23.200 MHz Measured 99% Bandwidth: 17.993 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

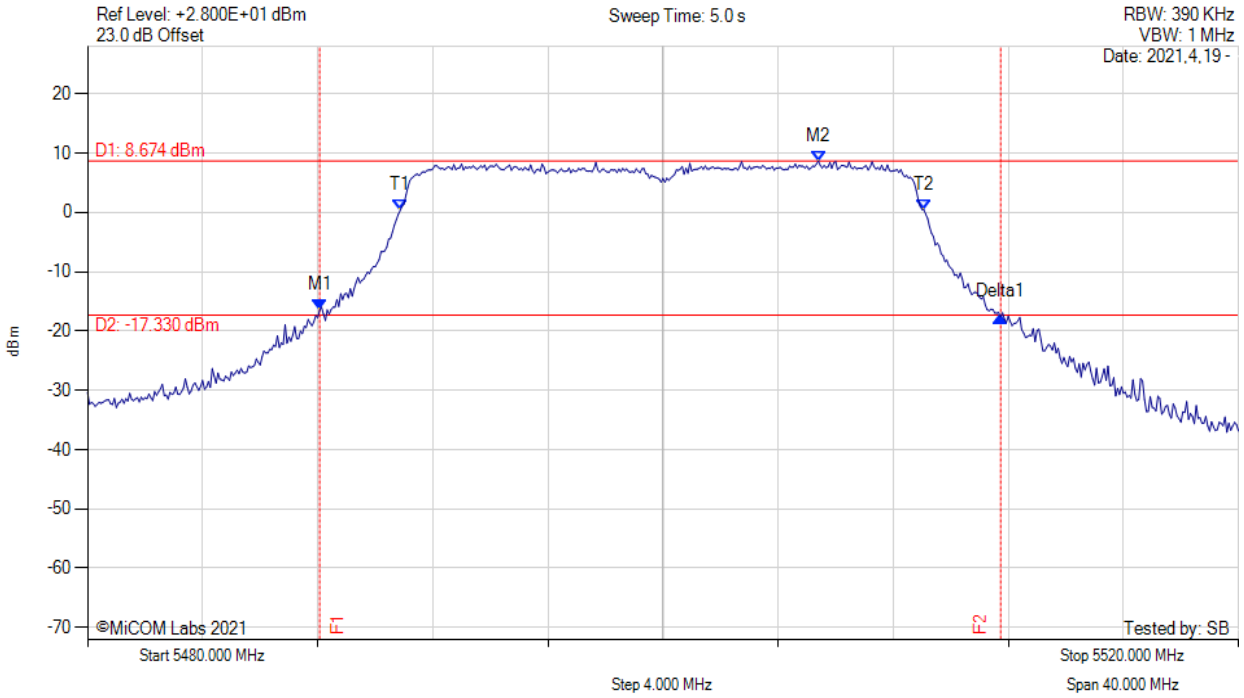


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.400 MHz : -15.790 dBm M2 : 5506.200 MHz : 8.806 dBm Delta1 : 23.470 MHz : 0.328 dB T1 : 5490.933 MHz : 0.305 dBm T2 : 5509.000 MHz : 1.235 dBm OBW : 18.094 MHz	Measured 26 dB Bandwidth: 23.470 MHz Measured 99% Bandwidth: 18.094 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

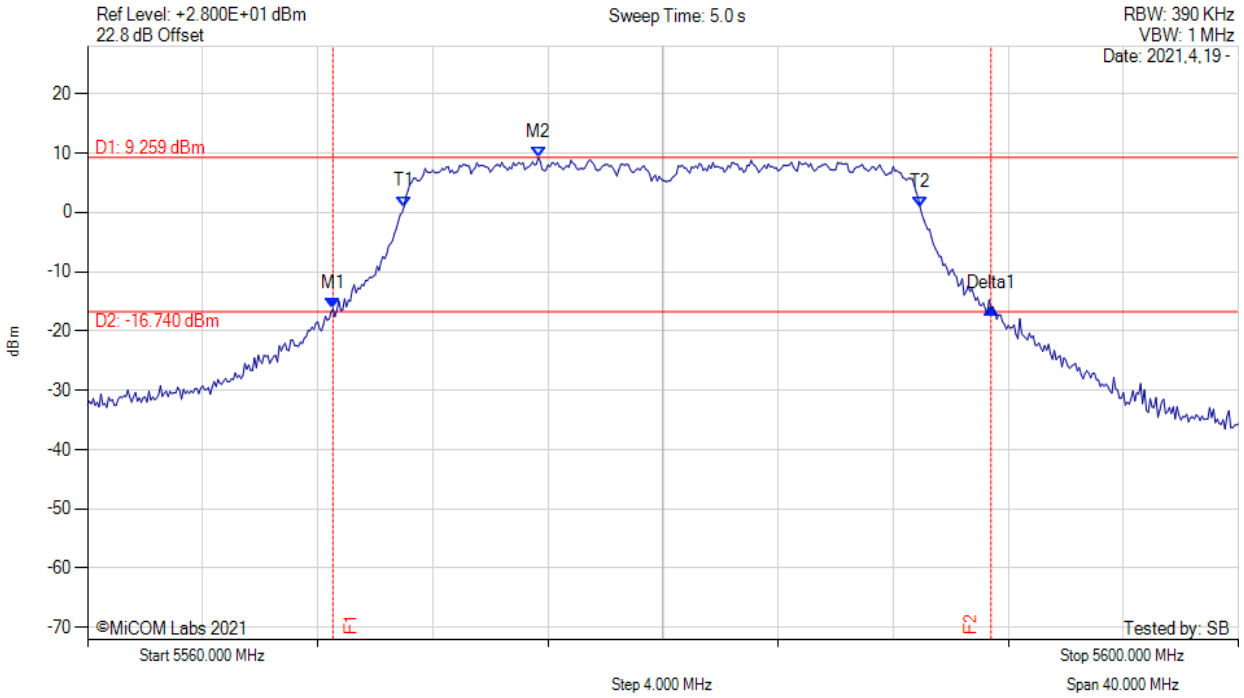


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5488.070 MHz : -16.479 dBm M2 : 5505.400 MHz : 8.674 dBm Delta1 : 23.670 MHz : -1.099 dB T1 : 5490.867 MHz : 0.369 dBm T2 : 5509.067 MHz : 0.454 dBm OBW : 18.161 MHz	Measured 26 dB Bandwidth: 23.670 MHz Measured 99% Bandwidth: 18.161 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

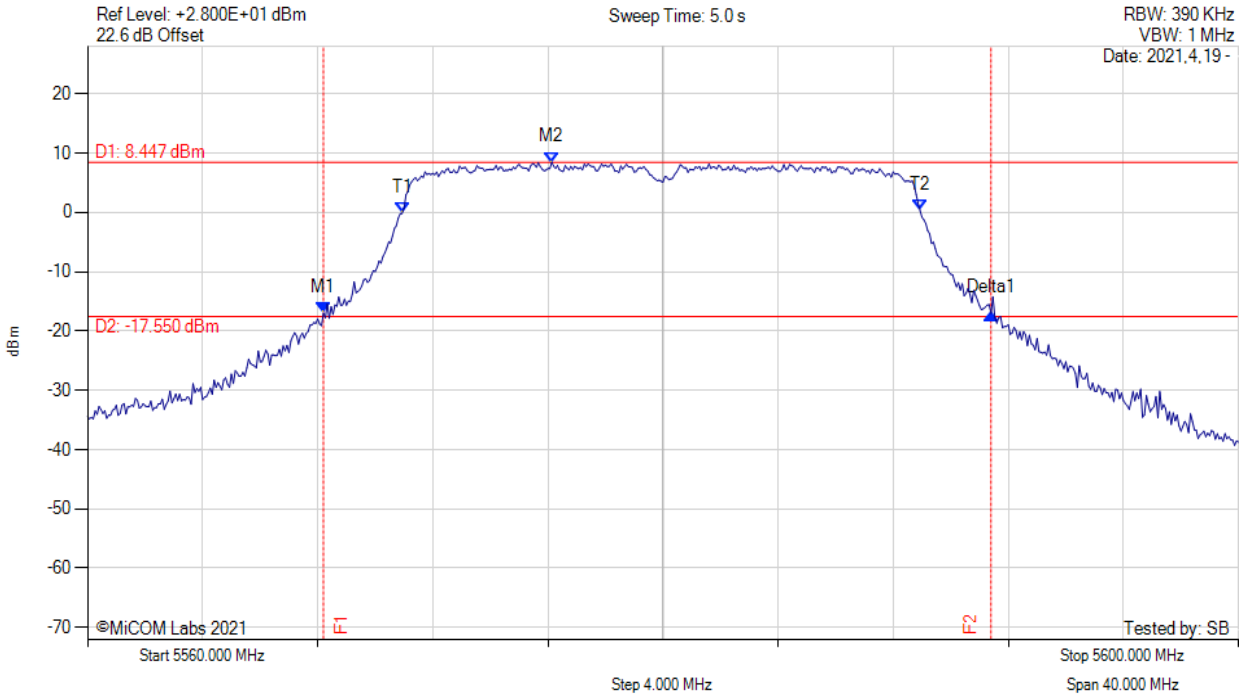


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.530 MHz : -16.204 dBm M2 : 5575.670 MHz : 9.259 dBm Delta1 : 22.870 MHz : -0.047 dB T1 : 5571.000 MHz : 0.991 dBm T2 : 5588.933 MHz : 0.883 dBm OBW : 17.906 MHz	Measured 26 dB Bandwidth: 22.870 MHz Measured 99% Bandwidth: 17.906 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

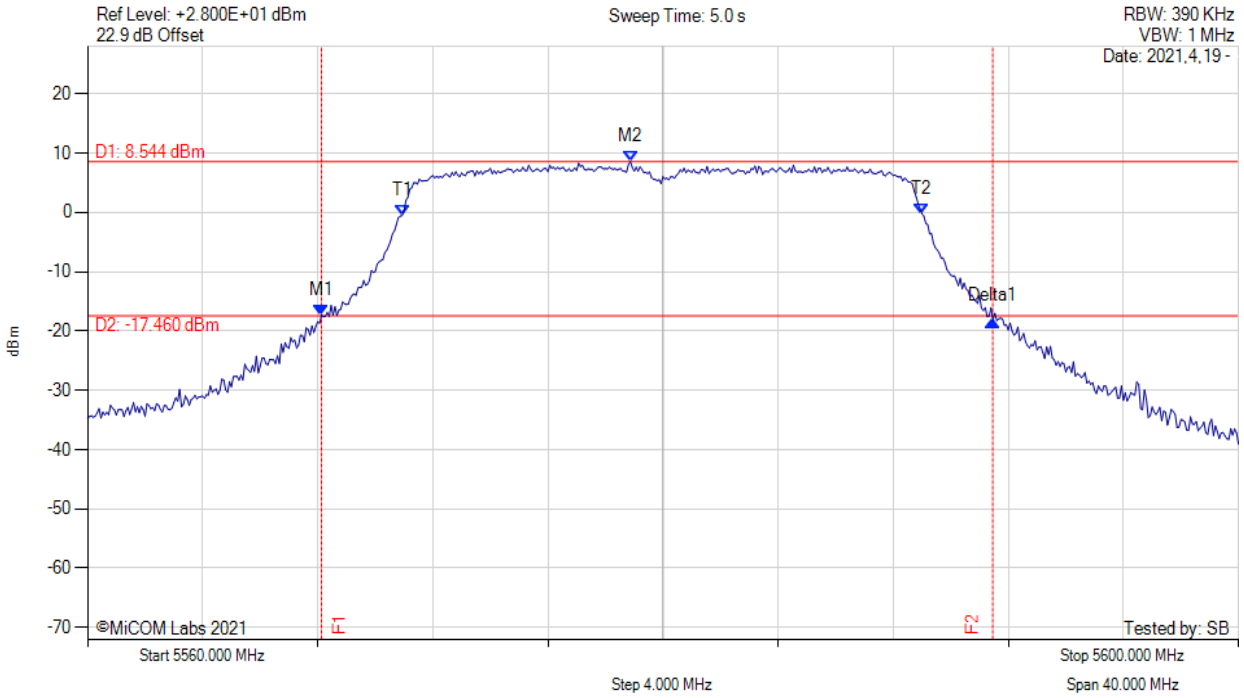


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.200 MHz : -16.946 dBm M2 : 5576.130 MHz : 8.447 dBm Delta1 : 23.200 MHz : -0.061 dB T1 : 5570.933 MHz : -0.170 dBm T2 : 5588.933 MHz : 0.312 dBm OBW : 17.969 MHz	Measured 26 dB Bandwidth: 23.200 MHz Measured 99% Bandwidth: 17.969 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

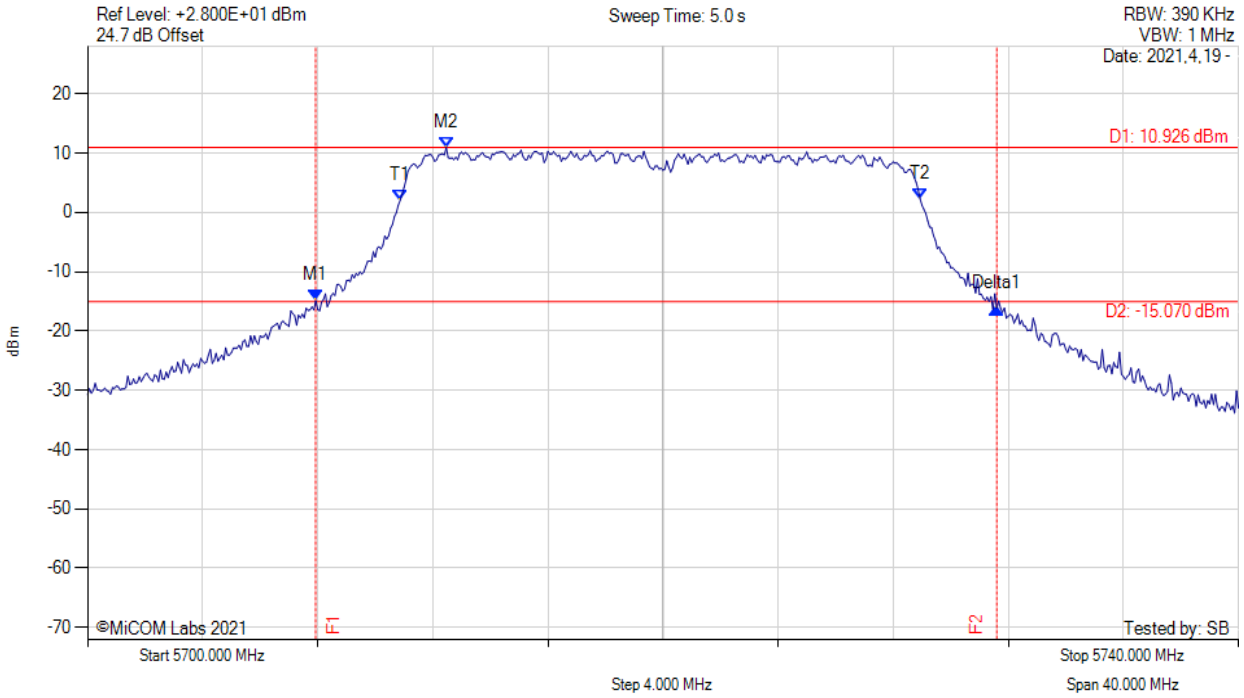


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5568.130 MHz : -17.274 dBm M2 : 5578.870 MHz : 8.544 dBm Delta1 : 23.330 MHz : -0.930 dB T1 : 5570.933 MHz : -0.519 dBm T2 : 5589.000 MHz : -0.273 dBm OBW : 18.065 MHz	Measured 26 dB Bandwidth: 23.330 MHz Measured 99% Bandwidth: 18.065 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

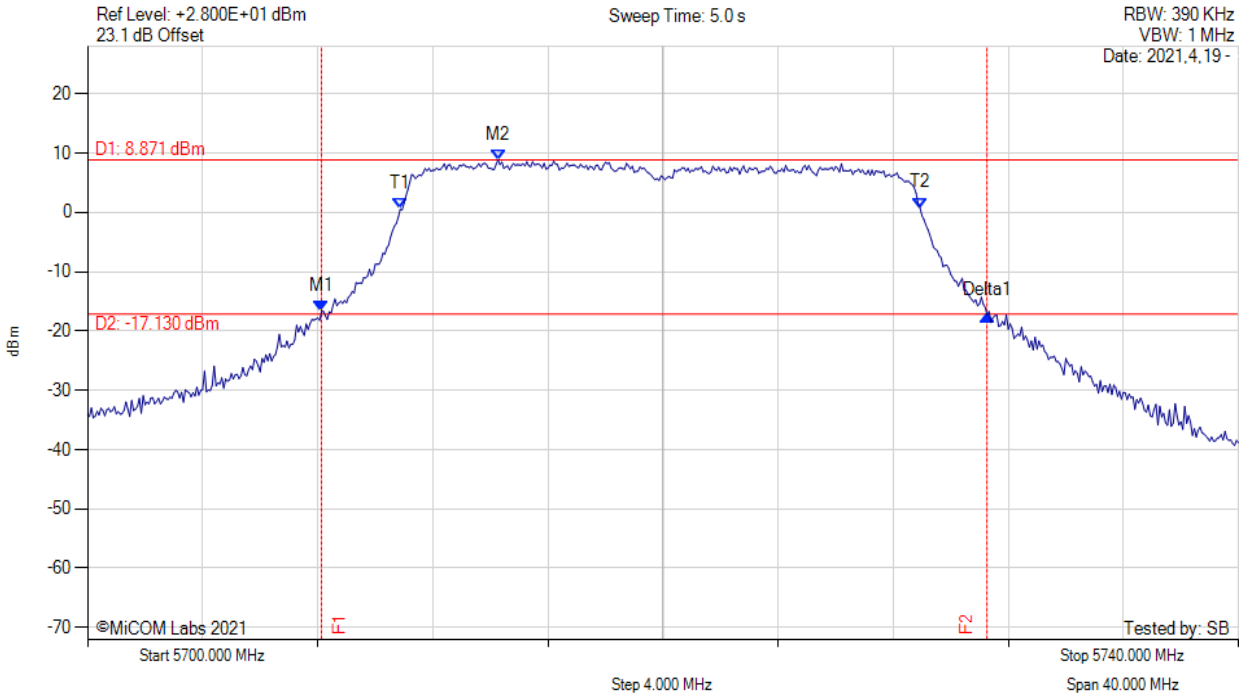


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5707.930 MHz : -14.893 dBm M2 : 5712.470 MHz : 10.926 dBm Delta1 : 23.670 MHz : -1.271 dB T1 : 5710.867 MHz : 2.055 dBm T2 : 5728.933 MHz : 2.305 dBm OBW : 17.992 MHz	Measured 26 dB Bandwidth: 23.670 MHz Measured 99% Bandwidth: 17.992 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

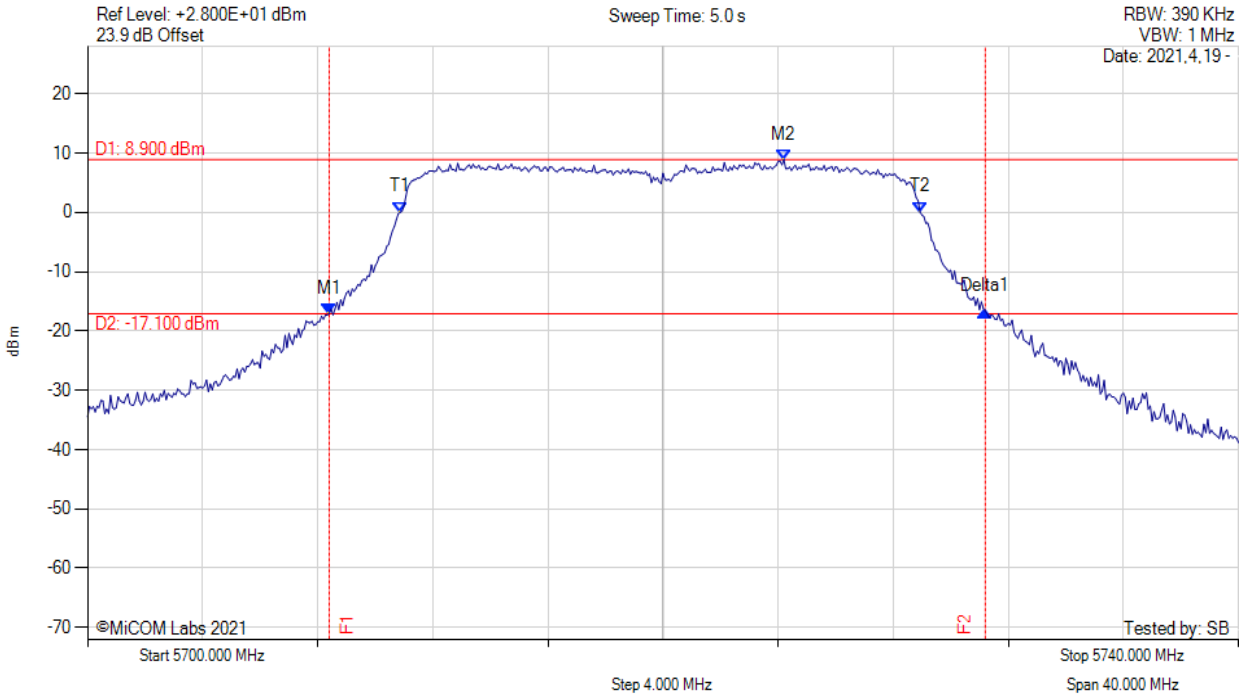


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5708.130 MHz : -16.724 dBm M2 : 5714.270 MHz : 8.871 dBm Delta1 : 23.130 MHz : -0.587 dB T1 : 5710.867 MHz : 0.542 dBm T2 : 5728.933 MHz : 0.754 dBm OBW : 18.005 MHz	Measured 26 dB Bandwidth: 23.130 MHz Measured 99% Bandwidth: 18.005 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

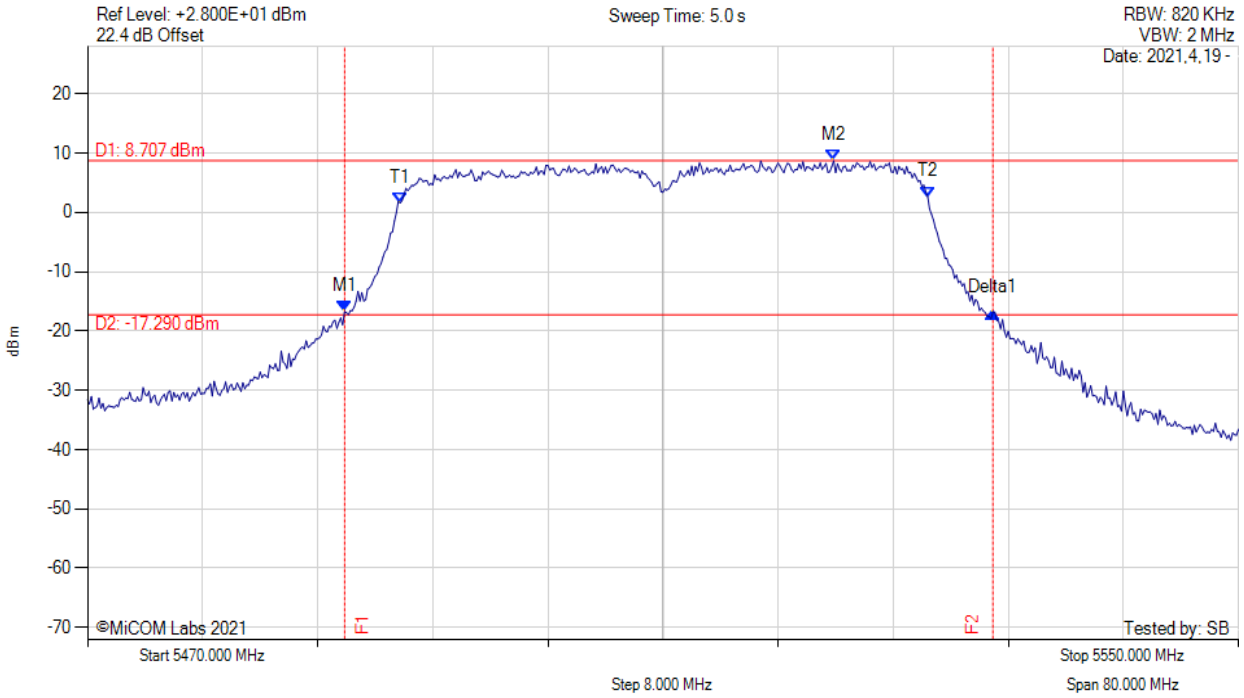


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5708.400 MHz : -17.052 dBm M2 : 5724.200 MHz : 8.900 dBm Delta1 : 22.800 MHz : 0.414 dB T1 : 5710.867 MHz : 0.040 dBm T2 : 5728.933 MHz : 0.038 dBm OBW : 18.077 MHz	Measured 26 dB Bandwidth: 22.800 MHz Measured 99% Bandwidth: 18.077 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

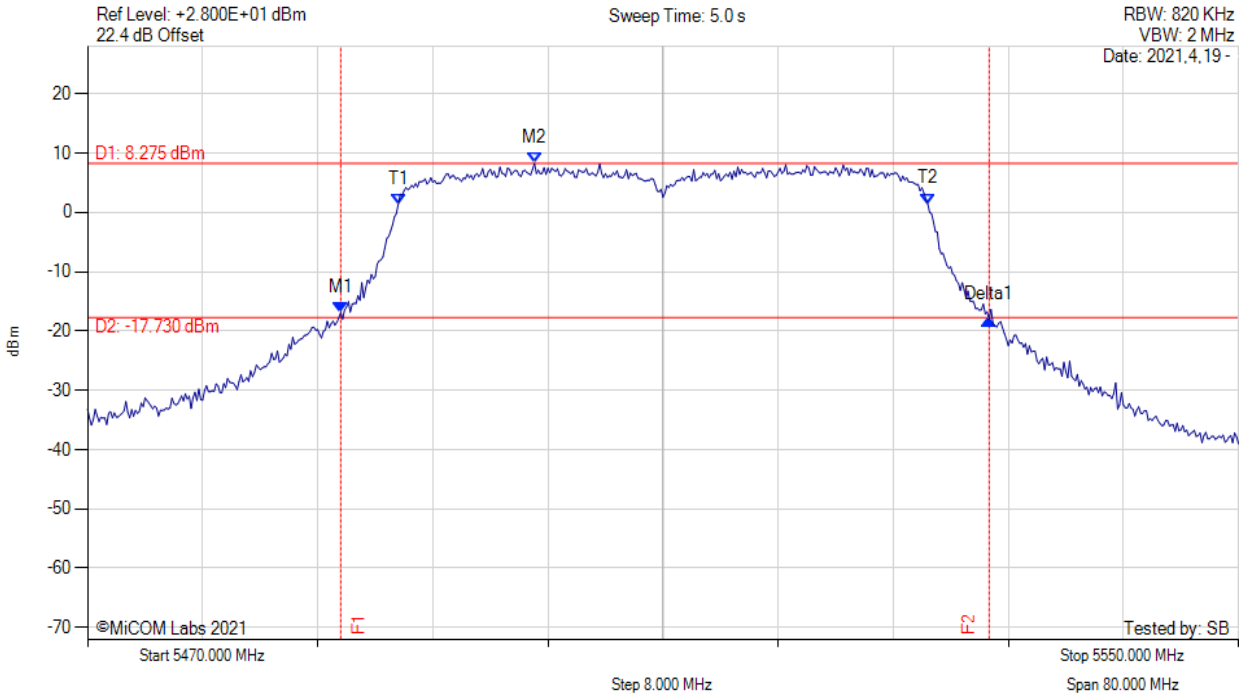


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5487.870 MHz : -16.761 dBm M2 : 5521.870 MHz : 8.707 dBm Delta1 : 45.070 MHz : -0.059 dB T1 : 5491.733 MHz : 1.584 dBm T2 : 5528.400 MHz : 2.616 dBm OBW : 36.707 MHz	Measured 26 dB Bandwidth: 45.070 MHz Measured 99% Bandwidth: 36.707 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

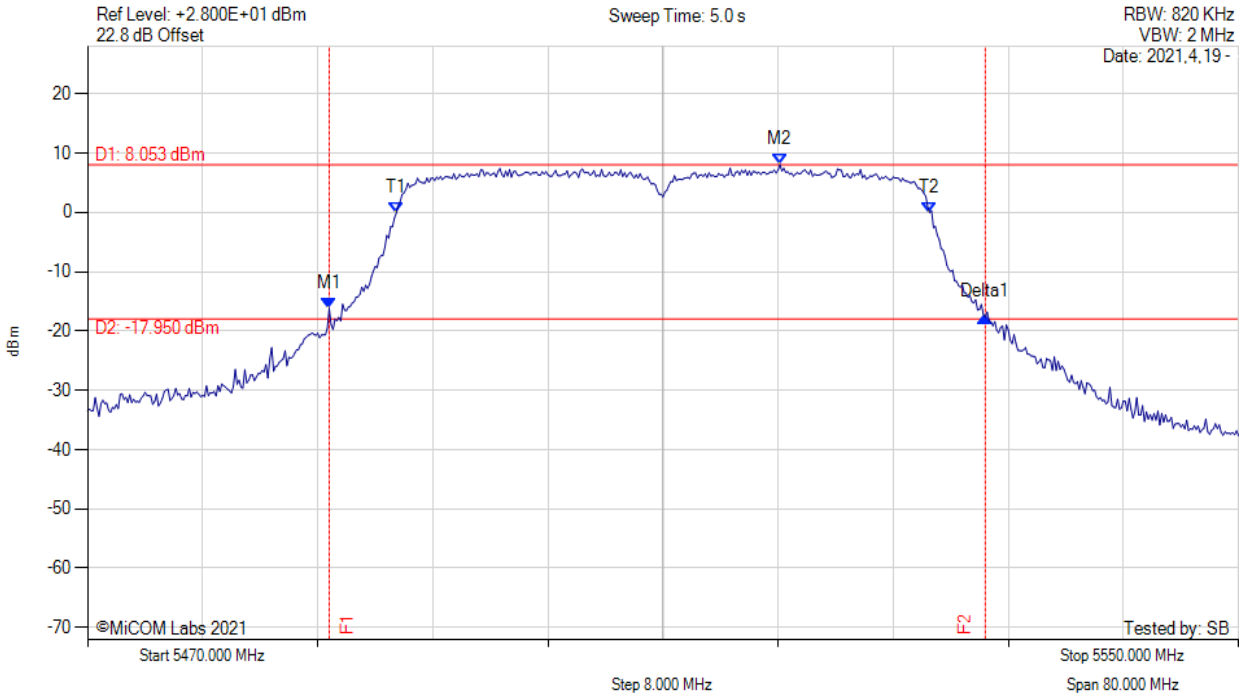


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5487.600 MHz : -16.878 dBm M2 : 5501.070 MHz : 8.275 dBm Delta1 : 45.070 MHz : -1.208 dB T1 : 5491.600 MHz : 1.398 dBm T2 : 5528.400 MHz : 1.456 dBm OBW : 36.858 MHz	Measured 26 dB Bandwidth: 45.070 MHz Measured 99% Bandwidth: 36.858 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

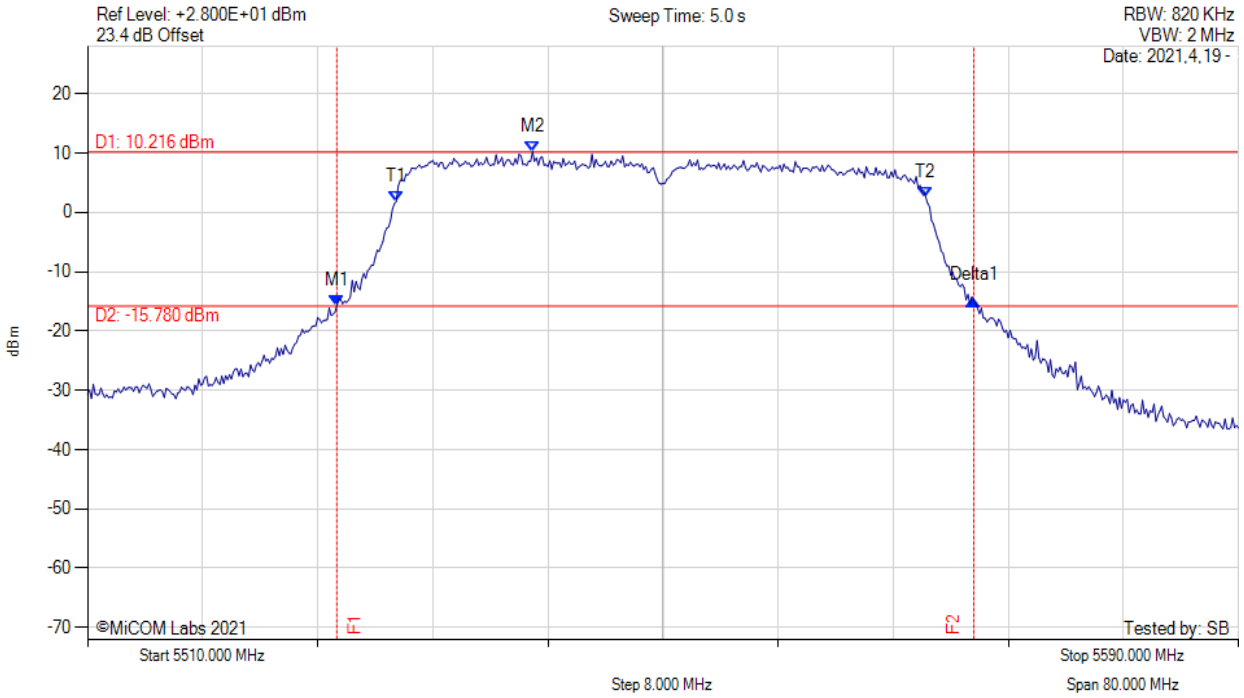


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5486.800 MHz : -16.183 dBm M2 : 5518.130 MHz : 8.053 dBm Delta1 : 45.600 MHz : -1.477 dB T1 : 5491.467 MHz : -0.097 dBm T2 : 5528.533 MHz : -0.035 dBm OBW : 36.932 MHz	Measured 26 dB Bandwidth: 45.600 MHz Measured 99% Bandwidth: 36.932 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

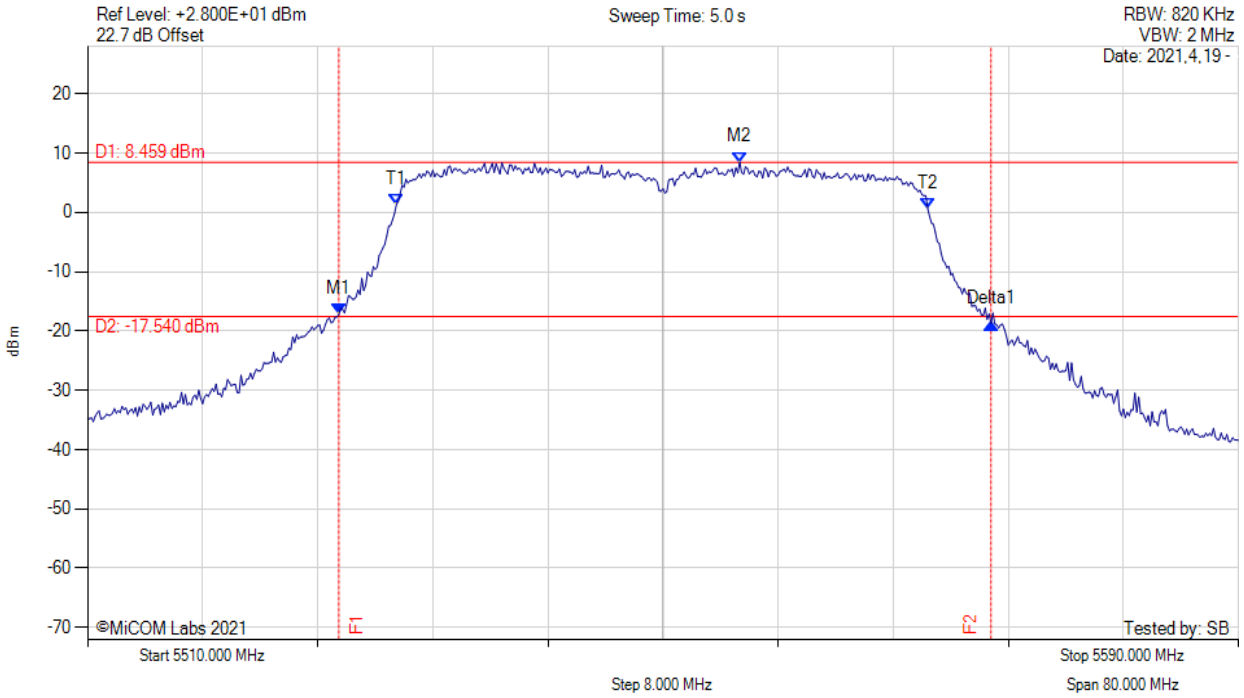


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5527.330 MHz : -15.635 dBm M2 : 5540.930 MHz : 10.216 dBm Delta1 : 44.270 MHz : 0.813 dB T1 : 5531.467 MHz : 1.869 dBm T2 : 5568.267 MHz : 2.532 dBm OBW : 36.785 MHz	Measured 26 dB Bandwidth: 44.270 MHz Measured 99% Bandwidth: 36.785 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

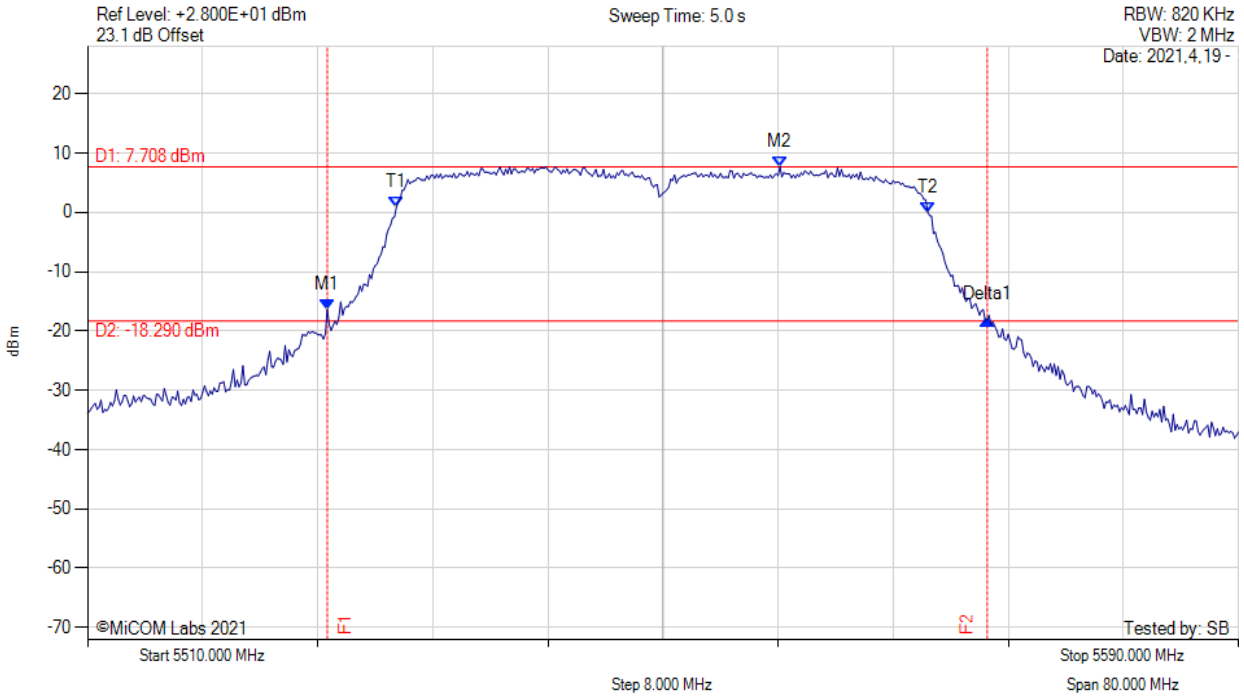


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5527.470 MHz : -17.230 dBm M2 : 5555.330 MHz : 8.459 dBm Delta1 : 45.330 MHz : -1.505 dB T1 : 5531.467 MHz : 1.280 dBm T2 : 5568.400 MHz : 0.617 dBm OBW : 36.858 MHz	Measured 26 dB Bandwidth: 45.330 MHz Measured 99% Bandwidth: 36.858 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

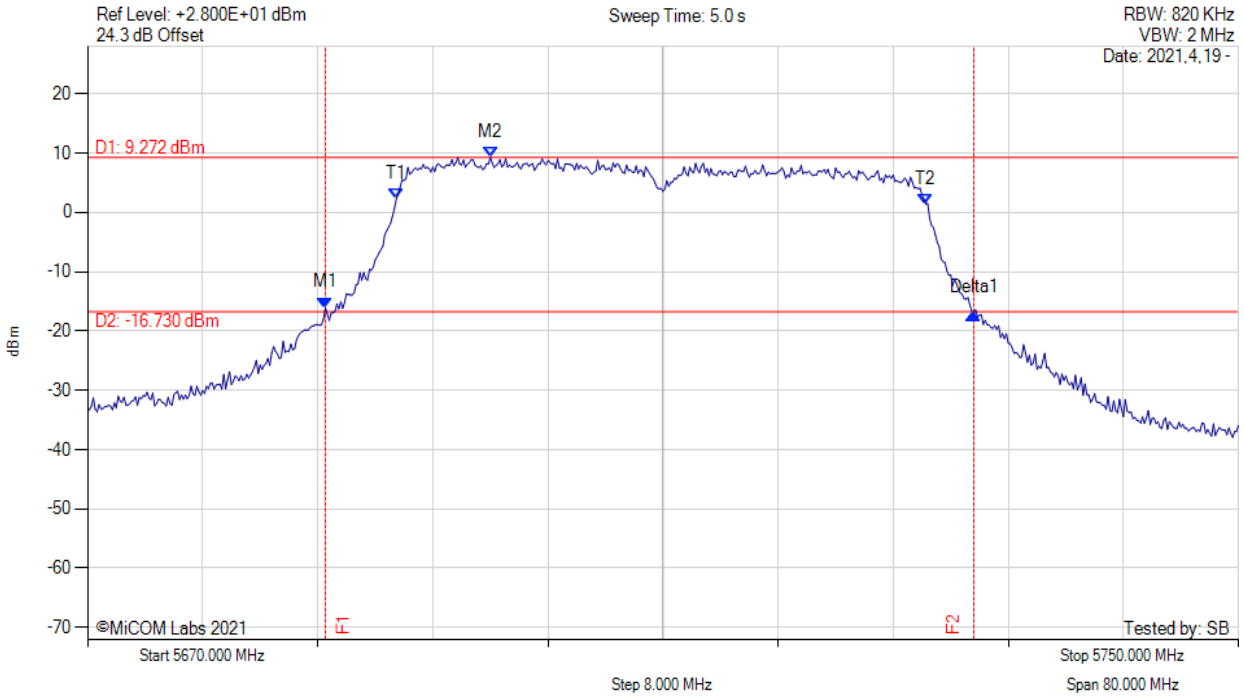


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5526.670 MHz : -16.411 dBm M2 : 5558.130 MHz : 7.708 dBm Delta1 : 45.870 MHz : -1.655 dB T1 : 5531.467 MHz : 0.858 dBm T2 : 5568.400 MHz : 0.012 dBm OBW : 36.898 MHz	Measured 26 dB Bandwidth: 45.870 MHz Measured 99% Bandwidth: 36.898 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

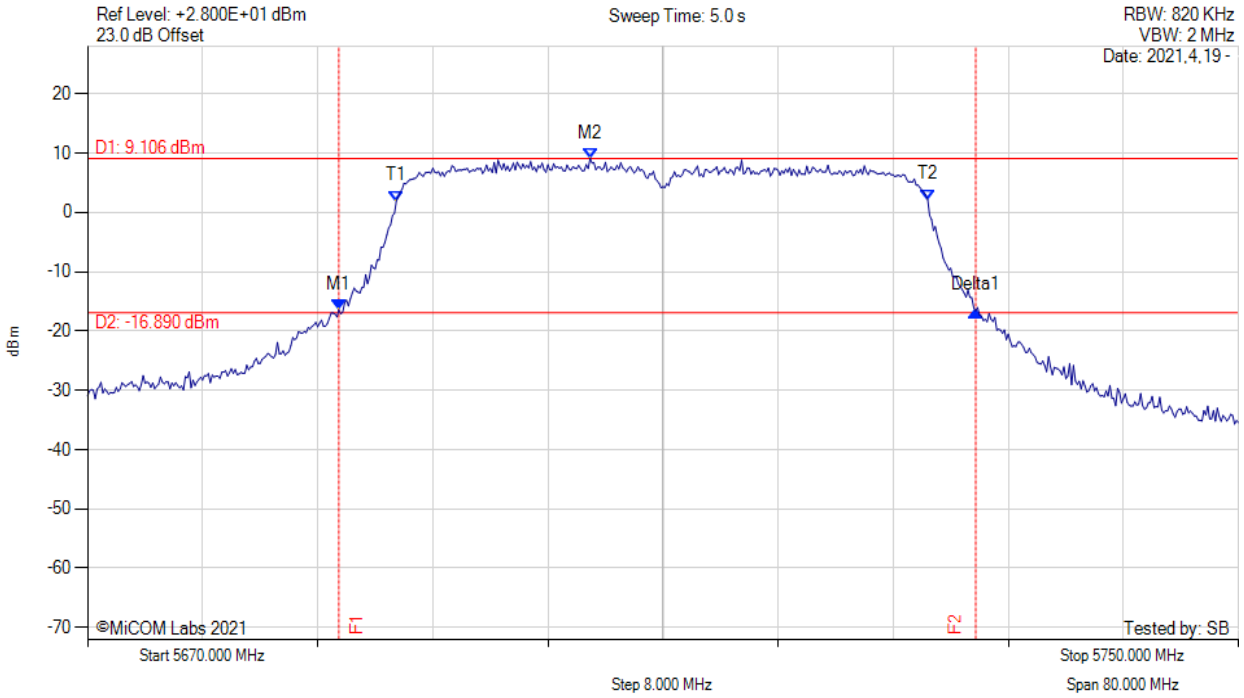


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5686.530 MHz : -16.092 dBm M2 : 5698.000 MHz : 9.272 dBm Delta1 : 45.070 MHz : -0.926 dB T1 : 5691.467 MHz : 2.282 dBm T2 : 5728.267 MHz : 1.382 dBm OBW : 36.757 MHz	Measured 26 dB Bandwidth: 45.070 MHz Measured 99% Bandwidth: 36.757 MHz

back to matrix

26 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

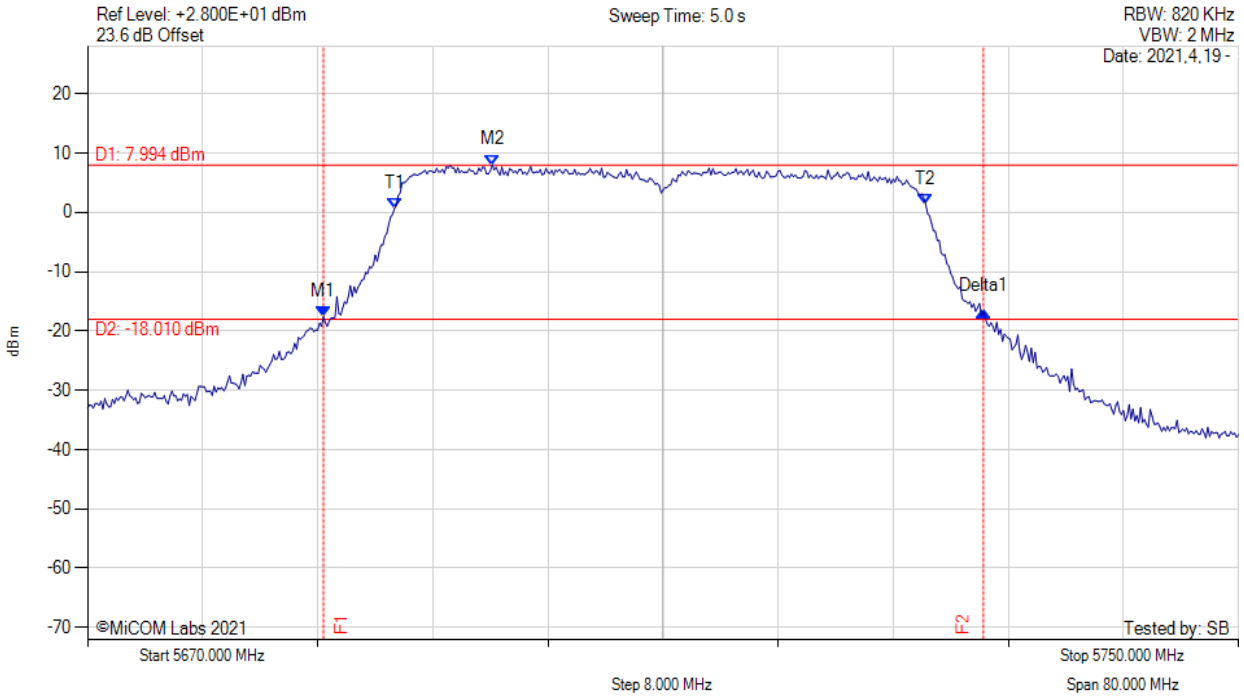


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5687.470 MHz : -16.426 dBm M2 : 5704.930 MHz : 9.106 dBm Delta1 : 44.270 MHz : -0.126 dB T1 : 5691.467 MHz : 1.922 dBm T2 : 5728.400 MHz : 2.158 dBm OBW : 36.832 MHz	Measured 26 dB Bandwidth: 44.270 MHz Measured 99% Bandwidth: 36.832 MHz

back to matrix

26 dB & 99% BANDWIDTH

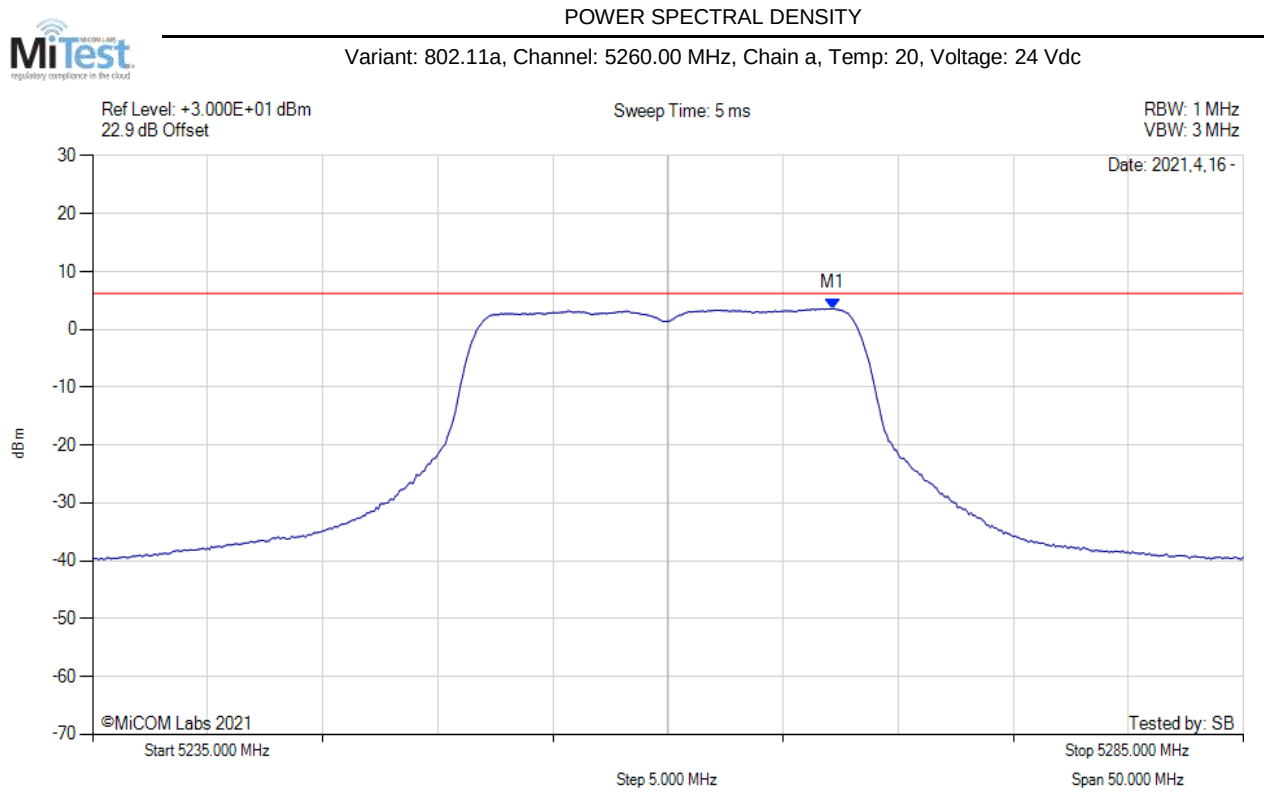
Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5686.400 MHz : -17.617 dBm M2 : 5698.130 MHz : 7.994 dBm Delta1 : 45.870 MHz : 0.871 dB T1 : 5691.333 MHz : 0.655 dBm T2 : 5728.267 MHz : 1.318 dBm OBW : 36.996 MHz	Measured 26 dB Bandwidth: 45.870 MHz Measured 99% Bandwidth: 36.996 MHz

back to matrix

A.2. Power Spectral Density

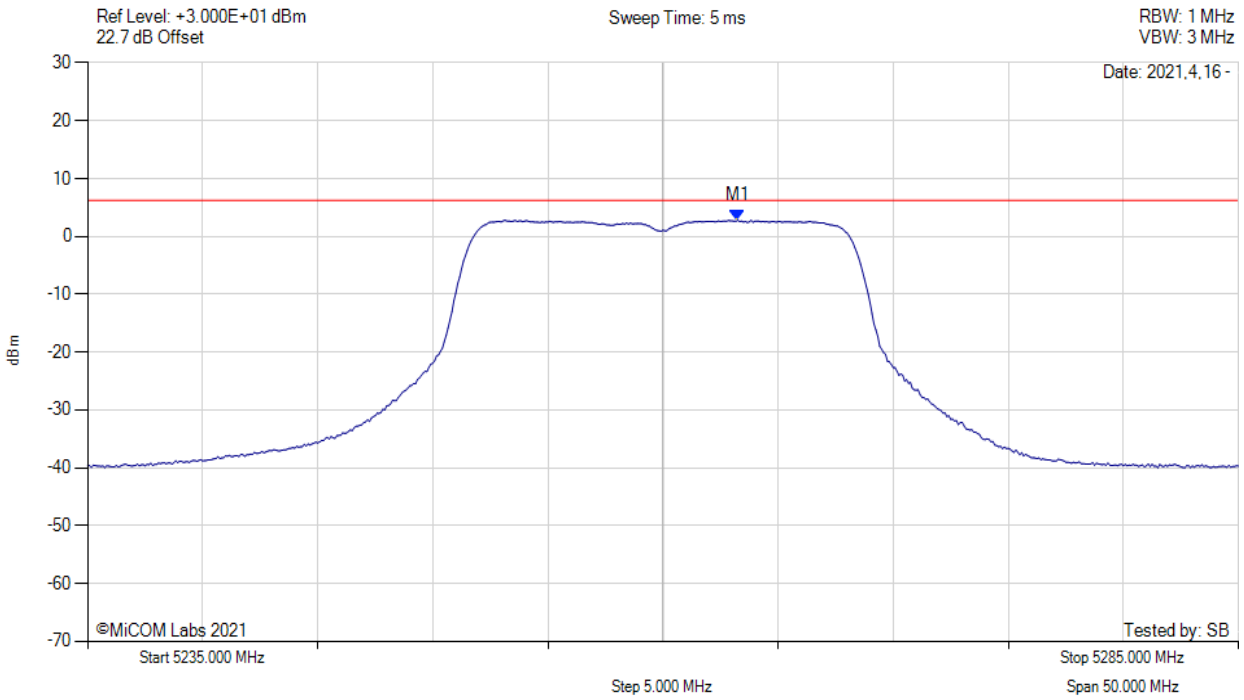


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5267.170 MHz : 3.612 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

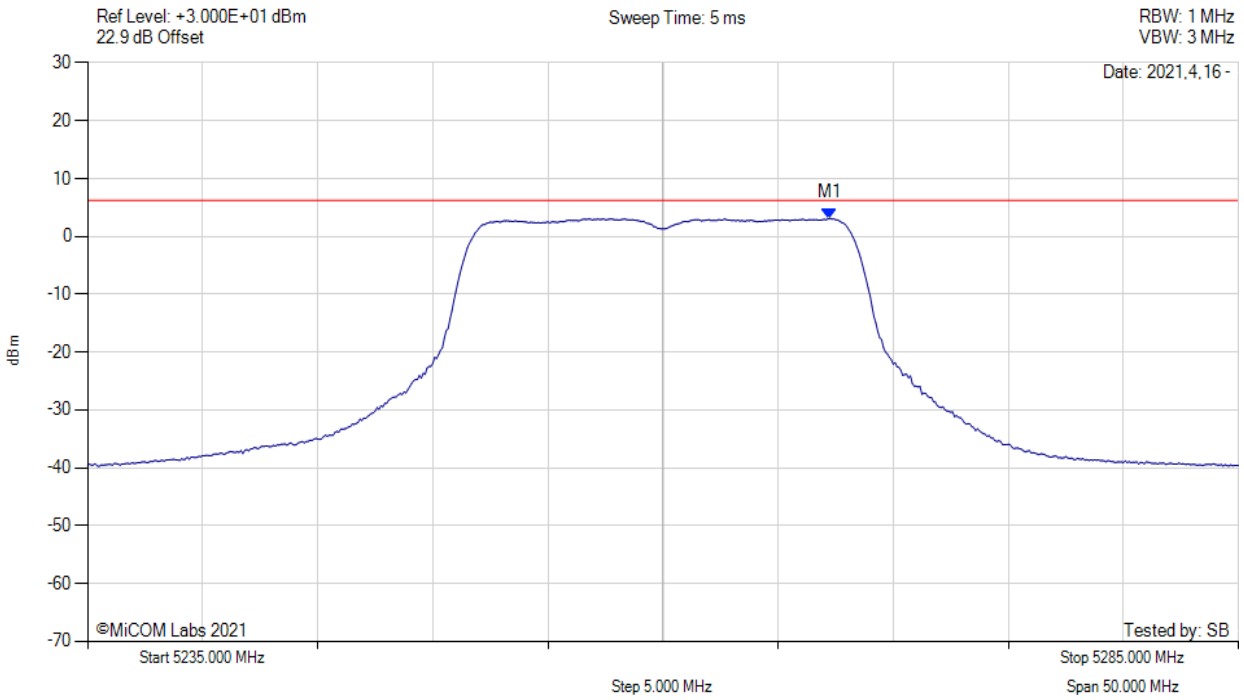


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5263.250 MHz : 2.792 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

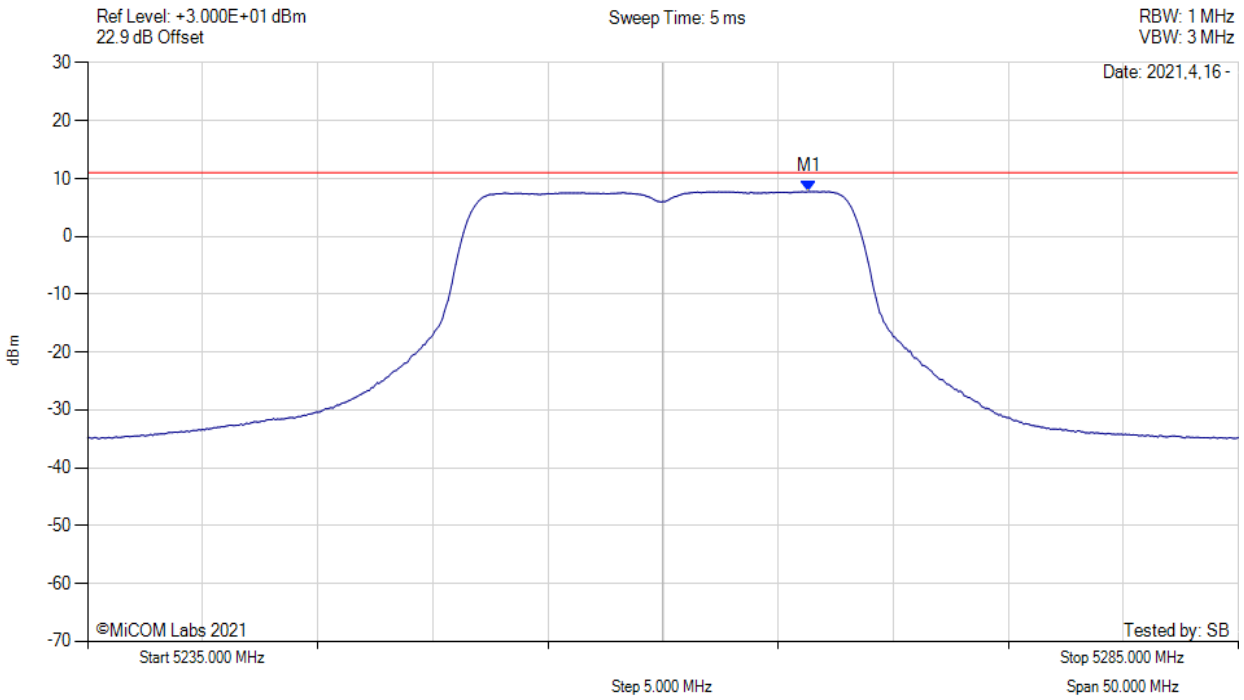


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5267.250 MHz : 3.127 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

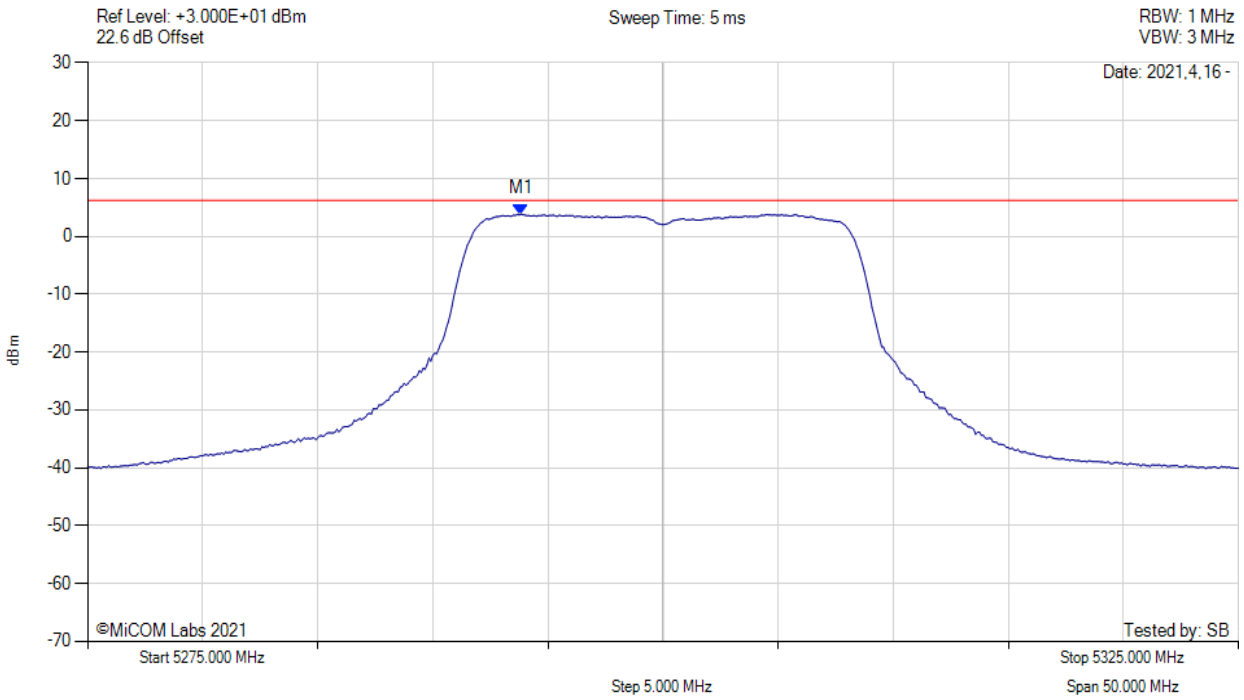


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5266.300 MHz : 7.774 dBm M1 + DCCF : 5266.300 MHz : 7.818 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -3.2 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

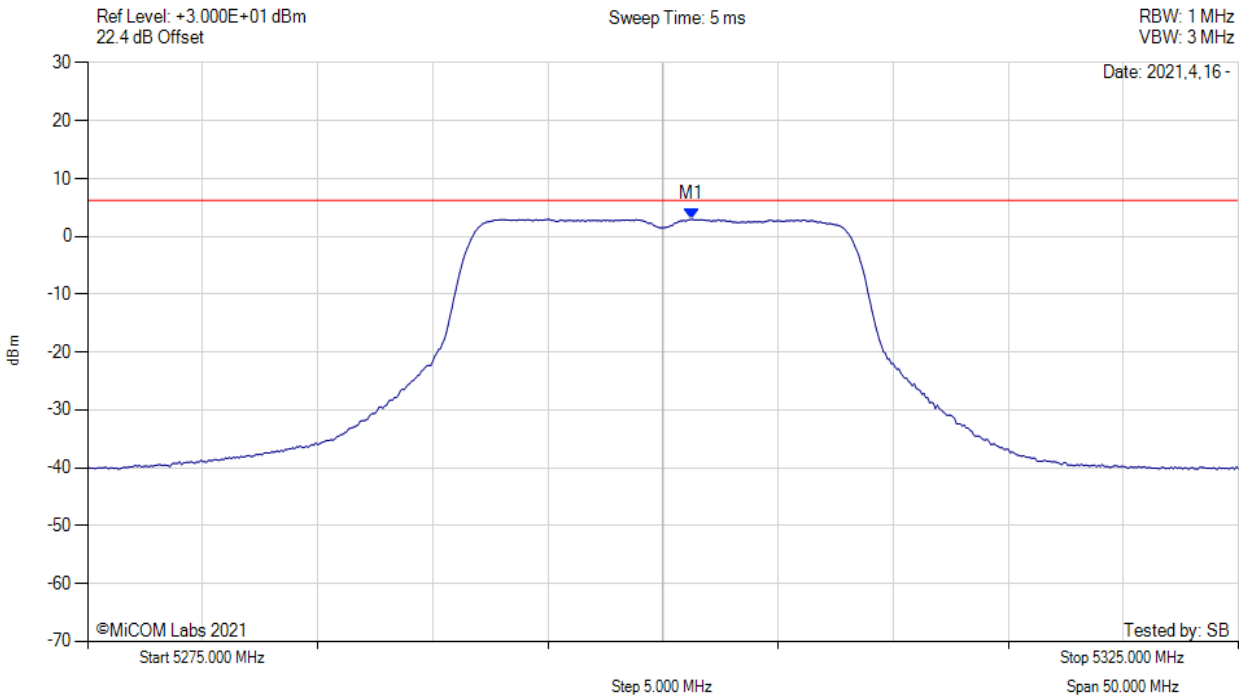


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5293.830 MHz : 3.854 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

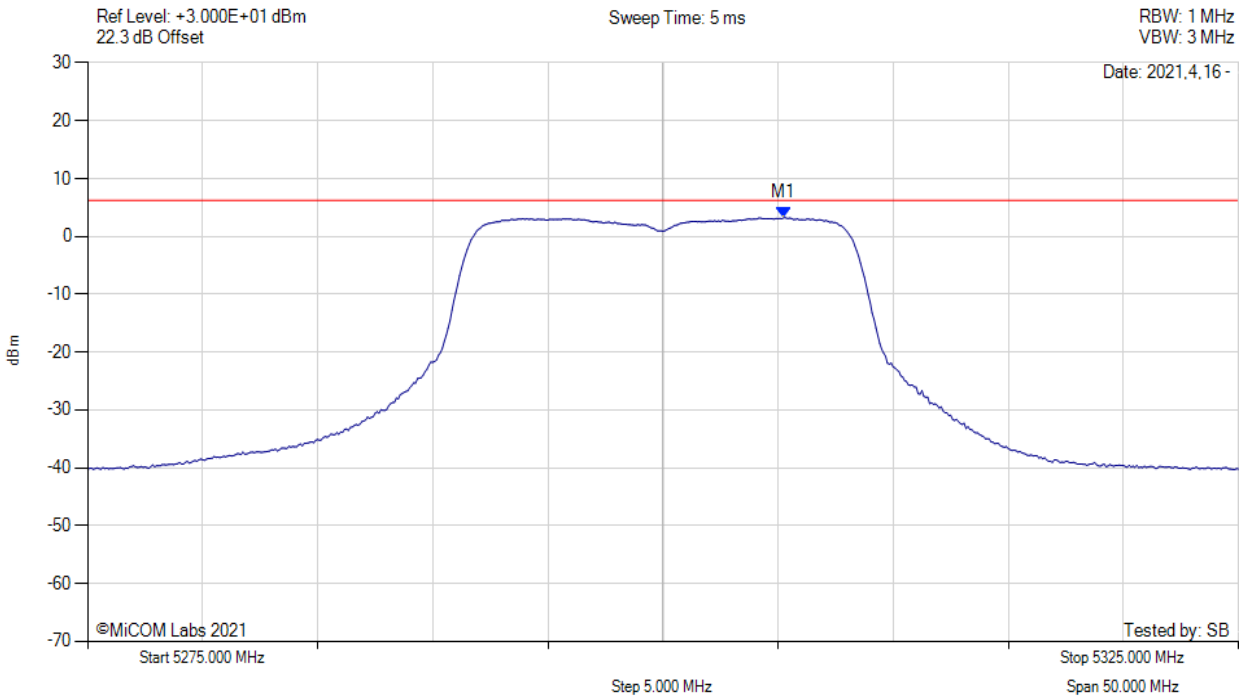


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5301.250 MHz : 2.958 dBm	Channel Frequency: 5300.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

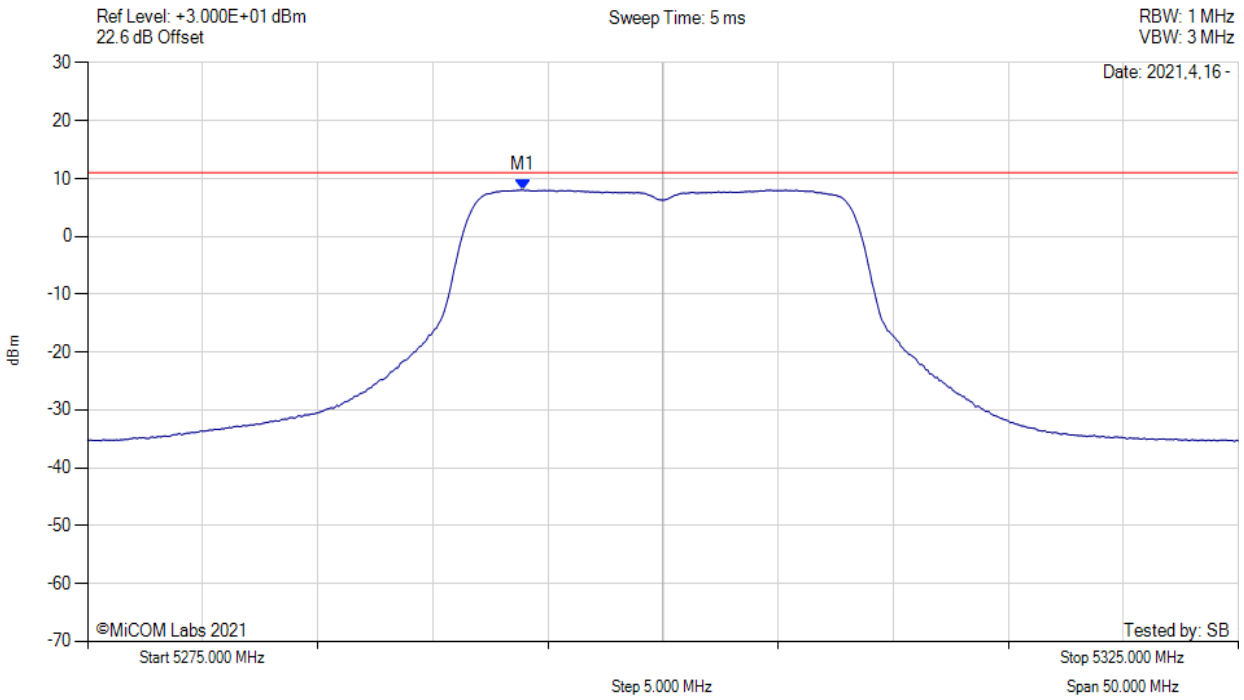


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5305.250 MHz : 3.240 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

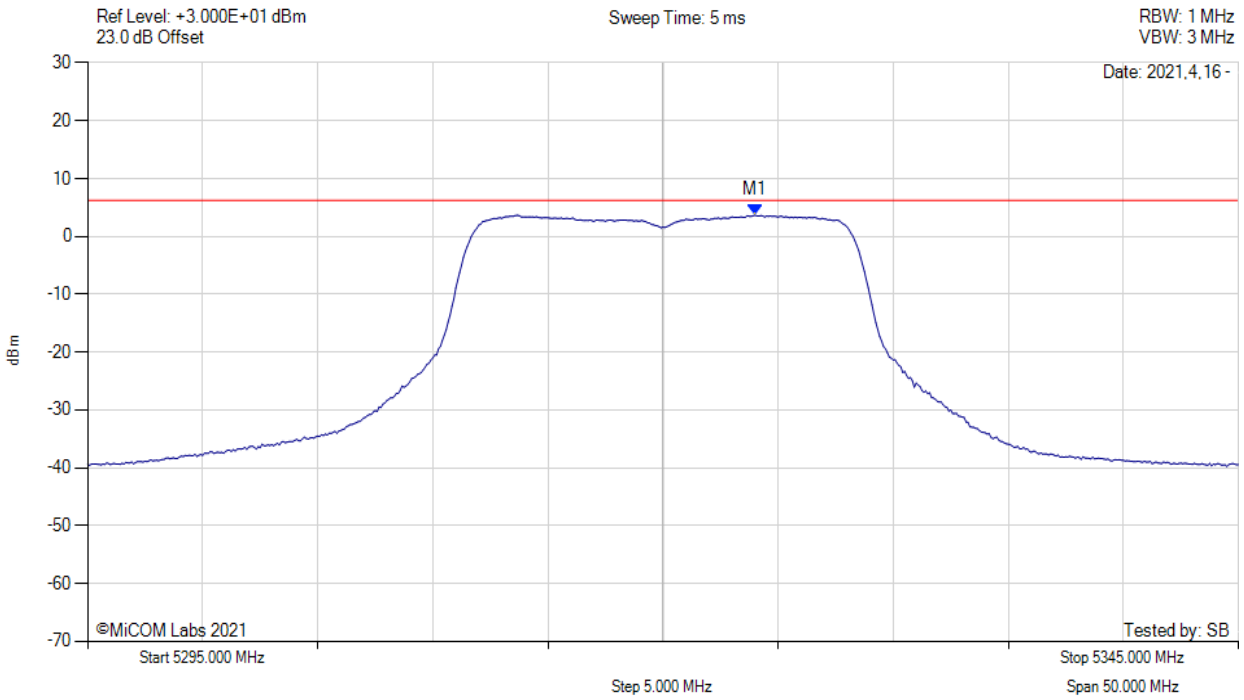


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5293.900 MHz : 8.027 dBm M1 + DCCF : 5293.900 MHz : 8.071 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -2.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

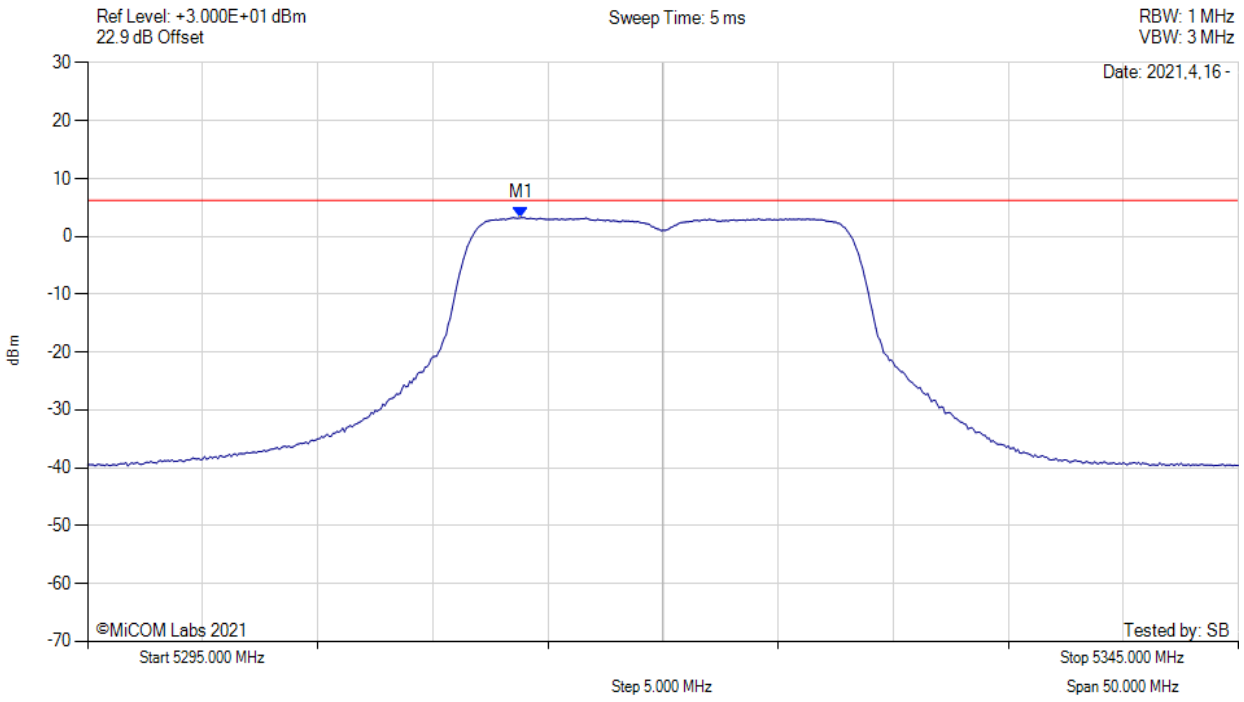


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5324.000 MHz : 3.680 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

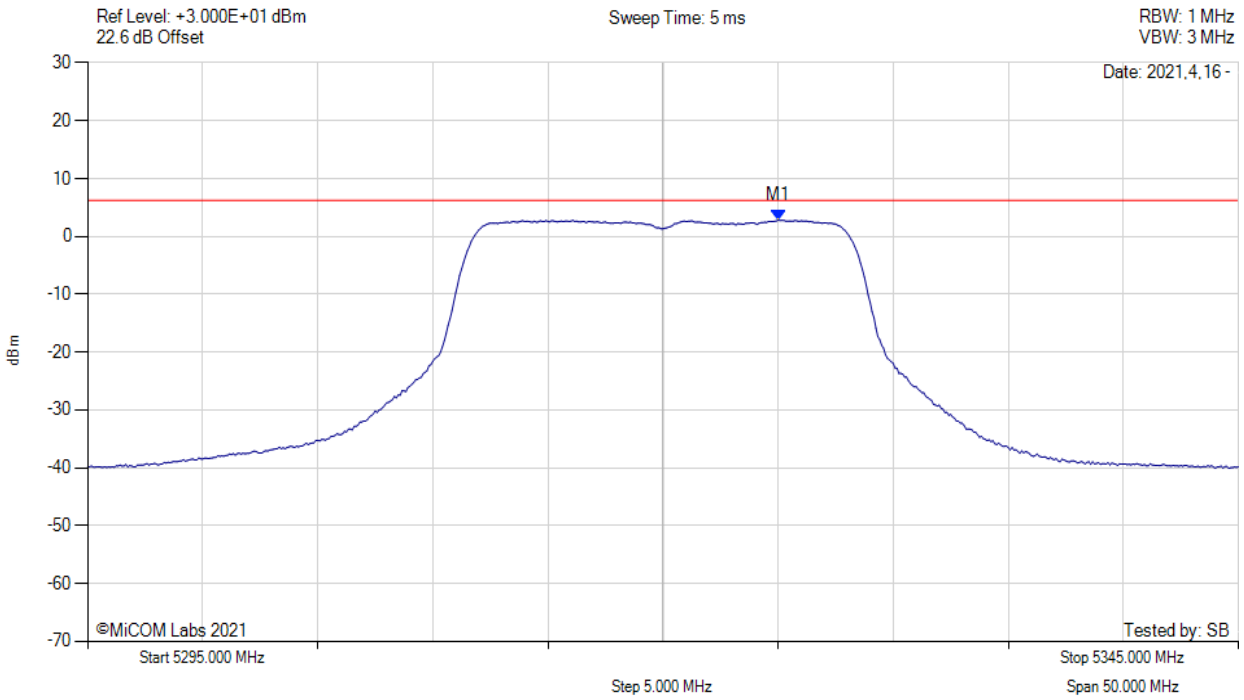


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5313.830 MHz : 3.251 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

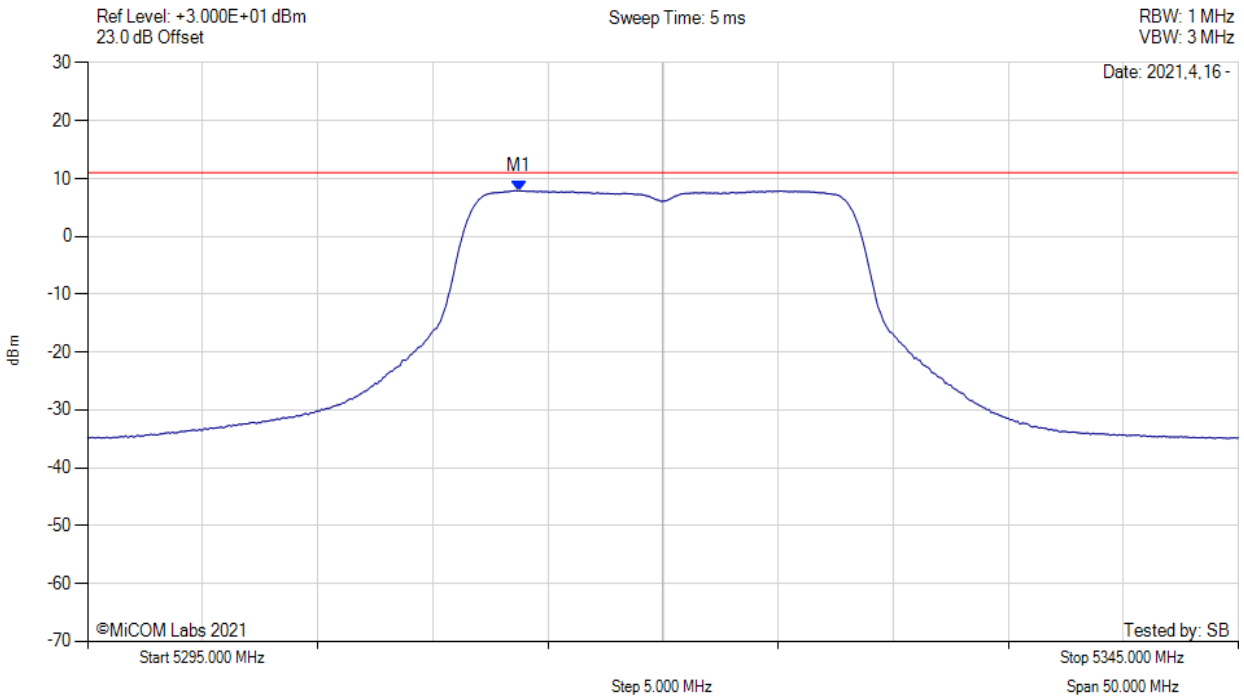


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5325.000 MHz : 2.830 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

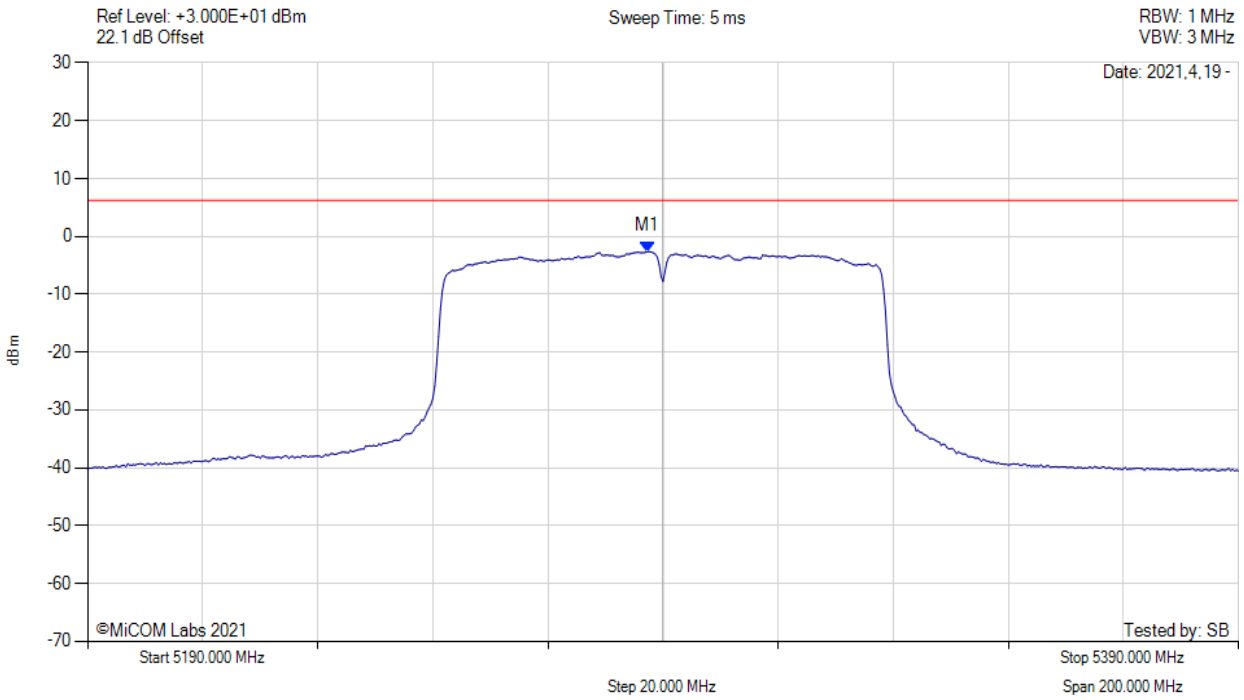


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5313.800 MHz : 7.902 dBm M1 + DCCF : 5313.800 MHz : 7.946 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -3.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

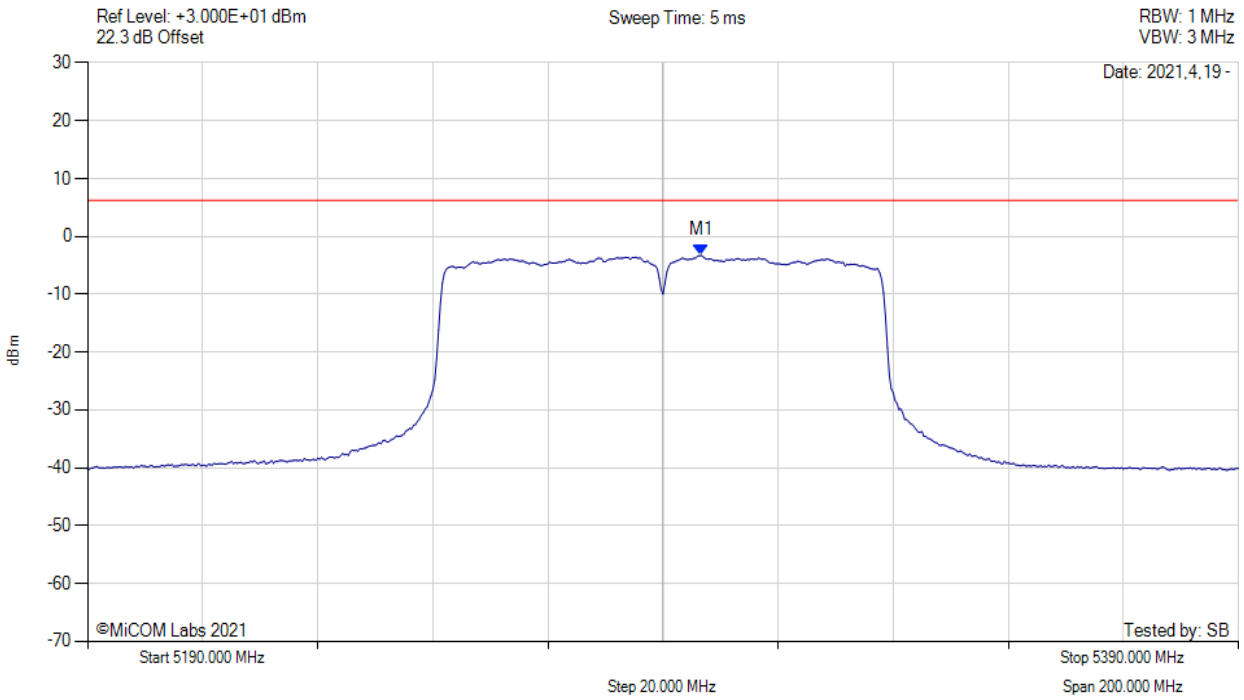


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5287.300 MHz : -2.627 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

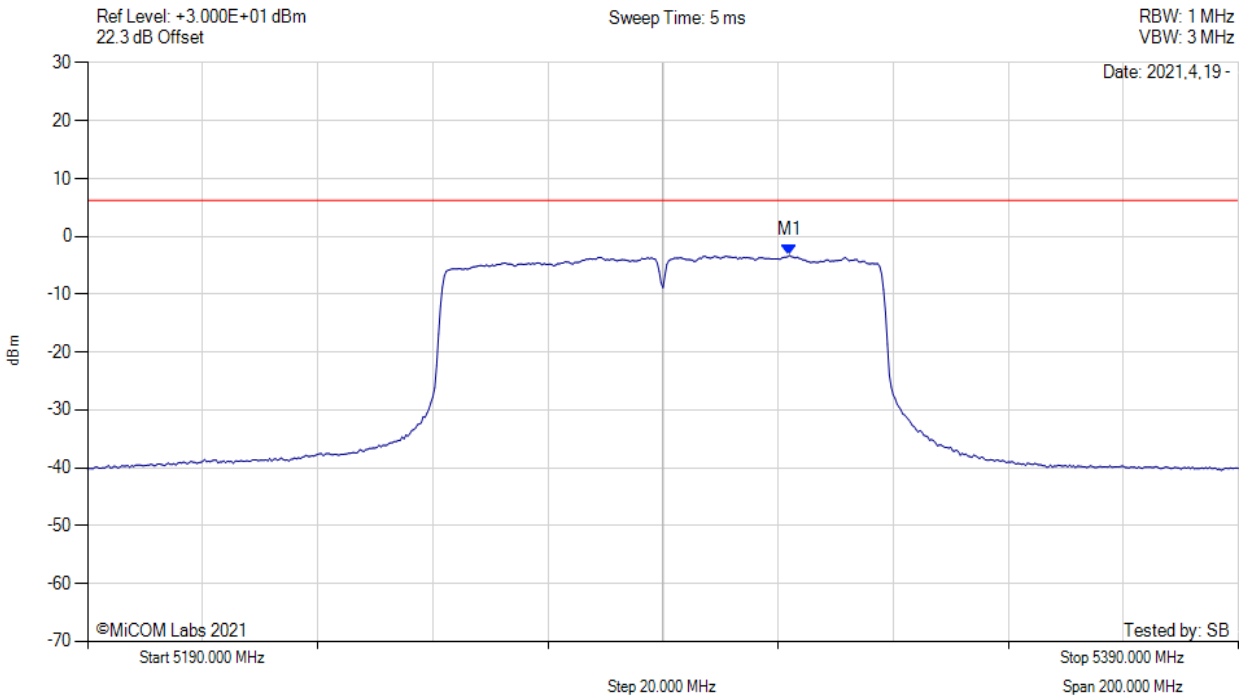


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5296.700 MHz : -3.262 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

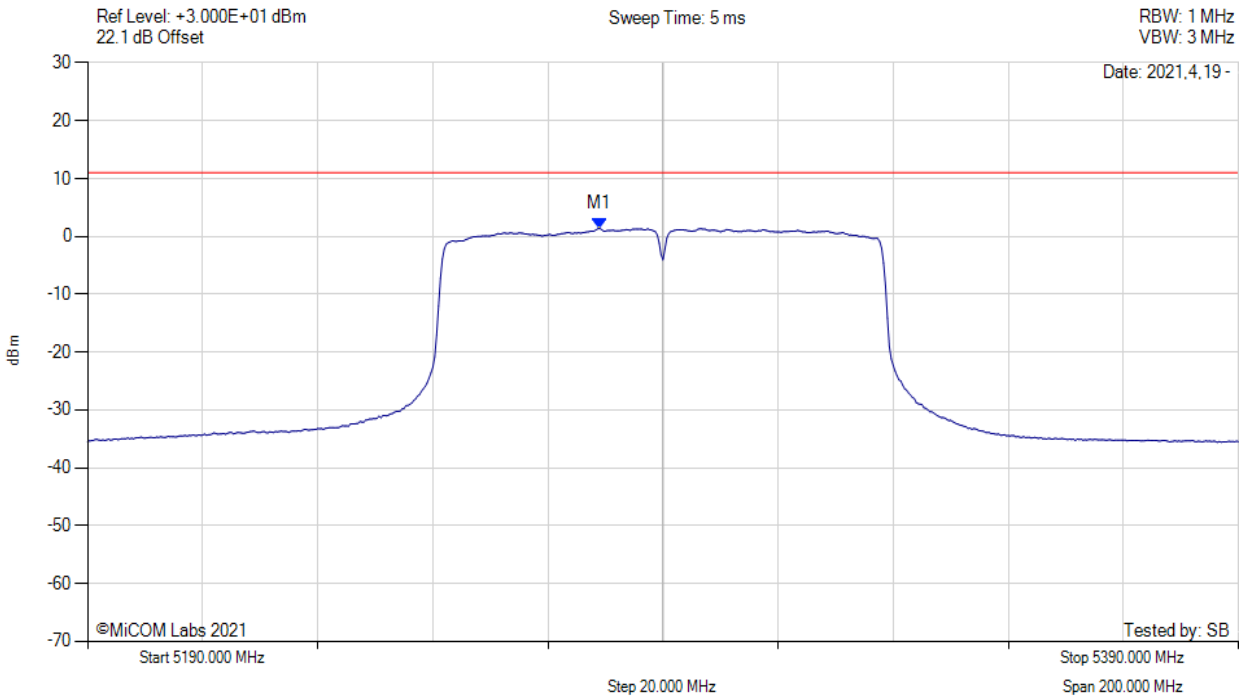


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5312.000 MHz : -3.280 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5290.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

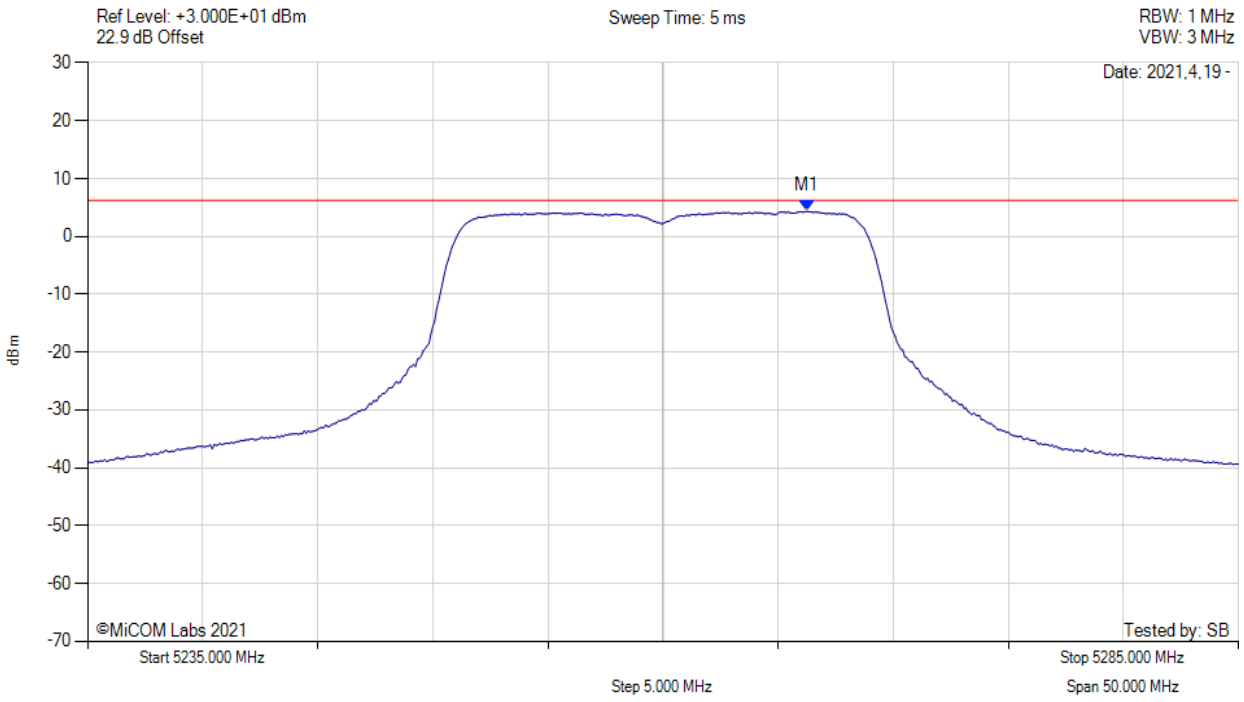


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5279.000 MHz : 1.392 dBm M1 + DCCF : 5279.000 MHz : 2.254 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 11.0 dBm Margin: -8.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

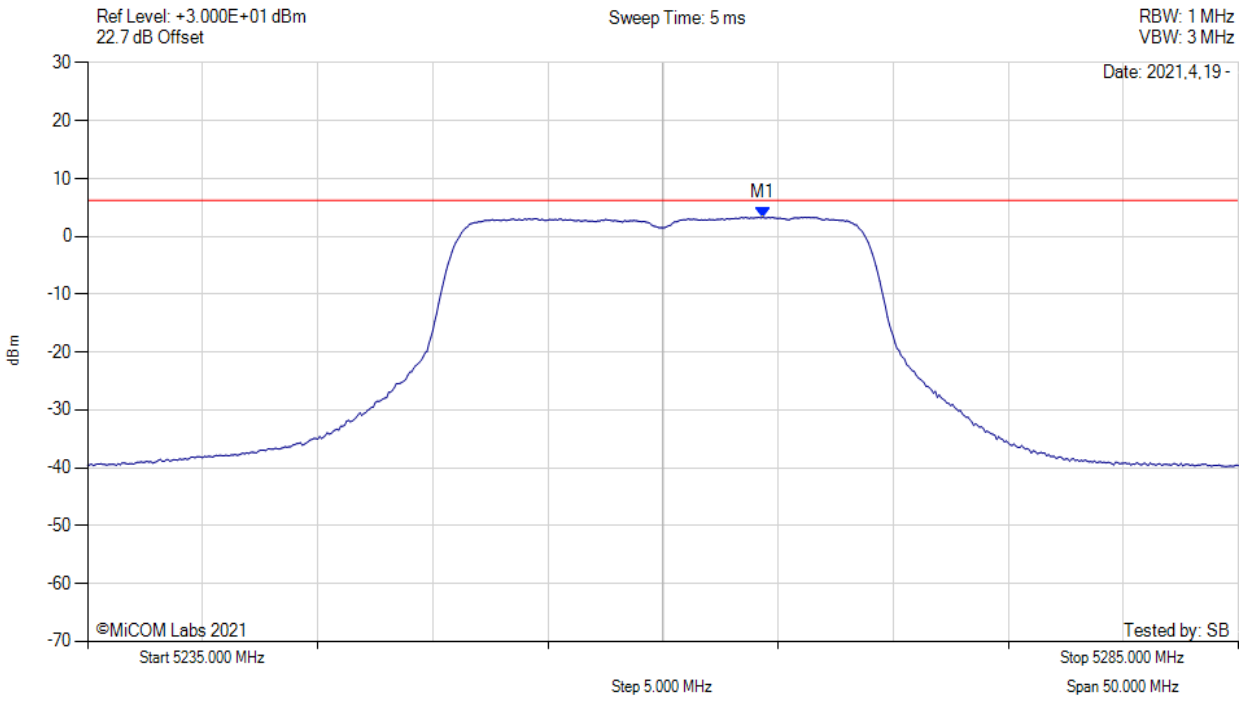


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5266.250 MHz : 4.372 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

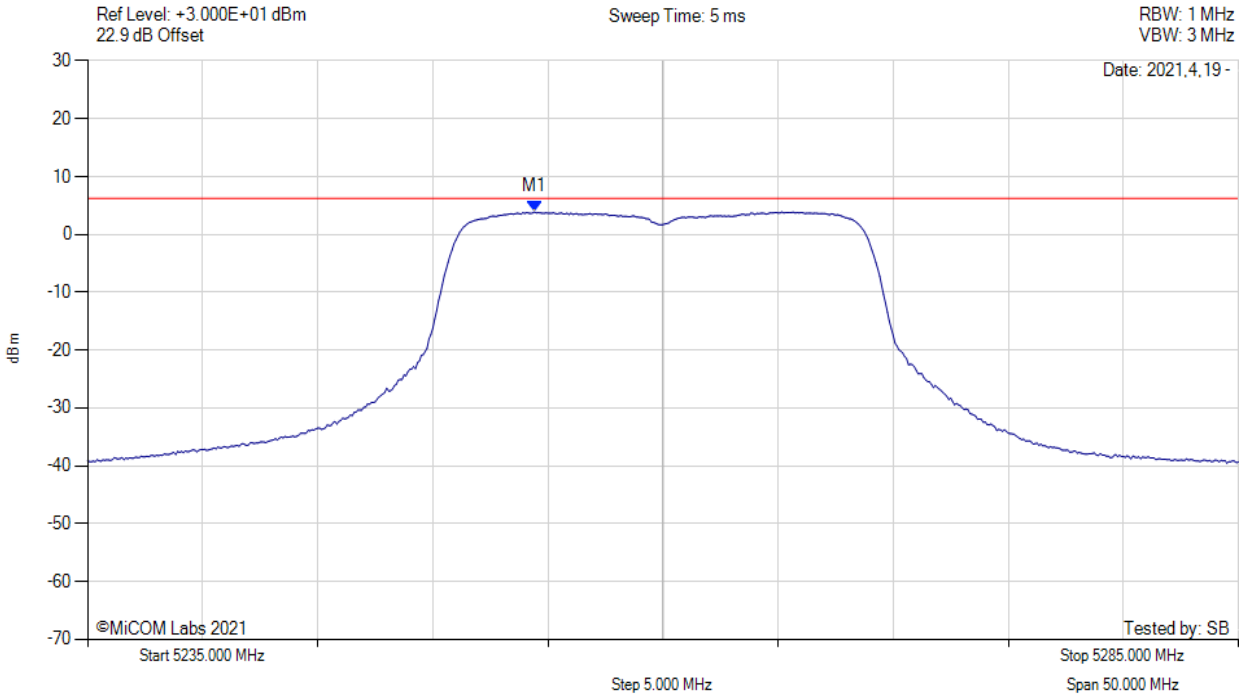


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5264.330 MHz : 3.305 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

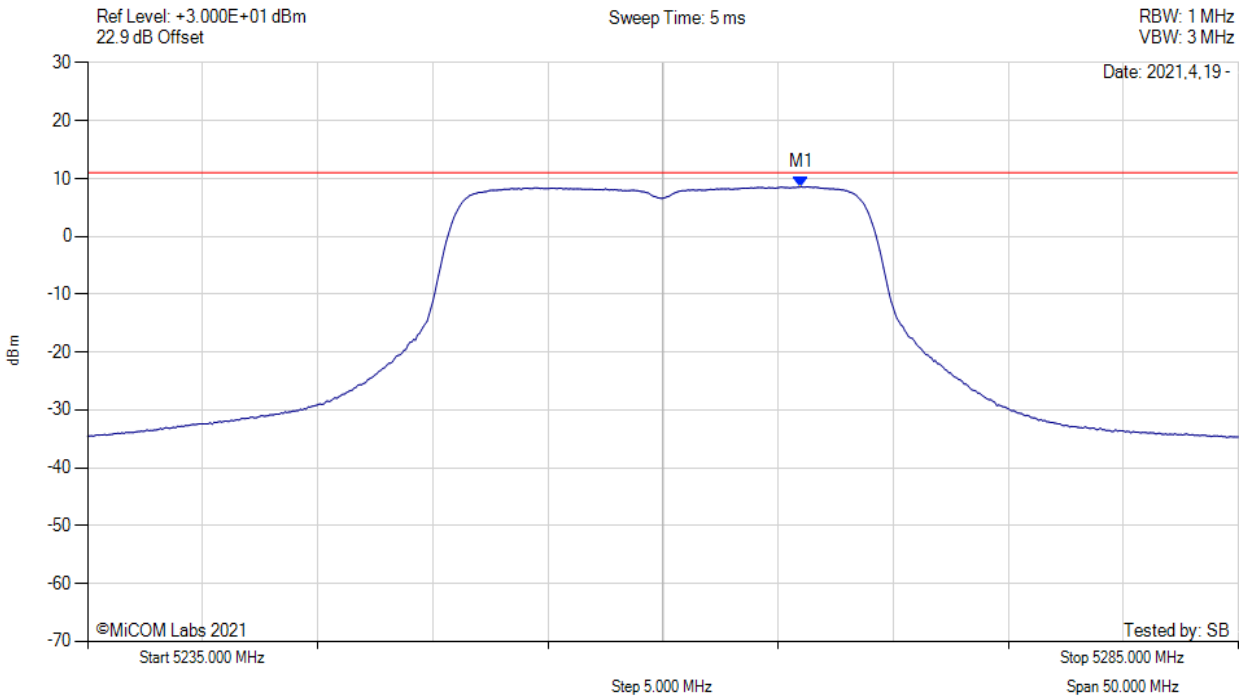


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5254.420 MHz : 3.896 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5260.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

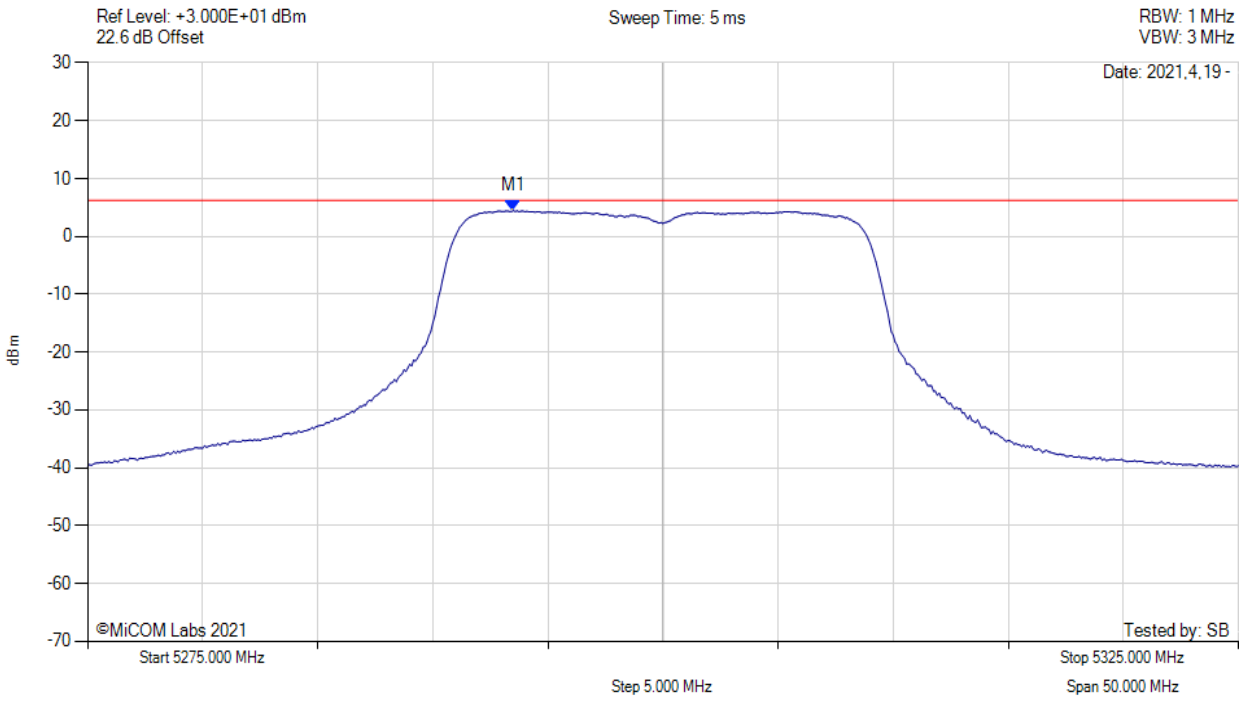


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5266.000 MHz : 8.569 dBm M1 + DCCF : 5266.000 MHz : 8.613 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -2.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

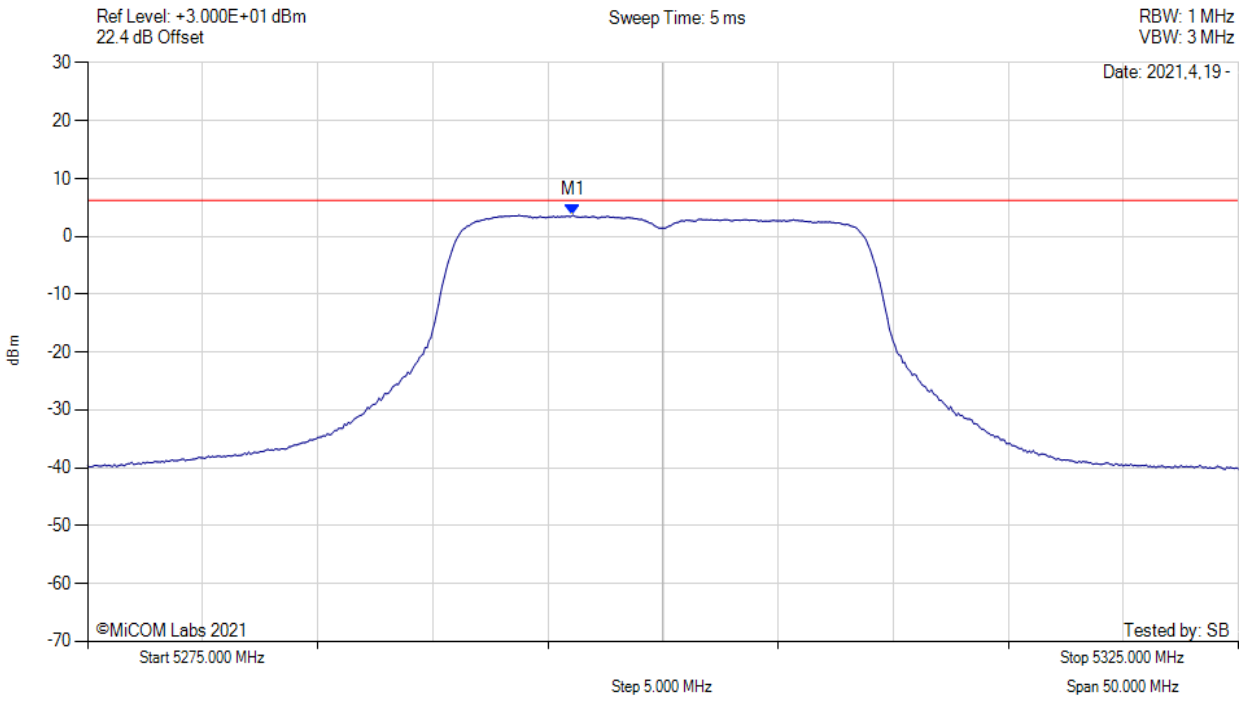


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5293.500 MHz : 4.455 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

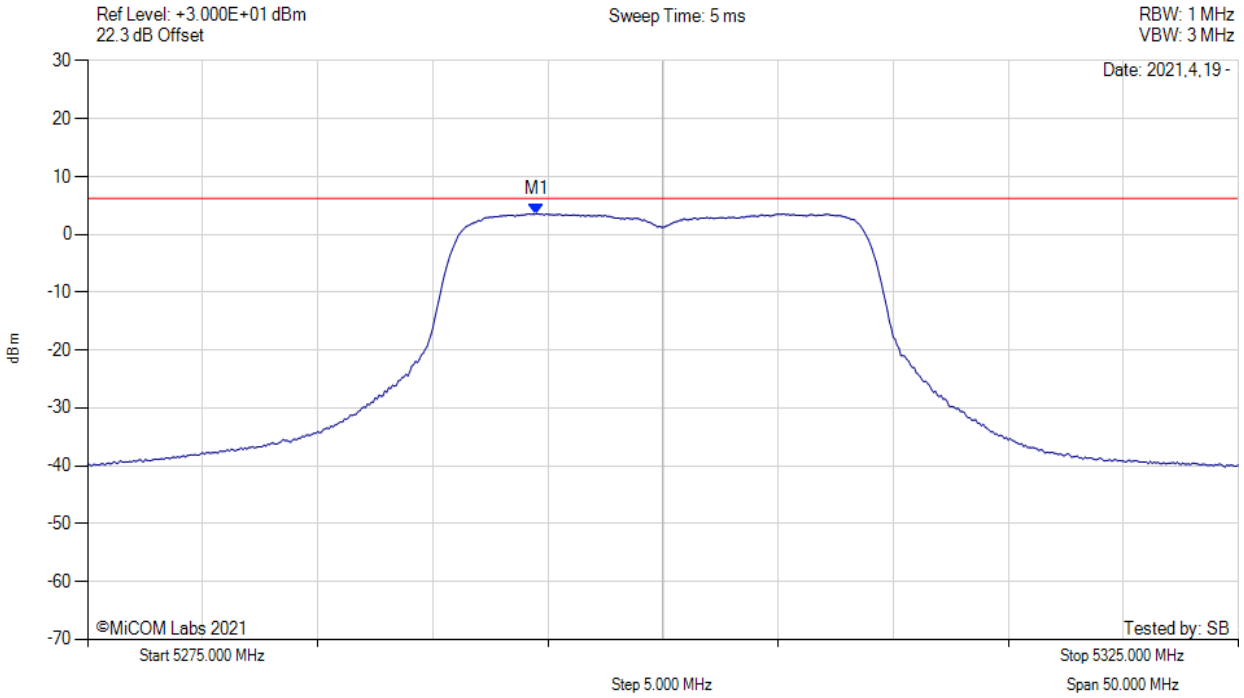


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5296.080 MHz : 3.673 dBm	Channel Frequency: 5300.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

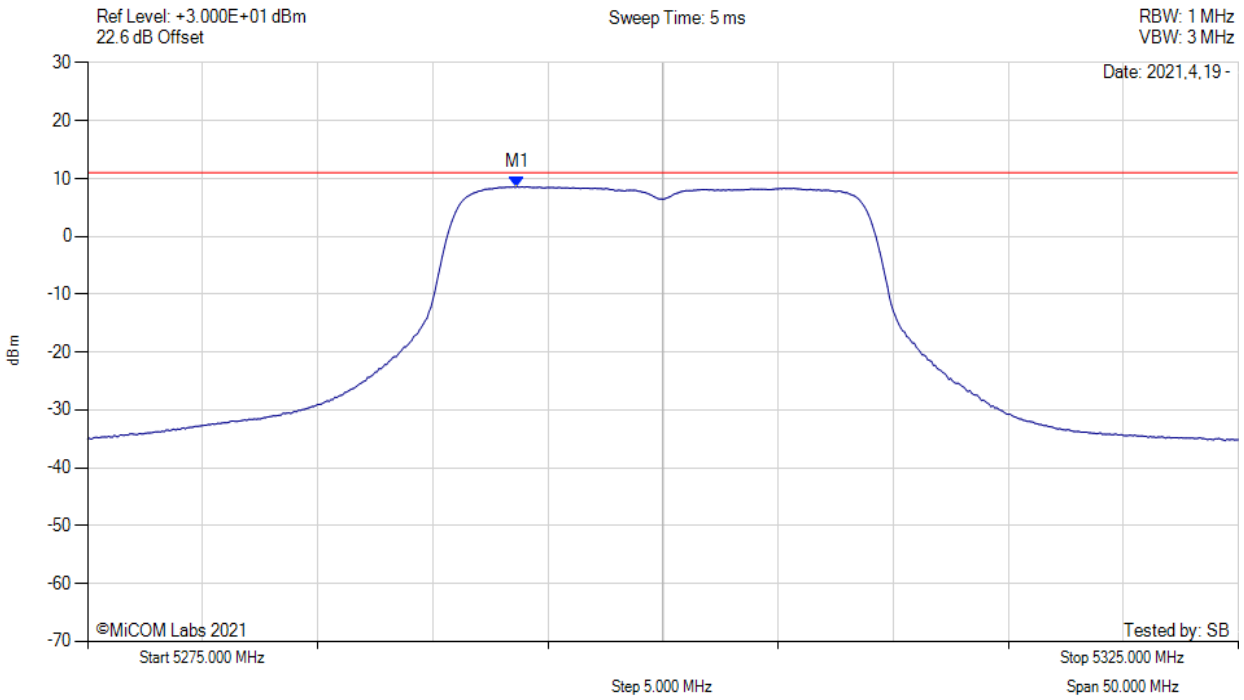


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5294.500 MHz : 3.573 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

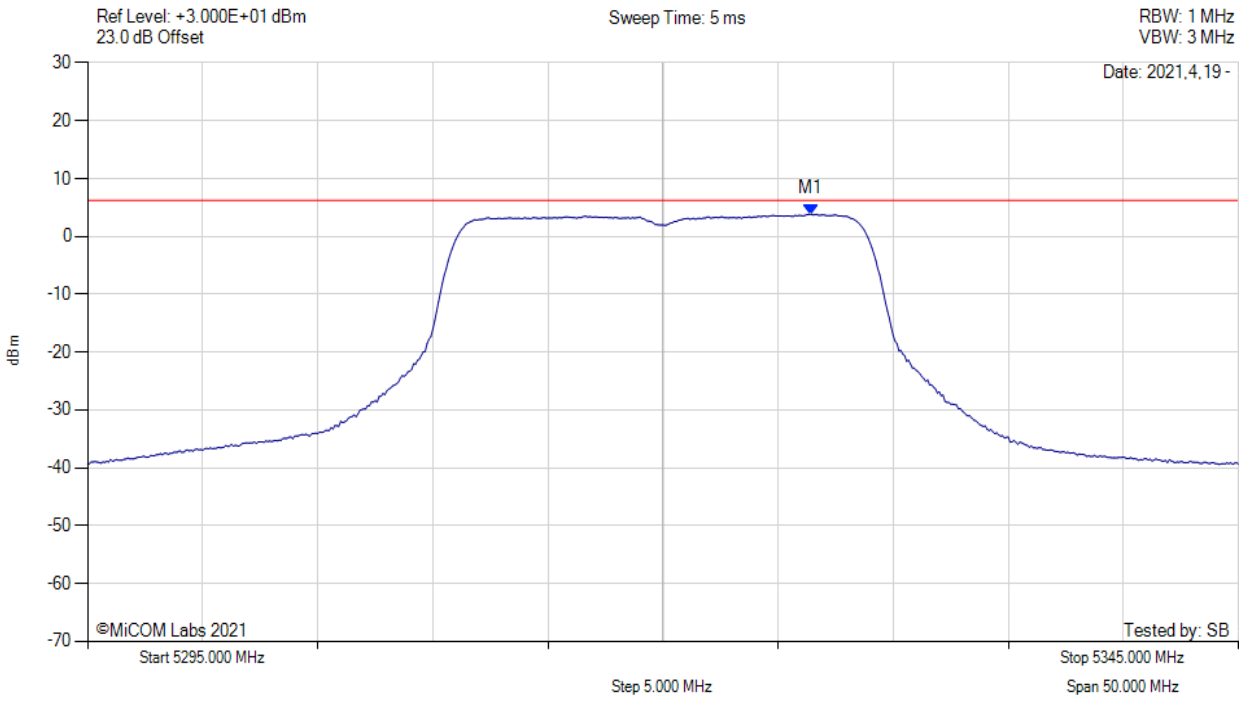


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5293.700 MHz : 8.570 dBm M1 + DCCF : 5293.700 MHz : 8.614 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -2.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

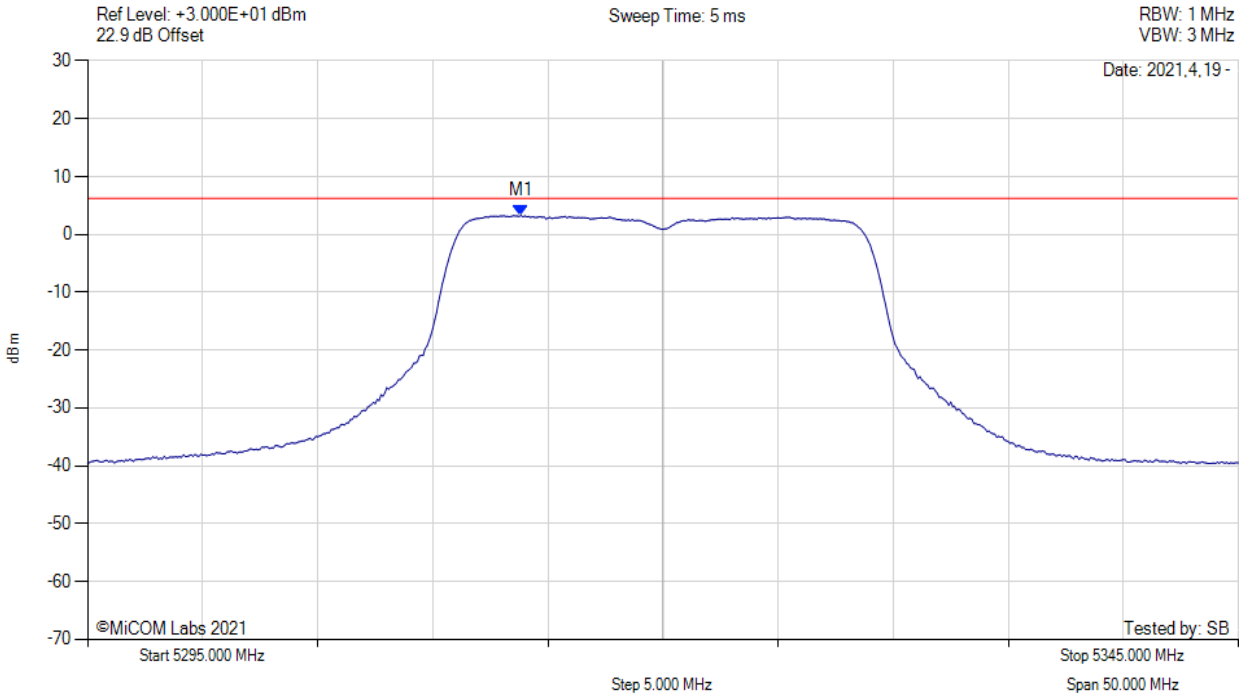


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5326.420 MHz : 3.839 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

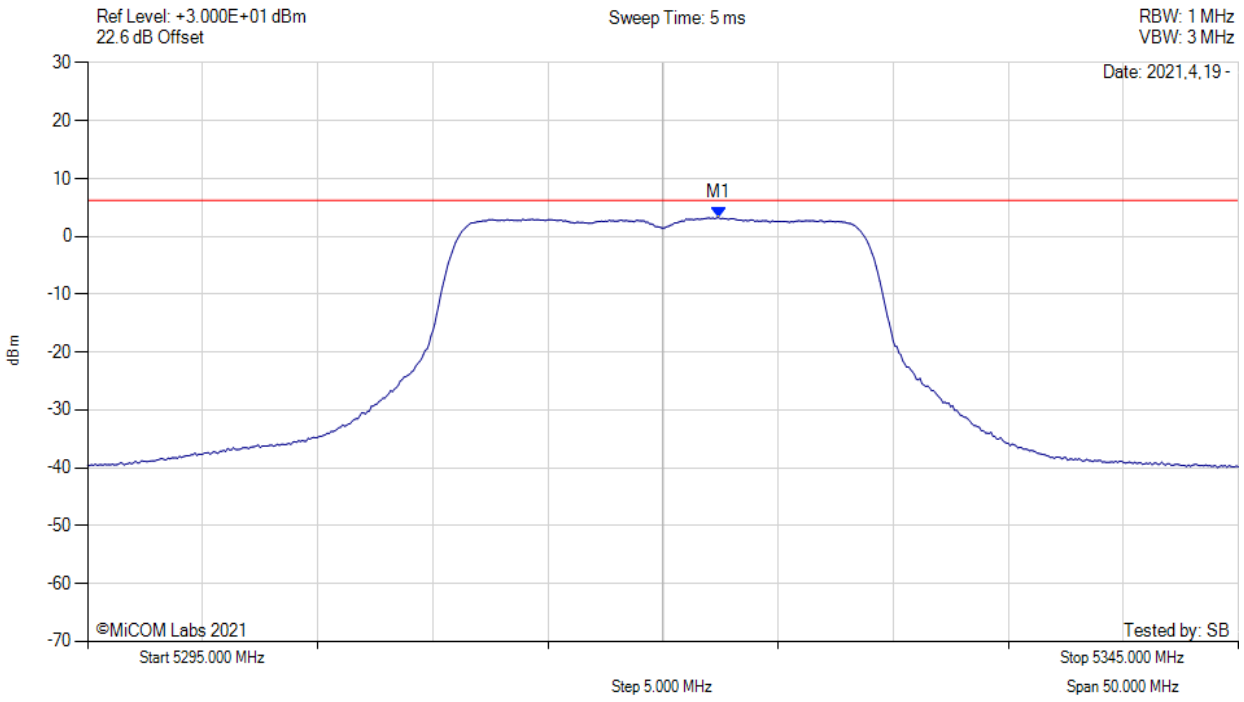


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5313.830 MHz : 3.285 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

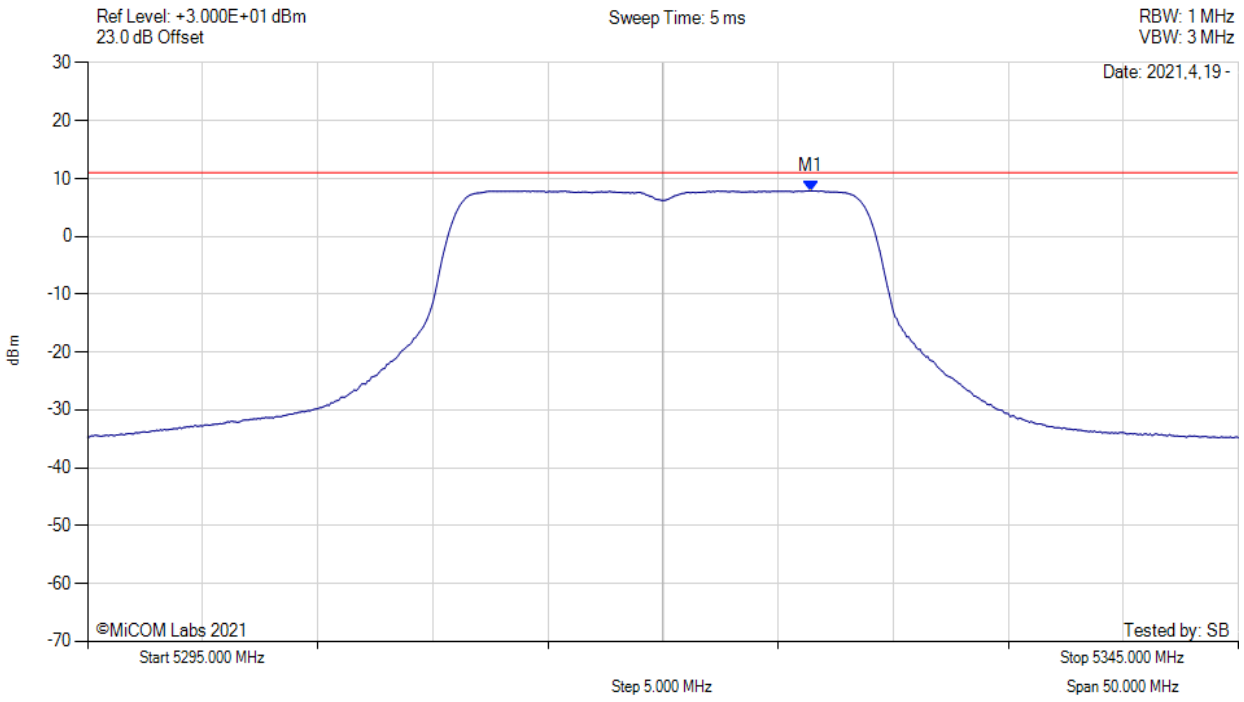


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5322.420 MHz : 3.281 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

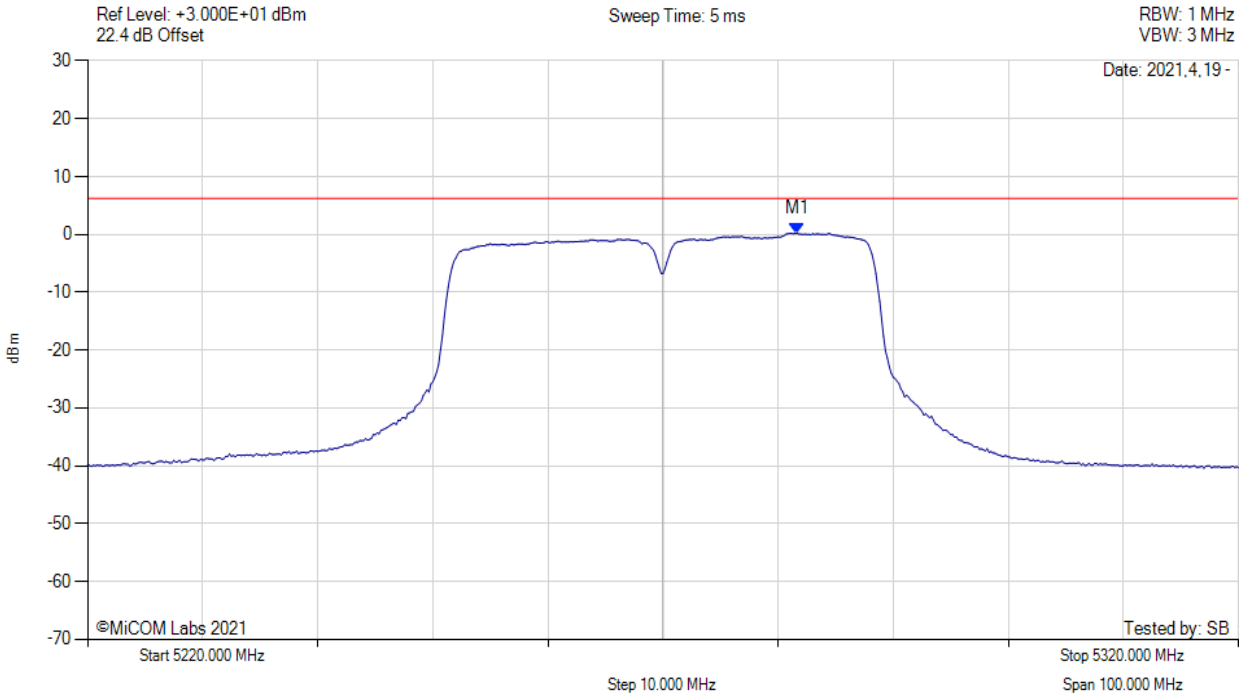


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5326.400 MHz : 7.892 dBm M1 + DCCF : 5326.400 MHz : 7.936 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -3.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

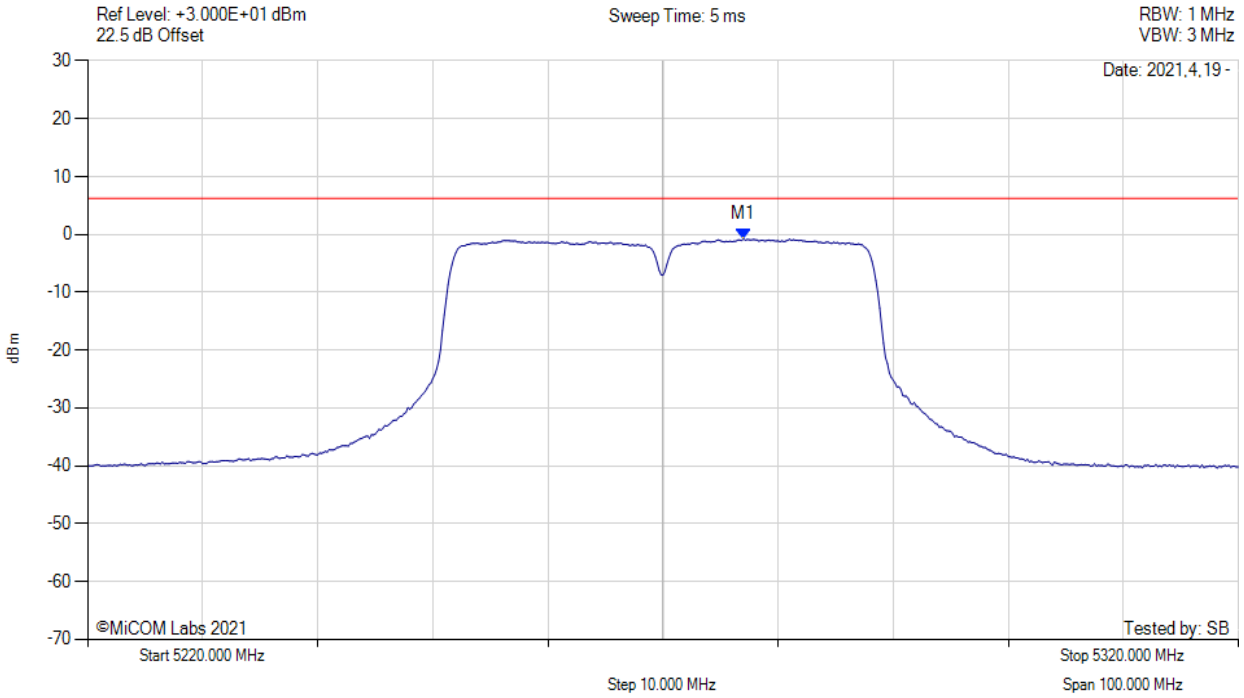


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5281.670 MHz : 0.195 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

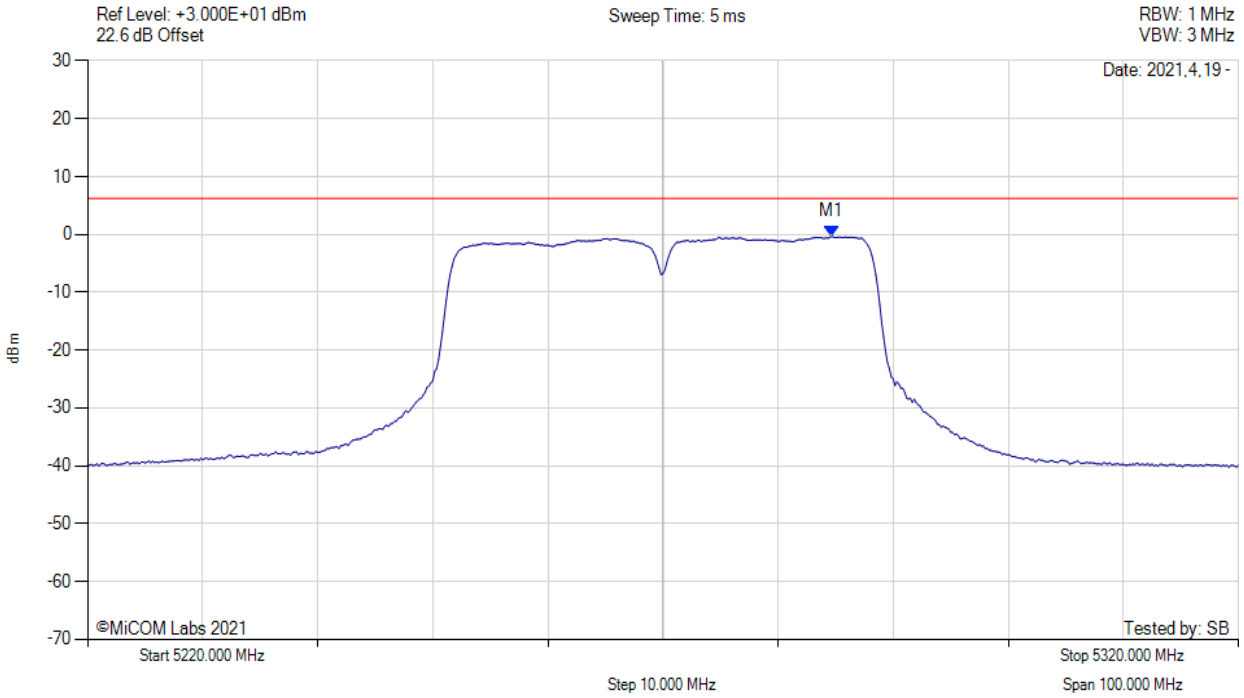


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5277.000 MHz : -0.775 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

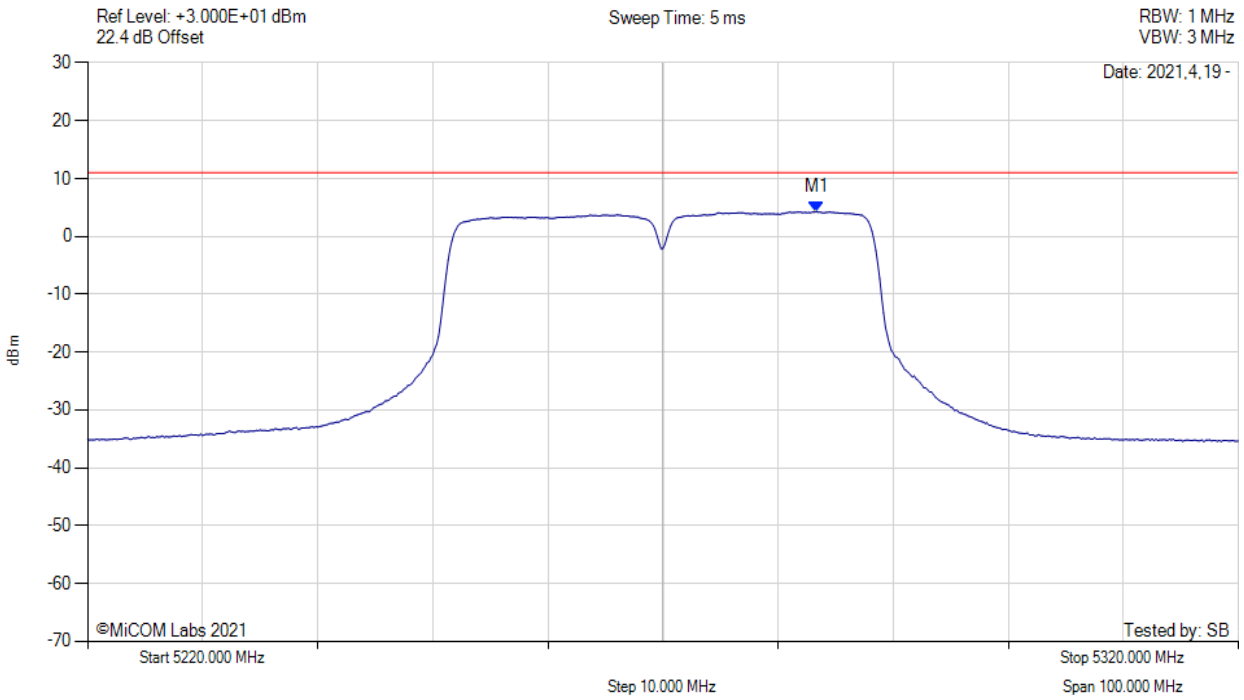


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5284.670 MHz : -0.353 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5270.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

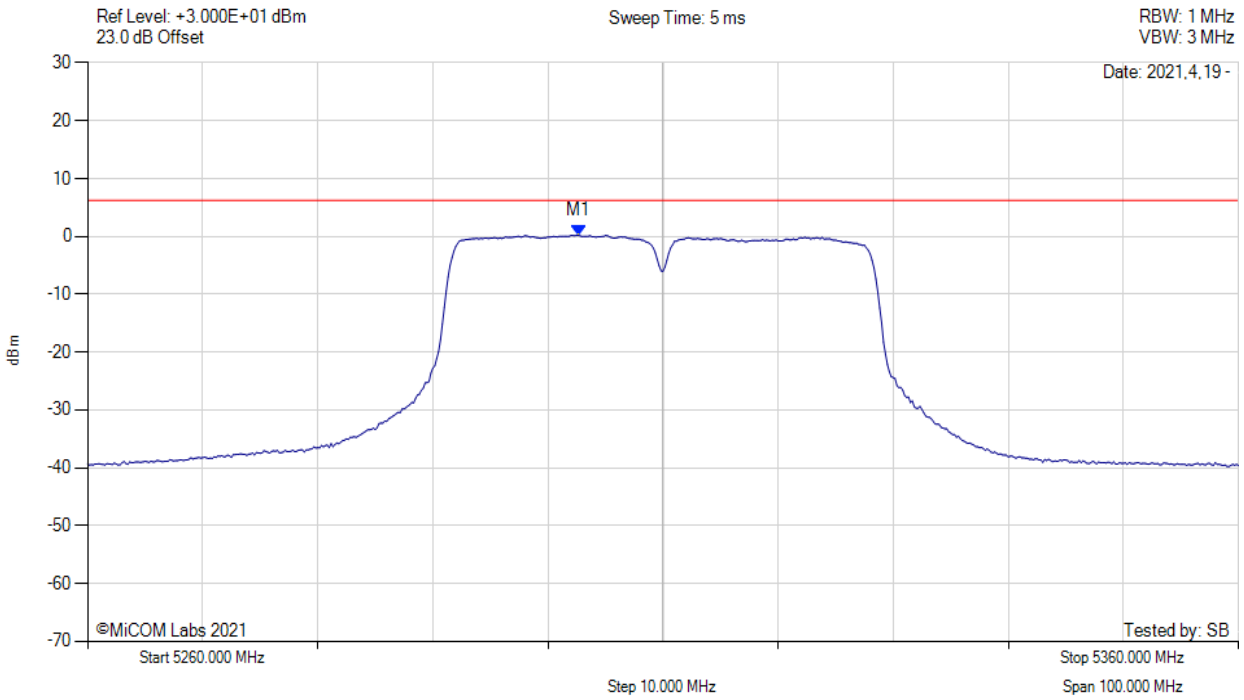


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5283.300 MHz : 4.260 dBm M1 + DCCF : 5283.300 MHz : 4.622 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -6.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

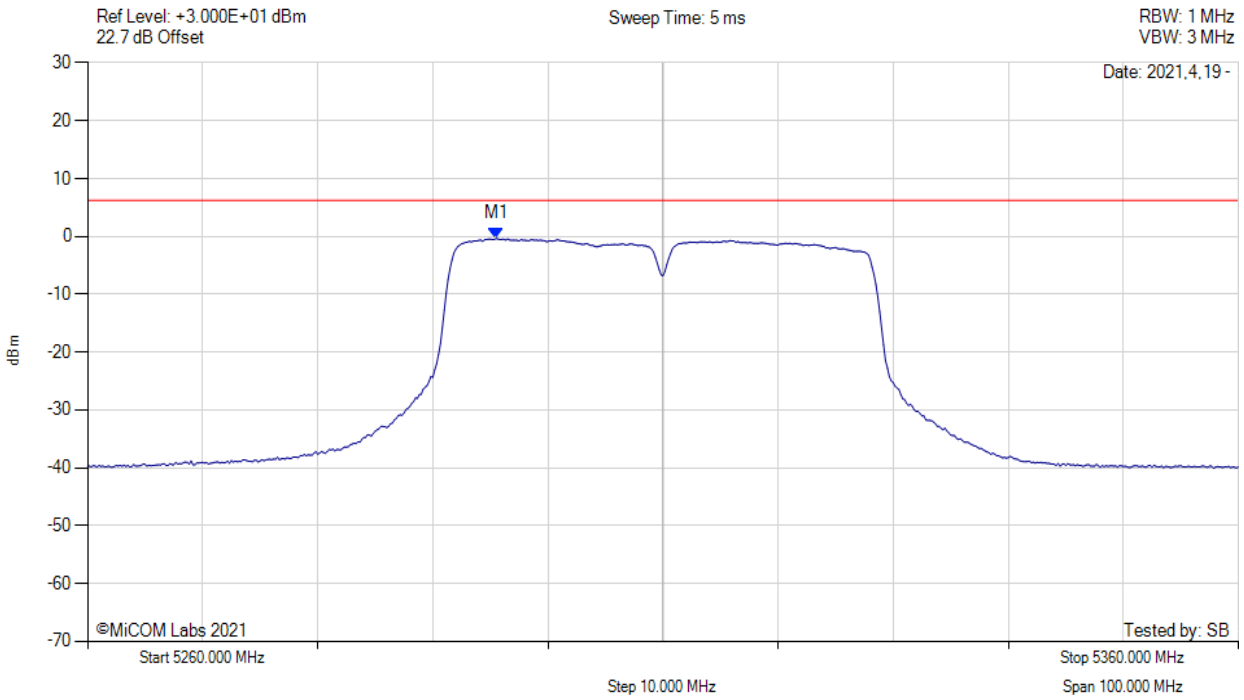


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5302.670 MHz : 0.201 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

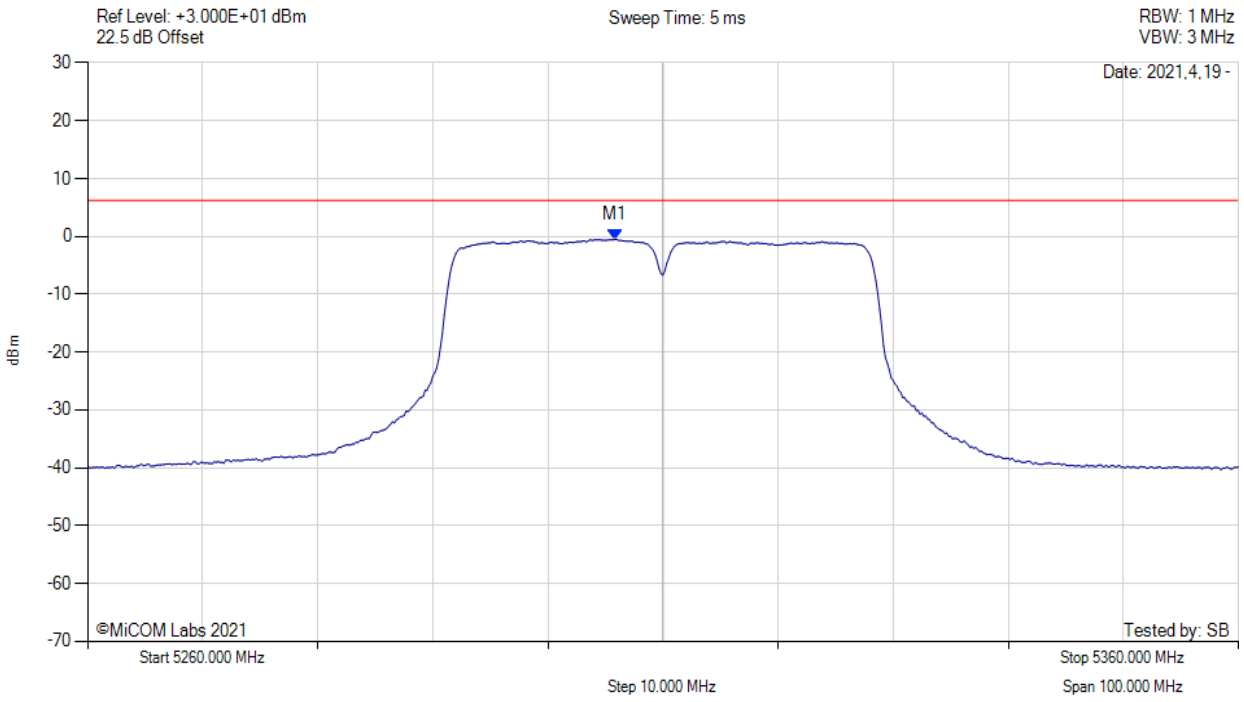


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5295.500 MHz : -0.366 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

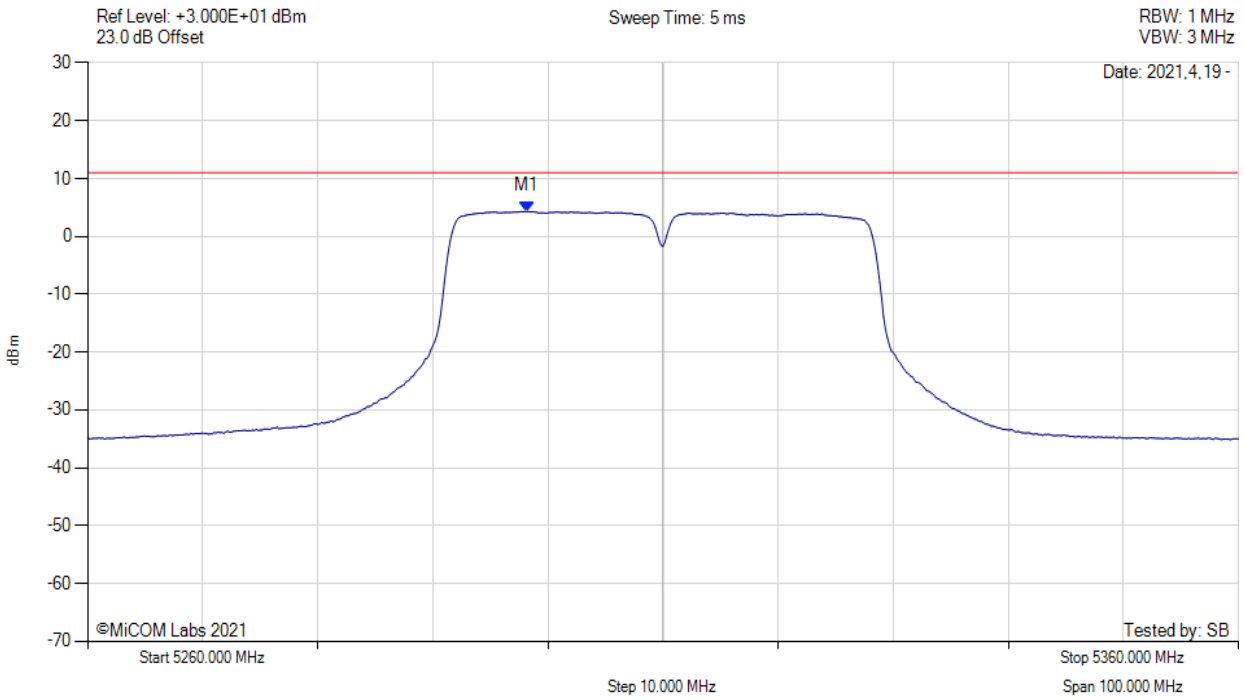


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5305.830 MHz : -0.495 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5310.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

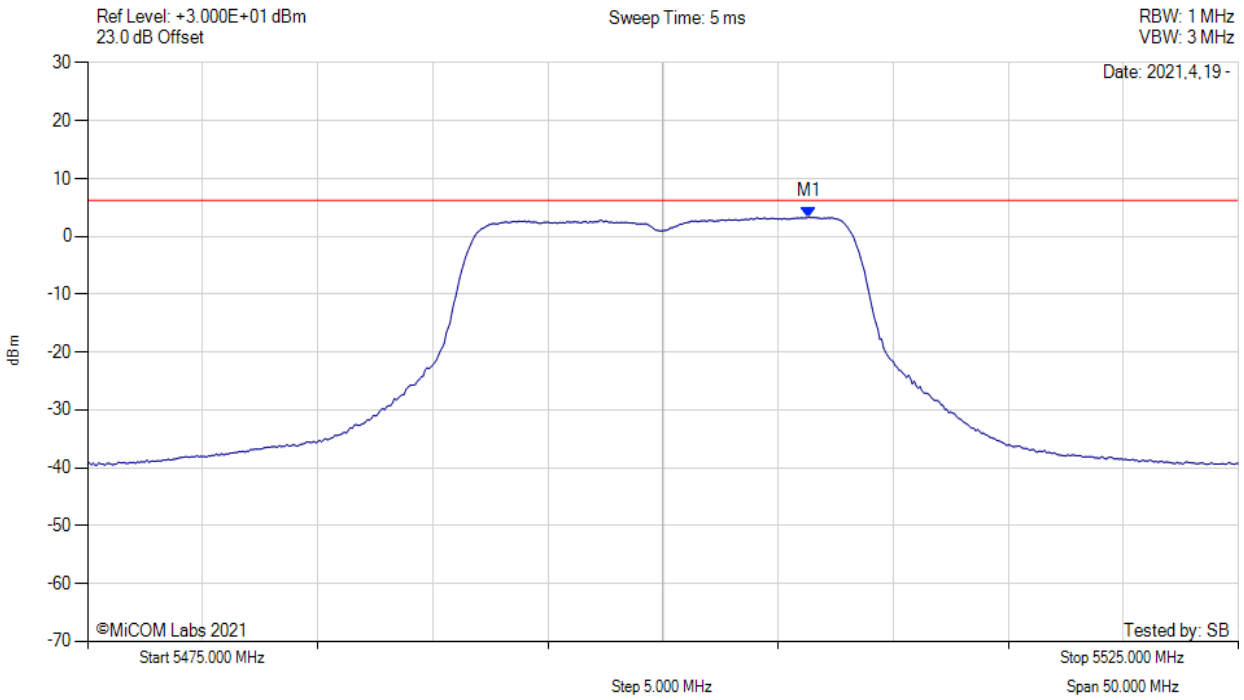


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5298.200 MHz : 4.322 dBm M1 + DCCF : 5298.200 MHz : 4.684 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -6.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

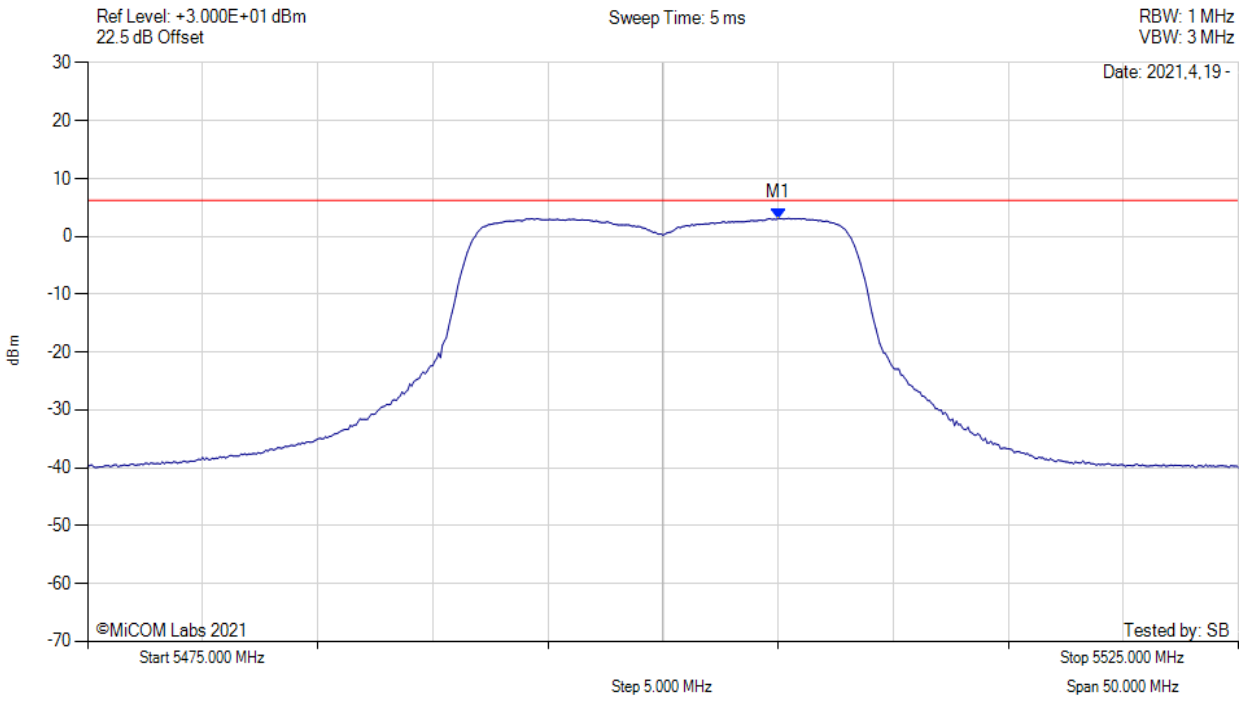


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5506.330 MHz : 3.378 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

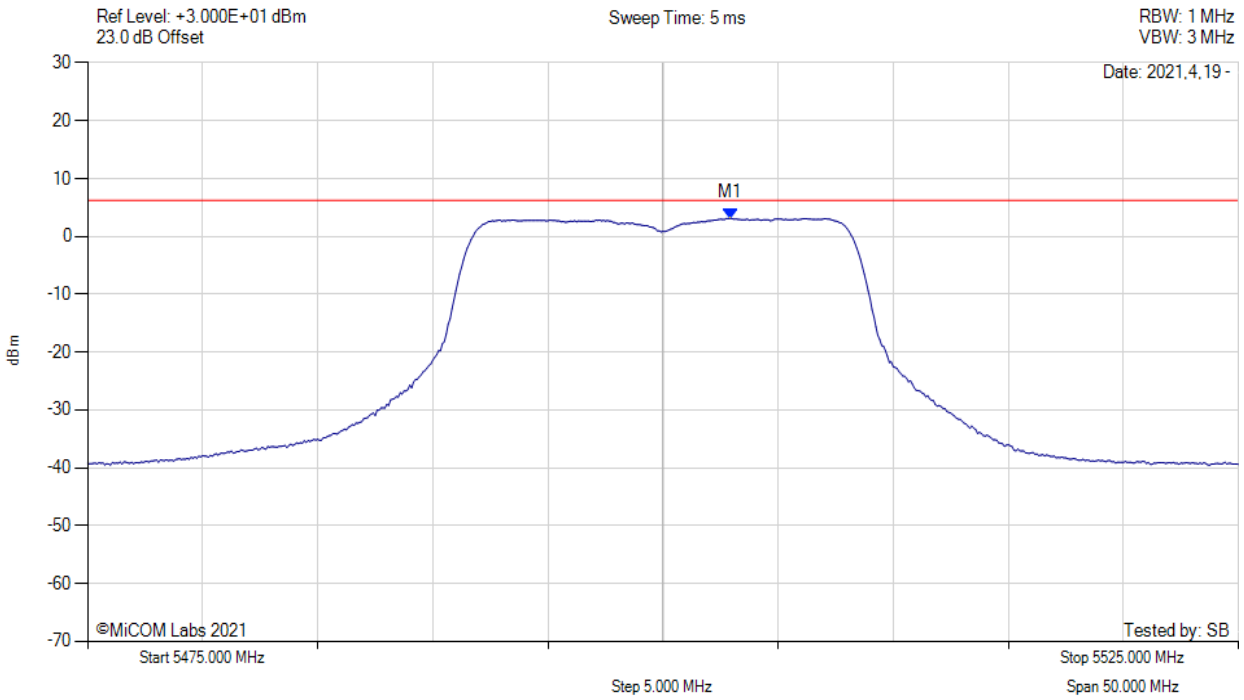


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5505.000 MHz : 3.142 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

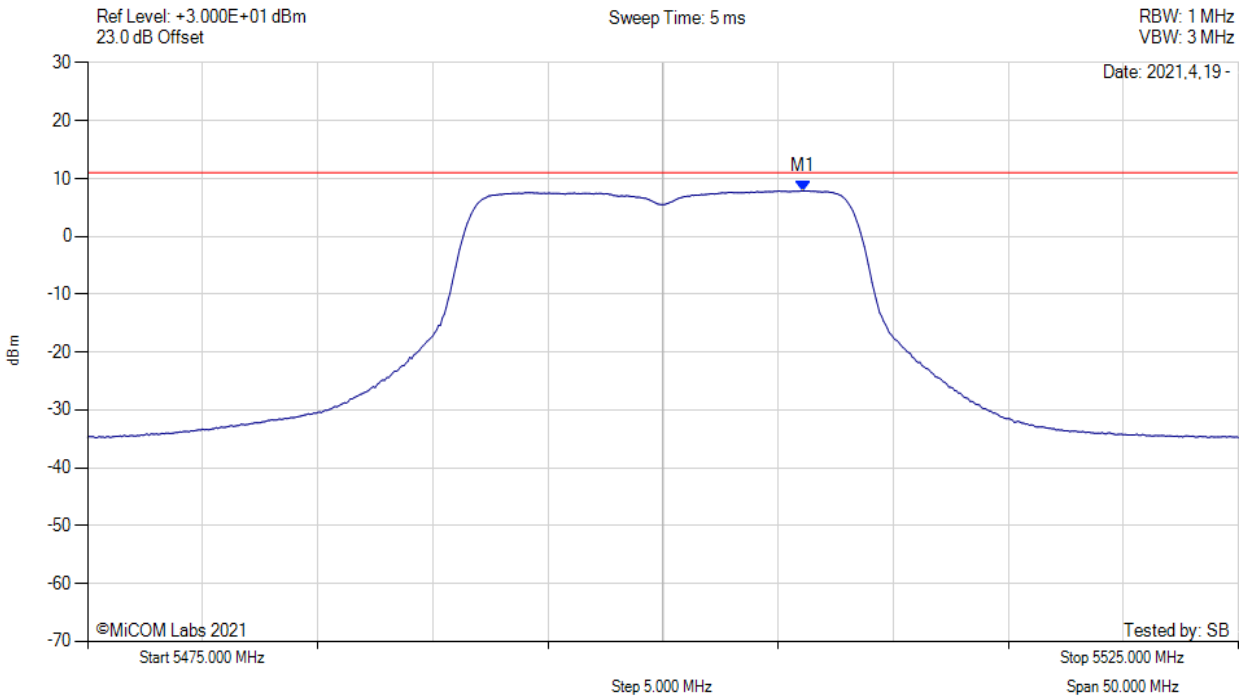


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5502.920 MHz : 3.144 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

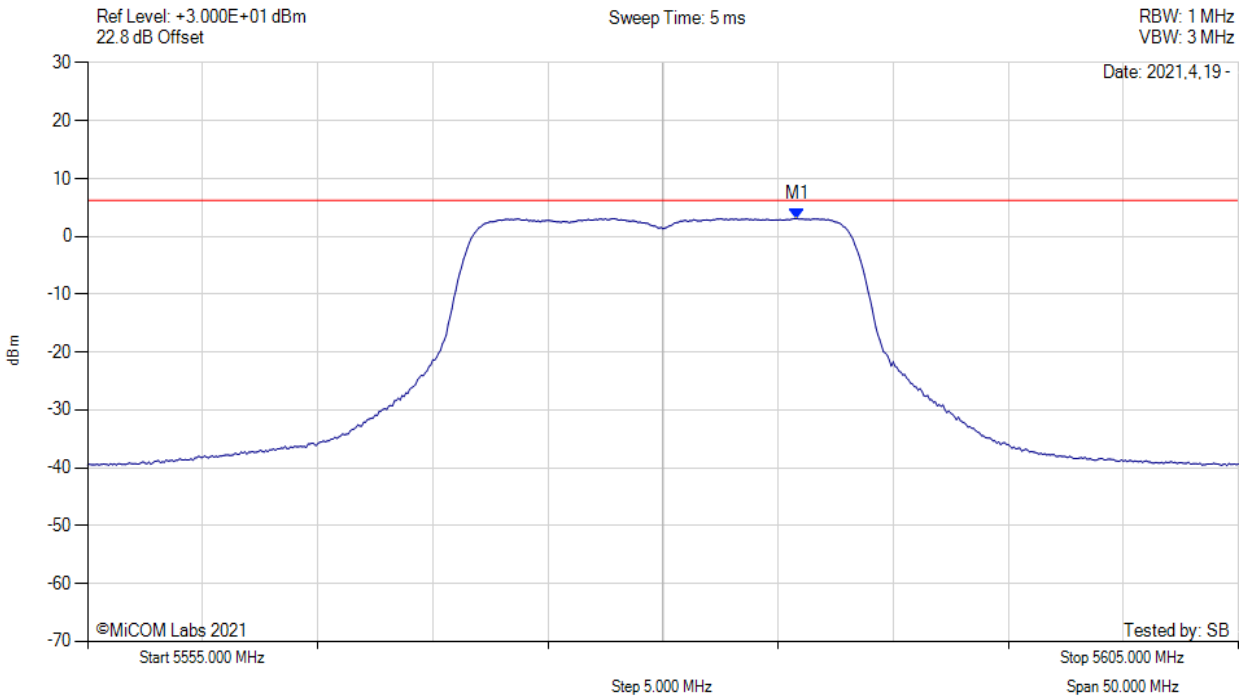


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5506.100 MHz : 7.891 dBm M1 + DCCF : 5506.100 MHz : 8.253 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -2.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

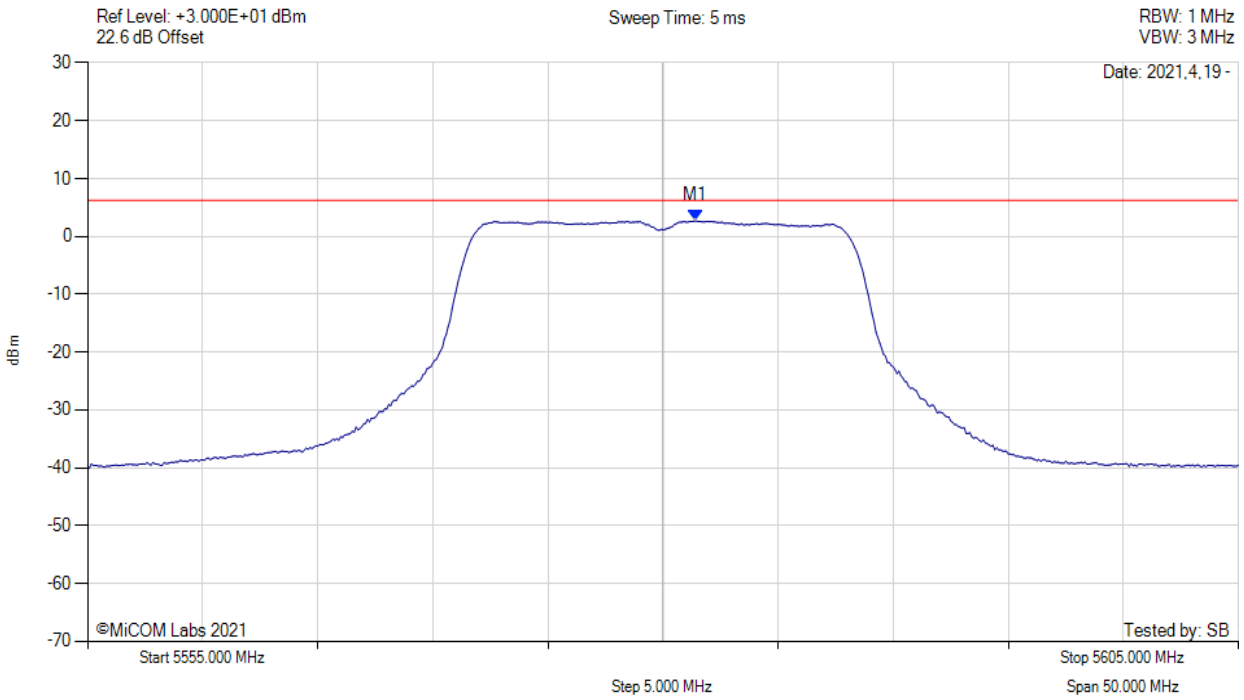


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5585.830 MHz : 3.116 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

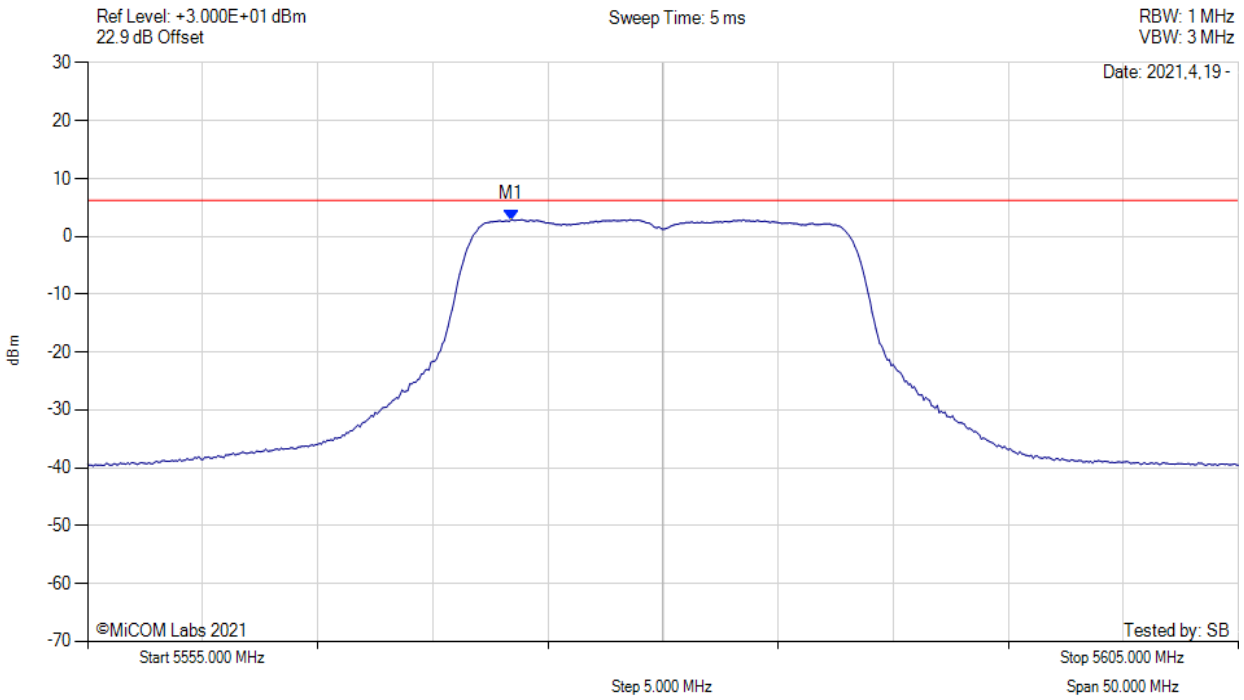


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5581.420 MHz : 2.685 dBm	Channel Frequency: 5580.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

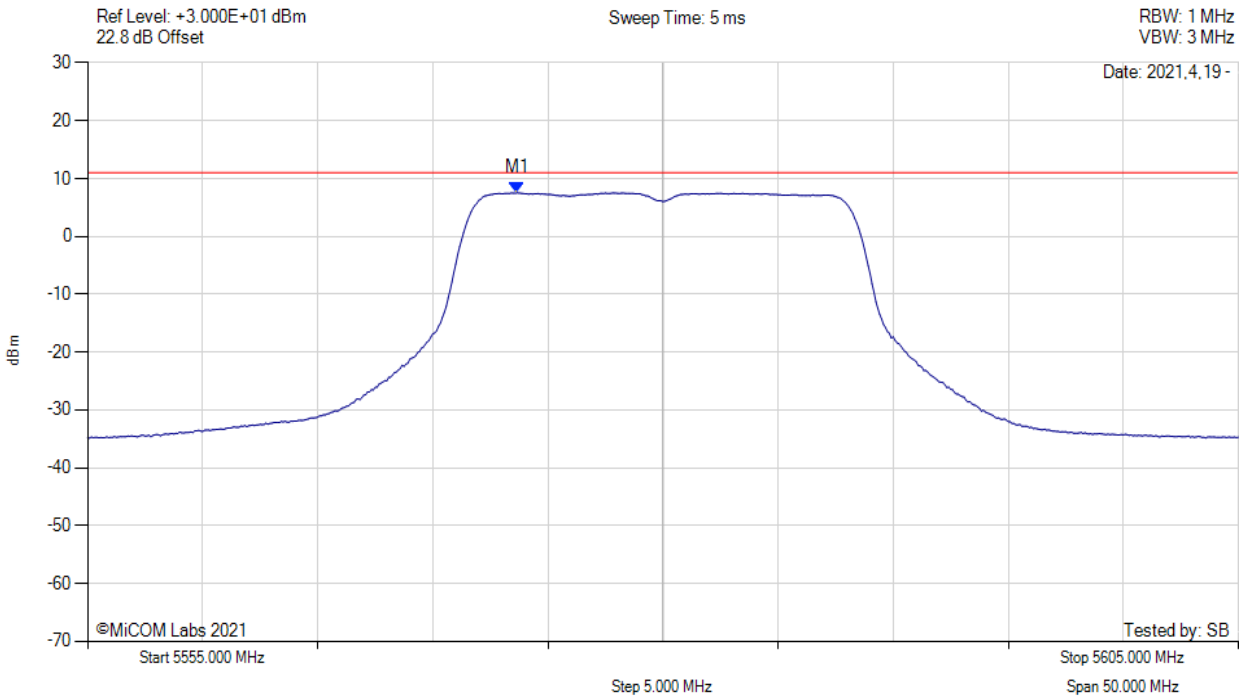


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5573.420 MHz : 2.903 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

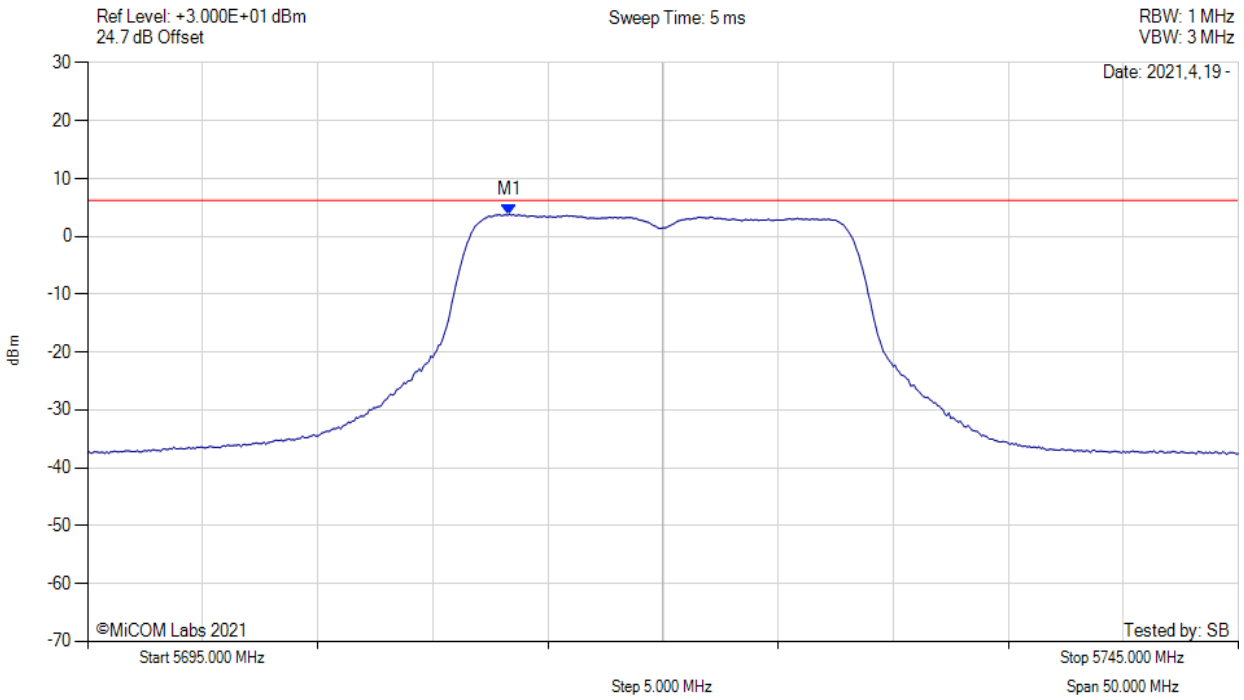


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5573.700 MHz : 7.545 dBm M1 + DCCF : 5573.700 MHz : 7.589 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -3.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5720.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

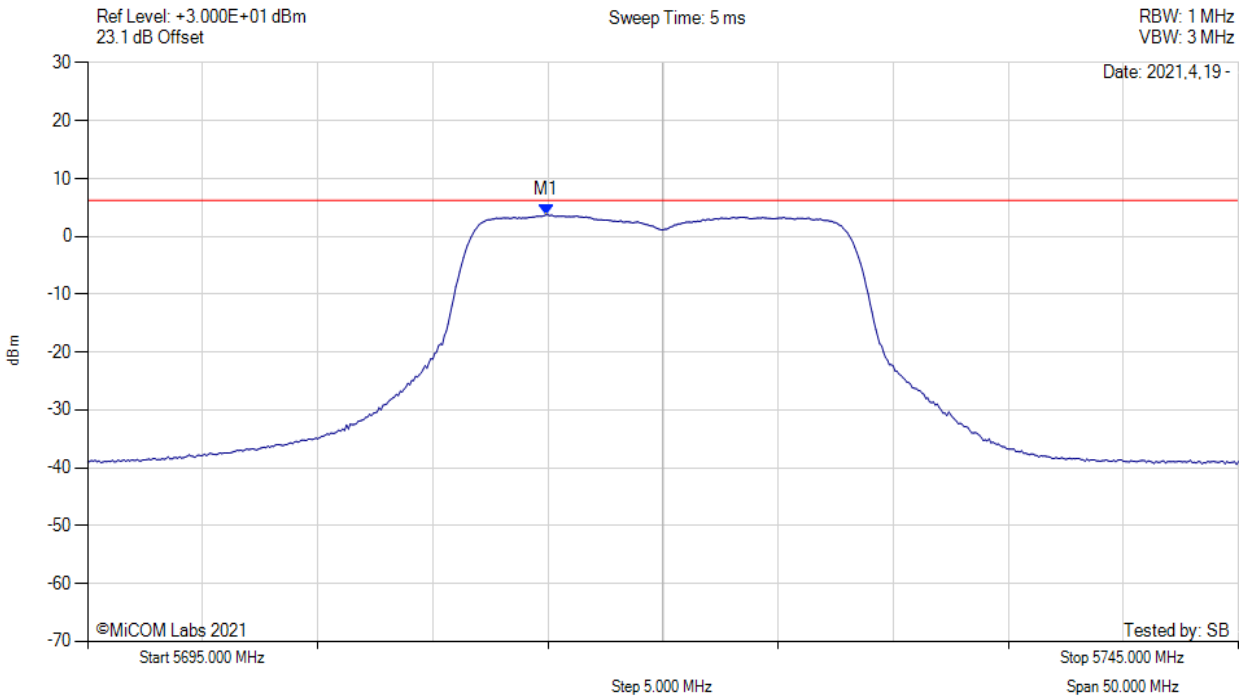


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5713.330 MHz : 3.819 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5720.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

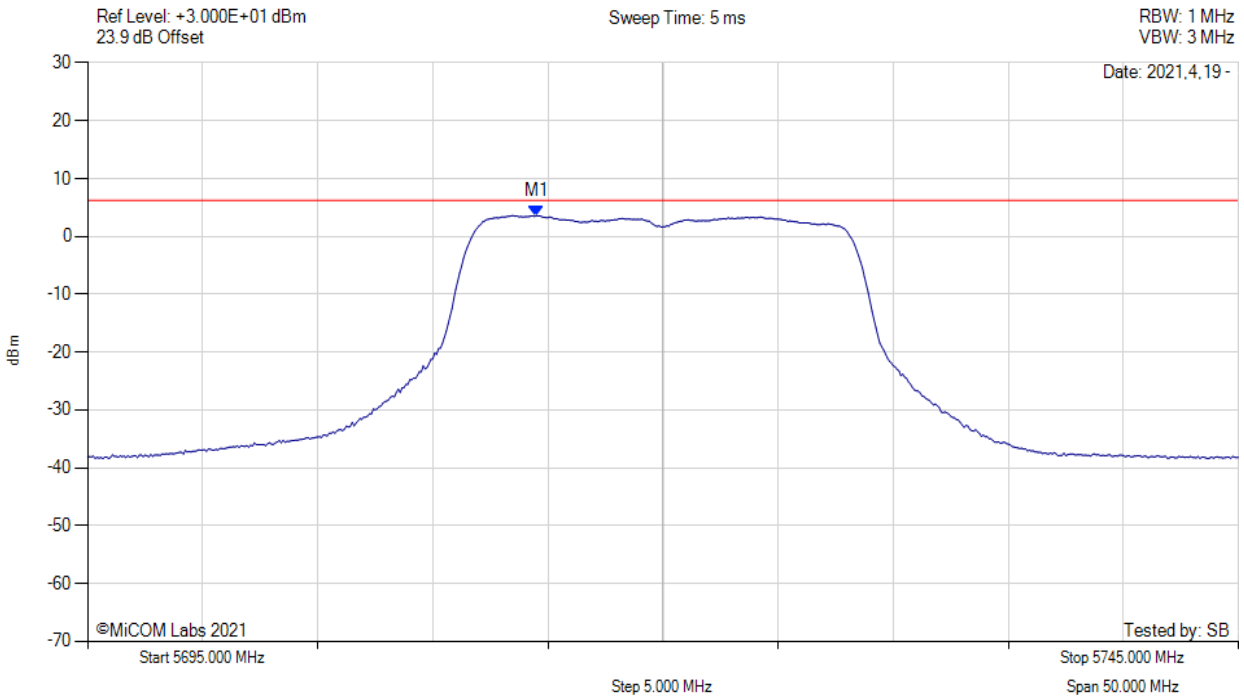


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5714.920 MHz : 3.726 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5720.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

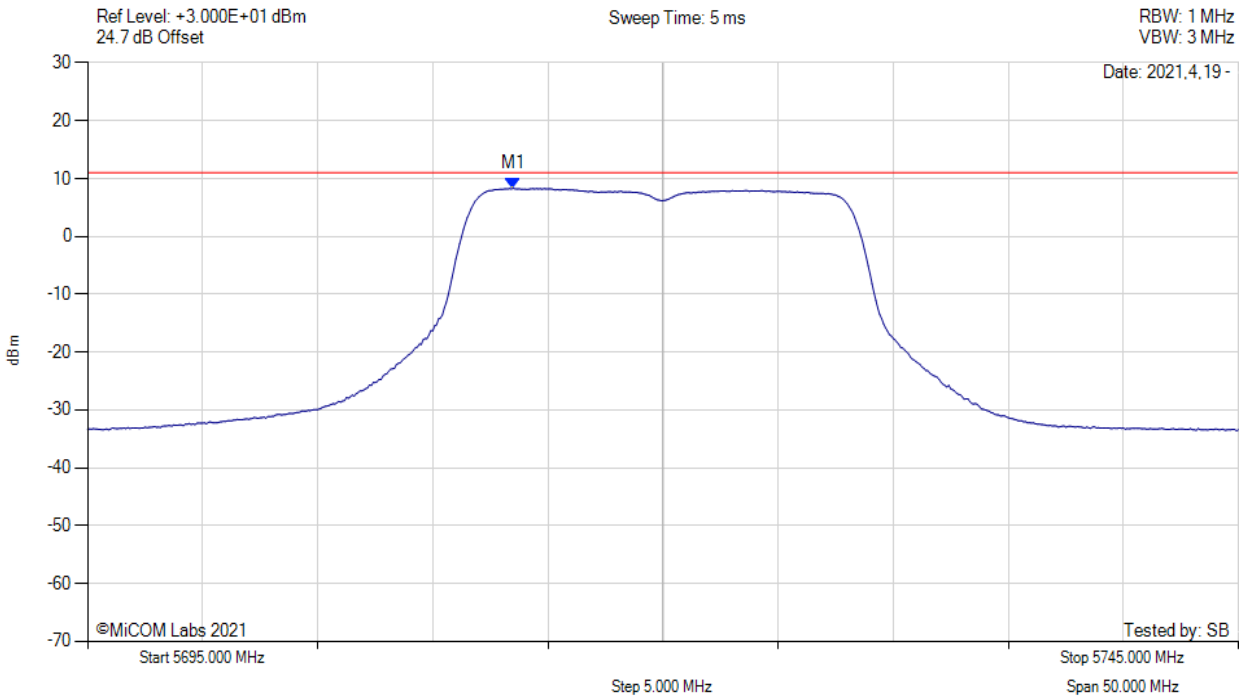


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5714.500 MHz : 3.588 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11a, Channel: 5720.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

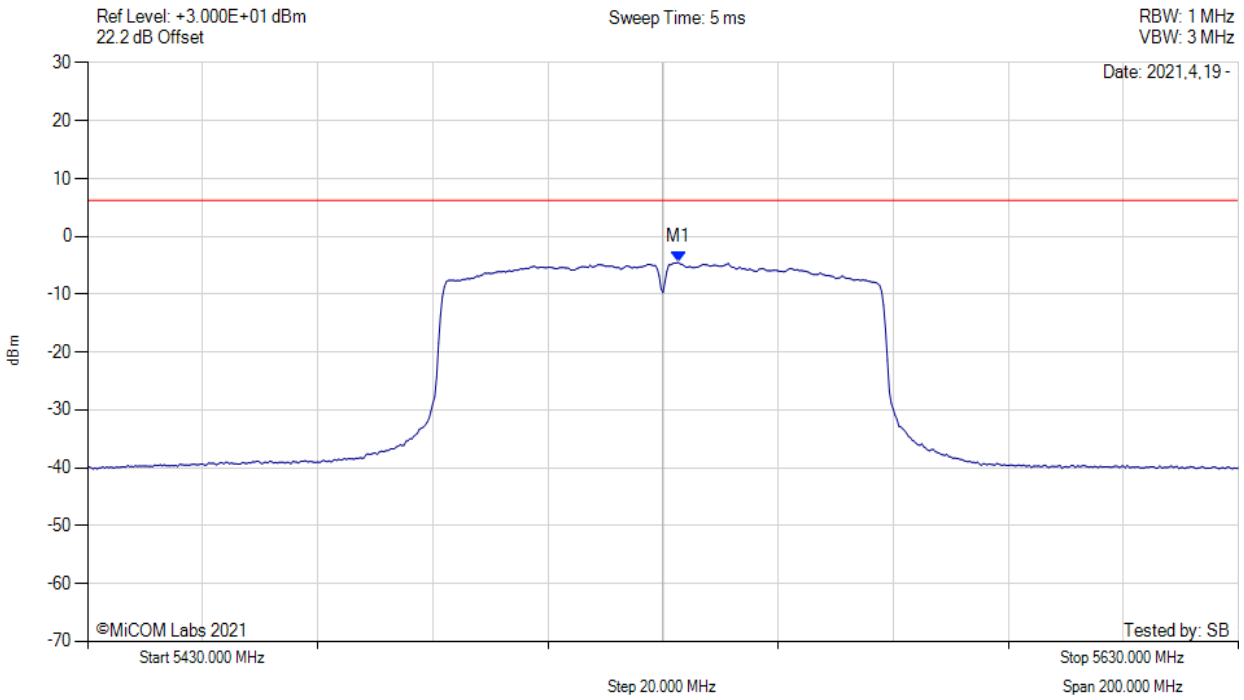


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5713.500 MHz : 8.328 dBm M1 + DCCF : 5713.500 MHz : 8.372 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -2.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

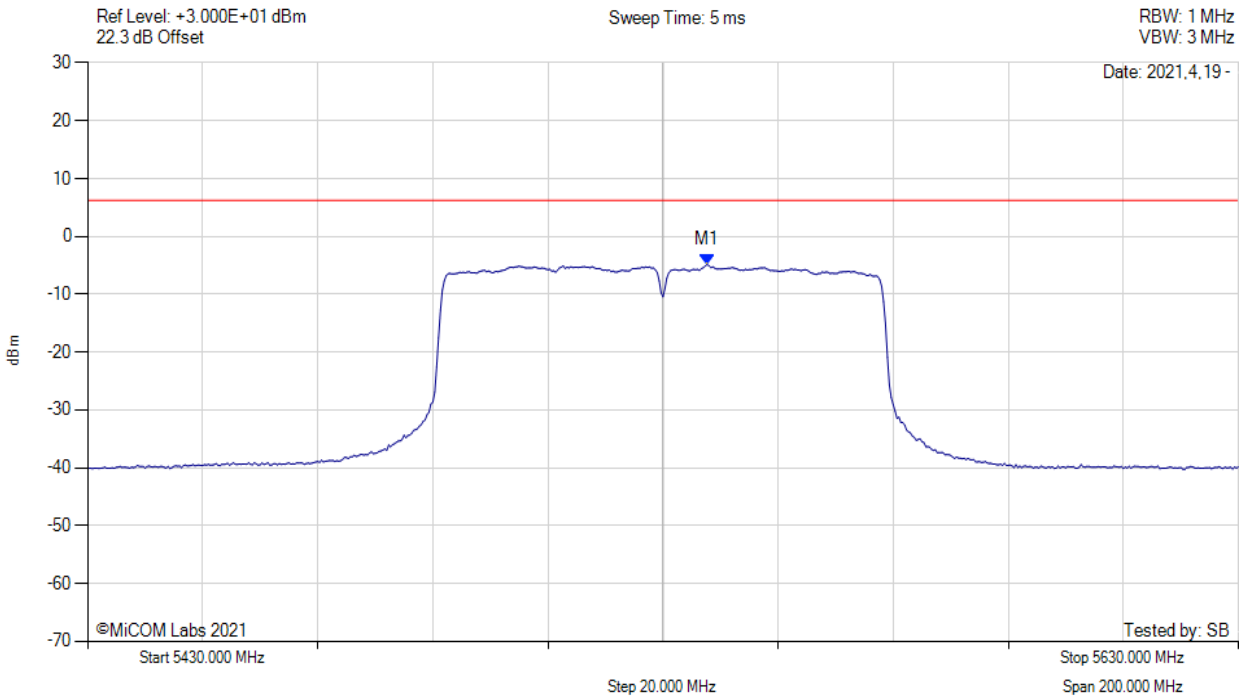


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5532.700 MHz : -4.477 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

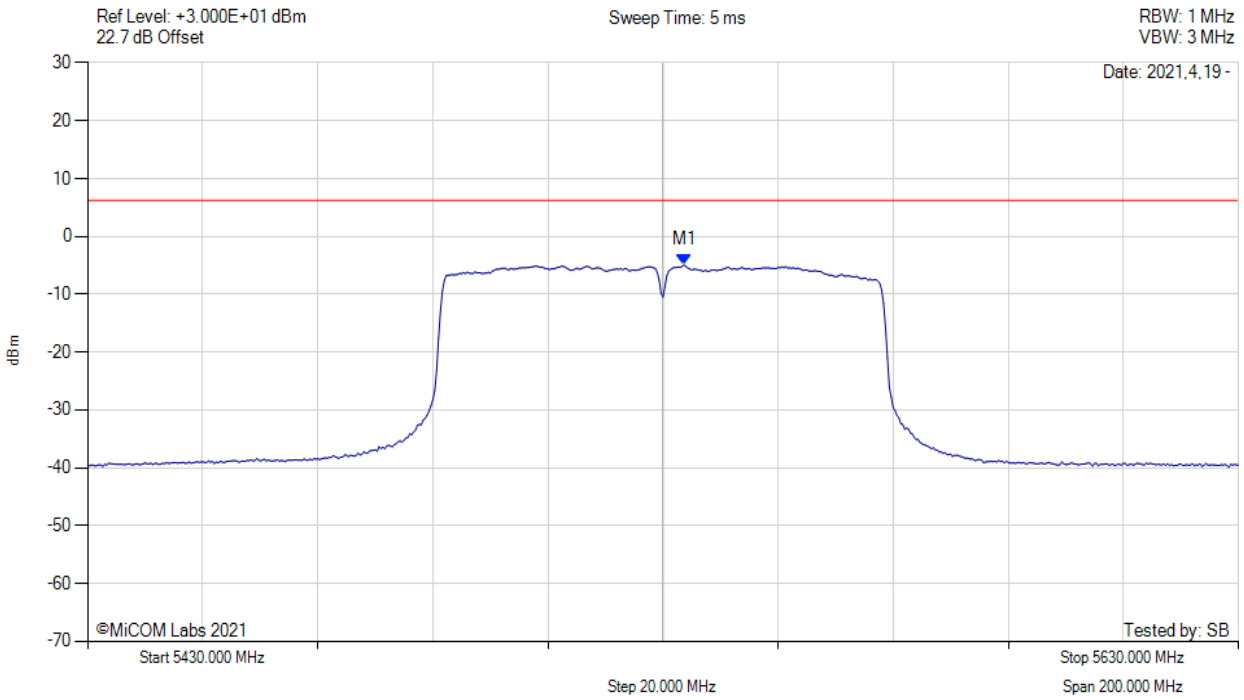


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5537.700 MHz : -4.852 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5530.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

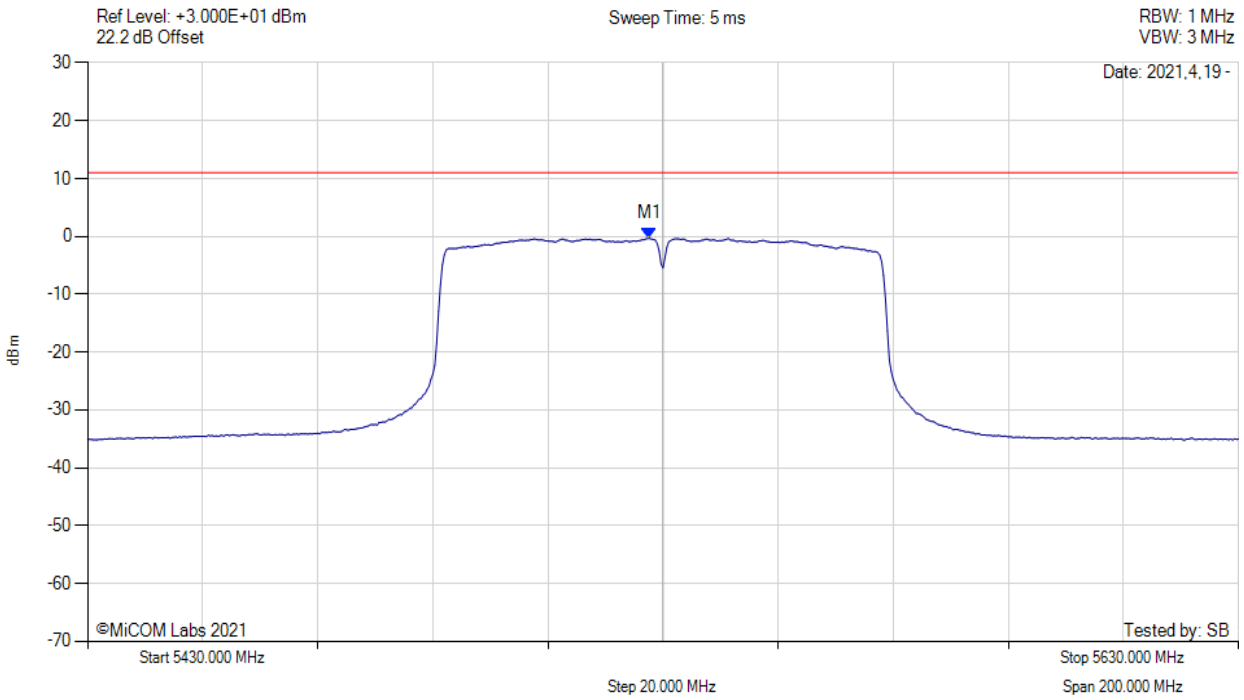


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5533.700 MHz : -4.922 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5530.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

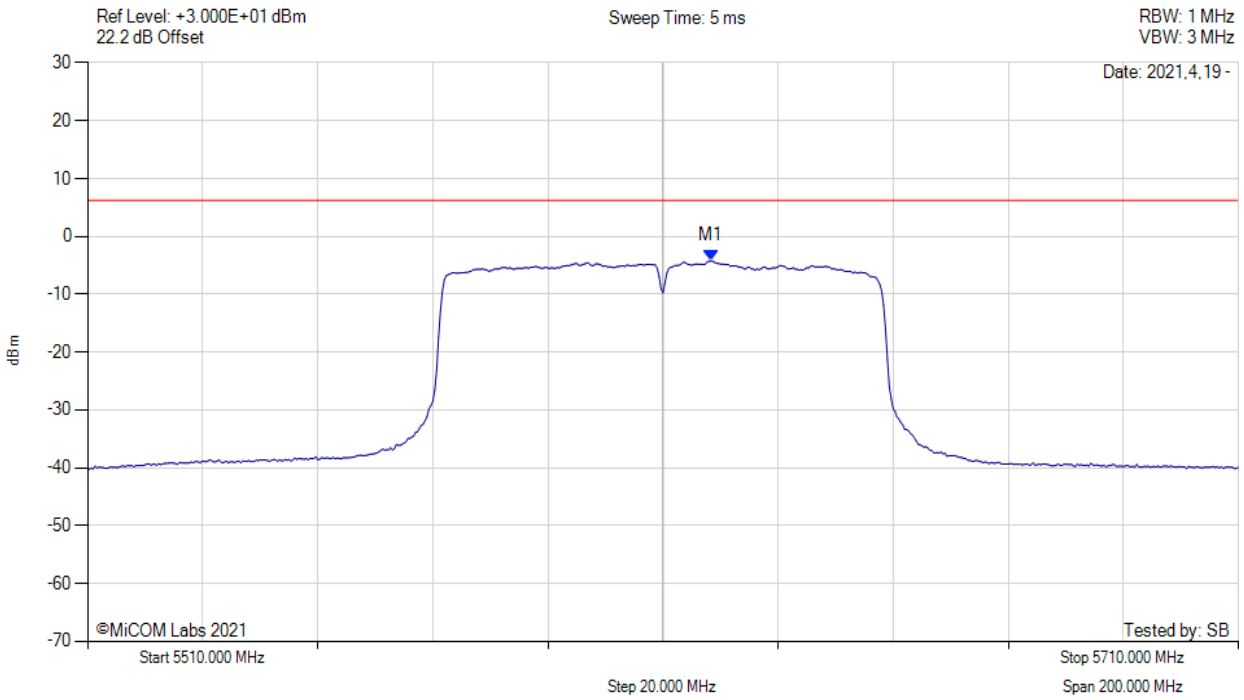


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5527.700 MHz : -0.334 dBm M1 + DCCF : 5527.700 MHz : 0.528 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 11.0 dBm Margin: -10.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

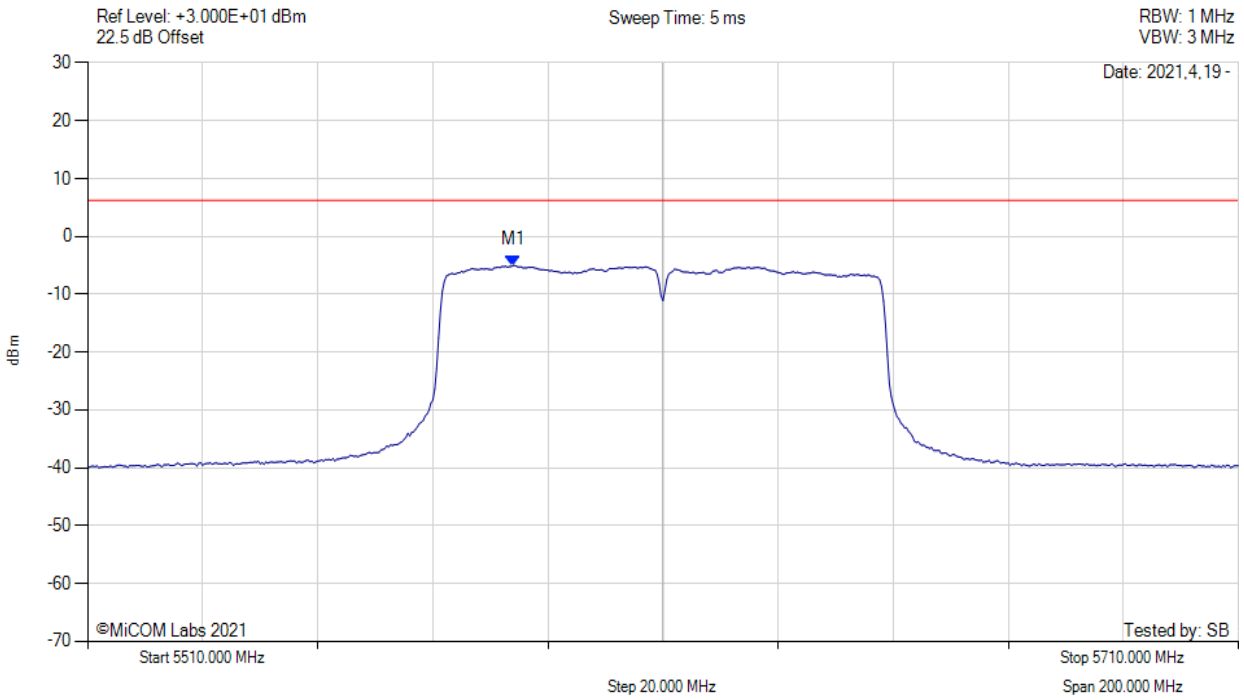


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5618.300 MHz : -4.236 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

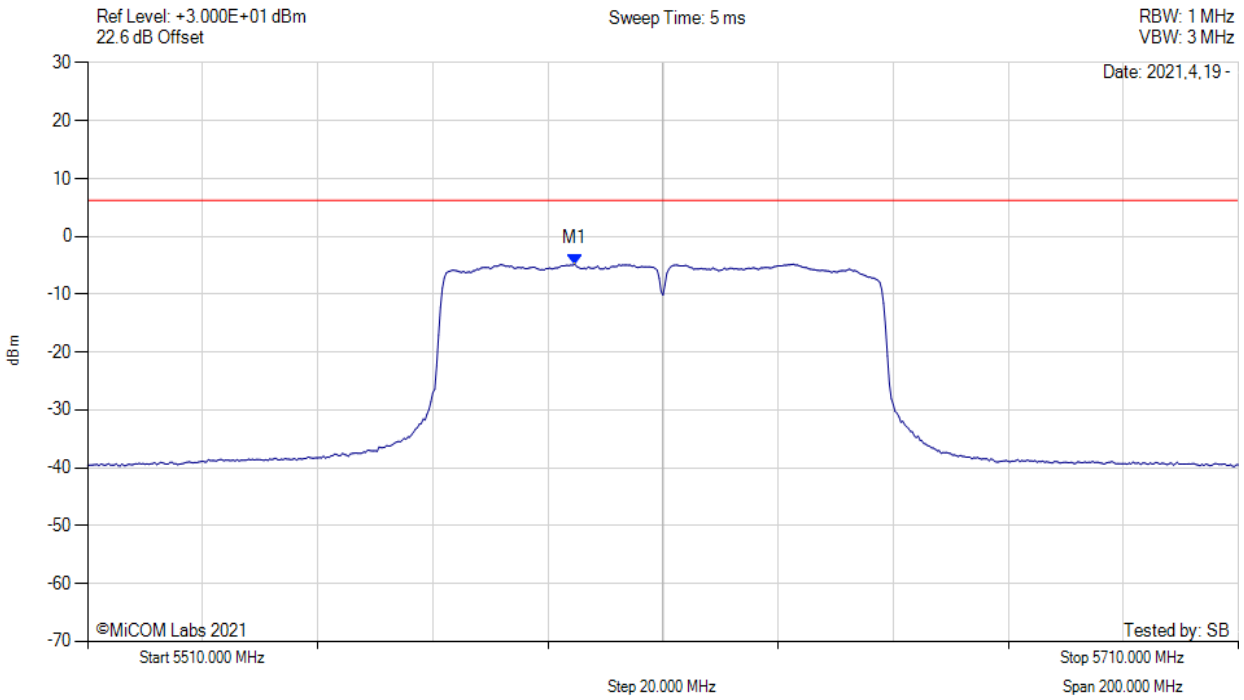


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5584.000 MHz : -5.023 dBm	Channel Frequency: 5610.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5610.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

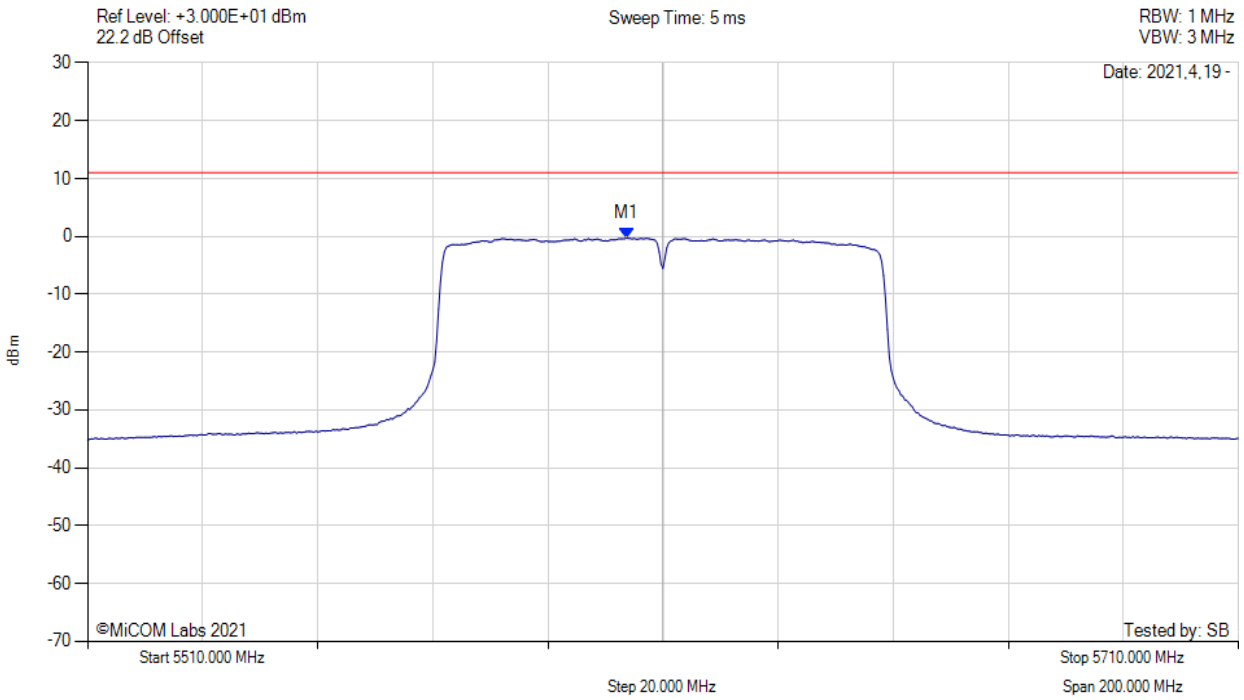


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5594.700 MHz : -4.760 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5610.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

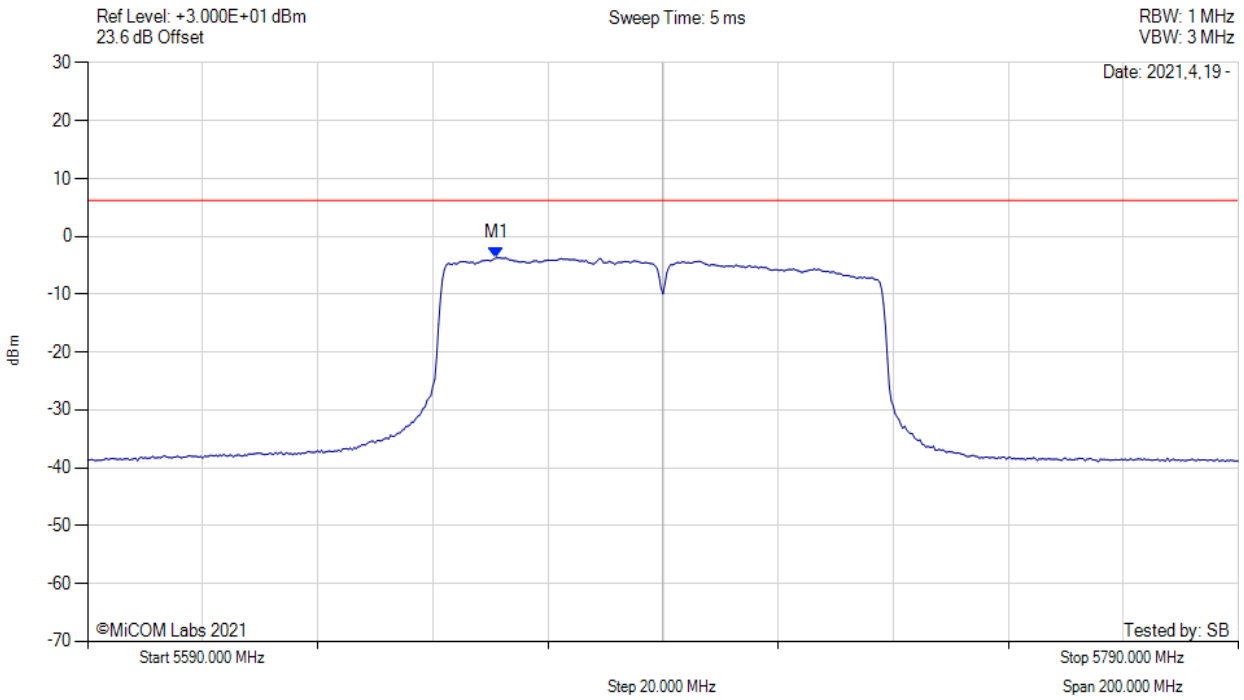


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5603.700 MHz : -0.296 dBm M1 + DCCF : 5603.700 MHz : 0.566 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 11.0 dBm Margin: -10.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

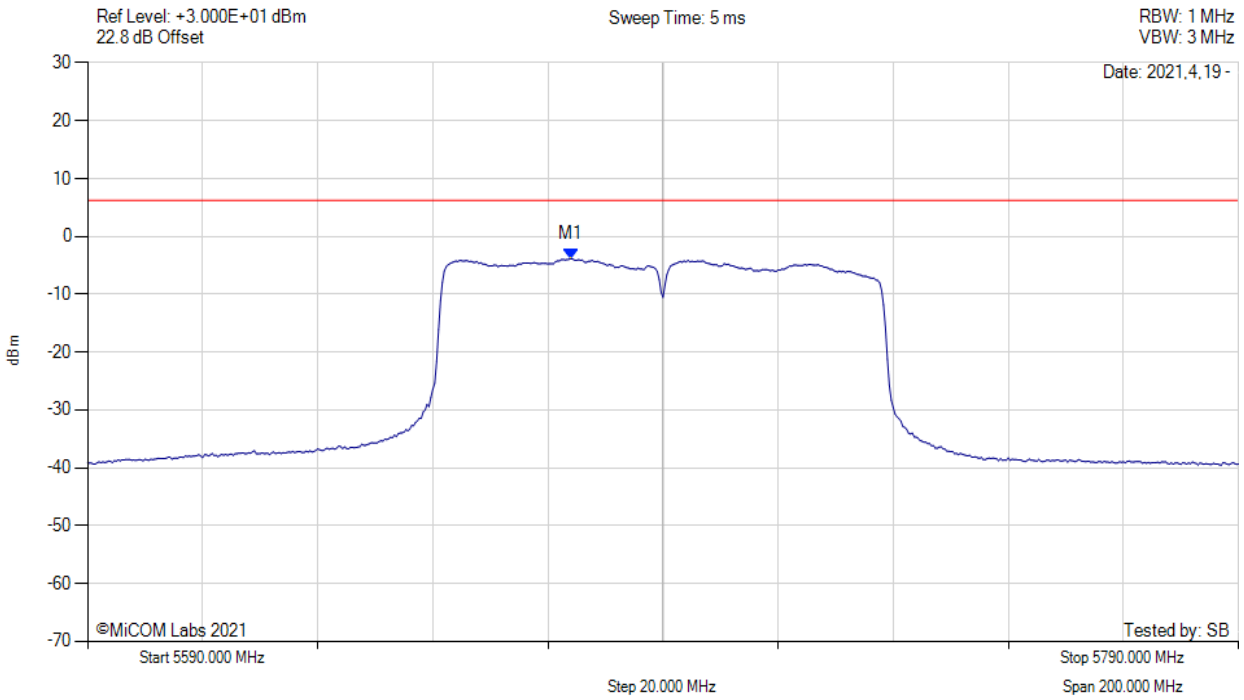


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5661.000 MHz : -3.699 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

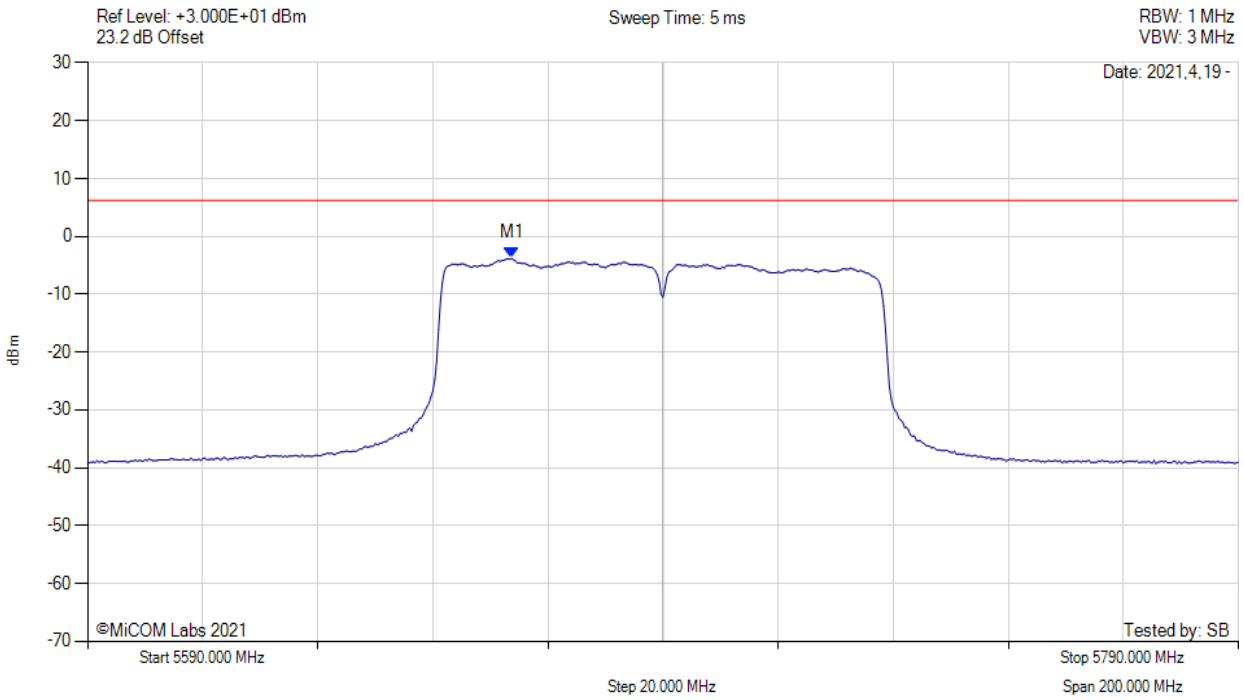


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5674.000 MHz : -3.833 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5690.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

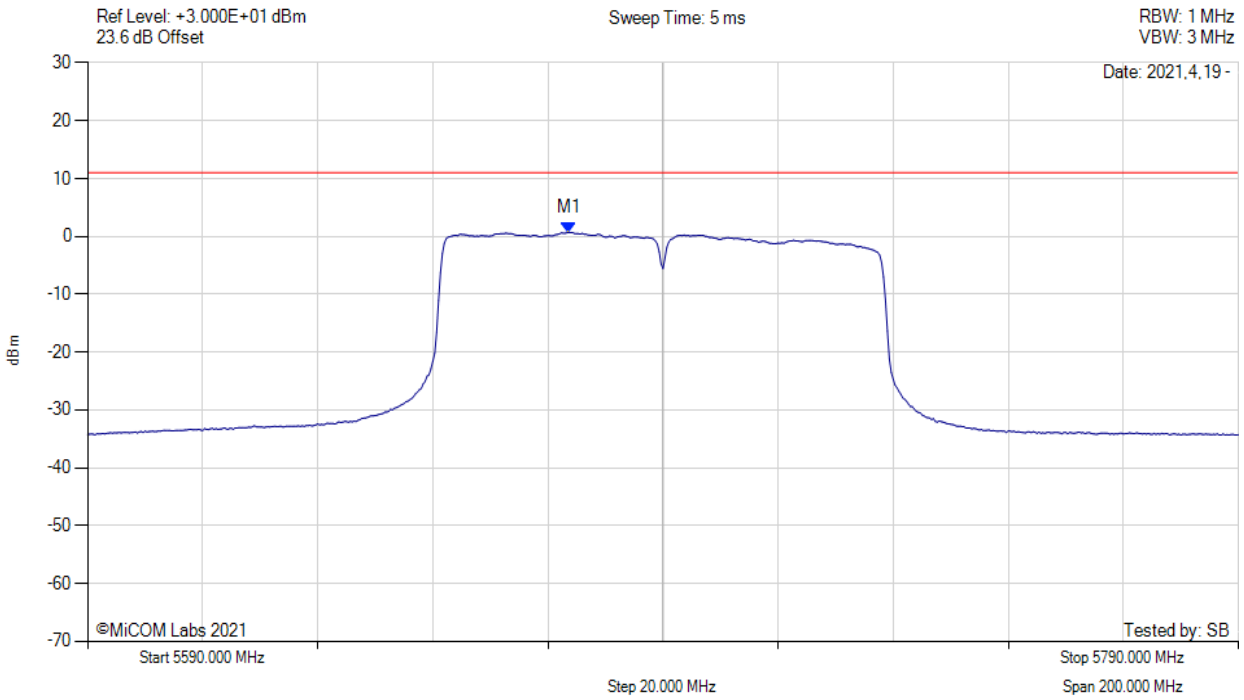


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5663.700 MHz : -3.795 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11ac-80, Channel: 5690.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

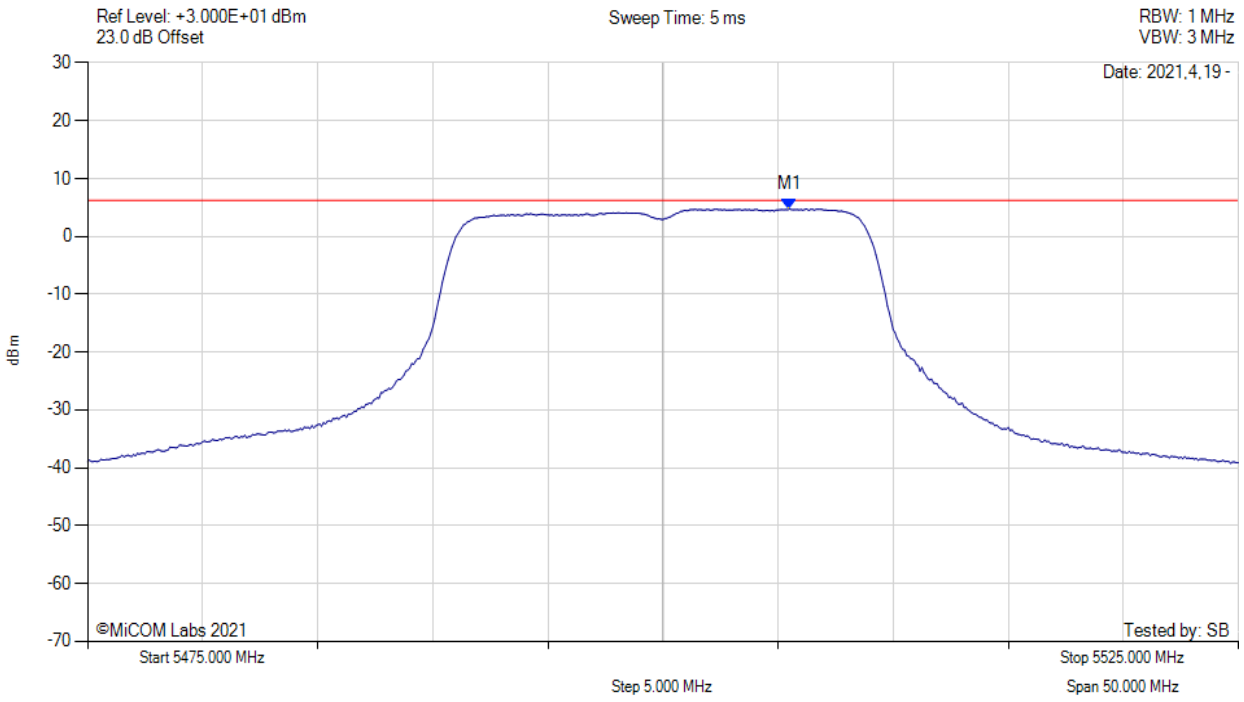


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5673.700 MHz : 0.656 dBm M1 + DCCF : 5673.700 MHz : 1.518 dBm Duty Cycle Correction Factor : +0.86 dB	Limit: ≤ 11.0 dBm Margin: -9.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

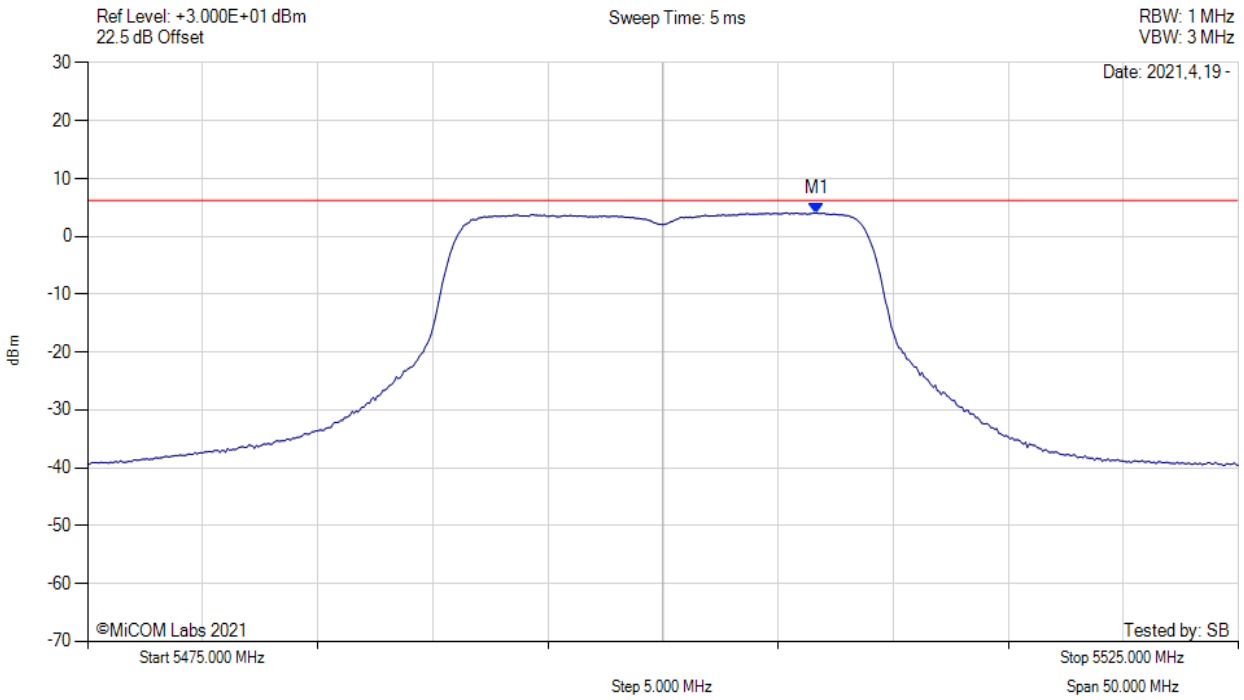


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5505.500 MHz : 4.736 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

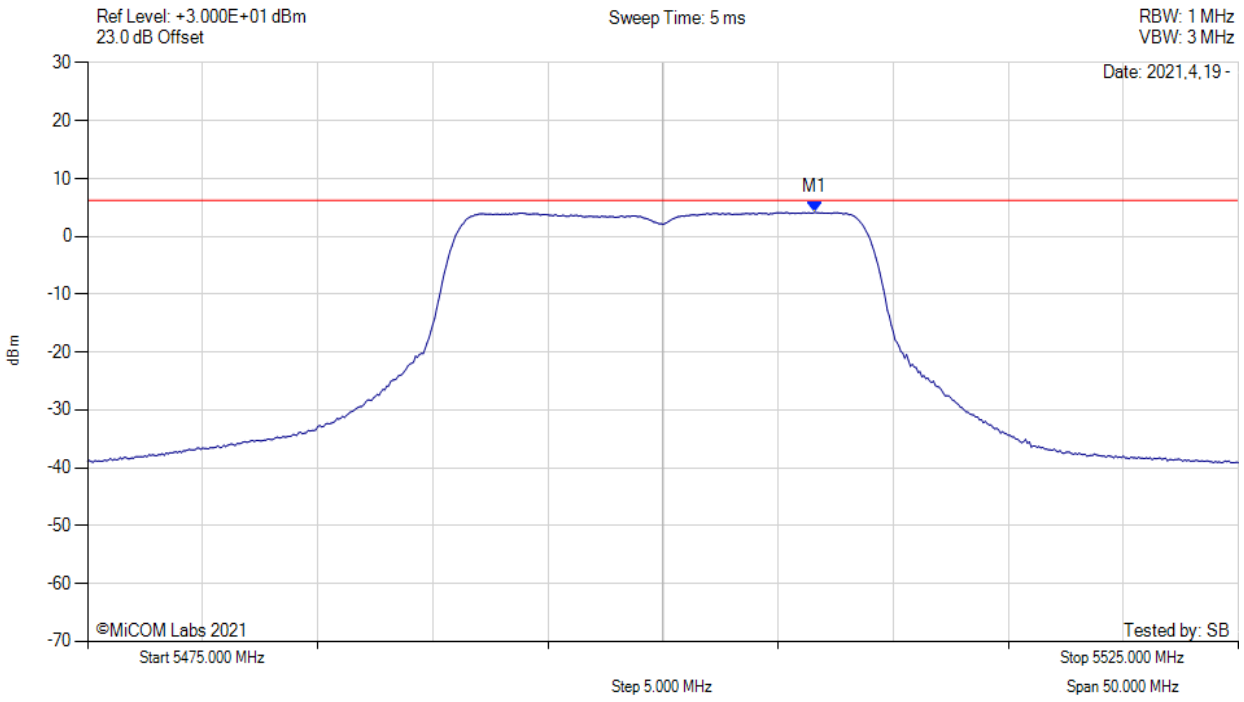


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5506.670 MHz : 4.056 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

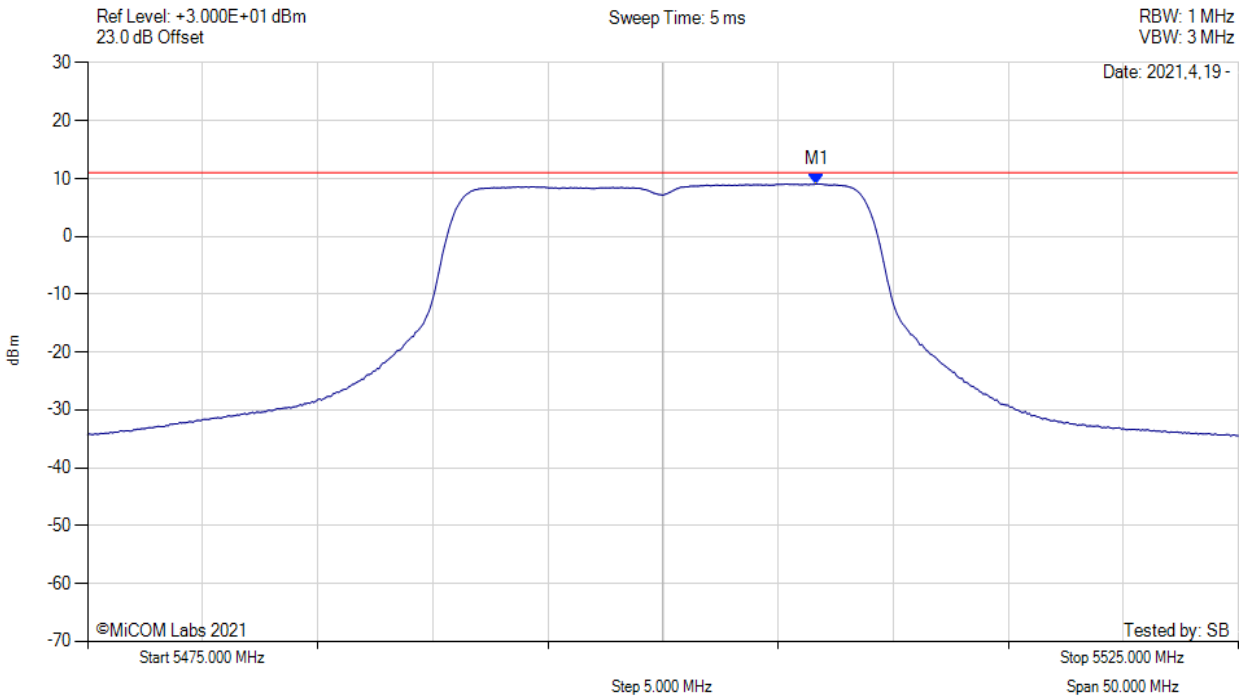


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5506.580 MHz : 4.173 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5500.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

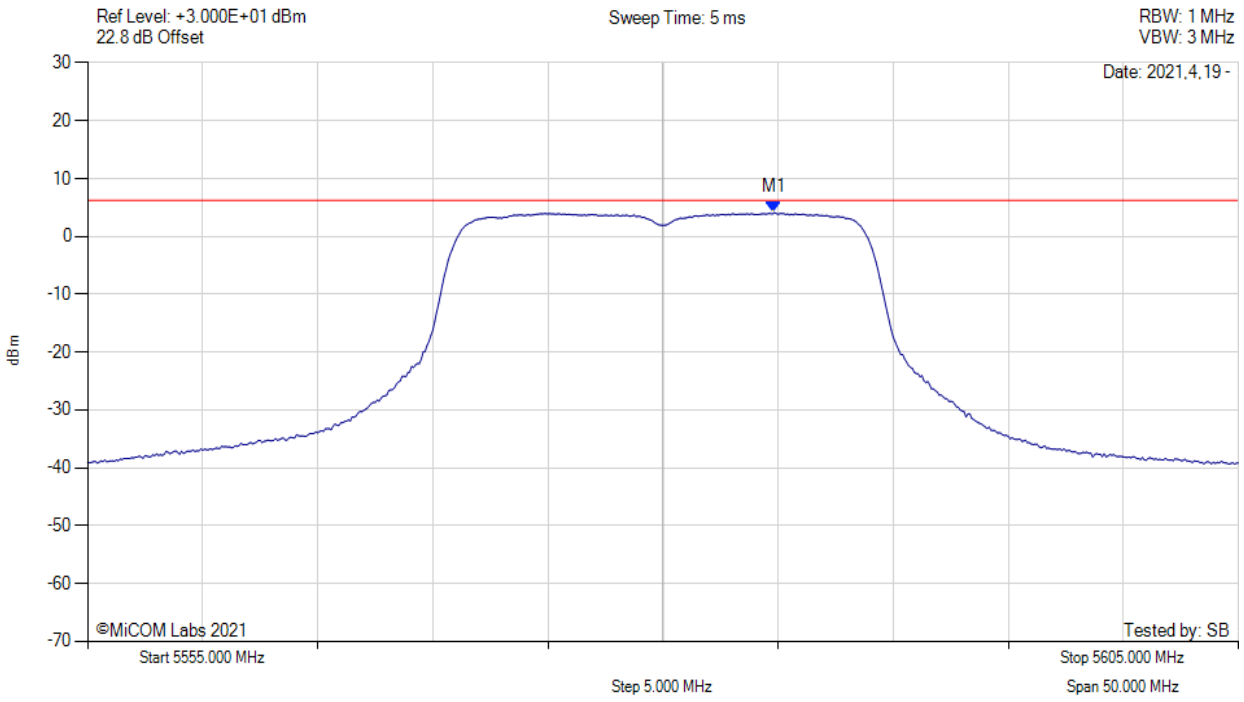


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5506.700 MHz : 9.075 dBm M1 + DCCF : 5506.700 MHz : 9.119 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -1.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

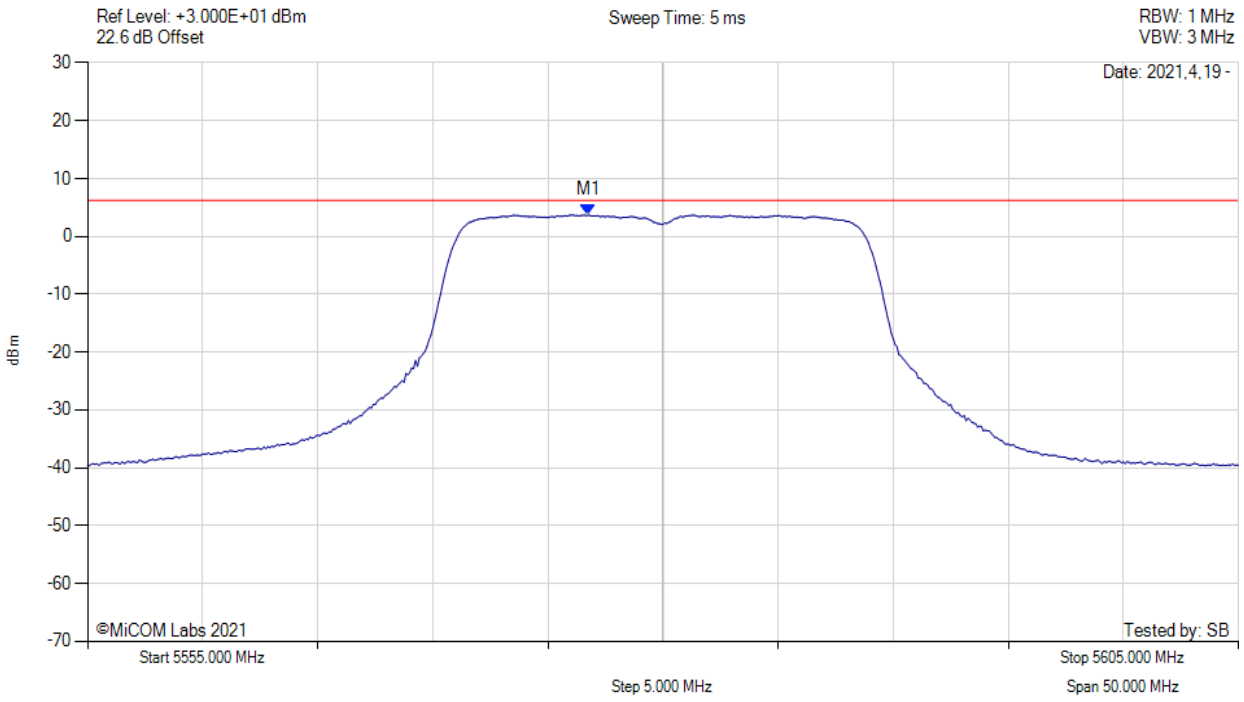


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5584.830 MHz : 4.121 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

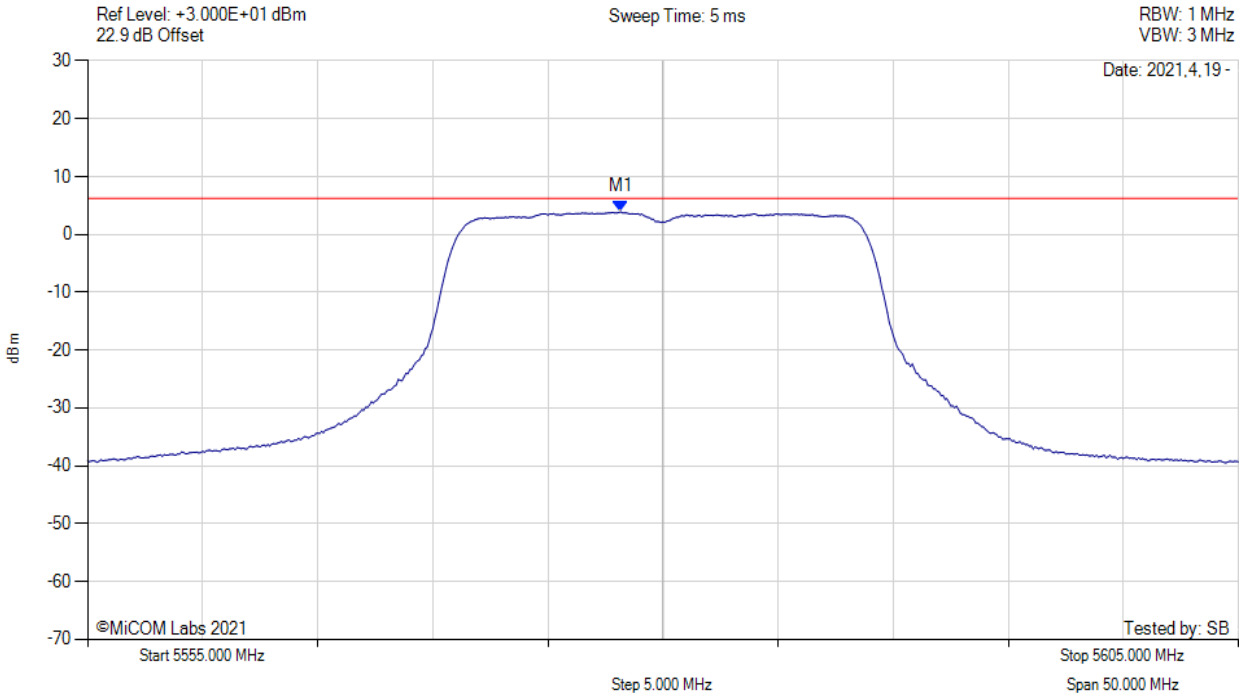


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5576.750 MHz : 3.715 dBm	Channel Frequency: 5580.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

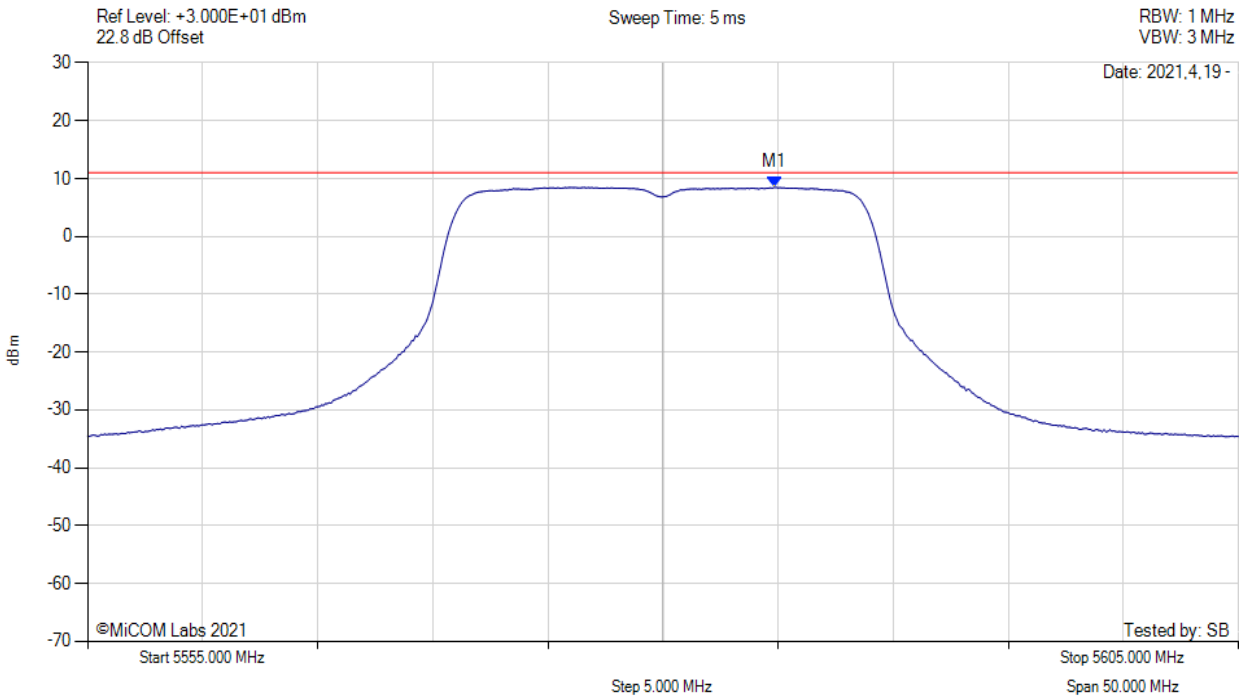


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5578.170 MHz : 3.897 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5580.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

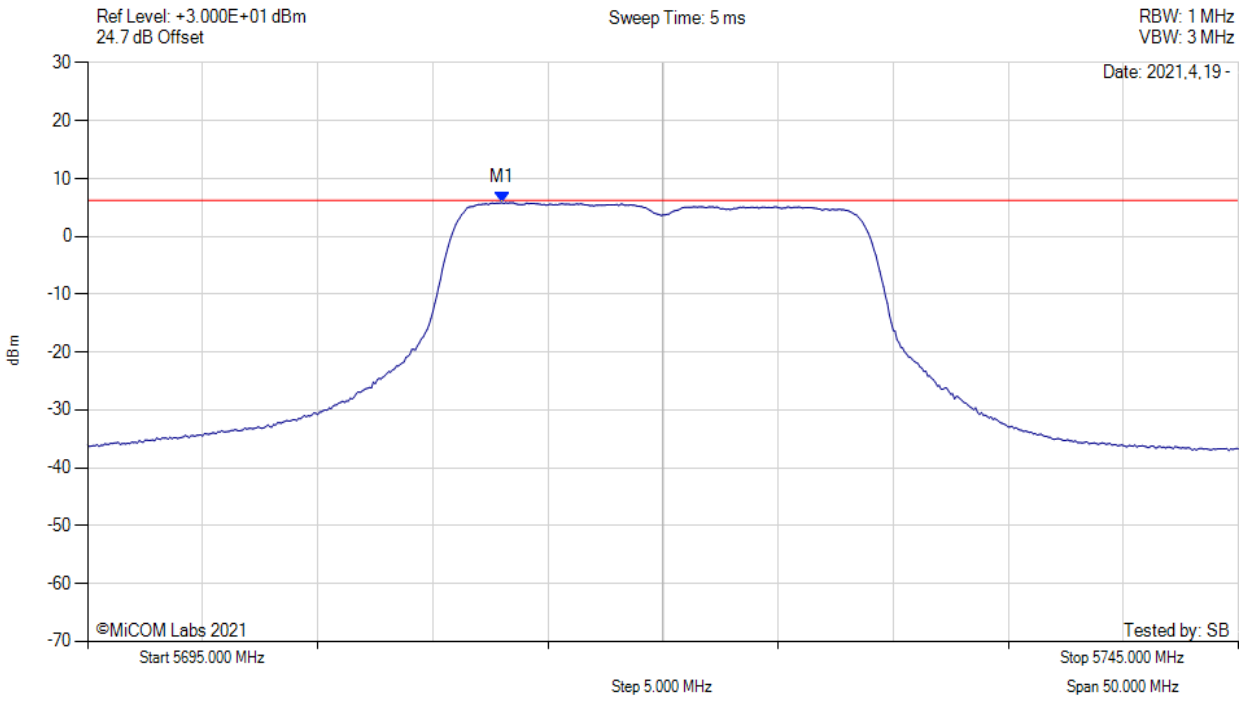


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5584.800 MHz : 8.485 dBm M1 + DCCF : 5584.800 MHz : 8.529 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -2.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

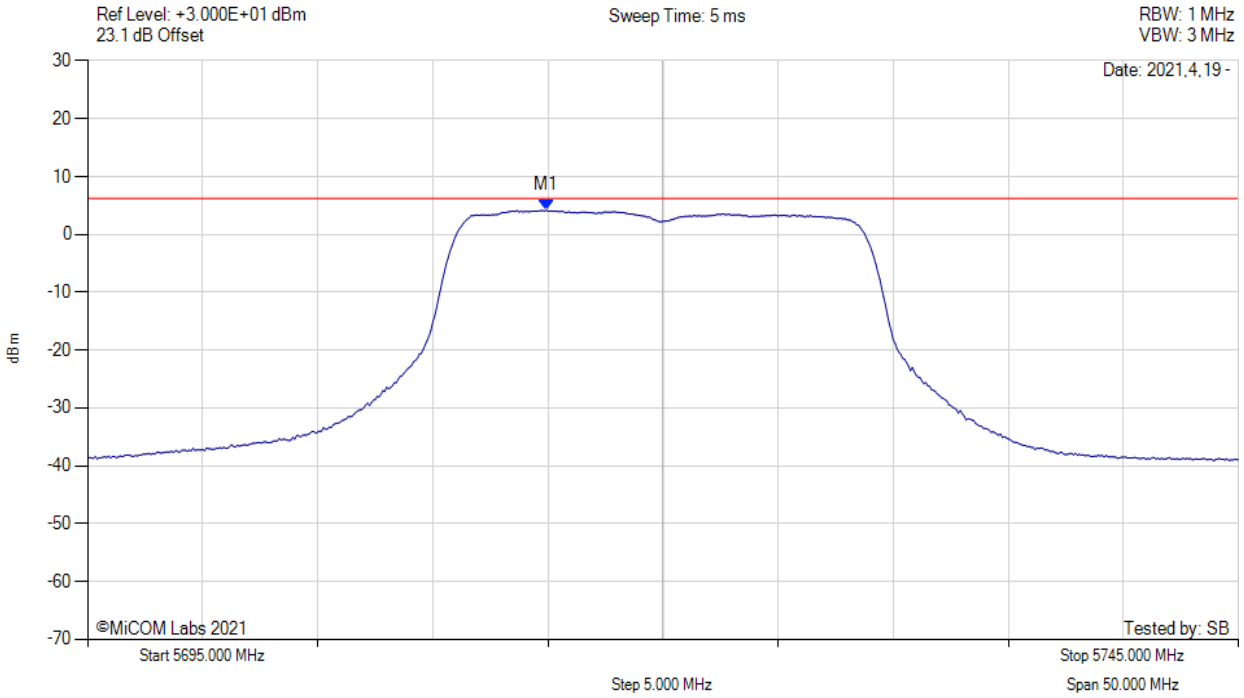


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5713.000 MHz : 5.838 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

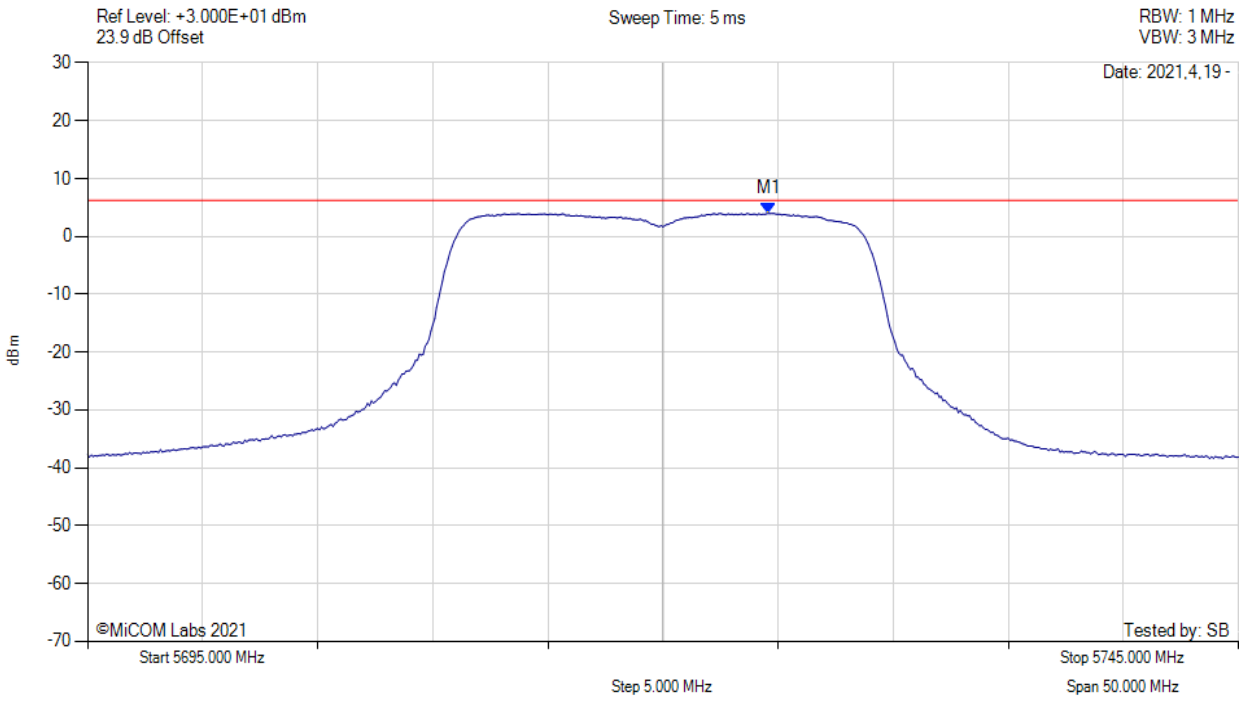


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5714.920 MHz : 4.195 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5720.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

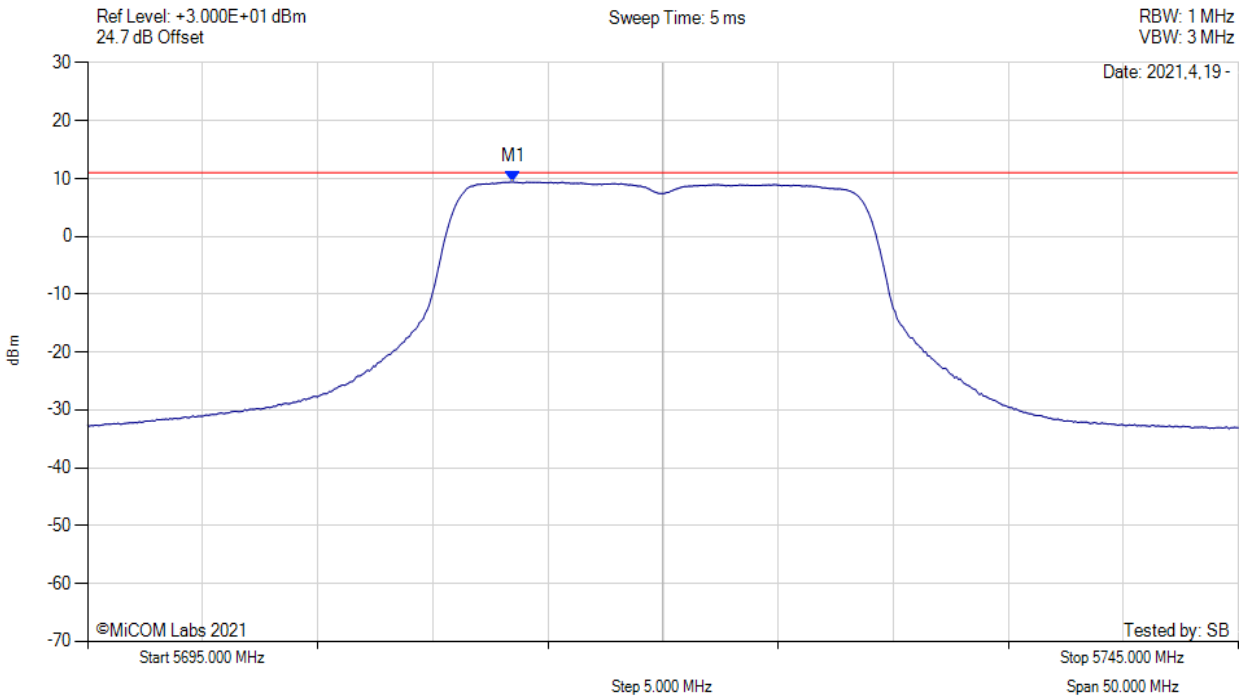


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5724.580 MHz : 3.979 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-20, Channel: 5720.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

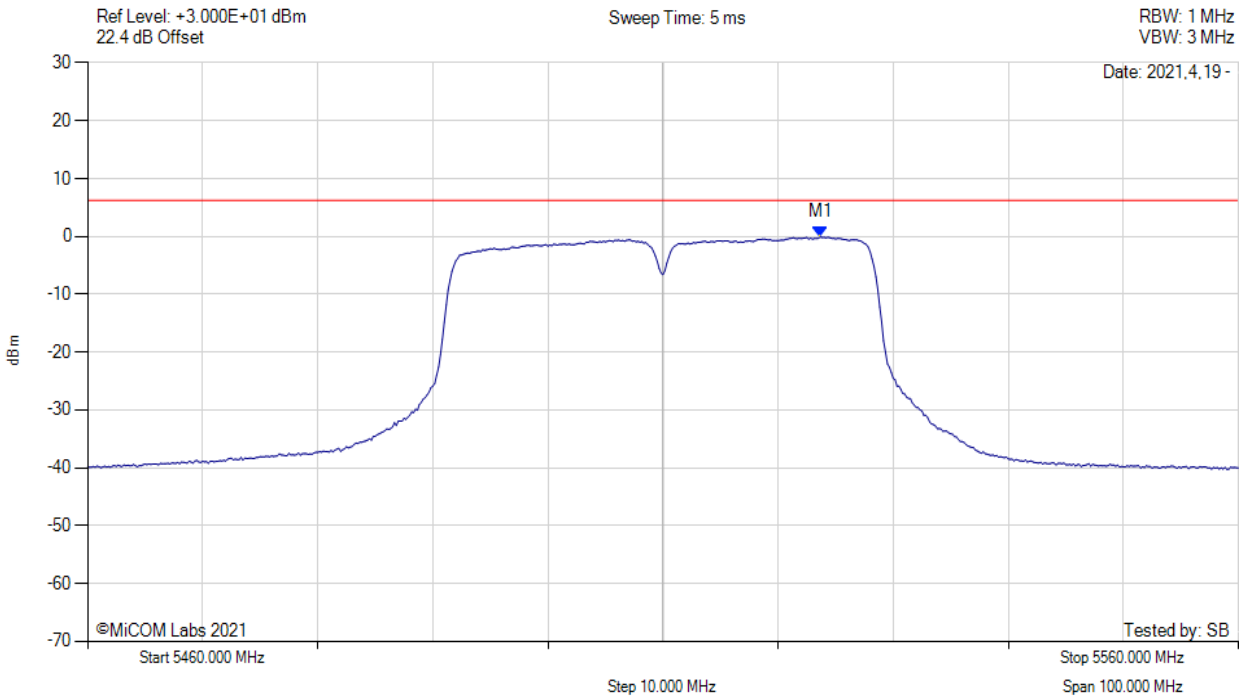


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5713.500 MHz : 9.425 dBm M1 + DCCF : 5713.500 MHz : 9.469 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 11.0 dBm Margin: -1.5 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

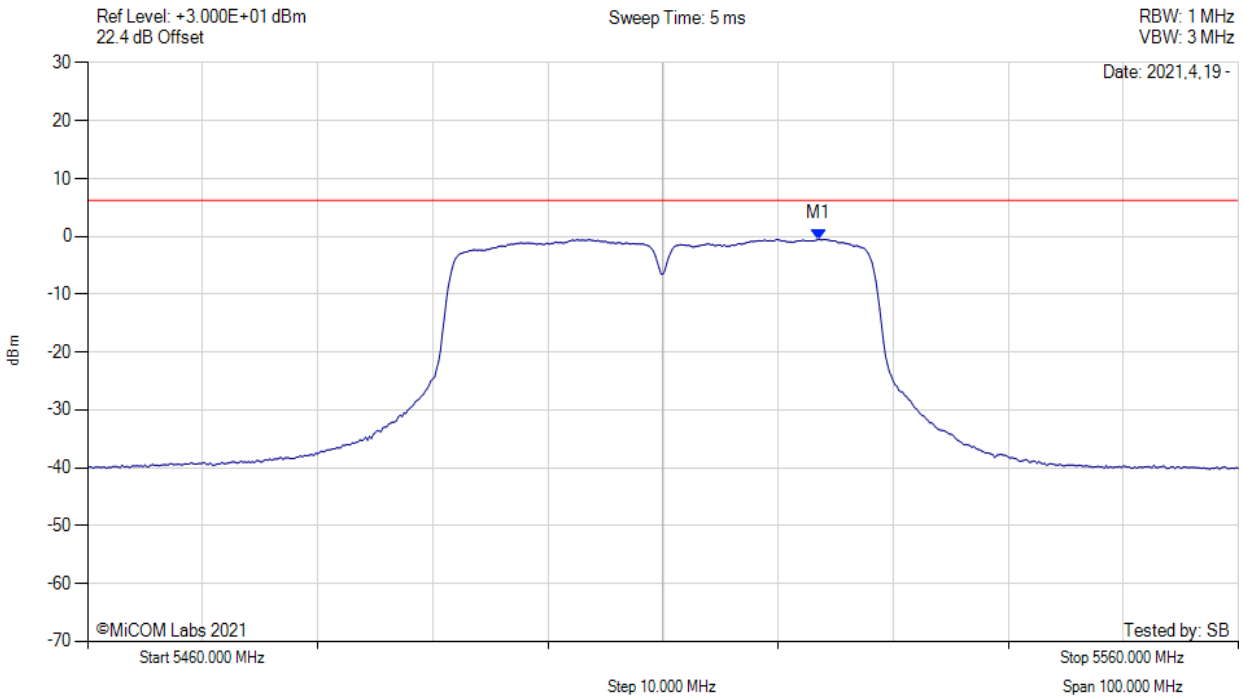


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5523.670 MHz : -0.114 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

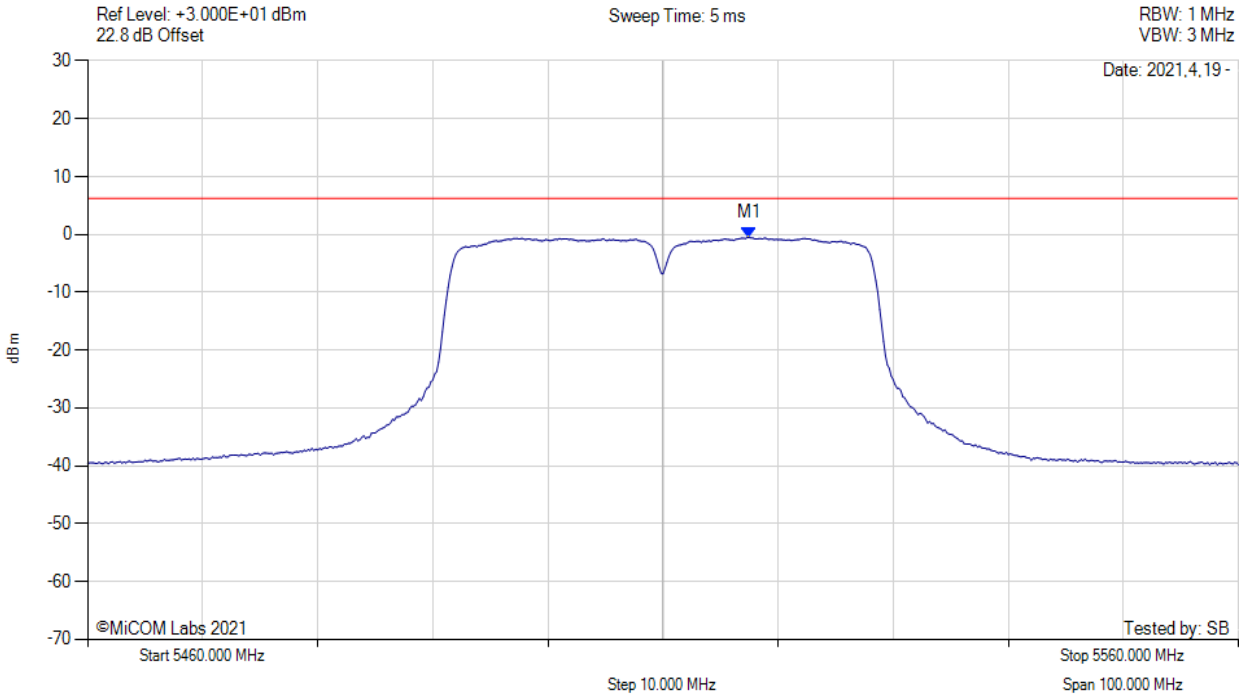


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5523.500 MHz : -0.462 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

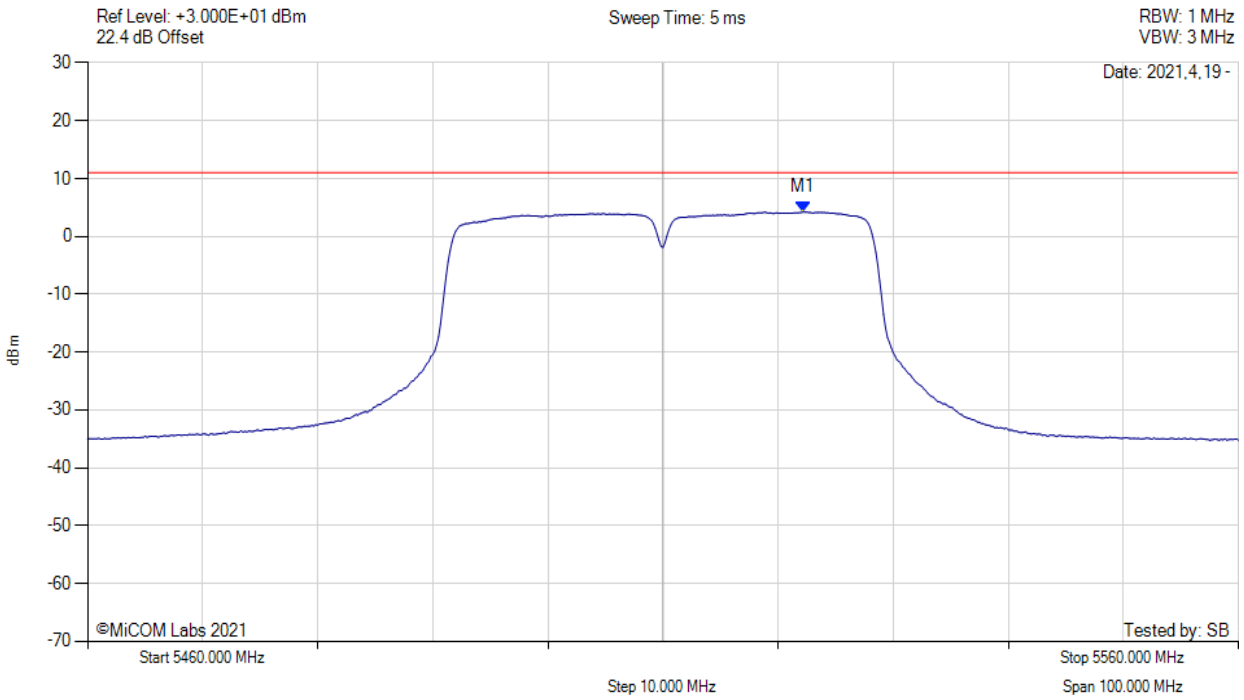


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5517.500 MHz : -0.542 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5510.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

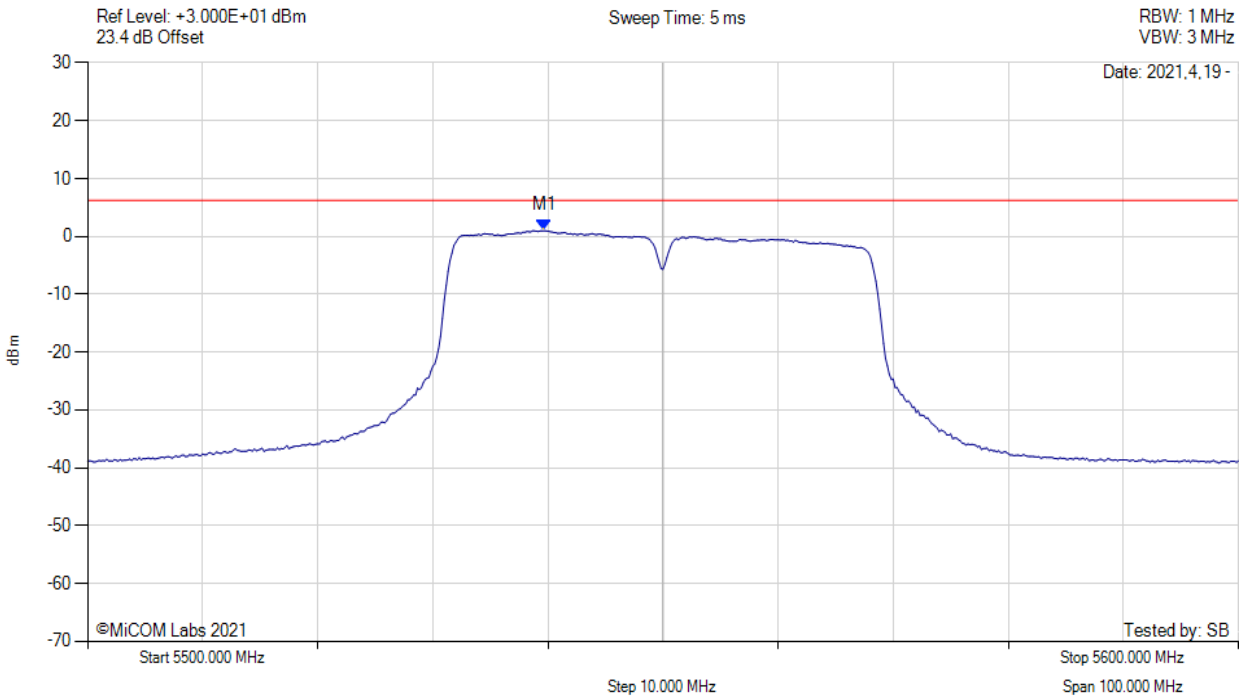


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5522.200 MHz : 4.233 dBm M1 + DCCF : 5522.200 MHz : 4.595 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -6.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

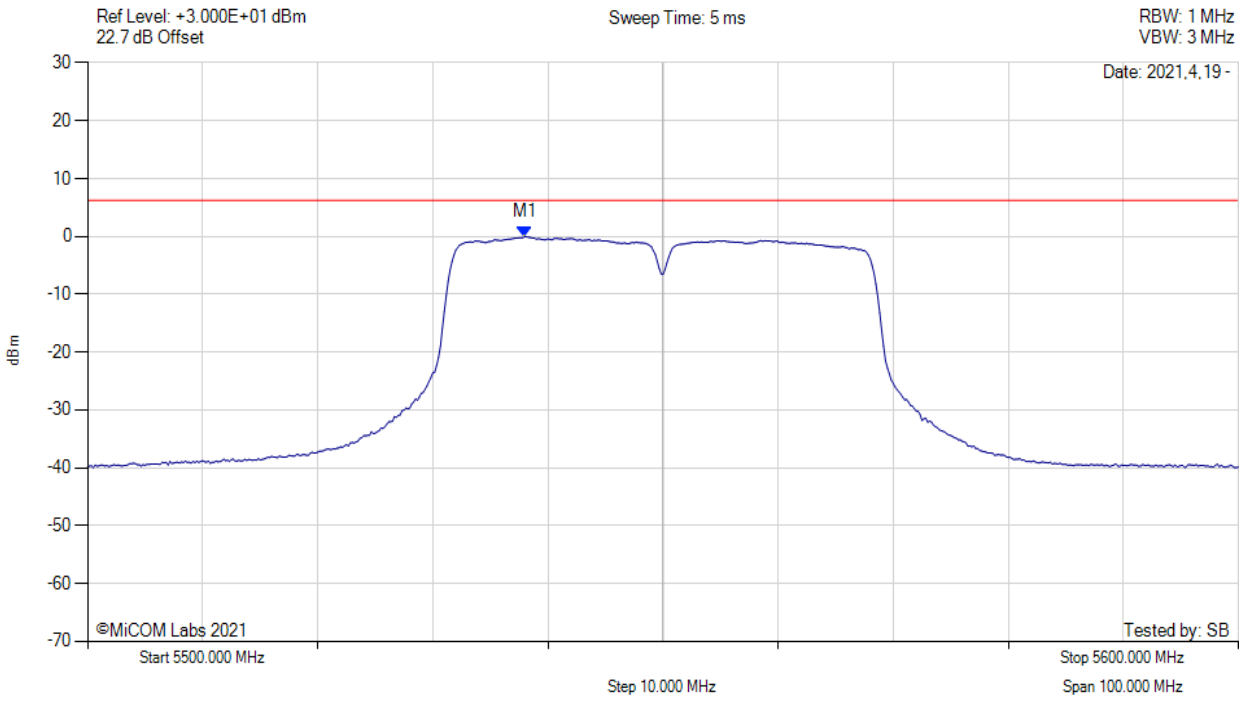


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5539.670 MHz : 1.005 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

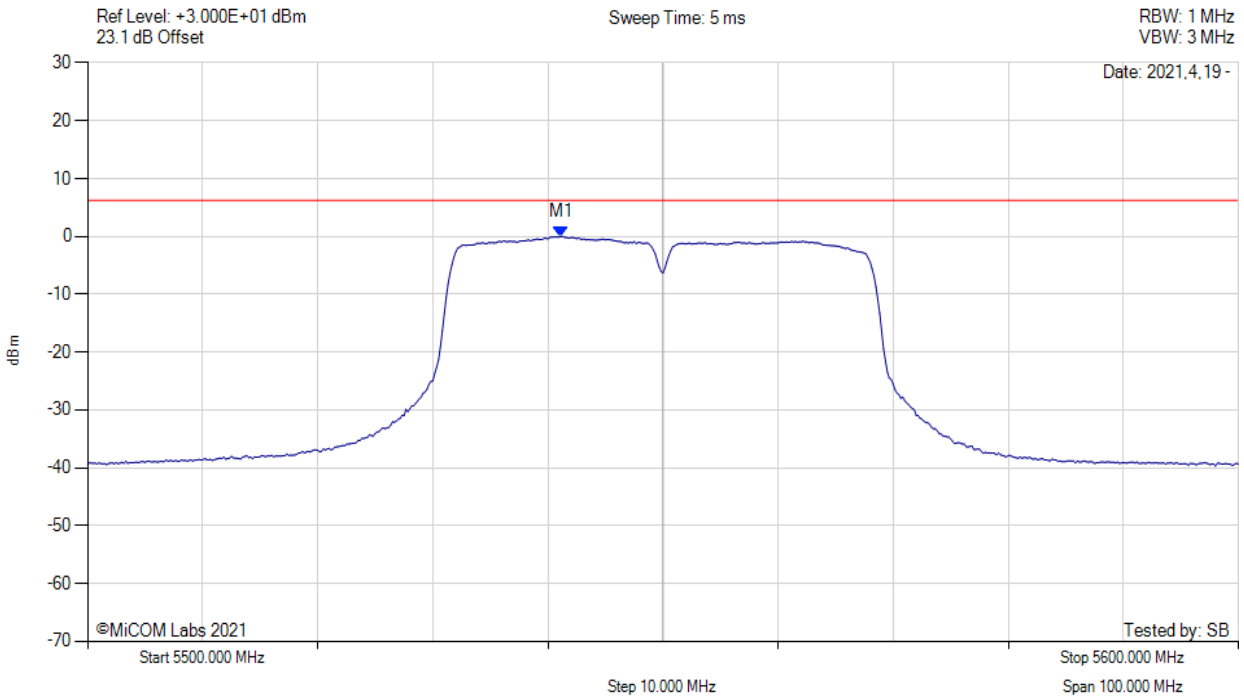


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5538.000 MHz : -0.014 dBm	Channel Frequency: 5550.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

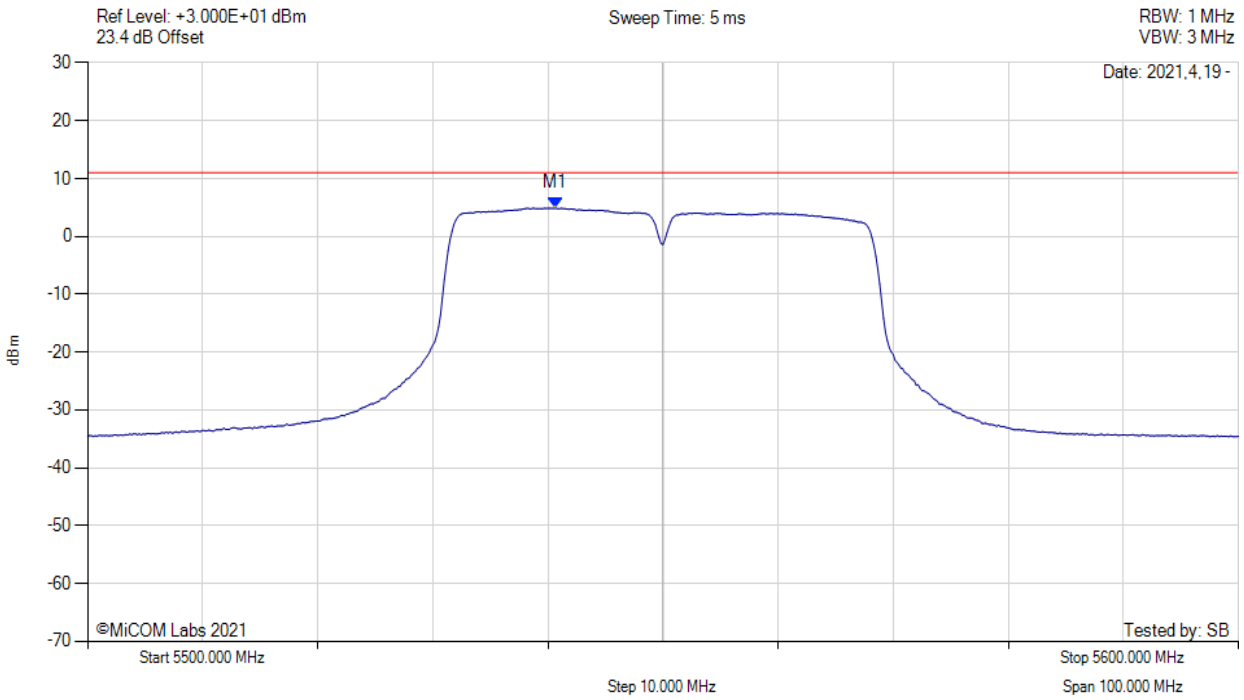


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5541.170 MHz : -0.007 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5550.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc

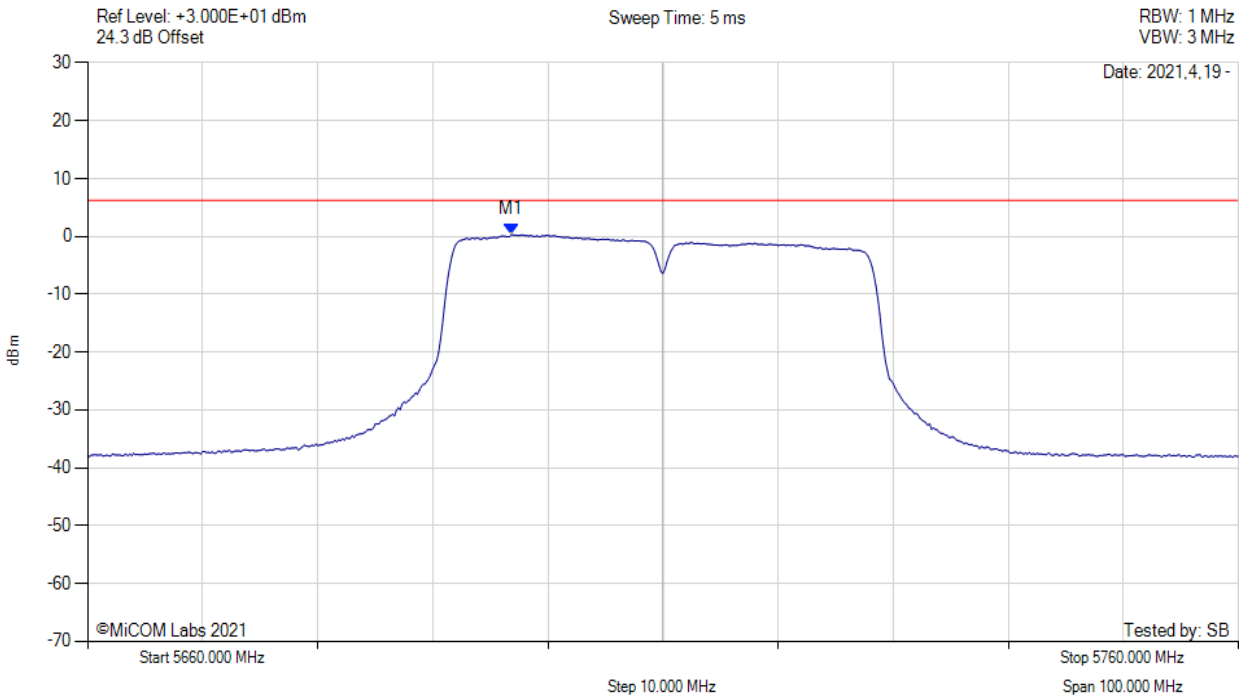


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5540.700 MHz : 4.886 dBm M1 + DCCF : 5540.700 MHz : 5.248 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -5.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain a, Temp: 20, Voltage: 24 Vdc

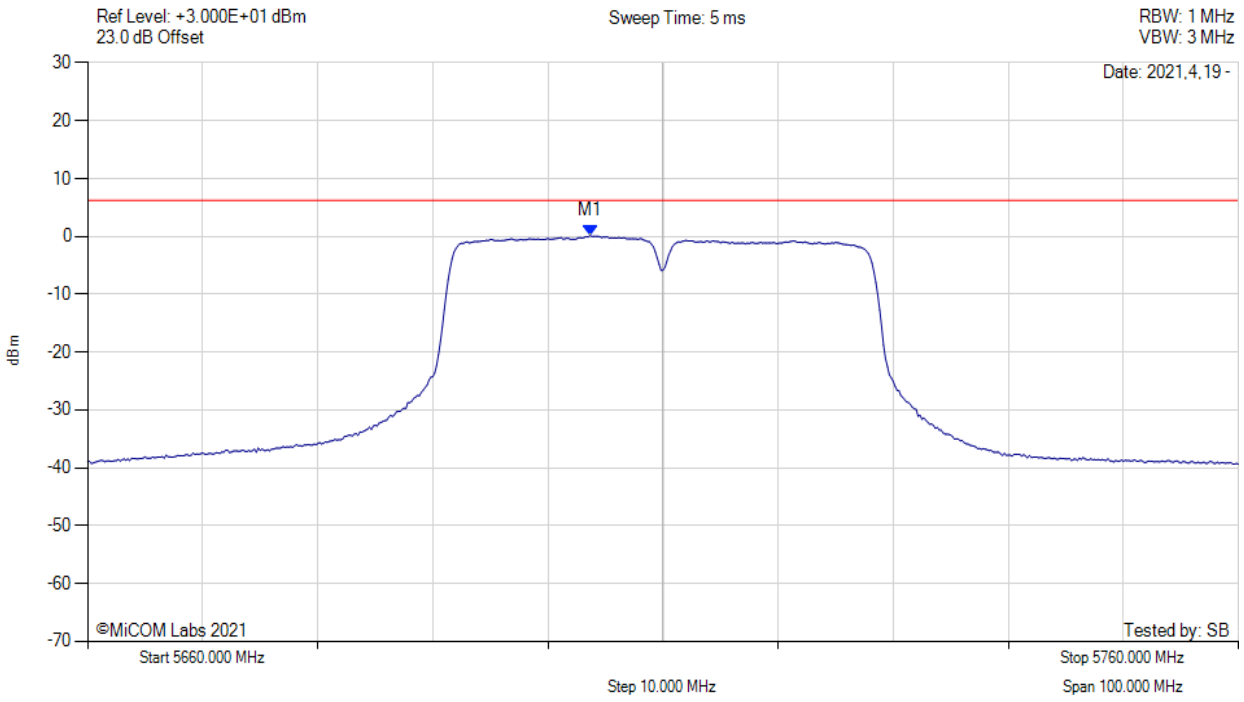


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5696.830 MHz : 0.348 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain b, Temp: 20, Voltage: 24 Vdc

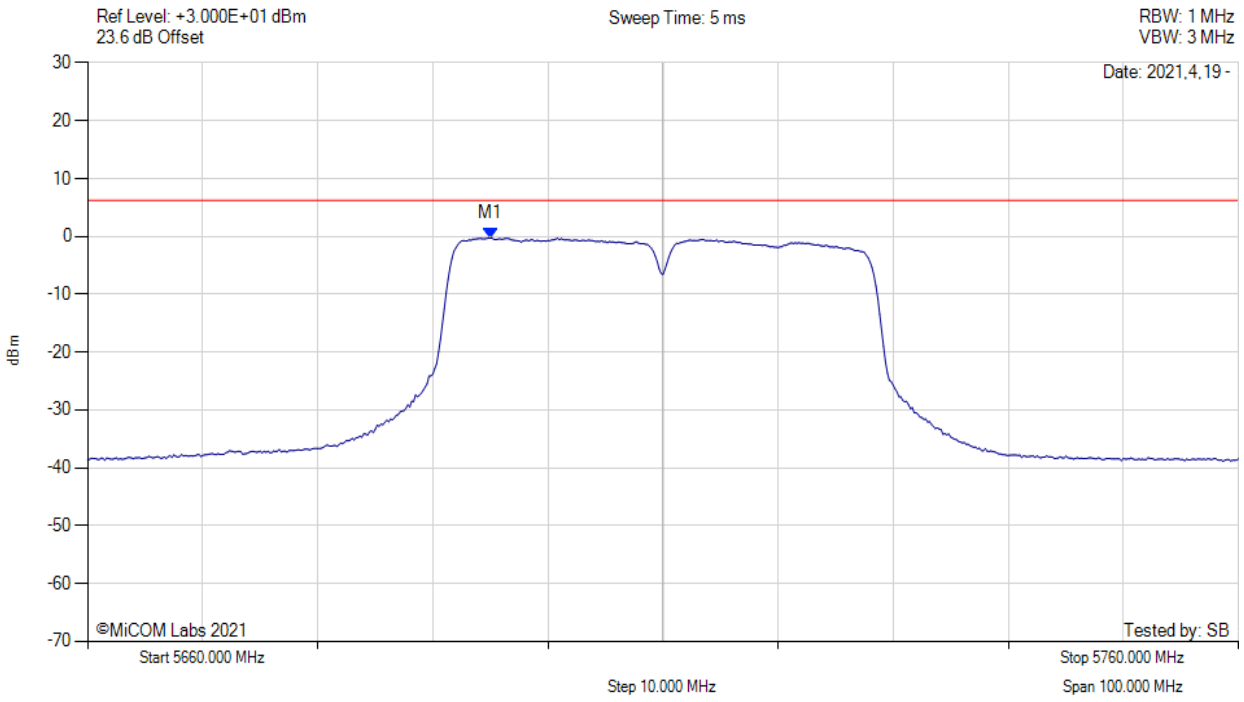


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5703.670 MHz : 0.180 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5710.00 MHz, Chain c, Temp: 20, Voltage: 24 Vdc

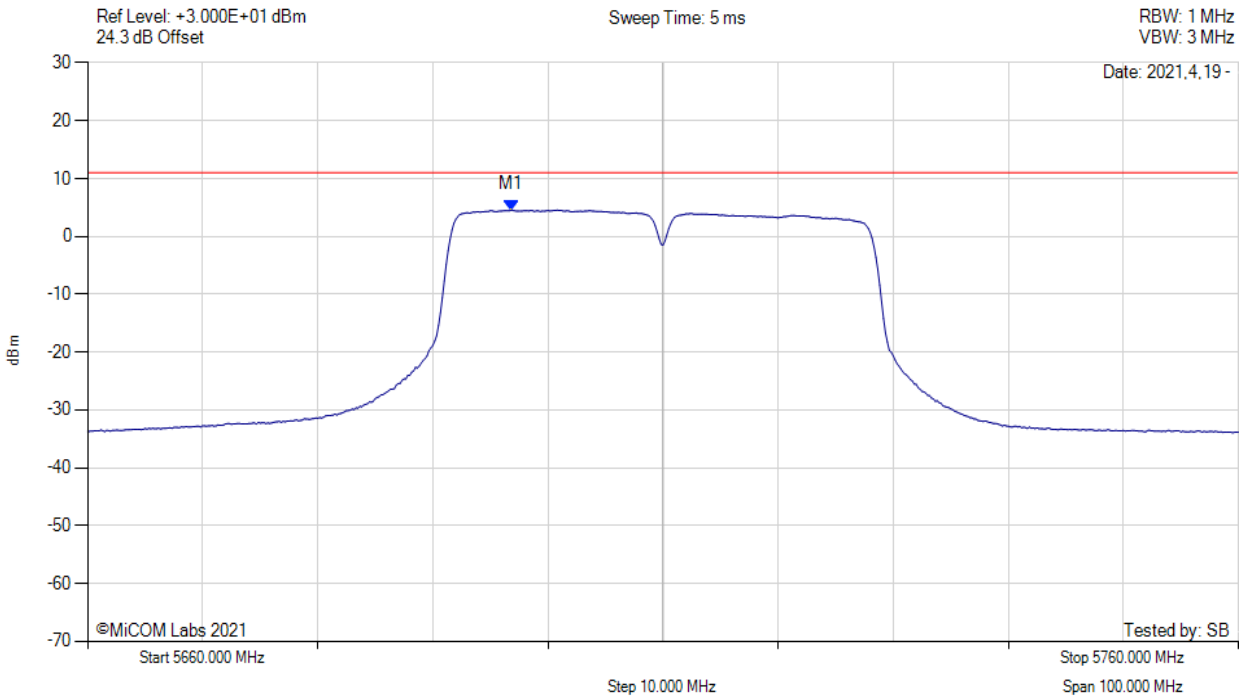


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5695.000 MHz : -0.271 dBm	Limit: ≤ 6.230 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: 802.11n HT-40, Channel: 5710.00 MHz, SUM, Temp: 20, Voltage: 24 Vdc



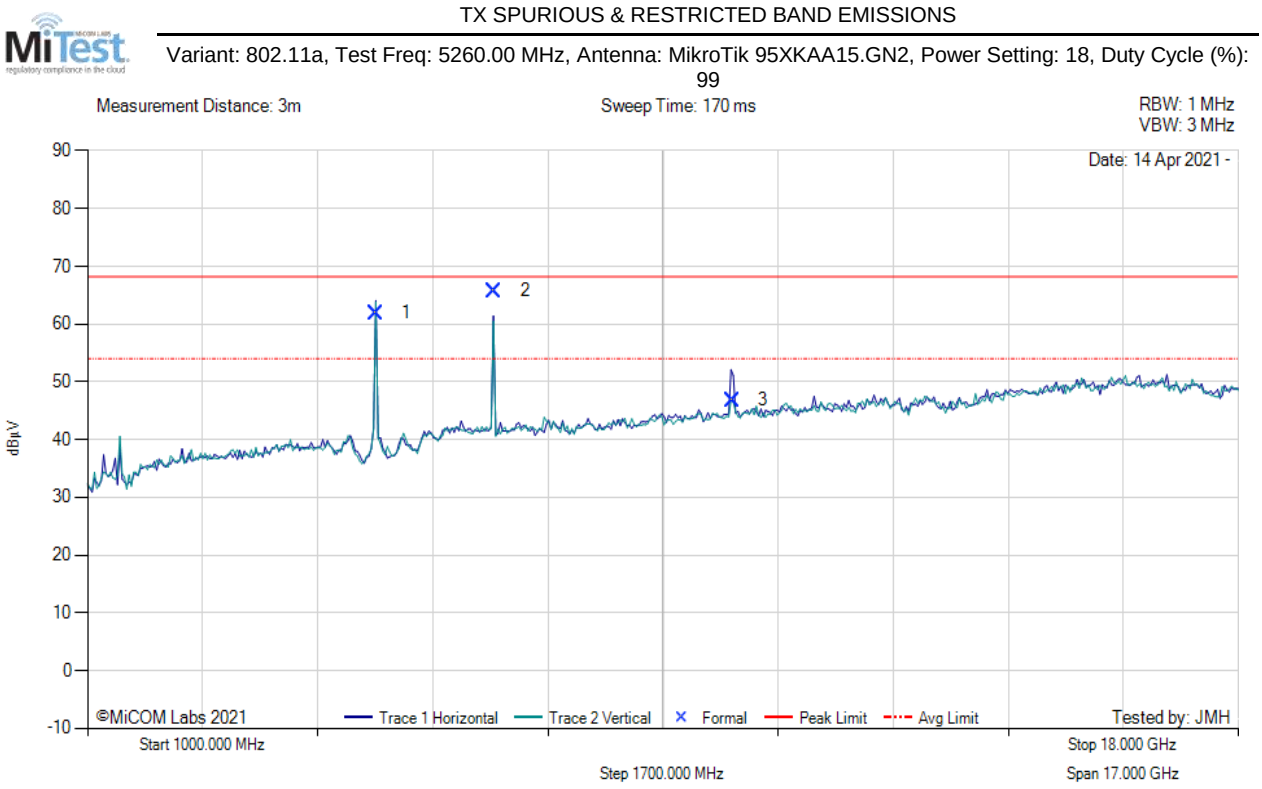
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5696.800 MHz : 4.571 dBm M1 + DCCF : 5696.800 MHz : 4.933 dBm Duty Cycle Correction Factor : +0.36 dB	Limit: ≤ 11.0 dBm Margin: -6.0 dB

back to matrix

A.3. Radiated

A.3.1. TX Spurious & Restricted Band Emissions

A.3.1.1. MikroTik 95XKAA15.GN2



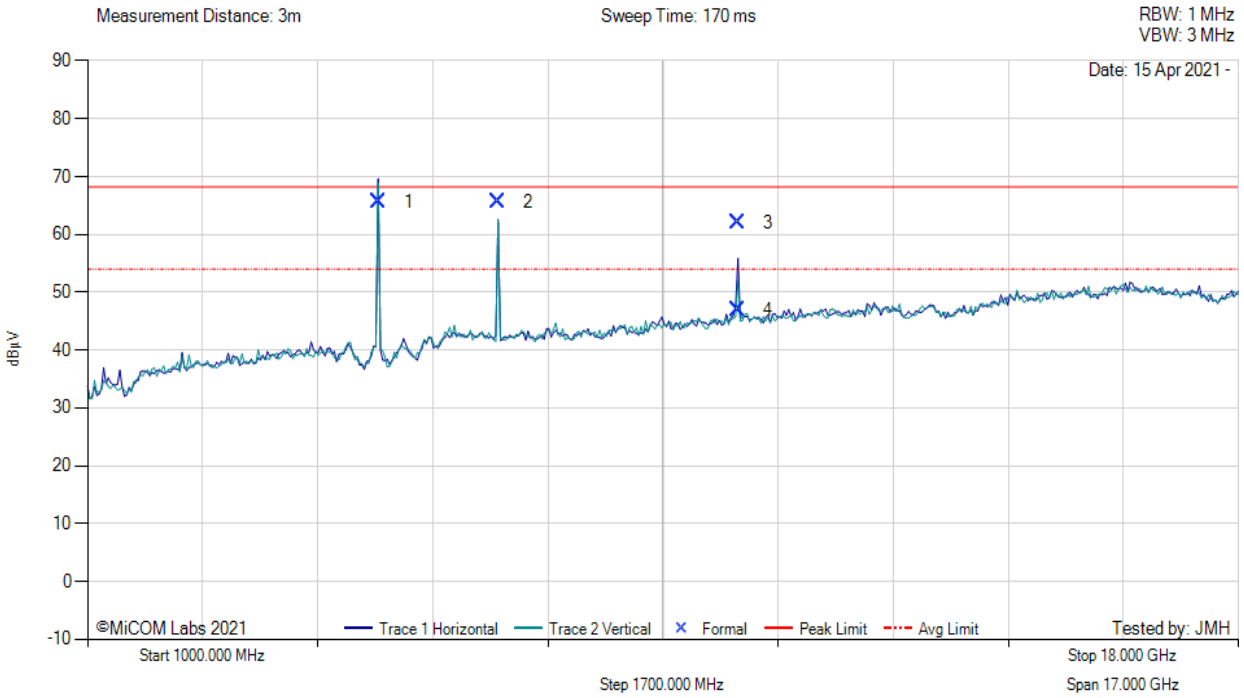
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5266.74	71.23	2.91	-12.21	61.93	Fundamental	Horizontal	100	0	--	--	
2	7013.32	70.01	3.47	-7.71	65.77	Max Peak	Horizontal	136	77	68.2	-2.5	Pass
3	10521.26	47.44	4.50	-5.12	46.82	Peak (NRB)	Horizontal	156	10	--	--	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overloads.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5300.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



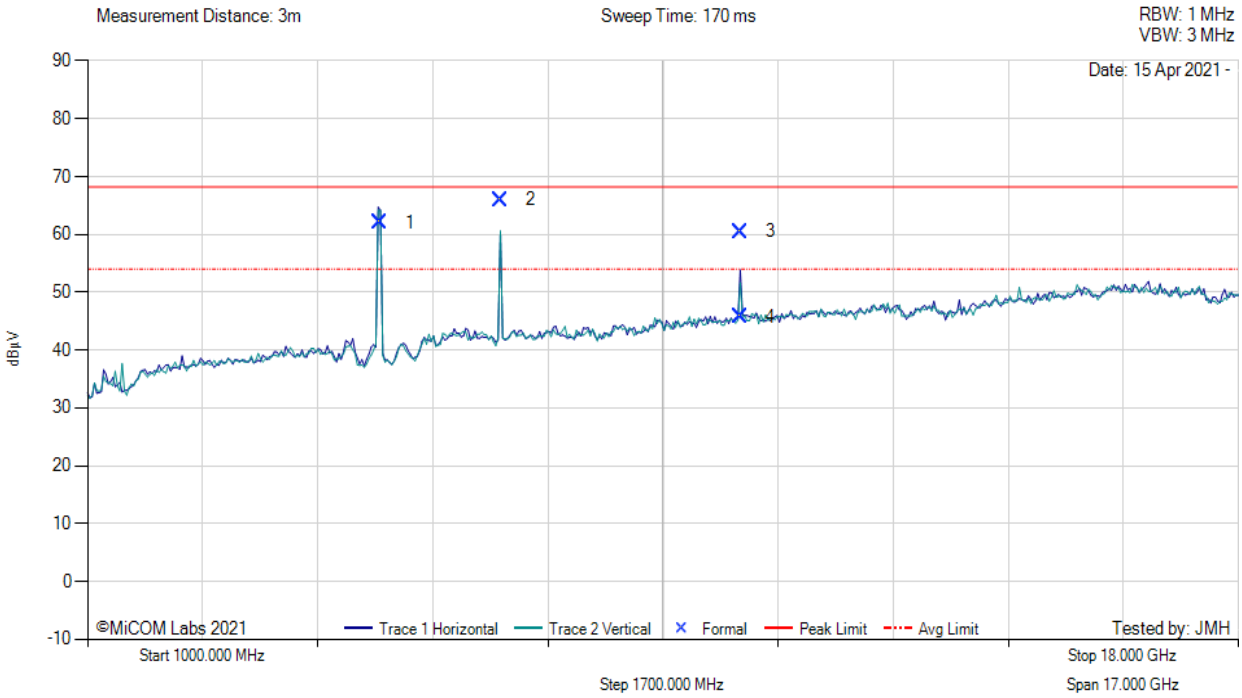
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5297.82	74.62	3.03	-12.00	65.65	Fundamental	Horizontal	151	0	--	--	
2	7066.66	69.63	3.55	-7.57	65.61	Max Peak	Vertical	129	83	68.2	-2.6	Pass
3	10604.11	62.61	4.39	-4.94	62.06	Max Peak	Horizontal	198	13	68.2	-6.2	Pass
4	10604.11	47.54	4.39	-4.94	46.99	Max Avg	Horizontal	198	13	54.0	-7.0	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



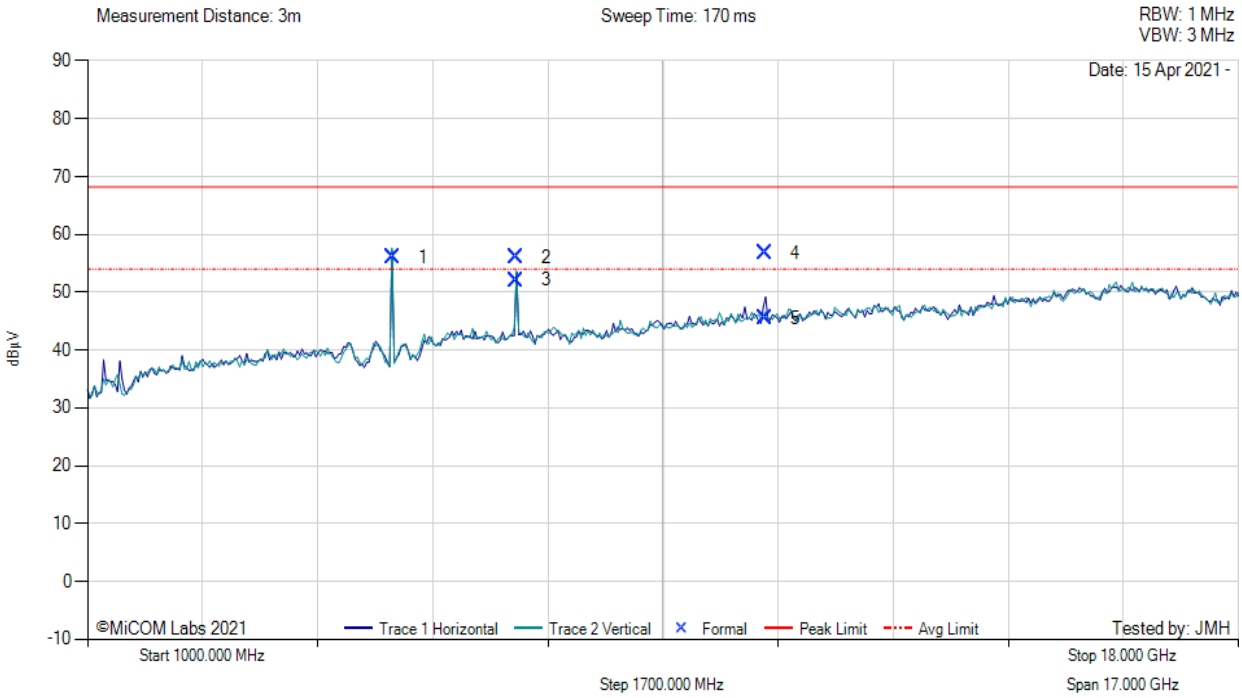
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5320.88	71.12	2.97	-12.00	62.09	Fundamental	Horizontal	148	0	--	--	
2	7093.33	70.44	3.46	-7.89	66.01	Max Peak	Vertical	124	10	68.2	-2.2	Pass
3	10639.48	60.54	4.45	-4.54	60.45	Max Peak	Horizontal	196	236	68.2	-7.8	Pass
4	10639.48	45.76	4.45	-4.54	45.67	Max Avg	Horizontal	196	236	54.0	-8.3	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



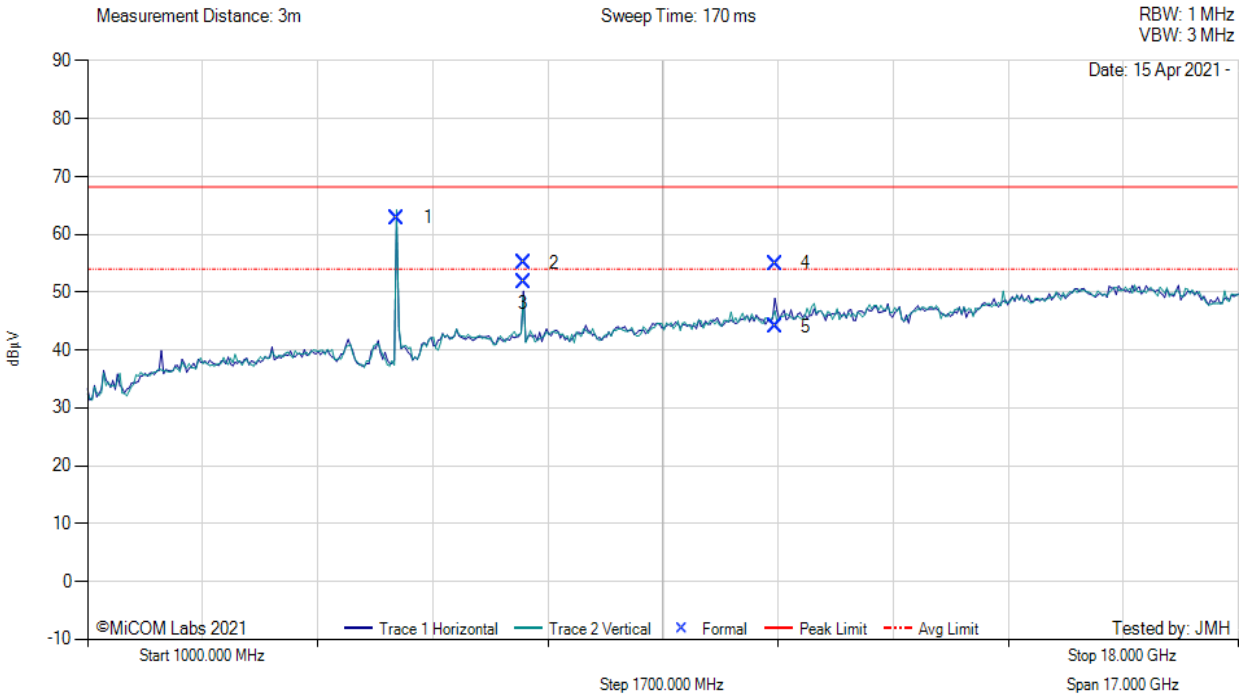
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5505.79	64.64	3.07	-11.66	56.05	Fundamental	Vertical	100	0	--	--	
2	7333.43	60.60	3.57	-8.09	56.08	Max Peak	Vertical	114	23	68.2	-12.2	Pass
3	7333.43	56.61	3.57	-8.09	52.09	Max Avg	Vertical	114	23	54.0	-1.9	Pass
4	10999.66	56.87	4.59	-4.67	56.79	Max Peak	Horizontal	198	332	68.2	-11.4	Pass
5	10999.66	45.57	4.59	-4.67	45.49	Max Avg	Horizontal	198	332	54.0	-8.5	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5580.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



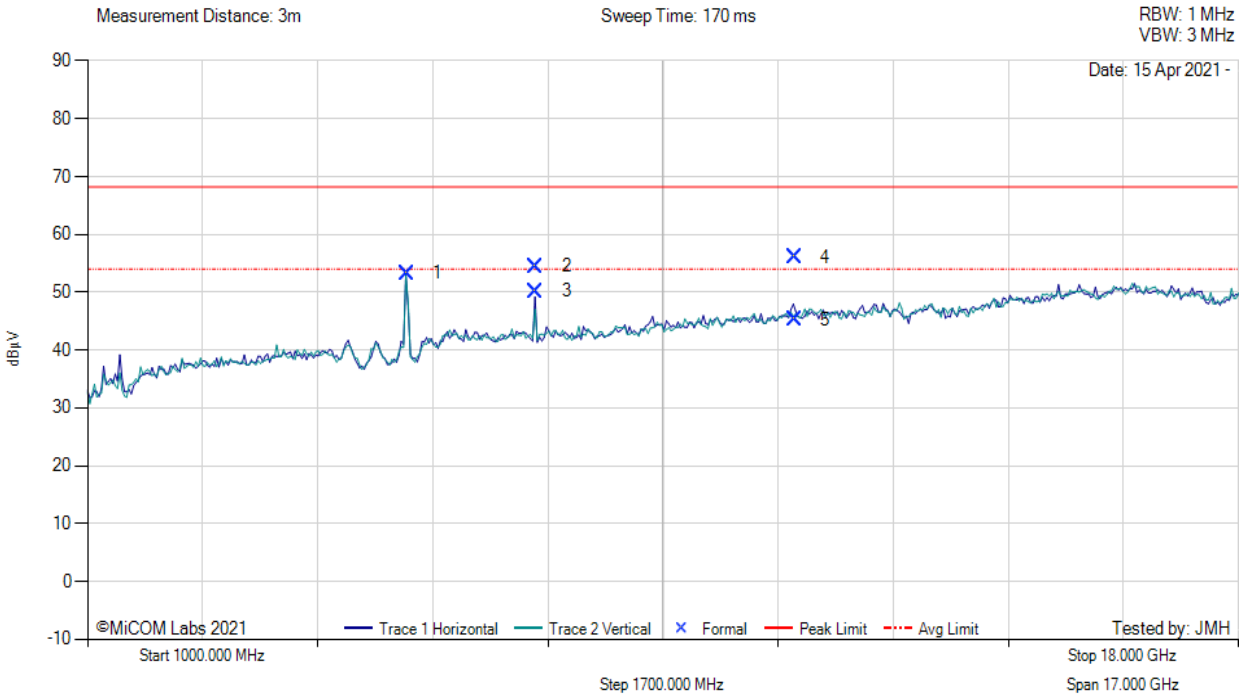
1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5576.98	71.20	3.21	-11.57	62.84	Fundamental	Vertical	151	0	--	--	
2	7440.04	59.25	3.62	-7.72	55.15	Max Peak	Horizontal	115	74	68.2	-13.1	Pass
3	7440.04	55.80	3.62	-7.72	51.70	Max Avg	Horizontal	115	74	54.0	-2.3	Pass
4	11160.41	55.39	4.54	-5.00	54.93	Max Peak	Horizontal	195	333	68.2	-13.3	Pass
5	11160.41	44.51	4.54	-5.00	44.05	Max Avg	Horizontal	195	333	54.0	-10.0	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.

back to matrix

TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5720.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5714.59	61.38	3.16	-11.29	53.25	Fundamental	Horizontal	100	0	--	--	
2	7626.60	58.14	3.79	-7.48	54.45	Max Peak	Horizontal	146	74	68.2	-13.8	Pass
3	7626.60	53.89	3.79	-7.48	50.20	Max Avg	Horizontal	146	74	54.0	-3.8	Pass
4	11444.73	59.17	4.51	-5.67	56.01	Max Peak	Horizontal	186	208	68.2	-12.2	Pass
5	11444.73	44.42	4.51	-5.67	45.26	Max Avg	Horizontal	186	208	54.0	-8.7	Pass

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G Notch in front of amp to prevent overload.

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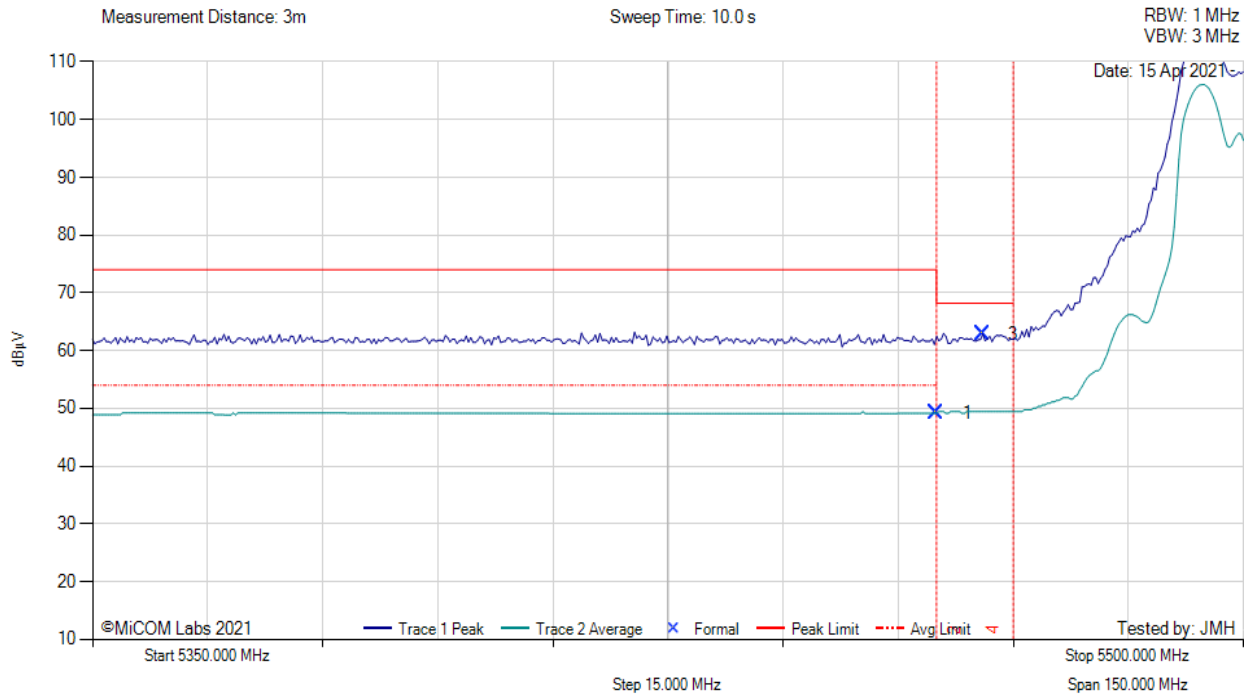
A.3.2. Restricted Edge & Band-Edge Emissions

A.3.2.2. MikroTik 95XKAA15.GN2

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



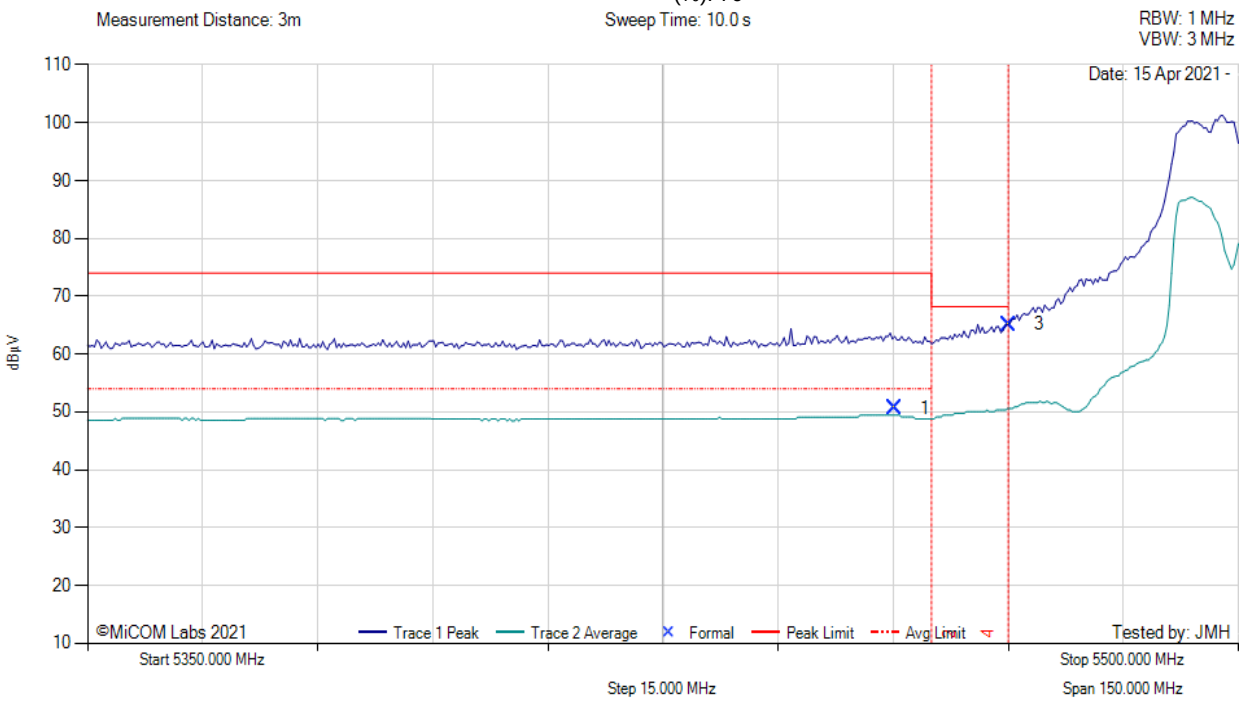
5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5460.00	11.54	3.06	34.53	49.13	Max Avg	Horizontal	102	125	54.0	-4.9	Pass
3	5466.01	25.24	3.08	34.54	62.86	Max Peak	Horizontal	102	125	68.2	-5.4	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5530.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 19, Duty Cycle (%): 76



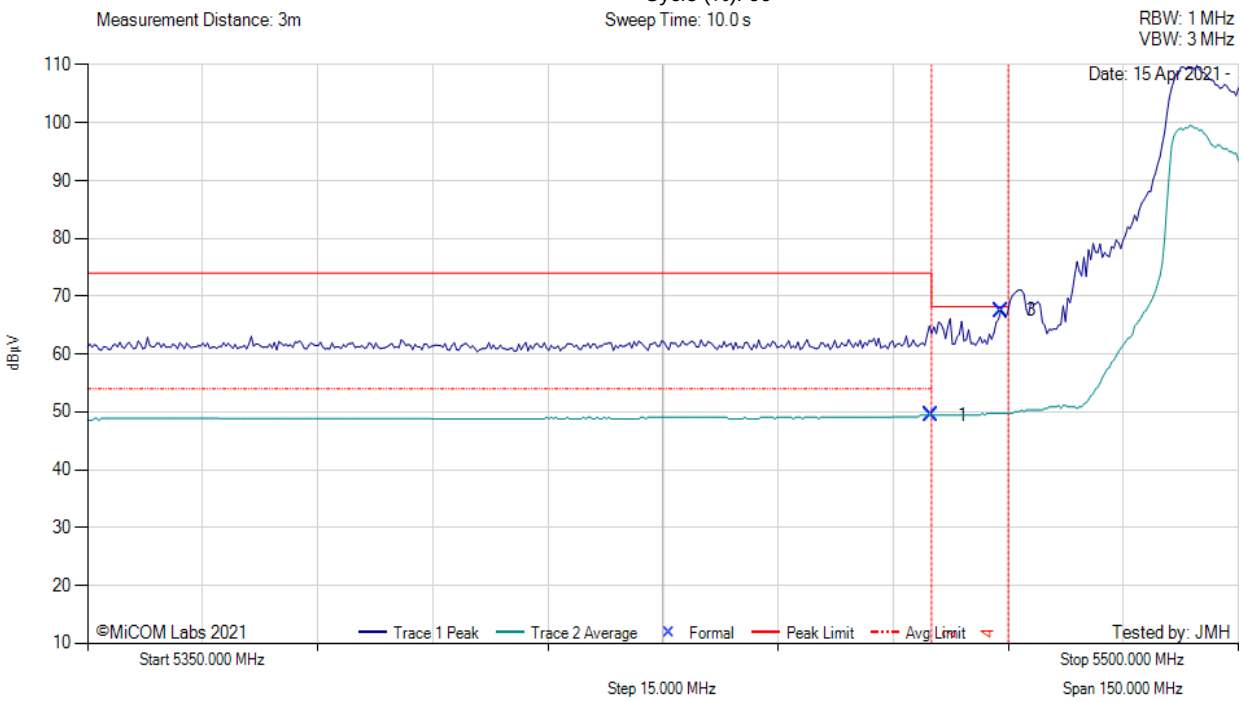
5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5455.19	13.08	3.05	34.51	50.64	Max Avg	Horizontal	102	125	54.0	-3.4	Pass
3	5470.00	27.51	3.06	34.55	65.12	Max Peak	Horizontal	102	125	68.2	-3.1	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 1.19 DCCF added to average measurement

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5500.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 22, Duty Cycle (%): 99



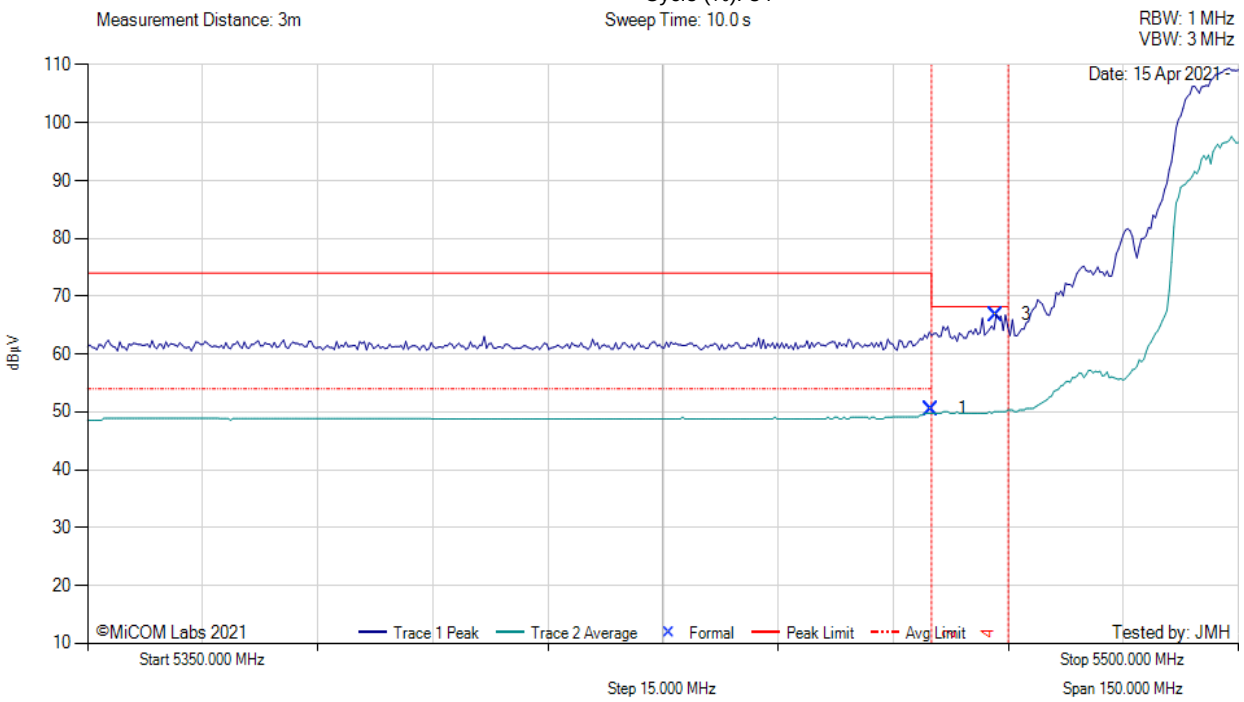
5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5460.00	11.86	3.06	34.53	49.45	Max Avg	Horizontal	102	125	54.0	-4.6	Pass
3	5469.02	29.91	3.06	34.55	67.52	Max Peak	Horizontal	102	125	68.2	-0.7	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

back to matrix

RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5510.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 21, Duty Cycle (%): 84



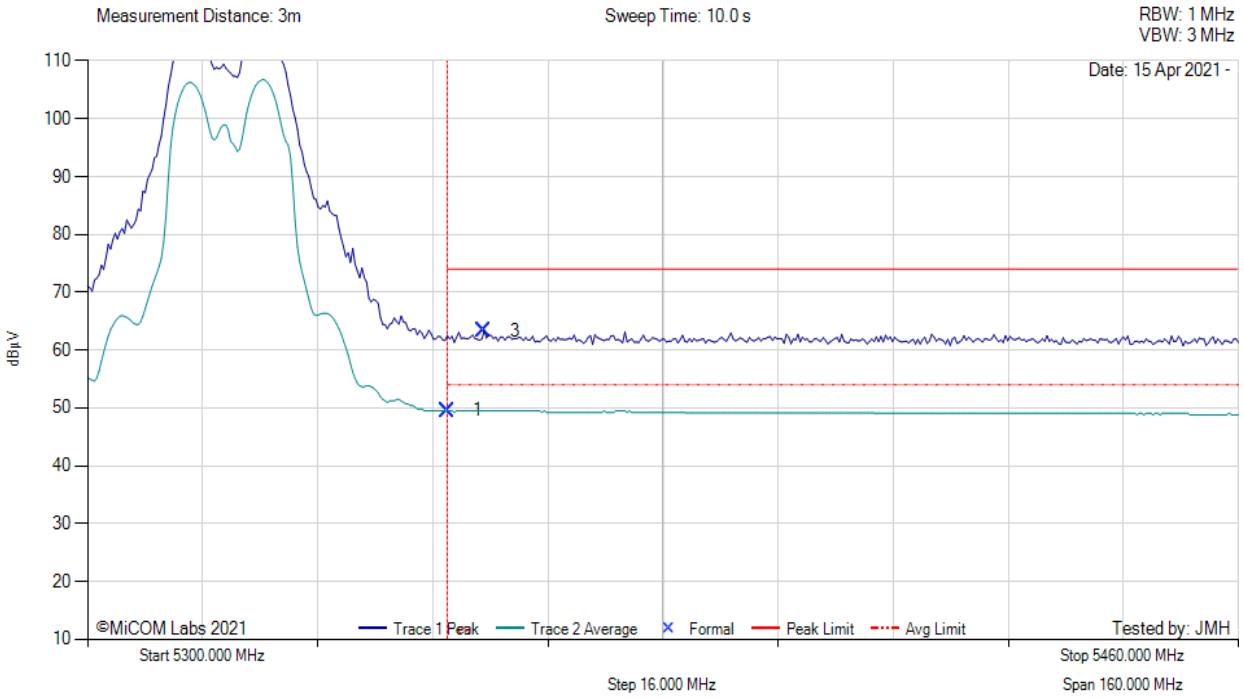
5350.00 - 5500.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5460.00	12.92	3.06	34.53	50.51	Max Avg	Horizontal	102	125	54.0	-3.5	Pass
3	5468.42	29.21	3.07	34.55	66.83	Max Peak	Horizontal	102	125	68.2	-1.4	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 0.76 DCCF added to average measurement

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



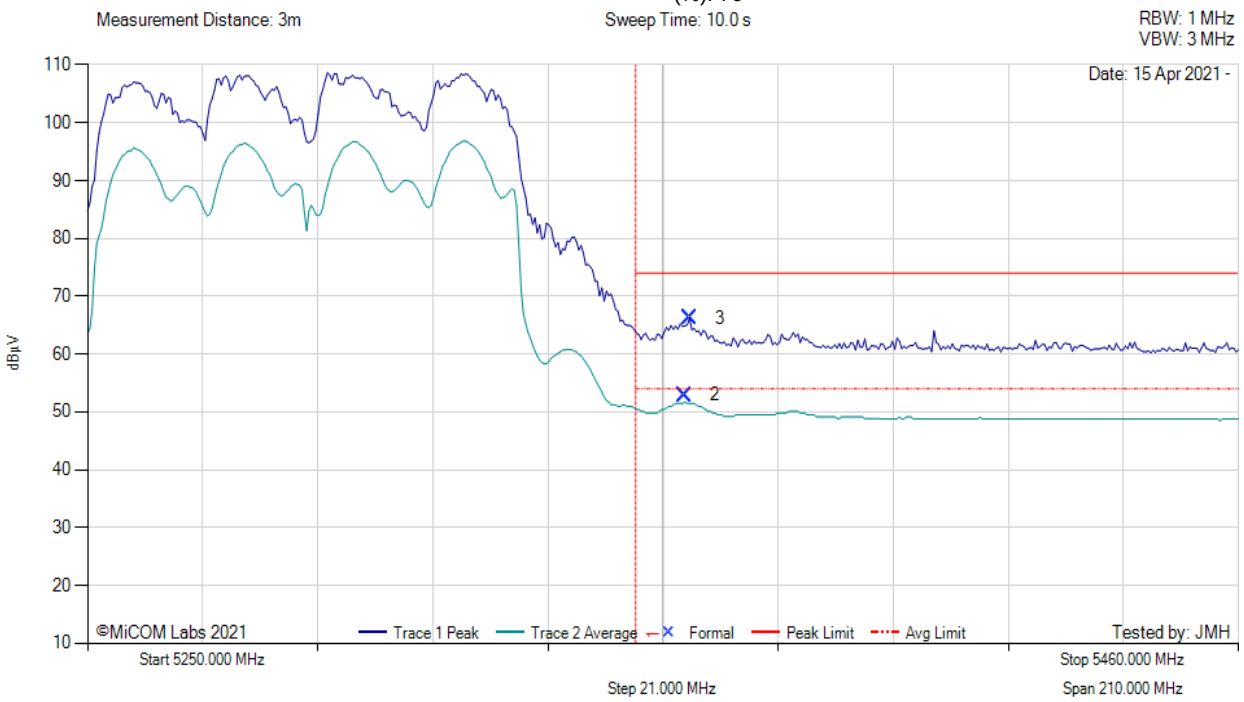
5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5350.00	12.02	3.06	34.46	49.54	Max Avg	Horizontal	102	125	54.0	-4.5	Pass
3	5355.15	25.81	3.05	34.47	63.33	Max Peak	Horizontal	102	125	74.0	-11.7	Pass
2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5290.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 23, Duty Cycle (%): 76



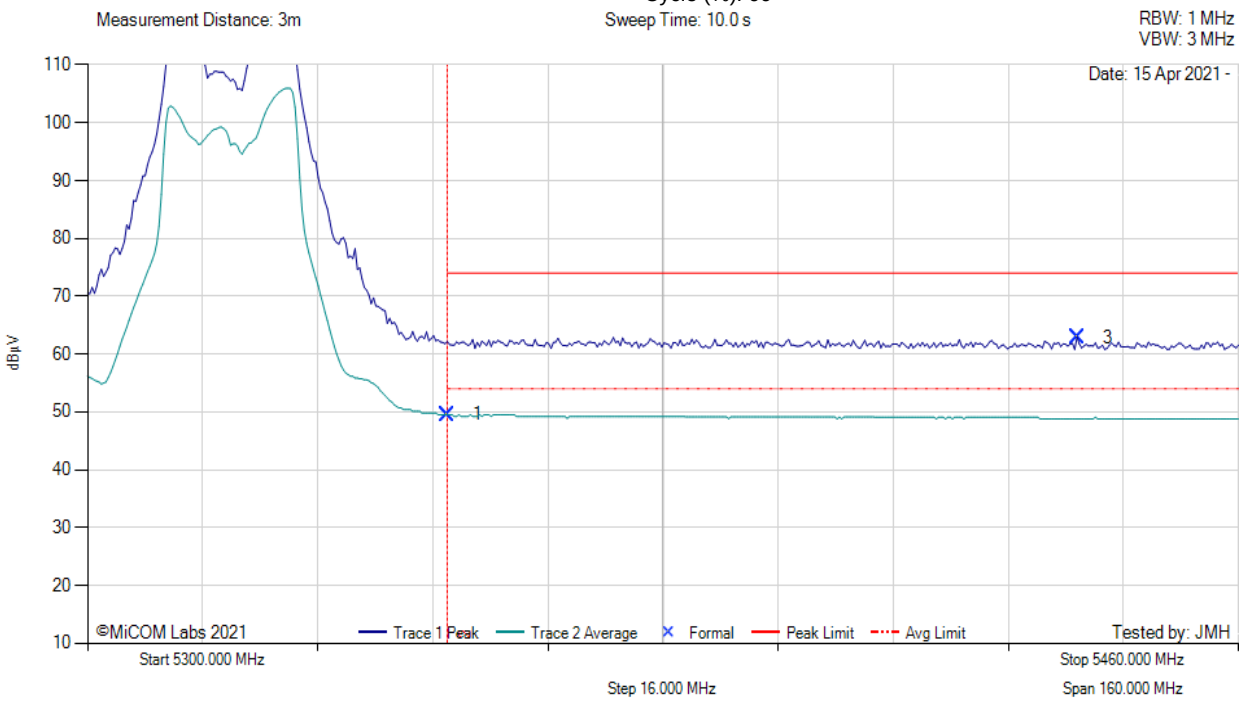
5250.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
2	5359.00	15.40	3.04	34.47	52.91	Max Avg	Horizontal	102	125	54.0	-1.1	Pass
3	5359.82	28.65	3.04	34.48	66.17	Max Peak	Horizontal	102	125	74.0	-7.8	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 1.19 DCCF added to average measurement

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5320.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 99



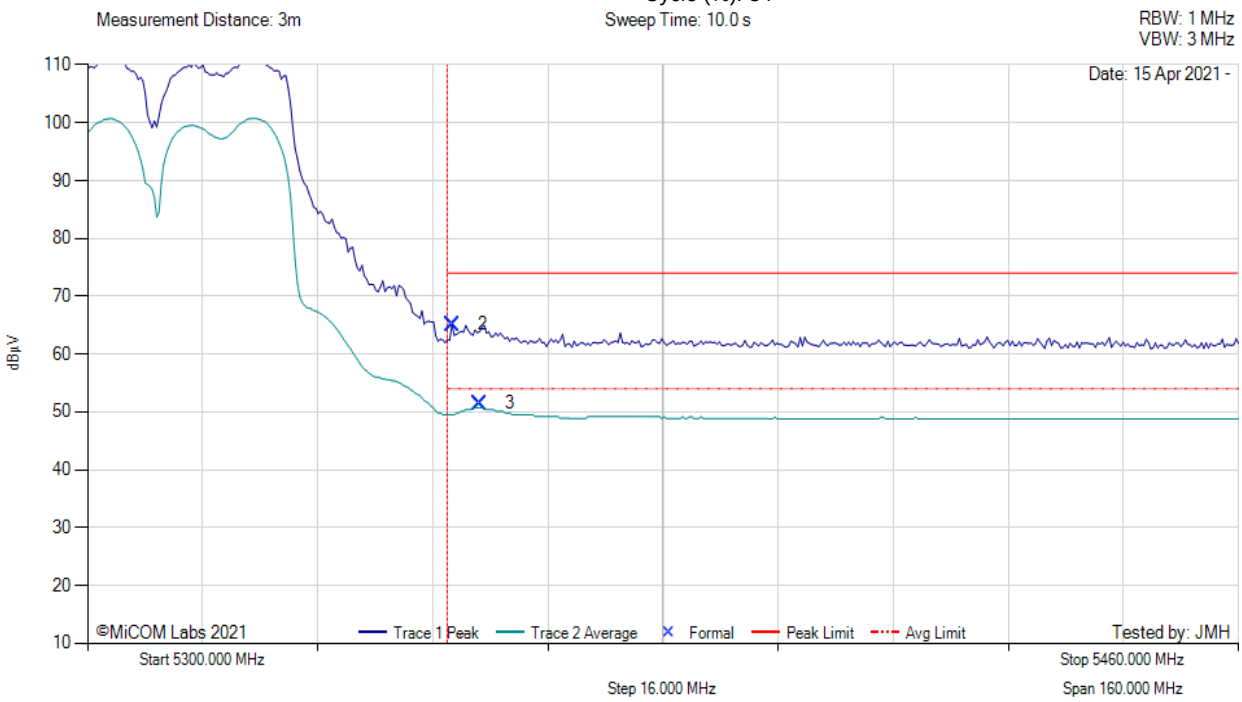
5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5350.00	12.02	3.06	34.46	49.54	Max Avg	Horizontal	102	125	54.0	-4.5	Pass
3	5437.56	25.28	3.12	34.51	62.91	Max Peak	Horizontal	102	125	74.0	-11.1	Pass
2	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

back to matrix

RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5310.00 MHz, Antenna: MikroTik 95XKAA15.GN2, Power Setting: 24, Duty Cycle (%): 84



5300.00 - 5460.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
2	5350.66	27.58	3.06	34.46	65.10	Max Peak	Horizontal	102	125	74.0	-8.9	Pass
3	5354.49	13.94	3.05	34.47	51.46	Max Avg	Horizontal	102	125	54.0	-2.5	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 0.76 DCCF added to average measurement

back to matrix

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