



REGULATORY COMPLIANCE TEST REPORT

**FCC CFR 47 Part 15 Subpart E 15.407
ISED RSS-247**

Report No.: RDWN78-U2 Rev A

Company: Radwin

Model Name: AP0168031

REGULATORY COMPLIANCE TEST REPORT

Company Name: Radwin

Model Name: AP0168031

To: FCC CFR 47 Part 15 Subpart E 15.407
ISED RSS-247

Test Report Serial No.: RDWN78-U2 Rev A

This report supersedes: NONE

Applicant: Radwin
27 Habarzel Street
Tel Aviv 6971039
Israel

Issue Date: 16th November 2023

This Test Report is Issued Under the Authority of:

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



MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

Table of Contents

1. ACCREDITATION, LISTINGS & RECOGNITION	5
1.1. TESTING ACCREDITATION	5
1.2. RECOGNITION	6
1.3. PRODUCT CERTIFICATION	7
2. DOCUMENT HISTORY	8
3. TEST RESULT CERTIFICATE	9
4. REFERENCES AND MEASUREMENT UNCERTAINTY	10
4.1. Normative References	10
4.2. Test and Uncertainty Procedure	11
5. PRODUCT DETAILS AND TEST CONFIGURATIONS	12
5.1. Scope Of Test Program	13
5.2. Equipment Model(s) and Serial Number(s).....	14
5.3. Cabling and I/O Ports.....	14
5.4. Test Configurations	14
5.5. Equipment Modifications	15
5.6. Deviations from the Test Standard	15
6. TEST SUMMARY	16
7. TEST EQUIPMENT CONFIGURATION(S).....	17
7.1. Radiated Emissions - 3m Chamber	17
7.2. Conducted Test Setup	19
8. MEASUREMENT AND PRESENTATION OF TEST DATA	21
9. TEST RESULTS	22
9.1. Peak Transmit Power.....	22
Peak Transmit Power RW-9061-5006	23
Peak Transmit Power RW-9105-5158	26
9.2. Transmit Power Control (TPC).....	29
9.3. 26 dB & 99% Bandwidth	31
RW-9061-5006	32
RW-9105-5158.....	35
9.4. Power Spectral Density.....	38
RW-9061-5006.....	39
RW-9105-5158.....	42
9.5. Dynamic Frequency Selection	45
9.5.1. DFS Detection Thresholds	46
9.5.2. Response Requirements	46
9.5.3. Radar Test Waveforms.....	47
9.5.3.1. Short Radar Pulses.....	47
9.5.3.2. Long Radar Pulse Test	48
9.5.3.3. Frequency Hopping Radar Test Waveform	50
9.5.4. Radar Waveform Calibration	50
9.5.5. Channel Availability Check.....	51
9.5.5.4. Initial CAC	51
9.6. TX Spurious & Restricted Band Emissions	52
RW-9061-5006.....	55
RW-9402-5001.....	58
RW-9401-5004.....	61
RW-9105-5158.....	64

9.6.1. Restricted Edge & Band Edge Emissions	67
Band Edge Emissions RW-9061-5006	67
Band Edge Emissions RW-9402-5001	71
Band Edge Emissions RW-9401-5004	75
Band Edge Emissions RW-9105-5158	79
9.6.2. Digital Emissions	83
A. APPENDIX - GRAPHICAL IMAGES	86
A.1. 26 dB & 99% Bandwidth	87
RW-9061-5006	87
RW-9105-5158	114
A.2. Power Spectral Density	141
RW-9061-5006	141
RW-9105-5158	181
A.3. Digital Emissions	217

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 14th day of January 2022.



Mr. Trace McInturf, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.01
Valid to February 29, 2024
Revised October 26, 2023

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

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 14th day of January 2022



Mr. Trace McInturf, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.02
Valid to February 29, 2024
Revised October 26, 2023

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	8 th November 2023	Draft for client review
Draft 2	10 th November 2023	Draft 2 for client review
Rev A	16 th November 2023	Initial release.

In the above table the latest report revision will replace all earlier versions.

3. TEST RESULT CERTIFICATE

Manufacturer: Radwin 27 Habarzel Street Tel Aviv 6971039 Israel	Tested By: MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Model: AP0168031	Telephone: +1 925 462 0304
Type Of Equipment: 5GHz 802.11ac 3x3 RF Module	Fax: +1 925 462 0306
S/N's: Prototype 1	
Test Date(s): 2 nd – 3 rd November 2023	Website: www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC CFR 47 Part 15 Subpart E 15.407 ISED RSS-247	EQUIPMENT COMPLIES

MiCOM Labs, Inc. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.

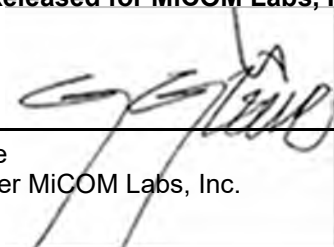
Notes:

1. This document reports conditions under which testing was conducted and the results of testing performed.
2. Details of test methods used have been recorded and kept on file by the laboratory.
3. Test results apply only to the item(s) tested.

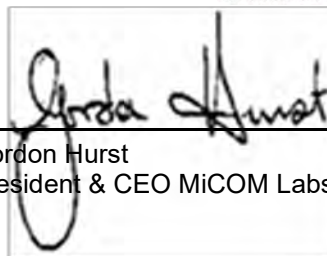
Approved & Released for MiCOM Labs, Inc. by:



Graeme Grieve
Quality Manager MiCOM Labs, Inc.



Gordon Hurst
President & CEO MiCOM Labs, Inc.



4. REFERENCES AND MEASUREMENT UNCERTAINTY

4.1. Normative References

REF.	PUBLICATION	YEAR	TITLE
I	KDB 662911 D01, D02, D03	D01 Oct 2013, D02 Oct 2011, D03 Oct 2020	Guidance for measurement of output emission of devices that employ single transmitter with multiple outputs or systems with multiple transmitters operating simultaneously in the same frequency band. 662911 D01 Multiple Transmitter Output v02r01, 662911 D02 MIMO with Cross Polarized Antenna v01, 662911 D03 MIMO Antenna Gain Measurement v01, OET 13TR1003 Directional Gain of 802 11 MIMO with CDD 04 05 2013
II	KDB 905462 D07 v02	Aug 2016	Test guidance to demonstrate compliance for U-NII devices subject to DFS requirements.
III	KDB 926956 D01 v02	Aug 2016	U-NII Device Transition Plan
IV	A2LA	22nd June 2022	R105 - Requirement's When Making Reference to A2LA Accreditation Status
V	ANSI C63.10	2020	American National Standard for Testing Unlicensed Wireless Devices
VI	ANSI C63.4	2014	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
VII	ETSI TR 100 028	2001-12	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
VIII	FCC 06-96	Jun 2006	Memorandum Opinion and Order
IX	FCC 47 CFR Part 15.407	2021	Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices
X	ICES-003	Issue 7; Oct 2020	Information Technology Equipment (Including Digital Apparatus)
XI	UKAS M3003	Edition 5 Sept 2022	The Expression of Uncertainty and Confidence in Measurements
XII	RSS-247 Issue 3	Aug 2023	Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and Licence-Exempt Local Area Network (LE-LEN) Devices
XIII	RSS-Gen Issue 5	Amendment 1,2 (Feb 2021)	General Requirements for Compliance of Radio Apparatus. With Amendments 1: March 2019 and 2: Feb 2021.
XIV	FCC 47 CFR Part 2.1033	Feb 2023	FCC requirements and rules regarding photographs and test setup diagrams.
XV	KDB 905462 D02 v02	Apr 2016	Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.
XVI	KDB 789033 D02 V02r01	Dec 2017	Guidelines For Compliance Testing Of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
XVII	UKAS LAB 12	Edition 4 April 2022	The Expression of Uncertainty in Testing

4.2. Test and Uncertainty Procedure

Conducted and radiated emission measurements were conducted in accordance with American National Standards Institute ANSI C63.4, listed in the Normative References section of this report.

Measurement uncertainty figures are calculated in accordance with ETSI TR 100 028 Parts 1 and 2.

Measurement uncertainties stated are based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95 % in accordance with UKAS document M 3003 listed in the Normative References section of this report.

5. PRODUCT DETAILS AND TEST CONFIGURATIONS

Technical Details

Details	Description
Purpose:	Test of the Radwin AP0168031 to FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247. Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.
Applicant:	Radwin 27 Habarzel Street Tel Aviv 6971039 Israel
Manufacturer:	Radwin
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	RDWN78-U2 Draft
Date EUT received:	24 th October 2023
Standard(s) applied:	FCC CFR 47 Part 15 Subpart E 15.407 ISED RSS-247
Dates of test (from - to):	27 th – 30 th October & 1 st – 3 rd November 2023
No of Units Tested:	1
Product Family Name:	5 GHz 802.11ac 3x3 RF Module
Model(s):	AP0168031
Location for use:	Both
Declared Frequency Range(s):	5250 - 5350 MHz;
Type of Modulation:	OFDM
EUT Modes of Operation:	5250 - 5350 MHz: 20MHz; 40MHz; 80MHz;
Declared Nominal Output Power (dBm):	+23
Transmit/Receive Operation:	Transceiver
Rated Input Voltage and Current:	POE: AC Input 100-240V 50/60 Hz 1.5A DC Output 55VDC 1.0A
Operating Temperature Range:	-40 - +70
ITU Emission Designator:	20 MHz: FCC 23M1W7W, ISED 17M9W7W 40 MHz: FCC 47M1W7W, ISED 36M9W7W 80 MHz: FCC 104M8W7W, ISED 76M9W7W
Equipment Dimensions:	0.3 / 1.2 / 2.0 in
Weight:	0.042 Lb
Hardware Rev:	Prototype
Software Rev:	C

5.1. Scope Of Test Program

Radwin AP0168031

The scope of the test program was to test the Radwin AP0168031 configurations in the frequency ranges 5250 - 5350 MHz; for compliance against the following specification:

FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247

Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.

IC RSS-247 (5 GHz only)

This Radio Standard Specification sets out certification requirements for radio apparatus operating in the bands 5250 to 5350 MHz

This test program only covers 5250-5350MHz for all other tests and bands please see the following report: RDWN63-U3 Rev D

5.2. Equipment Model(s) and Serial Number(s)

Type (EUT/Support)	Equipment Description	Manufacturer	Model No.	Serial No.
EUT	5 GHz 802.11ac 3x3 RF Module	RADWIN	AP0168031	Prototype
Support	POE Power Supply	Sinpro	CPU55A-270-1	--
Support	Laptop	Dell	--	--

Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
*external	Radwin	RW-9061-5006	Sector	9.0	-	60	Yes	5250 - 5350
external	Radwin	RW-9105-5158	Directional	19.0	-	17	Yes	5250 - 5350
external	Radwin	RW-9205-5158	Directional	19.0	-	17	Yes	5250 - 5350
external	Radwin	RW-9401-5002	OMNI	12.0	-	50	-	5250 - 5350
external	Radwin	RW-9401-5004	OMNI	13.0	-	36	-	5250 - 5350
external	Radwin	RW-9402-5001	OMNI	10.0	-	360	-	5250 - 5350

BF Gain - Beamforming Gain
 Dir BW - Directional BeamWidth
 X-Pol - Cross Polarization

*Note: RW-9061-5006 has a cable which has approximately 2.5 dB of loss effectively making the gain 6.5 dBi antenna gain.

5.3. Cabling and I/O Ports

Port Type	Max Cable Length	# of Ports	Screened	Connector Type	Data Type	Bit Rate	Environment
Ethernet PoE IN	>30m	1	No	RJ45	Packet Data	2500	Outdoors

5.4. Test Configurations

Results for the following configurations are provided in this report:

Operational Mode(s)	Data Rate with Highest Power MBit/s	Channel Frequency (MHz)		
		Low	Mid	High
5250 - 5350 MHz				
20MHz	78	5,265.00	5,300.00	5,330.00
40MHz	180	5,275.00	5,300.00	5,320.00
80MHz	390	5,290.00	5,295.00	5,300.00

5.5. Equipment Modifications

The following modifications were required to bring the equipment into compliance:

1. NONE

5.6. Deviations from the Test Standard

The following deviations from the test standard were required in order to complete the test program:

1. NONE

6. TEST SUMMARY

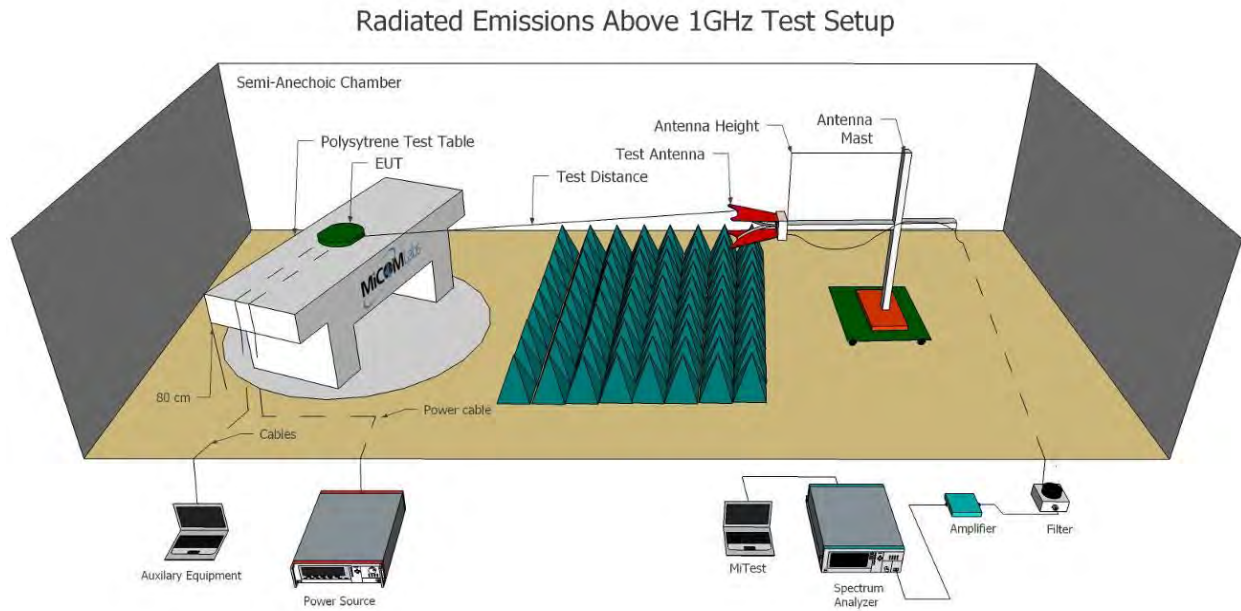
List of Measurements

Test Header	Result	Data Link
Peak Transmit Power	Complies	View Data
26 dB & 99% Bandwidth	Complies	View Data
Power Spectral Density	Complies	View Data
Dynamic Frequency Selection	Complies	see MiCOM Labs test report RDWN63-U3 Rev A
Radiated	Complies	-
TX Spurious & Restricted Band Emissions	Complies	View Data
Restricted Edge & Band-Edge Emissions	Complies	View Data
Digital Emissions	Complies	View Data

7. TEST EQUIPMENT CONFIGURATION(S)

7.1. Radiated Emissions - 3m Chamber

Test Setup for Radiated Emissions for above 1 GHz

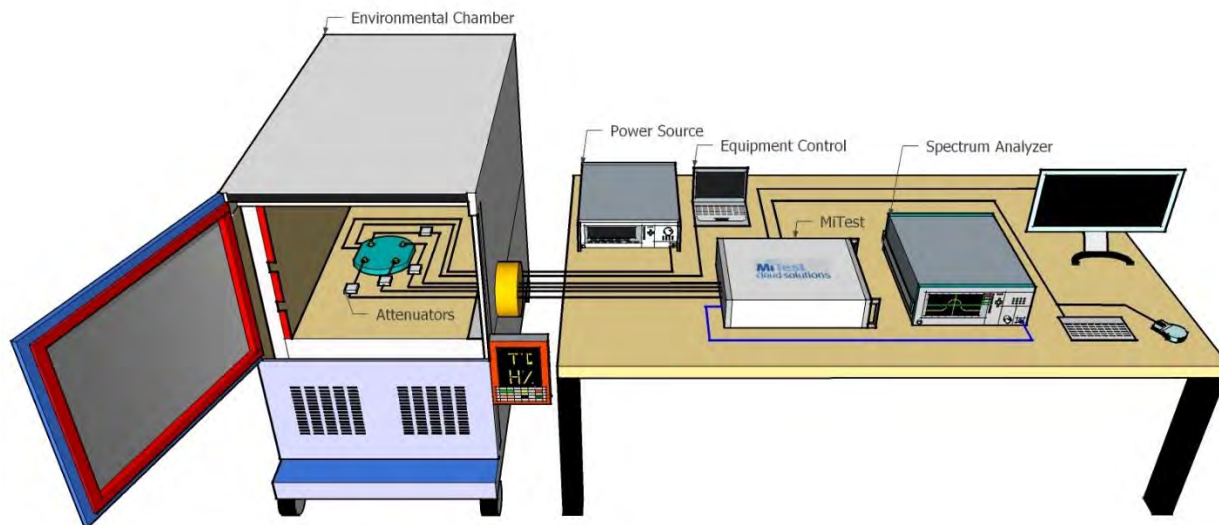


A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CU101	04R08507	Not Required
266	10 Hz to 50GHz MXA Signal Analyzer	Keysight	N9020B	MY60110791	25 Jul 2024
298	3M Radiated Emissions Chamber Maintenance Check	MiCOM	3M Chamber	298	11 Jan 2024
330	Variac 0-280 Vac	Staco Energy Co	3PN1020B	0546	Cal when used
336	Active loop Ant 10kHz to 30 MHz	EMCO	EMCO 6502	00060498	29 Nov 2023
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	29 Dec 2023
343	5.15 GHz Notch Filter	EWT	EWT-14-0200	H1	13 Sep 2024
344	5.35 GHz Notch Filter	EWT	EWT-14-0201	H1	13 Sep 2024
345	5.46 GHz Notch Filter	EWT	EWT-14-0202	H1	13 Sep 2024
373	26III RMS Multimeter	Fluke	Fluke 26 series III	76080720	29 Dec 2023
377	Band Rejection Filter 5150 to 5880MHz	Microtronics	BRM50716	034	13 Sep 2024
397	Amp 10 - 2500MHz	MiCOM Labs	Amp 10 - 2500 MHz	NA	27 Dec 2023
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	30 Dec 2023
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	2 Jan 2024
410	Desktop Computer	Dell	Inspiron 620	WS38	Not Required
411	Mast/Turntable Controller	Sunol Sciences	SC98V	060199-1D	Not Required
412	USB to GPIB Interface	National Instruments	GPIB-USB HS	11B8DC2	Not Required
413	Mast Controller	Sunol Science	TWR95-4	030801-3	Not Required
414	DC Power Supply 0-60V	HP	6274	1029A01285	Cal when used
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
447	MiTest Rad Emissions Test Software	MiCOM	Rad Emissions Test Software Version 1.0	447	Not Required
462	Schwarzbeck cable from Antenna to Amplifier.	Schwarzbeck	AK 9513	462	18 Sep 2024
463	Schwarzbeck cable from Amplifier to Bulkhead.	Schwarzbeck	AK 9513	463	18 Sep 2024
464	Schwarzbeck cable from Bulkhead to Receiver	Schwarzbeck	AK 9513	464	16 Sep 2024
466	Low Pass Filter DC-1500 MHz	Mini-Circuits	NLP-1750+	VUU10401438	14 Sep 2024
480	Cable - Bulkhead to Amp	SRC Haverhill	157-3050360	480	18 Sep 2024
481	Cable - Bulkhead to Receiver	SRC Haverhill	151-3050787	481	18 Sep 2024
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2024
554	Precision SMA Cable	Fairview Microwave	SCE18060101-400CM	554	18 Sep 2024
555	Rhode & Schwarz Receiver (Firmware Version : 2.00 SP1)	Rhode & Schwarz	ESW 44	101893	28 Jun 2024
87	Uninterruptible Power Supply	Falcon Electric	ED2000-1/2LC	F3471 02/01	Cal when used
CC05	Confidence Check	MiCOM	CC05	None	11 Mar 2024

7.2. Conducted Test Setup

MiTest Automated Test System



A full system calibration was performed on the test station and any resulting system losses (or gains) were considered in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
127	Power Supply	HP	6674A	US36370530	Cal when used
266	10 Hz to 50GHz MXA Signal Analyzer	Keysight	N9020B	MY60110791	25 Jul 2024
398	MiTest RF Conducted Test Software	MiCOM	MiTest ATS	Version 4.2.3.0	Not Required
419	Laptop with Labview Software	Lenova	W520	TS02	Not Required
420	USB to GPIB Interface	National Instruments	GPIB-USB HS	1346738	Not Required
440	USB Wideband Power Sensor	Boonton	55006	9178	8 Dec 2023
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
461	Spectrum Analyzer	Agilent	E4440A	MY46185537	27 Sep 2024
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2024
515	MiTest Cloud Solutions RF Test Box	MiCOM	2nd Gen	515	26 Jan 2024
516	USB Wideband Power Sensor	Boonton	RTP5006	10511	12 Dec 2023
517	USB Wideband Power Sensor	Boonton	RTP5006	10510	8 Dec 2023
555	Rhode & Schwarz Receiver (Firmware Version : 2.00 SP1)	Rhode & Schwarz	ESW 44	101893	28 Jun 2024
74	Environmental Chamber	Tenney	TTC	12808-1	Not Required

	Chamber 3				
RF#2 GPIB#1	GPIB cable to Power Supply	HP	GPIB	None	Not Required
RF#2 SMA#1	EUT to Mitest box port 1	Flexco	SMA Cable port1	None	26 Jan 2024
RF#2 SMA#2	EUT to Mitest box port 2	Flexco	SMA Cable port2	None	26 Jan 2024
RF#2 SMA#3	EUT to Mitest box port 3	Flexco	SMA Cable port3	None	26 Jan 2024
RF#2 SMA#4	EUT to Mitest box port 4	Flexco	SMA Cable port4	None	26 Jan 2024
RF#2 SMA#SA	Mitest box to SA	Flexco	SMA Cable SA	None	26 Jan 2024
RF#2 USB#1	USB Cable to Mitest Box	Dynex	USB Cable	None	Not Required

8. MEASUREMENT AND PRESENTATION OF TEST DATA

The measurement and graphical data presented in this test report was generated automatically using state-of-the-art technology creating an easy to read report structure. Numerical measurement data is separated from supporting graphical data (plots) through hyperlinks. Numerical measurement data can be reviewed without scrolling through numerous graphical pages to arrive at the next data matrix.

Plots have been relegated into the Appendix 'Graphical Data'.

Test and report automation was performed by [MiTest](#). [MiTest](#) is an automated test system developed by MiCOM Labs. [MiTest](#) is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for conducted RF testing.



The MiCOM Labs “[MiTest](#)” Automated Test System“ (Patent Pending)

9. TEST RESULTS

9.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407 ISED RSS-247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.407 (a); RSS-247; 6.2; 6.2.2	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 [$10 \cdot \log_{10} (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$]

G = Antenna Gain

Y = Beamforming Gain

x = Duty Cycle (average power measurements only)

Limits Maximum Conducted Output Power

Operating Frequency Band 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.

RSS-247 Section 6.2.2 Frequency band 5250-5350 MHz

6.2.2.1 Power limits

Devices, other than devices installed in vehicles, shall comply with the following:

- The maximum conducted output power shall not exceed 250 mW or 11 + 10 log₁₀B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;
- The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log₁₀B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Peak Transmit Power RW-9061-5006

Equipment Configuration for Peak Transmit Power			
Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	9.0
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)				Calculated Total Power Σ Port(s) dBm	Minimum 26 dB Bandwidth MHz	Limit dBm	Margin dB	EUT Power Setting
	Port(s)								
MHz	a	b	c	d					
5265.0	18.66	16.62	18.05	--	22.63	21.403	23.50	-0.87	19.00
5300.0	18.07	16.13	17.33	--	22.02	21.403	23.50	-1.48	18.50
5330.0	12.76	11.09	11.80	--	16.71	21.162	23.50	-6.79	13.50

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.

*note: RW-9061-5006 has a cable which has approximately 2.5 dB of loss effectively making the gain 6.5 dBi antenna gain.

Equipment Configuration for Peak Transmit Power

Variant:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	9.0
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)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5275.0	19.12	17.50	18.64	--	23.24	41.523	23.50	-0.26	20.00
5300.0	19.25	17.99	18.74	--	23.46	40.721	23.50	-0.04	20.00
5320.0	9.05	6.57	8.19	--	12.83	41.202	23.50	-10.67	9.00

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.

*note: RW-9061-5006 has a cable which has approximately 2.5 dB of loss effectively making the gain 6.5 dBi antenna gain.

Equipment Configuration for Peak Transmit Power

Variant:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	9.0
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)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5290.0	19.10	17.46	18.49	--	23.17	82.405	23.50	-0.33	20.00
5295.0	19.17	17.65	18.64	--	23.30	81.764	23.50	-0.20	20.00
5300.0	6.84	4.42	5.99	--	10.63	81.764	23.50	-12.87	7.50

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.

*note: RW-9061-5006 has a cable which has approximately 2.5 dB of loss effectively making the gain 6.5 dBi antenna gain.

Peak Transmit Power RW-9105-5158

Equipment Configuration for Peak Transmit Power
--

Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	19.00
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)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5265.0	5.62	3.33	4.88	--	9.48	22.124	11.00	-1.52	6.00
5300.0	6.22	3.92	5.48	--	10.08	21.884	11.00	-0.92	6.50
5330.0	1.99	-0.90	1.02	--	5.63	21.483	11.00	-5.37	2.00

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:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	19.00
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)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5275.0	6.59	4.13	5.88	--	10.42	41.683	11.00	-0.58	7.00
5300.0	7.07	4.72	6.16	--	10.86	40.882	11.00	-0.14	7.00
5320.0	-1.81	-4.96	-2.91	--	1.73	39.840	11.00	-9.27	-2.50

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:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	19.00
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)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5290.0	6.67	4.07	5.83	--	10.42	84.008	11.00	-0.58	7.00
5295.0	6.77	4.36	5.97	--	10.58	83.046	11.00	-0.42	7.00
5300.0	-4.09	-7.11	-5.05	--	-0.47	84.168	11.00	-11.47	-4.00

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.

9.2. Transmit Power Control (TPC)

Conducted Test Conditions for Conducted Output Power			
Standard:	FCC CFR 47:15.407 ISED RSS-247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	TPC Mechanism	Rel. Humidity (%):	32 - 45
Standard Section(s):	FCC 15.407 (h)(1) ISED RSS-247; 6.2.2.1	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 [$10 \cdot \log_{10} (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$]

G = Antenna Gain

Y = Beamforming Gain

x = Duty Cycle (average power measurements only)

FCC 15.407

(h) Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS).

(1) Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

ISED RSS-247 Section 6.2.2.1 Power limits

Devices, other than devices installed in vehicles, shall comply with the following:

- a. The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;
- b. The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Equipment Configuration for Transmit Power Control

Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	9.0
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
		Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm)				Calculated Total Power	Minimum 99% Bandwidth	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5330.0	12.76	11.09	11.80	--	16.71	21.162	23.50	-6.79	13.50
The following measurement demonstrates >6 dB drop in power.									
5330.0	6.44	5.25	5.61	--	10.56	21.162	23.50	-12.94	7.50

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.

Note: Power settings reflect a 2.5 dB cable loss, this has been accounted for.

Result: Pass

9.3. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407 ISED RSS-GEN ISED RSS-247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	26 dB and 99 % Bandwidth	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.407 (a) (1) RSS-247Sect 6.2.2.1	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		
<p>Test Procedure for 26 dB and 99% Bandwidth Measurement</p> <p>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.</p> <p>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.</p> <p>Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.</p> <p>ISED RSS-247 Section 6.2.2.1 Reference to 99% Bandwidth</p> <p>Devices, other than devices installed in vehicles, shall comply with the following:</p> <ol style="list-style-type: none"> a. The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W. 			

RW-9061-5006

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	9.0
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5265.0	22.285	22.285	21.403	--	22.285	21.403		
5300.0	22.044	21.884	21.403	--	22.044	21.403		
5330.0	22.044	21.884	21.162	--	22.044	21.162		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5265.0	17.876	17.876	17.796	--	17.876	17.796		
5300.0	17.876	17.876	17.876	--	17.876	17.876		
5330.0	17.876	17.876	17.796	--	17.876	17.796		

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:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	9.0
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5275.0	41.523	41.683	41.683	--	41.683	41.523		
5300.0	40.721	41.523	41.042	--	41.523	40.721		
5320.0	41.202	41.363	41.683	--	41.683	41.202		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5275.0	36.393	36.393	36.393	--	36.393	36.393		
5300.0	36.393	36.393	36.393	--	36.393	36.393		
5320.0	36.393	36.393	36.393	--	36.393	36.393		

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:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	9.0
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5290.0	82.725	83.367	82.405	--	83.367	82.405		
5295.0	83.046	84.329	81.764	--	84.329	81.764		
5300.0	83.046	83.687	81.764	--	83.687	81.764		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5290.0	75.992	75.992	75.992	--	75.992	75.992		
5295.0	75.992	75.992	75.992	--	75.992	75.992		
5300.0	75.992	75.992	75.992	--	75.992	75.992		

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).

RW-9105-5158

Equipment Configuration for 26 dB & 99% Occupied Bandwidth

Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	19.00
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5265.0	23.647	23.086	22.124	--	23.647	22.124		
5300.0	22.445	22.445	21.884	--	22.445	21.884		
5330.0	22.766	22.926	21.483	--	22.926	21.483		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d				
5265.0	17.876	17.876	17.876	--	17.876	17.876		
5300.0	17.876	17.876	17.876	--	17.876	17.876		
5330.0	17.876	17.876	17.796	--	17.876	17.796		

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:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	19.00
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5275.0	41.683	42.325	42.325	--	42.325	41.683		
5300.0	40.882	41.523	42.004	--	42.004	40.882		
5320.0	39.840	39.840	74.549	--	74.549	39.840		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5275.0	36.393	36.393	36.393	--	36.393	36.393		
5300.0	36.393	36.393	36.393	--	36.393	36.393		
5320.0	36.713	37.675	36.874	--	37.675	36.713		

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:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	19.00
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)				26 dB Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5290.0	84.008	84.970	84.008	--	84.970	84.008		
5295.0	84.649	84.970	83.046	--	84.970	83.046		
5300.0	84.168	88.016	84.810	--	88.016	84.168		

Test Frequency	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)			
	Port(s)				Highest	Lowest		
MHz	a	b	c	d	Highest	Lowest		
5290.0	75.992	75.992	75.992	--	75.992	75.992		
5295.0	75.992	75.992	75.992	--	75.992	75.992		
5300.0	75.992	76.313	76.313	--	76.313	75.992		

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).

9.4. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407 ISED RSS-247	Ambient Temp. (°C):	24.0 - 27.5
Test Heading:	Power Spectral Density	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.407 (a); RSS-247; 6.2.2.1	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 (â) 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 [$10^* \text{Log}10(10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$]

x = Duty Cycle

Limits Power Spectral Density

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

FCC 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.

ISED RSS-247 6.2.2 Frequency band 5250-5350 MHz

Section 6.2.2.1 Power limits

Devices, other than devices installed in vehicles, shall comply with the following:

- The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;
- The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

RW-9061-5006

Equipment Configuration for Power Spectral Density			
Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	9.0
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results							
Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5265.0	6.731	5.790	6.516	--	10.468	10.5	0.0
5300.0	6.131	5.592	5.958	--	9.594	10.5	-0.9
5330.0	1.124	0.057	0.315	--	4.615	10.5	-5.9

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density

Variant:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	9.0
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5275.0	4.120	3.212	4.695	--	8.067	10.5	-2.4
5300.0	4.315	3.837	4.341	--	8.062	10.5	-2.4
5320.0	-6.023	-7.659	-6.151	--	-2.440	10.5	-12.9

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density

Variant:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	9.0
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5290.0	0.068	0.256	0.436	--	4.320	10.5	-6.2
5295.0	0.355	-0.248	0.714	--	4.345	10.5	-6.1
5300.0	-12.217	-13.322	-11.738	--	-8.147	10.5	-18.6

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).

RW-9105-5158

Equipment Configuration for Power Spectral Density

Variant:	20MHz	Duty Cycle (%):	99.0
Data Rate:	78.00 MBit/s	Antenna Gain (dBi):	19.00
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				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5265.0	-6.767	-7.825	-6.701	--	-2.877	-2.0	-0.8
5300.0	-5.729	-7.501	-6.491	--	-2.650	-2.0	-0.6
5330.0	-10.160	-12.388	-10.812	--	-6.884	-2.0	-4.9

Traceability to Industry Recognized Test Methodologies

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density

Variant:	40MHz	Duty Cycle (%):	99.0
Data Rate:	180.00 MBit/s	Antenna Gain (dBi):	19.00
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				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5275.0	-8.767	-10.105	-8.700	--	-4.974	-2.0	-2.9
5300.0	-8.279	-9.729	-8.591	--	-4.765	-2.0	-2.7
5320.0	-17.305	-19.080	-17.488	--	-13.721	-2.0	-11.7

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:	80MHz	Duty Cycle (%):	99.0
Data Rate:	390.00 MBit/s	Antenna Gain (dBi):	19.00
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				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
	Port(s) (dBm/MHz)						
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dB
5290.0	-12.489	-13.440	-12.103	--	-8.681	-2.0	-6.7
5295.0	-12.186	-13.301	-12.342	--	-8.457	-2.0	-6.4
5300.0	-23.165	-24.801	-22.935	--	-19.487	-2.0	-17.5

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).

9.5. Dynamic Frequency Selection

Test Conditions for Dynamic Frequency Selection (DFS)			
Standard:	FCC 15.407	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Dynamic Frequency Selection (DFS)	Rel. Humidity (%):	32 - 45
Standard Section(s):	KDB 905462	Pressure (mBars):	999 - 1001
EUT Type:	Master	Frequency Bands:	5,250 – 5,350 MHz 5,470 – 5,725 MHz
Test Environment:	Conducted	Antenna Gain used for Testing:	6.5 dBi
Detection Threshold:	-64 dBm	Test Radar Level: (Threshold + Gain)	-57.5 dBm
Number of Antenna Chains:	3	Duty Cycle Target:	≥ 17.00%
Transmit Power:	+23 dBm	Minimum Data Rate:	6.5 Mbit/s / 29.3 MBIT/S
Uniform Loading:	For the above frequency band(s) the manufacturer declared that the device provides an aggregate uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.		
Communication Method:	The requisite MPEG video file ("TestFile.mpg" available on the NTIA website at the following link http://ntiacsd.ntia.doc.gov/dfs/) is used during this video stream.		
Engineer Notes:			

Master Devices

a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 – 5350 MHz and 5470 – 5725 MHz bands. DFS is not required in the 5150 – 5250 MHz or 5725 – 5850 MHz bands.

b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.

c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.

d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).

e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.

f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.

g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

9.5.1. DFS Detection Thresholds

The table below provides the DFS Detection Thresholds for Master Devices as well as Client Devices incorporating In-Service Monitoring.

DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (see Notes 1, 2 and 3)
EIRP \geq 200 milliwatt	-64 dBm
EIRP > 200 milliwatt and power density \leq 10 dBm/MHz	-62 dBm
EIRP > 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

NOTE 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna

NOTE 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

NOTE 3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

9.5.2. Response Requirements

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

DFS Response Requirement Values

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

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

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

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

9.5.3. Radar Test Waveforms

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

9.5.3.1. Short Radar Pulses

Short Pulse Radar Test Waveforms

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

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

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

9.5.3.2. Long Radar Pulse Test

Long Pulse Radar Test Waveforms

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse radar test signal. If more than 30 waveforms are used for the Long Pulse radar test signal, then each additional waveform must also be unique and not repeated from the previous waveforms.

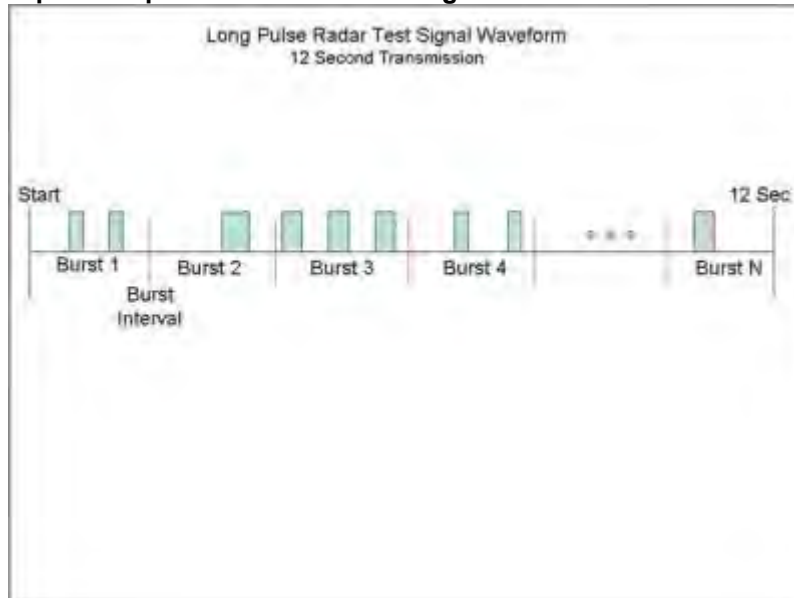
Each waveform is defined as follows:

1. The transmission period for the Long Pulse Radar test signal is 12 seconds.
2. There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
3. Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
4. The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
5. Each pulse has a linear frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a transmission period will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
6. If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the time between the first and second pulses is chosen independently of the time between the second and third pulses.
7. The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst_Count. Each interval is of length $(12,000,000 / \text{Burst_Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12,000,000 / \text{Burst_Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen independently.

A representative example of a Long Pulse radar test waveform:

1. The total test signal length is 12 seconds.
2. 8 Bursts are randomly generated for the Burst_Count
3. Burst 1 has 2 randomly generated pulses.
4. The pulse width (for both pulses) is randomly selected to be 75 microseconds.
5. The PRI is randomly selected to be at 1213 microseconds.
6. Bursts 2 through 8 are generated using steps 3 – 5.
7. Each Burst is contained in even intervals of 1,500,000 microseconds. The starting location for Pulse 1, Burst 1 is randomly generated (1 to 1,500,000 minus the total Burst 1 length + 1 random PRI interval) at the 325,001 microsecond step. Bursts 2 through 8 randomly fall in successive 1,500,000 microsecond intervals (i.e. Burst 2 falls in the 1,500,001 – 3,000,000 microsecond range).

Graphical representation of the Long Pulse Radar Test Waveform.



9.5.3.3. Frequency Hopping Radar Test Waveform

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	.333	300	70%	30

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

9.5.4. Radar Waveform Calibration

The following equipment setup was used to calibrate the Radar Waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) mode at the frequency of the Radar Waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was equal to the DFS detection threshold +1dB (Ref Section 9.2).

9.5.5. Channel Availability Check

9.5.5.4. Initial CAC

This test verifies that the EUT does not emit pulse, control, or data signals on the test Channel until the power-up sequence has been completed and the U-NII device checks for Radar Waveforms for one minute on the test Channel. This test does not use any Radar Waveforms.

The EUT is instructed to power up at the appropriate center frequency. The spectrum analyzer is set on zero span with a 1 MHz resolution bandwidth and 300 second sweep time to monitor the RF output of the EUT during power up. The analyzer's sweep will be started the same time power is applied to the U-NII device.

The EUT should not transmit any pulse or data transmissions until at least 1 minute after the completion of the power-on cycle.

The first red vertical line shown on the following plot denotes the instant when the EUT completes its power-up sequence i.e. T0 (as defined within the FCC's KDB 905462 D02 Section 4.1). The power-up reference T0 is determined by the time it takes for the EUT to start "beaconing" i.e. initial beacon - 60 secs = end of power-up.

The Channel Availability Check Time commences at instant T0 and will end no sooner than T0 + 60 seconds. T0 + 60 is indicated on the plot by the second vertical line.

NOTE: For all DFS test results refer to MiCOM Labs test report RDWN63-U3 Rev A,

9.6. TX Spurious & Restricted Band Emissions

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.407 ISED RSS-247 ISED RSS-Gen Issue 4	Ambient Temp. (°C):	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 RSS-247 6.2.2.2 RSS-Gen 8.10	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:

(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.

(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 (dBuV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \text{ } \mu\text{V/m}$$

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).

6.2.2.2 Unwanted emission limits

Devices shall comply with the following:

- a. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.; or
- b. All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device, except devices installed in vehicles, shall be labelled or include in the user manual the following text "for indoor use only."

RW-9061-5006

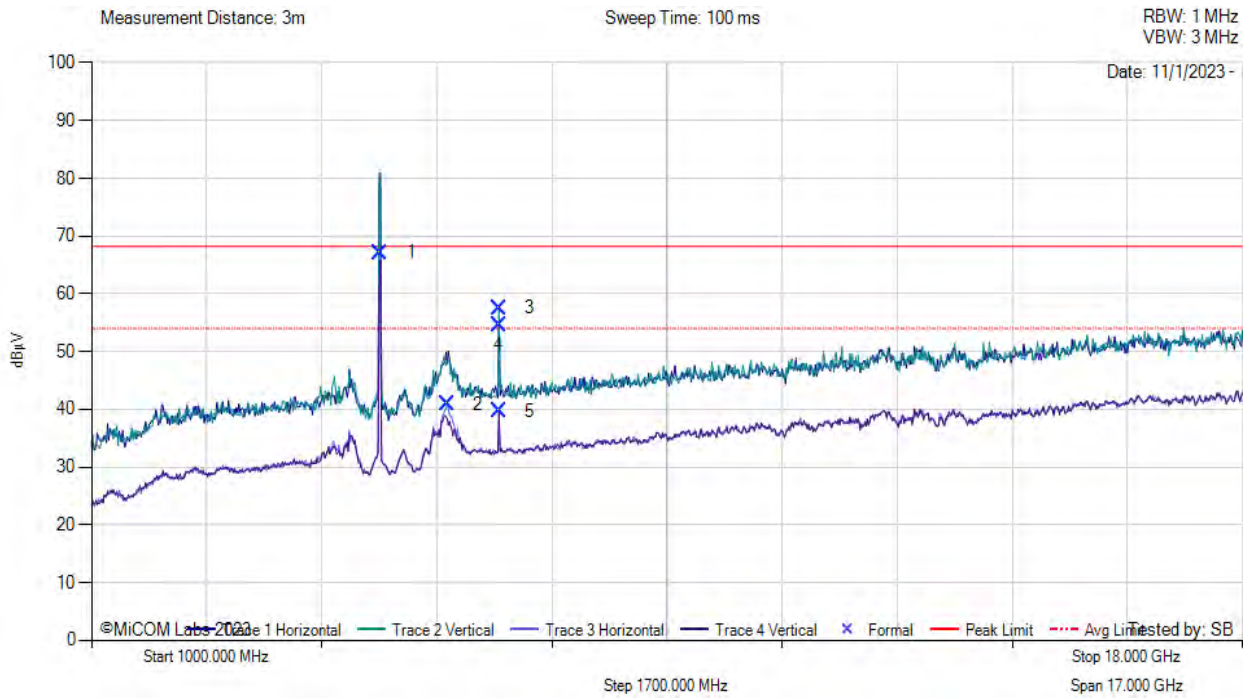
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9061-5006	Variant:	20MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5265	Data Rate:	78.00 MBit/s
Power Setting:	19.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5267.00	75.58	3.04	34.32	67.11	Fundamental	Horizontal	149	0	--	--	Pass
2	6253.00	46.56	3.30	35.61	40.92	AVG	Horizontal	149	0	54.0	-13.1	Pass
3	7018.00	62.35	3.61	35.57	57.49	MaxP	Vertical	149	0	68.2	-10.7	Pass
4	7018.00	59.55	3.61	35.57	54.69	MaxP	Horizontal	99	180	68.2	-13.5	Pass
5	7018.00	44.54	3.61	35.57	39.68	AVG	Vertical	149	0	54.0	-14.3	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

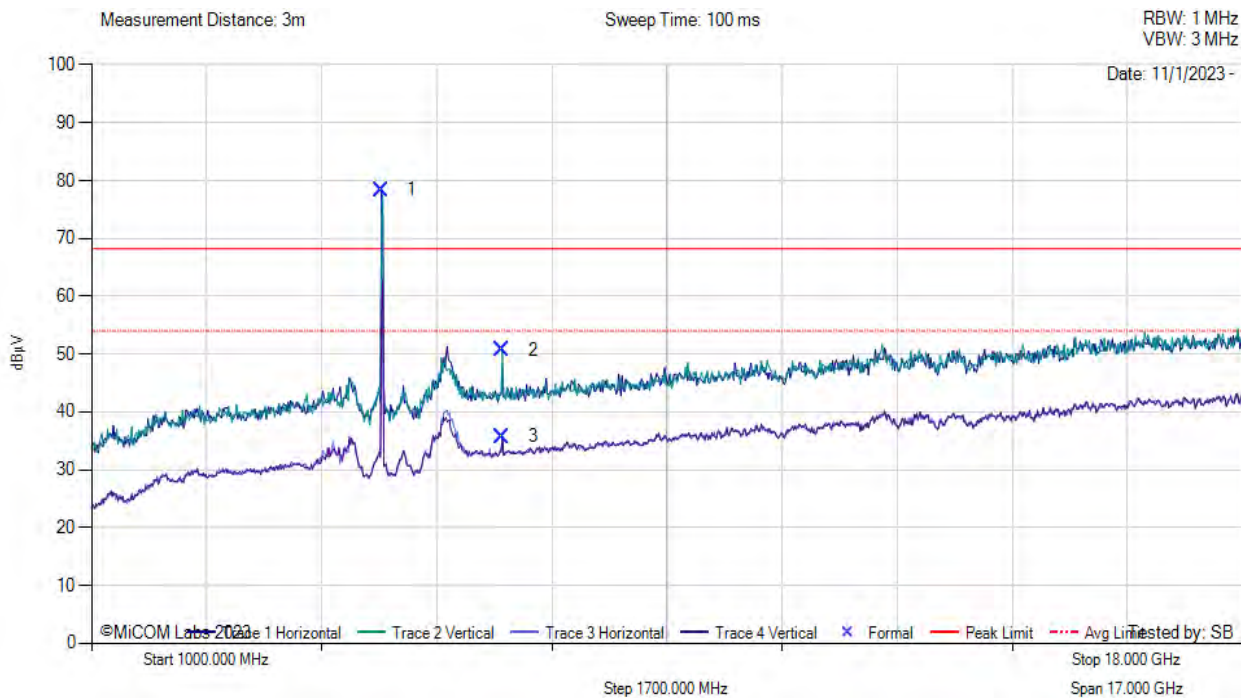
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9061-5006	Variant:	20MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	78.00 MBit/s
Power Setting:	18.50	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5284.00	87.30	2.99	34.39	78.40	MaxP	Horizontal	149	0	--	--	Pass
2	7069.00	55.49	3.59	35.63	50.75	MaxP	Vertical	99	0	68.2	-17.5	Pass
3	7069.00	40.48	3.59	35.63	35.74	AVG	Vertical	100	0	54.0	-18.3	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

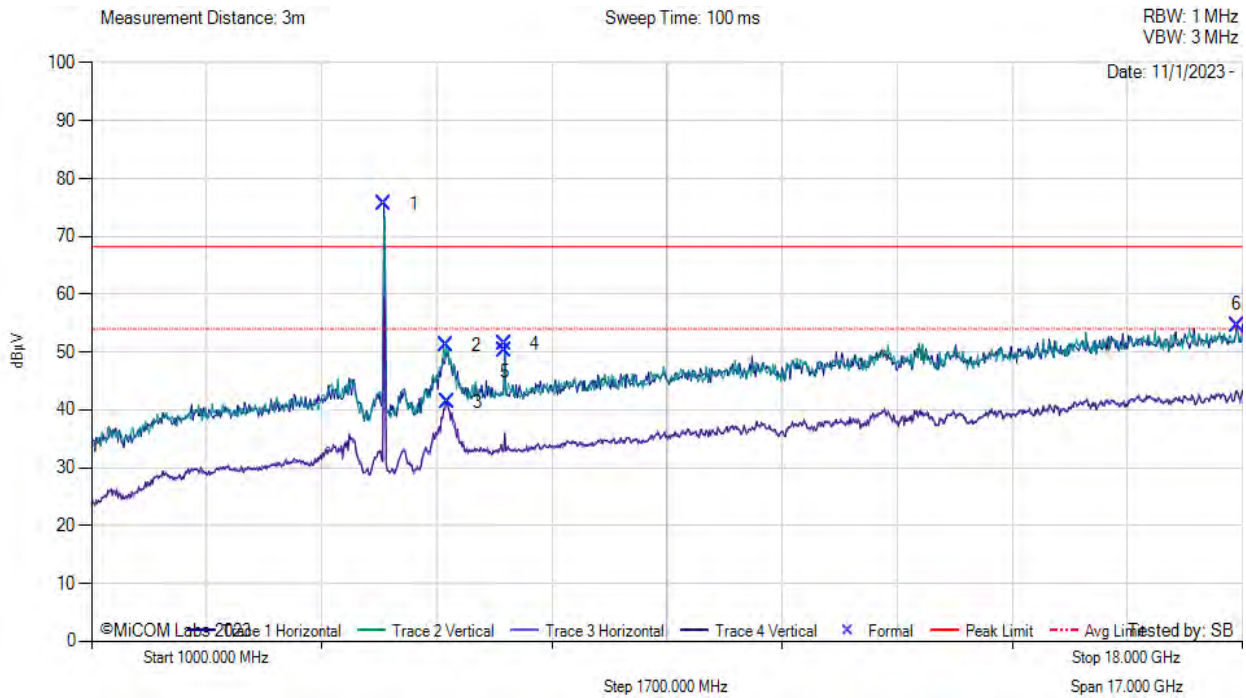
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9061-5006	Variant:	20MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	13.50	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5318.00	84.56	2.99	34.39	75.66	Fundamental	Vertical	149	0	--	--	Pass
2	6236.00	57.07	3.30	35.56	51.18	MaxP	Vertical	100	0	68.2	-18.2	Pass
3	6253.00	46.99	3.30	35.61	41.35	AVG	Horizontal	149	0	54.0	-12.7	Pass
4	7103.00	56.40	3.52	35.64	51.47	MaxP	Vertical	99	0	68.2	-16.8	Pass
5	7103.00	55.15	3.52	35.64	50.23	MaxP	Horizontal	149	120	68.2	-18.0	Pass
6	17915.00	47.54	6.67	40.74	54.68	MaxP	Horizontal	149	0	68.2	-13.5	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

RW-9402-5001

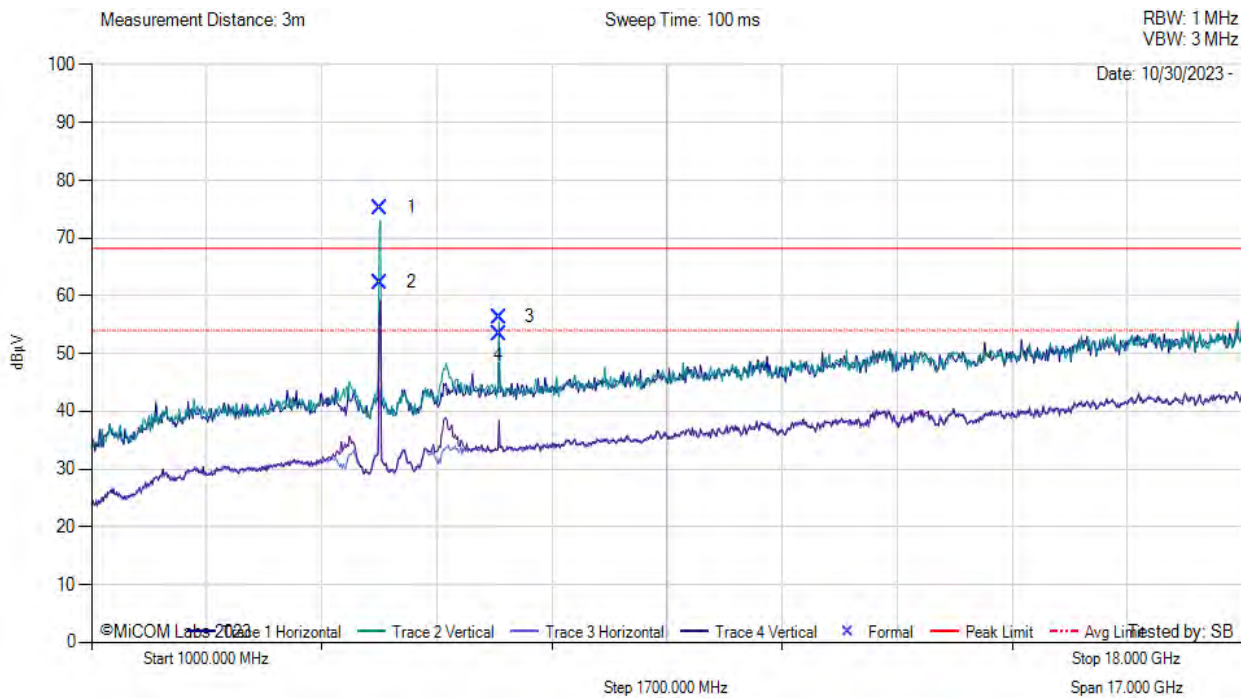
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9402-5001	Variant:	20MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5265	Data Rate:	78.00 MBit/s
Power Setting:	19.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5268.24	83.72	3.03	-11.51	75.24	Fundamental	Vertical	148	184	--	--	Pass
2	5268.24	70.77	3.03	-11.51	62.29	Fundamental	Vertical	148	184	--	--	Pass
3	7019.95	61.20	3.62	-8.44	56.37	MaxP	Vertical	149	0	68.2	-11.9	Pass
4	7019.95	58.15	3.62	-8.44	53.32	AVG	Vertical	149	0	54.0	-0.7	Pass

Test Notes: 10 dBi Omni Directional Antenna

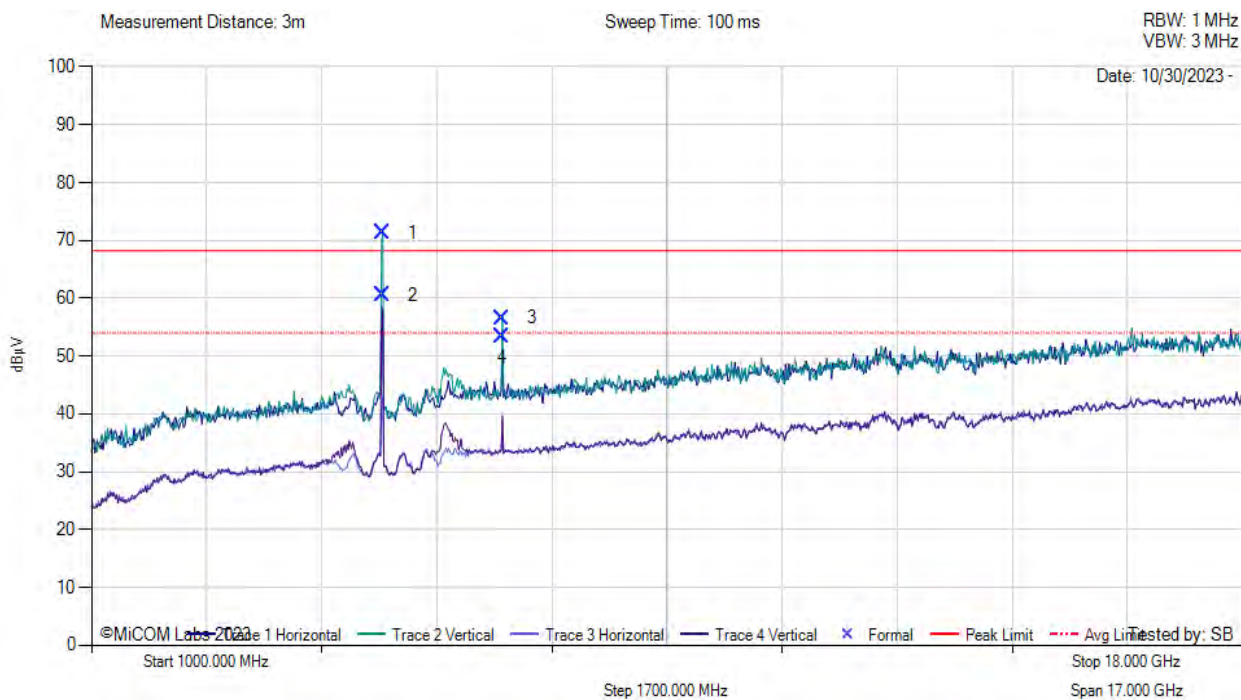
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9402-5001	Variant:	20MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	78.00 MBit/s
Power Setting:	19.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5299.02	80.23	3.23	-12.15	71.32	Fundamental	Vertical	148	144	--	--	Pass
2	5299.02	69.48	3.23	-12.15	60.56	Fundamental	Vertical	148	144	--	--	Pass
3	7067.00	61.24	3.58	35.63	56.53	MaxP	Vertical	147	0	68.2	-11.7	Pass
4	7067.00	57.98	3.58	35.63	53.26	AVG	Vertical	147	0	54.0	-0.7	Pass

Test Notes: 10 dBi Omni Directional Antenna

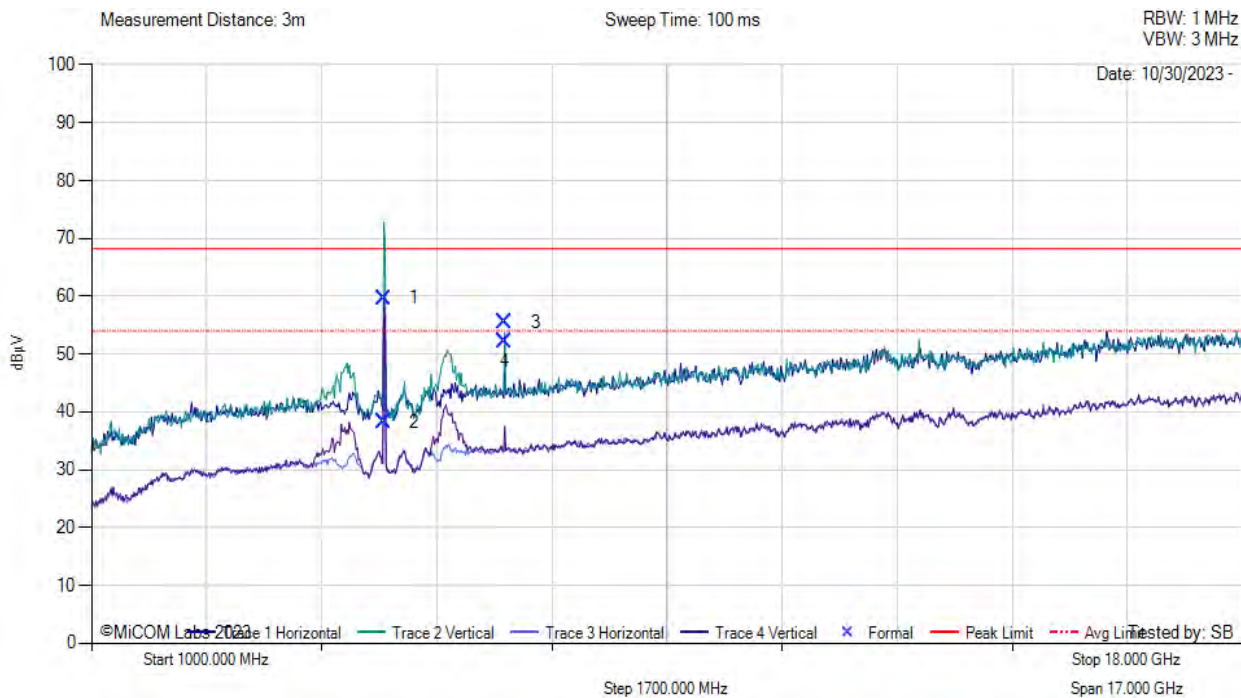
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9402-5001	Variant:	20MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	14.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5319.98	68.50	3.04	-11.81	59.73	Fundamental	Vertical	149	118	--	--	Pass
2	5319.98	46.98	3.04	-11.81	38.21	Fundamental	Vertical	149	118	--	--	Pass
3	7106.62	60.45	3.52	-8.40	55.57	MaxP	Vertical	148	0	68.2	-12.7	Pass
4	7106.62	57.14	3.52	-8.40	52.25	AVG	Vertical	148	0	54.0	-1.7	Pass

Test Notes: 10 dBi Omni Directional Antenna

RW-9401-5004

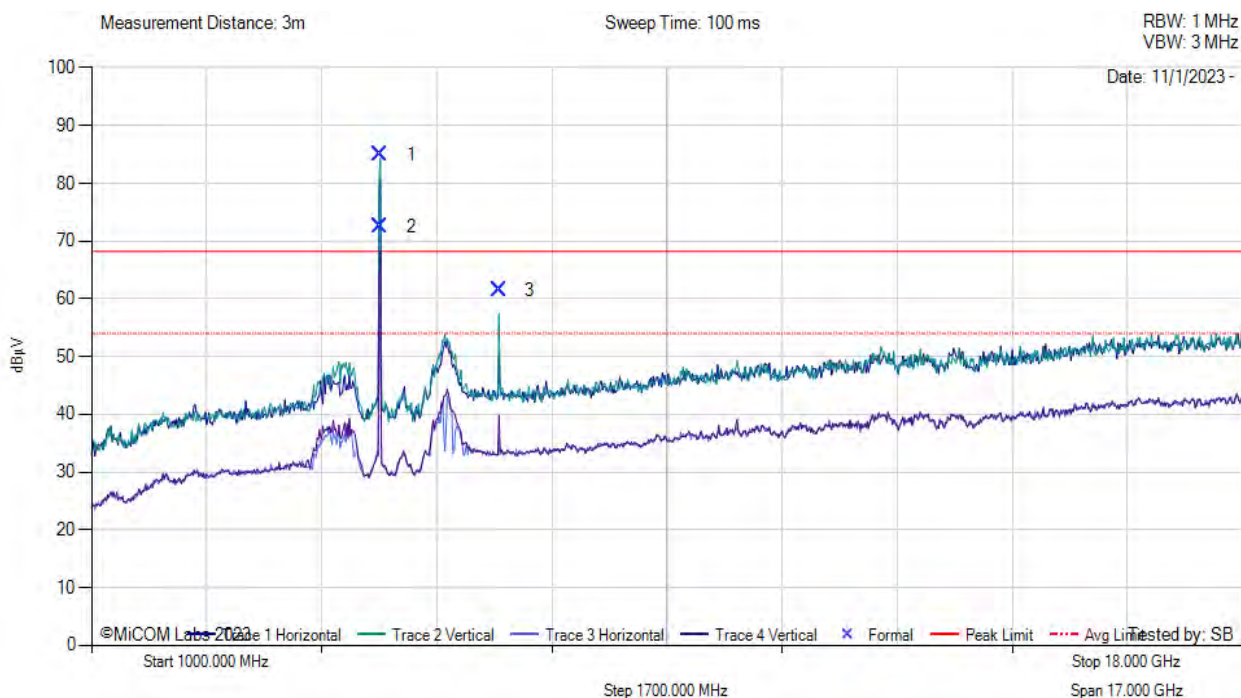
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9401-5004	Variant:	20MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5265	Data Rate:	78.00 MBit/s
Power Setting:	19.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5268.32	93.46	3.03	-11.52	84.98	Fundamental	Vertical	144	5	--	--	Pass
2	5268.32	81.03	3.03	-11.52	72.55	Fundamental	Vertical	144	5	--	--	Pass
3	7020.01	66.28	3.62	-8.44	61.46	NRB	Vertical	149	89	--	--	Pass

Test Notes: 13 dBi Omni Directional Antenna; NRB = Non Restrictive Band

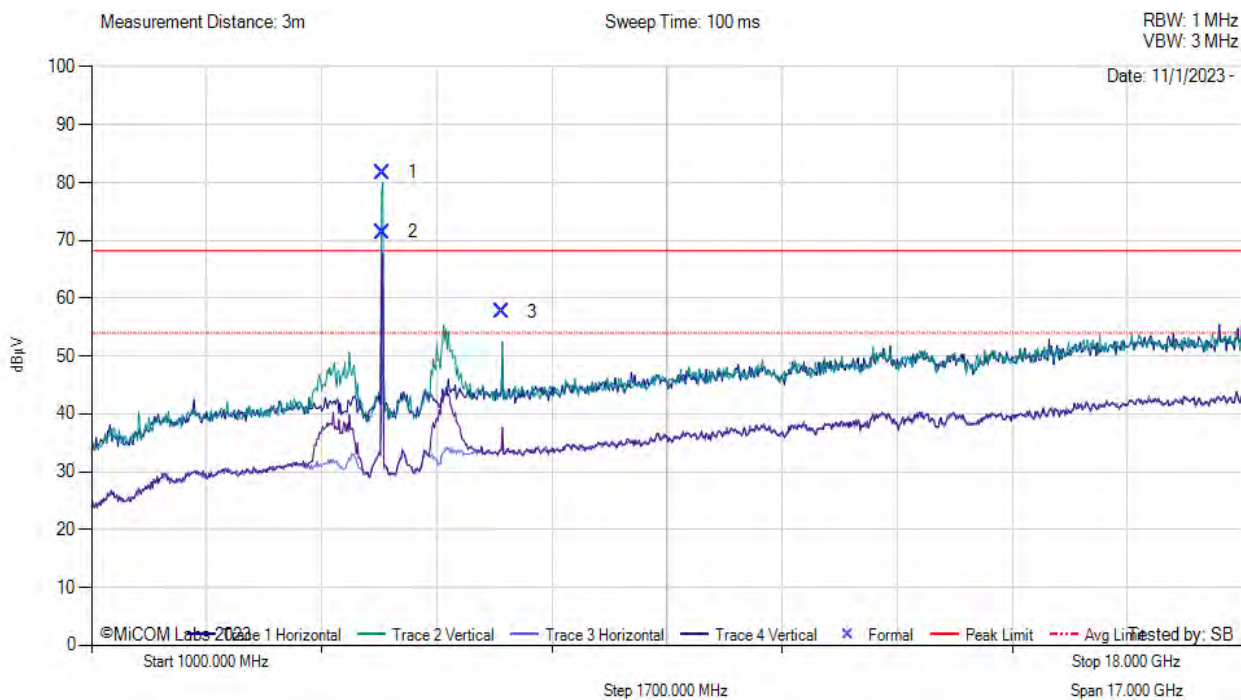
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9401-5004	Variant:	20MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	78.00 MBit/s
Power Setting:	19.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5301.96	90.62	3.23	-12.12	81.74	Fundamental	Vertical	148	0	--	--	Pass
2	5301.96	80.27	3.23	-12.12	71.38	Fundamental	Vertical	148	0	--	--	Pass
3	7066.67	62.28	3.58	-8.29	57.58	NRB	Vertical	144	150	--	--	Pass

Test Notes: 13 dBi Omni Directional Antenna; NRB = Non Restrictive Band

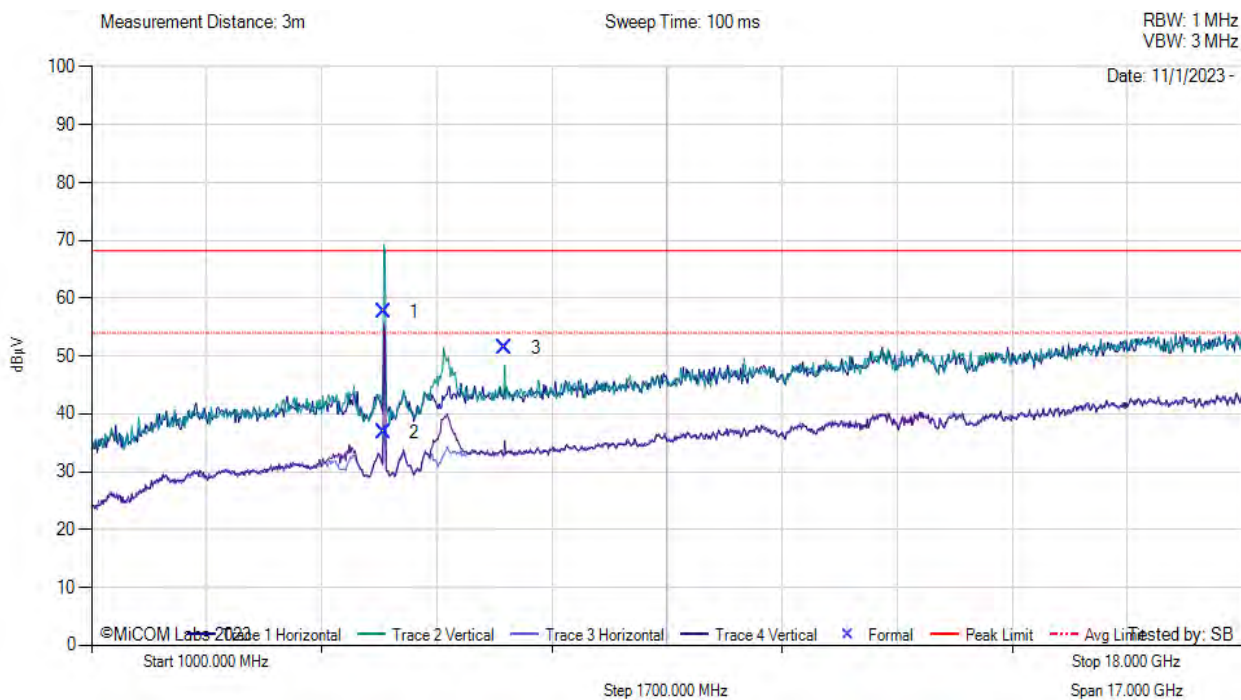
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9401-5004	Variant:	20MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	12.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5320.00	66.47	3.04	-11.81	57.70	Fundamental	Vertical	137	11	--	--	Pass
2	5320.00	45.52	3.04	-11.81	36.75	Fundamental	Vertical	137	11	--	--	Pass
3	7106.78	56.30	3.52	-8.40	51.42	NRB	Vertical	144	150	--	--	Pass

Test Notes: 13 dBi Omni Directional Antenna; NRB = Non Restrictive Band

RW-9105-5158

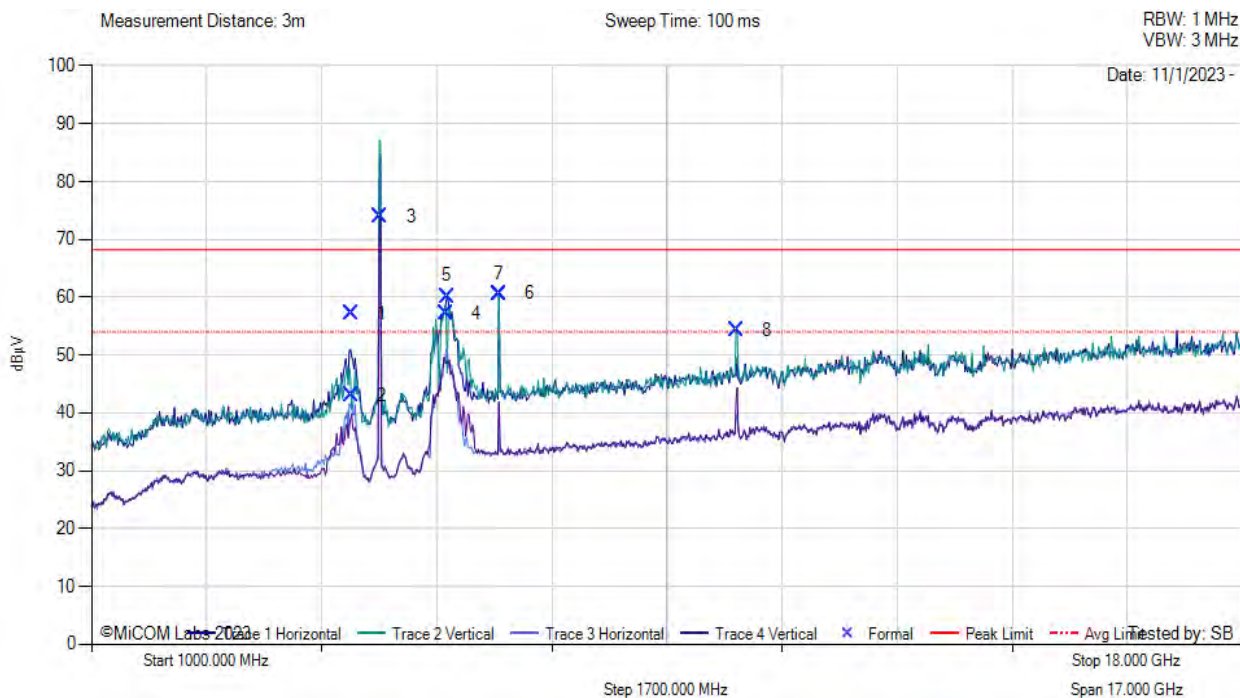
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9105-5158	Variant:	20MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5265	Data Rate:	78.00 MBit/s
Power Setting:	6.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	4839.52	66.41	2.93	-12.16	57.17	MaxP	Horizontal	149	0	68.2	-11.1	Pass
2	4839.52	52.23	2.93	-12.16	42.99	AVG	Horizontal	149	0	54.0	-11.0	Pass
3	5267.00	82.45	3.04	34.32	73.98	Fundamental	Vertical	149	0	--	--	Pass
4	6236.00	63.09	3.30	35.56	57.21	MaxP	Vertical	149	0	68.2	-11.0	Pass
5	6253.00	65.77	3.30	35.61	60.14	MaxP	Horizontal	149	0	68.2	-8.1	Pass
6	7018.00	65.51	3.61	35.57	60.65	NRB	Vertical	149	300	--	--	Pass
7	7018.00	65.31	3.61	35.57	60.45	NRB	Horizontal	149	300	--	--	Pass
8	10520.00	54.69	4.83	37.39	54.37	MaxP	Vertical	149	0	68.2	-13.9	Pass

Test Notes: 19 dBi Panel Antenna; NRB = Non Restrictive Band

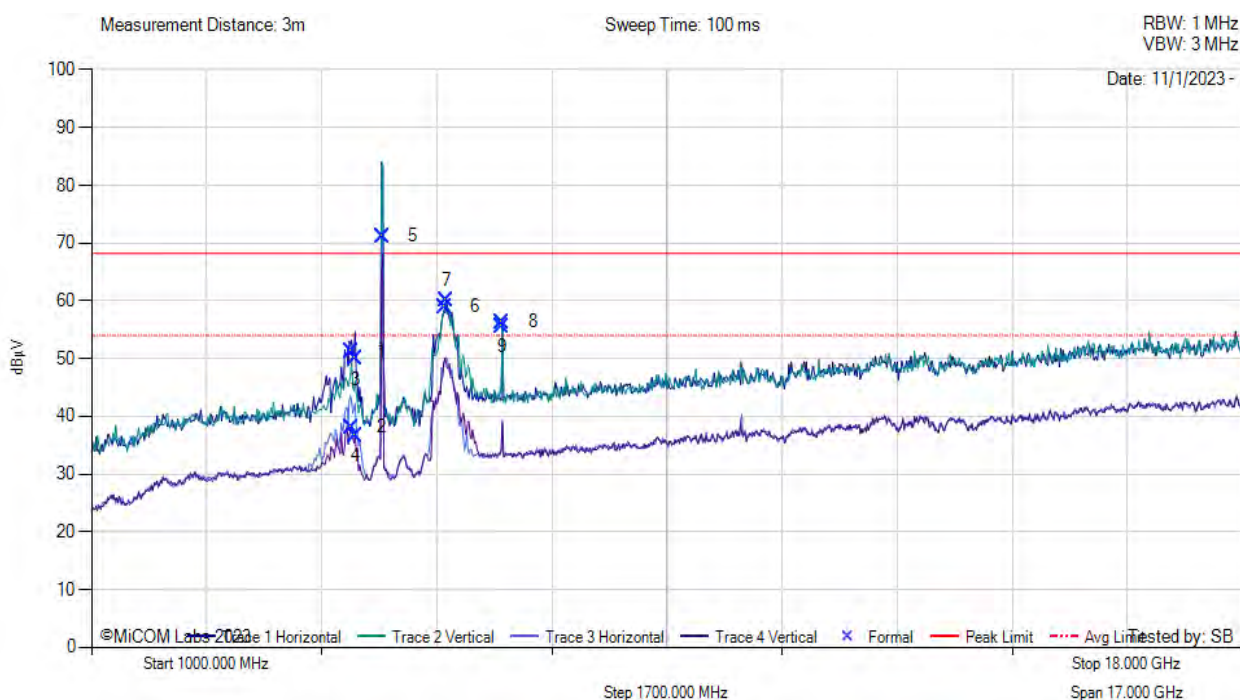
Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ

Antenna:	RW-9105-5158	Variant:	20MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	78.00 MBit/s
Power Setting:	6.5	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	4840.05	60.38	2.93	-12.17	51.14	MaxP	Vertical	149	2	68.2	-17.1	Pass
2	4840.05	47.32	2.93	-12.17	38.08	AVG	Vertical	149	2	54.0	-15.9	Pass
3	4899.66	59.00	2.88	-11.93	49.96	MaxP	Horizontal	142	5	68.2	-18.3	Pass
4	4899.66	45.70	2.88	-11.93	36.65	AVG	Horizontal	142	5	54.0	-17.4	Pass
5	5301.00	80.08	3.26	34.45	71.21	Fundamental	Horizontal	149	0	--	--	Pass
6	6219.00	64.97	3.31	35.50	58.96	MaxP	Vertical	149	0	68.2	-9.3	Pass
7	6236.00	65.88	3.30	35.56	60.00	MaxP	Horizontal	149	0	68.2	-8.2	Pass
8	7069.00	61.07	3.59	35.63	56.32	NRB	Horizontal	149	0	--	--	Pass
9	7069.00	60.33	3.59	35.63	55.59	NRB	Vertical	149	0	--	--	Pass

Test Notes: 19 dBi Panel Antenna; NRB = Non Restrictive Band

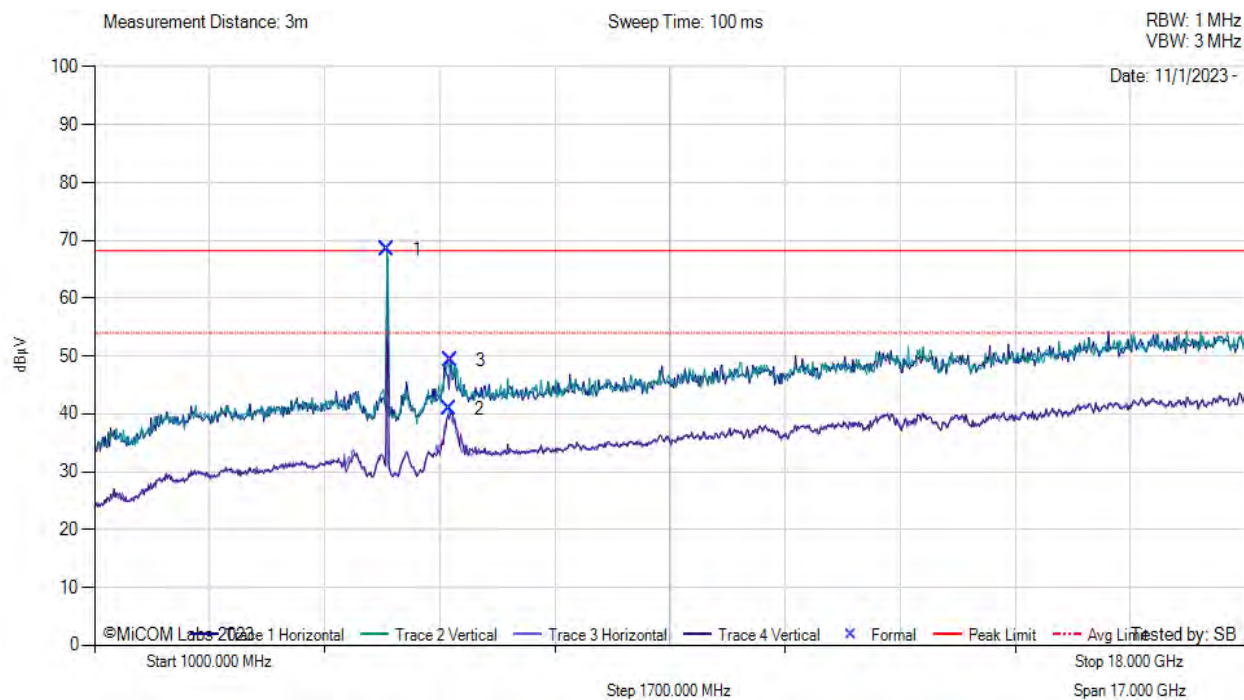
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9105-5158	Variant:	20MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	2.0	Tested By:	SB

Test Measurement Results



FCC Spurious 1 GHz -18 GHz



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	5318.00	77.21	3.04	34.47	68.39	Fundamental	Vertical	149	0	--	--	Pass
2	6236.00	46.76	3.30	35.56	40.88	AVG	Horizontal	149	0	54.0	-13.1	Pass
3	6253.00	54.94	3.30	35.61	49.30	MaxP	Vertical	149	0	68.2	-18.9	Pass

Test Notes: 19 dBi Panel Antenna; NRB = Non Restrictive Band

9.6.1. Restricted Edge & Band Edge Emissions

Band Edge Emissions RW-9061-5006

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

RW-9061-5006		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
20 MHz	5330.00	5350.00	68.15	53.22	13.5
40 MHz	5320.00	5350.00	69.73	53.40	9.0
80 MHz	5300.00	5350.00	71.21	53.40	7.5

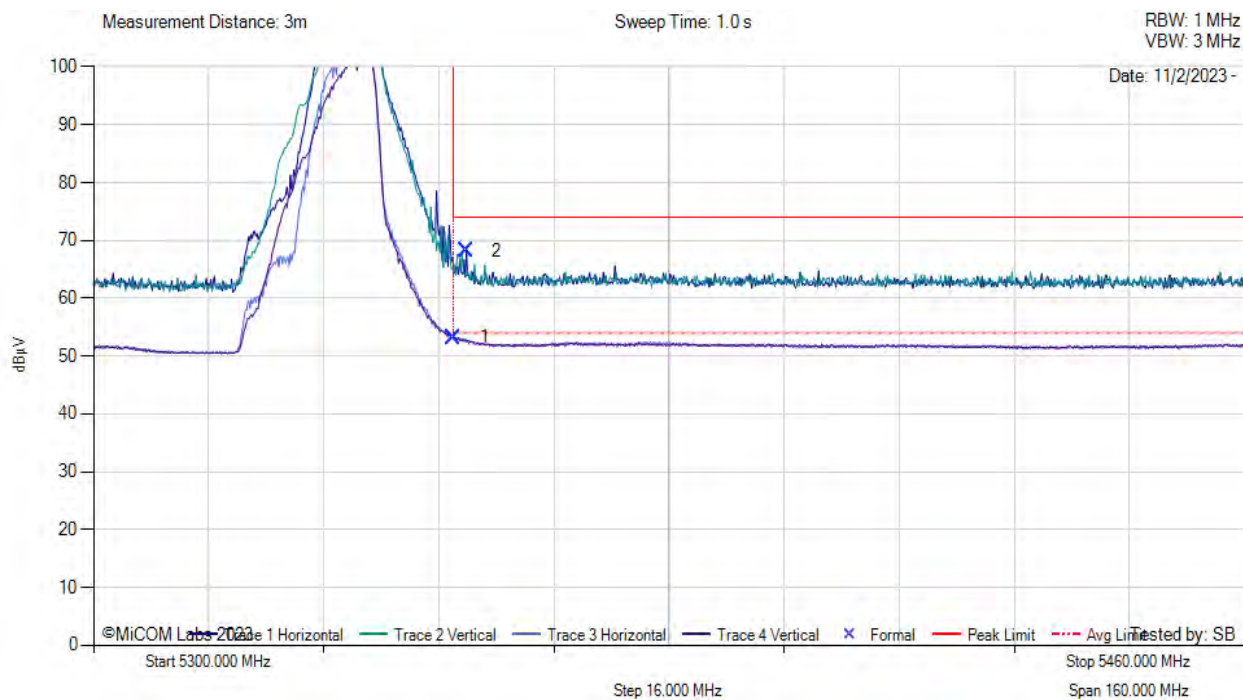
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9061-5006	Variant:	20MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	13.5	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	15.68	3.03	34.51	53.22	AVG	Vertical	149	0	54.0	-0.8	Pass
2	5351.84	30.61	3.03	34.51	68.15	MaxP	Vertical	149	0	74	-5.8	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

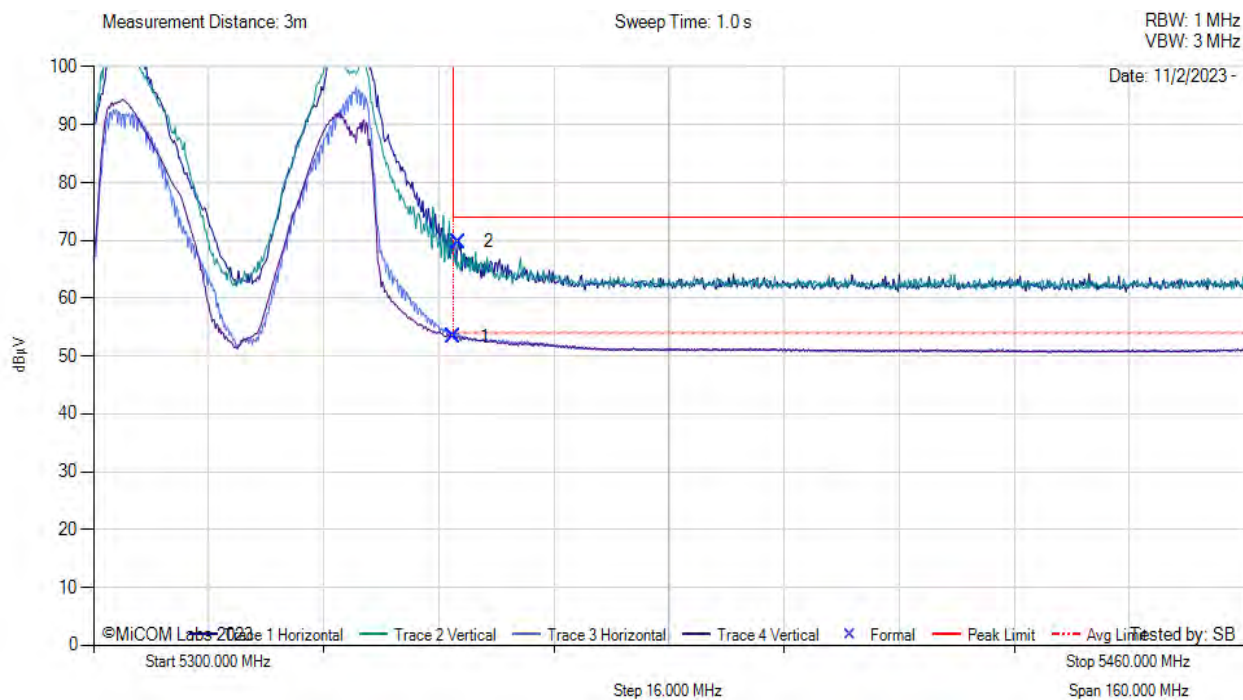
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9061-5006	Variant:	40MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320	Data Rate:	180.00 MBit/s
Power Setting:	9.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	15.86	3.03	34.51	53.40	AVG	Vertical	149	0	54.0	-0.6	Pass
2	5350.72	32.20	3.03	34.51	69.73	MaxP	Horizontal	199	0	74.0	-4.3	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

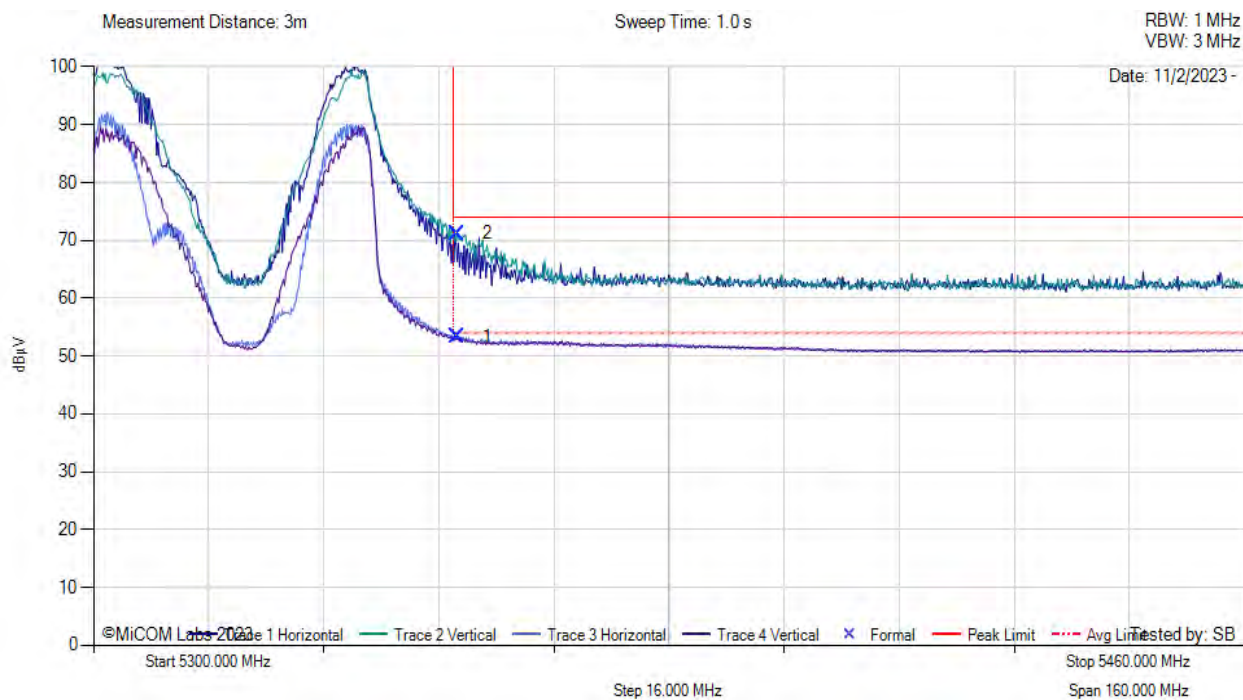
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9061-5006	Variant:	80MHz
Antenna Gain (dBi):	9 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	390.00 MBit/s
Power Setting:	7.5	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.56	15.86	3.03	34.51	53.40	AVG	Horizontal	199	0	54.0	-0.6	Pass
2	5350.56	33.68	3.03	34.51	71.21	MaxP	Vertical	150	0	74.0	-2.8	Pass

Test Notes: 9 dBi Omni Directional Antenna with a 2.5 dB cable loss which effectively makes it a 6.5 dBi antenna

Band Edge Emissions RW-9402-5001

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

RW-9402-5001		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
20 MHz	5330.00	5350.00	70.23	53.33	14.0
40 MHz	5320.00	5350.00	72.22	53.42	8.0
80 MHz	5300.00	5350.00	72.98	53.63	7.0

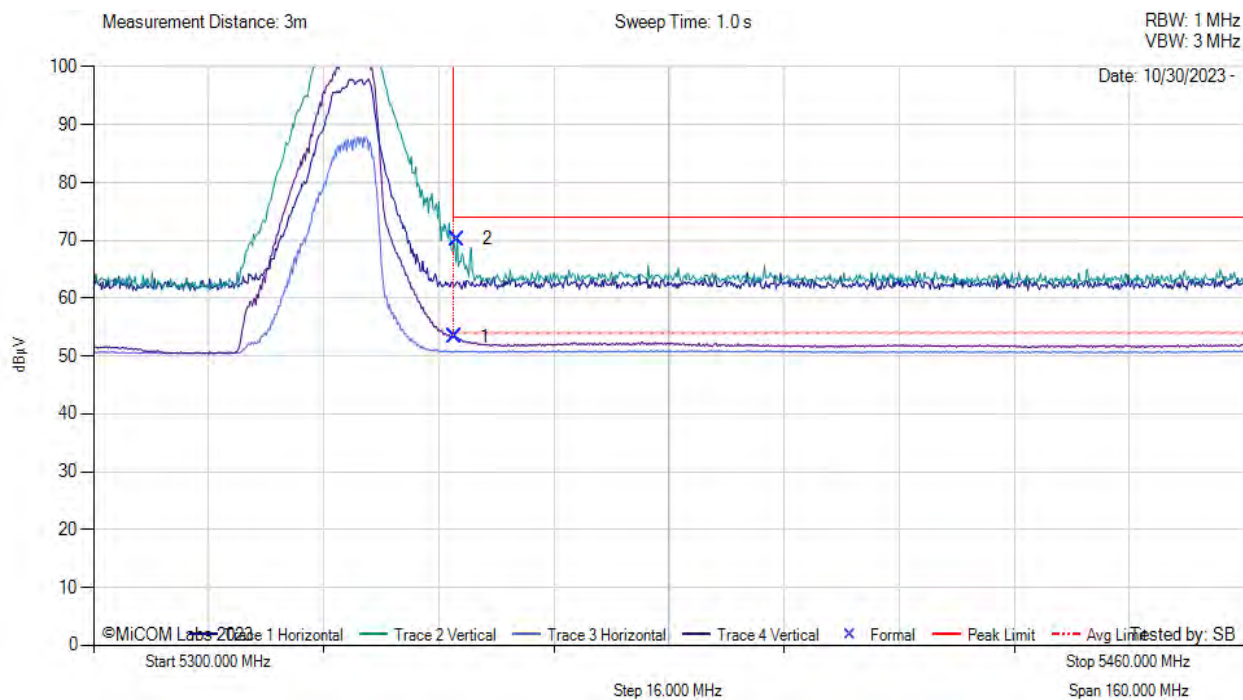
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9402-5001	Variant:	20MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	14.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.24	15.79	3.03	34.51	53.33	AVG	Vertical	149	299	54.0	-0.7	Pass
2	5350.56	32.69	3.03	34.51	70.23	MaxP	Vertical	149	29	74.0	-3.8	Pass

Test Notes: 10 dBi Omni Directional Antenna

Equipment Configuration for BE 5350 MHz

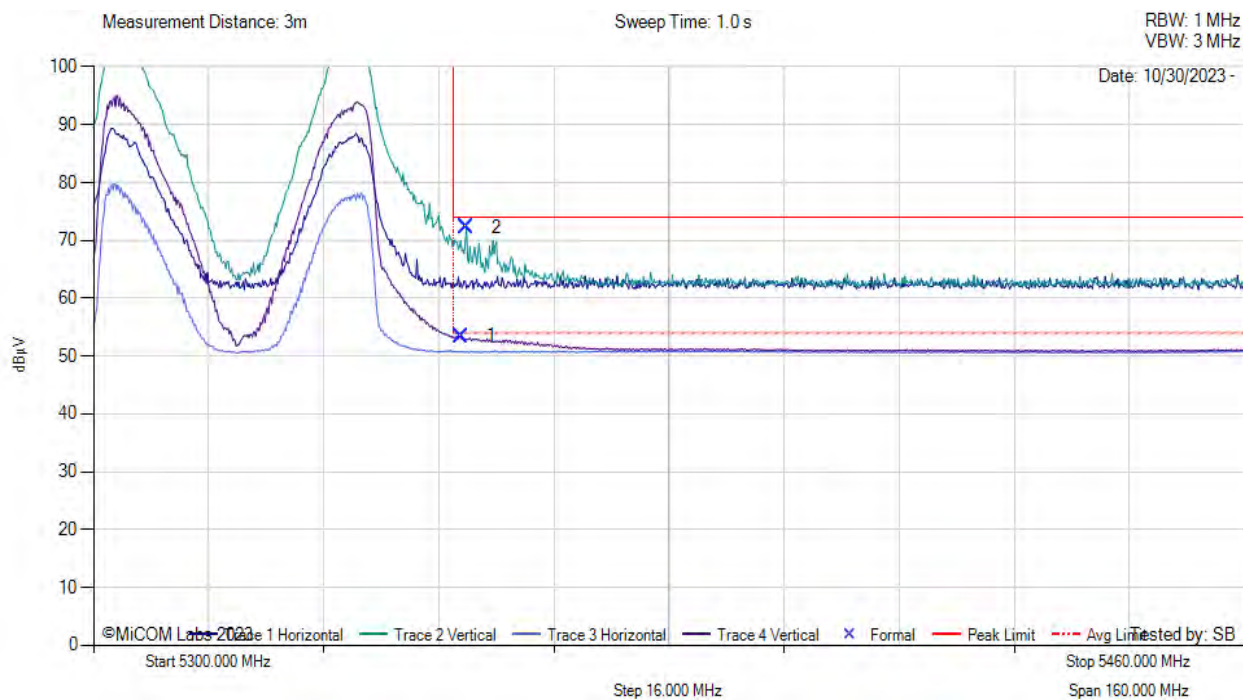
Antenna:	RW-9402-5001	Variant:	40MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320	Data Rate:	180.00 MBit/s
Power Setting:	8.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz

Variant: , Test Freq: 0.00 MHz, Antenna: Omni 10 dBi



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	5351.04	15.88	3.03	34.51	53.42	AVG	Vertical	150	269	54.0	-0.6	Pass
2	5351.84	34.68	3.03	34.51	72.22	MaxP	Vertical	150	0	74.0	-1.8	Pass

Test Notes: 10 dBi Omni Directional Antenna

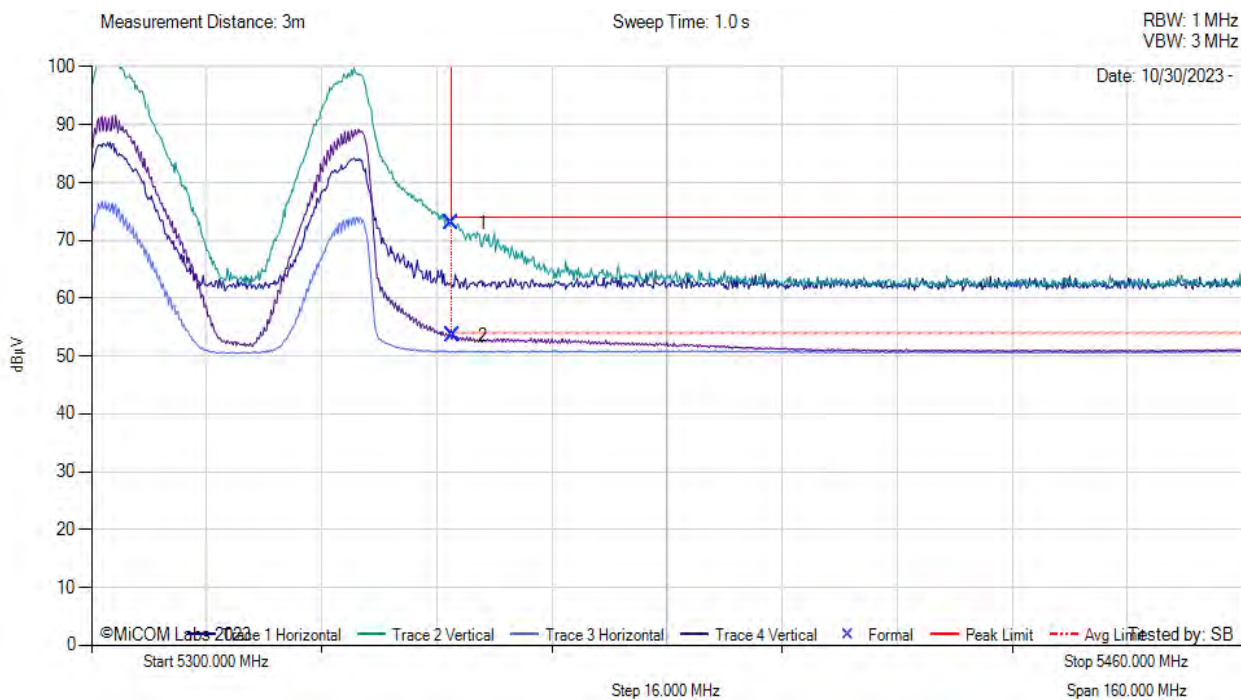
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9402-5001	Variant:	80MHz
Antenna Gain (dBi):	10 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	390.00 MBit/s
Power Setting:	7.5	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	35.44	3.03	34.51	72.98	MaxP	Vertical	151	0	74.0	-1.0	Pass
2	5350.24	16.10	3.03	34.51	53.63	AVG	Vertical	150	270	54.0	-0.4	Pass

Test Notes: 10 dBi Omni Directional Antenna

Band Edge Emissions RW-9401-5004

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

RADWIN Ltd. RW-9401-5004		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
20 MHz	5330.00	5350.00	73.73	53.91	12.0
40 MHz	5320.00	5350.00	70.98	53.43	7.0
80 MHz	5300.00	5350.00	72.24	53.47	5.5

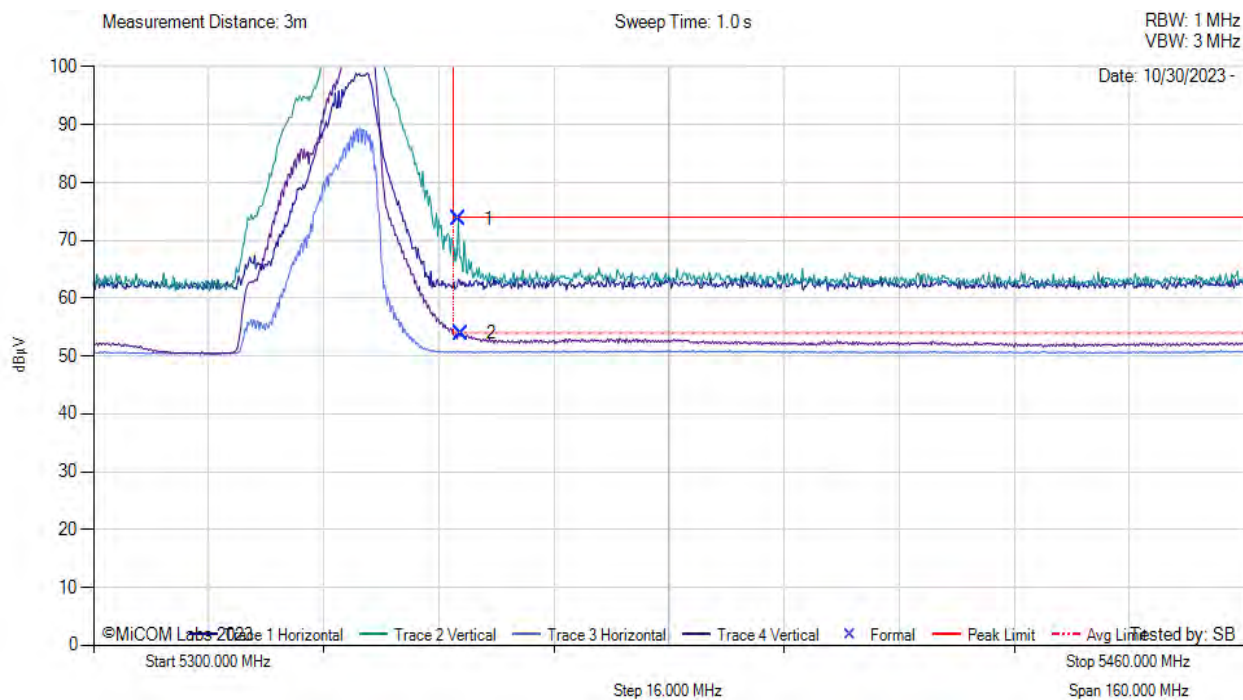
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9401-5004	Variant:	20MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	12.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.72	36.19	3.03	34.51	73.73	MaxP	Vertical	150	0	74.0	-0.3	Pass
2	5351.04	16.37	3.03	34.51	53.91	AVG	Vertical	199	0	54.0	-0.1	Pass

Test Notes: 13 dBi Omni Directional Antenna;

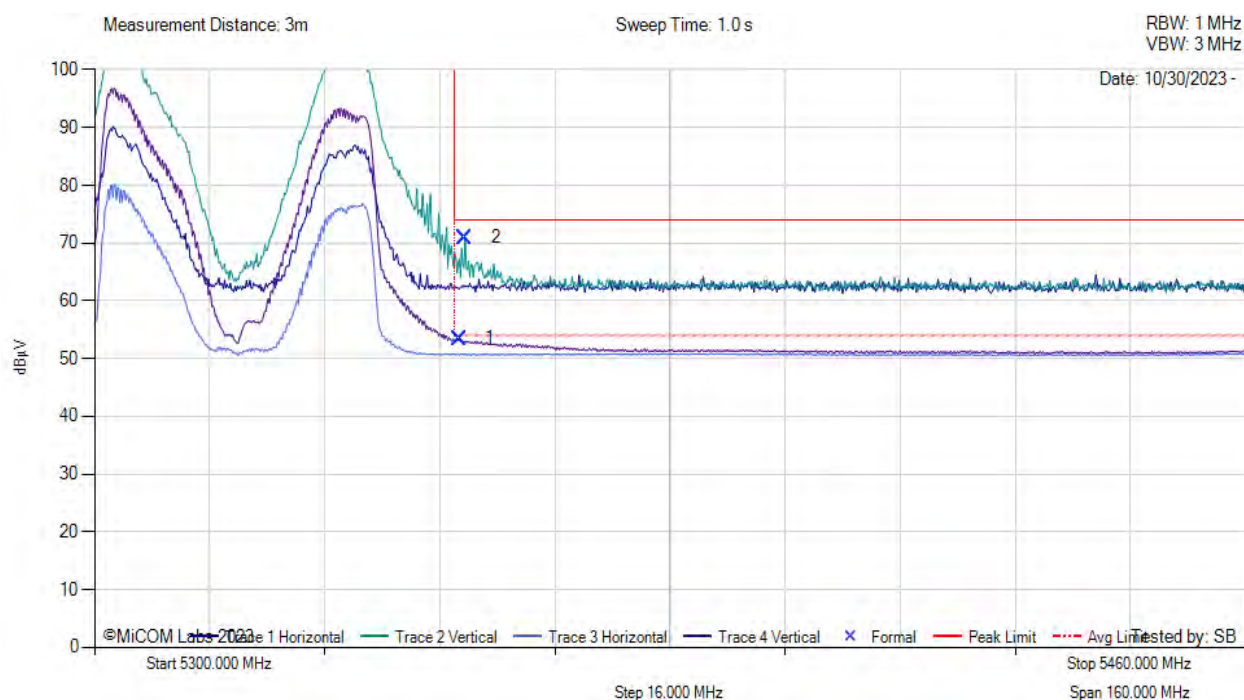
Equipment Configuration for BE 5350 MHz

Antenna:	RW-9401-5004	Variant:	40MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320	Data Rate:	180.00 MBit/s
Power Setting:	7.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



5300.00 - 5460.00 MHz

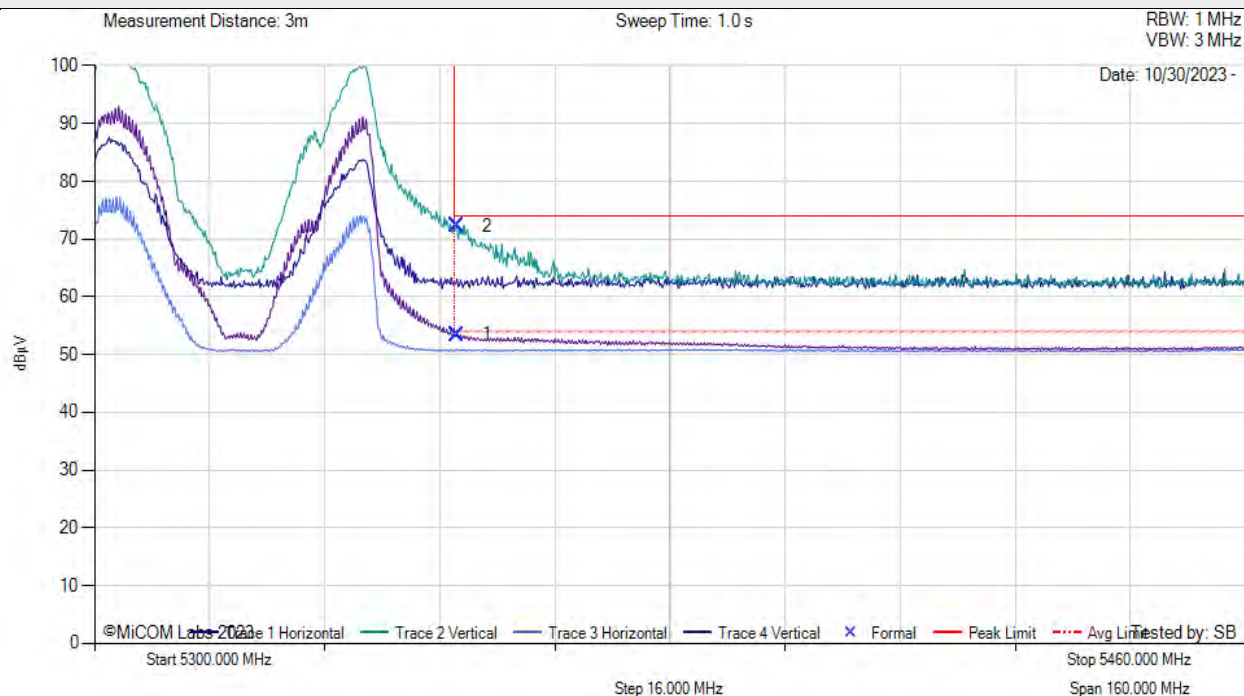
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	5350.72	15.89	3.03	34.51	53.43	AVG	Vertical	199	0	54.0	-0.6	Pass
2	5351.52	33.44	3.03	34.51	70.98	MaxP	Vertical	199	0	74.0	-3.0	Pass

Test Notes: 13 dBi Omni Directional Antenna;

Equipment Configuration for BE 5350 MHZ

Antenna:	RW-9401-5004	Variant:	80MHz
Antenna Gain (dBi):	13 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	390.00 MBit/s
Power Setting:	5.5	Tested By:	SB

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	5350.40	15.93	3.03	34.51	53.47	AVG	Vertical	199	0	54.0	-0.5	Pass
2	5350.40	34.71	3.03	34.51	72.24	MaxP	Vertical	199	0	74.0	-1.8	Pass

Test Notes: 13 dBi Omni Directional Antenna;

Band Edge Emissions RW-9105-5158

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5250 - 5350 MHz

RADWIN Ltd. RW-9105-5158		Band-Edge Freq	Limit 74.0dB μ V/m	Limit 54.0dB μ V/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dB μ V/m	dB μ V/m	
20 MHz	5330.00	5350.00	71.43	53.98	2.0
40 MHz	5320.00	5350.00	70.96	53.91	-2.5
80 MHz	5300.00	5350.00	73.29	53.20	-4.0

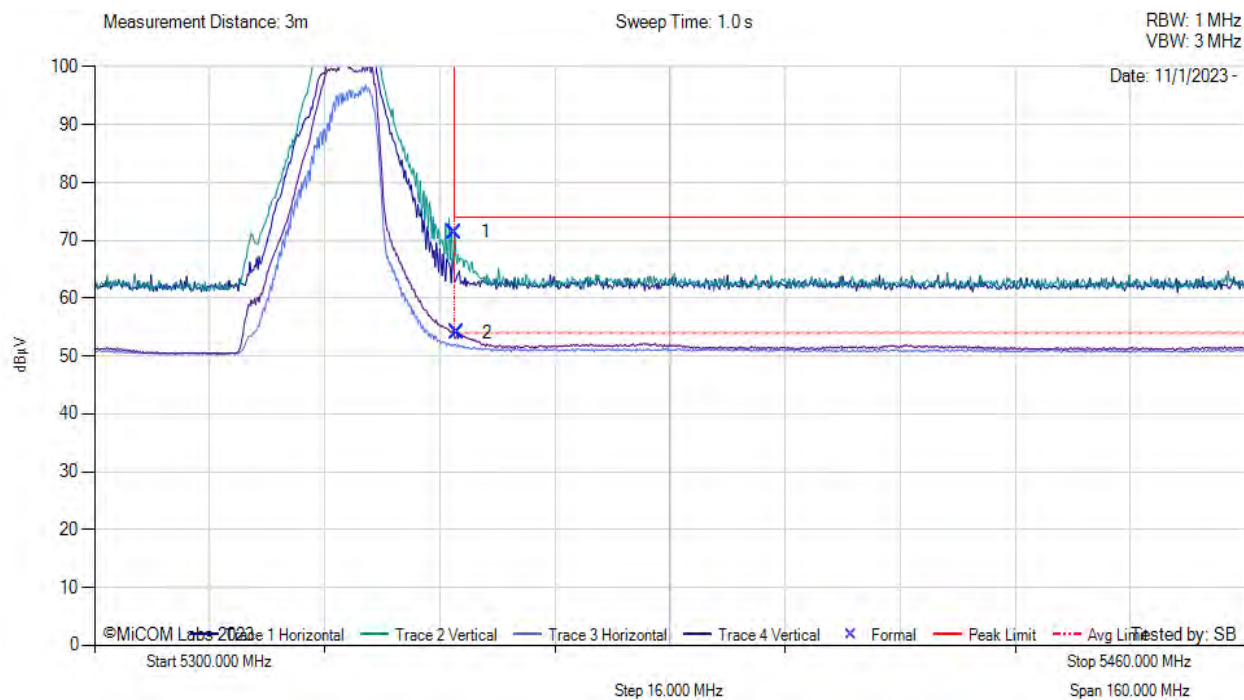
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9105-5158	Variant:	20MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5330	Data Rate:	78.00 MBit/s
Power Setting:	2.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	33.89	3.03	34.51	71.43	MaxP	Vertical	149	0	74.0	-2.6	Pass
2	5350.40	16.44	3.03	34.51	53.98	AVG	Vertical	151	0	54.0	0.0	Pass

Test Notes: 19 dBi Panel Antenna;

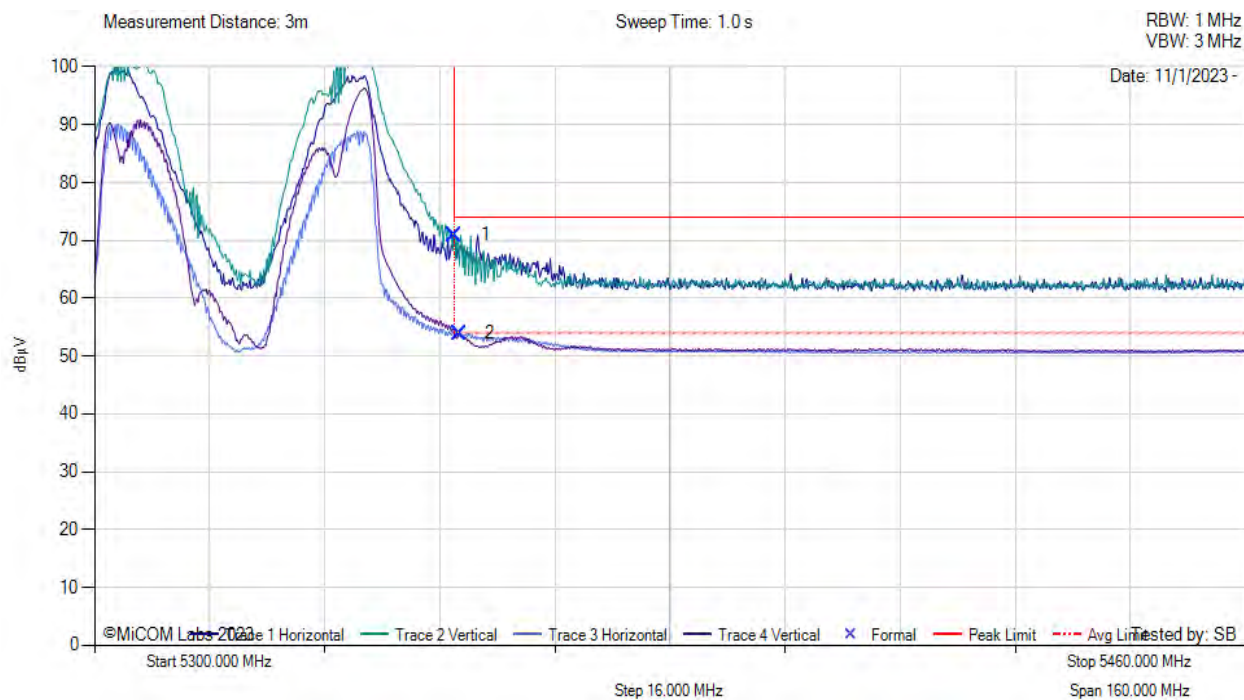
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9105-5158	Variant:	40MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320	Data Rate:	180.00 MBit/s
Power Setting:	-2.5	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	33.43	3.03	34.51	70.96	MaxP	Vertical	199	0	74.0	-3.0	Pass
2	5350.72	16.38	3.03	34.51	53.91	AVG	Vertical	199	0	54.0	-0.1	Pass

Test Notes: 19 dBi Panel Antenna;

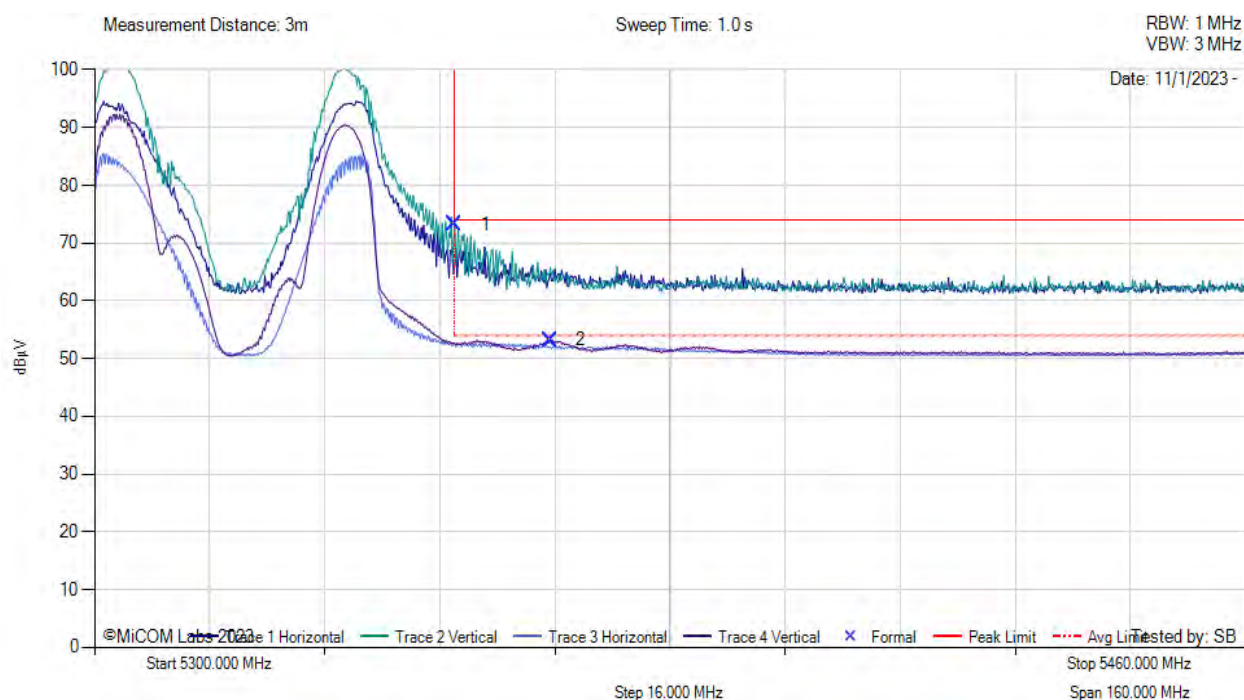
Equipment Configuration for FCC Spurious 1 GHz -18 GHz

Antenna:	RW-9105-5158	Variant:	80MHz
Antenna Gain (dBi):	19 dBi	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5300	Data Rate:	390.00 MBit/s
Power Setting:	-4.0	Tested By:	SB

Test Measurement Results



BE 5350 MHz



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	5350.08	35.76	3.03	34.51	73.29	MaxP	Vertical	199	0	74.0	-0.7	Pass
2	5363.36	15.64	3.08	34.48	53.20	AVG	Vertical	199	0	54.0	-0.8	Pass

Test Notes: 19 dBi Panel Antenna;

9.6.2. Digital Emissions

Radiated Test Conditions for Radiated Digital Emissions (0.03 – 1 GHz)			
Standard:	FCC CFR 47:15.407 RSS-Gen	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Digital Emissions	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.209 RSS-Gen: 8.9	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Digital Emissions (0.03 – 1 GHz)

Testing 30M-1 GHz was performed in a 3-meter anechoic chamber using a CISPR compliant receiver. Preliminary radiated emissions were measured on every azimuth and with the receiving antenna in both horizontal and vertical polarizations. To further maximize emissions the receive antenna was varied between 1 and 4 meters. The emissions are recorded with receiver in peak hold mode. Emissions closest to the limits are measured in the quasi-peak mode with the tuned receiver using a bandwidth of 120 kHz. Only the highest emissions relative to the limit are listed.

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

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. In this test facility, the Antenna Factor, Cable Loss, and Amplifier Gains are loaded into the Rohde & Schwarz Receiver and the corrected field strength can be read directly on the receiver.

$$FS = R + AF + CORR$$

where:

FS = Field Strength

R = Measured Receiver Input Amplitude

AF = Antenna Factor

CORR = Correction Factor = CL – AG + NFL

CL = Cable Loss

AG = Amplifier Gain

For example:

Given a Receiver input reading of 51.5dBmV; Antenna Factor of 8.5dB; Cable Loss of 1.3dB; Falloff Factor of 0dB, an Amplifier Gain of 26dB and Notch Filter Loss of 1dB. The Field Strength of the measured emission is:

$$FS = 51.5 + 8.5 + 1.3 - 26.0 + 1 = 36.3\text{dBmV/m}$$

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are done as:

$$\text{Level (dBmV/m)} = 20 * \text{Log (level (mV/m))}$$

$$40 \text{ dBmV/m} = 100\text{mV/m}$$

$$48 \text{ dBmV/m} = 250\text{mV/m}$$

Limits for Radiated Digital Emissions (0.03 – 1 GHz) (15.209)

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength		Measurement Distance (m)
	µV/m (microvolts/meter)	dBµV/m (dB microvolts/meter)	
0.009-0.490	2400/F(kHz)	--	300

0.490-1.705	24000/F(kHz)	--	30
1.705-30.0	30	29.5	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46.0	3
Above 960	500	54.0	3

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

(b) In the emission table above, the tighter limit applies at the band edges. (c) The level of any unwanted emissions from an intentional radiator operating under these general provisions shall not exceed the level of the fundamental emission. For intentional radiators which operate under the provisions of other sections within this part and which are required to reduce their unwanted emissions to the limits specified in this table, the limits in this table are based on the frequency of the unwanted emission and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency. (d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. (e) The provisions in §§15.31, 15.33, and 15.35 for measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part. (f) In accordance with §15.33(a), in some cases the emissions from an intentional radiator must be measured to beyond the tenth harmonic of the highest fundamental frequency designed to be emitted by the intentional radiator because of the incorporation of a digital device. If measurements above the tenth harmonic are so required, the radiated emissions above the tenth harmonic shall comply with the general radiated emission limits applicable to the incorporated digital device, as shown in §15.109 and as based on the frequency of the emission being measured, or, except for emissions contained in the restricted frequency bands shown in §15.205, the limit on spurious emissions specified for the intentional radiator, whichever is the higher limit. Emissions which must be measured above the tenth harmonic of the highest fundamental frequency designed to be emitted by the intentional radiator and which fall within the restricted bands shall comply with the general radiated emission limits in §15.109 that are applicable to the incorporated digital device. (g) Perimeter protection systems may operate in the 54-72 MHz and 76-88 MHz bands under the provisions of this section. The use of such perimeter protection systems is limited to industrial, business and commercial applications.

Equipment Configuration for Digital Emissions

Antenna:	RADWIN AT0058760	Variant:	20 MHz
Antenna Gain (dBi):	17.00	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	86
Channel Frequency (MHz):	5300.00	Data Rate:	6.00 Mbit/s
Power Setting:	25	Tested By:	SB

Test Measurement Results

30.00 - 1000.00 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	30.52	38.78	3.54	-8.20	34.12	MaxQP	Vertical	111	328	40.0	-5.9	Pass
#2	80.93	55.95	3.94	-20.89	39.00	MaxQP	Horizontal	380	262	40.0	-1.0	Pass
#3	133.75	45.61	4.23	-14.82	35.02	MaxQP	Vertical	102	355	43.0	-8.0	Pass
#4	159.44	50.54	4.36	-15.90	39.00	MaxQP	Horizontal	175	131	43.0	-4.0	Pass
#5	320.00	51.98	4.99	-13.78	43.19	MaxQP	Horizontal	101	295	46.0	-2.8	Pass
#6	700.01	35.74	6.20	-7.22	34.72	MaxQP	Horizontal	111	174	46.0	-11.3	Pass
#7	899.97	33.09	6.76	-4.92	34.93	MaxQP	Horizontal	102	139	46.0	-11.1	Pass

Test Notes: EUT Powered by POE.

A. APPENDIX - GRAPHICAL IMAGES

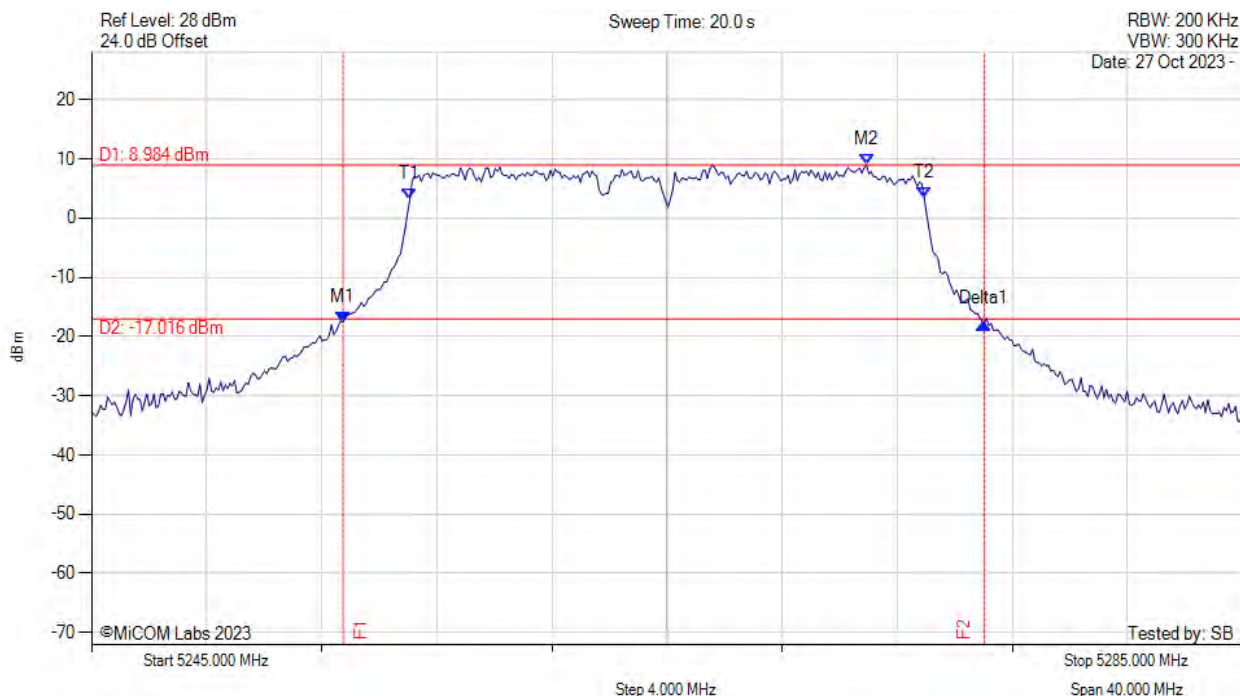
A.1. 26 dB & 99% Bandwidth

RW-9061-5006

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



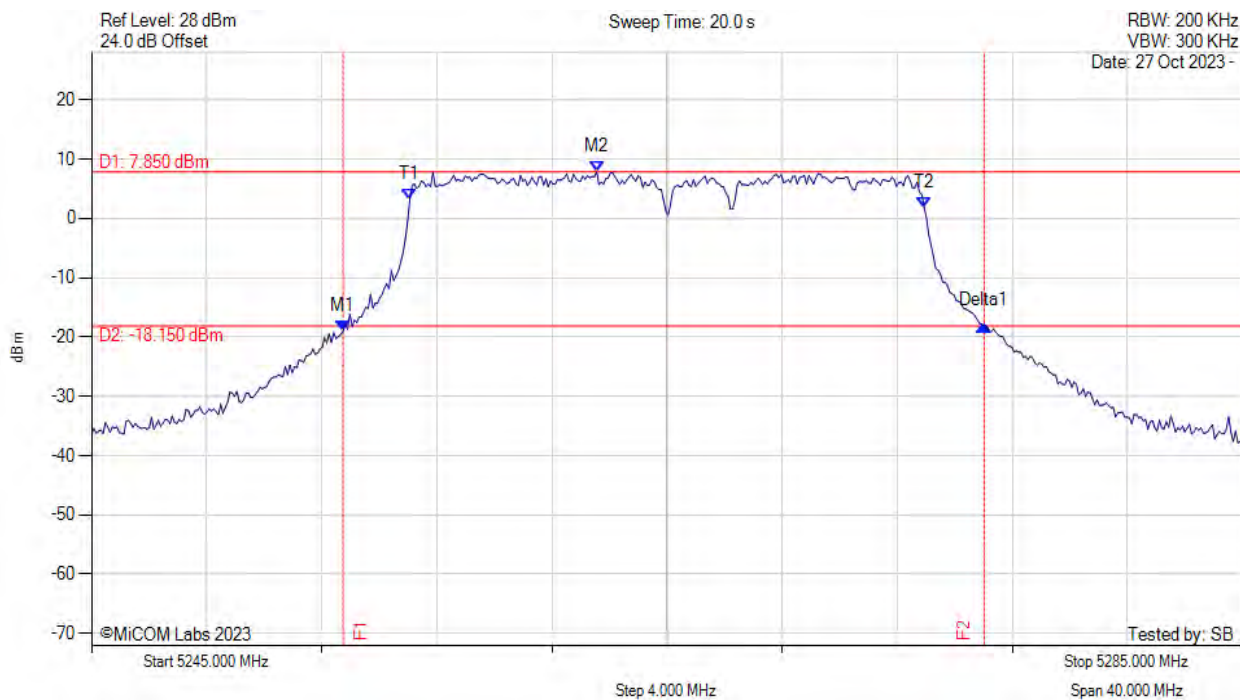
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.737 MHz : -17.564 dBm M2 : 5271.934 MHz : 8.984 dBm Delta1 : 22.285 MHz : -0.183 dB T1 : 5256.062 MHz : 3.109 dBm T2 : 5273.938 MHz : 3.453 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.285 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



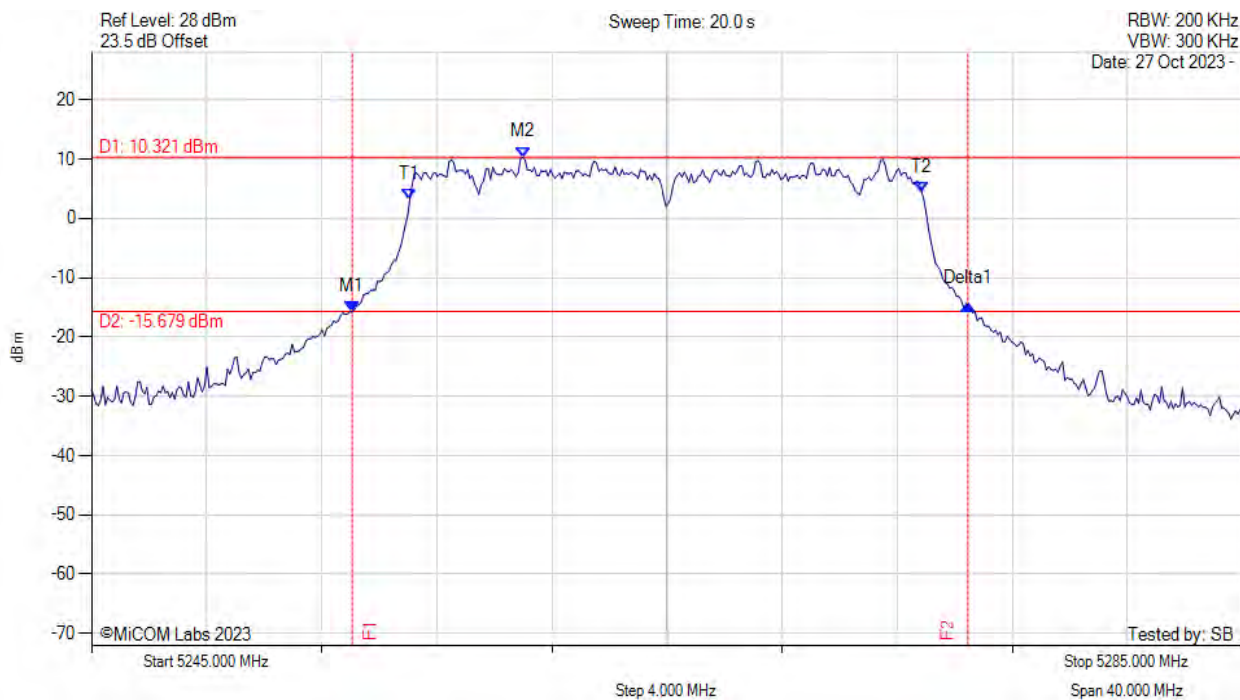
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.737 MHz : -19.047 dBm M2 : 5262.555 MHz : 7.850 dBm Delta1 : 22.285 MHz : 0.895 dB T1 : 5256.062 MHz : 3.211 dBm T2 : 5273.938 MHz : 1.832 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.285 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



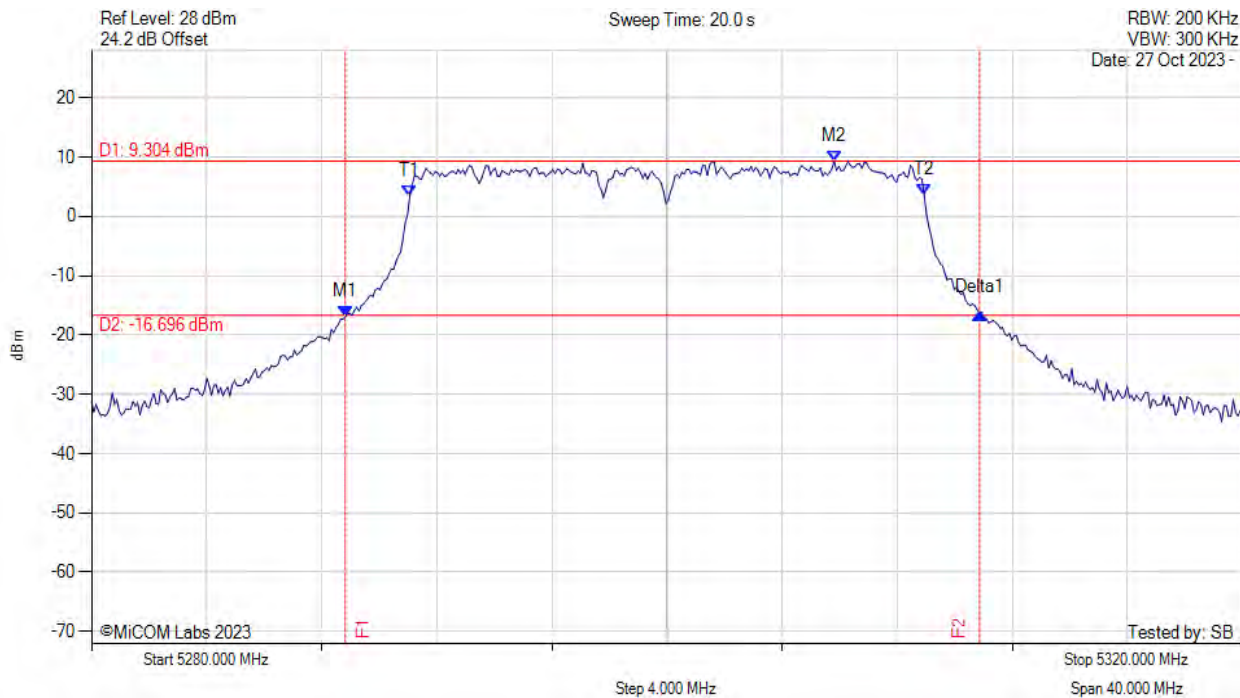
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5254.058 MHz : -15.780 dBm M2 : 5259.990 MHz : 10.321 dBm Delta1 : 21.403 MHz : 1.338 dB T1 : 5256.062 MHz : 3.205 dBm T2 : 5273.858 MHz : 4.360 dBm OBW : 17.796 MHz	Measured 26 dB Bandwidth: 21.403 MHz Measured 99% Bandwidth: 17.796 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



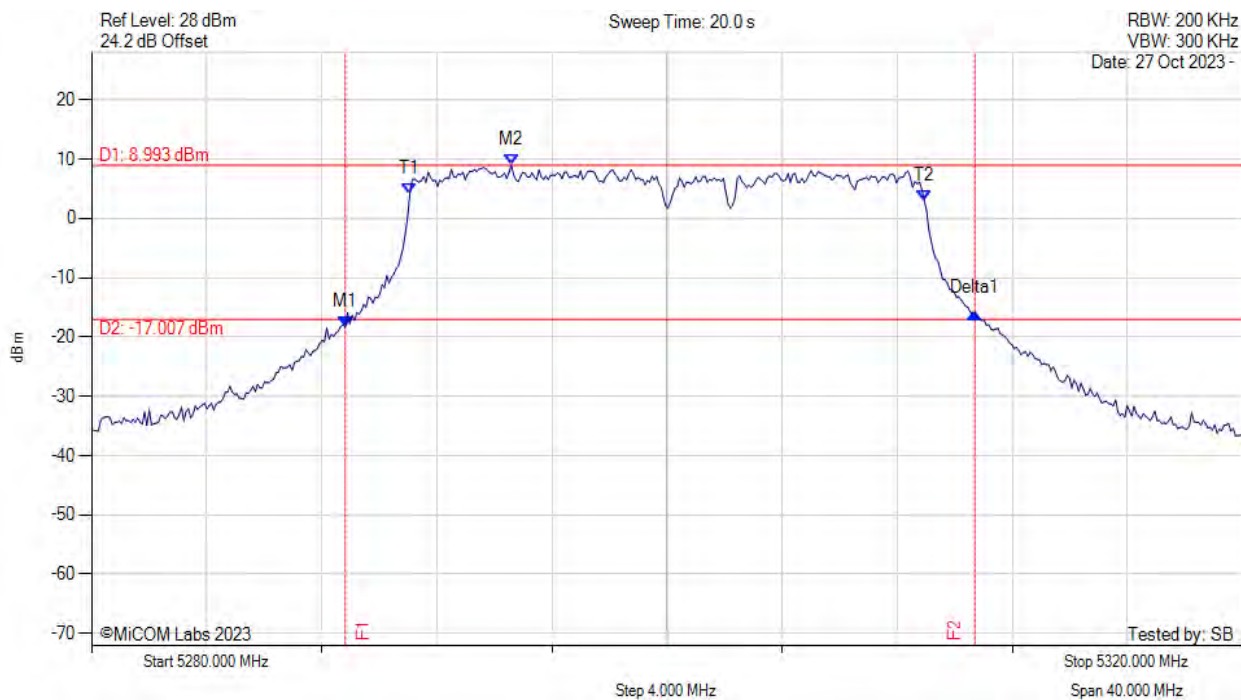
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5288.818 MHz : -16.978 dBm M2 : 5305.812 MHz : 9.304 dBm Delta1 : 22.044 MHz : 0.667 dB T1 : 5291.062 MHz : 3.451 dBm T2 : 5308.938 MHz : 3.615 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.044 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



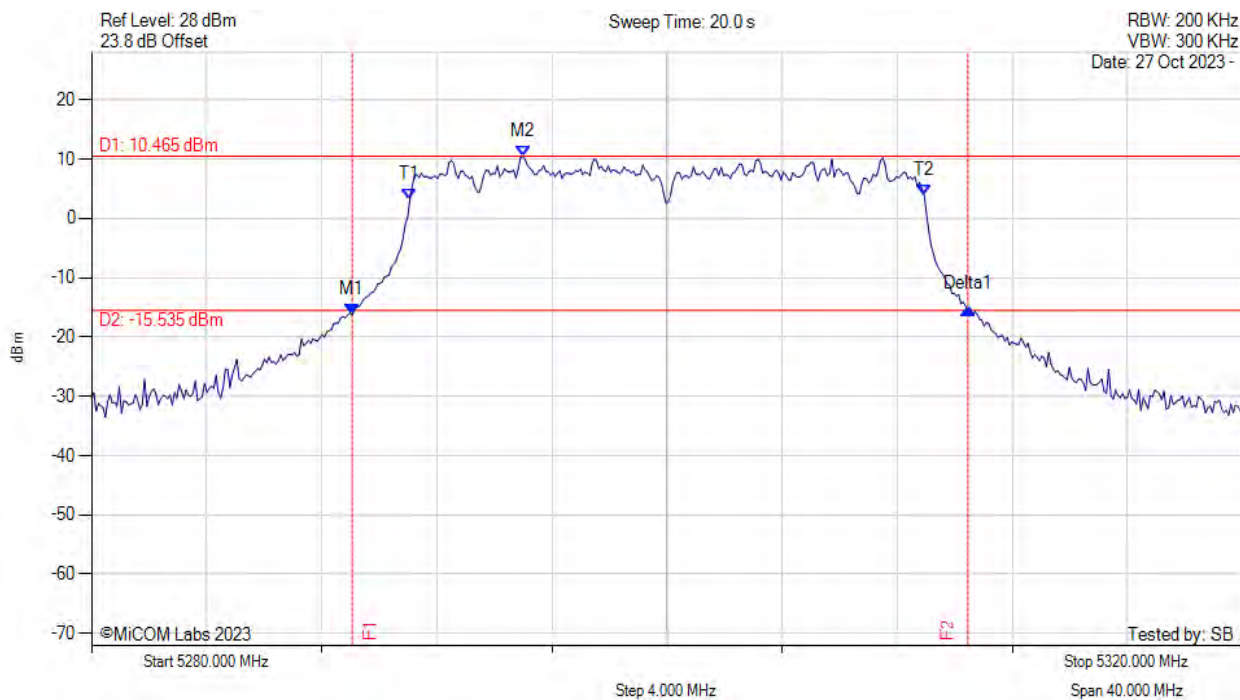
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5288.818 MHz : -18.290 dBm M2 : 5294.589 MHz : 8.993 dBm Delta1 : 21.884 MHz : 2.300 dB T1 : 5291.062 MHz : 4.085 dBm T2 : 5308.938 MHz : 3.054 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 21.884 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



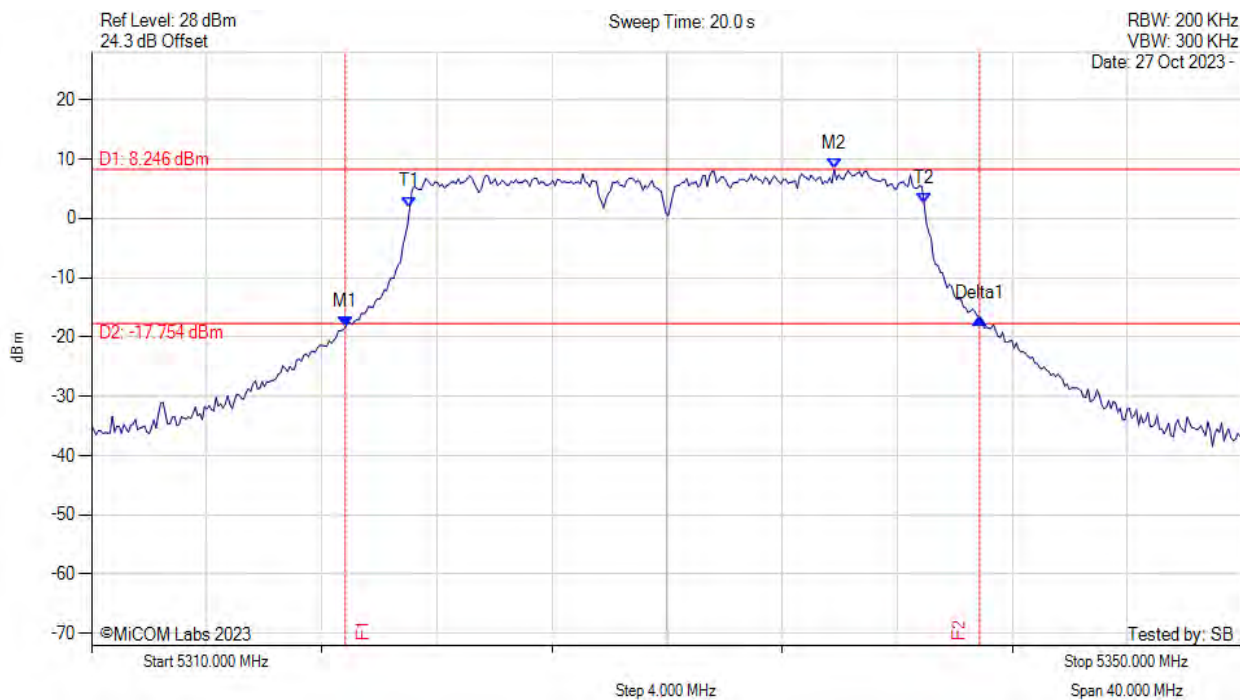
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5289.058 MHz : -16.240 dBm M2 : 5294.990 MHz : 10.465 dBm Delta1 : 21.403 MHz : 1.033 dB T1 : 5291.062 MHz : 3.105 dBm T2 : 5308.938 MHz : 3.937 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 21.403 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



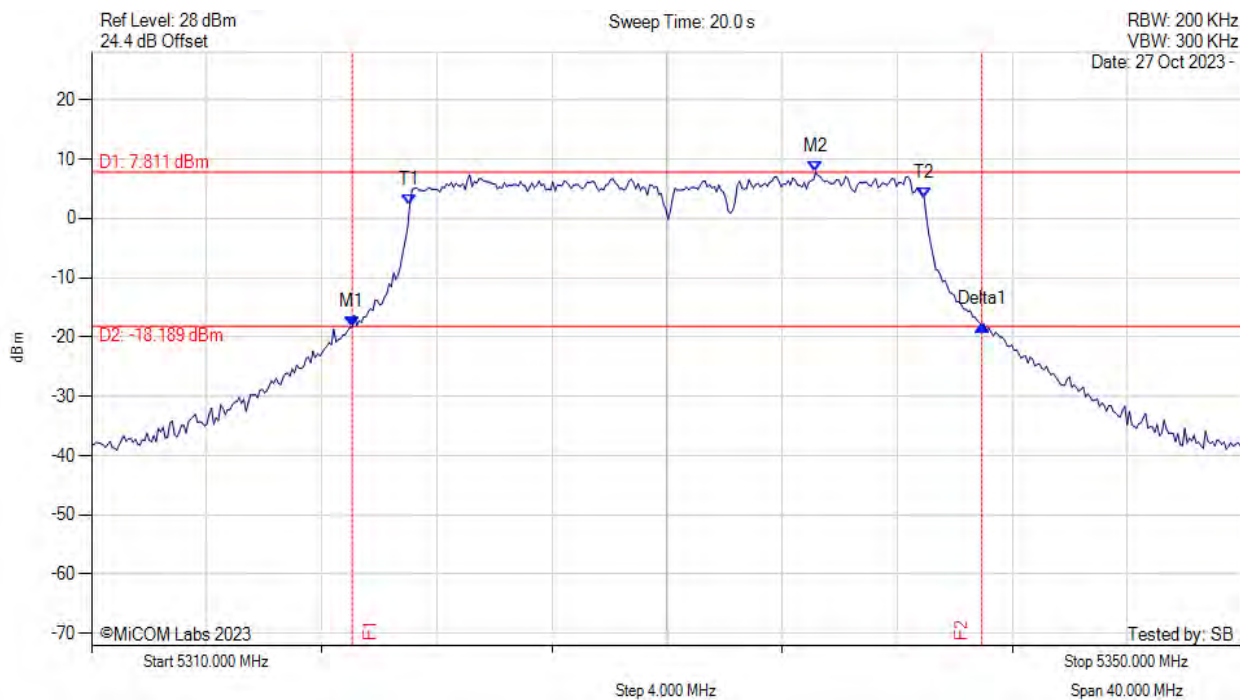
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5318.818 MHz : -18.380 dBm M2 : 5335.812 MHz : 8.246 dBm Delta1 : 22.044 MHz : 1.550 dB T1 : 5321.062 MHz : 1.915 dBm T2 : 5338.938 MHz : 2.409 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.044 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



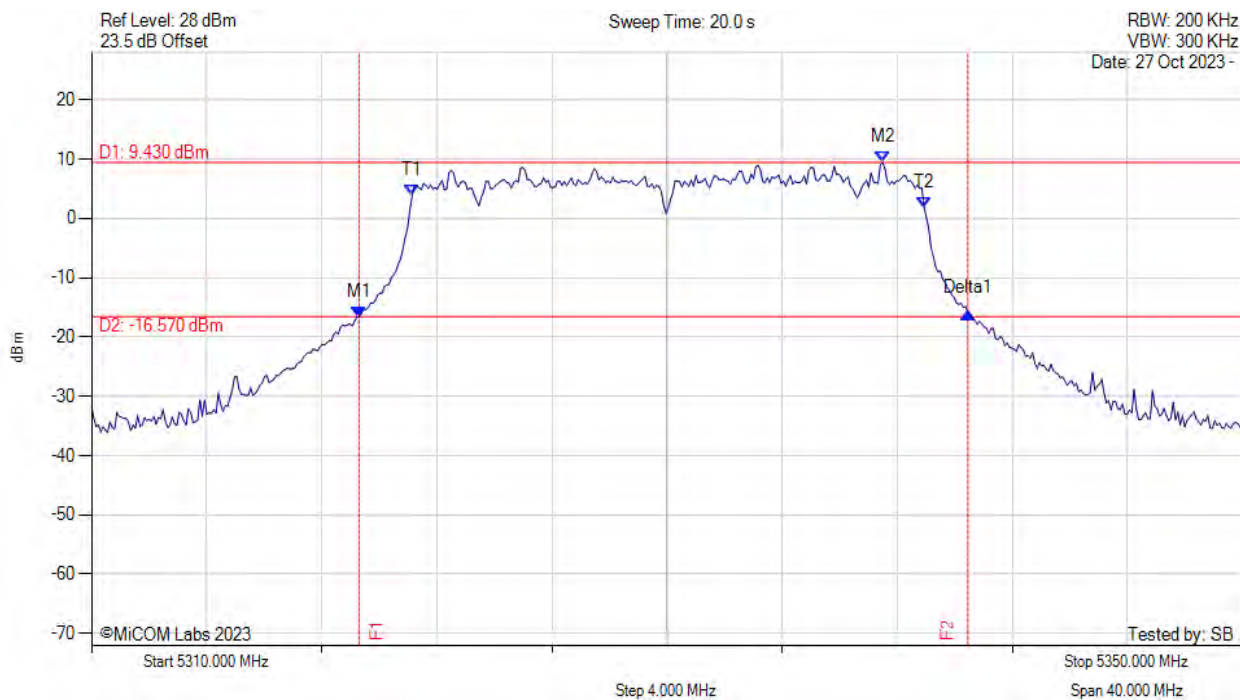
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5319.058 MHz : -18.345 dBm M2 : 5335.170 MHz : 7.811 dBm Delta1 : 21.884 MHz : 0.384 dB T1 : 5321.062 MHz : 2.324 dBm T2 : 5338.938 MHz : 3.420 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 21.884 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



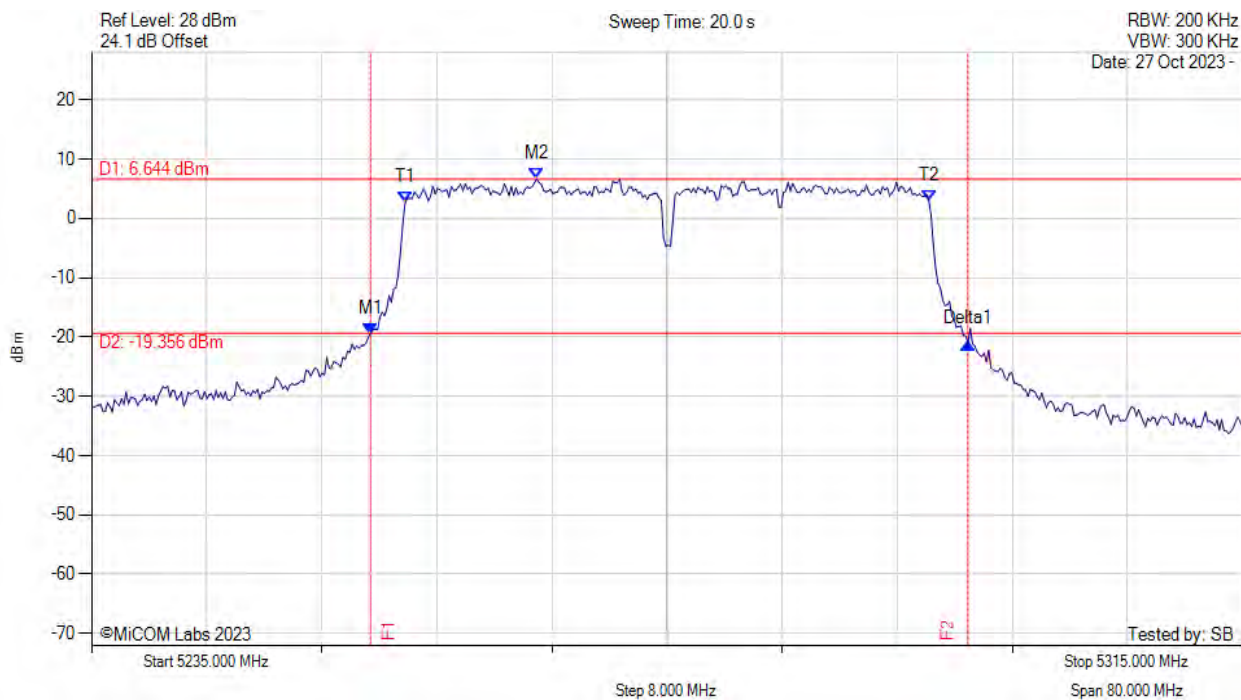
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5319.299 MHz : -16.618 dBm M2 : 5337.495 MHz : 9.430 dBm Delta1 : 21.162 MHz : 0.584 dB T1 : 5321.142 MHz : 3.859 dBm T2 : 5338.938 MHz : 1.881 dBm OBW : 17.796 MHz	Measured 26 dB Bandwidth: 21.162 MHz Measured 99% Bandwidth: 17.796 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variation: 40MHz, Channel: 5275.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



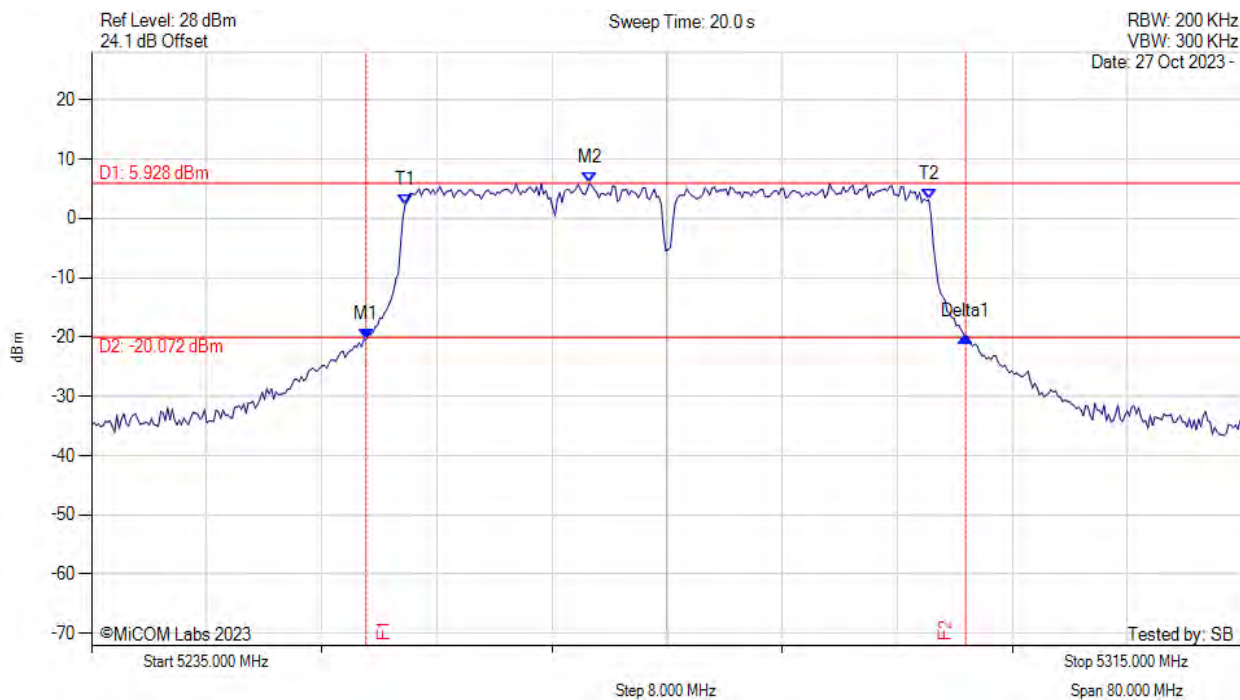
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5254.399 MHz : -19.447 dBm M2 : 5265.942 MHz : 6.644 dBm Delta1 : 41.523 MHz : -1.643 dB T1 : 5256.804 MHz : 2.651 dBm T2 : 5293.196 MHz : 3.022 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.523 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5275.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



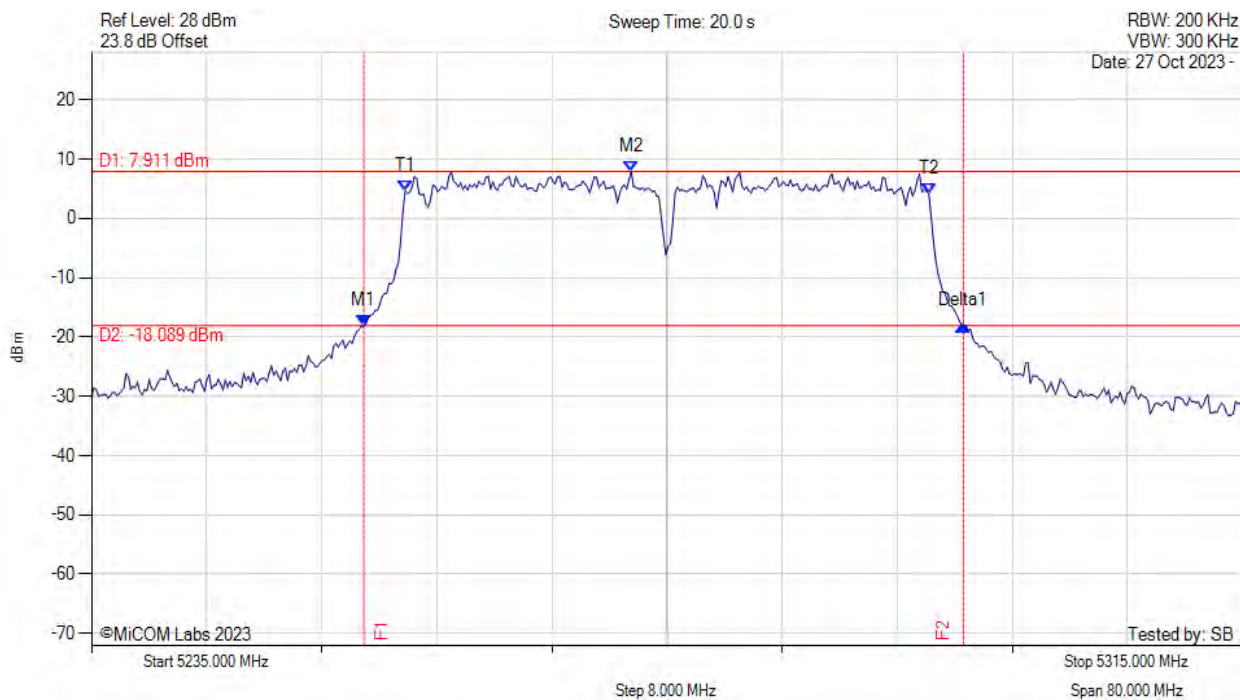
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5254.078 MHz : -20.458 dBm M2 : 5269.629 MHz : 5.928 dBm Delta1 : 41.683 MHz : 0.451 dB T1 : 5256.804 MHz : 2.352 dBm T2 : 5293.196 MHz : 3.133 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5275.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



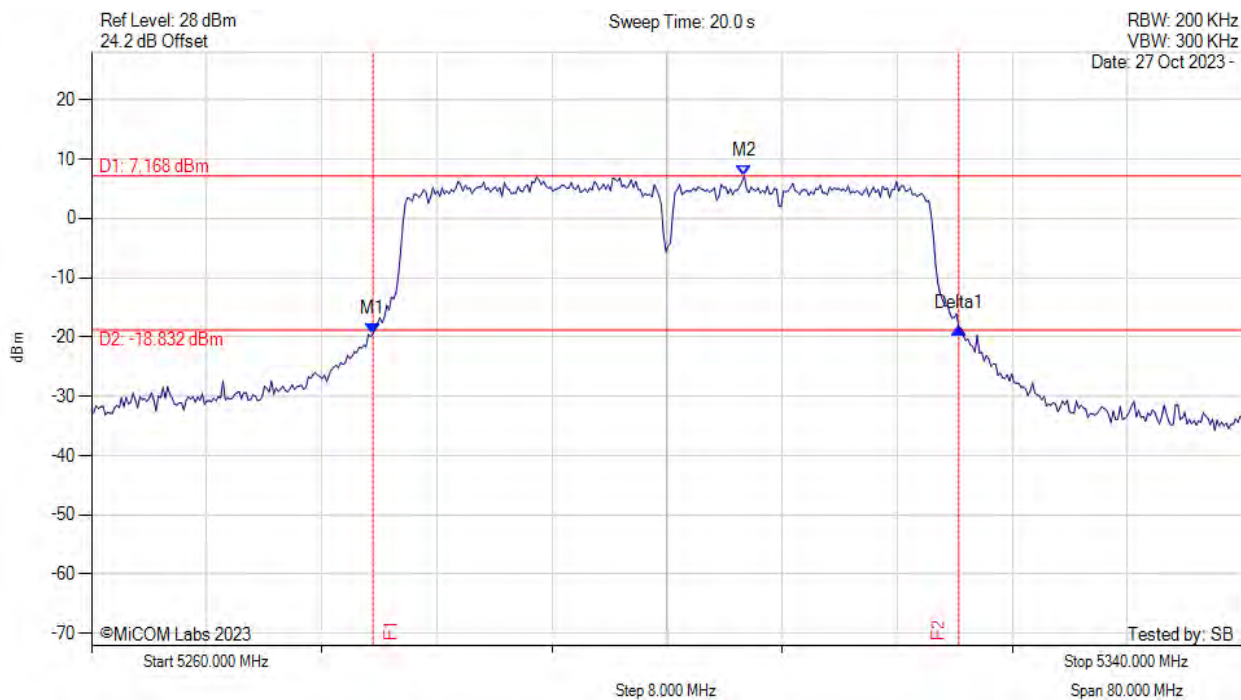
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.918 MHz : -18.119 dBm M2 : 5272.515 MHz : 7.911 dBm Delta1 : 41.683 MHz : 0.041 dB T1 : 5256.804 MHz : 4.644 dBm T2 : 5293.196 MHz : 4.199 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



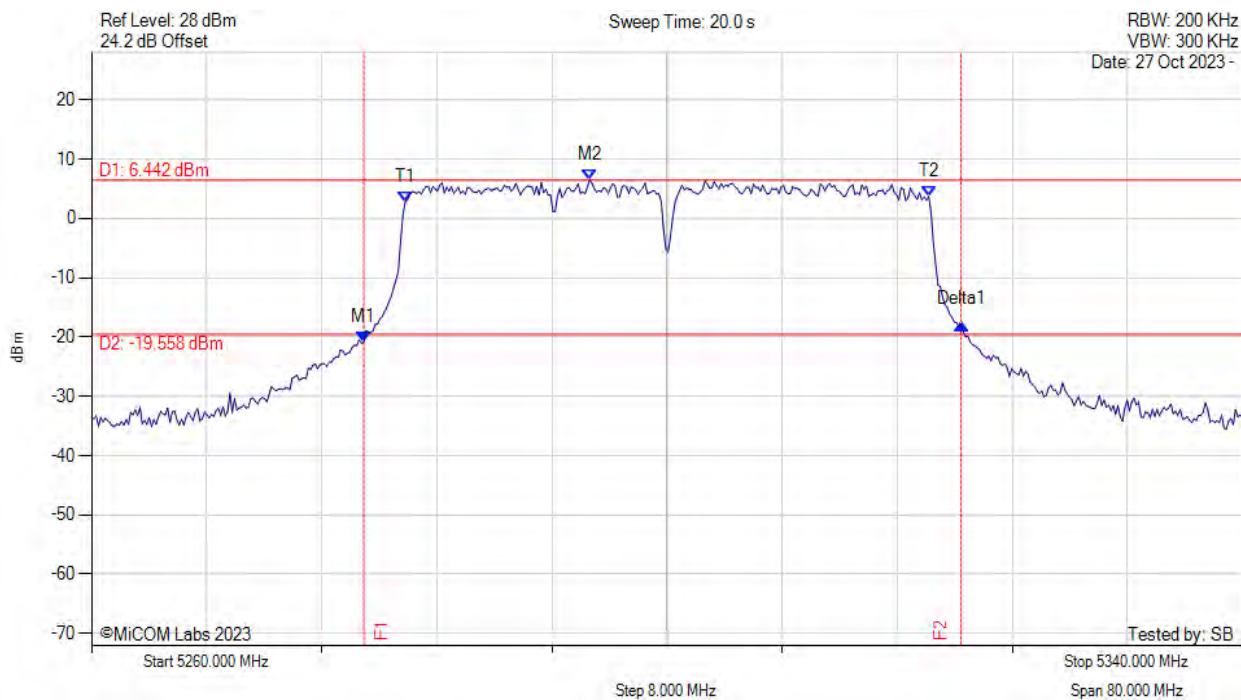
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5279.559 MHz : -19.451 dBm M2 : 5305.371 MHz : 7.168 dBm Delta1 : 40.721 MHz : 0.903 dB T1 : 0 Hz : 500.000 dBm T2 : 0 Hz : 500.000 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 40.721 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



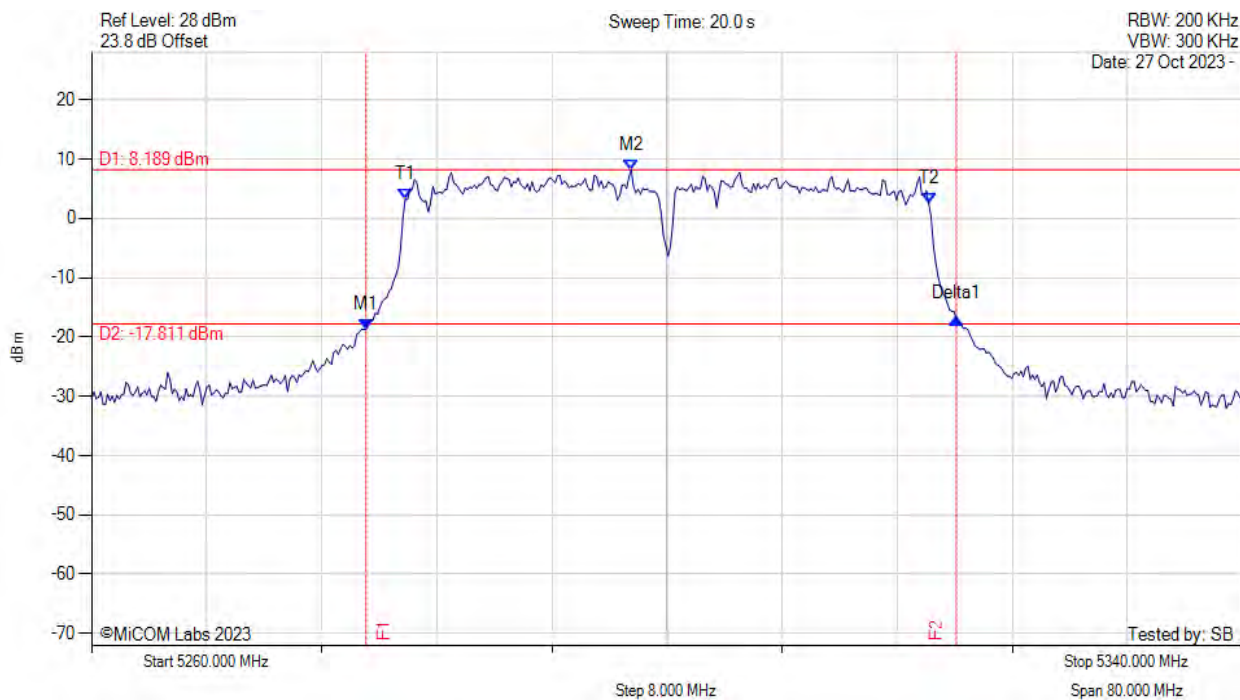
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5278.918 MHz : -20.901 dBm M2 : 5294.629 MHz : 6.442 dBm Delta1 : 41.523 MHz : 3.000 dB T1 : 5281.804 MHz : 2.749 dBm T2 : 5318.196 MHz : 3.666 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.523 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



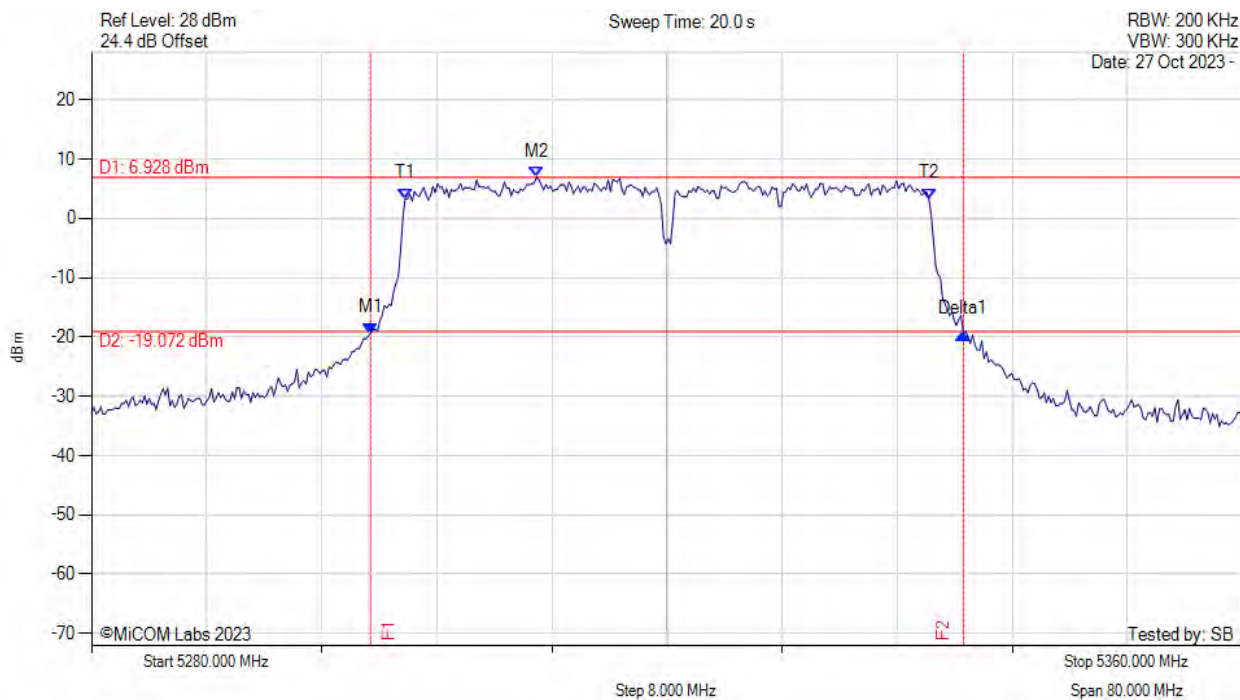
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5279.078 MHz : -18.721 dBm M2 : 5297.515 MHz : 8.189 dBm Delta1 : 41.042 MHz : 1.773 dB T1 : 5281.804 MHz : 3.209 dBm T2 : 5318.196 MHz : 2.438 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.042 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



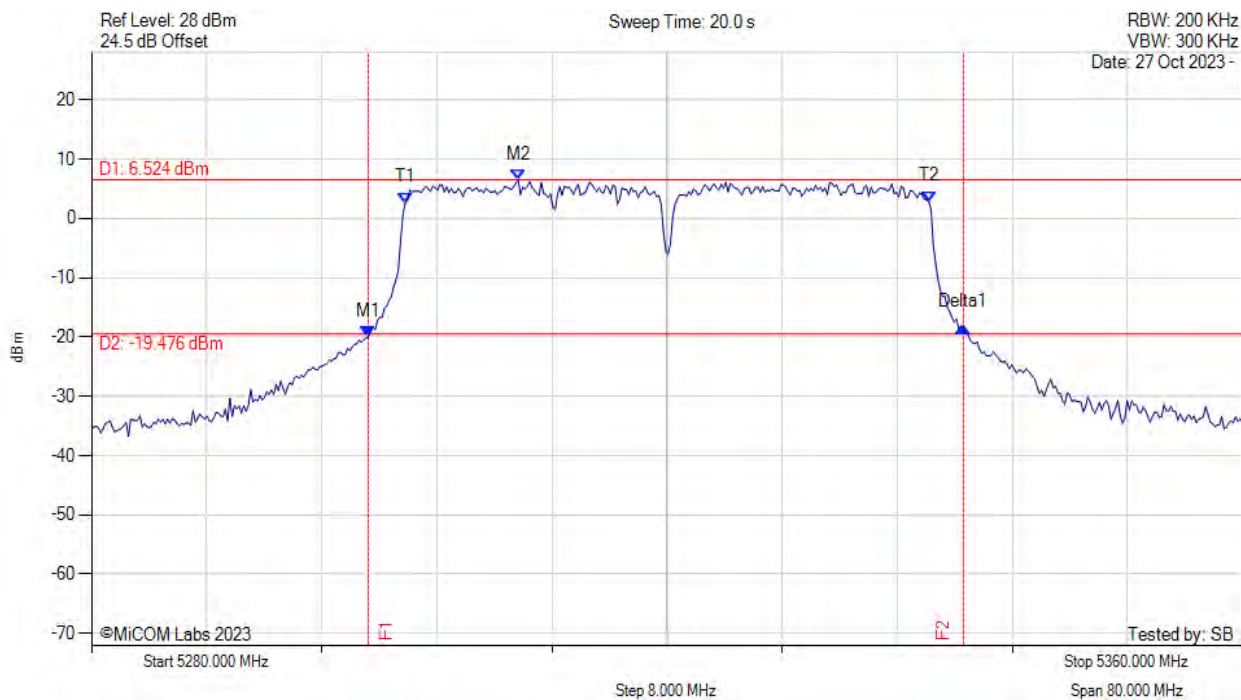
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5299.399 MHz : -19.342 dBm M2 : 5310.942 MHz : 6.928 dBm Delta1 : 41.202 MHz : -0.100 dB T1 : 5301.804 MHz : 3.325 dBm T2 : 5338.196 MHz : 3.304 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.202 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



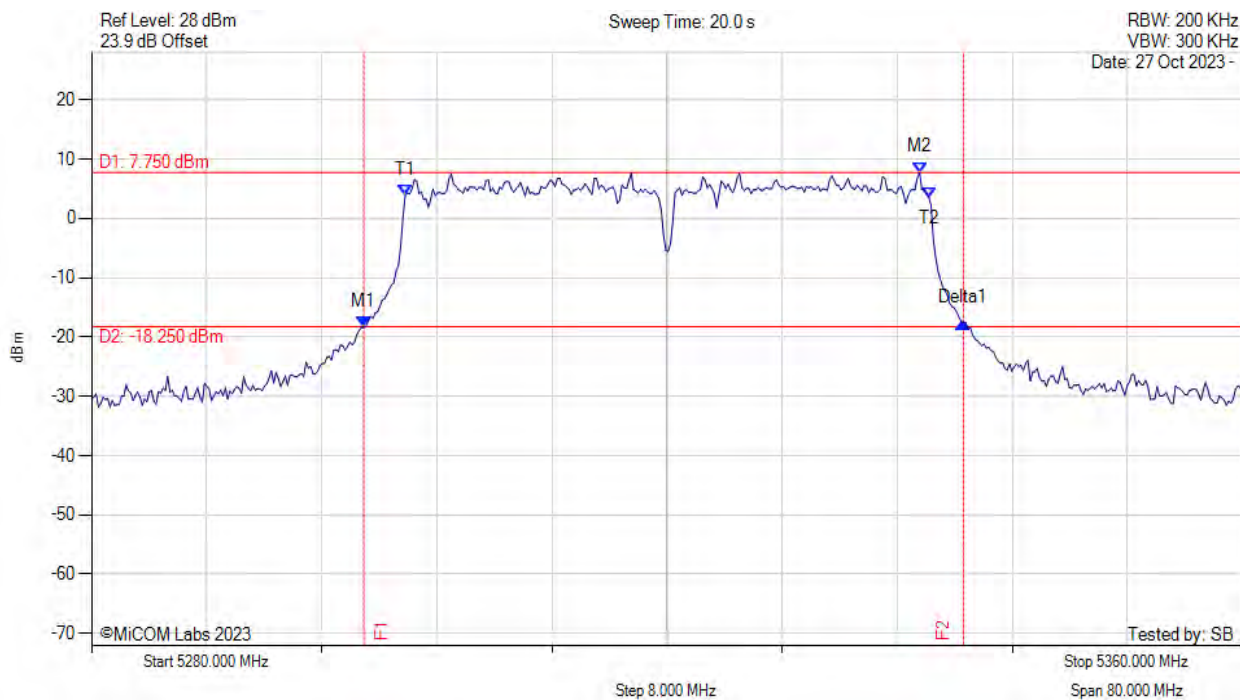
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5299.238 MHz : -19.952 dBm M2 : 5309.659 MHz : 6.524 dBm Delta1 : 41.363 MHz : 1.647 dB T1 : 5301.804 MHz : 2.609 dBm T2 : 5338.196 MHz : 2.851 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.363 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



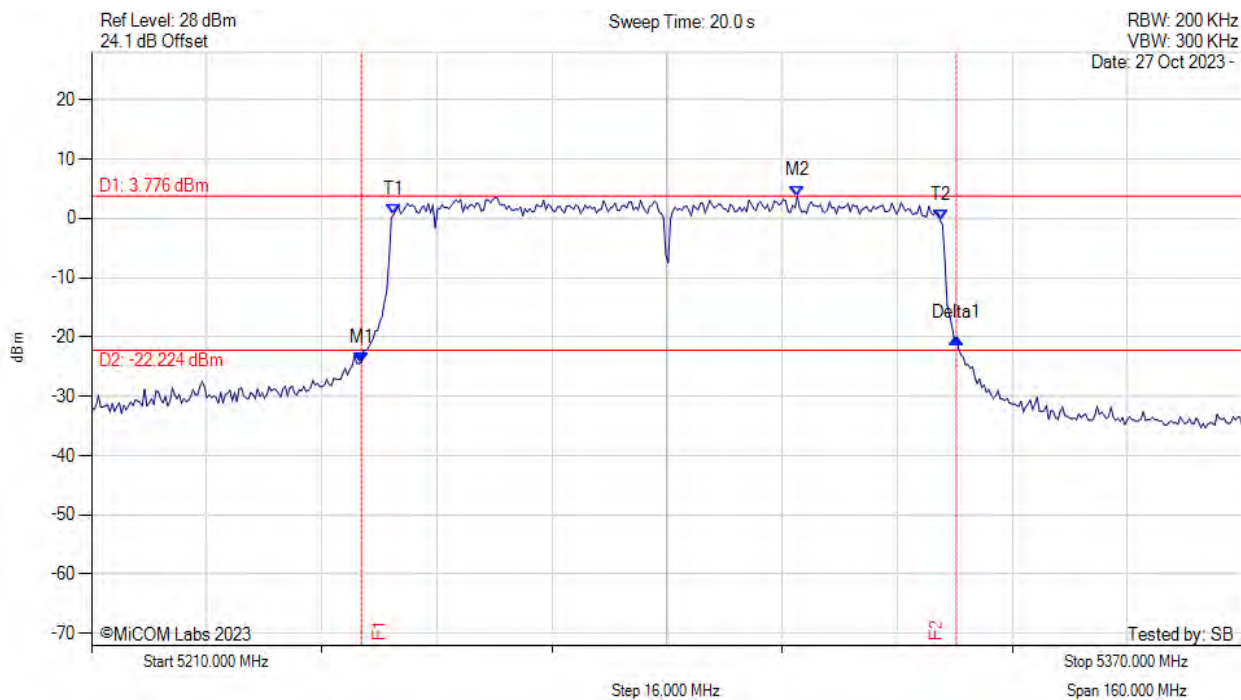
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5298.918 MHz : -18.359 dBm M2 : 5337.555 MHz : 7.750 dBm Delta1 : 41.683 MHz : 0.813 dB T1 : 5301.804 MHz : 3.849 dBm T2 : 5338.196 MHz : 3.538 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



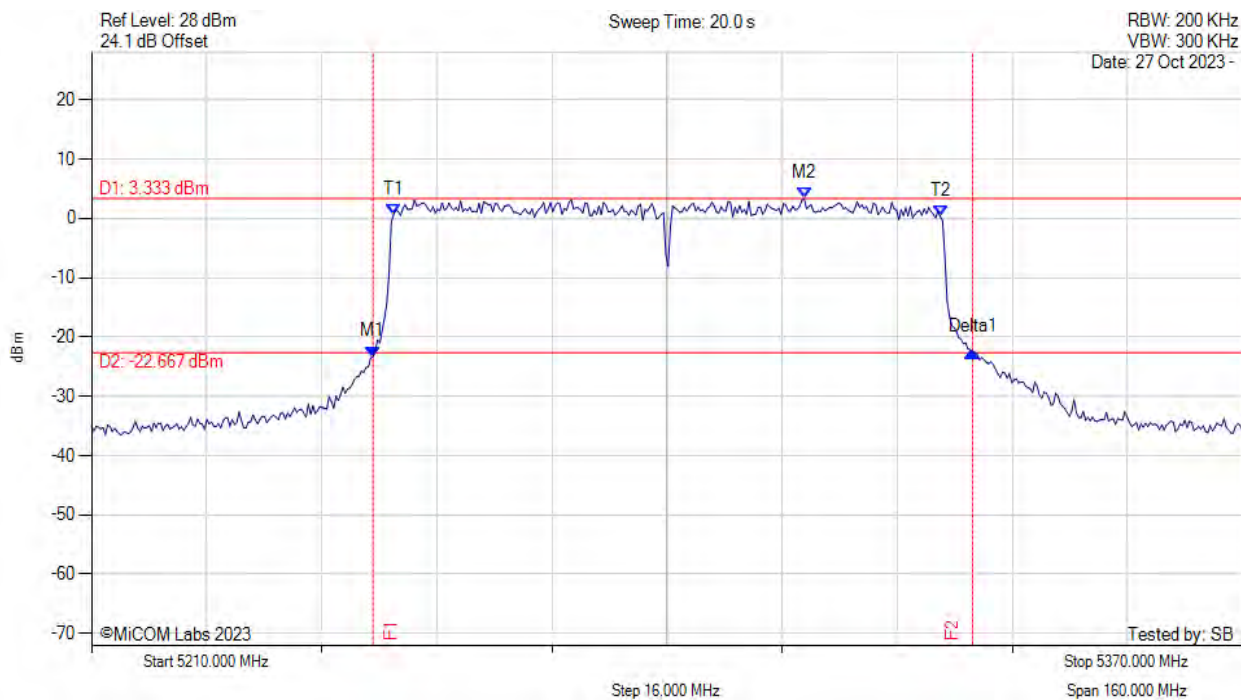
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5247.515 MHz : -24.284 dBm M2 : 5308.116 MHz : 3.776 dBm Delta1 : 82.725 MHz : 4.204 dB T1 : 5252.004 MHz : 0.675 dBm T2 : 5327.996 MHz : -0.391 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 82.725 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



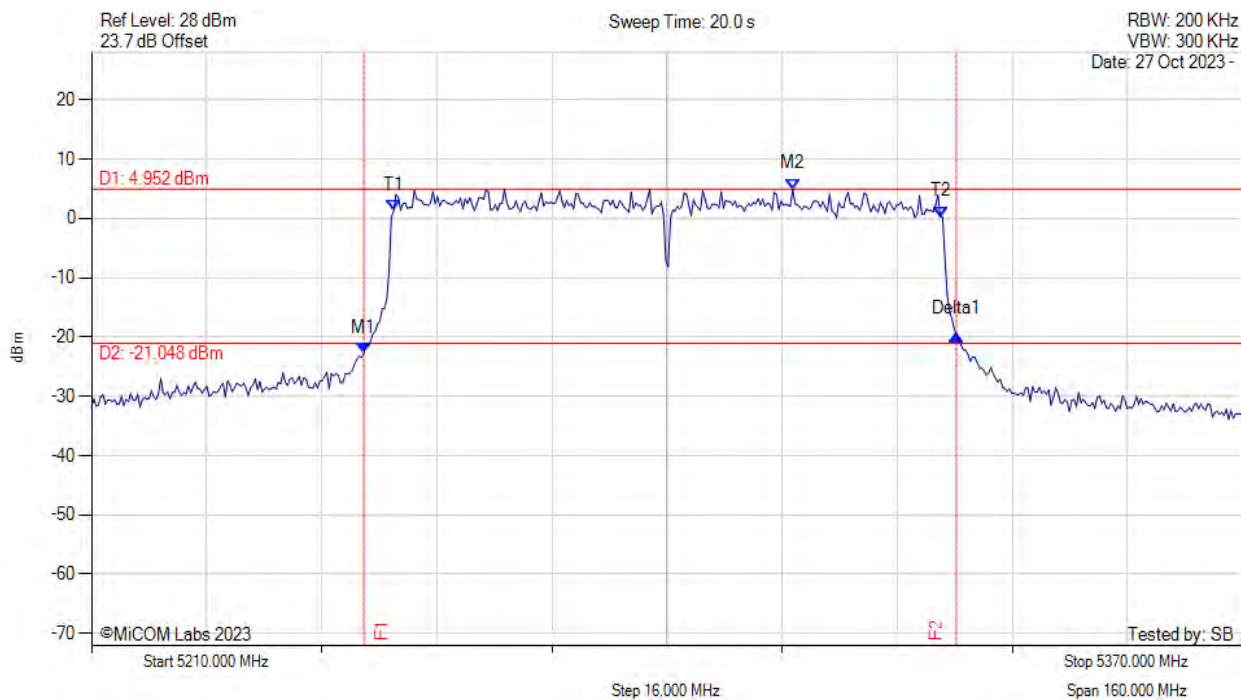
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5249.118 MHz : -23.334 dBm M2 : 5309.078 MHz : 3.333 dBm Delta1 : 83.367 MHz : 0.838 dB T1 : 5252.004 MHz : 0.691 dBm T2 : 5327.996 MHz : 0.300 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 83.367 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



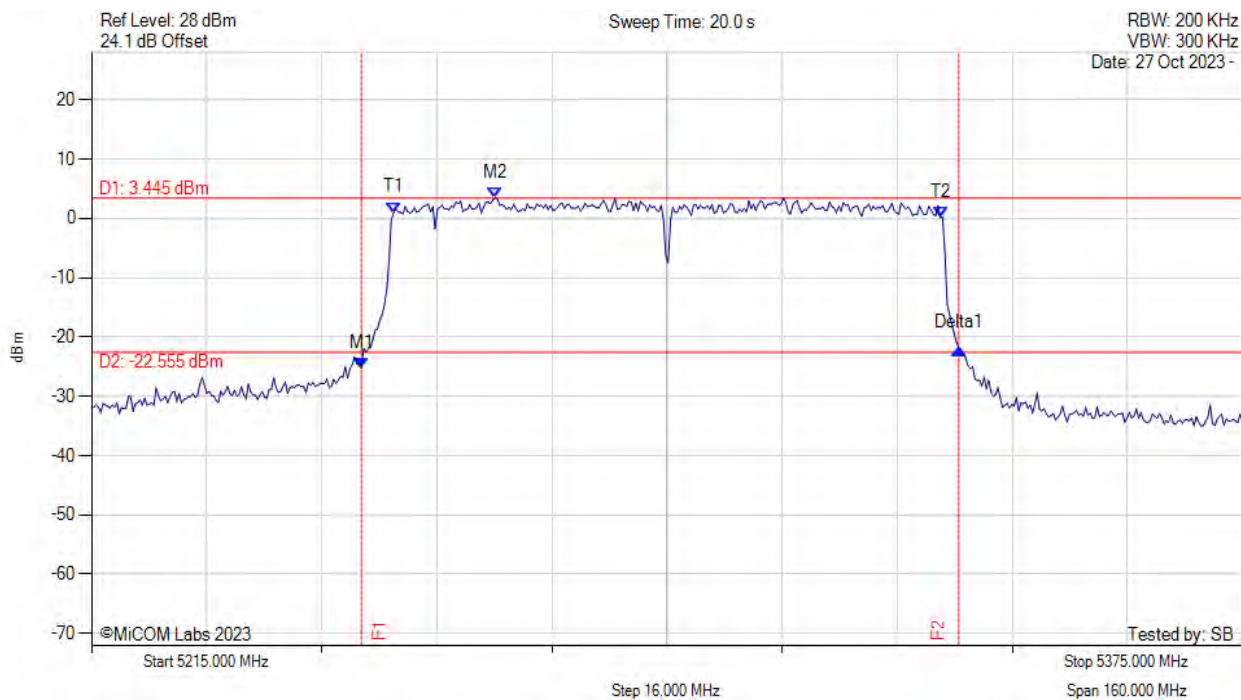
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5247.836 MHz : -22.793 dBm M2 : 5307.475 MHz : 4.952 dBm Delta1 : 82.405 MHz : 3.193 dB T1 : 5252.004 MHz : 1.309 dBm T2 : 5327.996 MHz : 0.290 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 82.405 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5295.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



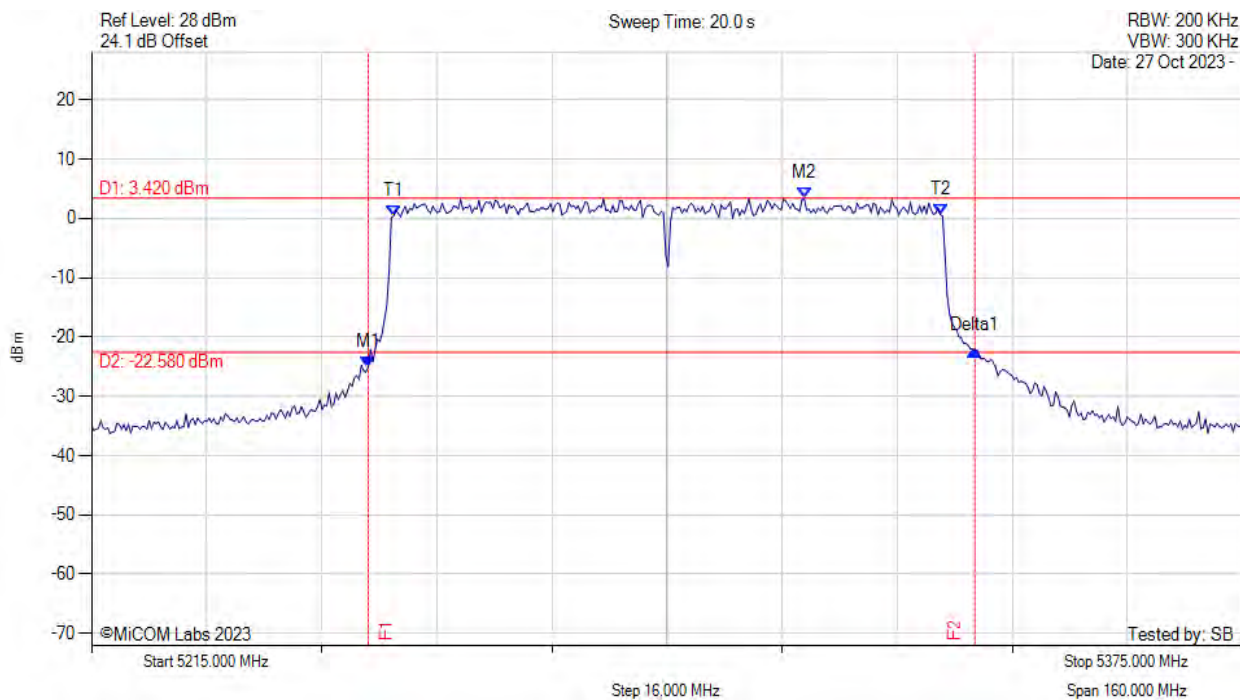
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5252.515 MHz : -25.248 dBm M2 : 5271.112 MHz : 3.445 dBm Delta1 : 83.046 MHz : 3.327 dB T1 : 5257.004 MHz : 0.967 dBm T2 : 5332.996 MHz : 0.154 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 83.046 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5295.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



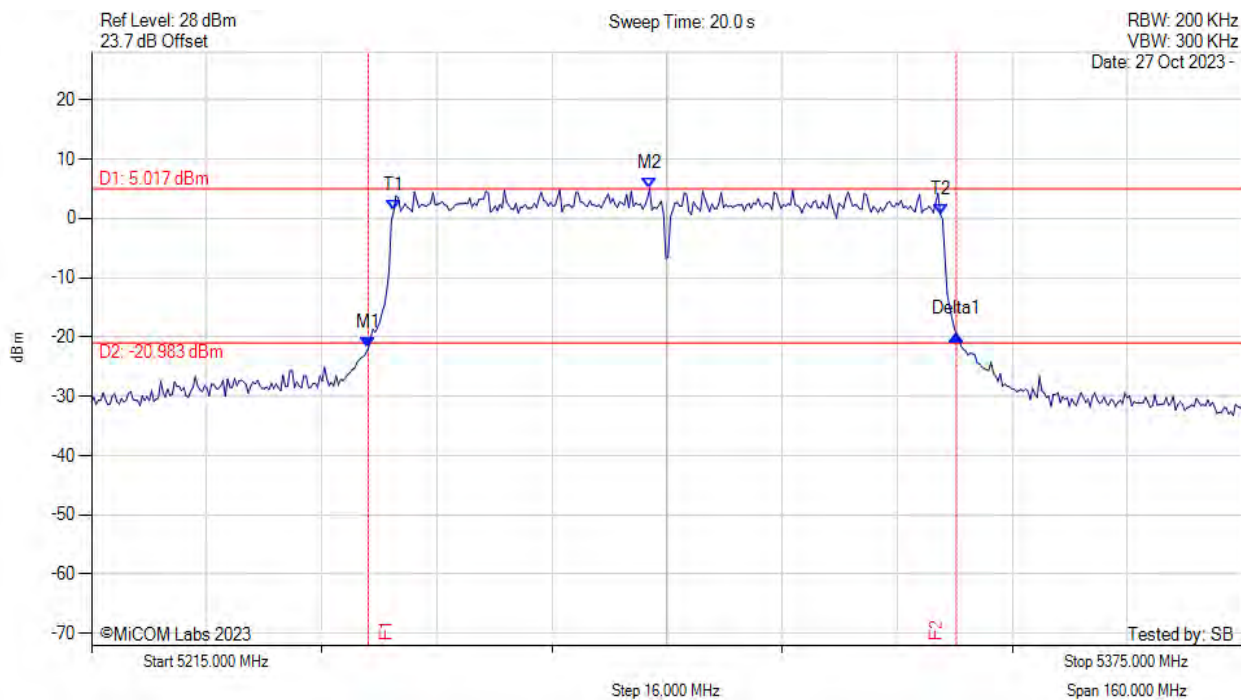
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.477 MHz : -25.048 dBm M2 : 5314.078 MHz : 3.420 dBm Delta1 : 84.329 MHz : 2.817 dB T1 : 5257.004 MHz : 0.398 dBm T2 : 5332.996 MHz : 0.658 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.329 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5295.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



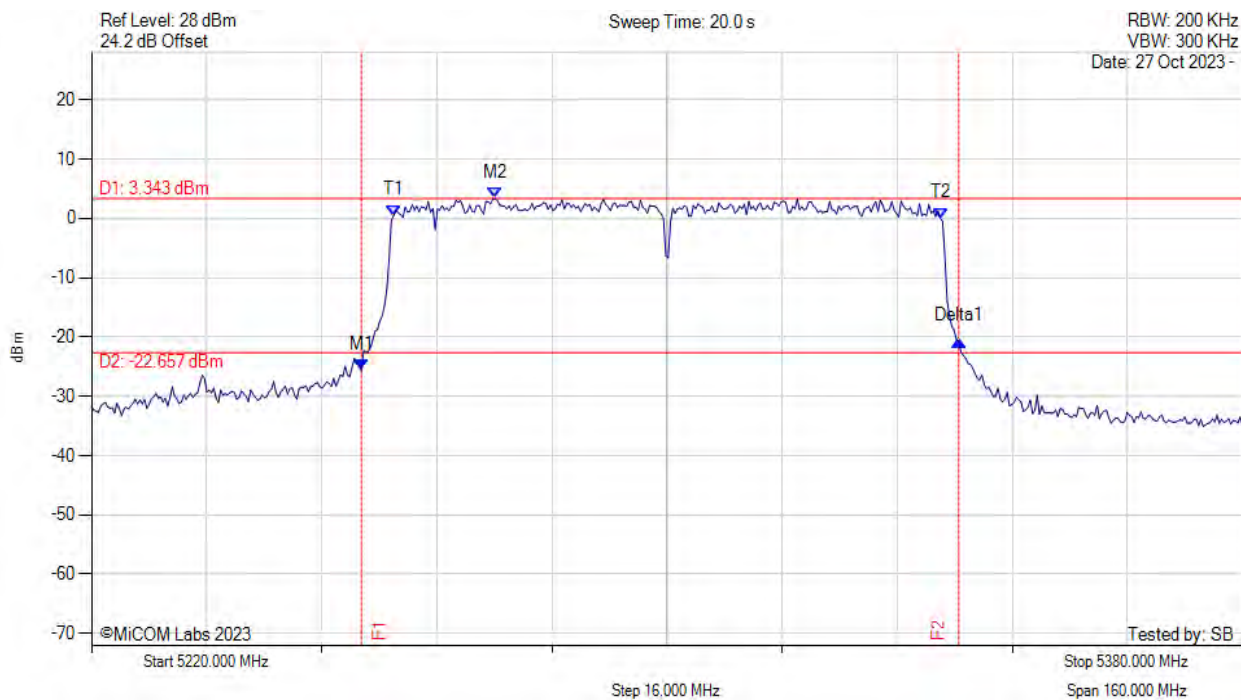
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.477 MHz : -21.872 dBm M2 : 5292.595 MHz : 5.017 dBm Delta1 : 81.764 MHz : 2.272 dB T1 : 5257.004 MHz : 1.240 dBm T2 : 5332.996 MHz : 0.687 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 81.764 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



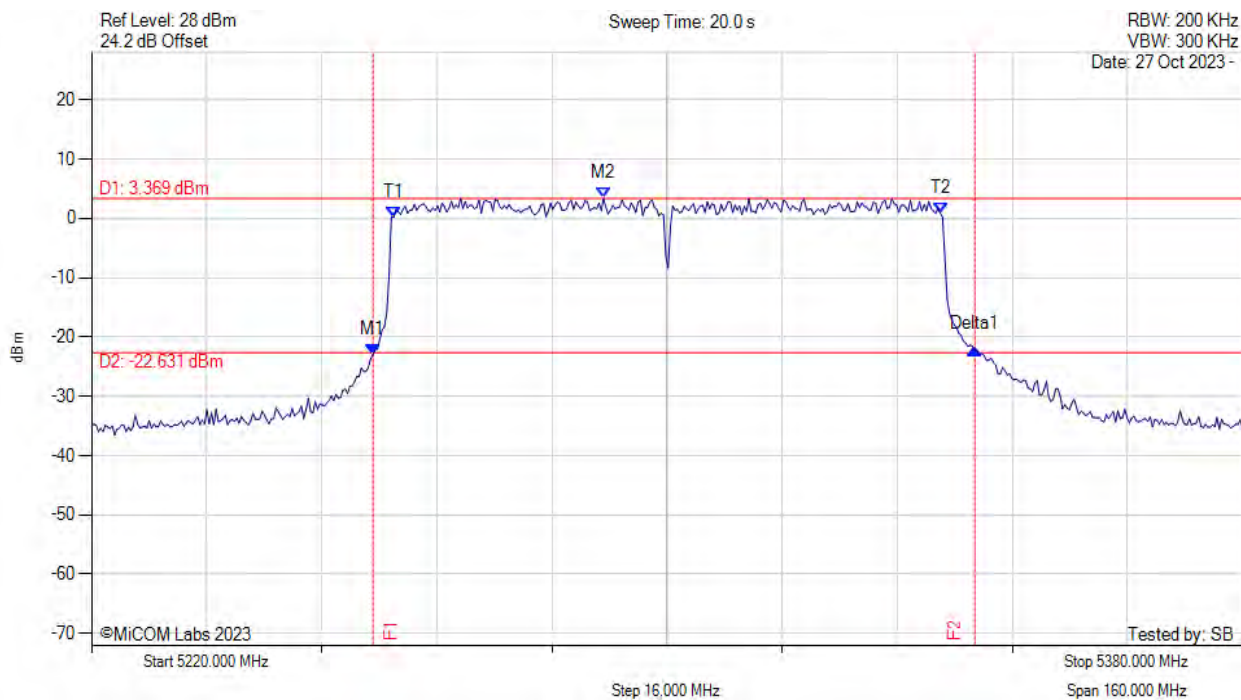
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5257.515 MHz : -25.646 dBm M2 : 5276.112 MHz : 3.343 dBm Delta1 : 83.046 MHz : 4.911 dB T1 : 5262.004 MHz : 0.510 dBm T2 : 5337.996 MHz : 0.042 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 83.046 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



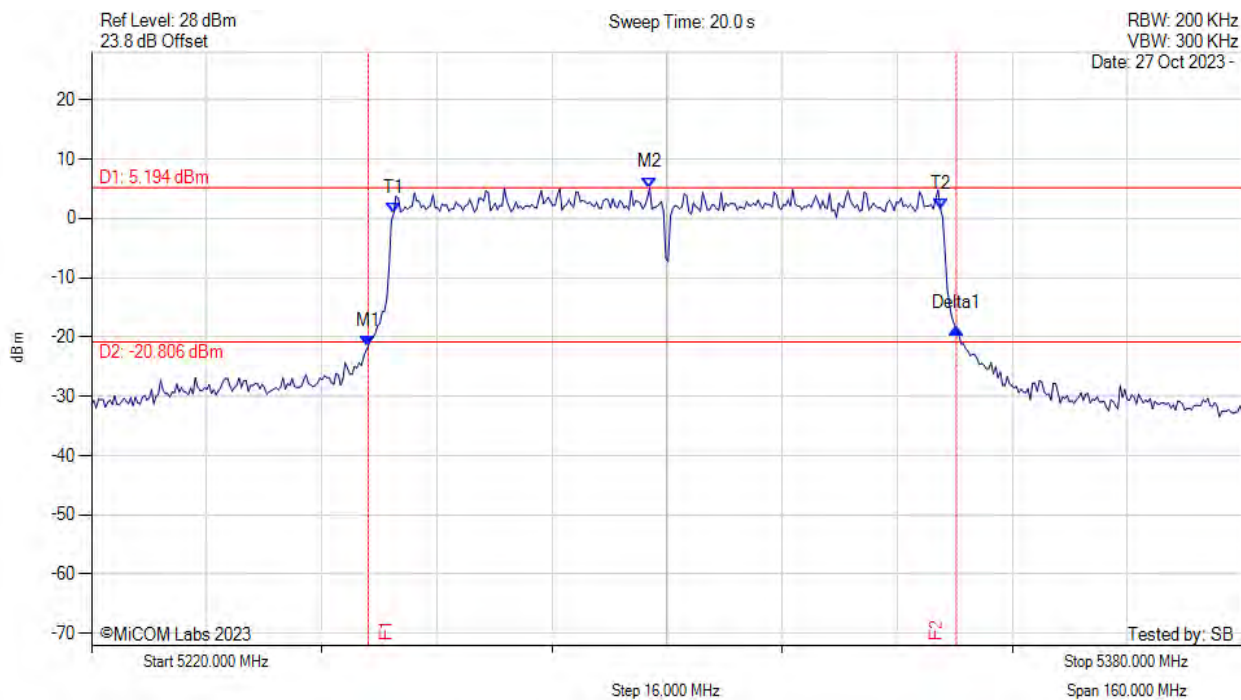
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5259.118 MHz : -22.953 dBm M2 : 5291.182 MHz : 3.369 dBm Delta1 : 83.687 MHz : 0.860 dB T1 : 5262.004 MHz : 0.215 dBm T2 : 5337.996 MHz : 0.890 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 83.687 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5258.477 MHz : -21.491 dBm M2 : 5297.595 MHz : 5.194 dBm Delta1 : 81.764 MHz : 2.937 dB T1 : 5262.004 MHz : 0.827 dBm T2 : 5337.996 MHz : 1.647 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 81.764 MHz Measured 99% Bandwidth: 75.992 MHz

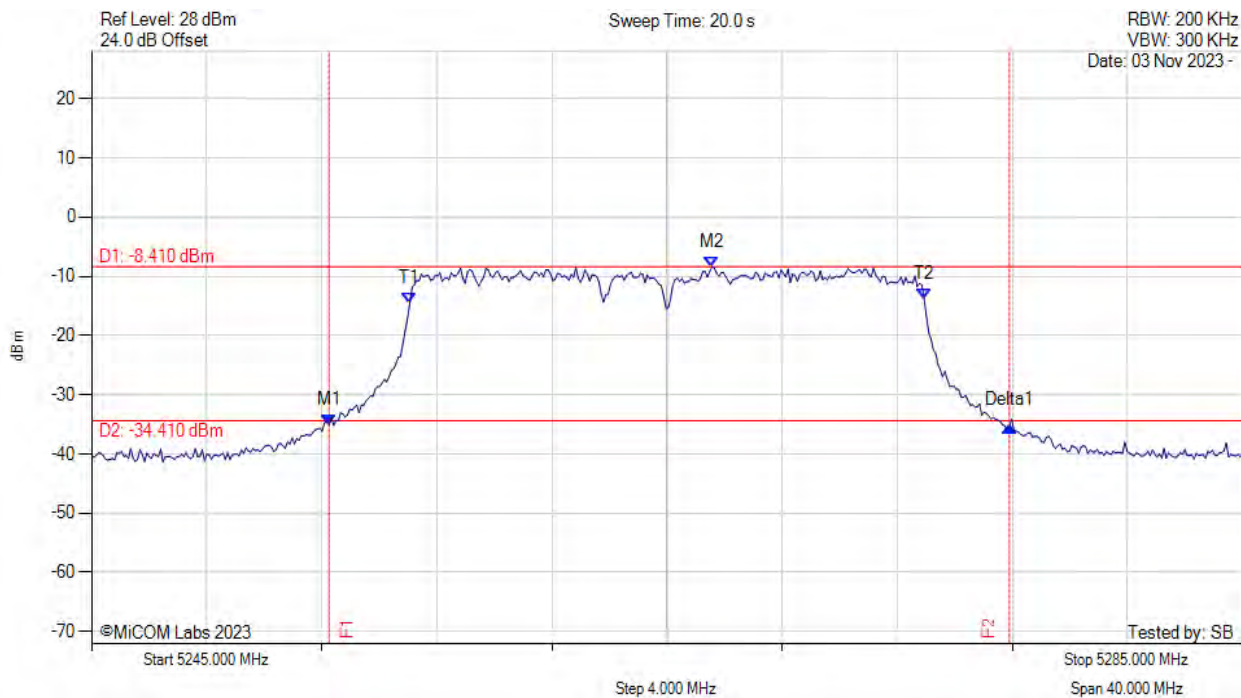
[back to matrix](#)

RW-9105-5158

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



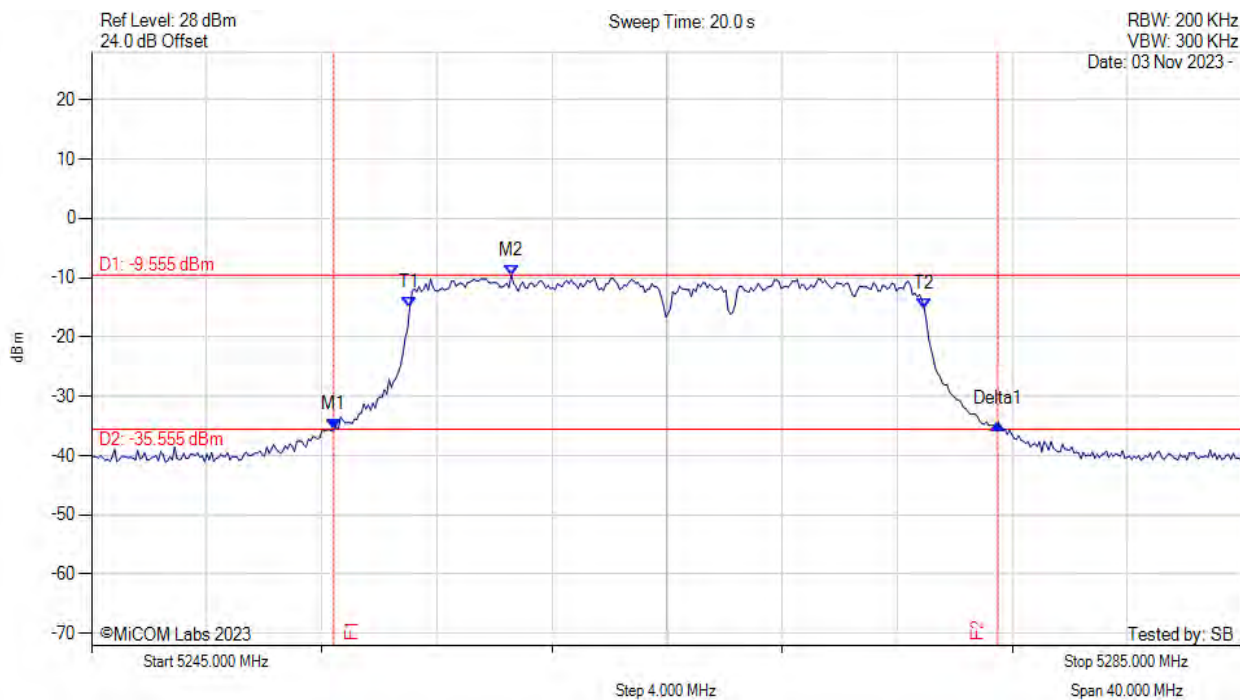
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.257 MHz : -35.034 dBm M2 : 5266.563 MHz : -8.410 dBm Delta1 : 23.647 MHz : -0.205 dB T1 : 5256.062 MHz : -14.536 dBm T2 : 5273.938 MHz : -13.836 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 23.647 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



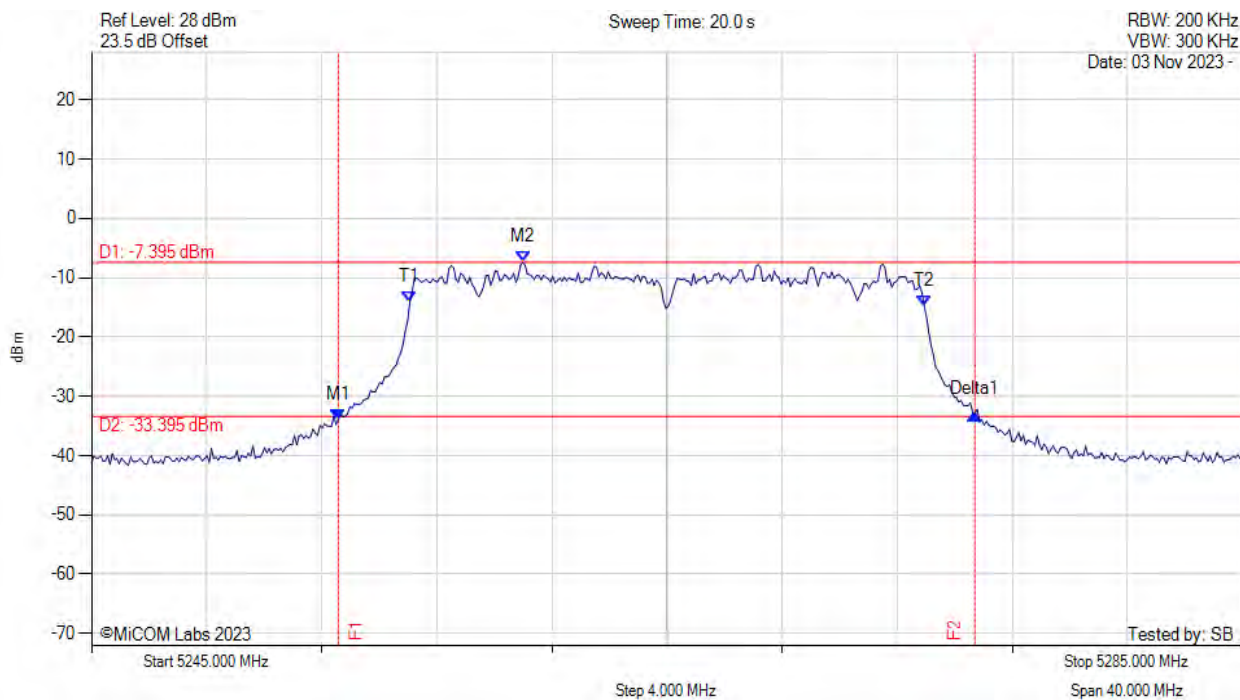
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.417 MHz : -35.679 dBm M2 : 5259.589 MHz : -9.555 dBm Delta1 : 23.086 MHz : 0.997 dB T1 : 5256.062 MHz : -14.987 dBm T2 : 5273.938 MHz : -15.166 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 23.086 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5265.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



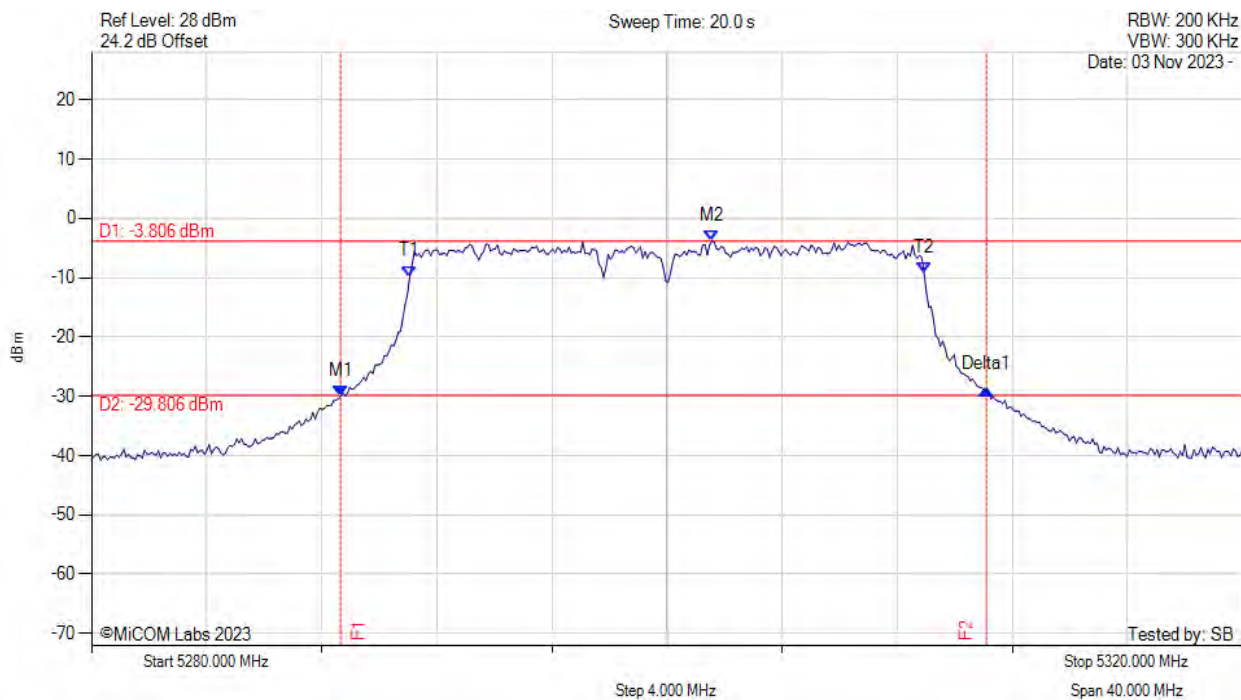
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.577 MHz : -33.875 dBm M2 : 5259.990 MHz : -7.395 dBm Delta1 : 22.124 MHz : 0.826 dB T1 : 5256.062 MHz : -14.151 dBm T2 : 5273.938 MHz : -14.790 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.124 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



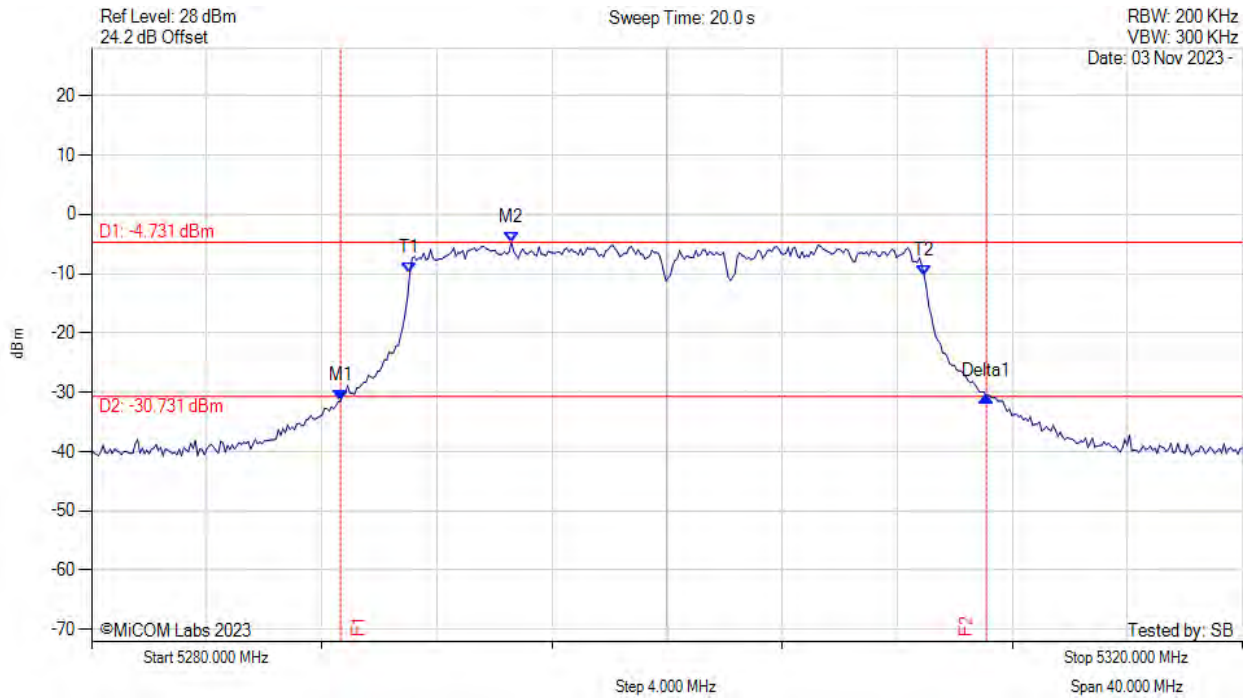
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5288.657 MHz : -29.948 dBm M2 : 5301.563 MHz : -3.806 dBm Delta1 : 22.445 MHz : 1.072 dB T1 : 5291.062 MHz : -9.767 dBm T2 : 5308.938 MHz : -9.262 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



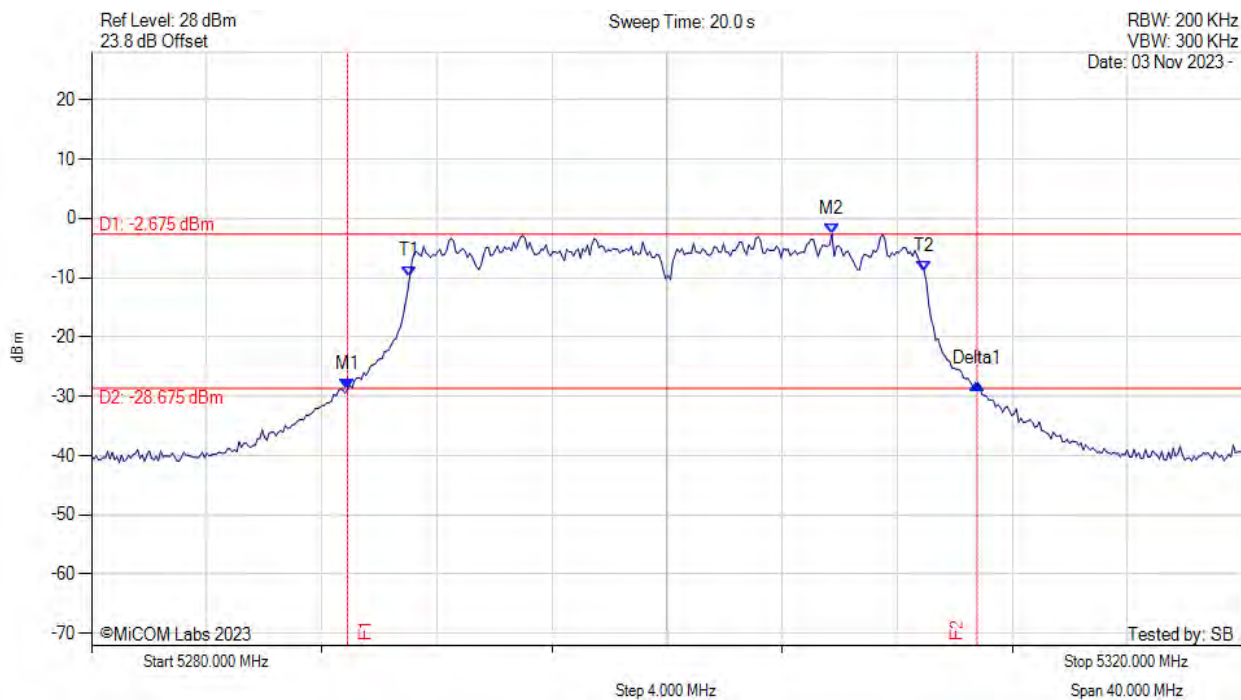
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5288.657 MHz : -31.481 dBm M2 : 5294.589 MHz : -4.731 dBm Delta1 : 22.445 MHz : 0.728 dB T1 : 5291.062 MHz : -9.921 dBm T2 : 5308.938 MHz : -10.306 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.445 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variation: 20MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



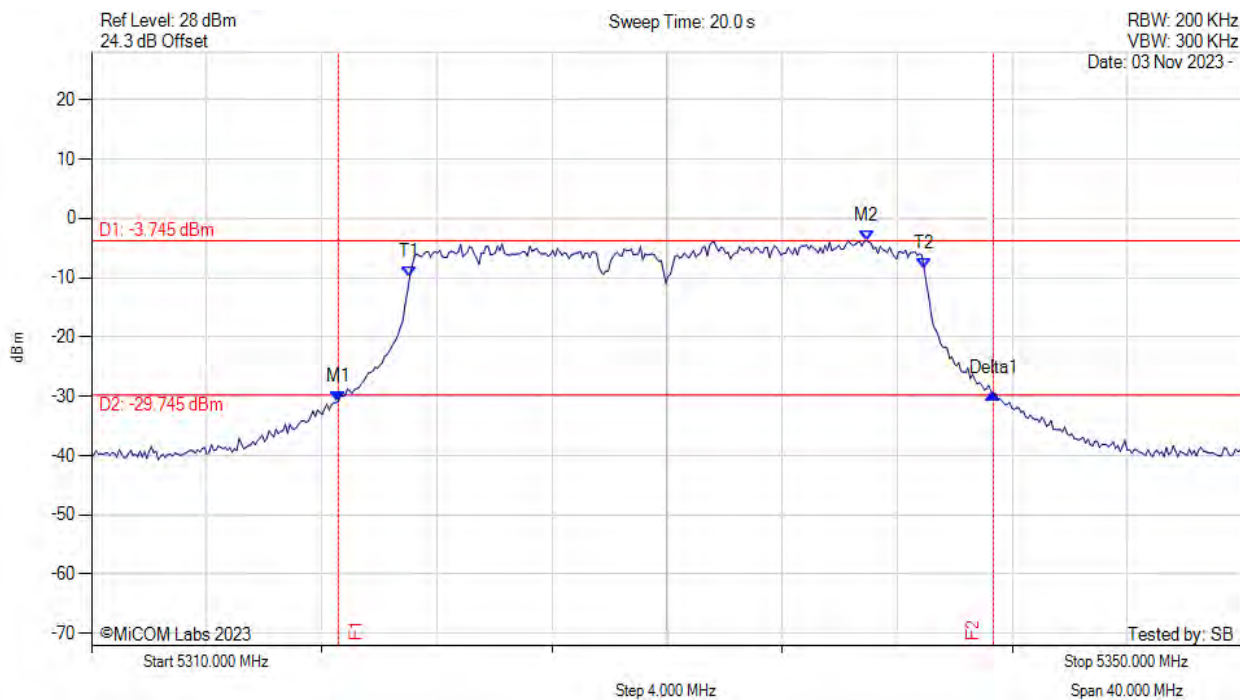
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5288.898 MHz : -28.798 dBm M2 : 5305.731 MHz : -2.675 dBm Delta1 : 21.884 MHz : 0.929 dB T1 : 5291.062 MHz : -9.777 dBm T2 : 5308.938 MHz : -8.892 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 21.884 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



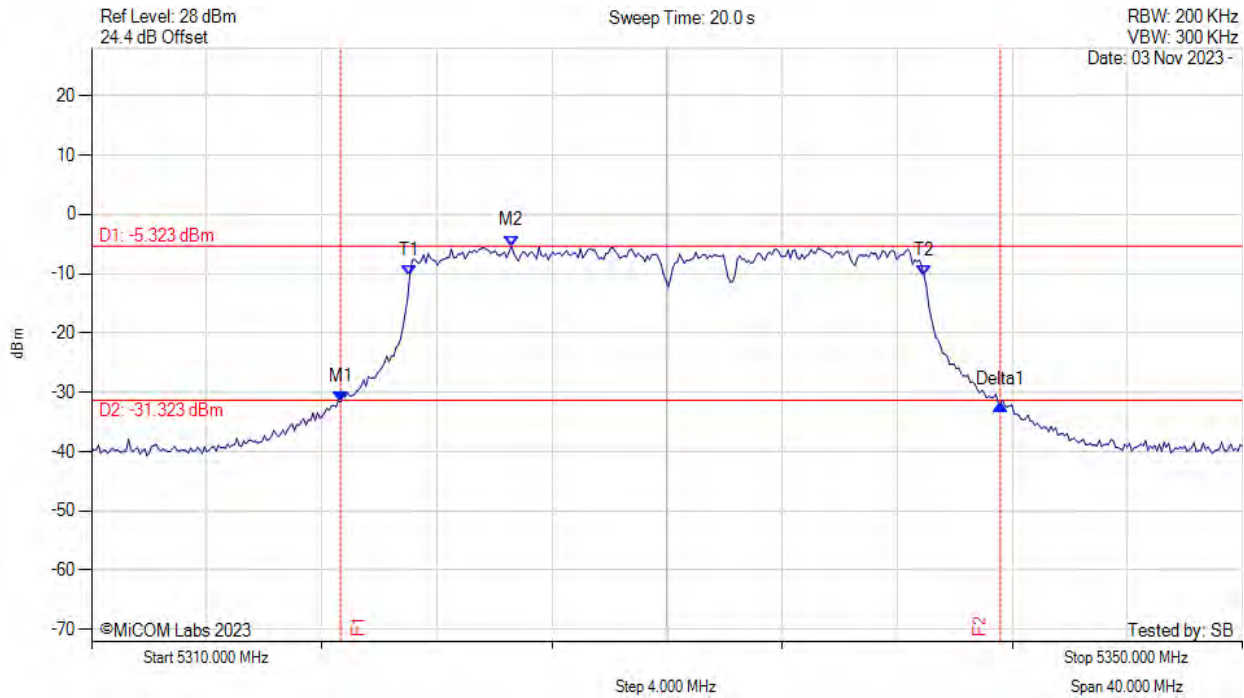
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5318.577 MHz : -30.871 dBm M2 : 5336.934 MHz : -3.745 dBm Delta1 : 22.766 MHz : 1.322 dB T1 : 5321.062 MHz : -9.868 dBm T2 : 5338.938 MHz : -8.518 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.766 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



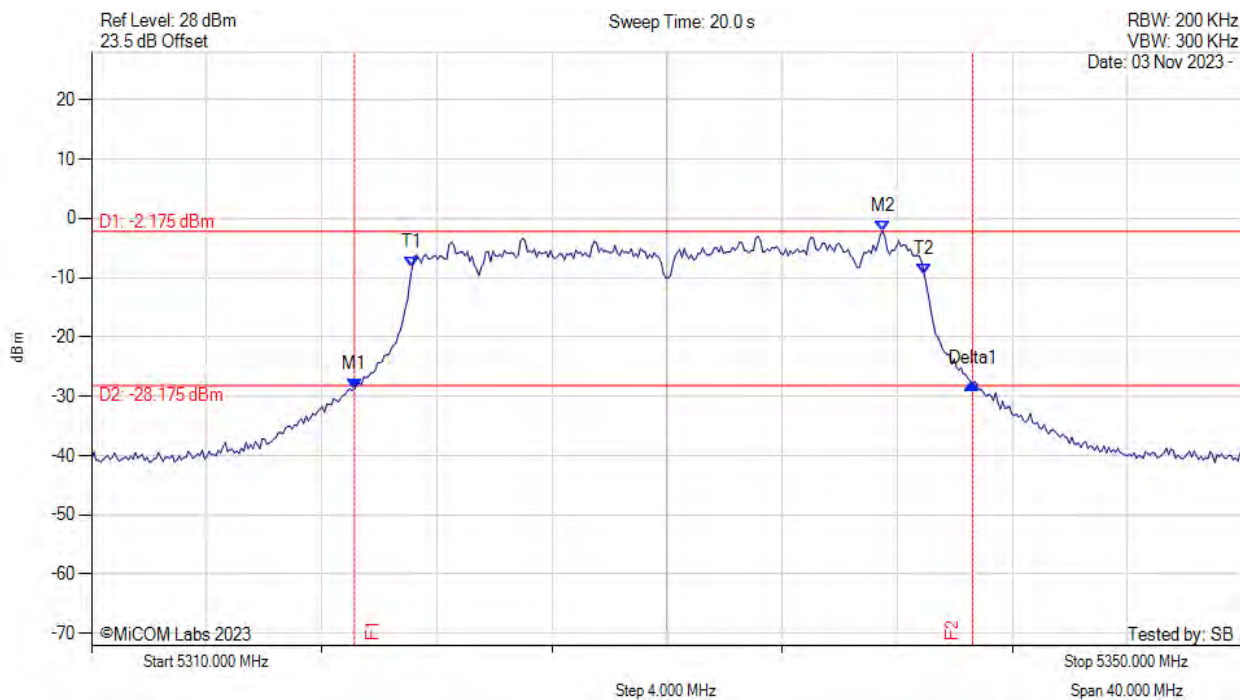
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5318.657 MHz : -31.634 dBm M2 : 5324.589 MHz : -5.323 dBm Delta1 : 22.926 MHz : -0.484 dB T1 : 5321.062 MHz : -10.287 dBm T2 : 5338.938 MHz : -10.401 dBm OBW : 17.876 MHz	Measured 26 dB Bandwidth: 22.926 MHz Measured 99% Bandwidth: 17.876 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 5330.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



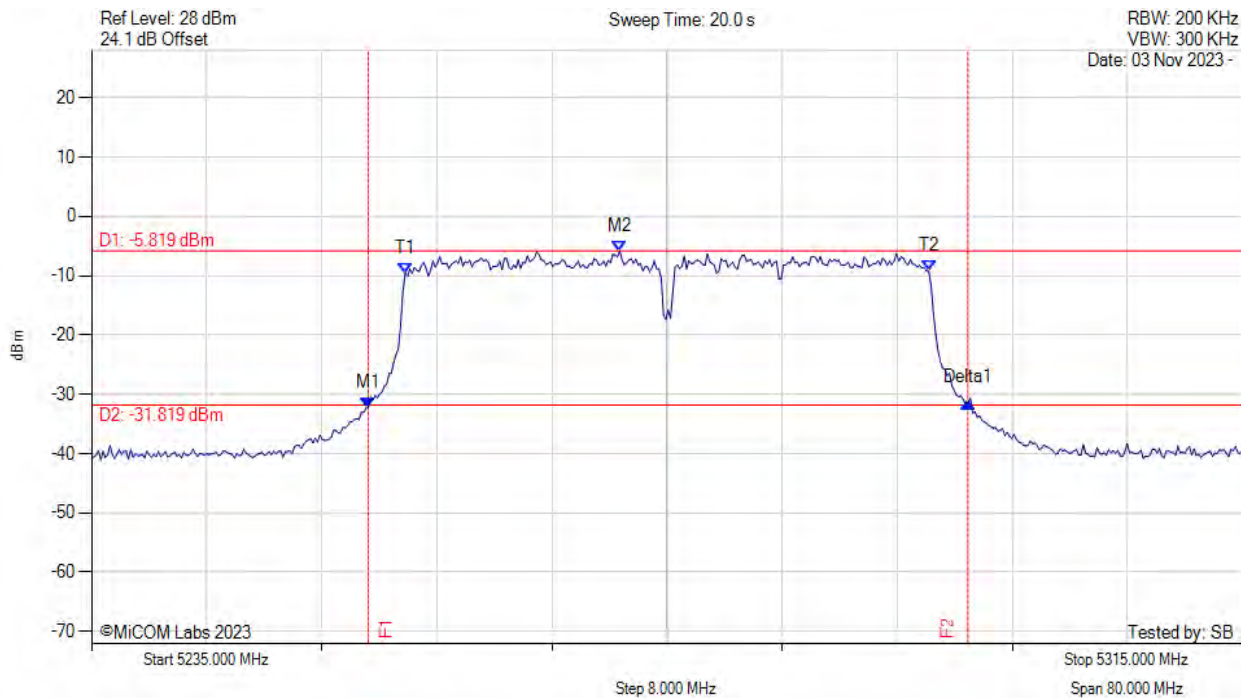
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5319.138 MHz : -28.739 dBm M2 : 5337.495 MHz : -2.175 dBm Delta1 : 21.483 MHz : 0.864 dB T1 : 5321.142 MHz : -8.258 dBm T2 : 5338.938 MHz : -9.358 dBm OBW : 17.796 MHz	Measured 26 dB Bandwidth: 21.483 MHz Measured 99% Bandwidth: 17.796 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variation: 40MHz, Channel: 5275.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



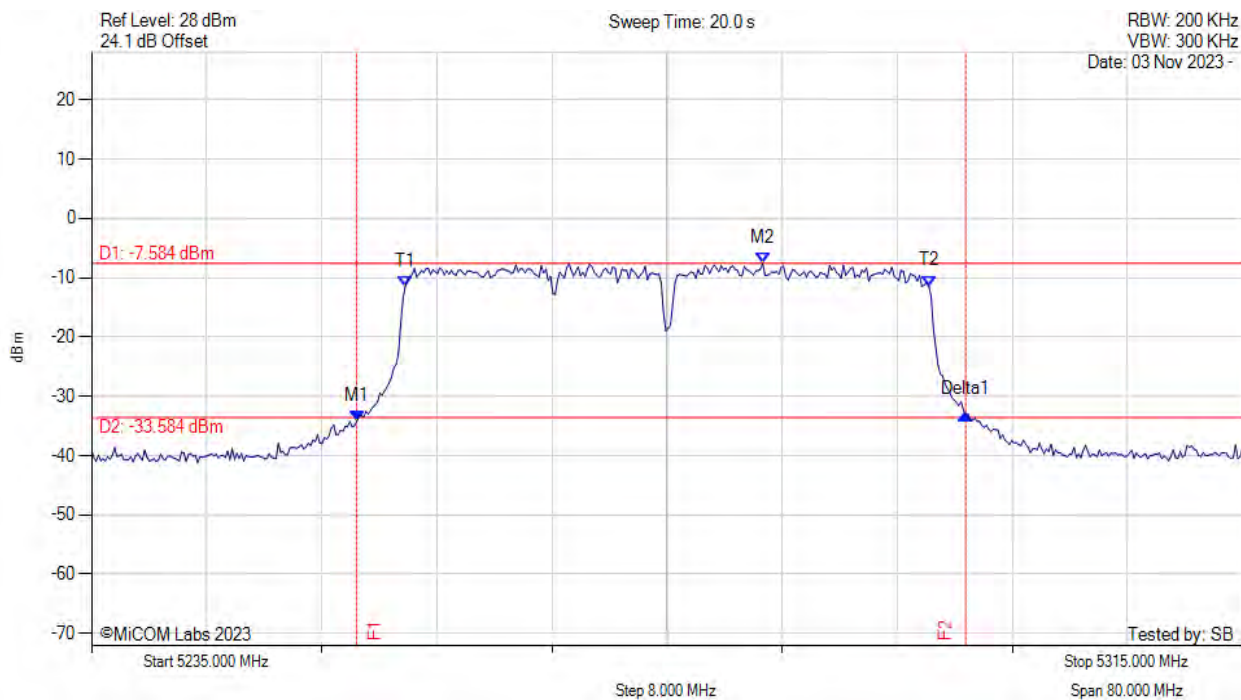
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5254.238 MHz : -32.264 dBm M2 : 5271.713 MHz : -5.819 dBm Delta1 : 41.683 MHz : 0.862 dB T1 : 5256.804 MHz : -9.563 dBm T2 : 5293.196 MHz : -9.236 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.683 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5275.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



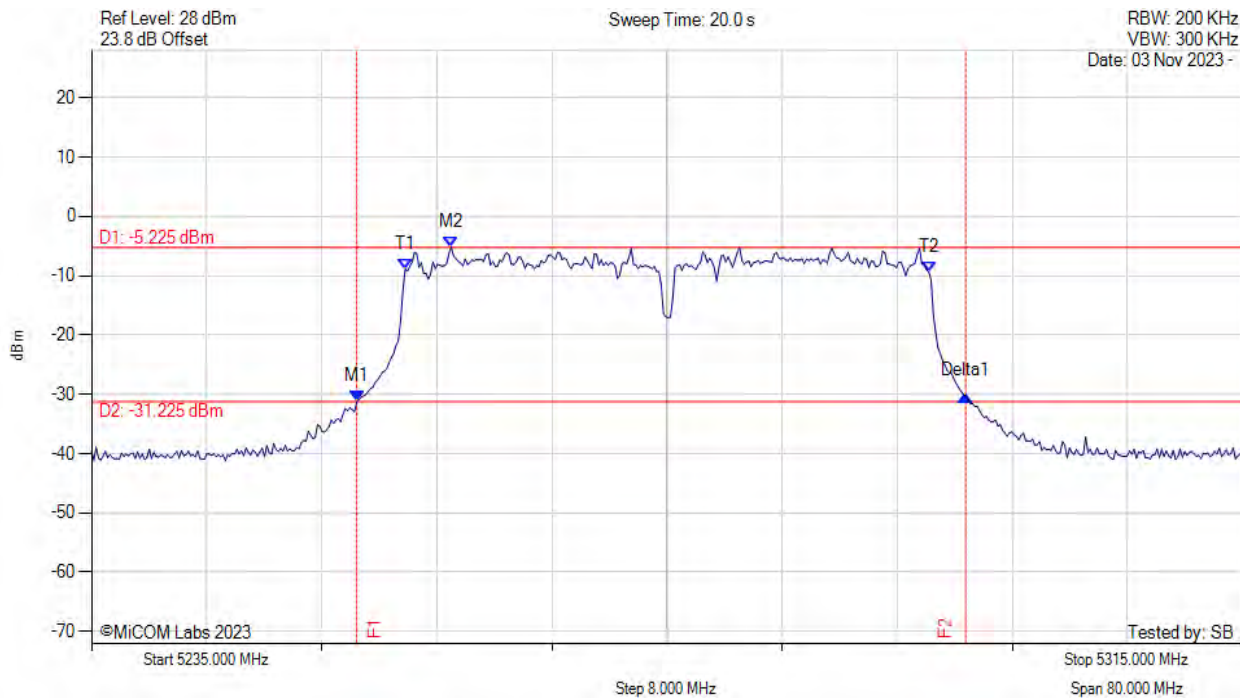
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.437 MHz : -34.229 dBm M2 : 5281.653 MHz : -7.584 dBm Delta1 : 42.325 MHz : 1.110 dB T1 : 5256.804 MHz : -11.536 dBm T2 : 5293.196 MHz : -11.406 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 42.325 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5275.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



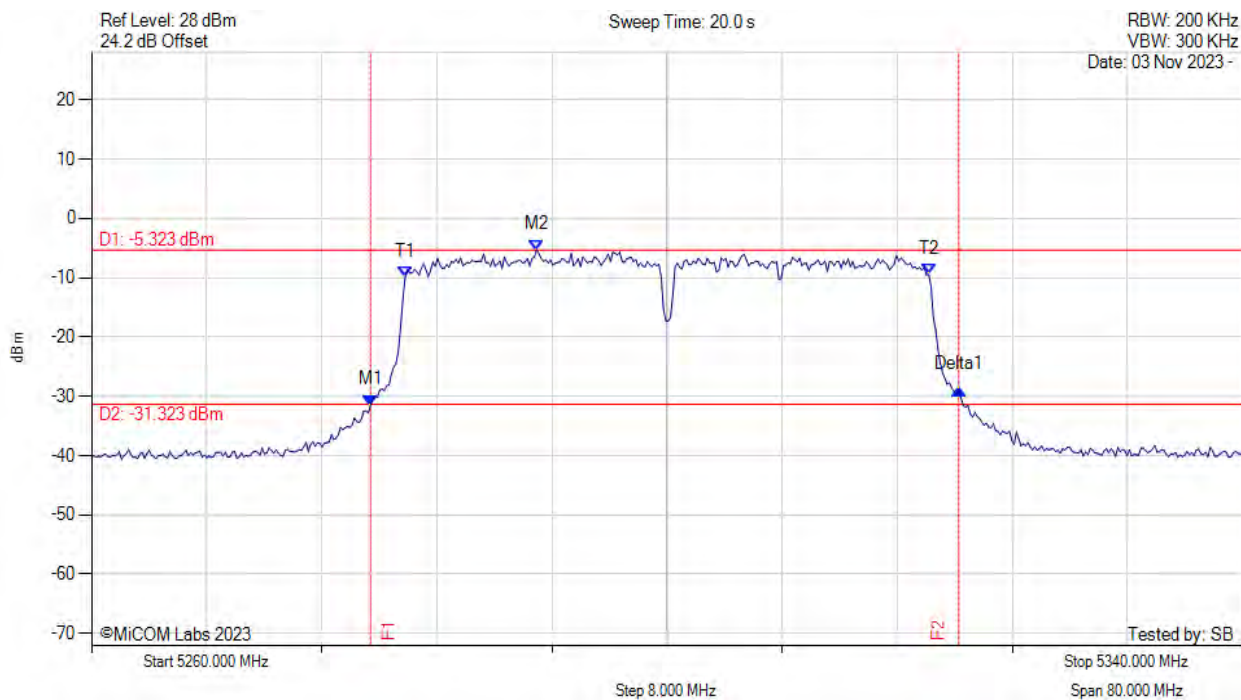
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.437 MHz : -31.259 dBm M2 : 5260.010 MHz : -5.225 dBm Delta1 : 42.325 MHz : 0.966 dB T1 : 5256.804 MHz : -8.929 dBm T2 : 5293.196 MHz : -9.333 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 42.325 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variat: 40MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



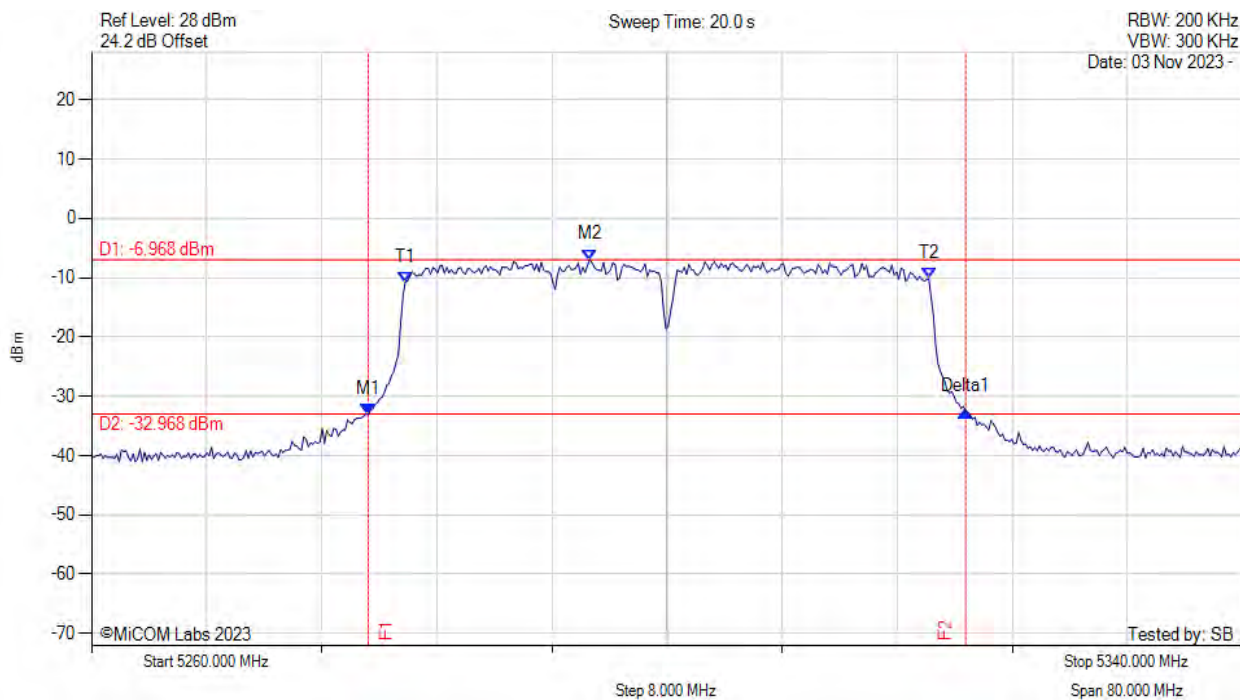
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5279.399 MHz : -31.503 dBm M2 : 5290.942 MHz : -5.323 dBm Delta1 : 40.882 MHz : 2.607 dB T1 : 5281.804 MHz : -9.879 dBm T2 : 5318.196 MHz : -9.476 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 40.882 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



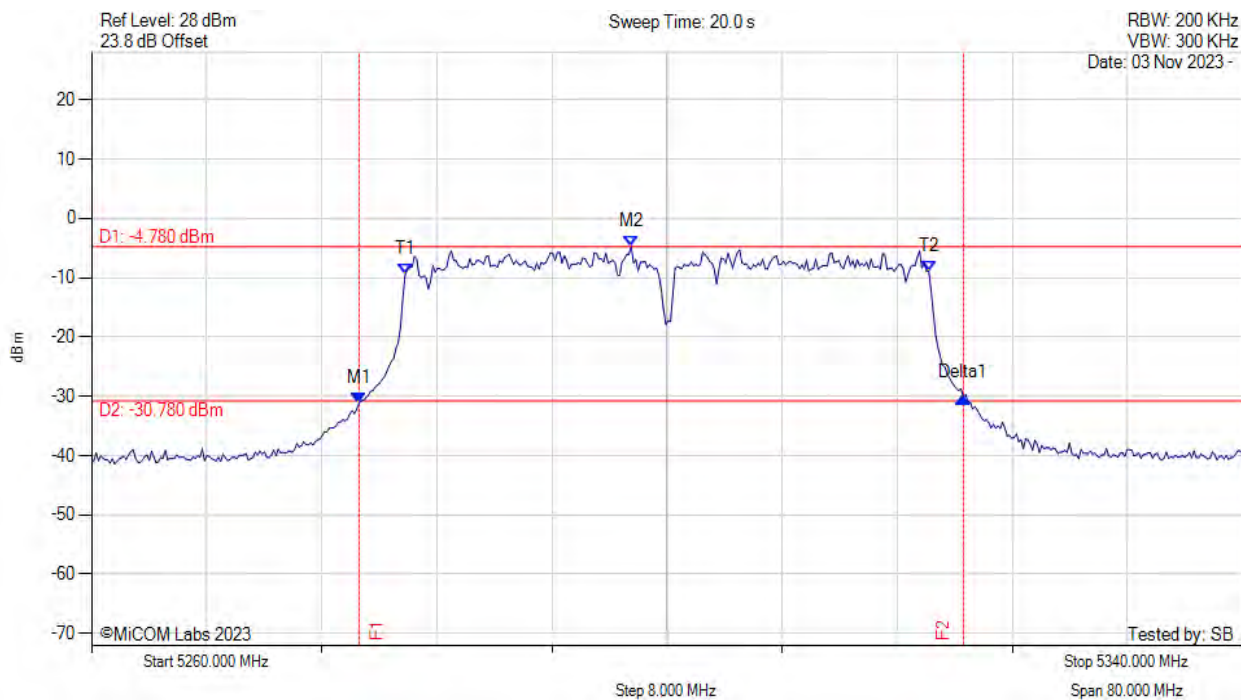
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5279.238 MHz : -33.031 dBm M2 : 5294.629 MHz : -6.968 dBm Delta1 : 41.523 MHz : 0.521 dB T1 : 5281.804 MHz : -10.753 dBm T2 : 5318.196 MHz : -10.167 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 41.523 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



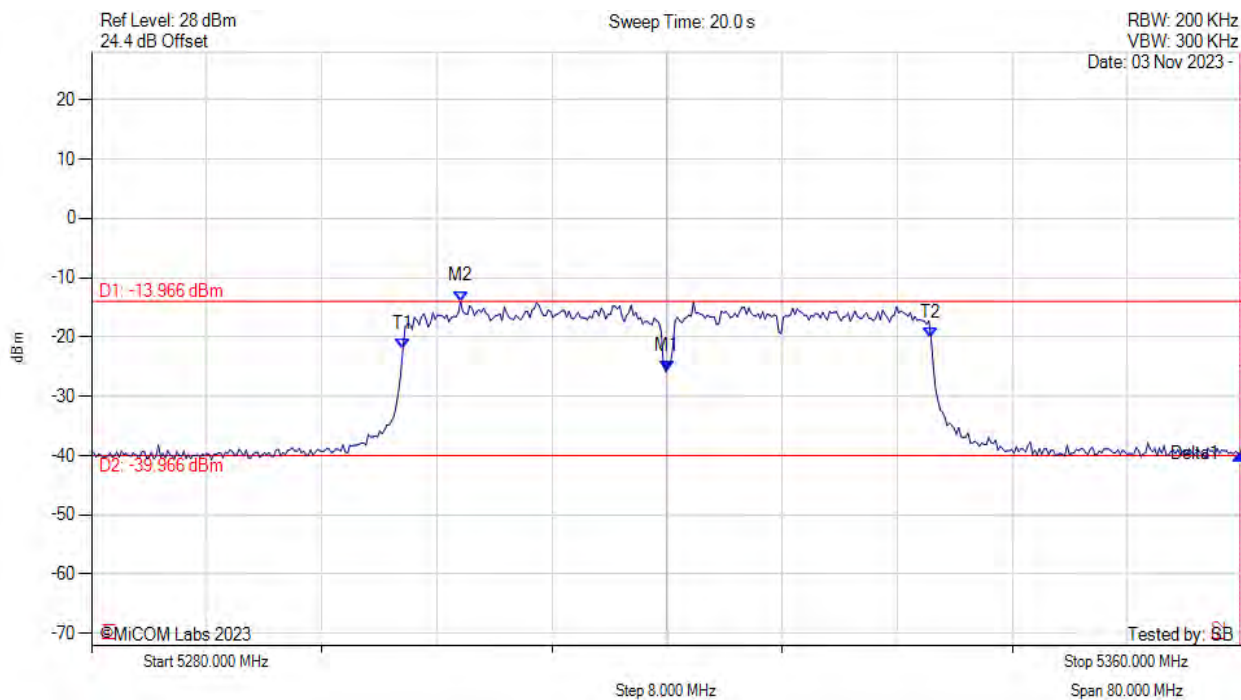
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5278.597 MHz : -31.166 dBm M2 : 5297.515 MHz : -4.780 dBm Delta1 : 42.004 MHz : 0.992 dB T1 : 5281.804 MHz : -9.403 dBm T2 : 5318.196 MHz : -8.908 dBm OBW : 36.393 MHz	Measured 26 dB Bandwidth: 42.004 MHz Measured 99% Bandwidth: 36.393 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



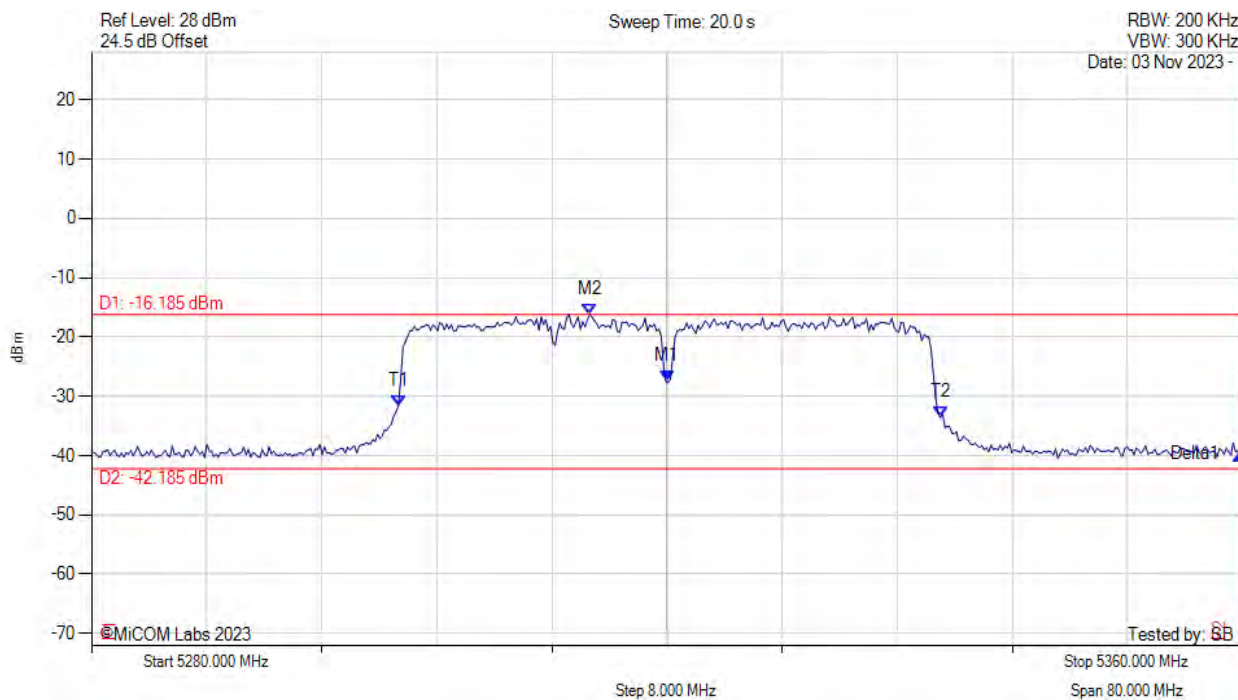
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5320.000 MHz : -25.870 dBm M2 : 5305.651 MHz : -13.966 dBm Delta1 : 39.840 MHz : -13.884 dB T1 : 5301.643 MHz : -21.971 dBm T2 : 5338.357 MHz : -20.153 dBm OBW : 36.713 MHz	Measured 26 dB Bandwidth: 39.840 MHz Measured 99% Bandwidth: 36.713 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



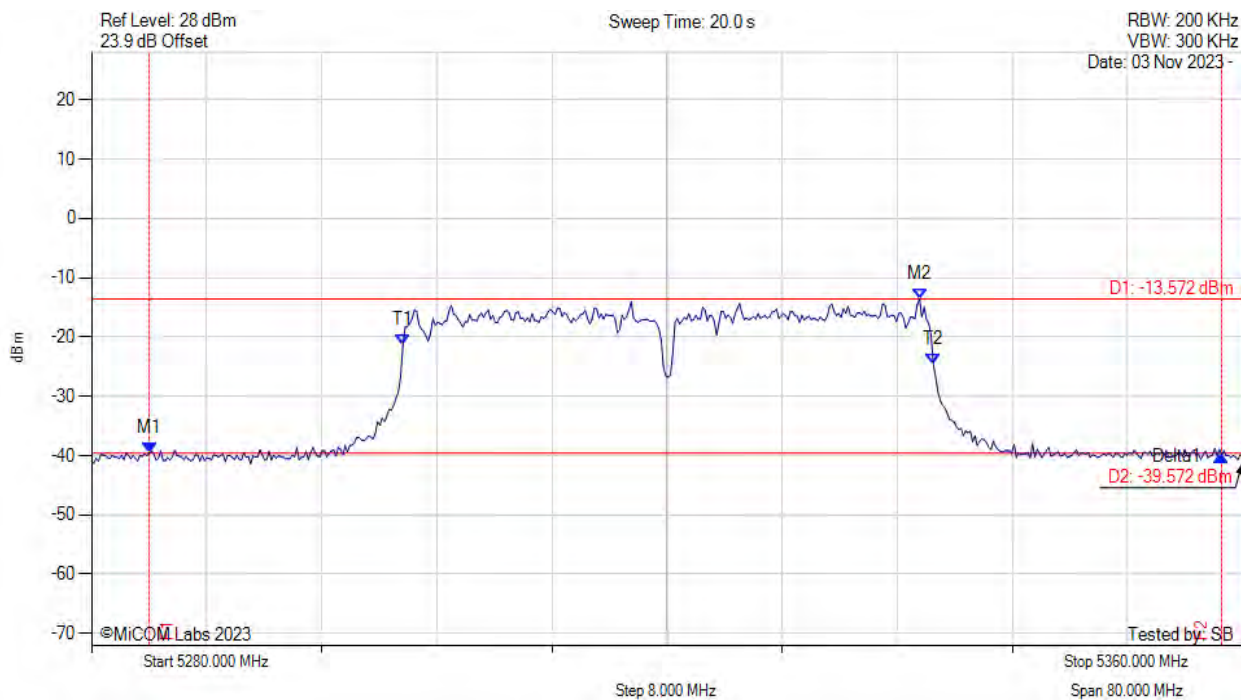
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5320.000 MHz : -27.458 dBm M2 : 5314.629 MHz : -16.185 dBm Delta1 : 39.840 MHz : -12.237 dB T1 : 5301.323 MHz : -31.572 dBm T2 : 5338.998 MHz : -33.533 dBm OBW : 37.675 MHz	Measured 26 dB Bandwidth: 39.840 MHz Measured 99% Bandwidth: 37.675 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



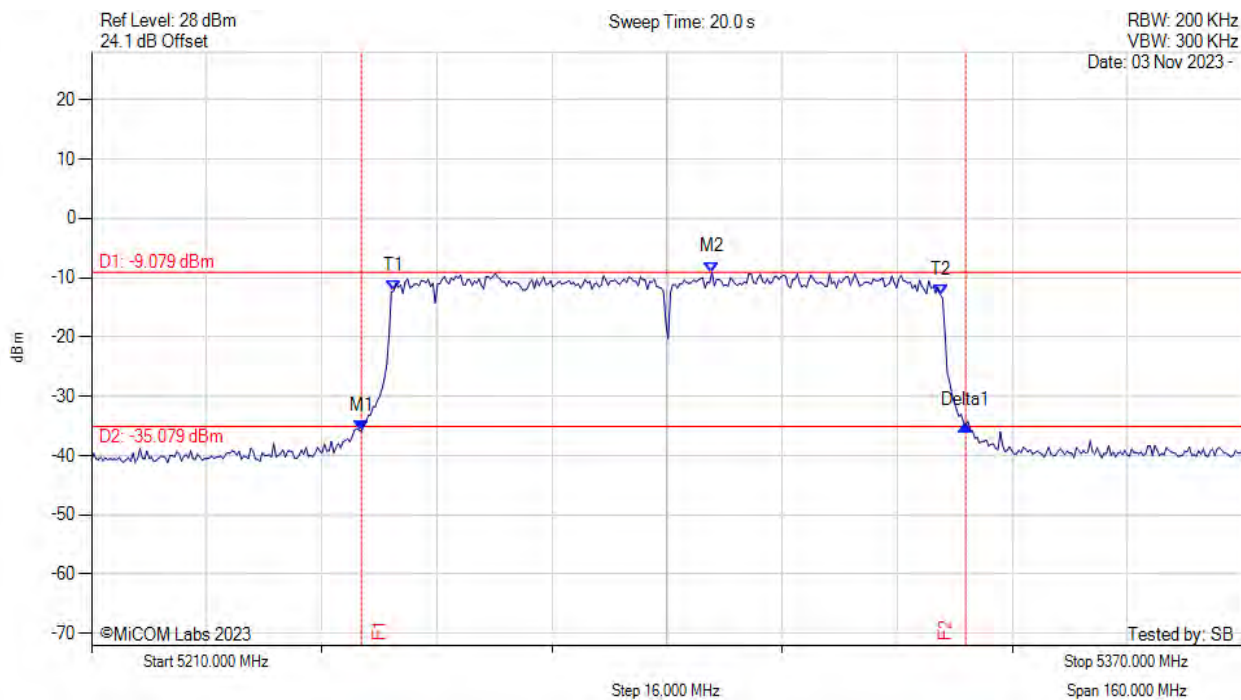
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5284.008 MHz : -39.590 dBm M2 : 5337.555 MHz : -13.572 dBm Delta1 : 74.549 MHz : -0.407 dB T1 : 5301.643 MHz : -21.424 dBm T2 : 5338.517 MHz : -24.672 dBm OBW : 36.874 MHz	Measured 26 dB Bandwidth: 74.549 MHz Measured 99% Bandwidth: 36.874 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



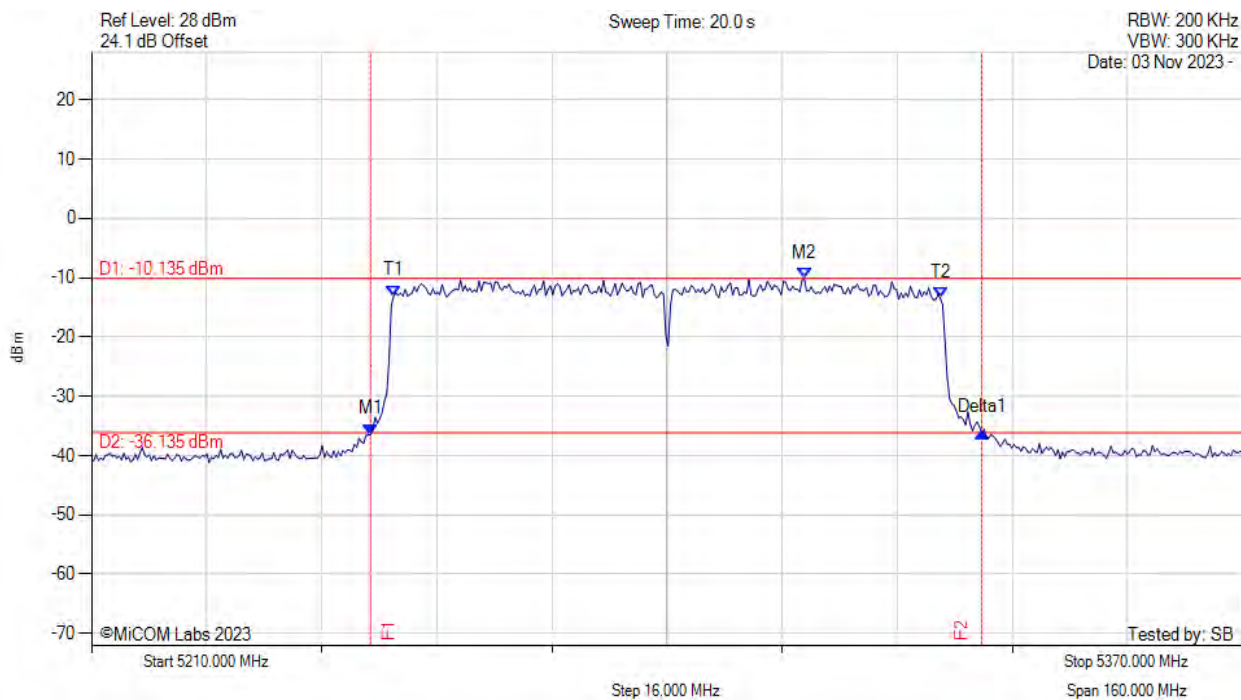
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5247.515 MHz : -35.900 dBm M2 : 5296.253 MHz : -9.079 dBm Delta1 : 84.008 MHz : 0.999 dB T1 : 5252.004 MHz : -12.250 dBm T2 : 5327.996 MHz : -12.866 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.008 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variation: 80MHz, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



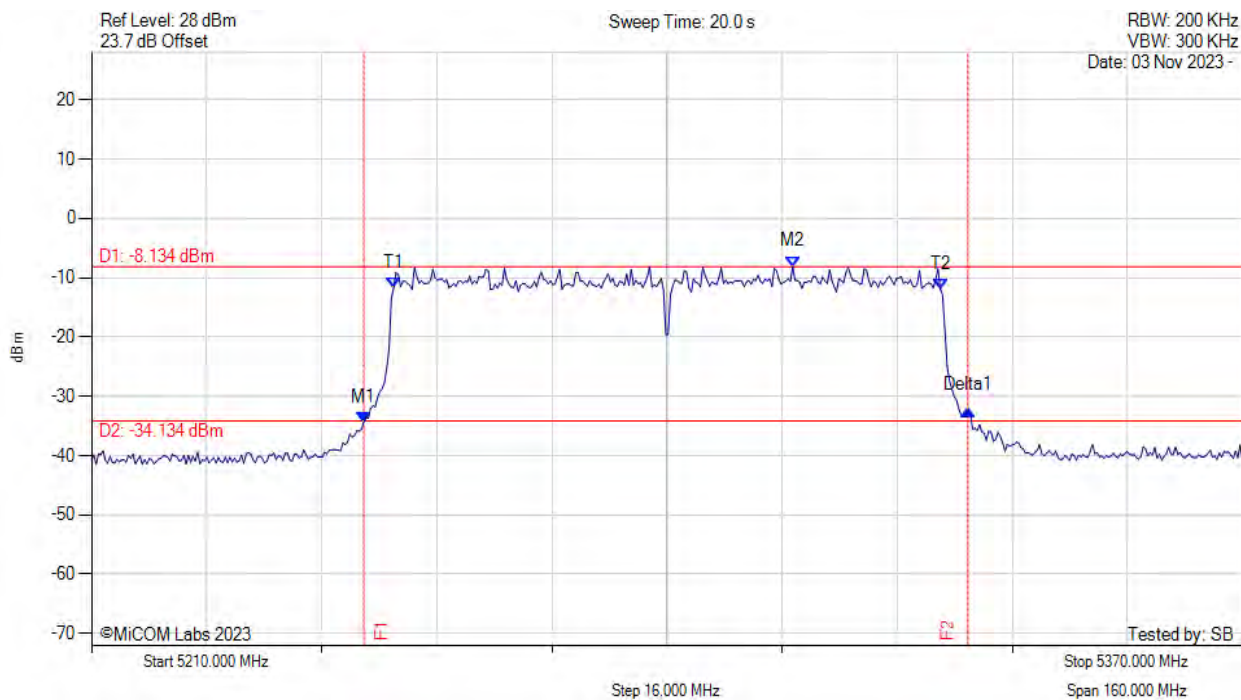
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5248.798 MHz : -36.425 dBm M2 : 5309.078 MHz : -10.135 dBm Delta1 : 84.970 MHz : 0.374 dB T1 : 5252.004 MHz : -13.037 dBm T2 : 5327.996 MHz : -13.476 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.970 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



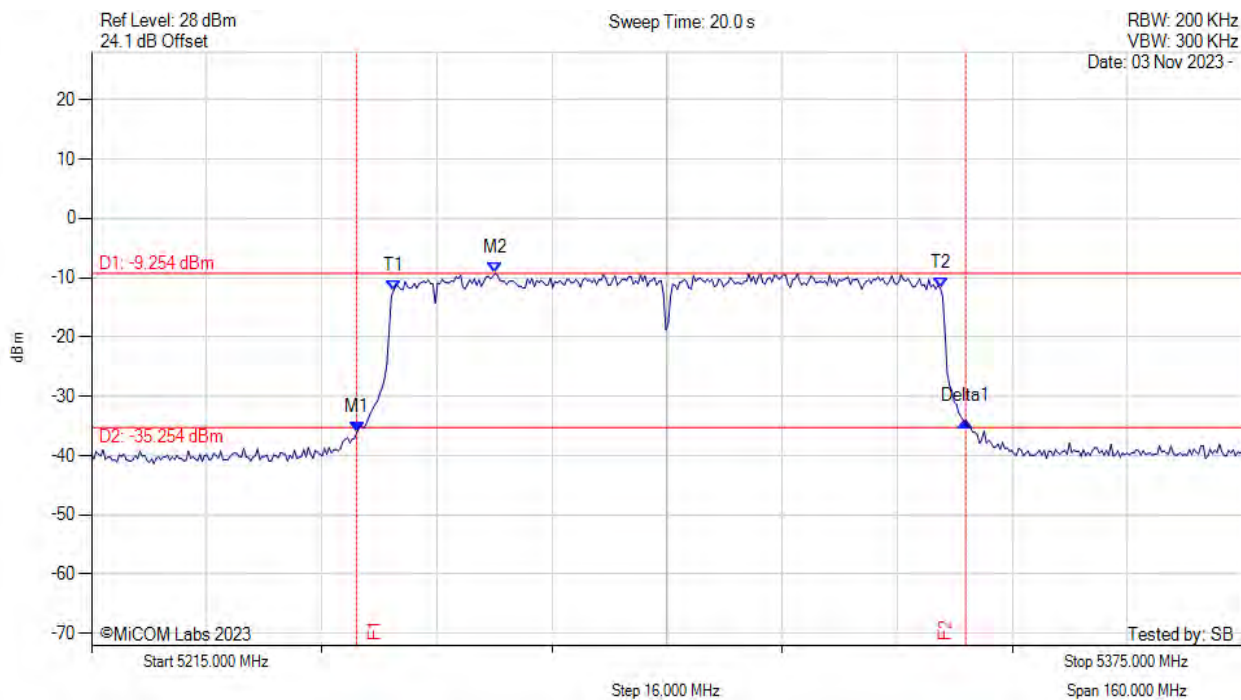
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5247.836 MHz : -34.355 dBm M2 : 5307.475 MHz : -8.134 dBm Delta1 : 84.008 MHz : 1.973 dB T1 : 5252.004 MHz : -11.658 dBm T2 : 5327.996 MHz : -11.929 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.008 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variation: 80MHz, Channel: 5295.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



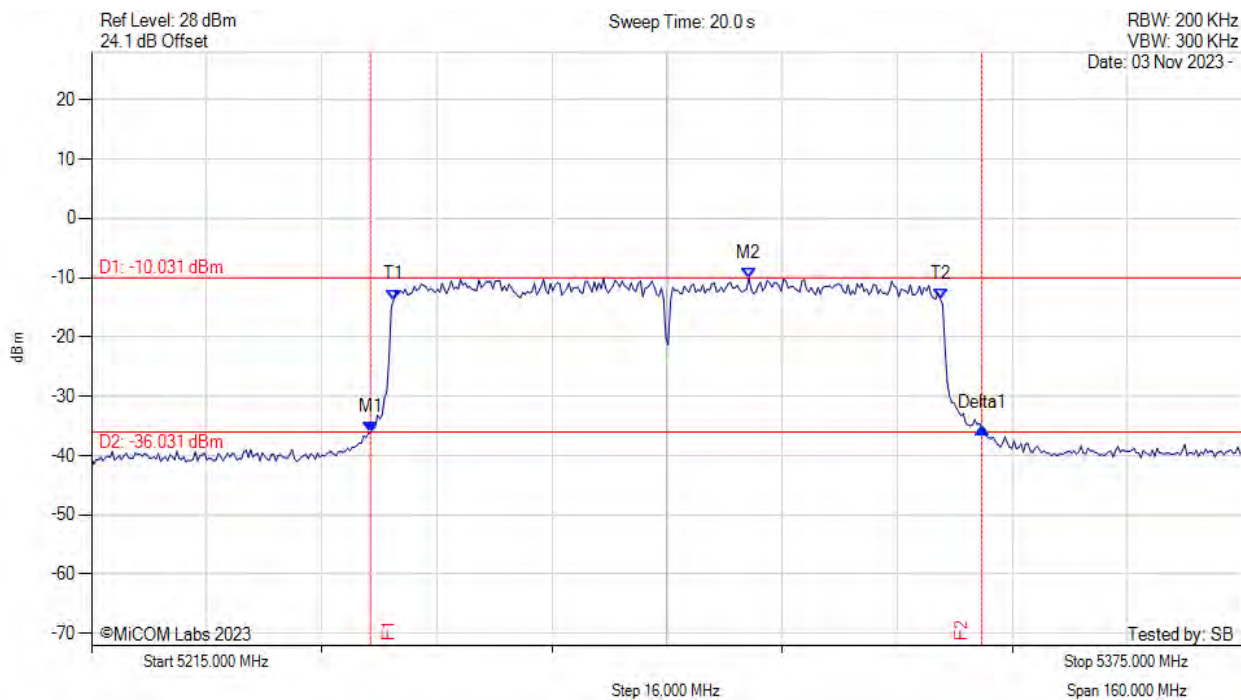
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5251.874 MHz : -36.130 dBm M2 : 5271.112 MHz : -9.254 dBm Delta1 : 84.649 MHz : 1.999 dB T1 : 5257.004 MHz : -12.134 dBm T2 : 5332.996 MHz : -11.788 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.649 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5295.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



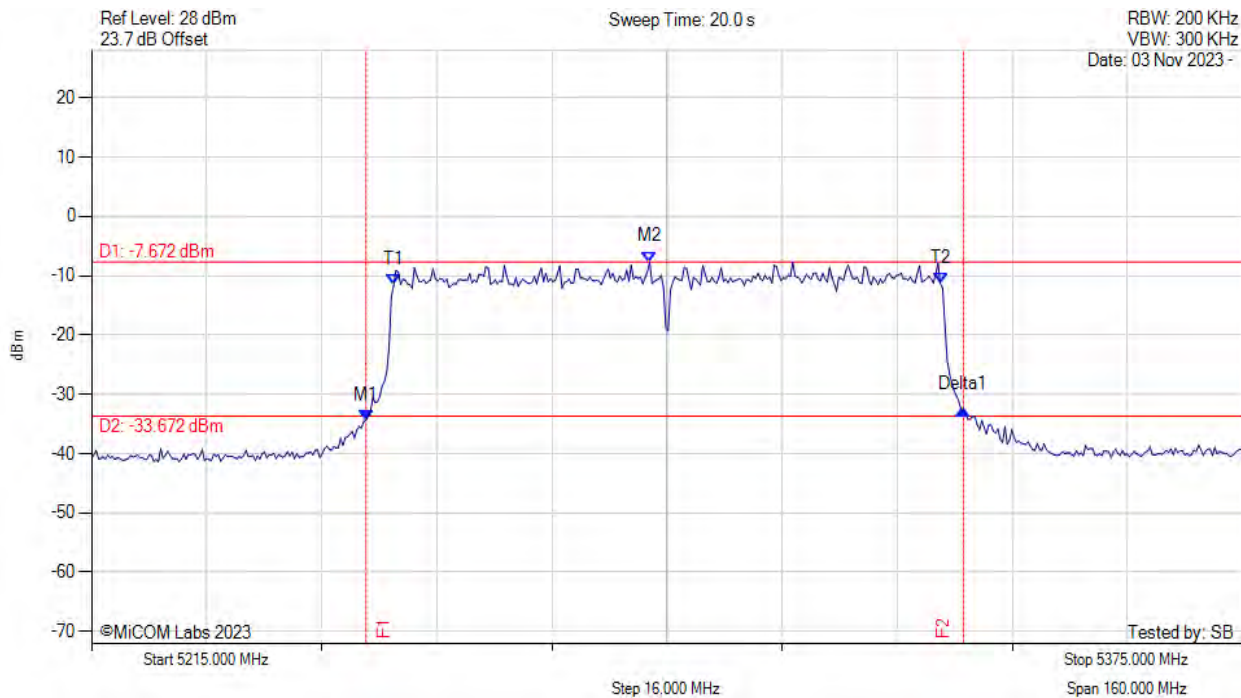
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.798 MHz : -36.045 dBm M2 : 5306.383 MHz : -10.031 dBm Delta1 : 84.970 MHz : 0.738 dB T1 : 5257.004 MHz : -13.747 dBm T2 : 5332.996 MHz : -13.629 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.970 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5295.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



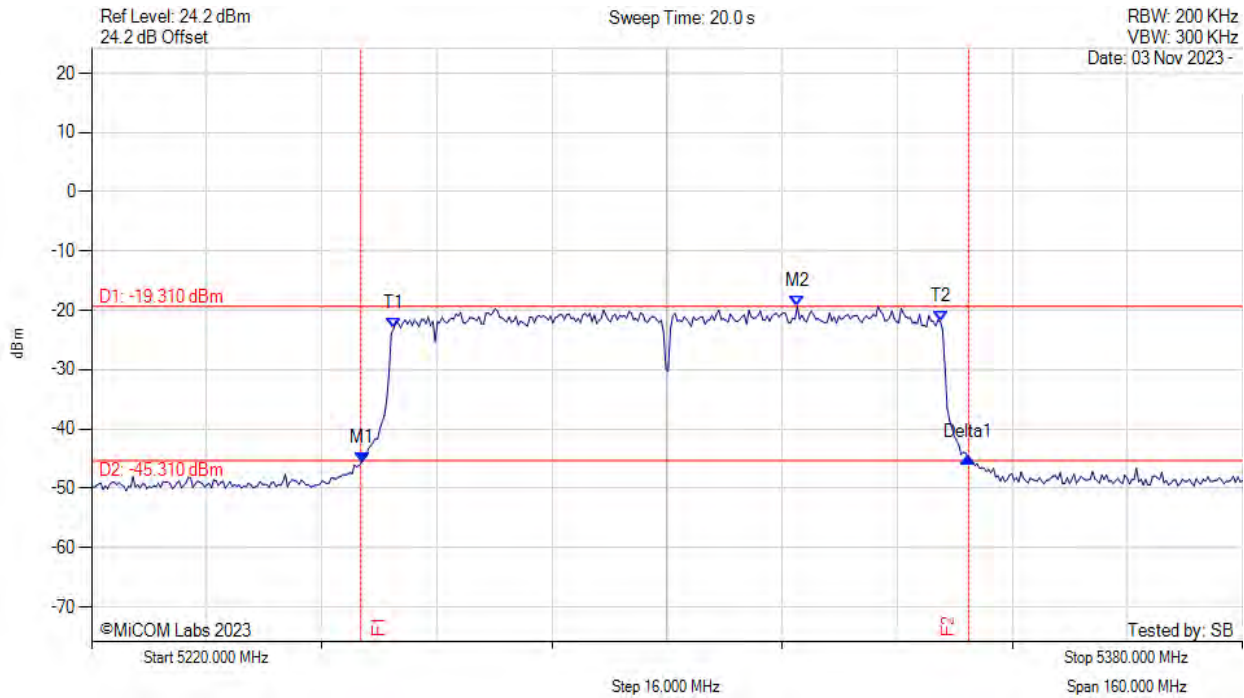
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5253.156 MHz : -34.340 dBm M2 : 5292.595 MHz : -7.672 dBm Delta1 : 83.046 MHz : 1.857 dB T1 : 5257.004 MHz : -11.626 dBm T2 : 5332.996 MHz : -11.308 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 83.046 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



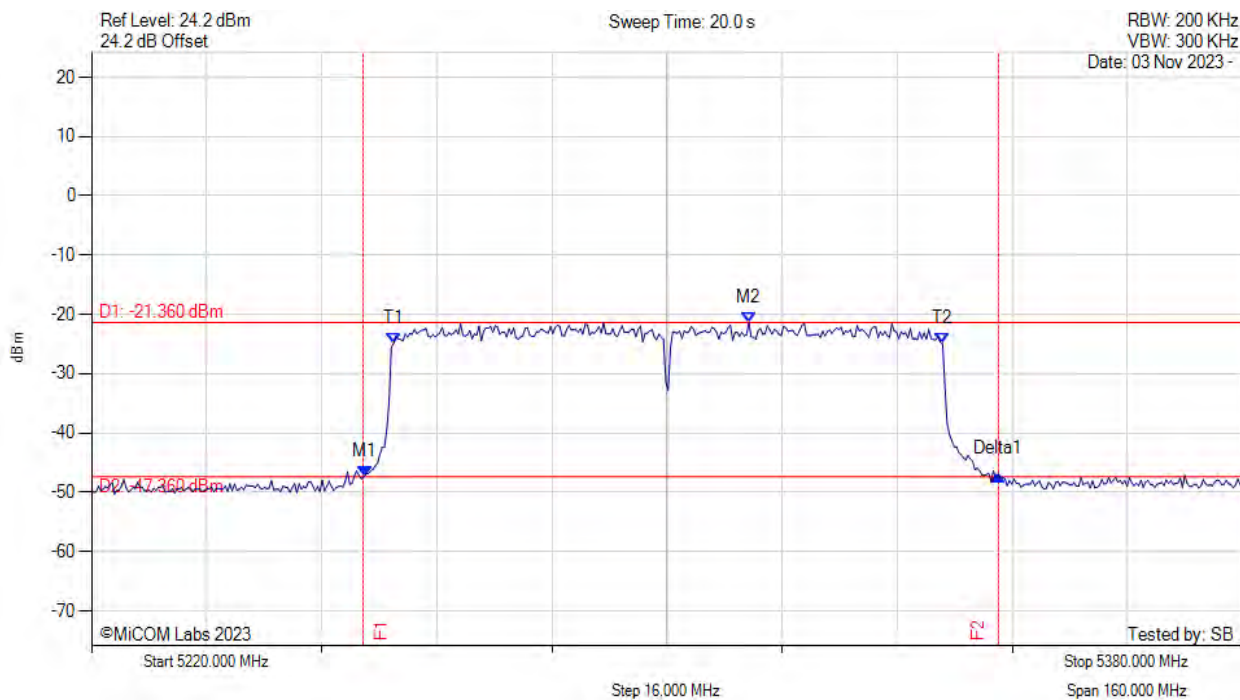
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5257.675 MHz : -45.684 dBm M2 : 5318.116 MHz : -19.306 dBm Delta1 : 84.168 MHz : 0.976 dB T1 : 5262.004 MHz : -23.066 dBm T2 : 5337.996 MHz : -21.787 dBm OBW : 75.992 MHz	Measured 26 dB Bandwidth: 84.168 MHz Measured 99% Bandwidth: 75.992 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



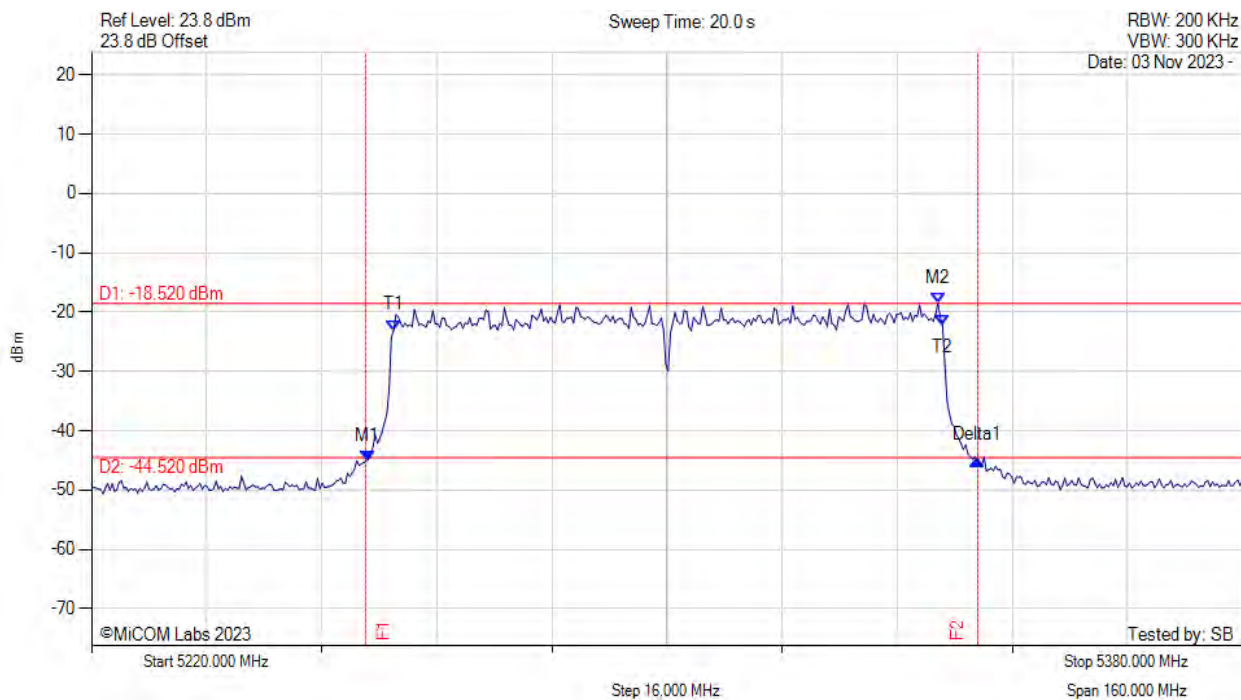
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAX HOLD	M1 : 5257.996 MHz : -47.445 dBm M2 : 5311.383 MHz : -21.362 dBm Delta1 : 88.016 MHz : 0.460 dB T1 : 5262.004 MHz : -24.884 dBm T2 : 5338.317 MHz : -24.917 dBm OBW : 76.313 MHz	Measured 26 dB Bandwidth: 88.016 MHz Measured 99% Bandwidth: 76.313 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 80MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAX HOLD	M1 : 5258.317 MHz : -45.183 dBm M2 : 5337.675 MHz : -18.518 dBm Delta1 : 84.810 MHz : 0.258 dB T1 : 5262.004 MHz : -23.088 dBm T2 : 5338.317 MHz : -22.238 dBm OBW : 76.313 MHz	Measured 26 dB Bandwidth: 84.810 MHz Measured 99% Bandwidth: 76.313 MHz

[back to matrix](#)

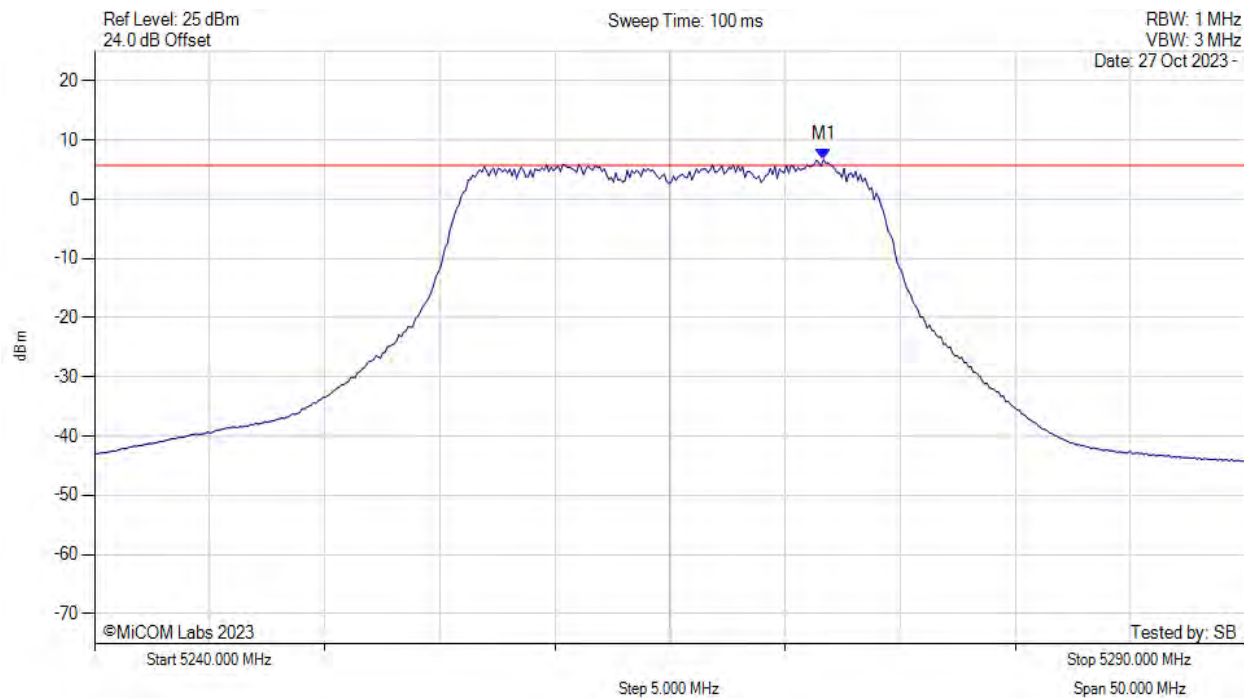
A.2. Power Spectral Density

RW-9061-5006

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



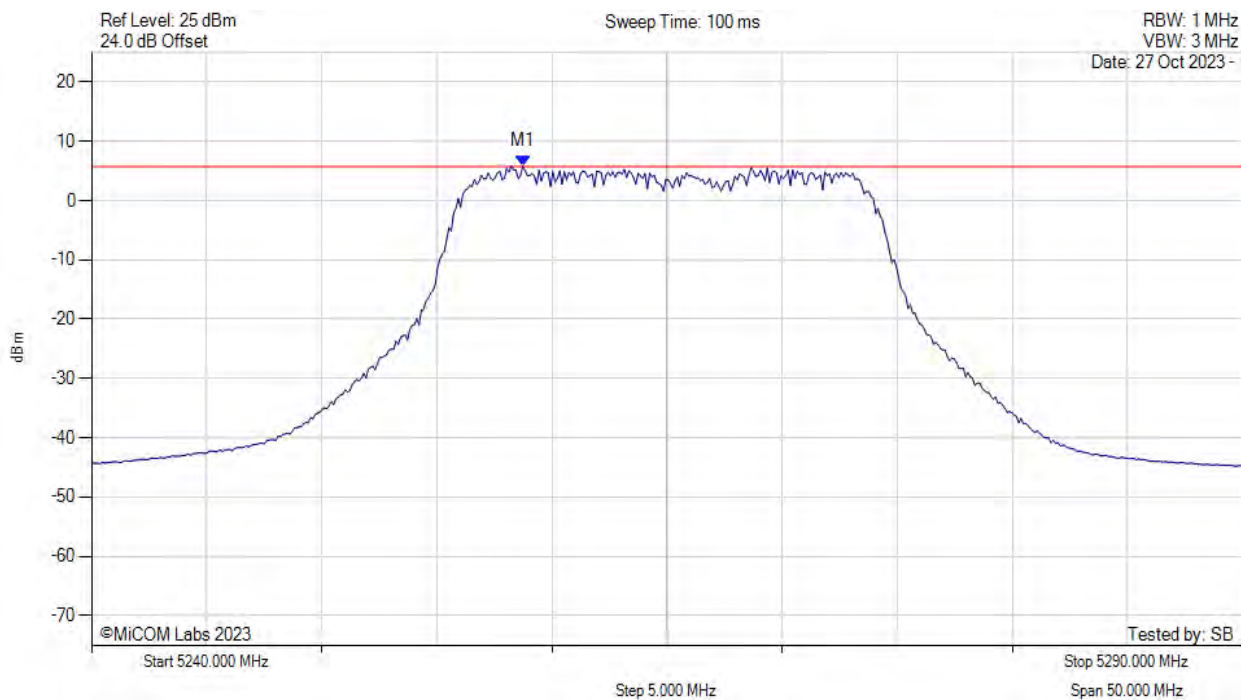
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5271.663 MHz : 6.731 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



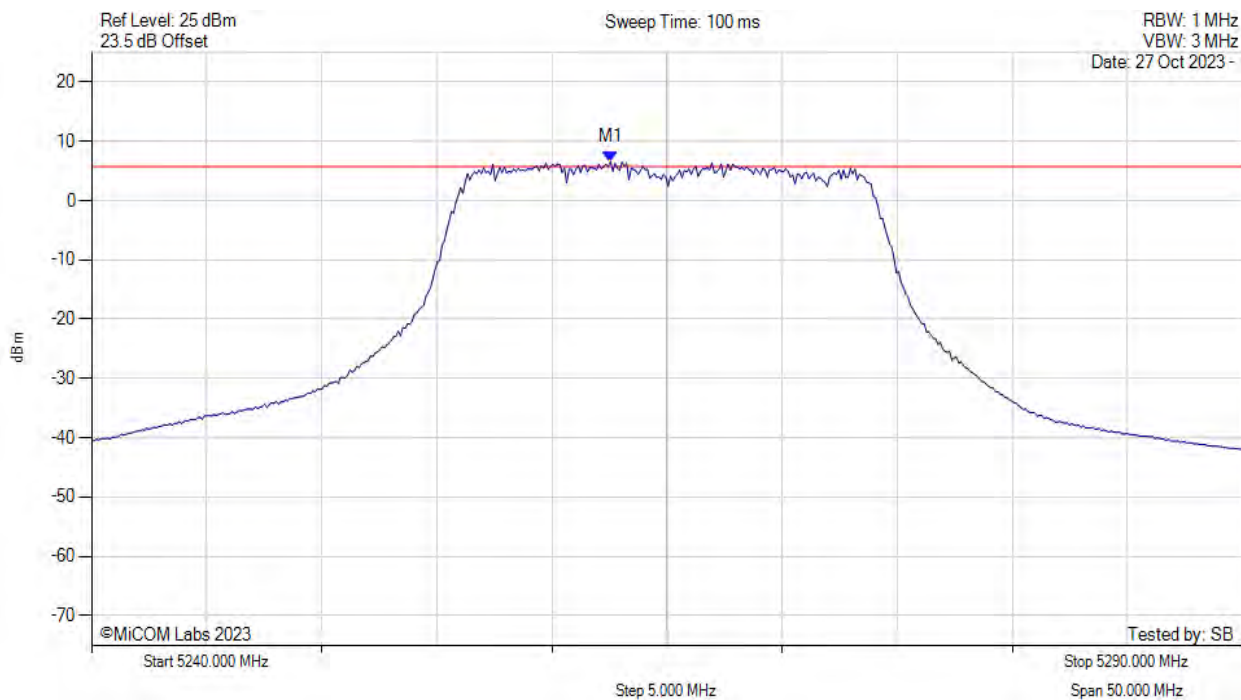
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5258.737 MHz : 5.790 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



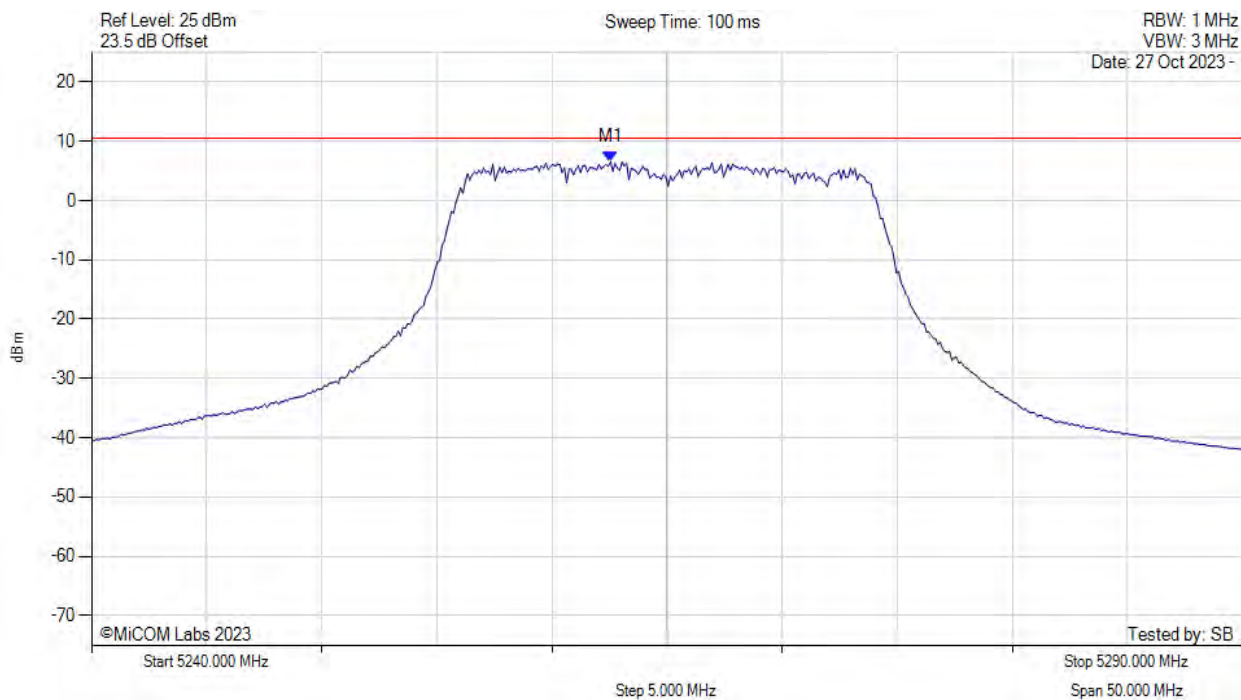
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.545 MHz : 6.516 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



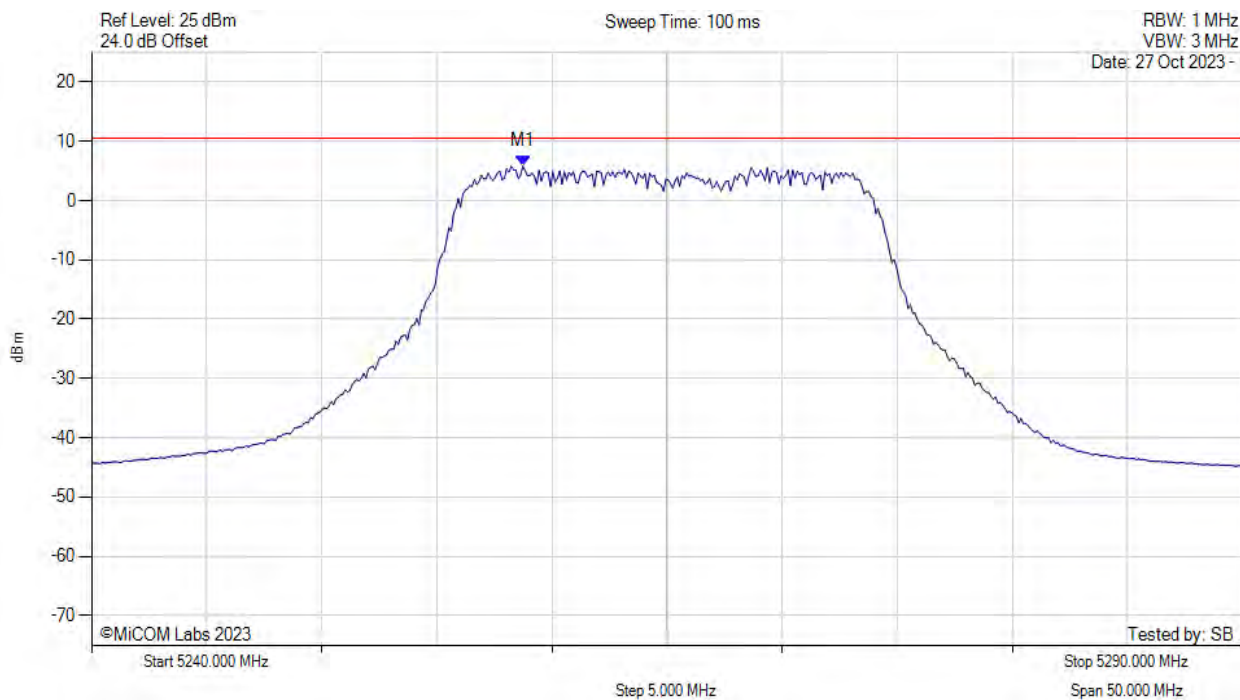
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.500 MHz : 6.516 dBm M1 + DCCF : 5262.500 MHz : 6.560 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -3.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



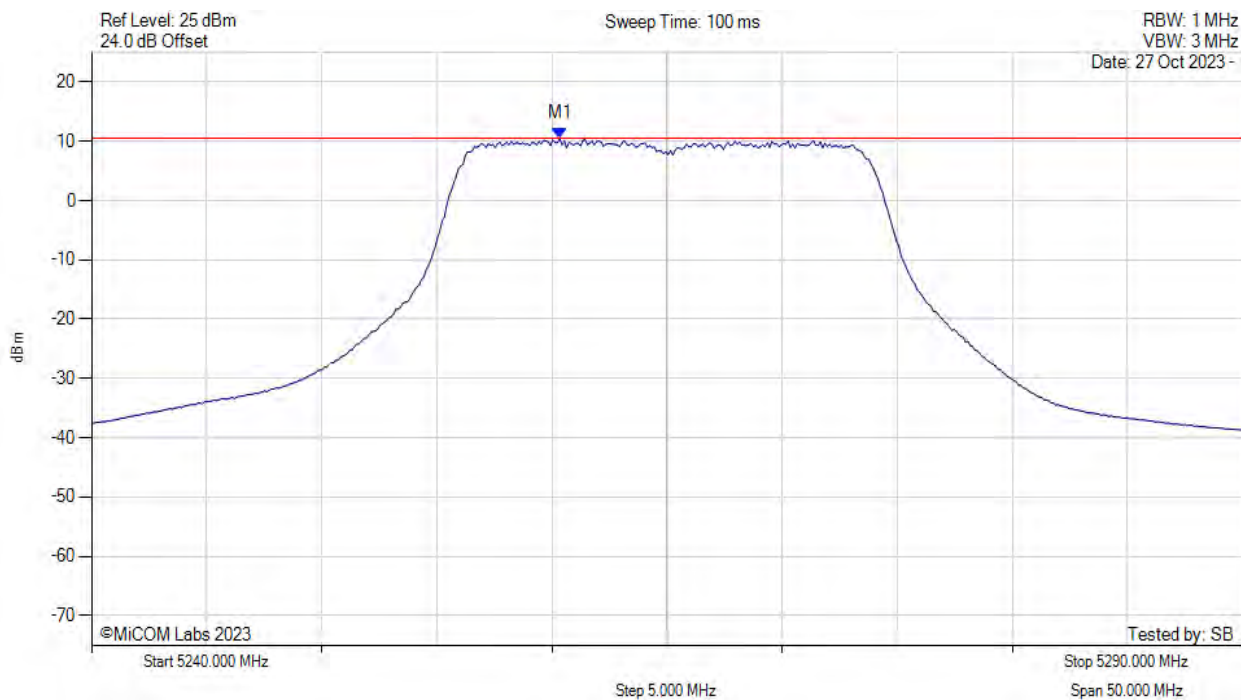
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5258.700 MHz : 5.790 dBm M1 + DCCF : 5258.700 MHz : 5.834 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -4.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



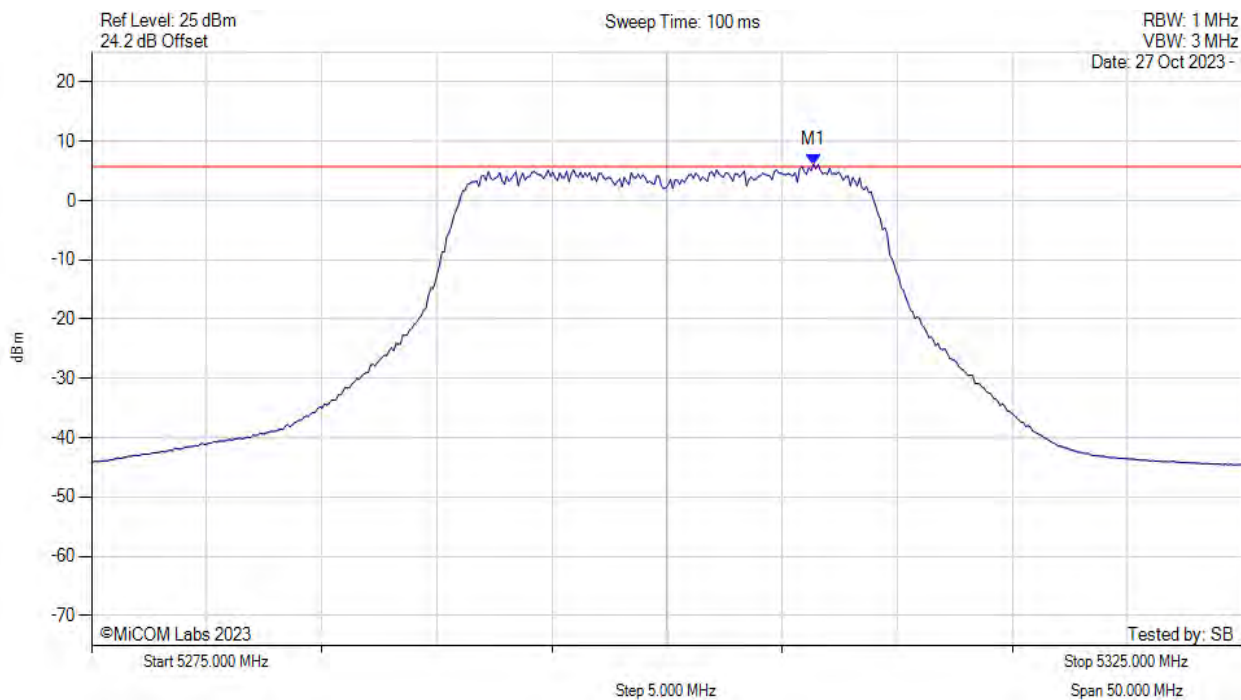
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5260.300 MHz : 10.424 dBm M1 + DCCF : 5260.300 MHz : 10.468 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: 0.0 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



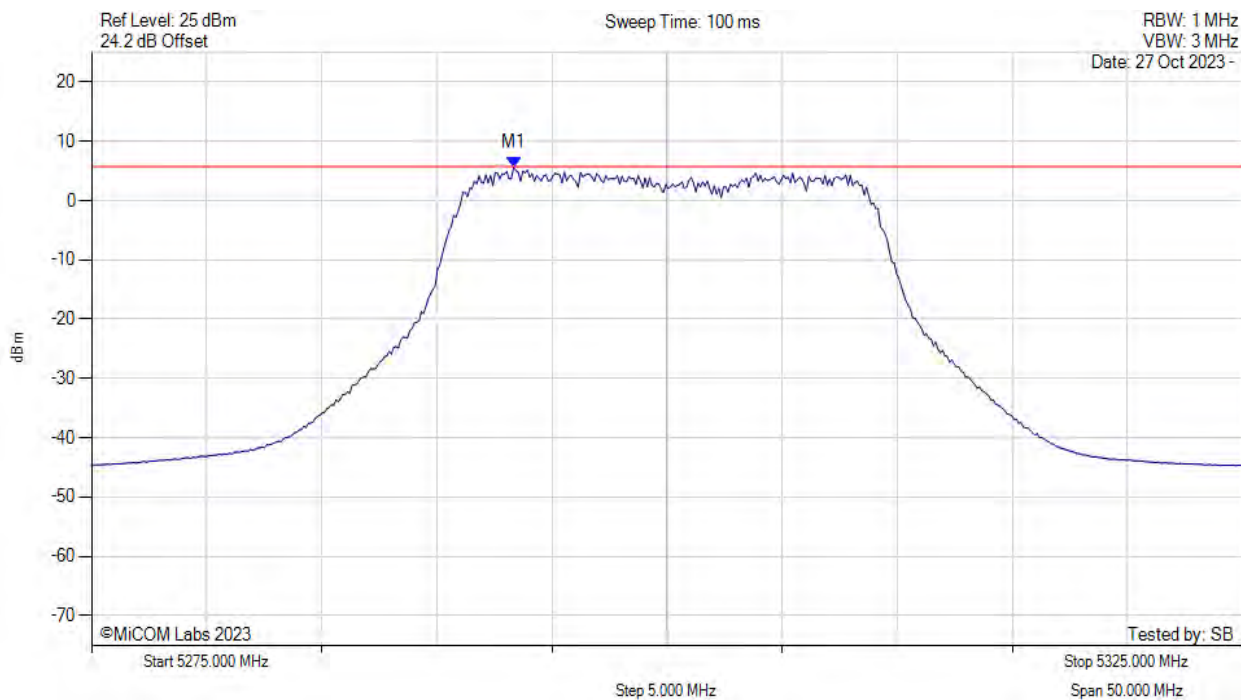
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5306.363 MHz : 6.131 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



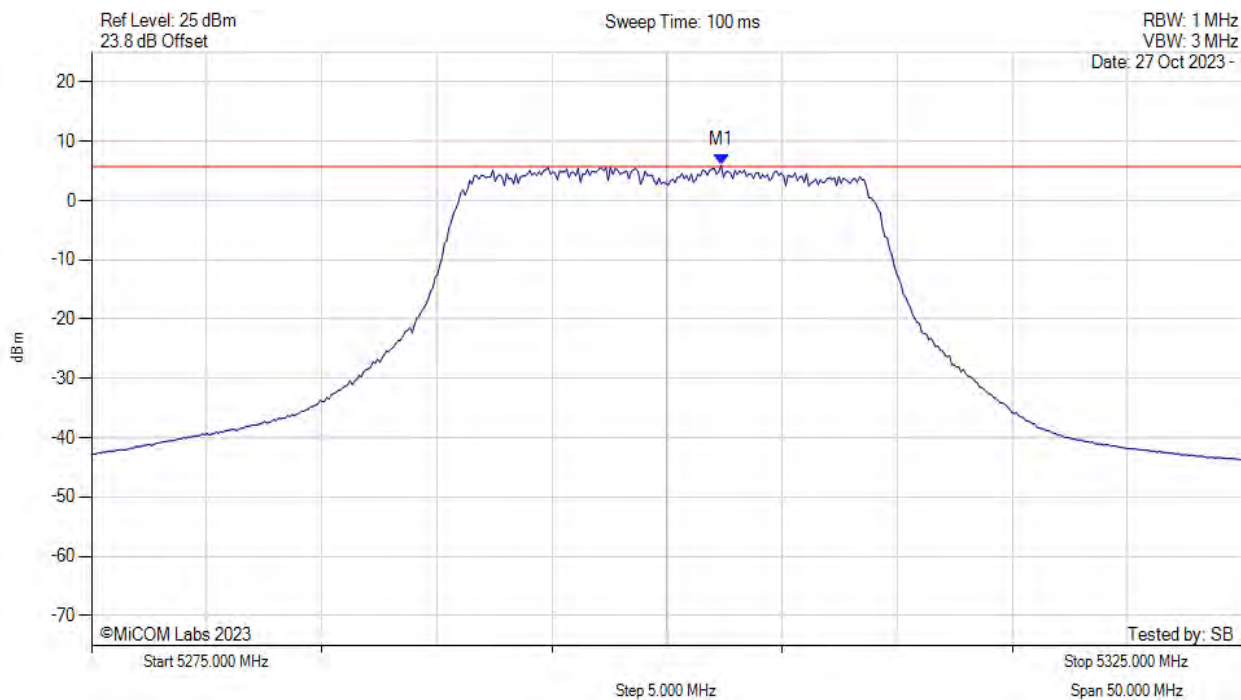
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5293.337 MHz : 5.592 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



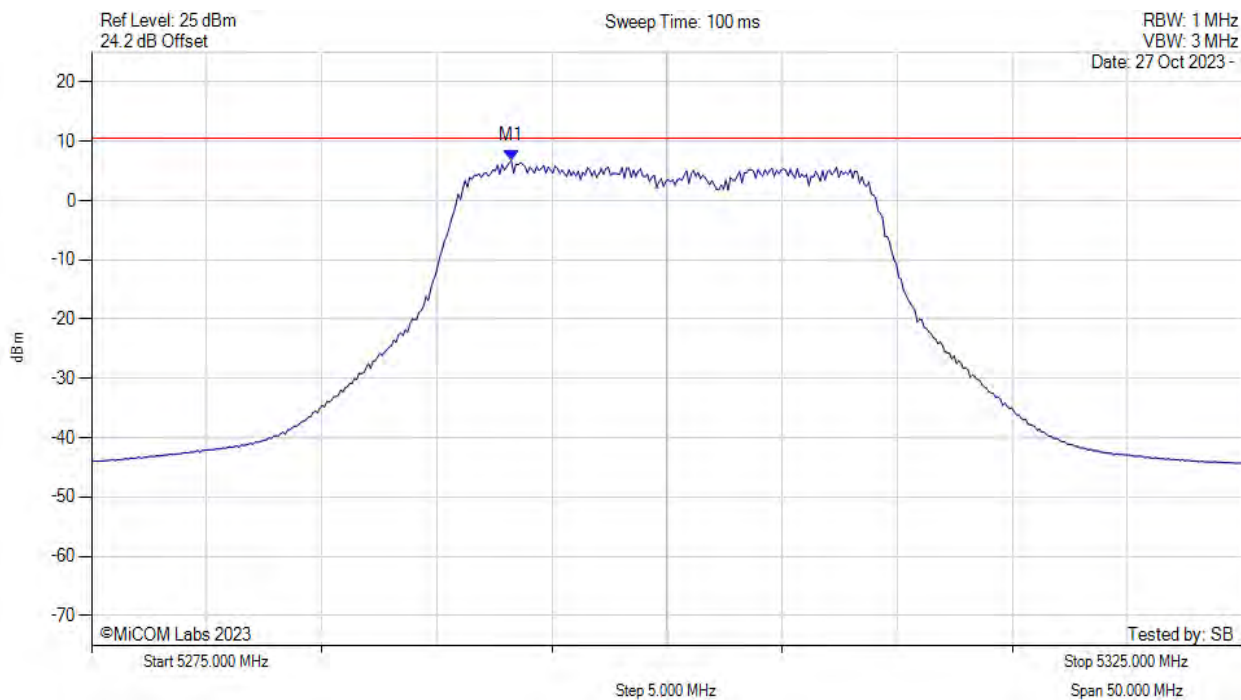
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.355 MHz : 5.958 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



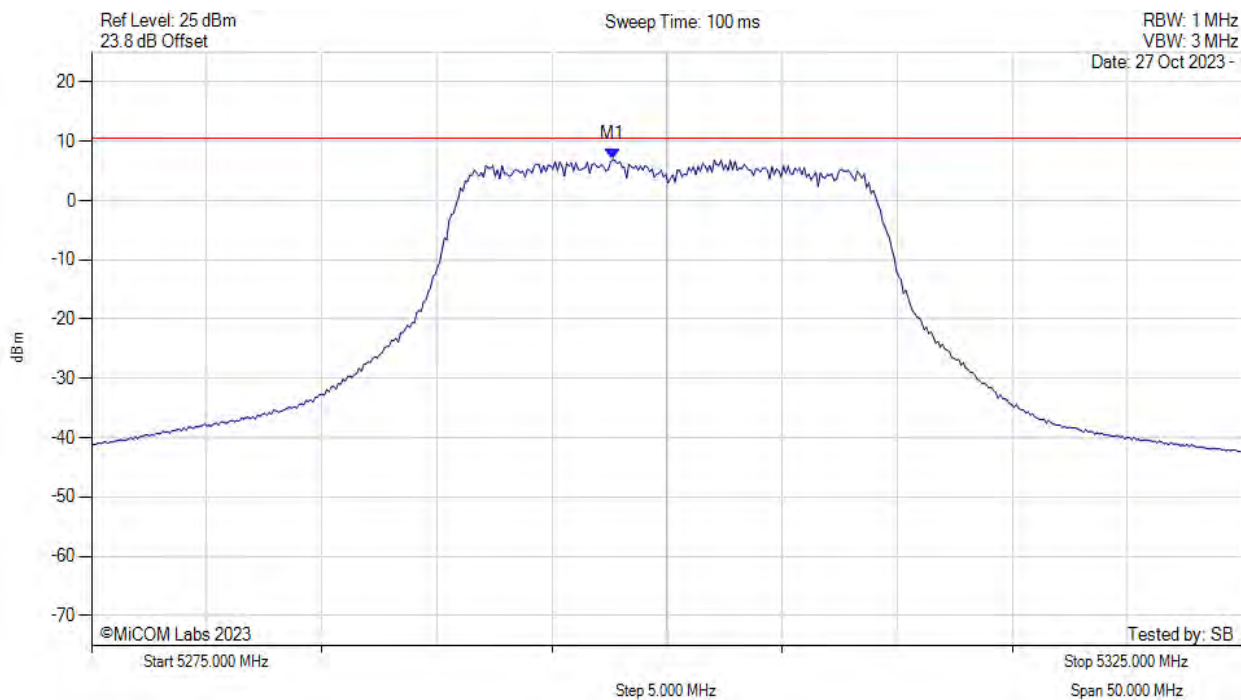
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5293.200 MHz : 6.788 dBm M1 + DCCF : 5293.200 MHz : 6.832 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -3.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



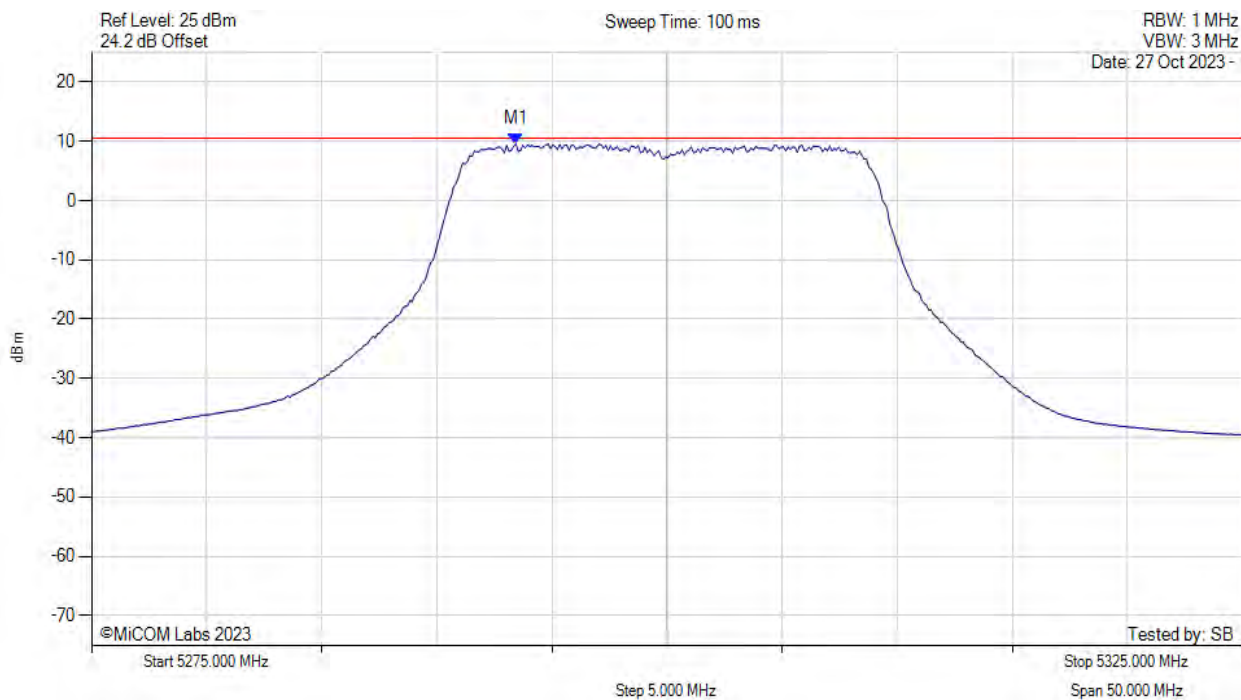
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5297.600 MHz : 6.932 dBm M1 + DCCF : 5297.600 MHz : 6.976 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -3.5 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



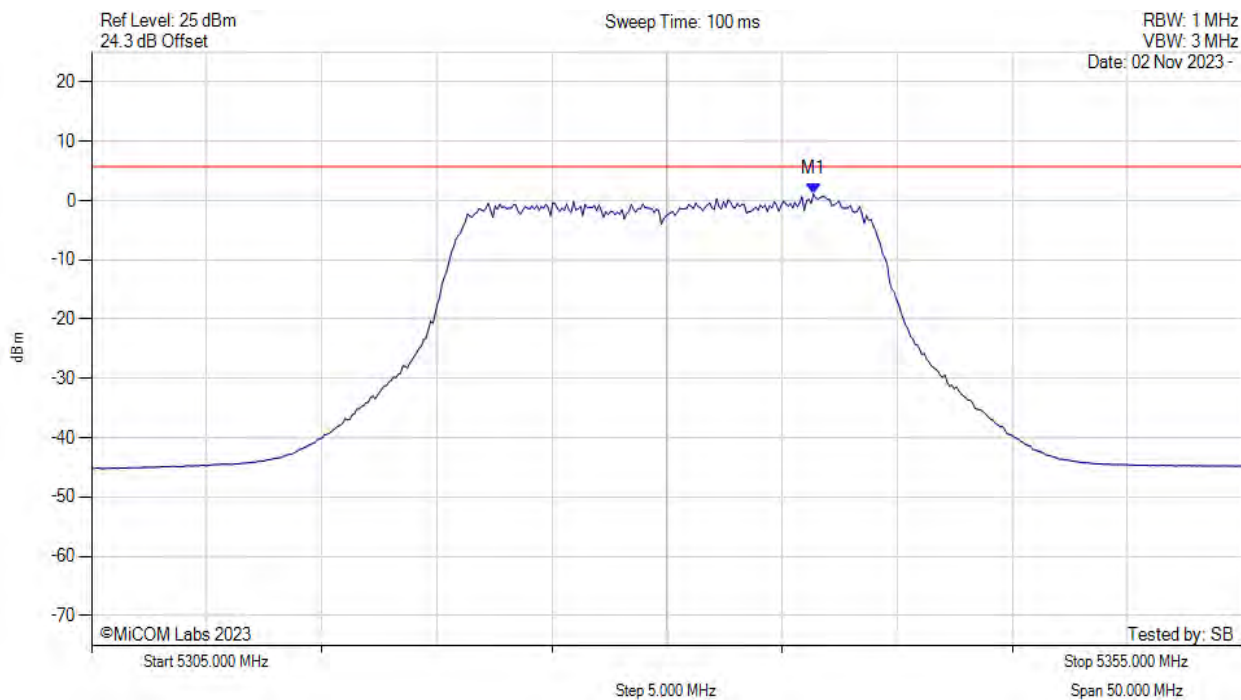
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5293.400 MHz : 9.550 dBm M1 + DCCF : 5293.400 MHz : 9.594 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -0.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



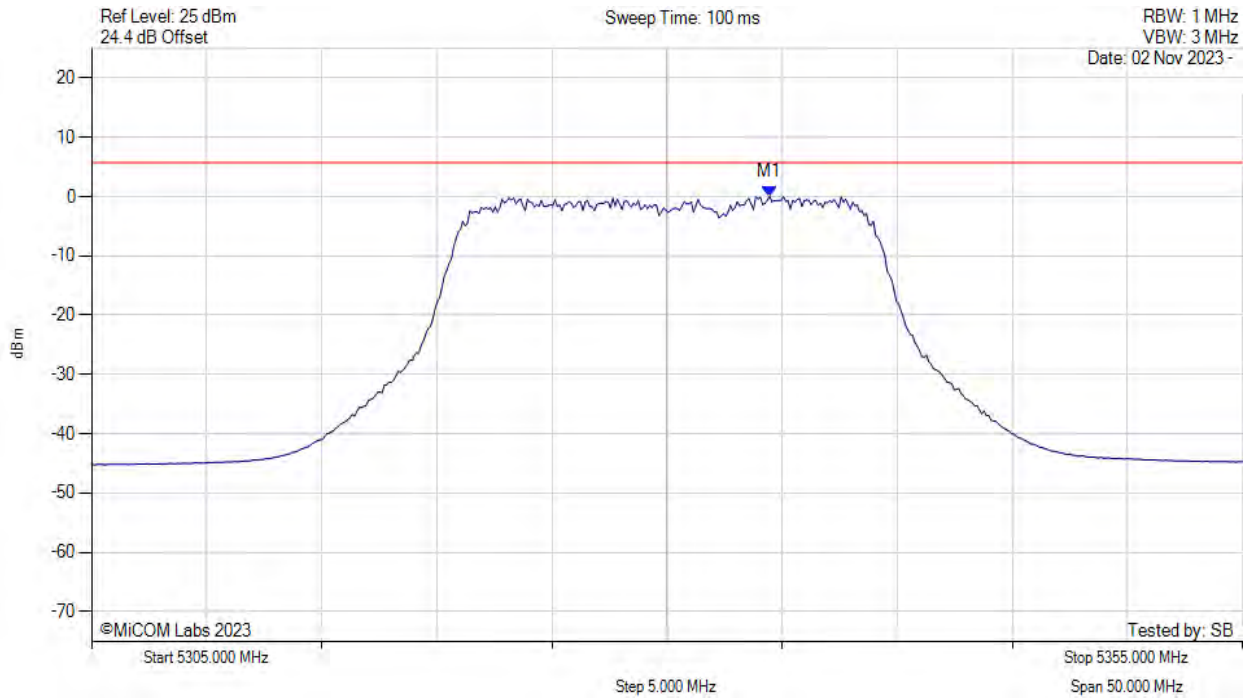
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5336.363 MHz : 1.124 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



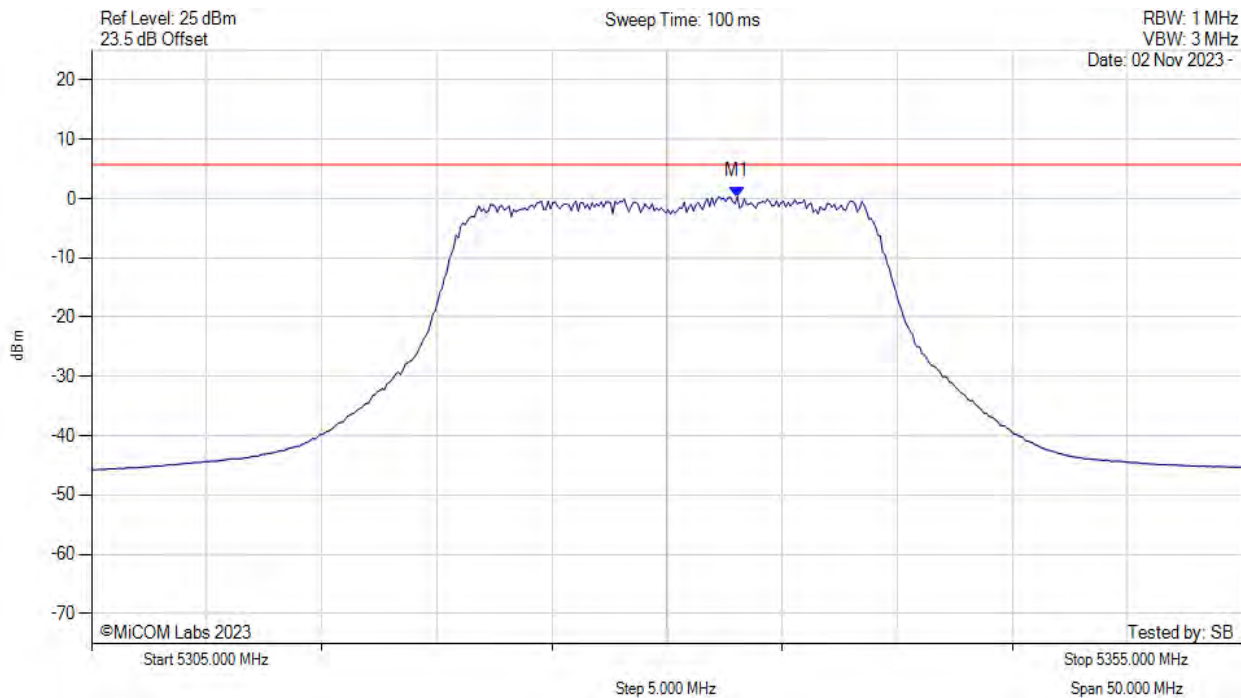
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5334.459 MHz : 0.057 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



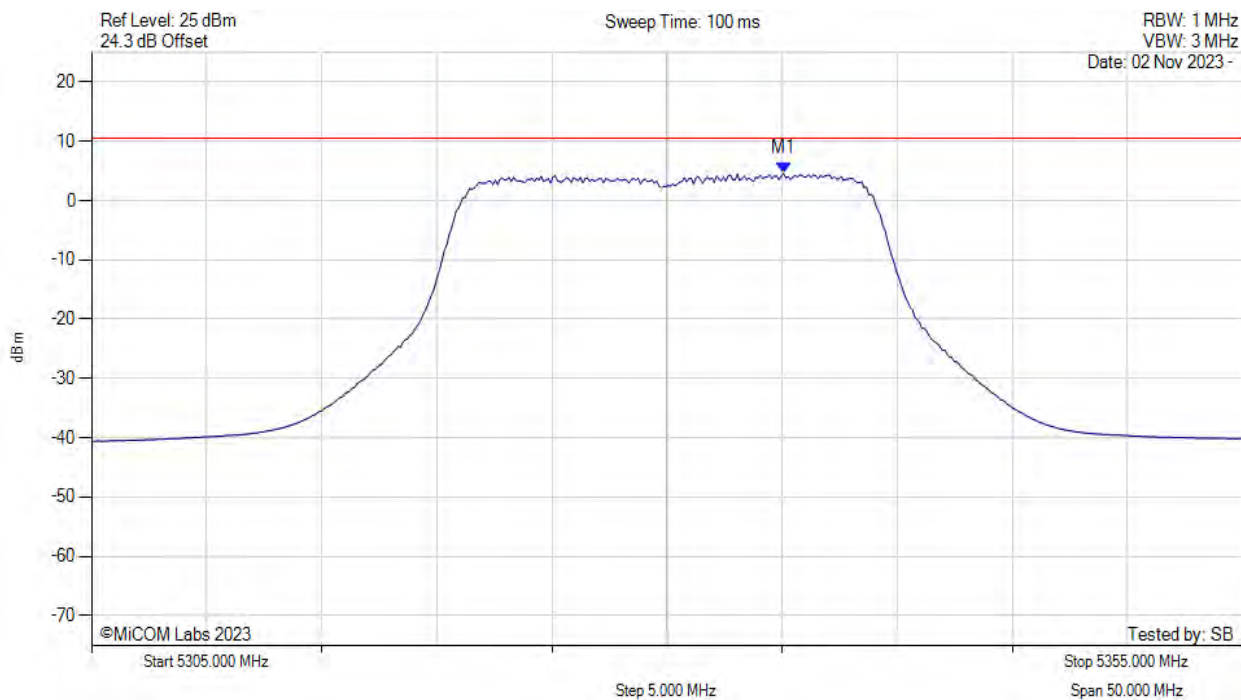
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5333.056 MHz : 0.315 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



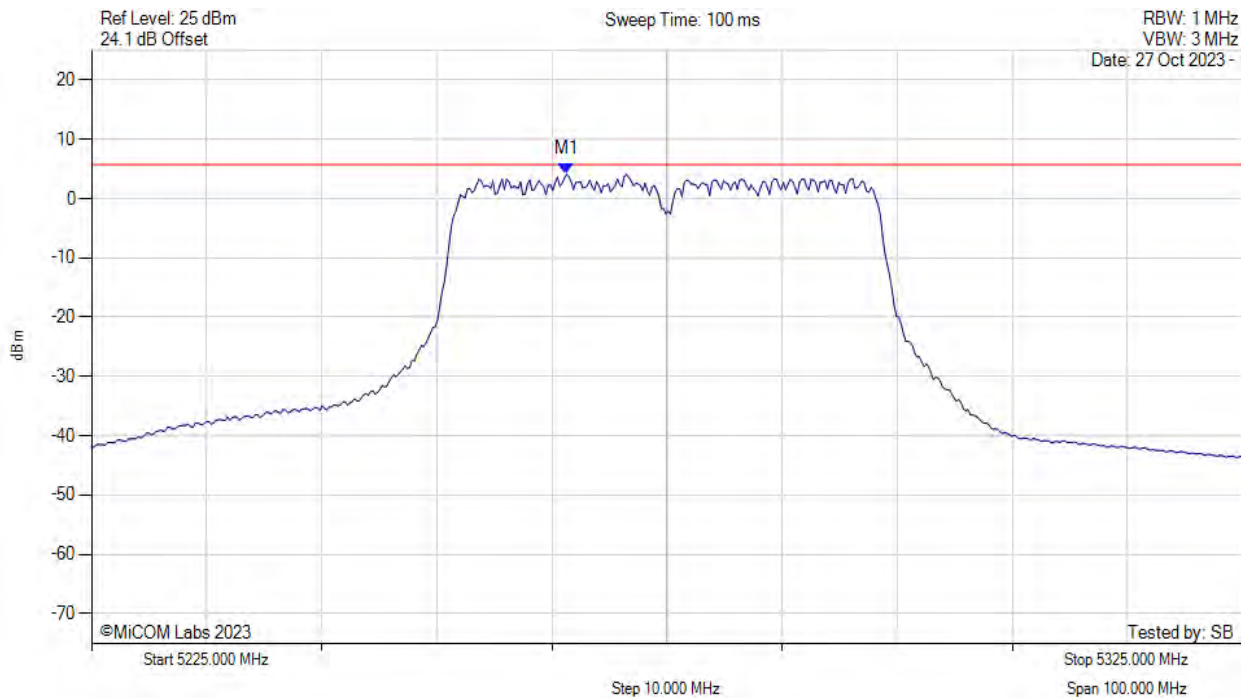
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5335.100 MHz : 4.571 dBm M1 + DCCF : 5335.100 MHz : 4.615 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -5.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



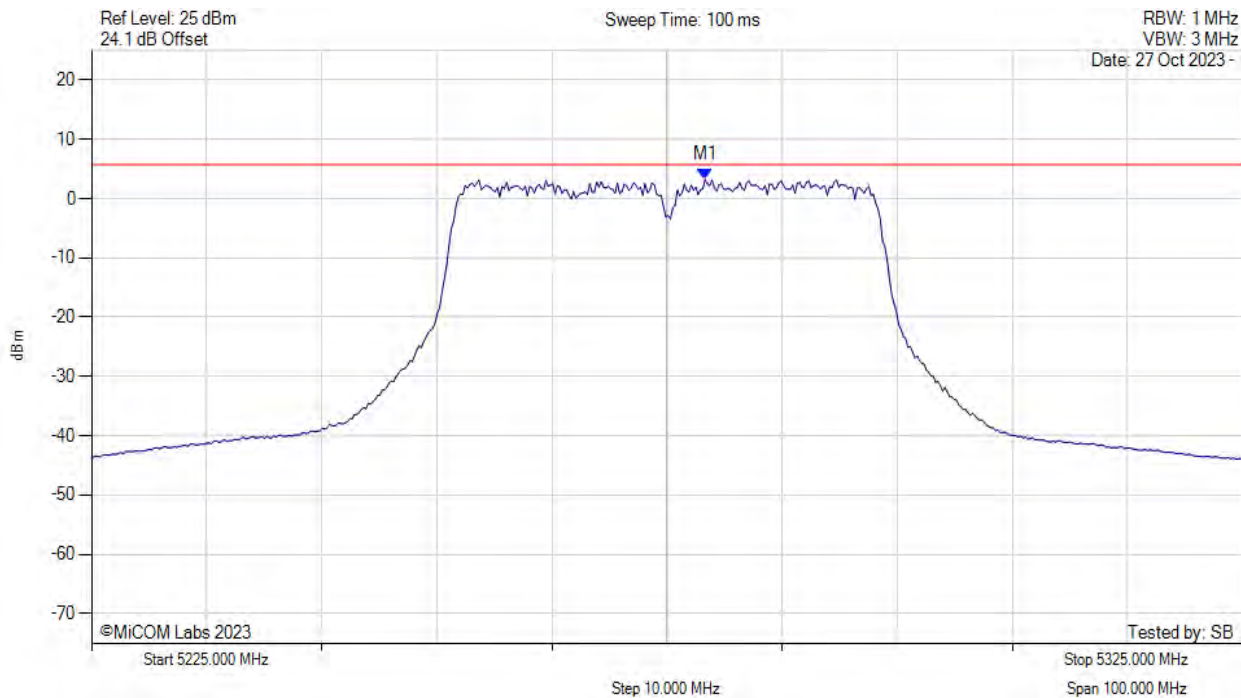
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.283 MHz : 4.120 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



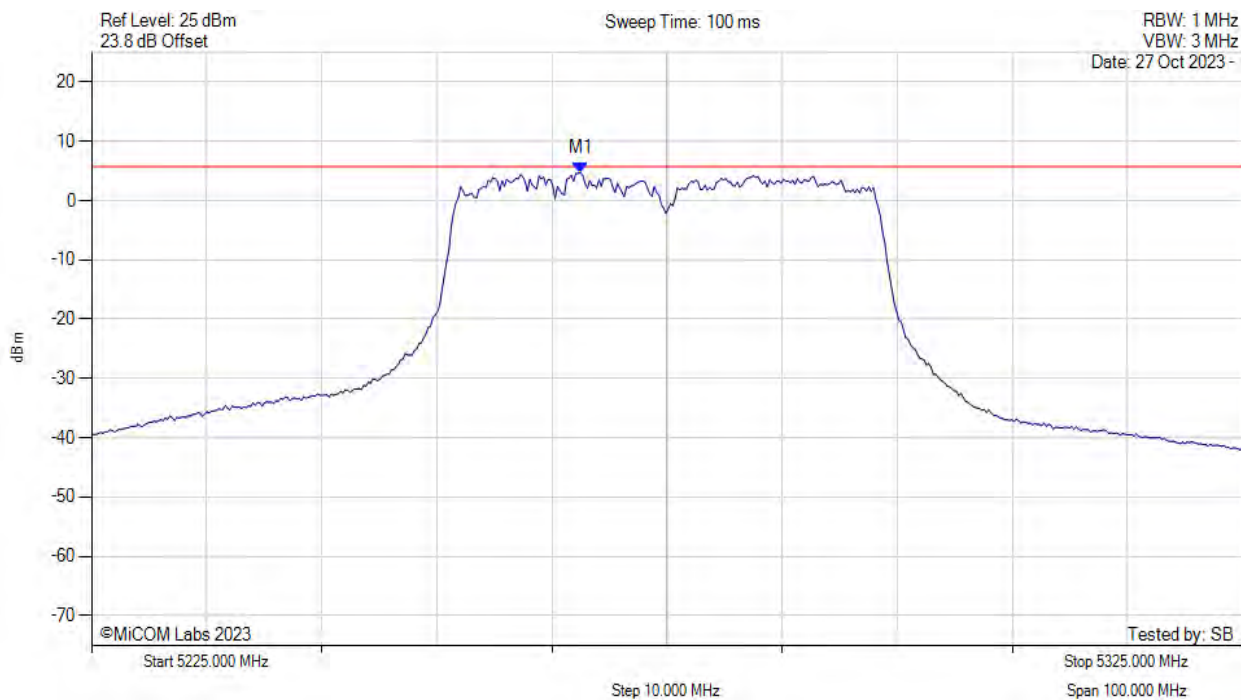
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5278.307 MHz : 3.212 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



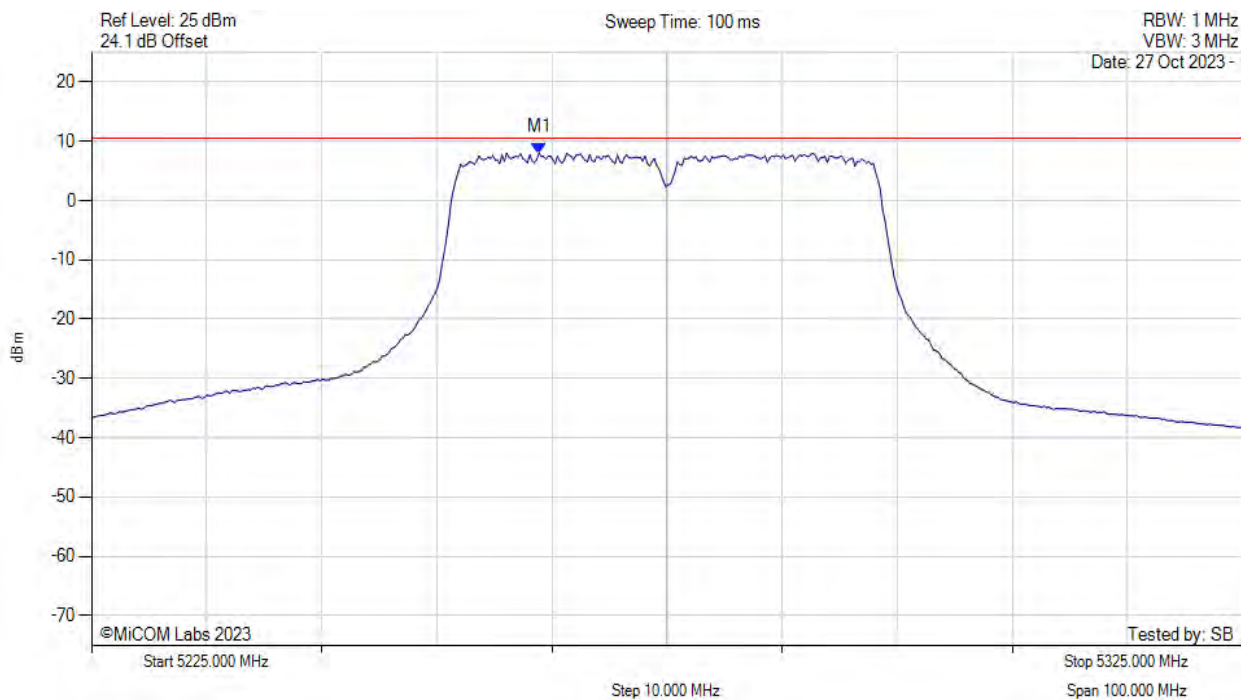
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5267.485 MHz : 4.695 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



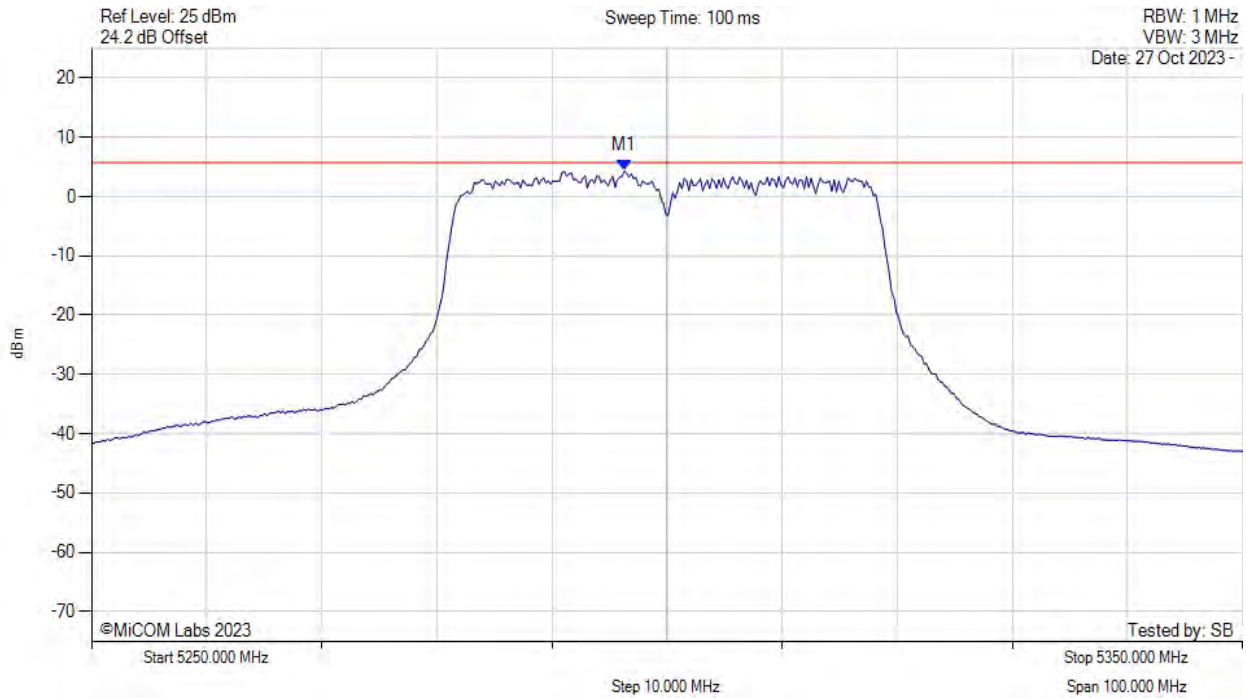
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5263.900 MHz : 8.023 dBm M1 + DCCF : 5263.900 MHz : 8.067 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -2.4 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



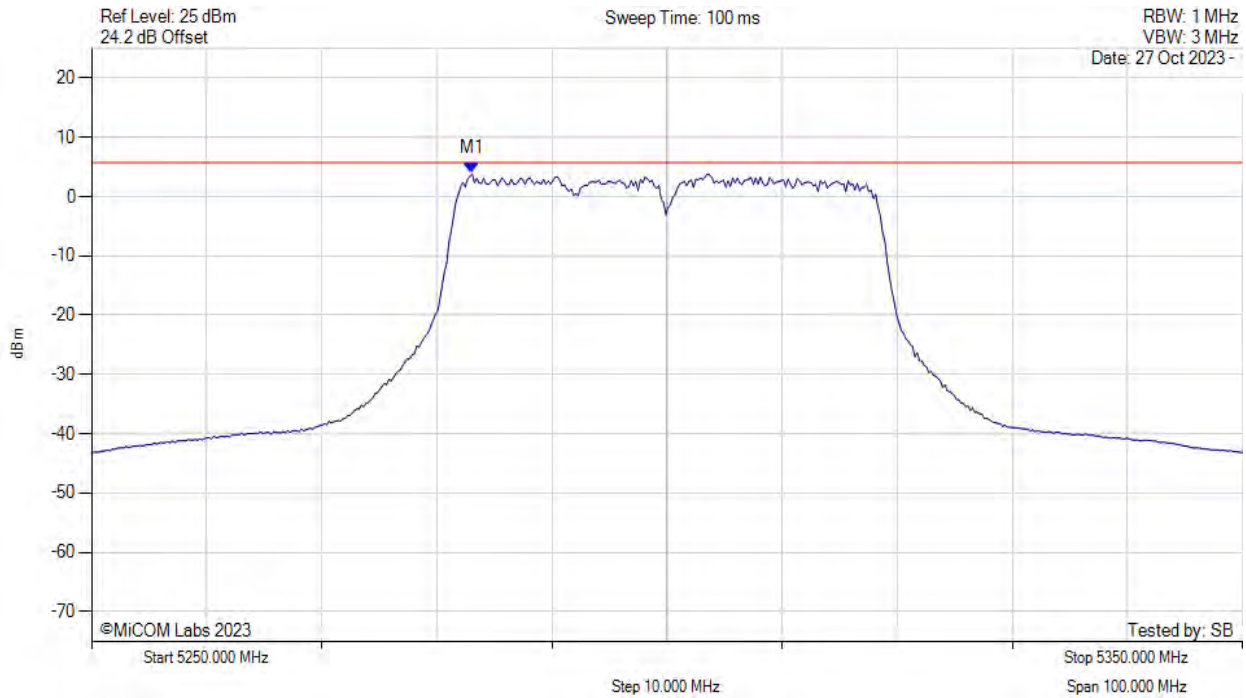
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5296.293 MHz : 4.315 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



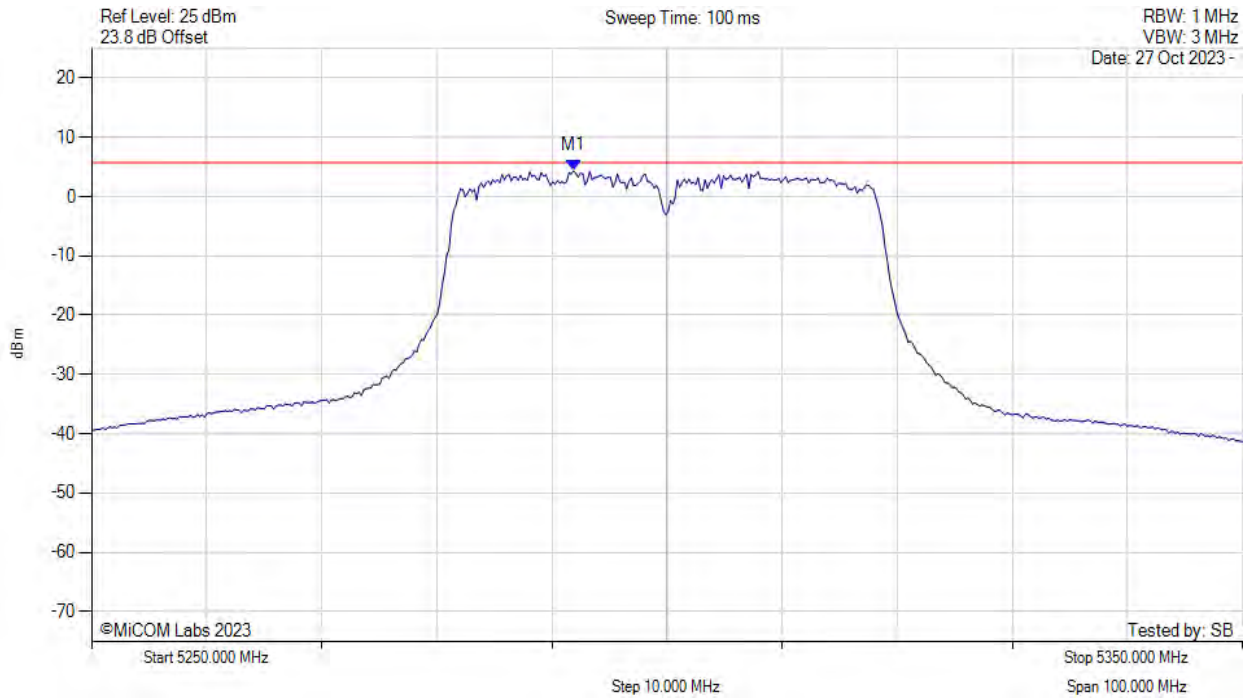
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5283.066 MHz : 3.837 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



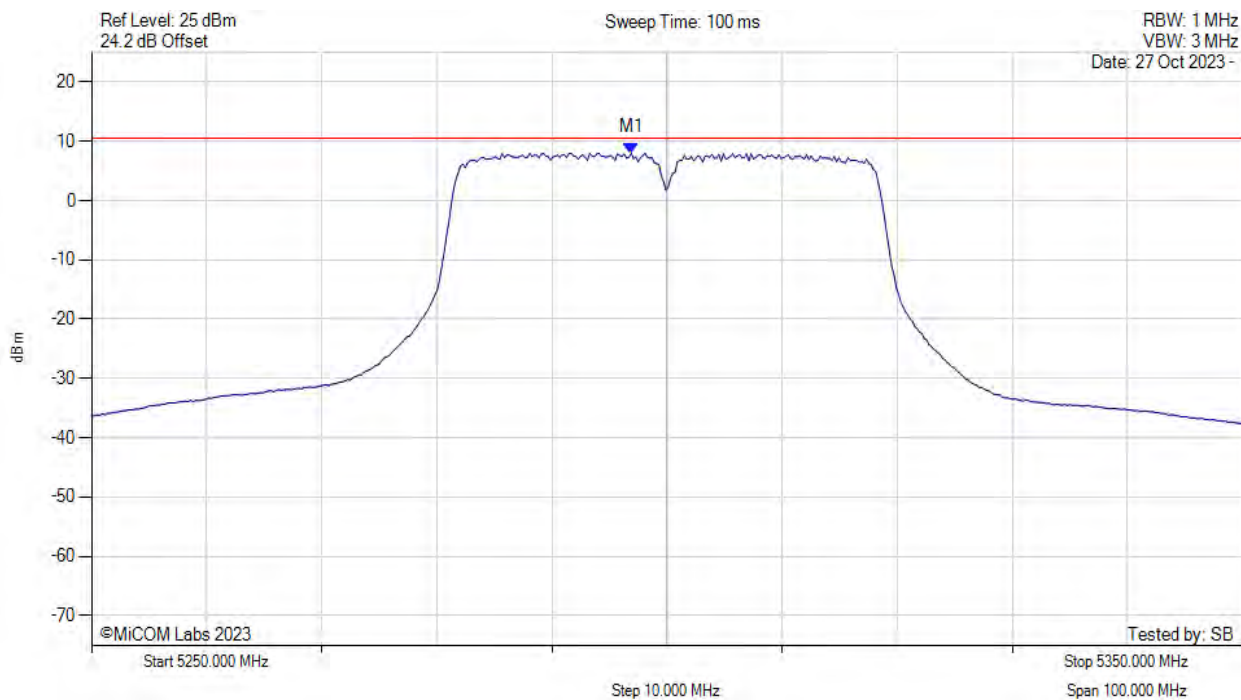
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5291.884 MHz : 4.341 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



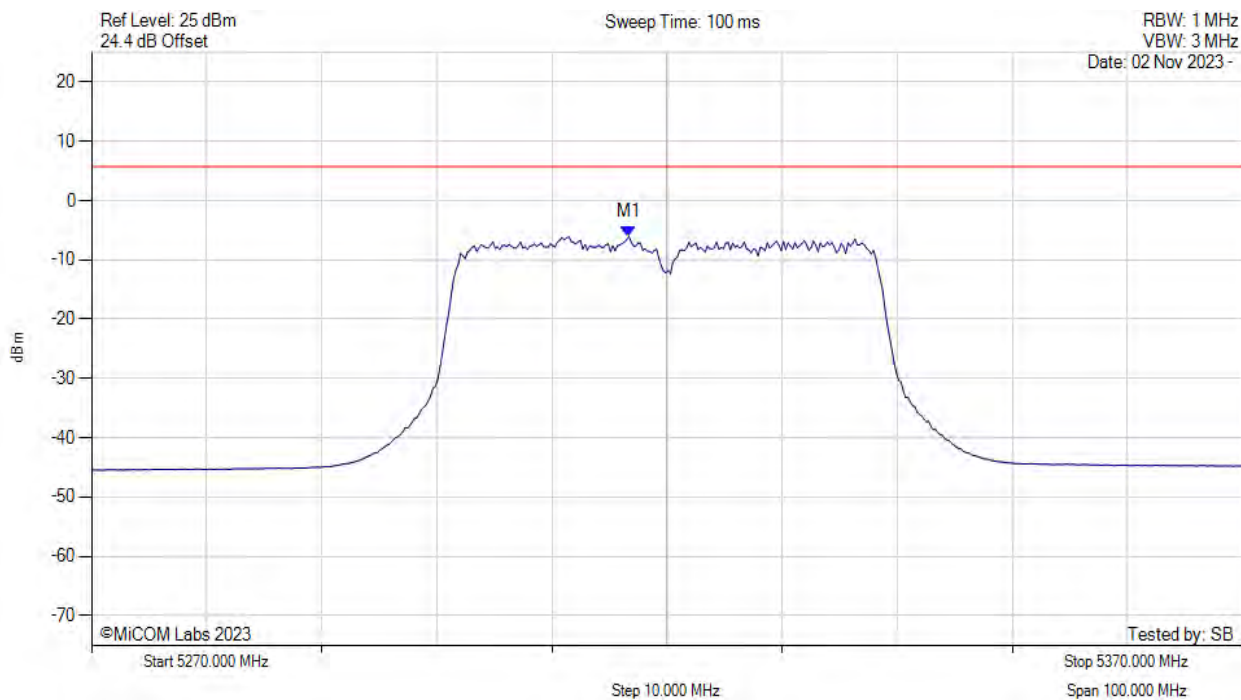
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5296.900 MHz : 8.018 dBm M1 + DCCF : 5296.900 MHz : 8.062 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -2.4 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



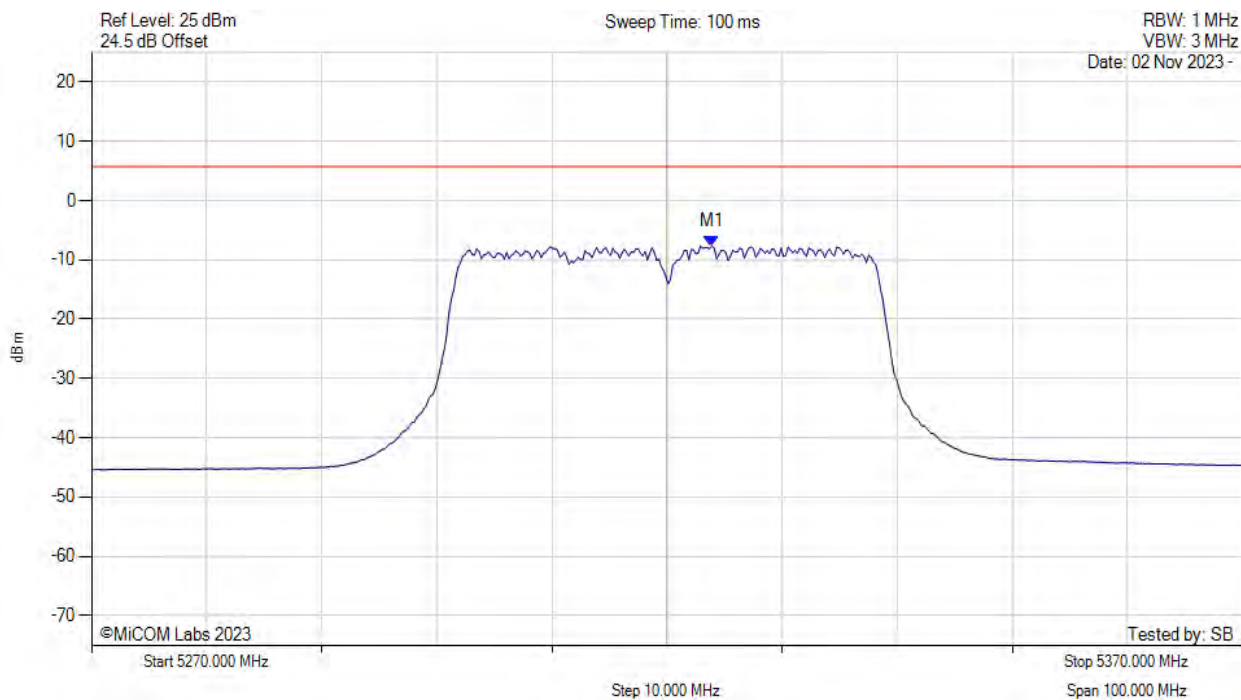
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5316.693 MHz : -6.023 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



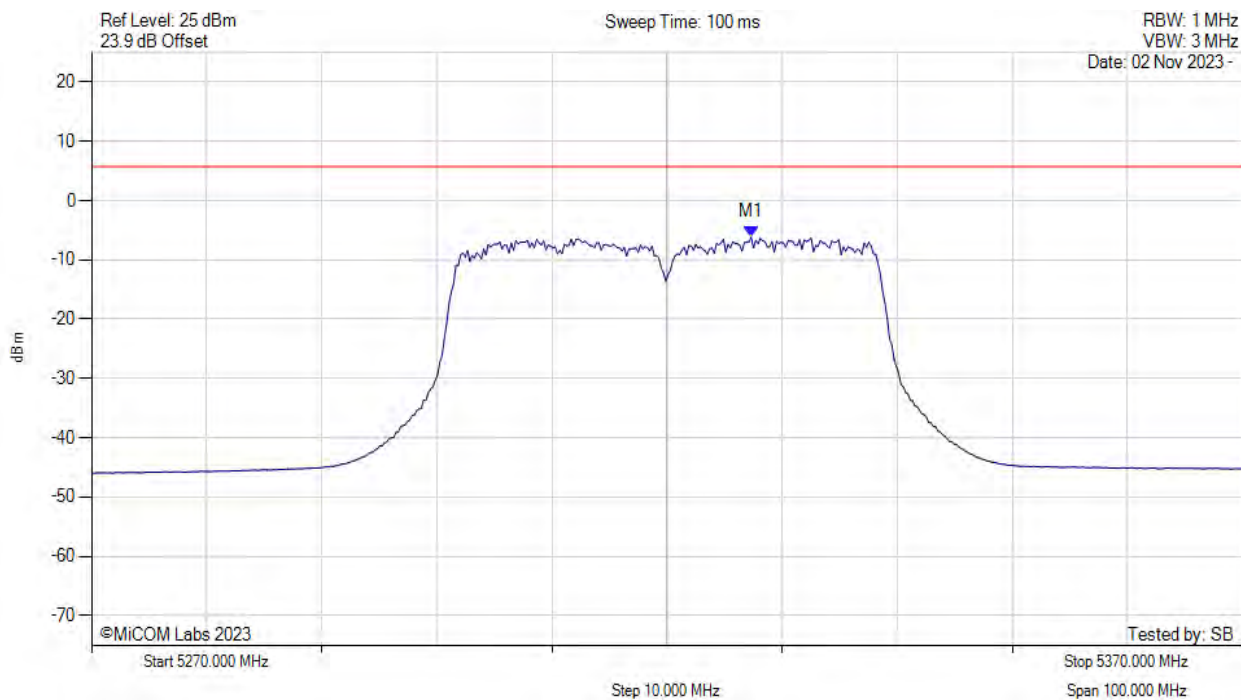
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5323.908 MHz : -7.659 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



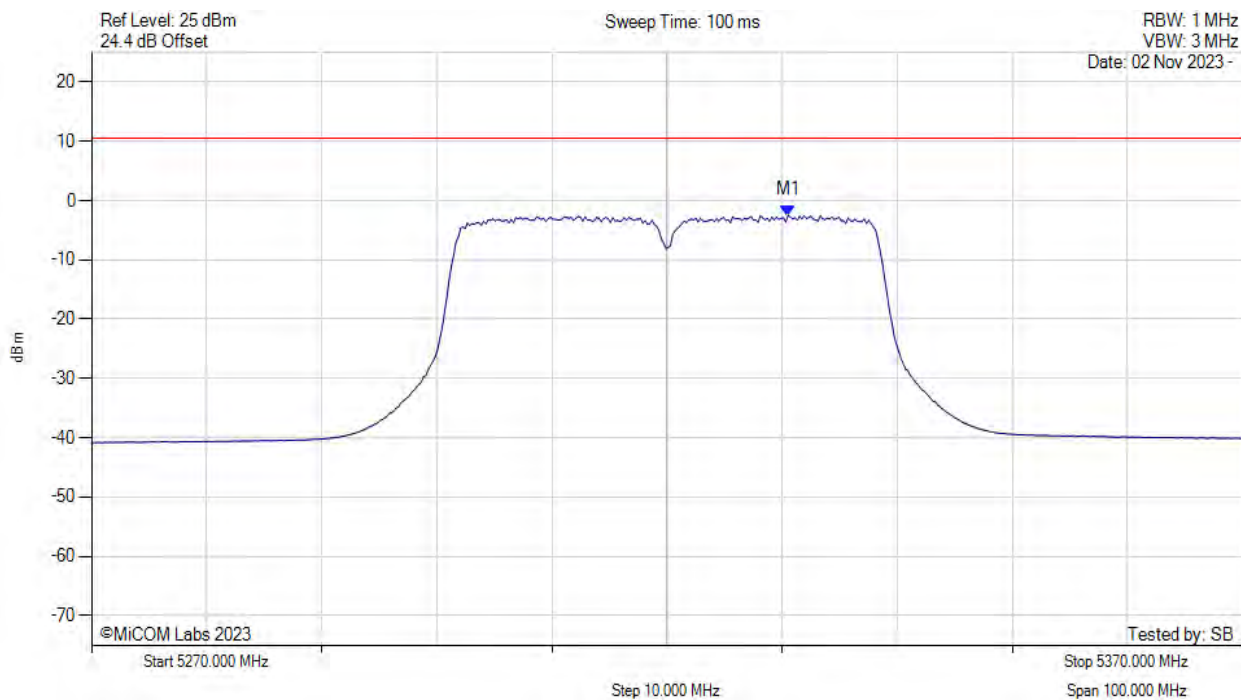
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5327.315 MHz : -6.151 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



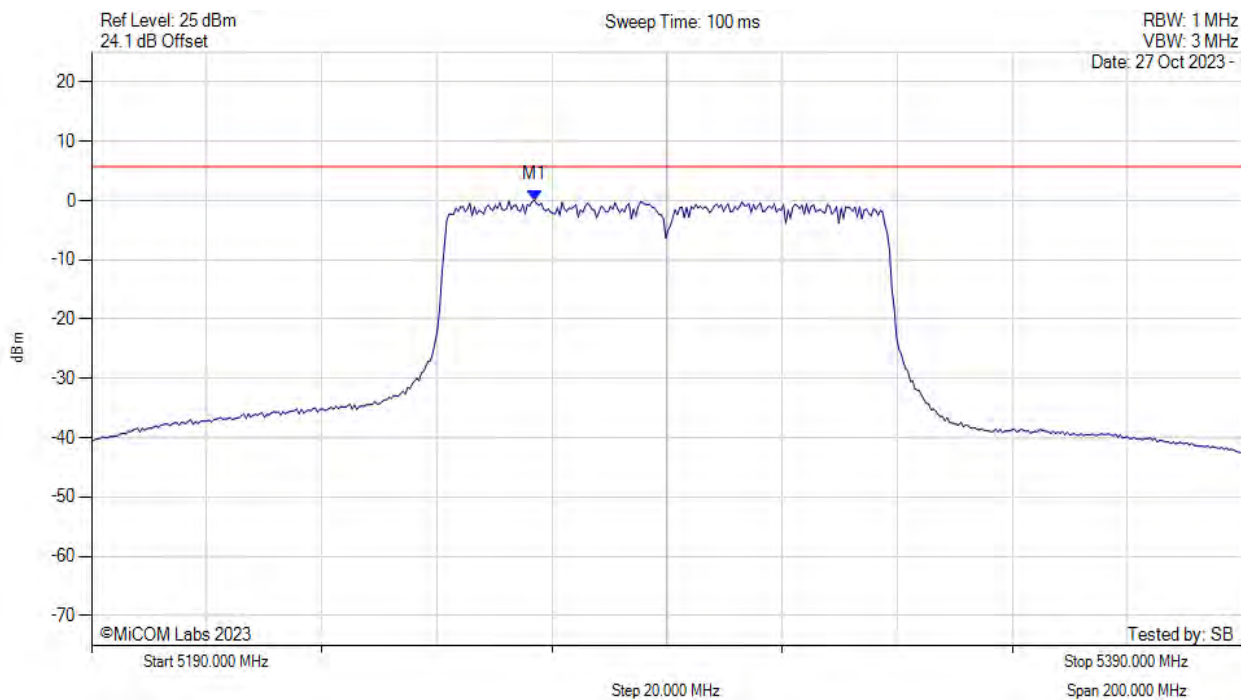
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5330.500 MHz : -2.484 dBm M1 + DCCF : 5330.500 MHz : -2.440 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -12.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



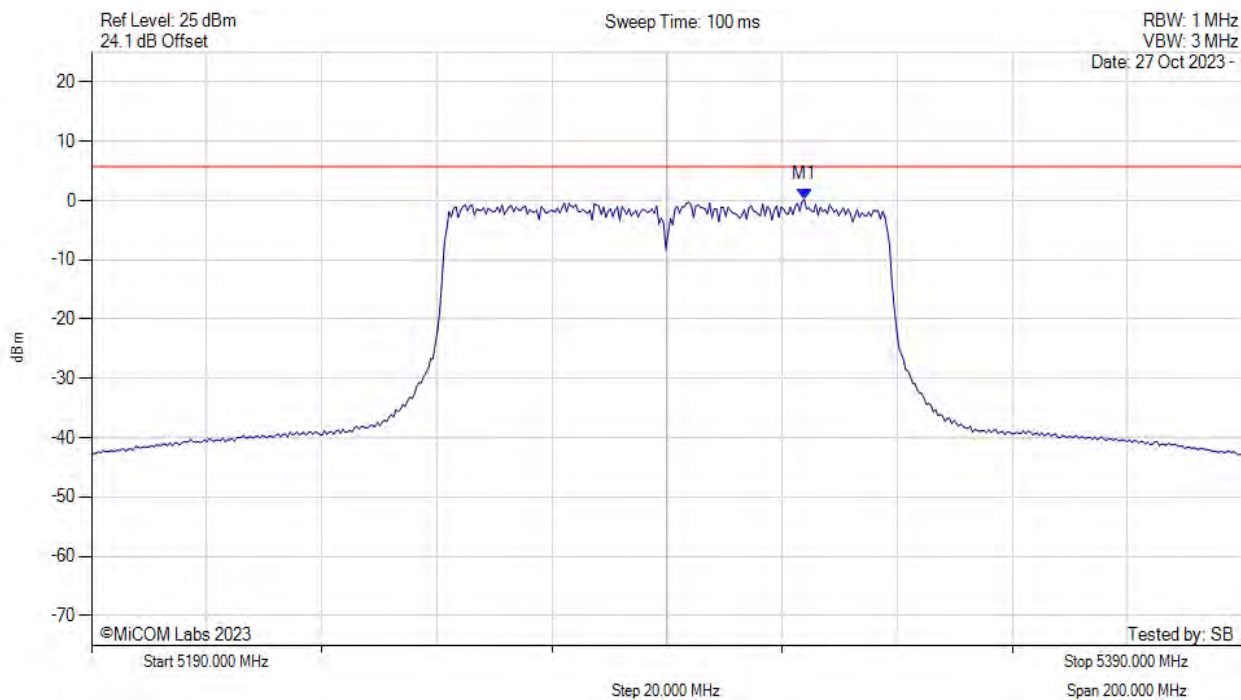
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5266.954 MHz : 0.068 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



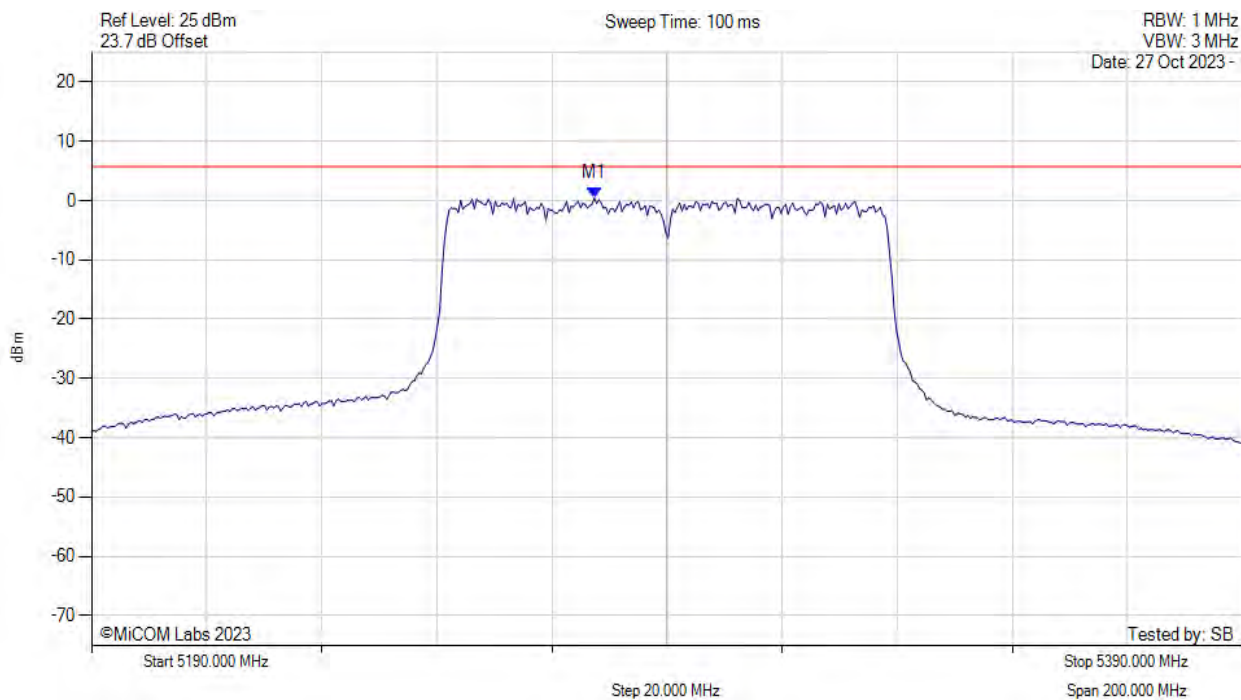
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5313.848 MHz : 0.256 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



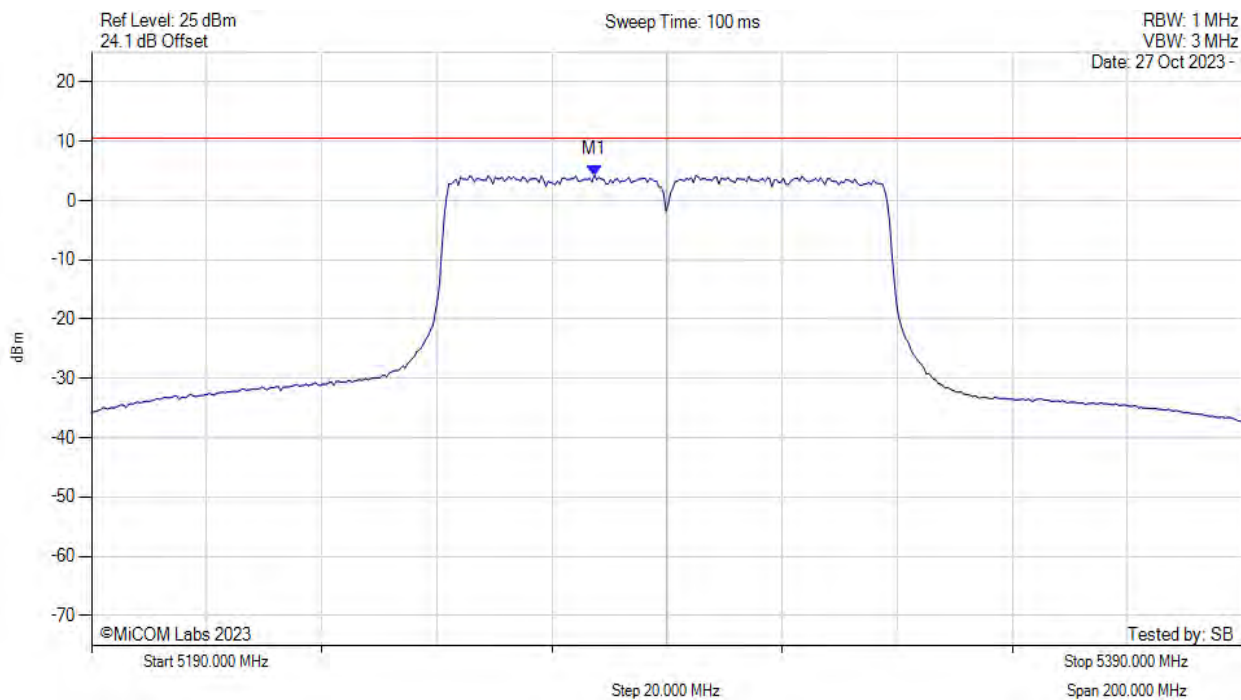
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5277.375 MHz : 0.436 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



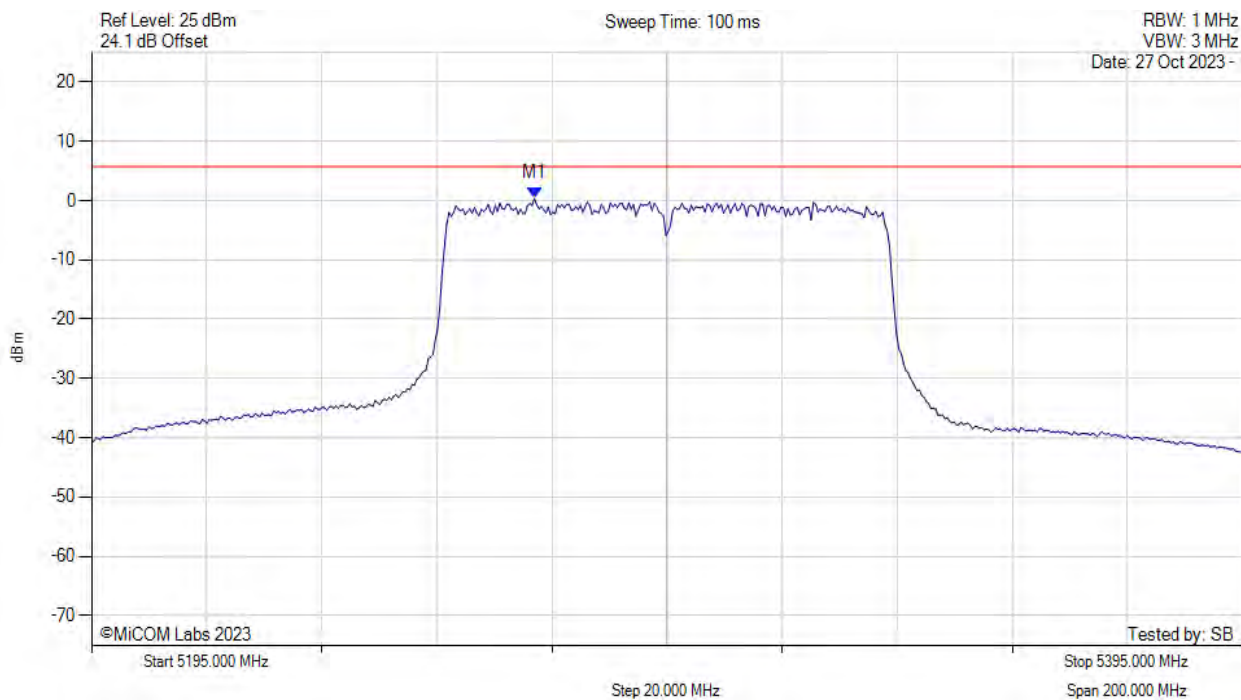
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5277.400 MHz : 4.276 dBm M1 + DCCF : 5277.400 MHz : 4.320 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -6.2 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



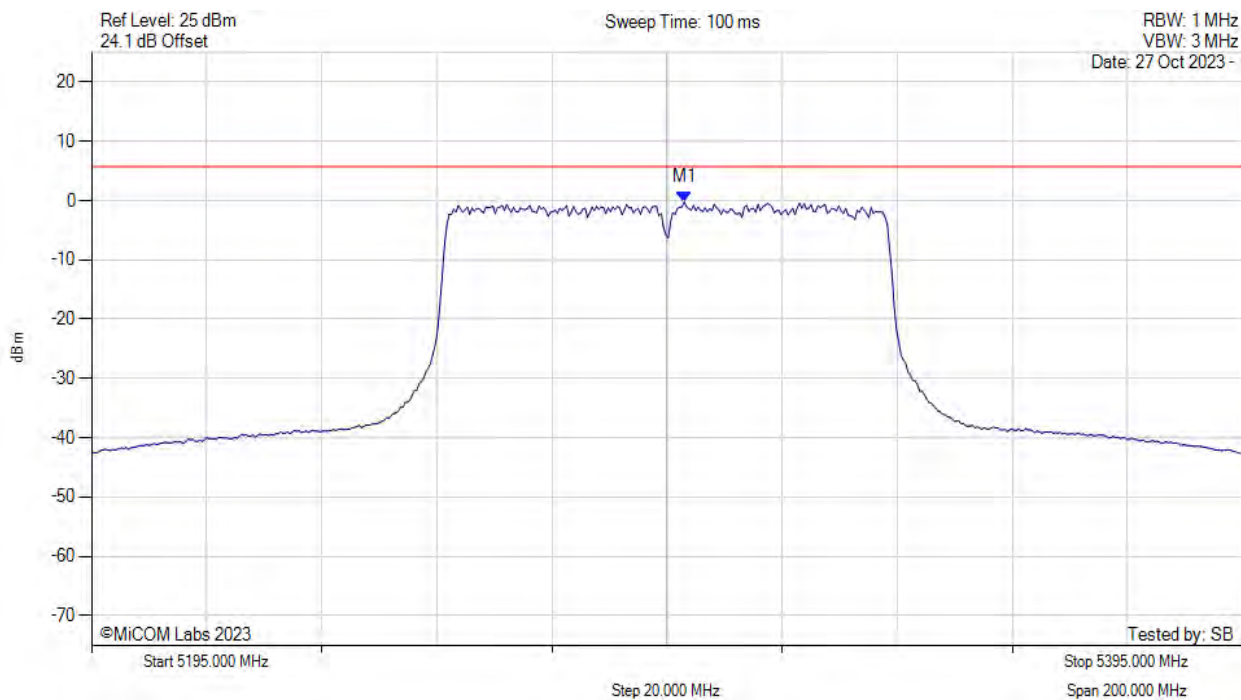
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5271.954 MHz : 0.355 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



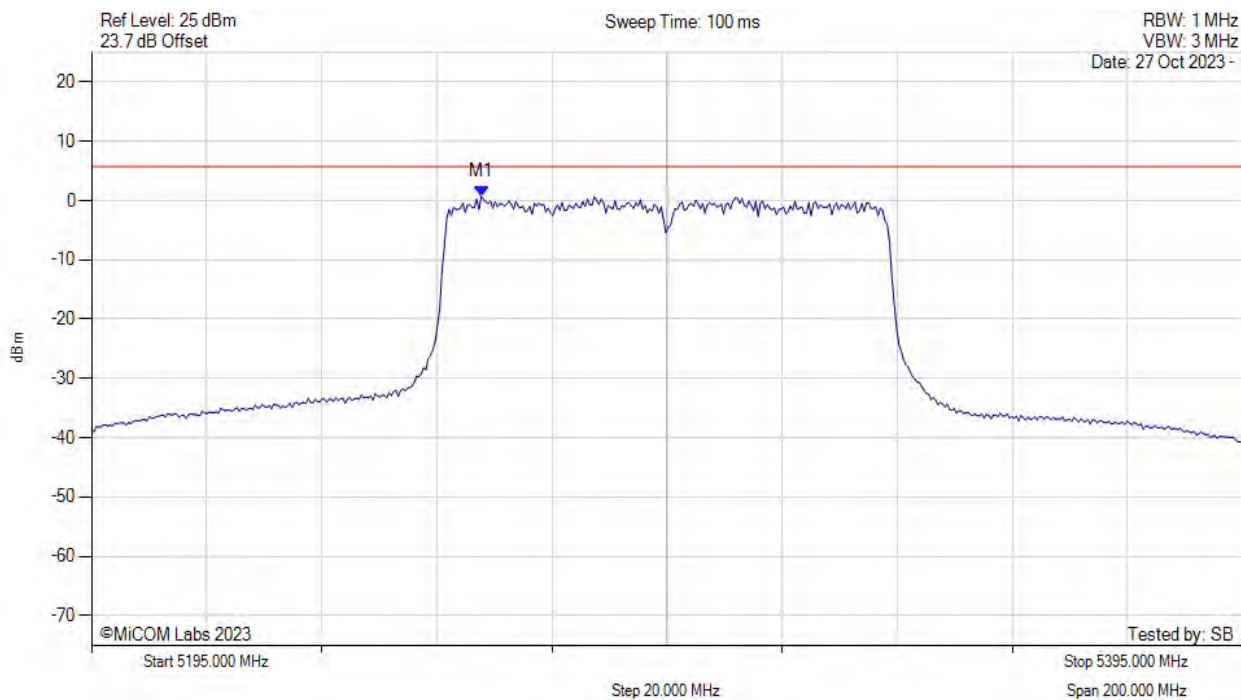
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5298.006 MHz : -0.248 dBm	Channel Frequency: 5295.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



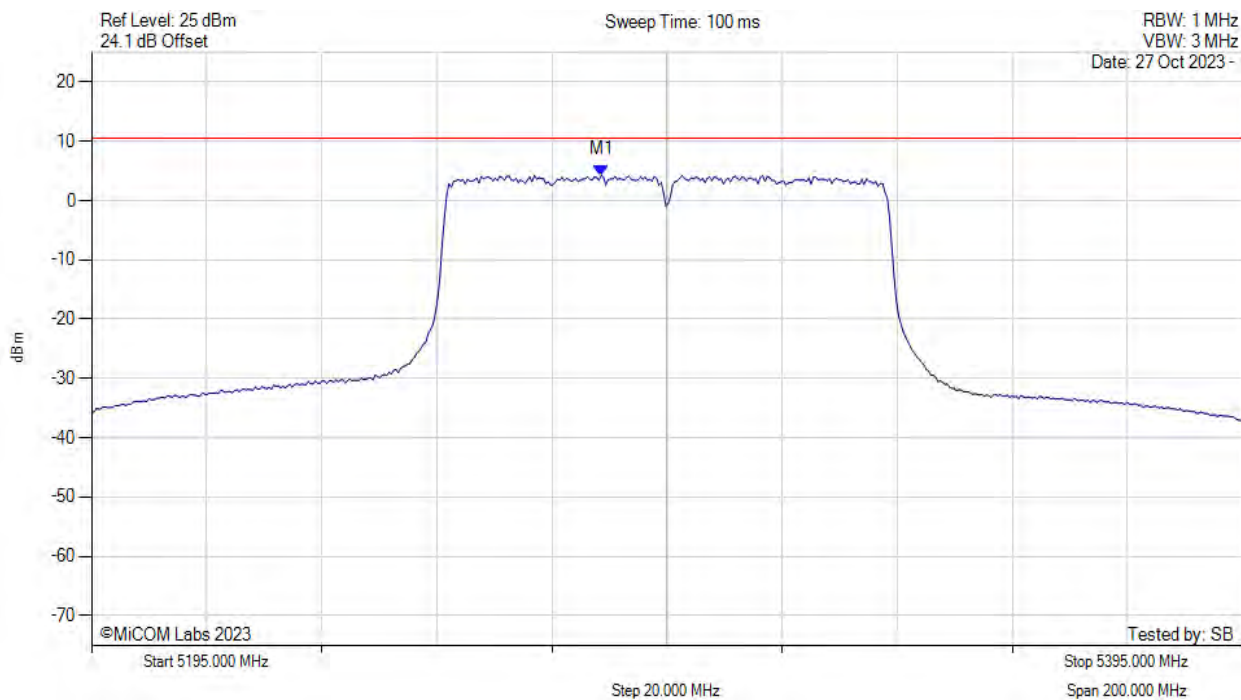
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.735 MHz : 0.714 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



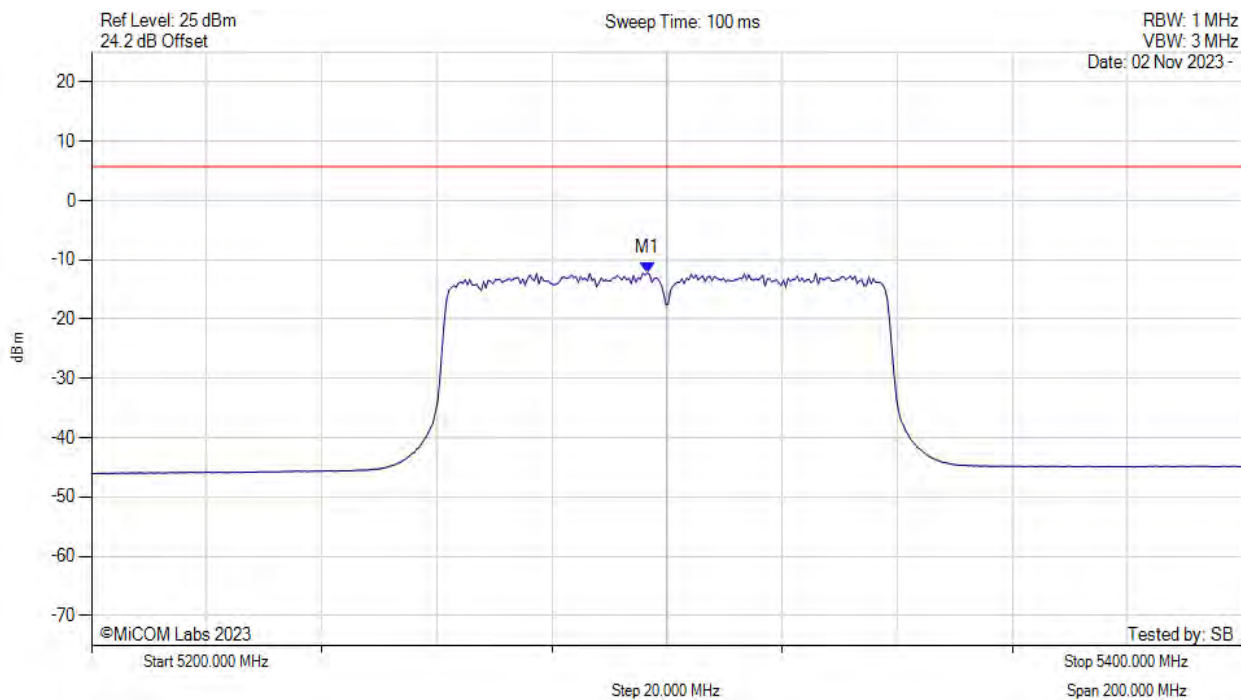
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5283.600 MHz : 4.301 dBm M1 + DCCF : 5283.600 MHz : 4.345 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -6.1 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



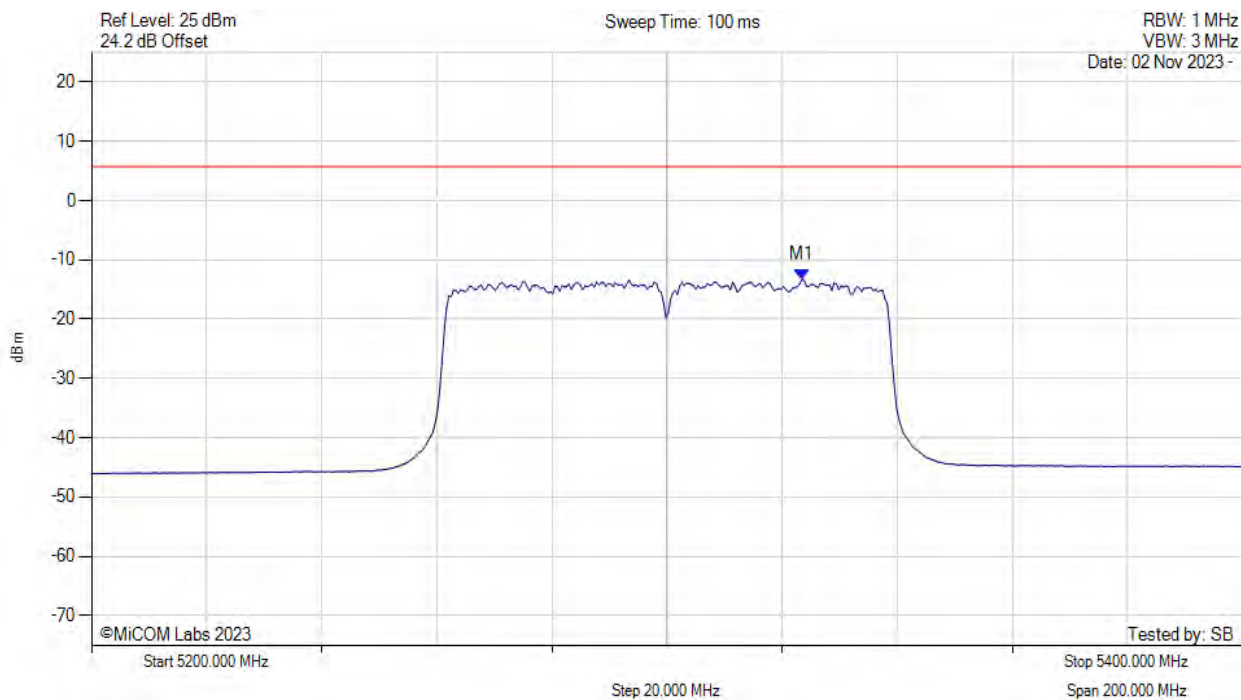
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5296.593 MHz : -12.217 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



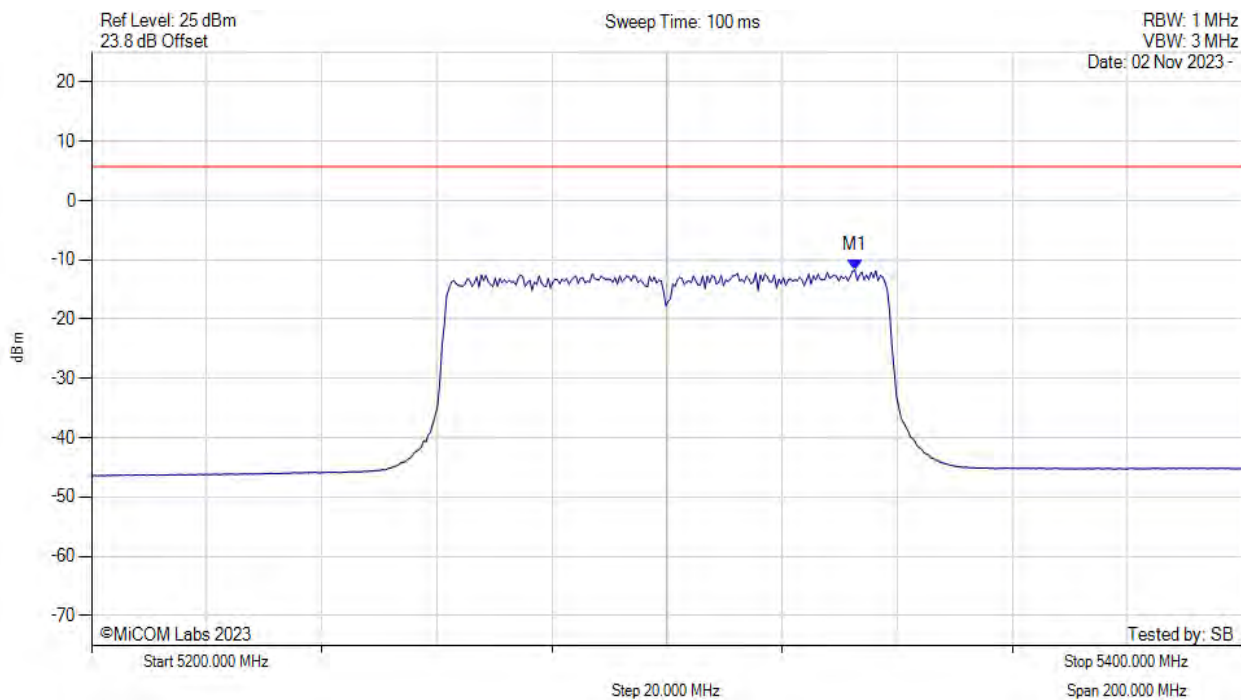
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5323.447 MHz : -13.322 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



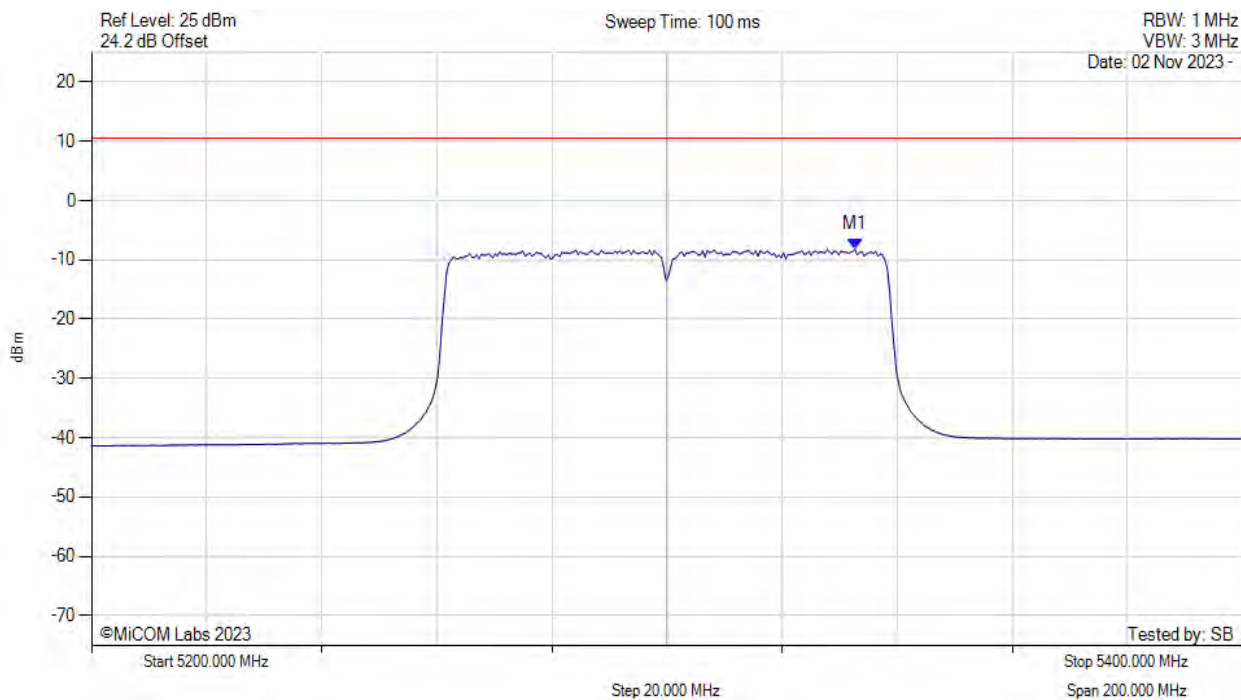
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5332.665 MHz : -11.738 dBm	Limit: ≤ 5.730 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5332.700 MHz : -8.191 dBm M1 + DCCF : 5332.700 MHz : -8.147 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 10.5 dBm Margin: -18.6 dB

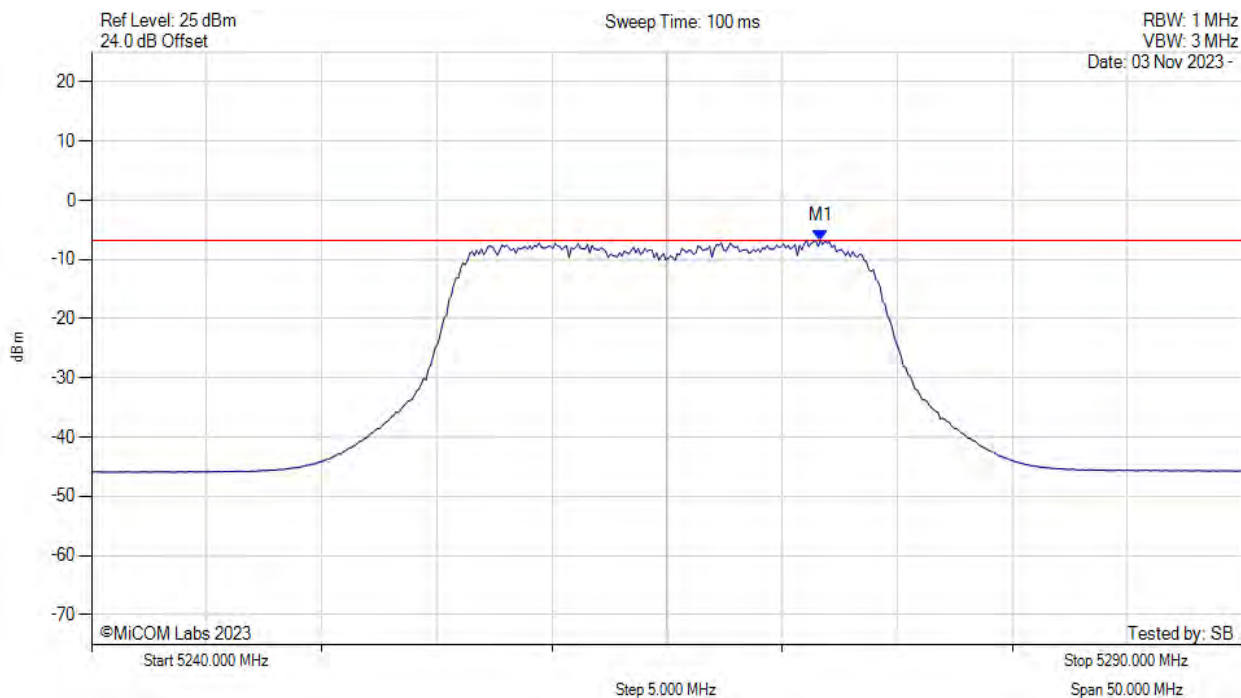
[back to matrix](#)

RW-9105-5158

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



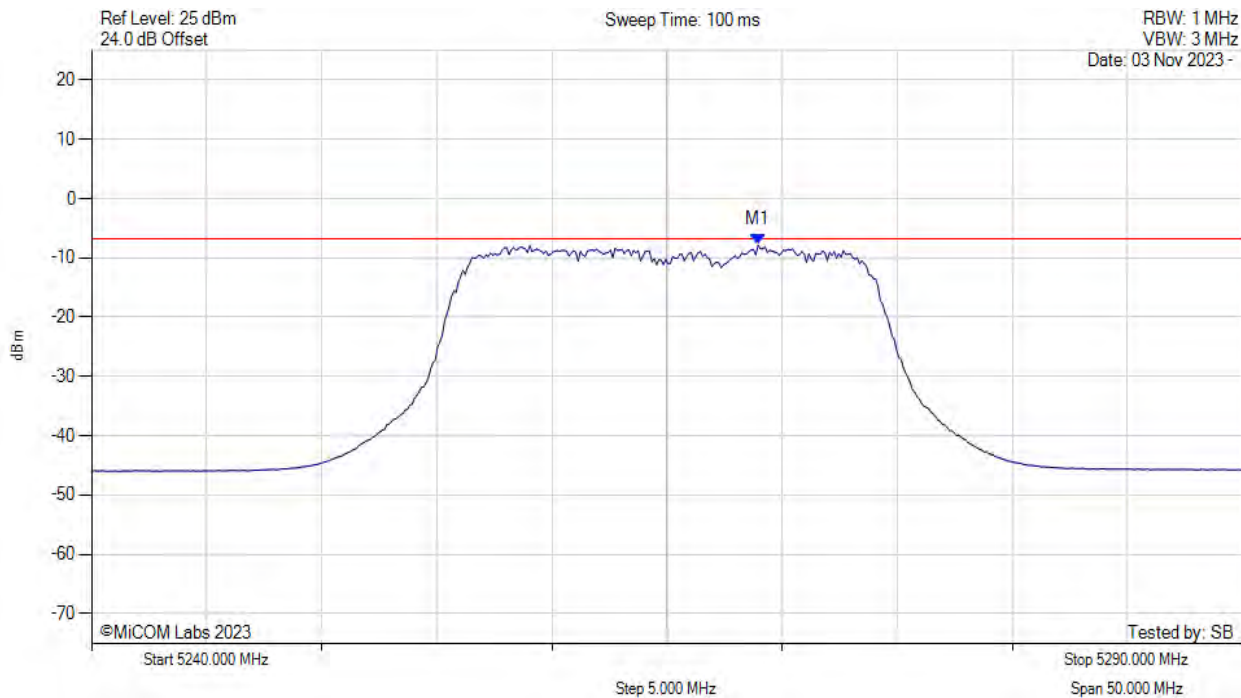
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5271.663 MHz : -6.767 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



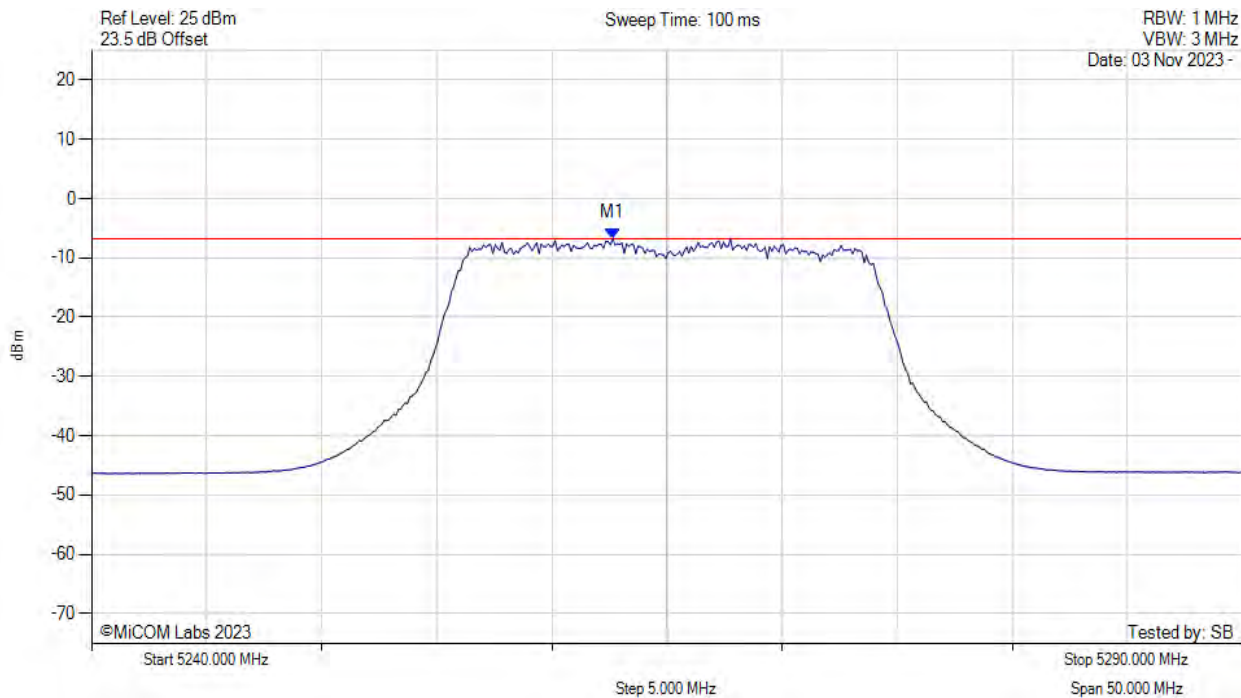
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5268.958 MHz : -7.825 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



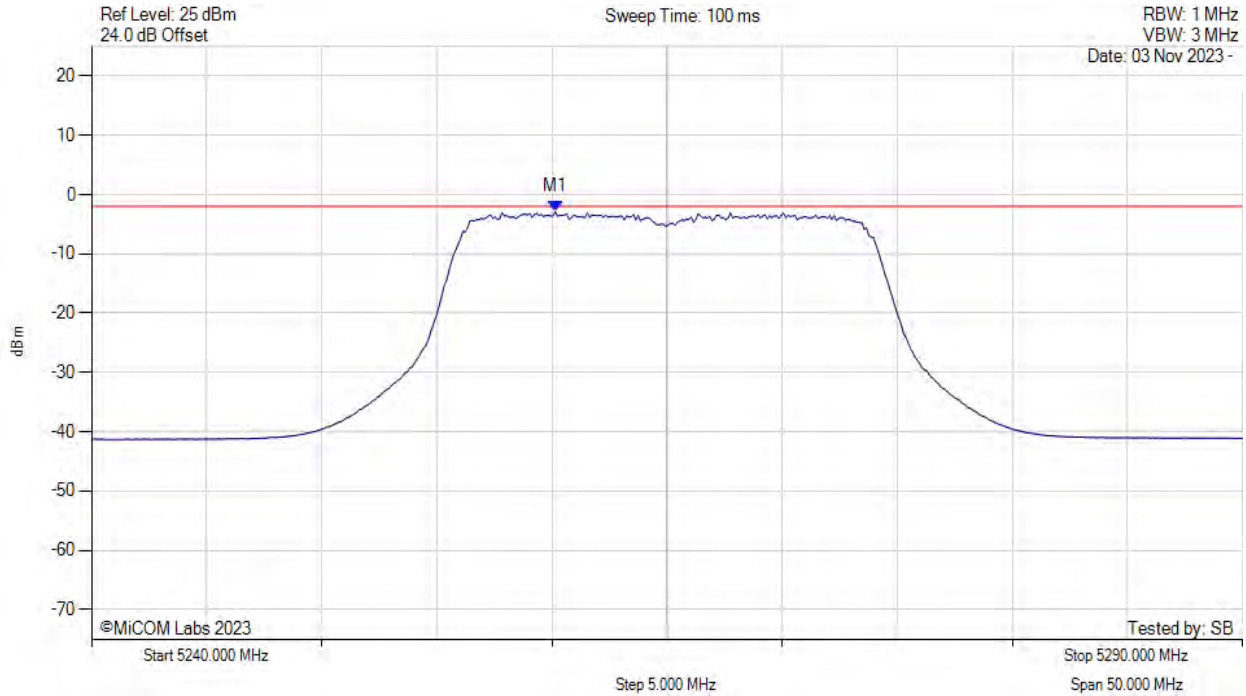
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.645 MHz : -6.701 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5265.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



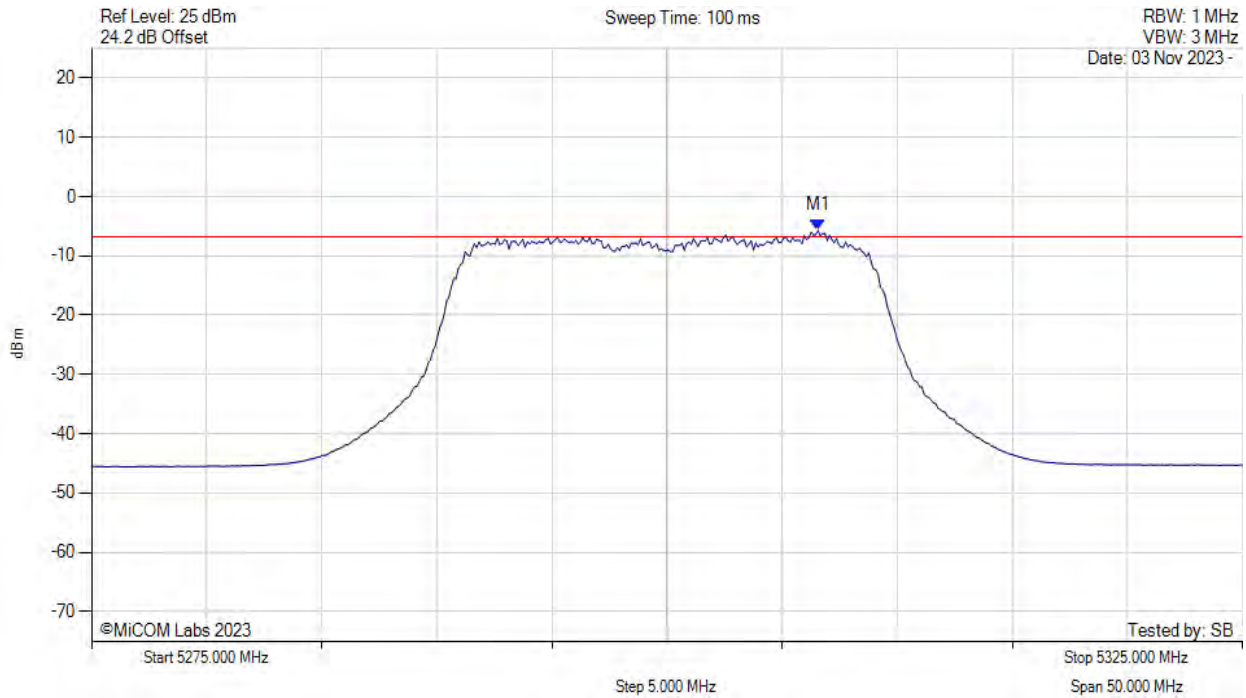
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5260.100 MHz : -2.921 dBm M1 + DCCF : 5260.100 MHz : -2.877 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -0.8 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



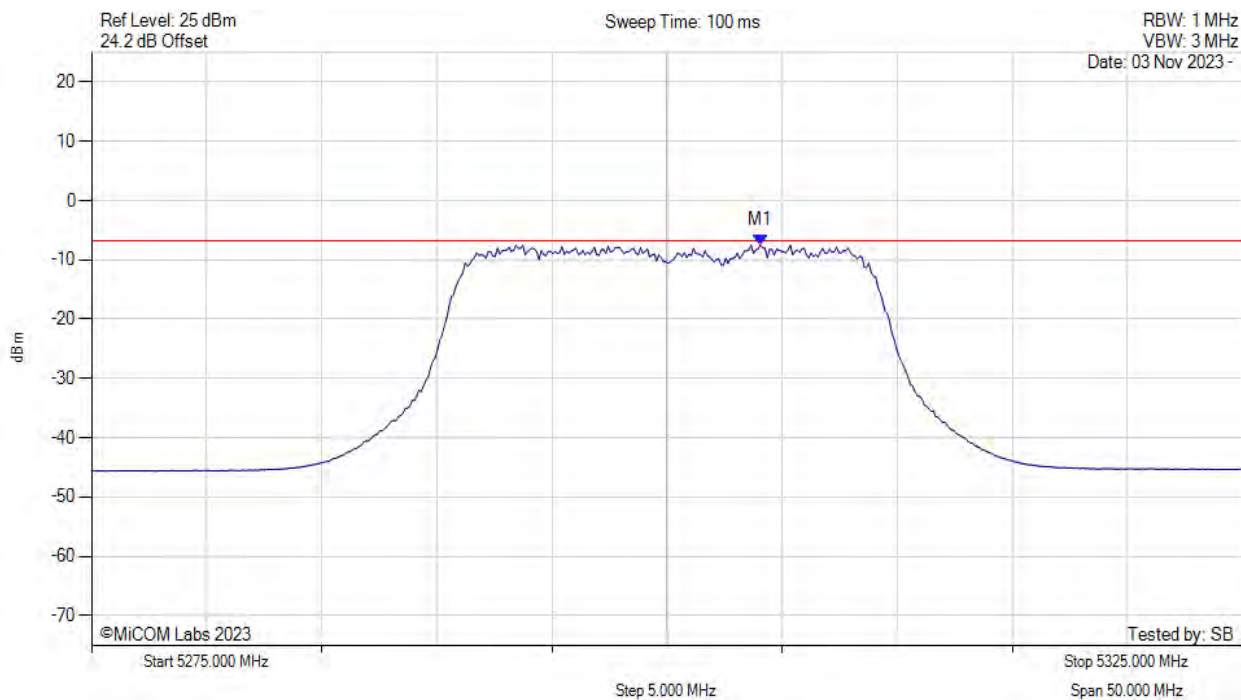
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5306.563 MHz : -5.729 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



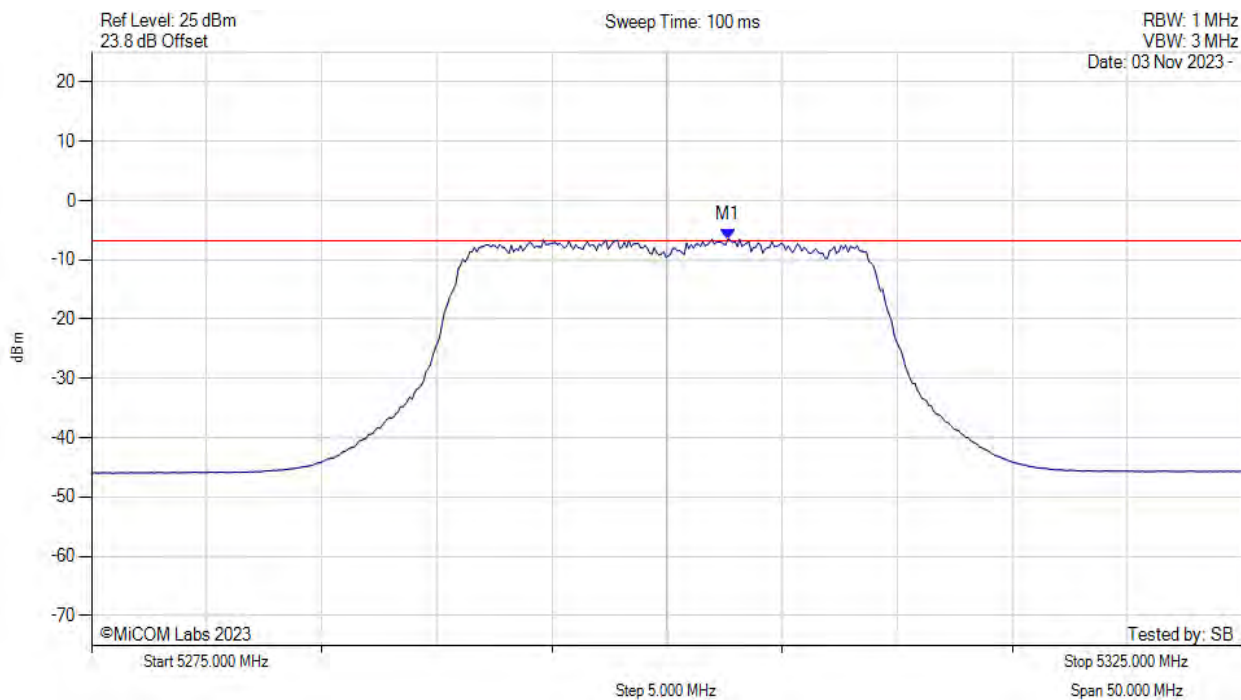
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5304.058 MHz : -7.501 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



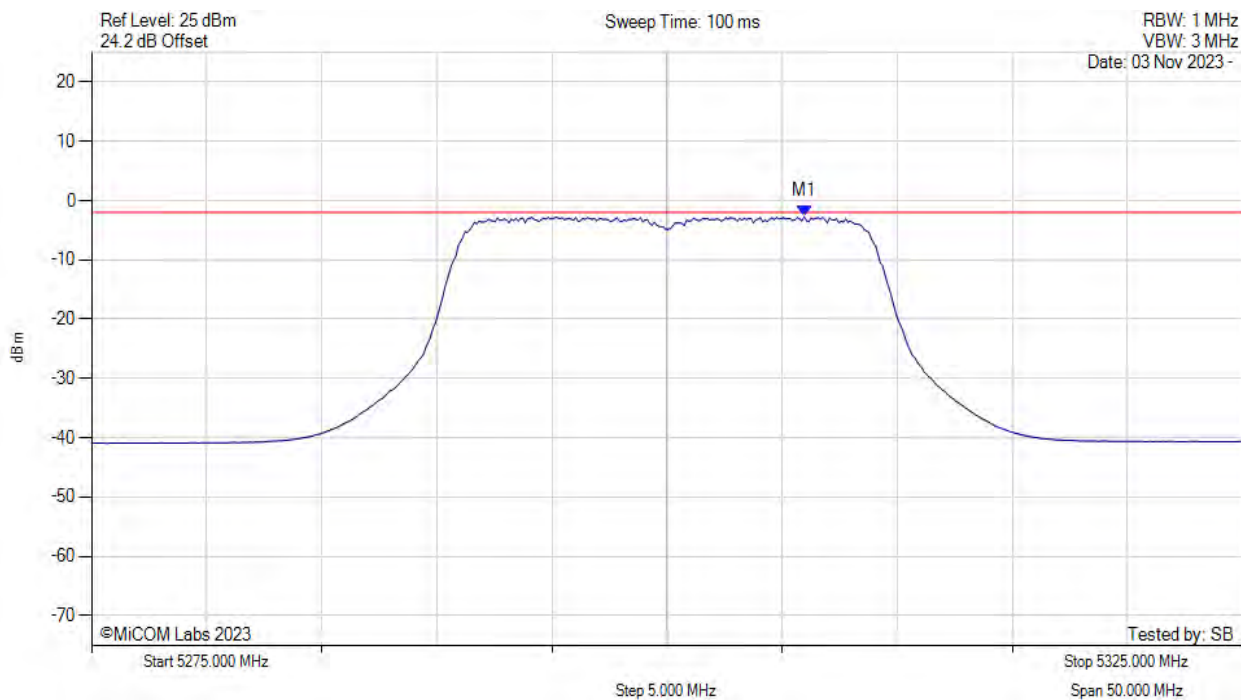
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.655 MHz : -6.491 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



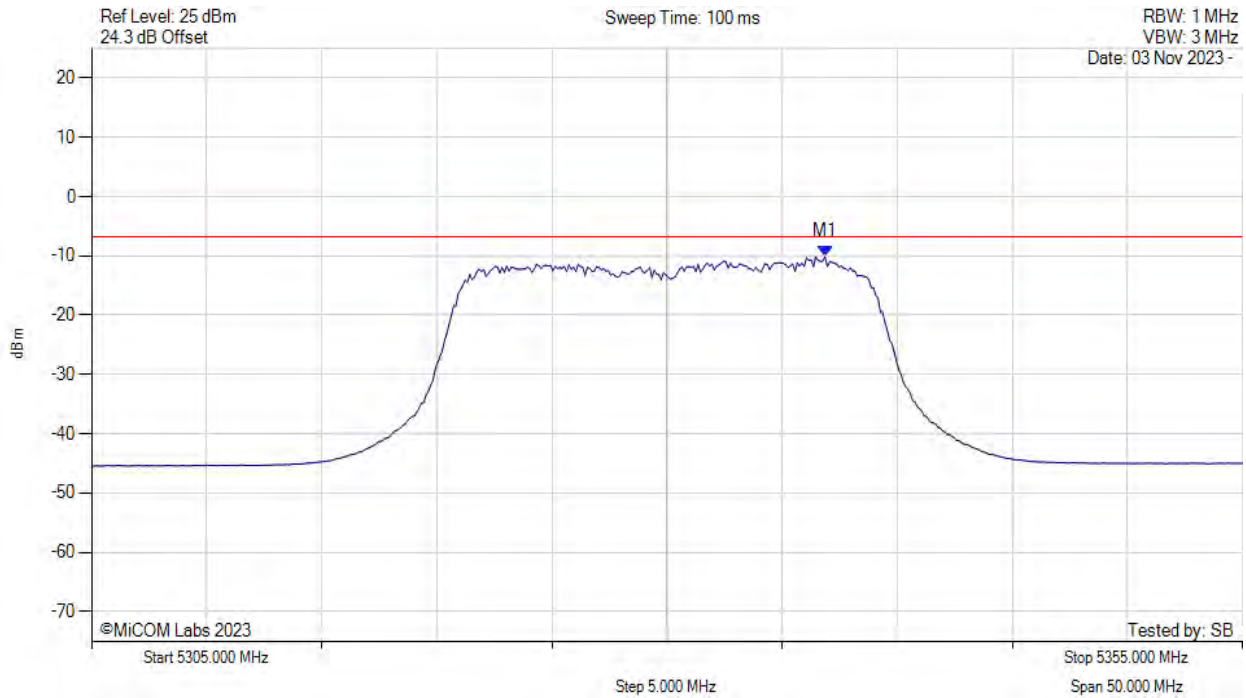
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5306.000 MHz : -2.694 dBm M1 + DCCF : 5306.000 MHz : -2.650 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -0.6 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



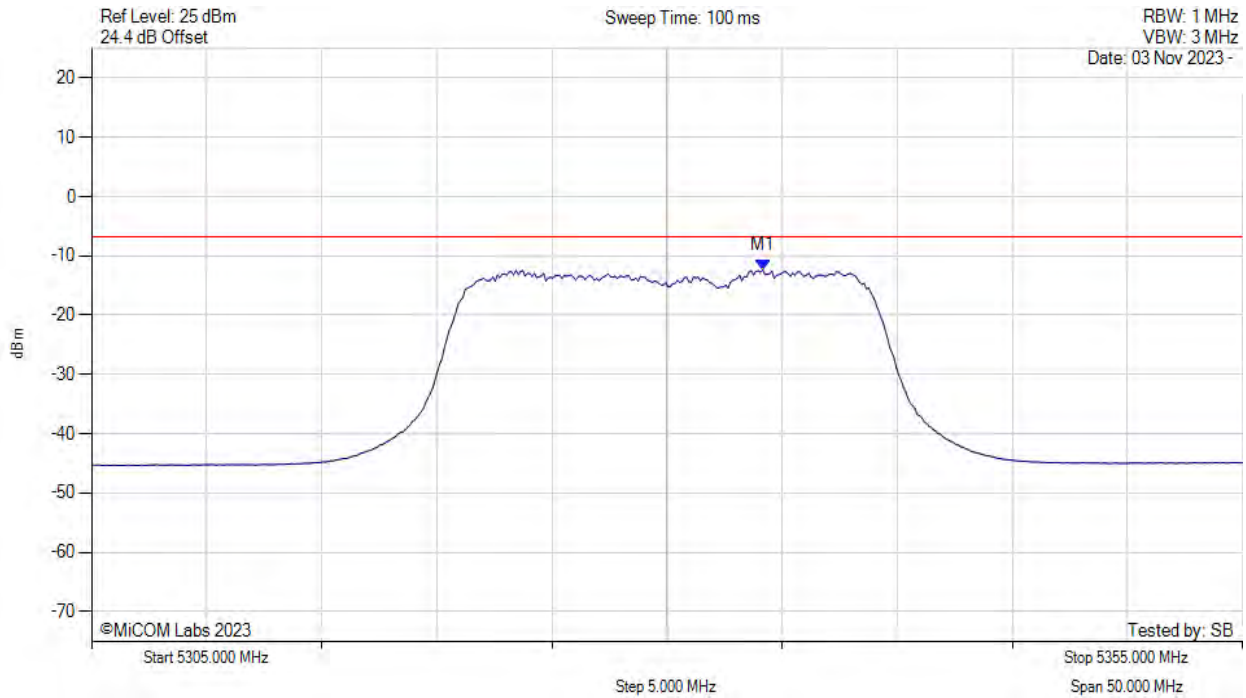
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5336.864 MHz : -10.160 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



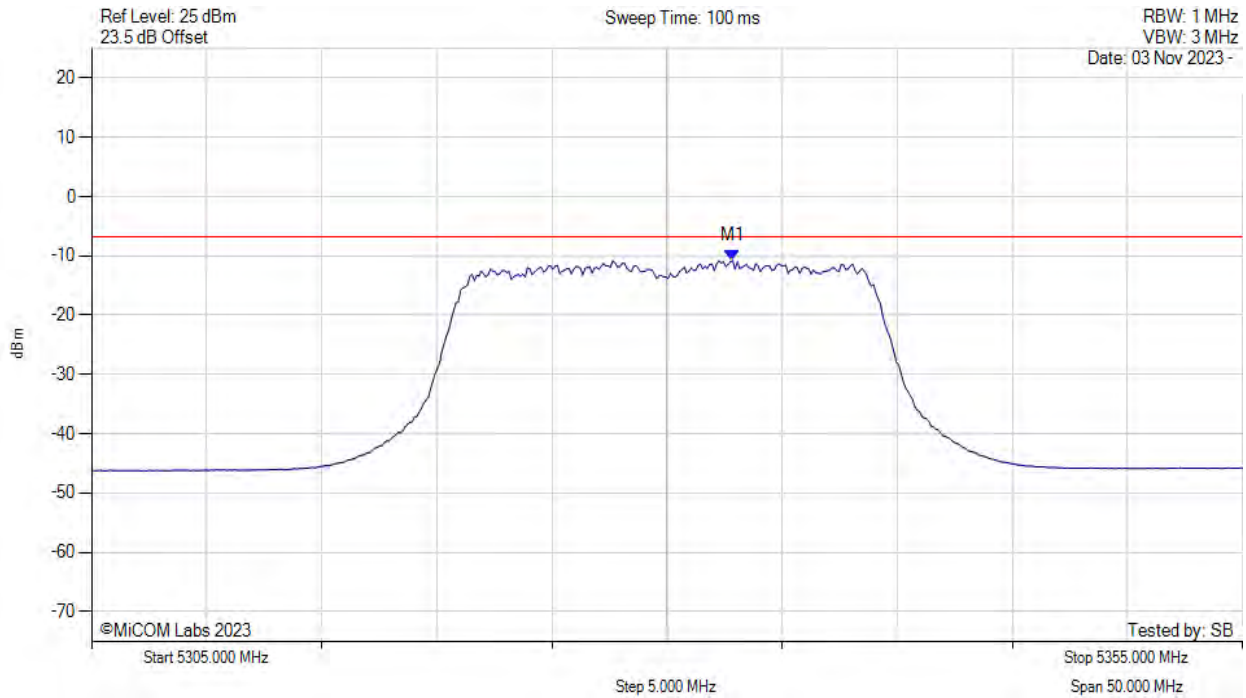
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5334.158 MHz : -12.388 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



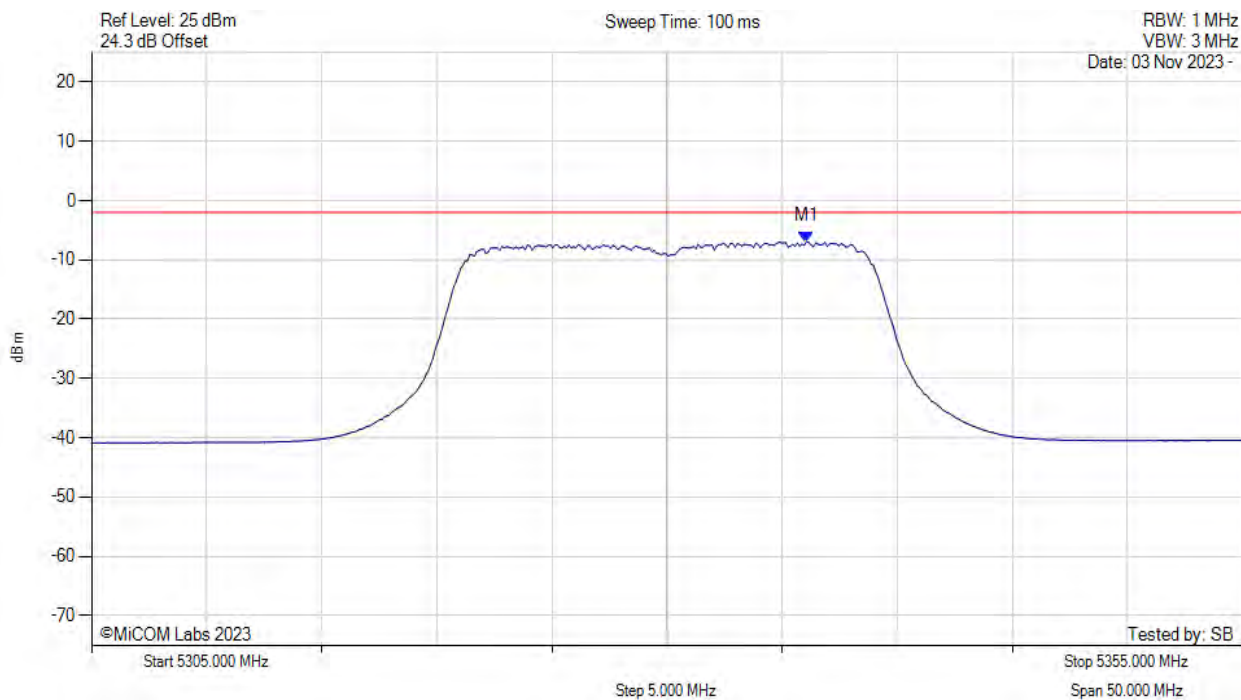
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5332.856 MHz : -10.812 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 20MHz, Channel: 5330.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



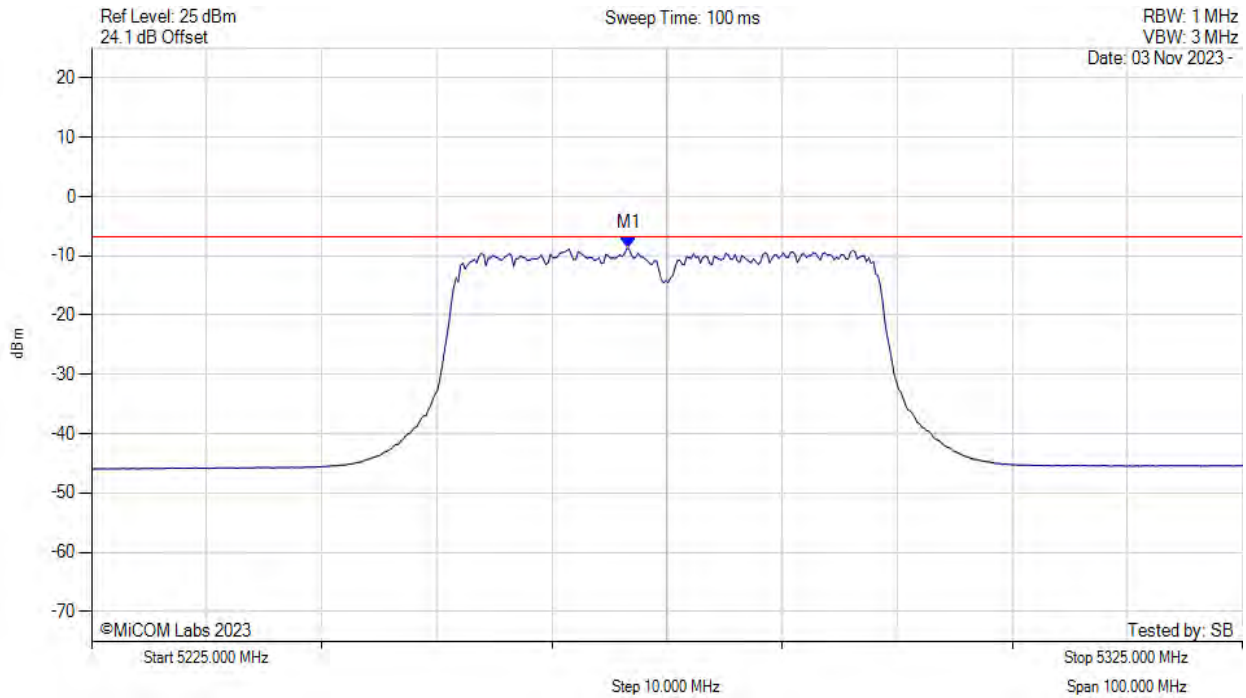
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5336.100 MHz : -6.928 dBm M1 + DCCF : 5336.100 MHz : -6.884 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -4.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



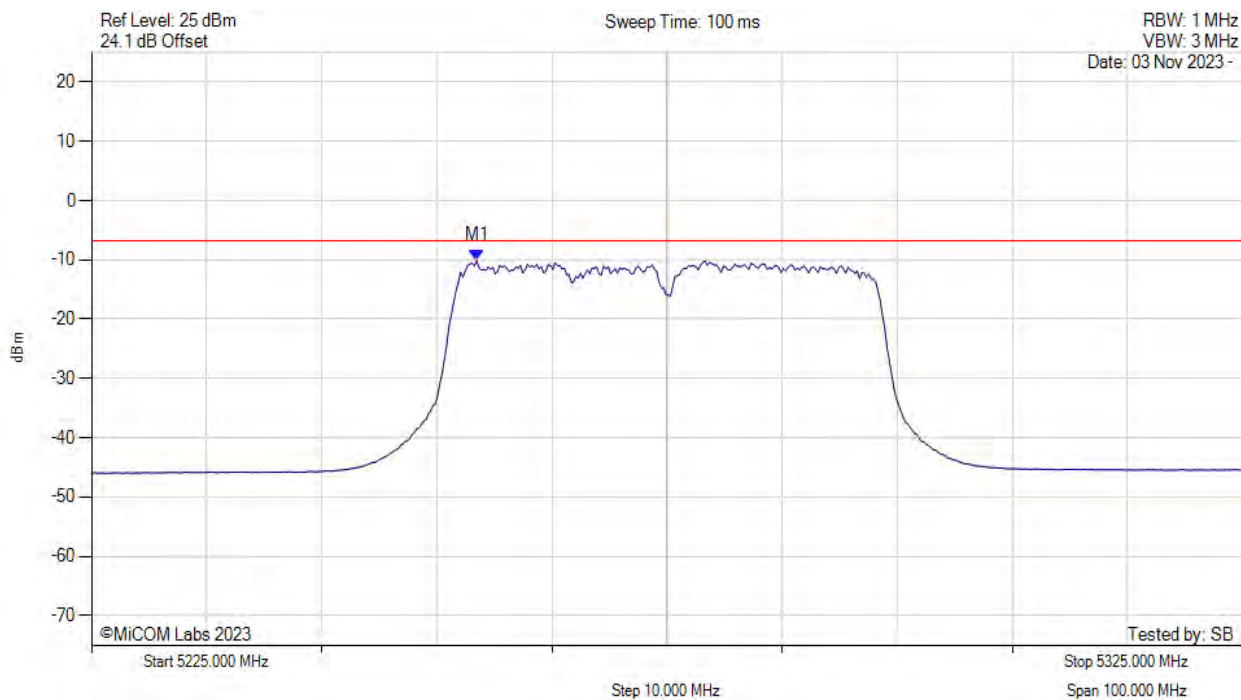
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5271.693 MHz : -8.767 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



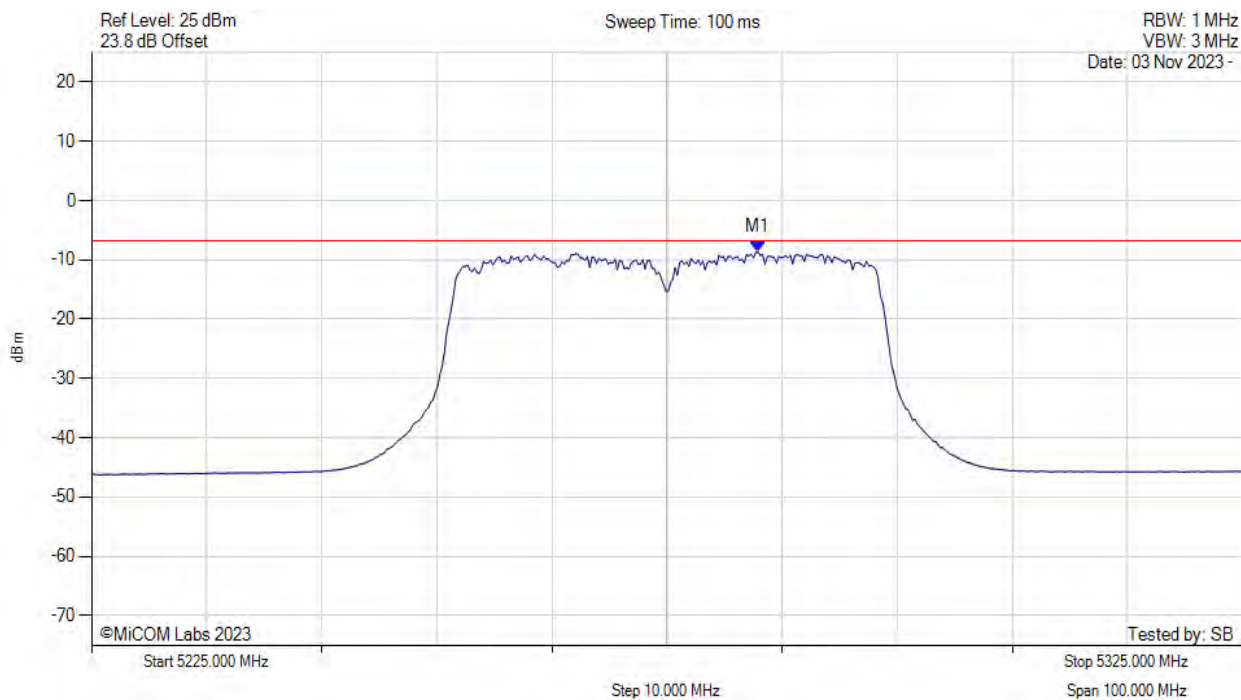
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5258.467 MHz : -10.105 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



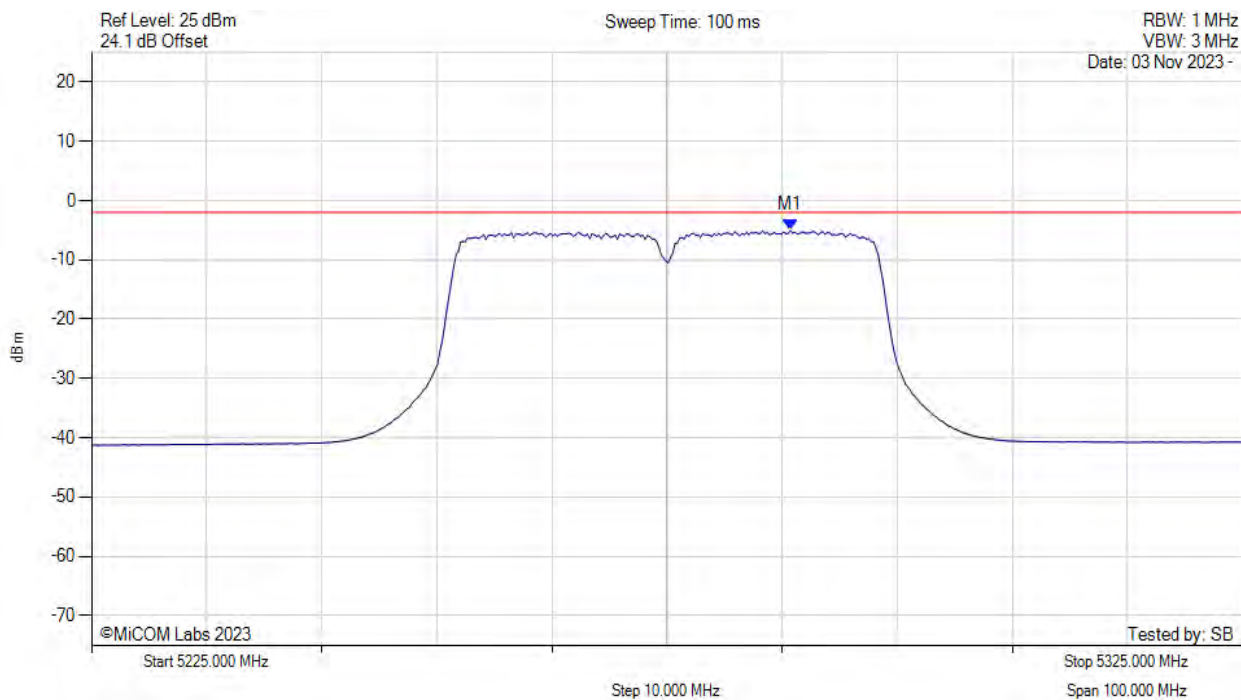
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5282.916 MHz : -8.700 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5275.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



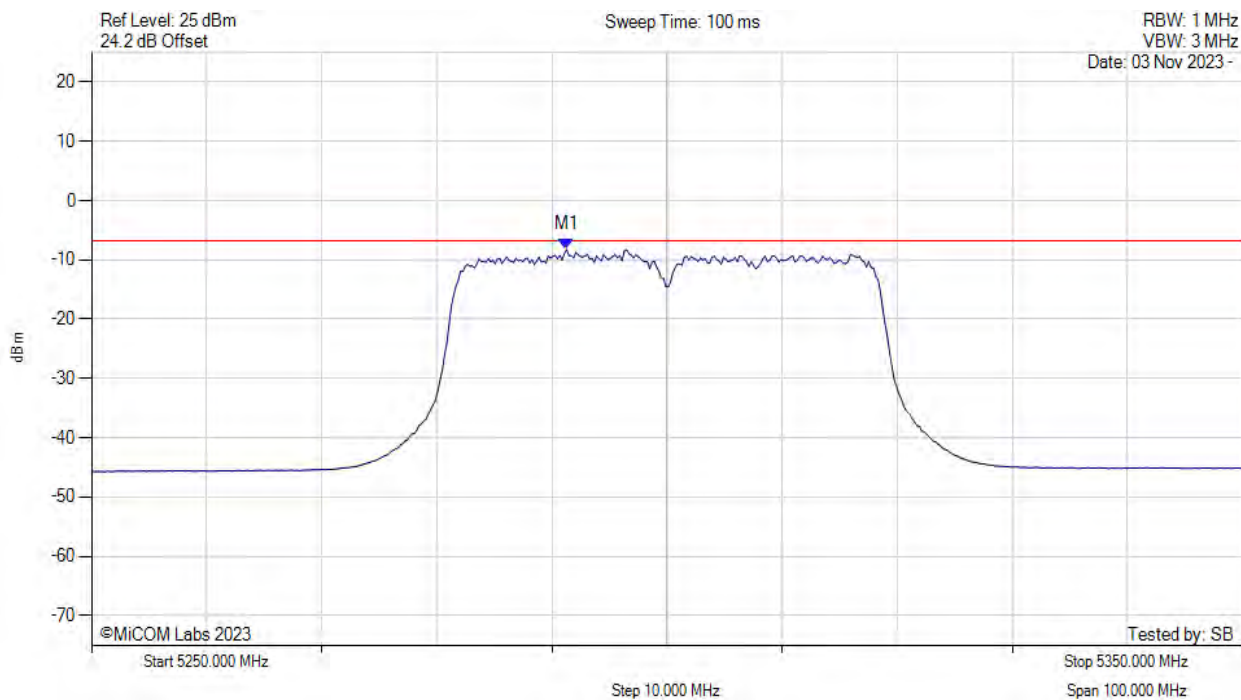
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5285.700 MHz : -5.018 dBm M1 + DCCF : 5285.700 MHz : -4.974 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -2.9 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



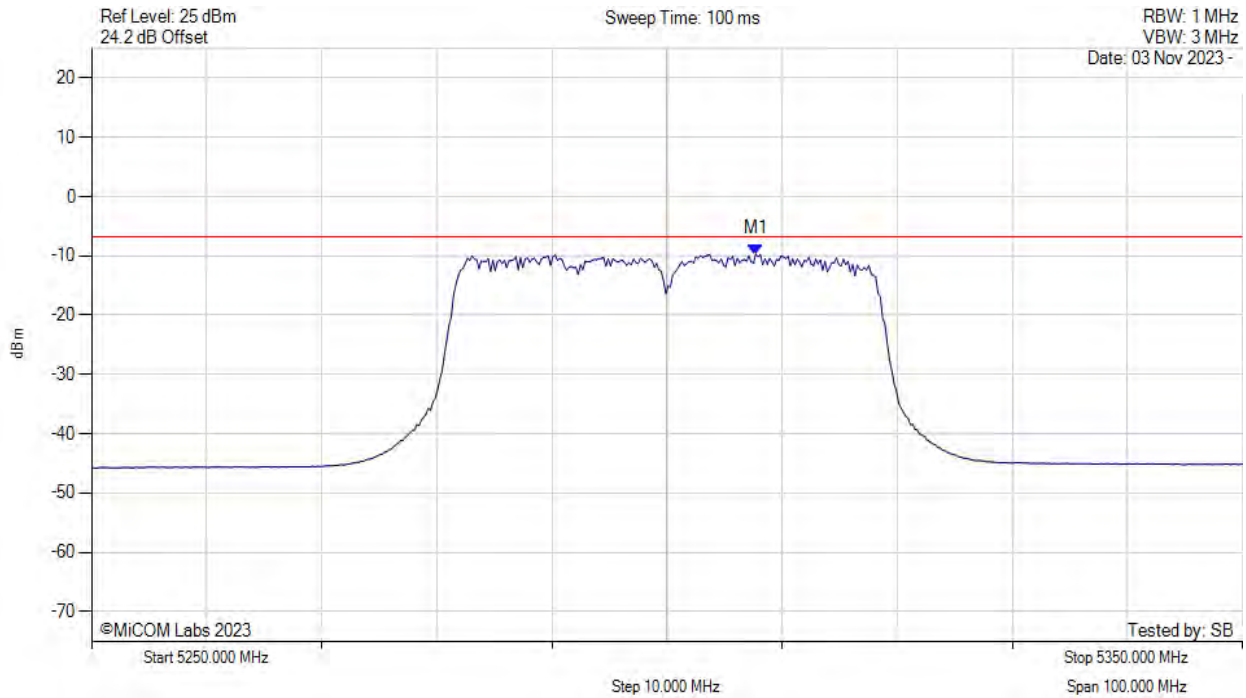
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5291.283 MHz : -8.279 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



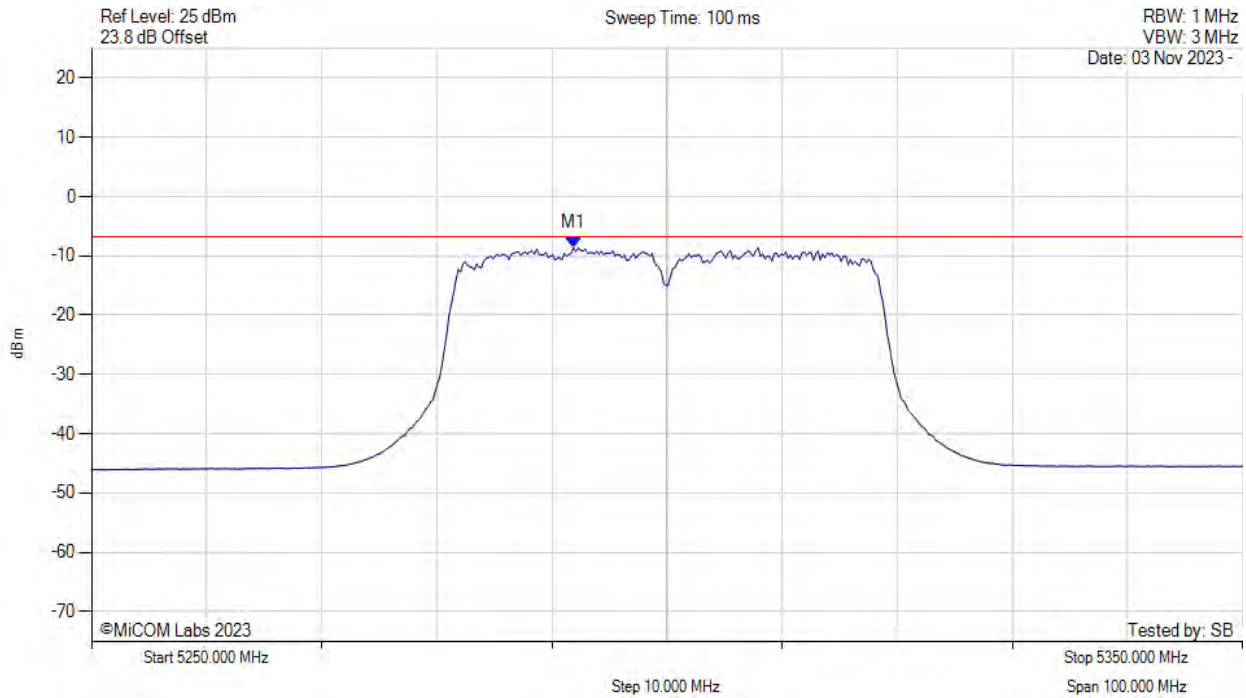
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5307.715 MHz : -9.729 dBm	Channel Frequency: 5300.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



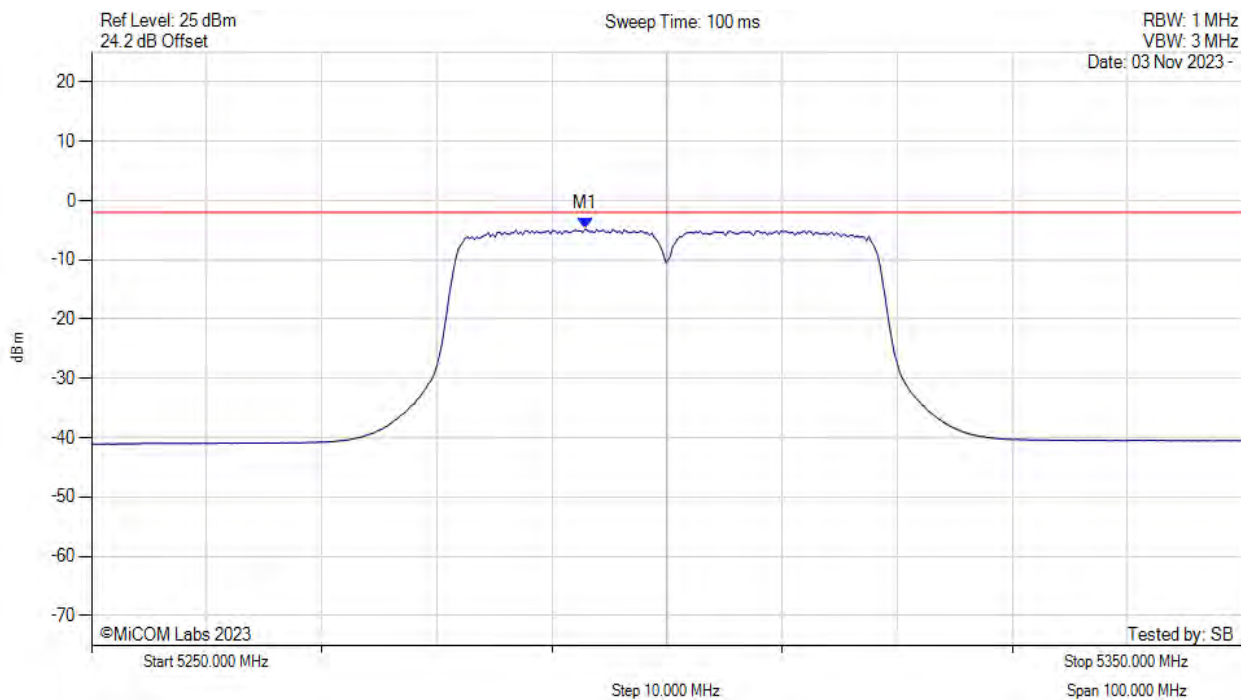
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5291.884 MHz : -8.591 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



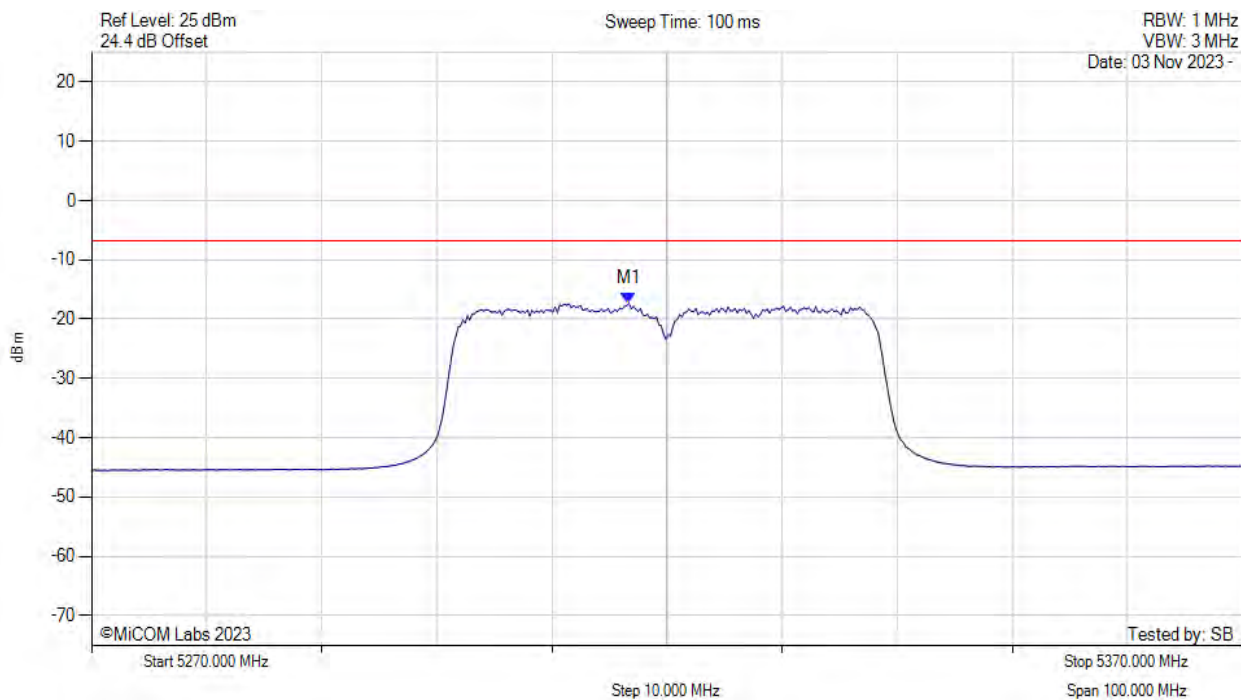
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5292.900 MHz : -4.809 dBm M1 + DCCF : 5292.900 MHz : -4.765 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -2.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variation: 40MHz, Channel: 5320.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



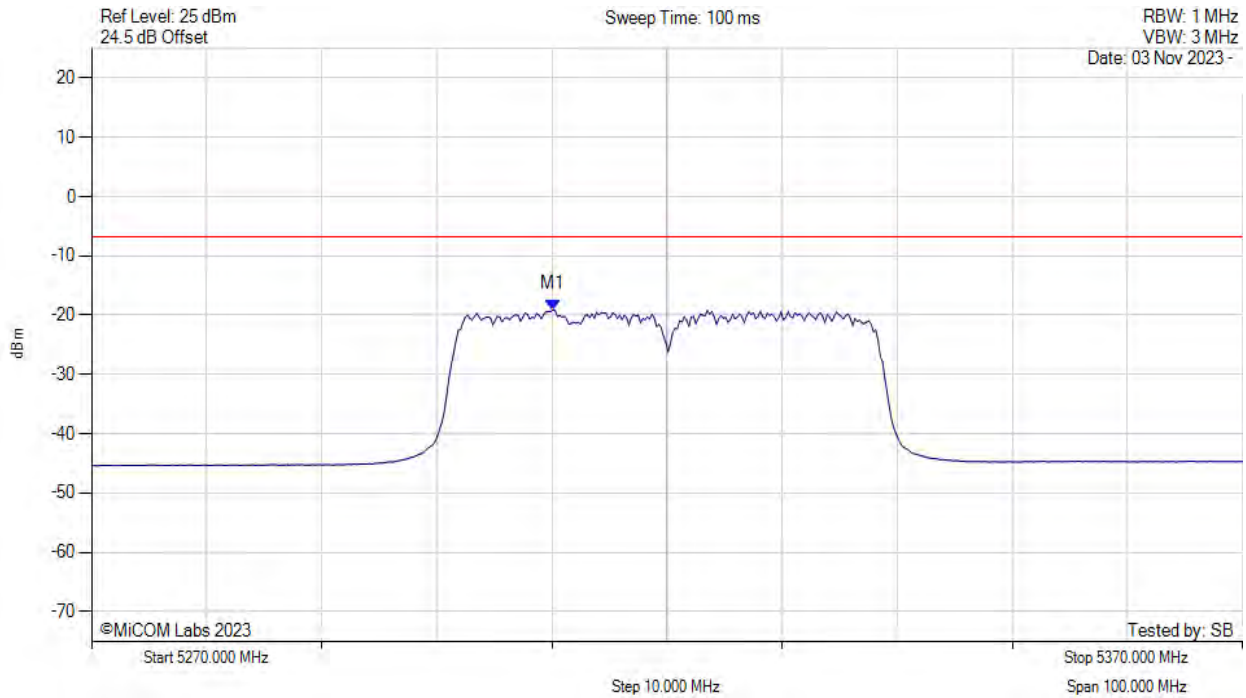
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5316.693 MHz : -17.305 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



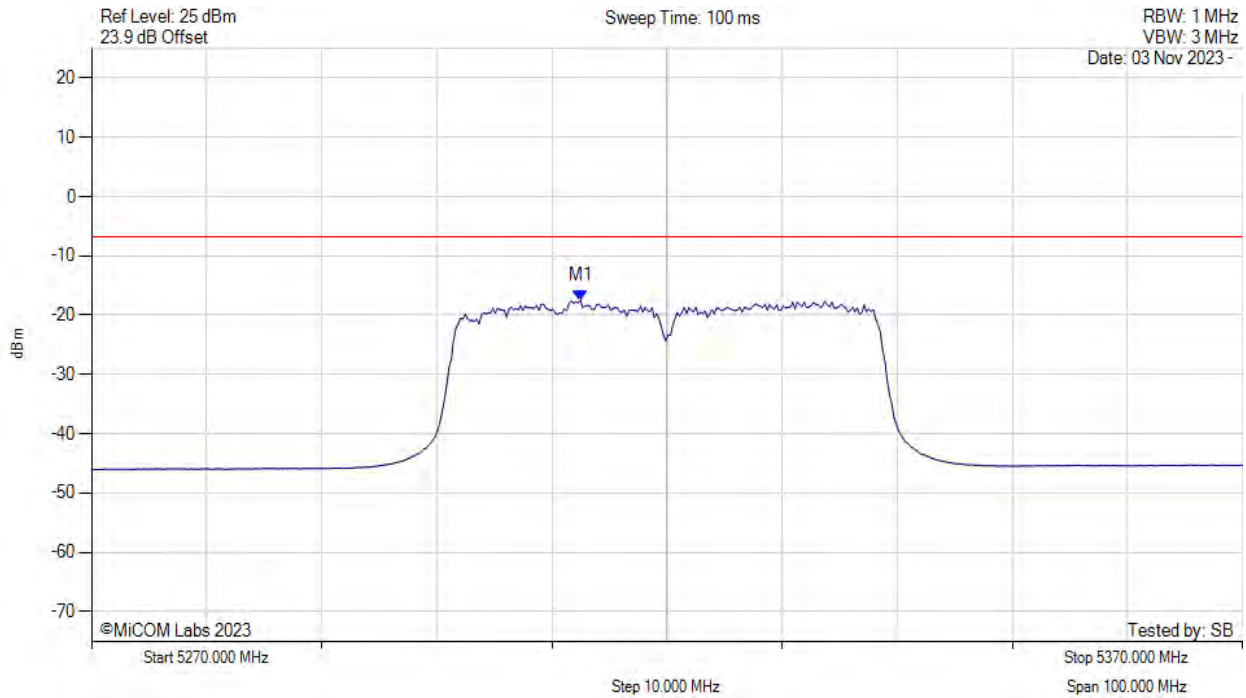
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5310.080 MHz : -19.080 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



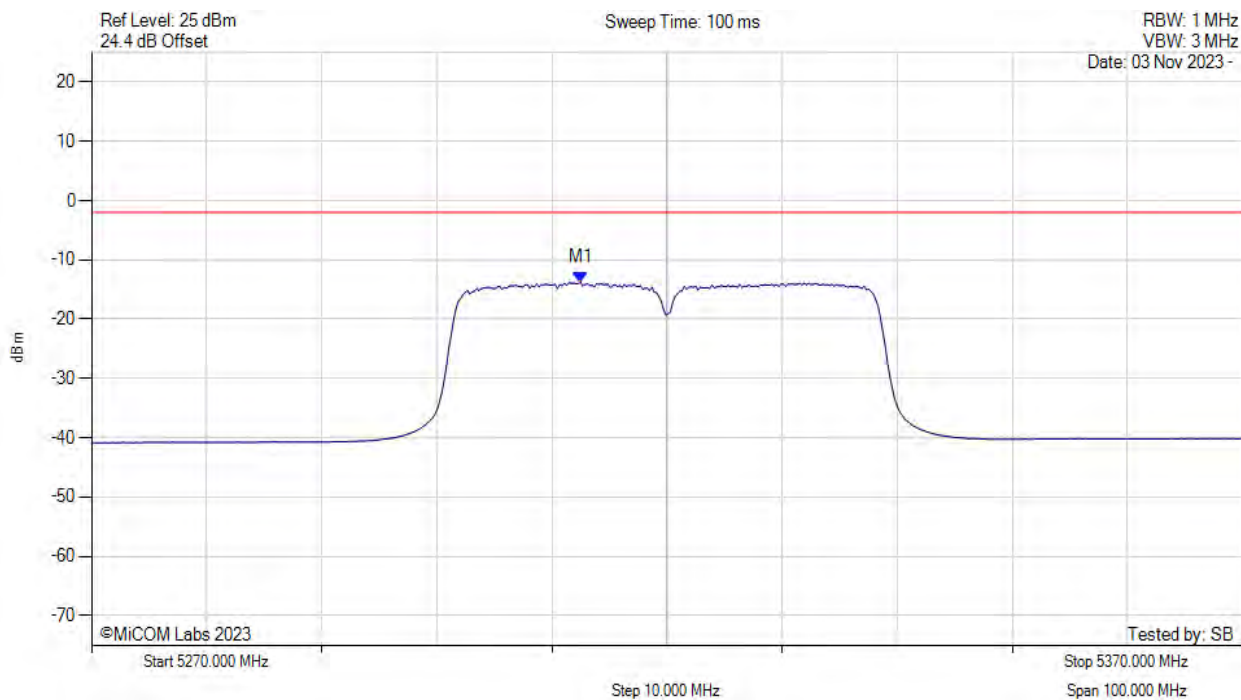
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5312.485 MHz : -17.488 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 40MHz, Channel: 5320.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



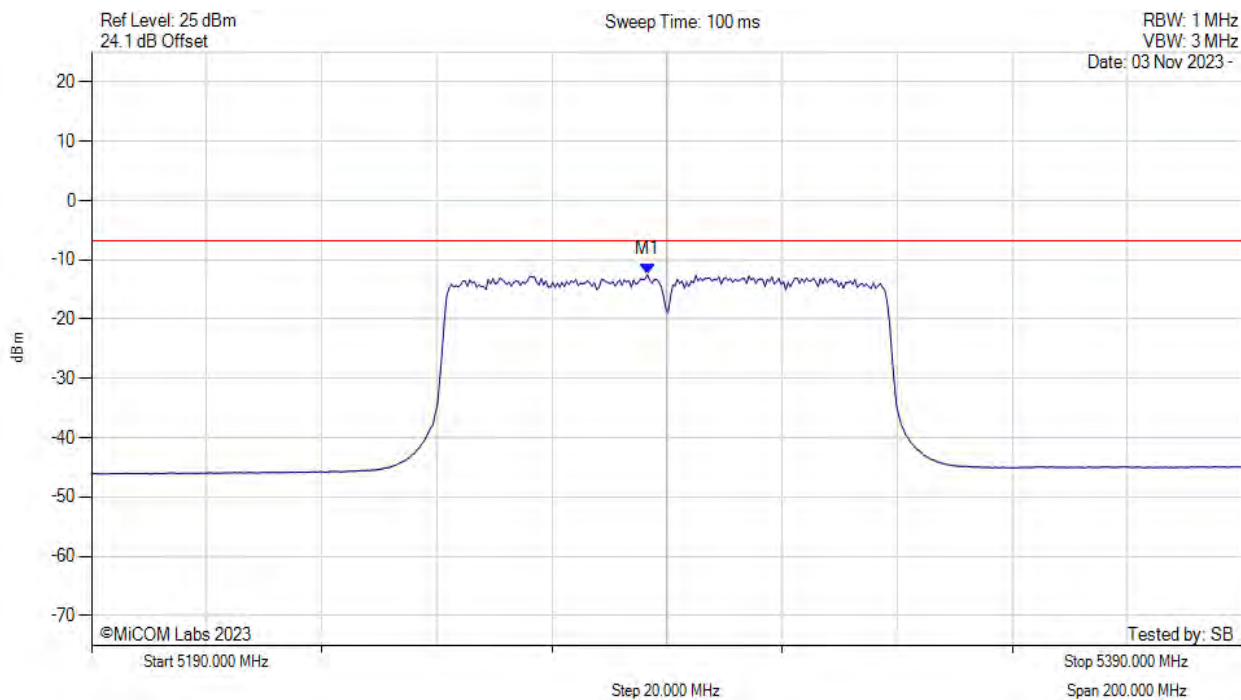
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5312.500 MHz : -13.765 dBm M1 + DCCF : 5312.500 MHz : -13.721 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -11.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



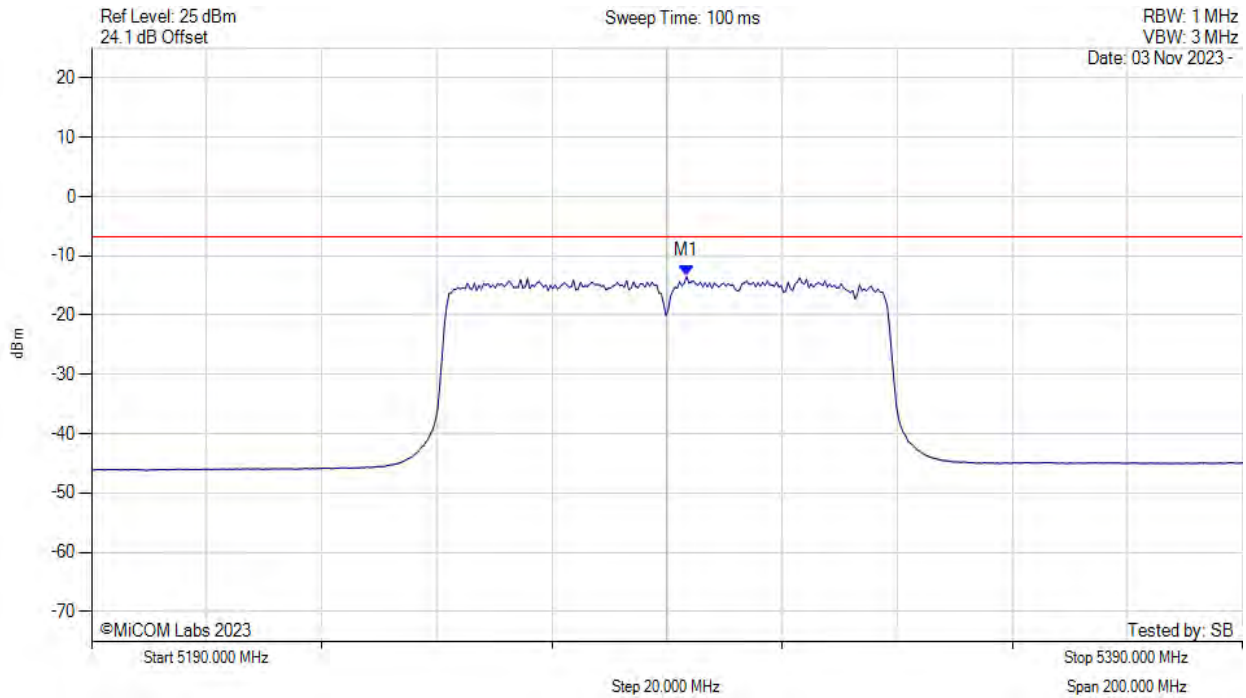
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5286.593 MHz : -12.489 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



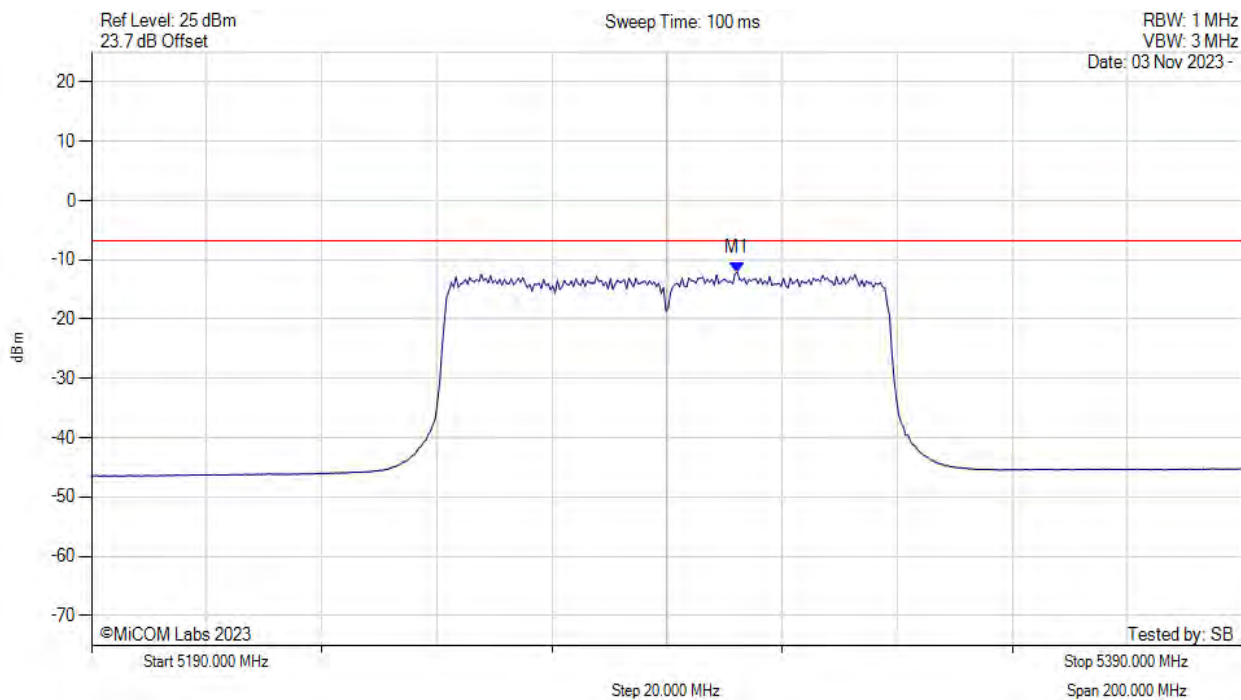
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5293.407 MHz : -13.440 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



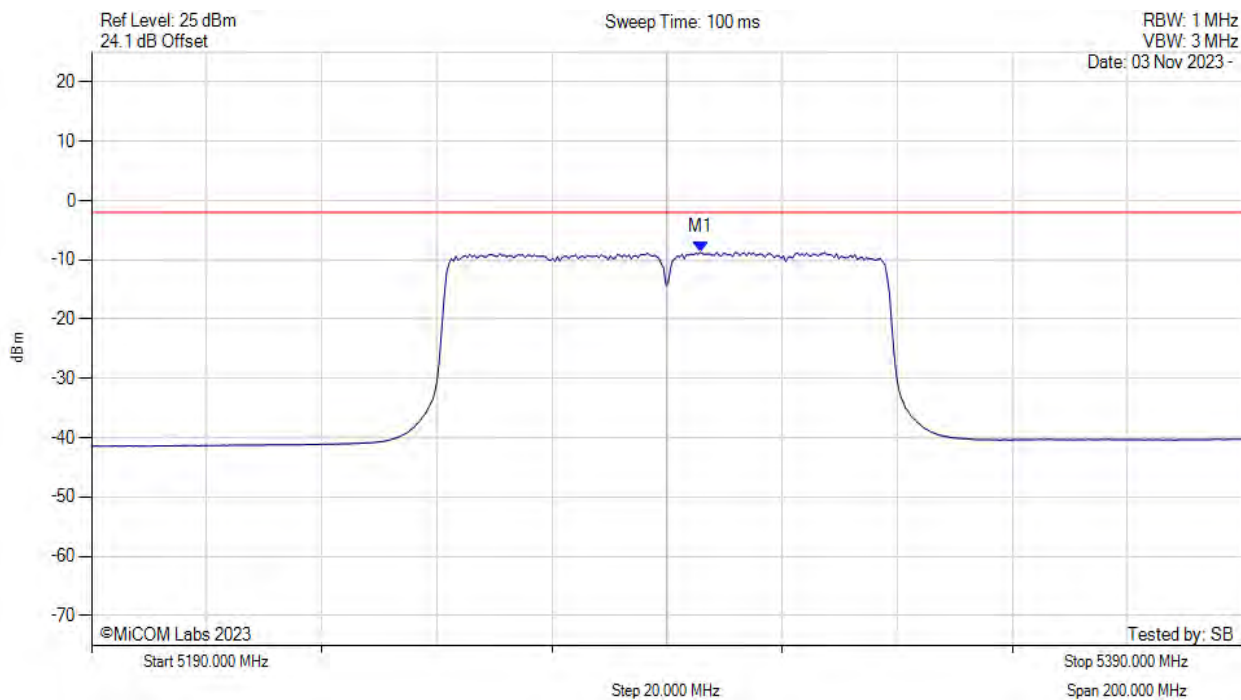
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5302.224 MHz : -12.103 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5290.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



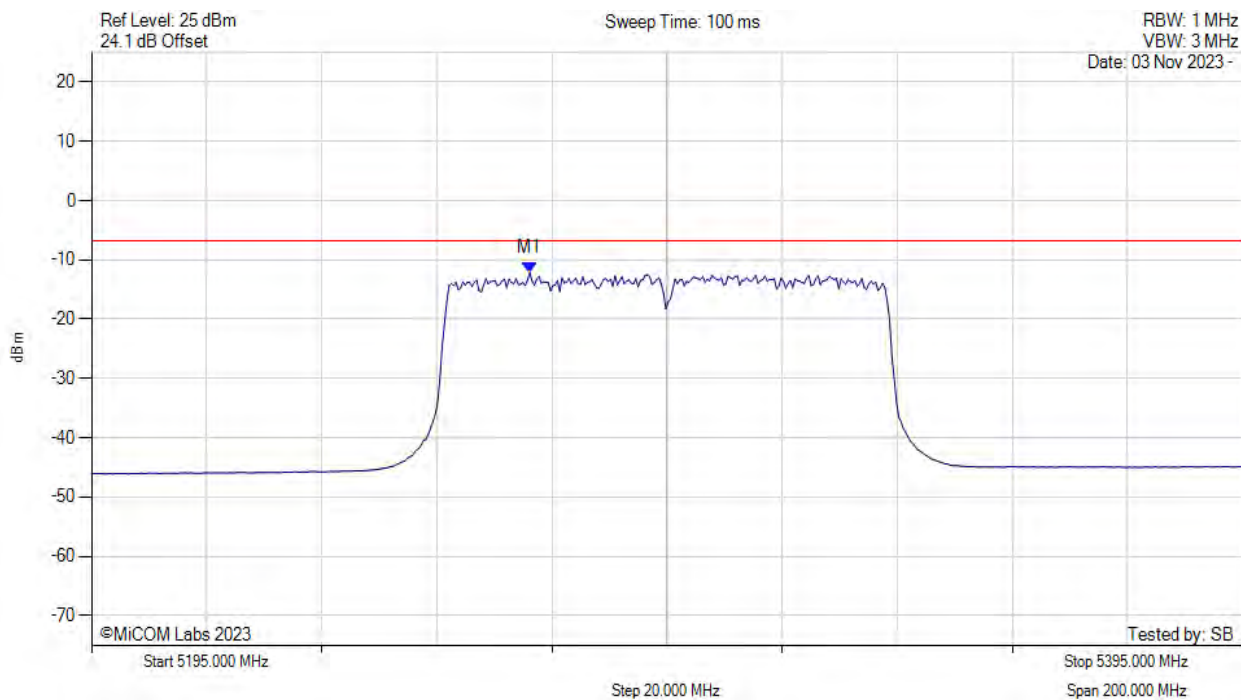
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5295.800 MHz : -8.725 dBm M1 + DCCF : 5295.800 MHz : -8.681 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -6.7 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



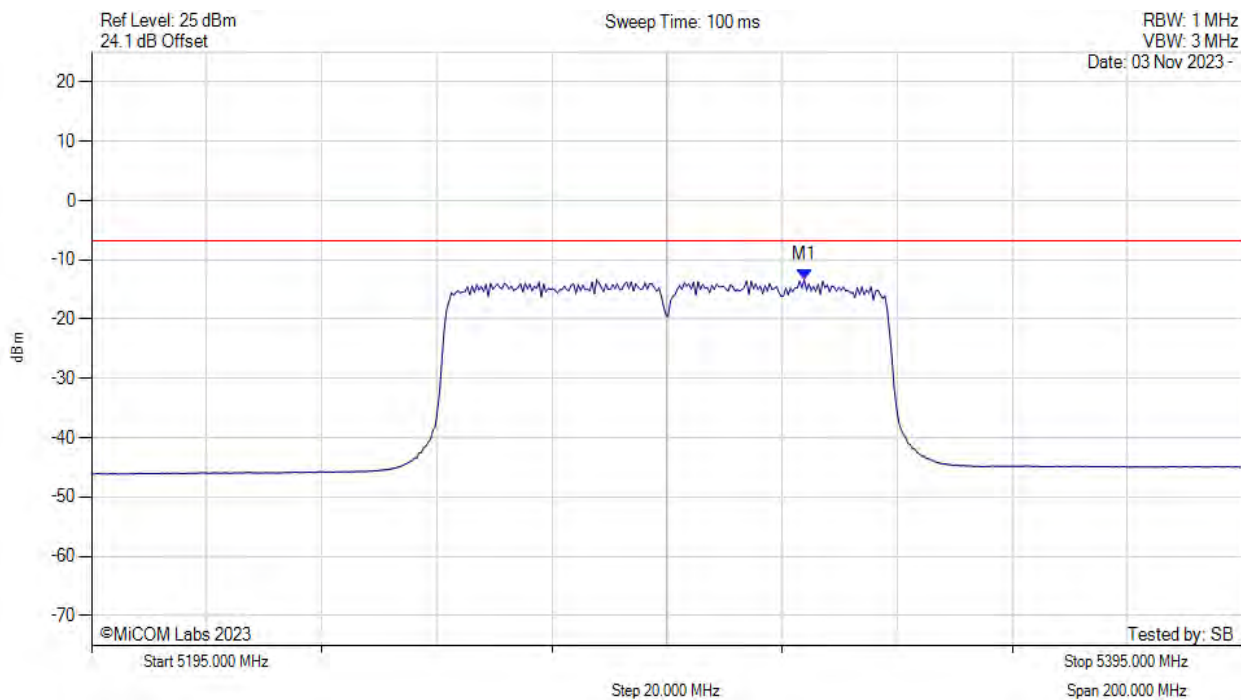
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5271.152 MHz : -12.186 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



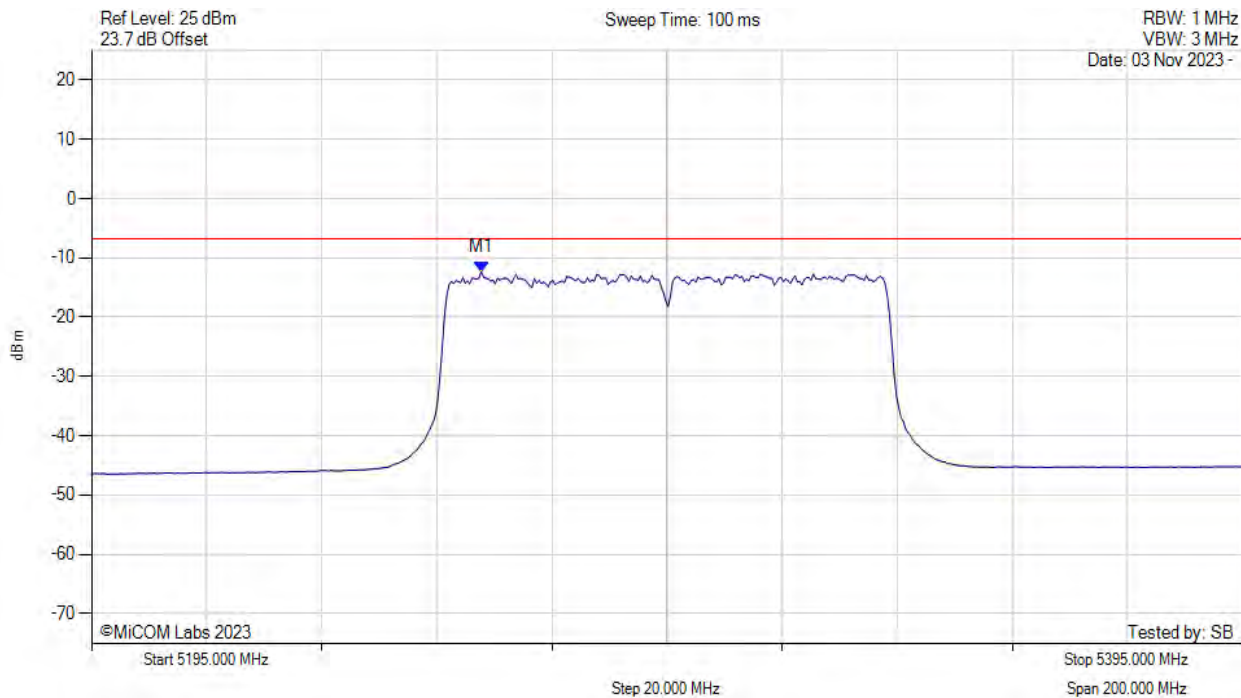
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5318.848 MHz : -13.301 dBm	Channel Frequency: 5295.00 MHz

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



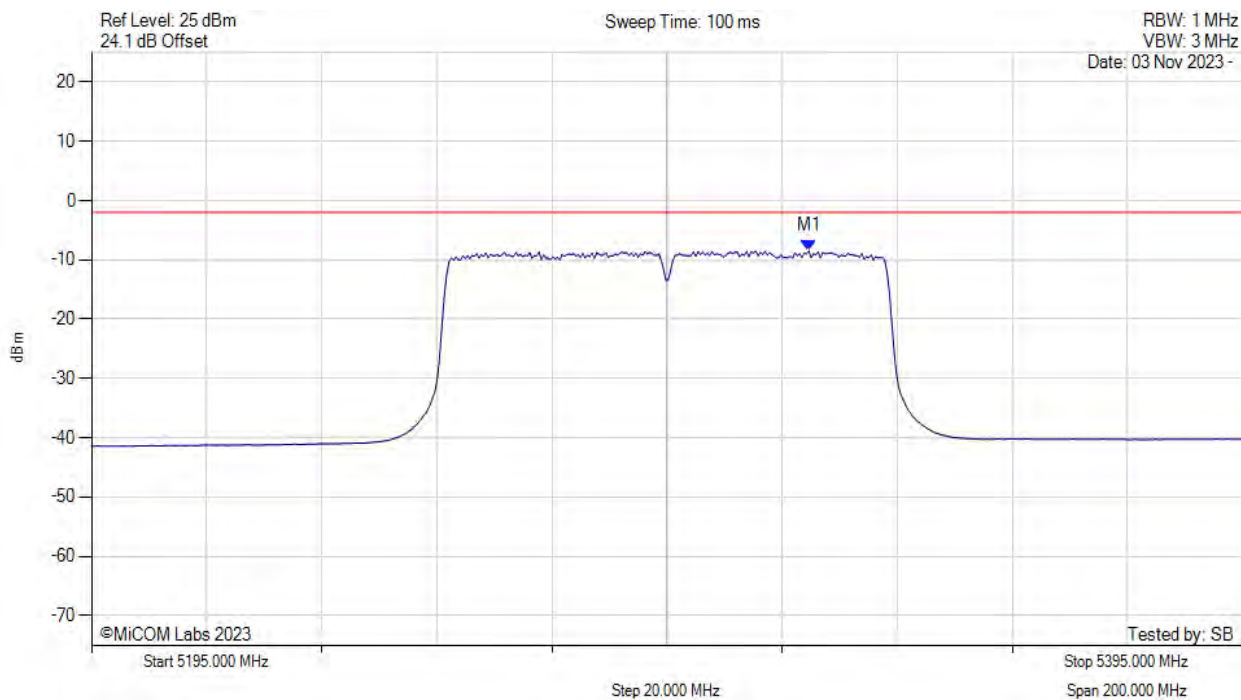
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5262.735 MHz : -12.342 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5295.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



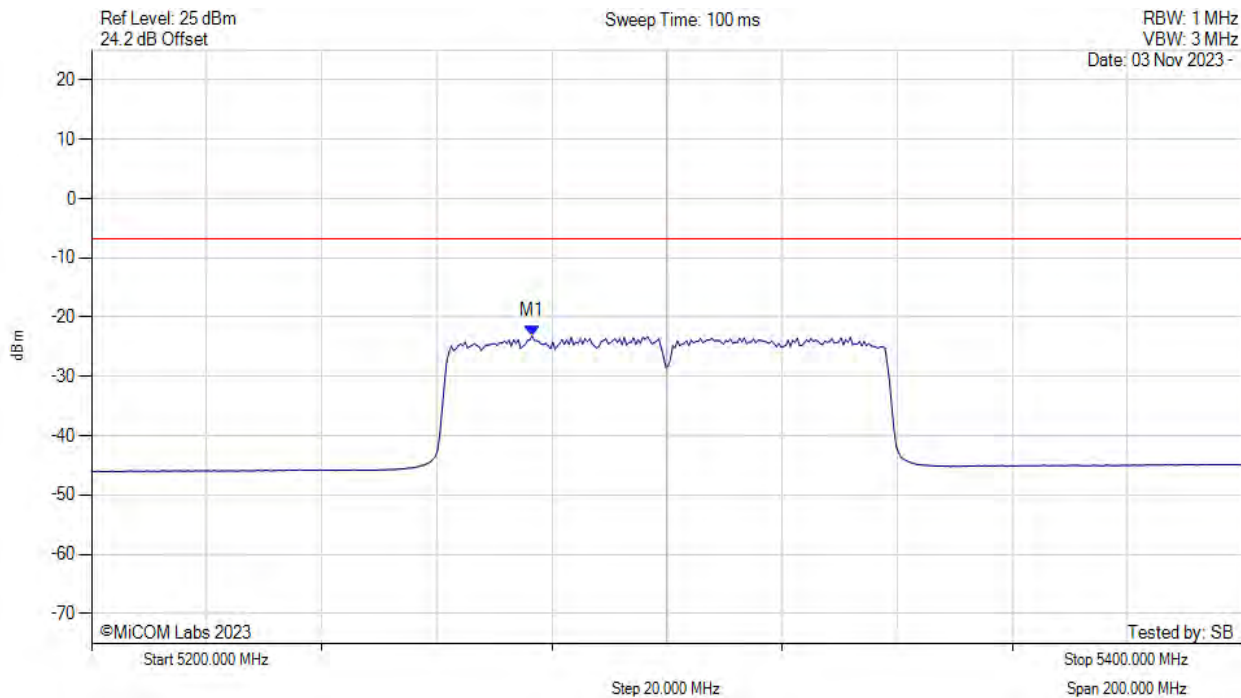
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5319.600 MHz : -8.501 dBm M1 + DCCF : 5319.600 MHz : -8.457 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -6.4 dB

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain a, Temp: 20, Voltage: 55 Vdc



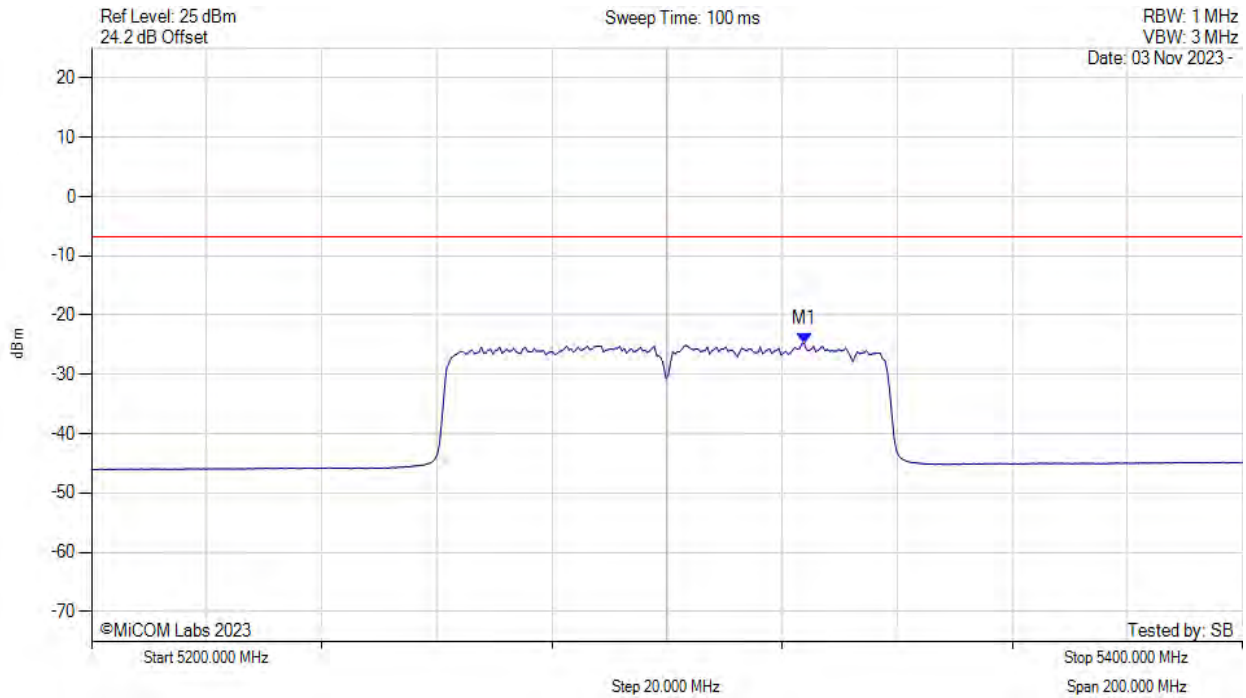
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5276.553 MHz : -23.165 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain b, Temp: 20, Voltage: 55 Vdc



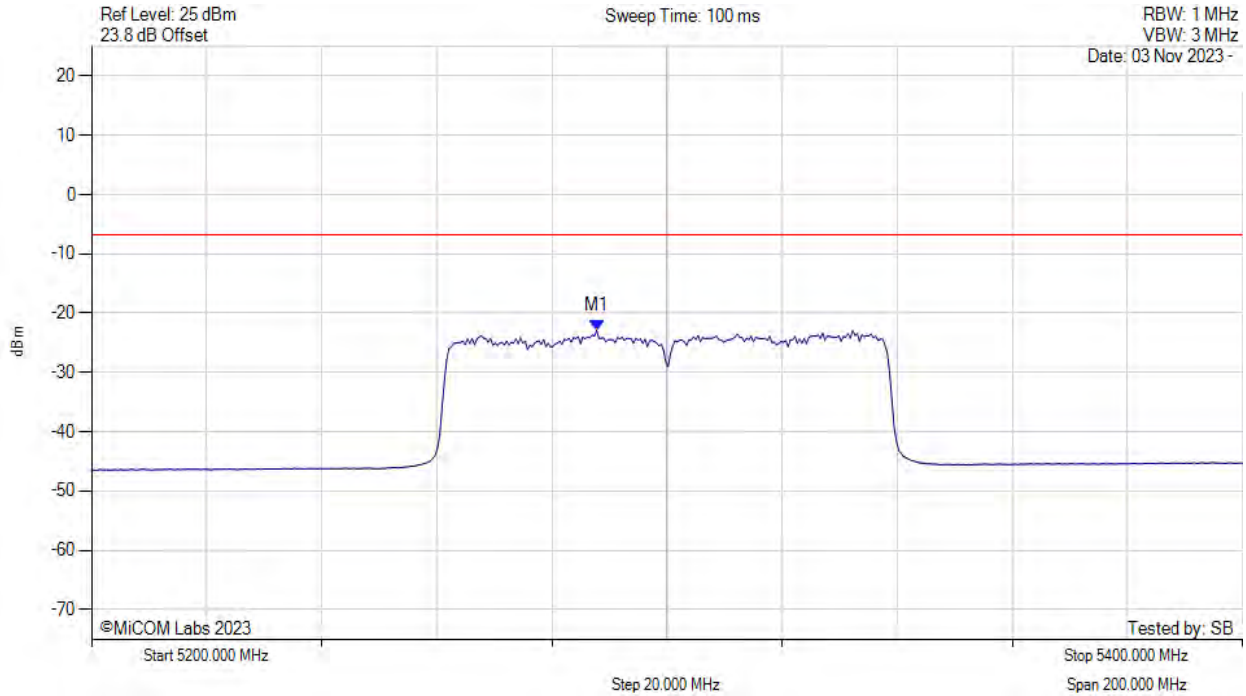
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5323.848 MHz : -24.801 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, Chain c, Temp: 20, Voltage: 55 Vdc



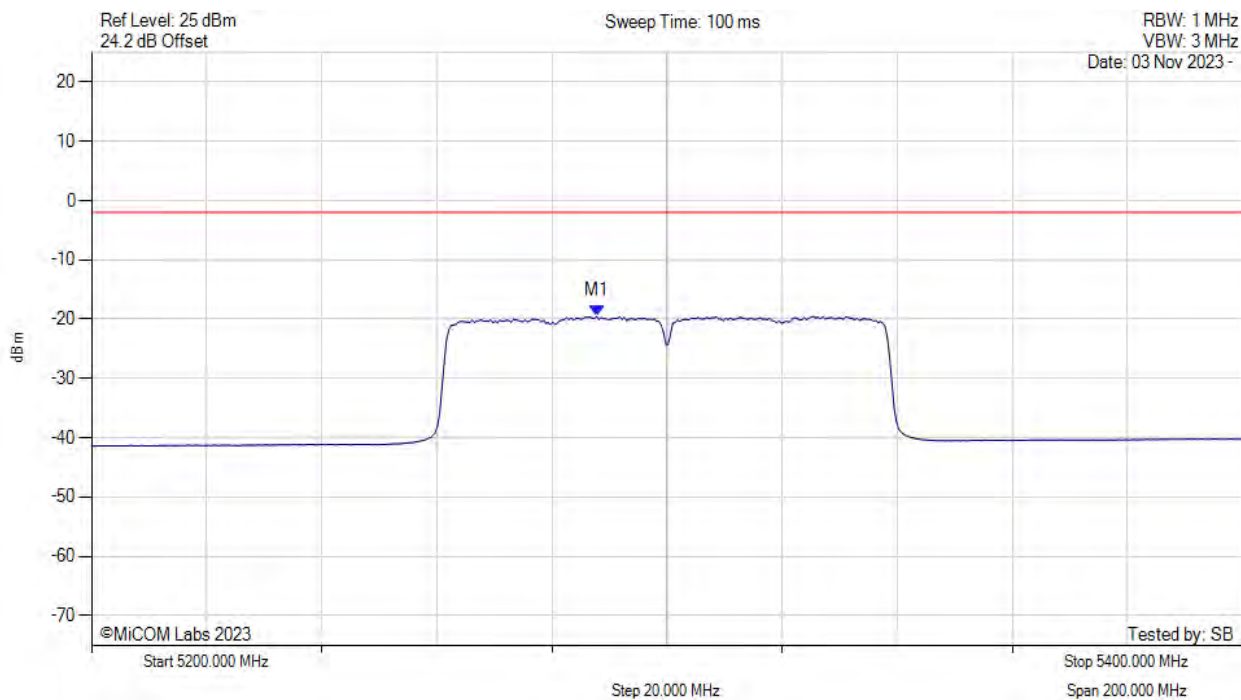
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5287.776 MHz : -22.935 dBm	Limit: ≤ -6.770 dBm

[back to matrix](#)

POWER SPECTRAL DENSITY



Variant: 80MHz, Channel: 5300.00 MHz, SUM, Temp: 20, Voltage: 55 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5287.800 MHz : -19.531 dBm M1 + DCCF : 5287.800 MHz : -19.487 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ -2.0 dBm Margin: -17.5 dB

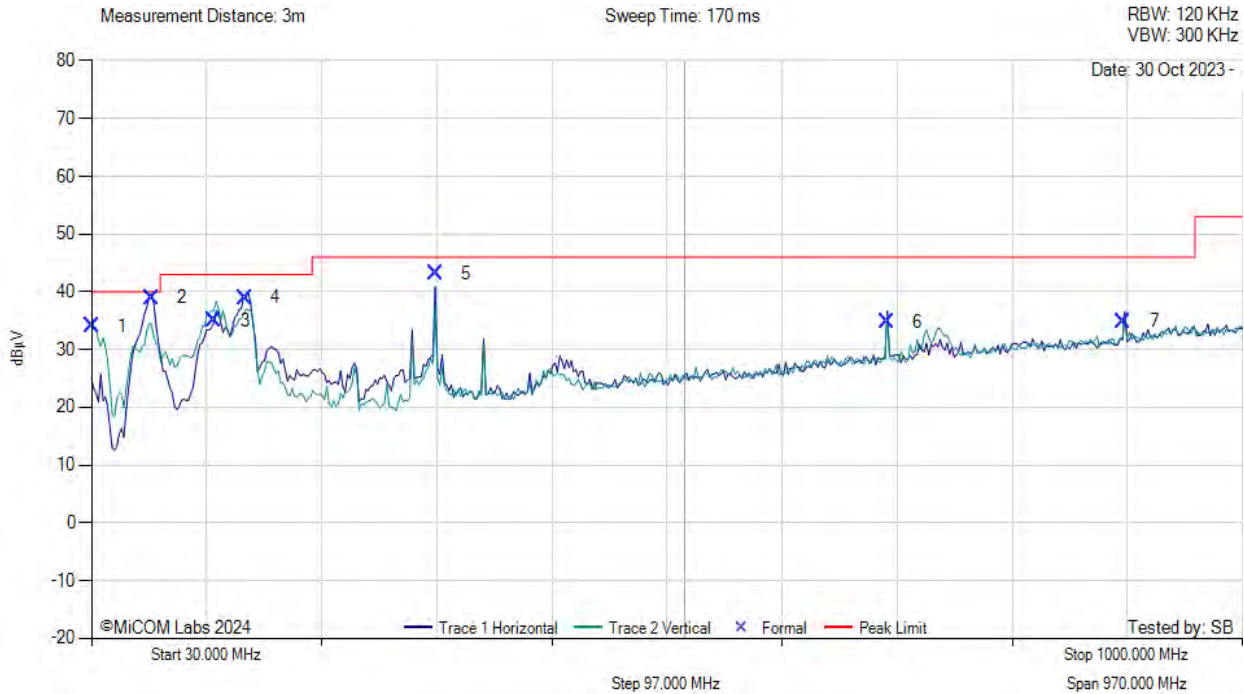
[back to matrix](#)

A.3. Digital Emissions



DIGITAL EMISSIONS

Variant: 20 MHz, Test Freq: 5300.00 MHz, Antenna: RADWIN AT0058760, Power Setting: 25, Duty Cycle (%): 86



30.00 - 1000.00 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	30.52	38.78	3.54	-8.20	34.12	MaxQP	Vertical	111	328	40.0	-5.9	Pass
2	80.93	55.95	3.94	-20.89	39.00	MaxQP	Horizontal	380	262	40.0	-1.0	Pass
3	133.75	45.61	4.23	-14.82	35.02	MaxQP	Vertical	102	355	43.0	-8.0	Pass
4	159.44	50.54	4.36	-15.90	39.00	MaxQP	Horizontal	175	131	43.0	-4.0	Pass
5	320.00	51.98	4.99	-13.78	43.19	MaxQP	Horizontal	101	295	46.0	-2.8	Pass
6	700.01	35.74	6.20	-7.22	34.72	MaxQP	Horizontal	111	174	46.0	-11.3	Pass
7	899.97	33.09	6.76	-4.92	34.93	MaxQP	Horizontal	102	139	46.0	-11.1	Pass

Test Notes: EUT Powered by POE.

[back to matrix](#)



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