



## REGULATORY COMPLIANCE TEST REPORT

FCC CFR 47 Part 96 (CBRS Band)

Report No.: XCOL01-U4 Rev A (Part 1)

**Company:** XCOM Labs

**Model Name:** XCOM 632 5G RRU



## REGULATORY COMPLIANCE TEST REPORT

**Company Name:** XCOM Labs

**Model Name:** XCOM 632 5G RRU

**To:** FCC CFR 47 Part 96 (CBRS Band)

**Test Report Serial No.:** XCOL01-U4 Rev A (Part 1)

This report supersedes: NONE

Applicant: XCOM Labs  
9450 Carroll Park Dr  
San Diego, California 92121  
USA

Issue Date: 19<sup>th</sup> January 2023

**This Test Report is Issued Under the Authority of:**

**MiCOM Labs, Inc.**  
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MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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## **1. ACCREDITATION, LISTINGS & RECOGNITION**

### **1.1. TESTING ACCREDITATION**

MiCOM Labs, Inc. is an accredited Electrical testing laboratory per the international standard ISO/IEC 17025:2017. The company is accredited by the American Association for Laboratory Accreditation (A2LA) [www.a2la.org](http://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>



## 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](http://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 14<sup>th</sup> day of January 2022



Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 2381.02  
Valid to November 30, 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	6 <sup>th</sup> December 2022	Draft report for client review.
Draft #2	7 <sup>th</sup> December 2022	Amended draft report for comment
Draft #3	9 <sup>th</sup> January 2023	Added Frequency Stability section, updated OBW with all ports measured.
Rev A	19 <sup>th</sup> January 2023	Initial Release

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

### **3. TEST RESULT CERTIFICATE**

**Manufacturer:** XCOM Labs  
9450 Carroll Park Dr  
San Diego California 92121  
USA

**Tested By:** MiCOM Labs, Inc.  
575 Boulder Court  
Pleasanton California 94566  
USA

**Model:** XCOM 632 5G RRU

**Telephone:** +1 925 462 0304

**Equipment Type:** Indoor Remote Radio Unit

**Fax:** +1 925 462 0306

**S/N's:** 1211000042219GB0009

**Test Date(s):** 16<sup>th</sup> – 30<sup>th</sup> November 2022

**Website:** [www.micomlabs.com](http://www.micomlabs.com)

#### **STANDARD(S)**

**FCC CFR 47 Part 96**

#### **TEST RESULTS**

**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:**

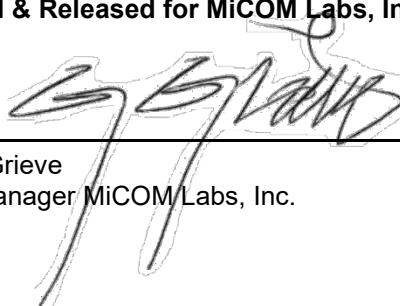
1. This document reports conditions under which testing was conducted and the results of testing performed.
2. Details of test methods used have been recorded and kept on file by the laboratory.
3. Test results apply only to the item(s) tested.

**Approved & Released for MiCOM Labs, Inc. by:**



TESTING CERT #2381.01

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	FCC 47 CFR Part 96	2022	Citizens Broadband Radio Service
II	KDB 662911 D01	2013	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
III	KDB 971168 D01 v03r01	2018	Power Measurement License Digital Systems
IV	KDB 940660 D01 v03	2020	Part 96 CBRS Equipment v01
V	ANSI C63.26	2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
VI	ANSI/TIA-603-E-2016	2016	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards
VII	M 3003	Edition 3 Nov. 2012	Expression of Uncertainty and Confidence in Measurements
VIII	LAB34	Edition 1 August 2002	The expression of uncertainty in EMC Testing
IX	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
X	A2LA	October 2020	Reference to A2LA Accreditation Status – A2LA Advertising Policy

#### **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

### 5.1. Technical Details

Details	Description
Purpose:	Test of the XCOM Labs XCOM 632 5G RRU to FCC CFR 47 Part 96: Citizens Broadband Radio Service (CBRS)
Applicant:	XCOM Labs 9450 Carroll Park Dr San Diego California 92121 USA
Manufacturer:	Same as Applicant
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	XCOL01-U4
Date EUT received:	16 <sup>th</sup> November 2022
Application Type:	Certification
FCC Classification:	Citizen Band Category A Devices (CBD)
Standard(s) applied:	FCC CFR 47 Part 96
Dates of test (from - to):	16 <sup>th</sup> - 30 <sup>th</sup> November 2022
No of Units Tested:	1
Product Family Name:	3.5 GHz XCOM RRU
Marketing Name:	XCOM 5G CBSD 3.55-3.7GHz (n48), 10MHz 20MHz 40MHz 100MHz
Model(s):	XCOM 632 5G RRU
FCC ID:	2A9ZNXCOM5GRRU
Location for use:	Indoors
Declared Frequency Range(s):	3550 - 3700 MHz;
Type of Modulation:	QPSK, 16QAM, 128QAM, 256QAM
EUT Modes of Operation:	10 MHz; 20 MHz; 40 MHz; 100 MHz;
Declared Nominal Output Power (dBm):	30 dBm EIRP
Equipment Category:	Category A CBSD
Transmit/Receive Operation:	Transceiver
Rated Input Voltage and Current:	48 Vdc, 6.25A
Operating Temperature Range:	0 – +40 °C
Equipment Dimensions:	9 inches (H), 9 inches (W), 2.5 inches (D)
Weight:	4.9 pounds
Hardware Rev:	R1,0
Firmware Rev:	R1,0
Software Rev:	R1,0

## 5.2. Scope Of Test Program

### XCOM Labs XCOM 632 5G RRU

The scope of the test program was to test the XCOM Labs XCOM 632 5G RRU, configurations in the frequency ranges 3550 - 3700 MHz, for compliance against the following specification:

### FCC CFR 47 Part 96

Citizens Broadband Radio Service

## 5.3. Equipment Model(s) and Serial Number(s)

Type (EUT/Support)	Equipment Description	Manufacturer	Model No.	Serial No.
EUT	Small Cell Radio Unit	XCOM Labs	632 5G RRU	1211000042219GB0009
Support	Development Board	XCOM Labs	--	--

## 5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain* (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
External	Linx	Ant-LTE-MON-SMA	Dipole	6.0	-	360	-	3600 – 3800
Integral	XCOM	ANT 1	OMNI	4.0	-	360	-	3400 – 3800
BF Gain - Beamforming Gain								
Dir BW - Directional BeamWidth								
X-Pol - Cross Polarization								

\*NOTE: Per applicant power settings will not be changed to accommodate different antenna configurations, so the highest antenna gain was used for EIRP calculations to present the worst case.

## 5.5. Cabling and I/O Ports

Port Type	Max Cable Length	# of Ports	Screened	Conn Type	Data Type	Bit Rate	Environment
USB	<3m	1	No	Mini-HDMI	Digital	5	Admin
dc Jack	>30m	1	No	DC	Analog	--	Power
SFP	>30m	2	No	SFP+	Digital	10,100,1000	End-User

## **5.6. Test Configurations**

Results for the following configurations are provided in this report:

<b>Operational Mode(s)</b>	<b>Channel Frequency (MHz)</b>		
	<b>Low</b>	<b>Mid</b>	<b>High</b>
	3550 - 3700 MHz		
10 MHz	3,555.00	3,625.00	3,695.00
20 MHz	3,560.00	3,625.00	3,690.00
40 MHz	3,570.00	3,625.00	3,680.00
100 MHz	3,600.00	--	3,650.00

## **5.7. Equipment Modifications**

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

1. NONE

## **5.8. 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**

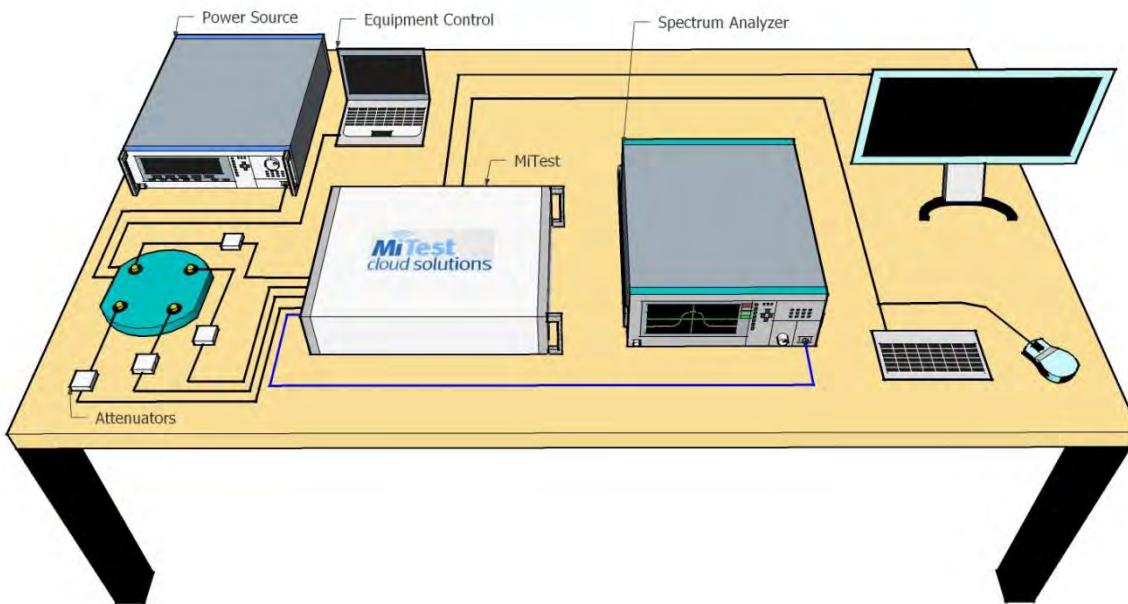
### List of Measurements

<b>Test Header</b>	<b>Result</b>	<b>Data Link</b>
26 dB & 99% Bandwidth	Complies	<a href="#">View Data</a>
Frequency Stability	Complies	<a href="#">View Data</a>
Peak Transmit Power	Complies	<a href="#">View Data</a>
Power Spectral Density	Complies	<a href="#">View Data</a>
Peak to Average Power Ratio	Complies	<a href="#">View Data</a>
Conducted Spurious Emissions	Complies	<a href="#">View Data</a>
Channel Mask Emissions	Complies	See Part 2 Test Report
Radiated Spurious Emissions	Complies	<a href="#">View Data</a>

## 7. TEST EQUIPMENT CONFIGURATION(S)

### 7.1. RF Conducted Testing

MiTest Automated Test System



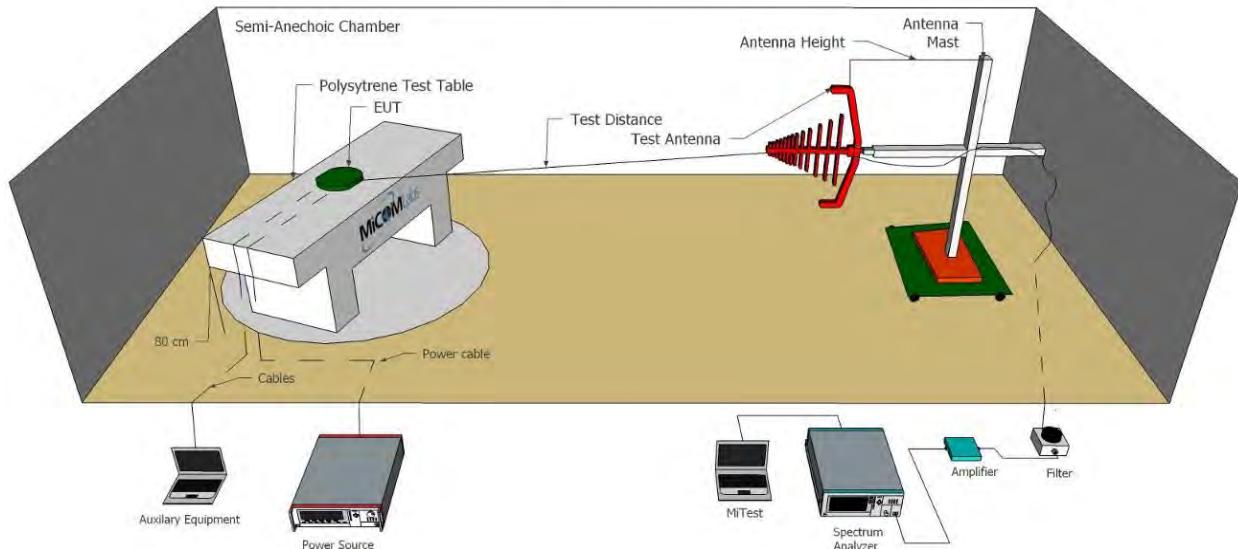
A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date	Purchase Year
248	Resistance Thermometer	Thermotronics	GR2105-02	9340 #1	30 Oct 2023	--
398	MiTest RF Conducted Test Software	MiCOM	MiTest ATS	Version 4.2.3.0	Not Required	--
420	USB to GPIB Interface	National Instruments	GPIB-USB HS	1346738	Not Required	--
440	USB Wideband Power Sensor	Boonton	55006	9178	8 Oct 2023	2014
461	Spectrum Analyzer	Agilent	E4440A	MY46185537	27 Sep 2023	2015
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2024	2017
515	MiTest Cloud Solutions RF Test Box	MiCOM	2nd Gen with DFS	515	29 Jun 2023	--
516	USB Wideband Power Sensor	Boonton	RTP5006	10511	12 Oct 2023	2018
517	USB Wideband Power Sensor	Boonton	RTP5006	10510	8 Oct 2023	2018
RF#2 SMA#1	EUT to Mitest box port 1	Flexco	SMA Cable port1	None	29 Jun 2023	--
RF#2 SMA#2	EUT to Mitest box port 2	Flexco	SMA Cable port2	None	29 Jun 2023	--
RF#2 SMA#3	EUT to Mitest box port 3	Flexco	SMA Cable port3	None	29 Jun 2023	--
RF#2 SMA#4	EUT to Mitest box port 4	Flexco	SMA Cable port4	None	29 Jun 2023	--
RF#2 SMA#SA	Mitest box to SA	Flexco	SMA Cable SA	None	29 Jun 2023	--

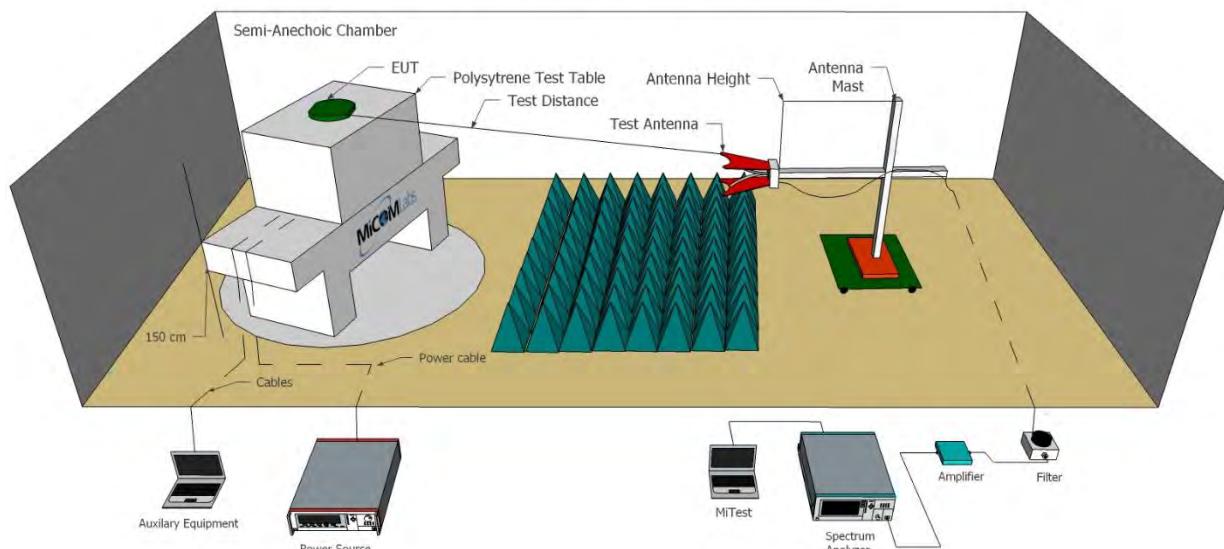
## 7.2. Radiated Emissions - 3m Chamber

### Test Setup for Radiated Emissions for above and below 1 GHz

Radiated Emissions Below 1GHz Test Setup



Radiated Emissions Above 1GHz Test Setup



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.

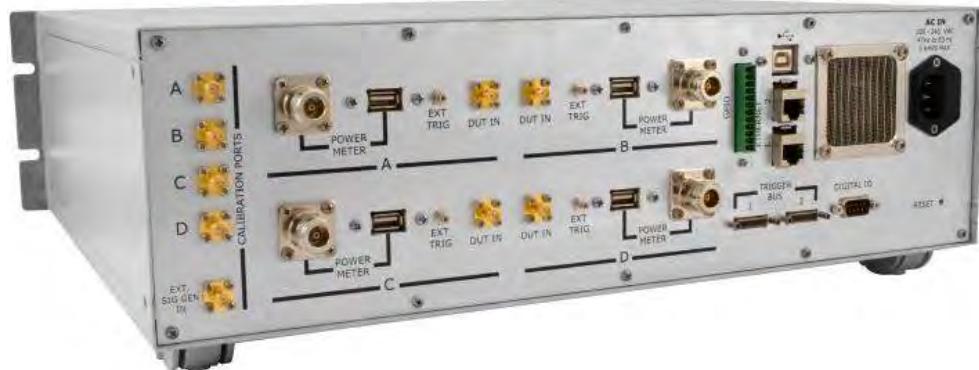
Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CU101	04R08507	Not Required
298	3M Radiated Emissions Chamber Maintenance Check	MiCOM	3M Chamber	298	24 Jan 2023
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	29 Sep 2023
397	Amp 10 - 2500MHz	MiCOM Labs	Amp 10 - 2500 MHz	NA	27 Oct 2023
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	30 Sep 2023
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	2 Nov 2023
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
415	Turntable Controller	Sunol Sciences	Turntable Controller	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	27 Oct 2023
463	Schwarzbeck cable from Amplifier to Bulkhead.	Schwarzbeck	AK 9513	463	27 Oct 2023
464	Schwarzbeck cable from Bulkhead to Receiver	Schwarzbeck	AK 9513	464	27 Oct 2023
465	Low Pass Filter DC-1000 MHz	Mini-Circuits	NLP-1200+	VUU01901402	6 Oct 2023
480	Cable - Bulkhead to Amp	SRC Haverhill	157-3050360	480	6 Oct 2023
481	Cable - Bulkhead to Receiver	SRC Haverhill	151-3050787	481	6 Oct 2023
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2024
554	Precision SMA Cable	Fairview Microwave	SCE18060101-400CM	554	6 Oct 2023
555	Rhode & Schwarz Receiver (Firmware Version: 2.00 SP1)	Rhode & Schwarz	ESW 44	101893	28 Jun 2023
564	LTE Filter 3400-3600 MHz	Warison	WFIL-N3400-3600F-01	564	28 Apr 2023
565	LTE Filter 3600-3800 MHz	Warison	WFIL-N3600-3800F-01	565	26 Apr 2023
CC05	Confidence Check	MiCOM	CC05	None	27 Feb 2023

## 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. 26 dB & 99% Bandwidth

Conducted Test Conditions for 26 dB and 99% Bandwidth			
<b>Standard:</b>	FCC CFR 47 Part 96	<b>Ambient Temp. (°C):</b>	24.0 - 27.5
<b>Test Heading:</b>	26 dB and 99 % Bandwidth	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	96.41 (e)(3)	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		
<b>Test Procedure for 26 dB and 99% Bandwidth Measurement</b> The bandwidth at 26 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to approximately 1% of the emission bandwidth. Testing was performed under ambient conditions at nominal voltage.  Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.			

**Equipment Configuration for 26 dB & 99% Bandwidth**

<b>Variant:</b>	10MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured 26 dB Bandwidth (MHz)</b>				<b>26 dB Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>Highest</b>	<b>Lowest</b>
3555.0	10.730	10.270	10.270	10.230	10.730	10.230
3625.0	10.370	10.230	10.230	10.230	10.370	10.230
3695.0	10.400	10.270	10.230	10.230	10.400	10.230

<b>Test Frequency</b>	<b>Measured 99% Bandwidth (MHz)</b>				<b>Maximum 99% Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>		
3555.0	8.623	8.623	8.622	8.618	8.623	
3625.0	8.624	8.625	8.623	8.621	8.625	
3695.0	8.627	8.625	8.623	8.622	8.627	

**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% Bandwidth**

<b>Variant:</b>	20MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured 26 dB Bandwidth (MHz)</b>				<b>26 dB Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>Highest</b>	<b>Lowest</b>
<b>3560.0</b>	<a href="#">19.870</a>	<a href="#">19.870</a>	<a href="#">19.870</a>	<a href="#">19.800</a>	19.870	19.800
<b>3620.0</b>	<a href="#">19.800</a>	<a href="#">19.870</a>	<a href="#">19.870</a>	<a href="#">19.870</a>	19.870	19.800
<b>3690.0</b>	<a href="#">19.870</a>	<a href="#">19.870</a>	<a href="#">19.870</a>	<a href="#">19.870</a>	19.870	19.870

<b>Test Frequency</b>	<b>Measured 99% Bandwidth (MHz)</b>				<b>Maximum 99% Bandwidth (MHz)</b>		
	<b>Port(s)</b>						
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>			
<b>3560.0</b>	<a href="#">18.219</a>	<a href="#">18.221</a>	<a href="#">18.225</a>	<a href="#">18.225</a>	18.225		
<b>3620.0</b>	<a href="#">18.227</a>	<a href="#">18.226</a>	<a href="#">18.228</a>	<a href="#">18.223</a>	18.228		
<b>3690.0</b>	<a href="#">18.218</a>	<a href="#">18.221</a>	<a href="#">18.223</a>	<a href="#">18.218</a>	18.223		

**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% Bandwidth**

<b>Variant:</b>	40MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured 26 dB Bandwidth (MHz)</b>				<b>26 dB Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>Highest</b>	<b>Lowest</b>
<b>3570.0</b>	<a href="#">40.000</a>	<a href="#">40.000</a>	<a href="#">40.000</a>	<a href="#">40.000</a>	40.000	40.000
<b>3630.0</b>	<a href="#">39.870</a>	<a href="#">40.000</a>	<a href="#">40.000</a>	<a href="#">39.870</a>	40.000	39.870
<b>3680.0</b>	<a href="#">40.000</a>	<a href="#">40.000</a>	<a href="#">40.000</a>	<a href="#">40.000</a>	40.000	40.000

<b>Test Frequency</b>	<b>Measured 99% Bandwidth (MHz)</b>				<b>Maximum 99% Bandwidth (MHz)</b>		
	<b>Port(s)</b>						
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>			
<b>3570.0</b>	<a href="#">37.891</a>	<a href="#">37.887</a>	<a href="#">37.894</a>	<a href="#">37.911</a>		37.911	
<b>3630.0</b>	<a href="#">37.882</a>	<a href="#">37.897</a>	<a href="#">37.895</a>	<a href="#">37.880</a>		37.897	
<b>3680.0</b>	<a href="#">37.924</a>	<a href="#">37.909</a>	<a href="#">37.910</a>	<a href="#">37.912</a>		37.924	

**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% Bandwidth**

<b>Variant:</b>	100MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured 26 dB Bandwidth (MHz)</b>				<b>26 dB Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>Highest</b>	<b>Lowest</b>
<b>3600.0</b>	<a href="#">98.700</a>	<a href="#">98.700</a>	<a href="#">99.000</a>	<a href="#">99.000</a>	99.000	98.700
<b>3650.0</b>	<a href="#">98.700</a>	<a href="#">98.700</a>	<a href="#">99.000</a>	<a href="#">99.000</a>	99.000	98.700

<b>Test Frequency</b>	<b>Measured 99% Bandwidth (MHz)</b>				<b>Maximum 99% Bandwidth (MHz)</b>	
	<b>Port(s)</b>					
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>		
<b>3600.0</b>	<a href="#">97.287</a>	<a href="#">97.373</a>	<a href="#">97.367</a>	<a href="#">97.300</a>	97.373	
<b>3650.0</b>	<a href="#">97.253</a>	<a href="#">97.233</a>	<a href="#">97.252</a>	<a href="#">97.316</a>	97.316	

**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).

## 9.2. Frequency Stability

Conducted Test Conditions for Frequency Stability			
<b>Rules and Sections:</b>	FCC CFR 47: 96.41	<b>Ambient Temp. (°C):</b>	24.0 - 27.5
<b>Test Heading:</b>	Frequency Stability	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	ANSI C63.26-2015:5.6.3	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

### Test Procedure for Frequency Stability Measurement

Frequency Stability was measured with a spectrum analyzer connected to the antenna terminal, while the EUT is operating in transmission mode at the appropriate frequency.

#### 5.6.3 Procedure for frequency stability testing

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is tested:

- a) At 10 °C intervals of temperatures between 0 °C and +40 °C at the manufacturer's rated supply voltage, and
- b) At +20 °C temperature and ±15% supply voltage variations. If a product is specified to operate over a range of input voltage then the -15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage.

During the test all necessary settings, adjustments and control of the EUT have to be performed without disturbing the test environment, i.e., without opening the environmental chamber. The frequency stabilities can be maintained to a lesser temperature range provided that the transmitter is automatically inhibited from operating outside the lesser temperature range. For handheld equipment that is only capable of operating from internal batteries and the supply voltage cannot be varied, the frequency stability tests shall be performed at the nominal battery voltage and the battery end point voltage specified by the manufacturer. An external supply voltage can be used and set at the internal battery nominal voltage, and again at the battery operating end point voltage which shall be specified by the equipment manufacturer. If an unmodulated carrier is not available, the mean frequency of a modulated carrier can be obtained by using a frequency counter with gating time set to an appropriately large multiple of bit periods (gating time depending on the required accuracy). Full details on the choice of values shall be included in the test report.

### Limits for Frequency Stability

Within Authorized Band.

The Citizens Broadband Radio Service equipment is authorized in the 3550-3700 MHz frequency band.

**Equipment Configuration for Frequency Stability**

<b>Variant:</b>	10 MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Temp</b>	<b>Voltage Vdc</b>	<b>Center Frequency</b>	<b>Frequency Tolerance</b>	<b>PPM</b>	<b>Pass / Fail</b>
		<b>MHz</b>	<b>kHz</b>		
40 °C	<b>48</b>	3625	-20.141	5.556	Pass
30 °C	<b>48</b>	3625	-19.521	5.385	Pass
20 °C	<b>59.2</b>	3625	-16.237	4.479	Pass
20 °C	<b>48</b>	3625	-19.690	5.432	Pass
20 °C	<b>36.8</b>	3625	-17.629	4.863	Pass
10 °C	<b>48</b>	3625	-14.346	3.958	Pass
0 °C	<b>48</b>	3625	-18.732	5.167	Pass

**Traceability to Industry Recognized Test Methodologies**

Work Instruction:	WI-02 MEASURING FREQUENCY
Measurement Uncertainty:	(@2.4GHz) = ± 0.76ppm (1.8kHz) (@40GHz) = ± 0.87ppm (40KHz)

### 9.3. Peak Transmit Power

Conducted Test Conditions for Fundamental Emission Output Power			
<b>Standard:</b>	FCC CFR 47: 96.41 (b)	<b>Ambient Temp. (°C):</b>	24.0 - 27.5
<b>Test Heading:</b>	RF power output	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	ANSI C63.26:2015:5.2.4.4.2	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

**5.2.4.4.2 Alternative procedure for measuring average power of a broadband signal with a constant duty cycle using a spectrum/signal analyzer or EMI receiver**

When the fundamental condition for average power measurements cannot be realized (i.e., the EUT cannot be configured to transmit at full-power on a continuous basis (i.e., duty cycle < 98%) and the instrumentation cannot be configured to measure only during active full-power transmissions), then the following procedure can be used if the EUT duty cycle is constant (i.e., duty cycle variations are less than or equal to  $\pm 2\%$ ). See 5.2.4.3.4 for guidance on measurement of duty cycle.

- a) Set span to 2 to 3  $\times$  the OBW.
- b) Set RBW = 1% to 5% of the OBW.
- c) Set VBW  $\geq$  3  $\times$  RBW.
- d) Set number of measurement points in sweep  $\geq 2 \times$  span / RBW.
- e) Sweep time:
  - 1) Set = auto-couple, or
  - 2) Set  $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$  for single sweep (automation-compatible) measurement.
- f) Detector = power averaging (rms).
- g) Set sweep trigger to "free run."
- h) Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function with band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- j) Add  $10 \log (1/\text{duty cycle})$  to the measured power level to compute the average power during continuous transmission. For example, add  $[10 \log (1/0.25)] = 6$  dB if the duty cycle is a constant 25%.

**Limits for Maximum EIRP dBm/10 MHz**

End User Device Shall not exceed 23 dBm/10 MHz

Category A CBSD Shall not exceed 30 dBm/10 MHz

Category B CBSD Shall not exceed 47 dBm/10 MHz

For step i) above the power was integrated over 10 MHz regardless of channel bandwidth due of the parameters of the specified limit.

**EUT is declared to be a Category A CBSD.**

**Equipment Configuration for Average Output Power**

<b>Variant:</b>	10 MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Measured Output Power (dBm/10MHz)				Calculated Total Power Σ Port(s)	EIRP*	EIRP Limit	Margin	EUT Power Setting
	Port(s)	a	b	c	d				
MHz									
3555.0	16.64	16.35	15.14	16.53	22.23	28.23	30.00	-1.77	8k,10k,10k,10k
3625.0	17.26	16.99	15.58	16.85	22.74	28.74	30.00	-1.26	8k,10k,10k,10k
3695.0	16.65	15.80	14.90	15.55	21.79	27.79	30.00	-2.21	8k,10k,10k,10k

**Traceability to Industry Recognized Test Methodologies**

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

\*EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)



**Title:** XCOM Labs: XCOM 632 5G RRU  
**To:** FCC CFR 47 Part 96 (CBRS Band)  
**Serial #:** XCOL01-U4 Rev A (Part 1)

#### Equipment Configuration for Average Output Power

<b>Variant:</b>	20MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

#### Test Measurement Results

Test Frequency	Measured Output Power (dBm/10MHz)				Calculated Total Power Σ Port(s)	EIRP*	Limit	Margin	EUT Power Setting
	Port(s)	a	b	c	d				
MHz						dBm/10MHz	dBm/10MHz	dB	
3560.0	10.65	10.05	10.13	10.34	16.32	22.32	30.00	-7.68	17k,19k,18k,19k
3620.0	13.10	13.72	13.24	13.59	19.44	25.44	30.00	-4.56	15k,16k,15k,16k
3690.0	10.55	10.56	10.74	10.29	16.56	22.56	30.00	-7.44	17k,18k,17k,18k

#### Traceability to Industry Recognized Test Methodologies

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

**Equipment Configuration for Average Output Power**

<b>Variant:</b>	40 MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Measured Output Power (dBm/10MHz)				Calculated Total Power Σ Port(s)	EIRP*	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	dBm/10MHz	dBm/10MHz	dBm/10MHz	dB	
3570.0	2.08	1.37	1.46	1.48	7.63	13.63	30.00	-16.37	15k,17k,16k,17k
3630.0	10.22	10.06	9.58	10.67	16.17	22.17	30.00	-7.83	7k,9k,8k,8k
3680.0	2.95	3.06	4.37	2.87	9.38	15.38	30.00	-14.62	14k,15k,13k,15k

**Traceability to Industry Recognized Test Methodologies**

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

**Equipment Configuration for Average Output Power**

<b>Variant:</b>	100MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Measured Output Power (dBm/10MHz)				Calculated Total Power Σ Port(s)	EIRP*	Limit	Margin	EUT Power Setting
	Port(s)								
MHz	a	b	c	d	dBm/10MHz	dBm/10MHz	dBm/10MHz	dB	
3600.0	-1.54	-3.03	-2.12	-3.15	3.61	9.61	30.00	-20.39	22k,25k,23k,25k
3650.0	-0.43	-0.70	-0.04	-1.00	5.49	11.49	30.00	-18.51	21k,23k,21k,22k

**Traceability to Industry Recognized Test Methodologies**

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

## 9.4. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
<b>Standard:</b>	FCC CFR 47:96.41 (b)	<b>Ambient Temp. (°C):</b>	24.0 - 27.5
<b>Test Heading:</b>	Power Spectral Density	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	ANSI C63.26:2015:5.2.4..4.2	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

### 5.2.4.4.2 Alternative procedure for measuring average power of a broadband signal with a constant duty cycle using a spectrum/signal analyzer or EMI receiver

When the fundamental condition for average power measurements cannot be realized (i.e., the EUT cannot be configured to transmit at full-power on a continuous basis (i.e., duty cycle < 98%) and the instrumentation cannot be configured to measure only during active full-power transmissions), then the following procedure can be used if the EUT duty cycle is constant (i.e., duty cycle variations are less than or equal to  $\pm 2\%$ ). See 5.2.4.3.4 for guidance on measurement of duty cycle.

- a) Set span to 2 to  $3 \times$  the OBW.
- b) Set RBW = 1% to 5% of the OBW.
- c) Set VBW  $\geq 3 \times$  RBW.
- d) Set number of measurement points in sweep  $\geq 2 \times$  span / RBW.
- e) Sweep time:
  - 1) Set = auto-couple, or
  - 2) Set  $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$  for single sweep (automation-compatible) measurement.
- f) Detector = power averaging (rms).
- g) Set sweep trigger to "free run."
- h) Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time. i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function with band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- j) Add  $10 \log (1/\text{duty cycle})$  to the measured power level to compute the average power during continuous transmission. For example, add  $[10 \log (1/0.25)] = 6 \text{ dB}$  if the duty cycle is a constant 25%.

#### Limits for Maximum Conducted Output Power

End User Device Shall not exceed N/A dBm/MHz  
 Category A CBSD Shall not exceed 20 dBm/MHz  
 Category B CBSD Shall not exceed 37 dBm/MHz

**EUT is declared to be a Category A CBSD**

Equipment Configuration for Power Spectral Density - Average

<b>Variant:</b>	10MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

Test Measurement Results

Test Frequency	Measured Power Spectral Density				Calculated Total Power Σ Port(s)	EIRP*	EIRP Limit	Margin
	Port(s) (dBm/MHz)							
MHz	a	b	c	d	dBm/MHz	dBm/MHz	dBm/MHz	dB
3555.0	<a href="#">7.662</a>	<a href="#">7.443</a>	<a href="#">6.150</a>	<a href="#">7.610</a>	<a href="#">13.250</a>	19.28	20.00	-0.72
3625.0	<a href="#">8.166</a>	<a href="#">7.977</a>	<a href="#">6.622</a>	<a href="#">7.906</a>	<a href="#">13.659</a>	19.73	20.00	-0.27
3695.0	<a href="#">7.709</a>	<a href="#">6.864</a>	<a href="#">6.033</a>	<a href="#">6.540</a>	<a href="#">12.779</a>	18.85	20.00	-1.15

Traceability to Industry Recognized Test Methodologies

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

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

**Equipment Configuration for Power Spectral Density - Average**

<b>Variant:</b>	20MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured Power Spectral Density</b>				<b>Calculated Total Power Σ Port(s)</b>	<b>EIRP*</b>	<b>Limit</b>	<b>Margin</b>
	<b>Port(s) (dBm/MHz)</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>			
<b>MHz</b>					<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dB</b>
<b>3560.0</b>	<u>1.150</u>	<u>0.760</u>	<u>0.617</u>	<u>0.944</u>	<u>6.846</u>	12.89	20.00	-7.11
<b>3620.0</b>	<u>3.636</u>	<u>4.177</u>	<u>3.979</u>	<u>4.129</u>	<u>10.002</u>	16.01	20.00	-3.99
<b>3690.0</b>	<u>1.036</u>	<u>1.076</u>	<u>1.307</u>	<u>0.746</u>	<u>7.021</u>	13.07	20.00	-6.93

**Traceability to Industry Recognized Test Methodologies**

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

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

**Equipment Configuration for Power Spectral Density - Average**

<b>Variant:</b>	40 MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured Power Spectral Density</b>				<b>Calculated Total Power Σ Port(s)</b>	<b>EIRP*</b>	<b>Limit</b>	<b>Margin</b>
	<b>Port(s) (dBm/MHz)</b>							
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dB</b>
3570.0	-7.447	-7.961	-7.981	-7.598	-1.842	4.28	20.00	-15.72
3630.0	1.047	0.863	0.886	1.319	7.025	13.05	20.00	-6.95
3680.0	-6.618	-6.443	-5.223	-6.542	-0.175	5.85	20.00	-14.15

**Traceability to Industry Recognized Test Methodologies**

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

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

**Equipment Configuration for Power Spectral Density - Average**

<b>Variant:</b>	100MHz	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	6.00
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>Test Frequency</b>	<b>Measured Power Spectral Density</b>				<b>Calculated Total Power Σ Port(s)</b>	<b>EIRP*</b>	<b>Limit</b>	<b>Margin</b>
	<b>Port(s) (dBm/MHz)</b>							
<b>MHz</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dBm/MHz</b>	<b>dB</b>
3600.0	-10.499	-11.573	-10.195	-11.503	-5.091	1.12	20.00	-18.88
3650.0	-9.583	-10.202	-9.100	-10.449	-3.957	2.22	20.00	-17.78

**Traceability to Industry Recognized Test Methodologies**

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

\* EIRP = A + Antenna Gain + Beamforming Gain + Duty Cycle Correction Factor (0.00)

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

## 9.5. Peak to Average Power Ratio

Conducted Test Conditions for Peak to Average Power Ratio						
<b>Rules and Sections:</b>	FCC CFR 47: 96.41 (g)	<b>Ambient Temp. (°C):</b>	24.0 - 27.5			
<b>Test Heading:</b>	Transmitter Output Power	<b>Rel. Humidity (%):</b>	32 - 45			
<b>Standard Section(s):</b>	ANSI C63.26 Section 5.2.6 KDB 940660 D01 v03	<b>Pressure (mBars):</b>	999 - 1001			
<b>Reference Document(s):</b>	See Normative References					
<b>Test Procedure for Peak to Average Power Ratio</b> Test configuration and setup used for the measurement was per the Conducted Test Set-up specified in this document. The CCDF function of the Boonton Power Meter (195 MHz RBW) was used to directly measure the PAPR for each transmission chain, and the dBr value at 0.1% recorded.						
<b>Limits for Peak to Average Power Ratio</b> The peak-to-average power ratio of any CBSD transmitter output power must not exceed 13 dB.						

**Equipment Configuration for Peak to Average Power Ratio**

<b>Variant:</b>	10 MHz Bandwidth	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	-	<b>Antenna Gain (dBi):</b>	6.0
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Limit	Peak-to-Average Power Ratio at 0.1%								
		Port(s)								
MHz	dBr	a	Margin	b	Margin	c	Margin	d	Margin	
3555.0	13.0	8.81	-4.19	8.68	-4.32	8.14	-4.86	8.07	-4.93	
3525.0	13.0	8.84	-4.16	8.71	-4.29	8.15	-4.85	8.08	-4.92	
3695.0	13.0	8.92	-4.08	8.78	-4.22	8.22	-4.78	8.14	-4.86	

**Traceability to Industry Recognized Test Methodologies**

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

**Equipment Configuration for Peak to Average Power Ratio**

<b>Variant:</b>	20 MHz Bandwidth	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	-	<b>Antenna Gain (dBi):</b>	6.0
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Limit	Peak-to-Average Power Ratio at 0.1%								
		Port(s)								
MHz	dBr	a	Margin	b	Margin	c	Margin	d	Margin	
3560.0	13.0	8.18	-4.82	8.16	-4.84	8.15	-4.85	8.17	-4.83	
3620.0	13.0	8.30	-4.70	8.20	-4.80	8.20	-4.80	8.15	-4.85	
3690.0	13.0	8.24	-4.76	8.21	-4.79	8.19	-4.81	8.16	-4.84	

**Traceability to Industry Recognized Test Methodologies**

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

**Equipment Configuration for Peak to Average Power Ratio**

<b>Variant:</b>	40 MHz Bandwidth	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	-	<b>Antenna Gain (dBi):</b>	6.0
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Limit	Peak-to-Average Power Ratio at 0.1%								
		Port(s)								
MHz	dBr	a	Margin	b	Margin	c	Margin	d	Margin	
3570.0	13.0	8.18	-4.82	8.07	-4.93	8.06	-4.94	8.02	-4.98	
3630.0	13.0	8.42	-4.58	8.35	-4.65	8.33	-4.67	8.29	-4.71	
3680.0	13.0	8.29	-4.71	8.22	-4.78	8.21	-4.79	8.23	-4.77	

**Traceability to Industry Recognized Test Methodologies**

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

**Equipment Configuration for Peak to Average Power Ratio**

<b>Variant:</b>	100 MHz Bandwidth	<b>Duty Cycle (%):</b>	100.0
<b>Data Rate:</b>	-	<b>Antenna Gain (dBi):</b>	6.0
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y)(dB):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

Test Frequency	Limit	Peak-to-Average Power Ratio at 0.1%								
		Port(s)								
MHz	dBr	a	Margin	b	Margin	c	Margin	d	Margin	
3600.0	13.0	8.43	-4.57	8.24	-4.76	8.29	-4.71	8.26	-4.74	
3650.0	13.0	8.53	-4.47	8.38	-4.62	8.42	-4.58	8.46	-4.54	

**Traceability to Industry Recognized Test Methodologies**

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

## 9.6. Conducted Spurious Emissions and Channel Mask

### 9.6.1. Conducted Spurious Emissions

Test Conditions for Conducted Spurious Emissions			
<b>Standard:</b>	FCC CFR 47:2.1051 FCC CFR 47: 96.41 (e) (i)	<b>Ambient Temp. (°C):</b>	24.0 - 27.5
<b>Test Heading:</b>	Conducted Spurious Emission	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	ANSI C63.26: 5.7.4 & 5.7.3	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

#### Test Procedure for Conducted Spurious and Band-Edge Emissions

Conducted Spurious Emissions and Band-edge were measured with a spectrum analyzer connected to the antenna terminal, while the EUT is operating in transmission mode at the appropriate frequency.

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

#### From KDB 940660 D01 section 3.2 (b)(6)(i):

Measurements must be performed for low, mid, and high channels. It is acceptable to apply the procedures in Section 5.7 of ANSI C63.26-2015 using the following settings, per Section 96.41(e)(3) – resolution bandwidth: <sup>10</sup> 1% of fundamental for measurements within 1 MHz immediately outside the authorized channel; and 1 MHz for beyond 1 MHz outside the authorized channel.

<sup>10</sup> A narrower RBW is permitted in all cases to improve measurement accuracy, provided the measured power is integrated over the full reference bandwidth.

#### From ANSI C63.26: 5.7.4 Spurious unwanted emission measurements:

a) Set the spectrum analyzer start frequency to the lowest frequency generated by the EUT, without going below 9 kHz, and the stop frequency to the lower frequency covered by the measurements previously performed in 5.7.3. As an alternative, the stop frequency can be set to the value specified in 5.1.1, depending on the EUT operating range, if the resulting plot can clearly demonstrate compliance for all frequencies not addressed by the out-of-band emissions measurements performed as per 5.7.3.

b) When using an average power (rms) detector, ensure that the number of points in the sweep  $\geq 2 \times (\text{span} / \text{RBW})$ . This may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the spectrum analyzer capabilities. This requirement does not apply to peak-detected power measurements. When average power is specified by the applicable regulation, a peak-detector can be utilized for preliminary measurements to accommodate wider frequency spans. Any emissions found in the preliminary measurement to exceed the applicable limit(s) shall be further examined using a power averaging (rms) detector with the minimum number of measurement points as defined above.

c) The sweep time should be set to auto-couple for performing peak-detector measurements. For measurements that use a power averaging (rms) detector, the sweep time shall be set as described for out-of-band emissions measurements in item d) of 5.7.3.

d) Identify and measure the highest spurious emission levels in each frequency range. It is not necessary to re-measure the out-of-band emissions as a part of this test. Record the frequencies and amplitudes corresponding to the measured emissions and capture the data plots.

e) Repeat step b) through step d) for the upper spurious emission frequency range if not already captured by a wide span measurement performed as per the alternative provided in step a). The upper frequency for this measurement is defined in 5.1.1 as a function of the EUT operating range.

f) Compare the results with the corresponding limit in the applicable regulation. g) The test report shall include the data plots of the measuring instrument display and the measured data.

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in §2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

#### Limits for Conducted Spurious Emissions FCC CFR 47: 96.41 (e) (i)

-13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge.

At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed -25 dBm/MHz.

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

Each chain is measured separately and the limits adjusted by -6 dB to account for the 4 transmission chains.

**Equipment Configuration for Conducted Spurious Emissions - Average**

<b>Variant:</b>	10MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>CHAIN A</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3555 MHz	30 - 26000 MHz	-53.204	25740.00	-46.00	-7.20
3625 MHz	30 - 26000 MHz	-64.068	13620.00	-46.00	-18.07
3695 MHz	30 - 26000 MHz	-54.188	25740.00	-46.00	-8.19

<b>CHAIN B</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3555 MHz	30 - 26000 MHz	-53.960	25700.00	-46.00	-7.96
3625 MHz	30 - 26000 MHz	-64.434	13620.00	-46.00	-18.43
3695 MHz	30 - 26000 MHz	-54.901	25700.00	-46.00	-8.90

<b>CHAIN C</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3555 MHz	30 - 26000 MHz	-54.062	25740.00	-46.00	-8.06
3625 MHz	30 - 26000 MHz	-65.458	13620.00	-46.00	-19.46
3695 MHz	30 - 26000 MHz	-55.844	25740.00	-46.00	-9.84

<b>CHAIN D</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3555 MHz	30 - 26000 MHz	-54.083	7090.00	-46.00	-8.08
3625 MHz	30 - 26000 MHz	-63.411	7260.00	-46.00	-17.41
3695 MHz	30 - 26000 MHz	-55.082	25740.00	-46.00	-9.08

**Traceability to Industry Recognized Test Methodologies**

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

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

Equipment Configuration for Conducted Spurious Emissions - Average

<b>Variant:</b>	20MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

Test Measurement Results

CHAIN A					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3560 MHz	30 - 26000 MHz	-54.241	14230.00	-46.00	-8.24
3620 MHz	30 - 26000 MHz	-53.909	14230.00	-46.00	-7.91
3690 MHz	30 - 26000 MHz	-55.413	14230.00	-46.00	-9.41

CHAIN B					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3560 MHz	30 - 26000 MHz	-54.547	14230.00	-46.00	-8.55
3620 MHz	30 - 26000 MHz	-54.237	14230.00	-46.00	-8.24
3690 MHz	30 - 26000 MHz	-55.644	14230.00	-46.00	-9.64

CHAIN C					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3560 MHz	30 - 26000 MHz	-55.064	14230.00	-46.00	-9.06
3620 MHz	30 - 26000 MHz	-55.256	14230.00	-46.00	-9.26
3690 MHz	30 - 26000 MHz	-57.182	14230.00	-46.00	-11.18

CHAIN D					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3560 MHz	30 - 26000 MHz	-56.005	14230.00	-46.00	-10.01
3620 MHz	30 - 26000 MHz	-54.379	7220.00	-46.00	-8.38
3690 MHz	30 - 26000 MHz	-56.222	14230.00	-46.00	-10.22

Traceability to Industry Recognized Test Methodologies

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

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

**Equipment Configuration for Conducted Spurious Emissions - Average**

<b>Variant:</b>	40 MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

**Test Measurement Results**

<b>CHAIN A</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3570 MHz	30 - 26000 MHz	-54.154	14230.00	-46.00	-8.15
3630 MHz	30 - 26000 MHz	-54.236	14230.00	-46.00	-8.24
3680 MHz	30 - 26000 MHz	-55.436	14230.00	-46.00	-9.44

<b>CHAIN B</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3570 MHz	30 - 26000 MHz	-54.377	14230.00	-46.00	-8.15
3630 MHz	30 - 26000 MHz	-54.551	14230.00	-46.00	-8.24
3680 MHz	30 - 26000 MHz	-55.698	14230.00	-46.00	-9.44

<b>CHAIN C</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3570 MHz	30 - 26000 MHz	-54.984	14230.00	-46.00	-8.15
3630 MHz	30 - 26000 MHz	-55.729	14230.00	-46.00	-8.24
3680 MHz	30 - 26000 MHz	-57.442	14230.00	-46.00	-9.44

<b>CHAIN D</b>					
Temperature	20.0 °C	Maximum Observed Spurious Emission		<b>Limit</b>	<b>Margin</b>
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3570 MHz	30 - 26000 MHz	-55.812	14230.00	-46.00	-8.15
3630 MHz	30 - 26000 MHz	-54.706	7220.00	-46.00	-8.24
3680 MHz	30 - 26000 MHz	-56.252	14230.00	-46.00	-9.44

**Traceability to Industry Recognized Test Methodologies**

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

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

Equipment Configuration for Conducted Spurious Emissions - Average

<b>Variant:</b>	100MHz	<b>Duty Cycle (%):</b>	100
<b>Data Rate:</b>	0.00 MBit/s	<b>Antenna Gain (dBi):</b>	Not Applicable
<b>Modulation:</b>	256QAM	<b>Beam Forming Gain (Y):</b>	Not Applicable
<b>TPC:</b>	Not Applicable	<b>Tested By:</b>	JK
<b>Engineering Test Notes:</b>			

Test Measurement Results

CHAIN A					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3600 MHz	30 - 26000 MHz	-53.988	14230.00	-46.00	-7.99
3650 MHz	30 - 26000 MHz	-54.568	14230.00	-46.00	-8.57

CHAIN B					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3600 MHz	30 - 26000 MHz	-54.245	14230.00	-46.00	-7.99
3650 MHz	30 - 26000 MHz	-54.918	14230.00	-46.00	-8.57

CHAIN C					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3600 MHz	30 - 26000 MHz	-54.930	14230.00	-46.00	-7.99
3650 MHz	30 - 26000 MHz	-56.469	14230.00	-46.00	-8.57

CHAIN D					
Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	48 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3600 MHz	30 - 26000 MHz	-55.381	14230.00	-46.00	-7.99
3650 MHz	30 - 26000 MHz	-55.440	14230.00	-46.00	-8.57

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

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

#### **9.6.2. Channel Mask Emissions**

See test report XCOL01-U4 Rev A (Part 2) for test "Channel Mask Emissions."

## 9.7. Radiated Emissions

Radiated Test Conditions for Radiated Spurious Emissions			
<b>Standard:</b>	FCC CFR 47: 96.41 (2)	<b>Ambient Temp. (°C):</b>	20.0 - 24.5
<b>Test Heading:</b>	Radiated Spurious	<b>Rel. Humidity (%):</b>	32 - 45
<b>Standard Section(s):</b>	ANSI C63.26: 5.5	<b>Pressure (mBars):</b>	999 - 1001
<b>Reference Document(s):</b>	See Normative References		

### Test Procedure for Radiated Spurious Emissions

Measurements were performed in accordance with ANSI C63.26.

The measurement equipment was set to measure in peak hold mode. The emissions were 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.

The highest emissions relative to the limit are listed for each frequency band measured.

### Limits for Maximum Spurious Emissions

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm / MHz.

#### KDB 940660 D01 Section 3.2

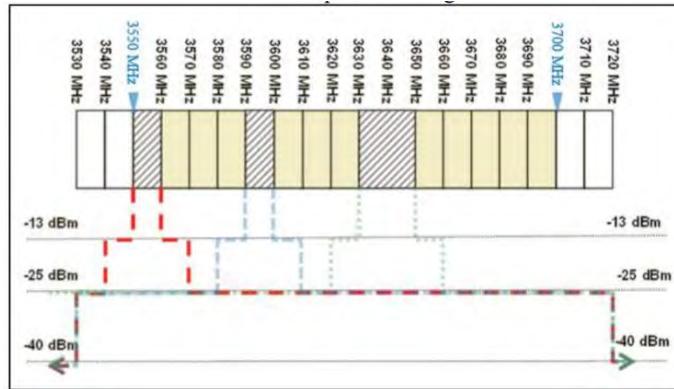
6) Emissions outside the fundamental – The limits for emission outside the fundamental are as follows:

- Within 0 MHz to 10 MHz above and below the assigned channel  $\leq$  -13 dBm/MHz
- Greater than 10 MHz above and below the assigned channel  $\leq$  -25 dBm/MHz
- Any emission below 3530 MHz and above 3720 MHz  $\leq$  -40 dBm/MHz

i) Measurements must be performed for low, mid, and high channels. It is acceptable to apply the procedures in Section 5.7 of ANSI C63.26-2015 using the following settings, per Section 96.41(e)(3) – resolution bandwidth: 1% of fundamental for measurements within 1 MHz immediately outside the authorized channel; and 1 MHz for beyond 1 MHz outside the authorized channel.

ii) Consistent with basic guidance in KDB Publication 971168 D01, when antenna-port conducted measurements are performed to demonstrate compliance to the applicable unwanted emission limits (Section 2.1051), a separate radiated measurement is required to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power levels, or intermediate circuit elements under normal conditions of installation and operation (Section 2.1053). The Section 96.41(e) limits generally also apply to radiated unwanted emissions.

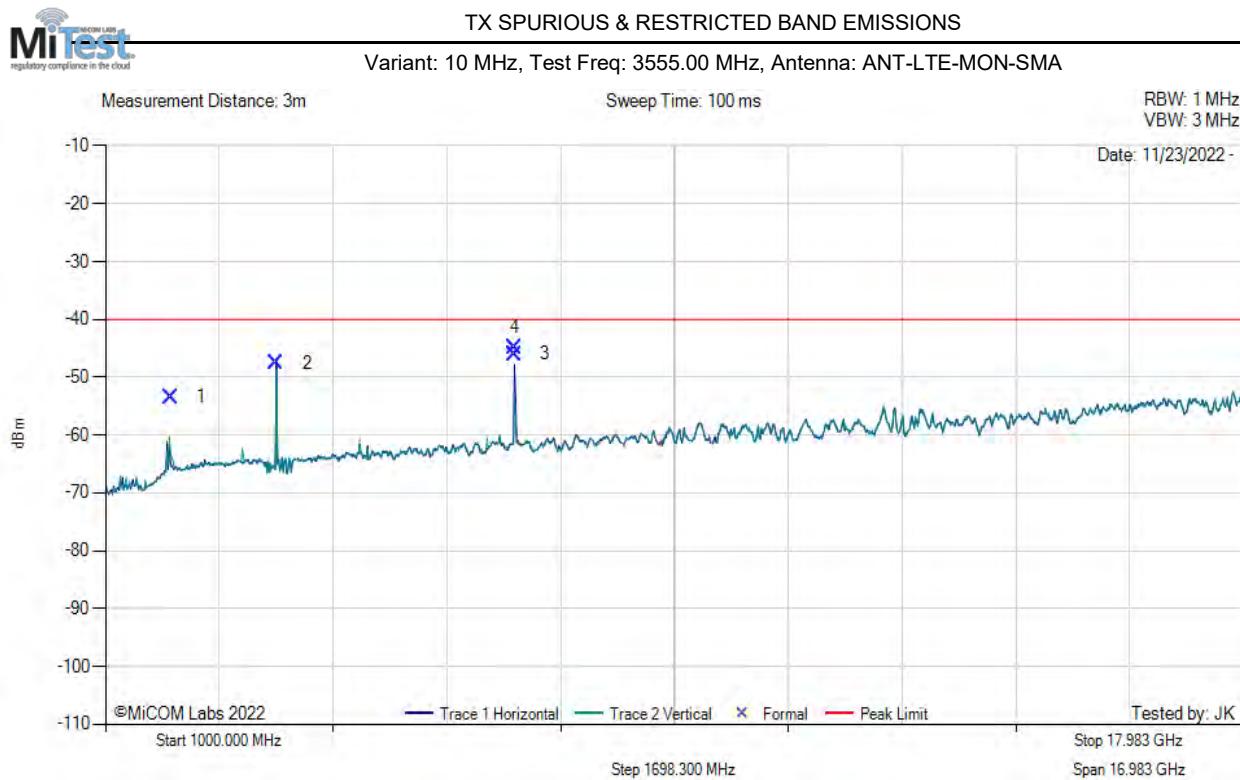
iii) Note that unwanted emissions for CBSDs are relative to the authorized channel, as assigned by the SAS. Emission limits for example SAS-assigned channels are shown below.



## Equipment Configuration for TX Spurious & Restricted Band Emissions

<b>Antenna:</b>	ANT-LTE-MON-SMA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	256QAM
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	
<b>Channel Frequency (MHz):</b>	3555.00	<b>Data Rate:</b>	na
<b>Power Setting:</b>		<b>Tested By:</b>	JK

## Test Measurement Results



1000.00 - 17983.00 MHz													
Num	Frequency MHz	Raw dBm	Cable Loss dB	AF dB/m	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	
1	1966.10	-53.09	-0.92	49.20	-53.46	AVG	Vertical	100	259	-40.0	-13.5	Pass	
2	3550.00	-48.86	-1.28	53.41	-47.62	Fundamental	Horizontal	99	150	--	--		
3	7109.91	-51.69	-1.84	55.26	-46.03	AVG	Vertical	136	161	-40.0	-6.0	Pass	
4	7109.92	-50.59	-1.84	55.26	-44.92	AVG	Horizontal	196	146	-40.0	-4.9	Pass	

**Test Notes:** EUT configured for 10 MHz transmission

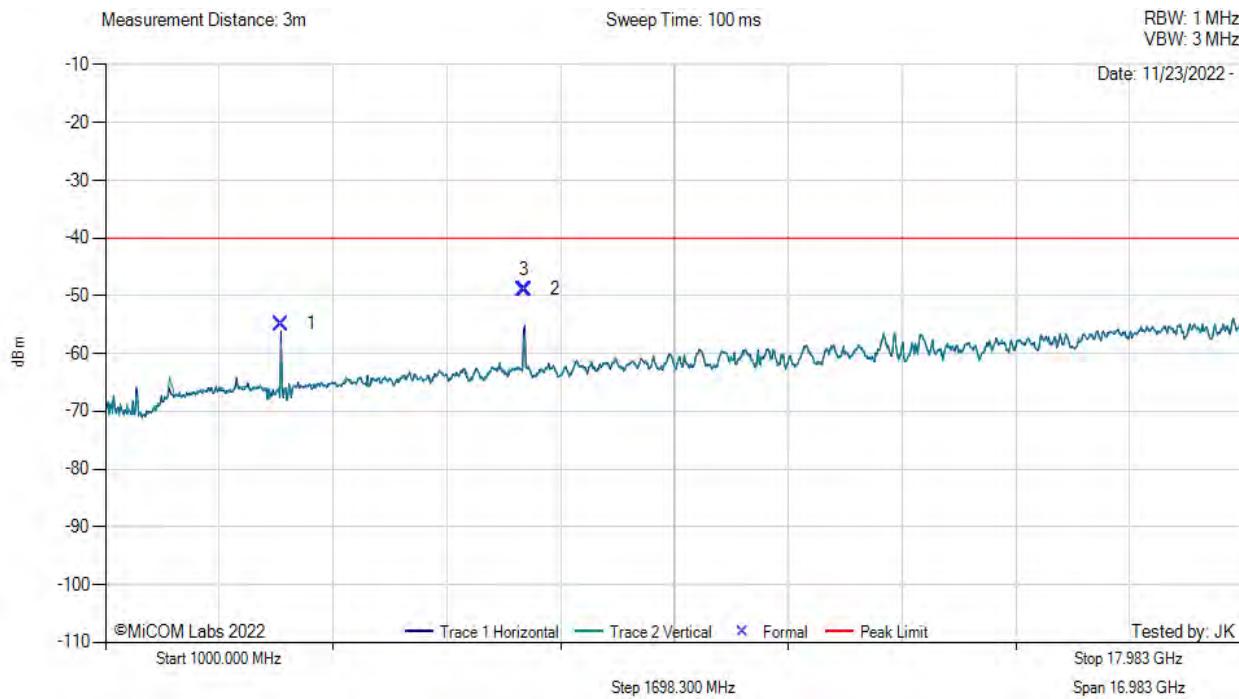
**Equipment Configuration for TX Spurious & Restricted Band Emissions**

<b>Antenna:</b>	ANT-LTE-MON-SMA	<b>Variant:</b>	
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	
<b>Channel Frequency (MHz):</b>	3625.00	<b>Data Rate:</b>	na
<b>Power Setting:</b>		<b>Tested By:</b>	JK

**Test Measurement Results**



TX SPURIOUS & RESTRICTED BAND EMISSIONS  
 Variant:10 MHz, Test Freq: 3625.00 MHz, Antenna: ANT-LTE-MON-SMA



1000.00 - 17983.00 MHz													
Num	Frequency MHz	Raw dBm	Cable Loss dB	AF dB/m	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	
1	3618.00	-56.10	-1.28	53.41	-54.86	Fundamental	Horizontal	99	150	--	--		
2	7249.75	-54.70	-1.86	55.30	-48.89	AVG	Vertical	149	154	-40.0	-8.9	Pass	
3	7251.20	-54.81	-1.86	55.32	-49.02	AVG	Horizontal	173	153	-40.0	-9.0	Pass	

**Test Notes:** EUT configured for 10 MHz transmission

**Equipment Configuration for TX Spurious & Restricted Band Emissions**

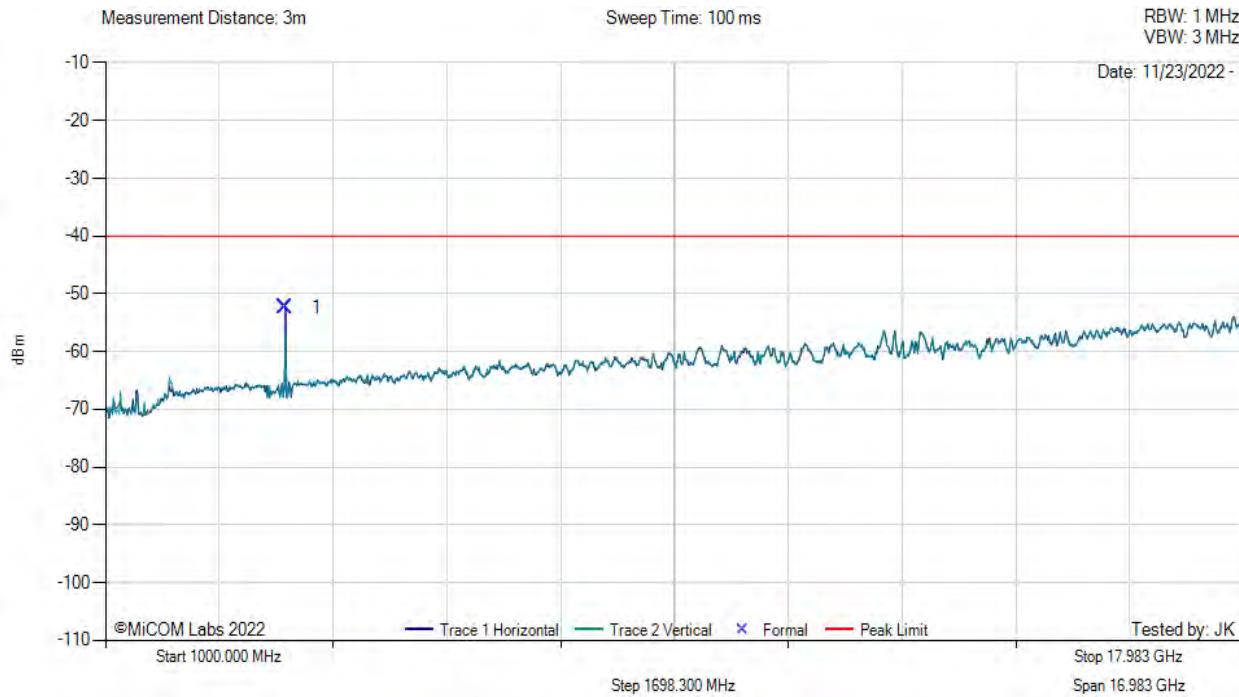
<b>Antenna:</b>	ANT-LTE-MON-SMA	<b>Variant:</b>	
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	
<b>Channel Frequency (MHz):</b>	3695.00	<b>Data Rate:</b>	na
<b>Power Setting:</b>		<b>Tested By:</b>	JK

**Test Measurement Results**



**TX SPURIOUS & RESTRICTED BAND EMISSIONS**

Variant: , Test Freq: 3695.00 MHz, Antenna: ANT-LTE-MON-SMA



1000.00 - 17983.00 MHz													
Num	Frequency MHz	Raw dBm	Cable Loss dB	AF dB/m	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	
1	3686.00	-53.62	-1.28	53.41	-52.38	Fundamental	Horizontal	99	150	--	--		
<b>Test Notes:</b> EUT configured for 10 MHz transmission													

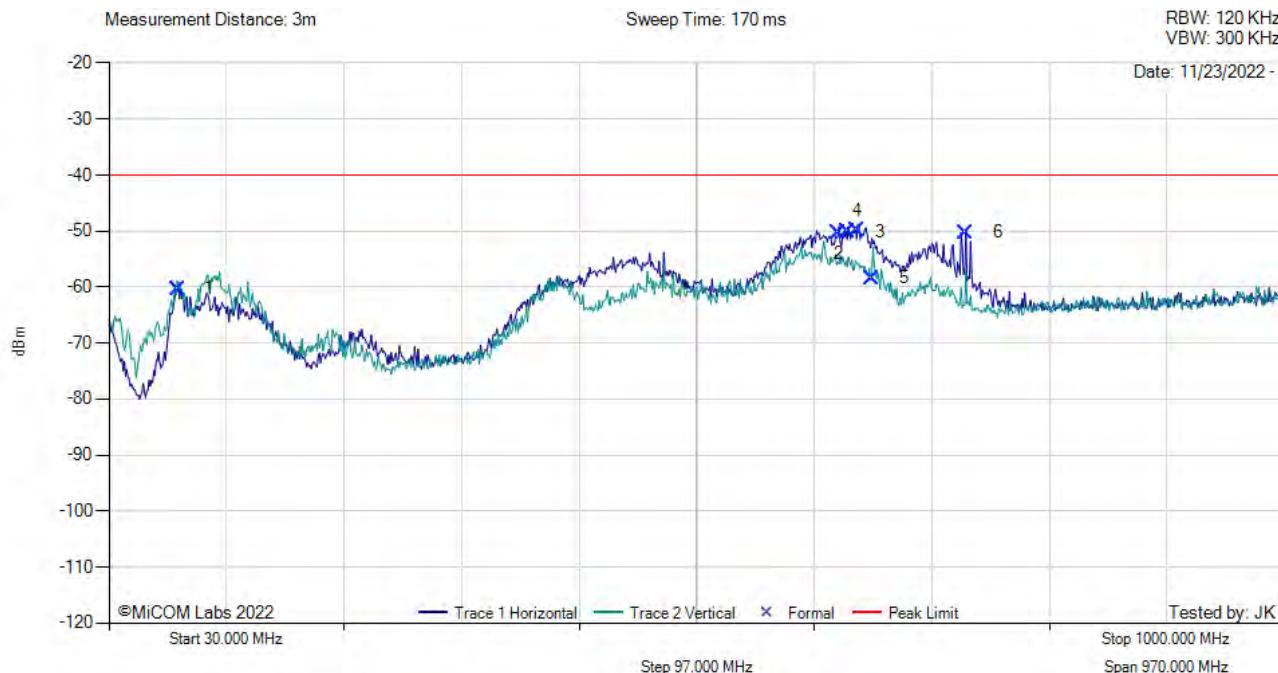
Equipment Configuration for Radiated Emissions (0.03 - 1 GHz)

<b>Antenna:</b>	ANT-LTE-MON-SMA	<b>Variant:</b>	10 MHz
<b>Antenna Gain (dBi):</b>	Not Applicable	<b>Modulation:</b>	
<b>Beam Forming Gain (Y):</b>	Not Applicable	<b>Duty Cycle (%):</b>	
<b>Channel Frequency (MHz):</b>	3625.00	<b>Data Rate:</b>	na
<b>Power Setting:</b>		<b>Tested By:</b>	JK

Test Measurement Results



DIGITAL EMISSIONS (0.03 - 1 GHz)  
 Variant: 10 MHz, Test Freq: 3625.00 MHz, Antenna: ANT-LTE-MON-SMA

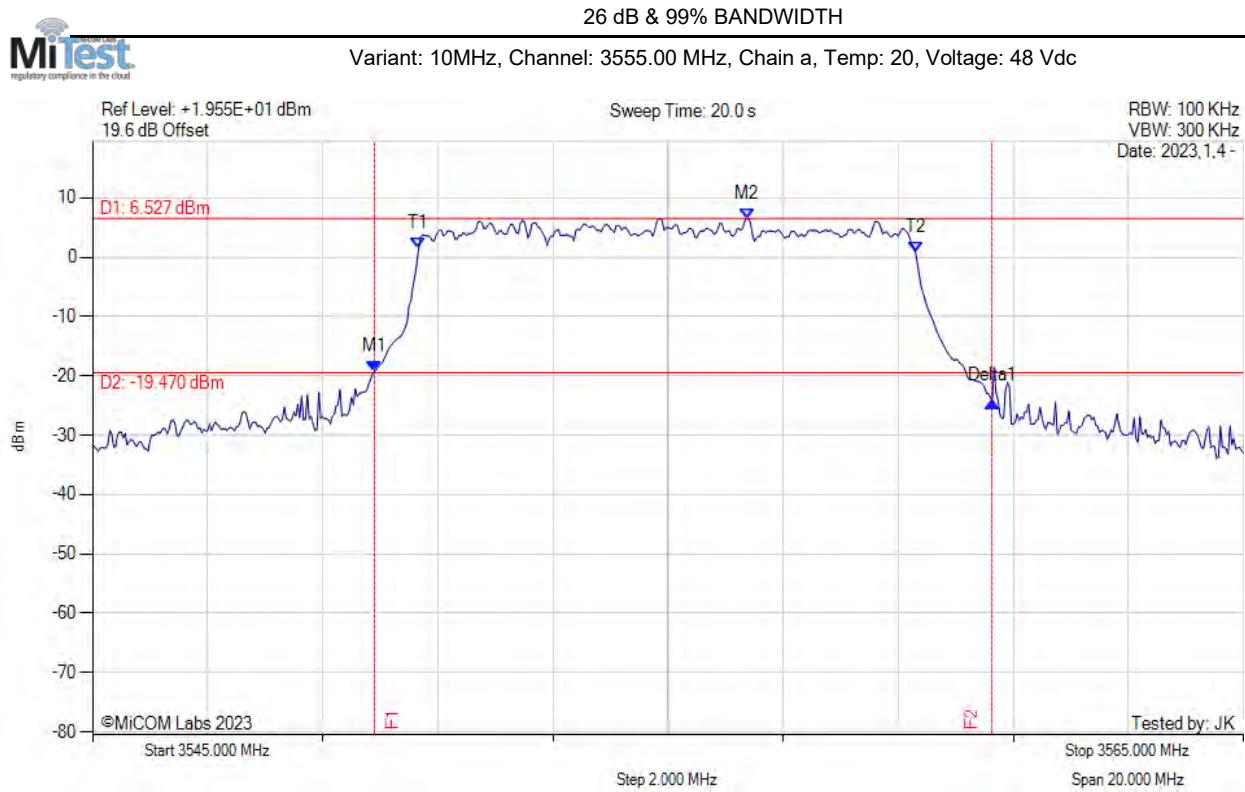


30.00 - 1000.00 MHz													
Num	Frequency MHz	Raw dB $\mu$ V	Cable Loss dB	AF dB/m	Level dB $\mu$ V/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dB $\mu$ V/m	Margin dB	Pass /Fail	
1	86.82	-46.80	4.01	-17.54	-60.33	MaxQP	Vertical	158	228	-37.0	-23.3	Pass	
2	631.75	-50.55	6.11	-5.94	-50.39	MaxQP	Horizontal	126	195	-38.0	-12.4	Pass	
3	640.02	-50.25	6.13	-5.94	-50.06	MaxQP	Horizontal	237	181	-36.0	-14.1	Pass	
4	647.20	-50.24	6.16	-5.87	-49.95	MaxQP	Horizontal	118	190	-39.0	-11.0	Pass	
5	659.99	-58.80	6.21	-5.82	-58.41	MaxQP	Vertical	262	356	-35.0	-23.4	Pass	
6	737.28	-52.10	6.42	-4.56	-50.23	MaxQP	Horizontal	100	168	-40.0	-10.2	Pass	

**Test Notes:** Unit booted with default ROM. 48VDC AC/DC adapter powered. Ethernet and Optical terminated.

## **A. APPENDIX - GRAPHICAL IMAGES**

## A.1. 26 dB & 99% Bandwidth



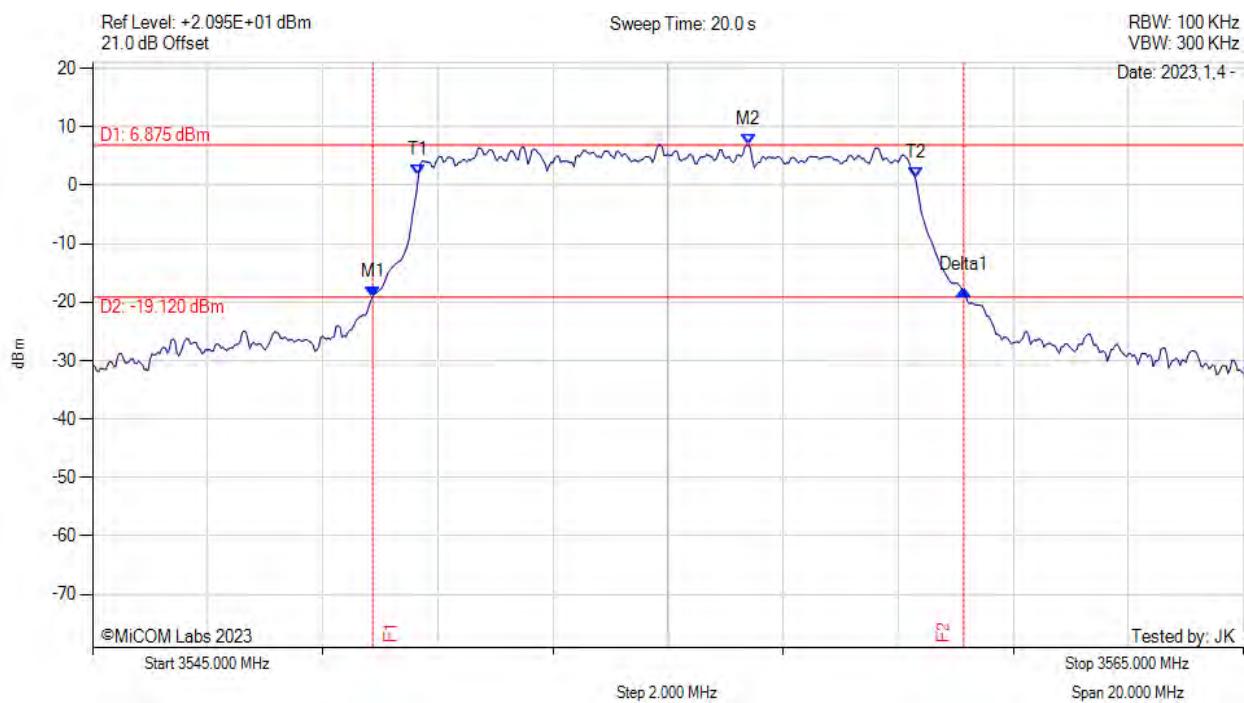
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.900 MHz : -19.196 dBm M2 : 3556.370 MHz : 6.527 dBm Delta1 : 10.730 MHz : -5.109 dB T1 : 3550.667 MHz : 1.426 dBm T2 : 3559.300 MHz : 0.905 dBm OBW : 8.623 MHz	Measured 6 dB Bandwidth: 10.730 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3555.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



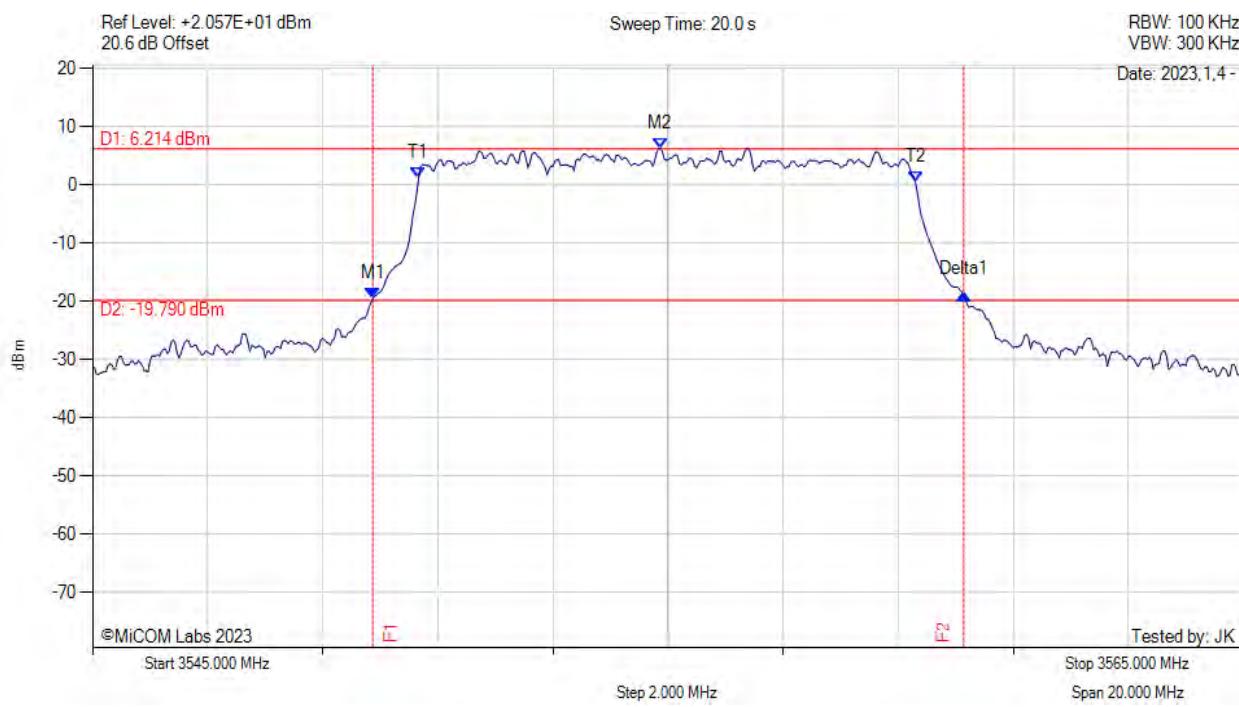
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -19.055 dBm M2 : 3556.400 MHz : 6.875 dBm Delta1 : 10.270 MHz : 1.160 dB T1 : 3550.667 MHz : 1.742 dBm T2 : 3559.300 MHz : 1.164 dBm OBW : 8.623 MHz	Measured 6 dB Bandwidth: 10.270 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3555.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



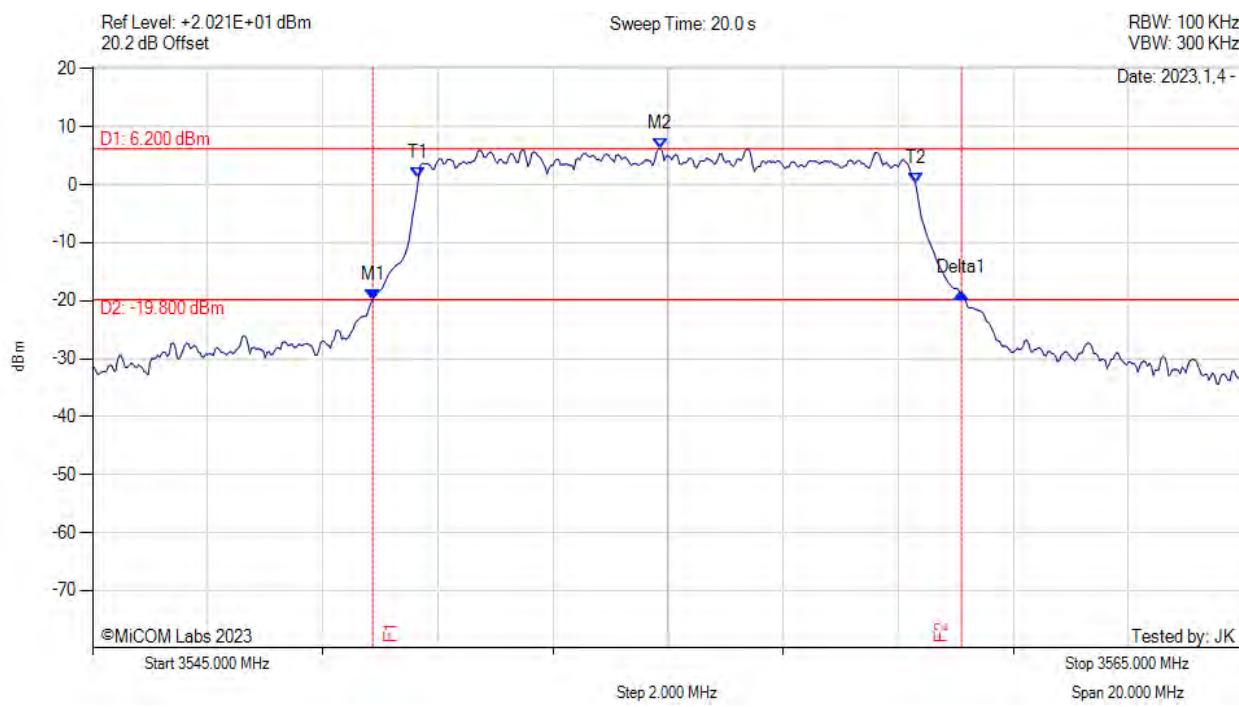
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -19.546 dBm M2 : 3554.870 MHz : 6.214 dBm Delta1 : 10.270 MHz : 0.837 dB T1 : 3550.667 MHz : 1.118 dBm T2 : 3559.300 MHz : 0.419 dBm OBW : 8.622 MHz	Measured 6 dB Bandwidth: 10.270 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3555.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



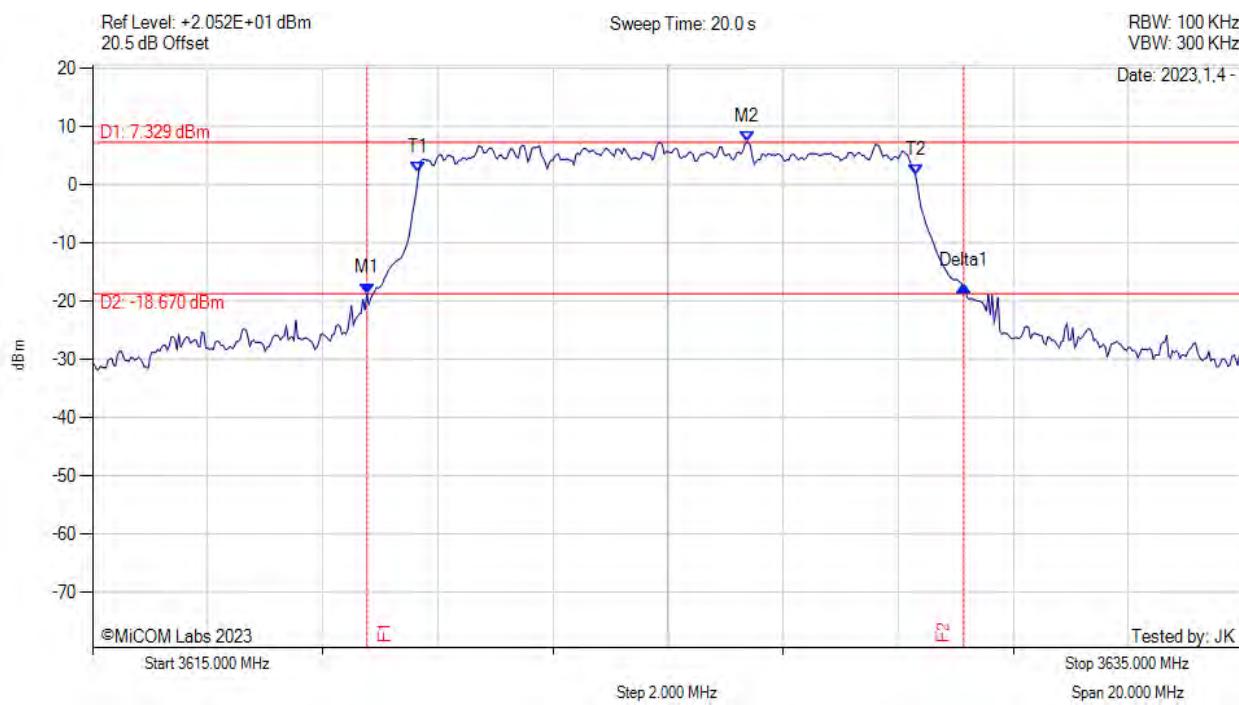
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -19.777 dBm M2 : 3554.870 MHz : 6.200 dBm Delta1 : 10.230 MHz : 1.083 dB T1 : 3550.667 MHz : 1.280 dBm T2 : 3559.300 MHz : 0.288 dBm OBW : 8.618 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3625.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc

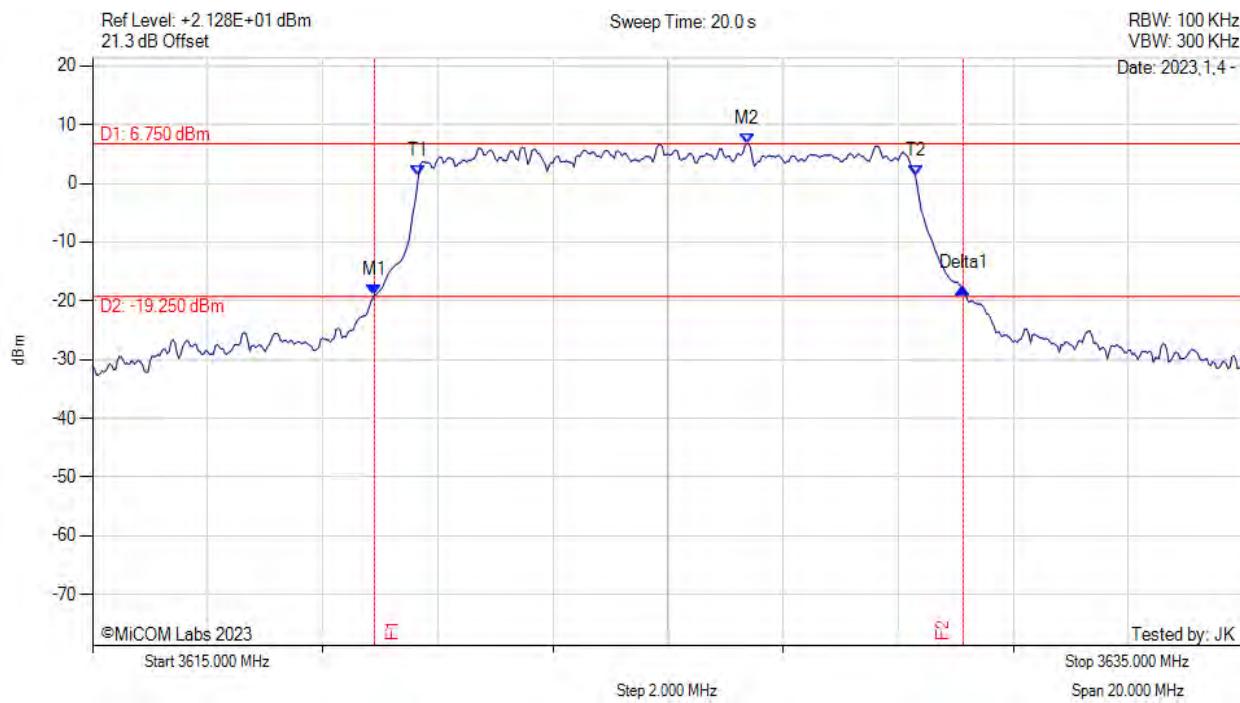


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3619.770 MHz : -18.670 dBm M2 : 3626.370 MHz : 7.329 dBm Delta1 : 10.370 MHz : 1.267 dB T1 : 3620.667 MHz : 2.081 dBm T2 : 3629.300 MHz : 1.712 dBm OBW : 8.624 MHz	Measured 6 dB Bandwidth: 10.370 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 10MHz, Channel: 3625.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



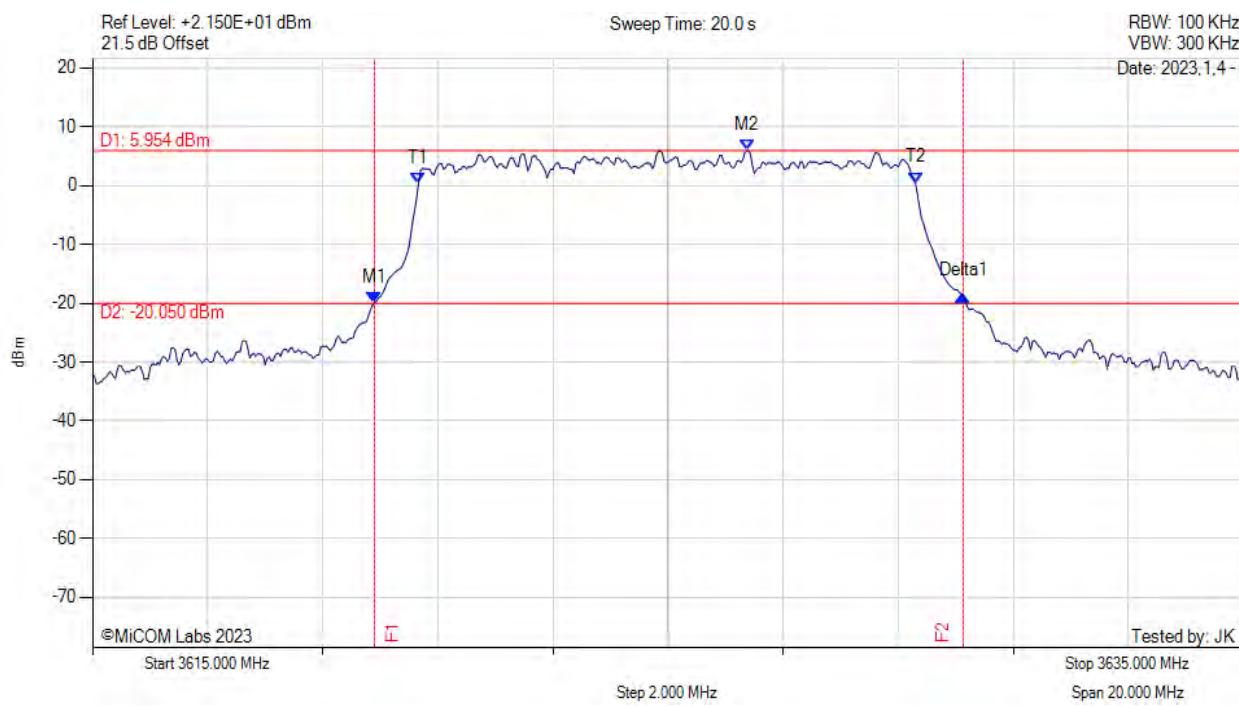
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3619.900 MHz : -19.081 dBm M2 : 3626.370 MHz : 6.750 dBm Delta1 : 10.230 MHz : 1.195 dB T1 : 3620.667 MHz : 1.372 dBm T2 : 3629.300 MHz : 1.229 dBm OBW : 8.625 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3625.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



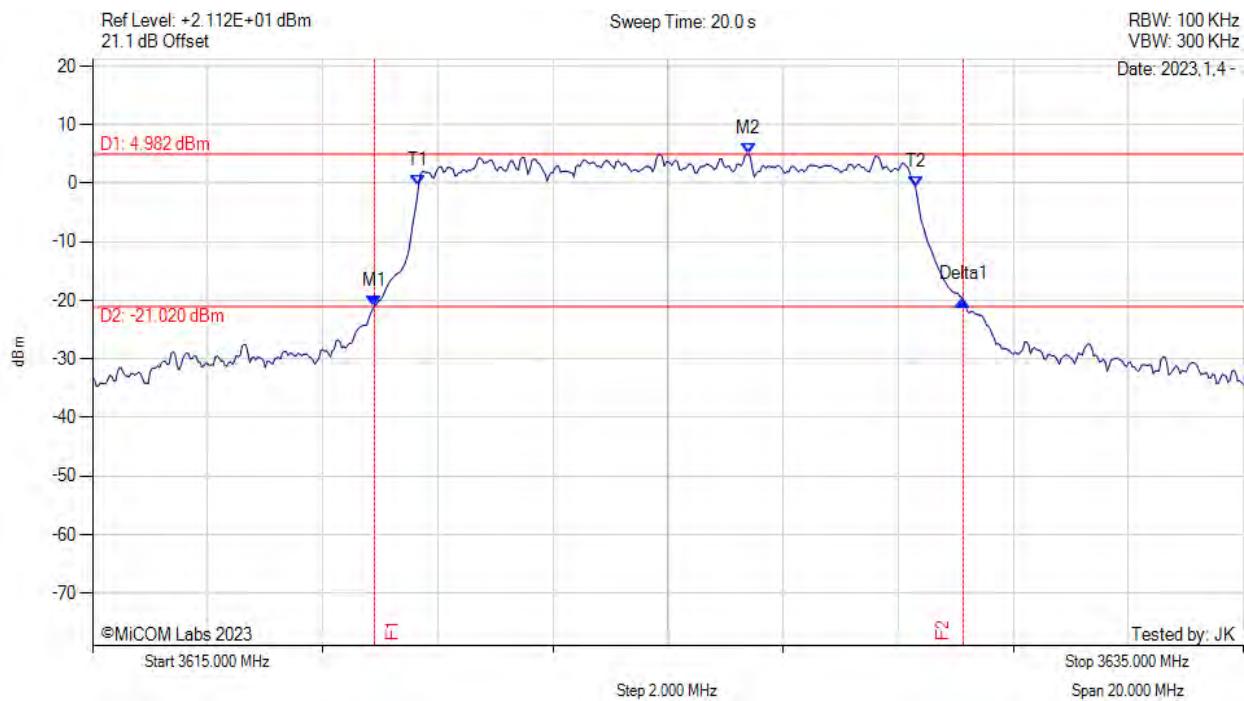
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3619.900 MHz : -19.842 dBm M2 : 3626.370 MHz : 5.954 dBm Delta1 : 10.230 MHz : 1.036 dB T1 : 3620.667 MHz : 0.454 dBm T2 : 3629.300 MHz : 0.492 dBm OBW : 8.623 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3625.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



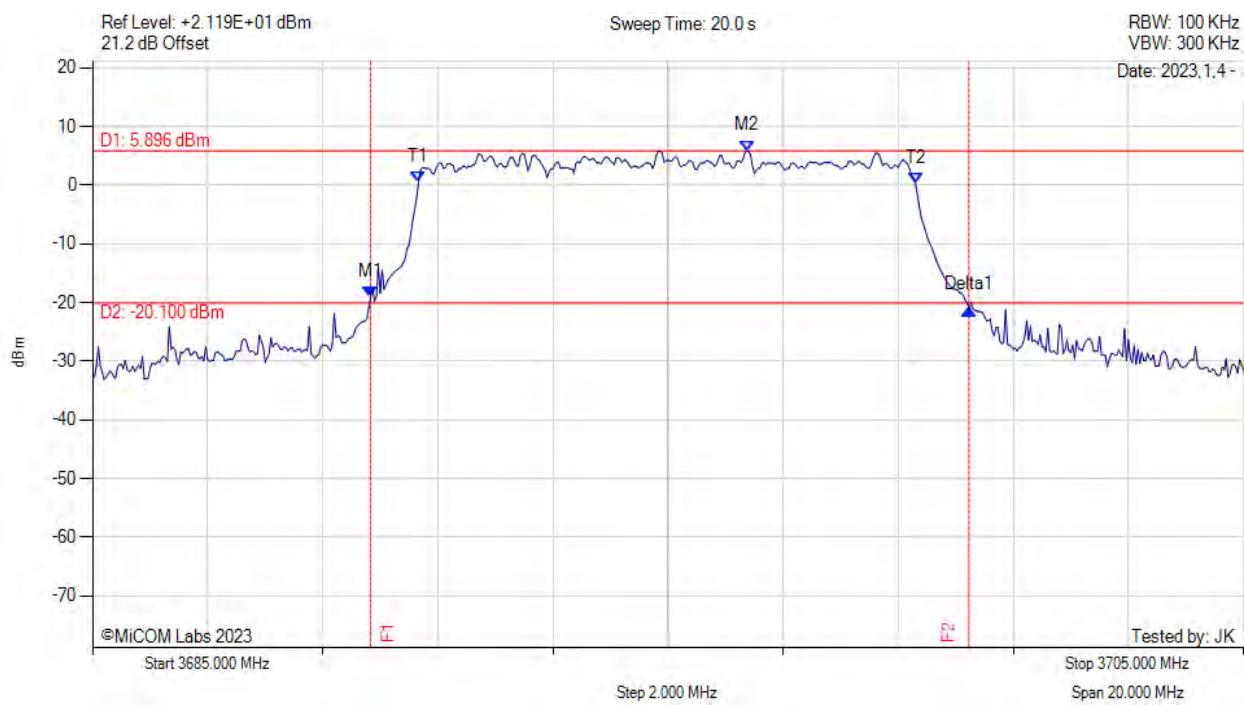
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3619.900 MHz : -20.913 dBm M2 : 3626.400 MHz : 4.982 dBm Delta1 : 10.230 MHz : 1.004 dB T1 : 3620.667 MHz : -0.433 dBm T2 : 3629.300 MHz : -0.603 dBm OBW : 8.621 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3695.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



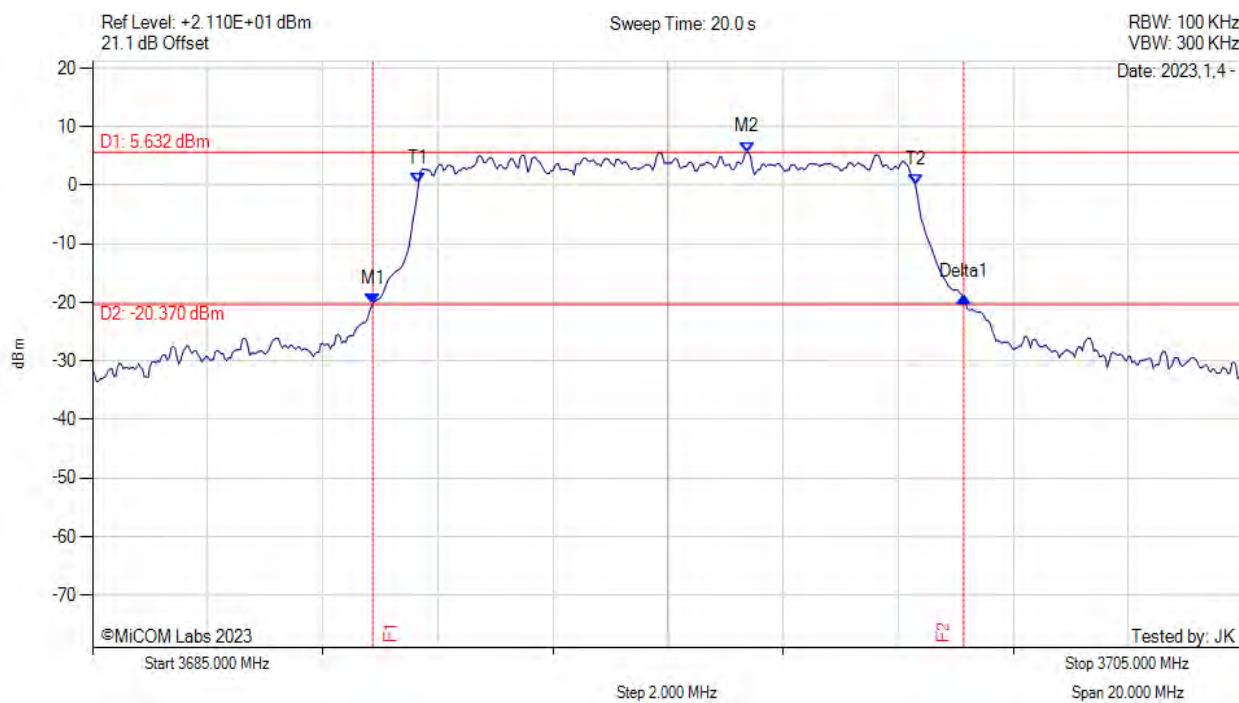
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3689.830 MHz : -19.134 dBm M2 : 3696.370 MHz : 5.896 dBm Delta1 : 10.400 MHz : -1.995 dB T1 : 3690.667 MHz : 0.583 dBm T2 : 3699.300 MHz : 0.317 dBm OBW : 8.627 MHz	Measured 6 dB Bandwidth: 10.400 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3695.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



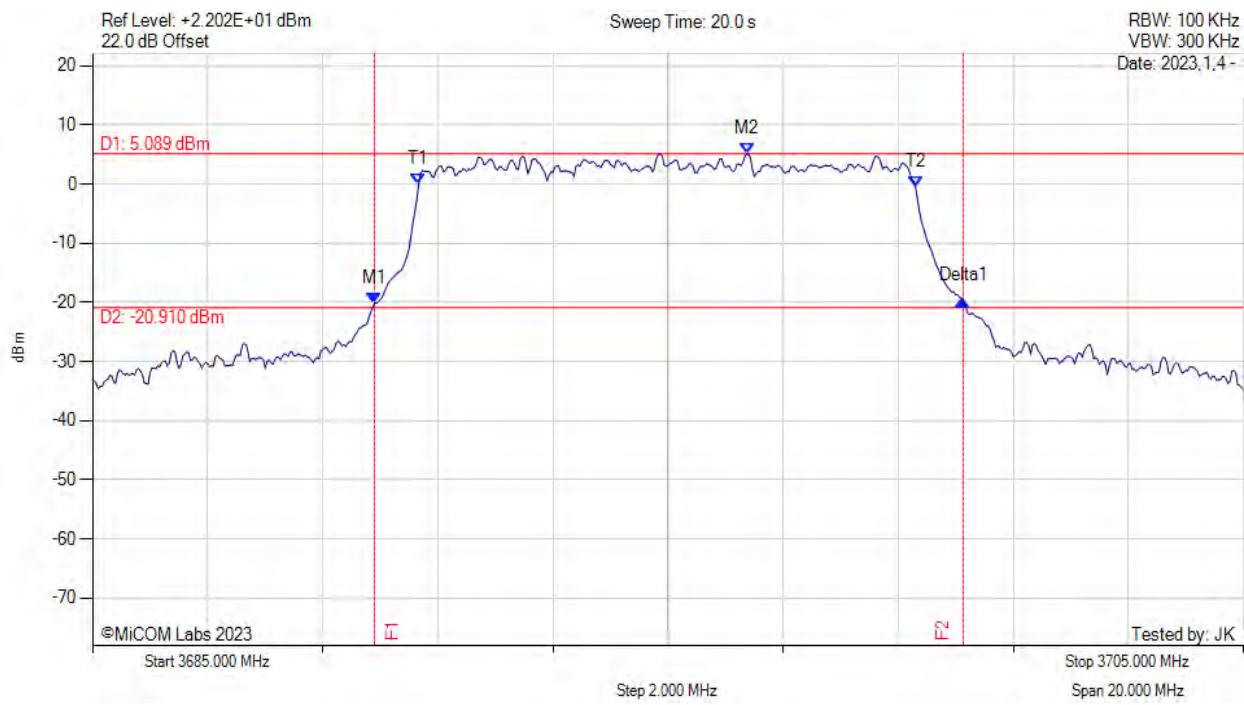
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3689.870 MHz : -20.352 dBm M2 : 3696.370 MHz : 5.632 dBm Delta1 : 10.270 MHz : 1.311 dB T1 : 3690.667 MHz : 0.347 dBm T2 : 3699.300 MHz : 0.034 dBm OBW : 8.625 MHz	Measured 6 dB Bandwidth: 10.270 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3695.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



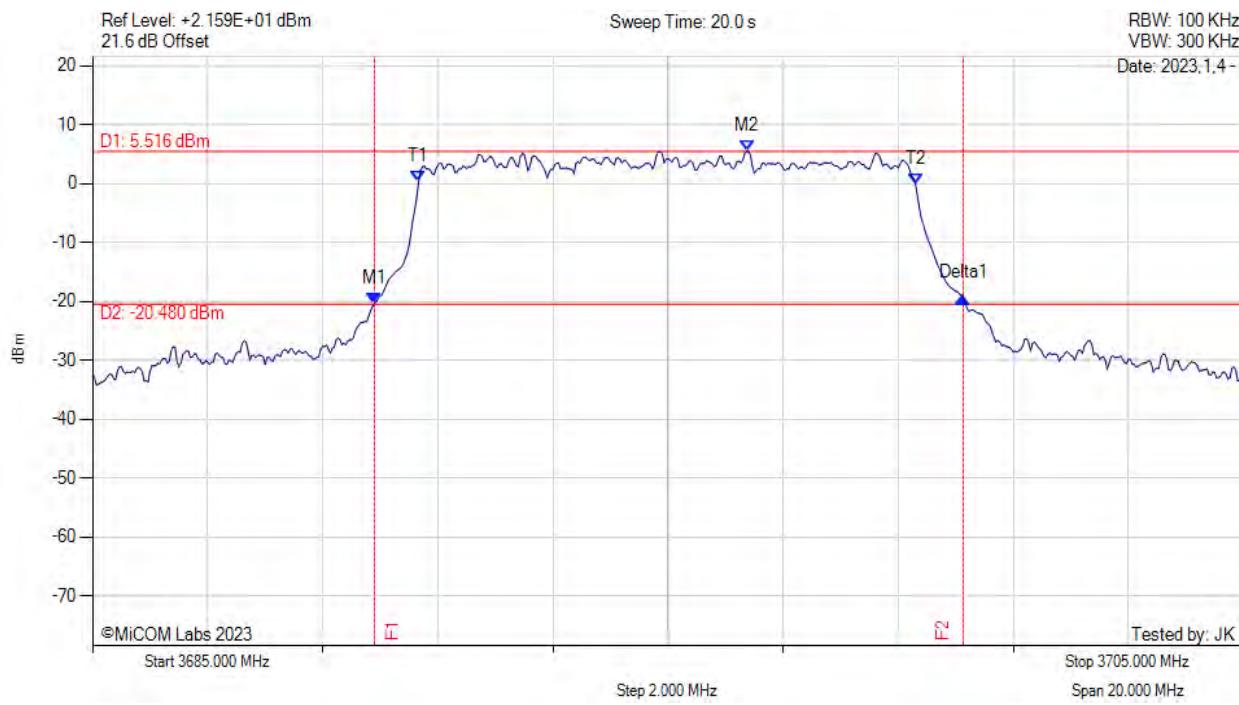
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3689.900 MHz : -20.155 dBm M2 : 3696.370 MHz : 5.089 dBm Delta1 : 10.230 MHz : 0.424 dB T1 : 3690.667 MHz : -0.131 dBm T2 : 3699.300 MHz : -0.481 dBm OBW : 8.623 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 10MHz, Channel: 3695.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



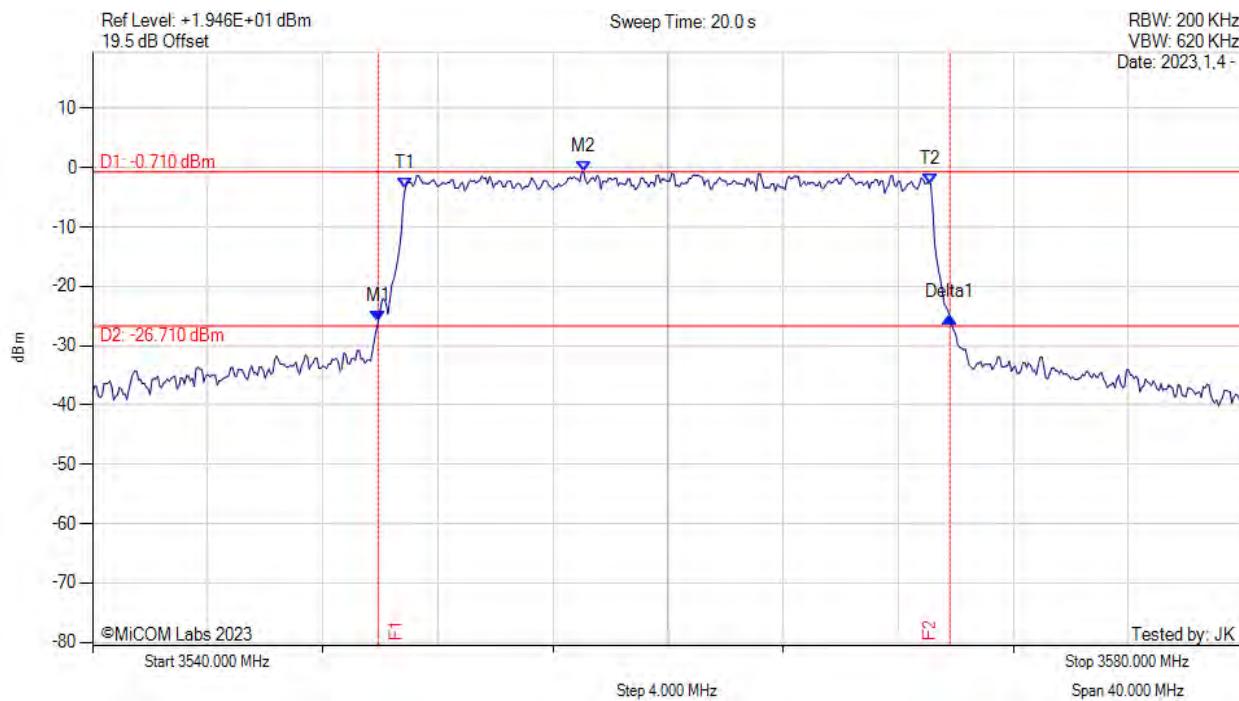
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3689.900 MHz : -20.314 dBm M2 : 3696.370 MHz : 5.516 dBm Delta1 : 10.230 MHz : 0.946 dB T1 : 3690.667 MHz : 0.297 dBm T2 : 3699.300 MHz : -0.055 dBm OBW : 8.622 MHz	Measured 6 dB Bandwidth: 10.230 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3560.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



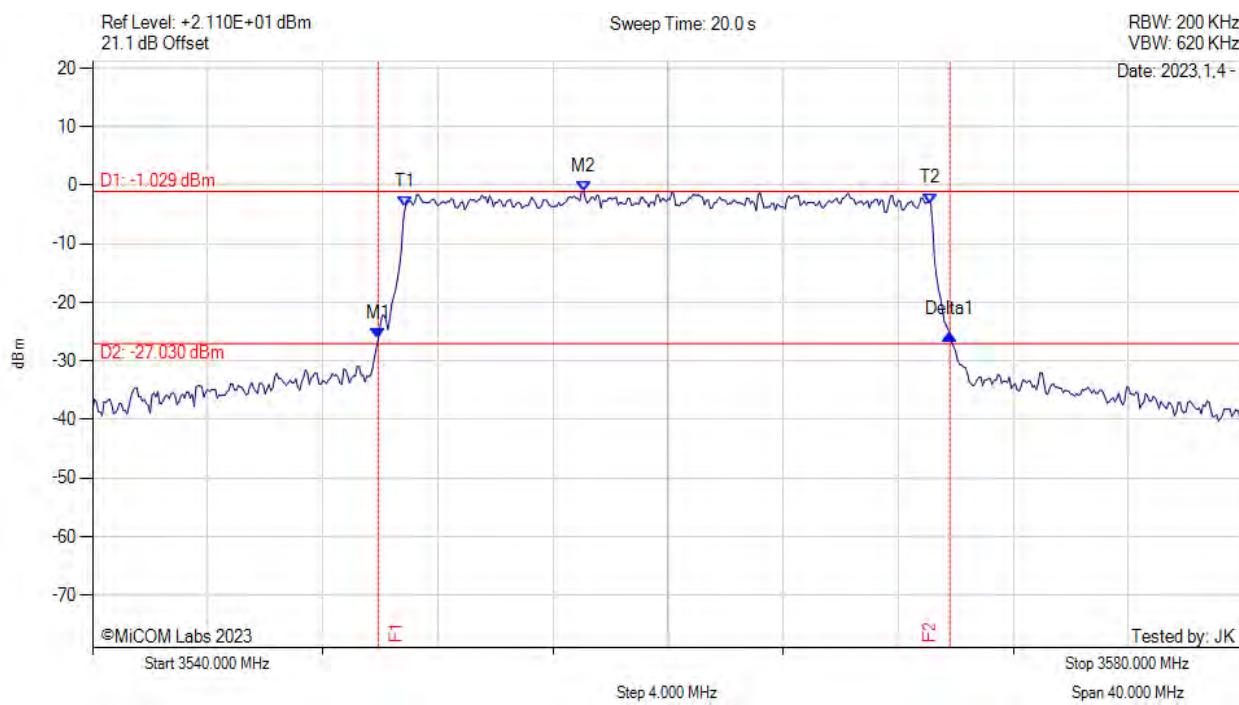
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.930 MHz : -25.854 dBm M2 : 3557.070 MHz : -0.710 dBm Delta1 : 19.870 MHz : 0.700 dB T1 : 3550.867 MHz : -3.479 dBm T2 : 3569.133 MHz : -2.775 dBm OBW : 18.219 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3560.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc

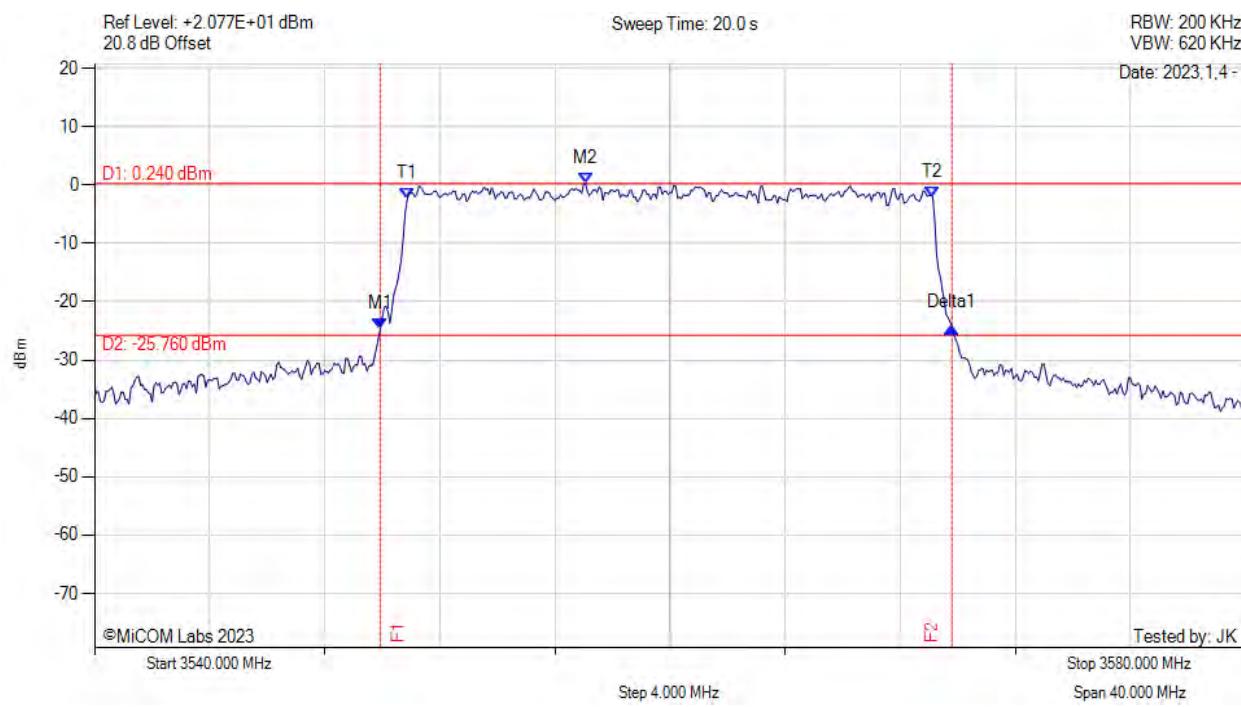


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.930 MHz : -26.227 dBm M2 : 3557.070 MHz : -1.029 dBm Delta1 : 19.870 MHz : 0.759 dB T1 : 3550.867 MHz : -3.755 dBm T2 : 3569.133 MHz : -3.110 dBm OBW : 18.221 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 20MHz, Channel: 3560.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



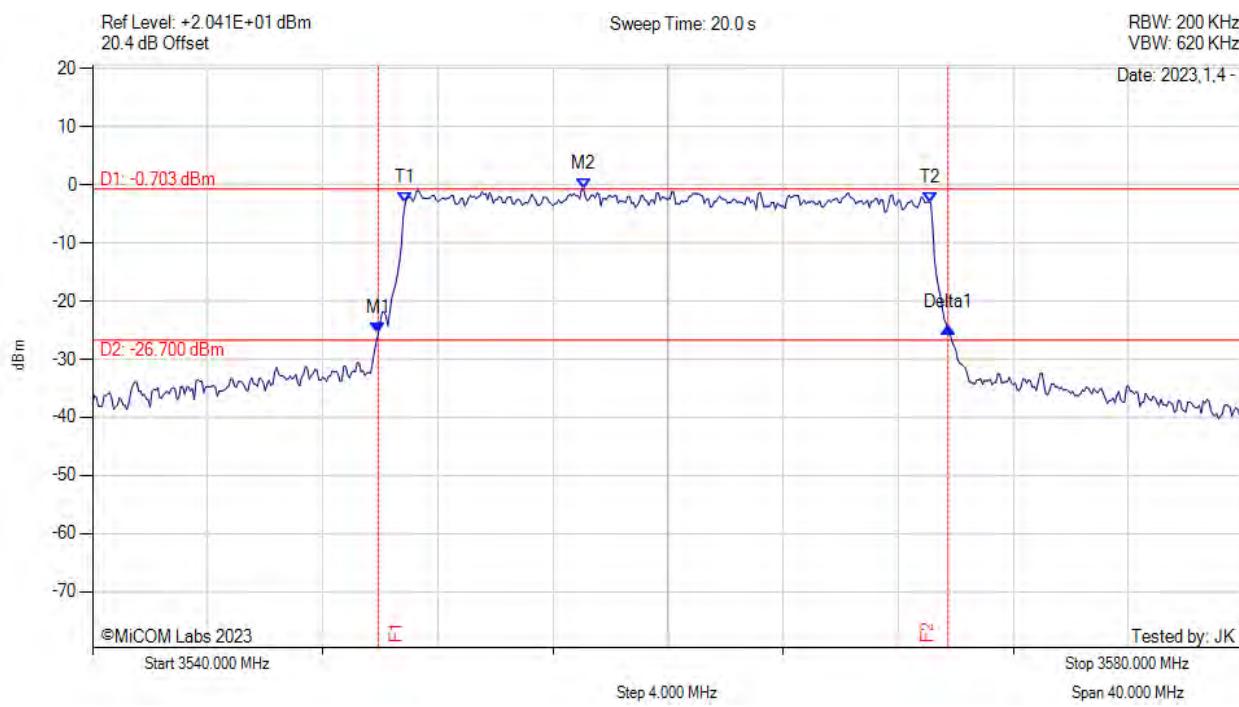
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.930 MHz : -24.751 dBm M2 : 3557.070 MHz : 0.240 dBm Delta1 : 19.870 MHz : 0.426 dB T1 : 3550.867 MHz : -2.392 dBm T2 : 3569.133 MHz : -1.989 dBm OBW : 18.225 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3560.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



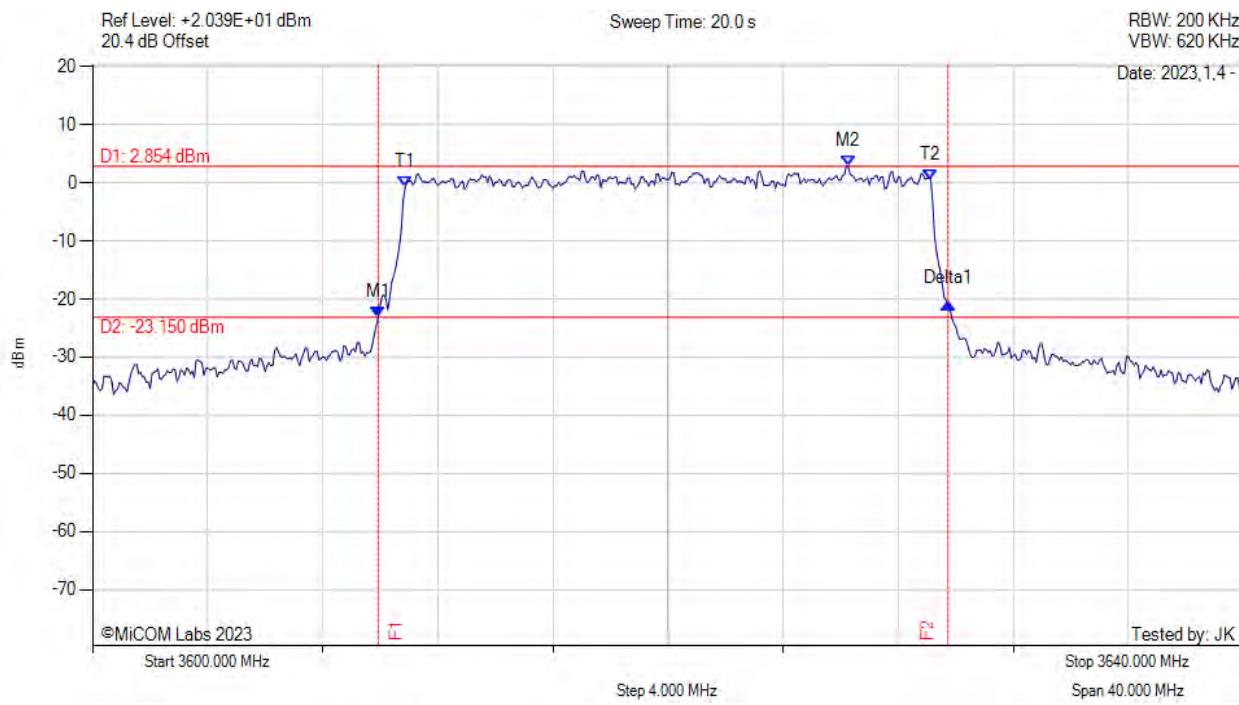
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.930 MHz : -25.554 dBm M2 : 3557.070 MHz : -0.703 dBm Delta1 : 19.800 MHz : 0.974 dB T1 : 3550.867 MHz : -3.121 dBm T2 : 3569.133 MHz : -3.132 dBm OBW : 18.225 MHz	Measured 6 dB Bandwidth: 19.800 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3620.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



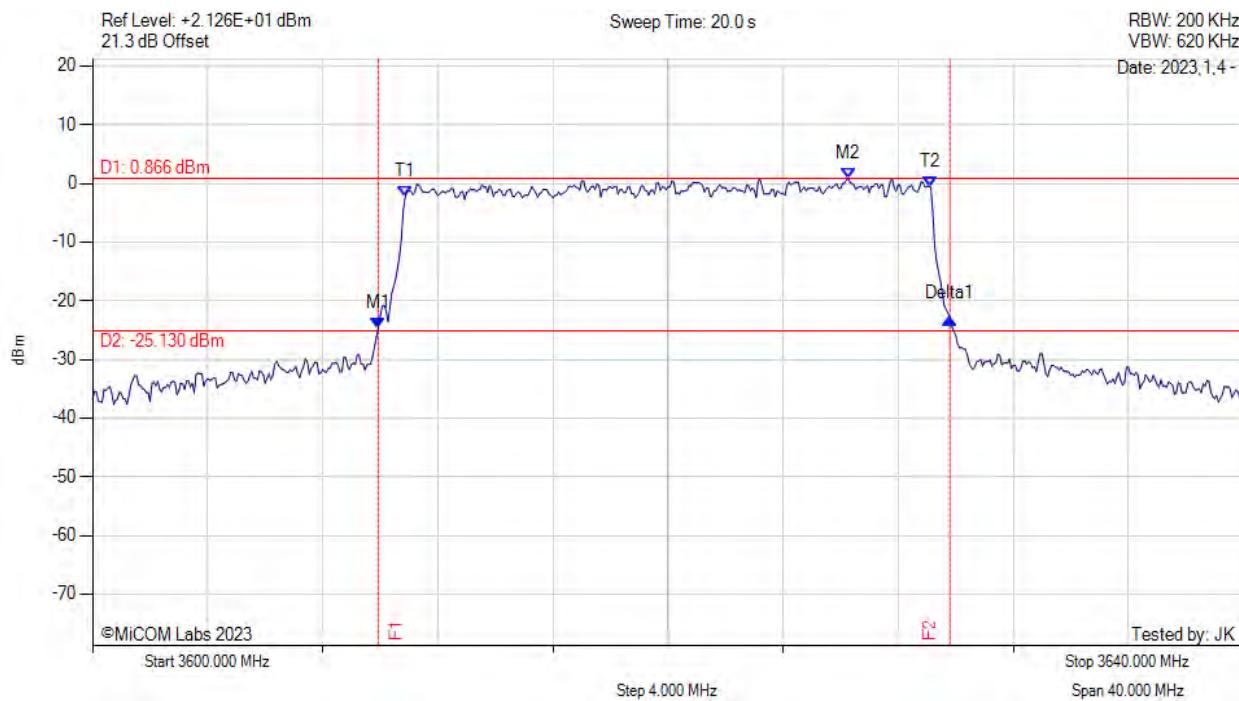
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.930 MHz : -23.069 dBm M2 : 3626.270 MHz : 2.854 dBm Delta1 : 19.800 MHz : 2.239 dB T1 : 3610.867 MHz : -0.715 dBm T2 : 3629.133 MHz : 0.564 dBm OBW : 18.227 MHz	Measured 6 dB Bandwidth: 19.800 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3620.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



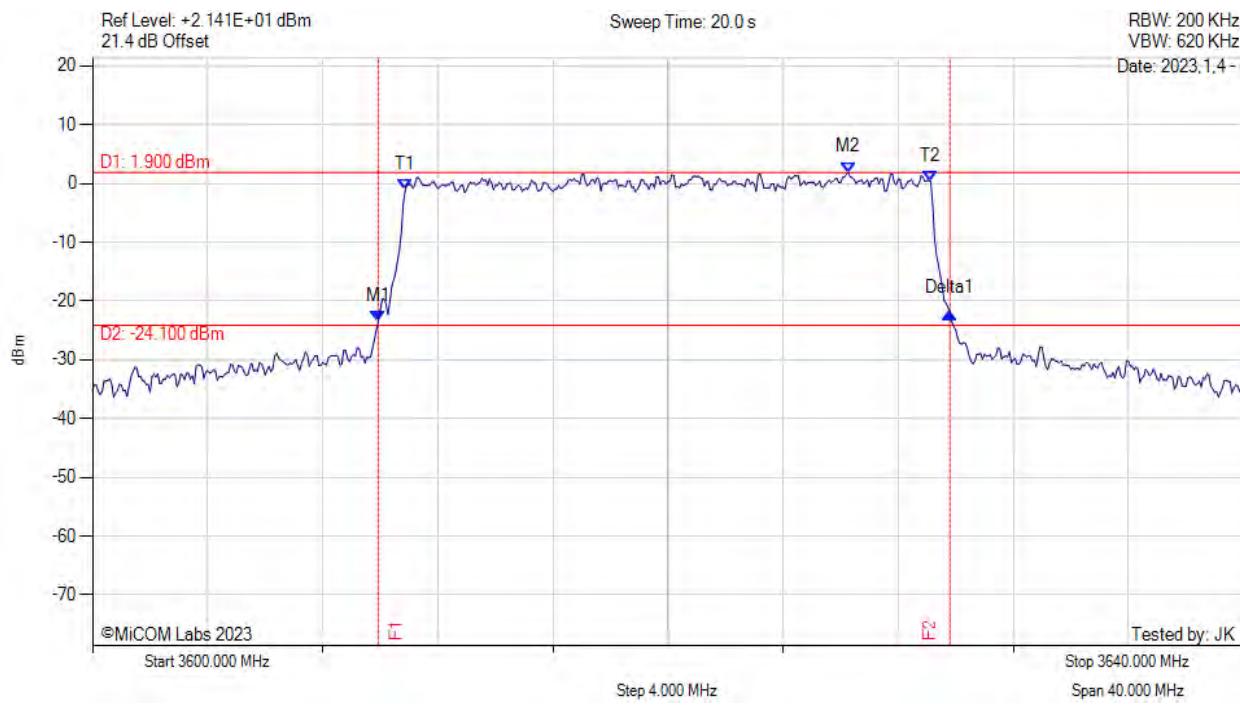
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.930 MHz : -24.664 dBm M2 : 3626.270 MHz : 0.866 dBm Delta1 : 19.870 MHz : 1.655 dB T1 : 3610.867 MHz : -2.306 dBm T2 : 3629.133 MHz : -0.666 dBm OBW : 18.226 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3620.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



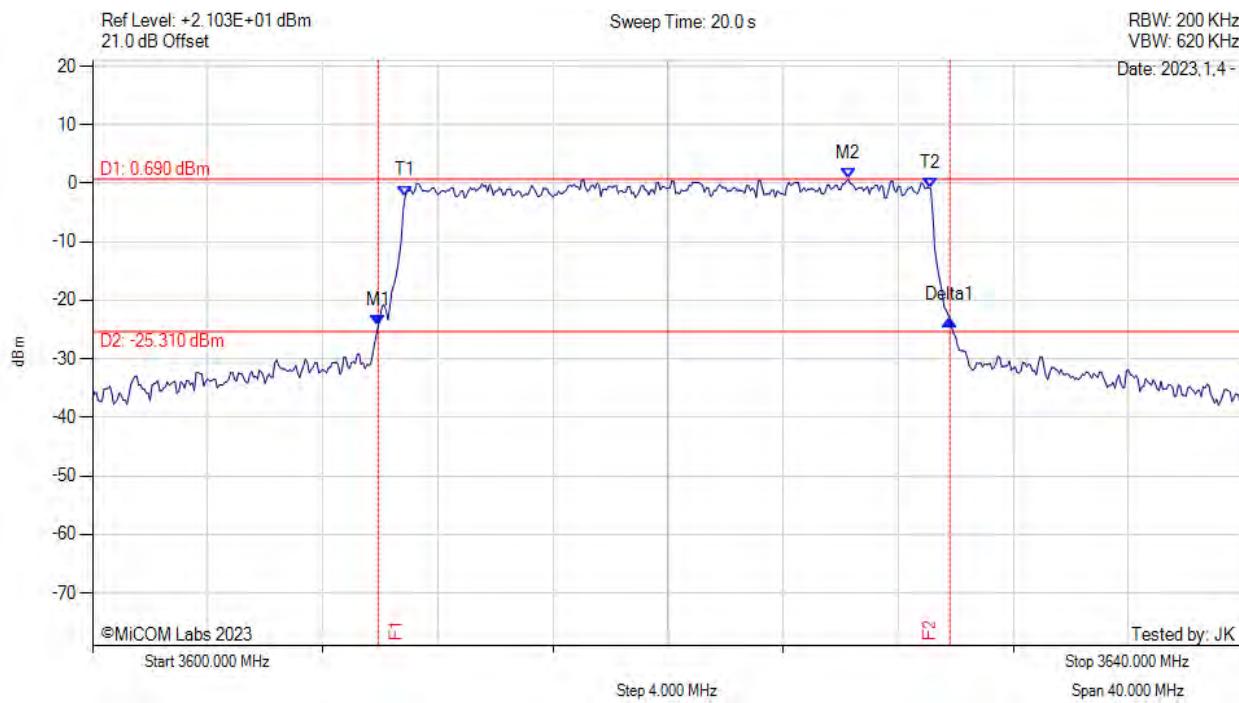
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.930 MHz : -23.364 dBm M2 : 3626.270 MHz : 1.900 dBm Delta1 : 19.870 MHz : 1.390 dB T1 : 3610.867 MHz : -1.142 dBm T2 : 3629.133 MHz : 0.330 dBm OBW : 18.228 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3620.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



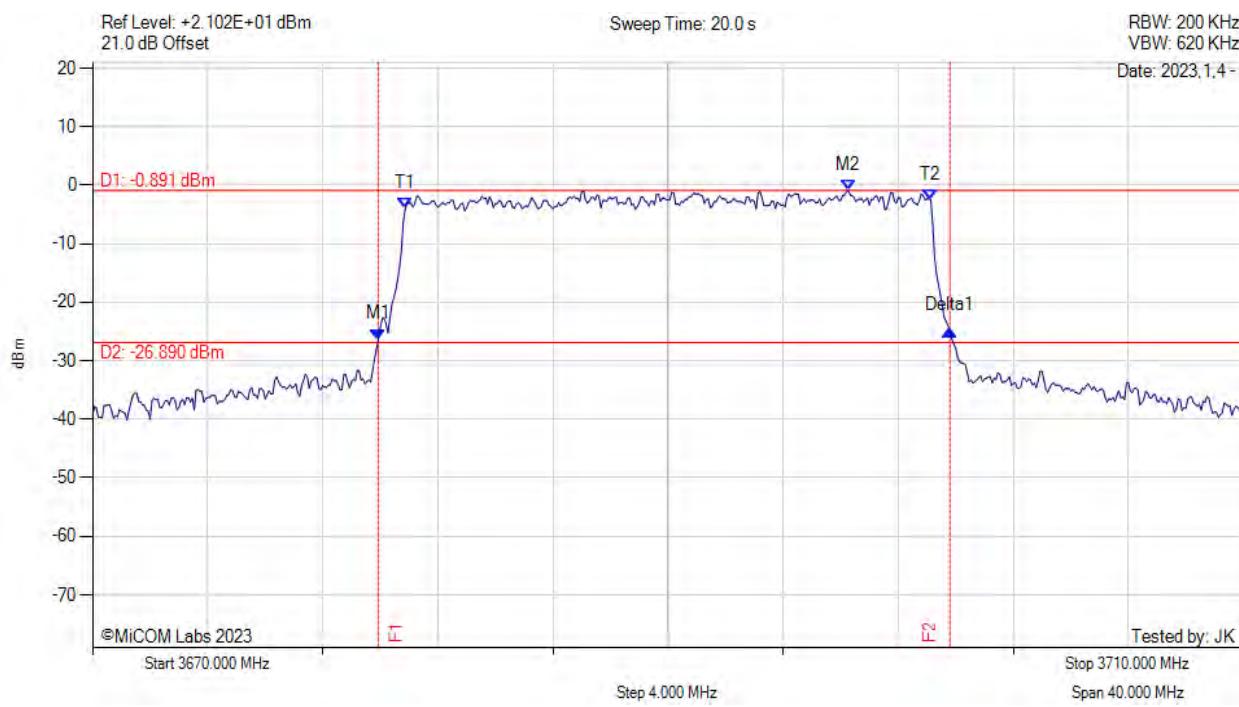
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.930 MHz : -24.358 dBm M2 : 3626.270 MHz : 0.690 dBm Delta1 : 19.870 MHz : 1.026 dB T1 : 3610.867 MHz : -2.172 dBm T2 : 3629.133 MHz : -0.960 dBm OBW : 18.223 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3690.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



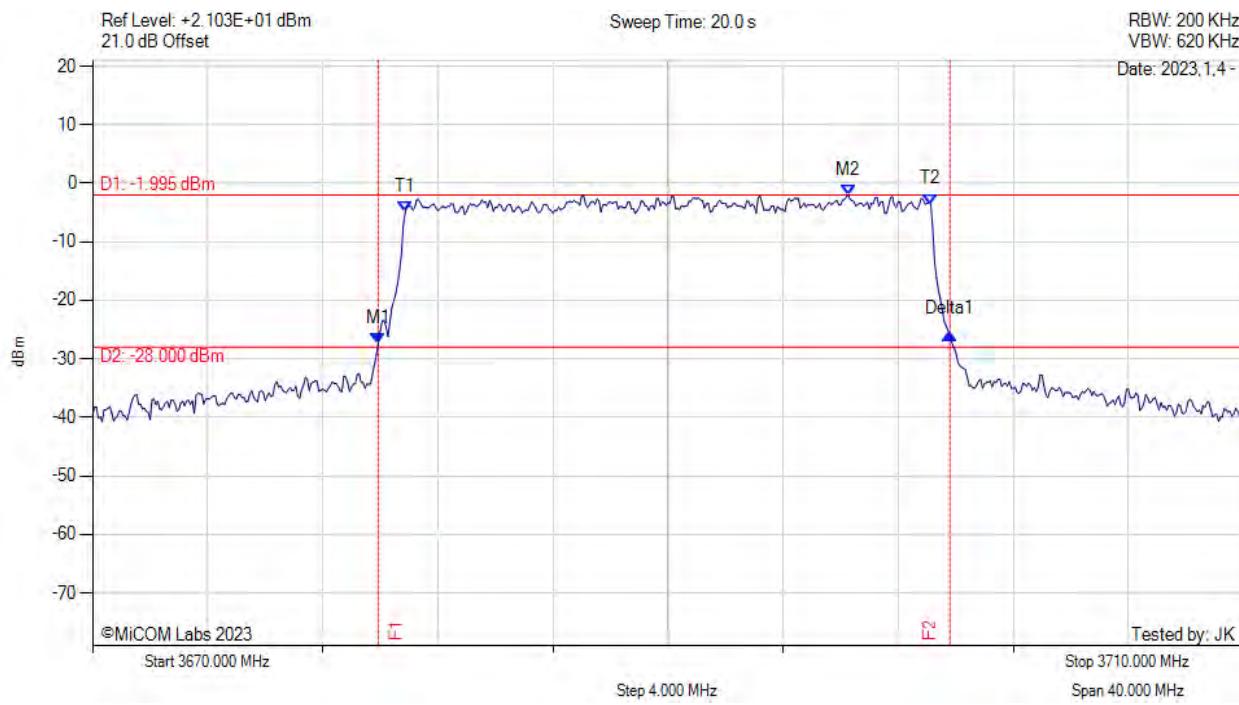
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3679.930 MHz : -26.341 dBm M2 : 3696.270 MHz : -0.891 dBm Delta1 : 19.870 MHz : 1.489 dB T1 : 3680.867 MHz : -4.030 dBm T2 : 3699.133 MHz : -2.526 dBm OBW : 18.218 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3690.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



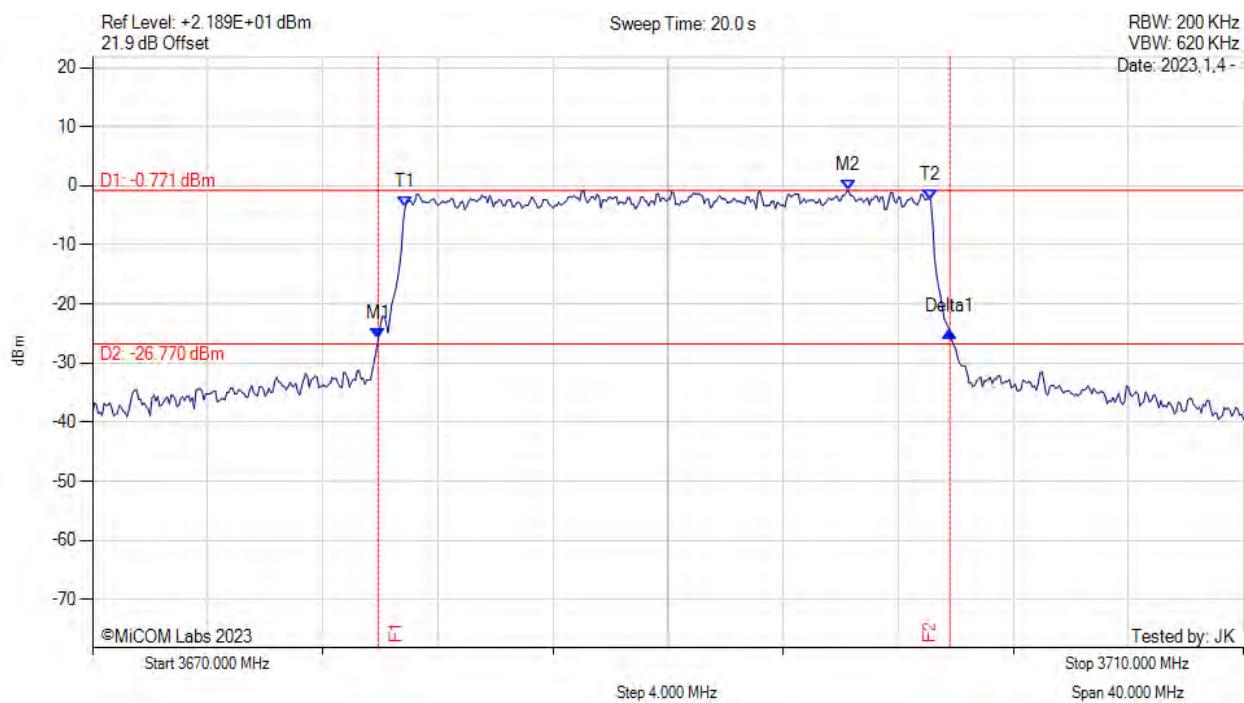
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3679.930 MHz : -27.387 dBm M2 : 3696.270 MHz : -1.995 dBm Delta1 : 19.870 MHz : 1.553 dB T1 : 3680.867 MHz : -4.956 dBm T2 : 3699.133 MHz : -3.609 dBm OBW : 18.221 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3690.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



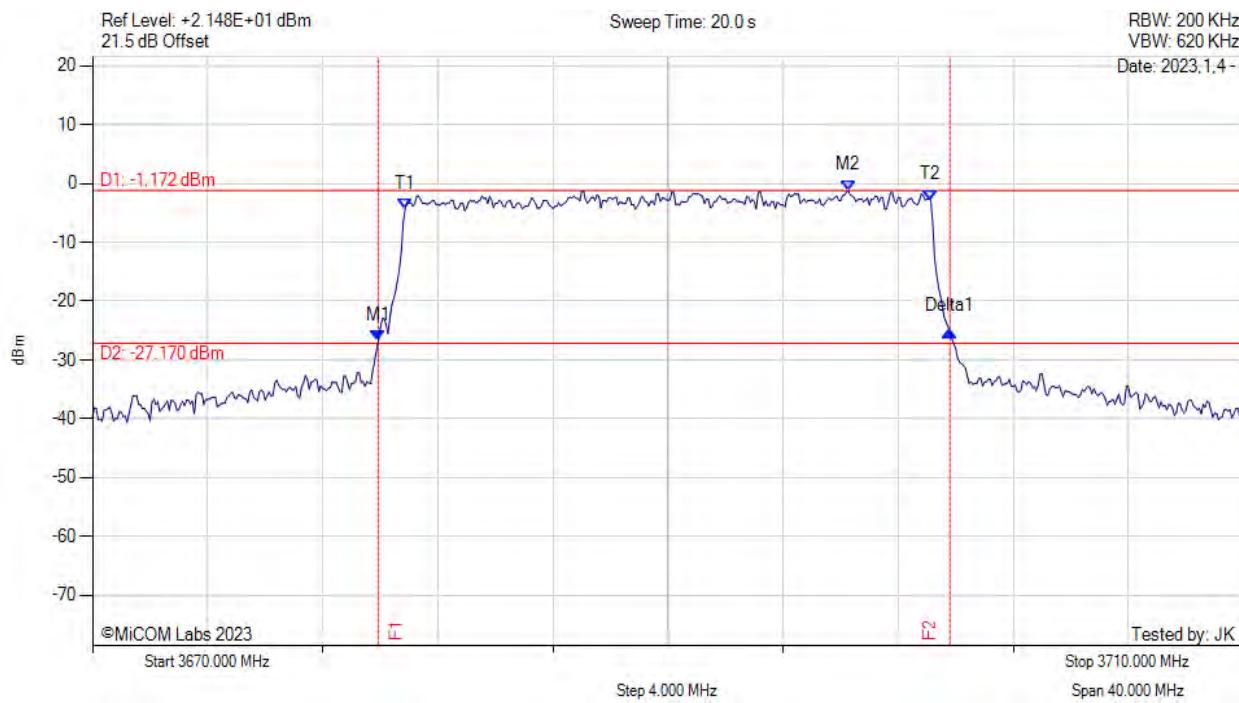
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3679.930 MHz : -25.873 dBm M2 : 3696.270 MHz : -0.771 dBm Delta1 : 19.870 MHz : 1.221 dB T1 : 3680.867 MHz : -3.579 dBm T2 : 3699.133 MHz : -2.386 dBm OBW : 18.223 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 20MHz, Channel: 3690.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



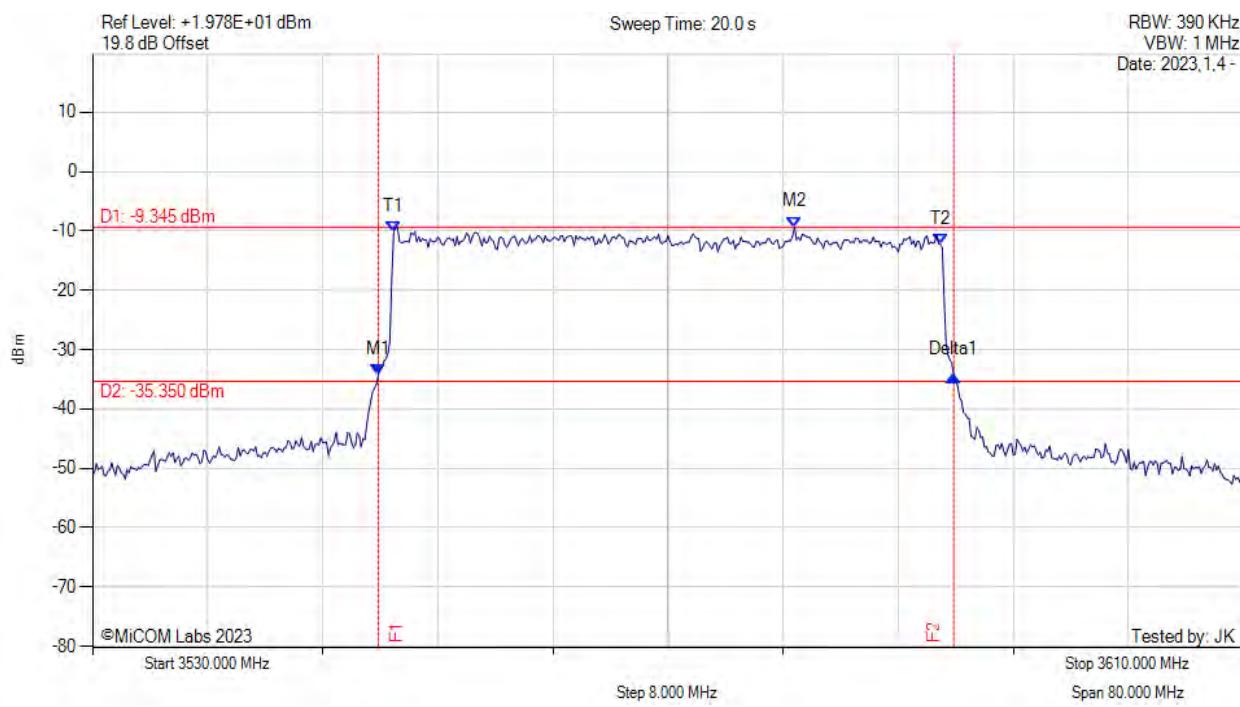
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3679.930 MHz : -26.811 dBm M2 : 3696.270 MHz : -1.172 dBm Delta1 : 19.870 MHz : 1.648 dB T1 : 3680.867 MHz : -4.253 dBm T2 : 3699.133 MHz : -2.819 dBm OBW : 18.218 MHz	Measured 6 dB Bandwidth: 19.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3570.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



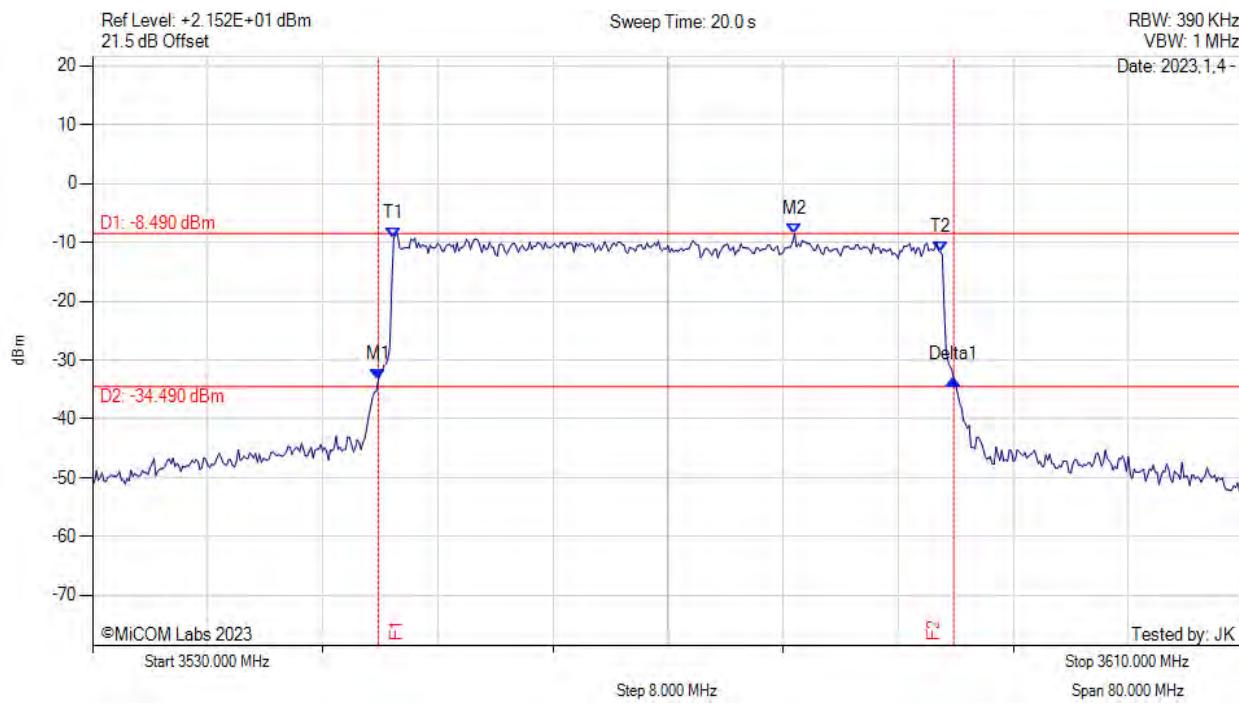
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -34.217 dBm M2 : 3578.800 MHz : -9.345 dBm Delta1 : 40.000 MHz : -0.148 dB T1 : 3550.933 MHz : -10.214 dBm T2 : 3588.933 MHz : -12.270 dBm OBW : 37.891 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3570.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



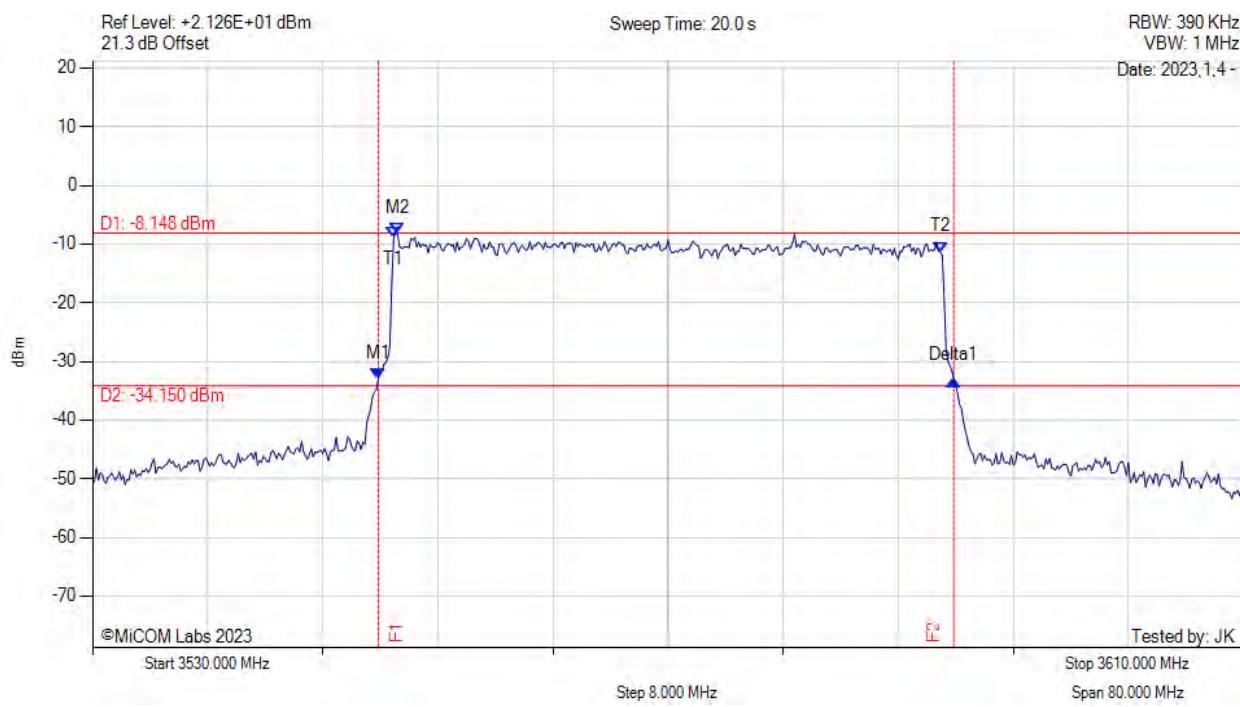
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -33.273 dBm M2 : 3578.800 MHz : -8.490 dBm Delta1 : 40.000 MHz : -0.137 dB T1 : 3550.933 MHz : -9.323 dBm T2 : 3588.933 MHz : -11.543 dBm OBW : 37.887 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3570.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



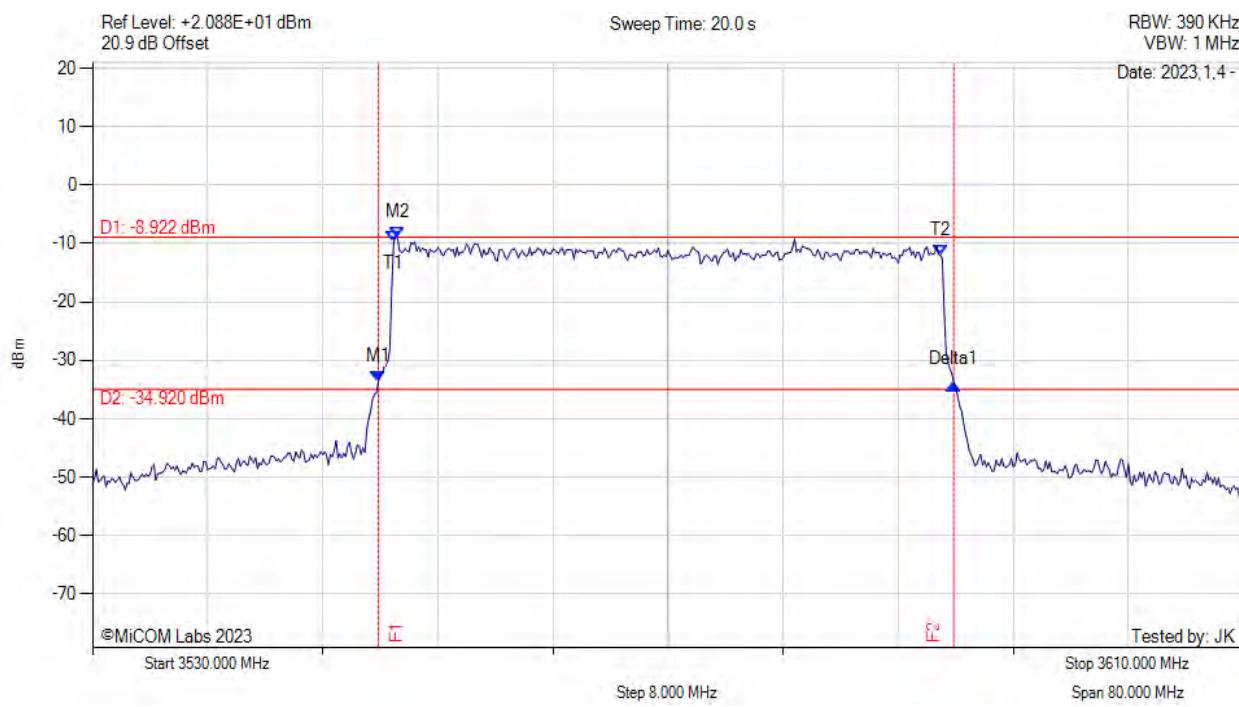
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -32.871 dBm M2 : 3551.200 MHz : -8.148 dBm Delta1 : 40.000 MHz : -0.249 dB T1 : 3550.933 MHz : -8.916 dBm T2 : 3588.933 MHz : -11.346 dBm OBW : 37.894 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3570.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



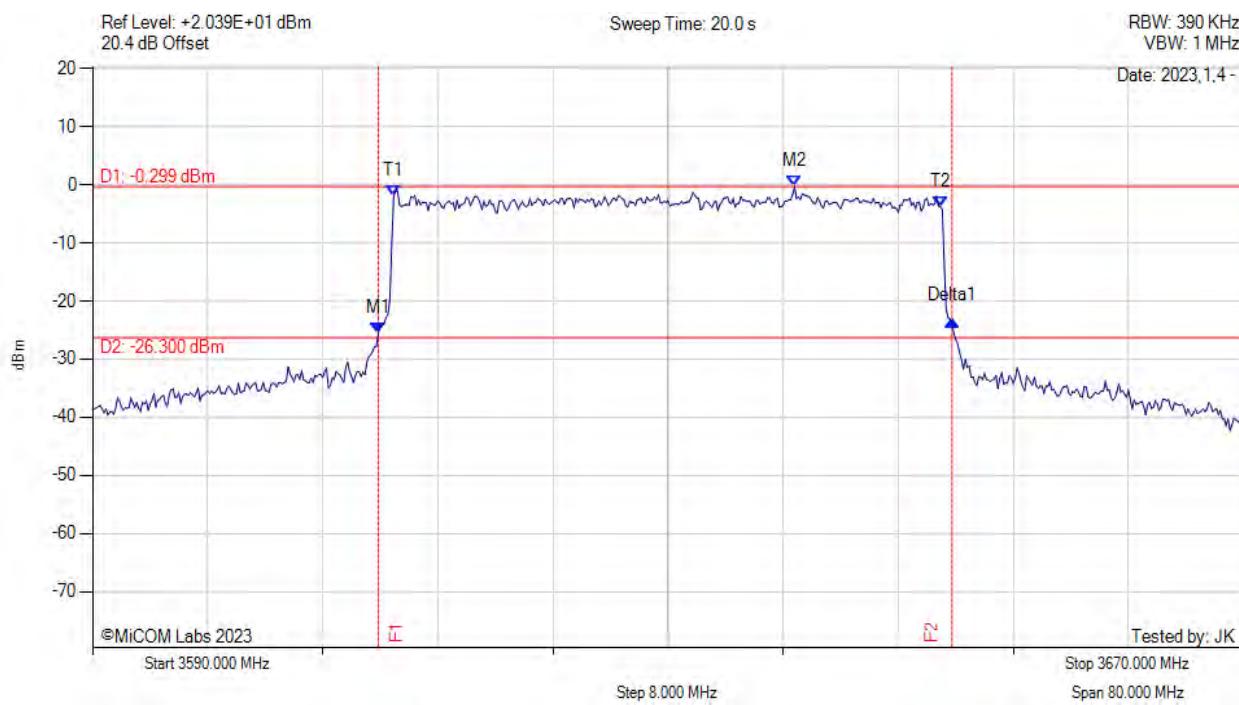
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3549.870 MHz : -33.614 dBm M2 : 3551.200 MHz : -8.922 dBm Delta1 : 40.000 MHz : -0.401 dB T1 : 3550.933 MHz : -9.671 dBm T2 : 3588.933 MHz : -12.025 dBm OBW : 37.911 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc

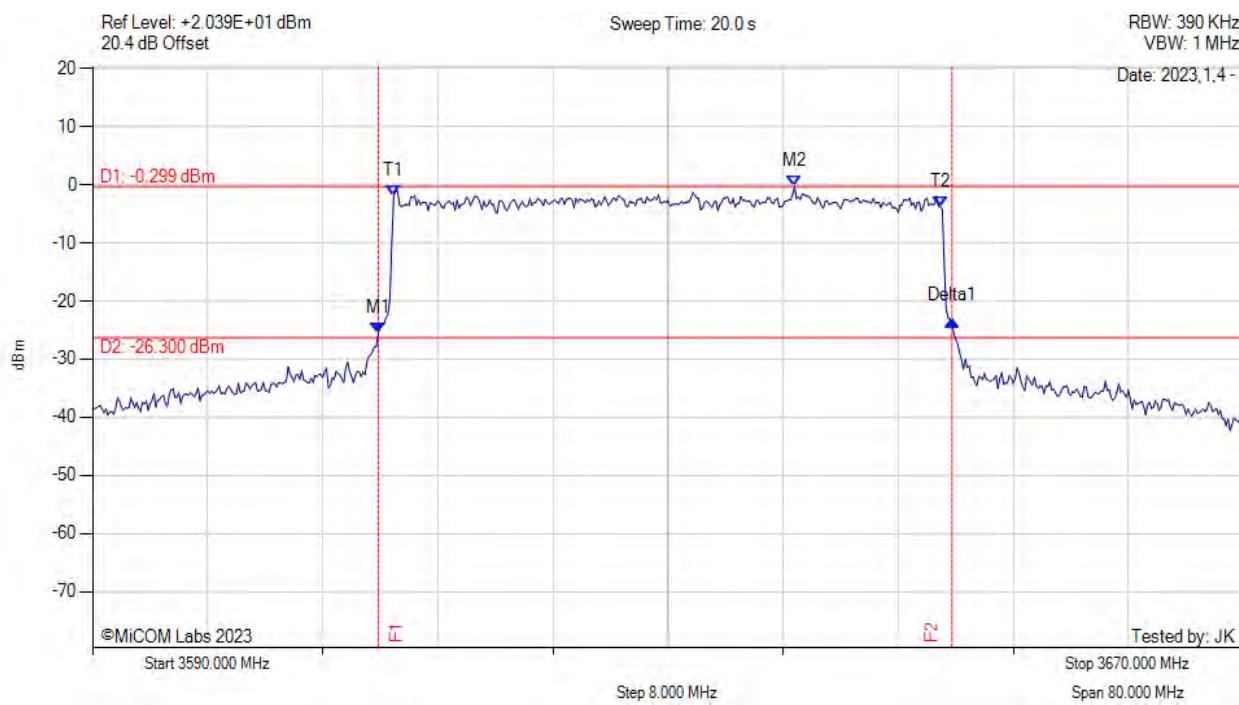


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -25.535 dBm M2 : 3638.800 MHz : -0.299 dBm Delta1 : 39.870 MHz : 2.095 dB T1 : 3610.933 MHz : -1.885 dBm T2 : 3648.933 MHz : -3.783 dBm OBW : 37.882 MHz	Measured 6 dB Bandwidth: 39.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 40MHz, Channel: 3630.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



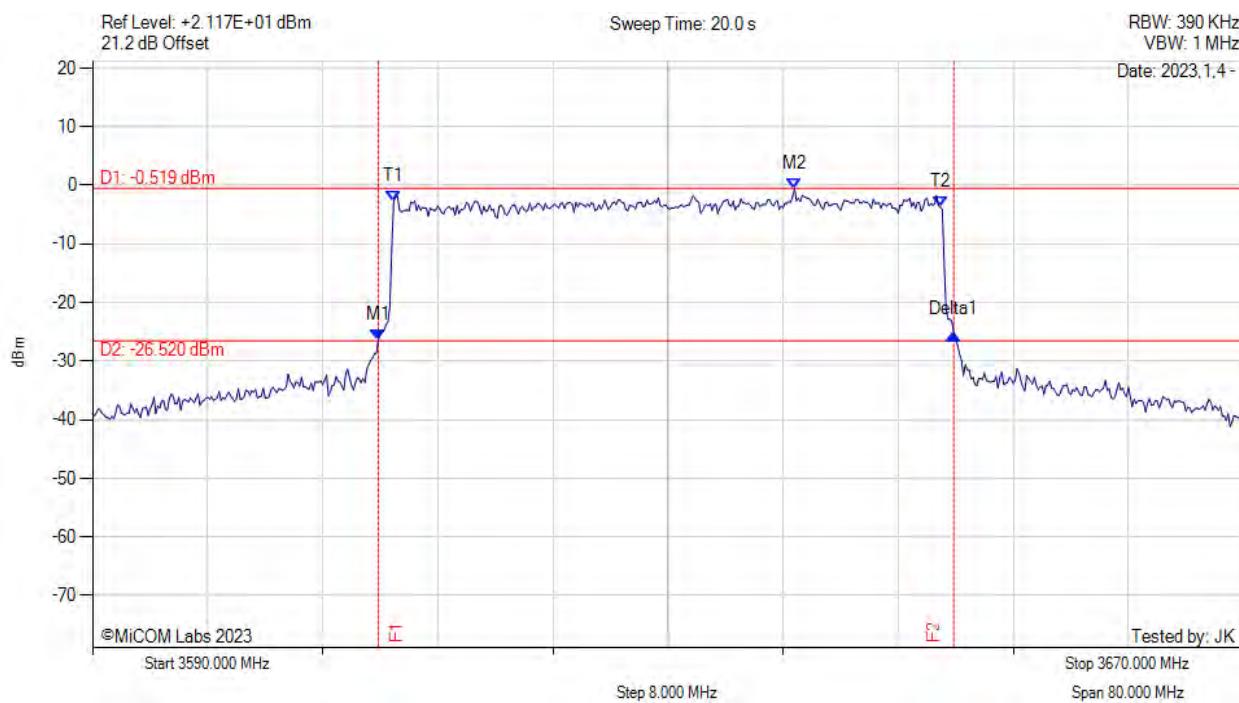
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -25.535 dBm M2 : 3638.800 MHz : -0.299 dBm Delta1 : 39.870 MHz : 2.095 dB T1 : 3610.933 MHz : -1.885 dBm T2 : 3648.933 MHz : -3.783 dBm OBW : 37.882 MHz	Channel Frequency: 3630.00 MHz

[back to matrix](#)

26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



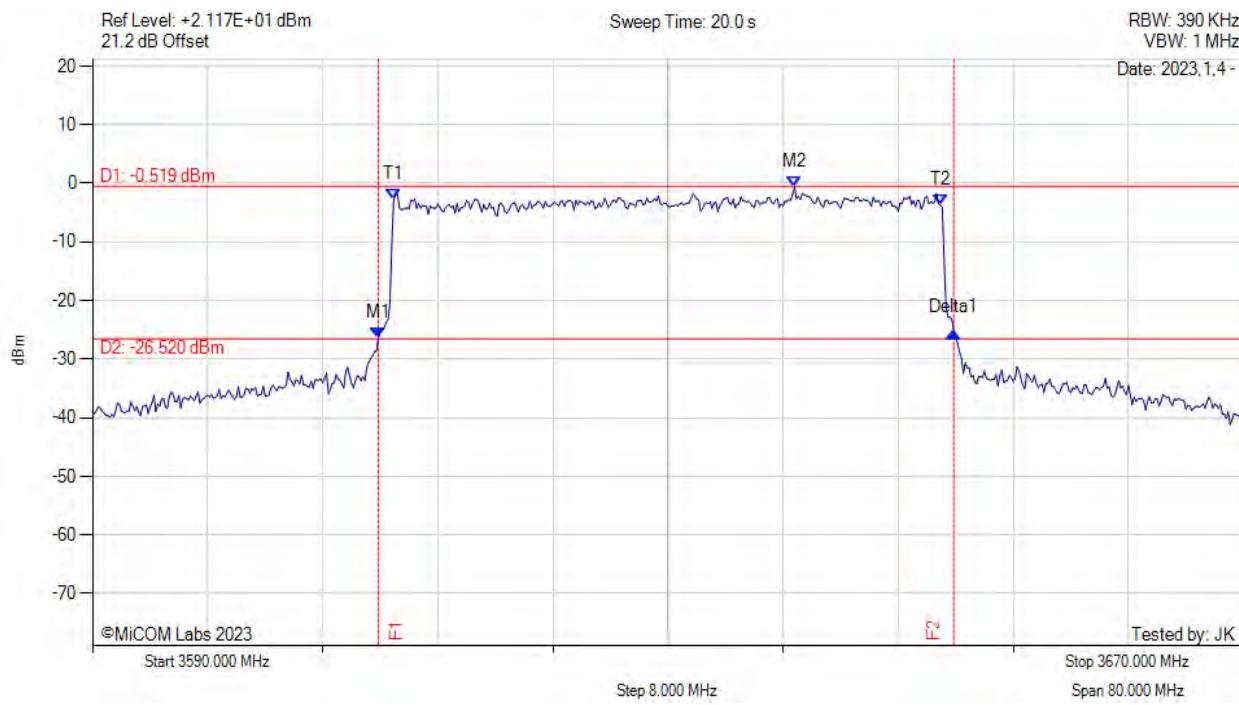
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -26.356 dBm M2 : 3638.800 MHz : -0.519 dBm Delta1 : 40.000 MHz : 1.003 dB T1 : 3610.933 MHz : -2.691 dBm T2 : 3648.933 MHz : -3.733 dBm OBW : 37.897 MHz	Channel Frequency: 3630.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



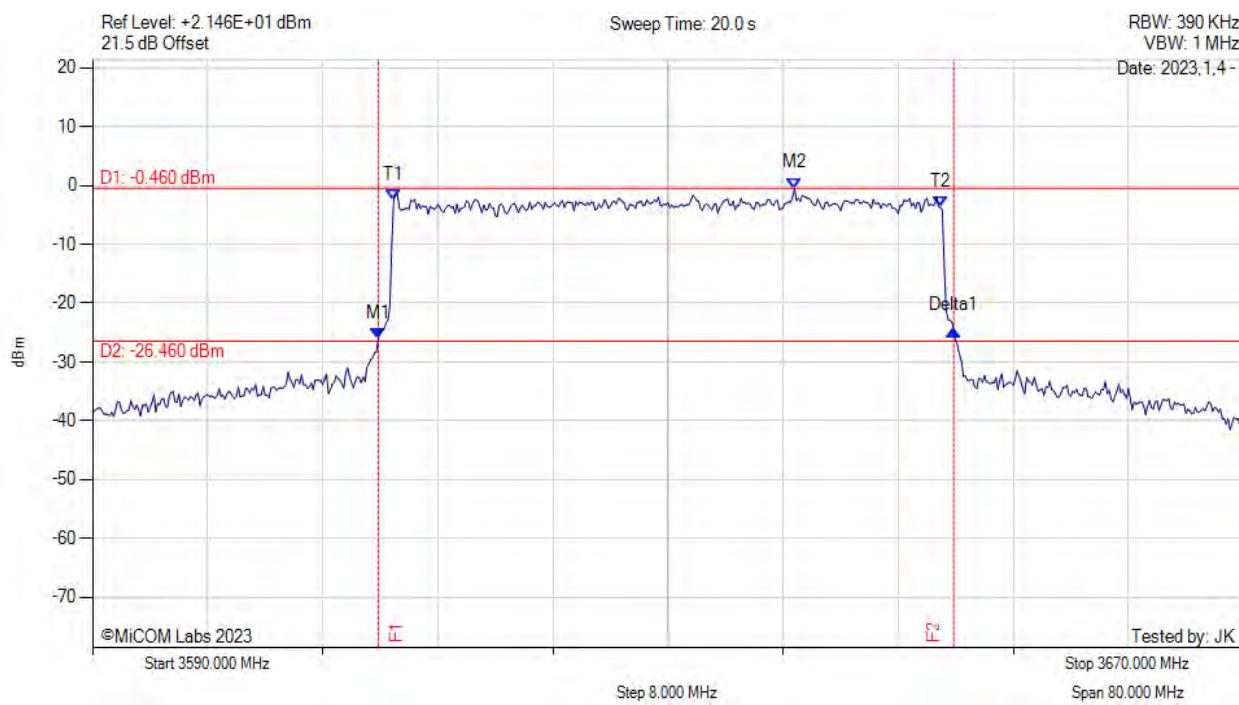
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -26.356 dBm M2 : 3638.800 MHz : -0.519 dBm Delta1 : 40.000 MHz : 1.003 dB T1 : 3610.933 MHz : -2.691 dBm T2 : 3648.933 MHz : -3.733 dBm OBW : 37.897 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



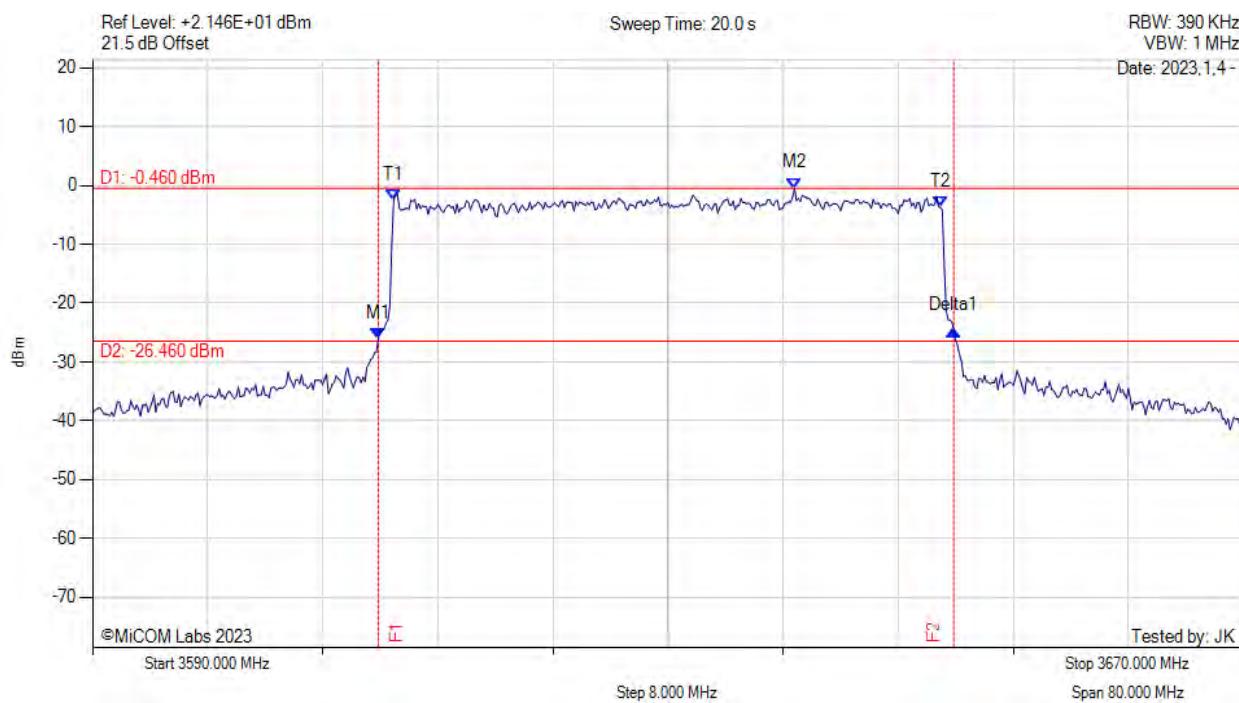
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -25.941 dBm M2 : 3638.800 MHz : -0.460 dBm Delta1 : 40.000 MHz : 1.319 dB T1 : 3610.933 MHz : -2.365 dBm T2 : 3648.933 MHz : -3.714 dBm OBW : 37.895 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



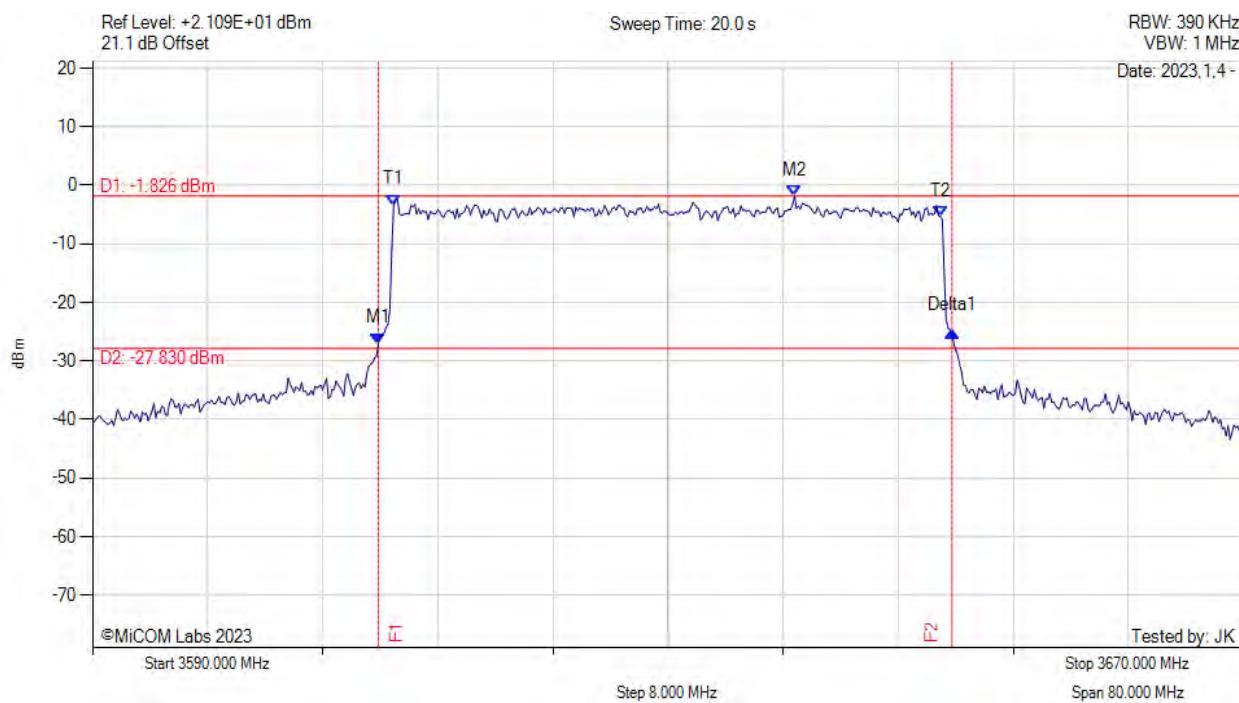
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -25.941 dBm M2 : 3638.800 MHz : -0.460 dBm Delta1 : 40.000 MHz : 1.319 dB T1 : 3610.933 MHz : -2.365 dBm T2 : 3648.933 MHz : -3.714 dBm OBW : 37.895 MHz	Channel Frequency: 3630.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



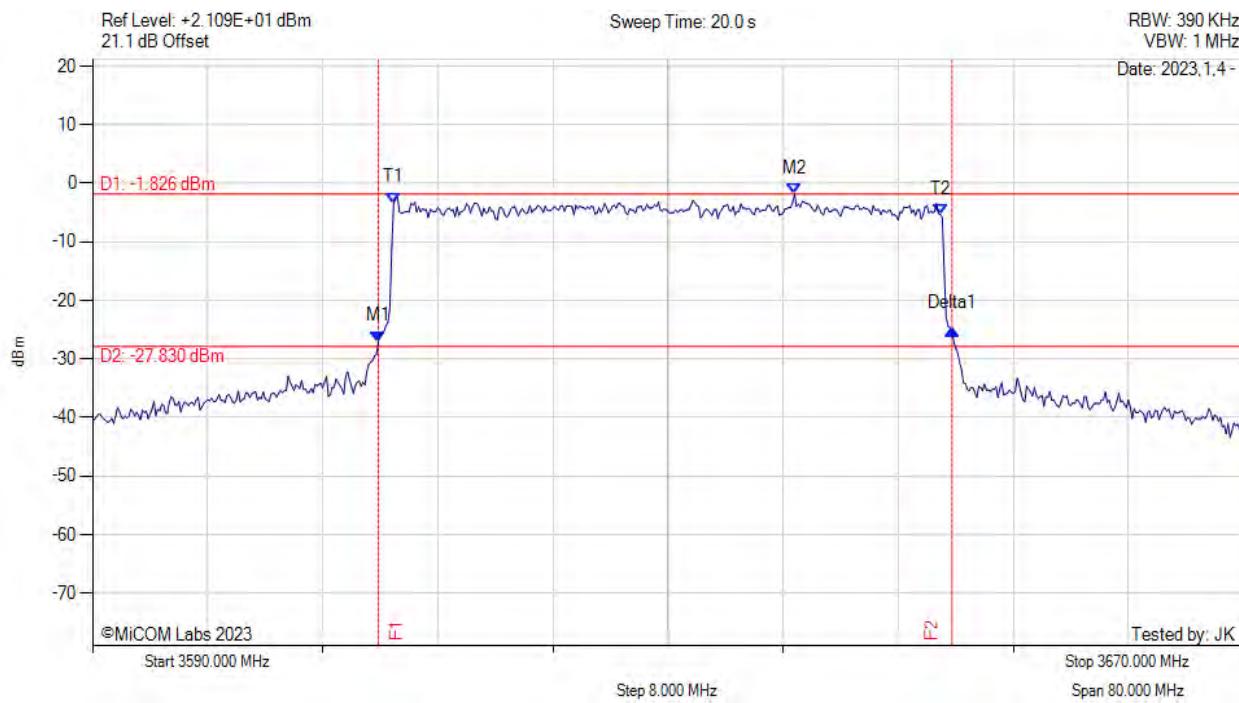
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -27.028 dBm M2 : 3638.800 MHz : -1.826 dBm Delta1 : 39.870 MHz : 2.154 dB T1 : 3610.933 MHz : -3.338 dBm T2 : 3648.933 MHz : -5.319 dBm OBW : 37.880 MHz	Channel Frequency: 3630.00 MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3630.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



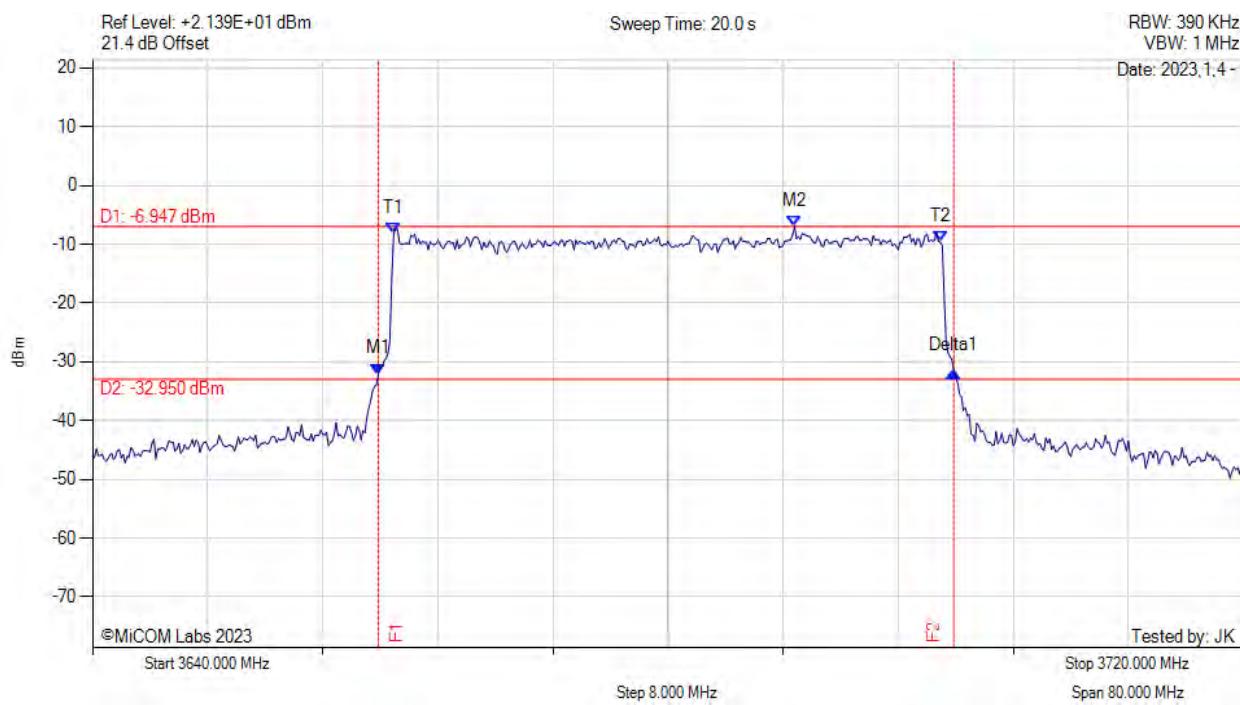
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3609.870 MHz : -27.028 dBm M2 : 3638.800 MHz : -1.826 dBm Delta1 : 39.870 MHz : 2.154 dB T1 : 3610.933 MHz : -3.338 dBm T2 : 3648.933 MHz : -5.319 dBm OBW : 37.880 MHz	Measured 6 dB Bandwidth: 39.870 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3680.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



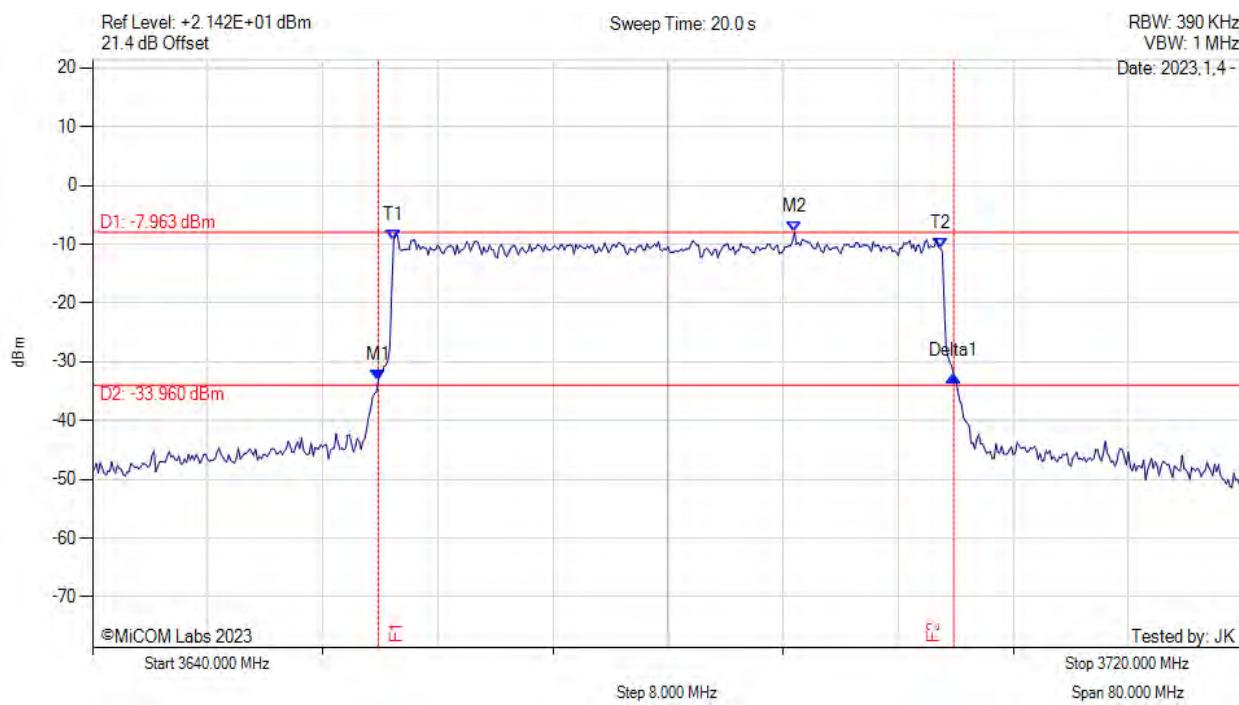
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3659.870 MHz : -32.079 dBm M2 : 3688.800 MHz : -6.947 dBm Delta1 : 40.000 MHz : 0.459 dB T1 : 3660.933 MHz : -8.190 dBm T2 : 3698.933 MHz : -9.639 dBm OBW : 37.924 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3680.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc

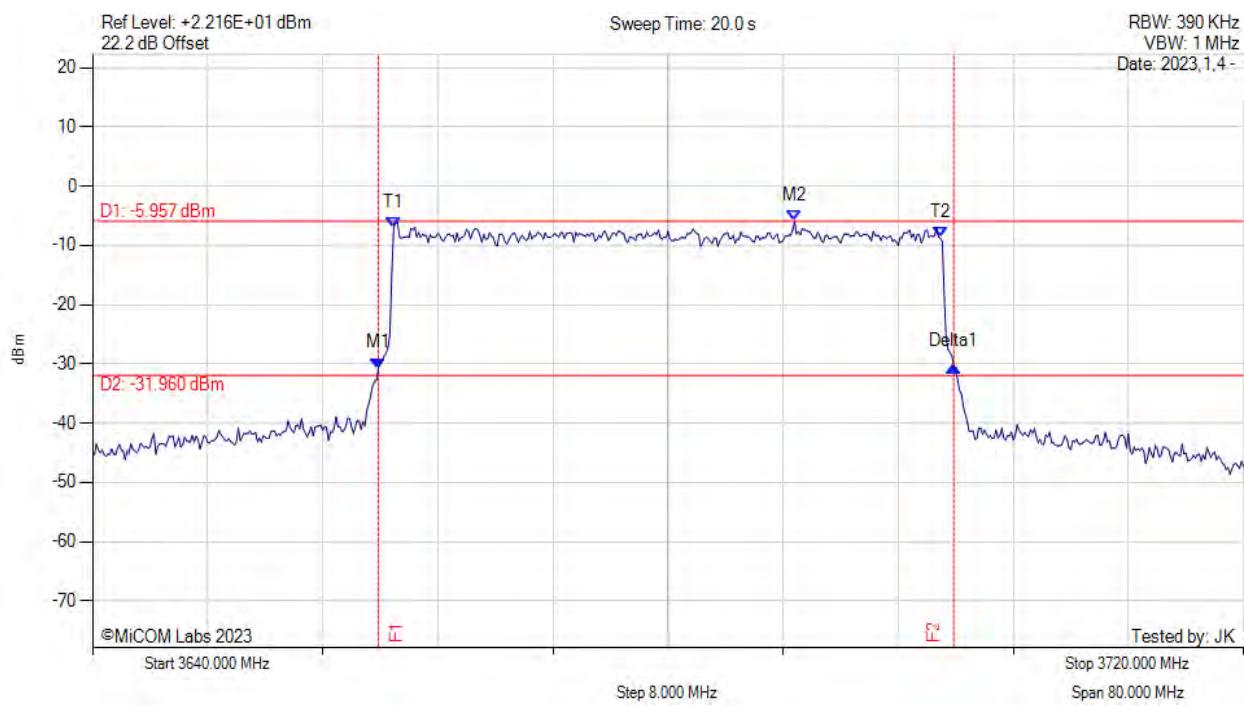


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3659.870 MHz : -33.113 dBm M2 : 3688.800 MHz : -7.963 dBm Delta1 : 40.000 MHz : 0.599 dB T1 : 3660.933 MHz : -9.216 dBm T2 : 3698.933 MHz : -10.677 dBm OBW : 37.909 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 40MHz, Channel: 3680.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



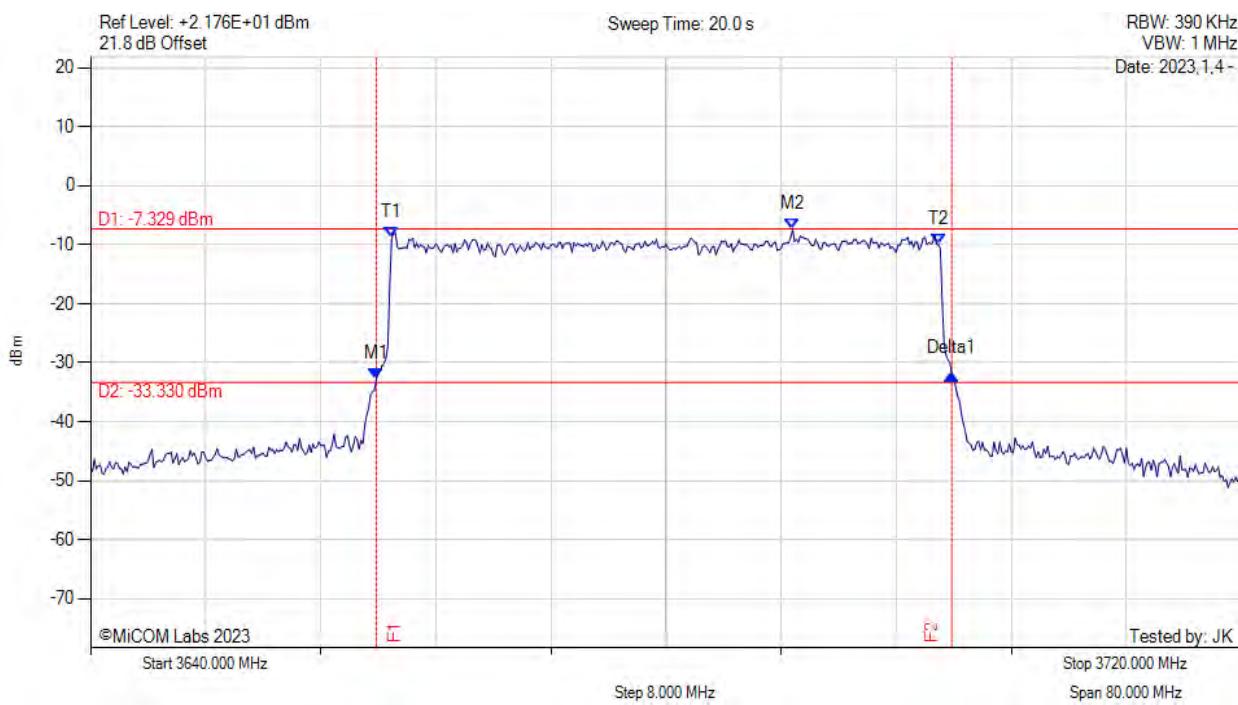
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3659.870 MHz : -30.779 dBm M2 : 3688.800 MHz : -5.957 dBm Delta1 : 40.000 MHz : 0.275 dB T1 : 3660.933 MHz : -6.929 dBm T2 : 3698.933 MHz : -8.756 dBm OBW : 37.910 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 40MHz, Channel: 3680.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



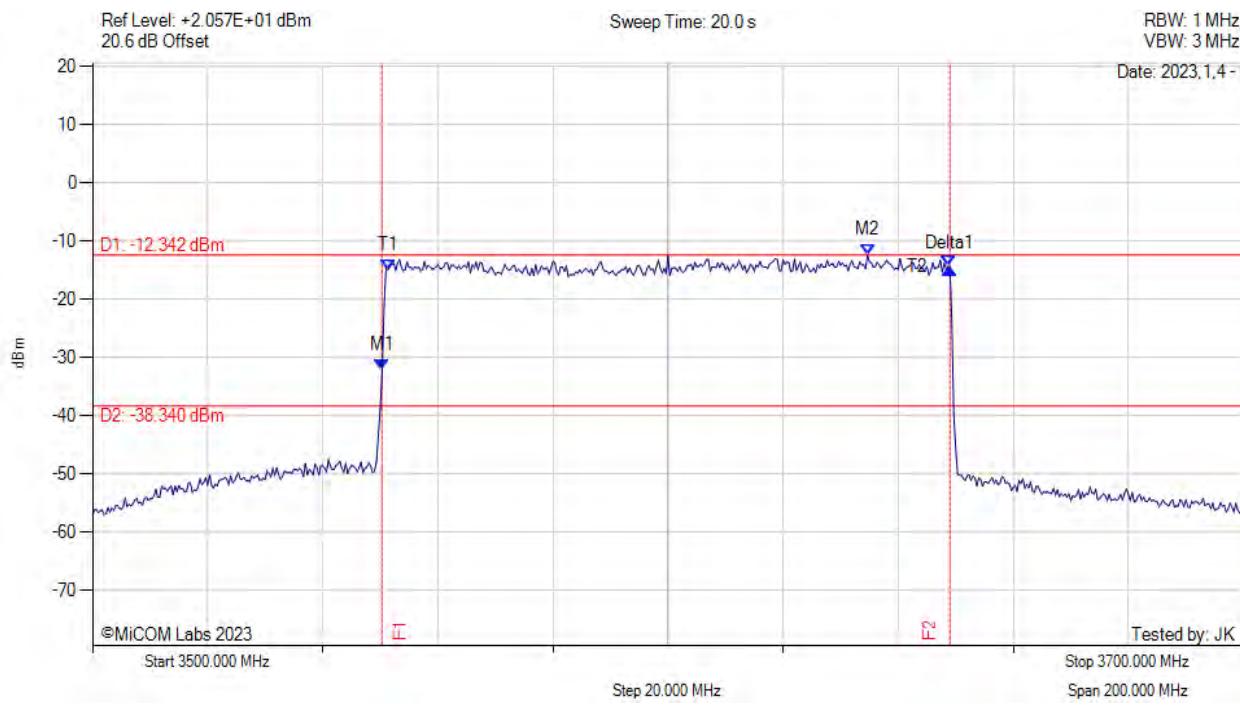
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3659.870 MHz : -32.768 dBm M2 : 3688.800 MHz : -7.329 dBm Delta1 : 40.000 MHz : 0.859 dB T1 : 3660.933 MHz : -8.857 dBm T2 : 3698.933 MHz : -10.027 dBm OBW : 37.912 MHz	Measured 6 dB Bandwidth: 40.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 100MHz, Channel: 3600.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc

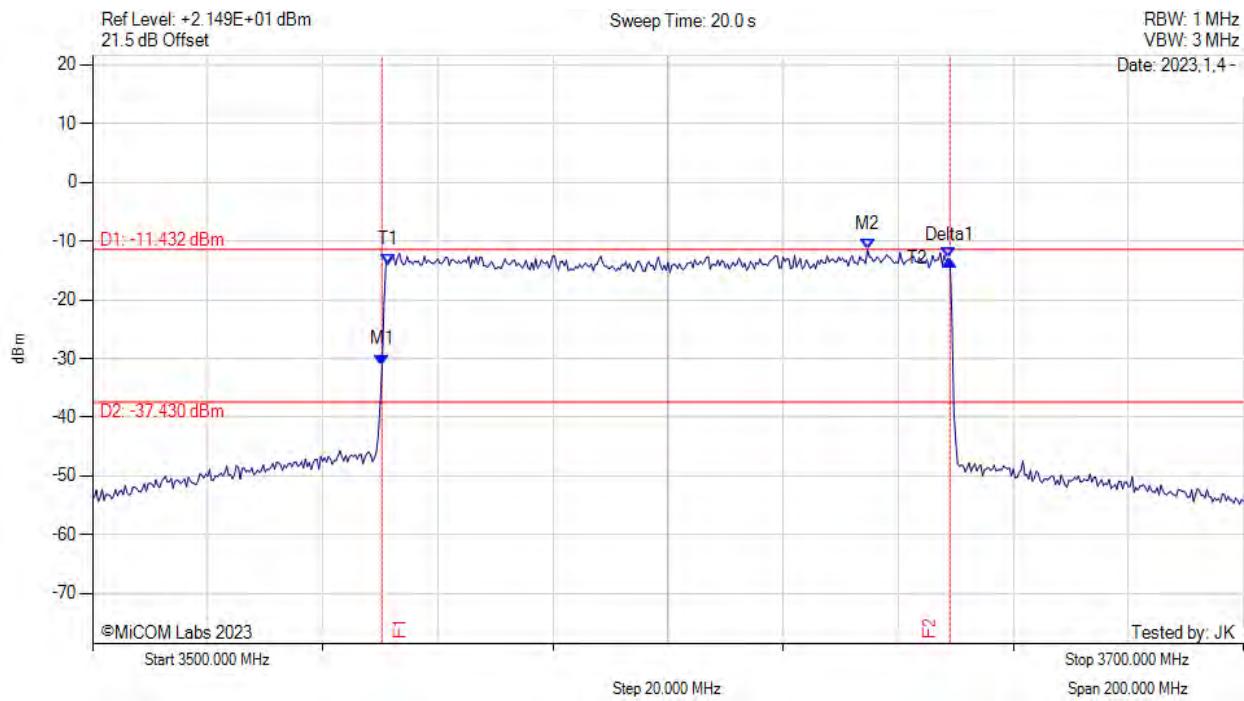


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3550.300 MHz : -32.199 dBm M2 : 3634.700 MHz : -12.342 dBm Delta1 : 98.700 MHz : 17.413 dB T1 : 3551.333 MHz : -14.980 dBm T2 : 3648.667 MHz : -14.256 dBm OBW : 97.287 MHz	Measured 6 dB Bandwidth: 98.700 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 100MHz, Channel: 3600.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



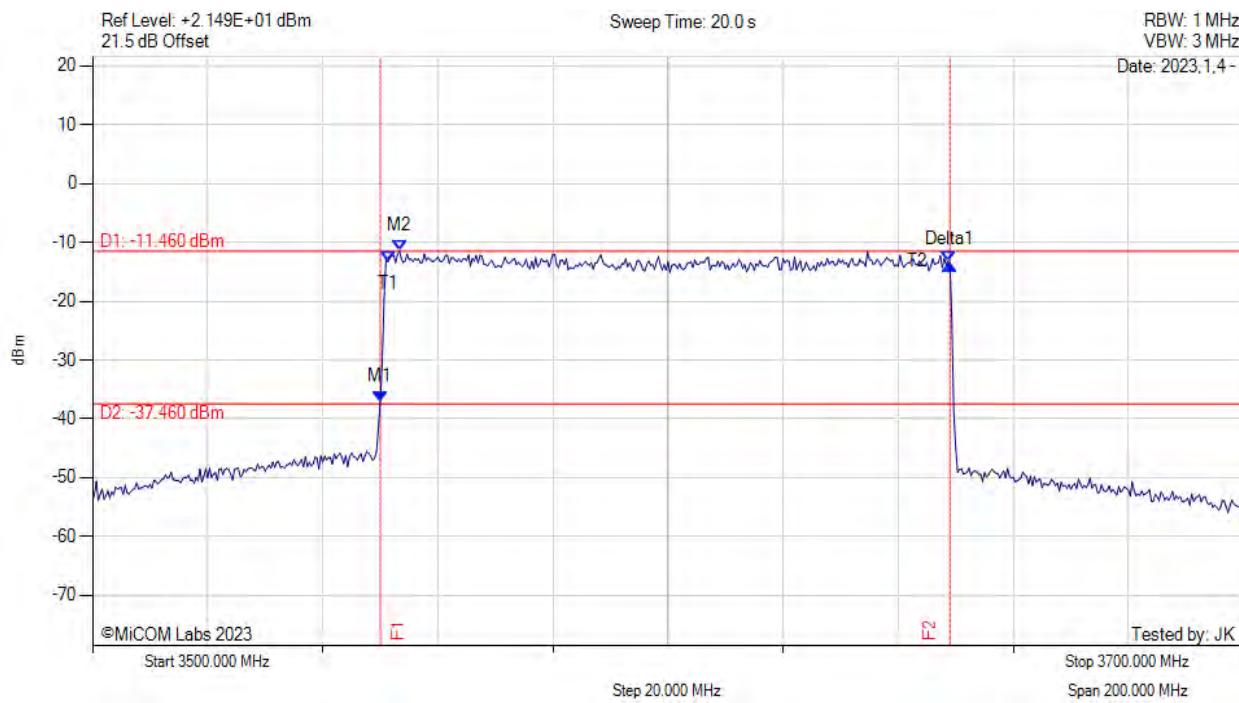
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3550.300 MHz : -31.095 dBm M2 : 3634.700 MHz : -11.432 dBm Delta1 : 98.700 MHz : 17.711 dB T1 : 3551.333 MHz : -13.953 dBm T2 : 3648.667 MHz : -12.917 dBm OBW : 97.373 MHz	Measured 6 dB Bandwidth: 98.700 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 100MHz, Channel: 3600.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc

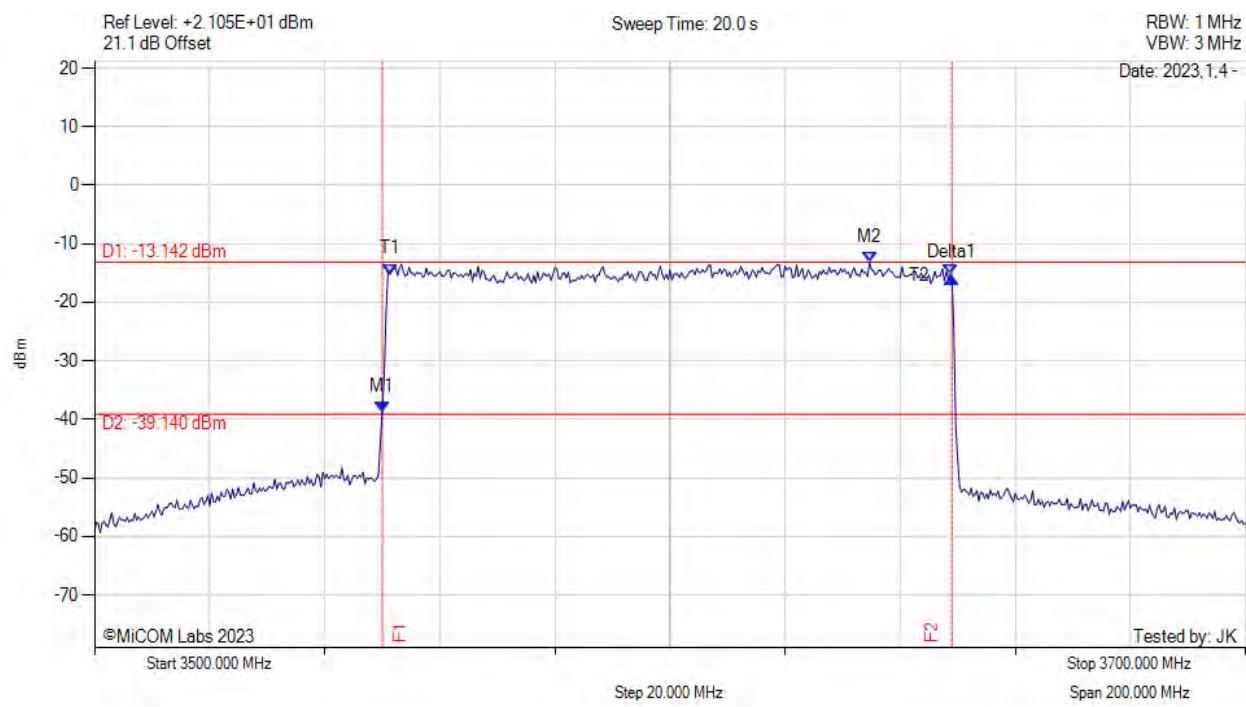


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3550.000 MHz : -37.045 dBm M2 : 3553.300 MHz : -11.460 dBm Delta1 : 99.000 MHz : 23.308 dB T1 : 3551.333 MHz : -13.270 dBm T2 : 3648.667 MHz : -13.228 dBm OBW : 97.367 MHz	Measured 6 dB Bandwidth: 99.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 100MHz, Channel: 3600.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

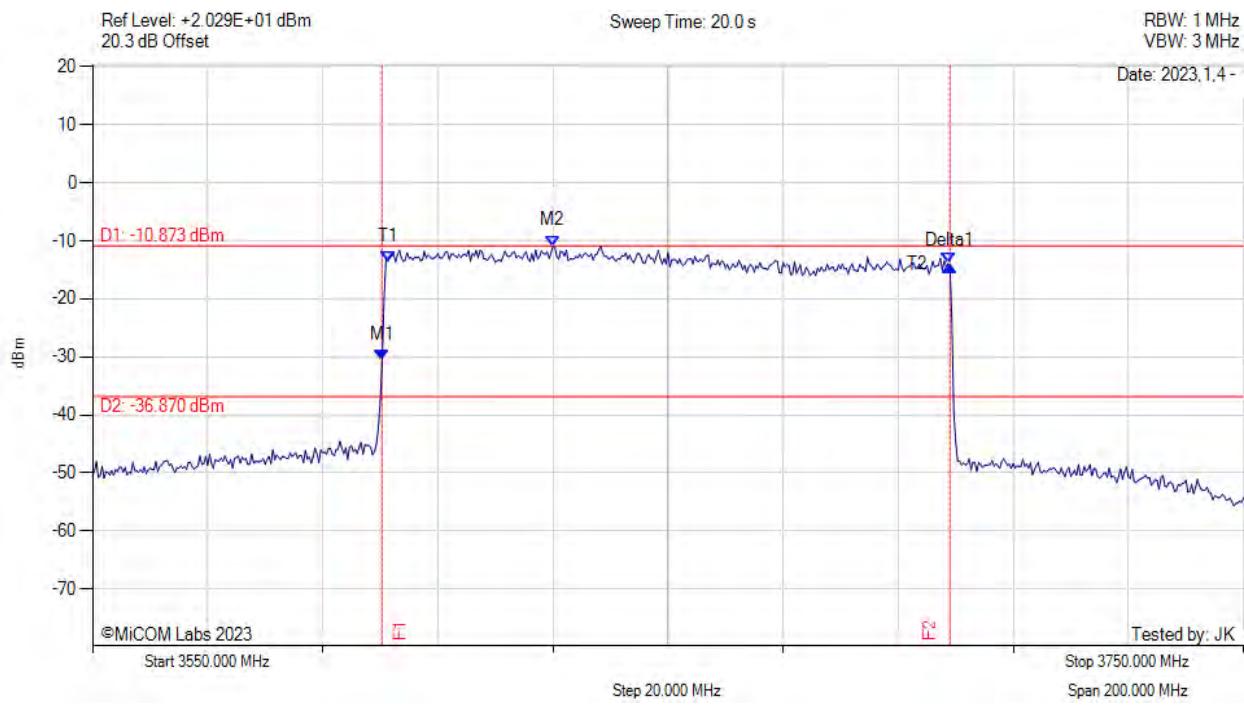


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3550.000 MHz : -38.737 dBm M2 : 3634.700 MHz : -13.142 dBm Delta1 : 99.000 MHz : 22.979 dB T1 : 3551.333 MHz : -15.188 dBm T2 : 3648.667 MHz : -15.280 dBm OBW : 97.300 MHz	Measured 6 dB Bandwidth: 99.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 100MHz, Channel: 3650.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



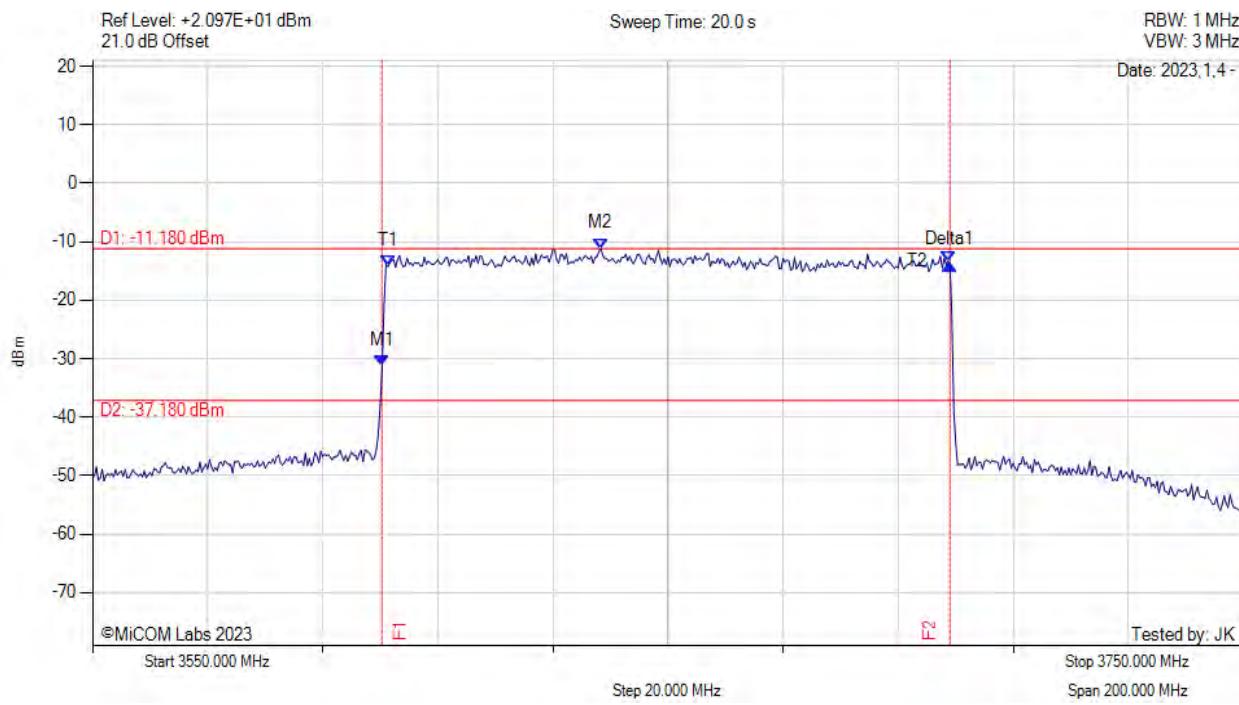
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3600.300 MHz : -30.640 dBm M2 : 3630.000 MHz : -10.873 dBm Delta1 : 98.700 MHz : 16.239 dB T1 : 3601.333 MHz : -13.529 dBm T2 : 3698.667 MHz : -13.943 dBm OBW : 97.253 MHz	Measured 6 dB Bandwidth: 98.700 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 100MHz, Channel: 3650.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



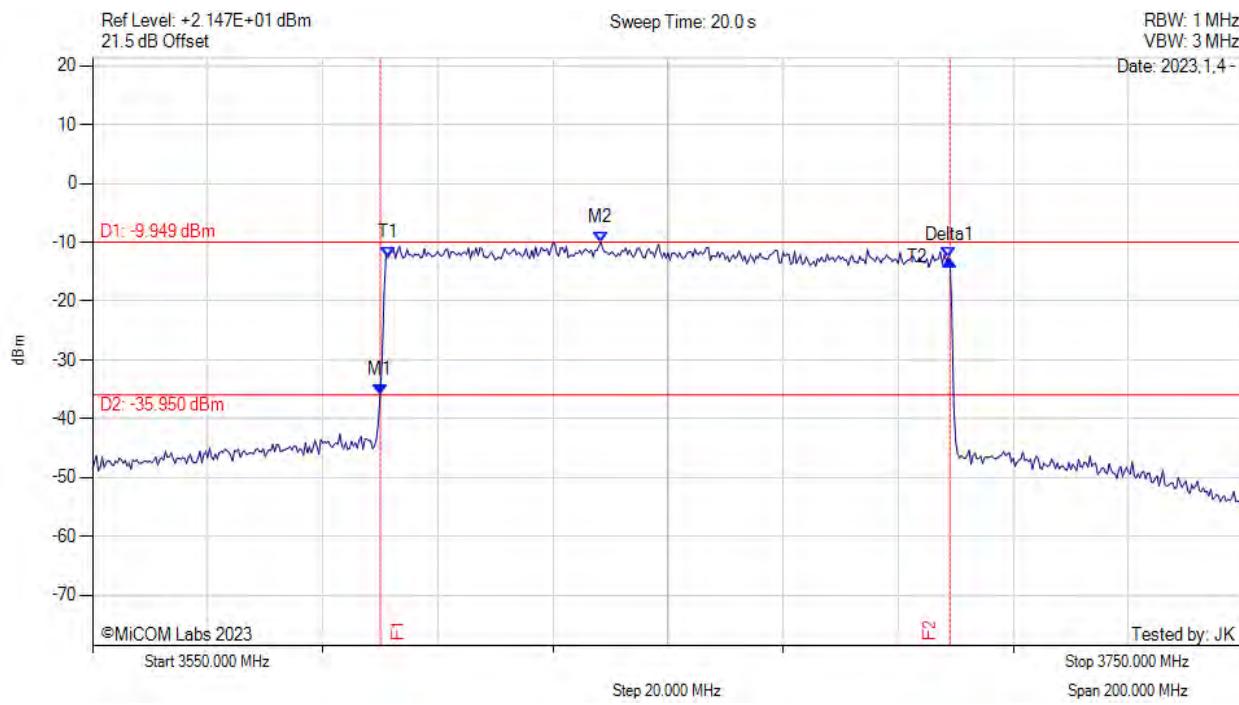
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3600.300 MHz : -31.257 dBm M2 : 3638.300 MHz : -11.180 dBm Delta1 : 98.700 MHz : 17.438 dB T1 : 3601.333 MHz : -14.242 dBm T2 : 3698.667 MHz : -13.363 dBm OBW : 97.233 MHz	Measured 6 dB Bandwidth: 98.700 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH



Variant: 100MHz, Channel: 3650.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc

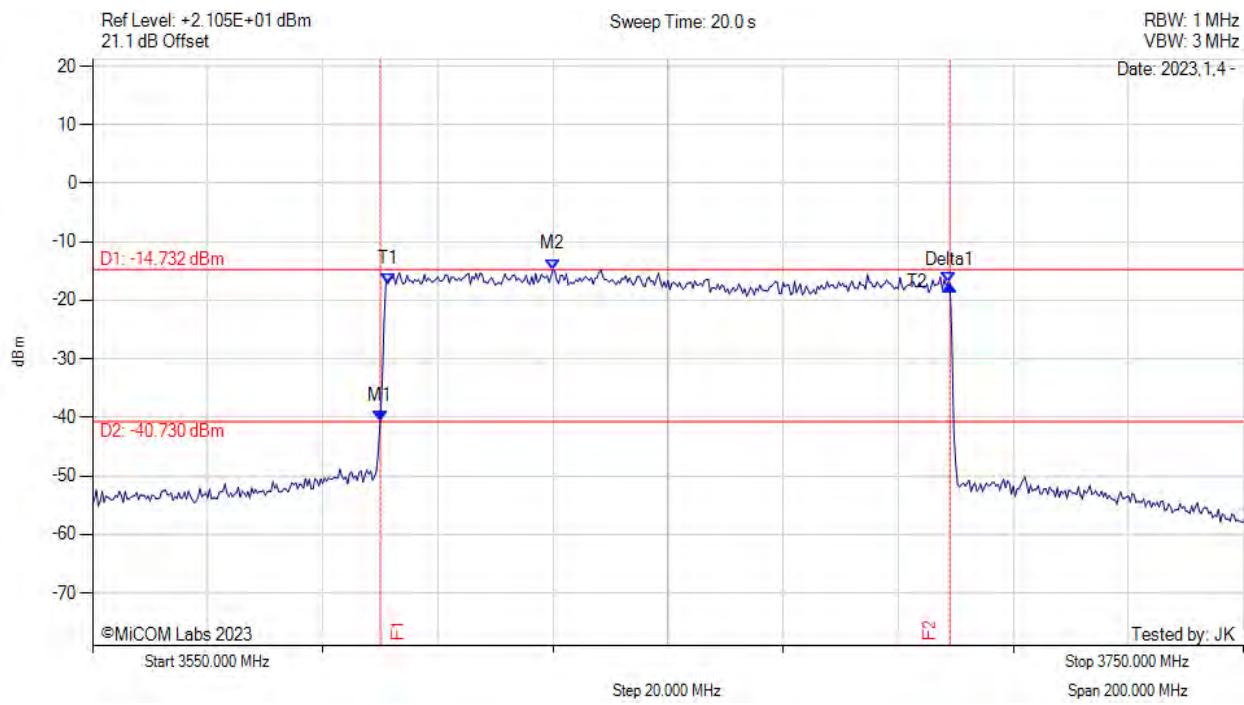


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3600.000 MHz : -35.842 dBm M2 : 3638.300 MHz : -9.949 dBm Delta1 : 99.000 MHz : 22.872 dB T1 : 3601.333 MHz : -12.551 dBm T2 : 3698.667 MHz : -12.534 dBm OBW : 97.252 MHz	Measured 6 dB Bandwidth: 99.000 MHz Limit: kHz Margin: #VALUE! MHz

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26 dB & 99% BANDWIDTH

Variant: 100MHz, Channel: 3650.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = MAXH	M1 : 3600.000 MHz : -40.635 dBm M2 : 3630.000 MHz : -14.732 dBm Delta1 : 99.000 MHz : 23.258 dB T1 : 3601.333 MHz : -17.139 dBm T2 : 3698.667 MHz : -16.903 dBm OBW : 97.316 MHz	Measured 6 dB Bandwidth: 99.000 MHz Limit: kHz Margin: #VALUE! MHz

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## A.2. Power Spectral Density



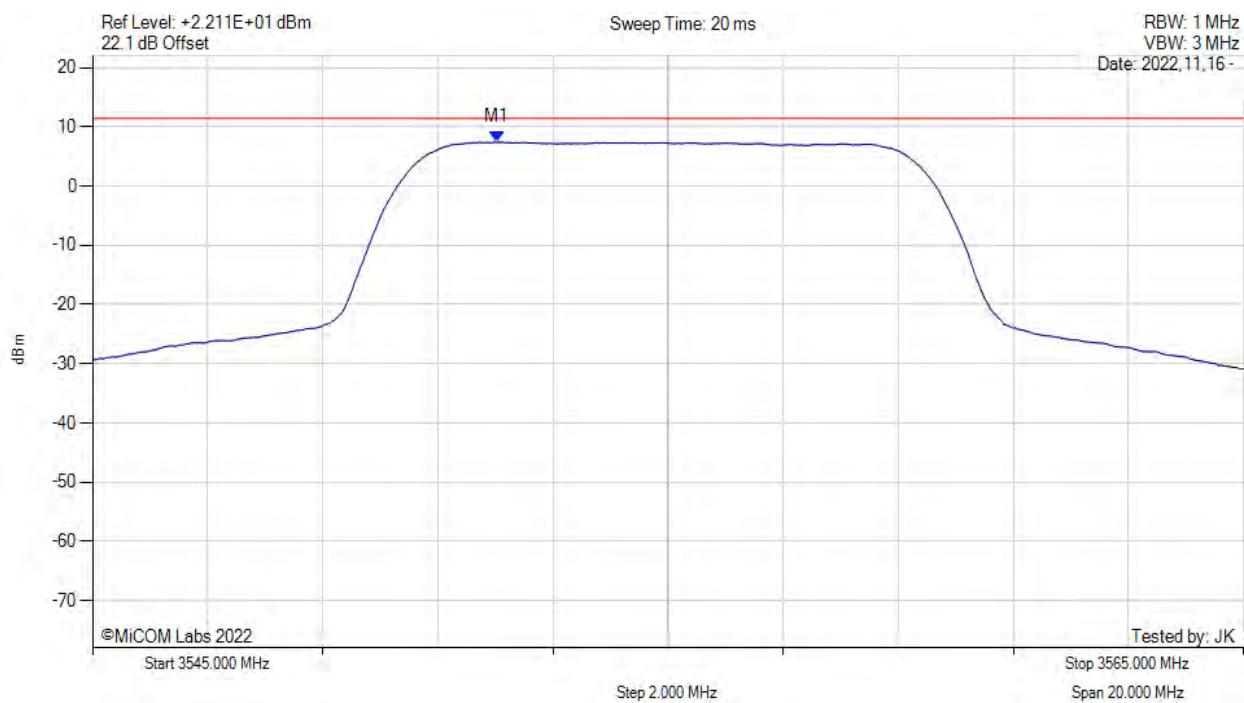
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3556.230 MHz : 7.662 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3555.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



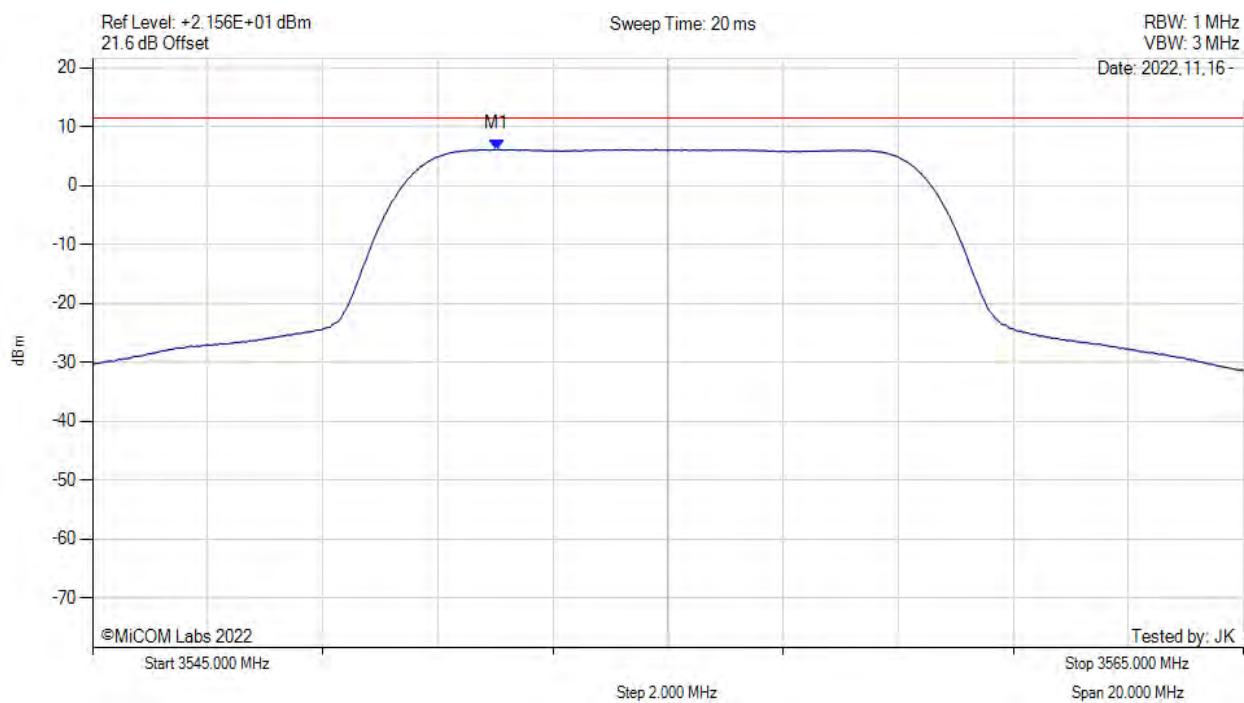
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3552.030 MHz : 7.443 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



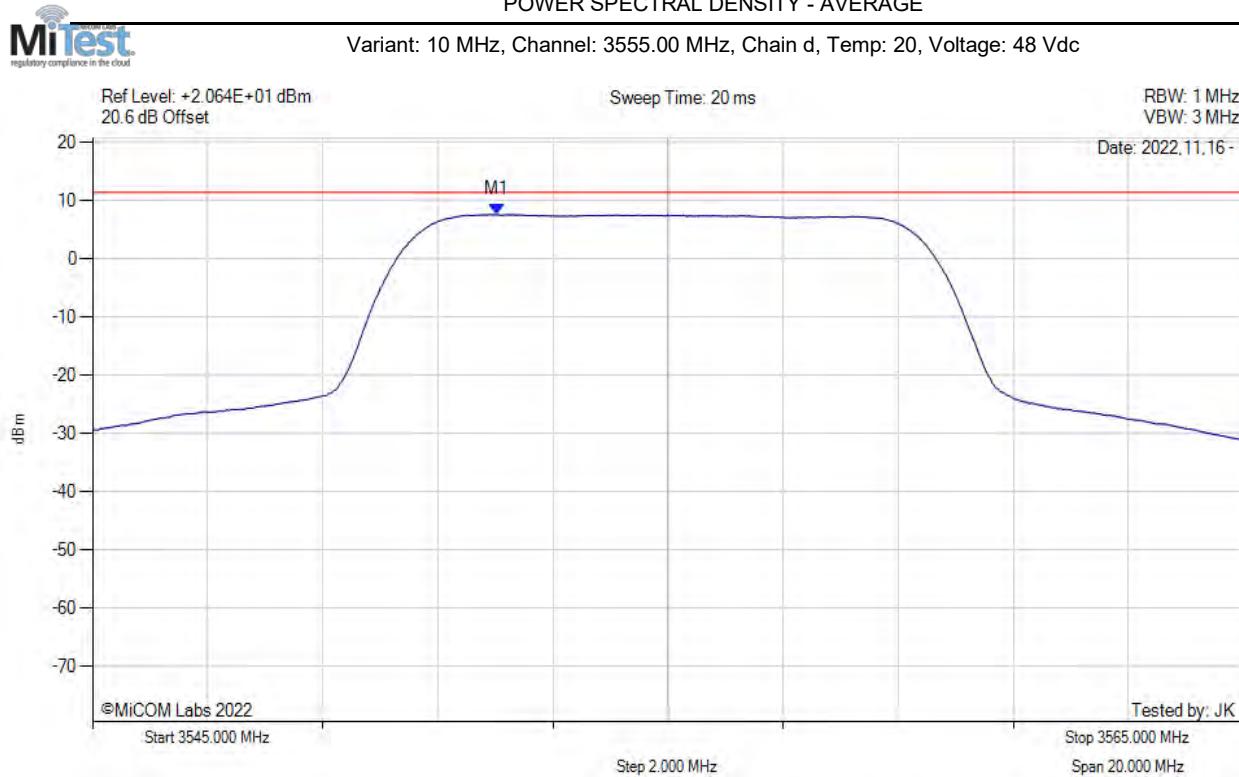
Variant: 10 MHz, Channel: 3555.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3552.030 MHz : 6.150 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



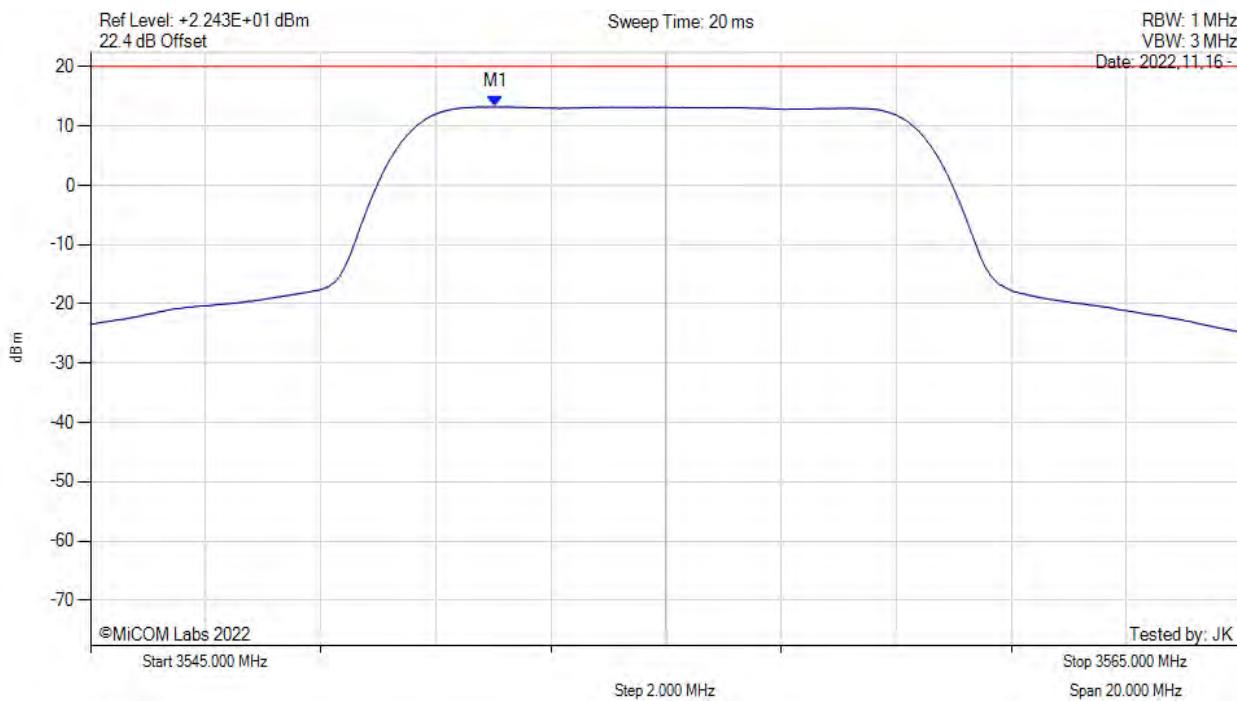
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3552.030 MHz : 7.610 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10MHz, Channel: 3555.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



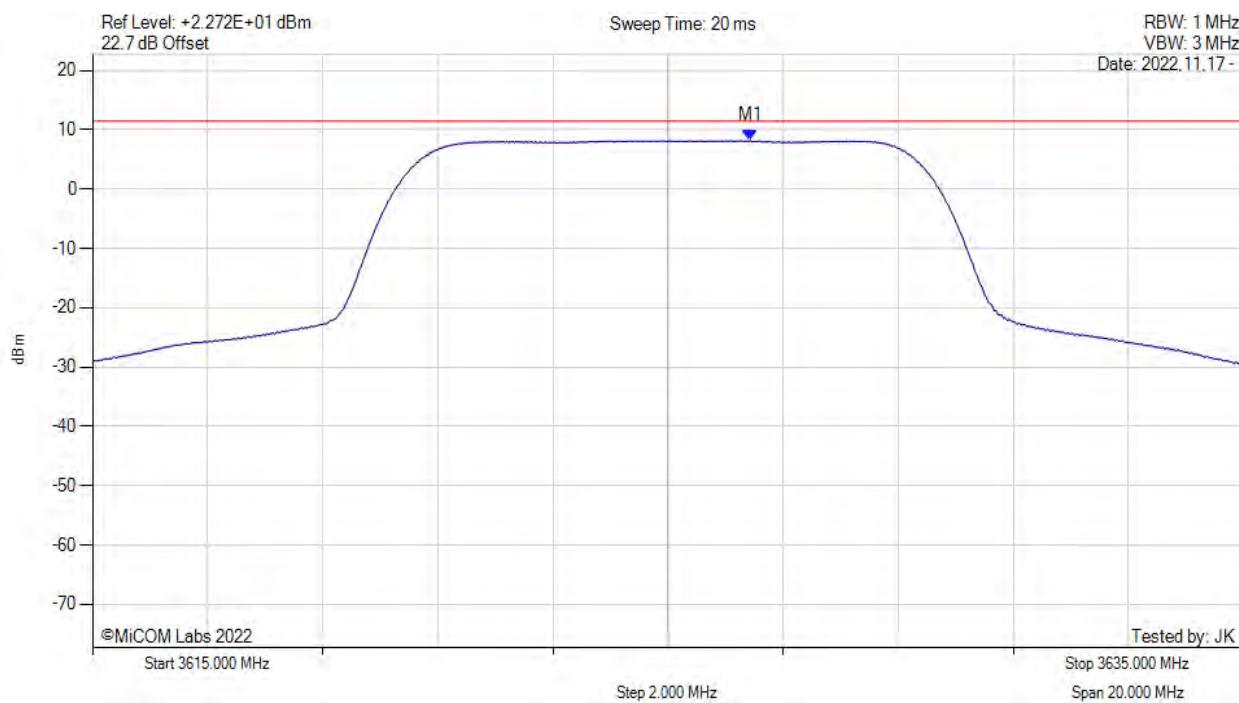
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3552.000 MHz : 13.250 dBm M1 + DCCF : 3552.000 MHz : 13.250 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -6.8 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



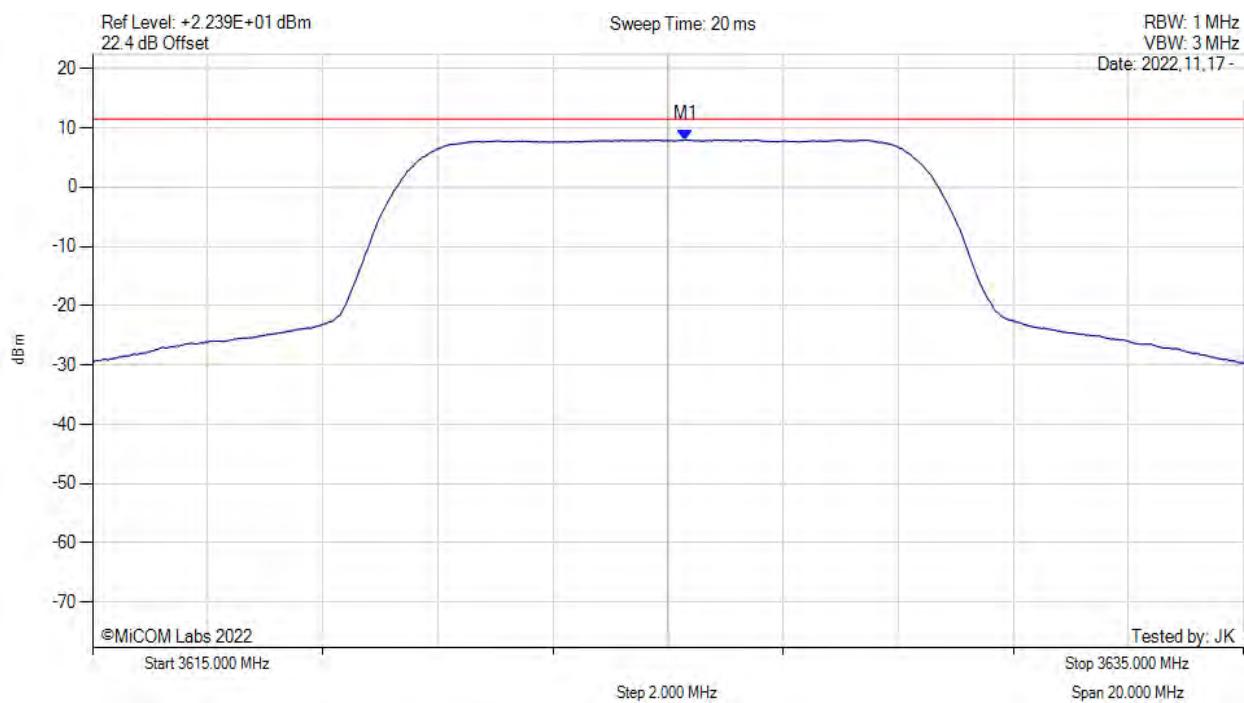
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.430 MHz : 8.166 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



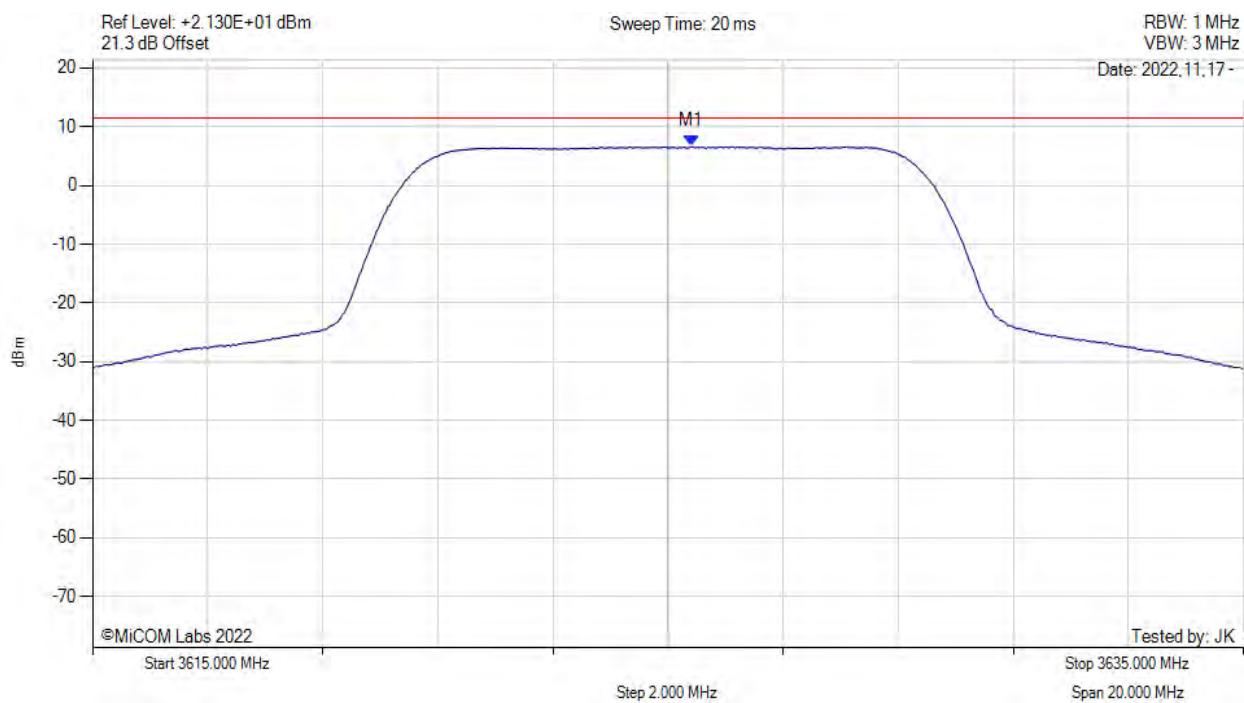
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3625.300 MHz : 7.977 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



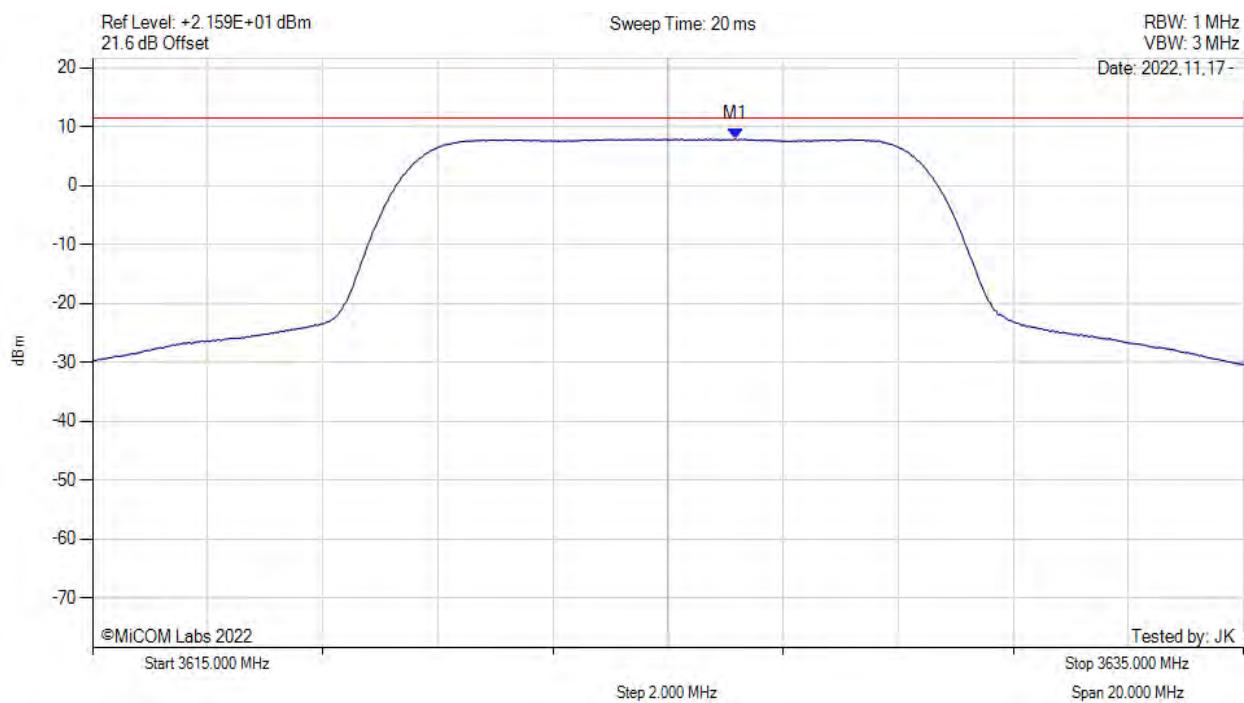
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3625.400 MHz : 6.622 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

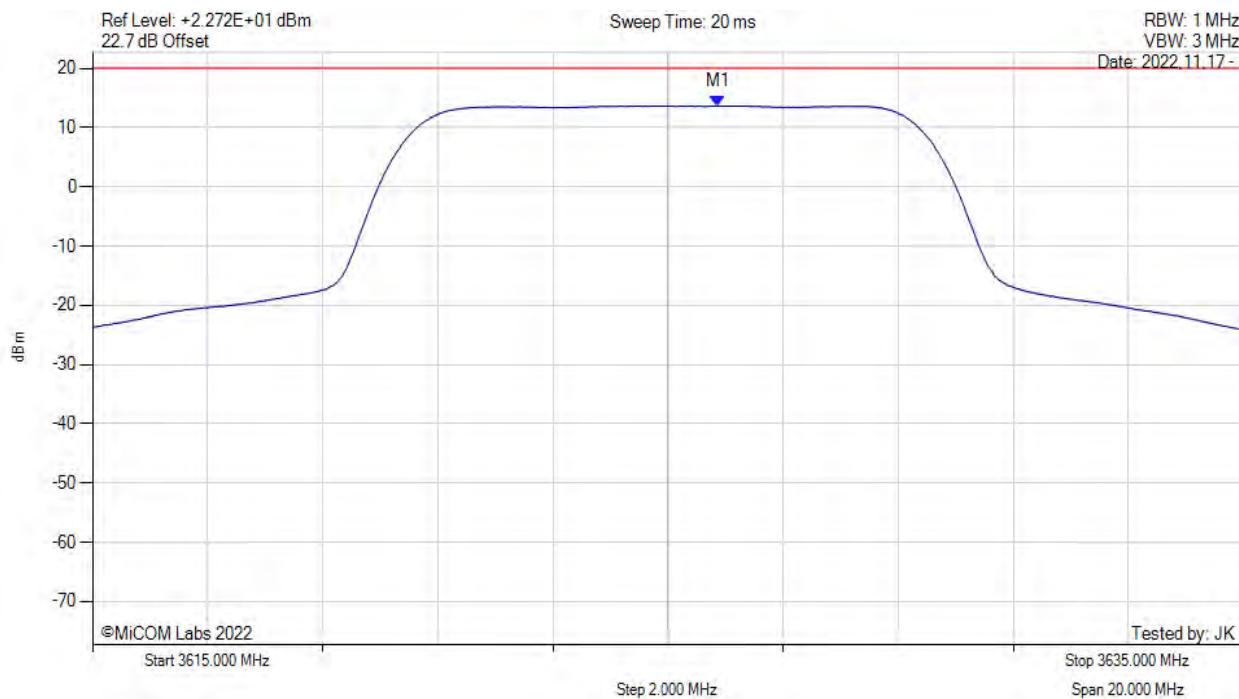


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.170 MHz : 7.906 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 10MHz, Channel: 3625.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc

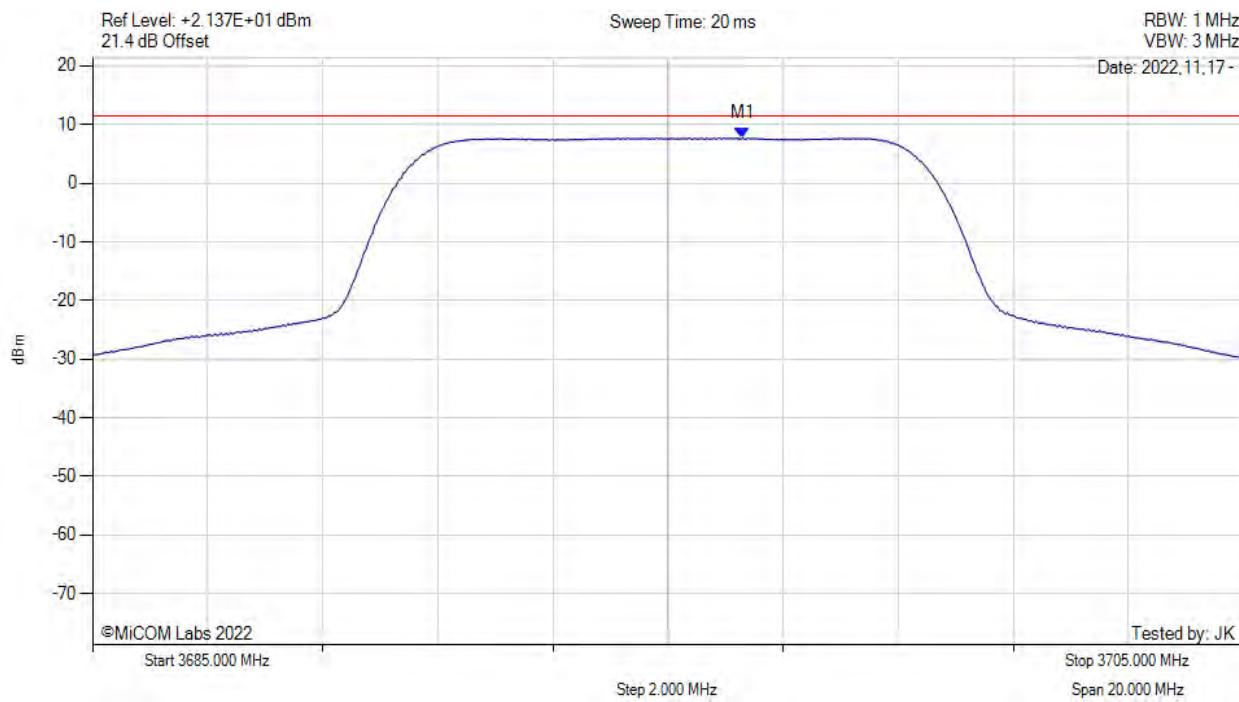


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3625.900 MHz : 13.659 dBm M1 + DCCF : 3625.900 MHz : 13.659 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -6.4 dB

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 10 MHz, Channel: 3695.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



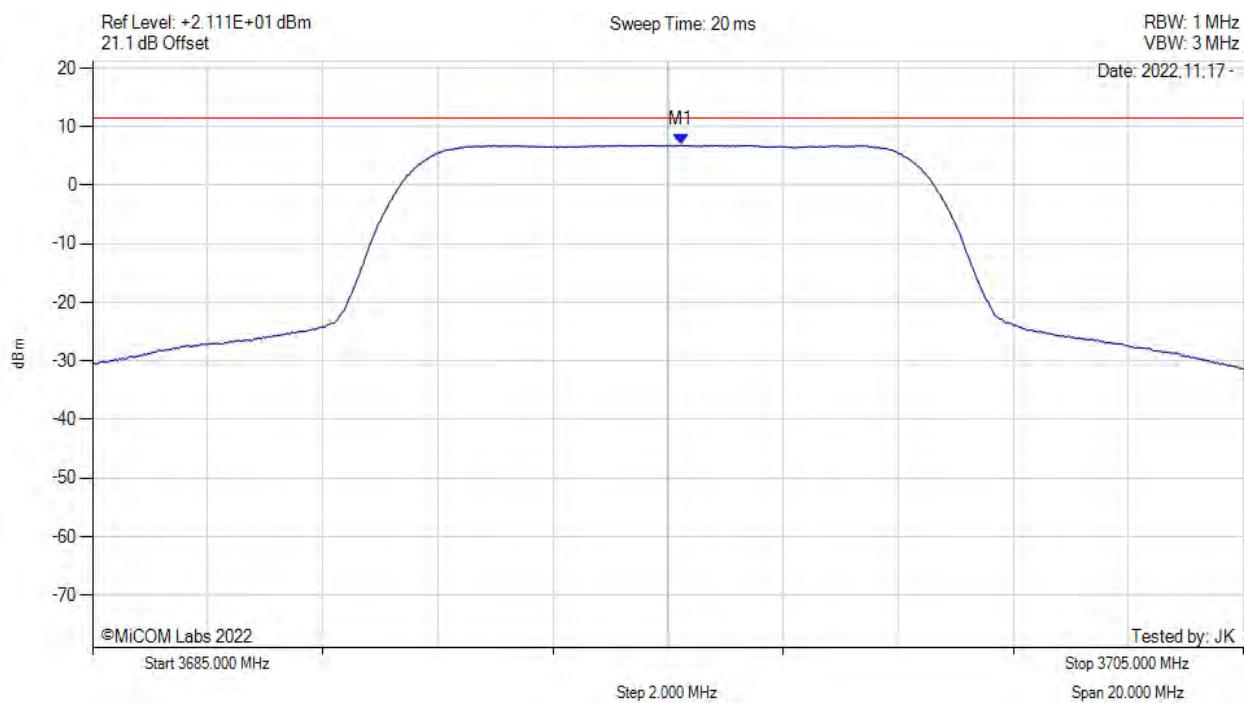
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3696.300 MHz : 7.709 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



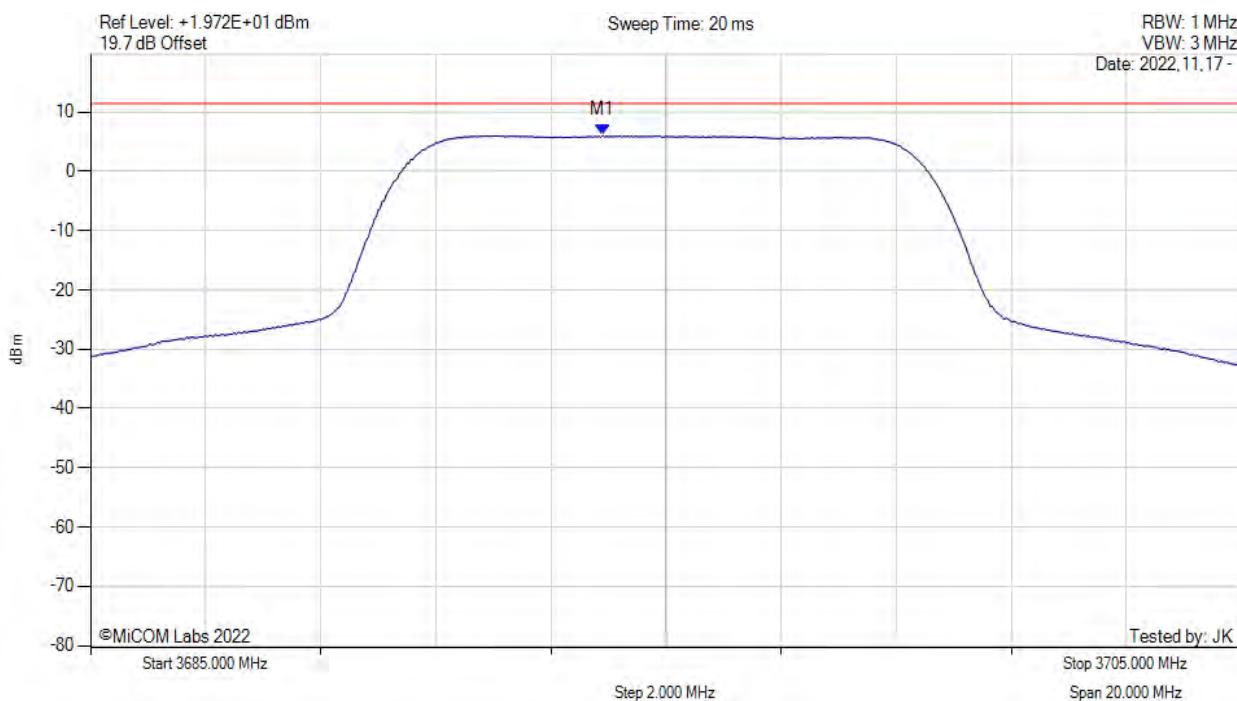
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3695.230 MHz : 6.864 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



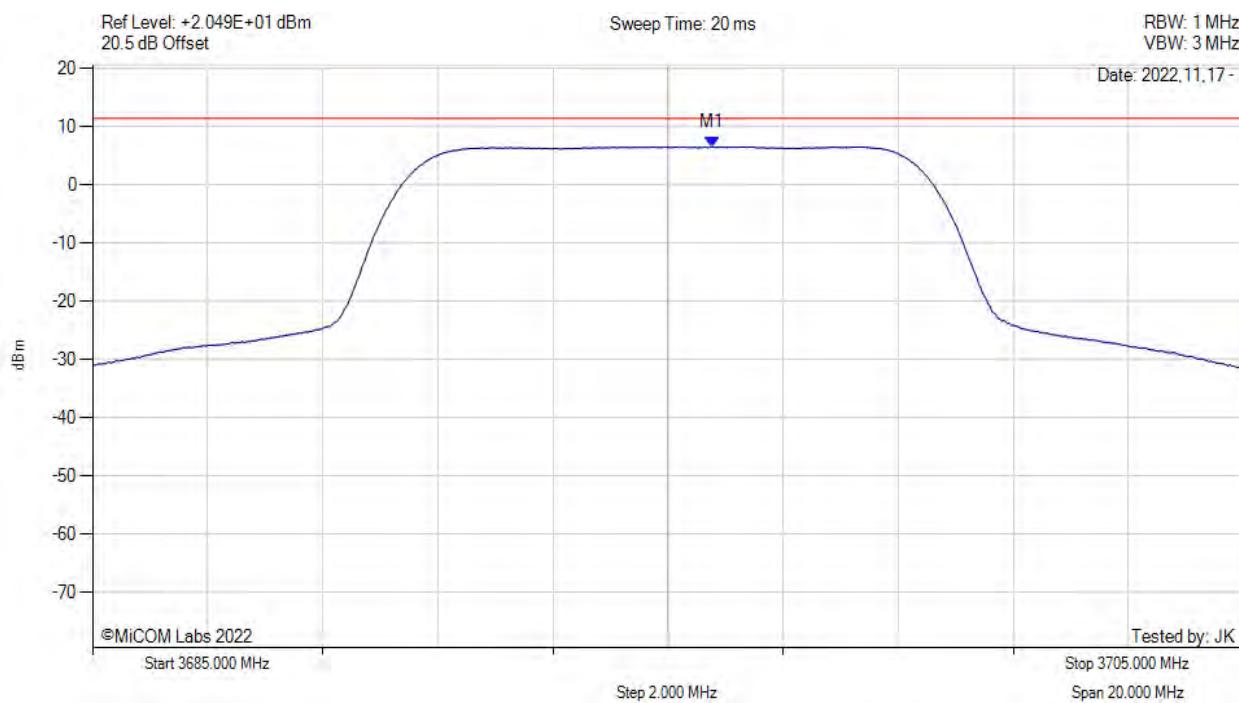
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3693.900 MHz : 6.033 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



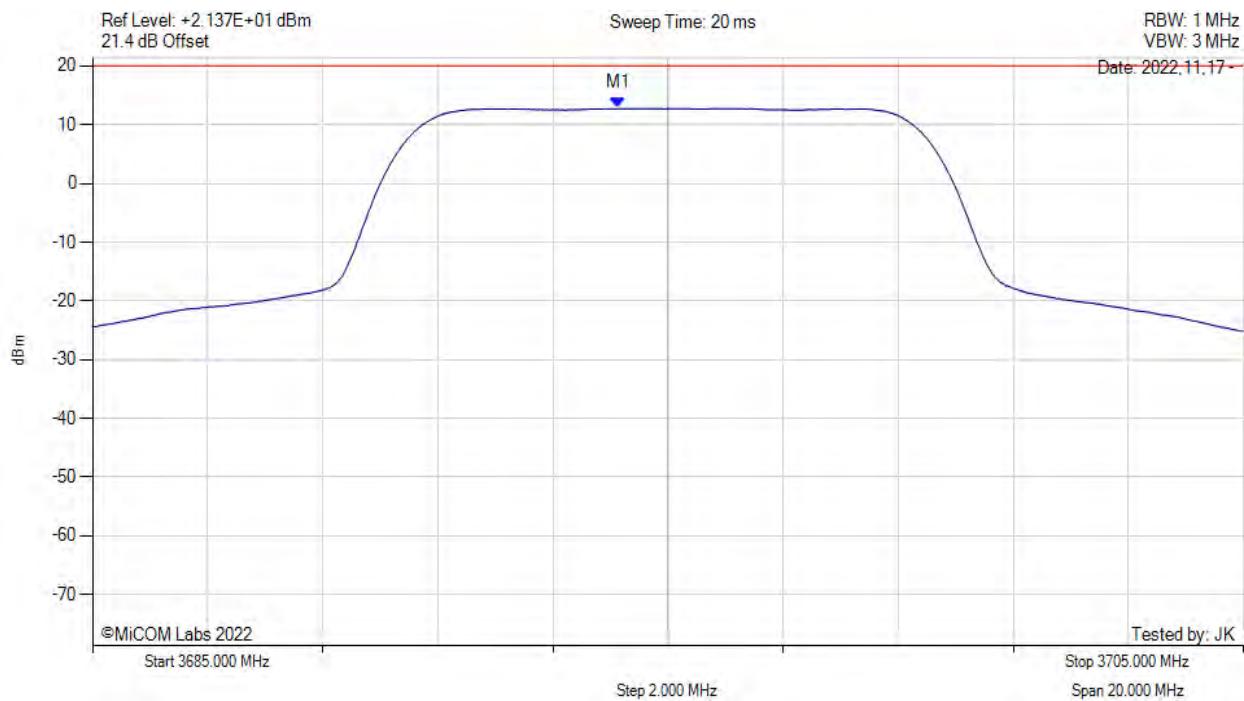
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3695.770 MHz : 6.540 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 10MHz, Channel: 3695.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc

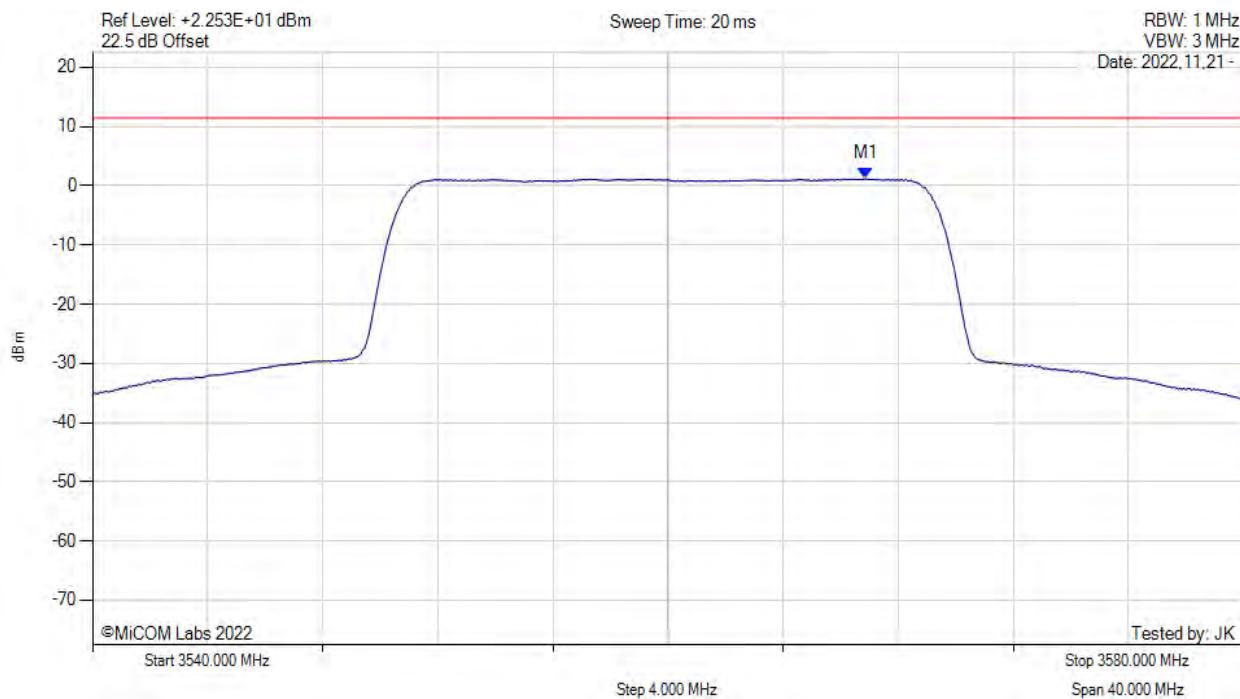


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3694.100 MHz : 12.779 dBm M1 + DCCF : 3694.100 MHz : 12.779 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -7.2 dB

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 20 MHz, Channel: 3560.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



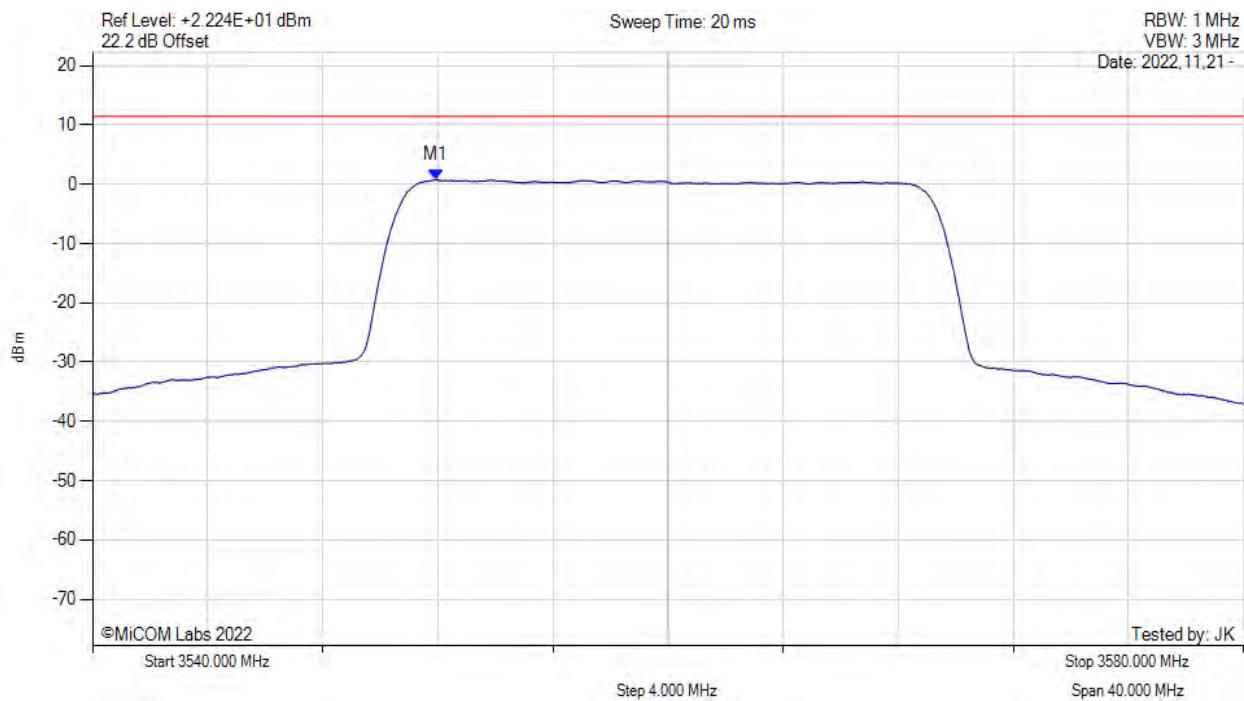
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3566.870 MHz : 1.150 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



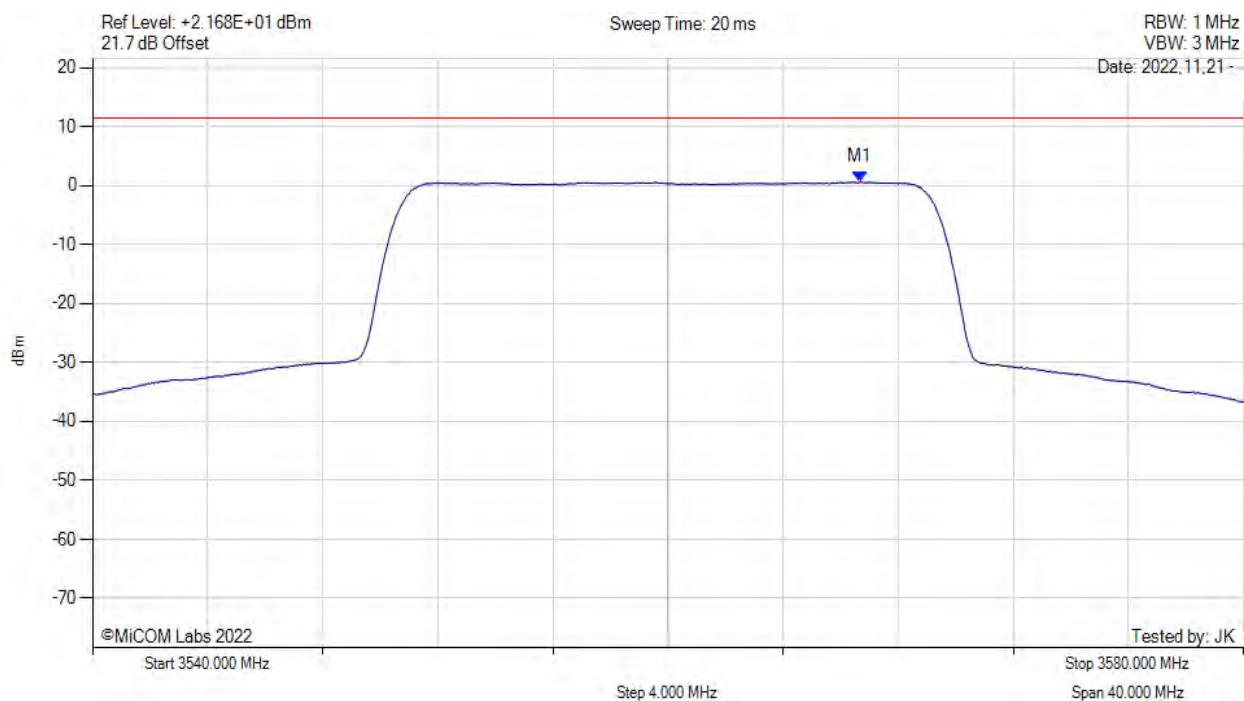
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.930 MHz : 0.760 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc

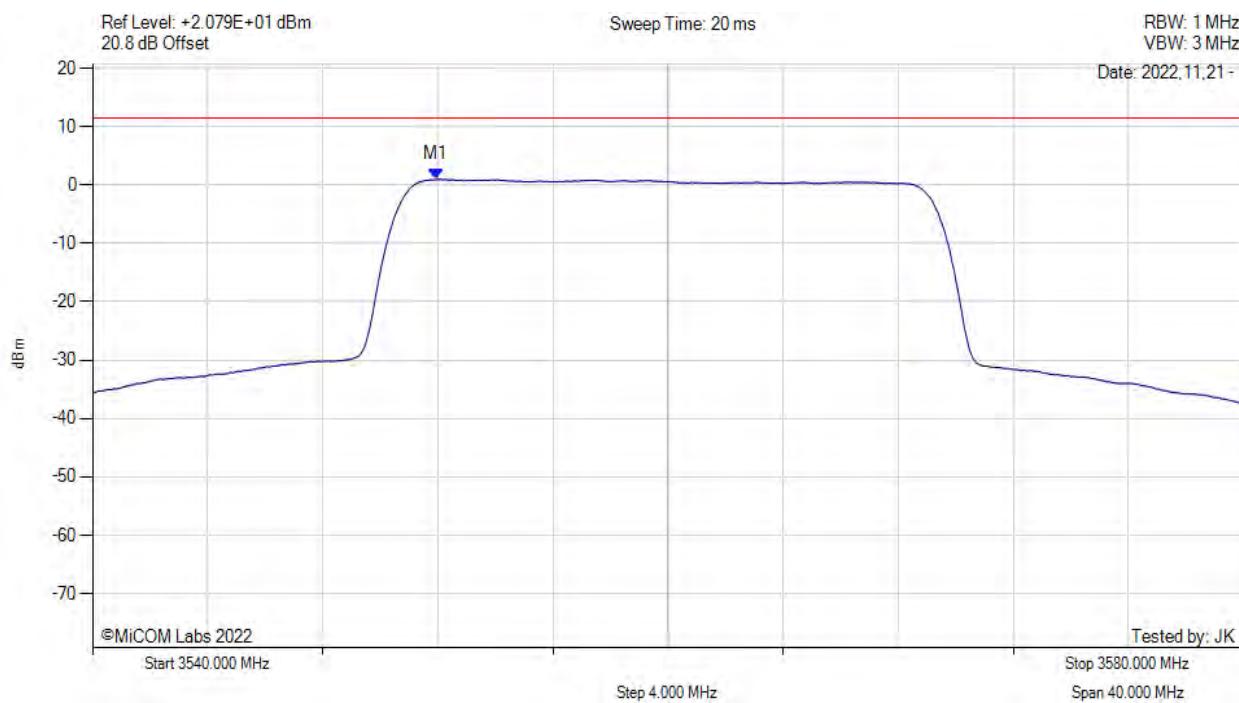


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3566.670 MHz : 0.617 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 20 MHz, Channel: 3560.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

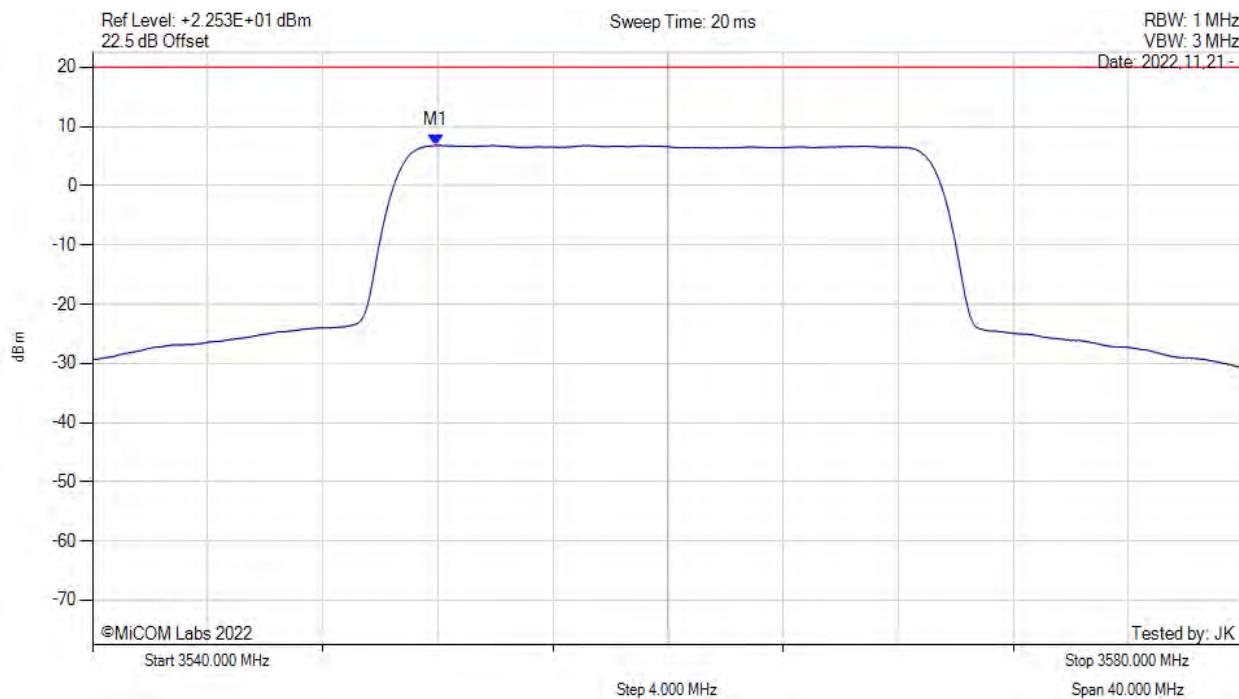


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.930 MHz : 0.944 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 20MHz, Channel: 3560.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



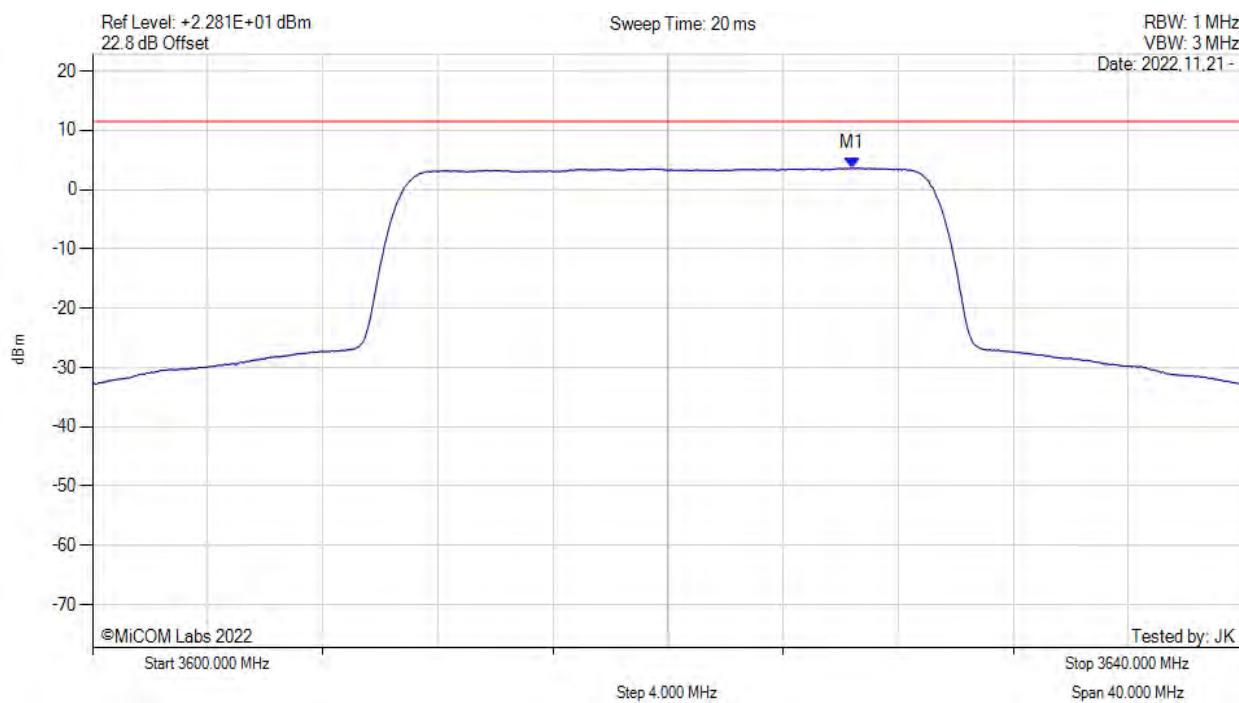
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.900 MHz : 6.846 dBm M1 + DCCF : 3551.900 MHz : 6.846 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -13.2 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



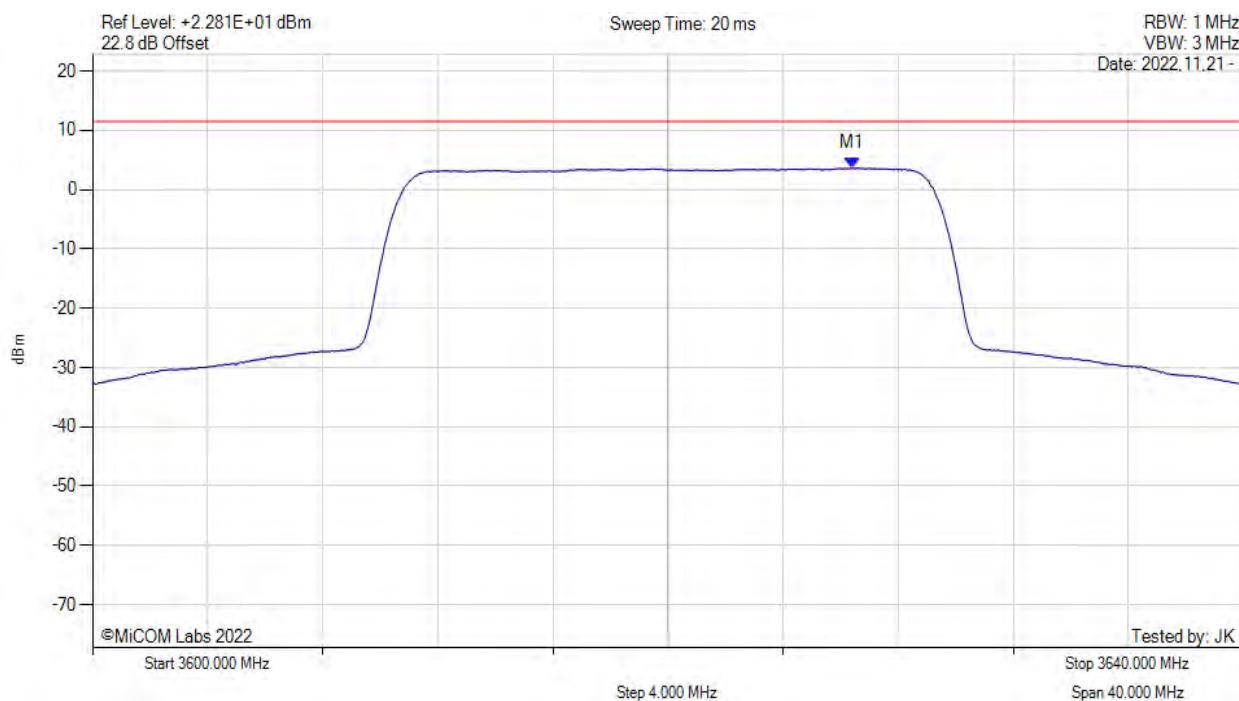
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.400 MHz : 3.636 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



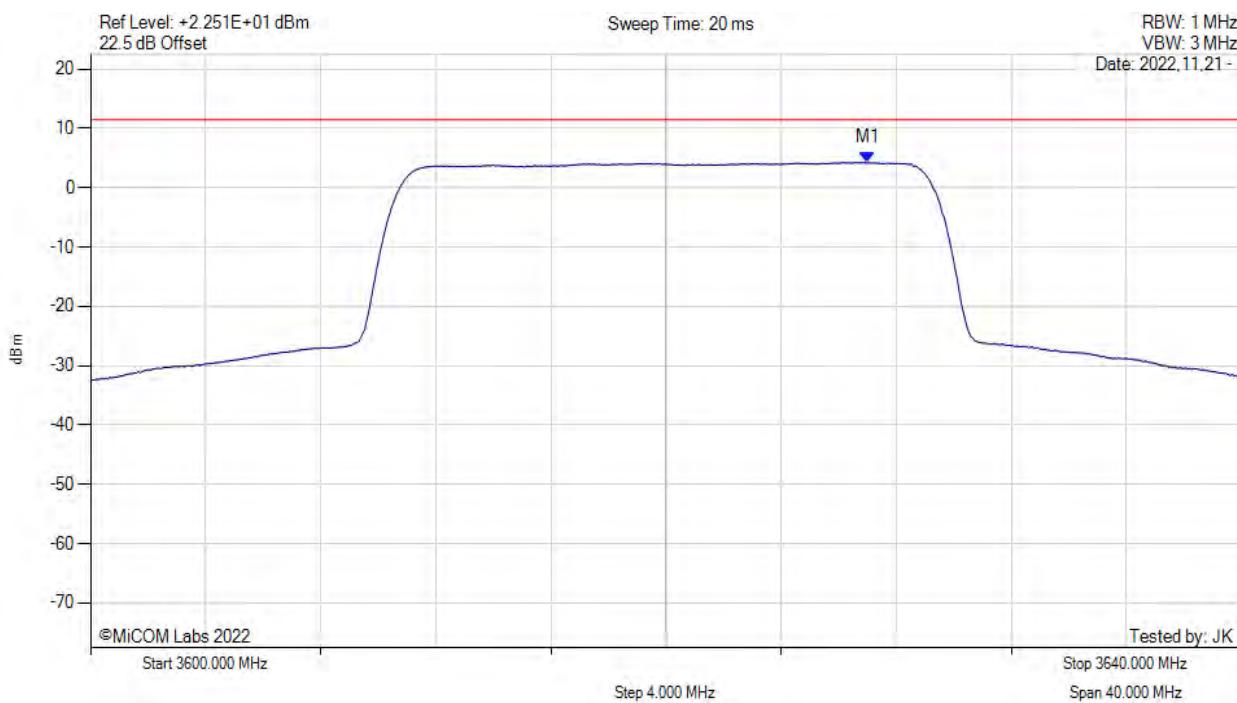
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.400 MHz : 3.636 dBm	Channel Frequency: 3620.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



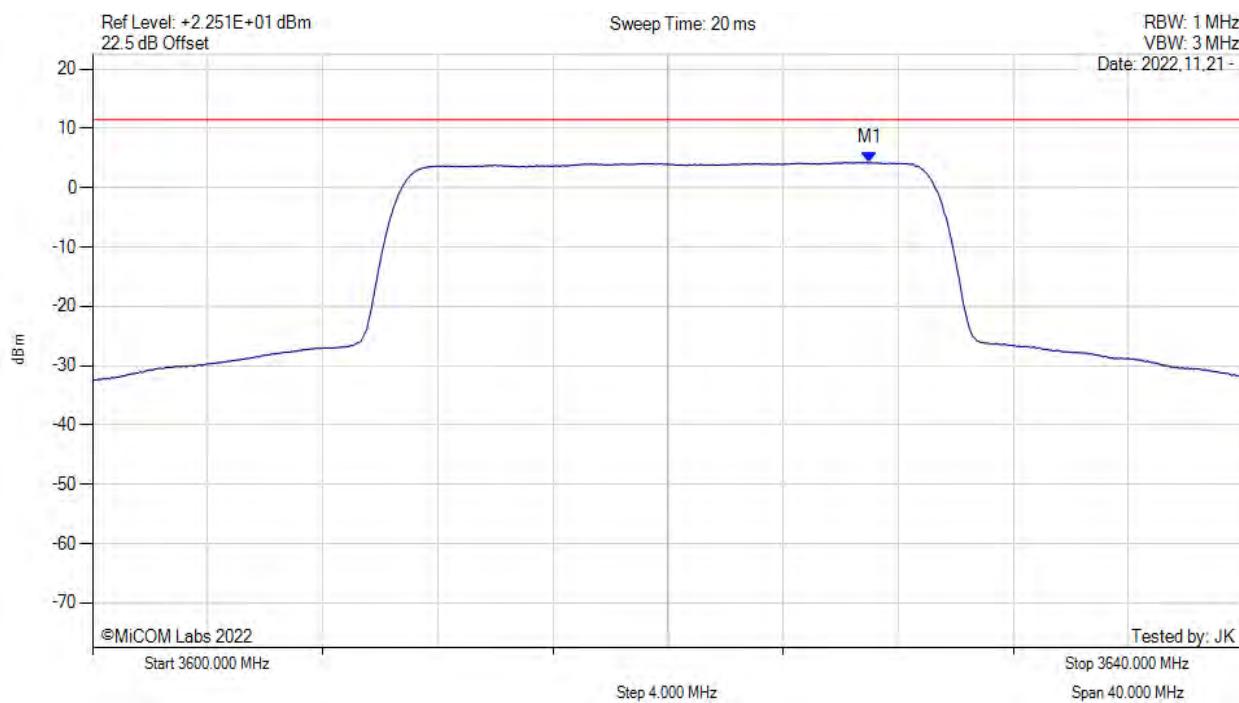
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3627.000 MHz : 4.177 dBm	Channel Frequency: 3620.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



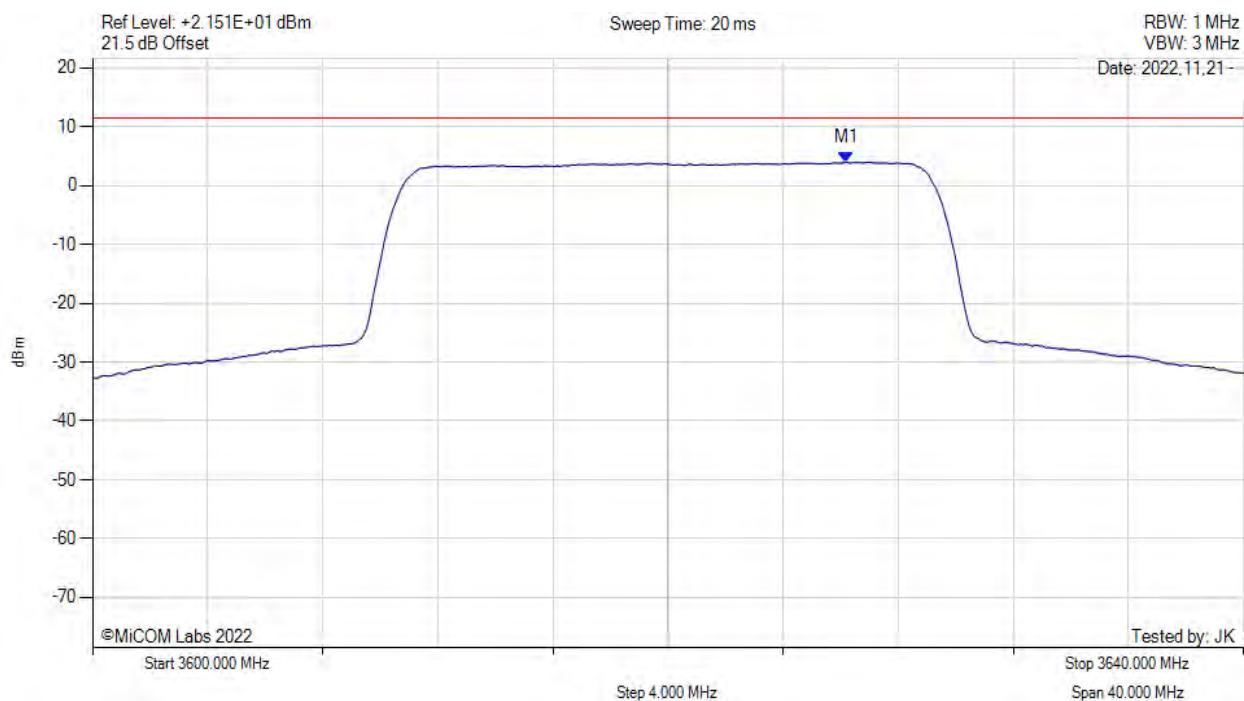
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3627.000 MHz : 4.177 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



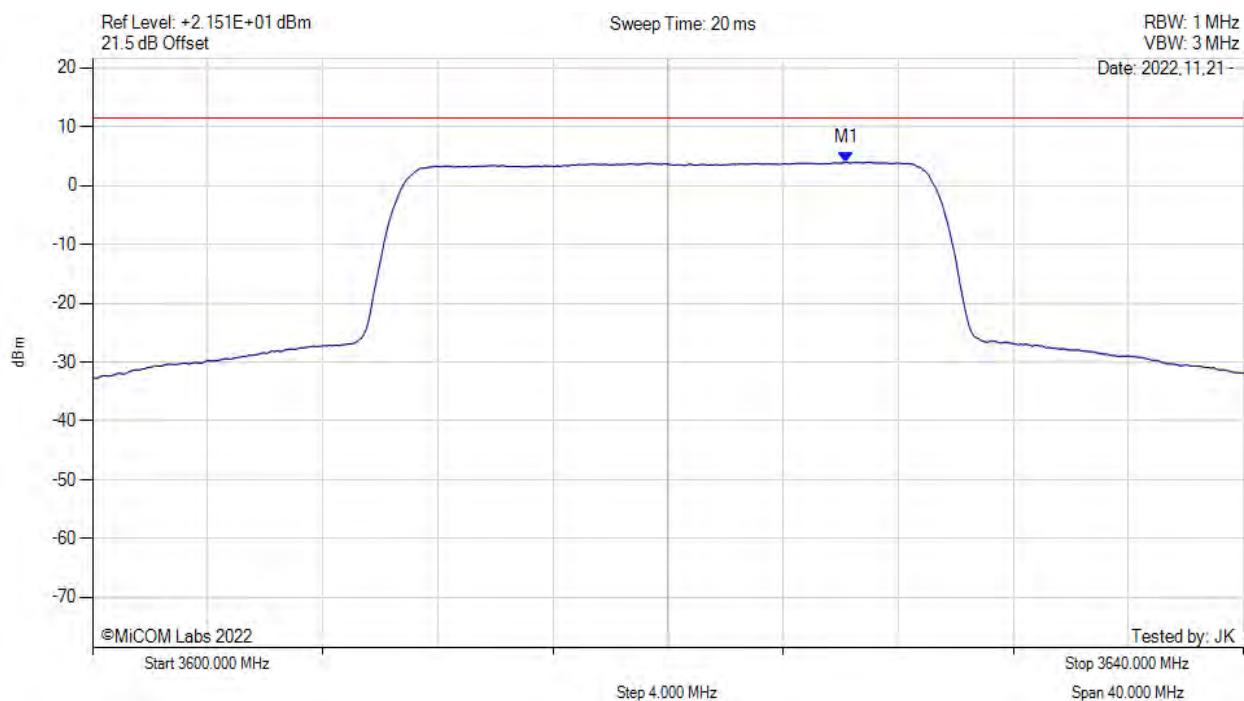
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.200 MHz : 3.979 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



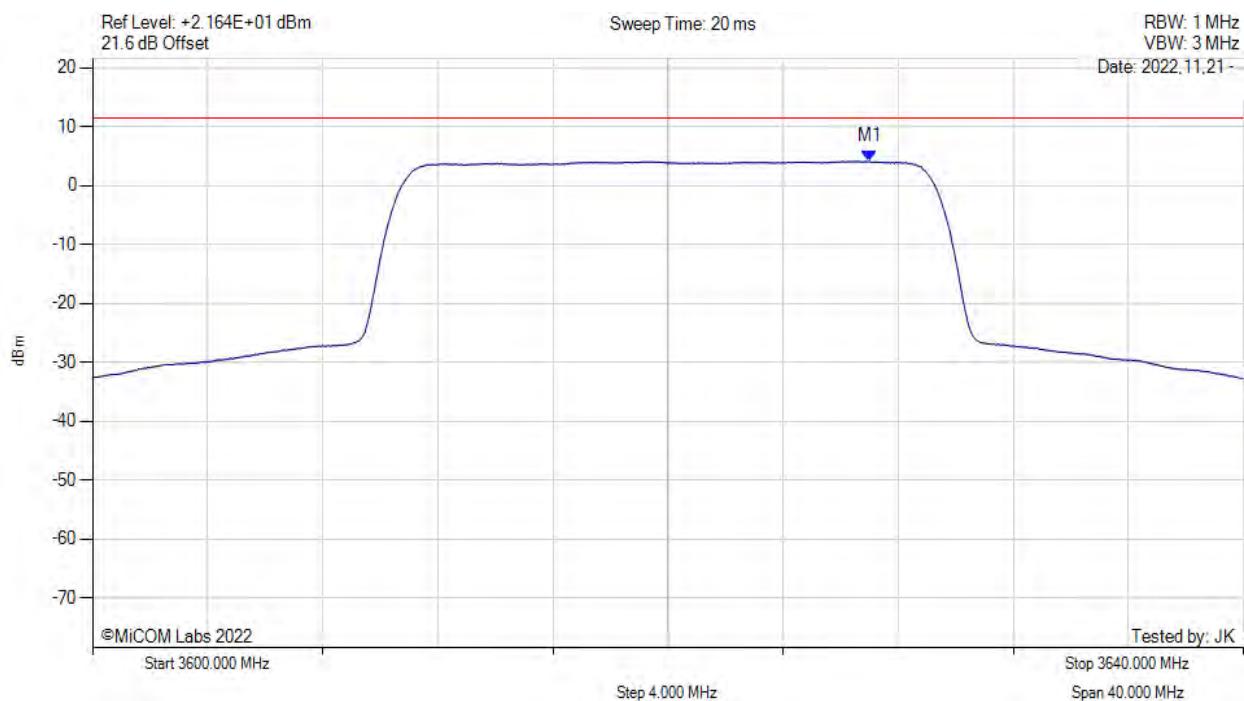
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.200 MHz : 3.979 dBm	Channel Frequency: 3620.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



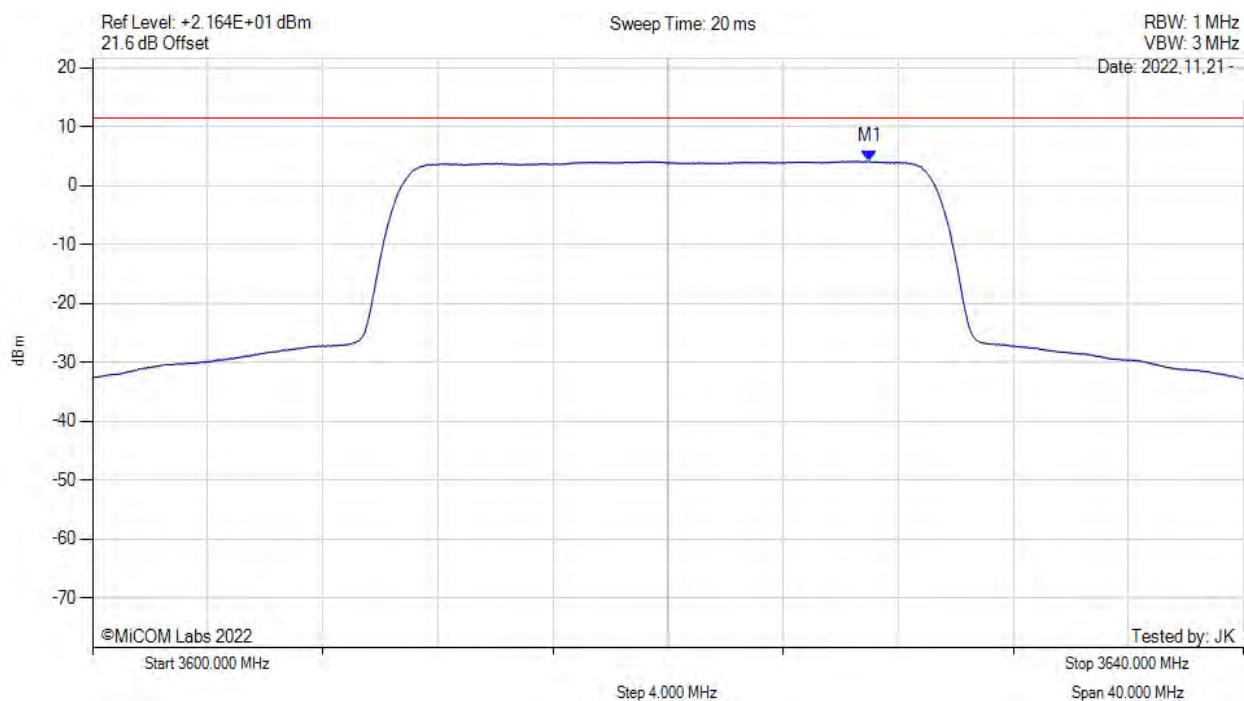
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3627.000 MHz : 4.129 dBm	Channel Frequency: 3620.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

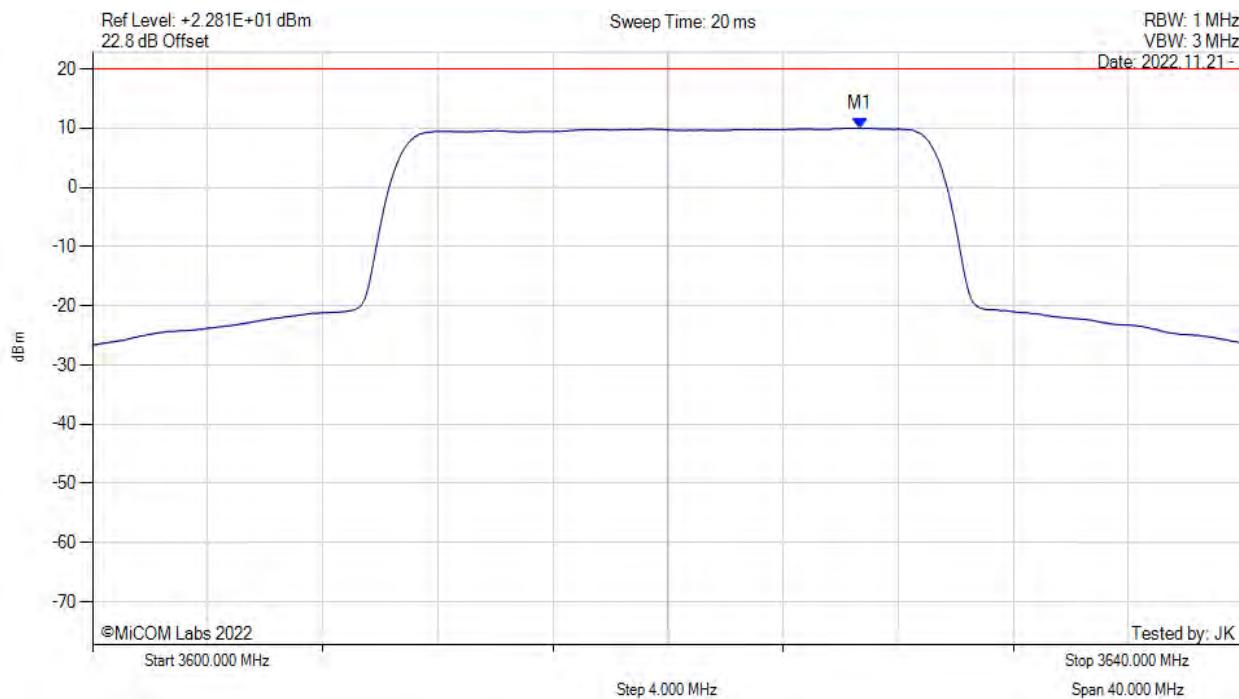


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3627.000 MHz : 4.129 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 20MHz, Channel: 3620.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



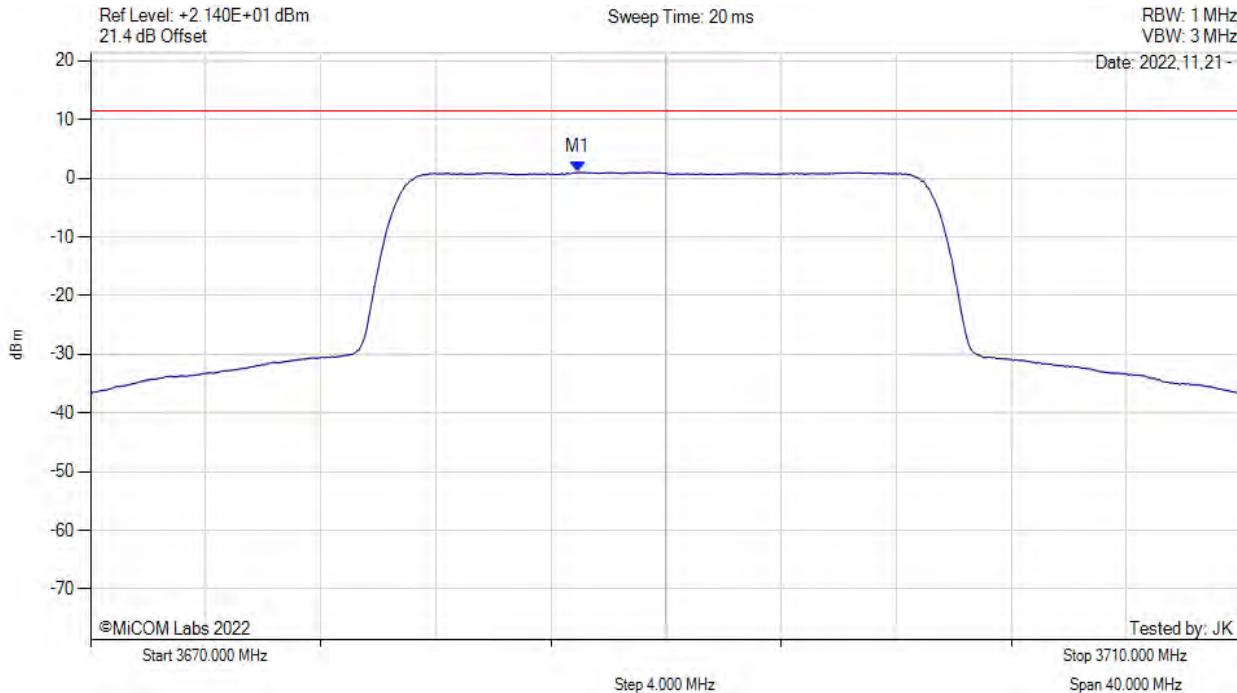
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3626.700 MHz : 10.002 dBm M1 + DCCF : 3626.700 MHz : 10.002 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -10.0 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



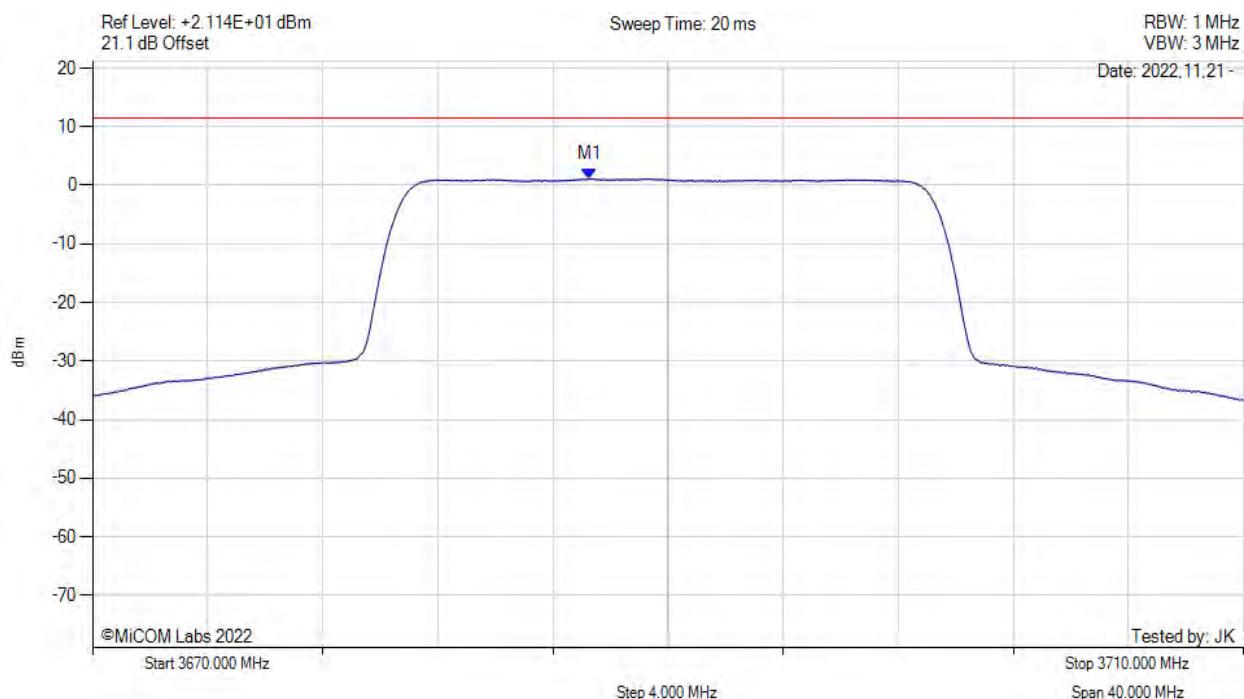
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3686.930 MHz : 1.036 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



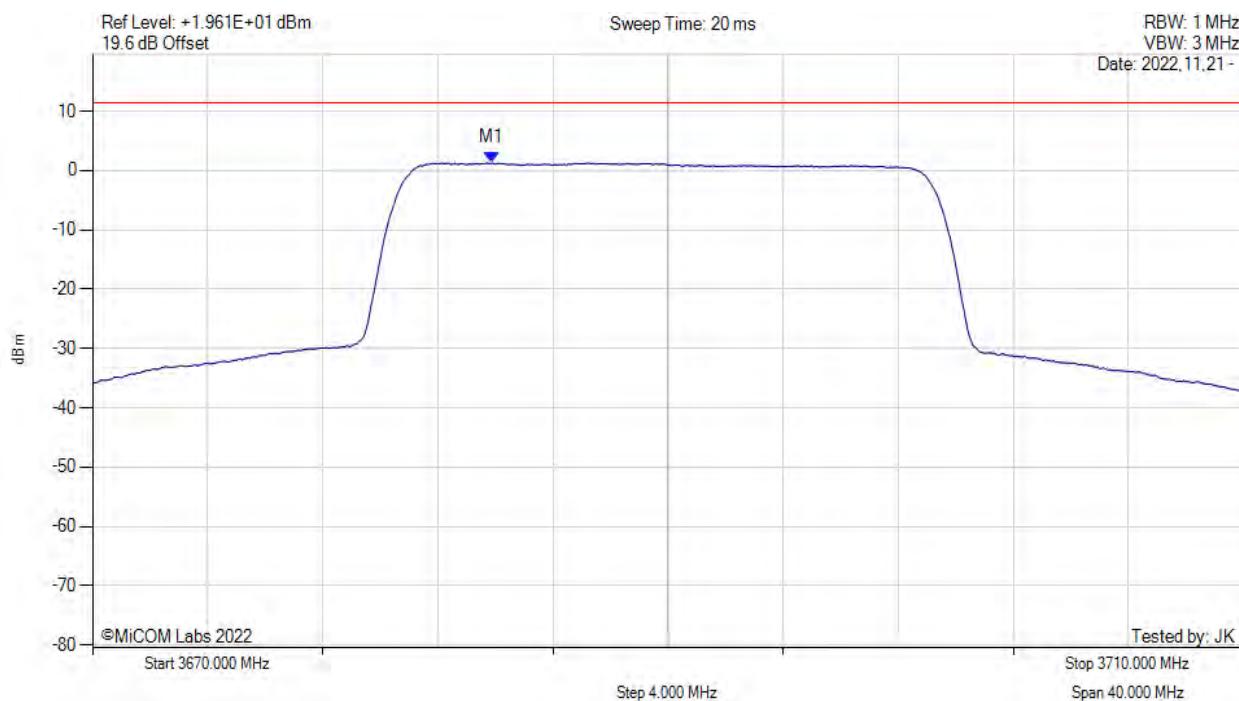
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3687.270 MHz : 1.076 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



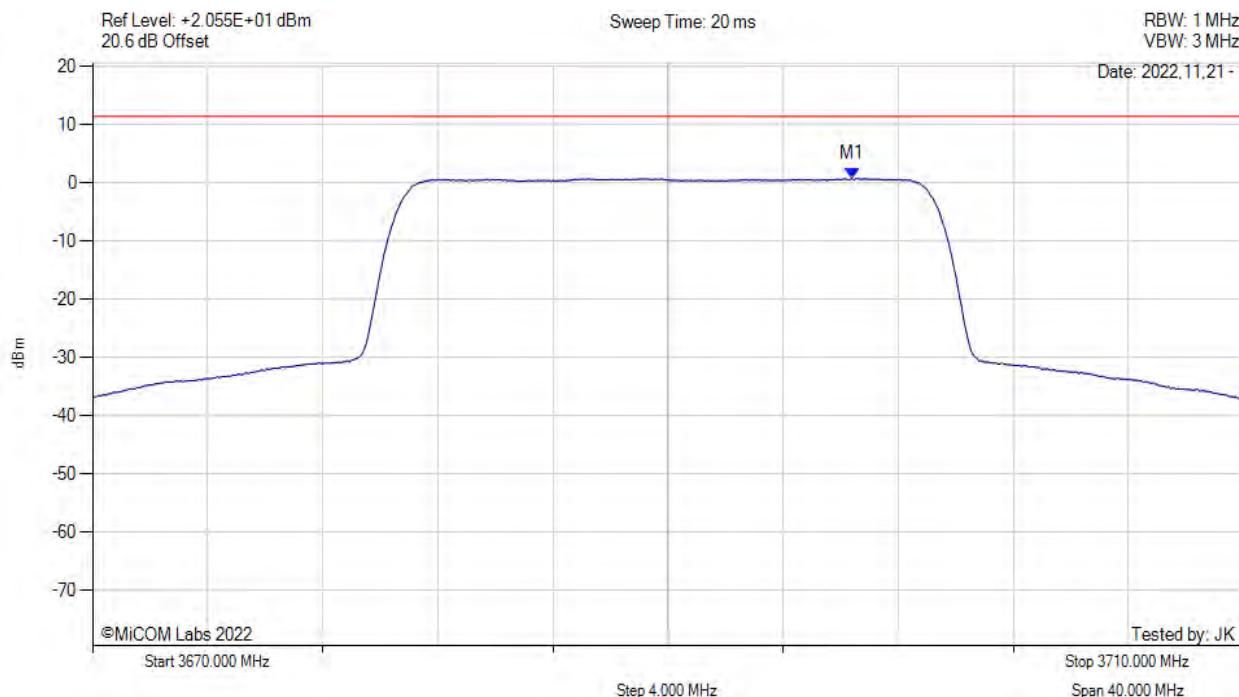
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3683.870 MHz : 1.307 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

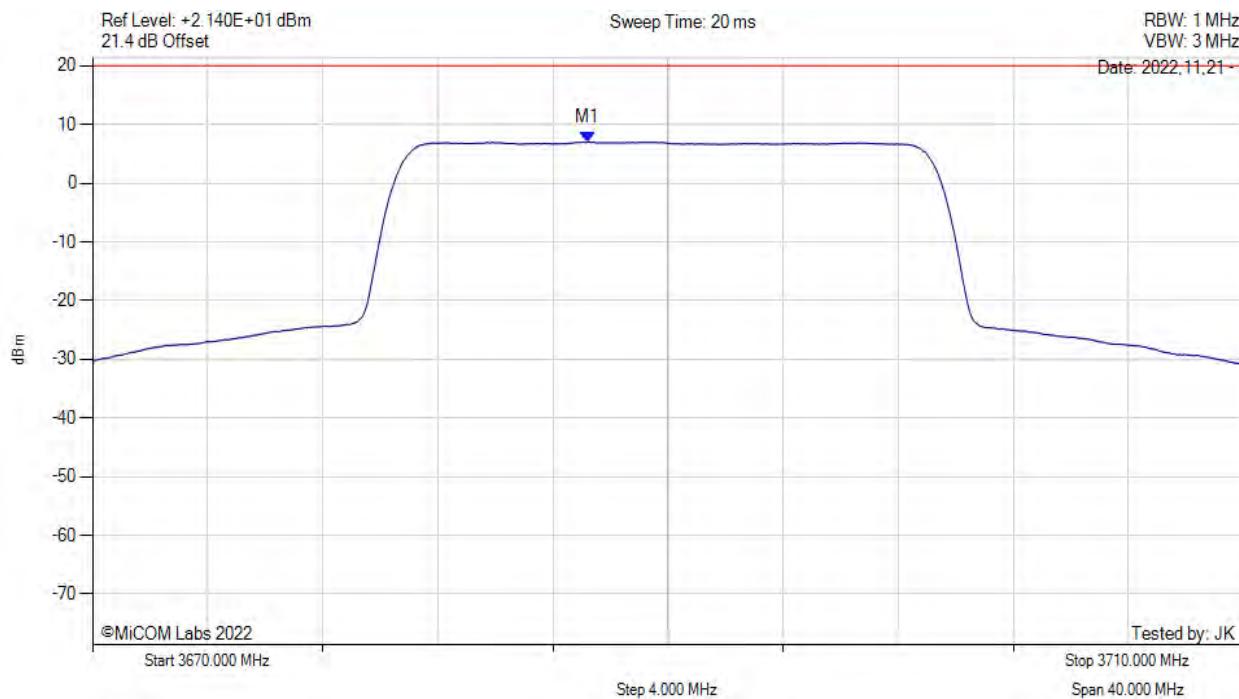


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3696.400 MHz : 0.746 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 20MHz, Channel: 3690.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



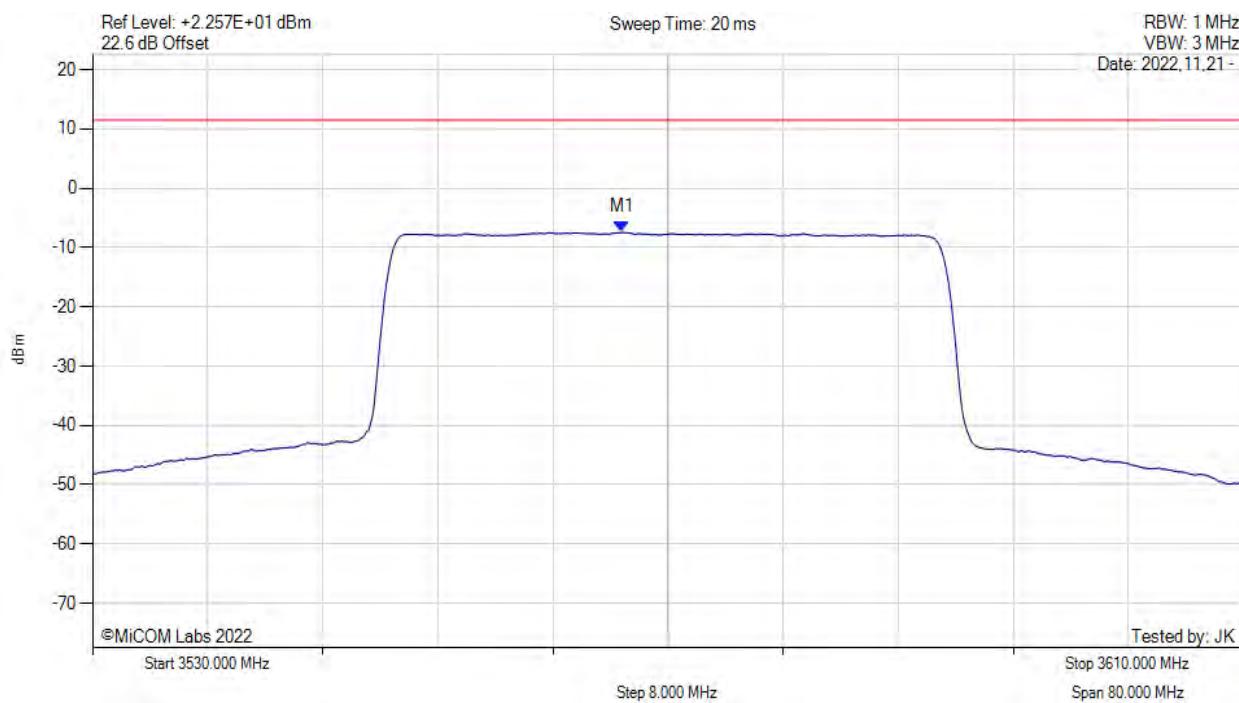
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3687.200 MHz : 7.021 dBm M1 + DCCF : 3687.200 MHz : 7.021 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -13.0 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



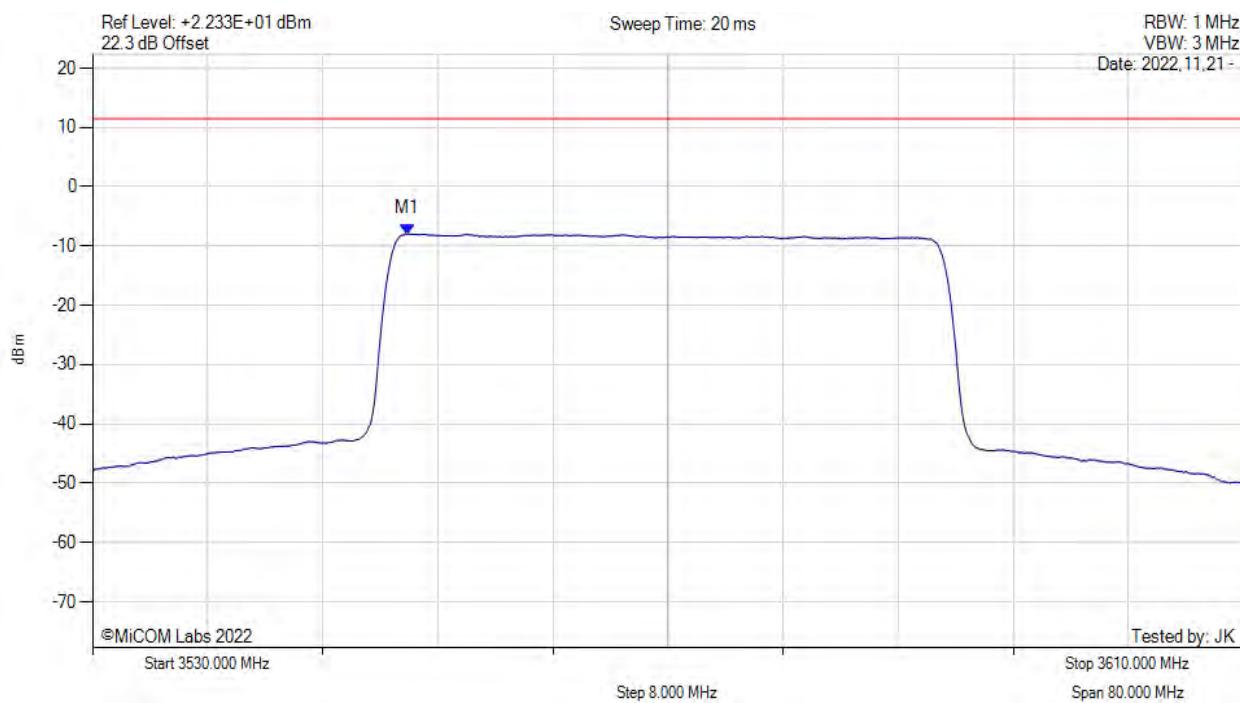
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3566.800 MHz : -7.447 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



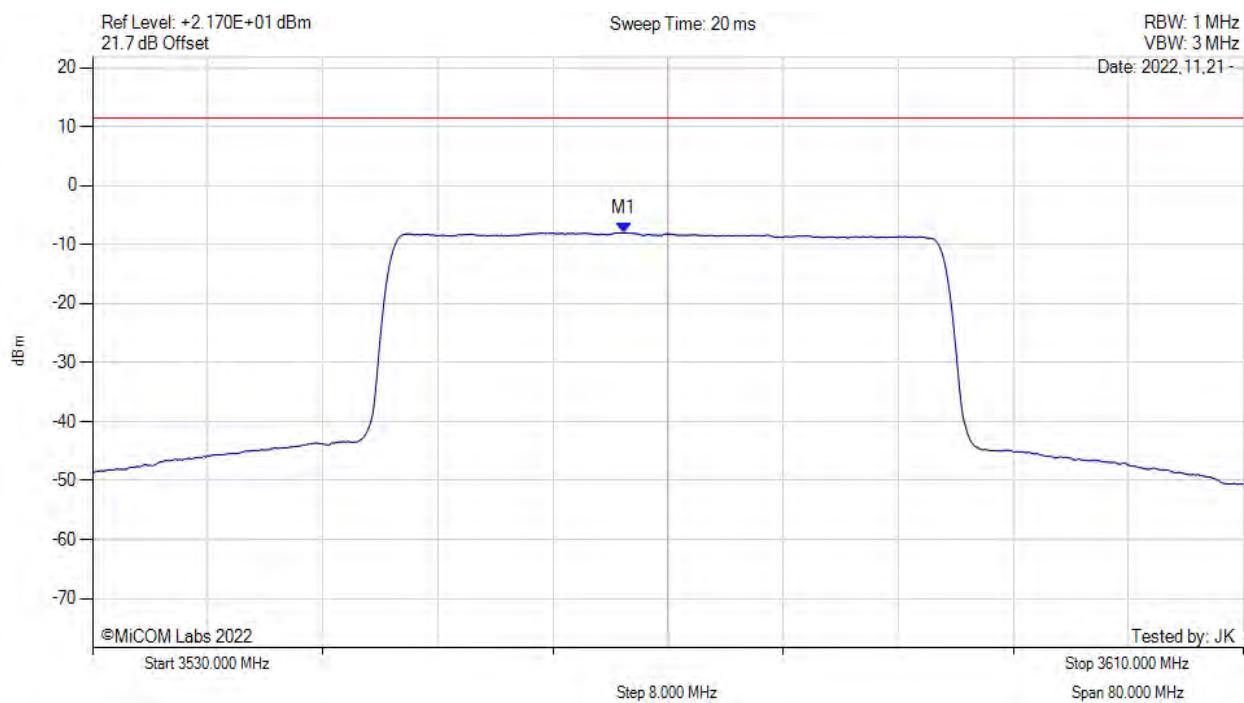
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.870 MHz : -7.961 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



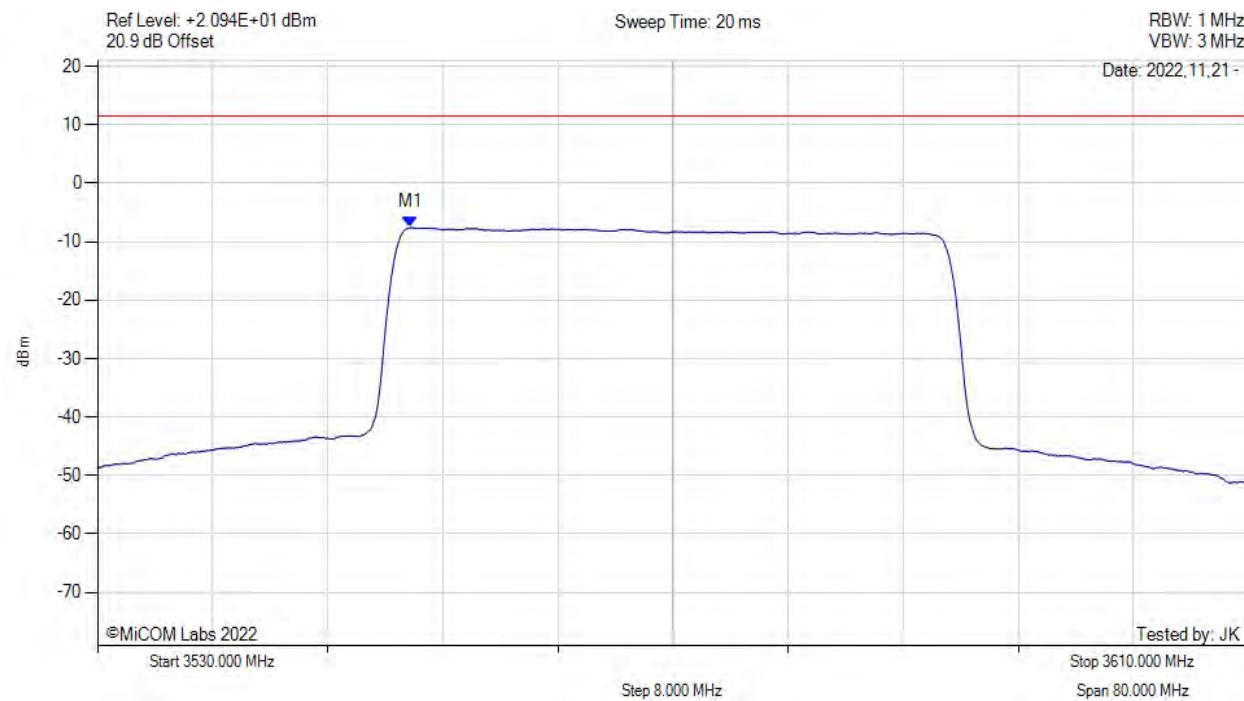
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3566.930 MHz : -7.981 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

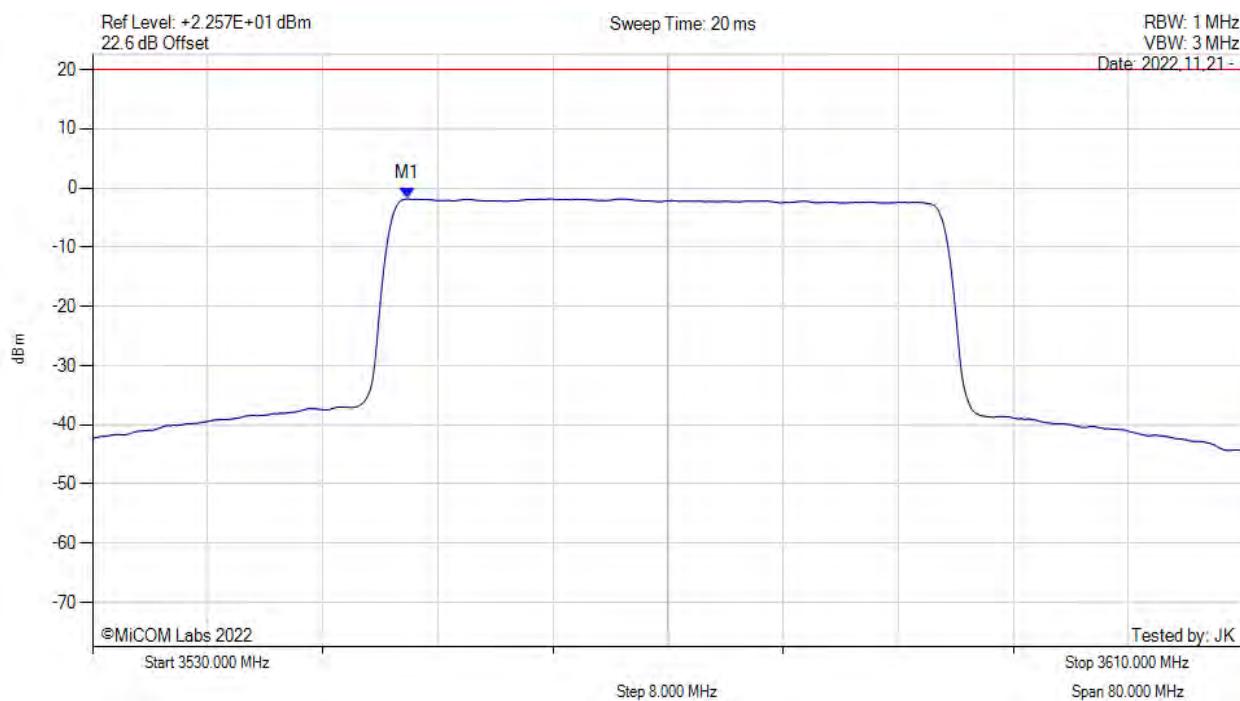


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.730 MHz : -7.598 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 40 MHz, Channel: 3570.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



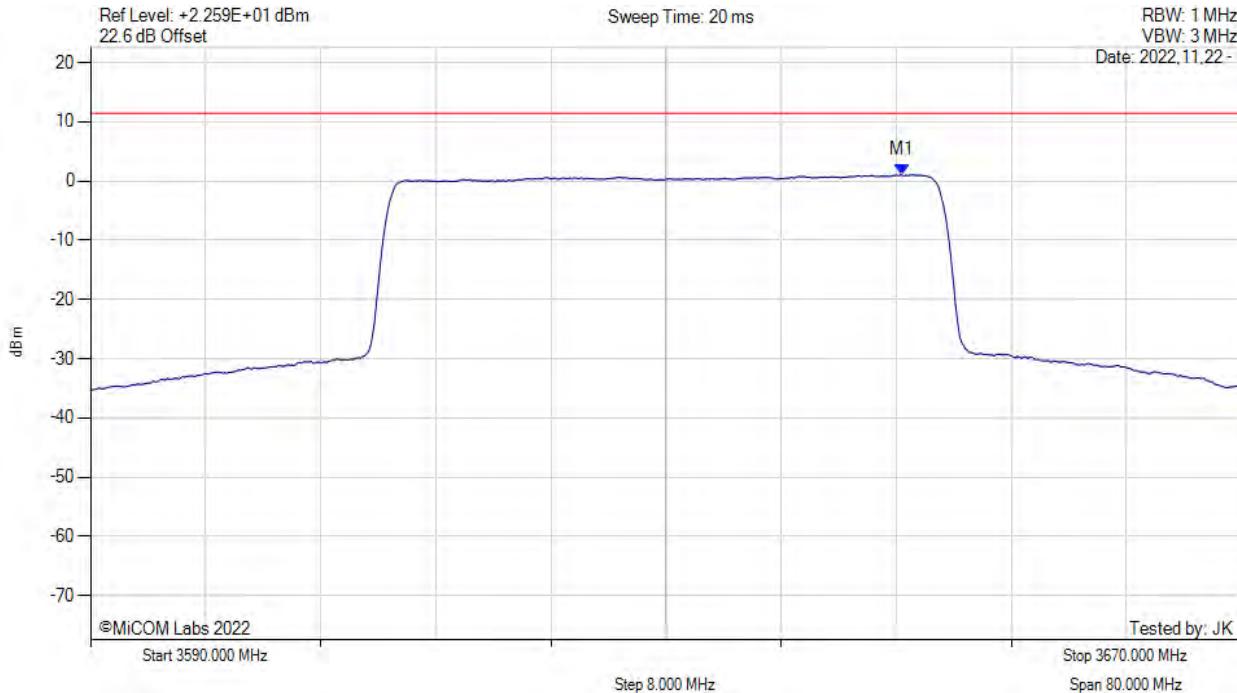
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3551.900 MHz : -1.842 dBm M1 + DCCF : 3551.900 MHz : -1.842 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -21.9 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



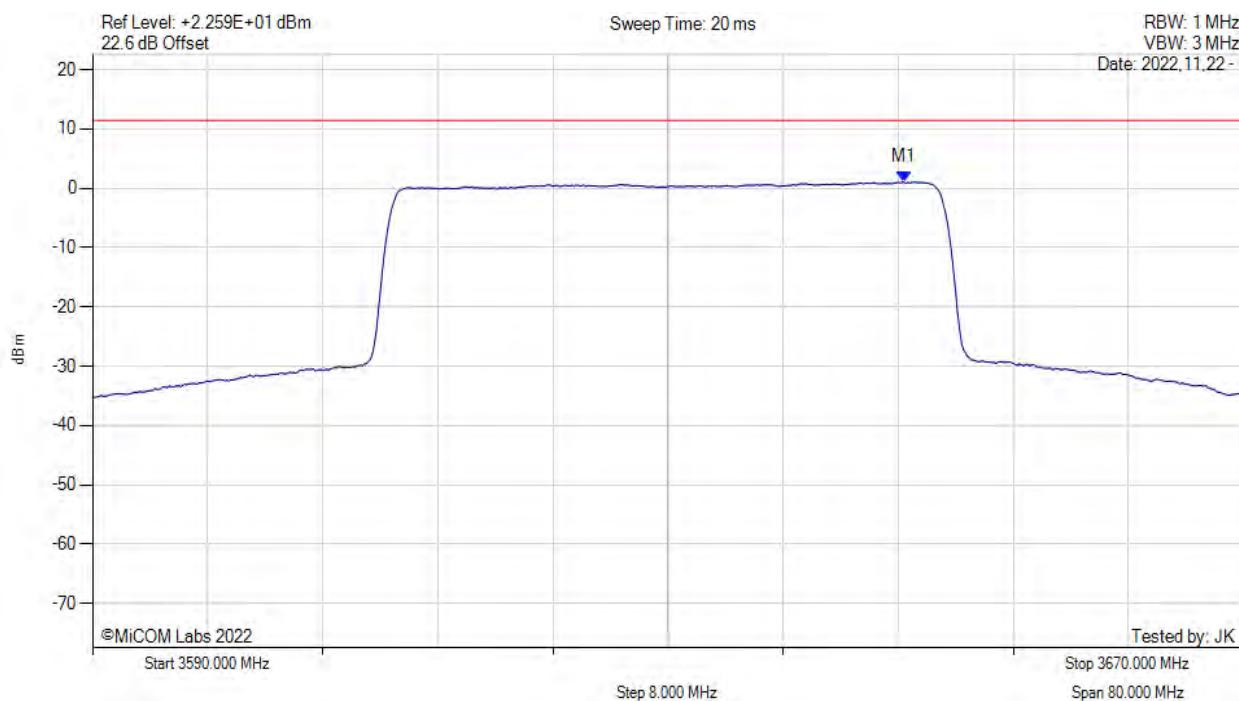
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.400 MHz : 1.047 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



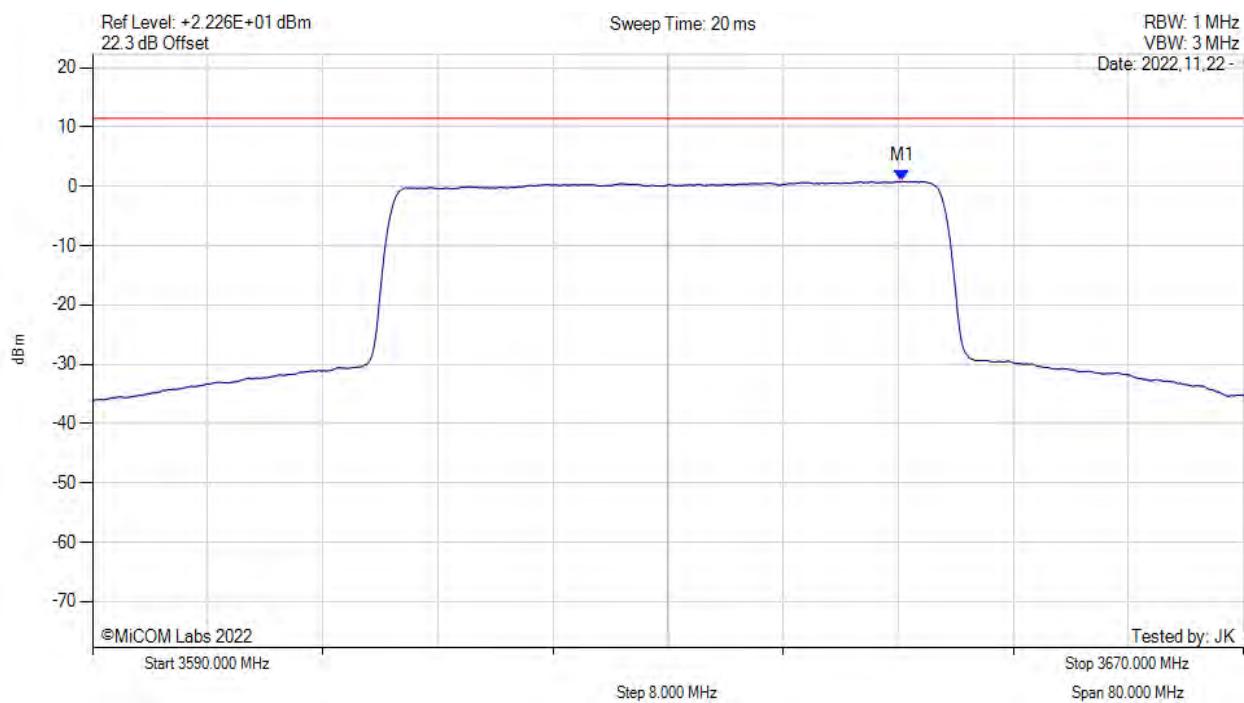
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.400 MHz : 1.047 dBm	Channel Frequency: 3630.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.270 MHz : 0.863 dBm	Channel Frequency: 3630.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



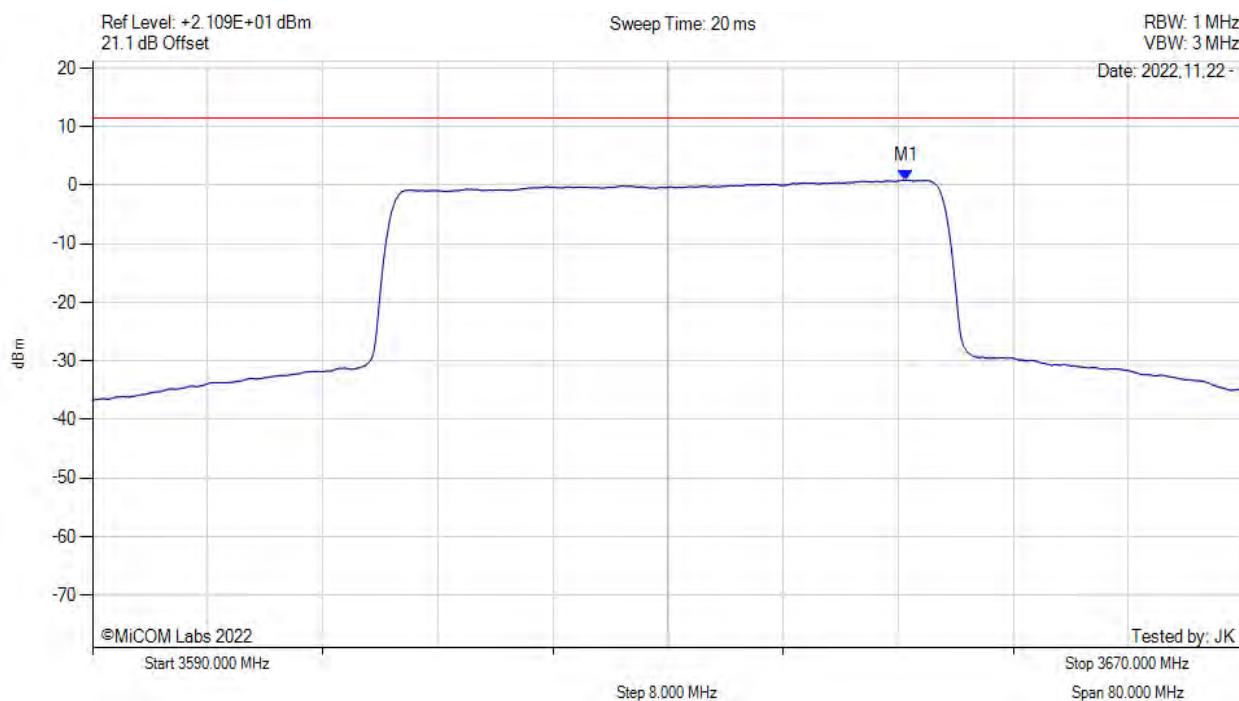
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.270 MHz : 0.863 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



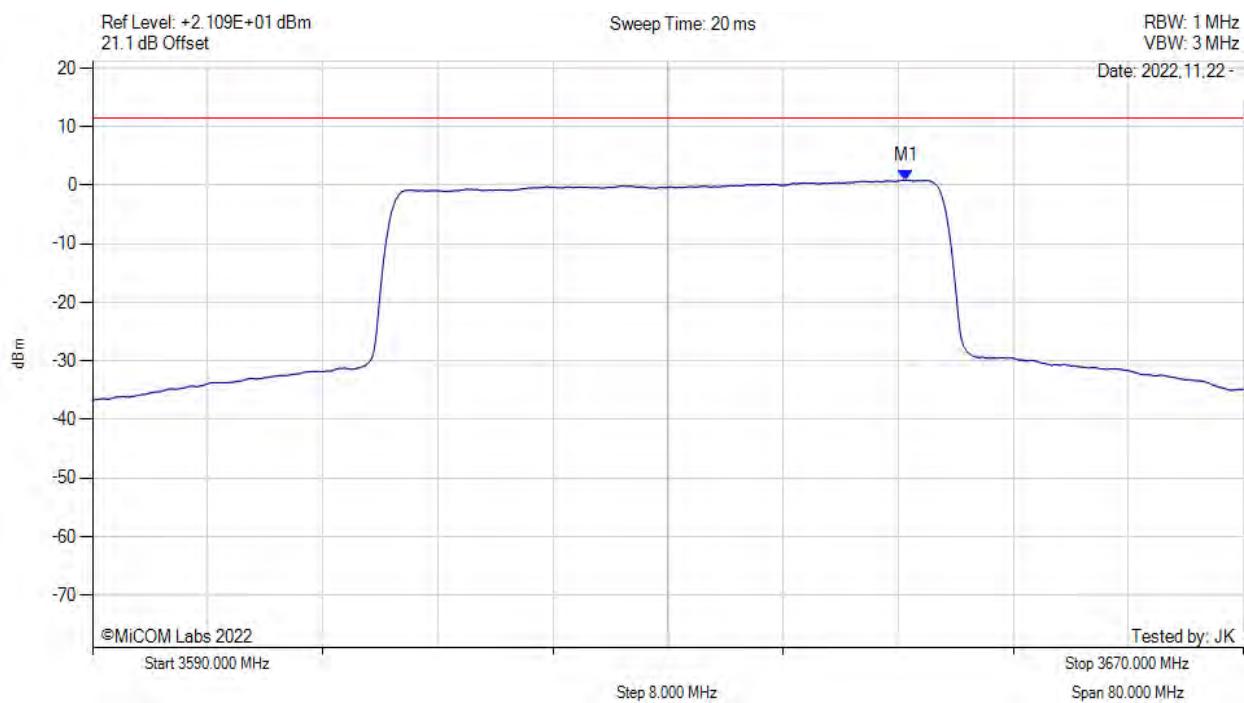
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.530 MHz : 0.886 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



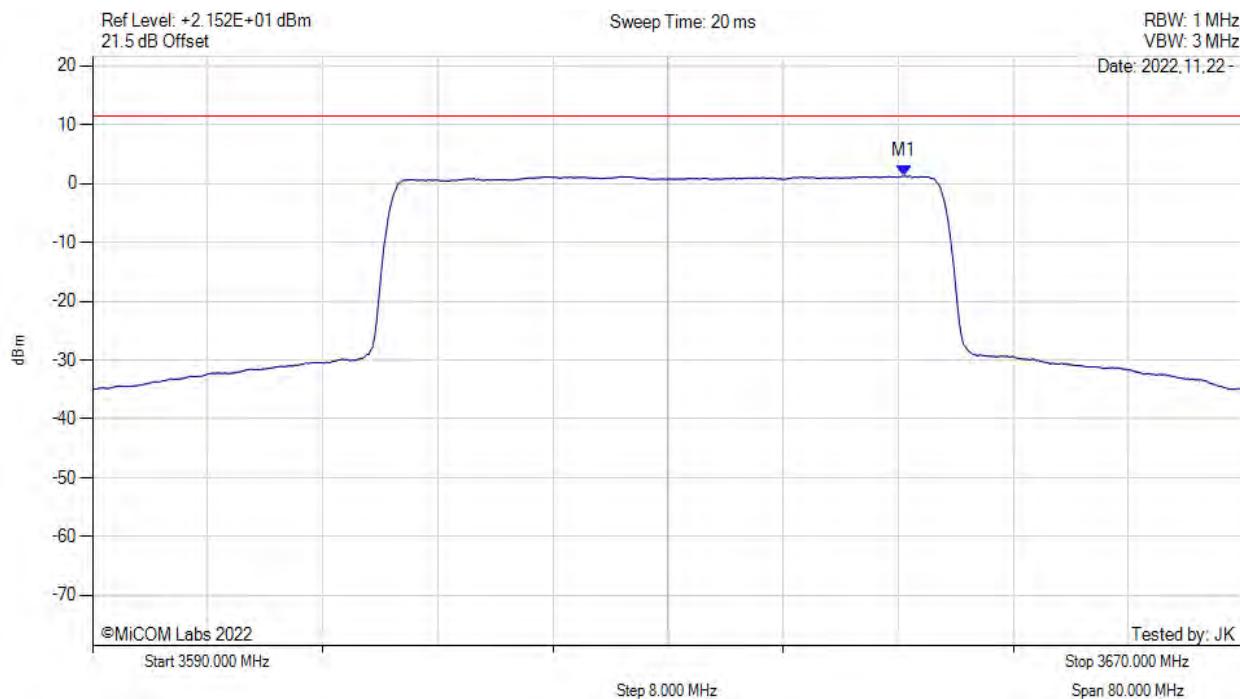
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.530 MHz : 0.886 dBm	Channel Frequency: 3630.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



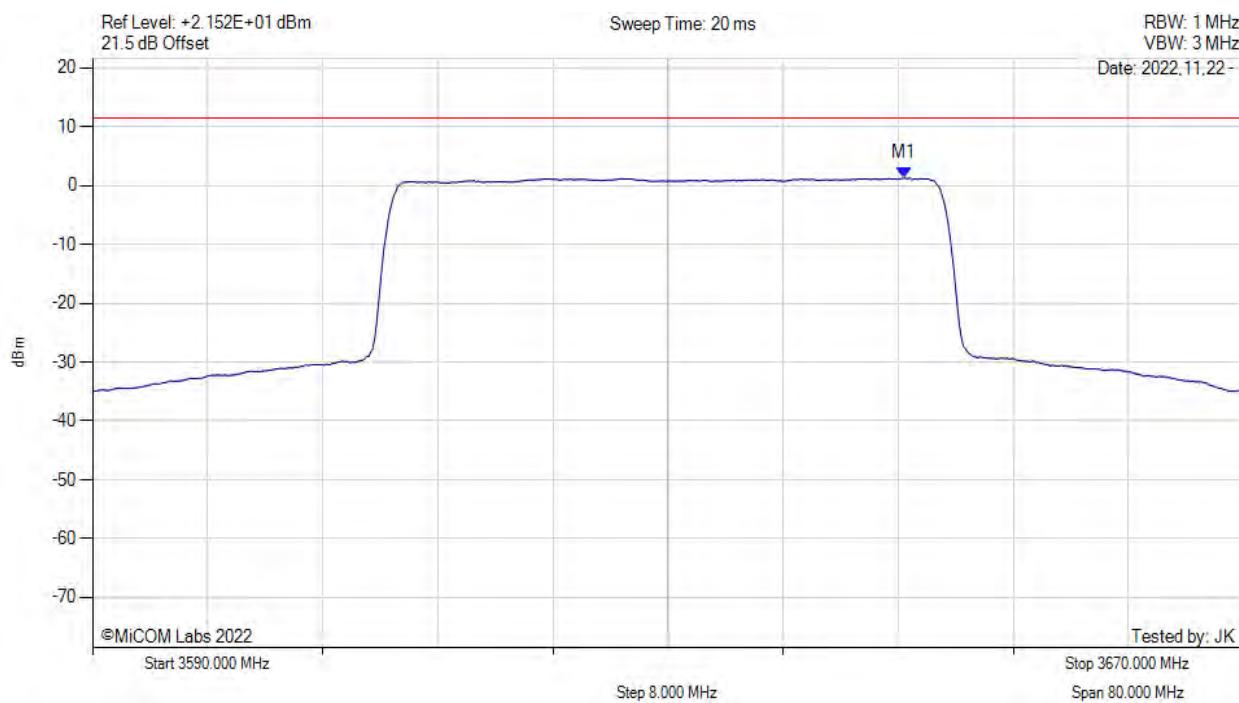
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.400 MHz : 1.319 dBm	Channel Frequency: 3630.00 MHz

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

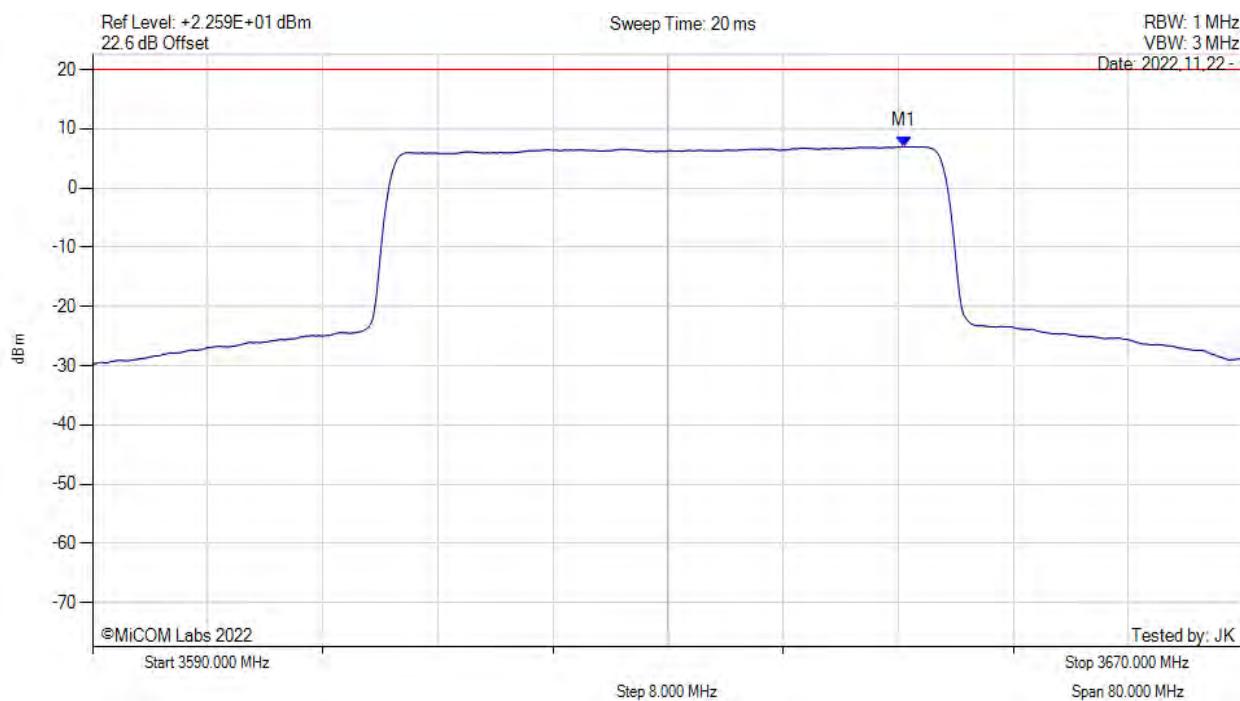


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.400 MHz : 1.319 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 40 MHz, Channel: 3630.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



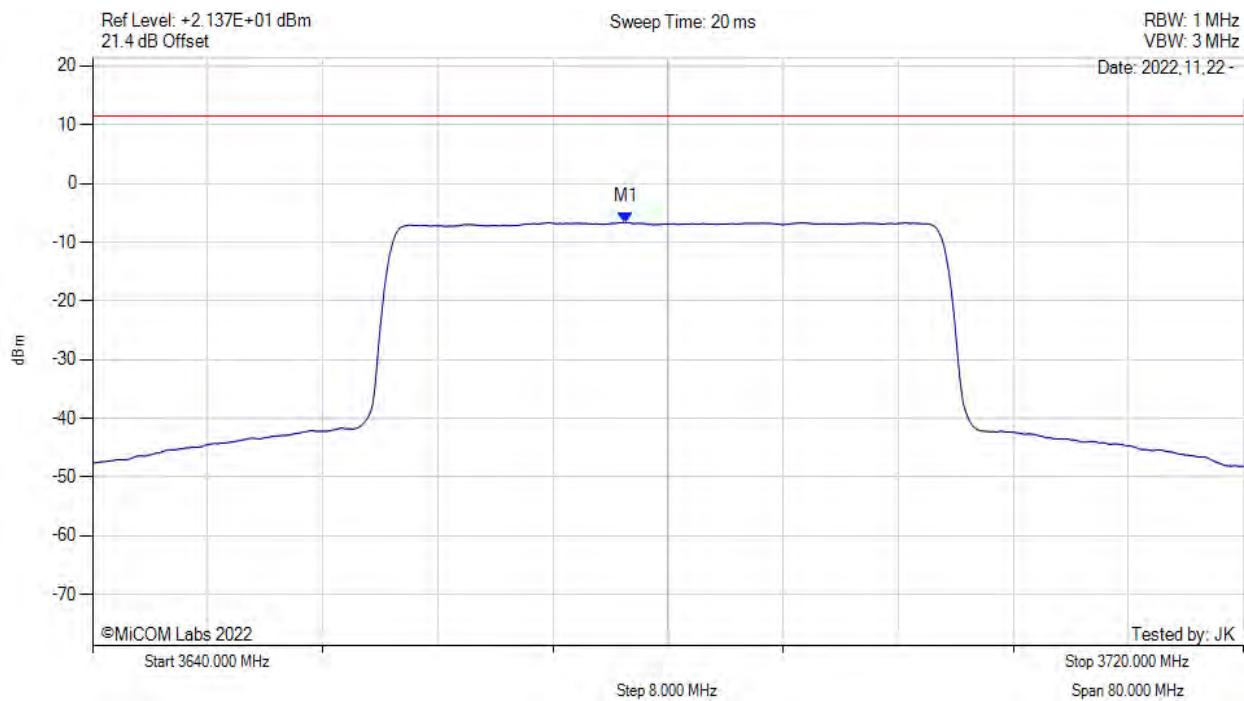
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.400 MHz : 7.025 dBm M1 + DCCF : 3646.400 MHz : 7.025 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -13.0 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



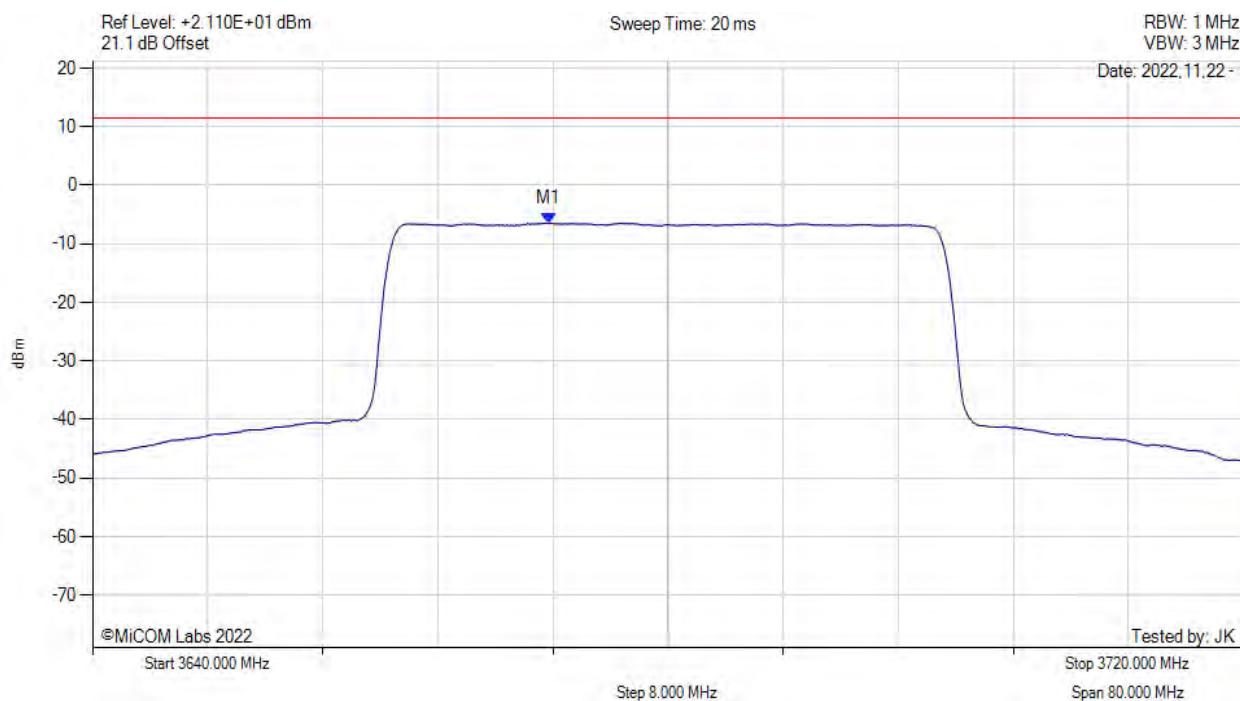
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3677.070 MHz : -6.618 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



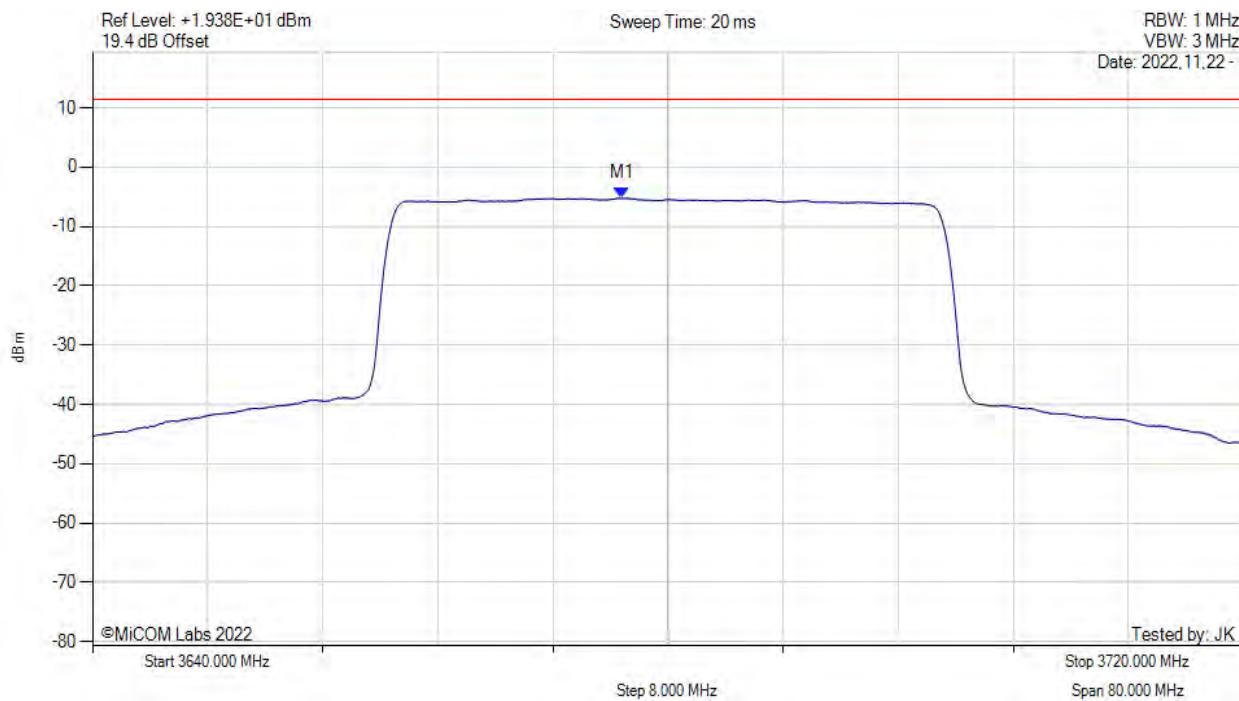
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3671.730 MHz : -6.443 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



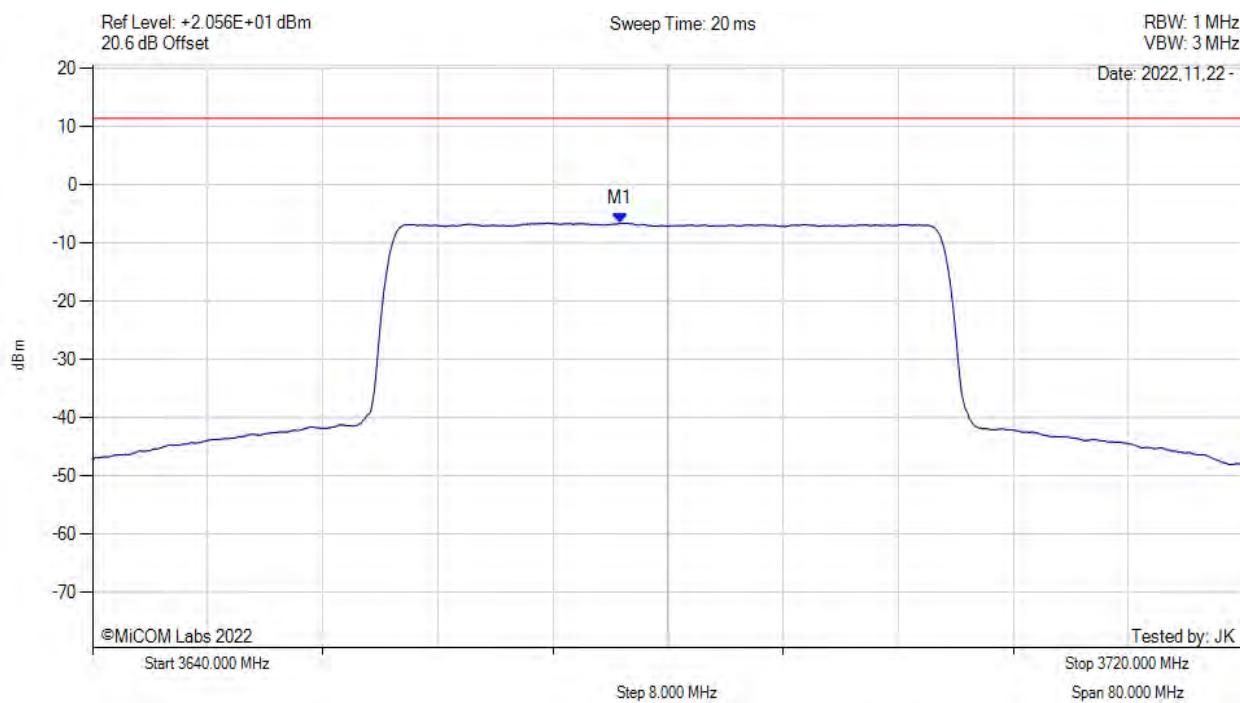
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3676.800 MHz : -5.223 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



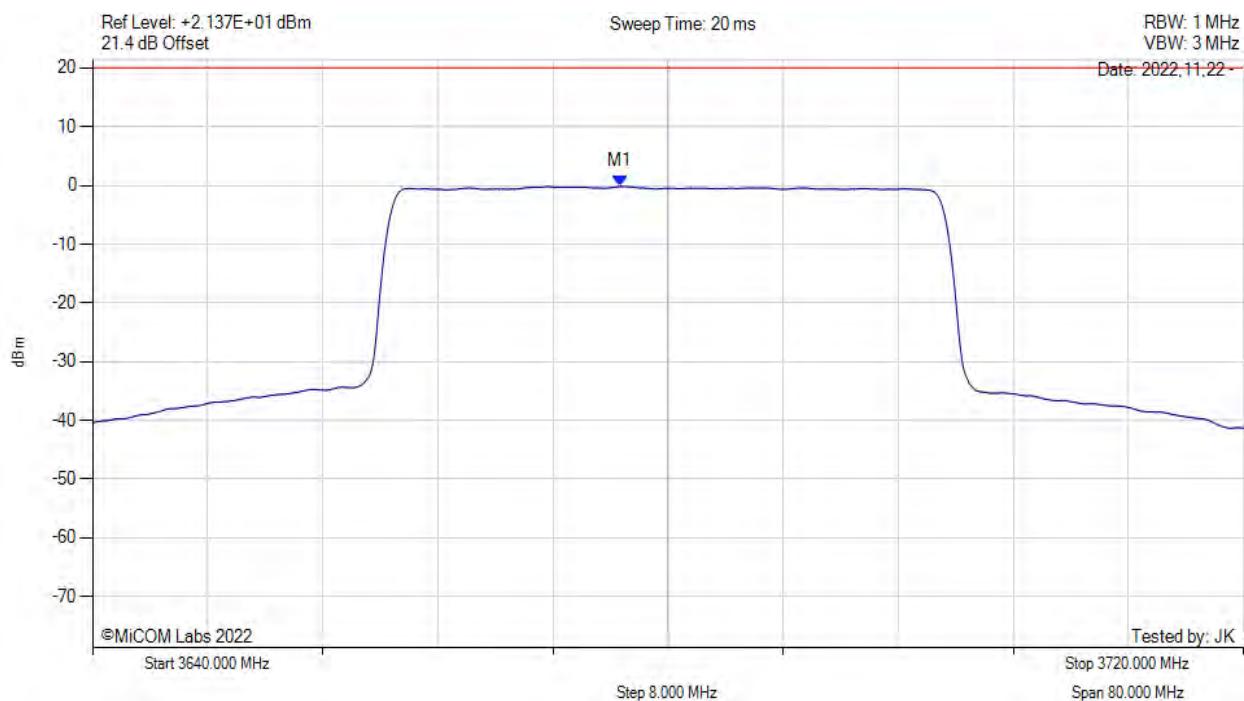
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3676.670 MHz : -6.542 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



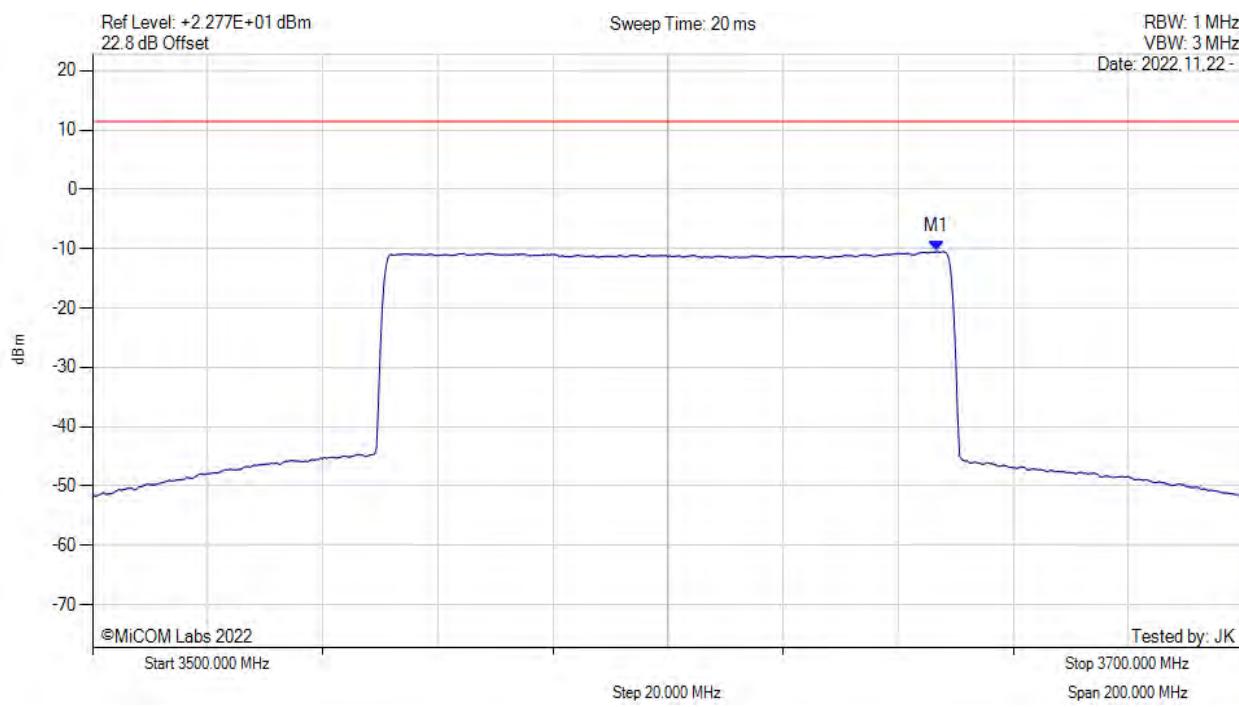
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3676.700 MHz : -0.175 dBm M1 + DCCF : 3676.700 MHz : -0.175 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -20.2 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



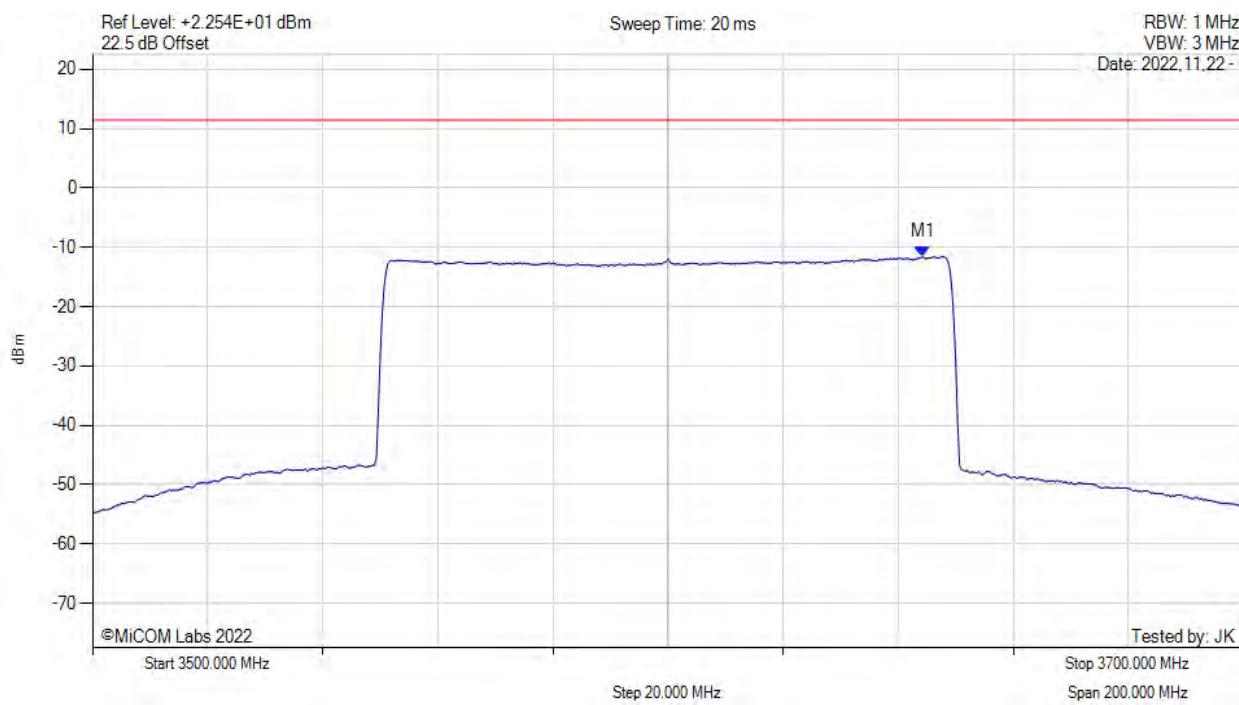
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3646.700 MHz : -10.499 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



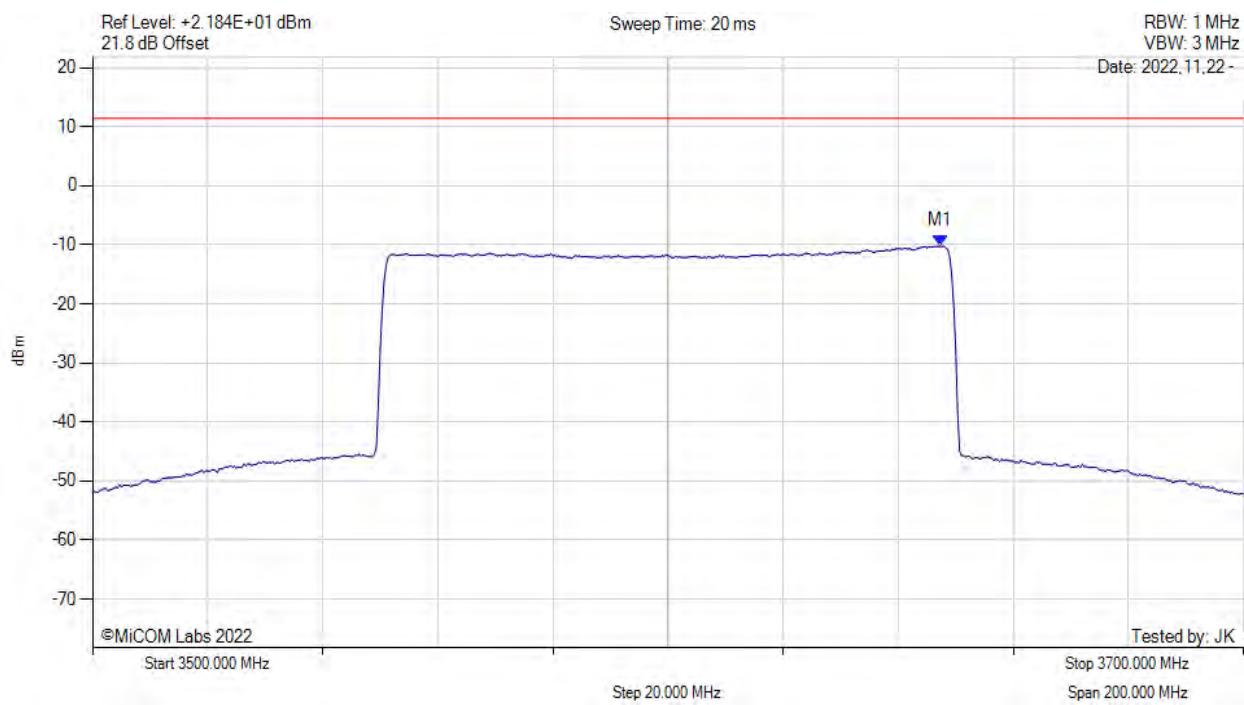
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3644.300 MHz : -11.573 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



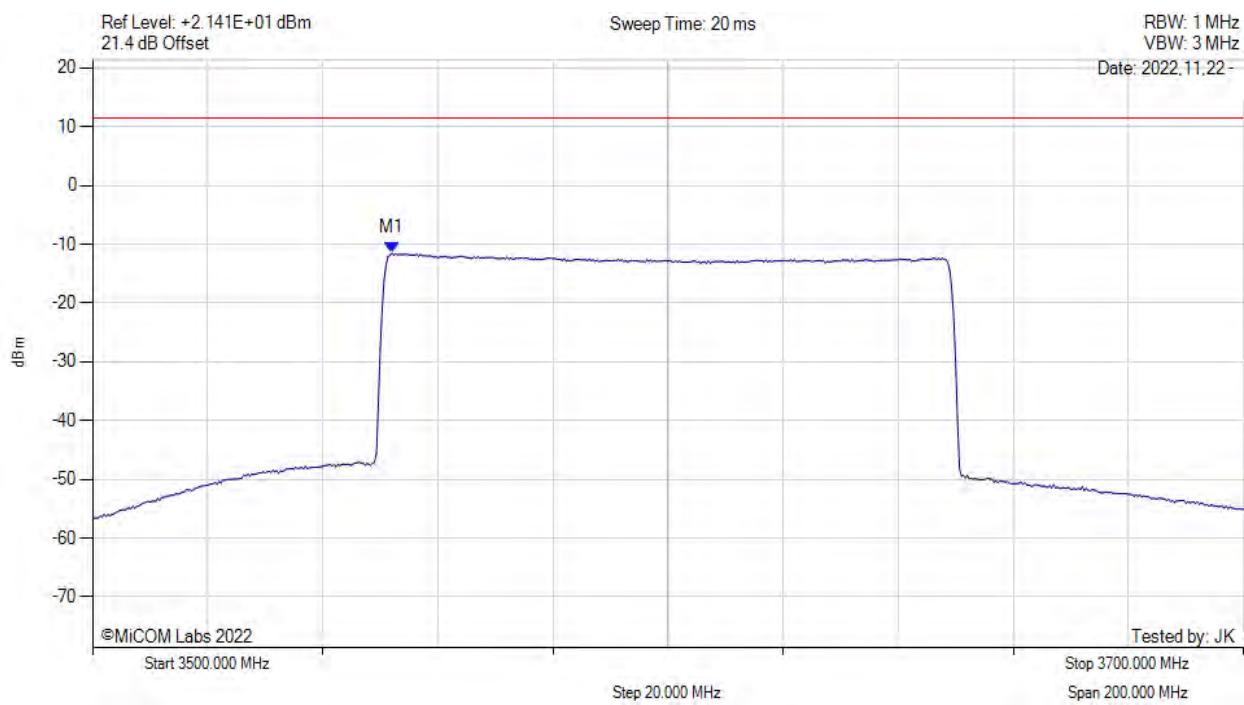
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3647.300 MHz : -10.195 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



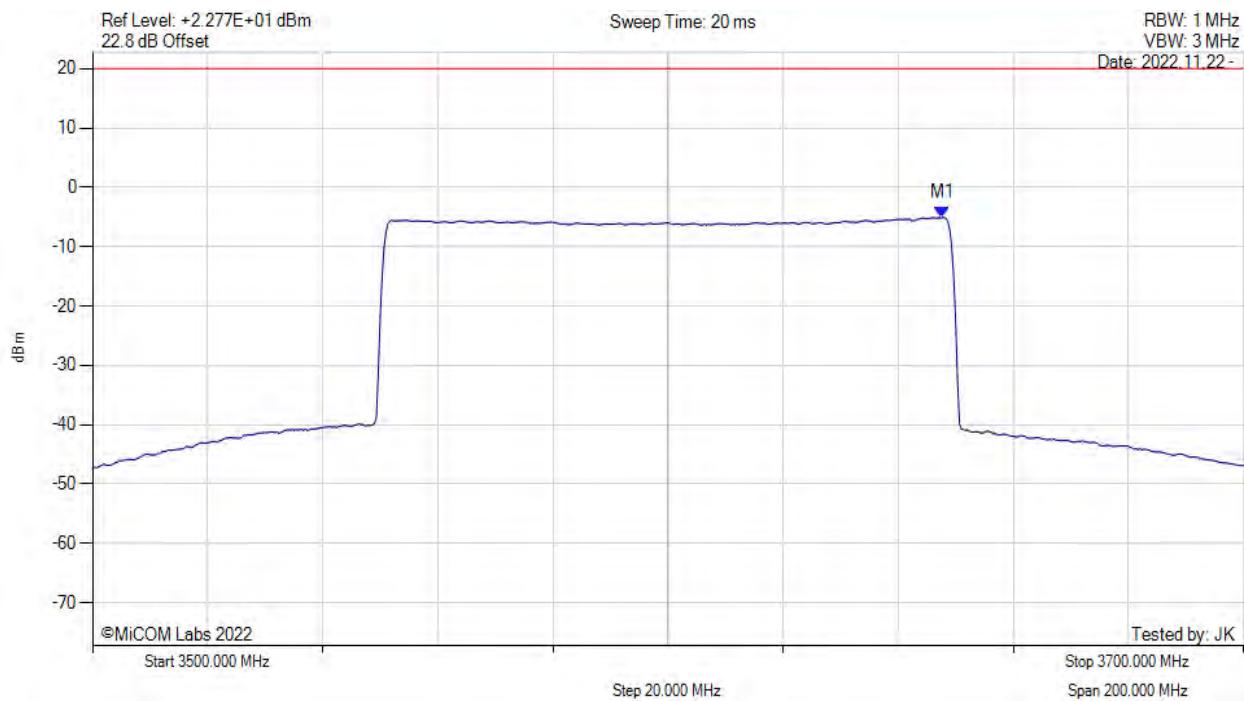
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3552.000 MHz : -11.503 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



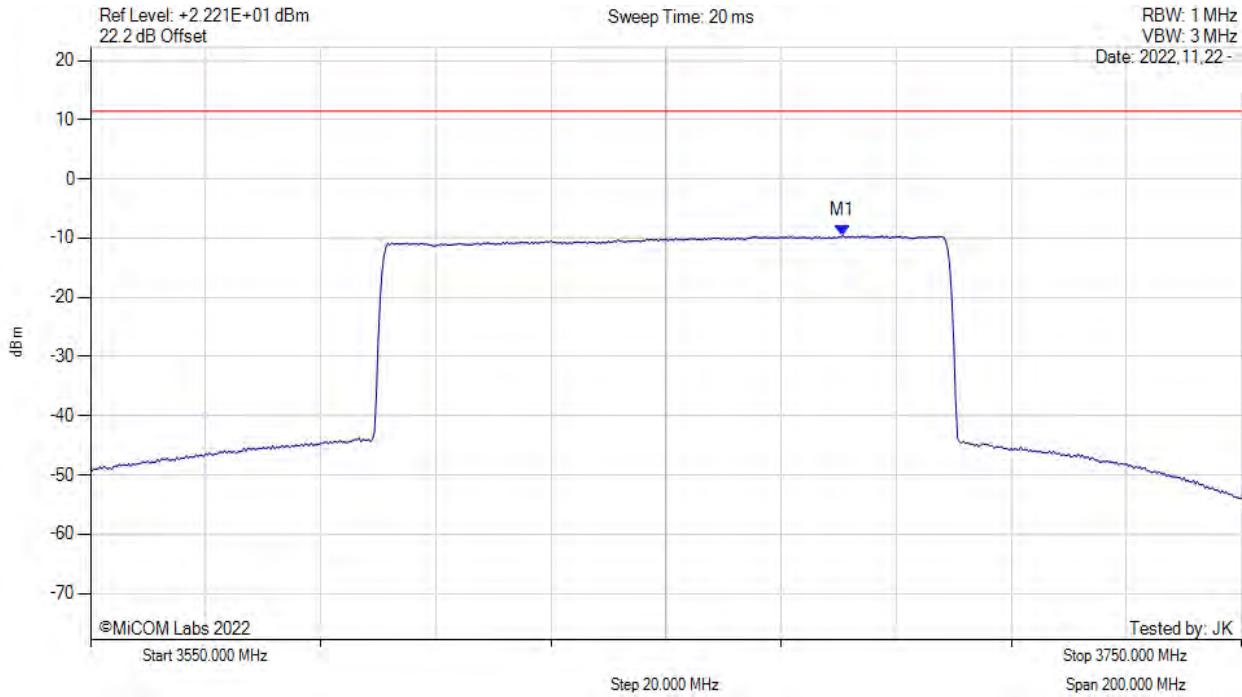
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3647.700 MHz : -5.091 dBm M1 + DCCF : 3647.700 MHz : -5.091 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -25.1 dB

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



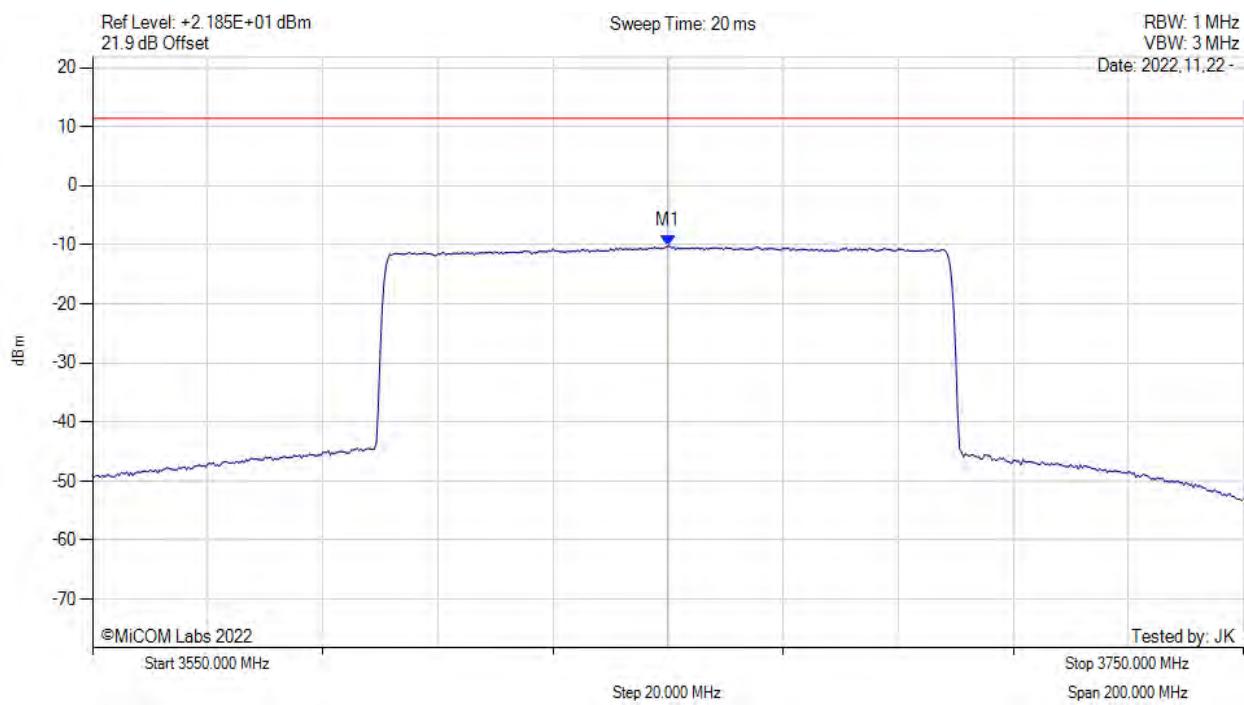
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3680.700 MHz : -9.583 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



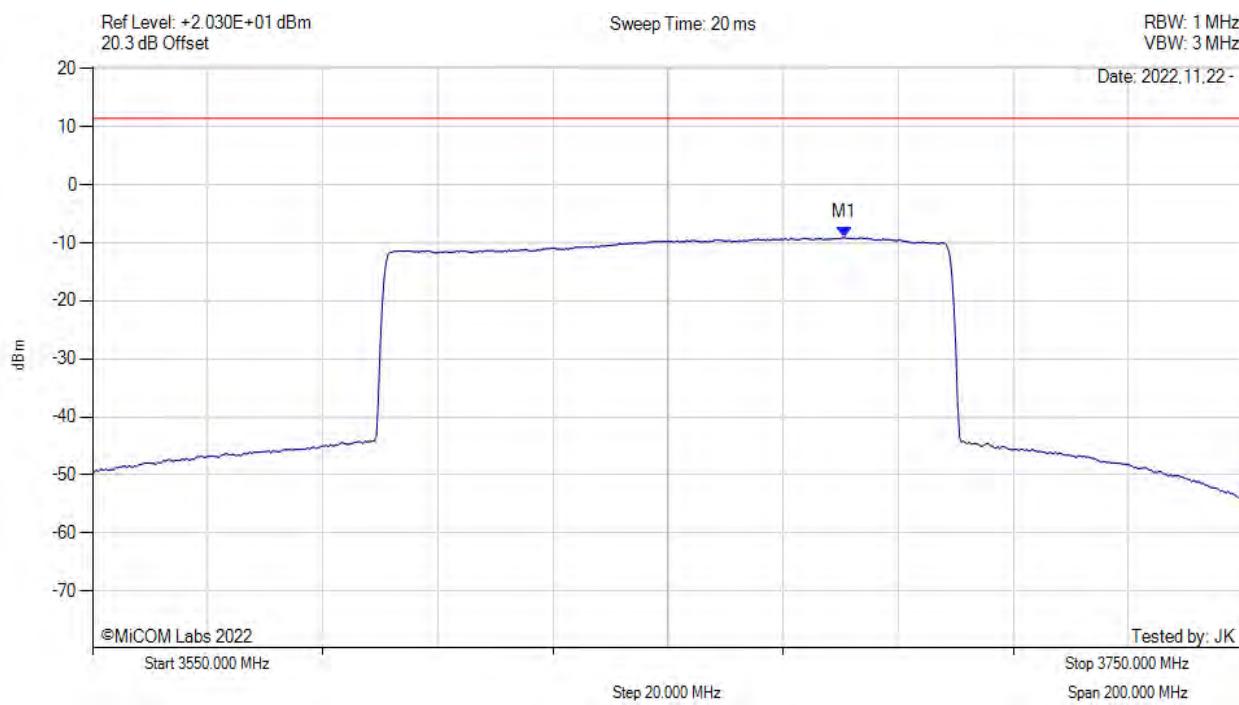
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3650.000 MHz : -10.202 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



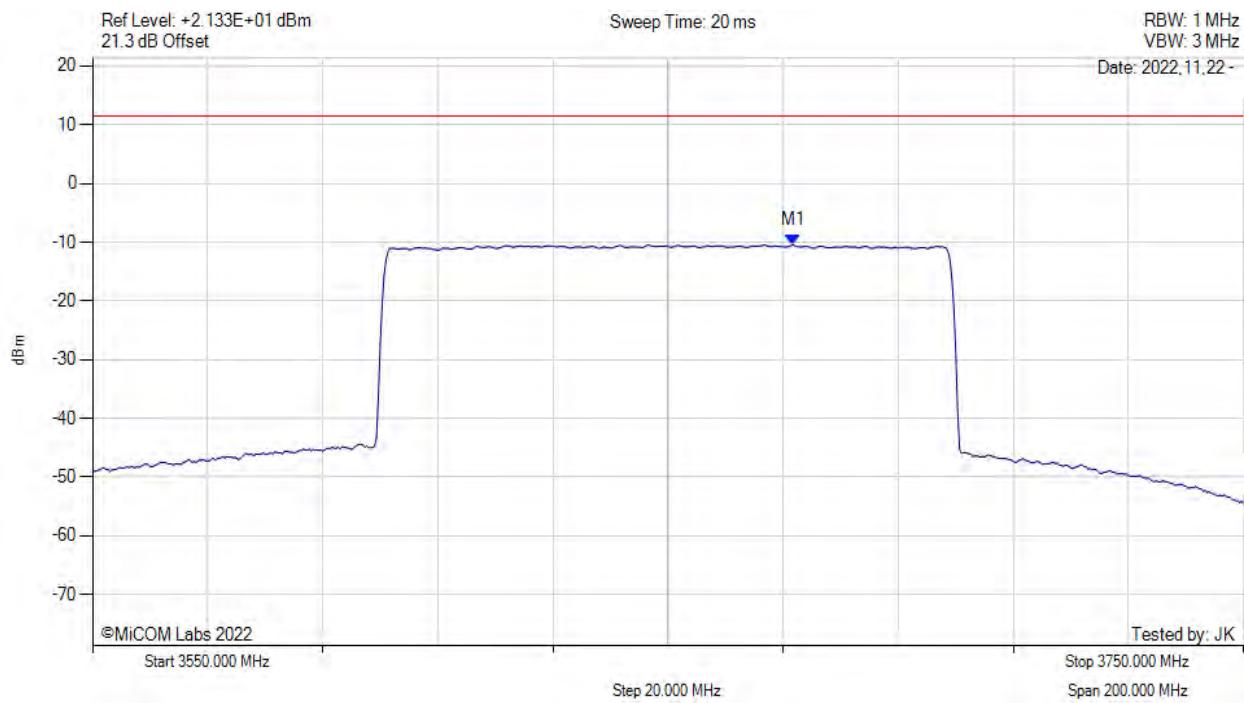
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3680.700 MHz : -9.100 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc

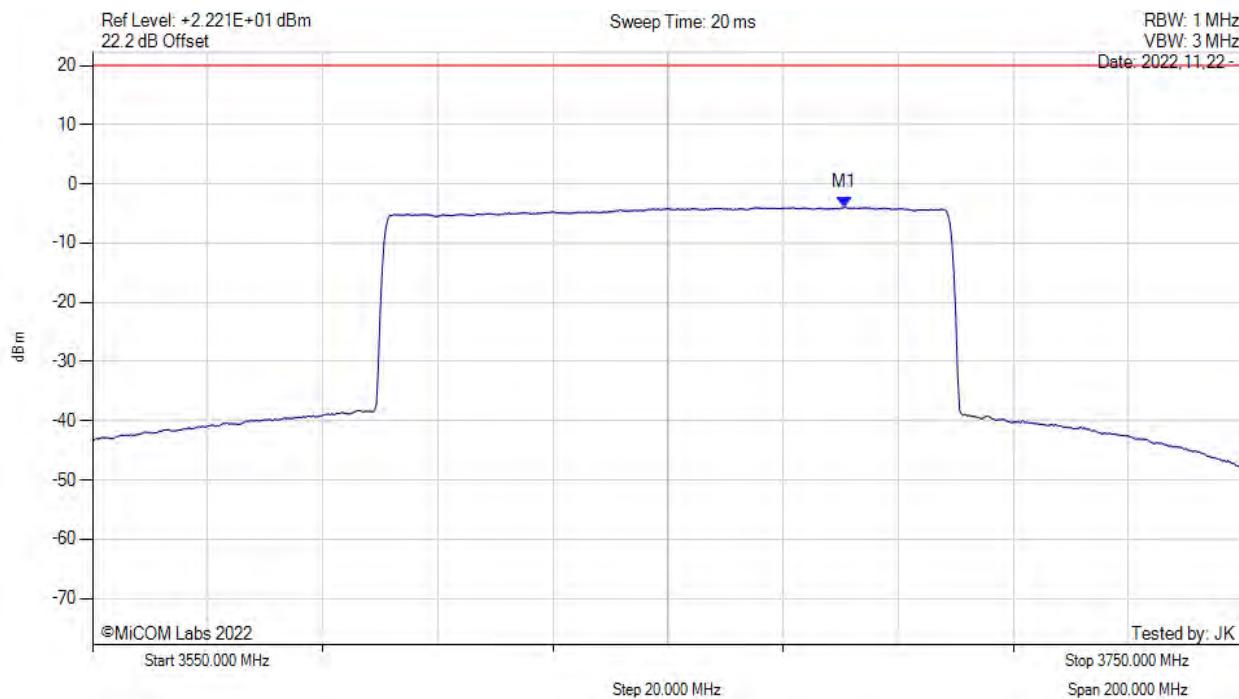


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3671.700 MHz : -10.449 dBm	Limit: ≤ 14.000 dBm

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POWER SPECTRAL DENSITY - AVERAGE

Variant: 100MHz, Channel: 3650.00 MHz, SUM, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 10 Trace Mode = WRIT	M1 : 3680.700 MHz : -3.957 dBm M1 + DCCF : 3680.700 MHz : -3.957 dBm Duty Cycle Correction Factor : +0 dB	Limit: ≤ 20.0 dBm Margin: -24.0 dB

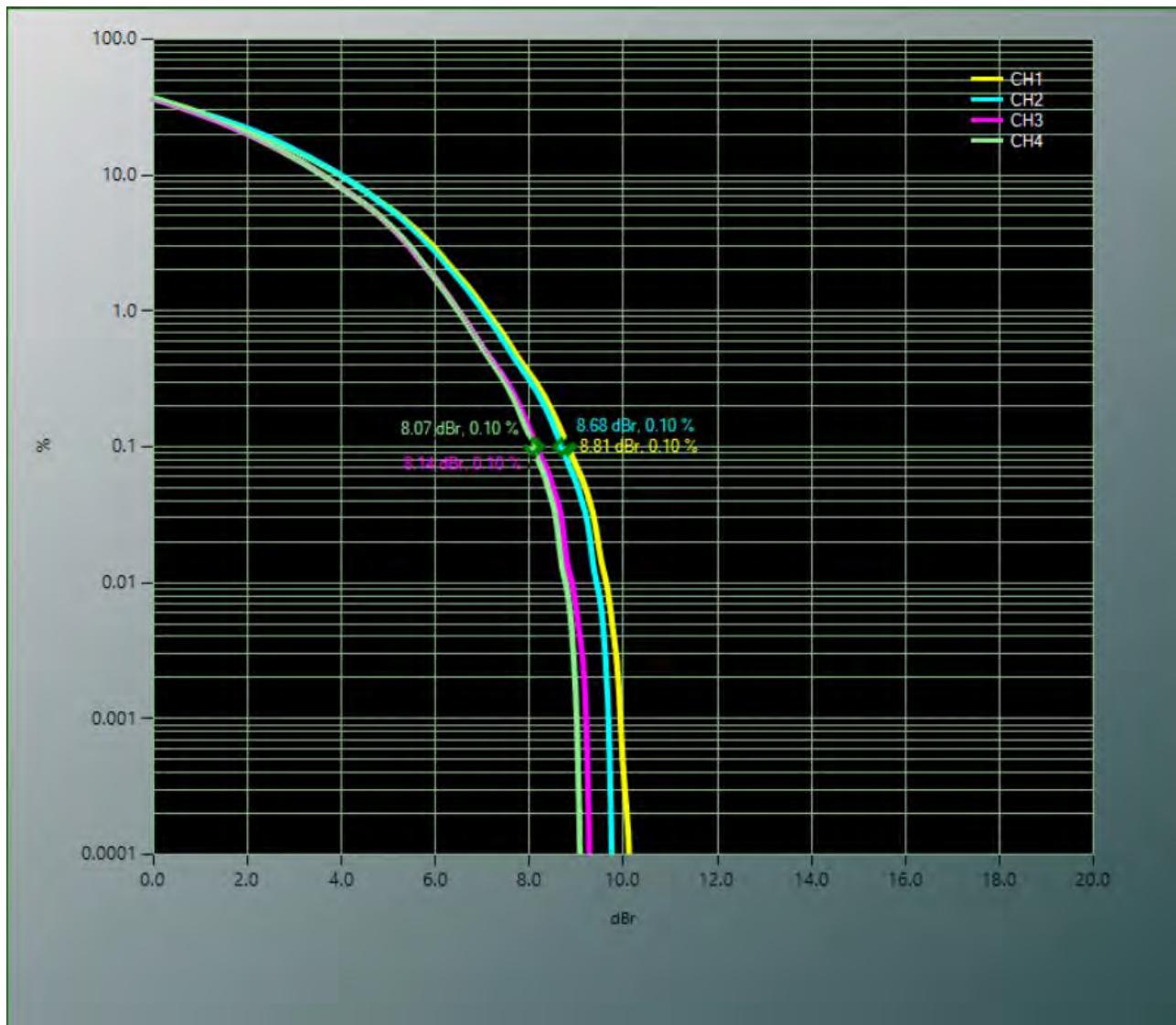
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### A.3. Peak to Average Power Ratio

#### PEAK TO AVERAGE POWER RATIO



Variant: 10 MHz, Channel: 3555.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

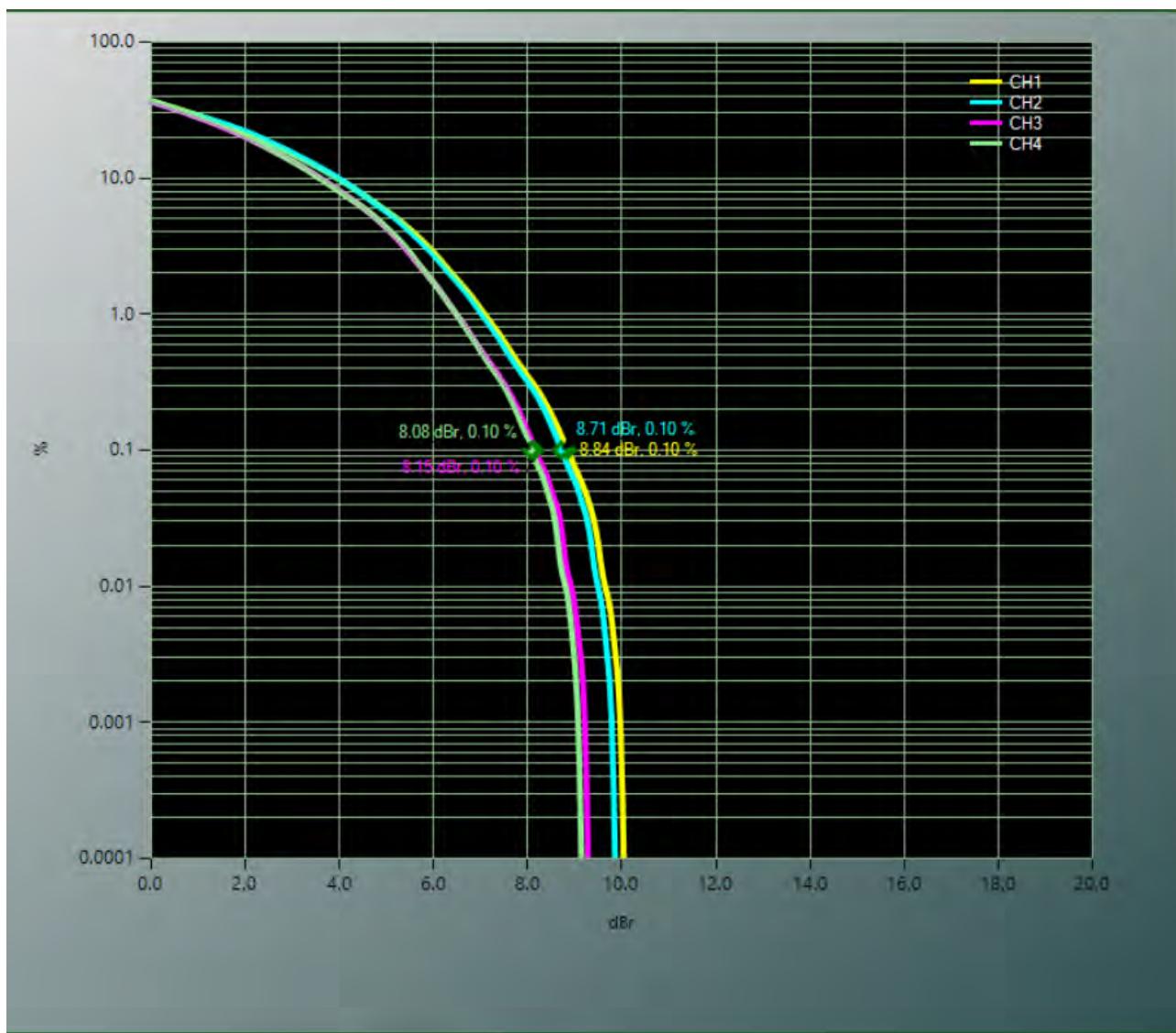


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2383.3 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.81 dB M2 : 0.10% : 8.68 dB M3 : 0.10% : 8.14 dB M4 : 0.10% : 8.07 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 10 MHz, Channel: 3625.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

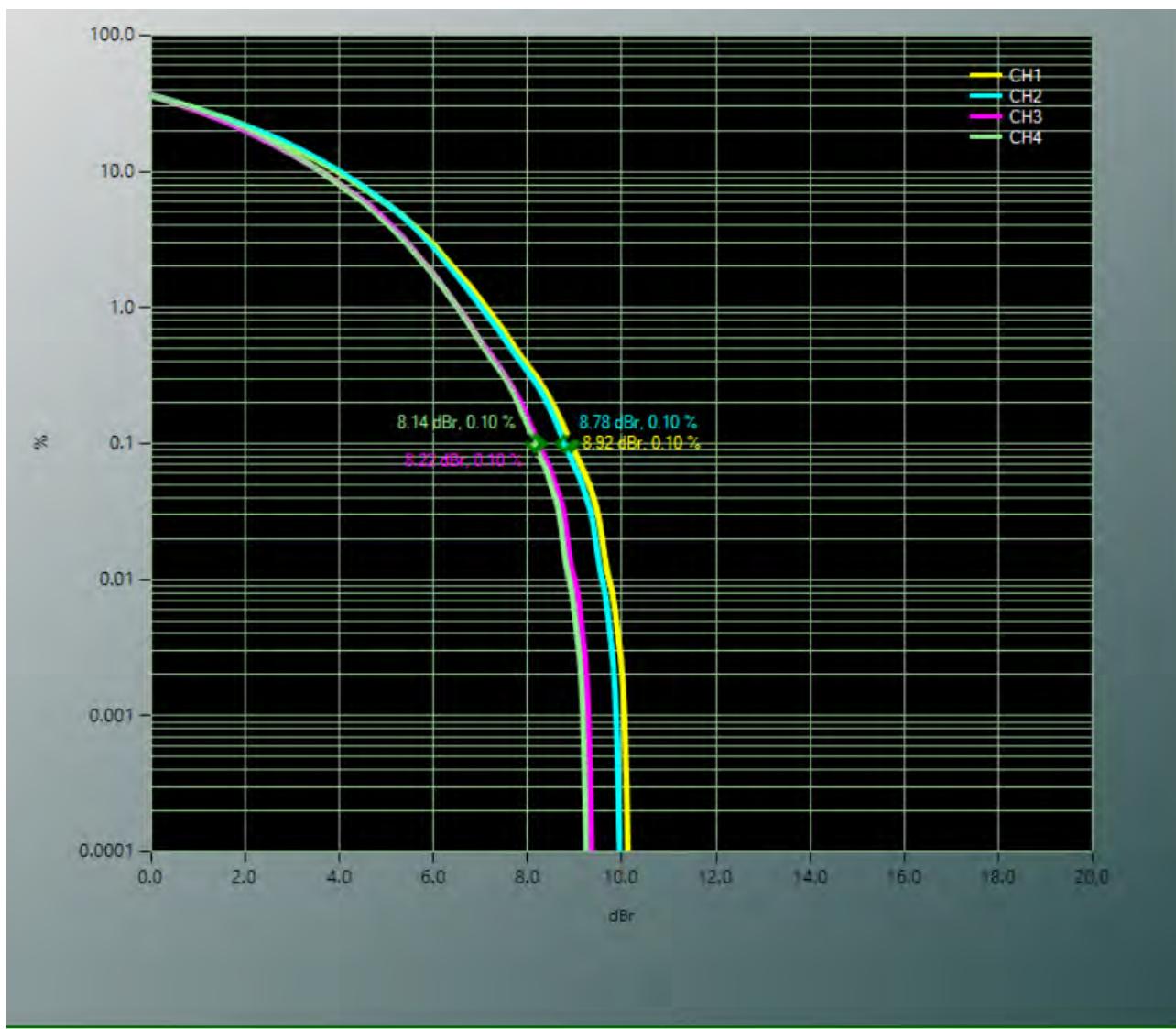


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2917.6 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.84 dB M2 : 0.10% : 8.71 dB M3 : 0.10% : 8.15 dB M4 : 0.10% : 8.08 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 10 MHz, Channel: 3695.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

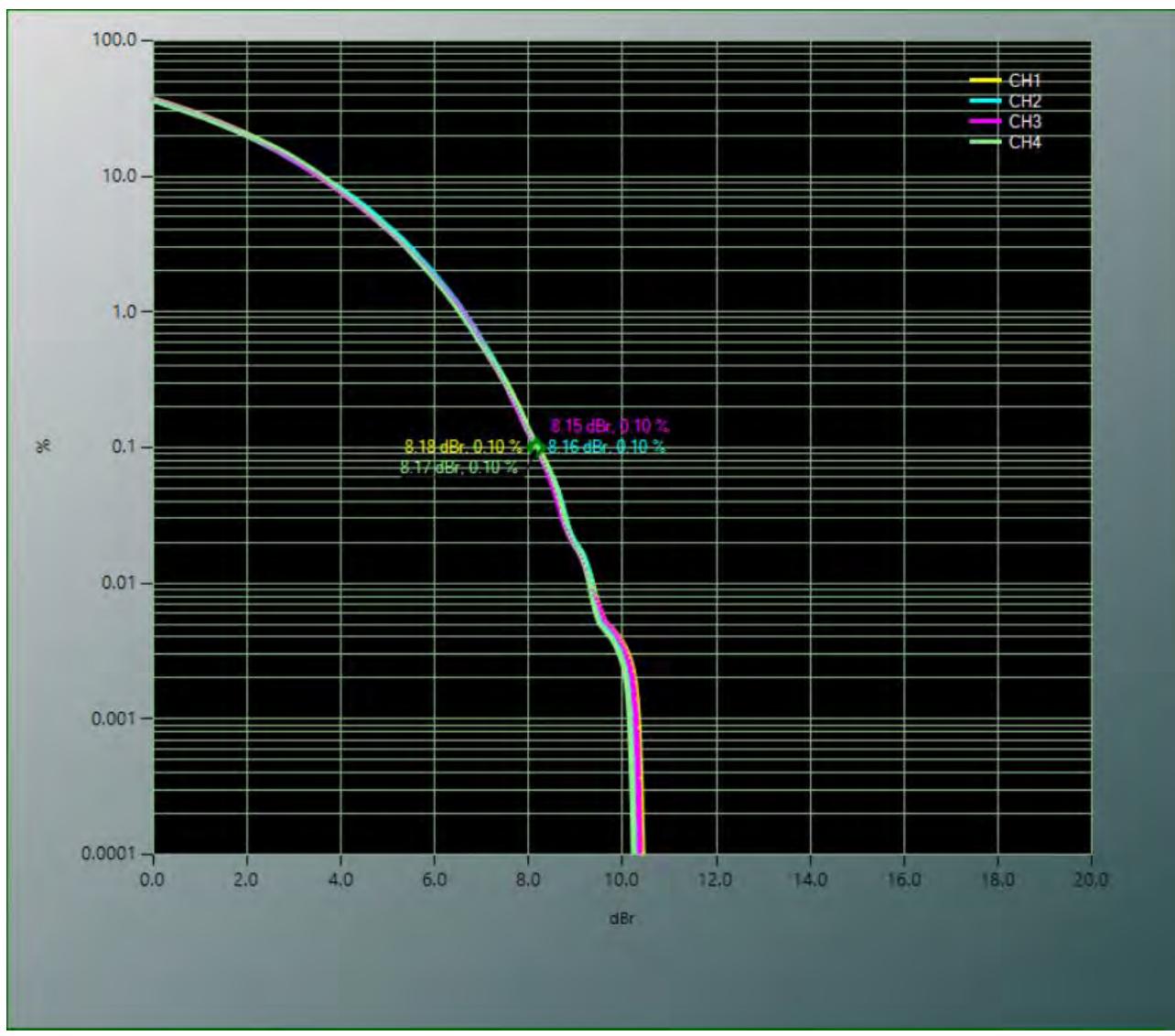


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 544.2 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.92 dB M2 : 0.10% : 8.78 dB M3 : 0.10% : 8.22 dB M4 : 0.10% : 8.14 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 20 MHz, Channel: 3560.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

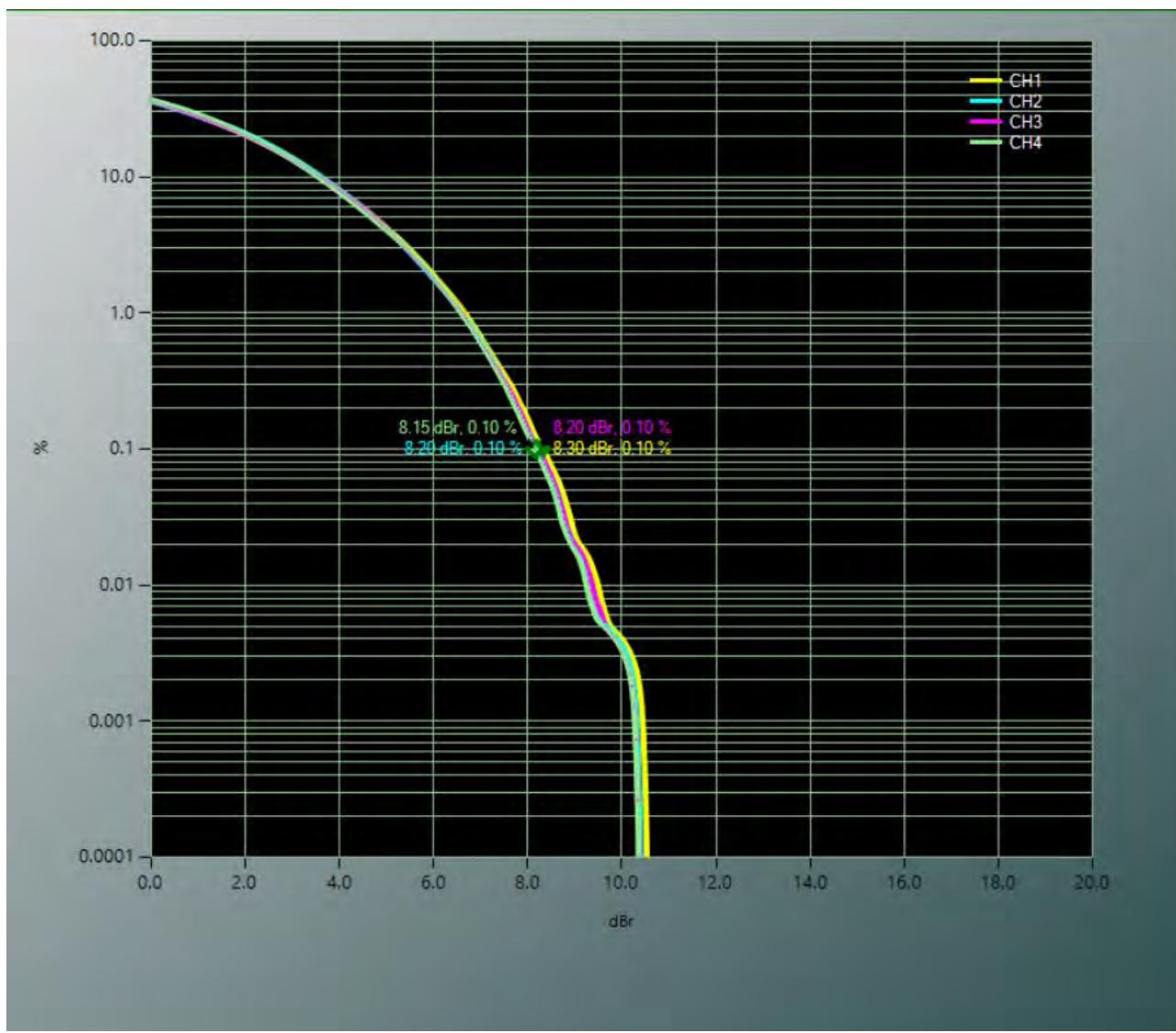


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2177.6 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.18 dB M2 : 0.10% : 8.16 dB M3 : 0.10% : 8.15 dB M4 : 0.10% : 8.17 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 20 MHz, Channel: 3620.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

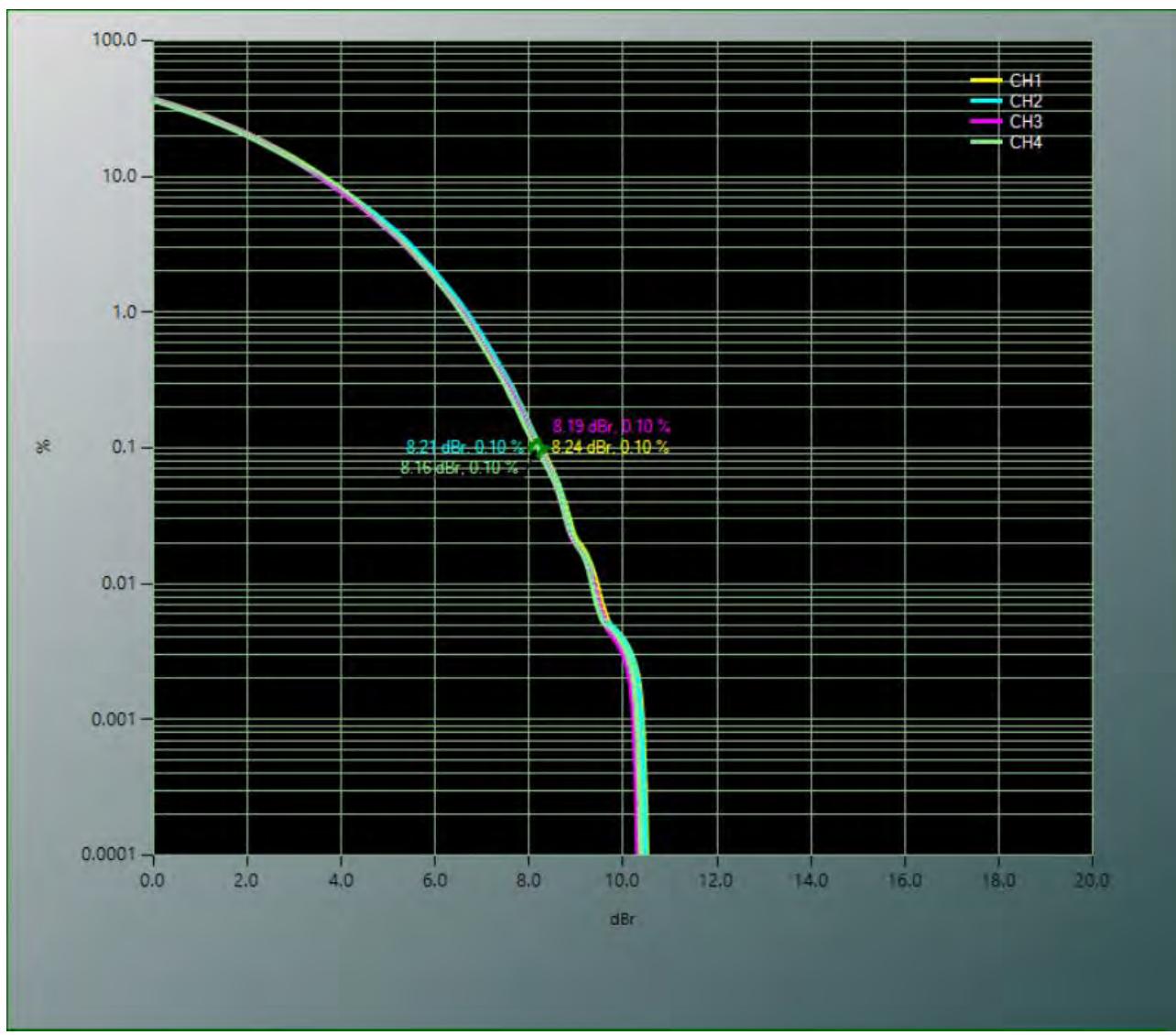


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2953.3 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.30 dBc M2 : 0.10% : 8.20 dBc M3 : 0.10% : 8.20 dBc M4 : 0.10% : 8.15 dBc	Limit: 13 dBc

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### PEAK TO AVERAGE POWER RATIO

Variant: 20 MHz, Channel: 3690.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

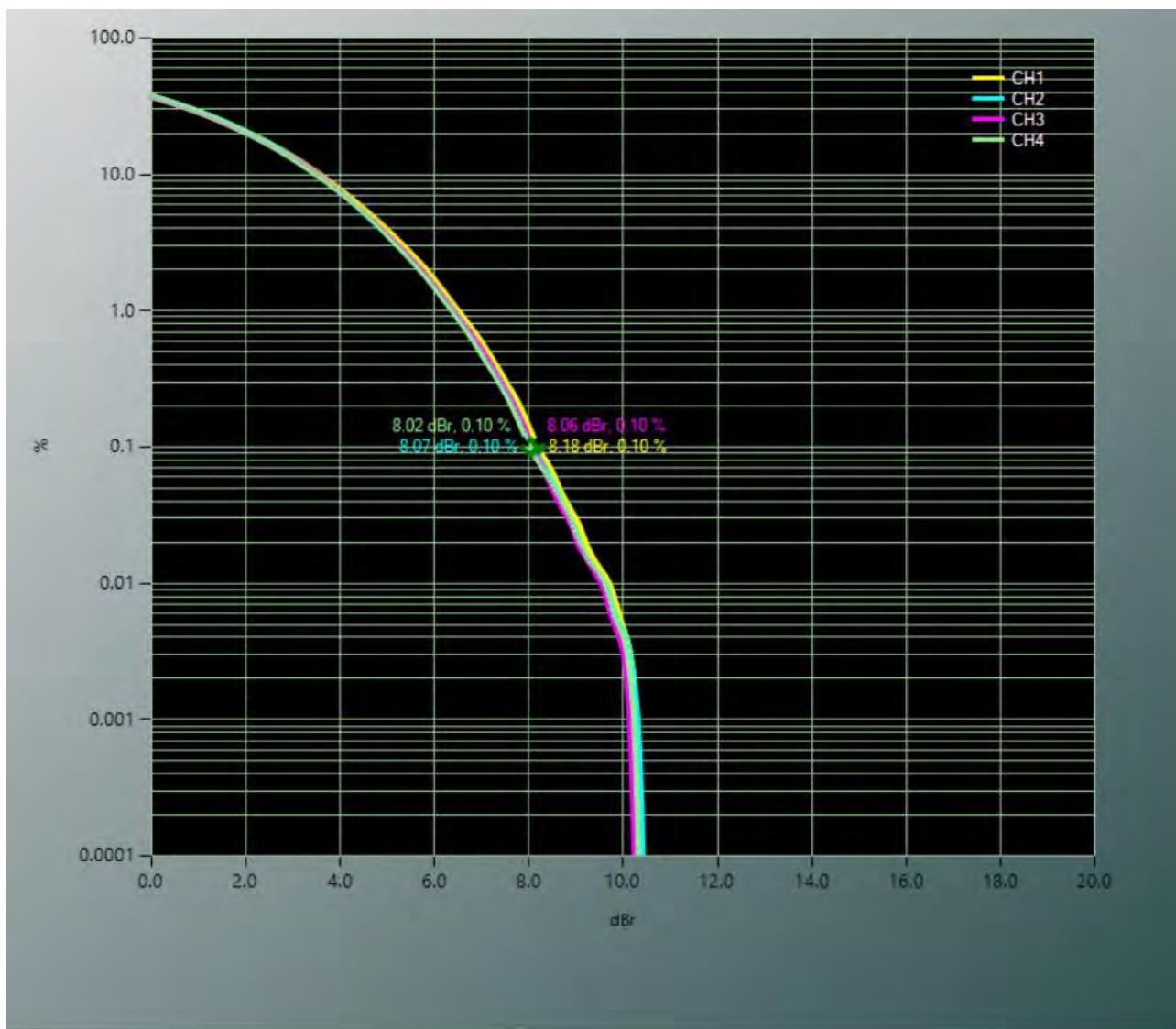


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2851.0 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.24 dB M2 : 0.10% : 8.21 dB M3 : 0.10% : 8.19 dB M4 : 0.10% : 8.21 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 40 MHz, Channel: 3570.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

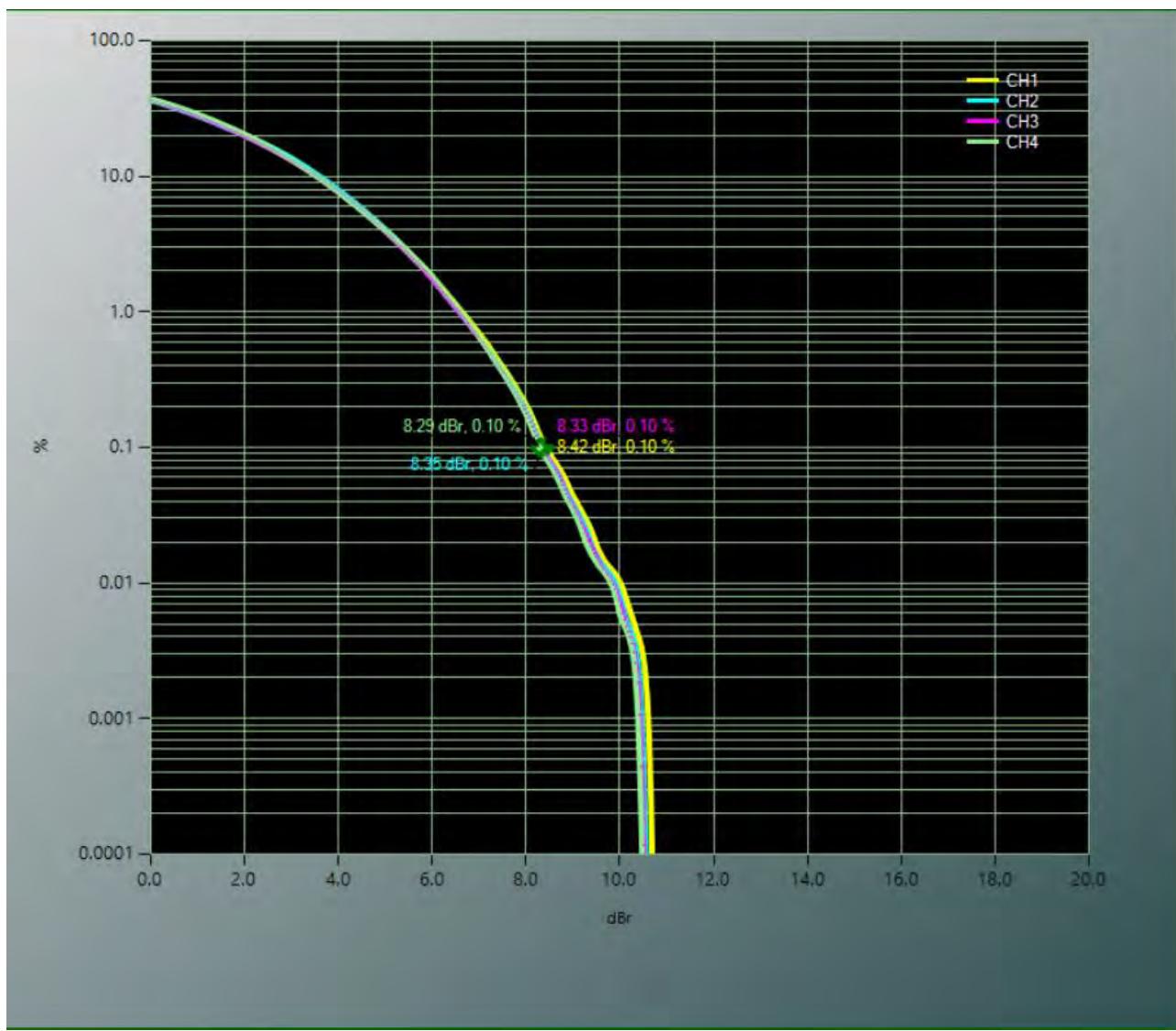


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2510.2 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.18 dB M2 : 0.10% : 8.07 dB M3 : 0.10% : 8.06 dB M4 : 0.10% : 8.02 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 40 MHz, Channel: 3630.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

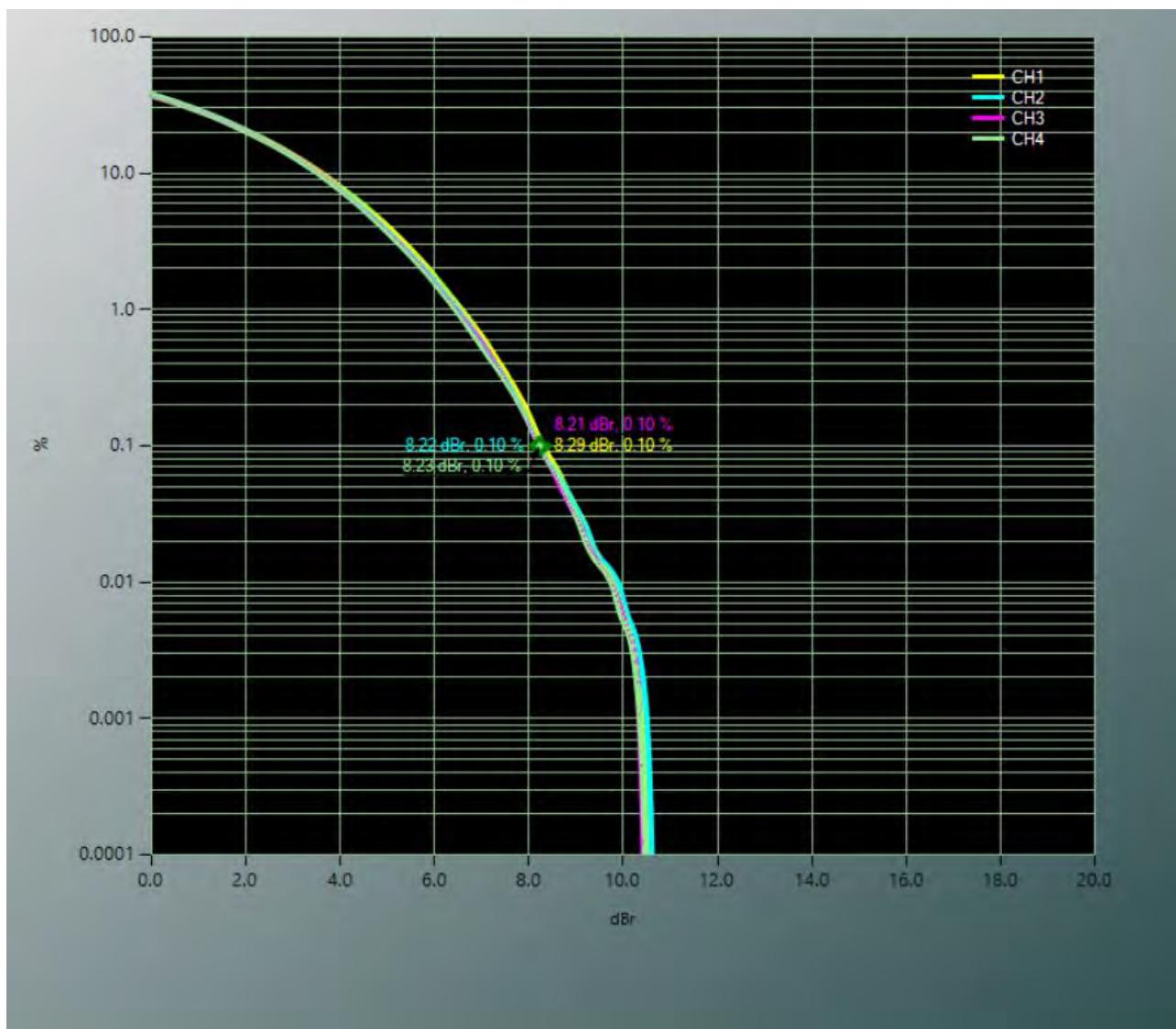


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2416.3 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.42 dB M2 : 0.10% : 8.35 dB M3 : 0.10% : 8.33 dB M4 : 0.10% : 8.29 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 40 MHz, Channel: 3680.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

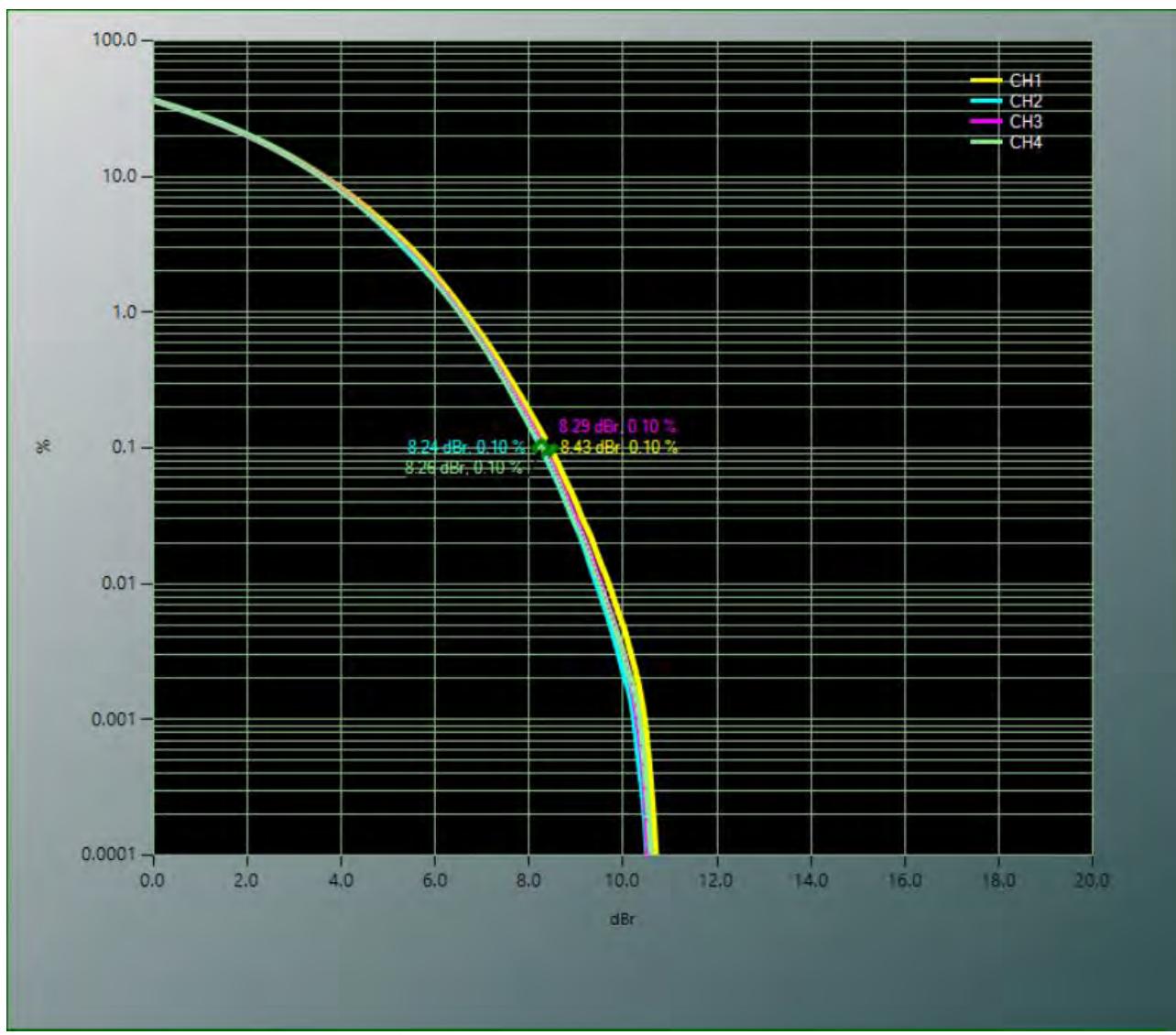


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 3073.2 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.29 dB M2 : 0.10% : 8.22 dB M3 : 0.10% : 8.21 dB M4 : 0.10% : 8.23 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

Variant: 100 MHz, Channel: 3600.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc

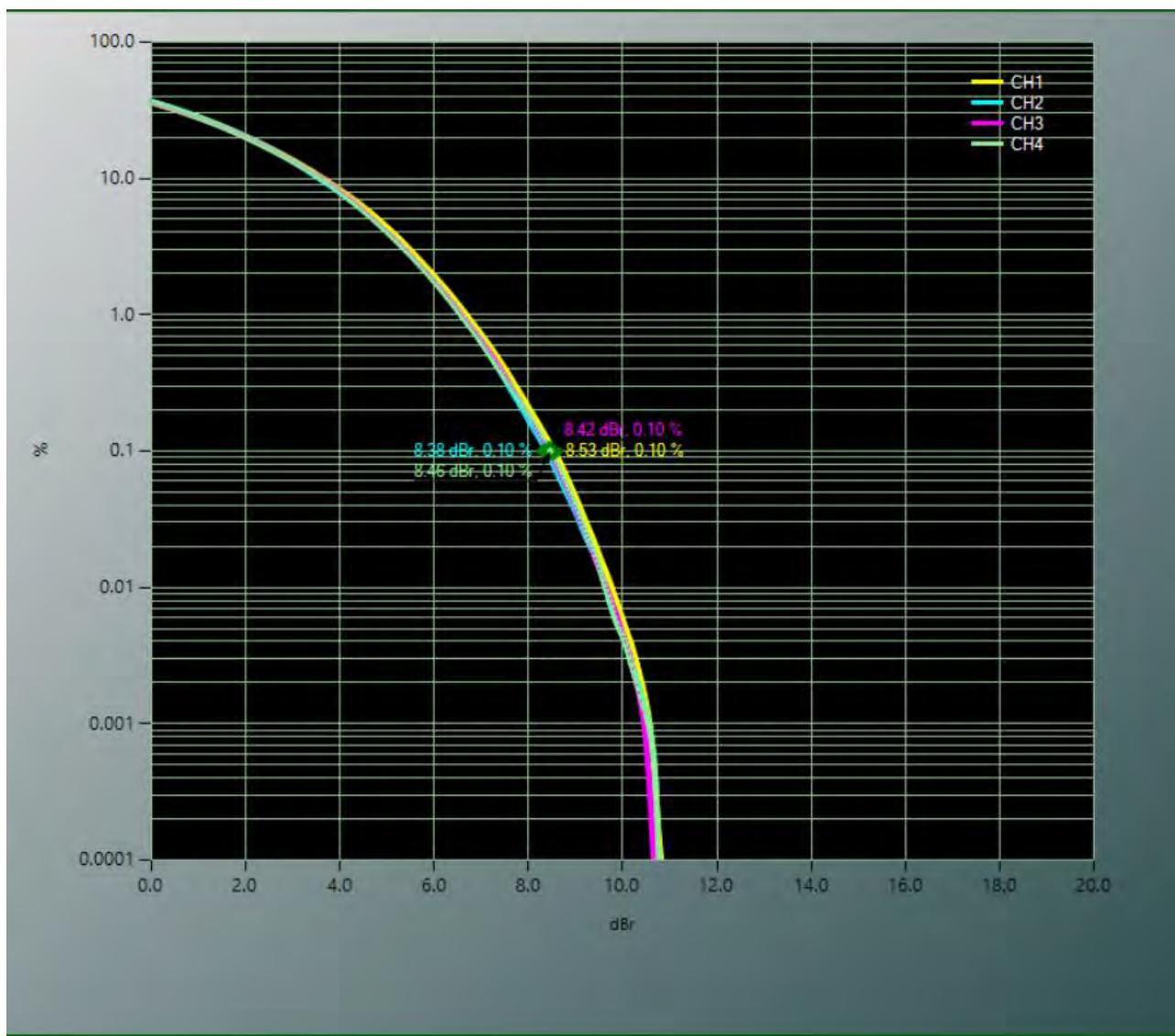


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 2497.3 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.43 dB M2 : 0.10% : 8.24 dB M3 : 0.10% : 8.29 dB M4 : 0.10% : 8.26 dB	Limit: 13 dB

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### PEAK TO AVERAGE POWER RATIO

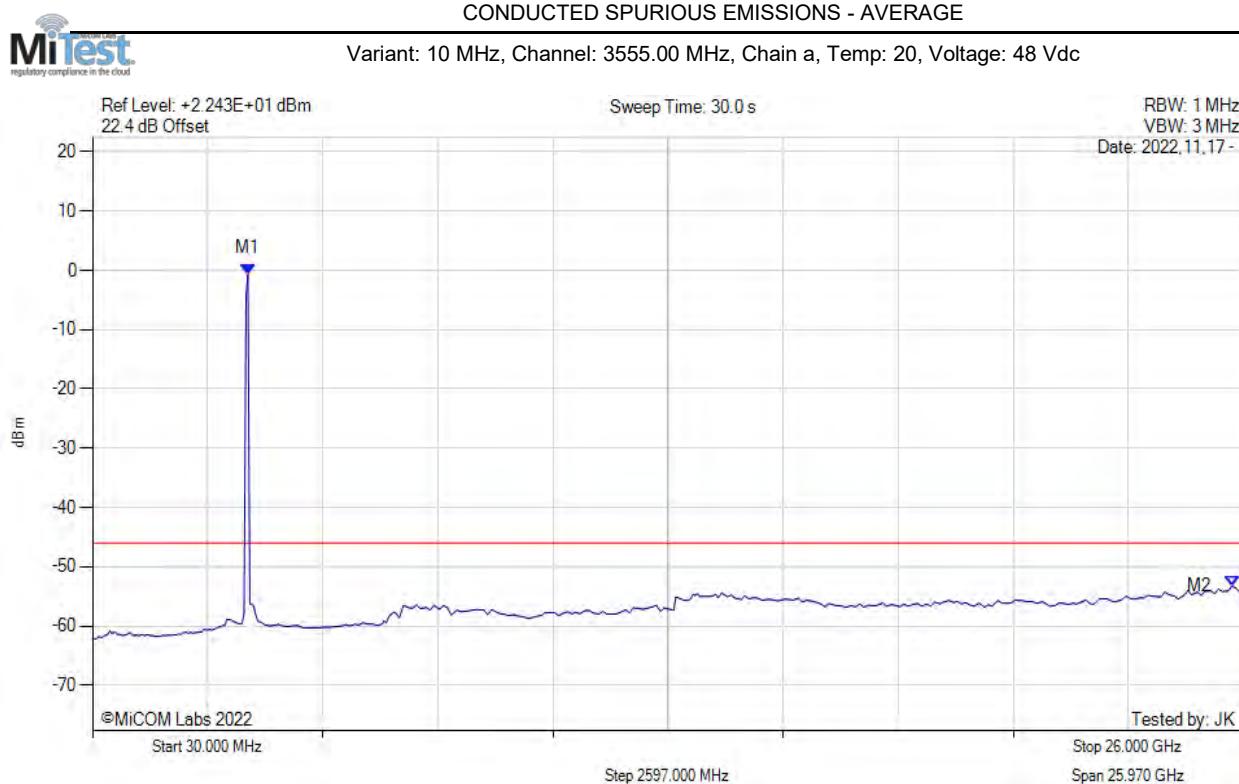
Variant: 100 MHz, Channel: 3650.00 MHz, Chain Combined, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Point Count = 4018.3 MSa RF Atten (dB) = 00 Trace Mode = VIEW	M1 : 0.10% : 8.53 dB M2 : 0.10% : 8.38 dB M3 : 0.10% : 8.42 dB M4 : 0.10% : 8.46 dB	Limit: 13 dB

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#### A.4. Conducted Spurious Emissions



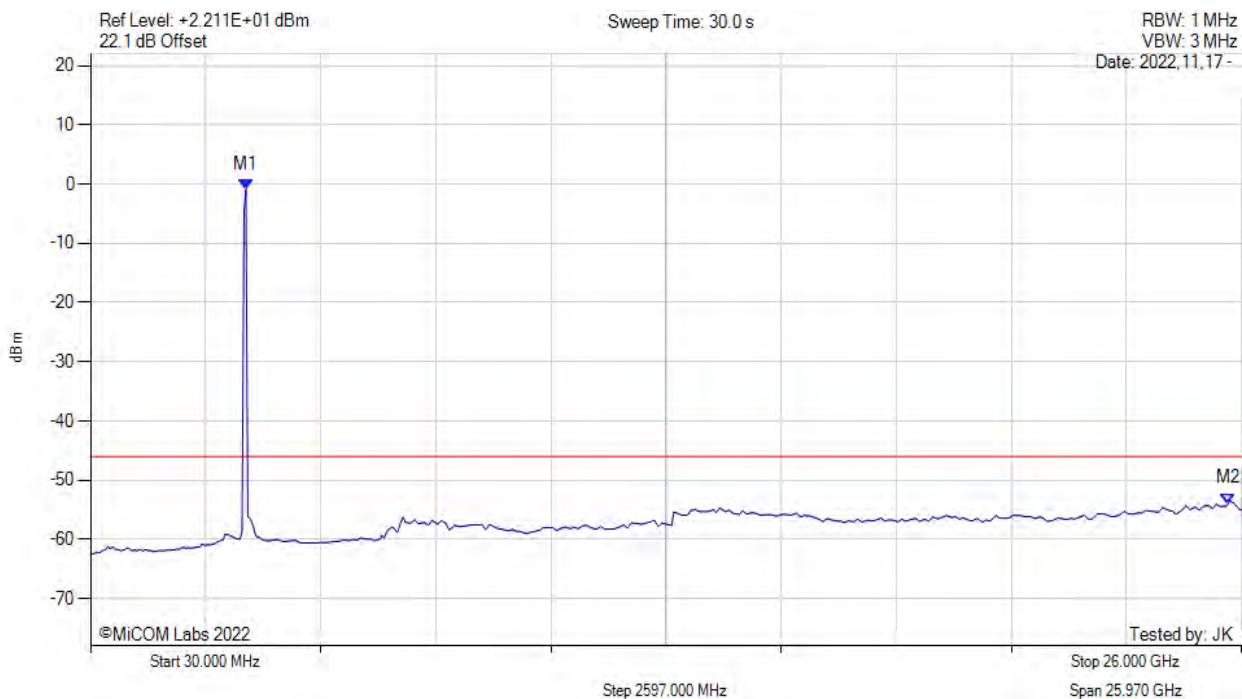
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -0.632 dBm M2 : 25.740 GHz : -53.204 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3555.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



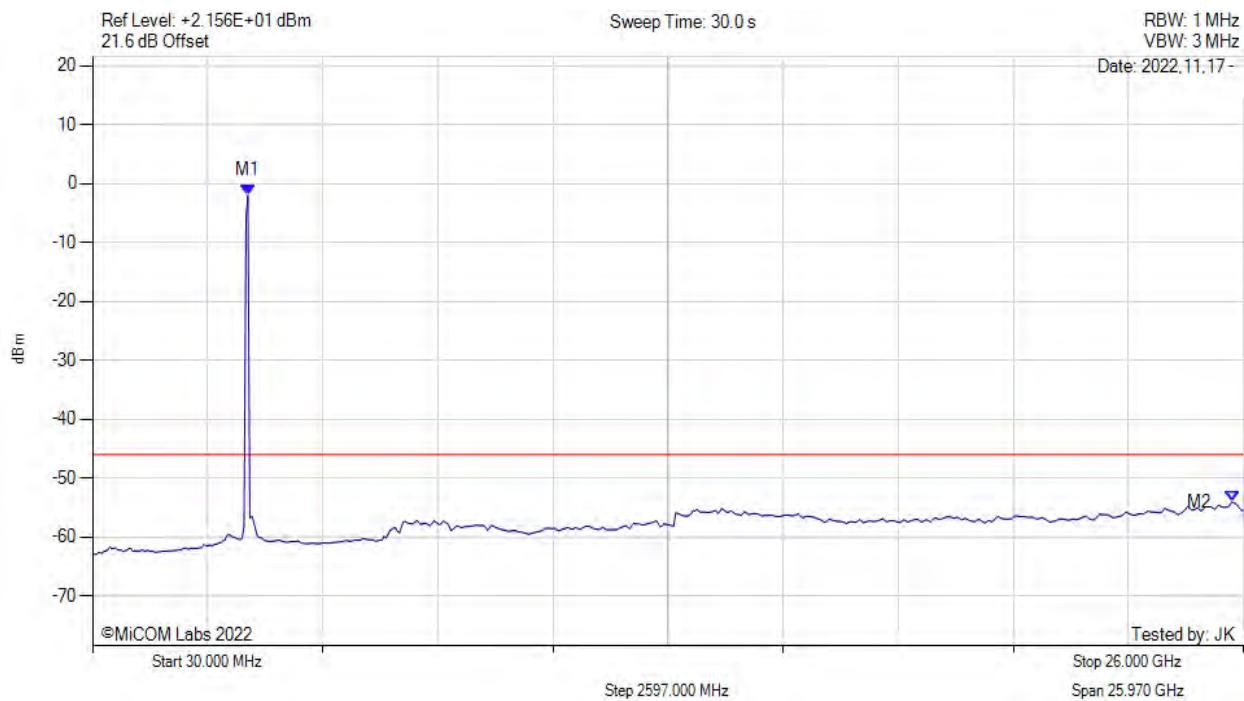
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -0.938 dBm M2 : 25.700 GHz : -53.960 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3555.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



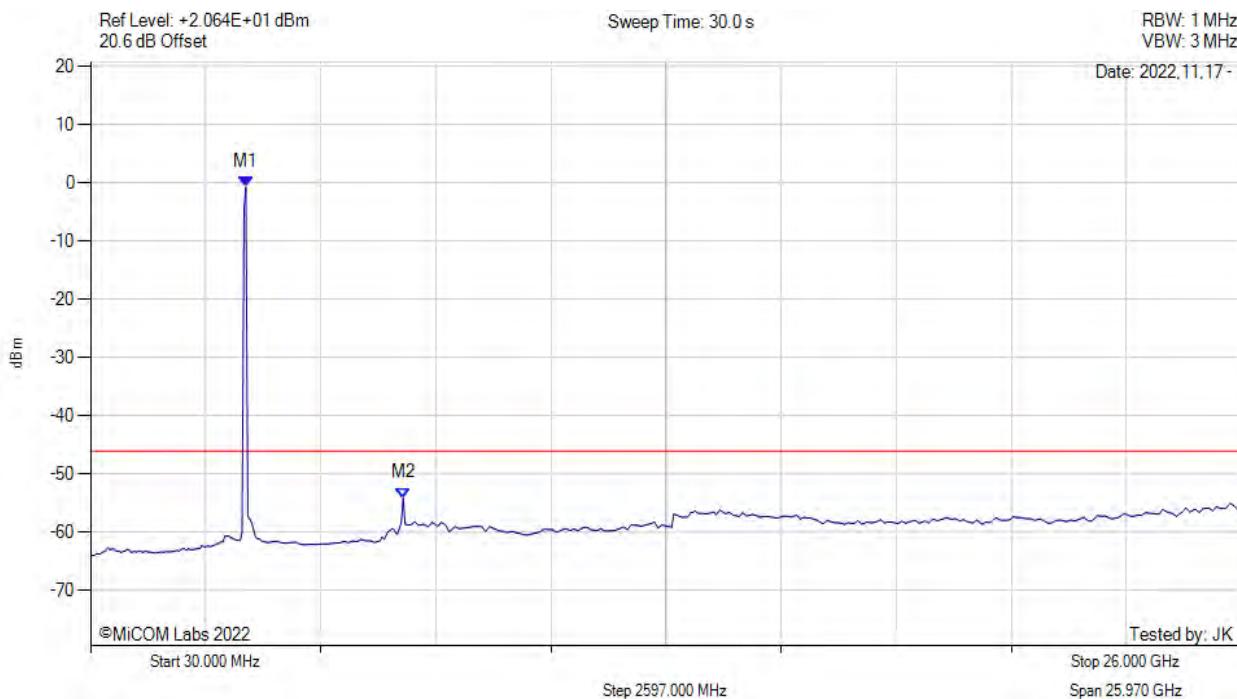
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -2.019 dBm M2 : 25.740 GHz : -54.062 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3555.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



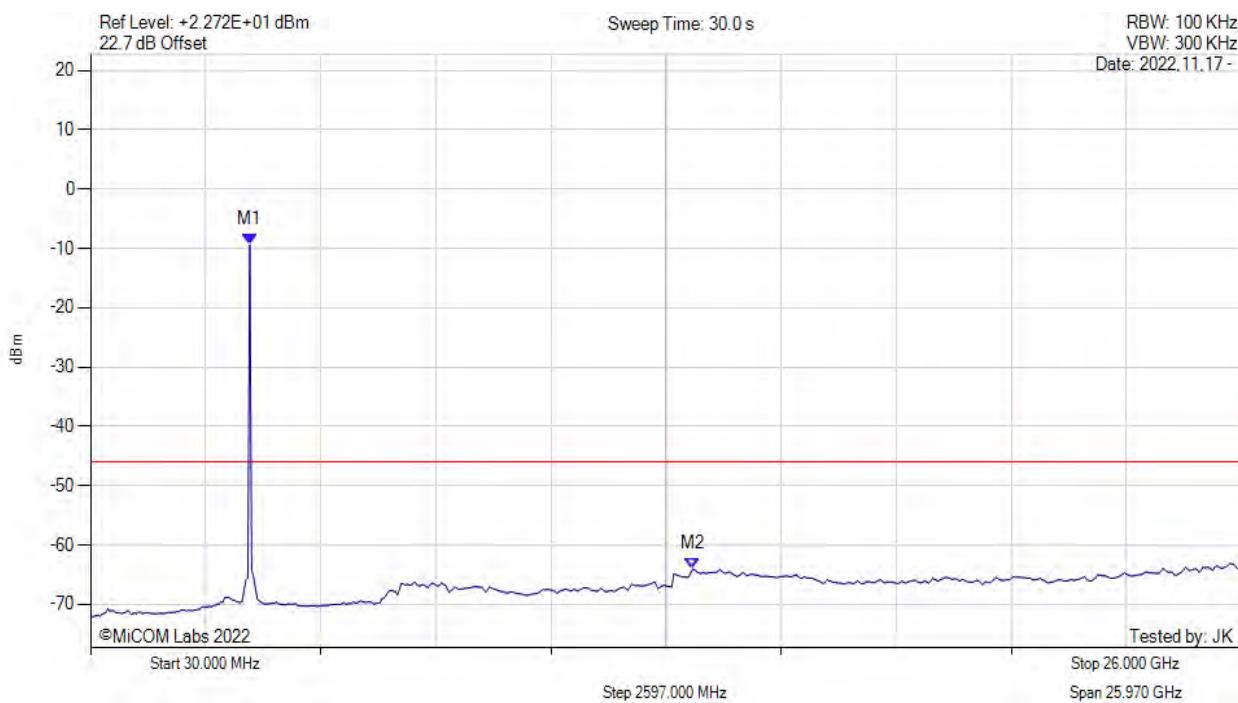
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -0.713 dBm M2 : 7090.000 MHz : -54.083 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



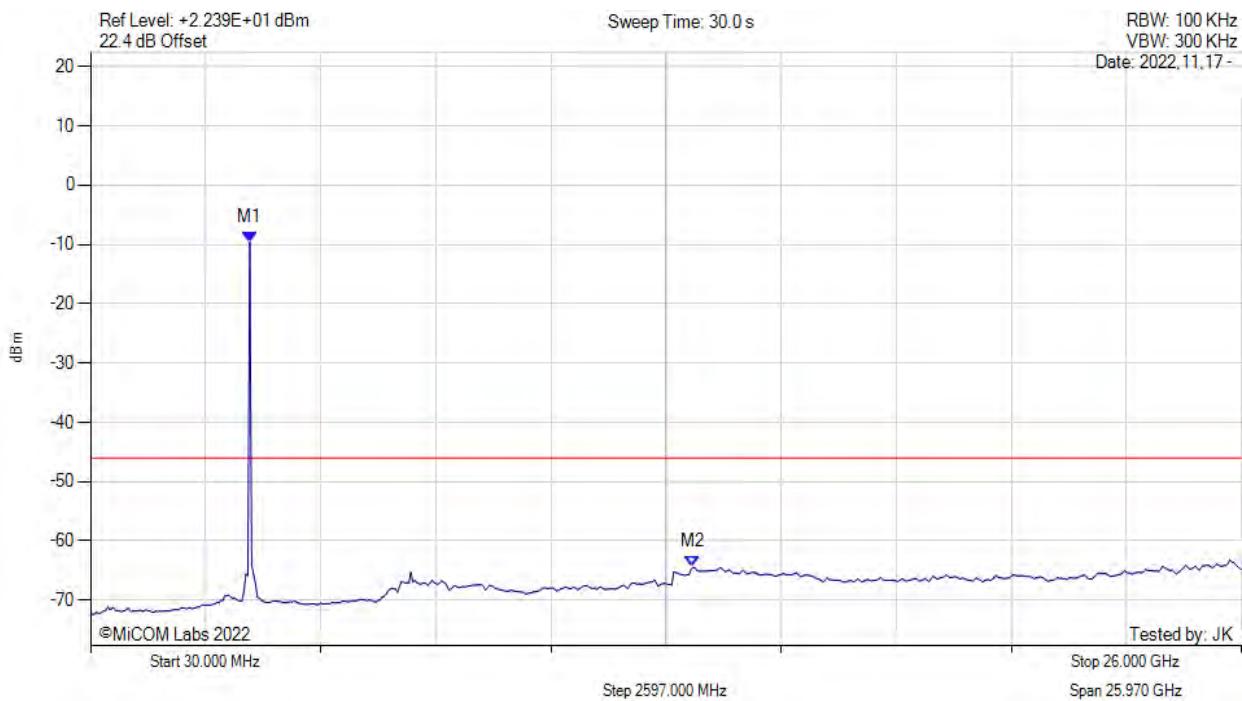
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -9.395 dBm M2 : 13.620 GHz : -64.068 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



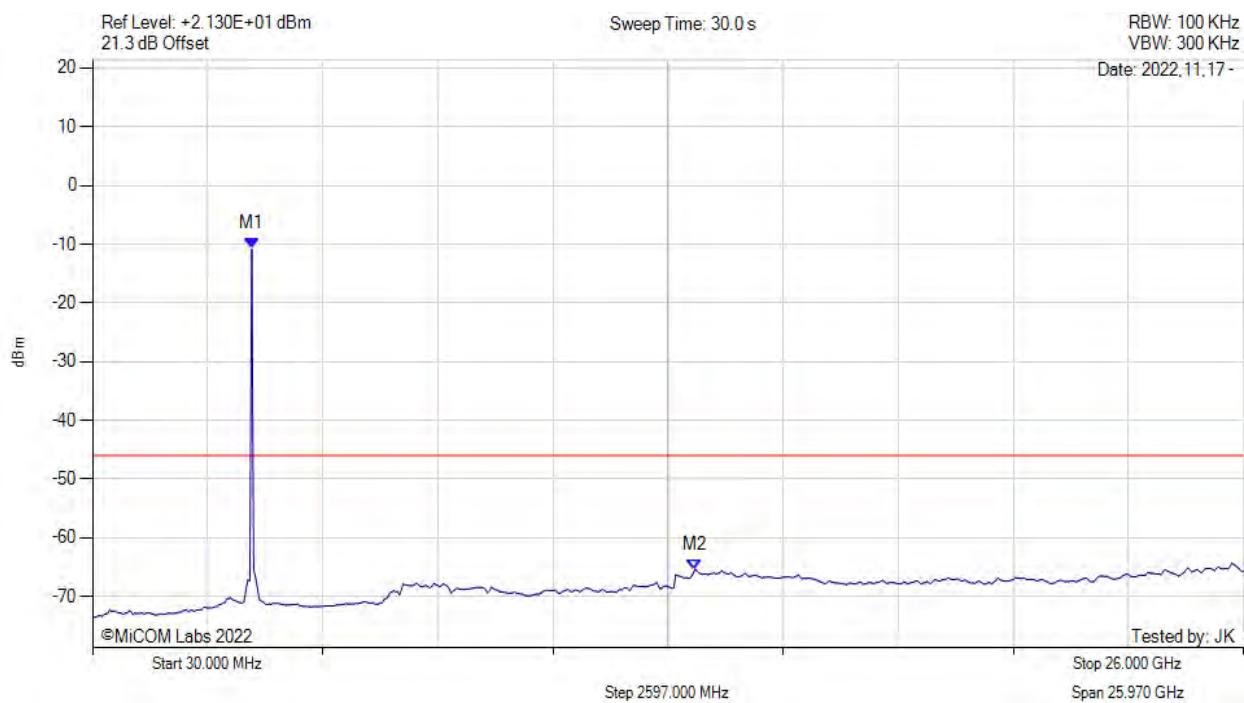
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -9.614 dBm M2 : 13.620 GHz : -64.434 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



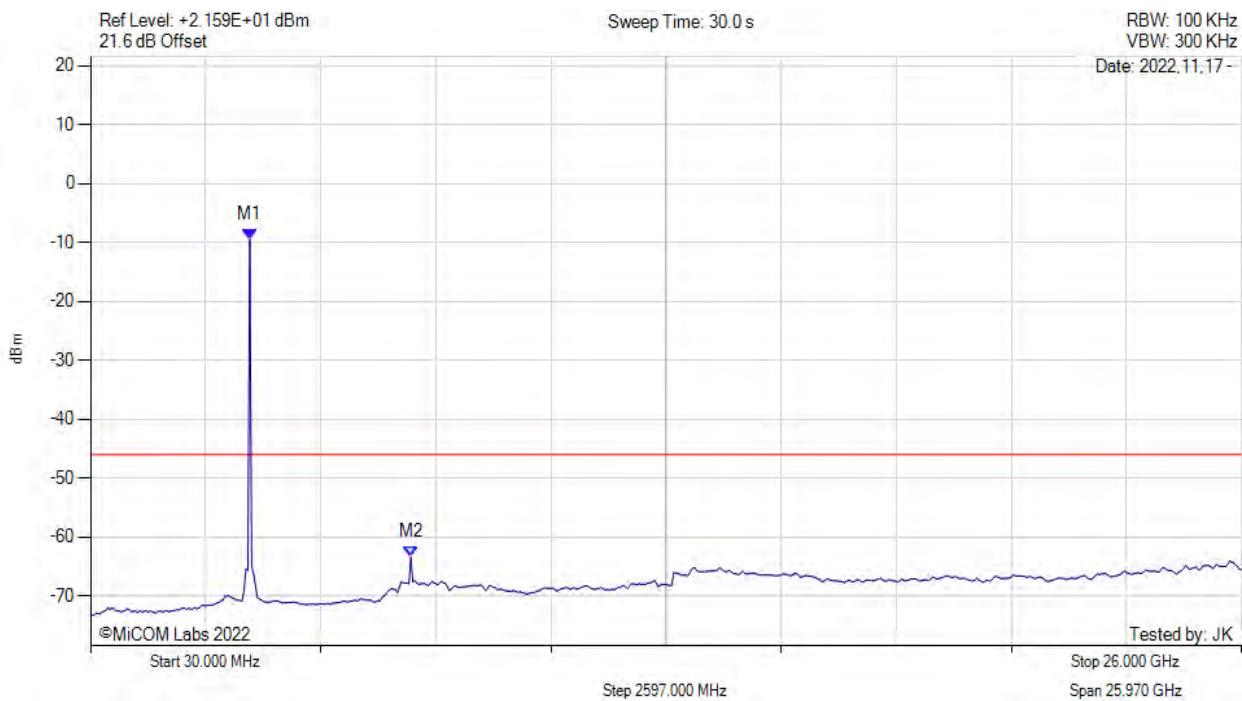
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -10.825 dBm M2 : 13.620 GHz : -65.458 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3625.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



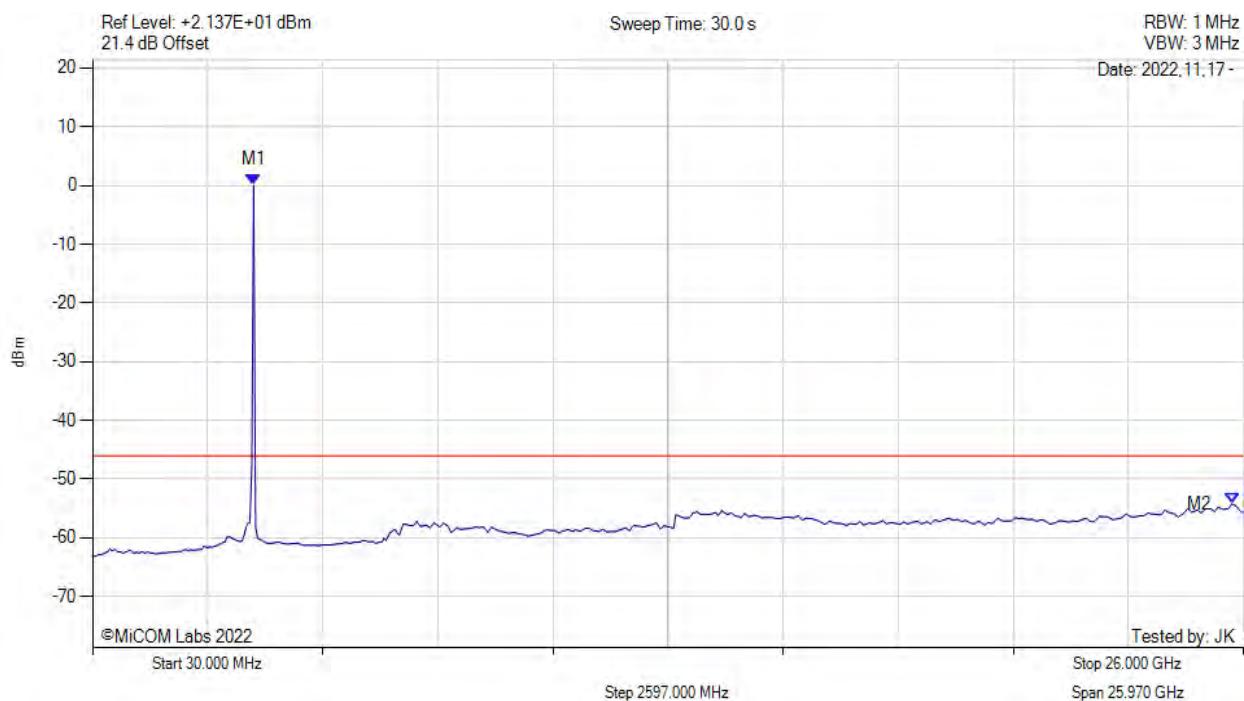
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -9.490 dBm M2 : 7260.000 MHz : -63.411 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



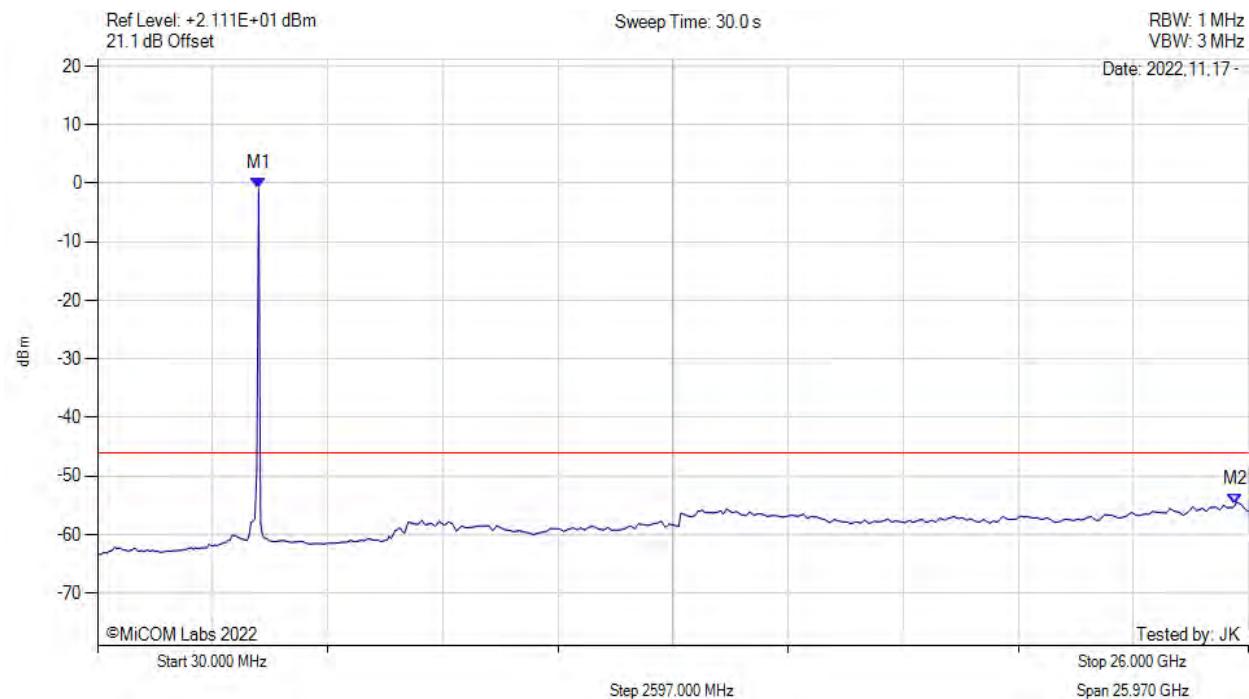
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : 0.040 dBm M2 : 25.740 GHz : -54.188 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



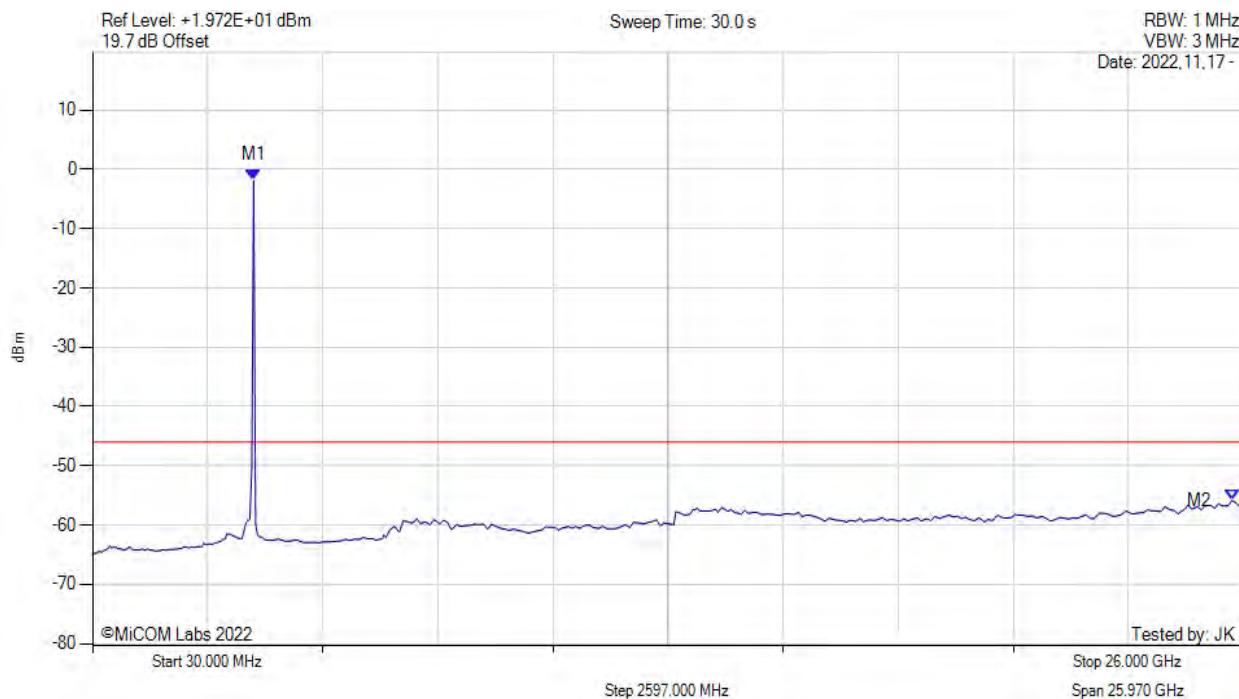
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -0.916 dBm M2 : 25.700 GHz : -54.901 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



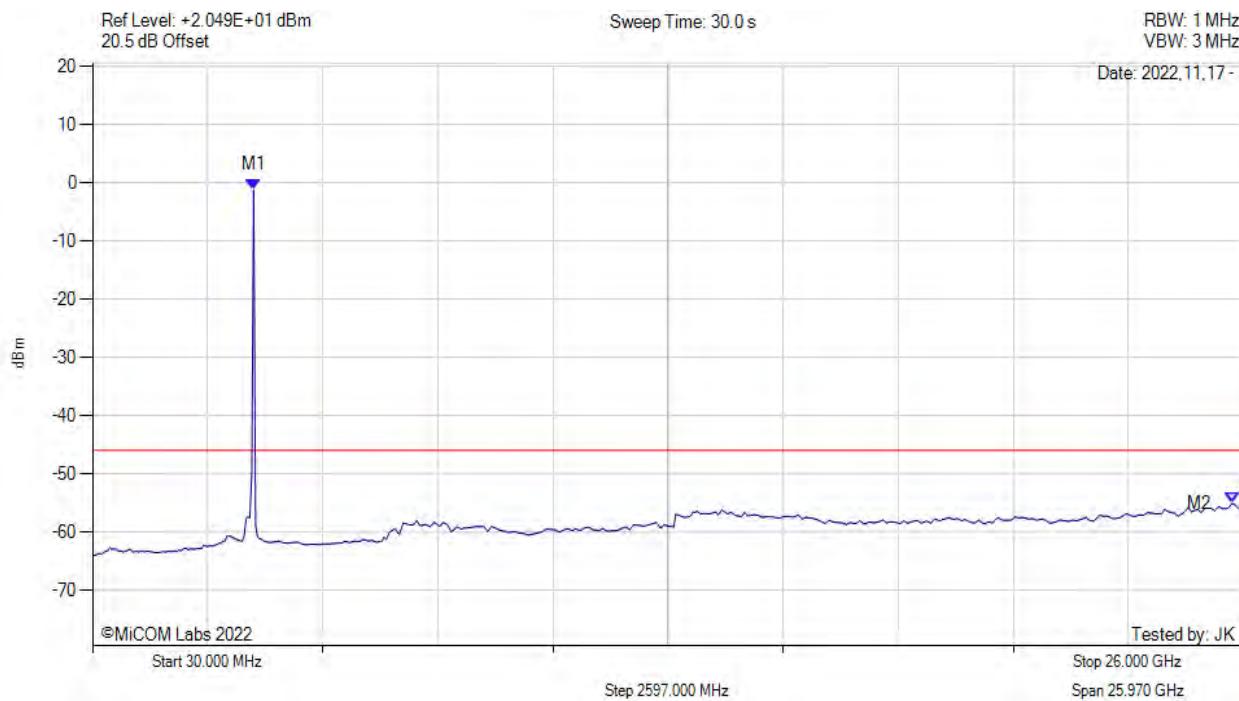
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -1.911 dBm M2 : 25.740 GHz : -55.844 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 10 MHz, Channel: 3695.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



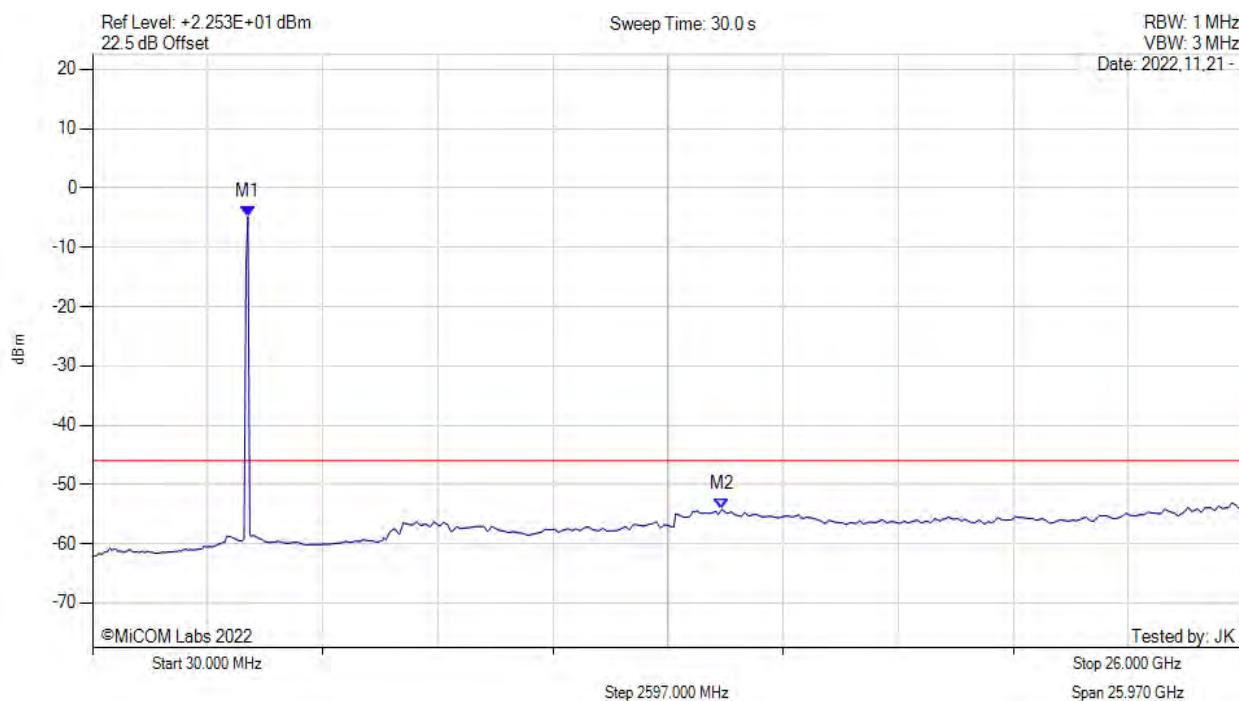
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -1.244 dBm M2 : 25.740 GHz : -55.082 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



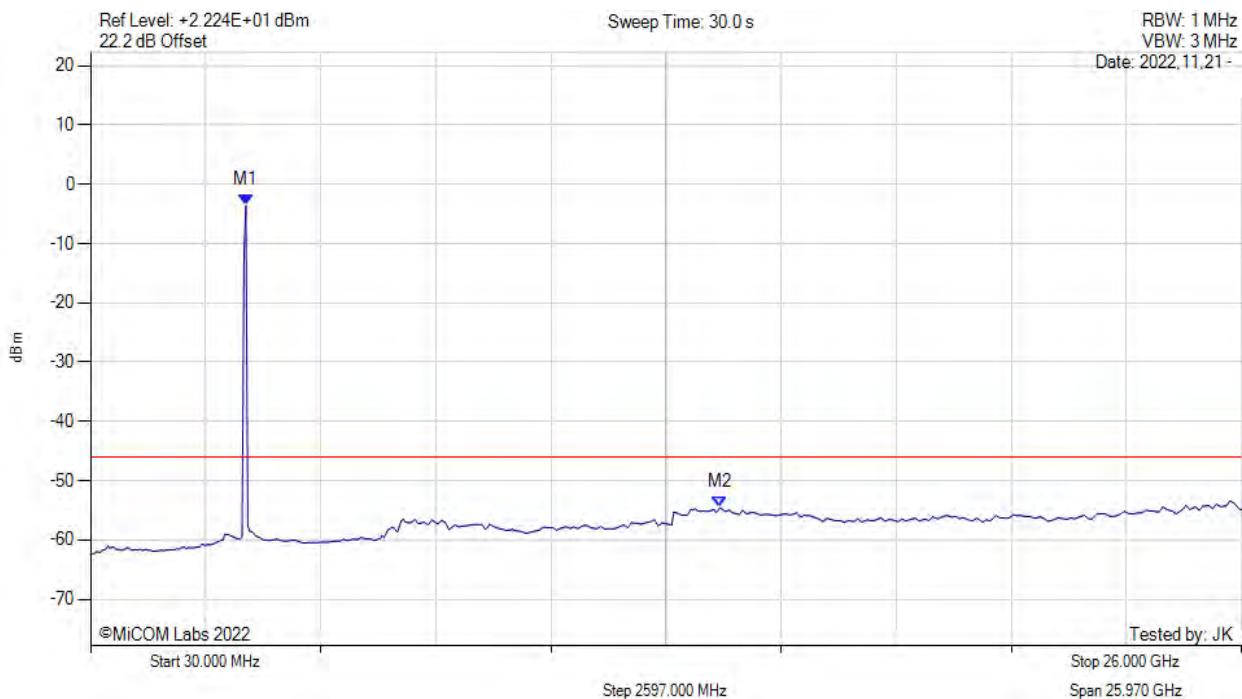
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -4.851 dBm M2 : 14.230 GHz : -54.241 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



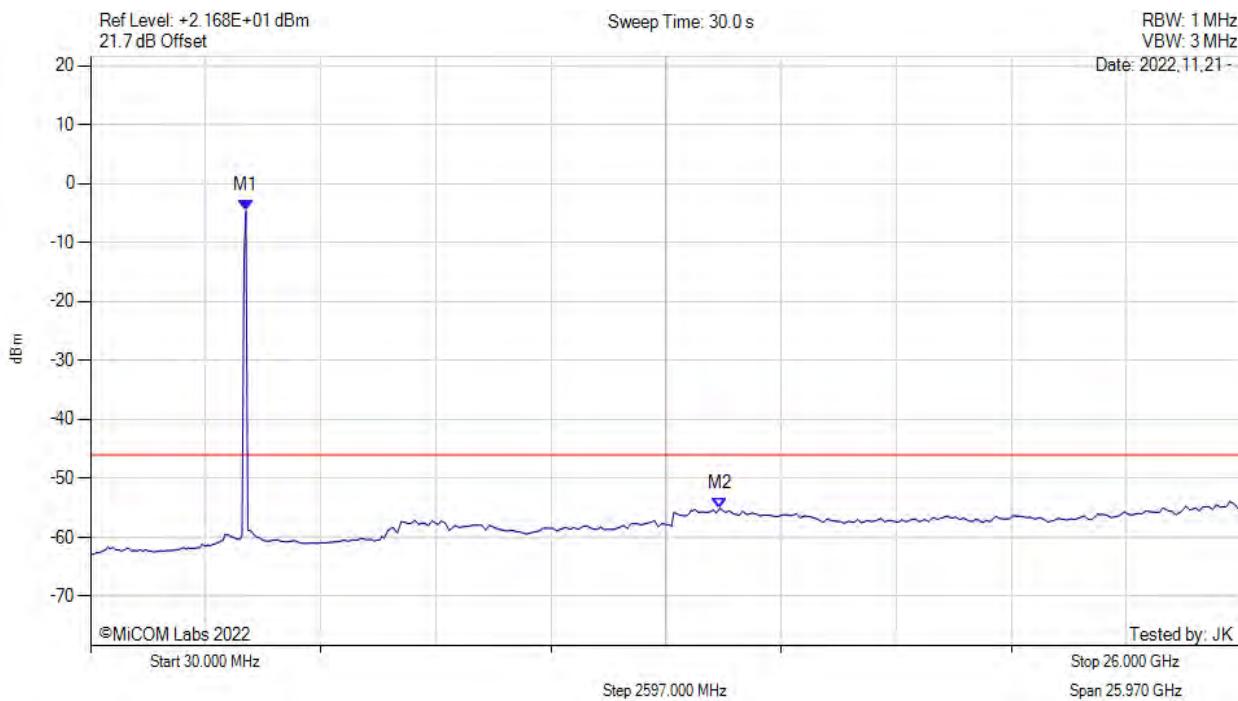
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -3.575 dBm M2 : 14.230 GHz : -54.547 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



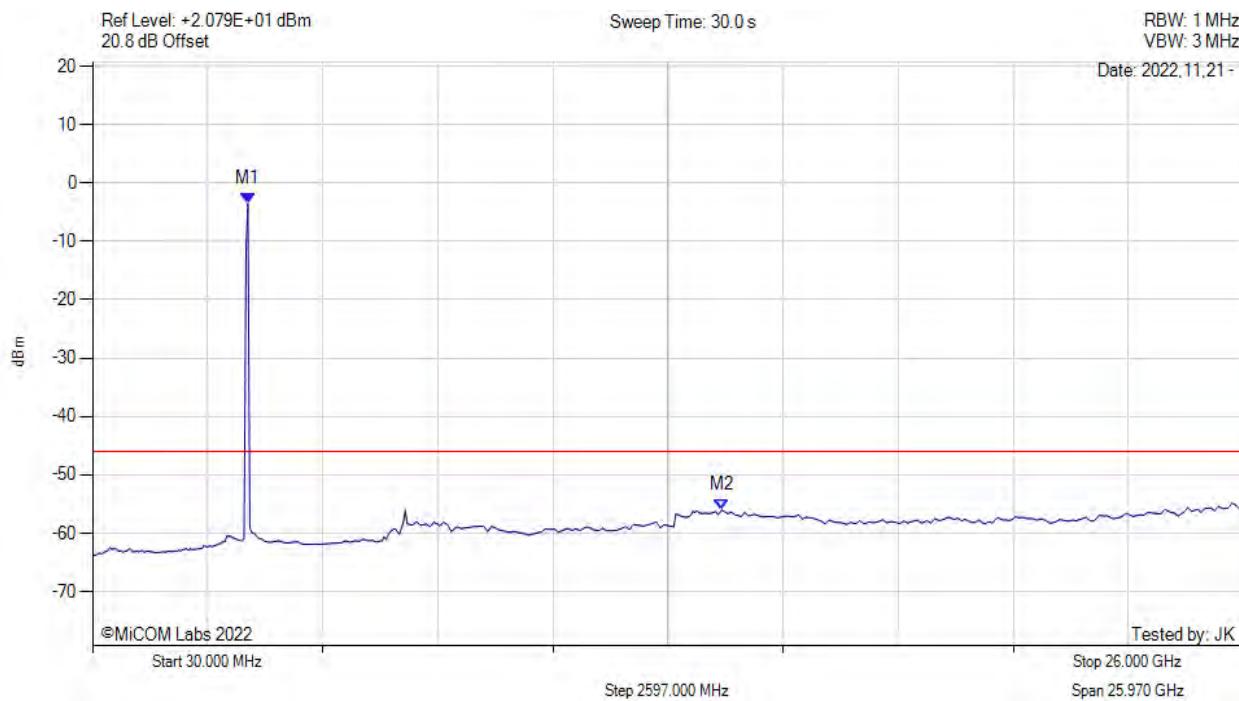
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -4.600 dBm M2 : 14.230 GHz : -55.064 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3560.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



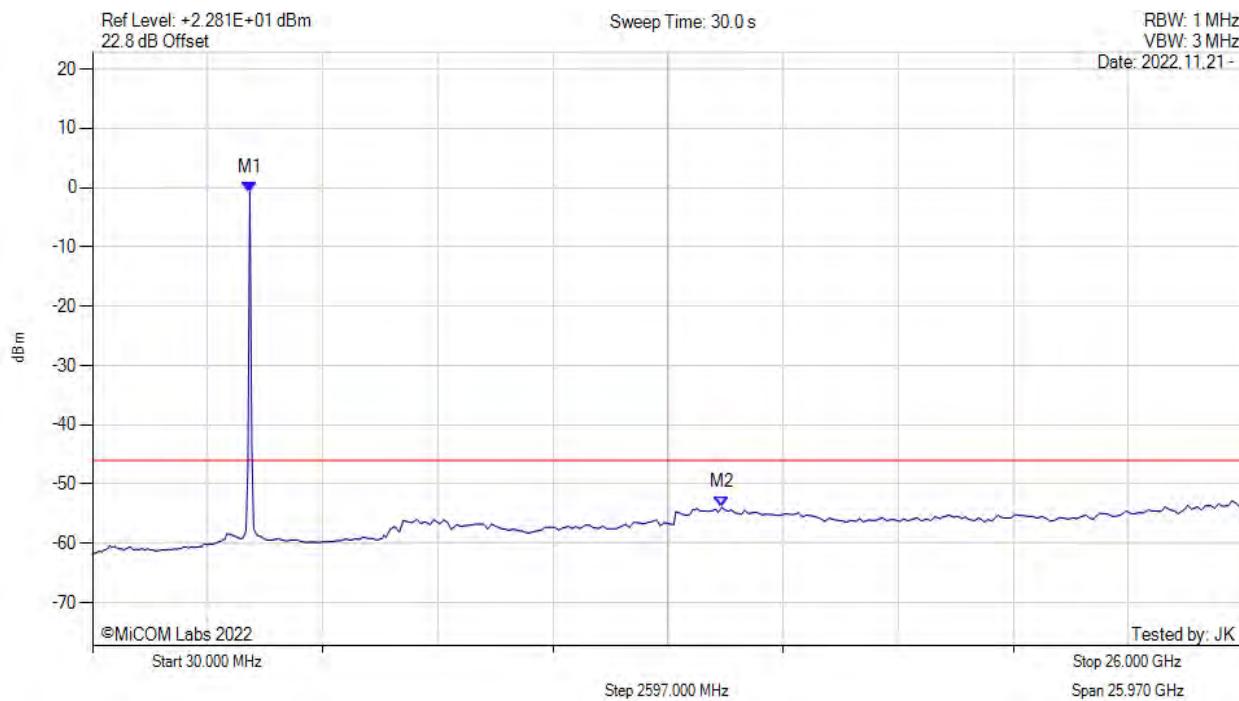
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -3.516 dBm M2 : 14.230 GHz : -56.005 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



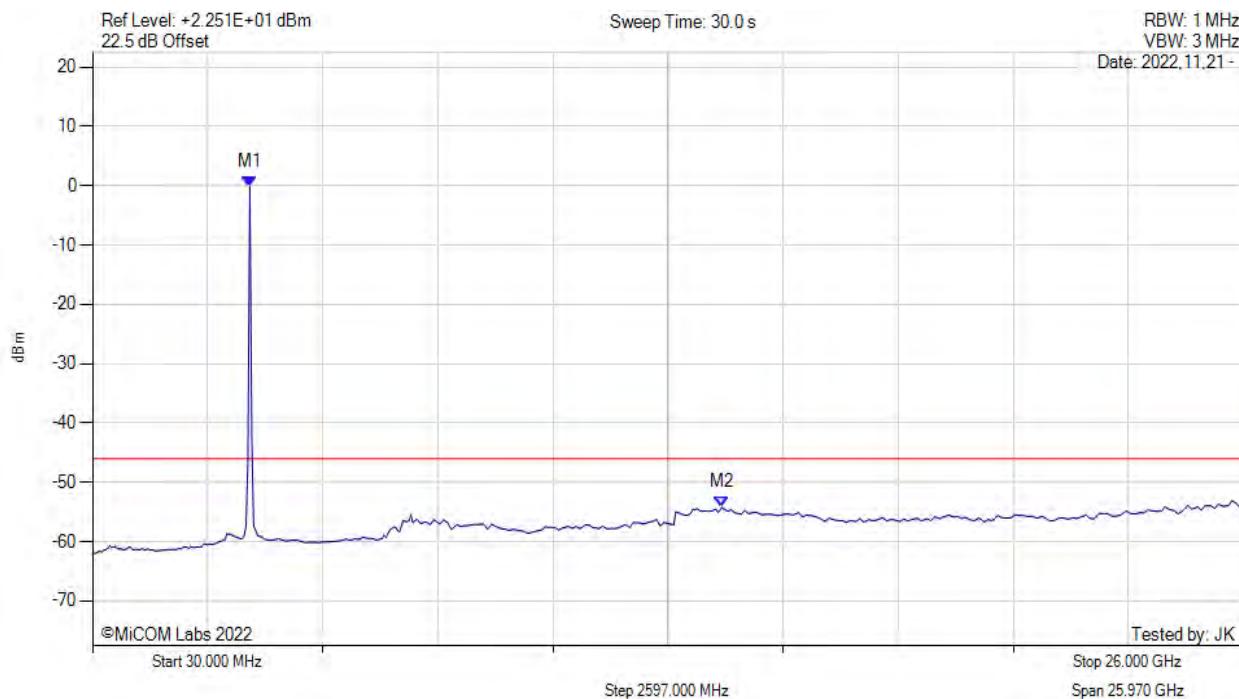
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -0.740 dBm M2 : 14.230 GHz : -53.909 dBm	Channel Frequency: 3620.00 MHz

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



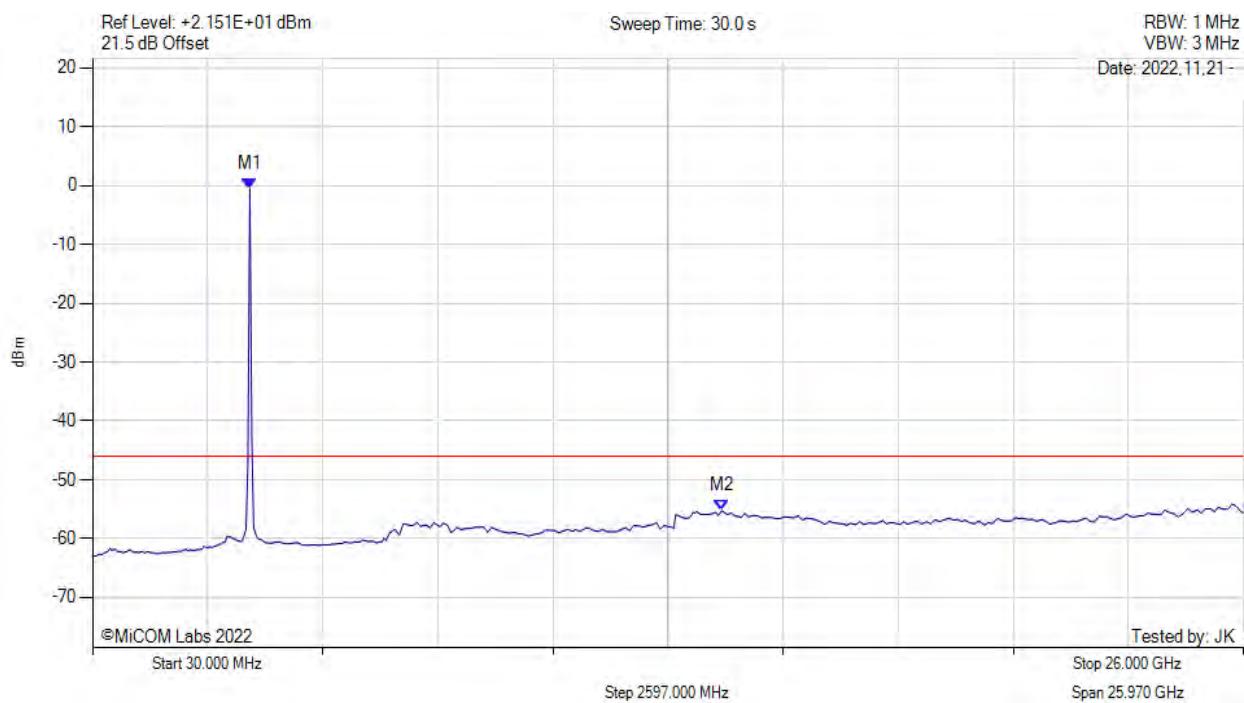
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -0.102 dBm M2 : 14.230 GHz : -54.237 dBm	Channel Frequency: 3620.00 MHz

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



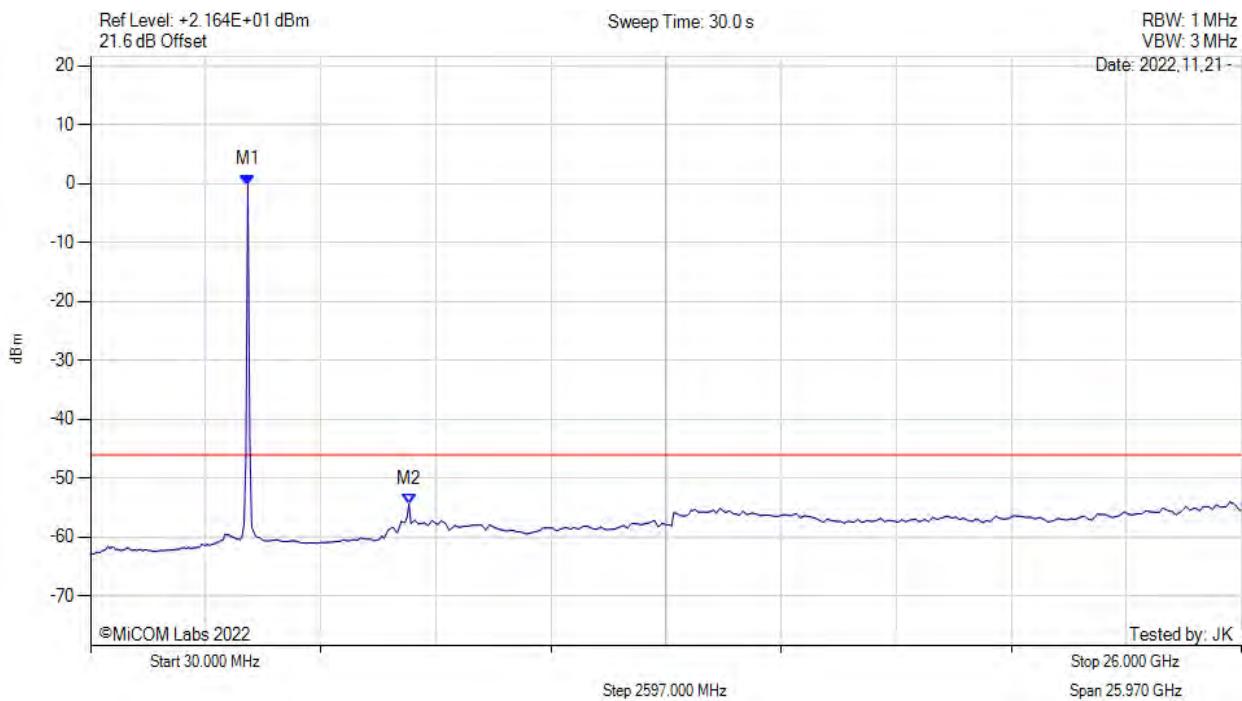
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -0.596 dBm M2 : 14.230 GHz : -55.256 dBm	Channel Frequency: 3620.00 MHz

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3620.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



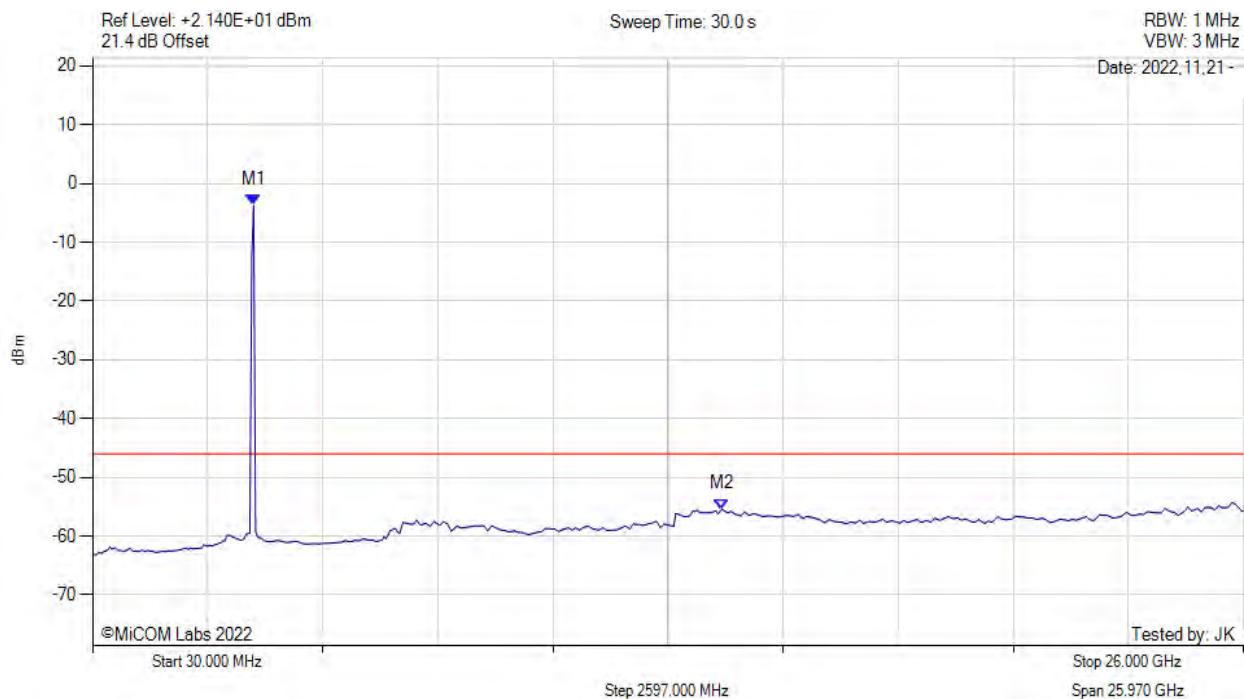
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -0.213 dBm M2 : 7220.000 MHz : -54.379 dBm	Channel Frequency: 3620.00 MHz

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



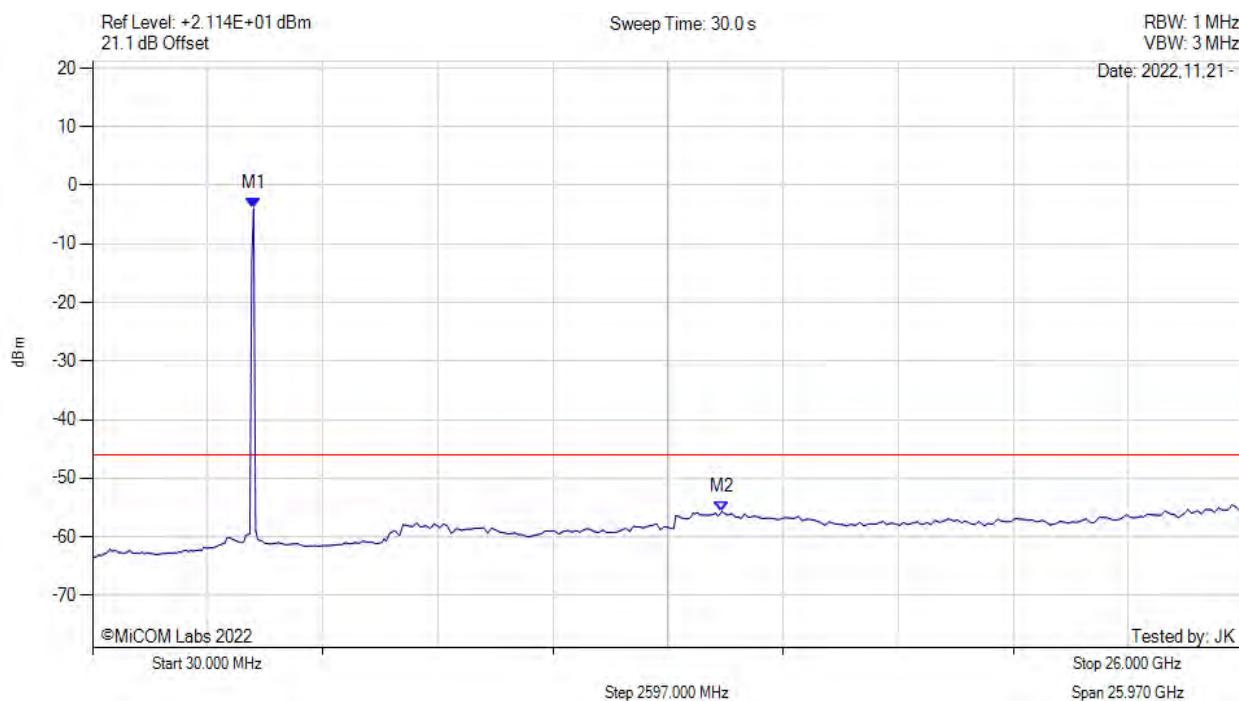
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -3.740 dBm M2 : 14.230 GHz : -55.413 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



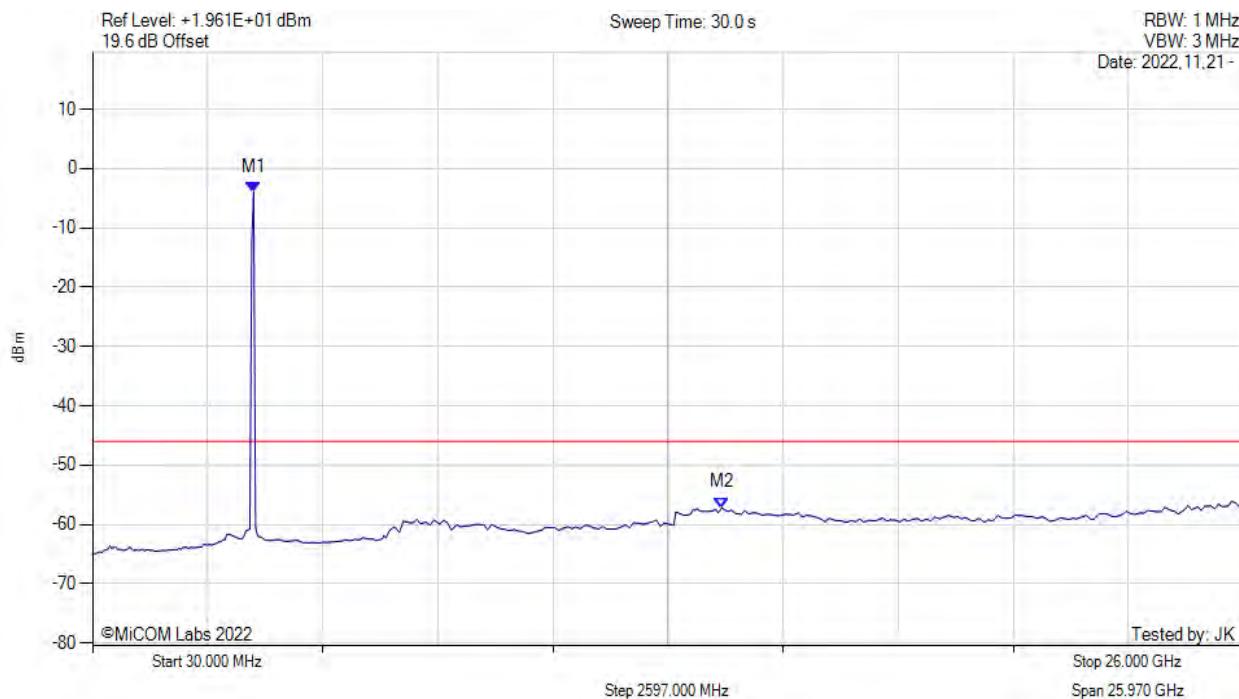
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -3.989 dBm M2 : 14.230 GHz : -55.644 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



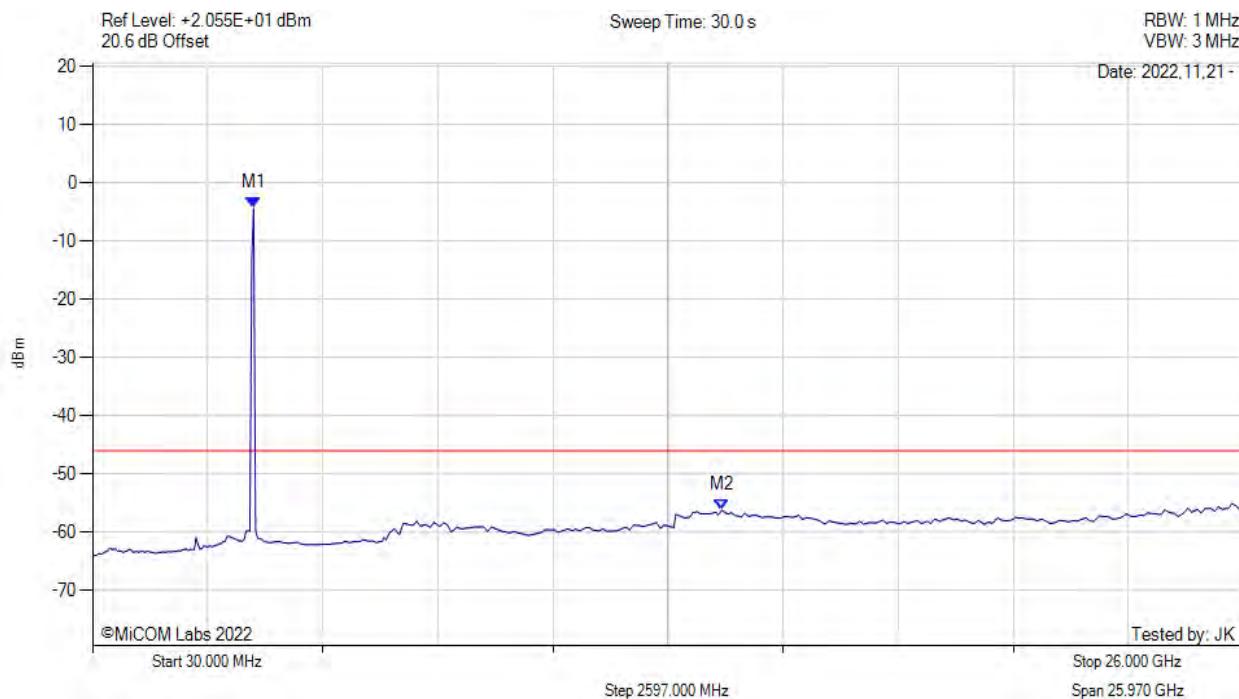
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -3.934 dBm M2 : 14.230 GHz : -57.182 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 20 MHz, Channel: 3690.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



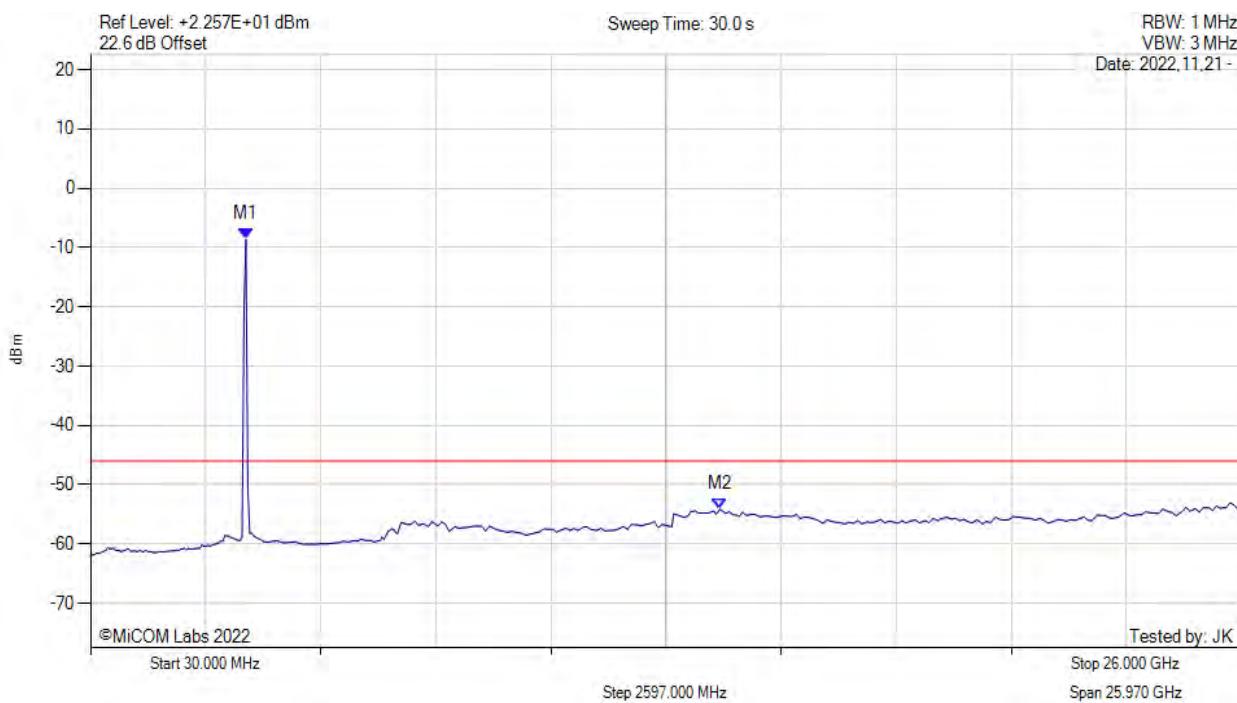
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3670.000 MHz : -4.328 dBm M2 : 14.230 GHz : -56.222 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



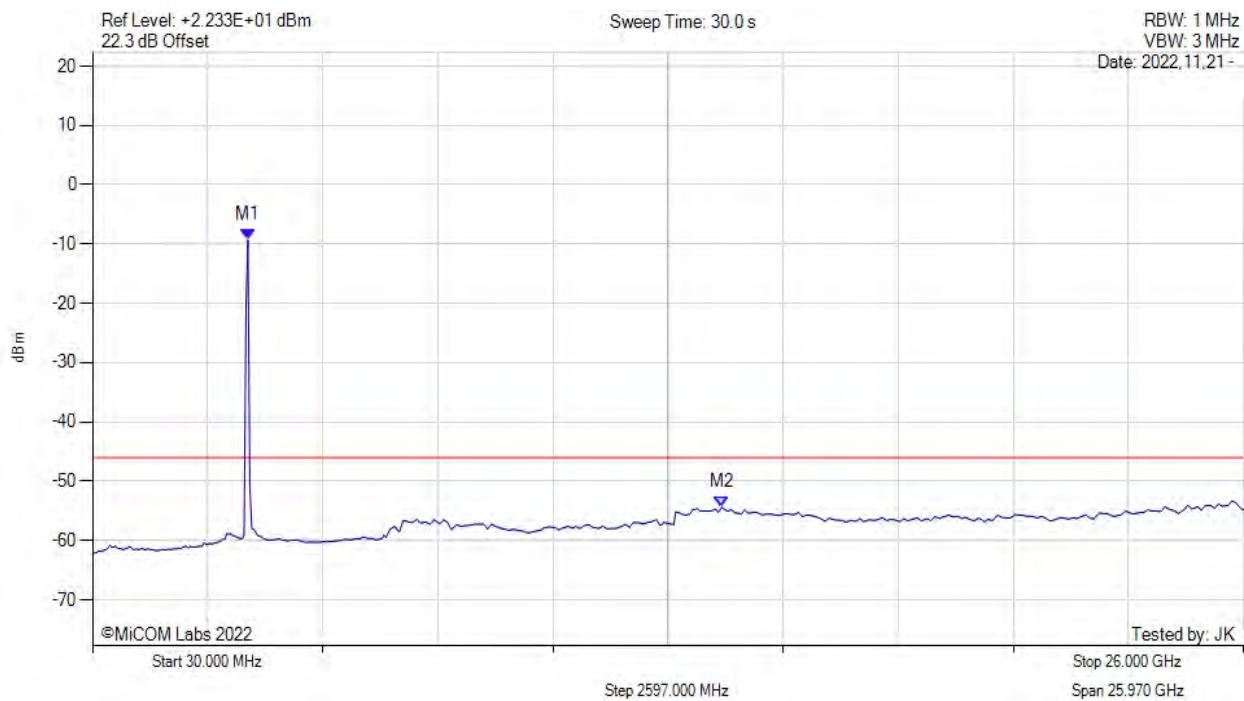
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -8.630 dBm M2 : 14.230 GHz : -54.154 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



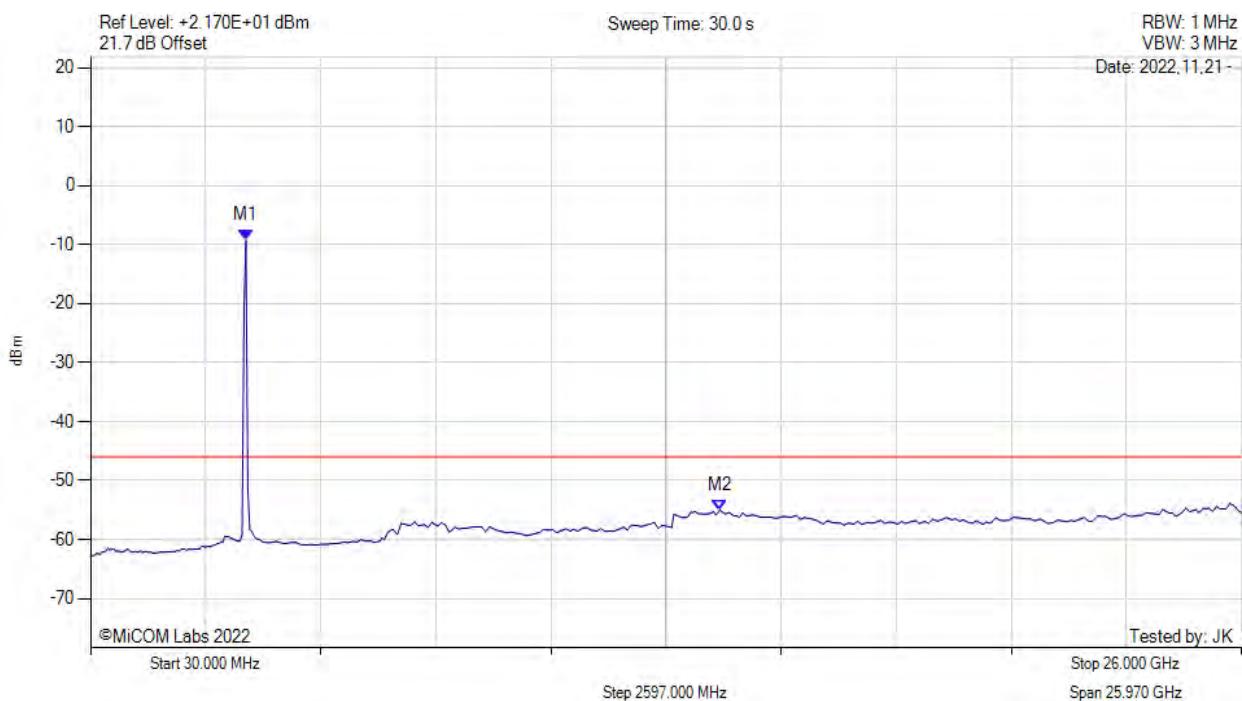
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -9.300 dBm M2 : 14.230 GHz : -54.377 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



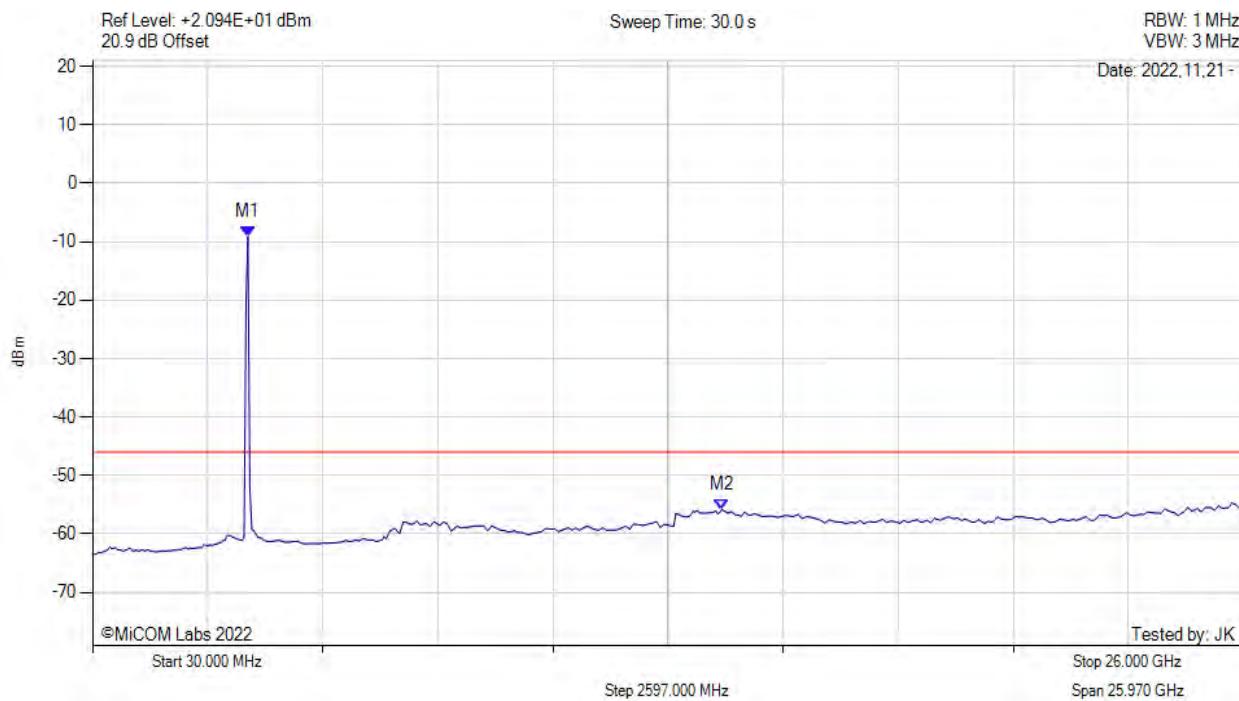
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -9.258 dBm M2 : 14.230 GHz : -54.984 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3570.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



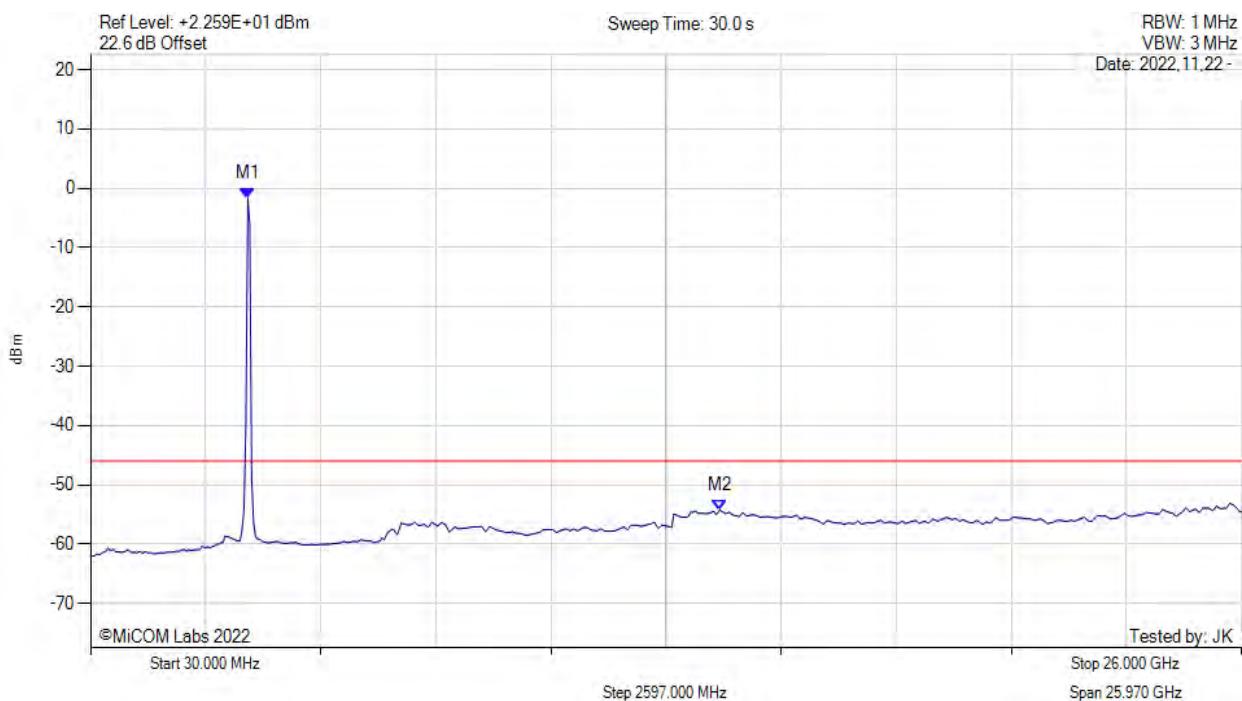
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -9.108 dBm M2 : 14.230 GHz : -55.812 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



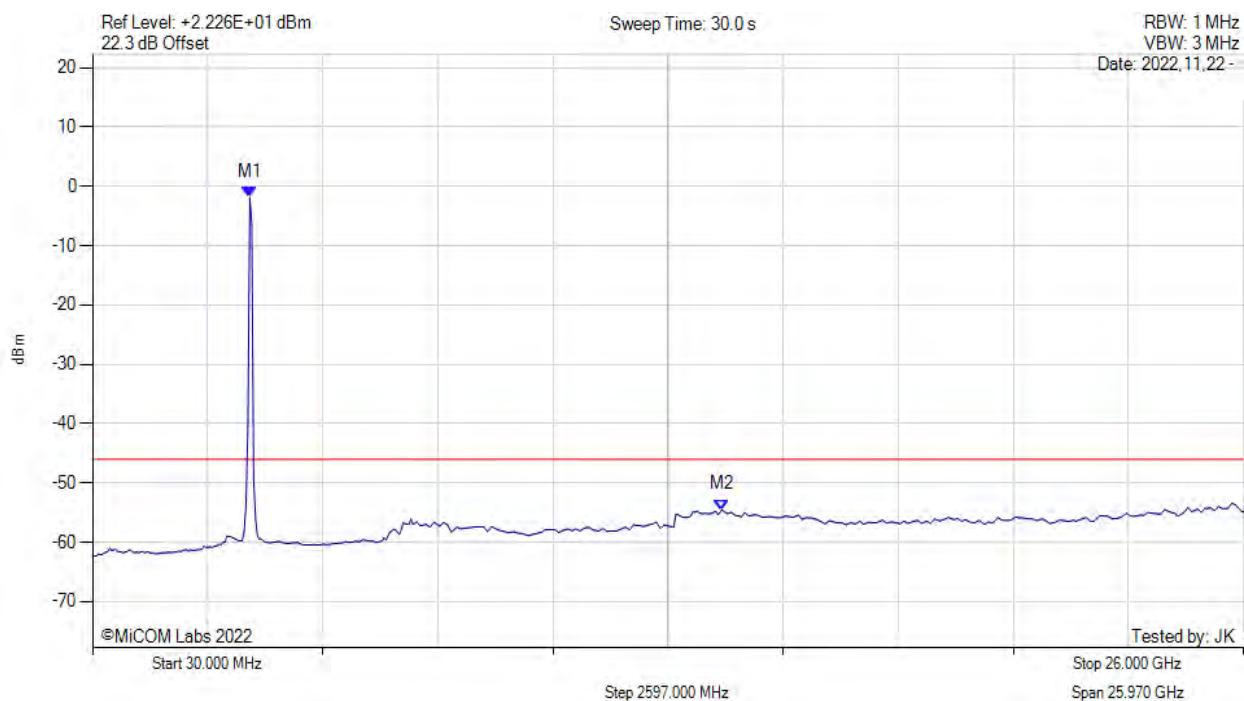
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -1.738 dBm M2 : 14.230 GHz : -54.236 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



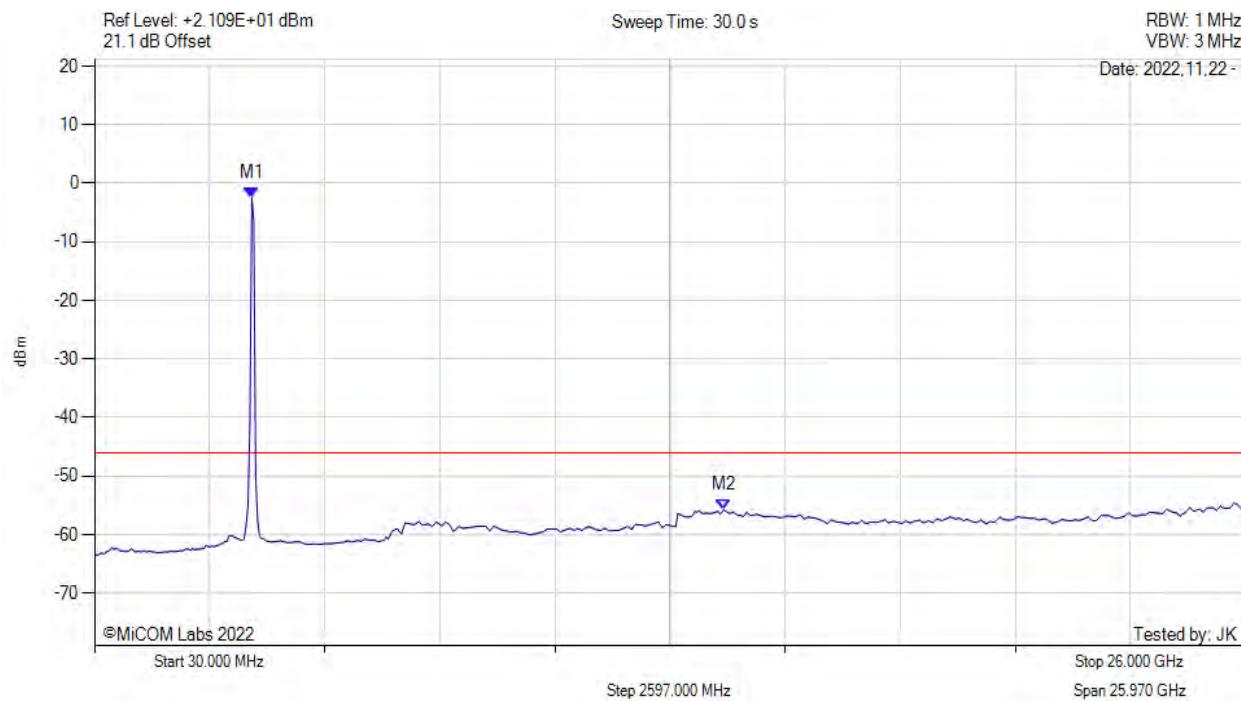
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -1.932 dBm M2 : 14.230 GHz : -54.551 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



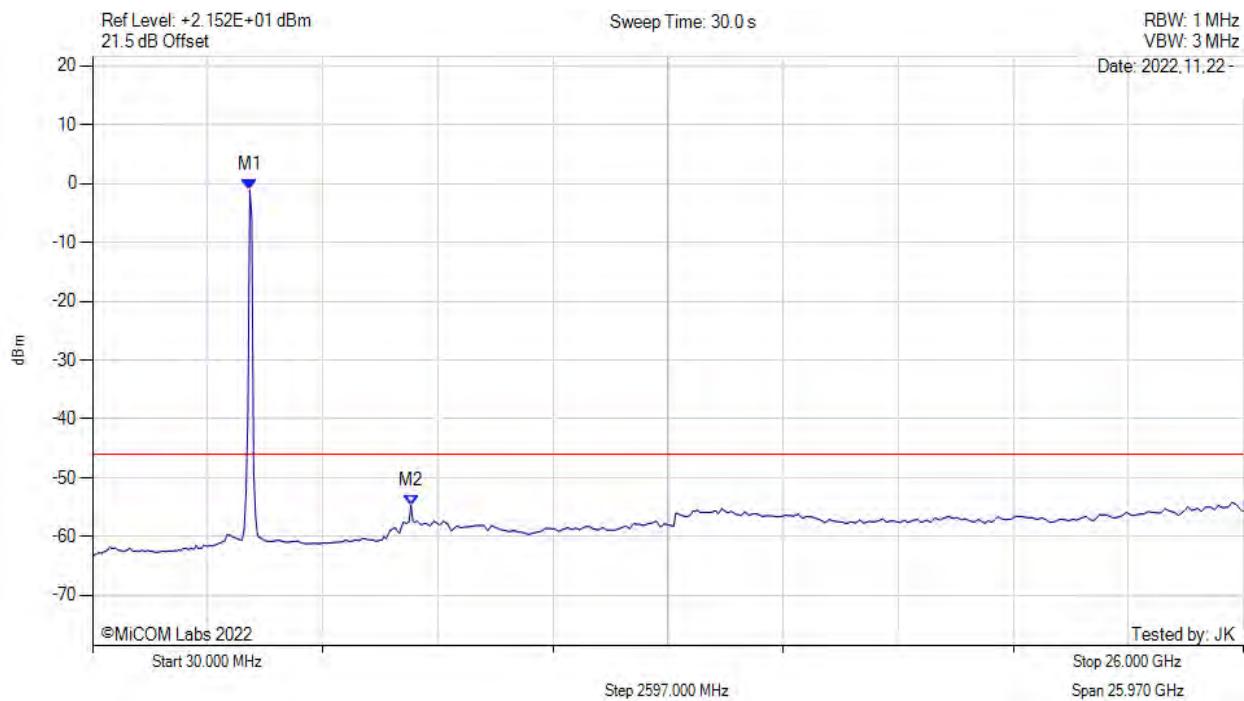
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -2.437 dBm M2 : 14.230 GHz : -55.729 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3630.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



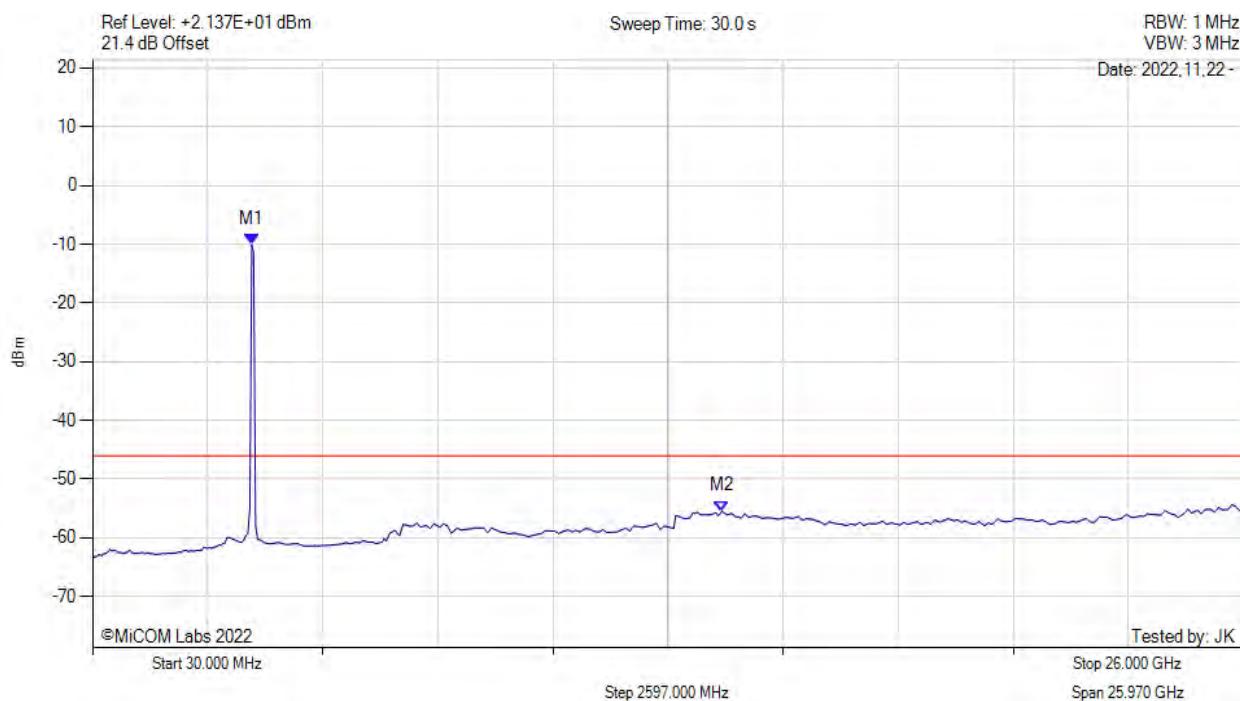
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -1.108 dBm M2 : 7220.000 MHz : -54.706 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



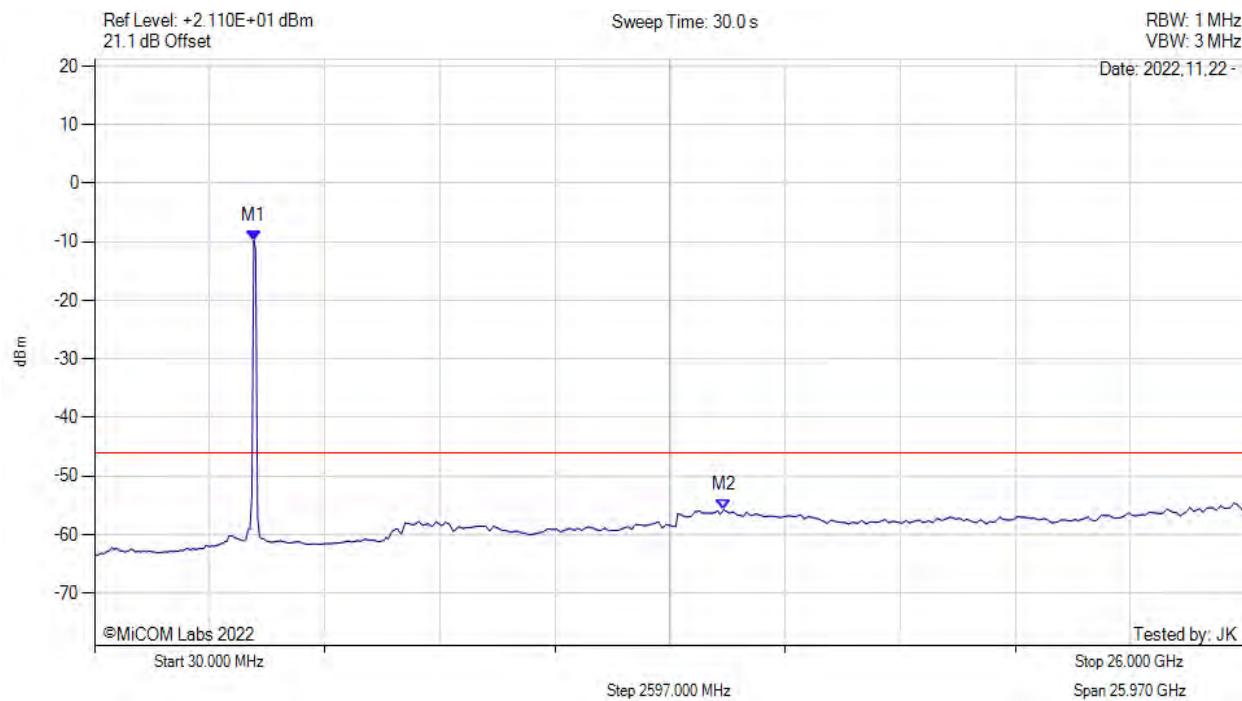
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -10.089 dBm M2 : 14.230 GHz : -55.436 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



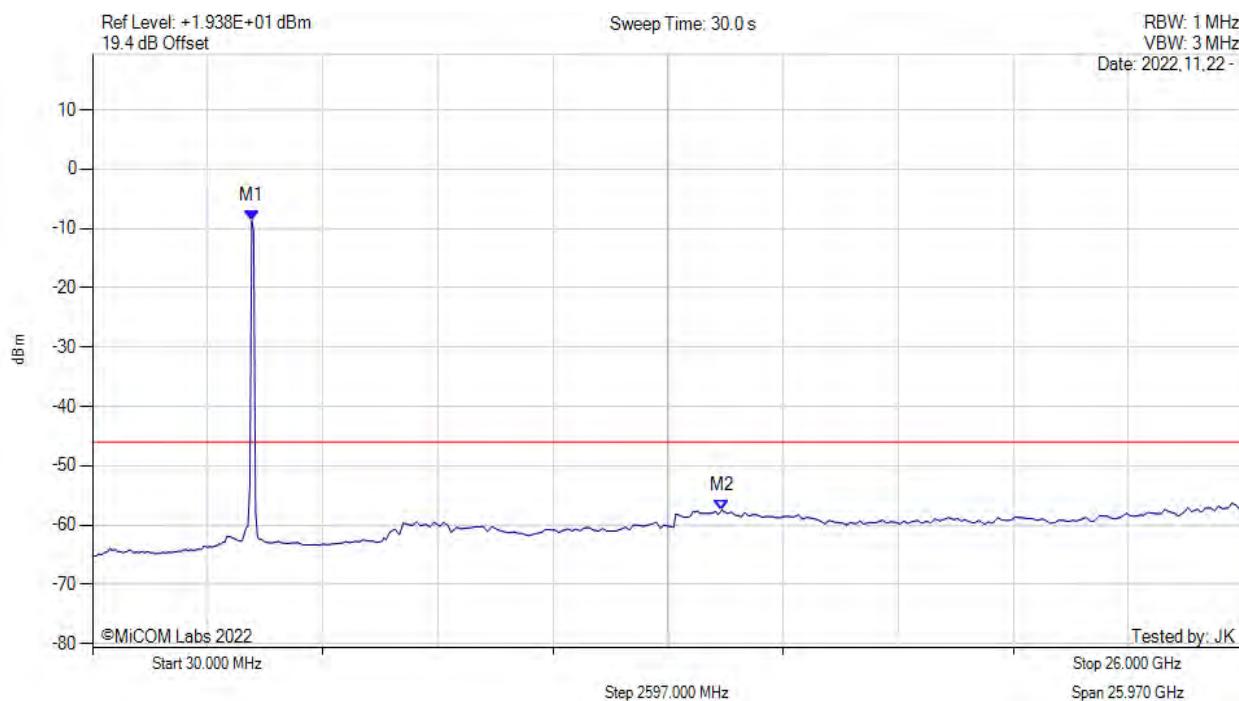
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -9.777 dBm M2 : 14.230 GHz : -55.698 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



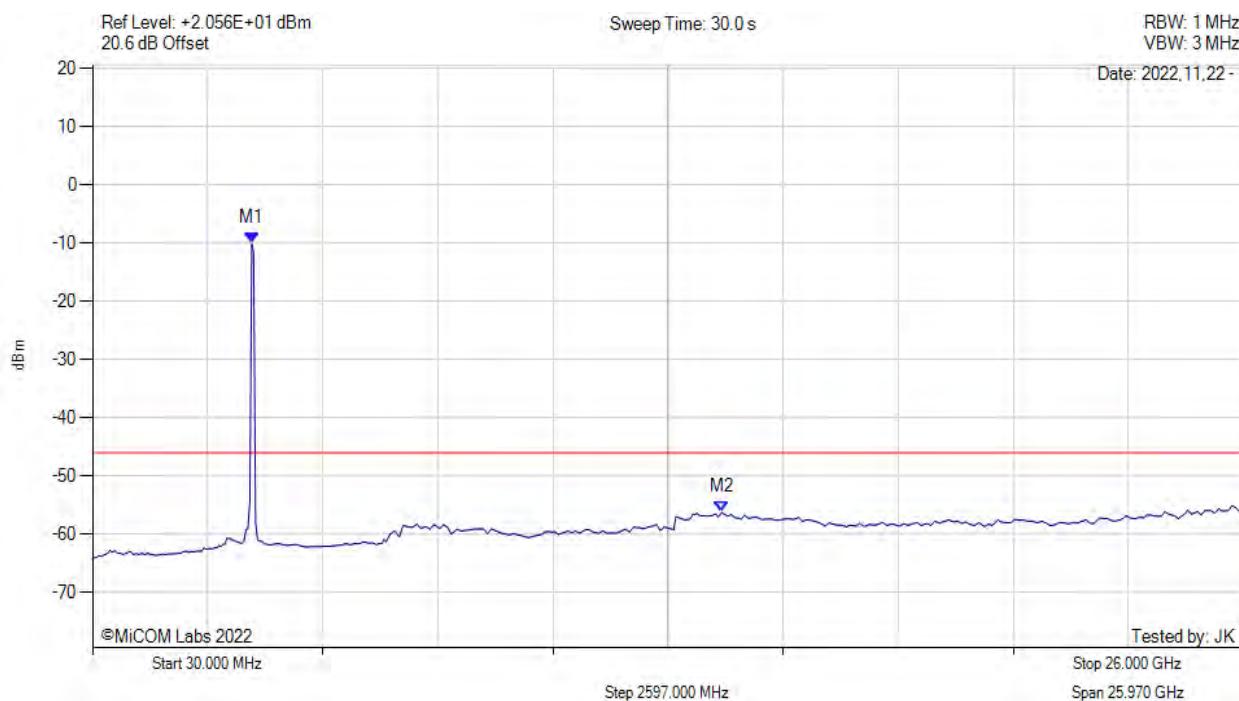
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -8.682 dBm M2 : 14.230 GHz : -57.442 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 40 MHz, Channel: 3680.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



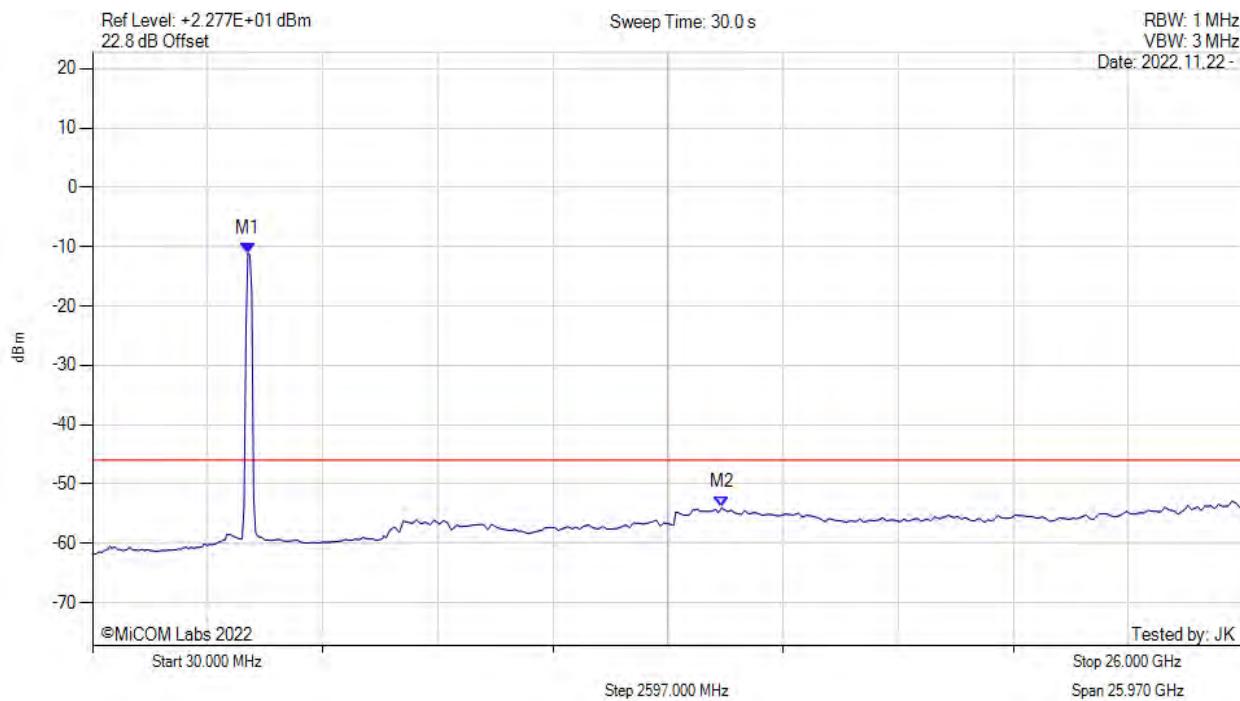
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -10.053 dBm M2 : 14.230 GHz : -56.252 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



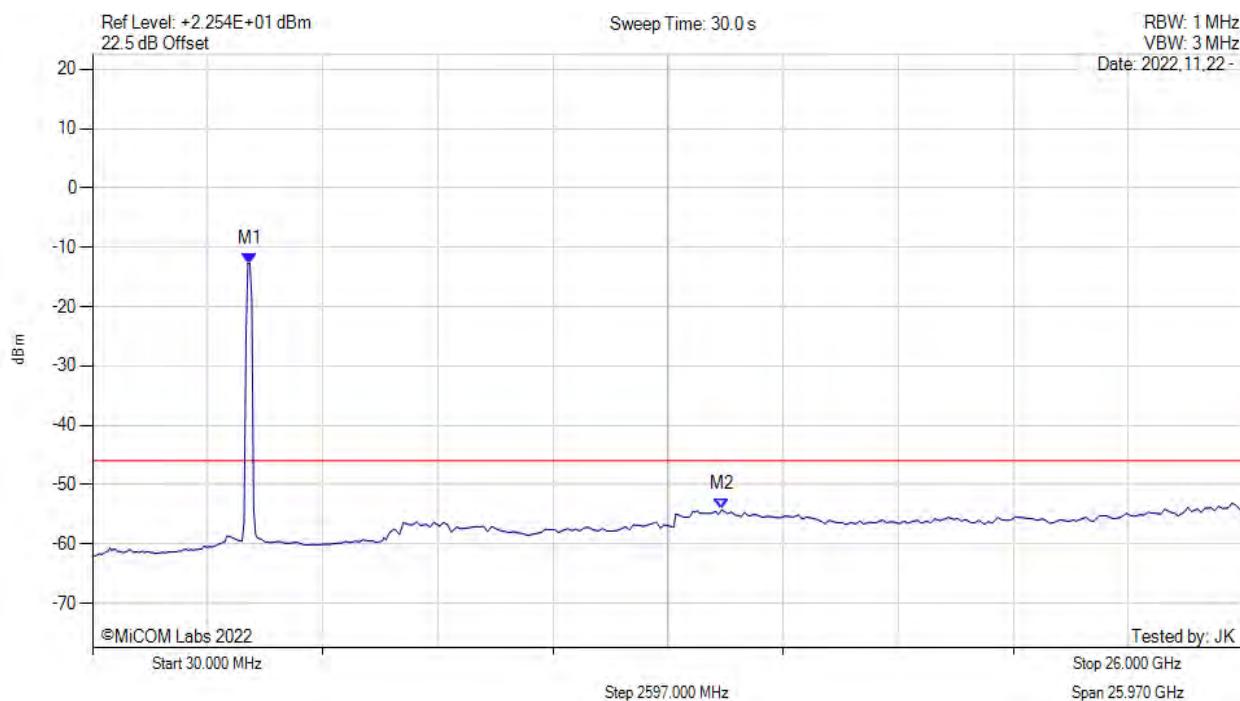
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -11.060 dBm M2 : 14.230 GHz : -53.988 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



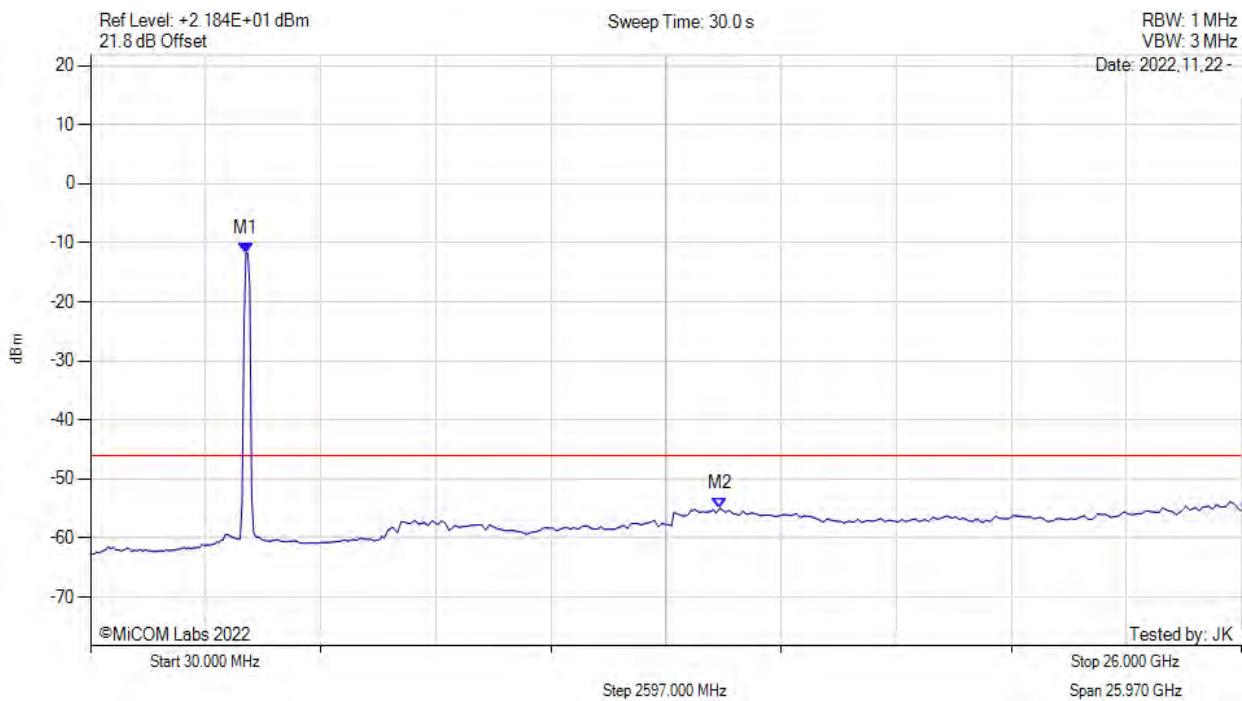
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3580.000 MHz : -12.713 dBm M2 : 14.230 GHz : -54.245 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



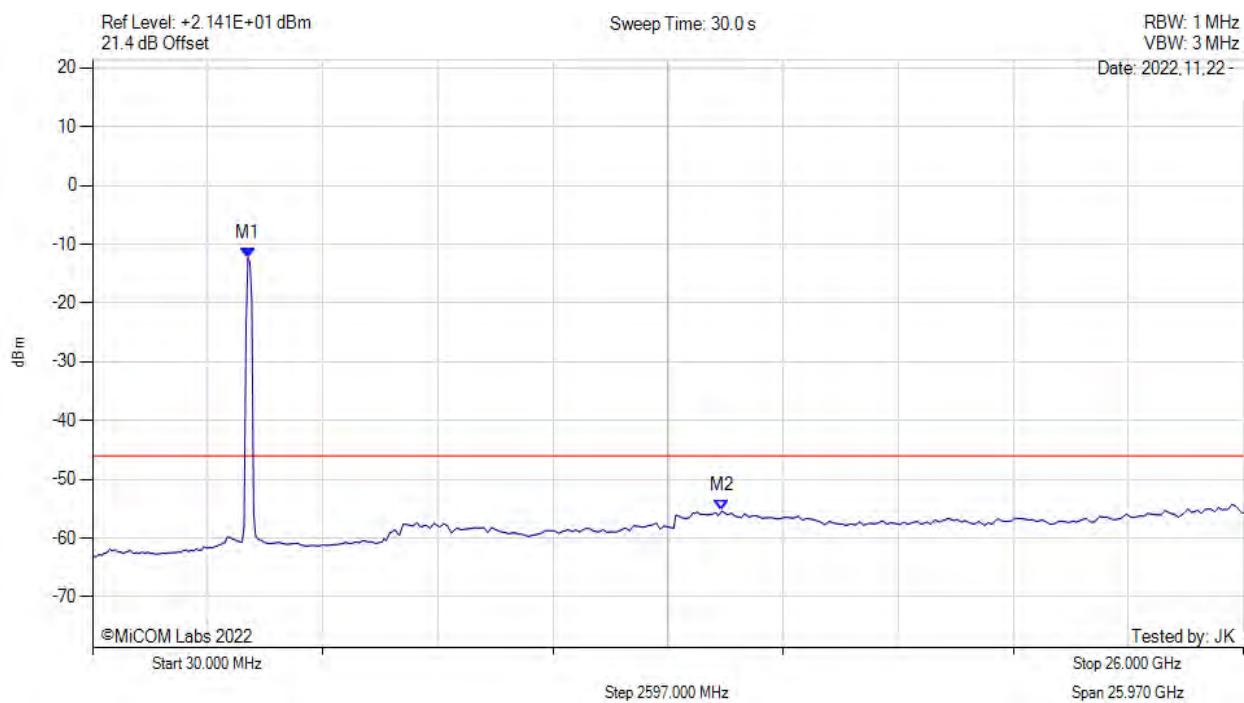
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -11.800 dBm M2 : 14.230 GHz : -54.930 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3600.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



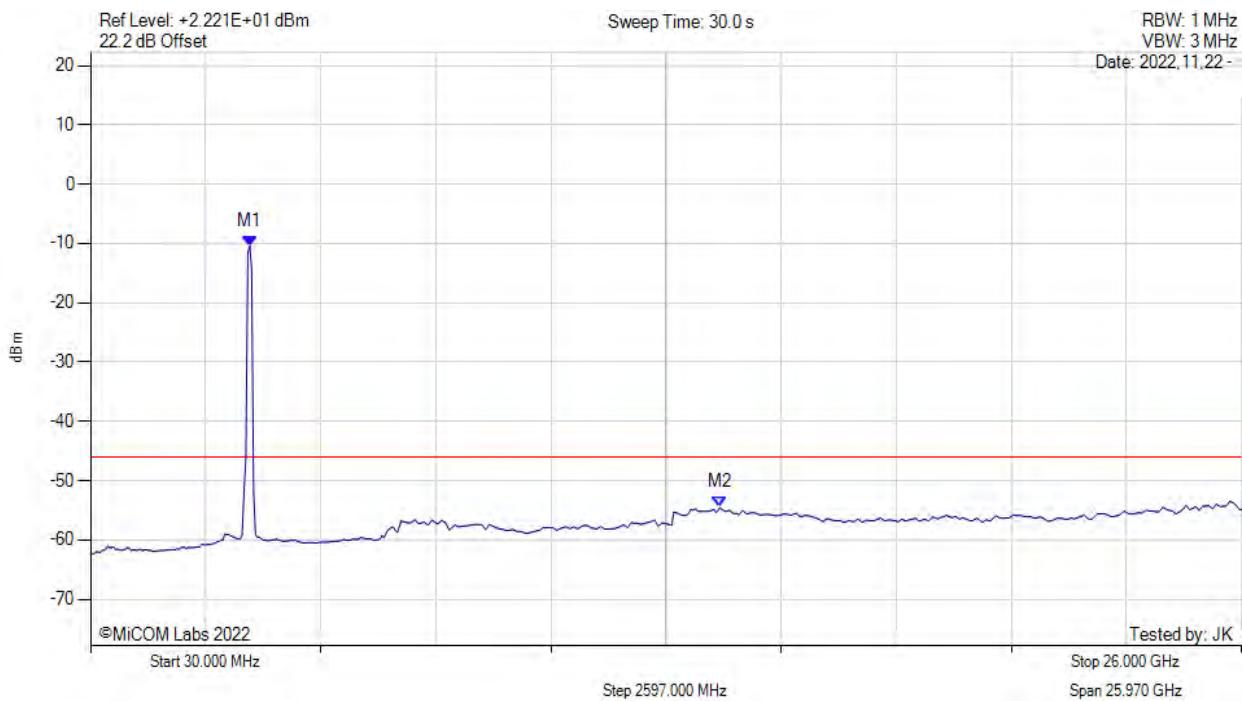
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3540.000 MHz : -12.371 dBm M2 : 14.230 GHz : -55.381 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain a, Temp: 20, Voltage: 48 Vdc



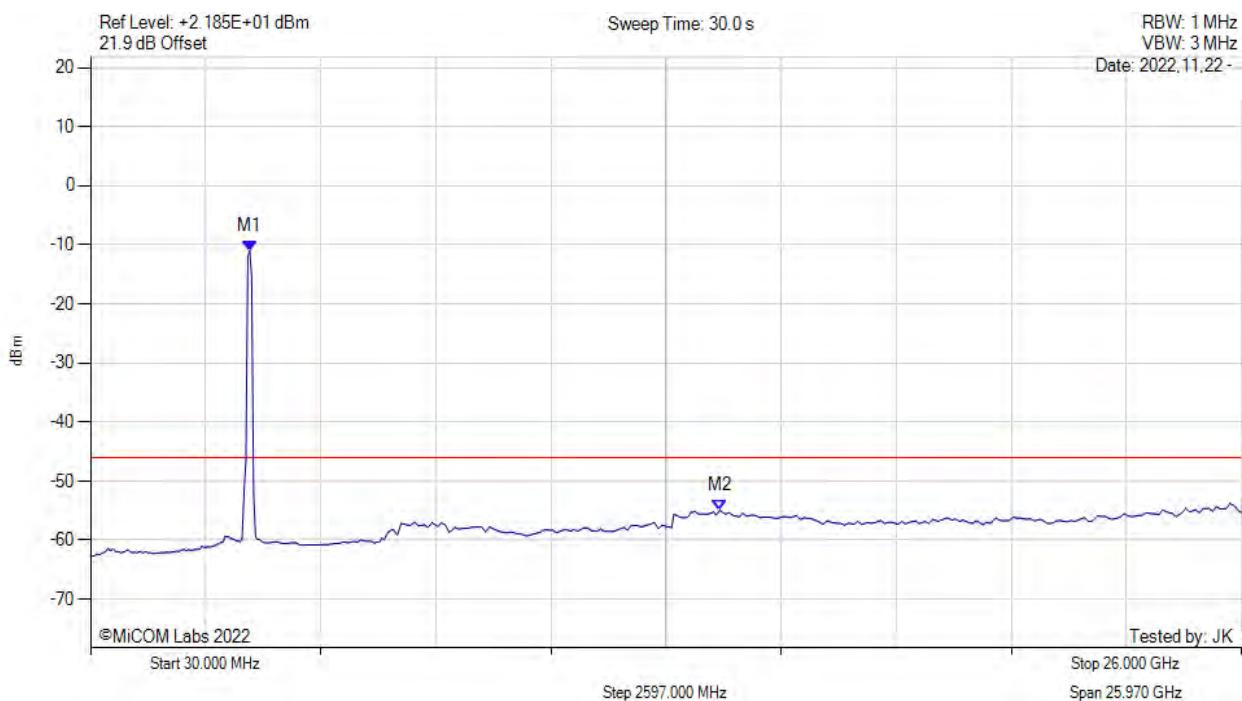
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -10.431 dBm M2 : 14.230 GHz : -54.568 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain b, Temp: 20, Voltage: 48 Vdc



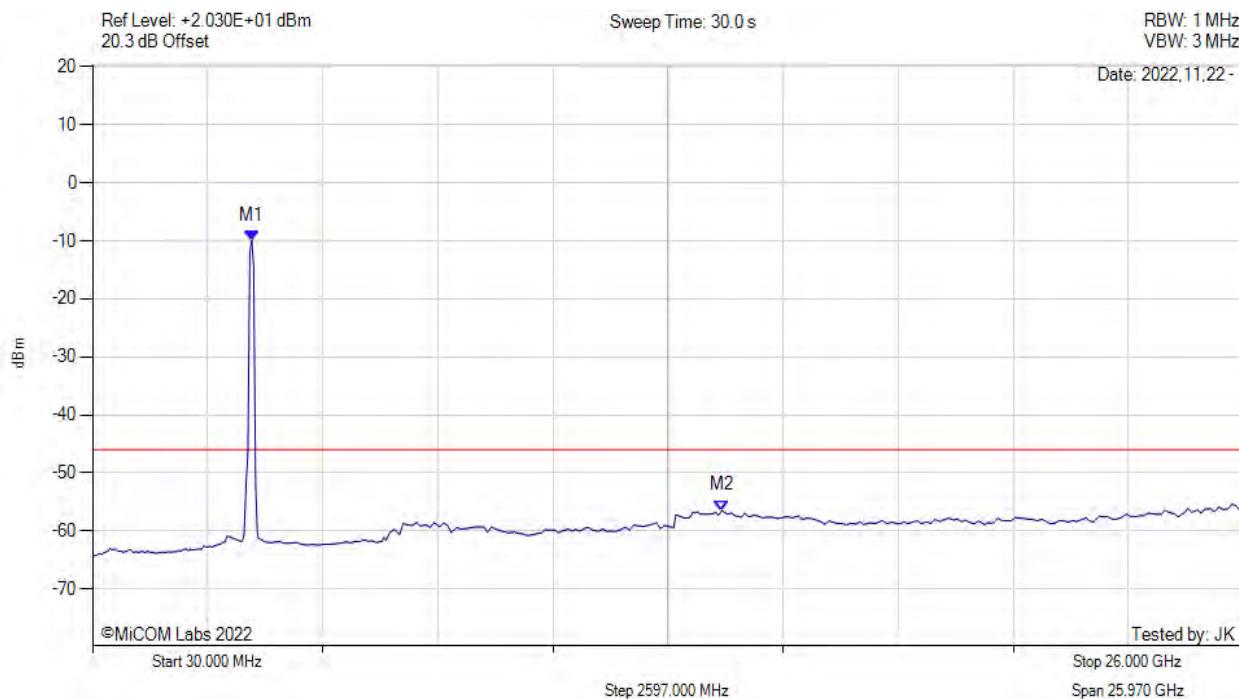
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -10.983 dBm M2 : 14.230 GHz : -54.918 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain c, Temp: 20, Voltage: 48 Vdc



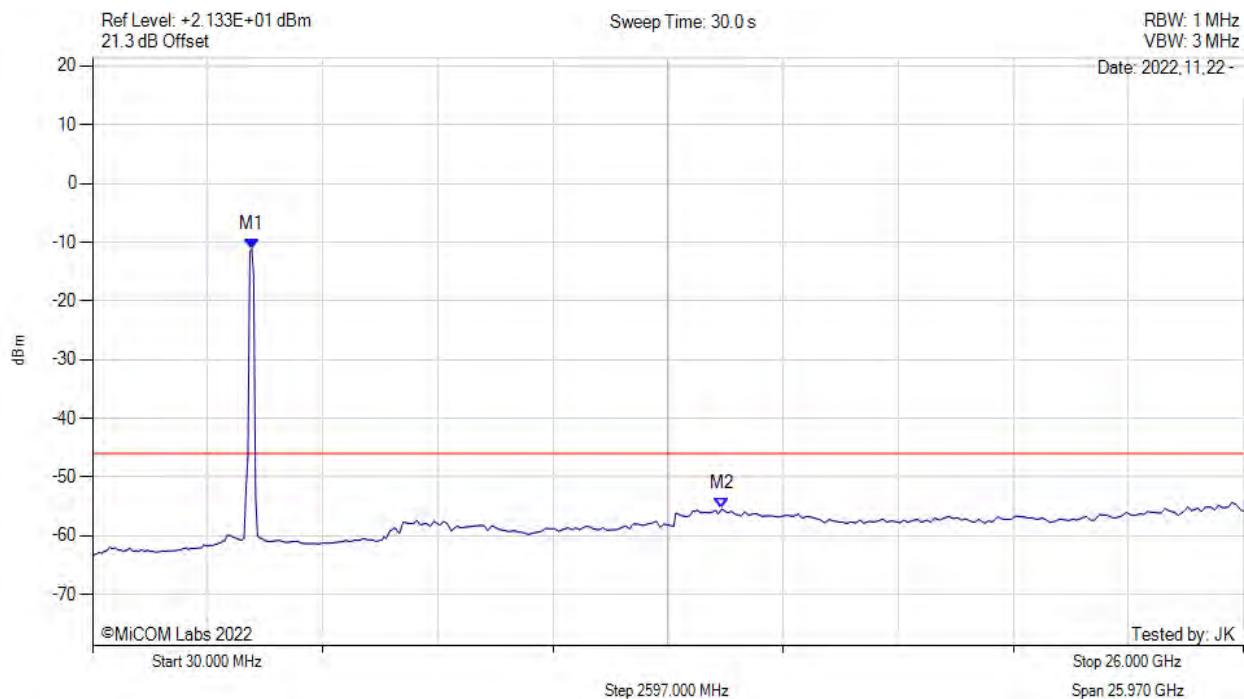
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -9.949 dBm M2 : 14.230 GHz : -56.469 dBm	Limit: dBm Margin: #VALUE! dB

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CONDUCTED SPURIOUS EMISSIONS - AVERAGE



Variant: 100MHz, Channel: 3650.00 MHz, Chain d, Temp: 20, Voltage: 48 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 3620.000 MHz : -11.202 dBm M2 : 14.230 GHz : -55.440 dBm	Limit: dBm Margin: #VALUE! dB

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