REGULATORY COMPLIANCE TEST REPORT

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

Report No.: RDWN77-U4 Rev B

Company: Radwin

Model Name: RADWIN 2000 EC00, RADWIN 2000 EI00

REGULATORY COMPLIANCE TEST REPORT

Company Name: Radwin

Model Name: RADWIN 2000 EC00, RADWIN 2000 EI00

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

Test Report Serial No.: RDWN77-U4 Rev B

This report supersedes: RDWN77-U4 Rev A

Applicant: Radwin
27 Habarzel Street
Tel Aviv, 6971039
Israel

Issue Date: 6th March 2023

This Test Report is Issued Under the Authority of:

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

ACCREDITED
TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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1. ACCREDITATION, LISTINGS & RECOGNITION

1.1. TESTING ACCREDITATION

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

ilac-MRA A2LA

Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

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

COMPOSITE SEAL A2LA

Presented this 14th day of January 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2023

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

1.2. RECOGNITION

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

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

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

1.3. PRODUCT CERTIFICATION

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

Accredited Product Certification Body

A2LA has accredited

MiCOM LABS

Pleasanton, CA

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

Presented this 14th day of January 2022

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	8th December 2022	Draft for review
Draft #2	21st December 2022	
Rev A	22nd December 2022	Initial Release
Rev B	6th March 2023	Model name update.

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

3. TEST RESULT CERTIFICATE

Manufacturer:	Radwin 27 Habarzel Street Tel Aviv 6971039 Israel	**Tested By:**	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Model:	RADWIN 2000 EC00, RADWIN 2000 EI00	**Telephone:**	+1 925 462 0304
		Fax:	+1 925 462 0306
Type Of Equipment:	5 GHz High Performance PtP Outdoor Unit		
S/N's:	Prototype		
Test Date(s):	22nd – 23rd Sept., 1st - 2nd Dec 2022	**Website:**	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247 Issue 2, Feb 2017	**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.

A2LA ACCREDITED
TESTING CERT #2381.01

Approved & Released for MiCOM Labs, Inc. by:

Graeme Grieve
Quality Manager MiCOM Labs, Inc.

Gordon Hurst
President & CEO MiCOM Labs, Inc.

4. REFERENCES AND MEASUREMENT UNCERTAINTY

4.1. Normative References

REF.	PUBLICATION	YEAR	TITLE
I	KDB 662911 D01, D02, D03	D01 Oct 2013, D02 Oct 2011, D03 Oct 2020	Guidance for measurement of output emission of devices that employ single transmitter with multiple outputs or systems with multiple transmitters operating simultaneously in the same frequency band. 662911 D01 Multiple Transmitter Output v02r01, 662911 D02 MIMO with Cross Polarized Antenna v01, 662911 D03 MIMO Antenna Gain Measurement v01, OET 13TR1003 Directional Gain of 802 11 MIMO with CDD 04 05 2013
II	KDB 905462 D07 v02	Aug 2016	Test guidance to demonstrate compliance for U-NII devices subject to DFS requirements.
III	KDB 926956 D01 v02	Aug 2016	U-NII Device Transition Plan
IV	A2LA	22nd June 2022	R105 - Requirement's When Making Reference to A2LA Accreditation Status
V	ANSI C63.10	2020	American National Standard for Testing Unlicensed Wireless Devices
VI	ANSI C63.4	2014	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
VII	ETSI TR 100 028	2001-12	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
VIII	FCC 06-96	Jun 2006	Memorandum Opinion and Order
IX	FCC 47 CFR Part 15.407	2021	Radio Frequency Devices; Subpart E –Unlicensed National Information Infrastructure Devices
X	ICES-003	Issue 7; Oct 2020	Information Technology Equipment (Including Digital Apparatus)
XI	M 3003	EDITION 4 Oct 2019	Expression of Uncertainty and Confidence in Measurements
XII	RSS-247 Issue 2	Feb 2017	Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and Licence-Exempt Local Area Network (LE-LEN) Devices
XIII	RSS-Gen Issue 5	Amendment 1,2 (Feb 2021)	General Requirements for Compliance of Radio Apparatus. With Amendments 1: March 2019 and 2: Feb 2021.
XIV	FCC 47 CFR Part 2.1033	May 2021	FCC requirements and rules regarding photographs and test setup diagrams.
XV	KDB 905462 D02 v02	Apr 2016	Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5250 to 5350 MHz and 5470 to 5725 MHz bands incorporating Dynamic Frequency Selection.
XVI	KDB 789033 D02 V02r01	Dec 2017	Guidelines For Compliance Testing Of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E

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.

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

5. PRODUCT DETAILS AND TEST CONFIGURATIONS

5.1. Technical Details

Details	Description
Purpose:	Test of the RADWIN 2000 E to FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247 Issue 2. Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5725-5850 MHz bands.
Applicant:	Radwin 27 Habarzel Street, Tel Aviv 6971039 Israel
Manufacturer:	As above
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	RDWN77-U4
Date EUT received:	26th September 2022
Standard(s) applied:	FCC CFR 47 Part 15 Subpart E 15.407 & ISED RSS-247 Issue 2
Dates of test (from - to):	22nd Sept to 4th Oct 2022, 1st-2nd Dec 2022
No of Units Tested:	1
Product Family Name:	RADWIN 2000
Model(s):	RADWIN 2000 EC00, RADWIN 2000 EI00
Location for use:	Outdoors
Declared Frequency Range(s):	5725 - 5850 MHz;
Type of Modulation:	OFDM
EUT Modes of Operation:	20MHz; 40MHz; 80MHz
Declared Nominal Output Power (dBm):	+30 dBm
Transmit/Receive Operation:	Transceiver
Rated Input Voltage and Current:	56VDC 1A
Operating Temperature Range:	-40°C to +60°C
ITU Emission Designator:	20M0W7W, 40M0W7W, 80M0W7W
Equipment Dimensions:	4.2 / 10.1 / 4.9 in
Weight:	2.7 Lb
Hardware Rev:	Prototype
Software Rev:	Prototype

5.2. Scope Of Test Program

RADWIN 2000 EC00, RADWIN 2000 EI00

The scope of the test program was to test Radwin's, RADWIN 2000 E configurations in the frequency ranges 5725 - 5850 MHz for compliance against the following specification:

Client declared models RADWIN 2000 EC00, RADWIN 2000 EI00 are similar and therefore as a result no testing was performed on these models.

FCC CFR 47 Part 15 Subpart E 15.407
Compliance Measurement Procedures for Unlicensed National Information Infrastructure devices operating in the 5725 - 5850 MHz.

RSS-247 Issue 2, Feb 2017
Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and License-Exempt Local Area Network (LE-LEN) Devices.

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

Type	Equipment Description	Manufacturer	Model No.	Serial No.
EUT	5 GHz High Performance PtP Outdoor Unit	RADWIN	RADWIN 2000 EC00, RADWIN 2000 EI00	Prototype
Support	POE Power Supply	Gospell	G0566-560-100	--
Support	Laptop	Dell	--	--

5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
integral	RADWIN	MR0284310	Directional	24.0	-	9	Yes	5725 - 5850
external	RADWIN	RW-9622-5001	Directional	28.0	-	5	Yes	5725 - 5850
external	RADWIN	RW-9721-5158	Dish	28.0	-	5.6	Yes	5725 - 5850
external	RADWIN	RW-9732-4958	Dish	32.0	-	4	Yes	5725 - 5850
external	RADWIN	RW-9732-4965	Dish	25.0	-	7	Yes	5725 - 5850

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

5.5. Cabling and I/O Ports

Port Type	Max Cable Length	# of Ports	Screened	Conn Type	Data Type	Bit Rate	Environment
Ethernet PoE IN	>30m	1	No	RJ45	Packet Data	1000	Outdoors

5.6. Test Configurations

Results for the following configurations are provided in this report:

Operational Mode(s)	Data Rate with Highest Power MBit/s	Channel Frequency (MHz)		
		Low	Mid	High
		5725 - 5850 MHz		
OFDM-20	8.6	5,735.00	5,785.00	5,840.00
OFDM-40	17.2	5,745.00	5,785.00	5,830.00
OFDM-80	36.0	5,765.00	5,785.00	5,810.00

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

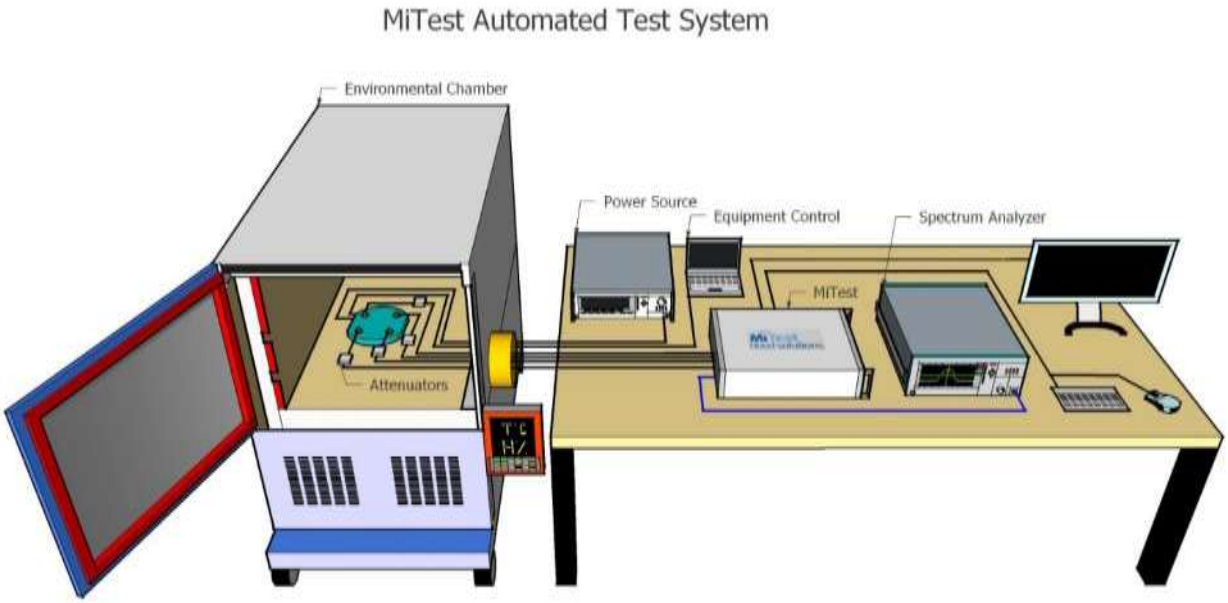
List of Measurements

Test Header	Result	Data Link
Peak Transmit Power	Complies	View Data
6 dB & 99% Bandwidth	Complies	View Data
Power Spectral Density	Complies	View Data
Radiated	Complies	-
TX Spurious & Restricted Band Emissions	Complies	View Data
Restricted Edge & Band-Edge Emissions	Complies	View Data
*Digital Emissions	See Note	-
*AC Wireline	See Note	-

***The following tests "Digital Emissions" and "AC Wireline" are available for review in the following report:**
RWN77-U2 Radwin 2000 E

7. TEST EQUIPMENT CONFIGURATION(S)

7.1. Conducted RF



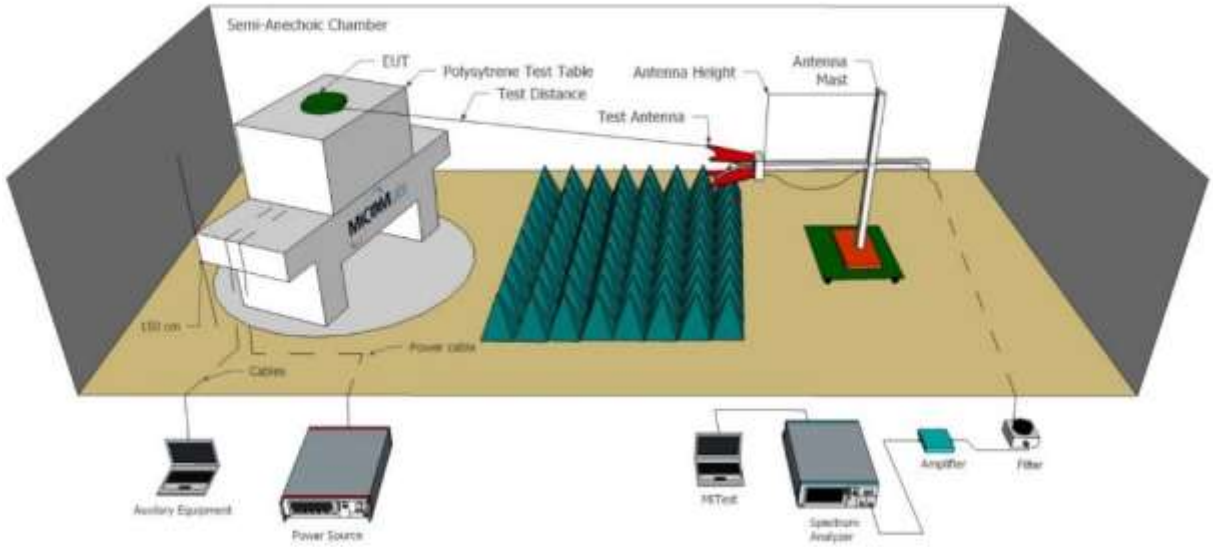
A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
#3 SA	MiTest Box to SA	Fairview Microwave	SCA1814-0101-72	#3 SA	29 Jun 2023
#3P1	EUT to MiTest box port 1	Fairview Microwave	SCA1814-0101-72	#3P1	29 Jun 2023
#3P2	EUT to MiTest box port 2	Fairview Microwave	SCA1814-0101-72	#3P2	29 Jun 2023
#3P3	EUT to MiTest box port 3	Fairview Microwave	SCA1814-0101-72	#3P3	29 Jun 2023
#3P4	EUT to MiTest box port 4	Fairview Microwave	SCA1812-0101-72	#3P4	29 Jun 2023
75	Environmental Chamber	Thermatron	SE-300-2-2	27946	20 Feb 2023
249	Thermocouple; Resistance Thermometer	Thermotronics	GR2105-02	9340 #2	29 Jun 2023
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	8 Oct 2023
398	MiTest RF Conducted Test Software	MiCOM	MiTest ATS	Version 4.2.3.0	Not Required
405	DC Power Supply 0-60V	Agilent	6654A	MY4001826	Cal when used
408	USB to GPIB interface	National Instruments	GPIB-USB HS	14C0DE9	Not Required
441	USB Wideband Power Sensor	Boonton	55006	9179	20 Sep 2023
442	USB Wideband Power Sensor	Boonton	55006	9181	19 Oct 2023
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
461	Spectrum Analyzer	Agilent	E4440A	MY46185537	27 Sep 2023
493	USB Wideband Power Sensor	Boonton	55006	9634	8 Oct 2023
494	USB Wideband Power Sensor	Boonton	55006	9726	19 Oct 2023
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2024
512	MiTest Cloud Solutions RF Test Box	MiCOM	2nd Gen with DFS	512	29 Jun 2023
555	Rhode & Schwarz Receiver	Rhode & Schwarz	ESW 44	101893	28 Jun 2023

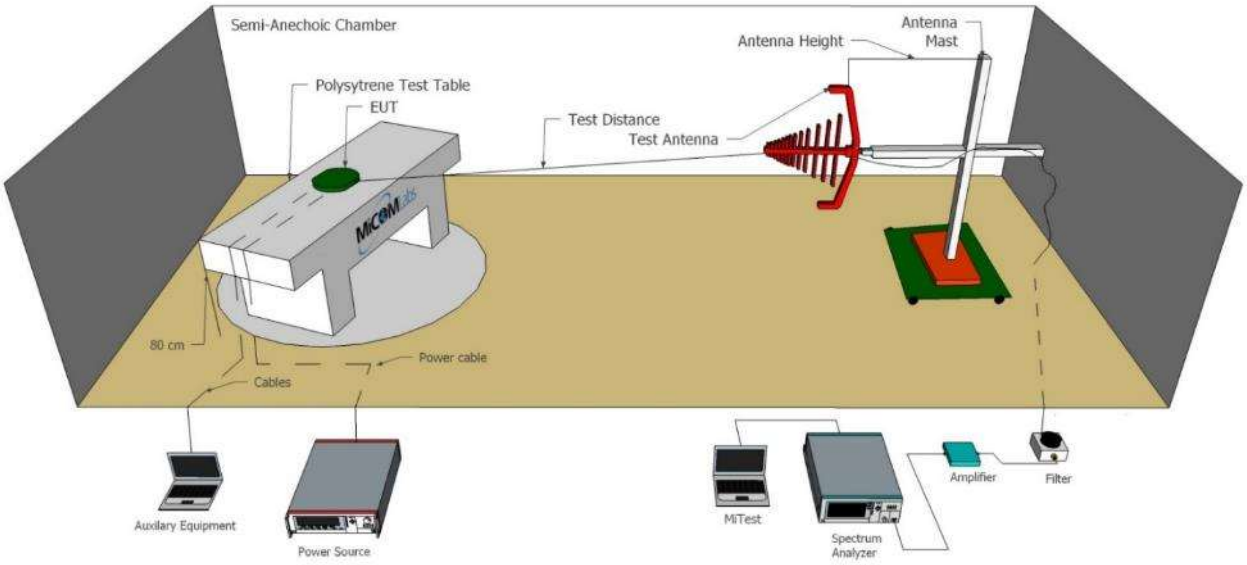
7.2. Radiated Emissions

The following tests were performed using the radiated test set-up shown in the diagram below.
Radiated emissions above and below 1GHz.

Radiated Emissions Above 1GHz Test Setup



Radiated Emissions Below 1GHz Test Setup



Test Equipment Utilized

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CU101	04R08507	Not Required
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	8 Oct 2023
298	3M Radiated Emissions Chamber Maintenance Check	MiCOM	3M Chamber	298	24 Jan 2023
302	5150 to 5350 MHz Notch Filter	Microtronics	BRC50703	002	6 Oct 2023
303	5725 to 5875 MHz Notch filter	Microtronics	BRC50705	003	6 Oct 2023
330	Variac 0-280 Vac	Staco Energy Co	3PN1020B	0546	Cal when used
336	Active loop Ant 10kHz to 30 MHz	EMCO	EMCO 6502	00060498	29 Nov 2023
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	29 Sep 2023
343	5.15 GHz Notch Filter	EWT	EWT-14-0200	H1	6 Oct 2023
373	26III RMS Multimeter	Fluke	Fluke 26 series III	76080720	29 Sep 2023
377	Band Rejection Filter 5150 to 5880MHz	Microtronics	BRM50716	034	6 Oct 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
414	DC Power Supply 0-60V	HP	6274	1029A01285	Cal when used
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
447	MiTest Rad Emissions Test Software	MiCOM	Rad Emissions Test Software Version 1.0	447	Not Required
462	Schwarzbeck cable from Antenna to Amplifier.	Schwarzbeck	AK 9513	462	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
466	Low Pass Filter DC-1500 MHz	Mini-Circuits	NLP-1750+	VUU10401438	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
87	Uninterruptible Power Supply	Falcon Electric	ED2000-1/2LC	F3471 02/01	Cal when used
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. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Maximum Conducted Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) RSS-247 6.2.4.1	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

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

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

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

Limits Maximum Conducted Output Power

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

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

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

15. 407 (a)(2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 – 5850 MHz

15. 407 (a)(3)
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5735.0	14.59	14.52	--	--	17.57	--	30.00	-12.43	14.00
5785.0	24.89	24.46	--	--	27.69	--	30.00	-2.31	25.50
5840.0	15.76	15.20	--	--	18.50	--	30.00	-11.50	15.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	14.40	14.11	--	--	17.27	--	30.00	-12.73	14.00
5785.0	25.52	25.16	--	--	28.35	--	30.00	-1.65	25.50
5830.0	16.15	15.65	--	--	18.92	--	30.00	-11.08	15.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

For the band-edges power was reduced due to radiated band-edge compliance issues

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5765.0	14.79	14.36	--	--	17.59	--	30.00	-12.41	14.00
5785.0	27.19	24.61	--	--	29.10	--	30.00	-0.90	25.50
5810.0	14.81	14.31	--	--	17.58	--	30.00	-12.42	14.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

For the band-edges power was reduced due to radiated band-edge compliance issues

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5735.0	12.04	11.63	--	--	14.85	--	30.00	-15.15	11.00
5785.0	24.95	24.40	--	--	27.69	--	30.00	-2.31	25.00
5840.0	11.95	11.38	--	--	14.68	--	30.00	-15.32	11.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

For the band-edges power was reduced due to radiated band-edge compliance issues

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5745.0	9.76	9.24	--	--	12.52	--	30.00	-17.48	9.00
5785.0	25.19	24.86	--	--	28.04	--	30.00	-1.96	25.50
5830.0	9.21	8.75	--	--	12.00	--	30.00	-18.00	8.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

For the band-edges power was reduced due to radiated band-edge compliance issues

Equipment Configuration for Peak Transmit Power			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	MHz	dBm	dB	
5765.0	7.73	7.34	--	--	10.55	--	30.00	-19.45	7.00
5785.0	25.31	24.79	--	--	28.07	--	30.00	-1.93	25.50
5810.0	6.76	6.40	--	--	9.59	--	30.00	-20.41	6.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

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

For the band-edges power was reduced due to radiated band-edge compliance issues

9.2. 6 dB & 99% Bandwidth

Conducted Test Conditions for 6 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	6 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) RSS-247 6.2.4.1	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 6 dB and 99% Bandwidth Measurement
The bandwidth at 6 dB and 99 % 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 100 kHz.
Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

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

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

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5735.0	18.930	18.930	--	--	18.930	18.930		
5785.0	18.930	19.000	--	--	19.000	18.930		
5840.0	19.000	19.000	--	--	19.000	19.000		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5735.0	18.968	18.986	--	--	18.986	18.968		
5785.0	18.965	18.973	--	--	18.973	18.965		
5840.0	18.959	18.976	--	--	18.976	18.959		

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 6 dB & 99% Bandwidth			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	37.870	38.130	--	--	38.130	37.870		
5785.0	38.000	38.130	--	--	38.130	38.000		
5830.0	38.000	38.130	--	--	38.130	38.000		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	37.880	37.954	--	--	37.954	37.880		
5785.0	37.861	37.938	--	--	37.938	37.861		
5830.0	37.843	37.895	--	--	37.895	37.843		

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 6 dB & 99% Bandwidth			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5765.0	77.870	77.870	--	--	77.870	77.870		
5785.0	77.870	77.870	--	--	77.870	77.870		
5810.0	77.600	77.870	--	--	77.870	77.600		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5765.0	77.473	77.483	--	--	77.483	77.473		
5785.0	77.532	77.449	--	--	77.532	77.449		
5810.0	77.941	77.463	--	--	77.941	77.463		

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 6 dB & 99% Bandwidth

Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5735.0	19.078	19.158	--	--	19.158	19.078		
5785.0	19.078	19.078	--	--	19.078	19.078		
5840.0	19.158	19.158	--	--	19.158	19.158		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	a	b	c	d	Highest	Lowest		
5735.0	18.998	18.998	--	--	18.998	18.998		
5785.0	18.998	18.998	--	--	18.998	18.998		
5840.0	18.998	18.998	--	--	18.998	18.998		

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 6 dB & 99% Bandwidth			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	38.317	38.156	--	--	38.317	38.156		
5785.0	38.156	38.317	--	--	38.317	38.156		
5830.0	38.317	38.156	--	--	38.317	38.156		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5745.0	37.996	37.996	--	--	37.996	37.996		
5785.0	37.996	37.996	--	--	37.996	37.996		
5830.0	37.996	37.996	--	--	37.996	37.996		

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 6 dB & 99% Bandwidth			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5765.0	78.236	78.557	--	--	78.557	78.236		
5785.0	77.916	78.557	--	--	78.557	77.916		
5810.0	78.557	78.557	--	--	78.557	78.557		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
5765.0	77.916	77.916	--	--	77.916	77.916		
5785.0	77.595	77.916	--	--	77.916	77.595		
5810.0	77.916	77.916	--	--	77.916	77.916		

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).

9.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.407 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.407 (a) RSS-247 6.2.4.1	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Power Spectral Density
The in-band power spectral density was measured using the test technique specified in KDB 789033. A 1 MHz measurement bandwidth was implemented for the analyzer sweep. Once the sweep is complete the analyzer trace data is downloaded and used for post processing purposes.
Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. The Peak Power Spectral Density is the highest level found across the emission bandwidth. With multiple antenna port measurements the numerical analyzer data from each port is summed (å) and a link to this additional graphic is provided.

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

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

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

Supporting Information
Calculated Power = A + 10 log (1/x) dBm
A = Total Power Spectral Density [10*Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]
x = Duty Cycle

Limits Power Spectral Density

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)
(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

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

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any

corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

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

Operating Frequency Band 5250-5350 and 5470 – 5725 MHz

15. 407 (a)(2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 – 5850 MHz

15. 407 (a)(3)
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5735.0	-1.820	-0.841	--	--	1.393	30.0	-28.6
5785.0	8.802	8.710	--	--	11.682	30.0	-18.3
5840.0	-0.912	-0.408	--	--	2.243	30.0	-27.8

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5745.0	-4.059	-3.047	--	--	-1.007	30.0	-31.0
5785.0	6.136	6.250	--	--	9.152	30.0	-20.9
5830.0	-3.218	-3.006	--	--	-0.592	30.0	-30.6

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	24.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5765.0	-7.155	-7.280	--	--	-4.241	30.0	-34.3
5785.0	2.970	2.949	--	--	5.929	30.0	-24.1
5810.0	-7.087	-7.361	--	--	-4.653	30.0	-34.7

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-20	**Duty Cycle (%):**	99.0
Data Rate:	8.6 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5735.0	-4.079	-3.430	--	--	-0.711	30.0	-30.7
5785.0	9.276	8.518	--	--	11.369	30.0	-18.6
5840.0	-4.518	-4.260	--	--	-1.879	30.0	-31.9

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-40	**Duty Cycle (%):**	99.0
Data Rate:	17.2 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5745.0	-9.329	-9.115	--	--	-6.337	30.0	-36.3
5785.0	5.444	6.393	--	--	8.603	30.0	-21.4
5830.0	-9.989	-9.573	--	--	-7.293	30.0	-37.3

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

DCCF - Duty Cycle Correction Factor

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

Equipment Configuration for Power Spectral Density			
Variant:	OFDM-80	**Duty Cycle (%):**	99.0
Data Rate:	36 MBit/s	**Antenna Gain (dBi):**	32.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/500 KHz)				Summation Peak Marker + DCCF (+0.04 dB)	Limit	Margin
MHz	**a**	**b**	**c**	**d**	**dBm/500 KHz**	**dBm/500 KHz**	**dB**
5765.0	-14.371	-13.570	--	--	-11.246	30.0	-41.3
5785.0	1.892	2.977	--	--	5.345	30.0	-24.7
5810.0	-15.586	-14.410	--	--	-12.341	30.0	-42.4

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

DCCF - Duty Cycle Correction Factor

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

9.4. Radiated

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

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

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

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

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

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

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

(4)(i) For transmitters operating solely in the 5.725 – 5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

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

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

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

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

where:
FS = Field Strength
R = Measured Spectrum analyzer Input Amplitude

AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain
FO = Distance Falloff Factor
NFL = Notch Filter Loss

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

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

where P is the EIRP in Watts

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Testing was performed up to 40 GHz, no emissions were found >18GHz.

9.4.1. TX Spurious & Restricted Band Emissions

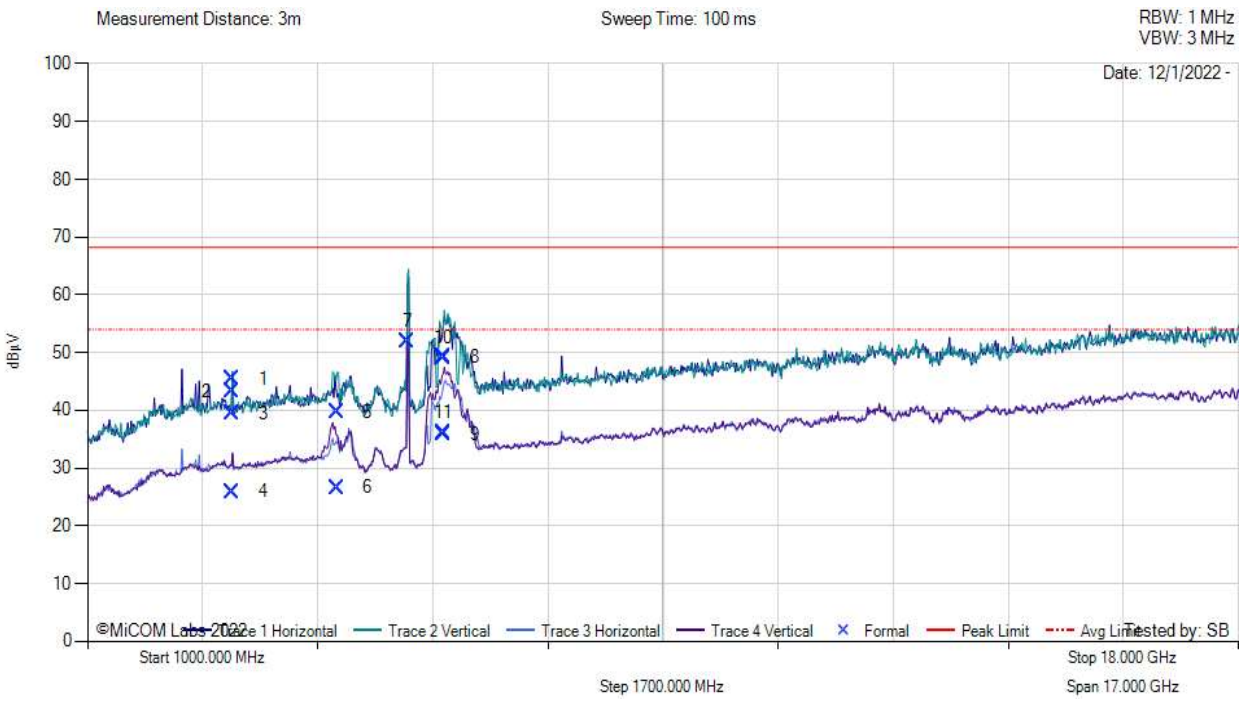
9.4.1.1. MR0248310 5725-5850MHz

Equipment Configuration for FCC Spurious 1 GHz -18 GHz			
Antenna:	MR0284310	**Variant:**	20MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: MR0284310



1 GHz – 18 GHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3142.74	54.80	2.27	-11.64	45.43	MaxP	Vertical	141	213	68.2	-22.8	Pass
2	3142.74	52.58	2.27	-11.64	43.21	AVG	Vertical	141	213	54.0	-10.8	Pass
3	3142.90	48.83	2.27	-11.64	39.47	MaxP	Horizontal	99	214	68.2	-28.8	Pass
4	3142.90	35.31	2.27	-11.64	25.94	AVG	Horizontal	99	214	54.0	-28.1	Pass
5	4684.27	48.76	2.84	-11.91	39.69	MaxP	Vertical	145	0	68.2	-28.5	Pass
6	4684.27	35.69	2.84	-11.91	26.62	AVG	Vertical	145	0	54.0	-27.4	Pass
7	5726.00	59.41	3.21	34.35	51.86	Fundamental	Vertical	149	0	--	--	Pass
8	6266.26	54.71	3.31	-8.82	49.21	MaxP	Vertical	149	0	68.2	-19.0	Pass
9	6266.26	41.28	3.31	-8.82	35.78	AVG	Vertical	149	0	54.0	-18.2	Pass
10	6266.34	54.61	3.31	-8.82	49.10	MaxP	Horizontal	138	0	68.2	-19.1	Pass
11	6266.34	41.66	3.31	-8.82	36.15	AVG	Horizontal	138	0	54.0	-17.8	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

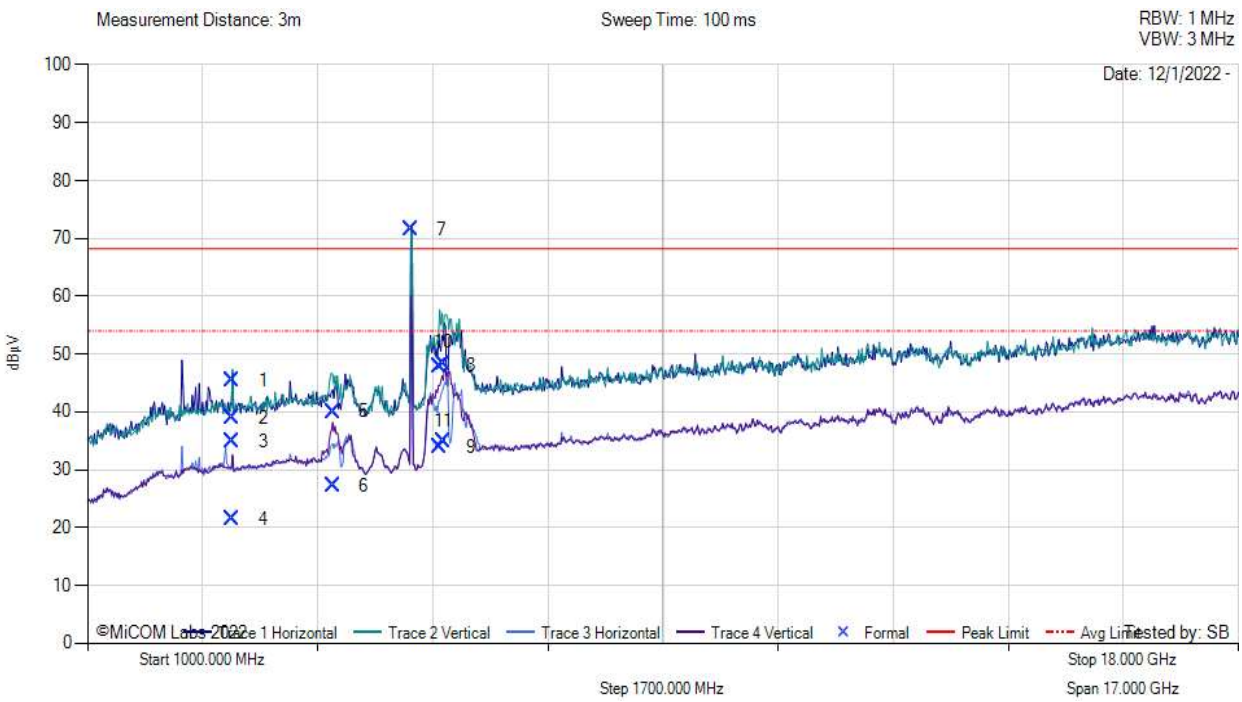
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHz -18 GHz			
Antenna:	MR0284310	**Variant:**	20MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5785	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: MR0284310



1 GHz – 18 GHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	3142.69	54.79	2.27	-11.64	45.43	MaxP	Vertical	148	212	68.2	-22.8	Pass
2	3142.69	48.33	2.27	-11.64	38.96	AVG	Vertical	148	212	54.0	-15.0	Pass
3	3142.98	44.30	2.27	-11.64	34.93	MaxP	Horizontal	100	145	68.2	-33.3	Pass
4	3142.98	30.78	2.27	-11.64	21.41	AVG	Horizontal	100	145	54.0	-32.6	Pass
5	4627.12	49.29	2.76	-12.00	40.05	MaxP	Vertical	146	0	68.2	-28.2	Pass
6	4627.12	36.44	2.76	-12.00	27.20	AVG	Vertical	146	0	54.0	-26.8	Pass
7	5777.00	79.58	3.19	34.44	71.62	Fundamental	Vertical	149	0	--	--	Pass
8	6207.36	53.89	3.32	-9.30	47.91	MaxP	Vertical	147	0	68.2	-20.3	Pass
9	6207.36	39.90	3.32	-9.30	33.92	AVG	Vertical	147	0	54.0	-20.1	Pass
10	6266.59	53.96	3.31	-8.81	48.46	MaxP	Horizontal	135	1	68.2	-19.8	Pass
11	6266.59	40.41	3.31	-8.81	34.91	AVG	Horizontal	135	1	54.0	-19.1	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

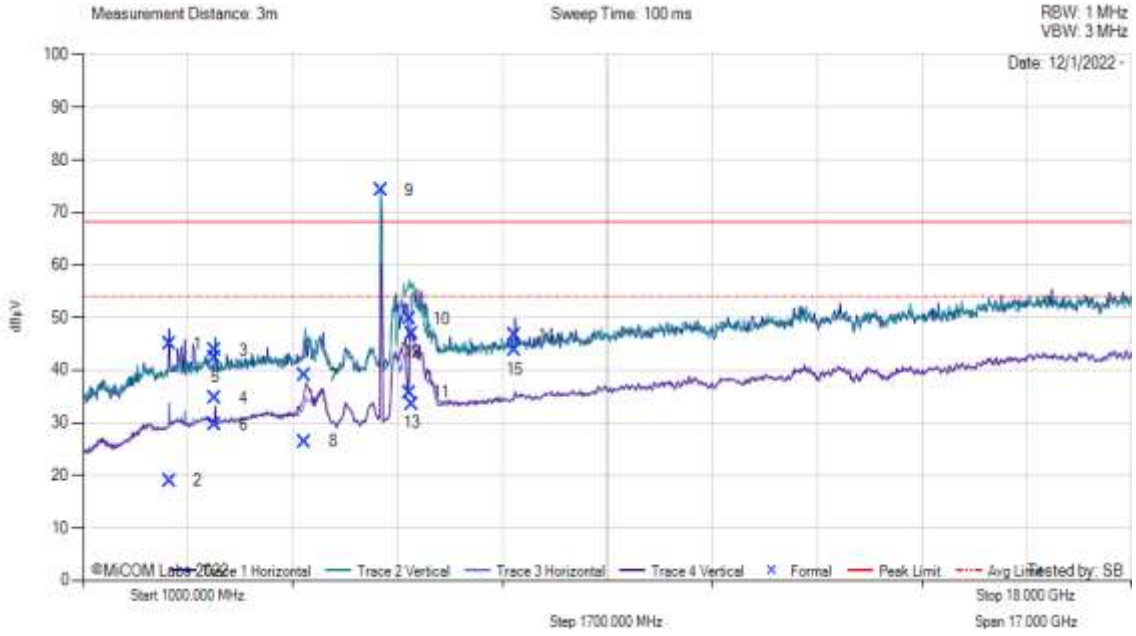
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHZ -18 GHZ			
Antenna:	MR0284310	**Variant:**	20MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: MR0284310



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2398.69	55.18	1.96	-12.20	44.94	MaxP	Horizontal	102	209	68.2	-23.3	Pass
2	2398.69	29.24	1.96	-12.20	19.00	AVG	Horizontal	102	209	54.0	-35.0	Pass
3	3142.67	53.08	2.27	-11.64	43.71	MaxP	Vertical	141	211	68.2	-24.5	Pass
4	3142.67	44.02	2.27	-11.64	34.65	AVG	Vertical	141	211	54.0	-19.3	Pass
5	3142.87	51.72	2.27	-11.64	42.35	MaxP	Horizontal	111	139	68.2	-25.9	Pass
6	3142.87	39.05	2.27	-11.64	29.68	AVG	Horizontal	111	139	54.0	-24.3	Pass
7	4600.10	48.13	2.82	-11.99	38.96	MaxP	Vertical	146	1	68.2	-29.3	Pass
8	4600.10	35.58	2.82	-11.99	26.42	AVG	Vertical	146	1	54.0	-27.6	Pass
9	5828.00	81.62	3.23	34.57	74.19	Fundamental	Vertical	149	0	--	--	Pass
10	6286.35	55.34	3.30	-8.91	49.73	MaxP	Vertical	145	0	68.2	-18.5	Pass
11	6286.35	41.30	3.30	-8.91	35.69	AVG	Vertical	145	0	54.0	-18.3	Pass
12	6339.57	52.37	3.41	-8.83	46.94	MaxP	Horizontal	136	0	68.2	-21.3	Pass
13	6339.57	39.01	3.41	-8.83	33.59	AVG	Horizontal	136	0	54.0	-20.4	Pass
14	7999.95	50.68	3.91	-7.99	46.59	MaxP	Horizontal	138	147	68.2	-21.6	Pass
15	7999.95	47.81	3.91	-7.99	43.72	AVG	Horizontal	138	147	54.0	-10.3	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

Testing was performed up to 40 GHz, no emissions were found above 18GHz.

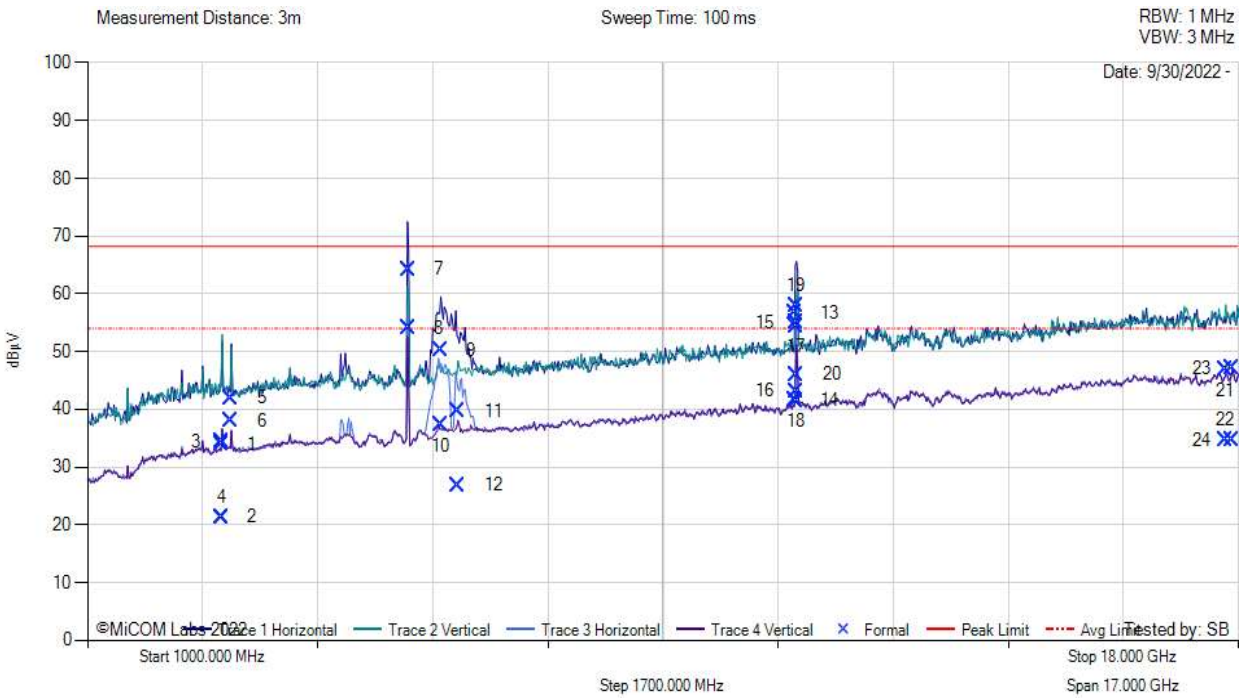
9.4.1.2. RW-9732-4958 5725-5850MHz

Equipment Configuration for FCC Spurious Emissions 1 - 18 GHz			
Antenna:	RW-9732-4958	**Variant:**	20MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4958



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2987.26	40.13	2.20	-11.45	33.89	MaxP	Vertical	110	312	68.2	-34.3	Pass
2	2987.26	27.63	2.20	-11.45	21.39	AVG	Vertical	110	312	54.0	-32.6	Pass
3	2990.49	40.66	2.20	-11.43	34.43	MaxP	Horizontal	140	307	68.2	-33.8	Pass
4	2990.49	27.53	2.20	-11.43	21.31	AVG	Horizontal	140	307	54.0	-32.7	Pass
5	3124.92	48.27	2.23	-11.52	41.99	MaxP	Horizontal	99	330	68.2	-26.2	Pass
6	3124.92	44.36	2.23	-11.52	38.07	AVG	Horizontal	99	330	54.0	-15.9	Pass
7	5741.44	69.10	3.17	-11.06	64.21	Fundamental	Horizontal	141	--	--	--	Pass
8	5741.44	58.96	3.17	-11.06	54.07	Fundamental	Horizontal	141	--	--	--	Pass
9	6220.12	53.18	3.31	-9.32	50.17	MaxP	Horizontal	147	0	68.2	-18.1	Pass
10	6220.12	40.36	3.31	-9.32	37.35	AVG	Horizontal	147	0	54.0	-16.7	Pass
11	6473.87	42.07	3.38	-8.72	39.73	MaxP	Vertical	146	0	68.2	-28.5	Pass
12	6473.87	29.18	3.38	-8.72	26.84	AVG	Vertical	146	0	54.0	-27.2	Pass
13	11453.31	54.28	4.88	-5.53	56.63	MaxP	Horizontal	120	0	68.2	-11.6	Pass
14	11453.31	39.18	4.88	-5.53	41.53	AVG	Horizontal	120	0	54.0	-12.5	Pass
15	11471.28	52.66	4.88	-5.50	55.04	MaxP	Vertical	131	2	68.2	-13.2	Pass
16	11471.28	40.74	4.88	-5.50	43.12	AVG	Vertical	131	2	54.0	-10.9	Pass
17	11473.00	52.06	4.89	-5.53	54.43	MaxP	Vertical	133	1	68.2	-13.8	Pass
18	11473.00	39.07	4.89	-5.53	41.44	AVG	Vertical	133	1	54.0	-12.6	Pass
19	11473.46	55.53	4.89	-5.53	57.89	MaxP	Horizontal	120	0	68.2	-10.3	Pass
20	11473.46	43.66	4.89	-5.53	46.02	AVG	Horizontal	120	0	54.0	-8.0	Pass
21	17814.59	37.64	6.26	-0.02	46.88	MaxP	Vertical	132	0	68.2	-21.4	Pass
22	17814.59	25.34	6.26	-0.02	34.58	AVG	Vertical	132	0	54.0	-19.4	Pass
23	17913.41	36.93	6.72	0.46	47.10	MaxP	Vertical	111	30	68.2	-21.1	Pass
24	17913.41	24.55	6.72	0.46	34.73	AVG	Vertical	111	30	54.0	-19.3	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

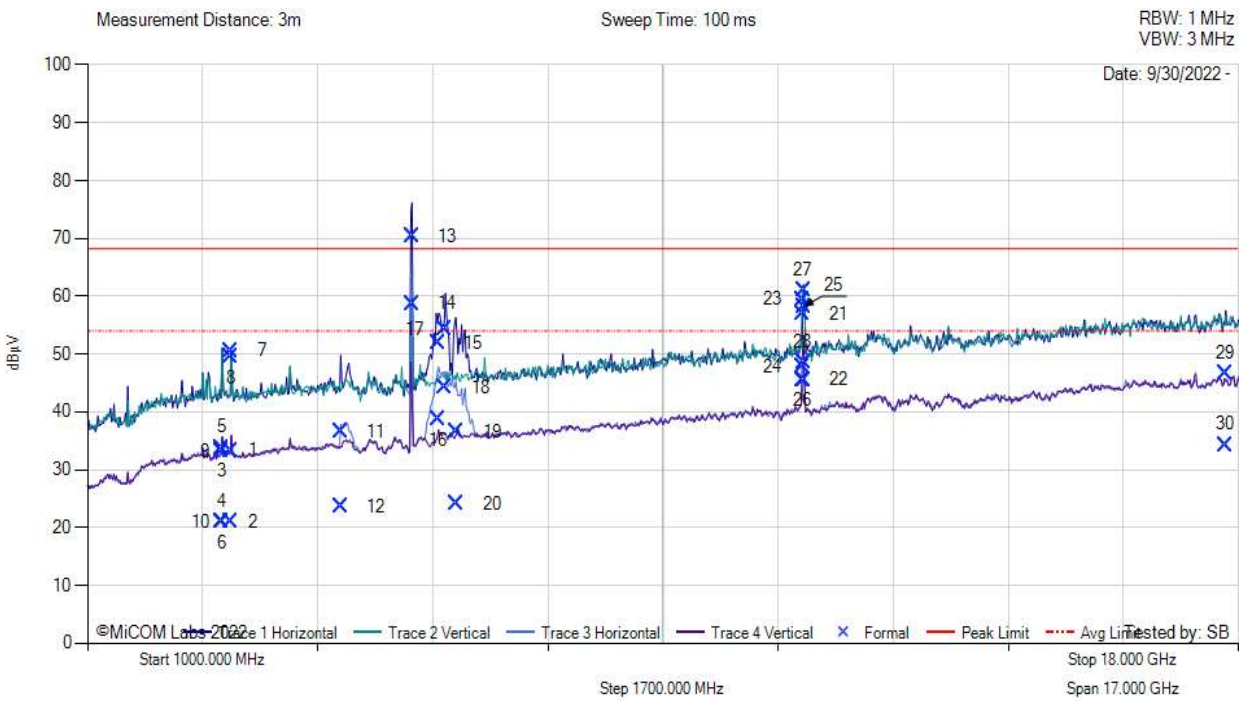
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious Emissions 1 GHz - 18 GHz			
Antenna:	RW-9732-4958	**Variant:**	20MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5785	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4958



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2987.29	39.55	2.20	-11.45	33.31	MaxP	Vertical	114	336	68.2	-34.9	Pass
2	2987.29	27.19	2.20	-11.45	20.95	AVG	Vertical	114	336	54.0	-33.0	Pass
3	2987.92	39.59	2.20	-11.44	33.35	MaxP	Horizontal	127	347	68.2	-34.9	Pass
4	2987.92	27.16	2.20	-11.44	20.92	AVG	Horizontal	127	347	54.0	-33.1	Pass
5	2990.96	40.04	2.20	-11.43	33.81	MaxP	Vertical	99	360	68.2	-34.4	Pass
6	2990.96	27.18	2.20	-11.43	20.95	AVG	Vertical	99	360	54.0	-33.1	Pass
7	3125.01	56.90	2.23	-11.52	50.61	MaxP	Horizontal	148	330	68.2	-17.6	Pass
8	3125.01	55.74	2.23	-11.52	49.45	AVG	Horizontal	148	330	54.0	-4.6	Pass
9	3125.31	39.44	2.23	-11.52	33.16	MaxP	Vertical	143	329	68.2	-35.1	Pass
10	3125.31	27.24	2.23	-11.52	20.95	AVG	Vertical	143	329	54.0	-33.0	Pass
11	4741.98	42.74	2.86	-12.05	36.55	MaxP	Horizontal	144	0	68.2	-31.7	Pass
12	4741.98	29.85	2.86	-12.05	23.66	AVG	Horizontal	144	0	54.0	-30.3	Pass
13	5793.21	74.90	3.17	-10.69	70.38	Fundamental	Horizontal	141	--	--	--	Pass
14	5793.21	63.20	3.17	-10.69	58.69	Fundamental	Horizontal	141	--	--	--	Pass
15	6183.92	54.83	3.34	-9.21	51.97	MaxP	Horizontal	142	0	68.2	-16.3	Pass
16	6183.92	41.58	3.34	-9.21	38.71	AVG	Horizontal	142	0	54.0	-15.3	Pass
17	6286.19	56.90	3.30	-8.91	54.29	MaxP	Horizontal	147	0	68.2	-13.9	Pass
18	6286.19	46.90	3.30	-8.91	44.30	AVG	Horizontal	147	0	54.0	-9.7	Pass
19	6455.32	38.92	3.40	-8.69	36.63	MaxP	Vertical	99	19	68.2	-31.6	Pass
20	6455.32	26.42	3.40	-8.69	24.13	AVG	Vertical	99	19	54.0	-29.9	Pass
21	11572.58	54.96	4.91	-5.94	56.93	MaxP	Vertical	126	0	68.2	-11.3	Pass
22	11572.58	43.54	4.91	-5.94	45.51	AVG	Vertical	126	0	54.0	-8.5	Pass
23	11573.27	57.45	4.92	-5.96	59.41	MaxP	Horizontal	130	0	68.2	-8.8	Pass
24	11573.27	45.90	4.92	-5.96	47.86	AVG	Horizontal	130	0	54.0	-6.1	Pass
25	11574.62	56.30	4.92	-5.99	58.22	MaxP	Vertical	129	0	68.2	-10.0	Pass
26	11574.62	43.60	4.92	-5.99	45.52	AVG	Vertical	129	0	54.0	-8.5	Pass
27	11574.70	59.13	4.92	-5.99	61.05	MaxP	Horizontal	131	0	68.2	-7.2	Pass
28	11574.70	46.69	4.92	-5.99	48.62	AVG	Horizontal	131	0	54.0	-5.4	Pass
29	17814.33	37.36	6.26	-0.03	46.60	MaxP	Horizontal	107	271	68.2	-21.6	Pass
30	17814.33	25.09	6.26	-0.03	34.32	AVG	Horizontal	107	271	54.0	-19.7	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

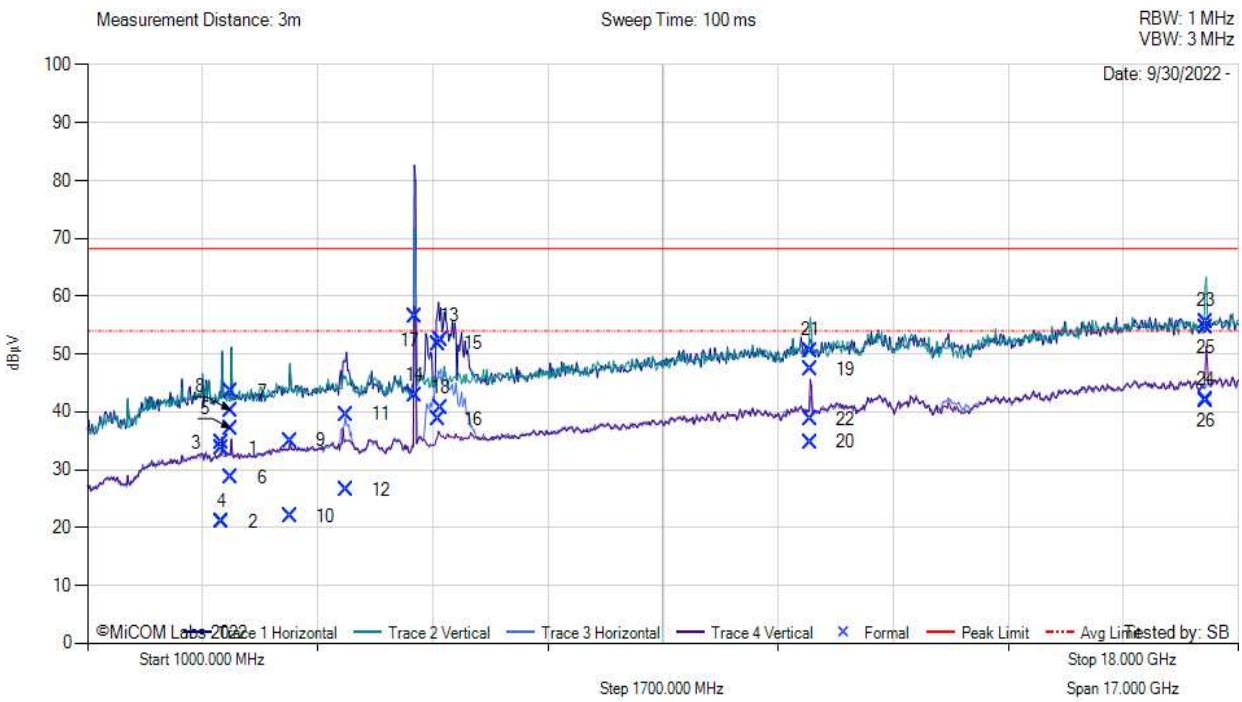
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious Emissions 1 GHz - 18 GHz			
Antenna:	RW-9732-4958	**Variant:**	20MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4958



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2987.30	39.94	2.20	-11.45	33.70	Fundamental	Horizontal	141	--	--	--	Pass
2	2987.30	27.27	2.20	-11.45	21.03	AVG	Horizontal	147	310	54.0	-33.0	Pass
3	2990.49	40.94	2.20	-11.43	34.71	MaxP	Vertical	127	342	68.2	-33.5	Pass
4	2990.49	27.15	2.20	-11.43	20.92	AVG	Vertical	127	342	54.0	-33.1	Pass
5	3125.00	43.35	2.23	-11.52	37.06	MaxP	Vertical	99	306	68.2	-31.2	Pass
6	3125.00	34.88	2.23	-11.52	28.60	AVG	Vertical	99	306	54.0	-25.4	Pass
7	3125.07	49.74	2.23	-11.52	43.45	MaxP	Horizontal	145	66	68.2	-24.8	Pass
8	3125.07	46.53	2.23	-11.52	40.24	AVG	Horizontal	145	66	54.0	-13.8	Pass
9	3990.68	41.09	2.52	-11.57	35.04	MaxP	Vertical	99	312	68.2	-33.2	Pass
10	3990.68	27.96	2.52	-11.57	21.90	AVG	Vertical	99	312	54.0	-32.1	Pass
11	4824.19	45.73	2.90	-12.05	39.58	MaxP	Horizontal	144	2	68.2	-28.6	Pass
12	4824.19	32.64	2.90	-12.05	26.49	AVG	Horizontal	144	2	54.0	-27.5	Pass
13	5829.99	61.09	3.23	-10.70	56.61	Fundamental	Horizontal	141	--	--	--	Pass
14	5829.99	47.25	3.23	-10.70	42.78	Fundamental	Horizontal	141	--	--	--	Pass
15	6183.63	54.66	3.34	-9.21	51.79	MaxP	Horizontal	143	0	68.2	-16.4	Pass
16	6183.63	41.51	3.34	-9.21	38.65	AVG	Horizontal	143	0	54.0	-15.4	Pass
17	6220.32	55.34	3.31	-9.32	52.32	MaxP	Horizontal	140	0	68.2	-15.9	Pass
18	6220.32	43.71	3.31	-9.32	40.69	AVG	Horizontal	140	0	54.0	-13.3	Pass
19	11676.08	45.91	4.94	-6.45	47.40	MaxP	Vertical	121	1	68.2	-20.8	Pass
20	11676.08	33.25	4.94	-6.45	34.74	AVG	Vertical	121	1	54.0	-19.3	Pass
21	11677.44	49.18	4.92	-6.48	50.62	MaxP	Vertical	148	2	68.2	-17.6	Pass
22	11677.44	37.32	4.92	-6.48	38.76	AVG	Vertical	148	2	54.0	-15.2	Pass
23	17523.48	47.69	6.73	-1.85	55.58	MaxP	Vertical	132	0	68.2	-12.7	Pass
24	17523.48	34.16	6.73	-1.85	42.04	AVG	Vertical	132	0	54.0	-12.0	Pass
25	17523.70	46.71	6.74	-1.84	54.61	MaxP	Vertical	132	0	68.2	-13.6	Pass
26	17523.70	34.01	6.74	-1.84	41.91	AVG	Vertical	132	0	54.0	-12.1	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

Testing was performed up to 40 GHz, no emissions were found above 18GHz.

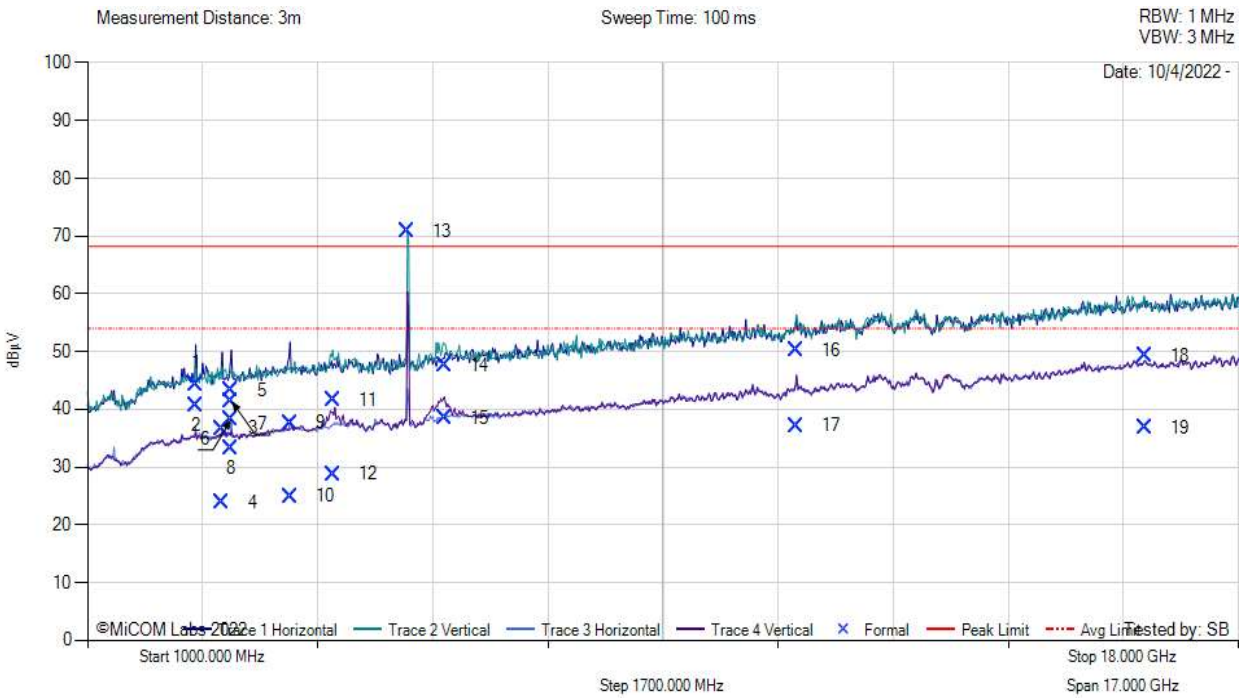
9.4.1.3. RW-9622-5001 5725-5850MHz

Equipment Configuration for FCC Spurious 1 GHZ -18 GHZ			
Antenna:	RW-9622-5001	**Variant:**	20 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9622-5001



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2599.93	47.90	2.07	-11.65	44.32	MaxP	Horizontal	99	212	68.2	-23.9	Pass
2	2599.93	44.30	2.07	-11.65	40.72	AVG	Horizontal	99	212	54.0	-13.3	Pass
3	2989.85	39.93	2.20	-11.43	36.70	MaxP	Horizontal	103	202	68.2	-31.5	Pass
4	2989.85	27.15	2.20	-11.43	23.91	AVG	Horizontal	103	202	54.0	-30.1	Pass
5	3125.08	46.52	2.23	-11.52	43.23	MaxP	Horizontal	105	152	68.2	-25.0	Pass
6	3125.08	41.65	2.23	-11.52	38.37	AVG	Horizontal	105	152	54.0	-15.6	Pass
7	3125.10	44.79	2.23	-11.52	41.50	MaxP	Horizontal	128	162	68.2	-26.7	Pass
8	3125.10	36.65	2.23	-11.52	33.36	AVG	Horizontal	128	162	54.0	-20.6	Pass
9	3993.02	40.70	2.51	-11.58	37.63	MaxP	Horizontal	125	181	68.2	-30.6	Pass
10	3993.02	28.05	2.51	-11.58	24.98	AVG	Horizontal	125	181	54.0	-29.0	Pass
11	4621.04	44.80	2.77	-11.96	41.60	MaxP	Vertical	140	0	68.2	-26.6	Pass
12	4621.04	32.02	2.77	-11.96	28.82	AVG	Vertical	140	0	54.0	-25.2	Pass
13	5726.00	72.42	3.21	34.35	70.86	Fundamental	Vertical	149	--	--	--	Pass
14	6269.74	47.10	3.32	-8.82	47.61	MaxP	Vertical	142	0	68.2	-20.6	Pass
15	6269.74	37.91	3.32	-8.82	38.42	AVG	Vertical	142	0	54.0	-15.6	Pass
16	11472.10	44.89	4.89	-5.51	50.27	MaxP	Vertical	108	177	68.2	-18.0	Pass
17	11472.10	31.83	4.89	-5.51	37.20	AVG	Vertical	108	177	54.0	-16.8	Pass
18	16621.27	37.78	6.43	-0.97	49.25	MaxP	Vertical	121	146	68.2	-19.0	Pass
19	16621.27	25.41	6.43	-0.97	36.88	AVG	Vertical	121	146	54.0	-17.1	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

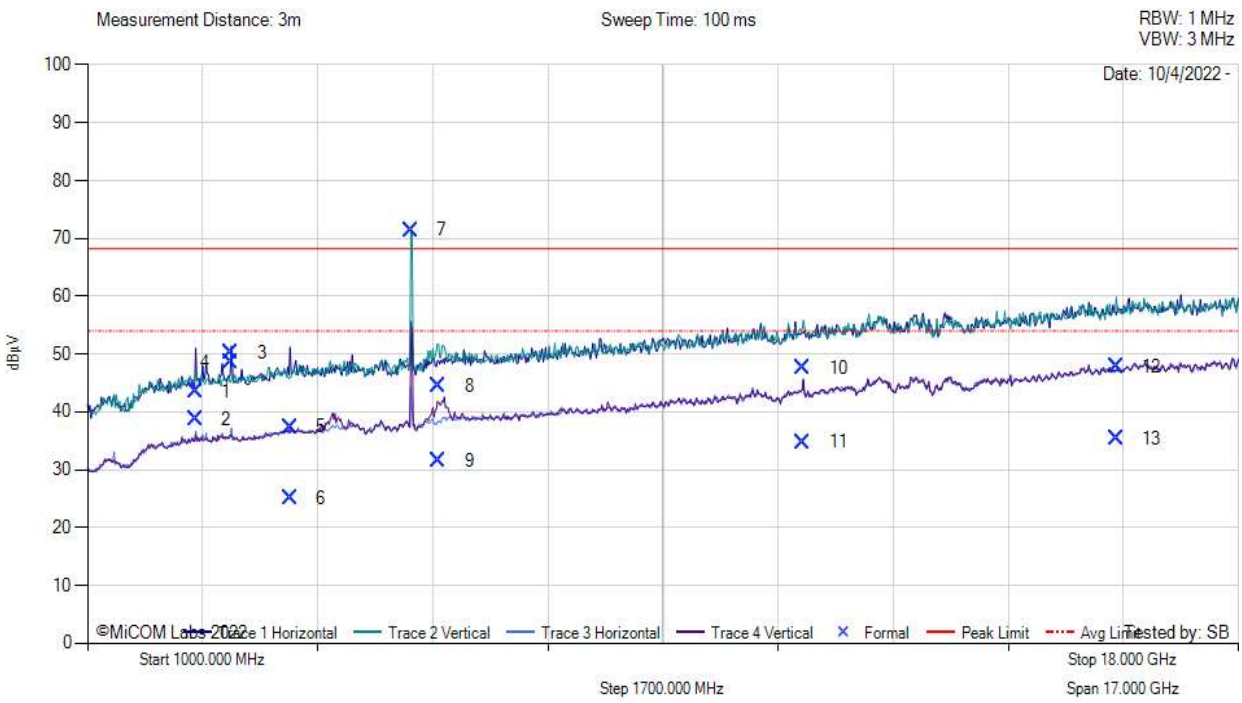
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHz -18 GHz			
Antenna:	RW-9622-5001	**Variant:**	20 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5785	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9622-5001



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2599.92	47.02	2.07	-11.65	43.44	MaxP	Horizontal	108	200	68.2	-24.8	Pass
2	2599.92	42.34	2.07	-11.65	38.76	AVG	Horizontal	108	200	54.0	-15.2	Pass
3	3125.02	53.58	2.23	-11.52	50.29	MaxP	Horizontal	109	150	68.2	-17.9	Pass
4	3125.02	51.77	2.23	-11.52	48.48	AVG	Horizontal	109	150	54.0	-5.5	Pass
5	3991.93	40.44	2.52	-11.57	37.38	MaxP	Horizontal	117	178	68.2	-30.9	Pass
6	3991.93	28.05	2.52	-11.57	24.99	AVG	Horizontal	117	178	54.0	-29.0	Pass
7	5777.00	73.35	3.19	34.44	71.39	Fundamental	Vertical	149	--	--	--	Pass
8	6186.55	44.42	3.35	-9.22	44.55	MaxP	Vertical	135	0	68.2	-23.7	Pass
9	6186.55	31.46	3.35	-9.22	31.59	AVG	Vertical	135	0	54.0	-22.4	Pass
10	11572.86	42.65	4.92	-5.95	47.62	MaxP	Vertical	128	122	68.2	-20.6	Pass
11	11572.86	29.77	4.92	-5.95	34.74	AVG	Vertical	128	122	54.0	-19.3	Pass
12	16199.96	37.47	5.91	-1.53	47.85	MaxP	Vertical	99	225	68.2	-20.4	Pass
13	16199.96	25.07	5.91	-1.53	35.44	AVG	Vertical	99	225	54.0	-18.6	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

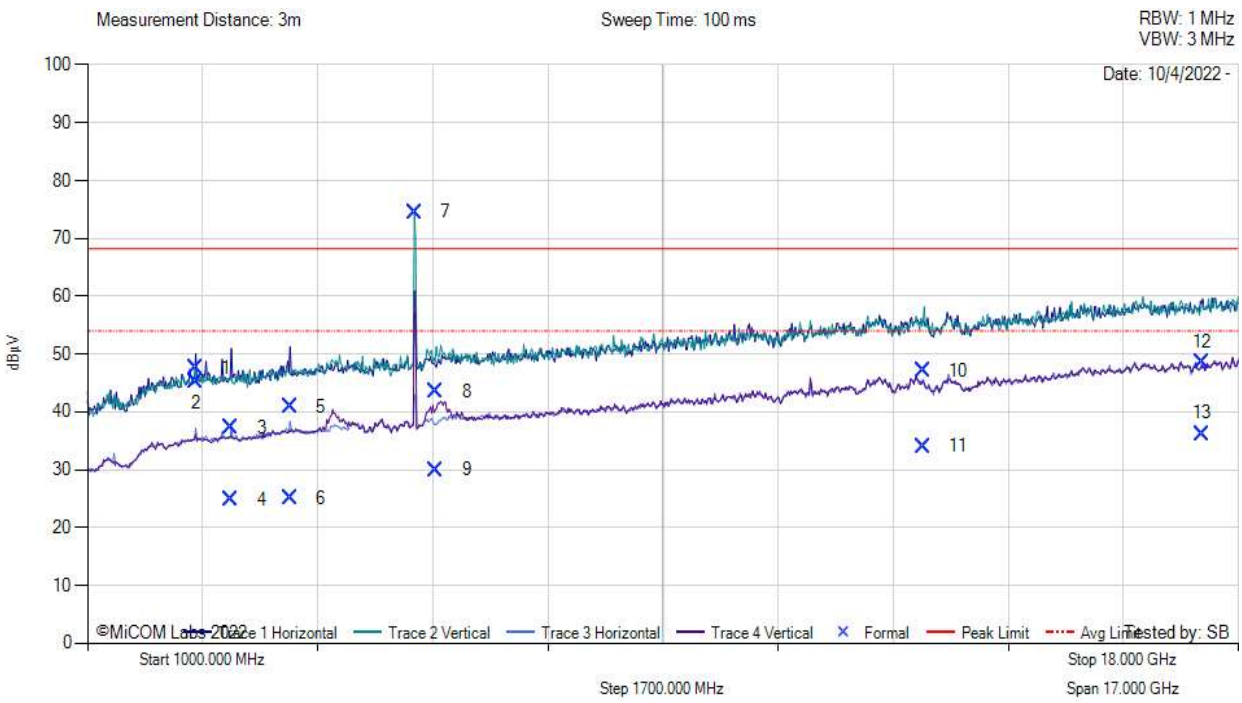
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHz -18 GHz			
Antenna:	RW-9622-5001	**Variant:**	20 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9622-5001



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2599.95	51.18	2.07	-11.65	47.60	MaxP	Horizontal	106	200	68.2	-20.6	Pass
2	2599.95	48.79	2.07	-11.65	45.21	AVG	Horizontal	106	200	54.0	-8.8	Pass
3	3125.13	40.53	2.23	-11.52	37.24	MaxP	Horizontal	99	170	68.2	-31.0	Pass
4	3125.13	28.12	2.23	-11.52	24.83	AVG	Horizontal	99	170	54.0	-29.2	Pass
5	3992.84	43.98	2.51	-11.58	40.91	MaxP	Horizontal	132	177	68.2	-27.3	Pass
6	3992.84	28.10	2.51	-11.58	25.03	AVG	Horizontal	132	177	54.0	-29.0	Pass
7	5828.00	75.93	3.23	34.57	74.50	Fundamental	Vertical	149	--	--	--	Pass
8	6151.61	43.84	3.26	-9.64	43.46	MaxP	Vertical	145	0	68.2	-24.8	Pass
9	6151.61	30.34	3.26	-9.64	29.96	AVG	Vertical	145	0	54.0	-24.0	Pass
10	13341.93	42.98	5.27	-7.11	47.14	MaxP	Vertical	141	80	68.2	-21.1	Pass
11	13341.93	29.87	5.27	-7.11	34.03	AVG	Vertical	141	80	54.0	-20.0	Pass
12	17471.09	37.54	6.31	-1.34	48.52	MaxP	Horizontal	104	270	68.2	-19.7	Pass
13	17471.09	25.22	6.31	-1.34	36.20	AVG	Horizontal	104	270	54.0	-17.8	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

Testing was performed up to 40 GHz, no emissions were found above 18GHz.

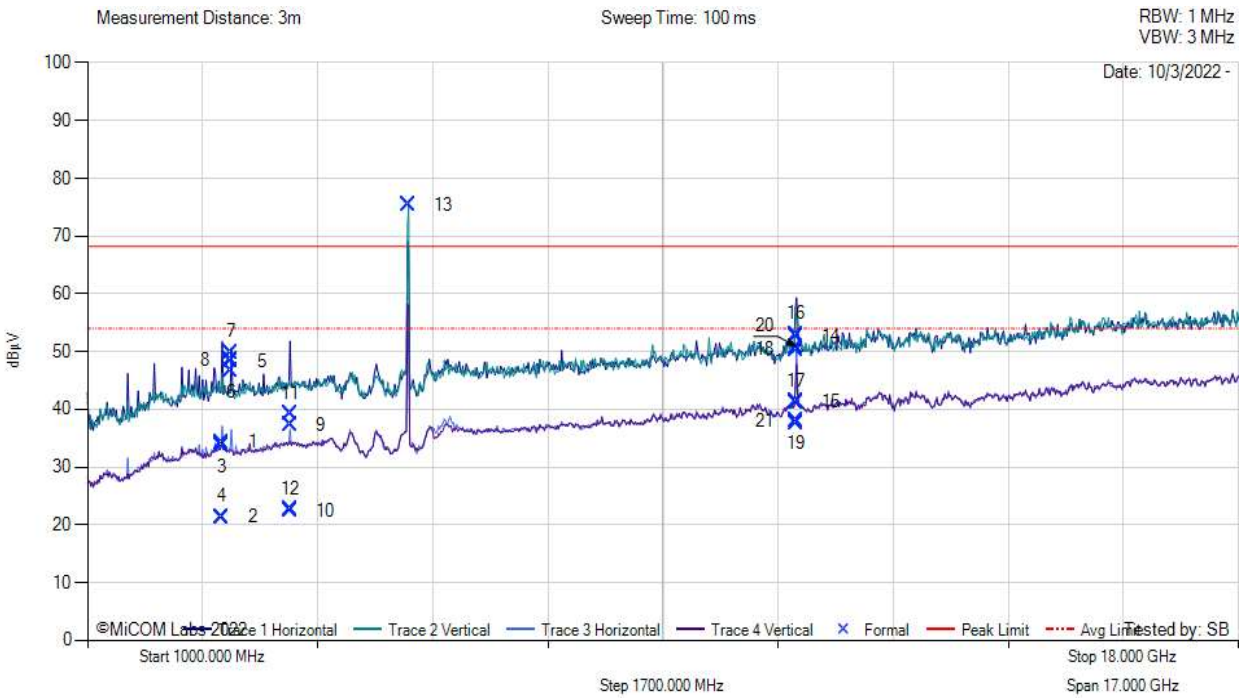
9.4.1.4. RW-9732-4965 5725-5850MHz

Equipment Configuration for FCC Spurious 1 GHz-18 GHz			
Antenna:	RW-9732-4965	**Variant:**	20 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5765.0	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4965



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2989.79	40.56	2.20	-11.43	34.33	MaxP	Horizontal	108	234	68.2	-33.9	Pass
2	2989.79	27.57	2.20	-11.43	21.34	AVG	Horizontal	108	234	54.0	-32.7	Pass
3	2989.90	39.98	2.20	-11.43	33.75	MaxP	Horizontal	142	215	68.2	-34.5	Pass
4	2989.90	27.63	2.20	-11.43	21.40	AVG	Horizontal	142	215	54.0	-32.6	Pass
5	3125.02	54.57	2.23	-11.52	48.28	MaxP	Horizontal	99	216	68.2	-19.9	Pass
6	3125.02	52.92	2.23	-11.52	46.63	AVG	Horizontal	99	216	54.0	-7.4	Pass
7	3125.03	56.16	2.23	-11.52	49.87	MaxP	Horizontal	103	144	68.2	-18.4	Pass
8	3125.03	54.85	2.23	-11.52	48.56	AVG	Horizontal	103	144	54.0	-5.4	Pass
9	3991.85	43.37	2.52	-11.57	37.32	MaxP	Horizontal	147	152	68.2	-30.9	Pass
10	3991.85	28.50	2.52	-11.57	22.45	AVG	Horizontal	147	152	54.0	-31.6	Pass
11	3991.93	45.23	2.52	-11.57	39.17	MaxP	Horizontal	145	125	68.2	-29.1	Pass
12	3991.93	28.69	2.52	-11.57	22.64	AVG	Horizontal	145	125	54.0	-31.4	Pass
13	5743.00	80.26	3.17	34.36	75.33	Fundamental	Vertical	100	--	--	--	Pass
14	11470.10	50.25	4.88	-5.48	52.64	MaxP	Horizontal	146	119	68.2	-15.6	Pass
15	11470.10	38.81	4.88	-5.48	41.21	AVG	Horizontal	146	119	54.0	-12.8	Pass
16	11470.32	50.59	4.88	-5.49	52.99	MaxP	Horizontal	149	114	68.2	-15.2	Pass
17	11470.32	38.97	4.88	-5.49	41.37	AVG	Horizontal	149	114	54.0	-12.6	Pass
18	11470.40	47.97	4.88	-5.49	50.37	MaxP	Vertical	115	0	68.2	-17.9	Pass
19	11470.40	35.26	4.88	-5.49	37.65	AVG	Vertical	115	0	54.0	-16.3	Pass
20	11472.74	48.48	4.89	-5.52	50.85	MaxP	Vertical	114	0	68.2	-17.4	Pass
21	11472.74	35.65	4.89	-5.52	38.02	AVG	Vertical	114	0	54.0	-16.0	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

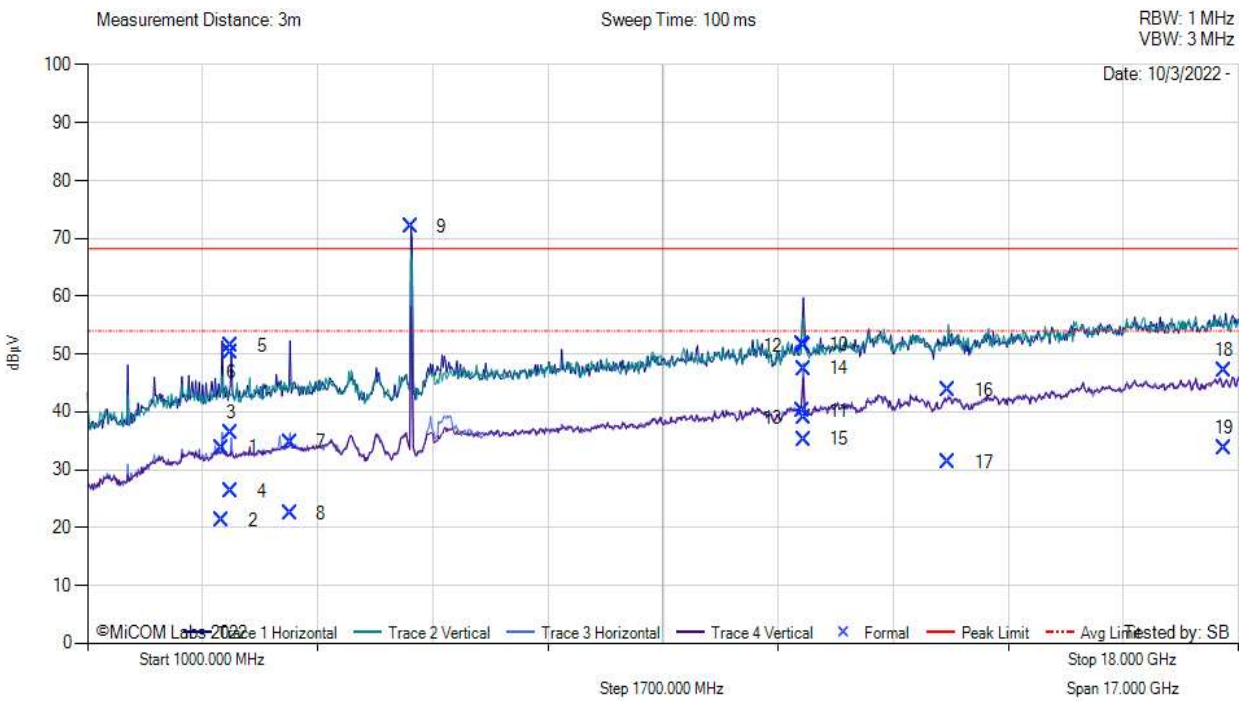
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHz - 18 GHz			
Antenna:	RW-9732-4965	**Variant:**	20 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5785.0	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4965



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2990.27	40.04	2.20	-11.43	33.81	MaxP	Horizontal	117	235	68.2	-34.4	Pass
2	2990.27	27.52	2.20	-11.43	21.29	AVG	Horizontal	117	235	54.0	-32.7	Pass
3	3124.88	42.67	2.23	-11.52	36.38	MaxP	Horizontal	100	141	68.2	-31.8	Pass
4	3124.88	32.59	2.23	-11.52	26.30	AVG	Horizontal	100	141	54.0	-27.7	Pass
5	3124.99	57.71	2.23	-11.52	51.42	MaxP	Horizontal	104	143	68.2	-16.8	Pass
6	3124.99	56.62	2.23	-11.52	50.34	AVG	Horizontal	104	143	54.0	-3.7	Pass
7	3991.36	40.81	2.52	-11.57	34.76	MaxP	Horizontal	103	201	68.2	-33.5	Pass
8	3991.36	28.44	2.52	-11.57	22.39	AVG	Horizontal	103	201	54.0	-31.6	Pass
9	5777.00	77.05	3.19	34.44	72.09	Fundamental	Horizontal	100	--	--	--	Pass
10	11572.07	49.71	4.91	-5.93	51.68	MaxP	Horizontal	147	118	68.2	-16.5	Pass
11	11572.07	38.25	4.91	-5.93	40.23	AVG	Horizontal	147	118	54.0	-13.8	Pass
12	11574.78	49.49	4.92	-5.99	51.41	MaxP	Horizontal	147	114	68.2	-16.8	Pass
13	11574.78	36.99	4.92	-5.99	38.91	AVG	Horizontal	147	114	54.0	-15.1	Pass
14	11575.98	45.51	4.91	-6.00	47.43	MaxP	Vertical	113	0	68.2	-20.8	Pass
15	11575.98	33.36	4.91	-6.00	35.27	AVG	Vertical	113	0	54.0	-18.7	Pass
16	13717.43	42.28	5.45	-6.94	43.79	MaxP	Vertical	135	269	68.2	-24.4	Pass
17	13717.43	29.74	5.45	-6.94	31.25	AVG	Vertical	135	269	54.0	-22.8	Pass
18	17794.68	38.30	6.57	-0.68	47.19	MaxP	Horizontal	126	151	68.2	-21.0	Pass
19	17794.68	24.81	6.57	-0.68	33.70	AVG	Horizontal	126	151	54.0	-20.3	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

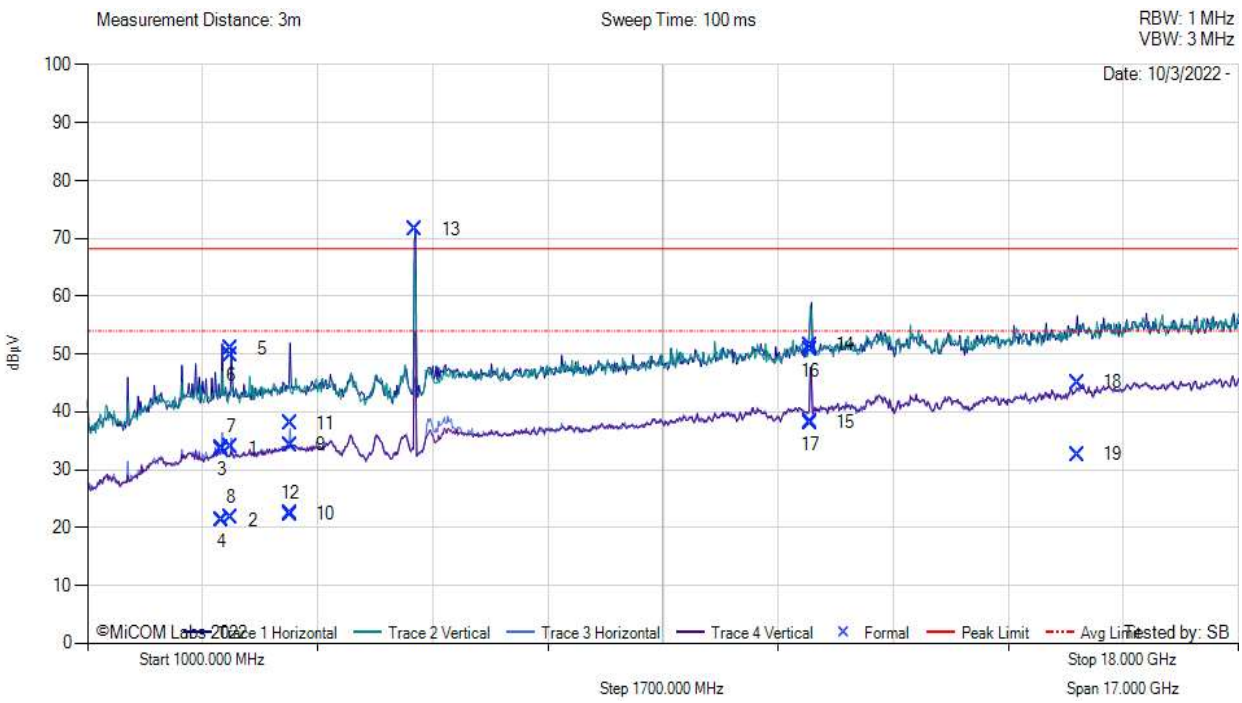
Testing was performed up to 40 GHz, no emissions were found above 18GHz.

Equipment Configuration for FCC Spurious 1 GHz-18 GHz			
Antenna:	RW-9732-4965	**Variant:**	20 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5810.0	**Data Rate:**	8.6
Power Setting:	25.5	**Tested By:**	SB

Test Measurement Results

FCC Spurious 1 GHz -18 GHz

Antenna: RW-9732-4965



1 GHz – 18 GHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	2989.79	39.95	2.20	-11.43	33.72	MaxP	Horizontal	99	221	68.2	-34.5	Pass
2	2989.79	27.47	2.20	-11.43	21.24	AVG	Horizontal	99	221	54.0	-32.8	Pass
3	2990.88	39.81	2.20	-11.43	33.58	MaxP	Horizontal	144	221	68.2	-34.7	Pass
4	2990.88	27.43	2.20	-11.43	21.20	AVG	Horizontal	144	221	54.0	-32.8	Pass
5	3125.01	57.25	2.23	-11.52	50.97	MaxP	Horizontal	104	141	68.2	-17.3	Pass
6	3125.01	56.16	2.23	-11.52	49.87	AVG	Horizontal	104	141	54.0	-4.1	Pass
7	3125.14	40.26	2.23	-11.52	33.97	MaxP	Horizontal	104	142	68.2	-34.3	Pass
8	3125.14	27.96	2.23	-11.52	21.67	AVG	Horizontal	104	142	54.0	-32.3	Pass
9	3991.66	40.34	2.52	-11.57	34.29	MaxP	Horizontal	131	150	68.2	-33.9	Pass
10	3991.66	28.39	2.52	-11.57	22.33	AVG	Horizontal	131	150	54.0	-31.7	Pass
11	3993.86	44.14	2.51	-11.57	38.08	MaxP	Horizontal	121	203	68.2	-30.2	Pass
12	3993.86	28.53	2.51	-11.57	22.47	AVG	Horizontal	121	203	54.0	-31.5	Pass
13	5845.00	76.34	3.18	34.61	71.53	Fundamental	Horizontal	100	--	--	--	Pass
14	11676.14	50.08	4.94	-6.45	51.57	MaxP	Vertical	110	0	68.2	-16.7	Pass
15	11676.14	36.76	4.94	-6.45	38.25	AVG	Vertical	110	0	54.0	-15.8	Pass
16	11676.32	49.15	4.93	-6.45	50.63	MaxP	Vertical	110	0	68.2	-17.6	Pass
17	11676.32	36.51	4.93	-6.45	38.00	AVG	Vertical	110	0	54.0	-16.0	Pass
18	15618.20	38.54	5.57	-2.06	45.06	MaxP	Horizontal	99	319	68.2	-23.2	Pass
19	15618.20	26.10	5.57	-2.06	32.61	AVG	Horizontal	99	319	54.0	-21.4	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

Testing was performed up to 40 GHz, no emissions were found above 18GHz.

9.4.2. Restricted Edge & Band-Edge Emissions

9.4.2.5. MR0248310 5725-5850MHz

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5725 - 5850 MHz

MR0248310		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5735.00	5725.00	67.44	66.64	14.0
40MHz	5745.00	5725.00	67.24	67.98	14.0
80MHz	5765.00	5725.00	71.22	72.97	14.0

MR0248310		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5840.00	5850.00	67.72	68.03	15.0
40MHz	5830.00	5850.00	67.22	67.83	15.0
80MHz	5810.00	5850.00	67.59	67.34	14.0

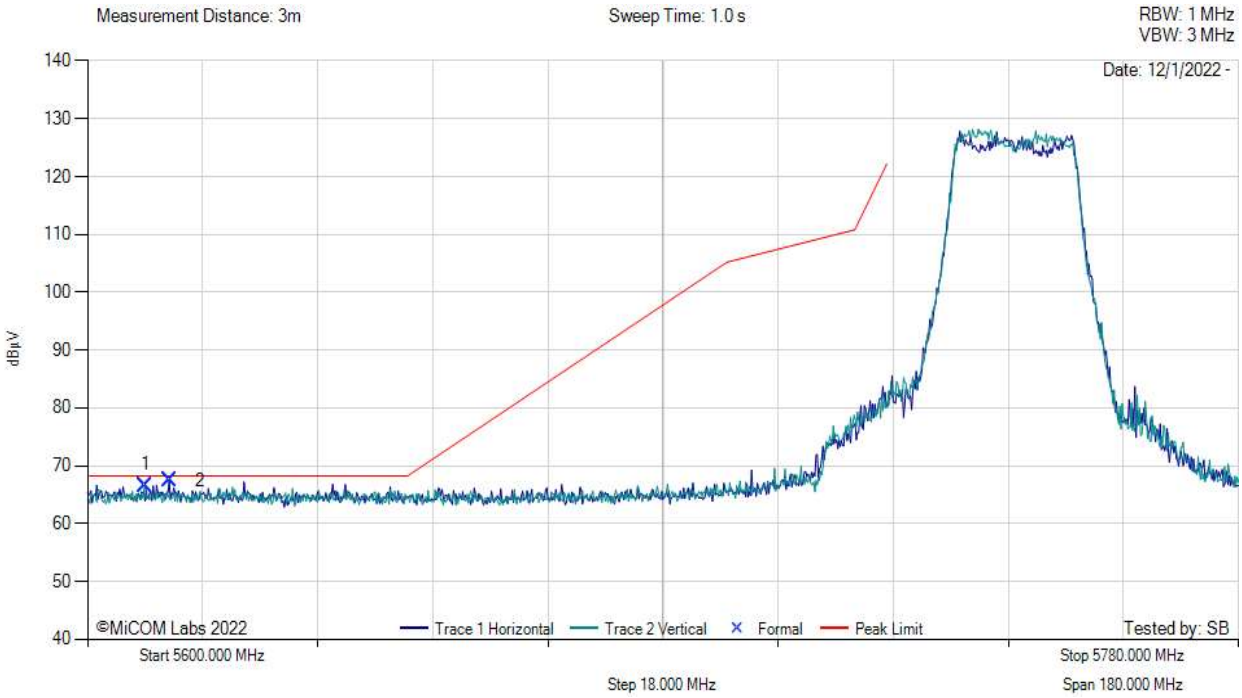
Click on the links to view the data.

Equipment Configuration for BE 5725 MHz			
Antenna:	MR0284310	**Variant:**	20MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745	**Data Rate:**	8.6
Power Setting:	14	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: MR0284310



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5609.00	31.24	3.16	34.23	66.64	MaxP	Vertical	149	0	68.2	-1.6	Pass
2	5612.78	32.05	3.17	34.22	67.44	MaxP	Horizontal	149	0	68.2	-0.8	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

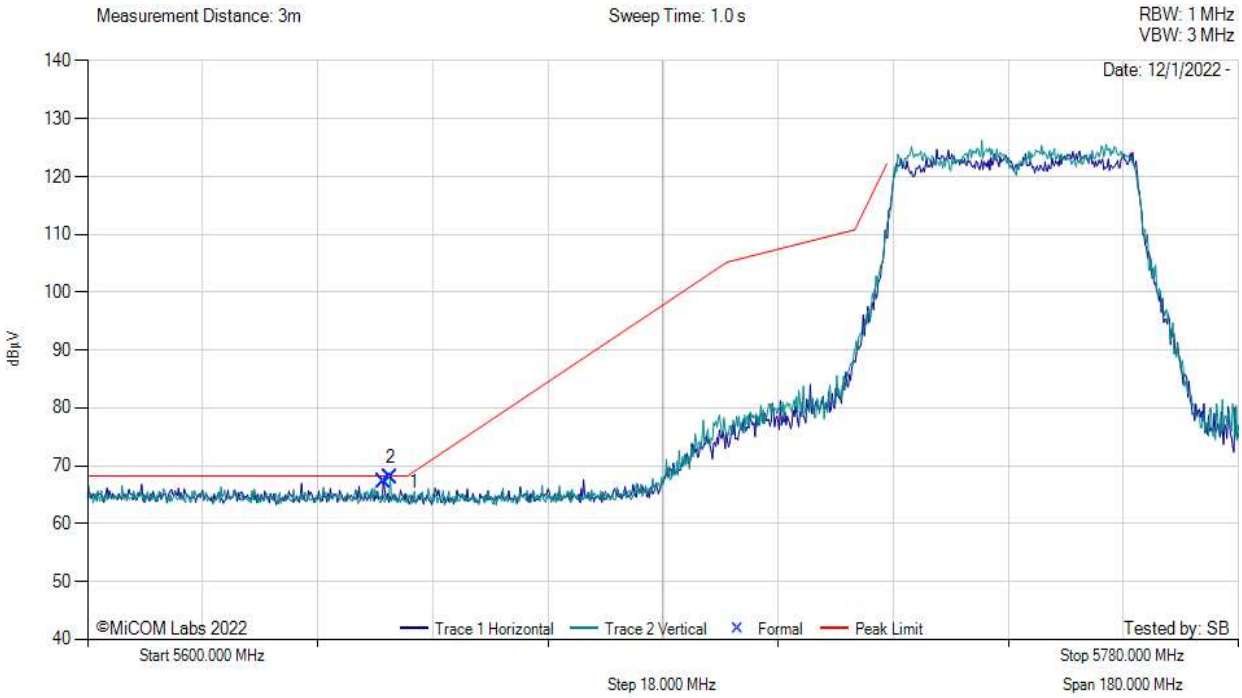
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	MR0284310	**Variant:**	40MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745	**Data Rate:**	17.2
Power Setting:	14	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: MR0284310



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5646.26	31.88	3.18	34.18	67.24	MaxP	Horizontal	149	0	68.2	-1.0	Pass
2	5647.34	32.63	3.17	34.18	67.98	MaxP	Vertical	149	0	68.2	-0.2	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

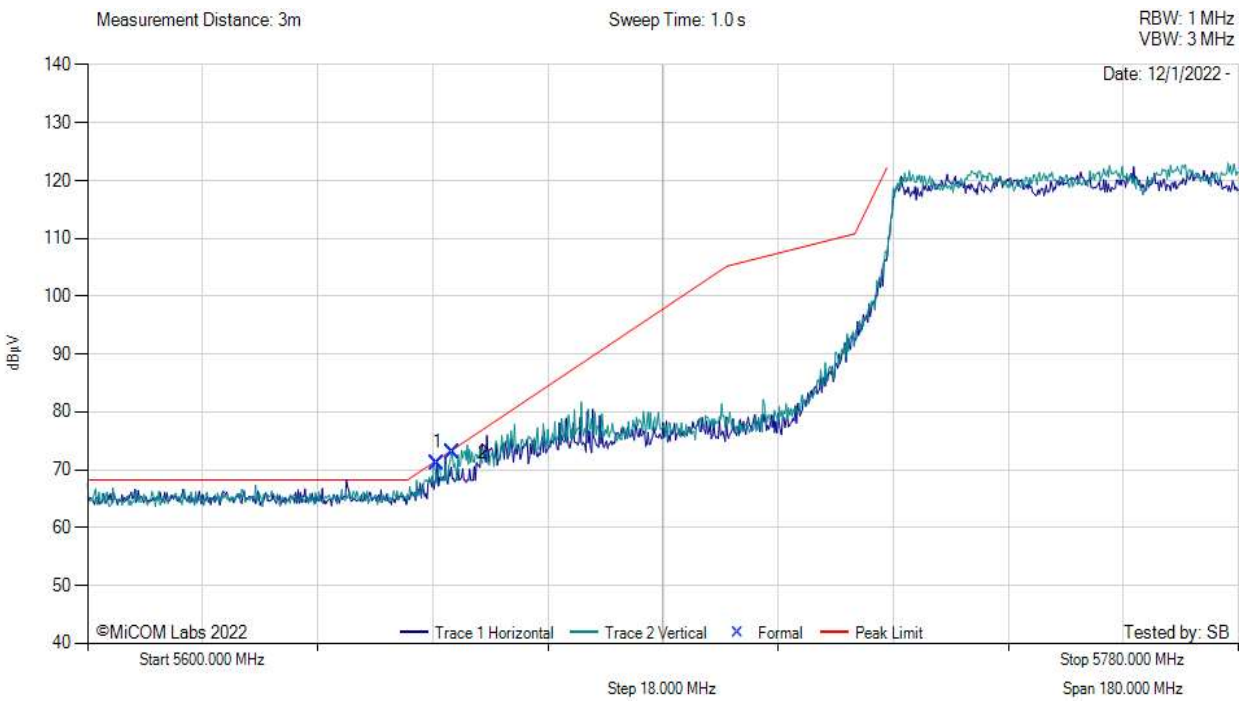
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	MR0284310	**Variant:**	80MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5765	**Data Rate:**	36.0
Power Setting:	14	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: MR0284310



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5654.72	35.91	3.12	34.19	71.22	MaxP	Horizontal	149	0	71.7	-0.5	Pass
2	5657.06	37.64	3.12	34.20	72.97	MaxP	Vertical	149	0	73.5	-0.5	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

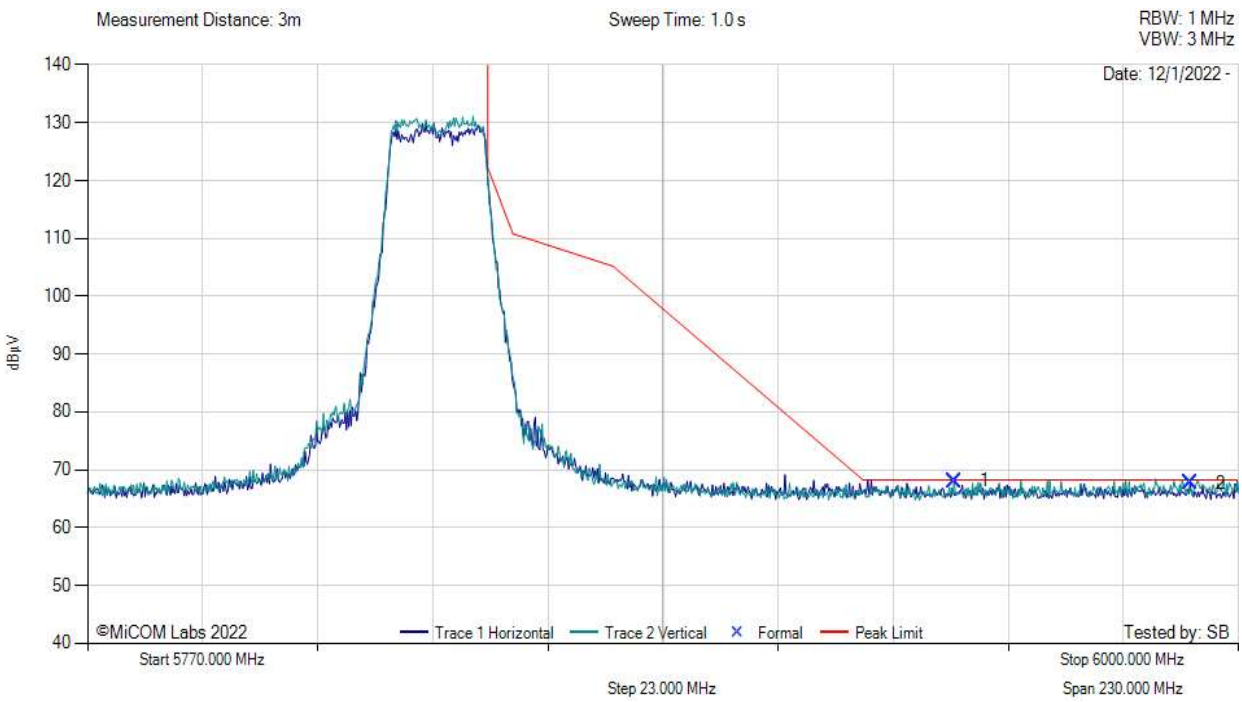
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	MR0284310	**Variant:**	20MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	15	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: MR0284310



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5943.19	30.95	3.22	34.86	68.03	MaxP	Vertical	149	0	68.2	-0.2	Pass
2	5990.34	30.56	3.22	34.93	67.72	MaxP	Horizontal	149	0	68.2	-0.5	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

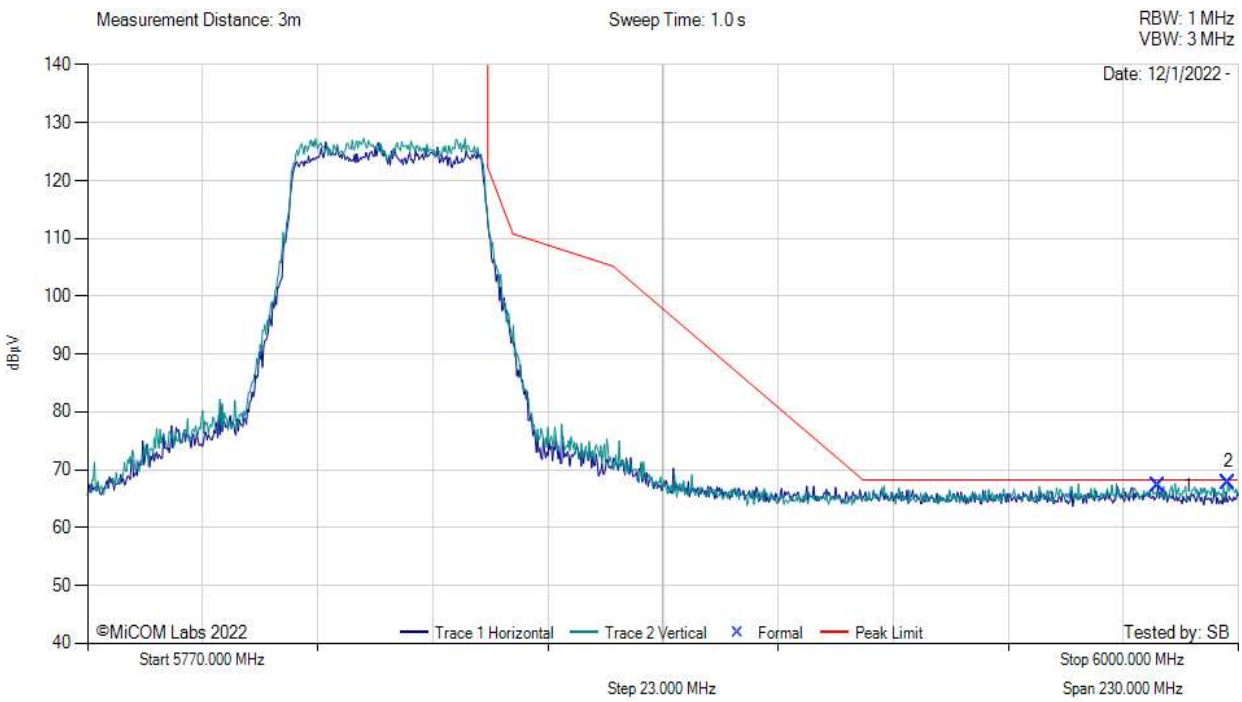
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	MR0284310	**Variant:**	40MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5830	**Data Rate:**	17.2
Power Setting:	15	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: MR0284310



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5983.90	31.04	3.26	34.92	67.22	MaxP	Horizontal	149	0	68.2	-1.0	Pass
2	5997.93	31.68	3.21	34.94	67.83	MaxP	Vertical	149	0	68.2	-0.4	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

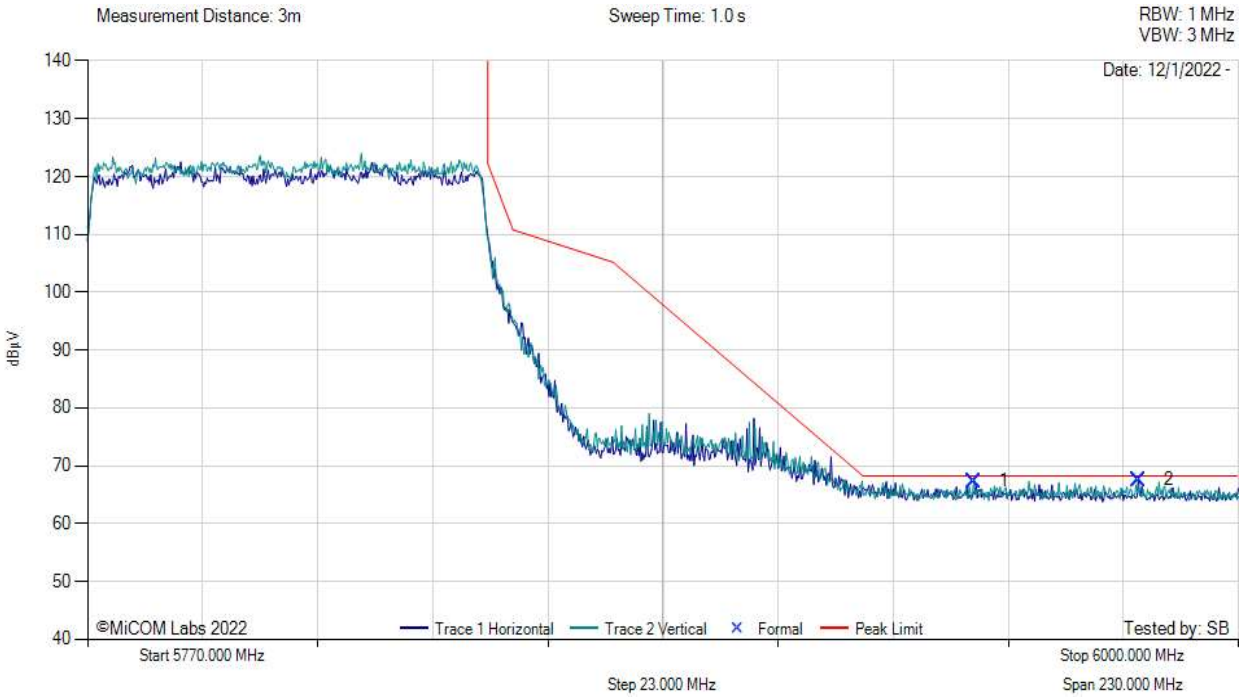
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	MR0284310	**Variant:**	80MHz
Antenna Gain (dBi):	24	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5810	**Data Rate:**	36.00
.00Power Setting:	14	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: MR0284310



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5947.10	31.22	3.24	34.87	67.34	MaxP	Vertical	149	0	68.2	-0.9	Pass
2	5979.99	31.42	3.25	34.92	67.59	MaxP	Horizontal	149	0	68.2	-0.6	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

back to matrix

9.4.2.6. RW-9732-4958 5725-5850MHz

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5725 - 5850 MHz

RW-9732-4958		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5735.00	5725.00	66.57	68.09	10.5
40MHz	5745.00	5725.00	68.21	64.83	8.5
80MHz	5765.00	5725.00	67.60	66.29	7.0

RW-9732-4958		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5840.00	5850.00	66.95	68.06	10.5
40MHz	5830.00	5850.00	68.00	67.99	8.0
80MHz	5810.00	5850.00	68.07	65.36	6.0

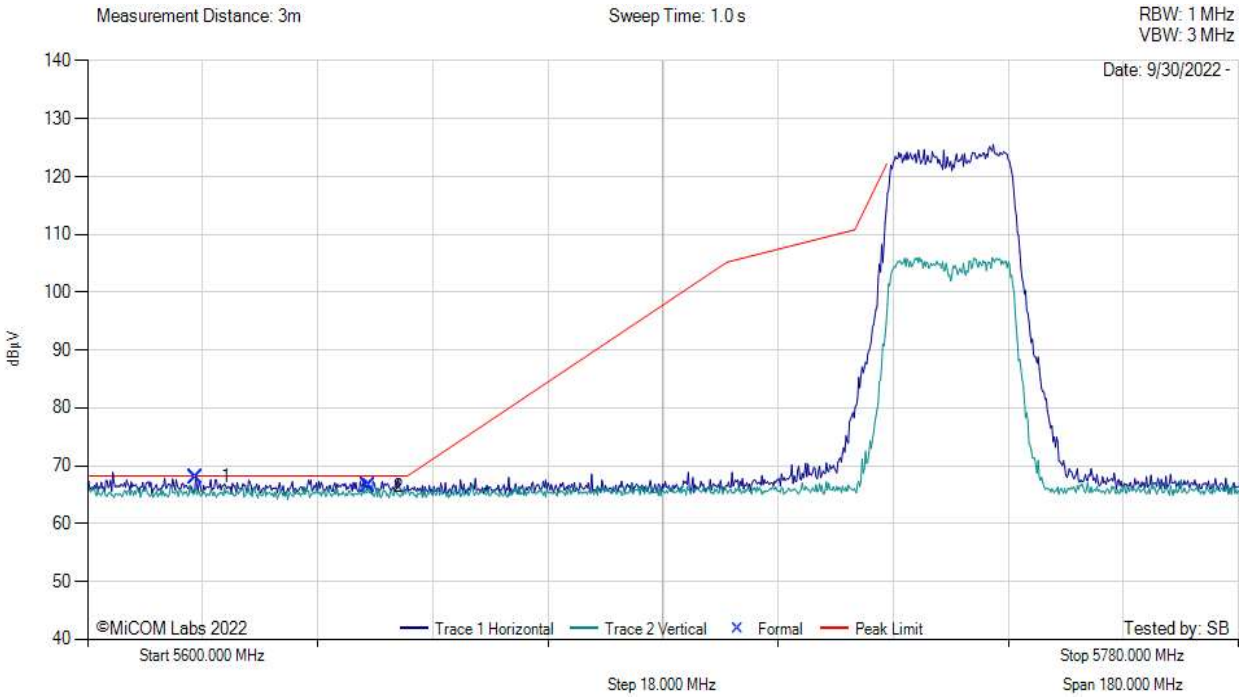
Click on the links to view the data.

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4958	**Variant:**	20MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	10.5	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4958



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5616.92	30.70	3.18	34.22	68.09	MaxP	Horizontal	149	0	68.2	-0.1	Pass
2	5643.92	29.18	3.21	34.18	66.57	MaxP	Vertical	149	89	68.2	-1.7	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

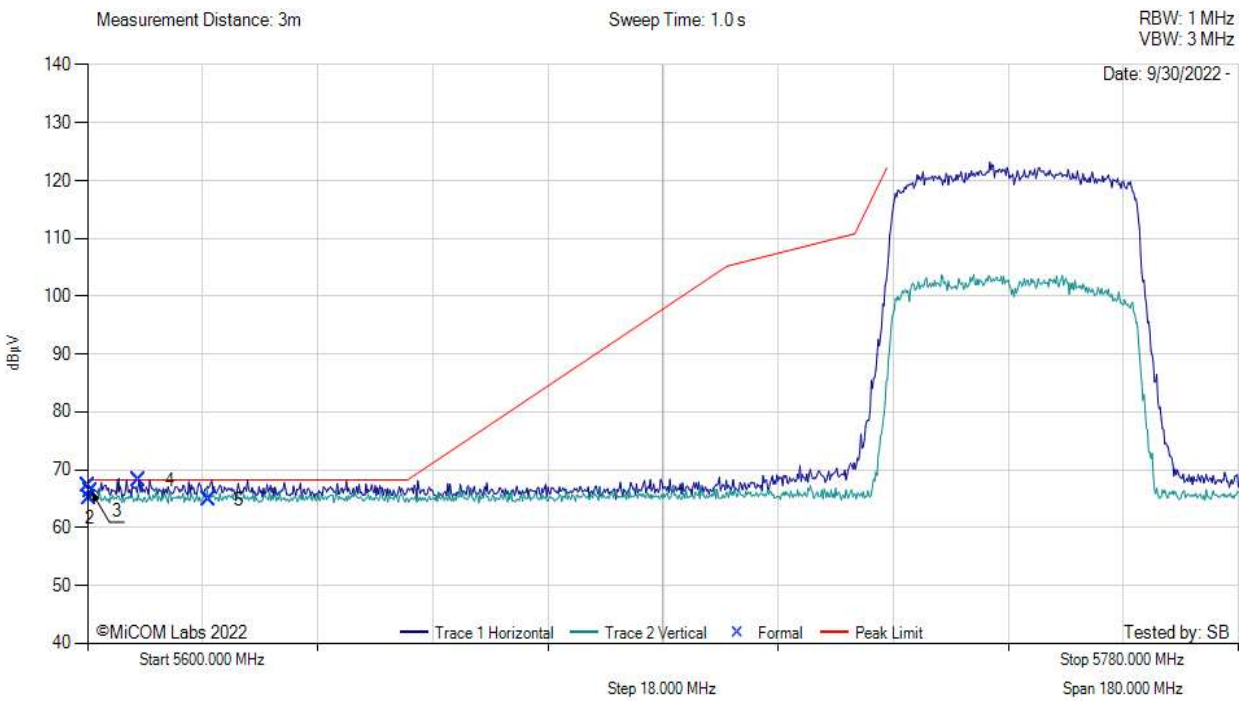
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4958	**Variant:**	40MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745	**Data Rate:**	17.2
Power Setting:	8.5	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4958



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5600.00	29.85	3.12	34.24	67.21	MaxP	Horizontal	149	0	68.2	-1.0	Pass
2	5600.36	27.81	3.12	34.24	65.16	MaxP	Horizontal	149	0	68.2	-3.1	Pass
3	5600.54	28.98	3.12	34.23	66.34	MaxP	Horizontal	149	0	68.2	-1.9	Pass
4	5608.10	30.82	3.16	34.23	68.21	MaxP	Horizontal	149	0	68.2	0.0	Pass
5	5618.90	27.44	3.18	34.21	64.83	MaxP	Vertical	149	270	68.2	-3.4	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

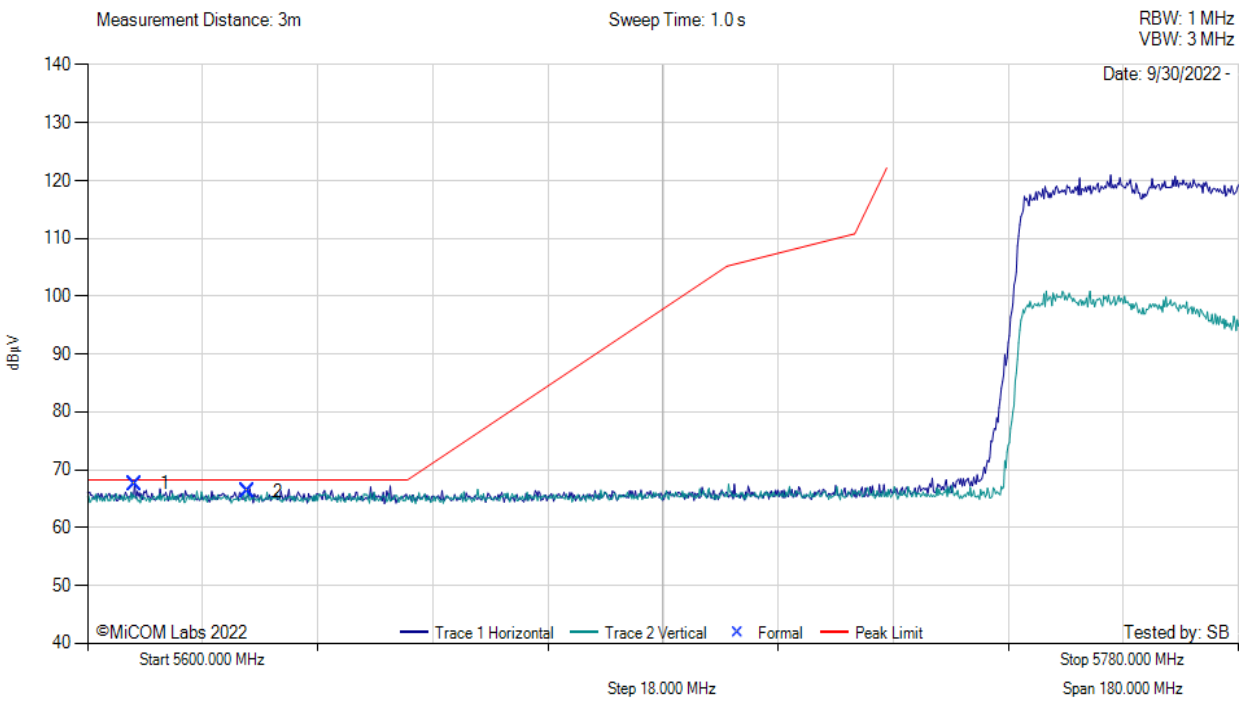
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4958	**Variant:**	80MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5765	**Data Rate:**	36
Power Setting:	7.0	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4958



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5607.38	30.21	3.16	34.23	67.60	MaxP	Horizontal	149	0	68.2	-0.6	Pass
2	5625.02	28.92	3.16	34.21	66.29	MaxP	Vertical	149	119	68.2	-1.9	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

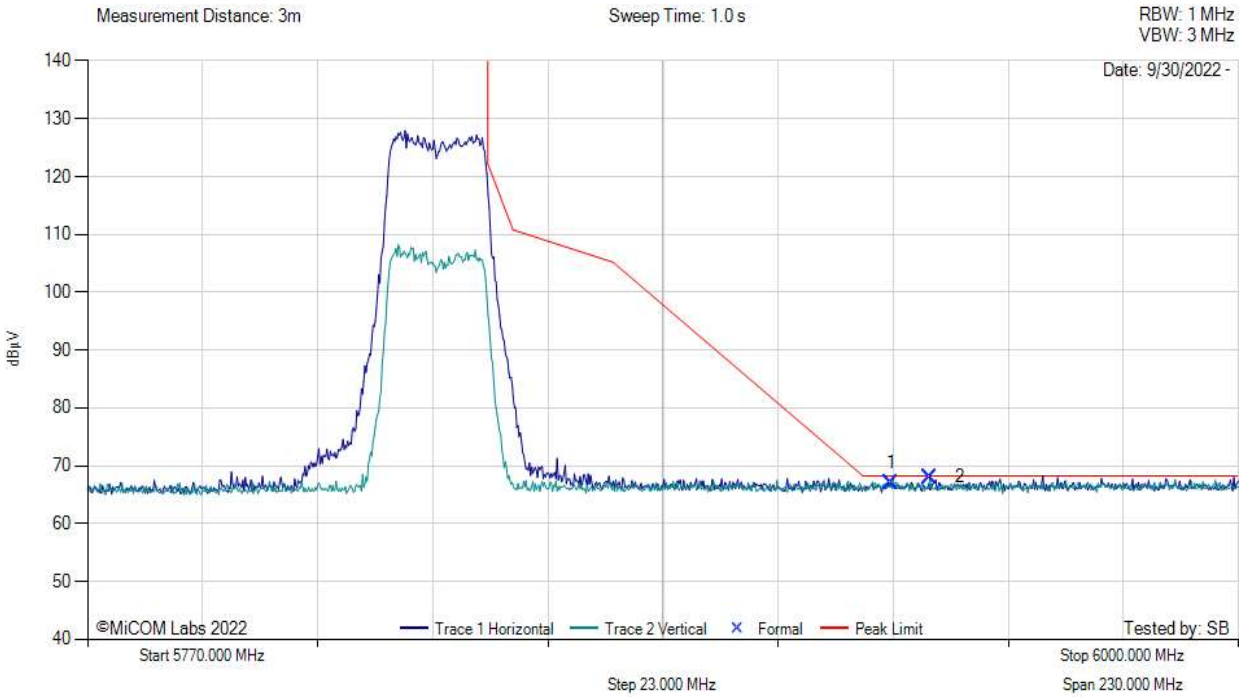
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4958	**Variant:**	20MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	10.5	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4958, Power Setting: 10.5



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5930.54	28.77	3.34	34.84	66.95	MaxP	Horizontal	149	300	68.2	-1.3	Pass
2	5938.36	29.94	3.27	34.85	68.06	MaxP	Vertical	149	311	68.2	-0.2	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

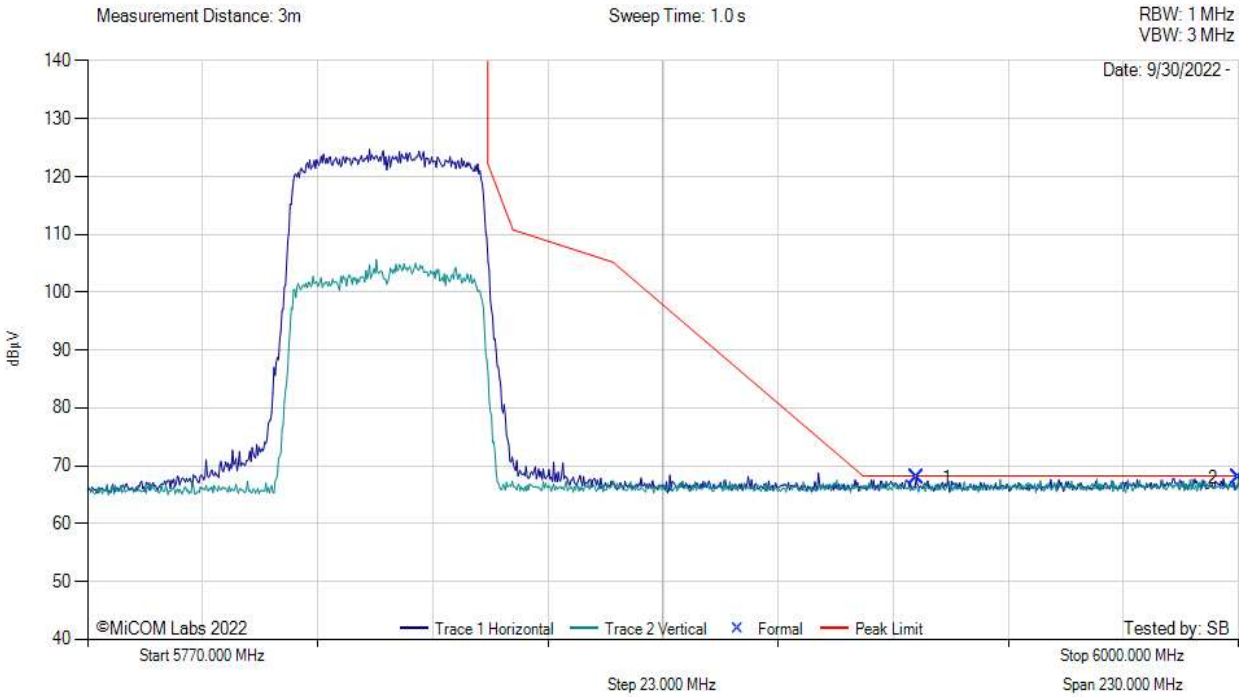
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4958	**Variant:**	40MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5830	**Data Rate:**	17.2
Power Setting:	8	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4958, Power Setting: 8



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5935.60	29.87	3.27	34.85	68.00	MaxP	Horizontal	99	120	68.2	-0.2	Pass
2	6000.00	29.83	3.21	34.94	67.99	MaxP	Vertical	199	0	68.2	-0.2	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

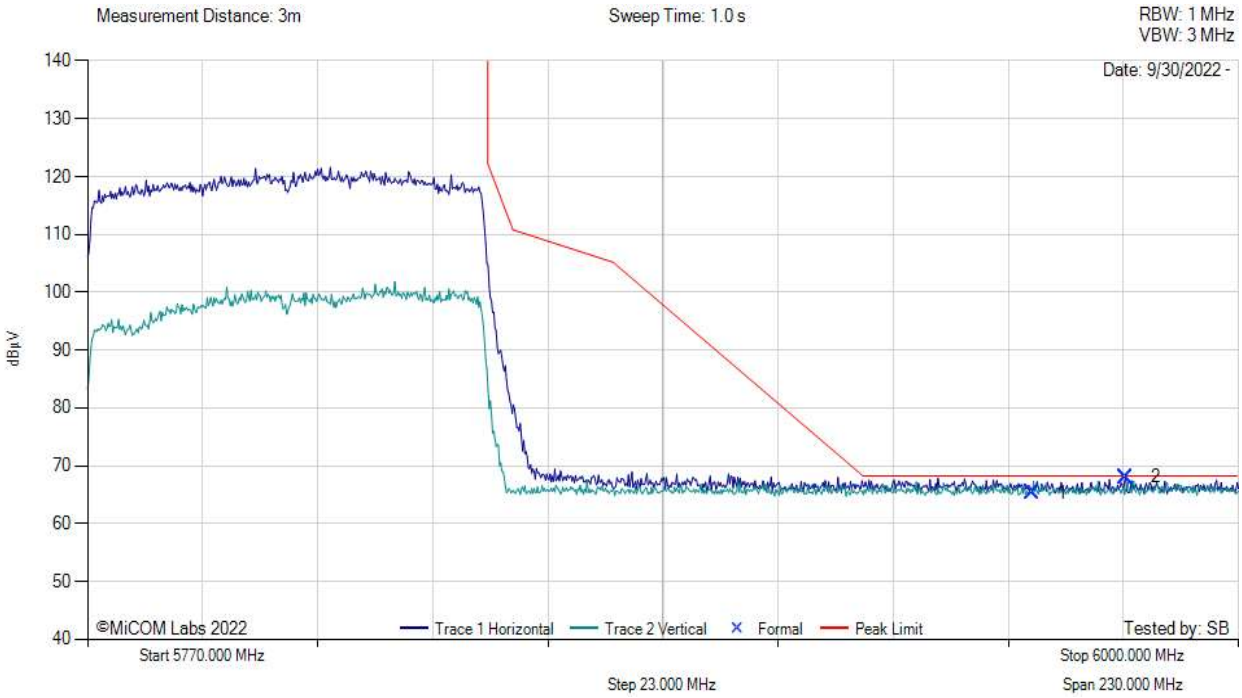
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4958	**Variant:**	80MHz
Antenna Gain (dBi):	32	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5810	**Data Rate:**	36
Power Setting:	6	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4958, Power Setting: 6



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5958.83	27.20	3.23	34.93	65.36	MaxP	Vertical	149	1	68.2	-2.9	Pass
2	5977.46	29.92	3.24	34.91	68.07	MaxP	Horizontal	149	0	68.2	-0.2	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

back to matrix

9.4.2.7. RW-9622-5001 5725-5850MHz

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5725 - 5850 MHz

RW-9622-5001		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5735.00	5725.00	68.17	68.16	17.0
40MHz	5745.00	5725.00	68.03	68.09	16.0
80MHz	5765.00	5725.00	68.19	67.91	11.0

RW-9622-5001		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5840.00	5850.00	67.97	68.08	17.0
40MHz	5830.00	5850.00	68.13	68.17	16.0
80MHz	5810.00	5850.00	68.15	68.18	11.0

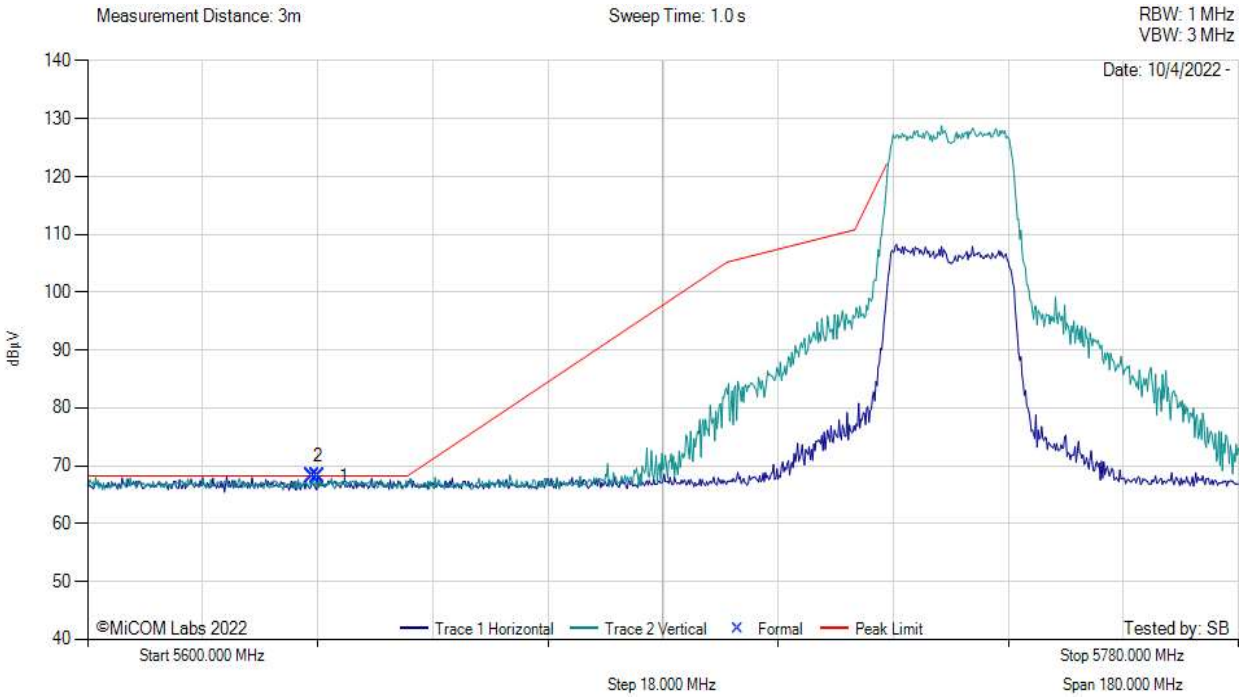
Click on the links to view the data.

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9622-5001	**Variant:**	20 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	17.0	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9622-5001



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5635.28	29.80	3.16	34.19	68.16	MaxP	Vertical	149	0	68.2	-0.1	Pass
2	5636.00	29.81	3.17	34.19	68.17	MaxP	Horizontal	99	240	68.2	-0.1	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

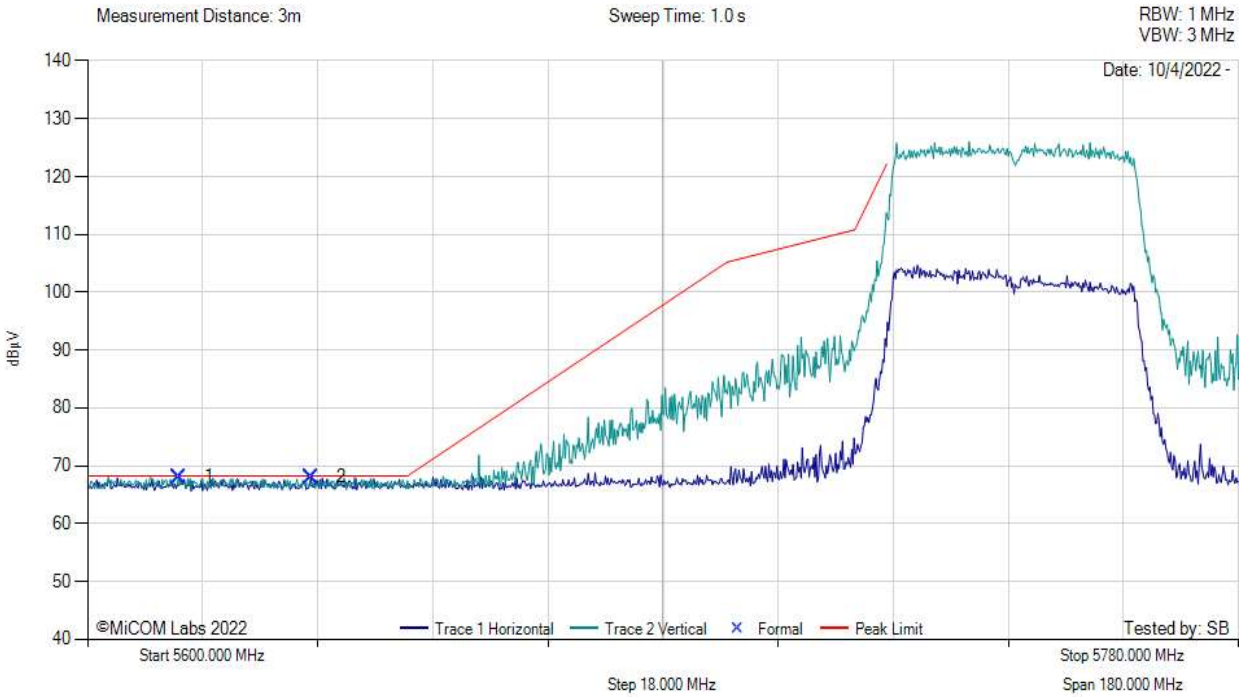
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9622-5001	**Variant:**	40 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745	**Data Rate:**	17.2
Power Setting:	16.0	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9622-5001



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5614.22	29.70	3.17	34.22	68.09	MaxP	Vertical	149	179	68.2	-0.1	Pass
2	5634.92	29.68	3.16	34.19	68.03	MaxP	Horizontal	149	120	68.2	-0.2	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

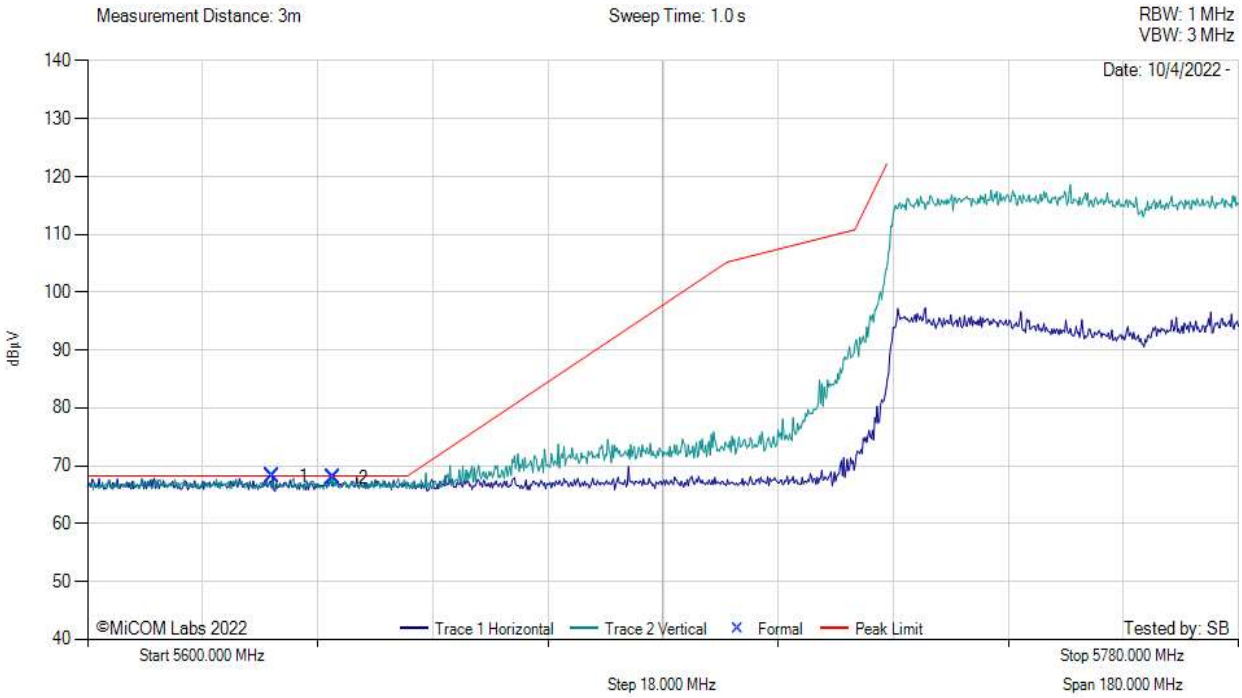
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9622-5001	**Variant:**	80 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5765	**Data Rate:**	36.00
Power Setting:	11.0	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9622-5001



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5628.98	29.87	3.14	34.20	68.19	MaxP	Horizontal	100	330	68.2	0.0	Pass
2	5638.34	29.53	3.19	34.19	67.91	MaxP	Vertical	100	0	68.2	-0.3	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

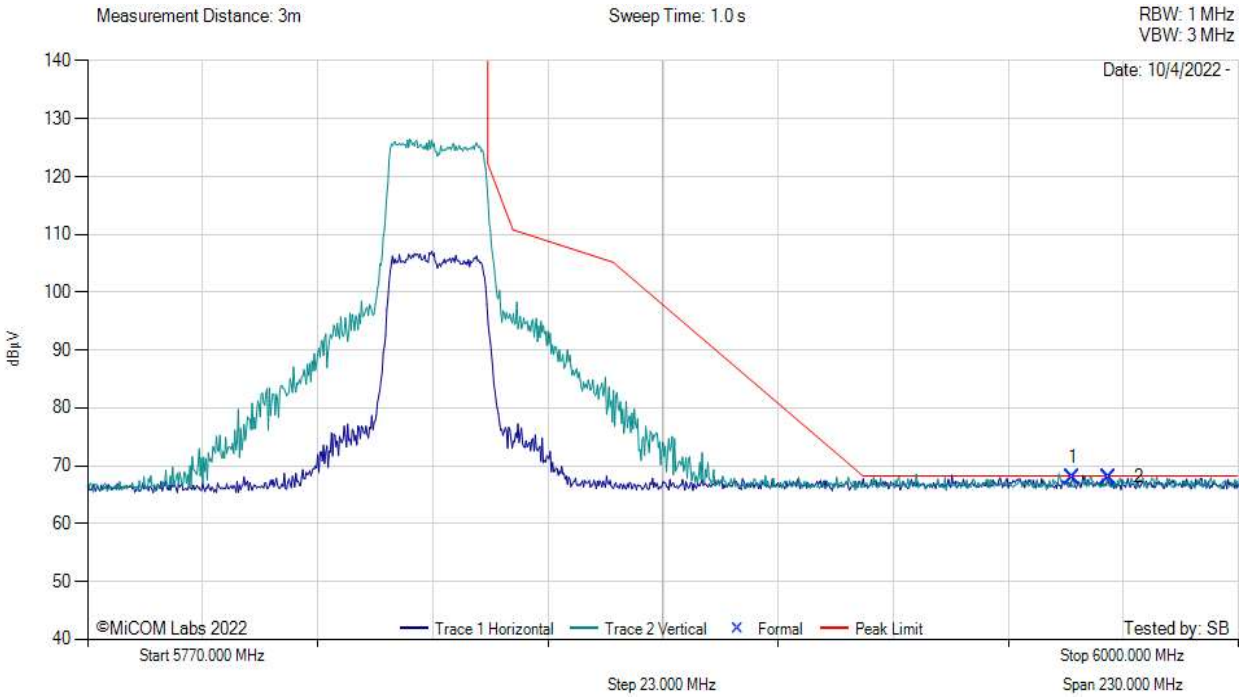
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9622-5001	**Variant:**	20 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	17.0	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9622-5001



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5966.88	29.84	3.23	34.90	67.97	MaxP	Horizontal	99	90	68.2	-0.3	Pass
2	5974.01	29.94	3.23	34.91	68.08	MaxP	Vertical	99	89	68.2	-0.2	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

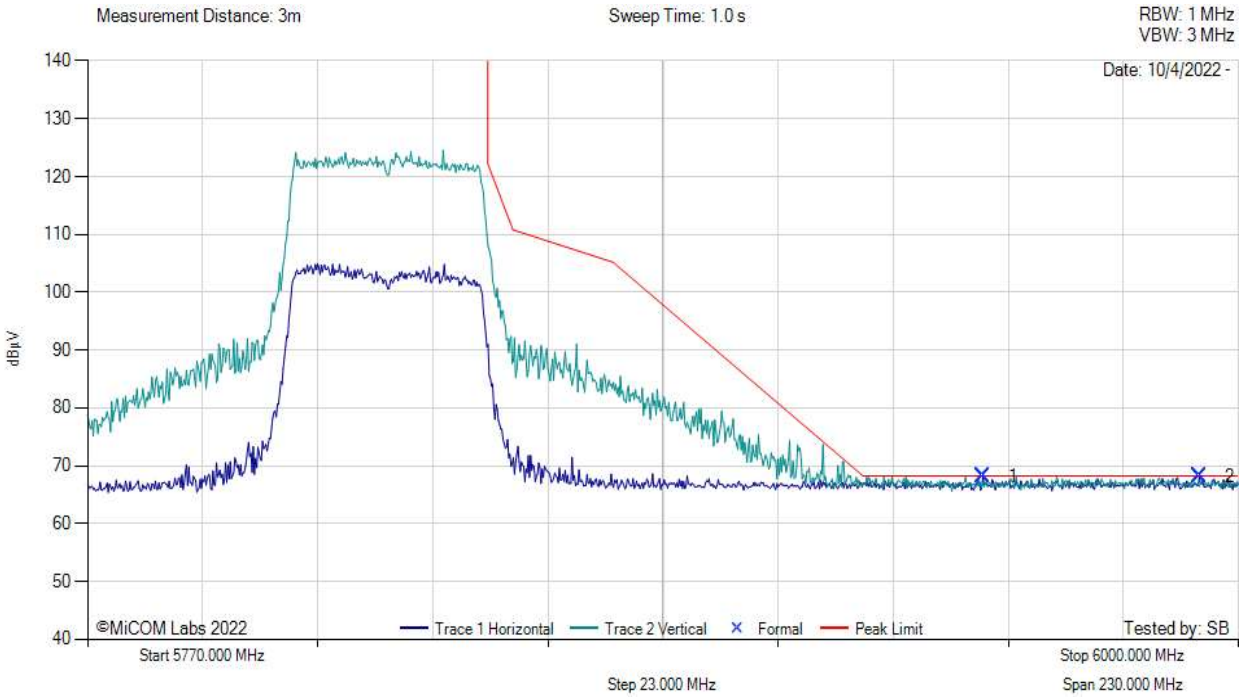
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9622-5001	**Variant:**	40 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5830	**Data Rate:**	17.2
Power Setting:	16.0	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9622-5001



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5948.94	29.99	3.26	34.88	68.13	MaxP	Horizontal	149	90	68.2	-0.1	Pass
2	5992.18	30.02	3.21	34.93	68.17	MaxP	Vertical	99	300	68.2	-0.1	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

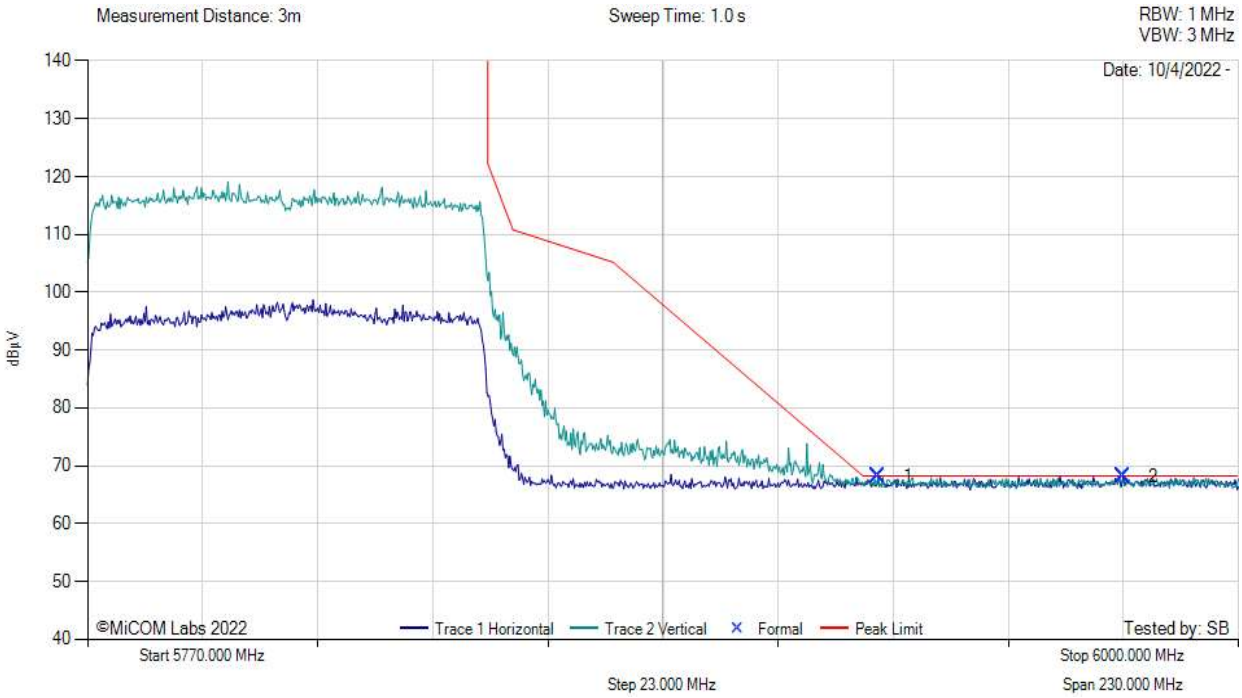
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9622-5001	**Variant:**	80 MHz
Antenna Gain (dBi):	28	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5810	**Data Rate:**	36.00
Power Setting:	11.0	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9622-5001



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5928.01	30.04	3.31	34.83	68.18	MaxP	Vertical	149	0	68.2	-0.1	Pass
2	5977.00	30.01	3.21	34.93	68.15	MaxP	Horizontal	149	2	68.2	-0.1	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

back to matrix

9.4.2.8. RW-9732-4965 5725-5850MHz

RESULTS SUMMARY FOR RADIATED BAND-EDGE EMISSIONS

5725 - 5850 MHz

RW-9732-4965		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5735.00	5725.00	67.17	67.15	20.5
40MHz	5745.00	5725.00	67.12	66.83	20.5
80MHz	5765.00	5725.00	66.53	66.40	19.0

RW-9732-4965		Band-Edge Freq	Limit 68.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
20MHz	5840.00	5850.00	67.89	67.87	20.0
40MHz	5830.00	5850.00	68.19	68.04	20.0
80MHz	5810.00	5850.00	68.20	68.19	17.0

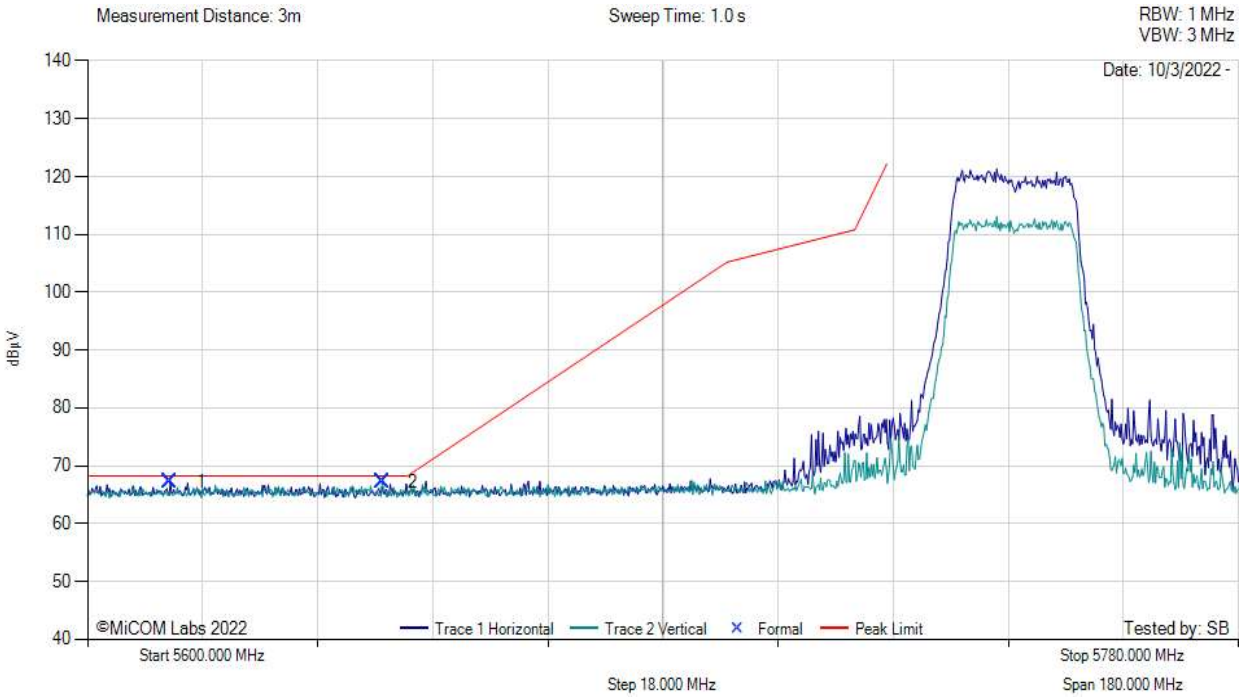
Click on the links to view the data.

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4965	**Variant:**	20 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5735	**Data Rate:**	8.6
Power Setting:	20.0	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4965



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5612.96	32.77	3.17	34.22	67.17	MaxP	Horizontal	99	300	68.2	-1.1	Pass
2	5646.08	32.79	3.19	34.18	67.15	MaxP	Vertical	149	299	68.2	-1.1	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

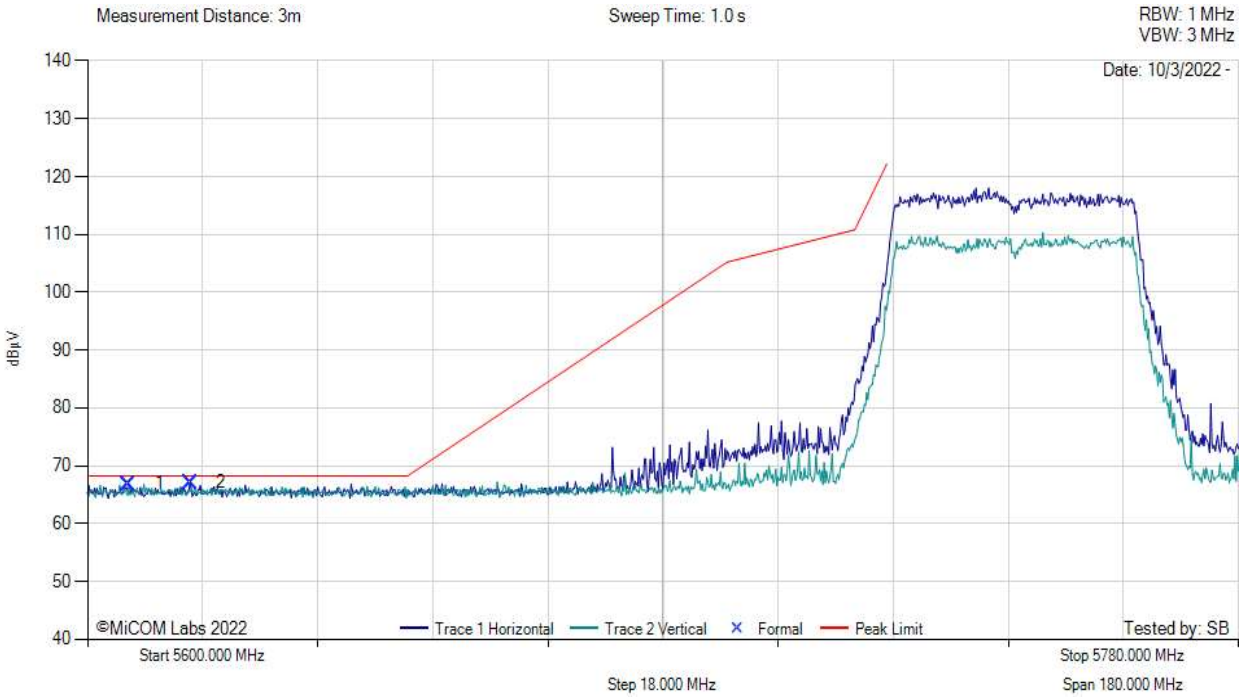
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4965	**Variant:**	40 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5745	**Data Rate:**	17.2
Power Setting:	20.5	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4965, Power Setting: 20.5



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5606.48	29.44	3.17	34.22	66.83	MaxP	Vertical	149	305	68.2	-1.4	Pass
2	5616.02	29.79	3.13	34.20	67.12	MaxP	Horizontal	149	315	68.2	-1.1	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

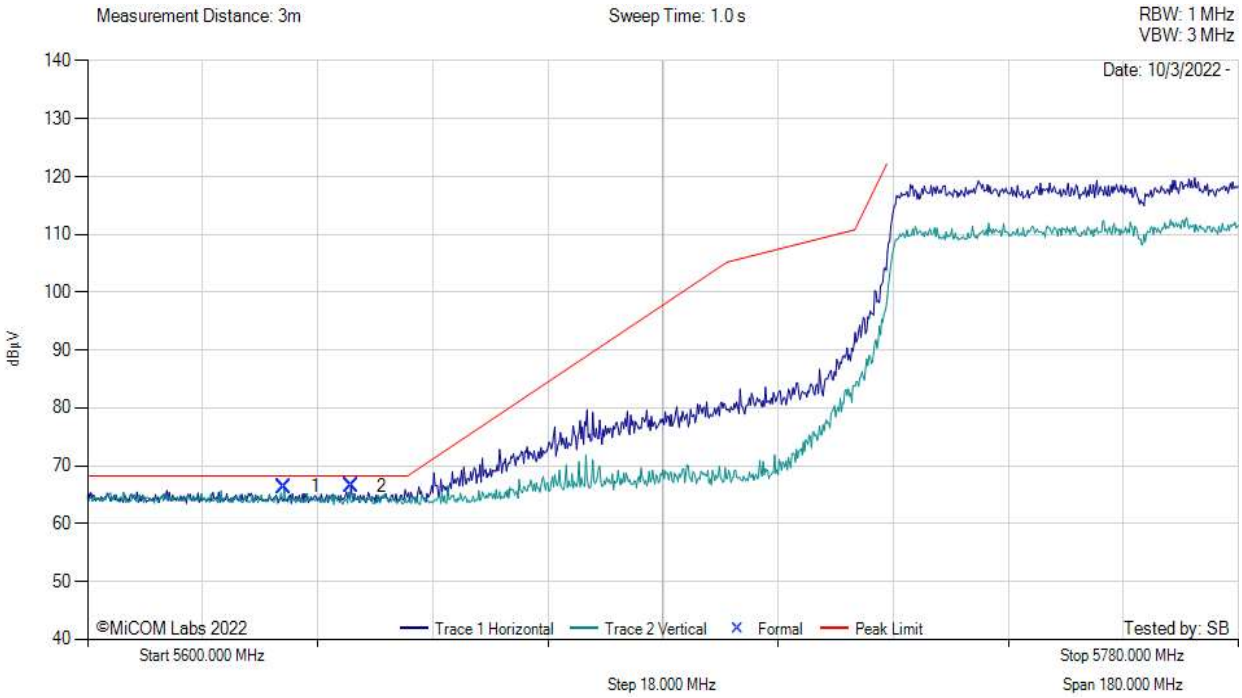
back to matrix

Equipment Configuration for BE 5725 MHZ			
Antenna:	RW-9732-4965	**Variant:**	80 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5765	**Data Rate:**	36.00
Power Setting:	19	**Tested By:**	SB

Test Measurement Results

BE 5725 MHz

Antenna: RW-9732-4965, Power Setting: 22



5600.00 - 5780.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5630.78	22.07	3.13	34.20	66.40	MaxP	Vertical	149	119	68.2	-1.8	Pass
2	5641.22	22.13	3.21	34.19	66.53	MaxP	Horizontal	99	120	68.2	-1.7	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

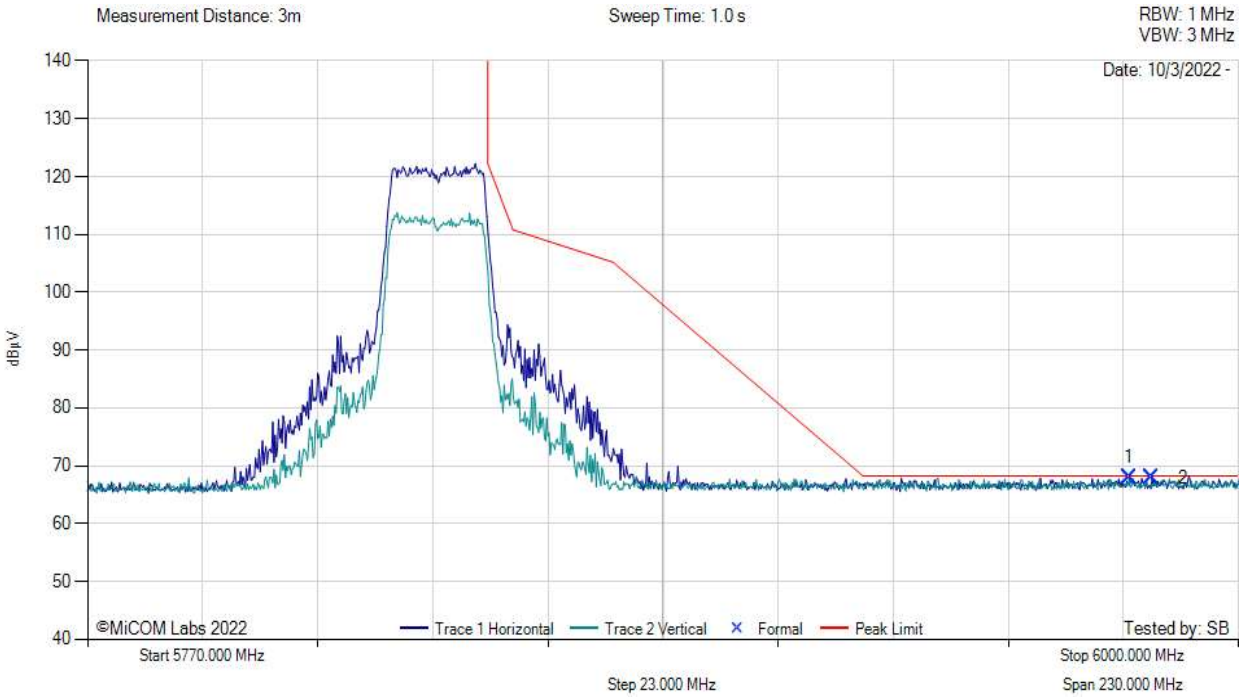
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4965	**Variant:**	20 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5840	**Data Rate:**	8.6
Power Setting:	20	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4965, Power Setting: 20



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5978.15	32.72	3.24	34.91	67.87	MaxP	Vertical	199	119	68.2	-0.4	Pass
2	5982.75	32.71	3.26	34.92	67.89	MaxP	Horizontal	149	330	68.2	-0.3	Pass
Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC												

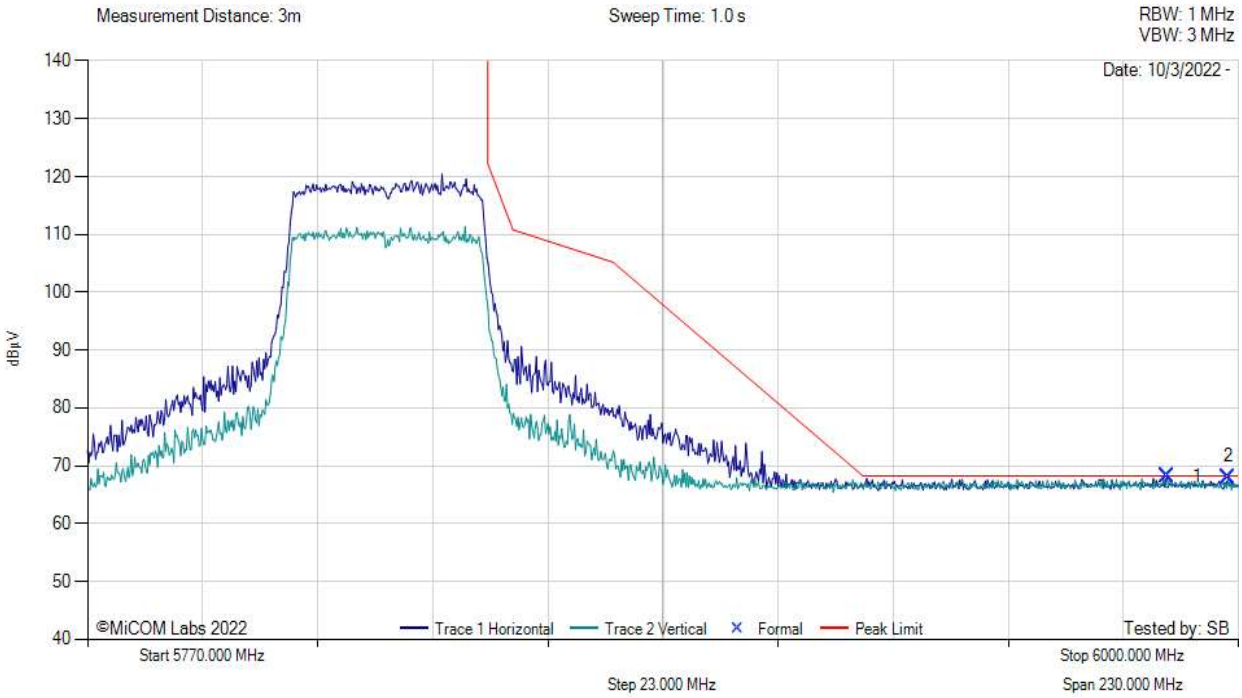
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4965	**Variant:**	40 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5830	**Data Rate:**	17.2
Power Setting:	20	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4965, Power Setting: 20



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5985.74	33.01	3.25	34.92	68.19	MaxP	Horizontal	199	0	68.2	0.0	Pass
2	5997.93	32.90	3.21	34.94	68.04	MaxP	Vertical	199	330	68.2	-0.2	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

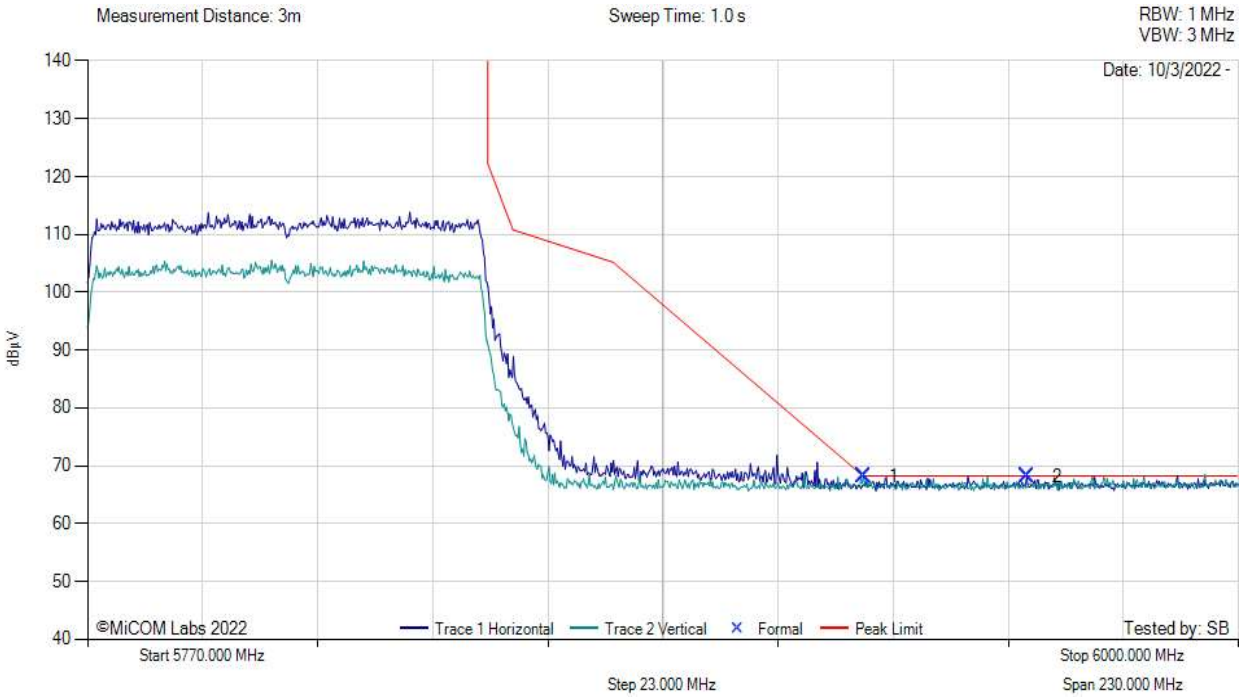
back to matrix

Equipment Configuration for BE 5850 MHZ			
Antenna:	RW-9732-4965	**Variant:**	80 MHz
Antenna Gain (dBi):	25.0	**Modulation:**	OFDM
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	5810	**Data Rate:**	36.00
Power Setting:	17	**Tested By:**	SB

Test Measurement Results

BE 5850 MHz

Antenna: RW-9732-4965, Power Setting: 17



5770.00 - 6000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	5925.02	33.11	3.27	34.82	68.20	MaxP	Vertical	149	270	68.2	0.0	Pass
2	5957.68	33.05	3.25	34.89	68.19	MaxP	Horizontal	149	330	68.2	0.0	Pass

Test Notes: POE supply inside the chamber: Manufacturer: Gospell, Model: G0566-560-100, 100-240VAC, 56VDC

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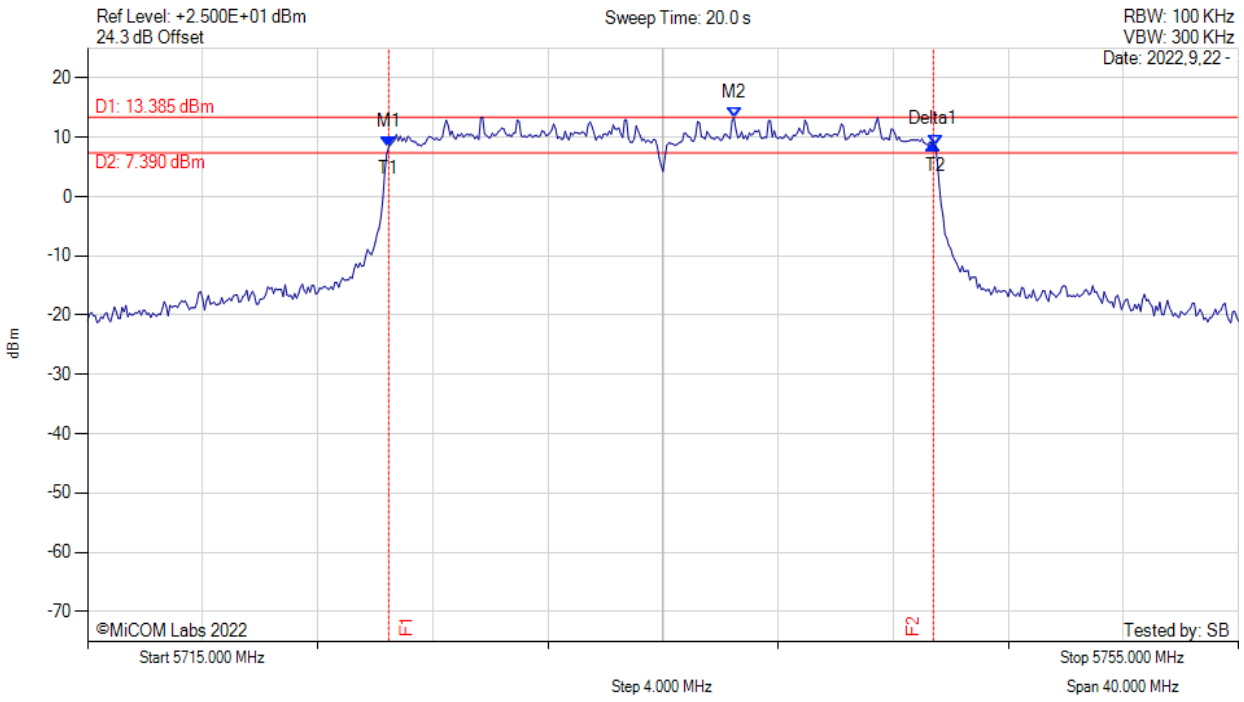
A. APPENDIX - GRAPHICAL IMAGES

A.1. 6 dB & 99% Bandwidth

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5735.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

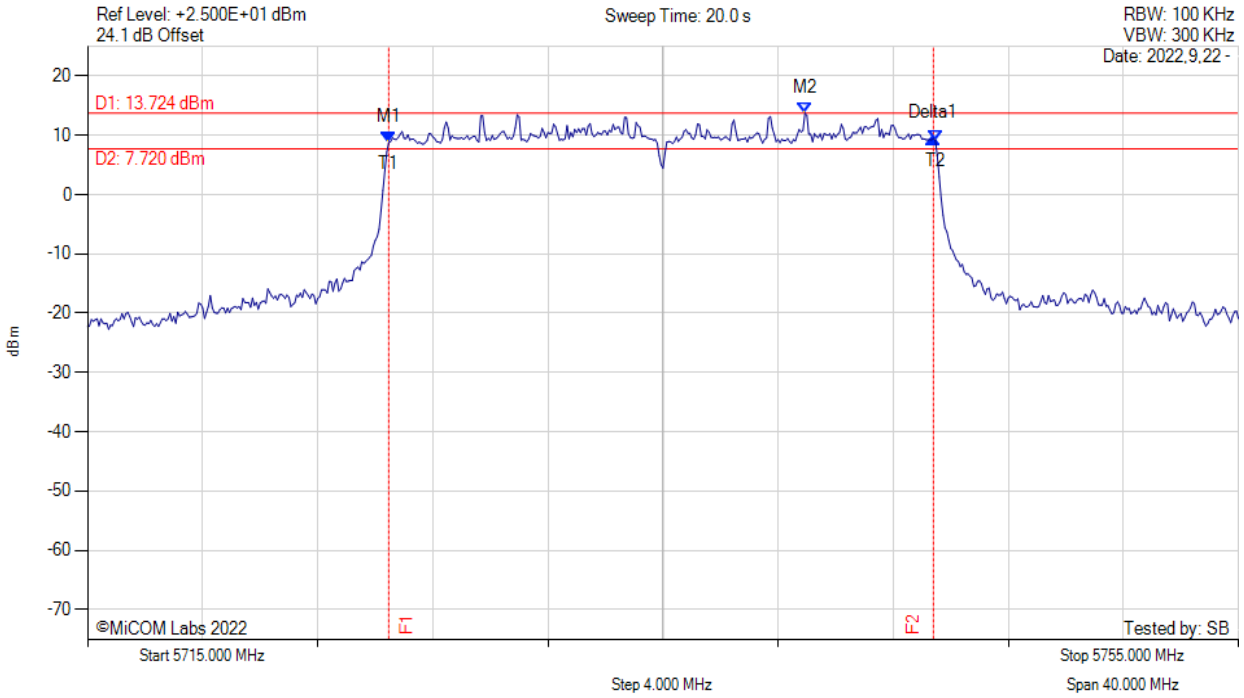


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.470 MHz : 8.373 dBm M2 : 5737.470 MHz : 13.385 dBm Delta1 : 18.930 MHz : 0.571 dB T1 : 5725.467 MHz : 8.373 dBm T2 : 5744.467 MHz : 8.701 dBm OBW : 18.968 MHz	Measured 6 dB Bandwidth: 18.930 MHz Measured 99% Bandwidth: 18.968 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5735.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

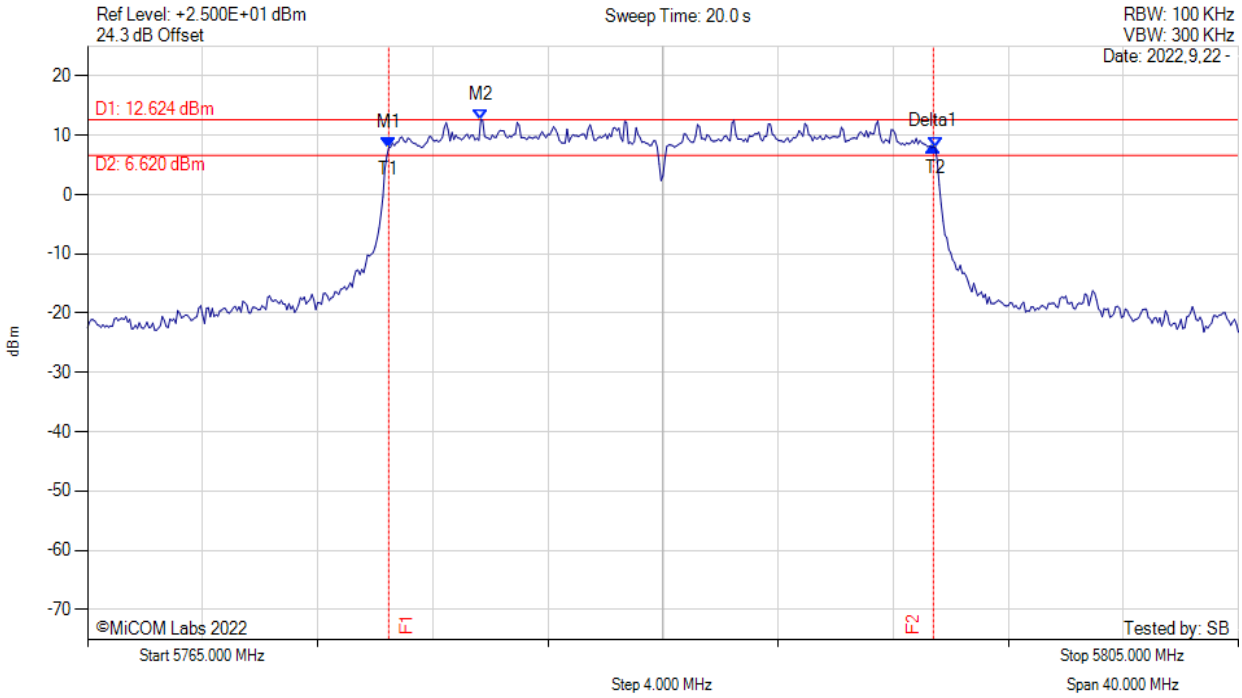


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.470 MHz : 8.765 dBm M2 : 5739.930 MHz : 13.724 dBm Delta1 : 18.930 MHz : 0.735 dB T1 : 5725.467 MHz : 8.765 dBm T2 : 5744.467 MHz : 9.204 dBm OBW : 18.986 MHz	Measured 6 dB Bandwidth: 18.930 MHz Measured 99% Bandwidth: 18.986 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

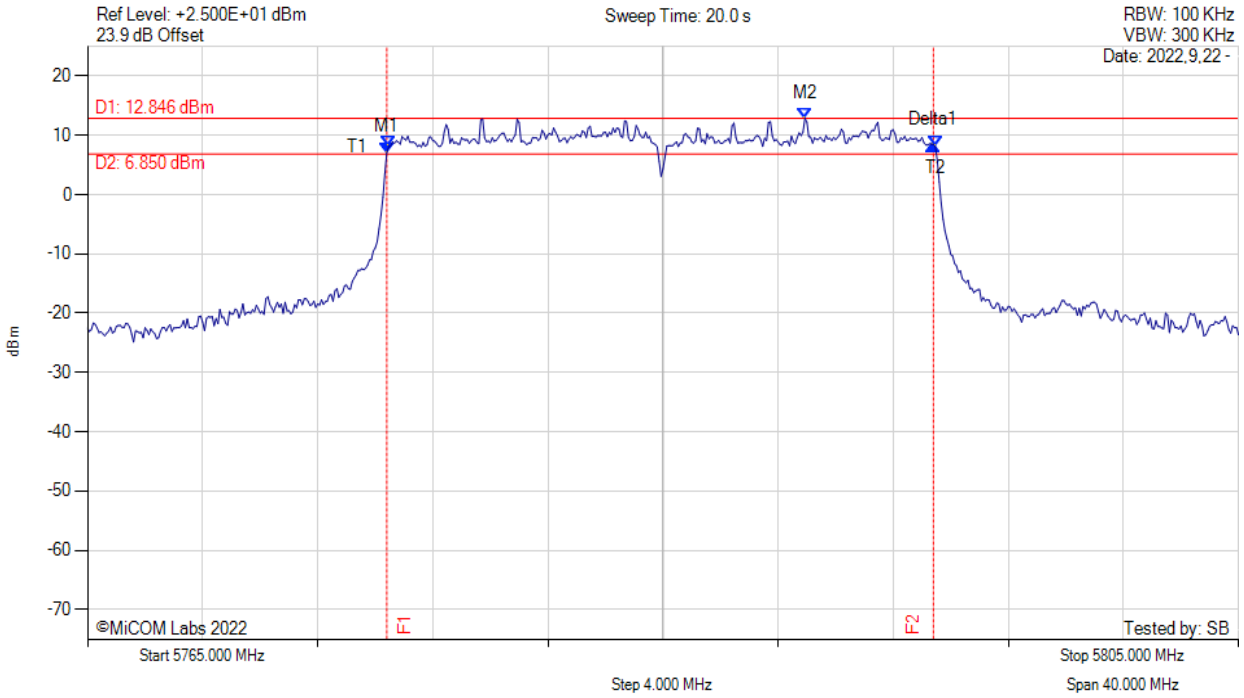


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5775.470 MHz : 7.922 dBm M2 : 5778.670 MHz : 12.624 dBm Delta1 : 18.930 MHz : 0.126 dB T1 : 5775.467 MHz : 7.922 dBm T2 : 5794.467 MHz : 8.037 dBm OBW : 18.965 MHz	Measured 6 dB Bandwidth: 18.930 MHz Measured 99% Bandwidth: 18.965 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

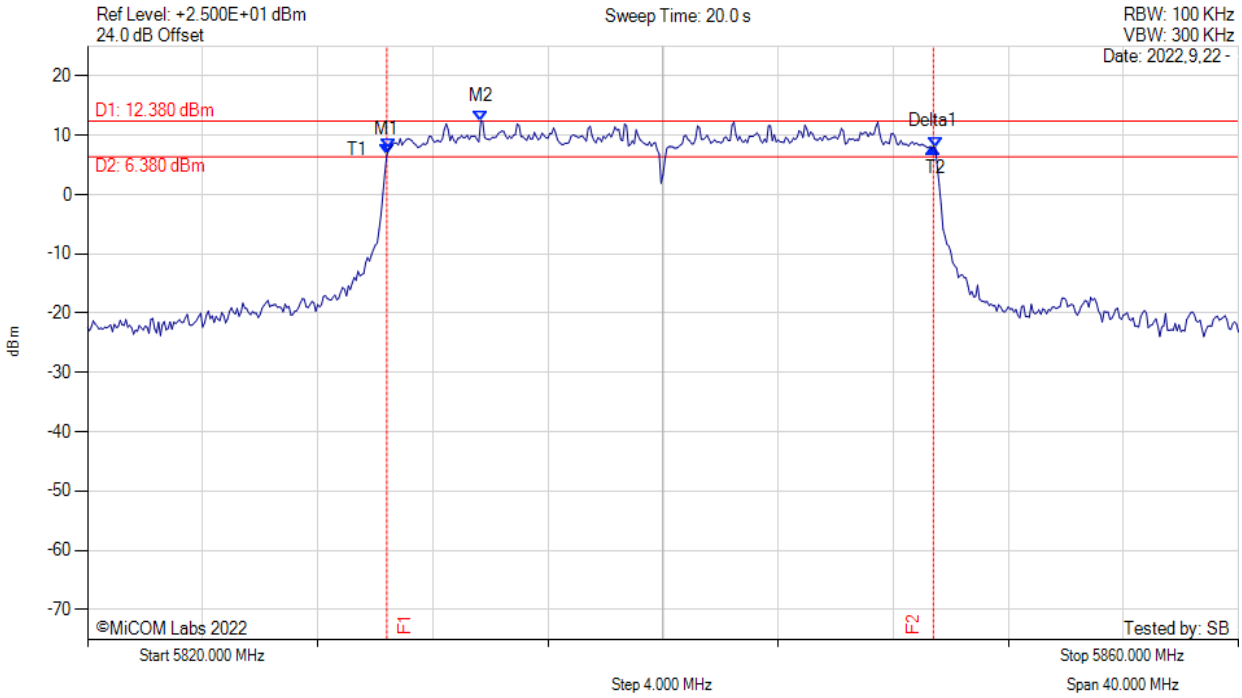


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5775.400 MHz : 7.098 dBm M2 : 5789.930 MHz : 12.846 dBm Delta1 : 19.000 MHz : 1.358 dB T1 : 5775.467 MHz : 8.099 dBm T2 : 5794.467 MHz : 8.147 dBm OBW : 18.973 MHz	Measured 6 dB Bandwidth: 19.000 MHz Measured 99% Bandwidth: 18.973 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5840.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

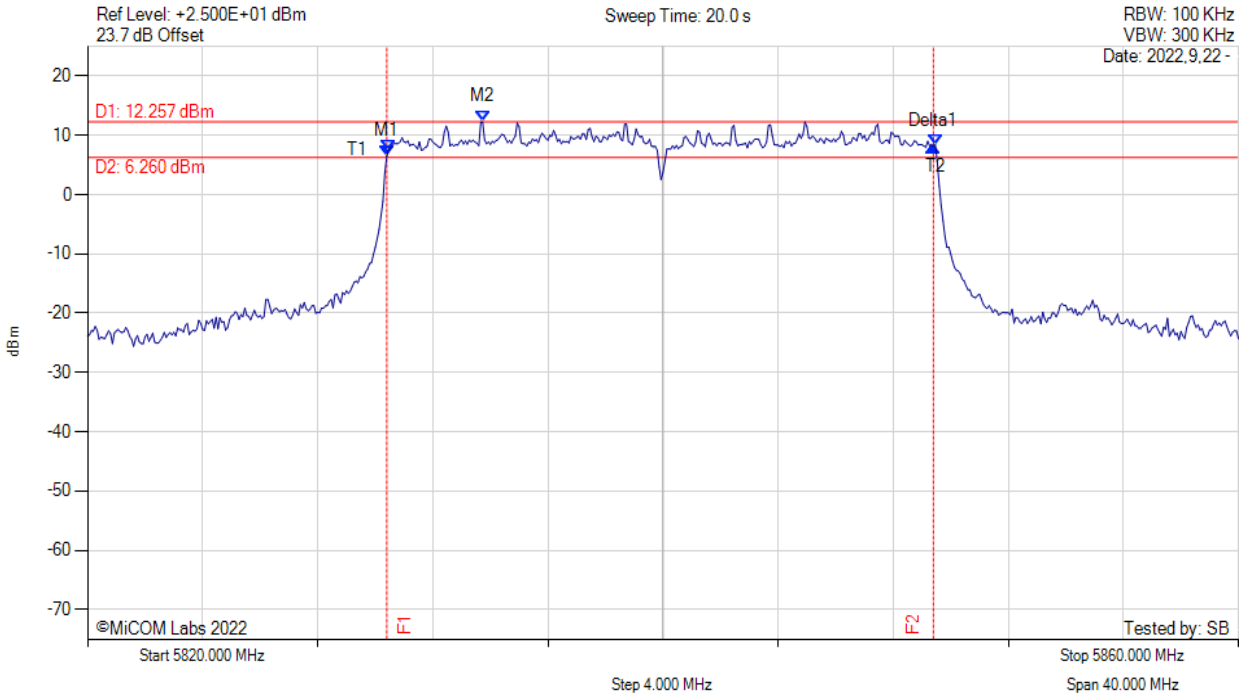


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5830.400 MHz : 6.653 dBm M2 : 5833.670 MHz : 12.380 dBm Delta1 : 19.000 MHz : 1.385 dB T1 : 5830.467 MHz : 7.695 dBm T2 : 5849.467 MHz : 7.977 dBm OBW : 18.959 MHz	Measured 6 dB Bandwidth: 19.000 MHz Measured 99% Bandwidth: 18.959 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5840.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

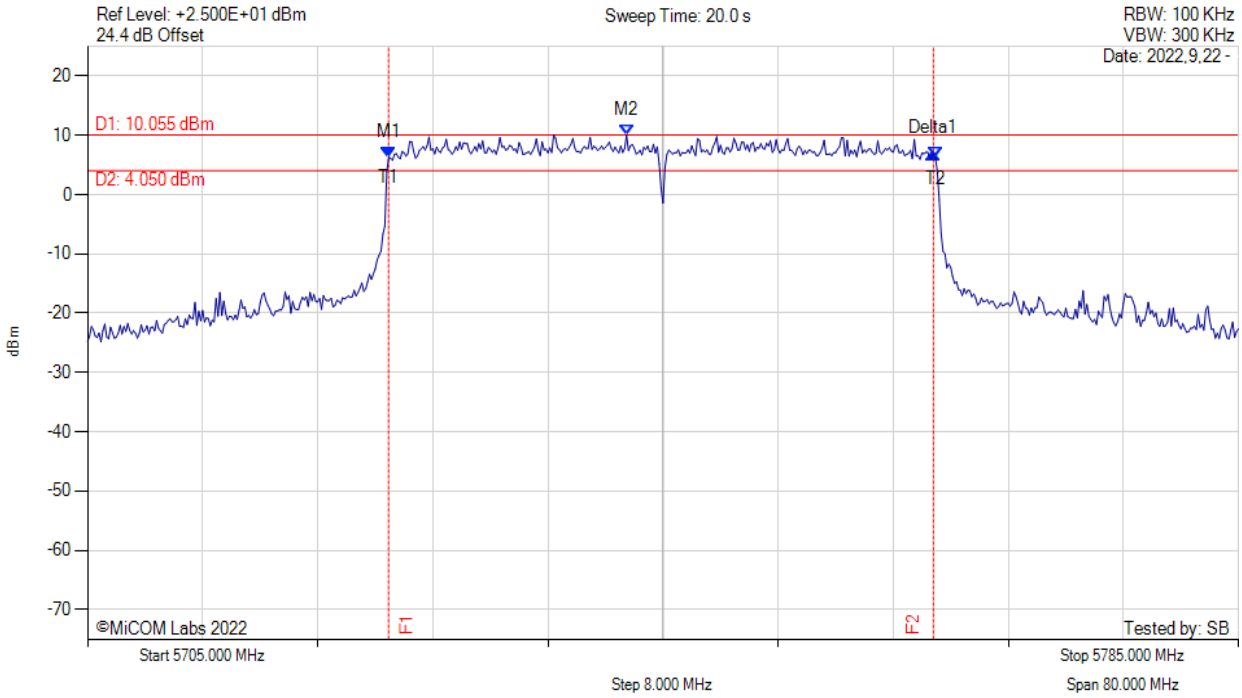


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5830.400 MHz : 6.509 dBm M2 : 5833.730 MHz : 12.257 dBm Delta1 : 19.000 MHz : 1.695 dB T1 : 5830.467 MHz : 7.547 dBm T2 : 5849.467 MHz : 8.402 dBm OBW : 18.976 MHz	Measured 6 dB Bandwidth: 19.000 MHz Measured 99% Bandwidth: 18.976 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

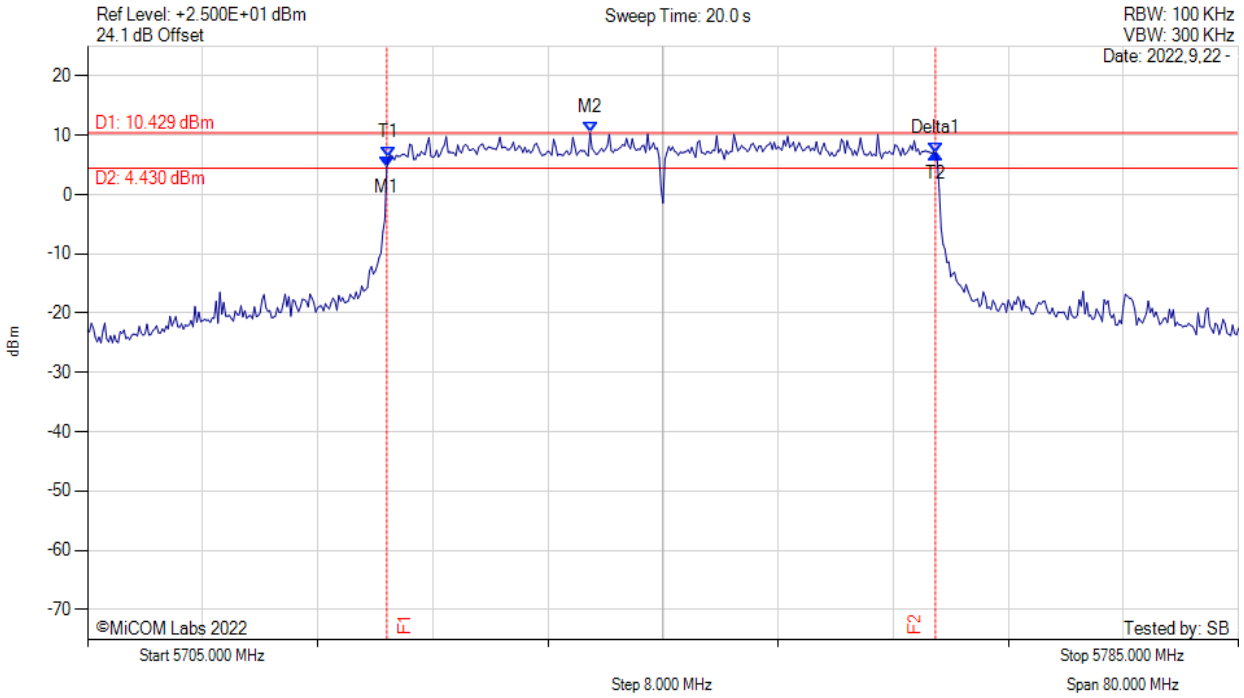


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.930 MHz : 6.312 dBm M2 : 5742.470 MHz : 10.055 dBm Delta1 : 37.870 MHz : 0.573 dB T1 : 5725.933 MHz : 6.312 dBm T2 : 5763.933 MHz : 6.278 dBm OBW : 37.880 MHz	Measured 6 dB Bandwidth: 37.870 MHz Measured 99% Bandwidth: 37.880 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

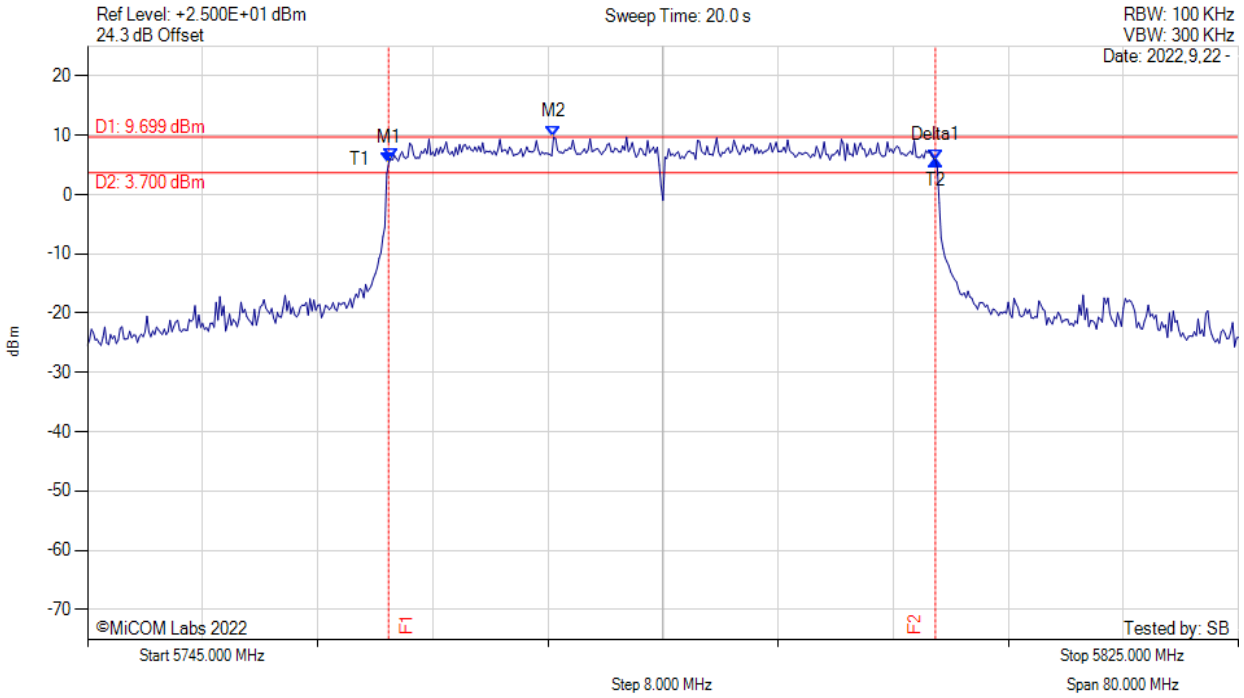


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.800 MHz : 4.711 dBm M2 : 5739.930 MHz : 10.429 dBm Delta1 : 38.130 MHz : 2.327 dB T1 : 5725.933 MHz : 6.277 dBm T2 : 5763.933 MHz : 7.038 dBm OBW : 37.954 MHz	Measured 6 dB Bandwidth: 38.130 MHz Measured 99% Bandwidth: 37.954 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

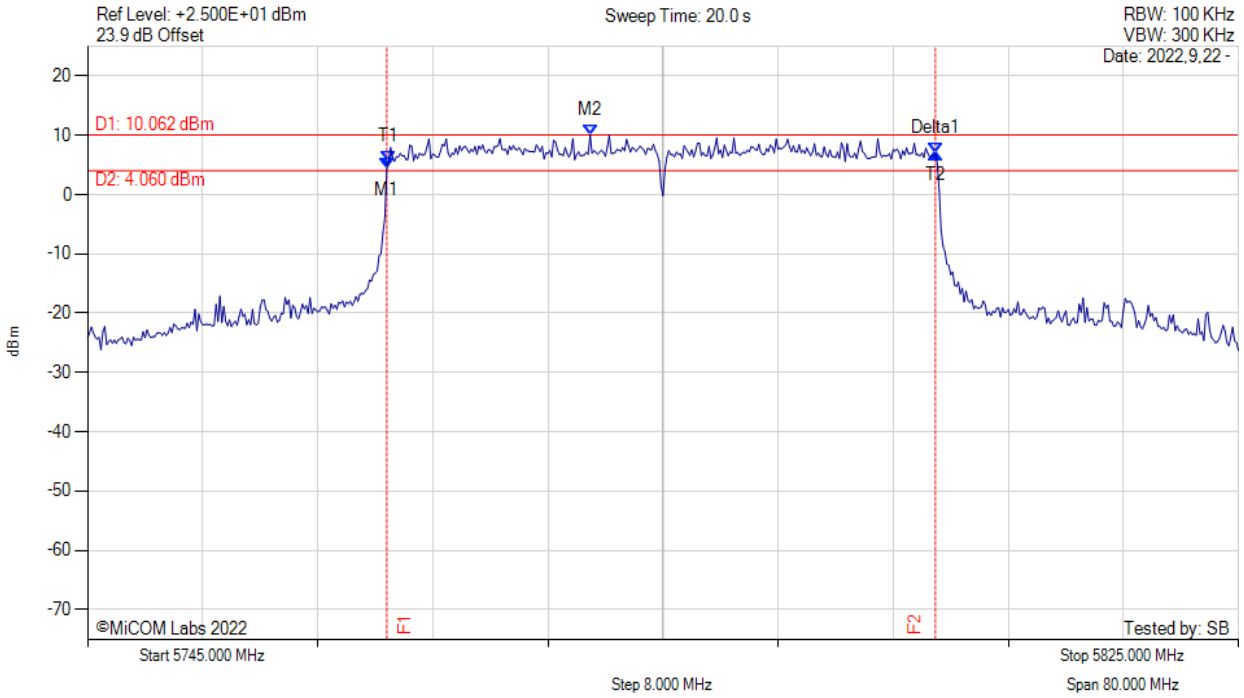


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5765.930 MHz : 5.322 dBm M2 : 5777.400 MHz : 9.699 dBm Delta1 : 38.000 MHz : 0.580 dB T1 : 5766.067 MHz : 6.019 dBm T2 : 5803.933 MHz : 5.902 dBm OBW : 37.861 MHz	Measured 6 dB Bandwidth: 38.000 MHz Measured 99% Bandwidth: 37.861 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

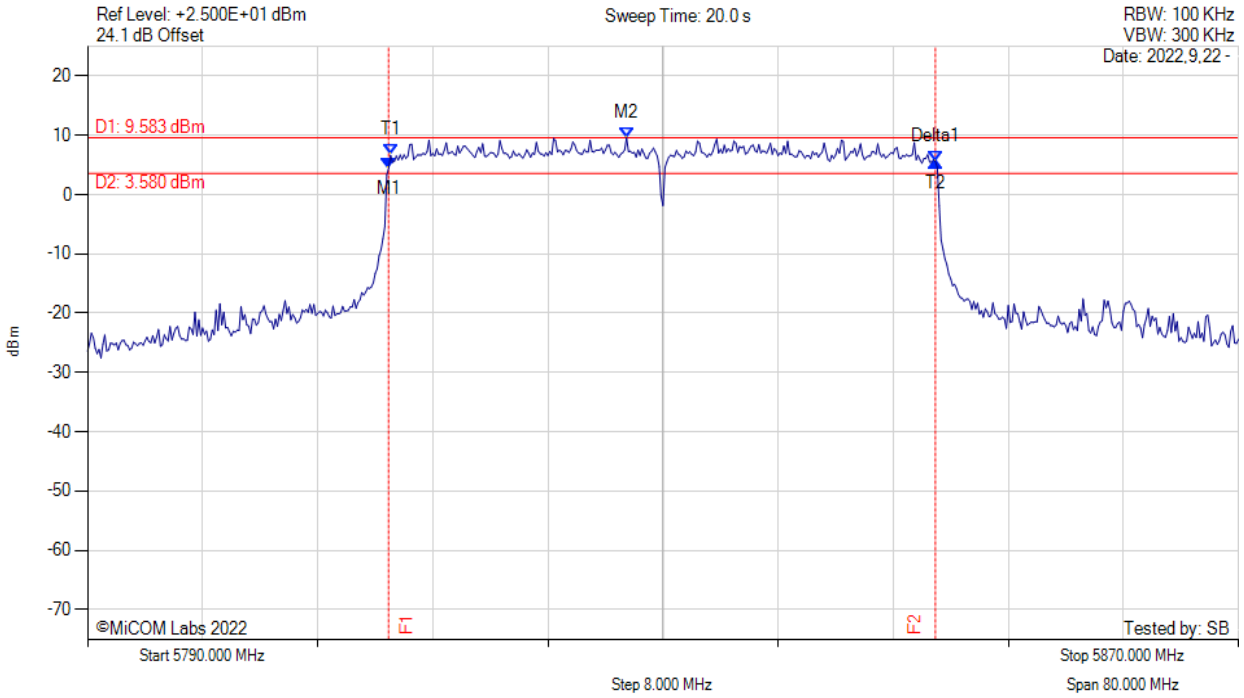


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5765.800 MHz : 4.360 dBm M2 : 5779.930 MHz : 10.062 dBm Delta1 : 38.130 MHz : 2.545 dB T1 : 5765.933 MHz : 5.657 dBm T2 : 5803.933 MHz : 6.905 dBm OBW : 37.938 MHz	Measured 6 dB Bandwidth: 38.130 MHz Measured 99% Bandwidth: 37.938 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5830.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

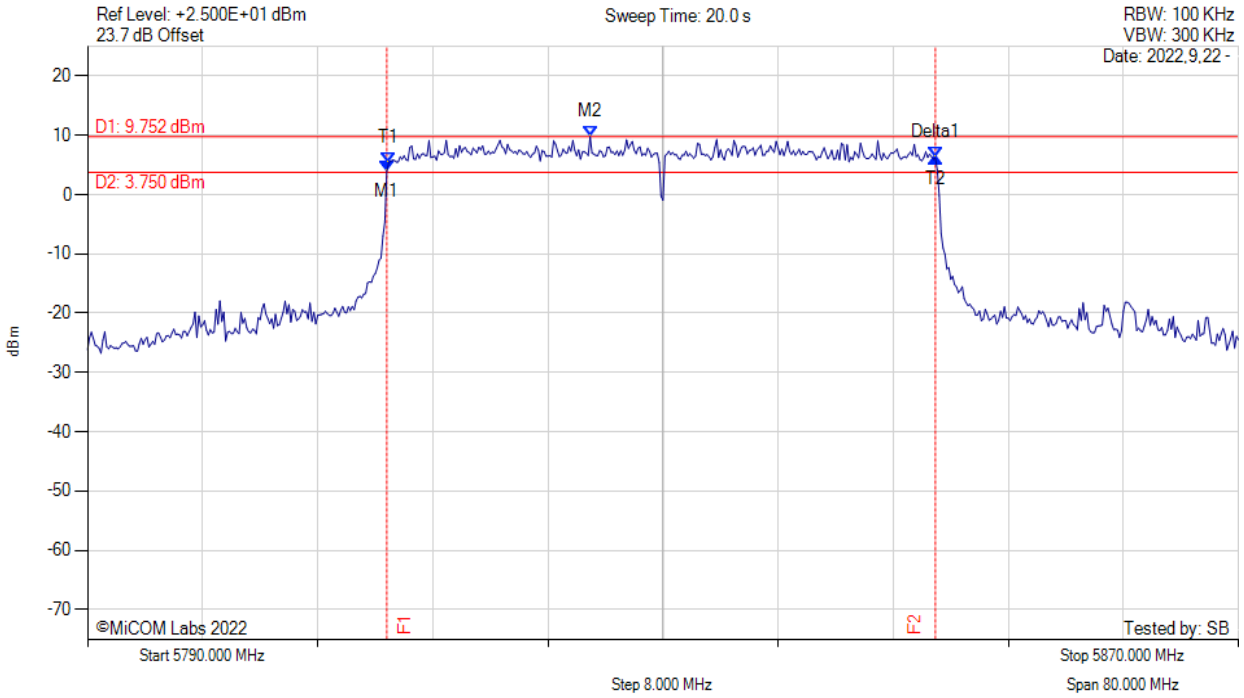


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5810.930 MHz : 4.452 dBm M2 : 5827.470 MHz : 9.583 dBm Delta1 : 38.000 MHz : 1.158 dB T1 : 5811.067 MHz : 6.649 dBm T2 : 5848.933 MHz : 5.610 dBm OBW : 37.843 MHz	Measured 6 dB Bandwidth: 38.000 MHz Measured 99% Bandwidth: 37.843 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5830.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

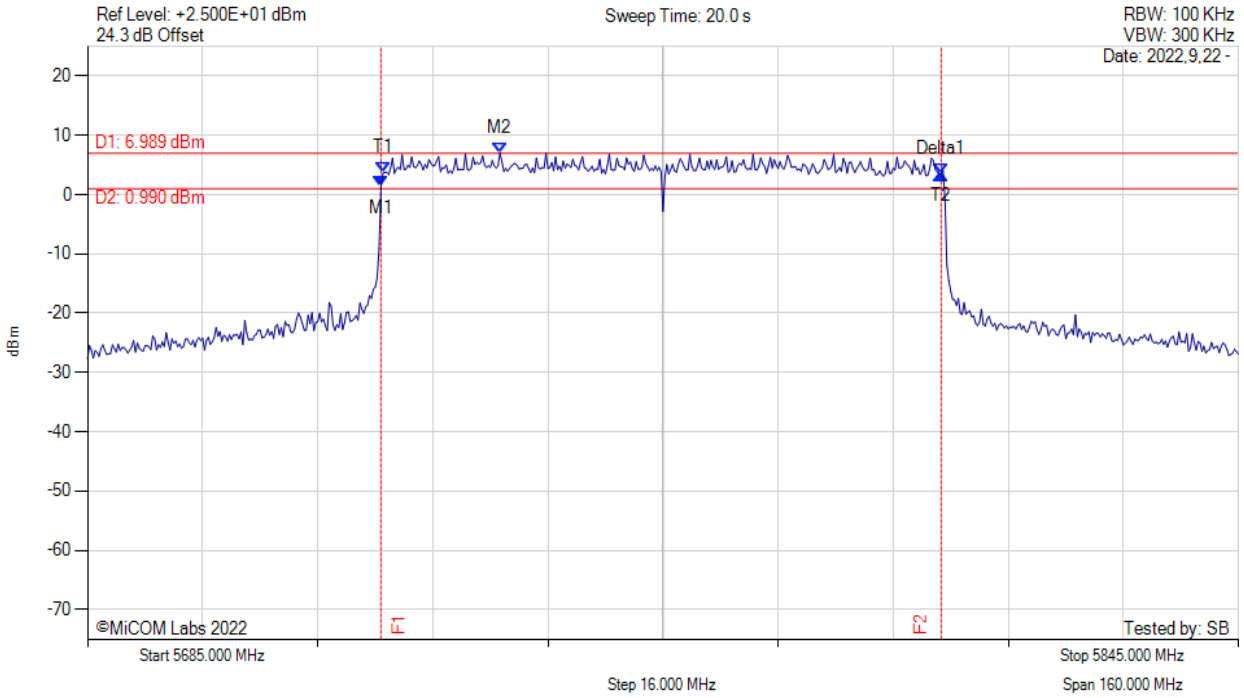


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5810.800 MHz : 4.002 dBm M2 : 5824.930 MHz : 9.752 dBm Delta1 : 38.130 MHz : 2.173 dB T1 : 5810.933 MHz : 5.381 dBm T2 : 5848.933 MHz : 6.175 dBm OBW : 37.895 MHz	Measured 6 dB Bandwidth: 38.130 MHz Measured 99% Bandwidth: 37.895 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5765.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

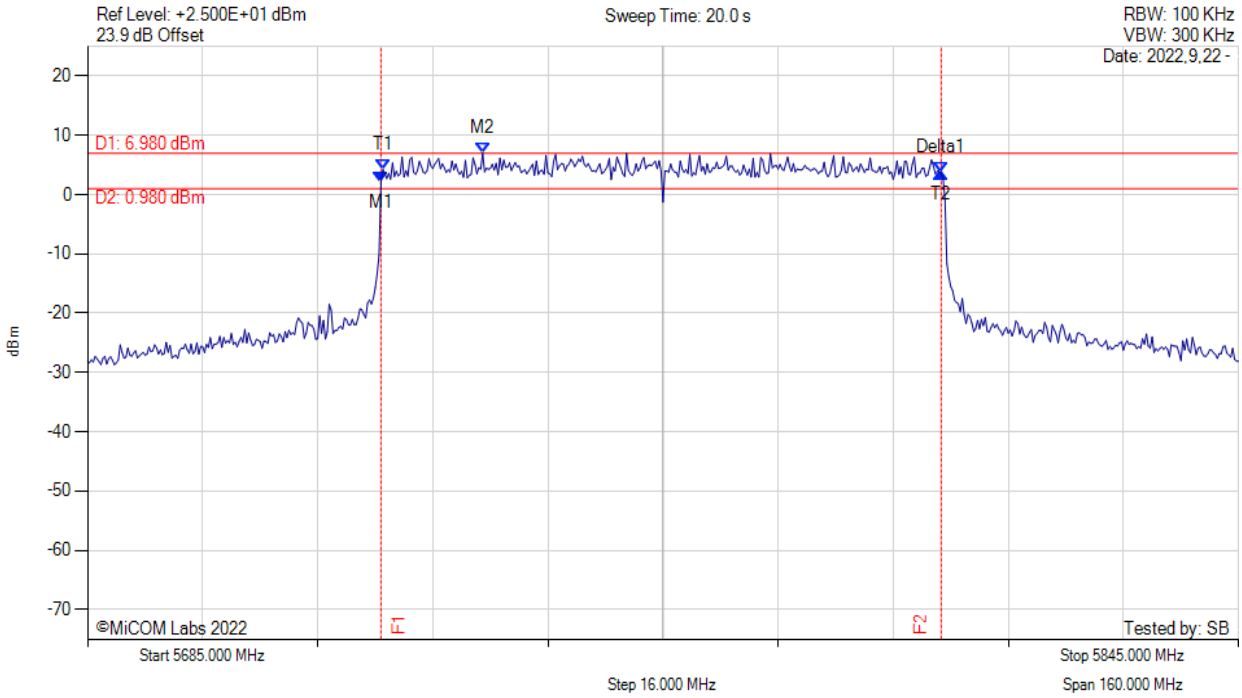


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.800 MHz : 1.272 dBm M2 : 5742.330 MHz : 6.989 dBm Delta1 : 77.870 MHz : 2.153 dB T1 : 5726.067 MHz : 3.607 dBm T2 : 5803.667 MHz : 3.425 dBm OBW : 77.473 MHz	Measured 6 dB Bandwidth: 77.870 MHz Measured 99% Bandwidth: 77.473 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5765.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

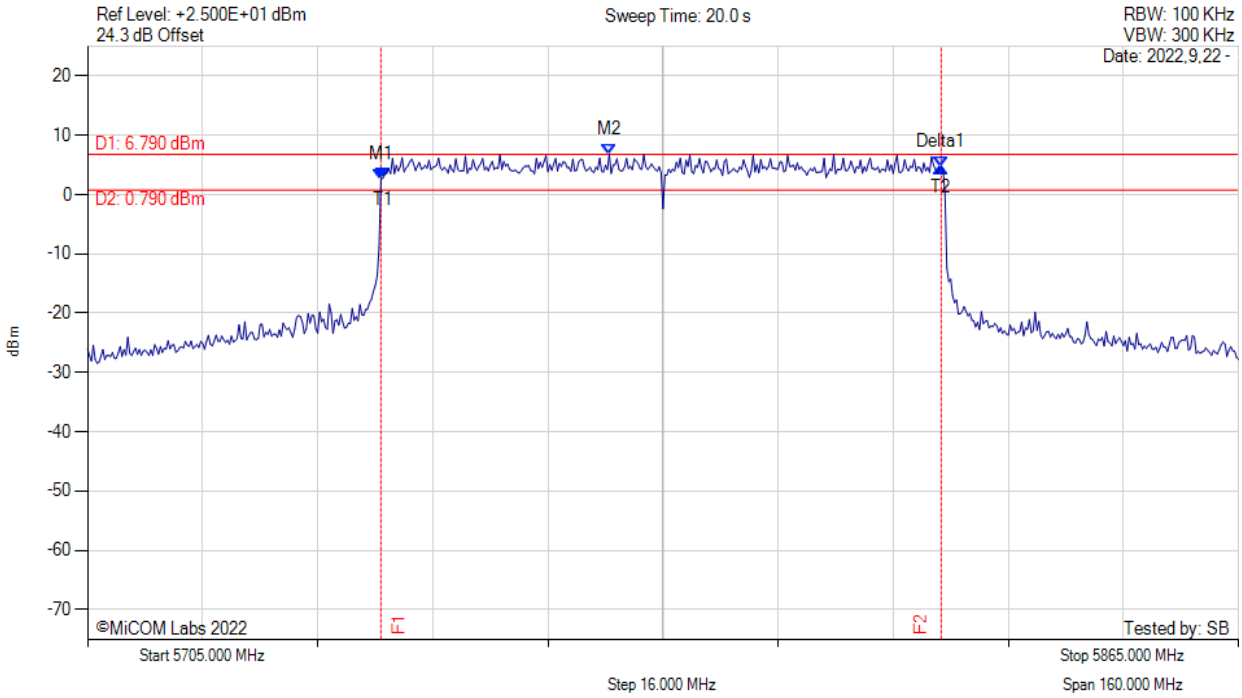


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5725.800 MHz : 2.174 dBm M2 : 5739.930 MHz : 6.980 dBm Delta1 : 77.870 MHz : 1.488 dB T1 : 5726.067 MHz : 4.231 dBm T2 : 5803.667 MHz : 3.662 dBm OBW : 77.483 MHz	Measured 6 dB Bandwidth: 77.870 MHz Measured 99% Bandwidth: 77.483 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5745.800 MHz : 2.612 dBm M2 : 5777.530 MHz : 6.790 dBm Delta1 : 77.870 MHz : 2.089 dB T1 : 5746.067 MHz : 2.763 dBm T2 : 5823.667 MHz : 4.701 dBm OBW : 77.532 MHz	Measured 6 dB Bandwidth: 77.870 MHz Measured 99% Bandwidth: 77.532 MHz

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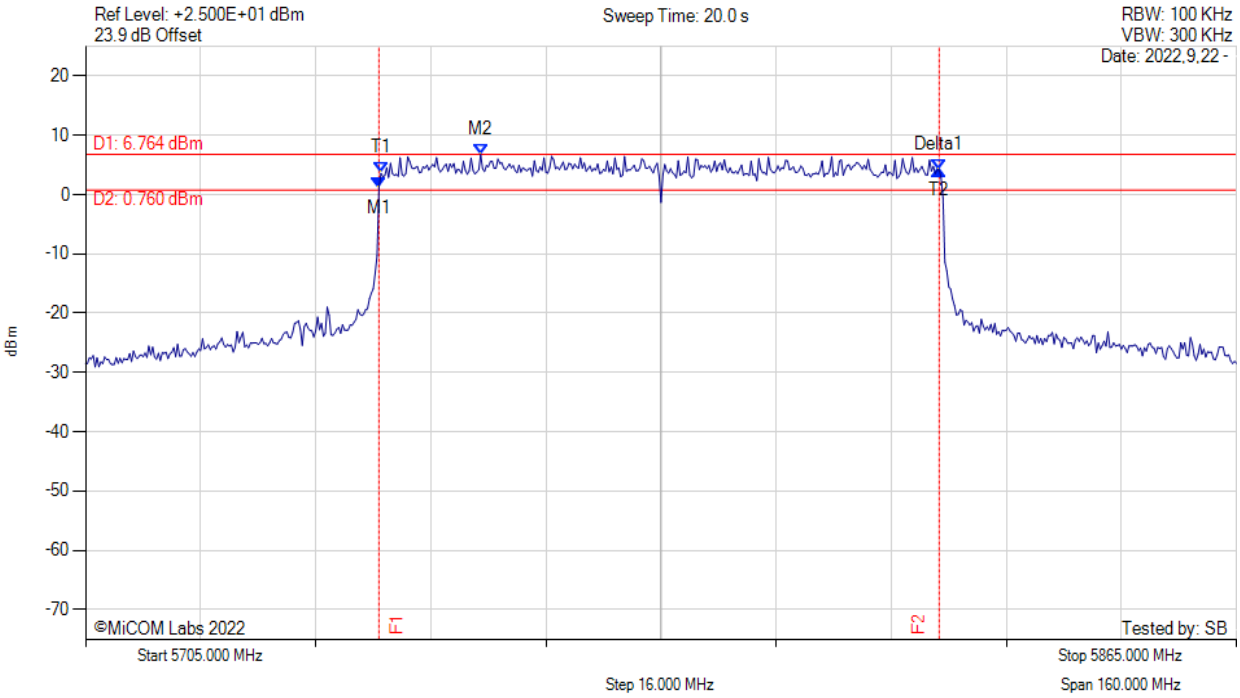
6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

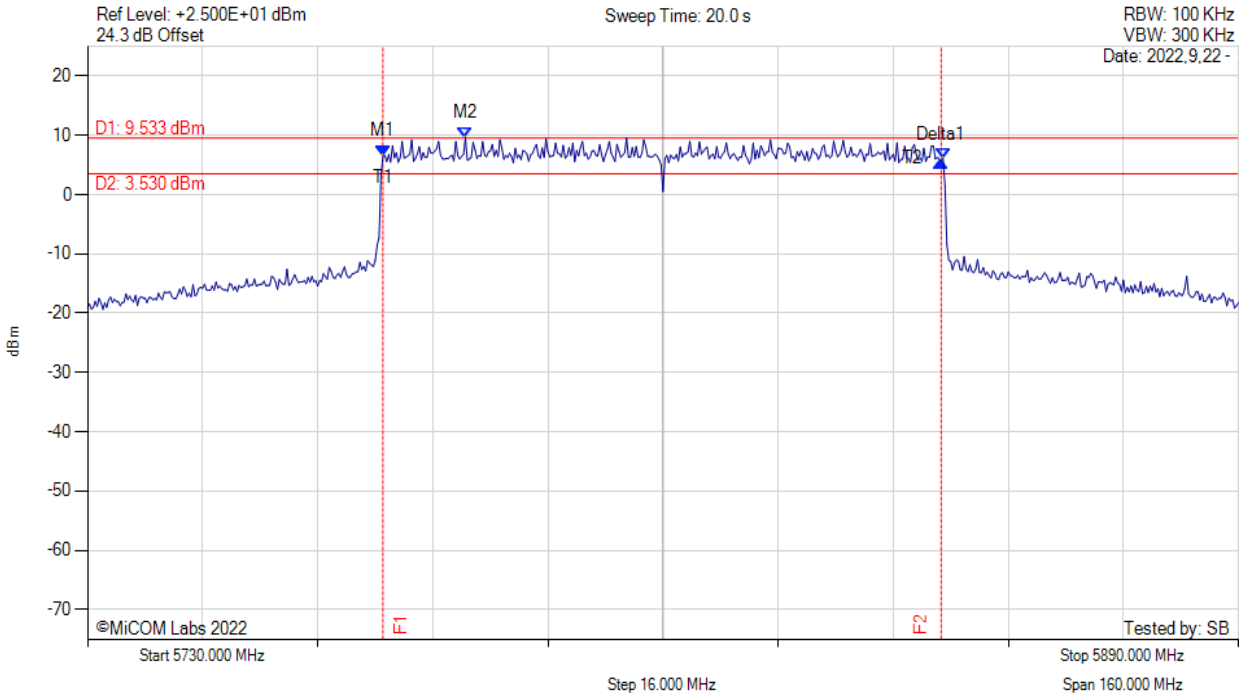


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5745.800 MHz : 1.216 dBm M2 : 5759.930 MHz : 6.764 dBm Delta1 : 77.870 MHz : 3.000 dB T1 : 5746.067 MHz : 3.601 dBm T2 : 5823.667 MHz : 4.216 dBm OBW : 77.449 MHz	Measured 6 dB Bandwidth: 77.870 MHz Measured 99% Bandwidth: 77.449 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5810.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5771.070 MHz : 6.430 dBm M2 : 5782.530 MHz : 9.533 dBm Delta1 : 77.600 MHz : -0.739 dB T1 : 5771.067 MHz : 6.430 dBm T2 : 5848.933 MHz : 6.127 dBm OBW : 77.941 MHz	Measured 6 dB Bandwidth: 77.600 MHz Measured 99% Bandwidth: 77.941 MHz

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6 dB & 99% BANDWIDTH

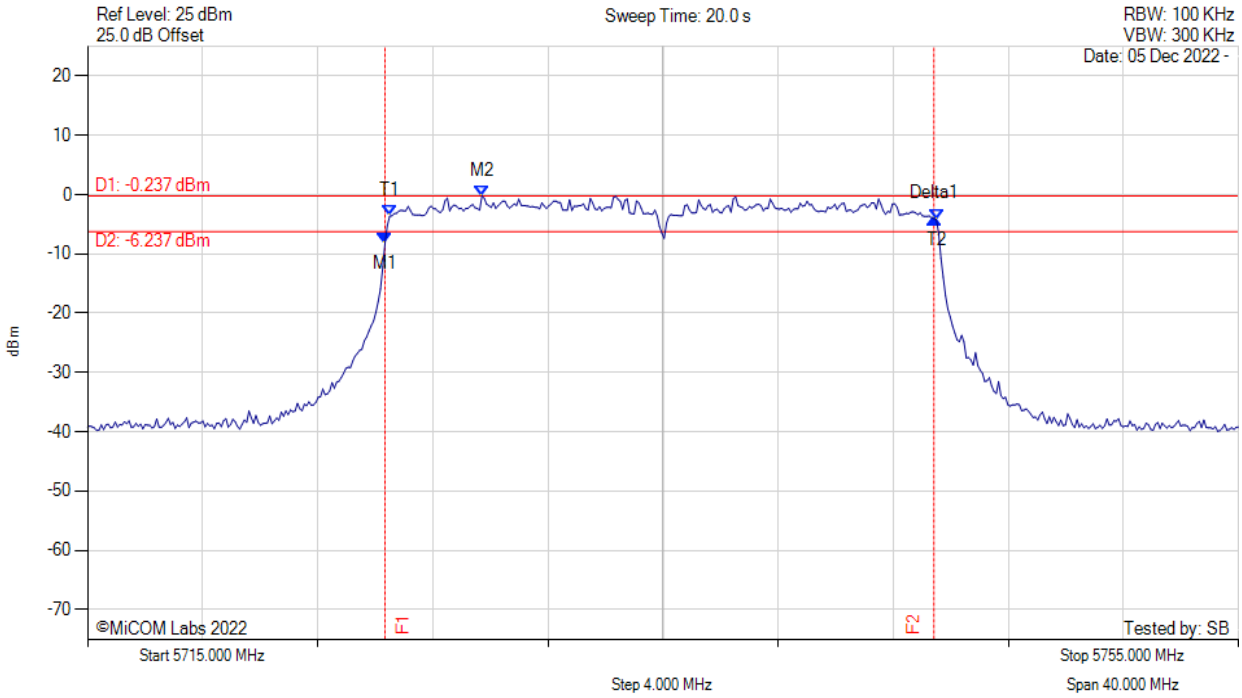
Variant: OFDM-80, Channel: 5810.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5770.800 MHz : 1.689 dBm M2 : 5784.930 MHz : 6.693 dBm Delta1 : 77.870 MHz : 2.036 dB T1 : 5771.067 MHz : 3.100 dBm T2 : 5848.667 MHz : 3.725 dBm OBW : 77.463 MHz	Measured 6 dB Bandwidth: 77.870 MHz Measured 99% Bandwidth: 77.463 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5735.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

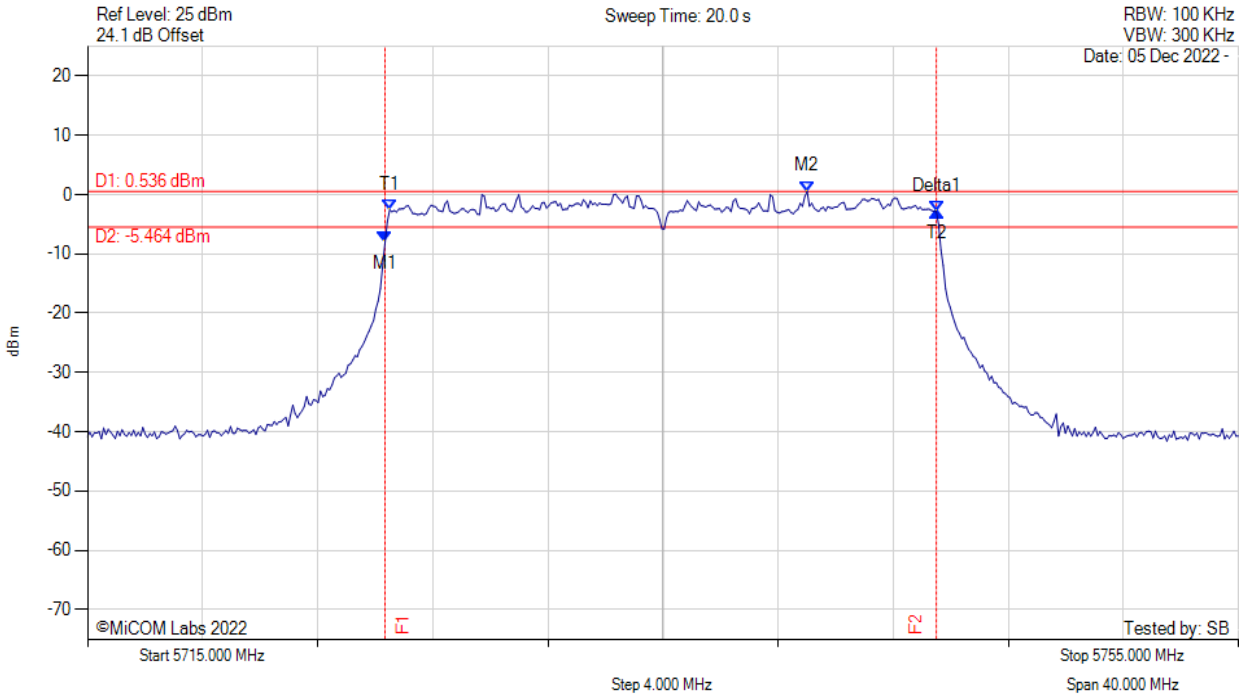


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.341 MHz : -8.105 dBm M2 : 5728.707 MHz : -0.237 dBm Delta1 : 19.078 MHz : 4.025 dB T1 : 5725.501 MHz : -3.635 dBm T2 : 5744.499 MHz : -4.203 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.078 MHz Measured 99% Bandwidth: 18.998 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5735.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

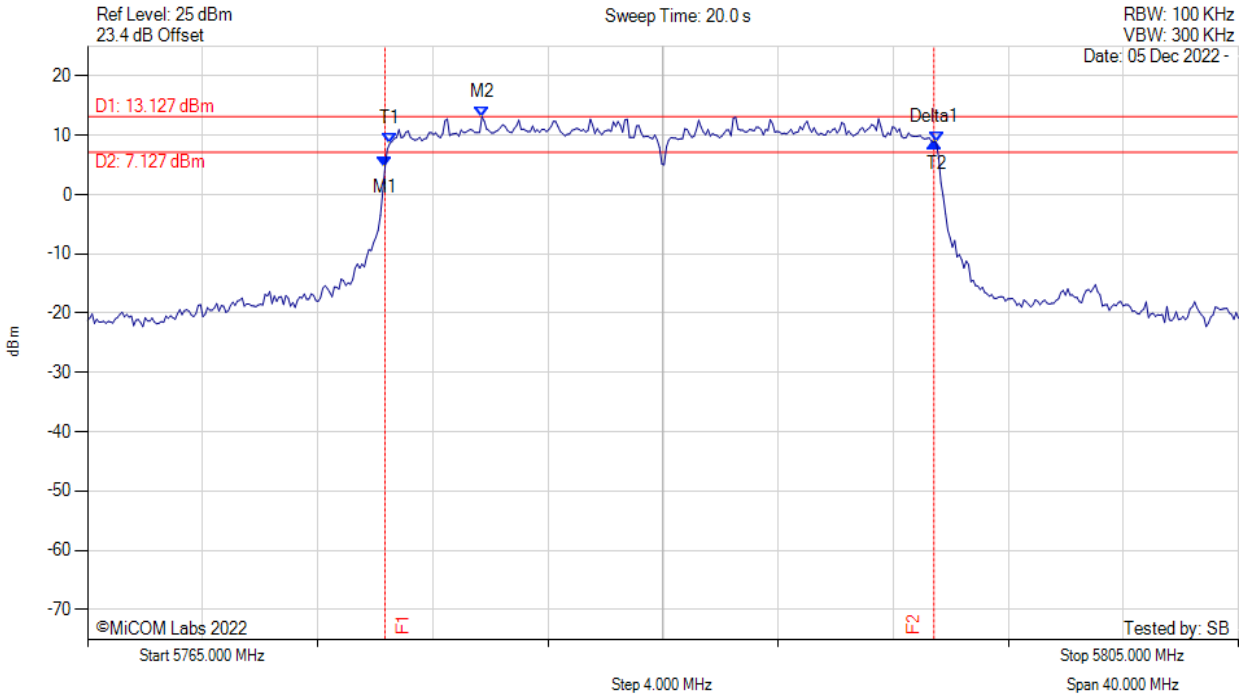


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.341 MHz : -8.030 dBm M2 : 5740.010 MHz : 0.536 dBm Delta1 : 19.158 MHz : 5.182 dB T1 : 5725.501 MHz : -2.590 dBm T2 : 5744.499 MHz : -2.848 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.158 MHz Measured 99% Bandwidth: 18.998 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5775.341 MHz : 4.697 dBm M2 : 5778.707 MHz : 13.127 dBm Delta1 : 19.078 MHz : 4.232 dB T1 : 5775.501 MHz : 8.569 dBm T2 : 5794.499 MHz : 8.797 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.078 MHz Measured 99% Bandwidth: 18.998 MHz

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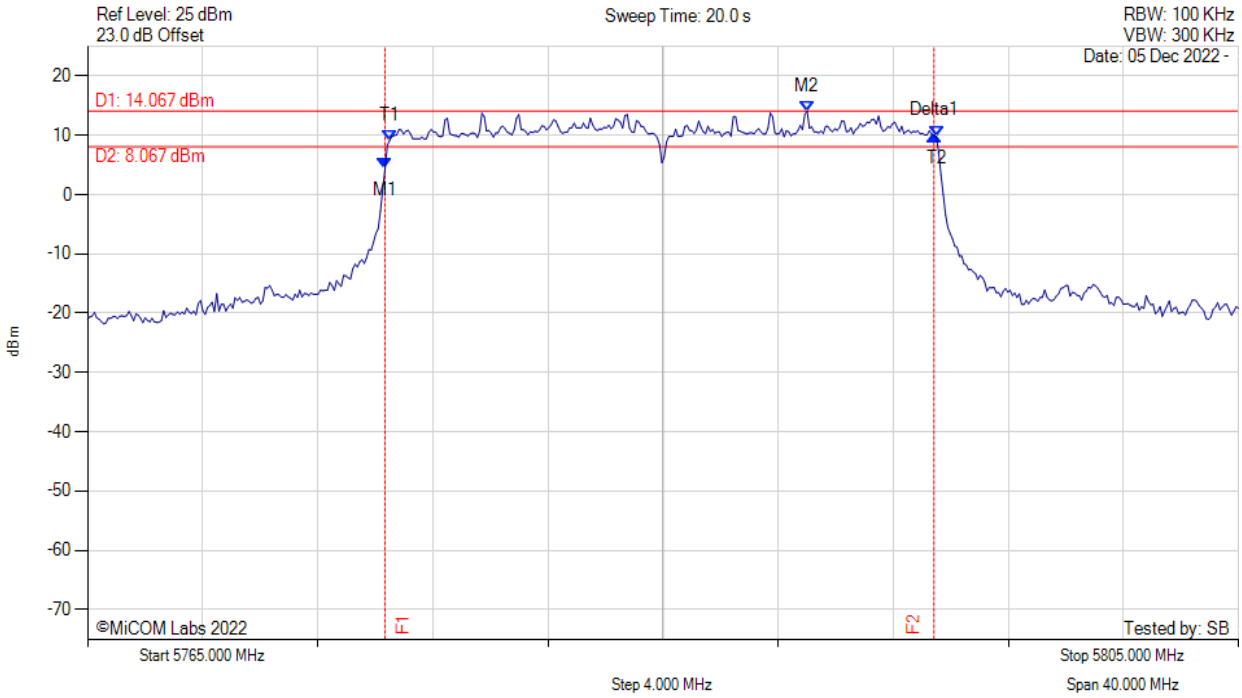
6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5775.341 MHz : 4.376 dBm M2 : 5790.010 MHz : 14.067 dBm Delta1 : 19.078 MHz : 5.554 dB T1 : 5775.501 MHz : 9.167 dBm T2 : 5794.499 MHz : 9.735 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.078 MHz Measured 99% Bandwidth: 18.998 MHz

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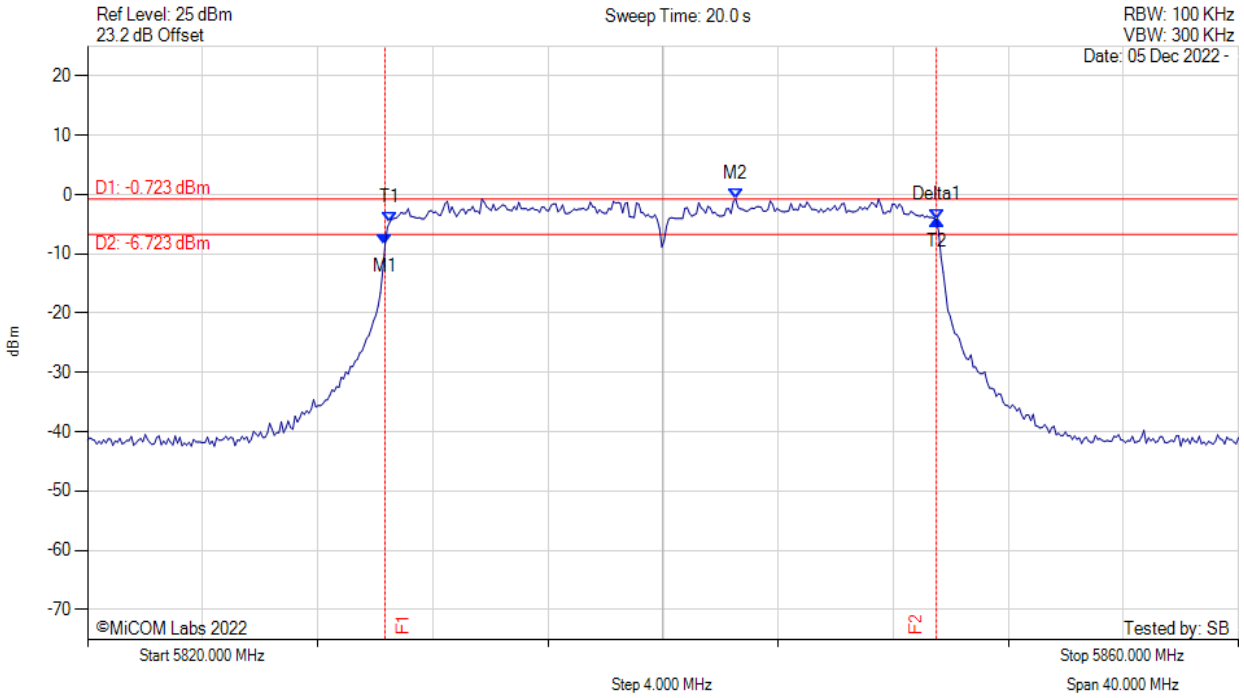
6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5840.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

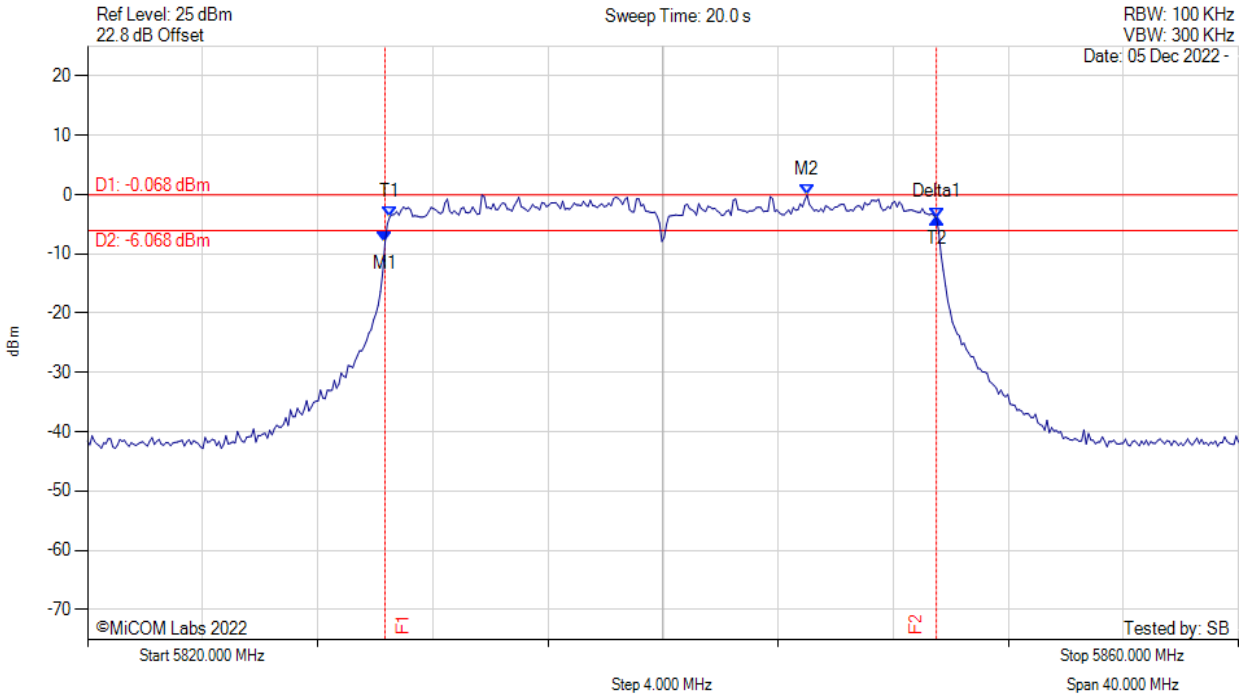


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5830.341 MHz : -8.455 dBm M2 : 5842.525 MHz : -0.723 dBm Delta1 : 19.158 MHz : 4.234 dB T1 : 5830.501 MHz : -4.689 dBm T2 : 5849.499 MHz : -4.221 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.158 MHz Measured 99% Bandwidth: 18.998 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-20, Channel: 5840.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

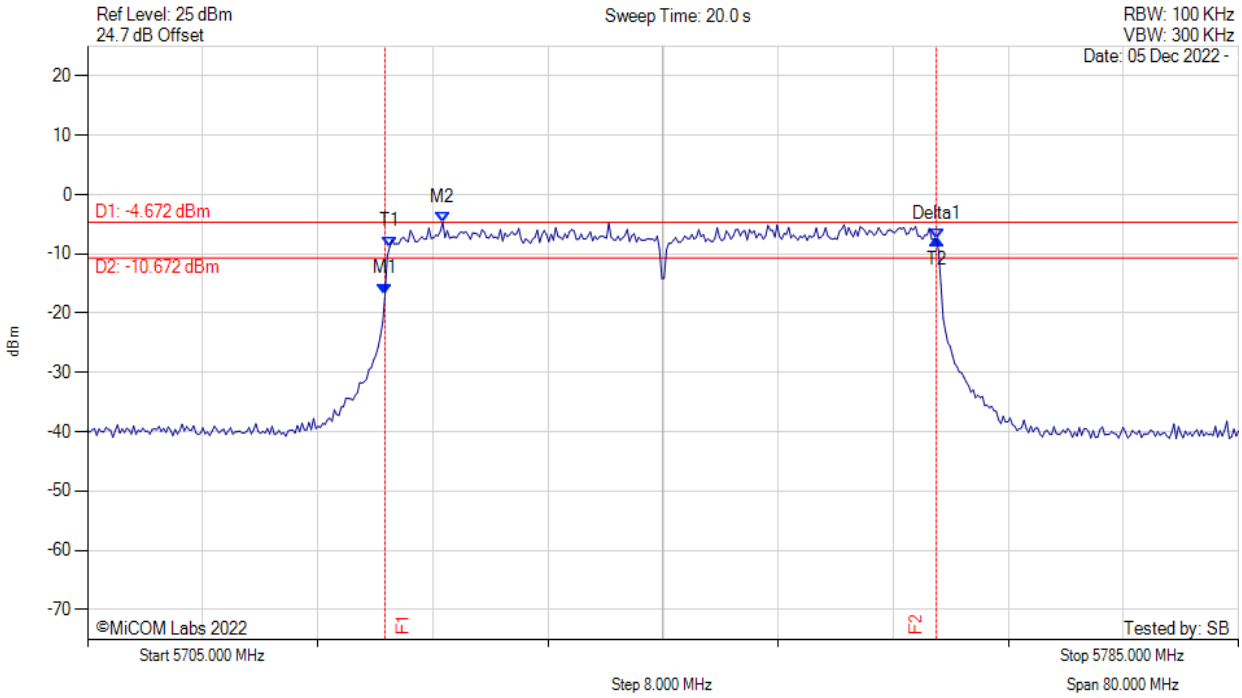


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5830.341 MHz : -8.010 dBm M2 : 5845.010 MHz : -0.068 dBm Delta1 : 19.158 MHz : 4.126 dB T1 : 5830.501 MHz : -3.800 dBm T2 : 5849.499 MHz : -3.883 dBm OBW : 18.998 MHz	Measured 6 dB Bandwidth: 19.158 MHz Measured 99% Bandwidth: 18.998 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.681 MHz : -16.737 dBm M2 : 5729.689 MHz : -4.672 dBm Delta1 : 38.317 MHz : 9.280 dB T1 : 5726.002 MHz : -8.813 dBm T2 : 5763.998 MHz : -7.457 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.317 MHz Measured 99% Bandwidth: 37.996 MHz

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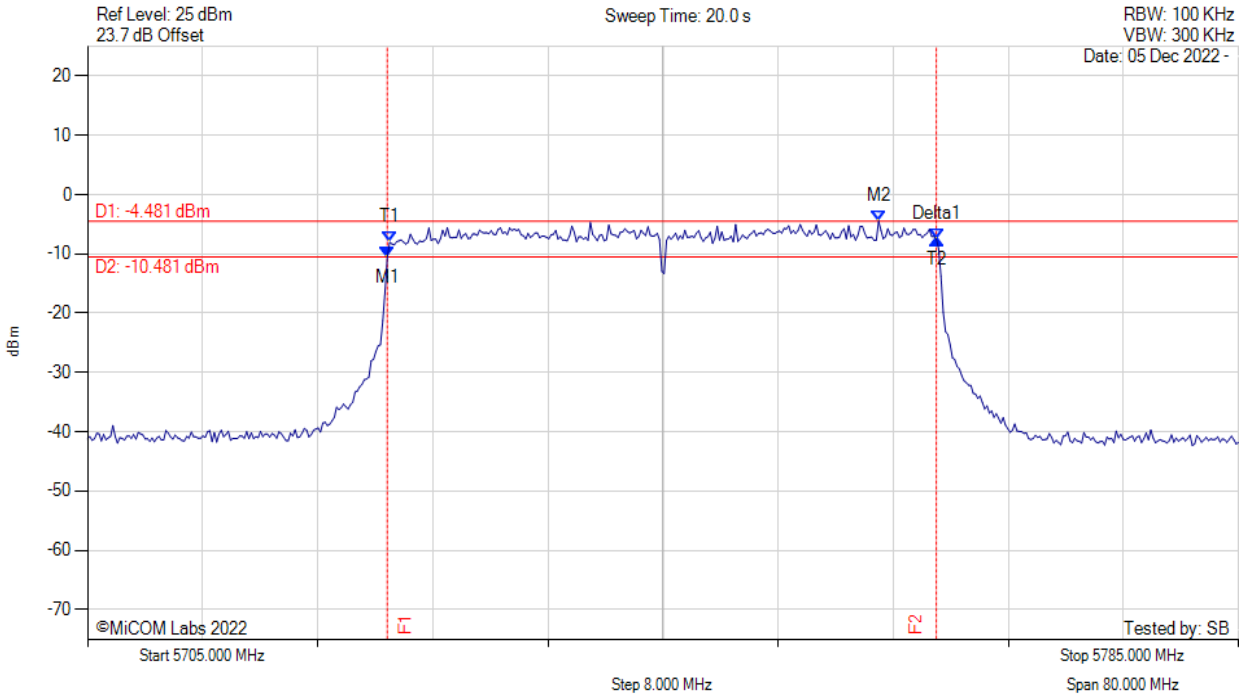
6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.842 MHz : -10.509 dBm M2 : 5759.990 MHz : -4.481 dBm Delta1 : 38.156 MHz : 3.059 dB T1 : 5726.002 MHz : -8.050 dBm T2 : 5763.998 MHz : -7.450 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.156 MHz Measured 99% Bandwidth: 37.996 MHz

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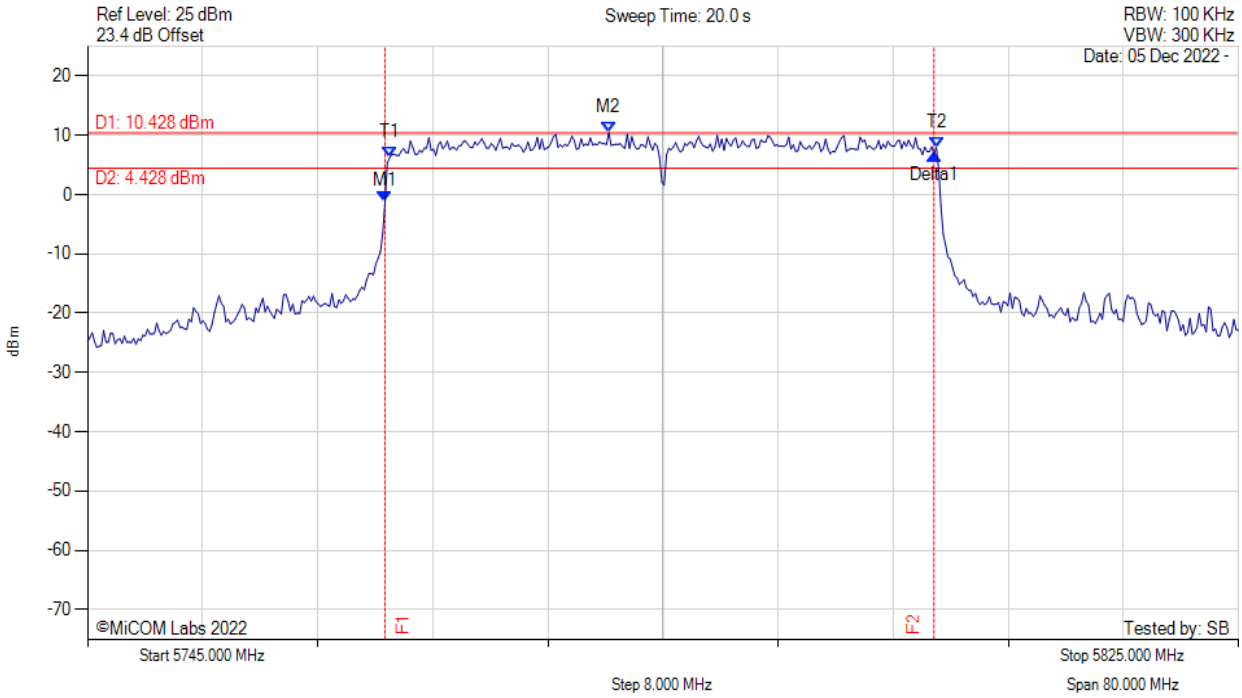
6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5765.681 MHz : -1.101 dBm M2 : 5781.232 MHz : 10.428 dBm Delta1 : 38.156 MHz : 7.895 dB T1 : 5766.002 MHz : 6.269 dBm T2 : 5803.998 MHz : 7.961 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.156 MHz Measured 99% Bandwidth: 37.996 MHz

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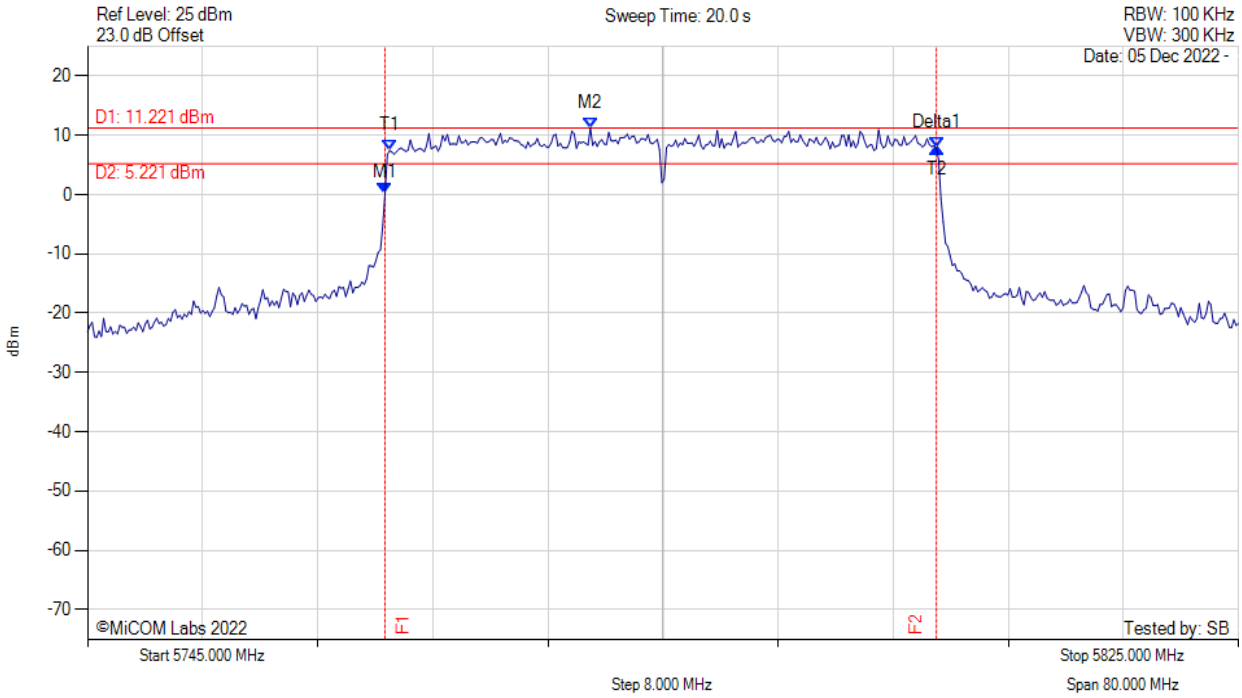
6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

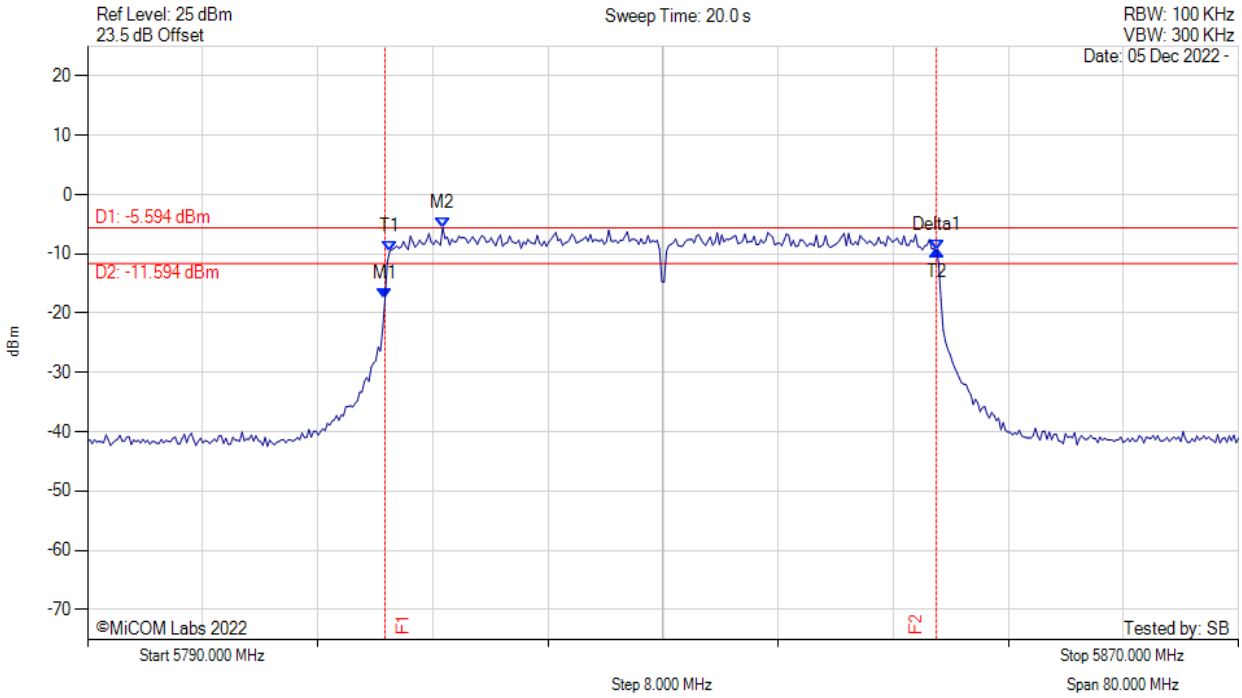


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5765.681 MHz : 0.325 dBm M2 : 5779.950 MHz : 11.221 dBm Delta1 : 38.317 MHz : 7.484 dB T1 : 5766.002 MHz : 7.441 dBm T2 : 5803.998 MHz : 7.809 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.317 MHz Measured 99% Bandwidth: 37.996 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5830.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

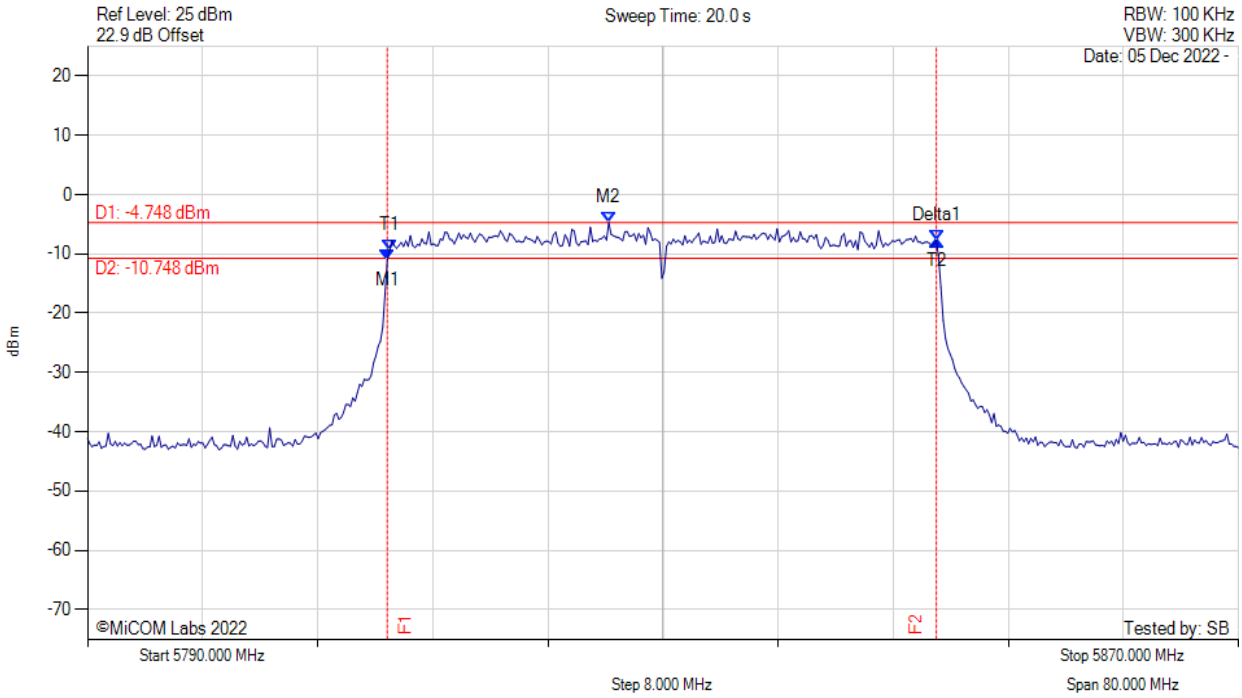


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5810.681 MHz : -17.546 dBm M2 : 5814.689 MHz : -5.594 dBm Delta1 : 38.317 MHz : 8.163 dB T1 : 5811.002 MHz : -9.578 dBm T2 : 5848.998 MHz : -9.383 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.317 MHz Measured 99% Bandwidth: 37.996 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-40, Channel: 5830.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

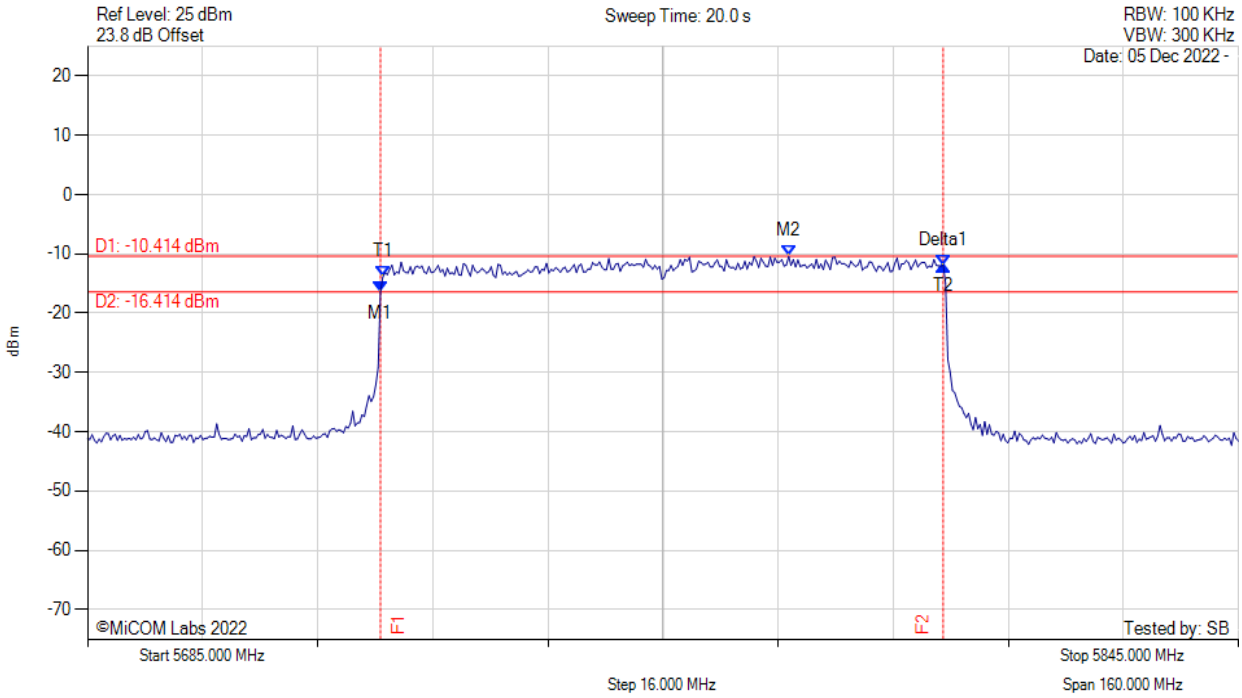


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5810.842 MHz : -10.910 dBm M2 : 5826.232 MHz : -4.748 dBm Delta1 : 38.156 MHz : 3.207 dB T1 : 5811.002 MHz : -9.299 dBm T2 : 5848.998 MHz : -7.703 dBm OBW : 37.996 MHz	Measured 6 dB Bandwidth: 38.156 MHz Measured 99% Bandwidth: 37.996 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5765.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

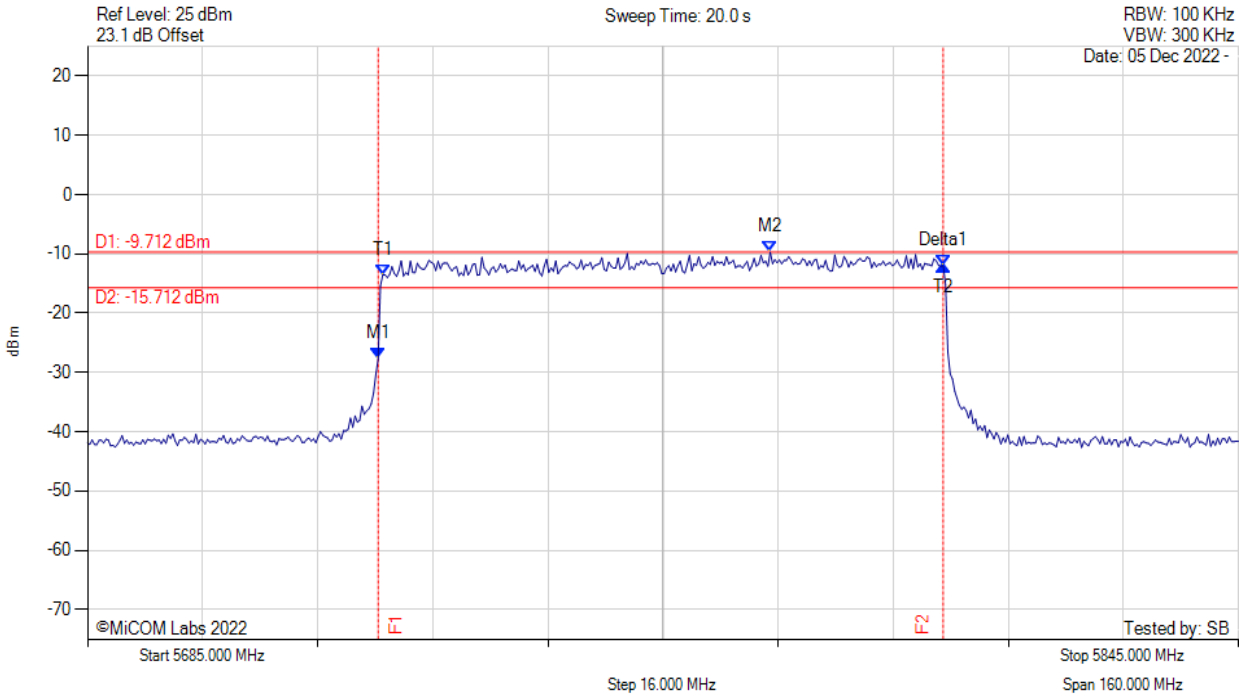


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.721 MHz : -16.450 dBm M2 : 5782.475 MHz : -10.414 dBm Delta1 : 78.236 MHz : 4.566 dB T1 : 5726.042 MHz : -13.916 dBm T2 : 5803.958 MHz : -11.884 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 78.236 MHz Measured 99% Bandwidth: 77.916 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5765.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

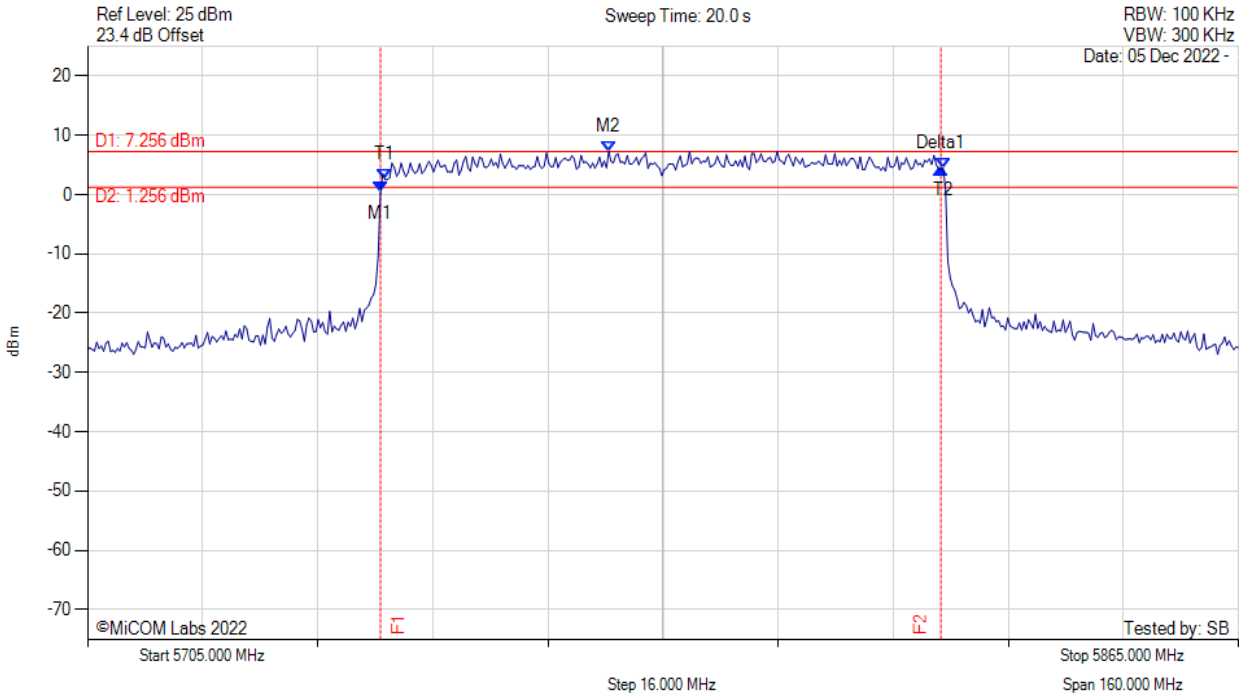


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5725.401 MHz : -27.682 dBm M2 : 5779.910 MHz : -9.712 dBm Delta1 : 78.557 MHz : 15.668 dB T1 : 5726.042 MHz : -13.519 dBm T2 : 5803.958 MHz : -12.014 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 78.557 MHz Measured 99% Bandwidth: 77.916 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

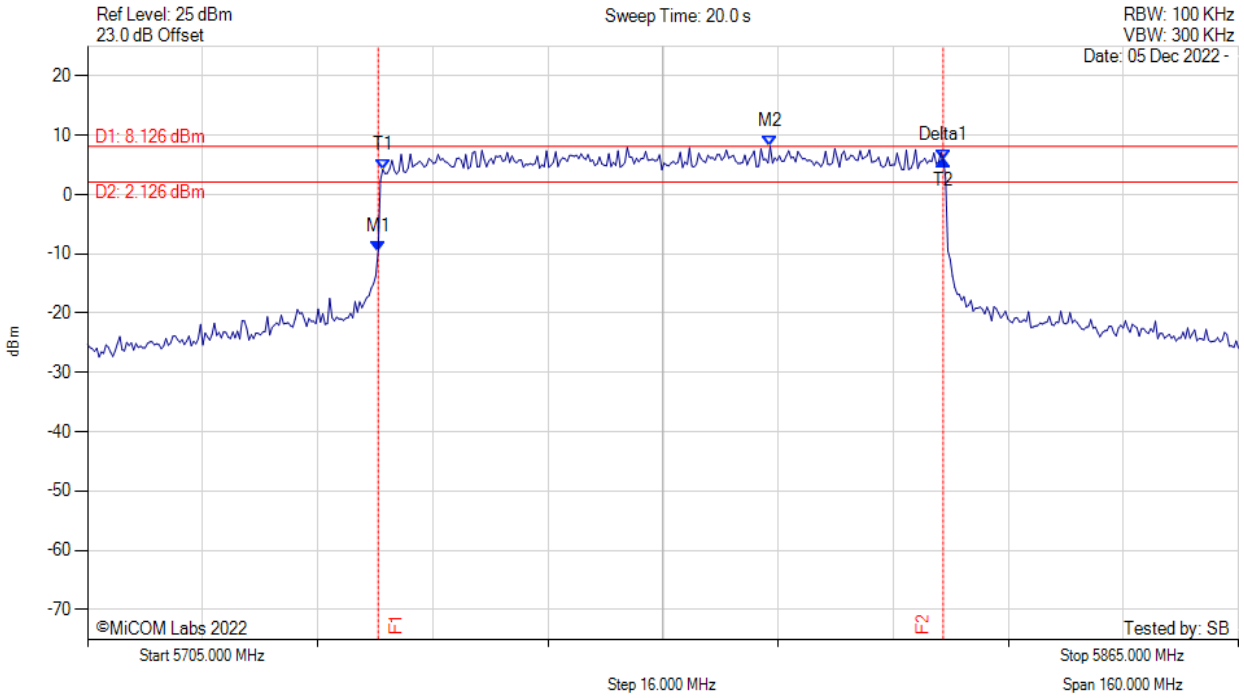


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5745.721 MHz : 0.339 dBm M2 : 5777.465 MHz : 7.256 dBm Delta1 : 77.916 MHz : 4.019 dB T1 : 5746.363 MHz : 2.541 dBm T2 : 5823.958 MHz : 4.390 dBm OBW : 77.595 MHz	Measured 6 dB Bandwidth: 77.916 MHz Measured 99% Bandwidth: 77.595 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

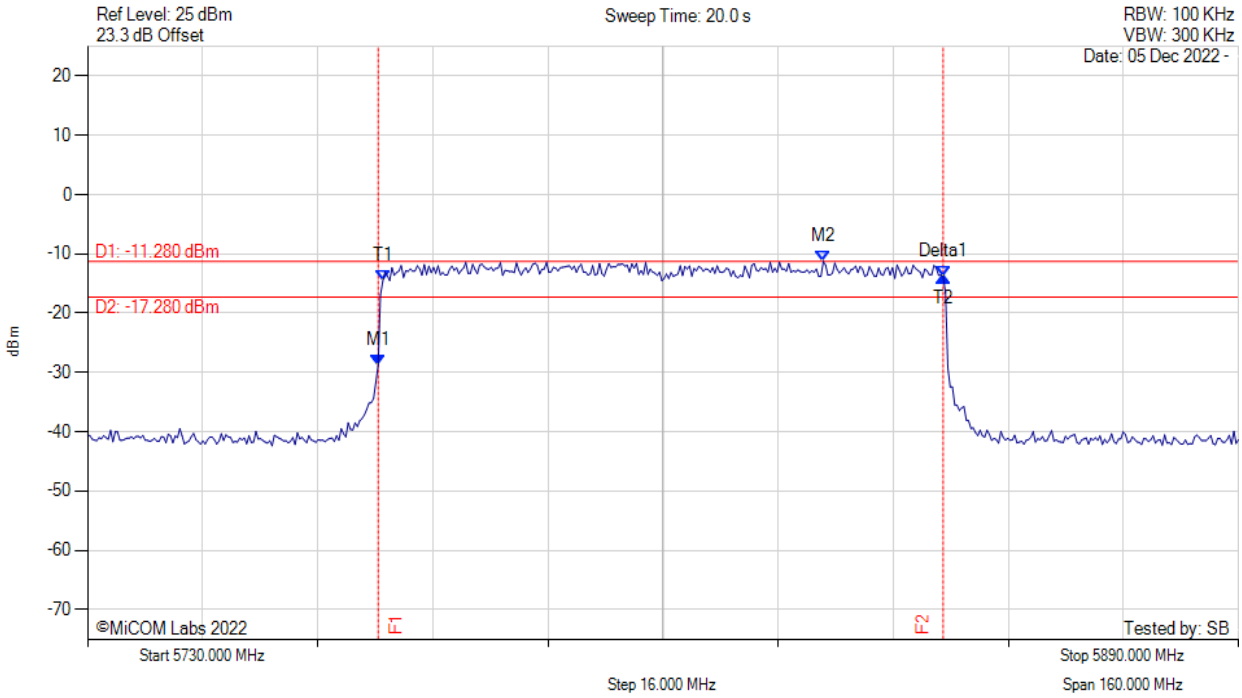


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5745.401 MHz : -9.531 dBm M2 : 5799.910 MHz : 8.126 dBm Delta1 : 78.557 MHz : 15.438 dB T1 : 5746.042 MHz : 4.250 dBm T2 : 5823.958 MHz : 5.907 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 78.557 MHz Measured 99% Bandwidth: 77.916 MHz

back to matrix

6 dB & 99% BANDWIDTH

Variant: OFDM-80, Channel: 5810.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

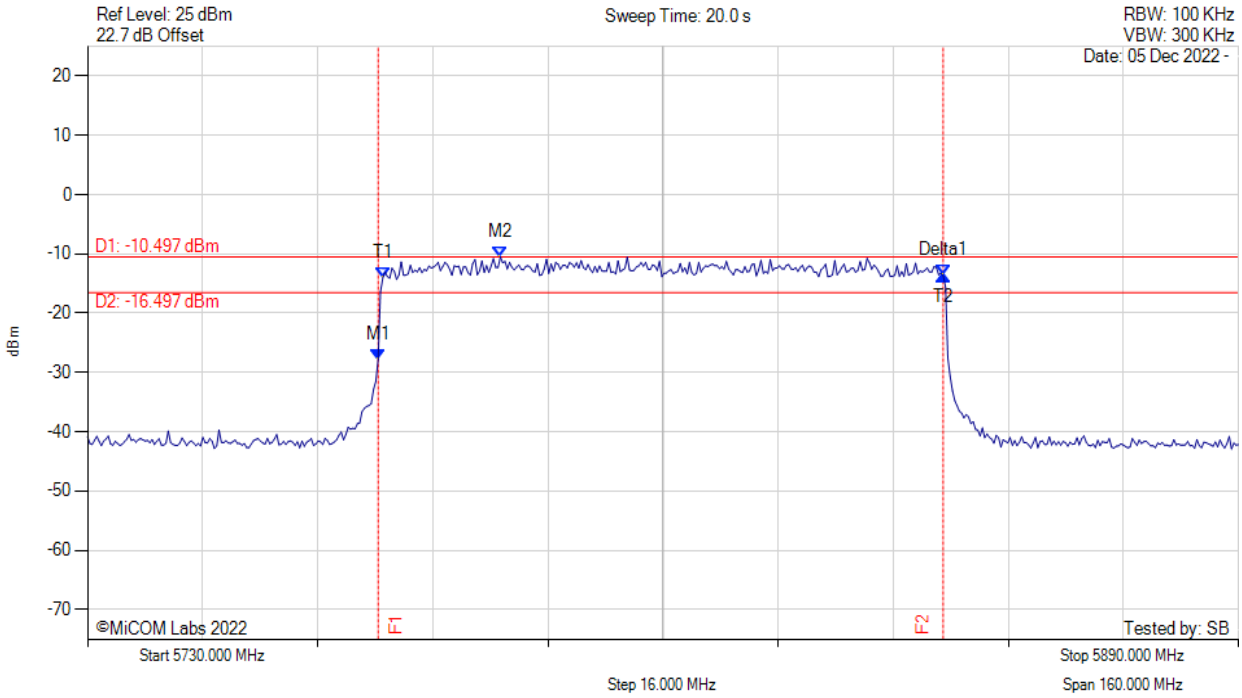


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5770.401 MHz : -28.728 dBm M2 : 5832.285 MHz : -11.280 dBm Delta1 : 78.557 MHz : 14.850 dB T1 : 5771.042 MHz : -14.609 dBm T2 : 5848.958 MHz : -13.877 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 78.557 MHz Measured 99% Bandwidth: 77.916 MHz

back to matrix

6 dB & 99% BANDWIDTH

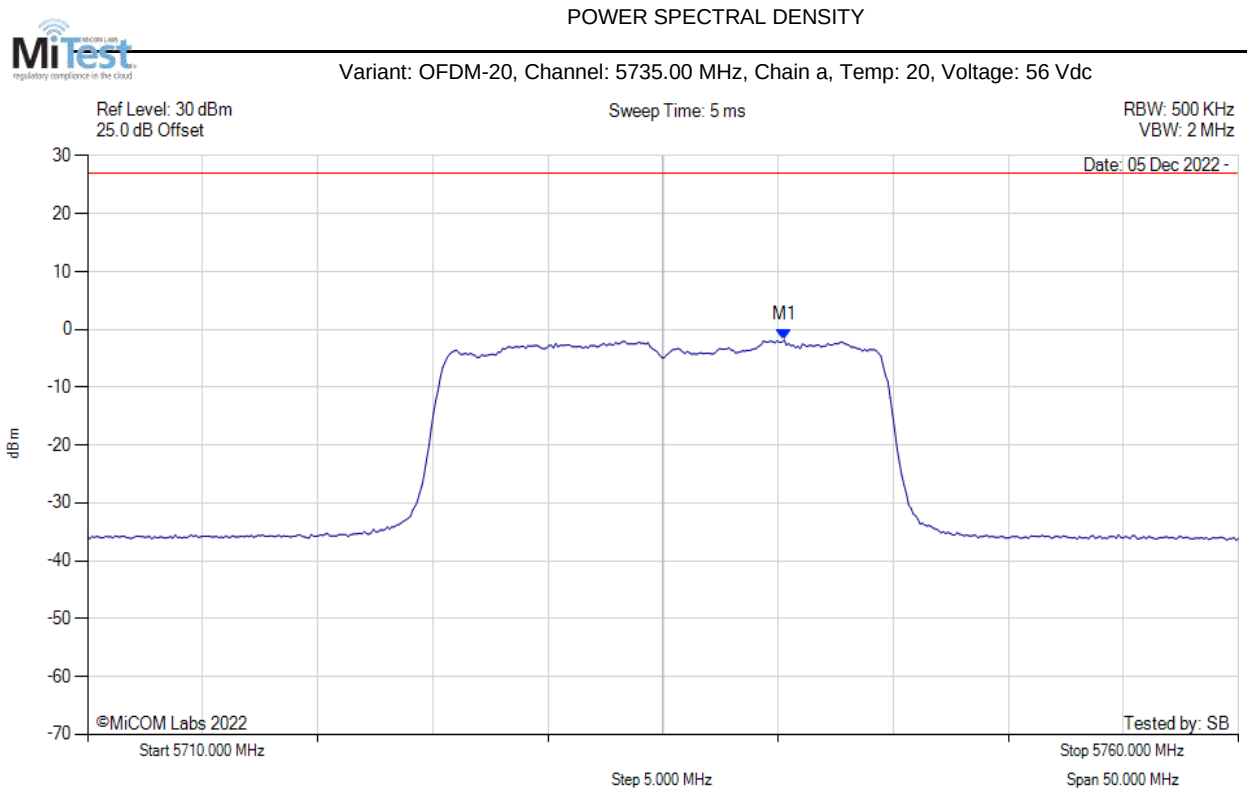
Variant: OFDM-80, Channel: 5810.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 5770.401 MHz : -27.761 dBm M2 : 5787.395 MHz : -10.497 dBm Delta1 : 78.557 MHz : 14.086 dB T1 : 5771.042 MHz : -14.068 dBm T2 : 5848.958 MHz : -13.676 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 78.557 MHz Measured 99% Bandwidth: 77.916 MHz

back to matrix

A.2. Power Spectral Density

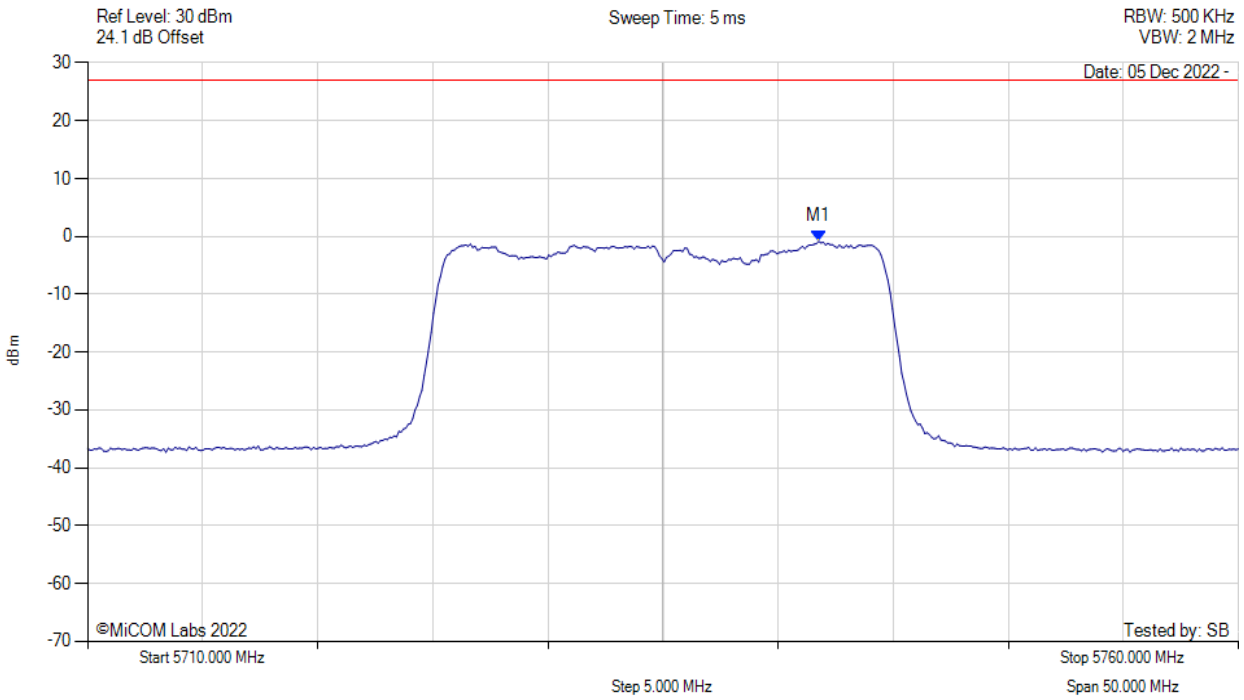


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5740.261 MHz : -1.820 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5735.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

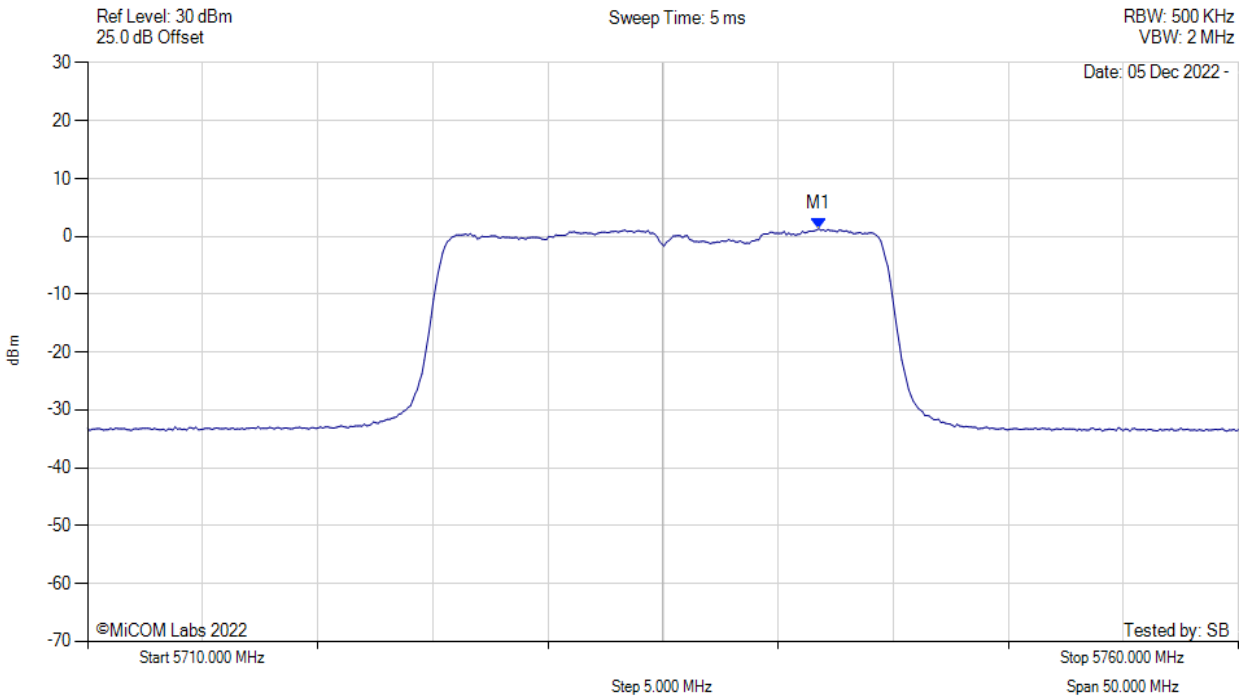


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5741.764 MHz : -0.841 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5735.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

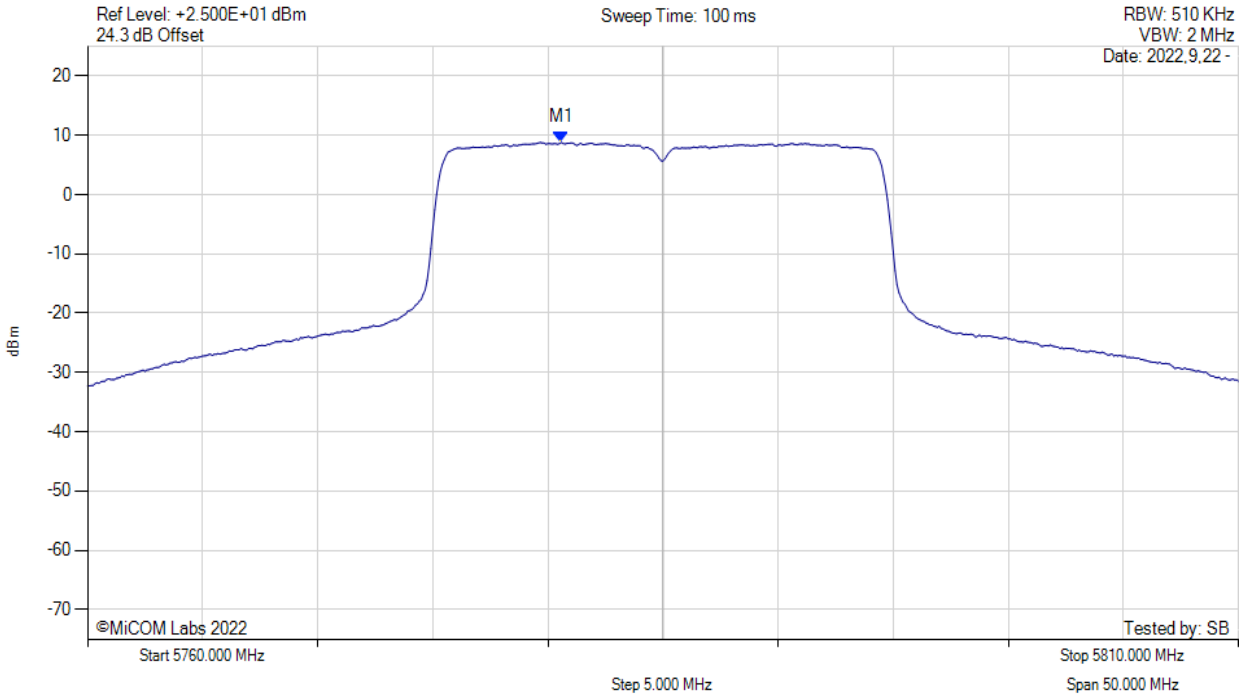


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5741.800 MHz : 1.349 dBm M1 + DCCF : 5741.800 MHz : 1.393 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -28.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

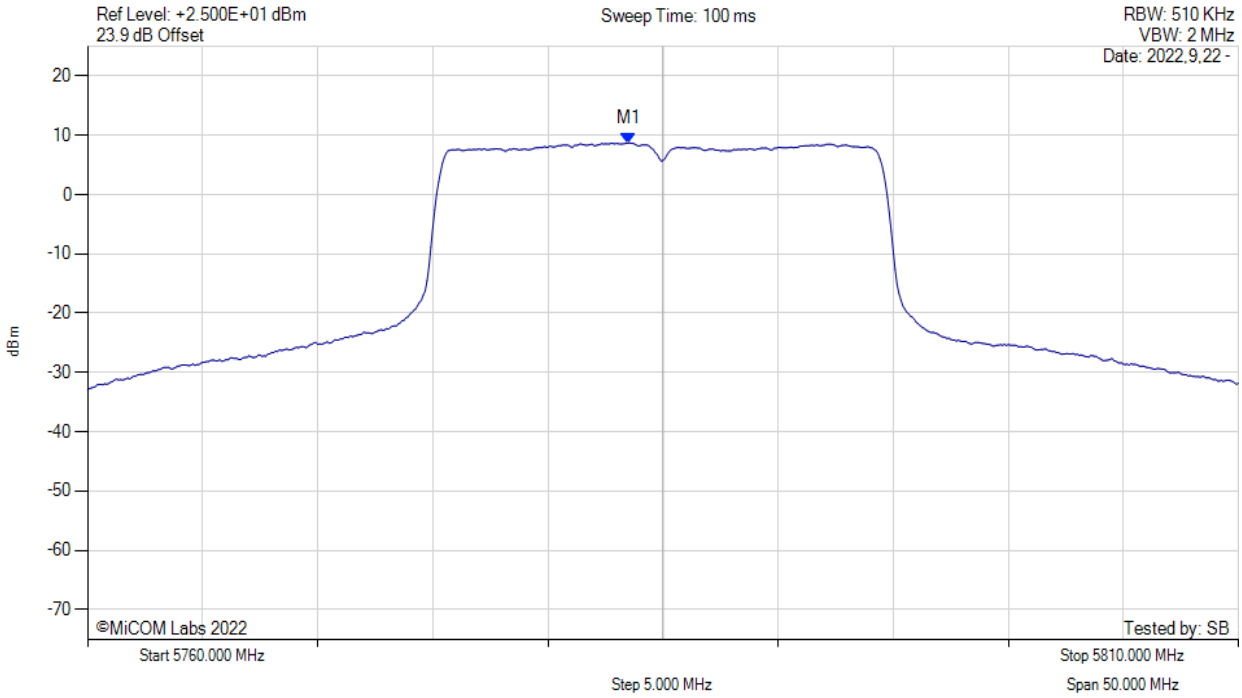


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5780.580 MHz : 8.802 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

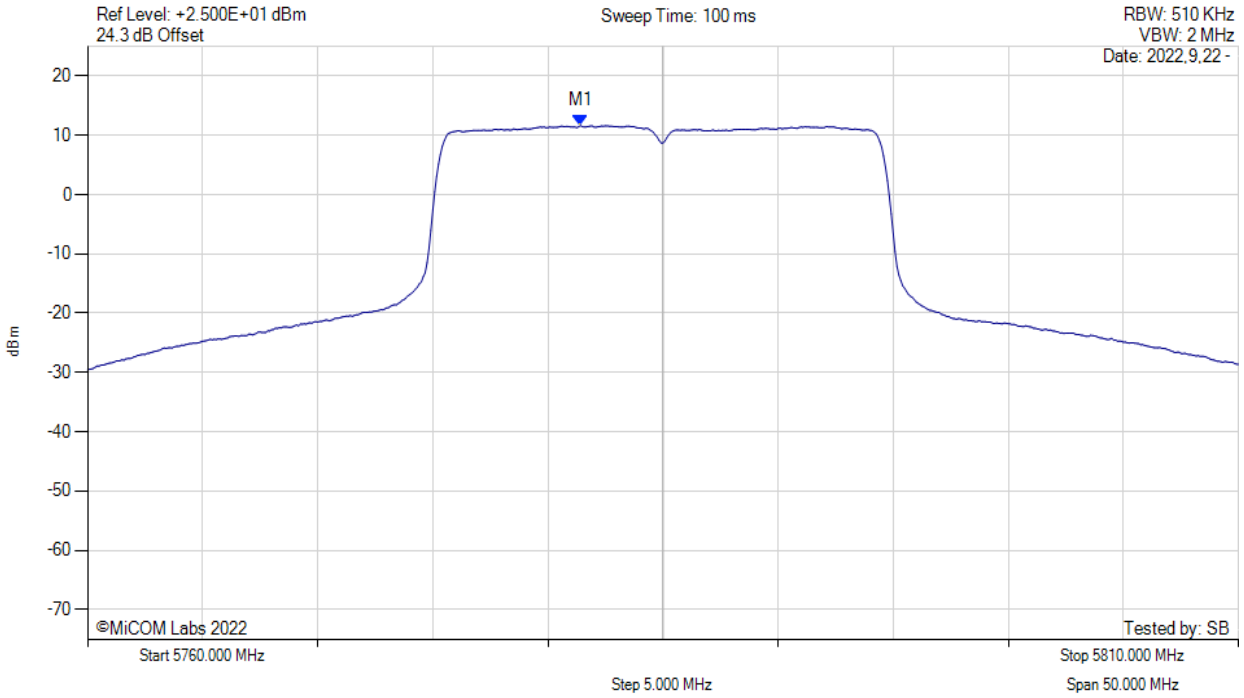


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5783.500 MHz : 8.710 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

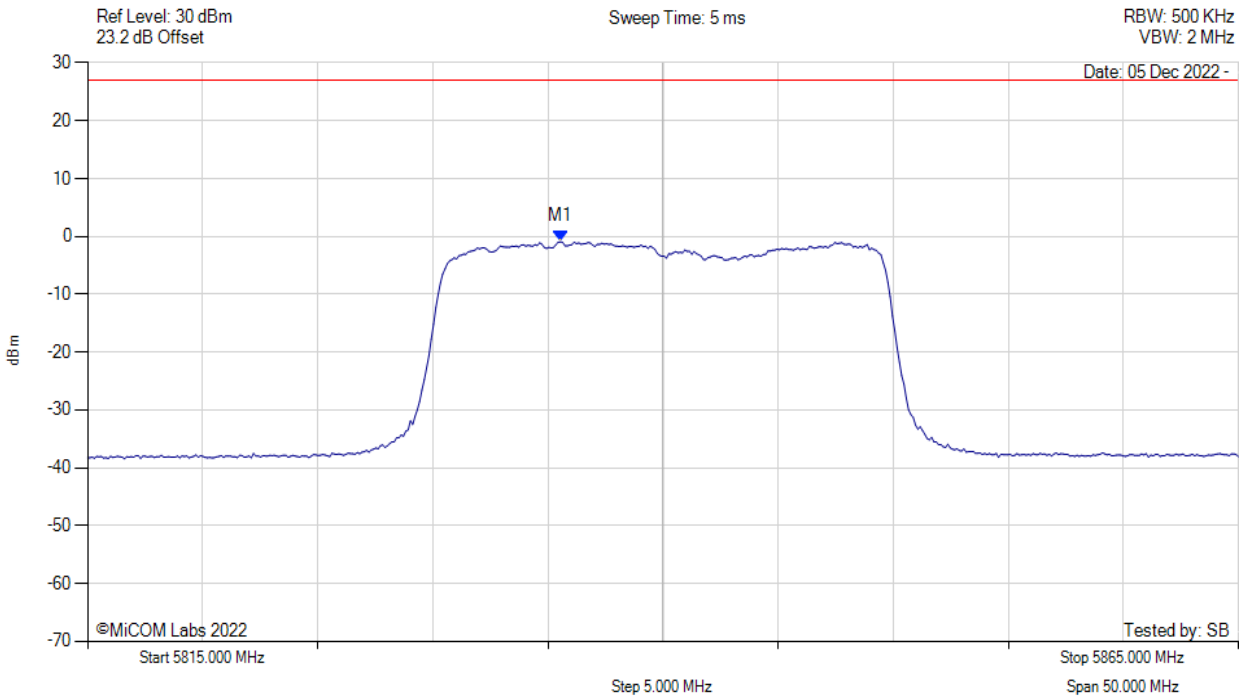


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5781.400 MHz : 11.638 dBm M1 + DCCF : 5781.400 MHz : 11.682 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -18.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

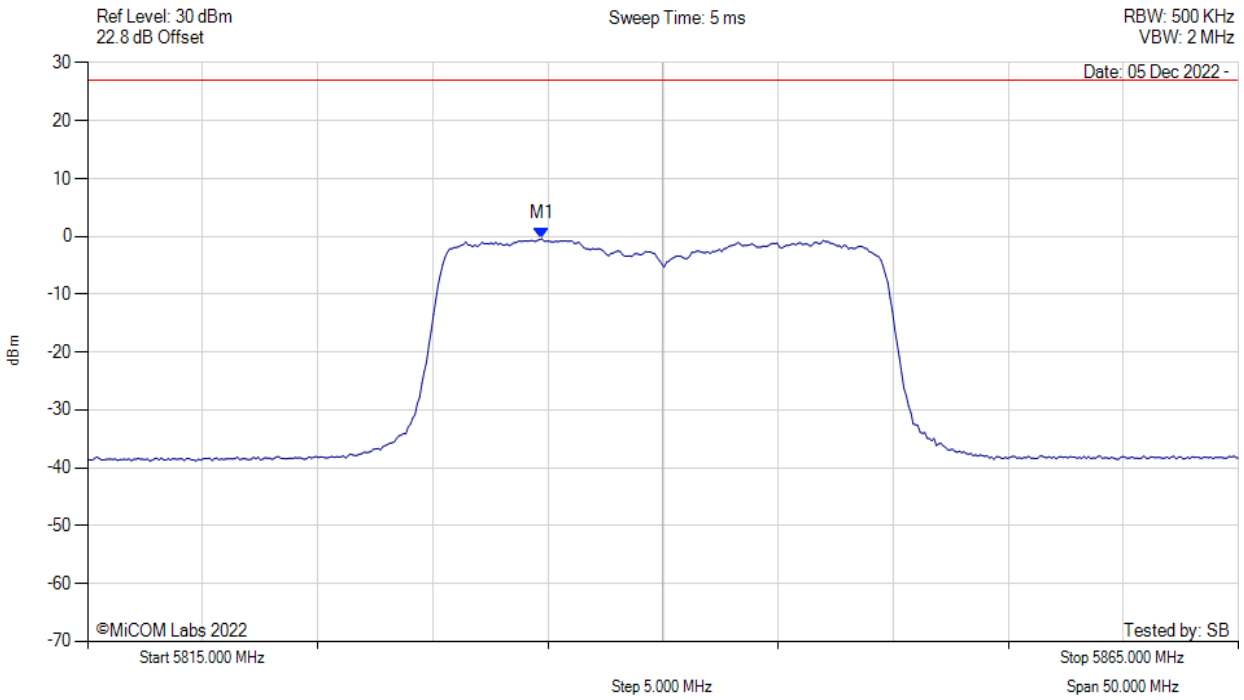


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5835.541 MHz : -0.912 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

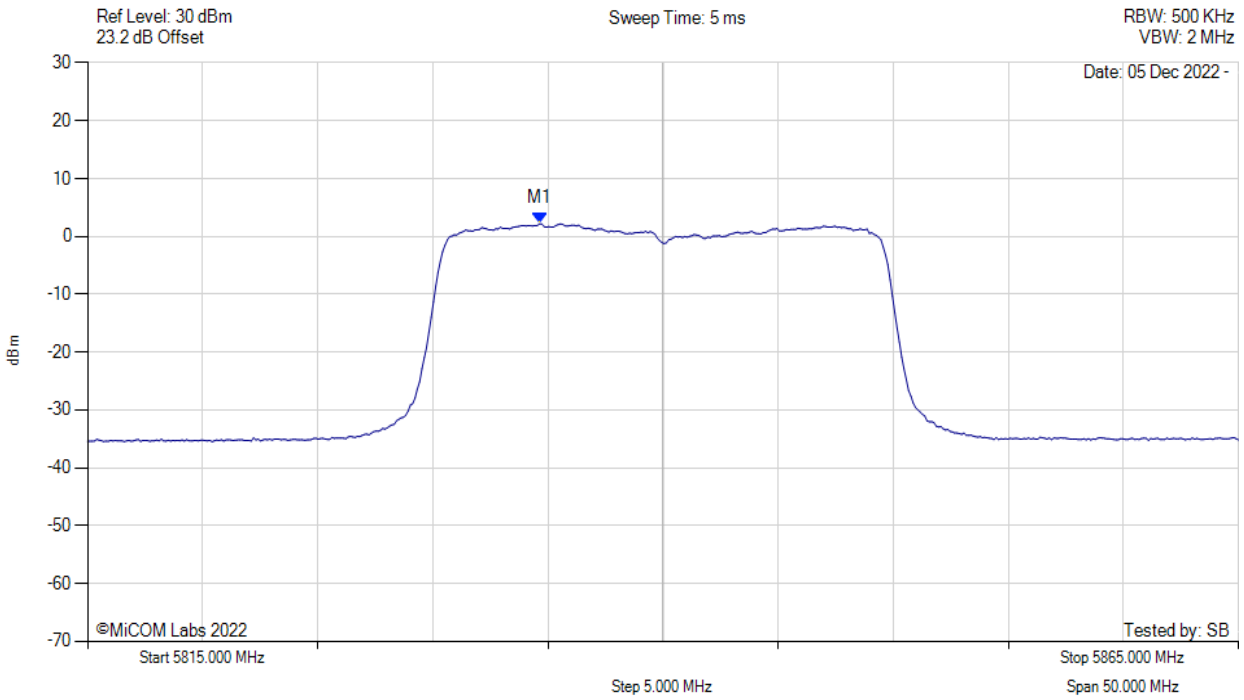


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5834.739 MHz : -0.408 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

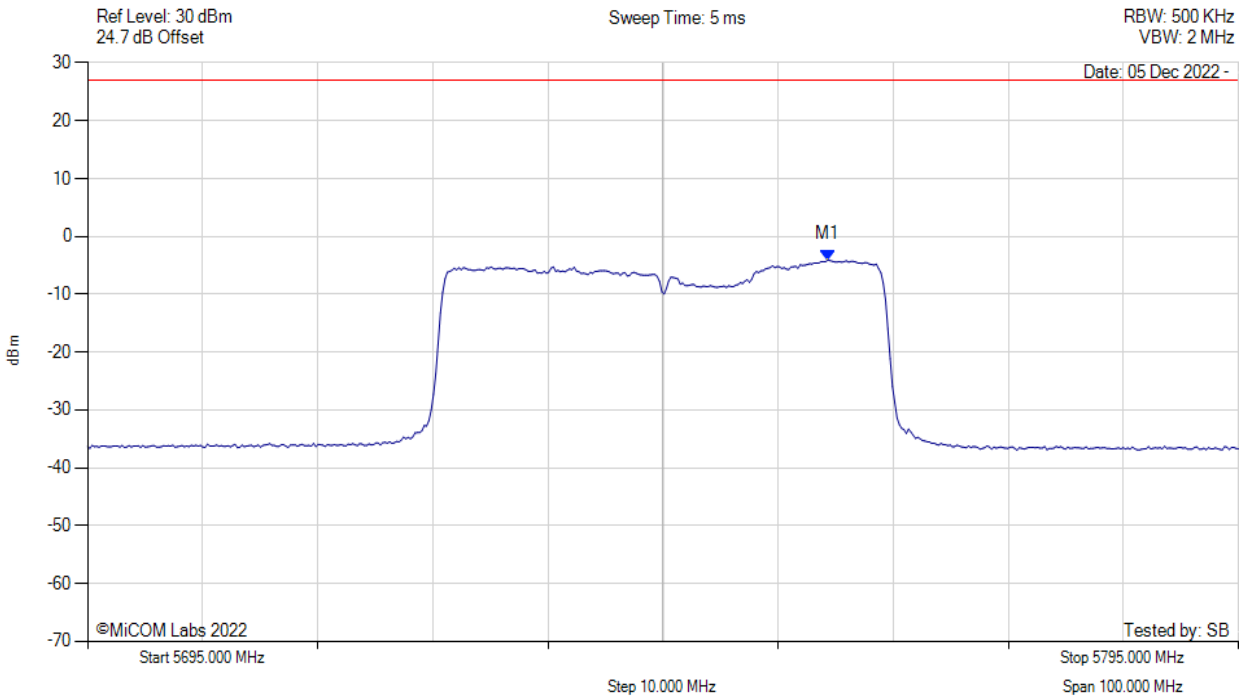


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5834.600 MHz : 2.199 dBm M1 + DCCF : 5834.600 MHz : 2.243 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -27.8 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

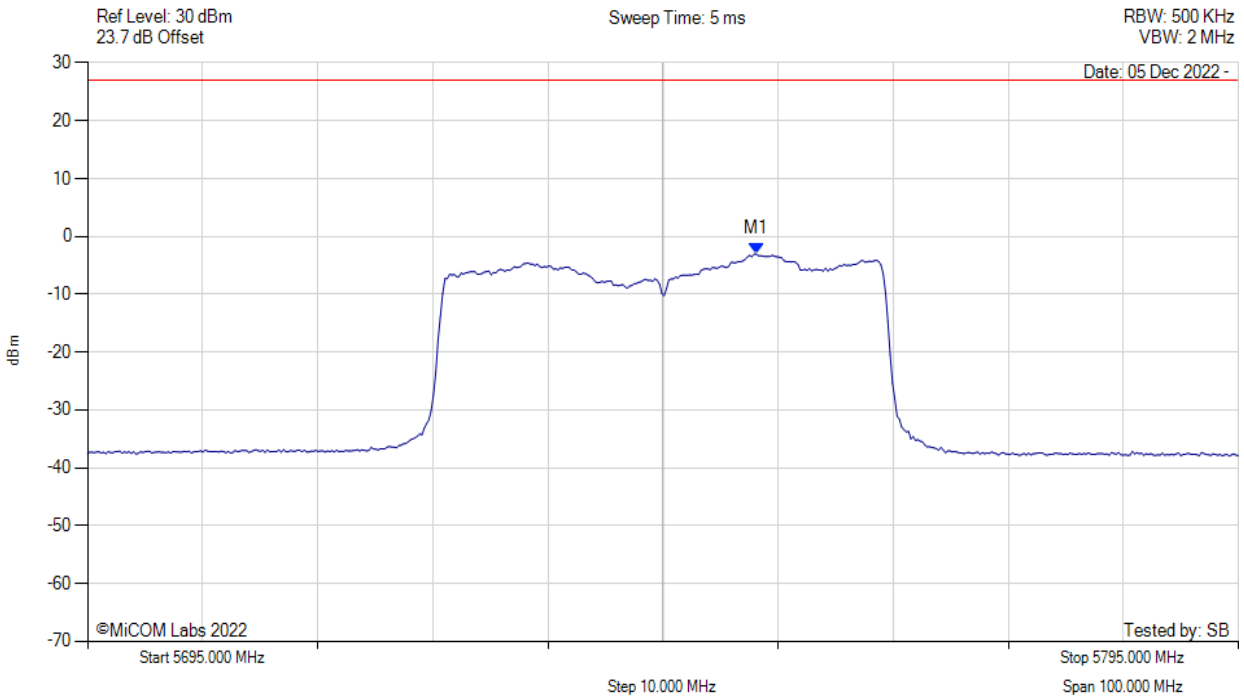


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5759.329 MHz : -4.059 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

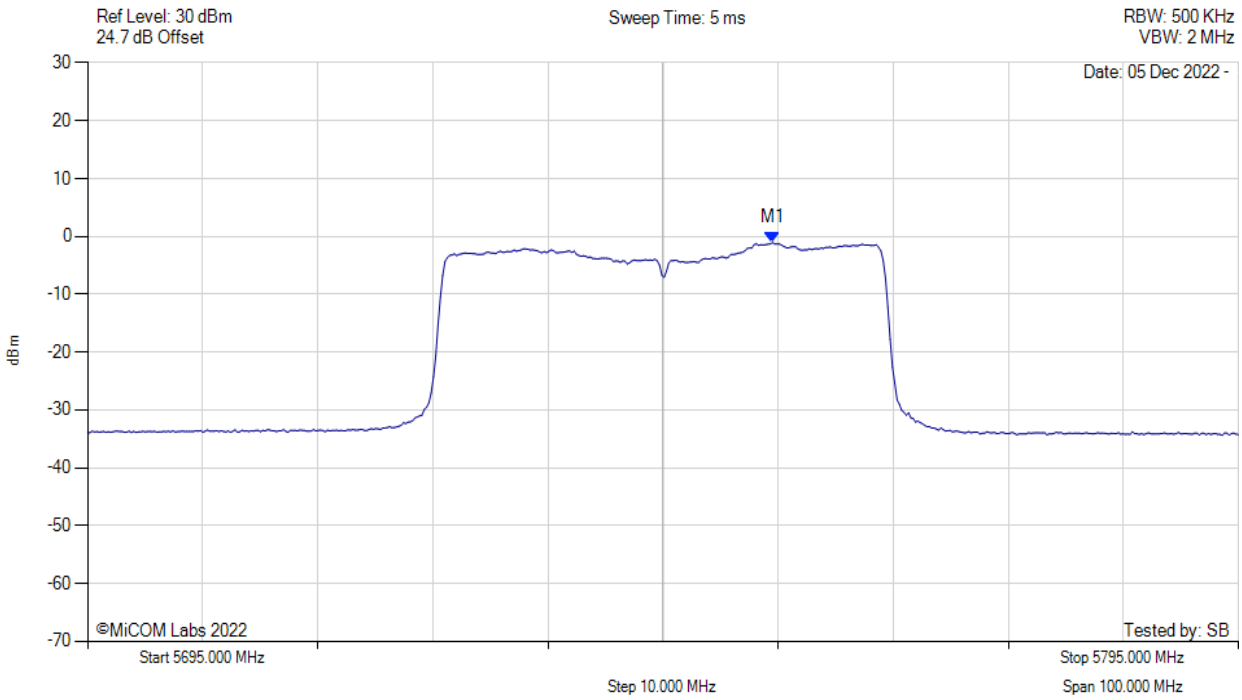


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5753.116 MHz : -3.047 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

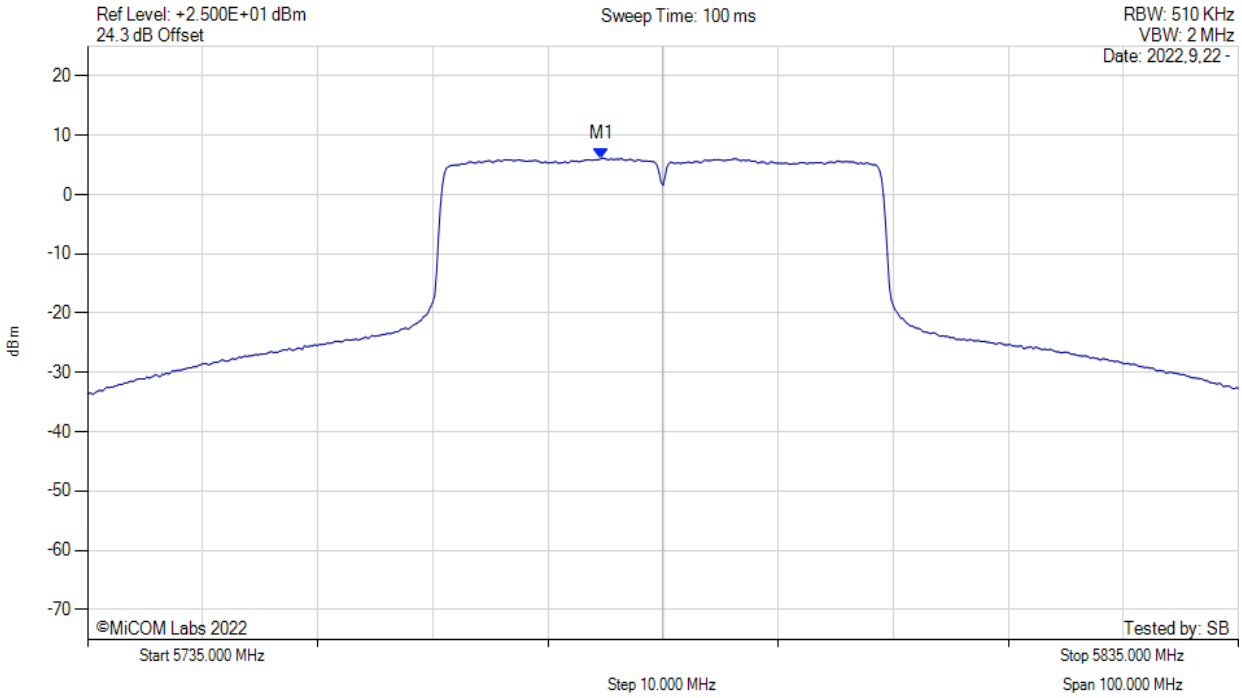


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5754.500 MHz : -1.051 dBm M1 + DCCF : 5754.500 MHz : -1.007 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -31.0 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

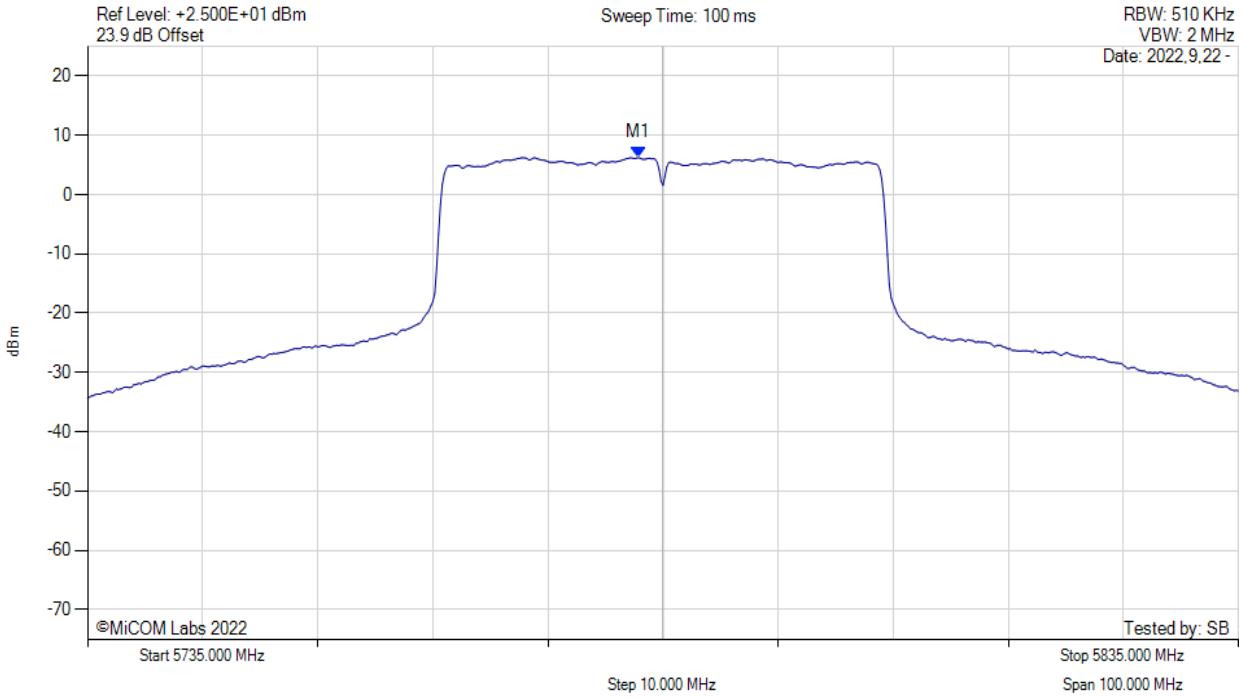


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5779.670 MHz : 6.136 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

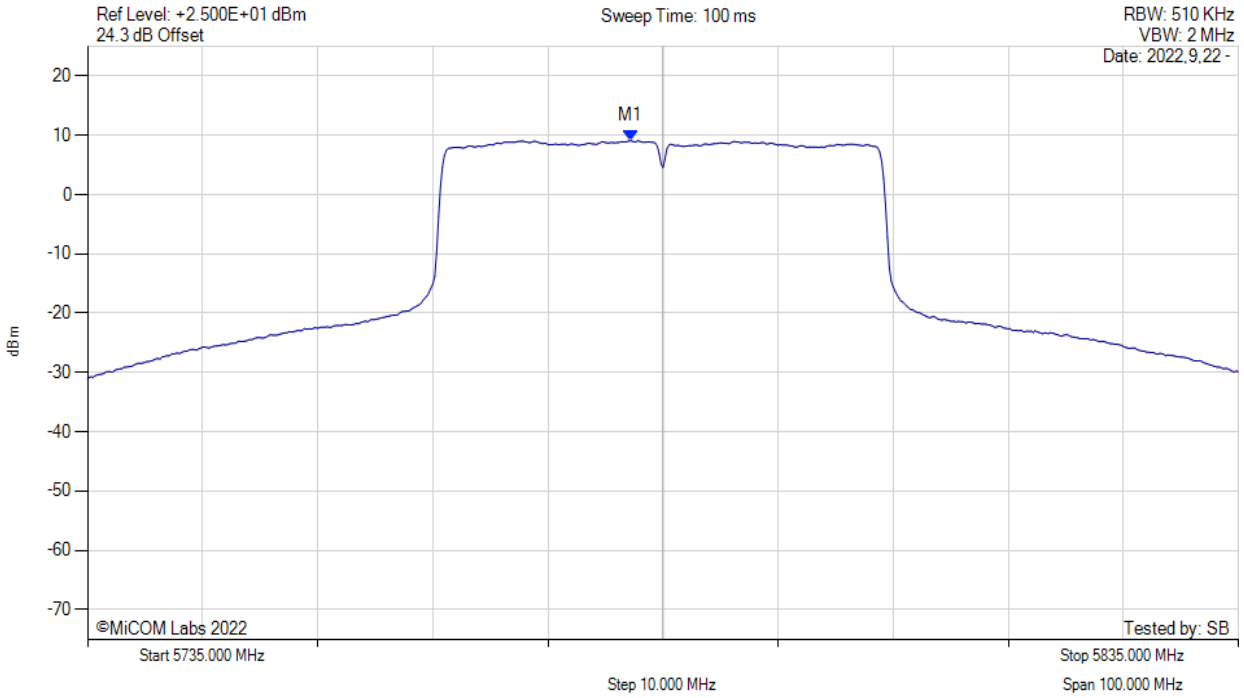


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5782.830 MHz : 6.250 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

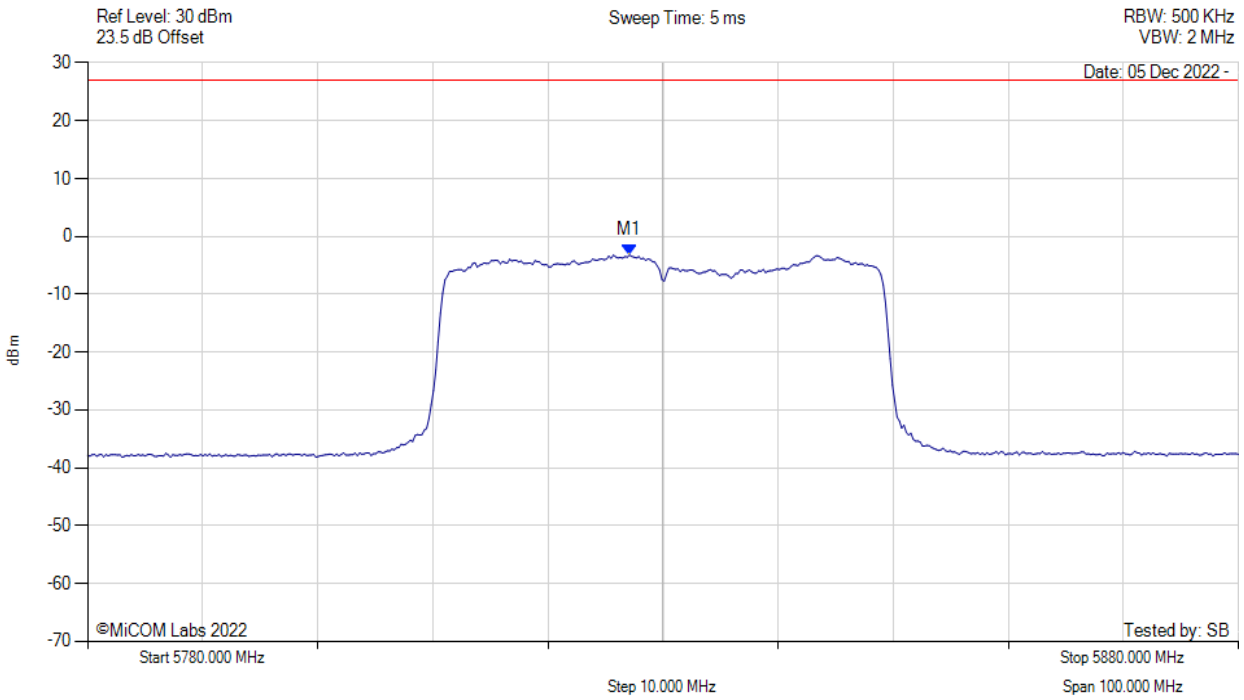


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5782.200 MHz : 9.108 dBm M1 + DCCF : 5782.200 MHz : 9.152 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -20.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

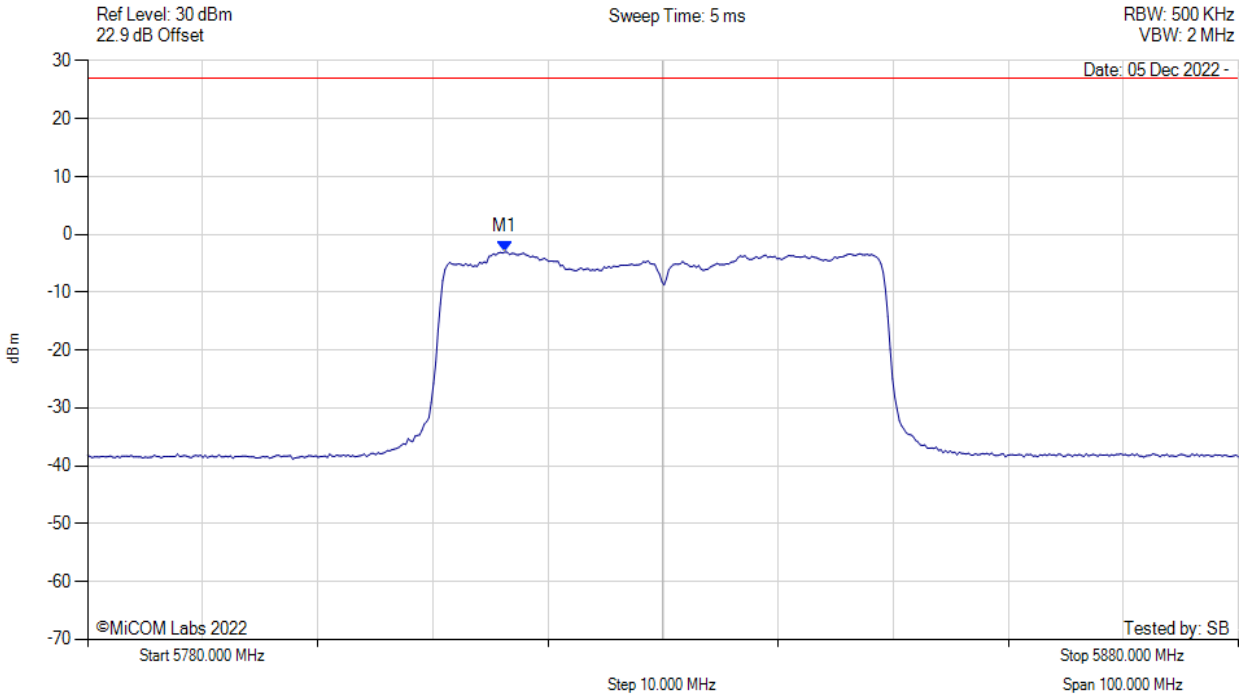


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5827.094 MHz : -3.218 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

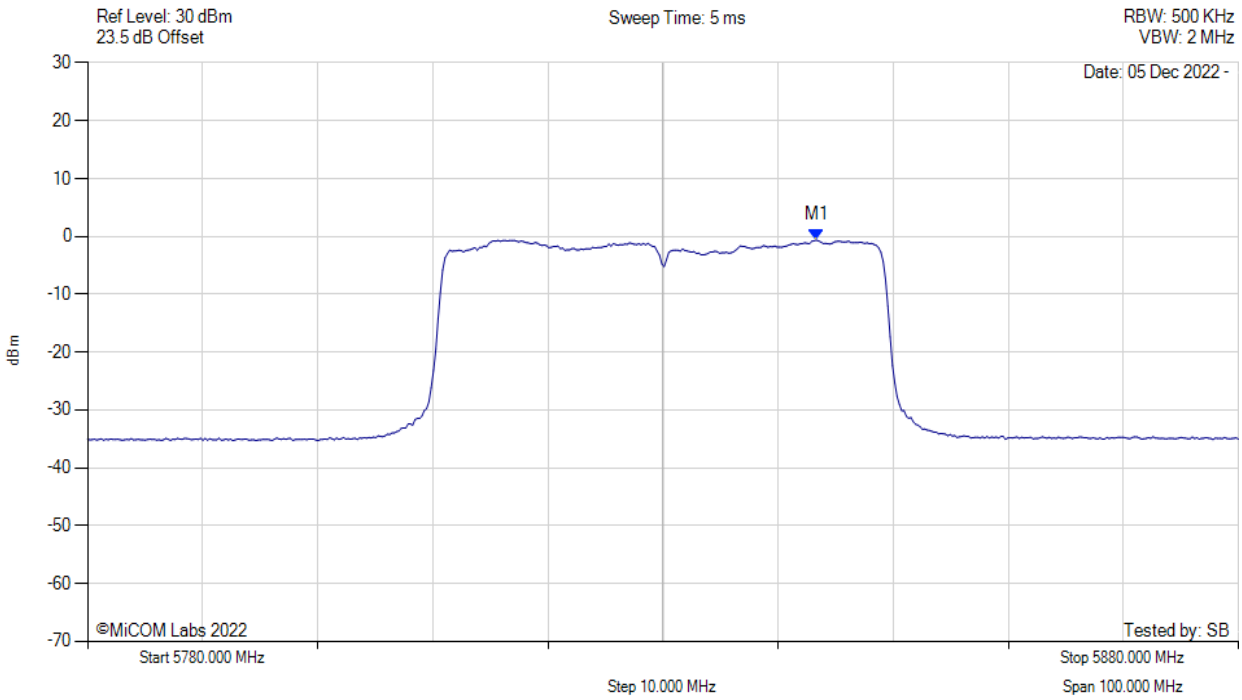


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5816.273 MHz : -3.006 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

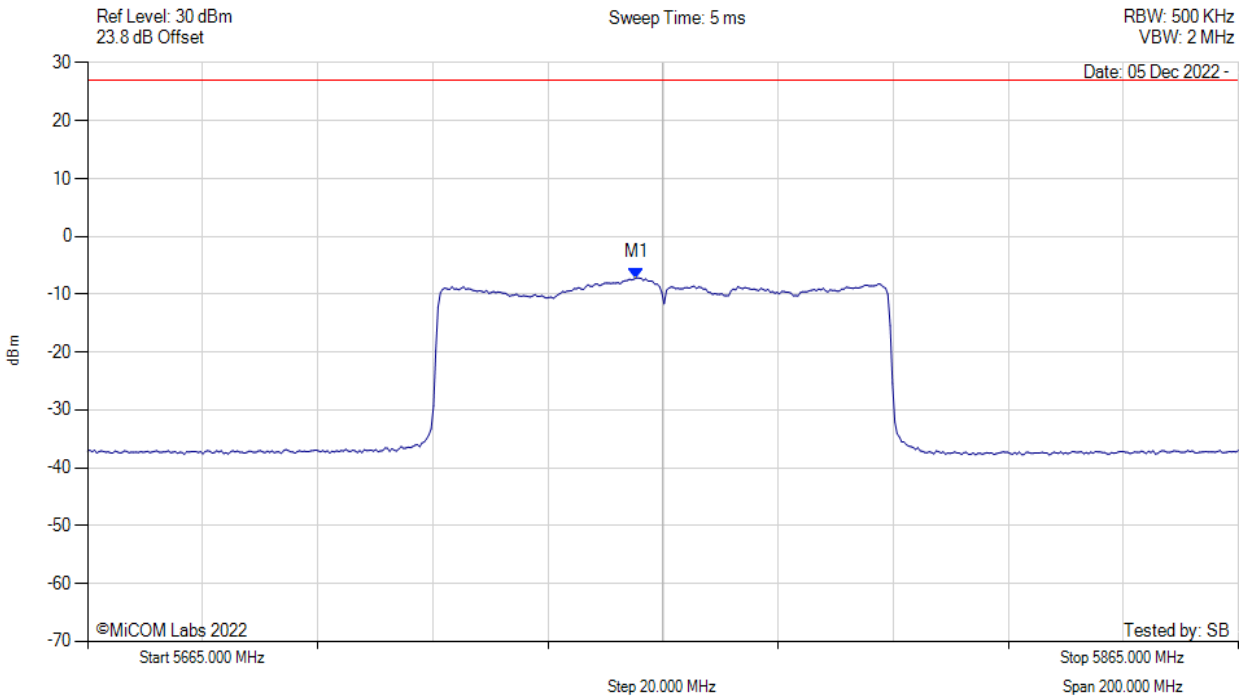


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5843.300 MHz : -0.636 dBm M1 + DCCF : 5843.300 MHz : -0.592 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -30.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

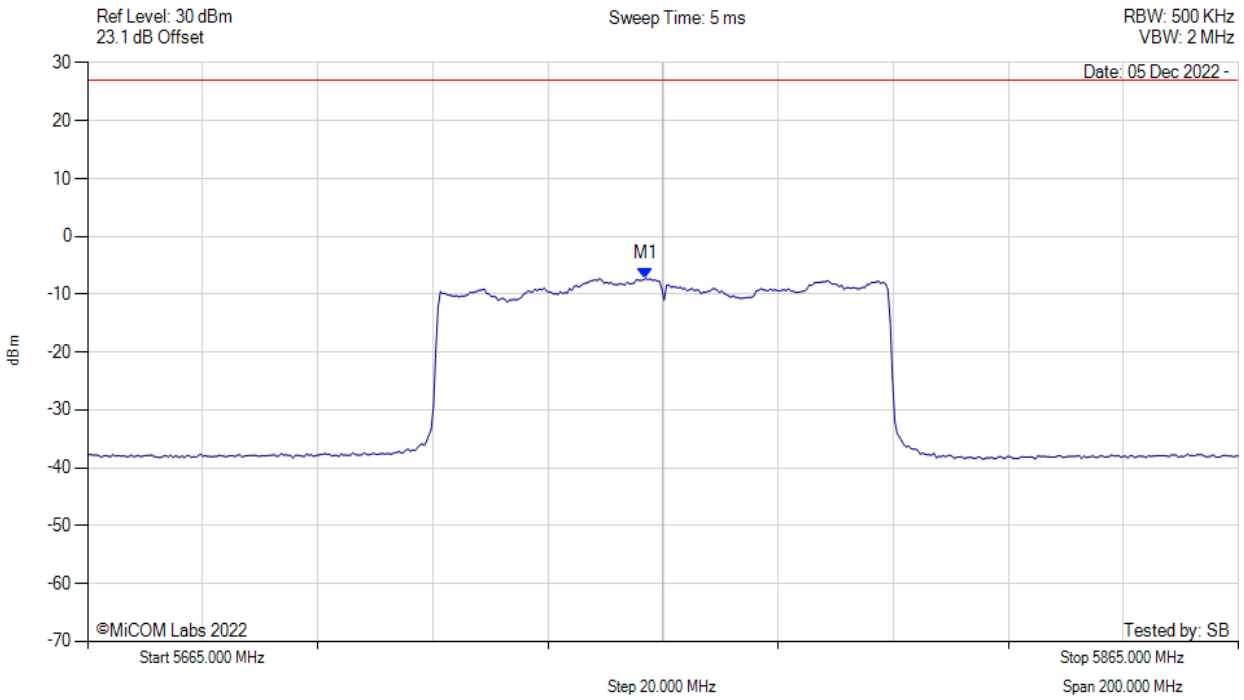


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5760.391 MHz : -7.155 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

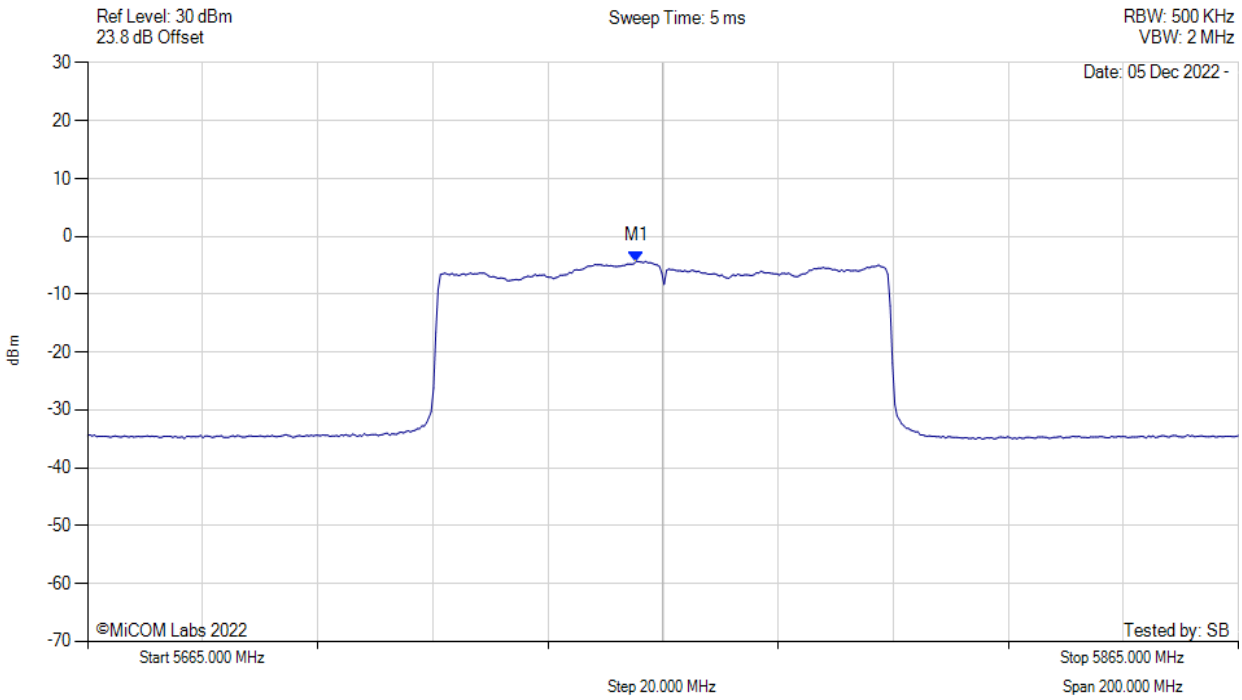


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5761.994 MHz : -7.280 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

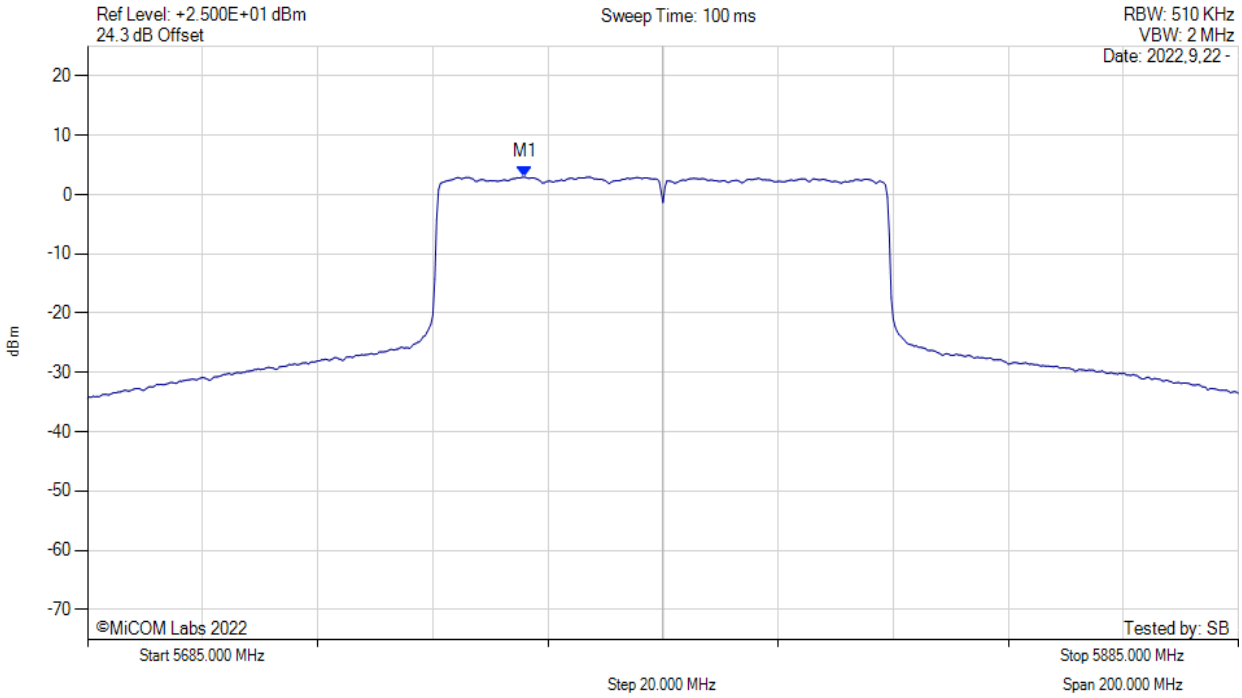


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5760.400 MHz : -4.285 dBm M1 + DCCF : 5760.400 MHz : -4.241 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -34.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

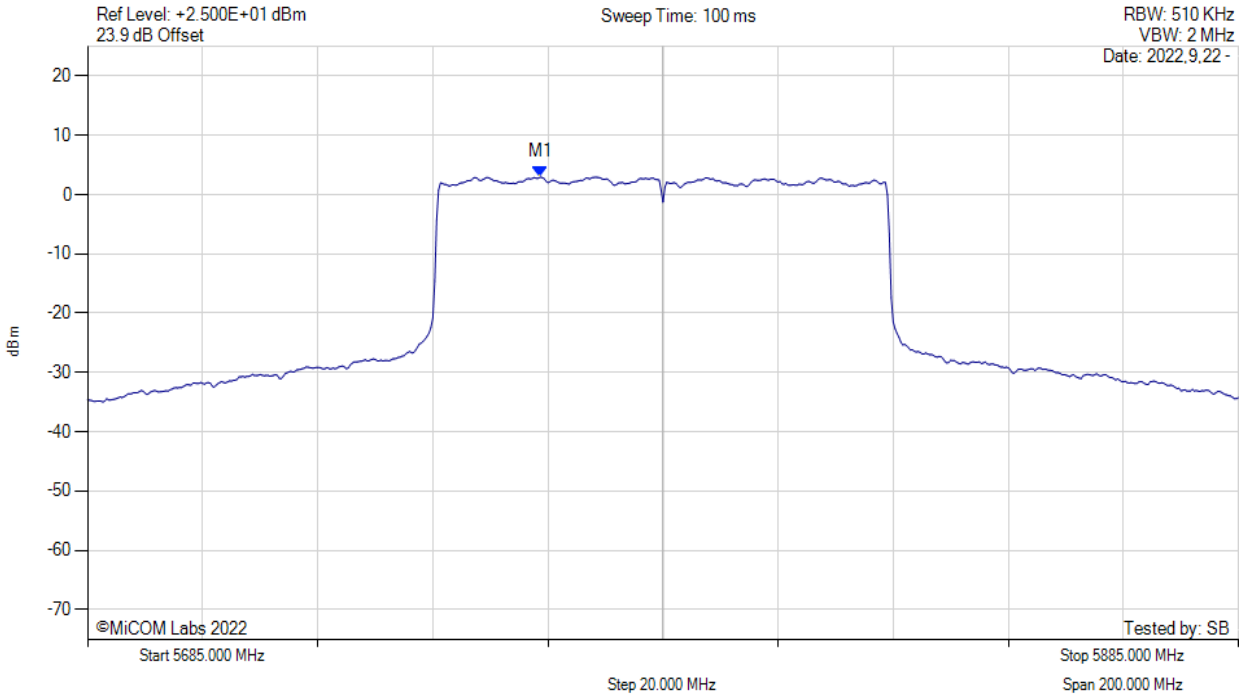


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5761.000 MHz : 2.970 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

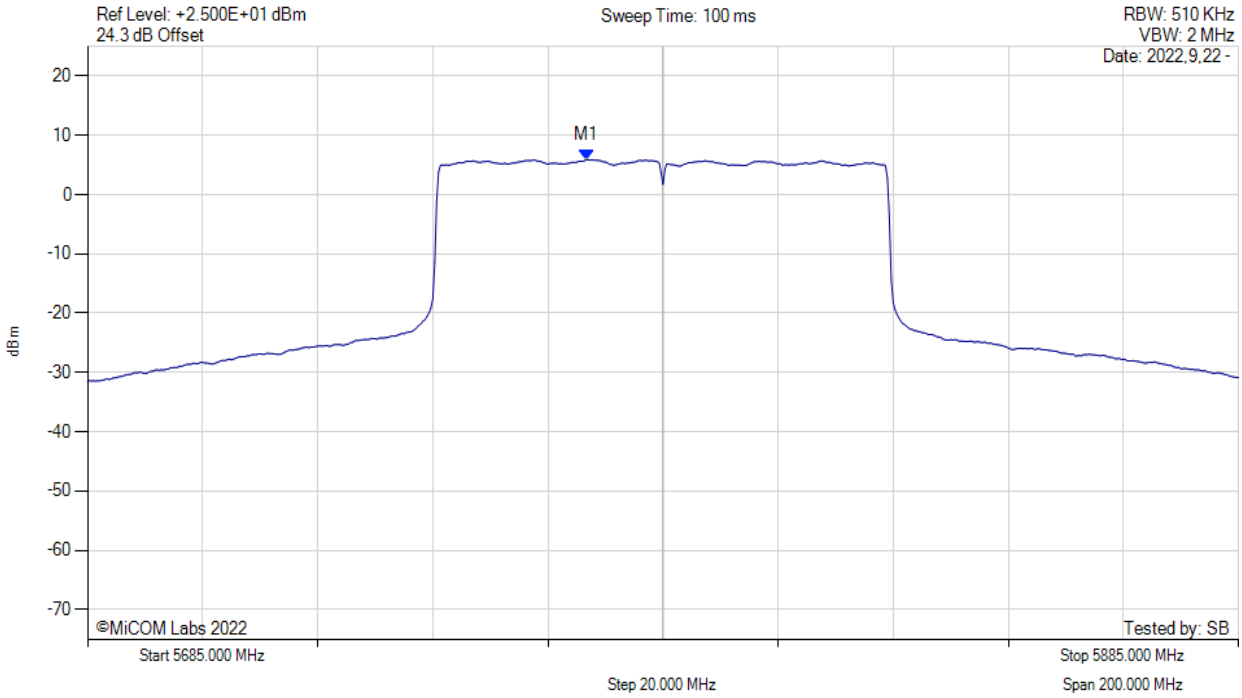


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5763.700 MHz : 2.949 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

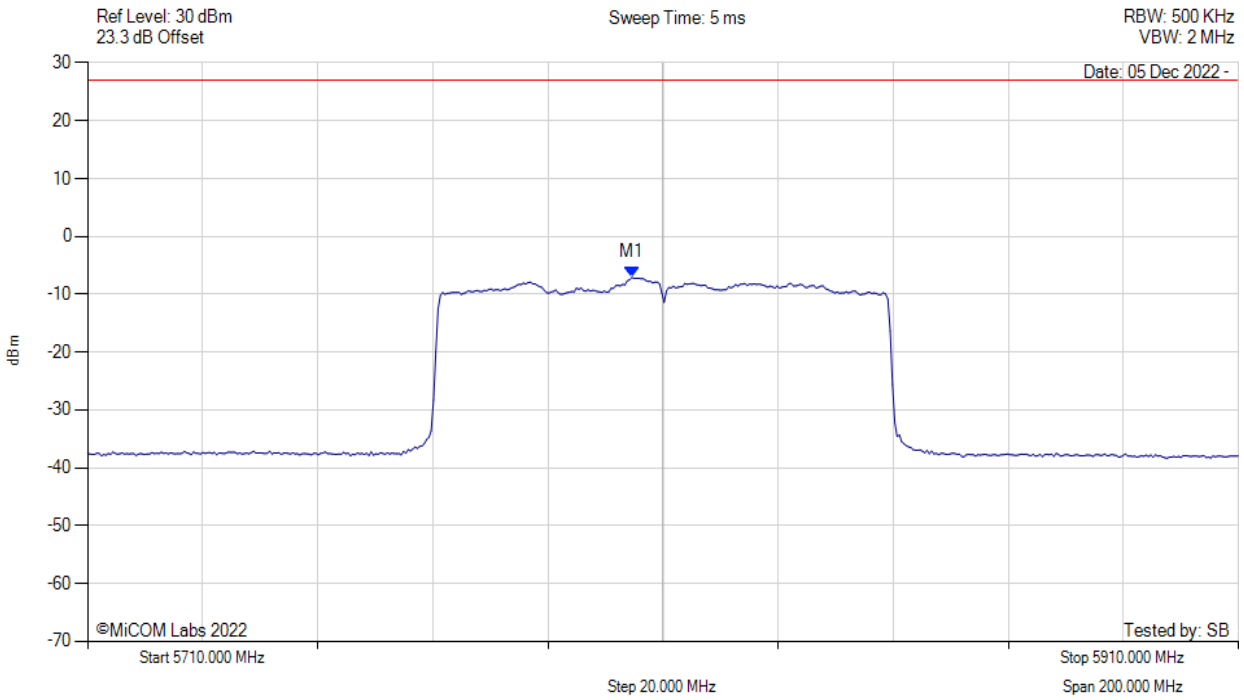


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5771.700 MHz : 5.885 dBm M1 + DCCF : 5771.700 MHz : 5.929 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -24.1 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

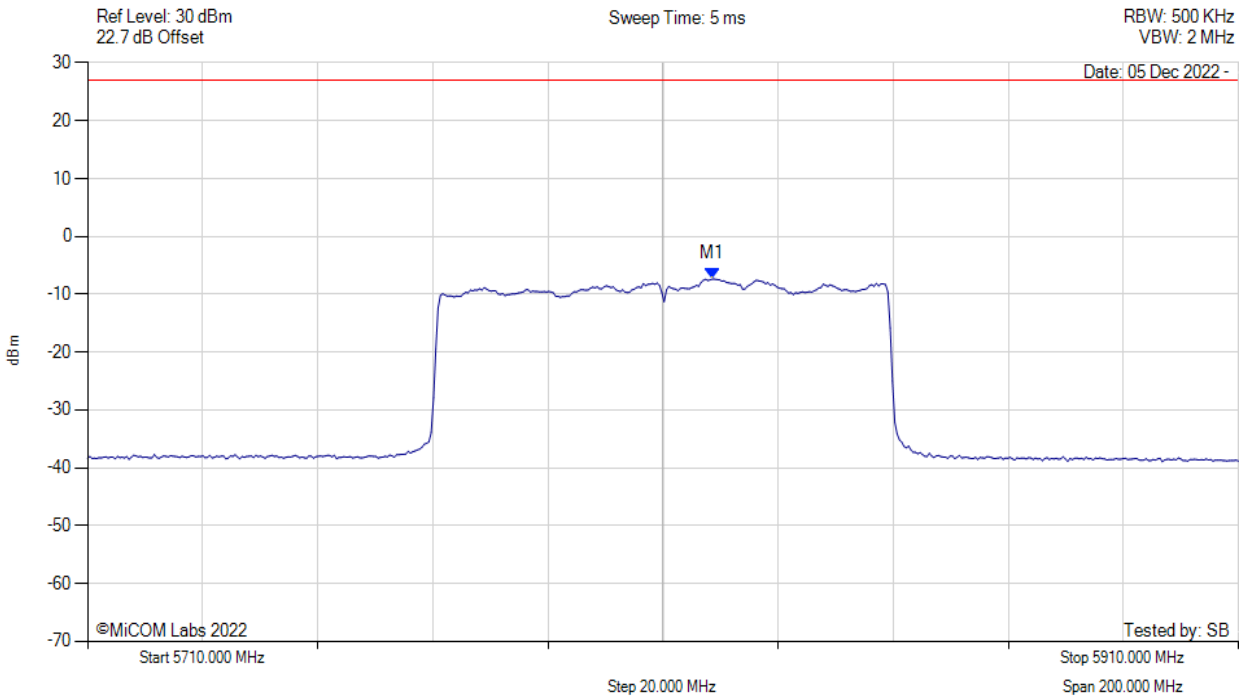


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5804.589 MHz : -7.087 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

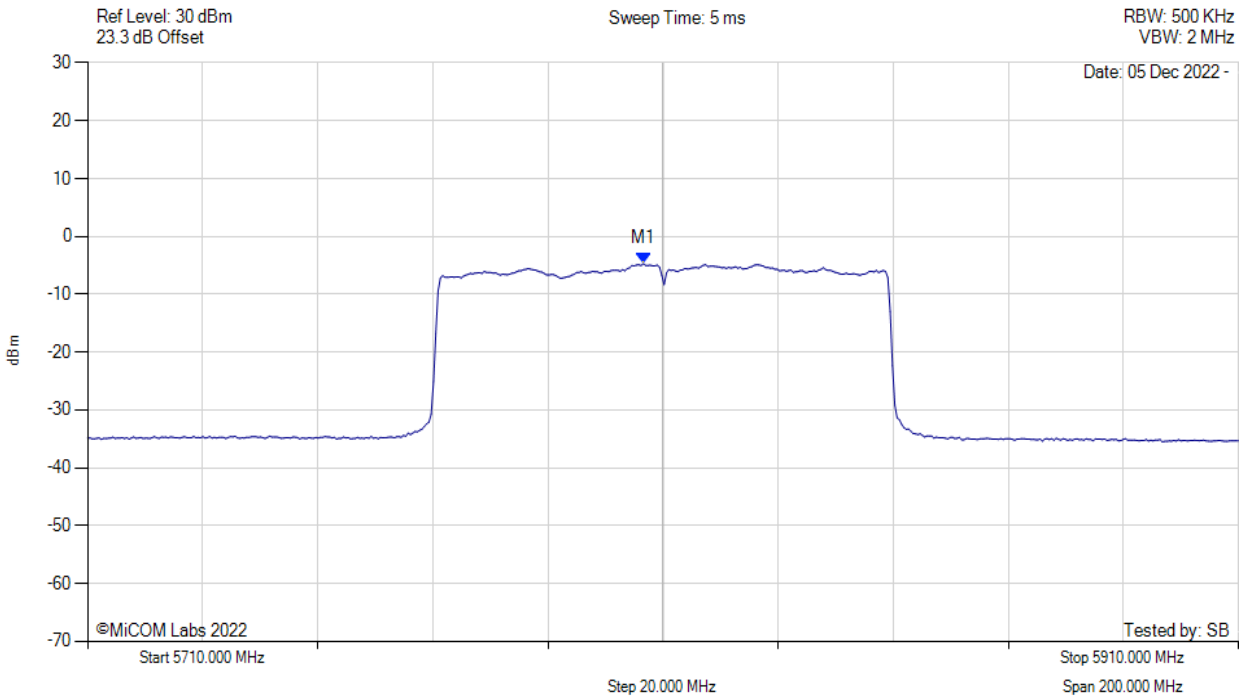


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5818.617 MHz : -7.361 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

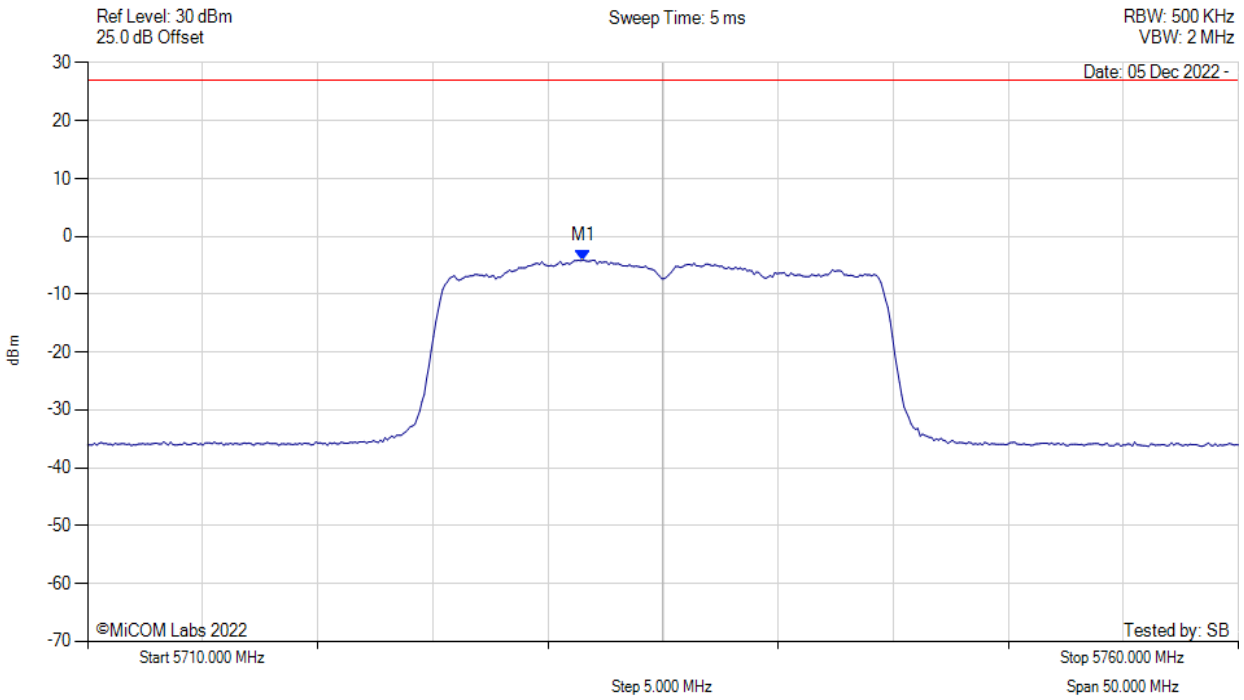


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5806.600 MHz : -4.697 dBm M1 + DCCF : 5806.600 MHz : -4.653 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -34.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5735.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

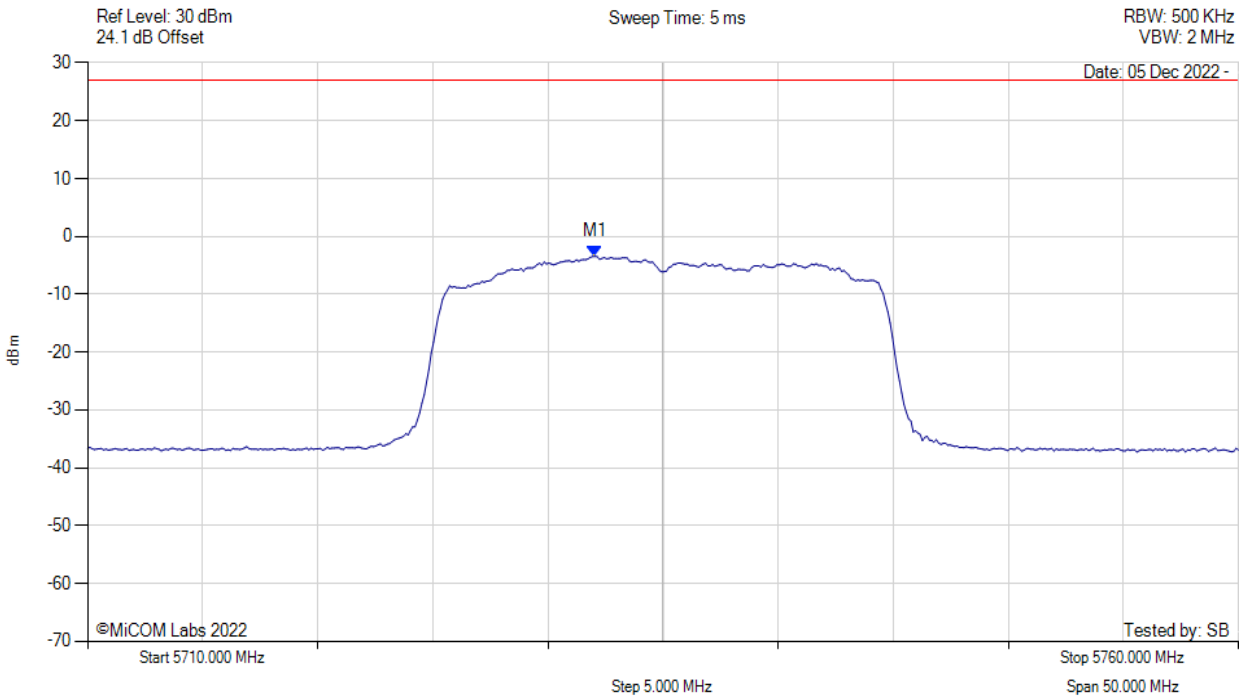


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5731.543 MHz : -4.079 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5735.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

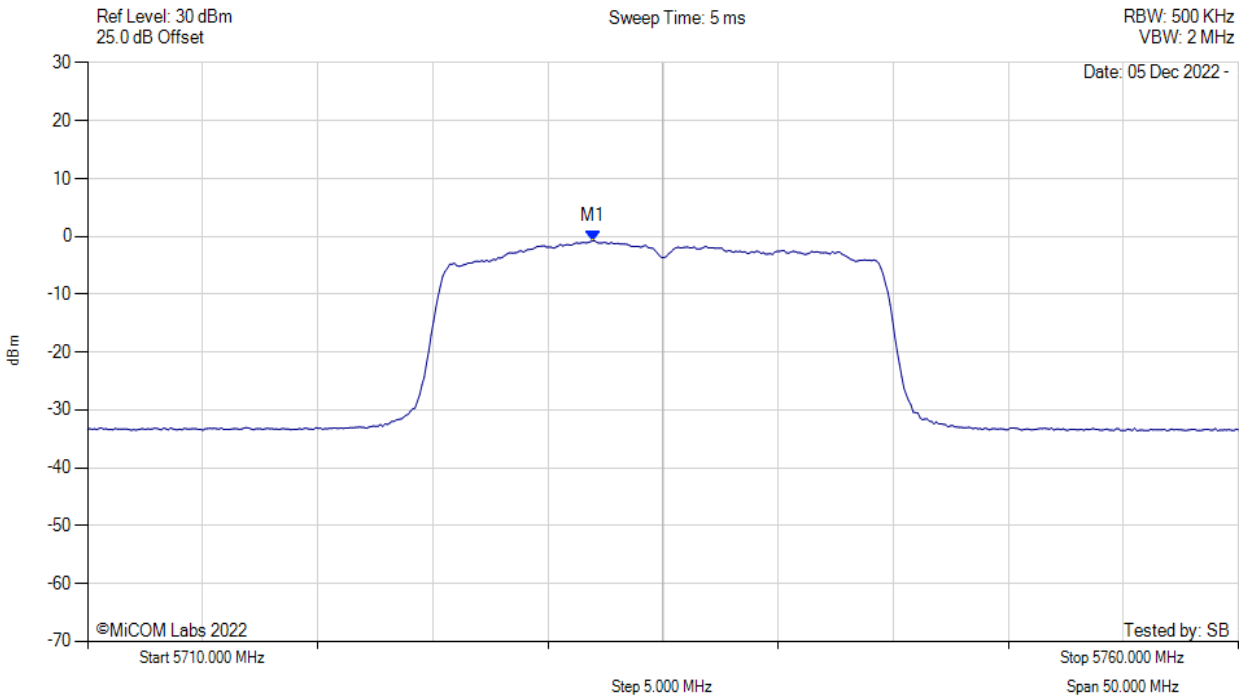


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5732.044 MHz : -3.430 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5735.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

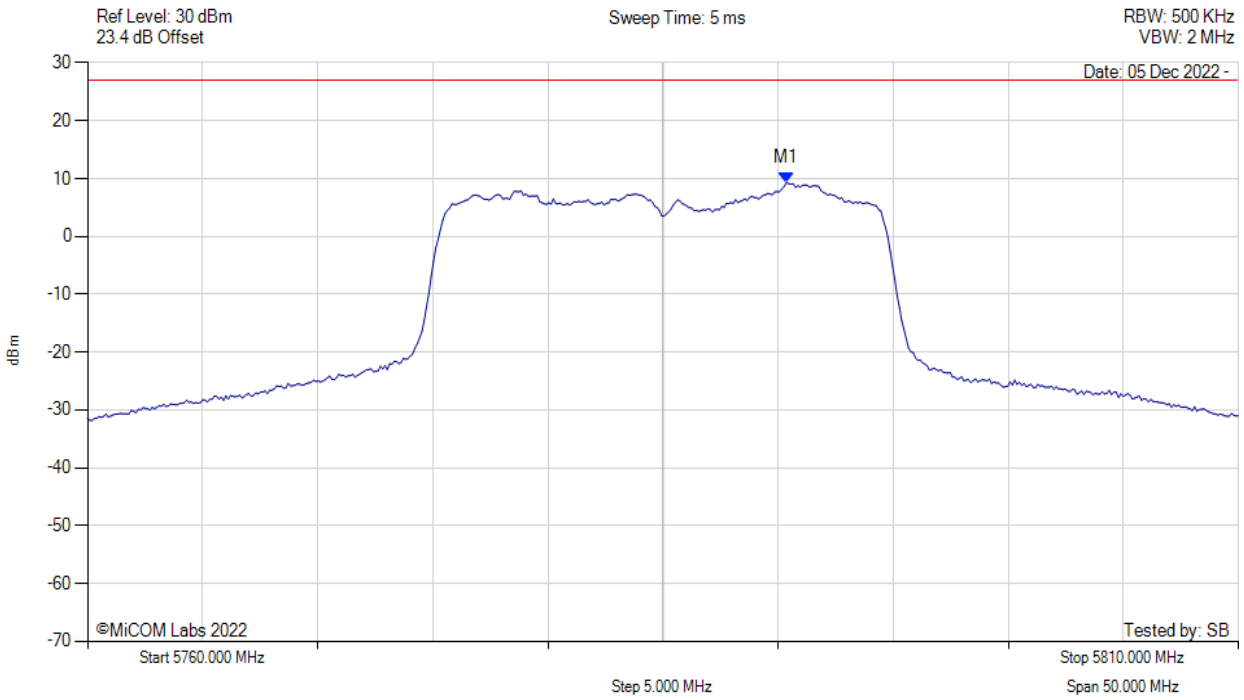


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5731.900 MHz : -0.755 dBm M1 + DCCF : 5731.900 MHz : -0.711 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -30.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

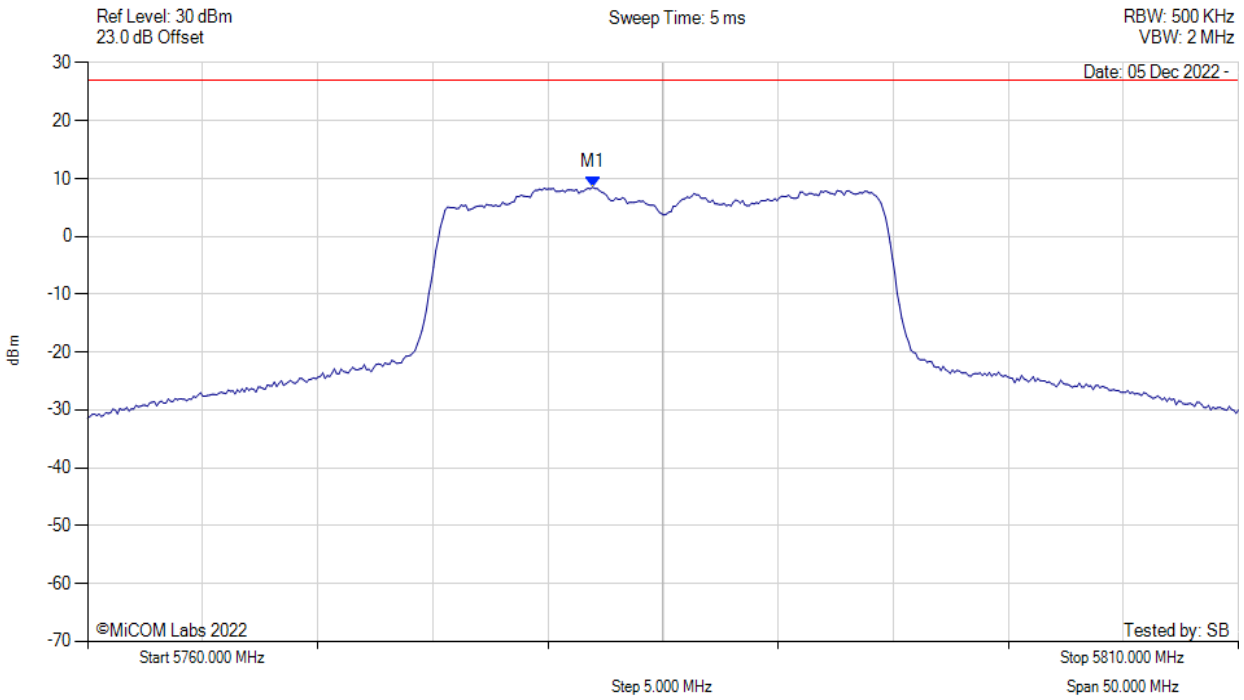


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5790.361 MHz : 9.276 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

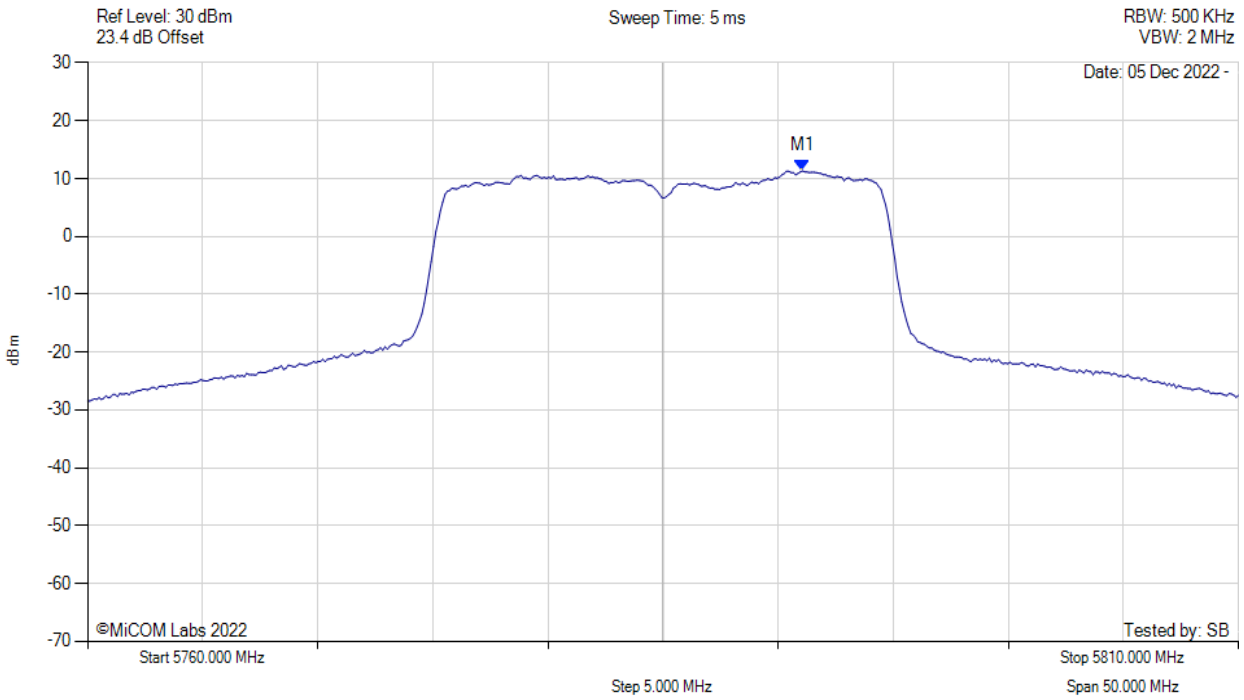


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5781.944 MHz : 8.518 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

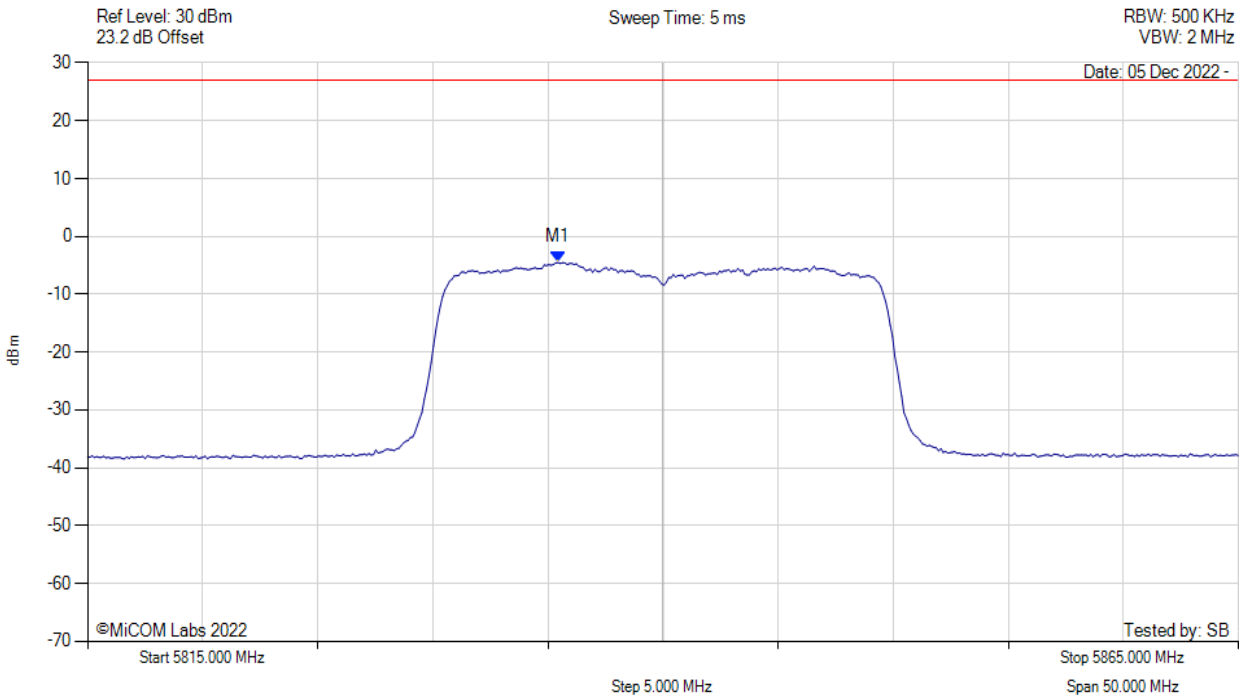


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5791.100 MHz : 11.325 dBm M1 + DCCF : 5791.100 MHz : 11.369 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -18.6 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

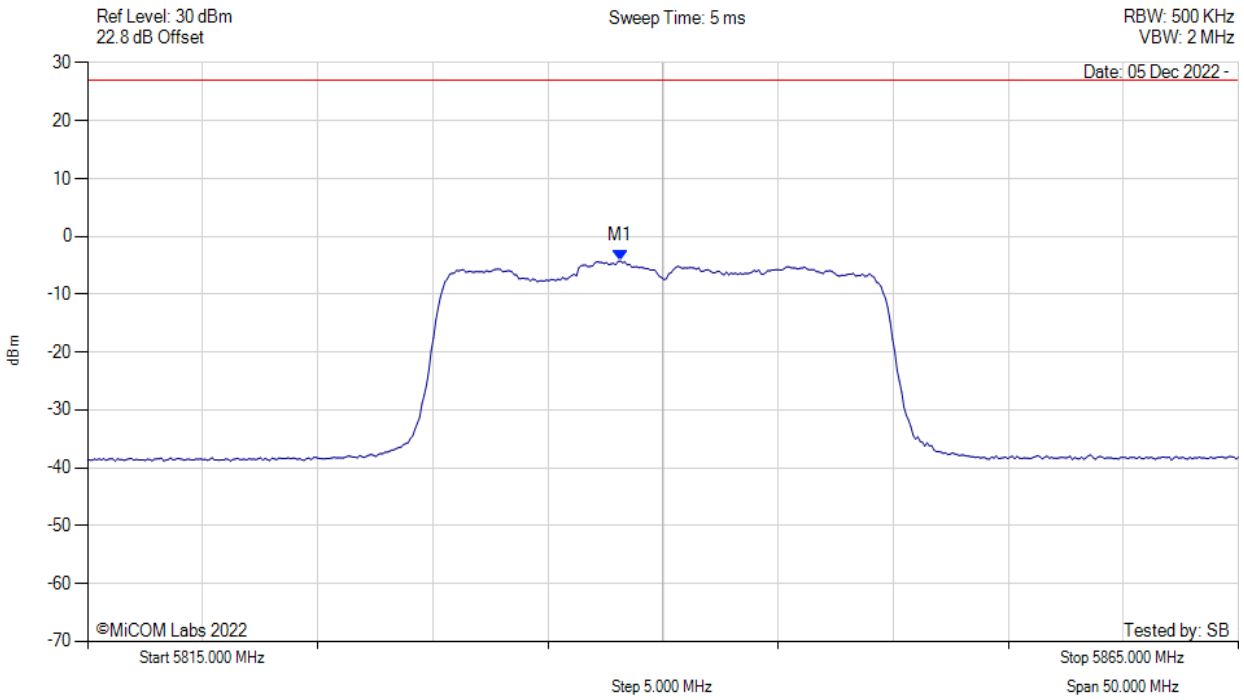


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5835.441 MHz : -4.518 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

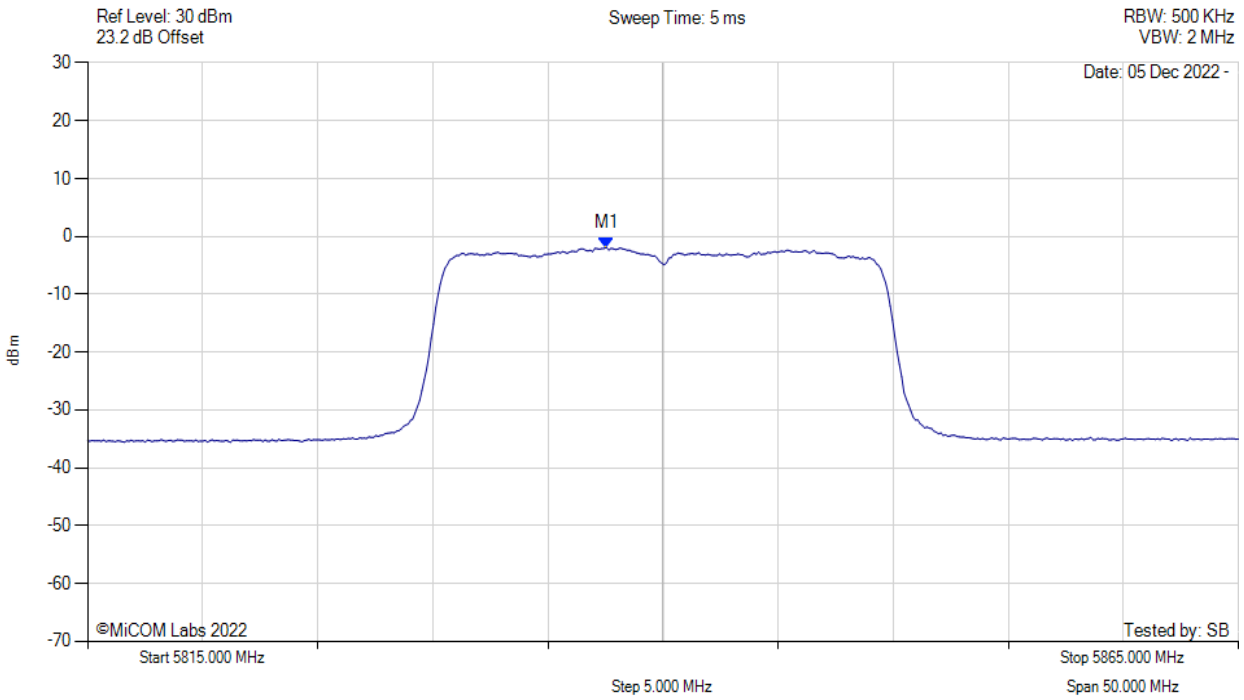


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5838.146 MHz : -4.260 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-20, Channel: 5840.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

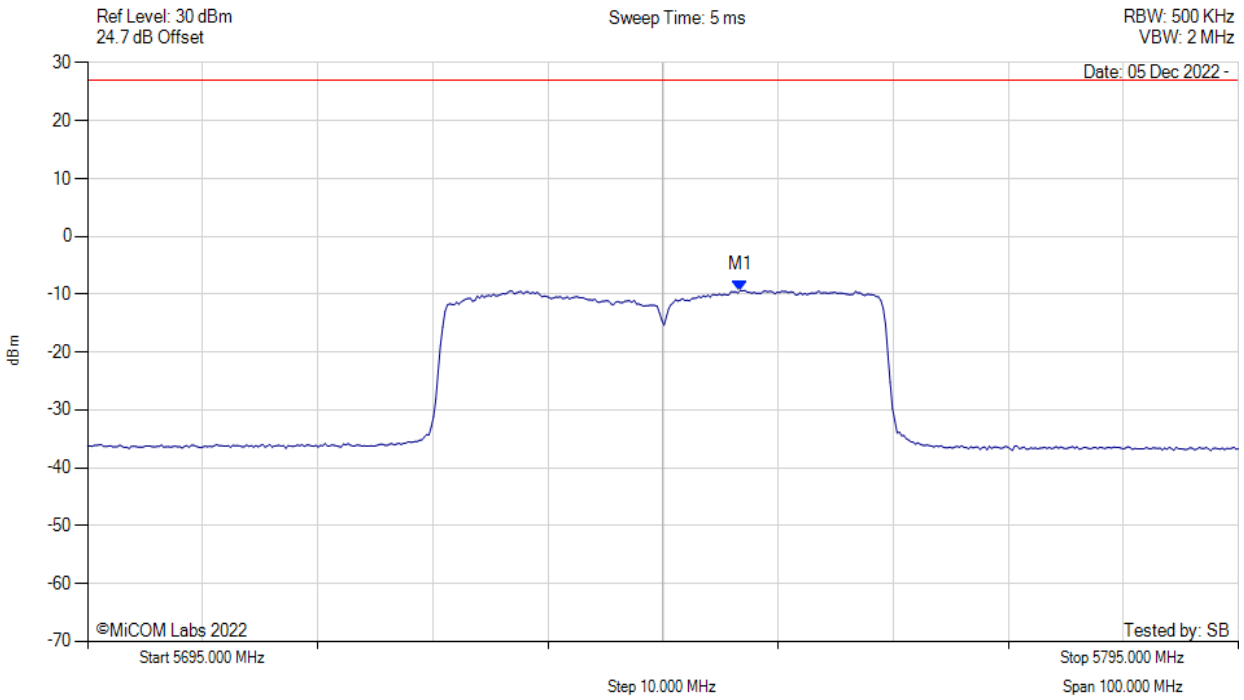


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5837.500 MHz : -1.923 dBm M1 + DCCF : 5837.500 MHz : -1.879 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -31.9 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

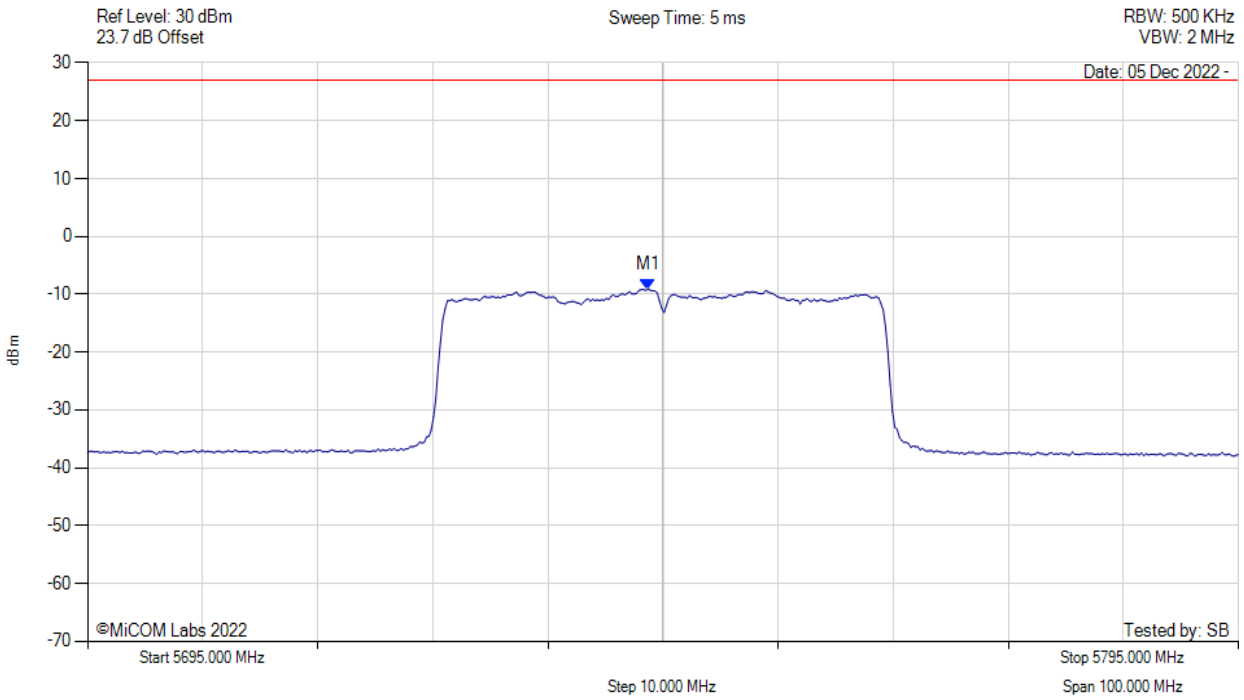


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5751.713 MHz : -9.329 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

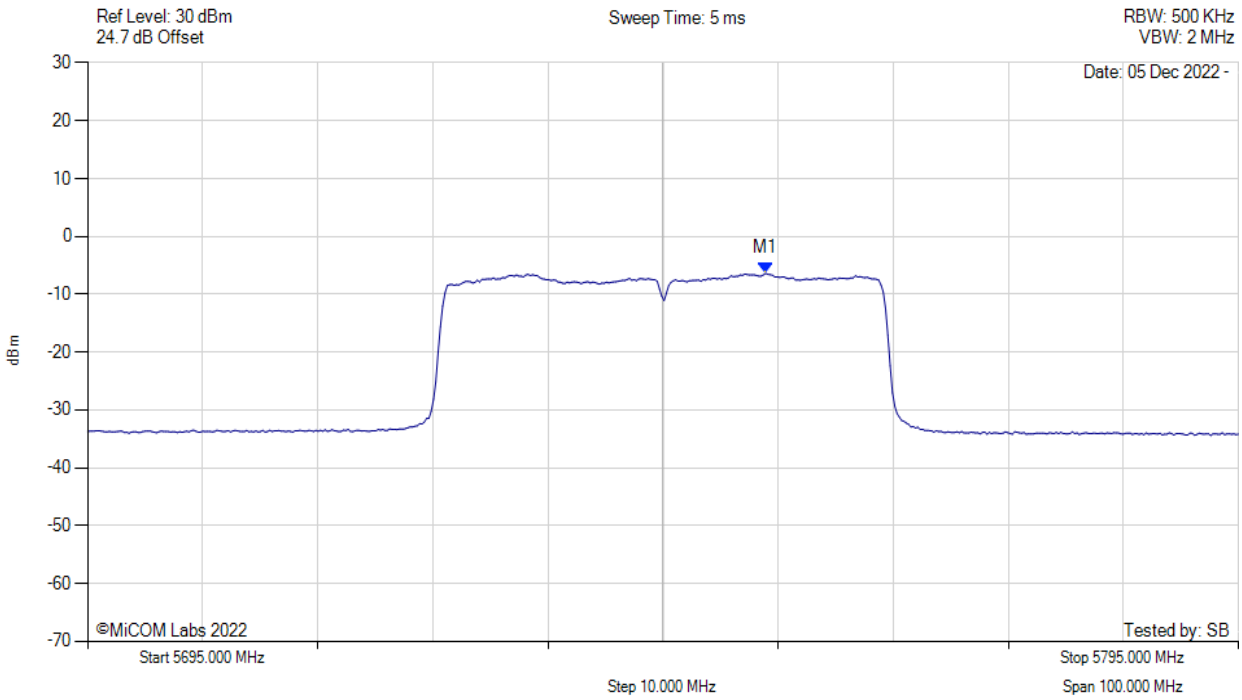


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5743.697 MHz : -9.115 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5745.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

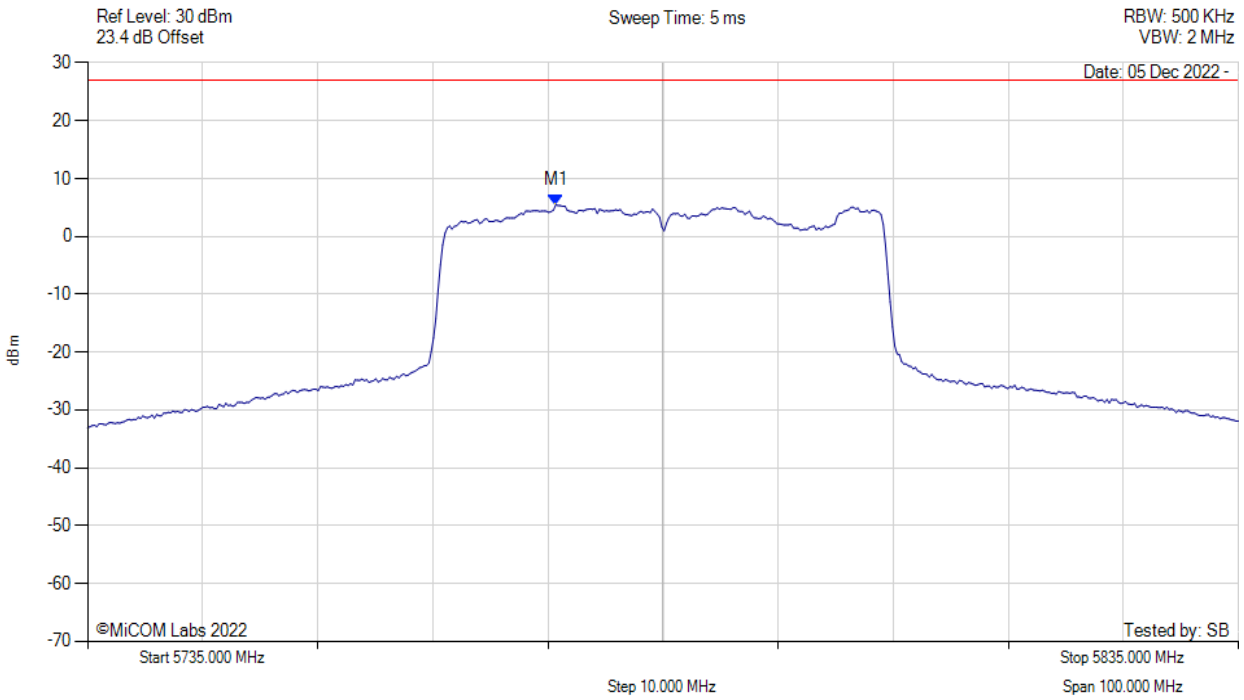


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5753.900 MHz : -6.381 dBm M1 + DCCF : 5753.900 MHz : -6.337 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -36.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

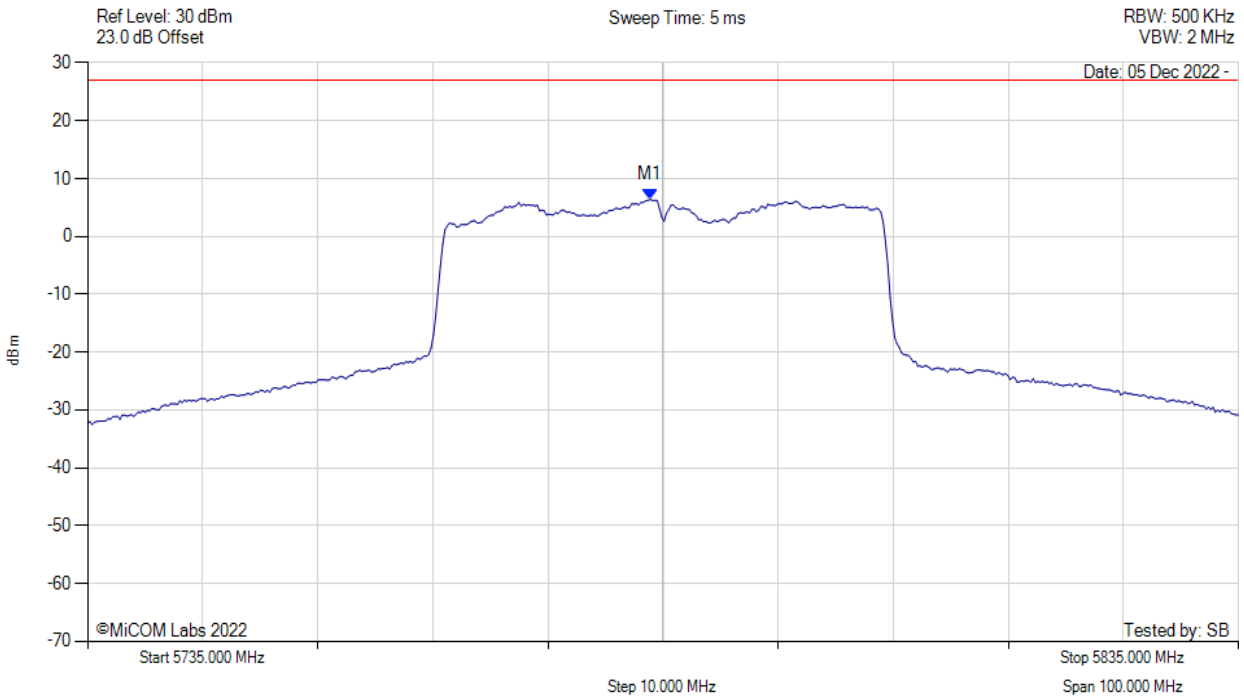


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5775.681 MHz : 5.444 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

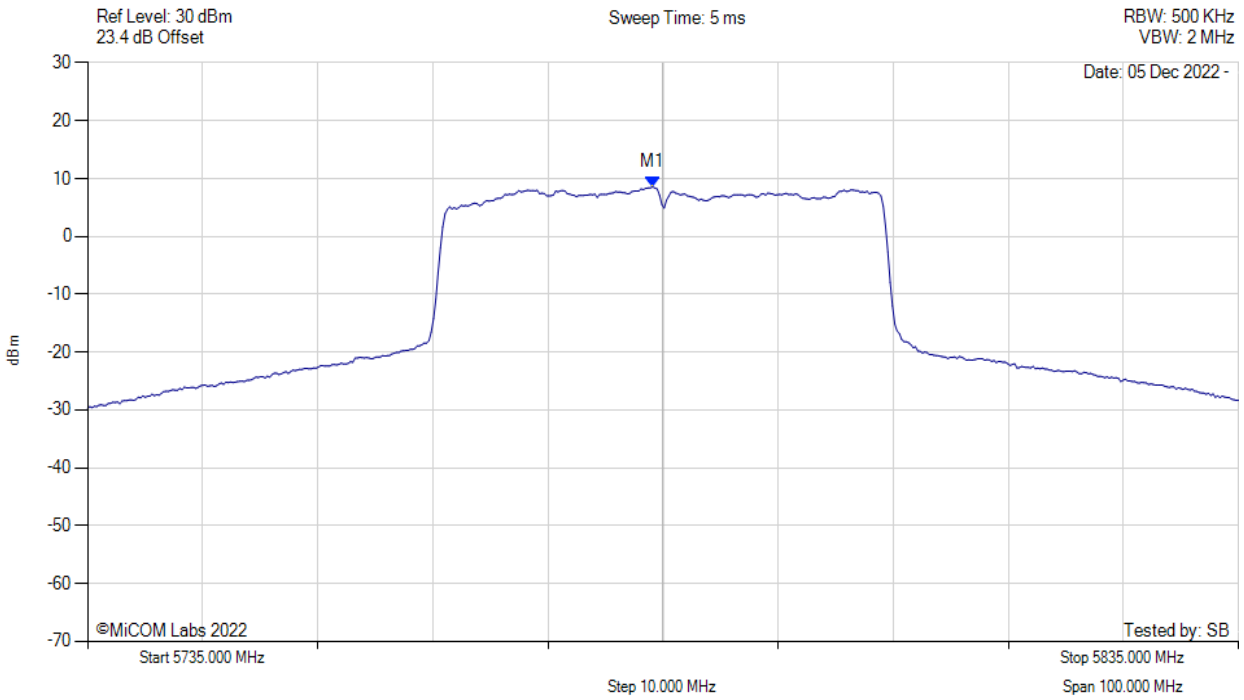


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5783.898 MHz : 6.393 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

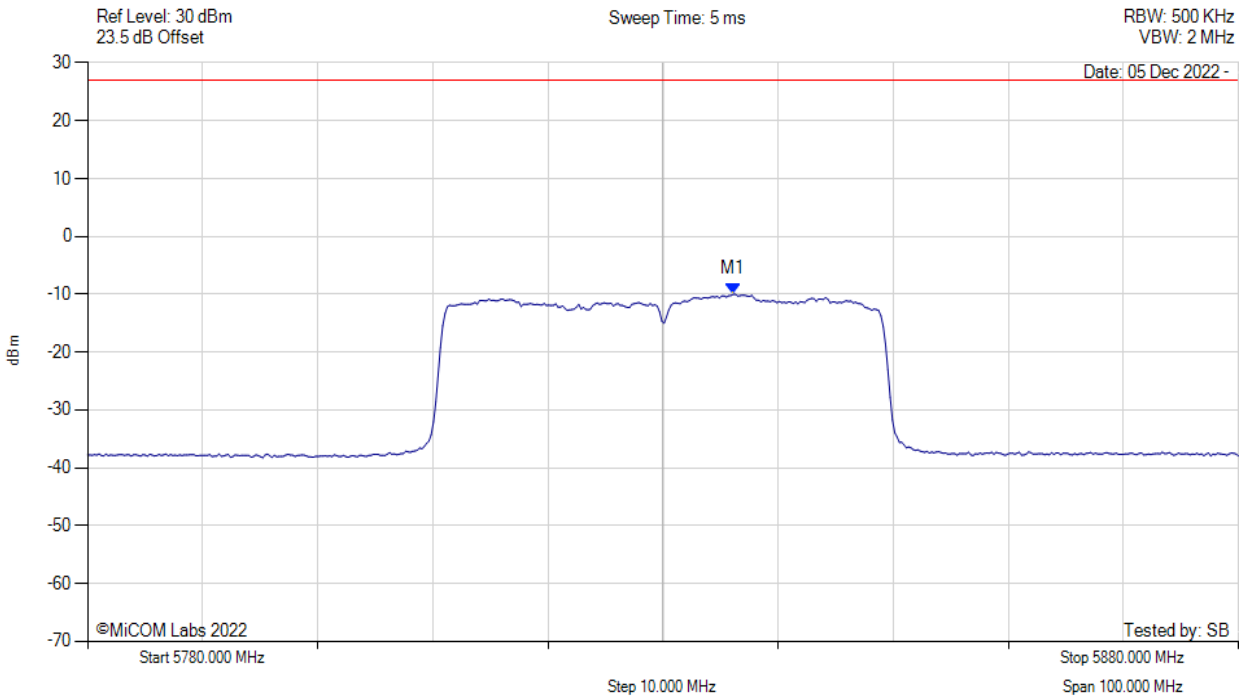


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5784.100 MHz : 8.559 dBm M1 + DCCF : 5784.100 MHz : 8.603 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -21.4 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

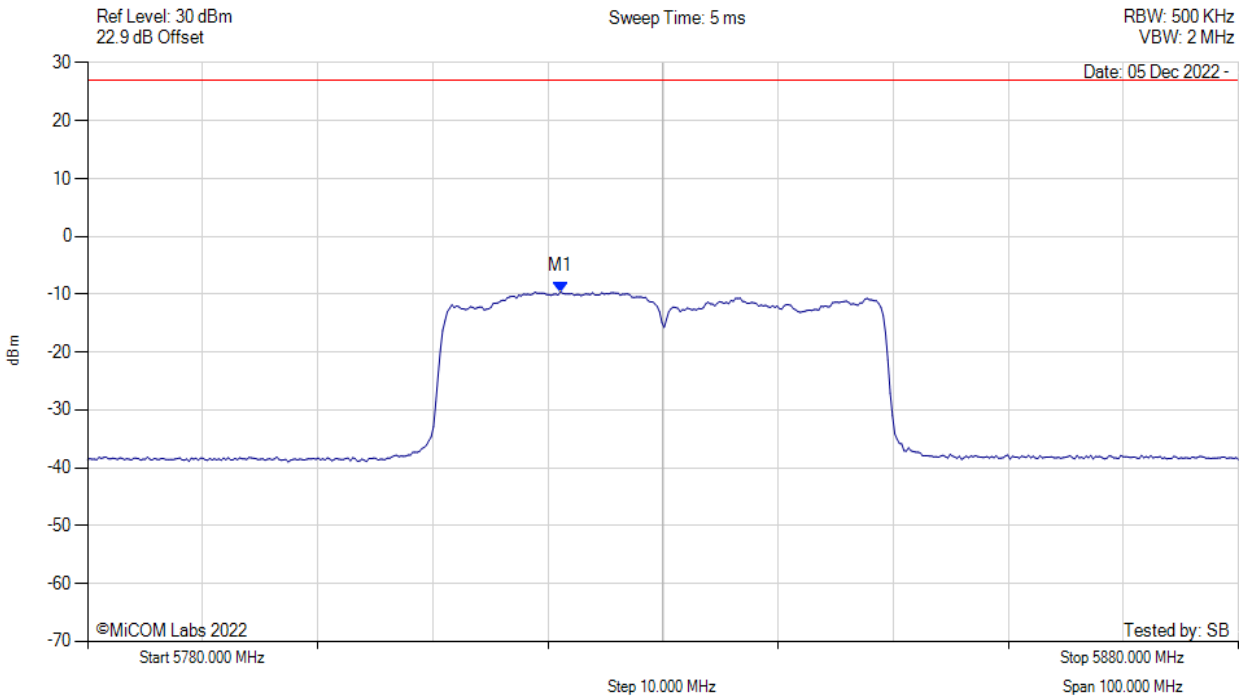


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5836.112 MHz : -9.989 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

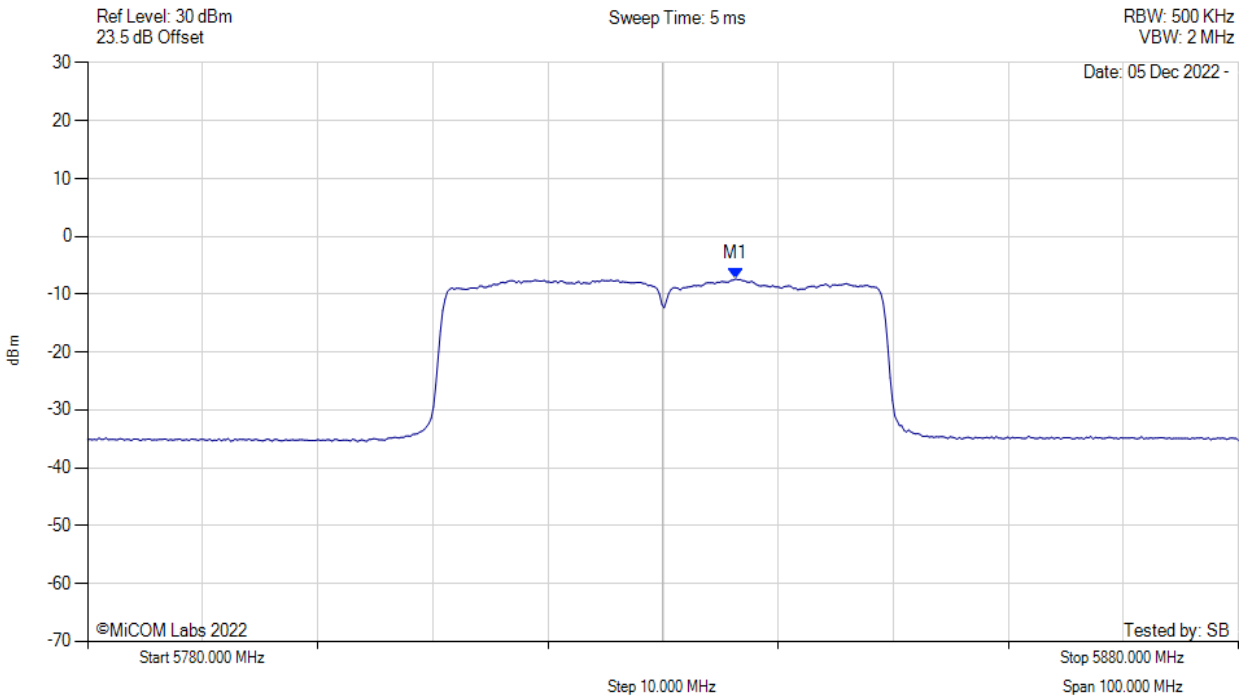


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5821.082 MHz : -9.573 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-40, Channel: 5830.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

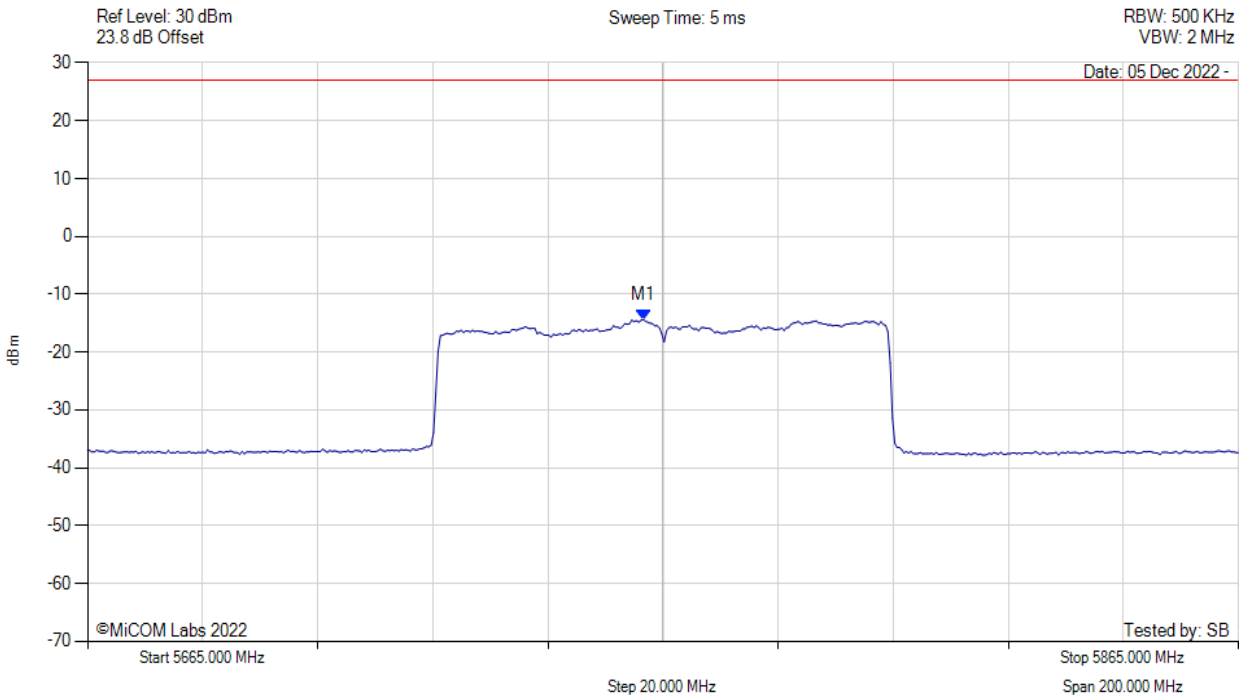


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5836.300 MHz : -7.337 dBm M1 + DCCF : 5836.300 MHz : -7.293 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -37.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

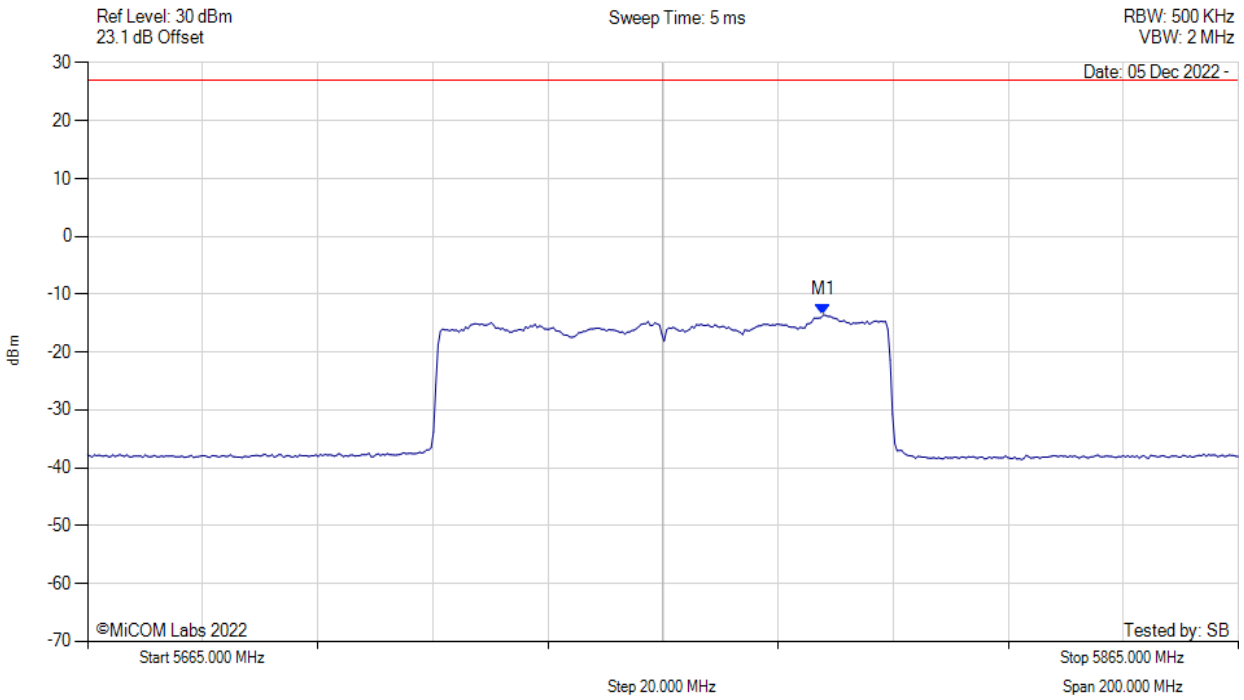


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5761.593 MHz : -14.371 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

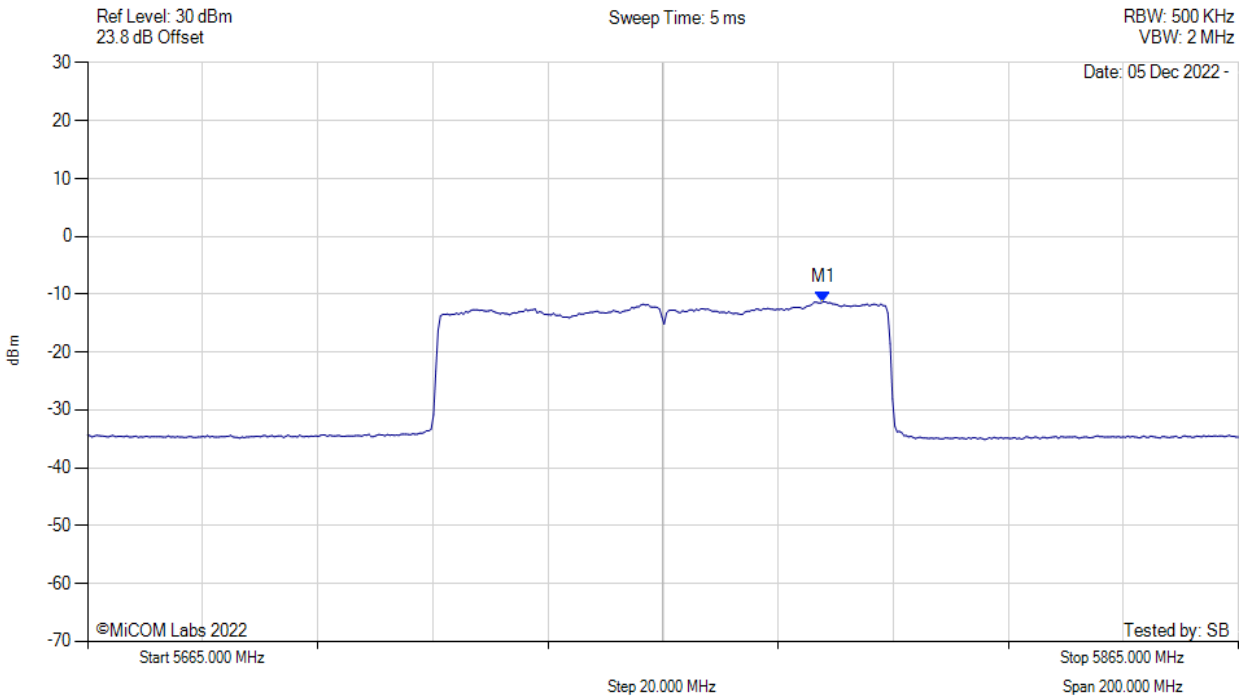


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5792.856 MHz : -13.570 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5765.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

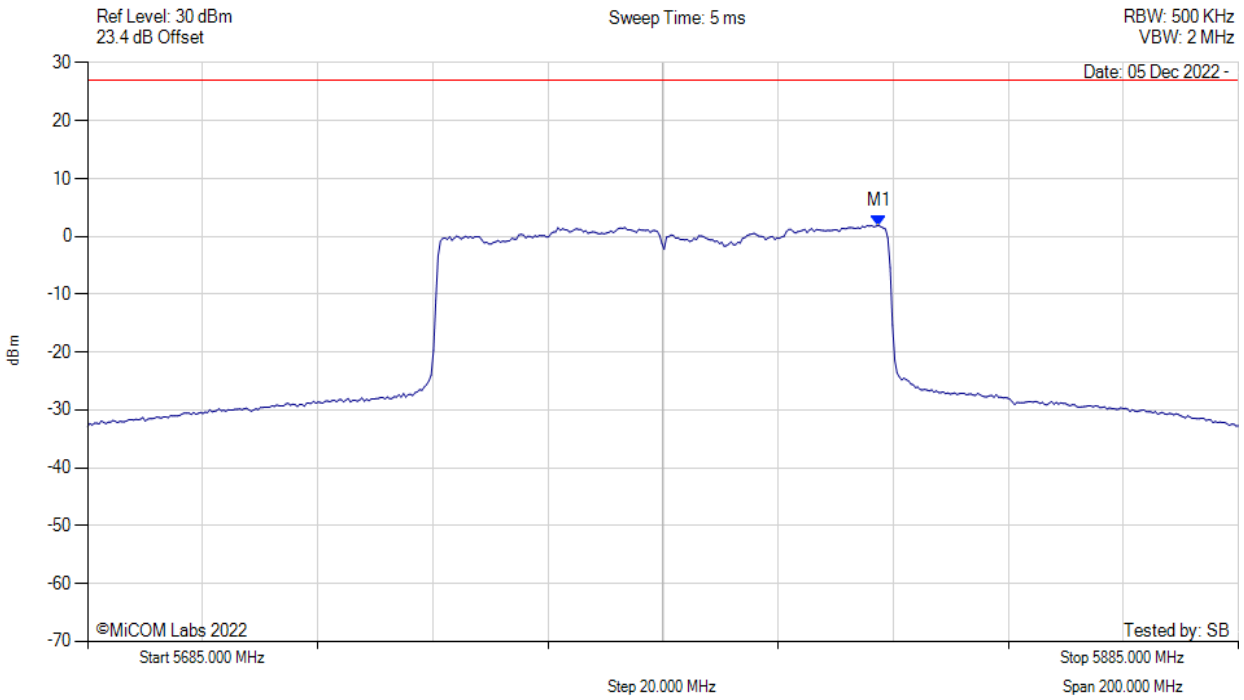


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5792.900 MHz : -11.290 dBm M1 + DCCF : 5792.900 MHz : -11.246 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -41.3 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc

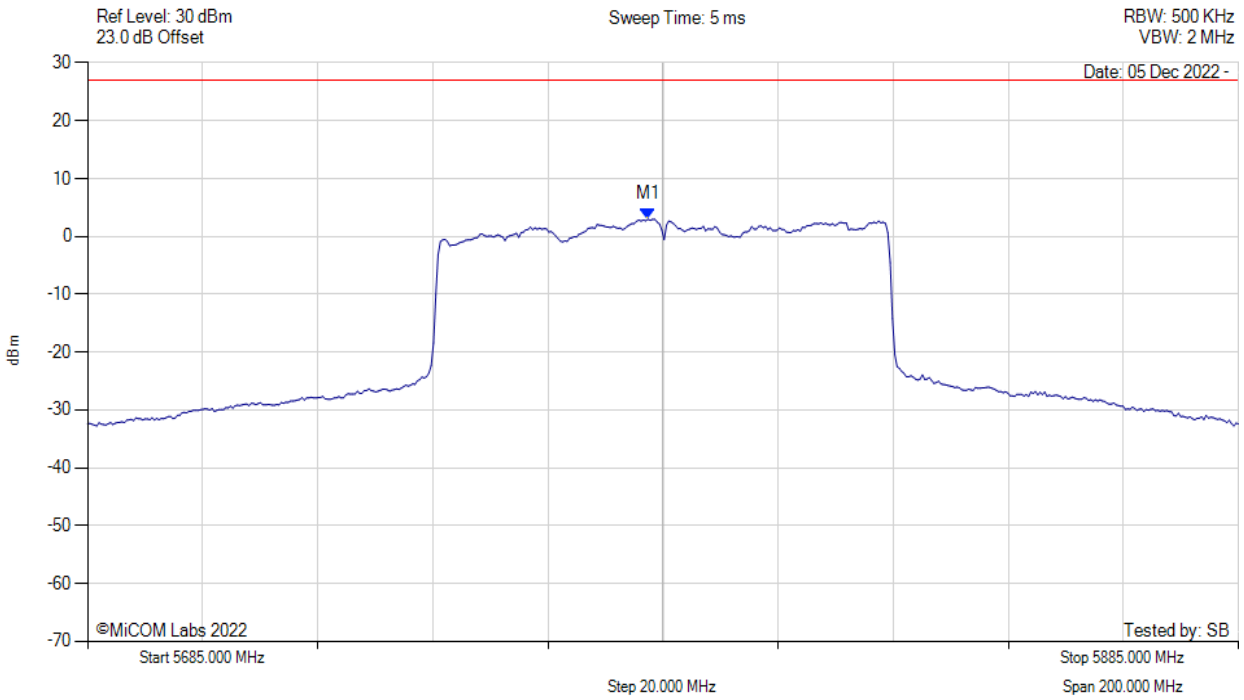


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5822.475 MHz : 1.892 dBm	Limit: ≤ 26.990 dBm

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc

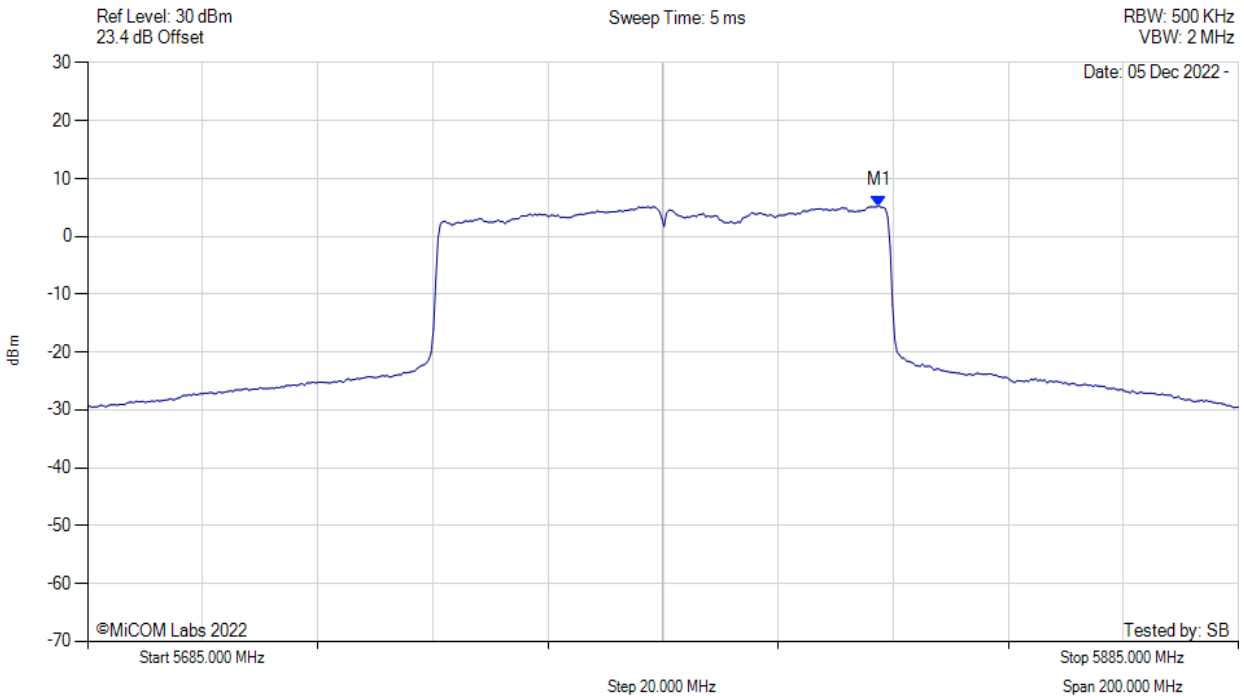


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5782.395 MHz : 2.977 dBm	Channel Frequency: 5785.00 MHz

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5785.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc

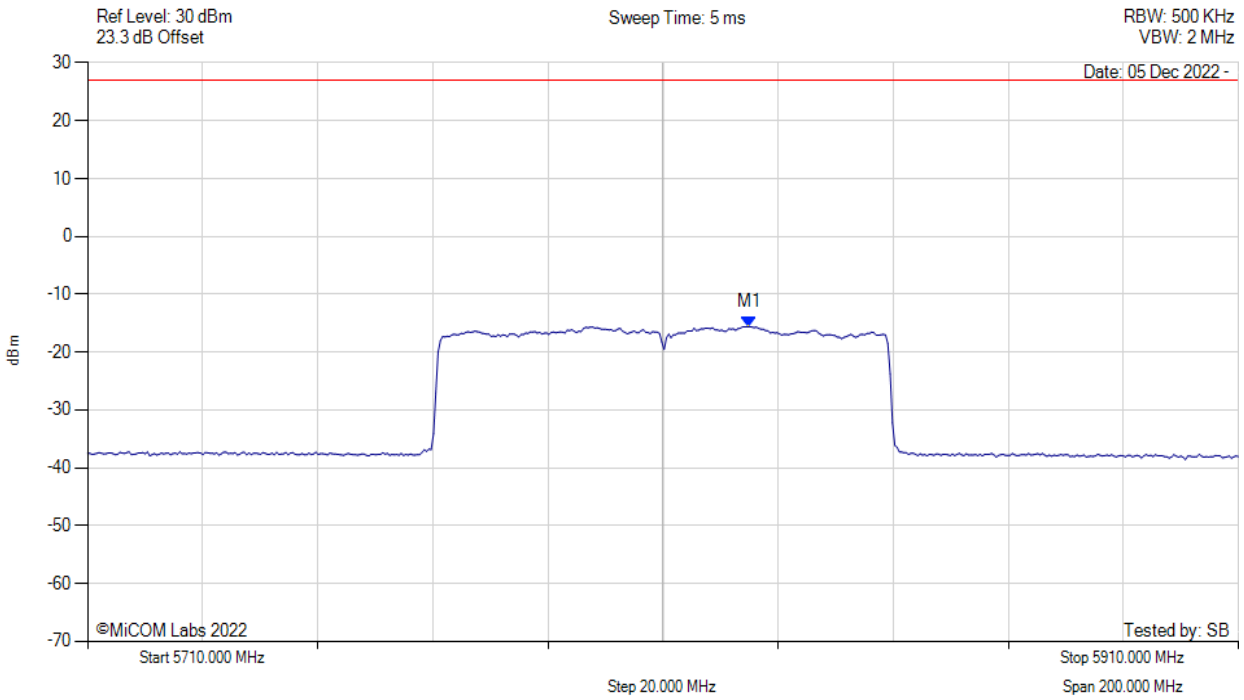


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5822.500 MHz : 5.301 dBm M1 + DCCF : 5822.500 MHz : 5.345 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -24.7 dB

back to matrix

POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, Chain a, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5825.030 MHz : -15.586 dBm	Limit: ≤ 26.990 dBm

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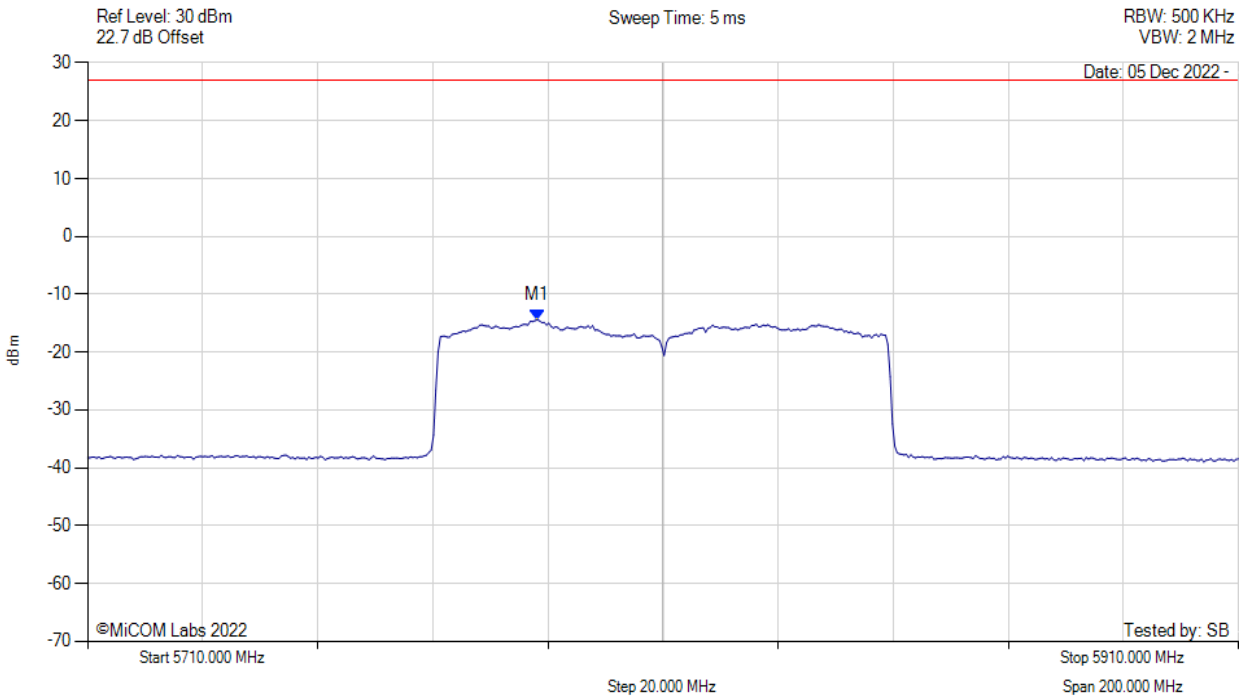
POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, Chain b, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5788.156 MHz : -14.410 dBm	Limit: ≤ 26.990 dBm

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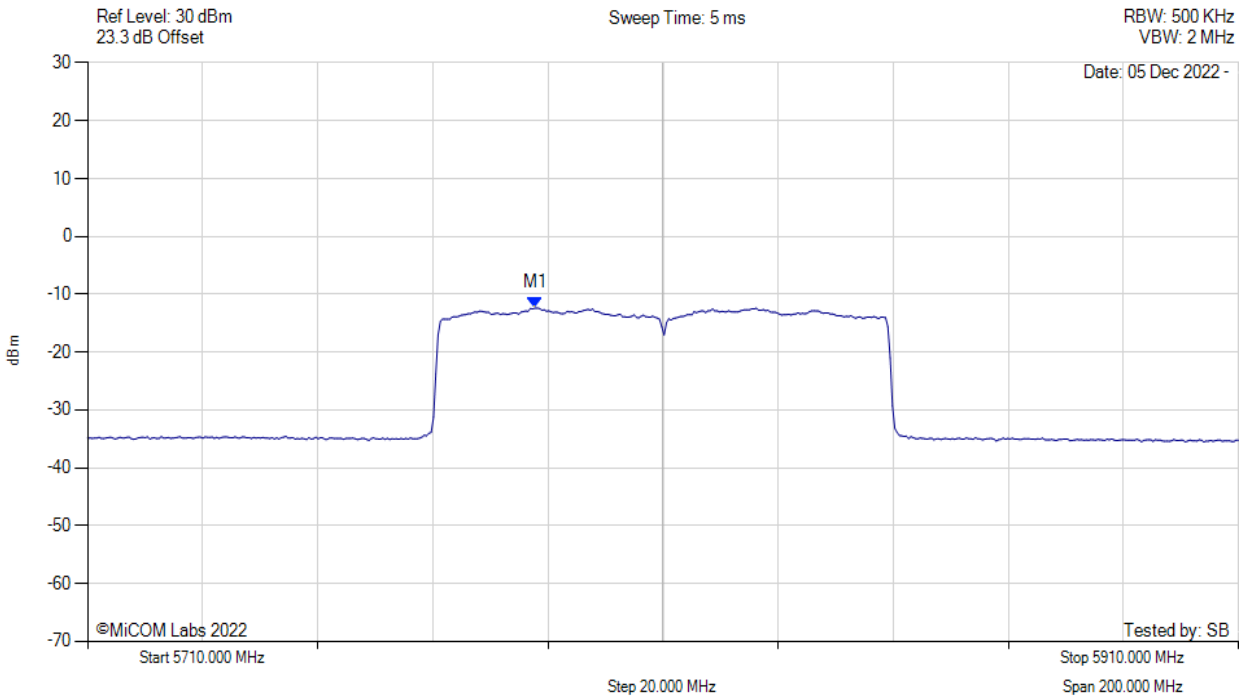
POWER SPECTRAL DENSITY

Variant: OFDM-80, Channel: 5810.00 MHz, SUM, Temp: 20, Voltage: 56 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 100 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 5787.800 MHz : -12.385 dBm M1 + DCCF : 5787.800 MHz : -12.341 dBm Duty Cycle Correction Factor : +0.04 dB	Limit: ≤ 30.0 dBm Margin: -42.4 dB

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