REGULATORY COMPLIANCE TEST REPORT

FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247

Report No.: ITRO67-U27 Rev A

Company: Itron Inc.

Model Name: ERG-7600-005

REGULATORY COMPLIANCE TEST REPORT

Company Name: Itron Inc.

Model Name: ERG-7600-005

To: FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247

Test Report Serial No.: ITRO67-U27 Rev A

This report supersedes: NONE

Applicant: Itron Inc.
2401 North State St.
Waseca,
Minnesota 56093
United States of America

Issue Date: 23rd August 2024

This Test Report is Issued Under the Authority of:

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

A2LA ACCREDITED
TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

Table of Contents

1. ACCREDITATION, LISTINGS & RECOGNITION

1.1. TESTING ACCREDITATION

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

Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

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

Presented this 28th day of February 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2025

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

1.2. RECOGNITION

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

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

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

1.3. PRODUCT CERTIFICATION

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

Accredited Product Certification Body

A2LA has accredited

MiCOM LABS

Pleasanton, CA

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

Presented this 28th day of February 2024.

Mr. Trace Mcinturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2381.02
Valid to November 30, 2026

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	9th August 2024	Draft report for client review.
Draft 2	13th August 2024	Adding PSD to report
Rev A	23rd August 2024	Initial release of test report.
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In the above table the latest report revision will replace all earlier versions.

3. TEST RESULT CERTIFICATE

Manufacturer:	Itron Inc. 2401 North State St. Waseca Minnesota 56093 United States of America	**Tested By:**	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Model:	ERG-7600-005	**Telephone:**	+1 925 462 0304
Type Of Equipment:	RF-based meter data collection solution.	**Fax:**	+1 925 462 0306
S/N's:	Conducted RF: 2935662-22 Radiated RF: 2935662-11		
Test Date(s):	26th – 28th June and 13th August 2024 15th, 17th – 18th July 2024	**Website:**	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247	**EQUIPMENT COMPLIES**

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

Notes:

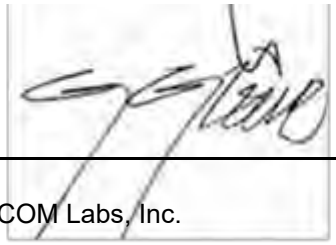
1. This document reports conditions under which testing was conducted and the results of testing performed.

2. Details of test methods used have been recorded and kept on file by the laboratory.

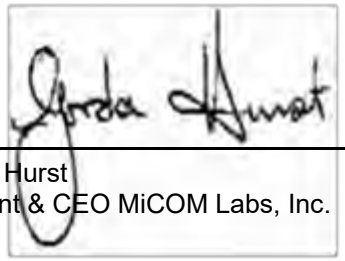
3. Test results apply only to the item(s) tested.

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 558074 D01 v05r02	Apr 2019	Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices operating under section 15.247 of the FCC Rules.
II	A2LA	16th April 2024	R105 - Requirement's When Making Reference to A2LA Accreditation Status
III	ANSI C63.10	2020	American National Standard for Testing Unlicensed Wireless Devices
IV	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
V	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
VI	FCC 47 CFR Part 15, Subpart B	Nov 2017	Title 47: Telecommunication PART 15—RADIO FREQUENCY DEVICES, SubPart B; Unintentional Radiators
VII	FCC 47 CFR Part 15.247	Apr 2020	Radio Frequency Devices; Subpart C – Intentional Radiators
VIII	FCC Public Notice DA 00-705	Mar 2000	Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems
IX	ICES-003	Issue 7; Oct 2020	Information Technology Equipment (Including Digital Apparatus)
X	UKAS M3003	Edition 6 March 2024	The Expression of Uncertainty and Confidence in Measurements
XI	RSS-247 Issue 3	Aug 2023	Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and Licence-Exempt Local Area Network (LE-LEN) Devices
XII	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.
XIII	FCC 47 CFR Part 2.1033	Feb 2023	FCC requirements and rules regarding photographs and test setup diagrams.
XIV	UKAS LAB 12	Edition 4 April 2022	The Expression of Uncertainty in Testing

4.2. Test and Uncertainty Procedure

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

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

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

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 Itron Inc. ERG-7600-005 to FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247.
Applicant:	Itron Inc. 2401 North State St. Waseca MN 56093 United States of America
Manufacturer:	Itron Inc.
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
Test report reference number:	ITRO67-U27 Draft
Date EUT received:	13th June 2024
Standard(s) applied:	FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247
Dates of test (from - to):	26th – 28th June and 13th August 2024 15th, 17th – 18th July 2024
No of Units Tested:	2
Product Family Name:	500G DM
Model(s):	ERG-7600-005 ERG-7600-006 ERG-7600-010
Location for use:	Indoor / Outdoor
Declared Frequency Range(s):	902 - 928 MHz;
Type of Modulation:	GFSK, OOK
EUT Modes of Operation:	902 - 928 MHz: GFSK, 100kbps, PL 3 (FHSS); GFSK, 10kbps, PL 3 (FHSS); GFSK, 150kbps, PL 2 (Hybrid); GFSK, 150kbps, PL 3 (FHSS); GFSK, 25kbps, PL 3 (FHSS); GFSK, 300kbps PL 2 (Hybrid); GFSK, 300kbps PL 3 (FHSS); GFSK, 37.5 kbps, PL 3 (FHSS); OOK PL 1; OOK PL 3 ;
Declared Nominal Output Power (dBm):	+27
Transmit/Receive Operation:	Transceiver
Rated Input Voltage and Current:	3.6VDC, 0.25A
Operating Temperature Range:	-40ºC to +70ºC
ITU Emission Designator:	GFSK 100 KBits/s 129KF1D GFSK 10 KBits/s 21K0F1D GFSK 150 KBits/s 309KF1D GFSK 25 KBits/s 32K0F1D GFSK 300 KBits/s 375KF1D GFSK 37.5 KBits/s 77K0F1D OOK 16.38 KBits/s 127KL1D
Equipment Dimensions:	6” x 4.1” x 3.9”
Weight:	1 lbs
Hardware Rev:	3
Software Rev:	CSL 10.0.15.0

5.2. Scope Of Test Program

Itron Inc. ERG-7600-005

The scope of the test program was to test the Itron Inc. ERG-7600-005 in the frequency ranges 902 - 928 MHz; for compliance against the following specifications:

FCC CFR 47 Part 15 Subpart C 15.247 & ISED RSS-247 (FHSS)
Radio Frequency Devices; Subpart C – Intentional Radiators

ISED RSS-247
Digital Transmission Systems (DTSs), Frequency Hopping System (FHSs) and License-Exempt Local Area Network (LE-LEN) Devices

The Itron ERG-7600-005 is also marketed as the following Model Numbers per Manufacturer Declaration (refer to Section 11 of this report)

ERG-7600-006
ERG-7600-010

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

Type (EUT/ Support)	Equipment Description	Mfr	Model No.	Serial No.
EUT	RF-based meter data collection solution	Itron, Inc.	ERG-7600-005	Conducted RF: 2935662-22 Radiated RF: 2935662-11
Laptop Computer	Support	Lenovo	ThinkPad	N/A

5.4. Antenna Details

Type	Manufacturer	Model	Family	Gain (dBi)	BF Gain	Dir BW	X-Pol	Frequency Band (MHz)
integral	Itron	none	PCB	2.2	-	360	-	902 - 928

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

5.5. Cabling and I/O Ports

1. NONE.

5.6. Test Configurations

Results for the following configurations are provided in this report:

Operational Mode(s) (802.11a/b/g/n/ac)	Data Rate with Highest Power MBit/s	Channel Frequency (MHz)		
		Low	Mid	High
902 - 928 MHz				
GFSK PL 3 (FHSS)	100	902.30	914.60	926.90
GFSK PL 3 (FHSS)	10	902.20	915.00	927.75
GFSK PL 2 (Hybrid)	150	902.40	915.20	927.60
GFSK PL 3 (FHSS)	150	902.40	915.20	927.60
GFSK PL 3 (FHSS)	25	902.20	915.00	927.75
GFSK PL 2 (Hybrid)	300	902.40	915.20	927.60
GFSK PL 3 (FHSS)	300	902.40	915.20	927.60
GFSK PL 3 (FHSS)	37.5	903.00	915.00	926.80
OOK PL 1	16.38	903.00	915.00	926.80
OOK PL 3	16.38	903.00	915.00	926.80

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
20 dB & 99% Bandwidth	Complies	View Data
Frequency Hopping Tests	Complies	-
Number of Hopping Channels	Complies	View Data
Channel Separation	Complies	View Data
Output Power	Complies	View Data
Emissions	Complies	-
(1) Conducted Emissions	Complies	-
(i) Conducted Unwanted Spurious Emissions	Complies	View Data
(ii) Conducted Band-Edge Emissions	Complies	View Data
(2) Radiated Emissions	Complies	-
(i) TX Spurious & Restricted Band Emissions	Complies	View Data

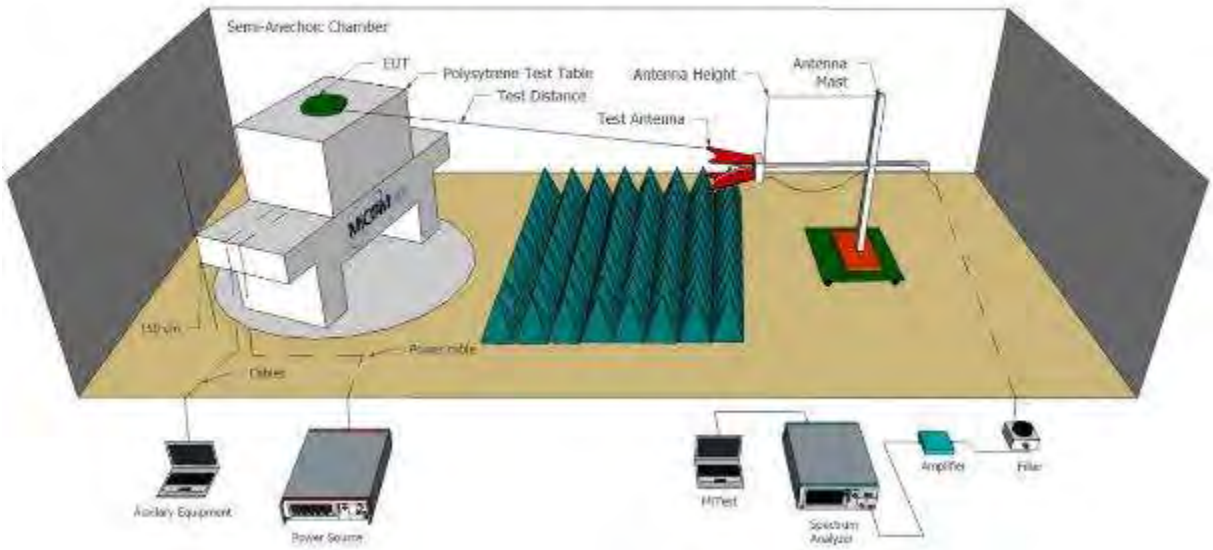
Note: Dwell Time and Channel Occupancy were not tested as part of this test program, these were declared for normal network operation by Itron. See Section 10 of this report for additional information.

7. TEST EQUIPMENT CONFIGURATION(S)

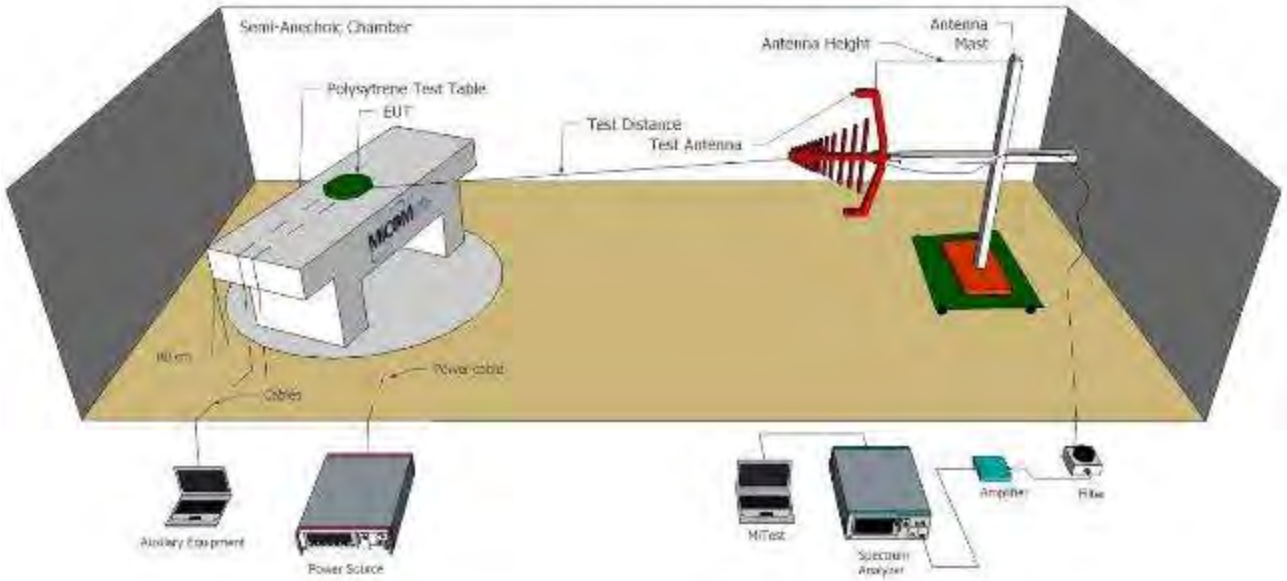
7.1. Radiated

Radiated emissions above and below 1GHz.

Radiated Emissions Above 1GHz Test Setup



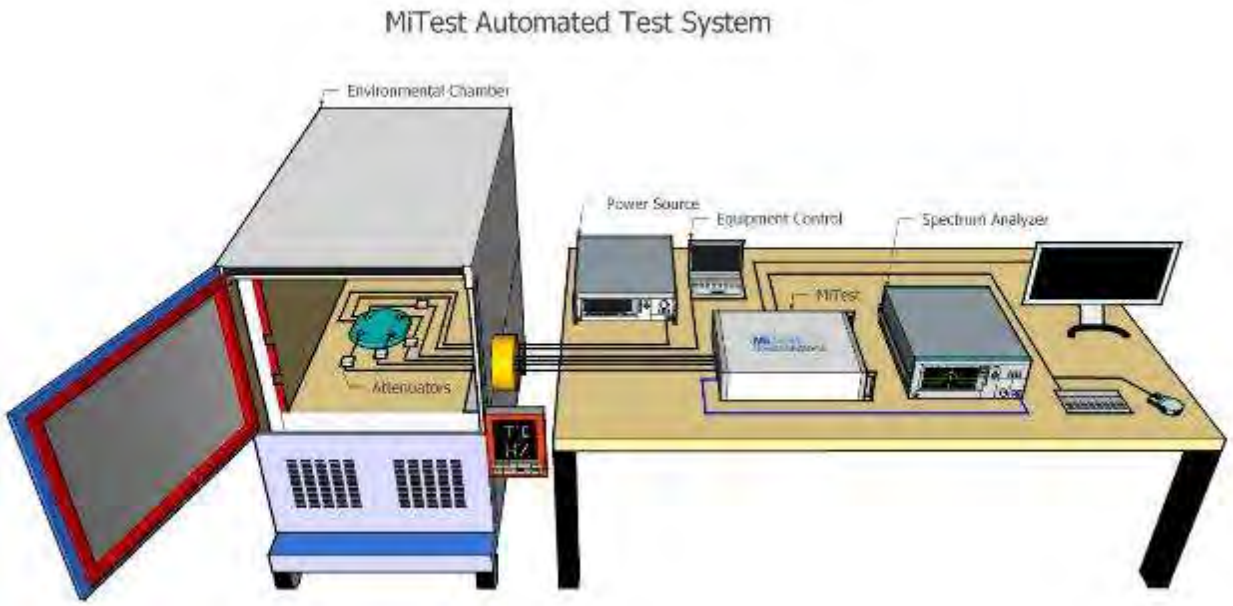
Radiated Emissions Below 1GHz Test Setup



Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CU101	04R08507	Not Required
266	10 Hz to 50GHz MXA Signal Analyzer	Keysight	N9020B	MY60110791	25 Jul 2025
285	DC Power Supply	Keysight	E36155A	MY63000156	4 Dec 2024
298	3M Radiated Emissions Chamber Maintenance Check	MiCOM	3M Chamber	298	11 Oct 2024
330	Variac 0-280 Vac	Staco Energy Co	3PN1020B	0546	Cal when used
336	Active loop Ant 10kHz to 30 MHz	EMCO	EMCO 6502	00060498	7 Dec 2024
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	5 Dec 2024
341	900MHz Notch Filter	EWT	EWT-14-0199	H1	13 Sep 2024
346	1.6 TO 10GHz High Pass Filter	EWT	EWT-57-0112	H1	13 Sep 2024
373	26III RMS Multimeter	Fluke	Fluke 26 series III	76080720	29 Sep 2024
377	Band Rejection Filter 5150 to 5880MHz	Microtronics	BRM50716	034	13 Sep 2024
396	2.4 GHz Notch Filter	Microtronics	BRM50701	001	13 Sep 2024
397	Amp 10 - 2500MHz	MiCOM Labs	Amp 10 - 2500 MHz	NA	27 Oct 2024
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	7 Dec 2024
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	2 Nov 2024
410	Desktop Computer	Dell	Inspiron 620	WS38	Not Required
411	Mast/Turntable Controller	Sunol Sciences	SC98V	060199-1D	Not Required
412	USB to GPIB Interface	National Instruments	GPIB-USB HS	11B8DC2	Not Required
413	Mast Controller	Sunol Science	TWR95-4	030801-3	Not Required
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
447	MiTest Rad Emissions Test Software	MiCOM	Rad Emissions Test Software Version 1.0	447	Not Required
462	Schwarzbeck cable from Antenna to Amplifier.	Schwarzbeck	AK 9513	462	18 Sep 2024
463	Schwarzbeck cable from Amplifier to Bulkhead.	Schwarzbeck	AK 9513	463	18 Sep 2024
464	Schwarzbeck cable from Bulkhead to Receiver	Schwarzbeck	AK 9513	464	16 Sep 2024
465	Low Pass Filter DC-	Mini-Circuits	NLP-1200+	VUU01901402	14 Sep 2024

	1000 MHz				
480	Cable - Bulkhead to Amp	SRC Haverhill	157-3050360	480	18 Sep 2024
481	Cable - Bulkhead to Receiver	SRC Haverhill	151-3050787	481	18 Sep 2024
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2026
554	Precision SMA Cable	Fairview Microwave	SCE18060101-400CM	554	18 Sep 2024
555	Rhode & Schwarz Receiver (Firmware Version : 3.10 SP1)	Rhode & Schwarz	ESW 44	101893	28 Jun 2025
578	DC Power Supply 0 - 60 V, 0 - 15 A	HP	6274B	2537A-08192	Not Required
87	Uninterruptible Power Supply	Falcon Electric	ED2000-1/2LC	F3471 02/01	Cal when used
CC05	Confidence Check	MiCOM	CC05	None	11 Nov 2024

7.2. Conducted Test Setup



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

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
#3 SA	MiTest Box to SA	Fairview Microwave	SCA1814-0101-72	#3 SA	26 Oct 2024
#3P1	EUT to MiTest box port 1	Fairview Microwave	SCA1814-0101-72	#3P1	26 Oct 2024
#3P2	EUT to MiTest box port 2	Fairview Microwave	SCA1814-0101-72	#3P2	26 Oct 2024
#3P3	EUT to MiTest box port 3	Fairview Microwave	SCA1814-0101-72	#3P3	26 Oct 2024
#3P4	EUT to MiTest box port 4	Fairview Microwave	SCA1812-0101-72	#3P4	26 Oct 2024
249	Thermocouple; Resistance Thermometer	Thermotronics	GR2105-02	9340 #2	22 Mar 2025
266	10 Hz to 50GHz MXA Signal Analyzer	Keysight	N9020B	MY60110791	25 Jul 2025
285	DC Power Supply	Keysight	E36155A	MY63000156	4 Dec 2024
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	4 Dec 2024
442	USB Wideband Power	Boonton	55006	9181	12 Dec 2024

	Sensor				
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
461	Spectrum Analyzer	Agilent	E4440A	MY46185537	27 Sep 2024
493	USB Wideband Power Sensor	Boonton	55006	9634	8 Oct 2024
494	USB Wideband Power Sensor	Boonton	55006	9726	12 Dec 2024
510	Barometer/Thermometer	Digi Sense	68000-49	170871375	4 Jan 2026
512	MiTest Cloud Solutions RF Test Box	MiCOM	2nd Gen	512	24 Oct 2024
516	USB Wideband Power Sensor	Boonton	RTP5006	10511	4 Dec 2024
555	Rhode & Schwarz Receiver (Firmware Version : 3.10 SP1)	Rhode & Schwarz	ESW 44	101893	28 Jun 2025
75	Environmental Chamber	Thermatron	SE-300-2-2	27946	20 Nov 2024

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. 20 dB & 99% Bandwidth

Conducted Test Conditions for 20 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.247 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	20 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1)(i)/(ii) Section 5.1	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 20 dB and 99% Bandwidth Measurement

The bandwidth at 20 dB and 99 % was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

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 specified in this document.

Limits for 20 dB and 99% Bandwidth

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

(ii) Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

Equipment Configuration for 20 dB 99% Bandwidth			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.3	0.129				0.129	0.129	0.5	-0.37
914.6	0.129				0.129	0.129	0.5	-0.37
926.9	0.127				0.127	0.127	0.5	-0.37

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.3	0.112				0.112		
914.6	0.113				0.113		
926.9	0.111				0.111		

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 20 dB 99% Bandwidth			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.2	0.021				0.021	0.021	0.5	-0.48
915.0	0.021				0.021	0.021	0.5	-0.48
927.8	0.021				0.021	0.021	0.5	-0.48

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.2	0.020				0.020		
915.0	0.020				0.020		
927.8	0.020				0.020		

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 20 dB 99% Bandwidth			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.184				0.184	0.184	0.5	-0.32
915.2	0.183				0.183	0.183	0.5	-0.32
927.6	0.184				0.184	0.184	0.5	-0.32

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.180				0.180		
915.2	0.178				0.178		
927.6	0.178				0.178		

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).

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Equipment Configuration for 20 dB 99% Bandwidth			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.306				0.306	0.306	0.5	-0.19
915.2	0.307				0.307	0.307	0.5	-0.19
927.6	0.309				0.309	0.309	0.5	-0.19

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.278				0.278		
915.2	0.282				0.282		
927.6	0.274				0.274		

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 20 dB 99% Bandwidth			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.2	0.032				0.032	0.032	0.5	-0.47
915.0	0.032				0.032	0.032	0.5	-0.47
927.8	0.032				0.032	0.032	0.5	-0.47

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.2	0.028				0.028		
915.0	0.029				0.029		
927.8	0.028				0.028		

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 20 dB 99% Bandwidth			
Variant:	300kbps PL 2 (Hybrid)	**Duty Cycle (%):**	100
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.368				0.368	0.368	0.5	-0.13
915.2	0.369				0.369	0.369	0.5	-0.13
927.6	0.368				0.368	0.368	0.5	-0.13

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.322				0.322		
915.2	0.319				0.319		
927.6	0.322				0.322		

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 20 dB 99% Bandwidth			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.375				0.375	0.375	0.5	-0.13
915.2	0.372				0.372	0.372	0.5	-0.13
927.6	0.369				0.369	0.369	0.5	-0.13

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.325				0.325		
915.2	0.323				0.323		
927.6	0.322				0.322		

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 20 dB 99% Bandwidth			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
903.0	0.068				0.068	0.068	0.5	-0.43
915.0	0.066				0.066	0.066	0.5	-0.43
926.8	0.077				0.077	0.077	0.5	-0.42

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
903.0	0.064				0.064		
915.0	0.063				0.063		
926.8	0.066				0.066		

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 20 dB 99% Bandwidth			
Variant:	OOK PL 3	**Duty Cycle (%):**	100
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
903.0	0.056				0.056	0.056	0.5	-0.44
915.0	0.062				0.062	0.062	0.5	-0.44
926.8	0.062				0.062	0.062	0.5	-0.44

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
903.0	0.127				0.127		
915.0	0.126				0.126		
926.8	0.123				0.123		

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 20 dB 99% Bandwidth			
Variant:	OOK PL1	**Duty Cycle (%):**	100
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
903.0	0.054				0.054	0.054	0.5	-0.45
915.0	0.053				0.053	0.053	0.5	-0.45
926.8	0.053				0.053	0.053	0.5	-0.45

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
903.0	0.112				0.112		
915.0	0.113				0.113		
926.8	0.112				0.112		

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

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

9.2. Frequency Hopping Tests

Conducted Test Conditions for Frequency Hopping Measurements			
Standard:	FCC CFR 47:15.247 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Frequency Hopping Tests	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1)(i)/(ii) Section 5.1	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References, FCC Public Notice DA 00-705		

Test Procedure for Frequency Hopping Measurements

These tests cover the following measurements:

i) channel separation
ii) channel occupancy
iii) dwell time
iv) number of hopping frequencies

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

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 specified in this document.

Limits for Frequency Hopping Measurements

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

(ii) Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

(iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

9.2.1. Number of Hopping Channels

Equipment Configuration for Number of Hopping Channels

Variant:	100kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	26	--	--
910.0-920.0	33	--	--
920.0-9280.0	24	--	--
Total number of Hops	**83**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	10kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-928.0	512	--	--
Total number of Hops	**512**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	150kbps, PL 2 (Hybrid)	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	24	--	--
920.0-928.0	20	--	--
Total number of Hops	**64**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	150kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	24	--	--
920.0-928.0	20	--	--
Total number of Hops	**64**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	25kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-928.0	512	--	--
Total number of Hops	**512**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	300kbps PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	24	--	--
920.0-928.0	20	--	--
Total number of Hops	**64**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	37.5kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	35	--	--
910.0-920.0	50	--	--
920.0-928.0	35	--	--
Total number of Hops	**120**	**50**	**Pass**

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 Number of Hopping Channels			
Variant:	OOK PL 3	**Antenna:**	Not Applicable
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	35	--	--
910.0-920.0	50	--	--
920.0-928.0	35	--	--
Total number of Hops	**120**	**50**	**Pass**

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).

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Equipment Configuration for Number of Hopping Channels			
Variant:	OOK PL1	**Antenna:**	Not Applicable
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	35	--	--
910.0-920.0	50	--	--
920.0-928.0	35	--	--
Total number of Hops	**120**	**50**	**Pass**

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

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

9.2.2. Channel Separation

Equipment Configuration for Channel Separation

Variant:	100kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
914.6	302.605	0.129	Pass

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 Channel Separation			
Variant:	10kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.0	49.699	0.025	Pass

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 Channel Separation			
Variant:	150kbps, PL 2 (Hybrid)	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.2	399.800	0.184	Pass

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).

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Equipment Configuration for Channel Separation			
Variant:	150kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.2	399.800	0.307	Pass

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 Channel Separation			
Variant:	25kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.0	49.699	0.032	Pass

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 Channel Separation			
Variant:	300kbps PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.2	399.800	0.375	Pass

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).

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Equipment Configuration for Channel Separation			
Variant:	37.5kbps, PL 3 (FHSS)	**Antenna:**	Not Applicable
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.0	200.401	0.068	Pass

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 Channel Separation			
Variant:	OOK PL 3	**Antenna:**	Not Applicable
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.0	199.599	0.062	Pass

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).

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Equipment Configuration for Channel Separation			
Variant:	OOK PL1	**Antenna:**	Not Applicable
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	100.0	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Center Frequency (MHz)	Chan Separation (kHz)	Limit (MHz)	Pass / Fail
915.0	202.004	0.054	Pass

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).

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9.3. Output Power

Conducted Test Conditions for Fundamental Emission Output Power			
Standard:	FCC CFR 47:15.247 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1), (b)(1)/(2)/(3) Section 5.4	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Fundamental Emission Output Power Measurement

In the case of average power measurements an average power sensor was utilized.

For peak power measurements the spectrum analyzer built-in power function was used to integrate peak power over the 20 dB bandwidth.

Testing was performed under ambient conditions, nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured, summed (Σ) and reported.

Test configuration and setup used for the measurement was per the Conducted Test Set-up 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 for Fundamental Emission Output Power

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following for frequency hopping systems:

(1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

(2) For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time

intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Equipment Configuration for Output Power Peak			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.3	24.00				24.00	30.00	-6.00	27.00
914.6	23.81				23.81	30.00	-6.19	27.00
926.9	23.20				23.20	30.00	-6.80	27.00

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 Output Power Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.2	24.08				24.08	30.00	-5.92	27.00
915.0	23.76				23.76	30.00	-6.24	27.00
927.8	23.11				23.11	30.00	-6.89	27.00

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 Output Power Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	11.62				11.62	30.00	-18.38	16.0
915.2	10.80				10.80	30.00	-19.20	16.0
927.6	9.31				9.31	30.00	-20.69	16.0

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 Output Power Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	24.00				24.00	30.00	-6.00	27.00
915.2	23.71				23.71	30.00	-6.29	27.00
927.6	23.08				23.08	30.00	-6.92	27.00

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 Output Power Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.2	24.02				24.02	30.00	-5.98	27.00
915.0	23.75				23.75	30.00	-6.25	27.00
927.8	23.11				23.11	30.00	-6.89	27.00

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 Output Power Peak			
Variant:	300kbps PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	11.51				11.51	30.00	-18.49	16.0
915.2	10.67				10.67	30.00	-19.33	16.0
927.6	9.24				9.24	30.00	-20.76	16.0

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 Output Power Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	24.04				24.04	30.00	-5.96	27.00
915.2	23.76				23.76	30.00	-6.24	27.00
927.6	23.07				23.07	30.00	-6.93	27.00

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 Output Power Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
903.0	24.05				24.05	30.00	-5.95	27.00
915.0	23.87				23.87	30.00	-6.13	27.00
926.8	23.17				23.17	30.00	-6.83	27.00

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 Output Power Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
903.0	25.11				25.11	30.00	-4.89	27.00
915.0	24.61				24.61	30.00	-5.39	27.00
926.8	23.82				23.82	30.00	-6.18	27.00

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 Output Power Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
903.0	8.16				8.16	30.00	-21.84	10.0
915.0	7.87				7.87	30.00	-22.13	10.0
926.8	7.29				7.29	30.00	-22.71	10.0

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.

9.4. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (f)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Power Spectral Density
The transmitter output was connected to a spectrum analyzer and the measured made in a 3 kHz resolution bandwidth using the analyzer auto-coupled sweep-time. A peak value was found over the full emission bandwidth and the spectrum downloaded 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.

Testing was performed under ambient conditions at nominal voltage only.

Test configuration and setup used for the measurement was per the Conducted Test Set-up 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 the spectrum in some antenna port 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.

Sub section (f)

For the purposes of this section, hybrid systems are those that employ a combination of both frequency hopping and digital modulation techniques. The frequency hopping operation of the hybrid system, with the direct sequence or digital modulation operation turned-off, shall have an average time of occupancy on any frequency not to exceed 0.4 seconds within a time period in seconds equal to the number of hopping frequencies employed multiplied by 0.4. The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

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
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Equipment Configuration for Power Spectral Density - Peak			
Variant:	PCB-1651-001 v3	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	Power Level 2		

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/3KHz)				Amplitude Summation	Limit	Margin
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
902.4	4.954				4.954	8.0	-3.0
915.2	2.791				2.791	8.0	-5.2
927.6	2.621				2.621	8.0	-5.4

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 Power Spectral Density - Peak			
Variant:	PCB-1651-001 v3	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	2.23
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	Power Level 2		

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBm/3KHz)				Amplitude Summation	Limit	Margin
MHz	a	b	c	d	dBm/3KHz	dBm/3KHz	dB
902.4	1.346				1.346	8.0	-6.7
915.2	0.480				0.480	8.0	-7.5
927.6	2.277				2.277	8.0	-5.7

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).

9.5. Emissions

9.5.1. Conducted Emissions

Conducted Test Conditions for Transmitter Conducted Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.247 ISED RSS-247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Transmitter Conducted Spurious and Band-Edge Emissions	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (d) Section 5.5	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Transmitter Conducted Spurious and Band-Edge Emissions Measurement

Transmitter Conducted Spurious and Band-Edge emissions were measured at a limit of 30 dBc (average detector) or 20 dBc (peak detector) below the highest in-band spectral density measured with a spectrum analyzer connected to the antenna terminal. Measurements were made while EUT was operating in transmit mode of operation at the appropriate centre frequency closest to the band-edge. Emissions were maximized during the measurement and limits derived from the peak spectral power and drawn on each plot.

Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. Testing was performed under ambient conditions at nominal voltage only.

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

Limits Transmitter Conducted Spurious and Band-Edge Emissions

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

9.5.1.1. Conducted Unwanted Spurious Emissions

Equipment Configuration for Unwanted Emissions Peak			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.3	30.0 - 10000.0	-29.868	3.74						
914.6	30.0 - 10000.0	-29.793	3.78						
926.9	30.0 - 10000.0	-29.293	2.80						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.2	30.0 - 10000.0	-29.887	3.81						
915.0	30.0 - 10000.0	-29.801	3.72						
927.8	30.0 - 10000.0	-28.607	3.02						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-31.634	-8.66						
915.2	30.0 - 10000.0	-31.939	-9.32						
927.6	30.0 - 10000.0	-31.508	-10.73						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-30.027	3.63						
915.2	30.0 - 10000.0	-30.092	3.60						
927.6	30.0 - 10000.0	-29.824	2.83						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.2	30.0 - 10000.0	-29.683	3.66						
915.0	30.0 - 10000.0	-29.714	3.61						
927.8	30.0 - 10000.0	-28.536	3.03						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	300kbps PL 2 (Hybrid)	**Duty Cycle (%):**	100
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-32.232	-8.81						
915.2	30.0 - 10000.0	-31.485	-9.60						
927.6	30.0 - 10000.0	-31.589	-11.03						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-30.194	3.55						
915.2	30.0 - 10000.0	-31.182	3.53						
927.6	30.0 - 10000.0	-28.626	2.62						

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

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

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
903.0	30.0 - 10000.0	-29.000	3.81						
915.0	30.0 - 10000.0	-29.500	3.82						
926.8	30.0 - 10000.0	-28.469	2.79						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
903.0	30.0 - 10000.0	-30.525	4.23						
915.0	30.0 - 10000.0	-30.963	3.48						
926.8	30.0 - 10000.0	-28.742	3.42						

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

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

Equipment Configuration for Unwanted Emissions Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
903.0	30.0 - 10000.0	-31.636	-12.54						
915.0	30.0 - 10000.0	-31.144	-12.53						
926.8	30.0 - 10000.0	-30.725	-15.63						

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

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

9.5.1.2. Conducted Band-Edge Emissions

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak

Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-10.35	4.24	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-0.56	4.11	902.00			-0.114

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-25.92	-8.30	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-14.56	4.06	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-0.62	4.00	902.00			-0.010

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

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

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-11.08	4.03	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-31.93	4.40	902.80			-0.800

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-19.80	4.60	902.80			-0.800

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-33.04	-12.28	902.80			-0.800

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-12.70	4.13	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-2.12	4.15	902.00			-0.010

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-30.10	-8.19	902.20			-0.200

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-16.84	4.04	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-2.02	4.03	902.00			-0.114

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	300kbps PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-22.38	-8.46	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-10.01	3.98	902.10			-0.100

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-33.71	4.29	902.80			-0.800

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-18.66	4.59	902.80			-0.800

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

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

Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	903.0 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-32.39	-12.15	902.80			-0.800

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-37.19	3.45	927.10			-0.900

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-5.52	3.47	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-29.56	-10.47	927.80			-0.200

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-16.07	3.23	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-7.52	3.35	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-10.58	3.20	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-33.07	3.52	927.00			-1.000

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-25.00	3.99	927.00			-1.000

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-36.25	-12.60	927.00			-1.000

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	100kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-36.10	3.31	927.10			-0.900

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	10kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	10.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-8.78	3.19	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	150kbps, PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	9.50	-10.50	927.80			-0.200

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	150kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-17.37	3.08	927.80			-0.200

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	25kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	25.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-8.84	3.06	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	300kbps PL 2 (Hybrid)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-24.65	-10.81	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	300kbps PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-10.68	3.05	927.90			-0.100

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	37.5kbps, PL 3 (FHSS)	**Duty Cycle (%):**	100.0
Data Rate:	37.50 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-34.01	3.30	927.00			-1.000

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	OOK PL 3	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-23.63	3.85	927.00			-1.000

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

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

Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	OOK PL1	**Duty Cycle (%):**	100.0
Data Rate:	16.38 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OOK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	BQ
Engineering Test Notes:			

Test Measurement Results

Channel Frequency:	926.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-34.64	-12.65	927.00			-1.000

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

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

9.5.2. Radiated Emissions

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).

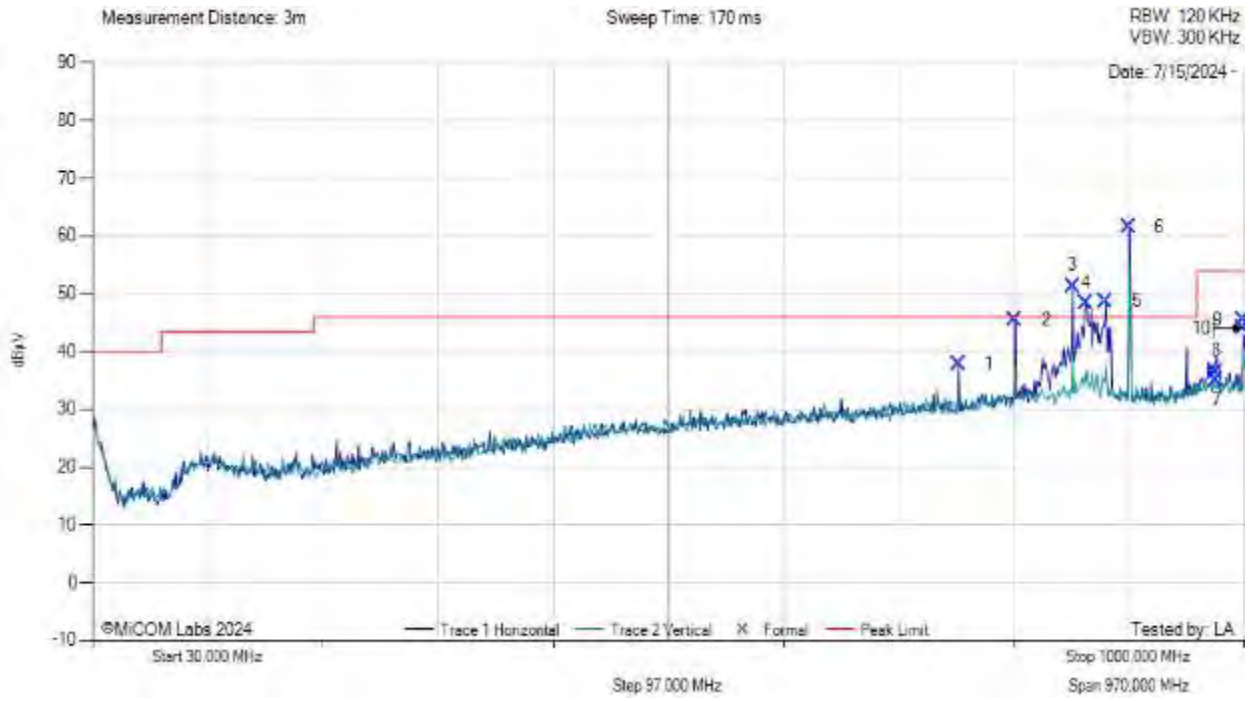
9.5.2.3. TX Spurious Emissions 30MHz to 1GHz

9.5.2.3.1. OOK Power Level 3

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	903.0	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



30.00 - 1000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	759.44	35.12	6.49	-3.72	37.89	NRB	Horizontal	100	120	--	--	Pass
2	806.97	41.76	6.65	-2.92	45.49	NRB	Horizontal	100	90	--	--	Pass
3	855.47	46.91	6.78	-2.36	51.34	NRB	Horizontal	100	90	--	--	Pass
4	867.11	43.66	6.82	-2.18	48.30	NRB	Horizontal	100	90	--	--	Pass
5	883.60	44.06	6.88	-2.24	48.69	NRB	Horizontal	100	60	--	--	Pass
6	903.00	56.48	6.93	28.70	61.56	Fundamental	Horizontal	100	120	--	--	Pass
7	975.83	28.94	7.18	-1.08	35.04	MaxQP	Horizontal	102	87	54.0	-19.0	Pass
8	976.44	30.38	7.19	-1.08	36.49	MaxP	Horizontal	99	91	54.0	-17.5	Pass
9	999.00	39.18	7.23	-0.94	45.47	MaxQP	Horizontal	148	88	54.0	-8.5	Pass
10	999.01	37.77	7.23	-0.94	44.06	MaxP	Horizontal	99	58	54.0	-9.9	Pass

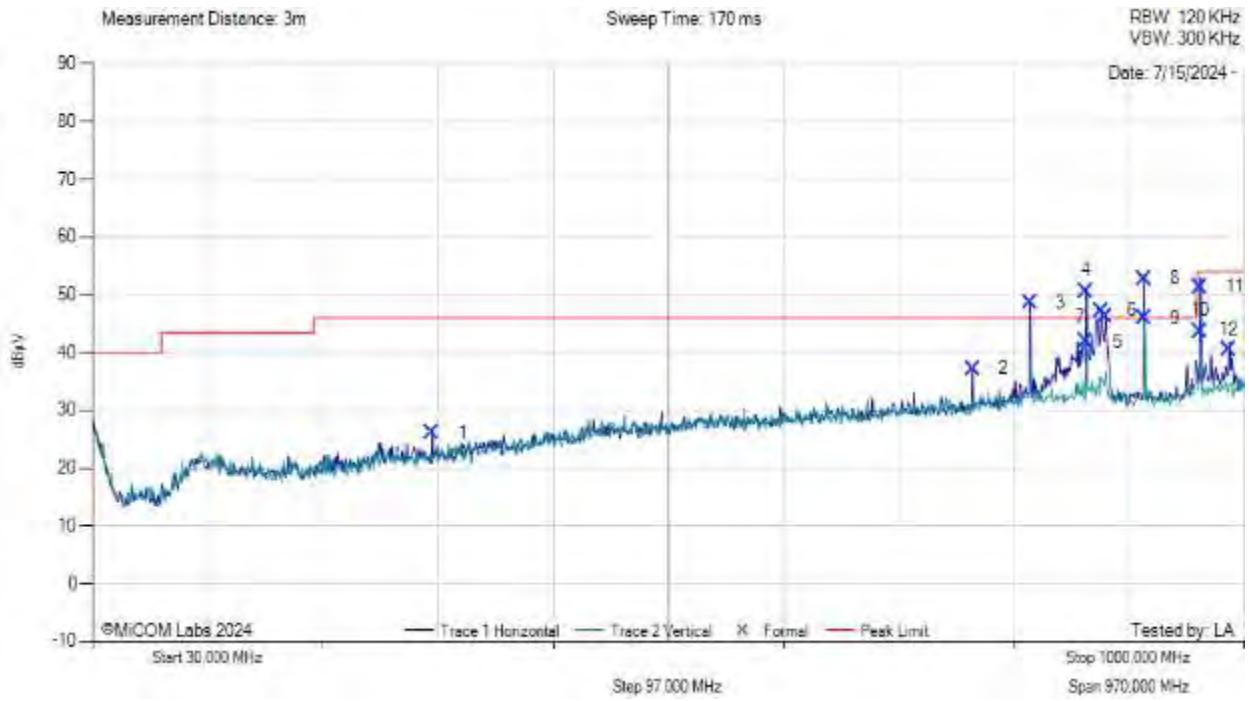
Test Notes: SN: 2935662-11, OOK 903MHz, 16.384kbps, Power Level 3

Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.0	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



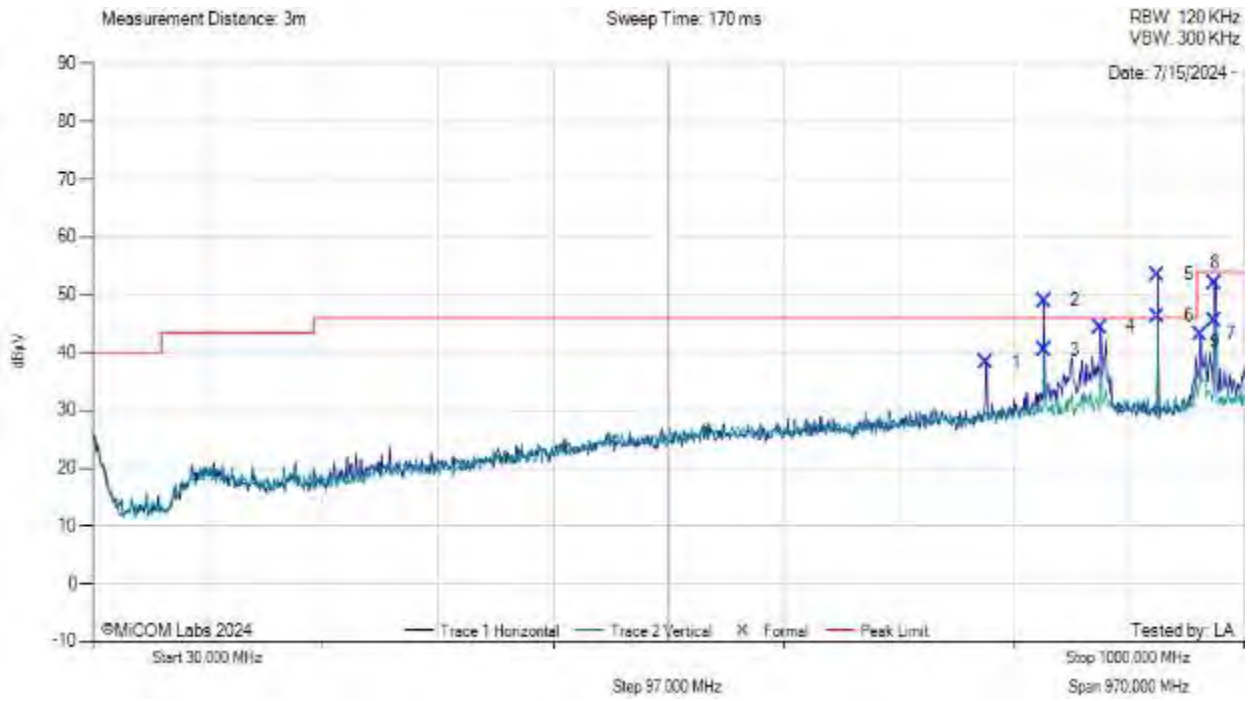
30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	316.15	31.94	5.09	-10.97	26.07	NRB	Horizontal	98	180	--	--	Pass
2	771.08	34.32	6.56	-3.65	37.22	NRB	Horizontal	98	120	--	--	Pass
3	819.58	44.57	6.69	-2.67	48.59	NRB	Horizontal	98	120	--	--	Pass
4	867.11	45.98	6.82	-2.18	50.62	NRB	Horizontal	98	240	--	--	Pass
5	867.11	37.23	6.82	-2.18	41.87	NRB	Vertical	98	179	--	--	Pass
6	879.72	42.62	6.87	-2.20	47.29	NRB	Horizontal	98	90	--	--	Pass
7	883.60	41.55	6.88	-2.24	46.18	NRB	Horizontal	98	270	--	--	Pass
8	915.61	47.53	6.98	-1.75	52.76	Fundamental	Horizontal	98	120	--	--	Pass
9	915.61	40.71	6.98	-1.75	45.94	Fundamental	Vertical	199	299	--	--	Pass
10	962.99	37.68	7.11	-1.09	43.70	MaxQP	Vertical	141	227	54.0	-10.3	Pass
11	963.00	45.32	7.11	-1.09	51.34	MaxQP	Horizontal	102	270	54.0	-2.7	Pass
12	986.49	34.25	7.17	-1.02	40.41	MaxQP	Horizontal	100	91	54.0	-13.6	Pass

Test Notes: SN: 2935662-11, OOK 915MHz, 16.384kbps, Power Level 3
Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	926.8	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	782.72	36.92	6.57	-3.25	38.24	NRB	Horizontal	100	120	--	--	Pass
2	831.22	46.77	6.72	-2.57	48.92	NRB	Horizontal	100	90	--	--	Pass
3	831.22	38.37	6.72	-2.57	40.52	NRB	Vertical	100	330	--	--	Pass
4	878.75	41.73	6.86	-2.20	44.40	NRB	Horizontal	100	300	--	--	Pass
5	927.25	50.04	7.00	-1.55	53.49	Fundamental	Horizontal	199	240	--	--	Pass
6	927.25	42.89	7.00	-1.55	46.34	Fundamental	Vertical	100	269	--	--	Pass
7	962.79	39.24	7.11	-1.09	43.26	MaxQP	Horizontal	148	259	54.0	-10.7	Pass
8	974.80	47.89	7.16	-1.09	51.95	MaxQP	Horizontal	148	114	54.0	-2.0	Pass
9	974.81	41.48	7.16	-1.09	45.55	MaxQP	Vertical	197	209	54.0	-8.5	Pass

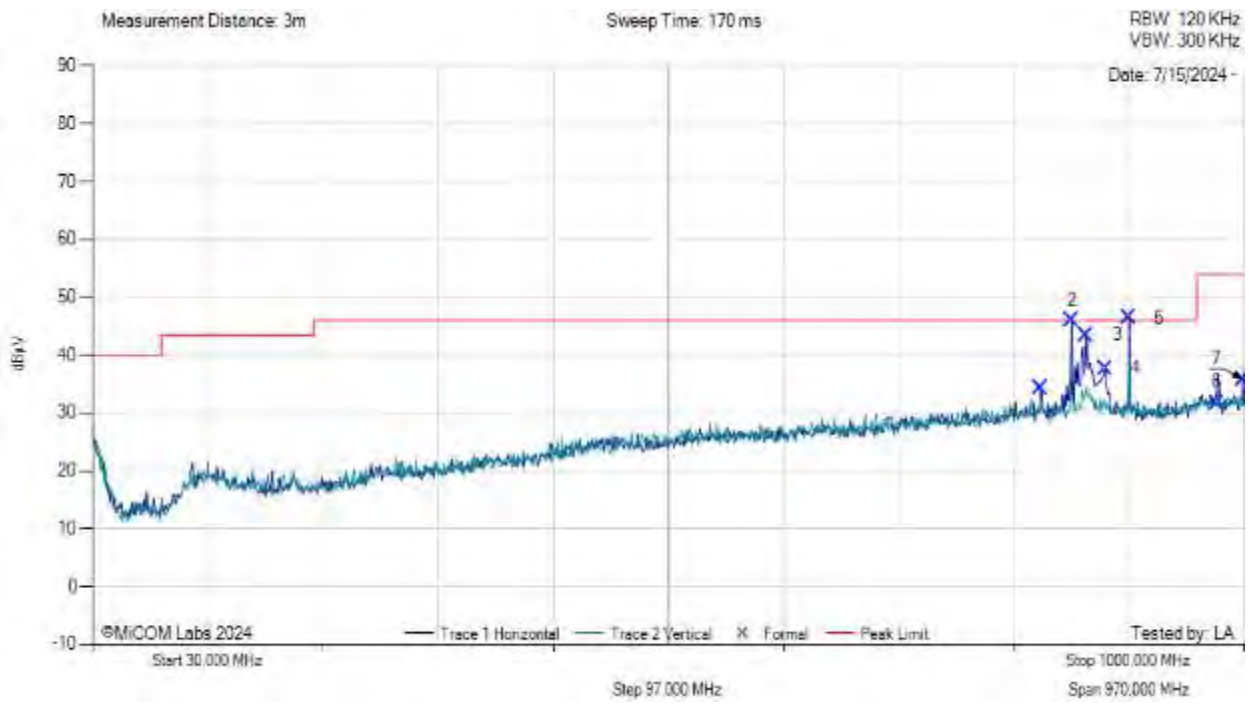
Test Notes: SN: 2935662-11, OOK 926.8MHz, 16.384kbps, Power Level 3
Non-Restricted Band (NRB)

9.5.2.3.2. GFSK Power Level 2

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	902.4	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



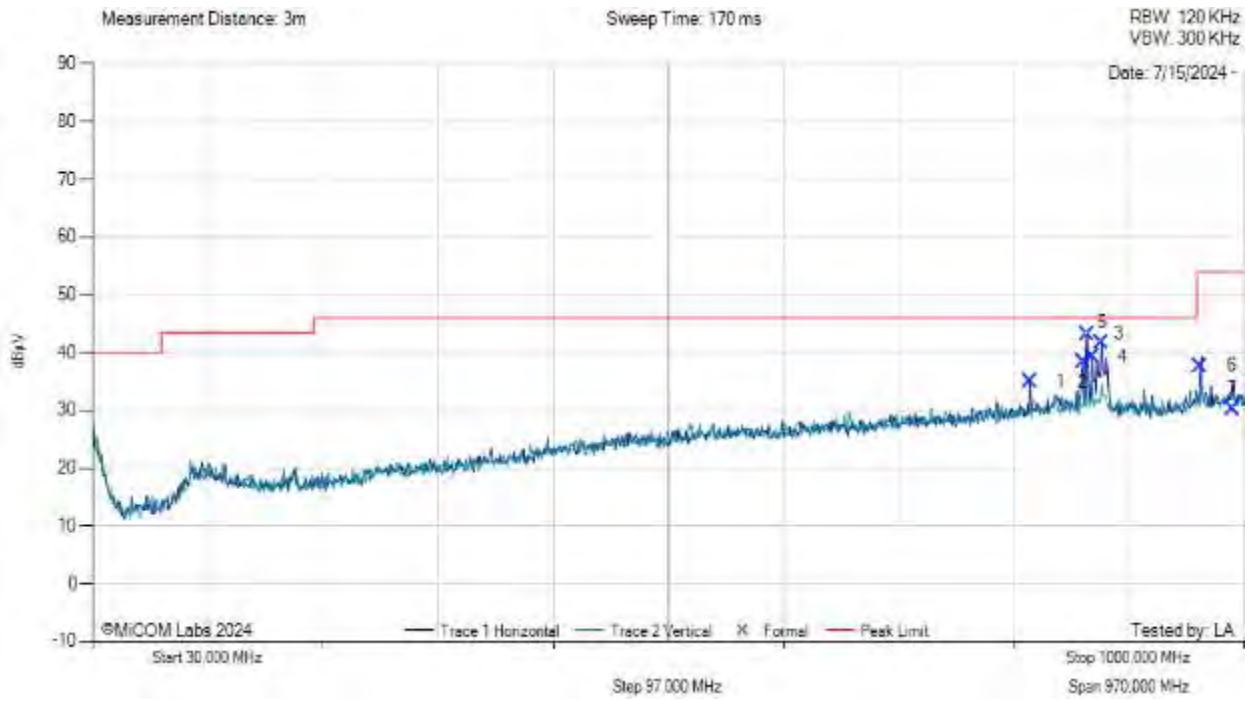
30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	828.31	32.18	6.71	-2.60	34.29	NRB	Horizontal	99	120	--	--	Pass
2	854.50	43.45	6.79	-2.34	45.90	NRB	Horizontal	99	90	--	--	Pass
3	867.11	40.80	6.82	-2.18	43.45	NRB	Horizontal	99	90	--	--	Pass
4	882.63	35.04	6.88	-2.23	37.68	NRB	Horizontal	99	90	--	--	Pass
5	903.00	43.40	6.93	28.70	46.48	Fundamental	Horizontal	99	90	--	--	Pass
6	976.77	27.60	7.20	-1.08	31.71	MaxQP	Horizontal	193	120	54.0	-22.3	Pass
7	998.48	31.55	7.22	-0.94	35.84	MaxQP	Horizontal	196	111	54.0	-18.2	Pass

Test Notes: SN: 2935662-11, GFSK 902.4MHz, 300kbps, Power Level 2
Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.2	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



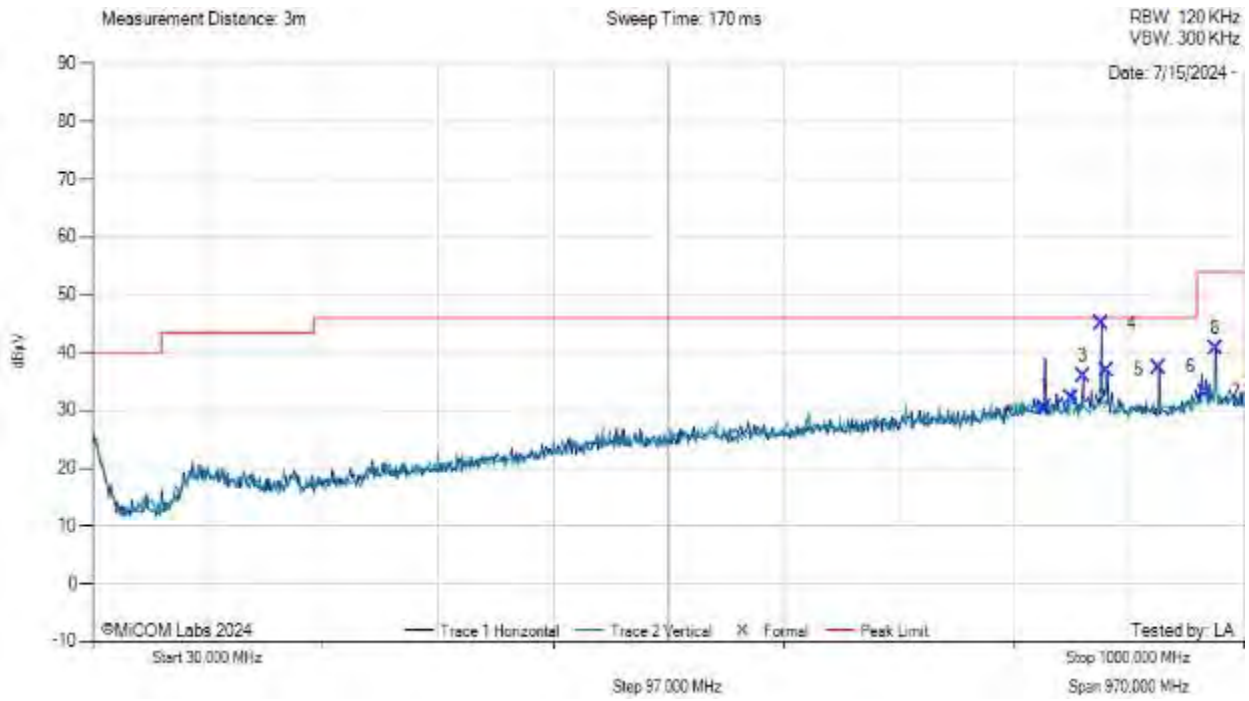
30.00 - 1000.00 MHz												
Num	**Frequency MHz**	**Raw dBµV**	**Cable Loss dB**	**AF dB/m**	**Level dBµV/m**	**Measurement Type**	**Pol**	**Hgt cm**	**Azt Deg**	**Limit dBµV/m**	**Margin dB**	**Pass /Fail**
1	819.58	32.95	6.69	-2.67	34.97	NRB	Horizontal	99	90	--	--	Pass
2	864.20	35.87	6.81	-2.23	38.45	NRB	Horizontal	99	90	--	--	Pass
3	868.08	40.52	6.83	-2.18	43.18	NRB	Horizontal	99	60	--	--	Pass
4	871.96	36.61	6.87	-2.17	39.31	NRB	Horizontal	99	90	--	--	Pass
5	879.72	39.05	6.87	-2.20	41.72	NRB	Horizontal	99	90	--	--	Pass
6	963.24	33.72	7.11	-1.09	37.74	MaxQP	Horizontal	195	114	54.0	-16.3	Pass
7	989.63	25.93	7.20	-0.89	30.24	MaxQP	Horizontal	198	251	54.0	-23.8	Pass

Test Notes: SN: 2935662-11, GFSK 915.2MHz, 300kbps, Power Level 2
Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	927.6	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	831.22	28.35	6.72	-2.57	30.50	NRB	Horizontal	99	300	--	--	Pass
2	854.50	29.79	6.79	-2.34	32.24	NRB	Horizontal	99	90	--	--	Pass
3	864.20	33.35	6.81	-2.23	35.93	NRB	Horizontal	99	60	--	--	Pass
4	879.72	42.39	6.87	-2.20	45.06	NRB	Horizontal	99	60	--	--	Pass
5	884.57	34.38	6.87	-2.25	37.00	NRB	Horizontal	99	90	--	--	Pass
6	928.22	34.07	7.00	-1.56	37.51	Fundamental	Horizontal	199	240	--	--	Pass
7	967.17	29.13	7.14	-1.10	33.17	MaxQP	Horizontal	148	255	54.0	-20.8	Pass
8	975.51	36.59	7.17	-1.08	40.67	MaxQP	Horizontal	196	236	54.0	-13.3	Pass

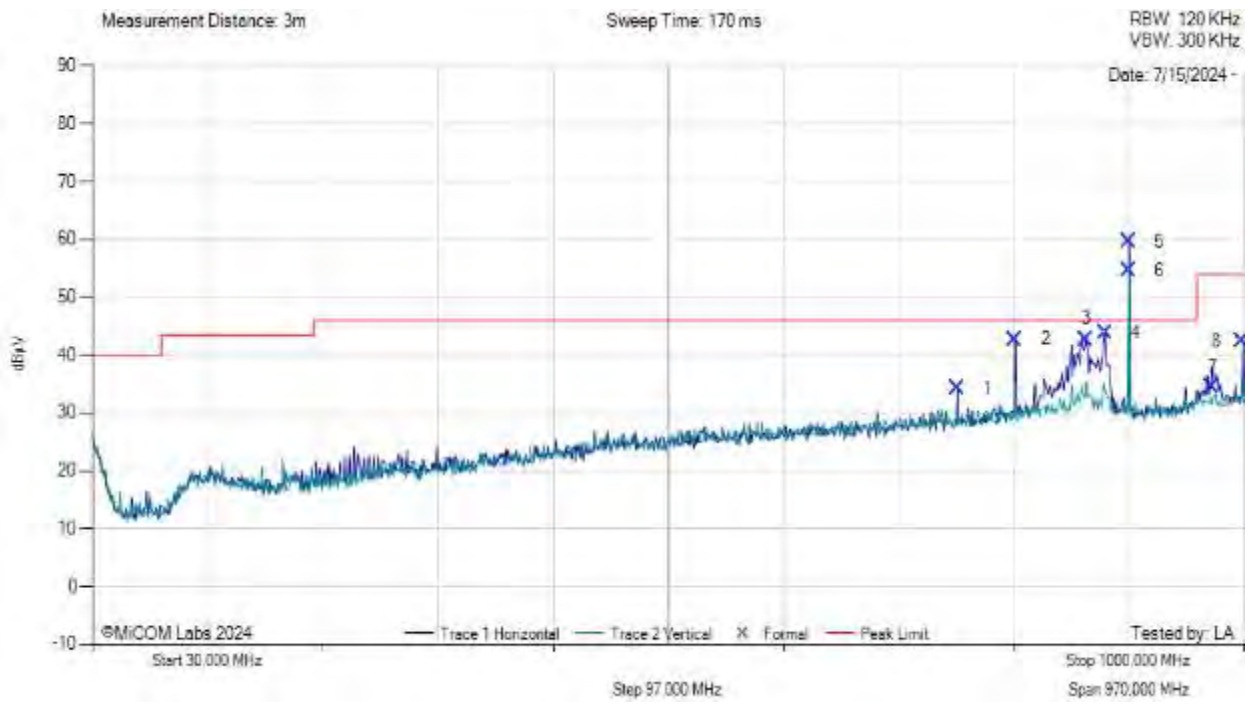
Test Notes: SN: 2935662-11, GFSK 927.6MHz, 300kbps, Power Level 2
Non-Restricted Band (NRB)

9.5.2.3.3. GFSK Power Level 3

Equipment Configuration for 30 MHZ TO 1 GHZ 2M			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	902.4	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



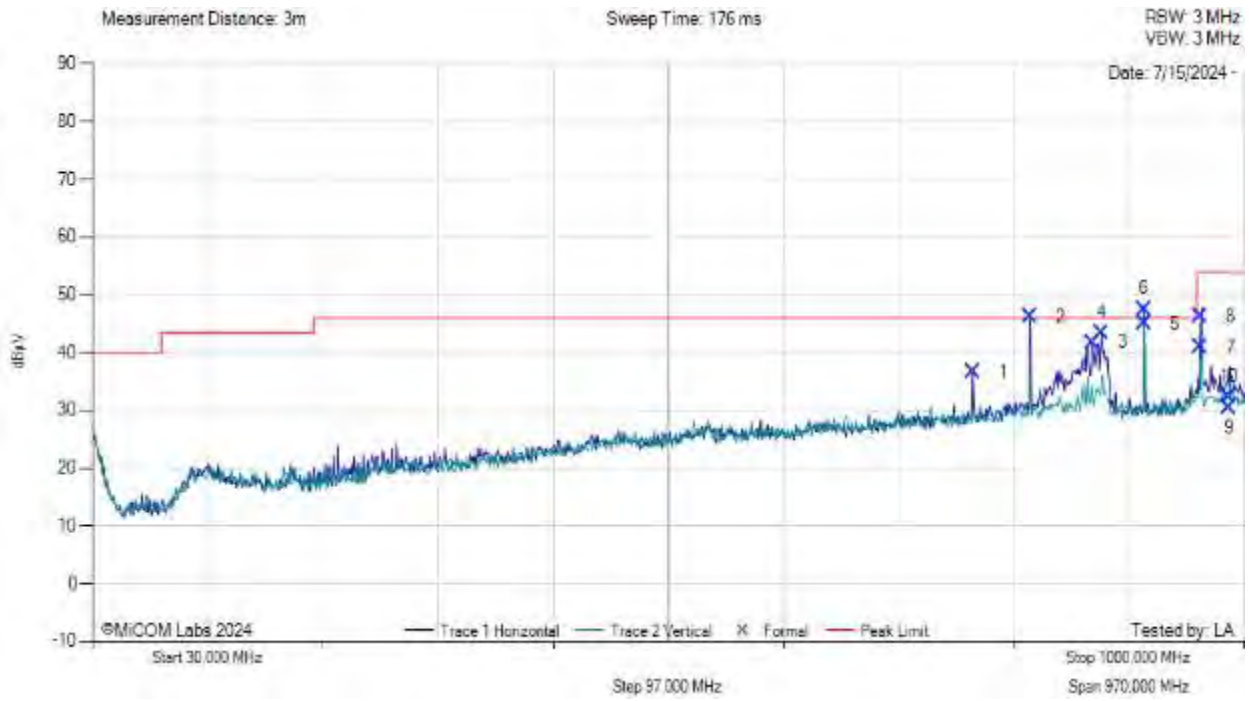
30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	758.47	33.51	6.49	-3.71	34.29	NRB	Horizontal	99	90	--	--	Pass
2	806.97	41.03	6.65	-2.92	42.76	NRB	Horizontal	99	90	--	--	Pass
3	867.11	40.13	6.82	-2.18	42.77	NRB	Horizontal	99	120	--	--	Pass
4	882.63	41.16	6.88	-2.23	43.81	NRB	Horizontal	99	58	--	--	Pass
5	903.00	56.58	6.93	28.70	59.66	Fundamental	Horizontal	99	90	--	--	Pass
6	903.00	51.53	6.93	28.70	54.61	Fundamental	Vertical	199	209	--	--	Pass
7	973.18	30.48	7.14	-1.07	34.54	MaxQP	Horizontal	148	93	54.0	-19.5	Pass
8	998.34	38.12	7.22	-0.94	42.41	MaxQP	Horizontal	197	108	54.0	-11.6	Pass

Test Notes: SN: 2935662-11, GFSK 902.4MHz, 300kbps, Power Level 3
Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.2	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	771.08	35.76	6.56	-3.65	36.67	NRB	Horizontal	99	270	--	--	Pass
2	819.58	44.21	6.69	-2.67	46.23	NRB	Horizontal	99	90	--	--	Pass
3	871.96	39.05	6.87	-2.17	41.75	NRB	Horizontal	99	90	--	--	Pass
4	879.72	40.72	6.87	-2.20	43.39	NRB	Horizontal	99	90	--	--	Pass
5	915.61	41.74	6.98	-1.75	44.97	Fundamental	Vertical	199	149	--	--	Pass
6	915.61	44.27	6.98	-1.75	47.50	Fundamental	Horizontal	99	90	--	--	Pass
7	963.12	36.85	7.11	-1.09	40.87	MaxQP	Vertical	189	177	54.0	-13.1	Pass
8	963.12	42.14	7.11	-1.09	46.16	MaxQP	Horizontal	147	271	54.0	-7.8	Pass
9	986.78	26.31	7.18	-1.01	30.47	MaxQP	Vertical	180	197	54.0	-23.5	Pass
10	987.20	28.07	7.18	-0.99	32.25	MaxQP	Horizontal	199	286	54.0	-21.7	Pass

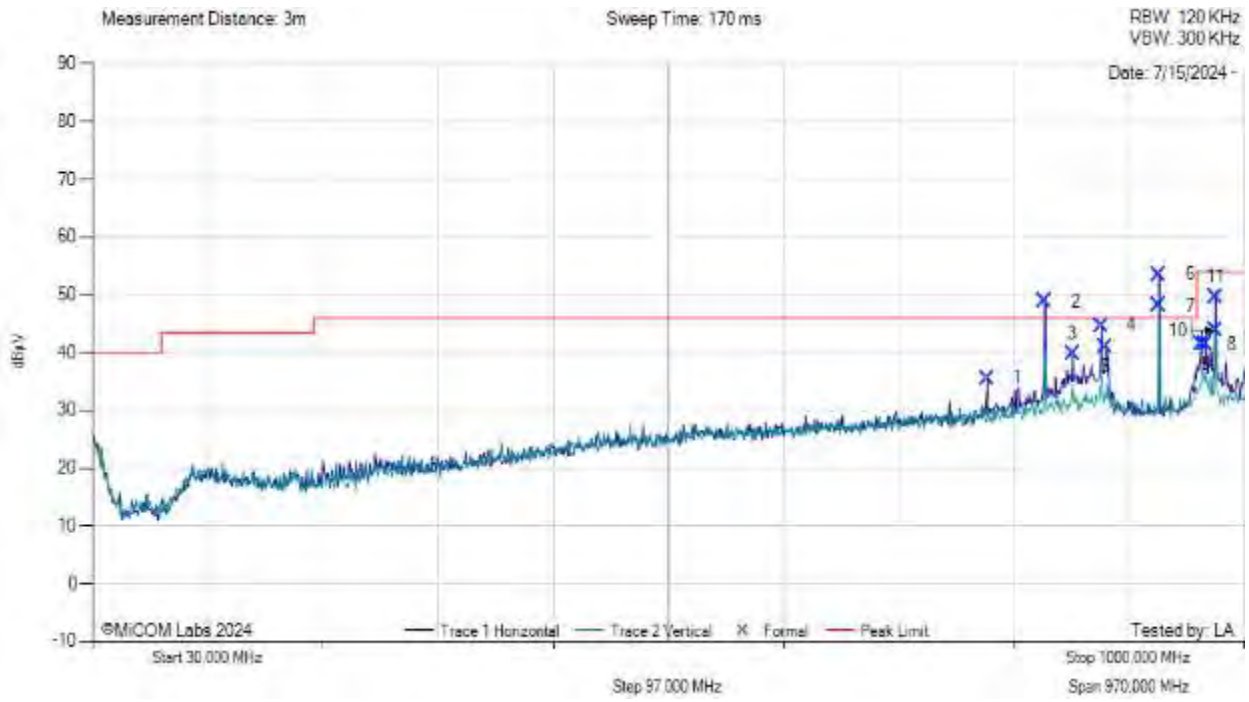
Test Notes: SN: 2935662-11, GFSK 915.2MHz, 300kbps, Power Level 3

Non-Restricted Band (NRB)

Equipment Configuration for 30 MHZ TO 1 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	927.6	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

30 MHz to 1 GHz



30.00 - 1000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	783.69	34.22	6.58	-3.24	35.56	NRB	Horizontal	100	120	--	--	Pass
2	832.19	46.75	6.72	-2.56	48.91	NRB	Horizontal	100	90	--	--	Pass
3	855.47	37.40	6.78	-2.36	39.82	NRB	Horizontal	100	90	--	--	Pass
4	879.72	41.99	6.87	-2.20	44.66	NRB	Horizontal	100	60	--	--	Pass
5	883.60	38.42	6.88	-2.24	41.06	NRB	Horizontal	100	60	--	--	Pass
6	928.22	50.09	7.00	-1.56	53.54	Fundamental	Horizontal	199	240	--	--	Pass
7	928.22	44.69	7.00	-1.56	48.13	Fundamemtal	Vertical	100	299	--	--	Pass
8	963.85	37.42	7.11	-1.09	41.44	MaxQP	Horizontal	151	105	54.0	-12.6	Pass
9	967.21	37.50	7.14	-1.10	41.54	MaxQP	Horizontal	198	119	54.0	-12.5	Pass
10	975.52	39.78	7.17	-1.08	43.87	MaxQP	Vertical	198	194	54.0	-10.1	Pass
11	975.67	45.48	7.17	-1.08	49.57	MaxQP	Horizontal	199	265	54.0	-4.4	Pass

Test Notes: SN: 2935662-11, GFSK 927.6MHz, 300kbps, Power Level 3
Non-Restricted Band (NRB)

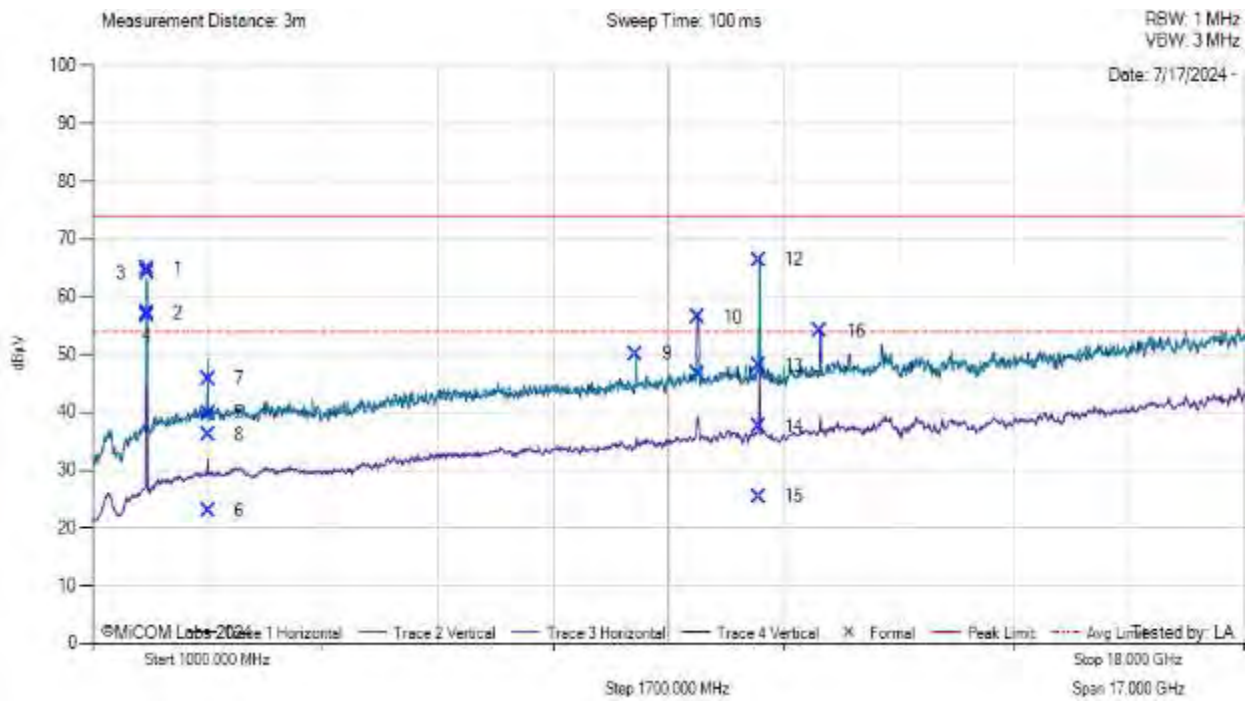
9.5.2.4. TX Spurious Emissions 1GHz to 18GHz

9.5.2.4.1. OOK Power Level 3

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	903.0	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



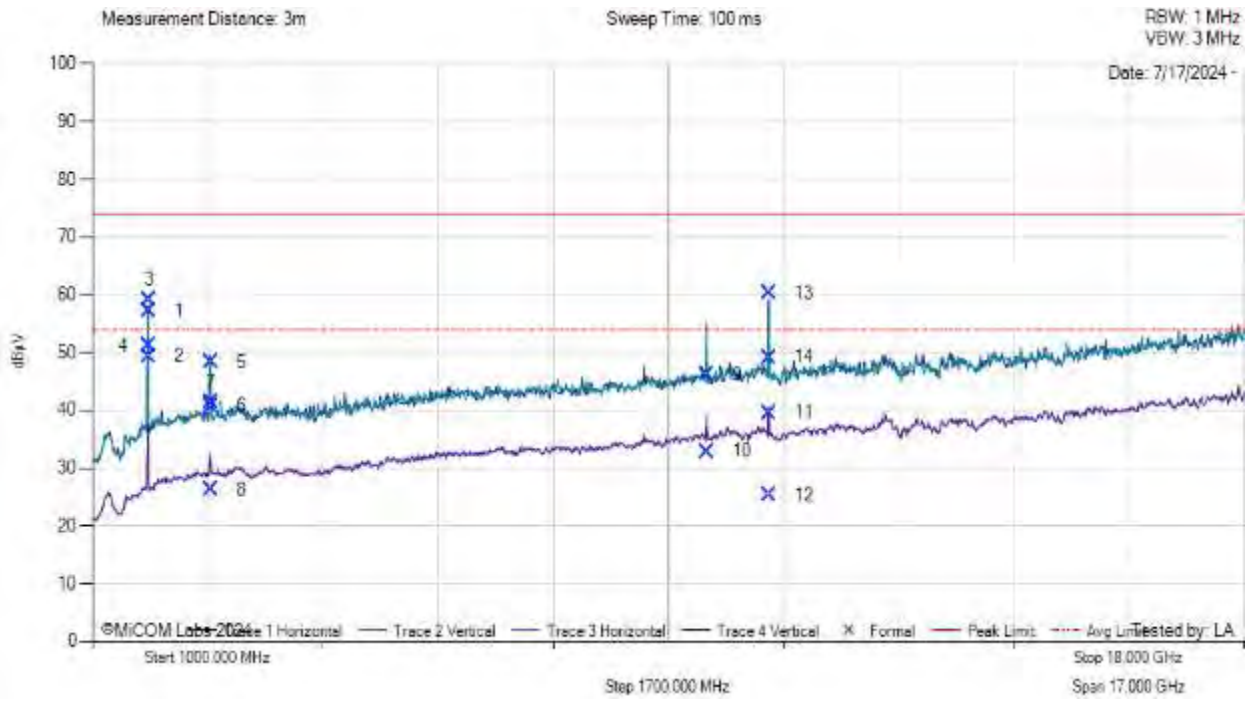
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1805.99	77.62	1.71	-14.53	64.80	MaxP	Vertical	185	90	74.0	-9.2	Pass
2	1805.99	70.05	1.71	-14.53	57.23	NRB	Vertical	185	90	--	--	Pass
3	1806.00	76.95	1.71	-14.53	64.13	MaxP	Horizontal	192	281	74.0	-9.9	Pass
4	1806.00	69.64	1.71	-14.53	56.82	NRB	Horizontal	192	281	54.0	2.8	Pass
5	2708.88	49.46	2.07	-11.77	39.76	MaxP	Horizontal	149	102	74.0	-34.2	Pass
6	2708.88	32.68	2.07	-11.77	22.98	AVG	Horizontal	149	102	54.0	-31.0	Pass
7	2709.05	55.47	2.07	-11.77	45.77	MaxP	Vertical	155	5	74.0	-28.2	Pass
8	2709.05	45.77	2.07	-11.77	36.07	AVG	Vertical	155	5	54.0	-17.9	Pass
9	9024.00	53.75	4.13	36.11	50.08	MaxP	Vertical	199	330	74.0	-23.9	Pass
10	9933.02	57.61	4.33	-5.51	56.43	MaxP	Horizontal	196	0	74.0	-17.6	Pass
11	9933.02	47.84	4.33	-5.51	46.66	AVG	Horizontal	196	0	54.0	-7.3	Pass
12	10836.10	66.48	4.57	-4.69	66.36	MaxP	Horizontal	177	1	74.0	-7.6	Pass
13	10836.10	48.24	4.57	-4.69	48.11	AVG	Horizontal	177	1	54.0	-5.9	Pass
14	10836.35	37.62	4.57	-4.70	37.49	MaxP	Vertical	180	315	74.0	-36.5	Pass
15	10836.35	25.55	4.57	-4.70	25.42	AVG	Vertical	180	315	54.0	-28.6	Pass
16	11744.00	55.55	5.05	38.59	54.03	MaxP	Horizontal	199	0	74.0	-20.0	Pass

Test Notes: SN: 2935662-11, OOK 903MHz, 16.384kbps, Power Level 3
Non-Restricted Band (NRB)

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.0	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



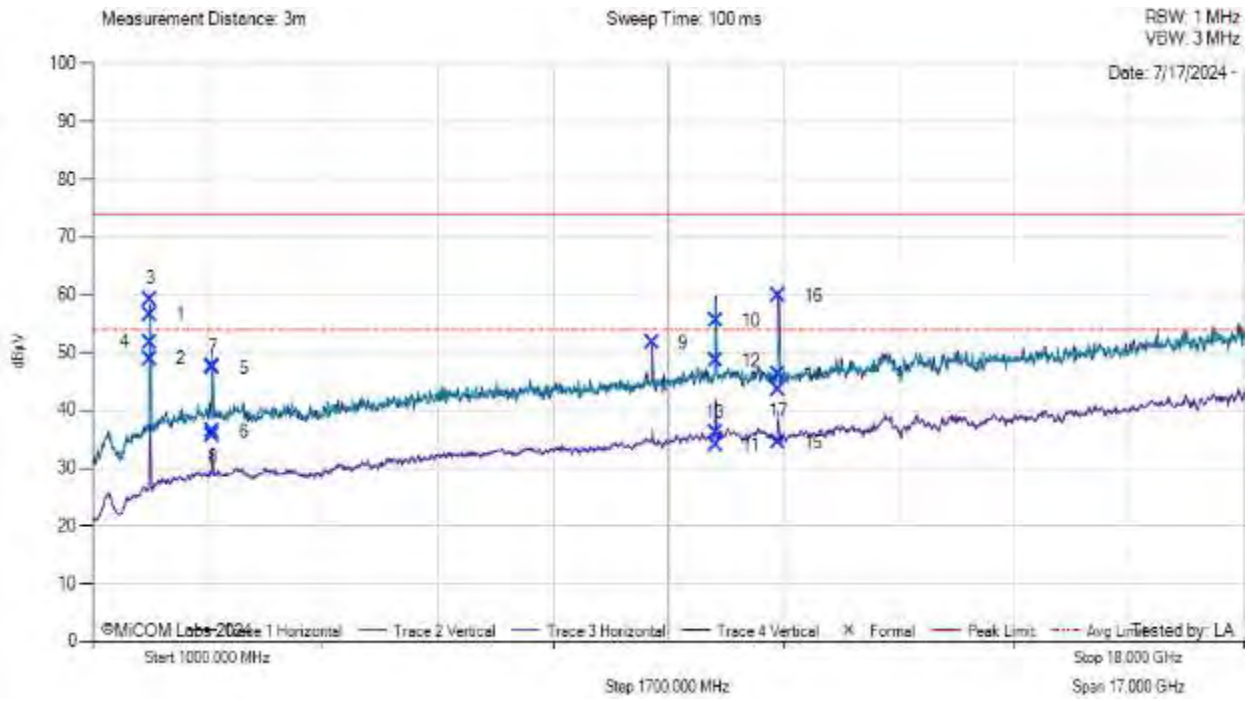
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1829.99	69.72	1.75	-14.36	57.11	NRB	Vertical	197	62	74.0	-16.9	Pass
2	1829.99	61.98	1.75	-14.36	49.37	AVG	Vertical	197	62	54.0	-4.6	Pass
3	1830.03	71.67	1.75	-14.36	59.06	NRB	Horizontal	157	114	74.0	-14.9	Pass
4	1830.03	63.75	1.75	-14.36	51.14	AVG	Horizontal	157	114	54.0	-2.9	Pass
5	2745.01	57.98	2.11	-11.74	48.35	MaxP	Vertical	180	241	74.0	-25.7	Pass
6	2745.01	50.36	2.11	-11.74	40.73	AVG	Vertical	180	241	54.0	-13.3	Pass
7	2745.12	50.92	2.11	-11.74	41.29	MaxP	Horizontal	156	255	74.0	-32.7	Pass
8	2745.12	35.93	2.11	-11.74	26.29	AVG	Horizontal	156	255	54.0	-27.7	Pass
9	10065.06	47.34	4.27	-5.52	46.09	MaxP	Vertical	199	304	74.0	-27.9	Pass
10	10065.06	34.12	4.27	-5.52	32.86	AVG	Vertical	199	304	54.0	-21.1	Pass
11	10979.81	40.14	4.60	-5.18	39.57	MaxP	Vertical	199	316	74.0	-34.4	Pass
12	10979.81	25.87	4.60	-5.18	25.29	AVG	Vertical	199	316	54.0	-28.7	Pass
13	10979.95	60.93	4.60	-5.18	60.35	MaxP	Horizontal	170	0	74.0	-13.7	Pass
14	10979.95	49.73	4.60	-5.18	49.16	AVG	Horizontal	170	0	54.0	-4.8	Pass

Test Notes: SN: 2935662-11, OOK 915MHz, 16.384kbps, Power Level 3, power setting 26 in script

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	OOK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	926.8	**Data Rate:**	16.384 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1853.59	69.00	1.72	-14.16	56.56	NRB	Vertical	174	38	74.0	-17.4	Pass
2	1853.59	61.38	1.72	-14.16	48.94	AVG	Vertical	174	38	54.0	-5.1	Pass
3	1853.61	71.64	1.72	-14.16	59.20	NRB	Horizontal	181	90	74.0	-14.8	Pass
4	1853.61	64.23	1.72	-14.16	51.79	AVG	Horizontal	181	90	54.0	-2.2	Pass
5	2780.46	57.07	2.13	-11.79	47.41	MaxP	Vertical	195	237	74.0	-26.6	Pass
6	2780.46	45.92	2.13	-11.79	36.26	AVG	Vertical	195	237	54.0	-17.7	Pass
7	2780.47	57.29	2.13	-11.79	47.63	MaxP	Horizontal	149	258	74.0	-26.4	Pass
8	2780.47	45.20	2.13	-11.79	35.54	AVG	Horizontal	149	258	54.0	-18.5	Pass
9	9262.00	54.43	4.21	36.33	51.65	MaxP	Horizontal	199	330	74.0	-22.3	Pass
10	10194.63	56.42	4.36	-5.23	55.55	MaxP	Horizontal	198	0	74.0	-18.4	Pass
11	10194.63	34.83	4.36	-5.23	33.96	AVG	Horizontal	198	0	54.0	-20.0	Pass
12	10194.84	49.37	4.36	-5.23	48.50	MaxP	Vertical	195	309	74.0	-25.5	Pass
13	10194.84	36.95	4.36	-5.23	36.08	AVG	Vertical	195	309	54.0	-17.9	Pass
14	11121.62	47.21	4.51	-5.61	46.11	MaxP	Vertical	192	0	74.0	-27.9	Pass
15	11121.62	35.46	4.51	-5.61	34.36	AVG	Vertical	192	0	54.0	-19.6	Pass
16	11121.69	60.95	4.51	-5.62	59.85	MaxP	Horizontal	159	3	74.0	-14.2	Pass
17	11121.69	44.57	4.51	-5.62	43.46	AVG	Horizontal	159	3	54.0	-10.5	Pass

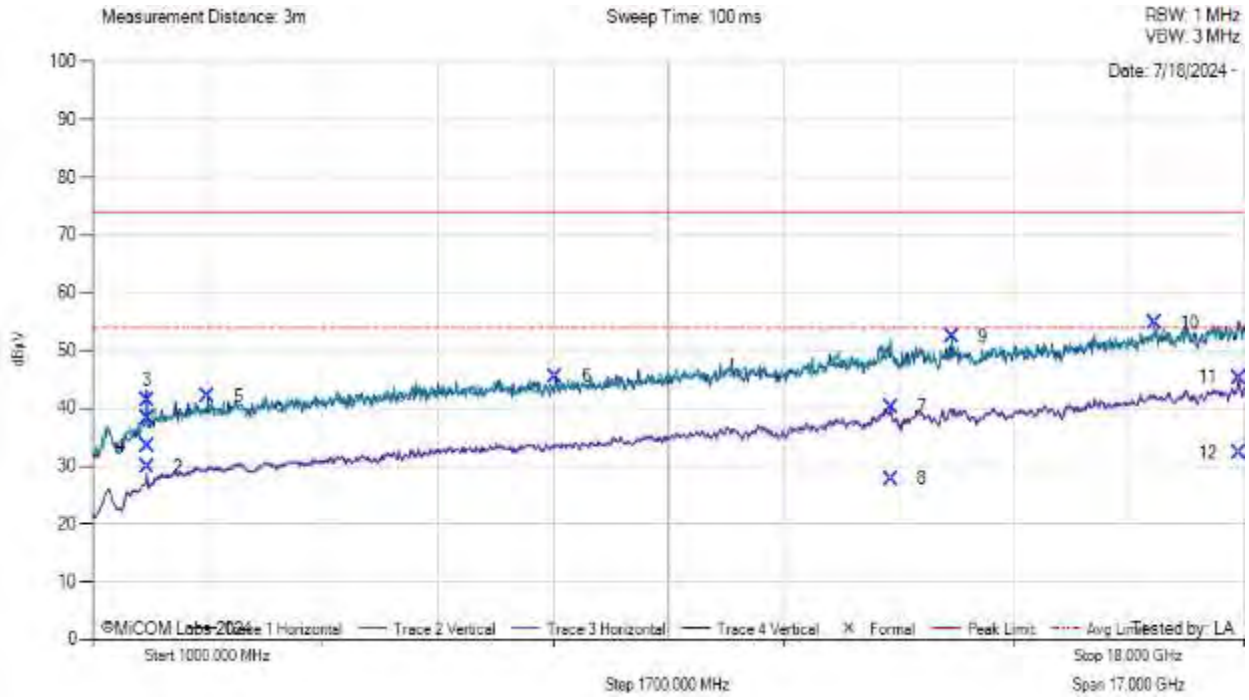
Test Notes: SN: 2935662-11, OOK 926.8MHz, 16.384kbps, Power Level 3

9.5.2.4.2. GFSK Power Level 2

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	902.4	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



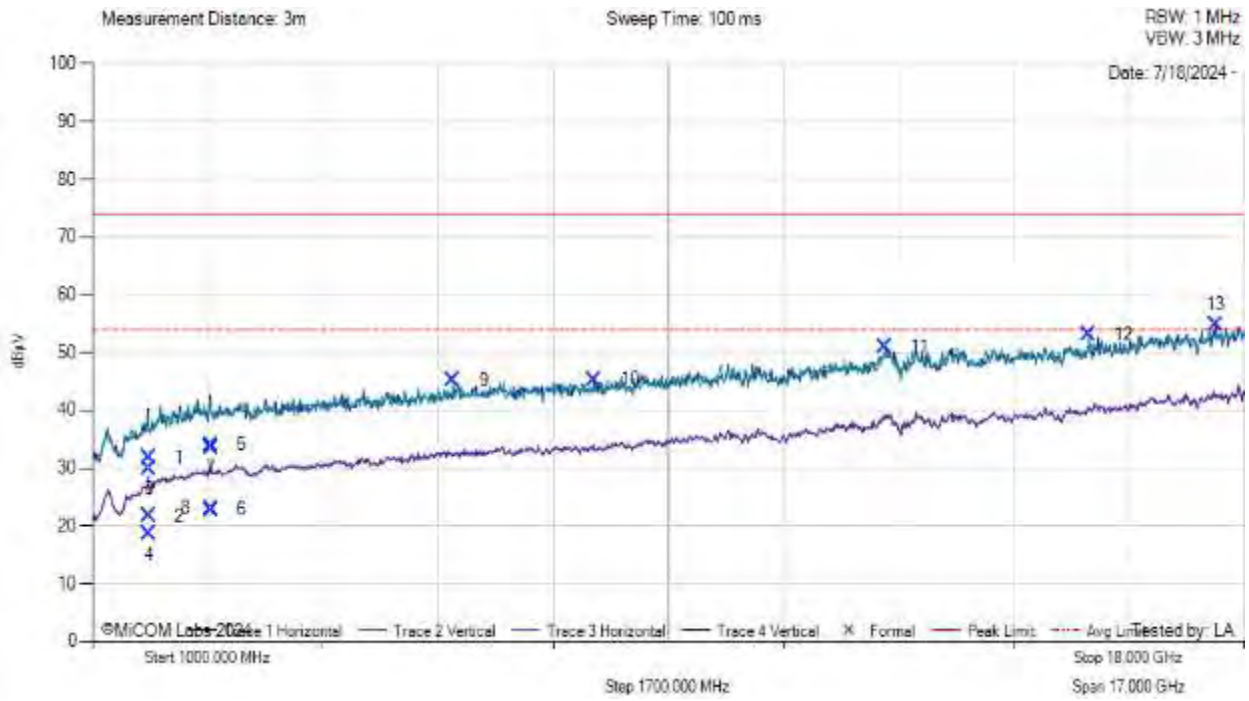
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1804.62	51.10	1.71	-14.54	38.27	NRB	Vertical	187	137	74.0	-35.7	Pass
2	1804.62	42.63	1.71	-14.54	29.80	AVG	Vertical	187	137	54.0	-24.2	Pass
3	1804.98	54.21	1.71	-14.54	41.39	NRB	Horizontal	149	265	74.0	-32.6	Pass
4	1804.98	46.22	1.71	-14.54	33.40	AVG	Horizontal	149	265	54.0	-20.6	Pass
5	2700.00	51.72	2.06	32.43	42.03	MaxP	Horizontal	149	240	74.0	-32.0	Pass
6	7834.00	49.77	3.81	35.88	45.57	MaxP	Horizontal	199	270	74.0	-28.4	Pass
7	12781.16	42.81	5.29	-7.80	40.31	MaxP	Vertical	149	242	74.0	-33.7	Pass
8	12781.16	30.32	5.29	-7.80	27.82	AVG	Vertical	149	242	54.0	-26.2	Pass
9	13682.00	53.75	5.36	39.08	52.32	MaxP	Vertical	149	270	74.0	-21.7	Pass
10	16674.00	49.28	5.97	41.56	54.73	MaxP	Vertical	149	299	74.0	-19.3	Pass
11	17927.09	37.67	6.50	1.14	45.32	MaxP	Horizontal	173	179	74.0	-28.7	Pass
12	17927.09	24.69	6.50	1.14	32.33	AVG	Horizontal	173	179	54.0	-21.7	Pass

Test Notes: SN: 2935662-11, GFSK 902.4MHz, 300kbps, Power Level 2

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.2	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



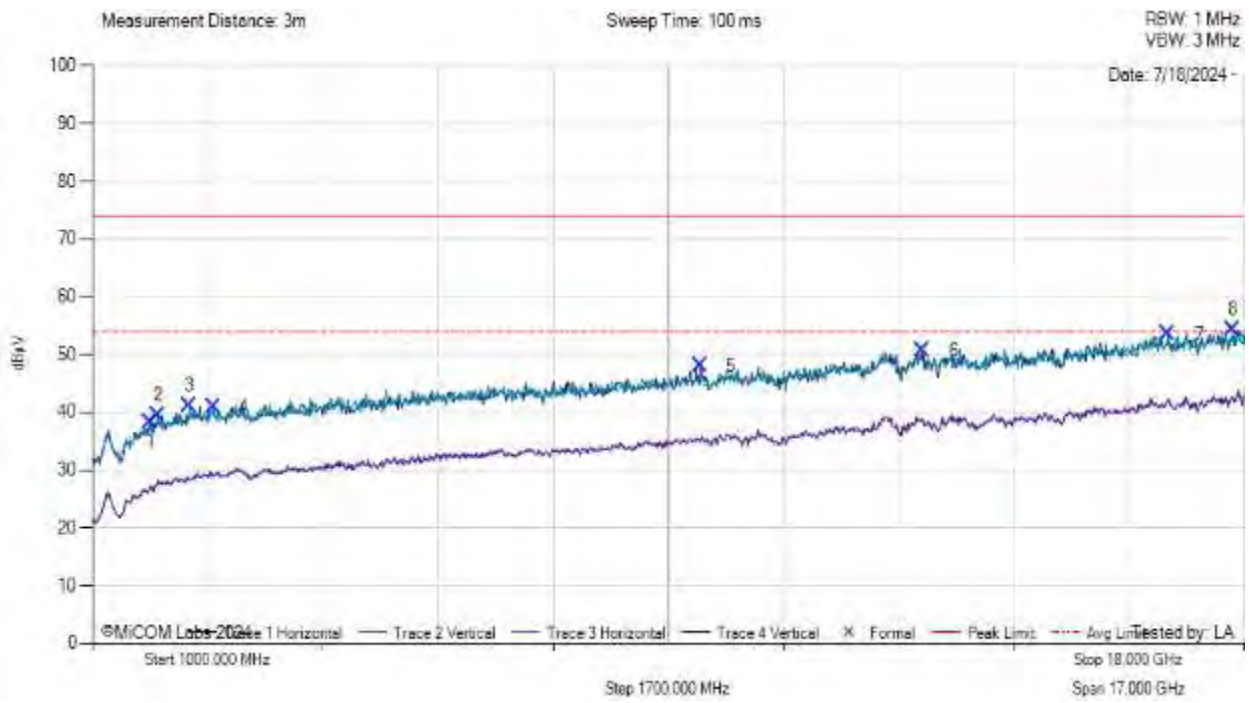
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1830.62	44.42	1.75	-14.36	31.81	NRB	Horizontal	177	227	74.0	-42.2	Pass
2	1830.62	34.32	1.75	-14.36	21.71	AVG	Horizontal	177	227	54.0	-32.3	Pass
3	1830.66	42.63	1.75	-14.36	30.02	NRB	Vertical	160	257	74.0	-44.0	Pass
4	1830.66	31.26	1.75	-14.36	18.65	AVG	Vertical	160	257	54.0	-35.3	Pass
5	2745.64	43.66	2.11	-11.74	34.03	MaxP	Vertical	173	266	74.0	-40.0	Pass
6	2745.64	32.39	2.11	-11.74	22.76	AVG	Vertical	173	266	54.0	-31.2	Pass
7	2745.92	43.16	2.11	-11.74	33.53	MaxP	Horizontal	178	47	74.0	-40.5	Pass
8	2745.92	32.67	2.11	-11.74	23.04	AVG	Horizontal	178	47	54.0	-31.0	Pass
9	6321.00	50.96	3.35	35.56	45.21	MaxP	Vertical	199	0	74.0	-28.8	Pass
10	8412.00	49.49	3.95	35.75	45.30	MaxP	Horizontal	149	240	74.0	-28.7	Pass
11	12696.00	52.57	5.26	39.09	50.89	MaxP	Vertical	149	119	74.0	-23.1	Pass
12	15705.00	49.10	5.61	40.43	53.14	MaxP	Vertical	149	299	74.0	-20.9	Pass
13	17575.00	49.20	6.31	41.59	54.71	MaxP	Horizontal	199	240	74.0	-19.3	Pass

Test Notes: SN: 2935662-11, GFSK 915.2MHz, 300kbps, Power Level 2

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	927.6	**Data Rate:**	300 kbps
Power Setting:	Power Level 2	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1850.00	50.83	1.70	30.70	38.35	NRB	Vertical	199	270	74.0	-35.6	Pass
2	1969.00	51.03	1.80	31.24	39.45	MaxP	Vertical	199	0	74.0	-34.5	Pass
3	2428.00	51.21	1.99	32.27	41.13	MaxP	Vertical	151	89	74.0	-32.9	Pass
4	2785.00	50.59	2.12	32.48	40.93	MaxP	Vertical	151	149	74.0	-33.1	Pass
5	9976.00	49.34	4.29	37.33	48.09	MaxP	Horizontal	199	30	74.0	-25.9	Pass
6	13257.00	52.30	4.93	39.05	50.74	MaxP	Horizontal	151	330	74.0	-23.3	Pass
7	16878.00	47.56	6.59	41.70	53.60	MaxP	Vertical	199	89	74.0	-20.4	Pass
8	17830.00	47.10	6.29	41.64	54.34	MaxP	Vertical	151	269	74.0	-19.7	Pass

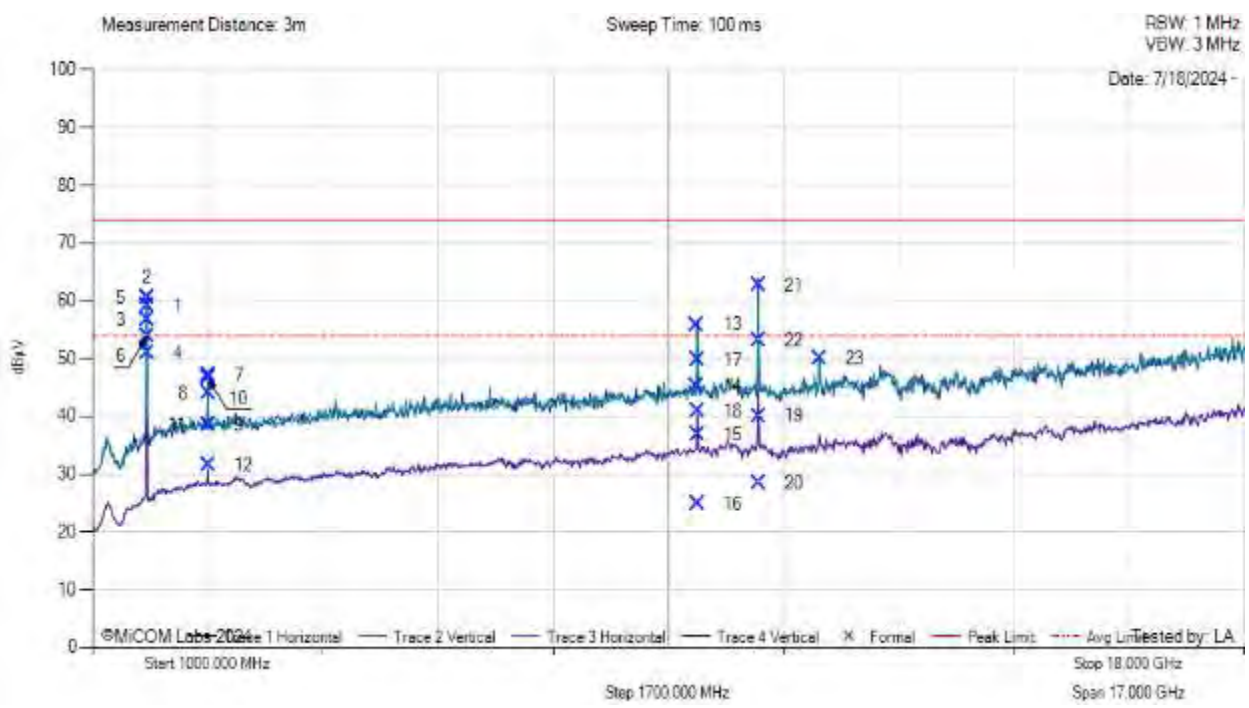
Test Notes: SN: 2935662-11, GFSK 927.6MHz, 300kbps, Power Level 2

9.5.2.4.3. GFSK Power Level 3

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	902.4	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



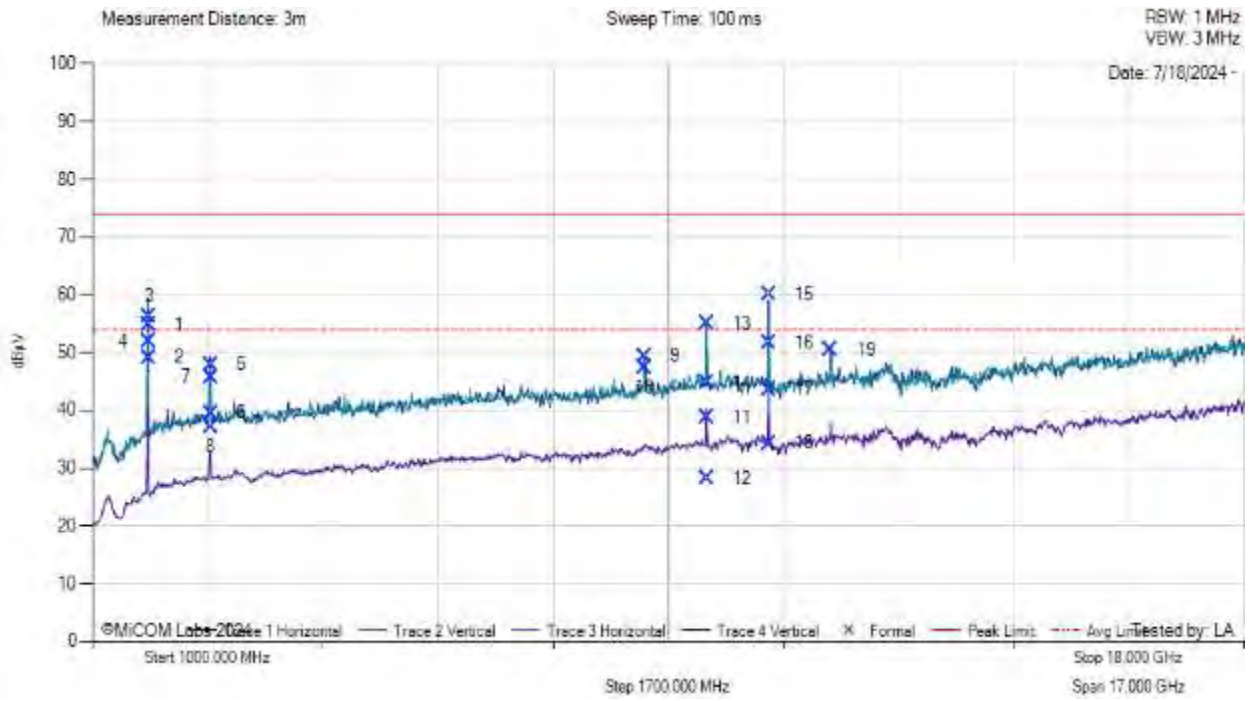
1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1804.59	72.65	1.71	-14.54	59.13	NRB	Vertical	150	117	74.0	-14.9	Pass
2	1804.69	74.08	1.71	-14.54	60.55	NRB	Horizontal	150	271	74.0	-13.4	Pass
3	1804.90	70.19	1.71	-14.54	56.66	NRB	Vertical	186	119	74.0	-17.3	Pass
4	1804.90	64.48	1.71	-14.54	50.96	AVG	Vertical	186	119	54.0	-3.0	Pass
5	1804.96	74.00	1.71	-14.54	60.48	NRB	Horizontal	151	272	74.0	-13.5	Pass
6	1804.96	67.48	1.71	-14.54	53.95	AVG	Horizontal	151	272	54.0	-0.1	Pass
7	2707.24	57.53	2.06	-11.76	47.12	MaxP	Vertical	149	-1	74.0	-26.9	Pass
8	2707.36	54.32	2.06	-11.76	43.92	MaxP	Horizontal	151	259	74.0	-30.1	Pass
9	2707.36	48.85	2.06	-11.76	38.45	AVG	Horizontal	151	259	54.0	-15.5	Pass
10	2707.39	56.97	2.06	-11.76	46.57	MaxP	Horizontal	149	268	74.0	-27.4	Pass
11	2707.52	48.82	2.06	-11.76	38.42	MaxP	Vertical	155	0	74.0	-35.6	Pass
12	2707.52	41.92	2.06	-11.76	31.52	AVG	Vertical	155	0	54.0	-22.5	Pass
13	9925.50	57.60	4.34	-5.39	55.85	MaxP	Horizontal	199	331	74.0	-18.2	Pass
14	9925.55	47.00	4.34	-5.39	45.25	MaxP	Vertical	199	331	74.0	-28.8	Pass
15	9926.50	38.56	4.33	-5.40	36.80	MaxP	Vertical	163	360	74.0	-37.2	Pass
16	9926.50	26.58	4.33	-5.40	24.82	AVG	Vertical	163	360	54.0	-29.2	Pass
17	9927.10	51.48	4.33	-5.40	49.71	MaxP	Horizontal	199	334	74.0	-24.3	Pass
18	9927.10	42.62	4.33	-5.40	40.85	AVG	Horizontal	199	334	54.0	-13.1	Pass
19	10827.76	40.45	4.84	-4.57	40.02	MaxP	Vertical	198	334	74.0	-34.0	Pass
20	10827.76	28.83	4.84	-4.57	28.41	AVG	Vertical	198	334	54.0	-25.6	Pass
21	10829.65	63.18	4.77	-4.59	62.66	MaxP	Horizontal	198	0	74.0	-11.3	Pass
22	10829.65	53.59	4.77	-4.59	53.08	AVG	Horizontal	198	0	54.0	-0.9	Pass
23	11727.00	52.08	5.04	38.56	49.97	MaxP	Vertical	199	330	74.0	-24.0	Pass

Test Notes: SN: 2935662-11, GFSK 902.4MHz, 300kbps, Power Level 3

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	915.2	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1830.32	68.03	1.75	-14.36	54.72	NRB	Vertical	199	75	74.0	-19.3	Pass
2	1830.32	62.43	1.75	-14.36	49.12	AVG	Vertical	199	75	54.0	-4.9	Pass
3	1830.35	69.60	1.75	-14.36	56.29	NRB	Horizontal	159	125	74.0	-17.7	Pass
4	1830.35	65.17	1.75	-14.36	51.86	AVG	Horizontal	159	125	54.0	-2.1	Pass
5	2745.34	58.29	2.11	-11.74	47.96	MaxP	Horizontal	150	32	74.0	-26.0	Pass
6	2745.34	49.86	2.11	-11.74	39.53	AVG	Horizontal	150	32	54.0	-14.5	Pass
7	2745.86	56.16	2.11	-11.74	45.83	MaxP	Vertical	165	138	74.0	-28.2	Pass
8	2745.86	47.52	2.11	-11.74	37.19	AVG	Vertical	165	138	54.0	-16.8	Pass
9	9143.00	53.49	4.17	36.21	49.41	MaxP	Horizontal	199	0	74.0	-24.6	Pass
10	9143.00	51.52	4.17	36.21	47.44	MaxP	Vertical	199	330	74.0	-26.6	Pass
11	10066.66	40.68	4.27	-5.49	38.76	MaxP	Vertical	198	313	74.0	-35.2	Pass
12	10066.66	30.06	4.27	-5.49	28.14	AVG	Vertical	198	313	54.0	-25.9	Pass
13	10068.07	56.88	4.29	-5.46	55.01	MaxP	Horizontal	198	0	74.0	-19.0	Pass
14	10068.07	46.55	4.29	-5.46	44.68	AVG	Horizontal	198	0	54.0	-9.3	Pass
15	10981.50	61.28	4.57	-5.14	60.01	MaxP	Horizontal	165	10	74.0	-14.0	Pass
16	10981.50	52.86	4.57	-5.14	51.59	AVG	Horizontal	165	10	54.0	-2.4	Pass
17	10983.21	44.89	4.54	-5.10	43.63	MaxP	Vertical	198	352	74.0	-30.4	Pass
18	10983.21	35.58	4.54	-5.10	34.32	AVG	Vertical	198	352	54.0	-19.7	Pass
19	11897.00	52.32	4.99	38.79	50.47	MaxP	Horizontal	199	330	74.0	-23.5	Pass

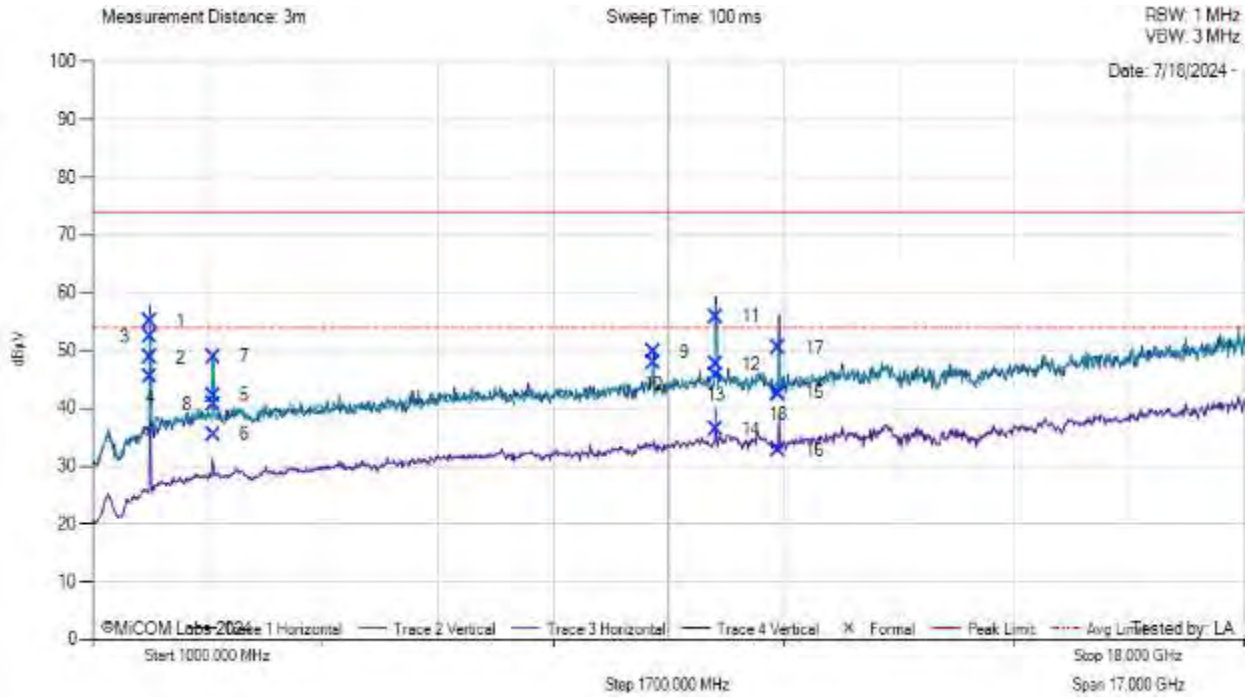
Test Notes: SN: 2935662-11, GFSK 915.2MHz, 300kbps, Power Level 3

Equipment Configuration for FCC SPURIOUS 1 GHZ -18 GHZ			
Antenna:	Internal	**Variant:**	500G DM
Antenna Gain (dBi):	Not Applicable	**Modulation:**	GFSK
Beam Forming Gain (Y):	Not Applicable	**Duty Cycle (%):**	99
Channel Frequency (MHz):	927.6	**Data Rate:**	300 kbps
Power Setting:	Power Level 3	**Tested By:**	LA

Test Measurement Results

FCC Spurious 1 GHz -18 GHz 2M

Variant: , Test Freq: 0.00 MHz, Antenna: Internal



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
1	1855.17	68.16	1.72	-14.14	55.04	NRB	Horizontal	150	205	74.0	-19.0	Pass
2	1855.17	61.96	1.72	-14.14	48.84	AVG	Horizontal	150	205	54.0	-5.2	Pass
3	1855.40	65.47	1.72	-14.14	52.36	NRB	Vertical	197	62	74.0	-21.6	Pass
4	1855.40	58.49	1.72	-14.14	45.38	AVG	Vertical	197	62	54.0	-8.6	Pass
5	2782.91	52.60	2.12	-11.78	42.24	MaxP	Vertical	173	238	74.0	-31.8	Pass
6	2782.91	45.86	2.12	-11.78	35.50	AVG	Vertical	173	238	54.0	-18.5	Pass
7	2783.02	59.30	2.12	-11.78	48.94	MaxP	Horizontal	153	54	74.0	-25.1	Pass
8	2783.02	51.03	2.12	-11.78	40.67	AVG	Horizontal	153	54	54.0	-13.3	Pass
9	9279.00	53.11	4.21	36.34	49.70	MaxP	Horizontal	199	0	74.0	-24.3	Pass
10	9279.00	51.29	4.21	36.34	47.88	MaxP	Vertical	199	330	74.0	-26.1	Pass
11	10204.33	57.53	4.44	-5.40	55.87	MaxP	Horizontal	194	0	74.0	-18.1	Pass
12	10204.33	49.27	4.44	-5.40	47.62	AVG	Horizontal	194	0	54.0	-6.4	Pass
13	10204.36	47.41	4.44	-5.40	45.75	MaxP	Vertical	197	316	74.0	-28.2	Pass
14	10204.36	37.99	4.44	-5.40	36.34	AVG	Vertical	197	316	54.0	-17.7	Pass
15	11130.55	44.67	4.56	-5.82	42.70	MaxP	Vertical	151	175	74.0	-31.3	Pass
16	11130.55	34.74	4.56	-5.82	32.77	AVG	Vertical	151	175	54.0	-21.2	Pass
17	11131.93	52.51	4.57	-5.84	50.53	MaxP	Horizontal	159	8	74.0	-23.5	Pass
18	11131.93	44.41	4.57	-5.84	42.44	AVG	Horizontal	159	8	54.0	-11.6	Pass

Test Notes: SN: 2935662-11, GFSK 927.6MHz, 300kbps, Power Level 3

10. Manufacturer Dwell Time & Channel Occupancy Declaration

Note: Dwell Time and Channel Occupancy were not tested as part of this test program, these were declared for normal network operation by Itron in the following document provided as an exhibit in support of this test program.

"BPD Time of Use and Equal Usage" 800-0016 Version 06 Dated 29th November 2023

This document contains Dwell & Occupancy times as compliant for the following operation modes declared by the manufacturer for the Itron 500G ERT® Module in normal operation.

1) 100S Mode pages 7 to 9

2) Local Port Mode pages 10 to 12;

3) BACT Mode Pages P13 to P17,

4) EFC/ EFC + Mode P18 to 20.

5) INS Mode Pages 21 to 22.

11. Manufacturer Declaration of Similarity

Itron, Inc.
2401 N. State St.
Waseca, MN 56093
507-781-4300
www.itron.com

July 31, 2024

Subject: Declaration of Similarity:
FCC ID: EWQ500GTB,
ISED ID: 864D-500GTB

Dear Sir or Madam,

We declare the product models listed below are electrically identical.

Product Information	
Marketing Name(s)	500G ERT Module
Description	Utility AMR device
Models(s)	ERG-7600-005, ERG-7600-006, ERG-7600-010

The only difference between these variant models is the housing and the gas meter wriggler interface. The differences of these variants does not affect any RF or EMC performance.

Sincerely,

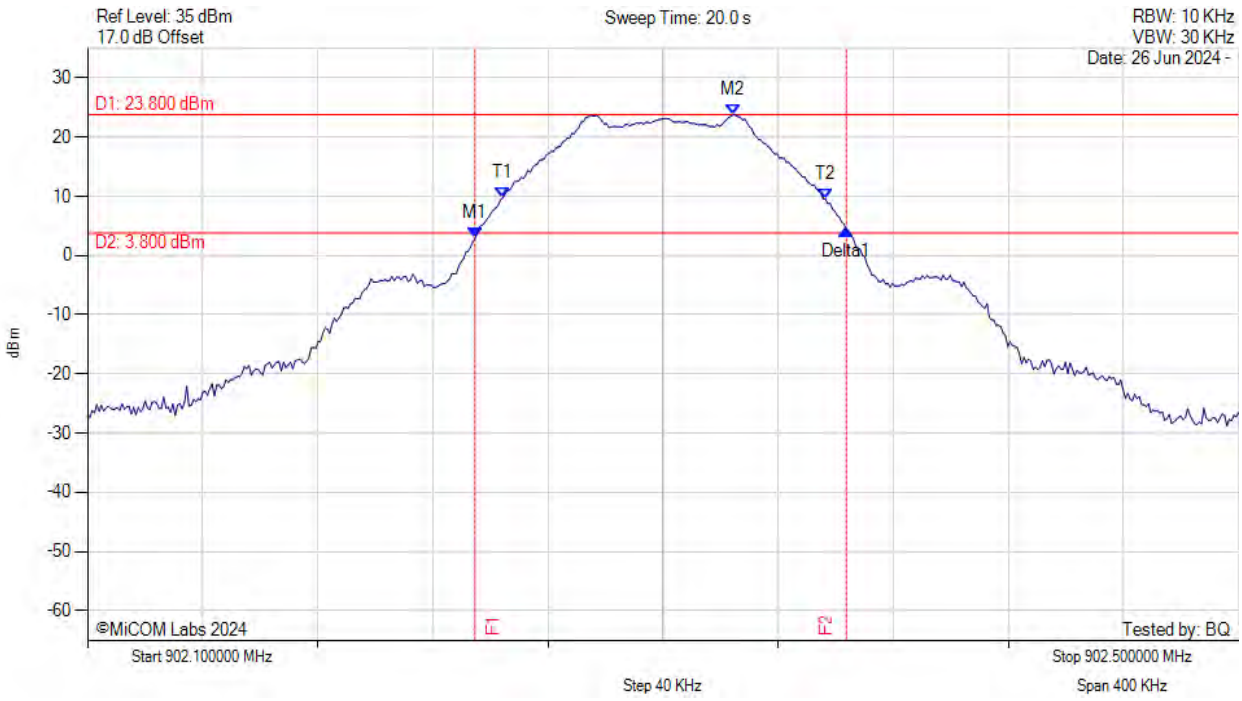
Dan Bomsta
Sr. Principal Regulatory Engineer
507-781-4480
dan.bomsta@itron.com
Itron, Inc.

A. APPENDIX - GRAPHICAL IMAGES

A.1. 20 dB & 99% Bandwidth

20 dB 99% BANDWIDTH

Variant: 100kbps, PL 3 (FHSS), Channel: 902.30 MHz, Chain a, Temp: 20

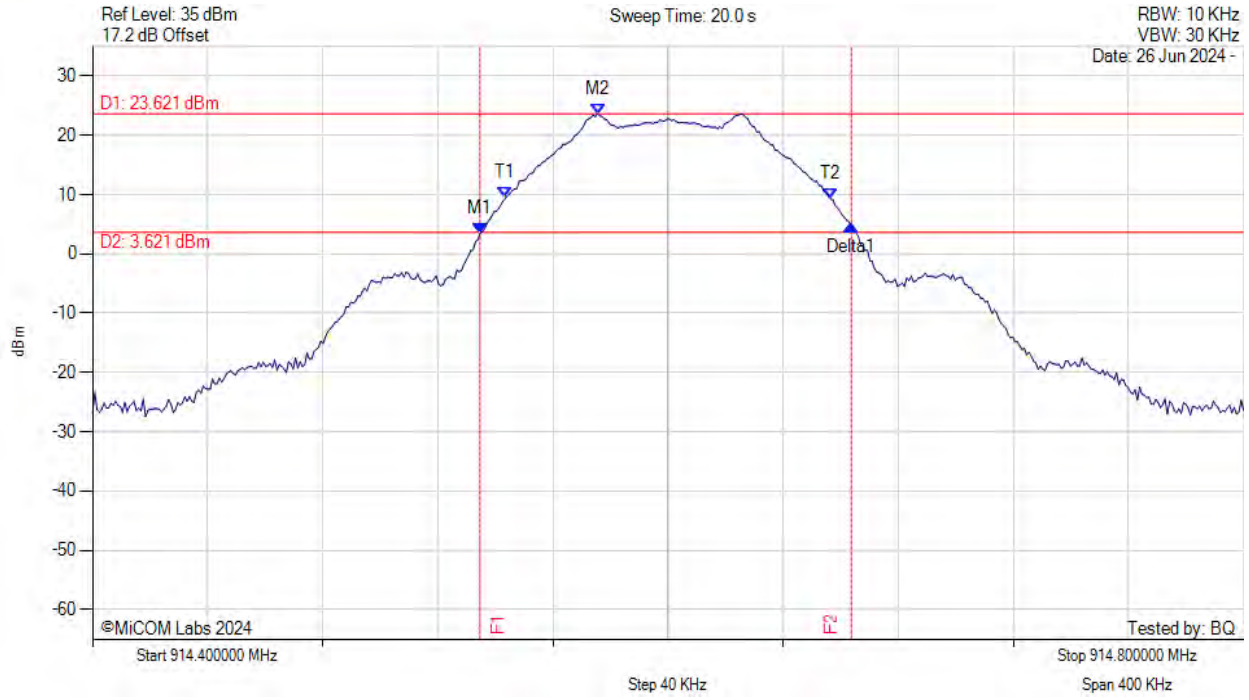


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.235 MHz : 2.877 dBm M2 : 902.324 MHz : 23.800 dBm Delta1 : 129 KHz : 1.507 dB T1 : 902.244 MHz : 9.714 dBm T2 : 902.357 MHz : 9.499 dBm OBW : 112 KHz	Measured 20 dB Bandwidth: 0.129 MHz Limit: 0.5 kHz Margin: 0.37 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.535 MHz : 3.489 dBm M2 : 914.576 MHz : 23.621 dBm Delta1 : 129 KHz : 1.338 dB T1 : 914.543 MHz : 9.422 dBm T2 : 914.657 MHz : 9.277 dBm OBW : 113 KHz	Measured 20 dB Bandwidth: 0.129 MHz Limit: 0.5 kHz Margin: 0.37 MHz

back to matrix

20 dB 99% BANDWIDTH

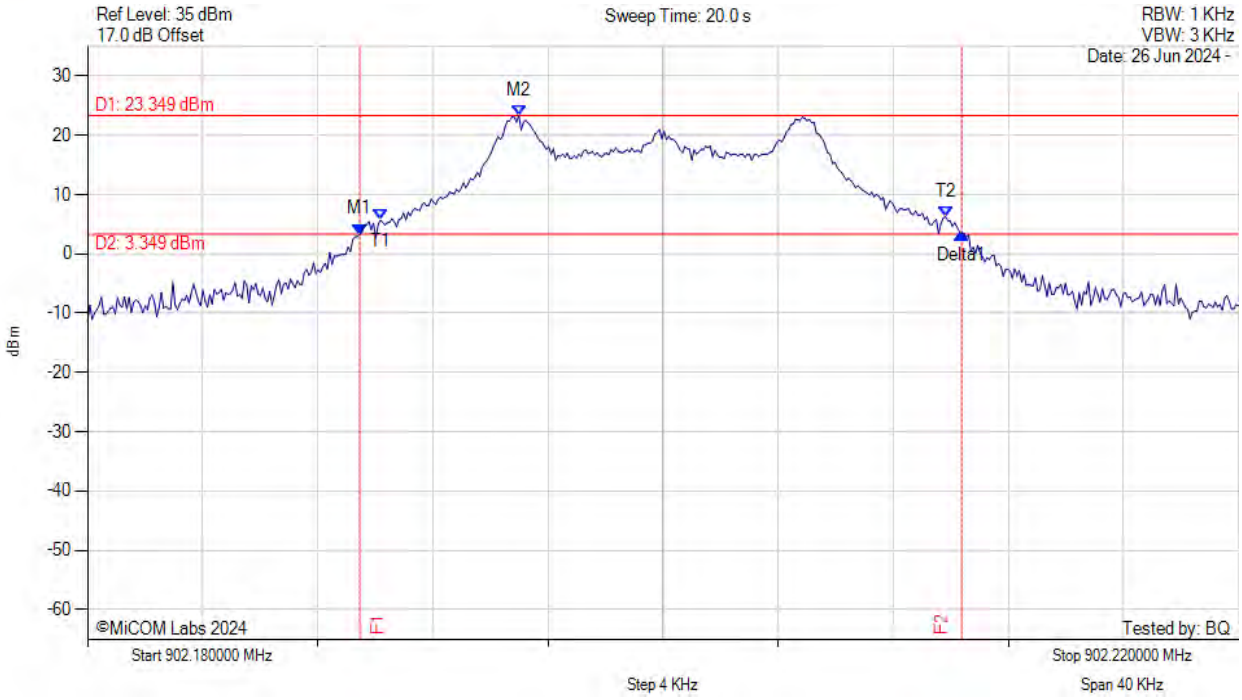
Variant: 100kbps, PL 3 (FHSS), Channel: 926.90 MHz, Chain a, Temp: 20

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 926.836 MHz : 2.698 dBm M2 : 926.926 MHz : 22.850 dBm Delta1 : 127 KHz : 1.359 dB T1 : 926.845 MHz : 8.842 dBm T2 : 926.956 MHz : 8.982 dBm OBW : 111 KHz	Measured 20 dB Bandwidth: 0.127 MHz Limit: 0.5 kHz Margin: 0.37 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 10kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

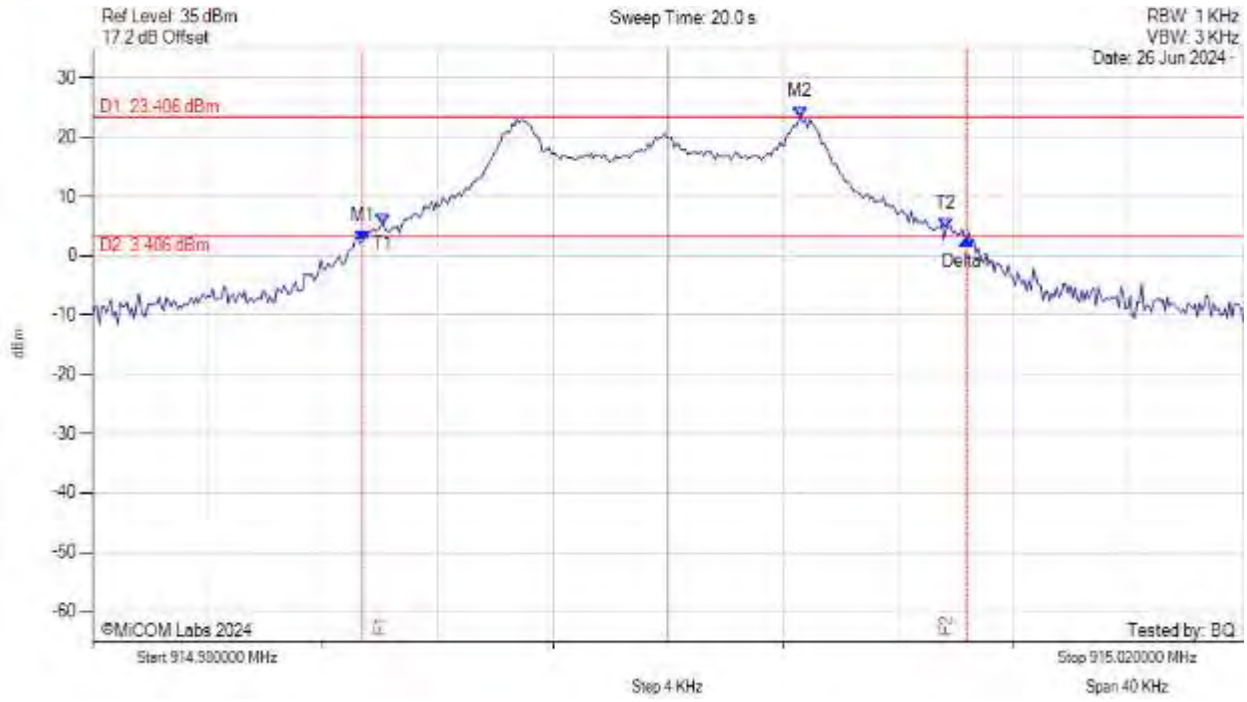


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.189 MHz : 3.304 dBm M2 : 902.195 MHz : 23.349 dBm Delta1 : 21 KHz : 0.140 dB T1 : 902.190 MHz : 5.669 dBm T2 : 902.210 MHz : 6.251 dBm OBW : 20 KHz	Measured 20 dB Bandwidth: 0.021 MHz Limit: 0.5 kHz Margin: 0.48 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 10kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

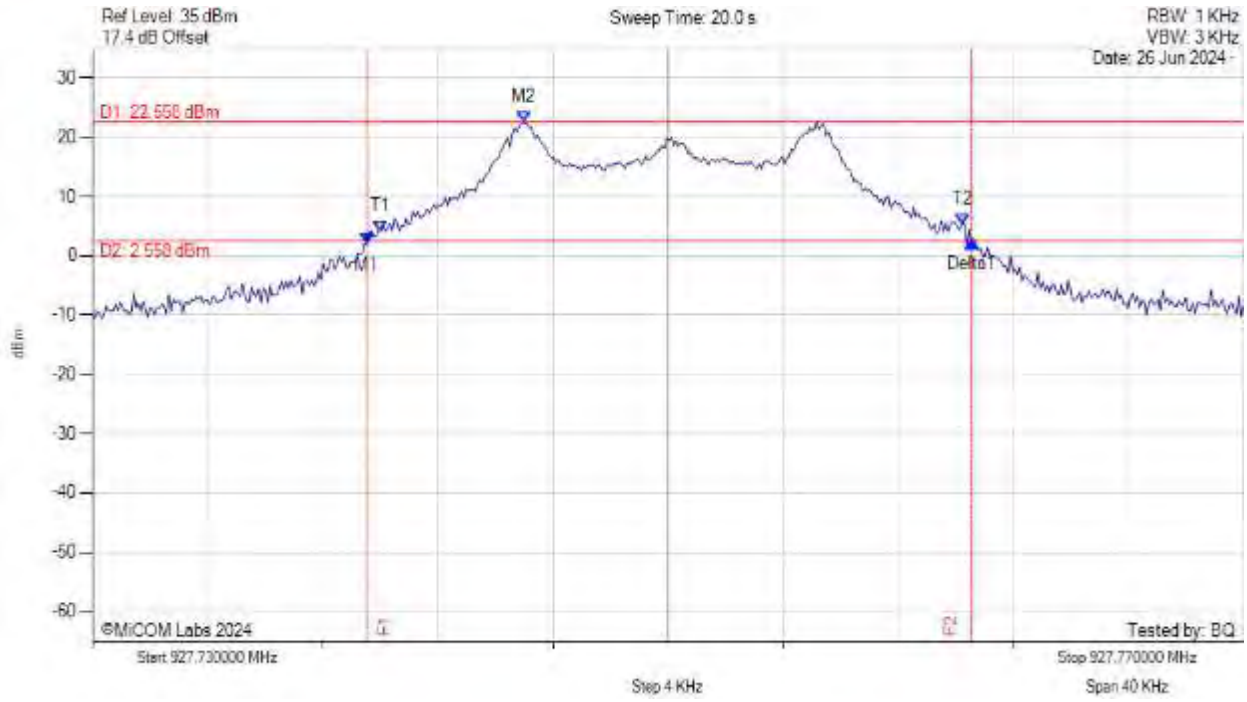


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.989 MHz : 2.423 dBm M2 : 915.005 MHz : 23.406 dBm Delta1 : 21 KHz : 0.293 dB T1 : 914.990 MHz : 5.417 dBm T2 : 915.010 MHz : 4.600 dBm OBW : 20 KHz	Measured 20 dB Bandwidth: 0.021 MHz Limit: 0.5 kHz Margin: 0.48 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 10kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

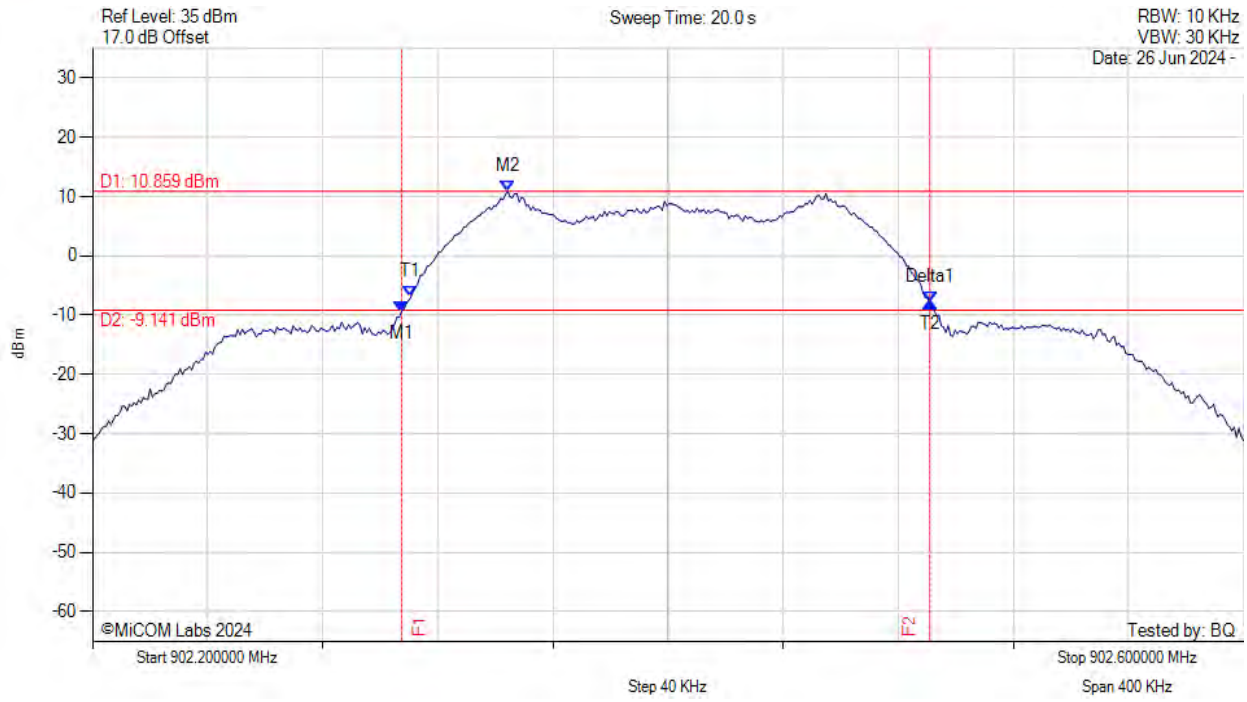


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.740 MHz : 1.982 dBm M2 : 927.745 MHz : 22.558 dBm Delta1 : 21 KHz : 0.283 dB T1 : 927.740 MHz : 4.085 dBm T2 : 927.760 MHz : 5.281 dBm OBW : 20 KHz	Measured 20 dB Bandwidth: 0.021 MHz Limit: 0.5 kHz Margin: 0.48 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

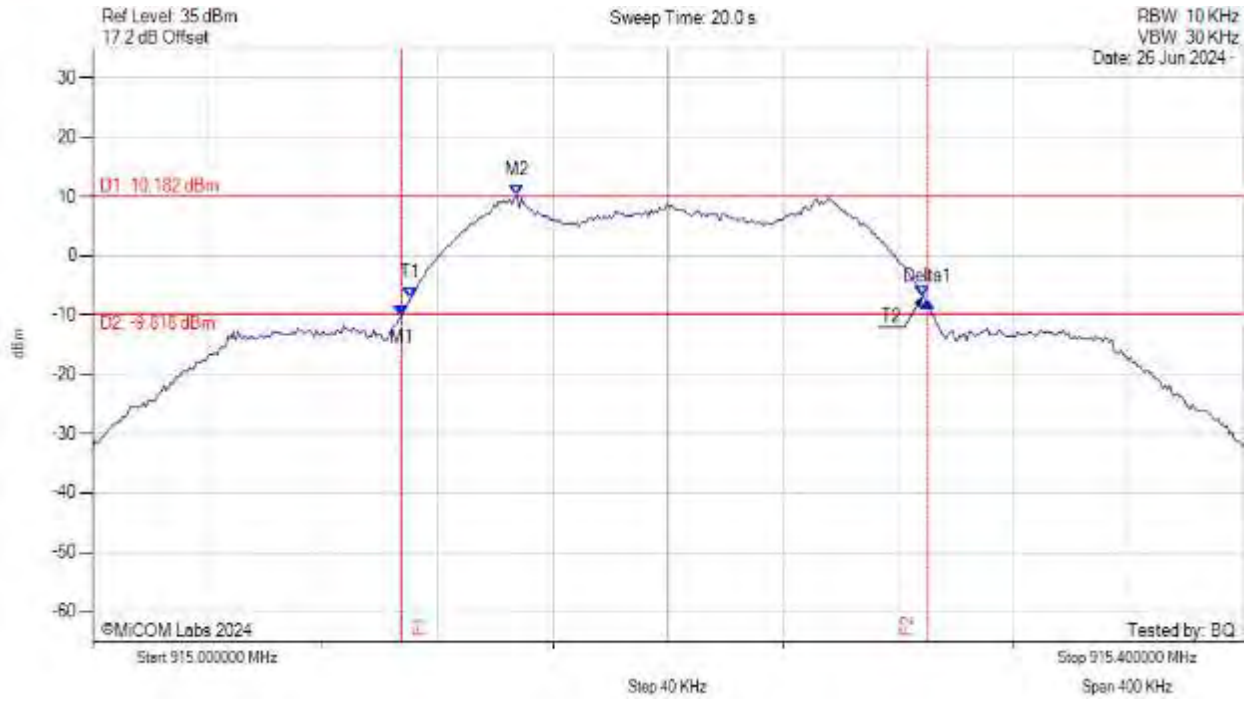


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.307 MHz : -9.415 dBm M2 : 902.344 MHz : 10.859 dBm Delta1 : 184 KHz : 1.607 dB T1 : 902.311 MHz : -6.962 dBm T2 : 902.491 MHz : -7.808 dBm OBW : 180 KHz	Measured 20 dB Bandwidth: 0.184 MHz Limit: 0.5 kHz Margin: 0.32 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

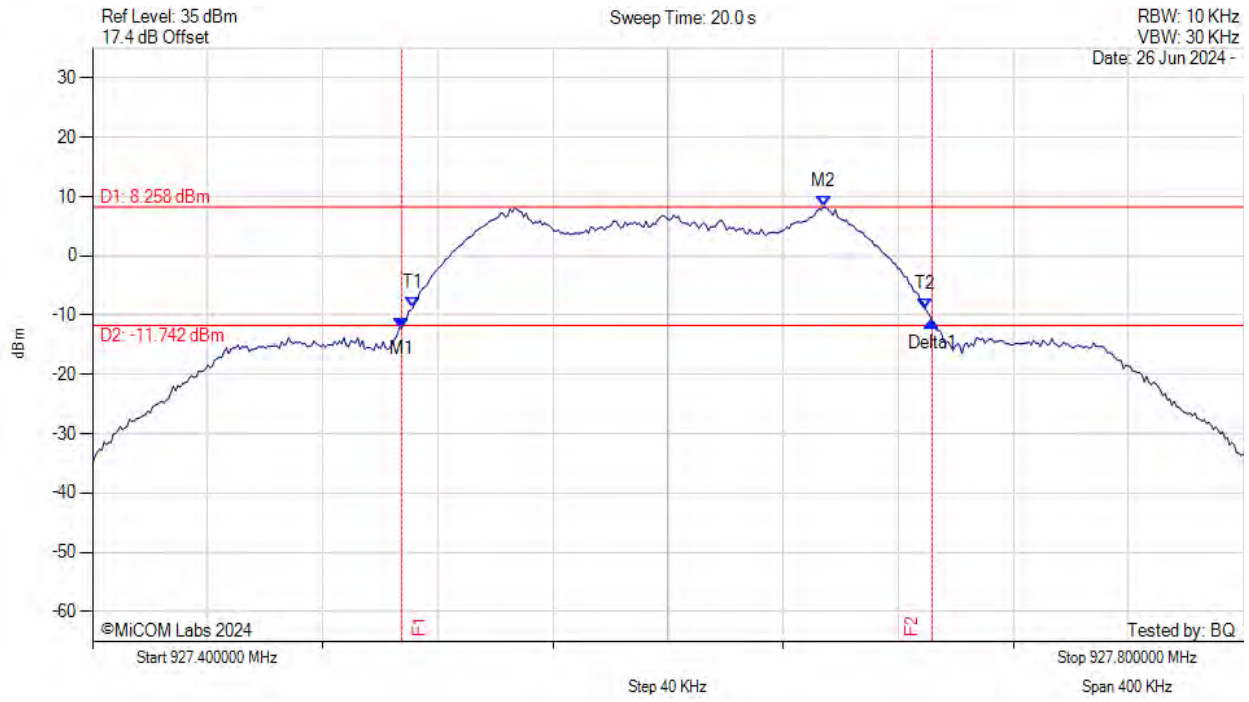


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.107 MHz : -10.222 dBm M2 : 915.147 MHz : 10.182 dBm Delta1 : 183 KHz : 2.477 dB T1 : 915.111 MHz : -7.113 dBm T2 : 915.289 MHz : -6.747 dBm OBW : 178 KHz	Measured 20 dB Bandwidth: 0.183 MHz Limit: 0.5 kHz Margin: 0.32 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

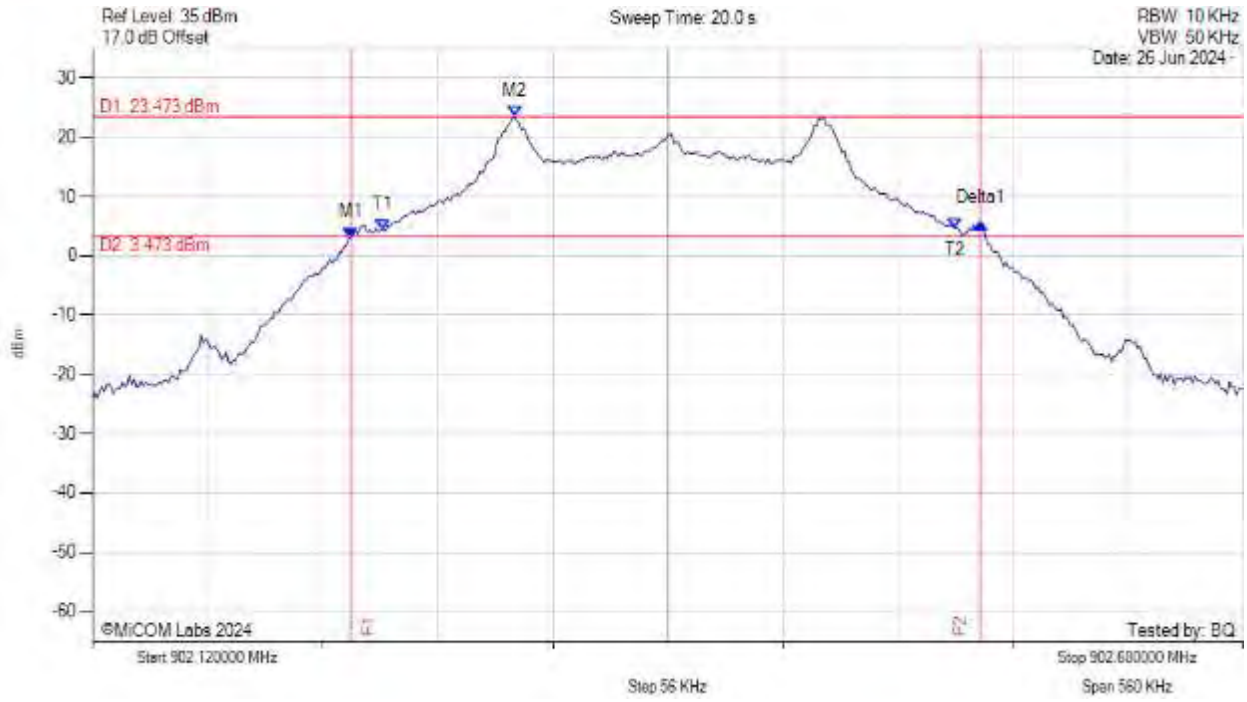


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.507 MHz : -12.138 dBm M2 : 927.654 MHz : 8.258 dBm Delta1 : 184 KHz : 1.051 dB T1 : 927.511 MHz : -8.699 dBm T2 : 927.689 MHz : -8.925 dBm OBW : 178 KHz	Measured 20 dB Bandwidth: 0.184 MHz Limit: 0.5 kHz Margin: 0.32 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

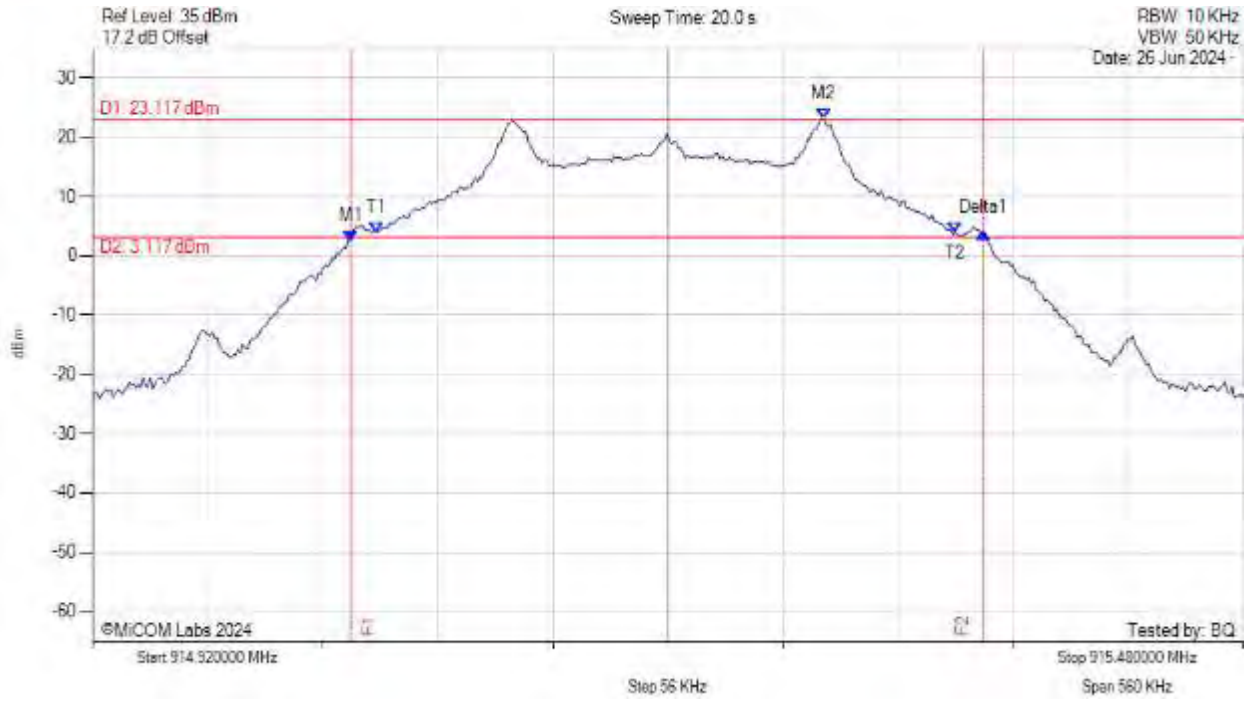


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.246 MHz : 3.060 dBm M2 : 902.325 MHz : 23.473 dBm Delta1 : 306 KHz : 2.499 dB T1 : 902.261 MHz : 4.368 dBm T2 : 902.540 MHz : 4.618 dBm OBW : 278 KHz	Measured 20 dB Bandwidth: 0.306 MHz Limit: 0.5 kHz Margin: 0.19 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

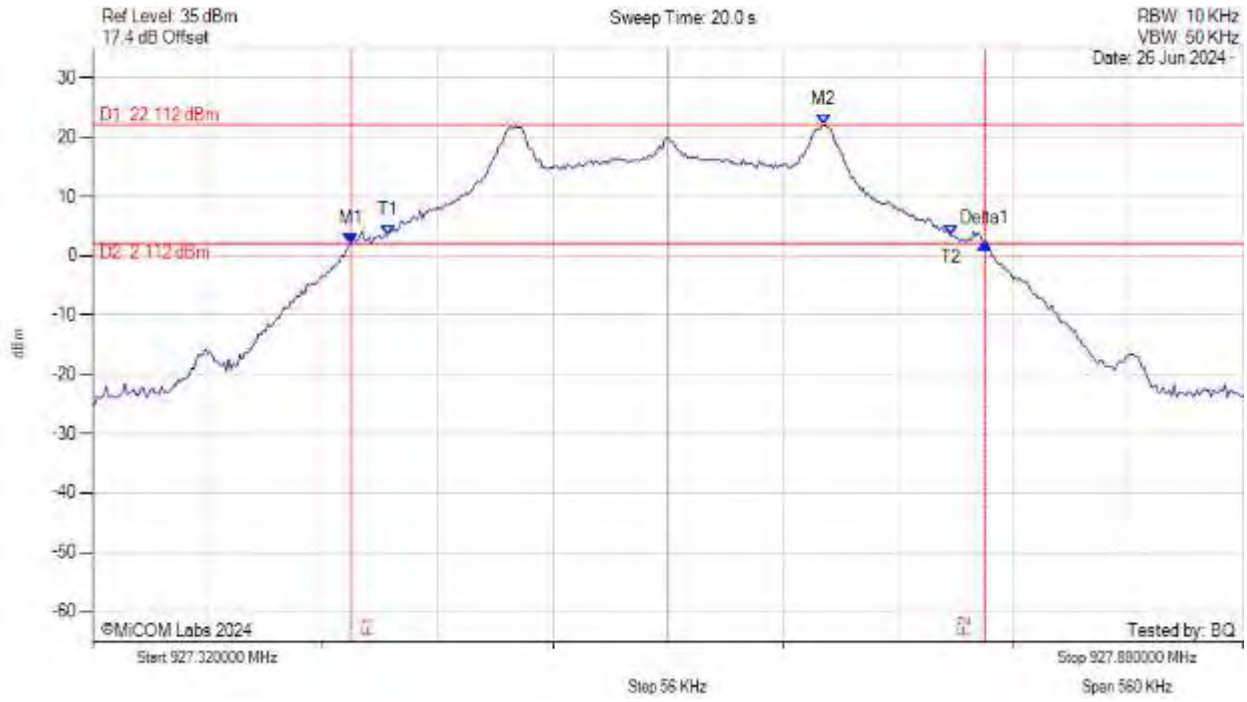


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.046 MHz : 2.570 dBm M2 : 915.276 MHz : 23.117 dBm Delta1 : 307 KHz : 1.365 dB T1 : 915.058 MHz : 3.926 dBm T2 : 915.340 MHz : 3.967 dBm OBW : 282 KHz	Measured 20 dB Bandwidth: 0.307 MHz Limit: 0.5 kHz Margin: 0.19 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 150kbps, PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

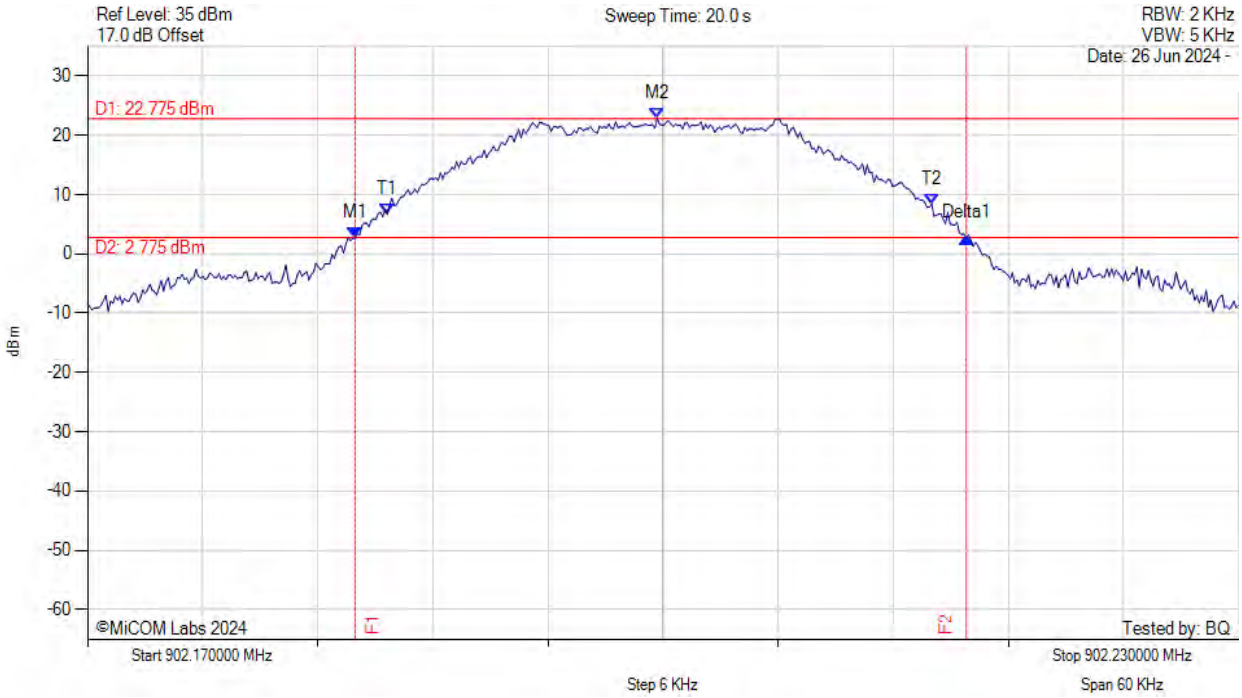


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.446 MHz : 2.049 dBm M2 : 927.676 MHz : 22.112 dBm Delta1 : 309 KHz : -0.079 dB T1 : 927.464 MHz : 3.418 dBm T2 : 927.737 MHz : 3.353 dBm OBW : 274 KHz	Measured 20 dB Bandwidth: 0.309 MHz Limit: 0.5 kHz Margin: 0.19 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 25kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

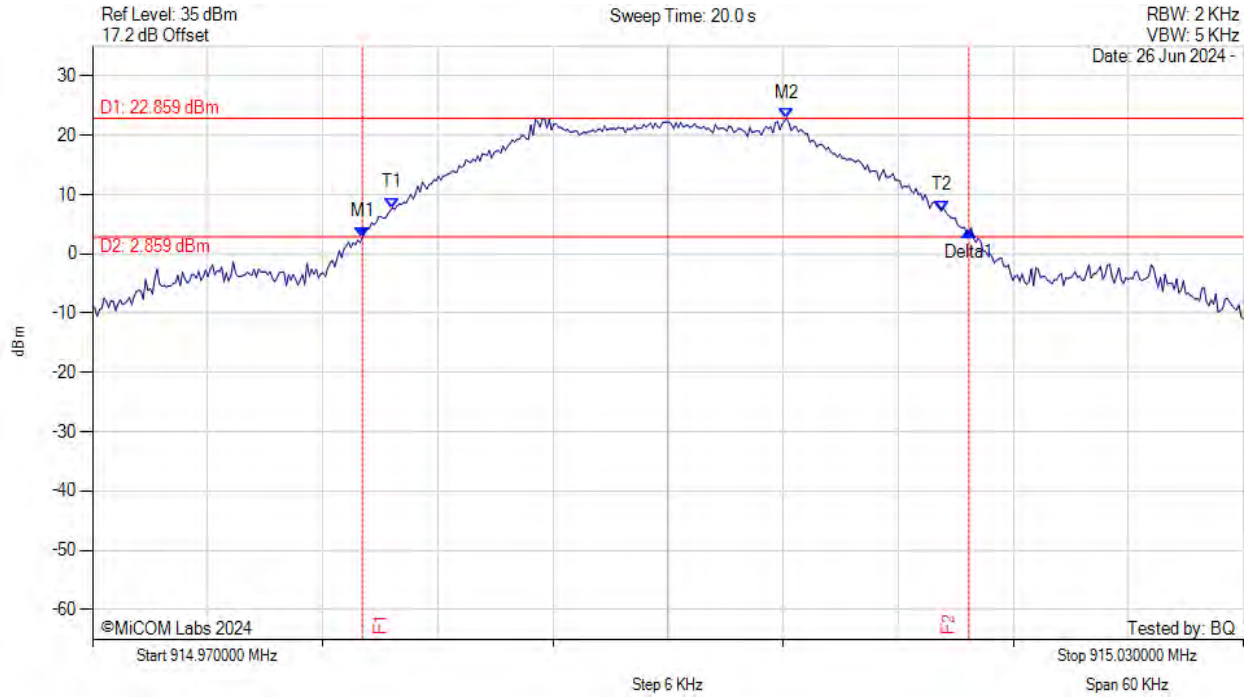


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.184 MHz : 2.643 dBm M2 : 902.200 MHz : 22.775 dBm Delta1 : 32 KHz : 0.083 dB T1 : 902.186 MHz : 6.643 dBm T2 : 902.214 MHz : 8.425 dBm OBW : 28 KHz	Measured 20 dB Bandwidth: 0.032 MHz Limit: 0.5 kHz Margin: 0.47 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 25kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

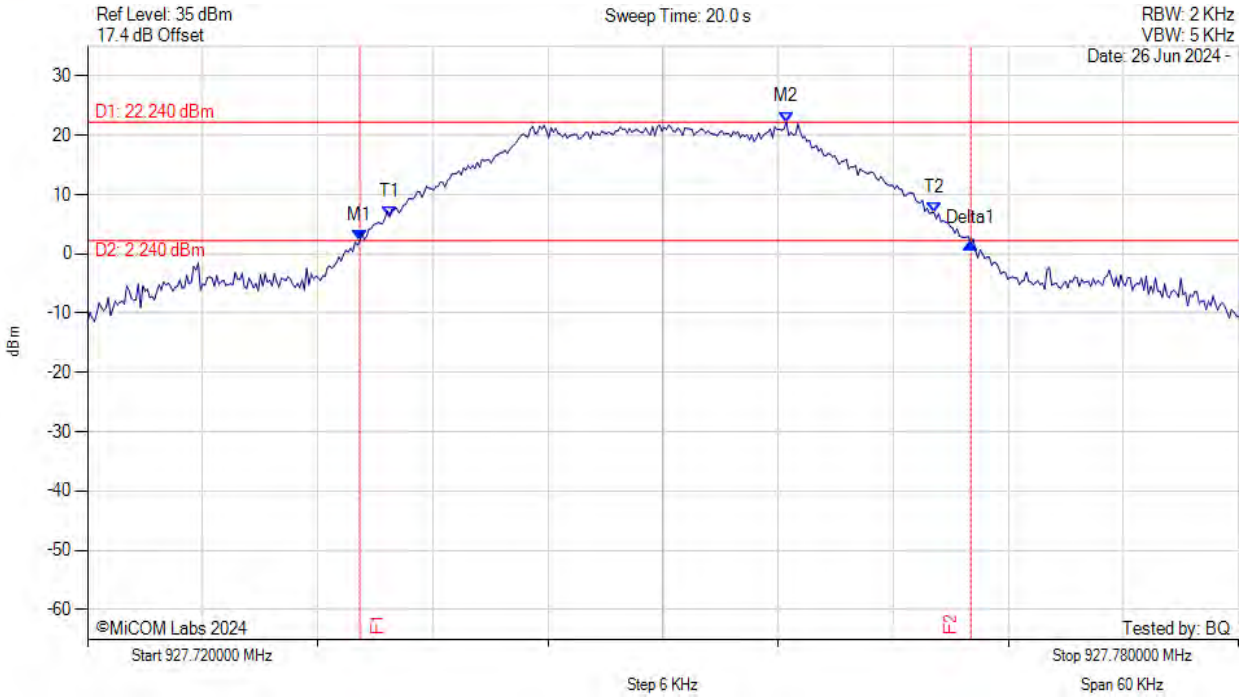


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.984 MHz : 2.832 dBm M2 : 915.006 MHz : 22.859 dBm Delta1 : 32 KHz : 1.009 dB T1 : 914.986 MHz : 7.742 dBm T2 : 915.014 MHz : 7.266 dBm OBW : 29 KHz	Measured 20 dB Bandwidth: 0.032 MHz Limit: 0.5 kHz Margin: 0.47 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 25kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

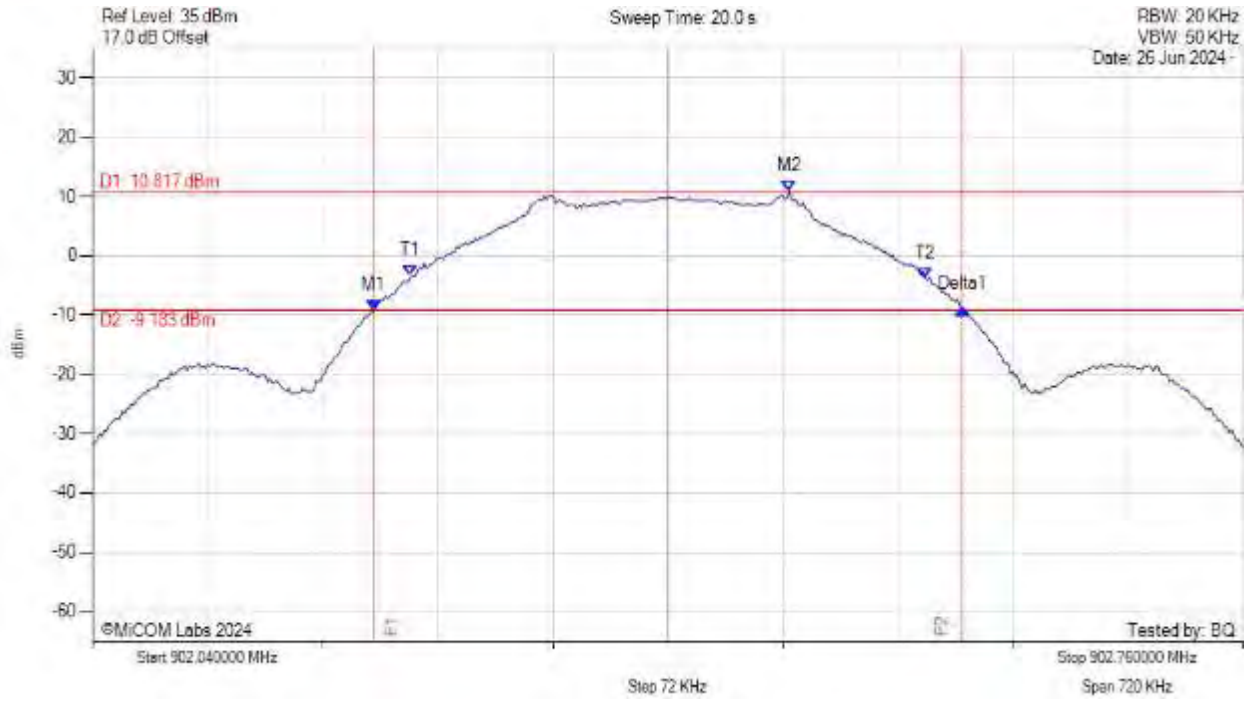


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.734 MHz : 2.198 dBm M2 : 927.756 MHz : 22.240 dBm Delta1 : 32 KHz : -0.407 dB T1 : 927.736 MHz : 6.172 dBm T2 : 927.764 MHz : 7.005 dBm OBW : 28 KHz	Measured 20 dB Bandwidth: 0.032 MHz Limit: 0.5 kHz Margin: 0.47 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

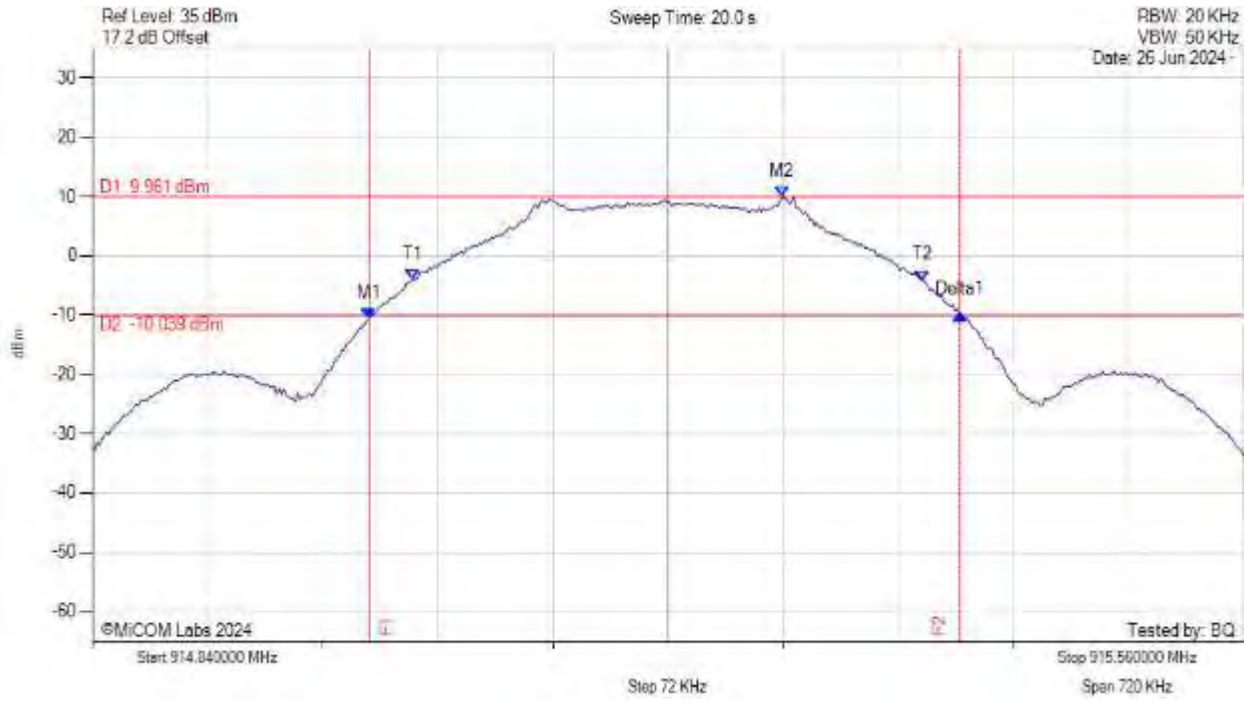


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.216 MHz : -9.234 dBm M2 : 902.476 MHz : 10.817 dBm Delta1 : 368 KHz : 0.348 dB T1 : 902.239 MHz : -3.444 dBm T2 : 902.561 MHz : -3.777 dBm OBW : 322 KHz	Measured 20 dB Bandwidth: 0.368 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

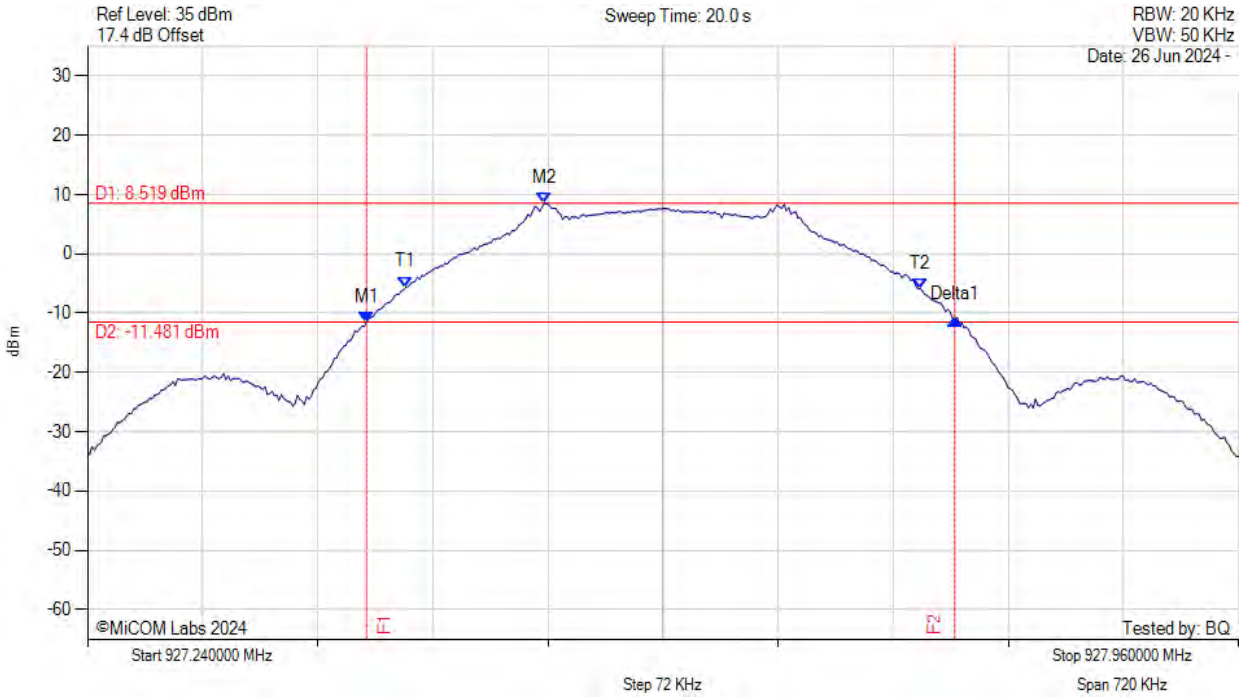


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.013 MHz : -10.501 dBm M2 : 915.271 MHz : 9.961 dBm Delta1 : 369 KHz : 0.696 dB T1 : 915.041 MHz : -4.036 dBm T2 : 915.359 MHz : -4.172 dBm OBW : 319 KHz	Measured 20 dB Bandwidth: 0.369 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

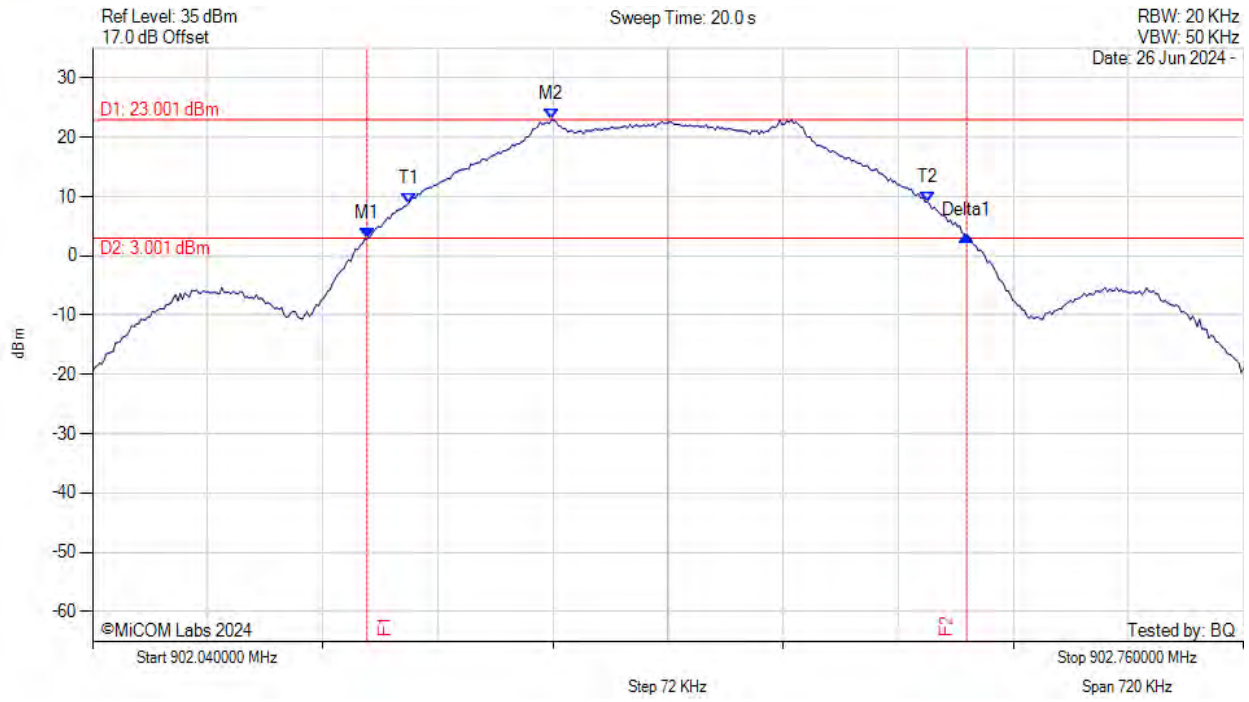


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.415 MHz : -11.546 dBm M2 : 927.526 MHz : 8.519 dBm Delta1 : 368 KHz : 0.559 dB T1 : 927.439 MHz : -5.581 dBm T2 : 927.761 MHz : -5.874 dBm OBW : 322 KHz	Measured 20 dB Bandwidth: 0.368 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

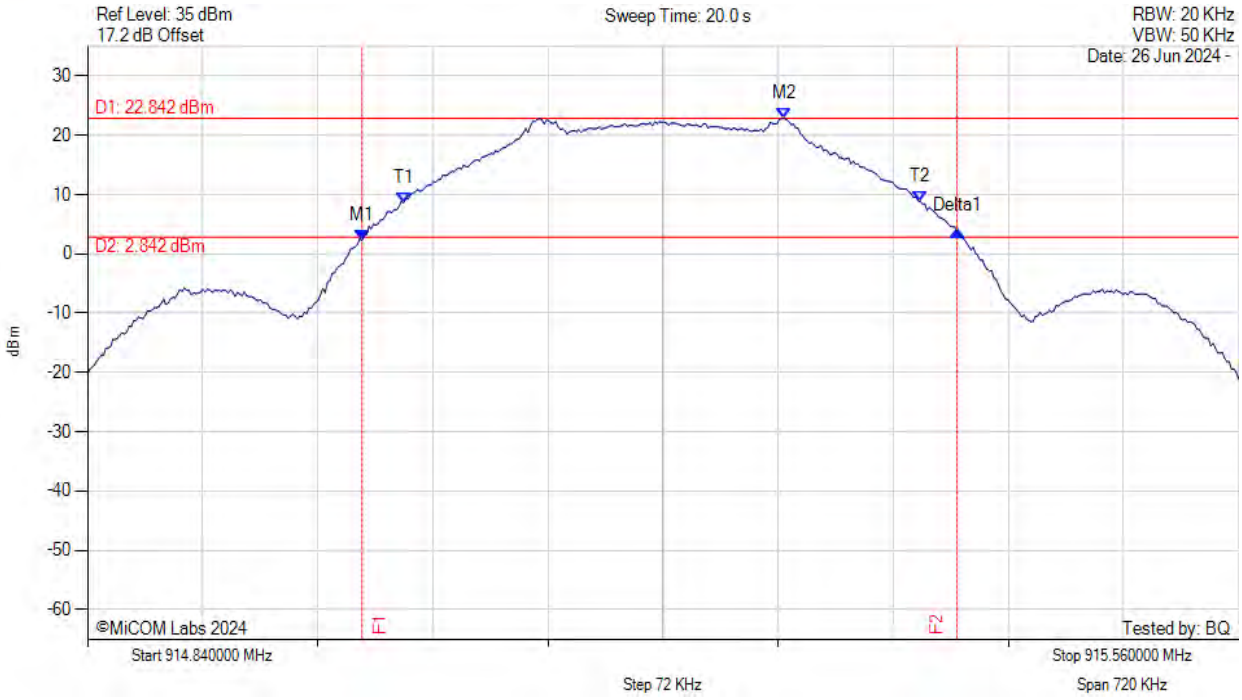


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.212 MHz : 2.924 dBm M2 : 902.327 MHz : 23.001 dBm Delta1 : 375 KHz : 0.484 dB T1 : 902.238 MHz : 8.862 dBm T2 : 902.562 MHz : 9.068 dBm OBW : 325 KHz	Measured 20 dB Bandwidth: 0.375 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

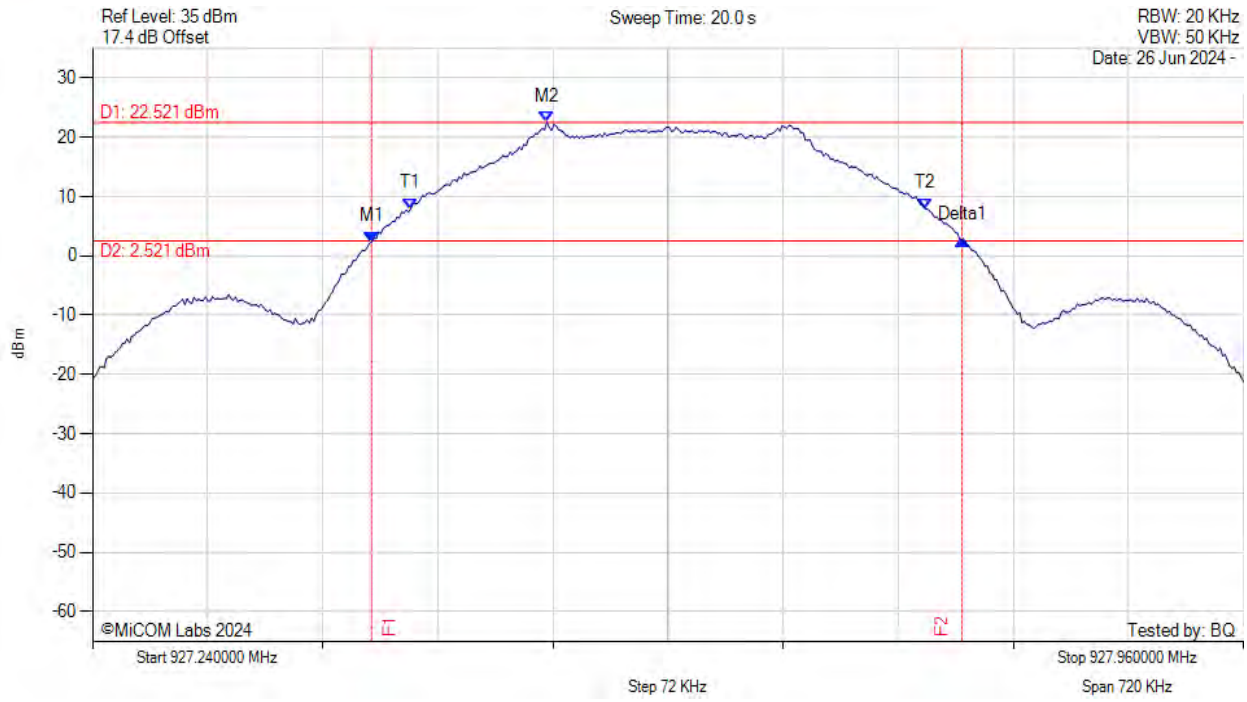


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.012 MHz : 2.308 dBm M2 : 915.276 MHz : 22.842 dBm Delta1 : 372 KHz : 1.523 dB T1 : 915.038 MHz : 8.641 dBm T2 : 915.361 MHz : 8.811 dBm OBW : 323 KHz	Measured 20 dB Bandwidth: 0.372 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 300kbps PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

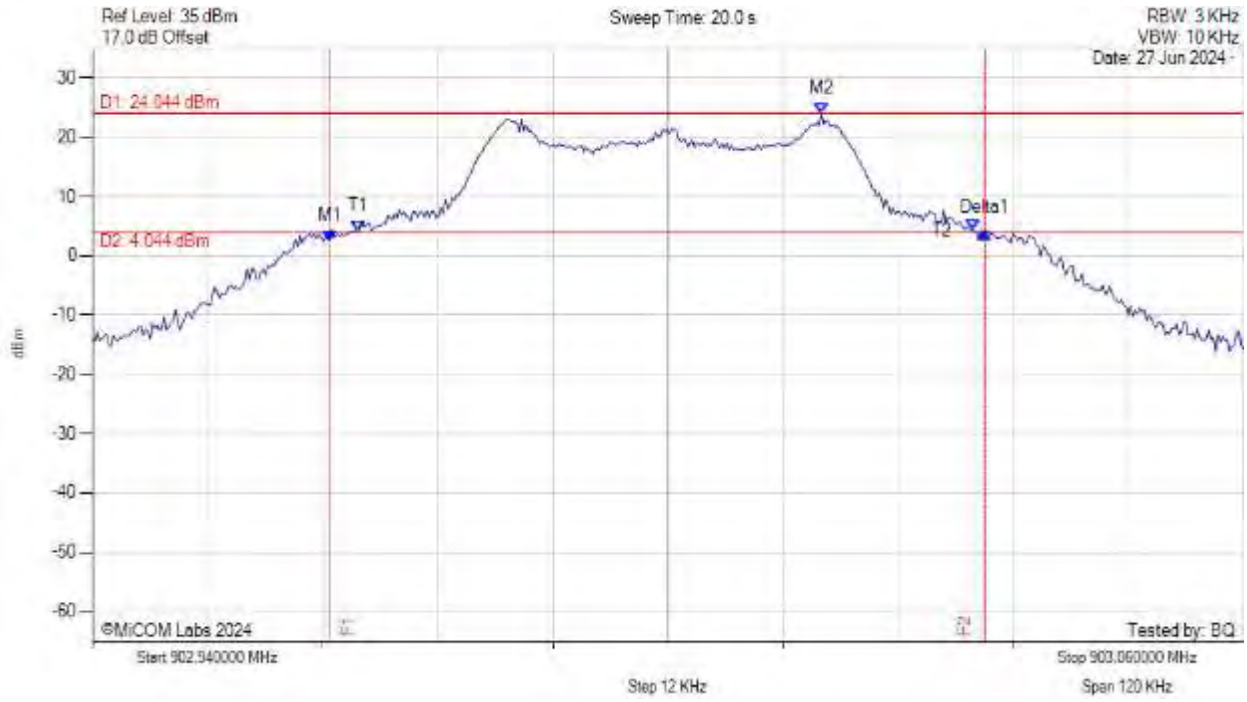


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.415 MHz : 2.371 dBm M2 : 927.524 MHz : 22.521 dBm Delta1 : 369 KHz : 0.281 dB T1 : 927.439 MHz : 7.980 dBm T2 : 927.761 MHz : 7.974 dBm OBW : 322 KHz	Measured 20 dB Bandwidth: 0.369 MHz Limit: 0.5 kHz Margin: 0.13 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 37.5kbps, PL 3 (FHSS), Channel: 903.00 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.965 MHz : 2.574 dBm M2 : 903.016 MHz : 24.044 dBm Delta1 : 68 KHz : 1.226 dB T1 : 902.968 MHz : 4.107 dBm T2 : 903.032 MHz : 4.339 dBm OBW : 64 KHz	Measured 20 dB Bandwidth: 0.068 MHz Limit: 0.5 kHz Margin: 0.43 MHz

back to matrix

20 dB 99% BANDWIDTH

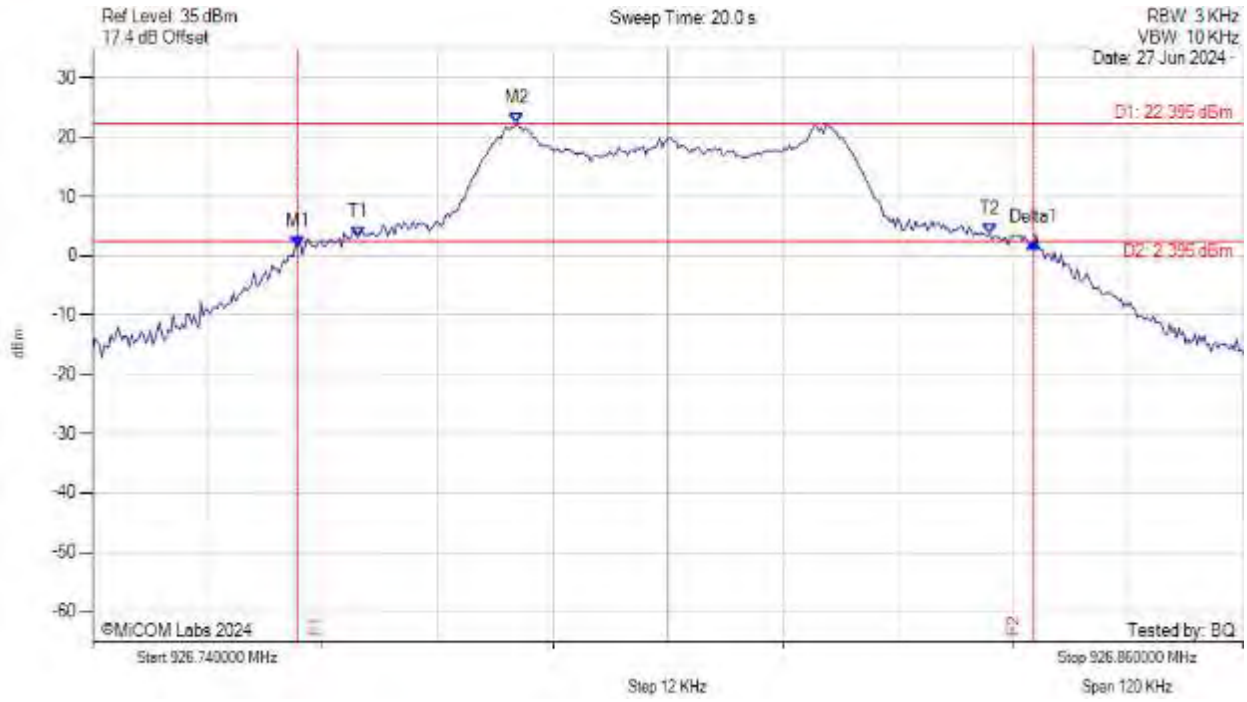
Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.967 MHz : 3.280 dBm M2 : 914.984 MHz : 23.572 dBm Delta1 : 66 KHz : 1.365 dB T1 : 914.969 MHz : 4.402 dBm T2 : 915.032 MHz : 4.030 dBm OBW : 63 KHz	Measured 20 dB Bandwidth: 0.066 MHz Limit: 0.5 kHz Margin: 0.43 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: 37.5kbps, PL 3 (FHSS), Channel: 926.80 MHz, Chain a, Temp: 20

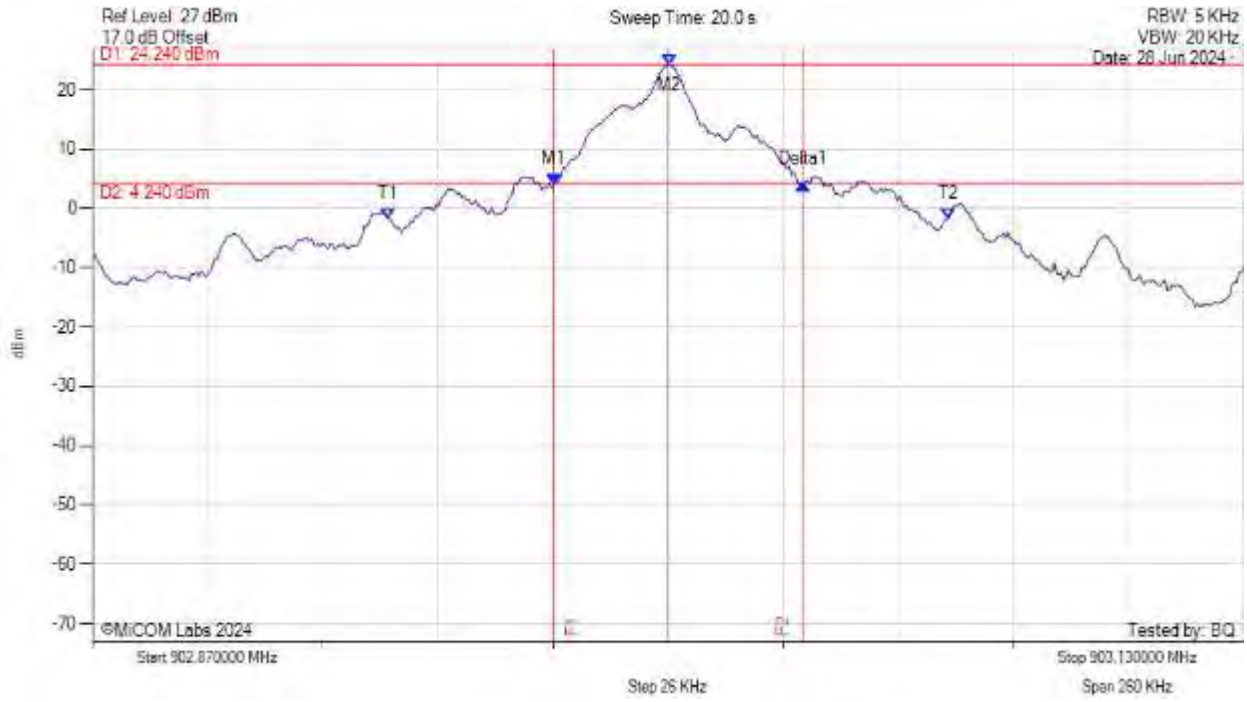


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 926.761 MHz : 1.476 dBm M2 : 926.784 MHz : 22.395 dBm Delta1 : 77 KHz : 0.689 dB T1 : 926.768 MHz : 3.105 dBm T2 : 926.834 MHz : 3.693 dBm OBW : 66 KHz	Measured 20 dB Bandwidth: 0.077 MHz Limit: 0.5 kHz Margin: 0.42 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL 3, Channel: 903.00 MHz, Chain a, Temp: 20

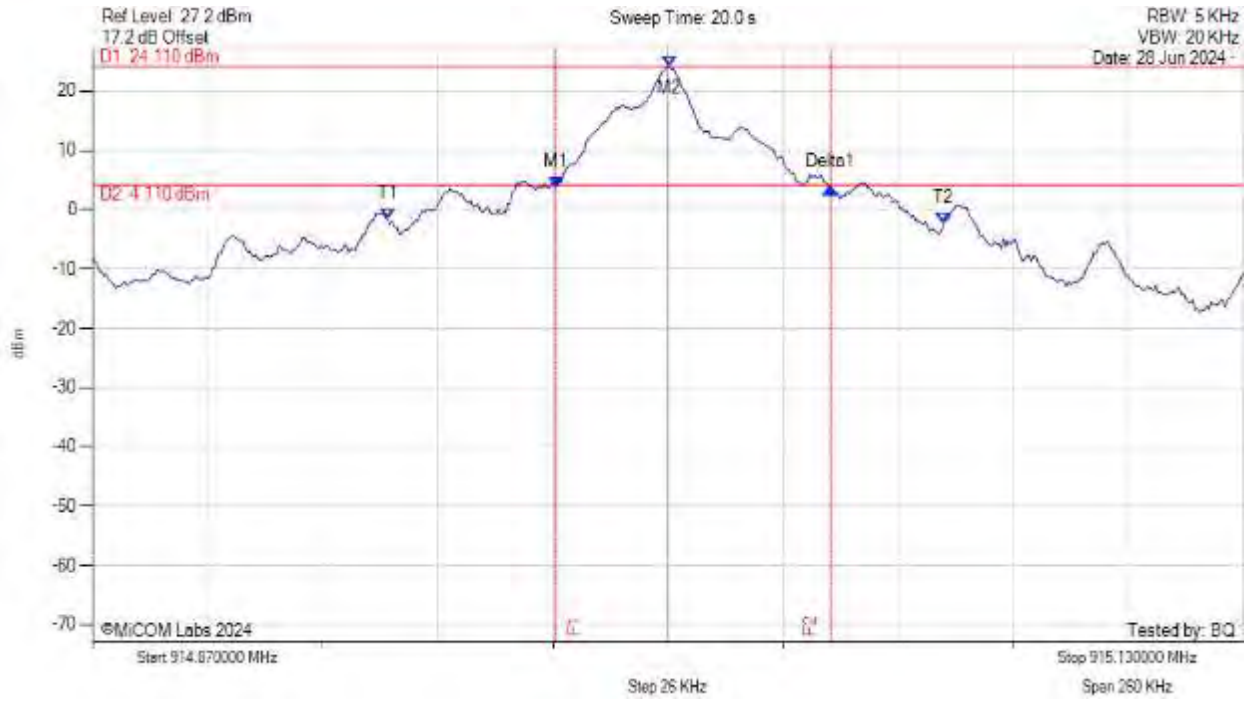


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 902.974 MHz : 4.037 dBm M2 : 903.000 MHz : 24.236 dBm Delta1 : 56 KHz : 0.049 dB T1 : 902.937 MHz : -1.686 dBm T2 : 903.063 MHz : -1.786 dBm OBW : 127 KHz	Measured 20 dB Bandwidth: 0.056 MHz Limit: 0.5 kHz Margin: 0.44 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

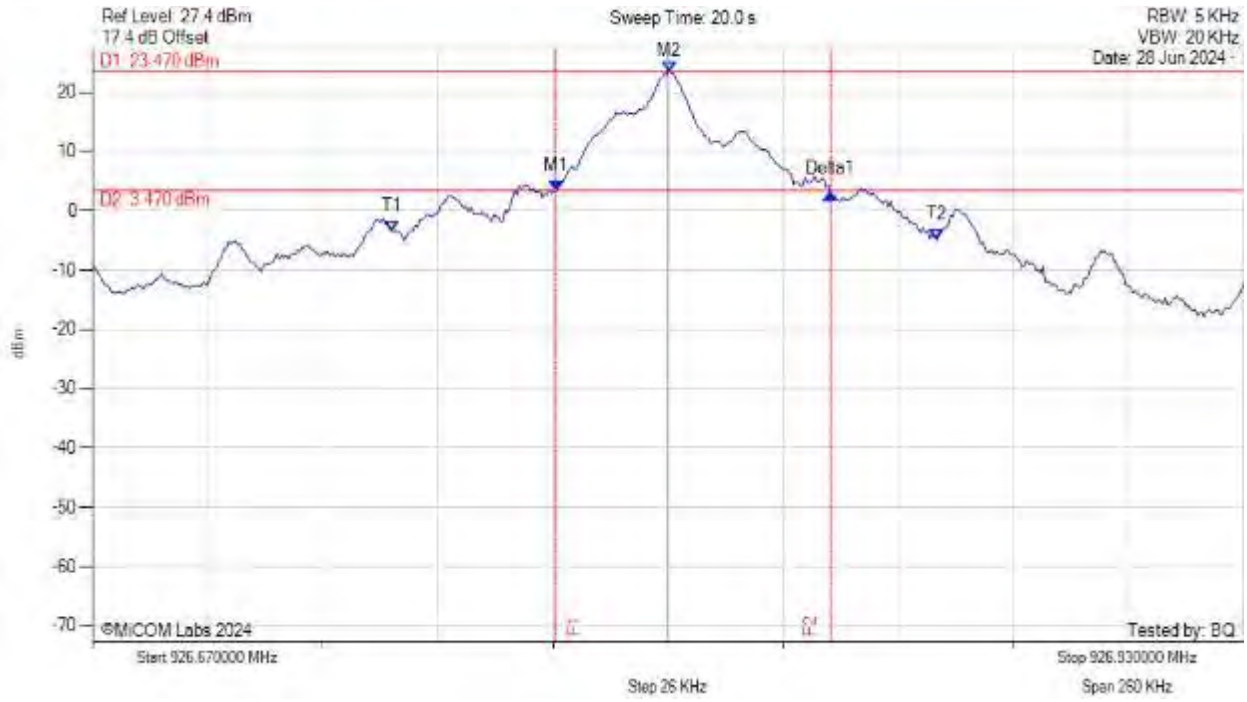


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 914.975 MHz : 3.788 dBm M2 : 915.000 MHz : 24.107 dBm Delta1 : 62 KHz : -0.108 dB T1 : 914.937 MHz : -1.669 dBm T2 : 915.062 MHz : -2.377 dBm OBW : 126 KHz	Measured 20 dB Bandwidth: 0.062 MHz Limit: 0.5 kHz Margin: 0.44 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL 3, Channel: 926.80 MHz, Chain a, Temp: 20

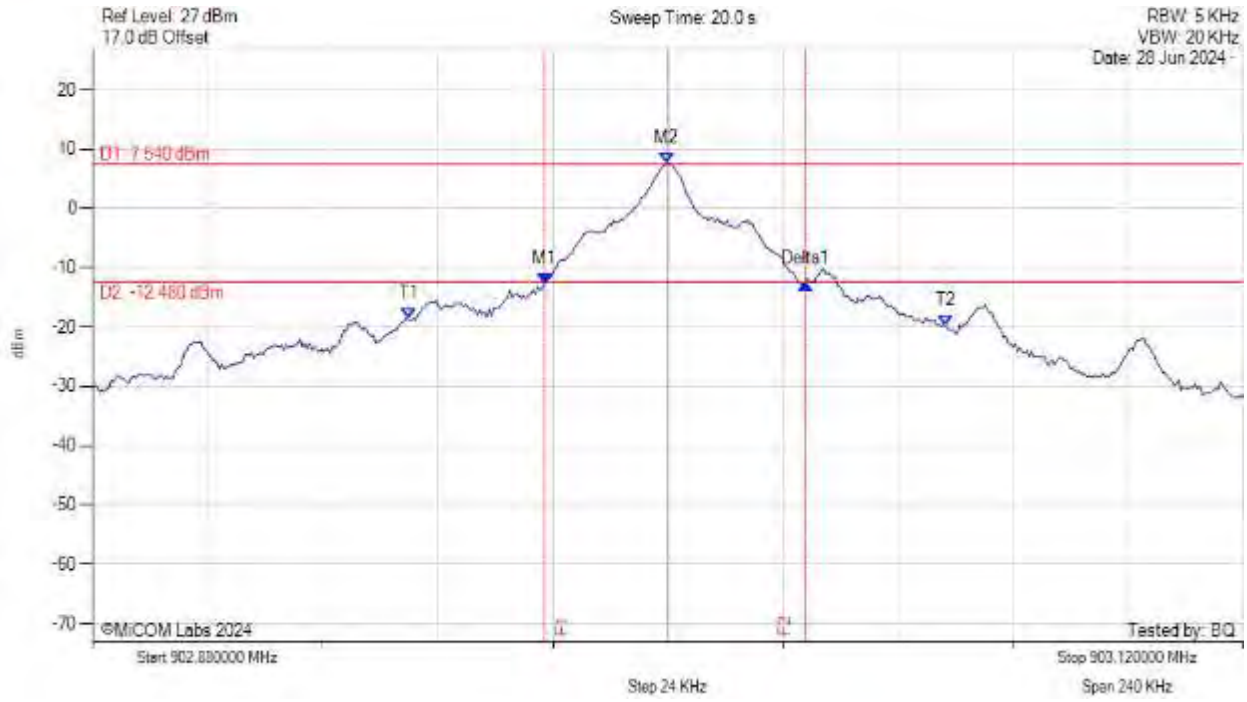


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 926.775 MHz : 3.347 dBm M2 : 926.800 MHz : 23.469 dBm Delta1 : 62 KHz : -0.478 dB T1 : 926.738 MHz : -3.572 dBm T2 : 926.861 MHz : -4.853 dBm OBW : 123 KHz	Measured 20 dB Bandwidth: 0.062 MHz Limit: 0.5 kHz Margin: 0.44 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL1, Channel: 903.00 MHz, Chain a, Temp: 20

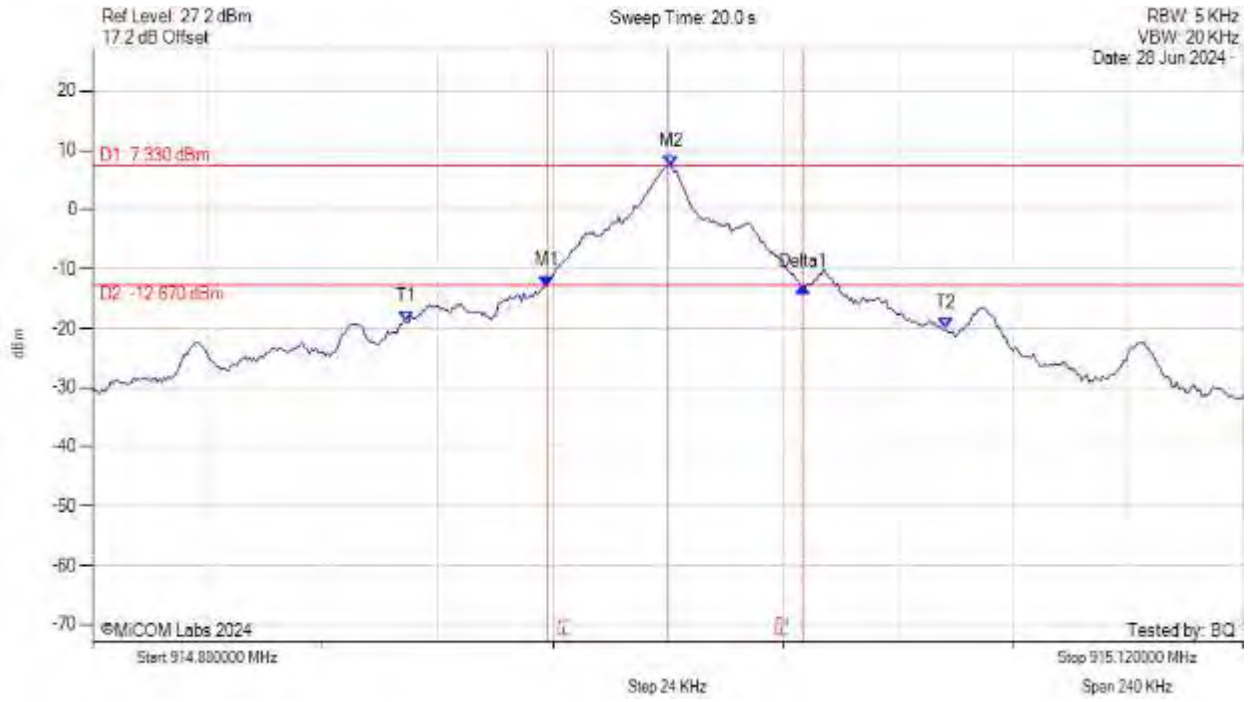


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 902.974 MHz : -12.741 dBm M2 : 903.000 MHz : 7.537 dBm Delta1 : 54 KHz : 0.018 dB T1 : 902.946 MHz : -18.700 dBm T2 : 903.058 MHz : -19.772 dBm OBW : 112 KHz	Measured 20 dB Bandwidth: 0.054 MHz Limit: 0.5 kHz Margin: 0.45 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20

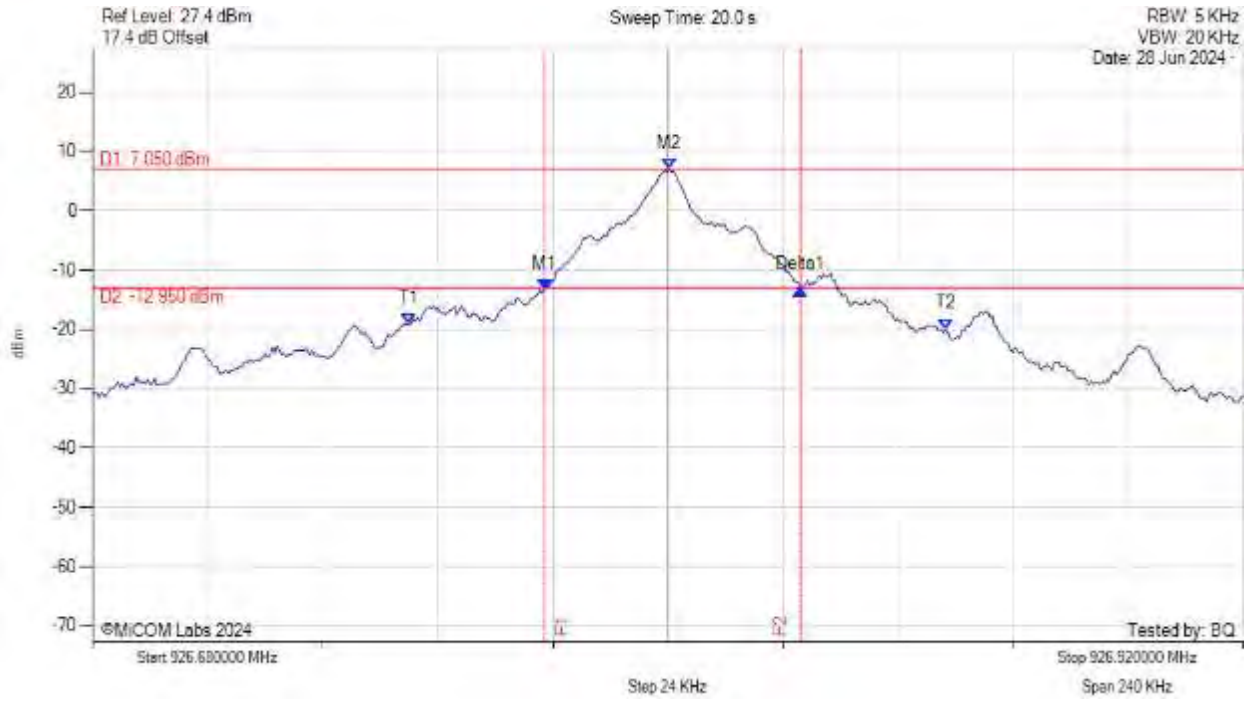


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 914.975 MHz : -12.918 dBm M2 : 915.001 MHz : 7.332 dBm Delta1 : 53 KHz : -0.130 dB T1 : 914.945 MHz : -18.905 dBm T2 : 915.058 MHz : -20.125 dBm OBW : 113 KHz	Measured 20 dB Bandwidth: 0.053 MHz Limit: 0.5 kHz Margin: 0.45 MHz

back to matrix

20 dB 99% BANDWIDTH

Variant: OOK PL1, Channel: 926.80 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAX HOLD	M1 : 926.774 MHz : -13.208 dBm M2 : 926.800 MHz : 7.050 dBm Delta1 : 53 KHz : -0.069 dB T1 : 926.746 MHz : -19.132 dBm T2 : 926.858 MHz : -19.962 dBm OBW : 112 KHz	Measured 20 dB Bandwidth: 0.053 MHz Limit: 0.5 kHz Margin: 0.45 MHz

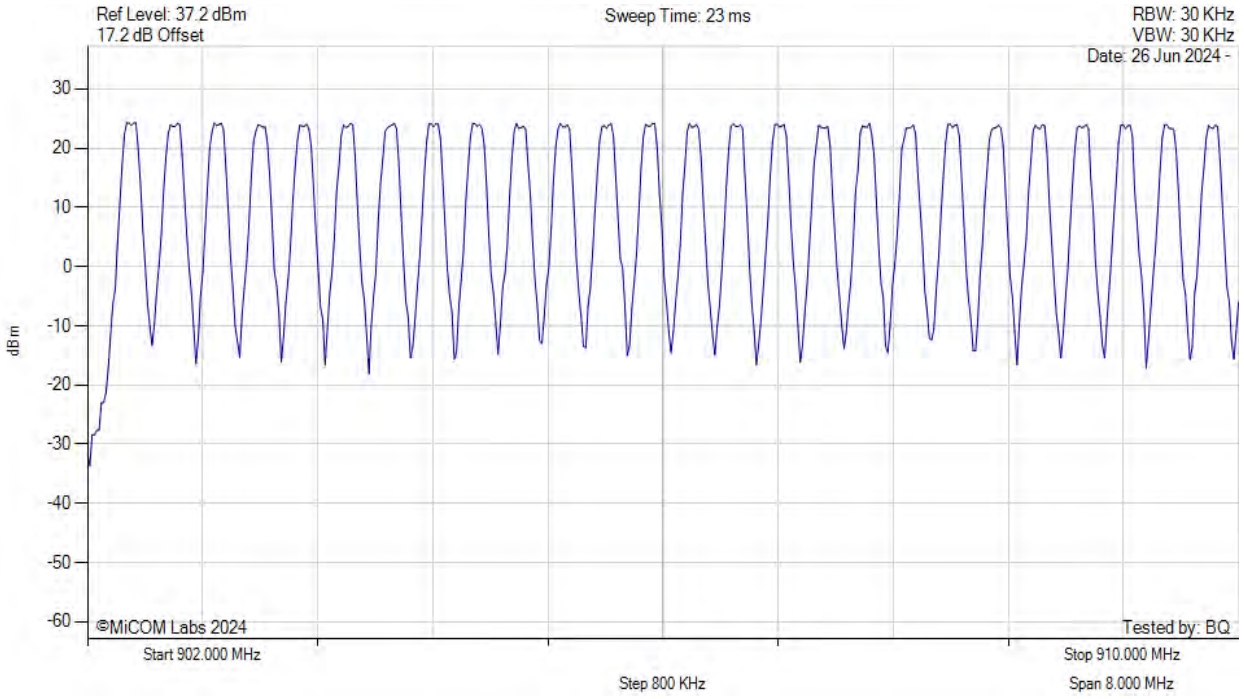
back to matrix

A.2. Frequency Hopping Tests

A.2.1. Number of Hopping Channels

NUMBER OF HOPPING CHANNELS

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20

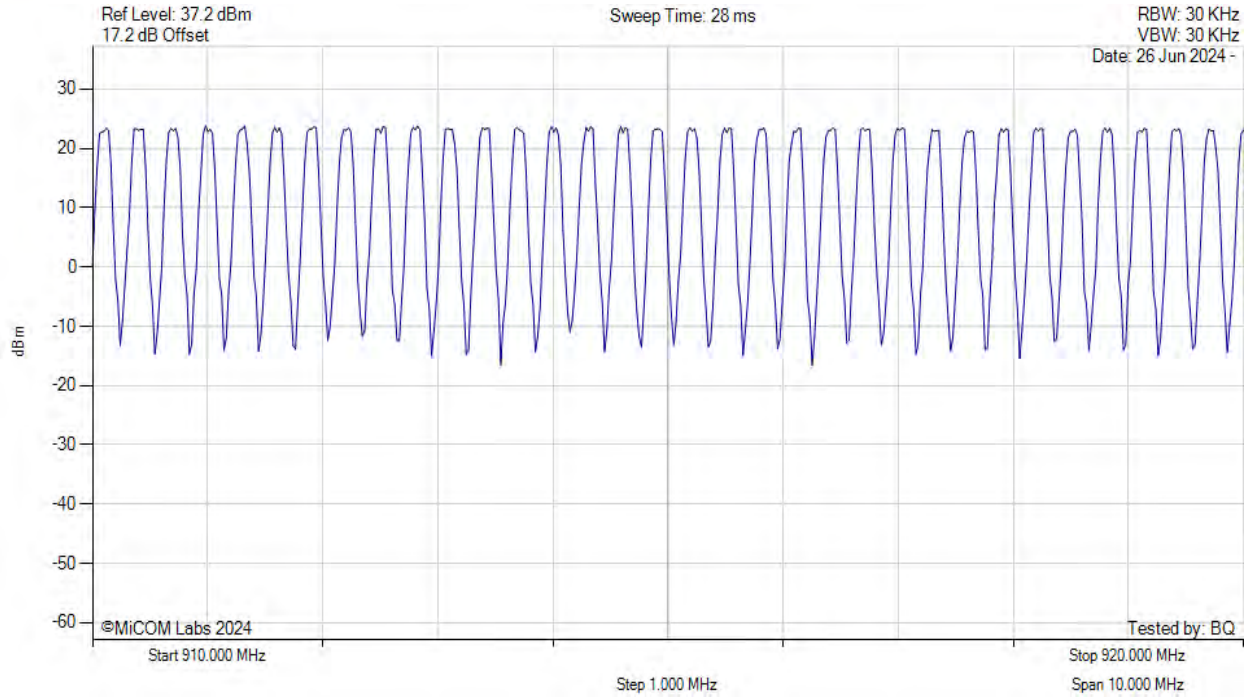


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.60 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20

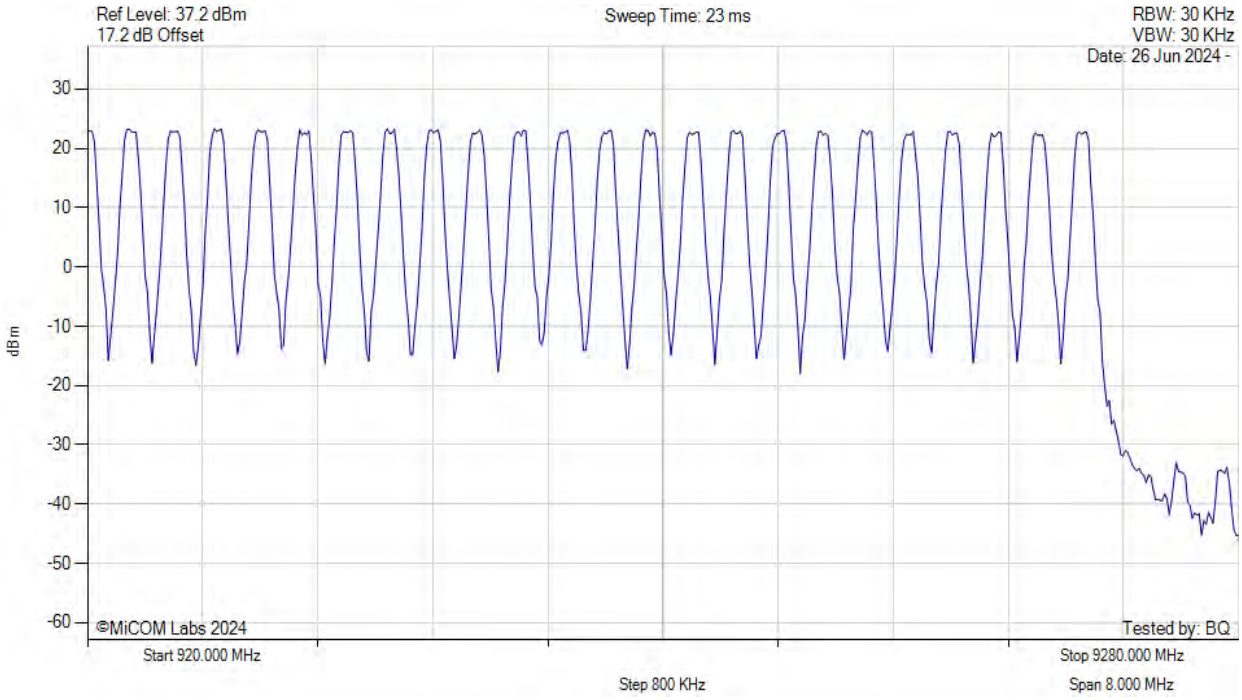


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.60 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20

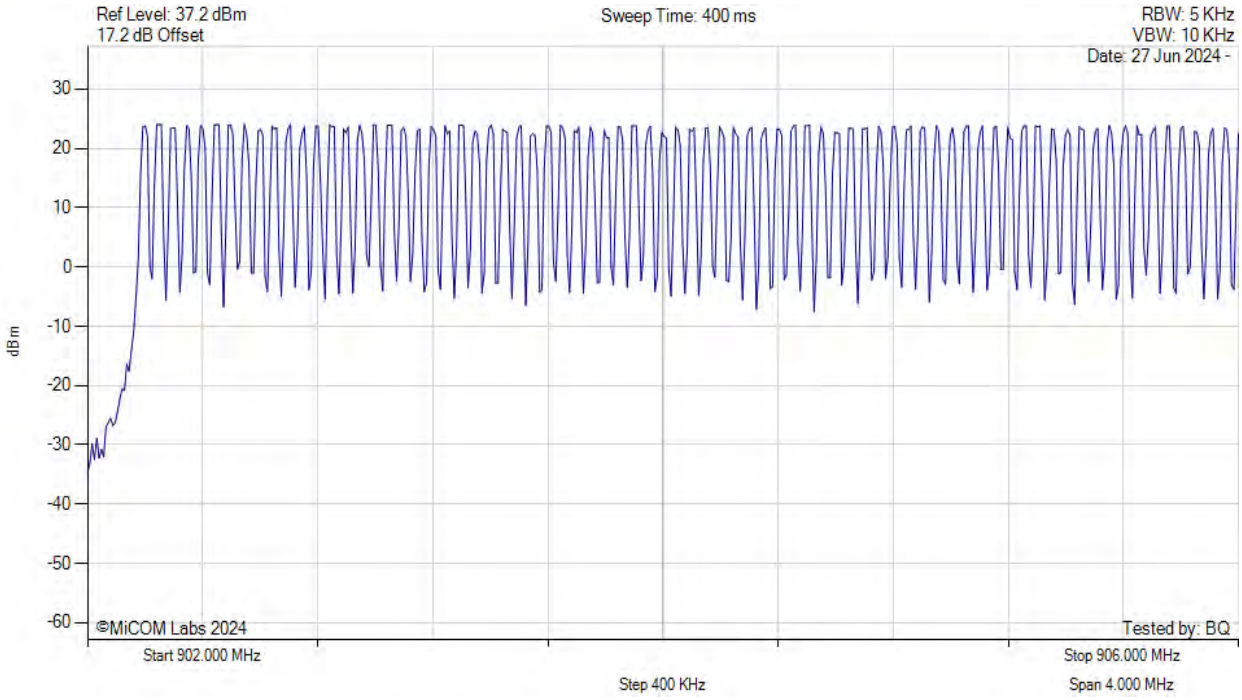


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.60 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

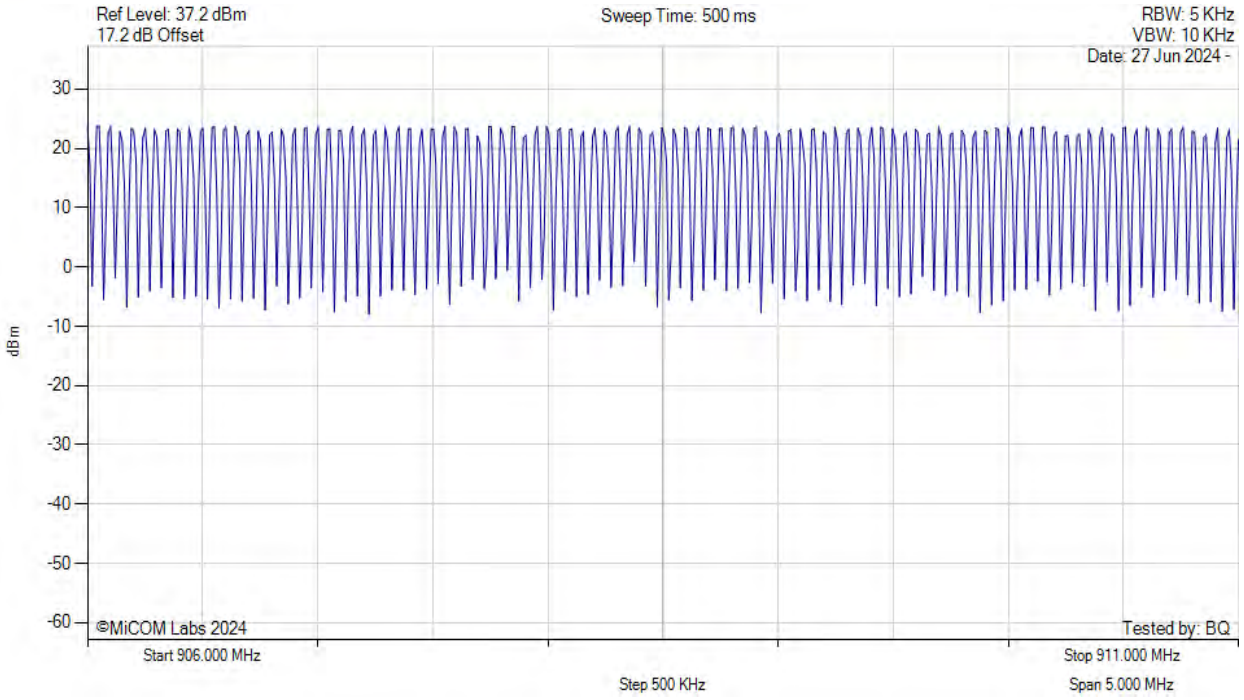


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

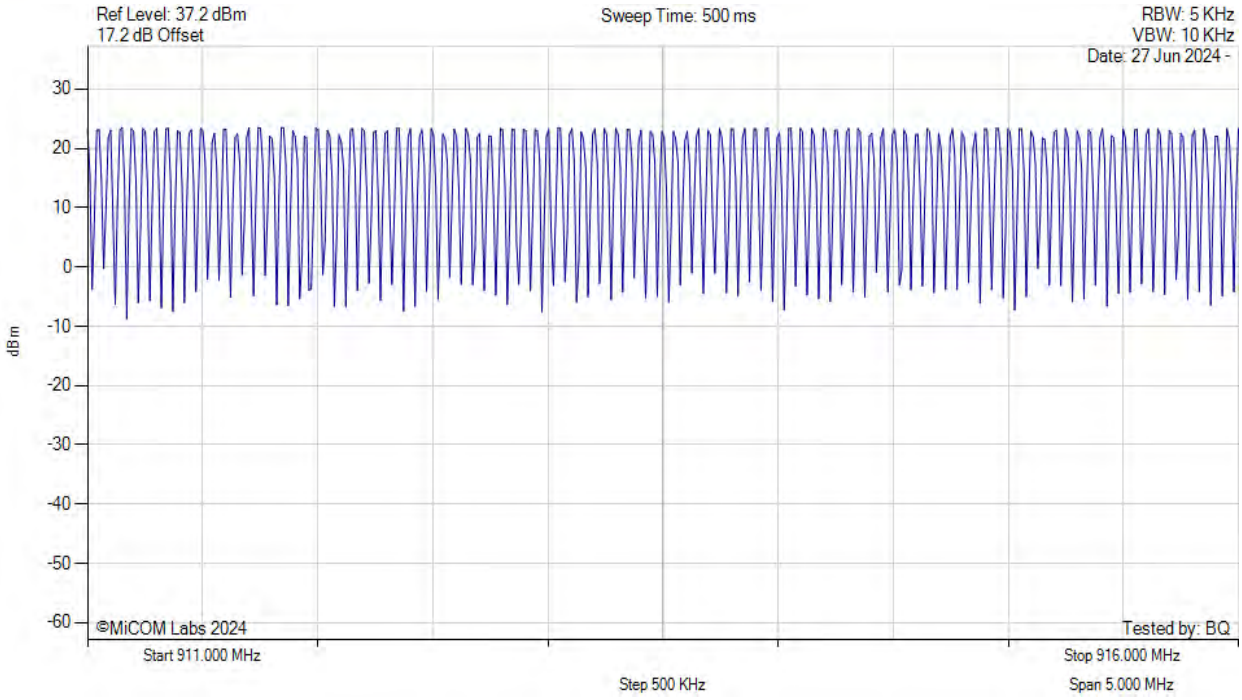


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

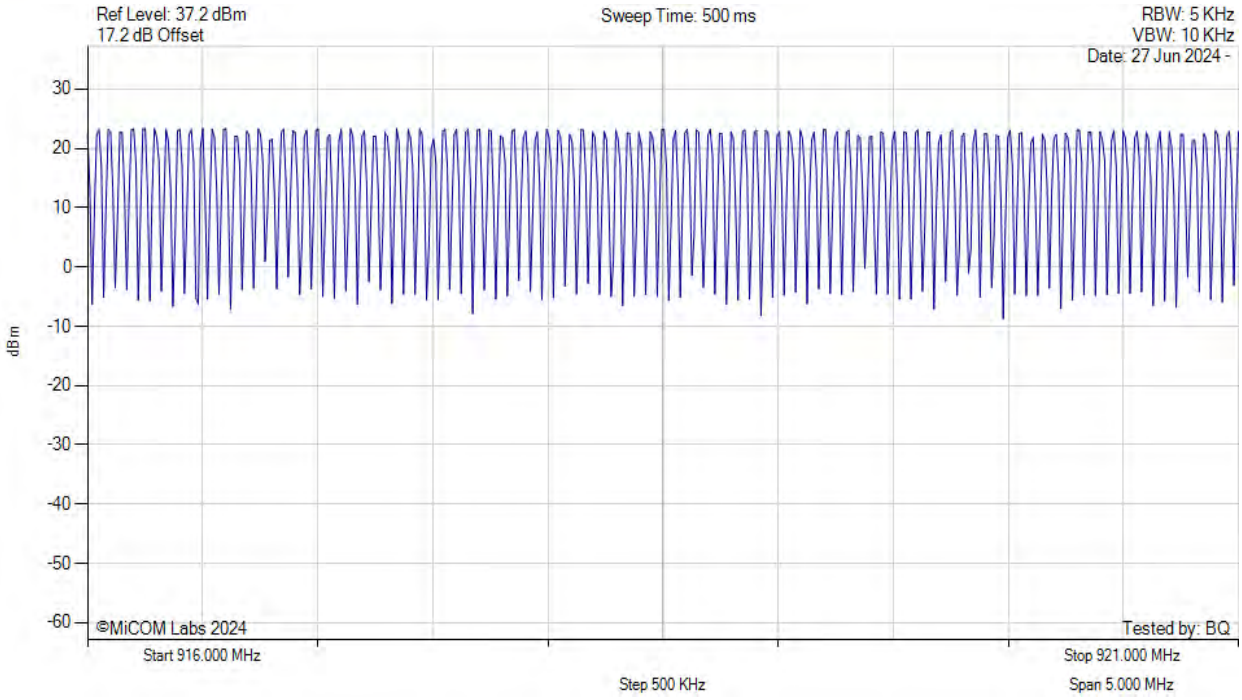


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

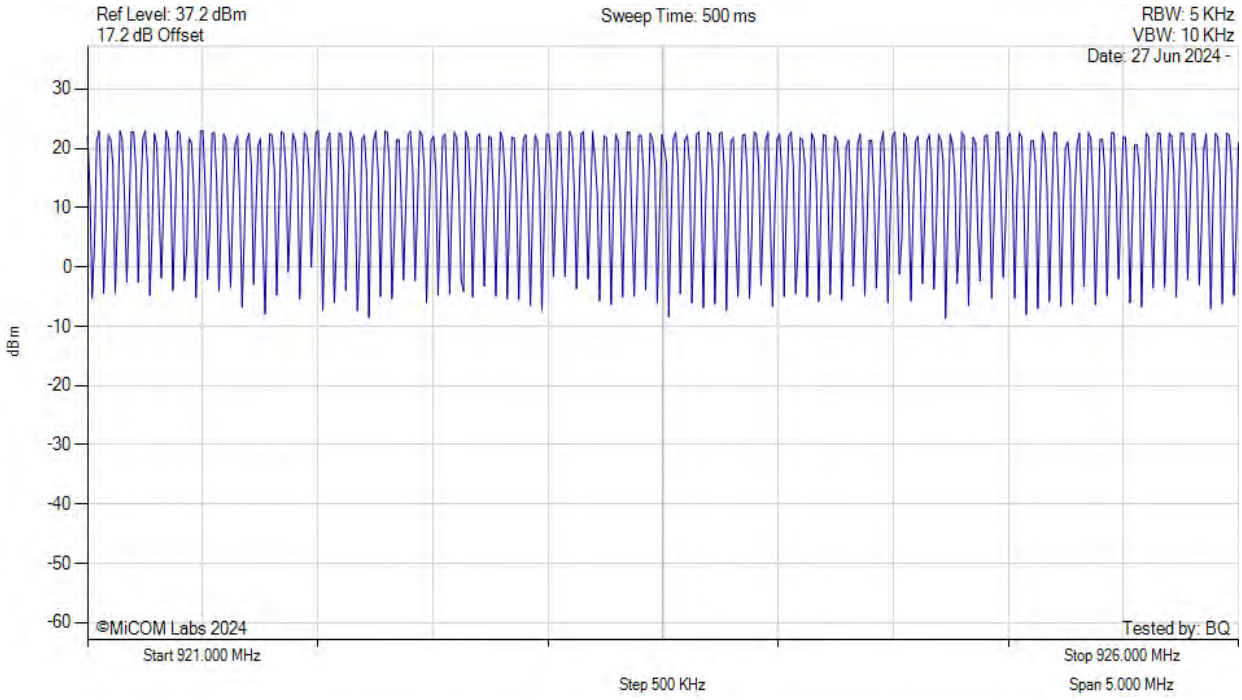


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

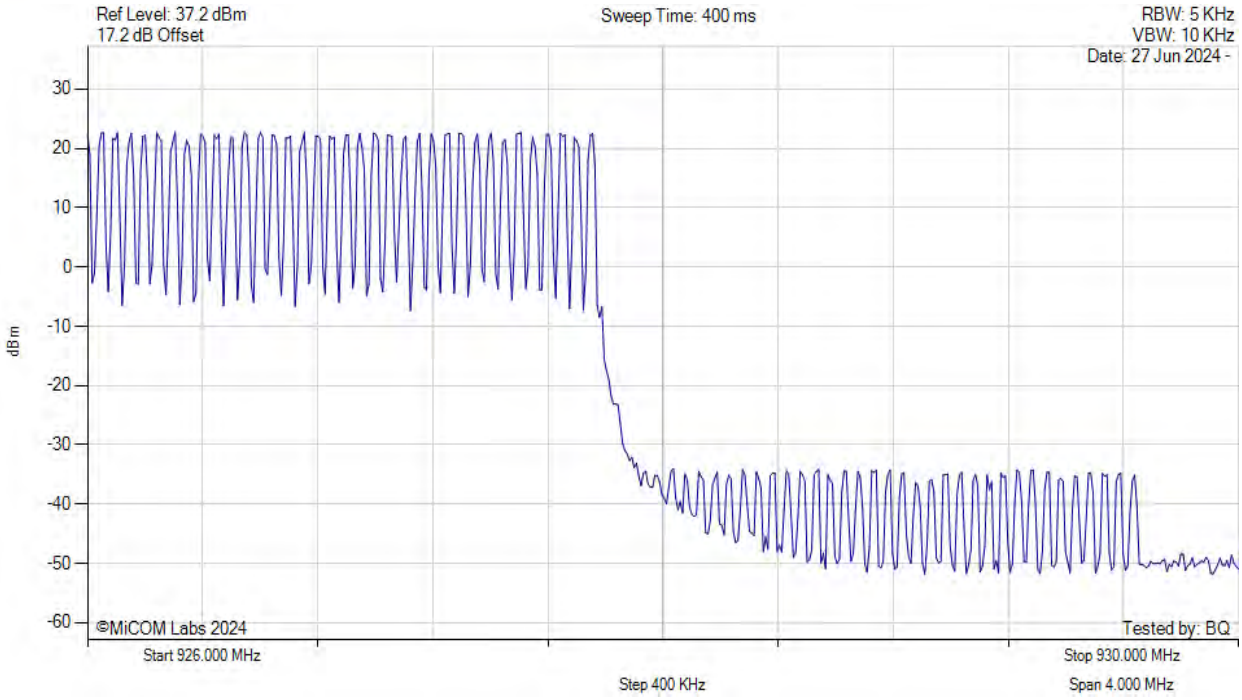


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 10kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

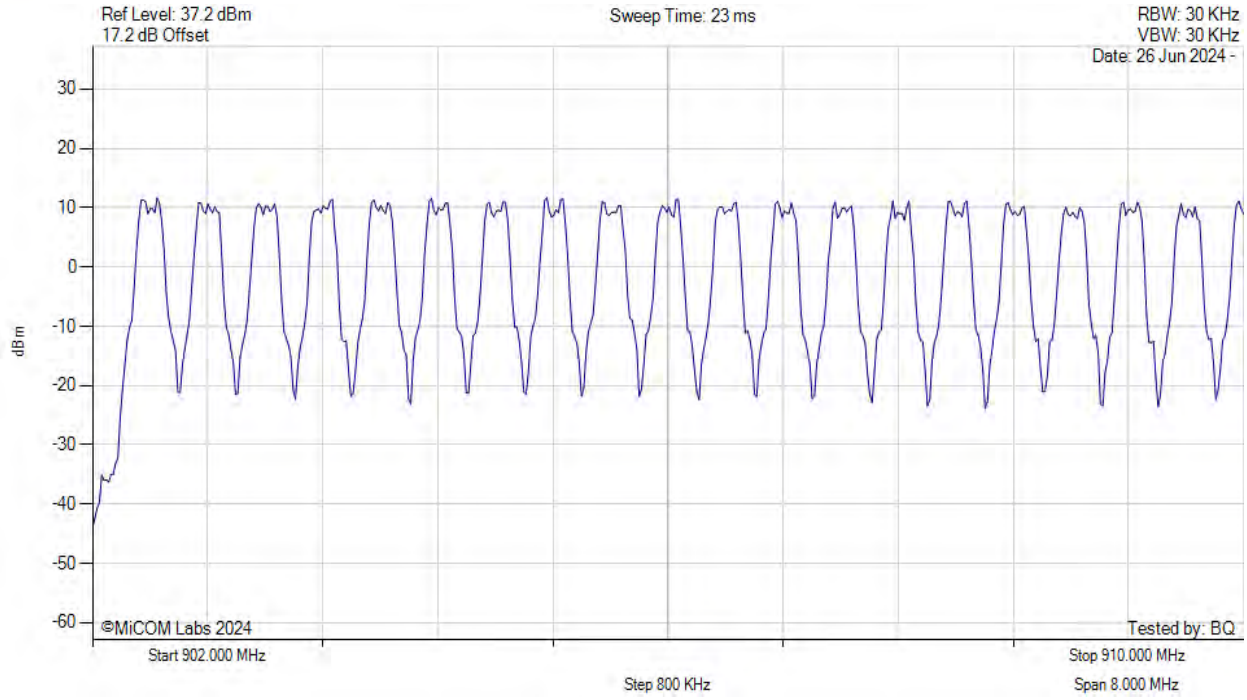


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

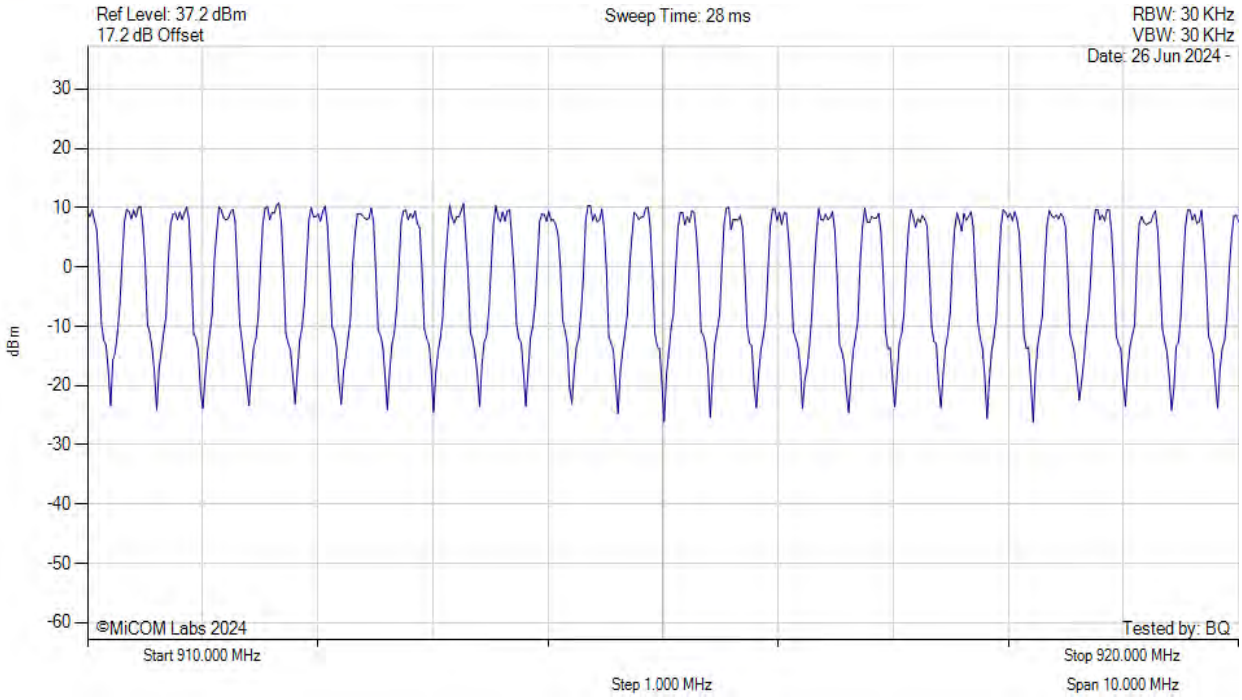


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

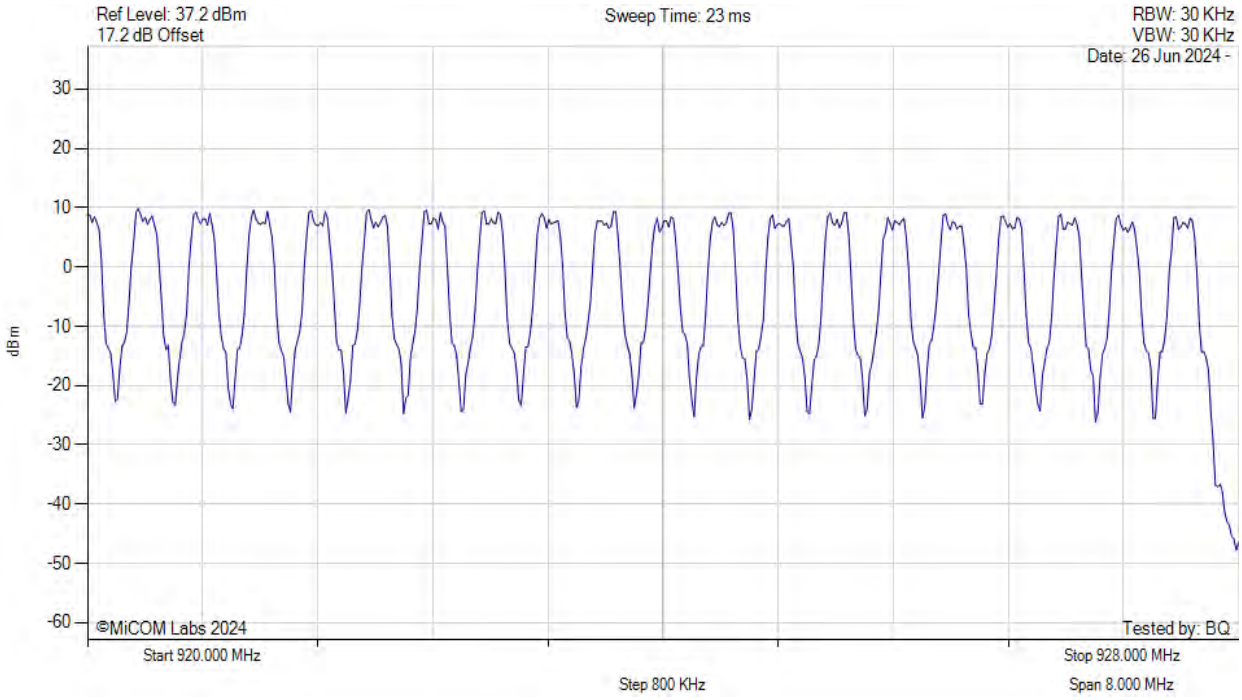


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

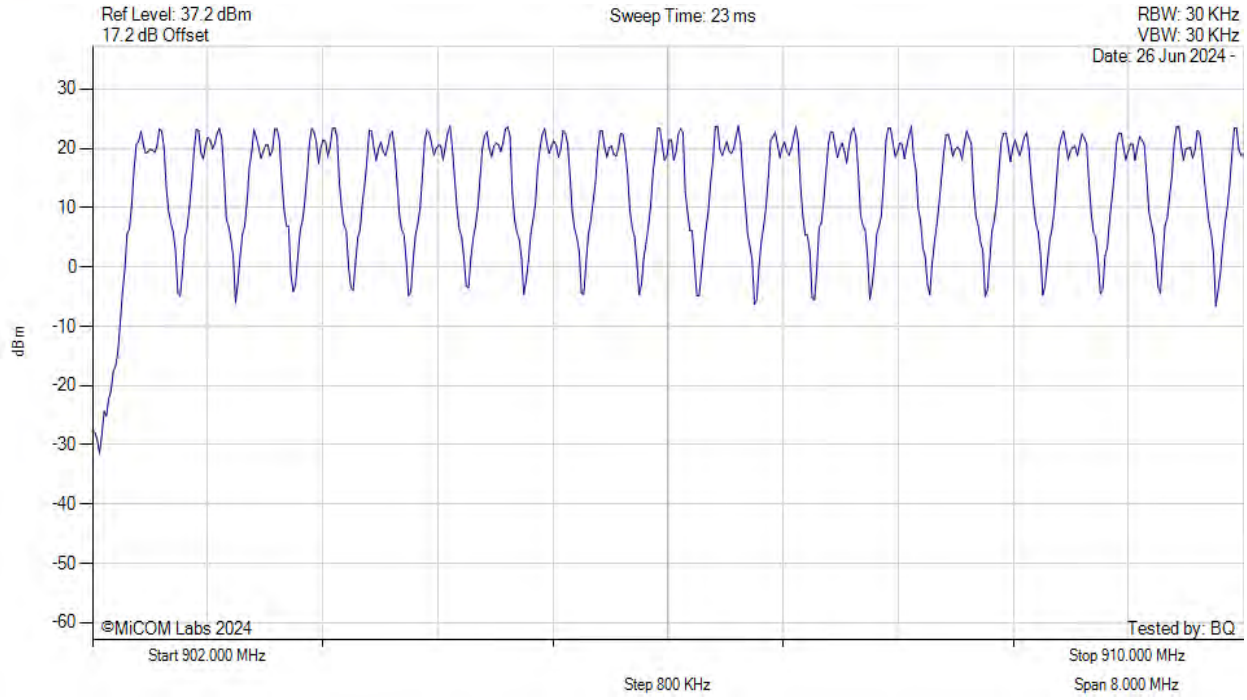


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

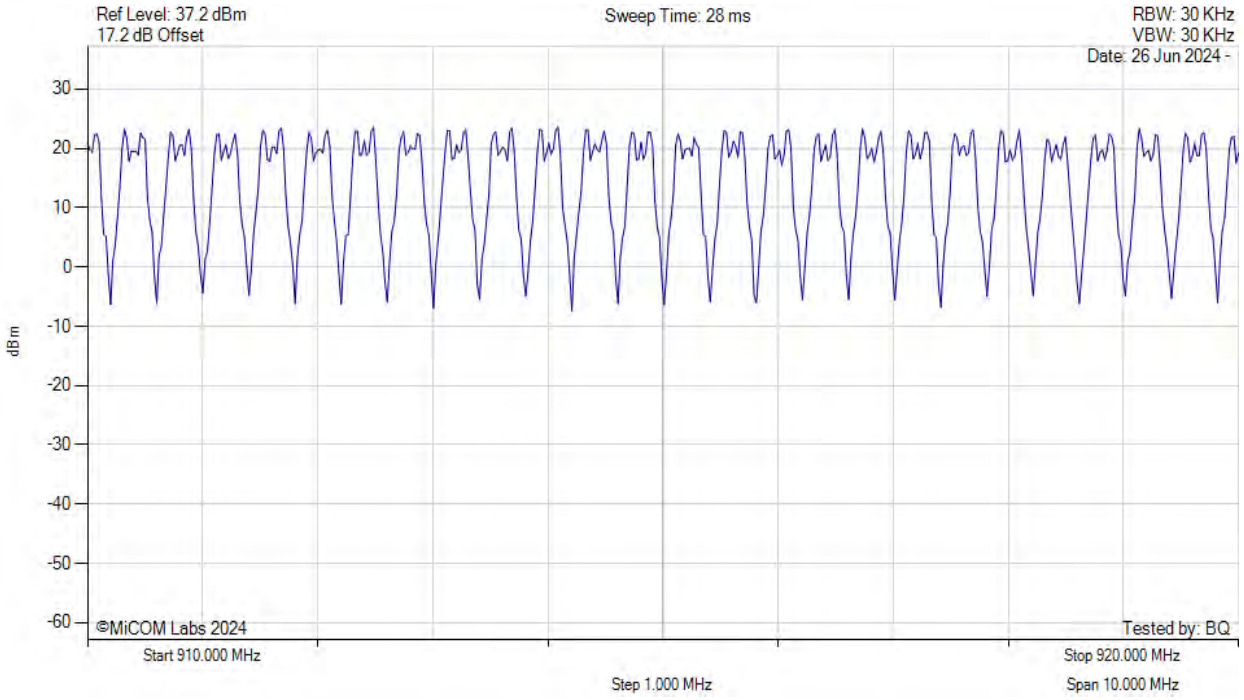


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

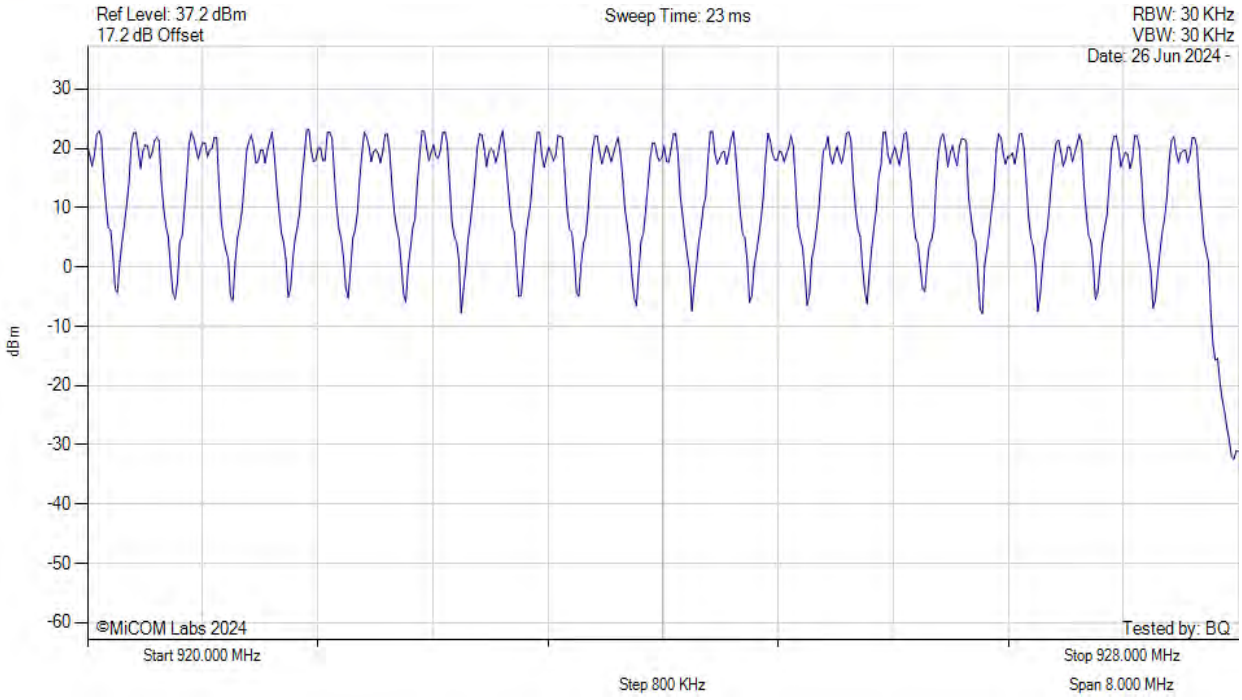


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

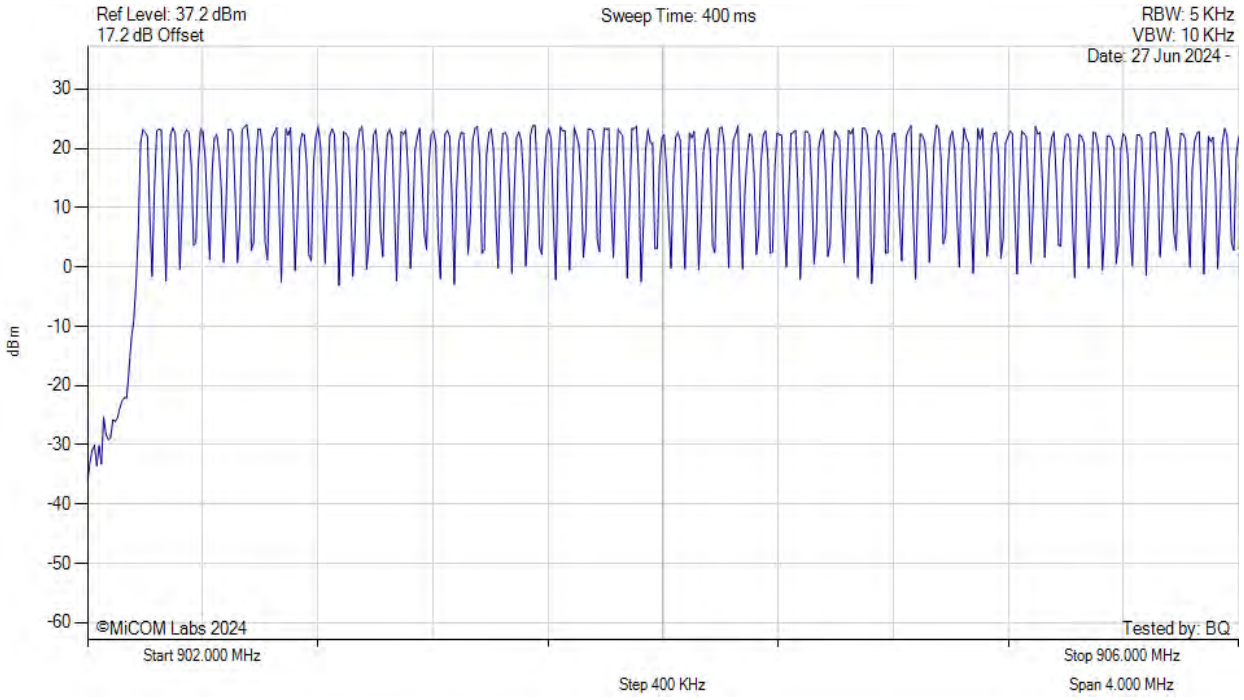


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

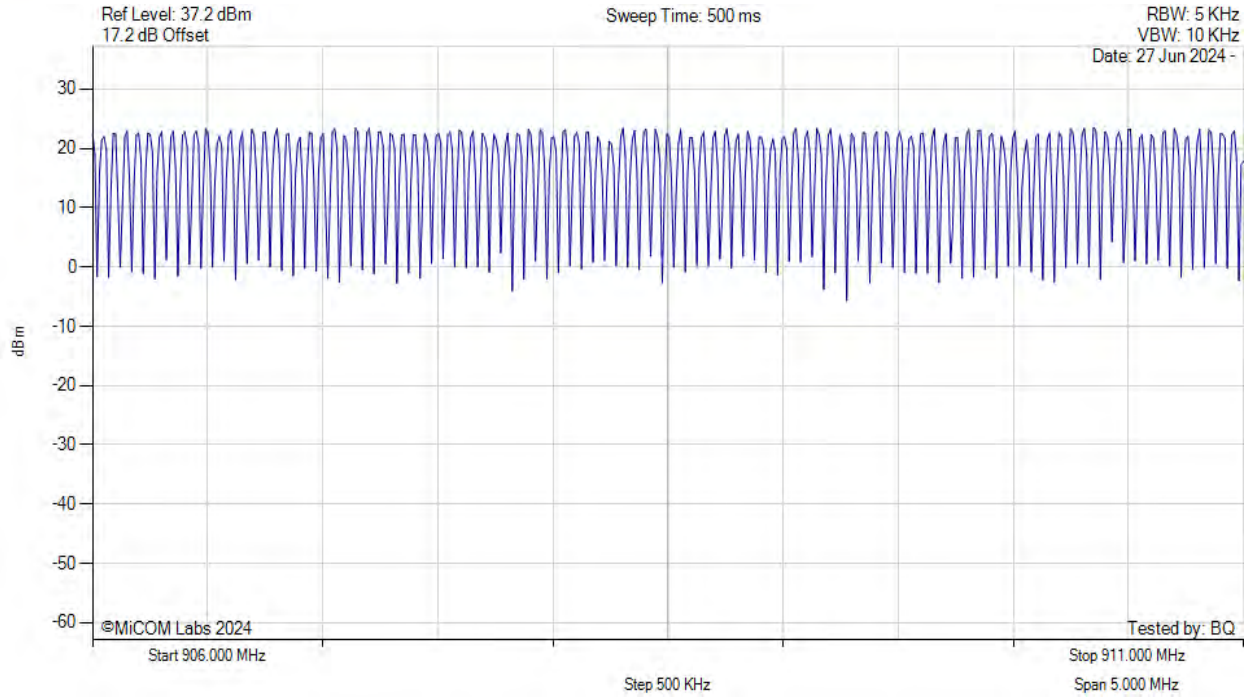


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

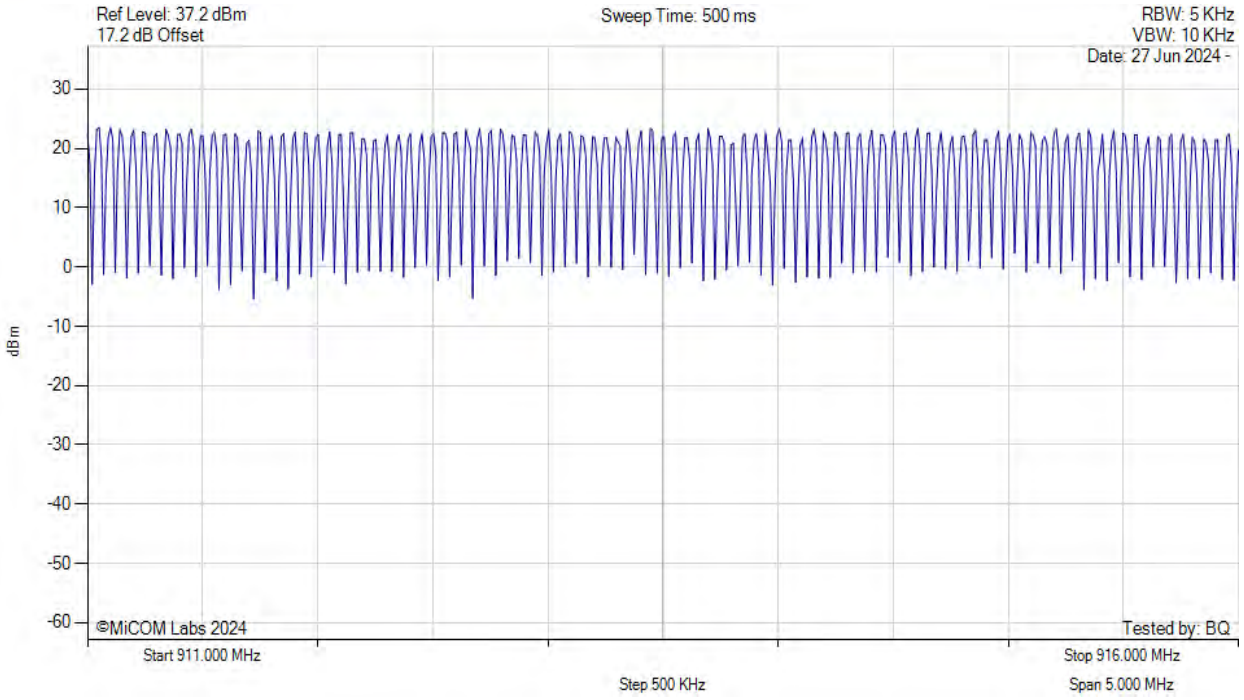


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

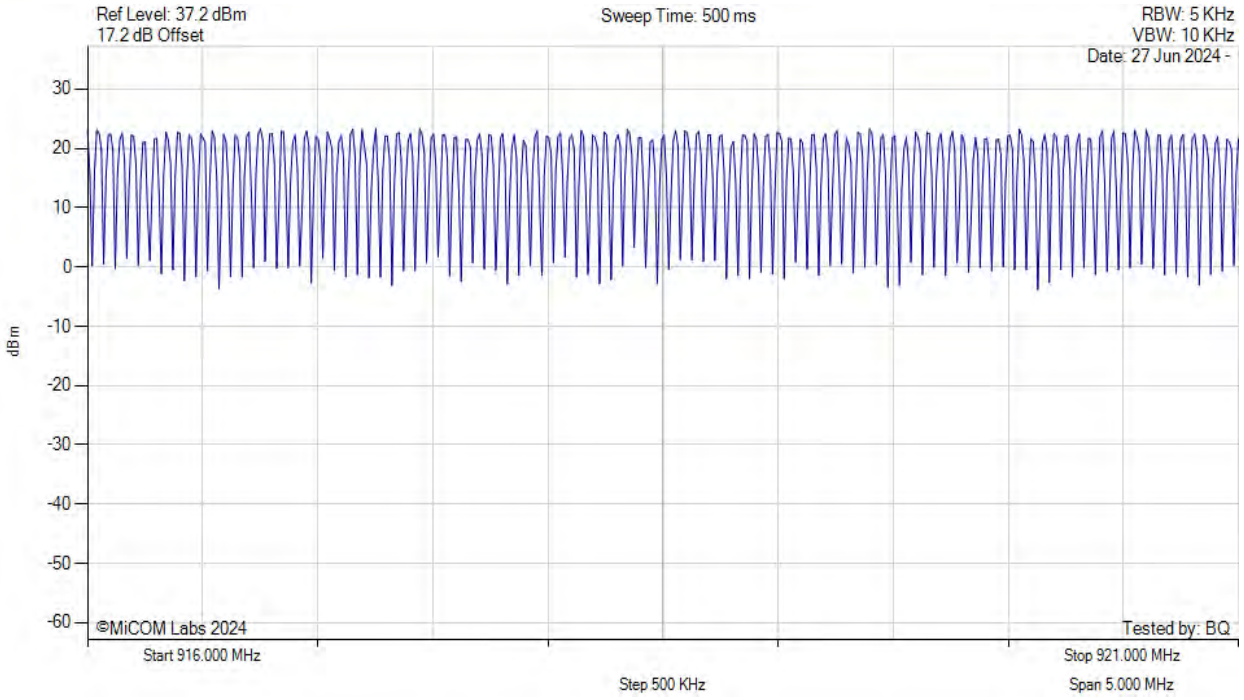


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

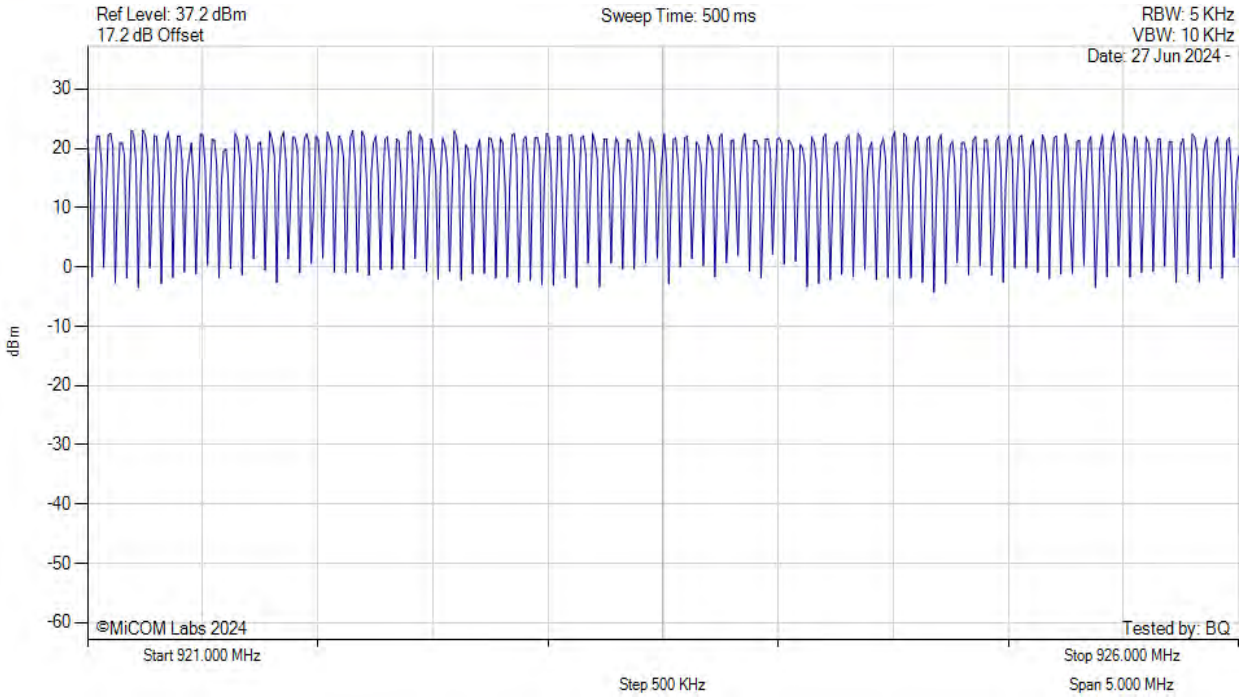


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

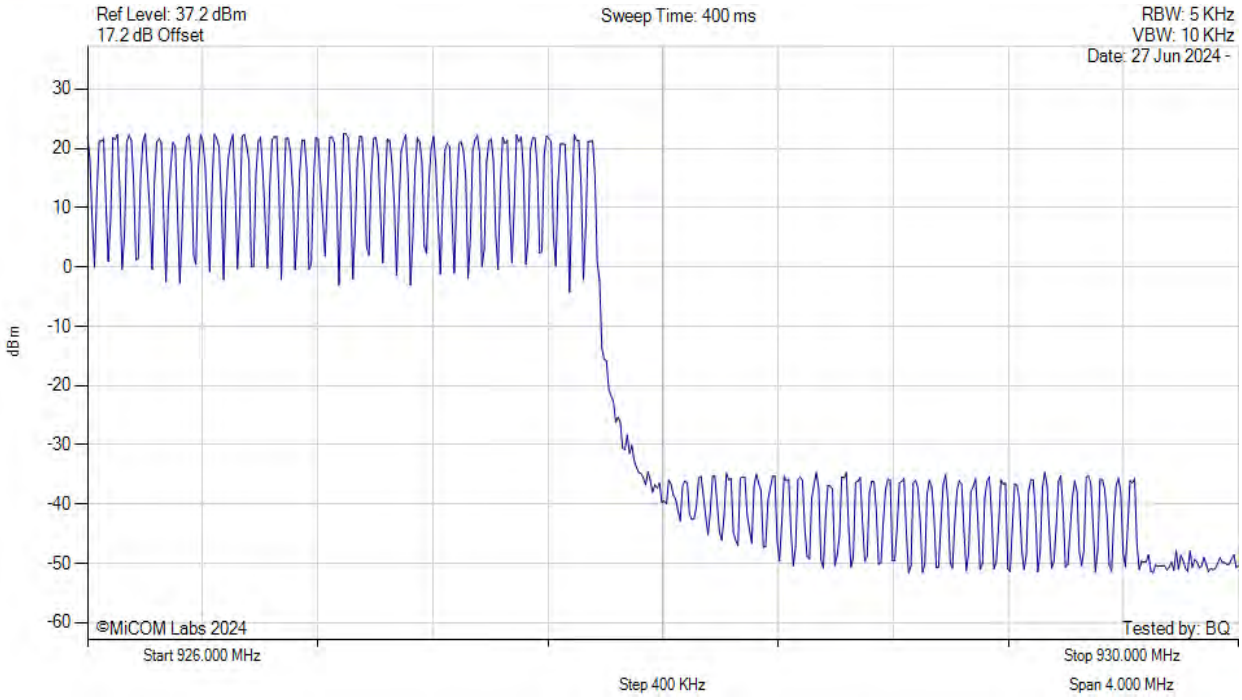


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 25kbps, PL 3 (FHSS), Channel: 914.00 MHz, Chain a, Temp: 20

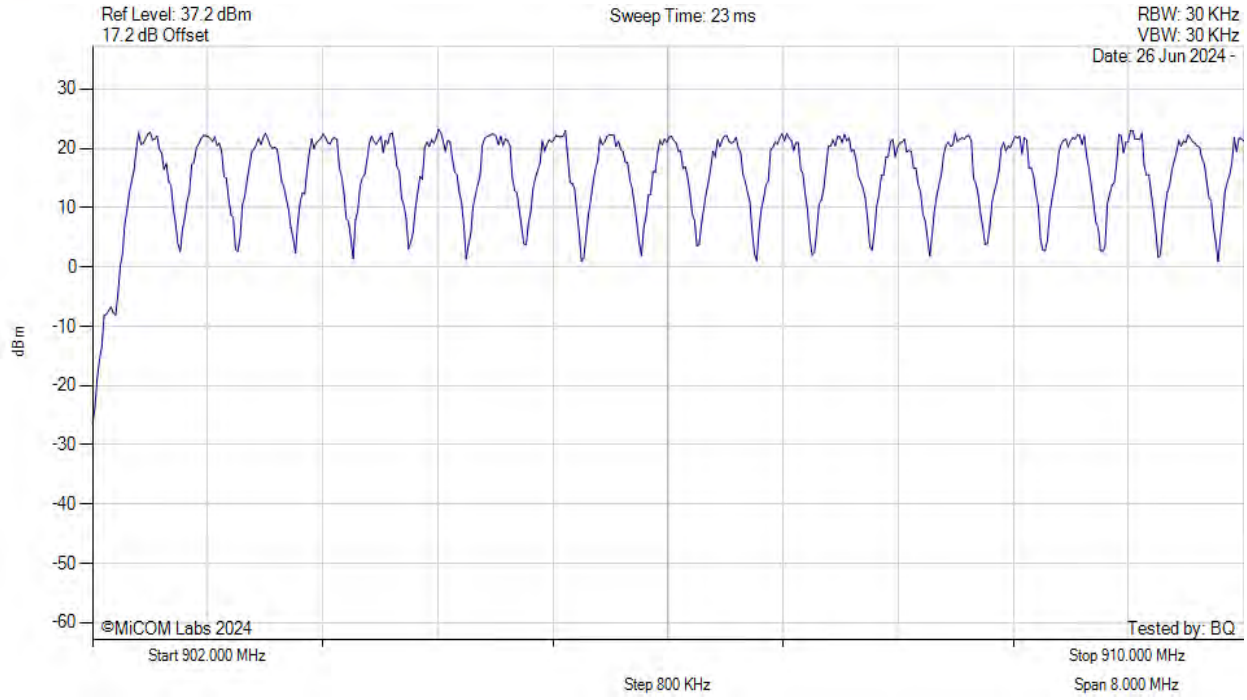


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 914.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

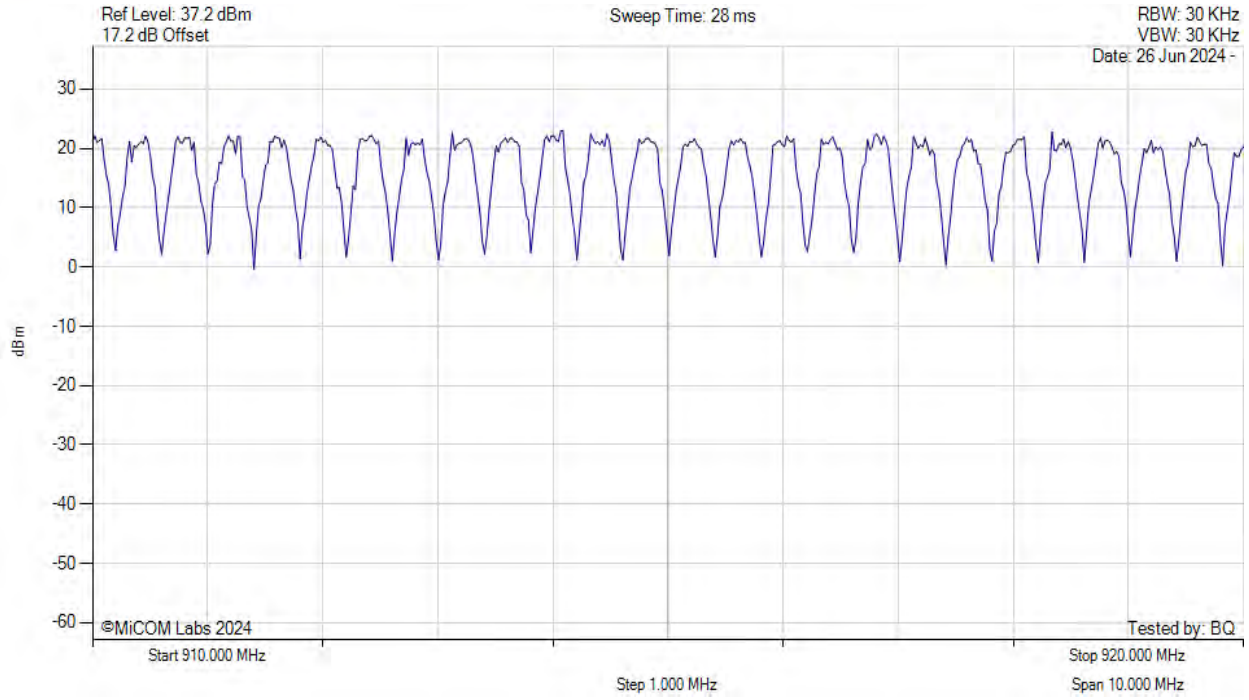


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

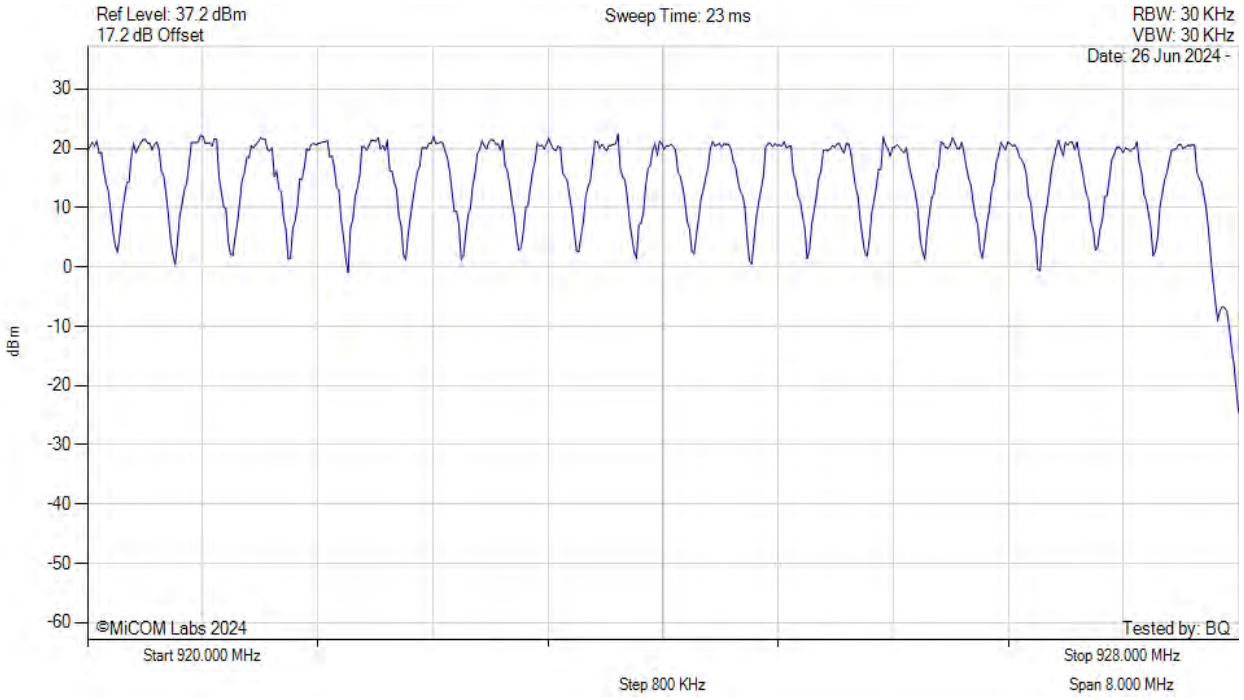


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

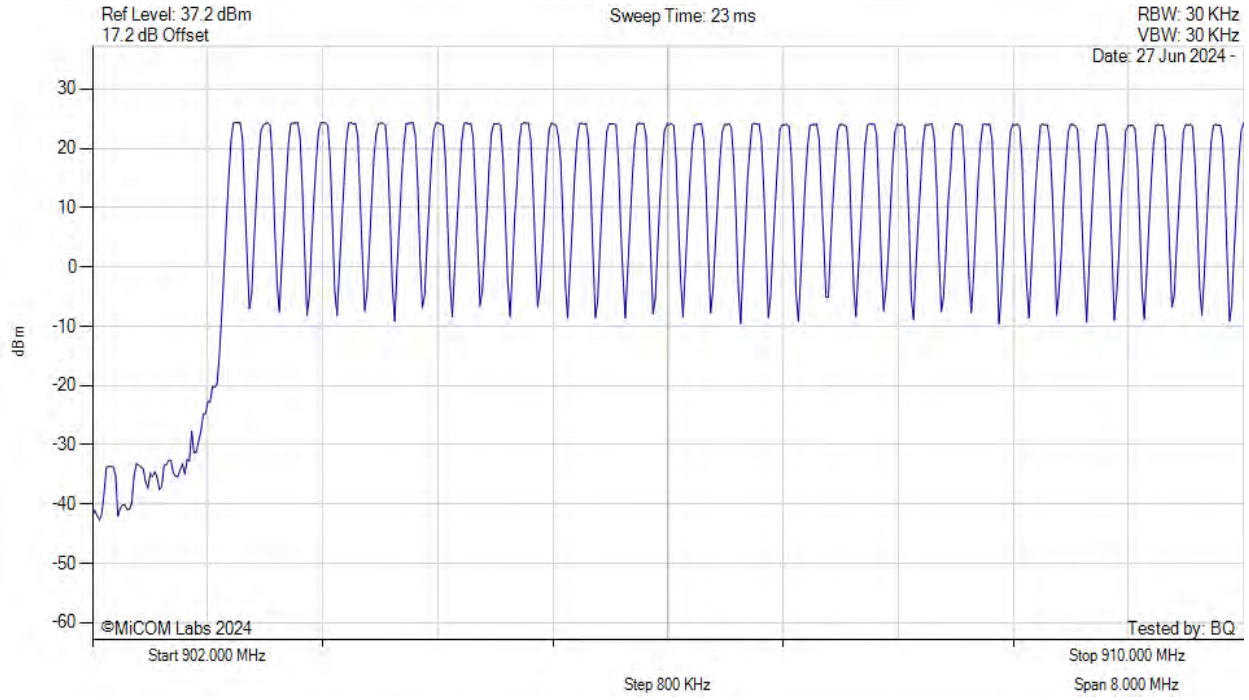


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

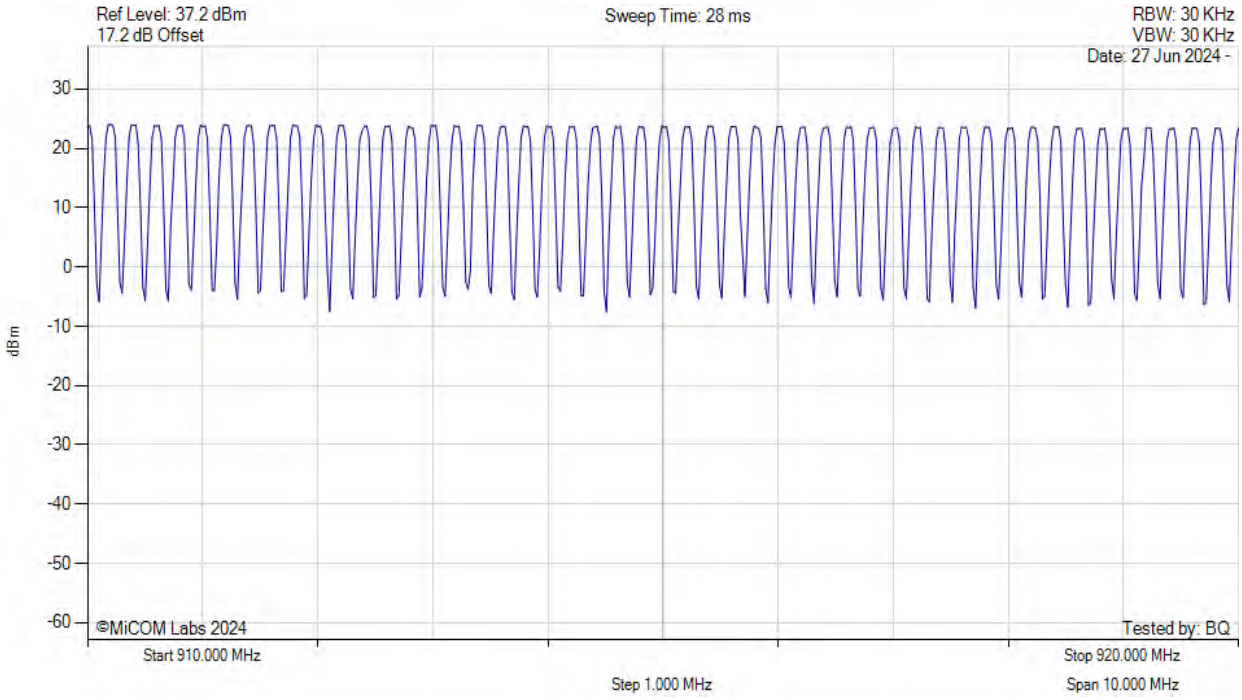


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

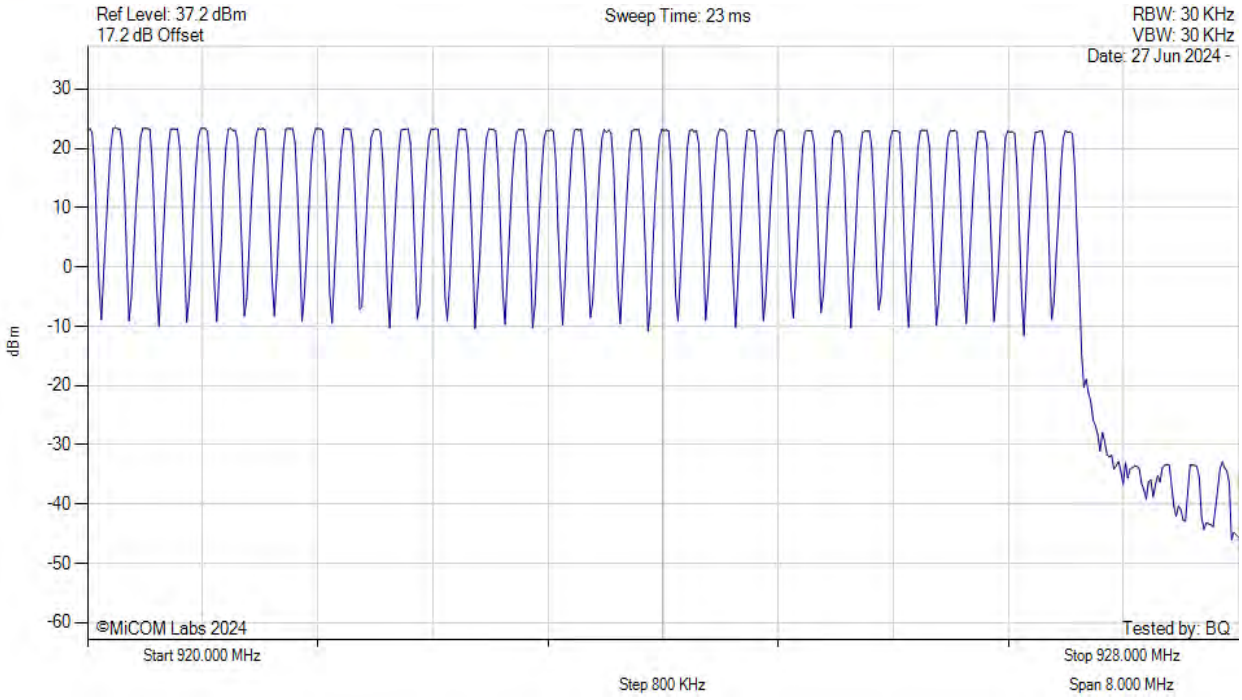


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

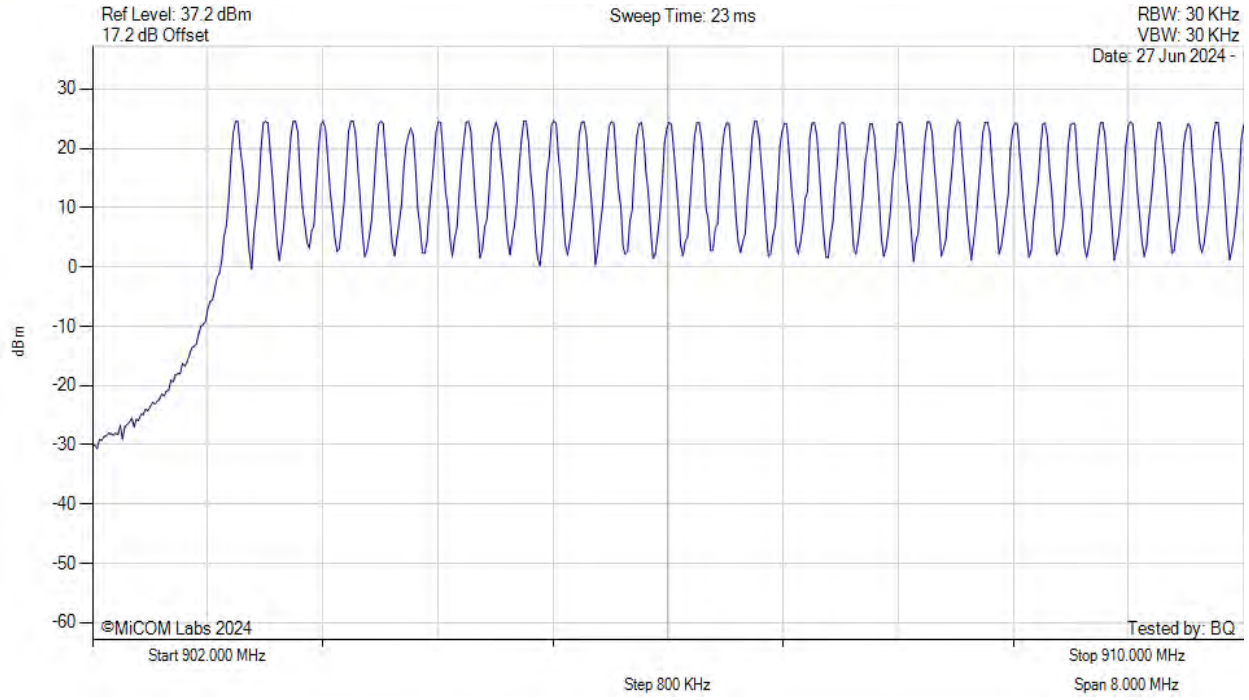


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

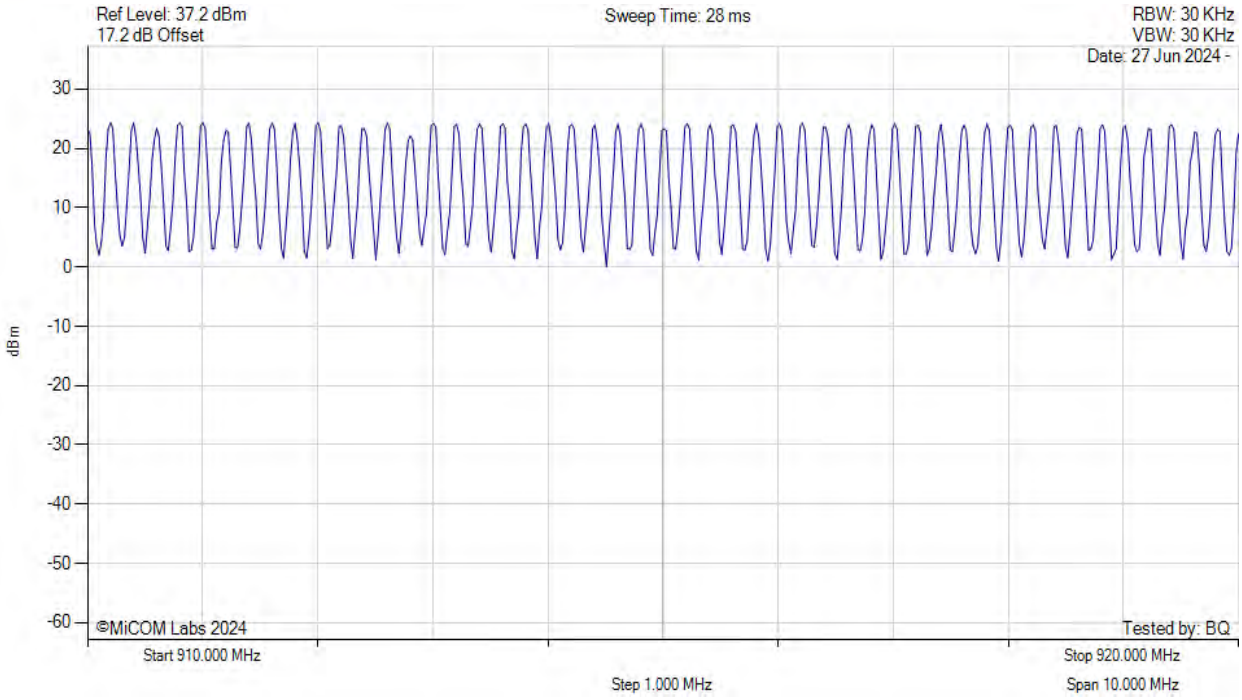


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

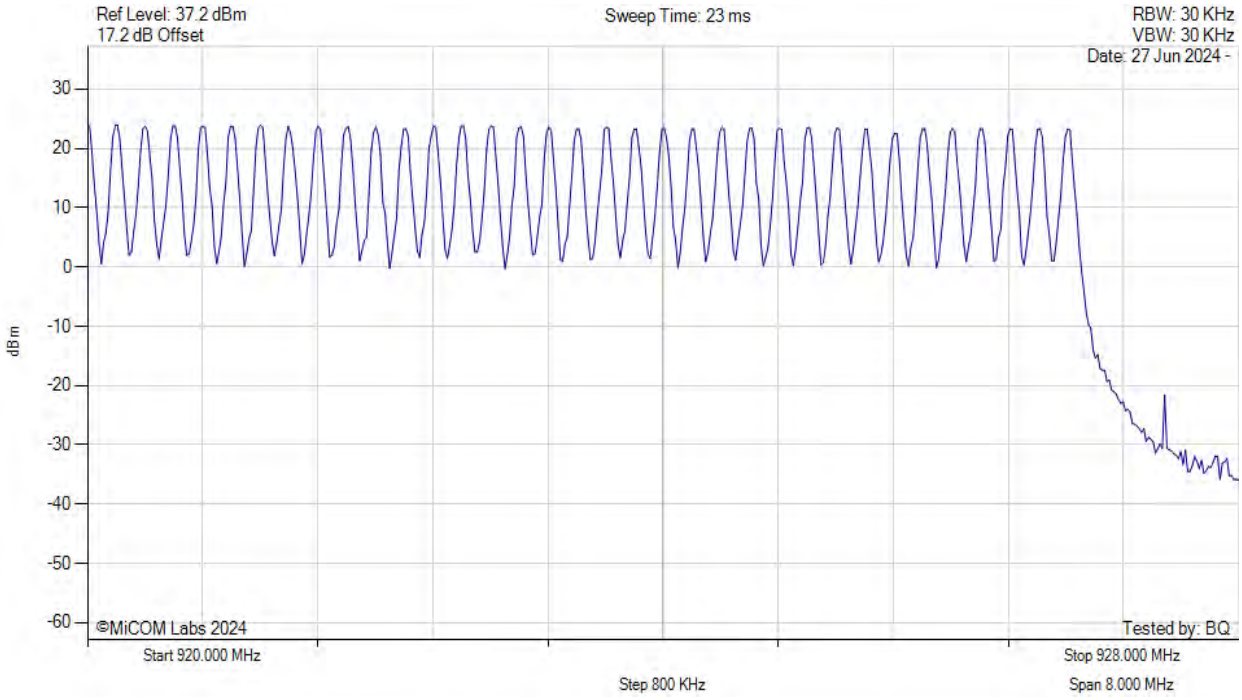


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

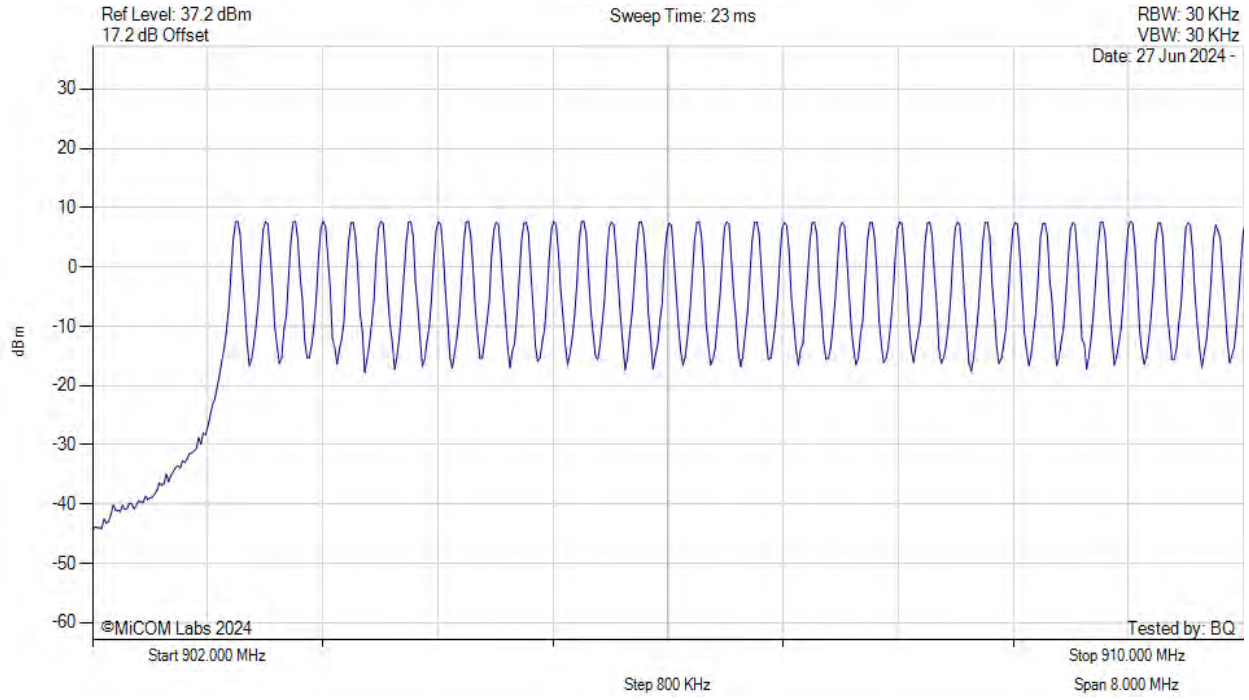


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20

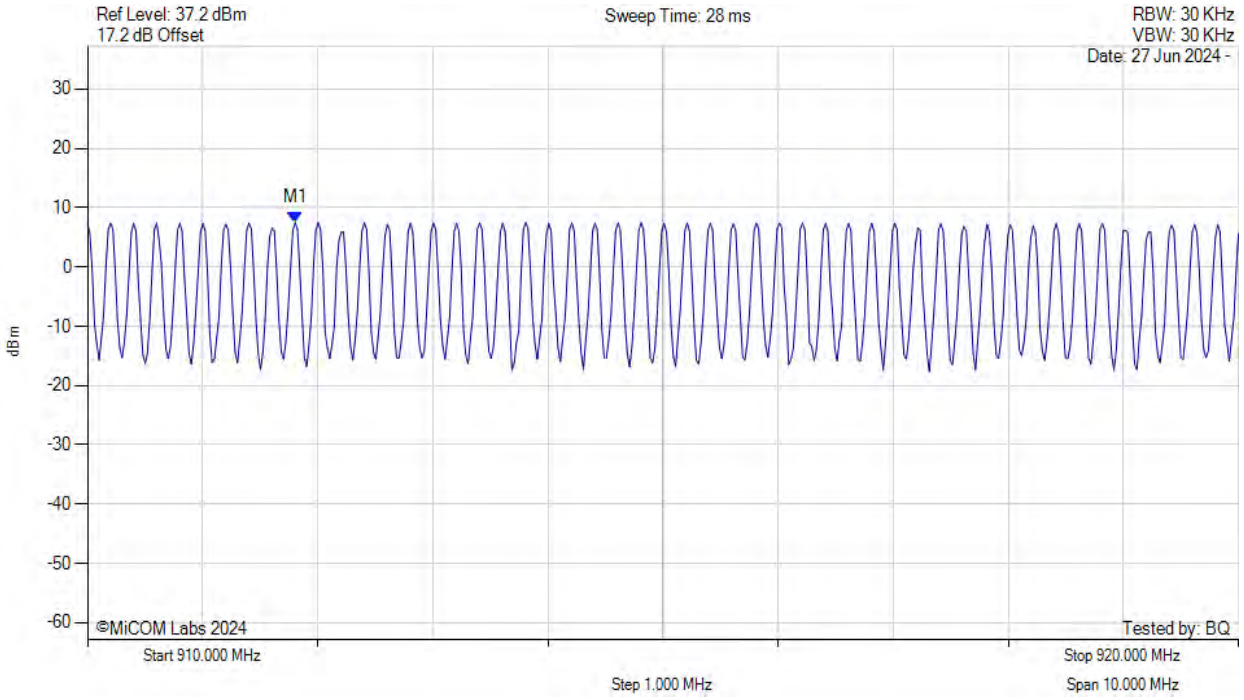


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20

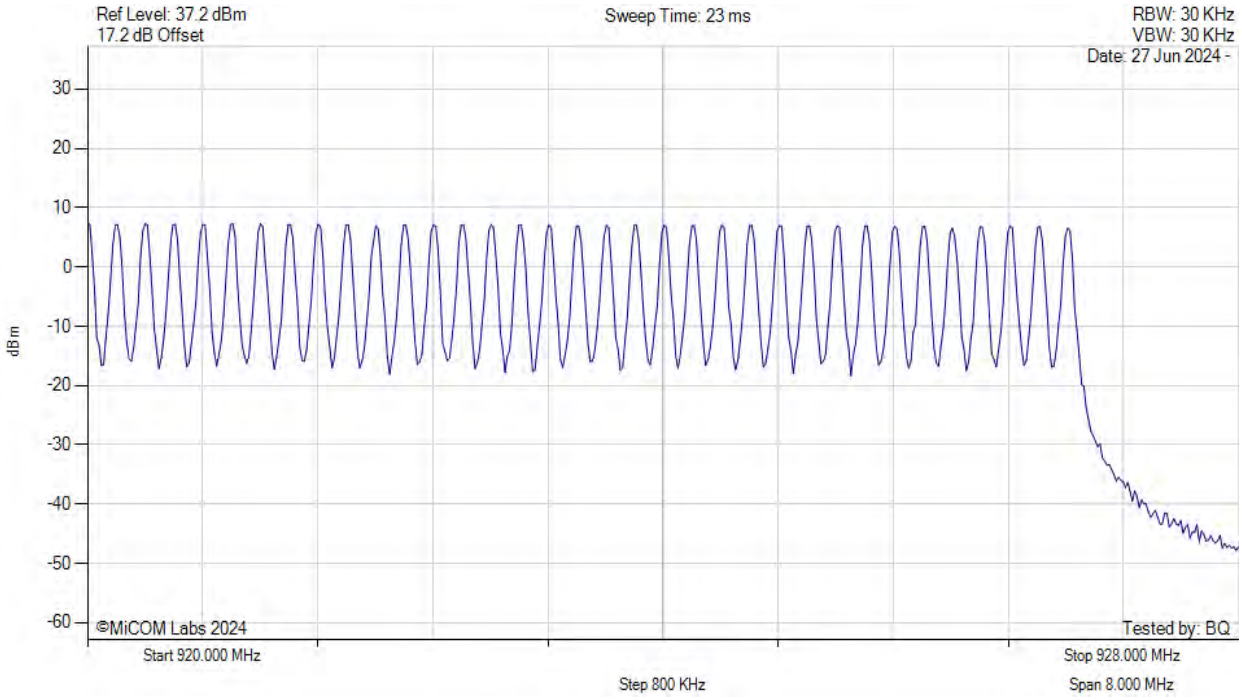


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 911.804 MHz : 7.487 dBm	Channel Frequency: 915.00 MHz

back to matrix

NUMBER OF HOPPING CHANNELS

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20



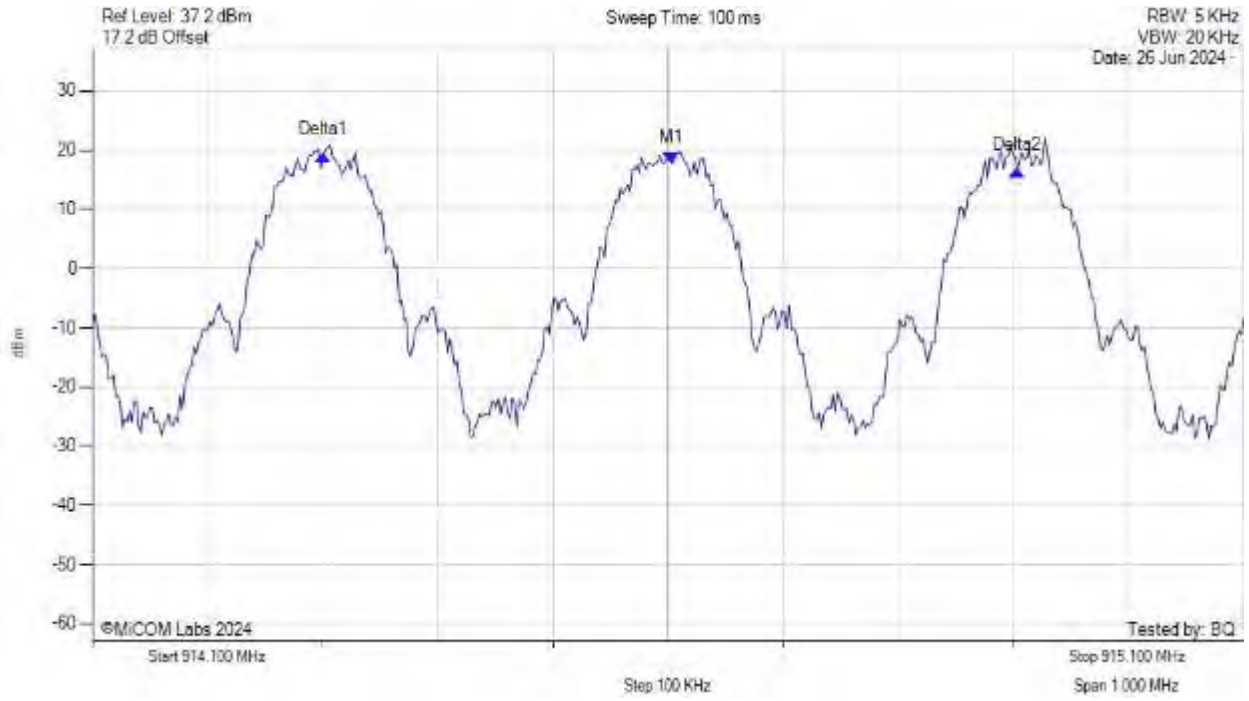
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

A.2.2. Channel Separation

CHANNEL SEPARATION

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20

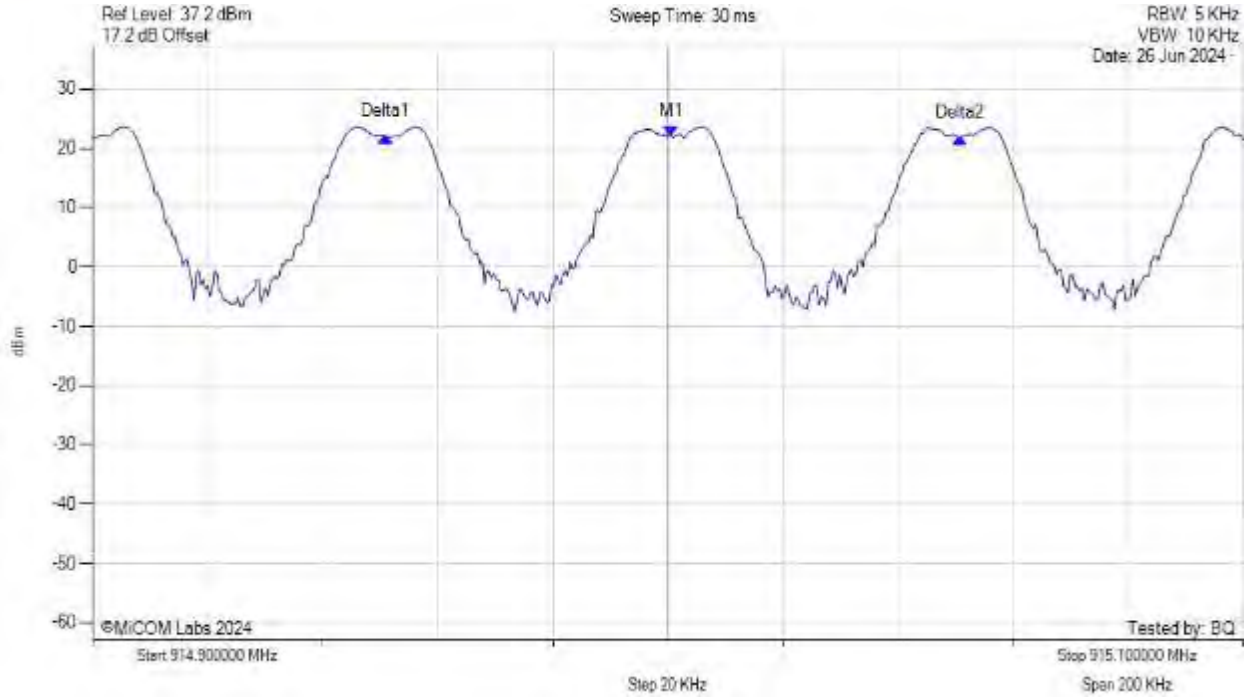


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 914.603 MHz : 17.833 dBm Delta1 : -302605 Hz : 1.361 dB Delta2 : 301 KHz : -1.226 dB	Channel Frequency: 914.60 MHz

back to matrix

CHANNEL SEPARATION

Variant: 10kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

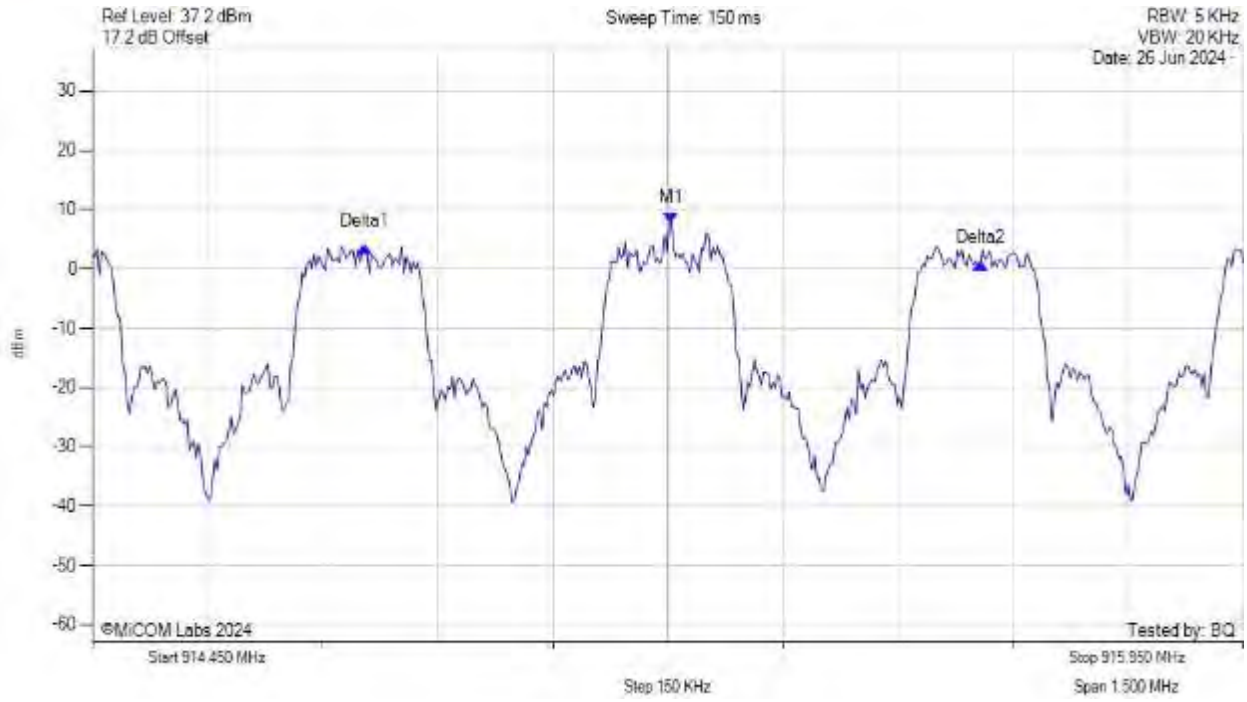


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.001 MHz : 22.014 dBm Delta1 : -49699 Hz : 0.012 dB Delta2 : 50 KHz : -0.252 dB	Channel Frequency: 915.00 MHz

back to matrix

CHANNEL SEPARATION

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

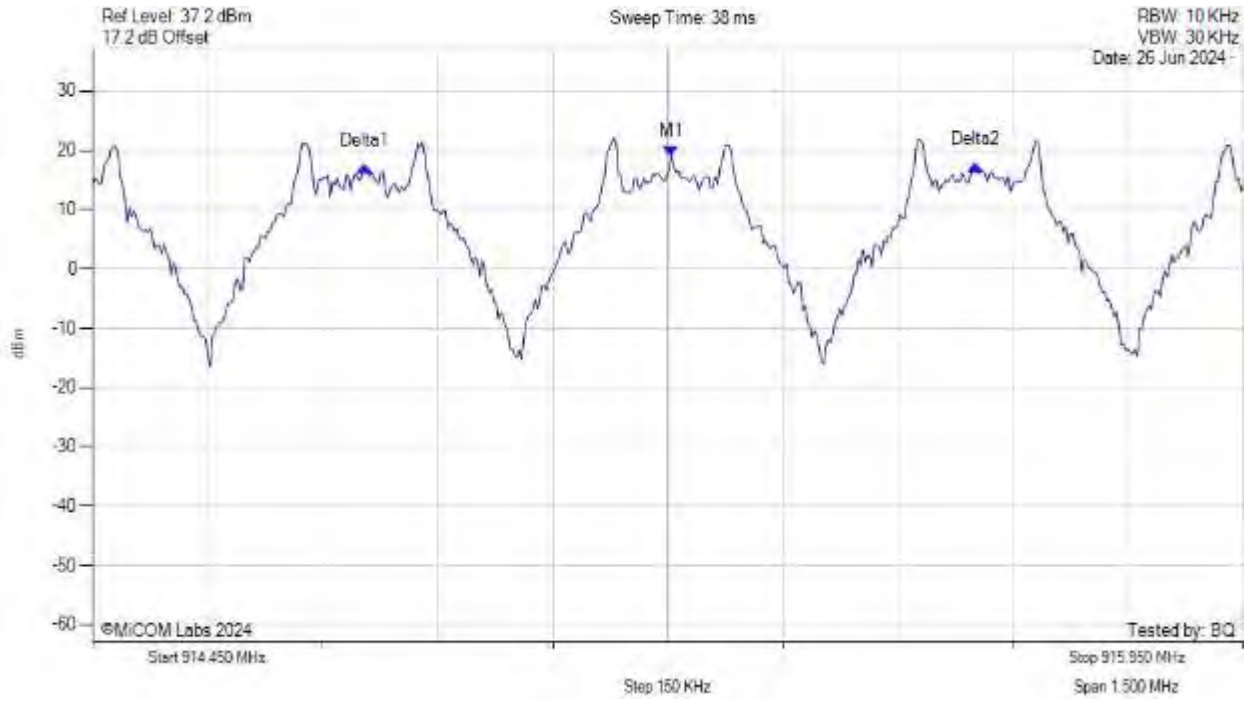


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.205 MHz : 7.798 dBm Delta1 : -399800 Hz : -4.051 dB Delta2 : 403 KHz : -6.870 dB	Channel Frequency: 915.20 MHz

back to matrix

CHANNEL SEPARATION

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

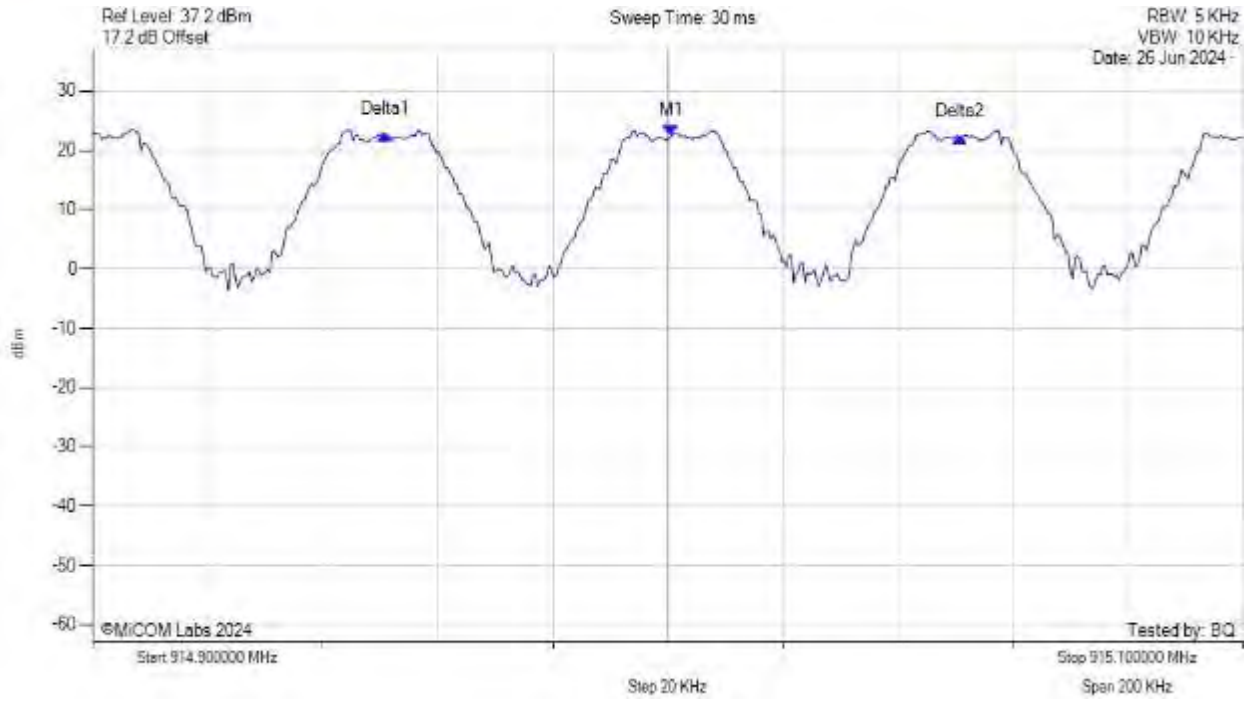


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.205 MHz : 19.006 dBm Delta1 : -399800 Hz : -1.619 dB Delta2 : 397 KHz : -1.535 dB	Channel Frequency: 915.20 MHz

back to matrix

CHANNEL SEPARATION

Variant: 25kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

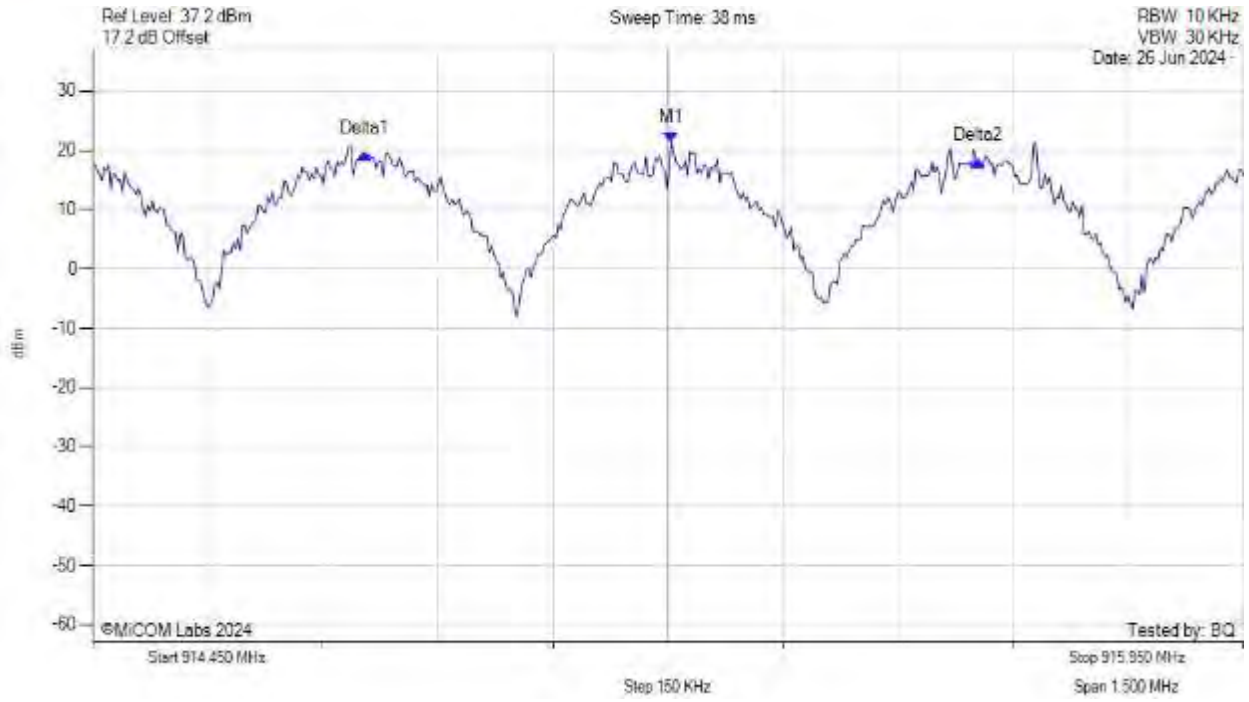


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.001 MHz : 22.425 dBm Delta1 : -49699 Hz : 0.287 dB Delta2 : 50 KHz : -0.114 dB	Channel Frequency: 915.00 MHz

back to matrix

CHANNEL SEPARATION

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

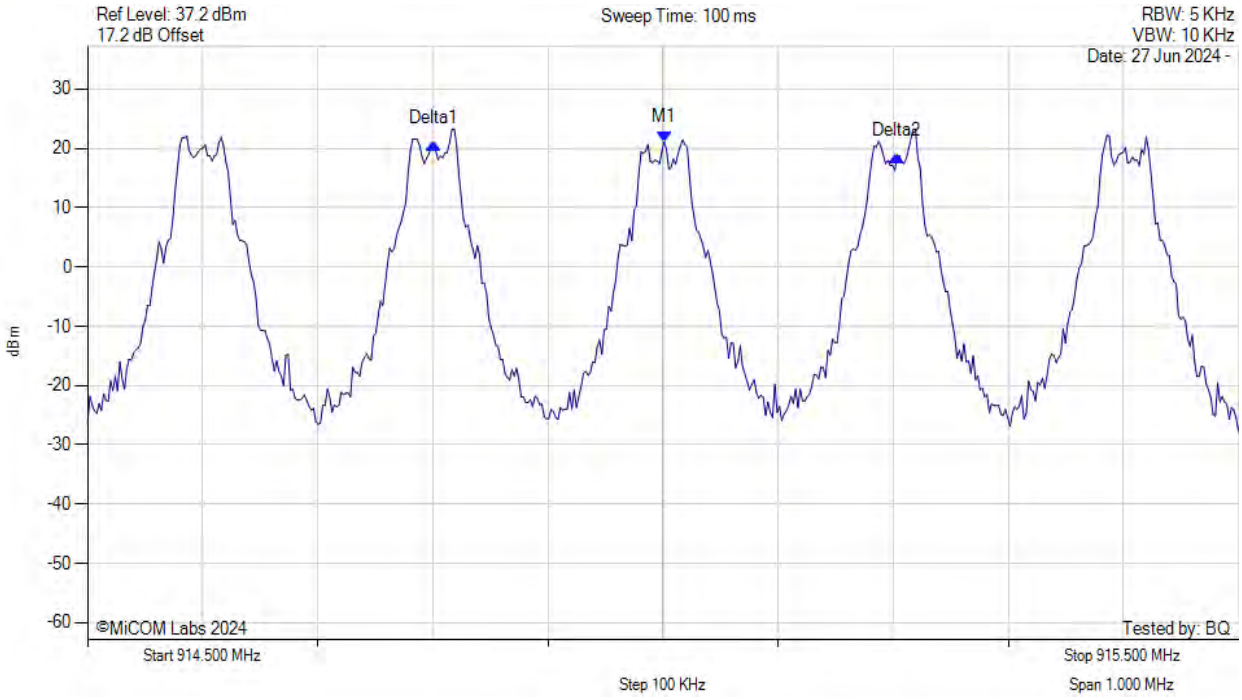


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.205 MHz : 21.182 dBm Delta1 : -399800 Hz : -1.763 dB Delta2 : 400 KHz : -2.965 dB	Channel Frequency: 915.20 MHz

back to matrix

CHANNEL SEPARATION

Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

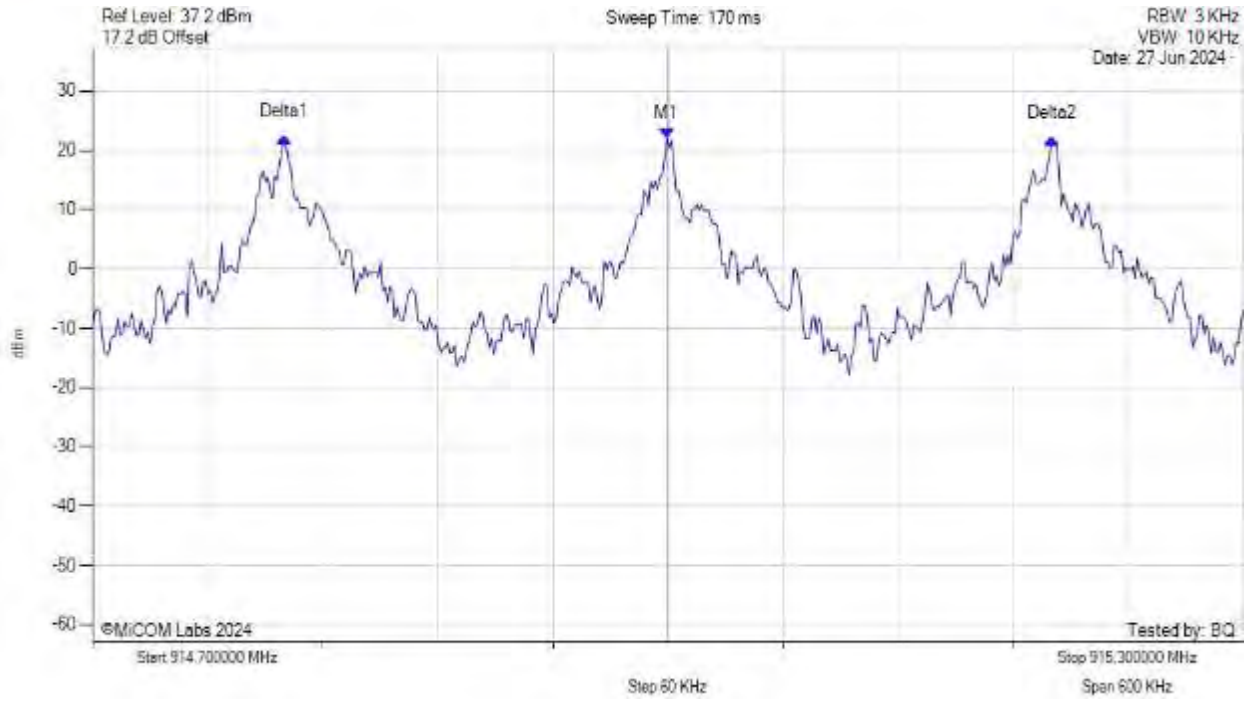


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.001 MHz : 21.127 dBm Delta1 : -200401 Hz : -0.350 dB Delta2 : 202 KHz : -2.382 dB	Channel Frequency: 915.00 MHz

back to matrix

CHANNEL SEPARATION

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

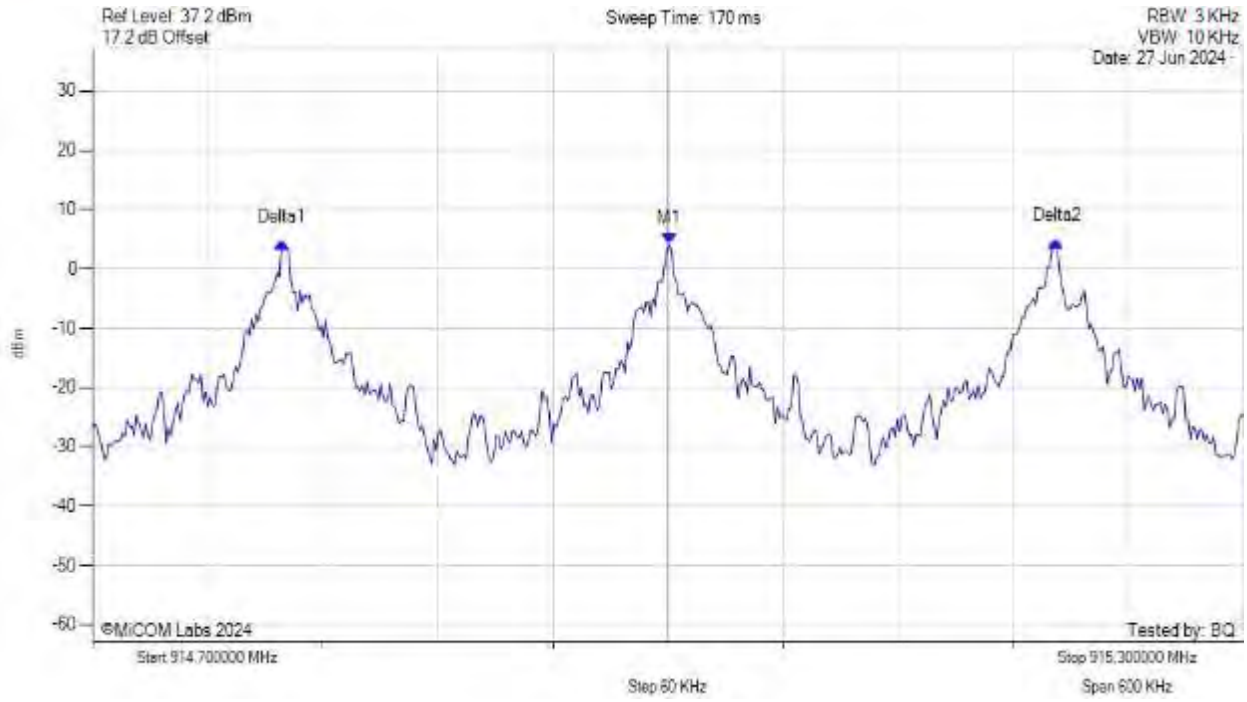


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 914.999 MHz : 21.953 dBm Delta1 : -199599 Hz : 0.177 dB Delta2 : 201 KHz : 0.022 dB	Channel Frequency: 915.00 MHz

back to matrix

CHANNEL SEPARATION

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20



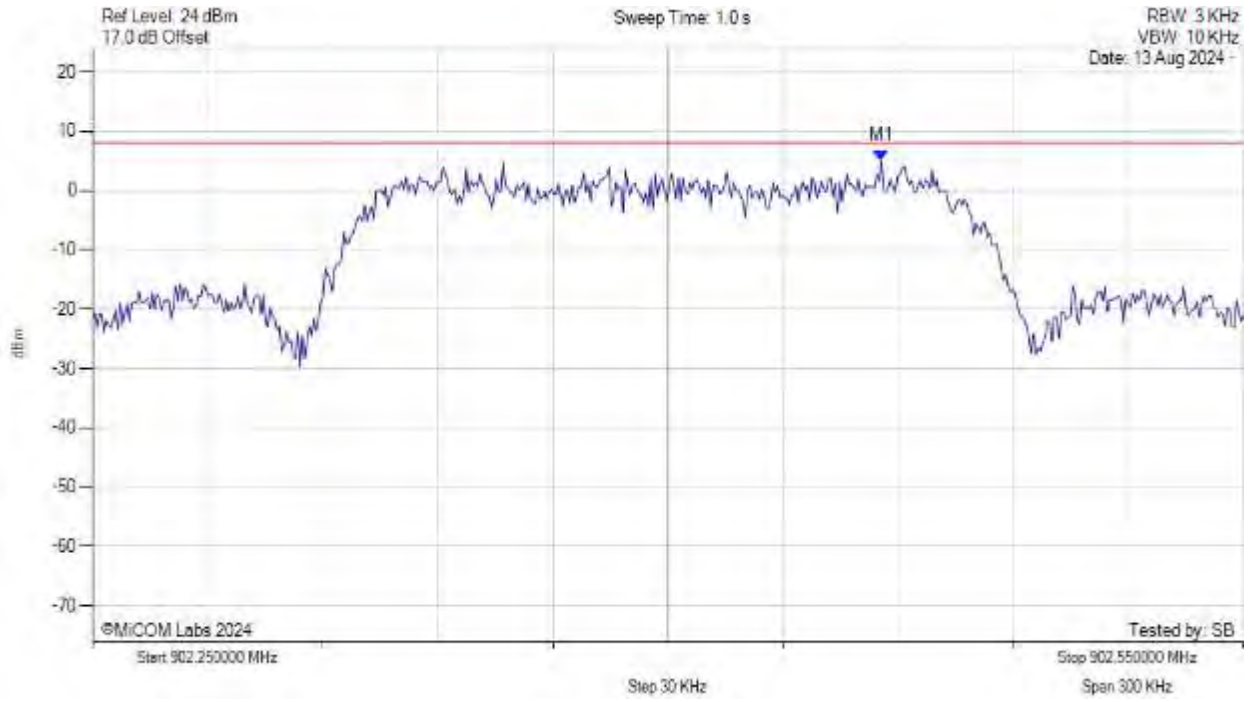
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.001 MHz : 4.133 dBm Delta1 : -202004 Hz : 0.407 dB Delta2 : 202 KHz : 0.571 dB	Channel Frequency: 915.00 MHz

back to matrix

A.3. Power Spectral Density

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

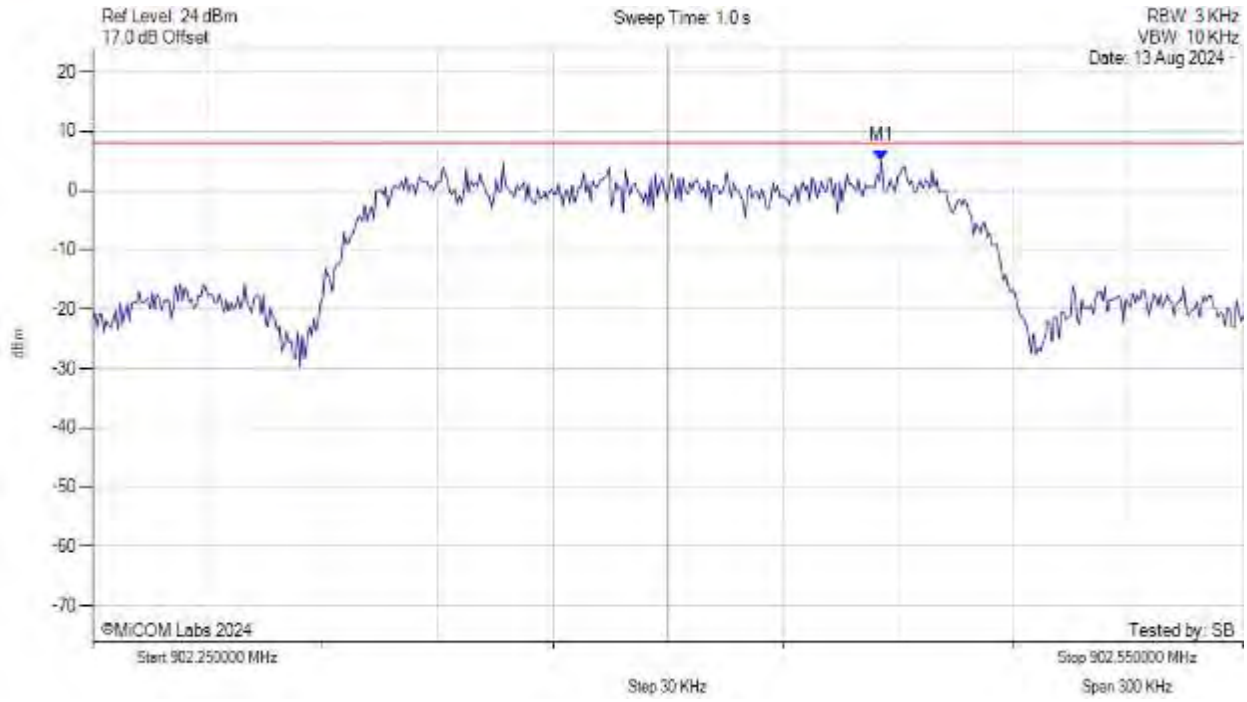


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 902.456 MHz : 4.954 dBm	Limit: ≤ 8.000 dBm Margin: -3.05 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc

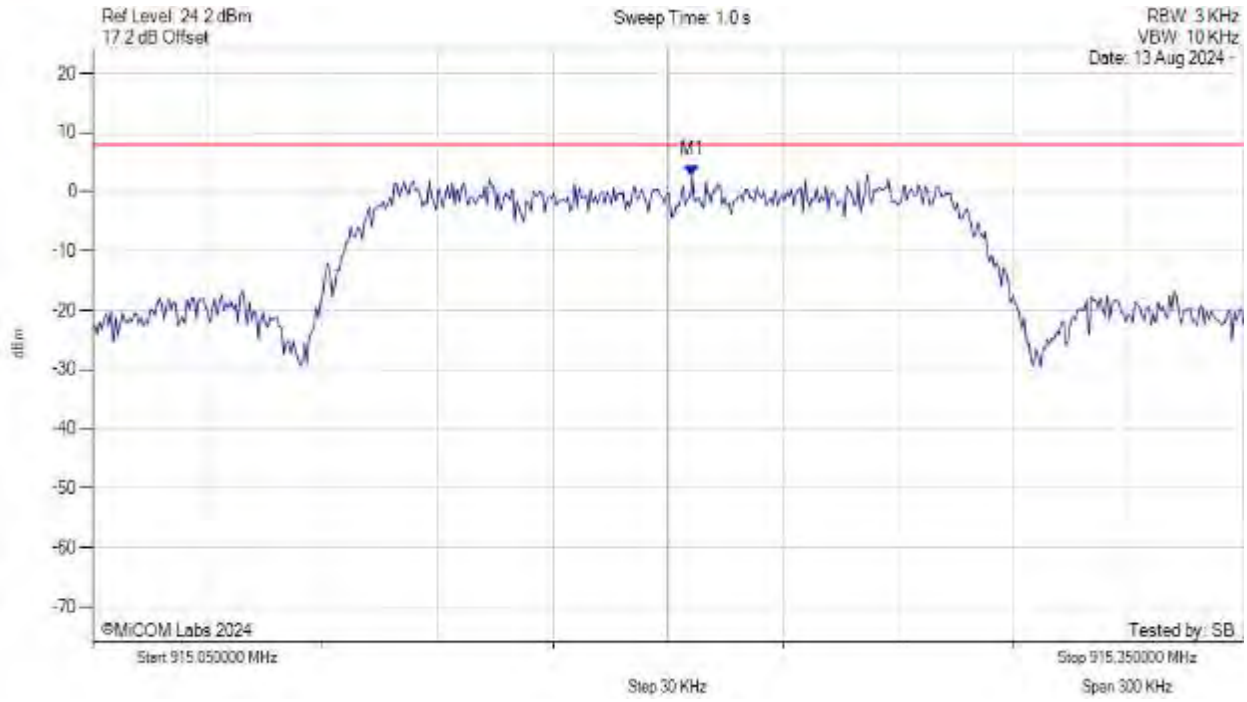


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 902.456 MHz : 4.954 dBm	Limit: ≤ 8.0 dBm Margin: -3.0 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

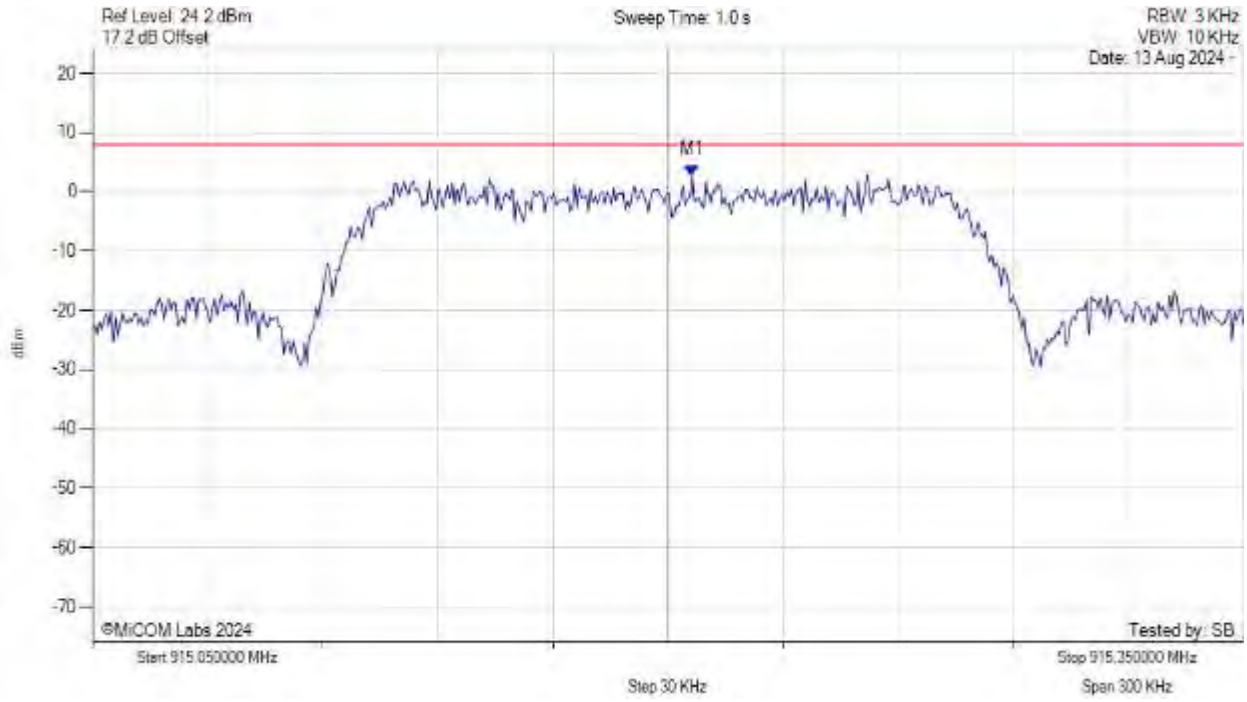


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 915.206 MHz : 2.791 dBm	Limit: ≤ 8.000 dBm Margin: -5.21 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc

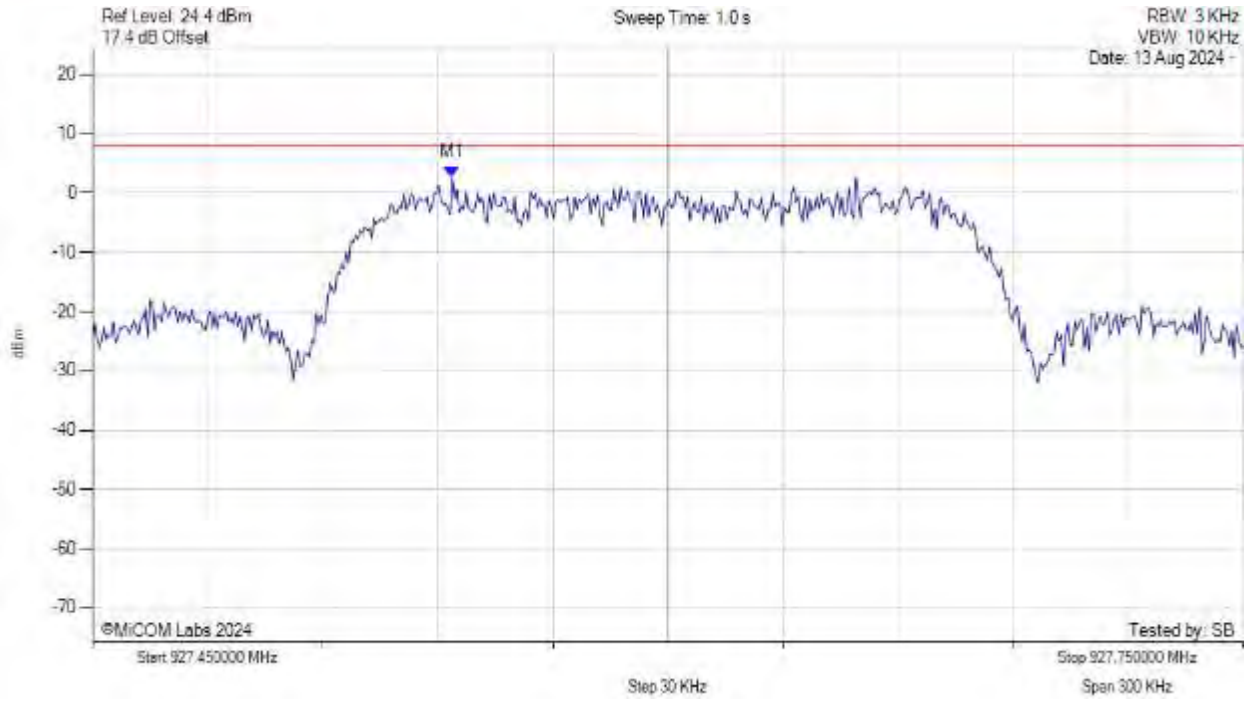


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 915.206 MHz : 2.791 dBm	Limit: ≤ 8.0 dBm Margin: -5.2 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

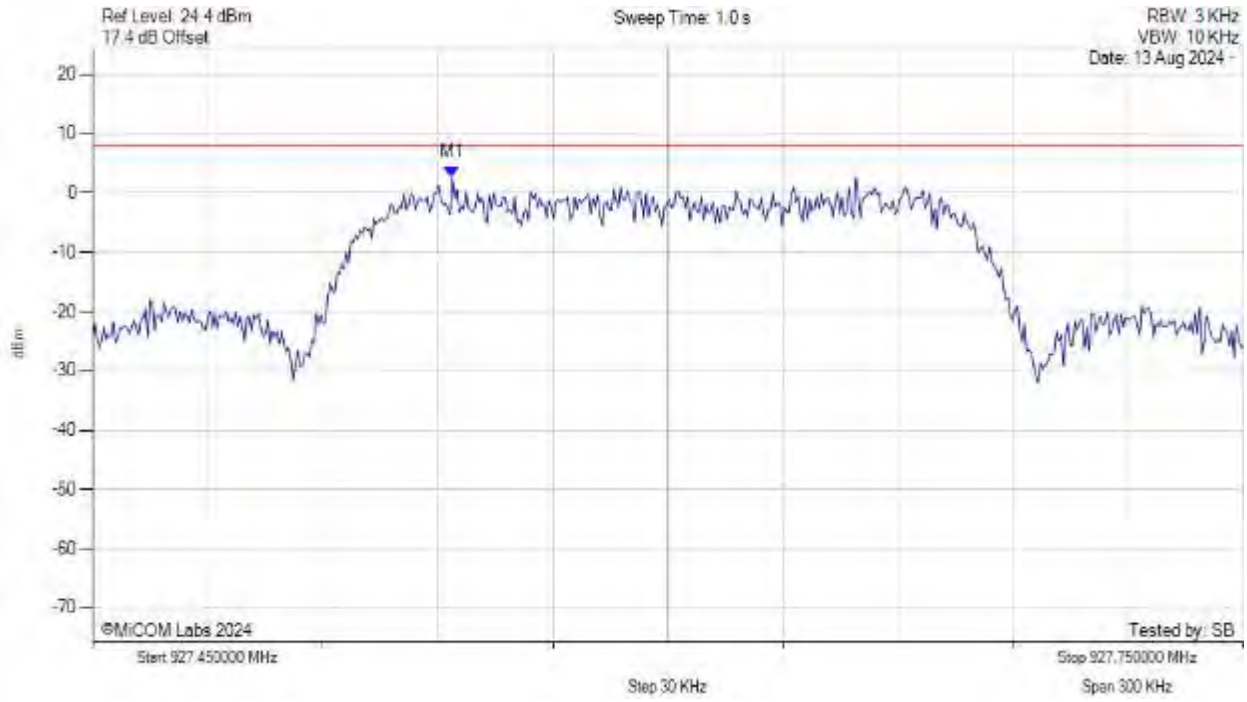


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 927.544 MHz : 2.621 dBm	Limit: ≤ 8.000 dBm Margin: -5.38 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc

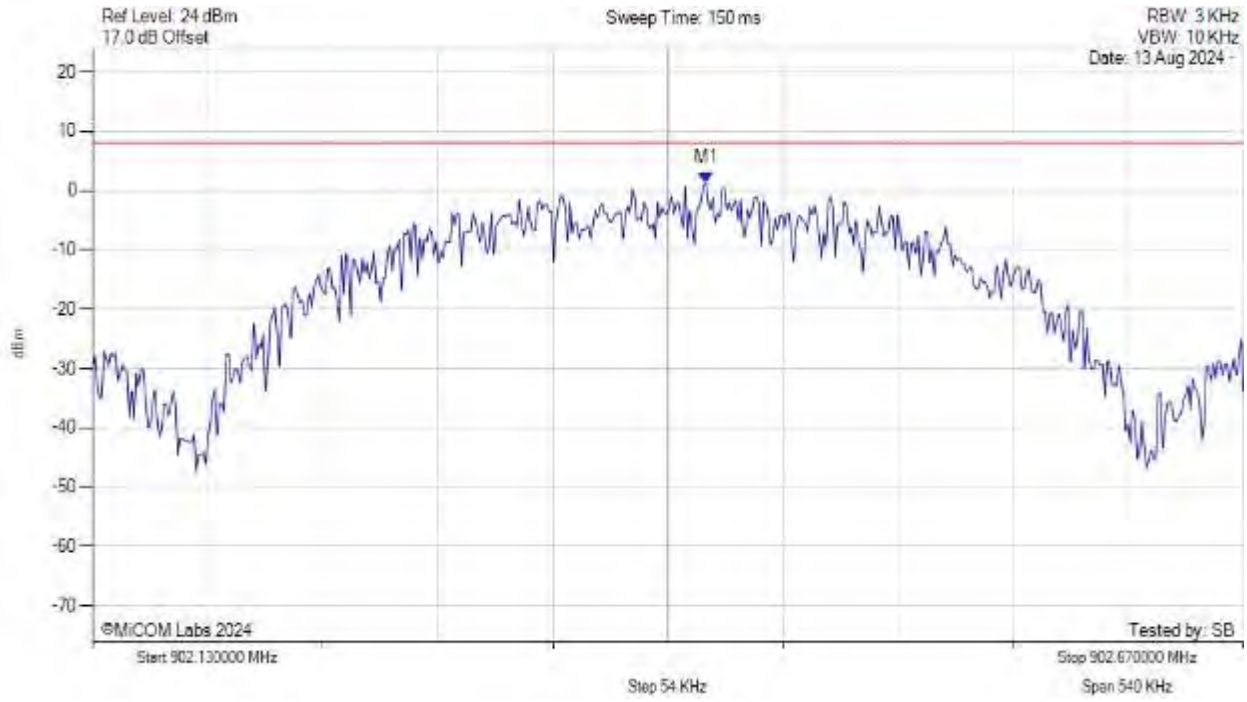


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 927.544 MHz : 2.621 dBm	Limit: ≤ 8.0 dBm Margin: -5.4 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

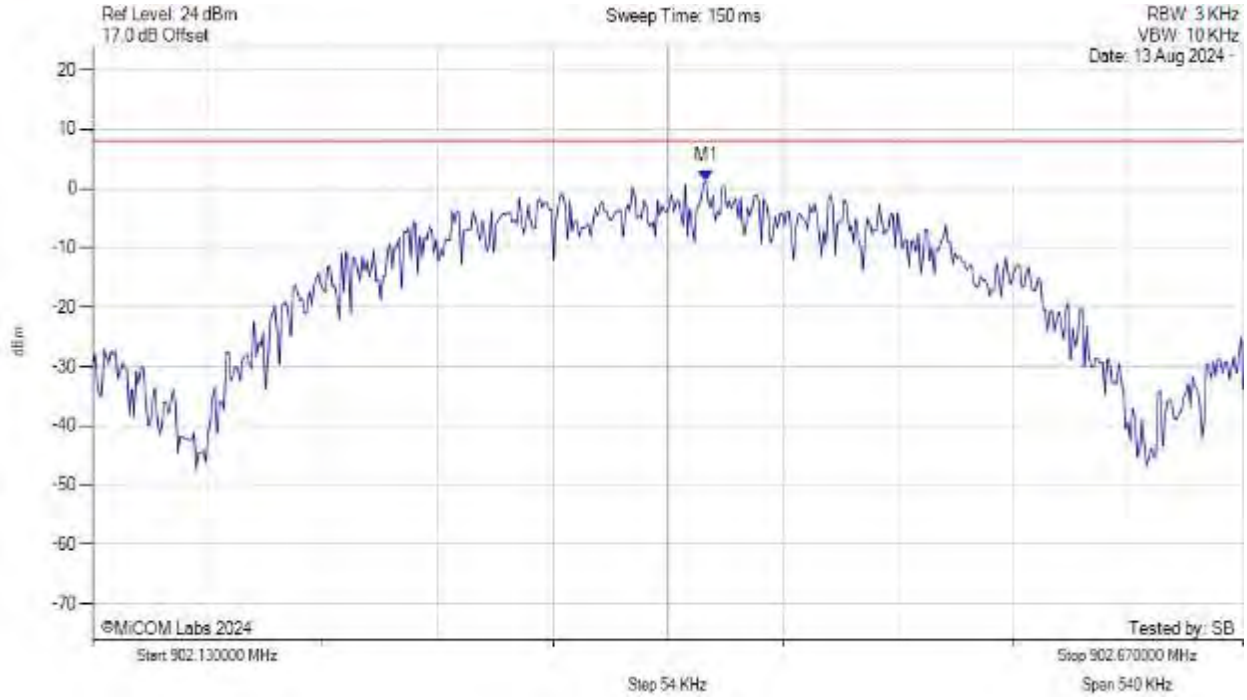


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 902.418 MHz : 1.346 dBm	Limit: ≤ 8.000 dBm Margin: -6.65 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 902.40 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc

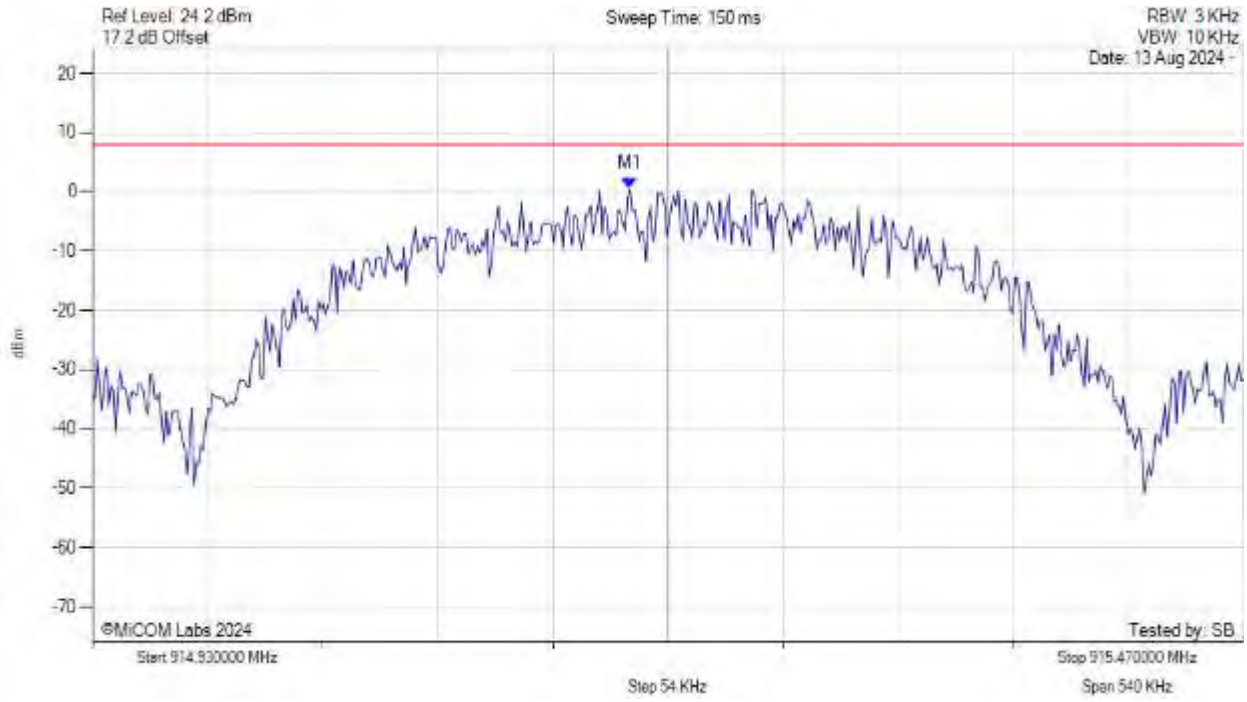


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 902.418 MHz : 1.346 dBm	Limit: ≤ 8.0 dBm Margin: -6.7 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

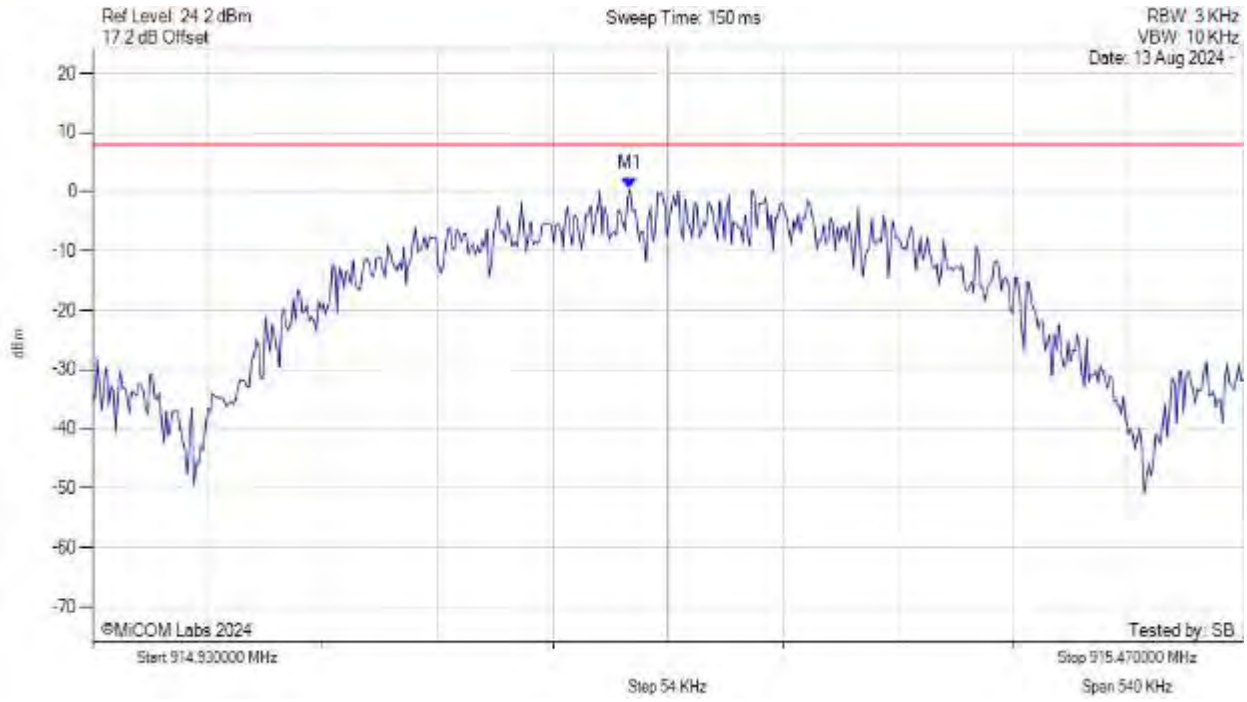


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 915.182 MHz : 0.480 dBm	Limit: ≤ 8.000 dBm Margin: -7.52 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 915.20 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc

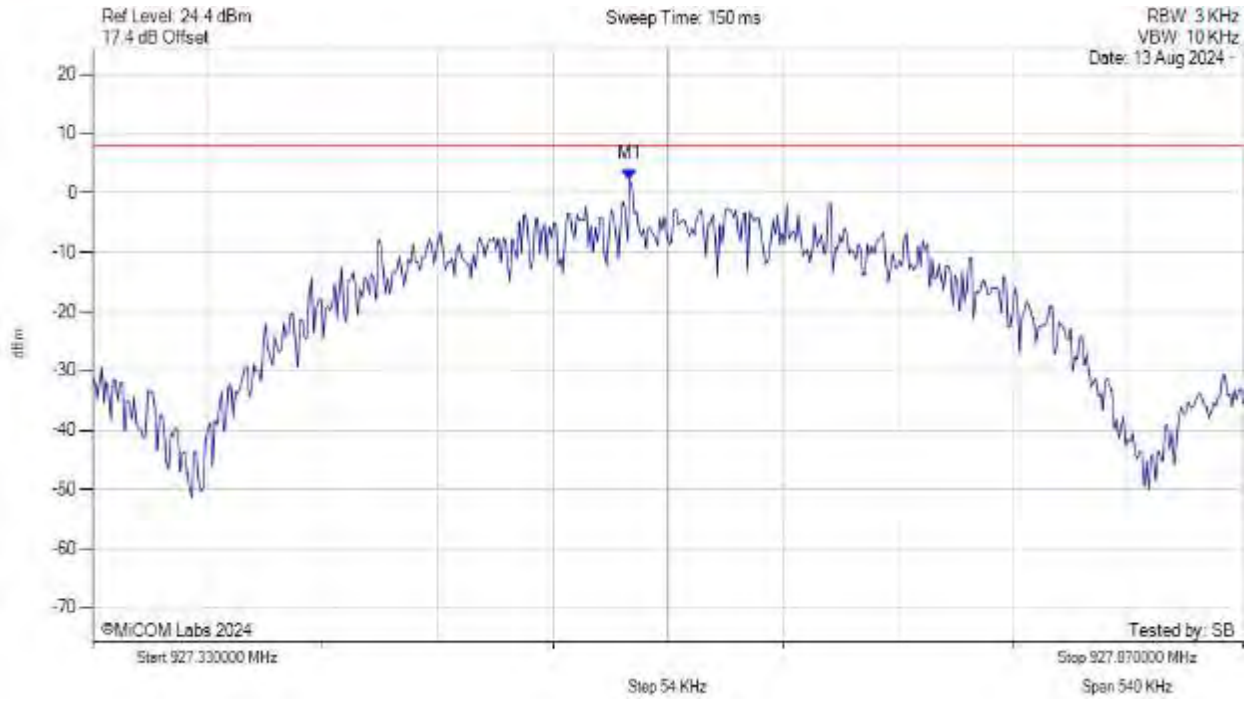


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 915.182 MHz : 0.480 dBm	Limit: ≤ 8.0 dBm Margin: -7.5 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 3.6 Vdc

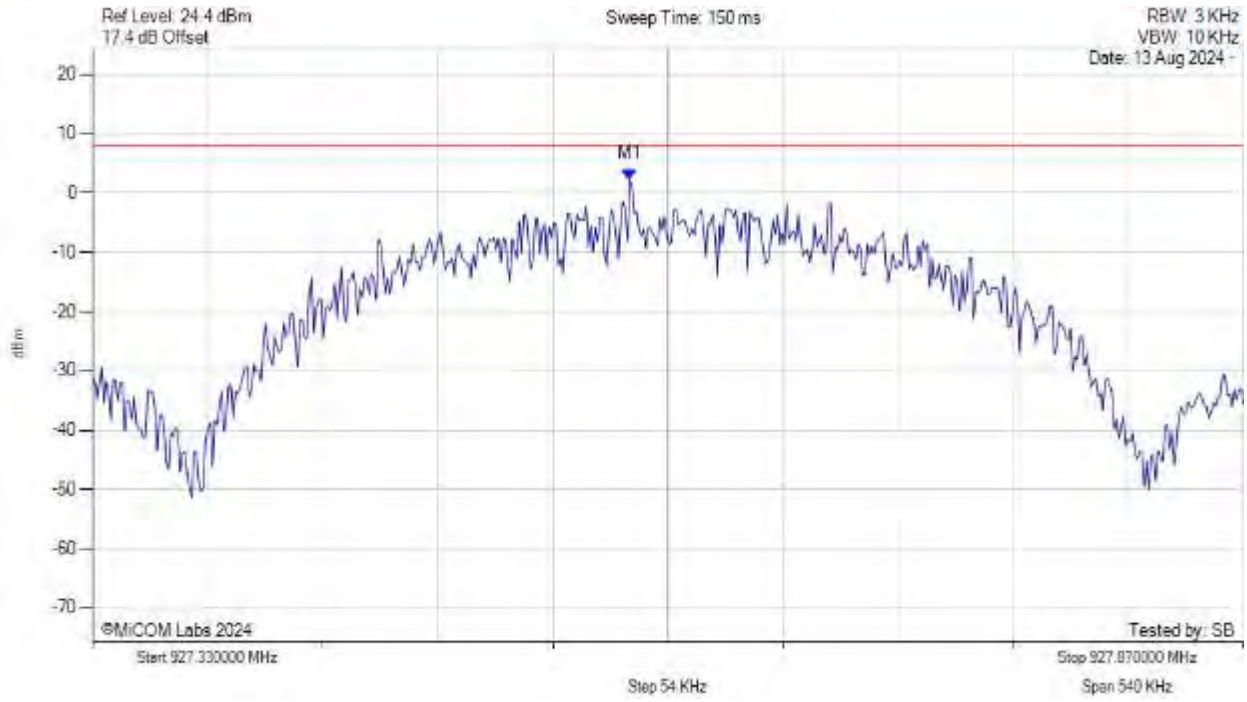


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 927.582 MHz : 2.277 dBm	Limit: ≤ 8.000 dBm Margin: -5.72 dB

back to matrix

POWER SPECTRAL DENSITY - PEAK

Variant: GFSK, 300kbps PL 2 (Hybrid), Channel: 927.60 MHz, SUM, Temp: 20, Voltage: 3.6 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 927.582 MHz : 2.277 dBm	Limit: ≤ 8.0 dBm Margin: -5.7 dB

back to matrix

A.4. Emissions

A.4.1. Conducted Emissions

A.4.1.1. Conducted Unwanted Spurious Emissions

UNWANTED EMISSIONS PEAK

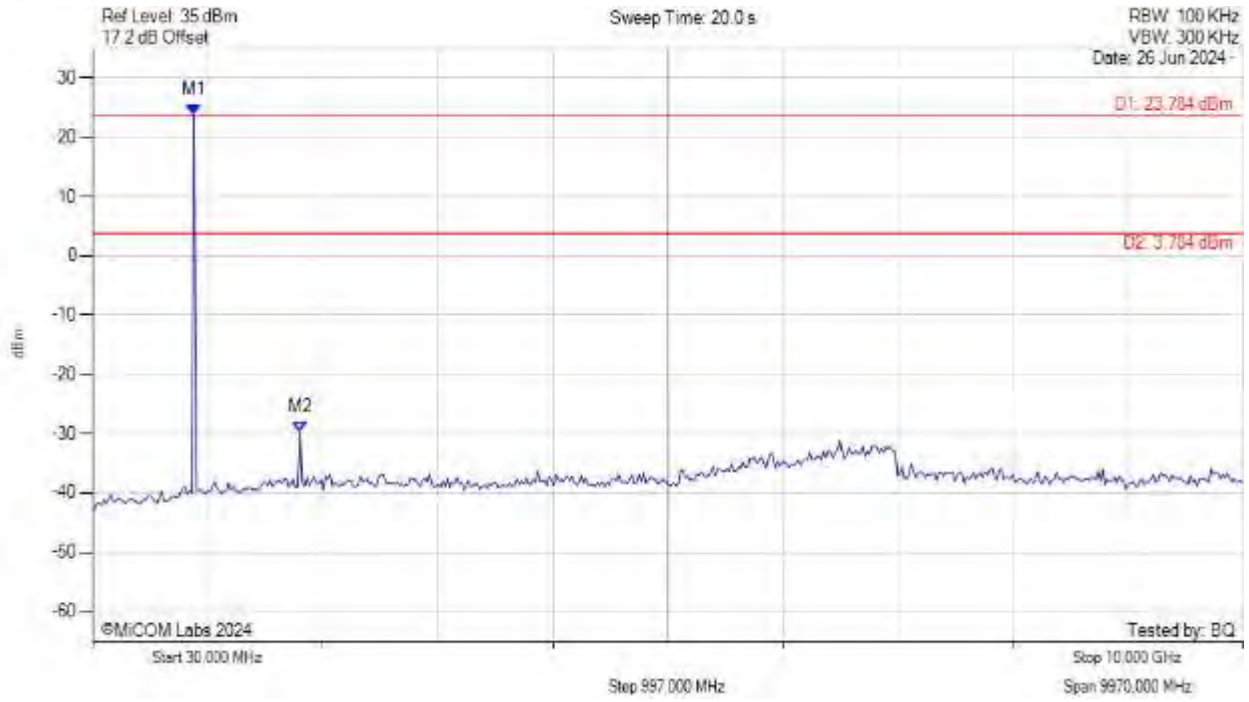
Variant: 100kbps, PL 3 (FHSS), Channel: 902.30 MHz, Chain a, Temp: 20

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.735 dBm M2 : 1788.236 MHz : -29.868 dBm	Limit: 3.74 dBm Margin: -33.61 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 914.60 MHz, Chain a, Temp: 20

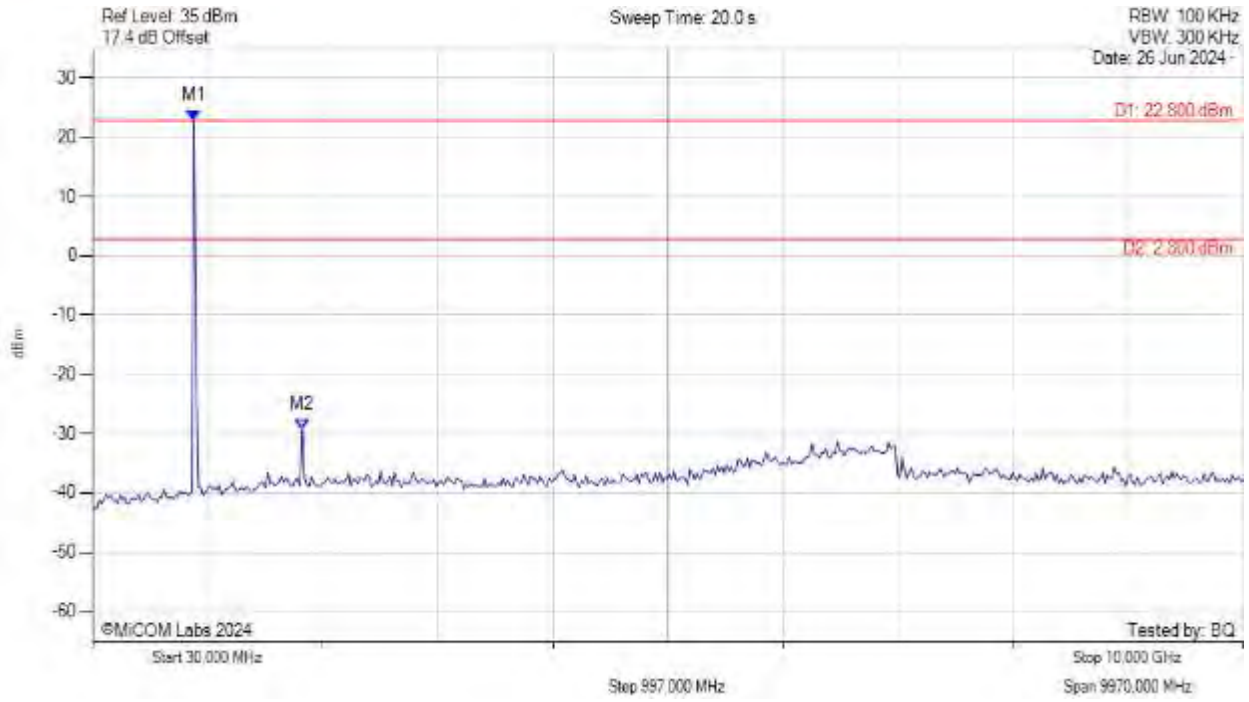


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.784 dBm M2 : 1828.196 MHz : -29.793 dBm	Limit: 3.78 dBm Margin: -33.57 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 926.90 MHz, Chain a, Temp: 20

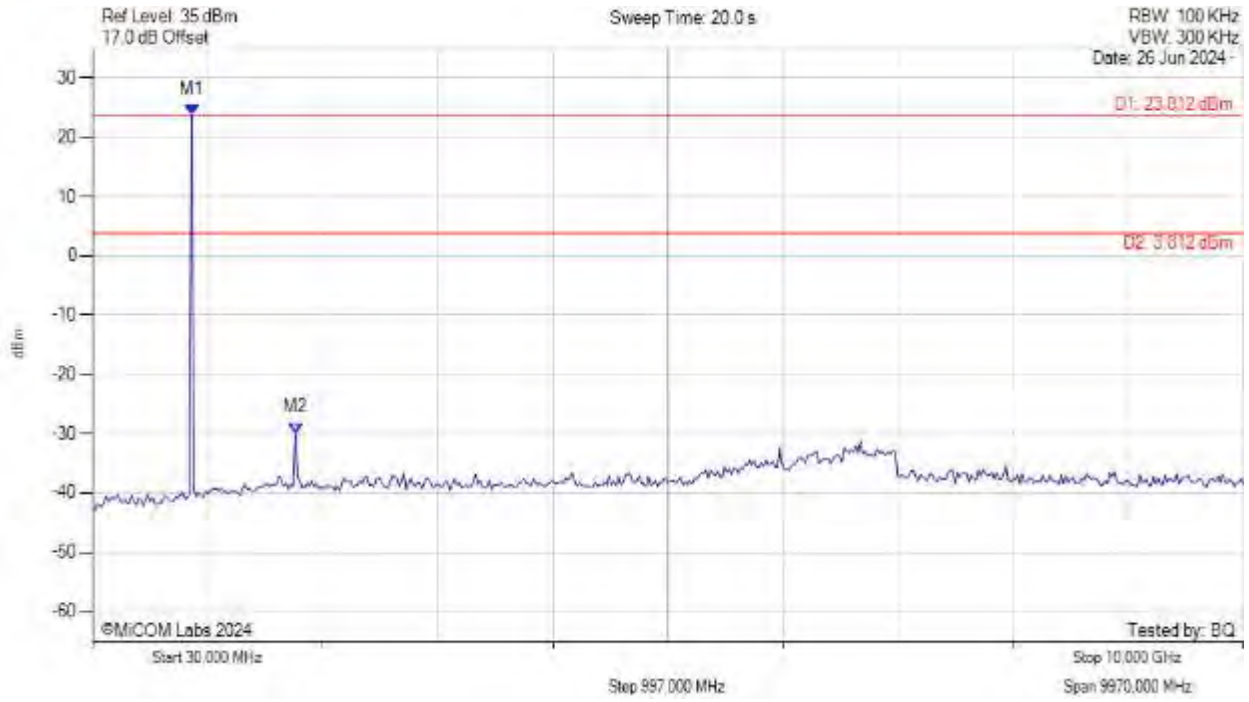


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 22.800 dBm M2 : 1848.176 MHz : -29.293 dBm	Limit: 2.80 dBm Margin: -32.09 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

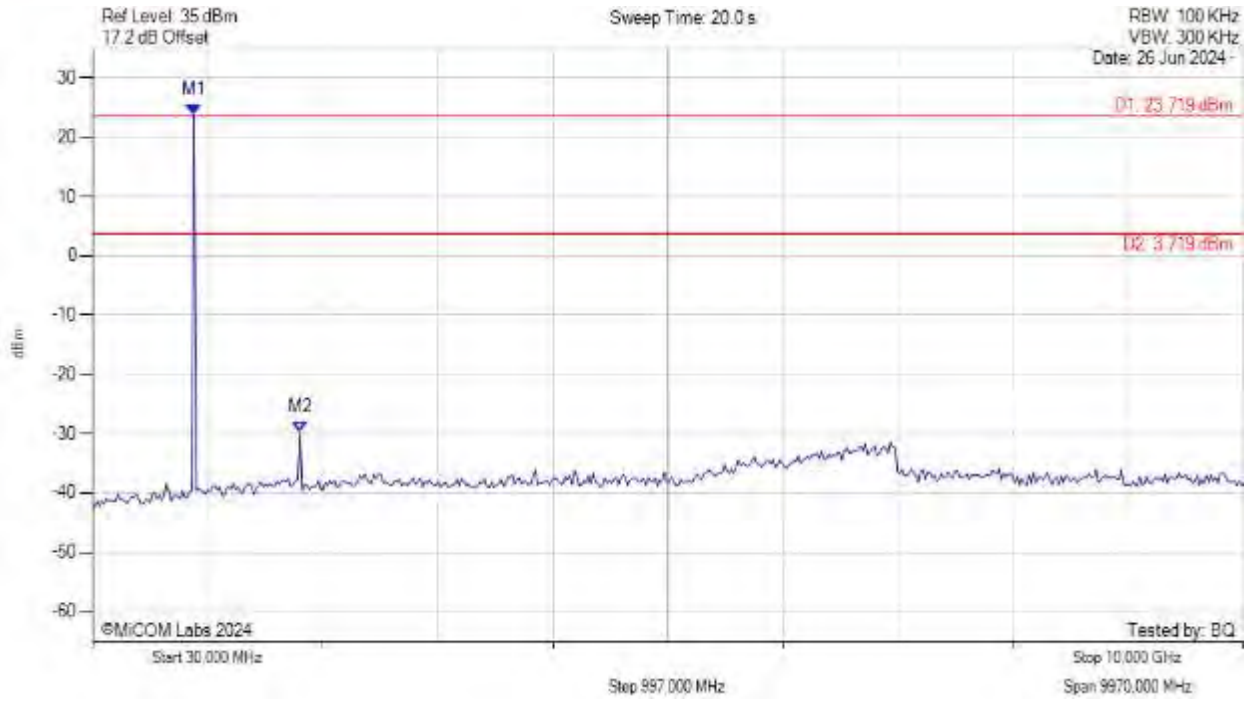


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.812 dBm M2 : 1788.236 MHz : -29.887 dBm	Limit: 3.81 dBm Margin: -33.70 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.719 dBm M2 : 1828.196 MHz : -29.801 dBm	Limit: 3.72 dBm Margin: -33.52 dB

back to matrix

UNWANTED EMISSIONS PEAK

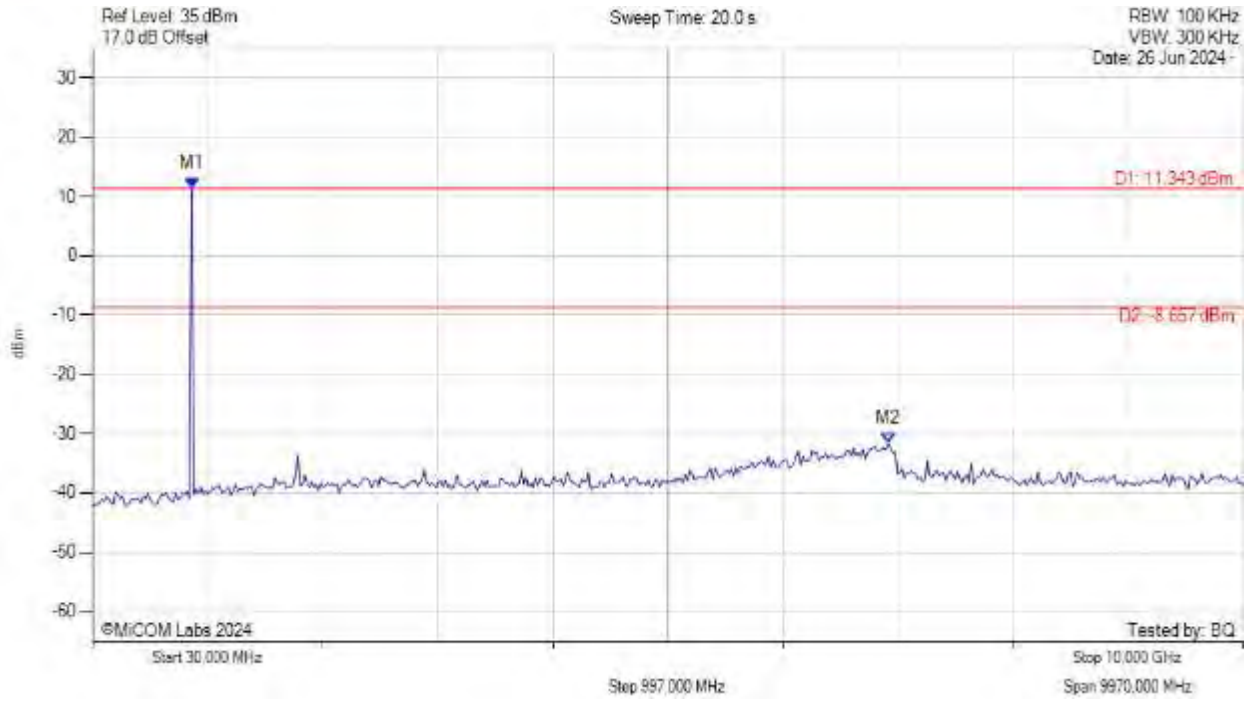
Variant: 10kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 23.019 dBm M2 : 1848.176 MHz : -28.607 dBm	Limit: 3.02 dBm Margin: -31.63 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

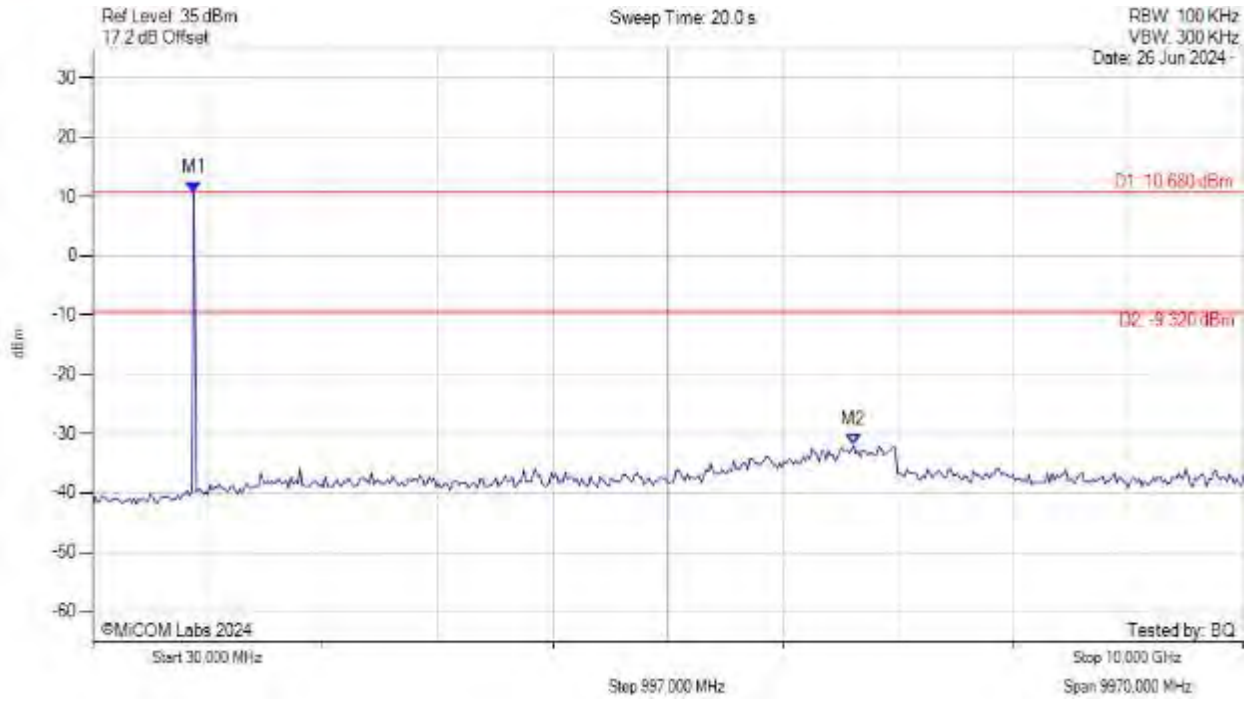


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 11.343 dBm M2 : 6923.086 MHz : -31.634 dBm	Limit: -8.66 dBm Margin: -22.97 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

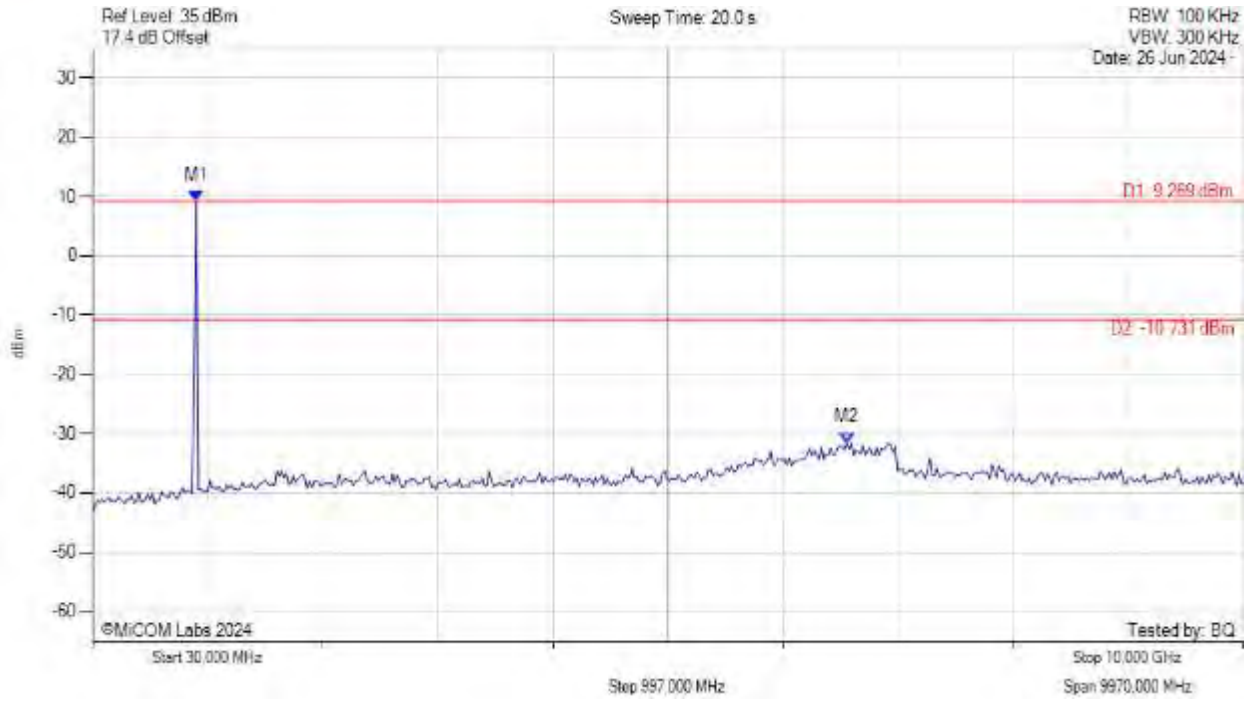


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 10.680 dBm M2 : 6623.387 MHz : -31.939 dBm	Limit: -9.32 dBm Margin: -22.62 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

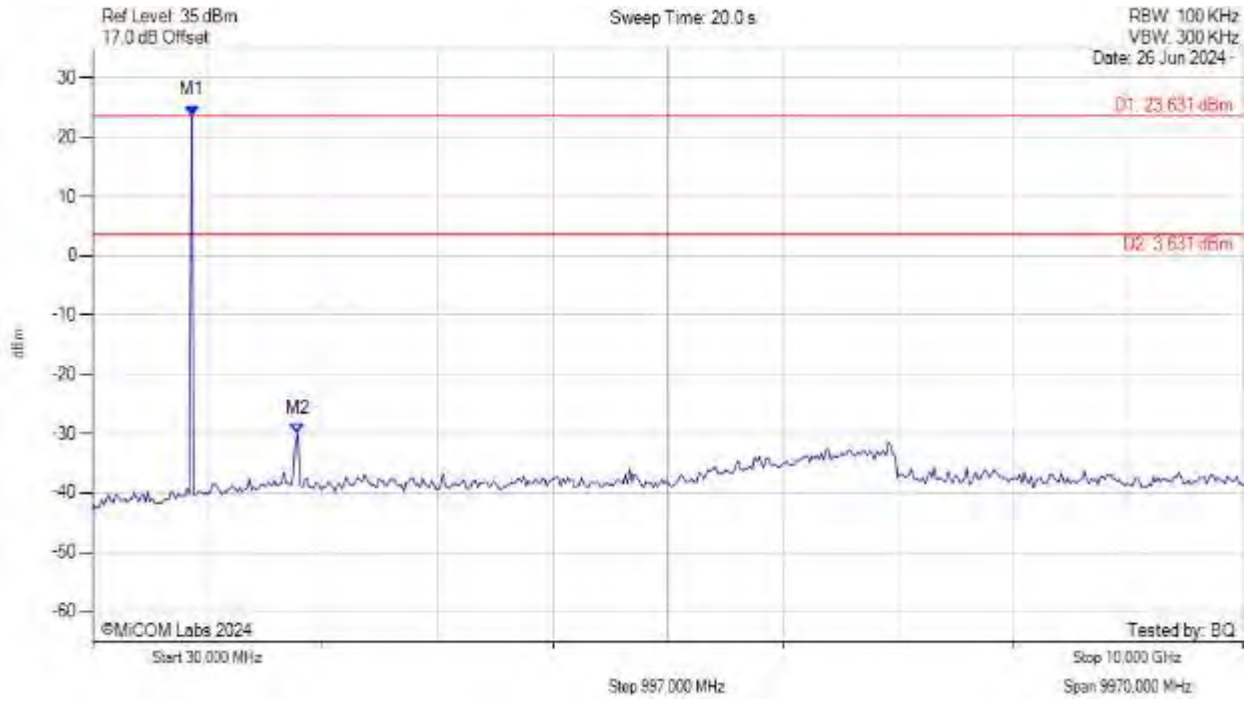


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 9.269 dBm M2 : 6563.447 MHz : -31.508 dBm	Limit: -10.73 dBm Margin: -20.78 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

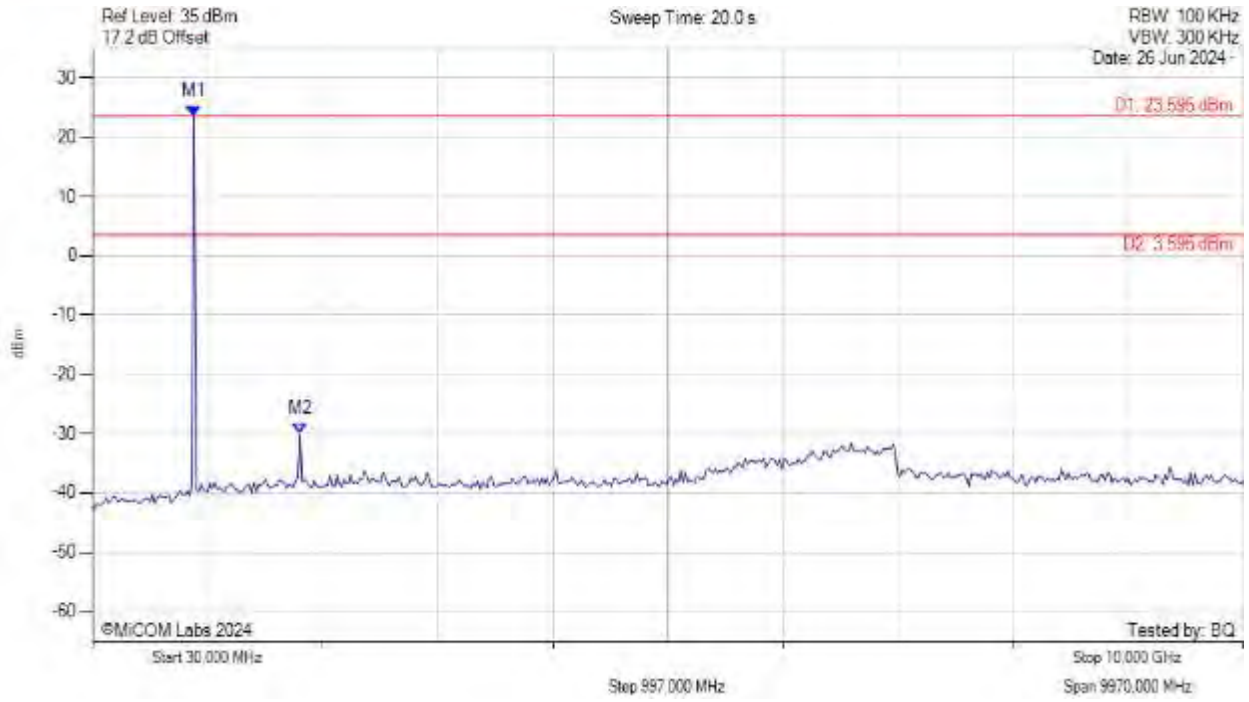


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.631 dBm M2 : 1808.216 MHz : -30.027 dBm	Limit: 3.63 dBm Margin: -33.66 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

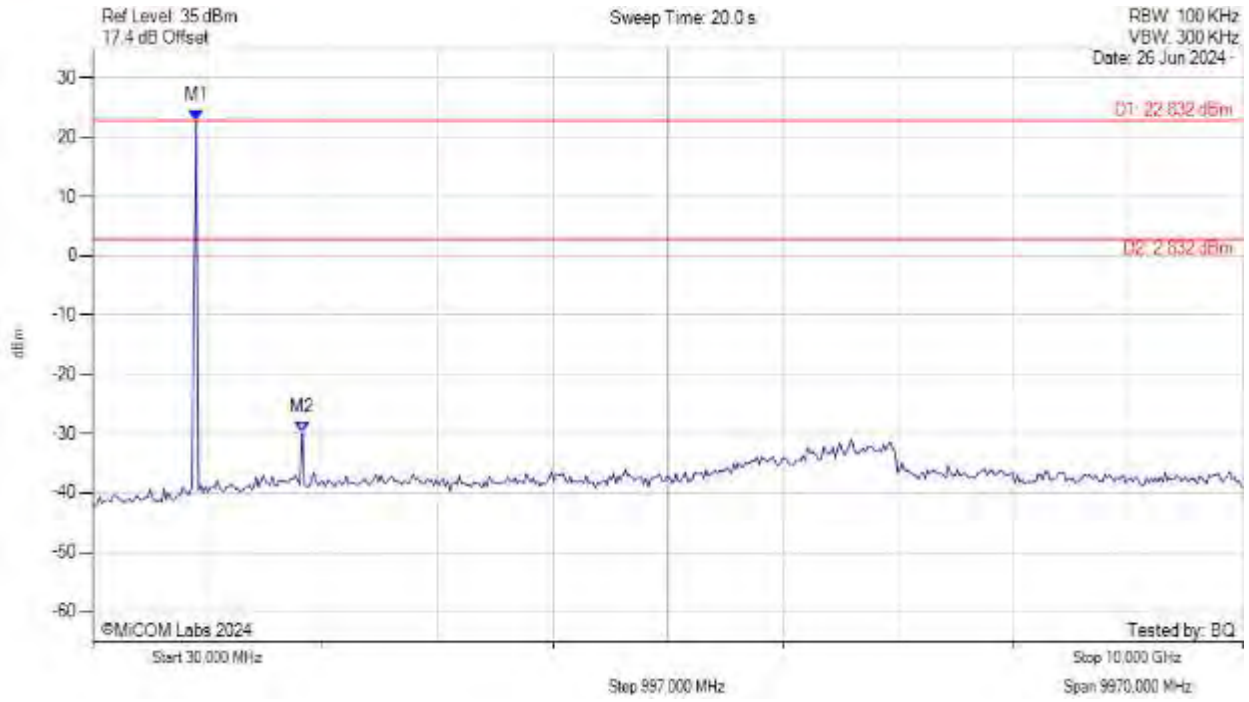


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.595 dBm M2 : 1828.196 MHz : -30.092 dBm	Limit: 3.60 dBm Margin: -33.69 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

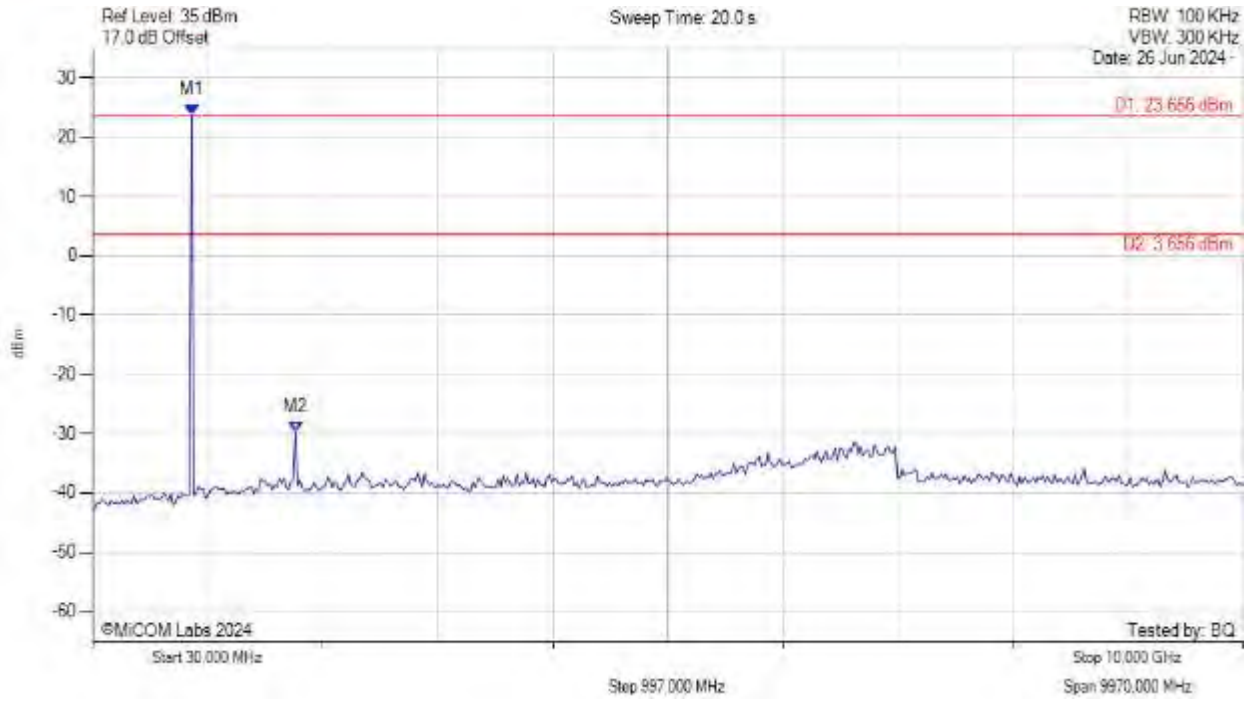


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 22.832 dBm M2 : 1848.176 MHz : -29.824 dBm	Limit: 2.83 dBm Margin: -32.65 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

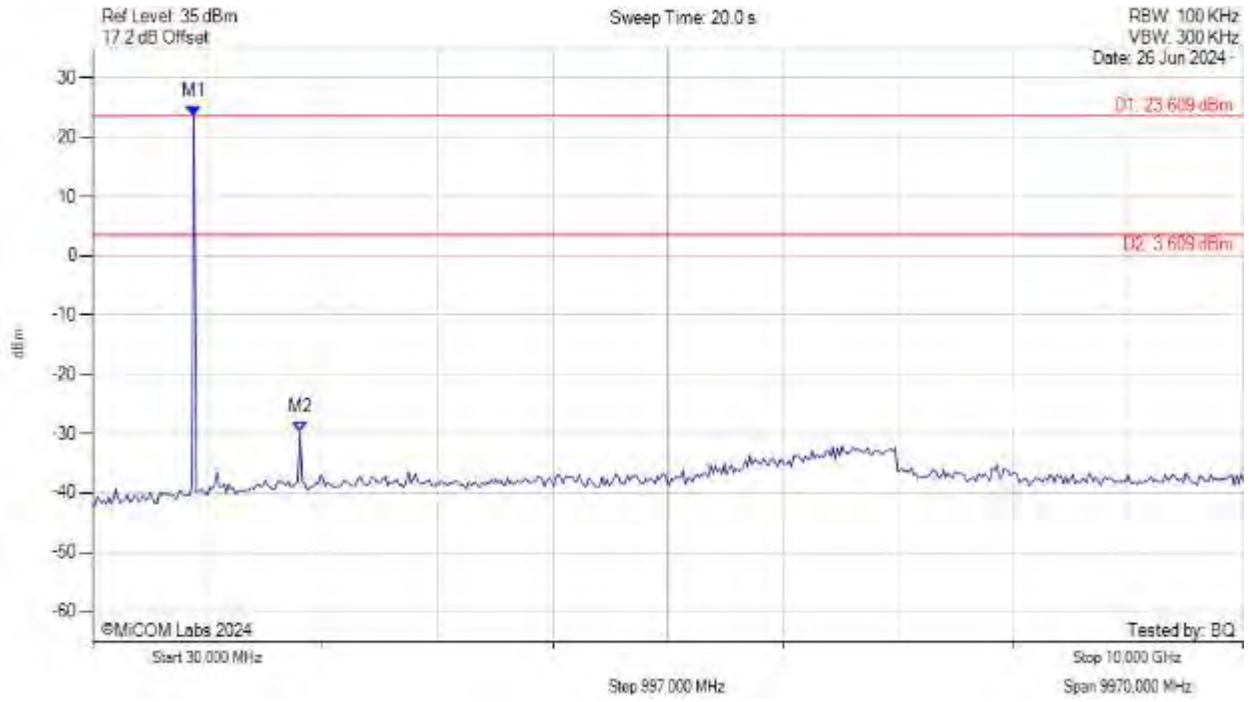


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.656 dBm M2 : 1788.236 MHz : -29.683 dBm	Limit: 3.66 dBm Margin: -33.34 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.609 dBm M2 : 1828.196 MHz : -29.714 dBm	Limit: 3.61 dBm Margin: -33.32 dB

back to matrix

UNWANTED EMISSIONS PEAK

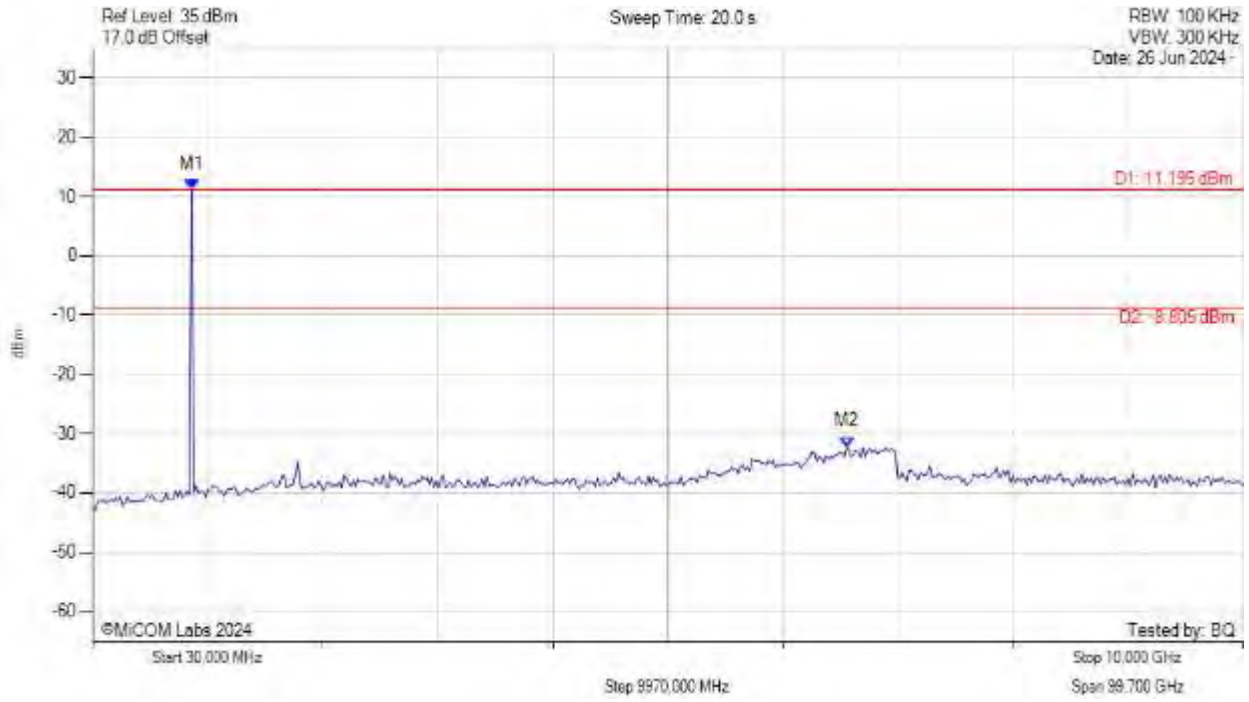
Variant: 25kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 23.027 dBm M2 : 1848.176 MHz : -28.536 dBm	Limit: 3.03 dBm Margin: -31.57 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

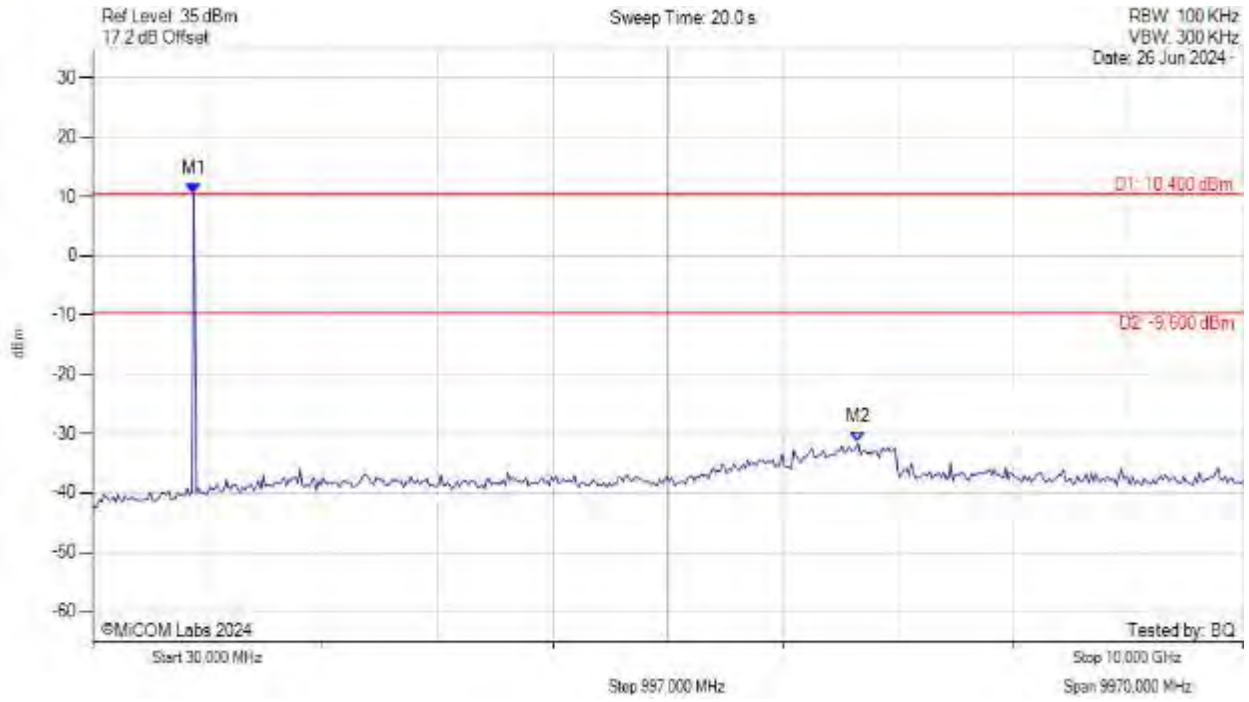


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 11.195 dBm M2 : 6563.447 MHz : -32.232 dBm	Limit: -8.81 dBm Margin: -23.42 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 2 (Hybrid), Channel: 915.20 MHz, Chain a, Temp: 20

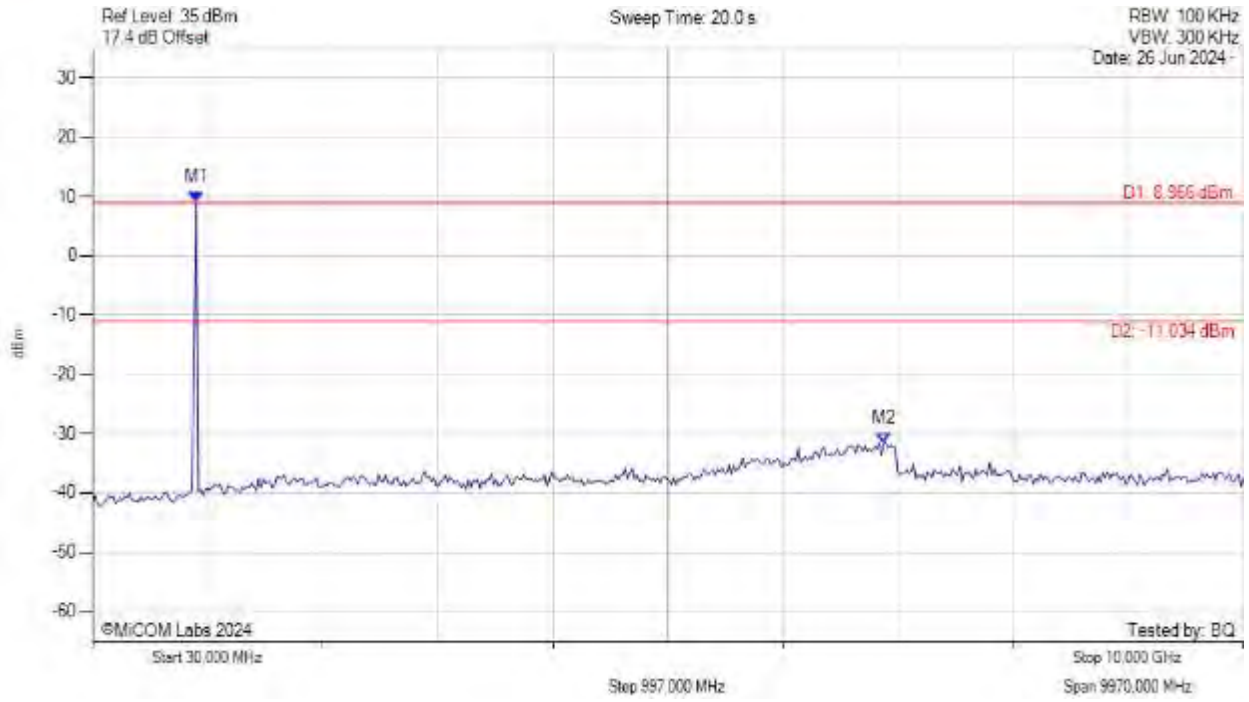


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 10.400 dBm M2 : 6663.347 MHz : -31.485 dBm	Limit: -9.60 dBm Margin: -21.88 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

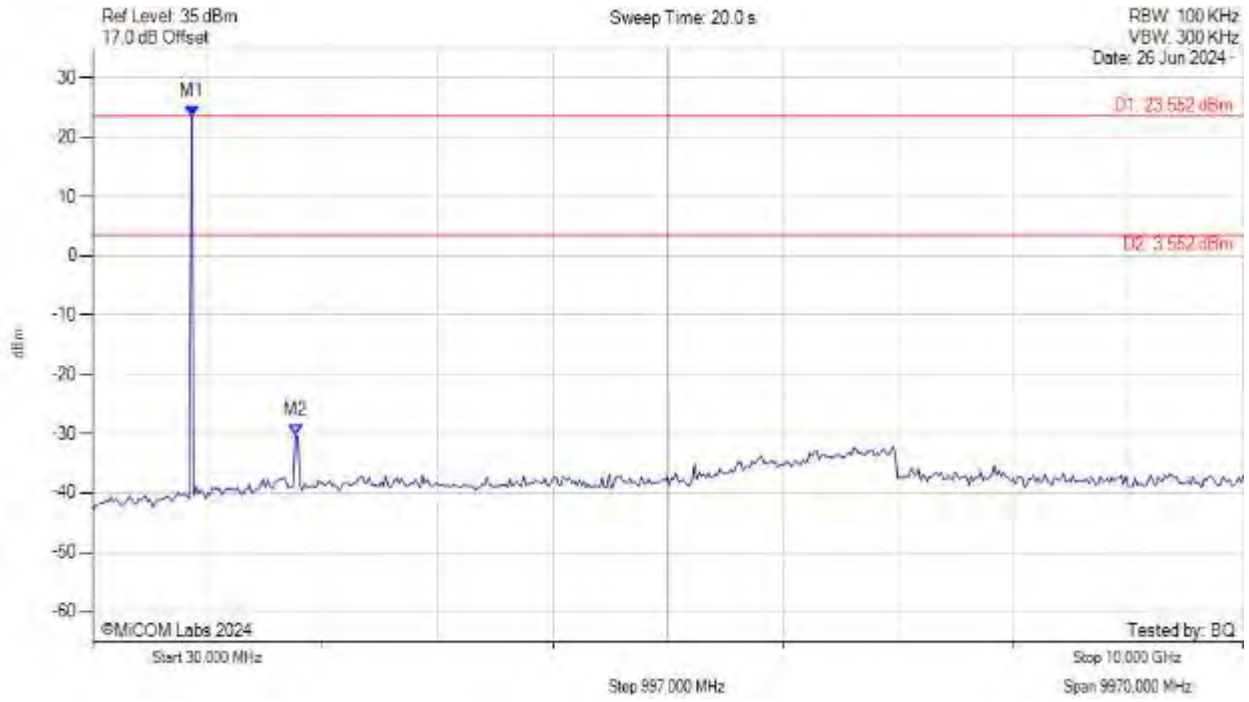


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 8.966 dBm M2 : 6883.126 MHz : -31.589 dBm	Limit: -11.03 dBm Margin: -20.56 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

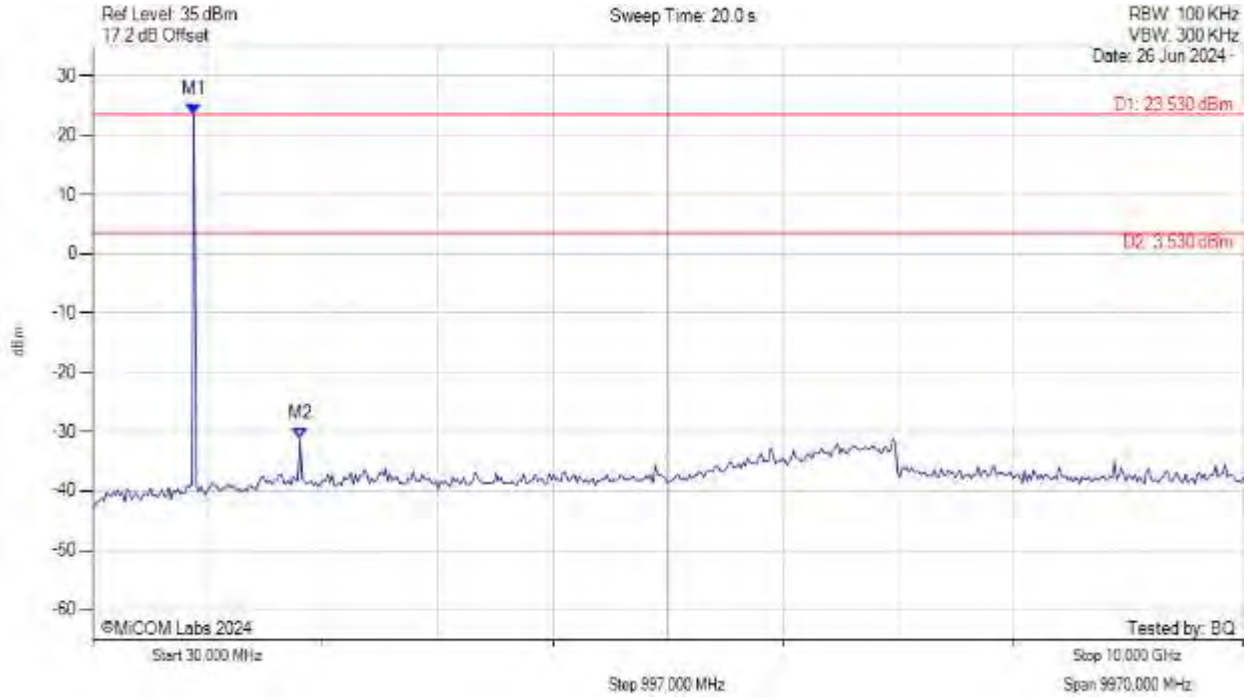


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.552 dBm M2 : 1788.236 MHz : -30.194 dBm	Limit: 3.55 dBm Margin: -33.74 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 915.20 MHz, Chain a, Temp: 20

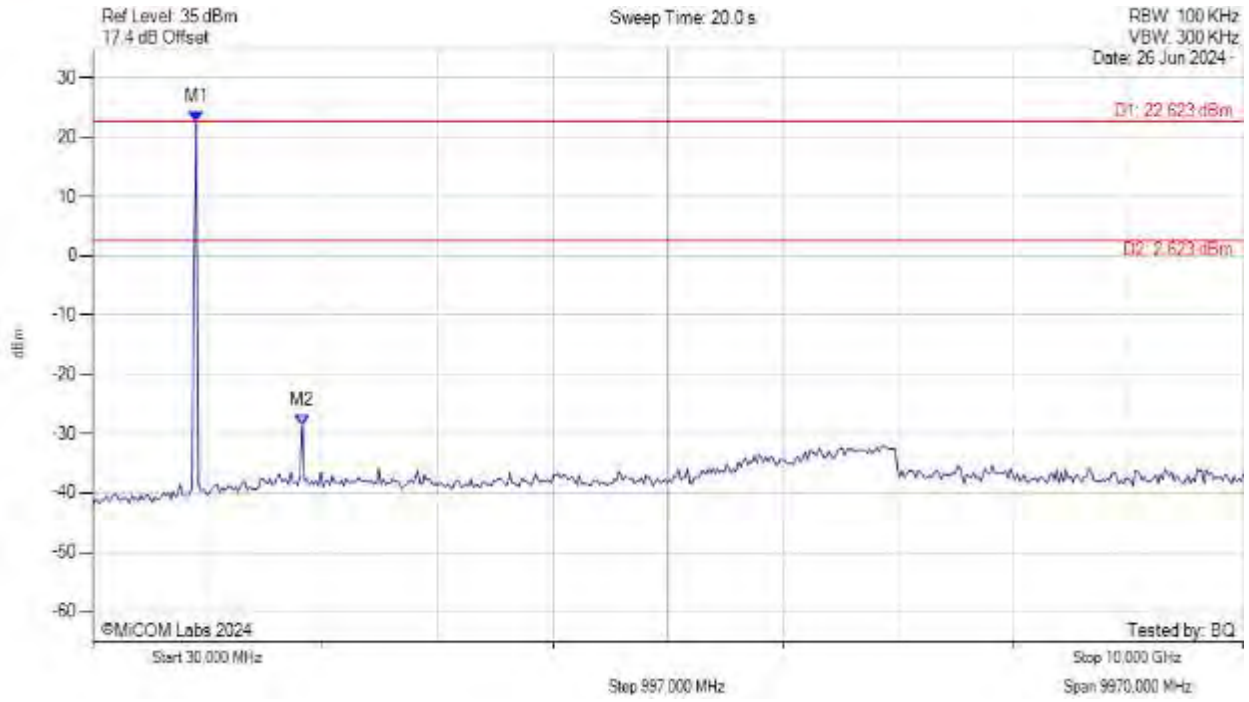


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.530 dBm M2 : 1828.196 MHz : -31.182 dBm	Limit: 3.53 dBm Margin: -34.71 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

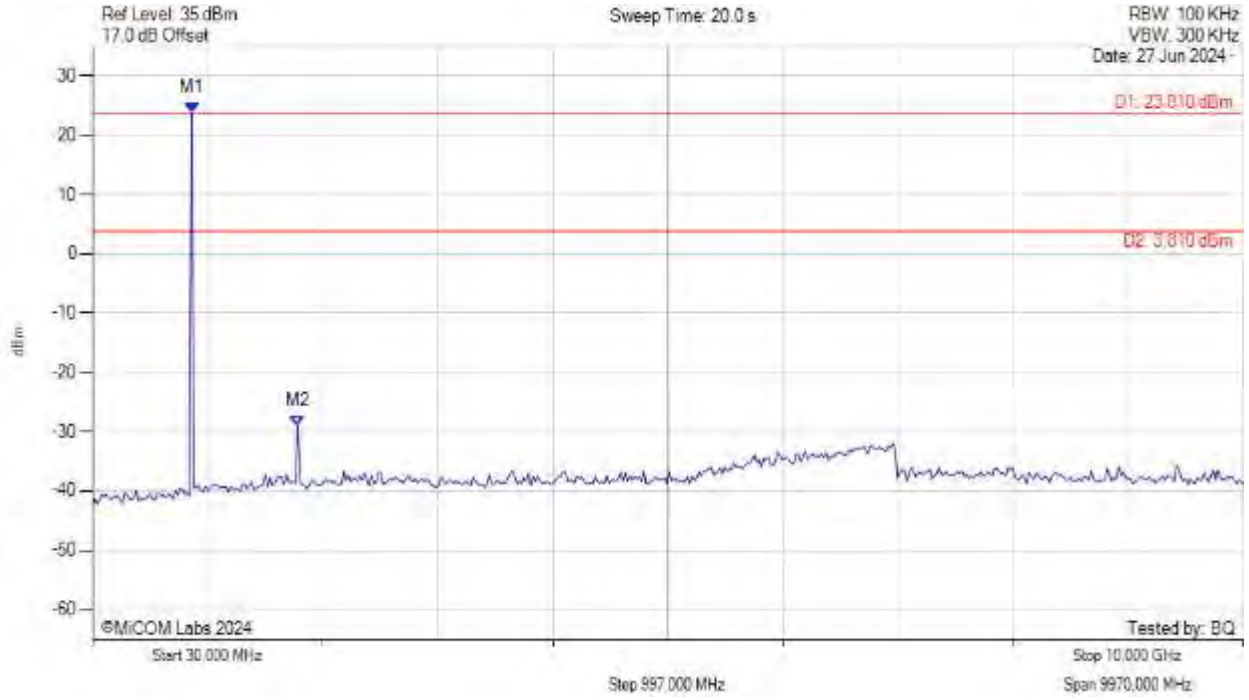


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 22.623 dBm M2 : 1848.176 MHz : -28.626 dBm	Limit: 2.62 dBm Margin: -31.25 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 903.00 MHz, Chain a, Temp: 20

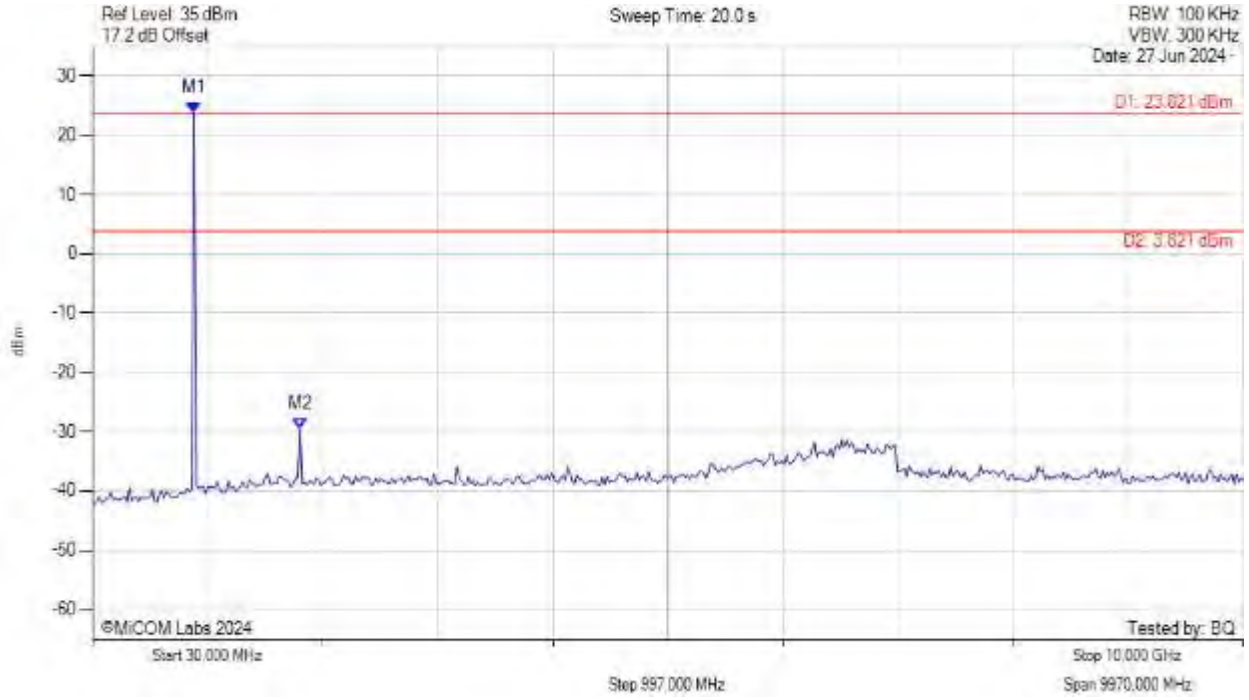


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.810 dBm M2 : 1808.216 MHz : -29.000 dBm	Limit: 3.81 dBm Margin: -32.81 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 915.00 MHz, Chain a, Temp: 20

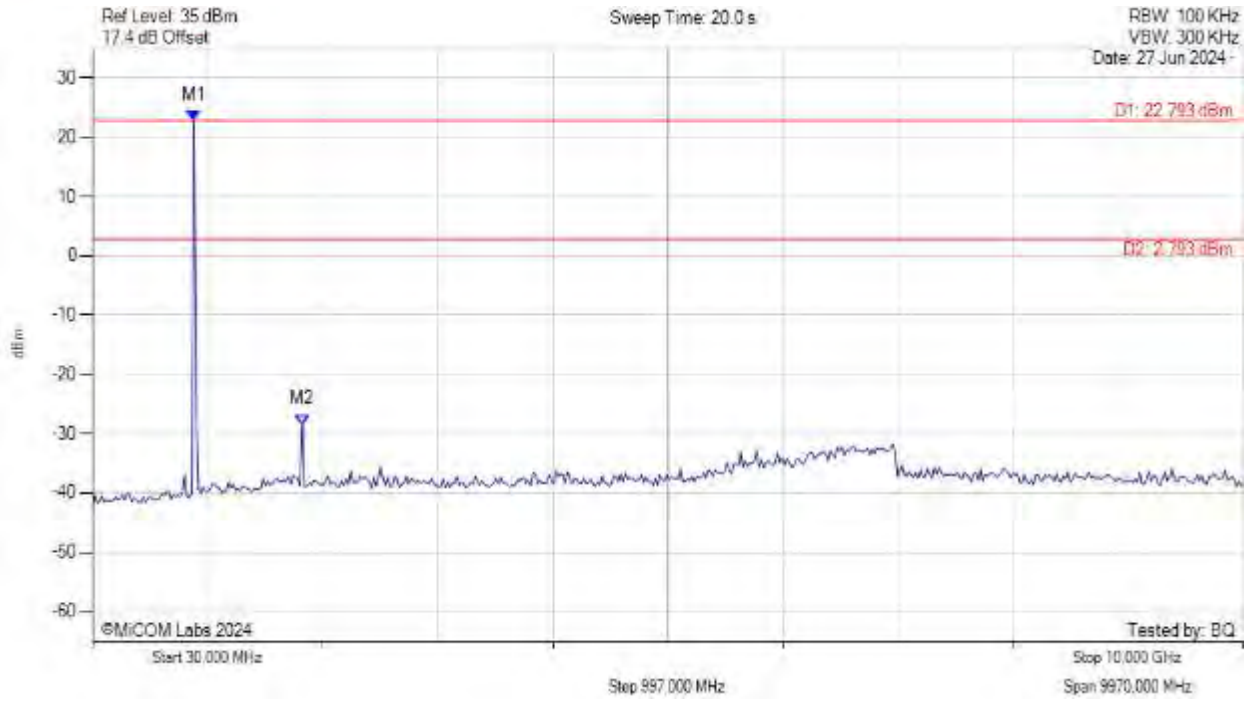


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.821 dBm M2 : 1828.196 MHz : -29.500 dBm	Limit: 3.82 dBm Margin: -33.32 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 926.80 MHz, Chain a, Temp: 20

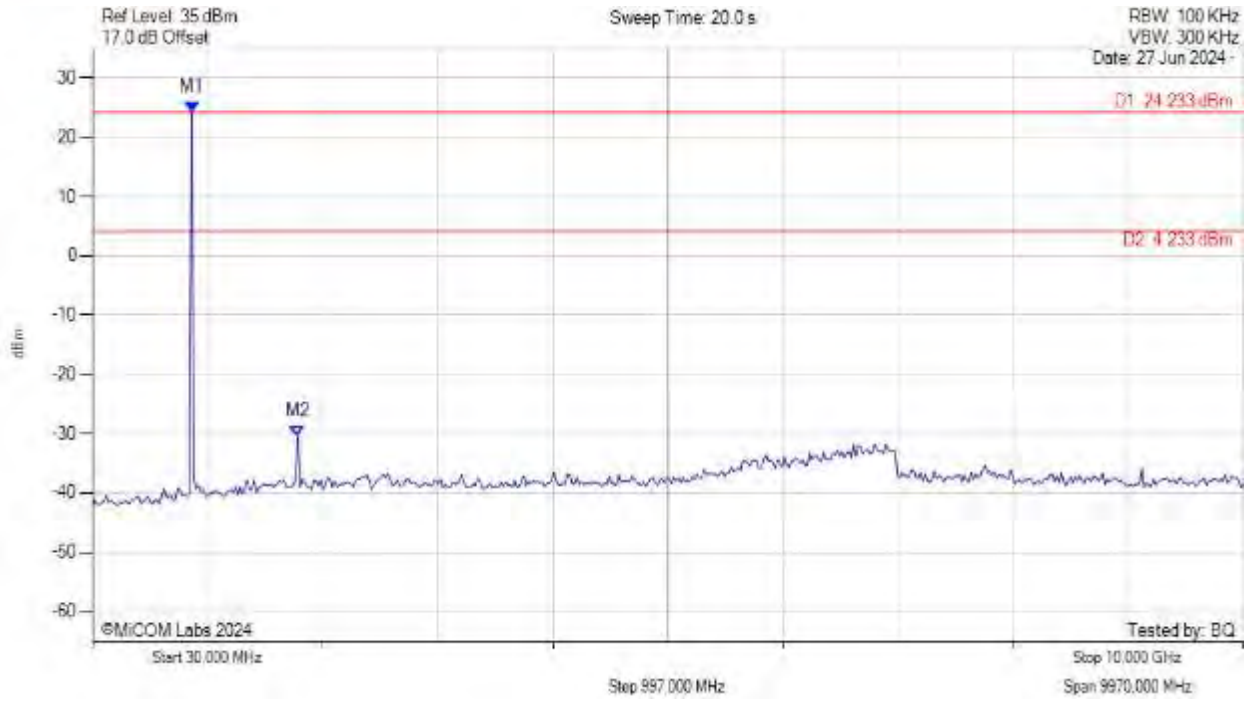


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 22.793 dBm M2 : 1848.176 MHz : -28.469 dBm	Limit: 2.79 dBm Margin: -31.26 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL 3, Channel: 903.00 MHz, Chain a, Temp: 20

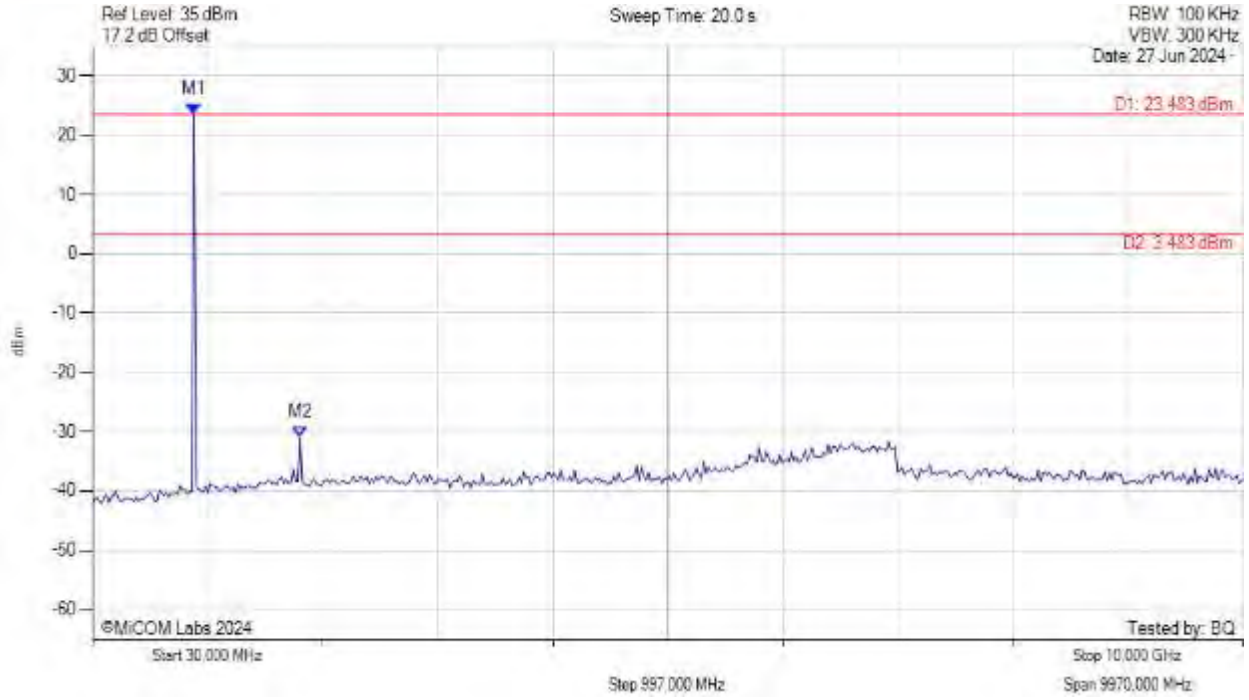


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 24.233 dBm M2 : 1808.216 MHz : -30.525 dBm	Limit: 4.23 dBm Margin: -34.75 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL 3, Channel: 915.00 MHz, Chain a, Temp: 20

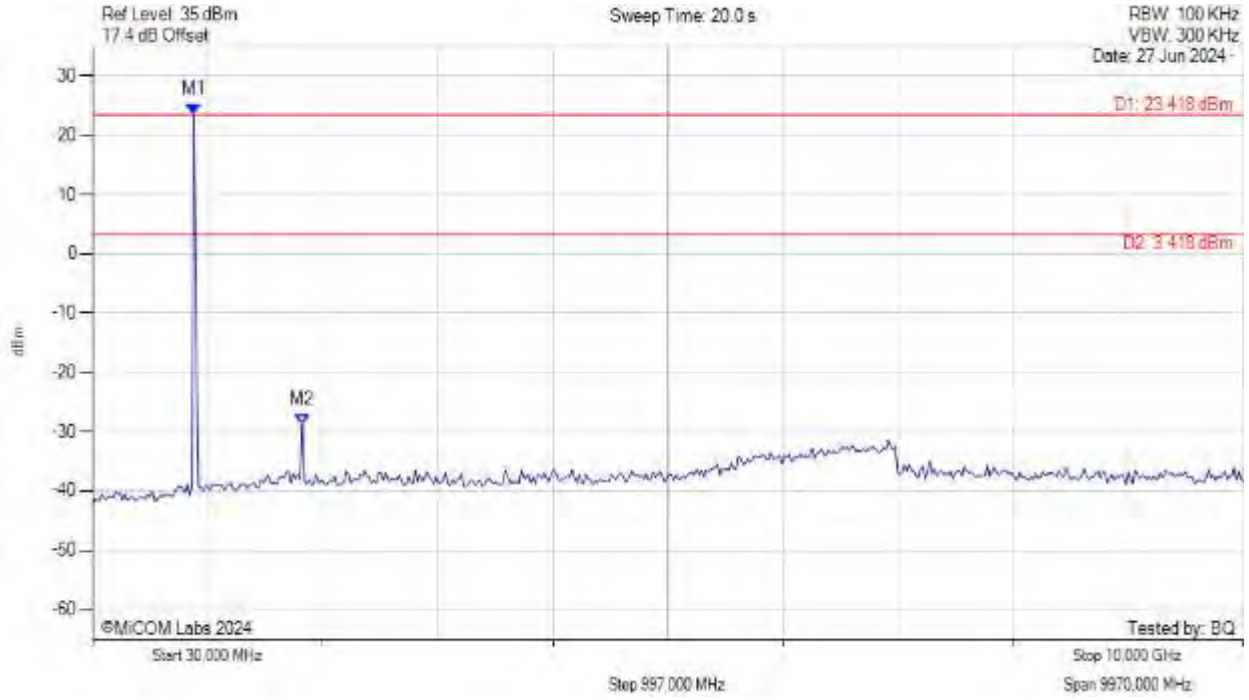


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.483 dBm M2 : 1828.196 MHz : -30.963 dBm	Limit: 3.48 dBm Margin: -34.44 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL 3, Channel: 926.80 MHz, Chain a, Temp: 20

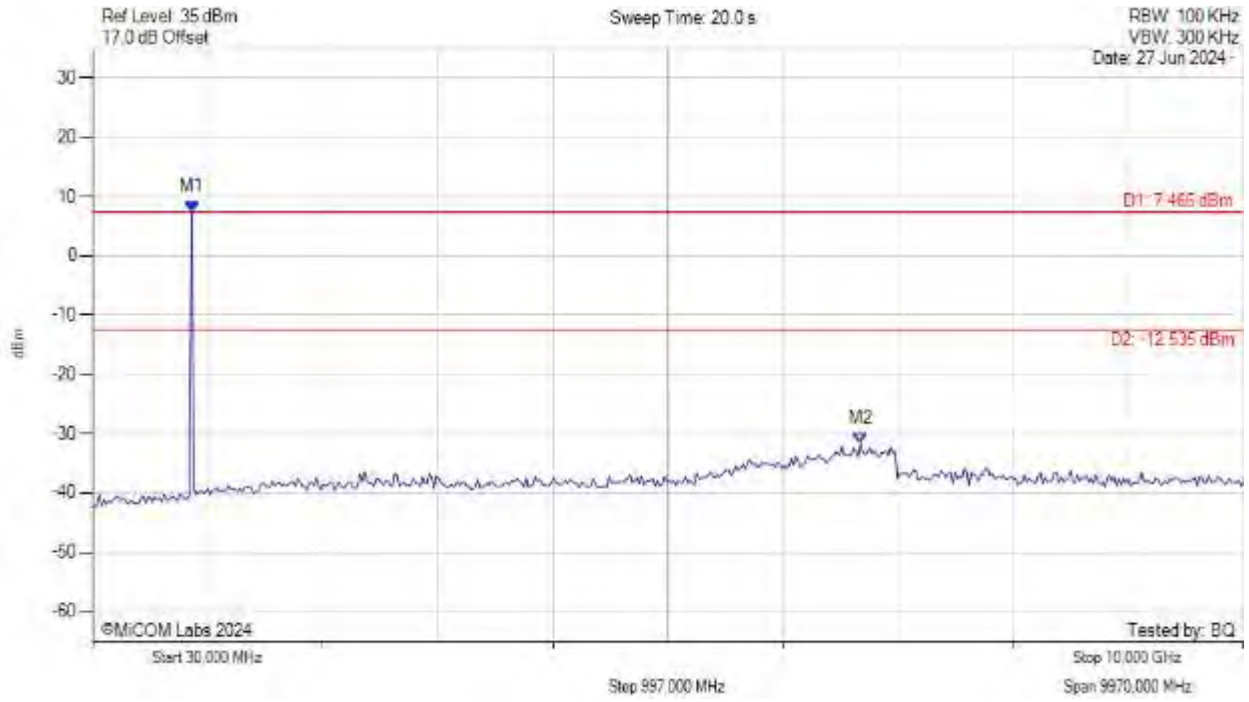


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.418 dBm M2 : 1848.176 MHz : -28.742 dBm	Limit: 3.42 dBm Margin: -32.16 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL1, Channel: 903.00 MHz, Chain a, Temp: 20

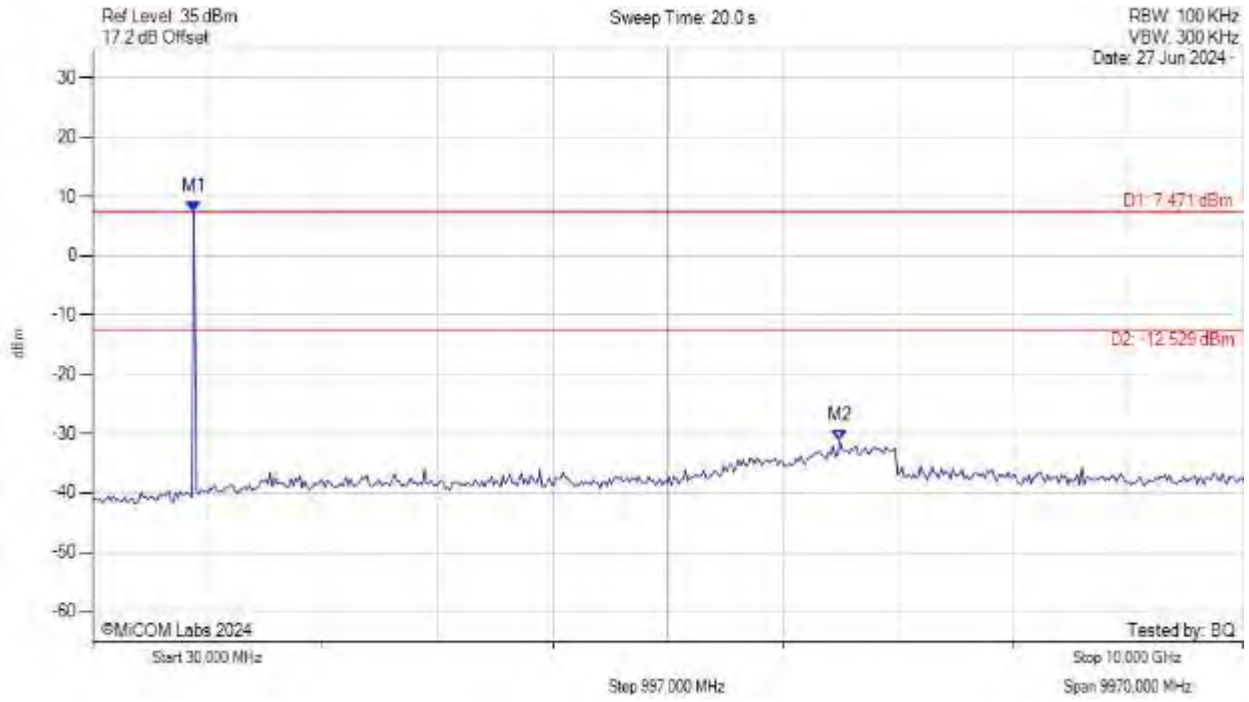


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 7.465 dBm M2 : 6683.327 MHz : -31.636 dBm	Limit: -12.54 dBm Margin: -19.10 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL1, Channel: 915.00 MHz, Chain a, Temp: 20

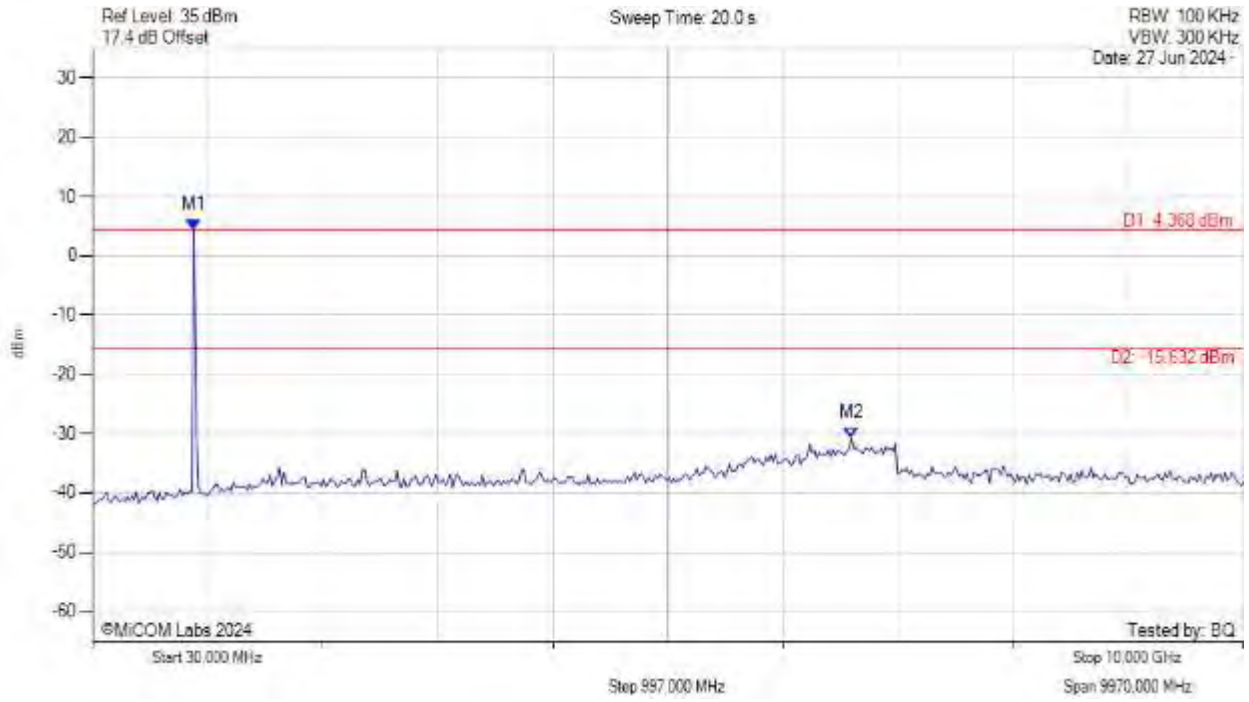


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 7.471 dBm M2 : 6503.507 MHz : -31.144 dBm	Limit: -12.53 dBm Margin: -18.61 dB

back to matrix

UNWANTED EMISSIONS PEAK

Variant: OOK PL1, Channel: 926.80 MHz, Chain a, Temp: 20



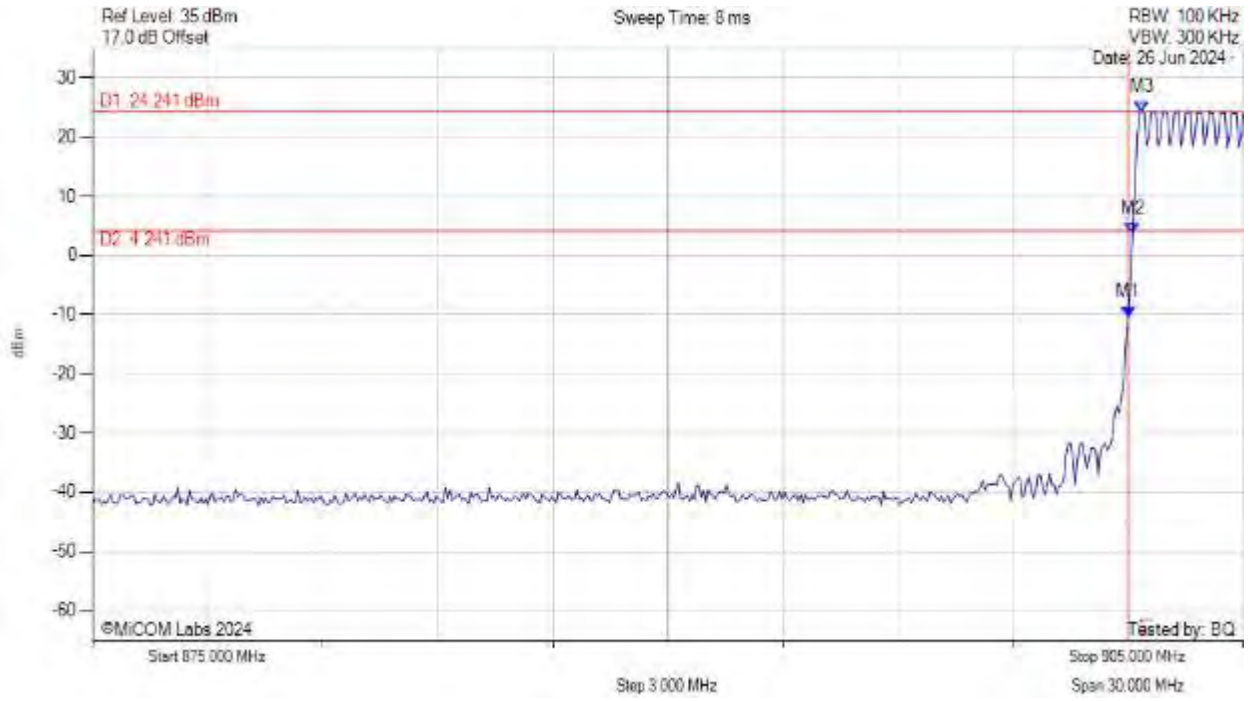
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 4.368 dBm M2 : 6603.407 MHz : -30.725 dBm	Limit: -15.63 dBm Margin: -15.10 dB

back to matrix

A.4.1.2. Conducted Band-Edge Emissions

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 902.30 MHz, Chain a, Temp: 20

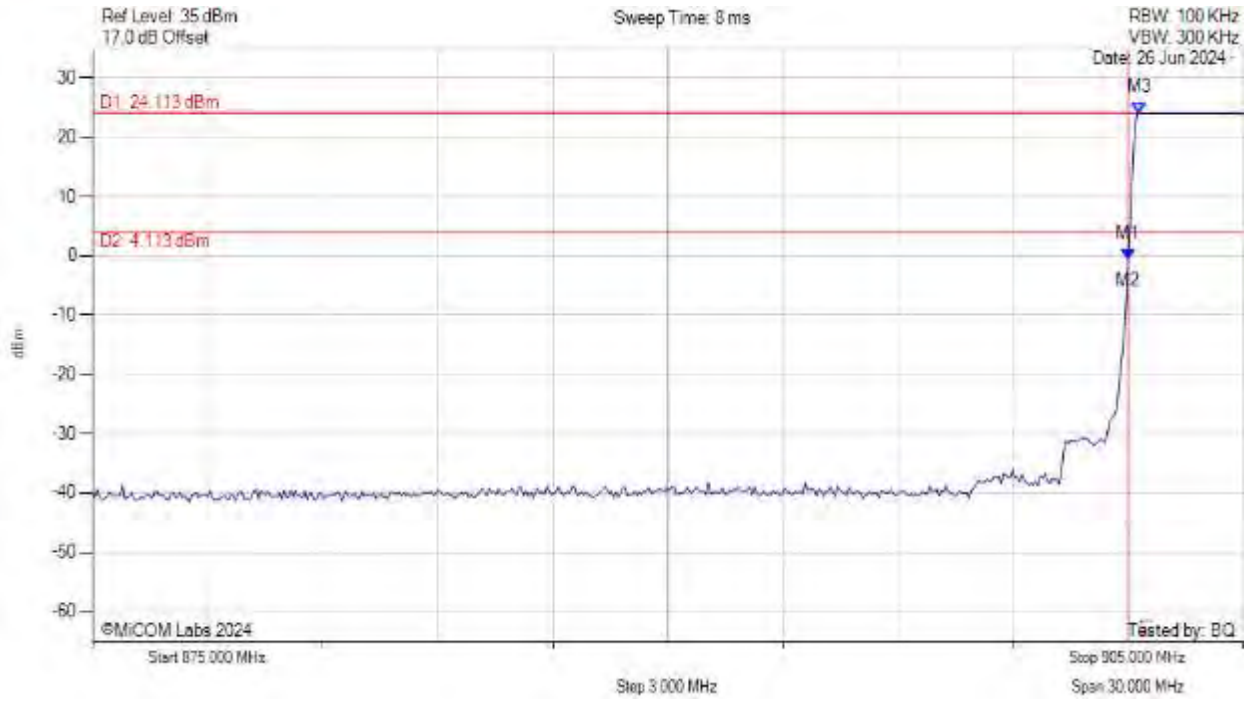


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -10.351 dBm M2 : 902.114 MHz : 3.556 dBm M3 : 902.355 MHz : 24.241 dBm	Channel Frequency: 902.30 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

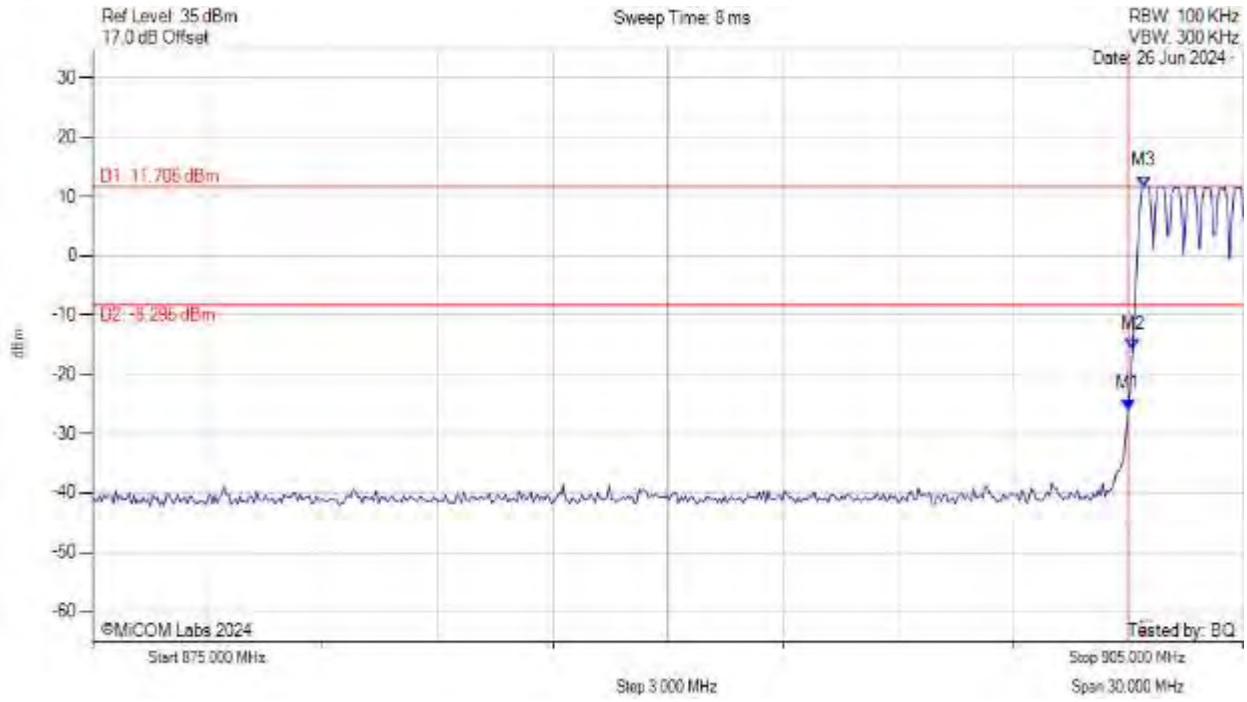


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -0.562 dBm M2 : 901.994 MHz : -0.562 dBm M3 : 902.295 MHz : 24.113 dBm	Channel Frequency: 902.20 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

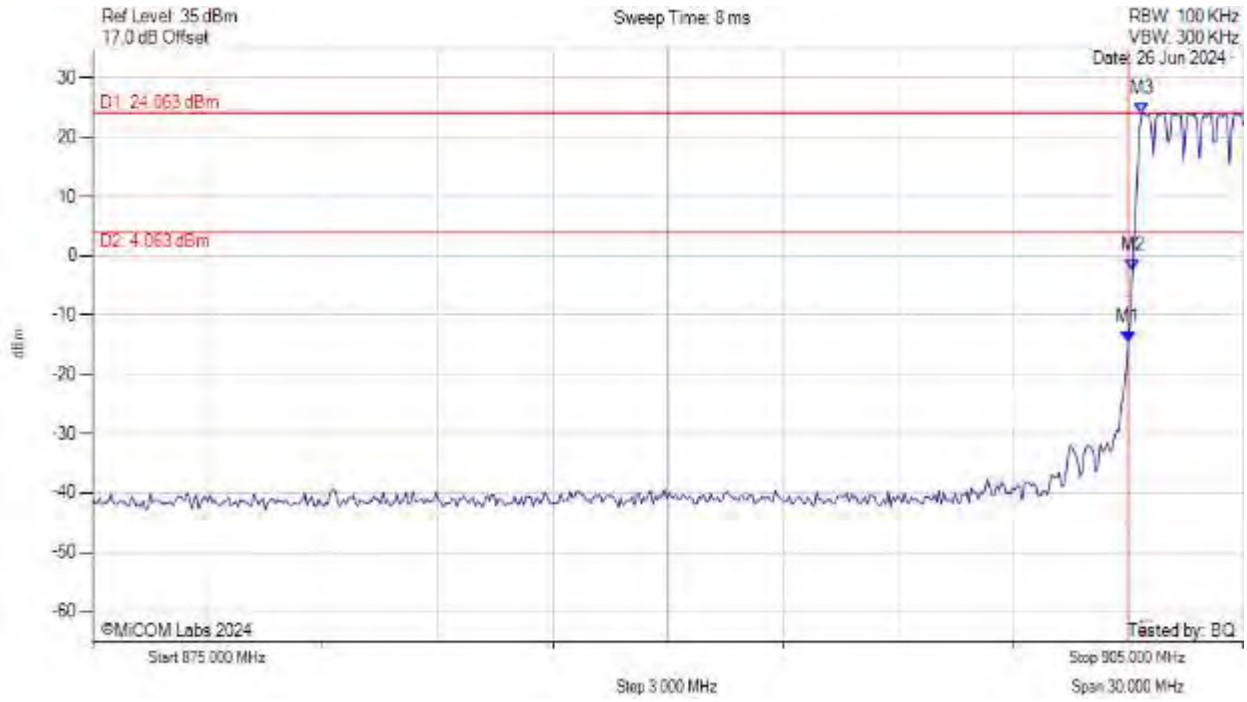


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -25.921 dBm M2 : 902.114 MHz : -15.831 dBm M3 : 902.415 MHz : 11.705 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

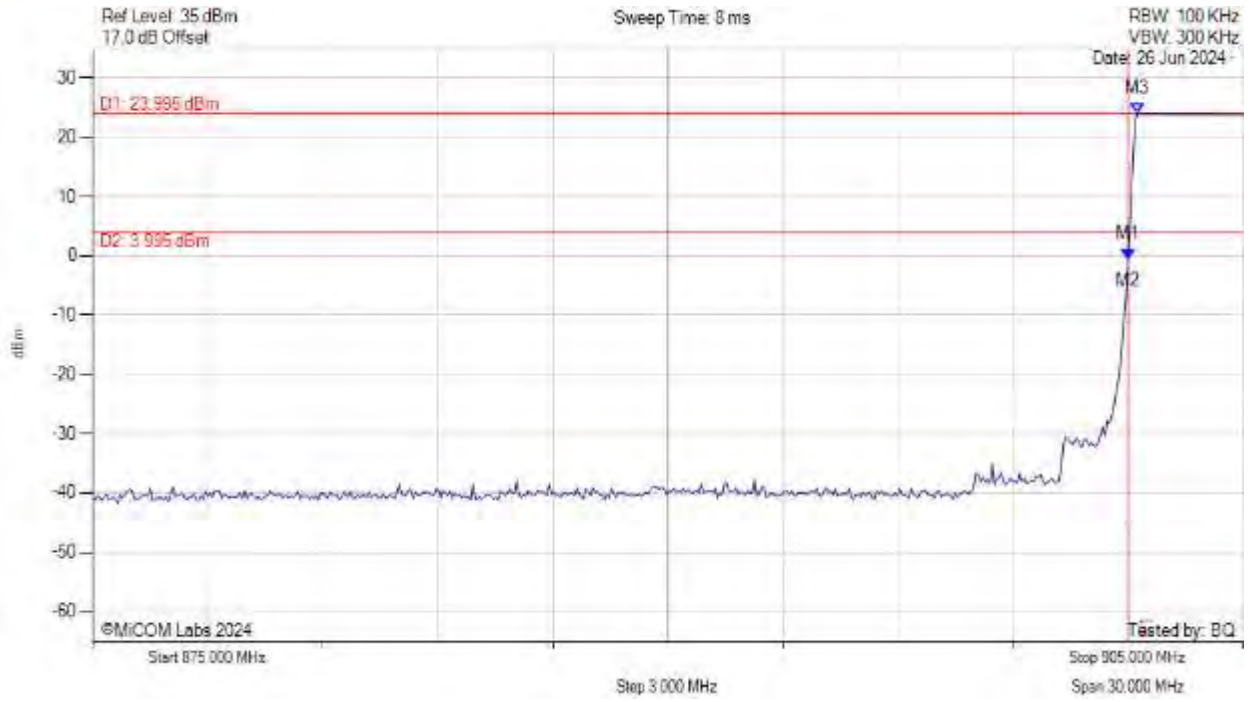


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -14.556 dBm M2 : 902.114 MHz : -2.358 dBm M3 : 902.355 MHz : 24.063 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

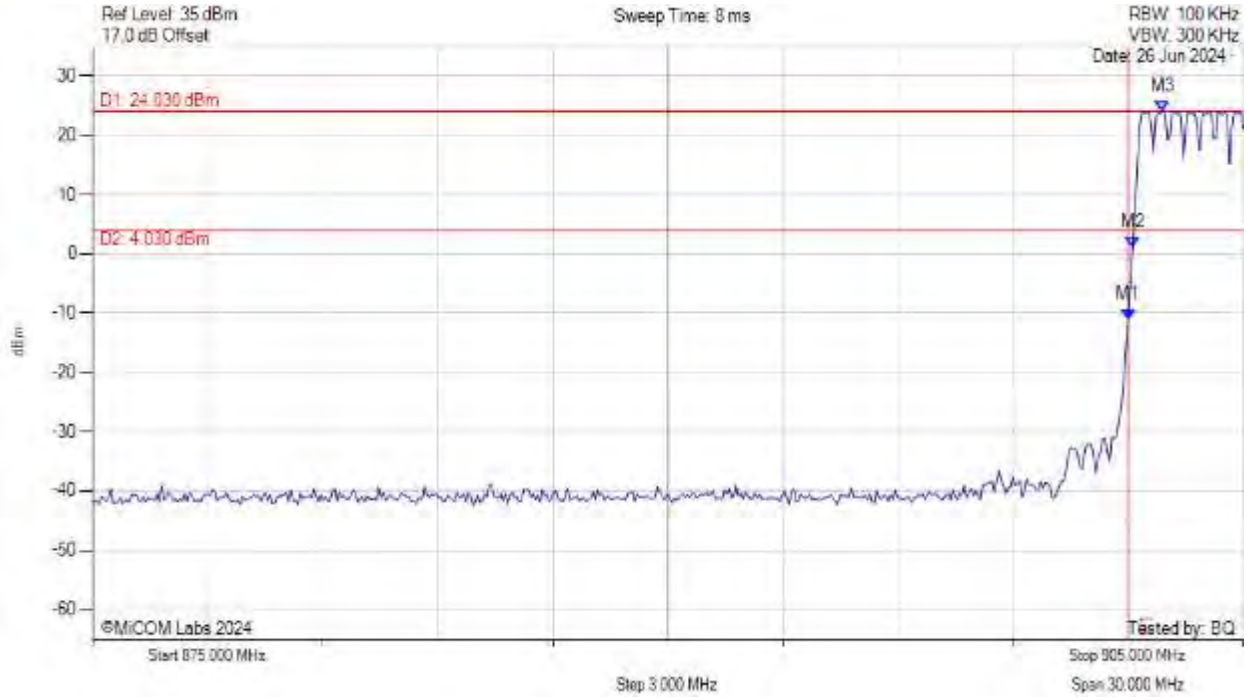


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -0.623 dBm M2 : 901.994 MHz : -0.623 dBm M3 : 902.234 MHz : 23.995 dBm	Channel Frequency: 902.20 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

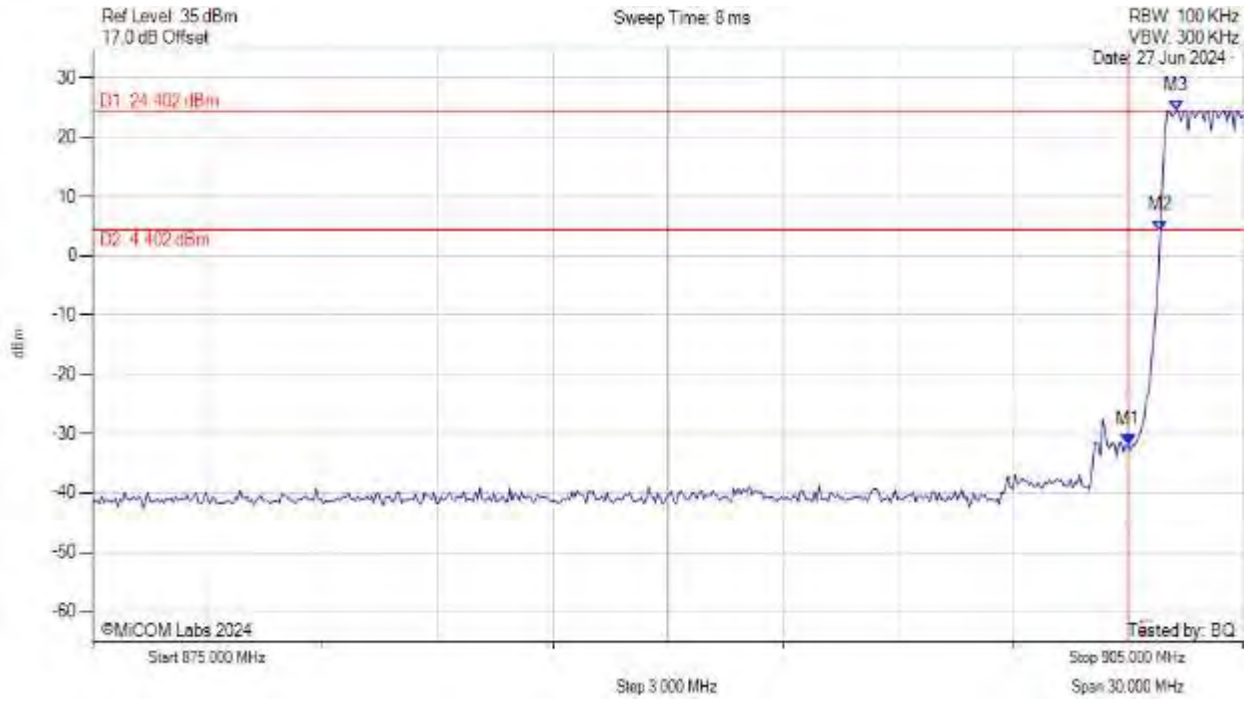


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -11.077 dBm M2 : 902.114 MHz : 1.036 dBm M3 : 902.896 MHz : 24.030 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 903.00 MHz, Chain a, Temp: 20

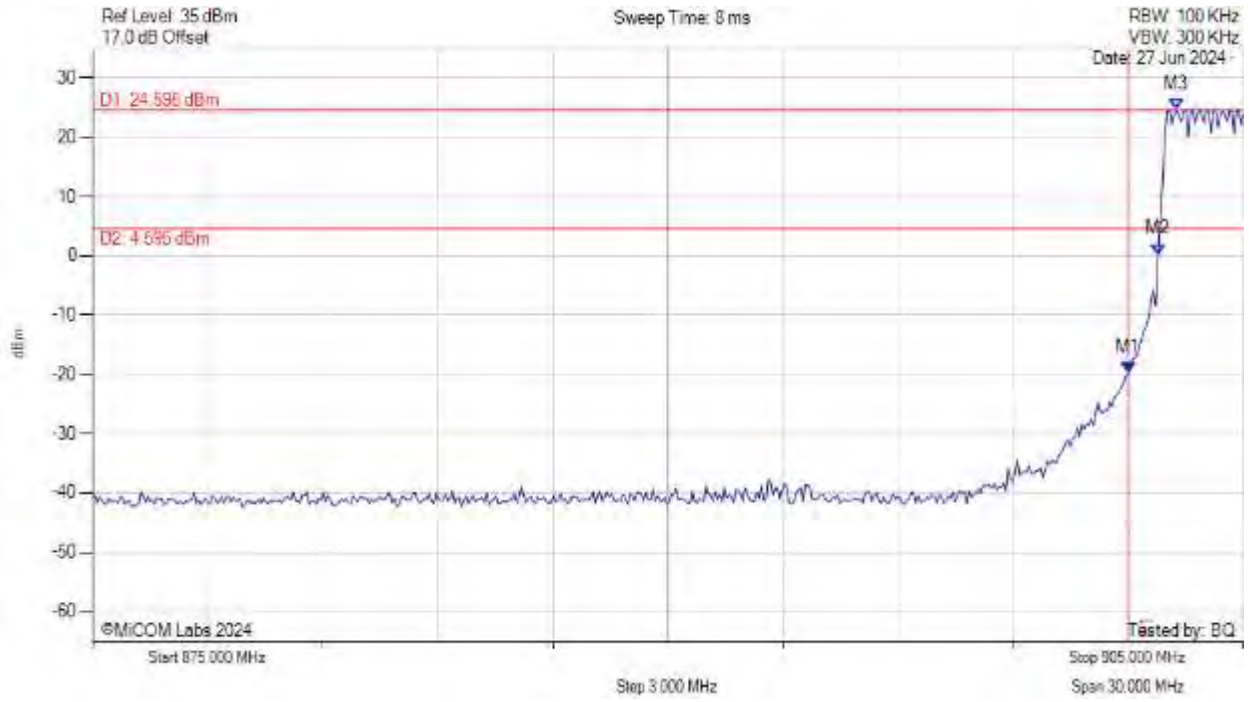


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -31.931 dBm M2 : 902.836 MHz : 4.240 dBm M3 : 903.257 MHz : 24.402 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: OOK PL 3, Channel: 903.00 MHz, Chain a, Temp: 20

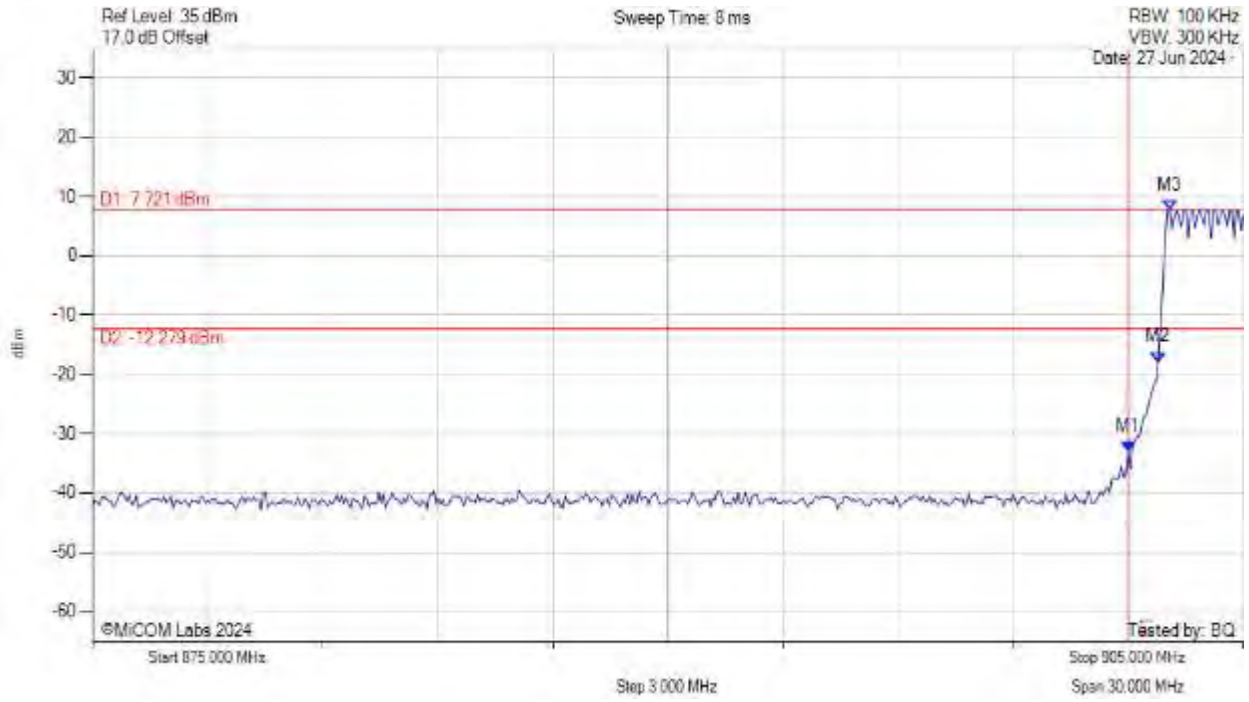


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -19.795 dBm M2 : 902.776 MHz : 0.274 dBm M3 : 903.257 MHz : 24.595 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: OOK PL1, Channel: 903.00 MHz, Chain a, Temp: 20

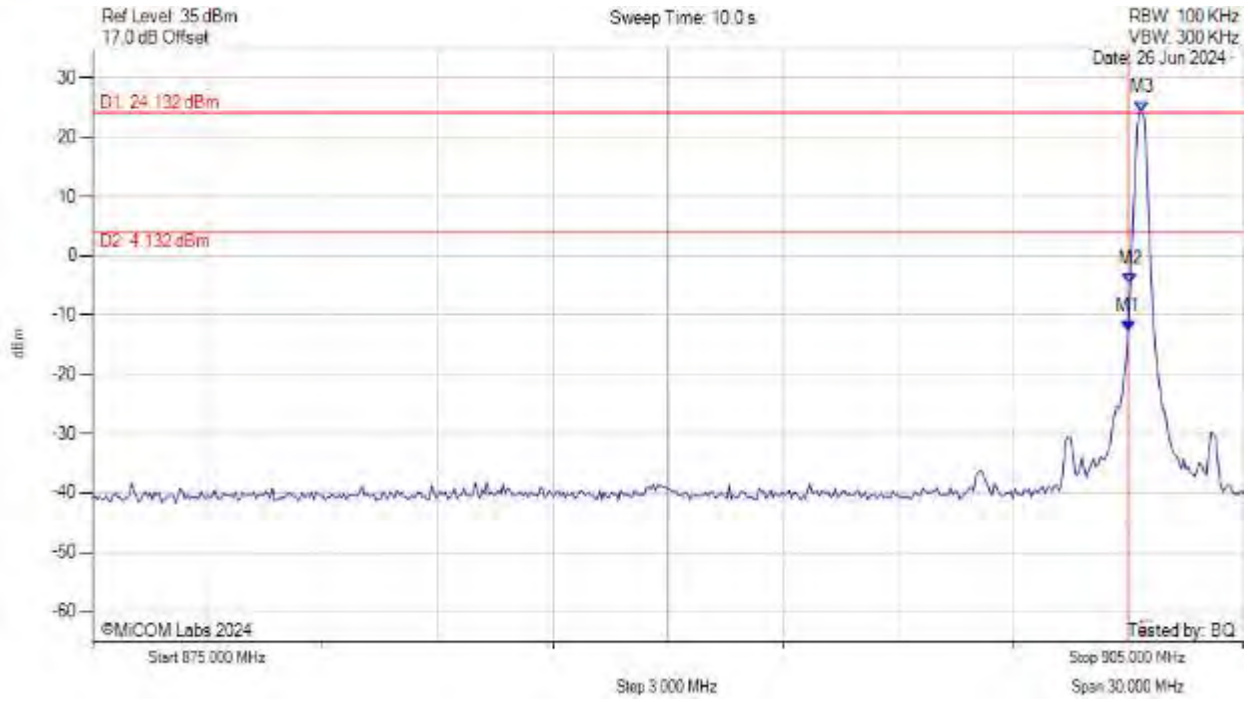


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -33.039 dBm M2 : 902.776 MHz : -17.957 dBm M3 : 903.076 MHz : 7.721 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 902.30 MHz, Chain a, Temp: 20

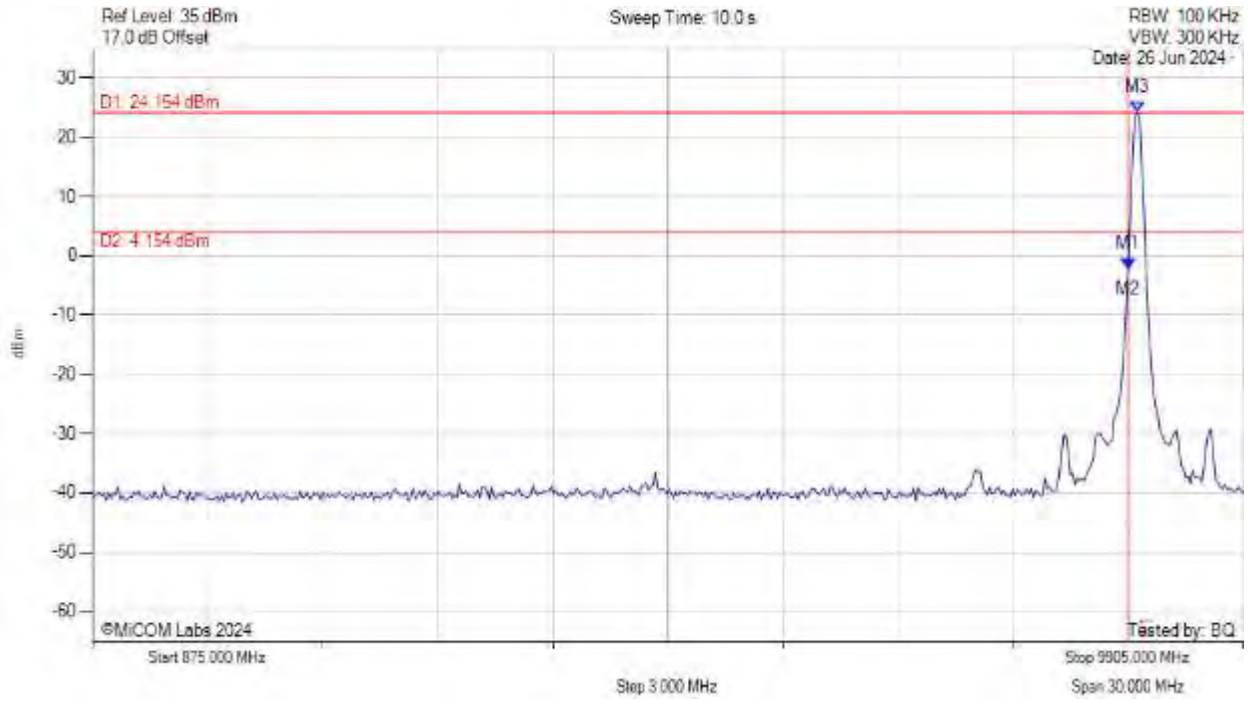


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -12.704 dBm M2 : 902.054 MHz : -4.819 dBm M3 : 902.355 MHz : 24.132 dBm	Channel Frequency: 902.30 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

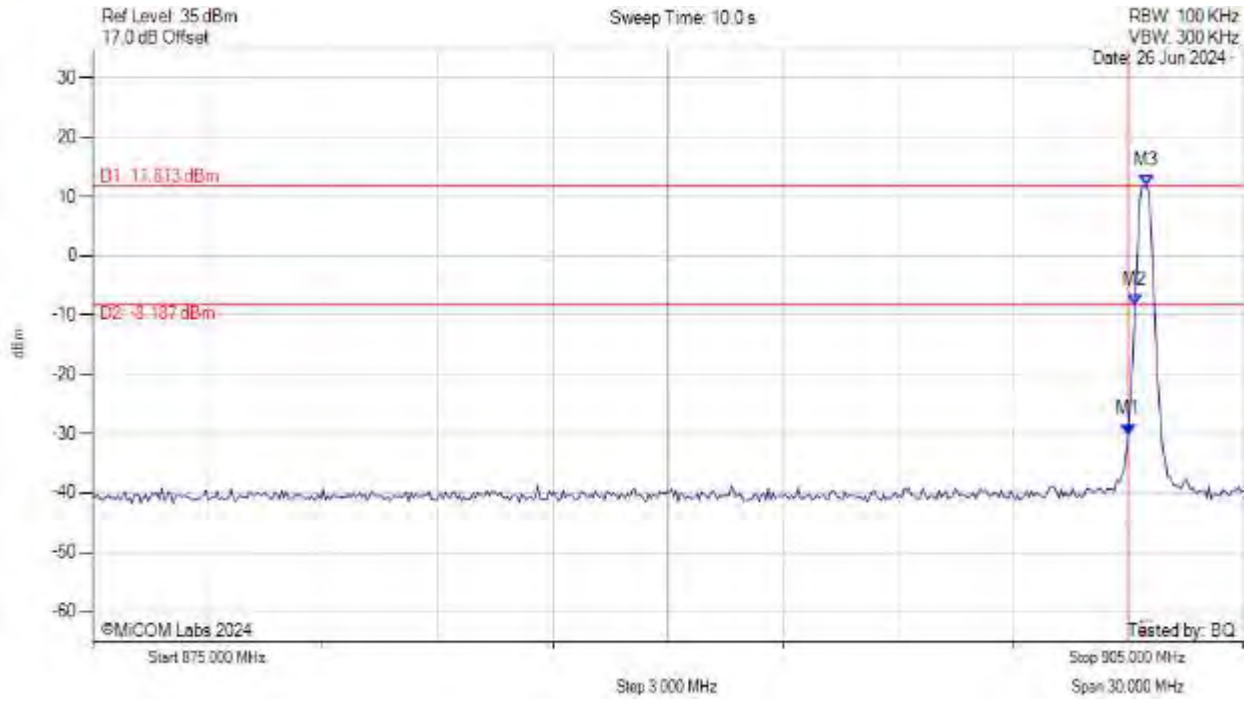


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -2.124 dBm M2 : 901.994 MHz : -2.124 dBm M3 : 902.234 MHz : 24.154 dBm	Channel Frequency: 902.20 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

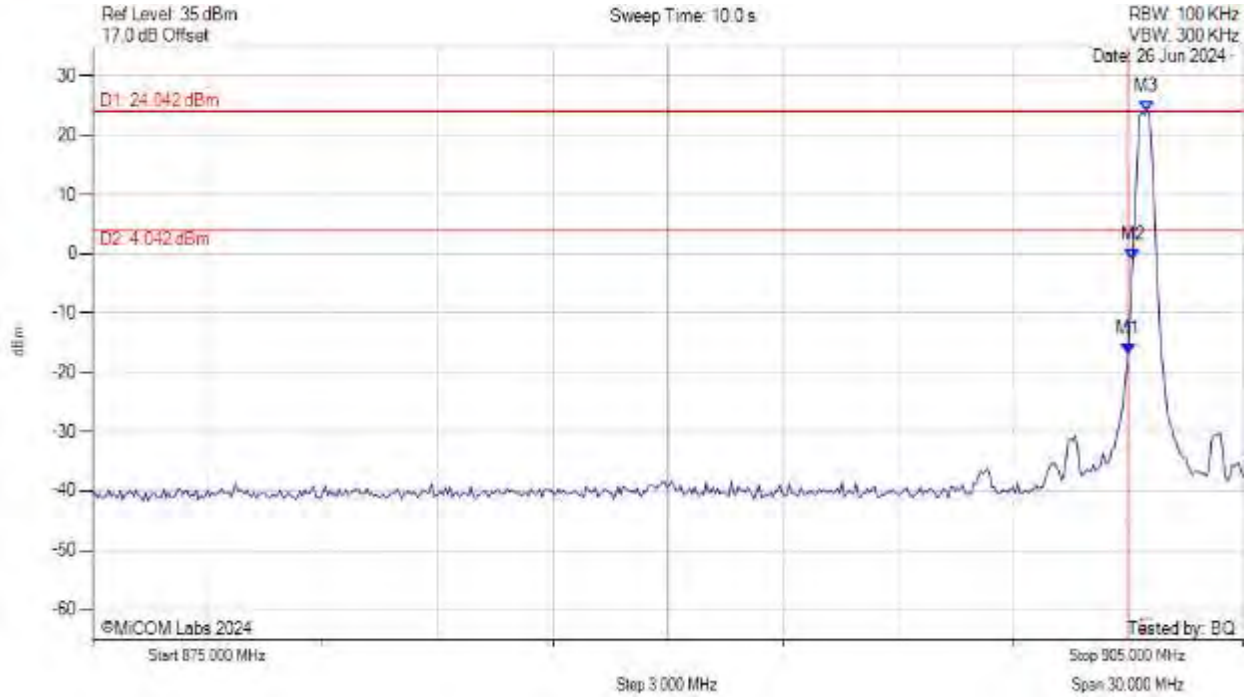


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -30.102 dBm M2 : 902.174 MHz : -8.364 dBm M3 : 902.475 MHz : 11.813 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

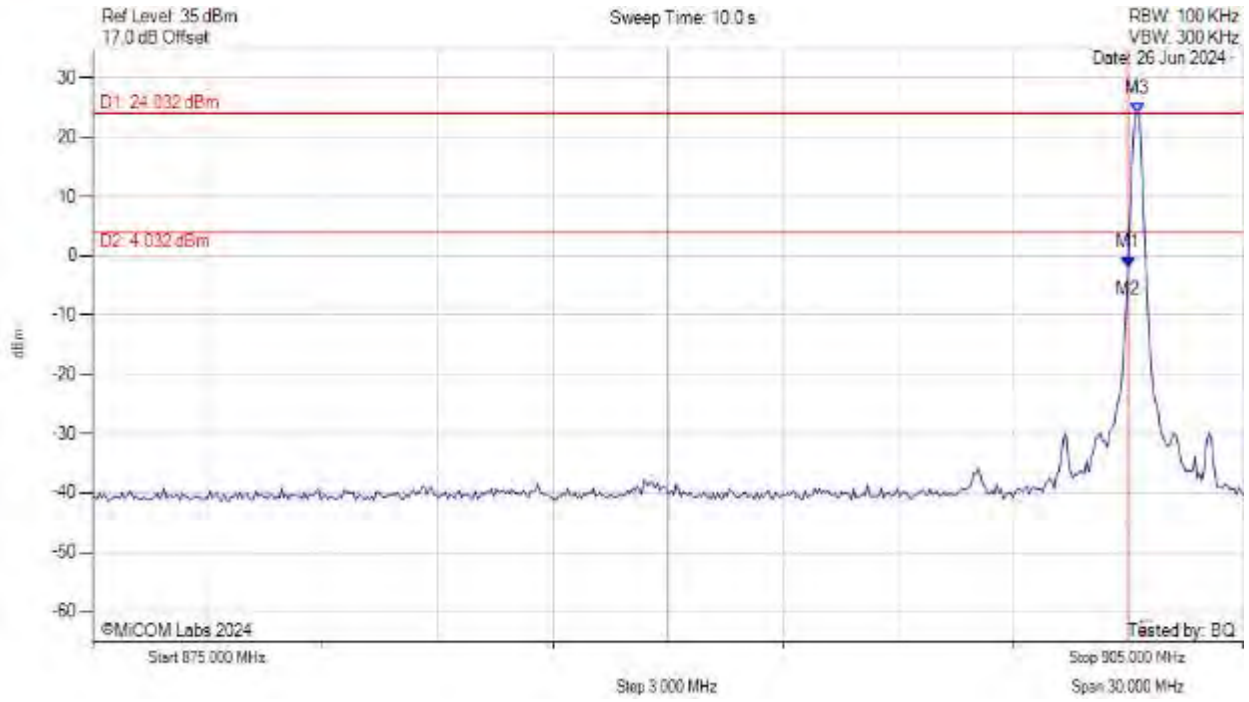


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -16.840 dBm M2 : 902.114 MHz : -1.034 dBm M3 : 902.475 MHz : 24.042 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 902.20 MHz, Chain a, Temp: 20

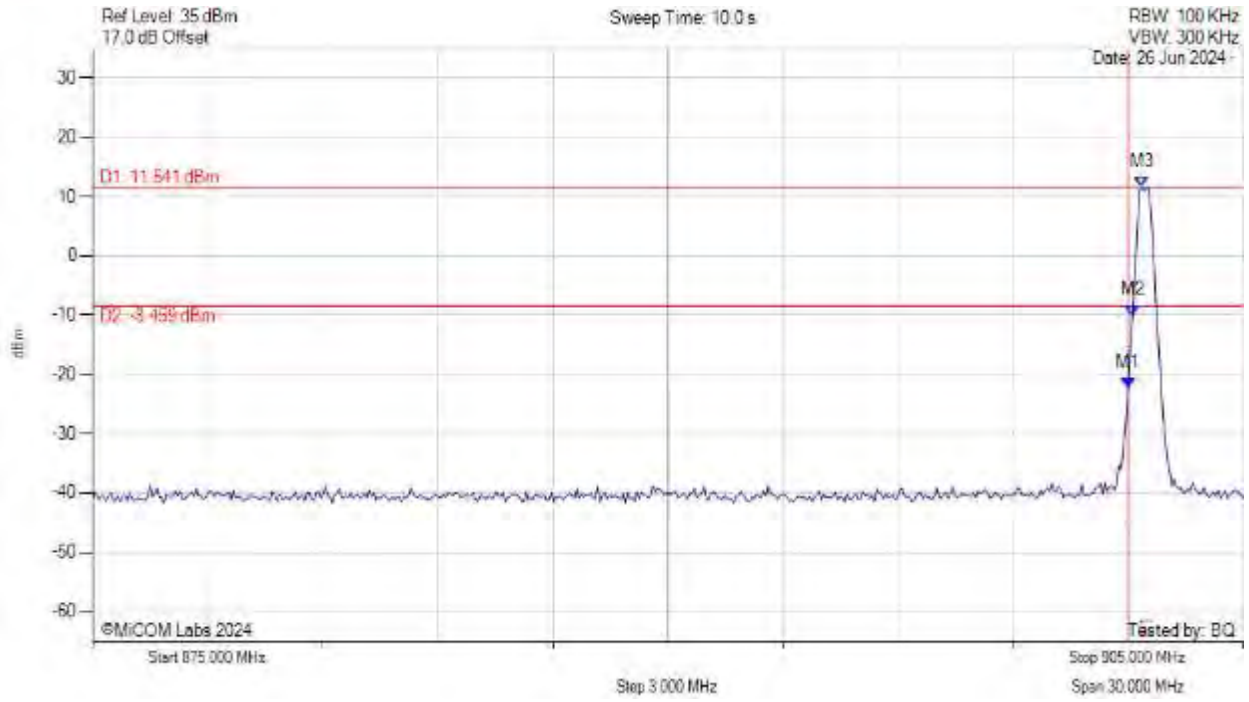


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -2.016 dBm M2 : 901.994 MHz : -2.016 dBm M3 : 902.234 MHz : 24.032 dBm	Channel Frequency: 902.20 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300kbps PL 2 (Hybrid), Channel: 902.40 MHz, Chain a, Temp: 20

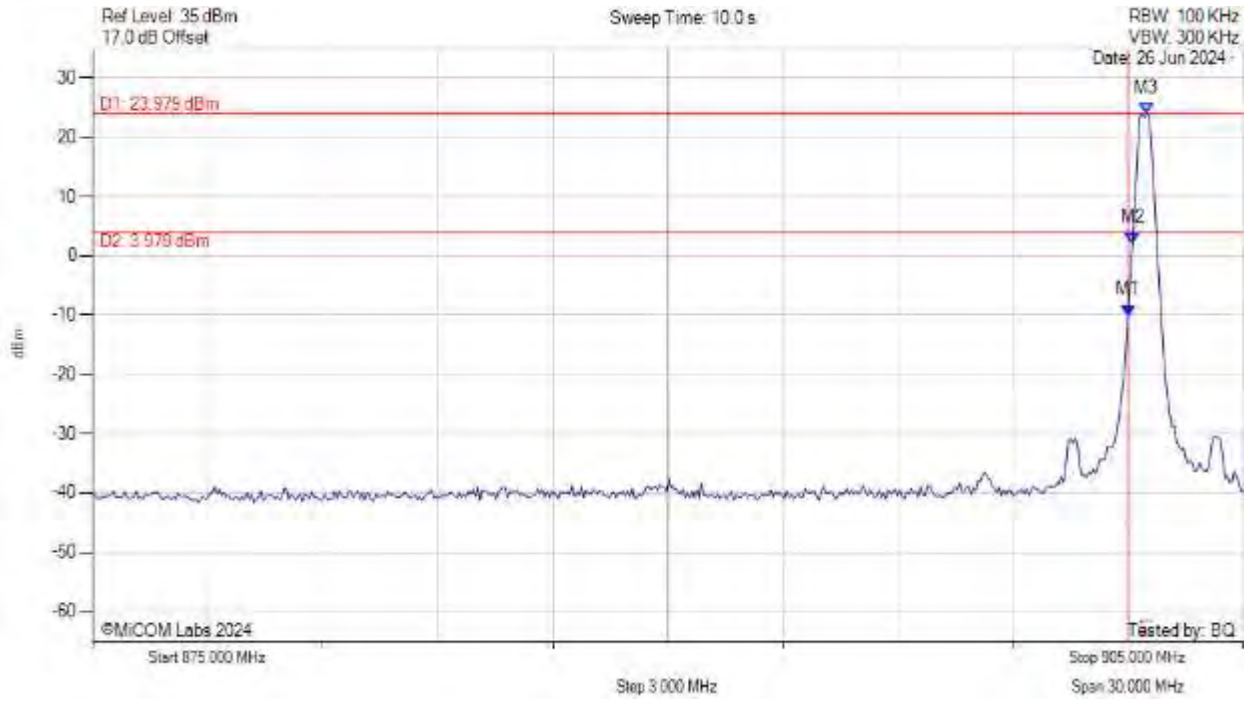


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -22.376 dBm M2 : 902.114 MHz : -10.021 dBm M3 : 902.355 MHz : 11.541 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 902.40 MHz, Chain a, Temp: 20

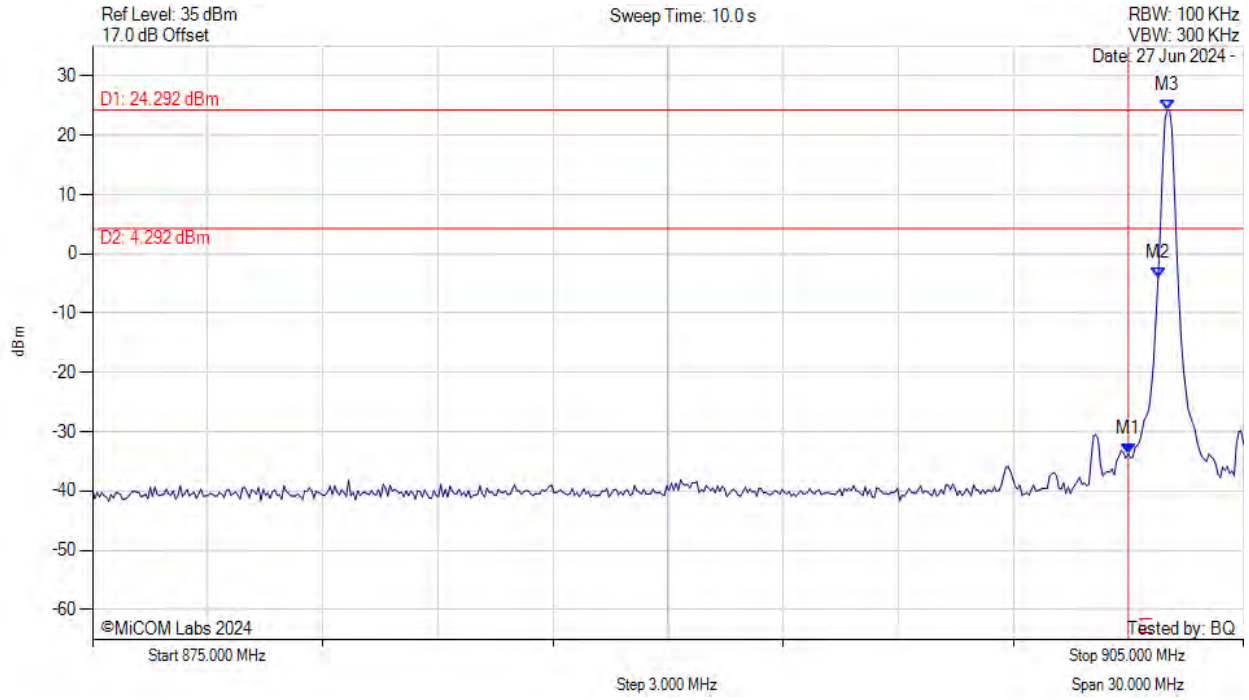


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -10.011 dBm M2 : 902.114 MHz : 2.145 dBm M3 : 902.475 MHz : 23.979 dBm	Channel Frequency: 902.40 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 903.00 MHz, Chain a, Temp: 20

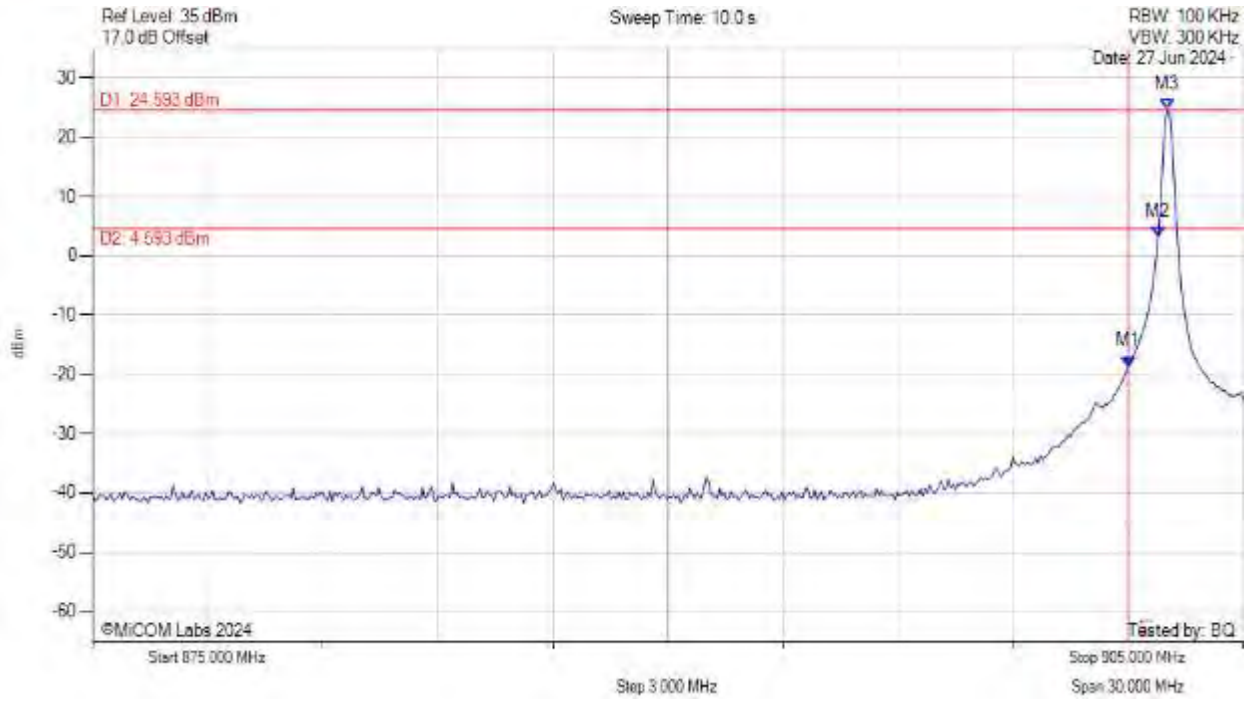


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -33.706 dBm M2 : 902.776 MHz : -3.963 dBm M3 : 903.016 MHz : 24.292 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: OOK PL 3, Channel: 903.00 MHz, Chain a, Temp: 20

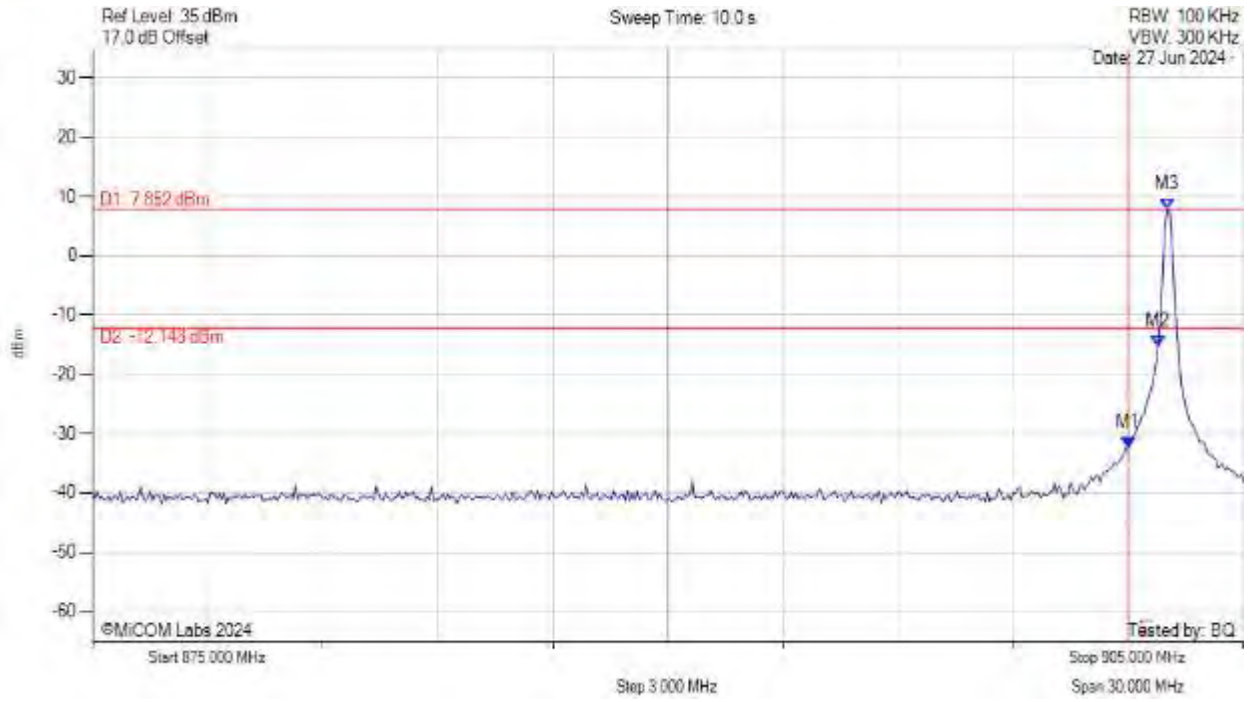


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -18.658 dBm M2 : 902.776 MHz : 3.164 dBm M3 : 903.016 MHz : 24.593 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: OOK PL1, Channel: 903.00 MHz, Chain a, Temp: 20

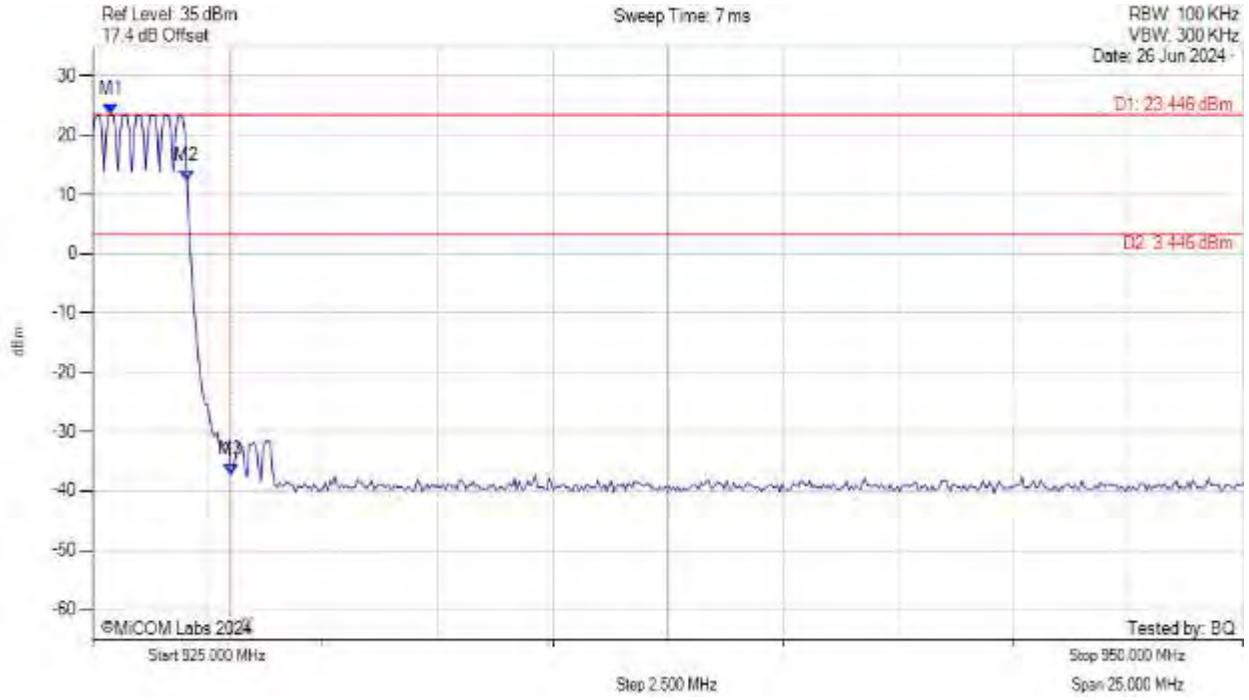


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -32.390 dBm M2 : 902.776 MHz : -15.309 dBm M3 : 903.016 MHz : 7.852 dBm	Channel Frequency: 903.00 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 926.90 MHz, Chain a, Temp: 20

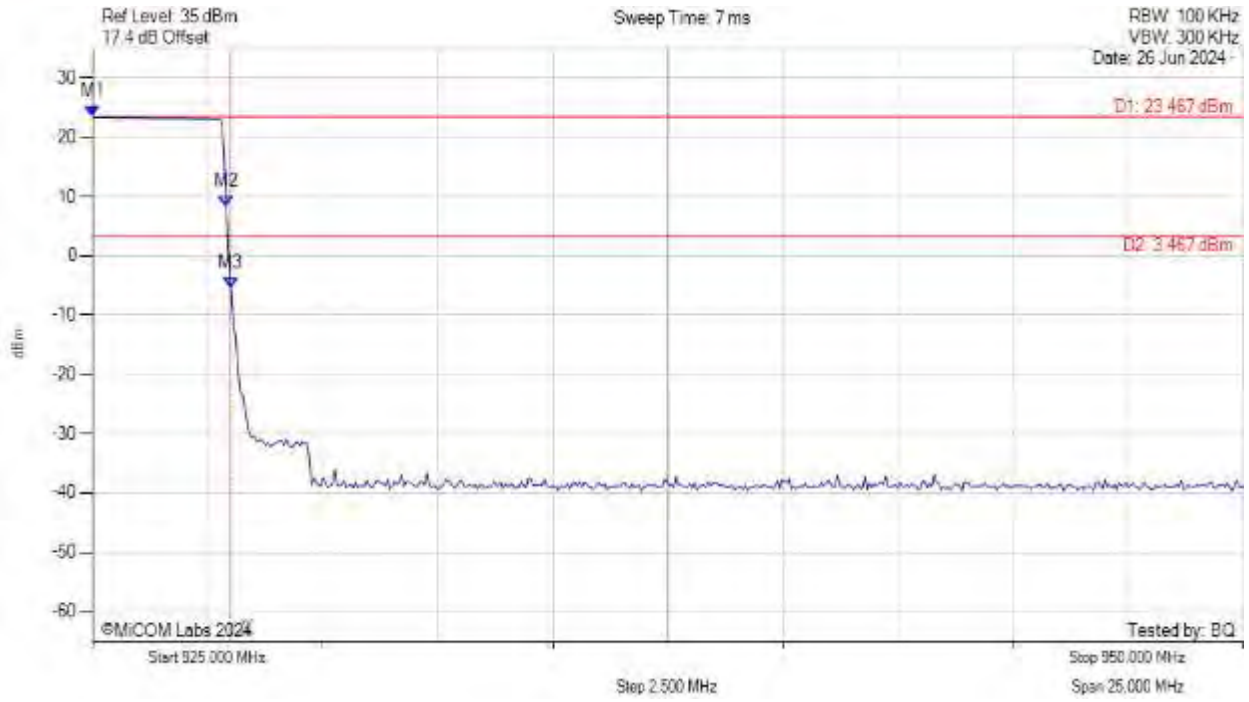


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.401 MHz : 23.446 dBm M2 : 927.054 MHz : 12.251 dBm M3 : 928.000 MHz : -37.192 dBm	Channel Frequency: 926.90 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

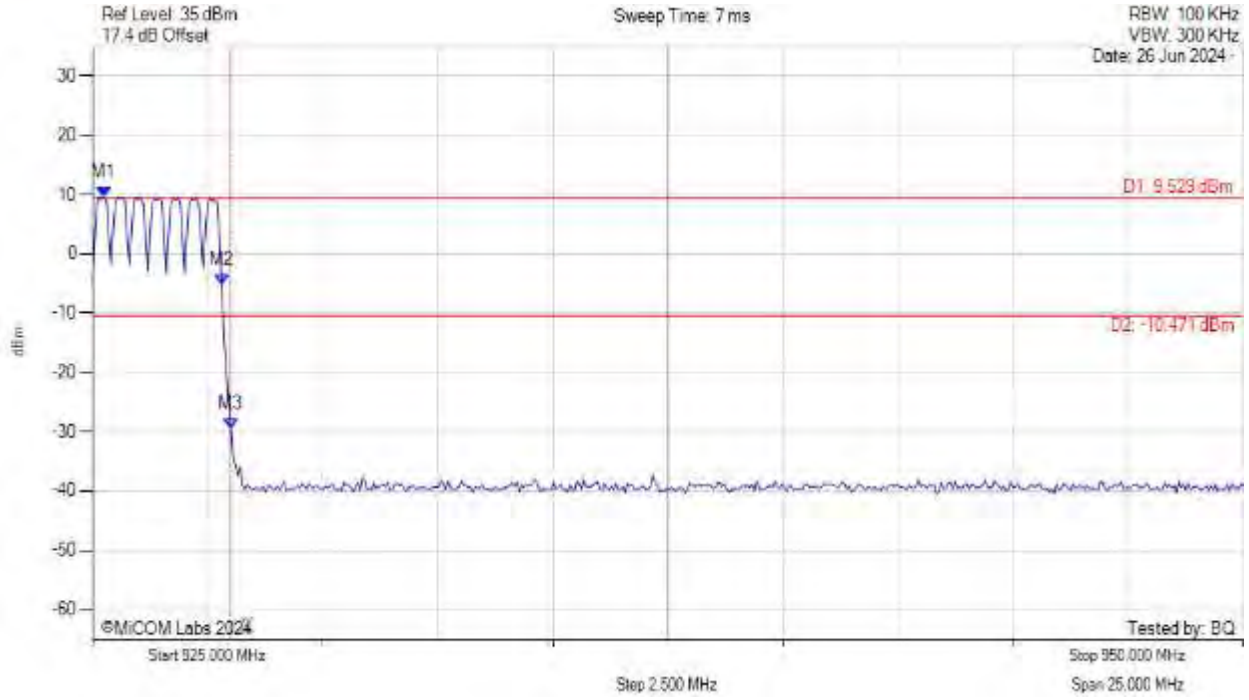


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.000 MHz : 23.467 dBm M2 : 927.906 MHz : 8.315 dBm M3 : 928.000 MHz : -5.518 dBm	Channel Frequency: 927.75 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

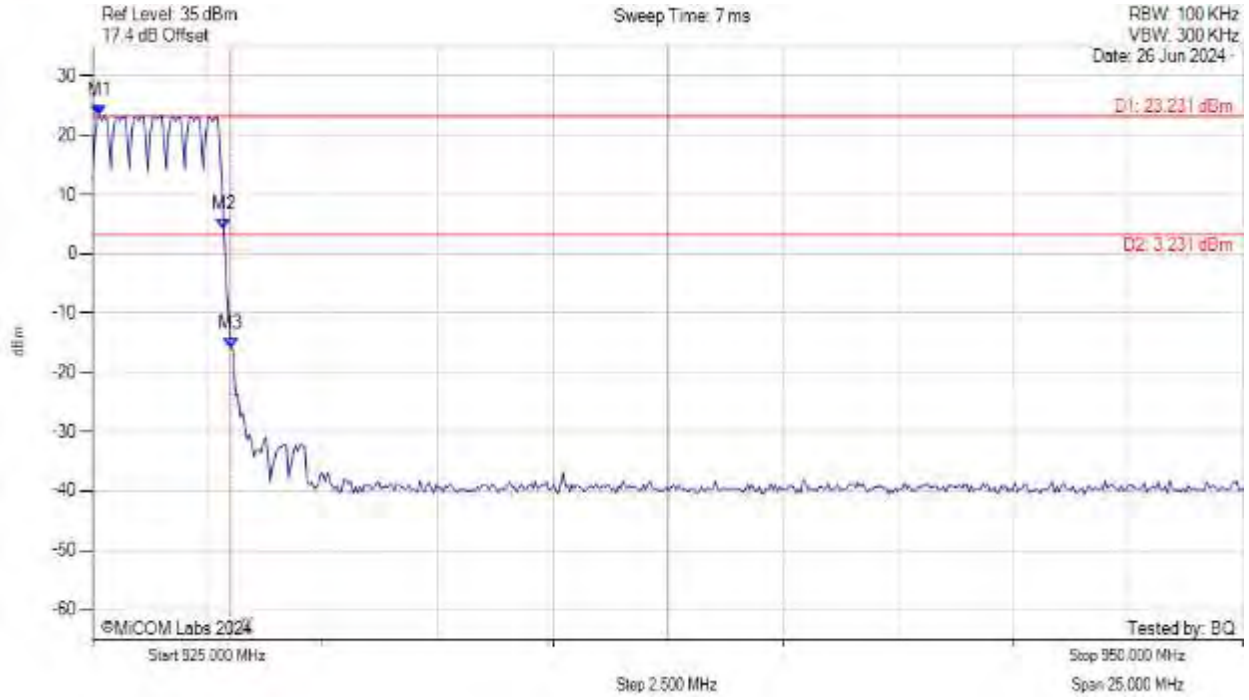


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.251 MHz : 9.529 dBm M2 : 927.806 MHz : -5.242 dBm M3 : 928.000 MHz : -29.561 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

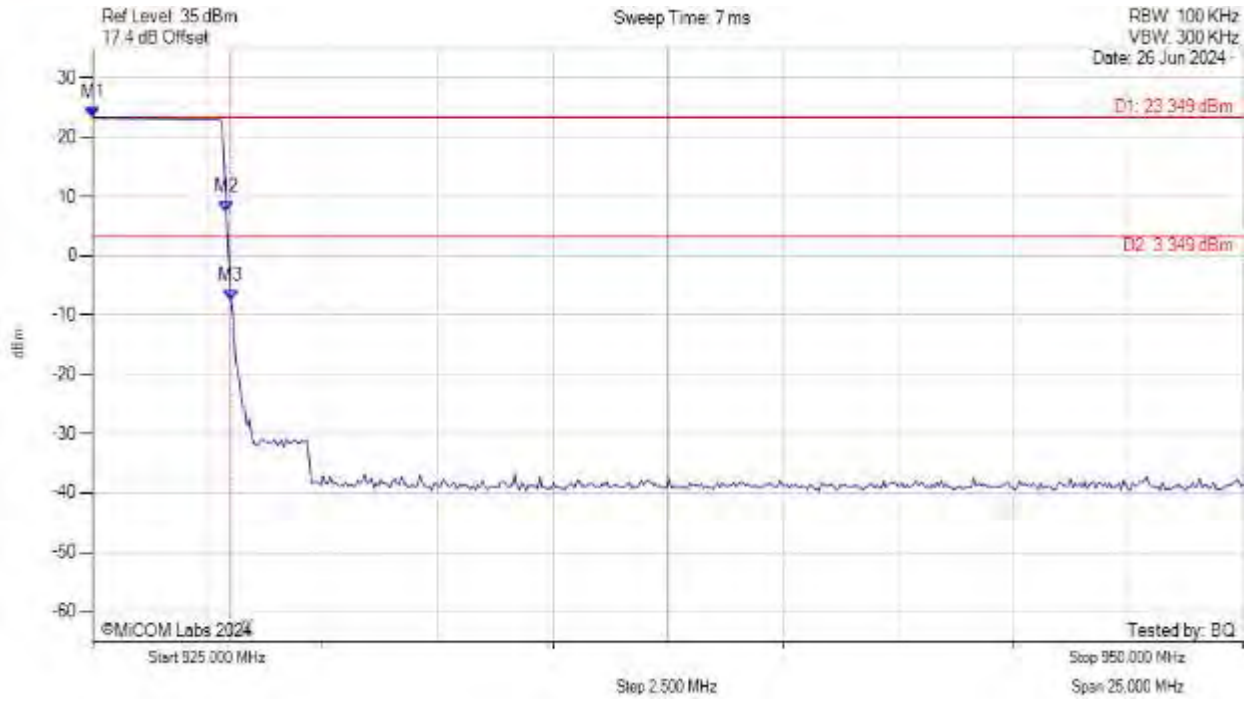


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.150 MHz : 23.231 dBm M2 : 927.856 MHz : 4.055 dBm M3 : 928.000 MHz : -16.071 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

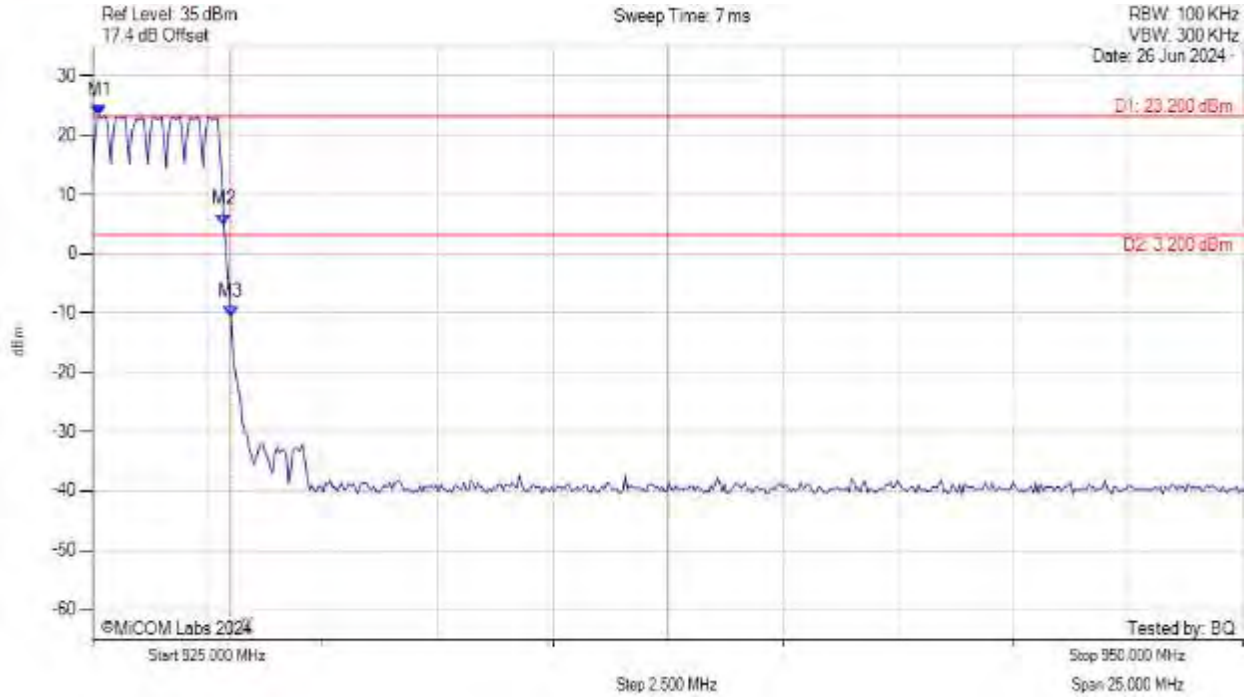


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.000 MHz : 23.349 dBm M2 : 927.906 MHz : 7.313 dBm M3 : 928.000 MHz : -7.515 dBm	Channel Frequency: 927.75 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

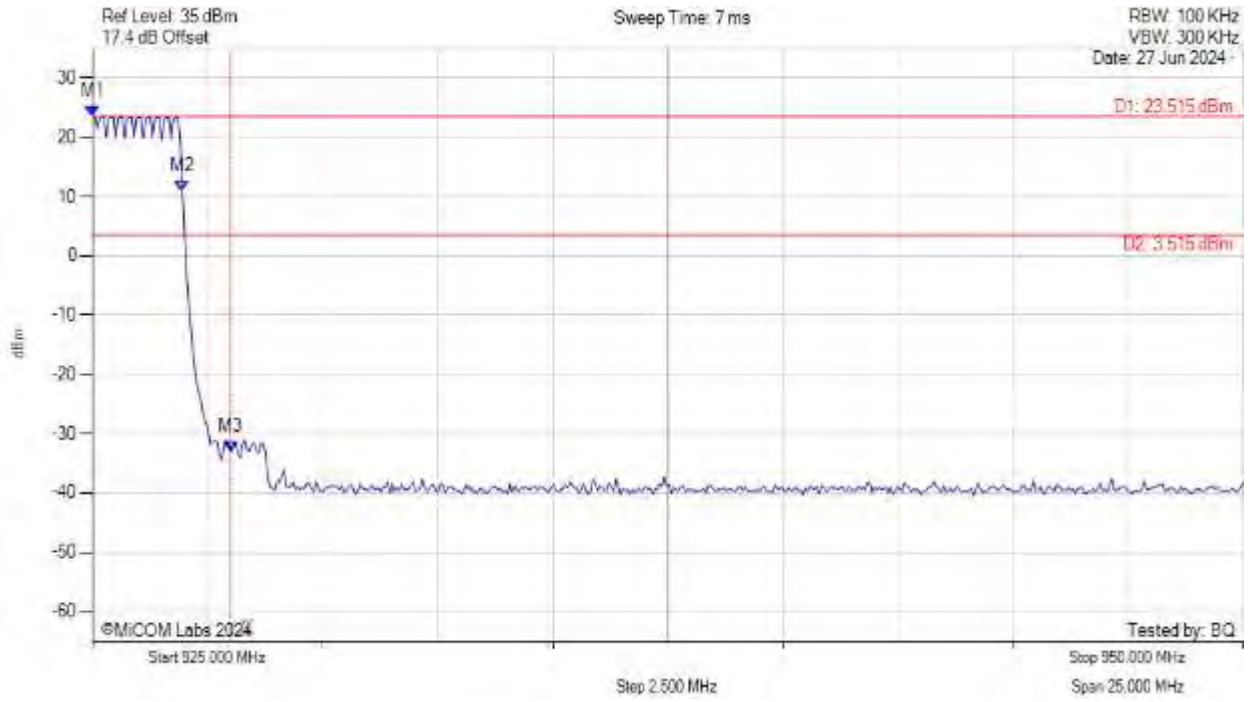


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.150 MHz : 23.200 dBm M2 : 927.856 MHz : 4.947 dBm M3 : 928.000 MHz : -10.582 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 926.80 MHz, Chain a, Temp: 20

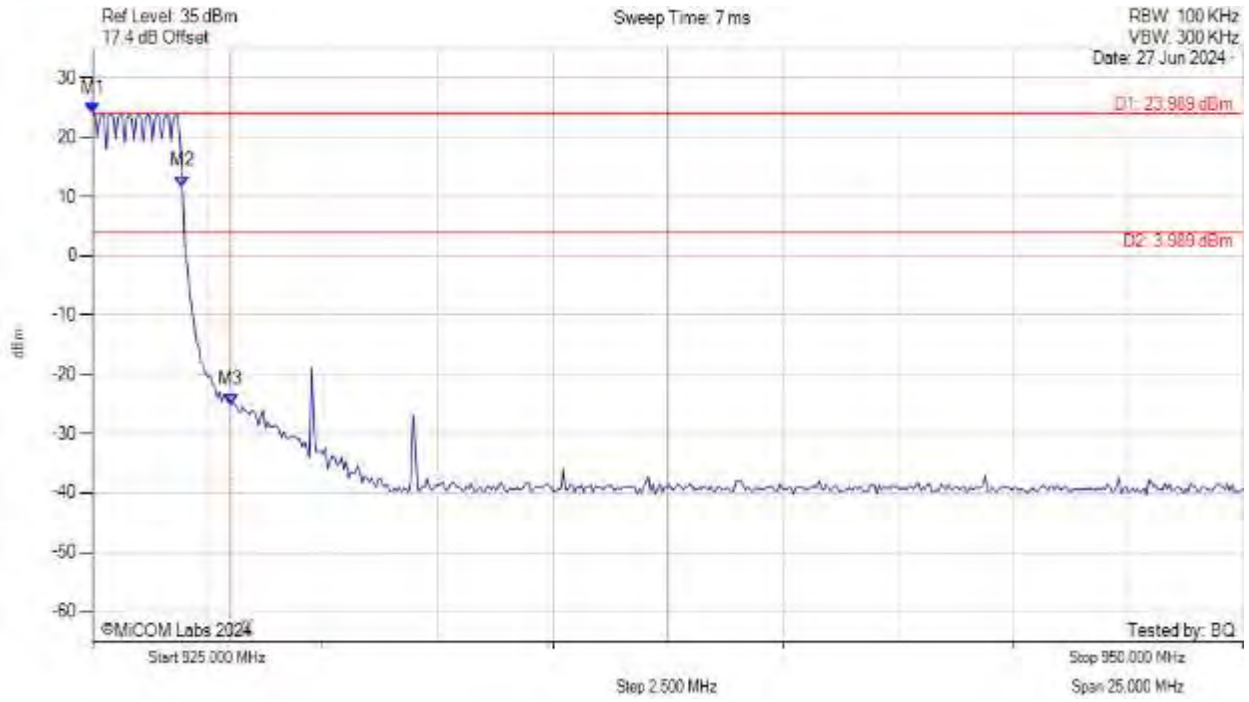


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.000 MHz : 23.515 dBm M2 : 926.954 MHz : 10.906 dBm M3 : 928.000 MHz : -33.067 dBm	Channel Frequency: 926.80 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: OOK PL 3, Channel: 926.80 MHz, Chain a, Temp: 20

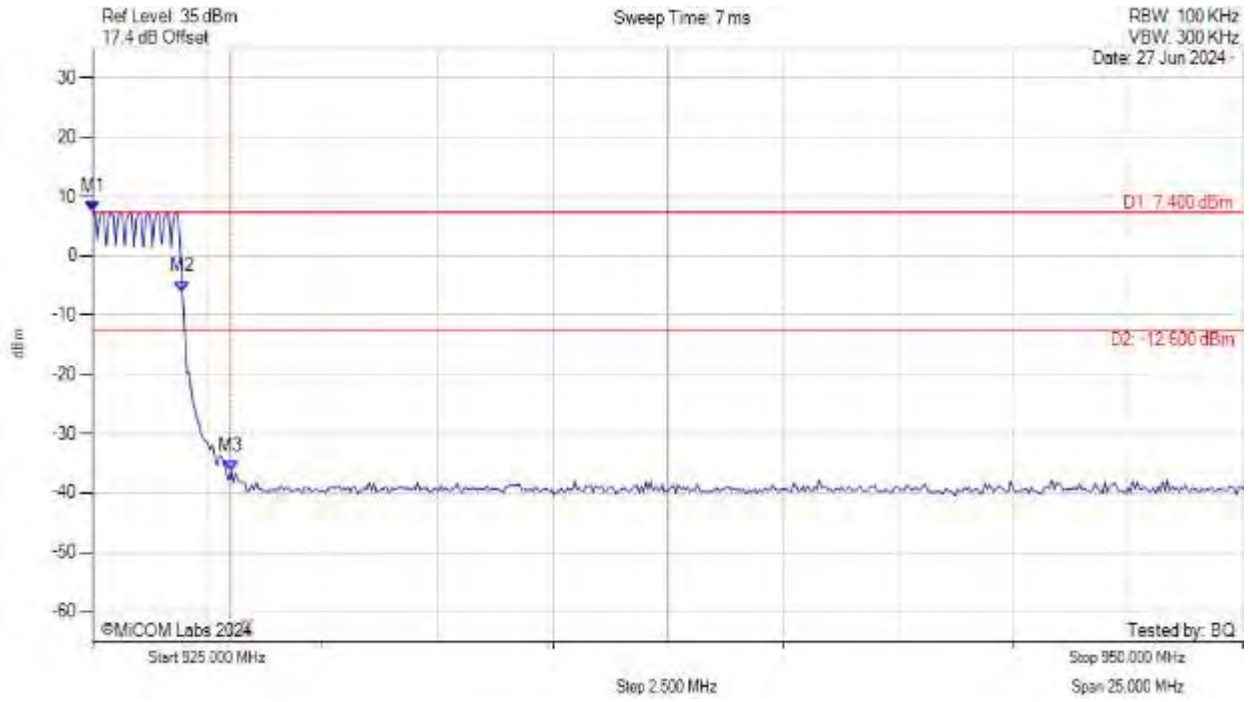


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.000 MHz : 23.989 dBm M2 : 926.954 MHz : 11.712 dBm M3 : 928.000 MHz : -24.998 dBm	Channel Frequency: 926.80 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: OOK PL1, Channel: 926.80 MHz, Chain a, Temp: 20

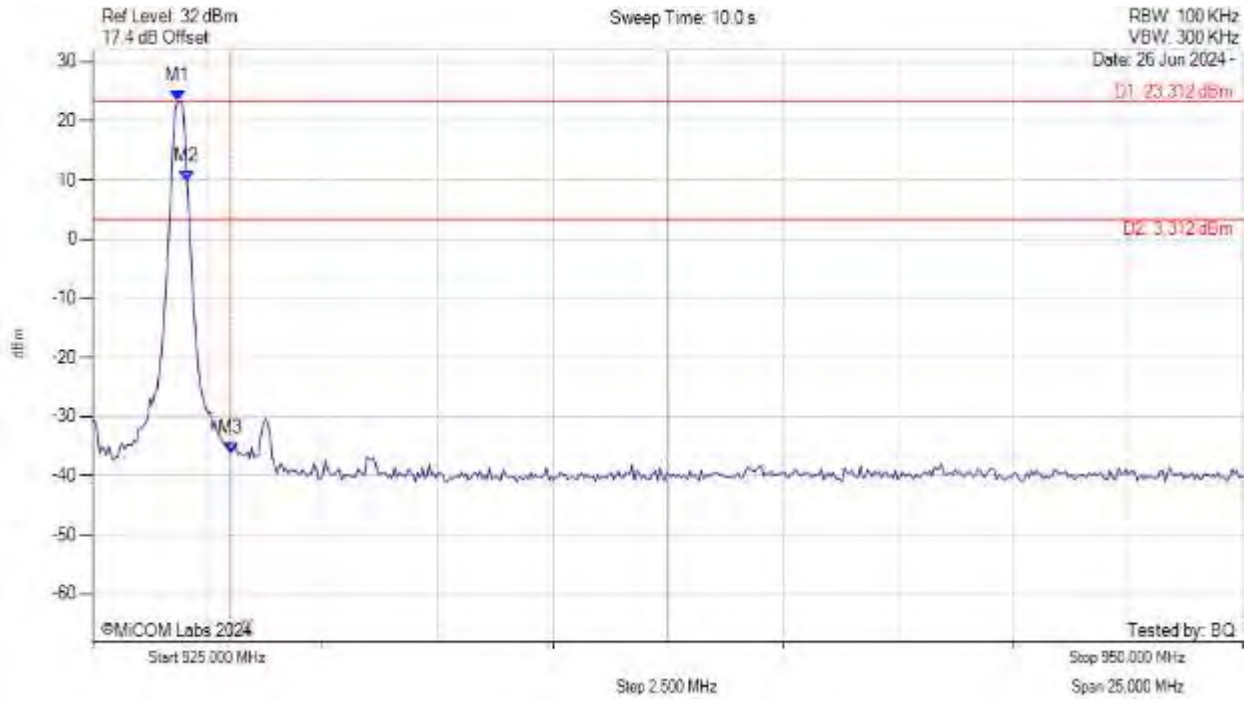


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.000 MHz : 7.400 dBm M2 : 926.954 MHz : -6.031 dBm M3 : 928.000 MHz : -36.248 dBm	Channel Frequency: 926.80 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 100kbps, PL 3 (FHSS), Channel: 926.90 MHz, Chain a, Temp: 20

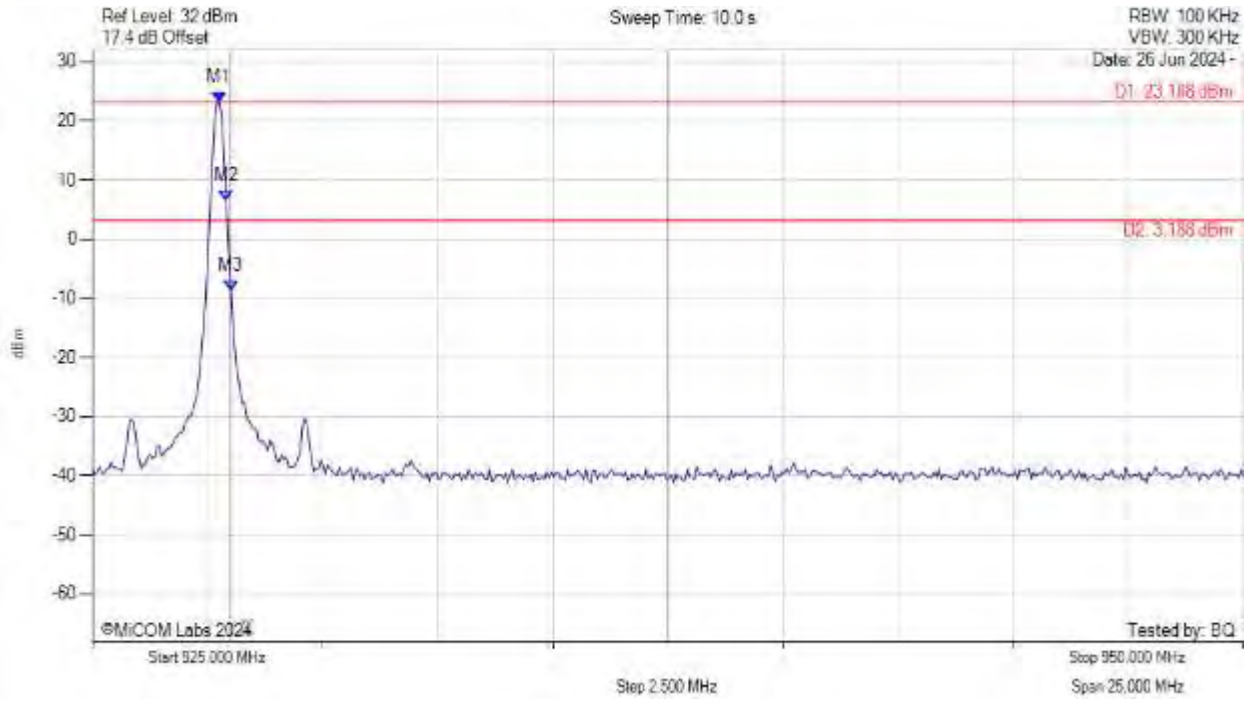


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.854 MHz : 23.312 dBm M2 : 927.054 MHz : 9.802 dBm M3 : 928.000 MHz : -36.104 dBm	Channel Frequency: 926.90 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 10kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

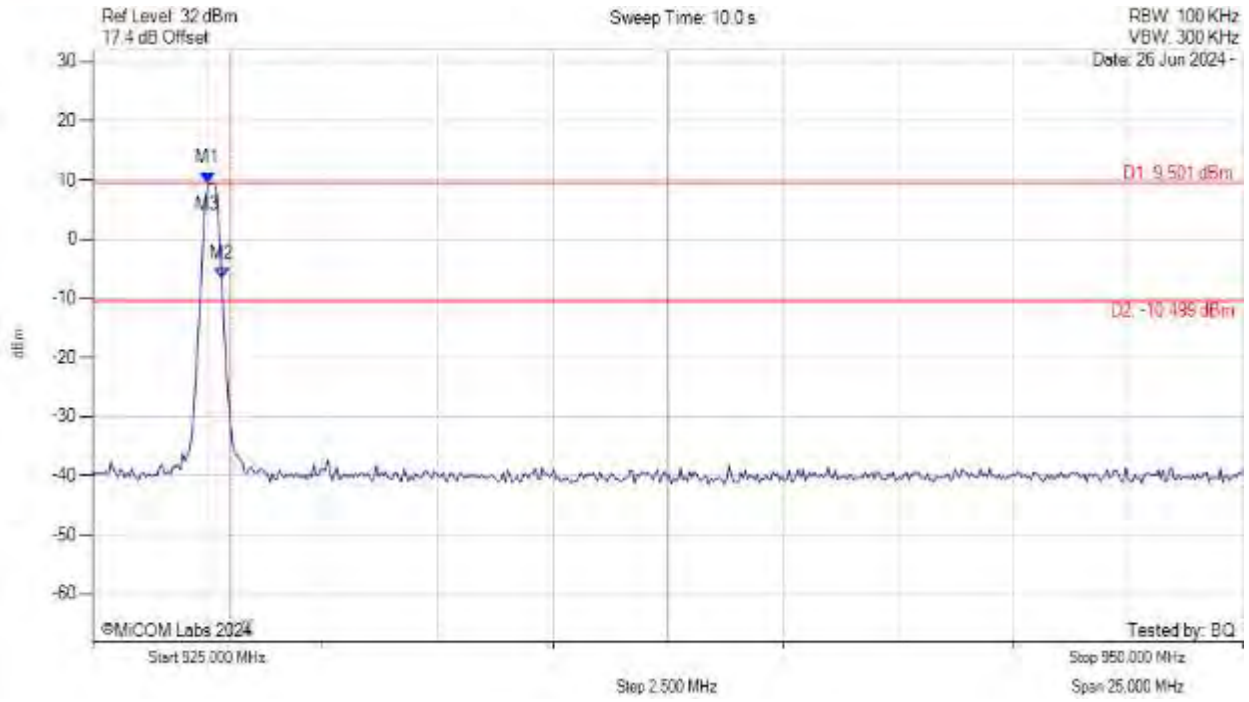


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.756 MHz : 23.188 dBm M2 : 927.906 MHz : 6.379 dBm M3 : 928.000 MHz : -8.779 dBm	Channel Frequency: 927.75 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150kbps, PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

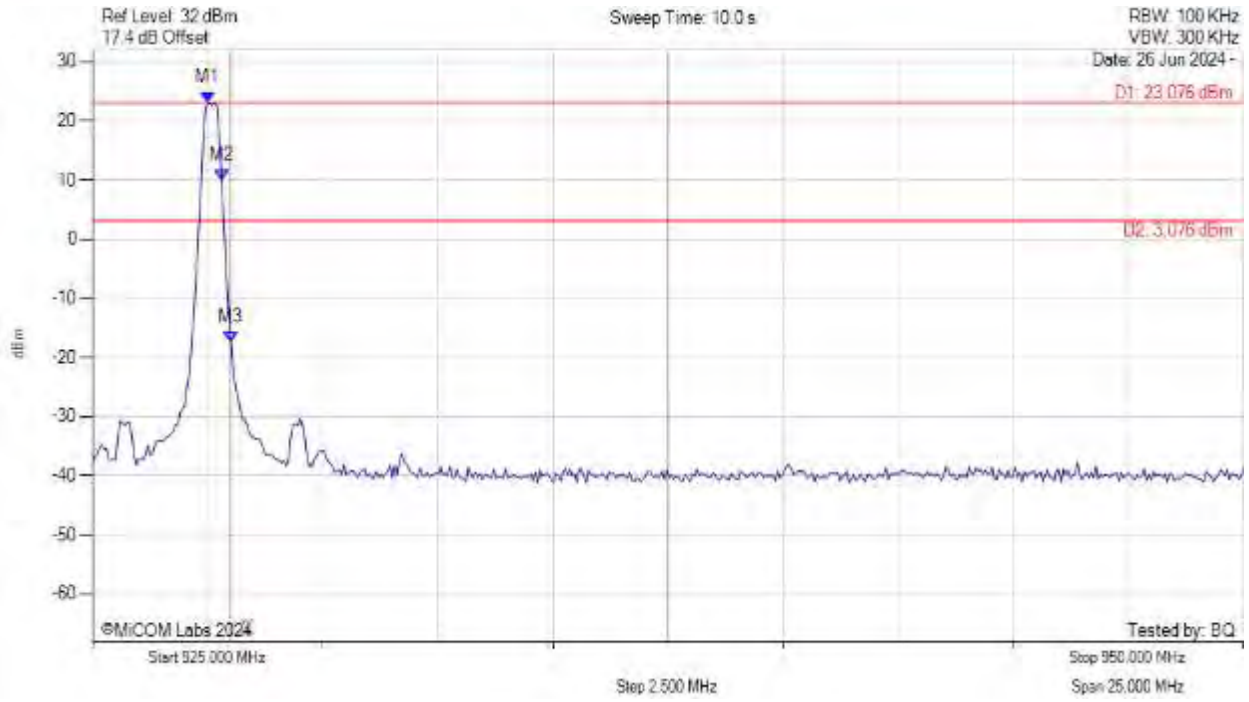


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.505 MHz : 9.501 dBm M2 : 927.806 MHz : -6.751 dBm M3 : 927.505 MHz : 9.501 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150kbps, PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

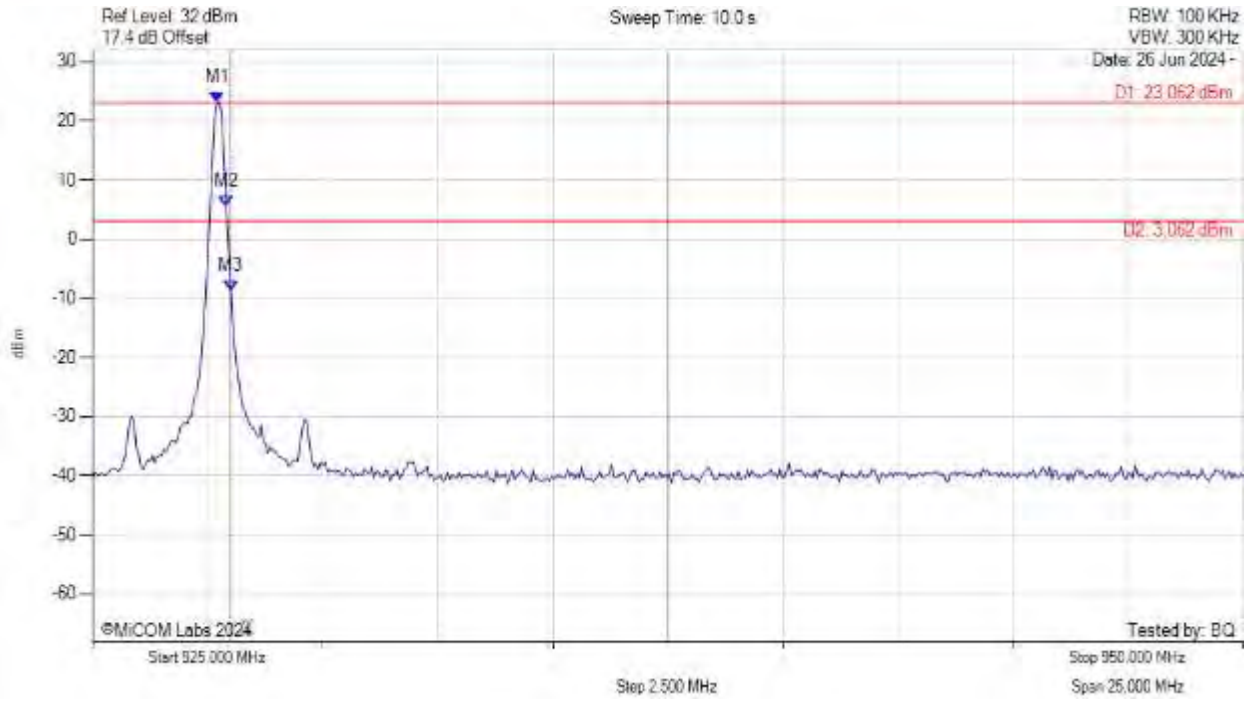


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.505 MHz : 23.076 dBm M2 : 927.806 MHz : 10.048 dBm M3 : 928.000 MHz : -17.373 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 25kbps, PL 3 (FHSS), Channel: 927.75 MHz, Chain a, Temp: 20

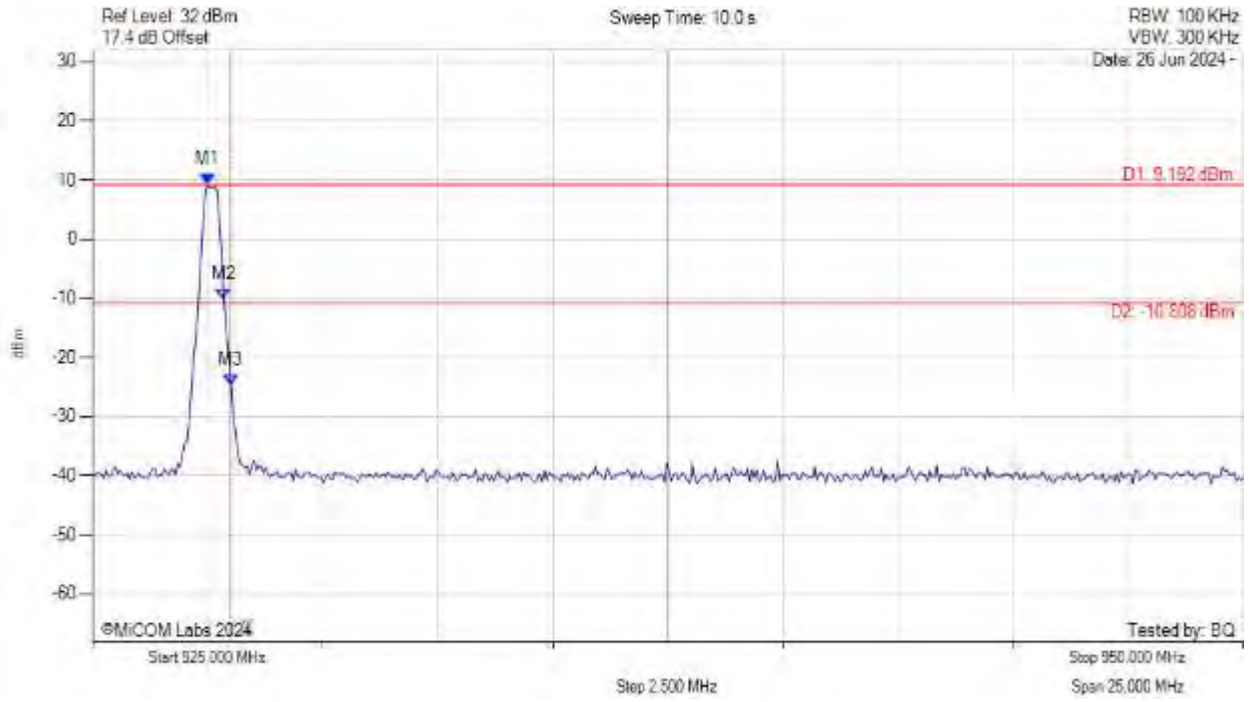


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.705 MHz : 23.062 dBm M2 : 927.906 MHz : 5.498 dBm M3 : 928.000 MHz : -8.842 dBm	Channel Frequency: 927.75 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300kbps PL 2 (Hybrid), Channel: 927.60 MHz, Chain a, Temp: 20

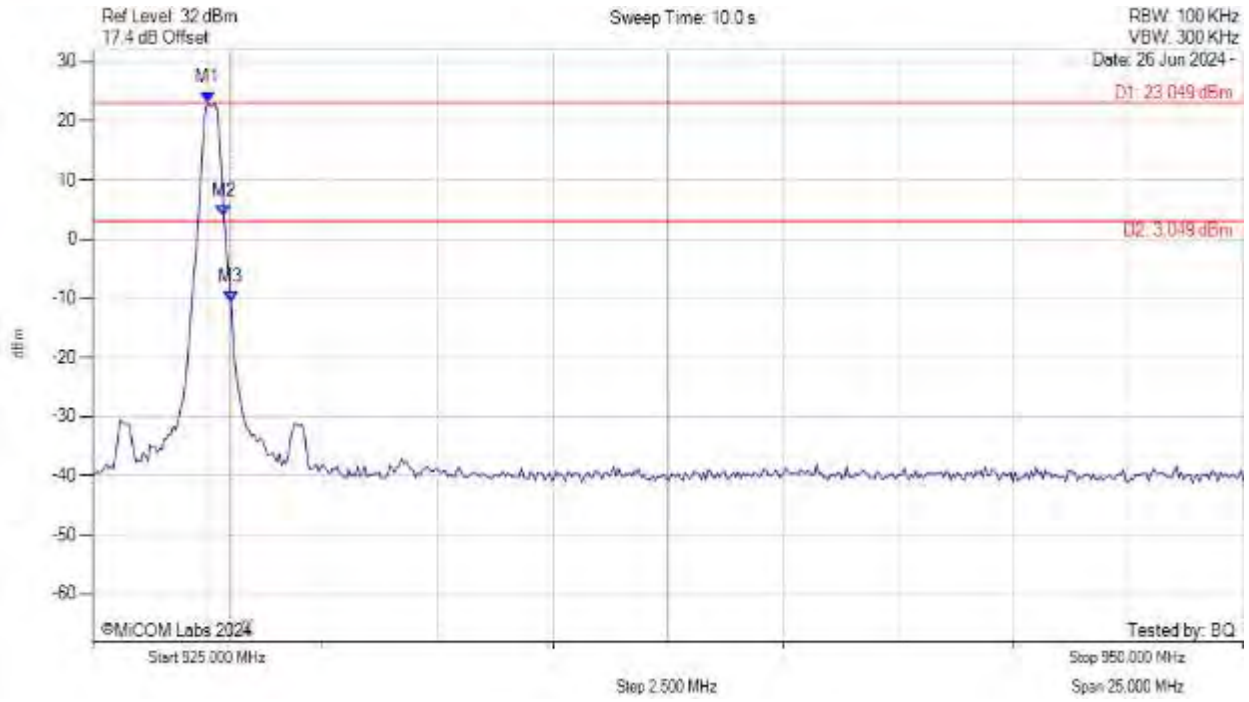


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.505 MHz : 9.192 dBm M2 : 927.856 MHz : -10.233 dBm M3 : 928.000 MHz : -24.654 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300kbps PL 3 (FHSS), Channel: 927.60 MHz, Chain a, Temp: 20

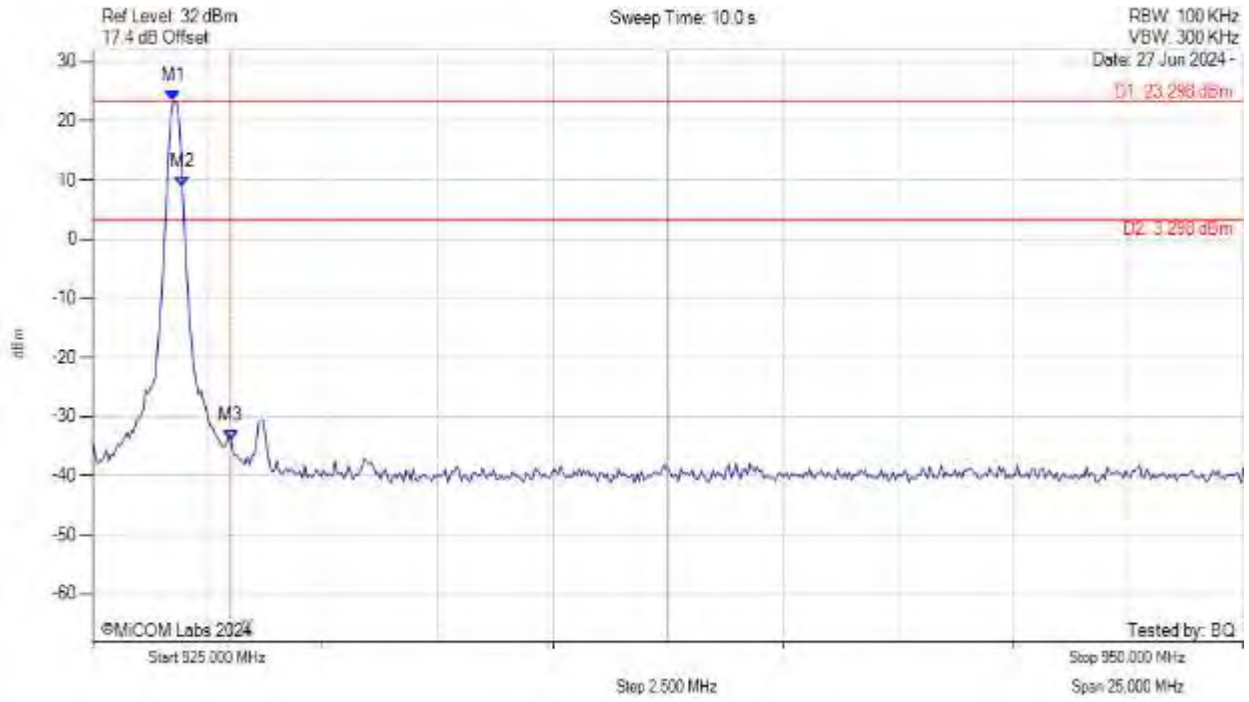


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.505 MHz : 23.049 dBm M2 : 927.856 MHz : 3.841 dBm M3 : 928.000 MHz : -10.678 dBm	Channel Frequency: 927.60 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 37.5kbps, PL 3 (FHSS), Channel: 926.80 MHz, Chain a, Temp: 20

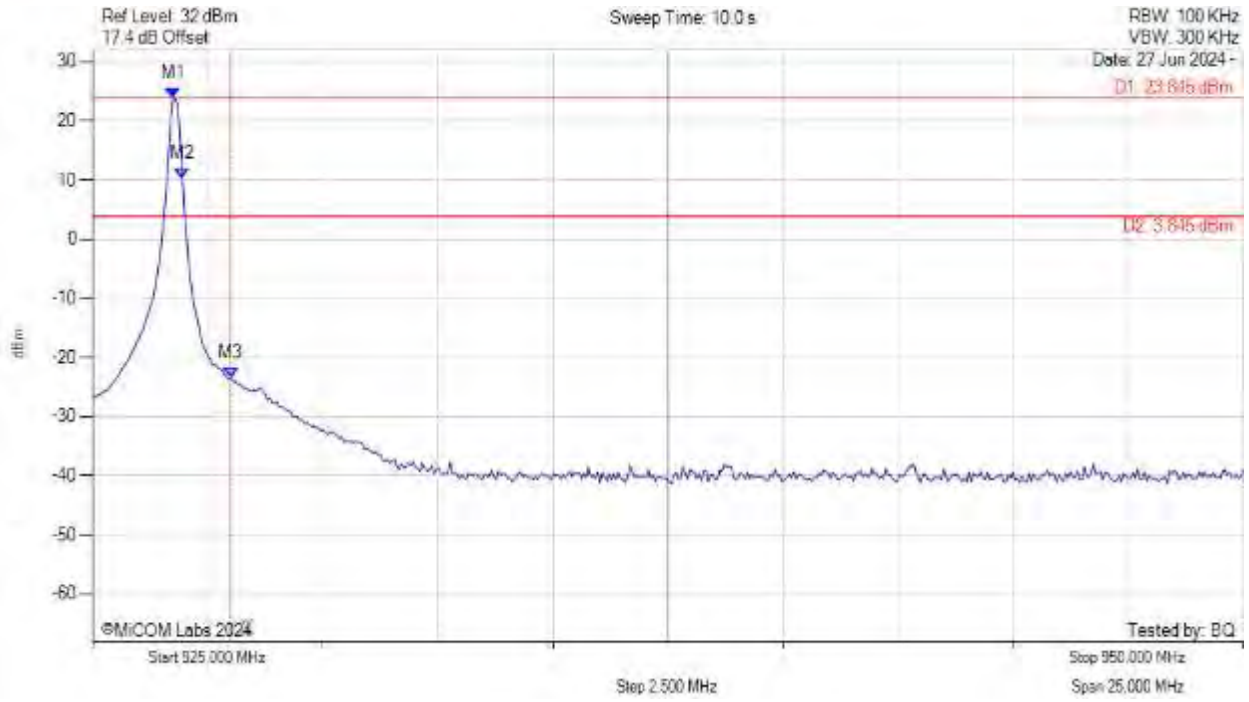


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.754 MHz : 23.298 dBm M2 : 926.954 MHz : 8.832 dBm M3 : 928.000 MHz : -34.013 dBm	Channel Frequency: 926.80 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: OOK PL 3, Channel: 926.80 MHz, Chain a, Temp: 20

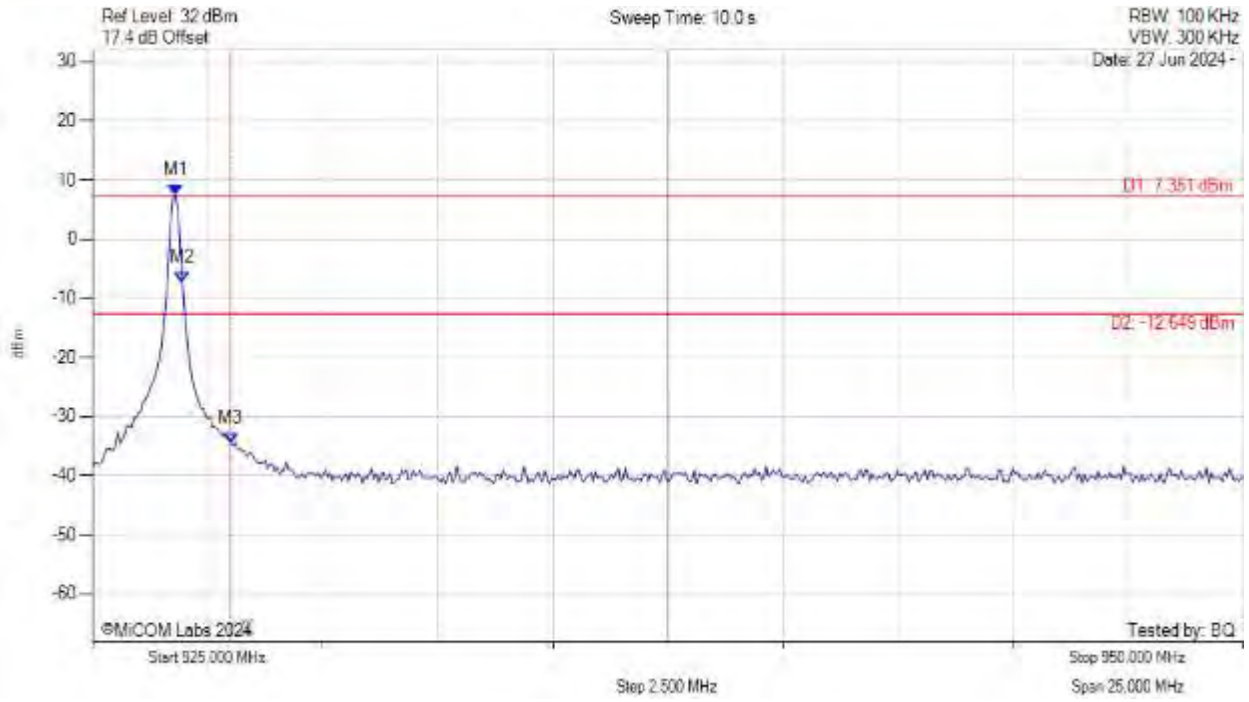


Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.754 MHz : 23.845 dBm M2 : 926.954 MHz : 10.243 dBm M3 : 928.000 MHz : -23.627 dBm	Channel Frequency: 926.80 MHz

back to matrix

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: OOK PL1, Channel: 926.80 MHz, Chain a, Temp: 20



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.804 MHz : 7.351 dBm M2 : 926.954 MHz : -7.331 dBm M3 : 928.000 MHz : -34.636 dBm	Channel Frequency: 926.80 MHz

back to matrix

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