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CERTIFICATION TEST REPORT

Manufacturer: Life Sensing Instruments Inc.
2102 Cambridge Beltway Drive, Suite A1
Charlotte, North Carolina 28273 USA

Applicant: Same as Above

Product Name: Nexus Telemetry Receiver

Product Description: The Nexus Receiver is a medical telemetry receiver designed to operate in healthcare environments. It receives data in the WMTS (Wireless Medical Telemetry Service) band and transmits data via the ISM band (910–920 MHz) for downstream processing.

Operating Voltage/Freq. of EUT During Testing: 120V/60 Hz

Model: Nexus

FCC ID: OF8-NEX1

Testing Commenced: 2025-09-09

Testing Ended: 2025-12-15

Summary of Test Results: In Compliance

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications and/or manufacturer's statement. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Rules:

- **FCC Part 15 Subpart C, Section 15.247**
- **FCC15.207 - Conducted Limits**
- **FCC Part 15.31(e)**
- **ANSI C63.10-2020/Cor 1-2023**



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

Evaluation Conducted by:

Erik Tobin, EMC Engineer

Report Reviewed by:

Ken Littell, Vice President of Operations

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1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Measurement Procedure:

All measurements were performed according to ANSI C63.10 and recommended FCC procedure of measurement under Section 15.247 and in KDB558074. A list of the measurement equipment can be found in Section 6.

1.3 Uncertainty Budget:

The uncertainty in EMC measurements arises from several factors which affect the results, some associated with environmental conditions in the measurement room, the test equipment being used and the measurement techniques adopted.

The measurement uncertainty budgets detailed below are calculated from the test and calibration data and are expressed with a 95% confidence factor. Note: Only measurements listed below which relate to tests included in this Test Report are applicable to it.

Measurement Range	Expanded Uncertainty	Combined Uncertainty
Radiated Emissions <1 GHz @ 3m	±5.07dB	±2.54dB
Radiated Emissions <1 GHz @10m	±5.09dB	±2.55dB
Radiated Emissions 1 GHz to 2.7 GHz	±3.62dB	±1.81dB
Radiated Emissions 2.7 GHz to 18 GHz	±3.10dB	±1.55dB
AC Power Line Conducted Emissions, 150kHz to 30 MHz	±2.76dB	±1.38dB

This Uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2X35437C-01E	First Issue	2025-12-15	K. Littell

**2 SUMMARY OF TEST RESULTS**

Test Name	Standard(s)	Results
Occupied Bandwidth	CFR 47 Part 15.247(a)(2) / KDB558074	Complies
Conducted Output Power	CFR 47 Part 15.247(b)(2) / KDB558074	Complies
Voltage Variations	CFR 47 Part 15.31(e)	Complies
Conducted Spurious Emissions	CFR 47 Part 15.247(d) / Part 15.207 / KDB558074	Complies
Radiated Spurious Emission with 1.8dBi Gain Antenna	CFR 47 Part 15.247(d) / Part 15.209 / KDB558074	Complies
Peak Power Spectral Density	CFR 47 Part 15.247(e) / KDB558074	N/A
Frequency Separation	ANSI 63.10 (7.8.2)	Complies
Number of Hopping Frequencies	ANSI 63.10 (7.8.3)	Complies
Dwell Time	ANSI 63.10 (7.8.4)	Complies
Conducted Emissions	CFR 47 Part 15.207(a)	Complies

Modifications Made to the Equipment
None



3 TABLE OF MEASURED RESULTS

Test		Low Channel 910 MHz	Mid Channel 915 MHz	High Channel 920 MHz
Conducted Output Power		4.227mW / 6.26dBm	3.811mW / 5.81dBm	4.732mW / 6.75dBm
Conducted Output Power Limit		1 Watt / 30dBm	1 Watt / 30dBm	1 Watt / 30dBm
E.I.R.P. with 1.8dBi Gain Antenna		6.397 mW / 8.06dBm	5.770 mW / 7.61dBm	7.160 mW / 8.55dBm
E.I.R.P. Limit		4 Watts / 36.02dBm	4 Watts / 36.02dBm	4 Watts / 36.02dBm
-20dB Occupied Bandwidth		147.43 kHz	146.63 kHz	145.83 kHz
99% Occupied Bandwidth		171.47 kHz	176.28 kHz	173.08 kHz
Occupied Bandwidth Limit		25 - 500 kHz	25 - 500 kHz	25 - 500 kHz
Voltage Variations*	Nominal: 120VAC	--	--	--
	-15%	4.256mW / 6.29dBm	4.207mW / 6.24dBm	4.753mW / 6.77dBm
	+15%	4.227mW / 6.26dBm	3.864mW / 5.87dBm	4.764mW / 6.78dBm
Limit		1W / 30dBm	1W / 30dBm	1W / 30dBm

**To meet the requirements of 15.31, voltage was varied by $\pm 15\%$ of the nominal voltage. All tests were then performed at the highest output power voltage setting.*



4 ENGINEERING STATEMENT

This report has been prepared on behalf of Life Sensing Instruments Inc. to provide documentation for the testing described herein. This equipment has been tested and found to comply with Part 15.247 of the FCC Rules using ANSI C63.10 and KDB558074 standards. The test results found in this test report relate only to the items tested.



5 EUT INFORMATION AND DATA

5.1 Equipment Under Test:

Product: Nexus Telemetry Receiver

Model(s): Nexus

Serial No.: 1205

Software Versions: Rev 46 and Rev 25

FCC ID: OF8-NEX1

5.2 Trade Name:

Life Sensing Instruments Inc.

5.3 Power Supply:

SL Power model ME30A1203F01

5.4 Applicable Rules:

CFR 47, Part 15.247, subpart C

5.5 Antenna:

PIFA (External), 1.8dBi Gain

5.6 Accessories:

Device	Manufacturer	Model Number	Serial Number
Laptop	Lenovo	None Specified	None Specified
Accessory Software Version:		TeraTerm V4.105	

5.7 Test Item Condition:

The equipment to be tested was received in good condition.

5.8 Testing Algorithm:

Unit was plugged in and powered; connected to laptop and set to continuous transmission of the modulated carrier at 910, 915, 920 MHz (2FSK modulation).

**6 LIST OF MEASUREMENT INSTRUMENTATION**

Equipment Type	Asset Number	Manufacturer	Model	Serial Number	Calibration Due Date
Shielded Chamber	CL166	Albatross Projects	B83117-DF435-T261	US140023	2026-05-07
Receiver	CL151	Rohde & Schwarz	ESU40	100319	2026-04-09
Antenna, Bilog	CL211	Sunol Sciences, Inc.	JB1	A011017	2026-09-30
Amplifier w/Monopole & 18" Loop	CL163-Loop	A.H. Systems, Inc.	EHA-52B	100	2026-04-01
Antenna, JB3 Combination	CL175	Sunol Sciences	JB3	A030315	2026-09-02
Pre-Amplifier	CL153	Keysight Tech.	83006A	MY39500791	2026-04-10
Horn Antenna	CL333	The EMC Shop	DRHA18G	J203061349	2026-07-09
Low Loss Cable Set	CL315 / CL318	Fairview Microwave	FMC0202914-72 / FMC0202914-240	None Spec.	2026-04-09
Preamplifier	CL284	A.H. Systems, Inc.	PAM-0101	131	2026-04-08
Transient Limiter	0202	Hewlett Packard	11947A	3107A00729	2026-04-07
LISN	CL181	Com-Power	LI-125A	191226	2026-11-20
LISN	CL182	Com-Power	LI-125A	191225	2026-11-21
Spectrum Analyzer	0204	Hewlett Packard	HP8591A	3149A02546	2026-04-09
Software:	EMC Analyzer 85712D Rev. A.00.01		Date Verified: 2025-09-09 to 2025-09-10		
Software:	Tile Version 3.4.B.3		Software Verified: 2025-09-09 to 2025-09-10		
Software:	EMC 32, Version 8.53.0		Software Verified: 2025-09-09 to 2025-09-10; 2025-11-13; 2025-12-15		
Temp/Hum Rec	CL321	Extech	445703	2	2027-10-08
Temp/Hum Rec	CL327	Thermpro	TP50	8	2028-03-20



7 OCCUPIED BANDWIDTH

7.1 Requirements:

The 20dB bandwidth shall be 25-500 kHz.

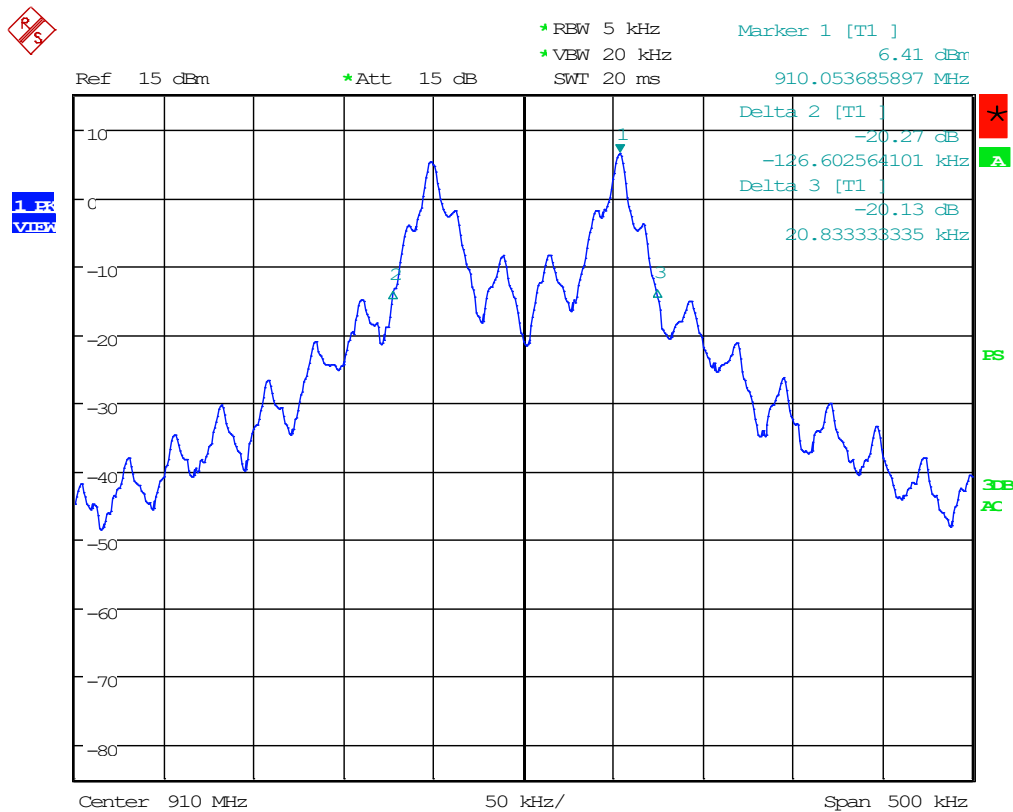
Bandwidth measurements were made at the low, mid and high frequencies with the Resolution Bandwidth set at 5 kHz (video bandwidth set at 20 kHz) for the 99% OBW, and 5kHz Resolution Bandwidth and 20kHz Video Bandwidth for the 20dB OBW. The span was set at 500 kHz. The bandwidth was measured using the analyzer's marker function.



7.2 Occupied Bandwidth Test Data

Test Date:	2025-09-09	Test Engineer:	E. Tobin
Standard(s):	CFR 47 Part 15.247(a)(2); KDB558074	Air Temperature:	19.5°C
		Relative Humidity:	48%

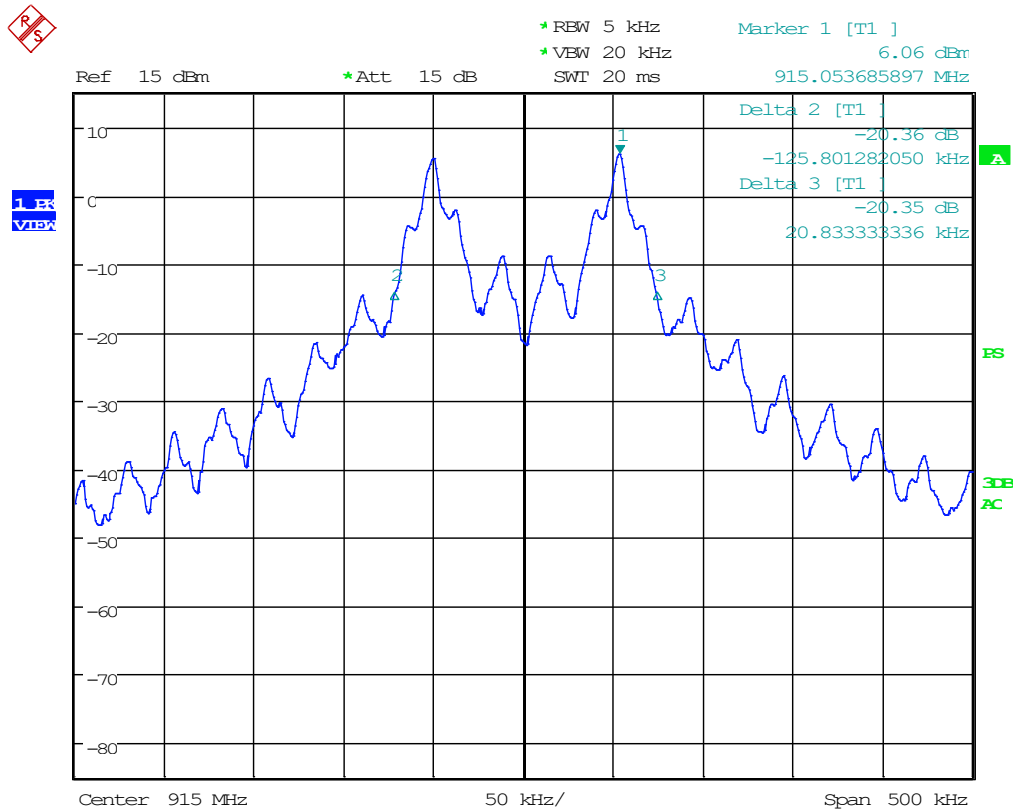
-20dB: Low Channel



Date: 9.SEP.2025 10:17:17



-20dB: Mid Channel



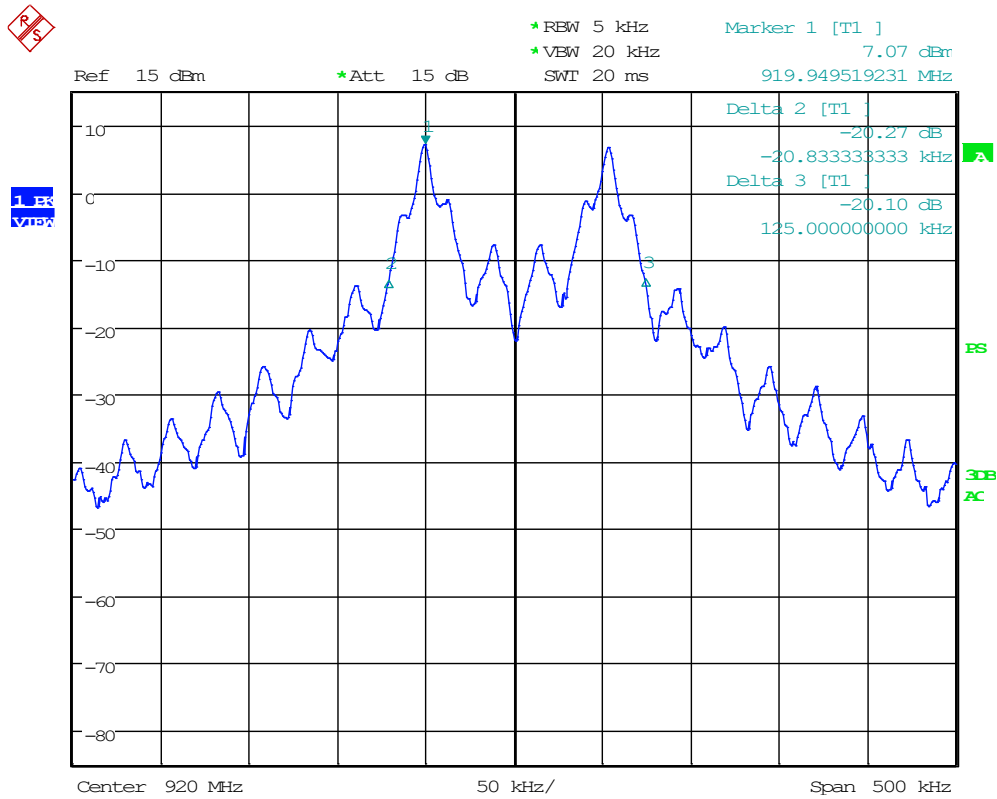
Date: 9.SEP.2025 10:19:03



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

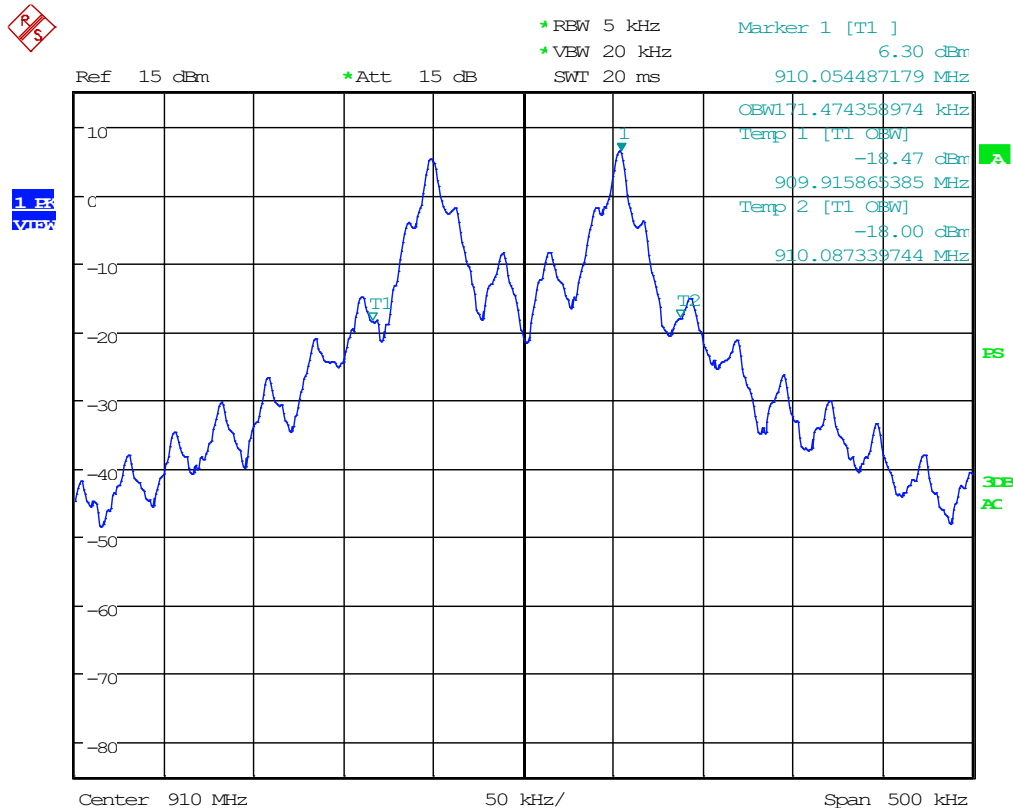
-20dB: High Channel



Date: 9.SEP.2025 10:20:39



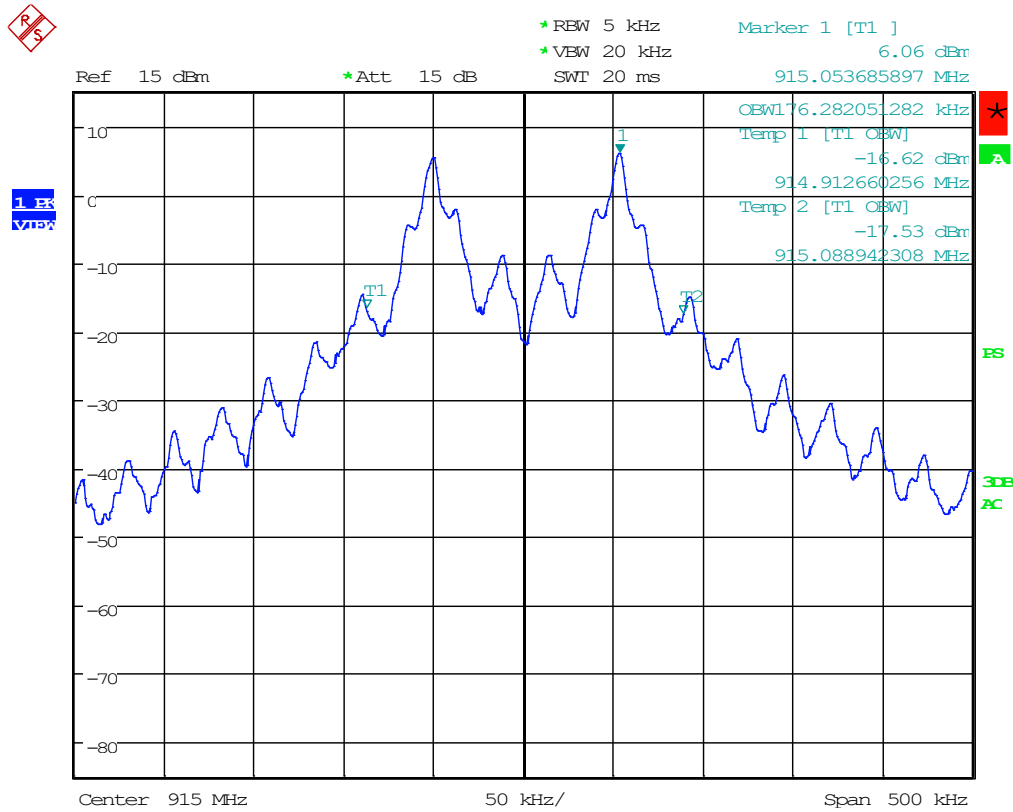
99%: Low Channel



Date: 9.SEP.2025 10:16:22



99%: Mid Channel



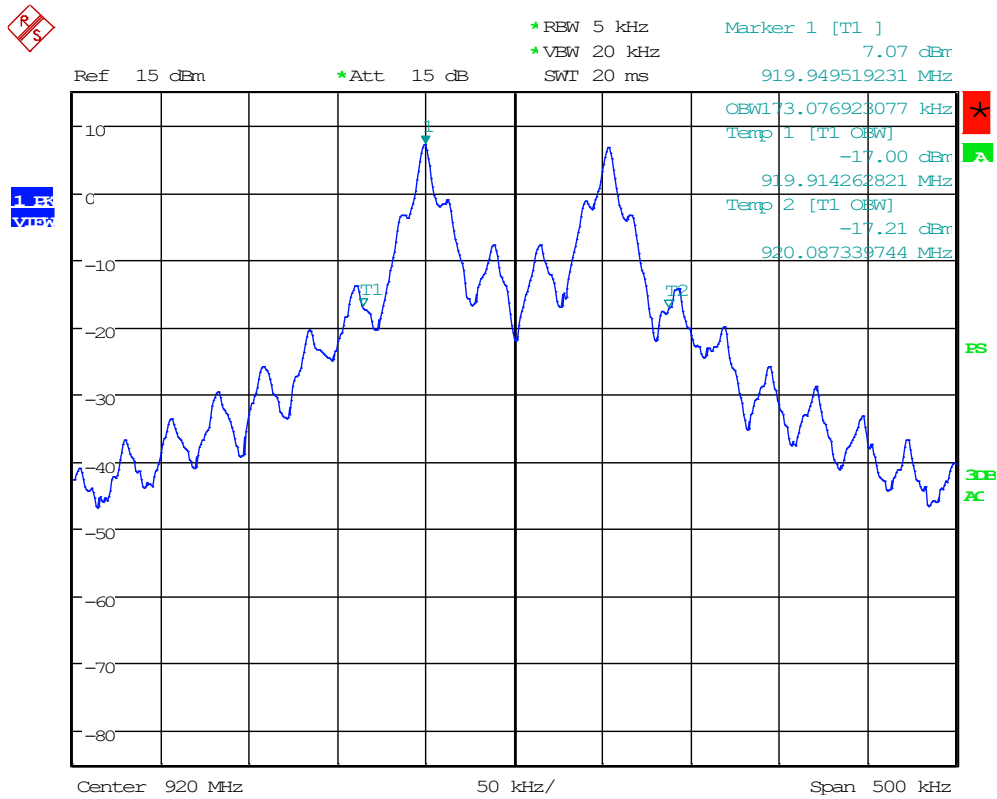
Date: 9.SEP.2025 10:19:14



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

99%: High Channel



Date: 9.SEP.2025 10:21:00



8 CONDUCTED OUTPUT POWER

The EUT antenna port (BNC) was directly connected to the input of the receiver. The peak power output was measured.

8.1 Requirements:

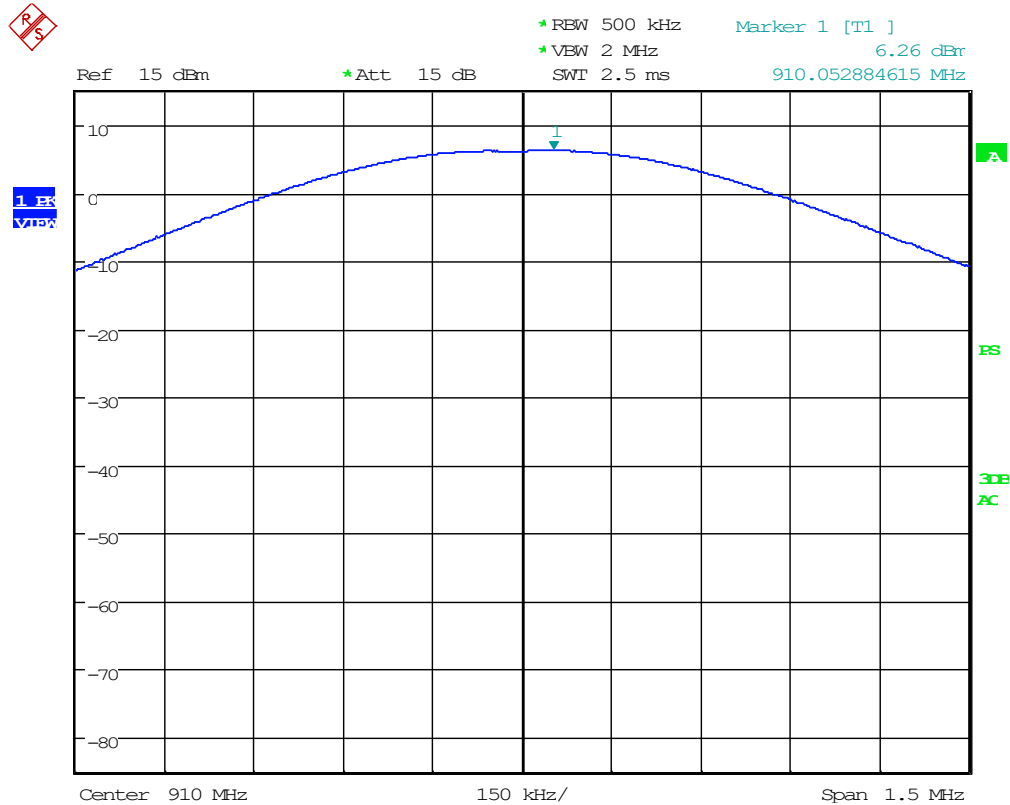
The peak power output shall be 1 watt (30 dBm) or less when using an antenna with a gain of less than 6dBi. For antennas having a gain of more than 6dBi, the limit is reduced by 1dB for every dB the antenna gain is over 6dBi.



8.2 Conducted Output Power Test Data

Test Date:	2025-09-09	Test Engineer:	E. Tobin
Standards:	CFR 47 Part 15.247(b)(3); KDB558074	Air Temperature:	20.0°C
		Relative Humidity:	48%

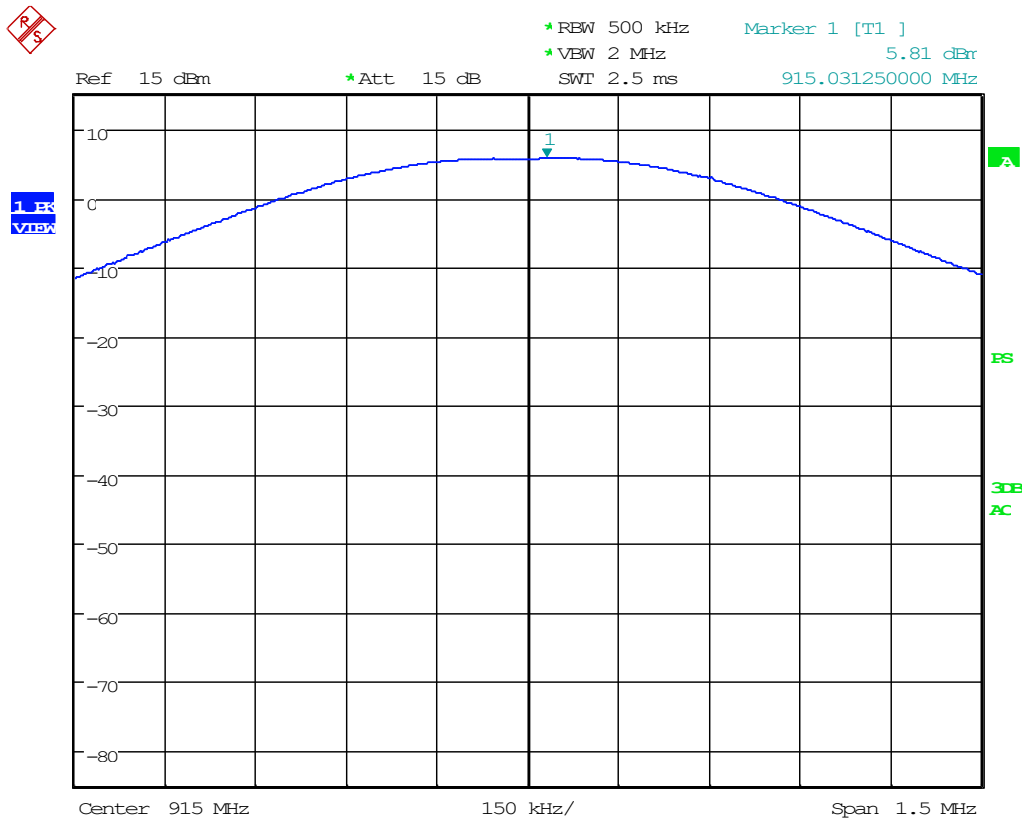
Low Channel



Date: 9.SEP.2025 10:48:30



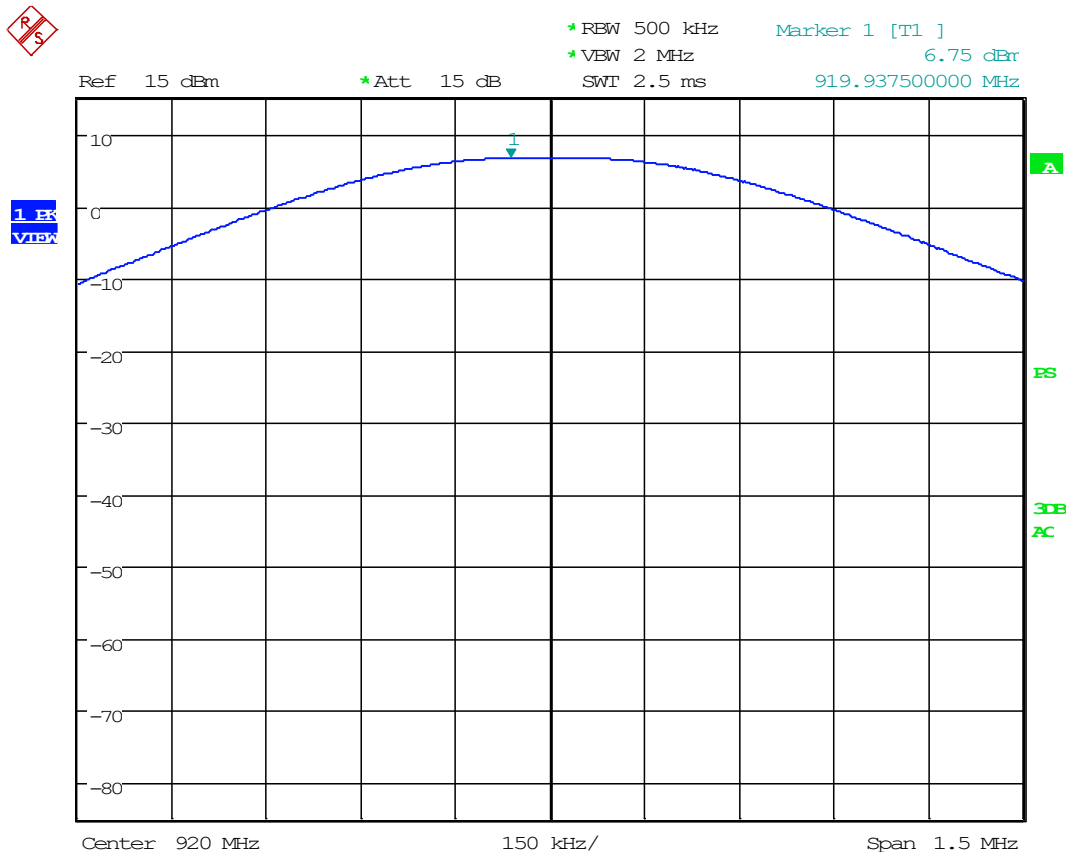
Mid Channel



Date: 9.SEP.2025 10:47:53



High Channel



Date: 9.SEP.2025 10:46:38



9 VOLTAGE VARIATIONS

9.1 Requirements

For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery-operated equipment, the equipment tests shall be performed using a new battery.

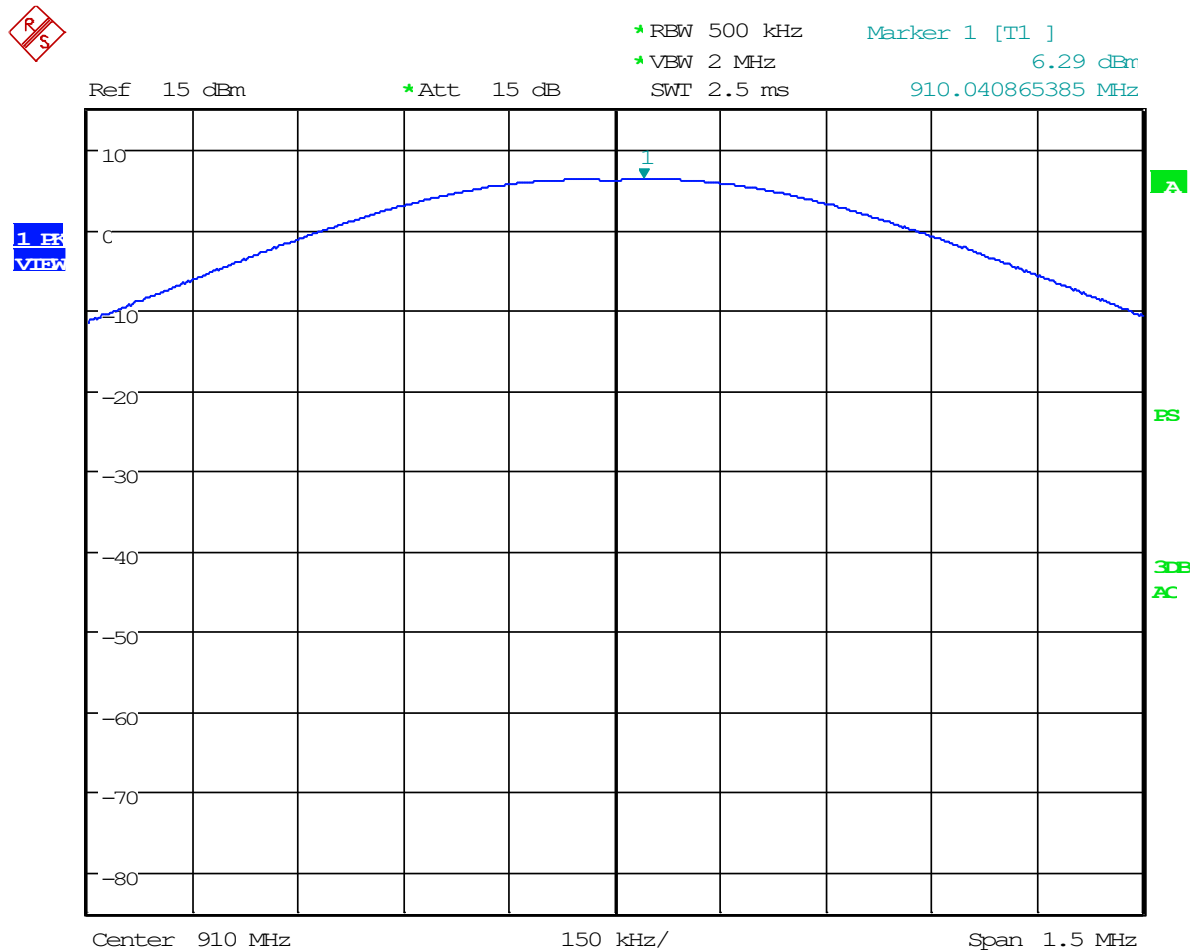


9.2 Voltage Variations Test Data

Test Date(s):	2025-09-09	Test Engineer:	E. Tobin
Rule:	15.31(e)	Air Temperature:	20.8° C
Test Results:	Complies	Relative Humidity:	48%

Nominal Voltage: 120VAC

Low Channel: -15% (85VAC)



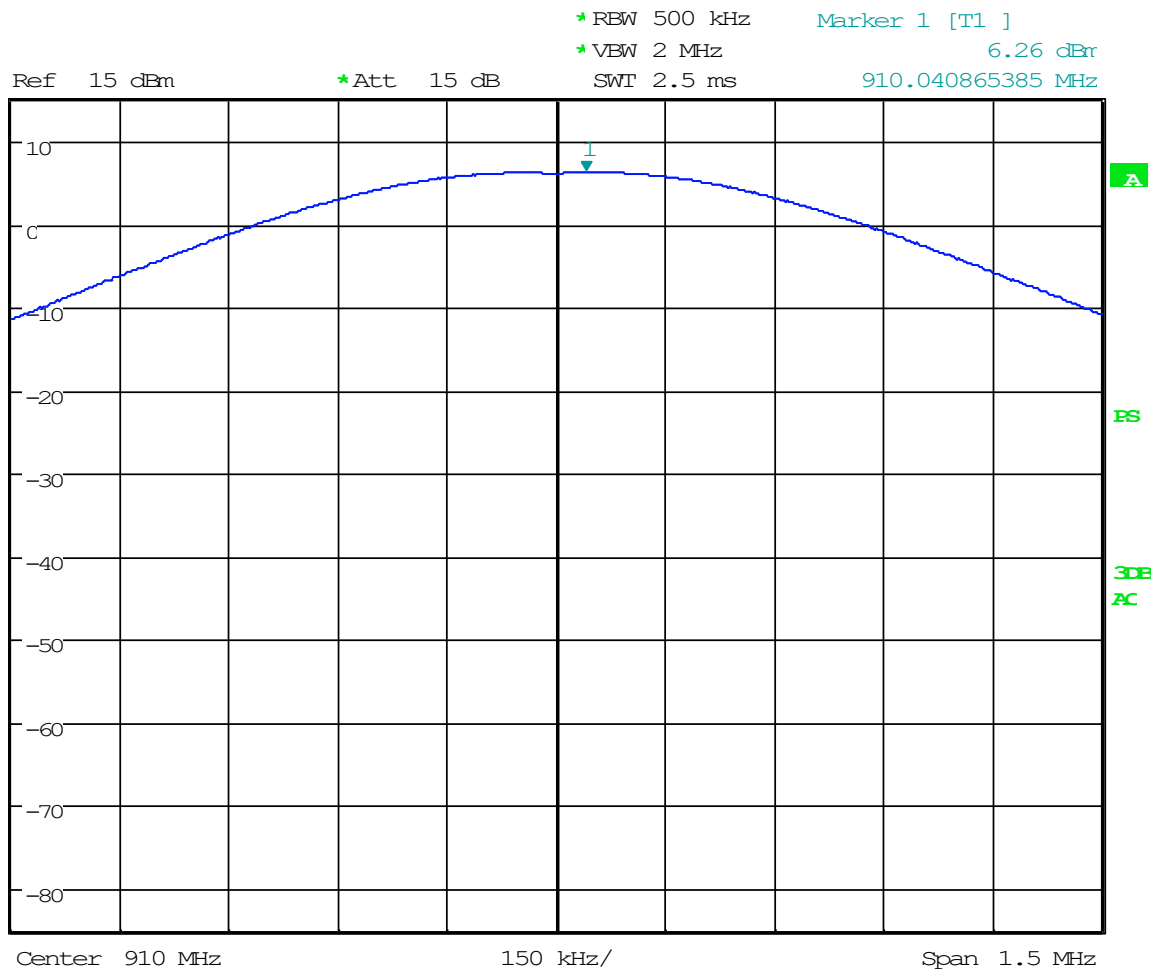
Date: 9.SEP.2025 12:31:40



Low Channel: +15% (276VAC)



1. EK
VIEW

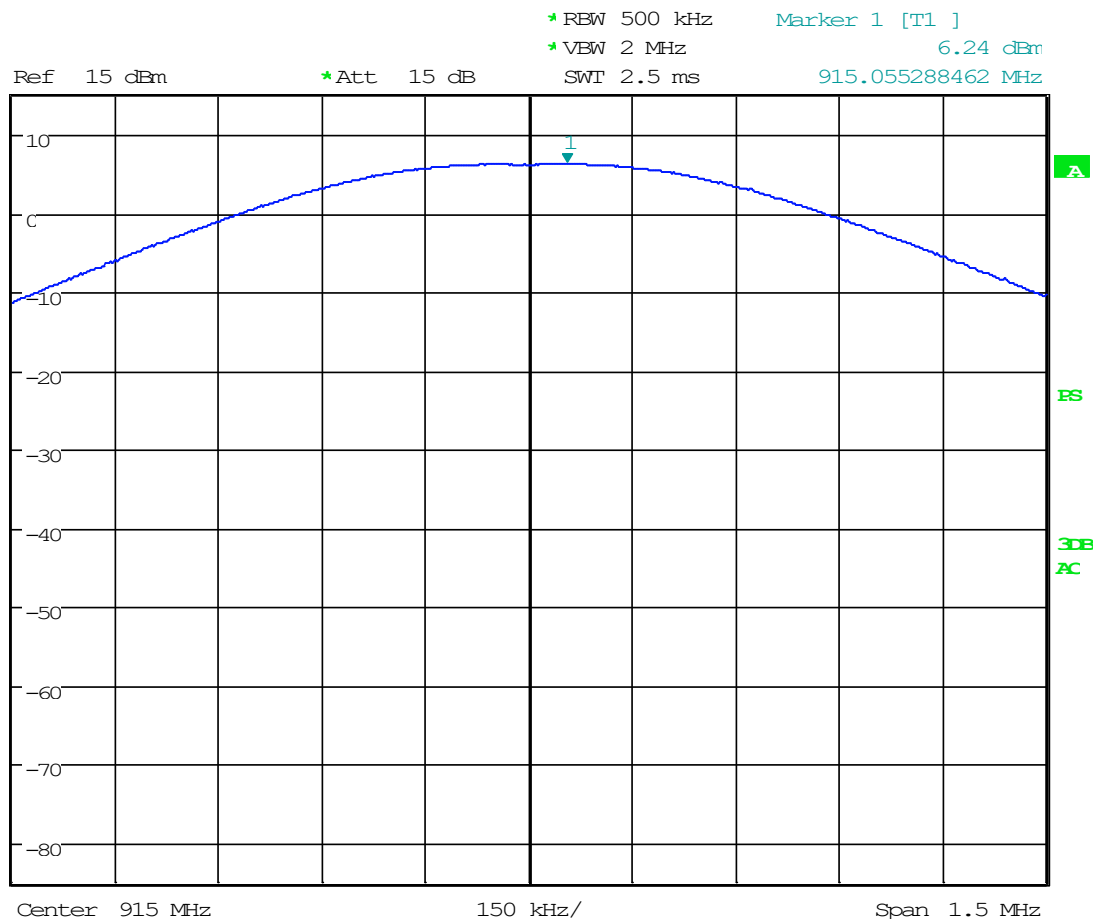




Mid Channel: -15% (85VAC)



1. E3
VIEW



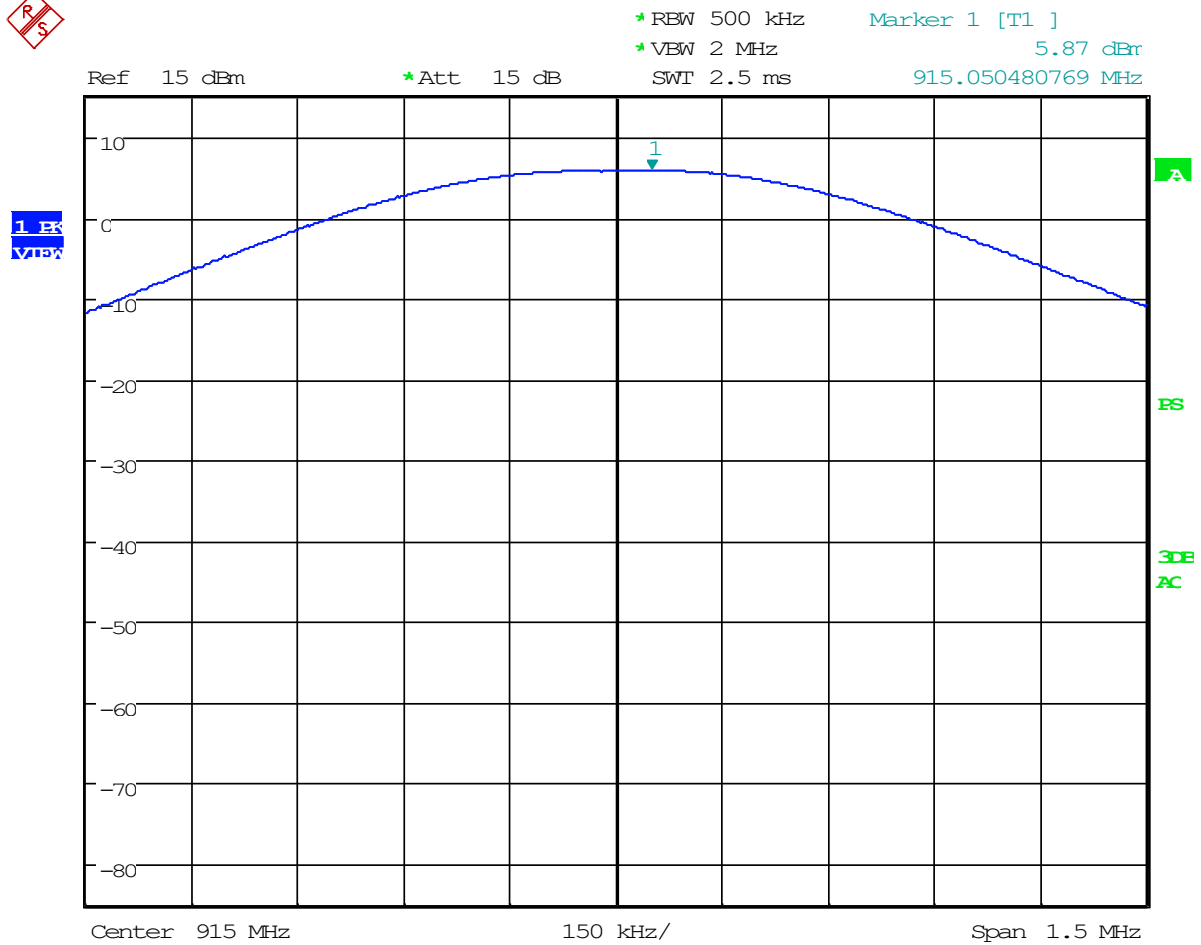
Date: 9.SEP.2025 12:25:01



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

Mid Channel: +15% (276 VAC)



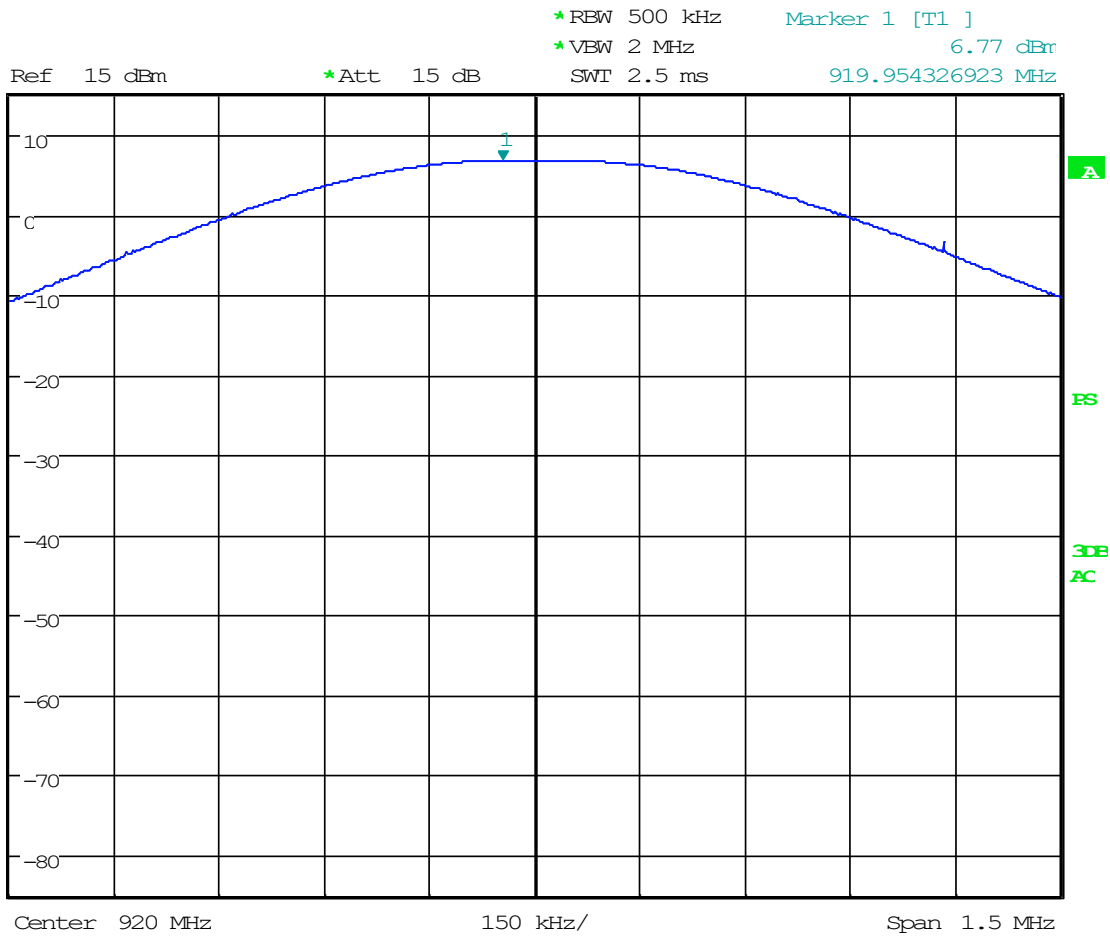
Date: 9.SEP.2025 12:34:35



High Channel: -15% (85VAC)



1. EK
VIEW



Date: 9.SEP.2025 12:31:08



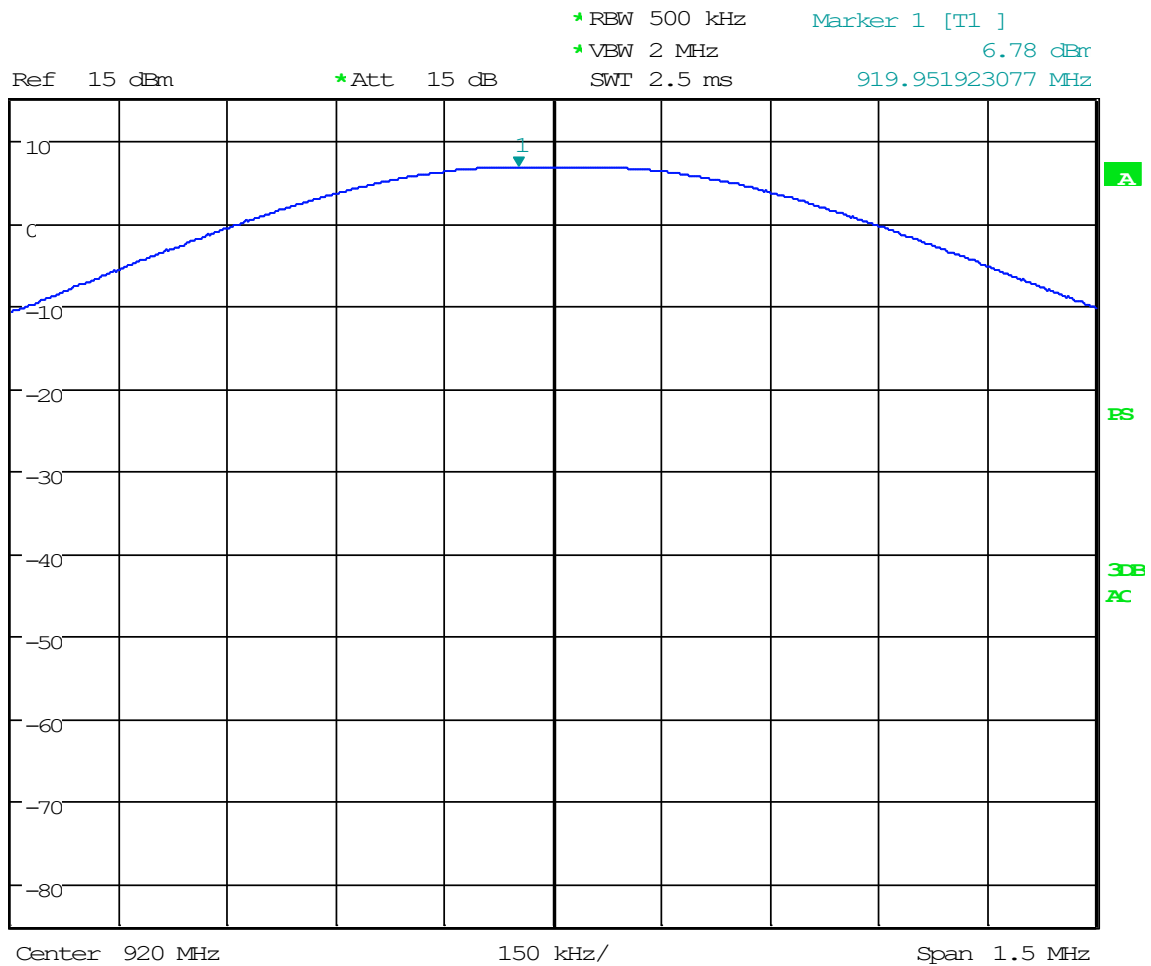
Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

High Channel: +15% (276VAC)



1. EK
VIEW



Date: 9.SEP.2025 12:35:18



10 CONDUCTED SPURIOUS EMISSIONS

The following tests were performed to demonstrate compliance.

RF Antenna Conducted Test

The EUT antenna port (BNC) was directly connected to the input of the spectrum analyzer.

10.1 Requirements:

All Spurious Emissions must be at least 20dB down from the highest emission level measured within the authorized band up through the tenth harmonic.

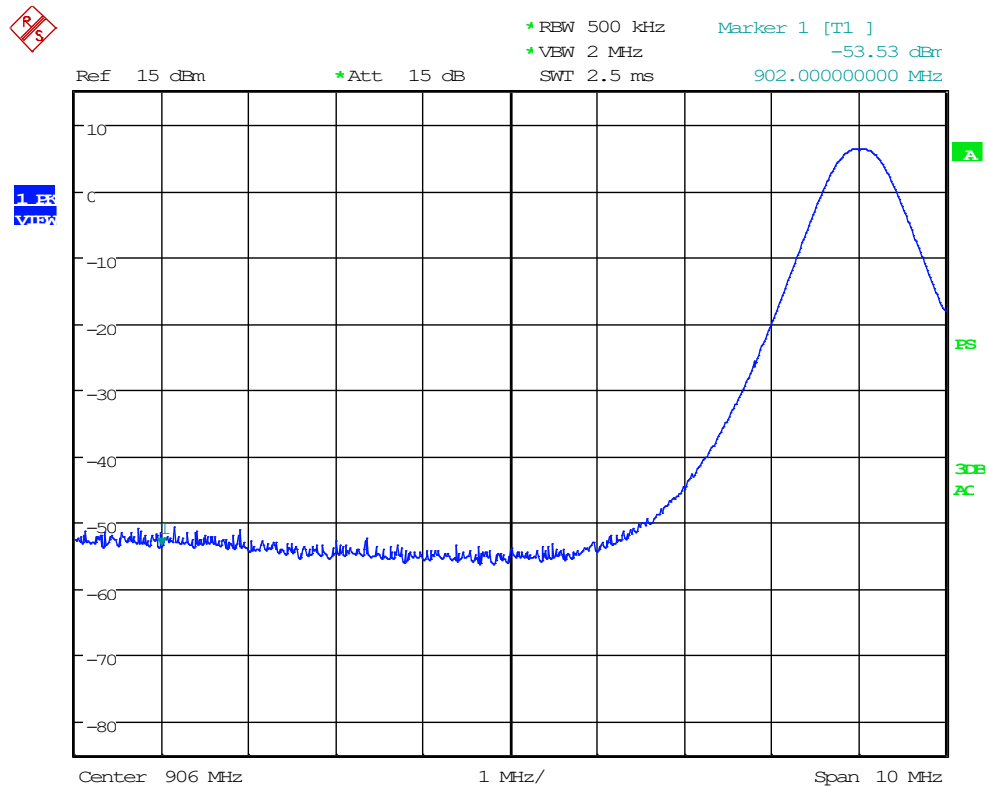
Spurious emissions measurements were made at the low, mid, and upper channels with the appropriate spectrum analyzer impulse bandwidth. Additionally, 20dB down points were measured for the low and high channels to verify band edge compliance.



10.2 Conducted Spurious Emissions Test Data

Test Date:	2025-09-09	Test Engineer:	E. Tobin
Standards:	CFR 47 Part 15.247(d) / Part 15.207 KDB558074	Air Temperature:	20.1°C
Results:	Complies	Relative Humidity:	48%

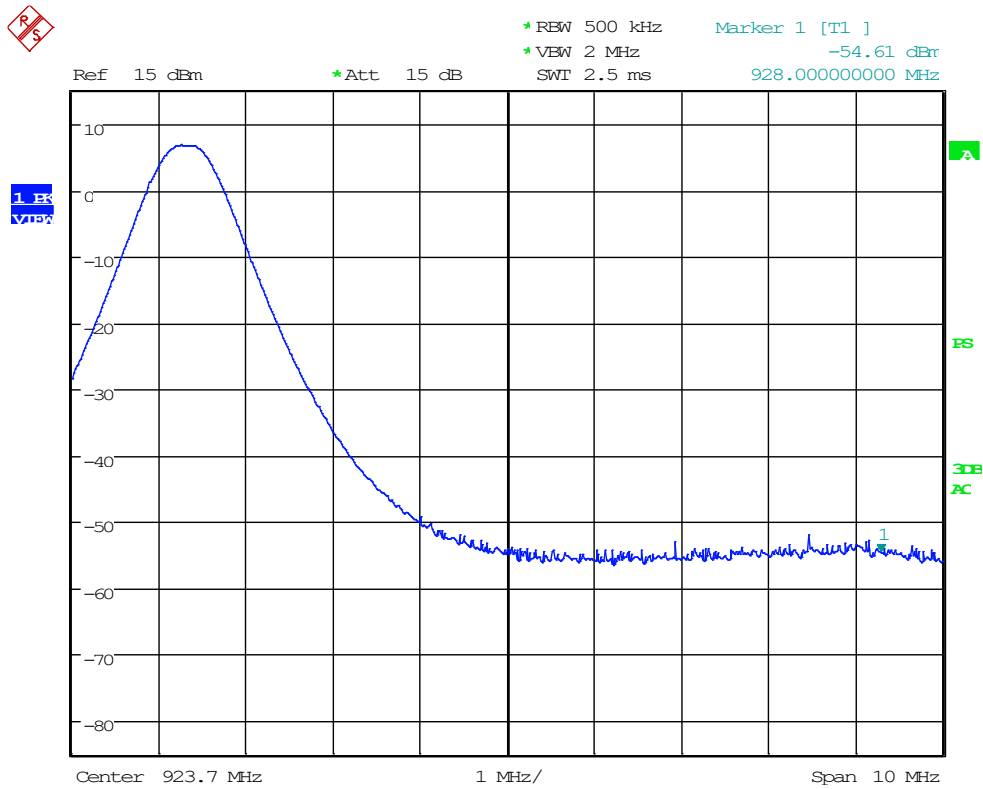
Low Band Edge



Date: 9.SEP.2025 11:08:23



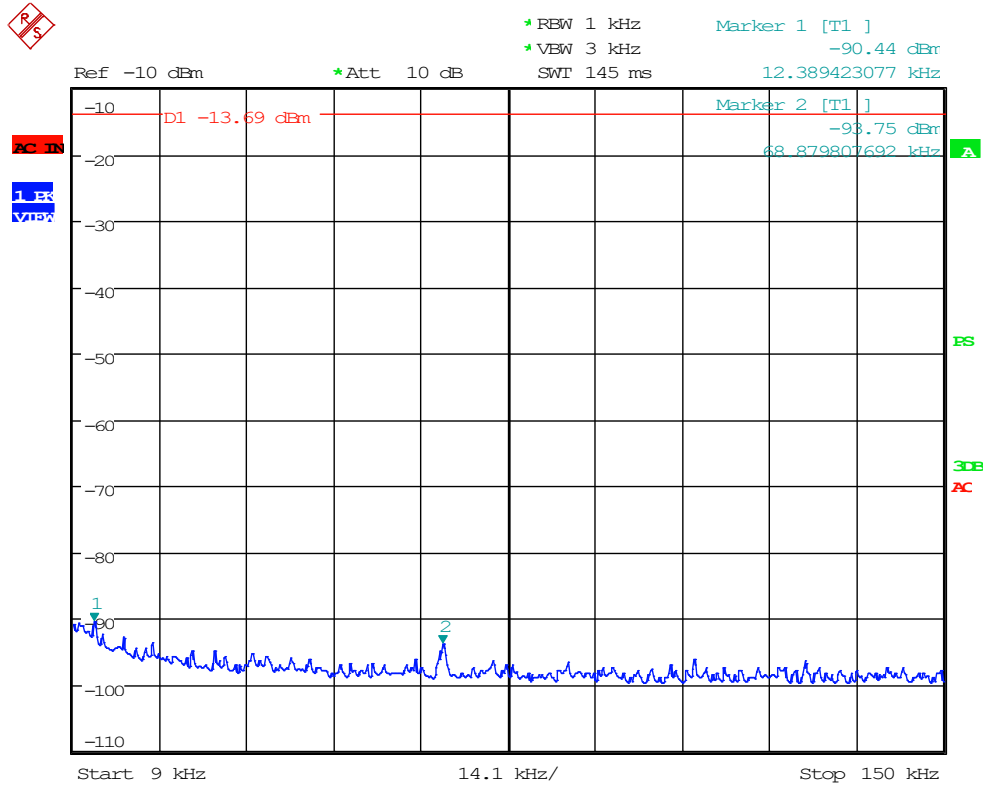
Upper Band Edge



Date: 9.SEP.2025 11:35:12



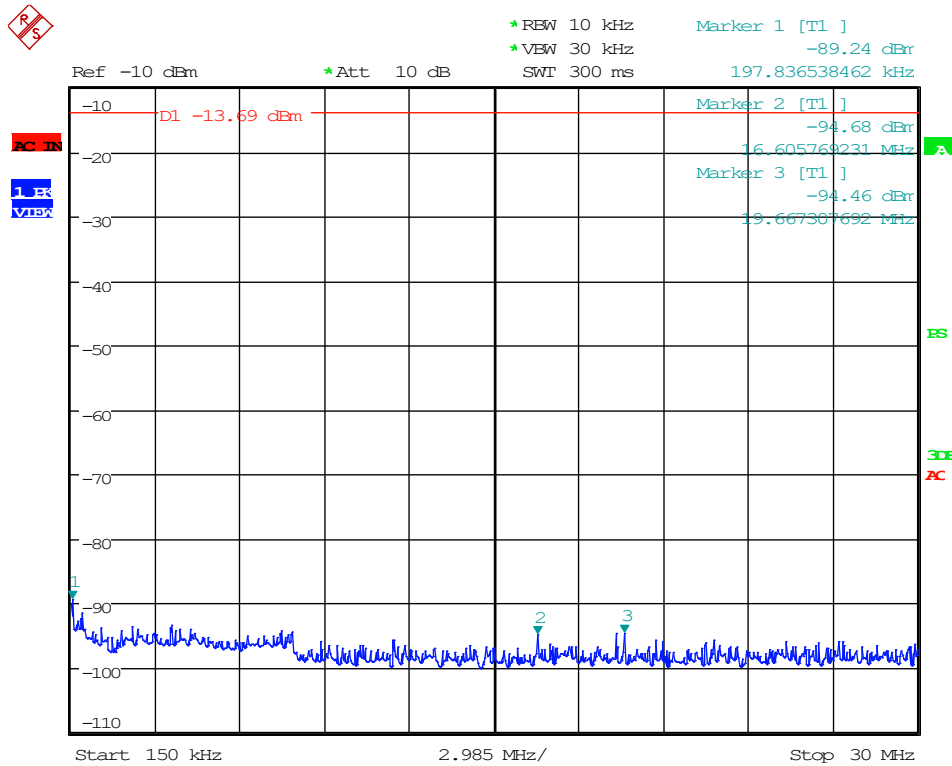
Low Channel: 0.009 MHz to 0.15 MHz



Date: 9.SEP.2025 11:18:20



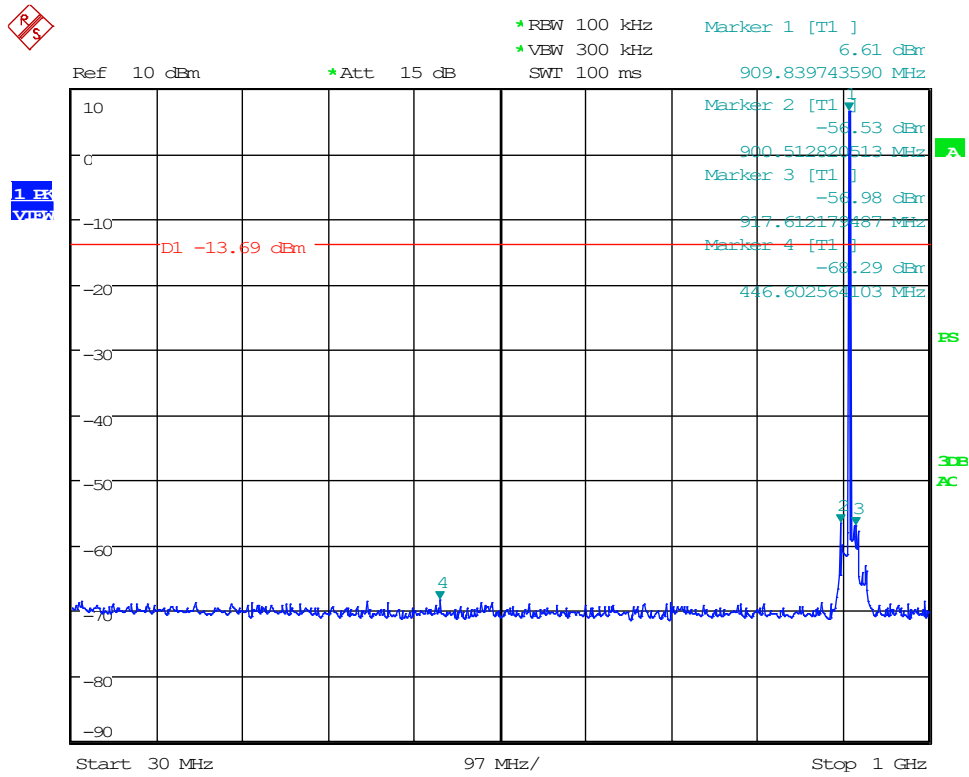
Low Channel: 0.15 MHz to 30 MHz



Date: 9.SEP.2025 11:19:27

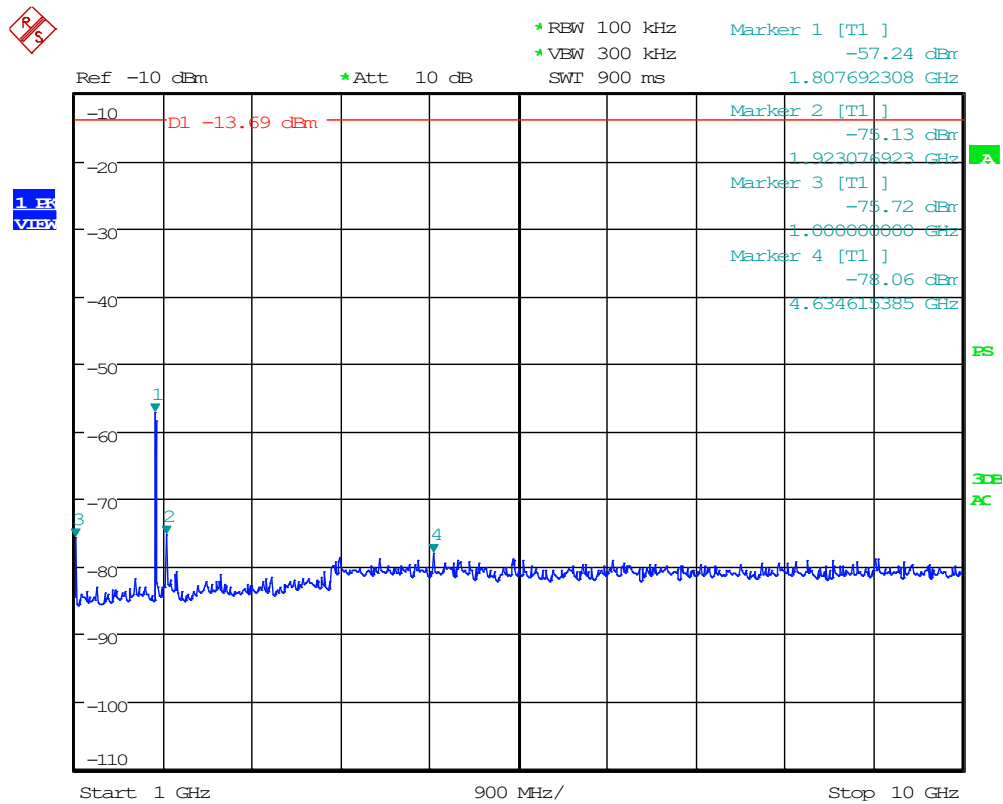


Low Channel: 30 MHz to 1000 MHz



Date: 9.SEP.2025 11:21:36

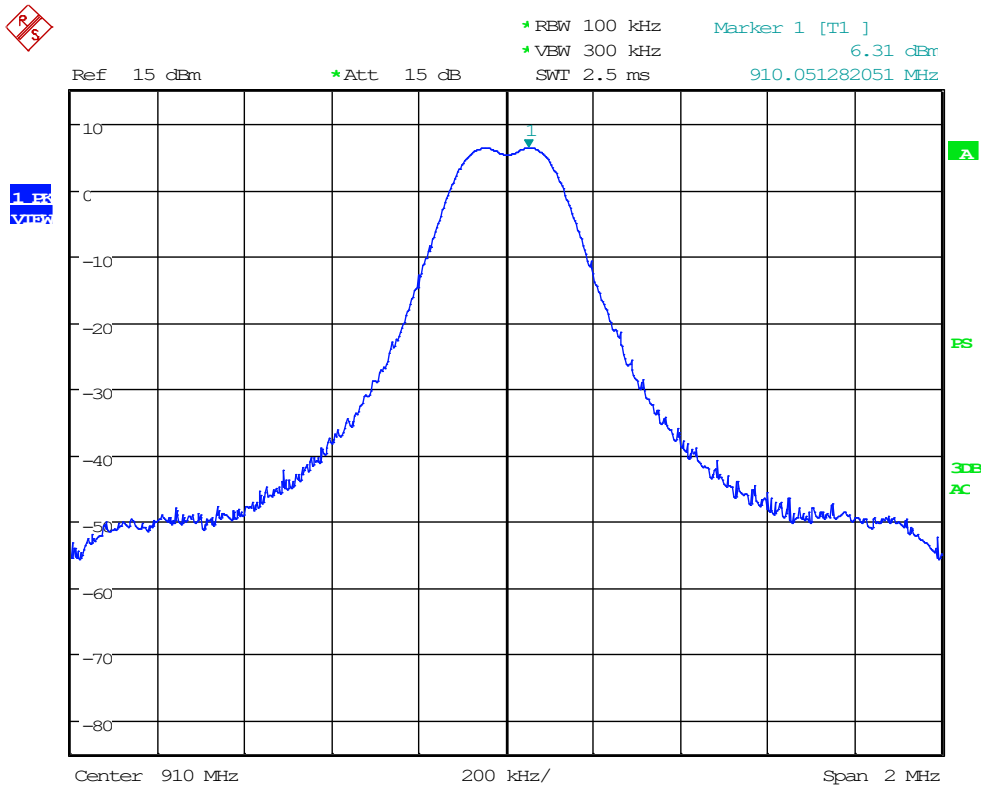
Low Channel: 1 GHz to 10 GHz



Date: 9.SEP.2025 11:22:45



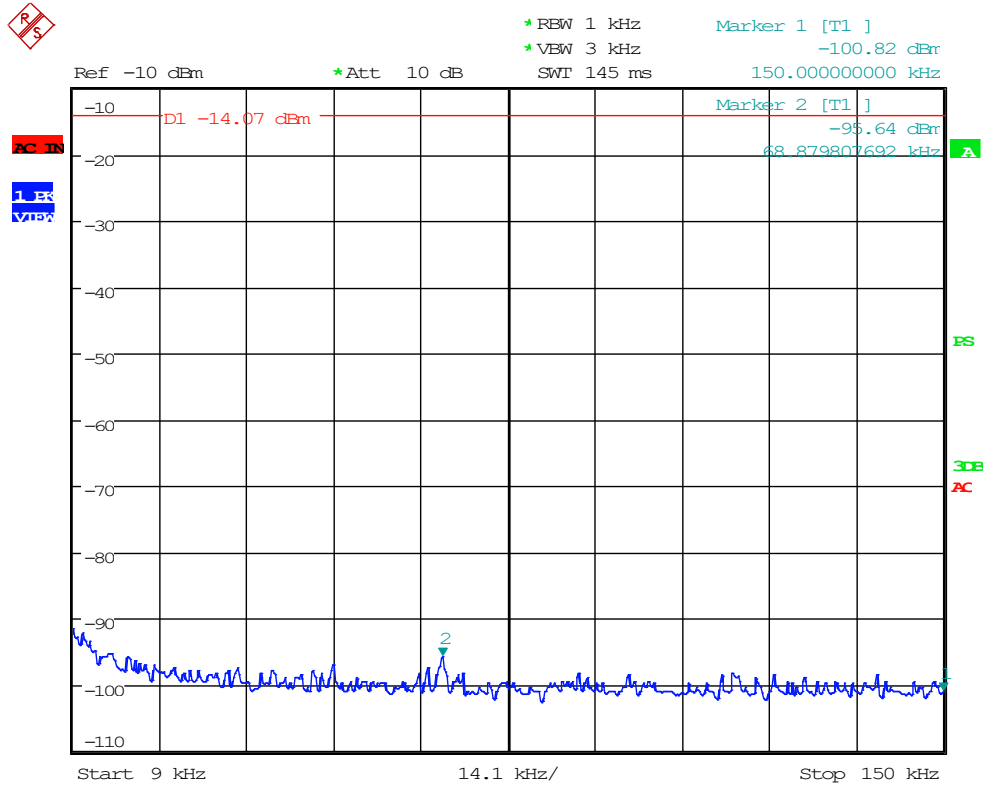
Low Channel: Spur Reference



Date: 9.SEP.2025 11:10:11



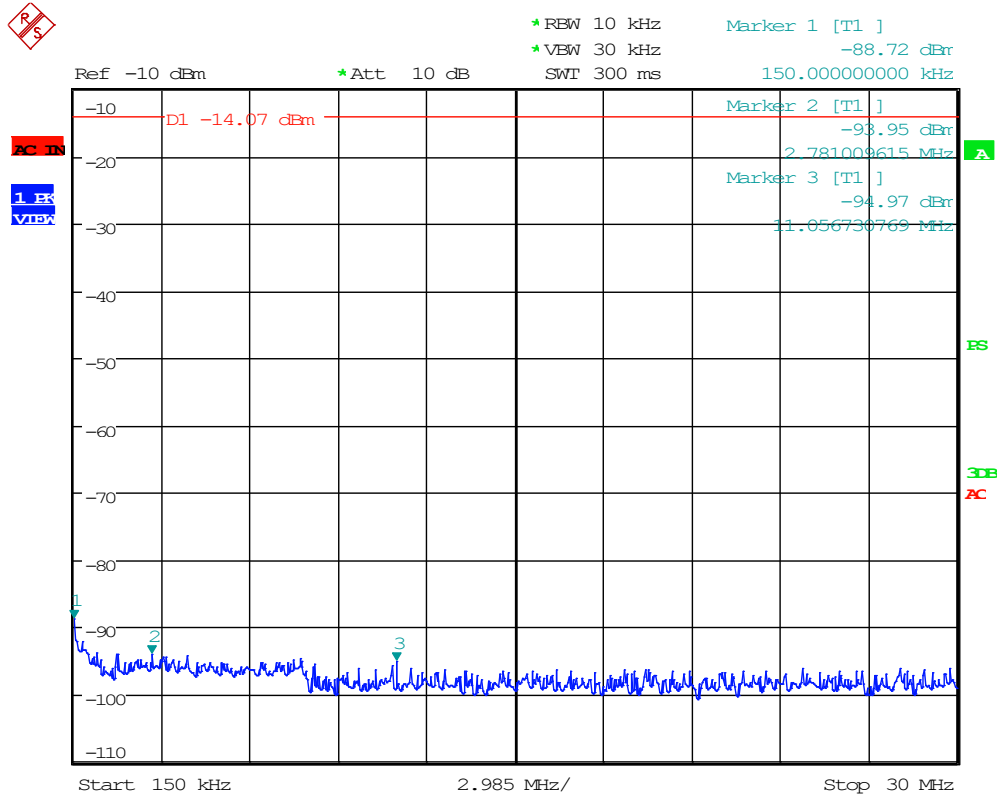
Mid Channel: 0.009 MHz to 0.15 MHz



Date: 9.SEP.2025 11:26:48



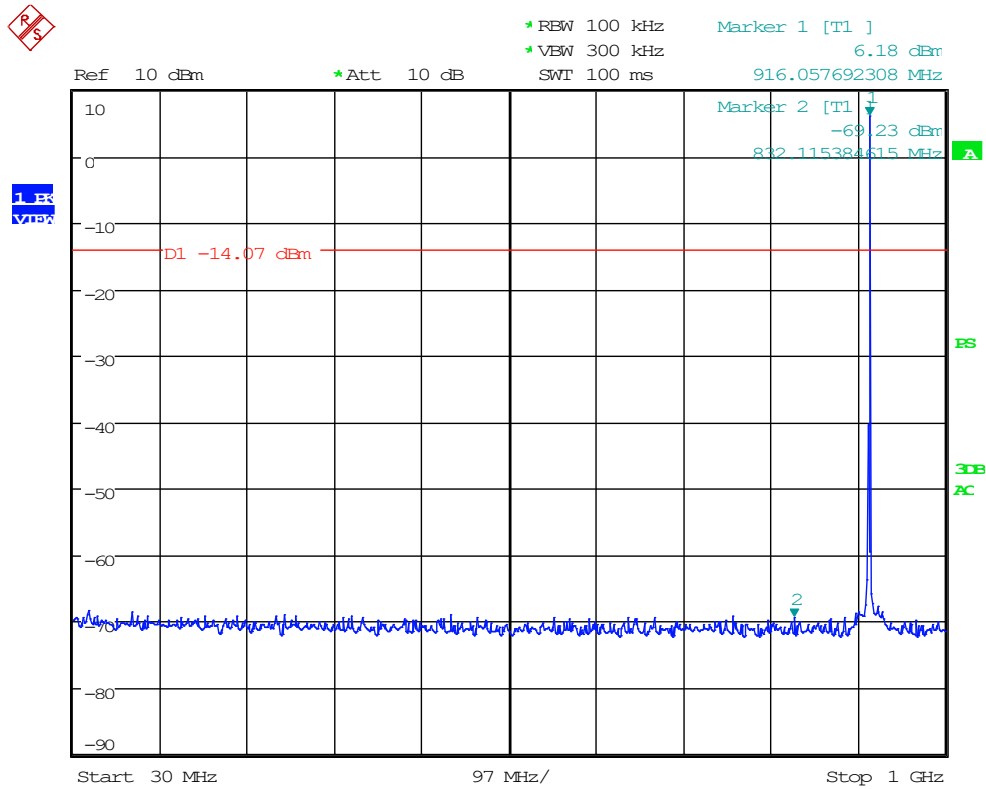
Mid Channel: 0.15 MHz to 30 MHz



Date: 9.SEP.2025 11:28:04



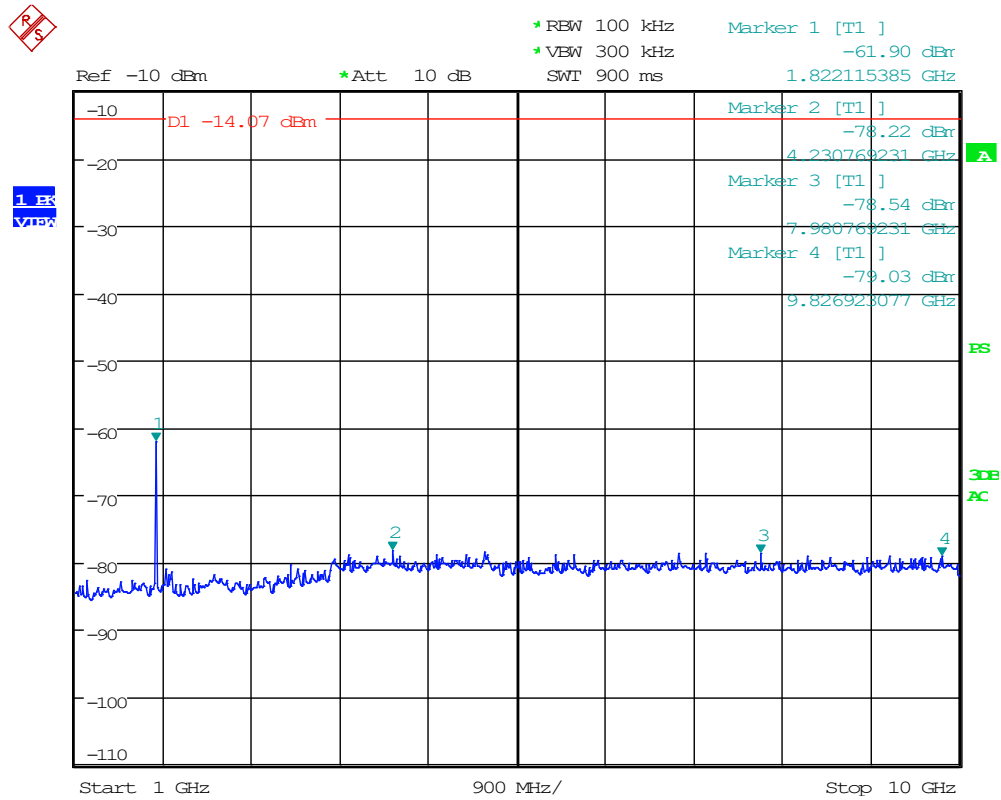
Mid Channel: 30 MHz to 1000 MHz



Date: 9.SEP.2025 11:29:38



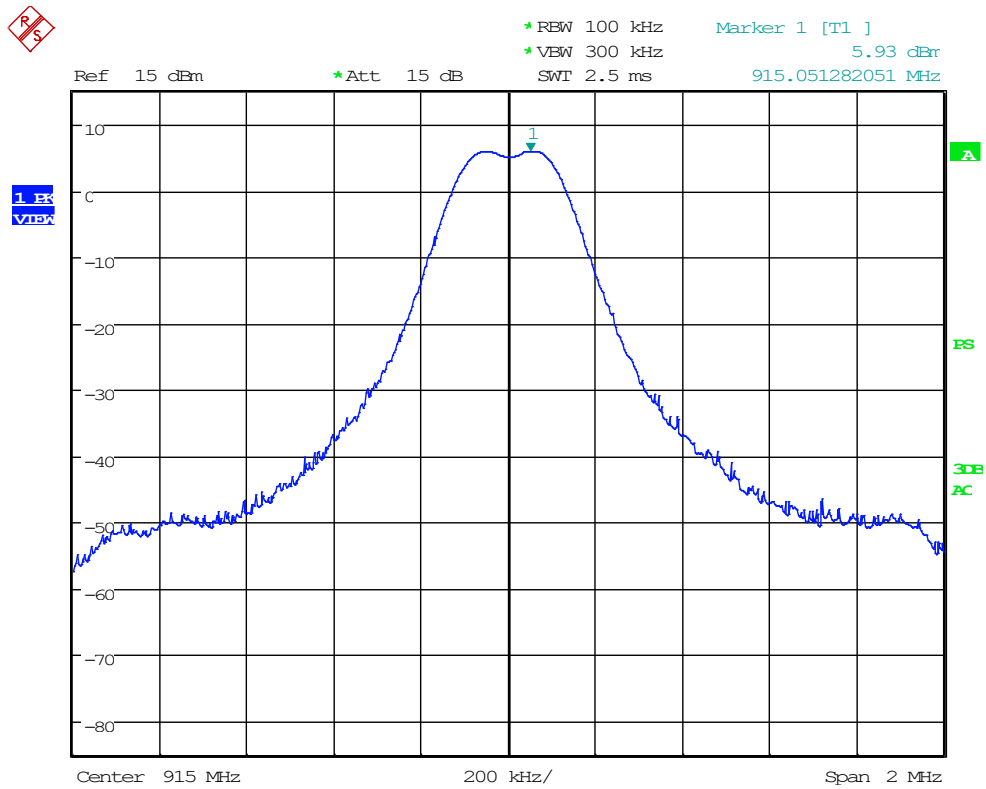
Mid Channel: 1 GHz to 10 GHz



Date: 9.SEP.2025 11:30:56



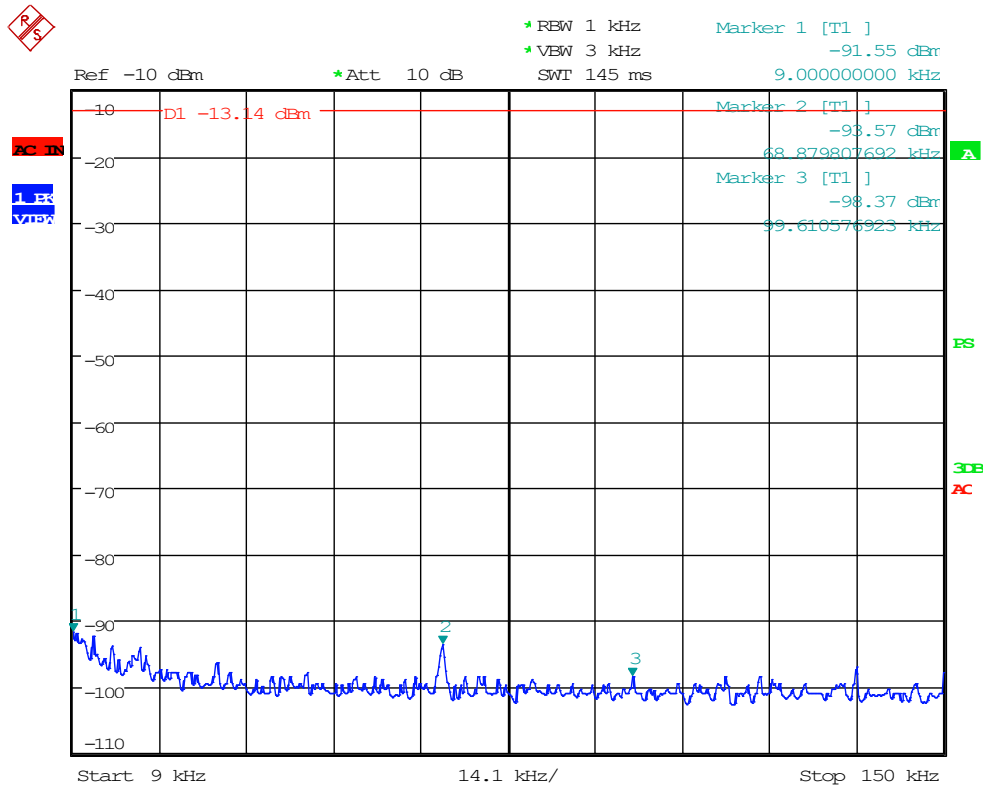
Mid Channel: Spur Reference



Date: 9.SEP.2025 11:25:00

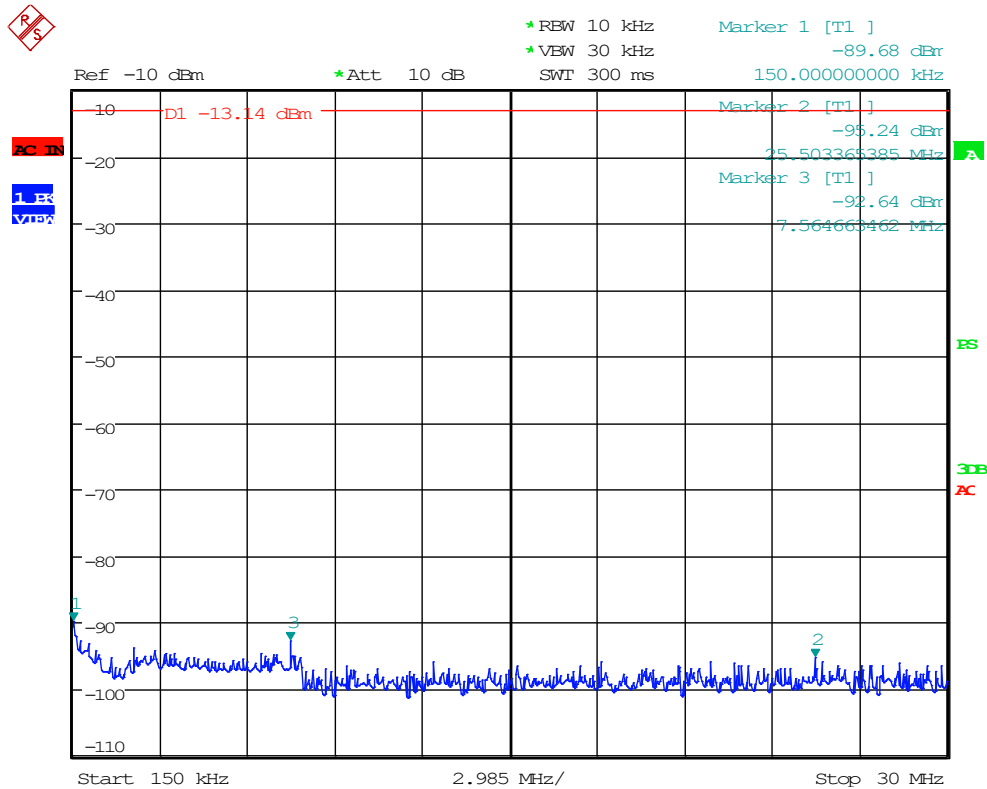


High Channel: 0.009 MHz to 0.15 MHz



Date: 9.SEP.2025 11:36:49

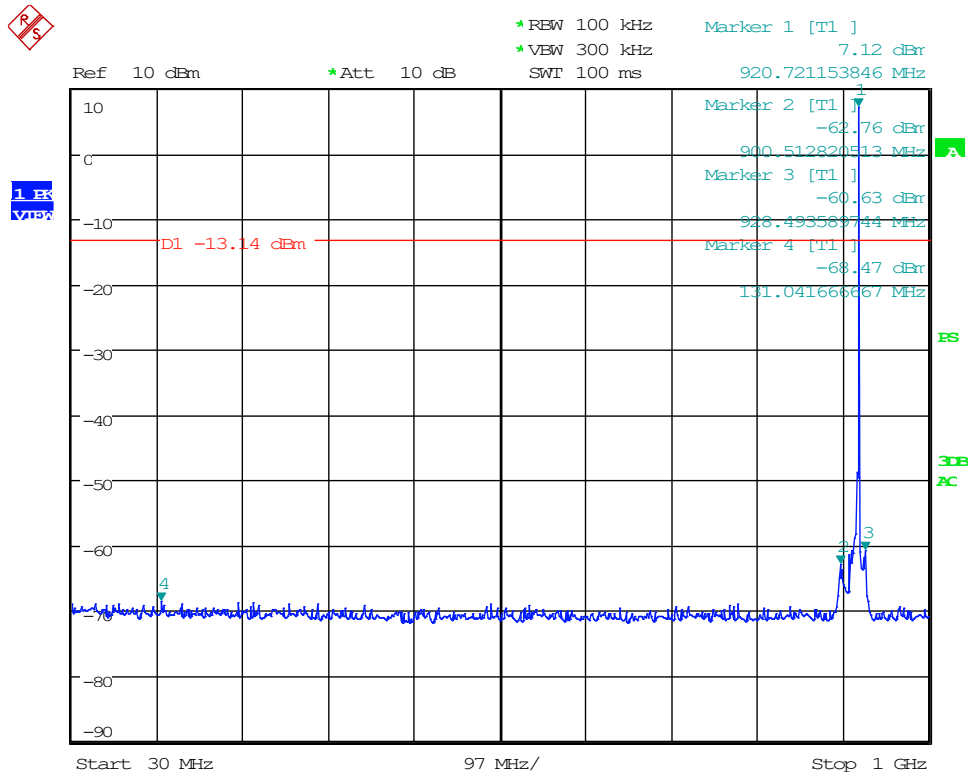
High Channel: 0.15 MHz to 30 MHz



Date: 9.SEP.2025 11:38:04



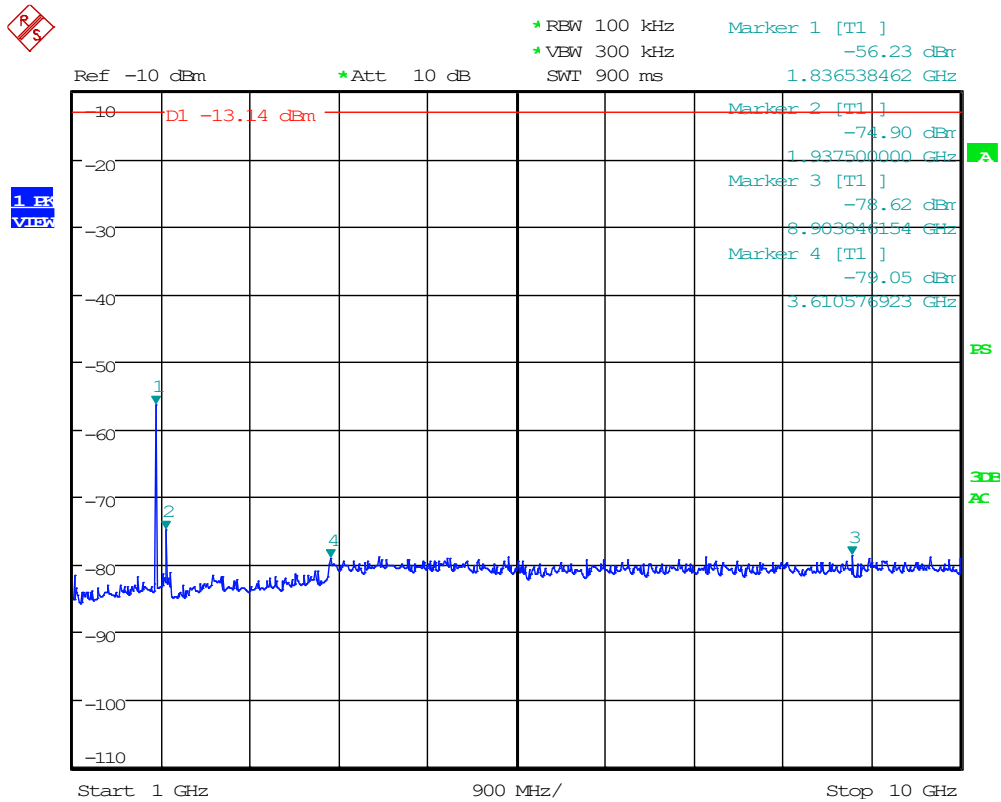
High Channel: 30 MHz to 1000 MHz



Date: 9.SEP.2025 11:39:34



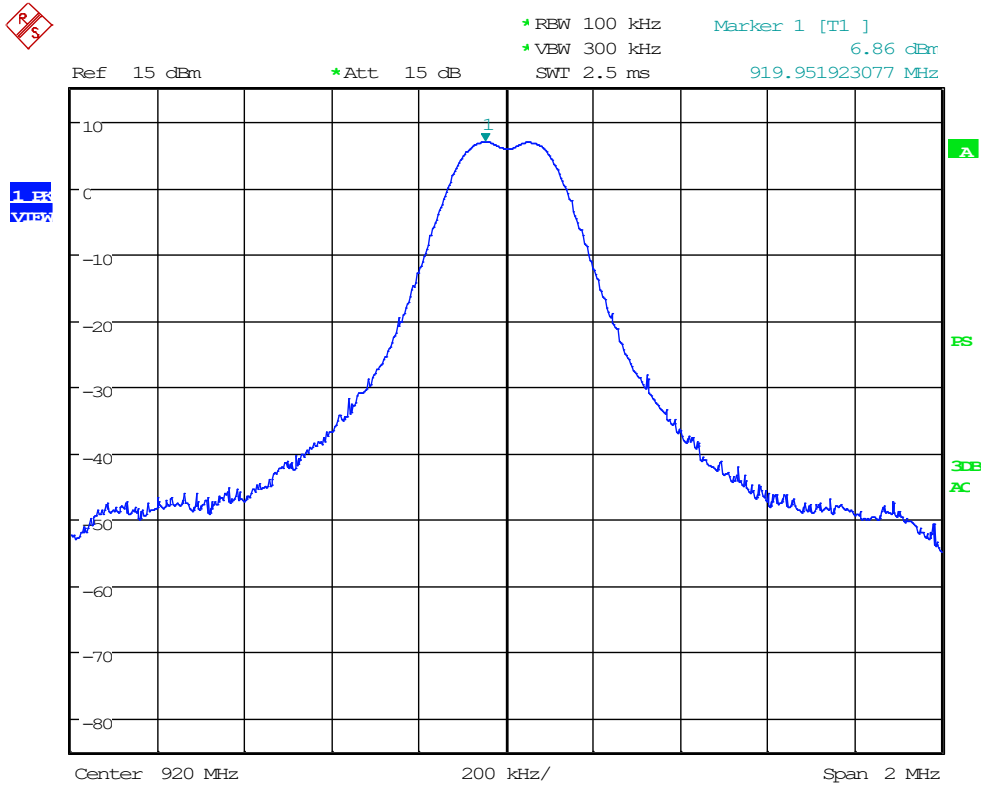
High Channel: 1 GHz to 10 GHz



Date: 9.SEP.2025 11:40:40



High Channel: Spur Reference



Date: 9.SEP.2025 11:33:50



11 RADIATED SPURIOUS EMISSIONS

The EUT antenna port was fitted with its 1.8dBi gain antenna. Radiated emissions were measured in a Semi-Anechoic Chamber. All emissions generated that fall in the restricted bands per FCC Part 15.205 were examined.

11.1 Requirements:

All emissions that fall in the restricted bands defined in FCC Part 15.205 shall not exceed the maximum field strength listed in FCC Part 15.209(a).

Scans were performed from 9kHz to 10 GHz at the low, mid, and high channels and the high channel was determined to be the worst case. The tables of measured results follow in data presented and include measurements from all channels.



11.2 Radiated Spurious Emissions Test Data

Test Date(s):	2025-09-09 / 2025-11-13 / 2025-12-15	Test Engineer:	E. Tobin
Standards:	CFR 47 Part 15.247(d); Part 15.209 / KDB558074	Air Temperature:	20.9°C / 20.3 °C / 19.5
		Relative Humidity:	49% / 36% / 38%

Notes: Plots are peak, max hold prescan data included only to determine what frequencies to investigate and measure. The EUT was initially placed in a semi-anechoic chamber and rotated in all three orthogonal positions to maximize the emissions. Characterization measurements were then performed to determine at which frequencies significant emissions occurred. These graphs are shown below.

The equipment was fully exercised with all cabling attached to the EUT and was positioned on the Semi-Anechoic Chamber for maximum emissions. While the equipment was energized, the receiving antenna was scanned from 1.0 meter to 4.0 meters in both vertical and horizontal polarities while the turntable was adjusted 360 degrees to determine the maximum field strength. The tables of measured results can be found below.

Some of the frequencies did not change with the EUT on or off. At those frequencies, the test distance was shortened to 1 meter and still no emissions from the EUT were visible or over the ambient or limit.

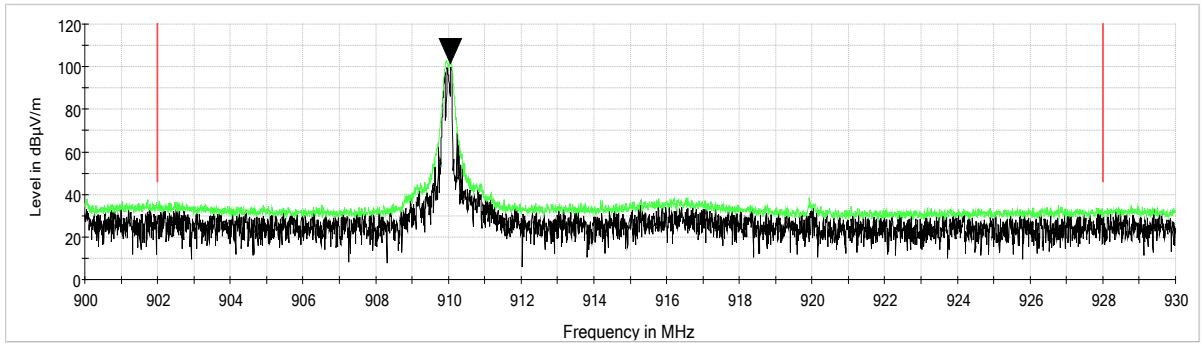
In the following plots, the black line indicates ambient noise and the red line indicates the measurement with the EUT on. Emissions to be found by the EUT were measured and listed in tables. The plots are for reference only and the limit lines are not actual limit lines but merely a guide.

**Measurements: Band Edges**

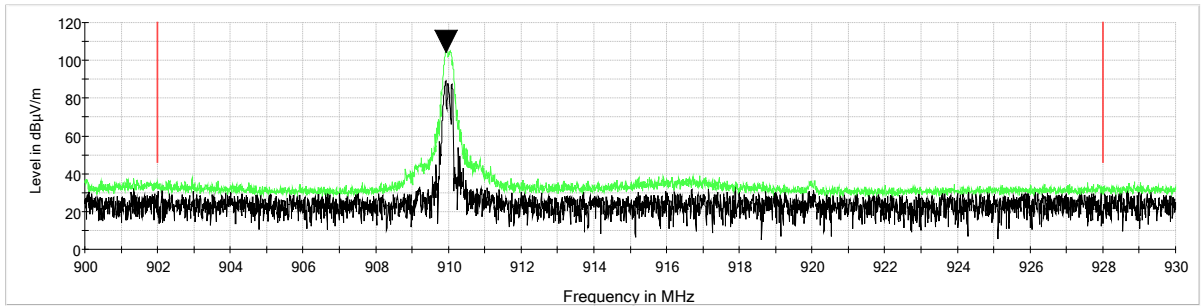
Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
902.000000	39.2	33.8	120.000	100.0	H	65.0	-13.6	50.6	84.4
902.000000	38.2	33.5	120.000	110.0	V	210.0	-13.6	50.9	84.4
910.000000	102.2	101.1	120.000	110.0	V	210.0	-13.5		
910.000000	104.2	103.1	120.000	100.0	H	65.0	-13.5		
915.000000	102.9	101.9	120.000	110.0	V	200.0	-13.3		
915.000000	104.9	103.9	120.000	100.0	H	62.0	-13.3		
920.000000	103.7	102.6	120.000	110.0	V	200.0	-13.1		
920.000000	105.5	104.4	120.000	100.0	H	60.0	-13.1		
928.000000	37.9	32.6	120.000	110.0	V	200.0	-12.9	51.8	84.4
928.000000	36.7	31.6	120.000	100.0	H	60.0	-12.9	52.8	84.4



Band Edge, Low Channel – Vertical

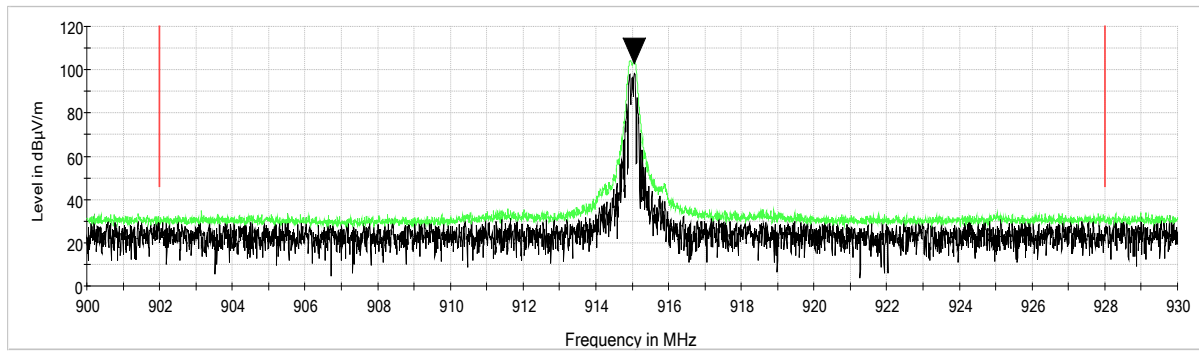


Band Edge, Low Channel – Horizontal

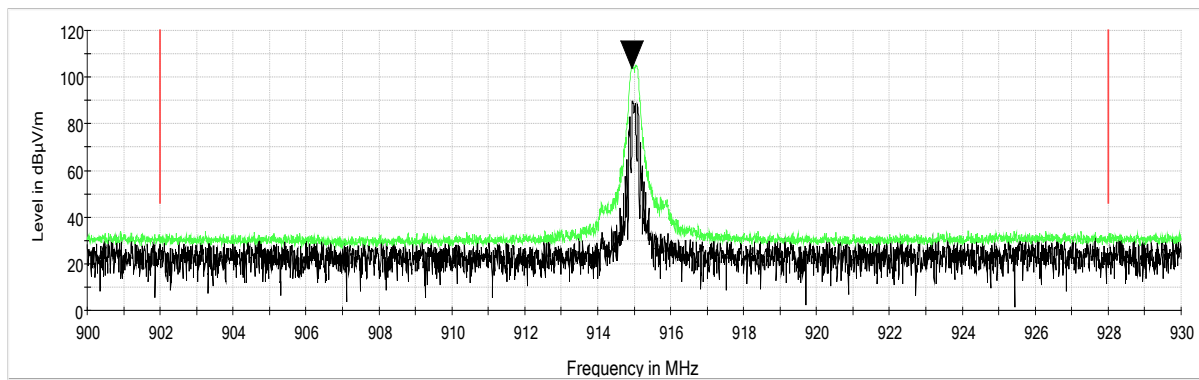




Band Edge, Mid Channel – Vertical

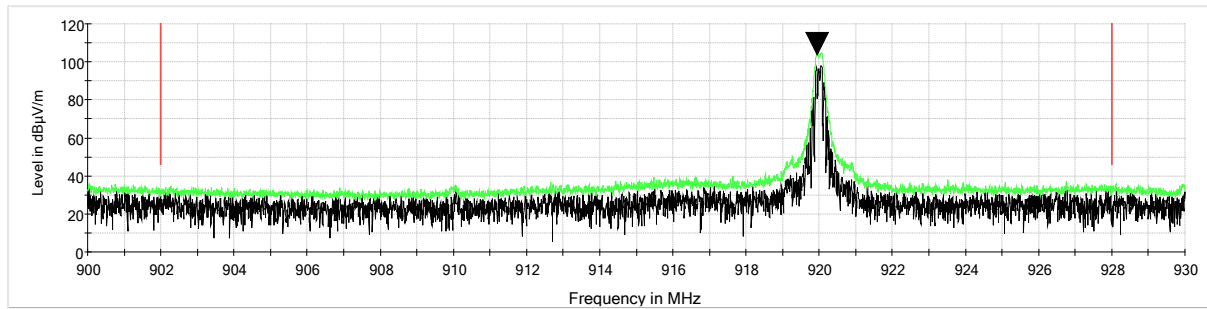


Band Edge, Mid Channel – Horizontal

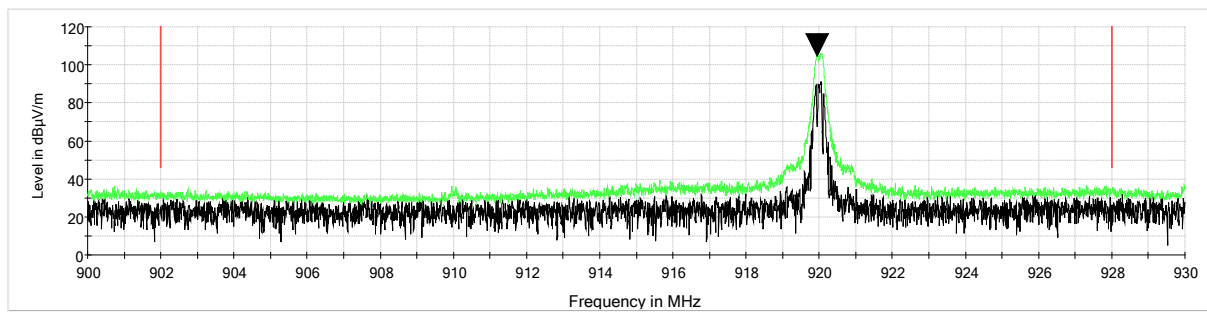




Band Edge, High Channel – Vertical

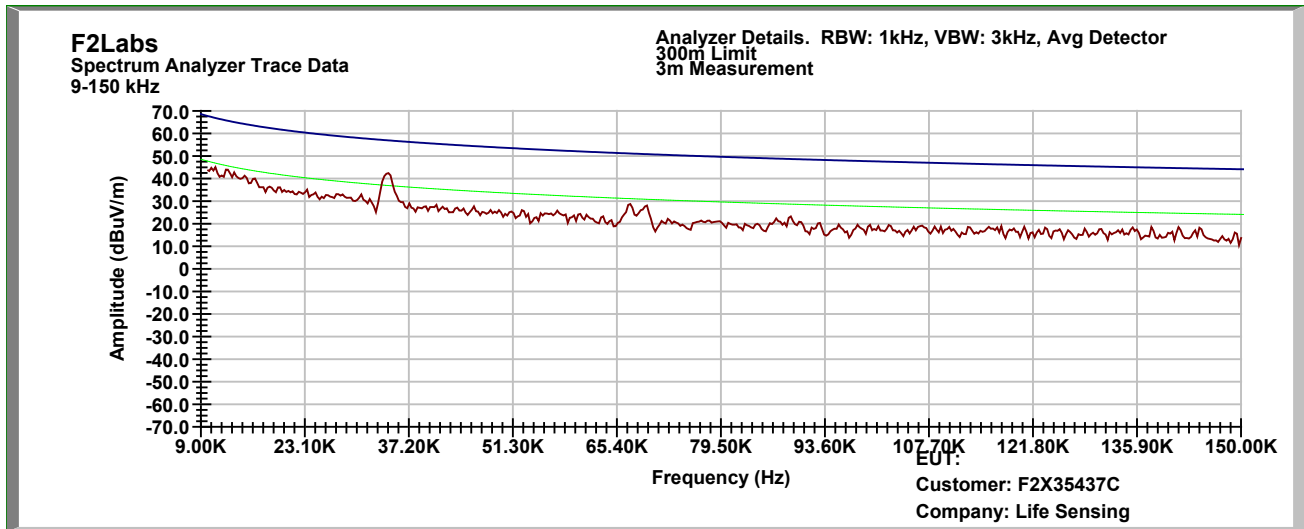


Band Edge, High Channel – Horizontal

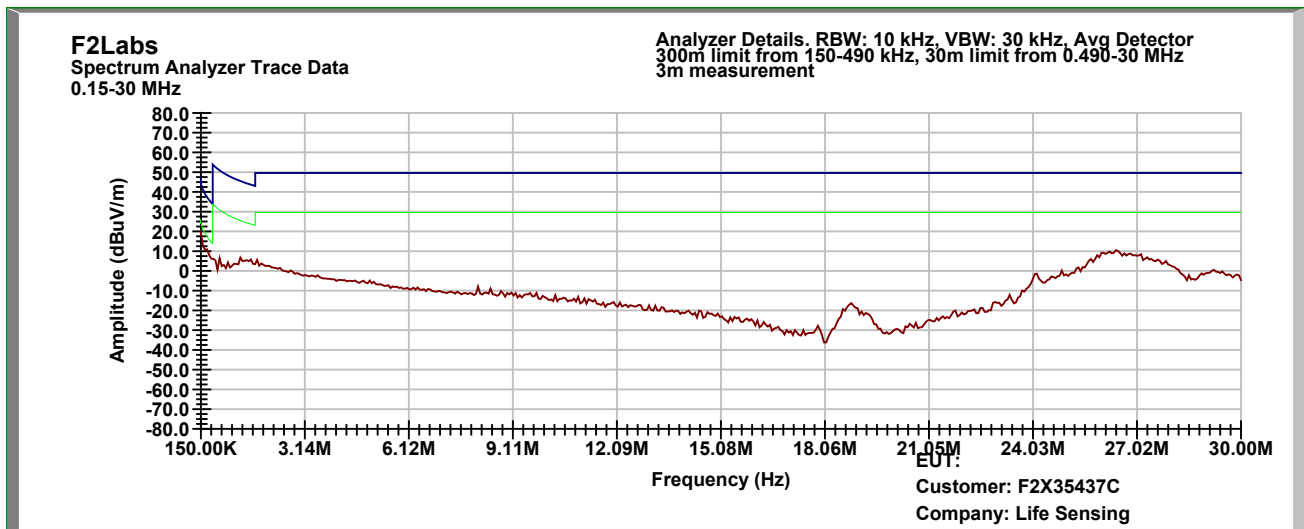




Radiated Spurious Emissions: 0.009 MHz to 0.15 MHz



Radiated Spurious Emissions: 0.15 MHz to 30 MHz

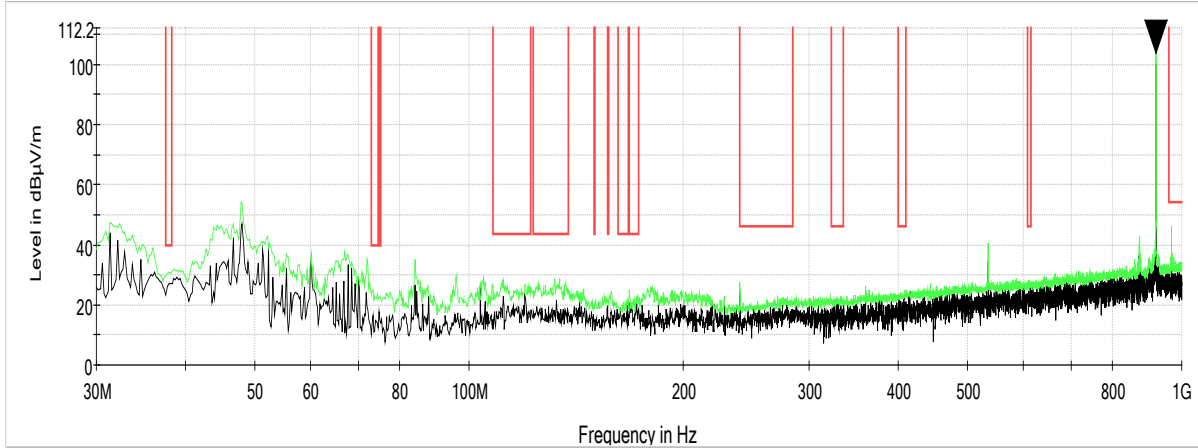


**Measurements: 30 MHz to 1000 MHz**

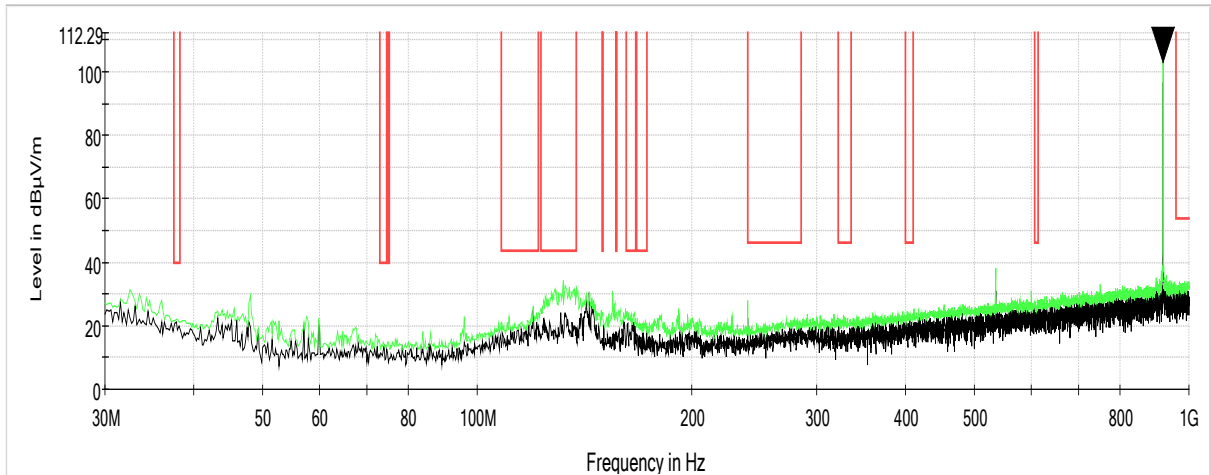
Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμV/m)
31.358000	40.4	120.000	100.0	V	358.0	-20.1		
36.014000	24.0	120.000	150.0	H	359.0	-23.5		
37.954000	27.9	120.000	100.0	V	0.0	-25.0	12.1	40.0
48.042000	25.6	120.000	150.0	H	3.0	-31.2		
48.042000	48.4	120.000	100.0	V	358.0	-31.2		
71.904000	26.7	120.000	100.0	V	8.0	-31.5		
83.932000	26.1	120.000	100.0	V	357.0	-32.4		
128.552000	26.0	120.000	150.0	H	0.0	-25.5	17.5	43.5
132.044000	30.9	120.000	150.0	H	0.0	-25.7	12.6	43.5
155.130000	21.6	120.000	150.0	H	348.0	-26.9		
239.908000	21.9	120.000	100.0	V	4.0	-26.8		
239.908000	16.4	120.000	150.0	H	0.0	-26.8		
534.982000	37.8	120.000	100.0	V	352.0	-20.2		



Radiated Spurious Emissions: 30 MHz to 1000 MHz - Vertical



Radiated Spurious Emissions: 30 MHz to 1000 MHz - Horizontal

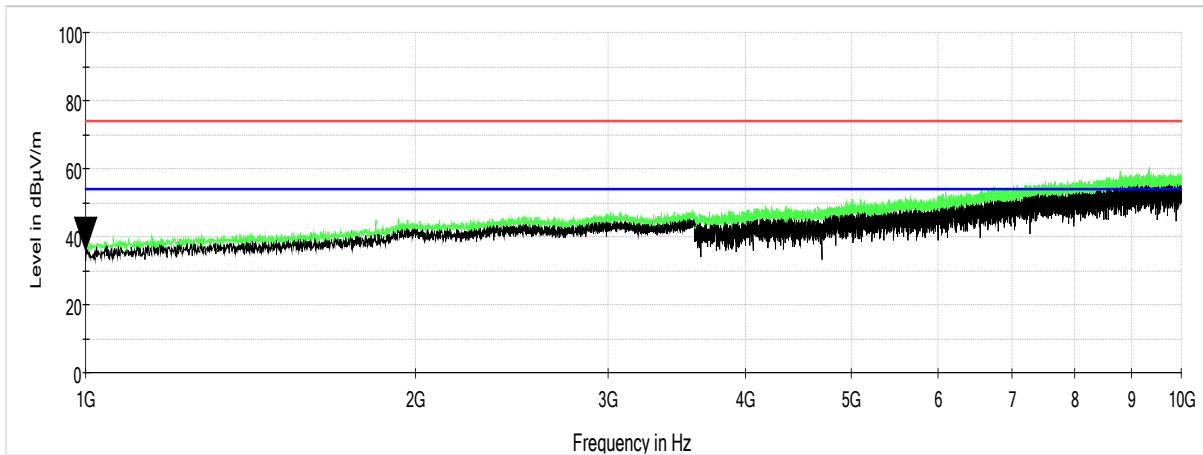


**Measurements: Greater Than 1 GHz**

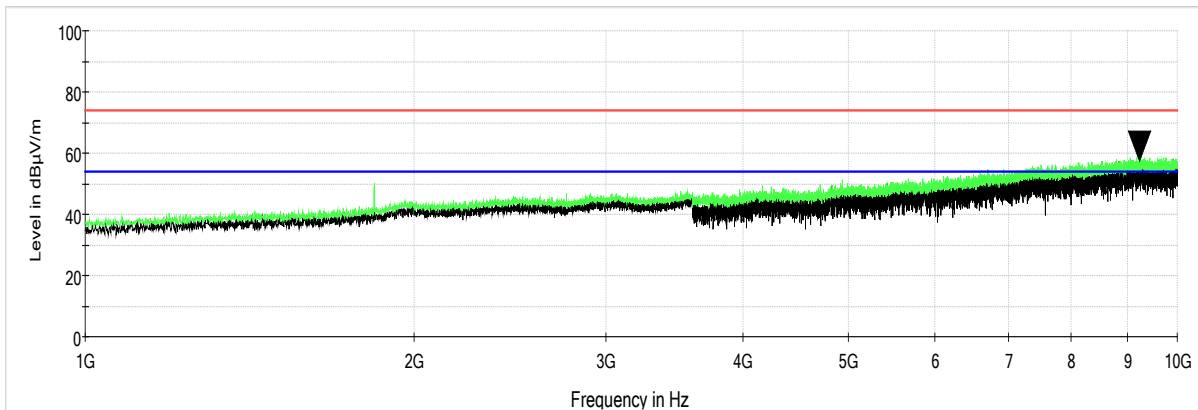
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBµV/m)	Comment
1840.000000	48.7	44.3	1000.0	1000.000	100.0	H	3.0	4.4	9.7	54.0	
1840.000000	55.4	52.7	1000.0	1000.000	110.0	V	0.0	4.4	1.3	54.0	
6440.000000	56.3	42.6	1000.0	1000.000	110.0	V	8.0	15.9	11.4	54.0	
6440.000000	57.1	42.6	1000.0	1000.000	100.0	H	350.0	15.9	11.4	54.0	
7360.000000	59.9	46.0	1000.0	1000.000	100.0	H	11.0	19.1	8.0	54.0	
7360.000000	59.3	46.0	1000.0	1000.000	100.0	H	0.0	19.1	8.0	54.0	
7360.000000	59.9	46.0	1000.0	1000.000	110.0	V	348.0	19.1	8.0	54.0	
8280.000000	60.5	46.8	1000.0	1000.000	100.0	H	355.0	20.0	7.2	54.0	
8280.000000	60.9	46.7	1000.0	1000.000	110.0	V	4.0	20.0	7.3	54.0	
9200.000000	62.3	48.6	1000.0	1000.000	100.0	H	2.0	21.9	5.4	54.0	
9200.000000	62.7	48.6	1000.0	1000.000	110.0	V	356.0	21.9	5.4	54.0	



Radiated Spurious Emissions: 1 GHz to 10 GHz - Vertical



Radiated Spurious Emissions: 1 GHz to 10 GHz - Horizontal





12 FREQUENCY SEPARATION

EUT was directly connected to the analyzer with the Hopping function on.

12.1 Requirements:

Frequency separation must be greater than 25kHz or 20dB bandwidth of the Hopping Channel, whichever is greater.

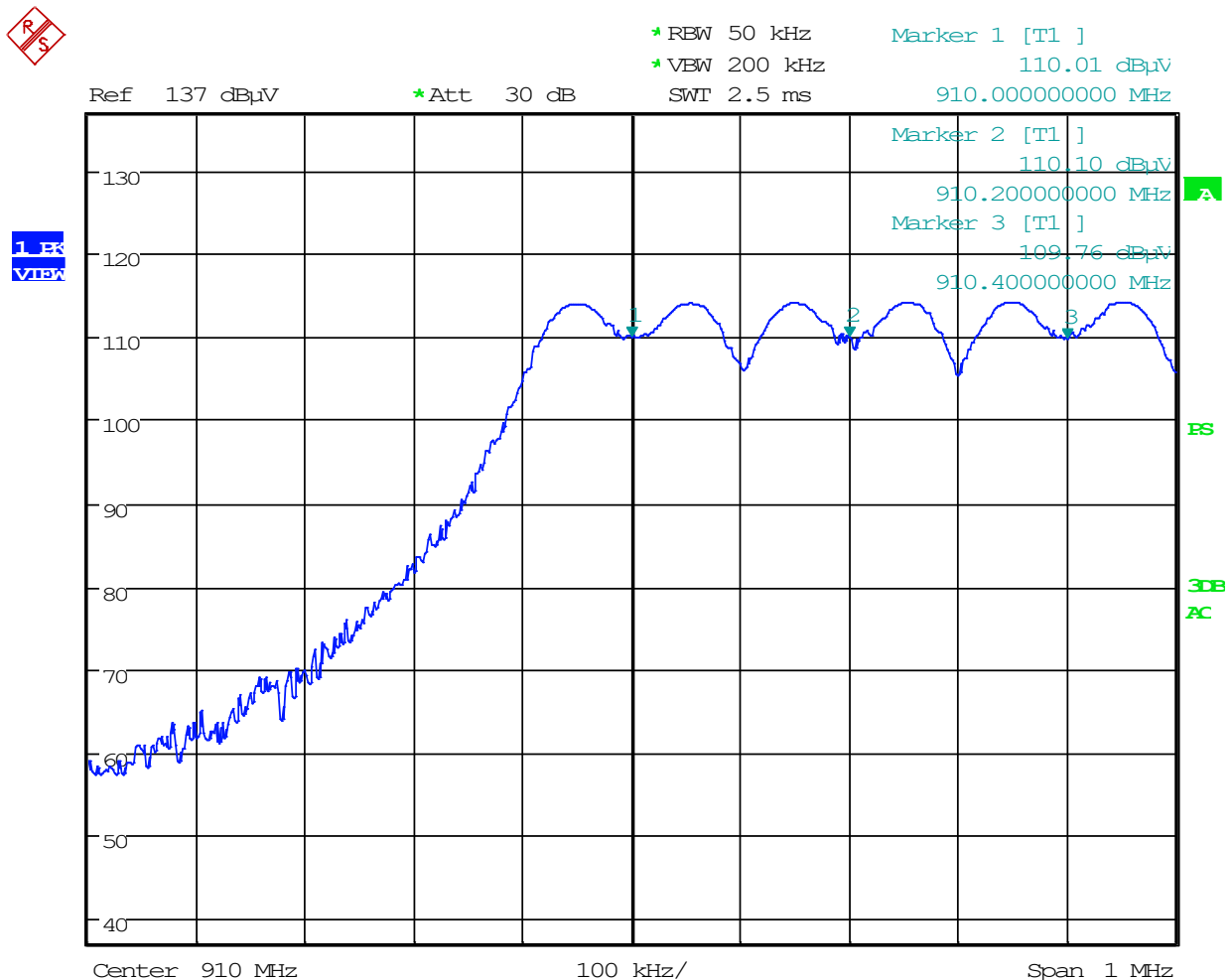


12.2 Frequency Separation Test Data

Test Date(s):	2025-11-13	Test Engineer:	E. Tobin
Standard(s):	ANSI 63.10 7.8.2	Air Temperature:	20.3°C
Results:	Complies	Relative Humidity:	36%

Results: Verified that all modulations had a frequency separation claimed by the manufacturer. All modulations had 200kHz separation.

909.5 MHz to 910.5 MHz

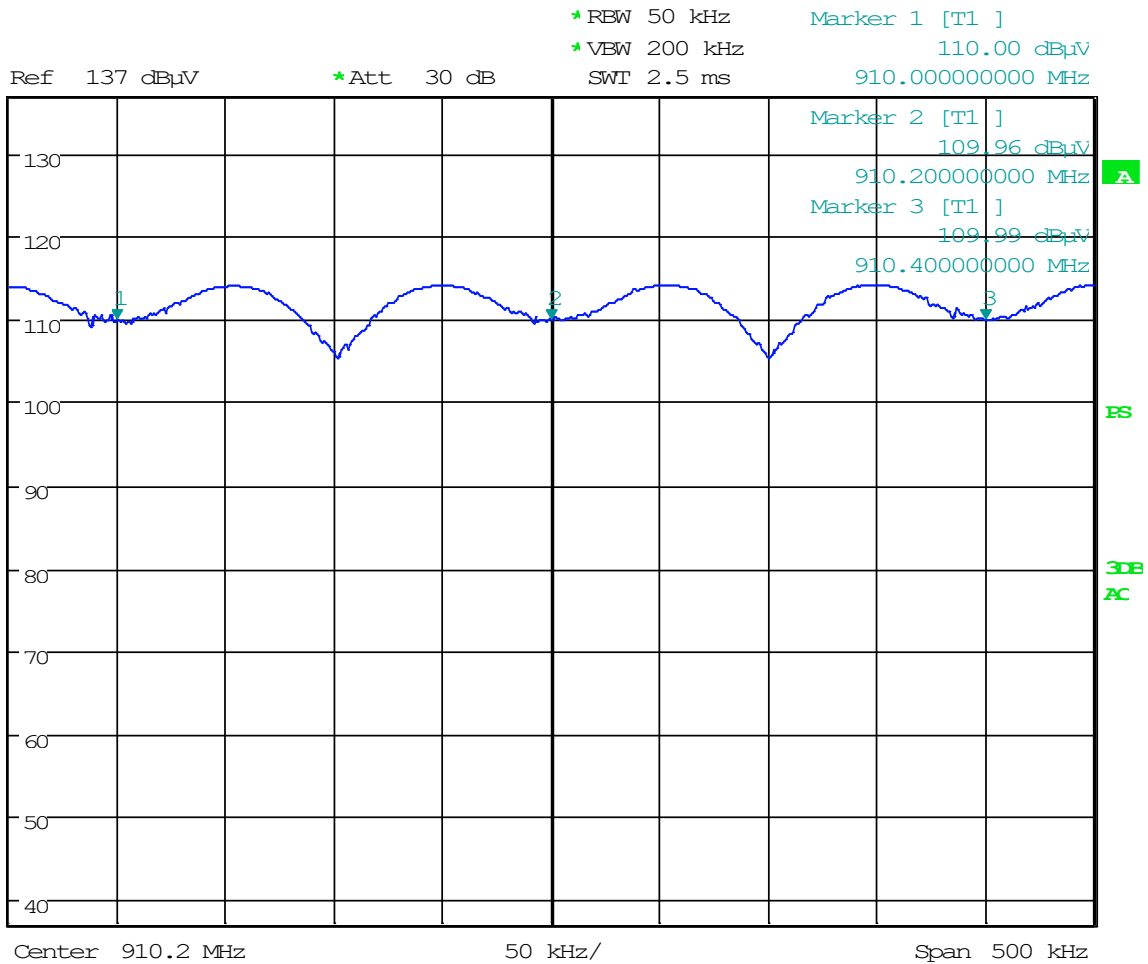




909.95 MHz to 910.45 MHz



1.83
MAX





13 NUMBER OF HOPPING FREQUENCIES

The EUT was directly connected to the measurement device through a BNC connector. With the hopping enabled, the EUT was checked to ensure all of the hopping channels were present.

13.1 Requirements:

Verify that all channels are present.

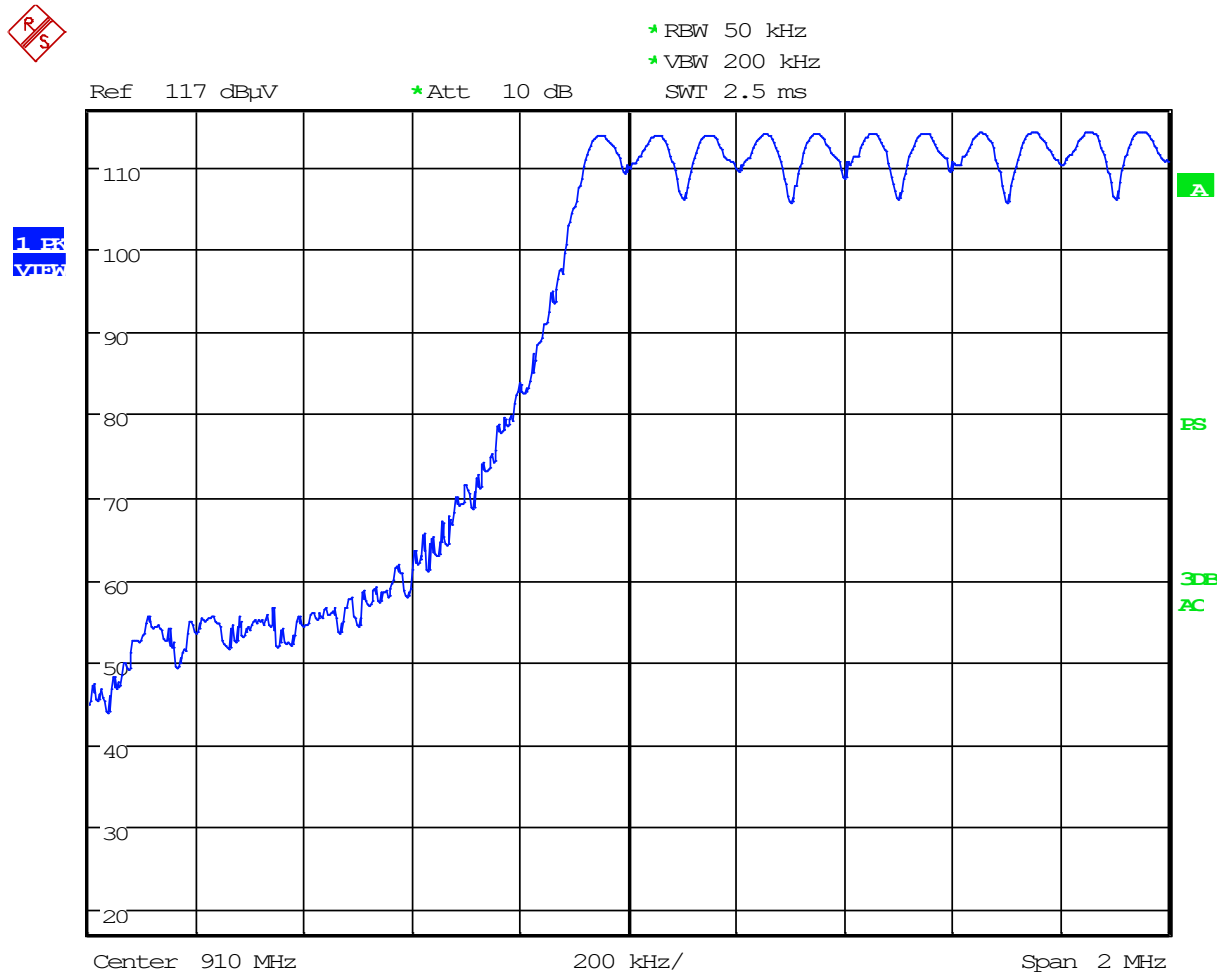


13.2 Number of Hopping Frequencies Test Data

Test Date(s):	2025-11-13	Test Engineer:	E. Tobin
Standard(s):	ANSI 63.10 7.8.3	Air Temperature:	20.3°C
		Relative Humidity:	36%

EUT showed 50 channels, confirming manufacturer's specifications.

909 MHz to 911 MHz



Date: 13.NOV.2025 16:27:42



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

911 MHz to 913 MHz



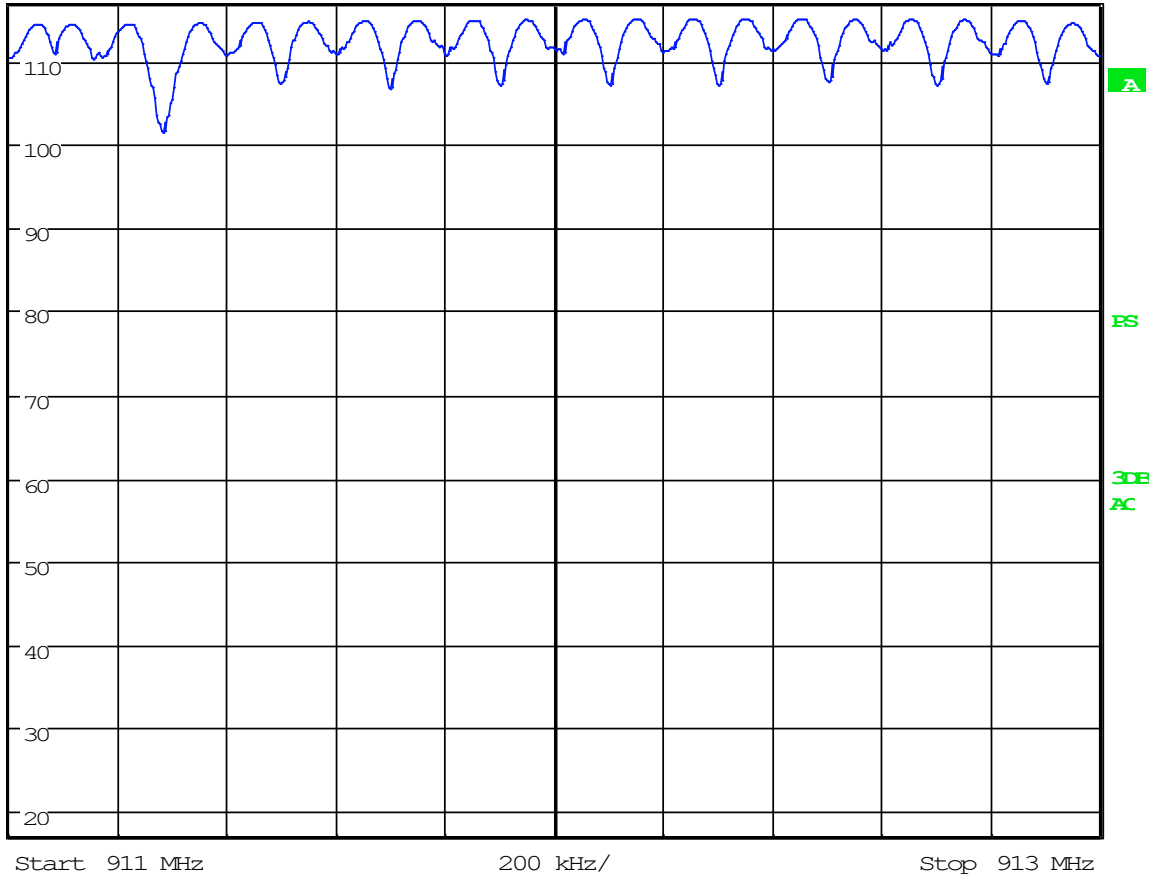
* RBW 50 kHz
* VBW 200 kHz

Ref 117 dBμV

* Att 10 dB

SWT 2.5 ms

1. EX
VIEW



Date: 13.NOV.2025 16:18:24



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

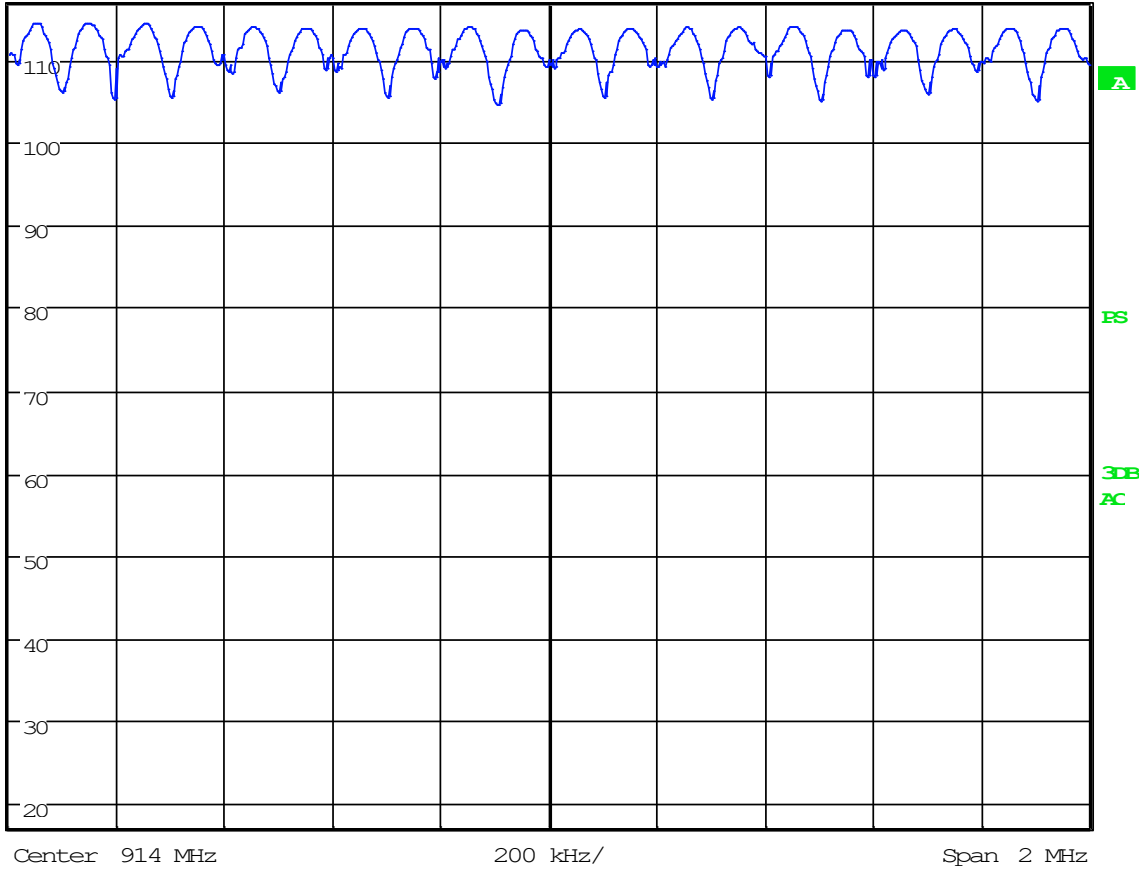
913 MHz to 915 MHz



*RBW 50 kHz
*VBW 200 kHz

Ref 117 dBμV *Att 10 dB SWT 2.5 ms

1. F3
VIEW



Date: 13.NOV.2025 16:19:18



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

915 MHz to 917 MHz

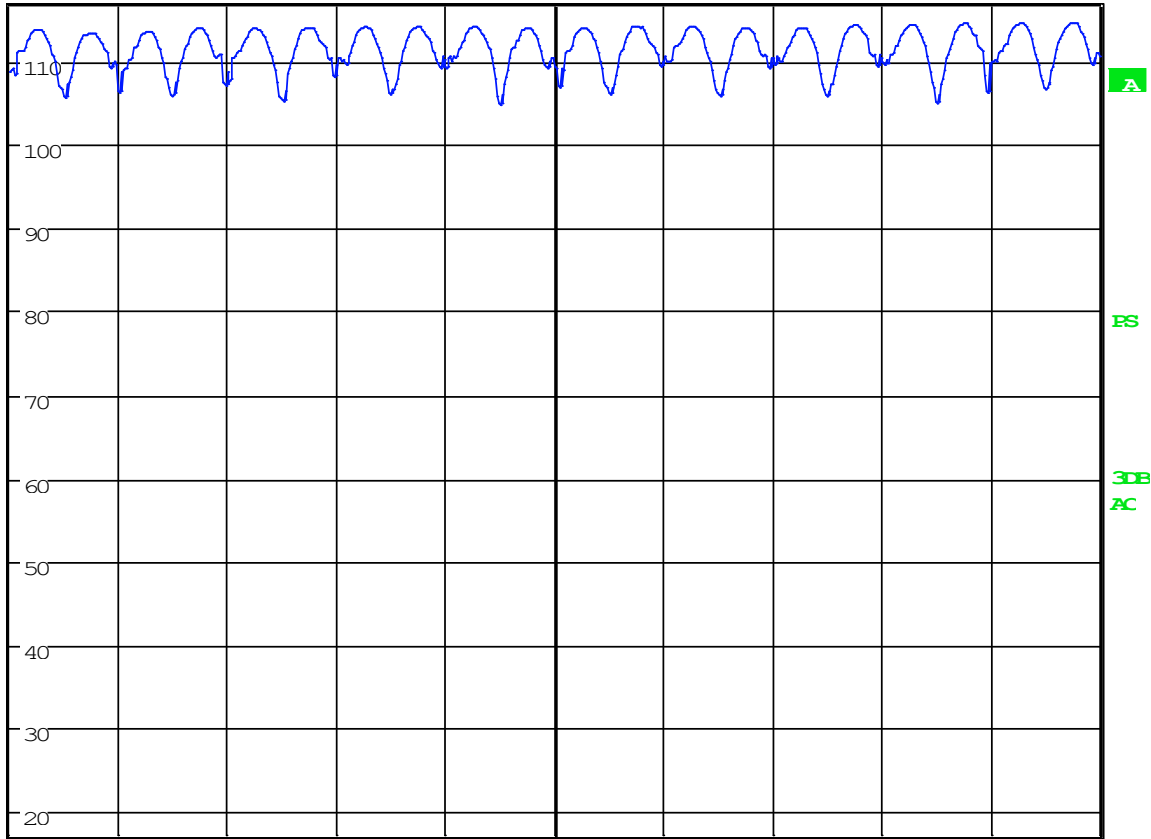


*RBW 50 kHz
*VBW 200 kHz
SWT 2.5 ms

Ref 117 dBμV

*Att 10 dB

1. F3
view



Center 916 MHz

200 kHz/

Span 2 MHz

Date: 13.NOV.2025 16:19:50



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

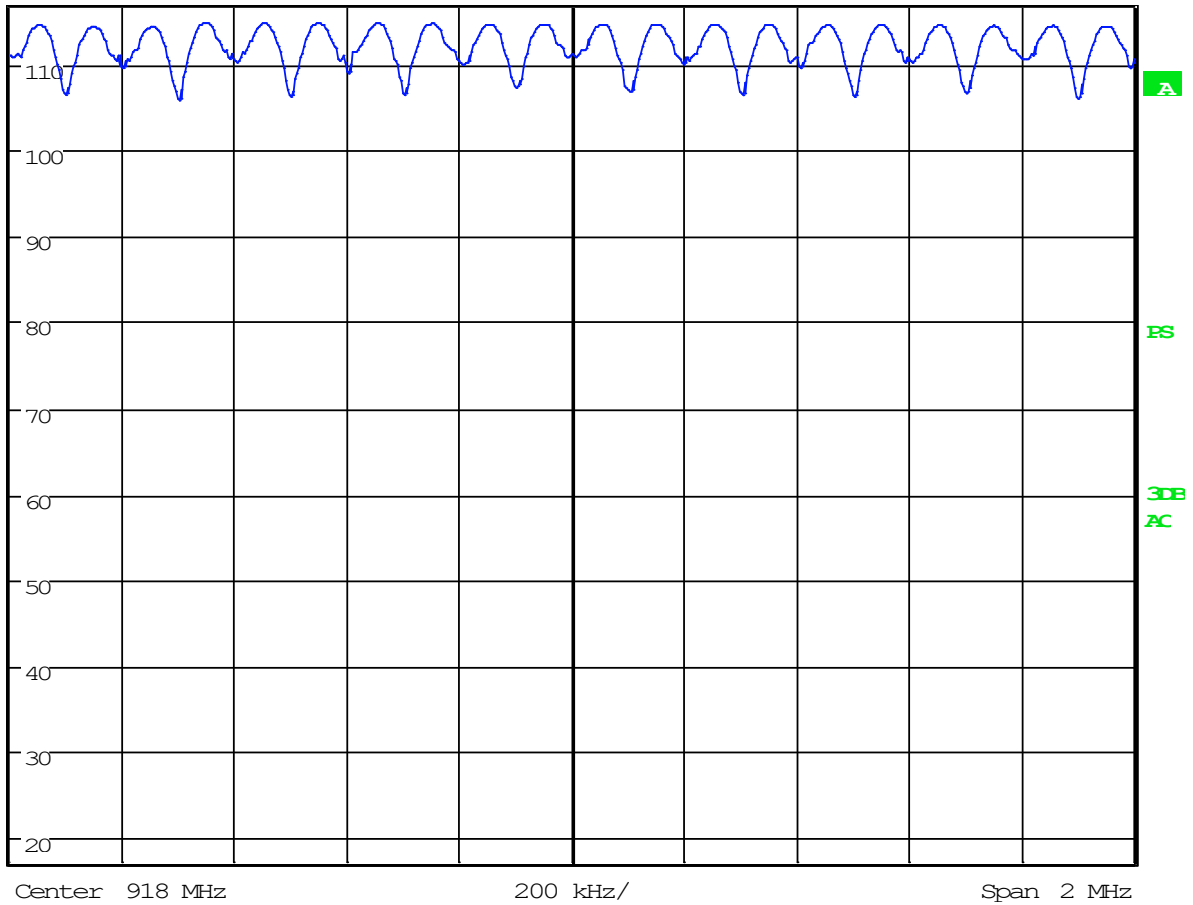
917 MHz to 919 MHz



*RBW 50 kHz
*VBW 200 kHz

Ref 117 dBμV *Att 10 dB SWI 2.5 ms

1.83
V1BW



Date: 13.NOV.2025 16:20:20



Order No(s): F2X35437C

Applicant: Life Sensing Instruments Inc.
Model: Nexus

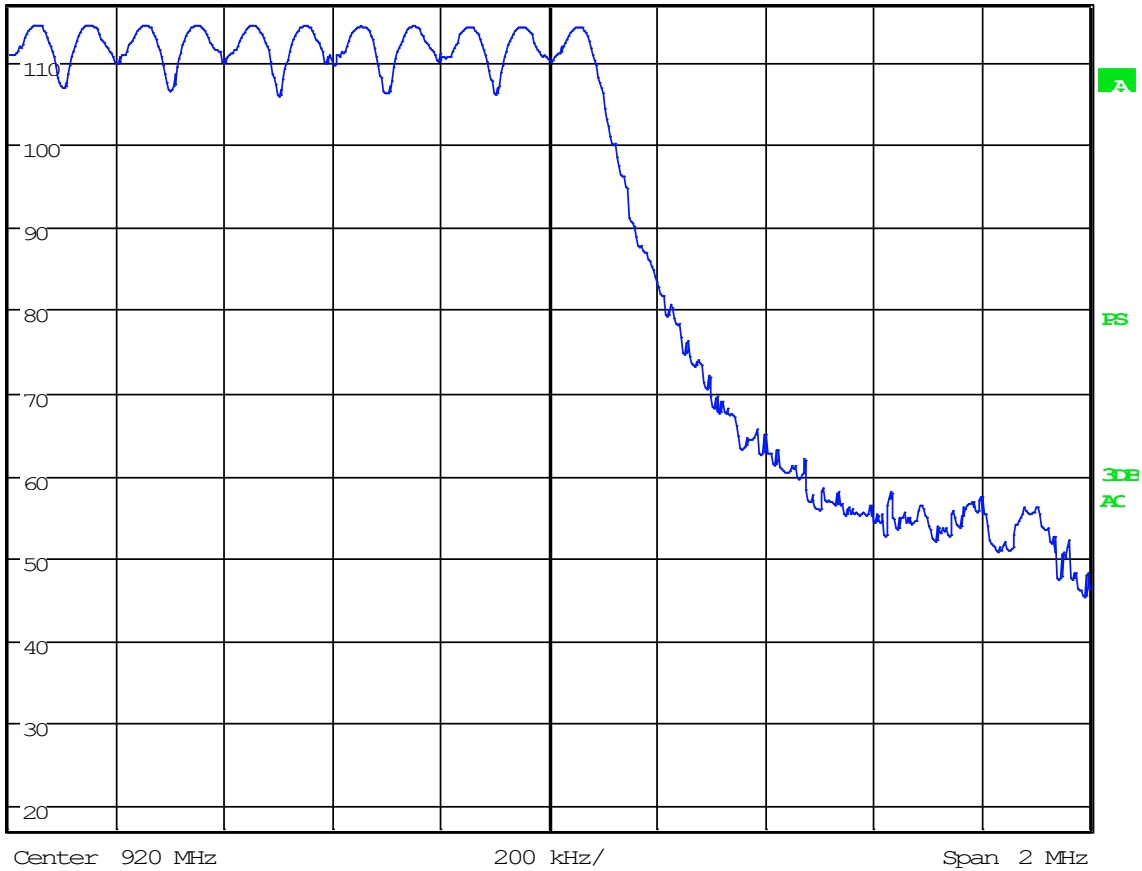
919 MHz to 921 MHz



* RBW 50 kHz
* VBW 200 kHz

Ref 117 dBμV * Att 10 dB SWT 2.5 ms

1. F3
VIEW



Date: 13.NOV.2025 16:21:06



14 DWELL TIME

Test was to verify the dwell time on any channel while Hopping was on. EUT was directly connected to analyzer. The plots on the following page show how long a transmission is, and the transmissions in 20 seconds.

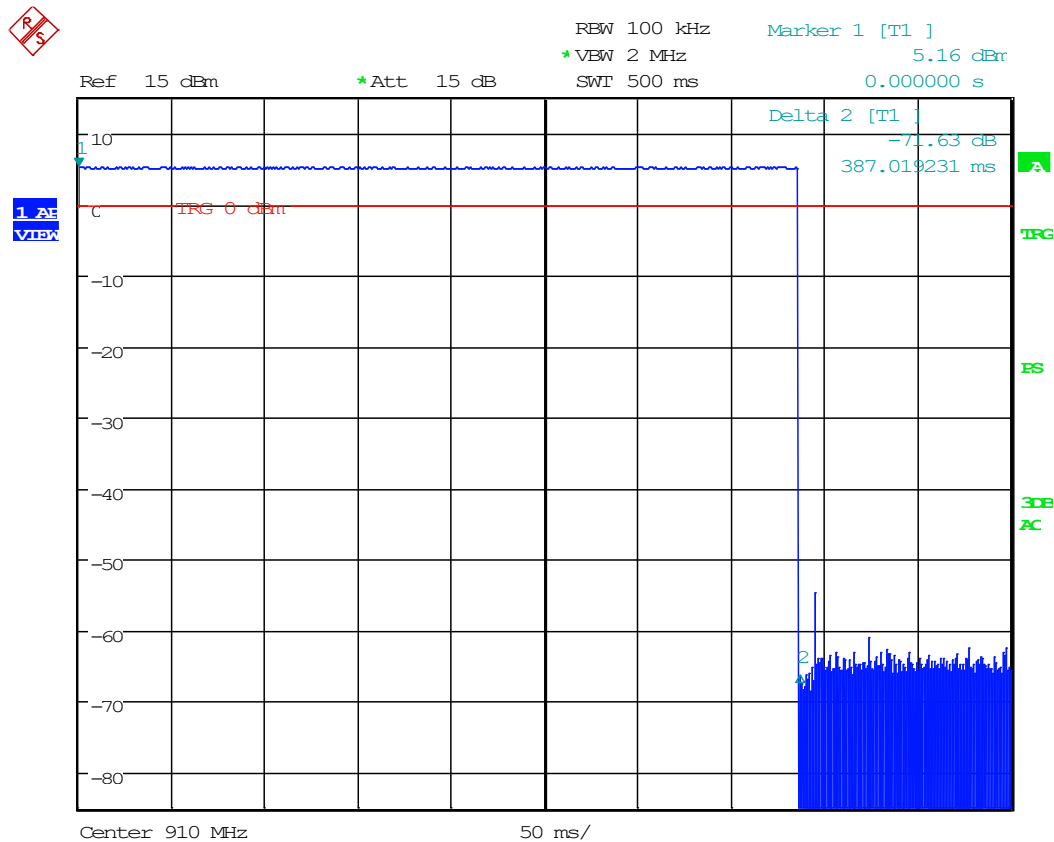
14.1 Requirements:

Limit of 0.4 seconds in a 20-second period.

14.2 Dwell Time Test Data

Test Date(s):	2025-09-09	Test Engineer:	E. Tobin
Standard(s):	ANSI 63.10 7.8.4	Air Temperature:	19.4°C
Results:	Complies	Relative Humidity:	48%

Length of Transmission



Date: 9.SEP.2025 13:45:08

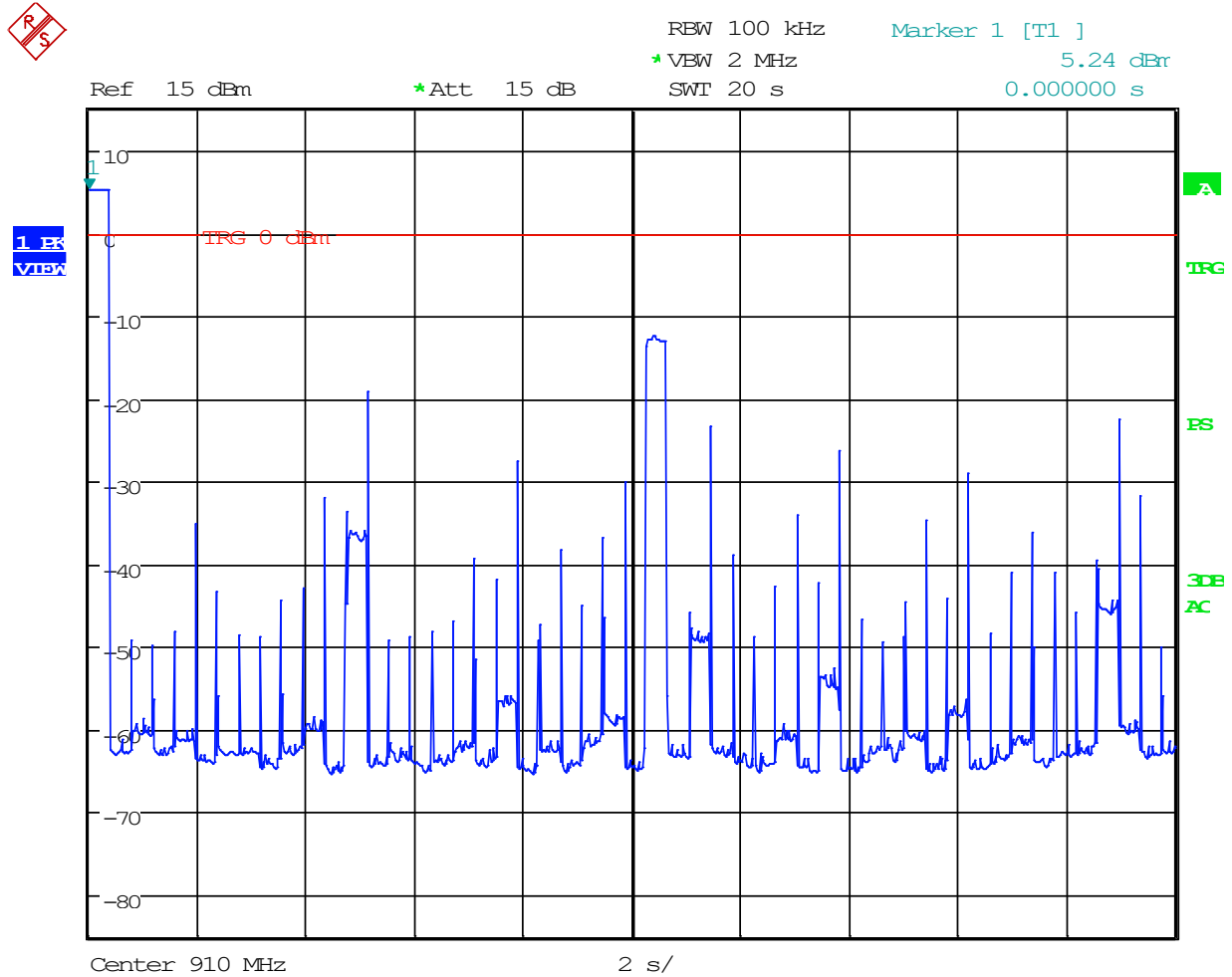
Pulse Duration: 0.387s
Pulses in 20s: 1
Time Between Pulses: 28s

Limit: 400mS in 20-second period.

387mS transmission with 1 transmission in 20 seconds.



Number of Pulses, 0 kHz Span



Date: 9.SEP.2025 13:41:37



15 CONDUCTED EMISSIONS

15.1 Requirements

In accordance with FCC CFR 47 Part 15.207(a), "Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

15.2 Procedure

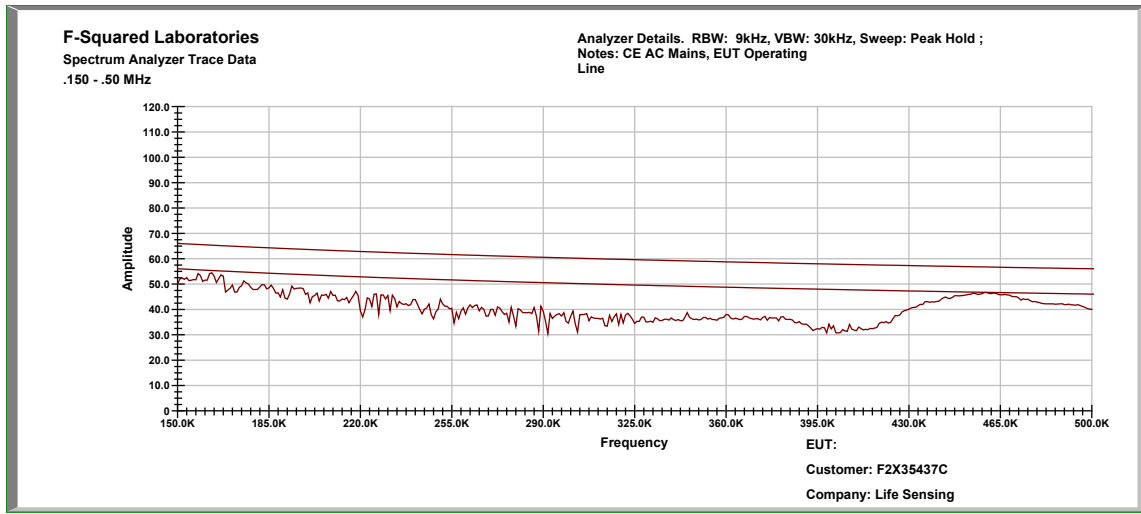
The EUT was placed on a 1.0 x 1.5 meter non-conductive table, 0.8 meter above a horizontal ground plane and 0.4 meter from a vertical ground plane. Power was provided to the EUT through a LISN bonded to a 3 x 2 meter ground plane. The LISN and peripherals were supplied power through a filtered AC power source. The output of the LISN was connected to the input of the receiver via a transient limiter, and emissions in the range 150 kHz to 30 MHz were measured. The measurements were recorded using the quasi-peak and average detectors as directed by the standard, and the resolution bandwidth during testing was 9 kHz. The raw measurements were corrected to allow for attenuation from the LISN, transient limiter and cables.



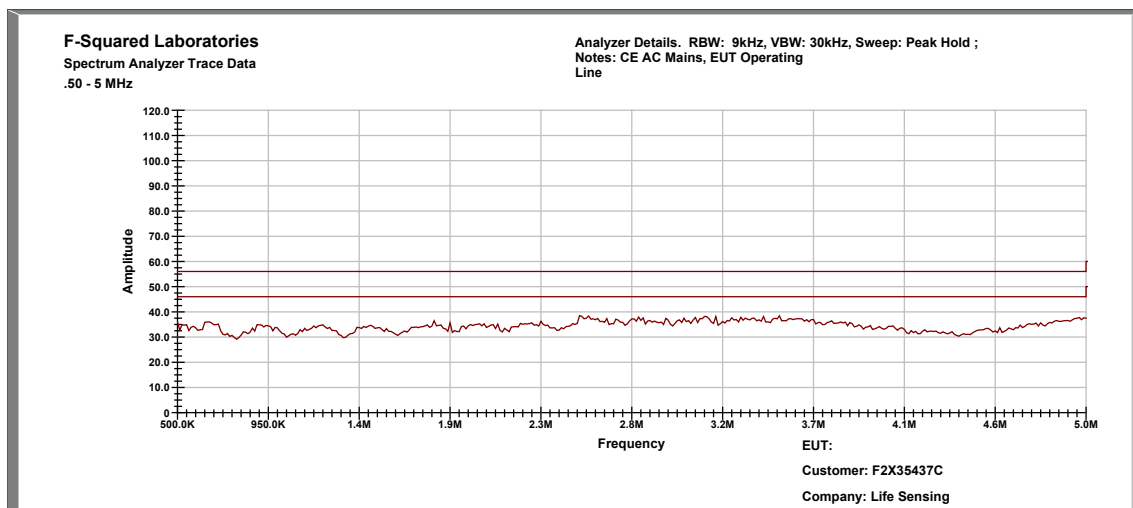
15.3 Conducted Emissions Test Data

Test Date(s):	2025-09-10	Test Engineer(s):	E. Tobin
Rule:	15.207	Air Temperature:	20.8° C
Test Results:	Complies	Relative Humidity:	49%

Conducted Test – Live: 0.15 MHz to 0.5 MHz

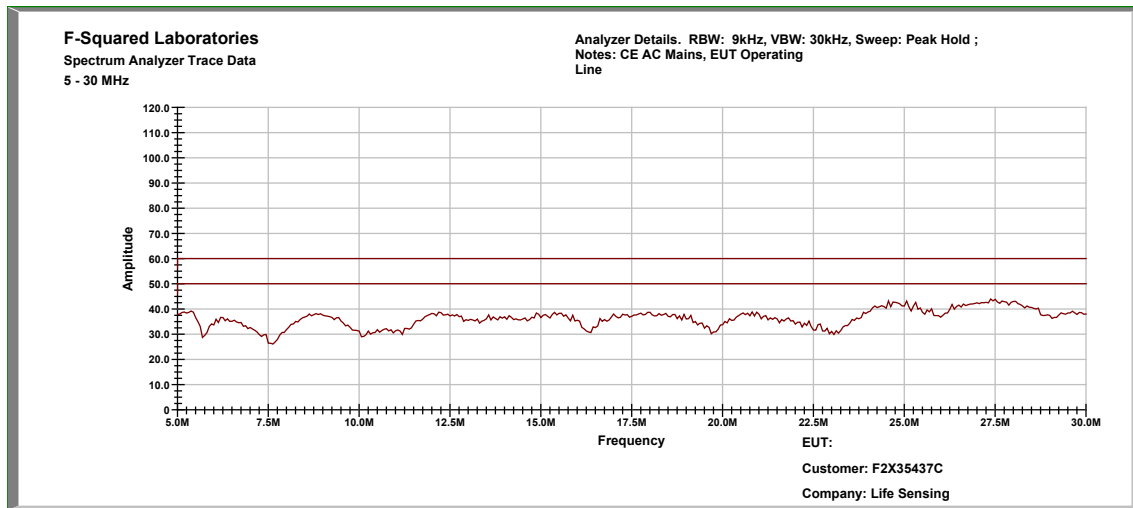


Conducted Test – Live: 0.5 MHz to 5.0 MHz





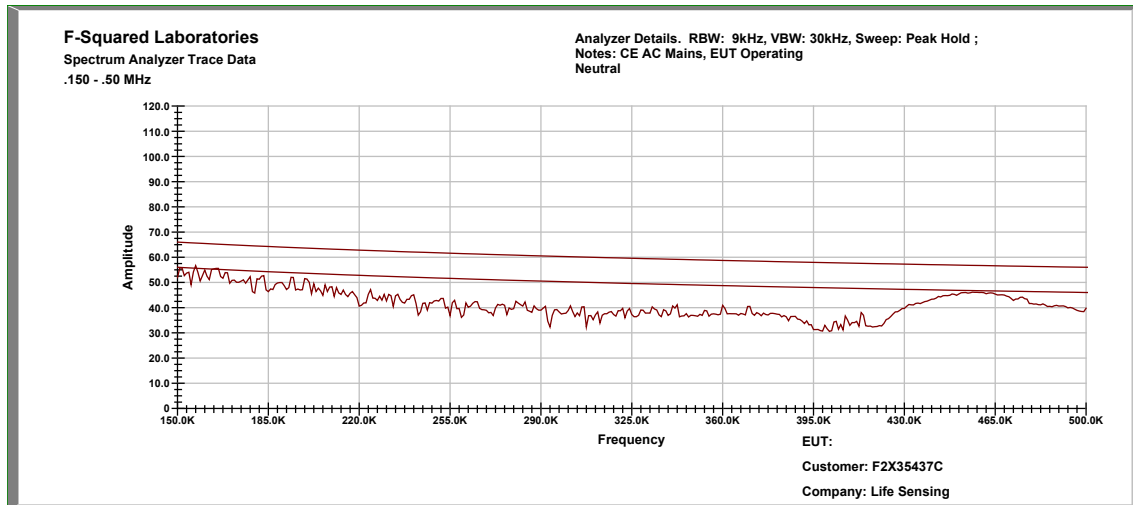
Conducted Test – Live: 5.0 MHz to 30.0 MHz



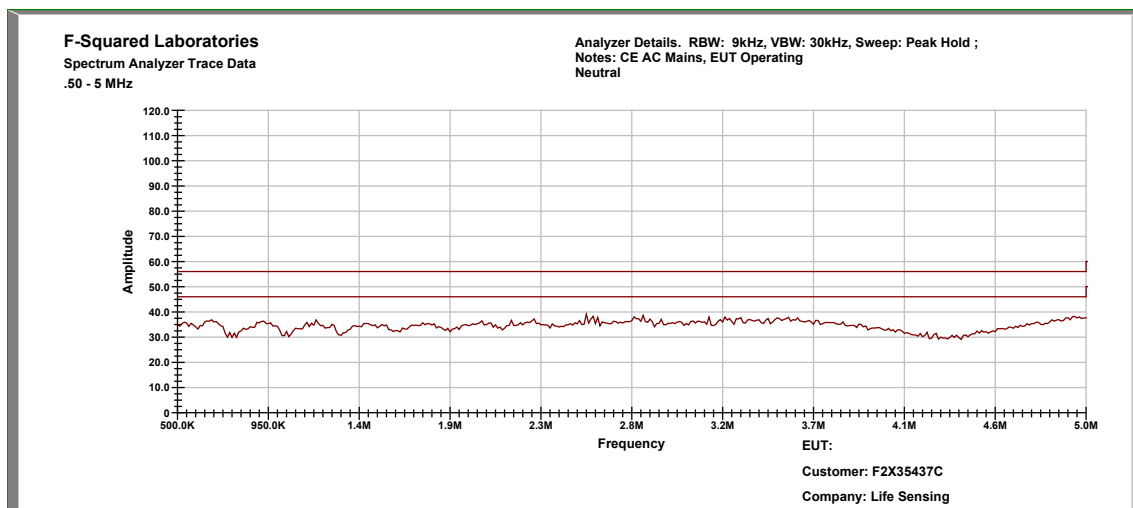
Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Live	0.1603	Quasi-Peak	34.36	11.778	46.14	65.447	-19.3
			Average	27.142	11.778	38.92	55.447	-16.5
2	Live	0.4605	Quasi-Peak	33.63	10.615	44.25	56.685	-12.4
			Average	30.35	10.615	40.97	46.685	-5.7

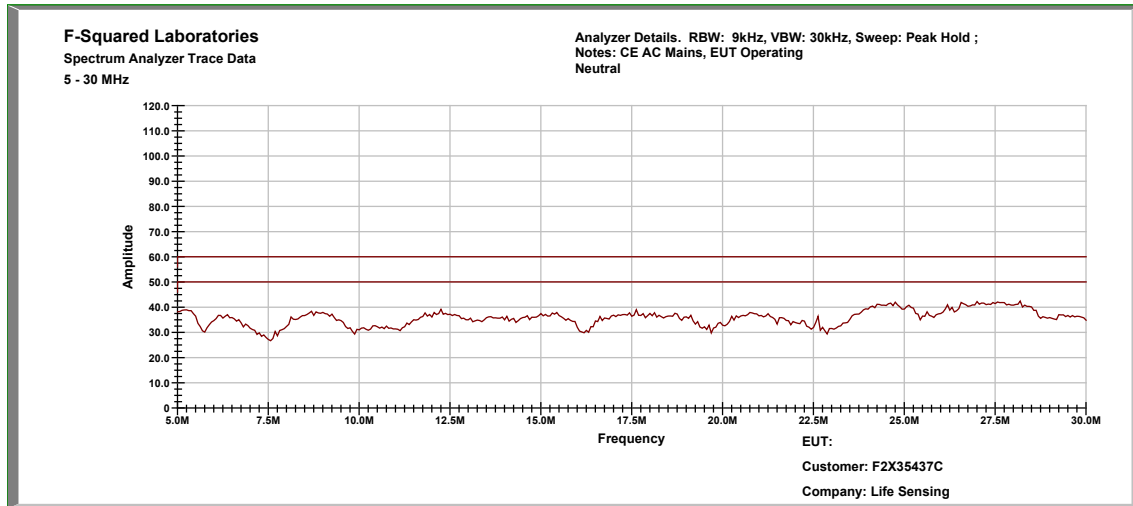


Conducted Test – Neutral: 0.15 MHz to 0.5 MHz

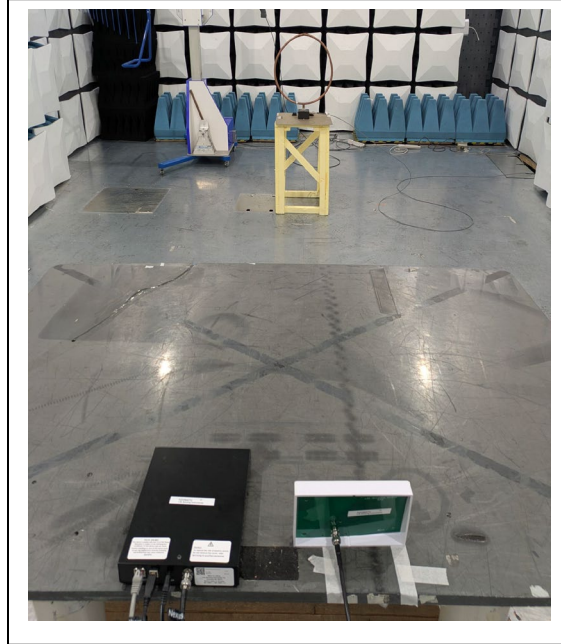
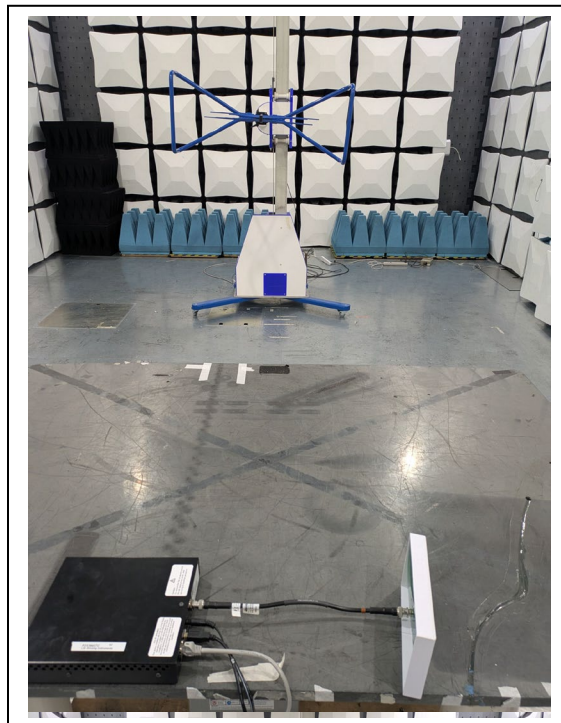


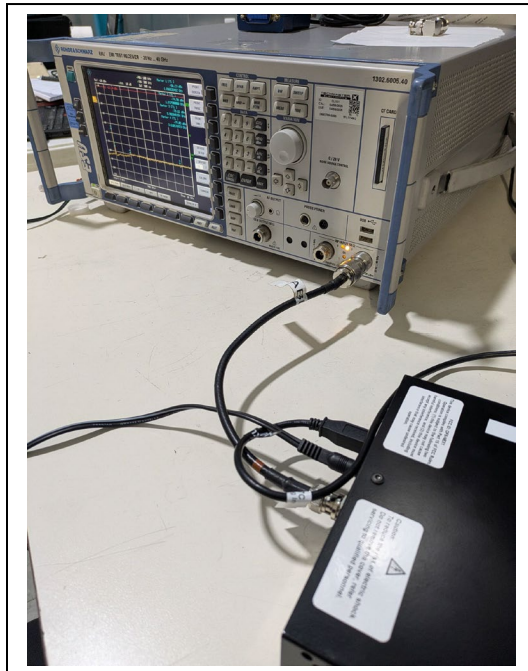
Conducted Test – Neutral: 0.5 MHz to 5.0 MHz



**Conducted Test – Neutral: 5.0 MHz to 30.0 MHz**

Top Discrete Measurements								
No.	Conductor	Frequency (MHz)	Detector	Level (dBμV)	Adjustment (dB)	Results (dBμV)	Limit (dBμV)	Margin (dB)
1	Neutral	0.15795	Quasi-Peak	36.74	11.804	48.54	65.572	-17.0
			Average	27.725	11.804	39.53	55.572	-16.0
2	Neutral	0.16012	Quasi-Peak	37.01	11.782	48.79	65.458	-16.7
			Average	28.132	11.782	39.91	55.458	-15.5
2	Neutral	0.1617	Quasi-Peak	36.86	11.756	48.62	65.378	-16.8
			Average	28.56	11.756	40.32	55.378	-15.1
2	Neutral	0.4556	Quasi-Peak	33.79	10.609	44.40	56.773	-12.4
			Average	31.067	10.609	41.68	46.773	-5.1

16 TEST SETUP PHOTOGRAPH(S)**Radiated Spurious Emission: 0.009 MHz to 30 MHz****Radiated Spurious Emission: 30 MHz to 1000 MHz**

Radiated Spurious Emission: Greater than 1 GHz**Conducted Output Power, Occupied Bandwidth,
and Conducted Spurious Emissions**



Conducted Emissions

