Radio Testing of the

SpectraWAVE Inc
Model: HyperVue Imaging System

In accordance with:
FCC 47 CFR Part 15.225
ISED RSS-210 Issue 11, June 2024

America

Add value.
Inspire trust.

SpectraWave Inc
12 Oak Park Dr.
Bedford, MA 01730

COMMERCIAL-IN-CONFIDENCE

Date: July 2025
Document Number: 0721011606 Issue 01 | Version Number: 01

SIGNATURE			
NAME	**JOB TITLE**	**RESPONSIBLE FOR**	**ISSUE DATE**
Ferdinand Custodio	Senior EMC Test Engineer / Wireless Team Lead	**Authorized Signatory**	July 01, 2025

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

EXECUTIVE SUMMARY
A sample of this product was tested and found to be in compliance with FCC 47 CFR Part 15.225 and ISED RSS-210

A2LA Cert. No. 2955.13

Contents

1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Table 1.5.1-1 – Modification Record

Issue	Description of Change	Date of Issue
1	First Issue	01 July 2025

1.2 Introduction

Applicant	SpectraWave Inc
Manufacturer	SpectraWave Inc
Applicant's Email Address	vwalimbe@spectrawave.com
Model Number(s)	HyperVue
Serial Number(s)	2002
Number of Samples Tested	1
Test Specification/Issue/Date	• FCC Part 15 Subpart C §15.225 (October 1, 2024). • KDB 996369 D04 Module Integration Guide V01. Modular Transmitter Integration Guide— Guidance for Host Product Manufacturers. • IC RSS-210 Issue 11 June 2024 – License-Exempt Radio Apparatus: Category I Equipment. • IC RSS-Gen Issue 5 Amendment 2 February 2021 - General Requirements for Compliance of Radio Apparatus.
Order Number	721008289
Date of Receipt of EUT	21 June 2025
Start of Test	21 June 2025
Finish of Test	28 June 2025
Related Document(s)	ANSI C63.10 2013 Product test plan : 56204_Evaluation_Plan_20221101A

1.3 Scope of Testing

To perform certification testing to confirm that the wireless device(s) meet the requirements of the applicable standards and guidance documents (KDB 558074 D01).

1.4 Summary of Results

A summary of the tests carried out in accordance with the specifications shown below.

Table 1.5.1-1 – Summary of Results

Test Name	Name of Tester(s)	Results / Comments
Antenna Requirements	Joe Salvador	Pass
20dB Bandwidth	Joe Salvador	Pass
Emission Mask	Joe Salvador	Pass
Spurious Radiated Emissions	Joe Salvador	Pass
Occupied Bandwidth	Joe Salvador	Pass
Frequency Tolerance (13.56 MHz TX only)	Joe Salvador	Pass
AC Conducted Emissions	Joe Salvador	Pass

Table 1.5.1-2 – Test Accreditation

Report Section	Specification Clause		Test Description	Accredit-ation	Base Standard
2.1	15.203	RSS-GEN 6.8	Antenna Requirements	A2LA	FCC Part 15.203
2.2	15.215(c)	RSS-Gen 6.7	20dB Bandwidth	A2LA	ANSI C63.10:2013
2.3	§15.225(a)(b)(c)	RSS-210 B.6(a)(b)(c)	Emission Mask	A2LA	ANSI C63.10:2013
2.4	§15.209	RSS-210 B.6(d)	Spurious Radiated Emissions	A2LA	ANSI C63.10:2013
2.5	15.215(c)	RSS-Gen 6.7	Occupied Bandwidth	A2LA	ANSI C63.10:2013
2.6	15.225(e)	RSS-210 B.6	Frequency Tolerance (13.56 MHz TX only)	A2LA	ANSI C63.10:2013
2.7`	§15.207(a)	RSS-Gen 7.2	AC Conducted Emissions	A2LA	ANSI C63.10:2013

1.5 Product Information

The Equipment Under Test (EUT) was the HyperVue Imaging System which is an Imagen platform that uses light to create high resolution deep OCT images and NIRS spectroscopic analysis of the coronary vessels. The RFID is in the controller only highlighted below.

A full description and detailed product specification details are available from the manufacturer.

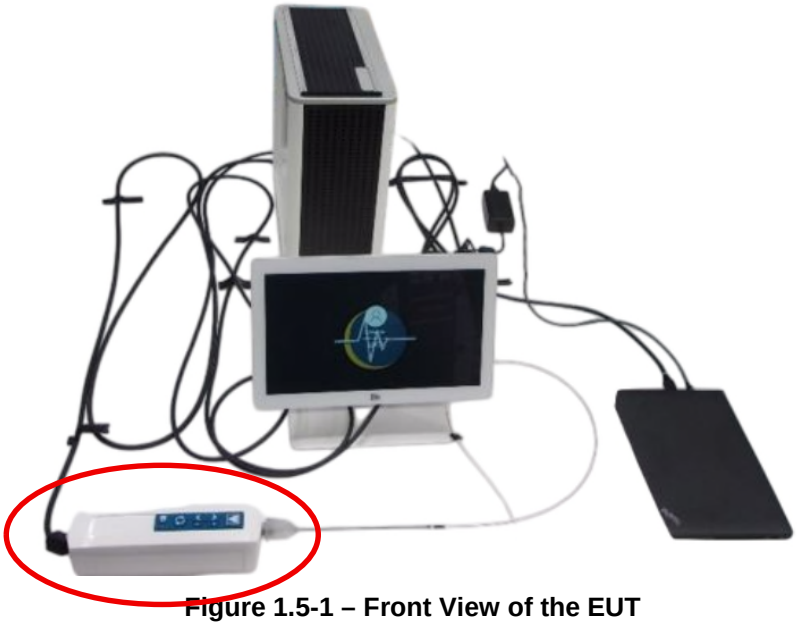


Figure 1.5-1 – Front View of the EUT

Table 1.5-1 – Cable Descriptions

Cable/Port	Description
Cable	Communication cable between Console and Umbilical Controller
Cable	Communication cable between Console and Monitor

Table 1.5-2 – Support Equipment Descriptions

Make/Model	Description
ELO Display ET1502LM-2UWA-1-WH-G	Display/Monitor
AC Adapter ATM065T-P120	Display power supply AC adapter

1.5.1 Modes of Operation

Table 1.5.1-1 – Test Frequencies & Modes of Operation

Channel	Frequency (MHz)
1 (RFID)	13.56

1.6 Deviations from the Standard

No deviations from the applicable test standard were made during testing

1.7 EUT Modification Record

The table below details modifications made to the EUT during the test program. The modifications incorporated during each test are recorded on the appropriate test pages.

Table 1.5.1-1 – Modification Record

Modification State	Description of Modification fitted to EUT	Modification Fitted By	Date Modification Fitted
0	Initial State		

1.8 Test Location

TÜV SÜD conducted the following tests at our San Diego, CA Test Laboratory.
Office address:

TÜV SÜD America
10040 Mesa Rim Road
San Diego, CA 92121
USA

2 Test Details

2.1 Antenna Requirements

2.1.1 Specification Reference

FCC 47 CFR Part 15 Subpart C, 15.203
RSS-Gen 6.8

2.1.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.1.3 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Note: Above statement is taken from FCC Part 15 Subpart C §15.203

Table 2.1.3-1 – Antenna Used In EUT

Antenna Type	Connection Type	Antenna Gain
NFC Chip	PCB trace	N/A (see antenna specifications on the following page)

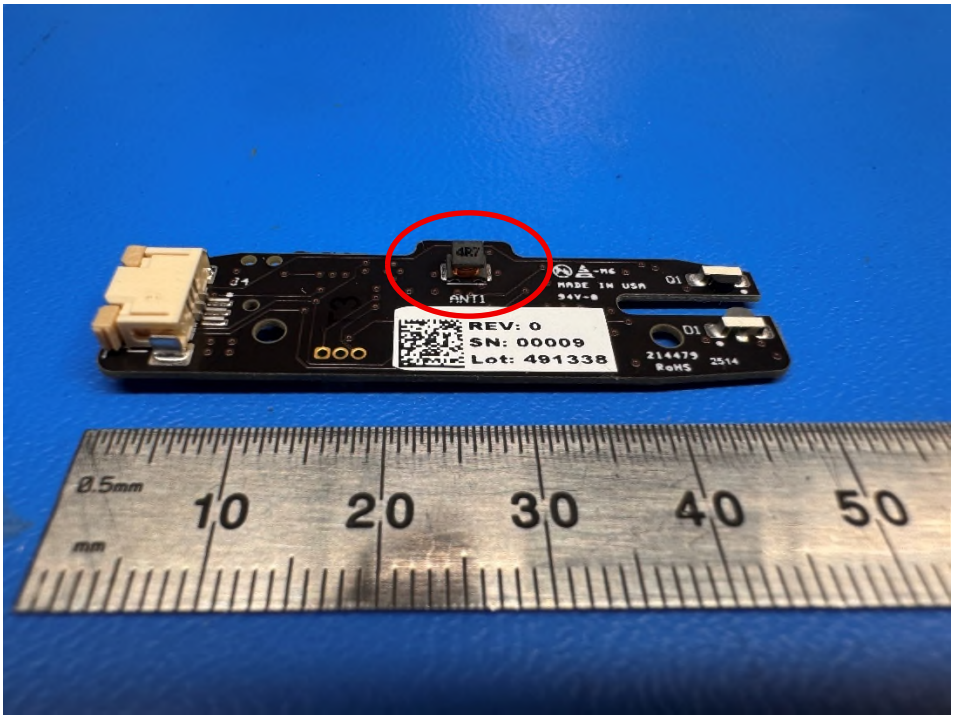


Figure 2 PCB assembly (Antenna right side)

Table-2.1.3-2 Antenna specifications

Parameter	Specification Typical	Unit
Bandwidth	1	MHz
Operating Frequency	13.56	MHz
VSWR (Typ.)	1.6	
Inductance	7	μH@13.56MHz
Q-Factor	11.3	
DC Resistance	52.75 Ω	@13.56MHz
Self-Resonance Frequency	61.13	MHz
Reading Distance	10~30	mm
Impedance	50	Ω
Polarization	Linear	-

2.2 20 dB Bandwidth

2.2.1 Specification Reference

FCC Part 15.215(c)
RSS-Gen 6.7

2.2.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.2.3 Date of Test

2025-June-26

2.2.4 Test Method

This is a Radiated test. Span is wide enough to capture the channel transmission. RBW is set to worst case 10kHz setting. VBW is 3X RBW. Sweep is auto. Detector is peak. The “n” dB down marker function of the spectrum analyser was used for this test.

2.2.5 Environmental Conditions

Ambient Temperature	24.0 - 26.0 °C °C
Relative Humidity	51.0 % %
Atmospheric Pressure	48.9 kPa

2.2.6 Test Results: PASS

See data below for detailed results.

Frequency (MHz)	20dB Bandwidth (kHz)	T1 (MHz)	T2 (MHz)
13.56	118.17	13.50	13.62
T1 > 13.110 MHz	Complies		
T2 < 14.010 MHz	Complies		

Figure 3 20dB Bandwidth Test Results

2.2.7 Test Location and Test Equipment Used

The tests were carried out in San Diego, CA
Test Area: SR5 (MM).

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Signal & Spectrum Analyzer	Rohde & Schwarz	FSW26	30188	1 year	04-Feb-2026
Loop Antenna	Rohde & Schwarz	HFH2-Z2335.4711.52	30020	2 years	07-July-2026

2.3 Emission Mask

2.3.1 Specification Reference

Part 15 Subpart C §15.225(a)(b)(c) and RSS-210 B.6(a)(b)(c)

2.3.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.3.3 Date of Test

2025-June-24

2.3.4 Test Method

This is a radiated test. Only 13.110 MHz to 14.010 MHz presented. There are no significant emissions observed other than the fundamental frequency (13.56 MHz) measured at 3 meters. Limits were converted from 30 meters to 3 meters using 40 dB/decade extrapolation rules.

2.3.5 Environmental Conditions

Ambient Temperature	24.0 - 26.0 °C
Relative Humidity	51.0 %
Atmospheric Pressure	50.2 kPa

2.3.6 Additional Observations

Measurement was done using EmX automated software. Reported level is the actual level with all the correction factors factored in (loaded in the receiver). The fundamental at 13.56 MHz was not significant at 3meters.

2.3.7 Sample Computation (Limits)

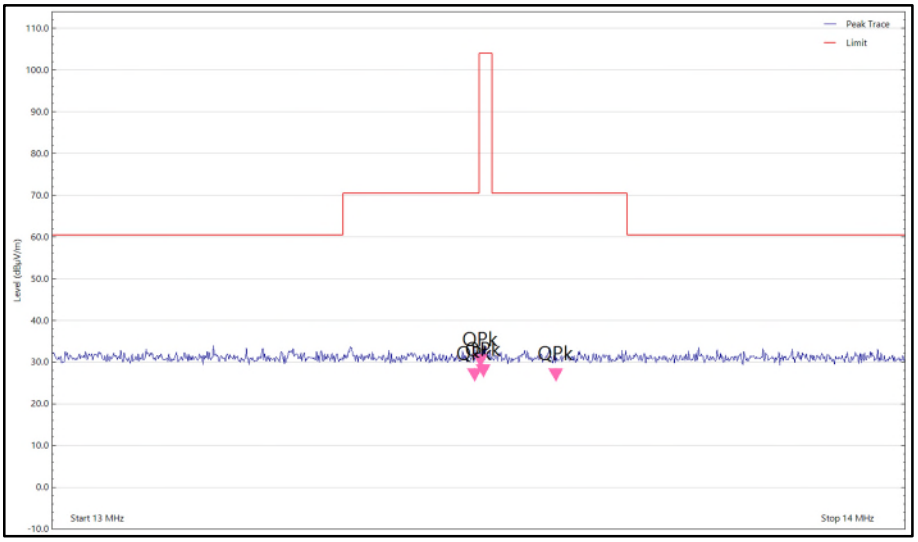
Limit @ 13.553–13.567 MHz:	= 15,848 µV/m @30 meters
	= 20 log(15,848 µV/m)
	= 84 dB µV/m @30 meters
Using 40dB/decade extrapolation rule:	= 40 log (30m/3m)
Measuring distance correction factor:	= 20 dB
Calculated limit @ 3 meters:	= 84 dB µV/m + 20 dB
	= 104 dB µV/m

2.3.8 Test Results

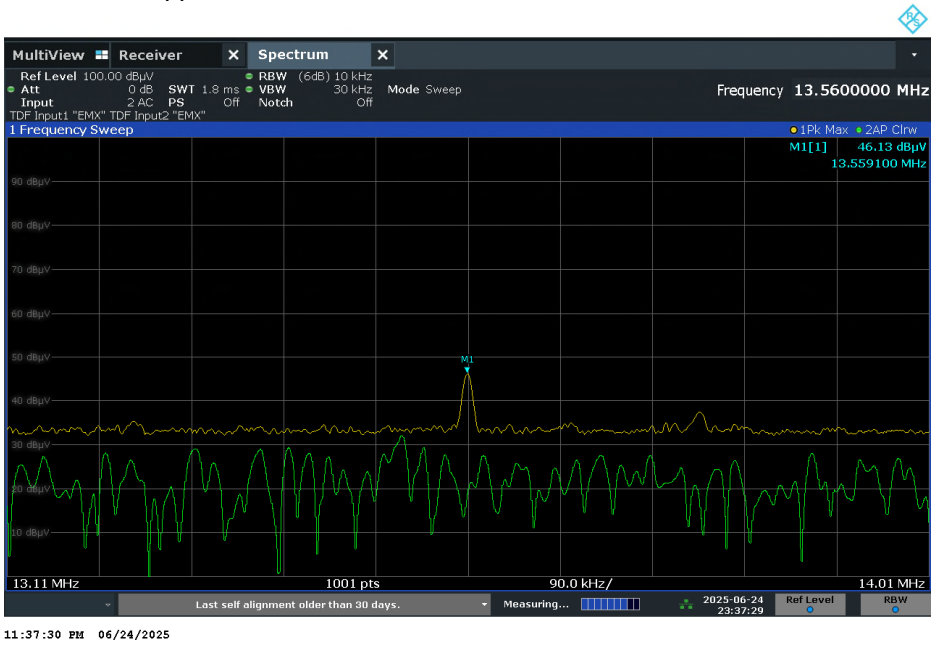
Test Result: Pass

See result on the following page.

2.3.9 Radiated Field Strength



At 3 meters, the EUT RFID is not visible (below the noise floor).In order to quantify field strength of the EUT at 3 meters, a closer distance measurement (1m) is performed and the corresponding 40 dB/decade extrapolation factor applied:



Field Strength @ 1m

Sample Calculation:

46.13dBµV/m @ 1 meter
46.13dBµV/m – (40 log (3 meters/1 meter))
27.045 dBµV/m @ 3 meters

2.3.10 Test Location and Test Equipment Used

The tests were carried out in San Diego, CA
Test Area: SR5 (MM).

Table 2.3.10-1 – Radiated Emissions Equipment List

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
EMI Test Receiver	Rohde & Schwarz	ESW44	68301	1 year	05-July-2025
TUV SSU 010 PLC US	TUV SUD UK	SSU 010	SSU001	1 year	16-Apr-2026
Loop Antenna	Rohde & Schwarz	HFH2-Z2335.4711.52	30020	2 years	07-July-2026
Test Software	TUV SUD UK	EMX	-	N/A	

2.4 Radiated Spurious Emissions

2.4.1 Specification Reference

FCC 47 CFR Part §15.209
FCC 47 CFR Part §15.225(d)
RSS-210 B.6(d)

2.4.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.4.3 Date of Test

2025-June-27

2.4.4 Test Method

Measurements were made using EmX automated software. Measurements were done at a 3m distance. The spectrum was searched from 9kHz to 1GHz. Reported level is the actual level with all the correction factors factored in (EmX will store correction factors in the receiver).

2.4.5 Environmental Conditions

Ambient Temperature	24.0 - 26.0 °C
Relative Humidity	51.0 %
Atmospheric Pressure	48.7 kPa

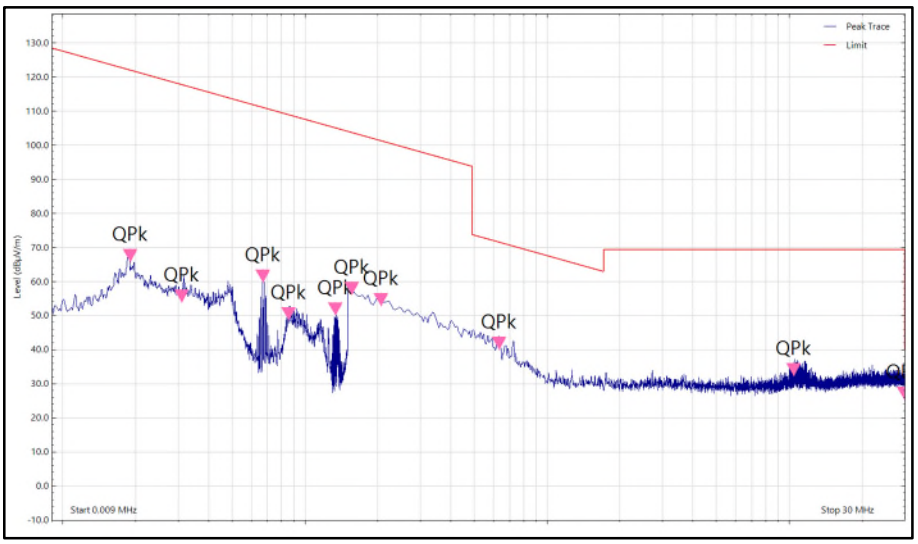
2.4.6 Additional Observations

The measurements at 250.000 MHz and 374.999 MHz are verified emissions from the display touch screen and power/communication panel. The 13.56 MHz RFID was confirmed not transmitting in this range.

2.4.7 Test Results: Pass

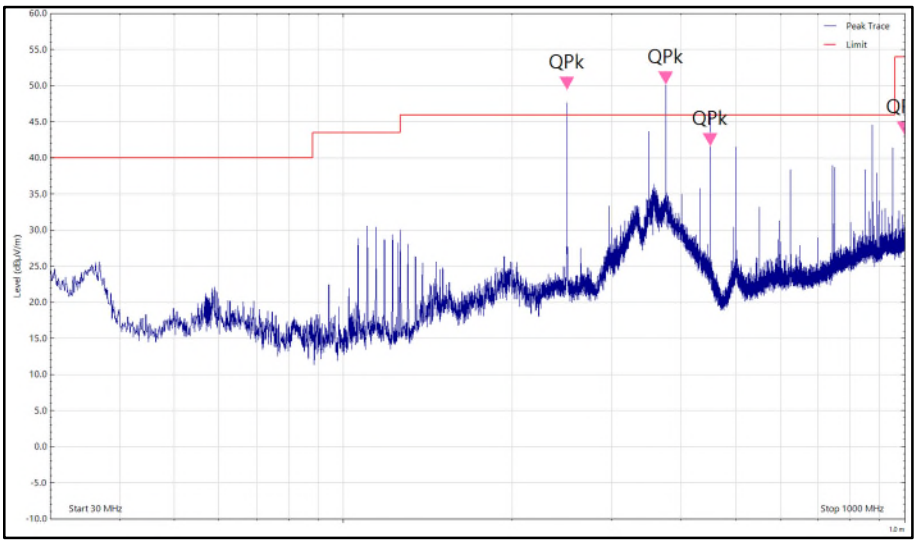
See data on the following pages for detailed results.

2.4.8 RSE, 9kHz-30MHz

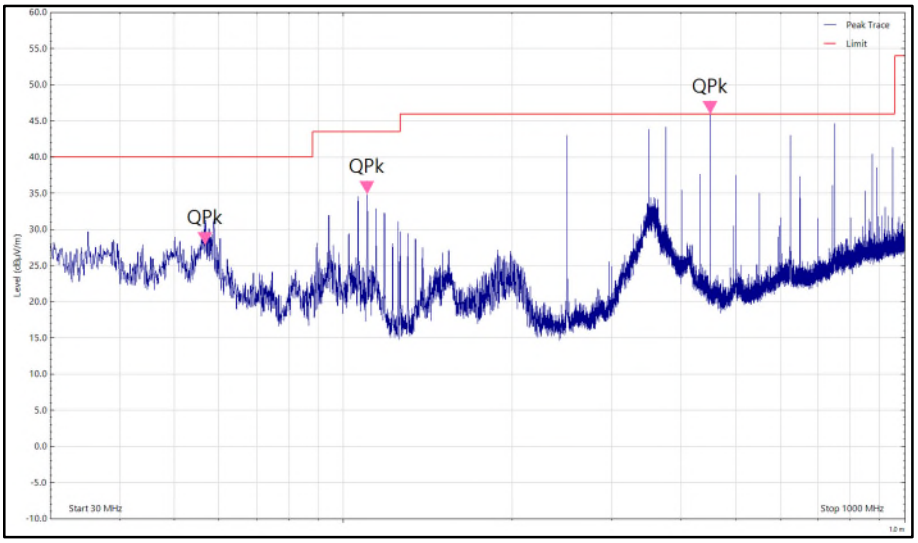


Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Pol
0.019	65.24	122.20	-56.96	Q-Peak	212	100	Horizontal
0.031	53.42	117.70	-64.28	Q-Peak	0	100	Horizontal
0.067	59.25	111.10	-51.85	Q-Peak	4	100	Horizontal
0.086	48.17	108.90	-60.73	Q-Peak	178	100	Horizontal
0.134	49.60	105.00	-55.40	Q-Peak	190	100	Horizontal
0.156	55.57	103.70	-48.13	Q-Peak	150	100	Horizontal
0.206	52.42	101.30	-48.88	Q-Peak	236	100	Horizontal
0.635	39.67	71.60	-31.93	Q-Peak	350	100	Horizontal
10.473	31.91	69.50	-37.59	Q-Peak	327	100	Horizontal
29.897	25.01	69.50	-44.49	Q-Peak	213	100	Horizontal

2.4.9 RSE, 30 MHz to 1 GHz, Horizontal (Peak)



2.4.10 RSE, 30 MHz to 1 GHz, Vertical (Peak)



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Pol
56.736	27.62	40.00	-12.38	Q-Peak	328	101	Vertical
110.130	34.65	43.50	-8.85	Q-Peak	167	127	Vertical
250.000	49.24	46.00	3.24	Q-Peak	276	137	Horizontal
374.999	49.98	46.00	3.98	Q-Peak	270	100	Horizontal
449.994	41.41	46.00	-4.59	Q-Peak	56	117	Horizontal
450.001	45.75	46.00	-0.25	Q-Peak	176	100	Vertical
999.996	43.02	54.00	-10.98	Q-Peak	47	101	Horizontal

2.4.11 Test Location and Test Equipment Used

This test was carried out in SR5 (MM).

Table 2.4.11-1 – Radiated Emissions Equipment List

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
EMI Test Receiver	Rohde & Schwarz	ESW44	68301	1 year	05-July-2025
TUV SSU 010 PLC US	TUV SUD UK	SSU 010	SSU001	1 year	16-Apr-2026
25-2000 MHz Trilog-Broadband Antenna	Schwarzbeck Mess	VULB 9168	69564	1 year	06-Nov-2025
Loop Antenna	Rohde & Schwarz	HFH2-Z2335.4711.52	30020	2 years	07-July-2026
Test Software	TUV SUD UK	EMX	-	N/A	

2.5 Occupied Bandwidth

2.5.1 Specification Reference

FCC 47 CFR Part §15.215
RSS-Gen Clause 6.7

2.5.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.5.3 Date of Test

2025-June-27

2.5.4 Test Method

This is a Radiated test. Span is wide enough to capture the channel transmission. RBW is set from 1% to 5% of the anticipated 99% EBW. VBW is 3X RBW. Sweep is auto. Detector is peak.The % Power Bandwidth setting in the spectrum analyzer was set to 99% (default). The Channel Bandwidth measurement function of the spectrum analyzer was used for this test.

2.5.5 Environmental Conditions

Ambient Temperature	24.0 - 26.0 °C
Relative Humidity	51.0 %
Atmospheric Pressure	49.1 kPa

2.5.6 Test Results: PASS

Occupied Bandwidth

Frequency (MHz)	20dB Bandwidth (kHz)	T1 (MHz)	T2 (MHz)
13.56	517.21	13.30	13.81
T1 > 13.110 MHz	Complies		
T2 < 14.010 MHz	Complies		

Figure 4 99% dB bandwidth Test Results

2.5.7 Test Location and Test Equipment Used

This test was carried out in SR5 (MM).

Table 2.5.7-1 – Radiated Emissions Test Equipment List

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
EMI Test Receiver	Rohde & Schwarz	ESW44	68301	1 year	05-July-2025
TUV SSU 010 PLC US	TUV SUD UK	SSU 010	SSU001	1 year	16-Apr-2026
Loop Antenna	Rohde & Schwarz	HFH2-Z2335.4711.52	30020	2 years	07-July-2026
Test Software	TUV SUD UK	EMX	-	N/A	

2.6 Frequency Tolerance

2.6.1 Specification Reference

FCC 47 CFR Part 15.225(e)
ISED RSS-GEN 6.11

2.6.2 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

2.6.3 Date of Test

2025-June-27

2.6.4 Test Method

This is a radiated test with the loop antenna next to the environmental chamber. Measurement was done using marker function of the spectrum analyser. The RBW was set to 30 kHz for better resolution. The temperature was varied from −20°C to +50°C in 10-degree increments with voltage variation of 85% and 115% on the VAC power supply @ 20°C. The EUT was powered off, then powered on once the temperature stabilized and the frequency was then measured.

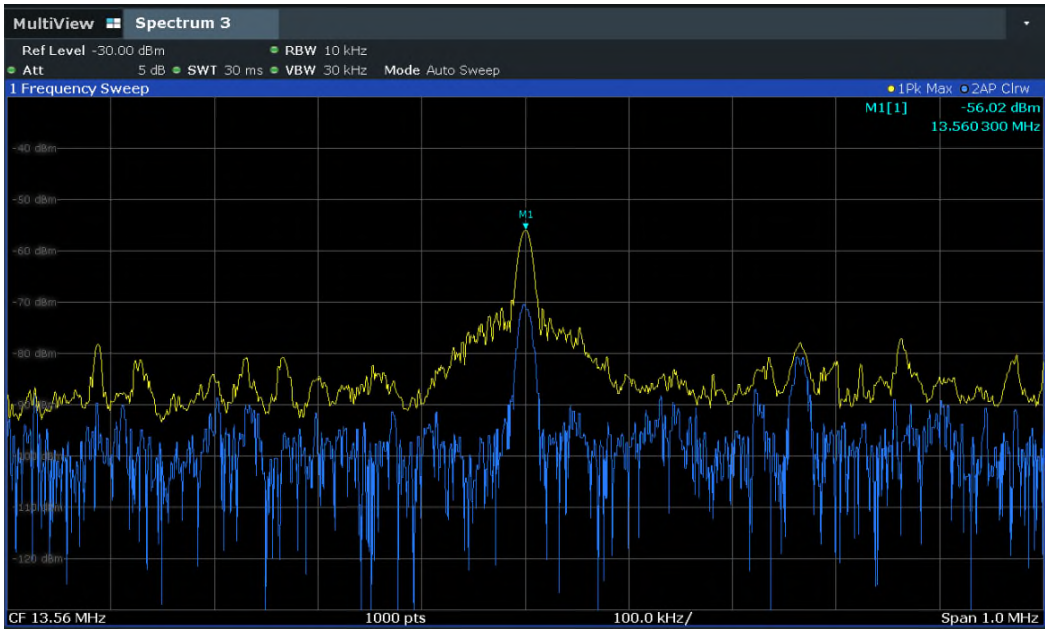
2.6.5 Environmental Conditions

Ambient Temperature	21.7 °C
Relative Humidity	41.8 %
Atmospheric Pressure	49.1 kPa

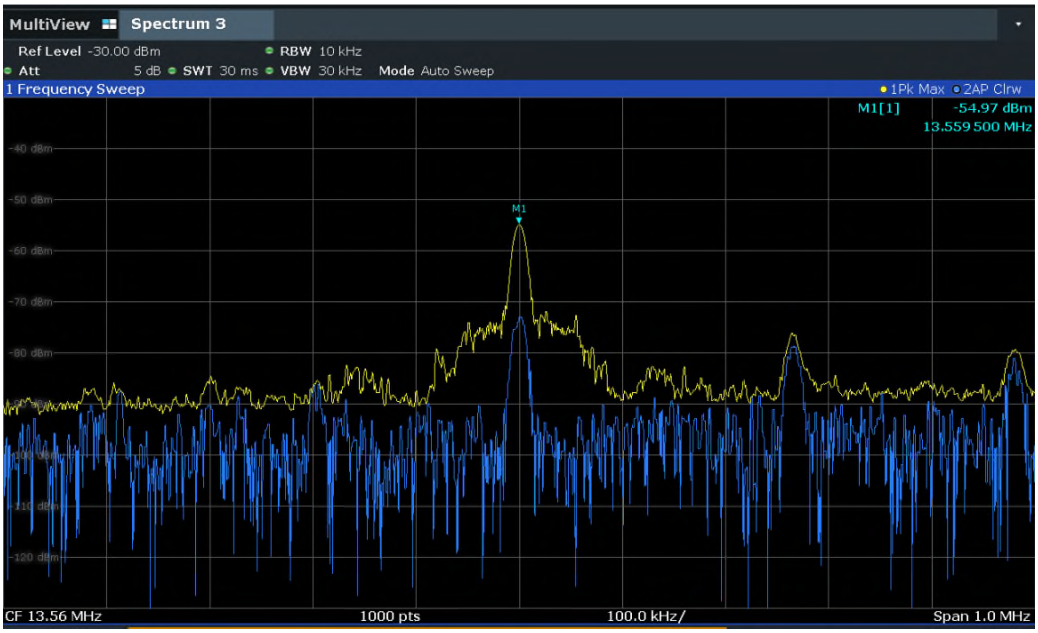
2.6.6 Test Results: PASS

Voltage (%)	Temp (°C)	Frequency Measured (MHz)	Tolerance ±0.01%	Results
100	-20	13.559500	-0.005899574%	Pass
100	-10	13.559500	-0.005899574%	Pass
100	0	13.559500	-0.005899574%	Pass
100	+10	13.559500	-0.005899574%	Pass
100	+20	13.560300	0	Pass
100	+30	13.559500	-0.005899574%	Pass
100	+40	13.560500	0.001474894%	Pass
100	+50	13.559500	-0.005899574%	Pass
85	+20	13.559500	-0.005899574%	Pass
115	+20	13.559500	-0.005899574%	Pass

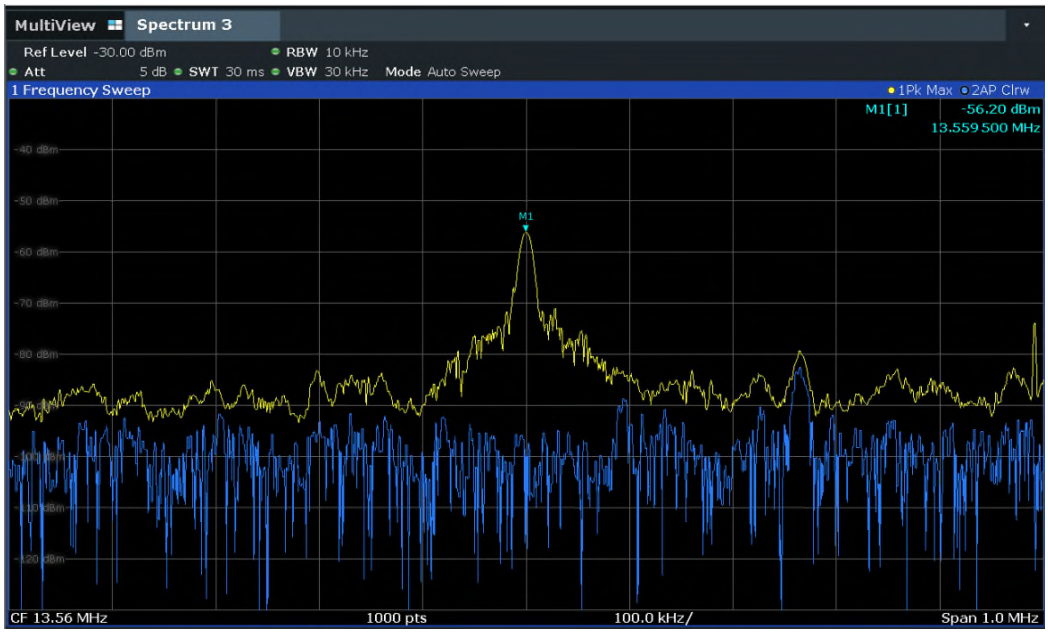
Figure 2-5 Frequency Stability – 13.56 MHz



20°C (100% Voltage)



-20°C (100% Voltage)



50°C (100% Voltage)

2.6.7 Test Location and Test Equipment Used

This test was carried out in SR5 (MM).

Table 2.6.7-1 – Conducted Emissions Test Equipment List

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Signal & Spectrum Analyzer	Rohde & Schwarz	FSW26	30188	1 year	04-Feb-2026
Loop Antenna	Com Power Corp.	AL-130R	37113	1 year	02-Dec-2025

2.7 AC Conducted Emissions

2.7.1 Specification Reference

Part 15 Subpart C §15.207(a)

2.7.2 Standard Applicable

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 µH/50 ohms line impedance stabilization network (LISN).

Frequency of emission (MHz)	Conducted limit (dBµV)	
	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.*

2.7.3 Equipment Under Test and Modification State

S/N: N/A - Modification State 0

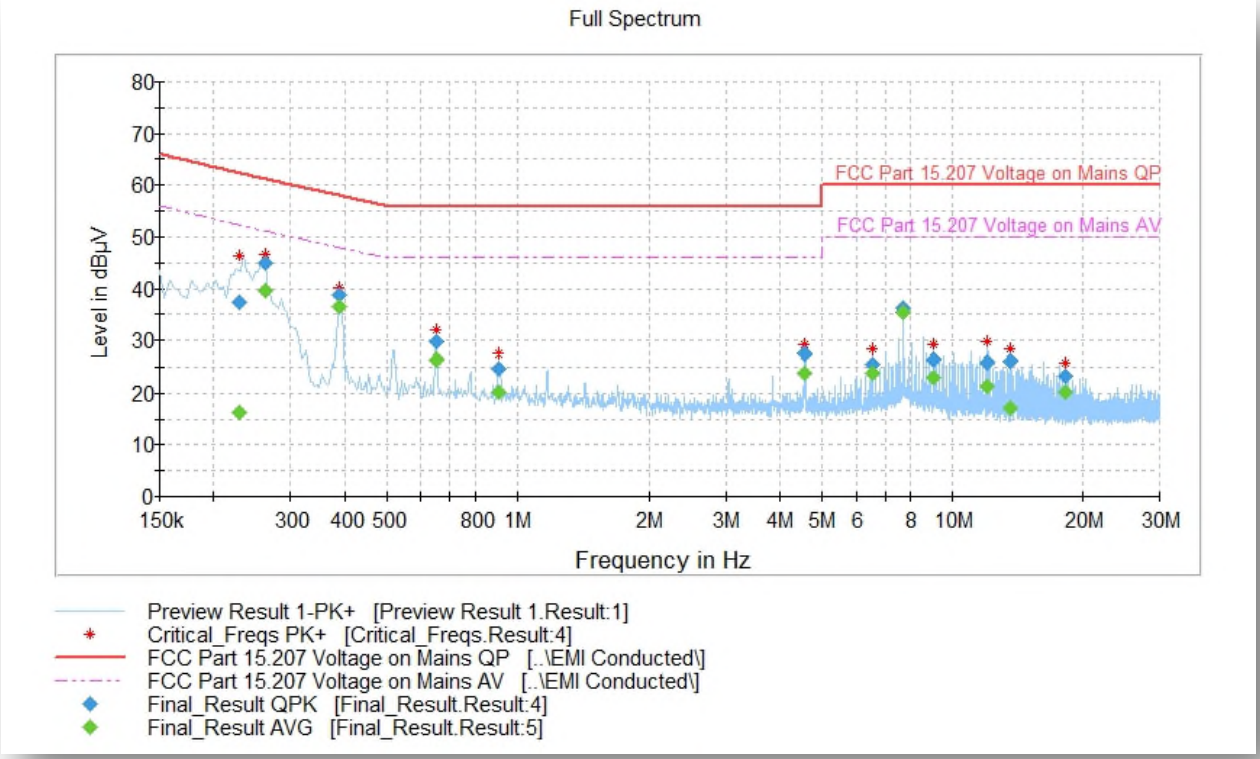
2.7.4 Date of Test

2025-June-27

2.7.5 Environmental Conditions

Ambient Temperature	21.7 °C
Relative Humidity	41.8 %
Atmospheric Pressure	49.1 kPa

2.7.6 Test Results: PASS



2.7.7 Quasi Peak and Average Results

Frequency (MHz)	Quasi Peak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Sig Path (dB)	Trd Cable (dB)	Trd Corr. (dB)
0.229500	---	16.28	52.24	35.96	1000.0	9.000	L1	ON	9.9	0.1	0.0	9.9
0.229500	37.29	---	62.28	24.99	1000.0	9.000	L1	ON	9.9	0.1	0.0	9.9
0.262000	---	39.46	51.12	11.66	1000.0	9.000	N	ON	9.9	0.0	0.0	9.9
0.262000	44.91	---	61.16	16.25	1000.0	9.000	N	ON	9.9	0.0	0.0	9.9
0.390000	---	36.52	47.91	11.38	1000.0	9.000	N	ON	9.9	0.1	0.0	9.9
0.390000	38.65	---	57.93	19.28	1000.0	9.000	N	ON	9.9	0.1	0.0	9.9
0.650000	---	26.43	46.00	19.57	1000.0	9.000	N	ON	9.9	0.1	0.0	9.8
0.650000	29.88	---	56.00	26.12	1000.0	9.000	N	ON	9.9	0.1	0.0	9.8
0.909500	---	20.33	46.00	25.67	1000.0	9.000	L1	ON	9.8	0.1	0.0	9.8
0.909500	24.77	---	56.00	31.23	1000.0	9.000	L1	ON	9.8	0.1	0.0	9.8
4.570500	27.46	---	56.00	28.54	1000.0	9.000	N	ON	9.9	0.2	0.0	9.8
4.570500	---	23.95	46.00	22.05	1000.0	9.000	N	ON	9.9	0.2	0.0	9.8
6.530000	25.51	---	60.00	34.49	1000.0	9.000	N	ON	10.0	0.2	0.0	9.8
6.530000	---	23.91	50.00	26.09	1000.0	9.000	N	ON	10.0	0.2	0.0	9.8
7.689500	36.09	---	60.00	23.91	1000.0	9.000	N	ON	10.1	0.2	0.0	9.8
7.689500	---	35.29	50.00	14.71	1000.0	9.000	N	ON	10.1	0.2	0.0	9.8
9.038000	26.35	---	60.00	33.65	1000.0	9.000	L1	ON	10.1	0.3	0.0	9.9
9.038000	---	23.06	50.00	26.94	1000.0	9.000	L1	ON	10.1	0.3	0.0	9.9
12.058000	25.92	---	60.00	34.08	1000.0	9.000	N	ON	10.2	0.4	0.0	9.9
12.058000	---	21.22	50.00	28.78	1000.0	9.000	N	ON	10.2	0.4	0.0	9.9
13.558000	---	17.24	50.00	32.76	1000.0	9.000	N	ON	10.3	0.4	0.0	9.9
13.558000	26.02	---	60.00	33.98	1000.0	9.000	N	ON	10.3	0.4	0.0	9.9
18.241500	23.18	---	60.00	36.82	1000.0	9.000	L1	ON	10.4	0.5	0.0	9.9
18.241500	---	20.26	50.00	29.74	1000.0	9.000	L1	ON	10.4	0.5	0.0	9.9

2.7.8 Test Location and Test Equipment Used

This test was carried out in SR5 (MM).

Table 2.7.8-1 – Conducted Emissions Test Equipment List

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
EMI Test Receiver	Rohde & Schwarz	ESU40	30216	1 year	26-Aug-2025
Two-Line Network	Rohde & Schwarz	ENV-216	65161	1 year	07-Jul-2025

3 Measurement Uncertainty

Calculation of Measurement Uncertainty per CISPR 16-4-2:2011 with Corr. 1

3.1 Conducted Measurements - 150 kHz – 30 MHz, 50 ohm / 50µH LISN

	Input Quantity (Contribution) X_i	Value		Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10	dB	Normal, k=1	1.000	0.10	0.01
2	LISN-receiver attenuation	0.10	dB	Normal, k=2	2.000	0.05	0.00
3	LISN voltage division factor	0.30	dB	Normal, k=2	2.000	0.15	0.02
4	Receiver sinewave accuracy	0.36	dB	Normal, k=2	2.000	0.18	0.03
5	Receiver pulse amplitude	1.50	dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50	dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.00	dB	Rectangular	1.732	0.00	0.00
8	AMN VDF frequency interpolation	0.10	dB	Rectangular	1.732	0.06	0.00
9	Mismatch	0.07	dB	U-shaped	1.414	0.05	0.00
10	LISN impedance	2.65	dB	Triangular	2.449	1.08	1.17
11	Effect of mains disturbance	0.00	dB			0.00	0.00
12	Effect of the environment						
	Combined standard uncertainty			Normal	1.66	dB	
	Expanded uncertainty			**Normal, k=2**	**3.31**	**dB**	

3.2 Radiated Emissions Measurements – Below 30 MHz at a distance of 3 m (alternate site)

	Input Quantity (Contribution) X_i	Value		Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10	dB	Normal, k=1	1.000	0.10	0.01
2	Attenuation: antenna-receiver	0.20	dB	Normal, k=2	2.000	0.10	0.01
3	Antenna factor AF	0.44	dB	Normal, k=2	2.000	0.22	0.05
4	Receiver sinewave accuracy	0.15	dB	Normal, k=2	2.000	0.08	0.01
5	Receiver pulse amplitude	1.50	dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50	dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.50	dB	Rectangular	1.732	0.29	0.08
8	Mismatch: antenna-receiver	0.95	dB	U-shaped	1.414	0.67	0.45
9	AF frequency interpolation	0.30	dB	Rectangular	1.732	0.17	0.03
10	AF height deviations	0.10	dB	Rectangular	1.732	0.06	0.00
11	Directivity difference at 10 m	3.12	dB	Rectangular	1.732	1.80	3.24
12	Phase center location at 10 m	1.00	dB	Rectangular	1.732	0.58	0.33

13	Cross-polarization	0.90	dB	Rectangular	1.732	0.52	0.27
14	Balance	0.00	dB	Rectangular	1.732	0.00	0.00
15	Site imperfections	0.00	dB	Triangular	2.449	0.00	0.00
16	Separation distance at 10 m	0.30	dB	Rectangular	1.732	0.17	0.03
17	Effect of setup table material	0.00	dB	Rectangular	1.732	0.00	0.00
18	Table height at 10 m	0.10	dB	Normal, k=2	2.000	0.05	0.00
19	Near-field effects	0.00	dB	Triangular	2.449	0.00	0.00
20	Effect of ambient noise on OATS	0.00	dB				0.00
	Combined standard uncertainty			Normal	2.45	dB	
	Expanded uncertainty			Normal, k=2	**4.91**	**dB**	

3.3 Radiated Emissions Measurements - 30 MHz – 1000 MHz at a distance of 3 m

	Input Quantity (Contribution) X_i	Value		Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10	dB	Normal, k=1	1.000	0.10	0.01
2	Attenuation: antenna-receiver	0.20	dB	Normal, k=2	2.000	0.10	0.01
3	Antenna factor AF	0.58	dB	Normal, k=2	2.000	0.29	0.08
4	Receiver sinewave accuracy	0.15	dB	Normal, k=2	2.000	0.08	0.01
5	Receiver pulse amplitude	1.50	dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50	dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.50	dB	Rectangular	1.732	0.29	0.08
8	Mismatch: antenna-receiver	0.95	dB	U-shaped	1.414	0.67	0.45
9	AF frequency interpolation	0.30	dB	Rectangular	1.732	0.17	0.03
10	AF height deviations	0.10	dB	Rectangular	1.732	0.06	0.00
11	Directivity difference at 3 m	3.12	dB	Rectangular	1.732	1.80	3.24
12	Phase center location at 3 m	1.00	dB	Rectangular	1.732	0.58	0.33
13	Cross-polarization	0.90	dB	Rectangular	1.732	0.52	0.27
14	Balance	0.00	dB	Rectangular	1.732	0.00	0.00
15	Site imperfections	3.99	dB	Triangular	2.449	1.63	2.65
16	Separation distance at 3 m	0.30	dB	Rectangular	1.732	0.17	0.03
17	Effect of setup table material	0.57	dB	Rectangular	1.732	0.33	0.11
18	Table height at 3 m	0.10	dB	Normal, k=2	2.000	0.05	0.00
19	Near-field effects	0.00	dB	Triangular	2.449	0.00	0.00
20	Effect of ambient noise on OATS	0.00	dB				0.00
	Combined standard uncertainty			Normal	2.97	dB	
	Expanded uncertainty			Normal, k=2	**5.94**	**dB**	

3.4 Radiated Emissions Measurements - 30 MHz – 1000 MHz at a distance of 3 m

	Input Quantity (Contribution) X_i	Value		Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10	dB	Normal, k=1	1.000	0.10	0.01
2	Attenuation: antenna-receiver	0.20	dB	Normal, k=2	2.000	0.10	0.01
3	Antenna factor AF	0.58	dB	Normal, k=2	2.000	0.29	0.08
4	Receiver sinewave accuracy	0.15	dB	Normal, k=2	2.000	0.08	0.01
5	Receiver pulse amplitude	1.50	dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50	dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.50	dB	Rectangular	1.732	0.29	0.08
8	Mismatch: antenna-receiver	0.95	dB	U-shaped	1.414	0.67	0.45
9	AF frequency interpolation	0.30	dB	Rectangular	1.732	0.17	0.03
10	AF height deviations	0.10	dB	Rectangular	1.732	0.06	0.00
11	Directivity difference at 3 m	3.12	dB	Rectangular	1.732	1.80	3.24
12	Phase center location at 3 m	1.00	dB	Rectangular	1.732	0.58	0.33
13	Cross-polarization	0.90	dB	Rectangular	1.732	0.52	0.27
14	Balance	0.00	dB	Rectangular	1.732	0.00	0.00
15	Site imperfections	3.99	dB	Triangular	2.449	1.63	2.65
16	Separation distance at 3 m	0.30	dB	Rectangular	1.732	0.17	0.03
17	Effect of setup table material	0.57	dB	Rectangular	1.732	0.33	0.11
18	Table height at 3 m	0.10	dB	Normal, k=2	2.000	0.05	0.00
19	Near-field effects	0.00	dB	Triangular	2.449	0.00	0.00
20	Effect of ambient noise on OATS	0.00	dB				0.00
	Combined standard uncertainty			Normal		2.99	dB
	Expanded uncertainty			Normal, k=2		**5.99**	**dB**

4 Diagram of Test Setups

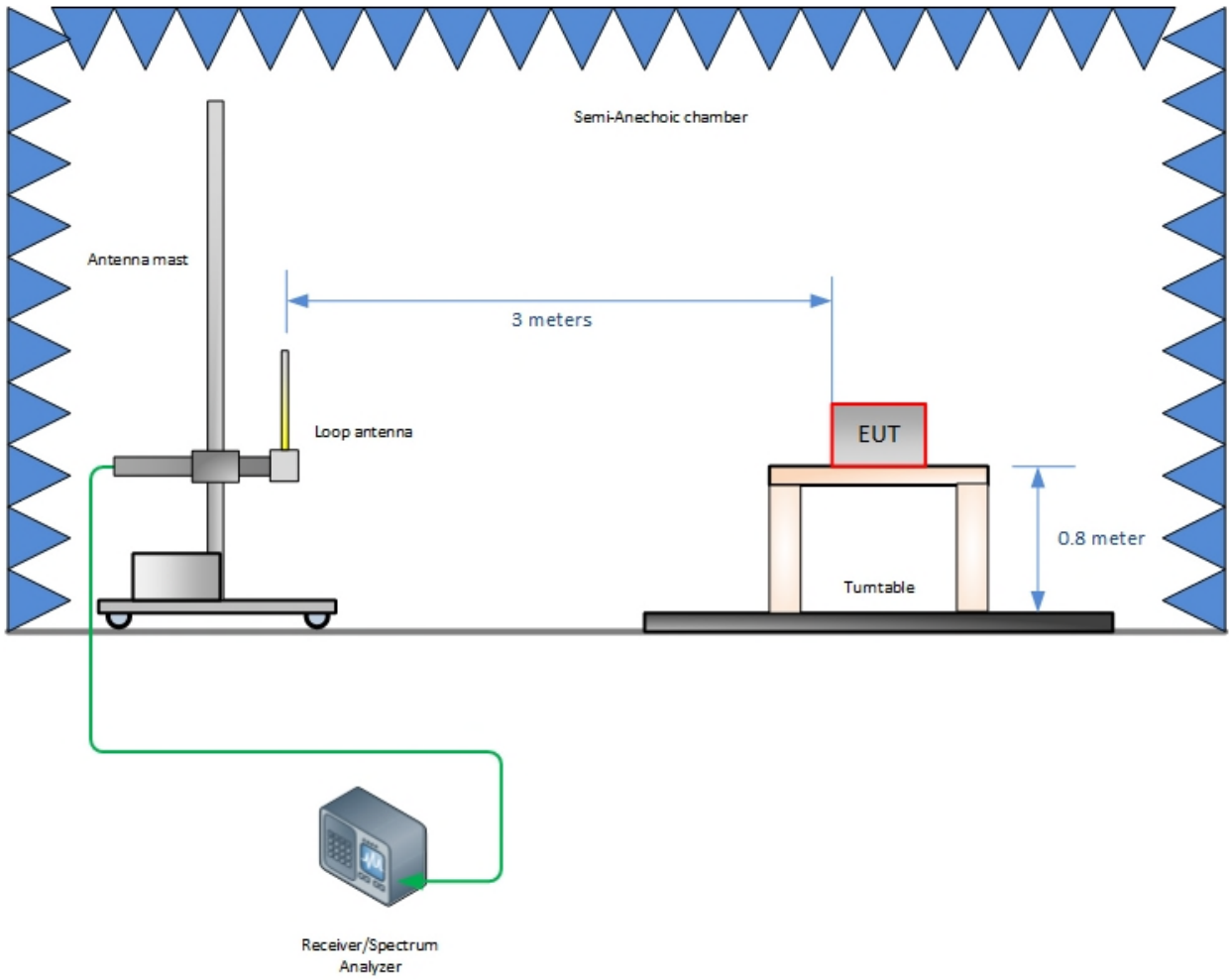


Figure 4-1 – Radiated Emission Test Setup (Below 30MHz)

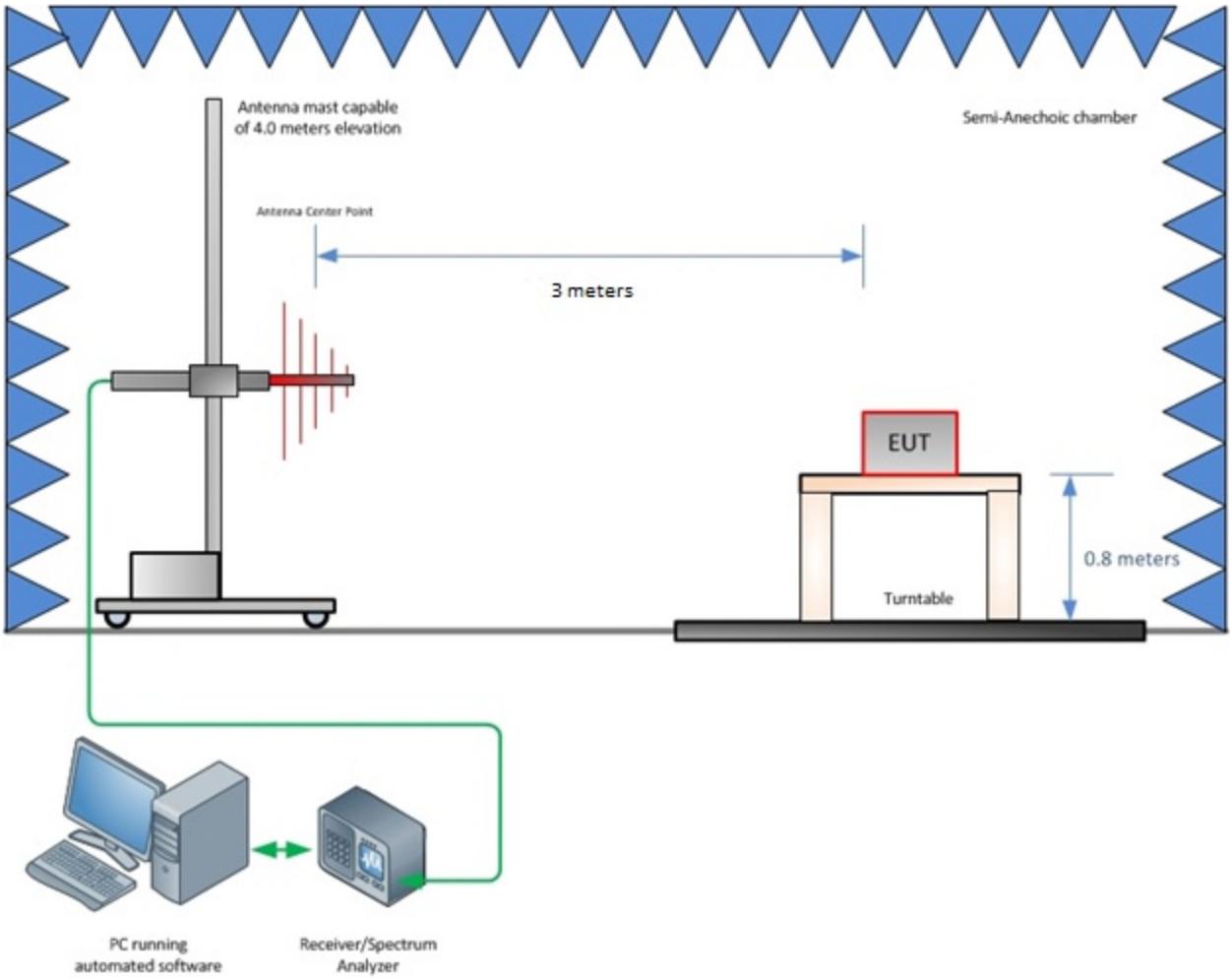


Figure 4-2 – Radiated Emissions Test Setup 30MHz to 1 GHz

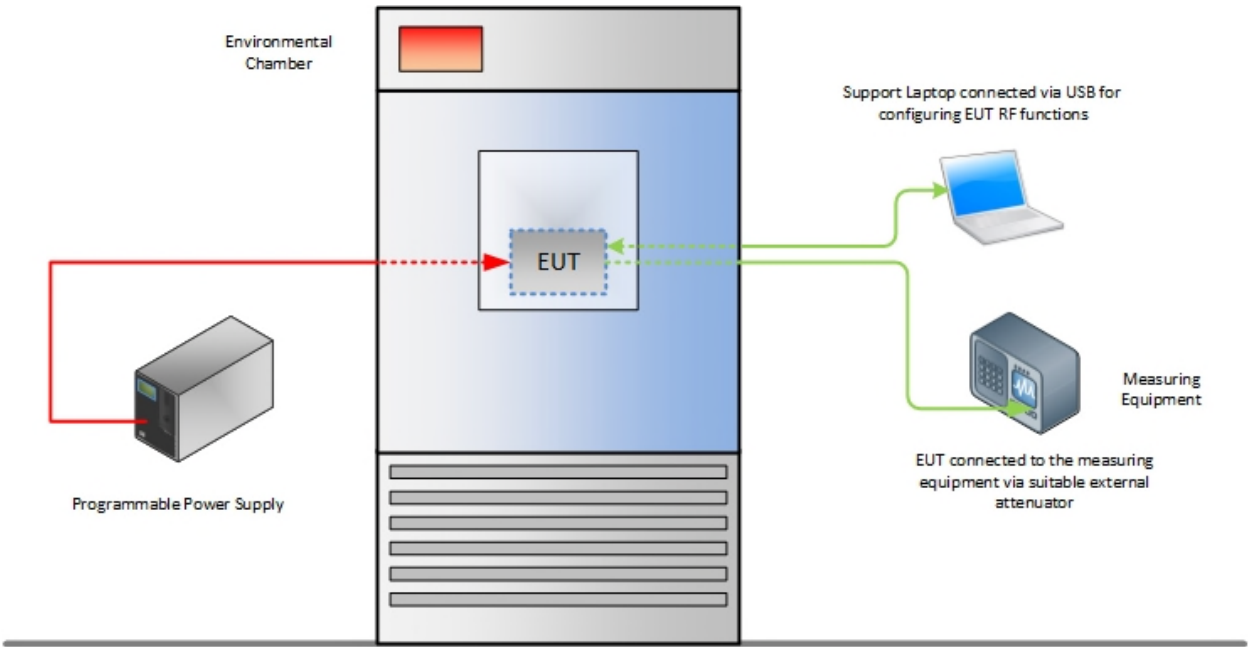
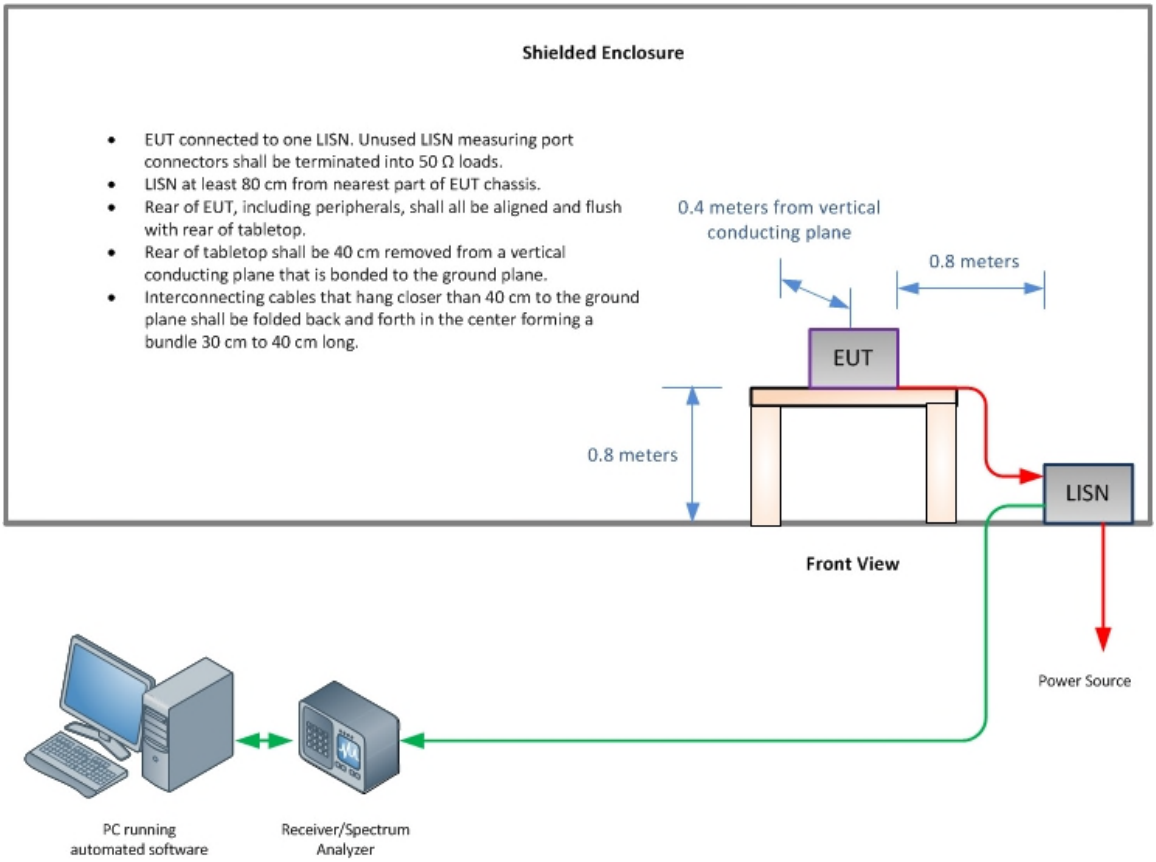


Figure 4-3 – Frequency Stability Test Configuration



Conducted Emission Test Setup

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