

RF Test Report

Project Number: 5243539**Offer Number:** SUW-202309005248**Report Number:** 5243539EMC03**Revision Level:** 1**Client:** Orpyx Medical Technologies Inc.**Equipment Under Test:** Orpyx® Hub**Model Number:** OH000010**FCC ID:** 2AAH8-OH000010**IC:** 10789A-OH000010**Applicable Standards:** FCC Part 15 Subpart C, §15.225

RSS-210, Issue 11, June 2024

RSS-GEN, Issue 5, February 2021

ANSI C63.10-2020+Cor.1-2023

Report issued on: 17 June 2025**Test Result:** Compliant

FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

This report must not be used by the client to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

Prepared by:

A handwritten signature in blue ink that reads 'Martin Taylor'.

Martin Taylor, RF/EMC Project Engineer

Reviewed by:

A handwritten signature in blue ink that reads 'Daniel Alvarez'.

Daniel Alvarez, RF/EMC Sr. Staff Engineer

Remarks: This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. And for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/terms-e-document.aspx>.

Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful, and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for a maximum of 30 days only.

TABLE OF CONTENTS

1	SUMMARY OF TEST RESULTS.....	3
1.1	MODIFICATIONS REQUIRED TO COMPLIANCE	3
2	GENERAL INFORMATION.....	4
2.1	CLIENT INFORMATION.....	4
2.2	TEST LABORATORY	4
2.3	GENERAL INFORMATION OF EUT	4
2.4	OPERATING MODES AND CONDITIONS	4
2.5	EUT CONNECTION BLOCK DIAGRAM.....	5
2.6	SYSTEM CONFIGURATIONS	5
3	BANDWIDTH	6
3.1	TEST RESULT.....	6
3.2	TEST METHOD.....	6
3.3	TEST SITE	6
3.4	TEST EQUIPMENT	6
3.5	TEST DATA.....	7
4	FIELD STRENGTH OF THE FUNDAMENTAL	9
4.1	TEST RESULT.....	9
4.2	TEST METHOD.....	9
4.3	TEST SITE	10
4.4	TEST SETUP	10
4.5	TEST EQUIPMENT	10
4.6	TEST DATA.....	11
5	RADIATED EMISSIONS.....	12
5.1	TEST RESULT.....	12
5.2	TEST METHOD.....	12
5.3	TEST SITE	12
5.4	TEST SETUP	13
5.5	TEST EQUIPMENT	13
5.6	TEST DATA.....	14
6	FREQUENCY STABILITY	18
6.1	TEST RESULT.....	18
6.2	TEST METHOD.....	18
6.3	TEST SITE	18
6.4	TEST EQUIPMENT	18
6.5	TEST DATA.....	19
7	AC POWERLINE CONDUCTED EMISSIONS.....	20
7.1	TEST RESULT.....	20
7.2	TEST METHOD.....	20
7.3	TEST SITE	20
7.4	TEST EQUIPMENT	20
7.5	TEST DATA.....	21
8	MEASUREMENT UNCERTAINTY.....	23
9	REVISION HISTORY	24

1 Summary of Test Results

Test Description	Test Specification		Test Result
	FCC	ISED	
Bandwidth	15.215(c)	RSS-GEN 6.7	Compliant
Field Strength of the Fundamental	15.225(a)-(c)	RSS-210 B.6(a)(i)-(iii)	Compliant
Radiated Spurious Emissions / Restricted Bands	15.35(b),15.209, 15.225(d)	RSS-GEN S8.9 RSS-GEN S8.10	Compliant
Frequency Stability	15.225(e)	RSS-210 B.6(b)	Compliant
AC Powerline Conducted Emission	15.207	RSS-GEN S8.8	Compliant
Antenna Requirement	15.203	RSS-GEN S6.8	Compliant ¹

- 1) The antenna is an integral PCB loop antenna which cannot be replaced by the end user.

1.1 Modifications Required to Compliance

None

2 General Information

2.1 Client Information

Company Name: Orpyx Medical Technologies Inc.
Address: 1240 20th Ave SE, Suite 205
City, State, Zip, Country: Calgary, Alberta T2G 1M8, Canada

2.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01
CAB ID: US0186

2.3 General Information of EUT

Equipment Under Test: Orpyx® Hub
Model Number: OH000010
Serial Number: 000161B8
FCC ID: 2AAH8-OH000010
IC: 10789A-OH000010

Frequency Range: 13.56 MHz
Data Modes: RFID
Antenna Type: PCB Loop

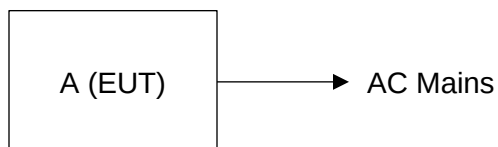
Rated Voltage: 120Vac
Test Voltage: 120Vac

Sample Received Date: 09 January 2025
Dates of testing: 24-31 January 2025

2.4 Operating Modes and Conditions

Once the EUT was powered on, a number of button presses were used to turn on the NFC transmitter at maximum power.

2.5 EUT Connection Block Diagram



2.6 System Configurations

Device Reference	Manufacturer	Description	Model Number	Serial Number
A	Orpyx Medical Technologies Inc.	Orpyx® Hub (EUT)	OH000010	000161B8

3 Bandwidth

3.1 Test Result

Test Description	Basic Standards	Test Result
99% Bandwidth	RSS-GEN 6.7	Reported
20dB Bandwidth	15.215(c)	Compliant

3.2 Test Method

The 99% and 20dB bandwidth measurements were performed using the procedures from ANSI C63.10 clause 6.9. The 99% occupied bandwidth and 20dB down measurement functions of the spectrum analyzer were employed.

3.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.12 °C

Relative Humidity: 26.10 %

Atmospheric Pressure: 99.68 kPa

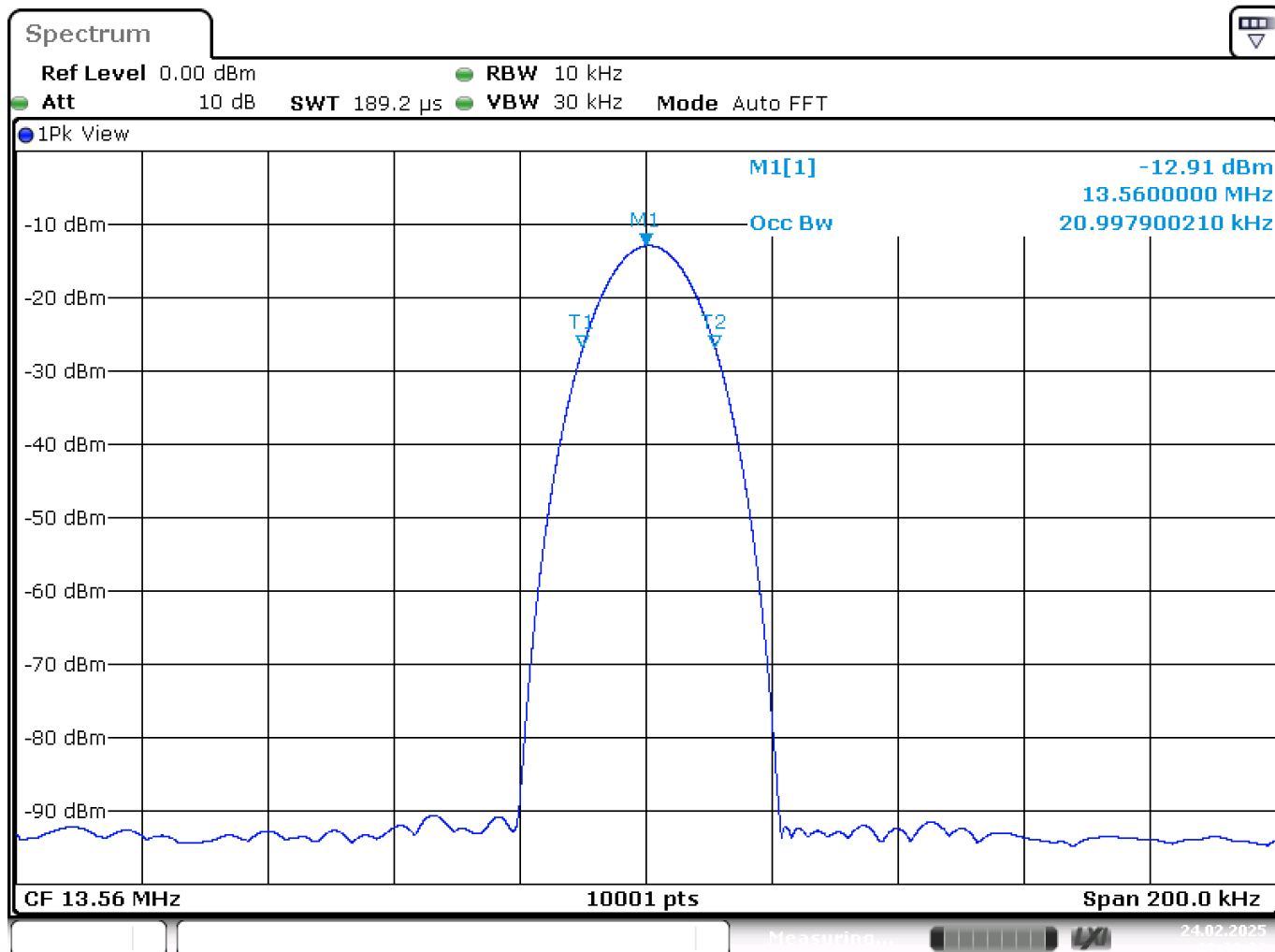
3.4 Test Equipment

Test End Date: 24-Feb-2025

Tester: SGM

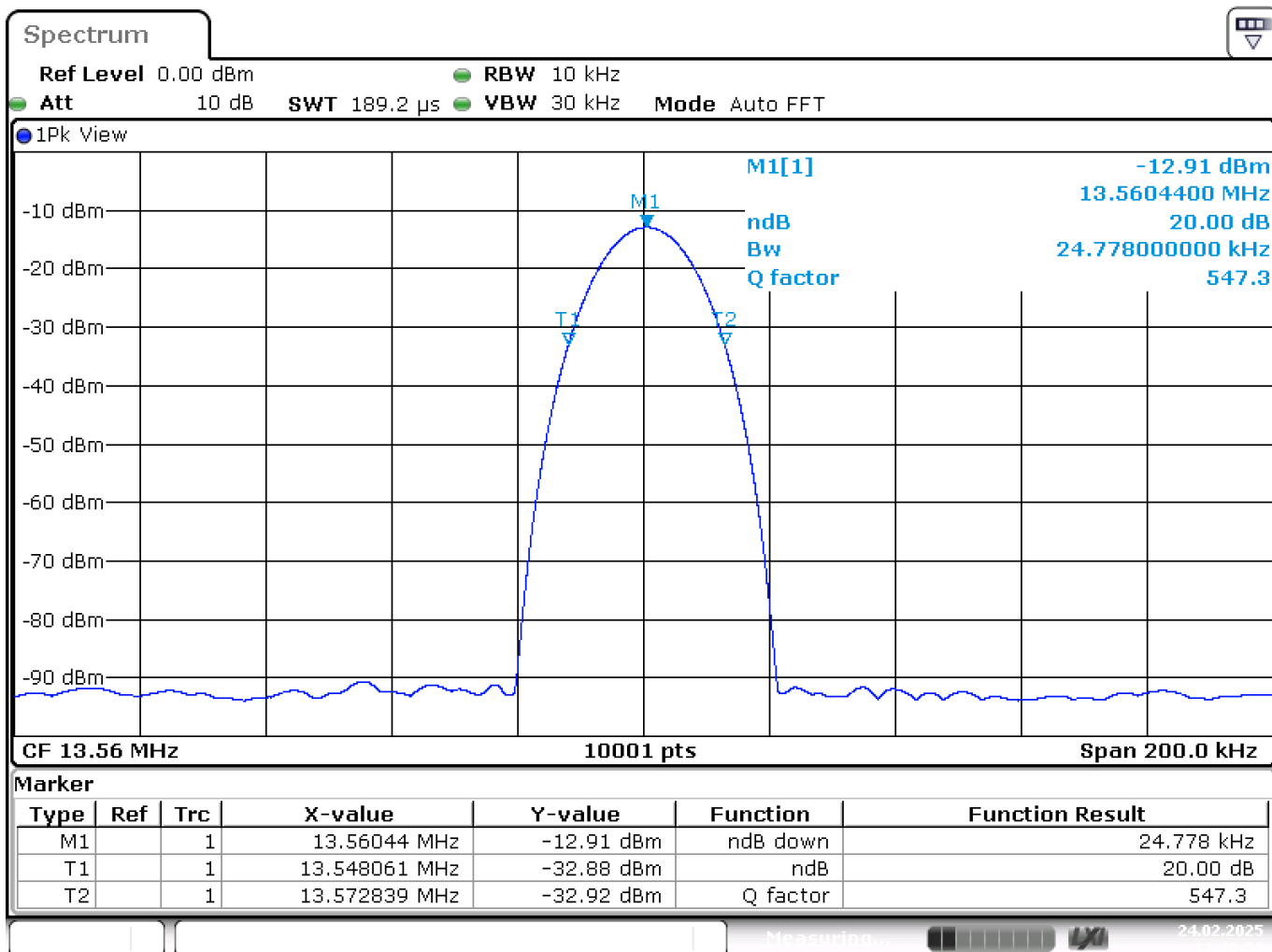
Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
NEAR FIELD PROBES	COM-POWER CORPORATION	N/A	16016	CNR	CNR
RF CABLE NM TO BNCM, 0.01-4GHZ	TELEDYNE STORM MICROWAVE	90-2476-079	20129	7-Aug-2024	7-Aug-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	26-Feb-2025

3.5 Test Data



Date: 24.FEB.2025 11:39:32

99% Occupied Bandwidth = 20.9979 kHz



Date: 24.FEB.2025 11:40:53

20dB Bandwidth = 24.778kHz (This falls entirely within the designated frequency band 13.110-14.010MHz)

4 Field Strength of the Fundamental

4.1 Test Result

Test Description	Basic Standards	Test Result
Field Strength of the Fundamental	FCC Part 15.225(a)-(c) RSS-210 B.6(a)(i)-(iii) ANSI C63.10	Compliant

4.2 Test Method

For measuring the fundamental, the receiver's resolution bandwidth was set to 9kHz. A loop antenna was employed, and peak scans were taken with the loop open towards the EUT (Co-Axial) and with the loop in-line with the EUT (Co-Planar). The antenna height was fixed at 1 m and the EUT was rotated 360° to find the maximum emitting point. The radiated measurements were recorded and compared to the limits indicated in the table below.

Radiated emissions limits

Frequency Range (MHz)	Limits (μV/m) Quasi-Peak or Average	Measurement Distance (m)
13.110 – 13.410	106	30
13.410 – 13.553	334	30
13.553 – 13.567	15,848	30
13.567 – 13.710	334	30
13.710 – 14.010	106	30

Note: Limits were converted to dBμV/m at a distance of 3m using a 40dB/decade correction per §15.31(f)(2)

Example: at 13.56MHz, the limit is expressed as 15,848μV/m at 30m

$20 \cdot \log(15,848) = 84 \text{ dB}\mu\text{V/m}$

30 to 3 meters is a single decade, so $84 + 40 = 124 \text{ dB}\mu\text{V/m}$

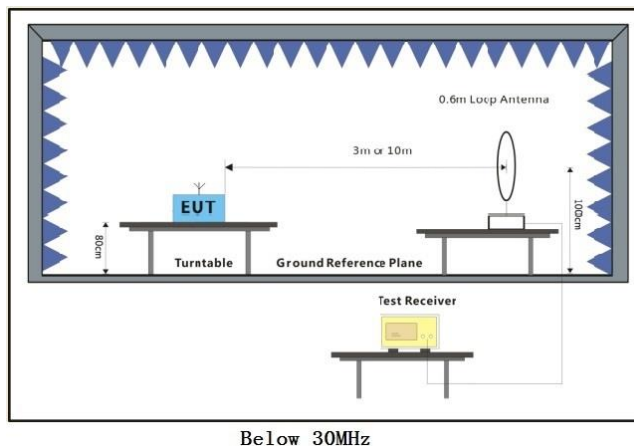
4.3 Test Site

3m Absorber Lined Shielded Enclosure (ALSE), Suwanee, GA

Environmental Conditions

Temperature: 22.73 °C
Relative Humidity: 21.6 %
Atmospheric Pressure: 98.32 kPa

4.4 Test Setup



4.5 Test Equipment

Test End Date: 24-Feb-2025

Tester: SGM

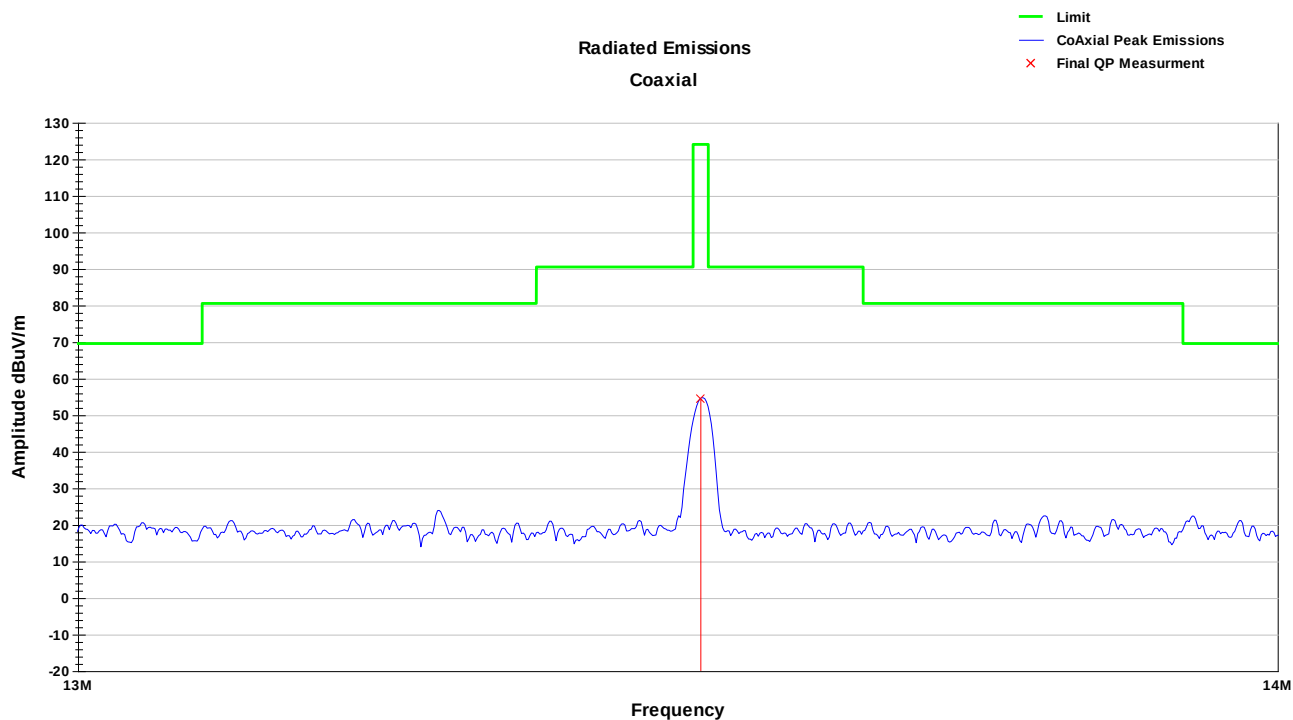
Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
ANTENNA, LOOP, ACTIVE	ETS LINDGREN	6502	B085752	24-Mar-2024	24-Mar-2026
N to N RF Cable	ECHELON	EM-B810NM-276	24022	15-Nov-2024	15-Nov-2025
N-FEMALE TO N-MALE RF CABLE	ECHELON	EM-B810NMNF-118	23010	17-Apr-2024	17-Apr-2025
RF CABLE NM TO NM, 0.01-18GHZ	TELEDYNE STORM MICROWAVE	90-195-118	20126	6-Feb-2025	6-Feb-2026
EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU8	B085759	2-Oct-2024	2-Oct-2025

Software:

“RSE 9k - 30M Active Red Loop 240909” TILE! profile dated 9 September 2024

4.6 Test Data

Worst-Case Co-Axial Radiated Emissions Plot – 3 meters



Worst-Case Co-Axial Radiated Emissions Tabular Data – 3 meters

Frequency MHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	QP Limit dBuV/m	Margin dB
13.56	43.7	361.0	100.0	10.5	0.2	54.3	124.0	-69.7

QP Value = Raw QP + AF + CL

Margin = QP Value - Limit

5 Radiated Emissions

5.1 Test Result

Test Description	Basic Standards	Test Result
Radiated Emissions	FCC Part 15, Subpart C RSS-GEN S8.9, S8.10 ANSI C63.10	Compliant

5.2 Test Method

Exploratory scans were performed over the frequency range as indicated in the tables below using the max hold function and incorporating a Peak detector and using TILE! software. The final test data was measured using a Quasi-Peak detector below 1GHz and a Peak and Average detector above 1GHz. The receiver's resolution bandwidth was set to 1kHz for measurements taken below 150kHz, 9kHz for in the 150kHz to 30MHz range, 120 kHz in the 30MHz to 1GHz frequency range, and 1MHz for measurements of 1GHz and higher. For testing below 30MHz, a loop antenna was employed, and peak scans were taken with the loop open towards the EUT (Co-Axial) and with the loop in-line with the EUT (Co-Planar). Above 30MHz, a biconilog antenna was used and measurements were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna height was varied from 1 m to 4 m and the EUT was rotated 360° to find the maximum emitting point for each frequency. The radiated measurements were recorded and compared to the limits indicated in the table below.

Radiated emissions limits

Frequency Range (MHz)	Limits (µV/m) Quasi-Peak or Average	Measurement Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note: Limits were converted to dBµV/m using the equation $20 \cdot \text{LOG}(x)$. Additionally, for measurements below 30MHz, the limits were adjusted to a distance of 3m using a 40dB/decade correction per §15.31(f)(2)

Example: at 20MHz, the limit is expressed as 30µV/m at 30m
 $20 \cdot \log(30) = 29.5 \text{ dB}\mu\text{V/m}$
 30 to 3 meters is a single decade, so $29.5 + 40 = 69.5 \text{ dB}\mu\text{V/m}$

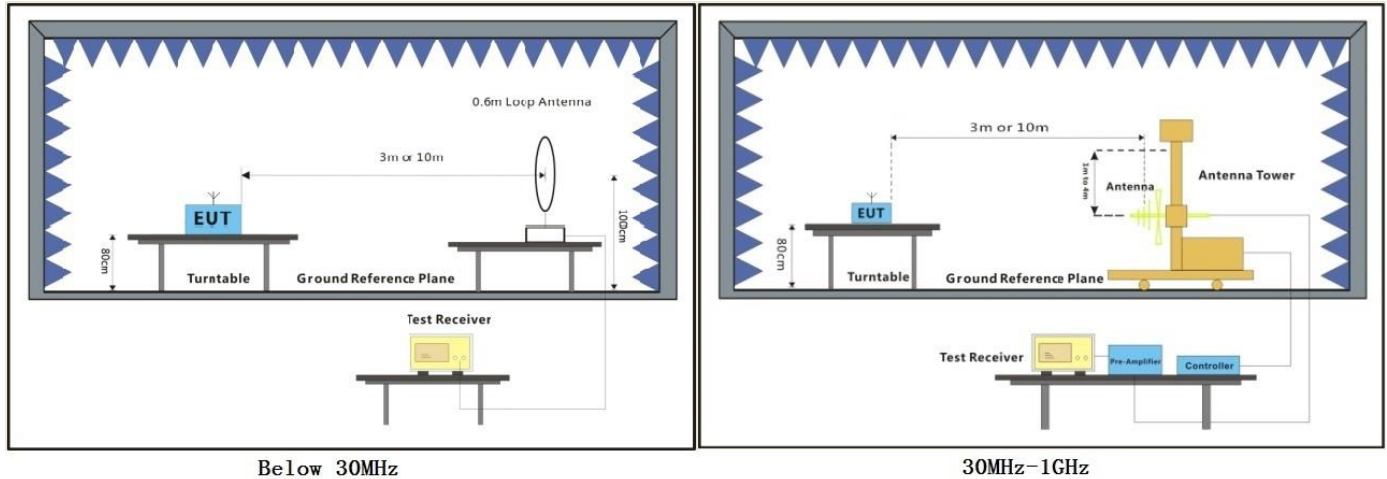
5.3 Test Site

3m Absorber Lined Shielded Enclosure (ALSE), Suwanee, GA

Environmental Conditions

Temperature: 23.4 °C
 Relative Humidity: 52.7 %
 Atmospheric Pressure: 98.1 kPa

5.4 Test Setup



5.5 Test Equipment

9kHz-30MHz

Test End Date: 24-Feb-2025

Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
ANTENNA, LOOP, ACTIVE	ETS LINDGREN	6502	B085752	24-Mar-2024	24-Mar-2026
N to N RF Cable	ECHELON	EM-B810NM-276	24022	15-Nov-2024	15-Nov-2025
N-FEMALE TO N-MALE RF CABLE	ECHELON	EM-B810NMNF-118	23010	17-Apr-2024	17-Apr-2025
RF CABLE NM TO NM, 0.01-18GHZ	TELEDYNE STORM MICROWAVE	90-195-118	20126	6-Feb-2025	6-Feb-2026
EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU8	B085759	2-Oct-2024	2-Oct-2025

30-1000MHz

Test End Date: 31-Jan-2025

Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
ANTENNA, DRG HORN (MEDIUM)	ETS LINDGREN	3117	B079691	2-Aug-2024	2-Aug-2026
N to N RF Cable	ECHELON	EM-B810NM-276	24022	15-Nov-2024	15-Nov-2025
N-FEMALE TO N-MALE RF CABLE	ECHELON	EM-B810NMNF-118	23010	17-Apr-2024	17-Apr-2025
RF CABLE NM TO NM, 0.01-18GHZ	TELEDYNE STORM MICROWAVE	90-195-118	20126	6-Feb-2024	6-Feb-2025
EMI TEST RECEIVER	ROHDE & SCHWARZ	ESU8	B085759	2-Oct-2024	2-Oct-2025

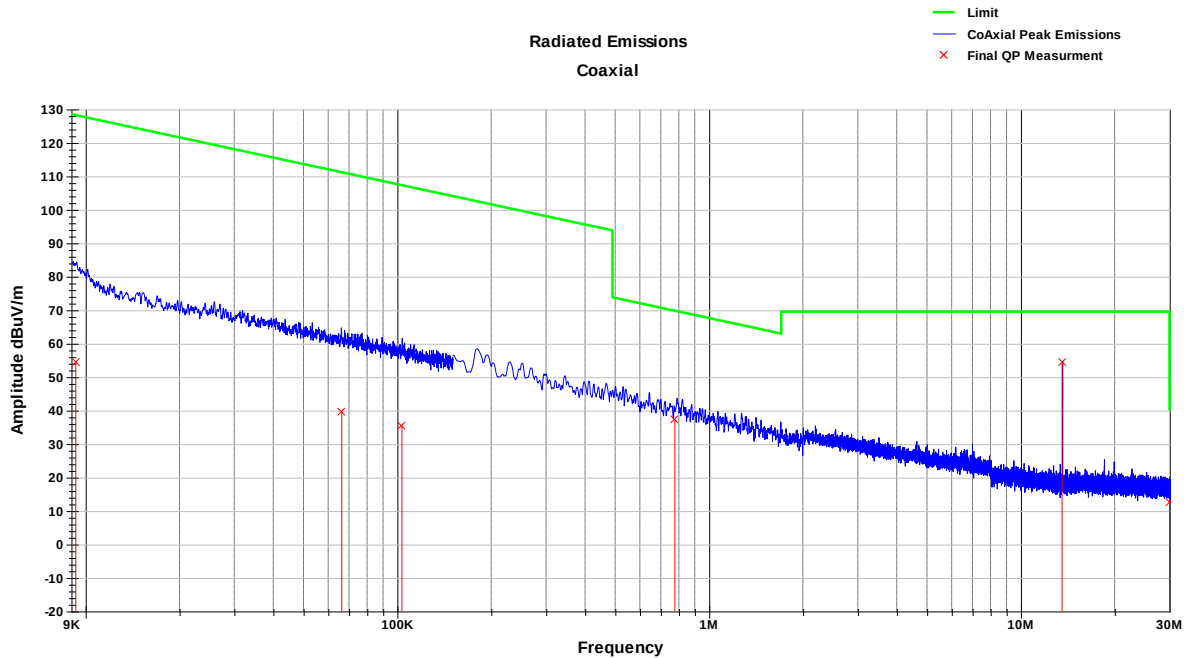
Software:

“RSE 9k - 30M Active Red Loop 240909” TILE! profile dated 09 Sept 2024

“RSE 30-1000 MHz T7 240701” TILE! profile dated 07 July 2024

5.6 Test Data

Worst-Case Co-Axial Radiated Emissions Data (9kHz-30MHz) – 3 meters



Worst-Case Co-Axial Radiated Emissions Tabular Data – 3 meters

Frequency KHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	QP Limit dBuV/m	Margin dB
9.30	34.1	355.0	100.0	20.3	0.0	54.3	128.2	-73.9
66.34	27.3	187.0	100.0	12.3	0.0	39.6	111.2	-71.6
103.40	23.5	54.0	100.0	11.9	0.0	35.4	107.3	-71.9

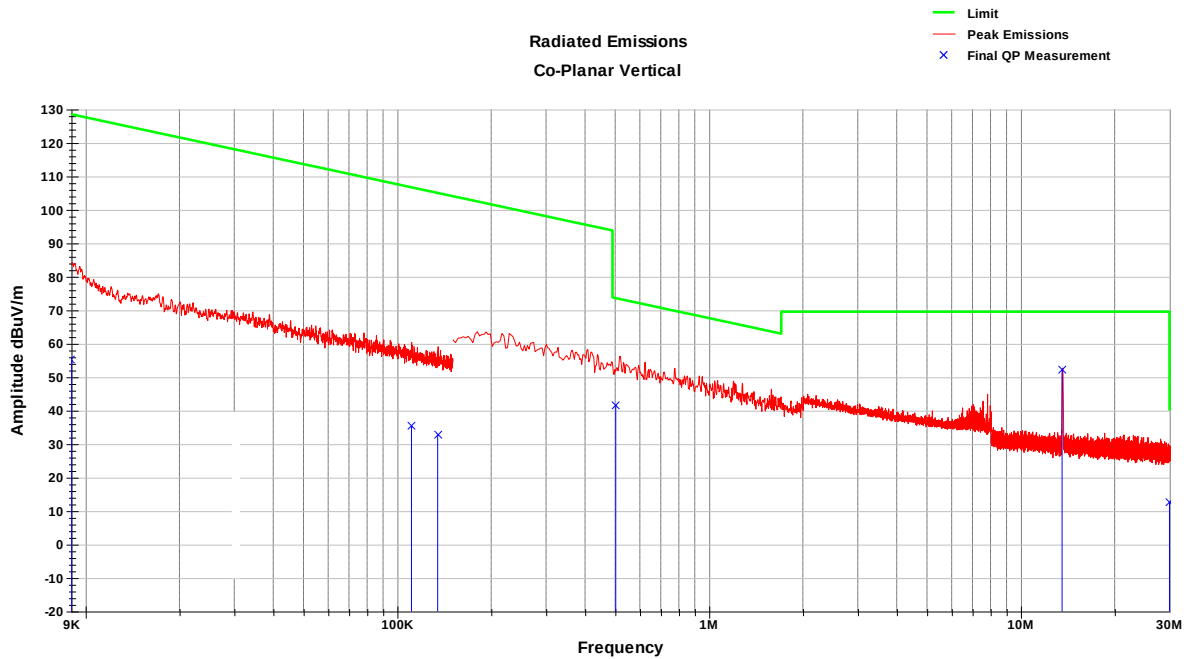
Frequency MHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	QP Limit dBuV/m	Margin dB
0.78	25.6	26.0	100.0	11.7	0.1	37.3	69.8	-32.5
13.56	43.7	361.0	100.0	10.5	0.2	54.3	69.5	-15.2
29.99	4.9	349.0	100.0	7.5	0.3	12.7	69.5	-56.8

QP Value = Raw QP + AF + CL

Margin = QP Value - Limit

Note: The emissions measured in the 9kHz to 1MHz frequency range are due to the noise floor of the measuring instruments and not from the EUT.

Worst-Case Co-Planar Vertical Radiated Emissions Data (9kHz-30MHz) – 3 meters



Worst-Case Co-Planar Vertical Radiated Emissions Tabular Data – 3 meters

Frequency KHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	Limit dBuV/m	Margin dB
9.00	34.6	236.0	100.0	20.5	0.0	55.1	128.5	-73.4
111.03	23.4	39.0	100.0	11.9	0.0	35.3	106.7	-71.4
134.75	21.0	279.0	100.0	11.8	0.0	32.8	105.0	-72.2

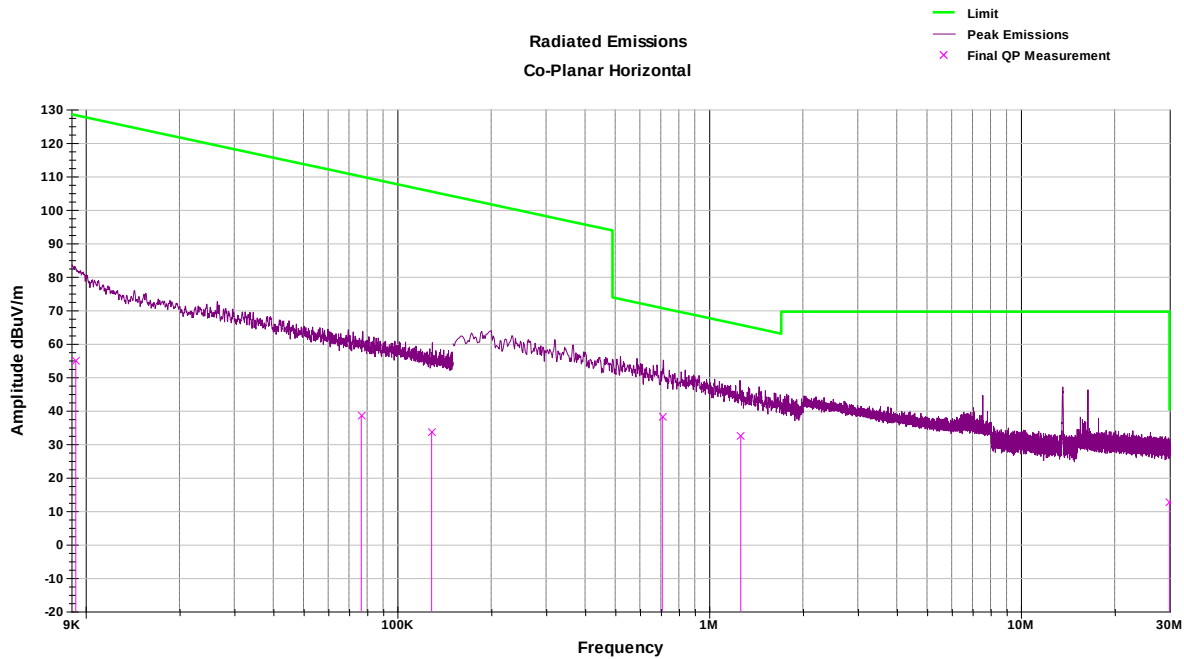
Frequency MHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	Limit dBuV/m	Margin dB
0.50	29.8	169.0	100.0	11.6	0.0	41.5	73.6	-32.1
13.56	41.7	268.0	100.0	10.5	0.2	52.3	69.5	-17.2
29.99	5.0	64.0	100.0	7.5	0.3	12.7	69.5	-56.8

QP Value = Raw QP + AF + CL

Margin = QP Value - Limit

Note: The emissions measured in the 9kHz to 1MHz frequency range are due to the noise floor of the measuring instruments and not from the EUT.

Worst-Case Co-Planar Horizontal Radiated Emissions Data (9kHz-30MHz) – 3 meters



Worst-Case Co-Planar Horizontal Radiated Emissions Tabular Data – 3 meters

Frequency KHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	Limit dBuV/m	Margin dB
9.30	34.6	29.0	100.0	20.3	0.0	54.8	128.2	-73.4
76.60	26.4	158.0	100.0	12.1	0.0	38.5	109.9	-71.4
128.83	21.7	210.0	100.0	11.8	0.0	33.6	105.4	-71.8

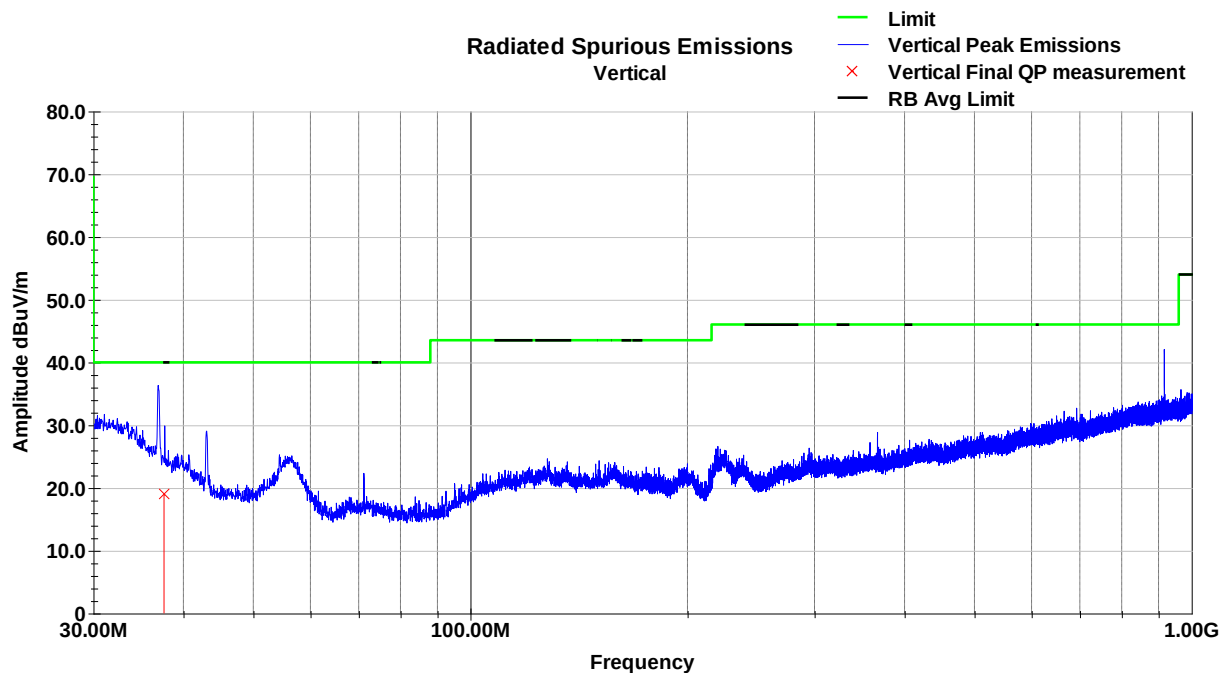
Frequency MHz	Raw QP dBuV	Azimuth degrees	Height cm	AF dB	CL dB	QP Value dBuV/m	Limit dBuV/m	Margin dB
0.71	26.5	343.0	100.0	11.7	0.1	38.2	70.6	-32.4
1.26	20.8	1.0	100.0	11.7	0.1	32.6	65.6	-33.0
30.00	5.0	64.0	100.0	7.5	0.3	12.7	69.5	-56.8

QP Value = Raw QP + AF + CL

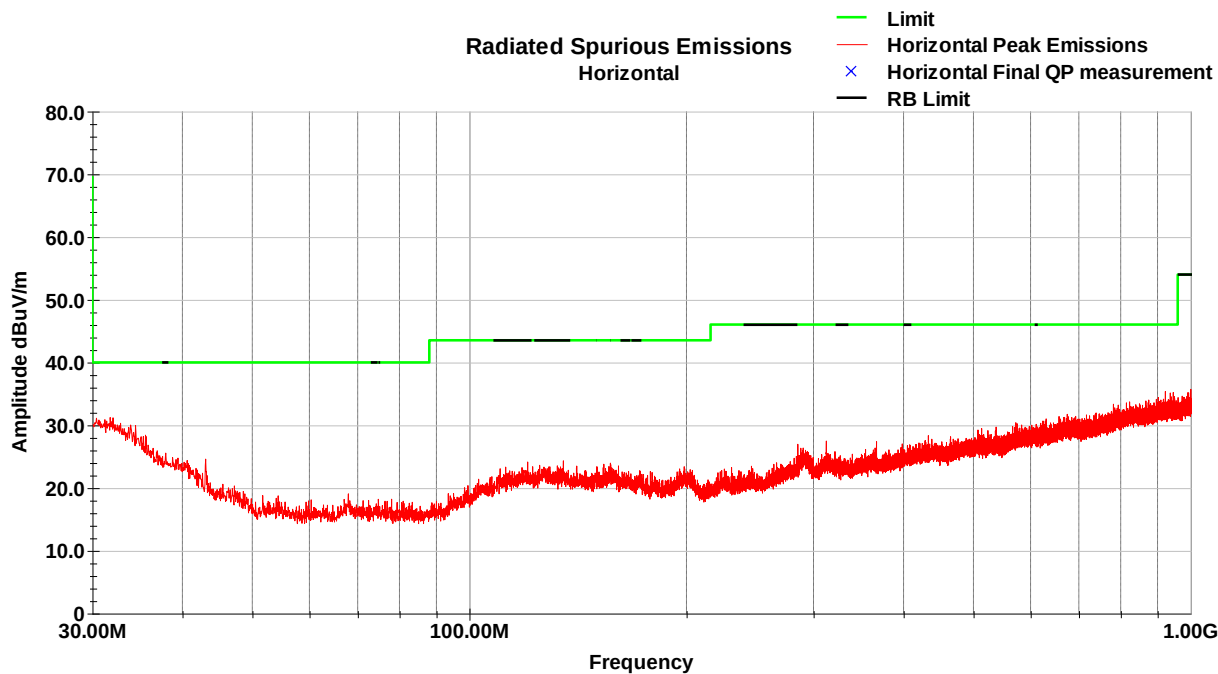
Margin = QP Value - Limit

Note: The emissions measured in the 9kHz to 1MHz frequency range are due to the noise floor of the measuring instruments and not from the EUT.

Worst-Case Vertical Radiated Emissions Plot (30-1000MHz)



Worst-Case Horizontal Radiated Emissions Plot (30-1000MHz)



6 Frequency Stability

6.1 Test Result

Test Description	Basic Standards	Test Result
Frequency Stability	FCC 15.225(e) RSS-210 B.6(b) ANSI C63.10	Compliant

6.2 Test Method

The EUT was placed inside the Environmental Chamber and allowed to stabilize to each set temperature for a minimum of thirty minutes before any measurements were made. The EUT fundamental transmission was coupled to the spectrum analyzer using a near field probe.

6.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.25 °C

Relative Humidity: 41.2 %

Atmospheric Pressure: 98.02 kPa

6.4 Test Equipment

Test End Date: 31-Jan-2025

Tester: SGM

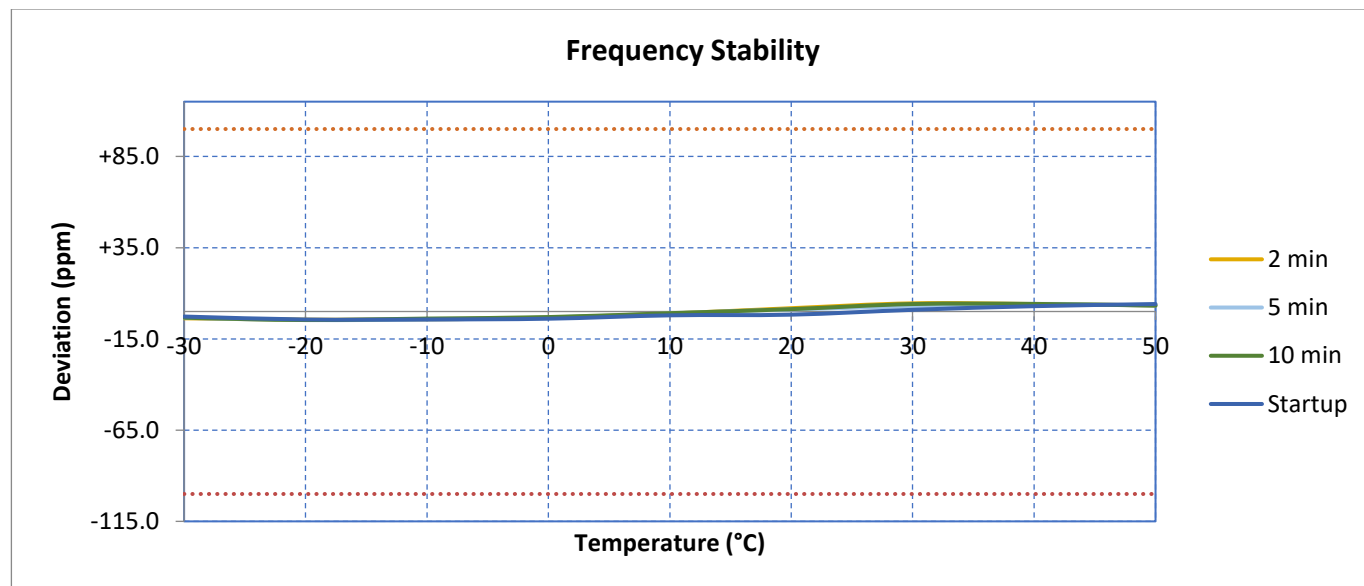
Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
NEAR FIELD PROBES	COM-POWER CORPORATION	N/A	16016	CNR	CNR
RF CABLE NM TO BNCM, 0.01-4GHZ	TELEDYNE STORM MICROWAVE	90-2476-079	20129	7-Aug-2024	7-Aug-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	26-Feb-2025
5KVA VARIABLE TRANSFORMER	VOLTEQ	TDGC2	21037	VBU	VBU

6.5 Test Data

The carrier frequency shall not depart from the reference frequency by more than ± 100 ppm.

RFID 13.56 MHz

Voltage %	Power V_{DC}	Temp °C	Frequency MHz				Freq Dev ppm			
			Startup	2 min	5 min	10 min	Startup	2 min	5 min	10 min
100%	120.00	+20 (Ref)	13.5605000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100%	120.00	-30	+13.56053740	+13.560550	+13.560547	+13.5605464	-2.76	-3.72	-3.50	-3.42
100%	120.00	-20	+13.560559400	+13.56056040	+13.5605634	+13.5605634	-4.38	-4.45	-4.68	-4.68
100%	120.00	-10	+13.560559400	+13.56055840	+13.5605594	+13.56055240	-4.38	-4.31	-4.38	-3.86
100%	120.00	0	+13.560553400	+13.5605454	+13.5605444	+13.5605414	-3.94	-3.35	-3.27	-3.05
100%	120.00	+10	+13.560528400	+13.5605154	+13.5605144	+13.5605124	-2.09	-1.14	-1.06	-0.91
100%	120.00	+20	+13.560523400	+13.5604754	+13.5604844	+13.5604824	-1.73	+1.81	+1.15	+1.30
100%	120.00	+30	+13.560487400	+13.5604394	+13.5604614	+13.5604444	+0.93	+4.47	+2.85	+4.10
100%	120.00	+40	+13.560460400	+13.5604444	+13.5604434	+13.5604434	+2.92	+4.10	+4.17	+4.17
100%	120.00	+50	+13.560444400	+13.5604544	+13.5604554	+13.5604564	+4.10	+3.36	+3.29	+3.22
115%	138.00	+20	+13.560482400	N/A	N/A	N/A	+1.30	N/A	N/A	N/A
85%	102.00	+20	+13.560454400	N/A	N/A	N/A	+3.36	N/A	N/A	N/A



7 AC Powerline Conducted Emissions

7.1 Test Result

Test Description	Test Specification		Test Result
AC Powerline Conducted Emissions	15.207	RSS-GEN S8.8	Compliant

7.2 Test Method

With the receiver's resolution bandwidth was set to 9 kHz, exploratory scans were performed over the measuring frequency range (0.15 MHz to 30 MHz) using a max hold mode incorporating a Peak detector and Average detector and using the TILE! software. The final test data was measured using a Quasi-Peak detector and Average detector and compared against the limits indicated in the table below.

Frequency Range	Limits (dBuV)
0.15 to 0.5 MHz	Avg 56 to 46 QP 66 to 56
0.5 to 5 MHz	Avg 46 Pk 56
5 to 30 MHz	Avg 50 Pk 60

7.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 22.81°C

Relative Humidity: 43.3%

Atmospheric Pressure: 97.8 kPa

7.4 Test Equipment

Test End Date: 31-Jan-2025

Tester: SGM

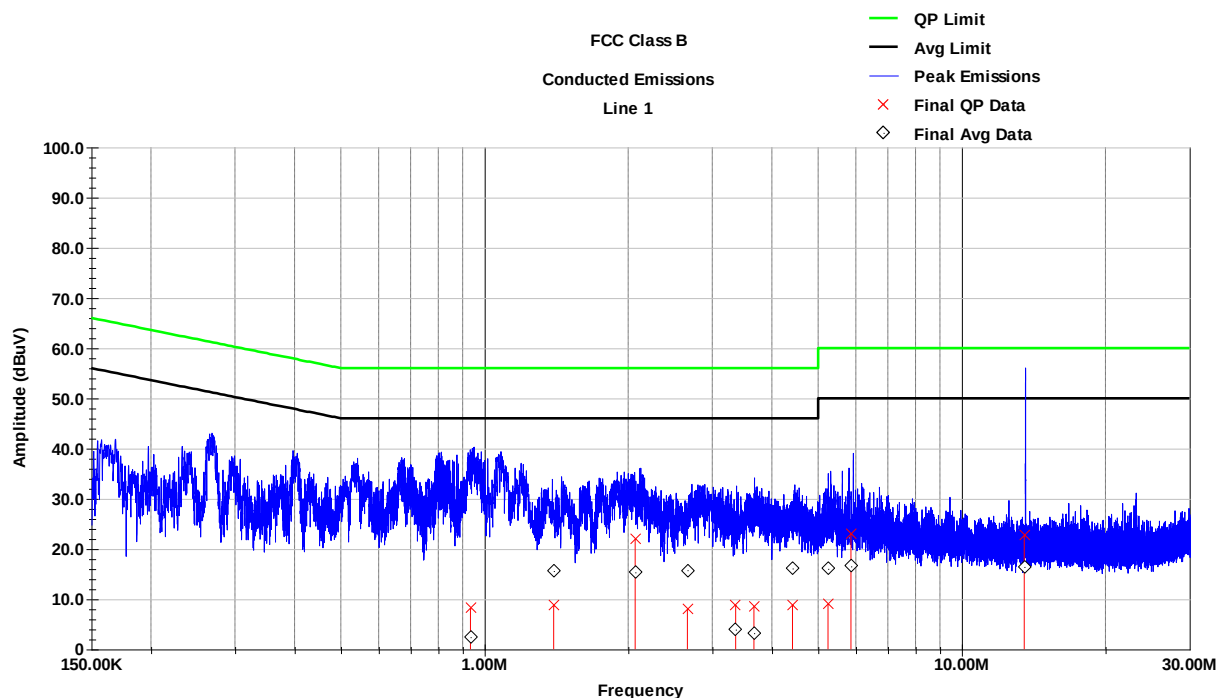
Equipment	Model	Manufacturer	Asset Number	Cal Date	Cal Due Date
LINE IMPEDANCE STABILIZATION NETWORK	NNB 51	TESEQ	B085882	22-Apr-2024	22-Apr-2025
RF CABLE	UC-N-MM-78	MAURY MICROWAVE	17017	7-Aug-2024	7-Aug-2025
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22032	2-Jan-2025	2-Jan-2026

Software:

TILE! software profile "Conducted Emissions Tile7 210216.til" dated 16 02 2021

7.5 Test Data

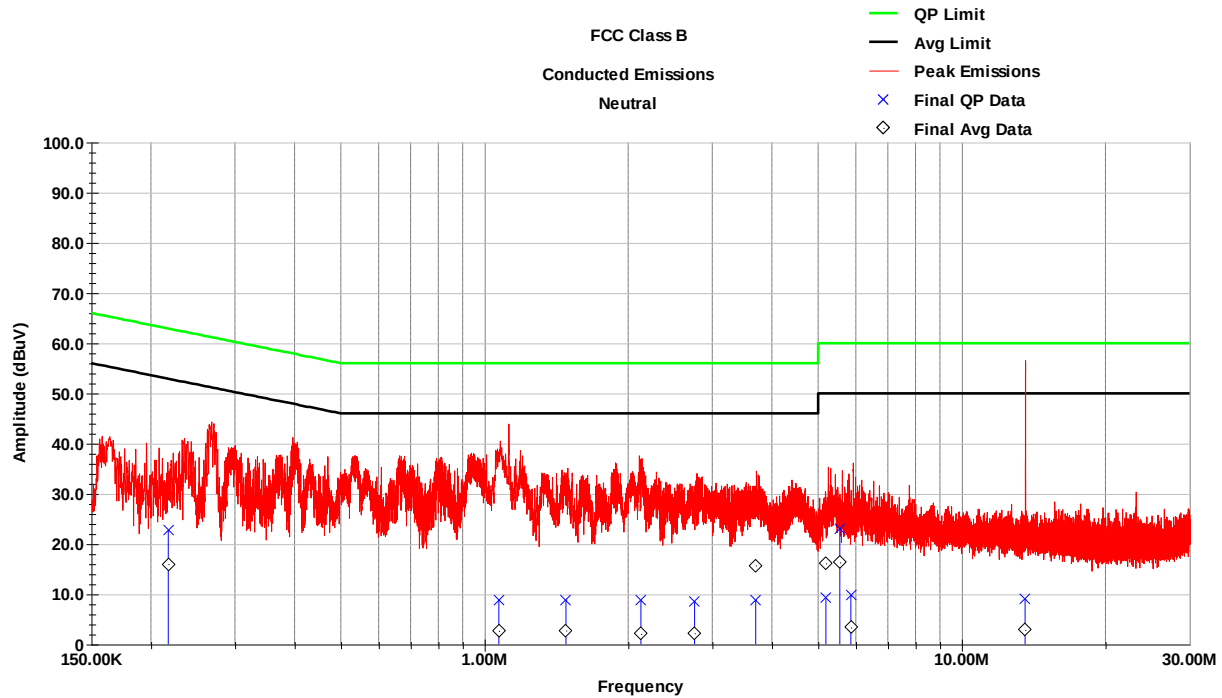
Line 1 Conducted Emissions – Peak Plot



Line 1 Conducted Emissions – Tabular Data

Frequency MHz	LISN dB	CF dB	TL dB	Raw Avg dBuV	Final Avg dBuV	Avg Limit dBuV	Avg Margin dB	Raw QP dBuV	Final QP dBuV	QP Limit dBuV	QP Margin dB
0.934	9.8	0.00	0.0	-7.4	2.4	46.0	-43.6	-1.6	8.2	56.0	-47.8
1.396	9.8	0.00	0.0	5.8	15.6	46	-30.4	-1.1	8.7	56.0	-47.3
2.069	9.8	0.00	0.0	5.5	15.4	46	-30.6	12.2	22	56.0	-34.0
2.662	9.8	0.00	0.0	5.9	15.8	46	-30.2	-1.8	8	56.0	-48.0
3.359	9.8	0.00	0.0	-5.9	3.9	46.0	-42.1	-1.1	8.8	56.0	-47.2
3.667	9.8	0.00	0.0	-6.6	3.2	46.0	-42.8	-1.3	8.6	56.0	-47.4
4.419	9.8	0.00	0.0	6.3	16.1	46.0	-29.9	-1.0	8.9	56.0	-47.1
5.246	9.8	0.00	0.0	6.2	16.0	50.0	-34.0	-0.8	9.0	60.0	-51.0
5.859	9.8	0.00	0.0	6.7	16.5	50.0	-33.5	13.2	23.1	60.0	-36.9
13.515	9.9	0.10	0.0	6.5	16.4	50.0	-33.6	12.7	22.7	60.0	-37.3
Final QP = Raw QP + LISN + CF + TL											
QP Margin = Final QP - QP Limit											
Final Avg = Raw Avg + LISN + CF + TL											
Avg Margin = Final Avg - Avg Limit											

Neutral Conducted Emissions – Peak Plot



Neutral Conducted Emissions – Tabular Data

Frequency MHz	LISN dB	CF dB	TL dB	Raw Avg dBUV	Final Avg dBUV	Avg Limit dBUV	Avg Margin dB	Raw QP dBUV	Final QP dBUV	QP Limit dBUV	QP Margin dB
0.217	9.8	0.00	0.0	6.2	16.0	52.9	-36.9	13.0	22.7	62.9	-40.2
1.072	9.8	0.00	0.0	-7.1	2.7	46	-43.3	-0.9	8.9	56.0	-47.1
1.481	9.8	0.00	0.0	-7.0	2.8	46	-43.2	-0.9	8.9	56.0	-47.1
2.126	9.8	0.00	0.0	-7.7	2.1	46	-43.9	-1.1	8.7	56.0	-47.3
2.756	9.8	0.00	0.0	-7.6	2.3	46.0	-43.7	-1.2	8.6	56.0	-47.4
3.701	9.8	0.00	0.0	5.9	15.7	46.0	-30.3	-1.1	8.8	56.0	-47.2
5.192	9.8	0.00	0.0	6.3	16.2	50.0	-33.8	-0.6	9.3	60.0	-50.7
5.553	9.8	0.00	0.0	6.5	16.3	50.0	-33.7	13.1	23.0	60.0	-37.0
5.857	9.8	0.00	0.0	-6.5	3.4	50.0	-46.6	-0.2	9.7	60.0	-50.3
13.573	9.9	0.10	0.0	-7.1	2.9	50.0	-47.1	-0.9	9.1	60.0	-50.9
Final QP = Raw QP + LISN + CF + TL											
QP Margin = Final QP - QP Limit											
Final Avg = Raw Avg + LISN + CF + TL											
Avg Margin = Final Avg - Avg Limit											

8 Measurement Uncertainty

Measurement uncertainty is not used to adjust the measurements to determine compliance.

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	Conduction emission	$\pm 3.0\text{dB}$ (150kHz to 30MHz)
5	RF conducted power	$\pm 0.75\text{dB}$
6	RF power density	$\pm 2.84\text{dB}$
7	Conducted Spurious emissions	$\pm 0.75\text{dB}$
8	RF Radiated power	$\pm 4.5\text{dB}$ (Below 1GHz)
		$\pm 4.8\text{dB}$ (Above 1GHz)
9	Radiated Spurious emission test	$\pm 4.5\text{dB}$ (Below 1GHz)
		$\pm 4.8\text{dB}$ (Above 1GHz)
10	Temperature test	$\pm 1^\circ\text{C}$
11	Humidity test	$\pm 3\%$
12	Supply voltages	$\pm 1.5\%$
13	Time	$\pm 3\%$

9 Revision History

Revision Level	Description of changes	Revision Date
0	Initial release	29 May 2025
1	Added notes about the measurement noise floor in section 5.6	17 June 2025