



Engineering Solutions & Electromagnetic Compatibility Services

**FCC Part 15.225 & ISED Canada RSS-210
Certification Application Report**

Test Lab: Rhein Tech Laboratories, Inc. Tel: 703-689-0368 360 Herndon Parkway www.rheintech.com Suite 1400 Herndon, VA 20170		Applicant: Farpointe Data, Inc. 2195 Zanker Road San Jose, CA 95131	
FCC ID IC	T8I-CONEKT6 6504A-CONEKT6	Test Report Date	February 17, 2026
Platform	N/A	RTL Work Order #	2025060
Model	CSM-200	RTL Quote #	QRTL25-060D
American National Standards Institute	ANSI C63.10-2020: American National Standard for Testing Unlicensed Wireless Devices		
FCC Classification	DXX – Part 15 Low Power Communication Device Transmitter		
FCC Rule Part(s)/Guidance	FCC Rules Part 15.225: Operation within the band 13.110-14.010 MHz (10-01-24)		
ISED Canada	RSS-210 Issue 11: Licence-Exempt Radio Apparatus: Category I Equipment (2024) RSS-Gen Issue 5: General Requirements for Compliance of Radio Apparatus (2021)		
Digital Interface Information	Digital Interface was found to be compliant		
Frequency Range (MHz)	Output Power (W)	Frequency Tolerance	Emission Designator
13.56	N/A	N/A	23K0A2D

I, the undersigned, hereby declare that the equipment tested and referenced in this report conforms to the identified standard(s) as described in this test report. No modifications were made to the equipment during testing in order to achieve compliance with these standards. Furthermore, there was no deviation from, additions to, or exclusions from, the applicable parts of FCC Part 2, FCC Part 15, ISED RSS-210, RSS-Gen and ANSI C63.10.

Signature: 

Date: February 17, 2026

Typed/Printed Name: Desmond A. Fraser

Position: President

*These tests are accredited and meet the requirements of ISO/IEC 17025 as verified by ANAB.
Refer to the certificate and scope of accreditation AT-1445.*

*This report may not be reproduced, except in full, without the written approval of Rhein Tech Laboratories, Inc. and Farpointe Data, Inc. . The test results relate only to the item(s) tested.
Replaces R1.2.docx.*

Table of Contents

1	General Information	4
1.1	Scope	4
1.2	Description of EUT	4
1.3	Test Facility	4
1.4	Measurement Uncertainty	4
1.5	Modifications	4
2	Test Information	5
2.1	Description of Test Modes	5
2.2	Exercising the EUT	5
2.3	Modifications	5
2.4	Test Result Summary	5
2.5	Test System Details	6
2.6	Configuration of Tested System	6
3	Antenna Requirement — FCC §15.203; RSS-Gen	7
4	Radiated Emissions – FCC 15.209; 15.225(a) & (d); ISED RSS-210 Annex B.6; RSS-Gen	7
4.1	Limits of Radiated Emissions Measurement	7
4.2	Radiated Emissions Measurement Test Procedure	7
4.3	Radiated Emissions Test Data	8
4.4	Radiated Emissions Harmonics/Spurious Test Data	10
4.5	Radiated Emissions Digital Test Data	10
5	AC Conducted Emissions - FCC 15.207; ISED RSS-Gen 8.8: Conducted Limits	11
6	99% Bandwidth – ISED RSS-Gen 6.7	11
6.1	99% Bandwidth Test Procedure	11
6.2	99% Bandwidth Test Data	12
6.3	99% Bandwidth Plot	12
7	Frequency Stability – FCC 2.1055; 15.225(e); ISED RSS-210 Annex B.6(a)(i)	13
7.1	Test Procedure	13
7.2	Test Data	14
8	Conclusion	14

Table Index

Table 2-1:	Frequency Tested	5
Table 2-2:	Test Result Summary – FCC Part 15, Subpart C (Section 15.225), ISED Canada (RSS-210).....	5
Table 2-3:	Equipment Under Test	6
Table 2-4:	Auxiliary Support Equipment	6
Table 4-1:	Radiated Emissions Environmental Conditions	8
Table 4-2:	Radiated Emissions Test Equipment	8
Table 4-3:	Quasi-Peak Radiated Emissions Test Data (Fundamental)	8
Table 4-4:	Radiated Emissions Harmonics/Spurious Test Data	10
Table 4-5:	Digital Radiated Emissions Test Data	10
Table 6-1:	99% Bandwidth Environmental Conditions	11
Table 6-2:	99% Bandwidth Test Equipment	11
Table 6-3:	99% Bandwidth Test Data	12
Table 7-1:	Frequency Stability Test Equipment	13
Table 7-2:	Temperature Frequency Stability	14
Table 7-3:	Voltage Frequency Stability at 20°C (85-115% at 20C)	14

Plot Index

Plot 4-1:	Part 15.225(b), (c) Mask; RSS 210 Annex B.6(a)(i), B.6(a)(ii).....	9
Plot 6-1:	99% Bandwidth.....	12

Appendix Index

Appendix A:	RF Exposure Evaluation	15
Appendix B:	Test Photographs	16

1 General Information

1.1 Scope

This is an original Limited Modular Approval (LMA) certification application request for Farpointe Data, Inc. CSM-200, FCC ID: T8I-CONEKT6, IC: 6504A-CONEKT6, in accordance with the applicable FCC and ISED Canada rules and regulations.

The CSM-200 is an Access Control Module that achieves its access control functions through two interfaces: 1) an HF (NFC) interface at 13.56 MHz, and 2) a Bluetooth LE interface (BLE) at 2.4 GHz. The NFC and BLE interfaces do not operate simultaneously and were tested separately. For the testing presented in this NFC report the CSM-200 Module was tested standalone.

A separate BLE test report supports this CSM-200 LMA certification application.

Applicable Standards:

- FCC Part 15.225: Operation within the band 13.110-14.010 MHz
- RSS-210 Issue 11: Licence-Exempt Radio Apparatus: Category I Equipment
- RSS-Gen: Issue 5: General Requirements for Compliance of Radio Apparatus

1.2 Description of EUT

Equipment Under Test	Access Control Module
Model	CSM-200
Power Supply	Four AAA batteries
Modulation Type	FSK
Frequency Range	13.56 MHz
Antenna Connector Type	N/A
Antenna Type	PCB trace coil, -3.5 dBi max gain

1.3 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located at 360 Herndon Parkway, Suite 1400, Herndon, Virginia 20170 (USA).

ISED CAB ID: US0079; Company Number: 2956A

1.4 Measurement Uncertainty

The measurement uncertainty complies with CISPR 16-4-2 limits and is not used to adjust measurements for compliance determination. Expanded uncertainty (U) for each scope, calculated per ANSI/NCSS Z540-2-1997 (R2002) with a type B evaluation, is provided in this RTL report. While this demonstrates RTL's commitment to transparency, compliance decisions are based solely on comparing measured values directly to the relevant standards' limits.

1.5 Modifications

No modifications were made to the equipment during testing in order to achieve compliance with these standards.

2 Test Information

2.1 Description of Test Modes

Table 2-1: Frequency Tested

Frequency (MHz)
13.56

2.2 Exercising the EUT

The EUT is a PCB module with an IC for BTLE and NFC, tested separately.

Although host transmitters are typically evaluated within the host enclosure, the NFC transmitter was intentionally tested outside the host, an electronic door lock, to represent a conservative worst-case configuration for fundamental and spurious emission measurements.

The EUT was tested in all three orthogonal planes to determine worst-case emissions, the positioning of the antenna located to provide highest level measured for the fundamental. The EUT was provided with Farpointe Data CSM-200 ULP Test Firmware V1.1 programmed with the modulation type and rate. The EUT was provided with software to transmit continuously during testing. All modes were investigated, and the worst-case mode was used for final testing.

Testing was performed after the EUT was fully configured, powered, and allowed to stabilize in accordance with ANSI C63.10-2020, Corrigendum 1-2023, and Amendment C63.10a-2024.

Measurement instrumentation was verified and validated prior to testing, and final measurements were taken only after confirmation of proper system operation in accordance with ANSI C63.2-2023.

Exploratory measurements were performed to evaluate operating modes, antenna orientation, and configuration sensitivity. Final compliance measurements were recorded only after the worst-case configuration was identified, in accordance with ANSI C63.10-2020, Corrigendum 1-2023, and C63.10a-2024.

There were no deviations from the test standard(s) and/or methods. The reported test results relate only to the item tested.

2.3 Modifications

No modifications were required for compliance.

2.4 Test Result Summary

Table 2-2: Test Result Summary – FCC Part 15, Subpart C (Section 15.225), ISED Canada (RSS-210)

Test	FCC Reference	ISED Reference	Pass/Fail or N/A
AC Power Conducted Emissions	FCC 15.207;	RSS Gen 8.8	N/A
Radiated Emissions	FCC 15.209;	RSS Gen 8.9	Pass
Field Strength of Fundamental and Harmonics	FCC 15.225(a)(b)(c);	RSS 210 Annex B.6(a)(i), (ii)	Pass
Antenna must be permanently attached or unique connector	FCC 15.203;	RSS Gen 6.8	Pass
Frequency Stability	FCC 15.225(d),	RSS 210, Annex B.6(a)(i), (ii)	Pass
99% Bandwidth	-	RSS-Gen 6.6	Pass

2.5 Test System Details

The test samples were received on March 15, 2025. Below are the identifiers and descriptions of all equipment, cables and devices used with the EUT for this test.

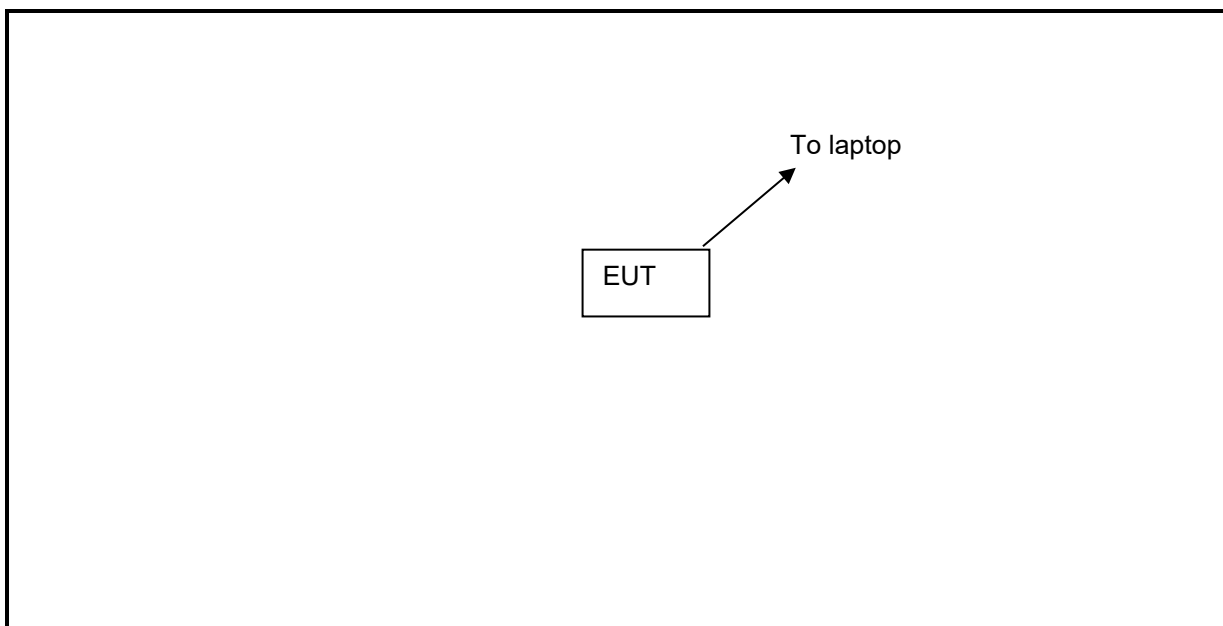
Table 2-3: Equipment Under Test

Part	Manufacturer	Model	Serial Number	FCC ID / IC ID	Cable Description	RTL Bar Code
Access Control Module	Farpointe Data, Inc.	CSM-200	NA	T8I-CONEKT6 / 6504A-CONEKT6	Shielded Power, Unshielded IO	24473
Loop Antenna	Rohde & Schwarz	HFH2-Z2	881056/062	N/A	Unshielded Power/ IO	901663

Table 2-4: Auxiliary Support Equipment

Part	Manufacturer	Model	Serial Number	Cable Description	RTL Bar Code
Laptop	Hewlett Packard	Elite Book 850	5CG4514X29	Shielded Power	24496
Laptop Power Supply	Hewlett Packard	4Y24314404	WCNXA0D3 U7R42F	Shielded Power	24495
Test Software, Version	Farpointe Data, Inc.	CSM-200 ULP Test Firmware, Version 1.1	N/A	FTDI USB Serial Converter	N/A

2.6 Configuration of Tested System



3 Antenna Requirement — FCC §15.203; RSS-Gen

This EUT utilizes an external antenna connected via a dedicated RF connector. The antenna is physically detachable and is supplied as part of the system configuration evaluated during testing. Compliance is demonstrated only for the specific antenna type, connector, and maximum gain identified in this report. Use of any alternate antenna types or gains is not covered by this certification and would require additional evaluation to confirm continued compliance.

4 Radiated Emissions – FCC 15.209; 15.225(a) & (d); ISED RSS-210 Annex B.6; RSS-Gen

4.1 Limits of Radiated Emissions Measurement

Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009-0.490	2400/f (kHz)	300
0.490-1.705	2400/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

As shown in 15.35(b), for frequencies above 1000 MHz, the field strength limits are based on average detector however, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any circumstances of modulation.

15.225(a) states “The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.”

$20\log(15,848)=84$ dBuV/m at 30 m and $40*\log(30/3)=40$, $84+40=124$ dBuV/m at 3 m.

4.2 Radiated Emissions Measurement Test Procedure

C63.10-2020 6.4

Before final measurements of radiated emissions were made on the open-field three/ten meter range, the EUT was scanned indoors at one and three meter distances. This was done in order to determine its emissions spectrum signature. The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. This process was repeated during final radiated emissions measurements on the open-field range, at each frequency, in order to ensure that maximum emission amplitudes were attained.

Final radiated emissions measurements were made on the three/ten-meter, open-field test site. The EUT was placed on a nonconductive turntable 0.8 meters above the ground plane. The spectrum was examined from 9 kHz to the 10th harmonic of the highest fundamental transmitter frequency (135.6 MHz).

At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations. For frequencies between 30 and 1000 MHz, the spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. For emissions above 1000 MHz, emissions are measured using the average detector function with a minimum resolution bandwidth of 1 MHz. No video filter less than 10 times the resolution bandwidth was used. The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Table 4-1: Radiated Emissions Environmental Conditions

Date	Temperature (°C)	Humidity (%)	Pressure (kPa)
March 26, 2025	11	32	101.6
April 22, 2025	23	50	100.5

Table 4-2: Radiated Emissions Test Equipment

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
900878	Rhein Tech Laboratories, Inc.	AM3-1197-0005	3-meter antenna mast, polarizing	Outdoor Range 1	N/A
901729	Insulated Wire Inc.	KPS-1503-3150-KPR	SMK RF Cables 20'	NA	10/29/2027
901242	Rhein Tech Laboratories, Inc.	WRT-000-0003	Wood rotating table	N/A	N/A
900772	EMCO	3161-02	Horn Antenna (2 - 4 GHz)	9804-1044	05/17/2027
900321	EMCO	3161-03	Horn Antenna (4 - 8.2 GHz)	9508-1020	05/17/2027
900323	EMCO	3160-7	Horn Antenna (8.2 - 12.4 GHz)	9605-1054	05/17/2027
900356	EMCO	3160-08	Horn Antenna (12.4 - 18.0 GHz)	9607-1044	05/17/2027
901218	EMCO	3160-09	Horn Antenna (18.0 - 26.5 GHz)	960281-003	05/05/2027
901773	Rohde & Schwarz	FSW50	Analyzer	101021	05/30/2027
901669	ETS-Lindgren	3142E	Biconilog Antenna (30 MHz - 6000 MHz)	00166065	04/24/2027
901663	Rohde & Schwarz	HFH2-Z2	Active Loop Antenna	881056/062	8/12/2026

4.3 Radiated Emissions Test Data

Table 4-3: Quasi-Peak Radiated Emissions Test Data (Fundamental)

Emission Frequency (MHz)	Quasi-Peak Analyzer Reading (dBuV/m)	Site Correction Factor (dB/m)	Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)
13.56	27.3	21.4	48.7	124.0	-75.3

Part 15.225(a): The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

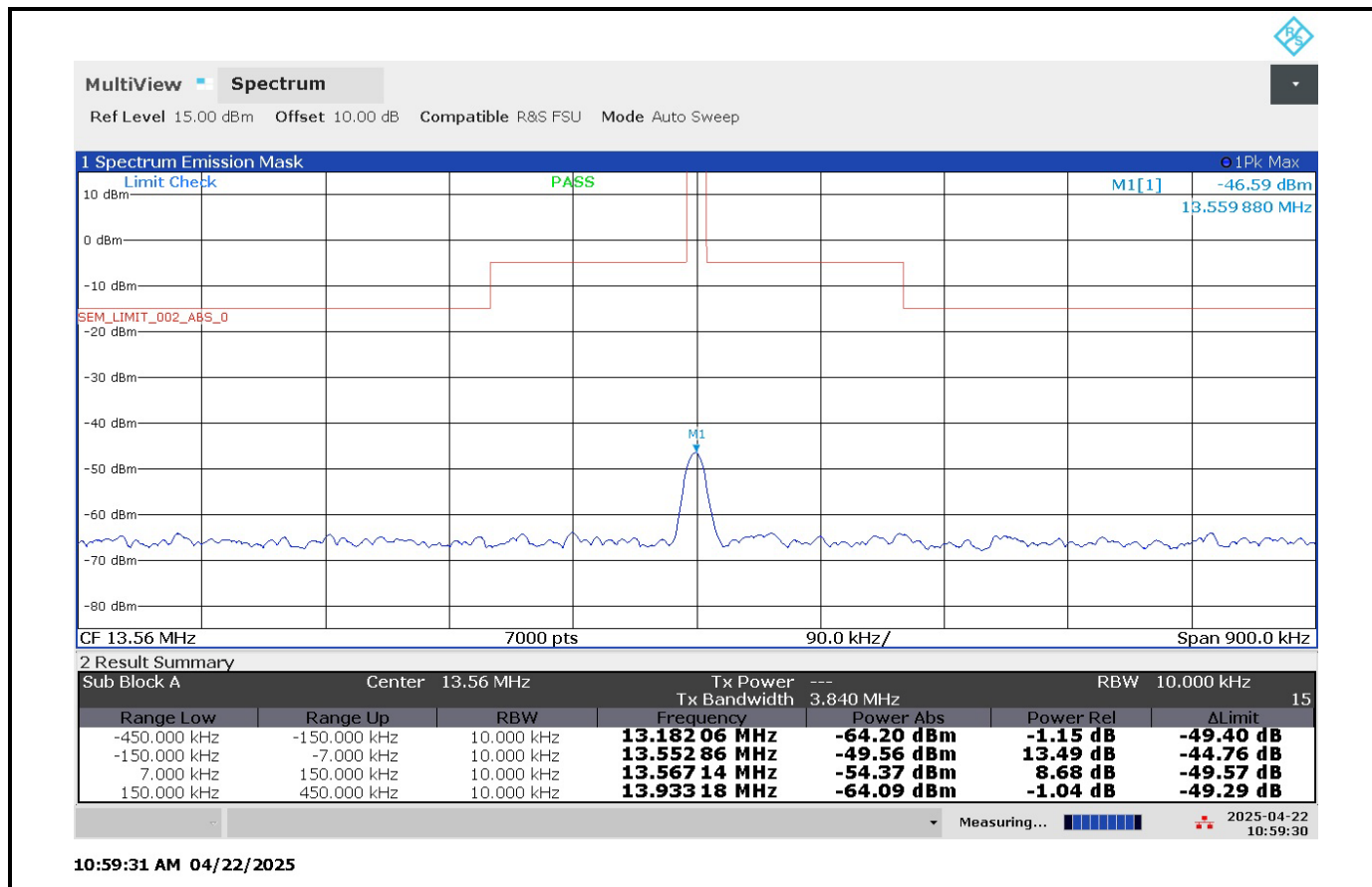
The 30-meter limits were interpolated to 3 meters by adding $40 \log(30\text{m}/3\text{m})$ to $20 \log(E)$, where E is the limit in microvolts/meter at 30 meters.

The corrected measured fundamental level in Table 4-3 was normalized as a reference for the fundamental in the following plot from dBuV/m at 3 meters to dBm to show compliance with Part 15.225(b) and (c), as follows:
 $27.3 \text{ dBuV/m} + 21.4 \text{ dB/m} = 48.7 \text{ dBuV/m}$
 $48.7 \text{ dBuV/m} - 104.77 + 9.5 = -46.5 \text{ dBm}$ (value in plot)

15.225(b) 334 uV/m at 30 m = 90.5 dBuV/m at 3 m = $90.5 \text{ dBuV/m} - 104.7 + 9.5 = -4.7 \text{ dBm}$ (plot limit)

15.225(c) 106 uV/m at 30 m = 80.5 dBuV/m at 3 m = $80.5 \text{ dBuV/m} - 104.7 + 9.5 = -14.7 \text{ dBm}$ (plot limit)

Plot 4-1: Part 15.225(b), (c) Mask; RSS 210 Annex B.6(a)(i), B.6(a)(ii)



4.4 Radiated Emissions Harmonics/Spurious Test Data

Table 4-4: Radiated Emissions Harmonics/Spurious Test Data

Emission Frequency (MHz)	Test Detector	Analyzer Reading (dBuV)	Site Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pass/Fail
27.120	Qp	7.2	23.5	30.7	69.5	-38.8	Pass
40.680	Qp	47.0	-19.5	27.5	40.0	-12.5	Pass
54.240	Qp	45.7	-23.1	22.6	40.0	-17.4	Pass
67.800	Qp	47.3	-22.4	24.9	40.0	-15.1	Pass
81.360	Qp	41.6	-22.2	19.4	40.0	-20.6	Pass
94.920	Qp	22.1	3.6	25.7	43.5	-17.8	Pass
108.480	Qp	46.3	-19.8	26.5	43.5	-17.0	Pass
122.040	Qp	40.6	-20.2	20.4	43.5	-23.1	Pass
135.600	Qp	39.3	-19.9	19.4	43.5	-24.1	Pass

NOTE: Measurements made at 3 m.

4.5 Radiated Emissions Digital Test Data

Table 4-5: Digital Radiated Emissions Test Data

Emission Frequency (MHz)	Test Detector	Antenna Polarity (H/V)	Turntable Azimuth (deg)	Antenna Height (m)	Analyzer Reading (dBuV)	Site Correction Factor (dB/m)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pass/Fail
227.601	Qp	H	265	1.0	51.3	-13.9	37.4	46.0	-8.6	Pass
275.504	Qp	H	265	1.0	48.6	-12.4	36.2	46.0	-9.8	Pass
323.425	Qp	H	265	1.0	46.7	-11.6	35.1	46.0	-10.9	Pass
335.417	Qp	H	265	1.0	4.9	-11.1	-6.2	46.0	-52.2	Pass
371.333	Qp	H	265	1.0	45.5	-9.7	35.8	46.0	-10.2	Pass
383.290	Qp	H	265	1.0	46.8	-9.6	37.2	46.0	-8.8	Pass
395.287	Qp	H	265	1.0	47.8	-8.6	39.2	46.0	-6.8	Pass
419.246	Qp	H	265	1.0	44.5	-7.3	37.2	46.0	-8.8	Pass

FCC 15.209 Limits at 3m

- **0.009 – 0.490 MHz:** 128.5–93.8 dBμV/m ($20\log(2400/F_{\text{kHz}}) + 40\log(300/3)$)
- **0.490 – 1.705 MHz:** 73.8 – 53.0 dBμV/m ($20\log(24000/F_{\text{kHz}}) + 40\log(30/3)$)
- **1.705 – 30 MHz:** 69.5 dBμV/m ($20\log(30) + 40\log(30/3)$)
- **30 – 88 MHz:** 40 dBμV/m
- **88 – 216 MHz:** 43.5 dBμV/m
- **216 – 960 MHz:** 46.0 dBμV/m
- **Above 960 MHz:** 54.0 dBμV/m

Test Personnel:

Daniel W. Baltzell		March 26-April 22, 2025
Test Engineer	Signature	Dates of Test

5 AC Conducted Emissions - FCC 15.207; ISED RSS-Gen 8.8: Conducted Limits

The unit is battery operated; conducted AC emissions are not required.

6 99% Bandwidth – ISED RSS-Gen 6.7

6.1 99% Bandwidth Test Procedure

C63.10-2020 6.9

The 99% bandwidths per RSS-Gen 6.7 were measured using a 50-ohm spectrum analyzer. The modulated carrier was adjusted on the analyzer to display entirely on the spectrum analyzer. The sweep time was auto and allowed through several sweeps with the max hold function used in peak detector mode.

Table 6-1: 99% Bandwidth Environmental Conditions

Date	Temperature (°C)	Humidity (%)	Pressure (kPa)
March 10, 2025	24.3	32	101.6

Table 6-2: 99% Bandwidth Test Equipment

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
901773	Rohde & Schwarz	FSW50	Analyzer	101021	05/30/2027

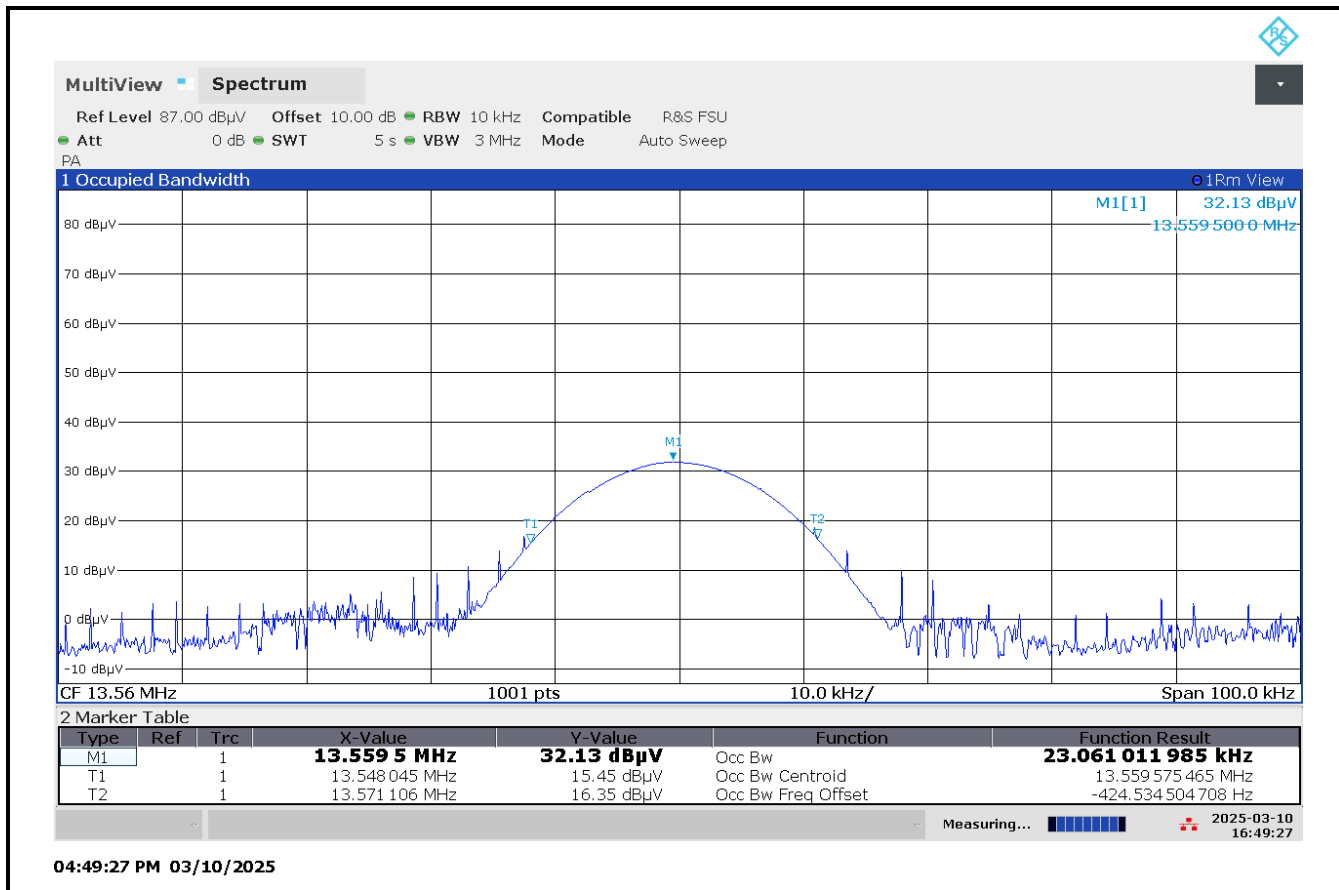
6.2 99% Bandwidth Test Data

Table 6-3: 99% Bandwidth Test Data

99% Bandwidth (kHz)
23.061

6.3 99% Bandwidth Plot

Plot 6-1: 99% Bandwidth



Test Personnel:

Daniel W. Baltzell		March 10, 2025
Test Engineer	Signature	Date of Test

7 Frequency Stability – FCC 2.1055; 15.225(e); ISSED RSS-210 Annex B.6(a)(i)

7.1 Test Procedure

C63.10-2020 6.8

The carrier frequency stability is the ability of the transmitter to maintain an assigned carrier frequency.

15.255(e): The frequency tolerance of the carrier signal shall be maintained within $\pm .01\%$ of the operating frequency over a temperature variation of -20°C to $+50^{\circ}\text{C}$ at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20°C . The equipment tests shall be performed using a new battery for battery-operated equipment.

The EUT was evaluated over the temperature range -20°C to $+50^{\circ}\text{C}$.

The temperature was initially set to -20°C , and a 1-hour period was observed to stabilize the EUT. The frequency stability was measured within one minute after application of primary power to the transmitter. The temperature was raised at intervals of 10 degrees centigrade through the range. A $\frac{1}{2}$ -hour period was observed to stabilize the EUT at each measurement step, and the frequency stability was measured within one minute after application of primary power to the transmitter. Additionally, the power supply voltage of the EUT was varied $\pm 15\%$ of the nominal input voltage.

The worst-case deviation was -0.000825% of the operating frequency.

Table 7-1: Frequency Stability Test Equipment

RTL Asset #	Manufacturer	Model	Part Type	Serial Number	Calibration Due Date
900946	Tenney Engineering, Inc.	TH65	Temperature Chamber with Humidity	11380	01/13/2027
901773	Rohde & Schwarz	FSW50	Analyzer	101021	05/30/2027

7.2 Test Data

Table 7-2: Temperature Frequency Stability

Temperature (°C)	Measured Frequency (Hz)	Percent of Operating Frequency (%)
-20	13.560078	0.000573
-10	13.560085	0.000630
0	13.560079	0.000585
10	13.560056	0.000411
20	13.560000	0.000000
30	13.559976	-0.000175
40	13.559932	-0.000500
50	13.559888	-0.000825

Table 7-3: Voltage Frequency Stability at 20°C (85-115% at 20C)

Voltage (6 VDC)	Measured Frequency (Hz)	Percent of Operating Frequency (%)
5.1	13.559999	-0.000005
6.0 (reference)	13.560000	0.000000
6.9	13.560001	0.000009

Results: Pass

Test Personnel:

Daniel W. Baltzell		March 10, 2025
Test Engineer	Signature	Date of Test

8 Conclusion

The data in this measurement report shows that the NFC Reader in the Farpointe Data, Inc. Model CSM-200, FCC ID: T8I-CONEKT6, IC: 6504A-CONEKT6, complies with all the applicable requirements of Parts 2 and 15 of the FCC rules and regulations and ISSED RSS-210 and RSS-Gen rules and regulations.