

ISED CABid: ES1909

Lab. Company Number: 4621A

Test Report No:

82801RRF.001A1

## Partial Test Report

USA FCC Part 15.225, 15.209

CANADA RSS-210, RSS-Gen

|                                           |                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (*) Identification of item tested         | Vehicle access sensor                                                                                                                                                                                                                                                                                                                                              |
| (*) Trademark                             | Vitesco Technologies Czech Republic s.r.o.                                                                                                                                                                                                                                                                                                                         |
| (*) Model and /or type reference          | Audi NFC Gateway                                                                                                                                                                                                                                                                                                                                                   |
| Other identification of the product       | FCC ID: 2A6TC-NFCGATEWAY<br>IC: 28616-NFCGATEWAY                                                                                                                                                                                                                                                                                                                   |
| (*) Features                              | NFC<br>HW version: H61 proto<br>SW version: SW0130                                                                                                                                                                                                                                                                                                                 |
| Manufacturer                              | Vitesco Technologies<br>28 Avenue des Pyrénées 31360 Boussens -F                                                                                                                                                                                                                                                                                                   |
| Test method requested, standard           | USA FCC Part 15.225 (10-1-23 Edition): Operation within the band 13.110 -14.010.<br>USA FCC Part 15.209 (10-1-23 Edition): Radiated emission limits, general requirements.<br>CANADA RSS-210 Issue 11 (June 2024).<br>CANADA RSS-Gen Issue 5 Amendment 2 (February 2021).<br>ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices. |
| Approved by (name / position & signature) | José Manuel Gómez Galván<br>EMC Consumer & RF<br>Lab. Manager                                                                                                                                                                                                                                                                                                      |
| Date of issue                             | 2025-08-26                                                                                                                                                                                                                                                                                                                                                         |
| Report template No                        | FDT08_25<br>(*) "Data provided by the client"                                                                                                                                                                                                                                                                                                                      |

# Index

|                                       |           |
|---------------------------------------|-----------|
| INDEX .....                           | 2         |
| ACRONYMS .....                        | 3         |
| COMPETENCES AND GUARANTEES .....      | 3         |
| GENERAL CONDITIONS .....              | 3         |
| UNCERTAINTY .....                     | 3         |
| DATA PROVIDED BY THE CLIENT .....     | 4         |
| USAGE OF SAMPLES .....                | 4         |
| TEST SAMPLE DESCRIPTION .....         | 5         |
| IDENTIFICATION OF THE CLIENT .....    | 7         |
| TESTING PERIOD AND PLACE .....        | 7         |
| DOCUMENT HISTORY .....                | 7         |
| ENVIRONMENTAL CONDITIONS .....        | 7         |
| REMARKS AND COMMENTS .....            | 8         |
| TESTING VERDICTS .....                | 9         |
| SUMMARY .....                         | 9         |
| <b>APPENDIX A: TEST RESULTS</b> ..... | <b>10</b> |

## Acronyms

| Acronym ID | Acronym Description       |
|------------|---------------------------|
| Freq       | Frequency                 |
| Freq Rng   | Frequency Range           |
| Mod        | Modulation                |
| Pol        | Polarization              |
| QuasiPeak  | Radiated Quasi Peak Level |

## Competences and guarantees

DEKRA Testing and Certification S.A.U. is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

DEKRA Testing and Certification is an FCC-recognized accredited testing laboratory with appropriate scope of accreditation that covers the performed tests in this report.

DEKRA Testing and Certification is an ISED-recognized accredited testing laboratory, CABid: ES1909, Company Number: 4621A, with the appropriate scope of accreditation that covers the performed tests in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Testing and Certification S.A.U. has a calibration and maintenance program for its measurement equipment.

DEKRA Testing and Certification S.A.U. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Testing and Certification S.A.U. at the time of performance of the test.

DEKRA Testing and Certification S.A.U. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA Testing and Certification S.A.U.

## General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Testing and Certification S.A.U.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification S.A.U. and the Accreditation Bodies.

## Uncertainty

Uncertainty (factor  $k=2$ ) was calculated according to the DEKRA Testing and Certification S.A.U. internal document PODT000.

The total uncertainty of the measurement system for the radiated emissions of EUT from 9 kHz to 30 MHz is:  
Measurement uncertainty  $\leq \pm 3.08$  dB (with factor  $k = 2$ ).

The total uncertainty of the measurement system for the radiated emissions of EUT for the field strength of emissions within the band  $\leq \pm 3.08$  dB

The total uncertainty of the measurement system for the radiated emissions of EUT from 30 MHz to 200 MHz is: Measurement uncertainty  $\leq \pm 5.35$  dB (with factor  $k = 2$ ).

The total uncertainty of the measurement system for the conducted testing of EUT is:

Frequency Tolerance of the Carrier Signal: Measurement uncertainty  $\leq \pm 12.3$  kHz

Occupied Bandwidth  $\leq \pm 1.42$  kHz

## Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").
2. The sample consists of a Vehicle access sensor. Audi NFC Gateway reader .

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results. The laboratory is not responsible for such information and it is not covered by accreditation.

## Usage of samples

Samples undergoing test have been selected by: The client.

| Id   | Control Number | Description                          | Model      | Serial N° | Date of Reception | Application        |
|------|----------------|--------------------------------------|------------|-----------|-------------------|--------------------|
| S/01 | 82801_1.1      | Test Sample For Homologation         | NFCGATEWAY | 2500588   | 2025-05-06        | Element Under Test |
| S/01 | 82247_1.1      | NFC Sample Schaeffler (QF-6 Antenna) | -          | -         | 2025-02-17        | Auxiliary Element  |
| S/01 | 82247_2.1      | Harness                              | -          | -         | 2025-02-17        | Auxiliary Element  |

Notes referenced to samples during the project:

| Id   | Type                    |
|------|-------------------------|
| S/01 | Sample used for testing |

## Test sample description

|                                               |                                      |                                                                |                          |                      |              |         |  |  |  |  |  |
|-----------------------------------------------|--------------------------------------|----------------------------------------------------------------|--------------------------|----------------------|--------------|---------|--|--|--|--|--|
| Ports..... :                                  | Port name and description            |                                                                | Cable                    |                      |              |         |  |  |  |  |  |
|                                               |                                      |                                                                | Specified max length [m] | Attached during test | Shielded     |         |  |  |  |  |  |
|                                               | Port A - supply + communication      |                                                                | NA                       | [X]                  | [ ]          |         |  |  |  |  |  |
|                                               | Port B - Antenna                     |                                                                | 0,6                      | [ ]                  | [ ]          |         |  |  |  |  |  |
| Supplementary information to the ports..... : | .....                                |                                                                |                          |                      |              |         |  |  |  |  |  |
| Rated power supply .....                      | Voltage and Frequency                |                                                                | Reference poles          |                      |              |         |  |  |  |  |  |
|                                               |                                      |                                                                | L1                       | L2                   | L3           | N PE    |  |  |  |  |  |
|                                               | [ ]                                  | AC: .....                                                      | [ ]                      | [ ]                  | [ ]          | [ ] [ ] |  |  |  |  |  |
|                                               | [ ]                                  | AC: .....                                                      | [ ]                      | [ ]                  | [ ]          | [ ] [ ] |  |  |  |  |  |
|                                               | [X]                                  | DC: 12V                                                        |                          |                      |              |         |  |  |  |  |  |
|                                               | [ ]                                  | DC: .....                                                      |                          |                      |              |         |  |  |  |  |  |
| Rated Power .....                             | 3mW idle, 0,8W at permanent emission |                                                                |                          |                      |              |         |  |  |  |  |  |
| Clock frequencies.....                        | 13,56MHz (NFC), 27,12MHz (quartz)    |                                                                |                          |                      |              |         |  |  |  |  |  |
| Other parameters .....                        | .....                                |                                                                |                          |                      |              |         |  |  |  |  |  |
| Software version .....                        | .....                                |                                                                |                          |                      |              |         |  |  |  |  |  |
| Hardware version .....                        | .....                                |                                                                |                          |                      |              |         |  |  |  |  |  |
| Dimensions in cm (W x H x D) .....            | 82x43x23mm                           |                                                                |                          |                      |              |         |  |  |  |  |  |
| Mounting position .....                       | [ ]                                  | Table top equipment                                            |                          |                      |              |         |  |  |  |  |  |
|                                               | [ ]                                  | Wall/Ceiling mounted equipment                                 |                          |                      |              |         |  |  |  |  |  |
|                                               | [ ]                                  | Floor standing equipment                                       |                          |                      |              |         |  |  |  |  |  |
|                                               | [ ]                                  | Hand-held equipment                                            |                          |                      |              |         |  |  |  |  |  |
|                                               | [ ]                                  | Other: Inside vehicle door panel, antenna on top of door panel |                          |                      |              |         |  |  |  |  |  |
| Modules/parts..... :                          | Module/parts of test item            |                                                                |                          | Type                 | Manufacturer |         |  |  |  |  |  |
|                                               | NFC Gateway                          |                                                                |                          | .....                | Schaeffler   |         |  |  |  |  |  |
|                                               | NFC Antenna                          |                                                                |                          | .....                | Witte        |         |  |  |  |  |  |
|                                               | .....                                |                                                                |                          | .....                | .....        |         |  |  |  |  |  |
|                                               | .....                                |                                                                |                          | .....                | .....        |         |  |  |  |  |  |

| Accessories (not part of the test item) ..... | Description    | Type      | Manufacturer |
|-----------------------------------------------|----------------|-----------|--------------|
|                                               | Supply harness | .....     | Schaeffler   |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
| Documents as provided by the applicant .....  | Description    | File name | Issue date   |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |
|                                               | .....          | .....     | .....        |

## Identification of the client

Vitesco Technologies Czech Republic s.r.o.  
Na Rovince 879 720 00 Ostrava Hrabova (Czech Republic)

## Testing period and place

|               |                                        |
|---------------|----------------------------------------|
| Test Location | DEKRA Testing and Certification S.A.U. |
| Date (start)  | 2025-06-24                             |
| Date (finish) | 2025-06-24                             |

## Document history

| Report number  | Date       | Description                                                                                                                 |
|----------------|------------|-----------------------------------------------------------------------------------------------------------------------------|
| 82801RRF.001   | 2025-07-17 | First release.                                                                                                              |
| 82801RRF.001A1 | 2025-08-26 | Second release. Modification due to typos. This modification test report cancels and replaces the test report 82801RRF.001. |

## Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

|                   |                              |
|-------------------|------------------------------|
| Temperature       | Min. = 15 °C<br>Max. = 35 °C |
| Relative humidity | Min. = 20 %<br>Max. = 75 %   |

In the semianechoic chamber, the following limits were not exceeded during the test.

|                   |                              |
|-------------------|------------------------------|
| Temperature       | Min. = 15 °C<br>Max. = 35 °C |
| Relative humidity | Min. = 20 %<br>Max. = 75 %   |

In the chamber for conducted measurements, the following limits were not exceeded during the test:

|                   |                              |
|-------------------|------------------------------|
| Temperature       | Min. = 15 °C<br>Max. = 35 °C |
| Relative humidity | Min. = 20 %<br>Max. = 75 %   |

## Remarks and comments

The tests have been performed by the technical personnel: Álvaro Gutiérrez Naranjo.

Used instrumentation:

| Control No. | Equipment                                | Model                    | Manufacturer           | Next Calibration |
|-------------|------------------------------------------|--------------------------|------------------------|------------------|
| 07760       | DIGITAL MULTIMETER                       | 175                      | FLUKE                  | 2025-11-07       |
| 06615       | ETHERNET TEMPERATURE AND HUMIDITY LOGGER | HWg-STE                  | HW GROUP               | 2026-04-24       |
| 06609       | ETHERNET TEMPERATURE AND HUMIDITY LOGGER | HWg-STE                  | HW GROUP               | 2026-04-21       |
| 04953       | HIGH PASS FILTER 1.1-8GHz                | WHK10-990-1100-8000-40SS | WAINWRIGHT INSTRUMENTS | 2026-02-14       |
| 07193       | MULTI-DEVICE CONTROLLER                  | CO3000                   | INNCO                  | N/A              |
| 06142       | PRE-AMPLIFIER G>38dB 30MHz-6GHz          | BLNA 0360-01N            | BONN ELEKTRONIK        | 2025-07-25       |
| 06791       | SEMIANECHOIC ABSORBER LINED CHAMBER IV   | FACT 3 200 STP           | ETS LINDGREN           | N/A              |
| 00242       | ACTIVE LOOP ANTENNA 9 KHZ-30 MHz         | 11966A                   | HEWLETT PACKARD        | 2027-08-06       |
| 06143       | HYBRID BILOG ANTENNA 30MHz-6GHz          | 3142E                    | ETS LINDGREN           | 2027-01-22       |
| 06144       | PRE-AMPLIFIER G>40dB 10MHz-6GHz          | BLNA 0160-01N            | BONN ELEKTRONIK        | 2025-07-22       |
| 02942       | EMI TEST RECEIVER 20Hz-40GHz             | ESU40                    | ROHDE AND SCHWARZ      | 2026-02-22       |
| 04848       | SOFTWARE FOR EMC/RF TESTING              | EMC32                    | ROHDE AND SCHWARZ      | N/A              |
| 06794       | SHIELDED ROOM                            | S101                     | ETS LINDGREN           | N/A              |
| 06611       | TEMPERATURE AND HUMIDITY PROBE           | HWg-STE                  | HW GROUP               | 2026-04-21       |
| 07794       | SIGNAL AND SPECTRUM ANALYZER 10Hz-40GHz  | FSV40                    | ROHDE AND SCHWARZ      | 2027-06-10       |
| 08002       | TEMPERATURE CHAMBER MK56 BINDER          | MK 56                    | BINDER                 | 2026-02-12       |
| 00922       | DC POWER SUPPLY                          | NGPE 40/40               | ROHDE AND SCHWARZ      | N/A              |

## Testing verdicts

|                |     |
|----------------|-----|
| Fail           | F   |
| Inconclusive   | I   |
| Not applicable | N/A |
| Not measured   | N/M |
| Pass           | P   |

## Summary

### Appendix A

| FCC PART 15 PARAGRAPH / RSS-210                                                                                               |         |        |
|-------------------------------------------------------------------------------------------------------------------------------|---------|--------|
| Requirement – Test case                                                                                                       | Verdict | Remark |
| FCC 15.225 (a) / RSS-210 B.6 (a)(i) Field strength of emissions within the band 13.553 MHz -13.567 MHz                        | P       |        |
| FCC 15.225 (b) / RSS-210 B.6 (a)(ii) Field strength of emissions within the band 13.410 - 13.553 MHz and 13.567 – 13.710 MHz  | P       |        |
| FCC 15.225 (c) / RSS-210 B.6 (a)(iii) Field strength of emissions within the band 13.110 - 13.410 MHz and 13.710 – 14.010 MHz | P       |        |
| FCC 15.225 (d) / RSS-210 B.6 (a)(iv) Field strength of emissions outside of the band 13.110 MHz -14.010 MHz                   | P       |        |
| FCC 15.225 (e) / RSS-210 B.6 (b) Frequency tolerance of the carrier signal                                                    | P       |        |
| <u>Supplementary information and remarks:</u><br>None.                                                                        |         |        |

## Appendix A: Test results

|                                                                                                                                                                                                                         |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| TEST CONDITIONS .....                                                                                                                                                                                                   | 12 |
| TEST SETUP .....                                                                                                                                                                                                        | 13 |
| TEST CASES DETAILS .....                                                                                                                                                                                                | 15 |
| <i>Occupied Bandwidth</i> .....                                                                                                                                                                                         | 15 |
| <i>FCC 15.225 (a) (b) (c) / RSS-210 B.6 (a) (b) (c). Field strength of emissions within the band 13.553 -13.567 MHz, 13.410 - 13.553 MHz and 13.567 - 13.710 MHz, 13.110 - 13.410 MHz and 13.710 - 14.010 MHz</i> ..... | 16 |
| <i>15.225 (d) / RSS-210 B.6 (a) (iv) [RSE] FCC 15.225 (d) / RSS-210 B.6 (a)(iv) Field Strength of Emissions outside of the band 13.110 MHz - 14.010 MHz</i> .....                                                       | 19 |
| <i>FCC 15.225 (e) / RSS-210 (b) Freq Tolerance FCC 15.225 (e) / RSS-210 B.6 (b) Frequency Tolerance of the Carrier Signal</i> .....                                                                                     | 22 |

# TEST CONDITIONS

---

(\*): Data provided by the client.

POWER SUPPLY (\*):

Vnominal: 12 Vdc  
Vminimum: 10.2 Vdc  
Vmaximum: 13.8 Vdc  
Type of Power Supply: DC (Lithium-ion polymer rechargeable battery).

ANTENNA (\*):

Type of Antenna: Integral (PCB Loop).  
Maximum Declared Antenna Gain: N/A.

TEST FREQUENCIES (\*):

Nominal Operating Frequency: 13.56 MHz (NFC)  
Modulation: ASK

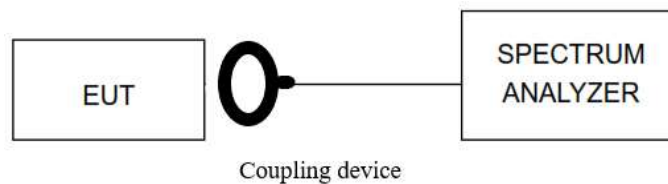
## TEST SETUP

---

### CONDUCTED MEASUREMENTS

The equipment under test was set up in a shielded room and it is directly connected to the spectrum analyzer.

For frequency stability test the EUT was placed inside a climatic chamber and connected to a frequency meter using a low loss cable. An external DC power supply was connected to the EUT for voltage variation test.



For extreme test conditions the EUT was placed inside a climatic chamber and connected to a spectrum analyzer using a low-loss cable and a coupling device. An external DC power supply was connected to the EUT for voltage variation test.

### RADIATED MEASUREMENTS

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Loop antenna for the range between 9 kHz to 30 MHz and Bilog antenna for the range between 30 MHz to 200 MHz) is situated at a distance of 3 m.

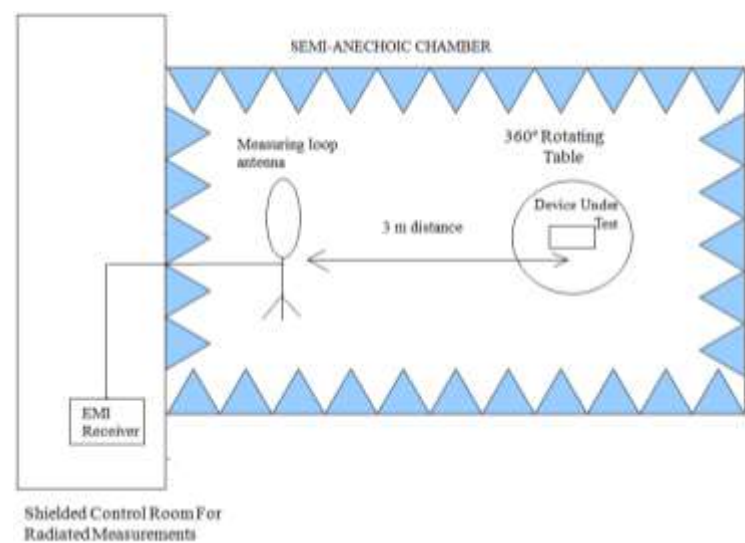
For radiated emissions in the range 9 kHz to 30 MHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 40 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and in the range between 30 MHz and 200 MHz the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

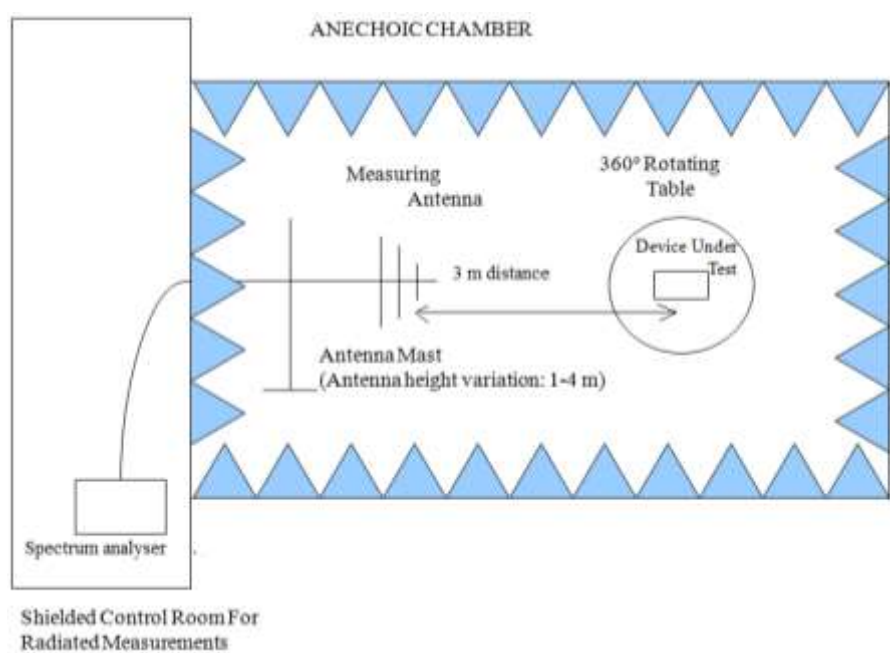
In the range between 9 kHz and 30 MHz the measurements were made in the three different orientation planes of the loop antenna to determine the maximum received field.

In the range between 30 MHz and 200 MHz the measurements were made in both horizontal and vertical planes of polarization.

Radiated measurements setup 9 kHz to 30 MHz:



Radiated measurements setup 30 MHz to 200 MHz:



TEST CASES DETAILS

Occupied Bandwidth

Results

99 % Occupied Bandwidth and 20 dB Bandwidth.

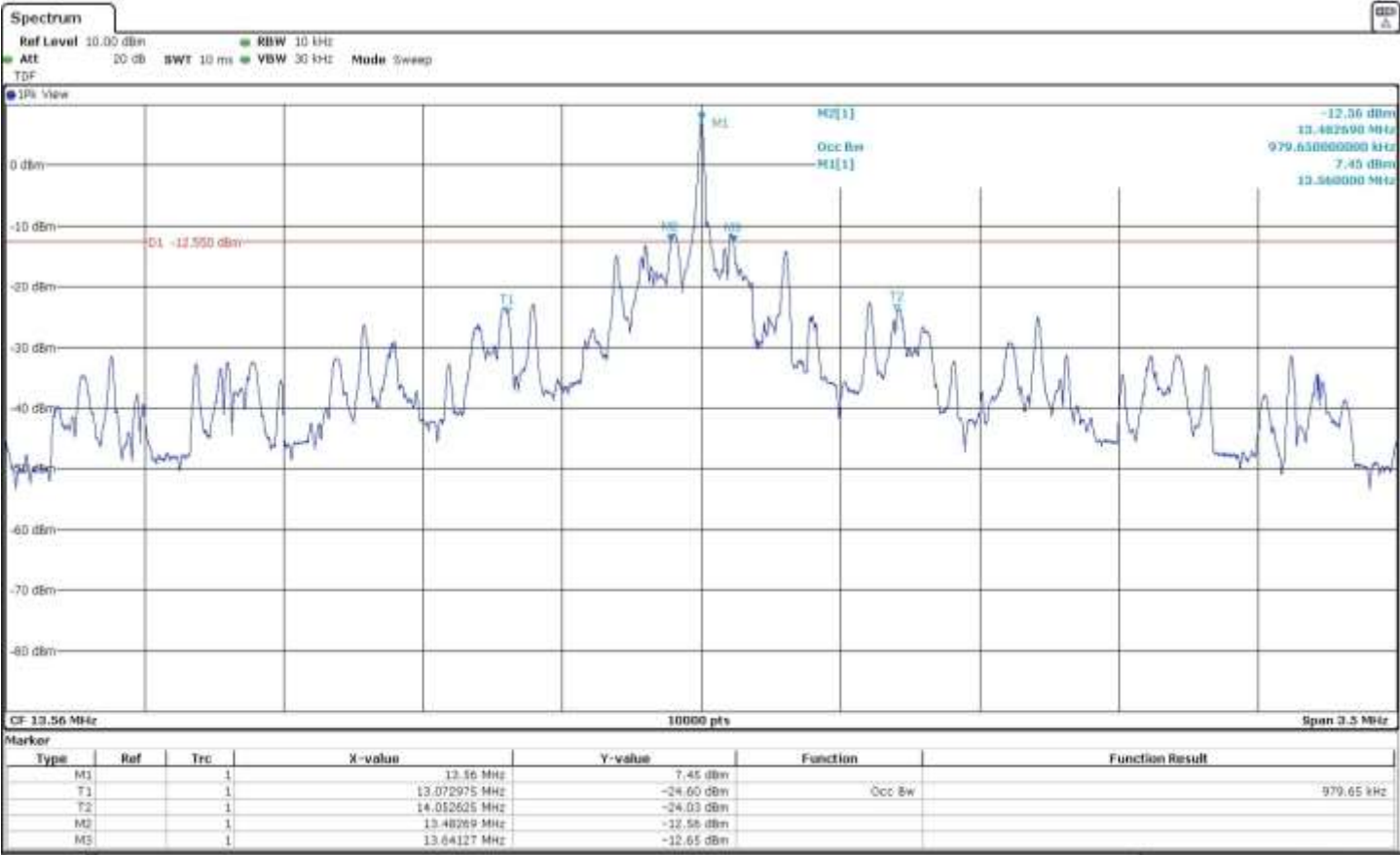
Modulation: ASK

| Freq (MHz) | 99% Occupied Bandwidth (kHz) | 20dBw (kHz) |
|------------|------------------------------|-------------|
| 13.56      | 979.65                       | 158.58      |

Attachments

Modulation = ASK    Frequency MHz = 13.56

Images:



# FCC 15.225 (a) (b) (c) / RSS-210 B.6 (a) (b) (c). Field strength of emissions within the band 13.553 -13.567 MHz, 13.410 - 13.553 MHz and 13.567 - 13.710 MHz, 13.110 - 13.410 MHz and 13.710 - 14.010 MHz

## Specification

- FCC 15.225 (a) / RSS-210 B.6 (a). Field strength of emissions within the band 13.553 - 13.567 MHz**

The field strength of any emissions within the band 13.553 - 13.567 MHz shall not exceed 15,848 microvolts/meter (84 dBμV/m) at 30 meters.

- FCC 15.225 (b) / RSS-210 B.6 (b). Field strength of emissions within the band 13.410 - 13.553 MHz and 13.567 - 13.710 MHz**

Within the bands 13.410-13.553 MHz and 13.567 - 13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter (50.47 dBμV/m) at 30 meters.

- FCC 15.225 (c) / RSS-210 B.6 (c). Field strength of emissions within the band 13.110 - 13.410 MHz and 13.710 - 14.010 MHz**

Modulation: ASK

## Results

### - Band 13.553 -13.567 MHz

| Frequency (MHz) | Maximum field strength (dBμV/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dBμV/m) extrapolated to 30 m (40 dB/decade) |
|-----------------|-----------------------------------------------------------------------|---------------------------------------------------------------------|
| 13.560          | 20.60                                                                 | -19.40                                                              |

### - Band 13.410 - 13.553 MHz

| Frequency (MHz) | Maximum field strength (dBμV/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dBμV/m) extrapolated to 30 m (40 dB/decade) |
|-----------------|-----------------------------------------------------------------------|---------------------------------------------------------------------|
| 13.454          | 7.77                                                                  | -32.23                                                              |

### - Band 13.567-13.710 MHz

| Frequency (MHz) | Maximum field strength (dBμV/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dBμV/m) extrapolated to 30 m (40 dB/decade) |
|-----------------|-----------------------------------------------------------------------|---------------------------------------------------------------------|
| 13.666          | 0.18                                                                  | -41.20                                                              |

- Band 13.110-13.410 MHz

| Frequency (MHz) | Maximum field strength (dBµV/m)<br>measured at 3 m (quasi-peak<br>detector) | Maximum field strength (dBµV/m)<br>extrapolated to 30 m (40 dB/decade) |
|-----------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|
| 13.349          | -12.09                                                                      | -52.09                                                                 |

- Band 13.710-14.010 MHz

| Frequency (MHz) | Maximum field strength (dBµV/m)<br>measured at 3 m (quasi-peak<br>detector) | Maximum field strength (dBµV/m)<br>extrapolated to 30 m (40 dB/decade) |
|-----------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|
| 13.772          | -12.32                                                                      | -52.32                                                                 |

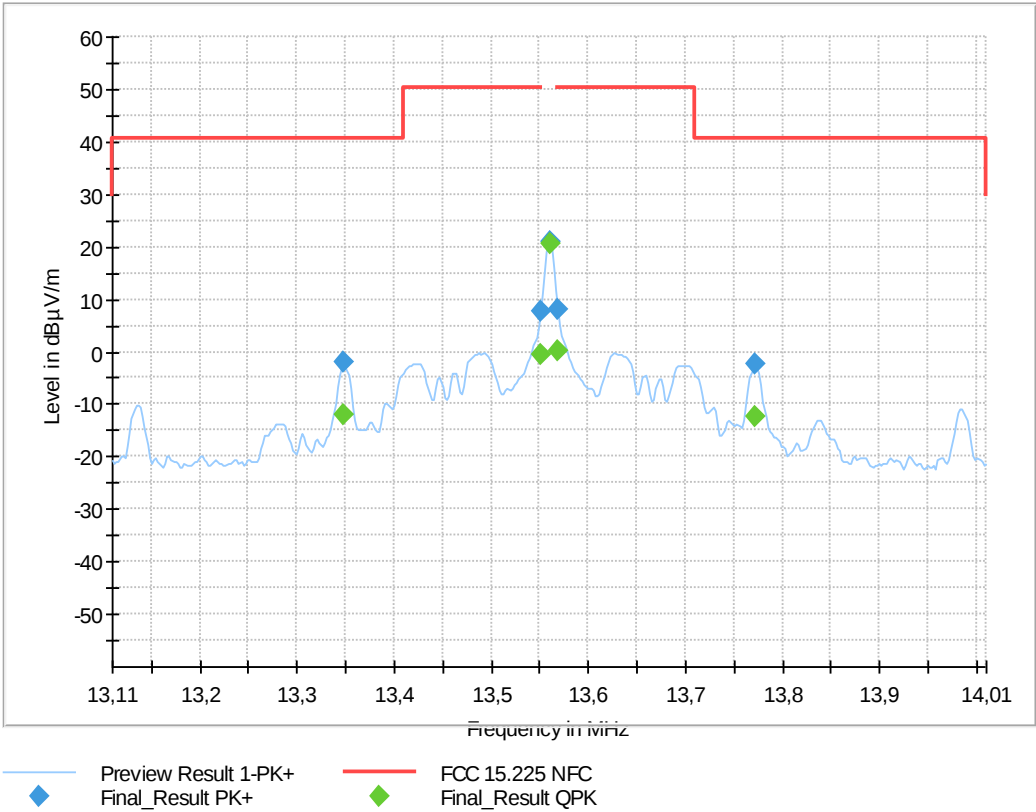
**Verdict**

Pass

Attachments

Modulation = ASK    Frequency MHz = 13.56

Images:



Spectrum analyzer parameters:

| Subrange         | Step Size | Detectors | IF BW | Meas. Time | Preamp |
|------------------|-----------|-----------|-------|------------|--------|
| 150 kHz - 30 MHz | 2,25 kHz  | PK+       | 9 kHz | 0,1 s      | 0 dB   |

## 15.225 (d) / RSS-210 B.6 (a) (iv) [RSE] FCC 15.225 (d) / RSS-210 B.6 (a)(iv) Field Strength of Emissions outside of the band 13.110 MHz - 14.010 MHz

### Limits

Field strength of any emissions appearing outside of the band 13.110 MHz - 14.010 MHz band shall not exceed the general radiated emission limits in 15.209/RSS-Gen:

| Frequency Range (MHz) | Field strength (μV/m) | Field strength (dBμV/m) | Measurement distance (m) |
|-----------------------|-----------------------|-------------------------|--------------------------|
| 0.009-0.490           | 2400/F(kHz)           | -                       | 300                      |
| 0.490-1.705           | 24000/F(kHz)          | -                       | 30                       |
| 1.705 - 30.0          | 30                    | 29.54                   | 30                       |
| 30 - 88               | 100                   | 40                      | 3                        |
| 88 - 216              | 150                   | 43.5                    | 3                        |
| 216 - 960             | 200                   | 46                      | 3                        |
| Above 960             | 500                   | 54                      | 3                        |

Modulation: ASK

### Results

| Freq (MHz) | Freq Rng (MHz) | Pol            | QuasiPeak (dBμV/m) | Freq (MHz) |
|------------|----------------|----------------|--------------------|------------|
| 13.56      | [0.009, 30]    | Horizontal     | 7.97               | 13.560000  |
|            |                | Vertical Front | -12.09             | 13.348500  |
|            |                |                | -12.32             | 13.771500  |
|            |                |                | -0.39              | 13.551000  |
|            |                |                | 0.18               | 13.569000  |
|            |                |                | 20.60              | 13.560000  |
|            |                | Vertical Side  | 17.01              | 13.560000  |
|            | [30, 200]      | V              | 15.73              | 40.166000  |
|            |                |                | 16.65              | 39.894000  |
|            |                |                | 16.84              | 54.038000  |

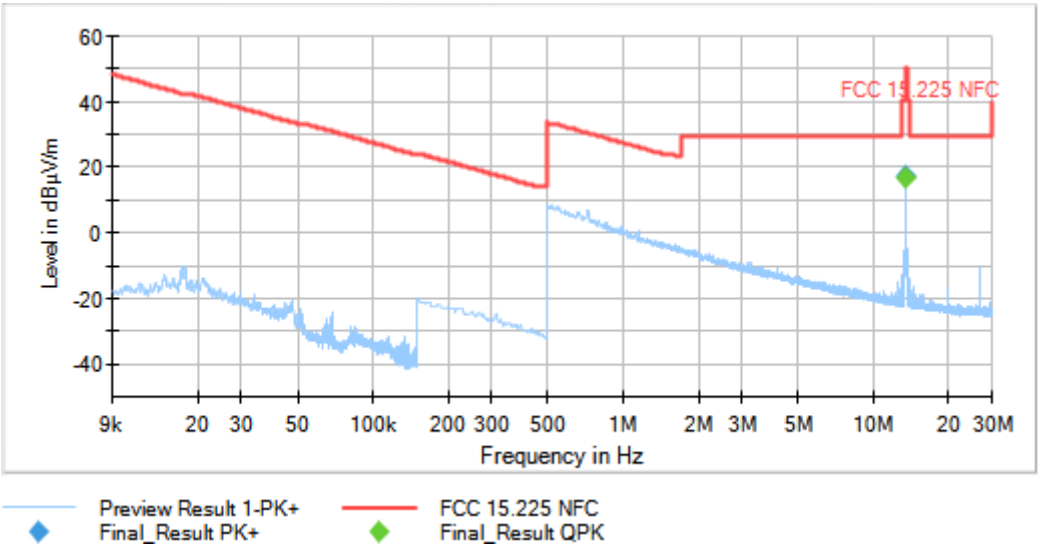
### Verdict

Pass

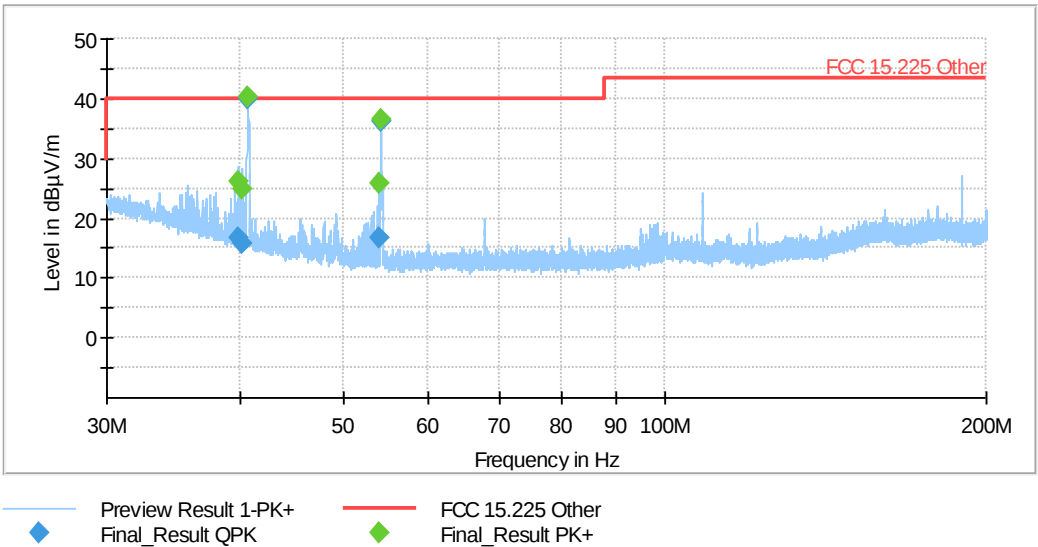


Modulation: ASK                      Frequency MHz = 13.56  
Frequency Range MHz = [0.009, 30]    Polarization = Vertical Side

Images:



Modulation = ASK                      Frequency MHz = 13.56  
Frequency Range MHz = [30, 200]



Spectrum analyzer parameters:

| Subrange         | Step Size | Detectors | IF BW   | Meas. Time | Preamp |
|------------------|-----------|-----------|---------|------------|--------|
| 9 kHz - 150 kHz  | 50 Hz     | PK+       | 200 Hz  | 0.1 s      | 0 dB   |
| 150 kHz - 30 MHz | 2.25 kHz  | PK+       | 9 kHz   | 0.1 s      | 0 dB   |
| 30 MHz - 200 MHz | 8.5 kHz   | PK+       | 100 kHz | 1 s        | 30 dB  |

## FCC 15.225 (e) / RSS-210 (b) Freq Tolerance FCC 15.225 (e) / RSS-210 B.6 (b) Frequency Tolerance of the Carrier Signal

### Limits

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees 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 degrees C. For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

Modulation: ASK

### Results

| Freq (MHz) | Voltage (V) | T (°C) | Freq Error (kHz) | Freq Error (%) |
|------------|-------------|--------|------------------|----------------|
| 13.56      | Vnom        | 50     | -0.017150        | -0.000126      |
| 13.56      | Vnom        | 40     | -0.059150        | -0.000436      |
| 13.56      | Vnom        | 30     | -0.123650        | -0.000912      |
| 13.56      | Vnom        | 20     | -0.191150        | -0.001410      |
| 13.56      | Vnom        | 10     | -0.225650        | -0.001664      |
| 13.56      | Vnom        | 0      | -0.258650        | -0.001907      |
| 13.56      | Vnom        | -10    | -0.261650        | -0.001930      |
| 13.56      | Vnom        | -20    | -0.219750        | -0.001621      |
| 13.56      | Vmax        | 20     | -0.063650        | -0.000469      |
| 13.56      | Vmin        | 20     | -0.044150        | -0.000326      |

### Verdict

Pass