

ISED CABid: ES1909

Test Report No:
 NIE: 71391RRF.005

Test Report

USA FCC Part 15.225, 15.209

CANADA RSS-210, RSS-Gen

| | |
|---|---|
| (*) Identification of item tested | AElement Fusion Electronic Lock Series including all mechanical variants |
| (*) Trademark | SALTO |
| (*) Model and/or type reference | AF0M Type reference: E1723 |
| Other identification of the product | HW version: 1.0 SW version: 0177 (Control FW) + 0184 (BLE FW) FCC ID: UKCAF0M Contains FCC ID: QOQBGM111 IC ID: 10088A-AF0M Contains IC ID: 5123A-BGM111 |
| (*) Features | Contains a certified Bluetooth module |
| Applicant | SALTO SYSTEMS, S.L. Arkotz 9, Polígono Lanbarren, 20180, Oiartzun, Guipúzcoa, Spain |
| Test method requested, standard | USA FCC Part 15.225 (10-1-20 Edition): Operation within the band 13.110 -14.010. USA FCC Part 15.209 (10-1-20 Edition): Radiated emission limits, general requirements. CANADA RSS-210 Issue 10 (December 2019). CANADA RSS-Gen Issue 5 (March 2019). ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices. |
| Summary | IN COMPLIANCE |
| Approved by (name / position & signature) | Rafael López EMC Consumer & RF Lab. Manager |
| Date of issue | 2022-06-03 |
| Report template No | FDT08_24 (*) "Data provided by the client" |

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Competences and guarantees

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DEKRA Testing and Certification is a 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, with the appropriate scope of accreditation that covers the performed tests in this report.

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

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General conditions

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2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
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Uncertainty

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

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 is AElement Fusion with RFID Mifare (ISO14443A & ISO15693 standard based) and Bluetooth LE technology.

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.

Usage of samples

Samples undergoing test have been selected by: The client.

- Sample S/01 is composed of the following elements:

| Control Nº | Description | Model | Serial Nº | Reception |
|------------|-----------------|-------|-----------|------------|
| 66902/061 | Electronic Lock | AF0M | 2145373 | 2021/05/11 |

Sample S/01 has undergone the test(s): The Radiated tests indicated in the Appendix A.

- Sample S/02 is composed of the following elements:

| Control Nº | Description | Model | Serial Nº | Reception |
|------------|-----------------|-------|-----------|------------|
| 66902/060 | Electronic Lock | AF0M | 2145372 | 2021/05/11 |

Sample S/02 has undergone the test(s): The Conducted tests indicated in the Appendix A

Test sample description

| | | | | | | | |
|---|-------------------------------------|--|--------------------------|--------------------------|-----------------------------------|--------------------------|--------------------------|
| Ports.....: | Port name and description | Cable | | | | | |
| | | Specified max length [m] | Attached during test | Shielded | Coupled to patient ⁽³⁾ | | |
| | - | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | |
| | - | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | |
| Supplementary information to the ports.....: | - | | | | | | |
| Rated power supply | Voltage and Frequency | | Reference poles | | | | |
| | | | L1 | L2 | L3 | N | PE |
| | <input type="checkbox"/> | AC: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input checked="" type="checkbox"/> | DC: 4.5 Vdc (3 x 1.5 V Internal batteries) | | | | | |
| Rated Power | - | | | | | | |
| Clock frequencies | 27.12 MHz | | | | | | |
| Other parameters.....: | - | | | | | | |
| Software version | 0177 (Control FW) + 0184 (BLE FW) | | | | | | |
| Hardware version.....: | 1.0 | | | | | | |
| Dimensions in cm (W x H x D)....: | Reader: 4.7 x 6.7 x 1.75 cm | | | | | | |
| Mounting position.....: | <input type="checkbox"/> | Table top equipment | | | | | |
| | <input type="checkbox"/> | Wall/Ceiling mounted equipment | | | | | |
| | <input type="checkbox"/> | Floor standing equipment | | | | | |
| | <input type="checkbox"/> | Hand-held equipment | | | | | |
| | <input checked="" type="checkbox"/> | Other: Door mounting | | | | | |
| Modules/parts | Module/parts of test item | | Type | Manufacturer | | | |
| | Bluetooth LE certified module | | BLE Module | Silicon Labs | | | |
| | - | | | | | | |
| Accessories (not part of the test item).....: | Description | | Type | Manufacturer | | | |
| | - | | | | | | |
| | - | | | | | | |
| Documents as provided by the applicant.....: | Description | | File name | Issue date | | | |
| | User manual | | | | | | |
| | FW Explanation | | | | | | |

⁽³⁾ Only for Medical Equipment

Identification of the client

SALTO SYSTEMS, S.L.
 Arkotz 9, Polígono Lanbarren, 20180, Oiartzun, Guipúzcoa, Spain

Testing period and place

| | |
|---------------|--|
| Test Location | DEKRA Testing and Certification S.A.U. |
| Date (start) | 2022-03-05 |
| Date (finish) | 2022-06-07 |

Document history

| Report number | Date | Description |
|---------------|------------|----------------|
| 71391RRF.005 | 2022-06-03 | First release. |

Environmental conditions

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

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

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

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

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

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

Remarks and comments

The tests have been performed by the technical personnel: Miguel Manuel López and Rafael Fernandez.

Used instrumentation:

Conducted Measurements:

| | Last Calibration | Due Calibration |
|--|------------------|-----------------|
| 1. Shielded Room ETS LINDGREN S101 | N/A | N/A |
| 2. Climatic chamber ACS ANGELANTONI DM600 C | 2022/04 | 2023/04 |
| 3. DC Power Supply 150V/22A Agilent Technologies N8740A | N.A. | N.A. |
| 4. Signal and Spectrum Analyzer 10Hz-40GHz Rohde and Schwarz FSV40 | 2020/05 | 2024/05 |
| 5. Digital Multimeter FLUKE 175 | 2021/12 | 2022/12 |

Radiated Measurements:

| | Last Calibration | Due Calibration |
|---|------------------|-----------------|
| 1. Semianechoic Absorber Lined Chamber ETS LINDGREN FACT 3 200 STP | N/A | N/A |
| 2. Shielded Room ETS LINDGREN S101 | N/A | N/A |
| 3. Active Loop Antenna HEWLETT PACKARD 11966A | 2020/07 | 2022/07 |
| 4. EMI Test Receiver 9kHz-7GHz ROHDE AND SCHWARZ ESR7 | 2020/12 | 2022/12 |
| 5. AC Power Supply 135/270 V, 5/10/20/40 A ELGAR CS-AC35(351SL) | 2019/09 | 2022/09 |
| 6. Digital Multimeter FLUKE 179 | 2021/10 | 2022/10 |
| 7. Biconical/Log Antenna 30 MHz - 6 GHz ETS LINDGREN 3142E | 2020/04 | 2023/04 |
| 8. RF Pre-amplifier, 40 dB ,10MHz-6 GHz BONN ELEKTRONIK BLMA 0160-01N | 2022/04 | 2023/04 |

Testing verdicts

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

Summary

| FCC PART 15 PARAGRAPH / RSS-247 | | | |
|---|---|---------|--------|
| 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> | | | |
| None. | | | |

Appendix A: Test results

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TEST CONDITIONS

(*) Data provided by the Applicant.

POWER SUPPLY (*):

| | |
|-----------------------|--------------|
| Vnominal: | 4.5 Vdc |
| Vminimum: | 3.2 Vdc |
| Vmaximum: | 5.0 Vdc |
| Type of Power Supply: | External DC. |

ANTENNA (*):

| | |
|--------------------------------|----------------|
| Type of Antenna: | Integral, PCB. |
| Maximum Declared Antenna Gain: | 0 dBi |

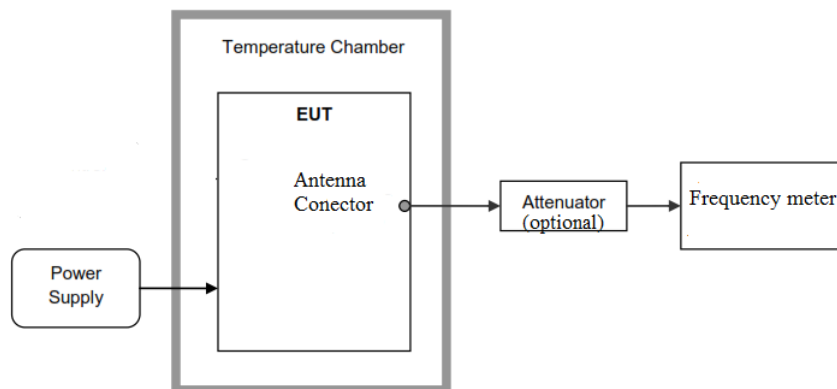
TEST FREQUENCY (*):

Nominal Operating Frequency: 13.56 MHz

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.



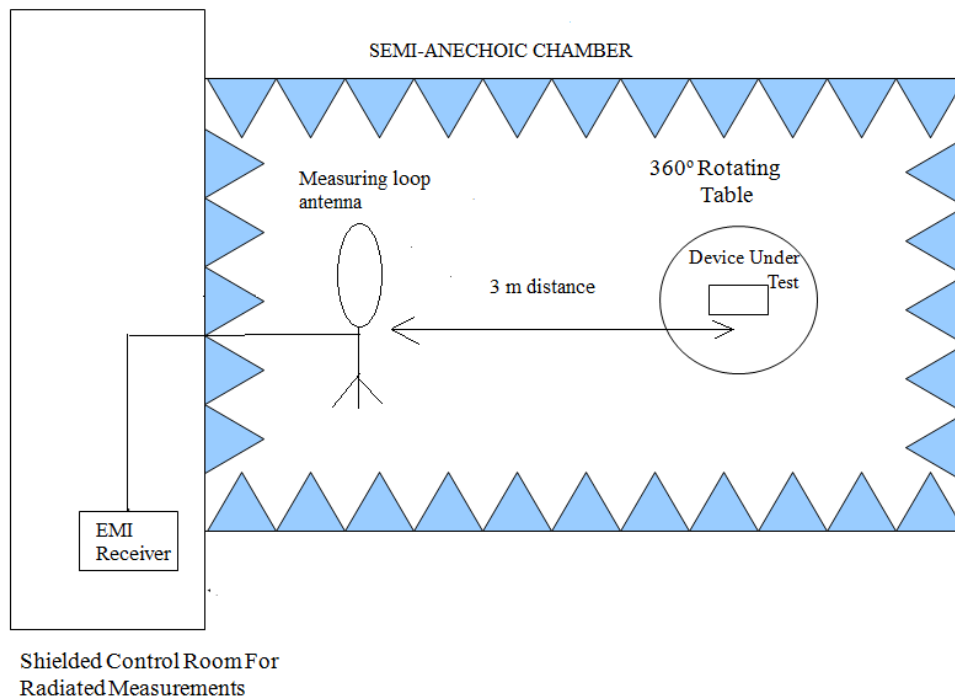
RADIATED MEASUREMENTS:

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.

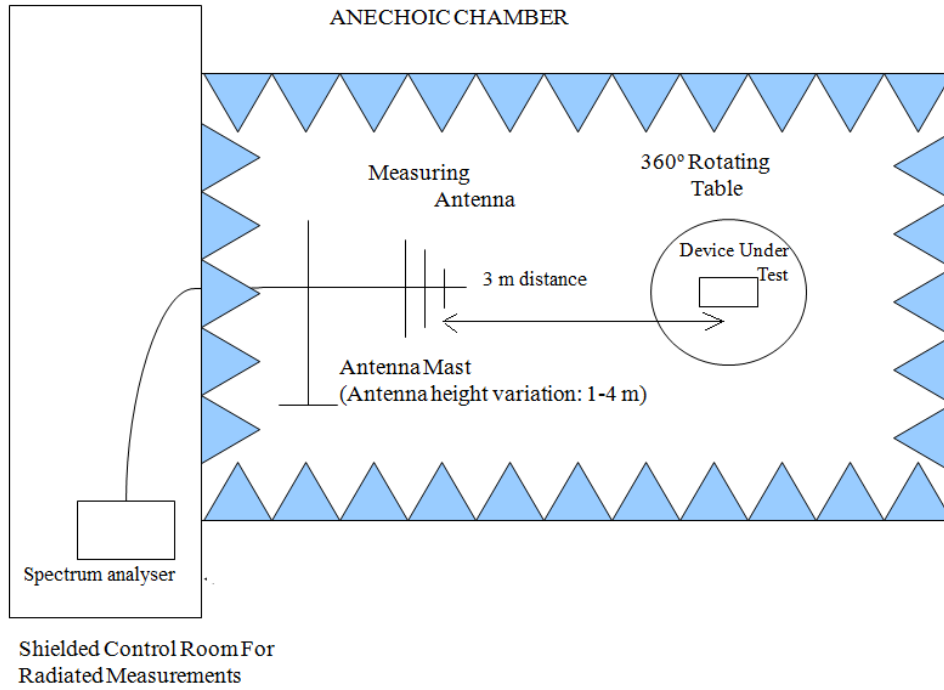
For radiated emissions in the range 9 kHz to 30 MHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 40 dB per decade is used to normalize the measured data for determining compliance.

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:



Occupied Bandwidth

RESULTS:

99 % Occupied Bandwidth and 20 dB Bandwidth.

- **NFC mode ISO 14443A:**

| Operation mode | 99% Occupied Bandwidth (kHz) | 20 dB Bandwidth (kHz) |
|-------------------------------|------------------------------|-----------------------|
| NFC 13.56 MHz mode ISO 14443A | 856.65 | 223.80 |
| Measurement uncertainty (kHz) | <±1.24 | |

- **NFC mode ISO 15693:**

| Operation mode | 99% Occupied Bandwidth (kHz) | 20 dB Bandwidth (kHz) |
|-------------------------------|------------------------------|-----------------------|
| NFC 13.56 MHz mode ISO 15693 | 52.12 | 2.65 |
| Measurement uncertainty (kHz) | <±0.12 | |

Verdict: PASS

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

SPECIFICATION:

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.

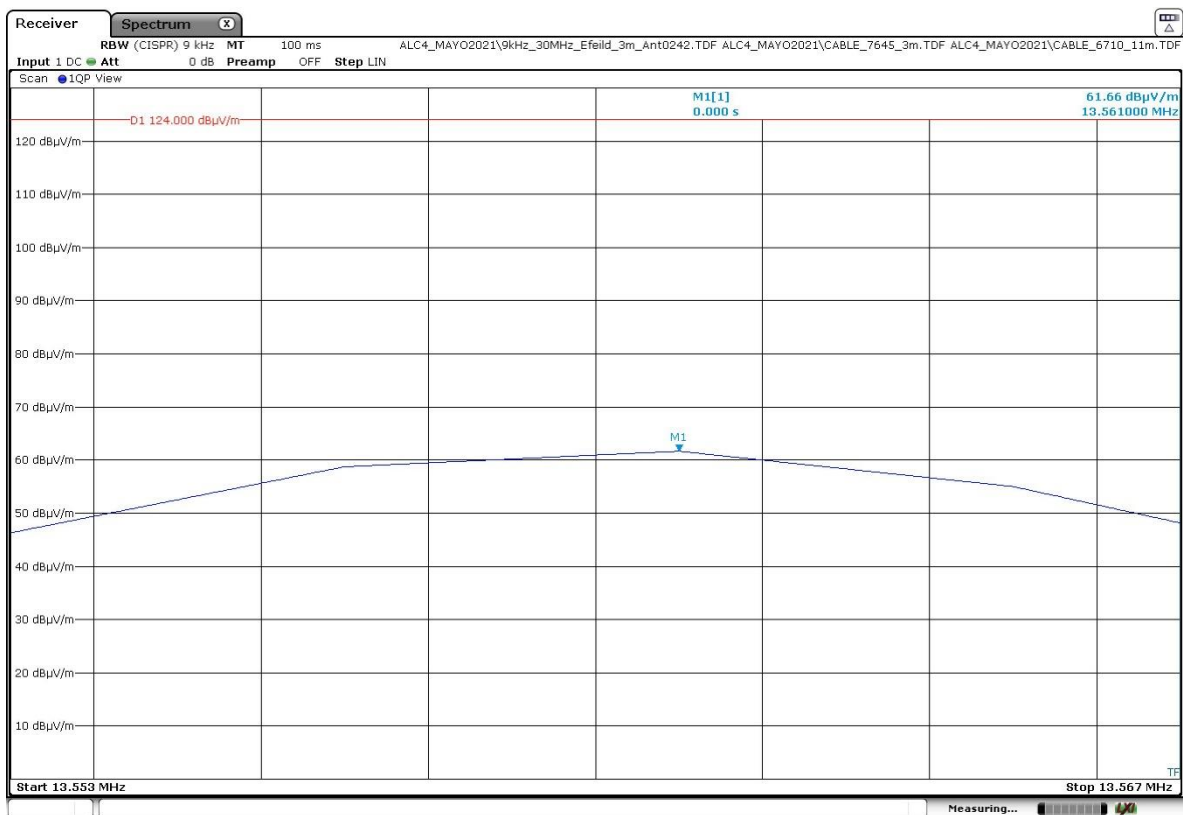
RESULTS:

Measurement distance: 3 meters.

- **NFC mode ISO 14443A:**

The maximum field strength of fundamental emission:

| 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) |
|------------------------------|---|---|
| 13.561 | 61.66 | 21.66 |
| Measurement uncertainty (dB) | ± 3.44 | |



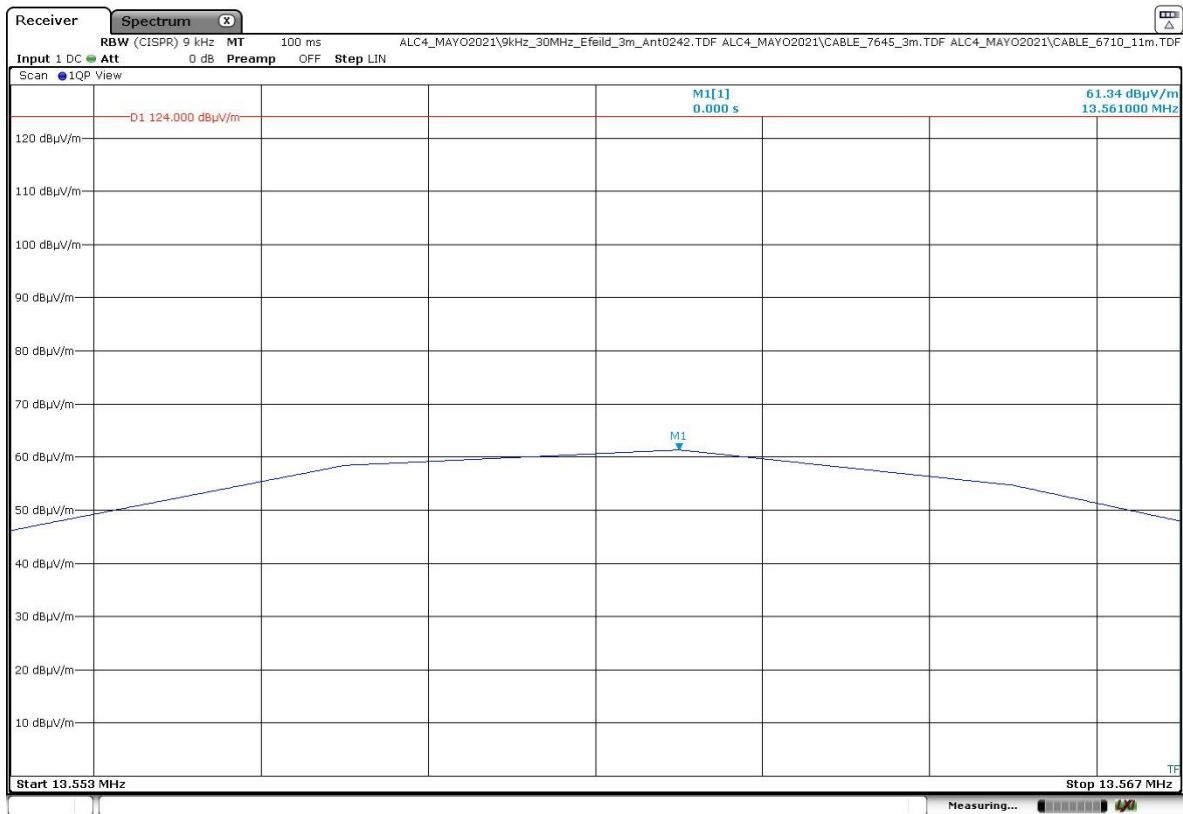
The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- **NFC mode ISO 15693:**

The maximum field strength of fundamental emission:

| Frequency (MHz) | Maximum field strength (dB μ V/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dB μ V/m) extrapolated to 30 m (40 dB/decade) |
|------------------------------|---|---|
| 13.561 | 61.34 | 12.34 |
| Measurement uncertainty (dB) | ± 3.44 | |



The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

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

SPECIFICATION:

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.

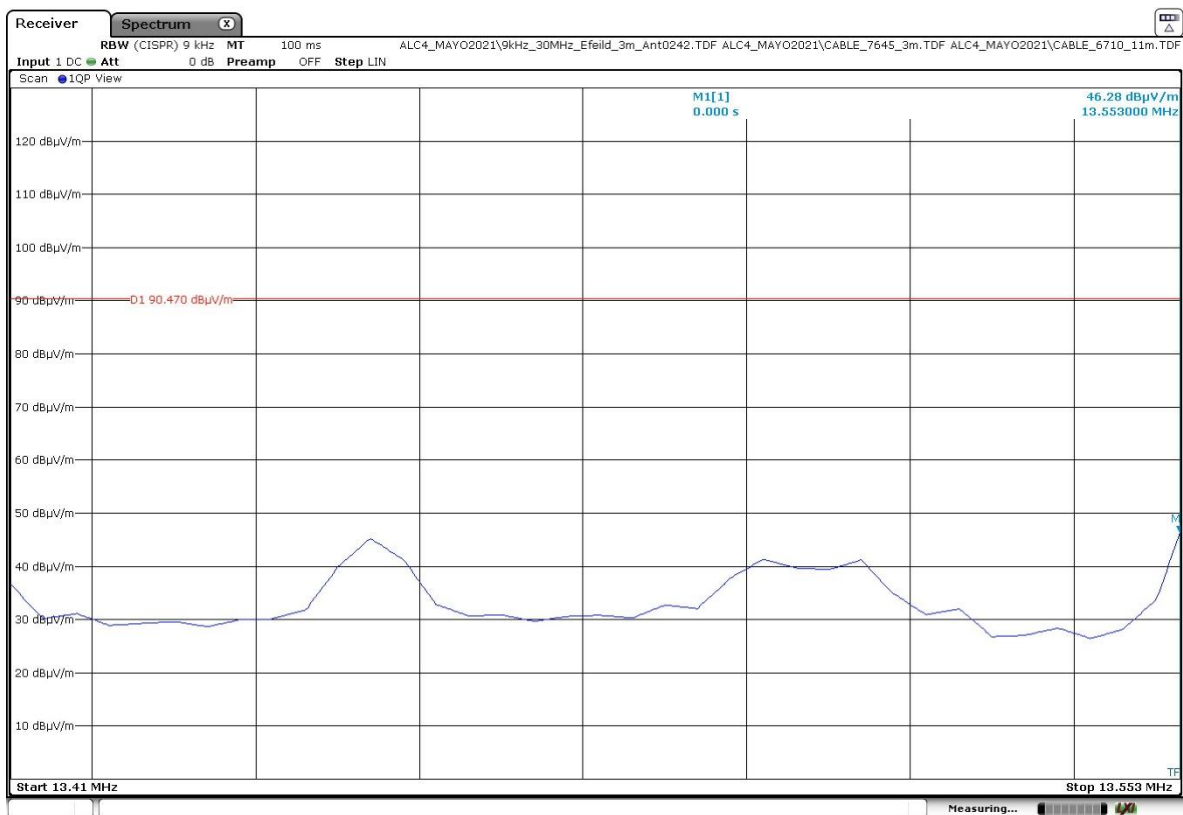
RESULTS:

Measurement distance: 3 meters.

- Band 13.410 - 13.553 MHz

- **NFC mode ISO 14443A:**

| 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) |
|------------------------------|---|---|
| 13.553 | 46.28 | 6.28 |
| Measurement uncertainty (dB) | <±3.44 | |

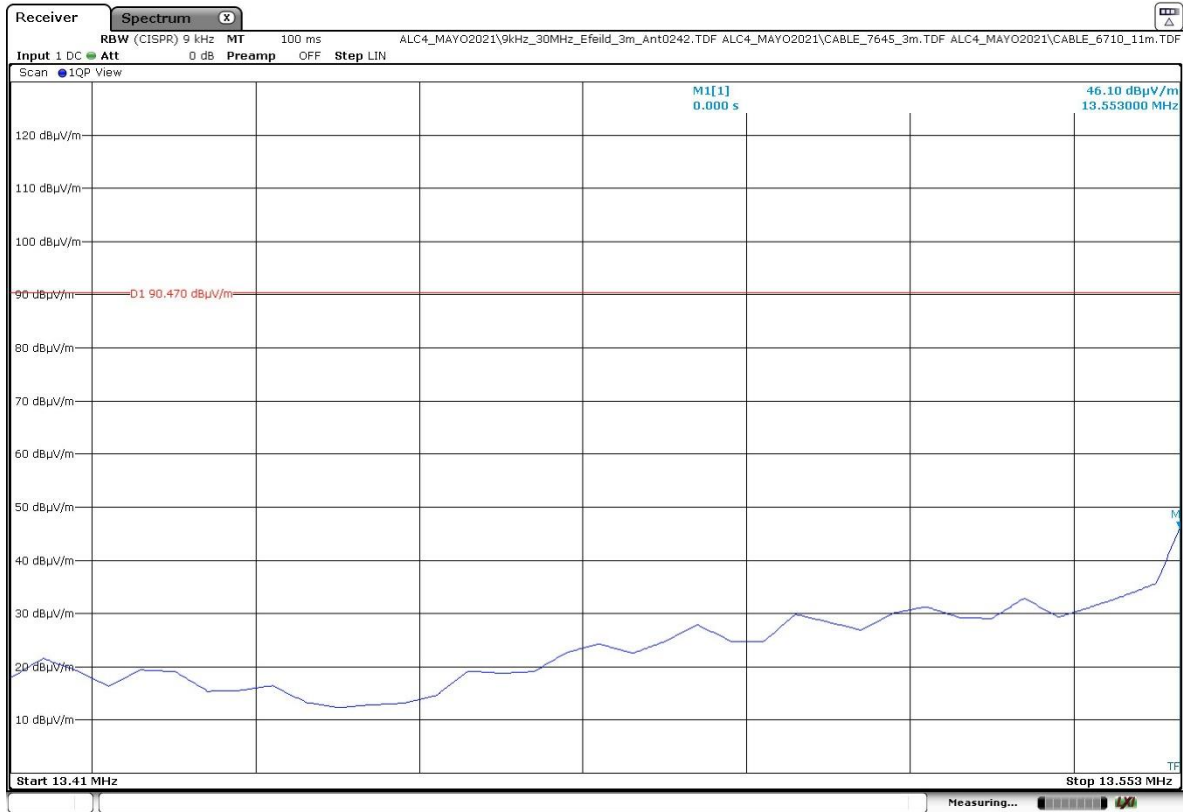


The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- NFC mode ISO 15693:**

| Frequency (MHz) | Maximum field strength (dB μ V/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dB μ V/m) extrapolated to 30 m (40 dB/decade) |
|------------------------------|---|---|
| 13.553 | 46.10 | 6.10 |
| Measurement uncertainty (dB) | ± 3.44 | |



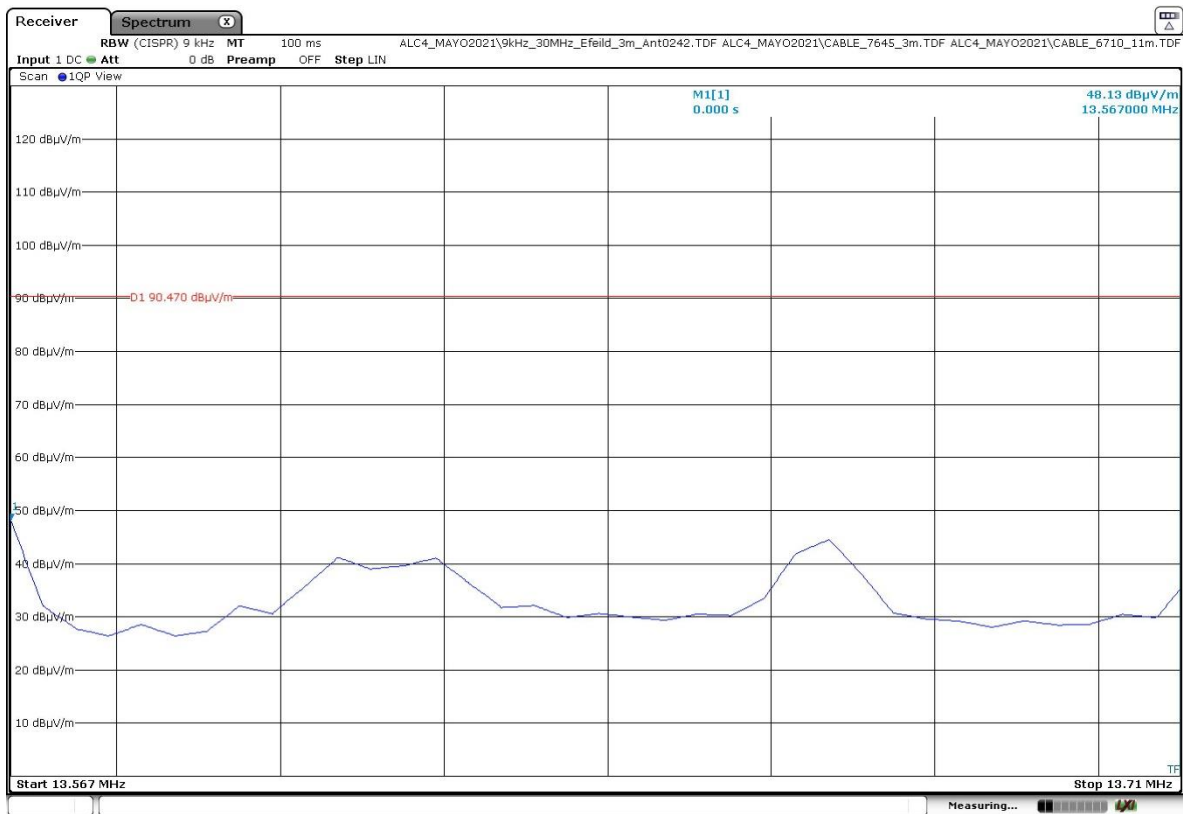
The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- Band 13.567-13.710 MHz

- **NFC mode ISO 14443A:**

| 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) |
|------------------------------|---|---|
| 13.567 | 48.13 | 8.13 |
| Measurement uncertainty (dB) | <±3.44 | |

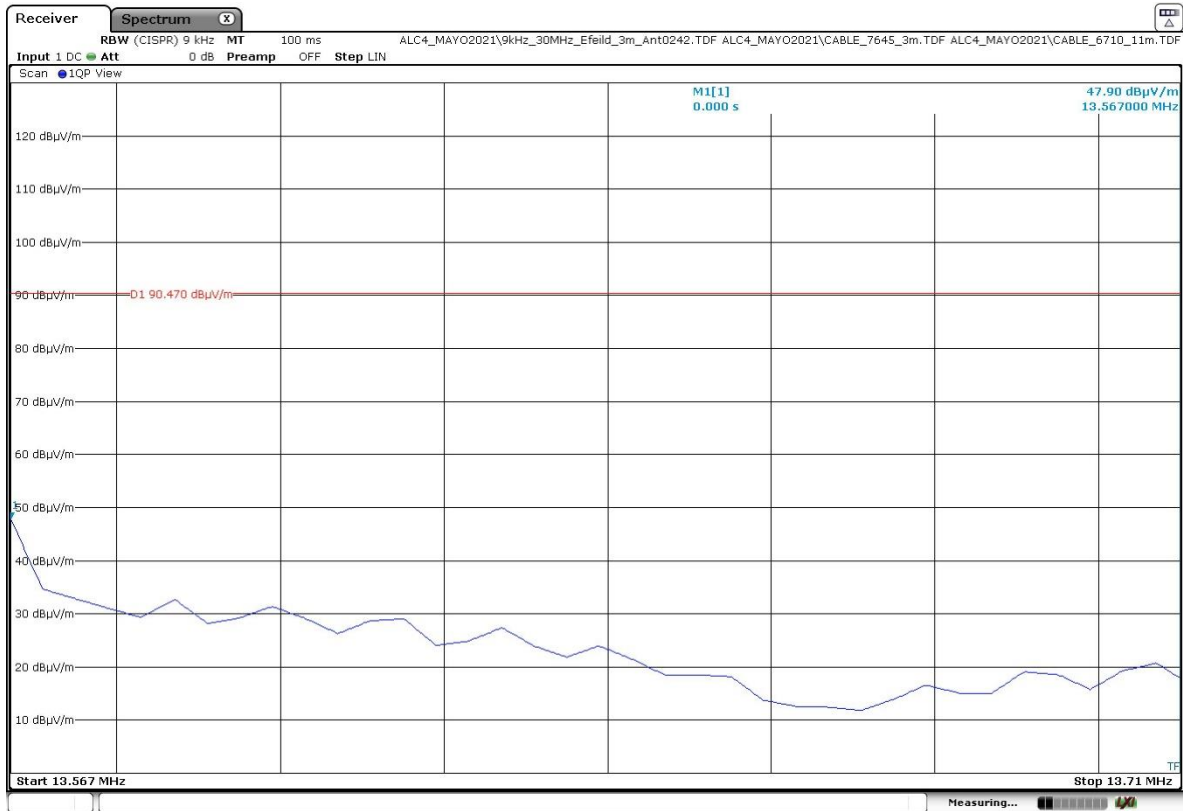


The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- NFC mode ISO 15693:**

| 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) |
|------------------------------|---|---|
| 13.567 | 47.90 | 7.90 |
| Measurement uncertainty (dB) | <±3.44 | |



The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

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

SPECIFICATION:

Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz, the field strength of any emissions shall not exceed 106 microvolts/meter (40.51 dBµV/m) at 30 meters.

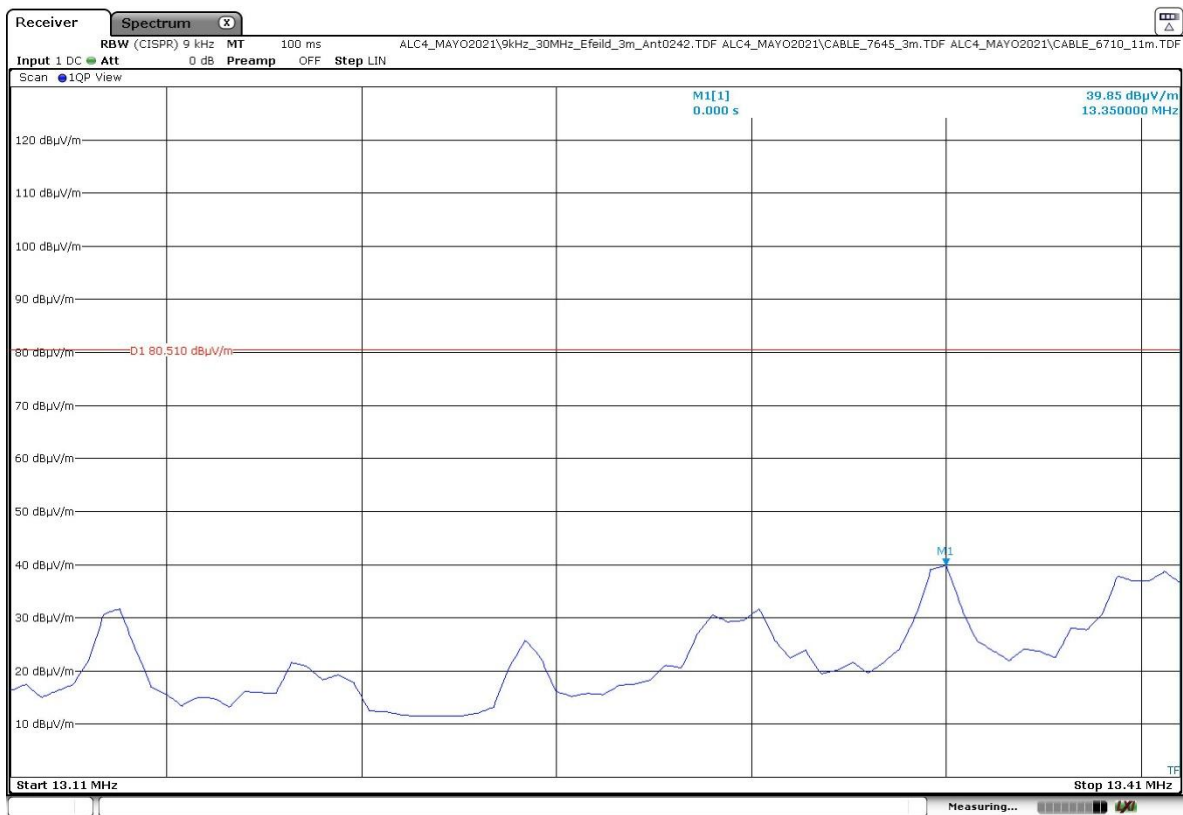
RESULTS:

Measurement distance: 3 meters.

- Band 13.110-13.410 MHz

- **NFC mode ISO 14443A:**

| 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) |
|------------------------------|---|---|
| 13.350 | 39.85 | -0.15 |
| Measurement uncertainty (dB) | <±3.44 | |

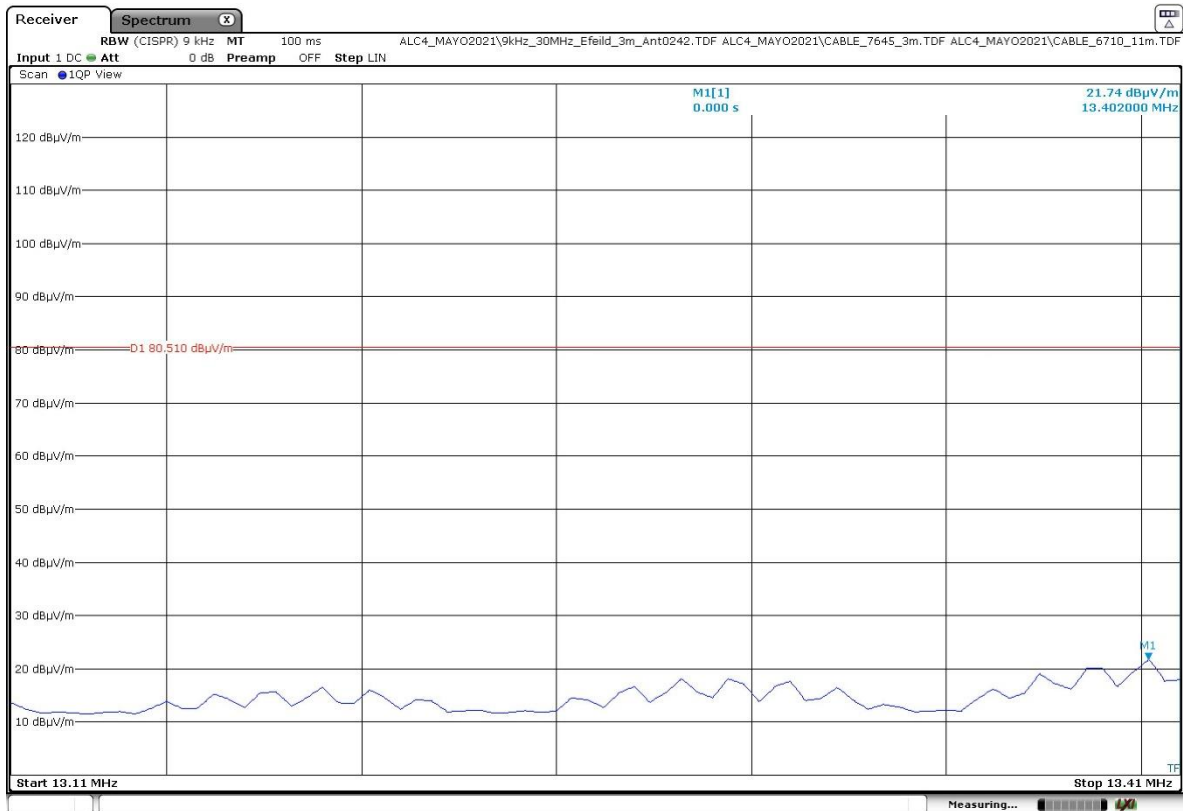


The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- **NFC mode ISO 15693:**

| 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) |
|------------------------------|---|---|
| 13.402 | 21.74 | -18.26 |
| Measurement uncertainty (dB) | <±3.44 | |



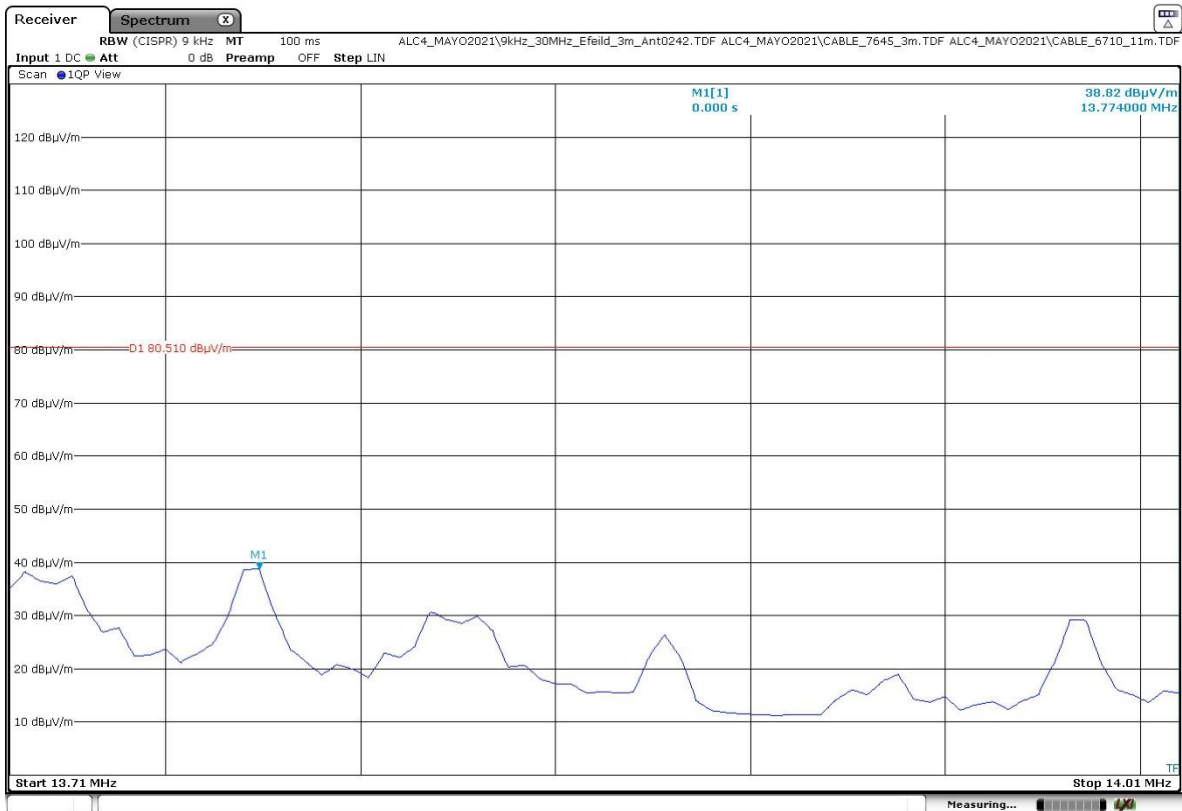
The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- Band 13.710-14.010 MHz

- **NFC mode ISO 14443A:**

| 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) |
|------------------------------|---|---|
| 13.774 | 38.82 | -1.18 |
| Measurement uncertainty (dB) | ±3.44 | |

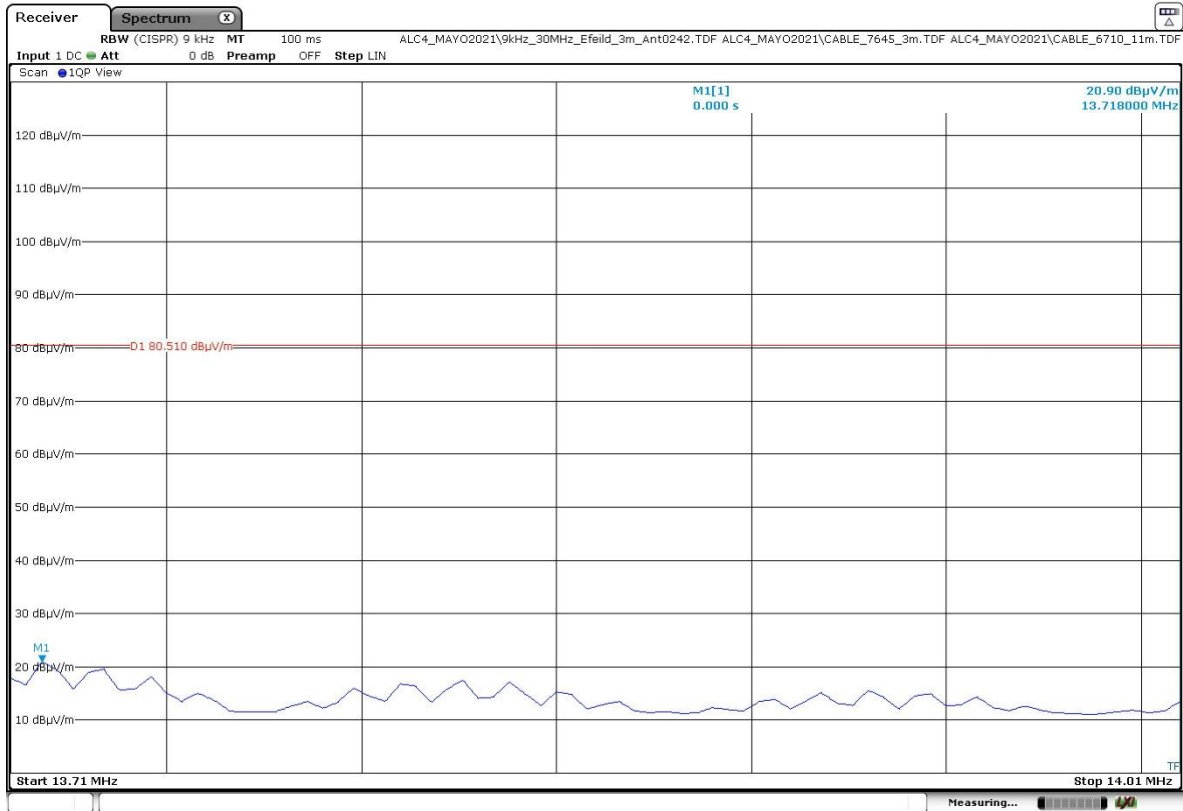


The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

- **NFC mode ISO 15693:**

| Frequency (MHz) | Maximum field strength (dB μ V/m) measured at 3 m (quasi-peak detector) | Maximum field strength (dB μ V/m) extrapolated to 30 m (40 dB/decade) |
|------------------------------|---|---|
| 13.718 | 20.90 | -19.10 |
| Measurement uncertainty (dB) | ± 3.44 | |



The limit shown in the above plot is extrapolated to 3 meters

Verdict: PASS

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

SPECIFICATION:

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 ($\mu\text{V/m}$) | Field strength ($\text{dB}\mu\text{V/m}$) | 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 |

RESULTS:

All tests were performed in a semi-anechoic chamber at a distance of 3 m.

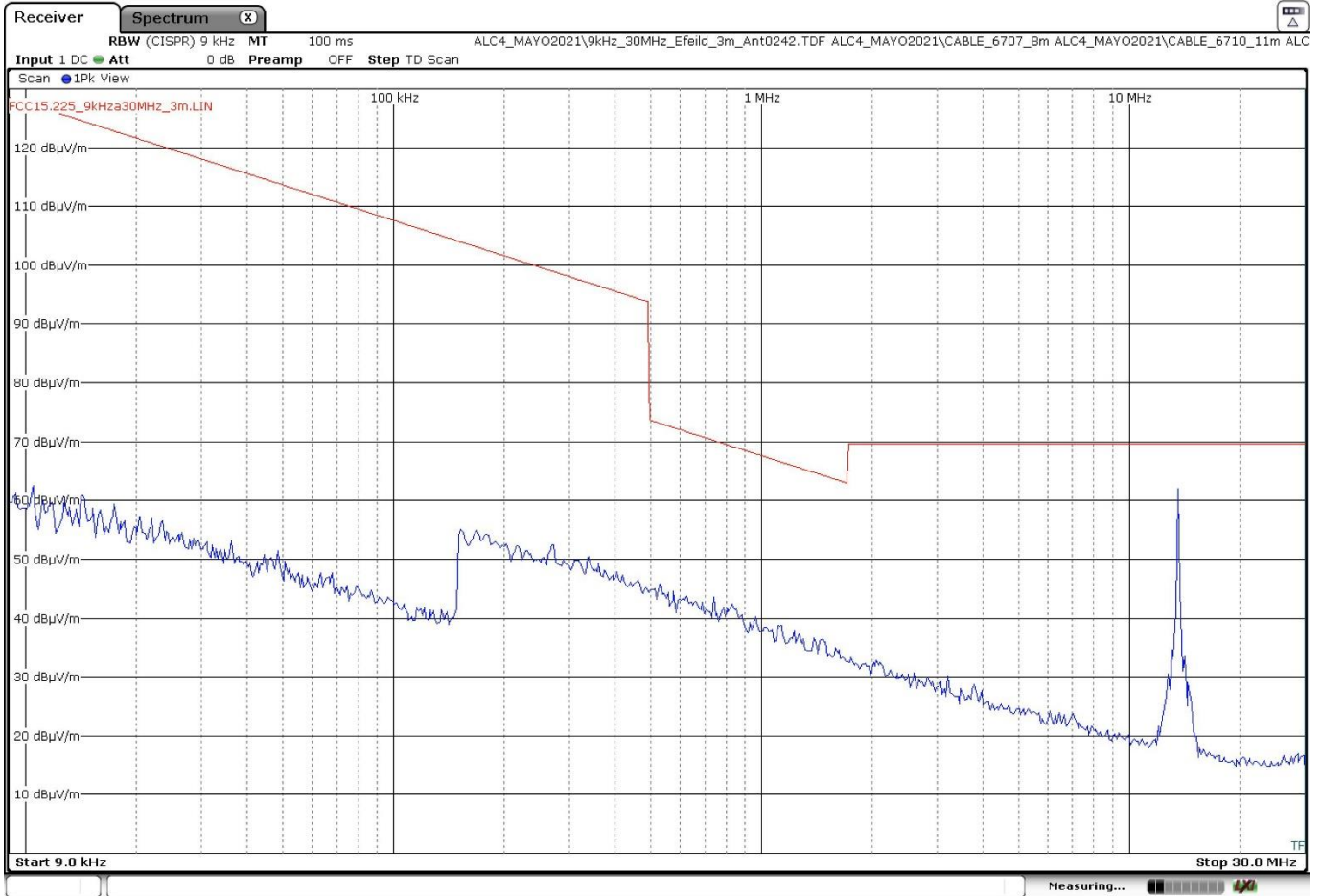
The spectrum was inspected from 9 kHz to 200 MHz searching for spurious signals.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifier gain.

- Frequency range 9 kHz - 30 MHz:

- **NFC mode ISO 14443A:**

No spurious frequencies were found at less than 20 dB of the limit.

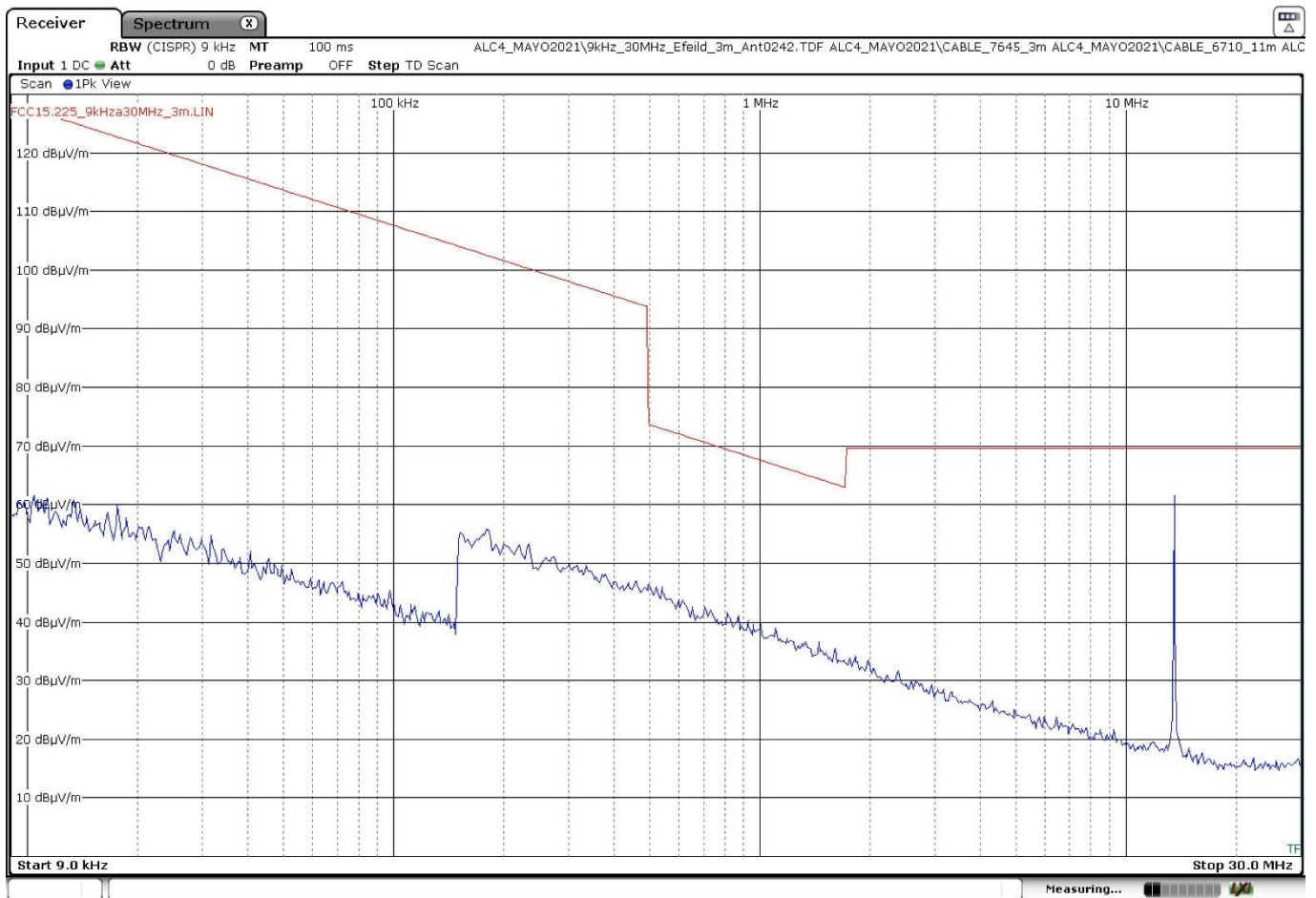


The limits shown in the above plot are extrapolated to 3 meters. The highest peak corresponds to the carrier level.

Resolution bandwidth:
200 Hz for $9 \text{ kHz} \leq f \leq 150 \text{ kHz}$
9 kHz for $150 \text{ kHz} \leq f \leq 30 \text{ MHz}$

- **NFC mode ISO 15693:**

No spurious frequencies were found at less than 20 dB of the limit.



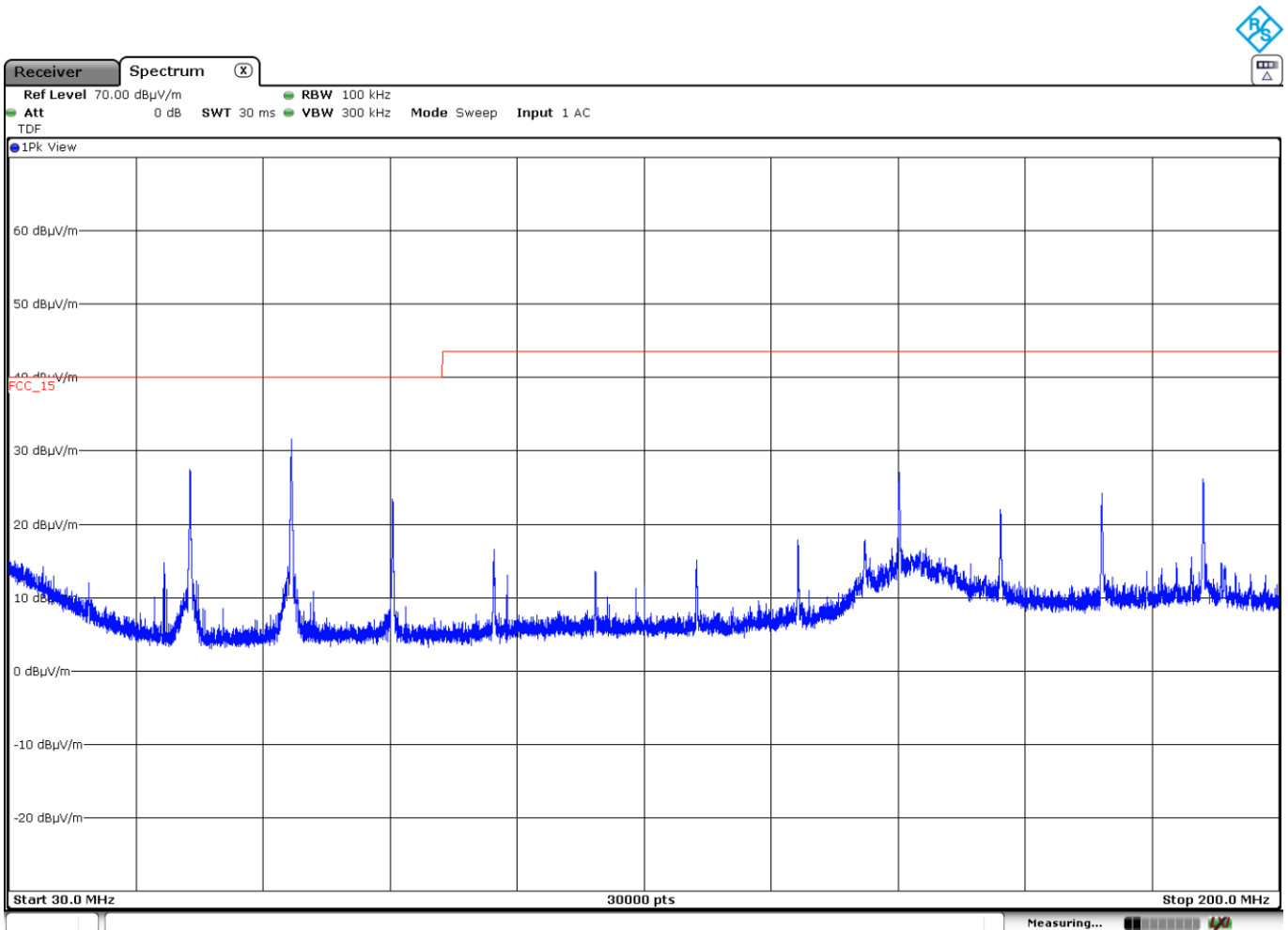
The limits shown in the above plot are extrapolated to 3 meters. The highest peak corresponds to the carrier level.

Resolution bandwidth:
 200 Hz for $9 \text{ kHz} \leq f \leq 150 \text{ kHz}$
 9 kHz for $150 \text{ kHz} \leq f \leq 30 \text{ MHz}$

- Frequency range 30 - 200 MHz

- NFC mode ISO 14443A:

| Spurious frequency (MHz) | Emission Level (dBµV/m) | Polarization | Detector |
|--------------------------|-------------------------|--------------|------------|
| 54.2392 | 25.30 | V | Quasi peak |
| 67.8052 | 30.40 | V | Quasi peak |
| 81.3598 | 22.50 | V | Quasi peak |
| 149.1615 | 25.80 | V | Quasi peak |
| 189.8368 | 24.90 | V | Quasi peak |

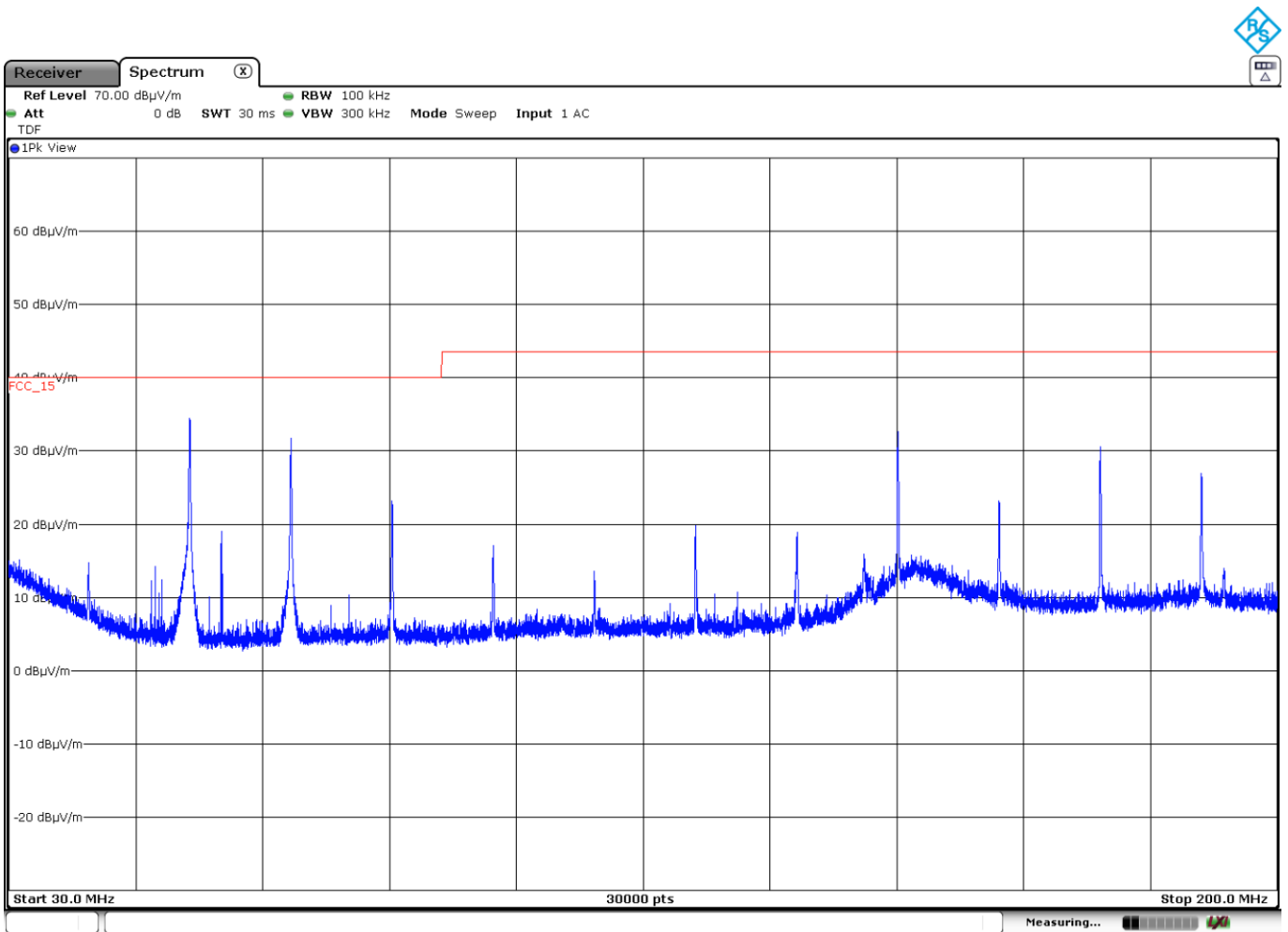


The above plot shows the results of the scan using peak detector.

Verdict: PASS

- **NFC mode ISO 15693:**

| Spurious frequency (MHz) | Emission Level (dBµV/m) | Polarization | Detector |
|--------------------------|-------------------------|--------------|------------|
| 54.2562 | 33.40 | V | Quasi peak |
| 67.8108 | 30.50 | V | Quasi peak |
| 81.3598 | 22.60 | V | Quasi peak |
| 149.1615 | 31.90 | V | Quasi peak |
| 176.2992 | 29.90 | V | Quasi peak |
| 189.8482 | 26.40 | V | Quasi peak |



The above plot shows the results of the scan using peak detector.

Verdict: PASS

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

SPECIFICATION:

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.

RESULTS:

Nominal Operating Frequency: 13.56 MHz.

- **NFC mode ISO 14443A:**

Frequency Stability over Temperature Variations:

| Temperature (°C) | Frequency Error (kHz) | Frequency Error (%) |
|------------------|-----------------------|---------------------|
| +50 | -0.100400 | -0.000740 |
| +40 | -0.128900 | -0.000951 |
| +30 | -0.149300 | -0.001101 |
| +20 | -0.144000 | -0.001062 |
| +10 | -0.199500 | -0.001471 |
| 0 | -0.207000 | -0.001527 |
| -10 | -0.205500 | -0.001515 |
| -20 | -0.205500 | -0.001515 |

Frequency Stability over Voltage Variations:

| DC Voltage | Voltage (V) | Temperature (°C) | Frequency Error (kHz) | Frequency Error (%) |
|------------|-------------|------------------|-----------------------|---------------------|
| Vmax | 5.0 | 20 | -0.147000 | -0.001084 |
| Vmin | 3.2 | 20 | -0.147000 | -0.001084 |

Verdict: PASS

- **NFC mode ISO 15693:**

Frequency Stability over Temperature Variations:

| Temperature (°C) | Frequency Error (kHz) | Frequency Error (%) |
|------------------|-----------------------|---------------------|
| +50 | -0.127500 | -0.000940 |
| +40 | -0.144000 | -0.001062 |
| +30 | -0.151500 | -0.001117 |
| +20 | -0.153000 | -0.001128 |
| +10 | -0.138000 | -0.001018 |
| 0 | -0.169500 | -0.001250 |
| -10 | -0.169500 | -0.001250 |
| -20 | -0.192000 | -0.001416 |

Frequency Stability over Voltage Variations:

| DC Voltage | Voltage (V) | Temperature (°C) | Frequency Error (kHz) | Frequency Error (%) |
|------------|-------------|------------------|-----------------------|---------------------|
| Vmax | 5.0 | 20 | -0.153000 | -0.001128 |
| Vmin | 3.2 | 20 | -0.151500 | -0.001117 |

Verdict: PASS