




| <b>RADIO REPORT</b><br><b>FCC 47 CFR Part 15C</b><br><b>ISED Canada RSS-310</b><br><b>License exempt radio equipment</b> |  |
|--|--|
| <b>Report Reference No</b>   | G0M-2102-9617-TFC209LP-V01   |
| <b>Testing Laboratory</b>  | Eurofins Product Service GmbH  |
| <b>Address</b>   | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany  |
| <b>Accreditation</b>   |  <p>DAkkS - Registration number : D-PL-12092-01-03 (ISED)<br/>                     ISED Testing Laboratory site: 3470A<br/>                     DAkkS - Registration number : D-PL-12092-01-04 (FCC)<br/>                     FCC Filed Test Laboratory, Reg.-No.: 96970</p> |
| <b>Applicant</b>   | SKAN Deutschland GmbH  |
| <b>Address</b>   | Nickrischer Straße 2<br>02827 Görlitz/Hagenwerder<br>GERMANY   |
| <b>Test Specification</b>  | 47 CFR Part 15C<br>RSS-310, Issue 5, 2020-01<br>RSS-Gen, Issue 5, Amendment 2, 2021-02   |
| <b>Non-Standard Test Method</b>  | None   |
| <b>Equipment under Test (EUT):</b>   |  |
| <b>Product Description</b>   | Glove Tester   |
| <b>Model(s)</b>  | WirelessGT 2   |
| <b>Additional Model(s)</b>   | None   |
| <b>Brand Name(s)</b>   | SKAN wGT   |
| <b>Hardware Version(s)</b>   | WirelessGT Evo 2   |
| <b>Software Version(s)</b>   | v2.0.0   |
| <b>FCC ID</b>  | 2AXZXSKANWGT2XD  |
| <b>IC</b>  | 26652-SKANWGT02  |
| <b>Test Result</b>   | <b>PASSED</b>  |

|  |               |  |
|--|---------------|--|
| <b>Possible test case verdicts:</b>  |               |  |
| Required by standard but not tested  | N/T           |  |
| Not required by standard   | N/R           |  |
| Not applicable to EUT  | N/A           |  |
| Test object does meet the requirement  | P(PASS)       |  |
| Test object does not meet the requirement  | F(FAIL)       |  |
| <b>Testing:</b>  |               |  |
| Test Lab Temperature   | 20 °C - 30 °C |  |
| Test Lab Humidity  | 25 % - 55 %   |  |
| Date of receipt of test item   | 2021-03-10    |  |
| <b>Report:</b>   |               |  |
| Compiled by  | Florian Voigt |  |
| Tested by (+ signature)<br>(Responsible for Test)  | Florian Voigt | <br>.....  |
| Approved by (+ signature)<br>(Deputy Head of Lab)  | Toralf Jahn   | <br>..... |
| Date of Issue  | 2021-11-08    |  |
| Total number of pages  | 29            |  |
| <b>General Remarks:</b>  |               |  |
| <p>The test results presented in this report relate only to the object tested.</p> <p>The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> |               |  |
| <b>Additional Comments:</b>  |               |  |
| Transmitter is not active when EUT is connected to its dedicated AC/DC adapter. Tests were conducted without an AC/DC adapter.   |               |  |

**ADDITIONAL VARIANTS**

| Additional Variants<br>(not tested and not evaluated variants)   |                          |                  |
|--|--------------------------|------------------|
| Not-tested Variant   | Description              |                  |
| 1  | Product Type Description | Glove Tester     |
|  | Model name               | SKAN Evolution 2 |
|  | Brand name               | SKAN wGT         |
|  | Hardware Version         | WirelessGT Evo 2 |
|  | Software Version         | v2.0.0           |
| 2  | Product Type Description | Glove Tester     |
|  | Model name               | SKAN Evo 2       |
|  | Brand name               | SKAN wGT         |
|  | Hardware Version         | WirelessGT Evo 2 |
|  | Software Version         | v2.0.0           |
| 3  | Product Type Description | Glove Tester     |
|  | Model name               | SKAN Globe       |
|  | Brand name               | SKAN wGT         |
|  | Hardware Version         | WirelessGT Evo 2 |
|  | Software Version         | v2.0.0           |
| Comment: Those named additional variants above have not been tested. Those additional variants of the series have been declared by the manufacturer. The test report explicitly states that those variants were neither tested nor assessed nor evaluated. |                          |                  |

## VERSION HISTORY

| Version History |            |                 |            |
|-----------------|------------|-----------------|------------|
| Version         | Issue Date | Remarks         | Revised By |
| 01              | 2021-11-08 | Initial Release |            |

**ABBREVIATIONS AND ACRONYMS**

| Acronyms         |   |
|------------------|---|
| Acronym          | Description   |
| EUT              | Equipment Under Test                                |
| FCC              | Federal Communications Commission                   |
| ISED             | Innovation, Science and Economic Development Canada |
| RBW              | Resolution bandwidth                                |
| RMS              | Root mean square                                    |
| VBW              | Video bandwidth                                     |
| V <sub>NOM</sub> | Nominal supply voltage                              |

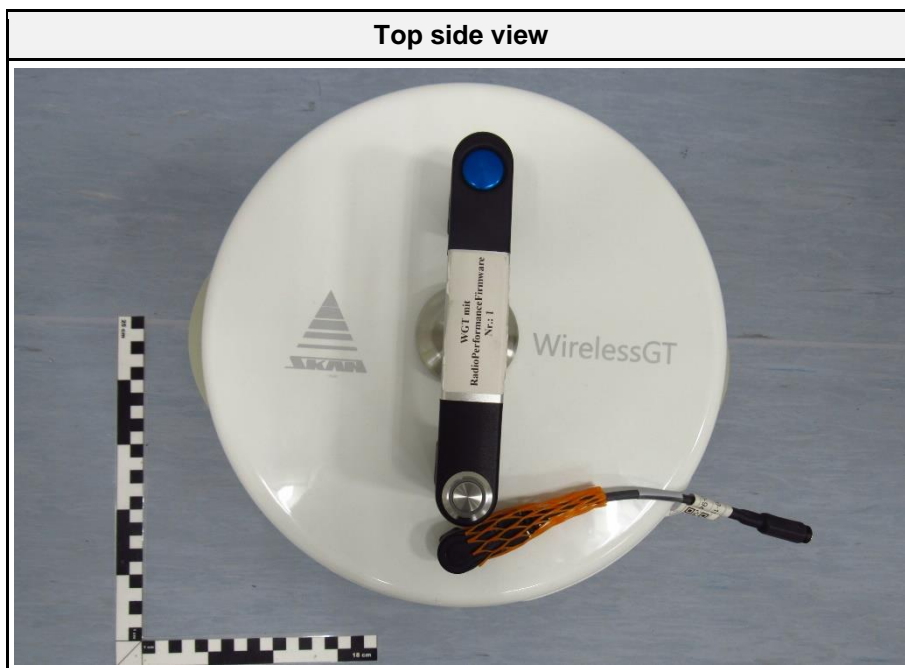
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## 1 Equipment (Test Item) Under Test

|                          |   |                          |
|--------------------------|---|--------------------------|
| Description              | Glove Tester  |                          |
| Model                    | WirelessGT 2  |                          |
| Additional Model(s)      | None  |                          |
| Brand Name(s)            | SKAN wGT  |                          |
| Serial Number(s)         | 30029475.011  |                          |
| Test Sample Id           | 33685   |                          |
| Hardware Version(s)      | WirelessGT Evo 2  |                          |
| Software Version(s)      | v2.0.0  |                          |
| PMN                      | Wireless Glove Tester   |                          |
| HVIN                     | WirelessGT 2  |                          |
| FVIN                     | 26710700  |                          |
| HMN                      | n/a   |                          |
| FCC ID                   | 2AXZXSKANWGT2XD   |                          |
| IC                       | 26652-SKANWGT02   |                          |
| Equipment type           | End Product   |                          |
| Radio type               | Transceiver   |                          |
| Assigned frequency bands | 9-490 kHz   |                          |
| Radio technology         | RFID  |                          |
| Modulation               | ASK   |                          |
| Number of antenna ports  | 1   |                          |
| Antenna                  | Type  | Integrated coil          |
|                          | Model   | ANT-033                  |
|                          | Manufacturer  | ELATEC                   |
|                          | Gain  | N/A                      |
| Supply Voltage           | V <sub>NOM</sub>  | 15 VDC                   |
| Operating Temperature    | T <sub>NOM</sub>  | 20 °C                    |
| AC/DC-Adaptor            | Model   | GST90A24-P1M             |
|                          | Vendor  | Mean Well                |
|                          | Input   | 90 ~ 264VAC 127 ~ 370VDC |
|                          | Output  | 24 VDC                   |
| Manufacturer             | SKAN Deutschland GmbH<br>Nickrischer Straße 2<br>02827 Görlitz/Hagenwerder<br>GERMANY |                          |

1.1 Photos – Equipment External



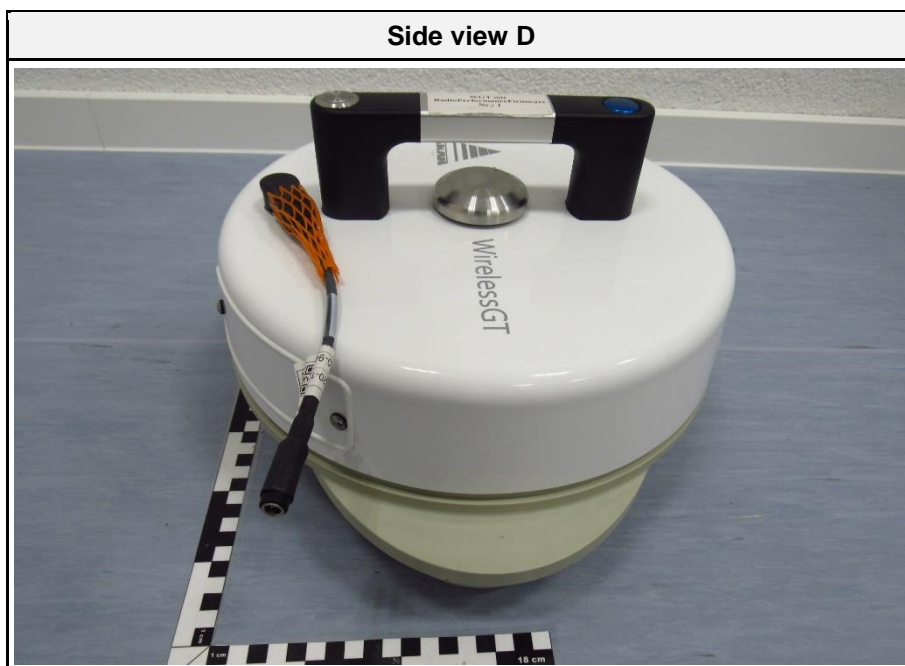
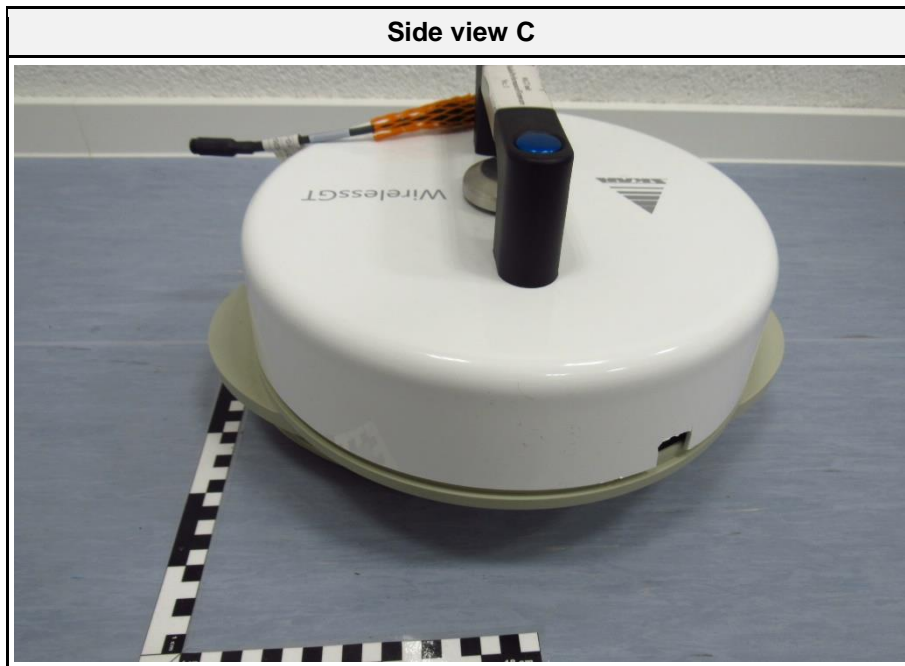


Side view A



Side view B

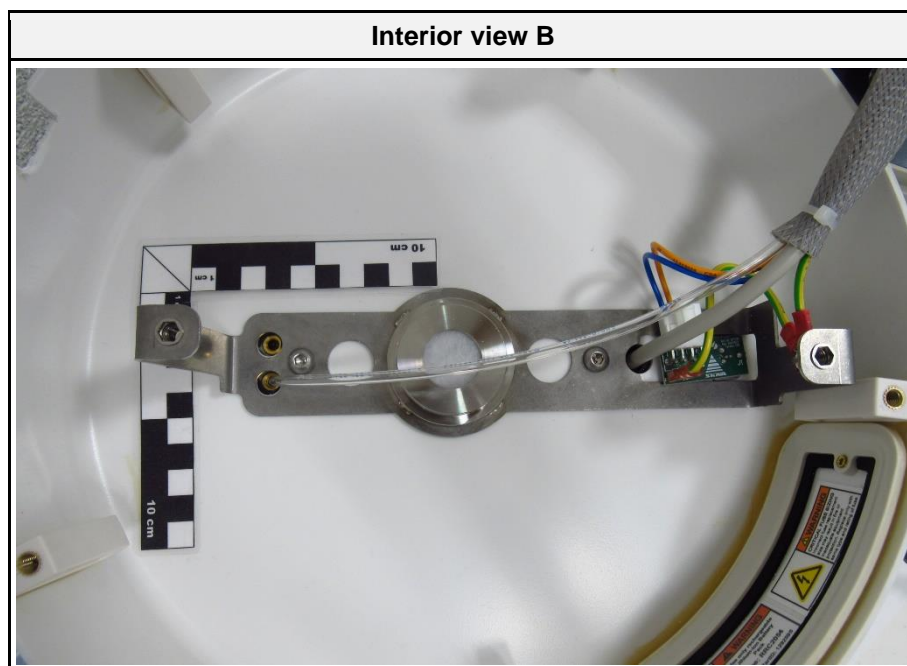
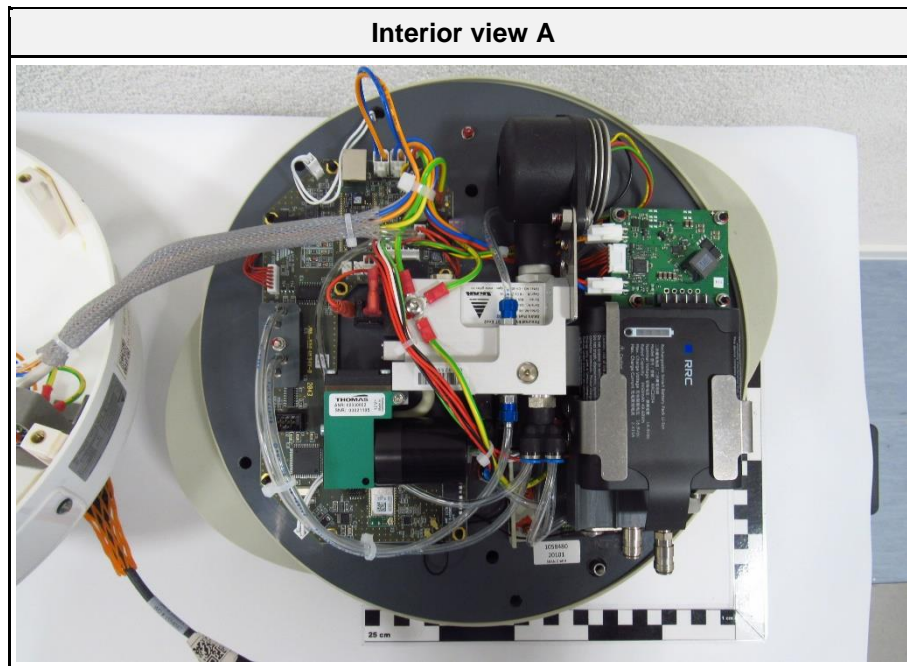


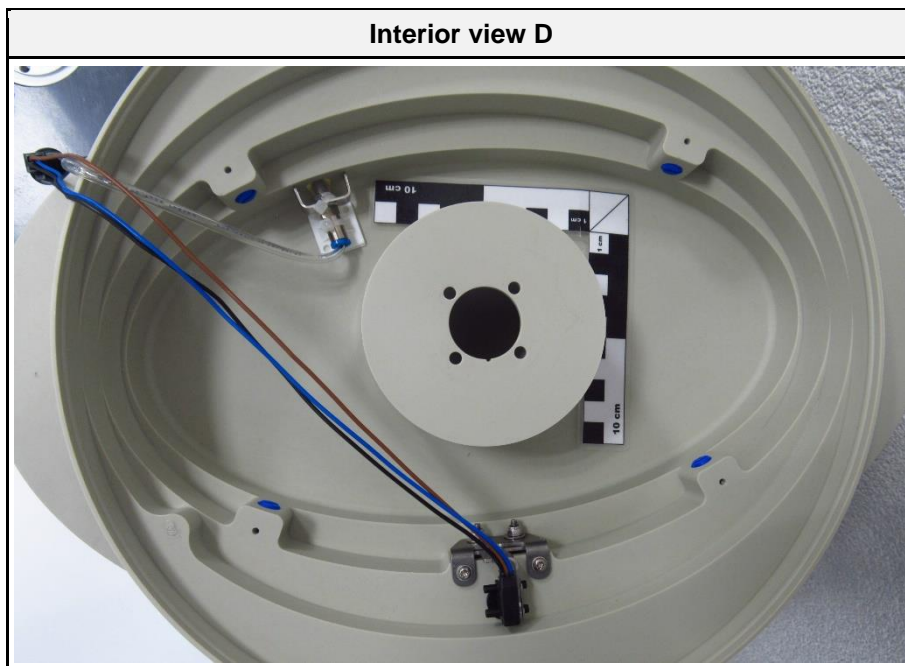
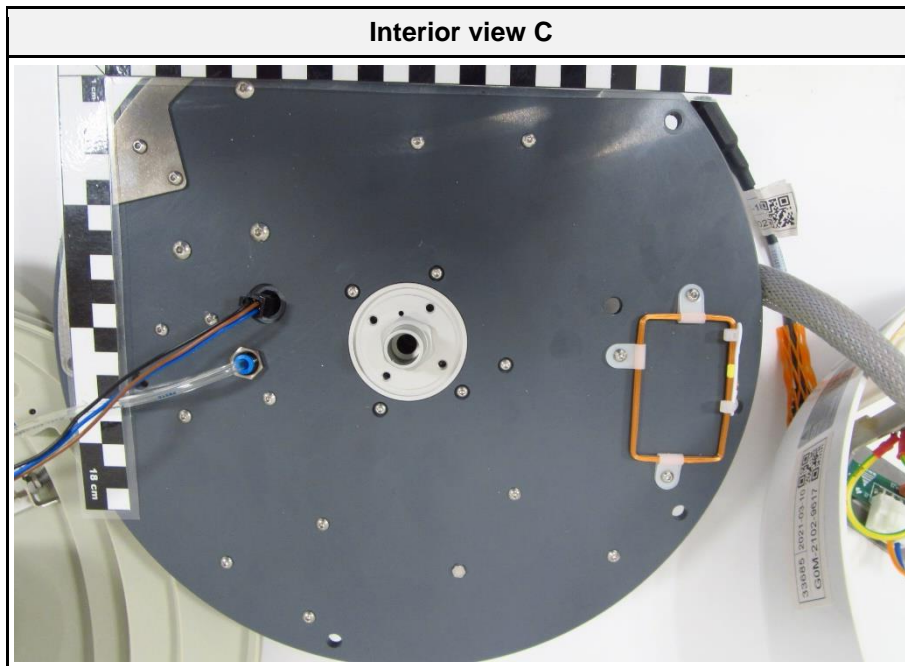




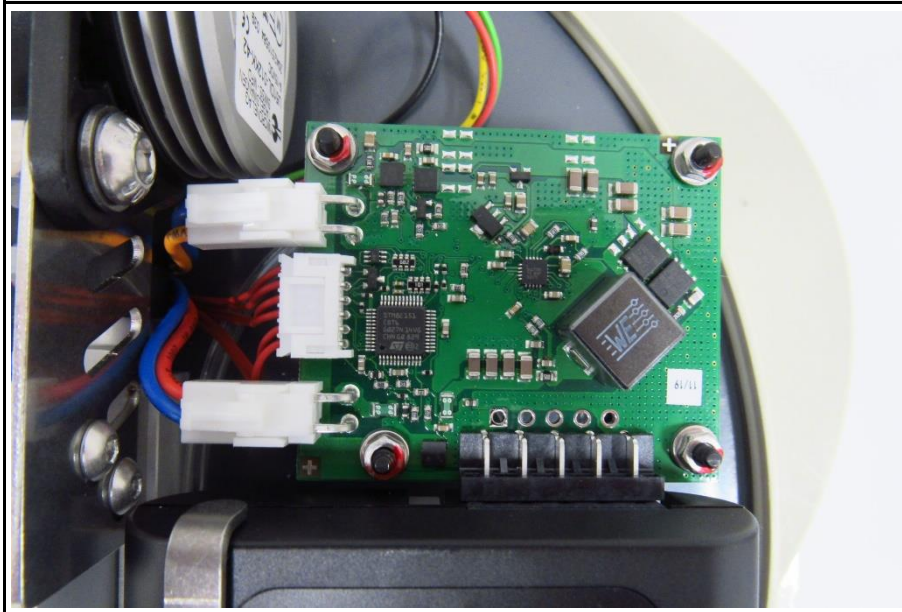


## 1.2 Photos – Equipment Internal

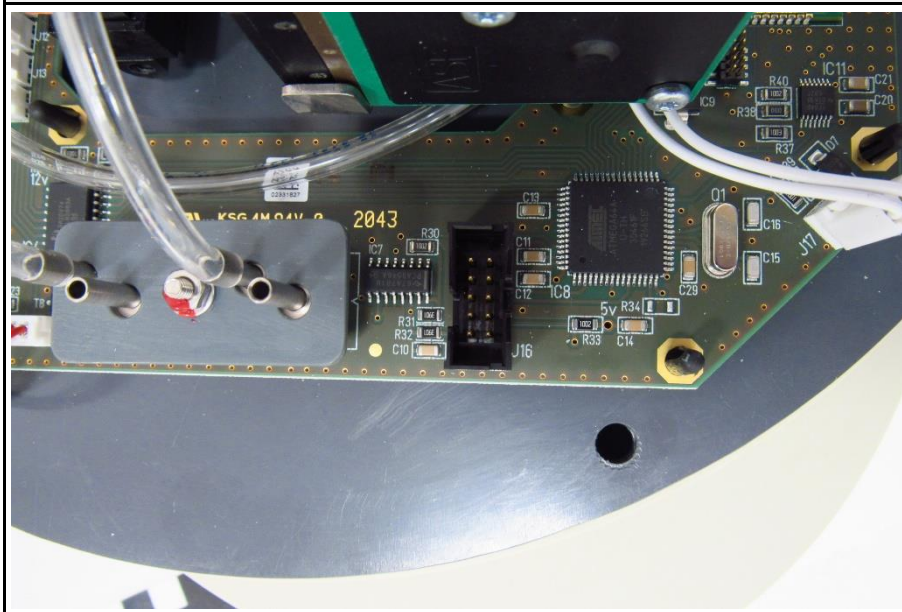




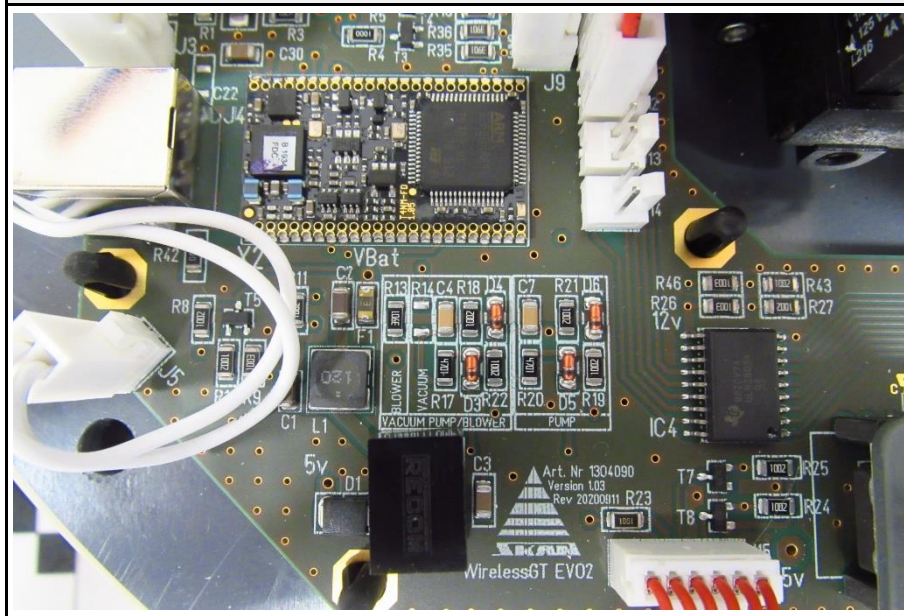
PCB top view A



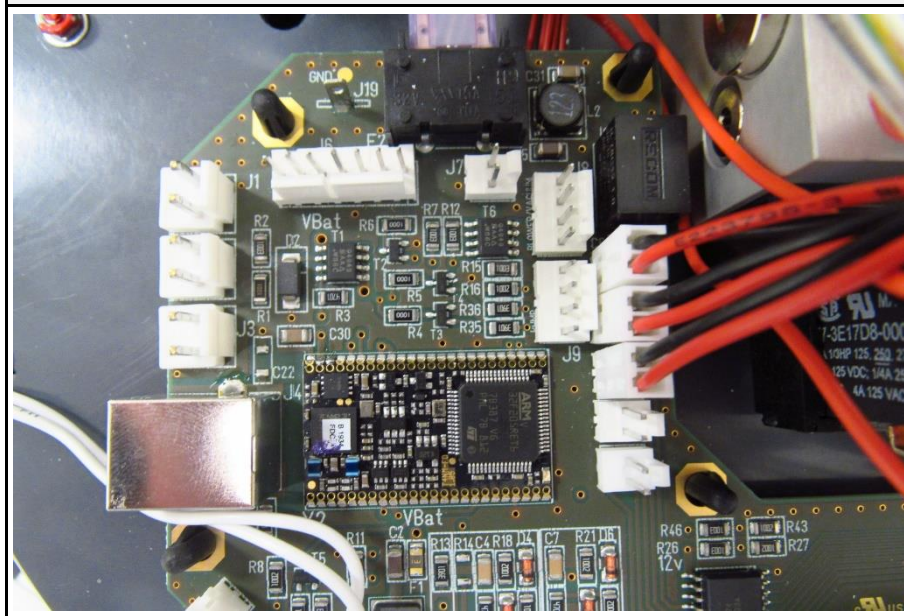
PCB top view B



PCB top view C

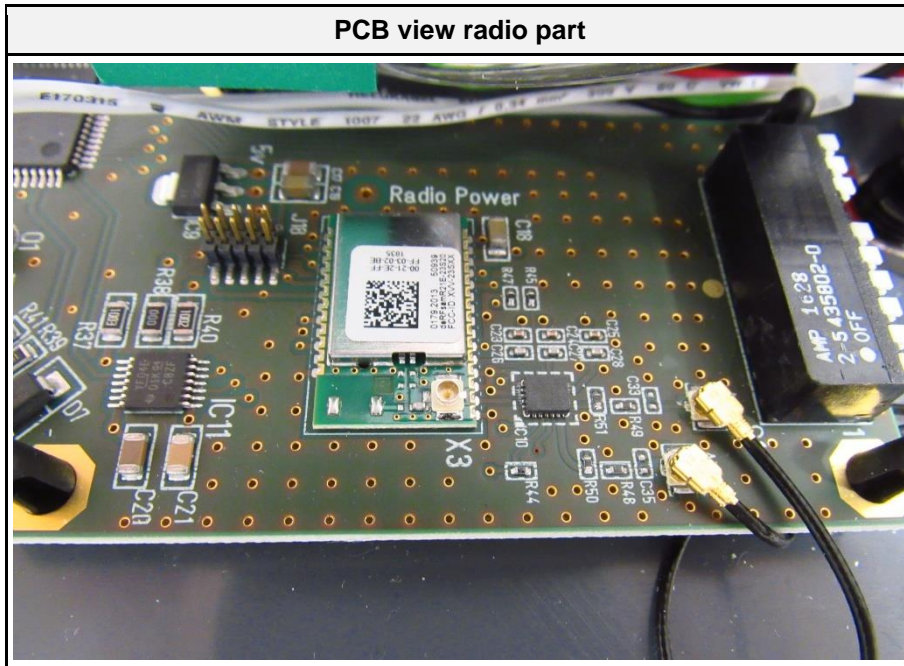


PCB top view D

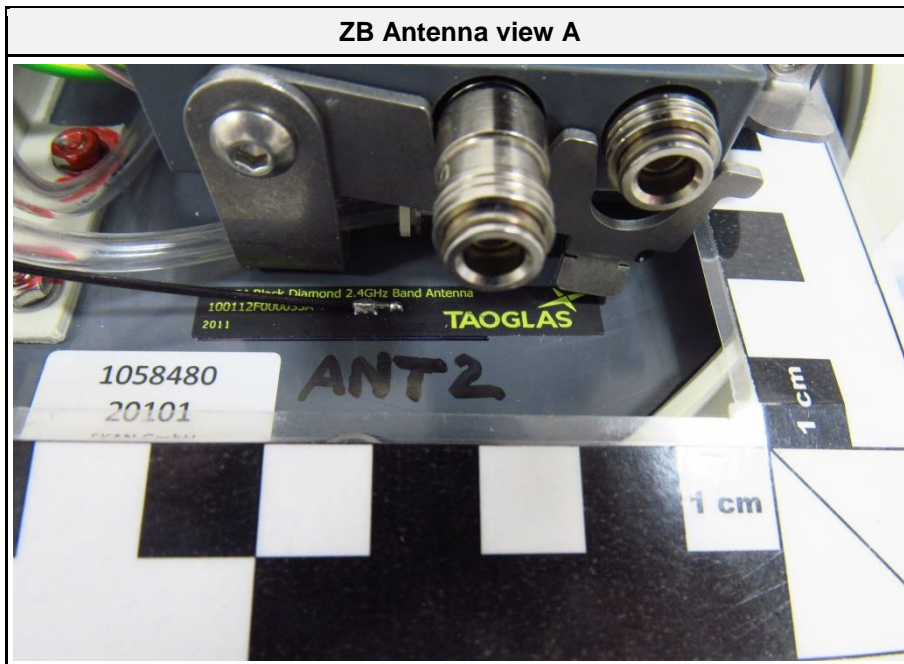




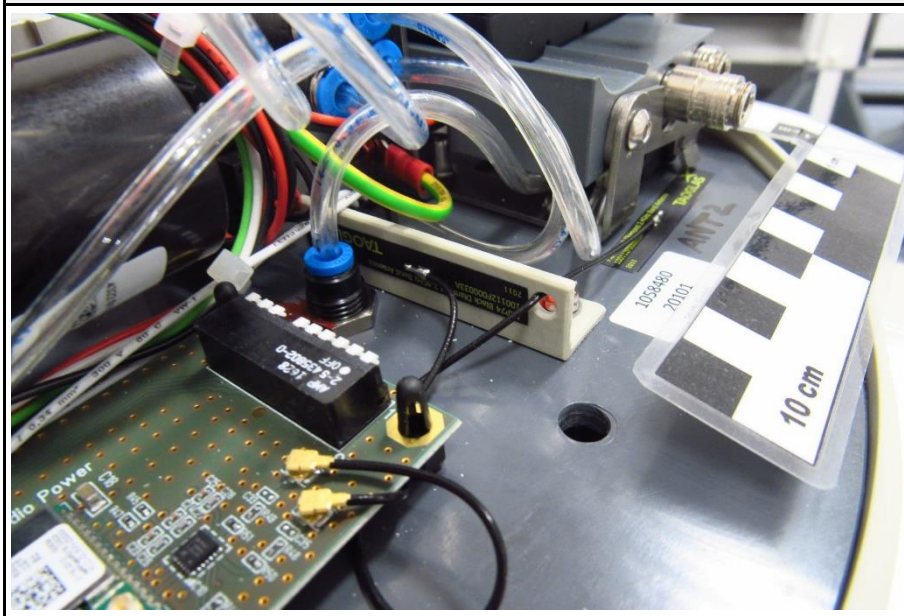
PCB view radio part



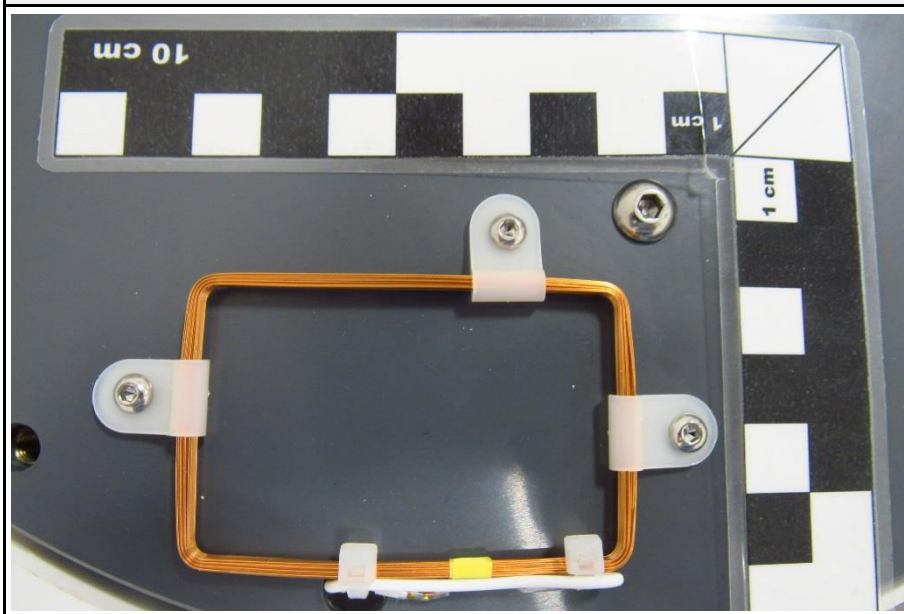
ZB Antenna view A



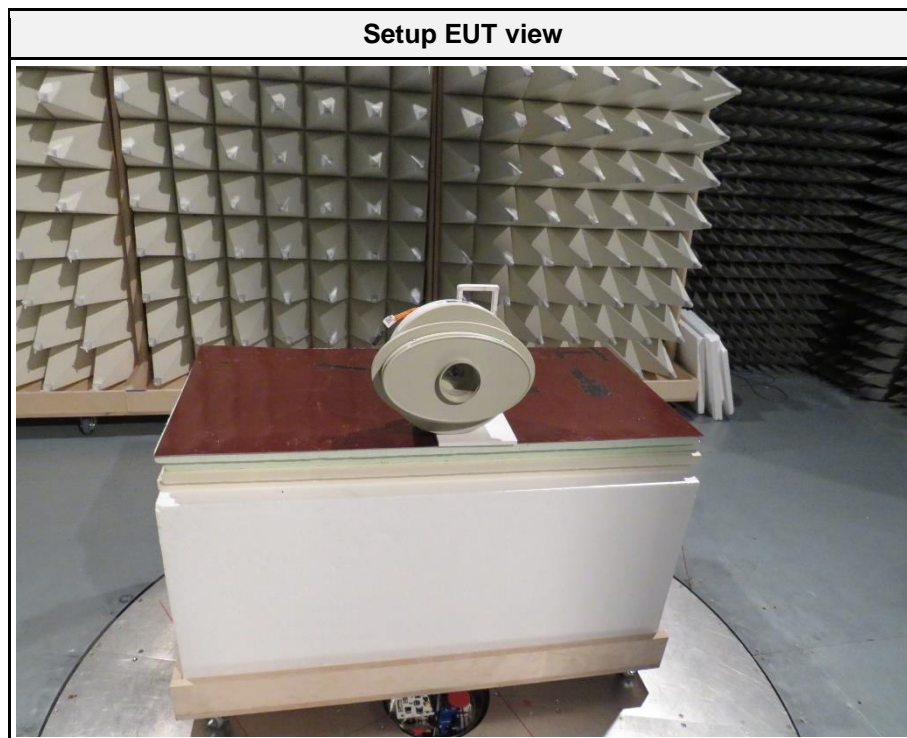
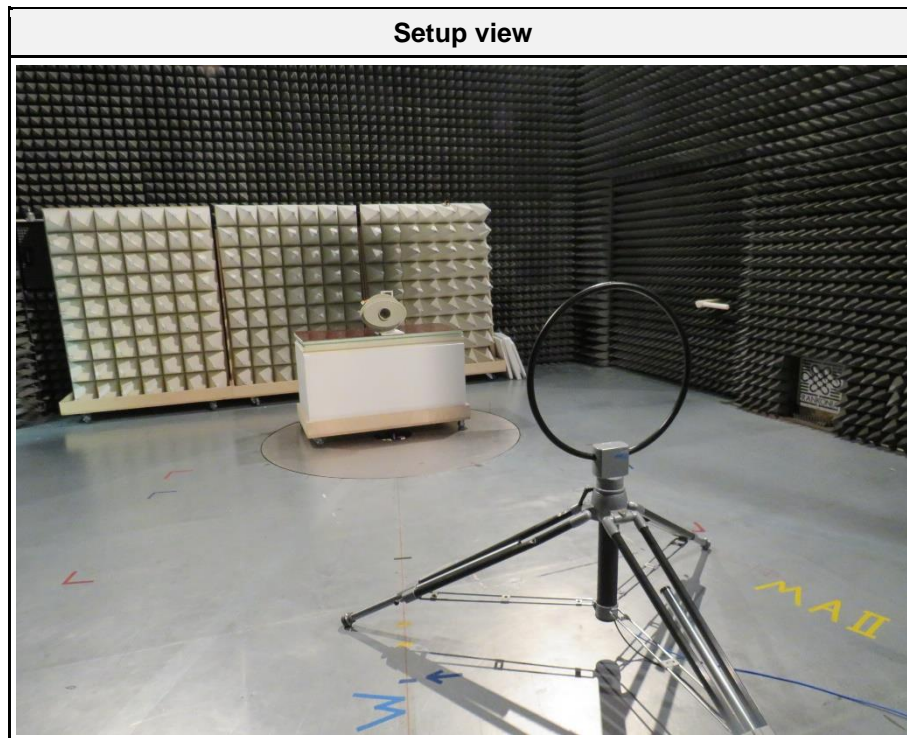
ZB Antenna view B



RFID antenna view



### 1.3 Photos – Test Setup



#### 1.4 Support Equipment

| Product Type | Device              | Manufacturer | Model | Comment |
|--------------|---------------------|--------------|-------|---------|
| None         |                     |              |       |         |
| Description: |                     |              |       |         |
| AE           | Auxiliary Equipment |              |       |         |
| SIM          | Simulator           |              |       |         |
| CBL          | Connecting Cable    |              |       |         |
| SFT          | Software            |              |       |         |
| Comment:     |                     |              |       |         |

### 1.5 Test Modes

| Mode     | Description   |
|----------|---|
| Transmit | Mode = Transmit<br>Modulation = ASK<br>Duty cycle = 0.068 % |
| Comment: |   |

## 1.6 Test Frequencies

| Designator | Mode | Channel | Frequency [kHz] |
|------------|------|---------|-----------------|
| F1         | Tx   | 1       | 125             |

### 1.7 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBµV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyzer (dB}\mu\text{V)} + \text{A.F. (dB)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of dBµV/m). The FCC limits are given in units of µV/m. The following formula is used to convert the units of µV/m to dBµV/m:

$$\text{Limit (dB}\mu\text{V/m)} = 20 \cdot \log(\mu\text{V/m})$$

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

|              |                       |   |             |               |           |
|--------------|-----------------------|---|-------------|---------------|-----------|
| Reading + AF | = Net Reading         | : | Net reading | - FCC limit   | = Margin  |
| +21.5 dBµV   | + 26 dB = 47.5 dBµV/m | : | 47.5 dBµV/m | - 57.0 dBµV/m | = -9.5 dB |

## 2 Result Summary

| FCC 47 CFR Part 15C, ISED RSS-310   |   |                  |        |  |
|---|---|------------------|--------|--|
| Product Standard Reference  | Requirement                             | Reference Method | Result | Remarks  |
| ISED RSS-Gen 6.7<br>Issue 5 A2  | Occupied Bandwidth                      | ANSI C63.10-2013 | N/R    | Information only,<br>certification-exempt<br>equipment |
| FCC 15.35(c)<br>ISED RSS-Gen 6.10<br>Issue 5 A2                               | Duty Cycle                              | ANSI C63.10-2013 | N/R    | Information only                                       |
| FCC 15.209<br>ISED RSS-310 10.6<br>Issue 5<br>ISED RSS-Gen 6.13<br>Issue 5 A2 | Radiated spurious emissions             | ANSI C63.10-2013 | PASS   |  |
| ISED RSS-310 5<br>Issue 5<br>ISED RSS-Gen 7.1<br>Issue 5 A2                   | Receiver radiated spurious<br>emissions | ANSI C63.10-2013 | N/R    | Colocated transmitter                                  |
| Comment:  |   |                  |        |  |

| Possible Test Case Verdicts |  |
|-----------------------------|--|
| PASS                        | Test object does meet the requirements       |
| FAIL                        | Test object does not meet the requirements   |
| N/T                         | Required by standard but not tested          |
| N/R                         | Not required by standard for the test object |



### 3 Test Conditions and Results

#### 3.1 Test Conditions and Results - Radiated spurious emissions

##### 3.1.1 Information

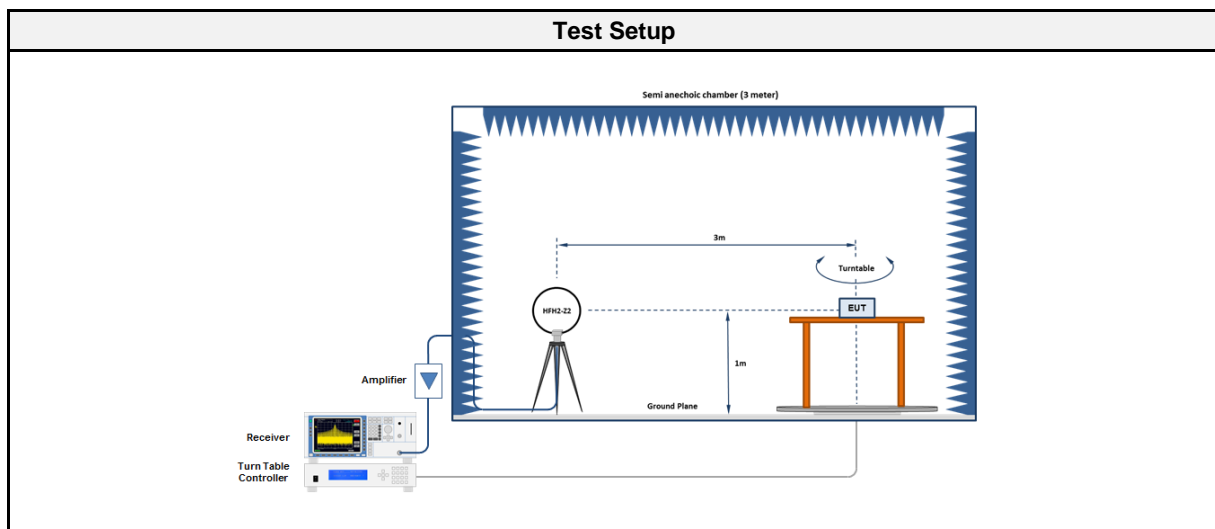
| Test Information        |                                |
|-------------------------|--------------------------------|
| Reference               | FCC 15.209 / ISED RSS-310 10.6 |
| Measurement Method      | ANSI C63.10                    |
| Measurement Uncertainty | $\pm 5.95$ dB                  |
| Operator                | Florian Voigt                  |
| Date                    | 2021-07-01                     |

##### 3.1.2 Limits

| Limits                |            |                    |                      |                    |
|-----------------------|------------|--------------------|----------------------|--------------------|
| Frequency range [MHz] | Detector   | Limit [ $\mu$ V/m] | Limit [dB $\mu$ V/m] | Limit Distance [m] |
| 0.009 - 0.090         | Average    | 2400/F             | 48.5 – 28.5          | 300                |
| 0.090 - 0.110         | Quasi-Peak | 2400/F             | 28.5 - 26.8          | 300                |
| 0.110 - 0.490         | Average    | 2400/F             | 26.8 - 13.8          | 300                |
| 0.490 - 1.705         | Quasi-Peak | 24000/F            | 33.8 - 23.0          | 30                 |
| 1.705 - 30            | Quasi-Peak | 30                 | 29.5                 | 30                 |
| 30 - 88               | Quasi-Peak | 100                | 40                   | 3                  |
| 88 - 216              | Quasi-Peak | 150                | 43.5                 | 3                  |
| 216 - 960             | Quasi-Peak | 200                | 46                   | 3                  |
| 960 - 1000            | Quasi-Peak | 500                | 54                   | 3                  |
| >1000                 | Average    | 500                | 54                   | 3                  |

Note: F [kHz]

##### 3.1.3 Setup



## 3.1.4 Equipment

| Test Equipment < 30 MHz |              |         |            |           |          |
|-------------------------|--------------|---------|------------|-----------|----------|
| Description             | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| Anechoic Chamber        | Frankonia    | AC1     | EF00062    | 2021-02   | 2024-02  |
| EMI Test Receiver       | R&S          | ESR7    | EF00943    | 2020-07   | 2021-07  |
| Loop Antenna            | R&S          | HFH2-Z2 | EF00184    | 2021-01   | 2024-01  |

## 3.1.5 Procedure

| Test Procedure  |
|---|
| <ol style="list-style-type: none"> <li>1. EUT set to test mode</li> <li>2. Span it set according to measurement range</li> <li>3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector</li> <li>4. Markers are set to maximum emission levels</li> </ol> |

## 3.1.6 Results

| Test Results – 47 CFR § 15.209 |                |                      |          |      |                      |                     |             |
|--------------------------------|----------------|----------------------|----------|------|----------------------|---------------------|-------------|
| Channel [kHz]                  | Emission [kHz] | Level [dB $\mu$ V/m] | Detector | Pol. | Limit [dB $\mu$ V/m] | Limit distance [m]* | Margin [dB] |
| 125                            | 596.663        | 07.40                | pk       | N/A  | 32.10                | 30                  | -24.72      |
| 125                            | 596.663        | 03.60                | qpk      | N/A  | 32.10                | 30                  | -28.45      |

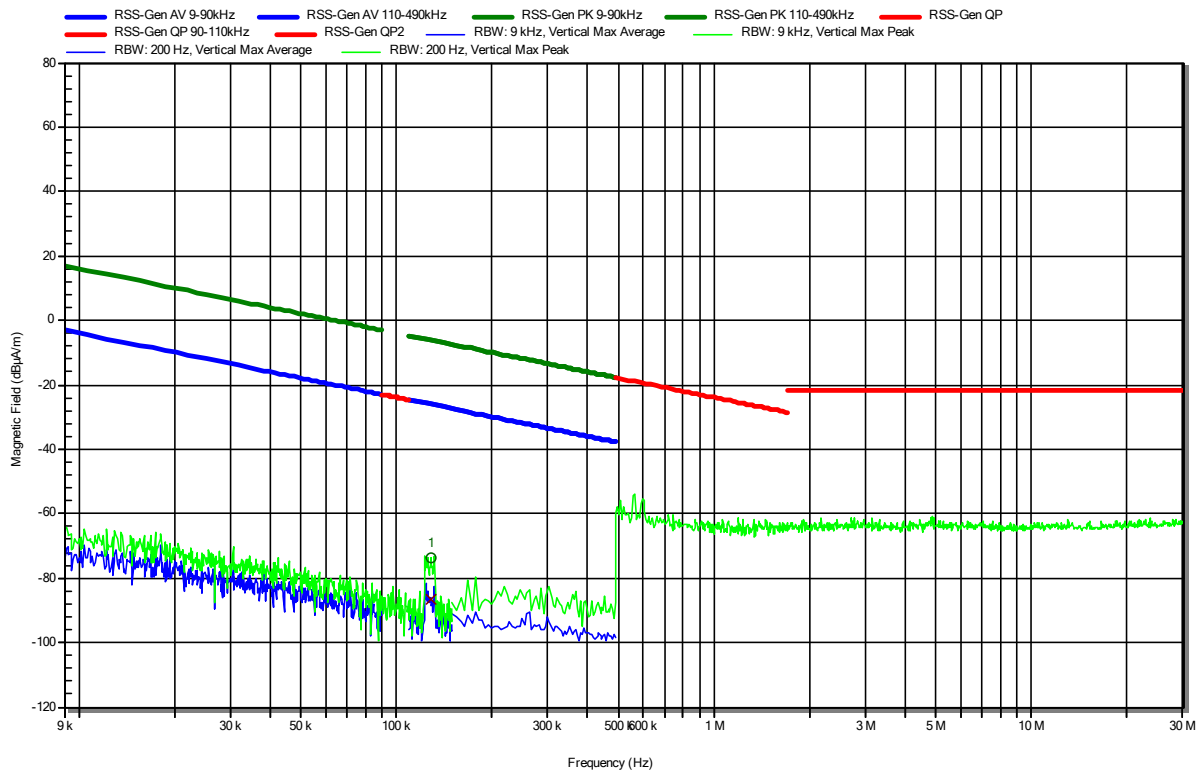
| Test Results – RSS-310 |                |                      |          |      |                      |                     |             |
|------------------------|----------------|----------------------|----------|------|----------------------|---------------------|-------------|
| Channel [kHz]          | Emission [kHz] | Level [dB $\mu$ A/m] | Detector | Pol. | Limit [dB $\mu$ A/m] | Limit distance [m]* | Margin [dB] |
| 125                    | 128.3          | -73.7                | pk       | N/A  | -6.1                 | 300                 | -67.59      |
| 125                    | 128.3          | -86.7                | avg      | N/A  | -26.1                | 300                 | -60.66      |

## ANNEX A Radiated spurious emissions

### Radiated Spurious Emissions according to RSS-310 Issue 5

Project Number: G0M-2102-9617  
 Applicant: SKAN Deutschland GmbH  
 Model Description: Glove Tester  
 Model: WirelessGT-2  
 Test Sample ID: 33685  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Voigt  
 Measurement software: RadiMation, version 2020.1.8  
 Test Conditions: Tnom: 22 °Celsius, Vnom: 15.0 VDC  
 Antenna: Rohde & Schwarz HFH 2-Z2, Vertical  
 Measurement distance: 3 m  
 Mode: Tx; RFID, 125kHz  
 Test Date: 2021-07-01  
 Note:

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**RadiMation**



| Frequency | Peak         | Peak Limit    | Peak Difference    | Peak Status    |
|-----------|--------------|---------------|--------------------|----------------|
| 128.3 kHz | -73.7 dBµA/m | -6.1 dBµA/m   | -67.59 dB          | Pass           |
| Frequency | Average      | Average Limit | Average Difference | Average Status |
| 128.3 kHz | -86.7 dBµA/m | -26.1 dBµA/m  | -60.66 dB          | Pass           |

Test Report No.: G0M-2102-9617-TFC209LP-V01

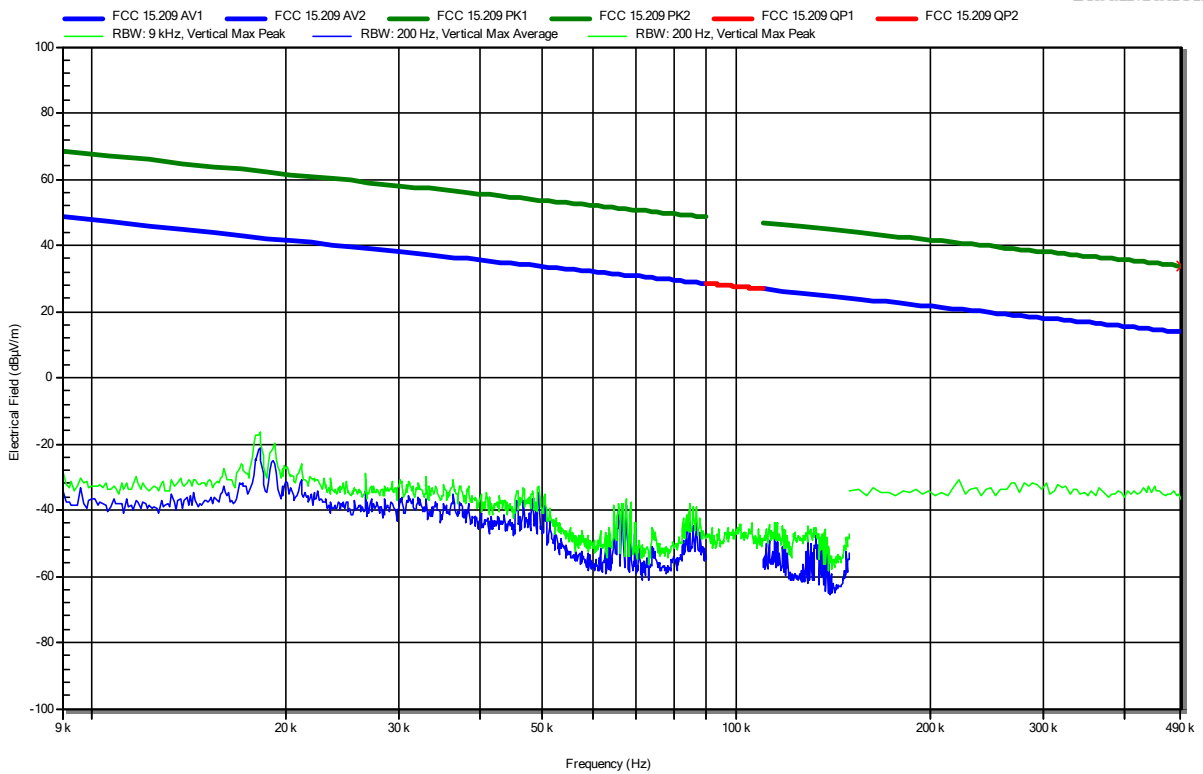
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

### Radiated Spurious Emissions according to 47 CFR § 15.209

Project Number: G0M-2102-9617  
 Applicant: SKAN Deutschland GmbH  
 Model Description: Glove Tester  
 Model: WirelessGT-2  
 Test Sample ID: 33685  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Voigt  
 Measurement software: RadiMation, version 2020.1.8  
 Test Conditions: Tnom: 22 °Celsius, Vnom: 15.0 VDC  
 Antenna: Rohde & Schwarz HFH 2-Z2, Vertical  
 Measurement distance: 3 m  
 Mode: Tx; RFID 125kHz  
 Test Date: 2021-06-30  
 Note:

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RadiMation

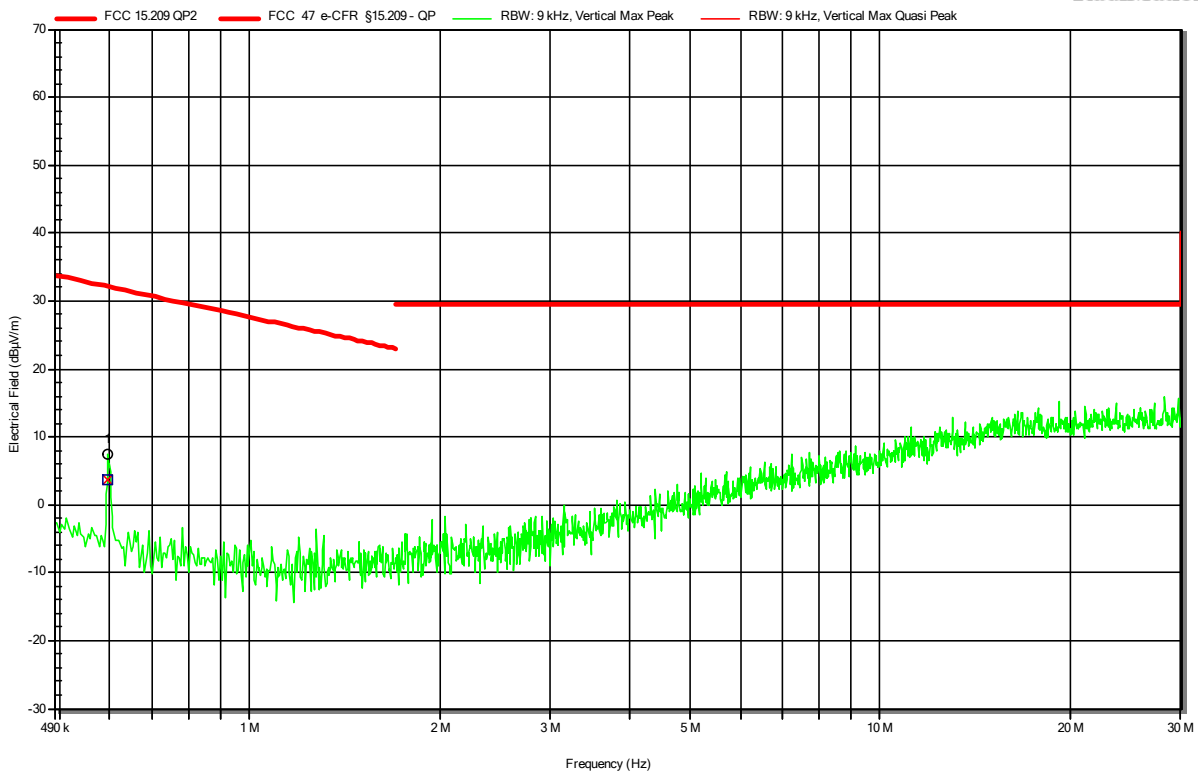


**Radiated Spurious Emissions according to 47 CFR § 15.209**

Project Number: G0M-2102-9617  
 Applicant: SKAN Deutschland GmbH  
 Model Description: Glove Tester  
 Model: WirelessGT-2  
 Test Sample ID: 33685  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Voigt  
 Measurement software: RadiMation, version 2020.1.8  
 Test Conditions: Tnom: 22 °Celsius, Vnom: 15.0 VDC  
 Antenna: Rohde & Schwarz HFH 2-Z2, Vertical  
 Measurement distance: 3 m  
 Mode: Tx; RFID 125kHz  
 Test Date: 2021-06-30  
 Note:

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**RadiMation**



| Frequency   | Peak       | Peak Limit       | Peak Difference       | Peak Status       |
|-------------|------------|------------------|-----------------------|-------------------|
| 596.663 kHz | 7.4 dBµV/m | 32.1 dBµV/m      | -24.72 dB             | Pass              |
| Frequency   | Quasi-Peak | Quasi-Peak Limit | Quasi-Peak Difference | Quasi-Peak Status |
| 596.663 kHz | 3.6 dBµV/m | 32.1 dBµV/m      | -28.45 dB             | Pass              |

=== End of test report ===