

| <b>FCC TEST REPORT</b><br><b>FCC 47 CFR Part 15C</b><br><b>Industry Canada RSS-210</b><br><b>Intentional radiator operating within the 902 – 928 MHz band</b> |                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Reference No.</b> .....                                                                                                                             | G0M-1510-5134-TFC249DT-V01                                                                                                                                                                                                                                                                                               |
| <b>Testing Laboratory</b> .....                                                                                                                               | Eurofins Product Service GmbH                                                                                                                                                                                                                                                                                            |
| <b>Address</b> .....                                                                                                                                          | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany                                                                                                                                                                                                                                                                      |
| <b>Accreditation</b> .....                                                                                                                                    |  <br>A2LA Accredited Testing Laboratory, Certificate No.: 1983.01<br>FCC Filed Test Laboratory, Reg.-No.: 96970<br>IC OATS Filing assigned code: 3470A |
| <b>Applicant's name</b> .....                                                                                                                                 | EMKA Beschlagteile GmbH & Co. KG                                                                                                                                                                                                                                                                                         |
| <b>Address</b> .....                                                                                                                                          | Langenberger Straße 32<br>42551 Velbert<br>GERMANY                                                                                                                                                                                                                                                                       |
| <b>Test specification:</b>                                                                                                                                    |                                                                                                                                                                                                                                                                                                                          |
| <b>Standard</b> .....                                                                                                                                         | 47 CFR Part 15C<br>RSS-210, Issue 8, 2010-12<br>RSS-Gen, Issue 4, 2014-11<br>ANSI C63.4:2014                                                                                                                                                                                                                             |
| <b>Test scope</b> .....                                                                                                                                       | complete Radio compliance test                                                                                                                                                                                                                                                                                           |
| <b>Equipment under test (EUT):</b>                                                                                                                            |                                                                                                                                                                                                                                                                                                                          |
| Product description                                                                                                                                           | AgentE USA/SGP                                                                                                                                                                                                                                                                                                           |
| Model No.                                                                                                                                                     | 3000-U902-4X                                                                                                                                                                                                                                                                                                             |
| Additional Model(s)                                                                                                                                           | None                                                                                                                                                                                                                                                                                                                     |
| Brand Name(s)                                                                                                                                                 | EMKA                                                                                                                                                                                                                                                                                                                     |
| Hardware version                                                                                                                                              | 901.343B001                                                                                                                                                                                                                                                                                                              |
| Firmware / Software version                                                                                                                                   | 350000091                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                               | FCC-ID: 2AGCT-U9024X      IC: None                                                                                                                                                                                                                                                                                       |
| <b>Test result</b>                                                                                                                                            | <b>Passed</b>                                                                                                                                                                                                                                                                                                            |

**Possible test case verdicts:**

- neither assessed nor tested ..... : N/N
- required by standard but not appl. to test object ..... : N/A
- required by standard but not tested ..... : N/T
- not required by standard for the test object ..... : N/R
- test object does meet the requirement ..... : P (Pass)
- test object does not meet the requirement ..... : F (Fail)

**Testing:**

Test Lab Temperature ..... : 20 – 23 °C

Test Lab Humidity ..... : 32 – 38 %

Date of receipt of test item ..... : 2015-10-27

Date (s) of performance of tests ..... : 2015-10-27

Compiled by ..... : Burkhard Pudell

Tested by (+ signature) ..... : Burkhard Pudell  
(Responsible for Test)

*B. Pudell*

Approved by (+ signature) ..... : Christian Weber  
(Head of Lab)

*C. Weber*

Date of issue ..... : 2015-11-18

Total number of pages ..... : 40

**General remarks:**

**The test results presented in this report relate only to the object tested.**

**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.**

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

**Additional comments:**

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## Version History

| Version | Issue Date | Remarks         | Revised by |
|---------|------------|-----------------|------------|
| 01      | 2015-11-18 | Initial Release |            |

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## 1 Equipment (Test item) Description

|                             |                                                                                        |                             |
|-----------------------------|----------------------------------------------------------------------------------------|-----------------------------|
| Description                 | AgentE USA/SGP                                                                         |                             |
| Model                       | 3000-U902-4X                                                                           |                             |
| Additional Model(s)         | None                                                                                   |                             |
| Brand Name(s)               | EMKA                                                                                   |                             |
| Serial number               | None                                                                                   |                             |
| Hardware version            | 901.343B001                                                                            |                             |
| Software / Firmware version | 350000091                                                                              |                             |
| FCC-ID                      | 2AGCT-U9024X                                                                           |                             |
| IC                          | None                                                                                   |                             |
| Equipment type              | End product                                                                            |                             |
| Radio type                  | Transceiver                                                                            |                             |
| Radio technology            | custom                                                                                 |                             |
| Operating frequency range   | 922.5 MHz                                                                              |                             |
| Assigned frequency band     | 902 - 928 MHz                                                                          |                             |
| Frequency range             | F <sub>MID</sub>                                                                       | 922.5 MHz                   |
| Spreading                   | None                                                                                   |                             |
| Modulations                 | GFSK                                                                                   |                             |
| Number of channels          | 1                                                                                      |                             |
| Channel spacing             | None                                                                                   |                             |
| Number of antennas          | 1                                                                                      |                             |
| Antenna                     | Type                                                                                   | integrated                  |
|                             | Model                                                                                  | 306.021, 55 mm wire antenna |
|                             | Manufacturer                                                                           | In-Circuit GmbH             |
|                             | Gain                                                                                   | unspecified                 |
| Manufacturer                | EMKA Beschlagteile GmbH & Co. KG<br>Langenberger Straße 32<br>42551 Velbert<br>GERMANY |                             |
| Power supply                | V <sub>NOM</sub>                                                                       | 3.0 VDC (Lithium-Battery)   |
|                             | V <sub>MIN</sub>                                                                       | N/A                         |
|                             | V <sub>MIN</sub>                                                                       | N/A                         |
| AC/DC-Adaptor               | Model                                                                                  | N/A                         |
|                             | Vendor                                                                                 | N/A                         |
|                             | Input                                                                                  | N/A                         |
|                             | Output                                                                                 | N/A                         |

#### 1.4 Supporting Equipment Used During Testing

| Product Type*                                                                                                                                                                       | Device | Manufacturer | Model No. | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|-----------|----------|
| None                                                                                                                                                                                |        |              |           |          |
| <p><b>*Note:</b> Use the following abbreviations:</p> <p>AE : Auxiliary/Associated Equipment, or</p> <p>SIM : Simulator (Not Subjected to Test)</p> <p>CABL : Connecting cables</p> |        |              |           |          |

## 1.5 Test Modes

| Mode #  | Description         |                                                                          |
|---------|---------------------|--------------------------------------------------------------------------|
| Single  | General conditions: | EUT powered by fully battery                                             |
|         | Radio conditions:   | Mode = standalone transmit<br>Modulation = GFSK<br>Power level = Maximum |
| Receive | General conditions: | EUT powered by fully battery                                             |
|         | Radio conditions:   | Mode = standalone receive<br>Modulation = GFSK                           |

## 1.6 Test Equipment Used During Testing

| Measurement Software |                  |            |           |
|----------------------|------------------|------------|-----------|
| Description          | Manufacturer     | Name       | Version   |
| EMC Test Software    | Dare Instruments | Radimation | 2014.1.15 |

| Occupied Bandwidth |              |        |            |           |          |
|--------------------|--------------|--------|------------|-----------|----------|
| Description        | Manufacturer | Model  | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer  | R&S          | FSP 30 | EF00312    | 2015-02   | 2016-02  |

| Field strength emissions |              |        |            |           |          |
|--------------------------|--------------|--------|------------|-----------|----------|
| Description              | Manufacturer | Model  | Identifier | Cal. Date | Cal. Due |
| Semi-anechoic chamber    | Frankonia    | AC 1   | EF00062    | -         | -        |
| Spectrum Analyzer        | R&S          | FSIQ26 | EF00242    | 2015-04   | 2016-04  |
| Biconical Antenna        | R&S          | HK 116 | EF00012    | 2013-02   | 2016-02  |
| LPD Antenna              | R&S          | HL 223 | EF00187    | 2014-03   | 2017-03  |
| LPD Antenna              | R&S          | HL 025 | EF00327    | 2015-10   | 2018-10  |

## 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:

$$\begin{array}{rclcl} \text{Reading} & + & \text{AF} & = & \text{Net Reading} & : & \text{Net reading - FCC limit} & = & \text{Margin} \\ 21.5 \text{ dB}\mu\text{V} & + & 26 \text{ dB} & = & 47.5 \text{ dB}\mu\text{V/m} & : & 47.5 \text{ dB}\mu\text{V/m} - 57.0 \text{ dB}\mu\text{V/m} & = & -9.5 \text{ dB} \end{array}$$

## 2 Result Summary

| FCC 47 CFR Part 15C, IC RSS-210                     |                                                        |                  |        |                                 |
|-----------------------------------------------------|--------------------------------------------------------|------------------|--------|---------------------------------|
| Product Specific Standard Section                   | Requirement – Test                                     | Reference Method | Result | Remarks                         |
| RSS-Gen 6.6                                         | Occupied Bandwidth                                     | RSS-Gen 6.6      | N/R    | Informational only              |
| FCC 15.249(a),(c),(e)<br>IC RSS-210 A2.9(a)         | Fundamental field strength emissions                   | ANSI C63.4       | PASS   |                                 |
| FCC 15.249(a),(c),(d),(e)<br>IC RSS-210 A2.9(a),(b) | Emission radiated outside the specified frequency band | ANSI C63.4       | PASS   |                                 |
| IC RSS-210 Section 2.3<br>IC RSS-Gen 7.1            | Receiver radiated spurious emissions                   | ANSI C63.4       | PASS   |                                 |
| FCC § 15.207<br>IC RSS-Gen 8.8                      | AC power line conducted emissions                      | ANSI C63.4       | N/R    | EUT exclusively battery powered |
| <b>Remarks:</b>                                     |                                                        |                  |        |                                 |

### 3 Test Conditions and Results

#### 3.1 Test Conditions and Results – Occupied Bandwidth

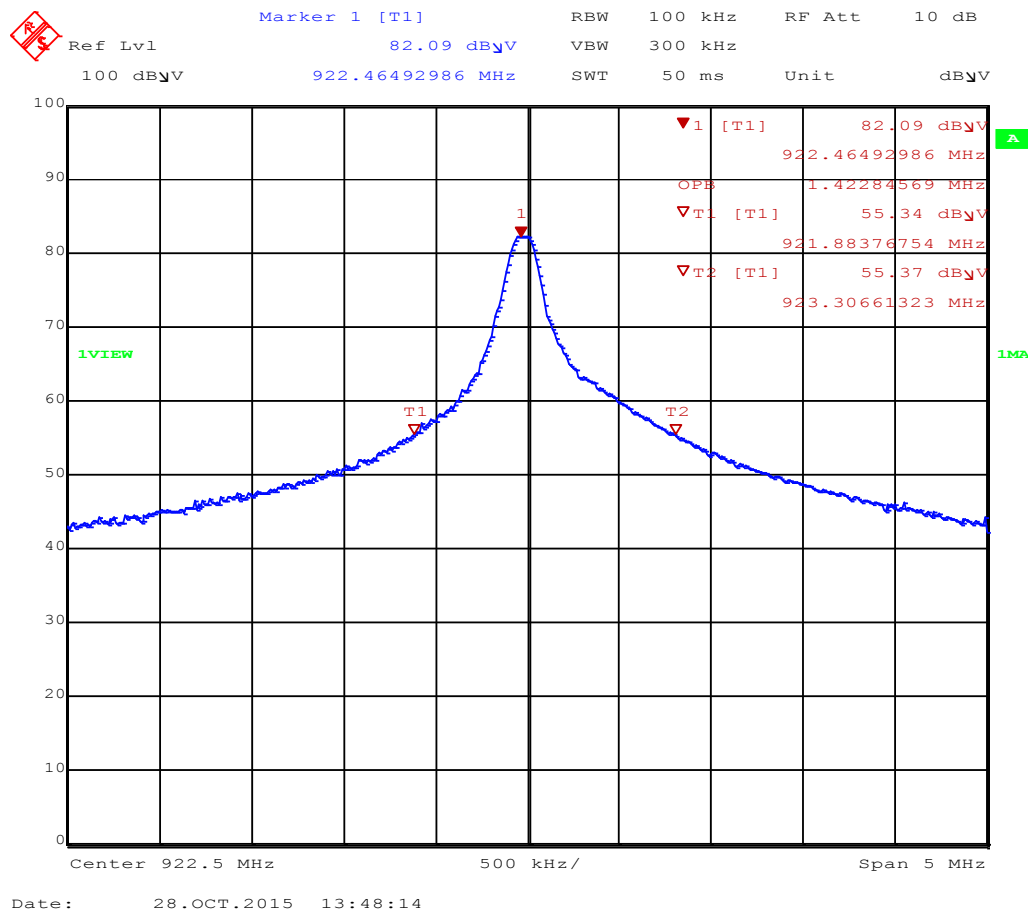
| Occupied Bandwidth acc. to IC RSS-Gen                                                                                                                                                                                                                                                                     |                    |                          | Verdict: PASS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------|---------------|
| Test according to measurement reference                                                                                                                                                                                                                                                                   | Reference Method   |                          |               |
|                                                                                                                                                                                                                                                                                                           | RSS-Gen 6.6        |                          |               |
| Test frequency range                                                                                                                                                                                                                                                                                      | Tested frequencies |                          |               |
|                                                                                                                                                                                                                                                                                                           | F <sub>MID</sub>   |                          |               |
| EUT test mode                                                                                                                                                                                                                                                                                             | Single             |                          |               |
| Limits                                                                                                                                                                                                                                                                                                    |                    |                          |               |
| None (Informational only)                                                                                                                                                                                                                                                                                 |                    |                          |               |
| Test setup                                                                                                                                                                                                                                                                                                |                    |                          |               |
| <div><div>Spectrum Analyzer</div><div>EUT</div></div>                                                                                                                                                                                                                                                     |                    |                          |               |
| Test procedure                                                                                                                                                                                                                                                                                            |                    |                          |               |
| <div>1. EUT set to test mode (Communication tester is used if needed)</div> <div>2. Span set to at least twice the emission spectrum</div> <div>3. Resolution bandwidth set to 1 % of span</div> <div>4. Occupied Bandwidth (99 %) measurement with spectrum analyzer built in measurement function</div> |                    |                          |               |
| Test results                                                                                                                                                                                                                                                                                              |                    |                          |               |
| Channel                                                                                                                                                                                                                                                                                                   | Frequency [MHz]    | Occupied Bandwidth [kHz] |               |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 922.5              | 1423                     |               |
| Comments: Measurement is applicable to all variants                                                                                                                                                                                                                                                       |                    |                          |               |

# Occupied Bandwidth - F<sub>MID</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1510-5134

Applicant: In-Circuit GmbH  
EUT Name: AgentE USA/SGP  
Model: 3000-U902-4X  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: SRD / 922.5 MHz / GFSK  
Test Date: 2015-10-28  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 1.423 MHz



Test Report No.: G0M-1510-5134-TFC249DT-V01

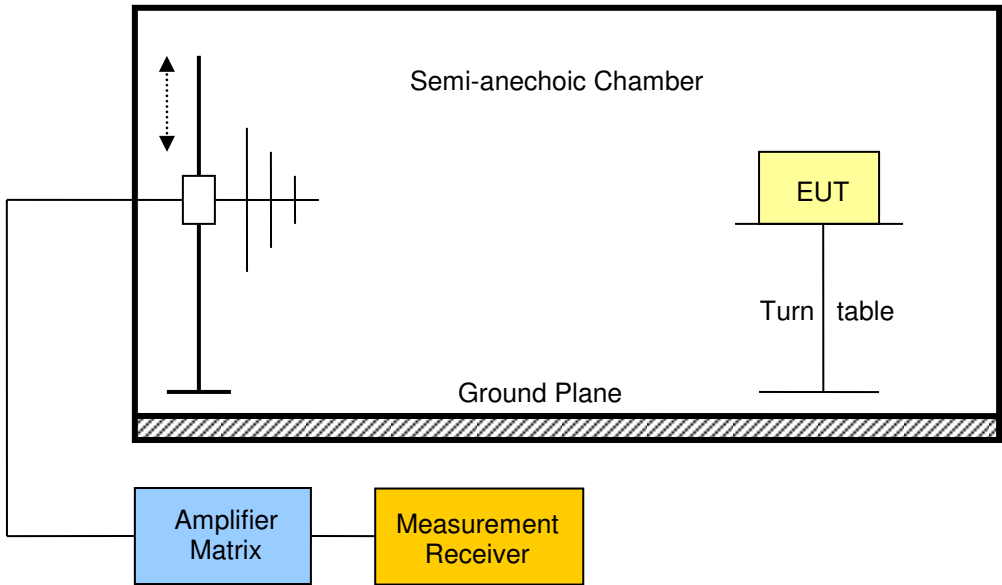
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

### 3.2 Test Conditions and Results – Fundamental field strength emissions

| Field strength emissions acc. to FCC 47 CFR 15.249 / IC RSS-210 |                                            |              |                | Verdict: PASS      |
|-----------------------------------------------------------------|--------------------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                             | Reference Method                           |              |                |                    |
|                                                                 | FCC 15.249(a),(c),(e) / IC RSS-210 A2.9(a) |              |                |                    |
| Test according to measurement reference                         | Reference Method                           |              |                |                    |
|                                                                 | ANSI C63.4                                 |              |                |                    |
| Test frequency range                                            | Tested frequencies                         |              |                |                    |
|                                                                 | F <sub>MID</sub>                           |              |                |                    |
| EUT test mode                                                   | Single                                     |              |                |                    |
| Limits                                                          |                                            |              |                |                    |
| Frequency range [MHz]                                           | Detector                                   | Limit [mV/m] | Limit [dBμV/m] | Limit Distance [m] |
| 902 – 928                                                       | Quasi-Peak                                 | 50           | 94             | 3                  |
| 2400 – 2483.5                                                   | Average                                    | 50           | 94             | 3                  |
| 5725 - 5875                                                     | Average                                    | 50           | 94             | 3                  |

FCC 15.249(e) : for frequencies above 1000 MHz, the field strength limits are based on average limits. 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 condition of modulation.

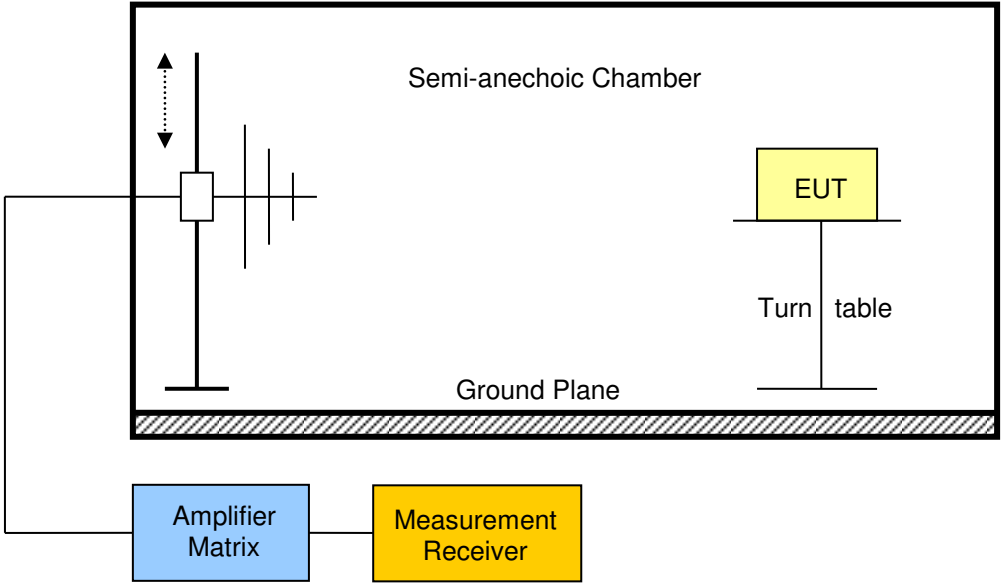
Below 1GHz a CISPR quasi-peak detector is used.

| Test setup                                                                           |
|--------------------------------------------------------------------------------------|
|  |

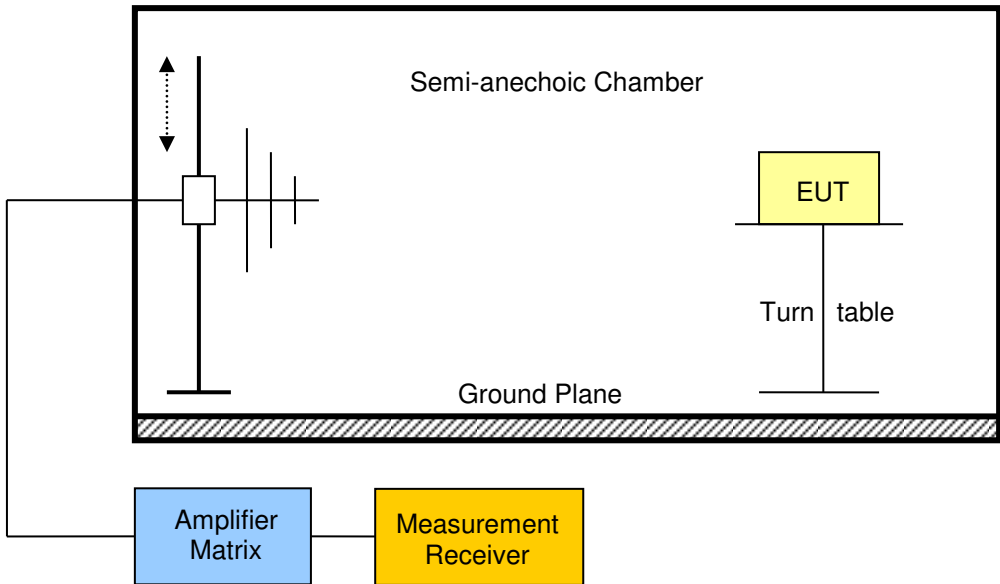
| Test procedure                                                                                                                                                                                                                                                                                                                                                  |                 |                |                      |          |      |                      |                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------------|----------|------|----------------------|---------------------|-------------|
| <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 and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>4. Markers are set to maximum emission levels</li> </ol> |                 |                |                      |          |      |                      |                     |             |
| Test results                                                                                                                                                                                                                                                                                                                                                    |                 |                |                      |          |      |                      |                     |             |
| Channel                                                                                                                                                                                                                                                                                                                                                         | Frequency [MHz] | Emission [MHz] | Level [db $\mu$ V/m] | Detector | Pol. | Limit [db $\mu$ V/m] | Limit distance [m]* | Margin [dB] |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 922.488        | 81.30                | qp       | ver  | 94                   | 3                   | -12.70      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 922.488        | 82.86                | qp       | hor  | 94                   | 3                   | -11.14      |
| Comments: * Physical distance between EUT and measurement antenna.                                                                                                                                                                                                                                                                                              |                 |                |                      |          |      |                      |                     |             |

### 3.3 Test Conditions and Results – Emissions radiated outside the specified frequency band

| Radiated out-of-band band emissions acc. to<br>FCC 47 CFR 15.249 / IC RSS-210                                                                                                                                                                                                       |                                                    |              |                | Verdict: PASS      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                                                                                                                                                                                                                 | Reference Method                                   |              |                |                    |
|                                                                                                                                                                                                                                                                                     | FCC 15.249(a),(c),(d),(e) / IC RSS-210 A2.9(a),(b) |              |                |                    |
| Test according to measurement reference                                                                                                                                                                                                                                             | Reference Method                                   |              |                |                    |
|                                                                                                                                                                                                                                                                                     | ANSI C63.4                                         |              |                |                    |
| Test frequency range                                                                                                                                                                                                                                                                | Tested frequencies                                 |              |                |                    |
|                                                                                                                                                                                                                                                                                     | 30 MHz – 10 <sup>th</sup> hamonic                  |              |                |                    |
| EUT test mode                                                                                                                                                                                                                                                                       | Single                                             |              |                |                    |
| Limits - Harmonics                                                                                                                                                                                                                                                                  |                                                    |              |                |                    |
| Frequency range [MHz]                                                                                                                                                                                                                                                               | Detector                                           | Limit [μV/m] | Limit [dBμV/m] | Limit Distance [m] |
| 902 – 928                                                                                                                                                                                                                                                                           | Quasi-Peak                                         | 500          | 54             | 3                  |
| 2400 – 2483.5                                                                                                                                                                                                                                                                       | Average                                            | 500          | 54             | 3                  |
| 5725 - 5875                                                                                                                                                                                                                                                                         | Average                                            | 500          | 54             | 3                  |
| Limits - General                                                                                                                                                                                                                                                                    |                                                    |              |                |                    |
| Frequency range [MHz]                                                                                                                                                                                                                                                               | Detector                                           | Limit [μV/m] | Limit [dBμV/m] | Limit Distance [m] |
| 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                  |
| FCC 15.249(e) : for frequencies above 1000 MHz, the field strength limits are based on average limits. 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 condition of modulation. |                                                    |              |                |                    |
| Except the higher order harmonics, emission radiated outside the specified frequency band shall be attenuated by at least 50 dB below the level of the fundamental or to the general field strength limits listed in 15.209 / RSS-Gen, whichever is less stringent.                 |                                                    |              |                |                    |

| Test setup                                                                                                                                                                                                                                                                                                                                                      |                 |                |                      |          |      |                      |                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------------|----------|------|----------------------|---------------------|-------------|
|                                                                                                                                                                                                                                                                               |                 |                |                      |          |      |                      |                     |             |
| Test procedure                                                                                                                                                                                                                                                                                                                                                  |                 |                |                      |          |      |                      |                     |             |
| <ol style="list-style-type: none"> <li>5. EUT set to test mode</li> <li>6. Span it set according to measurement range</li> <li>7. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>8. Markers are set to maximum emission levels</li> </ol> |                 |                |                      |          |      |                      |                     |             |
| Test results                                                                                                                                                                                                                                                                                                                                                    |                 |                |                      |          |      |                      |                     |             |
| Channel                                                                                                                                                                                                                                                                                                                                                         | Frequency [MHz] | Emission [MHz] | Level [db $\mu$ V/m] | Detector | Pol. | Limit [db $\mu$ V/m] | Limit distance [m]* | Margin [dB] |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 928            | 33.51                | pk       | ver  | 46.00                | 3                   | -12.49      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 928            | 33.53                | pk       | hor  | 46.00                | 3                   | -12.47      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 3688           | 50.96                | pk       | ver  | 74.00                | 3                   | -23.04      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 922.5           | 3688           | 53.41                | pk       | hor  | 74.00                | 3                   | -20.59      |
| Comments: * Physical distance between EUT and measurement antenna.                                                                                                                                                                                                                                                                                              |                 |                |                      |          |      |                      |                     |             |

### 3.4 Test Conditions and Results – Receiver radiated emissions

| Receiver radiated emissions acc. to IC RSS-210                                       |                                   |              |                | Verdict: PASS      |
|--------------------------------------------------------------------------------------|-----------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                  | Reference Method                  |              |                |                    |
|                                                                                      | IC RSS-210 A8.5                   |              |                |                    |
| Test according to measurement reference                                              | Reference Method                  |              |                |                    |
|                                                                                      | ANSI C63.4                        |              |                |                    |
| Test frequency range                                                                 | Tested frequencies                |              |                |                    |
|                                                                                      | 30 MHz – 5 <sup>th</sup> Harmonic |              |                |                    |
| EUT test mode                                                                        | Receive                           |              |                |                    |
| Limits                                                                               |                                   |              |                |                    |
| Frequency range [MHz]                                                                | Detector                          | Limit [μV/m] | Limit [dBμV/m] | Limit Distance [m] |
| 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                  |
| Test setup                                                                           |                                   |              |                |                    |
|  |                                   |              |                |                    |

| Test procedure                                                                                                                                                                                                                                                                                                                                                                                           |                 |                |                               |      |      |                      |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|-------------------------------|------|------|----------------------|---------------------|
| <ol style="list-style-type: none"> <li>1. EUT set to receive mode (Communication tester is used if needed)</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 and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>4. Markers are set to peak emission levels</li> </ol> |                 |                |                               |      |      |                      |                     |
| Test results                                                                                                                                                                                                                                                                                                                                                                                             |                 |                |                               |      |      |                      |                     |
| Channel                                                                                                                                                                                                                                                                                                                                                                                                  | Frequency [MHz] | Emission [MHz] | Emission Level [dB $\mu$ V/m] | Pol. | Det. | Limit [dB $\mu$ V/m] | Margin [ $\mu$ V/m] |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                         | 922.5           | 7441           | 51.94                         | ver  | pk   | 53.98                | -2.04 dB            |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                         | 922.5           | 7608           | 52.28                         | hor  | pk   | 53.98                | -1.7 dB             |
| Comments: * Physical distance between EUT and measurement antenna.                                                                                                                                                                                                                                                                                                                                       |                 |                |                               |      |      |                      |                     |

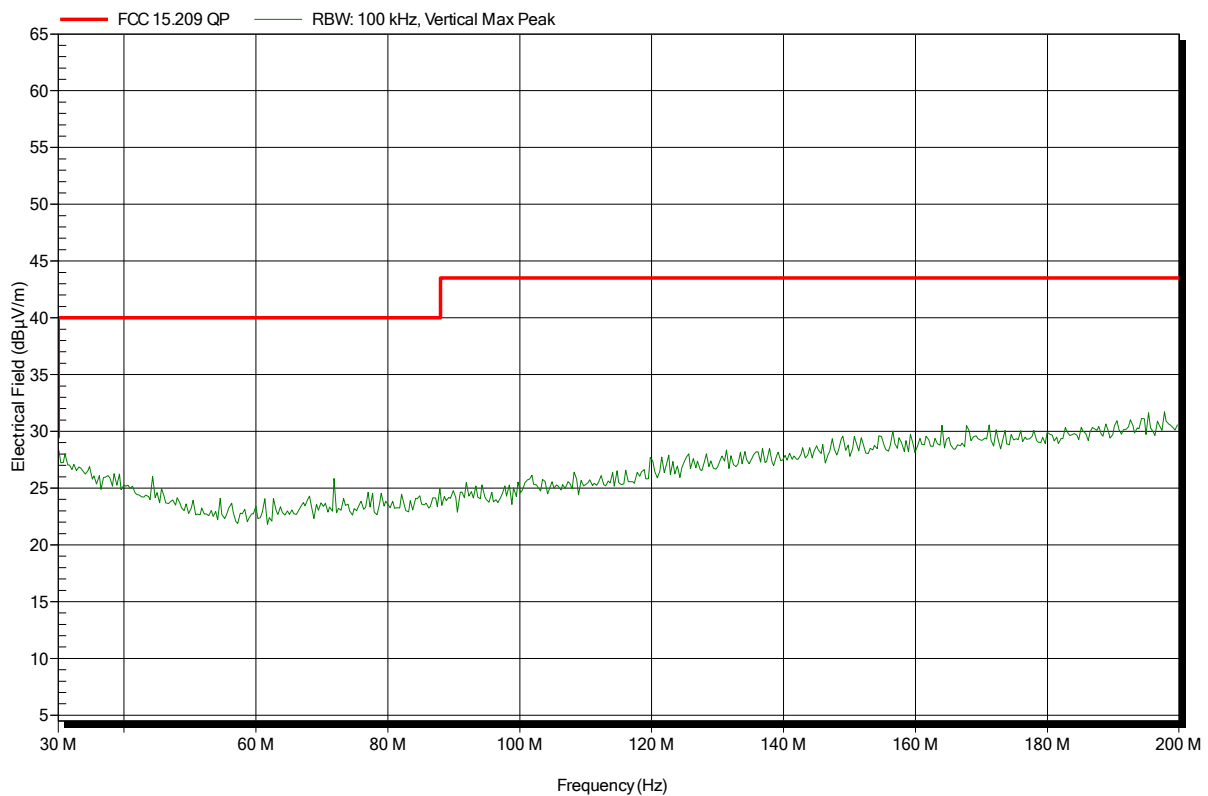
## ANNEX A Transmitter radiated spurious emissions

### Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | In-Circuit GmbH                         |
| EUT Name:             | AgentE USA/SGP                          |
| Model:                | 3000-U902-4X                            |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 3.0 V DC              |
| Antenna:              | Rohde & Schwarz HK 116, Vertical        |
| Measurement distance: | 3 m                                     |
| Mode:                 | TX; SRD; 922.5 MHz; GFSK, TX - testmode |
| Test Date:            | 2015-10-27                              |
| Note:                 | EUT horizontal                          |

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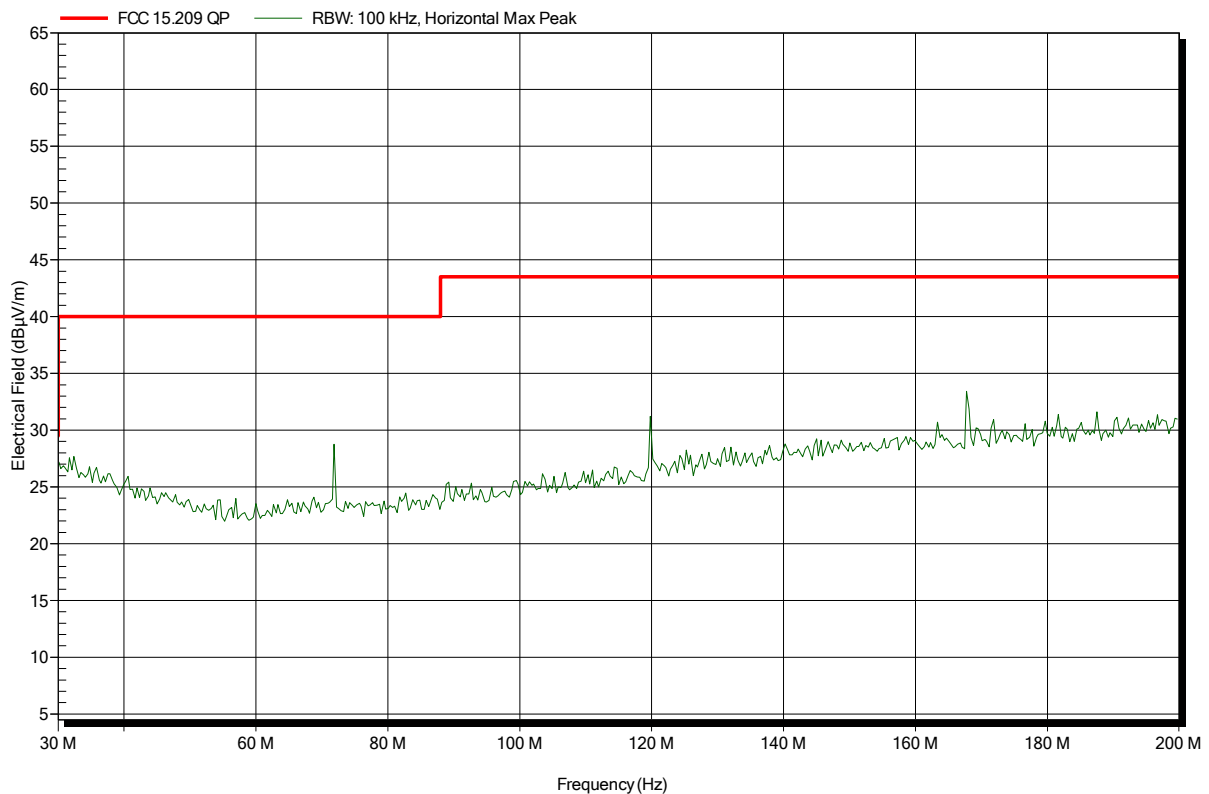


**Spurious emissions according to FCC part 15 Subpart C § 15.249**

Project number: G0M-1510-5134

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | In-Circuit GmbH                         |
| EUT Name:             | AgentE USA/SGP                          |
| Model:                | 3000-U902-4X                            |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 3.0 V DC              |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal      |
| Measurement distance: | 3 m                                     |
| Mode:                 | TX; SRD; 922.5 MHz; GFSK, TX - testmode |
| Test Date:            | 2015-10-27                              |
| Note:                 | EUT horizontal                          |

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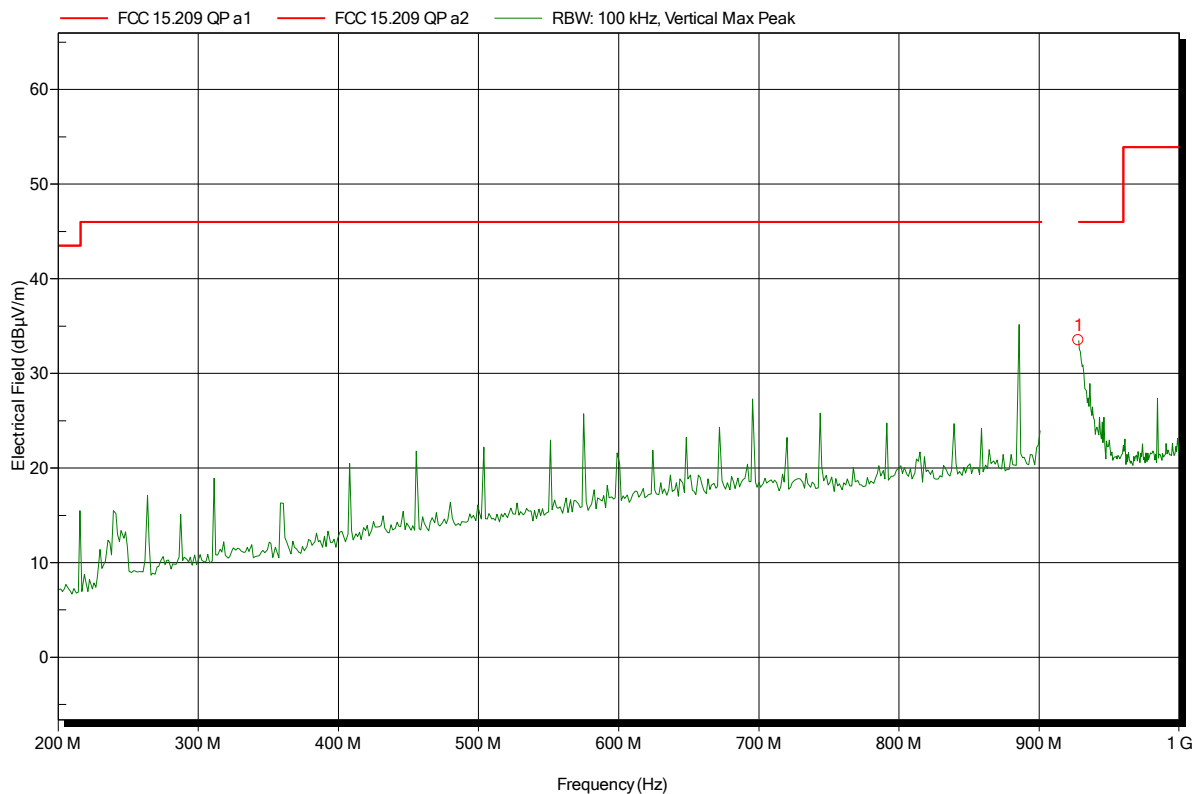


## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: TX; SRD; 922.5 MHz; GFSK, TX - testmode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

Index 3



| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 928 MHz   | 33.51 dBµV/m | 46 dBµV/m  | -12.49 dB       | Pass        |

Test Report No.: G0M-1510-5134-TFC249DT-V01

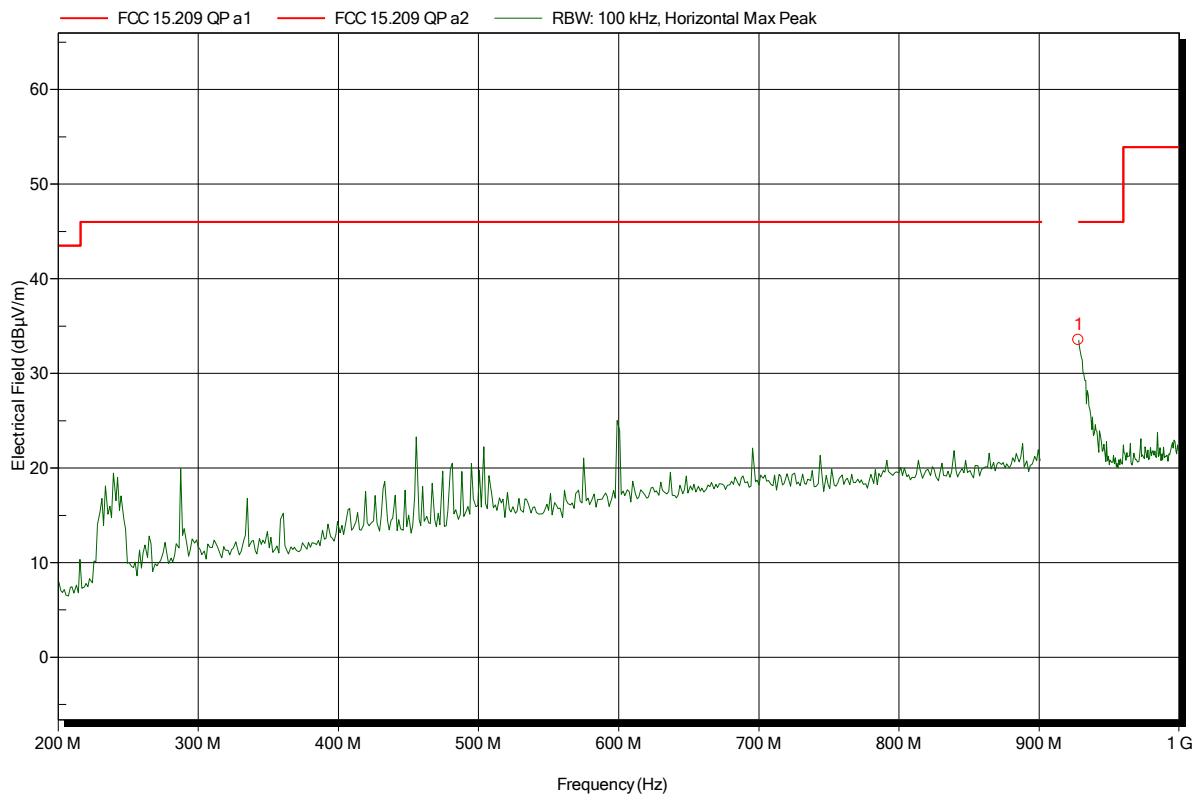
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; SRD; 922.5 MHz; GFSK, TX - testmode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

Index 4



| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 928 MHz   | 33.53 dBµV/m | 46 dBµV/m  | -12.47 dB       | Pass        |

Test Report No.: G0M-1510-5134-TFC249DT-V01

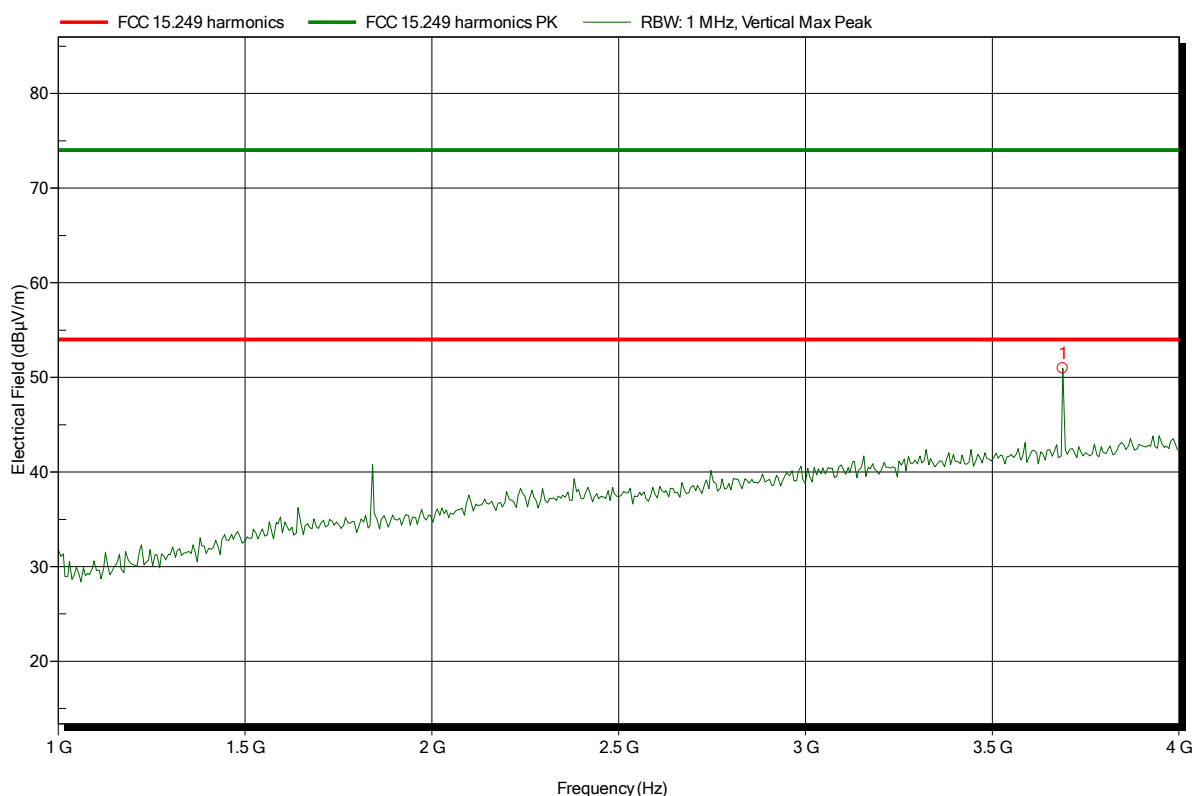
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; SRD; 922.5 MHz; GFSK, TX - testmode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

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| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 3.688 GHz | 50.96 dBµV/m | 74 dBµV/m  | -23.04 dB       | Pass        |

Test Report No.: G0M-1510-5134-TFC249DT-V01

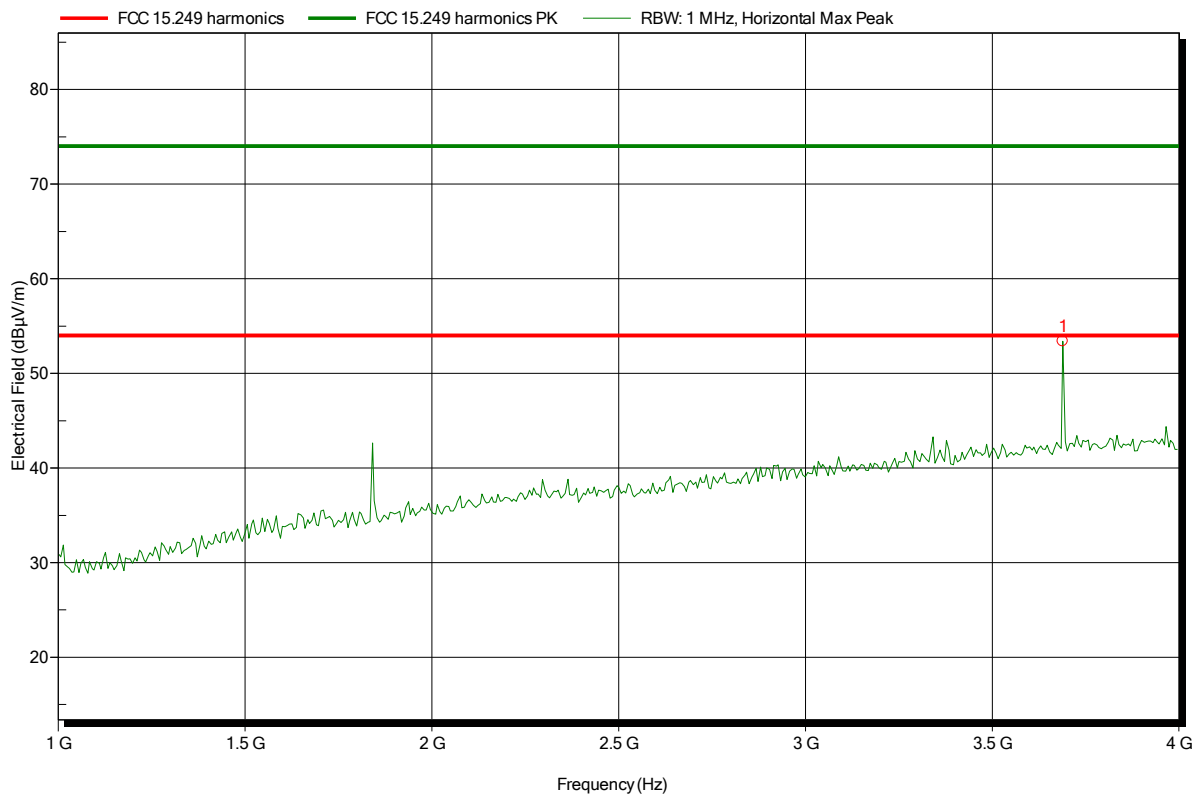
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; SRD; 922.5 MHz; GFSK, TX - testmode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

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| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 3.688 GHz | 53.41 dBμV/m | 74 dBμV/m  | -20.59 dB       | Pass        |

Test Report No.: G0M-1510-5134-TFC249DT-V01

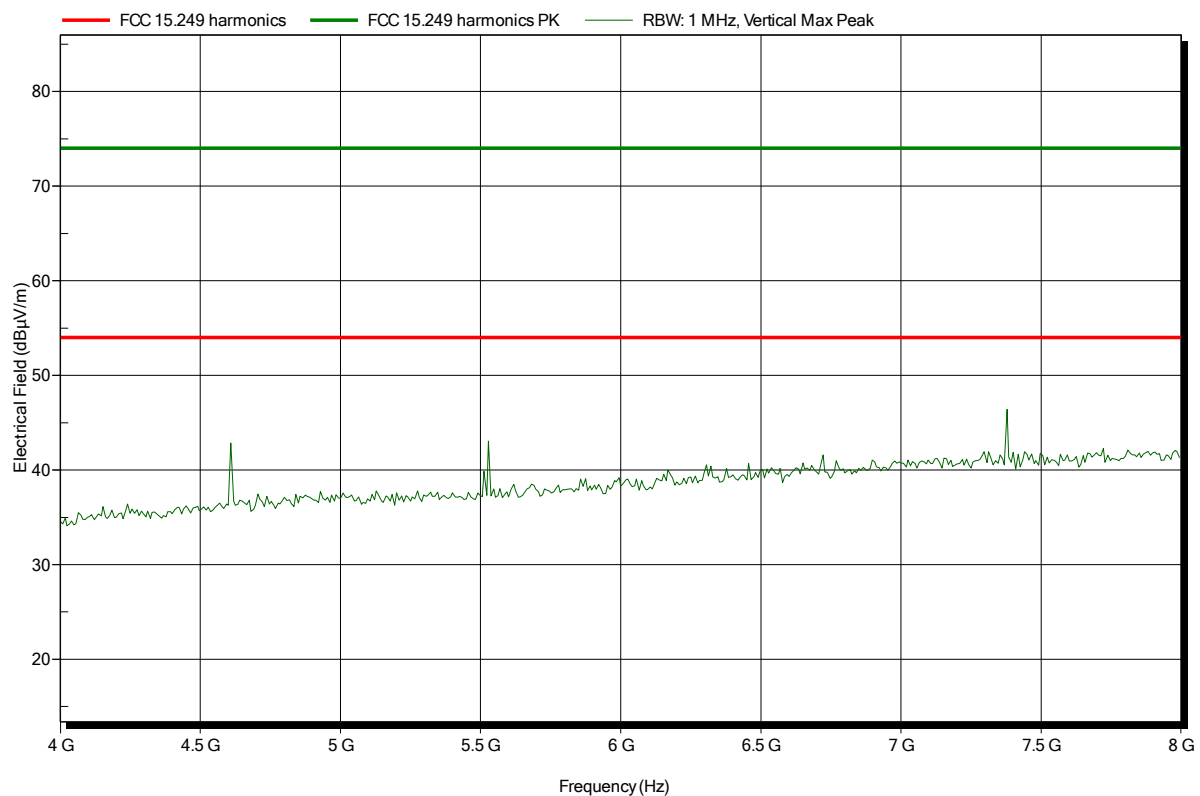
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | In-Circuit GmbH                         |
| EUT Name:             | AgentE USA/SGP                          |
| Model:                | 3000-U902-4X                            |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 3.0 V DC              |
| Antenna:              | Rohde & Schwarz HL 025, Vertical        |
| Measurement distance: | 1 m converted to 3m                     |
| Mode:                 | TX; SRD; 922.5 MHz; GFSK, TX - testmode |
| Test Date:            | 2015-10-28                              |
| Note:                 | EUT horizontal                          |

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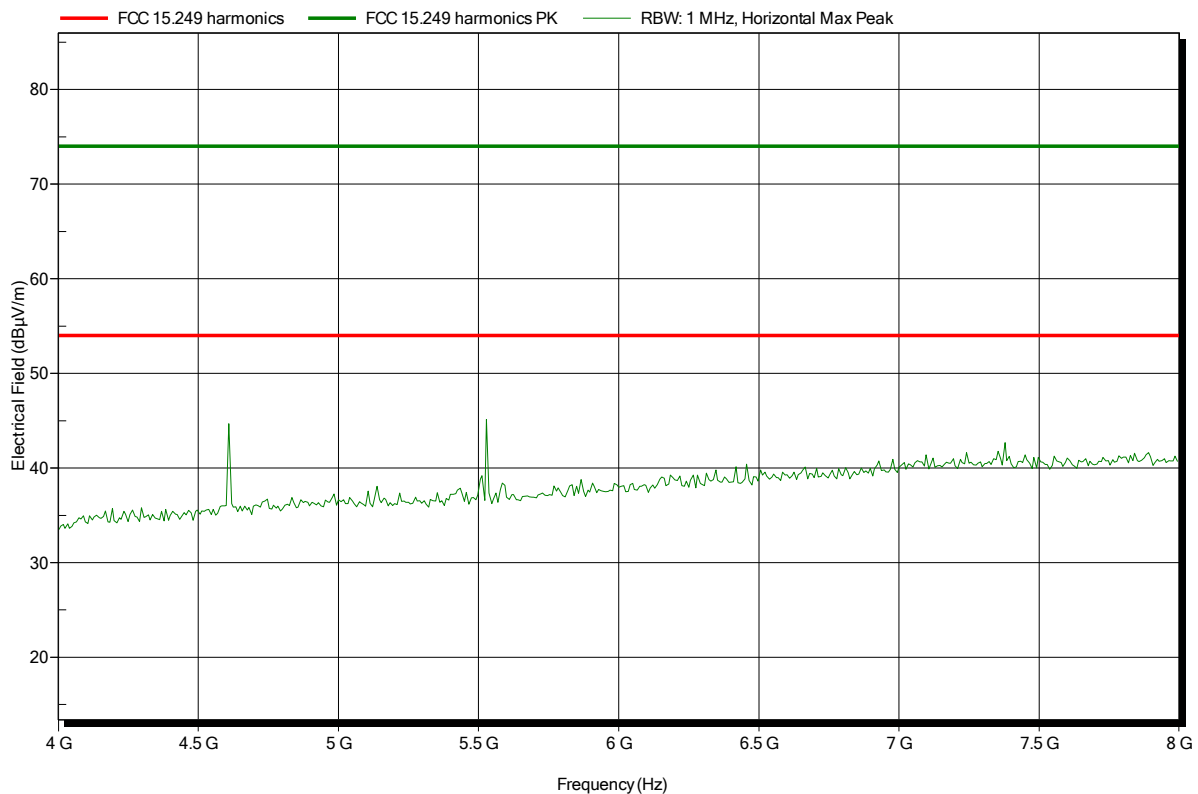


## Spurious emissions according to FCC part 15 Subpart C § 15.249

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; SRD; 922.5 MHz; GFSK, TX - testmode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

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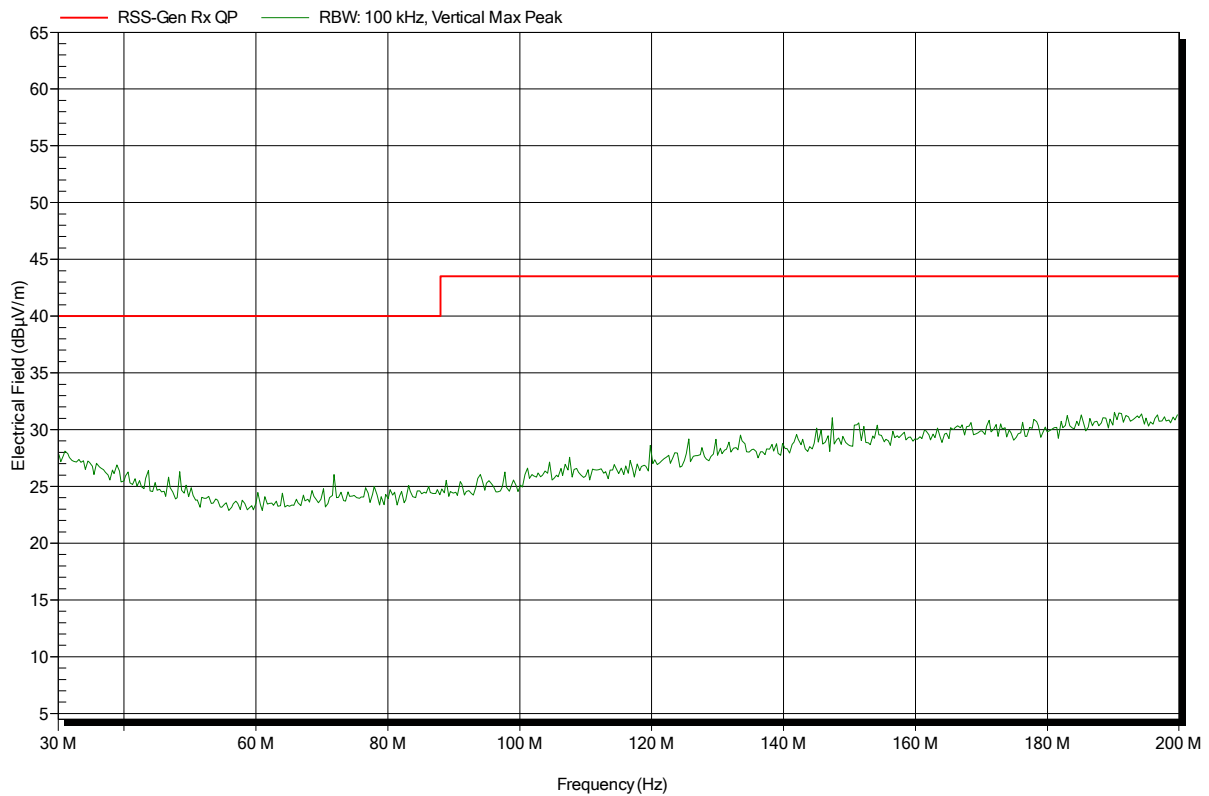
## ANNEX B Receiver radiated spurious emissions

### Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

|                       |                                   |
|-----------------------|-----------------------------------|
| Applicant:            | In-Circuit GmbH                   |
| EUT Name:             | AgentE USA/SGP                    |
| Model:                | 3000-U902-4X                      |
| Test Site:            | Eurofins Product Service GmbH     |
| Operator:             | Mr. Pudell                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 3.0 V DC        |
| Antenna:              | Rohde & Schwarz HK 116, Vertical  |
| Measurement distance: | 3 m                               |
| Mode:                 | RX; SRD; 922.5 MHz; GFSK, RX-mode |
| Test Date:            | 2015-10-27                        |
| Note:                 | EUT horizontal                    |

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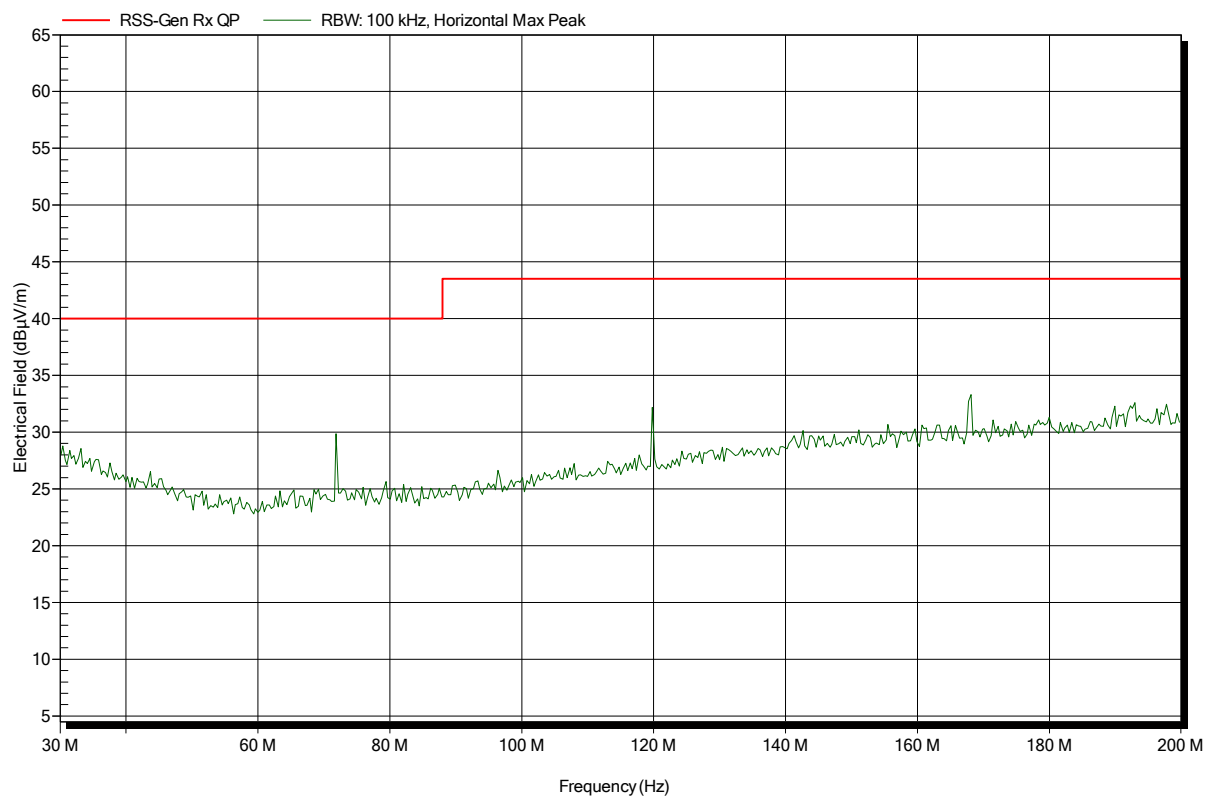


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HK 116, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

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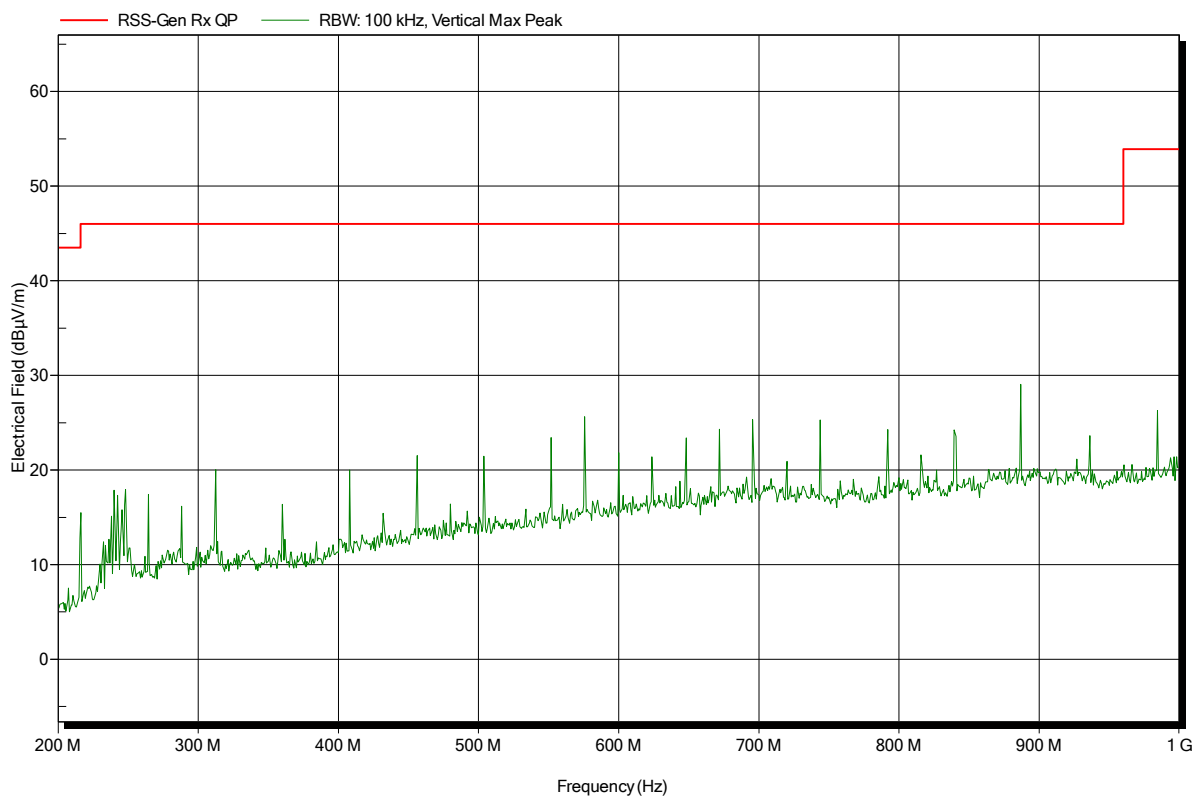


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-27  
 Note: EUT horizontal

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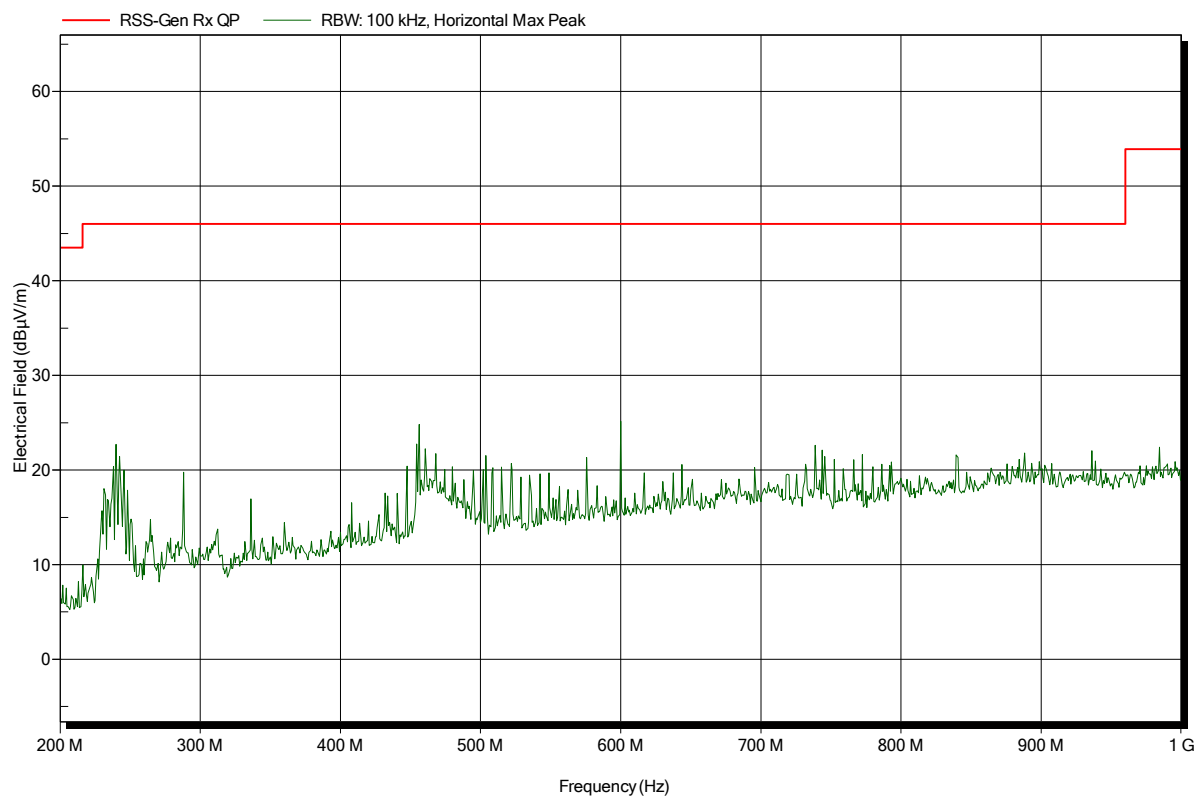


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | In-Circuit GmbH                    |
| EUT Name:             | AgentE USA/SGP                     |
| Model:                | 3000-U902-4X                       |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Pudell                         |
| Test Conditions:      | Tnom: 24°C, Vnom: 3.0 V DC         |
| Antenna:              | Rohde & Schwarz HL 223, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | RX; SRD; 922.5 MHz; GFSK, RX-mode  |
| Test Date:            | 2015-10-27                         |
| Note:                 | EUT horizontal                     |

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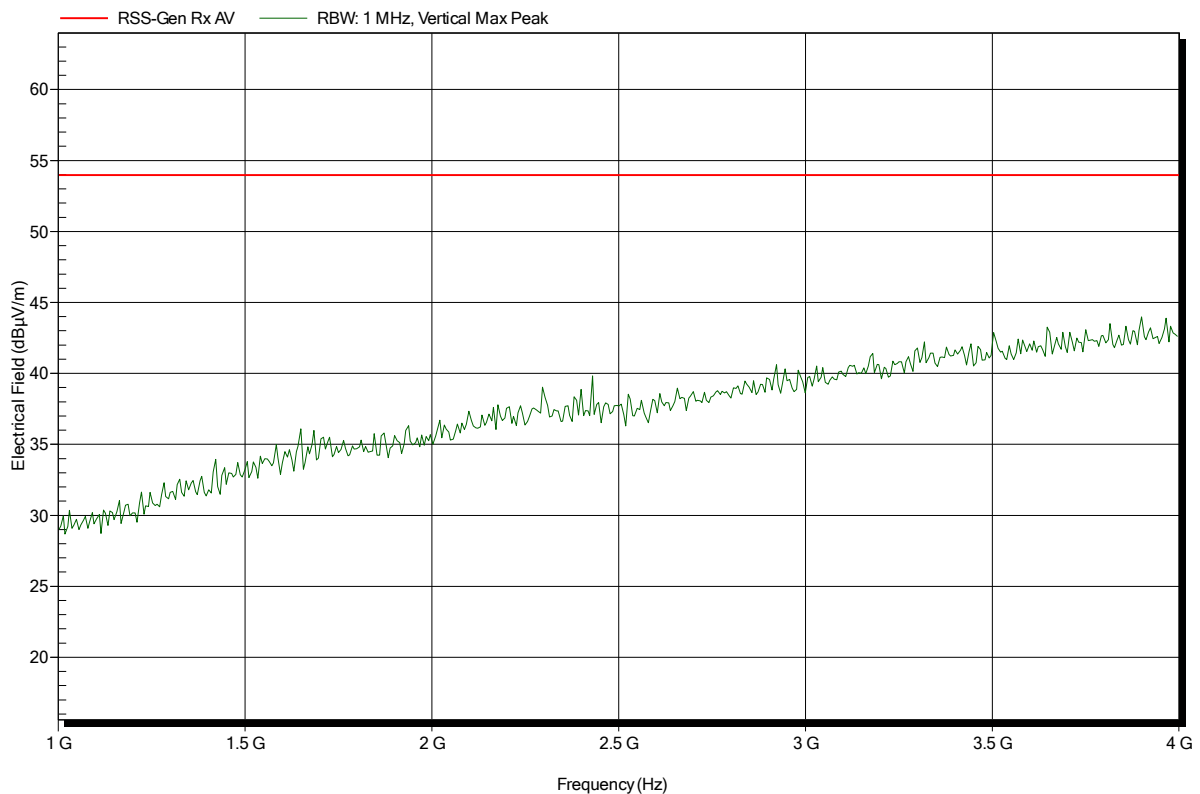


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-28  
 Note: EUT horizontal

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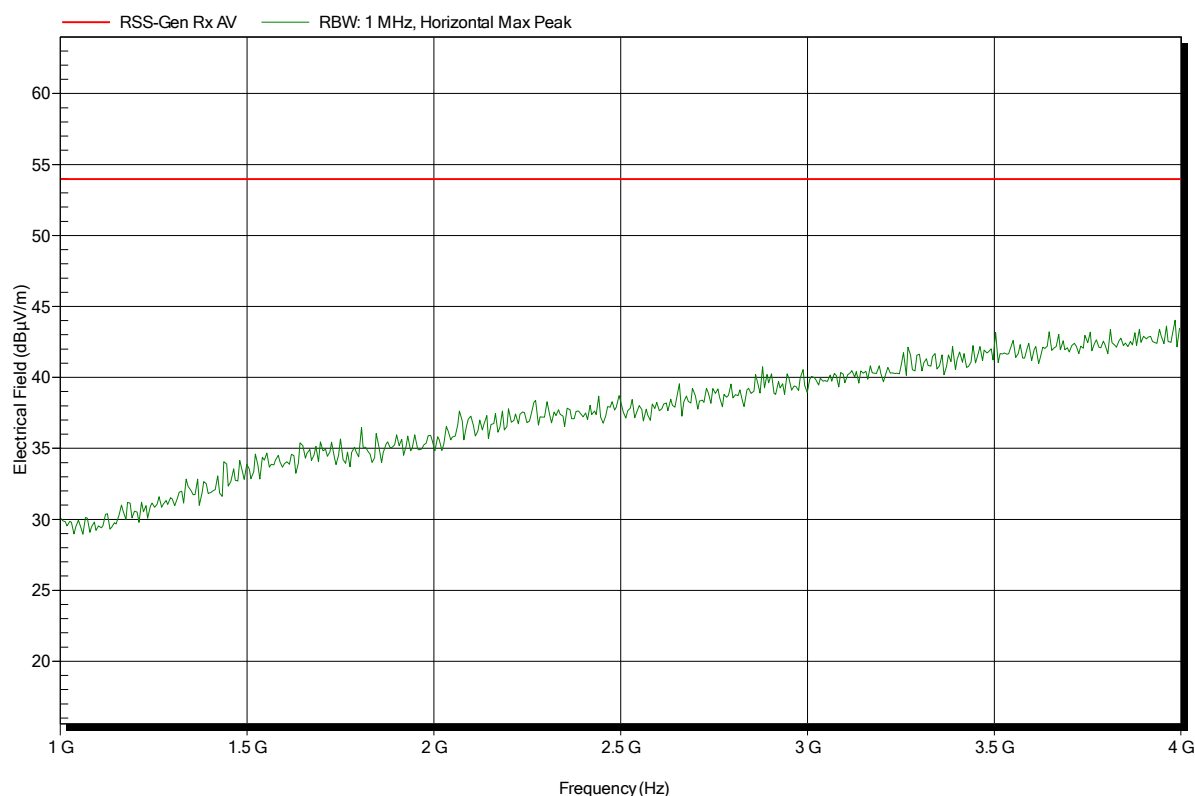


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-28  
 Note: EUT horizontal

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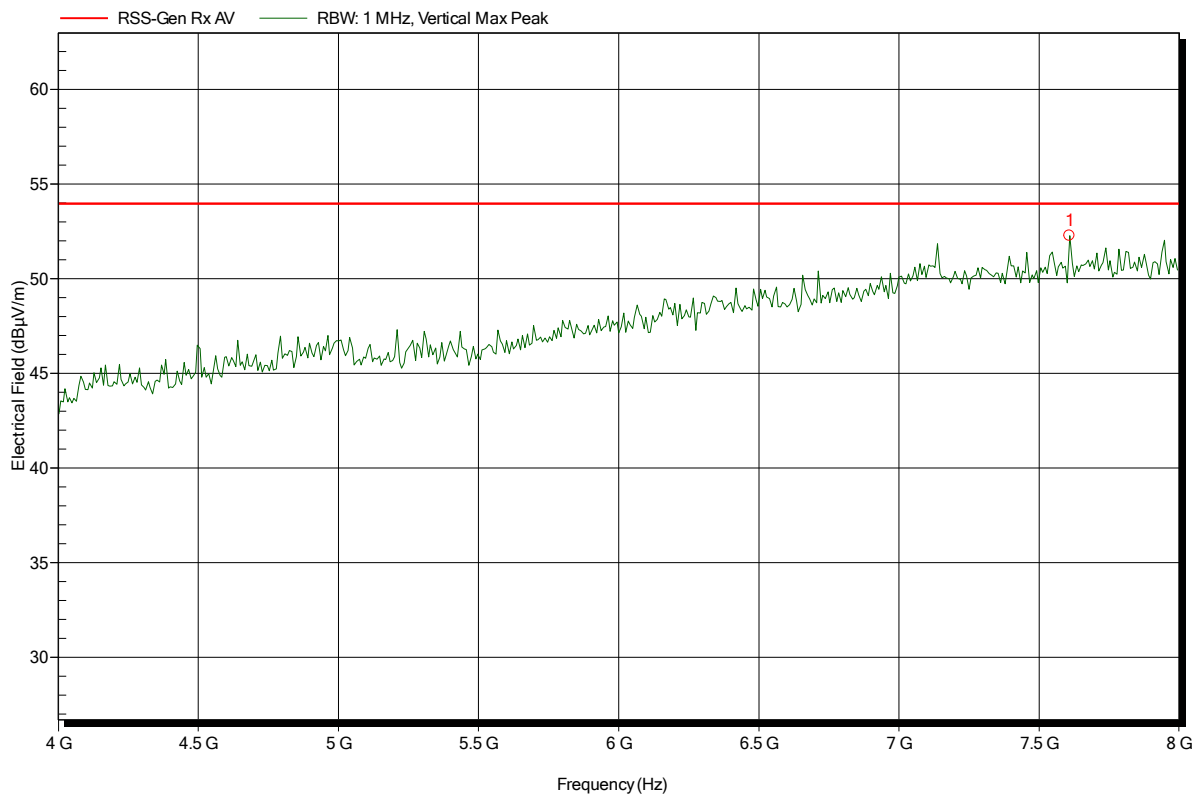


## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-28  
 Note: EUT horizontal

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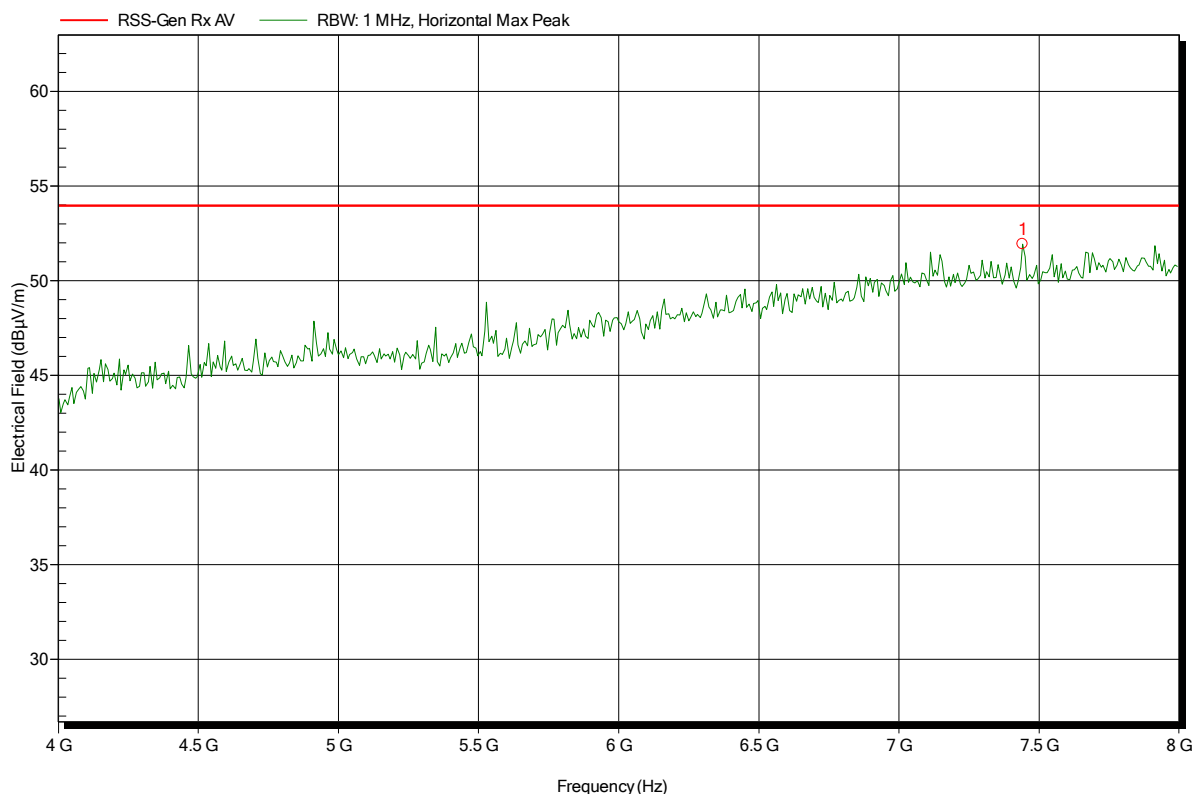
| Frequency | Peak         | Peak Limit   | Peak Difference | Peak Status |
|-----------|--------------|--------------|-----------------|-------------|
| 7.608 GHz | 52.28 dBµV/m | 53.98 dBµV/m | -1.7 dB         | Pass        |

## Spurious emissions according to IC RSS-210 I8 A1

Project number: G0M-1510-5134

Applicant: In-Circuit GmbH  
 EUT Name: AgentE USA/SGP  
 Model: 3000-U902-4X  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 3.0 V DC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; SRD; 922.5 MHz; GFSK, RX-mode  
 Test Date: 2015-10-28  
 Note: EUT horizontal

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| Frequency | Peak         | Peak Limit   | Peak Difference | Peak Status |
|-----------|--------------|--------------|-----------------|-------------|
| 7.441 GHz | 51.94 dBµV/m | 53.98 dBµV/m | -2.04 dB        | Pass        |