

| FCC TEST REPORT                                                                                                         |                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FCC 47 CFR Part 15C<br>Industry Canada RSS-247<br>Frequency hopping systems operating within the 2400 – 2483.5 MHz band |                                                                                                                                                                                                                                                                                                                                |
| Report Reference No. .... :                                                                                             | G0M-1601-5313-TFC247BT-V02                                                                                                                                                                                                                                                                                                     |
| Testing Laboratory .....                                                                                                | Eurofins Product Service GmbH                                                                                                                                                                                                                                                                                                  |
| Address .....                                                                                                           | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany                                                                                                                                                                                                                                                                            |
| Accreditation .....                                                                                                     |   <p>A2LA Accredited Testing Laboratory, Certificate No.: 1983.01<br/>FCC Filed Test Laboratory, Reg.-No.: 96970<br/>IC OATS Filing assigned code: 3470A</p> |
| Applicant's name .....                                                                                                  | Leica Geosystems AG                                                                                                                                                                                                                                                                                                            |
| Address .....                                                                                                           | Heinrich Wild Strasse<br>9435 Heerbrugg<br>SWITZERLAND                                                                                                                                                                                                                                                                         |
| <b>Test specification:</b>                                                                                              |                                                                                                                                                                                                                                                                                                                                |
| Standard..... :                                                                                                         | 47 CFR Part 15C<br>RSS-247, Issue 1, 2015-05                                                                                                                                                                                                                                                                                   |
| Test scope..... :                                                                                                       | partial Radio compliance test                                                                                                                                                                                                                                                                                                  |
| <b>Equipment under test (EUT):</b>                                                                                      |                                                                                                                                                                                                                                                                                                                                |
| Product description                                                                                                     | LR-BT Class 1 Bluetooth Device                                                                                                                                                                                                                                                                                                 |
| Model No.                                                                                                               | CTR35                                                                                                                                                                                                                                                                                                                          |
| Additional Model(s)                                                                                                     | None                                                                                                                                                                                                                                                                                                                           |
| Brand Name(s)                                                                                                           | Leica Geosystems AG                                                                                                                                                                                                                                                                                                            |
| Hardware version                                                                                                        | None                                                                                                                                                                                                                                                                                                                           |
| Firmware / Software version                                                                                             | 5.3.1                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                         | FCC-ID: RFD-CTR35      IC: 3177A-CTR35                                                                                                                                                                                                                                                                                         |
| <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:**

Date of receipt of test item .....: 2016-03-07

Date (s) of performance of tests .....: 2016-03-22

Compiled by .....: Matthias Handrik

Tested by (+ signature) .....: Matthias Handrik  
(Responsible for Test)

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

Date of issue .....: 2016-04-04

Total number of pages .....: 75

**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      | 2016-03-31 | Initial Release      |            |
| 02      | 2016-04-04 | Signatures corrected | C. Weber   |

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## 1 Equipment (Test item) Description

|                             |                                |                  |
|-----------------------------|--------------------------------|------------------|
| Description                 | LR-BT Class 1 Bluetooth Device |                  |
| Model                       | CTR35                          |                  |
| Additional Model(s)         | None                           |                  |
| Brand Name(s)               | Leica Geosystems AG            |                  |
| Serial number               | None                           |                  |
| Hardware version            | None                           |                  |
| Software / Firmware version | 5.3.1                          |                  |
| FCC-ID                      | RFD-CTR35                      |                  |
| IC                          | 3177A-CTR35                    |                  |
| Contains FCC-ID             | PVH0946                        |                  |
| Contains IC                 | 5325A-0946                     |                  |
| Equipment type              | End product                    |                  |
| Radio type                  | Transceiver                    |                  |
| Radio technology            | Bluetooth                      |                  |
| Operating frequency range   | 2402 - 2480 MHz                |                  |
| Assigned frequency band     | 2400 - 2483.5 MHz              |                  |
| Main test frequencies       | F <sub>LOW</sub>               | 2402 MHz         |
|                             | F <sub>MID</sub>               | 2440 MHz         |
|                             | F <sub>HIGH</sub>              | 2480 MHz         |
| Spreading                   | FHSS                           |                  |
| Modulations                 | GFSK, PI/4-DQPSK, 8-PSK        |                  |
| Number of channels          | 79 hopping channels at all     |                  |
| Channel spacing             | 1 MHz                          |                  |
| Number of antennas          | 1                              |                  |
| Radio module                | Type                           | Bluetooth Module |
|                             | Model                          | OSB421i          |
|                             | Manufacturer                   | Ublox AG         |
|                             | HW Version                     | unspecified      |
|                             | SW Version                     | 5.3.1            |
|                             | FCC-ID                         | PVH0946          |
|                             | IC                             | 5325A-0946       |
| Antenna                     | Type                           | integrated       |
|                             | Model                          | FR05S1N0102      |
|                             | Manufacturer                   | Fractus SA       |
|                             | Gain                           | 1.7dBi           |

|                      |                                                                               |                 |
|----------------------|-------------------------------------------------------------------------------|-----------------|
| <b>Manufacturer</b>  | Leica Geosystems AG<br>Heinrich Wild Strasse<br>9435 Heerbrugg<br>SWITZERLAND |                 |
|                      | $V_{NOM}$                                                                     | 5.0 VDC via USB |
|                      | $V_{MIN}$                                                                     | N/R             |
|                      | $V_{MIN}$                                                                     | N/R             |
| <b>Power supply</b>  | Model                                                                         | N/R             |
|                      | Vendor                                                                        | N/R             |
|                      | Input                                                                         | N/R             |
|                      | Output                                                                        | N/R             |
| <b>AC/DC-Adaptor</b> | Model                                                                         | N/R             |
|                      | Vendor                                                                        | N/R             |
|                      | Input                                                                         | N/R             |
|                      | Output                                                                        | N/R             |

#### 1.4 Supporting Equipment Used During Testing

| Product Type*                                                                                                                                                                       | Device               | Manufacturer    | Model No.    | Comments               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|--------------|------------------------|
| SIM                                                                                                                                                                                 | Communication tester | Rohde & Schwarz | CBT          | Signaling              |
| AE                                                                                                                                                                                  | Tablet               | Panasonic       | CS35         | -                      |
| AE                                                                                                                                                                                  | Power Adaptor        | Panasonic       | CF-AA6413CJ2 | Power Adaptor for CS35 |
| <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         |                                                                                                                                                                                                             |
|--------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DH5-Sngl     | General conditions: | EUT powered with 5 VDC via USB.                                                                                                                                                                             |
|              | Radio conditions:   | Mode = standalone transmit<br>Spreading = Hopping stopped (single hopping channel)<br>Modulation = GFSK<br>Packet type = DH5<br>Data rate = 1 Mbps<br>Duty cycle = 77 %<br>Power level = Maximum            |
| 2DH5-Sngl    | General conditions: | EUT powered with 5 VDC via USB.                                                                                                                                                                             |
|              | Radio conditions:   | Mode = standalone transmit<br>Spreading = Hopping stopped (single hopping channel)<br>Modulation = $\pi/4$ -DQPSK<br>Packet type = 2DH5<br>Data rate = 2 Mbps<br>Duty cycle = 77 %<br>Power level = Maximum |
| 3DH5-Sngl    | General conditions: | EUT powered with 5 VDC via USB..                                                                                                                                                                            |
|              | Radio conditions:   | Mode = standalone transmit<br>Spreading = Hopping stopped (single hopping channel)<br>Modulation = 8-DPSK<br>Packet type = 3DH5<br>Data rate = 3 Mbps<br>Duty cycle = 77 %<br>Power level = Maximum         |
| Receive      | General conditions: | EUT powered with 5 VDC via USB.                                                                                                                                                                             |
|              | Radio conditions:   | Mode = standalone receive<br>Spreading = Hopping                                                                                                                                                            |
| AC-Powerline | General conditions: | EUT powered by commercial AC/DC-Adapter                                                                                                                                                                     |
|              | Radio conditions:   | Mode = standalone transmit<br>Spreading = Hopping<br>Power level = Maximum                                                                                                                                  |

## 1.6 Test Equipment Used During Testing

| Measurement Software |                  |            |           |
|----------------------|------------------|------------|-----------|
| Description          | Manufacturer     | Name       | Version   |
| EMC Test Software    | Dare Instruments | Radimation | 2015.2.04 |

| Occupied Bandwidth |              |        |            |           |          |
|--------------------|--------------|--------|------------|-----------|----------|
| Description        | Manufacturer | Model  | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer  | R&S          | FSP 30 | EF00312    | 2016-02   | 2017-02  |

| Radiated spurious emissions |              |            |            |           |          |
|-----------------------------|--------------|------------|------------|-----------|----------|
| Description                 | Manufacturer | Model      | Identifier | Cal. Date | Cal. Due |
| Semi-anechoic chamber       | Frankonia    | AC 1       | EF00062    | -         | -        |
| Spectrum Analyzer           | R&S          | FSEK 30    | EF00168    | 2016-01   | 2017-01  |
| Biconical Antenna           | R&S          | HK 116     | EF00203    | 2014-04   | 2016-04  |
| LPD Antenna                 | R&S          | HL 223     | EF00013    | 2014-04   | 2016-04  |
| Horn Antenna                | R&S          | BBHA 1902D | EF00019    | 2014-03   | 2016-03  |

| AC powerline conducted emissions |              |         |            |           |          |
|----------------------------------|--------------|---------|------------|-----------|----------|
| Description                      | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| AMN                              | R&S          | ESH2-Z5 | EF00182    | 2014-11   | 2016-11  |
| EMI Test Receiver                | R&S          | ESCS 30 | EF00295    | 2015-10   | 2016-10  |

## 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:

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

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, IC RSS-247                     |                                         |                  |        |                    |
|-----------------------------------------------------|-----------------------------------------|------------------|--------|--------------------|
| Product Specific Standard Section                   | Requirement – Test                      | Reference Method | Result | Remarks            |
| RSS-Gen 6.6                                         | Occupied Bandwidth                      | ANSI C63.10      | N/R    | Informational only |
| FCC § 15.247(a)(1)<br>IC RSS-247 § 5.1              | 20 dB Bandwidth                         | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(a)(1)(iii)<br>IC RSS-247 § 5.1         | Number of hopping frequencies           | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(a)(1)<br>IC RSS-247 § 5.1              | Frequency hopping channel separation    | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(a)(1)(iii)<br>IC RSS-247 § 5.1         | Time of occupancy (Dwell time)          | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(b)(1)<br>IC RSS-247 § 5.4              | Maximum peak conducted power            | ANSI C63.10      | N/T    |                    |
| 47 CFR 15.207<br>IC RSS-247 § 3.1                   | AC power line conducted emissions       | ANSI C63.4       | PASS   |                    |
| FCC § 15.247(d)<br>IC RSS-247 § 5.5                 | Band edge compliance                    | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(d)<br>IC RSS-247 § 5.5                 | Conducted spurious emissions            | ANSI C63.10      | N/T    |                    |
| FCC § 15.247(d)<br>FCC § 15.209<br>IC RSS-247 § 5.5 | Transmitter radiated spurious emissions | ANSI C63.10      | PASS   |                    |
| IC RSS-247 § 3.1                                    | Receiver radiated spurious emissions    | ANSI C63.10      | PASS   |                    |
| Remarks:                                            |                                         |                  |        |                    |

### 3 Test Conditions and Results

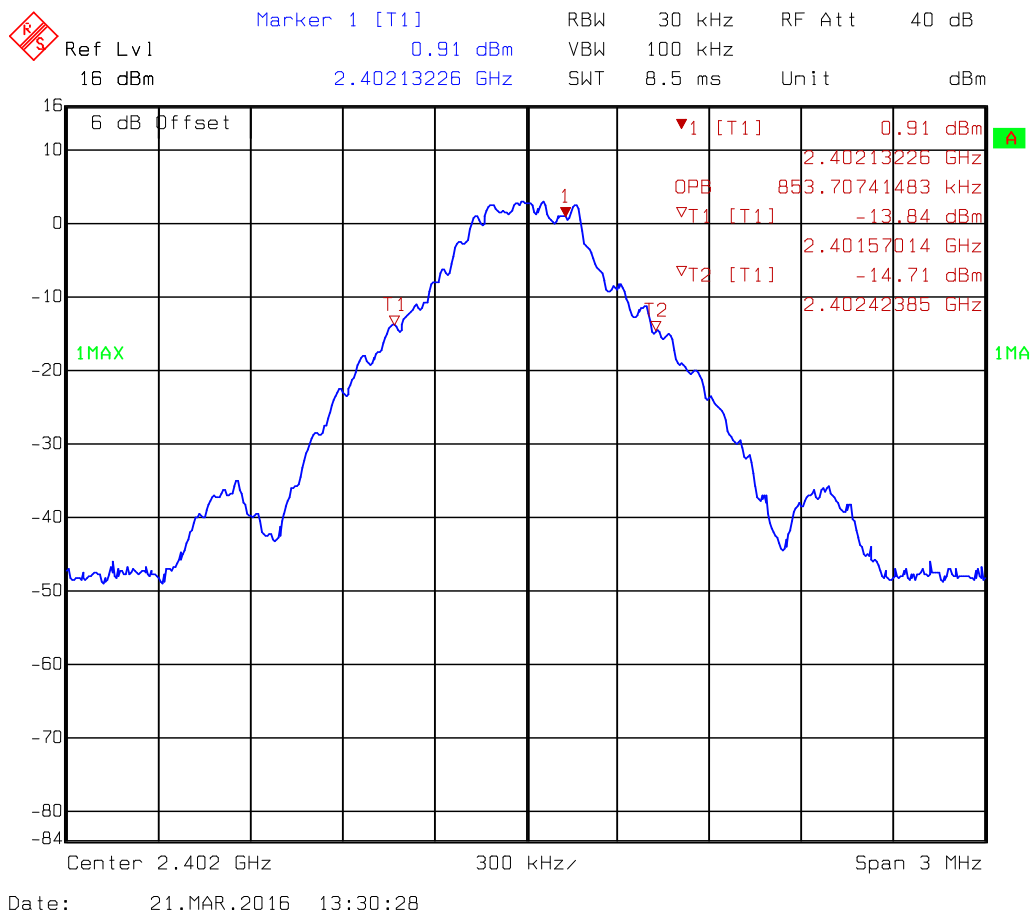
#### 3.1 Test Conditions and Results – Occupied Bandwidth

| Occupied Bandwidth acc. to IC RSS-Gen                                                                                                                                                                                                                                                                     |                                                         |           | Verdict: PASS            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------|--------------------------|
| Test according to measurement reference                                                                                                                                                                                                                                                                   | Reference Method                                        |           |                          |
|                                                                                                                                                                                                                                                                                                           | ANSI C63.10                                             |           |                          |
| Test frequency range                                                                                                                                                                                                                                                                                      | Tested frequencies                                      |           |                          |
|                                                                                                                                                                                                                                                                                                           | F <sub>LOW</sub> / F <sub>MID</sub> / F <sub>HIGH</sub> |           |                          |
| 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]                                         | Mode      | Occupied Bandwidth [MHz] |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                          | 2402                                                    | DH5-Sngl  | 0.854                    |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 2441                                                    | DH5-Sngl  | 0.860                    |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 2480                                                    | DH5-Sngl  | 0.854                    |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                          | 2402                                                    | 2DH5-Sngl | 1.210                    |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 2441                                                    | 2DH5-Sngl | 1.202                    |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 2480                                                    | 2DH5-Sngl | 1.218                    |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                          | 2402                                                    | 3DH5-Sngl | 1.218                    |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 2441                                                    | 3DH5-Sngl | 1.210                    |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 2480                                                    | 3DH5-Sngl | 1.210                    |
| Comments:                                                                                                                                                                                                                                                                                                 |                                                         |           |                          |

# Occupied Bandwidth – DH5-Sngl F<sub>Low</sub>

## Occupied Channel Bandwidth

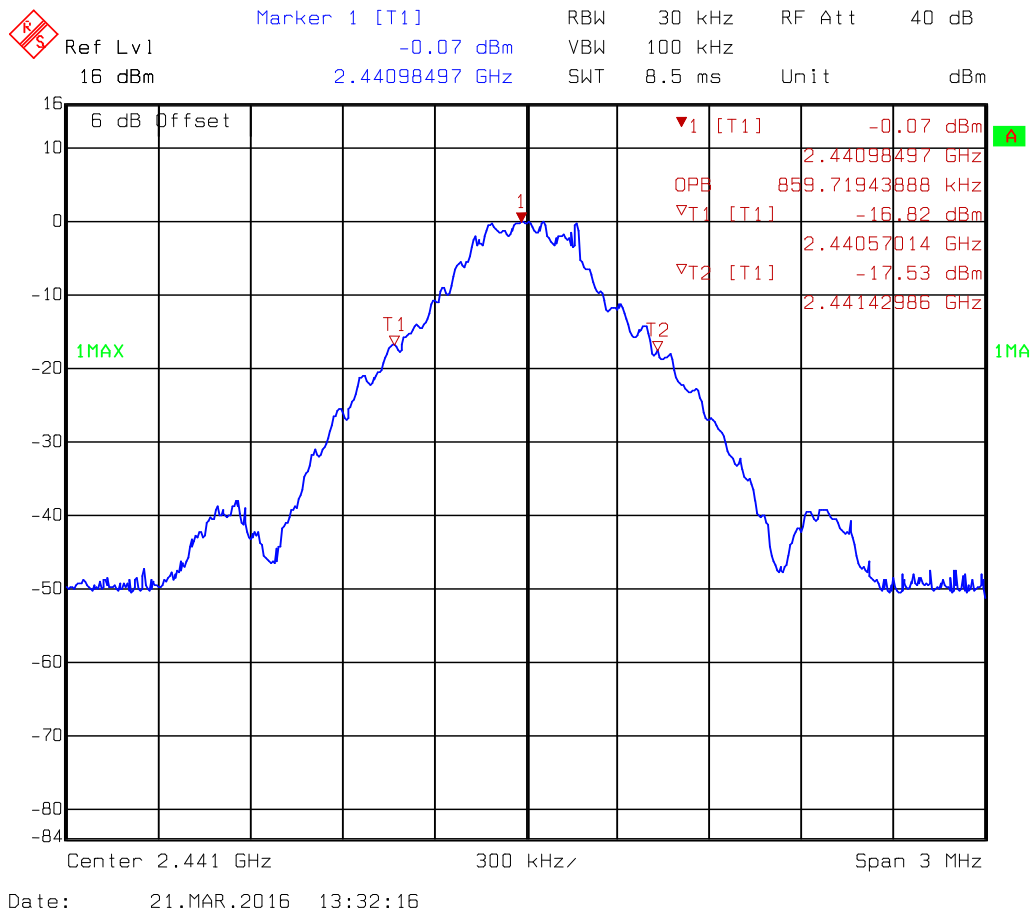
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: T<sub>nom</sub> / V<sub>nom</sub>  
 Mode: BT; DH5; CH.0; 2402 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – DH5-Sngl F<sub>MID</sub>

## Occupied Channel Bandwidth

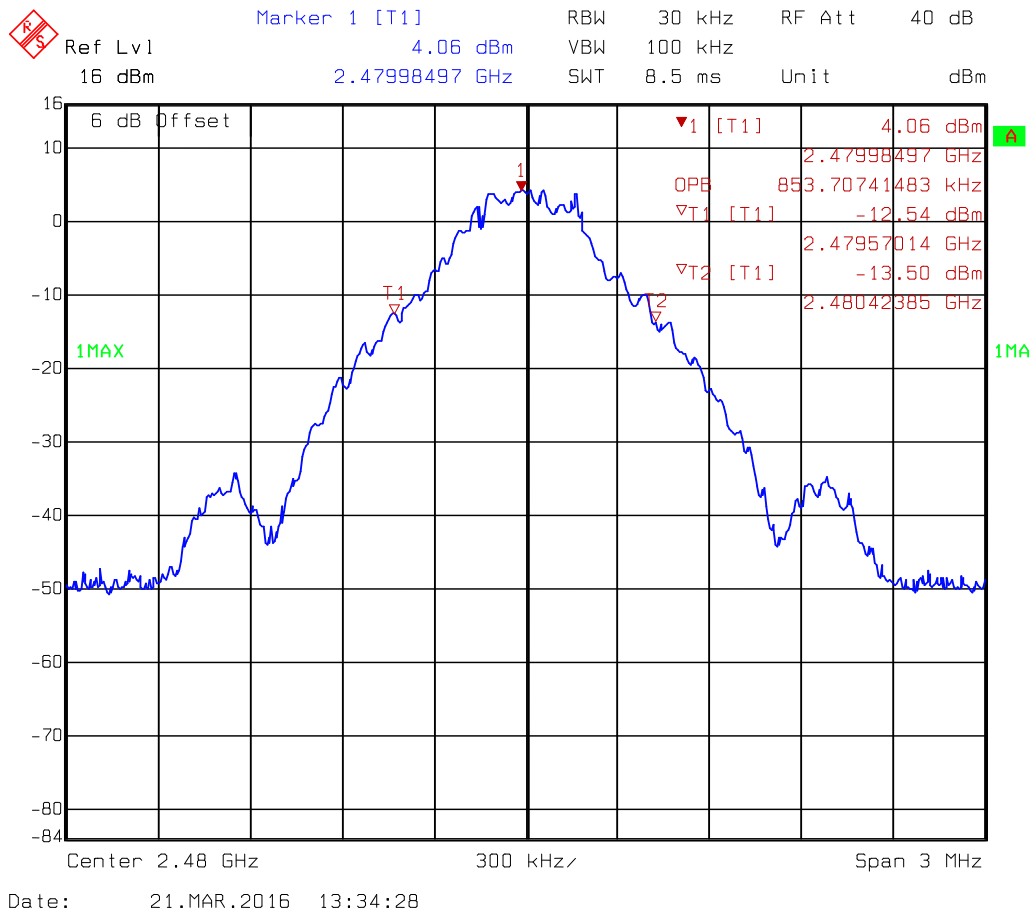
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; DH5; CH.39; 2441 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – DH5-Sngl F<sub>HIGH</sub>

## Occupied Channel Bandwidth

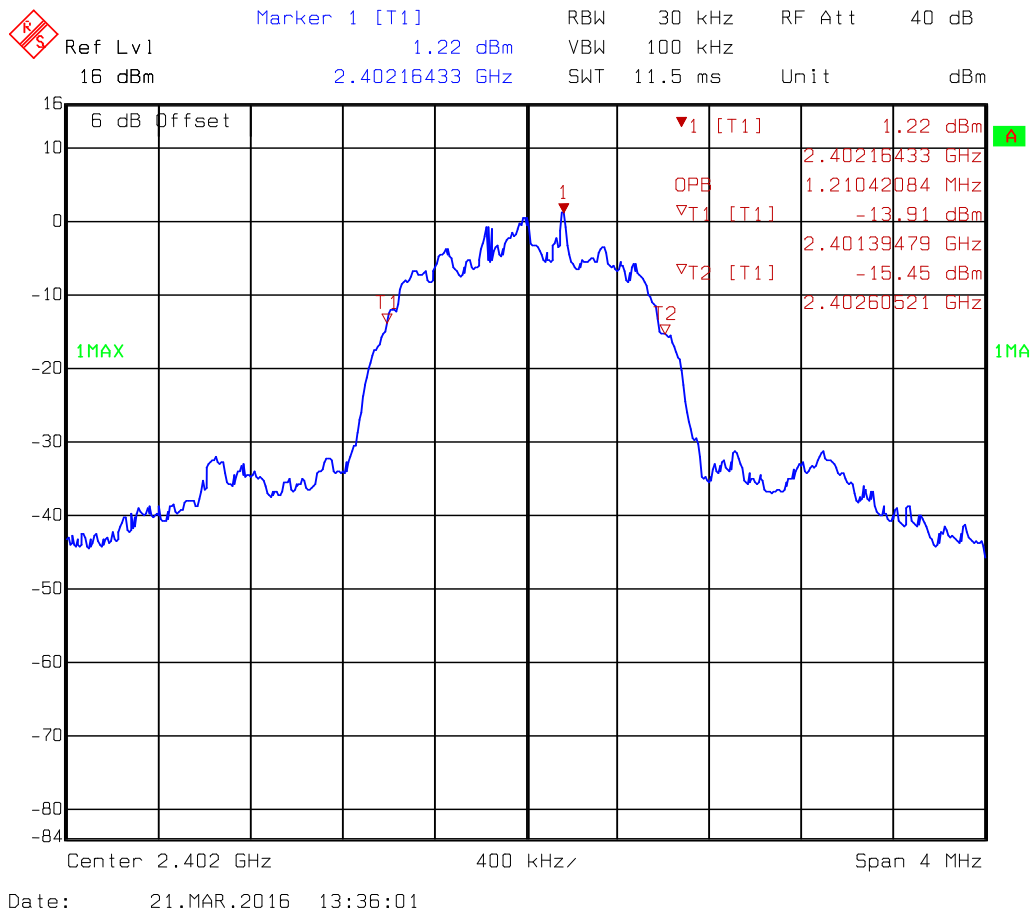
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; DH5; CH.78; 2480 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 2-DH5-Sngl F<sub>Low</sub>

## Occupied Channel Bandwidth

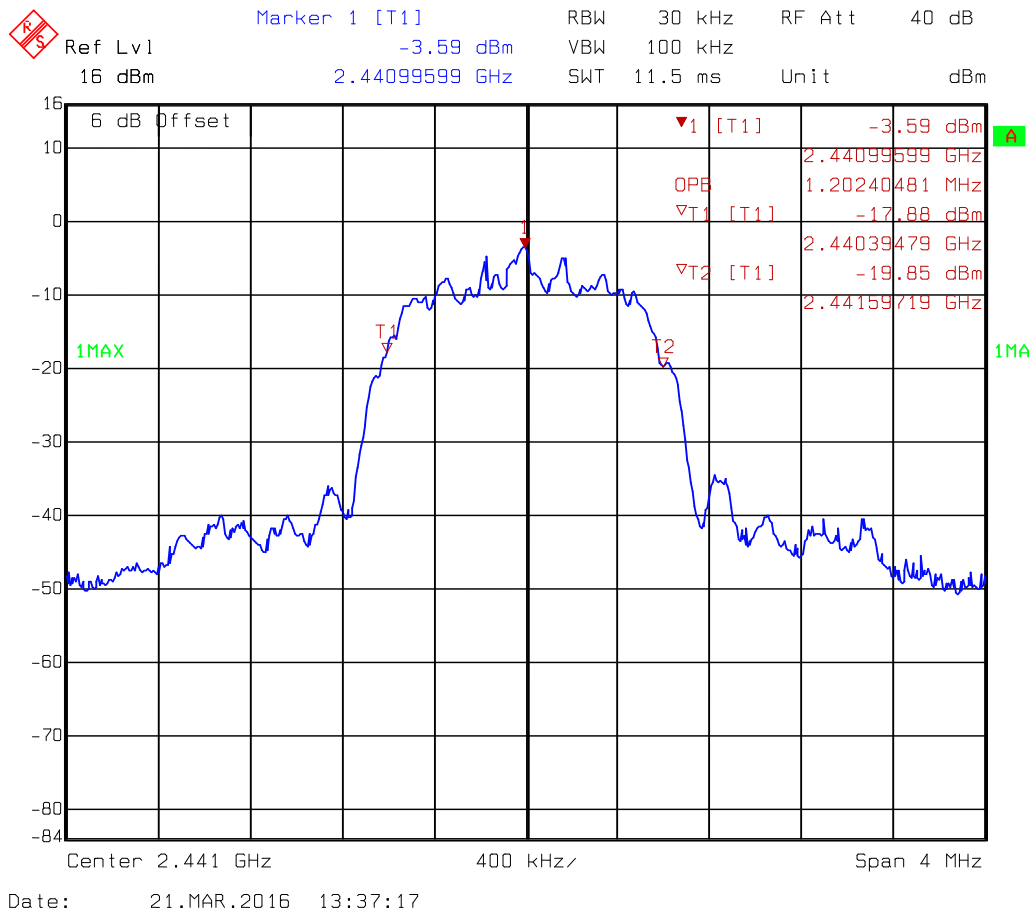
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: T<sub>nom</sub> / V<sub>nom</sub>  
 Mode: BT; 2DH5; CH.0; 2402 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 2-DH5-Sngl F<sub>MID</sub>

## Occupied Channel Bandwidth

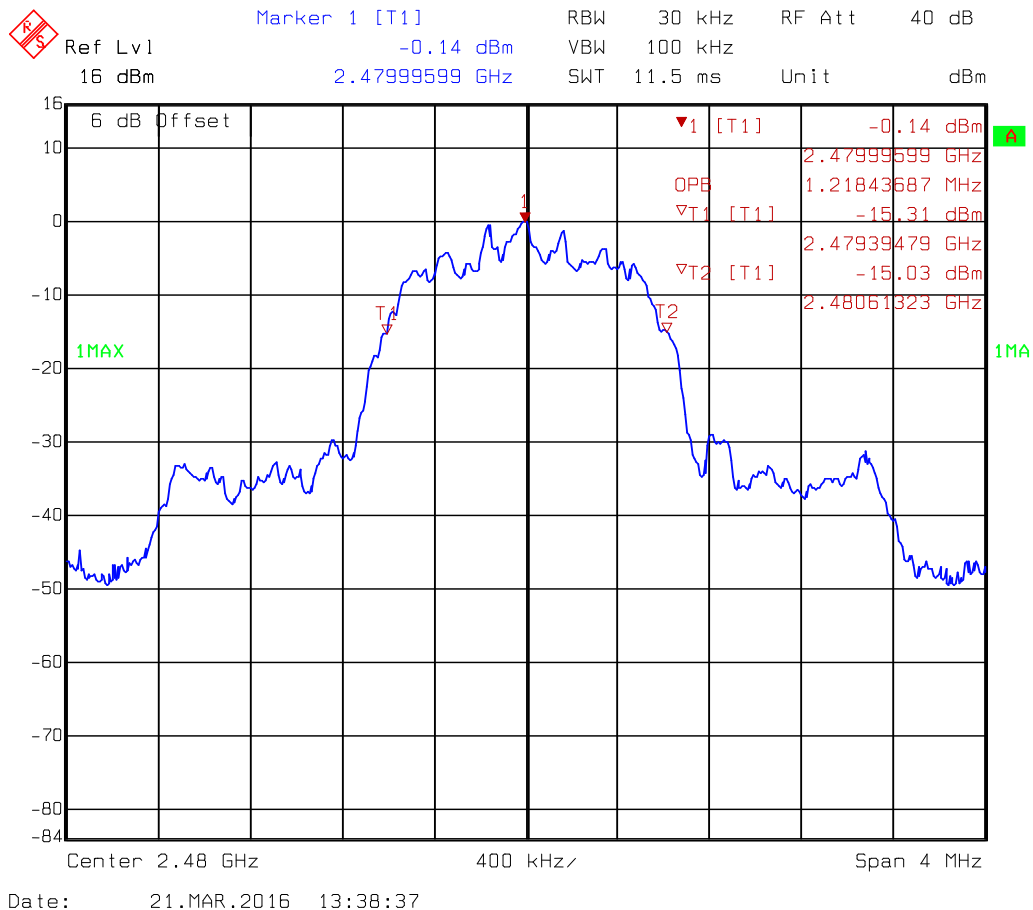
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; 2DH5; CH.39; 2441 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 2-DH5-Sngl F<sub>HIGH</sub>

## Occupied Channel Bandwidth

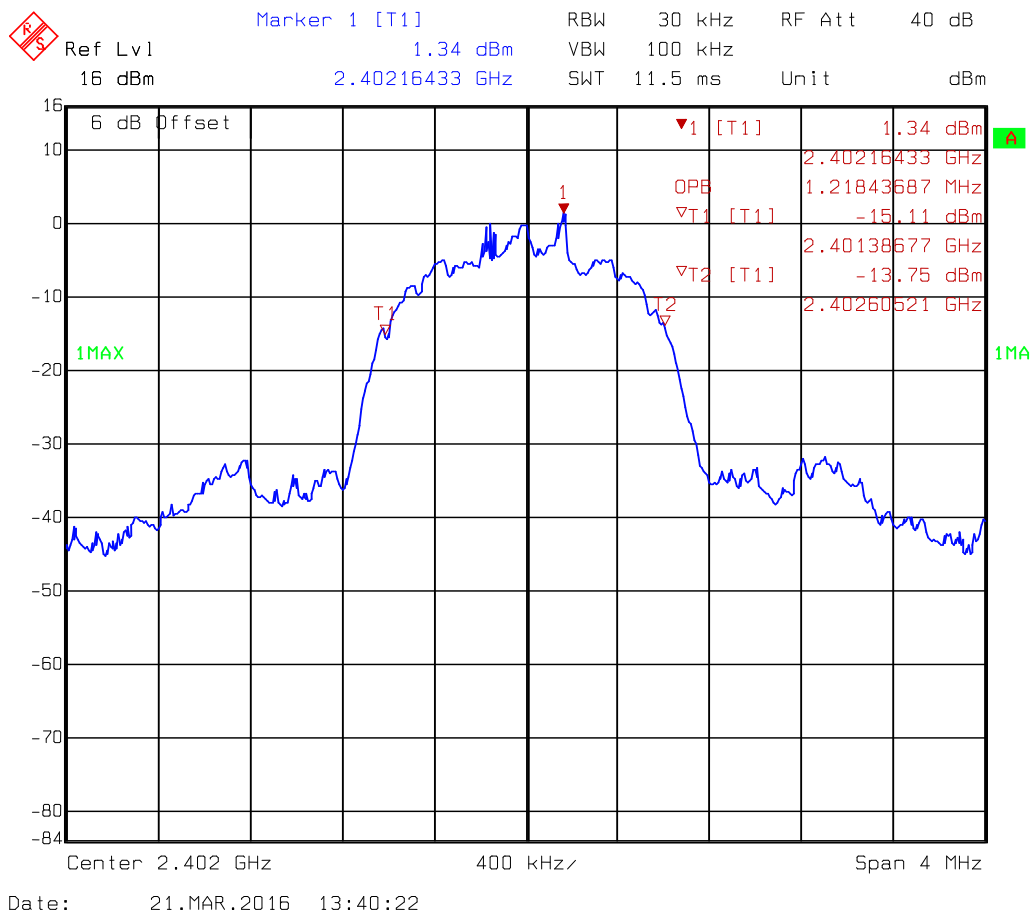
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; 2DH5; CH.78; 2480 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 3-DH5-Sngl F<sub>Low</sub>

## Occupied Channel Bandwidth

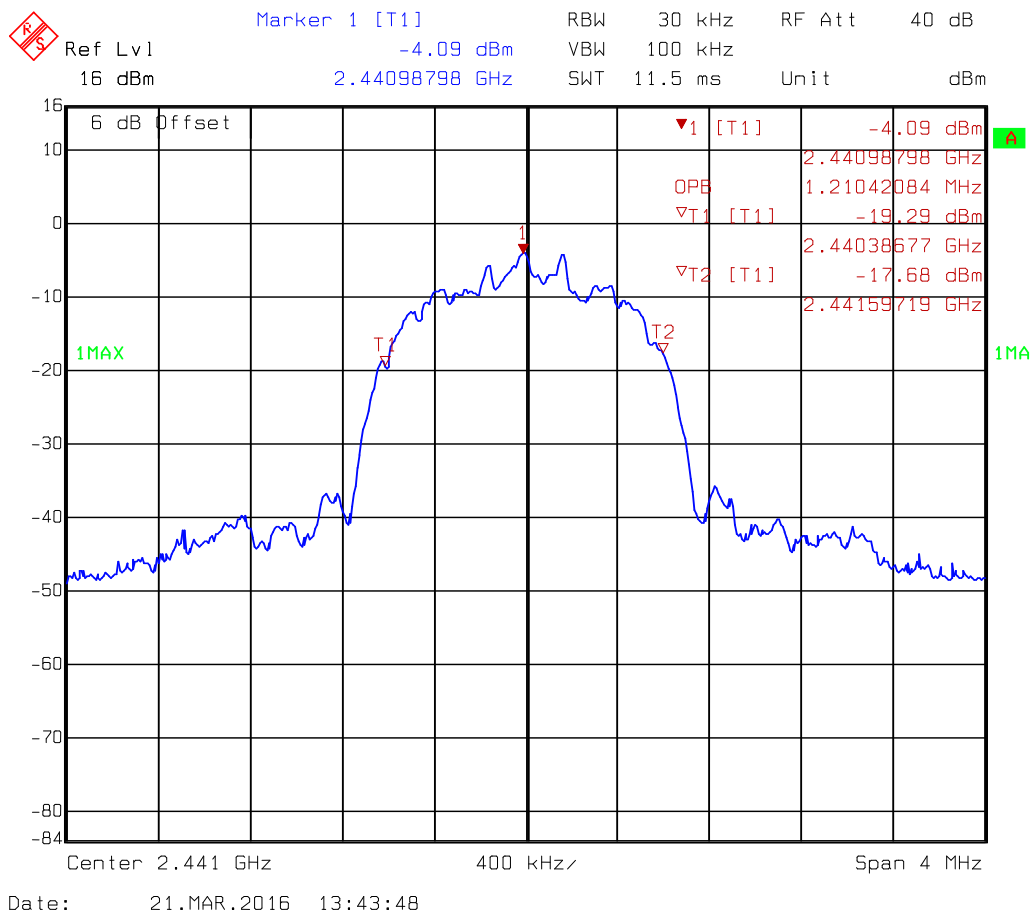
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: T<sub>nom</sub> / V<sub>nom</sub>  
 Mode: BT; 3DH5; CH.0; 2402 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 3-DH5-Sngl F<sub>MID</sub>

## Occupied Channel Bandwidth

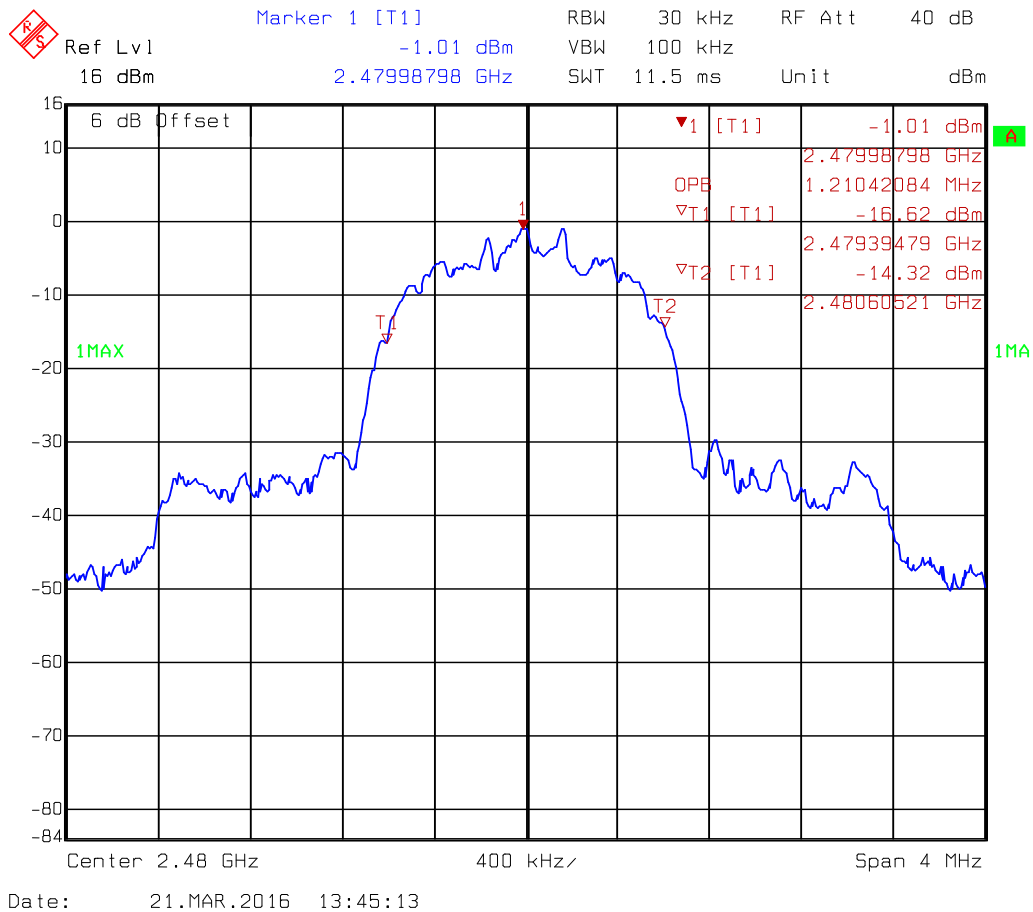
Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; 3DH5; CH.39; 2441 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



# Occupied Bandwidth – 3-DH5-Sngl F<sub>HIGH</sub>

## Occupied Channel Bandwidth

Project Number: G0M-1601-5313  
 Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Wilfried Treffke  
 Test Conditions: Tnom / Vnom  
 Mode: BT; 3DH5; CH.78; 2480 MHz  
 Test Date: 2016-03-21  
 Verdict: NONE (INFORMATION ONLY)



### 3.2 Test Conditions and Results – AC power line conducted emissions

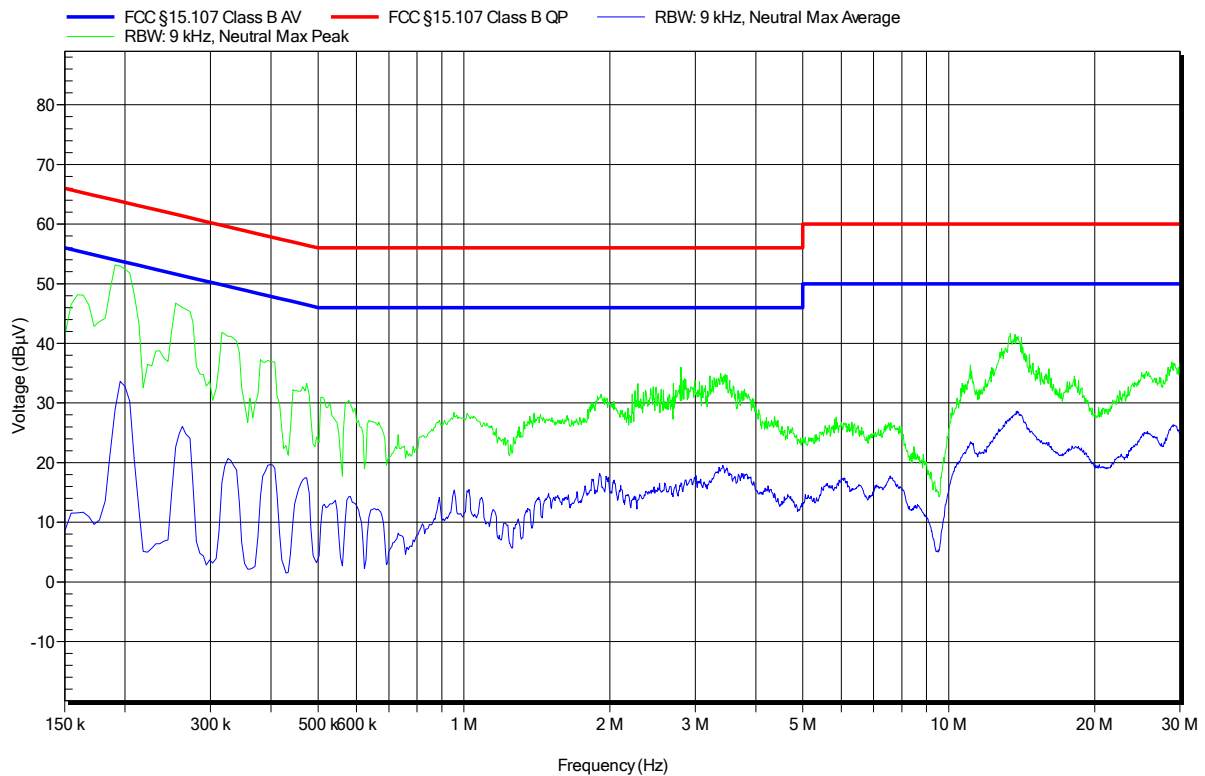
|                                                                          |                   |                       |                |               |  |
|--------------------------------------------------------------------------|-------------------|-----------------------|----------------|---------------|--|
| Power line conducted emissions acc. to<br>FCC 47 CFR 15.207 / IC RSS-Gen |                   |                       |                | Verdict: PASS |  |
| Test according referenced standards                                      |                   | Reference Method      |                |               |  |
|                                                                          |                   | ANSI C63.4            |                |               |  |
| Fully configured sample scanned over the following frequency range       |                   | Frequency range       |                |               |  |
|                                                                          |                   | 0.15 MHz to 30 MHz    |                |               |  |
| Points of Application                                                    |                   | Application Interface |                |               |  |
| AC Mains                                                                 |                   | LISN                  |                |               |  |
| EUT test mode                                                            |                   | AC-Powerline          |                |               |  |
| Limits and results                                                       |                   |                       |                |               |  |
| Frequency [MHz]                                                          | Quasi-Peak [dBμV] | Result                | Average [dBμV] | Result        |  |
| 0.15 to 5                                                                | 66 to 56*         | PASS                  | 56 to 46*      | PASS          |  |
| 0.5 to 5                                                                 | 56                | PASS                  | 46             | PASS          |  |
| 5 to 30                                                                  | 60                | PASS                  | 50             | PASS          |  |
| Comments:                                                                |                   |                       |                |               |  |
| * Limit decreases linearly with the logarithm of the frequency.          |                   |                       |                |               |  |

### Conducted Emissions

#### EMI voltage test in the ac-mains according to FCC 47 CFR 15.107 / ICES-003

Project number: G0M-1601-5313  
 Applicant: Leica Geosystems  
 EUT Name: LR-BT Class1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Meili  
 Test Conditions: Tnom: 22°C, Unom: 5VDC USB  
 LISN: Schwarzbeck NSLK 8128 (N)  
 Mode: Connected, measuring, charging  
 Test Date: 2016-03-21  
 Note:

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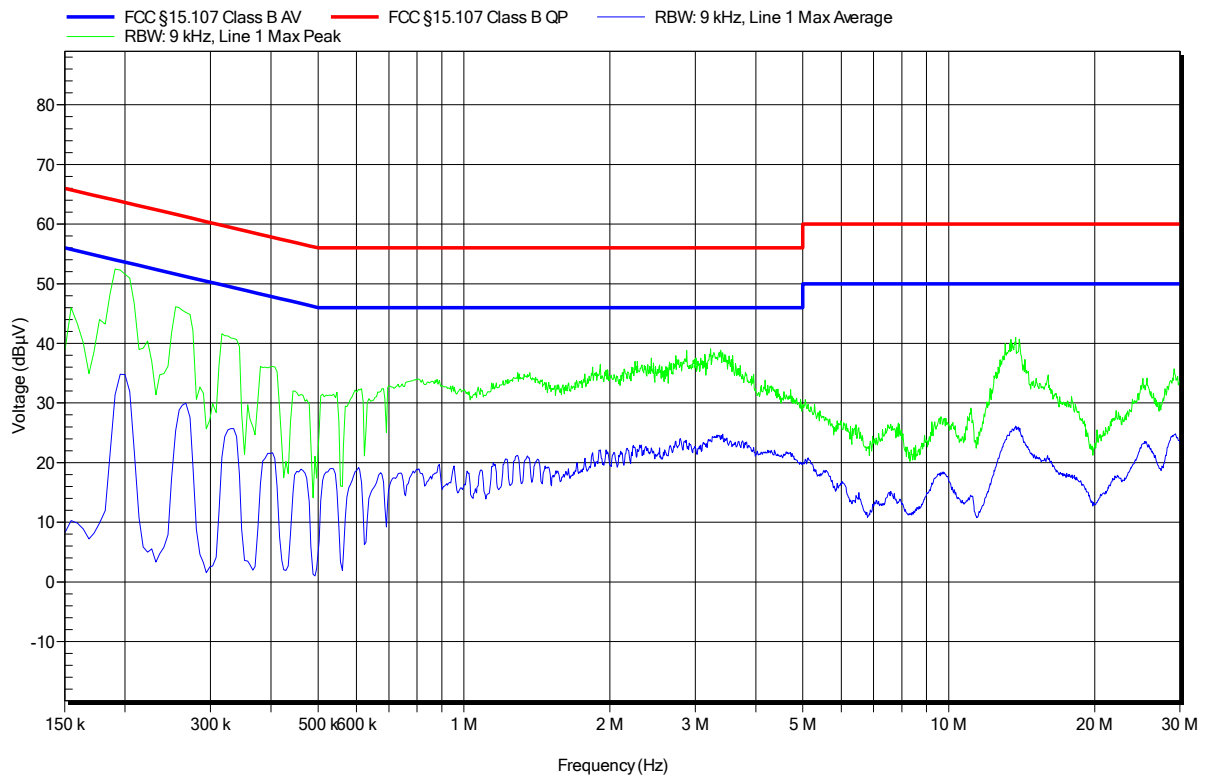


### Conducted Emissions

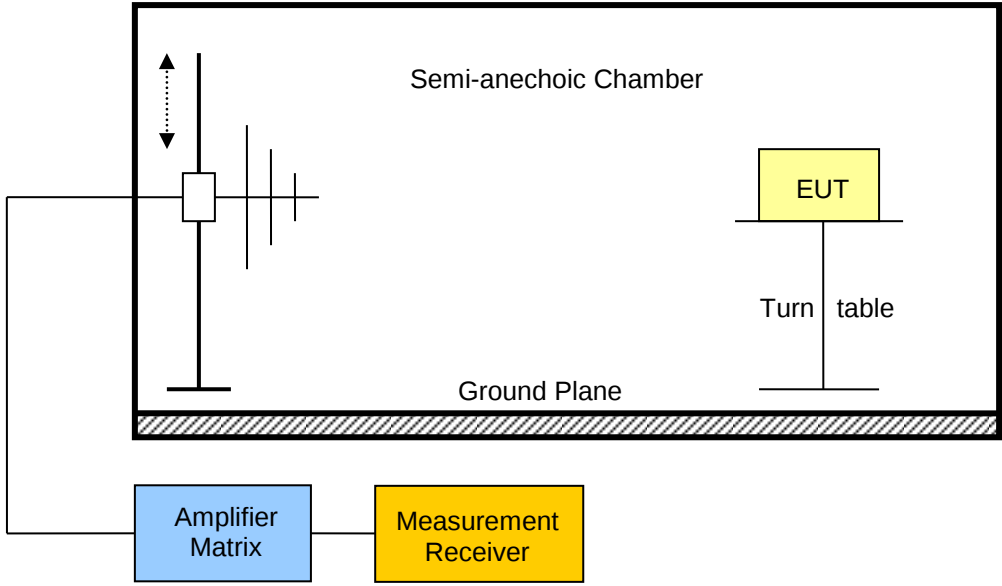
#### EMI voltage test in the ac-mains according to FCC 47 CFR 15.107 / ICES-003

Project number: G0M-1601-5313  
 Applicant: Leica Geosystems  
 EUT Name: LR-BT Class1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Meili  
 Test Conditions: Tnom: 22°C, Unom: 5VDC USB  
 LISN: Schwarzbeck NSLK 8128 (L)  
 Mode: Connected, measuring, charging  
 Test Date: 2016-03-21  
 Note:

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### 3.3 Test Conditions and Results – Transmitter radiated emissions

| Transmitter radiated emissions acc. to FCC 47 CFR 15.247 / IC RSS-247                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    |              |                | Verdict: PASS      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reference Method                   |              |                |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | FCC 15.247(d) / IC RSS-247 5.5     |              |                |                    |
| Test according to measurement reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference Method                   |              |                |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ANSI C63.10                        |              |                |                    |
| Test frequency range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Tested frequencies                 |              |                |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 30 MHz – 10 <sup>th</sup> Harmonic |              |                |                    |
| 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                  |
| <p>Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.</p> |                                    |              |                |                    |
| Test setup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |              |                |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |              |                |                    |

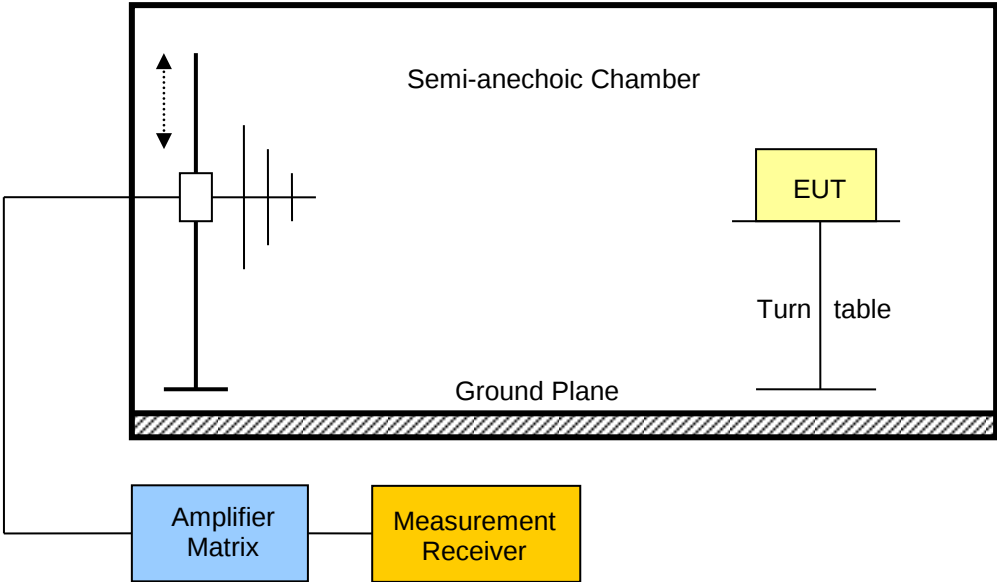
| Test procedure                                                                                                                                                                                                                                                                                                                                                                                                                |                 |          |                |                |      |      |                |                  |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|----------------|----------------|------|------|----------------|------------------|-------------|
| <ol style="list-style-type: none"> <li>1. EUT set to test 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 within restricted bands</li> </ol> |                 |          |                |                |      |      |                |                  |             |
| Test results – Internal Antenna                                                                                                                                                                                                                                                                                                                                                                                               |                 |          |                |                |      |      |                |                  |             |
| Channel                                                                                                                                                                                                                                                                                                                                                                                                                       | Frequency [MHz] | Mode     | Emission [MHz] | Level [dBμV/m] | Det. | Pol. | Limit [dBμV/m] | Limit dist. [m]* | Margin [dB] |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2369           | 56.24          | pk   | hor  | 74.00          | 3                | -17.76      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2369           | 56.24          | pk   | hor  | 74.00          | 3                | -17.76      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2369           | 36.83          | RMS  | hor  | 54.00          | 3                | -17.17      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2377           | 55.31          | pk   | hor  | 74.00          | 3                | -18.69      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2377           | 36.89          | RMS  | hor  | 54.00          | 3                | -17.11      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2385           | 54.27          | pk   | hor  | 74.00          | 3                | -19.73      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 2385           | 36.96          | RMS  | hor  | 54.00          | 3                | -17.04      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 4800           | 46.67          | pk   | ver  | 74.00          | 3                | -27.33      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 4804           | 56.33          | pk   | hor  | 74.00          | 3                | -17.67      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 4804           | 53.88          | avg  | hor  | 54.00          | 3                | -00.12      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 9608           | 54.62          | pk   | hor  | 95.00          | 3                | -40.38      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 9608           | 53.43          | pk   | ver  | 95.00          | 3                | -41.57      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 12000          | 48.45          | pk   | hor  | 74.00          | 3                | -25.55      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 12000          | 49.44          | pk   | ver  | 74.00          | 3                | -24.56      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 14412          | 51.87          | pk   | hor  | 95.00          | 3                | -43.13      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 14412          | 48.89          | pk   | ver  | 95.00          | 3                | -46.11      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 16812          | 51.38          | pk   | hor  | 95.00          | 3                | -43.62      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 16812          | 53.48          | pk   | ver  | 95.00          | 3                | -41.52      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2402            | DH5-Sngl | 21604          | 40.40          | pk   | hor  | 95.00          | 3                | -54.60      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 2313.2         | 50.49          | pk   | hor  | 74.00          | 3                | -23.51      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 2313.2         | 41.65          | pk   | ver  | 74.00          | 3                | -32.35      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 2366.4         | 52.80          | pk   | hor  | 74.00          | 3                | -21.20      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 2366.4         | 48.58          | pk   | ver  | 74.00          | 3                | -25.42      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 2388.8         | 42.68          | pk   | ver  | 74.00          | 3                | -31.32      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 4880           | 56.06          | pk   | hor  | 74.00          | 3                | -17.94      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 4880           | 53.88          | avg  | hor  | 54.00          | 3                | -00.12      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 4880           | 46.15          | pk   | ver  | 74.00          | 3                | -27.85      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 9752           | 53.96          | pk   | hor  | 95.00          | 3                | -41.04      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                                              | 2440            | DH5-Sngl | 9752           | 50.20          | pk   | ver  | 95.00          | 3                | -44.80      |

Test Report No.: G0M-1601-5313-TFC247BT-V02

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

|                                                                                                                                                                                                                                                                       |      |          |       |       |     |     |       |   |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-------|-------|-----|-----|-------|---|--------|
| F <sub>MID</sub>                                                                                                                                                                                                                                                      | 2440 | DH5-Sngl | 12192 | 45.26 | pk  | ver | 74.00 | 3 | -28.74 |
| F <sub>MID</sub>                                                                                                                                                                                                                                                      | 2440 | DH5-Sngl | 14628 | 49.32 | pk  | ver | 95.00 | 3 | -45.68 |
| F <sub>MID</sub>                                                                                                                                                                                                                                                      | 2440 | DH5-Sngl | 14640 | 48.92 | pk  | hor | 95.00 | 3 | -46.08 |
| F <sub>MID</sub>                                                                                                                                                                                                                                                      | 2440 | DH5-Sngl | 17076 | 49.21 | pk  | hor | 95.00 | 3 | -45.79 |
| F <sub>MID</sub>                                                                                                                                                                                                                                                      | 2440 | DH5-Sngl | 17076 | 53.52 | pk  | ver | 95.00 | 3 | -41.48 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 2366  | 51.26 | pk  | hor | 74.00 | 3 | -22.74 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 2503  | 52.76 | pk  | hor | 95.00 | 3 | -42.24 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 4960  | 54.81 | pk  | hor | 74.00 | 3 | -19.19 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 4960  | 52.71 | avg | hor | 54.00 | 3 | -01.29 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 4960  | 44.97 | pk  | ver | 74.00 | 3 | -29.03 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 9912  | 46.93 | pk  | hor | 95.00 | 3 | -48.07 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 14868 | 52.57 | pk  | ver | 95.00 | 3 | -42.43 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 14880 | 50.73 | pk  | hor | 95.00 | 3 | -44.27 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 16524 | 47.34 | pk  | ver | 95.00 | 3 | -47.66 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 17352 | 48.17 | pk  | hor | 95.00 | 3 | -46.83 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 17352 | 50.65 | pk  | ver | 95.00 | 3 | -44.35 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 19836 | 41.50 | pk  | hor | 74.00 | 3 | -32.50 |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                     | 2480 | DH5-Sngl | 22318 | 39.17 | pk  | hor | 74.00 | 3 | -34.83 |
| Comments: * Physical distance between EUT and measurement antenna.<br>Test mode selection is based on pre-compliance measurement of output power of all operational modes.<br>The operational modes with the highest output power were selected for compliance tests. |      |          |       |       |     |     |       |   |        |

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

| Receiver radiated emissions acc. to IC RSS-247                                       |                                   |              |                | Verdict: PASS      |
|--------------------------------------------------------------------------------------|-----------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                  | Reference Method                  |              |                |                    |
|                                                                                      | IC RSS-247 3.1                    |              |                |                    |
| Test according to measurement reference                                              | Reference Method                  |              |                |                    |
|                                                                                      | ANSI C63.10                       |              |                |                    |
| 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] | Polarisation | Det. | Limit [db $\mu$ V/m] | Margin [db $\mu$ V/m] |
| 2402 - 2480                                                                                                                                                                                                                                                                                                                                                                                              | Scan Mode       | 852.8          | 36.52                         | ver          | pk   | 46.00                | -9.48 dB              |
| Comments:<br>* Physical distance between EUT and measurement antenna.<br>** Emission level corresponds to ambient noise floor                                                                                                                                                                                                                                                                            |                 |                |                               |              |      |                      |                       |

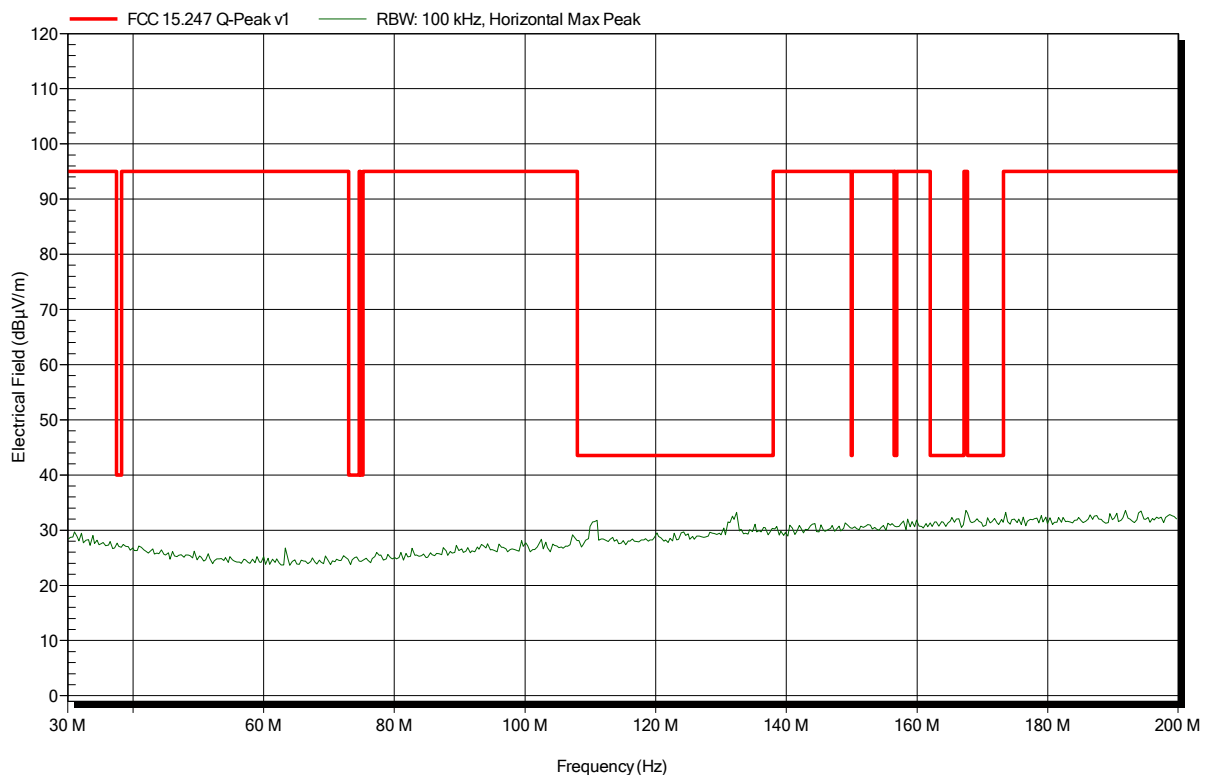
## ANNEX A Transmitter radiated spurious emissions

### Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz       |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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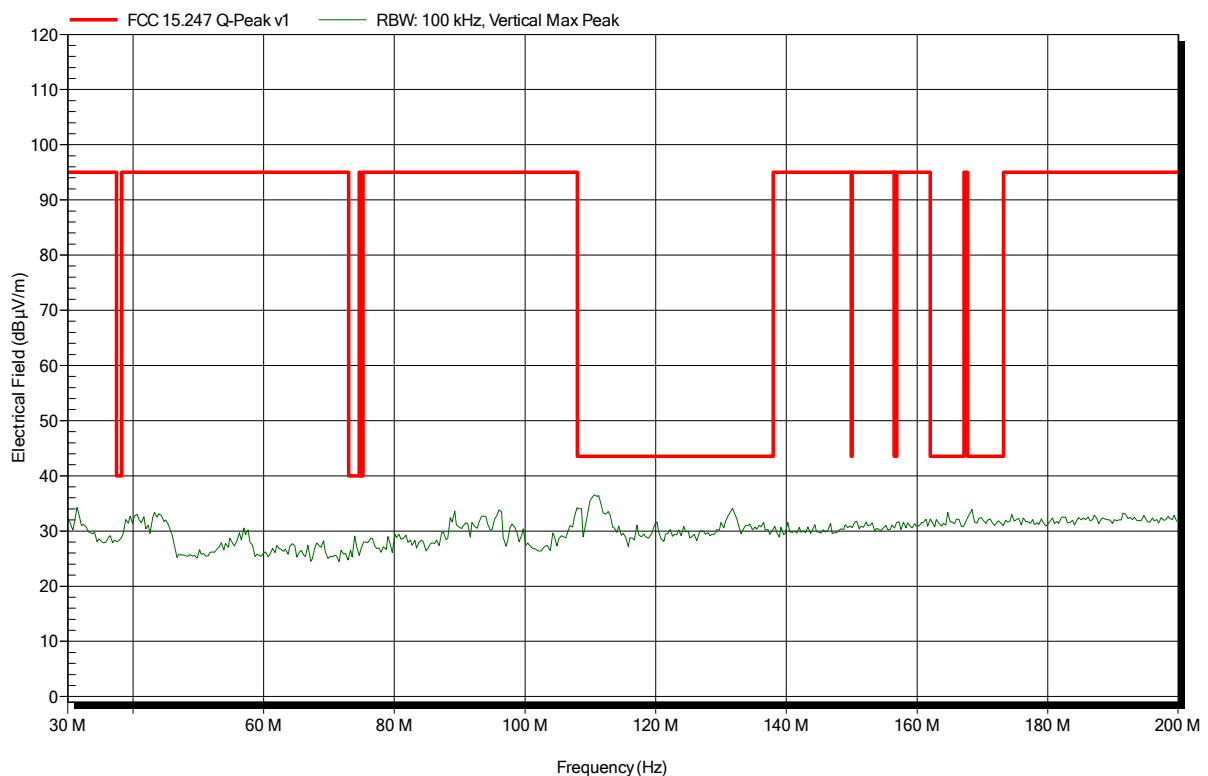


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HK 116, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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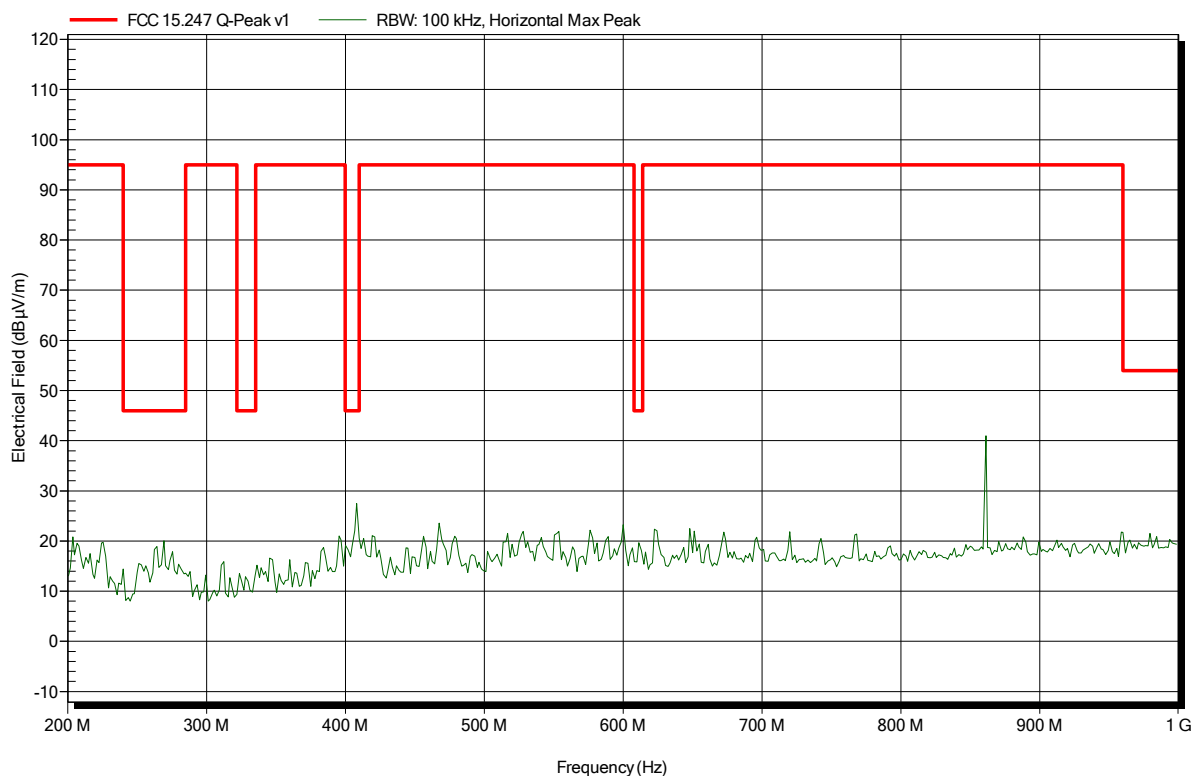


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HL 223, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz       |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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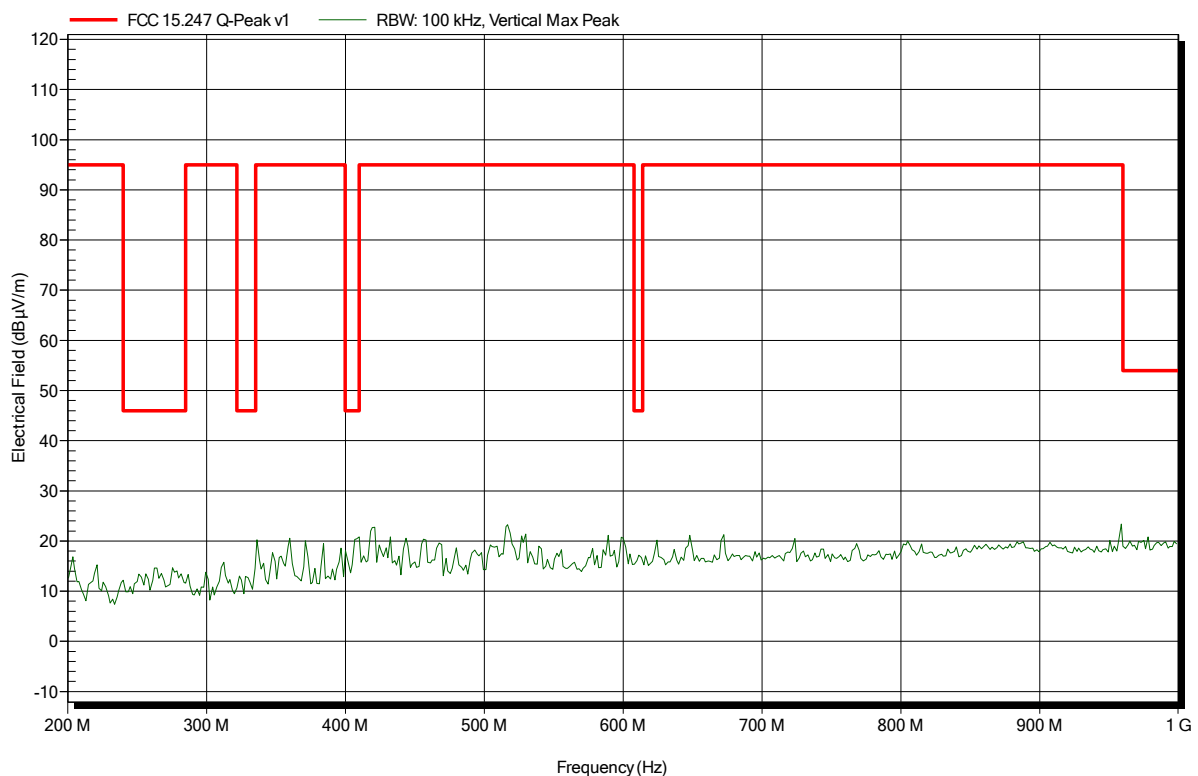


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Rohde & Schwarz HL 223, Vertical |
| Measurement distance: | 3 m                              |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz     |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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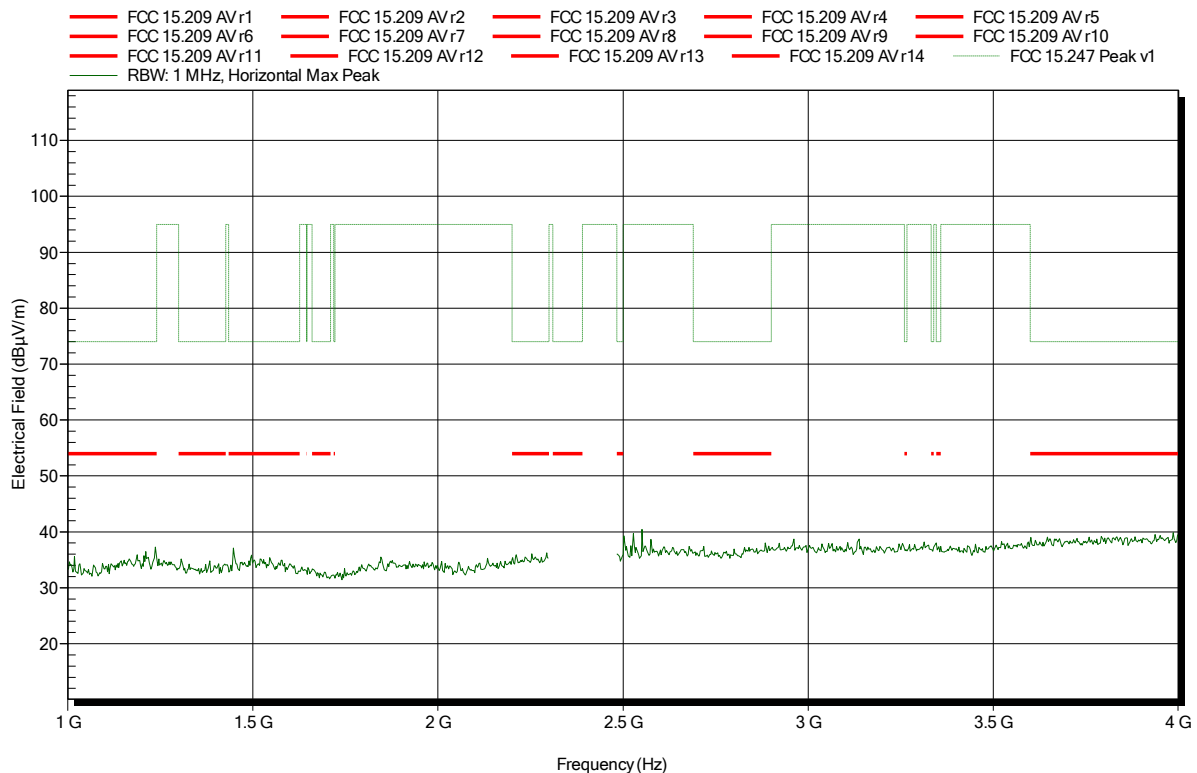


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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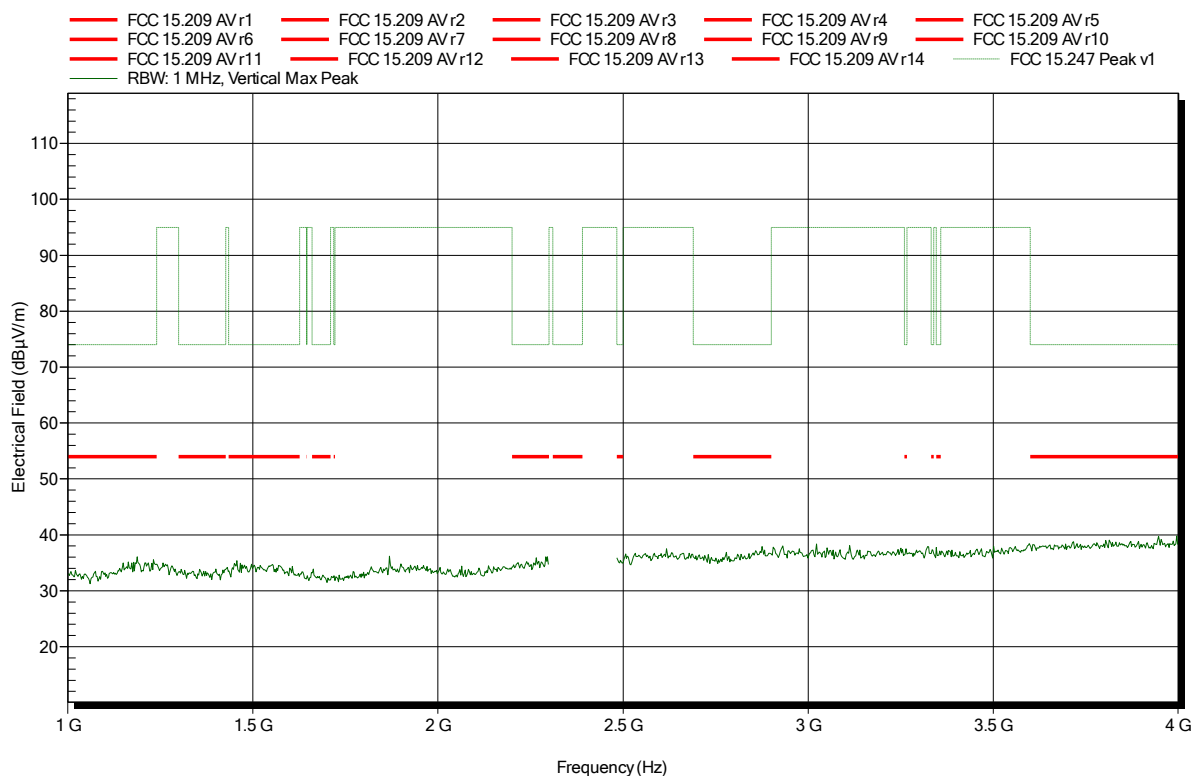


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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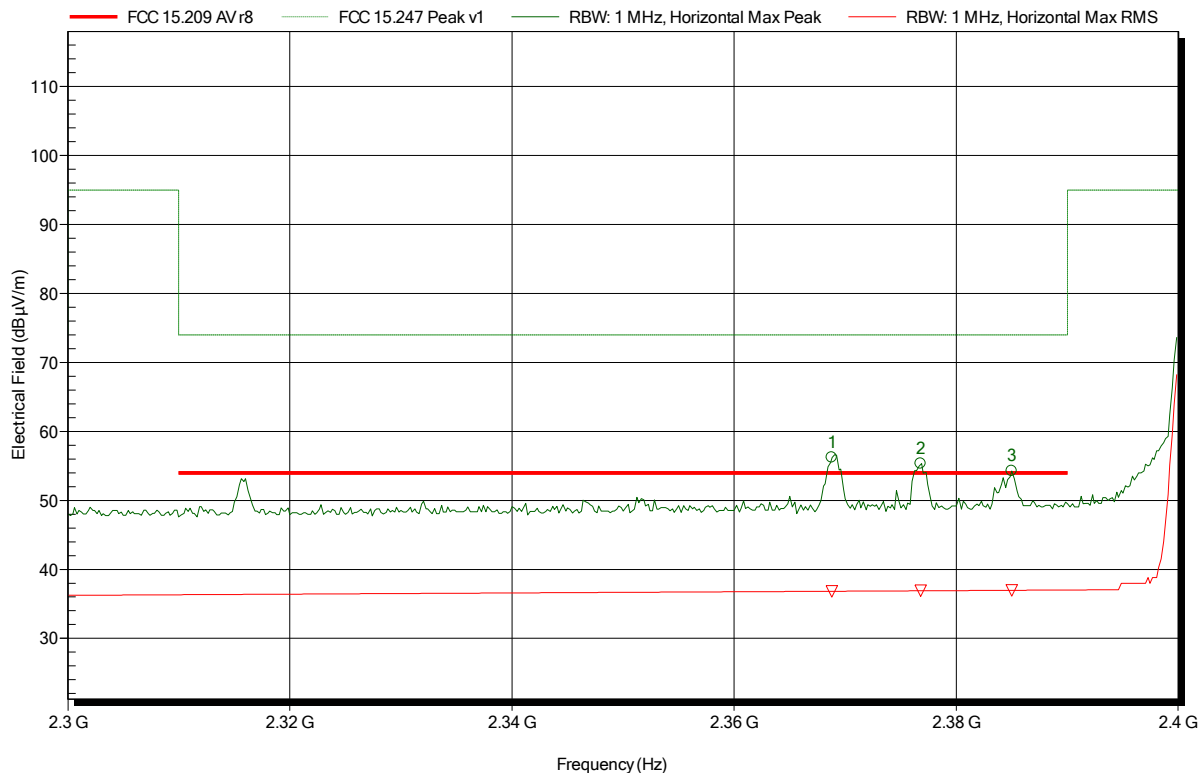


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note: lower bandedge

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| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 2.369 GHz | 56.24 dBµV/m | 74 dBµV/m  | -17.76 dB       | Pass        |
| 2.377 GHz | 55.31 dBµV/m | 74 dBµV/m  | -18.69 dB       | Pass        |
| 2.385 GHz | 54.27 dBµV/m | 74 dBµV/m  | -19.73 dB       | Pass        |

| Frequency | RMS          | RMS Limit | RMS Difference | RMS Status |
|-----------|--------------|-----------|----------------|------------|
| 2.369 GHz | 36.83 dBµV/m | 54 dBµV/m | -17.17 dB      | Pass       |
| 2.377 GHz | 36.89 dBµV/m | 54 dBµV/m | -17.11 dB      | Pass       |
| 2.385 GHz | 36.96 dBµV/m | 54 dBµV/m | -17.04 dB      | Pass       |

Test Report No.: GOM-1601-5313-TFC247BT-V02

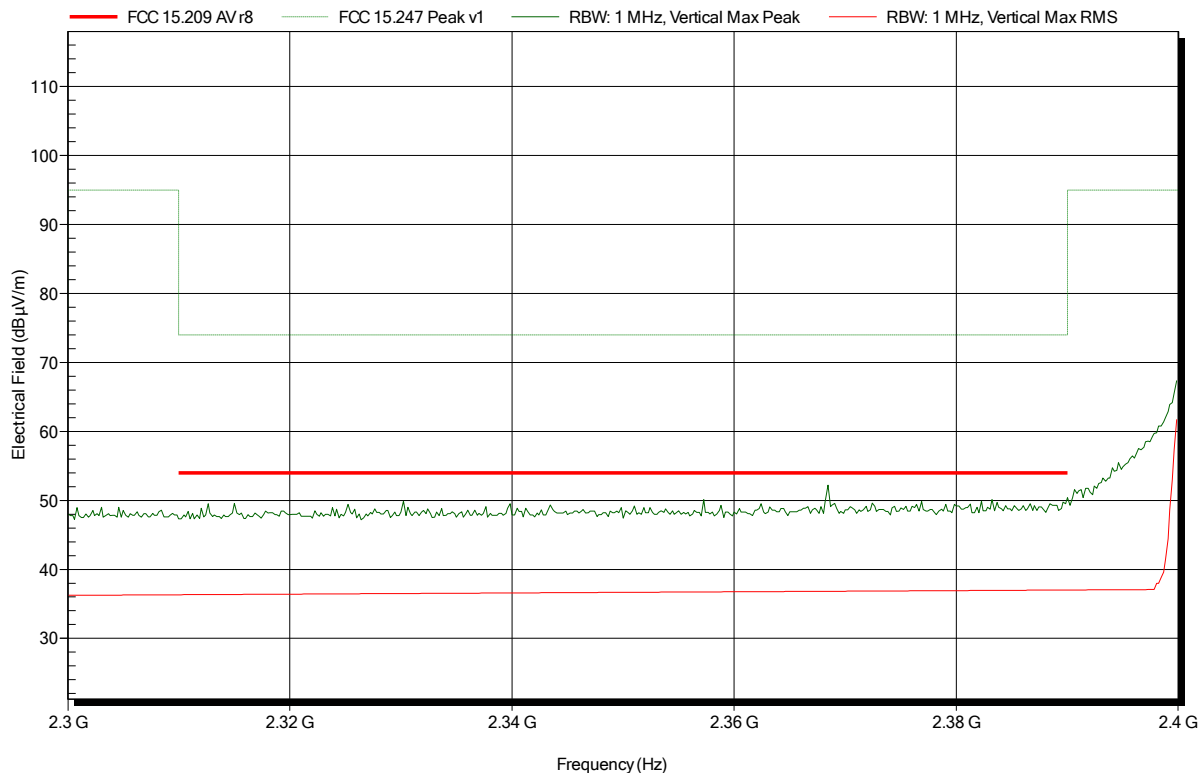
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Schwarzbeck BBHA 9120D, Vertical |
| Measurement distance: | 1 m converted to 3m              |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz     |
| Test Date:            | 2016-03-14                       |
| Note:                 | lower bandedge                   |

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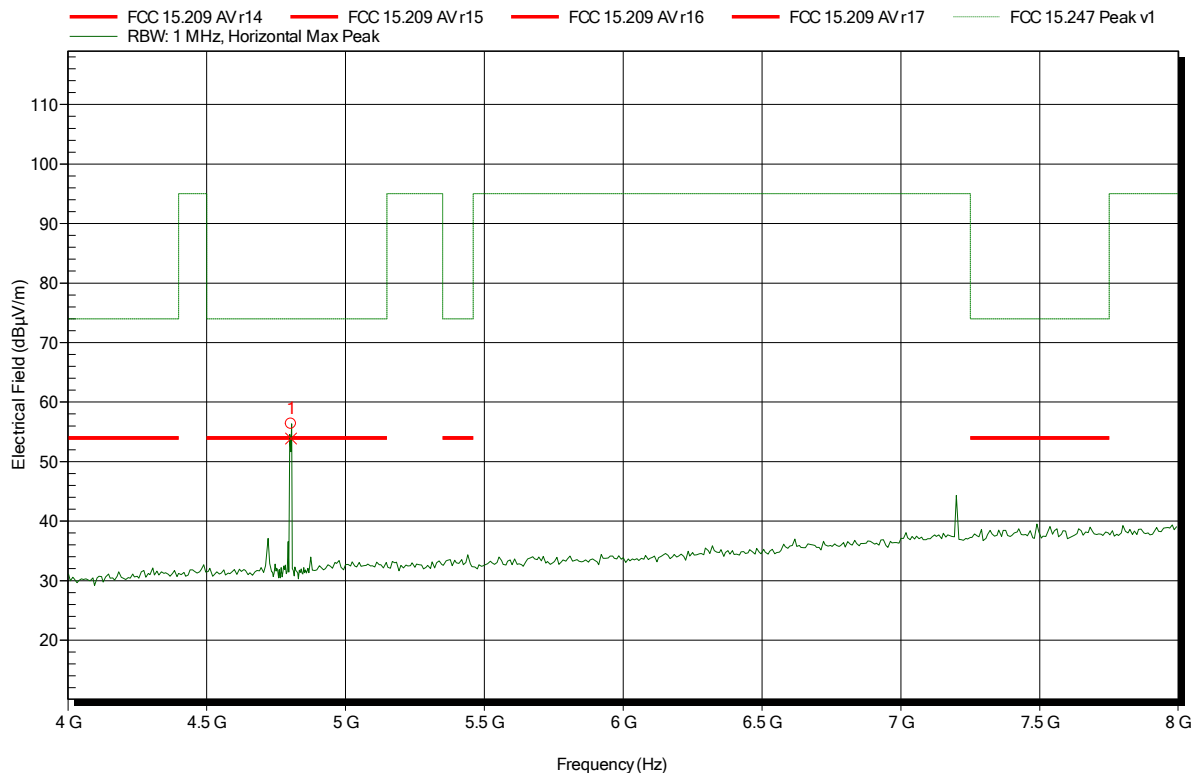


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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|                        |                         |                            |                                |                        |
|------------------------|-------------------------|----------------------------|--------------------------------|------------------------|
| Frequency<br>4.804 GHz | Peak<br>56.33 dBµV/m    | Peak Limit<br>74 dBµV/m    | Peak Difference<br>-17.67 dB   | Status<br>Pass         |
| Frequency<br>4.804 GHz | Average<br>53.88 dBµV/m | Average Limit<br>54 dBµV/m | Average Difference<br>-0.12 dB | Average Status<br>Pass |

Test Report No.: GOM-1601-5313-TFC247BT-V02

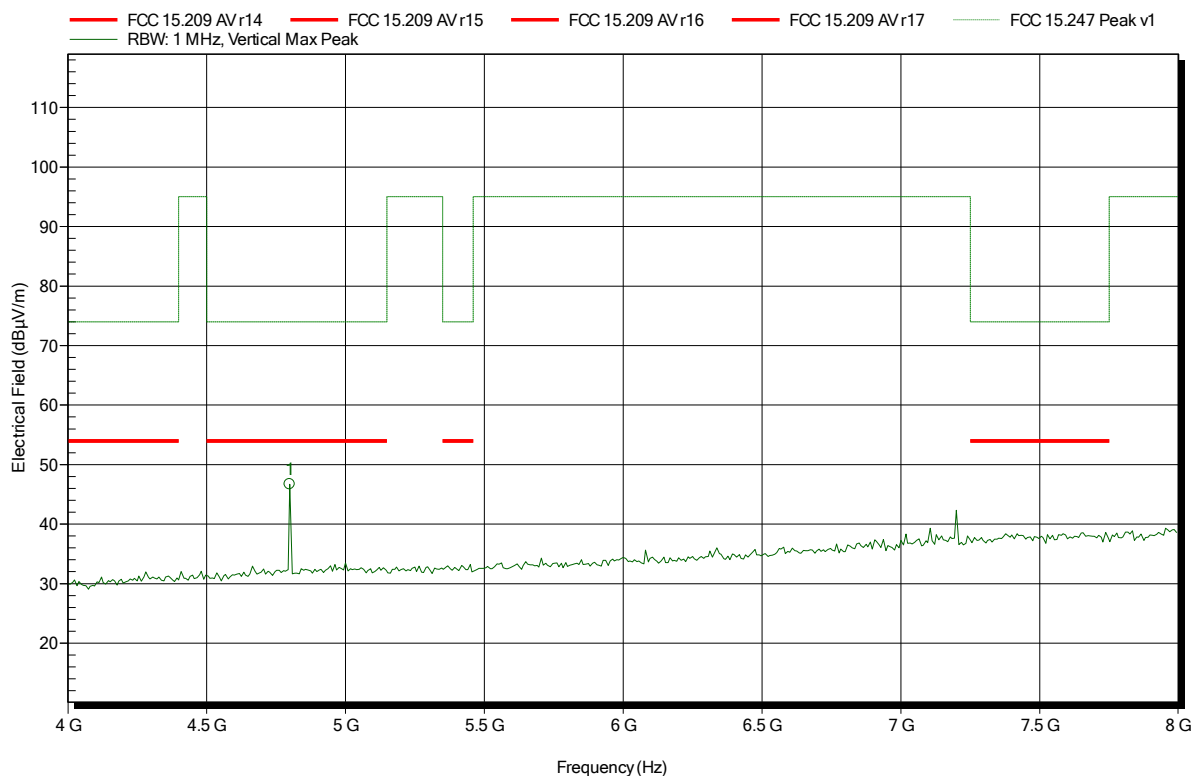
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 4.8 GHz   | 46.67 dBμV/m | 74 dBμV/m  | -27.33 dB       | Pass   |

Test Report No.: GOM-1601-5313-TFC247BT-V02

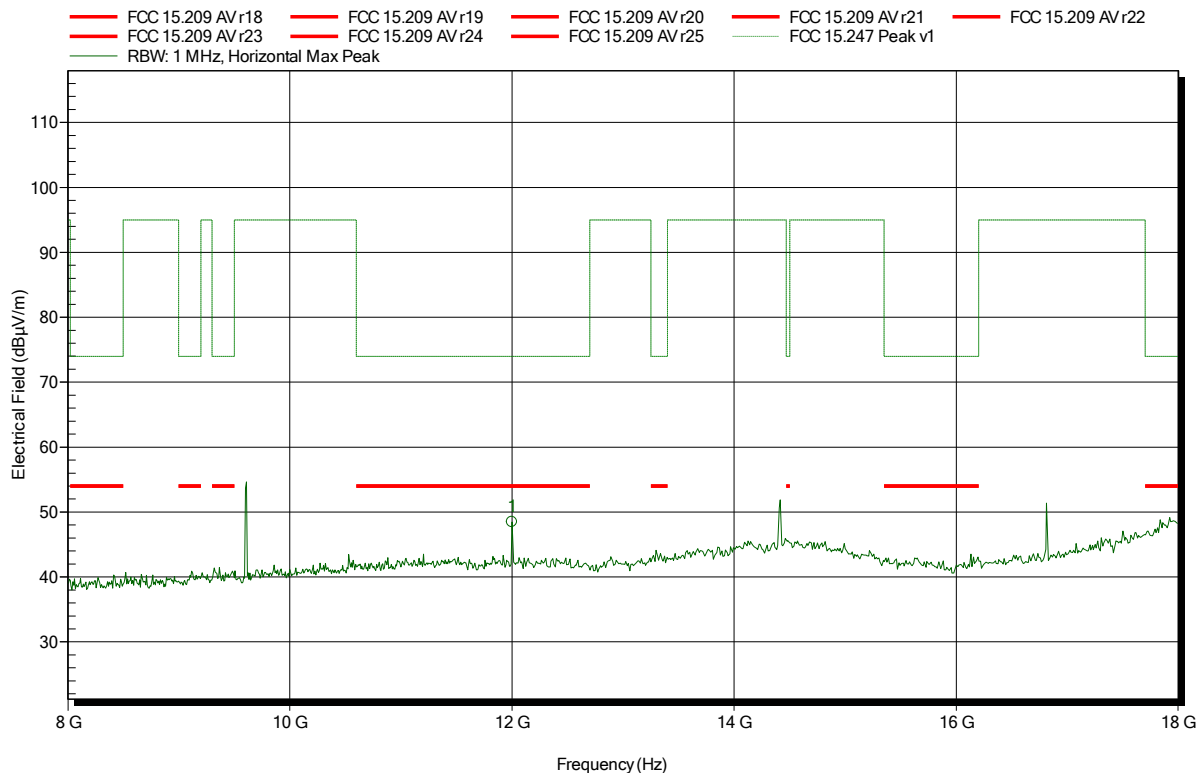
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 12 GHz    | 48.45 dBµV/m | 74 dBµV/m  | -25.55 dB       | Pass   |

Test Report No.: GOM-1601-5313-TFC247BT-V02

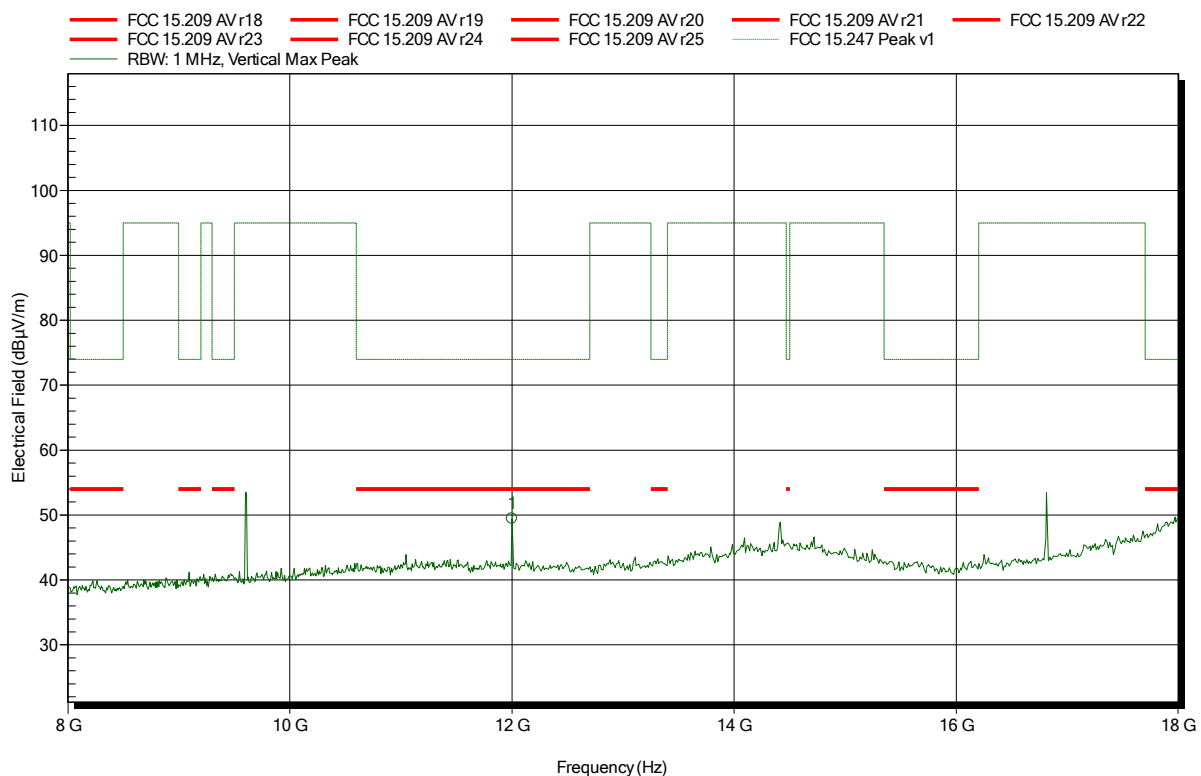
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.0; 2402 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 12 GHz    | 49.44 dBµV/m | 74 dBµV/m  | -24.56 dB       | Pass   |

Test Report No.: GOM-1601-5313-TFC247BT-V02

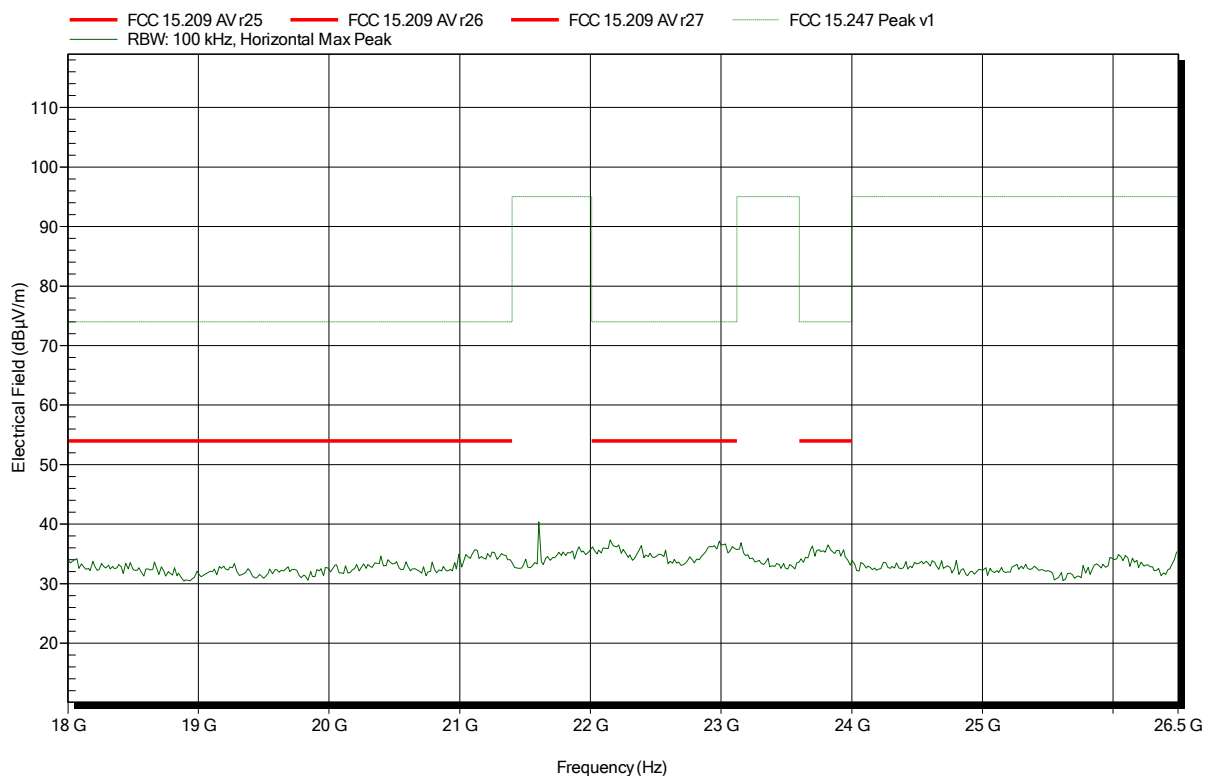
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Configurable Antenna, Horizontal |
| Measurement distance: | 1 m converted to 3m              |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz     |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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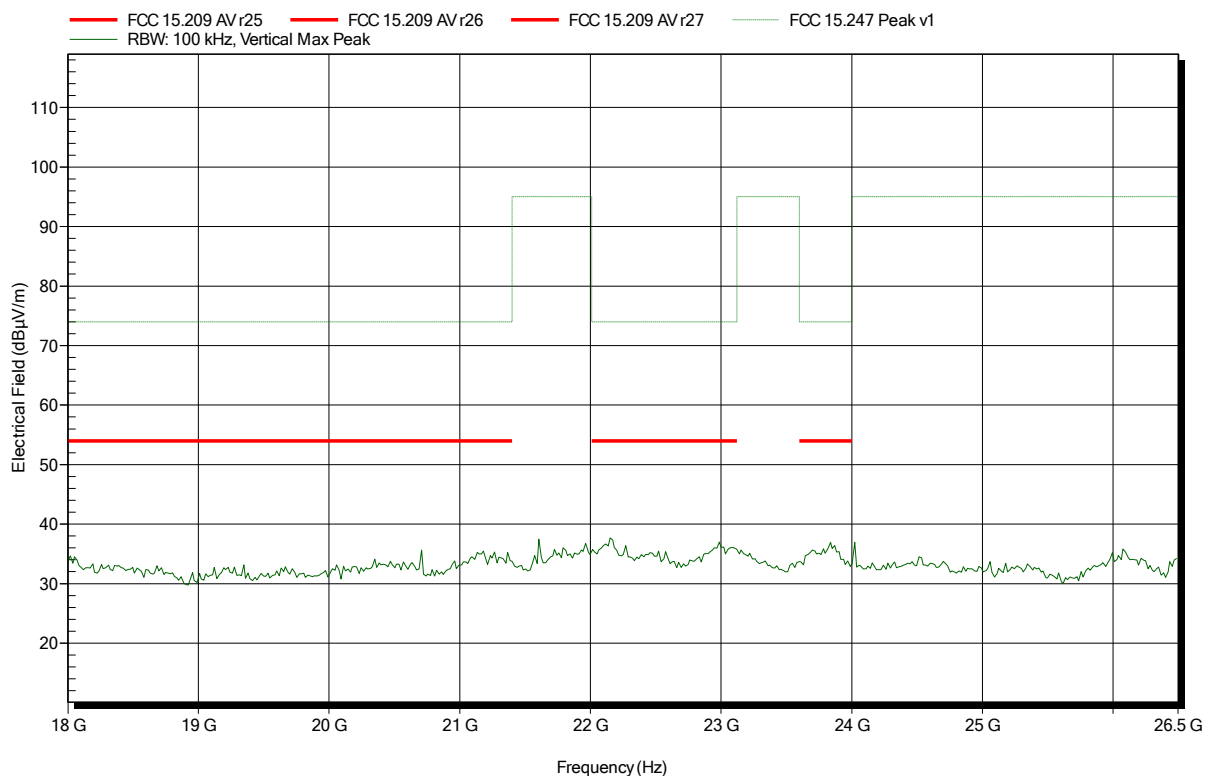


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                 |
|-----------------------|---------------------------------|
| Applicant:            | Leica Geosystems AG             |
| EUT Name:             | LR-BT Class 1 Bluetooth Device  |
| Model:                | CTR35                           |
| Test Site:            | Eurofins Product Service GmbH   |
| Operator:             | Mr. Treffke                     |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB |
| Antenna:              | Configurable Antenna, Vertical  |
| Measurement distance: | 1 m converted to 3m             |
| Mode:                 | TX; BT Basic; CH.0; 2402 MHz    |
| Test Date:            | 2016-03-14                      |
| Note:                 |                                 |

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Test Report No.: G0M-1601-5313-TFC247BT-V02

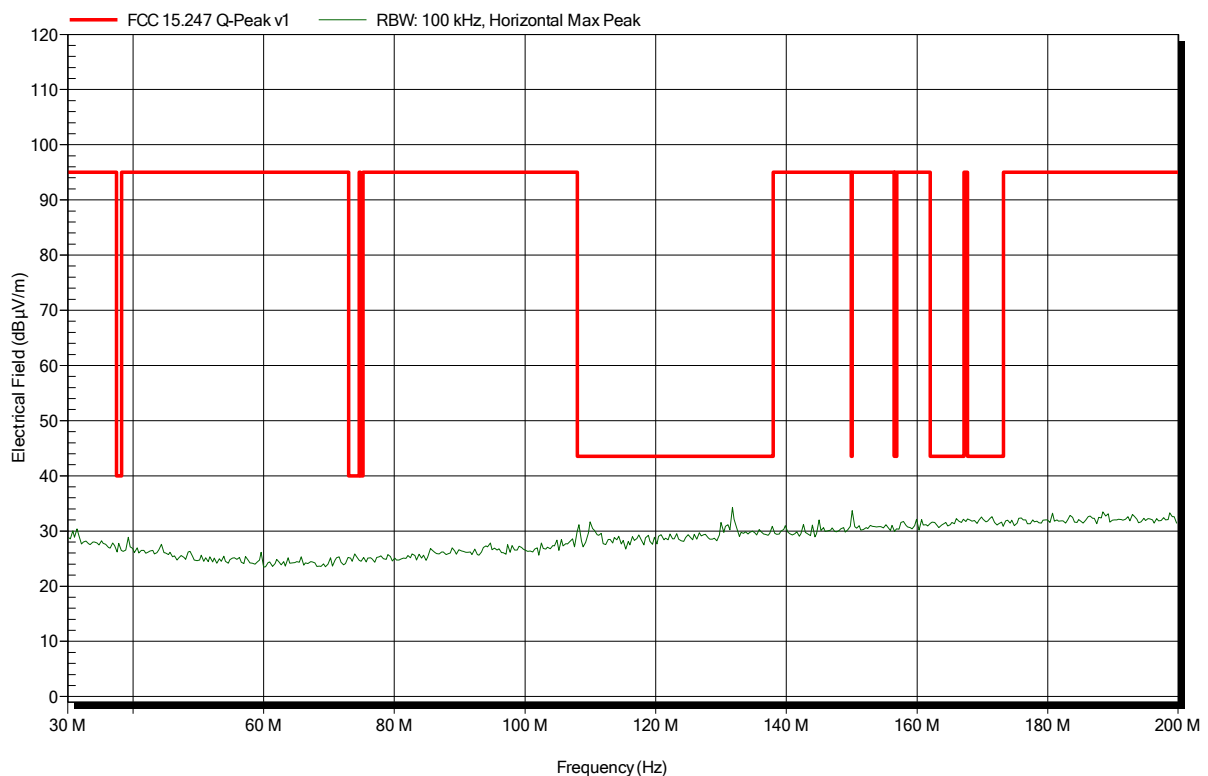
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | TX; BT Basic; CH.38; 2440 MHz      |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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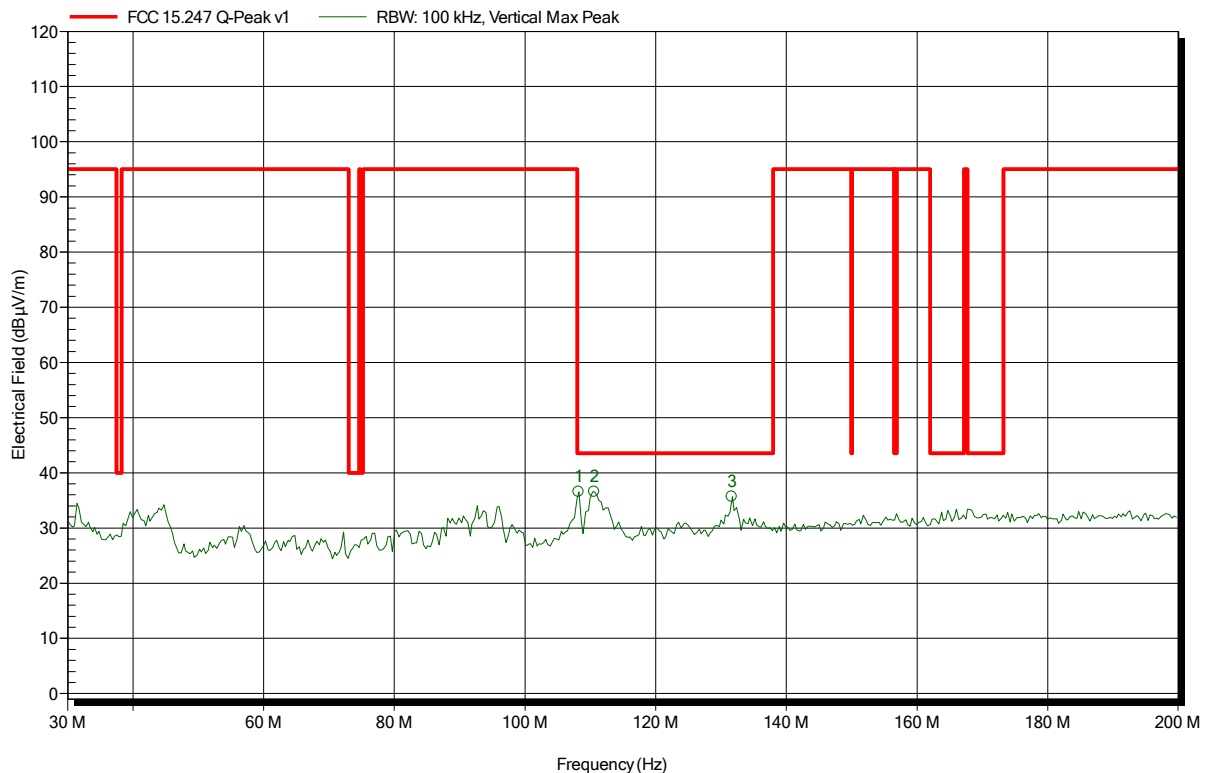


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HK 116, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency  | Peak         | Peak Limit   | Peak Difference | Peak Status |
|------------|--------------|--------------|-----------------|-------------|
| 108.2 MHz  | 36.53 dBµV/m | 43.52 dBµV/m | -6.99 dB        | Pass        |
| 110.58 MHz | 36.55 dBµV/m | 43.52 dBµV/m | -6.97 dB        | Pass        |
| 131.66 MHz | 35.67 dBµV/m | 43.52 dBµV/m | -7.85 dB        | Pass        |

Test Report No.: GOM-1601-5313-TFC247BT-V02

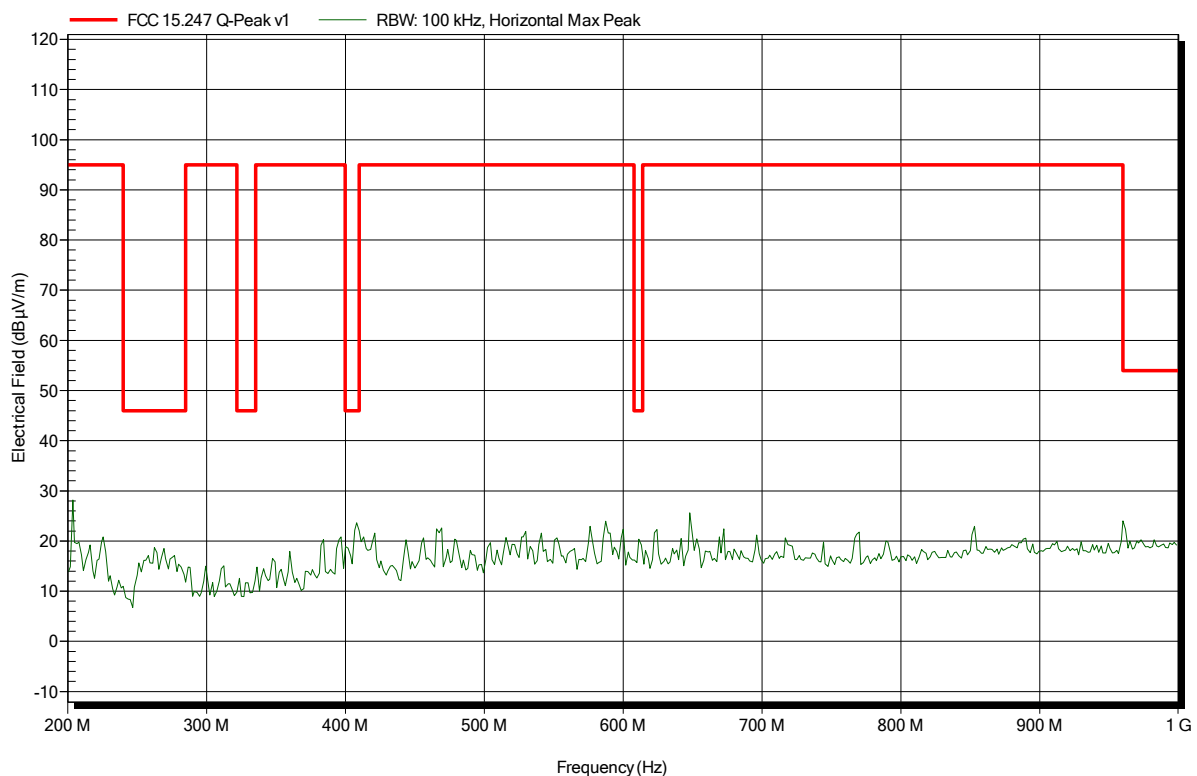
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HL 223, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | TX; BT Basic; CH.38; 2440 MHz      |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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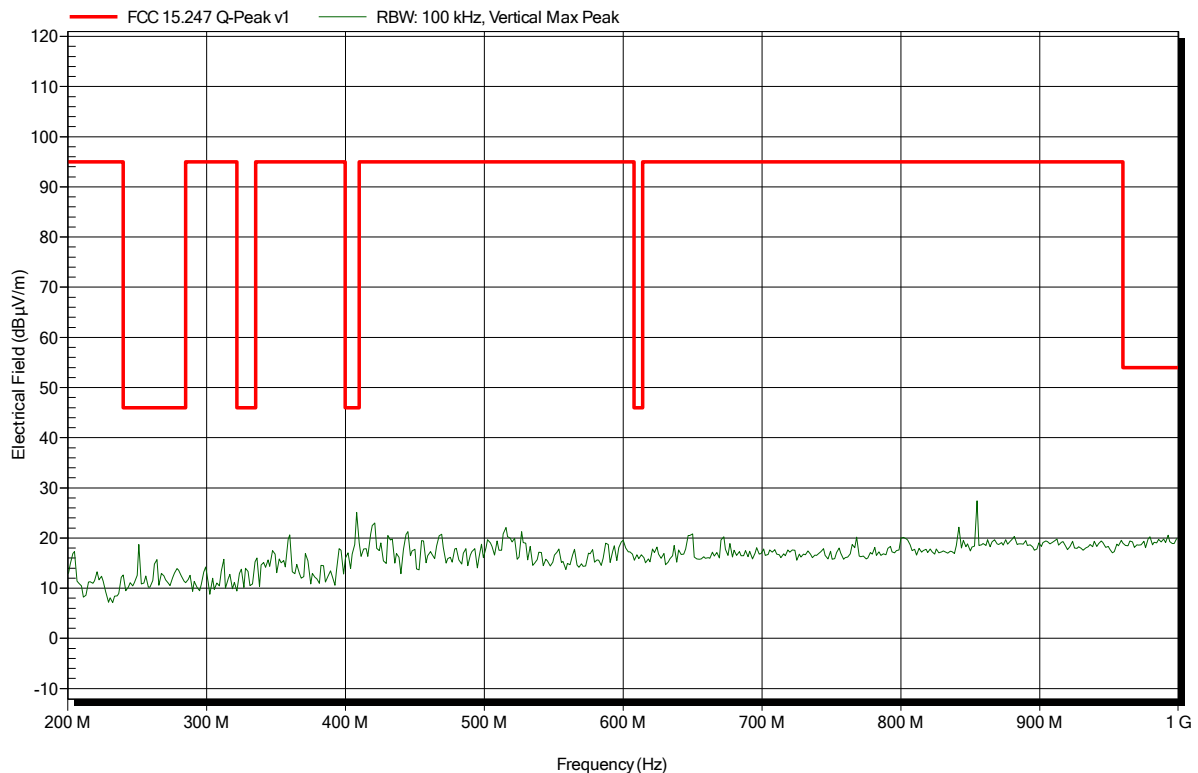


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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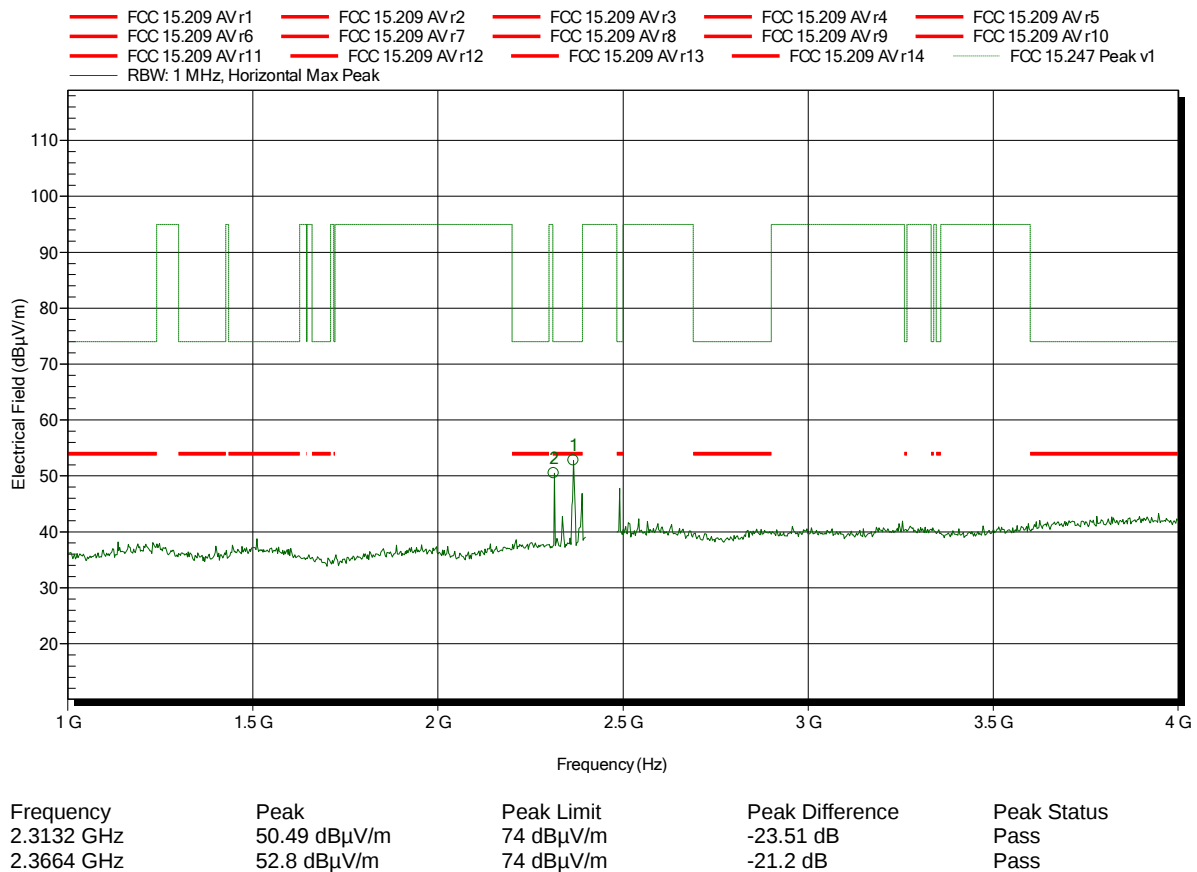


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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Test Report No.: GOM-1601-5313-TFC247BT-V02

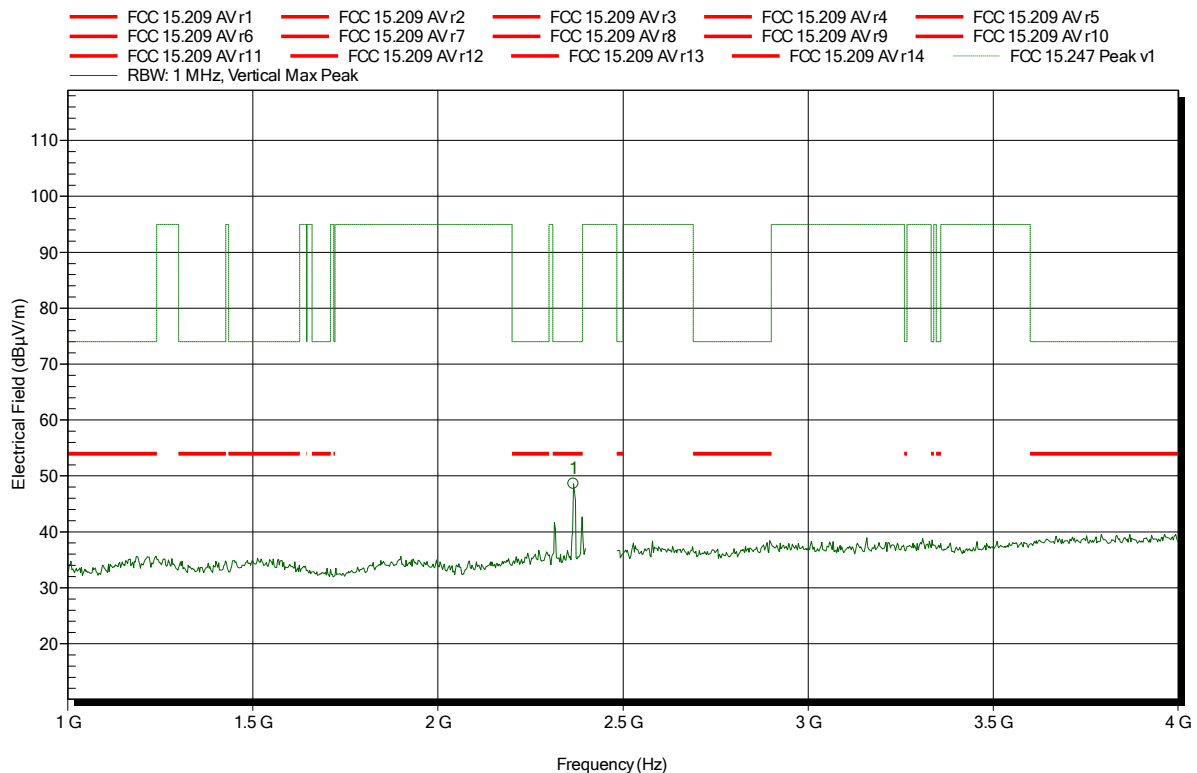
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency  | Peak         | Peak Limit | Peak Difference | Peak Status |
|------------|--------------|------------|-----------------|-------------|
| 2.3664 GHz | 48.58 dBµV/m | 74 dBµV/m  | -25.42 dB       | Pass        |

Test Report No.: GOM-1601-5313-TFC247BT-V02

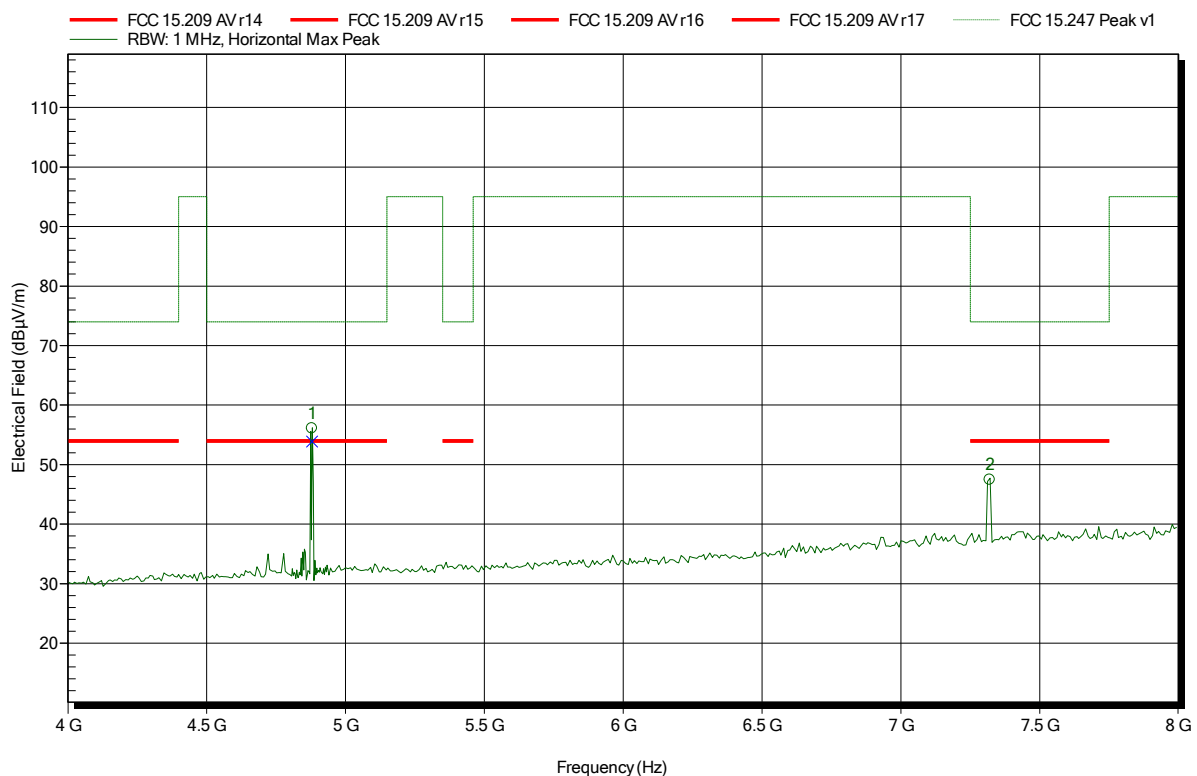
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 4.88 GHz  | 56.06 dBμV/m | 74 dBμV/m  | -17.94 dB       | Pass   |
| 7.32 GHz  | 47.46 dBμV/m | 74 dBμV/m  | -26.54 dB       | Pass   |

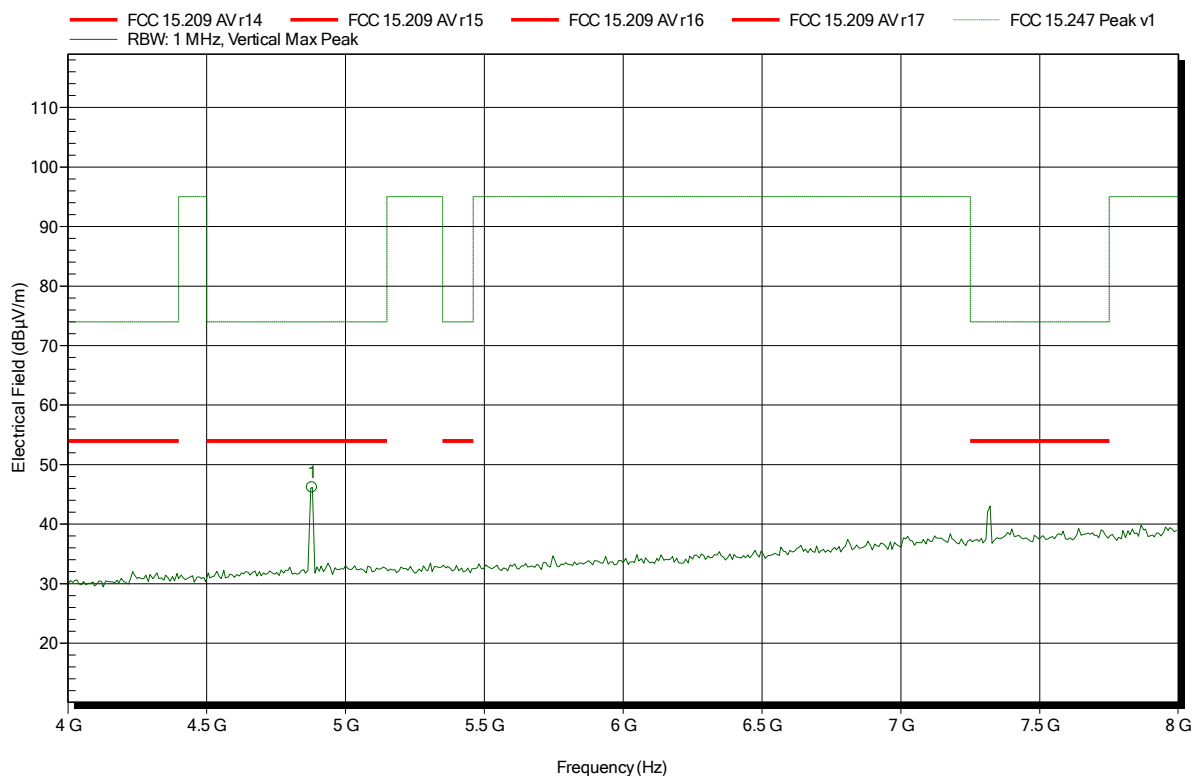
| Frequency | Average      | Average Limit | Average Difference | Average Status |
|-----------|--------------|---------------|--------------------|----------------|
| 4.88 GHz  | 53.88 dBμV/m | 54 dBμV/m     | -0.12 dB           | Pass           |

**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 4.88 GHz  | 46.15 dBµV/m | 74 dBµV/m  | -27.85 dB       | Pass   |

Test Report No.: GOM-1601-5313-TFC247BT-V02

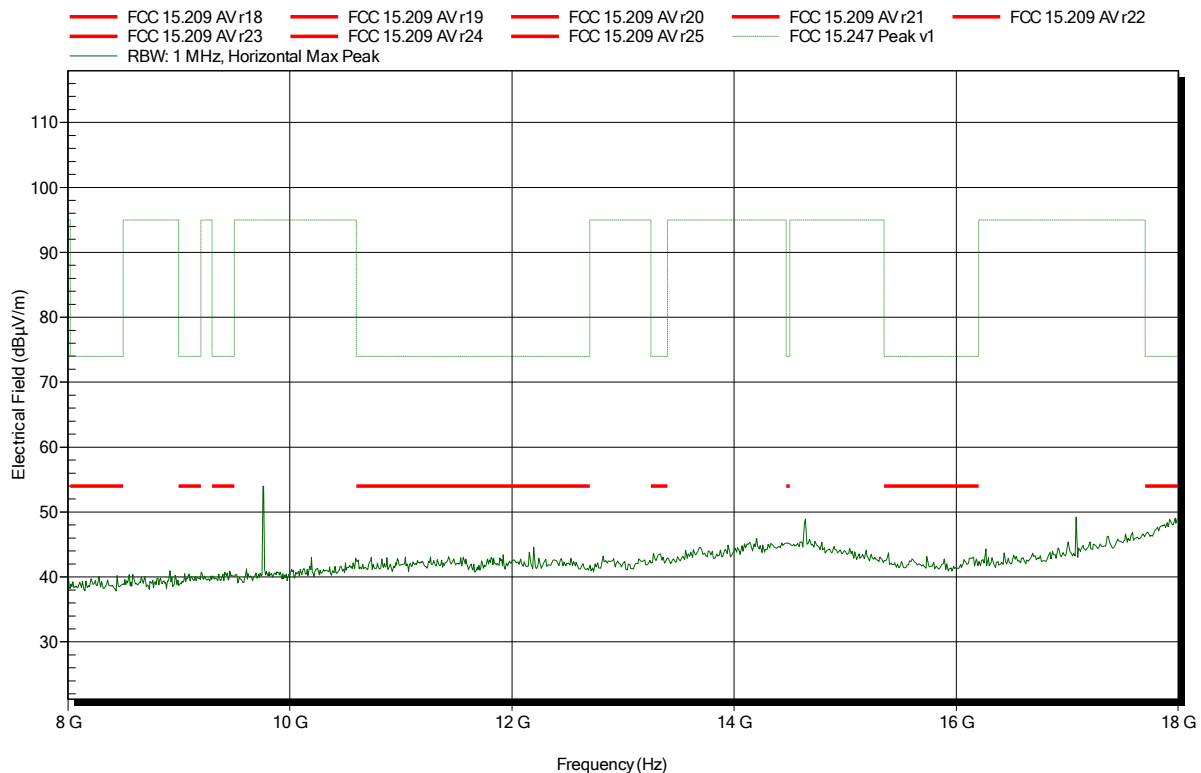
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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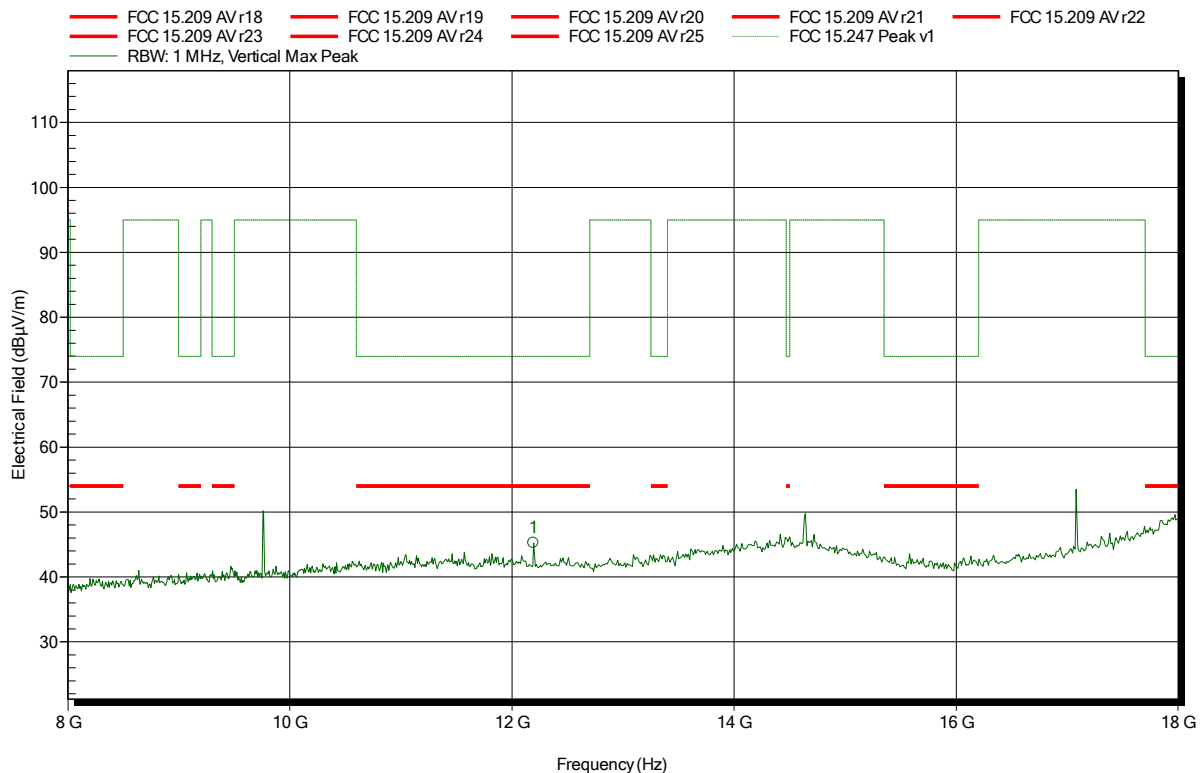


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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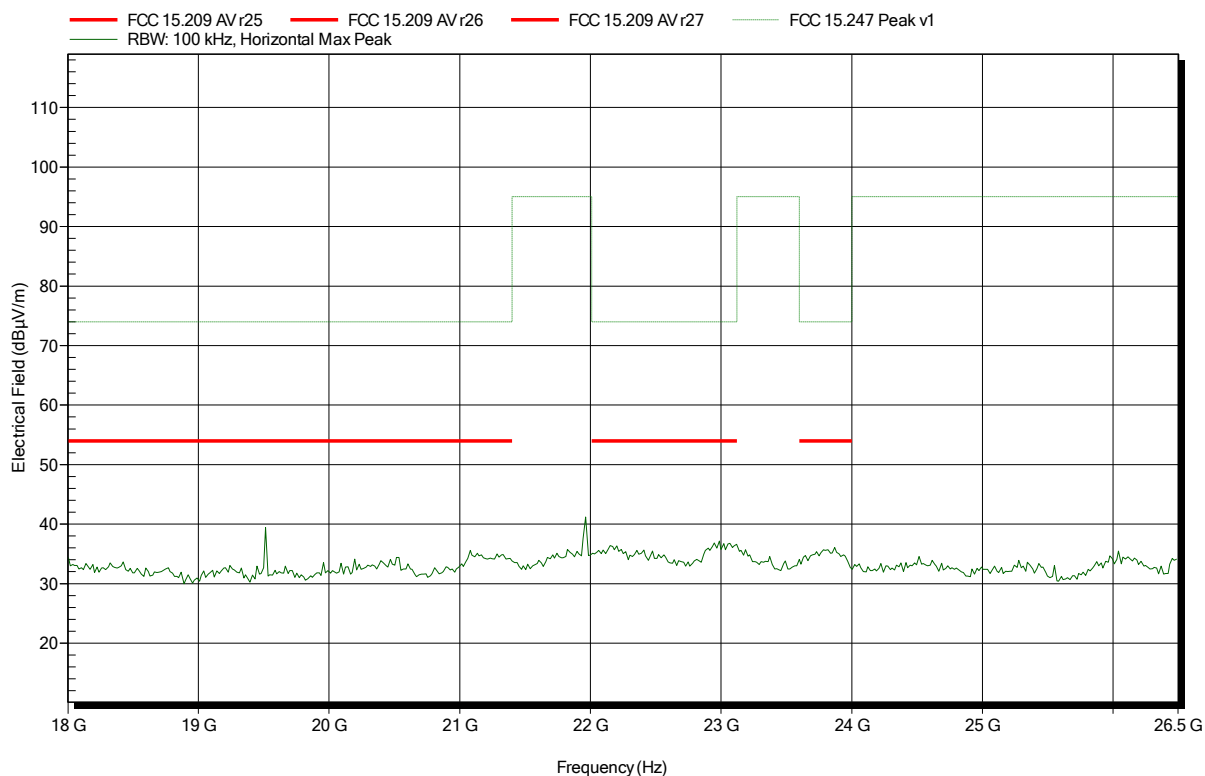
| Frequency  | Peak         | Peak Limit | Peak Difference | Status |
|------------|--------------|------------|-----------------|--------|
| 12.192 GHz | 45.26 dBµV/m | 74 dBµV/m  | -28.74 dB       | Pass   |

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Configurable Antenna, Horizontal |
| Measurement distance: | 1 m converted to 3m              |
| Mode:                 | TX; BT Basic; CH.38; 2440 MHz    |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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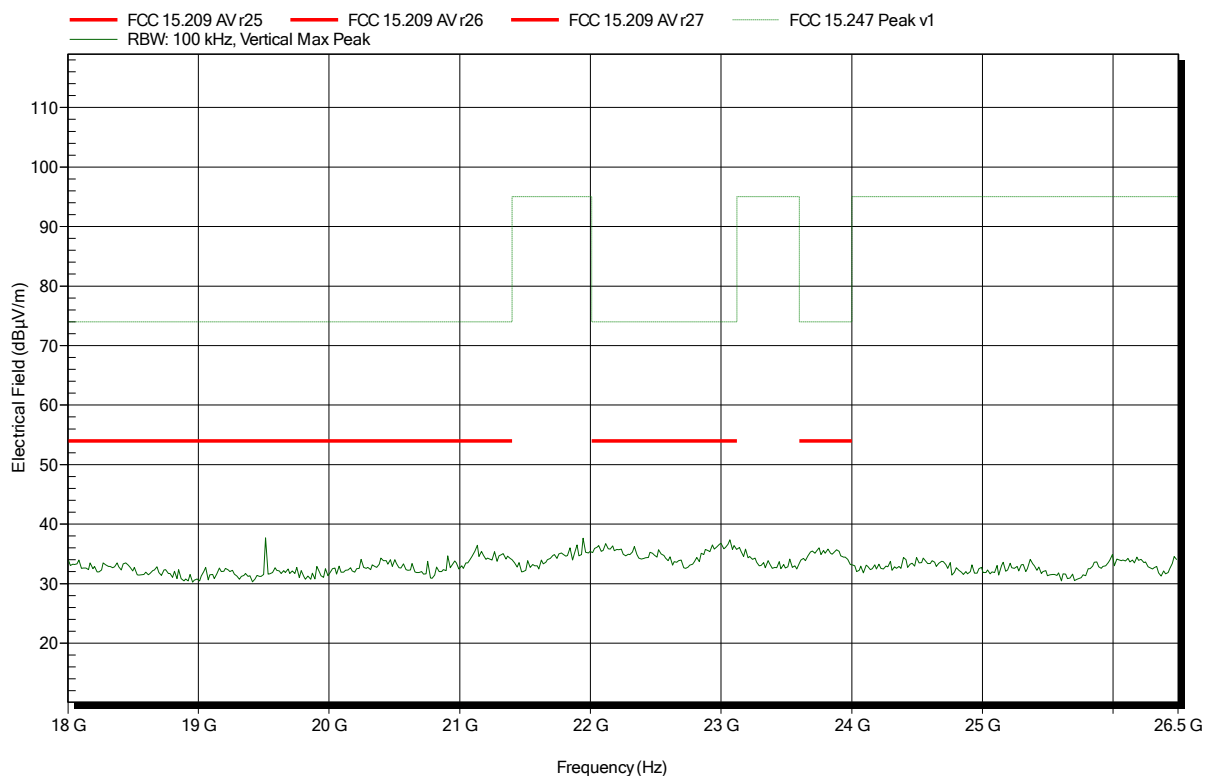


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Configurable Antenna, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.38; 2440 MHz  
 Test Date: 2016-03-14  
 Note:

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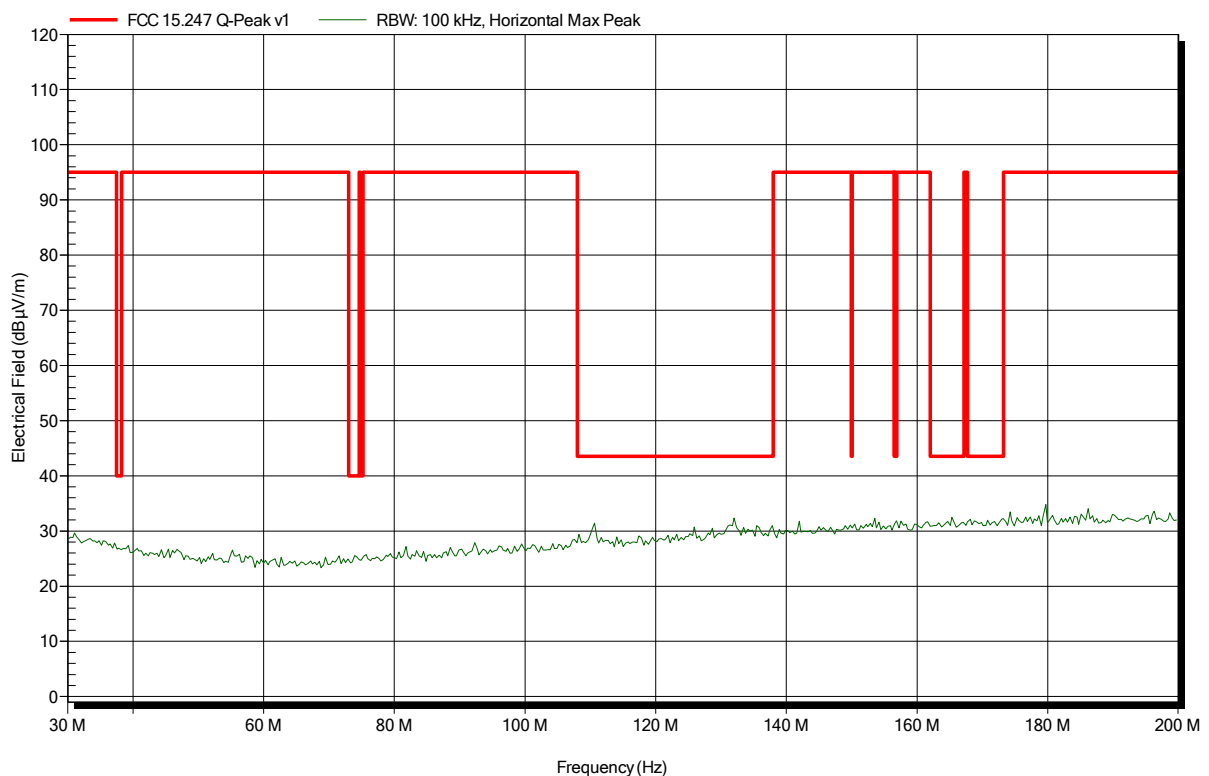


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HK 116, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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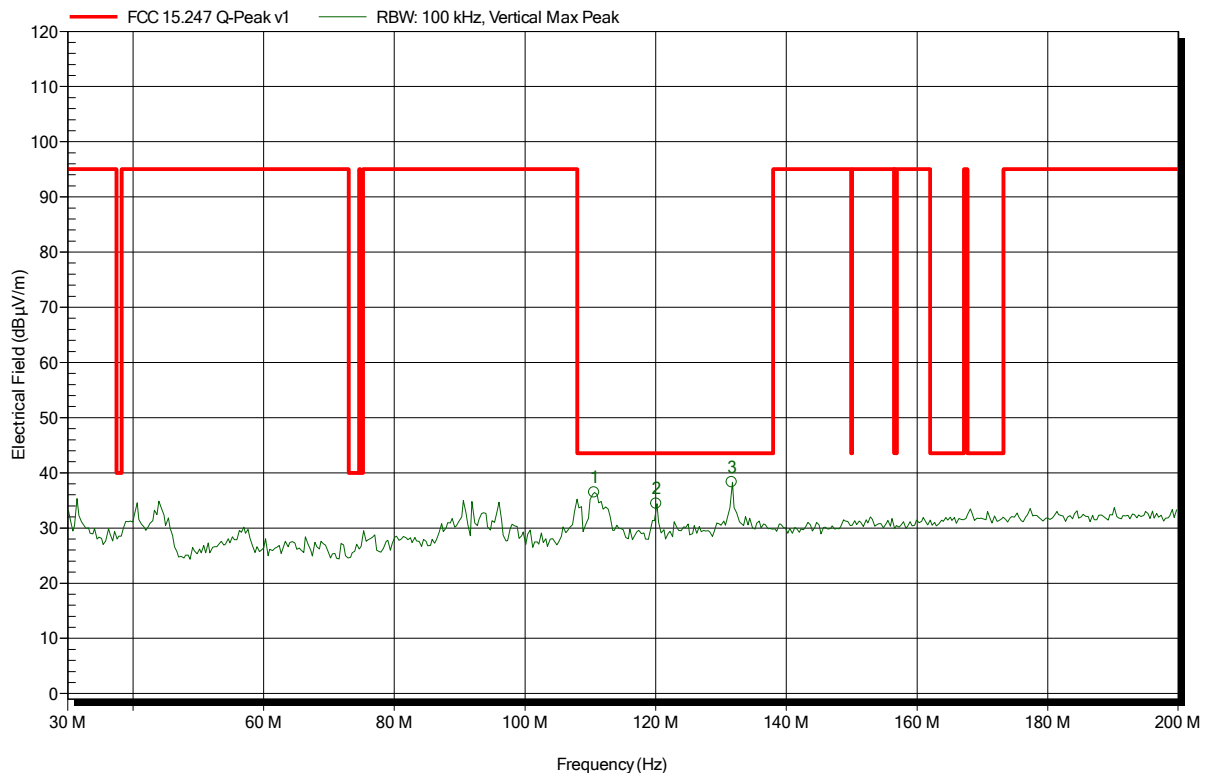


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HK 116, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency  | Peak         | Peak Limit   | Peak Difference | Peak Status |
|------------|--------------|--------------|-----------------|-------------|
| 110.58 MHz | 36.43 dBµV/m | 43.52 dBµV/m | -7.09 dB        | Pass        |
| 120.1 MHz  | 34.42 dBµV/m | 43.52 dBµV/m | -9.1 dB         | Pass        |
| 131.66 MHz | 38.27 dBµV/m | 43.52 dBµV/m | -5.25 dB        | Pass        |

Test Report No.: GOM-1601-5313-TFC247BT-V02

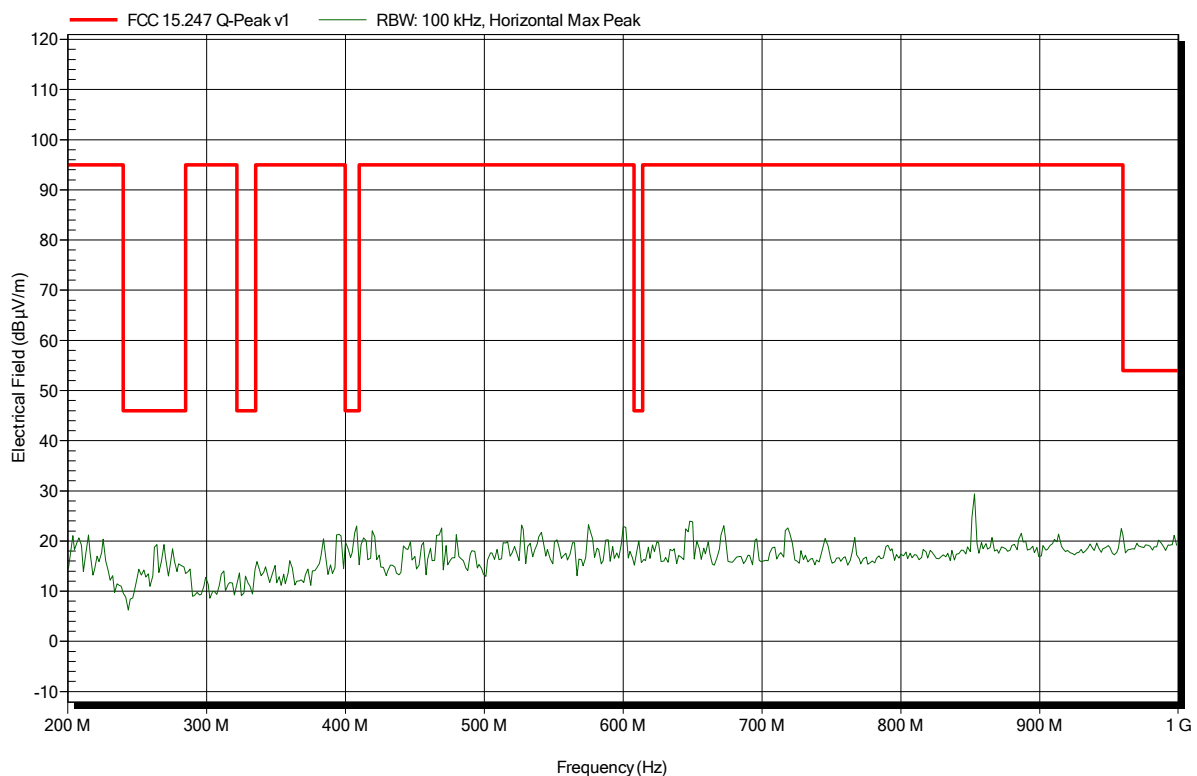
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HL 223, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | TX; BT Basic; CH.78; 2480 MHz      |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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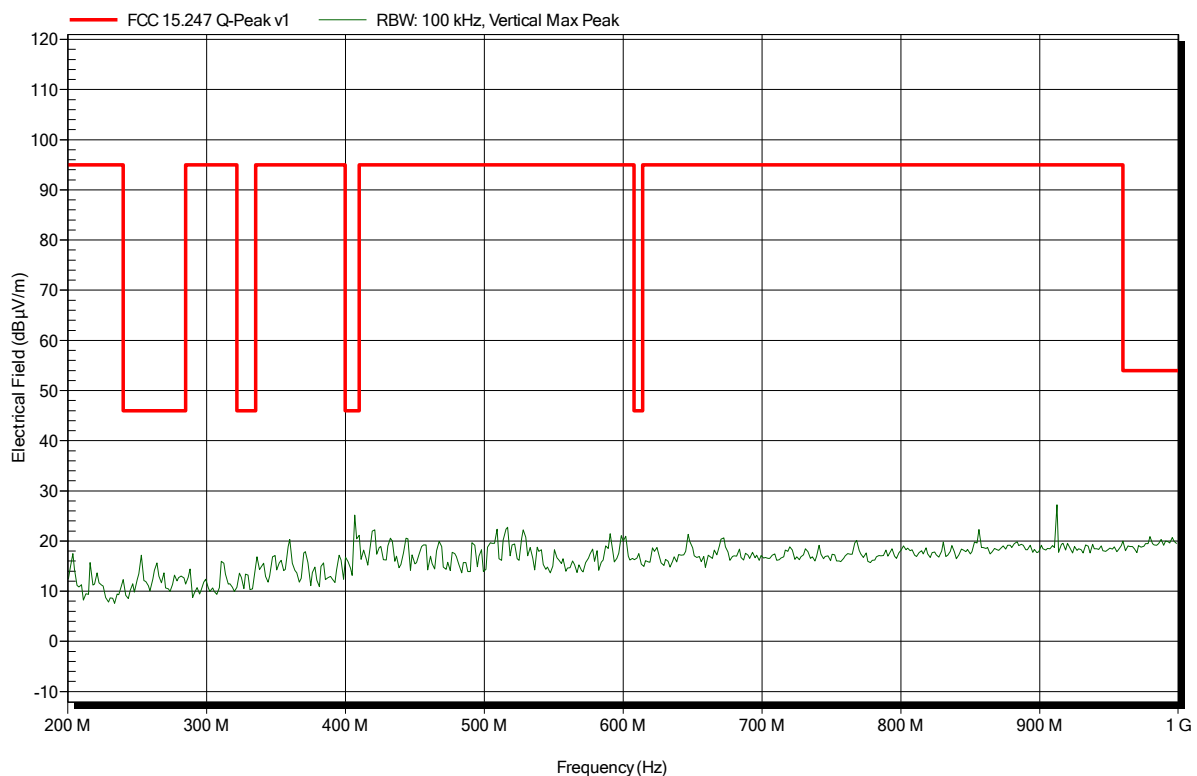


**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Rohde & Schwarz HL 223, Vertical |
| Measurement distance: | 3 m                              |
| Mode:                 | TX; BT Basic; CH.78; 2480 MHz    |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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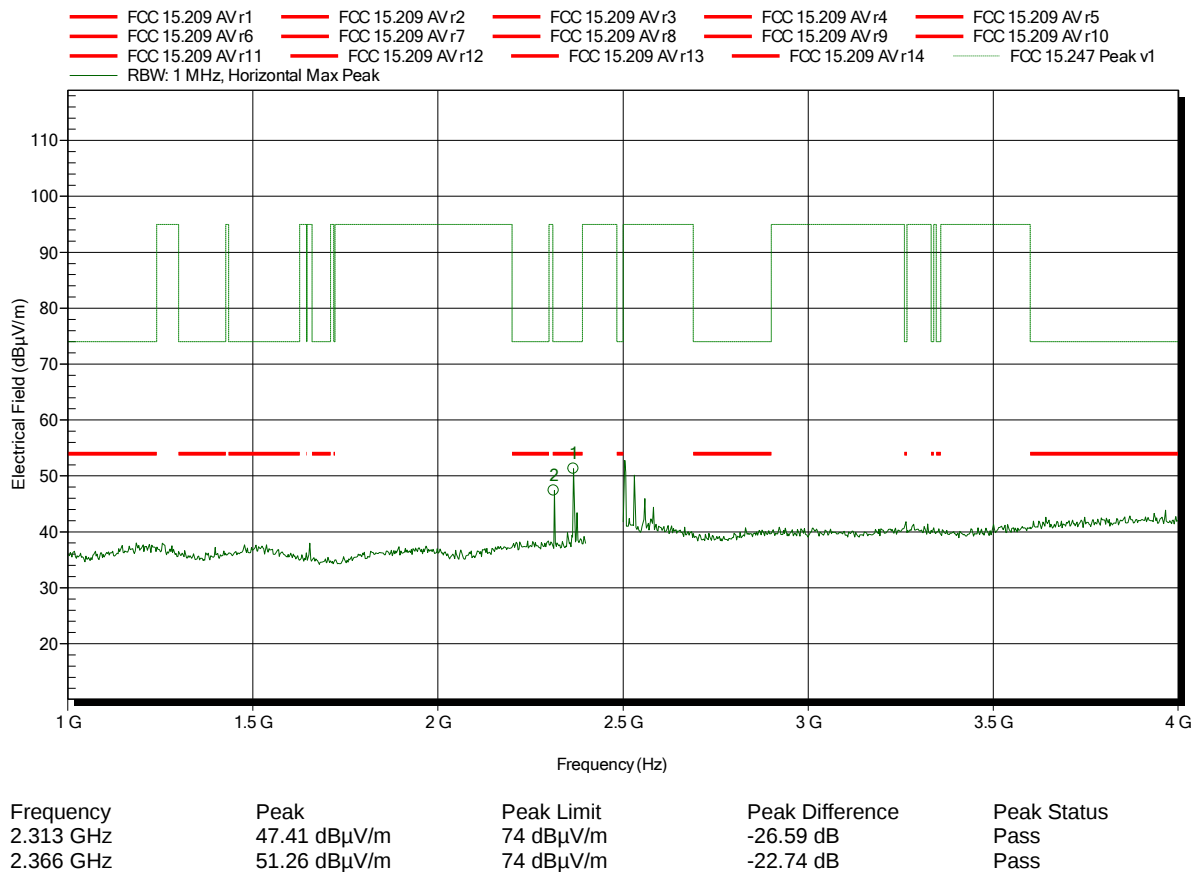


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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Test Report No.: GOM-1601-5313-TFC247BT-V02

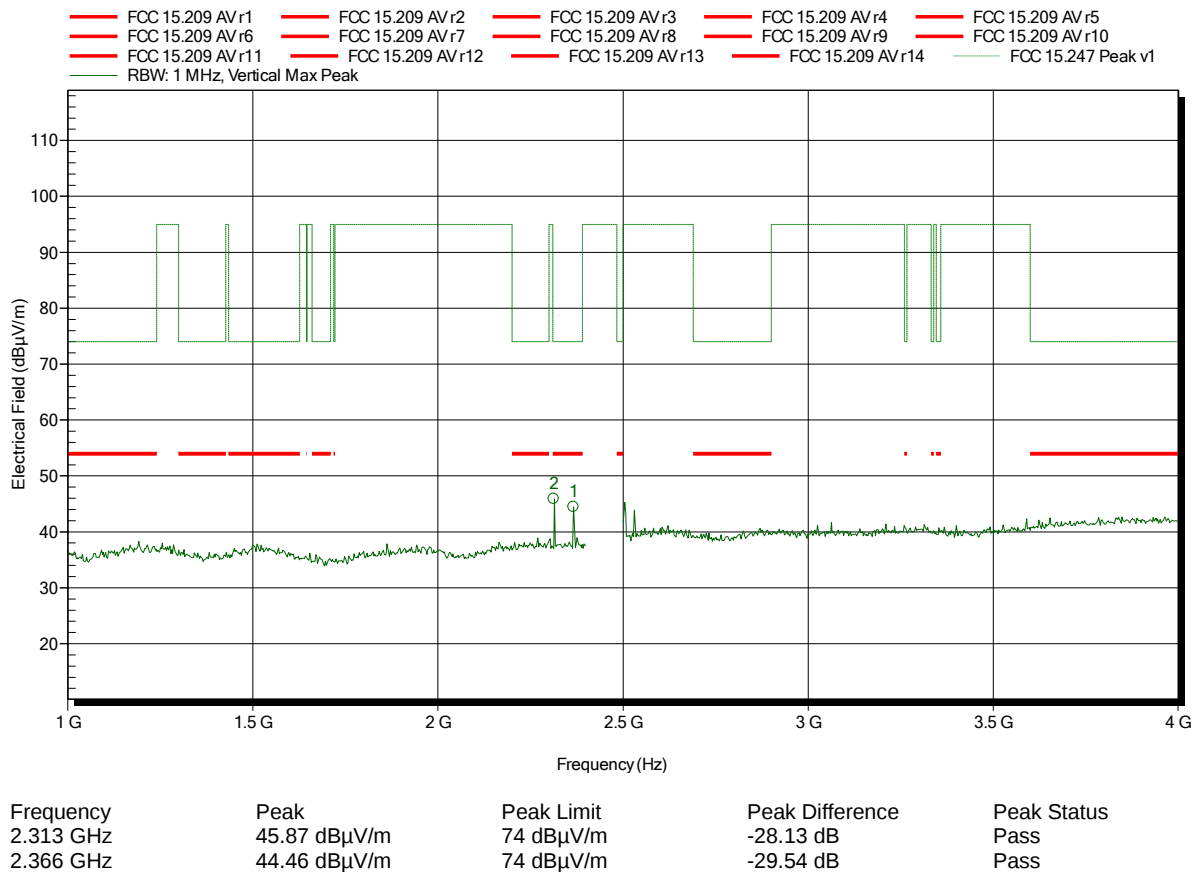
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 3 m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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Test Report No.: GOM-1601-5313-TFC247BT-V02

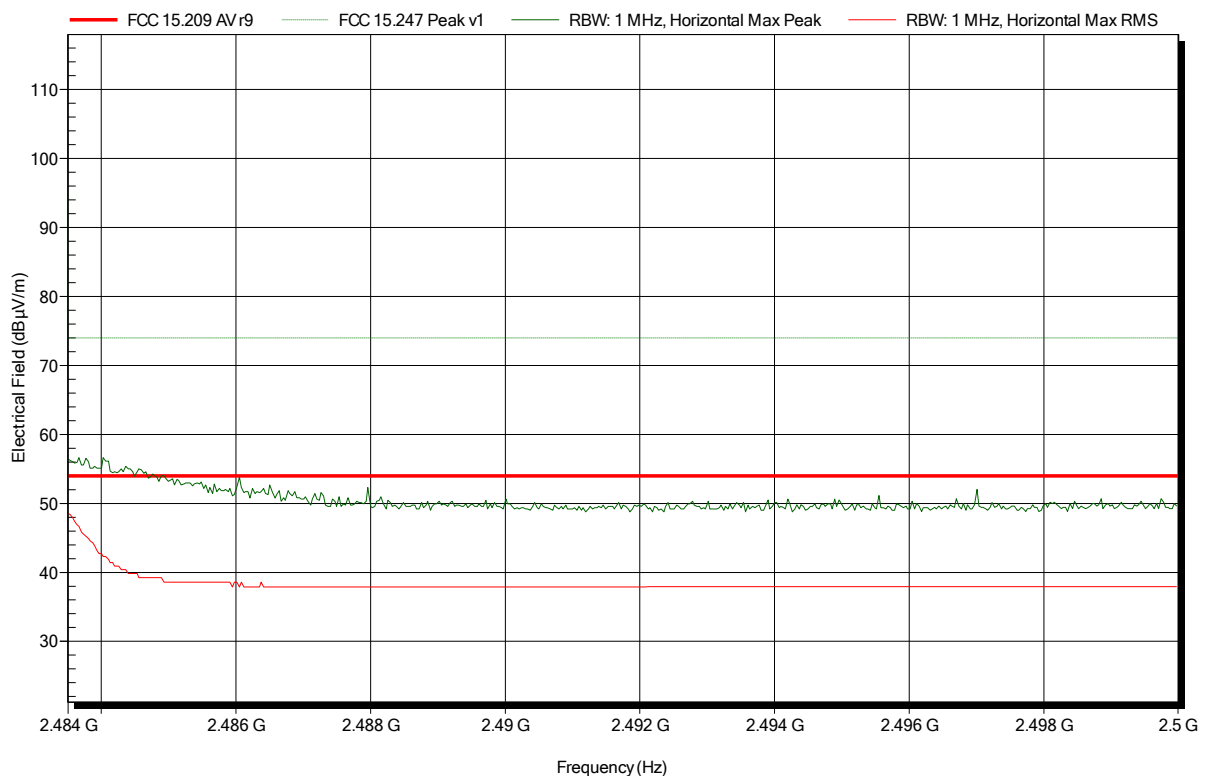
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC 15.247, RSS-247 Issue 1**

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Schwarzbeck BBHA 9120D, Horizontal |
| Measurement distance: | 1 m converted to 3m                |
| Mode:                 | TX; BT Basic; CH.78; 2480 MHz      |
| Test Date:            | 2016-03-14                         |
| Note:                 | upper bandedge                     |

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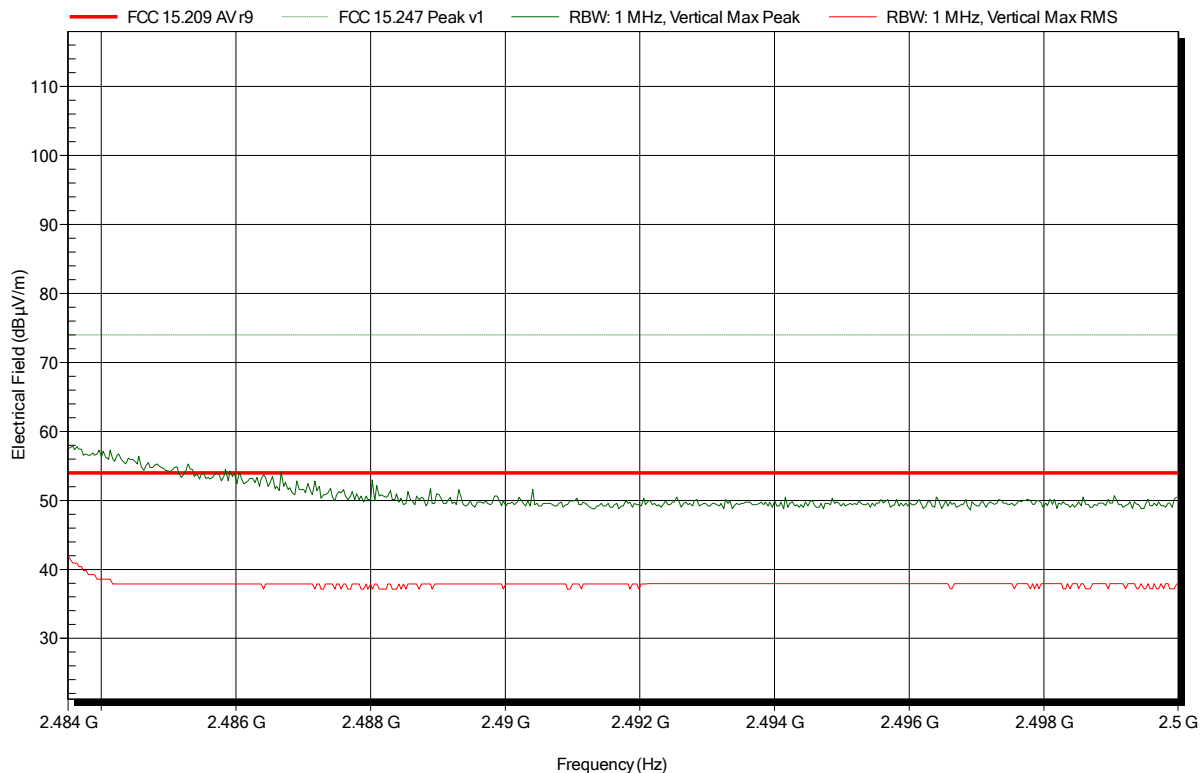


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note: upper bandedge

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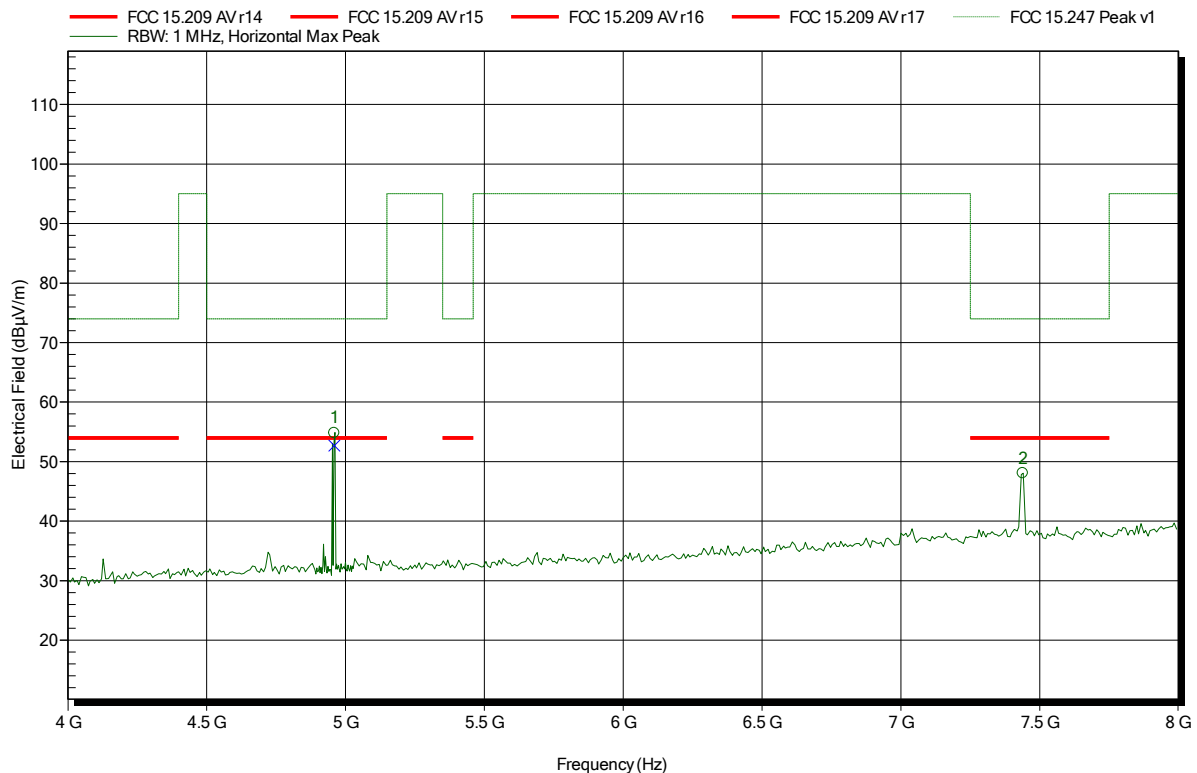


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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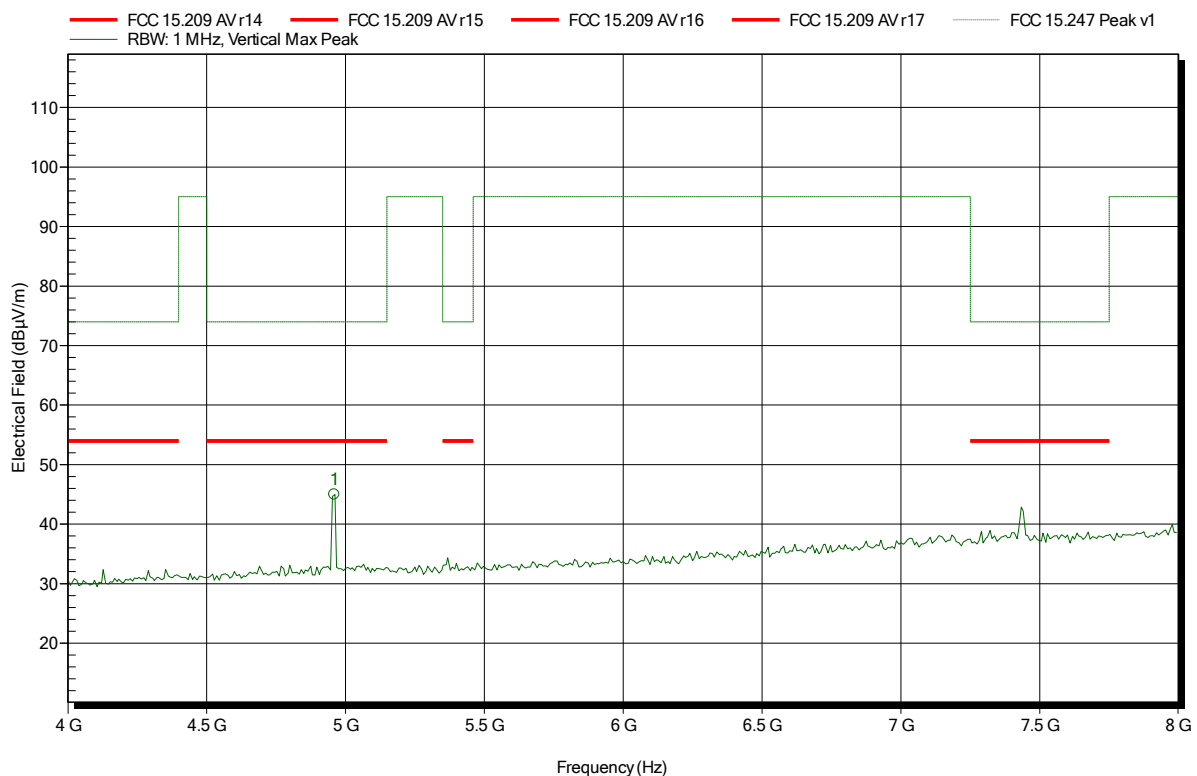
| Frequency | Peak         | Peak Limit    | Peak Difference    | Status         |
|-----------|--------------|---------------|--------------------|----------------|
| 4.96 GHz  | 54.81 dBµV/m | 74 dBµV/m     | -19.19 dB          | Pass           |
| 7.44 GHz  | 48.04 dBµV/m | 74 dBµV/m     | -25.96 dB          | Pass           |
| Frequency | Average      | Average Limit | Average Difference | Average Status |
| 4.96 GHz  | 52.71 dBµV/m | 54 dBµV/m     | -1.29 dB           | Pass           |

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 4.96 GHz  | 44.97 dBμV/m | 74 dBμV/m  | -29.03 dB       | Pass   |

Test Report No.: GOM-1601-5313-TFC247BT-V02

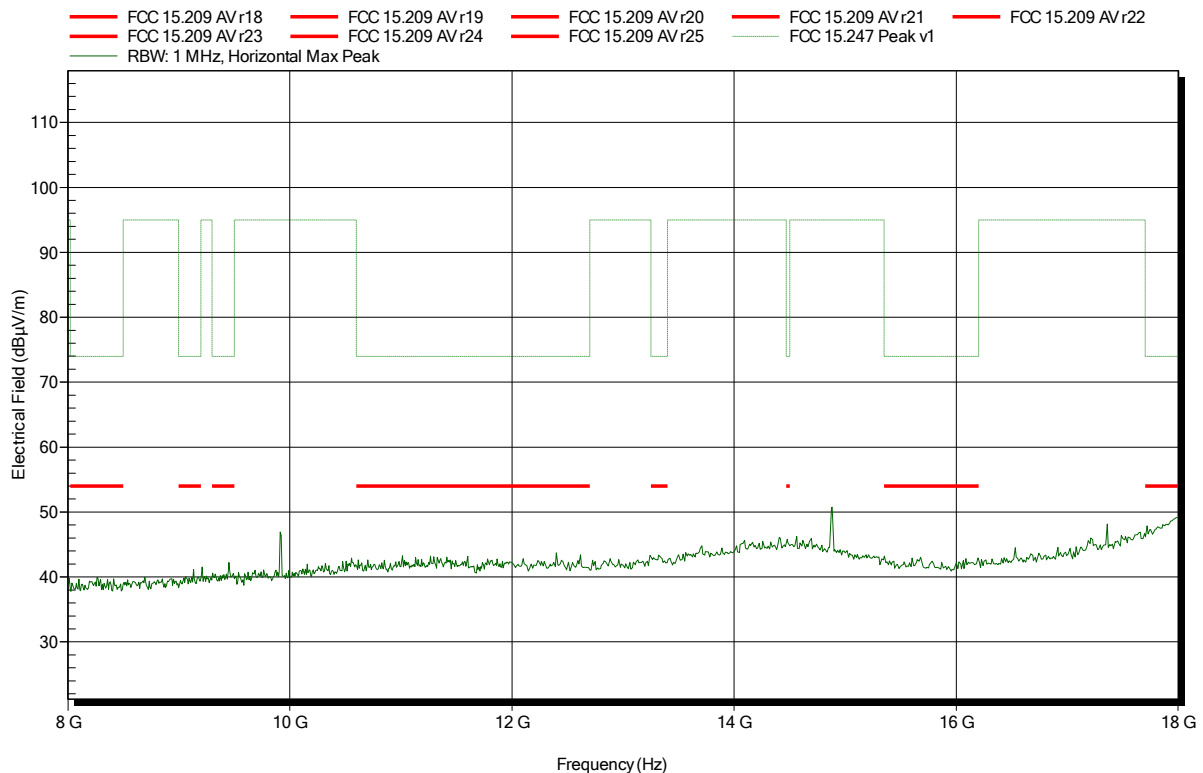
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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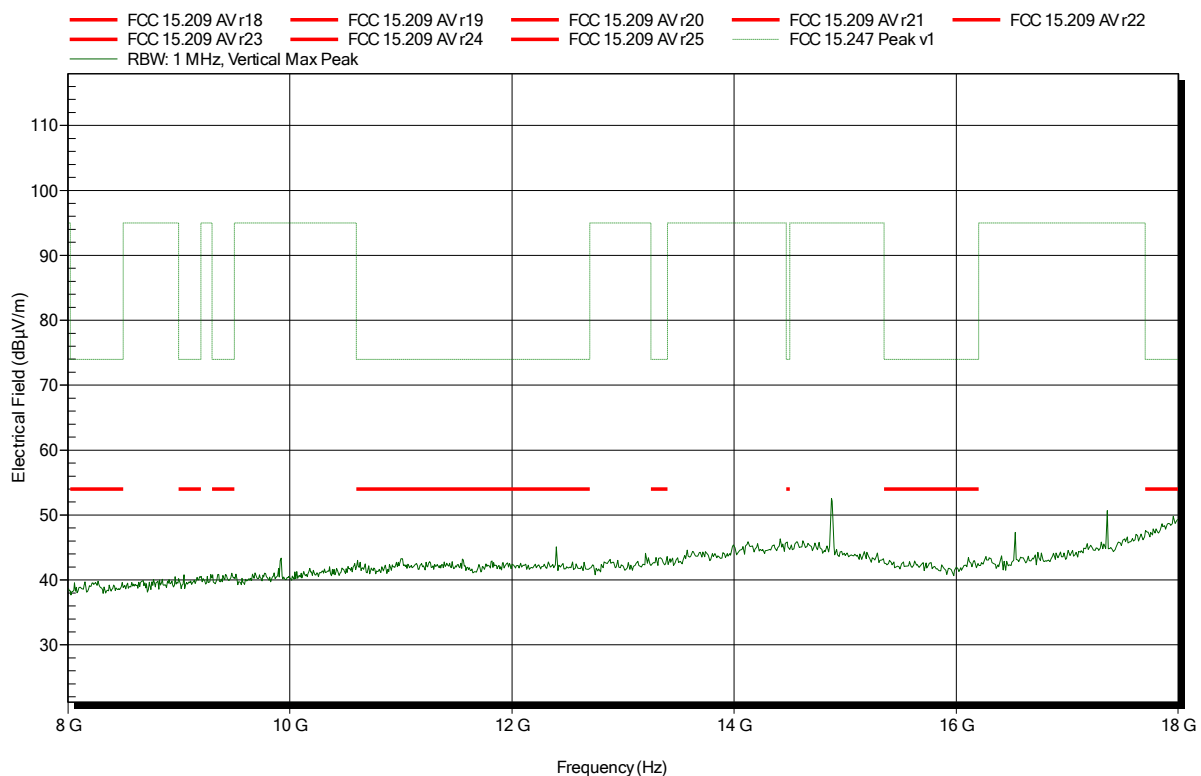


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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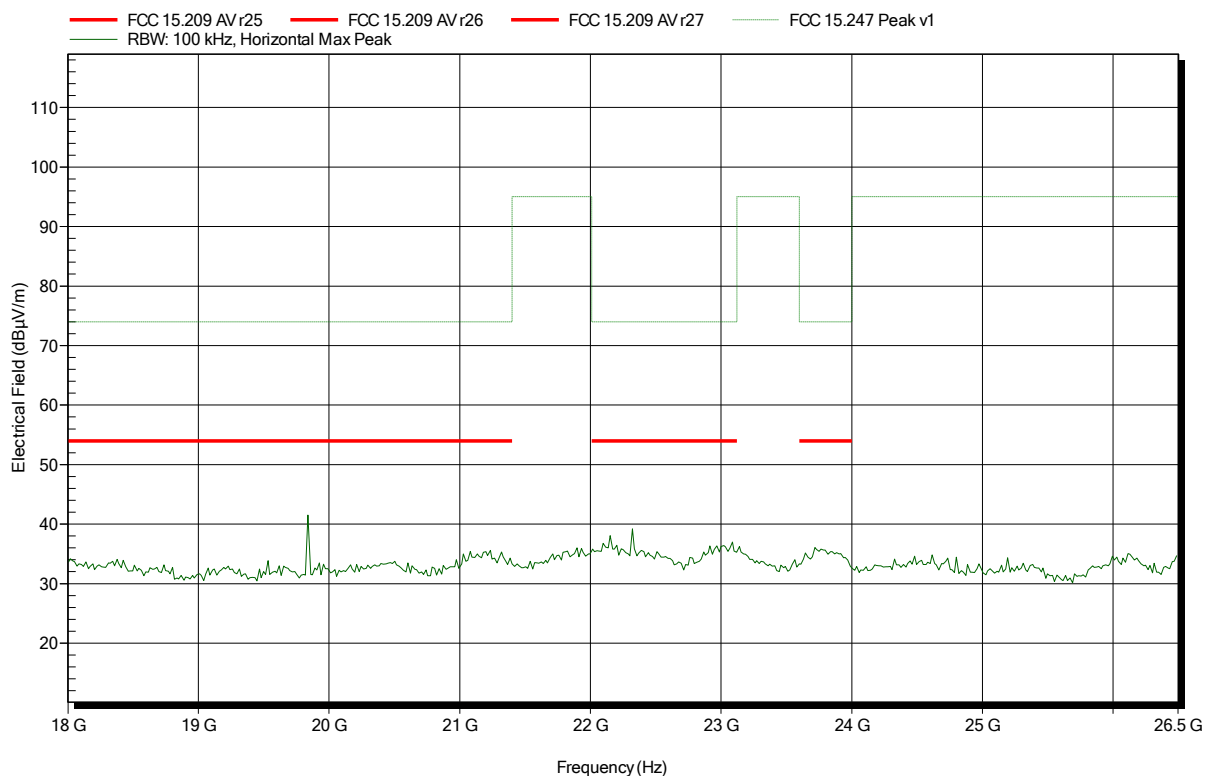


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Configurable Antenna, Horizontal |
| Measurement distance: | 1 m converted to 3m              |
| Mode:                 | TX; BT Basic; CH.78; 2480 MHz    |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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Test Report No.: G0M-1601-5313-TFC247BT-V02

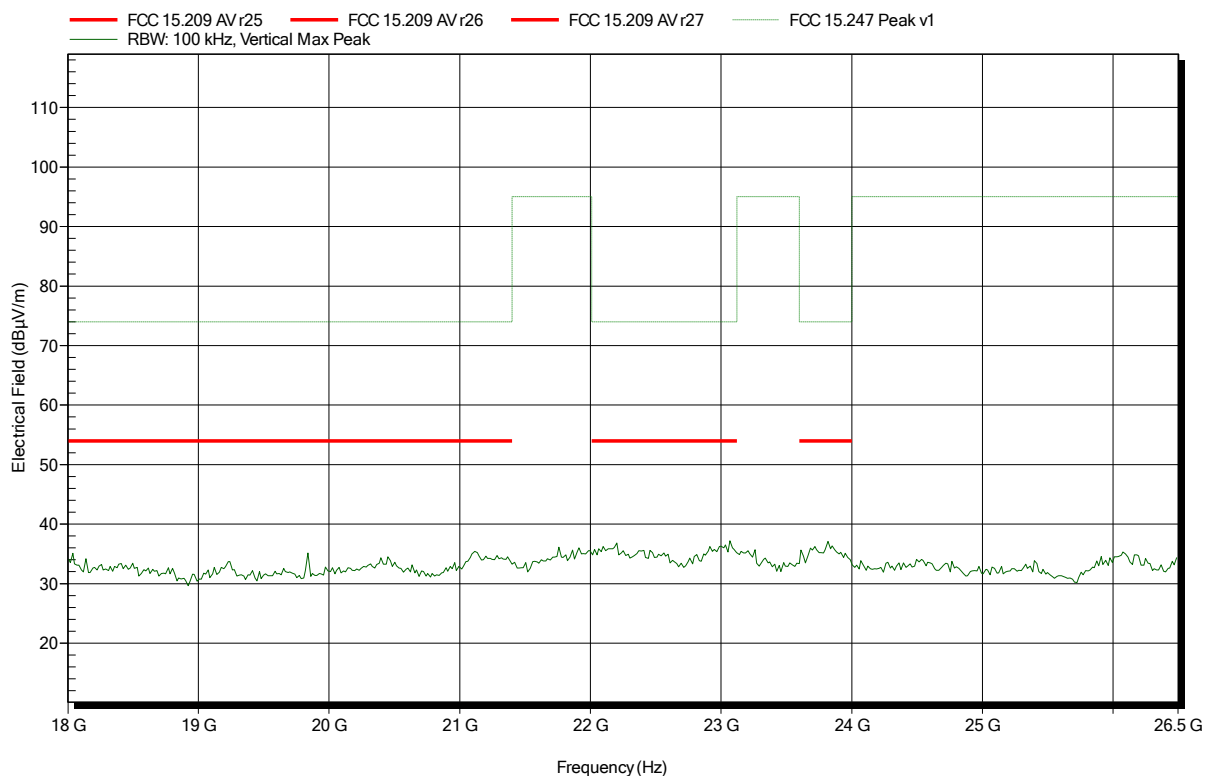
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Configurable Antenna, Vertical  
 Measurement distance: 1 m converted to 3m  
 Mode: TX; BT Basic; CH.78; 2480 MHz  
 Test Date: 2016-03-14  
 Note:

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Test Report No.: G0M-1601-5313-TFC247BT-V02

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

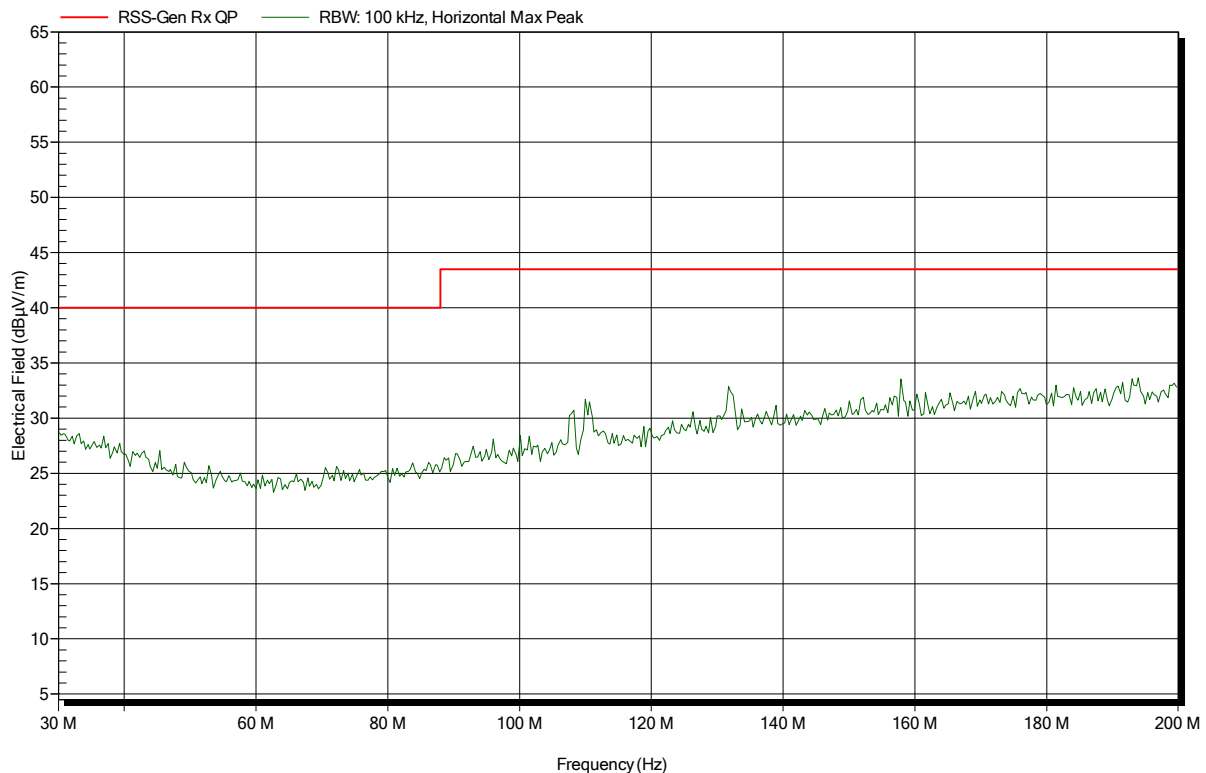
## ANNEX B Receiver radiated spurious emissions

### Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | RX; BT Basic; Scan Mode            |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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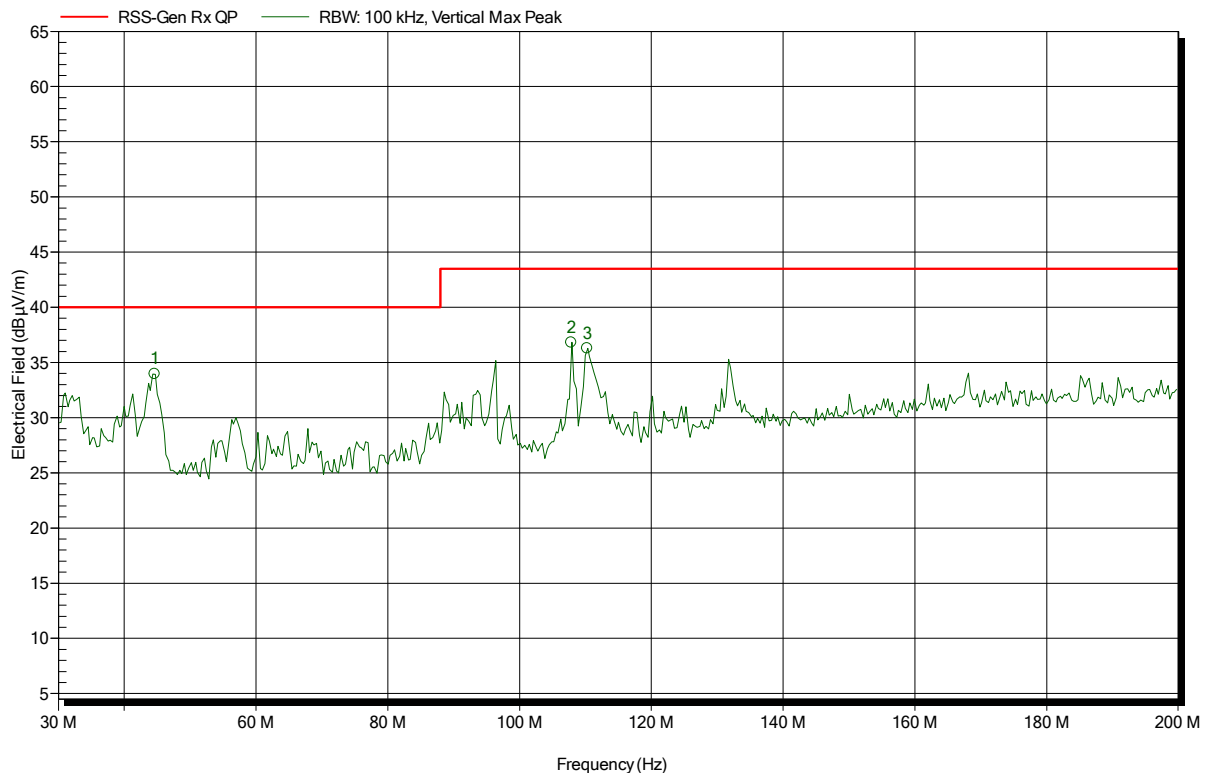


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: GOM-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HK 116, Vertical  
 Measurement distance: 3 m  
 Mode: RX; BT Basic; Scan Mode  
 Test Date: 2016-03-14  
 Note:

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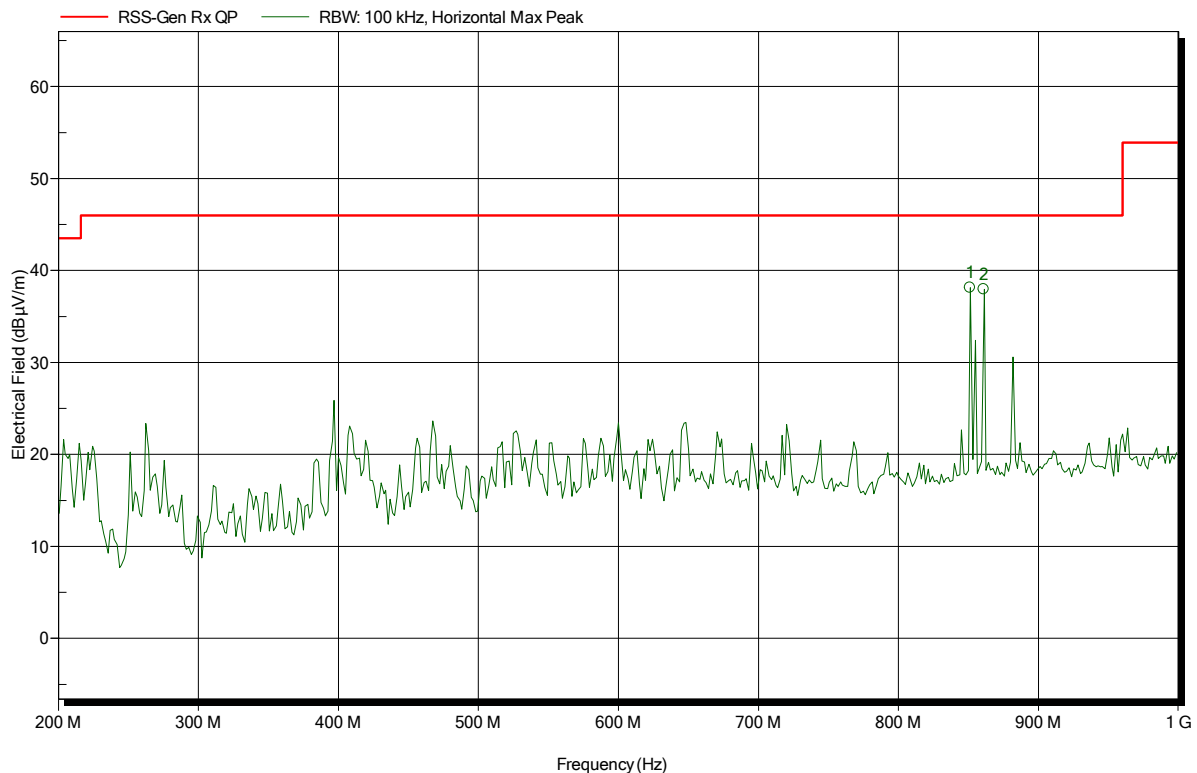
| Frequency  | Peak         | Peak Limit  | Peak Difference | Status |
|------------|--------------|-------------|-----------------|--------|
| 107.86 MHz | 36.81 dBµV/m | 43.5 dBµV/m | -6.69 dB        | Pass   |
| 110.24 MHz | 36.28 dBµV/m | 43.5 dBµV/m | -7.22 dB        | Pass   |
| 44.62 MHz  | 33.95 dBµV/m | 40 dBµV/m   | -6.05 dB        | Pass   |

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; BT Basic; Scan Mode  
 Test Date: 2016-03-14  
 Note:

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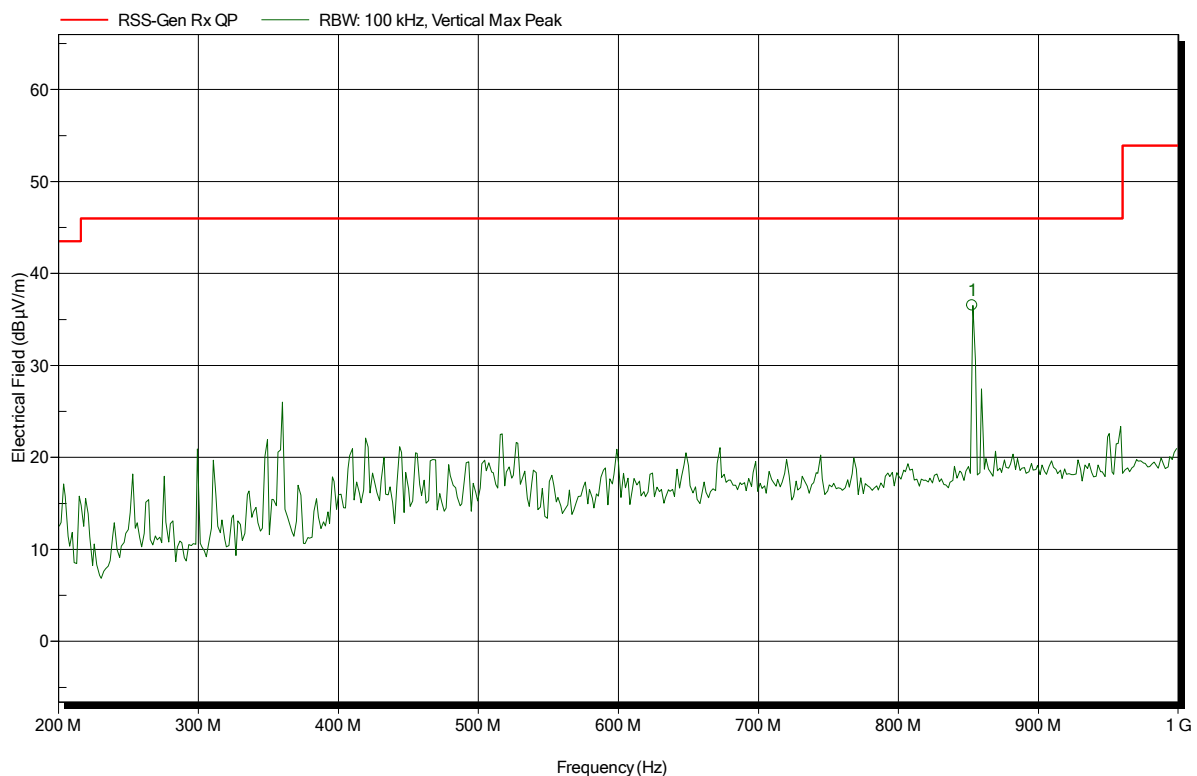
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 851.2 MHz | 38.12 dBµV/m | 46 dBµV/m  | -7.88 dB        | Pass   |
| 860.8 MHz | 37.94 dBµV/m | 46 dBµV/m  | -8.06 dB        | Pass   |

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: RX; BT Basic; Scan Mode  
 Test Date: 2016-03-14  
 Note:

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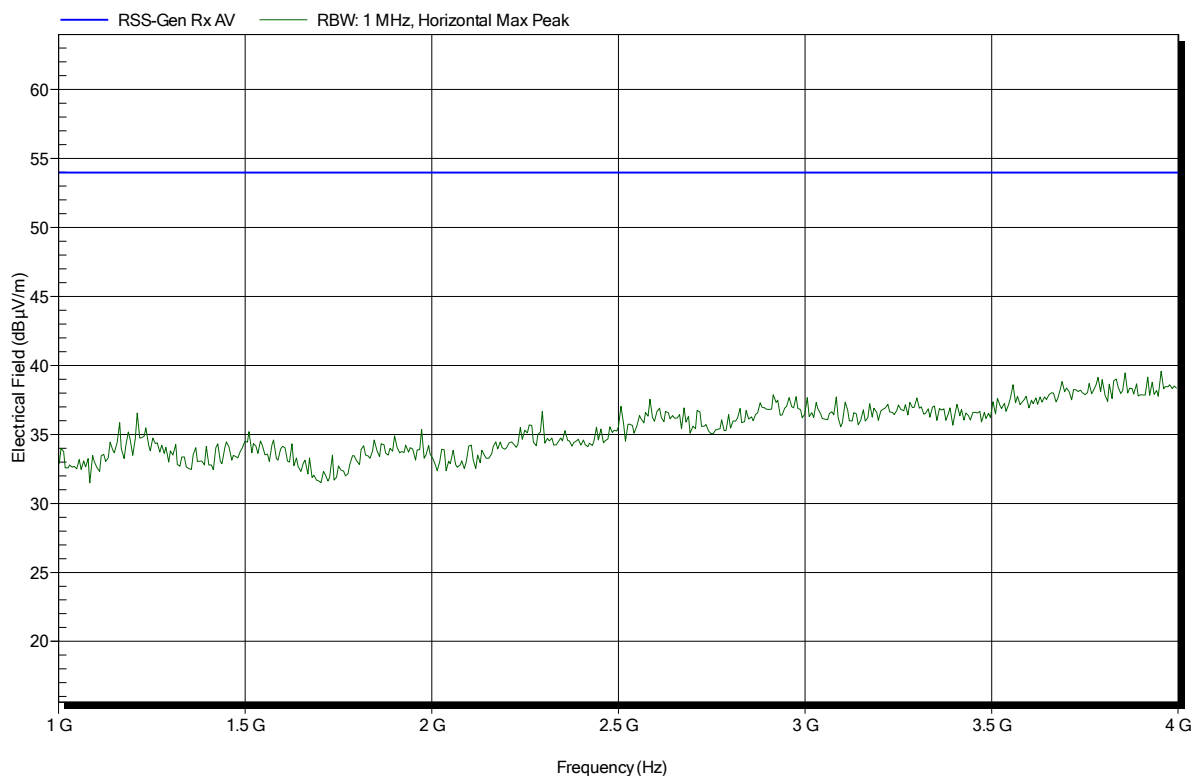
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 852.8 MHz | 36.52 dBµV/m | 46 dBµV/m  | -9.48 dB        | Pass   |

## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

Applicant: Leica Geosystems AG  
 EUT Name: LR-BT Class 1 Bluetooth Device  
 Model: CTR35  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 24°C, Vnom: 5 VDC via USB  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; BT Basic; Scan Mode  
 Test Date: 2016-03-14  
 Note:

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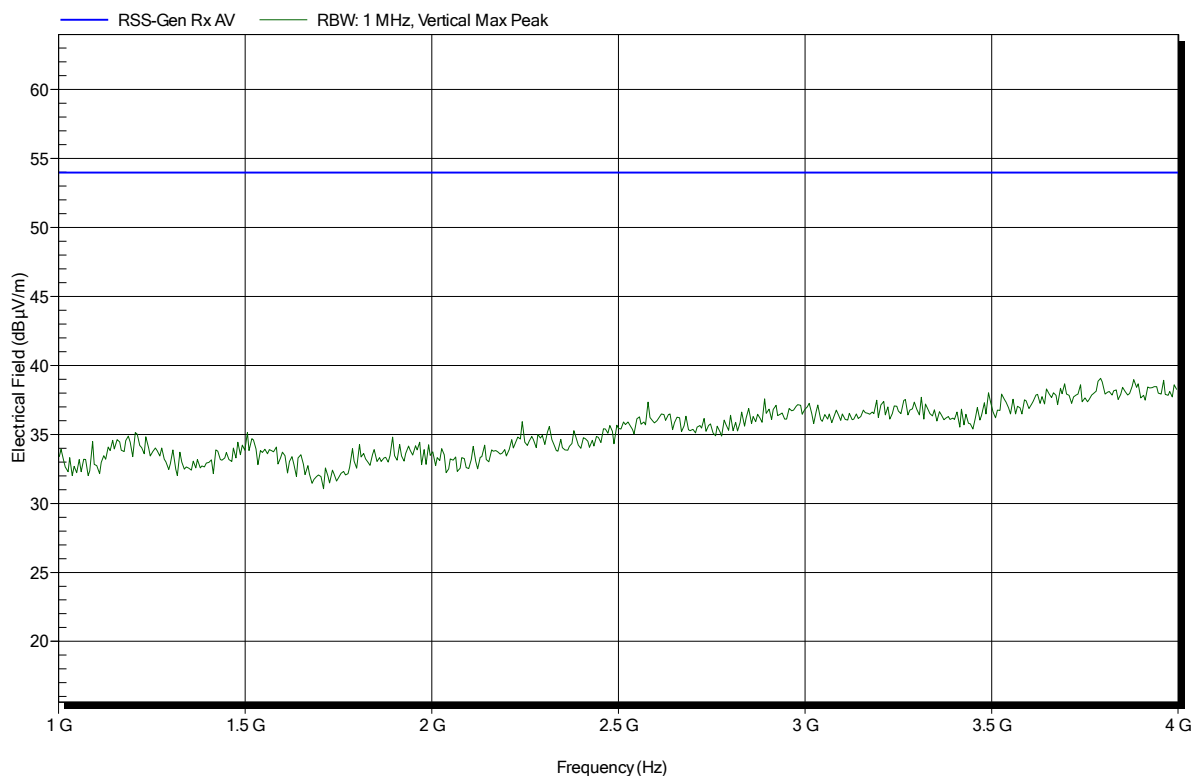


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Schwarzbeck BBHA 9120D, Vertical |
| Measurement distance: | 3 m                              |
| Mode:                 | RX; BT Basic; Scan Mode          |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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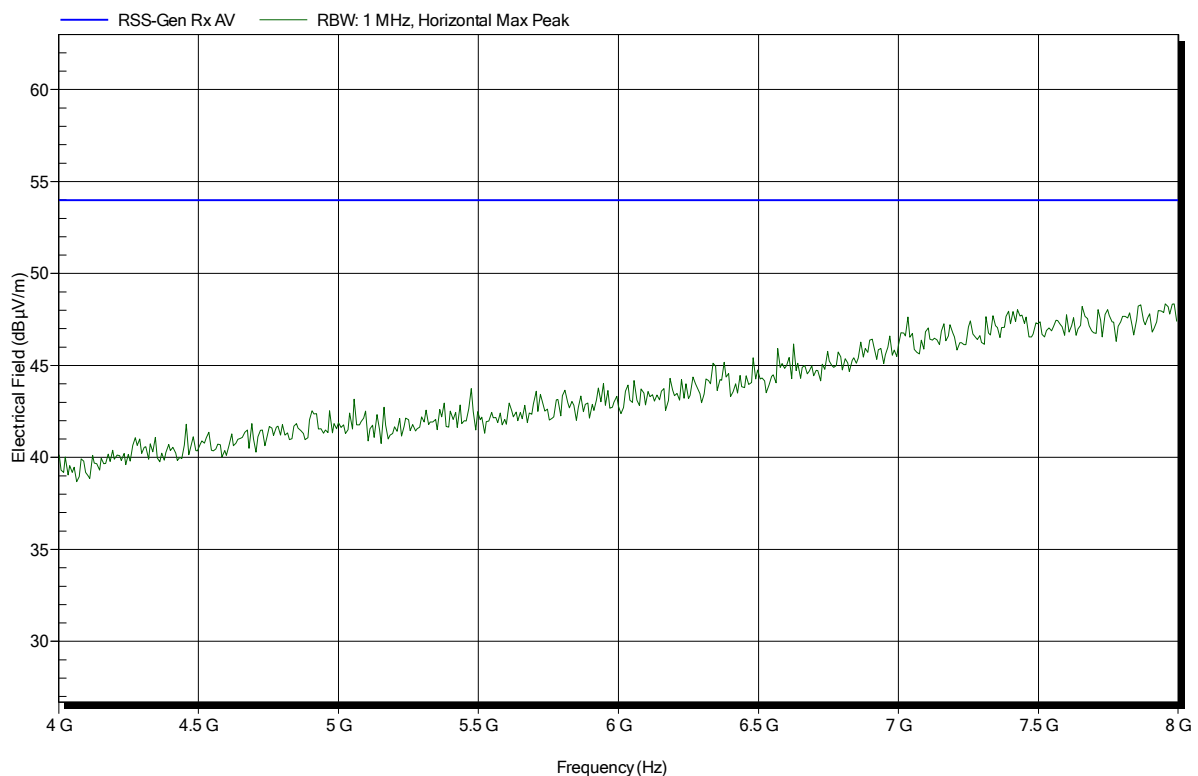


## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                    |
|-----------------------|------------------------------------|
| Applicant:            | Leica Geosystems AG                |
| EUT Name:             | LR-BT Class 1 Bluetooth Device     |
| Model:                | CTR35                              |
| Test Site:            | Eurofins Product Service GmbH      |
| Operator:             | Mr. Treffke                        |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB    |
| Antenna:              | Schwarzbeck BBHA 9120D, Horizontal |
| Measurement distance: | 3 m                                |
| Mode:                 | RX; BT Basic; Scan Mode            |
| Test Date:            | 2016-03-14                         |
| Note:                 |                                    |

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## Spurious emissions according to FCC 15.247, RSS-247 Issue 1

Project number: G0M-1601-5313

|                       |                                  |
|-----------------------|----------------------------------|
| Applicant:            | Leica Geosystems AG              |
| EUT Name:             | LR-BT Class 1 Bluetooth Device   |
| Model:                | CTR35                            |
| Test Site:            | Eurofins Product Service GmbH    |
| Operator:             | Mr. Treffke                      |
| Test Conditions:      | Tnom: 24°C, Vnom: 5 VDC via USB  |
| Antenna:              | Schwarzbeck BBHA 9120D, Vertical |
| Measurement distance: | 3 m                              |
| Mode:                 | RX; BT Basic; Scan Mode          |
| Test Date:            | 2016-03-14                       |
| Note:                 |                                  |

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