

|                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FCC TEST REPORT</b><br><b>FCC 47 CFR Part 22H</b><br><b>Industry Canada RSS-132, Issue 3</b><br><b>Cellular Telephones Operating in the Bands 824-849MHz and 869-894MHz</b><br><b>FCC 47 CFR Part 24E</b><br><b>Industry Canada RSS-133, Issue 6</b><br><b>2GHz Personal Communication Services</b> |                                                                                                                                                                                                                                                                                                                          |
| <b>Report Reference No.</b> .....                                                                                                                                                                                                                                                                      | G0M-1406-3915-TFC224WC-V01                                                                                                                                                                                                                                                                                               |
| <b>Testing Laboratory</b> .....                                                                                                                                                                                                                                                                        | Eurofins Product Service GmbH                                                                                                                                                                                                                                                                                            |
| <b>Address</b> .....                                                                                                                                                                                                                                                                                   | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany                                                                                                                                                                                                                                                                      |
| <b>Accreditation</b> .....                                                                                                                                                                                                                                                                             |  <br>A2LA Accredited Testing Laboratory, Certificate No.: 1983.01<br>FCC Filed Test Laboratory, Reg.-No.: 96970<br>IC OATS Filing assigned code: 3470A |
| <b>Applicant's name</b> .....                                                                                                                                                                                                                                                                          | Leica Geosystems AG                                                                                                                                                                                                                                                                                                      |
| <b>Address</b> .....                                                                                                                                                                                                                                                                                   | Heinrich Wild Strasse<br>9435 Heerbrugg<br>SWITZERLAND                                                                                                                                                                                                                                                                   |
| <b>Test specification:</b>                                                                                                                                                                                                                                                                             | Standard ..... 47 CFR Part 22H, 47 CFR Part 24E<br>RSS-132, Issue 3 : 2013-01, RSS-133, Issue 6 : 2013-01<br>SRSP-503 Issue 7 : 2008-09, SRSP-510 Issue 5 : 2009-02<br>RSS-Gen, Issue 4, 2014-11, ANSI/TIA-603-C-2004                                                                                                    |
| <b>Equipment under test (EUT):</b>                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                          |
| Product description                                                                                                                                                                                                                                                                                    | Field Controller Win EC7                                                                                                                                                                                                                                                                                                 |
| Model No.                                                                                                                                                                                                                                                                                              | CS20 CDMA Disto                                                                                                                                                                                                                                                                                                          |
| Additional Model(s)                                                                                                                                                                                                                                                                                    | None                                                                                                                                                                                                                                                                                                                     |
| Brand Name(s)                                                                                                                                                                                                                                                                                          | Leica Geosystems                                                                                                                                                                                                                                                                                                         |
| Hardware version                                                                                                                                                                                                                                                                                       | V5.0                                                                                                                                                                                                                                                                                                                     |
| Firmware / Software version                                                                                                                                                                                                                                                                            | None                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                        | FCC-ID: RFD-CSNGC      IC: 3177A-CSNGC                                                                                                                                                                                                                                                                                   |
| <b>Test result</b>                                                                                                                                                                                                                                                                                     | <b>Passed</b>                                                                                                                                                                                                                                                                                                            |

**Possible test case verdicts:**

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

**Testing:**

Test Lab Temperature.....: 20 – 23 °C

Test Lab Humidity .....: 32 – 38 %

Date of receipt of test item .....: 2014-09-22

Date (s) of performance of tests .....: 2014-12-04 - 2014-12-09

Compiled by .....: Christian Weber

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

Approved by (+ signature) .....: Christian Weber *C. Weber*

Date of issue .....: 2015-04-20

Total number of pages .....: 88

**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:**

Test case selection is based on full modular approval of licensed transmitter module used by the EUT. The EUT uses a WCDMA module with full modular approval according to FCC and IC rules. For details about the radio module see EUT description in section 1.

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## Version History

| Version | Issue Date | Remarks         | Revised by |
|---------|------------|-----------------|------------|
| 01      | 2015-04-20 | Initial Release |            |

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## 1 Equipment (Test item) Description

|                                |                                                                                                                           |                          |                          |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Description                    | Field Controller Win EC7                                                                                                  |                          |                          |
| Model                          | CS20 CDMA Disto                                                                                                           |                          |                          |
| Additional Model(s)            | None                                                                                                                      |                          |                          |
| Brand Name(s)                  | Leica Geosystems                                                                                                          |                          |                          |
| Serial number                  | None                                                                                                                      |                          |                          |
| Hardware version               | V5.0                                                                                                                      |                          |                          |
| Software / Firmware version    | None                                                                                                                      |                          |                          |
| FCC-ID                         | RFD-CSNGC                                                                                                                 |                          |                          |
| IC                             | 3177A-CSNGC                                                                                                               |                          |                          |
| Equipment type                 | End product                                                                                                               |                          |                          |
| Equipment classification       | Portable Device (Human Body distance < 20 cm)                                                                             |                          |                          |
| Radio type                     | Transceiver                                                                                                               |                          |                          |
| Radio technology               | WCDMA V / WCDMA II                                                                                                        |                          |                          |
| Operating frequency range      | WCDMA V : TX = 826.4 - 846.6 MHz, RX = 871.4 - 891.6 MHz<br>WCDMA II : TX = 1852.4 - 1907.6 MHz, RX = 1932.4 - 1987.6 MHz |                          |                          |
| Assigned frequency band        | Cell. Service Block A & B : 824 - 849 MHz & 869 - 894 MHz<br>Broadband PCS : 1850 - 1910 MHz & 1930 - 1990 MHz            |                          |                          |
| Main test frequencies WCDMA V  | F <sub>LOW</sub>                                                                                                          | CH : 4133 UL: 826.6 MHz  | CH : 4358 DL: 871.6 MHz  |
|                                | F <sub>MID</sub>                                                                                                          | CH : 4175 UL: 835.0 MHz  | CH : 4382 DL: 880.0 MHz  |
|                                | F <sub>HIGH</sub>                                                                                                         | CH : 4232 UL: 846.4 MHz  | CH : 4457 DL: 891.4 MHz  |
| Main test frequencies WCDMA II | F <sub>LOW</sub>                                                                                                          | CH : 9263 UL: 1852.6 MHz | CH : 9663 DL: 1932.6 MHz |
|                                | F <sub>MID</sub>                                                                                                          | CH : 9400 UL: 1880.0 MHz | CH : 9800 DL: 1960.0 MHz |
|                                | F <sub>HIGH</sub>                                                                                                         | CH : 9537 UL: 1907.4 MHz | CH : 9937 DL: 1987.4 MHz |
| Supported transmission modes   | WCDMA, HSDPA, HSUPA                                                                                                       |                          |                          |
| Modulations                    | QPSK                                                                                                                      |                          |                          |
| Number of antennas             | 1                                                                                                                         |                          |                          |
| Radio module                   | Type                                                                                                                      | WCDMA module             |                          |
|                                | Model                                                                                                                     | PXS8                     |                          |
|                                | Manufacturer                                                                                                              | Gemalto                  |                          |
|                                | HW Version                                                                                                                | B2                       |                          |
|                                | SW Version                                                                                                                | 3.001                    |                          |
|                                | FCC-ID                                                                                                                    | QIPPPXS8                 |                          |
|                                | IC                                                                                                                        | 7830A-PXS8               |                          |
| Antenna                        | Type                                                                                                                      | integrated               |                          |
|                                | Model                                                                                                                     | P522303                  |                          |
|                                | Manufacturer                                                                                                              | Ethertronics             |                          |
|                                | Gain                                                                                                                      | 2.8 dBi                  |                          |

|                      |                                                                               |                            |
|----------------------|-------------------------------------------------------------------------------|----------------------------|
| <b>Manufacturer</b>  | Leica Geosystems AG<br>Heinrich Wild Strasse<br>9435 Heerbrugg<br>SWITZERLAND |                            |
|                      | $V_{NOM}$                                                                     | 11.1 VDC (Lithium Battery) |
|                      | $V_{MIN}$                                                                     | N/A                        |
|                      | $V_{MIN}$                                                                     | N/A                        |
| <b>Power supply</b>  | Model                                                                         | N/A                        |
|                      | Vendor                                                                        | N/A                        |
|                      | Input                                                                         | N/A                        |
|                      | Output                                                                        | N/A                        |
| <b>AC/DC-Adaptor</b> | Model                                                                         | N/A                        |
|                      | Vendor                                                                        | N/A                        |
|                      | Input                                                                         | N/A                        |
|                      | Output                                                                        | N/A                        |

#### 1.4 Supporting Equipment Used During Testing

| Product Type*                                                                                                                                                                       | Device               | Manufacturer | Model No. | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------|-----------|----------|
| SIM                                                                                                                                                                                 | Communication Tester | R&S          | CMW500    |          |
| <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         |                                                                                                           |
|------------------|---------------------|-----------------------------------------------------------------------------------------------------------|
| WCDMA FDDV       | General conditions: | EUT powered by battery                                                                                    |
|                  | Radio conditions:   | Mode = transmit<br>Connection = packet switched<br>Modulation = QPSK<br>Power level = Maximum (TPC all 1) |
| WCDMA FDDII      | General conditions: | EUT powered by battery                                                                                    |
|                  | Radio conditions:   | Mode = transmit<br>Connection = packet switched<br>Modulation = QPSK<br>Power level = Maximum (TPC all 1) |
| WCDMA IDLE FDDV  | General conditions: | EUT powered by battery                                                                                    |
|                  | Radio conditions:   | Mode = CELL-FACH                                                                                          |
| WCDMA IDLE FDDII | General conditions: | EUT powered by battery                                                                                    |
|                  | Radio conditions:   | Mode = CELL-FACH                                                                                          |



## 1.6 Test Equipment Used During Testing

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

| Occupied Bandwidth |              |         |            |           |          |
|--------------------|--------------|---------|------------|-----------|----------|
| Description        | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer  | R&S          | FSEK 30 | EF00168    | 2014-01   | 2015-01  |

| Radiated power        |              |         |            |           |          |
|-----------------------|--------------|---------|------------|-----------|----------|
| Description           | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| Semi-anechoic chamber | Frankonia    | AC 1    | EF00062    | -         | -        |
| Spectrum Analyzer     | R&S          | FSEK 30 | EF00168    | 2014-01   | 2015-01  |
| Biconical Antenna     | R&S          | HK 116  | EF00012    | 2013-02   | 2016-02  |
| LPD Antenna           | R&S          | HL 223  | EF00212    | 2013-02   | 2016-02  |
| LPD Antenna           | R&S          | HL 025  | EF00327    | 2013-02   | 2016-02  |

| 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    | 2014-01   | 2015-01  |
| Biconical Antenna           | R&S          | HK 116  | EF00012    | 2013-02   | 2016-02  |
| LPD Antenna                 | R&S          | HL 223  | EF00212    | 2013-02   | 2016-02  |
| LPD Antenna                 | R&S          | HL 025  | EF00327    | 2013-02   | 2016-02  |

## 1.7 Sample emission level calculation

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

Reading:

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

A.F.:

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

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

Net:

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

Limit:

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

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

Margin:

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

Example only:

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

## 2 Result Summary

| FCC 47 CFR Part 22H, 24E, IC RSS-132, 133                                  |                                      |                                                                            |        |                                                                          |
|----------------------------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------|--------|--------------------------------------------------------------------------|
| Product Specific Standard Section                                          | Requirement – Test                   | Reference Method                                                           | Result | Remarks                                                                  |
| FCC § 2.1049<br>RSS-Gen 6.6                                                | Occupied Bandwidth                   | RSS-Gen 6.6                                                                |        | Informational only                                                       |
| FCC § 24.235<br>FCC § 22.355<br>IC RSS-132 § 4.3<br>IC RSS-133 § 6.3       | Frequency stability                  | FCC § 24.235<br>FCC § 22.355<br>IC RSS-132 § 4.3<br>IC RSS-133 § 6.3       | N/R    | Conducted results of licensed radio unaffected. See module radio report. |
| FCC § 22.913(a)                                                            | Effective radiated power             | ANSI/TIA-603-C                                                             | PASS   |                                                                          |
| FCC § 24.232(c)<br>IC RSS-132 § 4.4<br>IC RSS-133 § 6.4                    | Equivalent isotropic radiated power  | ANSI/TIA-603-C                                                             | PASS   |                                                                          |
| FCC § 24.232(d)<br>IC RSS-133 § 6.4                                        | Peak to average ratio                | FCC § 24.232(d)<br>IC RSS-133 § 6.4                                        | N/R    | Conducted results of licensed radio unaffected. See module radio report  |
| FCC § 22.917(b)<br>FCC § 24.238(b)<br>IC RSS-132 § 4.5<br>IC RSS-133 § 6.5 | Band-edge compliance                 | FCC § 22.917(b)<br>FCC § 24.238(b)<br>IC RSS-132 § 4.5<br>IC RSS-133 § 6.5 | N/R    | Conducted results of licensed radio unaffected. See module radio report  |
| FCC § 22.917(a)<br>FCC § 24.238(a)<br>IC RSS-132 § 4.5<br>IC RSS-133 § 6.5 | Conducted out-of-band emissions      | FCC § 22.917(a)<br>FCC § 24.238(a)<br>IC RSS-132 § 4.5<br>IC RSS-133 § 6.5 | N/R    | Conducted results of licensed radio unaffected. See module radio report  |
| FCC § 22.917(a)<br>FCC § 24.238(a)<br>IC RSS-132 § 4.5<br>IC RSS-133 § 6.5 | Radiated out-of-band emissions       | ANSI/TIA-603-C                                                             | PASS   |                                                                          |
| IC RSS-132 § 4.6<br>IC RSS-133 § 6.6<br>IC RSS-Gen 7.1                     | Receiver radiated spurious emissions | IC RSS-132 § 4.6<br>IC RSS-133 § 6.6<br>IC RSS-Gen 7.1                     | PASS   |                                                                          |
| Remarks:                                                                   |                                      |                                                                            |        |                                                                          |

### 3 Test Conditions and Results

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

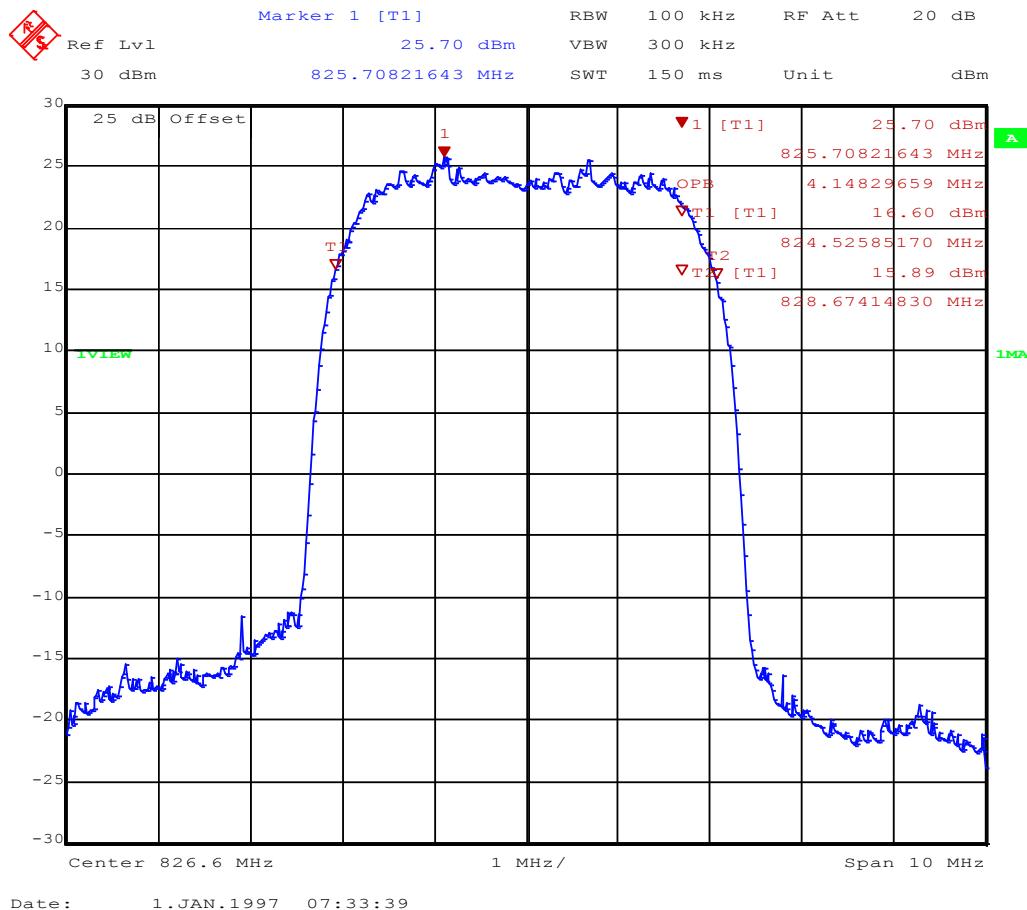
| Occupied Bandwidth acc. to FCC Part 2 / IC RSS-Gen                                                                                                                                                                                                                                                        |                 |                                                         |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------|--------------------------|
| Test according to measurement reference                                                                                                                                                                                                                                                                   |                 | Reference Method                                        |                          |
|                                                                                                                                                                                                                                                                                                           |                 | RSS-Gen 6.6                                             |                          |
| 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>                                                                                                                                                                                                                                                                                          | 826.6           | WCDMA FDDV                                              | 4.148                    |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 835.0           | WCDMA FDDV                                              | 4.188                    |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 846.4           | WCDMA FDDV                                              | 4.168                    |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                          | 1852.6          | WCDMA FDDII                                             | 4.168                    |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 1880.0          | WCDMA FDDII                                             | 4.168                    |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 1907.4          | WCDMA FDDII                                             | 4.168                    |
| Comments:                                                                                                                                                                                                                                                                                                 |                 |                                                         |                          |

# Occupied Bandwidth – WCDMA FDDV F<sub>Low</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD V / CH: 4133 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.148 MHz

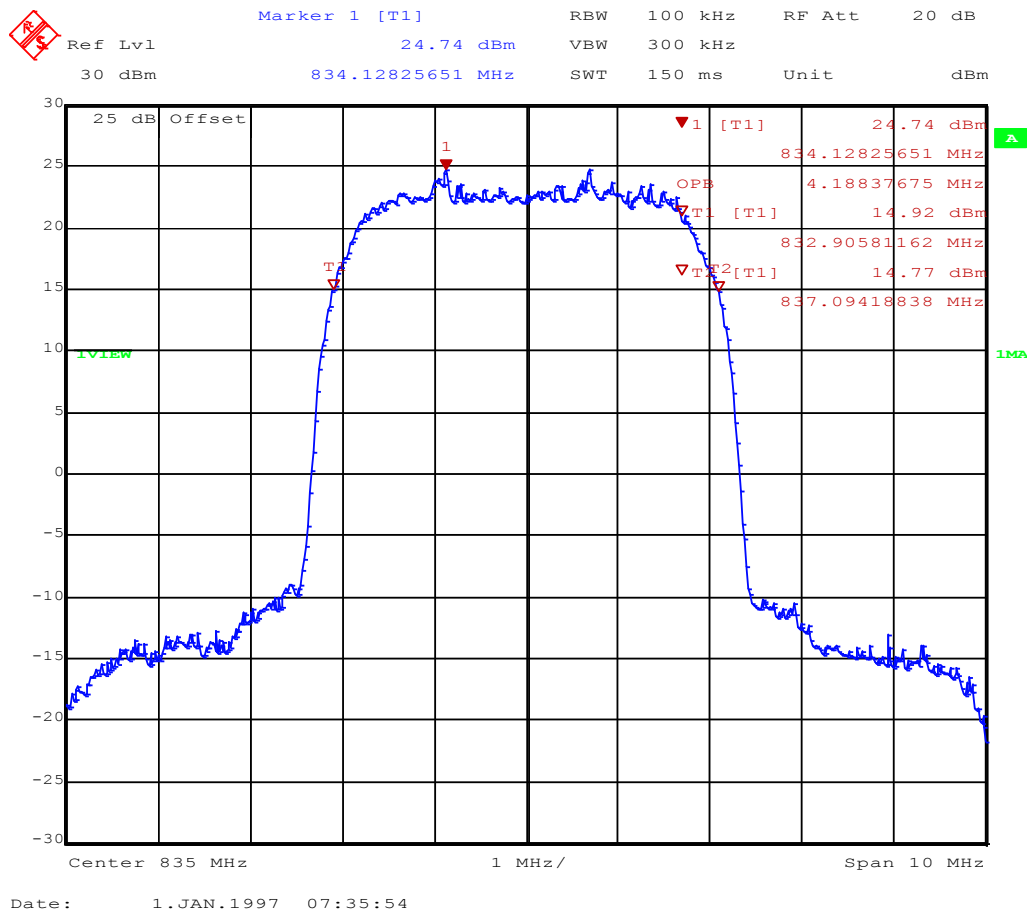


# Occupied Bandwidth – WCDMA FDDV F<sub>MID</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD V / CH: 4175 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.188 MHz

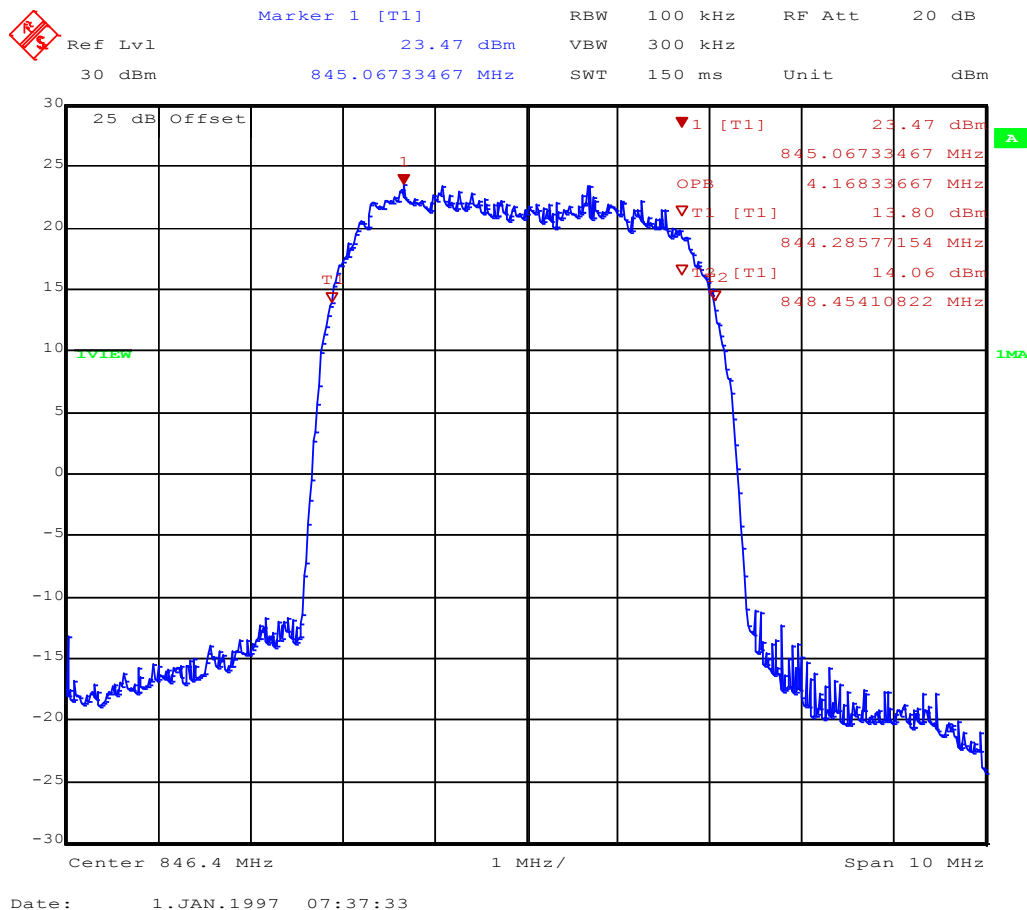


# Occupied Bandwidth – WCDMA FDDV F<sub>HIGH</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD V / CH: 4232 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.168 MHz



Test Report No.: G0M-1406-3915-TFC224WC-V01

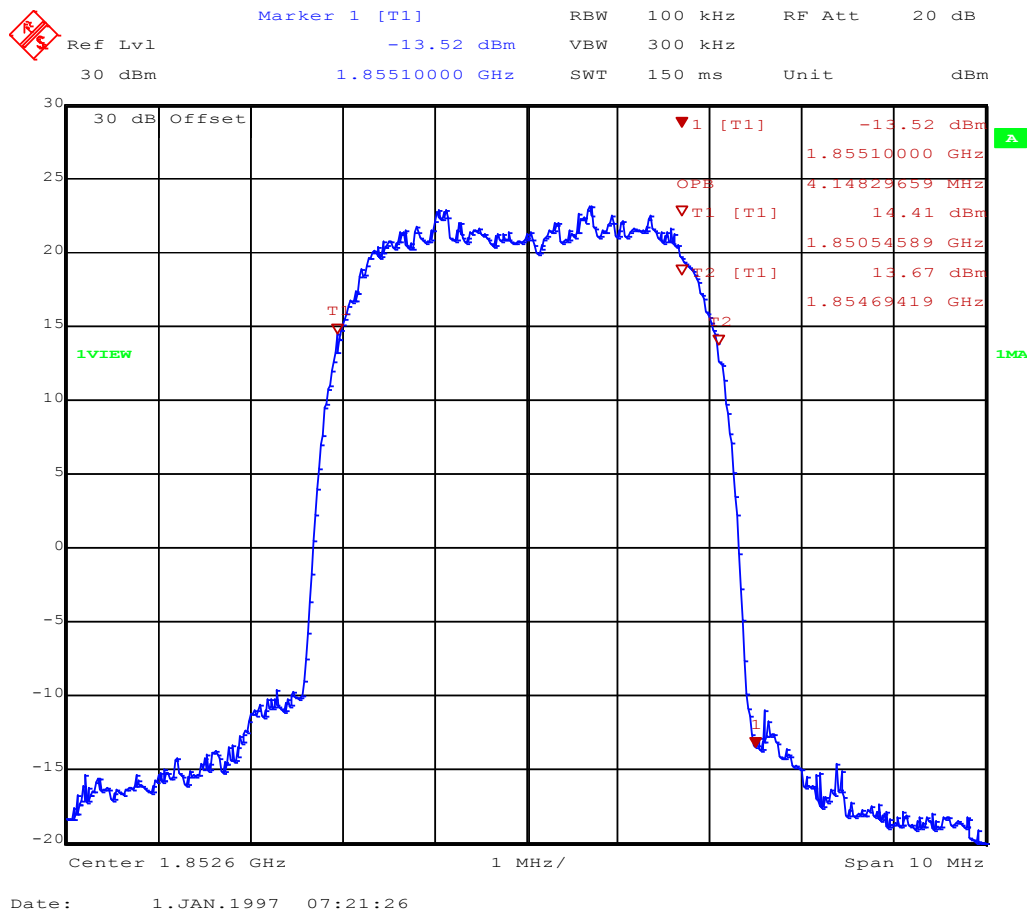
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

# Occupied Bandwidth – WCDMA FDDII F<sub>Low</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD II / CH: 9263 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.148 MHz



Test Report No.: G0M-1406-3915-TFC224WC-V01

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

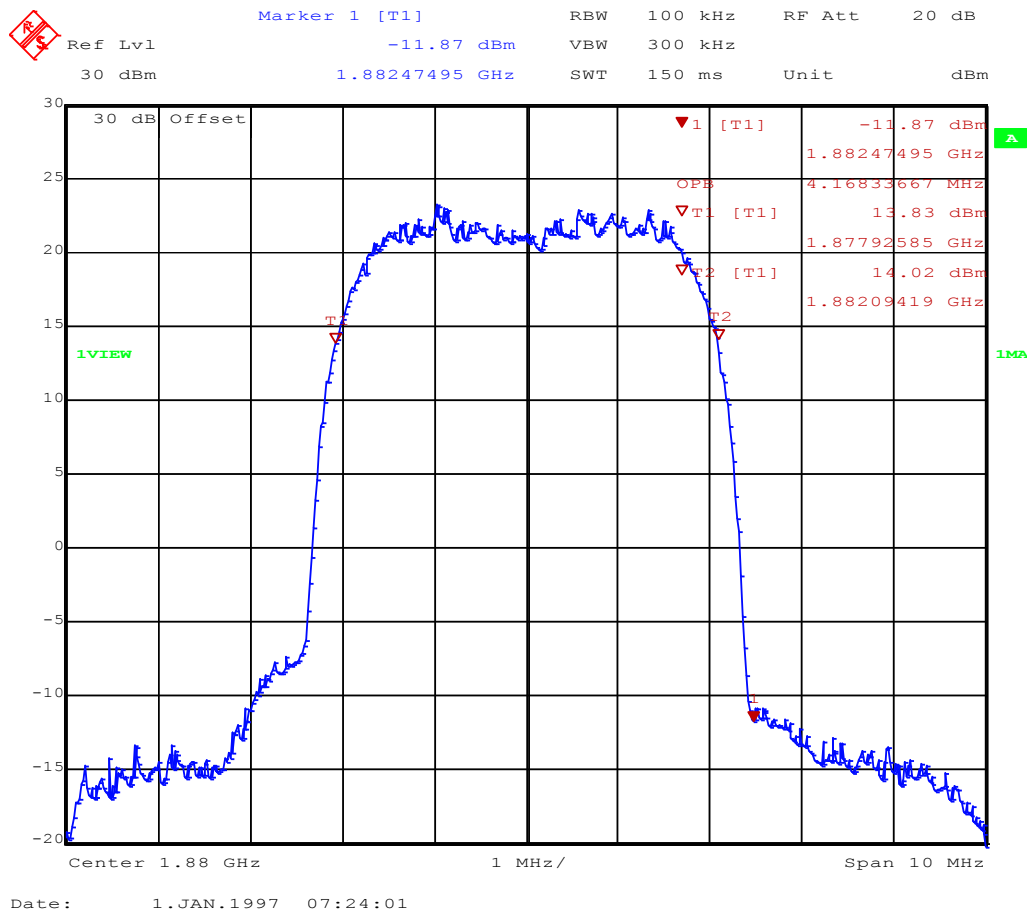


# Occupied Bandwidth – WCDMA FDDII F<sub>MD</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD II / CH: 9400 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.168 MHz



Test Report No.: G0M-1406-3915-TFC224WC-V01

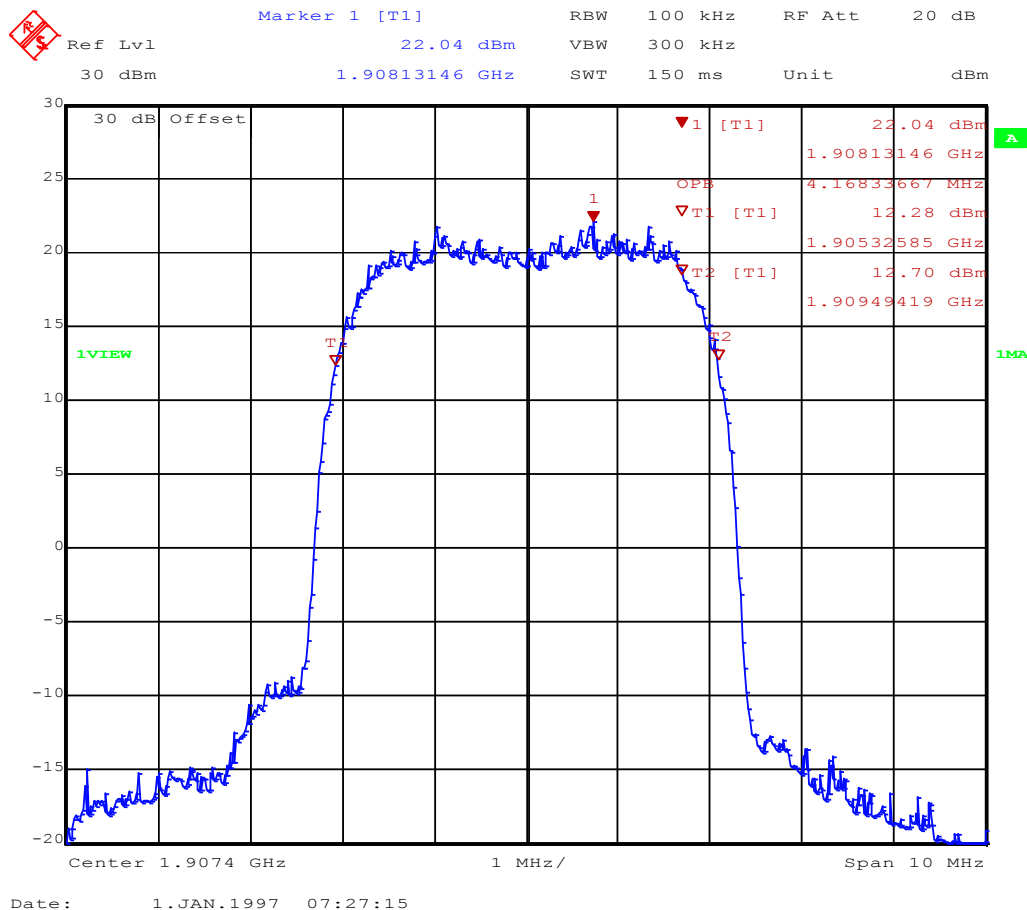
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

# Occupied Bandwidth – WCDMA FDDII F<sub>HIGH</sub>

## Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1406-3915

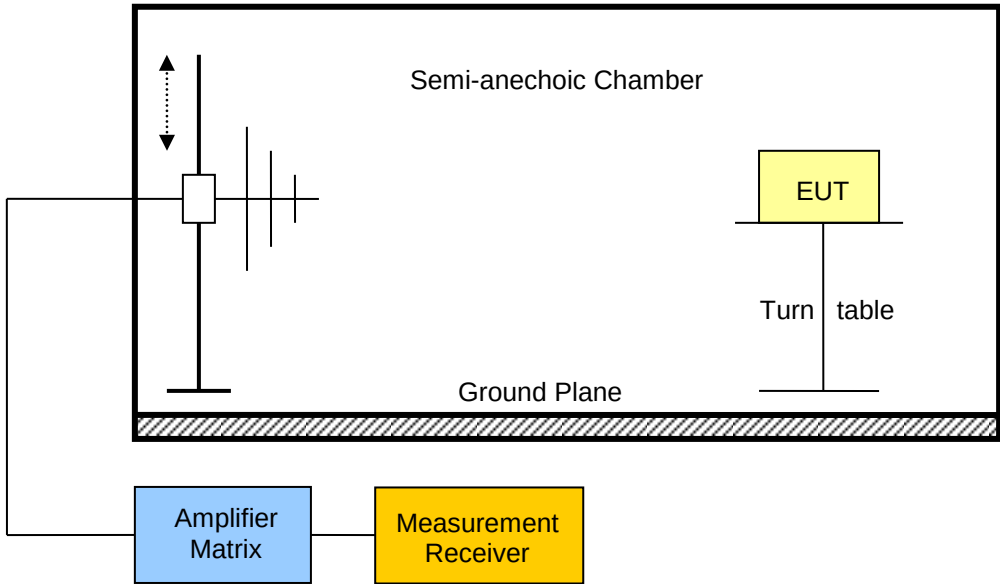
Applicant: Leica Geosystems AG  
EUT Name: Field Controller Win EC7  
Model: CS20  
Test Site: Eurofins Product Service GmbH  
Operator: Burkhard Pudell  
Test Conditions: Tnom / Vnom  
Mode: UMTS FDD II / CH: 9537 / HSUPA-HSDPA  
Test Date: 2014-12-04  
Verdict: NONE (INFORMATION ONLY)  
Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used  
Note 2: OBW = 4.168 MHz



Test Report No.: G0M-1406-3915-TFC224WC-V01

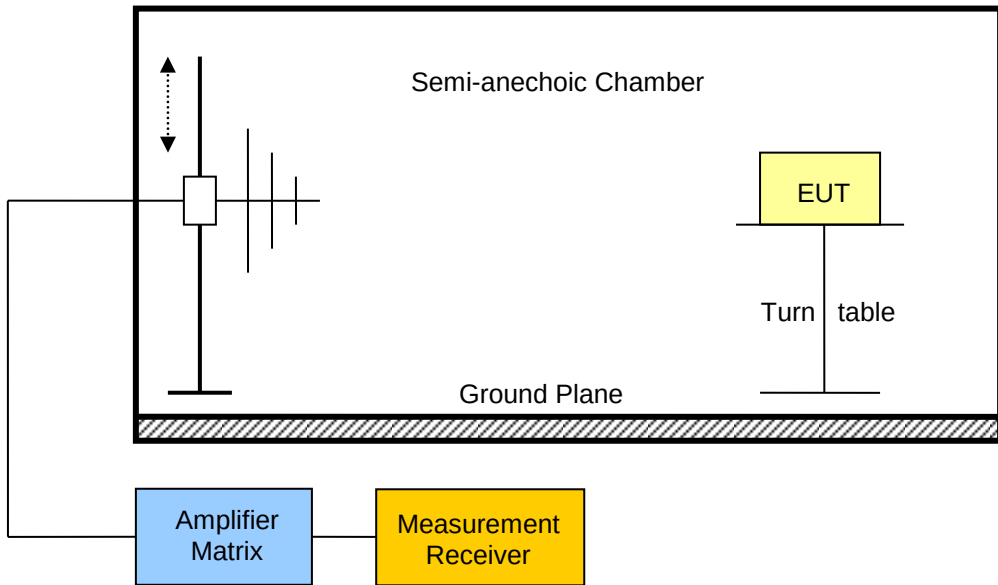
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

### 3.2 Test Conditions and Results – Effective radiated power / Equivalent isotropic radiated power

| Radiated power acc. to FCC 22H / FCC 24E / IC RSS-132 / IC RSS-133                                                                                                                                                                                                                                                                             |                                                                                          |                                                                           | Verdict: PASS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------|
| EUT requirement rule parts and clause                                                                                                                                                                                                                                                                                                          | Reference                                                                                |                                                                           |               |
|                                                                                                                                                                                                                                                                                                                                                | FCC § 22.913(a) / FCC § 24.232(c)<br>IC RSS-132 § 4.4 /IC RSS-133 § 6.4                  |                                                                           |               |
| Test according to measurement reference                                                                                                                                                                                                                                                                                                        | Reference Method                                                                         |                                                                           |               |
|                                                                                                                                                                                                                                                                                                                                                | FCC § 22.913(a) / FCC § 24.232(c) / ANSI/TIA-603-C<br>IC RSS-132 § 4.4 /IC RSS-133 § 6.4 |                                                                           |               |
| Test frequency range                                                                                                                                                                                                                                                                                                                           | Tested frequencies                                                                       |                                                                           |               |
|                                                                                                                                                                                                                                                                                                                                                | F <sub>LOW</sub> / F <sub>MID</sub> / F <sub>HIGH</sub>                                  |                                                                           |               |
| Limits                                                                                                                                                                                                                                                                                                                                         |                                                                                          |                                                                           |               |
| Frequency range                                                                                                                                                                                                                                                                                                                                | Equipment type                                                                           | Power limit                                                               |               |
| 824-849 MHz                                                                                                                                                                                                                                                                                                                                    | Mobile transmitter                                                                       | FCC : 7 Watts (38.45 dBm) e.i.r.p.<br>IC : 11.5 Watts (40.6 dBm) e.i.r.p. |               |
| 1850-1910 MHz                                                                                                                                                                                                                                                                                                                                  | Mobile transmitter                                                                       | FCC : 2 Watts (33 dBm) e.i.r.p.<br>IC : 2 Watts (33 dBm) e.i.r.p.         |               |
| Test setup                                                                                                                                                                                                                                                                                                                                     |                                                                                          |                                                                           |               |
|                                                                                                                                                                                                                                                            |                                                                                          |                                                                           |               |
| Test procedure                                                                                                                                                                                                                                                                                                                                 |                                                                                          |                                                                           |               |
| <div>1. EUT set to test mode</div> <div>2. The radiated power is measured with a measurement antenna in vertical polarization</div> <div>3. To obtain maximum level the EUT is rotated</div> <div>4. The EUT is replaced with a half-wave dipole and the power to the dipole is adjusted to obtain same radiated power measurement value</div> |                                                                                          |                                                                           |               |

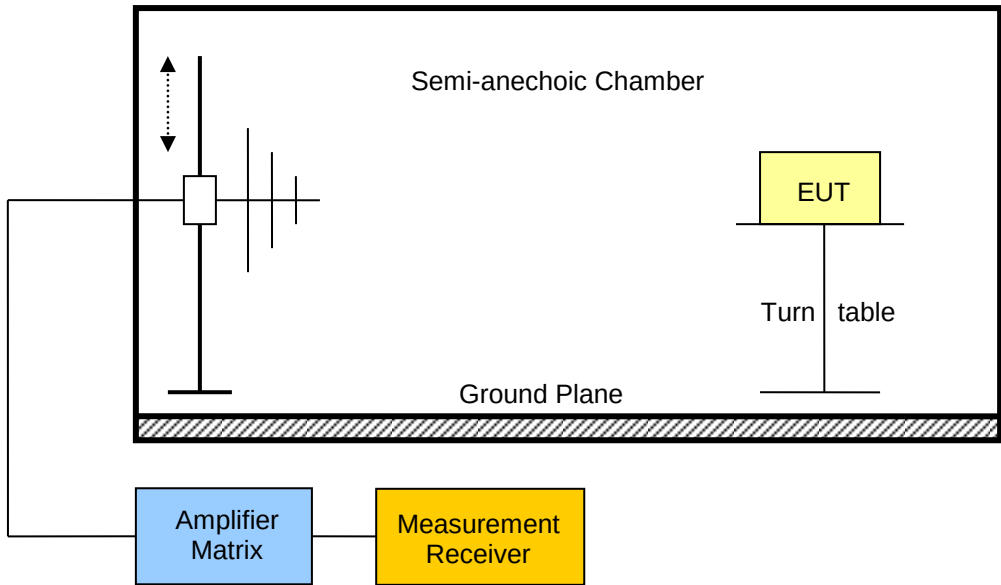
| Test results – WCDMA FDDV E.R.P.   |                 |             |      |                      |                      |             |        |
|------------------------------------|-----------------|-------------|------|----------------------|----------------------|-------------|--------|
| Channel                            | Frequency [MHz] | Mode        | Pol. | Power [dBm e.r.p.]   | Limit [dBm e.r.p.]   | Margin [dB] | Result |
| F <sub>LOW</sub>                   | 826.6           | WCDMA FDDV  | hor  | 22.1                 | 38.45                | -16.35      | PASS   |
| F <sub>MID</sub>                   | 835.0           | WCDMA FDDV  | hor  | 22.3                 | 38.45                | -16.15      | PASS   |
| F <sub>HIGH</sub>                  | 846.4           | WCDMA FDDV  | hor  | 22.6                 | 38.45                | -15.85      | PASS   |
| Test results – WCDMA FDDV E.I.R.P. |                 |             |      |                      |                      |             |        |
| Channel                            | Frequency [MHz] | Mode        | Pol. | Power [dBm e.i.r.p.] | Limit [dBm e.i.r.p.] | Margin [dB] | Result |
| F <sub>LOW</sub>                   | 826.6           | WCDMA FDDV  | hor  | 24.25                | 40.6                 | -16.35      | PASS   |
| F <sub>MID</sub>                   | 835.0           | WCDMA FDDV  | hor  | 24.45                | 40.6                 | -16.15      | PASS   |
| F <sub>HIGH</sub>                  | 846.4           | WCDMA FDDV  | hor  | 24.75                | 40.6                 | -15.85      | PASS   |
| Test results – GSM1900 E.I.R.P.    |                 |             |      |                      |                      |             |        |
| Channel                            | Frequency [MHz] | Mode        | Pol. | Power [dBm e.i.r.p.] | Limit [dBm e.i.r.p.] | Margin [dB] | Result |
| F <sub>LOW</sub>                   | 1852.6          | WCDMA FDDII | hor  | 29.9                 | 33                   | -03.10      | PASS   |
| F <sub>MID</sub>                   | 1880            | WCDMA FDDII | hor  | 29.4                 | 33                   | -03.60      | PASS   |
| F <sub>HIGH</sub>                  | 1907.4          | WCDMA FDDII | hor  | 29.2                 | 33                   | -03.80      | PASS   |
| Comments:                          |                 |             |      |                      |                      |             |        |

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

| Transmitter radiated power acc. to FCC 22H / FCC 24E / IC RSS-132 / IC RSS-133                                                                                                                                                                                                                                                                                                                                |                                                                                      | Verdict: PASS |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------|
| Test according referenced standards                                                                                                                                                                                                                                                                                                                                                                           | Reference Method                                                                     |               |
|                                                                                                                                                                                                                                                                                                                                                                                                               | FCC § 22.917(a) / FCC § 24.238(a)<br>IC RSS-132 § 4.5 / IC RSS-133 § 6.5             |               |
| Test according to measurement reference                                                                                                                                                                                                                                                                                                                                                                       | Reference Method                                                                     |               |
|                                                                                                                                                                                                                                                                                                                                                                                                               | ANSI/TIA-603-C                                                                       |               |
| Test frequency range                                                                                                                                                                                                                                                                                                                                                                                          | Tested frequencies                                                                   |               |
|                                                                                                                                                                                                                                                                                                                                                                                                               | 30 MHz – 10 <sup>th</sup> Harmonic                                                   |               |
| Limits                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                      |               |
| Frequency range                                                                                                                                                                                                                                                                                                                                                                                               | Limit                                                                                |               |
| 824-849 MHz                                                                                                                                                                                                                                                                                                                                                                                                   | Attenuation below transmitter power ≥ 43 + 10 · log <sub>10</sub> (P) [dB] = -13 dBm |               |
| 1850-1910 MHz                                                                                                                                                                                                                                                                                                                                                                                                 | Attenuation below transmitter power ≥ 43 + 10 · log <sub>10</sub> (P) [dB] = -13 dBm |               |
| Test setup                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                      |               |
|                                                                                                                                                                                                                                                                                                                           |                                                                                      |               |
| Test procedure                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |               |
| <ol style="list-style-type: none"><li>1. EUT set to test mode</li><li>2. Maximum emission level is measured by rotating the EUT and adjusting the antenna height for vertical polarization</li><li>3. The EUT is replaced by a substitution antenna and generator</li><li>4. The power level is set to obtain the same power reading</li><li>5. Measurement is repeated for horizontal polarization</li></ol> |                                                                                      |               |

| Test results – WCDMA FDDV  |                 |              |                |             |      |             |             |
|----------------------------|-----------------|--------------|----------------|-------------|------|-------------|-------------|
| Channel                    | Frequency [MHz] | Mode         | Emission [MHz] | Level [dbm] | Pol. | Limit [dBm] | Margin [dB] |
| 4133                       | 826.6           | WCDMA FDD V  | 822.678        | -25.30      | hor  | -13.00      | -12.34      |
| 4133                       | 826.6           | WCDMA FDD V  | 822.908        | -29.10      | ver  | -13.00      | -16.14      |
| 4232                       | 846.4           | WCDMA FDD V  | 850.6          | -28.00      | hor  | -13.00      | -15.02      |
| Test results – WCDMA FDDII |                 |              |                |             |      |             |             |
| Channel                    | Frequency [MHz] | Mode         | Emission [MHz] | Level [dbm] | Pol. | Limit [dBm] | Margin [dB] |
| 9263                       | 1852.6          | WCDMA FDD II | 1850           | -26.30      | hor  | -13.00      | -13.34      |
| 9400                       | 1880.0          | WCDMA FDD II | 512            | -26.90      | ver  | -13.00      | -13.88      |
| 9400                       | 1880.0          | WCDMA FDD II | 819.319        | -26.10      | hor  | -13.00      | -13.06      |
| 9537                       | 1907.4          | WCDMA FDD II | 1910           | -31.10      | hor  | -13.00      | -18.12      |
| 9537                       | 1907.4          | WCDMA FDD II | 1915           | -31.80      | ver  | -13.00      | -18.82      |
| Comments:                  |                 |              |                |             |      |             |             |

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

| Receiver radiated emissions acc. to IC RSS-132 / IC RSS-133                          |                                   |              |                | Verdict: PASS      |
|--------------------------------------------------------------------------------------|-----------------------------------|--------------|----------------|--------------------|
| Test according to measurement reference                                              | Reference Method                  |              |                |                    |
|                                                                                      | ANSI C63.4                        |              |                |                    |
| Test frequency range                                                                 | Tested frequencies                |              |                |                    |
|                                                                                      | 30 MHz – 3 <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 1GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1MHz with peak/average detector is used above 1GHz</li> <li>4. Markers are set to peak emission levels</li> </ol> |                 |                |                         |      |      |                |             |
| Test results – WCDMA FDDV                                                                                                                                                                                                                                                                                                                                                                             |                 |                |                         |      |      |                |             |
| Channel                                                                                                                                                                                                                                                                                                                                                                                               | Frequency [MHz] | Emission [MHz] | Emission Level [dBμV/m] | Pol. | Det. | Limit [dBμV/m] | Margin [dB] |
| 4400                                                                                                                                                                                                                                                                                                                                                                                                  | 880.0           | 374.4          | 34.32                   | ver  | pk   | 46.00          | -11.68      |
| 4400                                                                                                                                                                                                                                                                                                                                                                                                  | 880.0           | 512            | 34.05                   | ver  | pk   | 46.00          | -11.95      |
| 4400                                                                                                                                                                                                                                                                                                                                                                                                  | 880.0           | 750.4          | 36.55                   | hor  | pk   | 46.00          | -09.45      |
| Test results – WCDMA FDDII                                                                                                                                                                                                                                                                                                                                                                            |                 |                |                         |      |      |                |             |
| Channel                                                                                                                                                                                                                                                                                                                                                                                               | Frequency [MHz] | Emission [MHz] | Emission Level [dBμV/m] | Pol. | Det. | Limit [dBμV/m] | Margin [dB] |
| 9800                                                                                                                                                                                                                                                                                                                                                                                                  | 1960.0          | 374.4          | 34.54                   | ver  | pk   | 46.00          | -11.46      |
| 9800                                                                                                                                                                                                                                                                                                                                                                                                  | 1960.0          | 512            | 33.73                   | ver  | pk   | 46.00          | -12.27      |
| 9800                                                                                                                                                                                                                                                                                                                                                                                                  | 1960.0          | 750.4          | 36.48                   | hor  | pk   | 46.00          | -09.52      |
| Comments:<br>* Physical distance between EUT and measurement antenna.<br>** Emission level corresponds to ambient noise floor                                                                                                                                                                                                                                                                         |                 |                |                         |      |      |                |             |



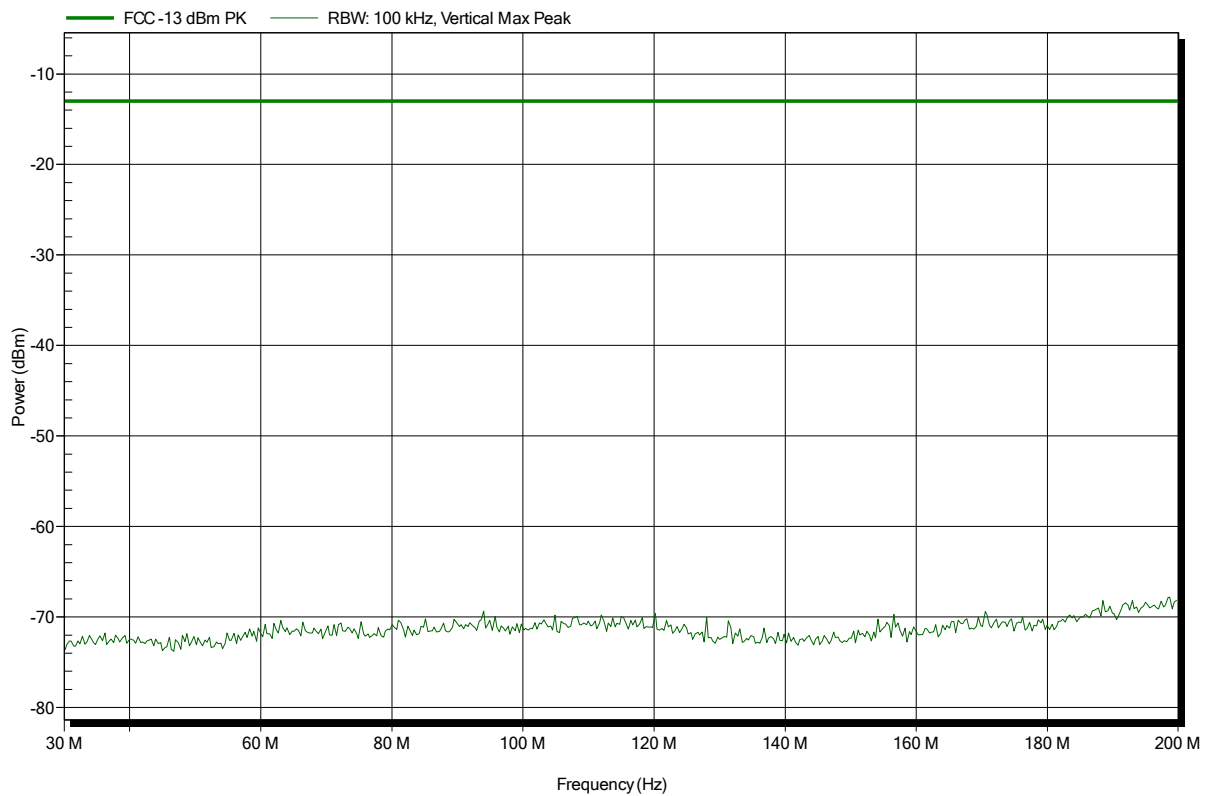
## ANNEX A Transmitter radiated spurious emissions

### Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HK 116, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-04                               |
| Note:                 | EUT vertical; worst case                 |

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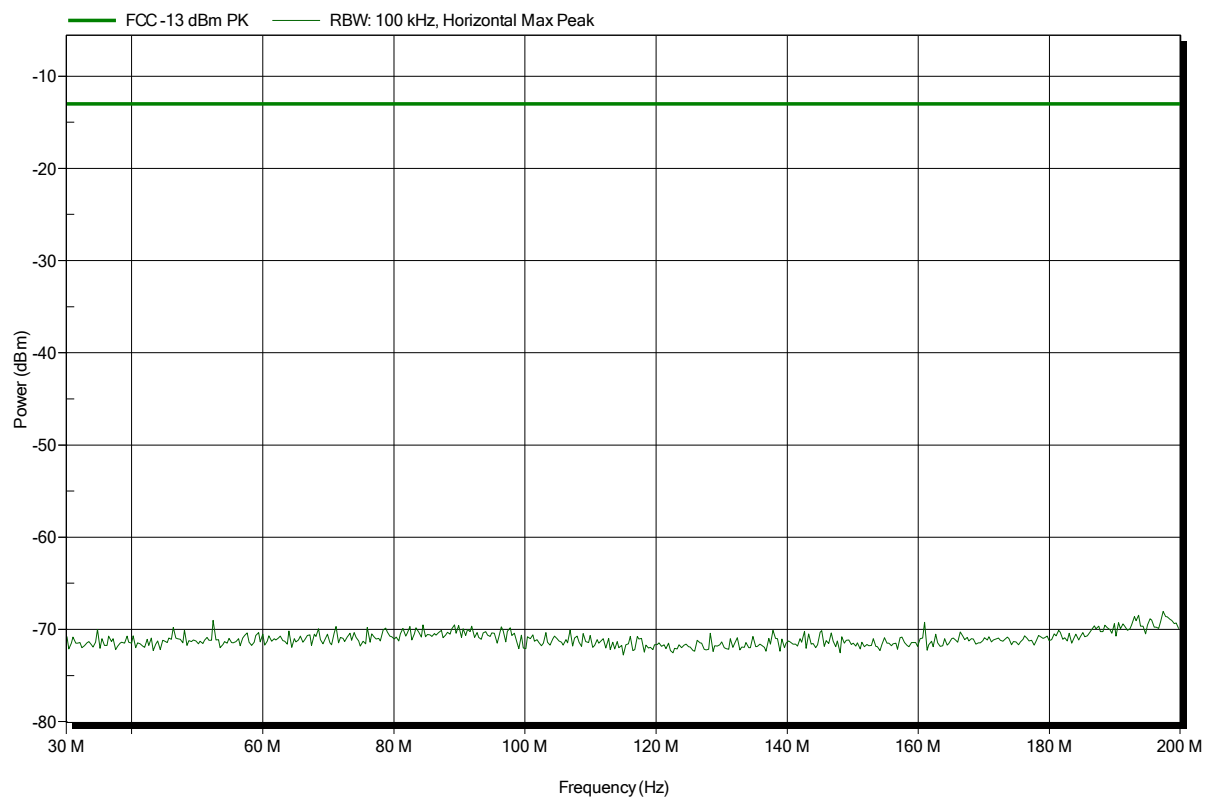


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-04                               |
| Note:                 | EUT vertical; worst case                 |

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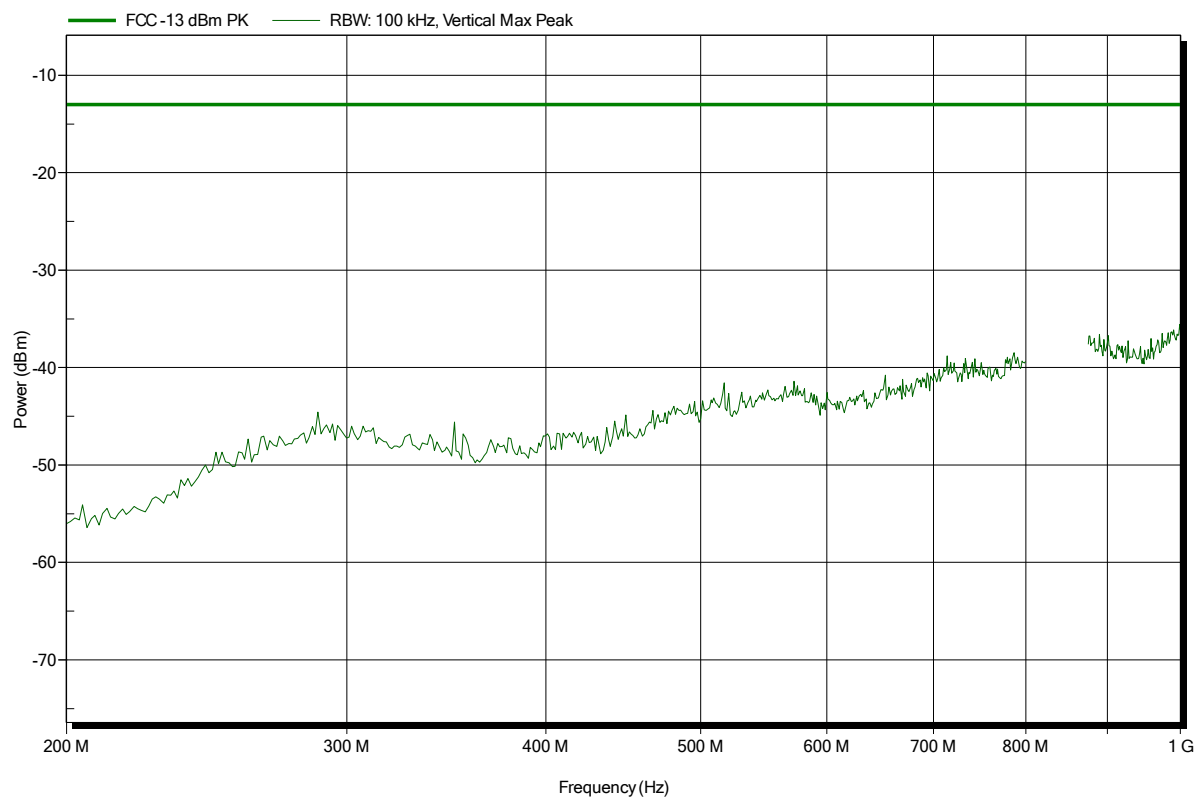


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 223, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-08                               |
| Note:                 | EUT vertical; worst case                 |

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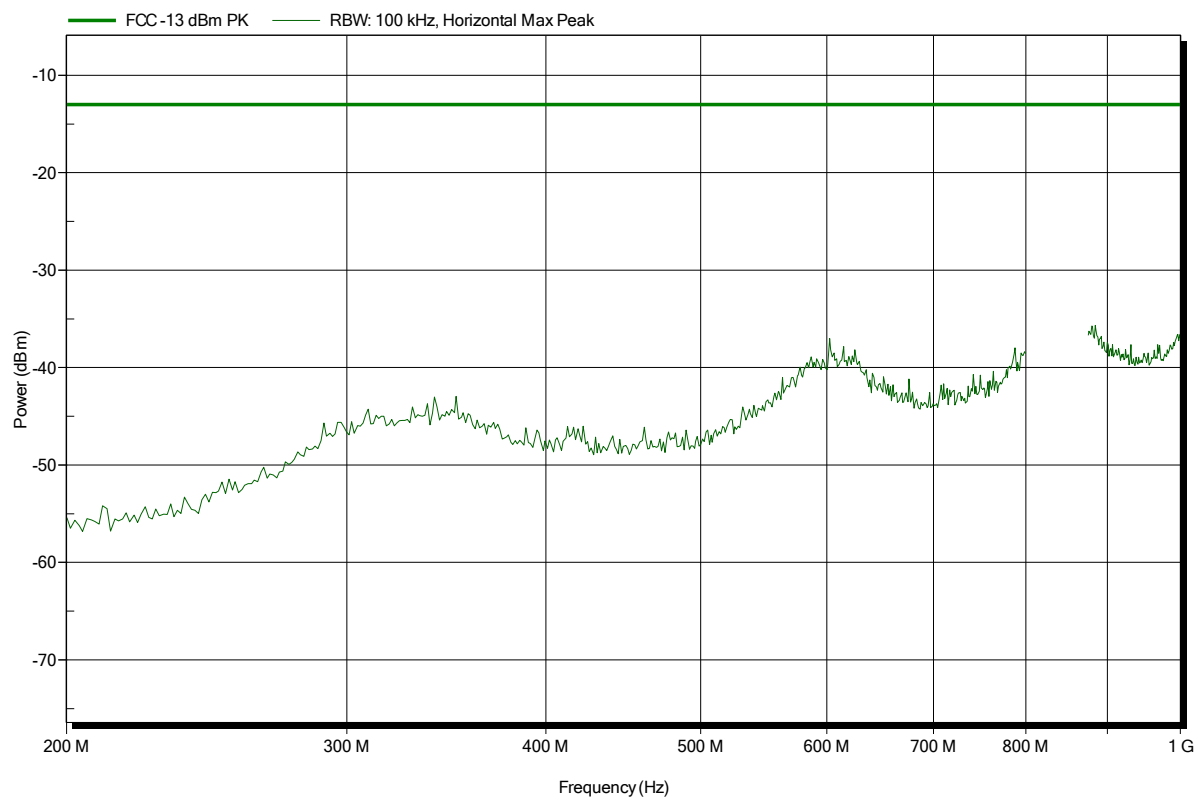


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 223, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-08                               |
| Note:                 | EUT vertical; worst case                 |

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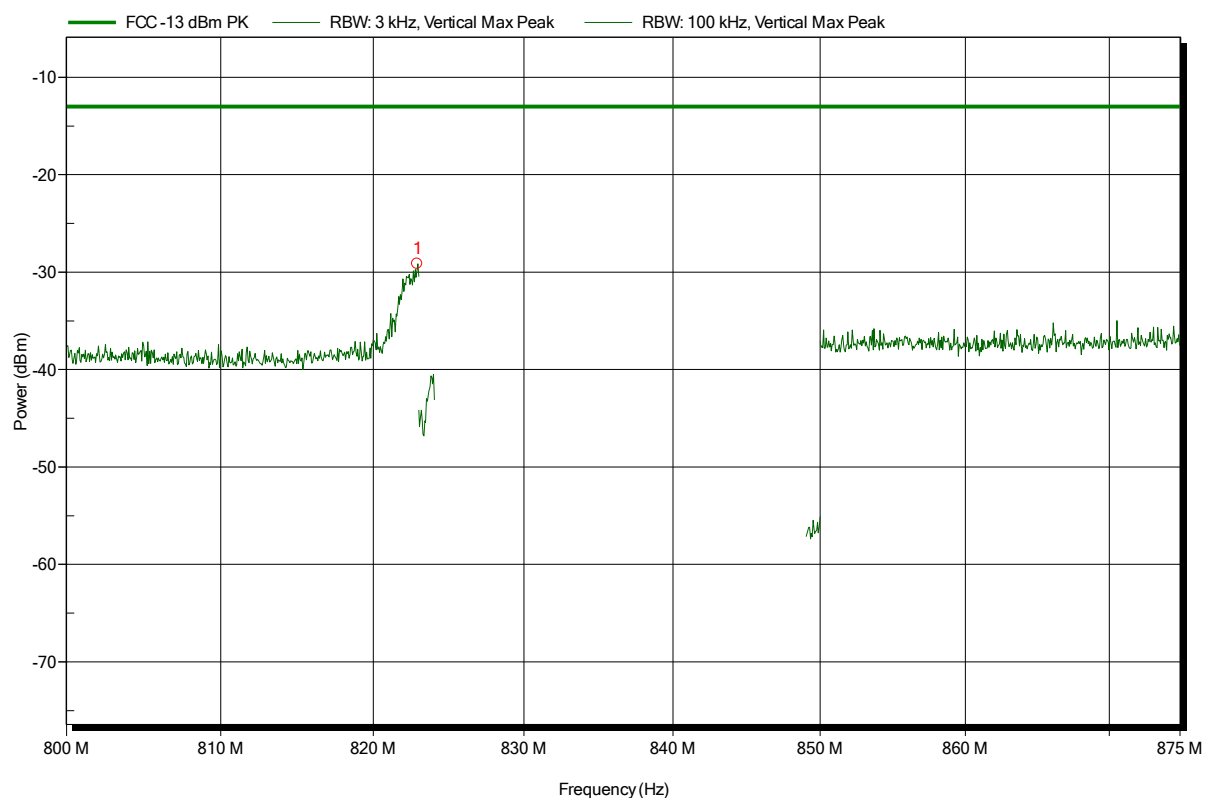


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA  
 Test Date: 2014-12-08  
 Note: EUT vertical

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| Frequency   | Peak      | Peak Limit | Peak Difference | Peak Status |
|-------------|-----------|------------|-----------------|-------------|
| 822.908 MHz | -29.1 dBm | -13 dBm    | -16.14 dB       | Pass        |

Test Report No.: G0M-1406-3915-TFC224WC-V01

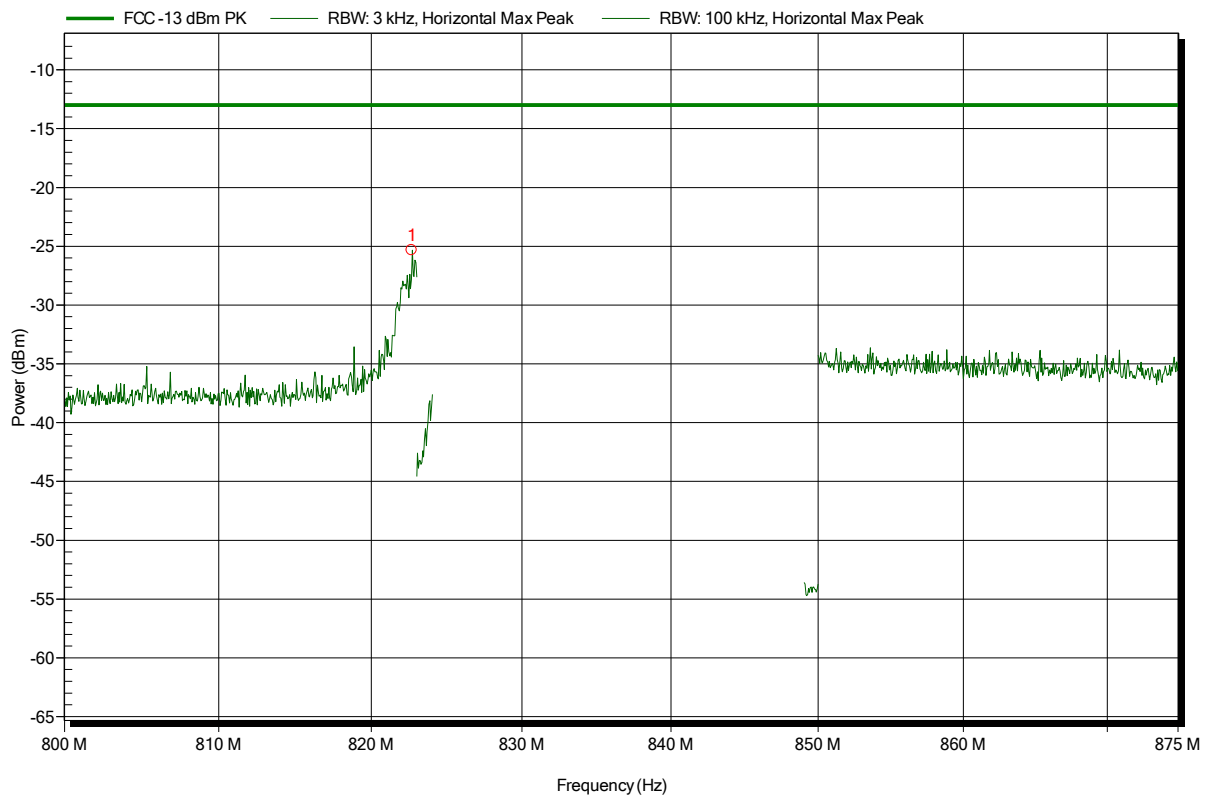
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC part 22 Subpart H, IC RSS-132**

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA  
 Test Date: 2014-12-08  
 Note: EUT vertical

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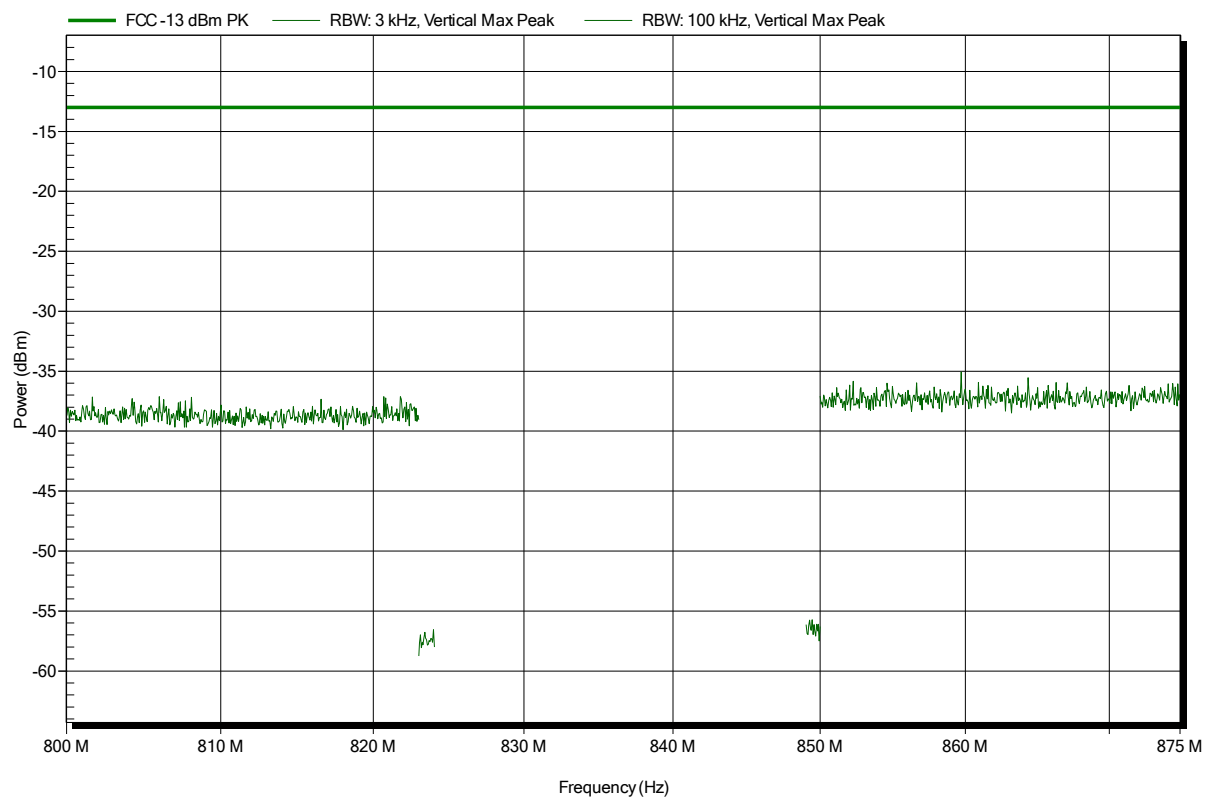
| Frequency   | Peak      | Peak Limit | Peak Difference | Peak Status |
|-------------|-----------|------------|-----------------|-------------|
| 822.678 MHz | -25.3 dBm | -13 dBm    | -12.34 dB       | Pass        |

## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 223, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-08                               |
| Note:                 | EUT vertical                             |

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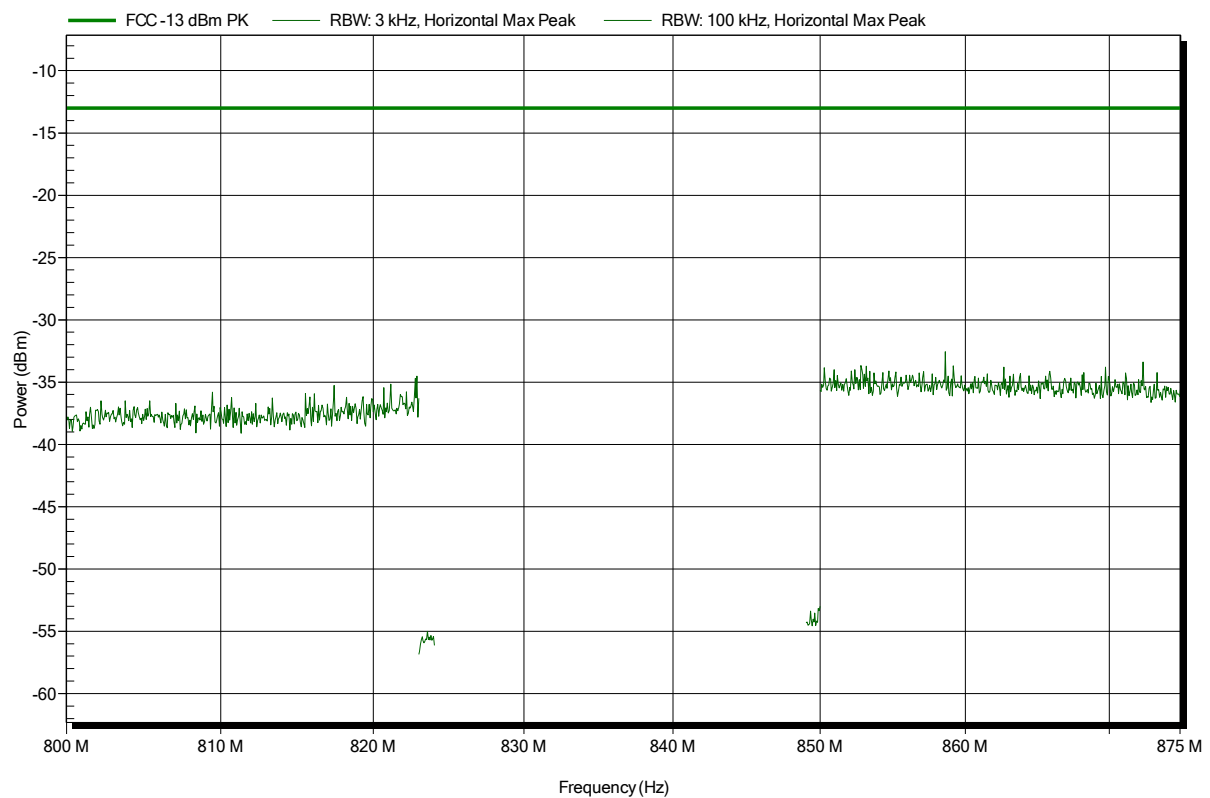


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA  
 Test Date: 2014-12-08  
 Note: EUT vertical

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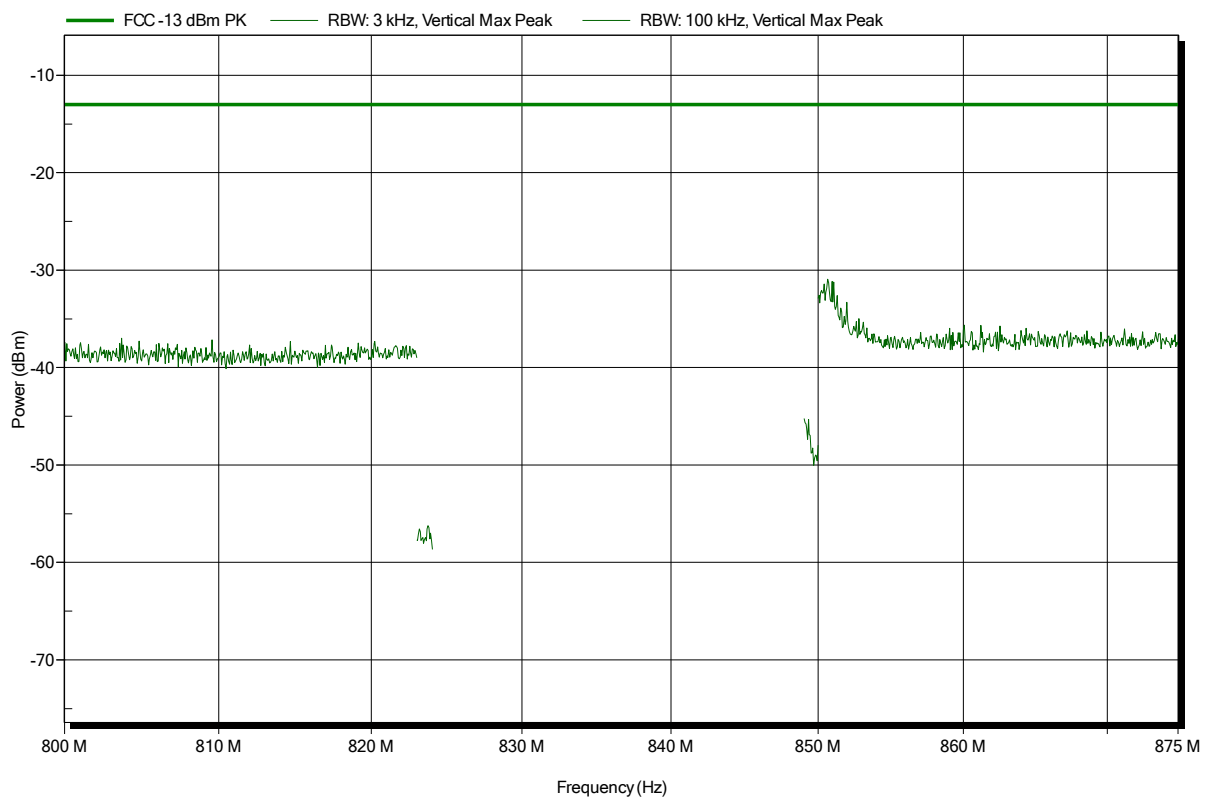


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 223, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-08                               |
| Note:                 | EUT vertical                             |

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Test Report No.: G0M-1406-3915-TFC224WC-V01

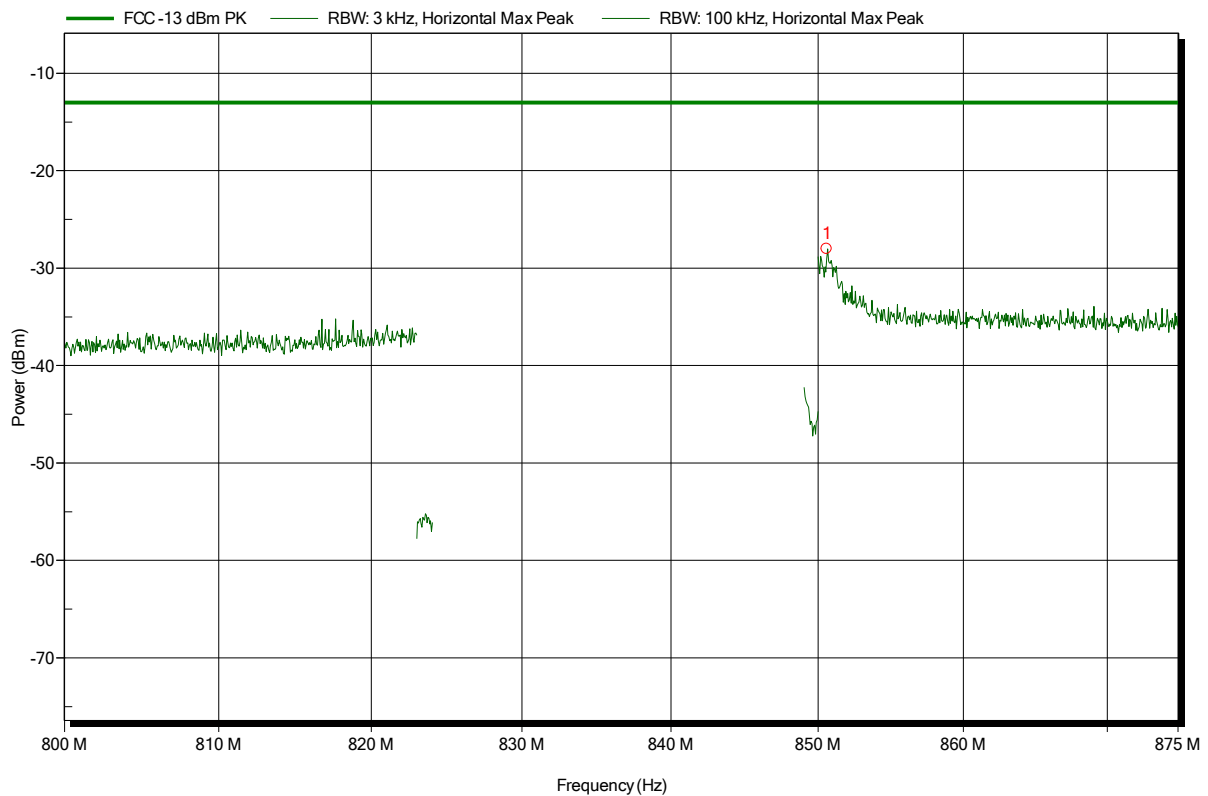
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

**Spurious emissions according to FCC part 22 Subpart H, IC RSS-132**

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA  
 Test Date: 2014-12-08  
 Note: EUT vertical

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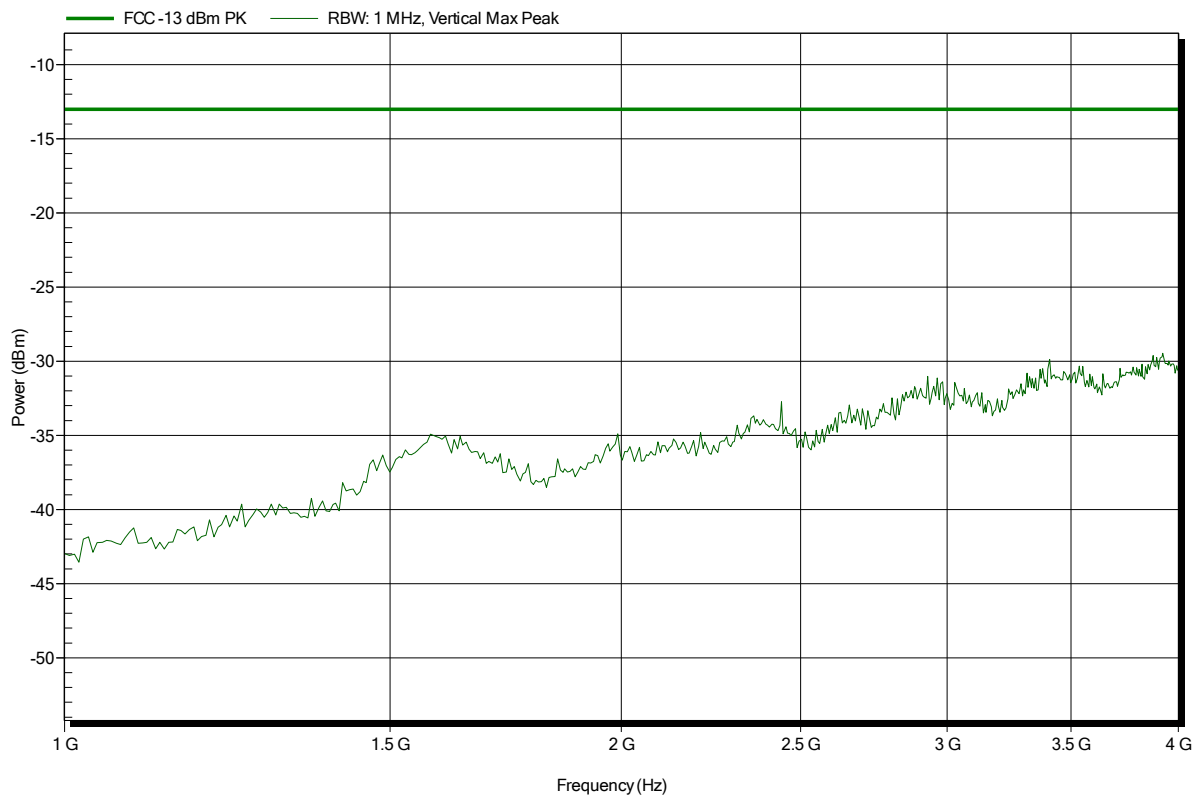
| Frequency | Peak    | Peak Limit | Peak Difference | Peak Status |
|-----------|---------|------------|-----------------|-------------|
| 850.6 MHz | -28 dBm | -13 dBm    | -15.02 dB       | Pass        |

## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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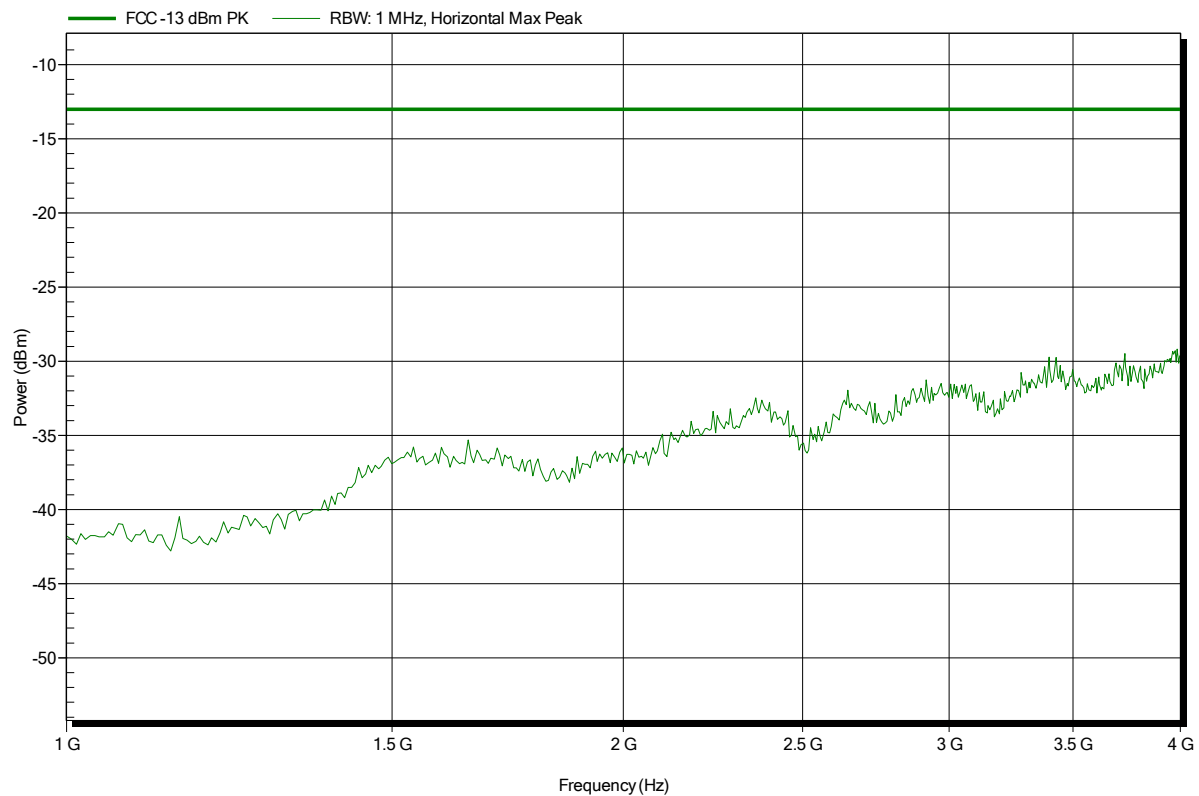


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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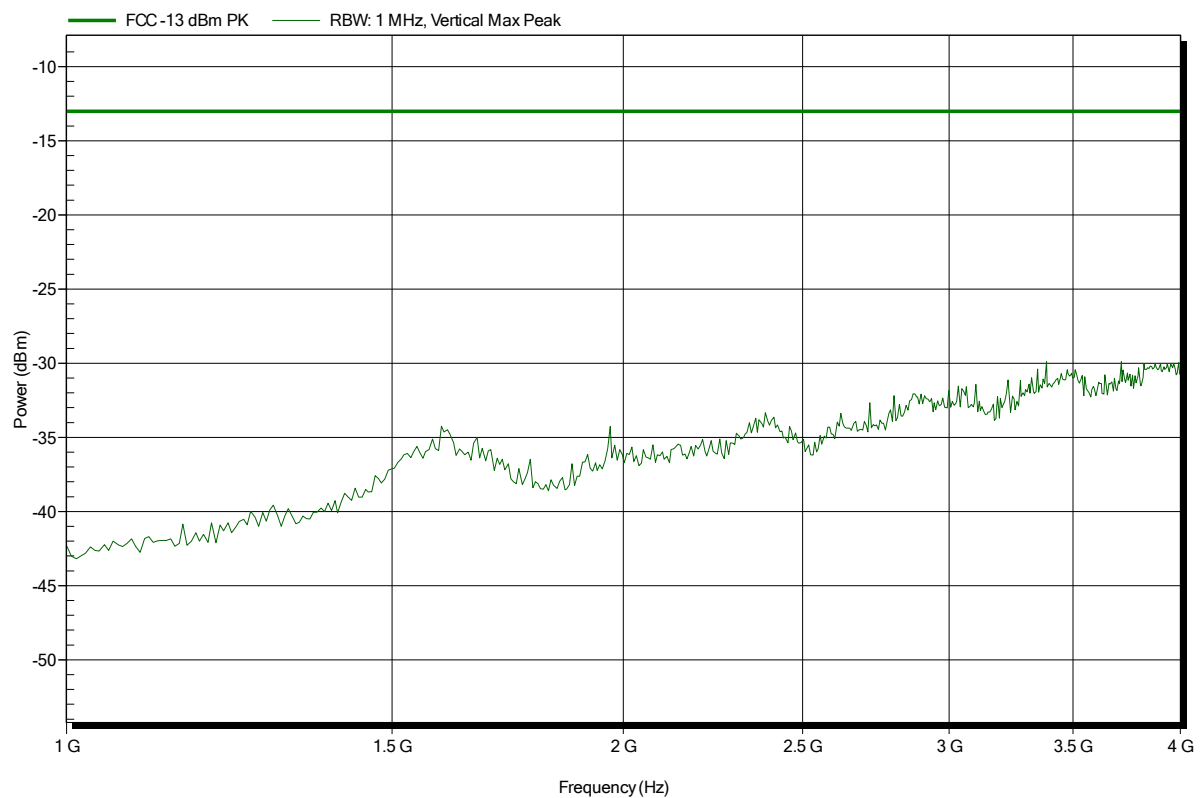


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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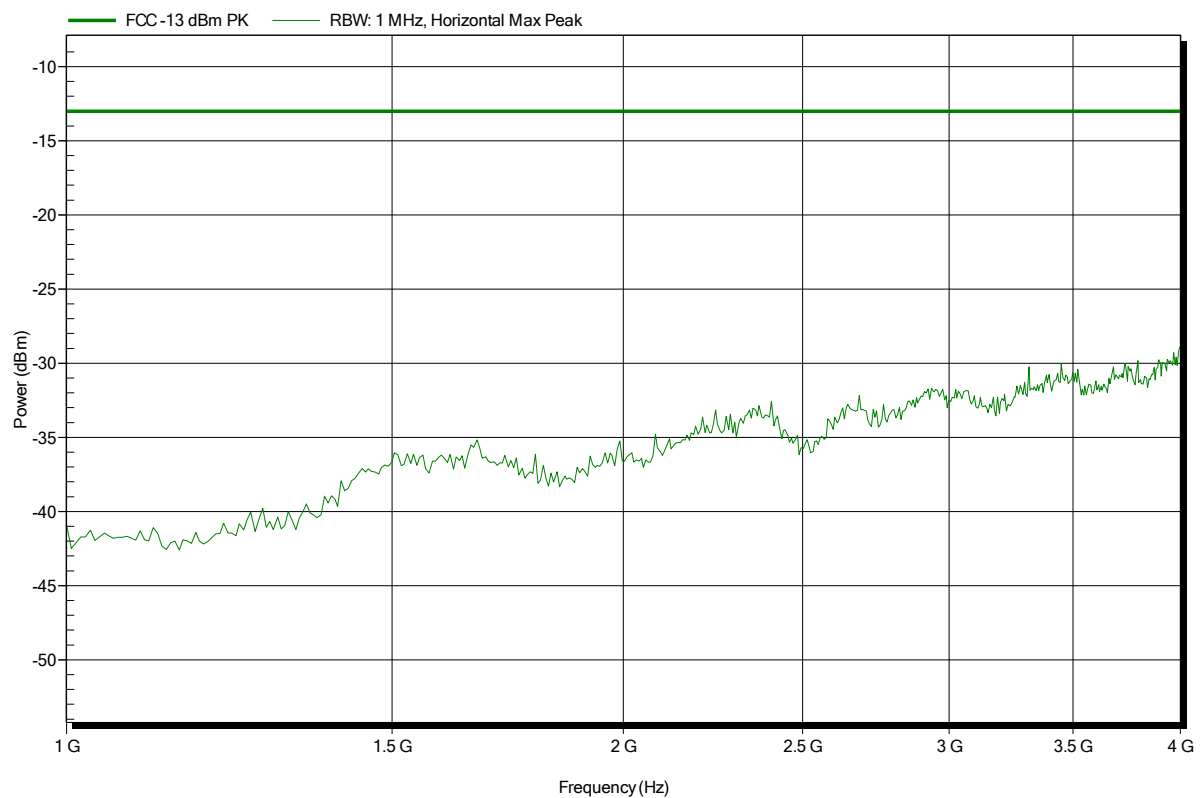


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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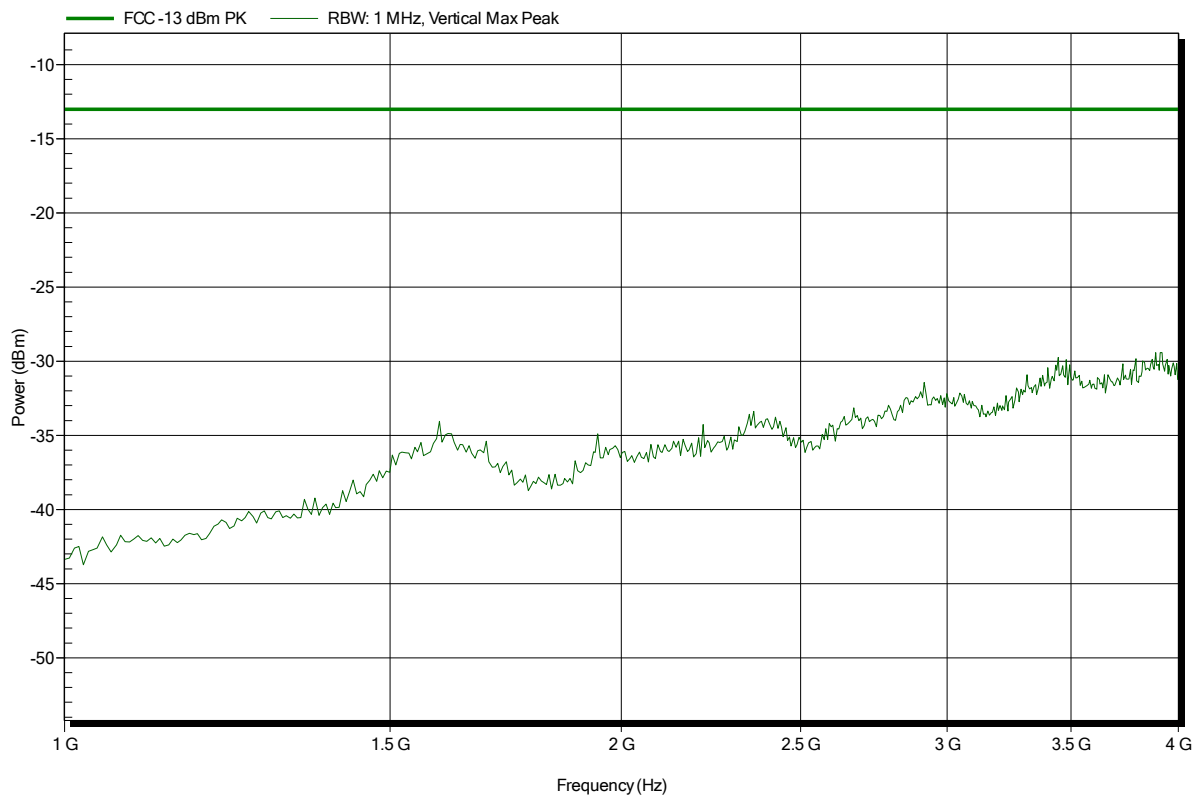


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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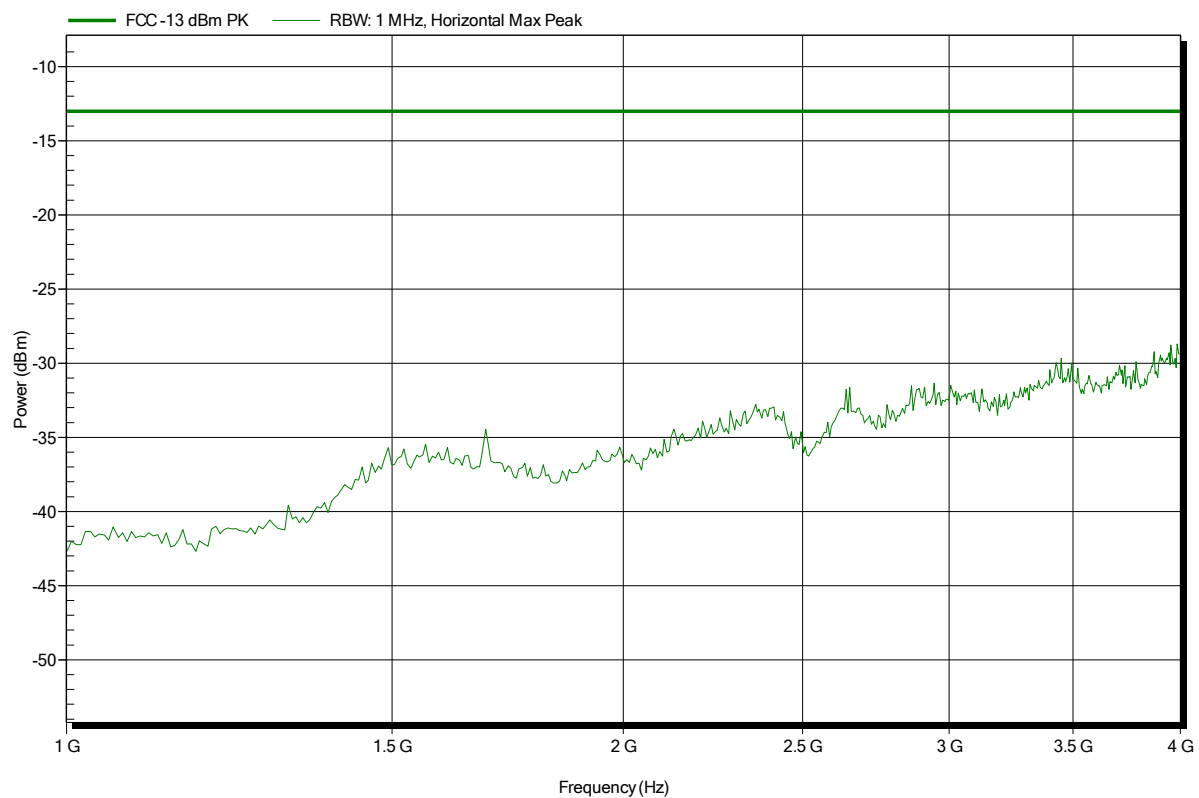


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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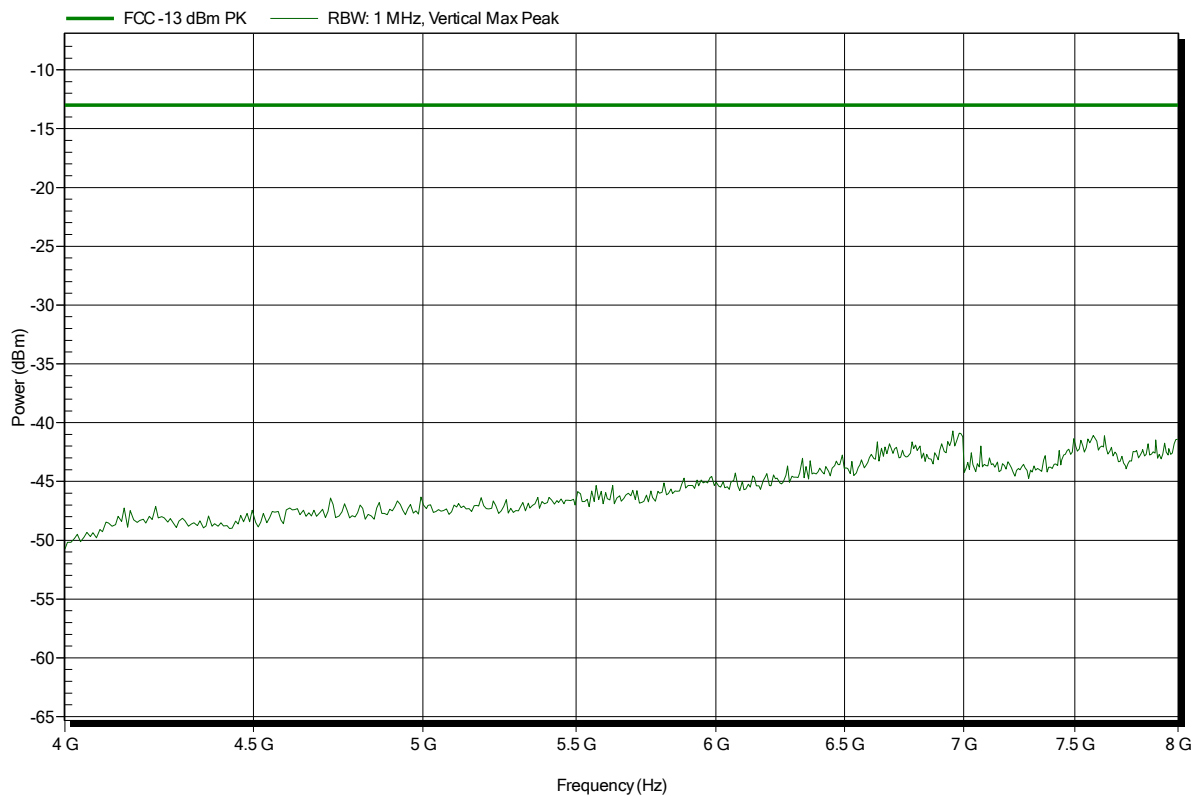


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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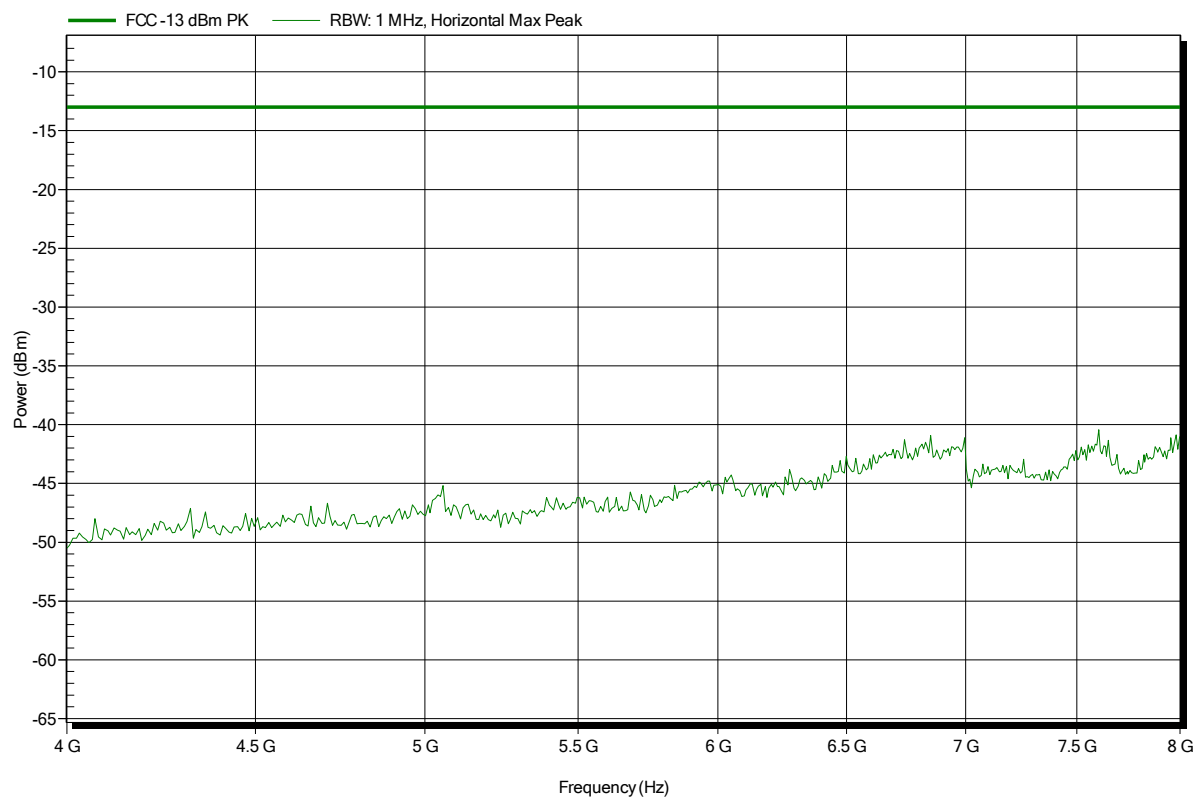


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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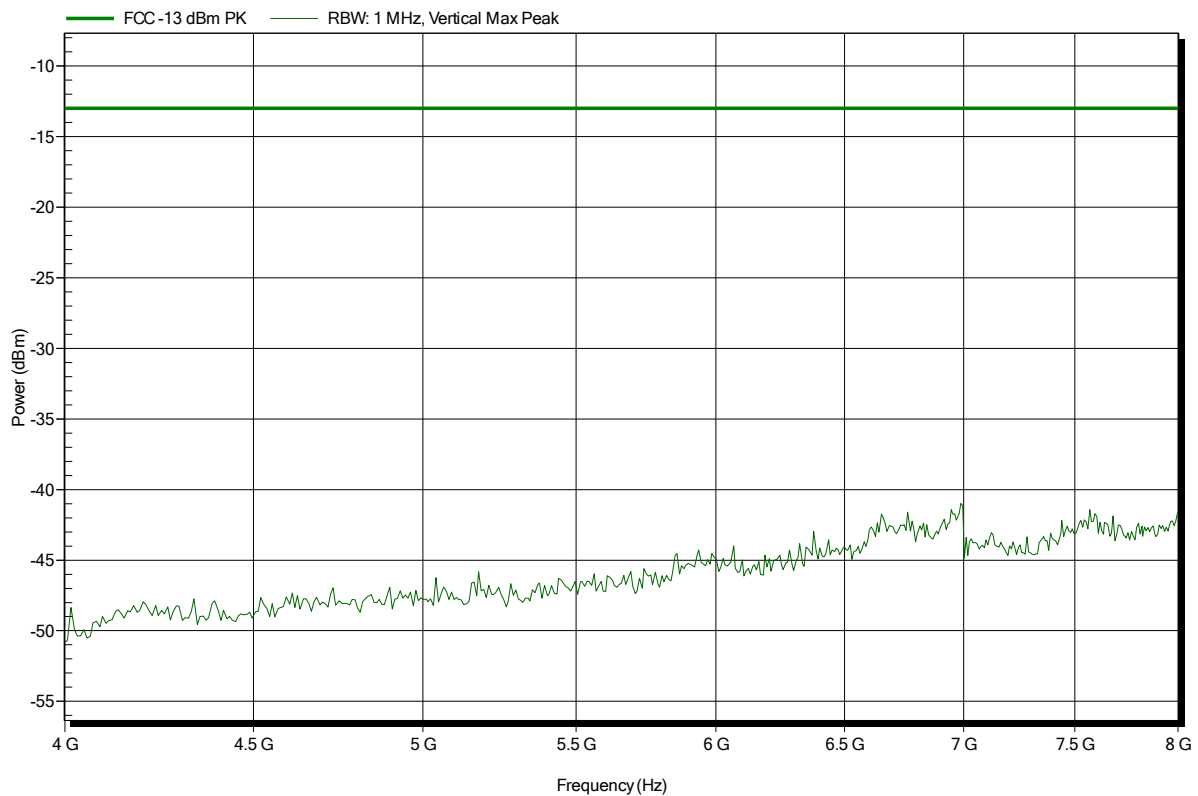


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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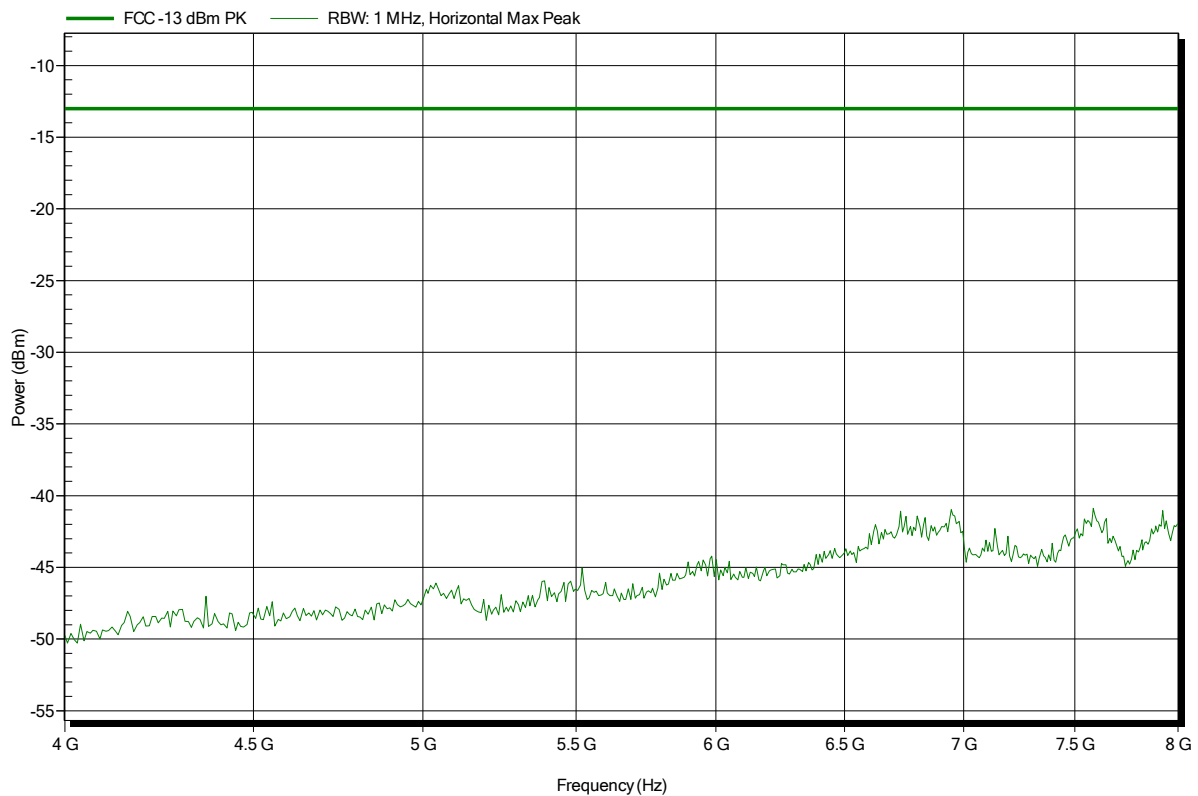


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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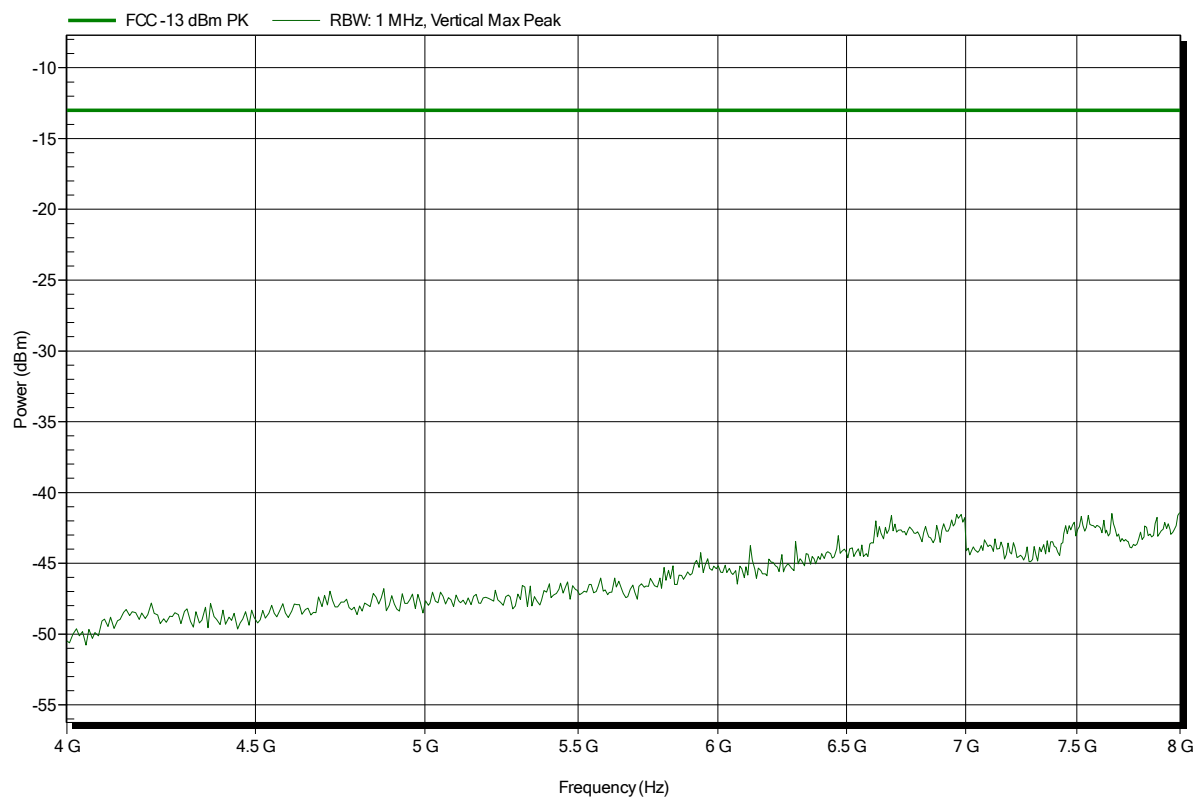


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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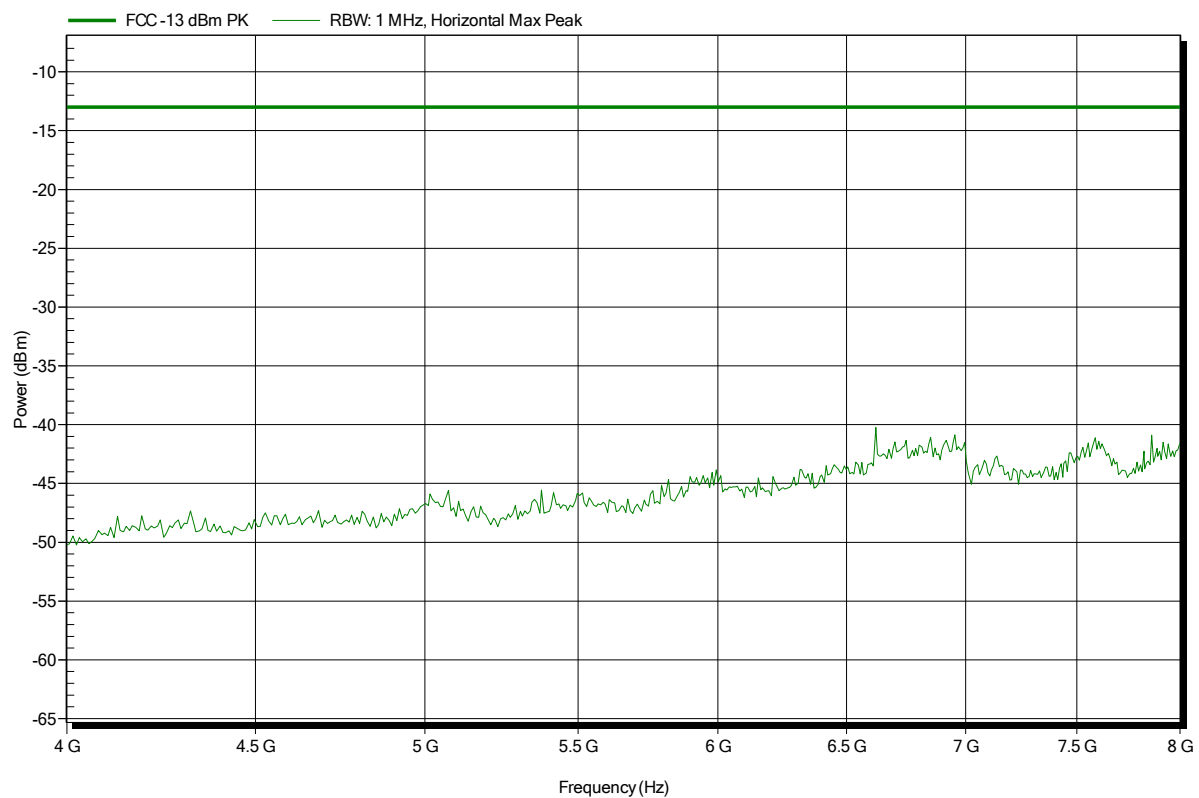


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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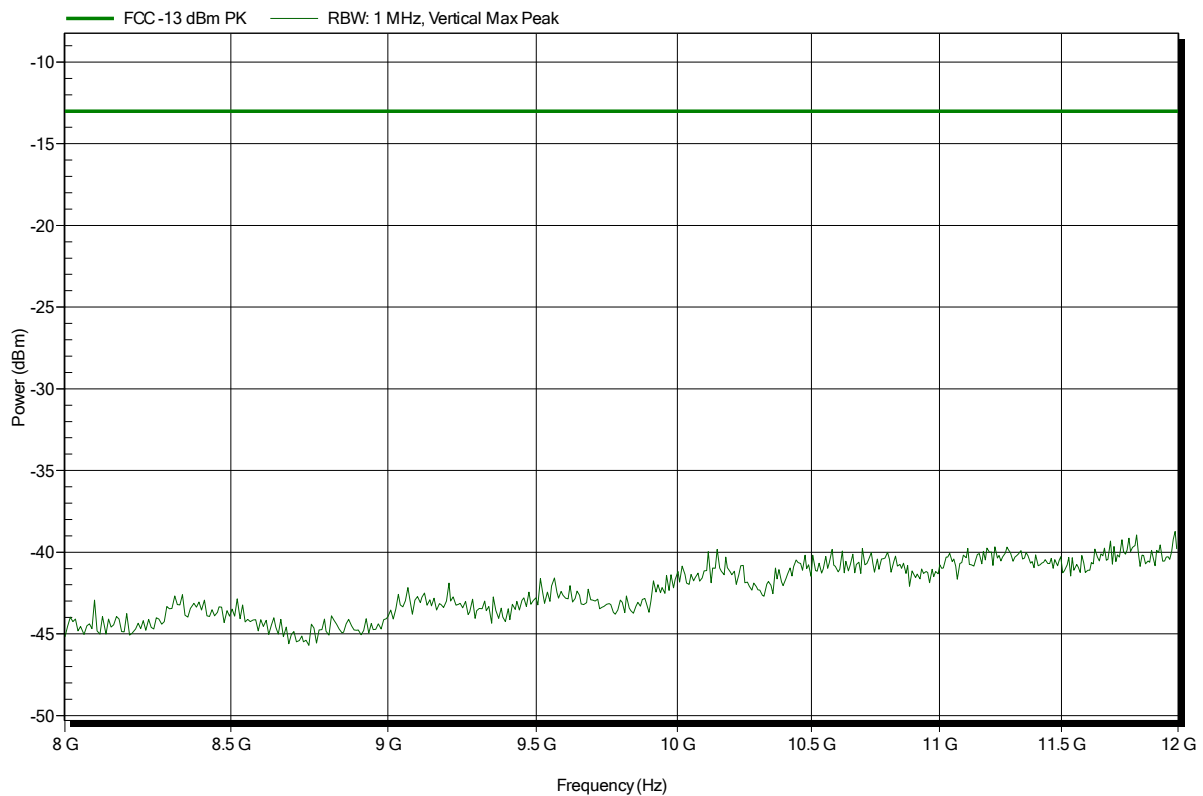


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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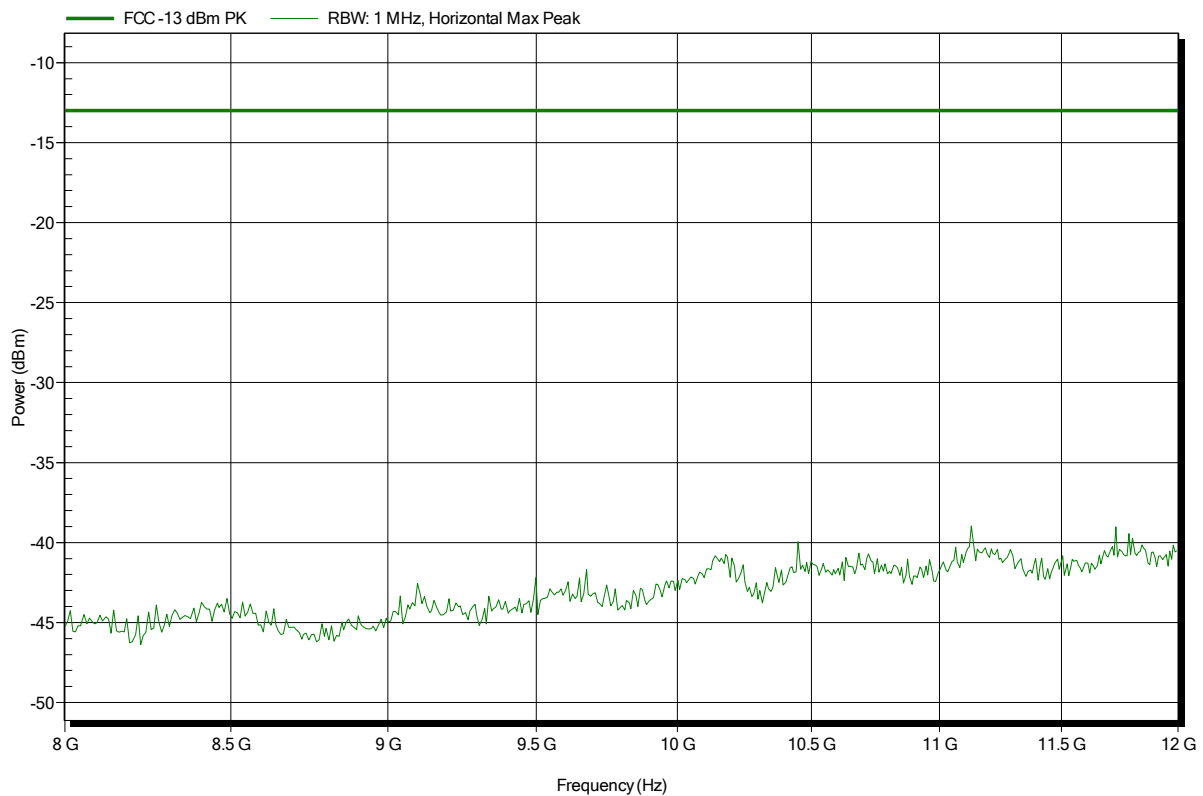


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4133, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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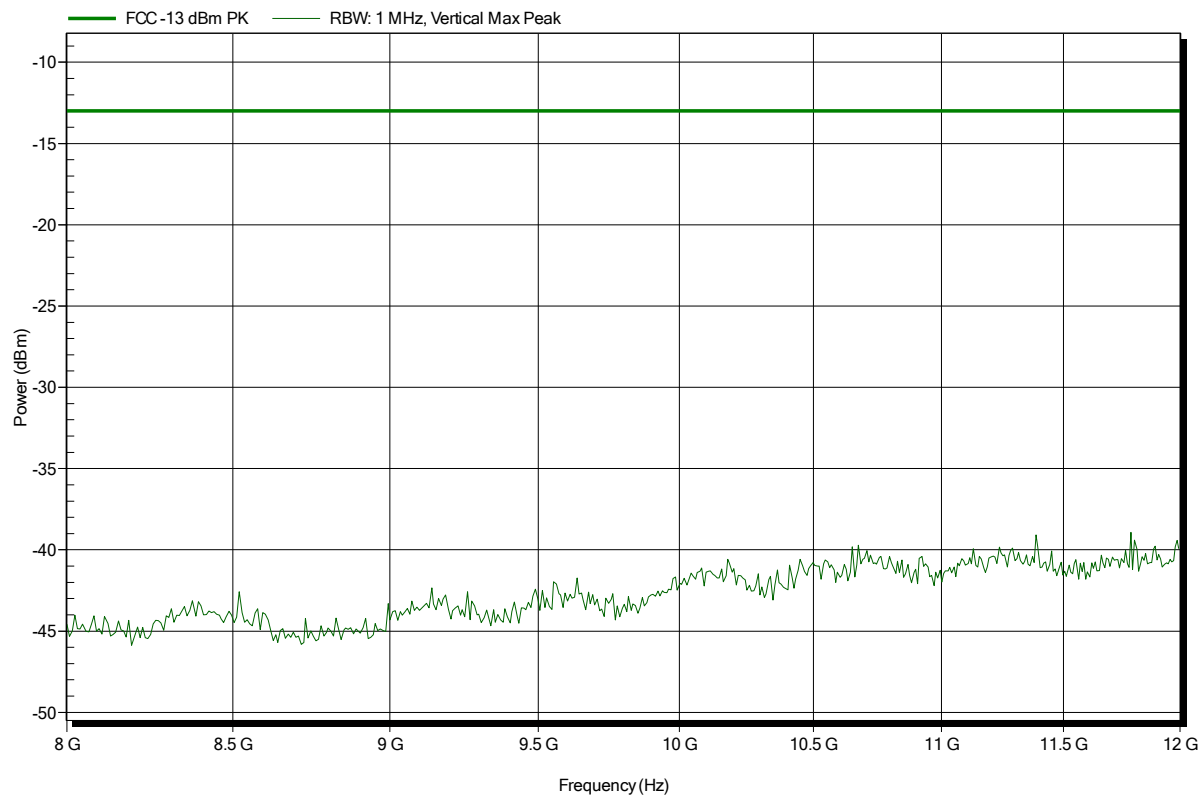


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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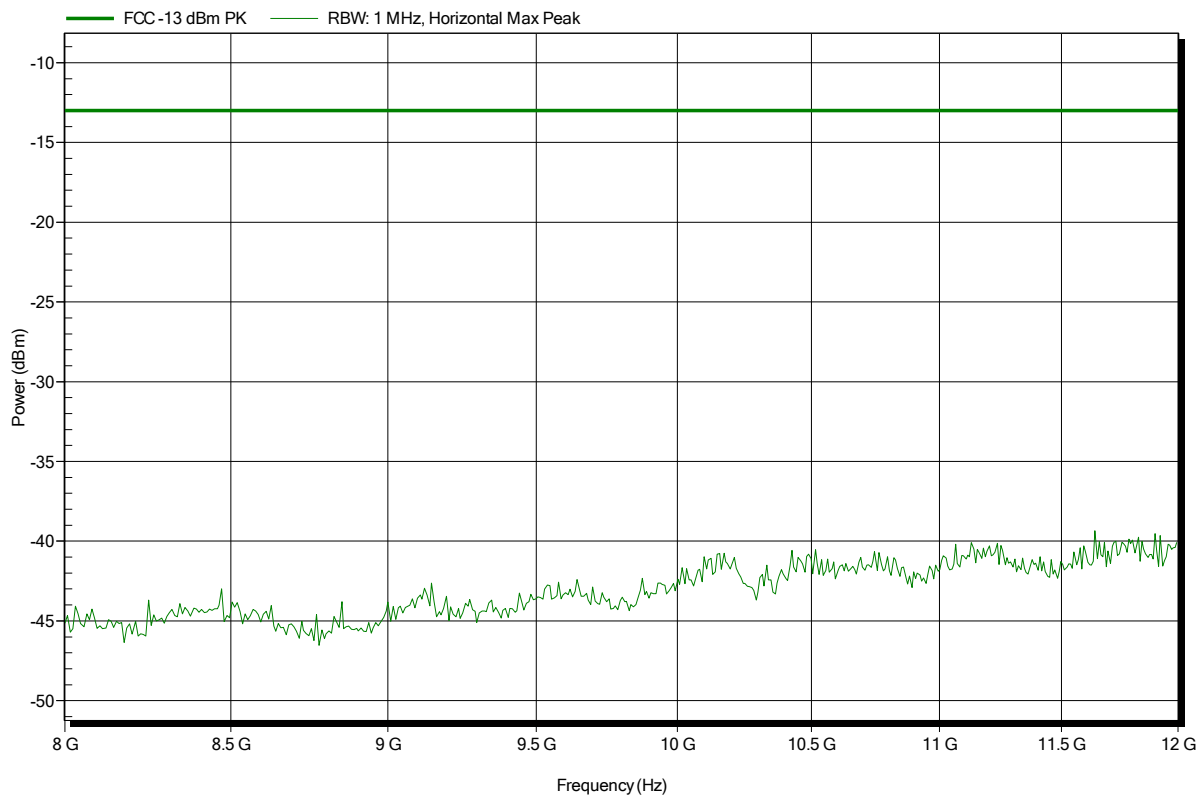


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4175, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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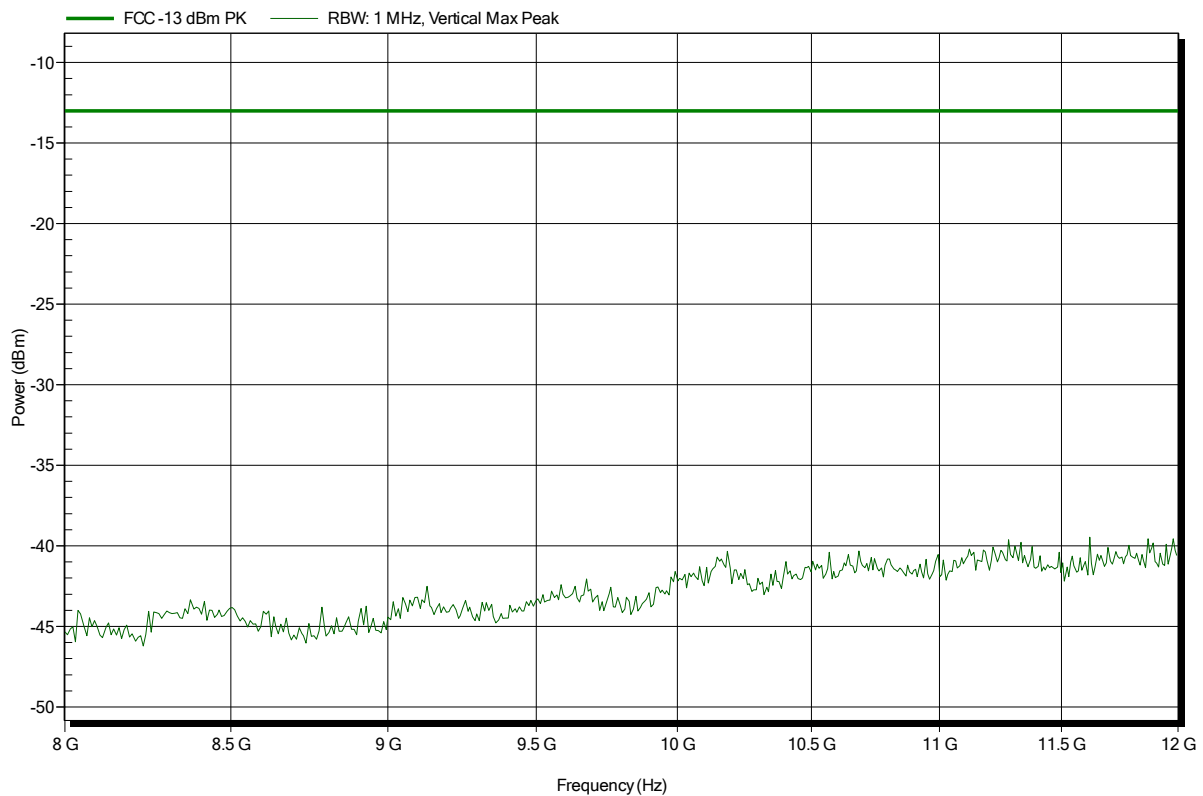


**Spurious emissions according to FCC part 22 Subpart H, IC RSS-132**

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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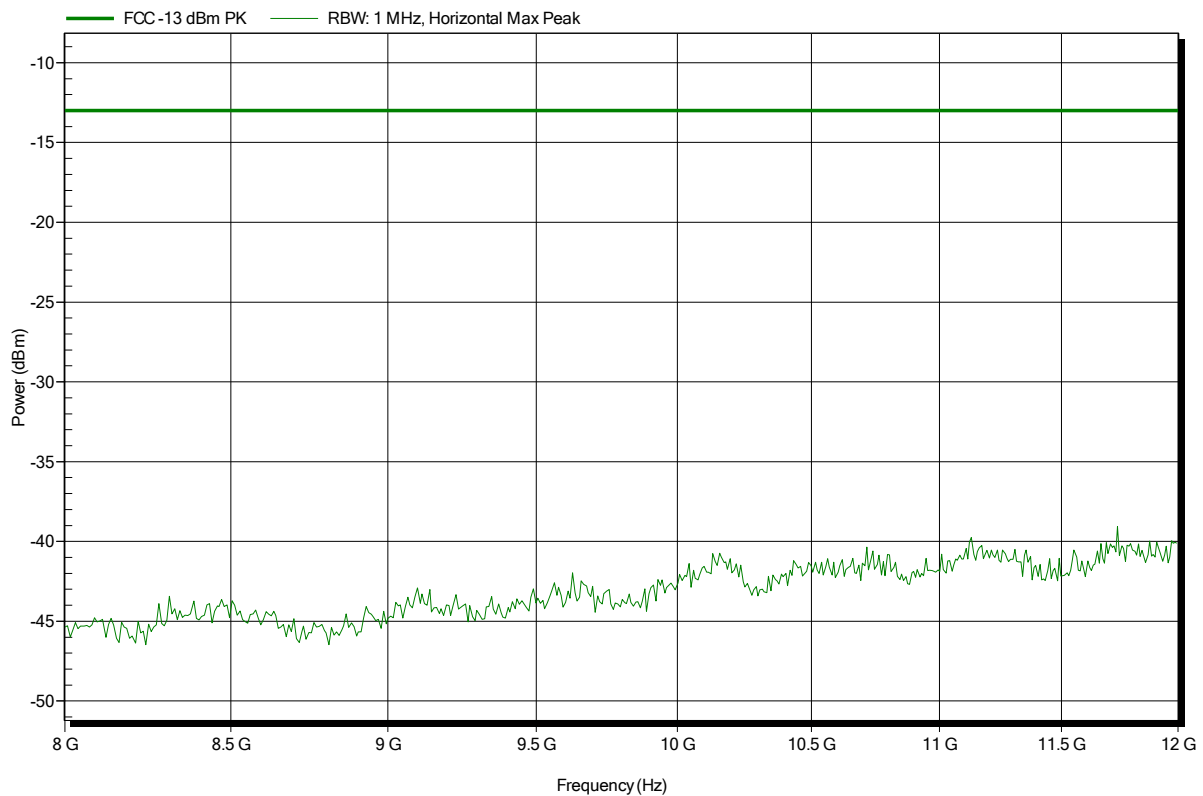


## Spurious emissions according to FCC part 22 Subpart H, IC RSS-132

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD V ; CH: 4232, HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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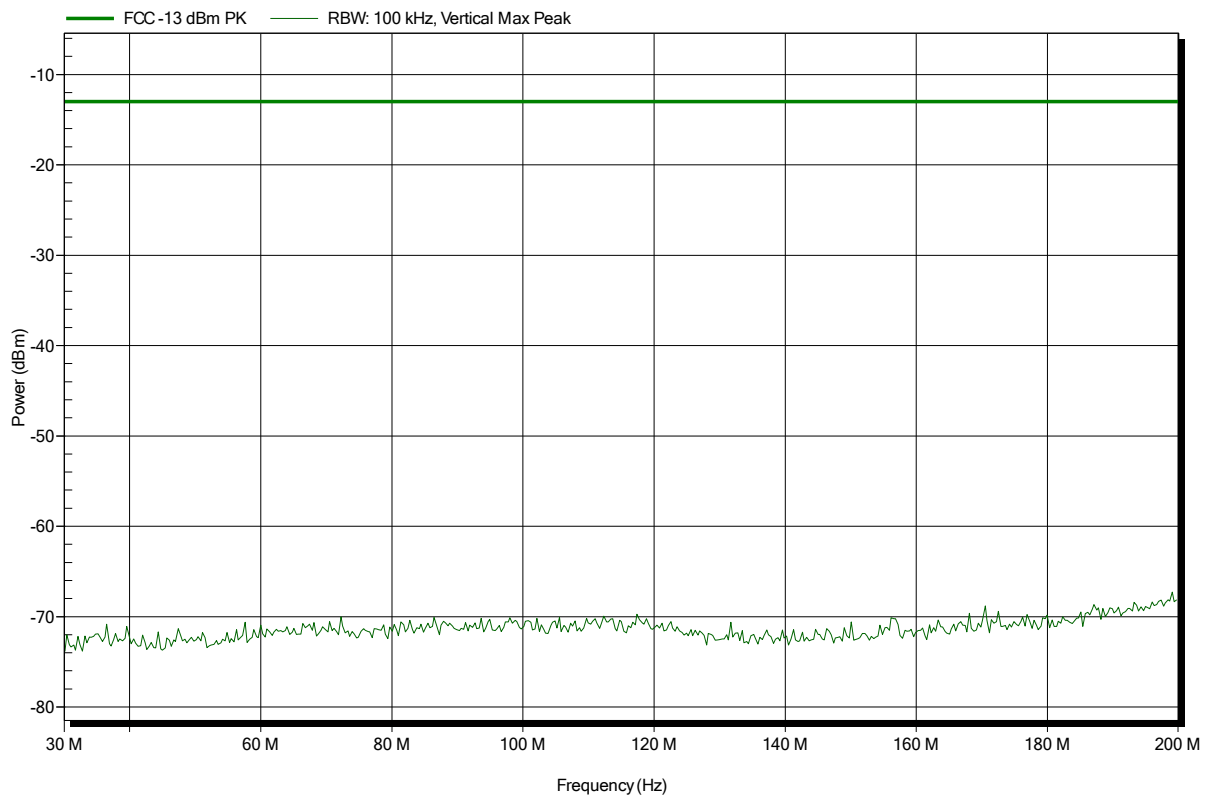


**Spurious emissions according to FCC part 24 Subpart E, IC RSS-133**

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HK 116, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-04                               |
| Note:                 | EUT vertical; worst case                 |

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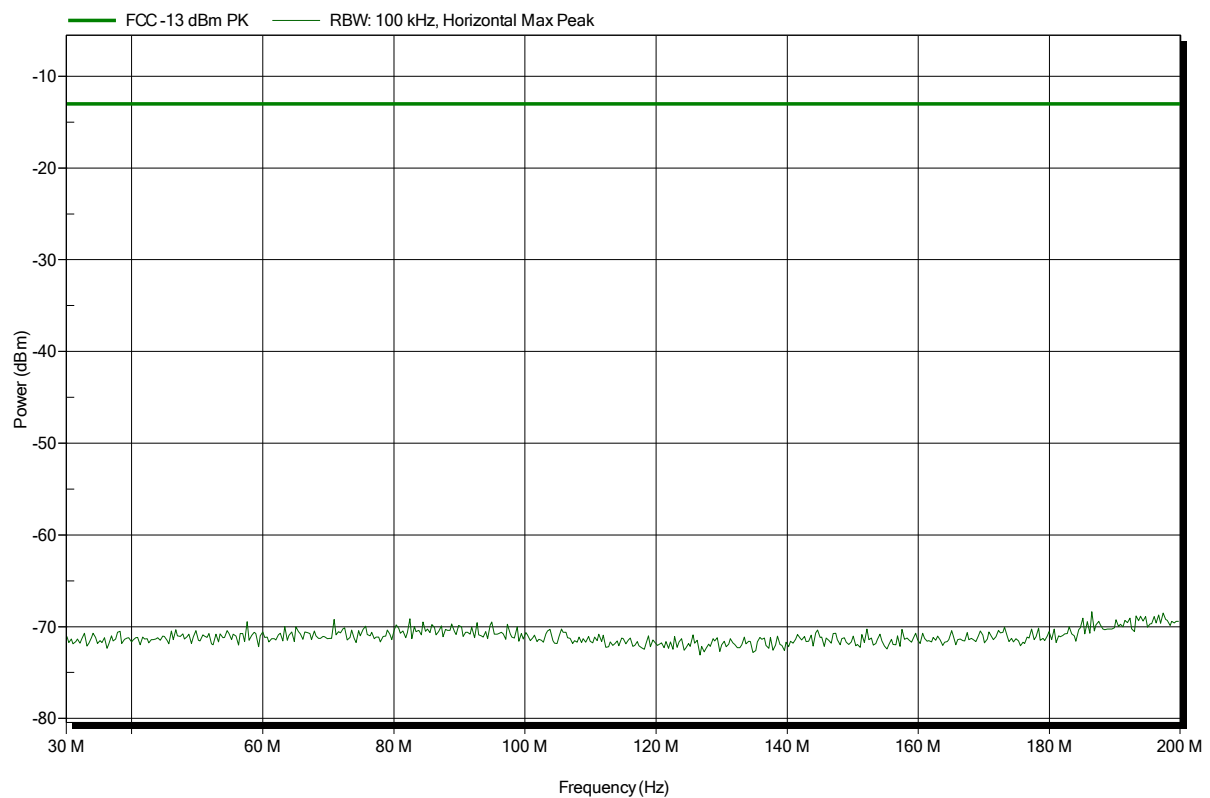


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-04                               |
| Note:                 | EUT vertical; worst case                 |

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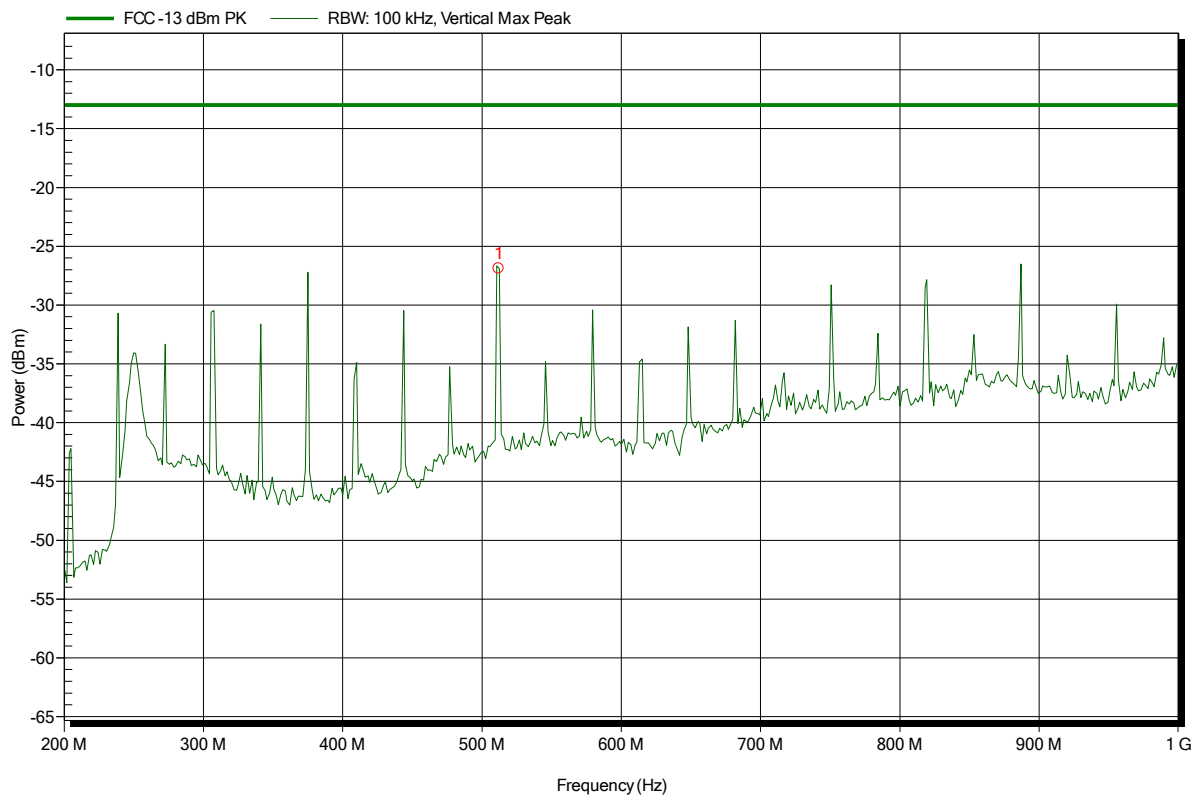


**Spurious emissions according to FCC part 24 Subpart E, IC RSS-133**

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-04  
 Note: EUT vertical; worst case

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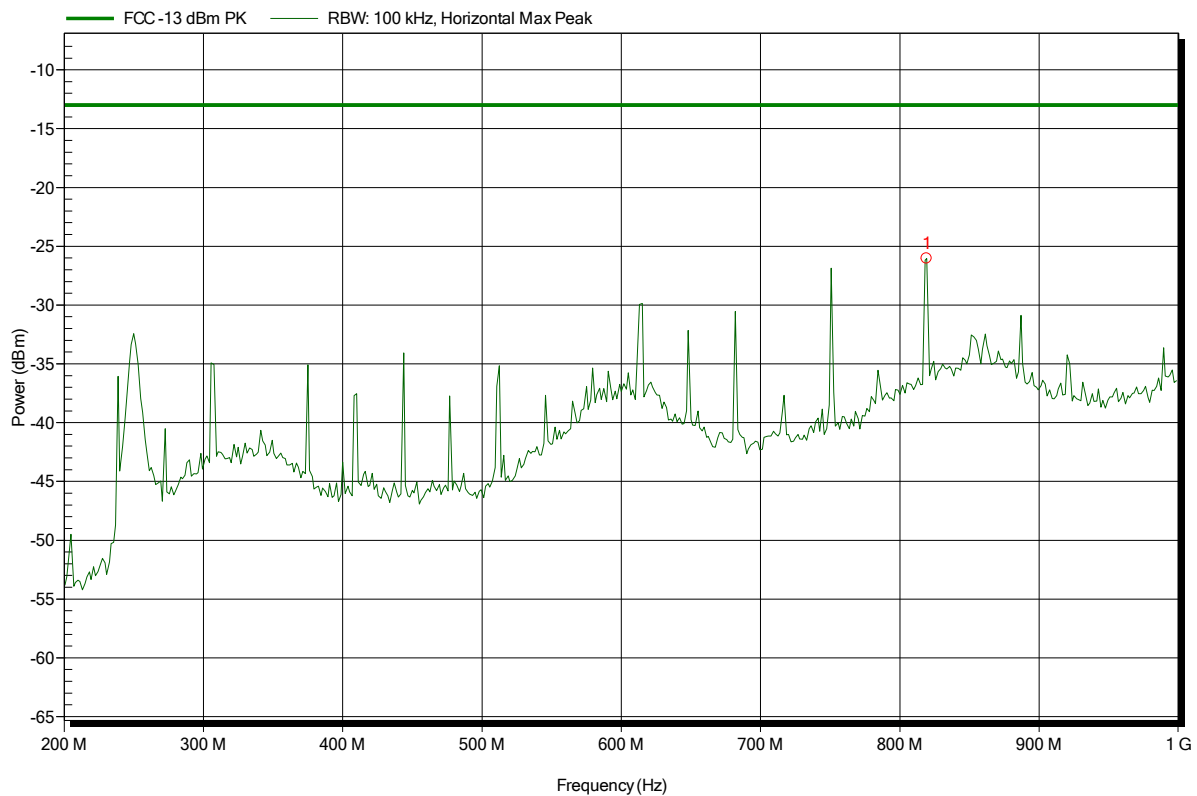
| Frequency | Peak      | Peak Limit | Peak Difference | Peak Status |
|-----------|-----------|------------|-----------------|-------------|
| 512 MHz   | -26.9 dBm | -13 dBm    | -13.88 dB       | Pass        |

## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-04  
 Note: EUT vertical; worst case

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| Frequency   | Peak      | Peak Limit | Peak Difference | Peak Status |
|-------------|-----------|------------|-----------------|-------------|
| 819.319 MHz | -26.1 dBm | -13 dBm    | -13.06 dB       | Pass        |

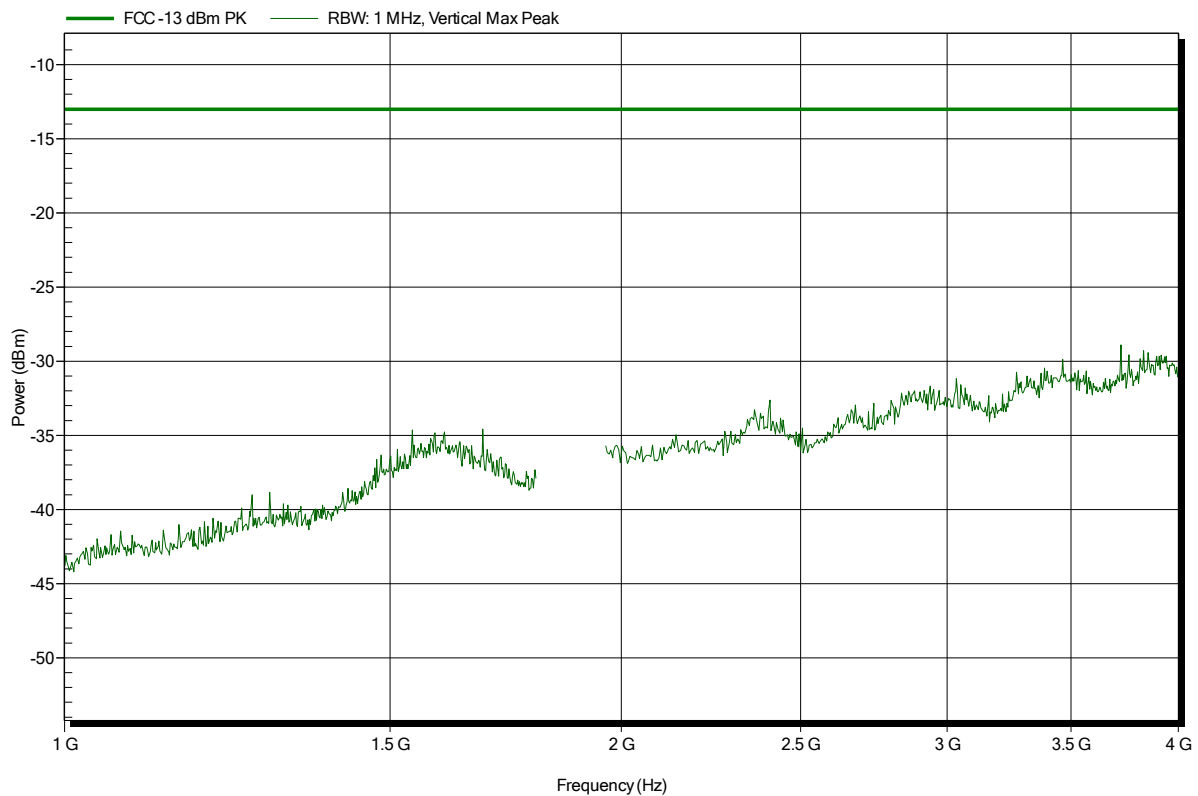


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical; worst case                 |

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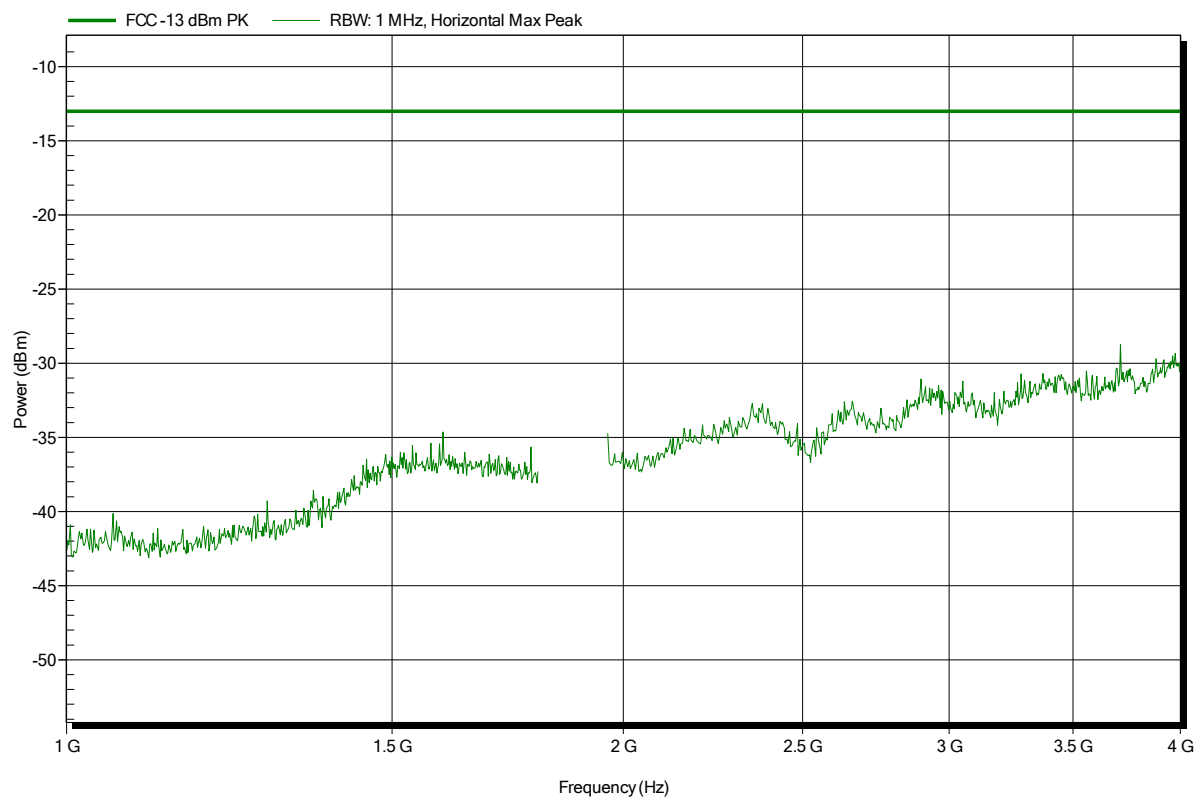


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical; worst case                 |

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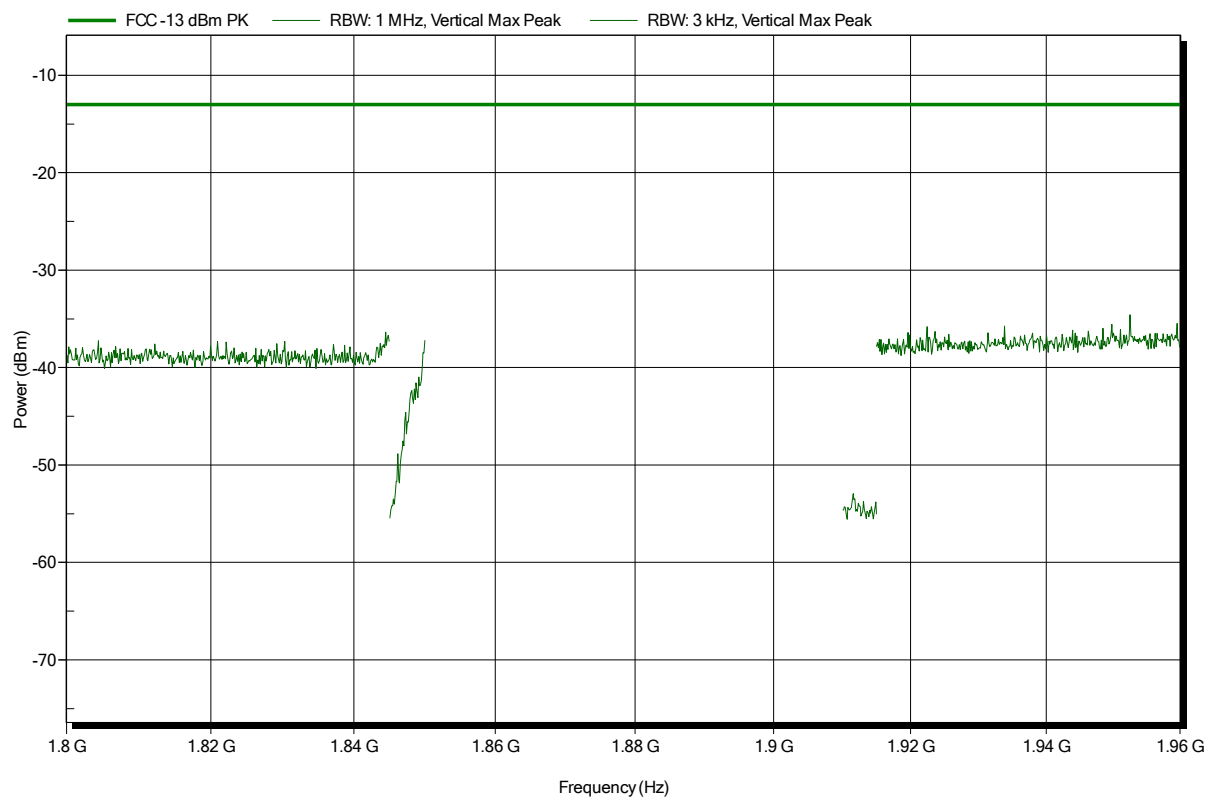


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9263; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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Test Report No.: G0M-1406-3915-TFC224WC-V01

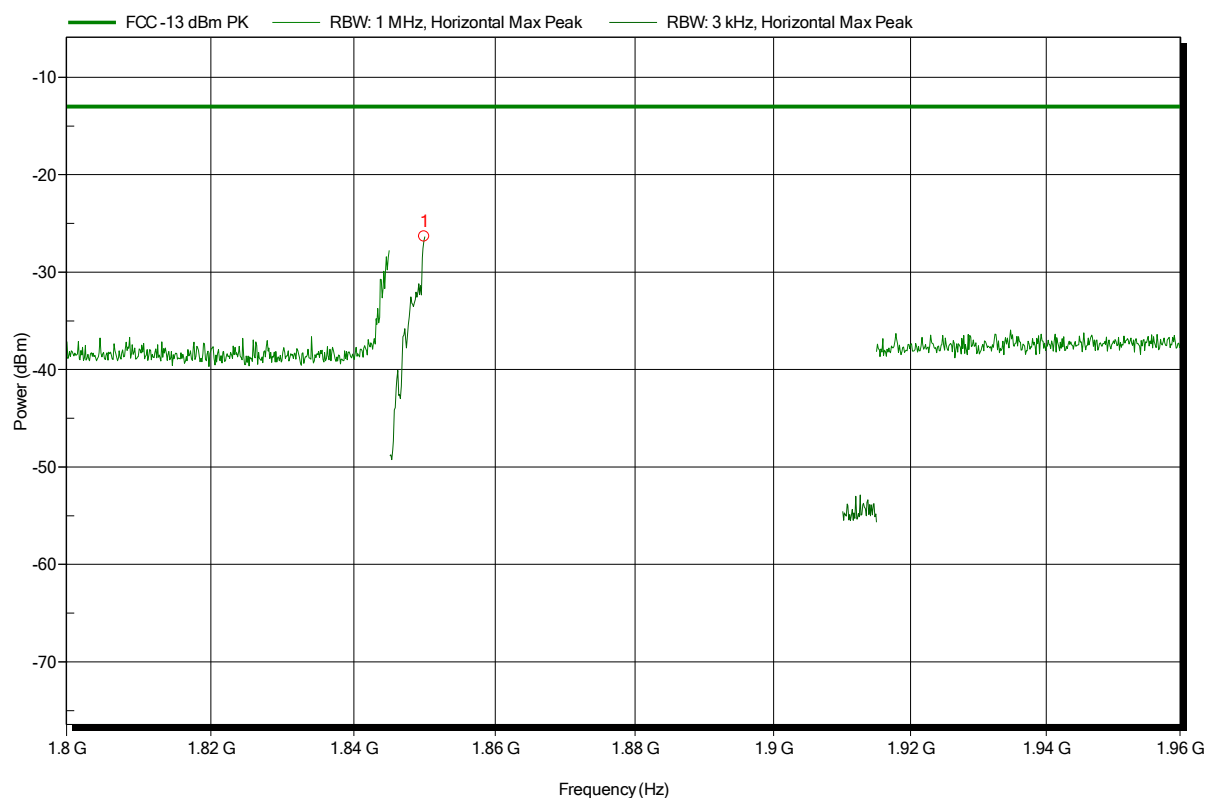
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9263; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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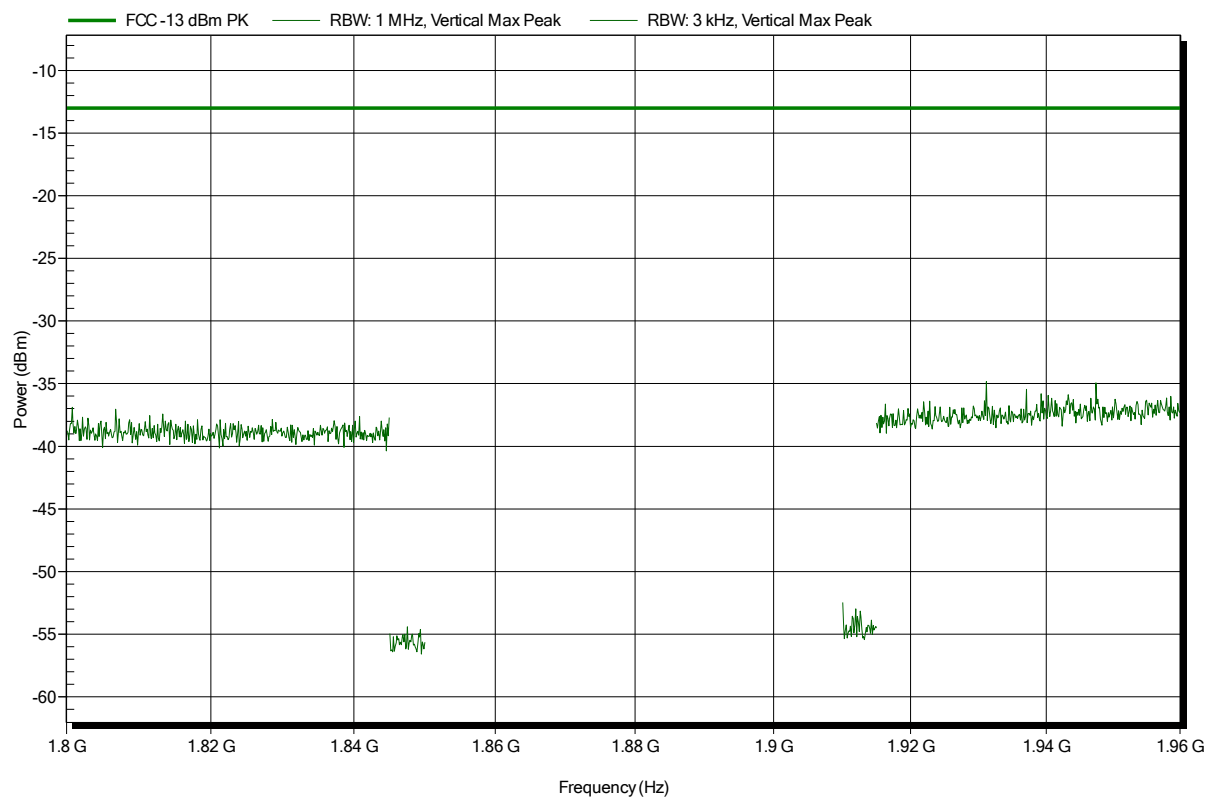
| Frequency | Peak      | Peak Limit | Peak Difference | Peak Status |
|-----------|-----------|------------|-----------------|-------------|
| 1.85 GHz  | -26.3 dBm | -13 dBm    | -13.34 dB       | Pass        |

## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical                             |

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Test Report No.: G0M-1406-3915-TFC224WC-V01

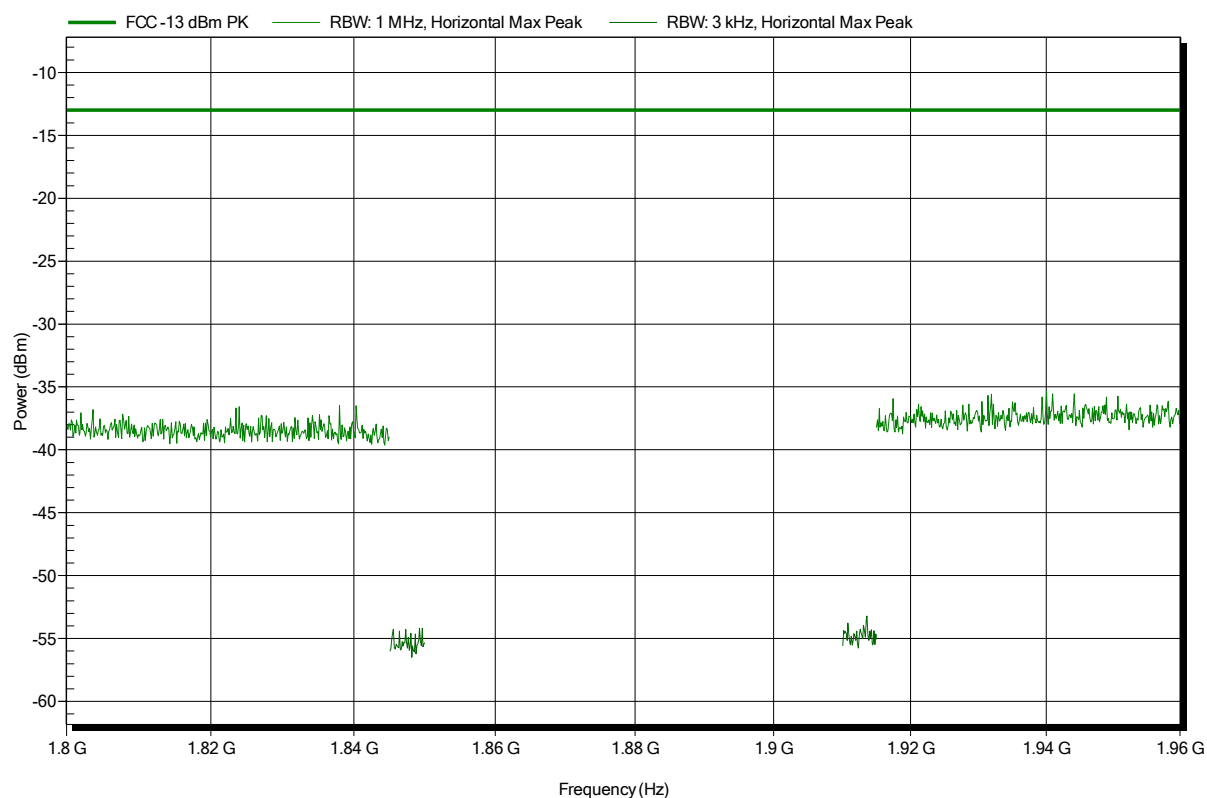
Eurofins Product Service GmbH  
Storkower Str. 38c, D-15526 Reichenwalde, Germany

## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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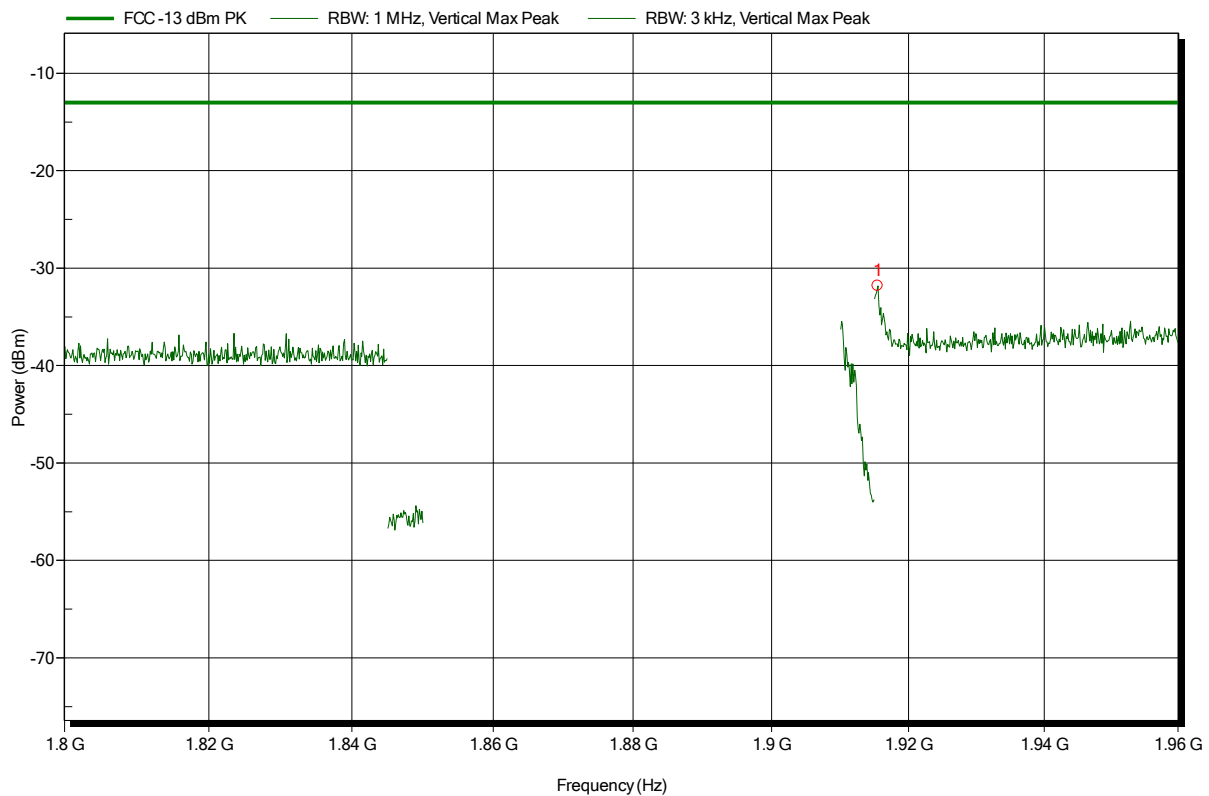


**Spurious emissions according to FCC part 24 Subpart E, IC RSS-133**

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9537; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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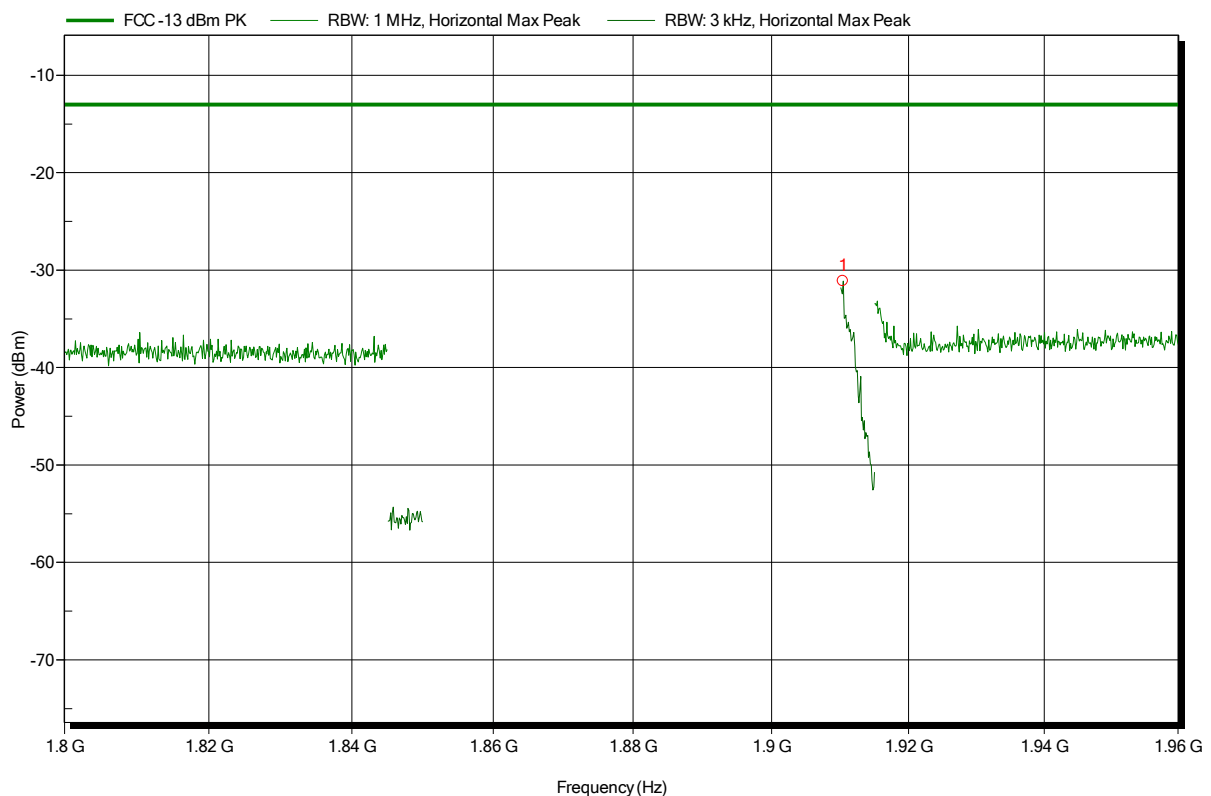
| Frequency | Peak      | Peak Limit | Peak Difference | Peak Status |
|-----------|-----------|------------|-----------------|-------------|
| 1.915 GHz | -31.8 dBm | -13 dBm    | -18.82 dB       | Pass        |

## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9537; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical

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| Frequency | Peak      | Peak Limit | Peak Difference | Peak Status |
|-----------|-----------|------------|-----------------|-------------|
| 1.91 GHz  | -31.1 dBm | -13 dBm    | -18.12 dB       | Pass        |

Test Report No.: G0M-1406-3915-TFC224WC-V01

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

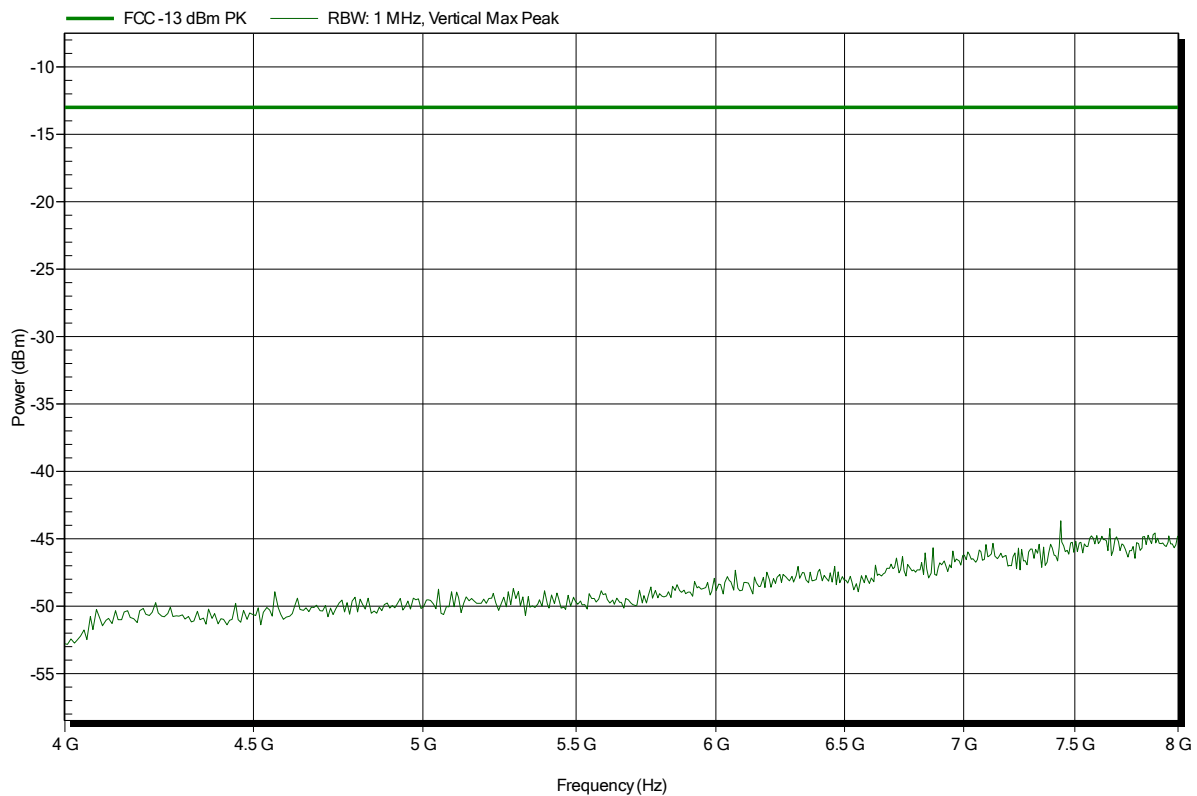


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical; worst case                 |

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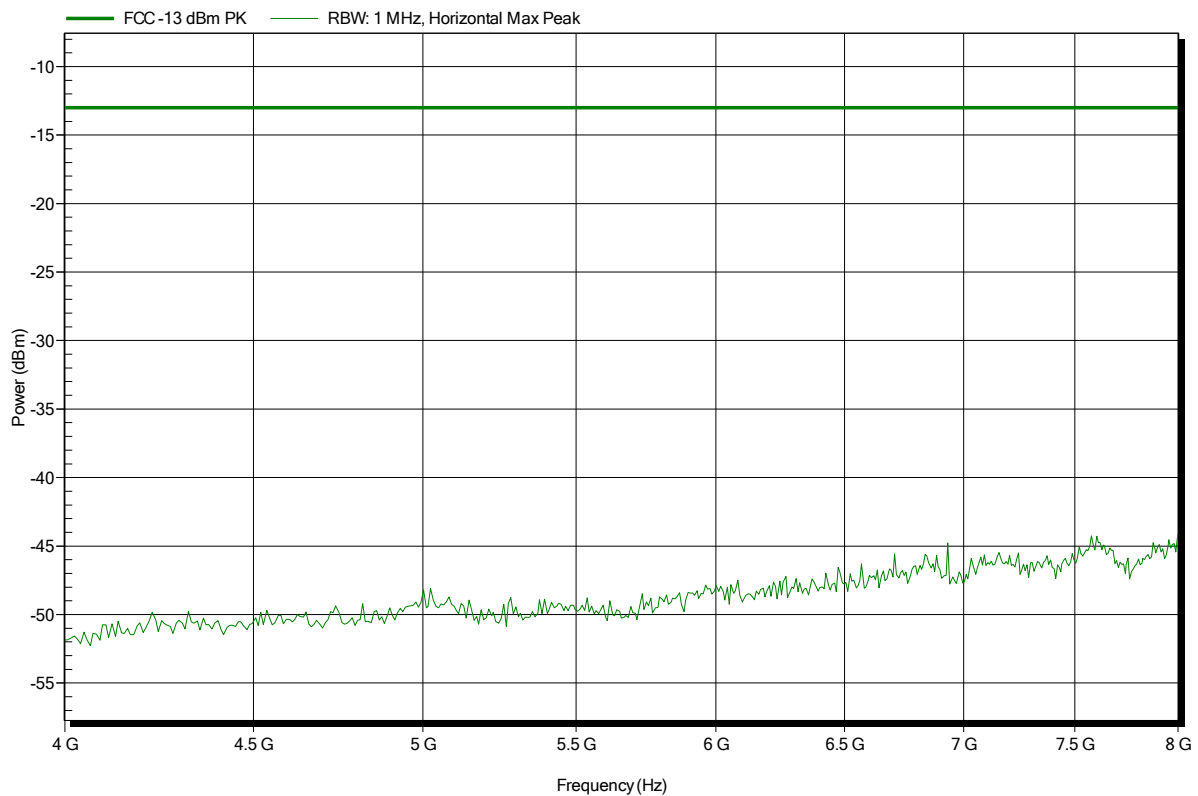


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical; worst case

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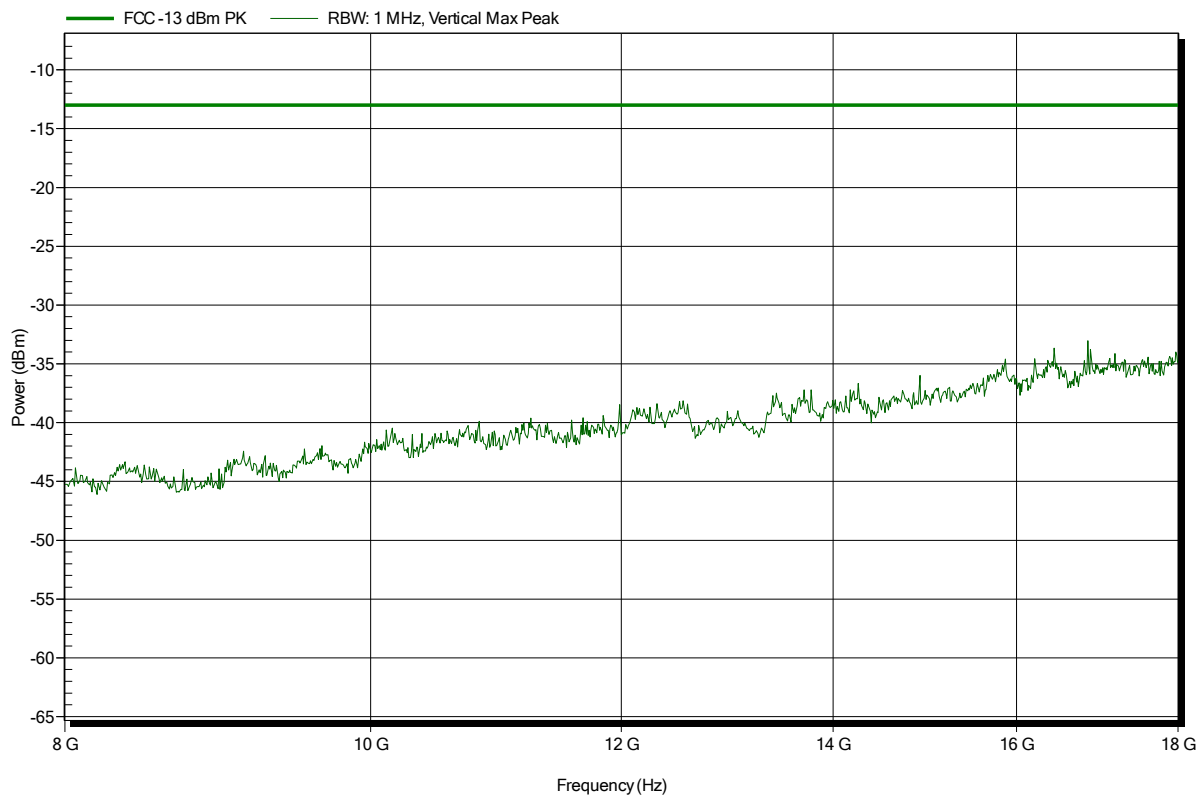


**Spurious emissions according to FCC part 24 Subpart E, IC RSS-133**

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Vertical         |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical; worst case                 |

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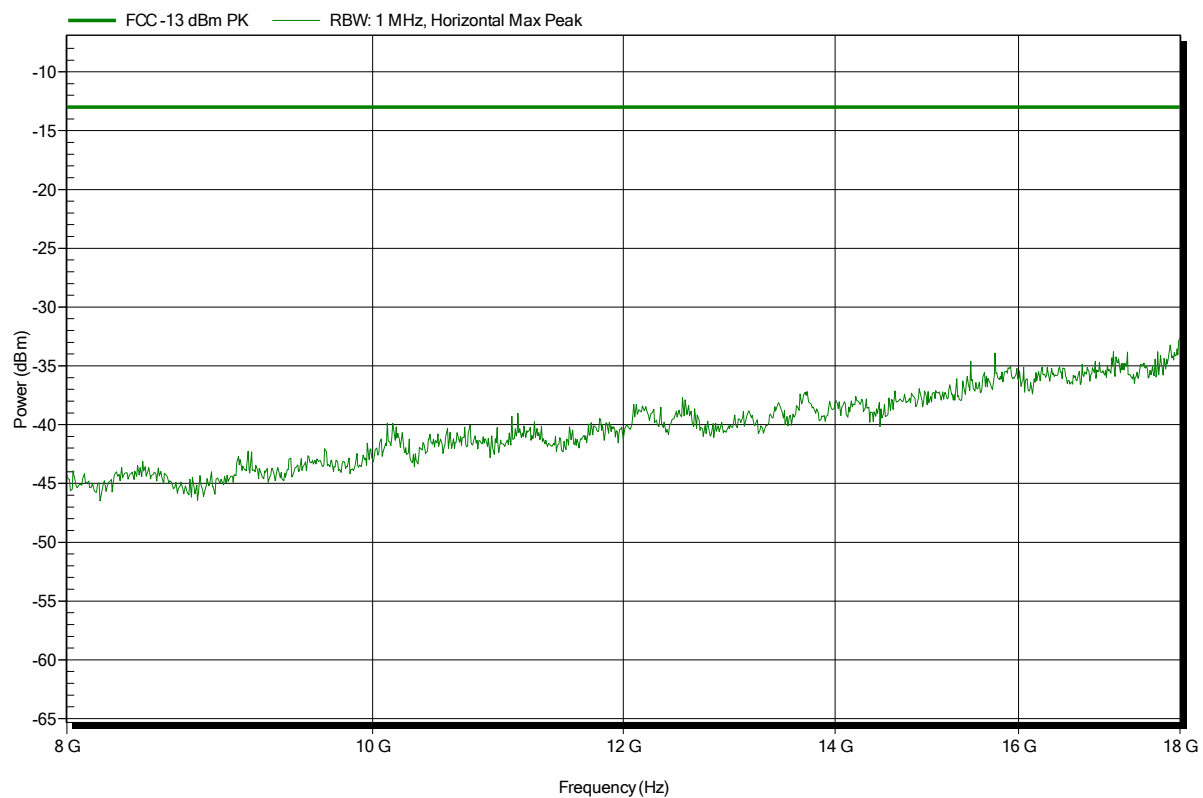


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical; worst case

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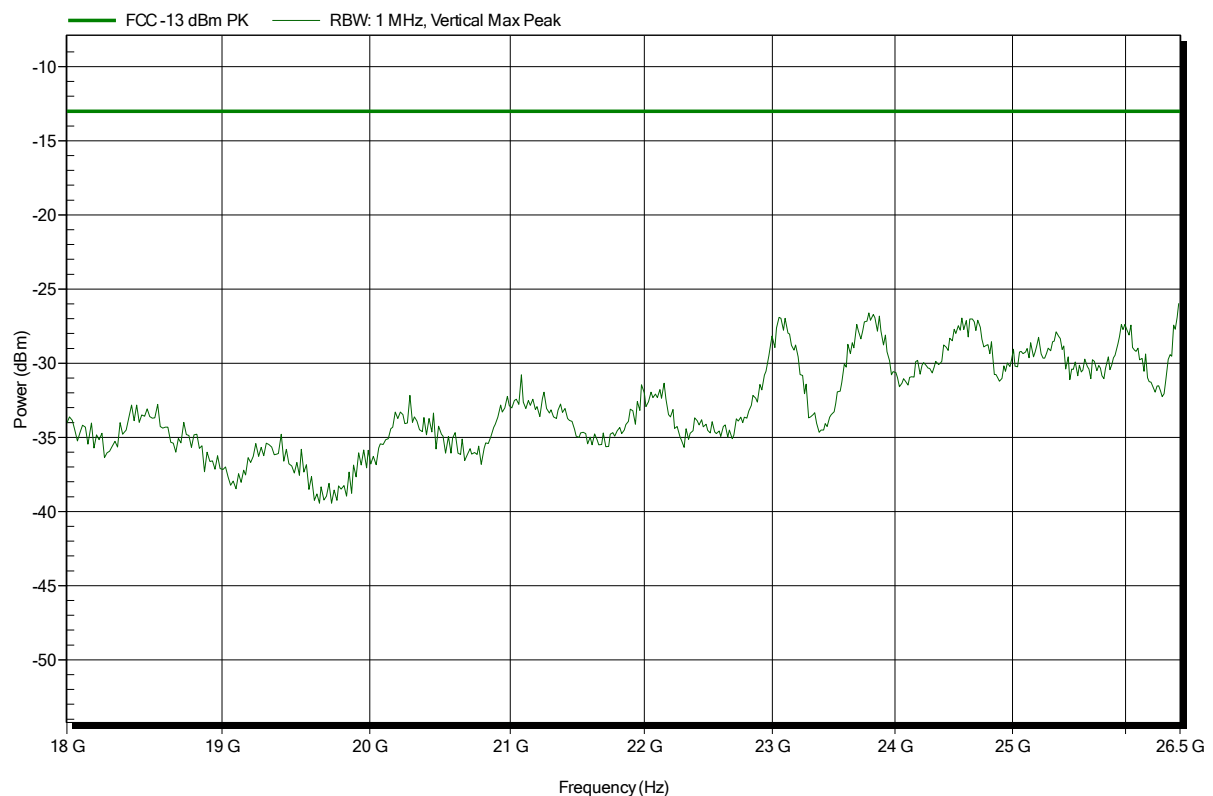


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 025, Vertical  
 Measurement distance: 3 m  
 Mode: TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA  
 Test Date: 2014-12-09  
 Note: EUT vertical; worst case

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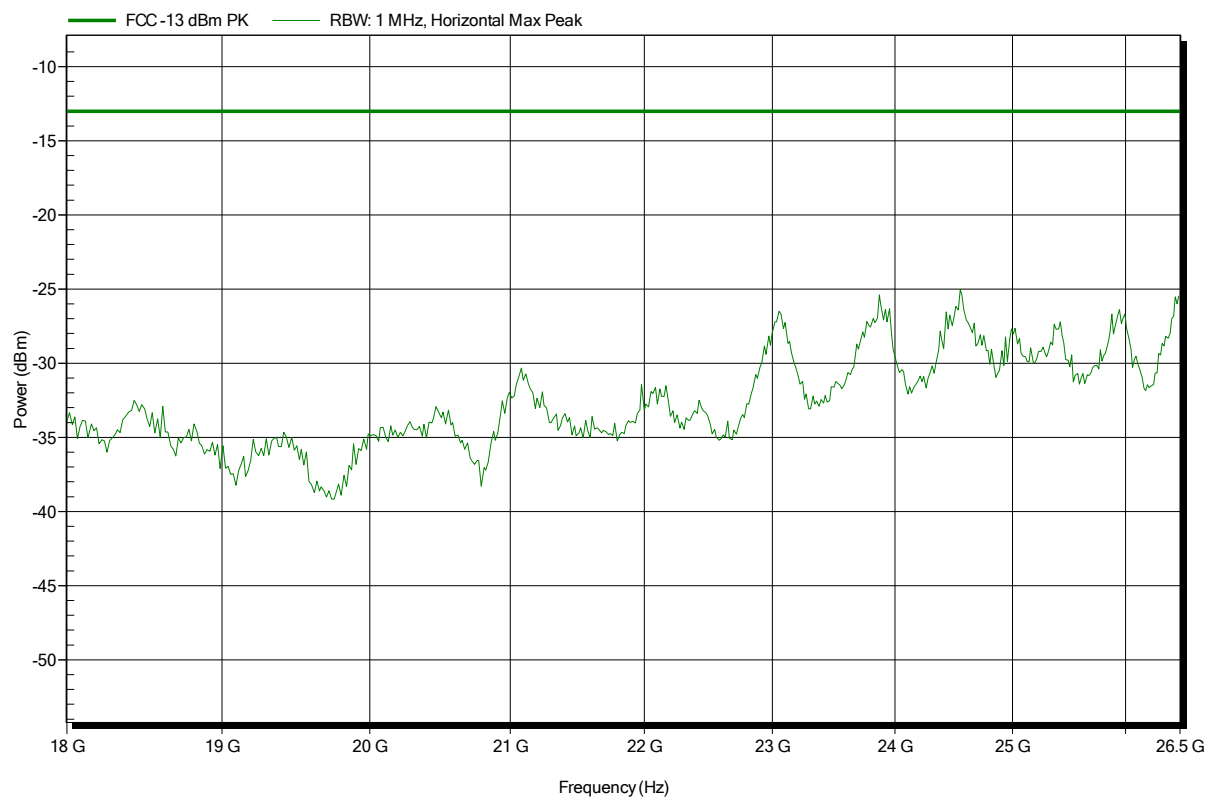


## Spurious emissions according to FCC part 24 Subpart E, IC RSS-133

Project number: G0M-1406-3915

|                       |                                          |
|-----------------------|------------------------------------------|
| Applicant:            | Leica Geosystems AG                      |
| EUT Name:             | Field Controller Win EC7                 |
| Model:                | CS20                                     |
| Test Site:            | Eurofins Product Service GmbH            |
| Operator:             | Mr. Pudell                               |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC               |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal       |
| Measurement distance: | 3 m                                      |
| Mode:                 | TX; UMTS FDD II; CH: 9400; HSUPA / HSDPA |
| Test Date:            | 2014-12-09                               |
| Note:                 | EUT vertical; worst case                 |

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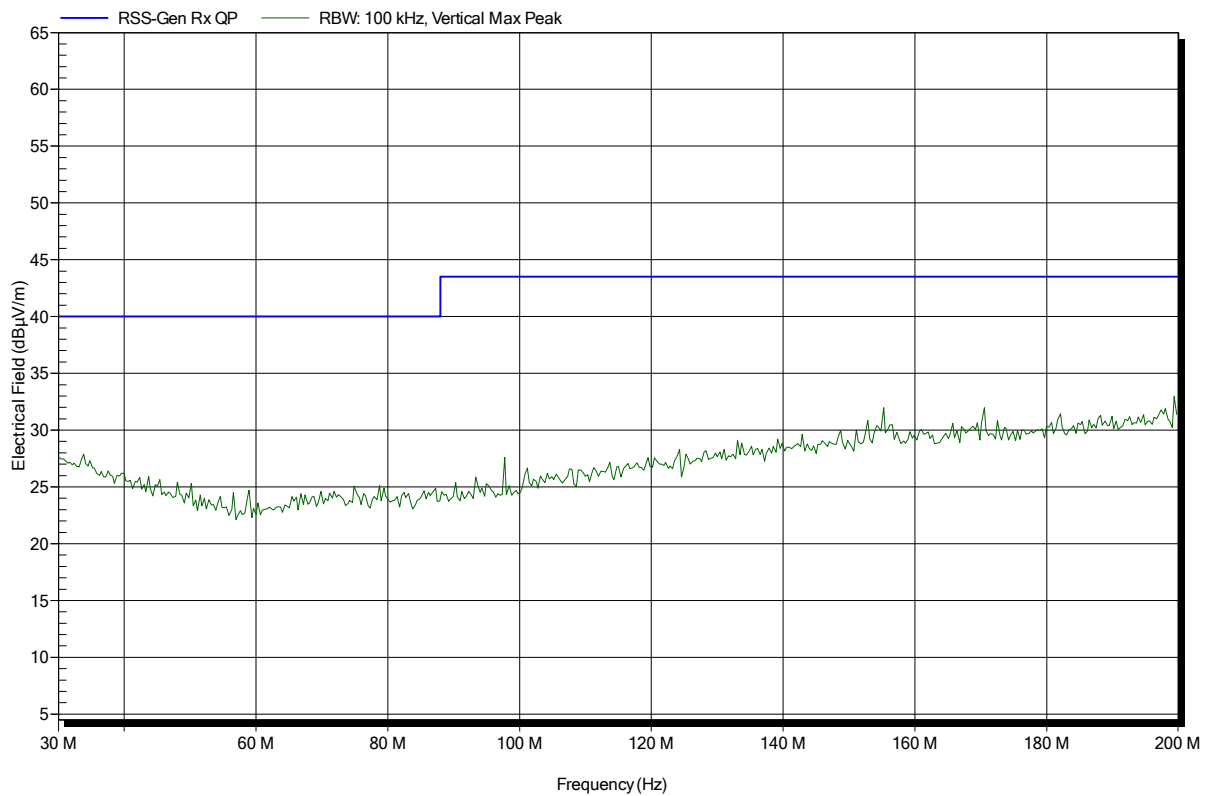
## ANNEX B Receiver radiated spurious emissions

### Spurious emissions according to IC RSS-132

Project number: G0M-1406-3915

|                       |                                        |
|-----------------------|----------------------------------------|
| Applicant:            | Leica Geosystems AG                    |
| EUT Name:             | Field Controller Win EC7               |
| Model:                | CS20                                   |
| Test Site:            | Eurofins Product Service GmbH          |
| Operator:             | Mr. Pudell                             |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC             |
| Antenna:              | Rohde & Schwarz HK 116, Vertical       |
| Measurement distance: | 3 m                                    |
| Mode:                 | RX; UMTS FDD V; CH: 4175, RX-Idle Mode |
| Test Date:            | 2014-12-04                             |
| Note:                 | EUT vertical                           |

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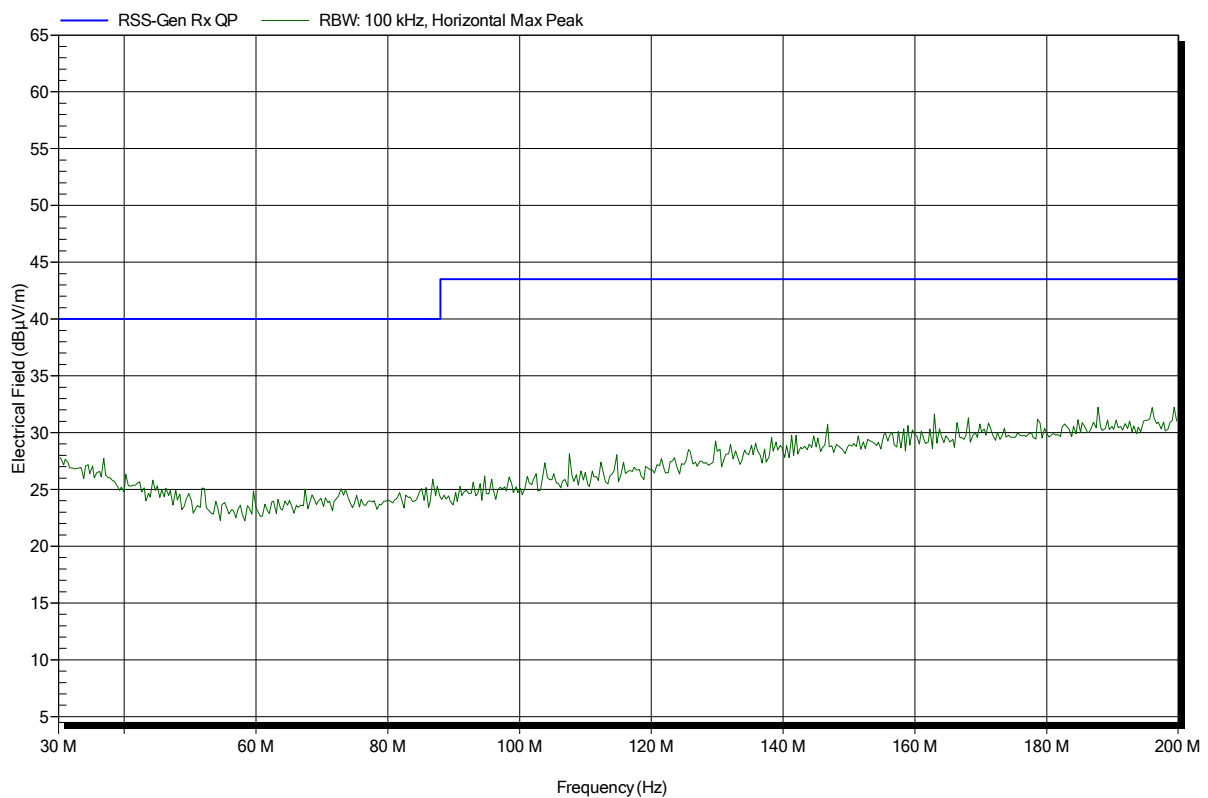


## Spurious emissions according to IC RSS-132

Project number: G0M-1406-3915

|                       |                                        |
|-----------------------|----------------------------------------|
| Applicant:            | Leica Geosystems AG                    |
| EUT Name:             | Field Controller Win EC7               |
| Model:                | CS20                                   |
| Test Site:            | Eurofins Product Service GmbH          |
| Operator:             | Mr. Pudell                             |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC             |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal     |
| Measurement distance: | 3 m                                    |
| Mode:                 | RX; UMTS FDD V; CH: 4175, RX-Idle Mode |
| Test Date:            | 2014-12-04                             |
| Note:                 | EUT vertical                           |

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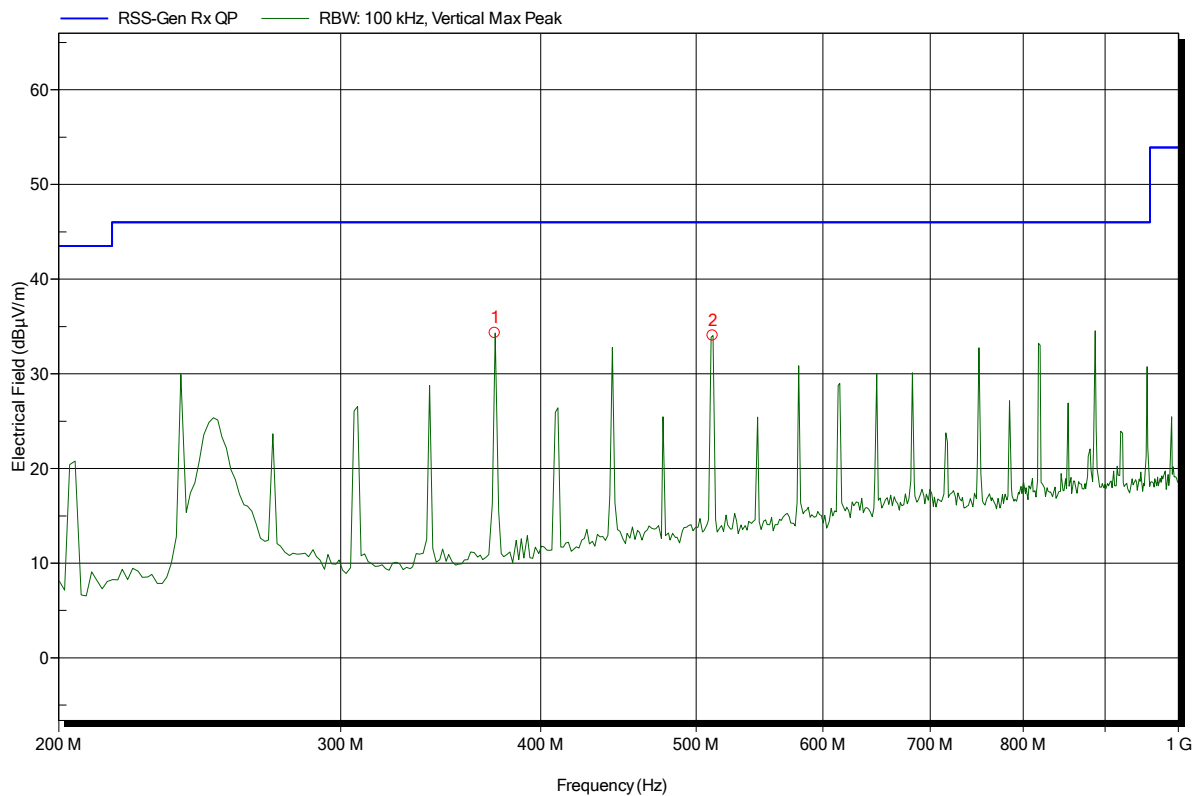


## Spurious emissions according to IC RSS-132

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: RX; UMTS FDD V; CH: 4175, RX-Idle Mode  
 Test Date: 2014-12-04  
 Note: EUT vertical

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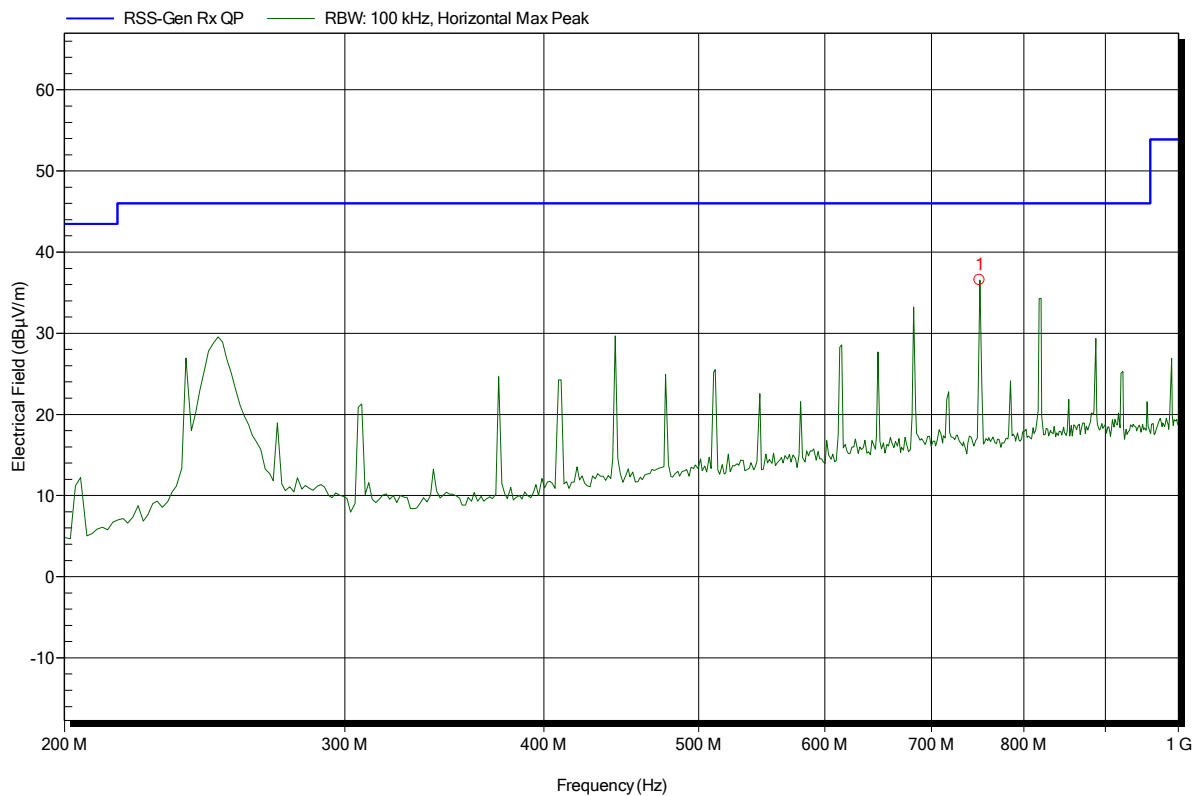
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 374.4 MHz | 34.32 dBµV/m | 46 dBµV/m  | -11.68 dB       | Pass   |
| 512 MHz   | 34.05 dBµV/m | 46 dBµV/m  | -11.95 dB       | Pass   |

**Spurious emissions according to IC RSS-132**

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; UMTS FDD V; CH: 4175, RX-Idle Mode  
 Test Date: 2014-12-04  
 Note: EUT vertical

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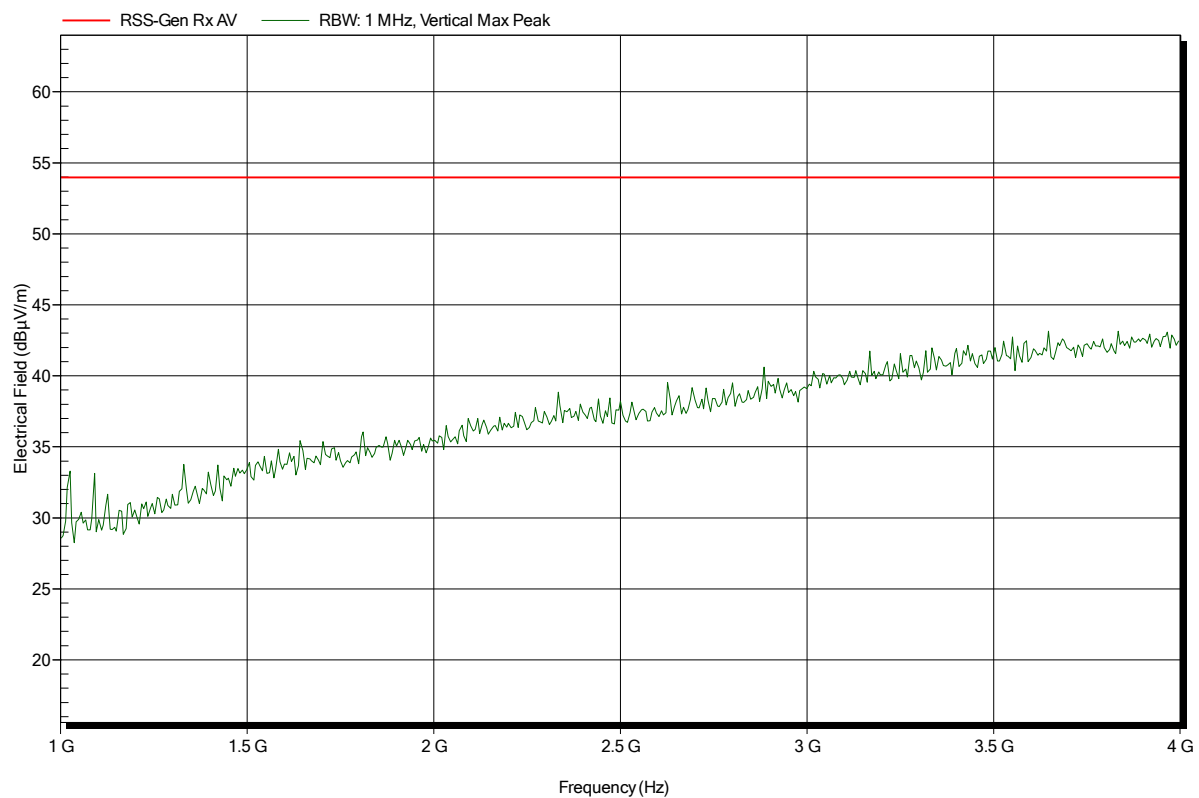
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 750.4 MHz | 36.55 dBµV/m | 46 dBµV/m  | -9.45 dB        | Pass   |

## Spurious emissions according to IC RSS-132

Project number: G0M-1406-3915

|                       |                                        |
|-----------------------|----------------------------------------|
| Applicant:            | Leica Geosystems AG                    |
| EUT Name:             | Field Controller Win EC7               |
| Model:                | CS20                                   |
| Test Site:            | Eurofins Product Service GmbH          |
| Operator:             | Mr. Pudell                             |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC             |
| Antenna:              | Rohde & Schwarz HL 025, Vertical       |
| Measurement distance: | 3 m                                    |
| Mode:                 | RX; UMTS FDD V; CH: 4175, RX-Idle Mode |
| Test Date:            | 2014-12-04                             |
| Note:                 | EUT vertical                           |

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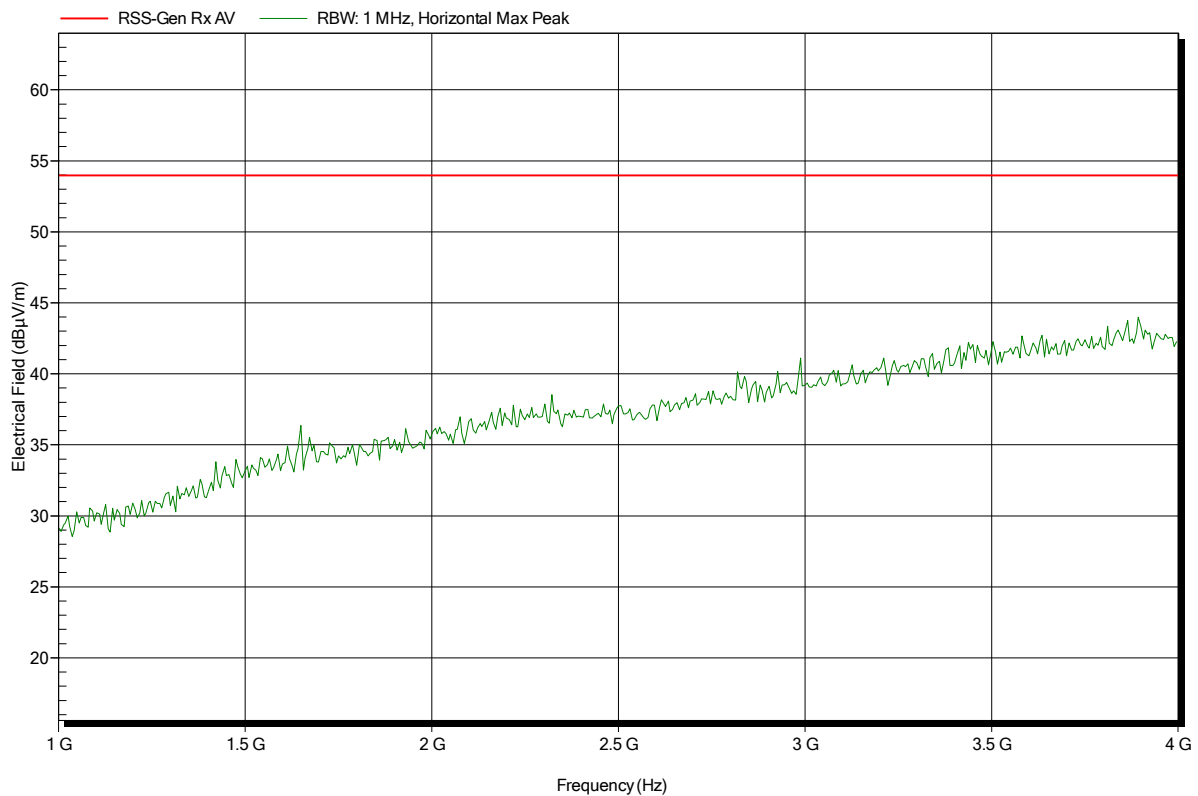


## Spurious emissions according to IC RSS-132

Project number: G0M-1406-3915

|                       |                                        |
|-----------------------|----------------------------------------|
| Applicant:            | Leica Geosystems AG                    |
| EUT Name:             | Field Controller Win EC7               |
| Model:                | CS20                                   |
| Test Site:            | Eurofins Product Service GmbH          |
| Operator:             | Mr. Pudell                             |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC             |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal     |
| Measurement distance: | 3 m                                    |
| Mode:                 | RX; UMTS FDD V; CH: 4175, RX-Idle Mode |
| Test Date:            | 2014-12-04                             |
| Note:                 | EUT vertical                           |

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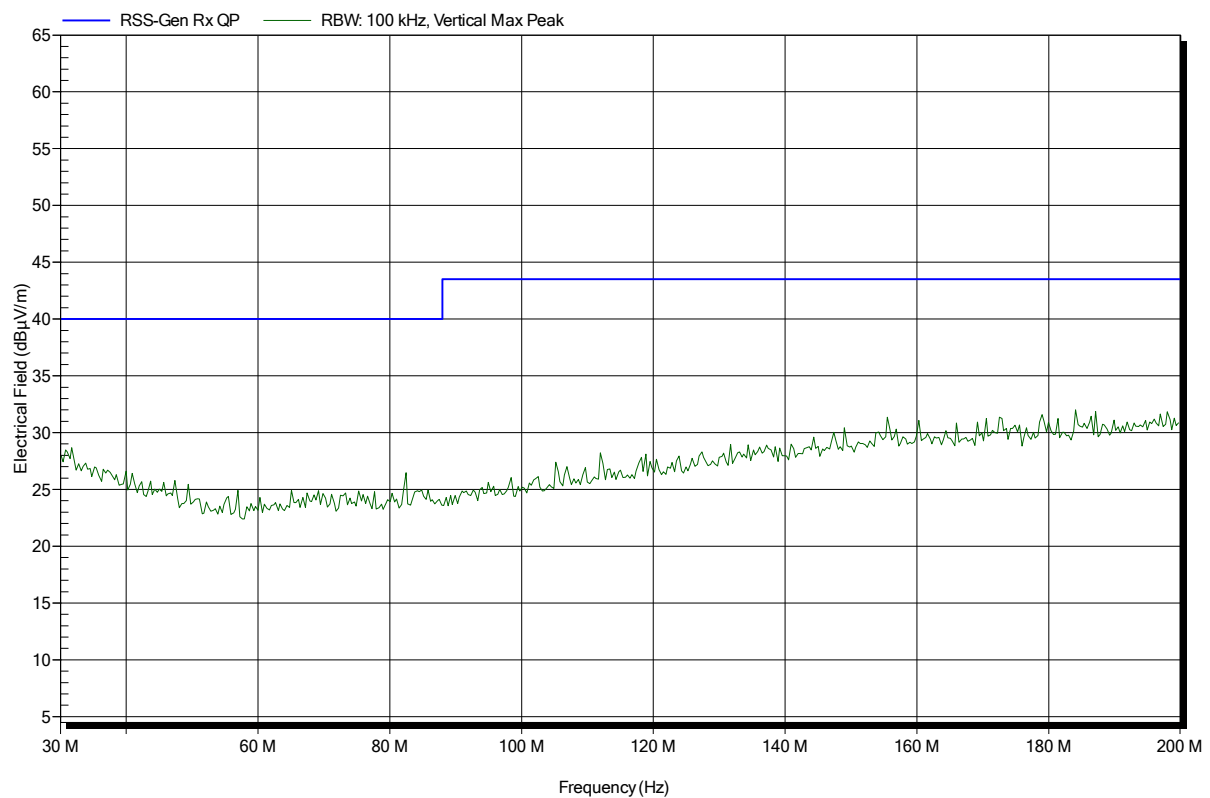


## Spurious emissions according to IC RSS-133

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HK 116, Vertical        |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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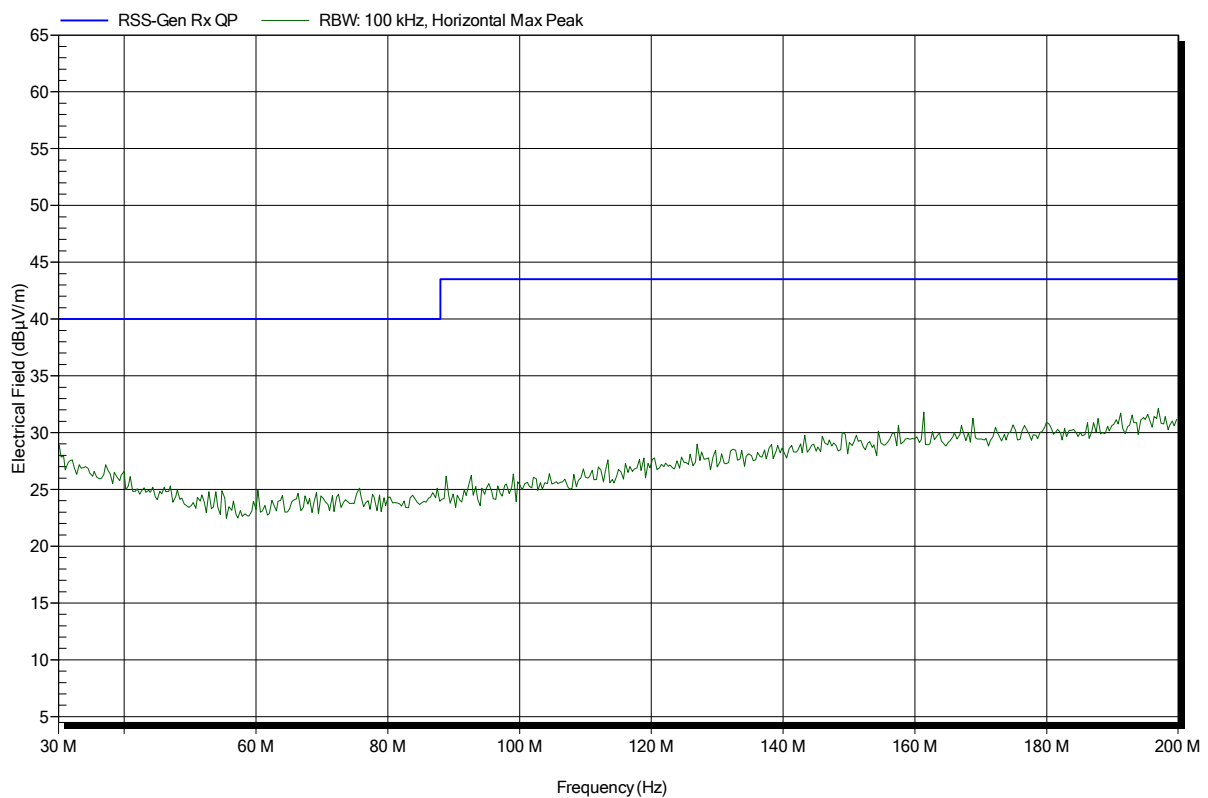


**Spurious emissions according to IC RSS-133**

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal      |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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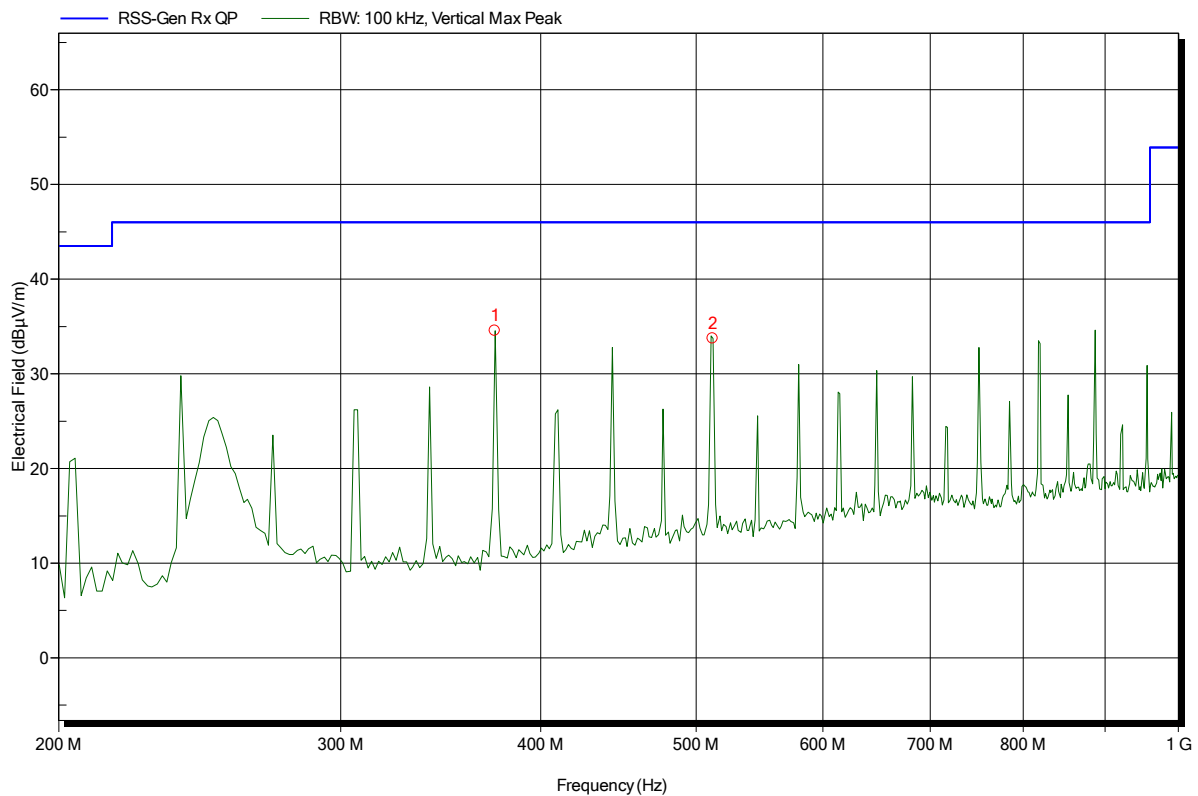


## Spurious emissions according to IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: RX; UMTS FDD II; CH: 9400, RX-Idle Mode  
 Test Date: 2014-12-04  
 Note: EUT vertical

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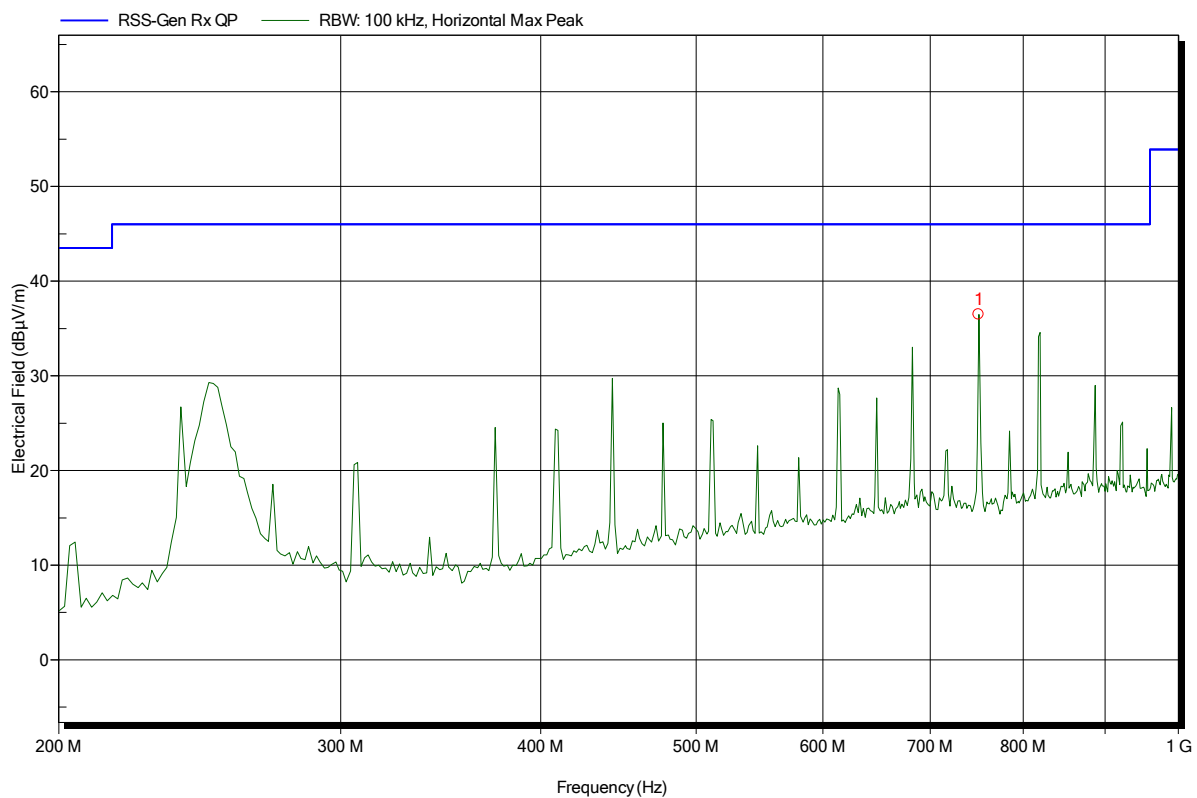
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 374.4 MHz | 34.54 dBµV/m | 46 dBµV/m  | -11.46 dB       | Pass   |
| 512 MHz   | 33.73 dBµV/m | 46 dBµV/m  | -12.27 dB       | Pass   |

## Spurious emissions according to IC RSS-133

Project number: G0M-1406-3915

Applicant: Leica Geosystems AG  
 EUT Name: Field Controller Win EC7  
 Model: CS20  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Pudell  
 Test Conditions: Tnom: 24°C, Vnom: 11.1 VDC  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; UMTS FDD II; CH: 9400, RX-Idle Mode  
 Test Date: 2014-12-04  
 Note: EUT vertical

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| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 750.4 MHz | 36.48 dBµV/m | 46 dBµV/m  | -9.52 dB        | Pass   |

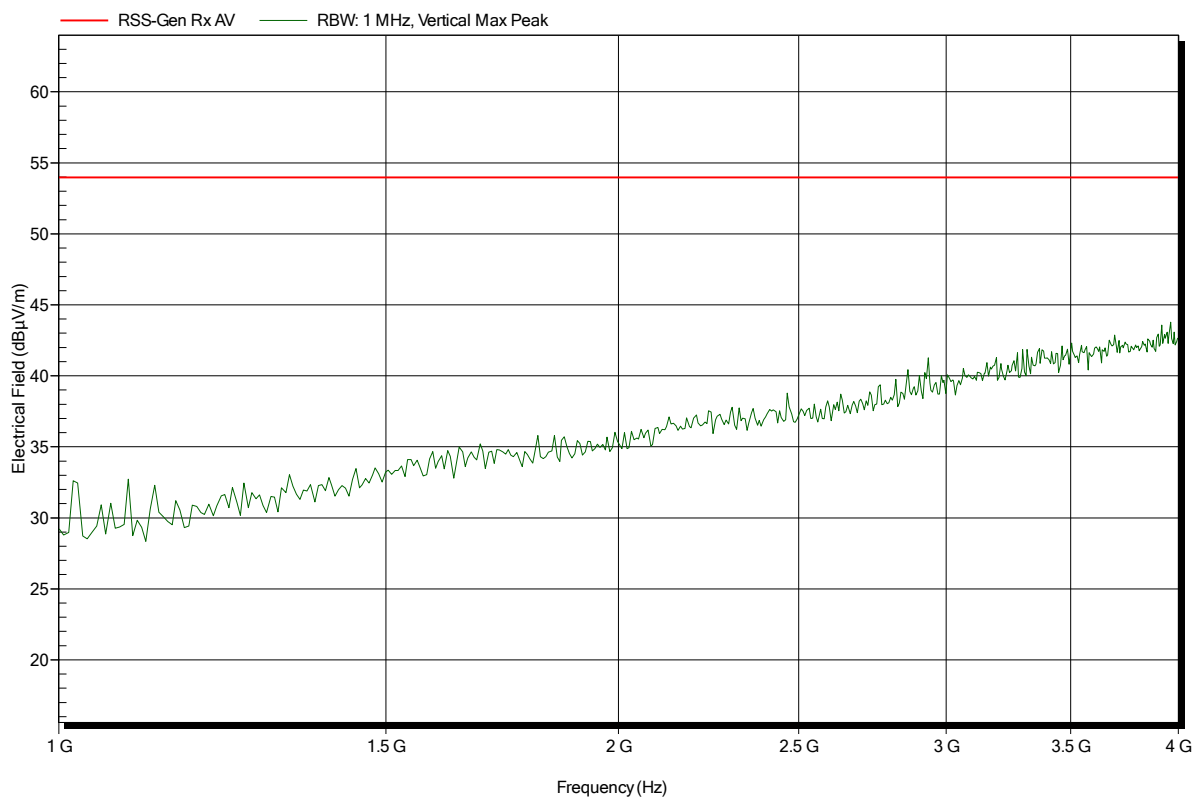


**Spurious emissions according to IC RSS-133**

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HL 025, Vertical        |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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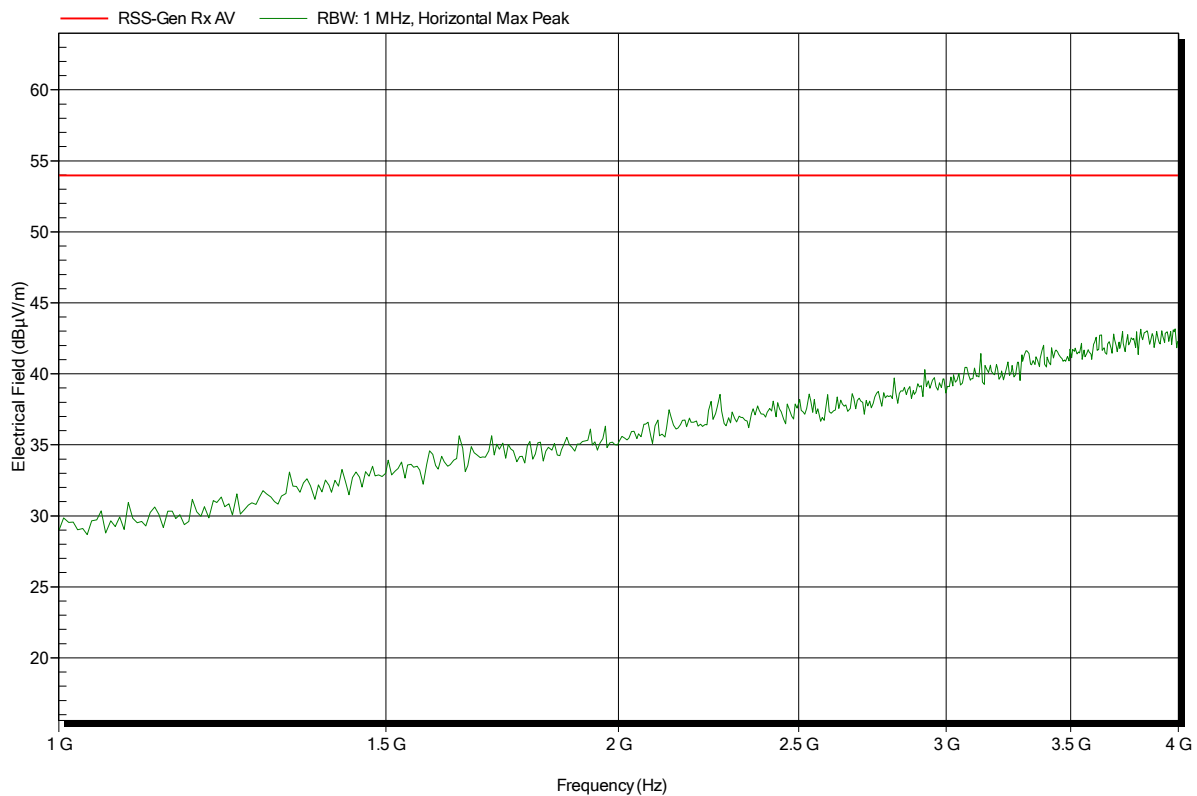


## Spurious emissions according to IC RSS-133

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal      |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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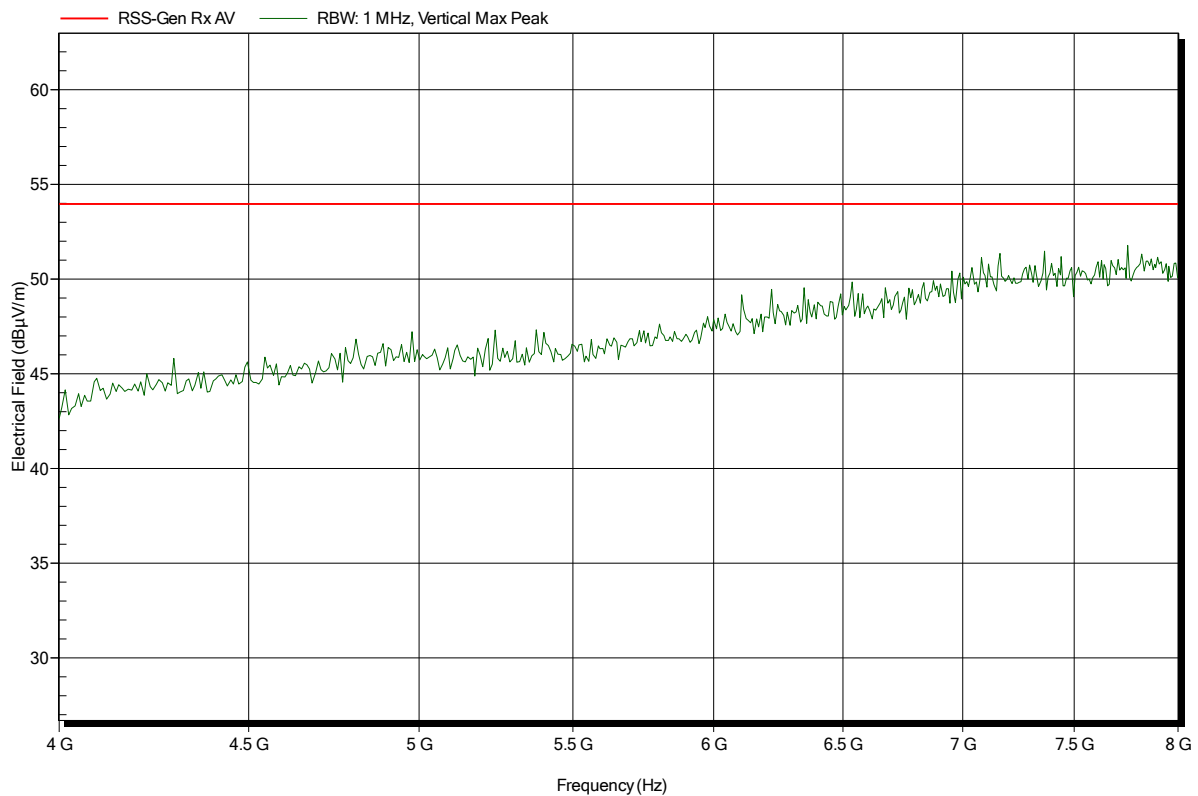


**Spurious emissions according to IC RSS-133**

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HL 025, Vertical        |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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## Spurious emissions according to IC RSS-133

Project number: G0M-1406-3915

|                       |                                         |
|-----------------------|-----------------------------------------|
| Applicant:            | Leica Geosystems AG                     |
| EUT Name:             | Field Controller Win EC7                |
| Model:                | CS20                                    |
| Test Site:            | Eurofins Product Service GmbH           |
| Operator:             | Mr. Pudell                              |
| Test Conditions:      | Tnom: 24°C, Vnom: 11.1 VDC              |
| Antenna:              | Rohde & Schwarz HL 025, Horizontal      |
| Measurement distance: | 3 m                                     |
| Mode:                 | RX; UMTS FDD II; CH: 9400, RX-Idle Mode |
| Test Date:            | 2014-12-04                              |
| Note:                 | EUT vertical                            |

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