

| <b>FCC TEST REPORT</b><br><b>FCC 47 CFR Part 15C</b><br><b>Industry Canada RSS-210</b><br><b>Intentional radiator operating within the 2400 – 2483.5 MHz band</b> |                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Reference No.</b> .....                                                                                                                                 | G0M-1205-1968-TFC249D-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> .....                                                                                                                                     | Otto Bock Healthcare Products GmbH                                                                                                                                                                                                                                                                                       |
| <b>Address</b> .....                                                                                                                                              | Kaiserstr. 39<br>1070 Vienna<br>AUSTRIA                                                                                                                                                                                                                                                                                  |
| <b>Test specification:</b>                                                                                                                                        |                                                                                                                                                                                                                                                                                                                          |
| <b>Standard</b> .....                                                                                                                                             | 47 CFR Part 15C<br>RSS-210, Issue 8, 2010-12<br>RSS-Gen, Issue 3, 2010-12<br>ANSI C63.4:2009                                                                                                                                                                                                                             |
| <b>Equipment under test (EUT):</b>                                                                                                                                |                                                                                                                                                                                                                                                                                                                          |
| Product description                                                                                                                                               | med2 RF- Module                                                                                                                                                                                                                                                                                                          |
| Model No.                                                                                                                                                         | mug1223                                                                                                                                                                                                                                                                                                                  |
| Hardware version                                                                                                                                                  | a1                                                                                                                                                                                                                                                                                                                       |
| Firmware / Software version                                                                                                                                       | V1.0                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                   | FCC-ID: SJ3MUG1223      IC: 5496A-MUG1223                                                                                                                                                                                                                                                                                |
| <b>Test result</b>                                                                                                                                                | <b>Passed</b>                                                                                                                                                                                                                                                                                                            |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

**Possible test case verdicts:**

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

**Testing:**

Date of receipt of test item..... : 2012-05-24

Date (s) of performance of tests..... : 2012-06-18 - 2012-06-19

Compiled by..... : Christian Weber

Tested by (+ signature) ..... : Wilfried Treffke *i. V. C. Weber*

(Testing Manager)

Approved by (+ signature)..... : Jens Zimmermann *J. Z.*

(Test Lab Manager)

Date of issue..... : 2012-07-05

Total number of pages ..... : 48

**General remarks:**

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

**The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.**

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

**Additional comments:**


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Test Report No.: G0M-1205-1968-TFC249D-V01

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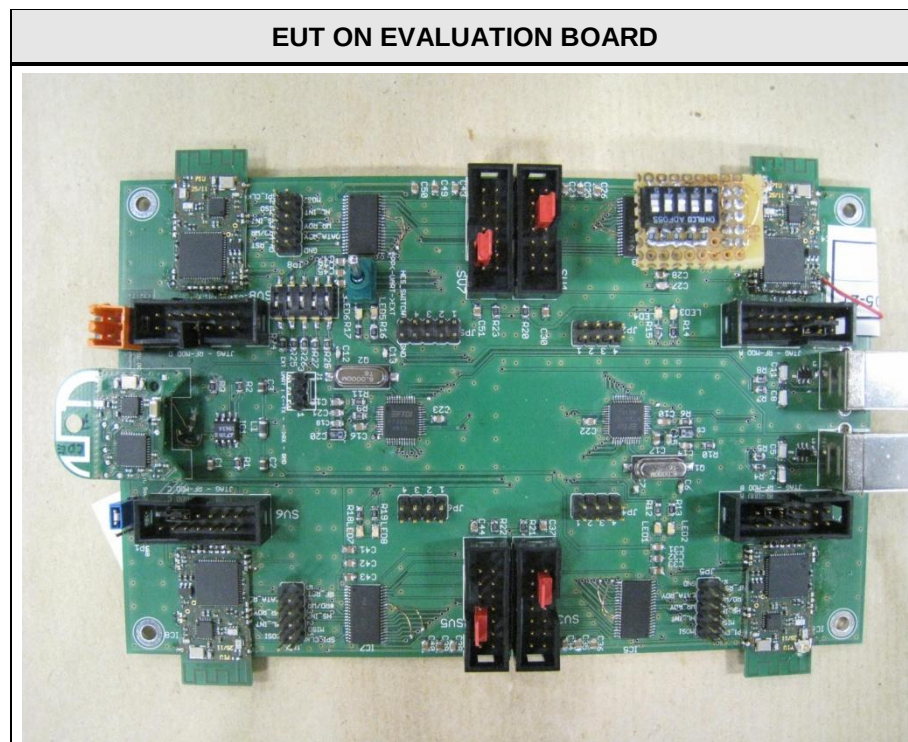
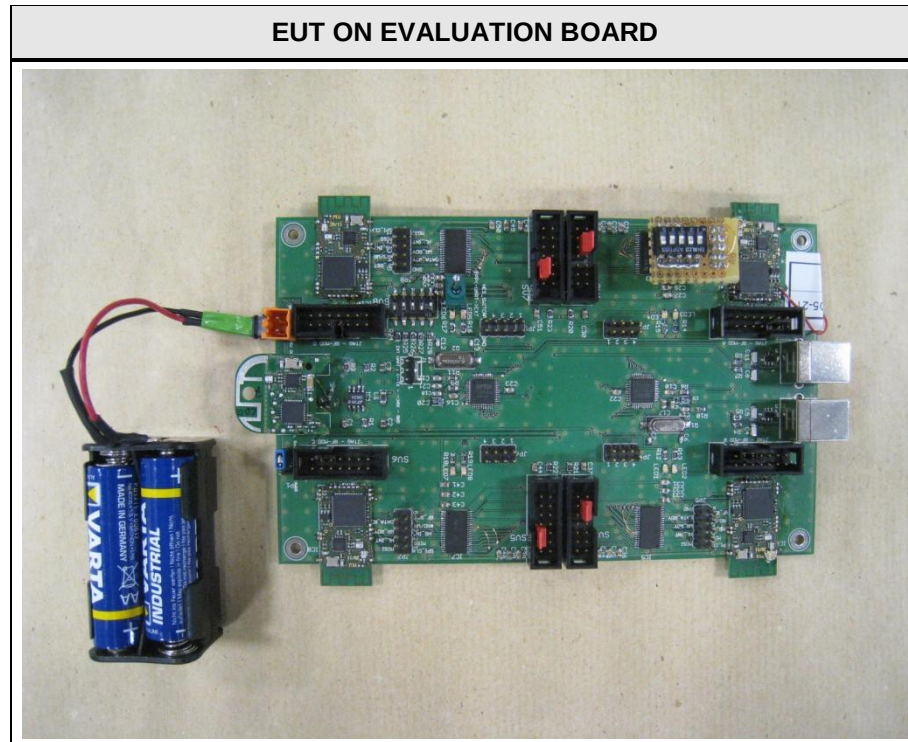
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## 1 Equipment (Test item) Description:

|                             |                                                                               |                            |
|-----------------------------|-------------------------------------------------------------------------------|----------------------------|
| Description                 | med2 RF- Module                                                               |                            |
| Model                       | mug1223                                                                       |                            |
| Serial number               | None                                                                          |                            |
| Hardware version            | a1                                                                            |                            |
| Software / Firmware version | V1.0                                                                          |                            |
| FCC-ID                      | SJ3MUG1223                                                                    |                            |
| IC                          | 5496A-MUG1223                                                                 |                            |
| Equipment type              | Radio module                                                                  |                            |
| Radio type                  | Transceiver                                                                   |                            |
| Radio technology            | custom                                                                        |                            |
| Operating frequency range   | 2401 - 2482 MHz                                                               |                            |
| Assigned frequency band     | 2400 - 2483.5 MHz                                                             |                            |
| Frequency range             | F <sub>LOW</sub>                                                              | 2401 MHz                   |
|                             | F <sub>MID</sub>                                                              | 2442 MHz                   |
|                             | F <sub>HIGH</sub>                                                             | 2482 MHz                   |
| Spreading                   | None                                                                          |                            |
| Modulations                 | Frequency                                                                     |                            |
| Number of channels          | unspecified                                                                   |                            |
| Channel spacing             | unspecified                                                                   |                            |
| Number of antennas          | 1                                                                             |                            |
| Antenna                     | Type                                                                          | integrated                 |
|                             | Model                                                                         | printed inverted-F antenna |
|                             | Manufacturer                                                                  | see Manufacturer           |
|                             | Gain                                                                          | 2.5 dBi                    |
| Manufacturer                | Otto Bock Healthcare Products GmbH<br>Kaiserstr. 39<br>1070 Vienna<br>AUSTRIA |                            |
| Power supply                | V <sub>NOM</sub>                                                              | 3.6 VDC                    |
|                             | V <sub>MIN</sub>                                                              | N/A                        |
|                             | V <sub>MIN</sub>                                                              | N/A                        |
| AC/DC-Adaptor               | Model                                                                         | N/A                        |
|                             | Vendor                                                                        | N/A                        |
|                             | Input                                                                         | N/A                        |
|                             | Output                                                                        | N/A                        |

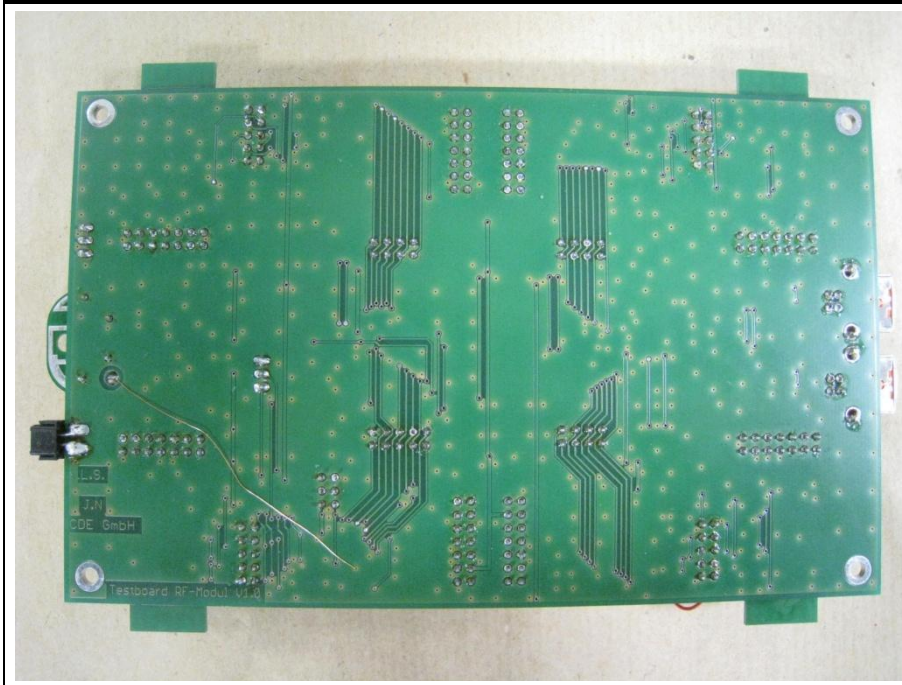
## 1.1 Photos – Equipment External



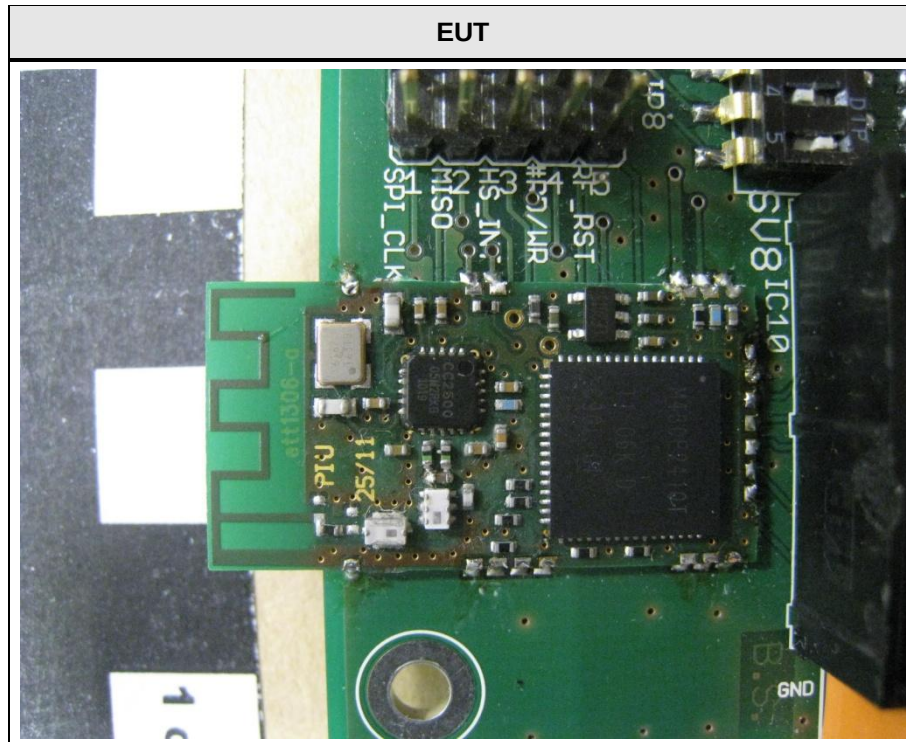
Test Report No.: G0M-1205-1968-TFC249D-V01

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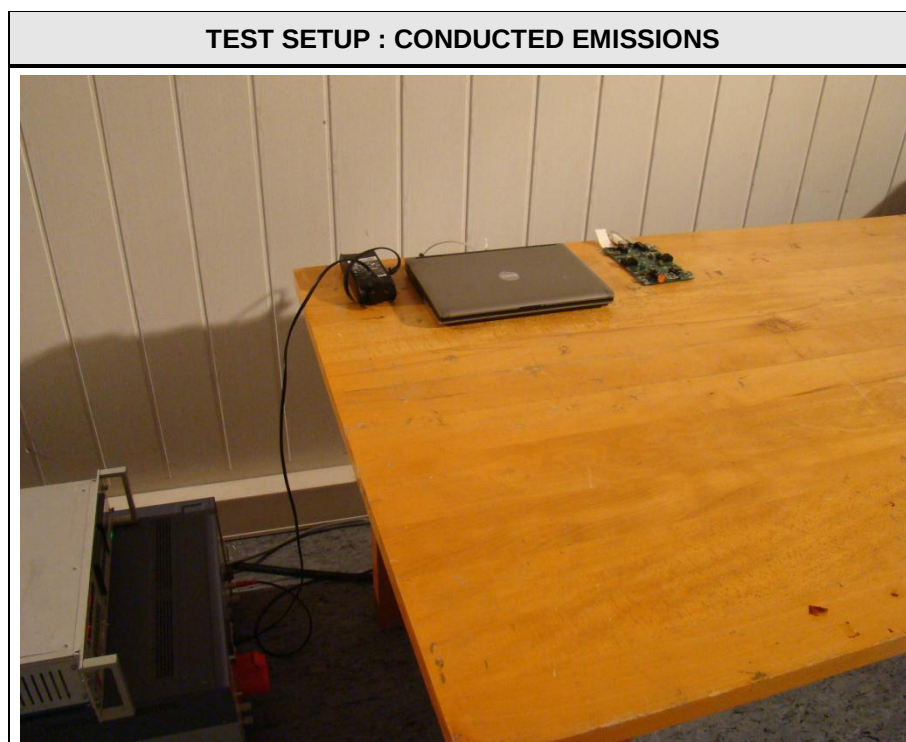
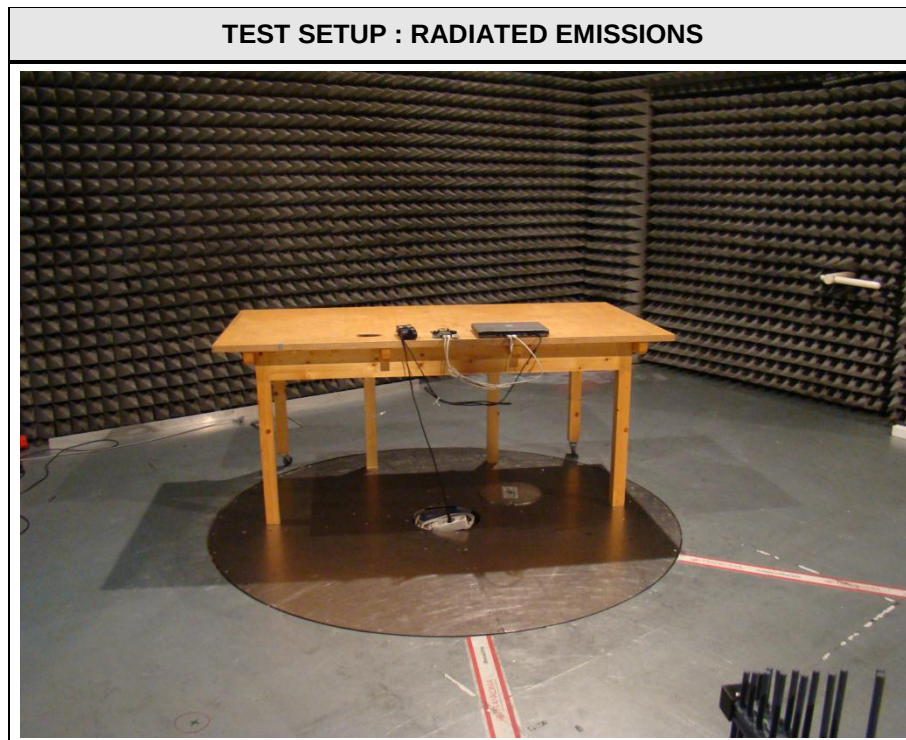
EUT EVALUATION BOARD BOTTOM



## 1.2 Photos – Equipment internal



### 1.3 Photos – Test setup



#### 1.4 Supporting Equipment Used During Testing

| Product Type*                                                                                                                                                                       | Device | Manufacturer | Model No. | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------|-----------|----------|
| AE                                                                                                                                                                                  | Laptop | Dell         | D430      |          |
| <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         |                                                                               |
|----------|---------------------|-------------------------------------------------------------------------------|
| Transmit | General conditions: | EUT powered by fully charged battery                                          |
|          | Radio conditions:   | Mode = standalone transmit<br>Modulation = Frequency<br>Power level = Maximum |
| Receive  | General conditions: | EUT powered by fully charged battery                                          |
|          | Radio conditions:   | Mode = standalone receive<br>Modulation = Frequency                           |

## 1.6 Test Equipment Used During Testing

| Occupied Bandwidth |              |        |            |           |          |
|--------------------|--------------|--------|------------|-----------|----------|
| Description        | Manufacturer | Model  | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer  | R&S          | FSP 30 | EF00312    | 2011-12   | 2012-12  |

| Field strength emissions |              |        |            |           |          |
|--------------------------|--------------|--------|------------|-----------|----------|
| Description              | Manufacturer | Model  | Identifier | Cal. Date | Cal. Due |
| Semi-anechoic chamber    | Frankonia    | AC 5   | EF00395    | -         | -        |
| Spectrum Analyzer        | R&S          | FSIQ26 | EF00242    | 2012-05   | 2013-05  |
| Biconical Antenna        | R&S          | HK 116 | EF00012    | 2010-01   | 2013-01  |
| LPD Antenna              | R&S          | HL 223 | EF00187    | 2011-02   | 2014-02  |
| LPD Antenna              | R&S          | HL 025 | EF00327    | 2010-02   | 2013-02  |

| Conducted emissions |              |         |            |           |          |
|---------------------|--------------|---------|------------|-----------|----------|
| Description         | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| AMN                 | R&S          | ESH2-Z5 | EF00182    | 2010-09   | 2012-09  |
| AMN                 | R&S          | ESH3-Z5 | EF00036    | 2010-11   | 2012-11  |
| EMI Test Receiver   | R&S          | ESCS 30 | EF00295    | 2011-06   | 2012-06  |

## 1.7 Sample emission level calculation

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

Reading:

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

A.F.:

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

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

Net:

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

Limit:

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

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

Margin:

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

Example only:

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

## 2 Result Summary

| FCC 47 CFR Part 15C, IC RSS-210                                         |                                                        |                  |        |                    |
|-------------------------------------------------------------------------|--------------------------------------------------------|------------------|--------|--------------------|
| Product Specific Standard Section                                       | Requirement – Test                                     | Reference Method | Result | Remarks            |
| RSS-Gen 4.6.1                                                           | Occupied Bandwidth                                     | RSS-Gen 4.6.1    | N/R    | Informational only |
| FCC 15.205<br>FCC 15.209<br>FCC 15.249(a),(c),(e)<br>IC RSS-210 A2.9(a) | Fundamental field strength emissions                   | ANSI C63.4       | PASS   |                    |
| FCC 15.249(a),(c),(d),(e)<br>IC RSS-210 A2.9(a),(b)                     | Emission radiated outside the specified frequency band | ANSI C63.4       | PASS   |                    |
| IC RSS-210 Section 2.3<br>IC RSS-Gen 4.10 6.1                           | Receiver radiated spurious emissions                   | ANSI C63.4       | PASS   |                    |
| FCC § 15.107<br>FCC § 15.207<br>IC RSS-Gen 7.2.4                        | AC power line conducted emissions                      | ANSI C63.4       | PASS   |                    |
| Remarks:                                                                |                                                        |                  |        |                    |

### 3 Test Conditions and Results

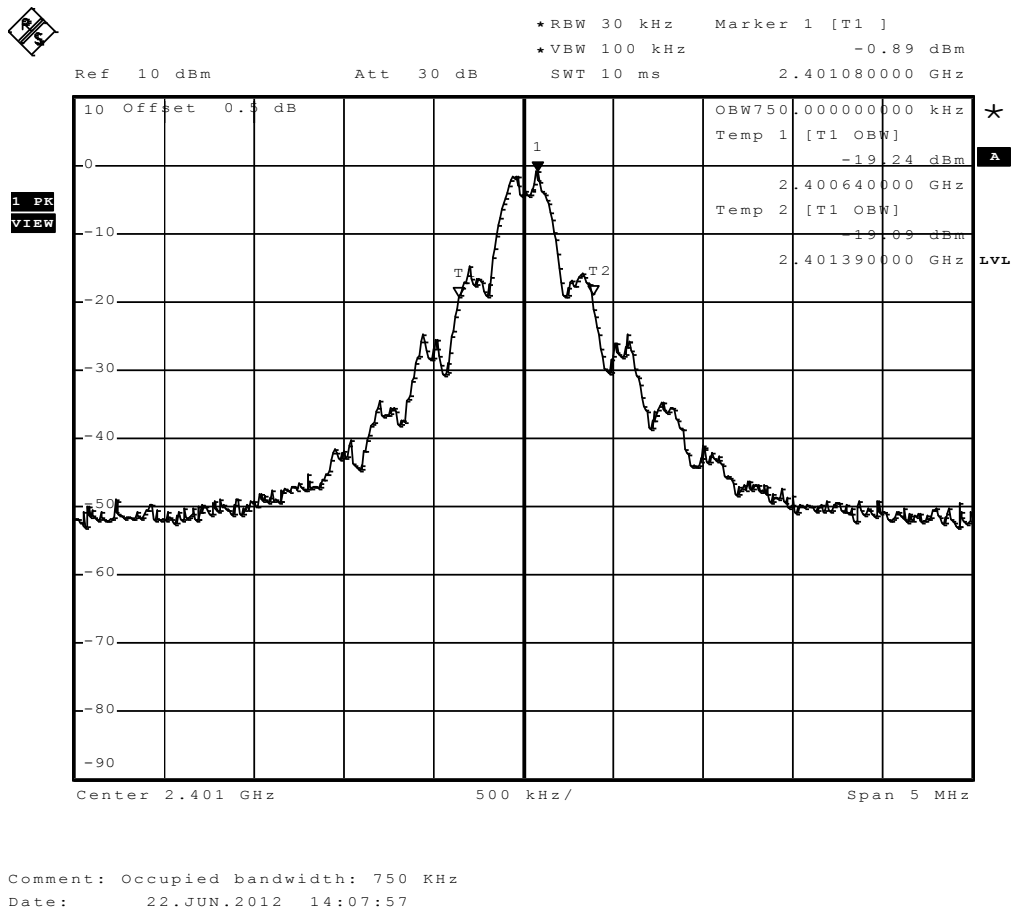
#### 3.1 Test Conditions and Results – Occupied Bandwidth

| Occupied Bandwidth acc. IC RSS-Gen                                                                                                                                                                                                                                                                        |                 |                                                         | Verdict: PASS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------|---------------|
| Test according to measurement reference                                                                                                                                                                                                                                                                   |                 | Reference Method                                        |               |
|                                                                                                                                                                                                                                                                                                           |                 | RSS-Gen 4.6.1                                           |               |
| Test frequency range                                                                                                                                                                                                                                                                                      |                 | Tested frequencies                                      |               |
|                                                                                                                                                                                                                                                                                                           |                 | F <sub>LOW</sub> / F <sub>MID</sub> / F <sub>HIGH</sub> |               |
| EUT test mode                                                                                                                                                                                                                                                                                             |                 | Transmit                                                |               |
| Limits                                                                                                                                                                                                                                                                                                    |                 |                                                         |               |
| None (Informational only)                                                                                                                                                                                                                                                                                 |                 |                                                         |               |
| Test setup                                                                                                                                                                                                                                                                                                |                 |                                                         |               |
| <div><div>Spectrum Analyzer</div><div>EUT</div></div>                                                                                                                                                                                                                                                     |                 |                                                         |               |
| Test procedure                                                                                                                                                                                                                                                                                            |                 |                                                         |               |
| <div>1. EUT set to test mode (Communication tester is used if needed)</div> <div>2. Span set to at least twice the emission spectrum</div> <div>3. Resolution bandwidth set to 1 % of span</div> <div>4. Occupied Bandwidth (99 %) measurement with spectrum analyzer built in measurement function</div> |                 |                                                         |               |
| Test results                                                                                                                                                                                                                                                                                              |                 |                                                         |               |
| Channel                                                                                                                                                                                                                                                                                                   | Frequency [MHz] | Occupied Bandwidth [kHz]                                |               |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                          | 2401            | 750                                                     |               |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                          | 2442            | 790                                                     |               |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                         | 2482            | 800                                                     |               |
| Comments: Measurement is applicable to all variants                                                                                                                                                                                                                                                       |                 |                                                         |               |

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

## RSS Gen Occupied Bandwidth

EUT med2 RF-Module  
Model mug 1223  
Approval Holder Otto Bock Healthcare Products GmbH / G0M-1205-1968  
Temperature / Voltage 23°C / Vnom: 6.0 VDC (battery)  
Test Site / Operator Eurofins Product Service GmbH / Mr. Treffke  
Test Specification 4.4.1 Occupied Bandwidth  
Comment 1 Channel.: 2401 MHz  
Comment 2 A spectrum analyzer with an integrated 99% power bandwidth function is used  
Comment 3 PN



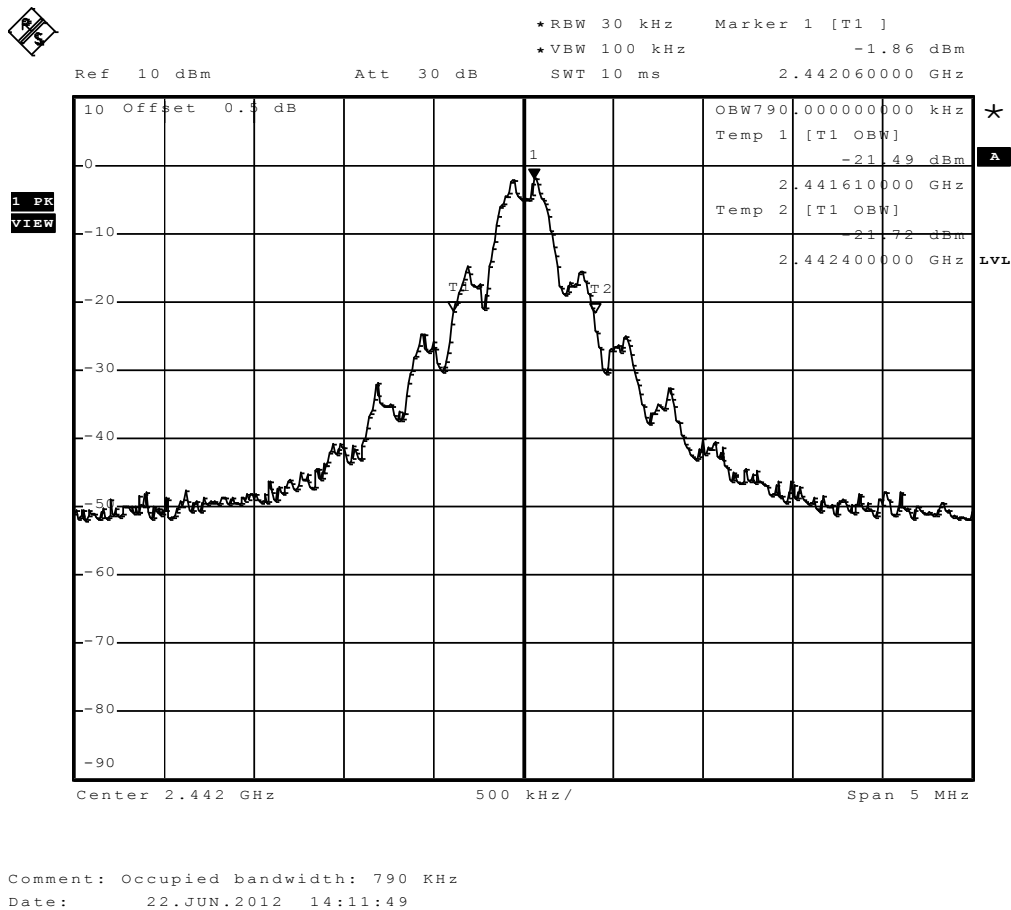
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Storkower Str. 38c, D-15526 Reichenwalde, Germany

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

## RSS Gen Occupied Bandwidth

EUT med2 RF-Module  
Model mug 1223  
Approval Holder Otto Bock Healthcare Products GmbH / G0M-1205-1968  
Temperature / Voltage 23°C / Vnom: 6.0 VDC (battery)  
Test Site / Operator Eurofins Product Service GmbH / Mr. Treffke  
Test Specification 4.4.1 Occupied Bandwidth  
Comment 1 Channel.: 2442 MHz  
Comment 2 A spectrum analyzer with an integrated 99% power bandwidth function is used  
Comment 3 PN



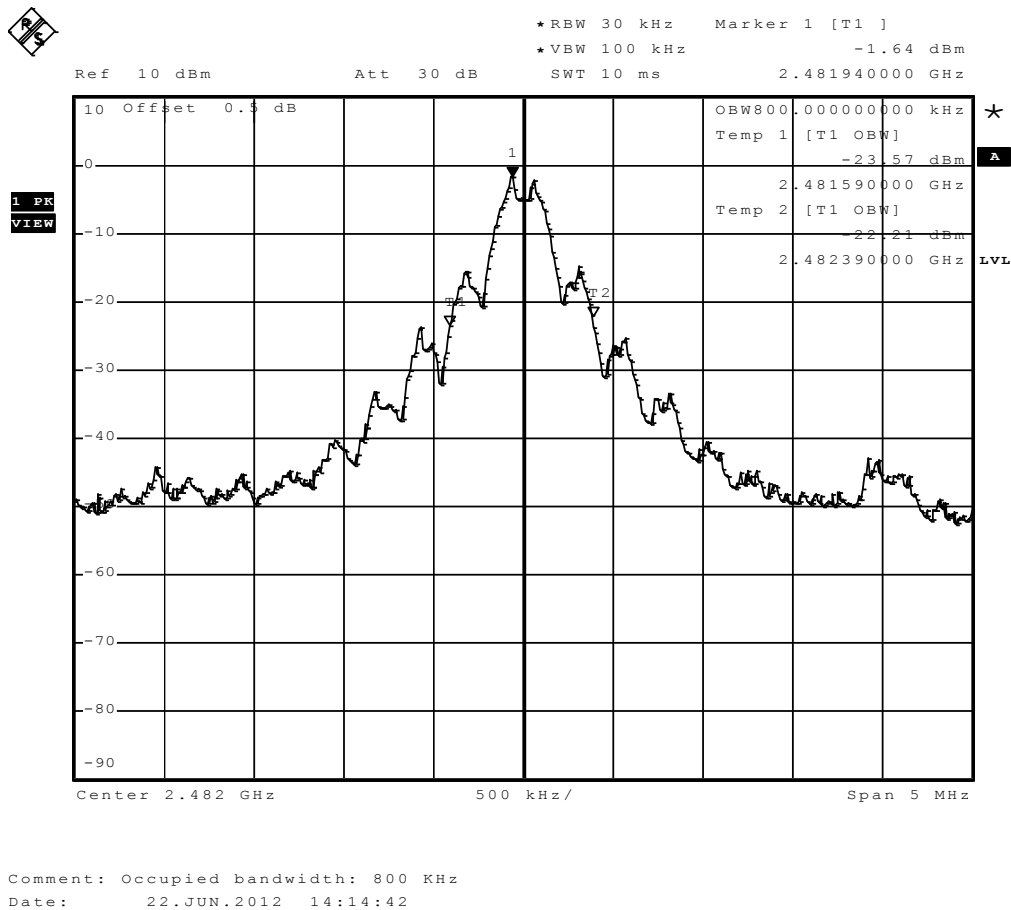
Test Report No.: G0M-1205-1968-TFC249D-V01

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Storkower Str. 38c, D-15526 Reichenwalde, Germany

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

## RSS Gen Occupied Bandwidth

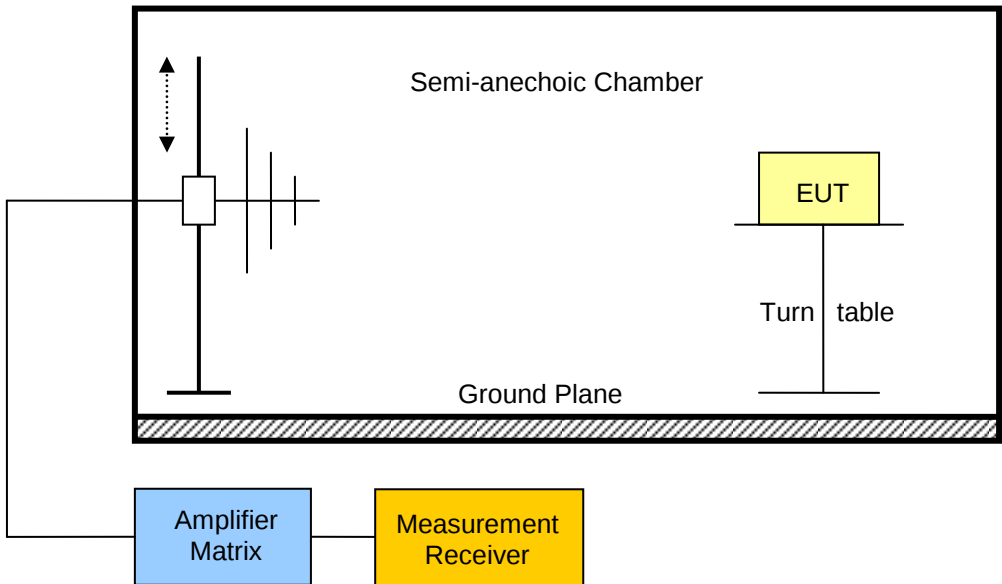
EUT med2 RF-Module  
Model mug 1223  
Approval Holder Otto Bock Healthcare Products GmbH / G0M-1205-1968  
Temperature / Voltage 23°C / Vnom: 6.0 VDC (battery)  
Test Site / Operator Eurofins Product Service GmbH / Mr. Treffke  
Test Specification 4.4.1 Occupied Bandwidth  
Comment 1 Channel.: 2482 MHz  
Comment 2 A spectrum analyzer with an integrated 99% power bandwidth function is used  
Comment 3 PN



Test Report No.: G0M-1205-1968-TFC249D-V01

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

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

| Field strength emissions acc. FCC 47 CFR 15.249 / IC RSS-210                                                                                                                                                                                                                        |                                            |              |                | Verdict: PASS      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                                                                                                                                                                                                                 | Reference Method                           |              |                |                    |
|                                                                                                                                                                                                                                                                                     | FCC 15.249(a),(c),(e) / IC RSS-210 A2.9(a) |              |                |                    |
| Test according to measurement reference                                                                                                                                                                                                                                             | Reference Method                           |              |                |                    |
|                                                                                                                                                                                                                                                                                     | ANSI C63.4                                 |              |                |                    |
| Test frequency range                                                                                                                                                                                                                                                                | Tested frequencies                         |              |                |                    |
|                                                                                                                                                                                                                                                                                     | F <sub>MID</sub>                           |              |                |                    |
| EUT test mode                                                                                                                                                                                                                                                                       | Transmit                                   |              |                |                    |
| Limits                                                                                                                                                                                                                                                                              |                                            |              |                |                    |
| Frequency range [MHz]                                                                                                                                                                                                                                                               | Detector                                   | Limit [mV/m] | Limit [dBμV/m] | Limit Distance [m] |
| 902 – 928                                                                                                                                                                                                                                                                           | Quasi-Peak                                 | 50           | 94             | 3                  |
| 2400 – 2483.5                                                                                                                                                                                                                                                                       | Average                                    | 50           | 94             | 3                  |
| 5725 - 5875                                                                                                                                                                                                                                                                         | Average                                    | 50           | 94             | 3                  |
| FCC 15.249(e) : for frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. |                                            |              |                |                    |
| Below 1GHz a CISPR quasi-peak detector is used.                                                                                                                                                                                                                                     |                                            |              |                |                    |
| Test setup                                                                                                                                                                                                                                                                          |                                            |              |                |                    |
| <div></div>                                                                                                                                                                                     |                                            |              |                |                    |

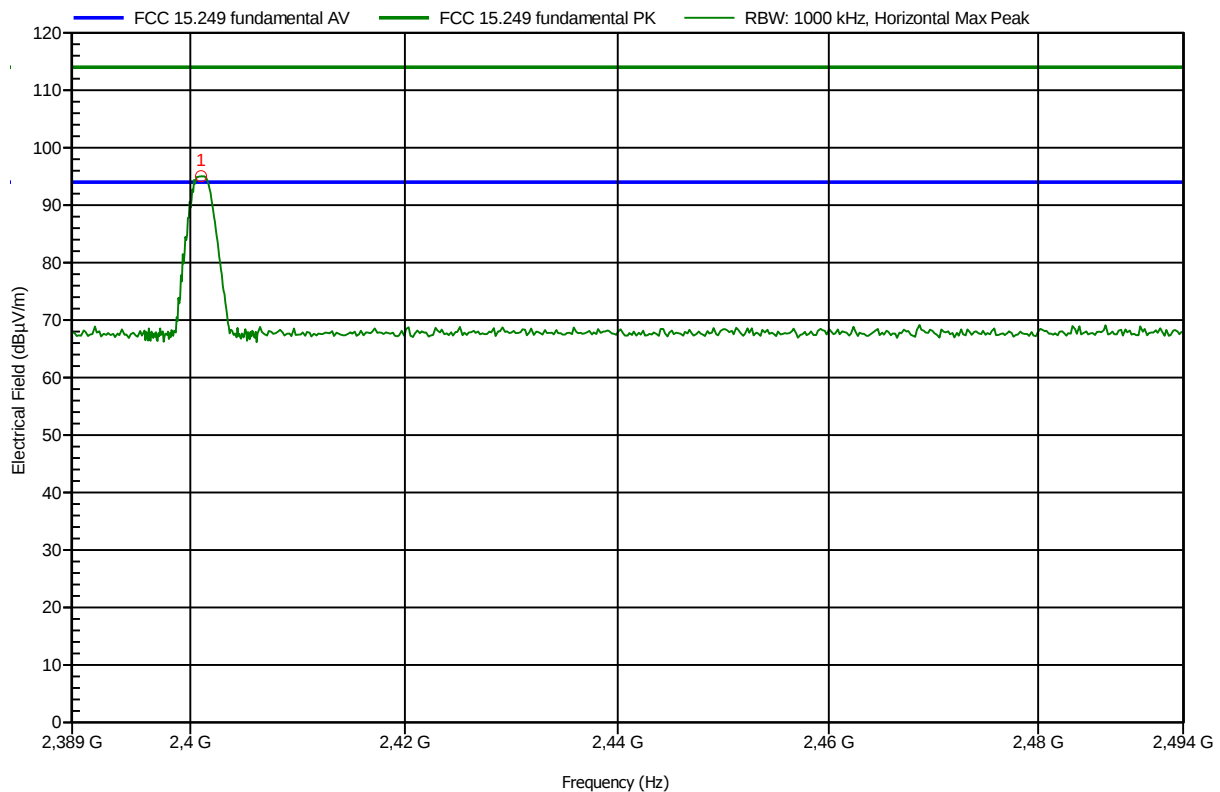
| Test procedure                                                                                                                                                                                                                                                                                                                                                  |                 |                |                |          |      |                |                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|----------------|----------|------|----------------|---------------------|-------------|
| <ol style="list-style-type: none"> <li>1. EUT set to test mode</li> <li>2. Span it set according to measurement range</li> <li>3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>4. Markers are set to maximum emission levels</li> </ol> |                 |                |                |          |      |                |                     |             |
| Test results                                                                                                                                                                                                                                                                                                                                                    |                 |                |                |          |      |                |                     |             |
| Channel                                                                                                                                                                                                                                                                                                                                                         | Frequency [MHz] | Emission [MHz] | Level [dBμV/m] | Detector | Pol. | Limit [dBμV/m] | Limit distance [m]* | Margin [dB] |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2401           | 95.05          | pk       | hor  | 114            | 3                   | -18.95      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2401           | 85.63          | avg      | hor  | 94             | 3                   | -8.37       |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2401           | 86.89          | pk       | ver  | 114            | 3                   | -27.11      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2401           | 77.47          | avg      | ver  | 94             | 3                   | -16.53      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 2442            | 2442           | 95.47          | pk       | hor  | 114            | 3                   | -18.53      |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 2442            | 2442           | 86.05          | avg      | hor  | 94             | 3                   | -7.95       |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 2442            | 2442           | 86.71          | pk       | ver  | 114            | 3                   | -27.29      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2482           | 77.29          | avg      | ver  | 94             | 3                   | -16.71      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2482           | 93.24          | pk       | hor  | 114            | 3                   | -20.76      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2482           | 83.82          | avg      | hor  | 94             | 3                   | -10.18      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2482           | 86.35          | pk       | ver  | 114            | 3                   | -27.65      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2482           | 76.93          | avg      | ver  | 94             | 3                   | -17.07      |
| Comments: * Physical distance between EUT and measurement antenna.<br><br>Duty cycle :<br>Maximum transmitter on time during 100ms = 33.8ms ⇒ DC correction = $20 \cdot \log_{10}(0.338) = -9.42\text{dB}$                                                                                                                                                      |                 |                |                |          |      |                |                     |             |

Carrier Field Strength  $F_{LOW}$  / Horizontal

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Mode: Tx; 2401; PN, duty cycle 100%  
 Test Date: Montag, 18. Juni 2012



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,401 GHz | 95,05 dBμV/m | 114 dBμV/m | -18,95 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

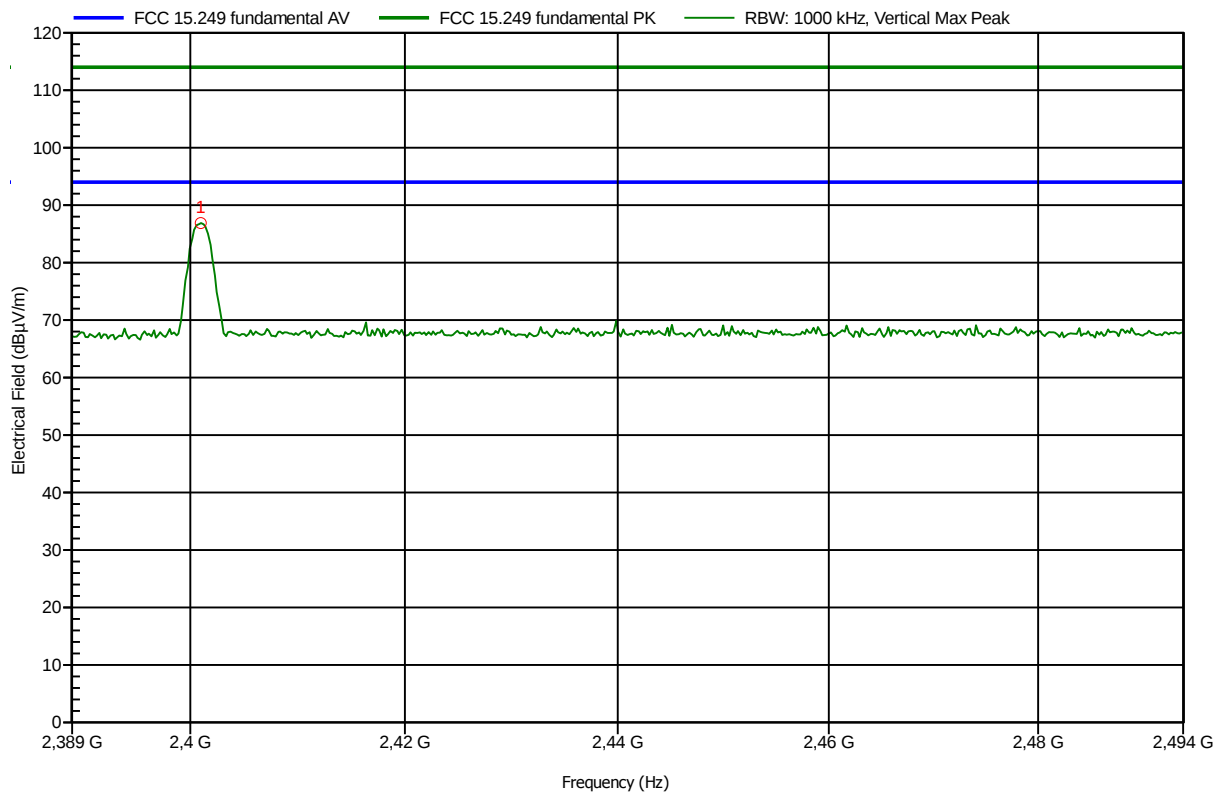
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Carrier Field Strength  $F_{\text{Low}}$  / Vertical

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Mode: Tx; 2401; PN, duty cycle 100%  
 Test Date: Mittwoch, 20. Juni 2012



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,401 GHz | 86,89 dBμV/m | 114 dBμV/m | -27,11 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

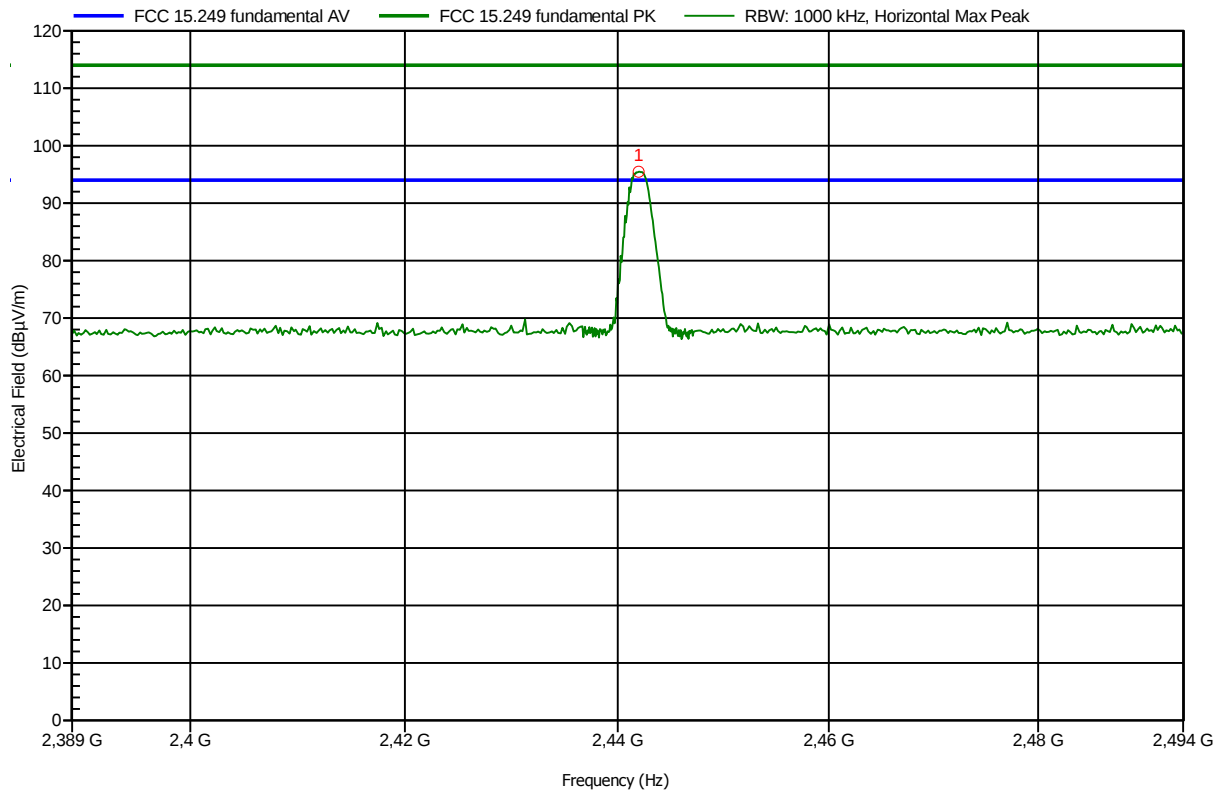
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Carrier Field Strength  $F_{MID}$  / Horizontal

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Mode: Tx; 2441; PN, duty cycle 100%  
 Test Date: Mittwoch, 20. Juni 2012



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,442 GHz | 95,47 dBμV/m | 114 dBμV/m | -18,53 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

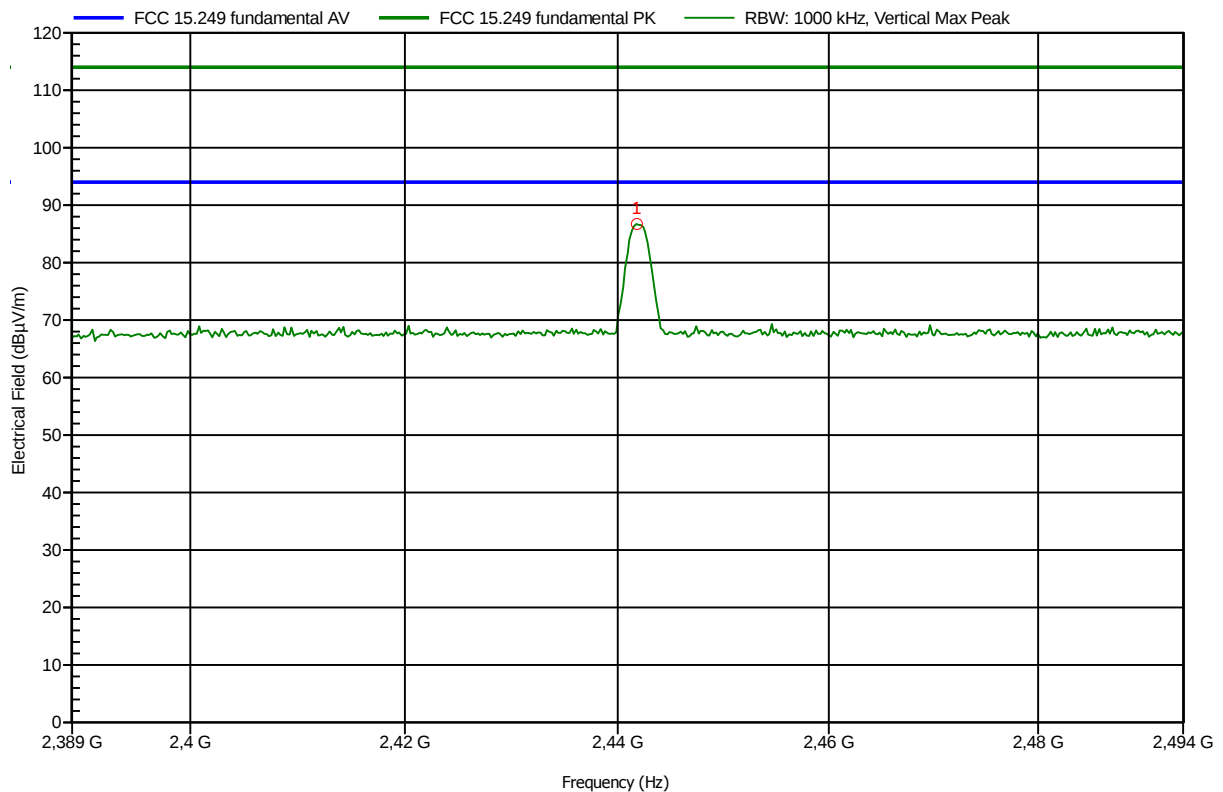
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Carrier Field Strength  $F_{\text{MID}}$  / Vertical

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Mode: Tx; 2441; PN, duty cycle 100%  
 Test Date: Mittwoch, 20. Juni 2012



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,442 GHz | 86,71 dBμV/m | 114 dBμV/m | -27,29 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

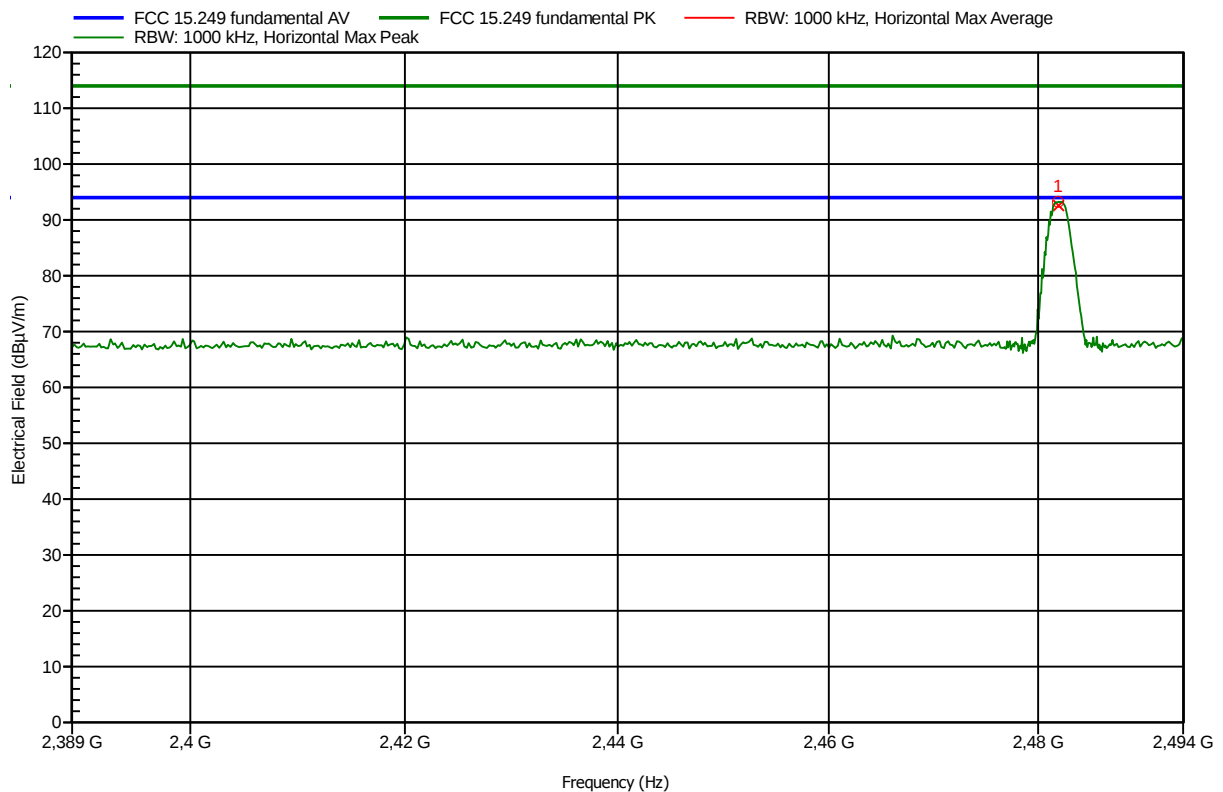
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Carrier Field Strength  $F_{\text{HIGH}}$  / Horizontal

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Mode: Tx; 2482; PN, duty cycle 100%  
 Test Date: Montag, 18. Juni 2012



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,482 GHz | 93,24 dBμV/m | 114 dBμV/m | -20,76 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

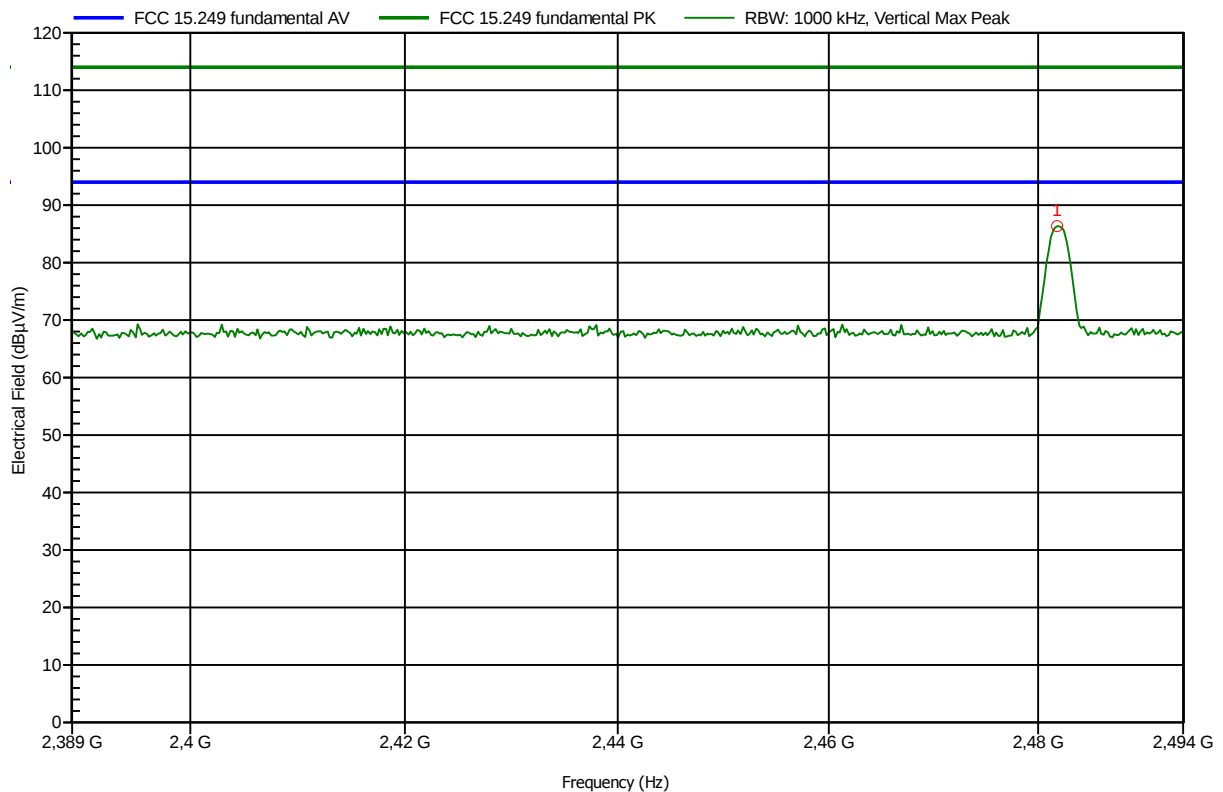
Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany

Carrier Field Strength  $F_{\text{HIGH}}$  / Vertical

Carrier power (Field Strength); FCC RULES PART 15: SUBPART C

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Mode: Tx; 2482; PN, duty cycle 100%  
 Test Date: Mittwoch, 20. Juni 2012



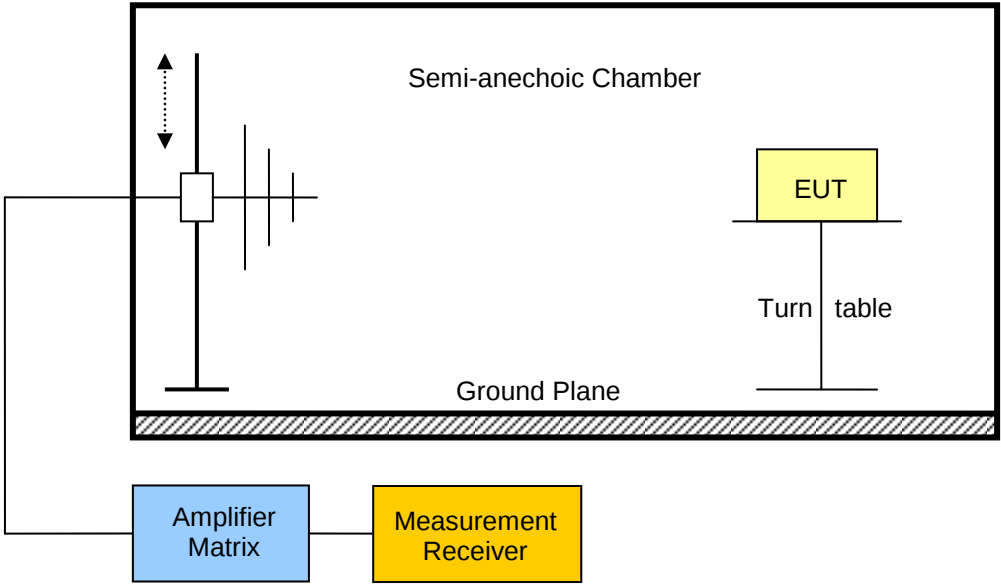
| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,482 GHz | 86,35 dBμV/m | 114 dBμV/m | -27,65 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

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

| Radiated out-of-band band emissions acc.<br>FCC 47 CFR 15.249 / IC RSS-210                                                                                                                                                                                                          |            |                                                                             |                | Verdict: PASS      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------|----------------|--------------------|
| Test according referenced standards                                                                                                                                                                                                                                                 |            | Reference Method                                                            |                |                    |
|                                                                                                                                                                                                                                                                                     |            | FCC 15.249(a),(c),(d),(e), FCC 15.205, FCC 15.209<br>IC RSS-210 A2.9(a),(b) |                |                    |
| Test according to measurement reference                                                                                                                                                                                                                                             |            | Reference Method                                                            |                |                    |
|                                                                                                                                                                                                                                                                                     |            | ANSI C63.4                                                                  |                |                    |
| Test frequency range                                                                                                                                                                                                                                                                |            | Tested frequencies                                                          |                |                    |
|                                                                                                                                                                                                                                                                                     |            | 30 MHz – 10 <sup>th</sup> hamonic                                           |                |                    |
| EUT test mode                                                                                                                                                                                                                                                                       |            | Single                                                                      |                |                    |
| Limits - Harmonics                                                                                                                                                                                                                                                                  |            |                                                                             |                |                    |
| Frequency range [MHz]                                                                                                                                                                                                                                                               | Detector   | Limit [μV/m]                                                                | Limit [dBμV/m] | Limit Distance [m] |
| 902 – 928                                                                                                                                                                                                                                                                           | Quasi-Peak | 500                                                                         | 54             | 3                  |
| 2400 – 2483.5                                                                                                                                                                                                                                                                       | Average    | 500                                                                         | 54             | 3                  |
| 5725 - 5875                                                                                                                                                                                                                                                                         | Average    | 500                                                                         | 54             | 3                  |
| Limits - General                                                                                                                                                                                                                                                                    |            |                                                                             |                |                    |
| Frequency range [MHz]                                                                                                                                                                                                                                                               | Detector   | Limit [μV/m]                                                                | Limit [dBμV/m] | Limit Distance [m] |
| 30 – 88                                                                                                                                                                                                                                                                             | Quasi-Peak | 100                                                                         | 40             | 3                  |
| 88 – 216                                                                                                                                                                                                                                                                            | Quasi-Peak | 150                                                                         | 43.5           | 3                  |
| 216 – 960                                                                                                                                                                                                                                                                           | Quasi-Peak | 200                                                                         | 46             | 3                  |
| 960 – 1000                                                                                                                                                                                                                                                                          | Quasi-Peak | 500                                                                         | 54             | 3                  |
| > 1000                                                                                                                                                                                                                                                                              | Average    | 500                                                                         | 54             | 3                  |
| FCC 15.249(e) : for frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. |            |                                                                             |                |                    |
| Except the higher order harmonics, emission radiated outside the specified frequency band shall be attenuated by at least 50 dB below the level of the fundamental or to the general field strength limits listed in 15.209 / RSS-Gen, whichever is less stringent.                 |            |                                                                             |                |                    |

| Test setup                                                                                                                                                                                                                                                                                                                                                      |                 |                                   |                      |          |      |                      |                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------|----------------------|----------|------|----------------------|---------------------|-------------|
|                                                                                                                                                                                                                                                                               |                 |                                   |                      |          |      |                      |                     |             |
| Test procedure                                                                                                                                                                                                                                                                                                                                                  |                 |                                   |                      |          |      |                      |                     |             |
| <ol style="list-style-type: none"> <li>1. EUT set to test mode</li> <li>2. Span it set according to measurement range</li> <li>3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>4. Markers are set to maximum emission levels</li> </ol> |                 |                                   |                      |          |      |                      |                     |             |
| Test results                                                                                                                                                                                                                                                                                                                                                    |                 |                                   |                      |          |      |                      |                     |             |
| Channel                                                                                                                                                                                                                                                                                                                                                         | Frequency [MHz] | Emission [MHz]                    | Level [db $\mu$ V/m] | Detector | Pol. | Limit [db $\mu$ V/m] | Limit distance [m]* | Margin [dB] |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2398                              | 59.52                | pk       | hor  | 74                   | 3                   | -14.48      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2398                              | 50.10**              | avg      | hor  | 54                   | 3                   | -3.90       |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2400                              | 57.65***             | pk       | hor  | 74                   | 3                   | -16.35      |
| F <sub>LOW</sub>                                                                                                                                                                                                                                                                                                                                                | 2401            | 2400                              | 48.43**              | avg      | hor  | 54                   | 3                   | -5.57       |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                | 2442            | No significant spurious emissions |                      |          |      |                      |                     |             |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2483.5                            | 53.74***             | pk       | hor  | 74                   | 3                   | -20.26      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2483.5                            | 44.32**              | avg      | hor  | 54                   | 3                   | -9.68       |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2485                              | 61.28                | pk       | hor  | 74                   | 3                   | -12.72      |
| F <sub>HIGH</sub>                                                                                                                                                                                                                                                                                                                                               | 2482            | 2485                              | 51.86**              | avg      | hor  | 54                   | 3                   | -2.14       |
| Comments: * Physical distance between EUT and measurement antenna.<br>**Duty cycle correction of 9.42dB applied. See fundamental field strength.<br>***With delta-marker evaluation (see plots below)                                                                                                                                                           |                 |                                   |                      |          |      |                      |                     |             |

## Band-edge Measurements $F_{LOW}$ (Delta Marker Evaluation)

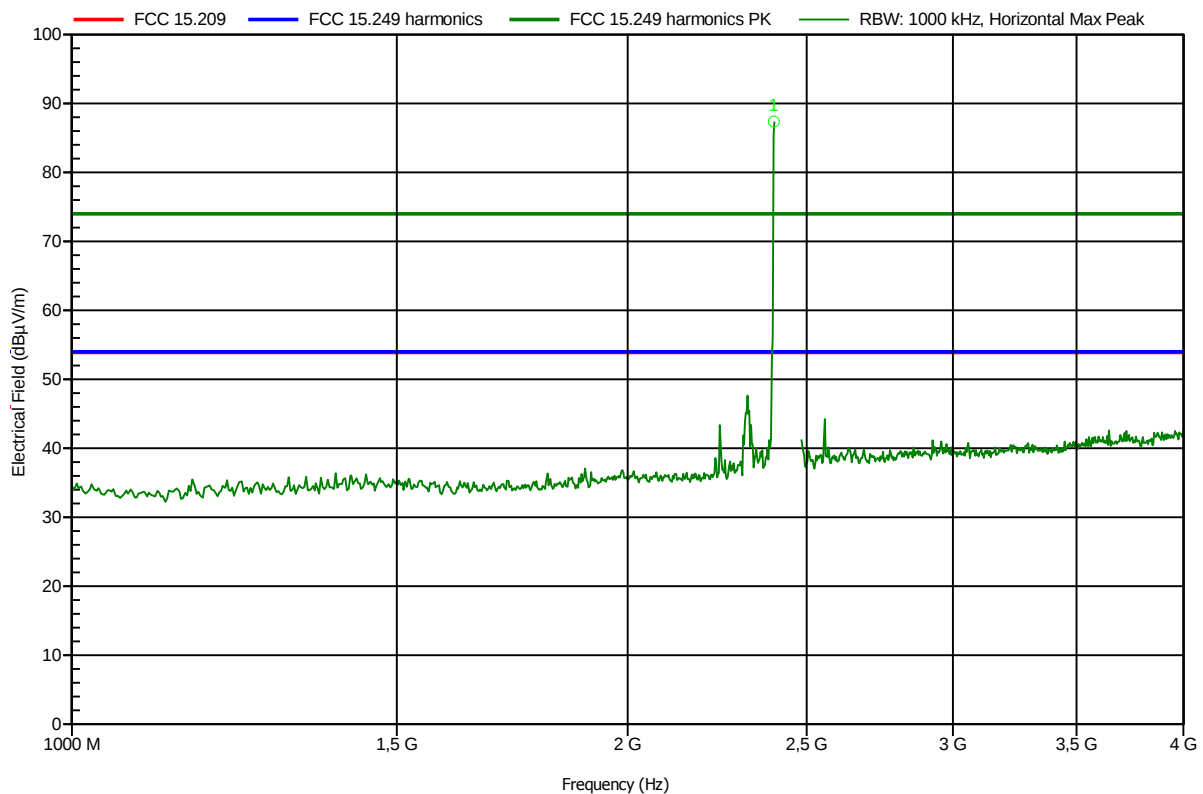
### Peak spurious emission at band-edge; Limit exceeded / $F_{LOW}$

#### Spurious emissions according to FCC 15.249

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX; 2401; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Overview Band Edge

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

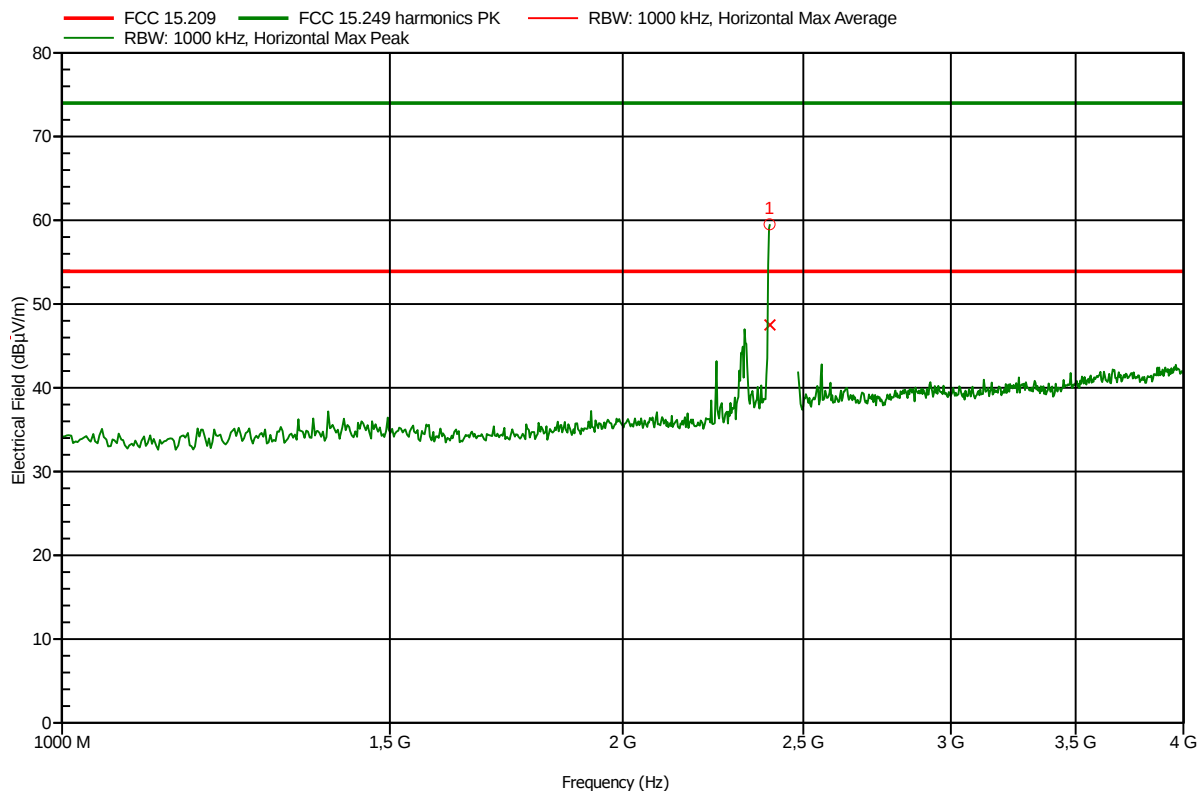
Peak spurious emission up to band-edge – two time RBW: Limit not exceeded /  $F_{LOW}$

Spurious emissions according to FCC 15.249

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2401; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Band Edge, Sweep stopped flow-2MHz (2398MHz) Peak pass

Index 2



| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 2,398 GHz | 59,52 dBμV/m | 74 dBμV/m  | -14,48 dB       | Pass        |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

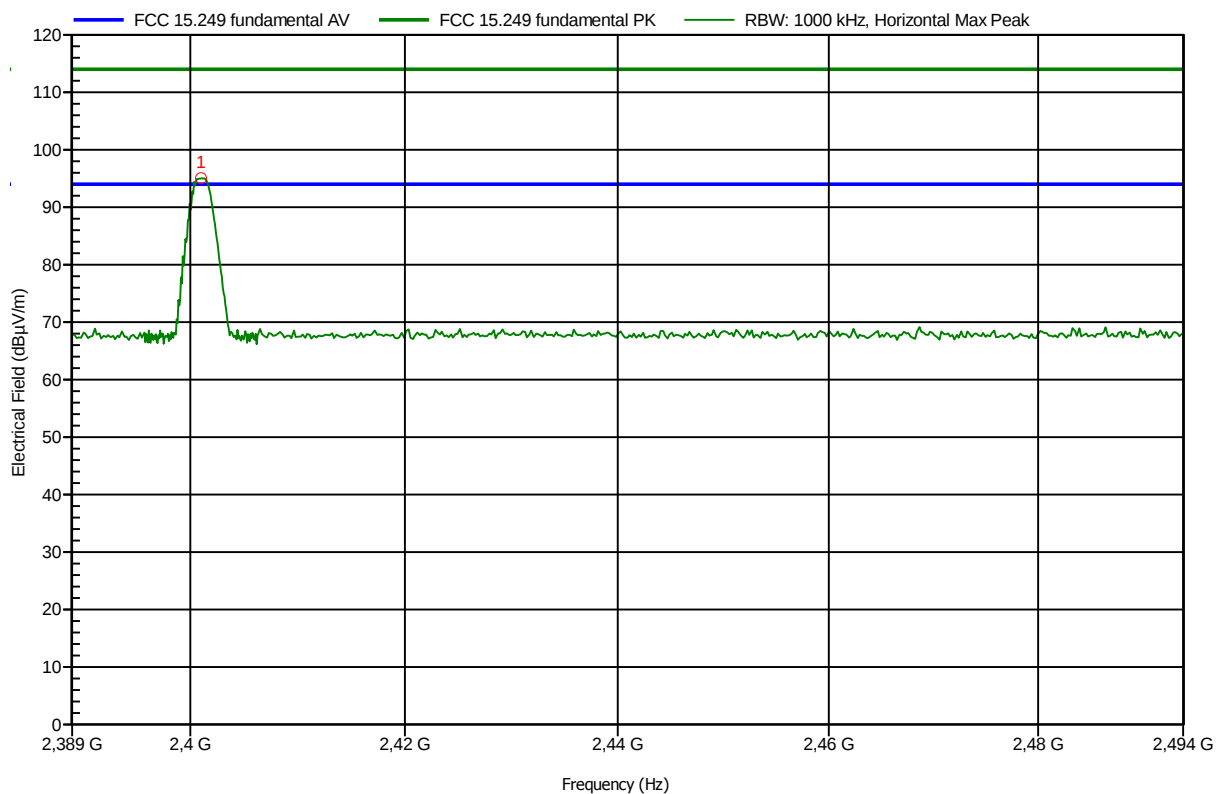
In-band radiated field strength for delta-marker method at band-edge /  $F_{Low}$

Radiated power according to FCC 15.249

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2401; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Fundamental for Marker Delta calc.

Index 3



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,401 GHz | 95,05 dBµV/m | 114 dBµV/m | -18,95 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

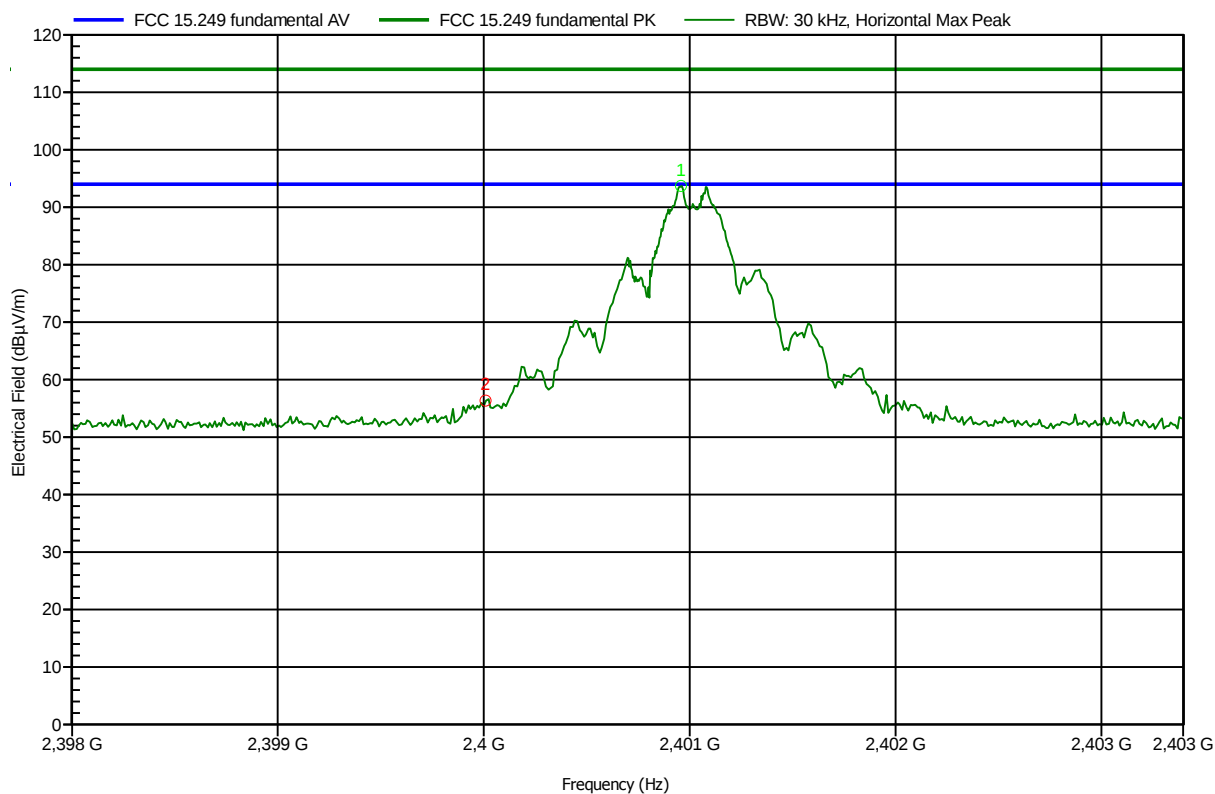
Marker delta at lower band-edge /  $F_{Low}$

Radiated power according to FCC 15.249

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2401; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Marker Delta @ 2401MHz = 37.4dB

Index 4



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,4 GHz   | 56,36 dBμV/m | 114 dBμV/m | -57,64 dB       | Pass   |
| 2,401 GHz | 93,71 dBμV/m | 114 dBμV/m | -20,29 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

## Band-edge Measurements $F_{\text{HIGH}}$ (Delta Marker Evaluation)

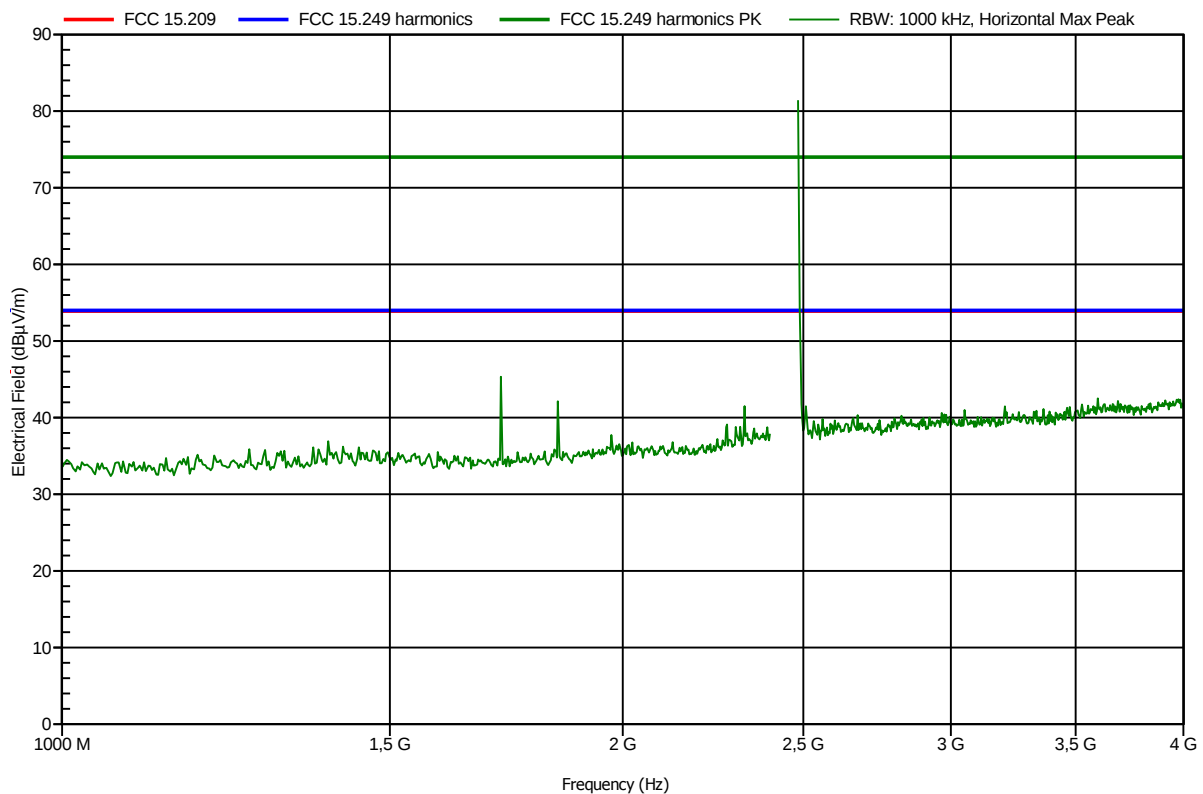
### Peak spurious emission at band-edge; Limit exceeded / $F_{\text{HIGH}}$

#### Spurious emissions according to FCC 15.249

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2482; PN; duty cycle 100%  
 Test Date: Dienstag, 19. Juni 2012  
 Note: Overview Band Edge

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

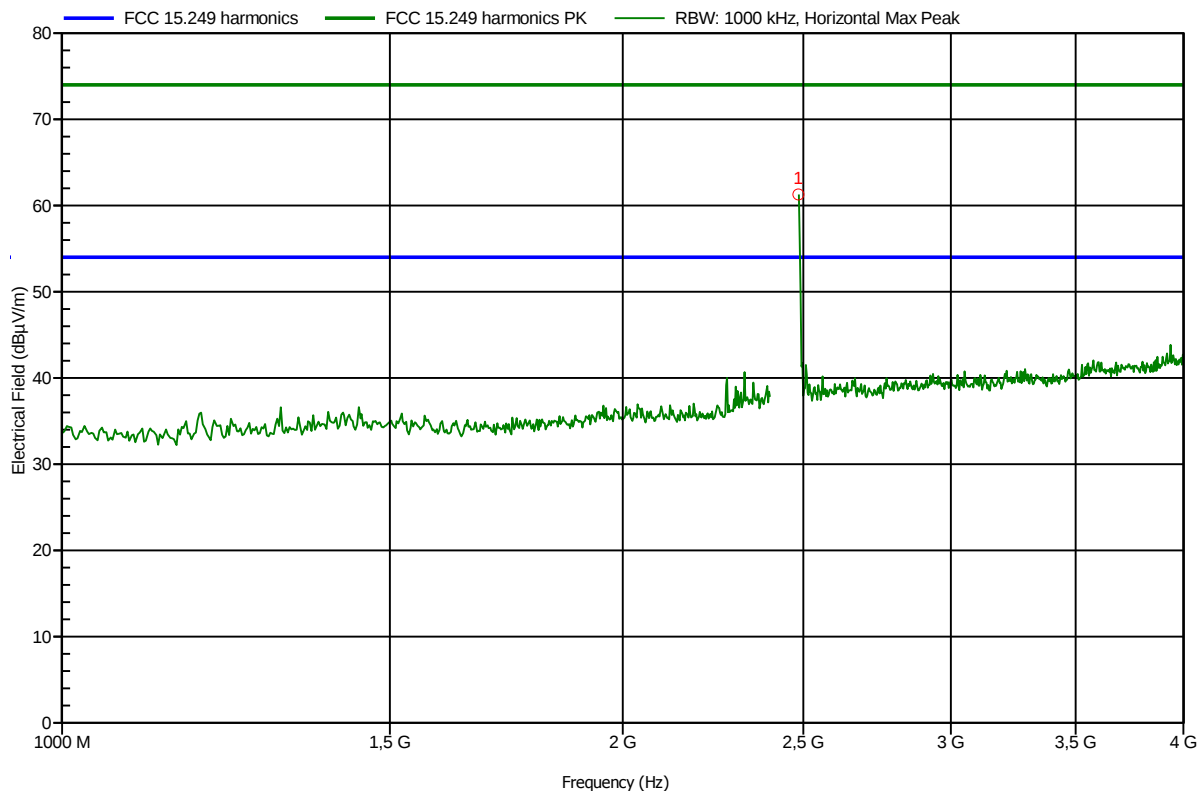
Peak spurious emission starting from band-edge + two time RBW; Limit not exceeded /  $F_{HIGH}$

### Spurious emissions according to FCC 15.249

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2482; PN; duty cycle 100%  
 Test Date: Dienstag, 19. Juni 2012  
 Note: Band Edge, Sweep started f high+2MHz (2485.5MHz) Peak pass

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| Frequency | Peak         | Peak Limit | Peak Difference | Peak Status |
|-----------|--------------|------------|-----------------|-------------|
| 2,485 GHz | 61,28 dBμV/m | 74 dBμV/m  | -12,72 dB       | Pass        |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

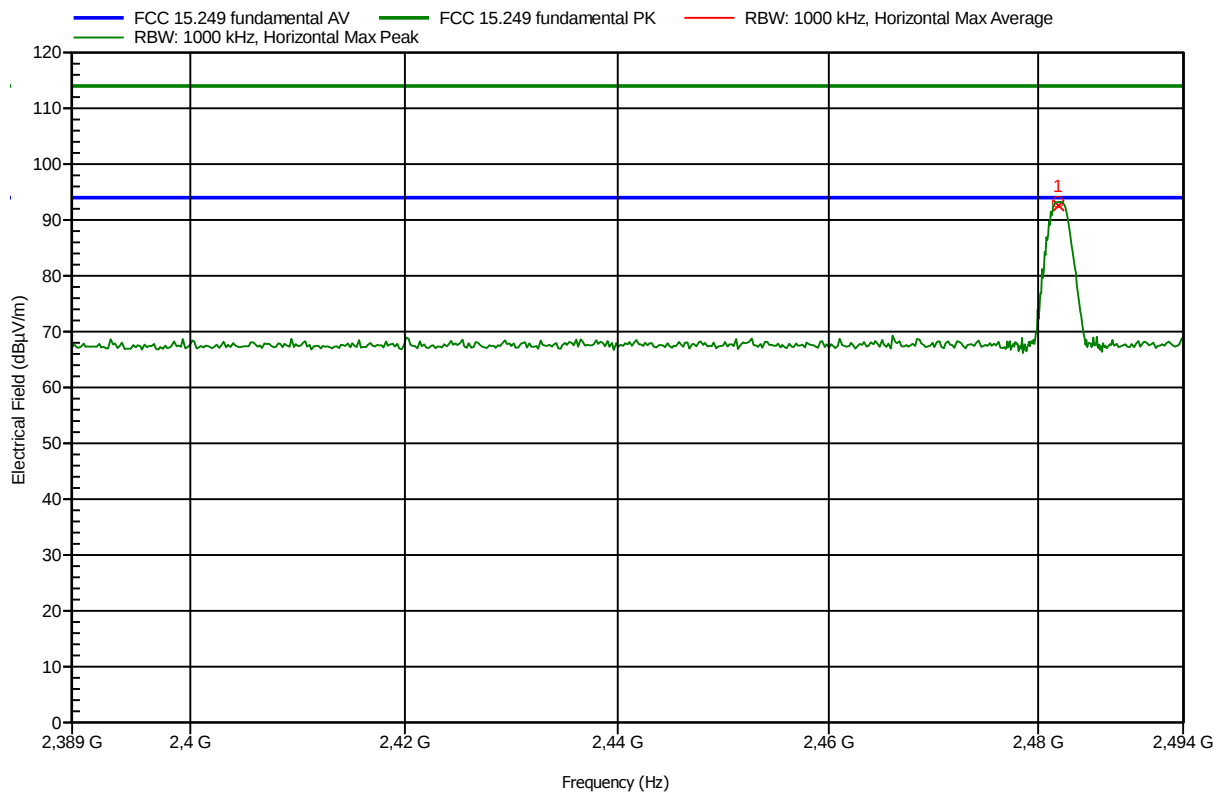
In-band radiated field strength for delta-marker method at band-edge /  $F_{HIGH}$ 

## Radiated power according to FCC 15.249

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2482; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Fundamental for Marker Delta calc.

Index 21



| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,482 GHz | 93,24 dBµV/m | 114 dBµV/m | -20,76 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

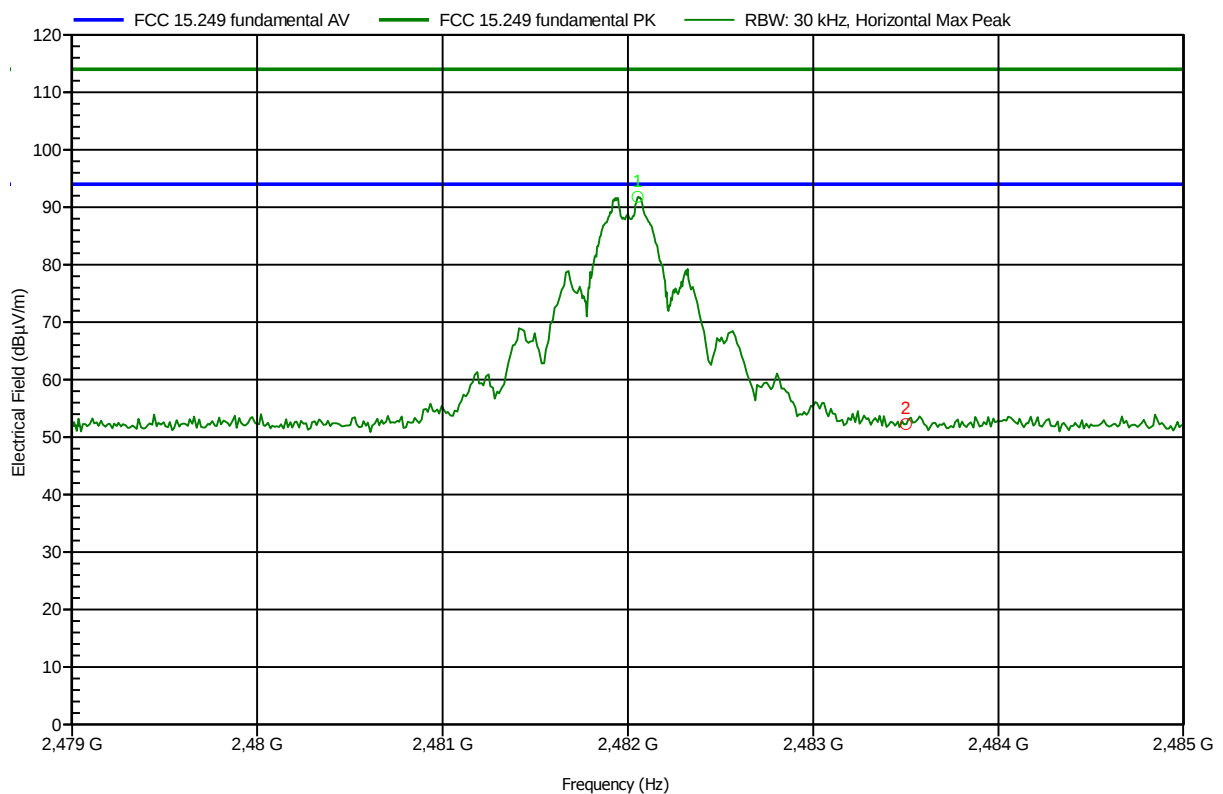
Marker delta at upper band-edge /  $F_{HIGH}$ 

## Radiated power according to FCC 15.249

Order number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: TX 2482; PN; duty cycle 100%  
 Test Date: Montag, 18. Juni 2012  
 Note: Marker Delta @ 2482MHz = 39.5dB

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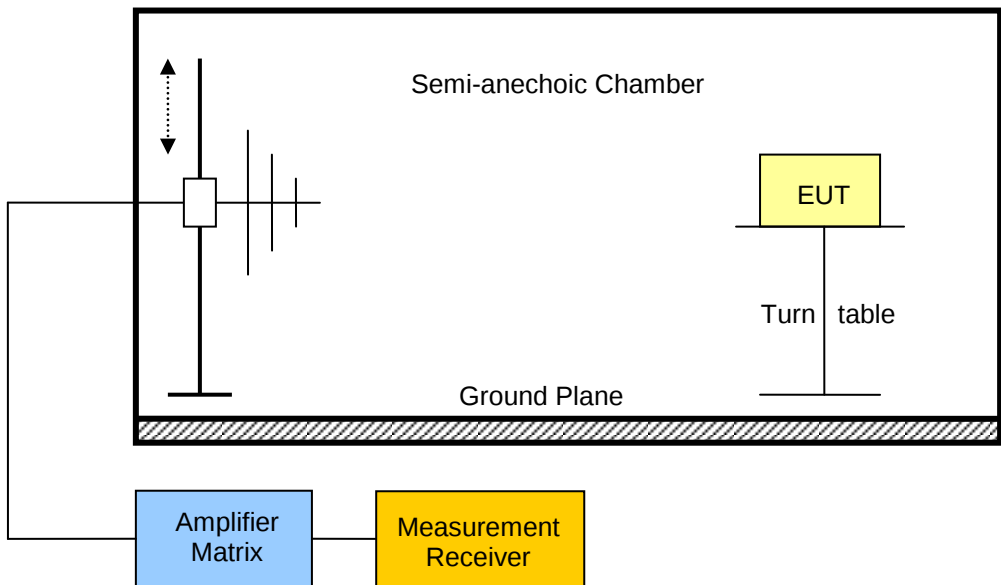


| Frequency | Peak         | Peak Limit | Peak Difference | Status |
|-----------|--------------|------------|-----------------|--------|
| 2,482 GHz | 91,8 dBµV/m  | 114 dBµV/m | -22,2 dB        | Pass   |
| 2,484 GHz | 52,28 dBµV/m | 114 dBµV/m | -61,72 dB       | Pass   |

Test Report No.: G0M-1205-1968-TFC249D-V01

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

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

| Receiver radiated emissions acc. IC RSS-210                                          |                                   |              |                | Verdict: PASS      |
|--------------------------------------------------------------------------------------|-----------------------------------|--------------|----------------|--------------------|
| Test according referenced standards                                                  | Reference Method                  |              |                |                    |
|                                                                                      | IC RSS-210 A8.5                   |              |                |                    |
| Test according to measurement reference                                              | Reference Method                  |              |                |                    |
|                                                                                      | ANSI C63.4                        |              |                |                    |
| Test frequency range                                                                 | Tested frequencies                |              |                |                    |
|                                                                                      | 30 MHz – 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 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz</li> <li>4. Markers are set to peak emission levels</li> </ol> |                 |                |                               |                             |      |                    |                     |
| Test results                                                                                                                                                                                                                                                                                                                                                                                             |                 |                |                               |                             |      |                    |                     |
| Channel                                                                                                                                                                                                                                                                                                                                                                                                  | Frequency [MHz] | Emission [MHz] | Emission Level [db $\mu$ V/m] | Emission Level [ $\mu$ V/m] | Det. | Limit [ $\mu$ V/m] | Margin [ $\mu$ V/m] |
| F <sub>MID</sub>                                                                                                                                                                                                                                                                                                                                                                                         | 2442            | 8000           | 48.32                         | 260.62                      | pk   | 500.00             | -239.38             |
| Comments: The stated emission level corresponds to ambient noise floor. No real spurious emission has been measured.                                                                                                                                                                                                                                                                                     |                 |                |                               |                             |      |                    |                     |

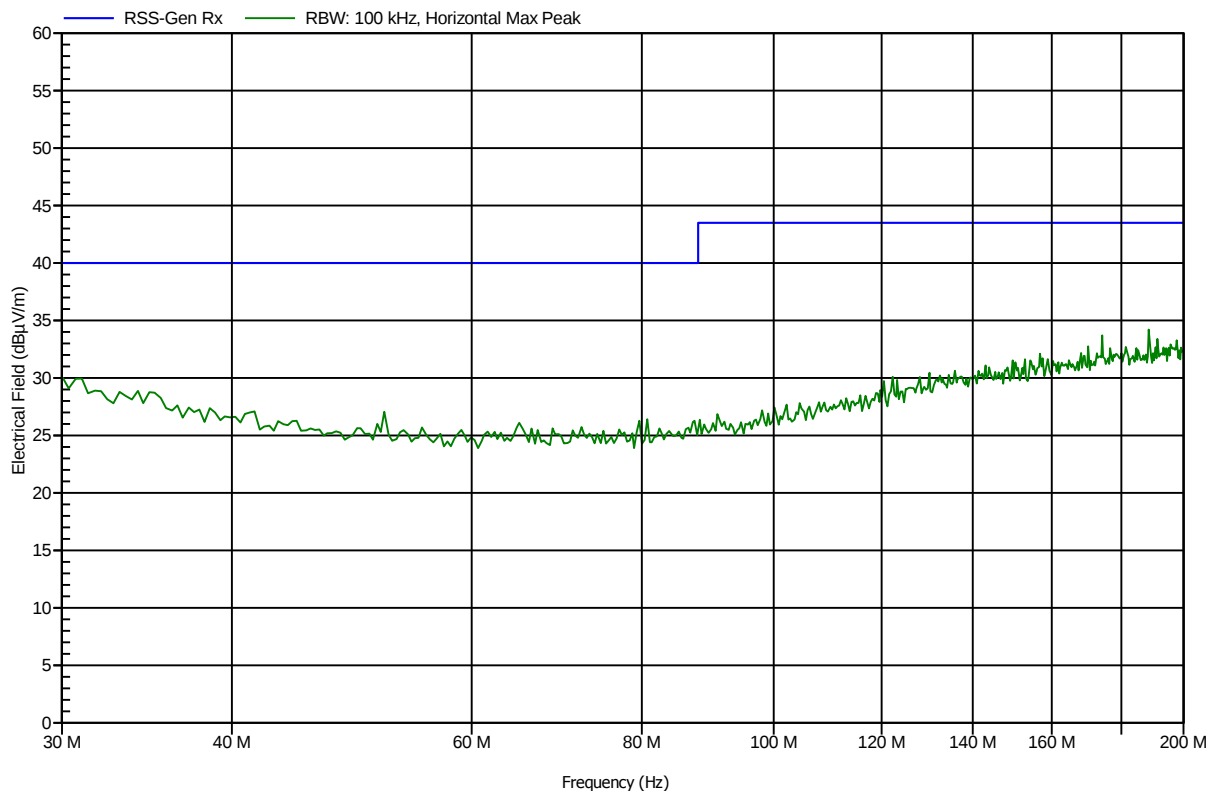
### Receiver Spurious Emissions

#### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Rohde & Schwarz HK 116, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

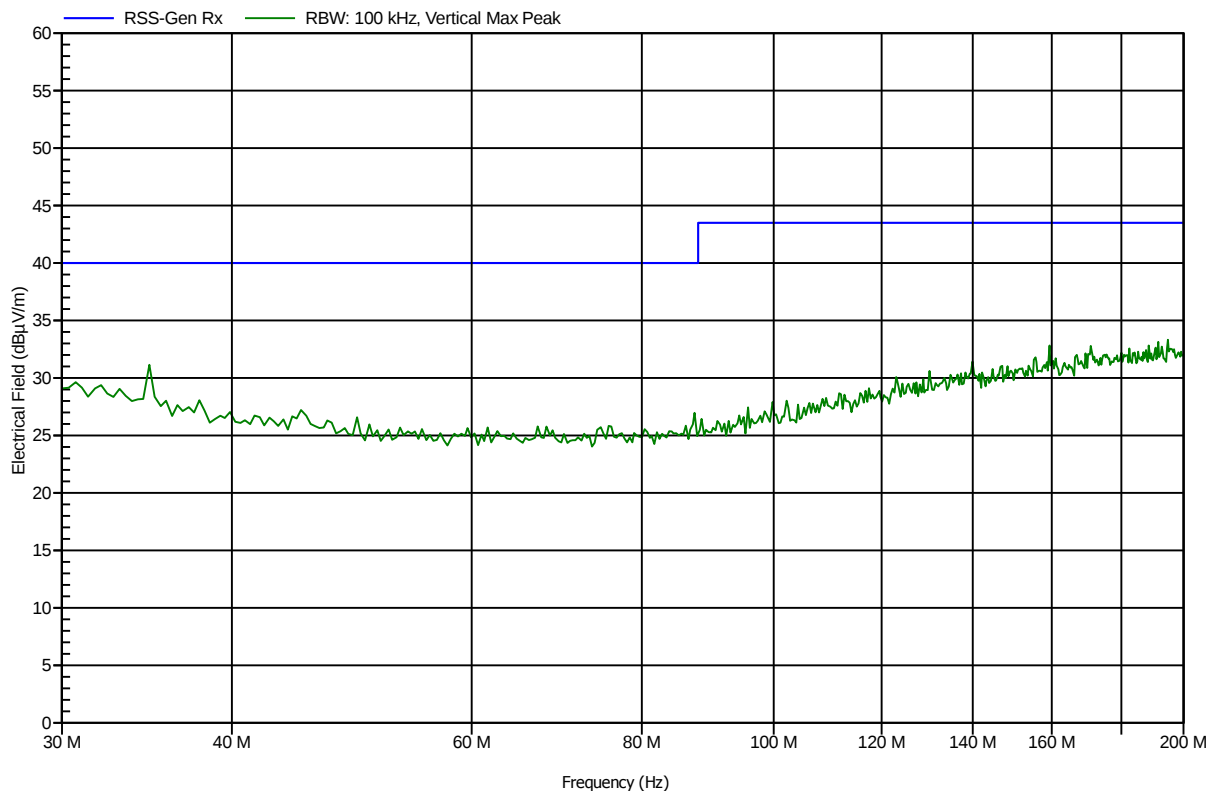
### Receiver Spurious Emissions

#### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Rohde & Schwarz HK 116, Vertical  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

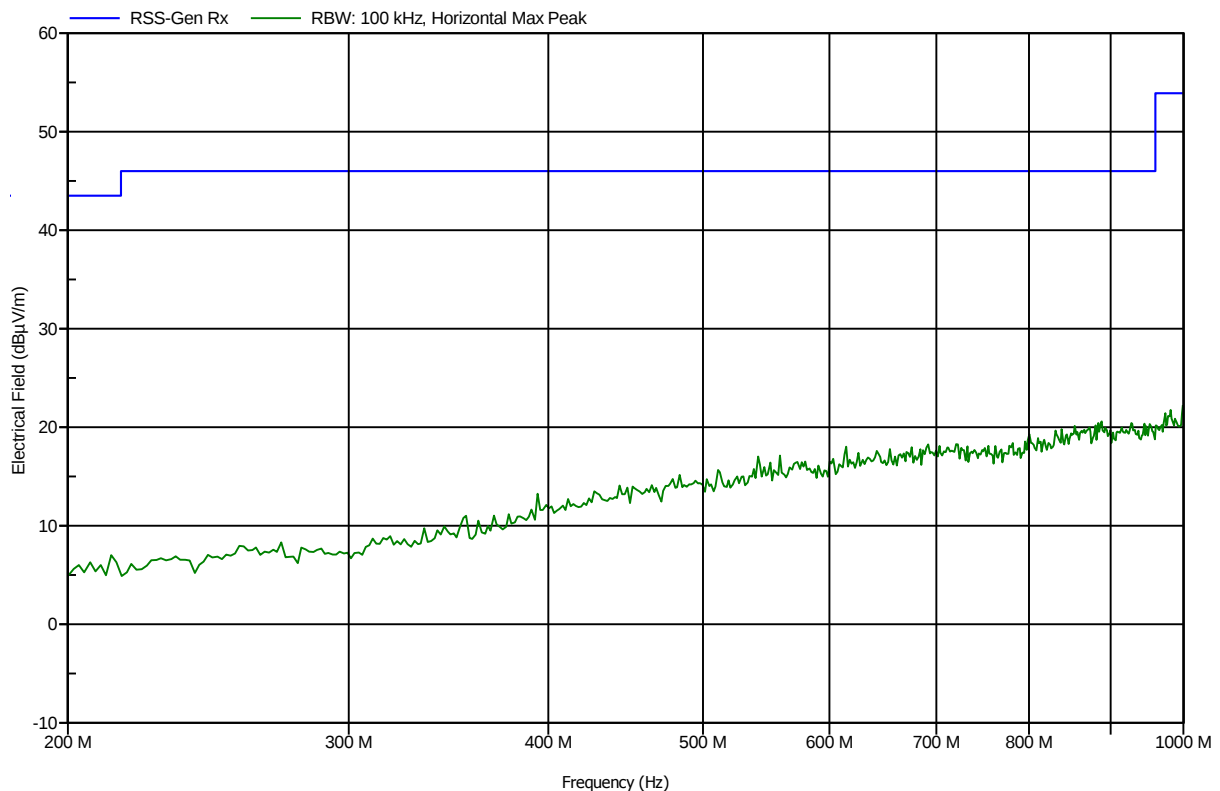
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

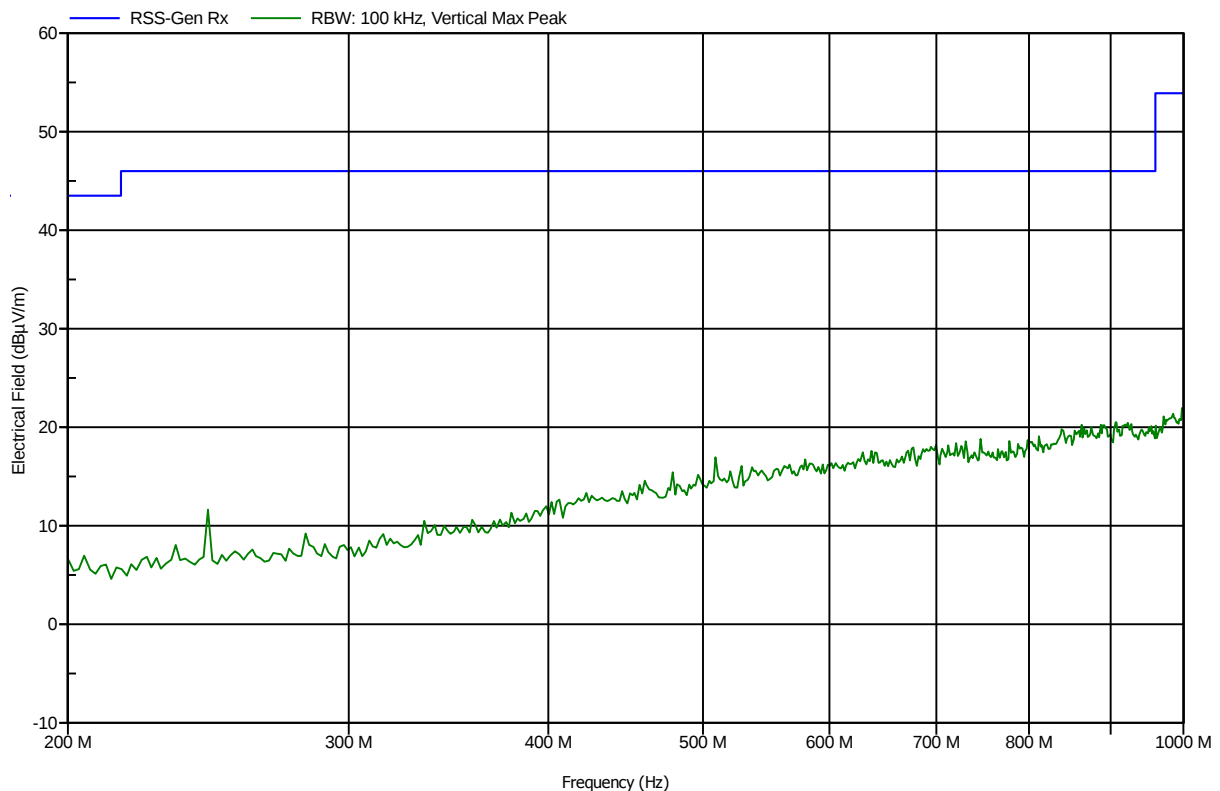
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

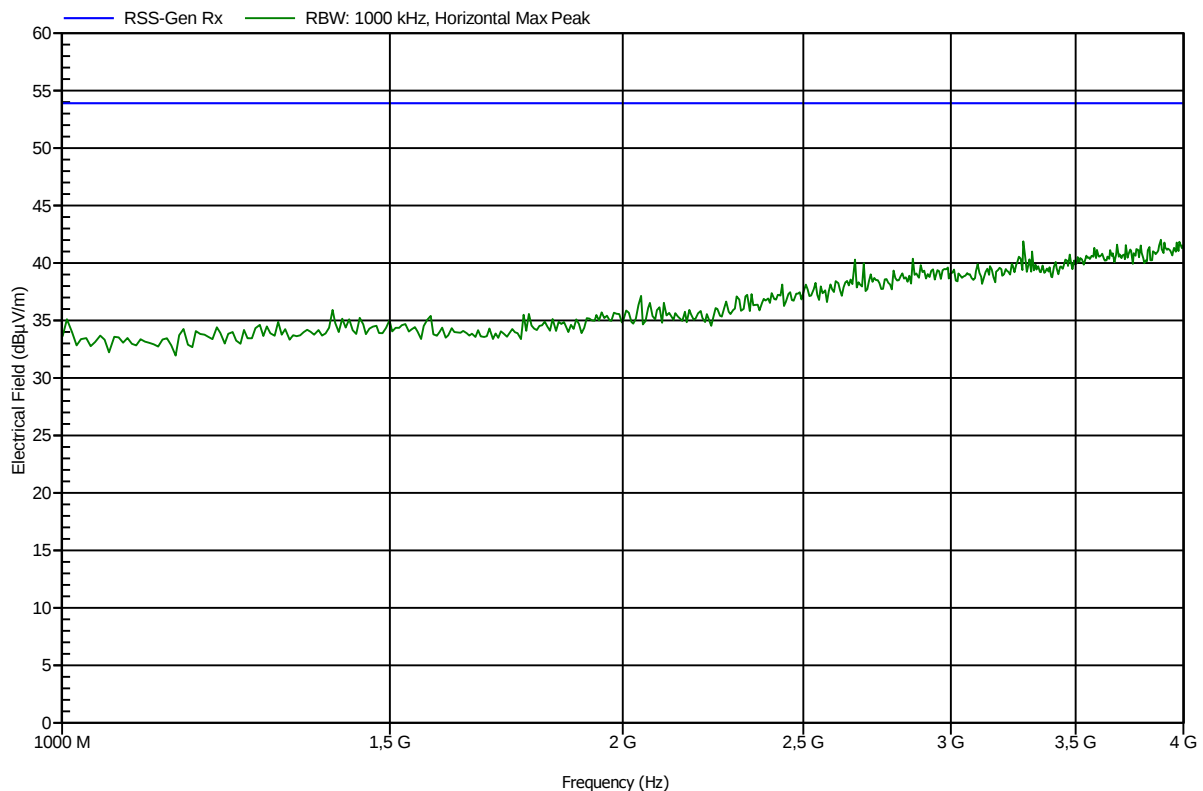
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

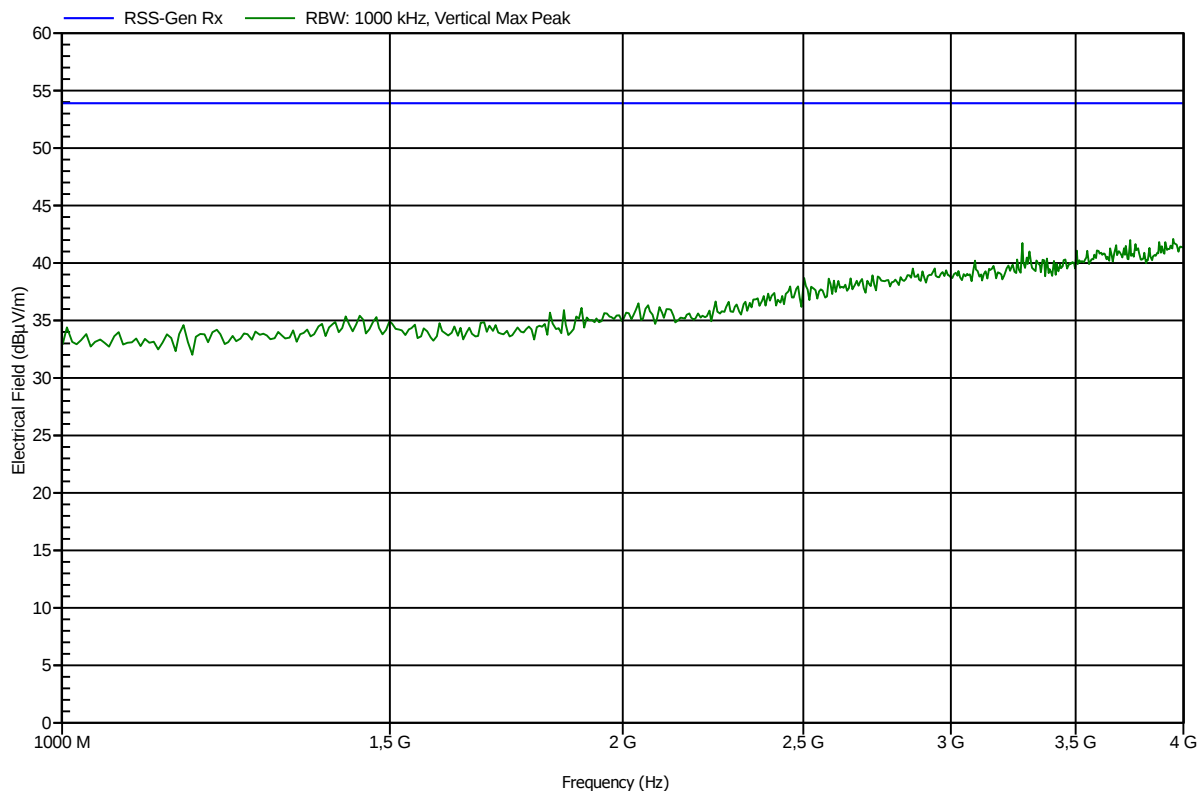
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

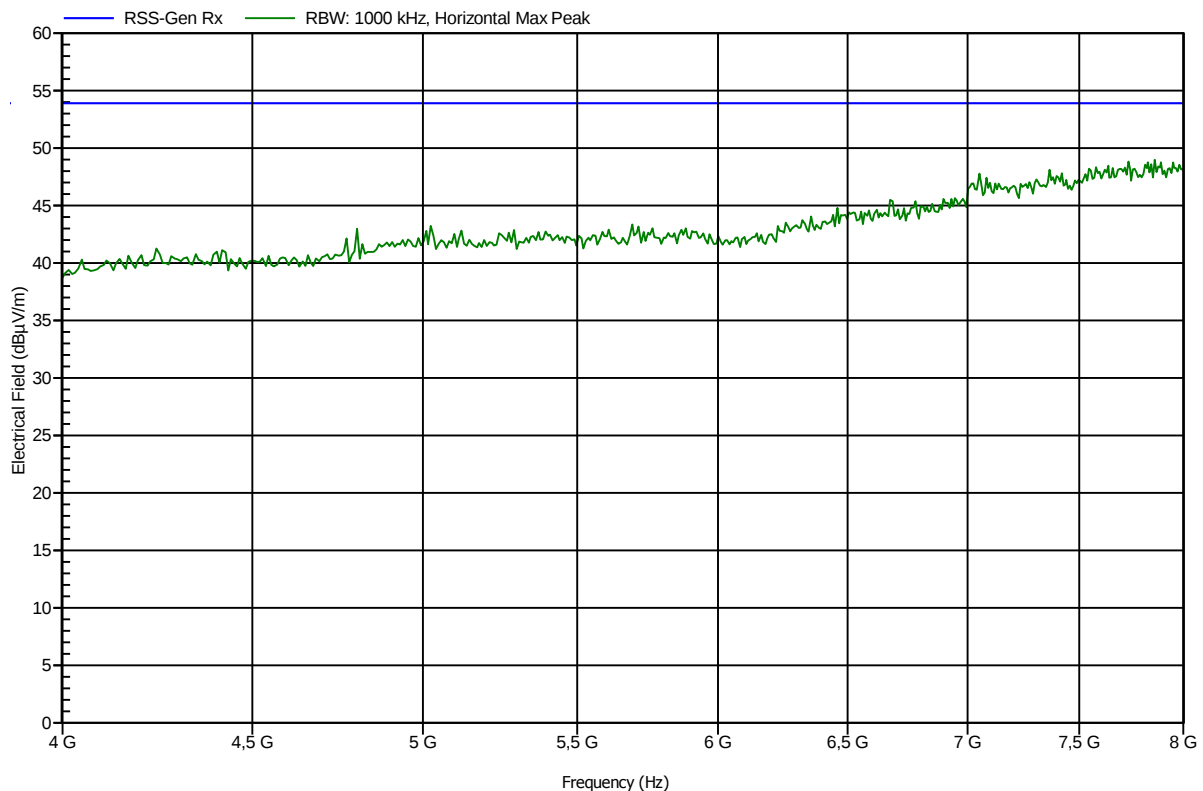
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

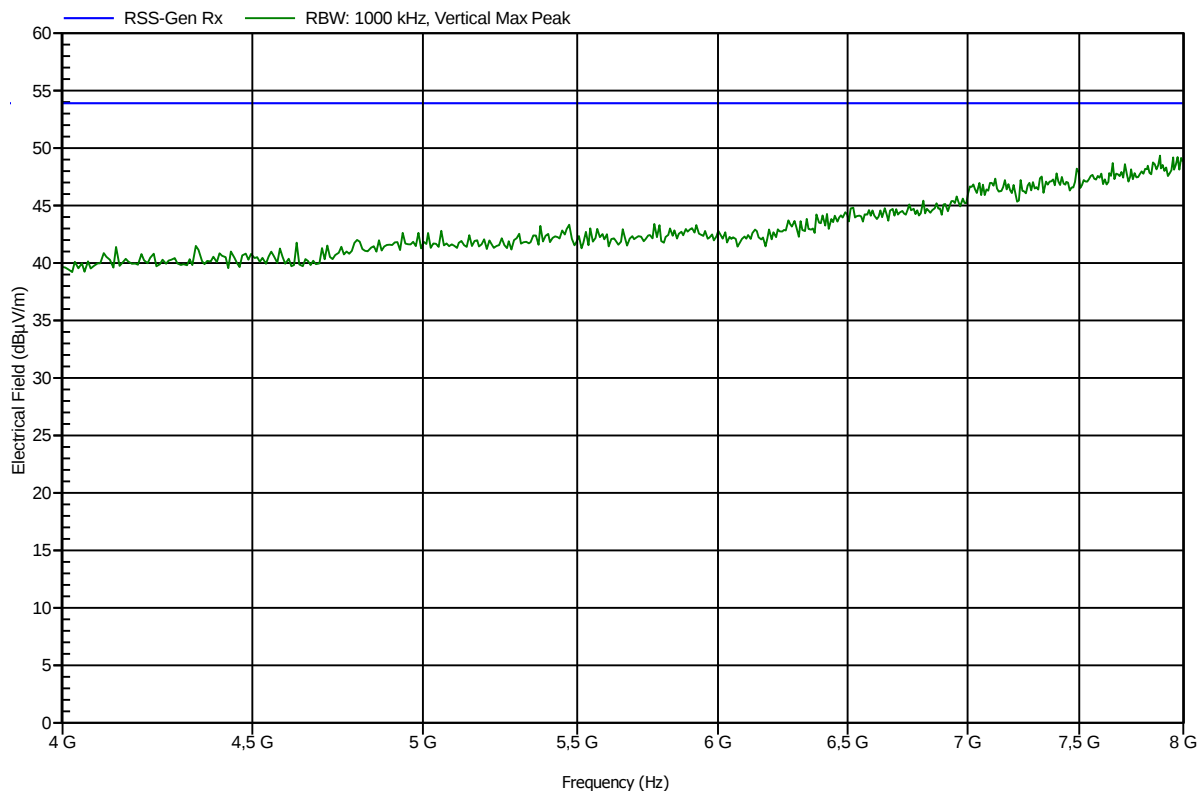
## Receiver Spurious Emissions

### Receiver spurious emissions according to RSS-GEN

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Treffke  
 Test Conditions: Tnom: 25°C, Vnom: 6.0 V DC (4x AA battery) Eval-board  
 Antenna: Schwarzbeck BBHA 9120D, Vertical  
 Measurement distance: 3 m  
 Mode: RX; 2442  
 Test Date: Mittwoch, 20. Juni 2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

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

| Power line conducted emissions acc. FCC 47 CFR 15.107 / 15.207 / IC RSS-Gen |                       |        |                | Verdict: PASS |
|-----------------------------------------------------------------------------|-----------------------|--------|----------------|---------------|
| Test according referenced standards                                         | Reference Method      |        |                |               |
|                                                                             | ANSI C63.4            |        |                |               |
| Fully configured sample scanned over the following frequency range          | Frequency range       |        |                |               |
|                                                                             | 0.15 MHz to 30 MHz    |        |                |               |
| Points of Application                                                       | Application Interface |        |                |               |
| AC Mains                                                                    | LISN                  |        |                |               |
| EUT test mode                                                               | AC-Powerline          |        |                |               |
| Limits and results                                                          |                       |        |                |               |
| Frequency [MHz]                                                             | Quasi-Peak [dBμV]     | Result | Average [dBμV] | Result        |
| 0.15 to 5                                                                   | 66 to 56*             | PASS   | 56 to 46*      | PASS          |
| 0.5 to 5                                                                    | 56                    | PASS   | 46             | PASS          |
| 5 to 30                                                                     | 60                    | PASS   | 50             | PASS          |
| Comments:                                                                   |                       |        |                |               |
| * Limit decreases linearly with the logarithm of the frequency.             |                       |        |                |               |

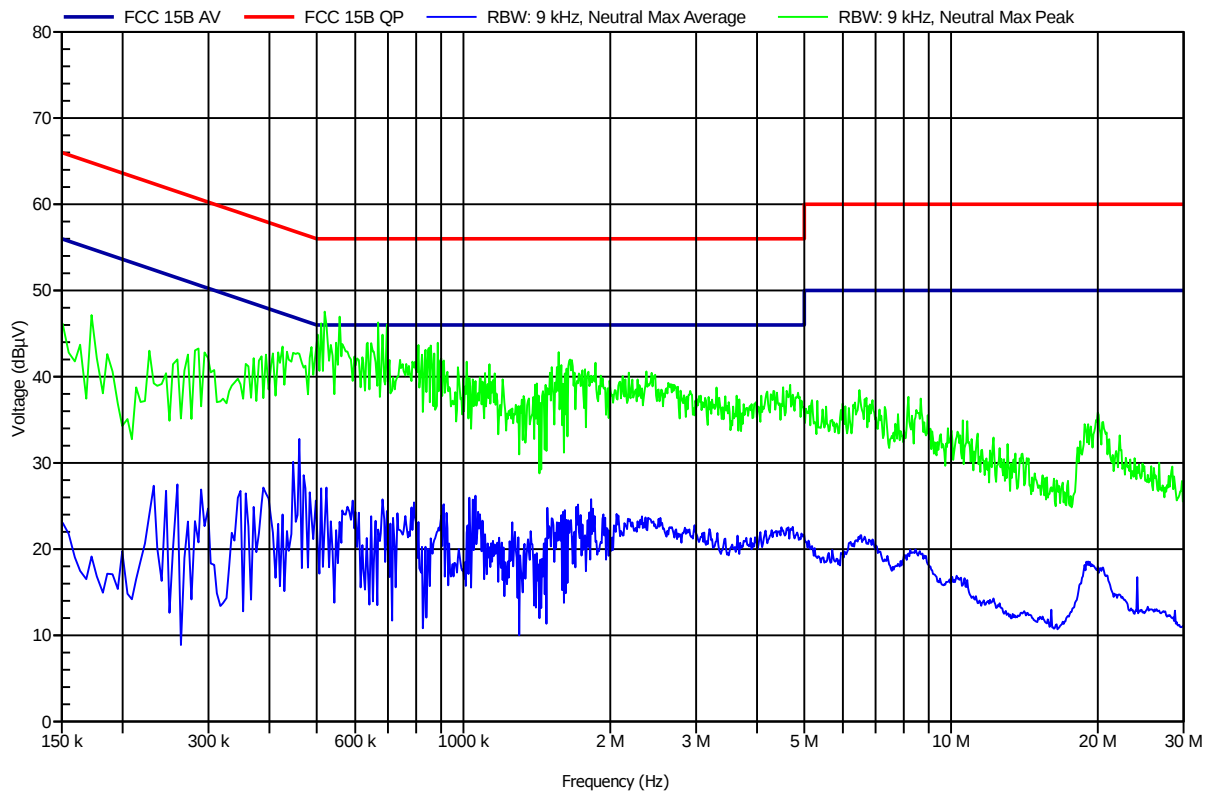
## Conducted Emissions

### EMI voltage test in the ac-mains according to FCC part 15B

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 22°C, Unom: 2 x 5 V DC USB  
 LISN: ESH2-Z5 N  
 Mode: active  
 Test Date: 03.07.2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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

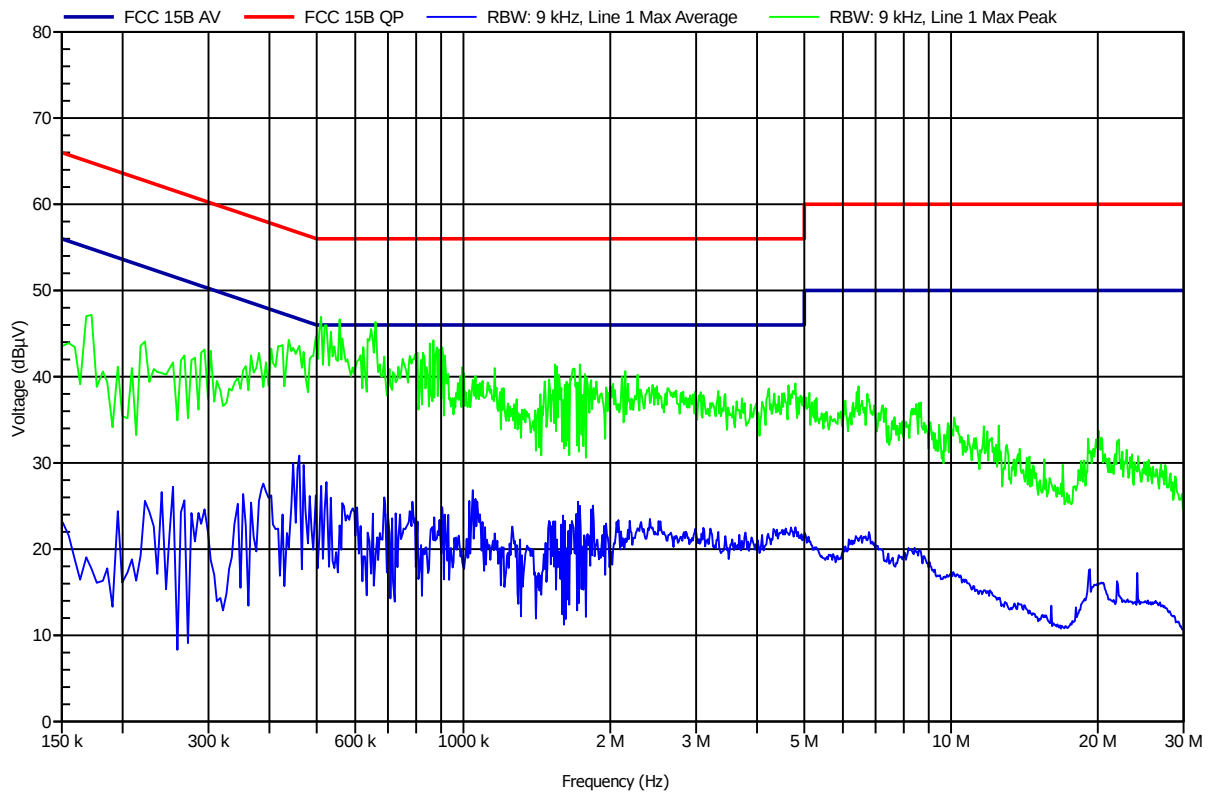
### Conducted Emissions

#### EMI voltage test in the ac-mains according to FCC part 15B

Project number: G0M-1205-1968

Manufacturer: Otto Bock Healthcare Products GmbH  
 EUT Name: med2 RF-Modul  
 Model: mug1223-a1  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 22°C, Unom: 2 x 5 V DC USB  
 LISN: ESH2-Z5 L  
 Mode: active  
 Test Date: 03.07.2012  
 Note:

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Test Report No.: G0M-1205-1968-TFC249D-V01

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