eurofins | Product Service

# FCC TEST REPORT

**FCC 47 CFR Part 95I**
**Medical Device Radiocommunication Service (MedRadio)**
**Industry Canada RSS-243**
**Medical Devices Operating in the 401 – 406 MHz Frequency Band**

| | |
|---|---|
| **Report Reference No**. ..... : | G0M-1509-5046-TFC95IMR-V01 |
| **Testing Laboratory** ..... : | Eurofins Product Service GmbH |
| Address ..... : | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany |
| Accreditation ..... : | A2LA Accredited Testing Laboratory, Certificate No.: 1983.01<br>FCC Filed Test Laboratory, Reg.-No.: 96970<br>IC OATS Filing assigned code: 3470A |
| **Applicant's name** ..... : | Biotronik SE & Co. KG |
| Address ..... : | Woermannkehre 1<br>12359 Berlin<br>GERMANY |
| **Test specification:** | |
| Standard..... : | 47 CFR Part 95E<br>47 CFR Part 95I<br>47 CFR Part 15C<br>RSS-243, Issue 3, 2010-02<br>RSS-Gen, Issue 4, 2014-11<br>ANSI C63.4:2014<br>EN 301 839-1 V1.3.1:2009-10 |
| Test scope…….. ..... : | complete Radio compliance test (C2PC) |
| **Equipment under test (EUT):** | |
| Product description | Pacemaker family PRIMUS NXT |
| Model No. | Eluna 8 HF-T |
| Additional Model(s) | see page5: List of Models to be included in the family |
| Brand Name(s) | BIOTRONIK |
| Hardware version | ASM-0217_0B with BOM-0288_06_396062 (2230-04) |
| Firmware / Software version | 7300RomRev_01.02/7474RamRev_04.02 |
| | FCC-ID: QRIPRIMUSNXT IC: 4708A-PRIMUSNXT |
| **Test result** | **Passed** |

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

**Testing:**

| | | |
|---|---|---|
| Test Lab Temperature ..... : | 20 – 23 °C | |
| Test Lab Humidity ..... : | 32 – 38 % | |
| Date of receipt of test item ..... : | 2015-10-02 | |
| Date (s) of performance of tests ..... : | 2015-10-05 – 2015-10-08 | |
| Compiled by ..... : | Wilfried Treffke | |
| Tested by (+ signature) ..... : (Responsible for Test) | Wilfried Treffke | W. Treffke ..... |
| Approved by (+ signature) ..... : (Head of Lab) | Christian Weber | C. Weber ..... |
| Date of issue ..... : | 2015-11-11 | |
| Total number of pages ..... : | 79 | |

**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.**

**Additional comments:1**

Family Explanation Primus NXT

All devices feature the two RF-Telemetry functions Home Monitoring and wireless Wand.
RF-Telemetry functions are using the MICS-Band (402MHz – 405MHz).
A „-T“ inside the name of the device represents a device containing Home Monitoring capabilities.
HF-T are triple-chamber devices. (Master for all tests)
DR-T are dual-chamber devices.
SR-T are single-chamber devices.
DR are dual-chamber without home monitoring.
SR are single-chamber without home capabilities.

*All of these differences are only relevant in terms of medical aspects. They do not interfere with the RF-performance.*

Evaluation measurements were performed for worst case antenna selection and the Eluna 8 HF-T was selected. The model Eluna 8 HF-T, as the most complex model, was selected for the measurements.

BIOTRONIK
excellence for life

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To whom it may concern

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dirk.koenig@biotronik.com
www.biotronik.com

Berlin, October 20, 2015

Gentlemen,

Herewith we, BIOTRONIK SE & Co. KG, declare the following changes that were done to the already approved product family PRIMUS NXT (FCC-ID: QRIPRIMUSNXT)

The major change filed under application is:

Change 1: **The SAW filter was changed from the Vectron 403A to the Vectron 403B.**
Change 2: **Matching components for the SAW filter were changed (L804 was 11nH and is now 36nH, L808 was 27nH and is now 30nH).**
Change 3: **The antenna design was modified to improve manufacturability. The electrical length remains the same.**

**According to our internal design validation no difference in conducted output power was observed as part of the design change.**

If you have any questions regarding this application, please feel free to contact

Contact name Dirk König
Company nameBIOTRONIK SE & CO. KG
Phone No.: +49 (0) 30 68905 1291

Sincerely,

Signature
Dirk König
Manager Regulatory Affairs
BIOTRONIK SE & CO. KG

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# PRIMUS NXT product family
# Family Certification
# List of the models to be included in the family

**Applicant:** **BIOTRONIK SE & Co. KG**

**Certification Number:** **QRIPRIMUSNXT**

| Model | Description |
|---|---|
| Eluna 8 SR | One chamber , Coil telemetry and RF Transceiver |
| Eluna 8 SR-T | One chamber , Coil telemetry and RF Transceiver |
| Eluna 8 DR | Two chambers , Coil telemetry and RF Transceiver |
| Eluna 8 DR-T | Two chamber , Coil telemetry and RF Transceiver |
| Eluna 8 HF-T | Three chambers , Coil telemetry and RF Transceiver |
| Epyra 6 SR-T | One chamber , Coil telemetry and RF Transceiver |
| Epyra 6 DR-T | Two chambers , Coil telemetry and RF Transceiver |
| Epyra 8 SR-T | One chamber , Coil telemetry and RF Transceiver |
| Epyra 8 DR-T | Two chambers , Coil telemetry and RF Transceiver |
| Epyra 8 HF-T | Three chambers , Coil telemetry and RF Transceiver |
| Etrinsa 6 SR | One chamber , Coil telemetry and RF Transceiver |
| Etrinsa 6 SR-T | One chamber , Coil telemetry and RF Transceiver |
| Etrinsa 6 DR | Two chambers , Coil telemetry and RF Transceiver |
| Etrinsa 6 DR-T | Two chambers , Coil telemetry and RF Transceiver |
| Etrinsa 8 SR-T | One chamber , Coil telemetry and RF Transceiver |
| Etrinsa 8 DR-T | Two chambers , Coil telemetry and RF Transceiver |
| Etrinsa 8 HF-T | Three chambers , Coil telemetry and RF Transceiver |

The BIOTRONIK PRIMUS NXT family of products includes the following models: **Eluna, Epyra and Etrinsa**.
All models comprise identical internal electronic including a low frequency telemetry coil and packaged in titanium cases with a header where the leads connect.
All devices include additional an internal RF Transceiver and an antenna within the header.
The internal electronic of HF-T devices differs slightly from SR and DR devices to include the third channel electronic. Therefore the device under test is three chambers model **Eluna 8 HF-T.**
The PRIMUS NXT models contain a different therapeutic feature set. The features differ only by the number of connectable leads and software.

# Version History

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

## REPORT INDEX

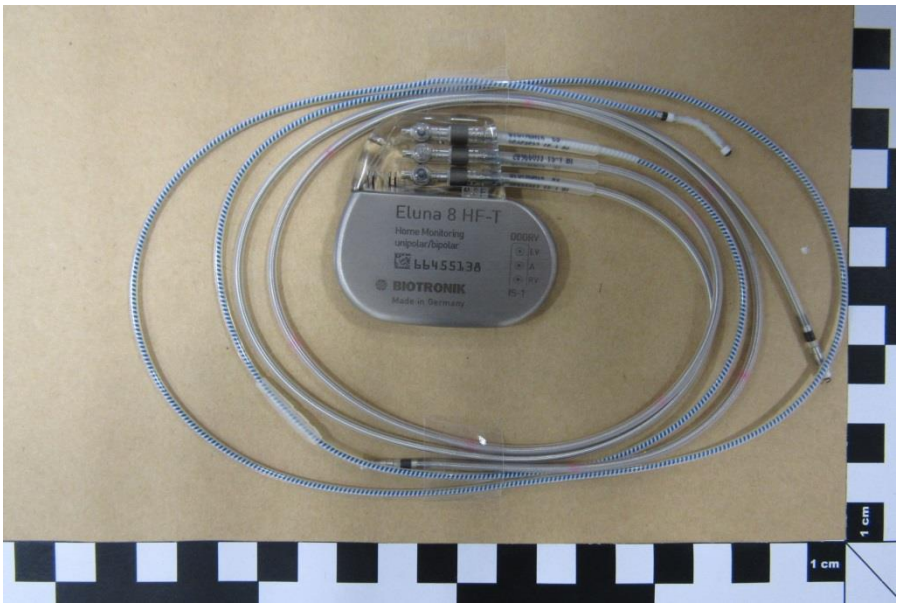
# 1 Equipment (Test item) Description

| | | |
|---|---|---|
| **Description** | Pacemaker family PRIMUS NXT | |
| **Model** | Eluna 8 HF-T | |
| **Additional Model(s)** | see page5: List of Models to be included in the family | |
| **Brand Name(s)** | BIOTRONIK | |
| **Serial number** | 66455138 | |
| **Hardware version** | ASM-0217_0B with BOM-0288_06_396062 (2230-04) | |
| **Software / Firmware version** | 7300RomRev_01.02/7474RamRev_04.02 | |
| **FCC-ID** | QRIPRIMUSNXT | |
| **IC** | 4708A-PRIMUSNXT | |
| **Equipment type** | End product | |
| **Radio type** | Transceiver | |
| **Number of Radios** | 1 | |
| **Radio technology** | MedRadio (MICS) active medical implant | |
| **Operating frequency range** | 402 - 405 MHz | |
| **Assigned frequency band** | 402 - 405 MHz | |
| **Main test frequencies** | $F_{LOW}$ | 402.45 MHz |
| | $F_{MID}$ | 403.65 MHz |
| | $F_{HIGH}$ | 404.85 MHz |
| **Modulations** | 2FSK | |
| **Emission designator** | F1D | |
| **Number of channels** | 9 | |
| **Channel spacing** | 300 kHz | |
| **Spectrum access** | LBT/AFA (channel access controlled by ULP-AMI-P device outside the human body) | |
| **Number of antennas** | 1 | |
| **Antenna** | Type | integrated |
| | Model | loop antenna |
| | Manufacturer | Biotronik SE & Co. KG |
| | Gain | -31.32 dBi (Determined by measurements) |
| **Manufacturer** | Biotronik SE & Co. KG<br>Woermannkehre 1<br>12359 Berlin<br>GERMANY | |

| | | |
|---|---|---|
| **Power supply** | $V_{NOM}$ | 3.0 VDC |
| | $V_{MIN}$ | 2.0 VDC |
| | $V_{MAX}$ | 3.5 VDC |
| **Temperature** | $T_{NOM}$ | 37 °C |
| | $T_{MIN}$ | 25 °C |
| | $T_{MAX}$ | 45 °C |
| **AC/DC-Adaptor** | Model | N/A |
| | Vendor | N/A |
| | Input | N/A |
| | Output | N/A |

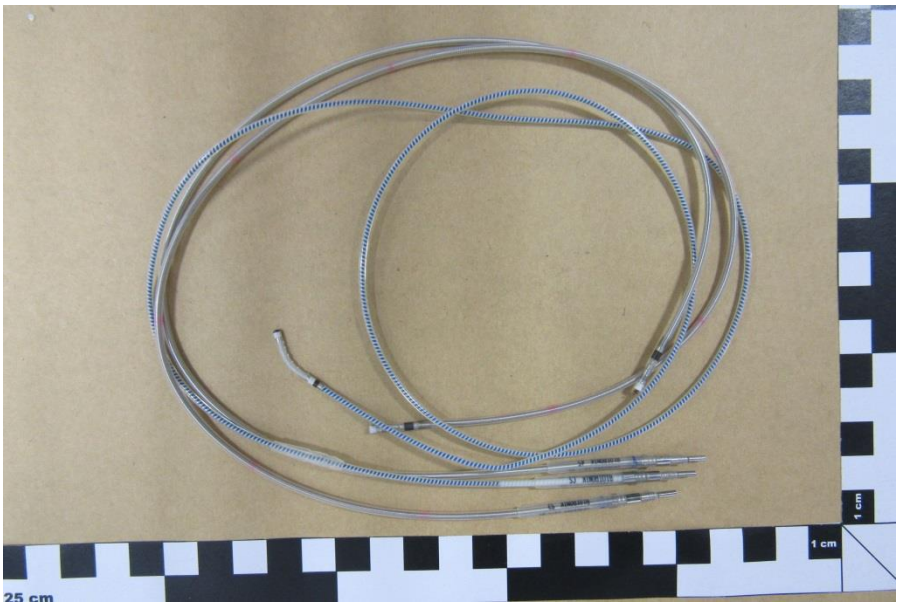
## 1.1 Photos - Equipment external

**ELUNA 8 HF-T (Master) with Leads**




**ELUNA 8 HF-T (Master) TOP**

| ELUNA 8 HF-T (Master) BOTTOM |
| --- |
|   |

| LEADS |
| --- |
|   |

| ADDITIONAL MODEL NXT_DRT_FRONT |
|---|
|  |



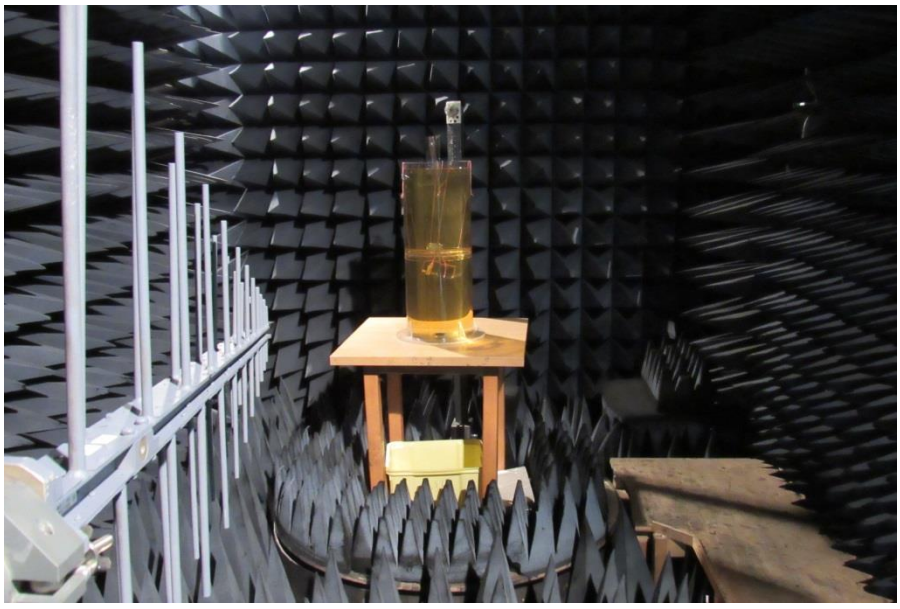
| ADDITIONAL MODEL NXT_DRT_BACK |
|---|
|  |

| ADDITIONAL MODEL NXT_SRT_FRONT |
|---|
|  |



| ADDITIONAL MODEL NXT_SRT_BACK |
|---|
|  |

## 1.3 Photos – Test setup

| SETUP RADIATED EMISSIONS |
| --- |
|  |

## 1.4 Photos – Auxiliary/Associated Equipment

| AE1: PROGRAMER 64kHz |
| --- |
|   |

| AE2: Programer 400MHz |
| --- |
|   |

## 1.5 Supporting Equipment Used During Testing

| Product Type* | Device | Manufacturer | Model No. | Comments |
|---|---|---|---|---|
| AE1 | Programer | Biotronik | USB TelBox | 64kHz system |
| AE2 | Programer | Biotronik | 405 TELBOX II | 400MHz system |

***Note:** Use the following abbreviations:

AE : Auxiliary/Associated Equipment, or

SIM : Simulator (Not Subjected to Test)

CABL : Connecting cables

## 1.6 Test Modes

| Mode # | Description | |
|---|---|---|
| Unmodulated | General conditions: | EUT powered by fully charged battery |
| | Radio conditions: | Mode = standalone transmit<br>Spreading = None<br>Modulation = None<br>Duty cycle = 100 %<br>Power level = Maximum |
| Modulated | General conditions: | EUT powered by fully charged battery |
| | Radio conditions: | Mode = standalone transmit<br>Modulation = FSK<br>Duty cycle = 100 %<br>Power level = Maximum |
| Receive | General conditions: | EUT powered by fully charged battery |
| | Radio conditions: | Mode = standalone receive<br>Modulation = FSK |

## 1.7 Test Equipment Used During Testing

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

| Occupied Bandwidth | | | | | |
|---|---|---|---|---|---|
| Description | Manufacturer | Model | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer | R&S | FSIQ26 | EF00242 | 2015-04 | 2016-04 |

| Emission Bandwidth | | | | | |
|---|---|---|---|---|---|
| Description | Manufacturer | Model | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer | R&S | FSIQ26 | EF00242 | 2015-04 | 2016-04 |

| Frequency Stability | | | | | |
|---|---|---|---|---|---|
| Description | Manufacturer | Model | Identifier | Cal. Date | Cal. Due |
| Spectrum Analyzer | R&S | FSIQ26 | EF00242 | 2015-04 | 2016-04 |

| Effective radiated power | | | | | |
|---|---|---|---|---|---|
| Description | Manufacturer | Model | Identifier | Cal. Date | Cal. Due |
| Fully-anechoic chamber | Frankonia | AC 4 | EF00200 | - | - |
| Spectrum Analyzer | R&S | FSEK30 | EF00168 | 2015-01 | 2016-01 |
| LPD Antenna | R&S | HL 223 | EF00212 | 2013-02 | 2016-02 |

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

### 1.8 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:

Reading on Analyzer (dBµV) + A.F. (dB) = Net field strength (dBµV/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:

Limit (dBµV/m) = 20*log (µV/m)

Margin:

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

Example only:

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

### 1.9 Simulated human body

For radiated tests the implant was placed in a simulated human body.

| Liquid components | |
|---|---|
| Component | percentage per weight |
| Deionized water | 52.4 |
| Bactericide | 0.08 |
| Hydroxy ethyl cellulose (HCE) | 1.0 |
| Sodium chloride | 1.4 |
| Sucrose | 45.0 |

Measured tissue parameters:

| Tissue parameters – 403.5MHz | | | |
|---|---|---|---|
| Component | Target | Measured | Tolerance [%] |
| Dielectric constant ε | 62.5 | 63.08 | 0.93 |
| Conductivity σ [ms/cm] | 9.0 | 8.8 | -2.22 |

## 2 Result Summary

| FCC 47 CFR Part 95E, 95I, 15C, IC RSS-243, IC RSS-Gen | | | | |
|---|---|---|---|---|
| **Product Specific Standard Section** | **Requirement – Test** | **Reference Method** | **Result** | **Remarks** |
| IC RSS-243 3.2<br>IC RSS-Gen 6.6 | Occupied bandwidth | RSS-Gen 6.6 | N/A | Information only |
| FCC 95.628(d)<br>FCC § 95.633(e)<br>IC RSS-243 3.6, 5.1 | Emission bandwidth | FCC § 95.628(a)(6)(i)<br>FCC § 95.633(e)(3) | PASS | |
| FCC 95.628(e)<br>IC RSS-243 3.3, 5.3<br>RSS-Gen 8.11 | Frequency stability | EN 301 839-1 8.1 | PASS | |
| FCC § 95.6369(f)<br>IC RSS-243 § 5.4 | Transmitter output power | EN 301 839-1 8.3 | PASS | |
| FCC § 95.635(d)<br>IC RSS-243 § 3.4, 5.5 | Band edge compliance | FCC § 95.635(d)<br>ANSI C63.4 | PASS | |
| FCC § 95.635(d)<br>IC RSS-243 § 3.4, 5.5<br>RSS-Gen 6.13 | Transmitter unwanted emissions | FCC § 95.635(d)<br>ANSI C63.4 | PASS | |
| IC RSS-243 3.5, 5.6<br>IC RSS-Gen 7.1 | Receiver spurious emissions | ANSI C63.4 | PASS | |
| FCC § 15.207<br>IC RSS-Gen 8.8 | AC power line conducted emissions | ANSI C63.4 | N/A | No powered (directly or indirectly) via AC-Mains |
| FCC § 95.628(a)(3)<br>IC RSS-243 3.6, 5.7.1 | System threshold power levels | EN 301 839-1 10.1 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(1)<br>IC RSS-243 3.6, 5.7.2 | Monitoring system bandwidth | EN 301 839-1 10.2 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(2)<br>IC RSS-243 3.6, 5.7.3 | Scan cycle time | EN 301 839-1 10.3 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(2)<br>IC RSS-243 3.6, 5.7.4 | Minimum channel monitoring period | EN 301 839-1 10.3 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(4)<br>IC RSS-243 3.6, 5.7.5 | Channel Access | EN 301 839-1 10.4 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(4)<br>IC RSS-243 3.6, 5.7.6 | Discontinuation of MICS or MEDS session | EN 301 839-1 10.5 | N/A | Applies only to equipment by which LBT is performed |
| FCC § 95.628(a)(5)<br>IC RSS-243 3.6, 5.7.7 | Use of the pre-scanned alternate channel | EN 301 839-1 10.6 | N/A | Not used |
| **Remarks: Remarks:** Test selection for Class II Permissive change according to permissive change letter. | | | | |

# 3 Test Conditions and Results

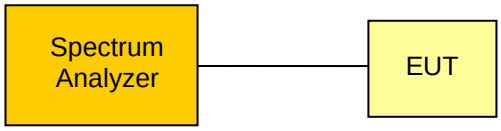
## 3.1 Test Conditions and Results – Occupied Bandwidth

| **Occupied Bandwidth acc. to IC RSS-243** | **Verdict: PASS** |
|---|---|
| Test according to measurement reference | Reference Method |
| | RSS-Gen 6.6 |
| Test frequency range | Tested frequencies |
| | $F_{LOW}$ / $F_{MID}$ / $F_{HIGH}$ |
| EUT test mode | Modulated |

**Limits**

None (Informational only)

**Test setup**




**Test procedure**

1. EUT set to test mode (Communication tester is used if needed)
2. Span set to at least twice the emission spectrum
3. Resolution bandwidth set to 1 % of span
4. Occupied Bandwidth (99 %) measurement with spectrum analyzer built in measurement function

**Test results**

| Channel | Frequency [MHz] | Occupied Bandwidth [kHz] |
|---|---|---|
| $F_{LOW}$ | 402.45 | 181.7 |
| $F_{MID}$ | 403.65 | 183.2 |
| $F_{HIGH}$ | 404.85 | 180.3 |

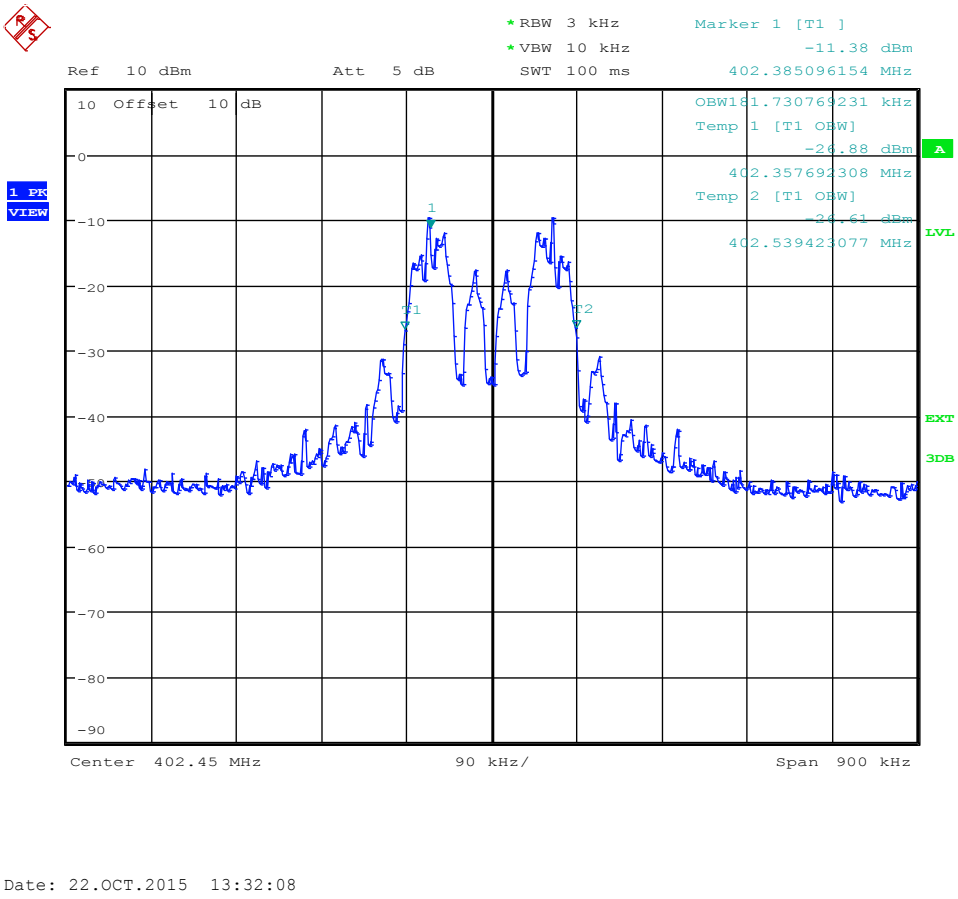
Comments:

## Occupied Bandwidth – $F_{LOW}$

# Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 402.45 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | NONE (INFORMATION ONLY) |
| Note 1: | A spectrum analyzer with an integrated 99% power bandwidth function is used |

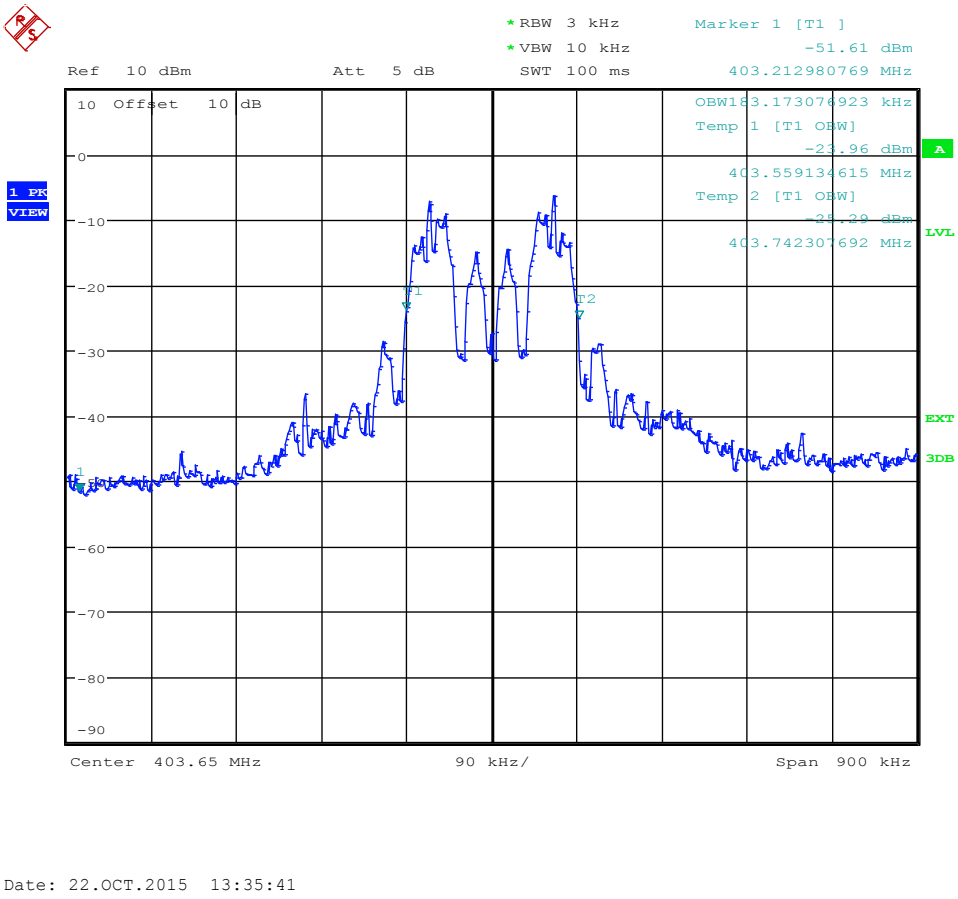


## Occupied Bandwidth - $F_{MID}$

# Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 403.65 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | NONE (INFORMATION ONLY) |
| Note 1: | A spectrum analyzer with an integrated 99% power bandwidth function is used |

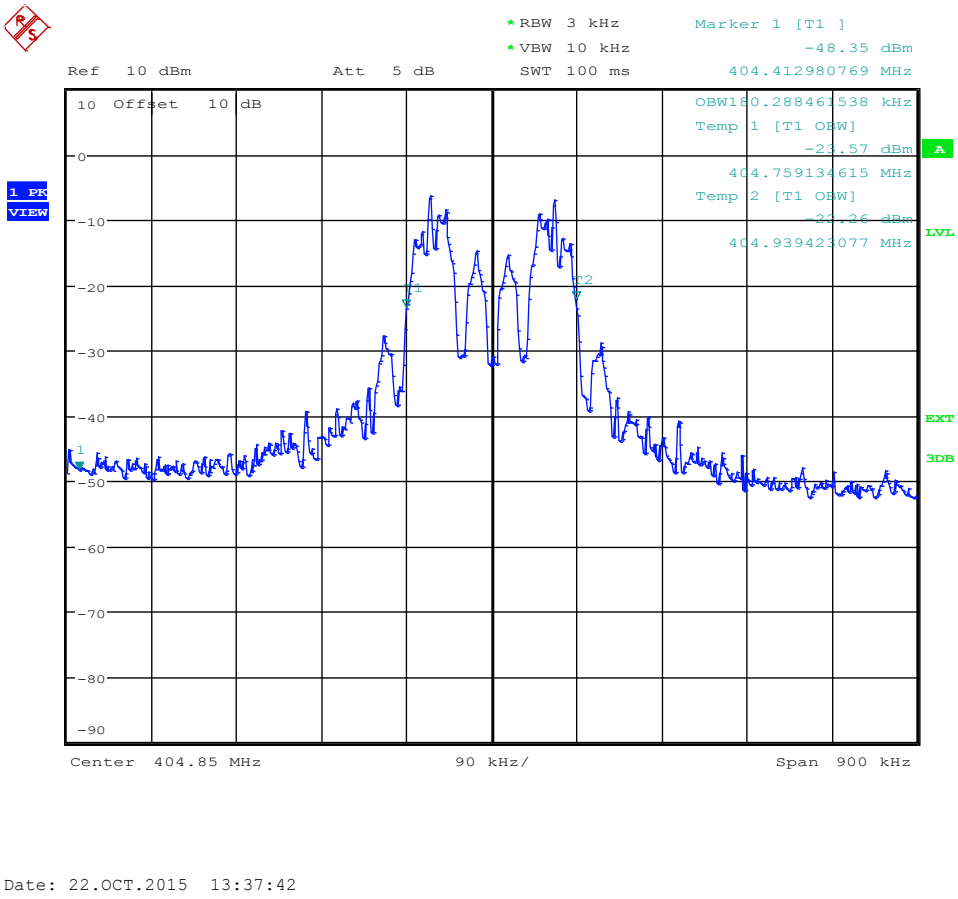


## Occupied Bandwidth - $F_{HIGH}$

# Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 404.85 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | NONE (INFORMATION ONLY) |
| Note 1: | A spectrum analyzer with an integrated 99% power bandwidth function is used |



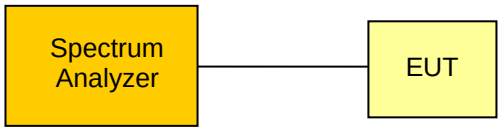
### 3.2 Test Conditions and Results – Emission Bandwidth

| **Emission Bandwidth acc. to FCC Part 95 / IC RSS-243** | **Verdict: PASS** |
|---|---|
| EUT requirement rule parts and clause | Reference |
| | FCC 95.628(d) / FCC 95.633(e) / IC RSS-243 3.3 5.1 |
| Test according to measurement reference | Reference Method |
| | FCC 95.628(a)(6)(i) / FCC 95.633(e)(3) |
| Test frequency range | Tested frequencies |
| | $F_{LOW}$ / $F_{MID}$ / $F_{HIGH}$ |
| EUT test mode | Modulated |

**Limits**

≤ 300 kHz

**Test setup**




**Test procedure**

1. EUT set to test mode
2. Span set to at least twice the emission spectrum
3. Detector set to peak and max hold
4. Envelope peak value of emission spectrum is selected
5. Marker on envelope of spectrum is set to level of -20 dB to the left of the peak
6. Marker on envelope of spectrum is set to level of -20 dB to the right of the peak
7. 20 dB Emission Bandwidth is determined by marker frequency separation

**Test results**

| Channel | Frequency [MHz] | Emission Bandwidth [kHz] | Limit [kHz] | Result |
|---|---|---|---|---|
| $F_{LOW}$ | 402.45 | 183.5 | ≤ 300 | PASS |
| $F_{MID}$ | 403.65 | 183.5 | ≤ 300 | PASS |
| $F_{HIGH}$ | 404.85 | 183.5 | ≤ 300 | PASS |

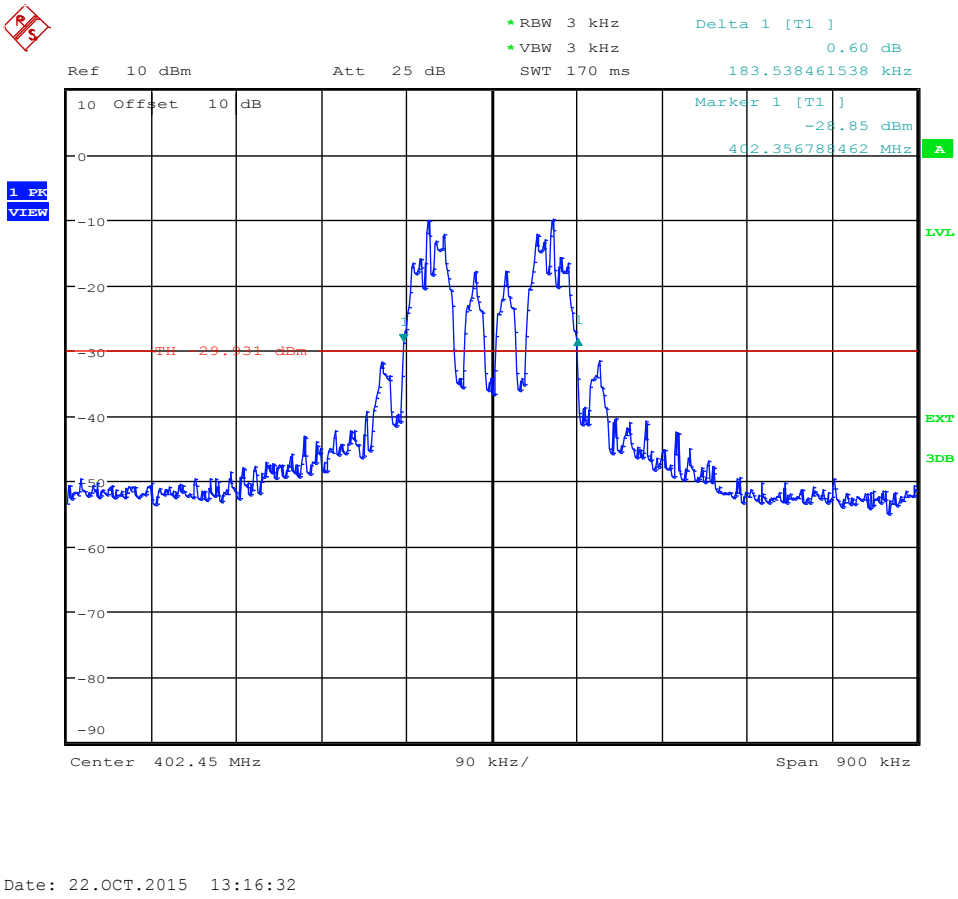
Comments:

## Emission Bandwidth – $F_{LOW}$

# Emission Bandwidth acc. to FCC Part 95.633

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 402.45 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | PASS |
| Note 1: | 20 dB bandwidth |

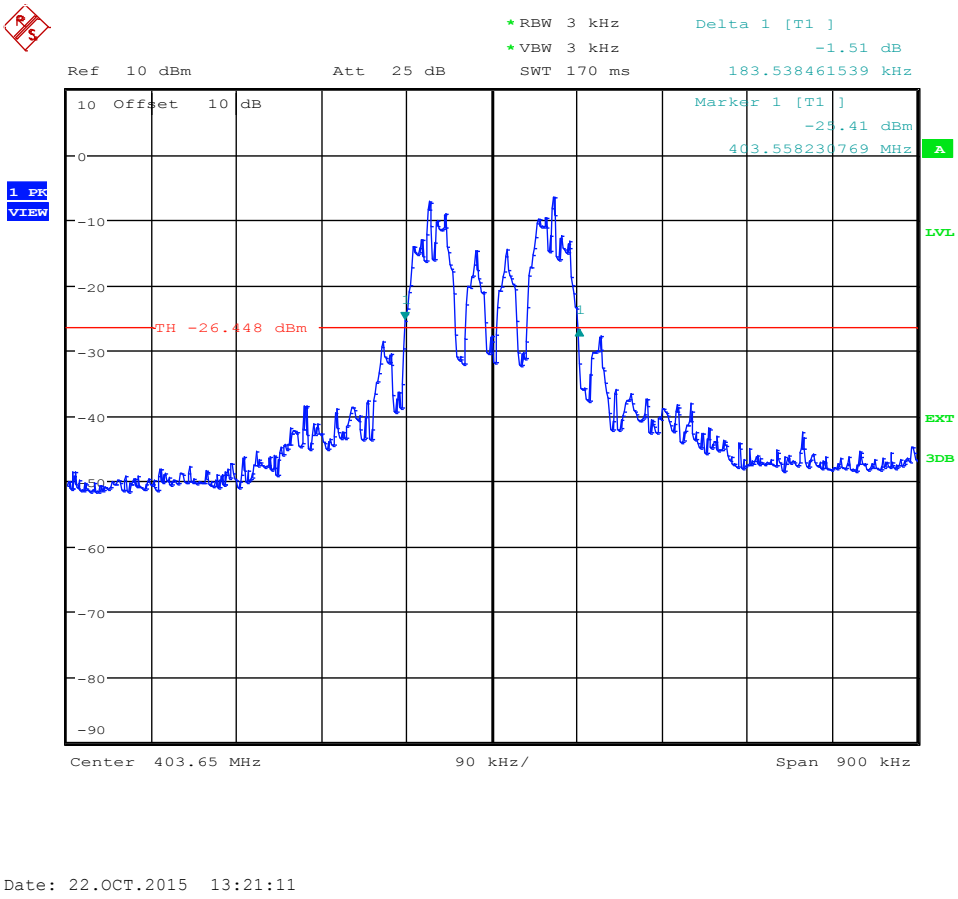


## Emission Bandwidth – $F_{MID}$

# Emission Bandwidth acc. to FCC Part 95.633

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 403.65 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | PASS |
| Note 1: | 20 dB bandwidth |

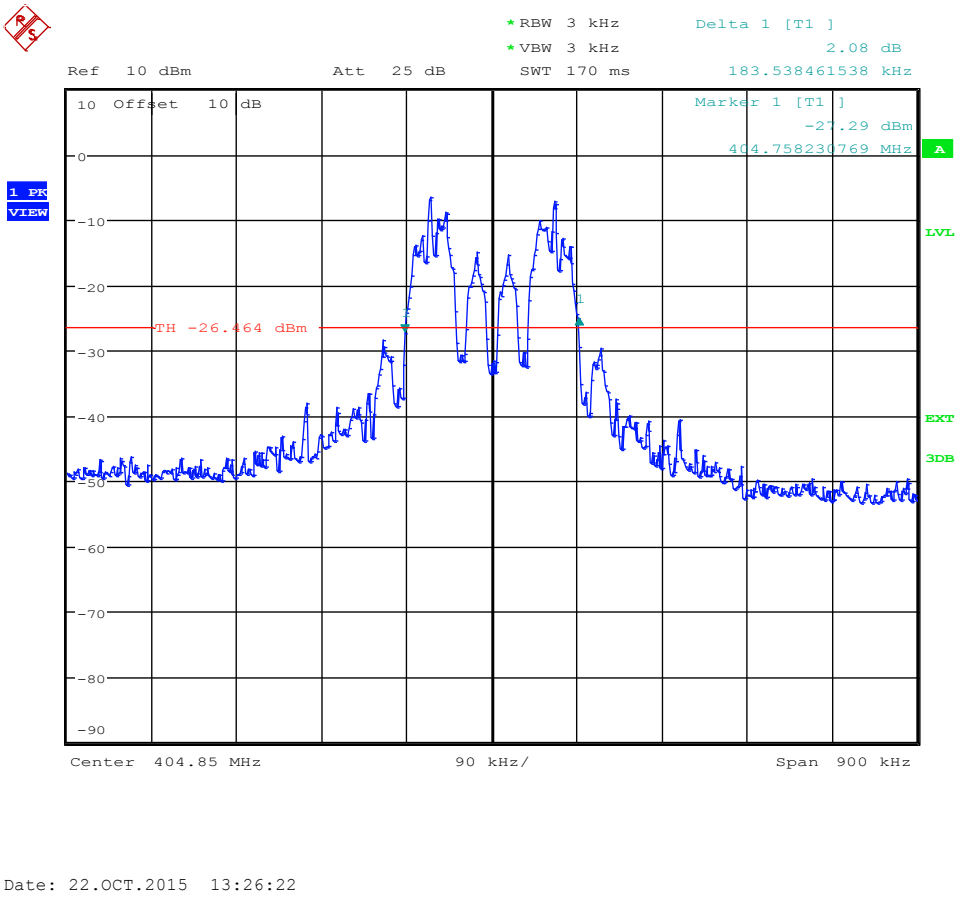


## Emission Bandwidth – $F_{HIGH}$

# Emission Bandwidth acc. to FCC Part 95.633

Project Number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Wilfried Treffke |
| Test Conditions: | Tnom / Vnom |
| Mode: | Tx 404.85 MHz, 2FSK |
| Test Date: | 2015-10-22 |
| Verdict: | PASS |
| Note 1: | 20 dB bandwidth |



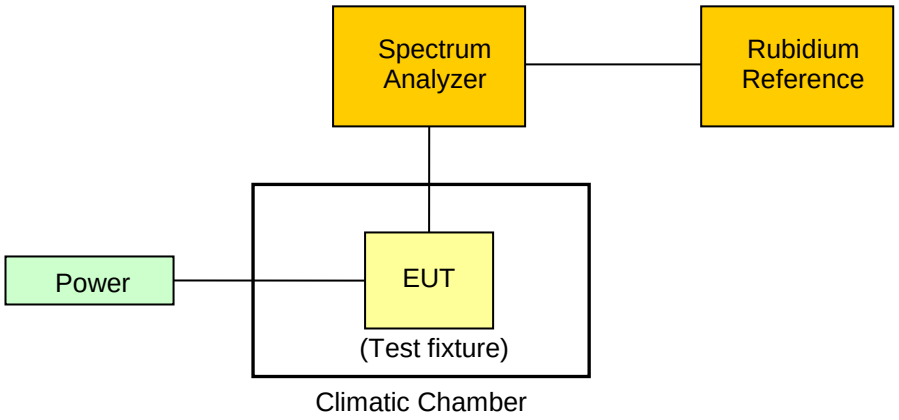
### 3.3 Test Conditions and Results – Frequency stability

| **Frequency stability acc. to FCC Part 95 / IC RSS-243** | **Verdict: PASS** |
|---|---|
| EUT requirement rule parts and clause | Reference |
| | FCC 95.628(e) / IC RSS-243 3.3 5.3 / RSS-Gen 4.7 |
| Test according to measurement reference | Reference Method |
| | EN 301 839-1 8.1 |
| Test frequency range | Tested frequencies |
| | $F_{LOW}$ / $F_{MID}$ / $F_{HIGH}$ |
| EUT test mode | Unmodulated |

**Limits**

≤ ±100 ppm

**Test setup**



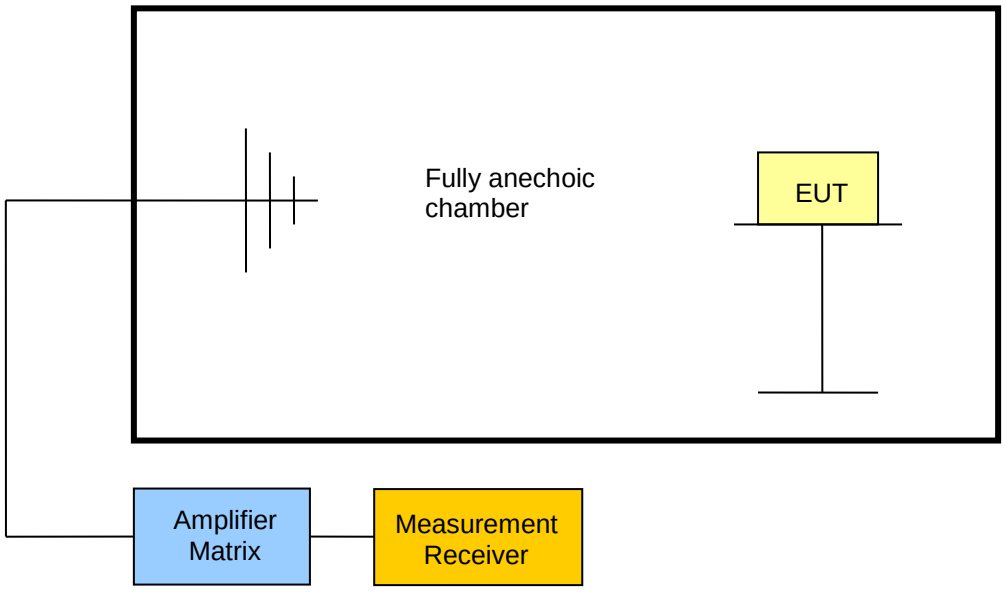

**Test procedure**

1. EUT set to test mode with supply voltage and temperature set to nominal conditions
2. EUT transmits without modulation
3. Detector set to peak and max hold
4. Peak of emission is measured using a frequency counter
5. The frequency error is determined as the deviation of the emission frequency from the nominal frequency stated by the customer.

| Test results | | | | | |
|---|---|---|---|---|---|
| Channel | Nominal Frequency [MHz] | Temperature | Supply voltage | Frequency [MHz] | Drift [ppm] |
| $F_{LOW}$ | 402.45 | $T_{NOM}$ = 37 °C | $V_{NOM}$ = 3.0 VDC | 402.448368 | -04.06 |
| $F_{LOW}$ | 402.45 | $T_{MIN}$ = 25 °C | $V_{NOM}$ = 3.0 VDC | 402.448517 | -03.68 |
| $F_{LOW}$ | 402.45 | $T_{MAX}$ = 45 °C | $V_{NOM}$ = 3.0 VDC | 402.448252 | -04.34 |
| $F_{MID}$ | 403.65 | $T_{NOM}$ = 37 °C | $V_{NOM}$ = 3.0 VDC | 403.649394 | -01.50 |
| $F_{MID}$ | 403.65 | $T_{MIN}$ = 25 °C | $V_{NOM}$ = 3.0 VDC | 403.649536 | -01.15 |
| $F_{MID}$ | 403.65 | $T_{MAX}$ = 45 °C | $V_{NOM}$ = 3.0 VDC | 403.649271 | -01.81 |
| $F_{HIGH}$ | 404.85 | $T_{NOM}$ = 37 °C | $V_{NOM}$ = 3.0 VDC | 404.850448 | 01.11 |
| $F_{HIGH}$ | 404.85 | $T_{MIN}$ = 25 °C | $V_{NOM}$ = 3.0 VDC | 404.850610 | 01.51 |
| $F_{HIGH}$ | 404.85 | $T_{MAX}$ = 45 °C | $V_{NOM}$ = 3.0 VDC | 404.850353 | 00.87 |
| Comments: | | | | | |

### 3.4 Test Conditions and Results – Transmitter output power

| **Transmitter output power acc. to FCC Part 95 / IC RSS-243** | **Verdict: PASS** |
|---|---|
| EUT requirement rule parts and clause | Reference |
| | FCC 95.639(f) / IC RSS-243 5.4 |
| Test according to measurement reference | Reference Method |
| | EN 301 839-1 8.3 |
| Test frequency range | Tested frequencies |
| | $F_{LOW}$ / $F_{MID}$ / $F_{HIGH}$ |
| EUT test mode | Unmodulated |
| **Limits** | |
| ≤ 25 µW (-16 dBm) e.i.r.p. | |
| **Test setup** | |




**Test procedure**

1. EUT set to test frequency without modulation
2. Measurement polarization is set to vertical
3. Span it set according to measurement range and detector is set to peak and max hold
4. Resolution bandwidth is set two be at least twice the emission bandwidth
5. During the sweep the EUT is rotated to obtain maximum emission level
6. Measurement is repeated with horizontal measurement polarization

| Test results | | | | | |
|---|---|---|---|---|---|
| Channel | Frequency [MHz] | Emission Level [dBm e.i.r.p.] | Detector | Limit [dbm e.i.r.p.] | Margin [dB] |
| $F_{LOW}$ | 402.45 | -32.6 | pk | -16 | -16.60 |
| $F_{HIGH}$ | 404.85 | -30.3 | pk | -16 | -14.30 |
| Comments: | | | | | |

### 3.5 Test Conditions and Results – Band-edge and In-band Emissions

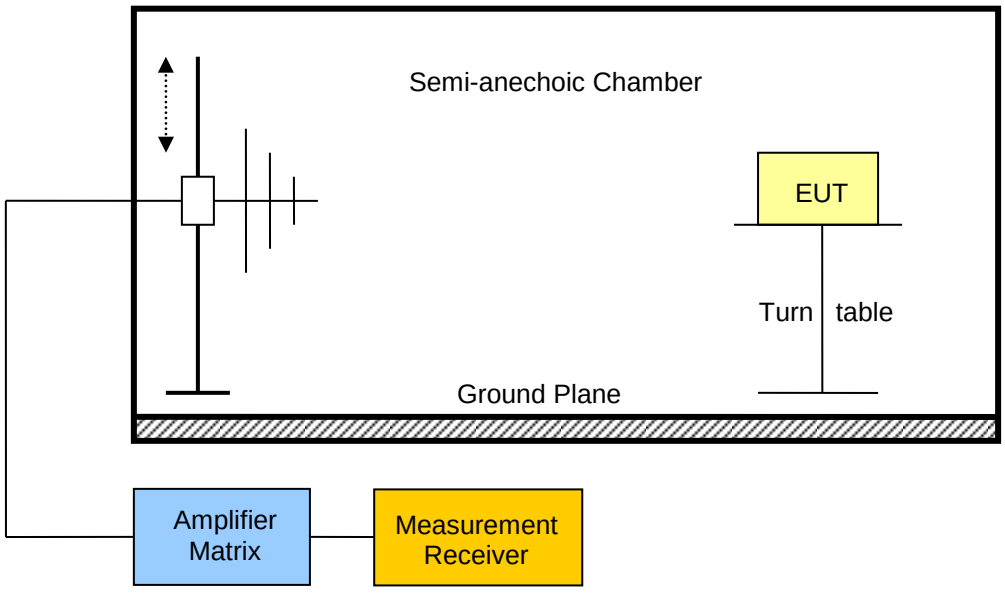
| **Band-edge compliance acc. to FCC Part 95 / IC RSS-243** | **Verdict: PASS** |
|---|---|
| EUT requirement rule parts and clause | Reference |
| | FCC 95.635(d) / IC RSS-243 3.5 5.5 / RSS-Gen 4.9 |
| Test according to measurement reference | Reference Method |
| | FCC 95.635(d) / ANSI C 63.4 |
| Test frequency range | Tested frequencies |
| | $F_{LOW}$ / $F_{HIGH}$ |
| EUT test mode | Modulated |

| **Limits - FCC** | |
|---|---|
| Frequency range | Limit |
| 402 MHz – 250 kHz ≤ f ≤ 402 MHz | 20 dB below maximum permitted output power |
| 402 MHz < f < 150 kHz - $f_C$ | 20 dB below transmitter output power |
| 150 kHz + $f_C$ < f < 405 Mhz | 20 dB below transmitter output power |
| 405 MHz ≤ f ≤ 405 MHz + 250 kHz | 20 dB below maximum permitted output power |

| **Limits - IC** | |
|---|---|
| Frequency range | Limit |
| 402 MHz – 250 kHz < f < 150 kHz-$f_C$ | 20 dB below maximum permitted output power |
| 150 kHz+$f_C$ < f < 405 MHz + 250 kHz | 20 dB below maximum permitted output power |

Because the FCC limits are more stringent than the Industry Canada limits, the FCC limits are used to show compliance with the band-edge emission requirements.

**Test setup**



| Test procedure |
|---|
| 1. EUT set to test frequency with modulation<br>2. Measurement polarization is set to vertical<br>3. Span it set according to measurement range<br>4. Resolution bandwidth is set to 1% of the emission bandwidth and detector is set to peak<br>5. During the sweep the EUT is rotated to obtain maximum emission level<br>6. Measurement is repeated with horizontal measurement polarization |

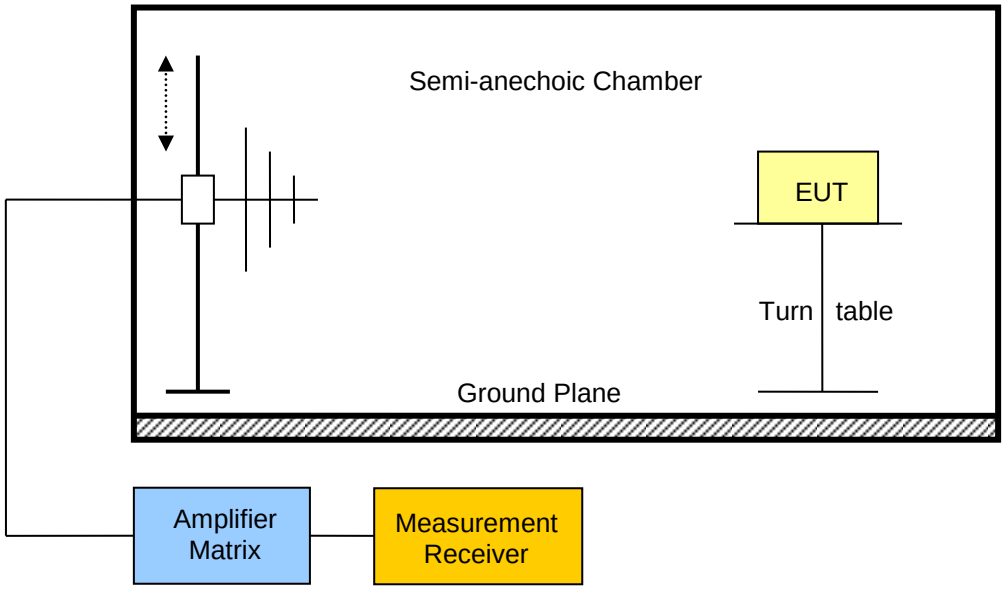
**Test results**

| Channel | Frequency [MHz] | Max. Emission Level [dBµV/m] | Max. Carrier Level [dBµV/m] | In-band Limit [dBµV/m] | Result |
|---|---|---|---|---|---|
| $F_{LOW}$ | 402.45 | 31.96 | 74.3 | 54.3 | PASS |
| $F_{LOW}$ | 402.45 | 23.26 | 74.3 | 54.3 | PASS |
| $F_{LOW}$ | 402.45 | 21.74 | 74.3 | 54.3 | PASS |
| $F_{HIGH}$ | 404.85 | 33.43 | 76.3 | 56.3 | PASS |
| $F_{HIGH}$ | 404.85 | 24.31 | 76.3 | 56.3 | PASS |
| $F_{HIGH}$ | 404.85 | 18.21 | 76.3 | 56.3 | PASS |

Comments: see attached diagrams

### 3.6 Test Conditions and Results – Transmitter unwanted emissions

| **Transmitter unwanted emissions acc. to FCC Part 95 / IC RSS-243** | | | | **Verdict: PASS** |
|---|---|---|---|---|
| Test according referenced standards | Reference Method | | | |
| | FCC 95.635(d) / IC RSS-243 3.4 5.5 / IC RSS-Gen 4.9 | | | |
| Test according to measurement reference | Reference Method | | | |
| | FCC 95.635(d) / ANSI C 63.4 | | | |
| Test frequency range | Tested frequencies | | | |
| | 30 MHz – 10$^{th}$ Harmonic | | | |
| **Limits** | | | | |
| Frequency range [MHz] | Detector | Limit [µV/m] | Limit [dBµV/m] | Limit Distance [m] |
| 30 – 88 | Quasi-Peak | 100 | 40 | 3 |
| 88 – 216 | Quasi-Peak | 150 | 43.5 | 3 |
| 216 – 960 | Quasi-Peak | 200 | 46 | 3 |
| 960 – 1000 | Quasi-Peak | 500 | 54 | 3 |
| > 1000 | Average | 500 | 54 | 3 |
| **Test setup** | | | | |



| Test procedure |
|---|
| 1. EUT set to test mode<br>2. Span it set according to measurement range<br>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<br>4. Markers are set to peak emission levels within restricted bands |

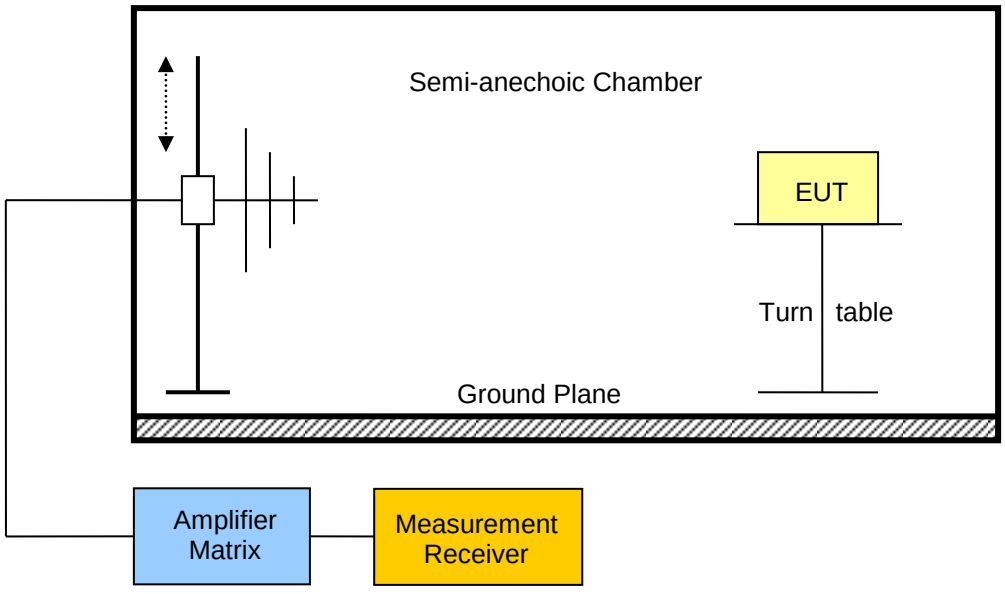
**Test results**

| Channel | Frequency [MHz] | Mode | Emission [MHz] | Level [dbµV/m] | Det. | Pol. | Limit [dbµV/m] | Limit dist. [m]* | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|
| $F_{LOW}$ | 402.45 | Modulated | 400.943 | 33.66 | pk | hor | 46.00 | 3 | -12.34 |
| $F_{LOW}$ | 402.45 | Modulated | 401.347 | 23.86 | pk | ver | 46.00 | 3 | -22.14 |
| $F_{LOW}$ | 402.45 | Modulated | 401.96 | 05.95 | pk | ver | 59.40 | 3 | -53.45 |
| $F_{LOW}$ | 402.45 | Modulated | 401.993 | 14.42 | pk | hor | 59.40 | 3 | -44.98 |
| $F_{LOW}$ | 402.45 | Modulated | 405.076 | 05.29 | pk | hor | 59.40 | 3 | -54.11 |
| $F_{LOW}$ | 402.45 | Modulated | 405.095 | -01.65 | pk | ver | 59.40 | 3 | -61.05 |
| $F_{LOW}$ | 402.45 | Modulated | 406.44 | 26.24 | pk | hor | 46.00 | 3 | -19.76 |
| $F_{LOW}$ | 402.45 | Modulated | 406.44 | 18.81 | pk | ver | 46.00 | 3 | -27.19 |
| $F_{LOW}$ | 402.45 | Modulated | 1689 | 33.40 | pk | hor | 54.00 | 3 | -20.60 |
| $F_{LOW}$ | 402.45 | Modulated | 1708 | 33.37 | pk | ver | 54.00 | 3 | -20.63 |
| $F_{LOW}$ | 402.45 | Modulated | 3263 | 40.42 | pk | ver | 54.00 | 3 | -13.58 |
| $F_{HIGH}$ | 404.85 | Modulated | 400.943 | 28.55 | pk | hor | 46.00 | 3 | -17.45 |
| $F_{HIGH}$ | 404.85 | Modulated | 400.943 | 19.73 | pk | ver | 46.00 | 3 | -26.27 |
| $F_{HIGH}$ | 404.85 | Modulated | 401.805 | 05.94 | pk | hor | 59.40 | 3 | -53.46 |
| $F_{HIGH}$ | 404.85 | Modulated | 405.015 | 23.75 | pk | hor | 59.40 | 3 | -35.65 |
| $F_{HIGH}$ | 404.85 | Modulated | 405.015 | 13.39 | pk | ver | 59.40 | 3 | -46.01 |
| $F_{HIGH}$ | 404.85 | Modulated | 405.25 | 30.15 | pk | hor | 46.00 | 3 | -15.85 |
| $F_{HIGH}$ | 404.85 | Modulated | 406.44 | 13.71 | pk | ver | 46.00 | 3 | -32.29 |
| $F_{HIGH}$ | 404.85 | Modulated | 1701 | 34.12 | pk | hor | 54.00 | 3 | -19.88 |
| $F_{HIGH}$ | 404.85 | Modulated | 3995 | 41.12 | pk | ver | 54.00 | 3 | -12.88 |

Comments: * Physical distance between EUT and measurement antenna.

### 3.7 Test Conditions and Results – Receiver spurious emissions

| **Receiver spurious emissions acc. to IC RSS-243** | | | | **Verdict: PASS** |
|---|---|---|---|---|
| Test according referenced standards | Reference Method | | | |
| | IC RSS-243 3.5 5.6 / IC RSS-Gen 4.10 6.1 | | | |
| Test according to measurement reference | Reference Method | | | |
| | ANSI C 63.4 | | | |
| Test frequency range | Tested frequencies | | | |
| | 30 MHz – 5th 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 |
|---|
| 1. EUT set to receive mode (Communication tester is used if needed)<br>2. Span it set according to measurement range<br>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<br>4. Markers are set to peak emission levels |

**Test results**

| Channel | Frequency [MHz] | Emission [MHz] | Emission Level [dBµV/m] | Det. | Pol. | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|
| $F_{MID}$ | 403.65 | 34.08 | 29.18 | pk | hor | 40.00 | -10.82 |
| $F_{MID}$ | 403.65 | 167.02 | 32.66 | pk | ver | 43.50 | -10.84 |
| $F_{MID}$ | 403.65 | 668.8 | 16.61 | pk | hor | 46.00 | -29.39 |
| $F_{MID}$ | 403.65 | 878.4 | 19.33 | pk | ver | 46.00 | -26.67 |
| $F_{MID}$ | 403.65 | 3508 | 40.89 | pk | hor | 53.98 | -13.09 |
| $F_{MID}$ | 403.65 | 3940 | 41.91 | pk | ver | 53.98 | -12.07 |

Comments:

# ANNEX A Transmitter radiated power

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | Tx; 402.45 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Tx Power EIRP |

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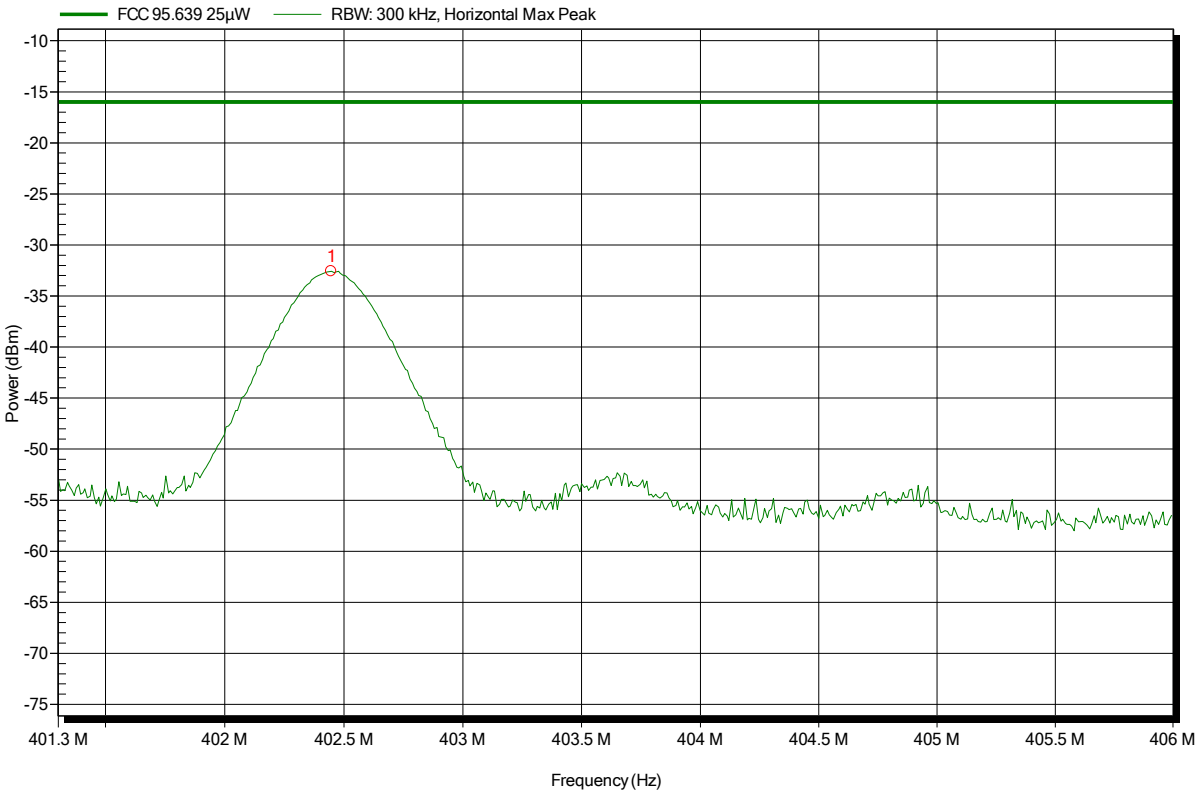


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 402.447 MHz | -32.6 dBm | -16 dBm | -16.6 dB | Pass |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | Tx; 402.45 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Tx Power EIRP |

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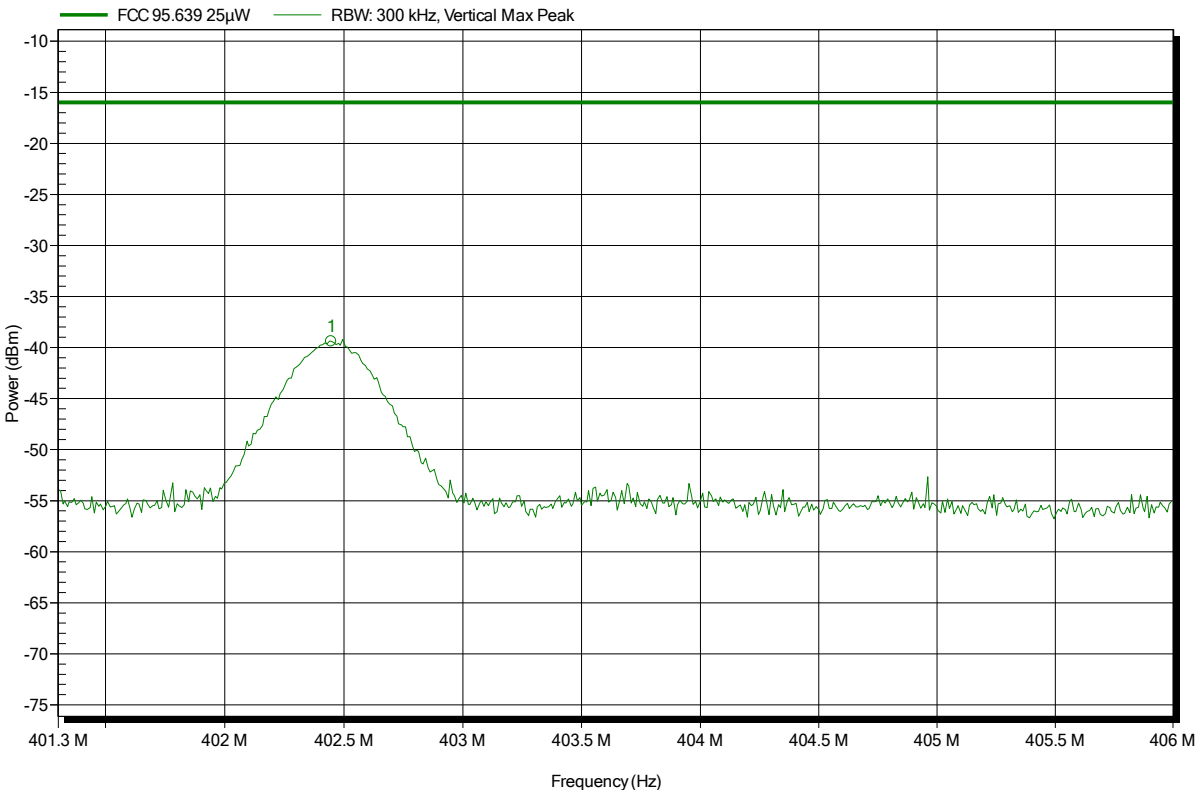


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 402.447 MHz | -39.4 dBm | -16 dBm | -23.39 dB | Pass |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | Tx; 404.85 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Tx Power EIRP |

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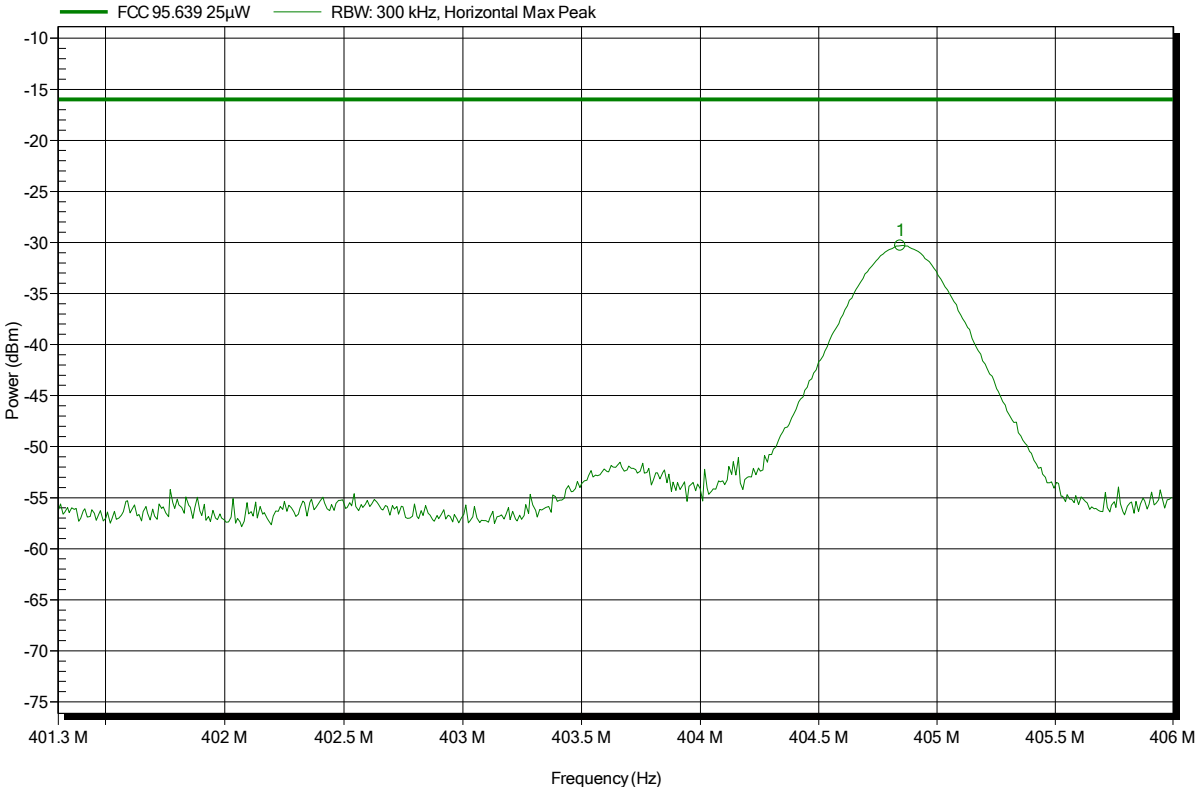


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 404.844 MHz | -30.3 dBm | -16 dBm | -14.32 dB | Pass |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | Tx; 404.85 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Tx Power EIRP |

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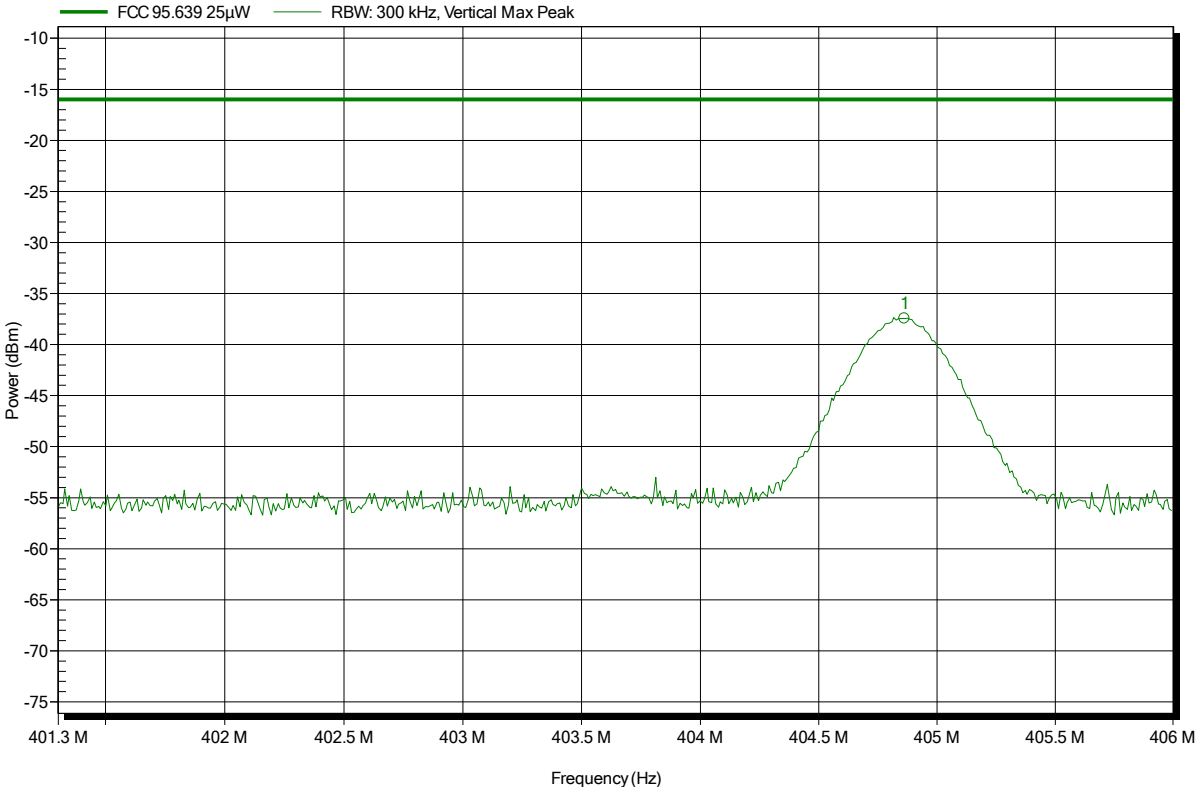


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 404.863 MHz | -37.5 dBm | -16 dBm | -21.45 dB | Pass |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | Tx; 402.45 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Power dBµV/m ERP |

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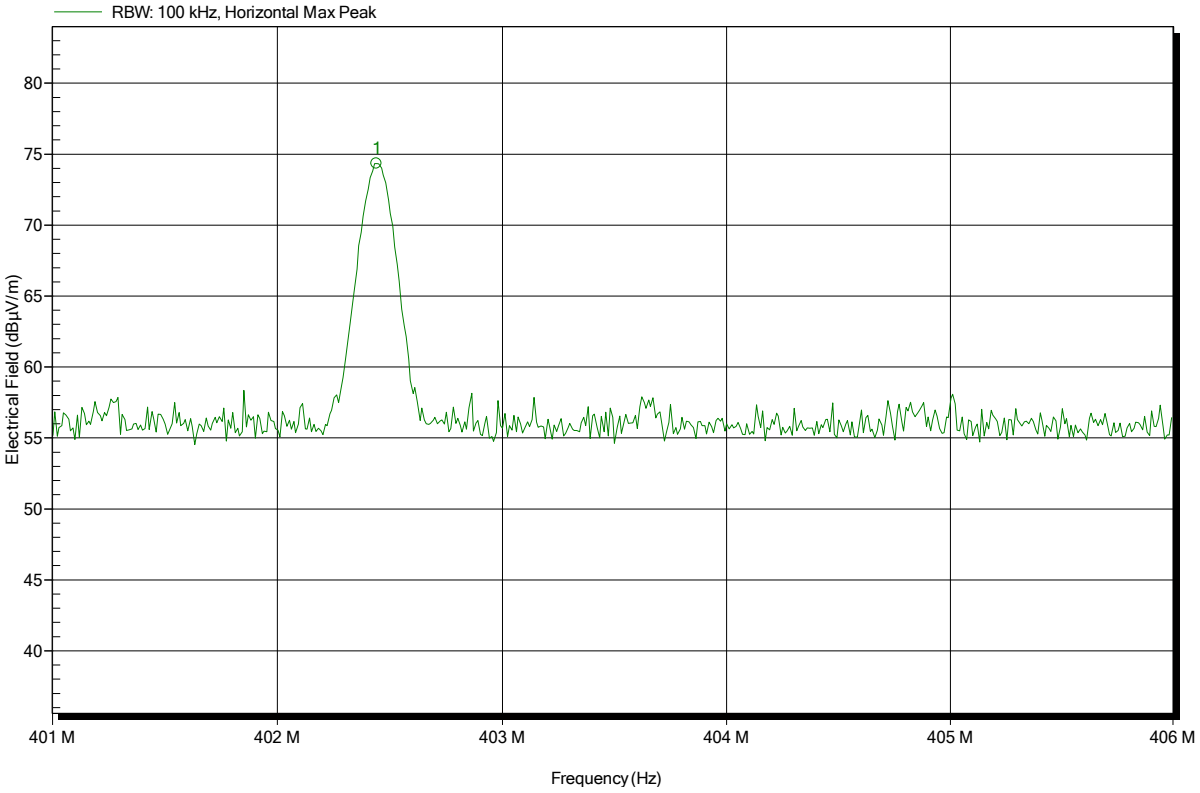


| Frequency | Peak |
|---|---|
| 402.44 MHz | 74.33 dBµV/m |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | Tx; 402.45 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Power dBµV/m ERP |

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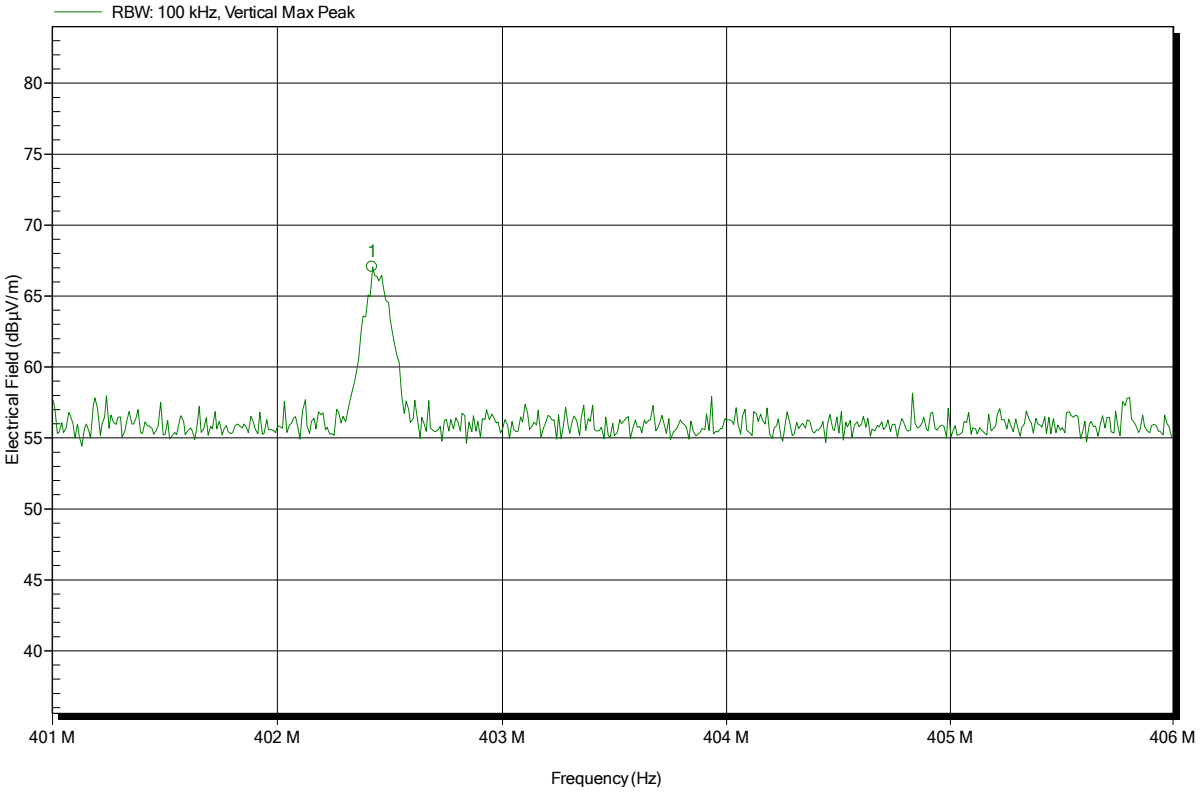


| Frequency | Peak |
|---|---|
| 402.42 MHz | 67.05 dBµV/m |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | Tx; 404.85 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Power dBµV/m ERP |

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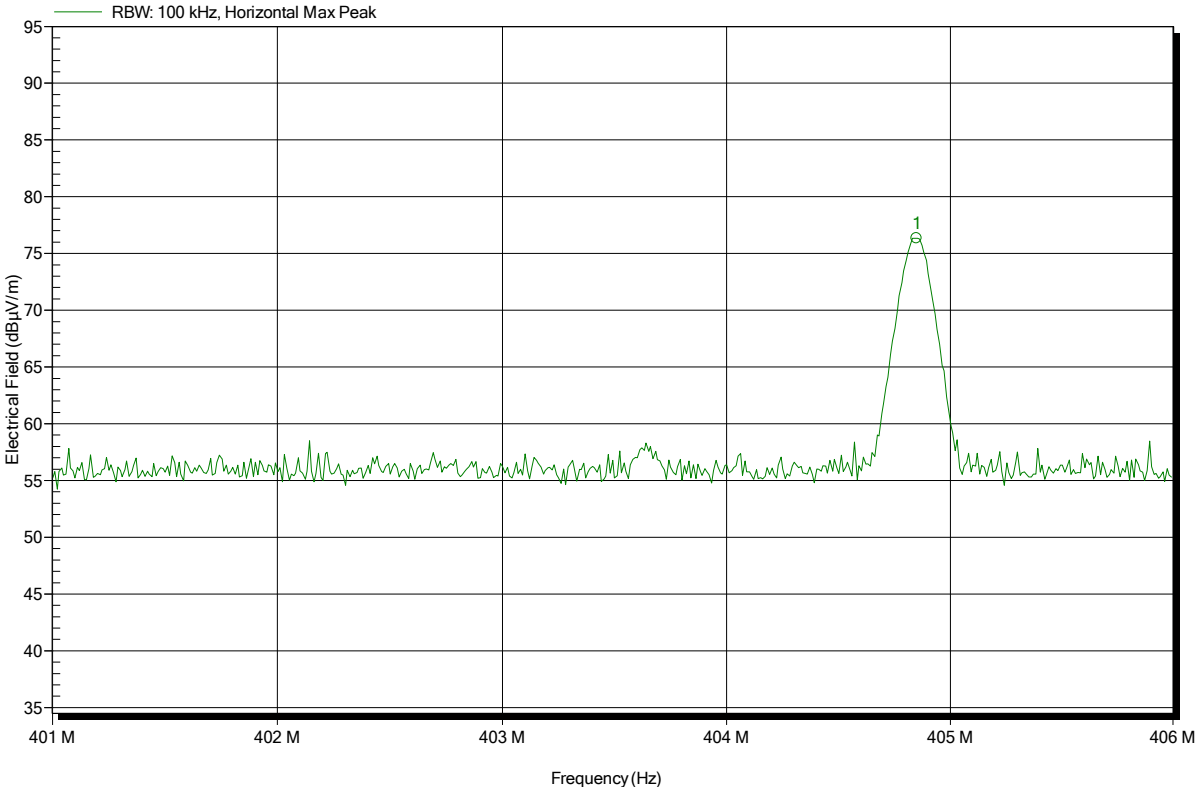


| Frequency | Peak |
|---|---|
| 404.85 MHz | 76.35 dBµV/m |

**Radiated power according to FCC Part 95; Subpart E**

Order number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | Tx; 404.85 MHz, CW |
| Test Date: | 2015-10-05 |
| Note: | Power dBµV/m ERP |

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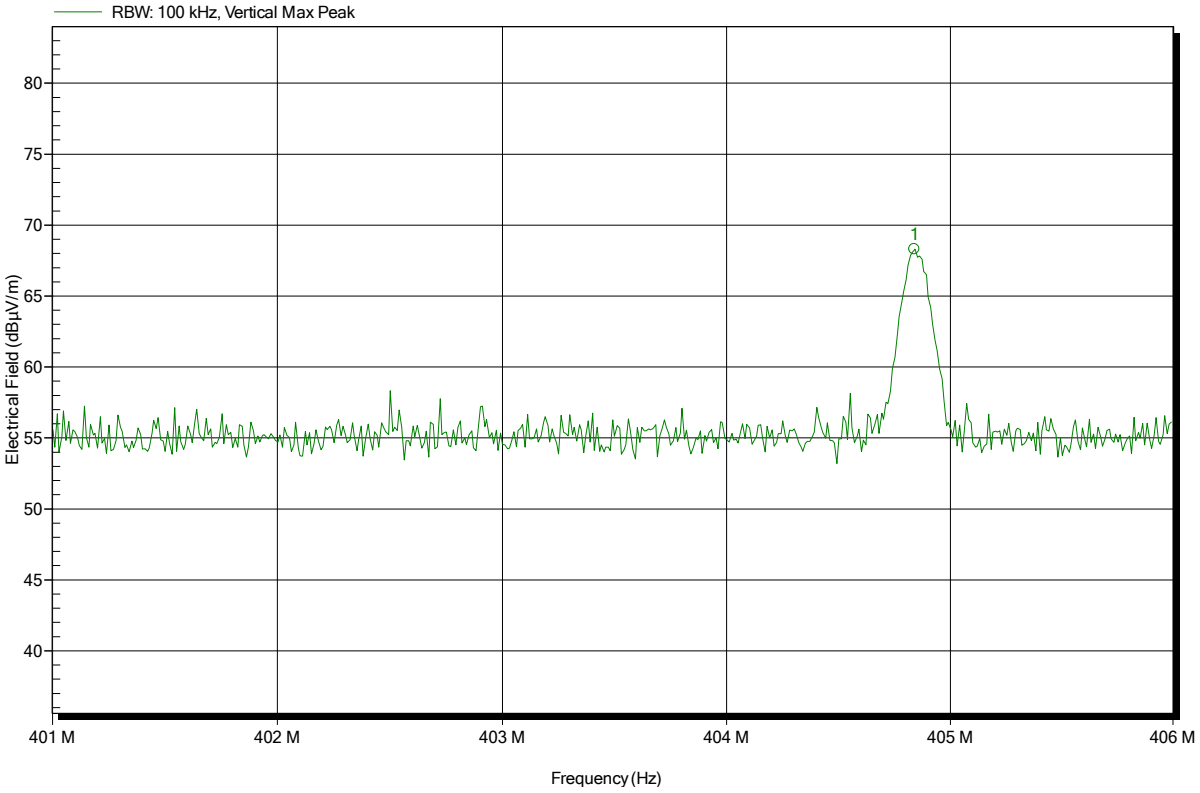


| Frequency | Peak |
|---|---|
| 404.84 MHz | 68.3 dBµV/m |

# ANNEX B Transmitter radiated spurious emissions

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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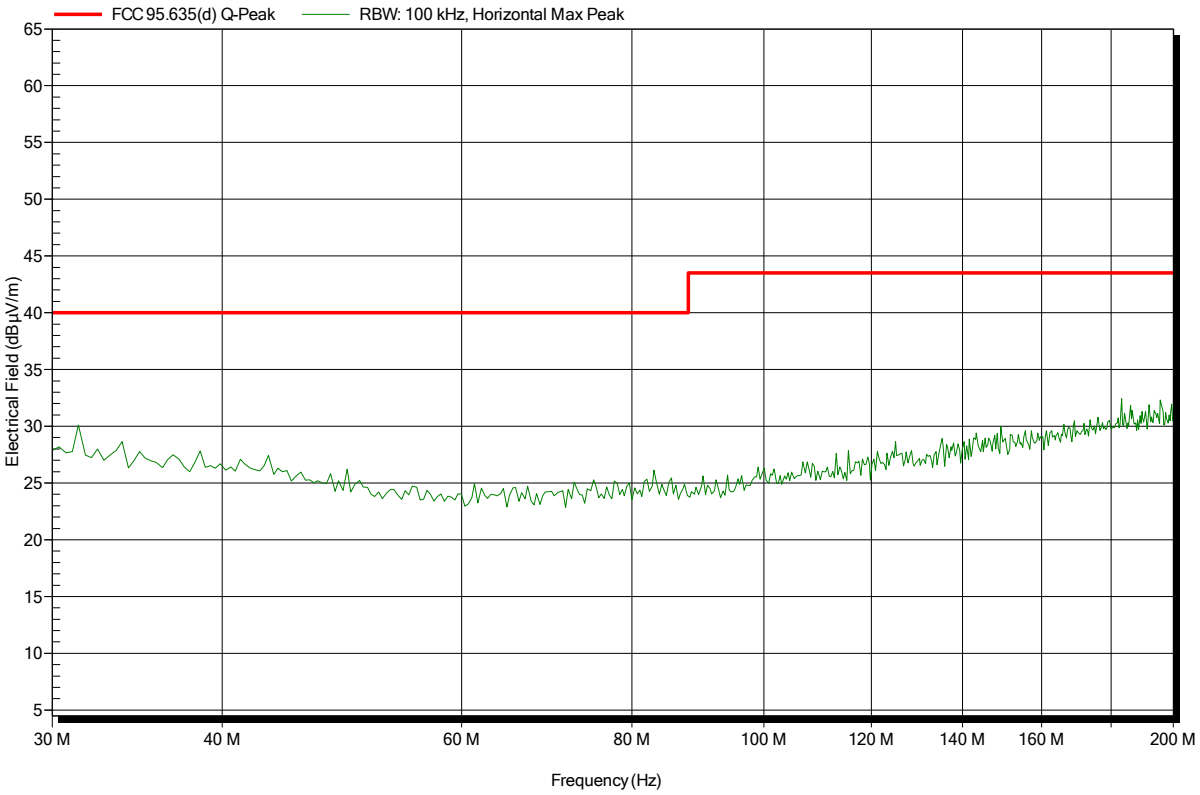

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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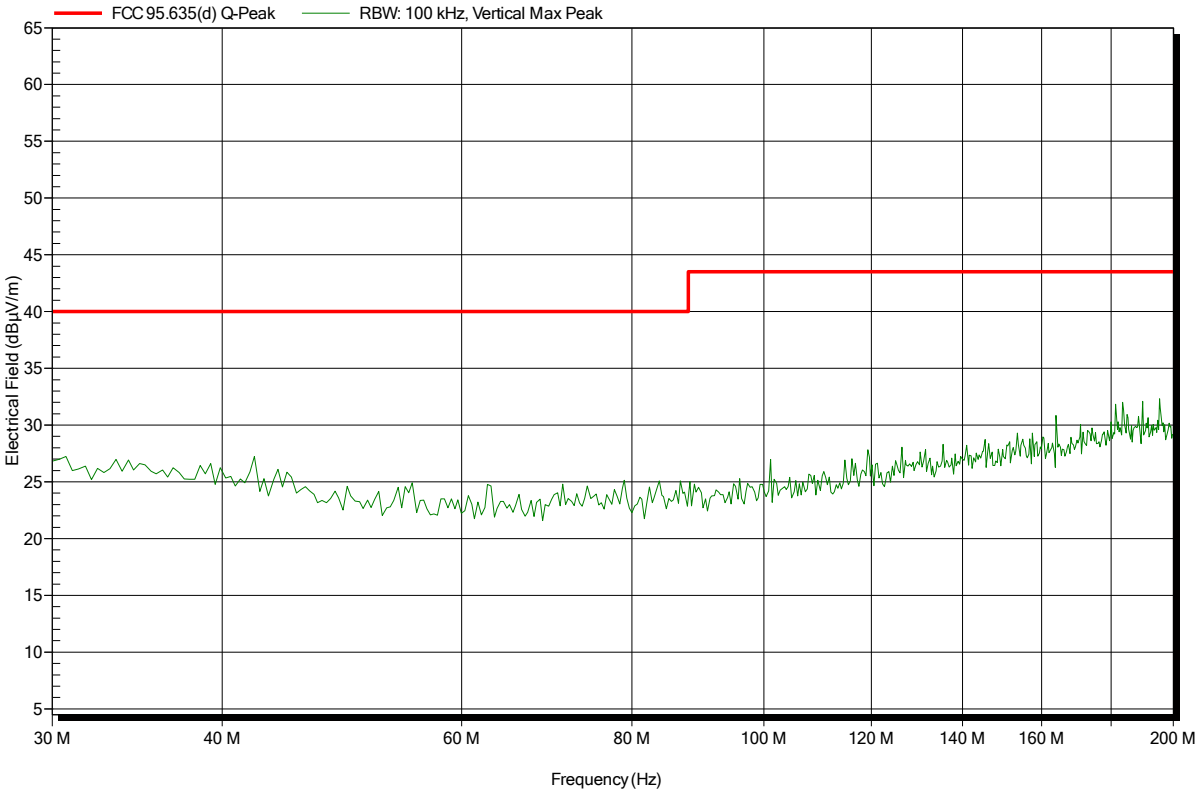

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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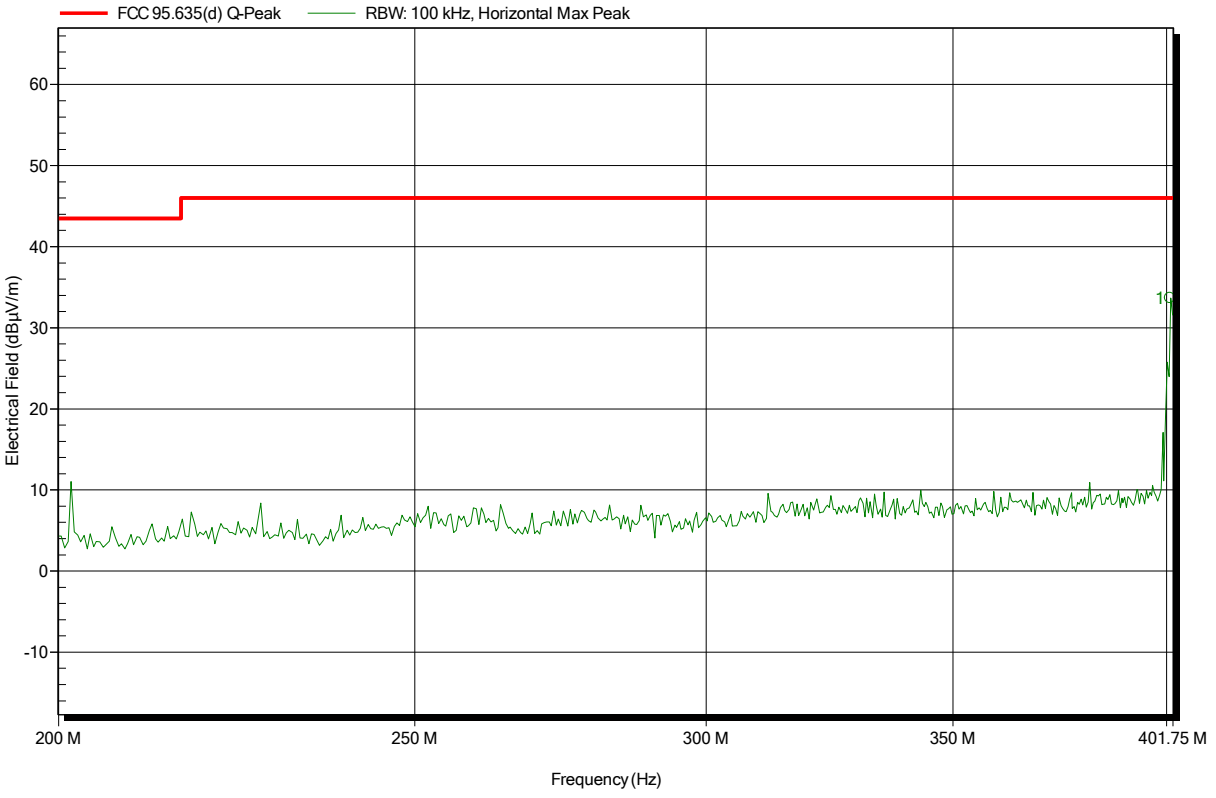


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 400.943 MHz | 33.66 dBµV/m | 46 dBµV/m | -12.34 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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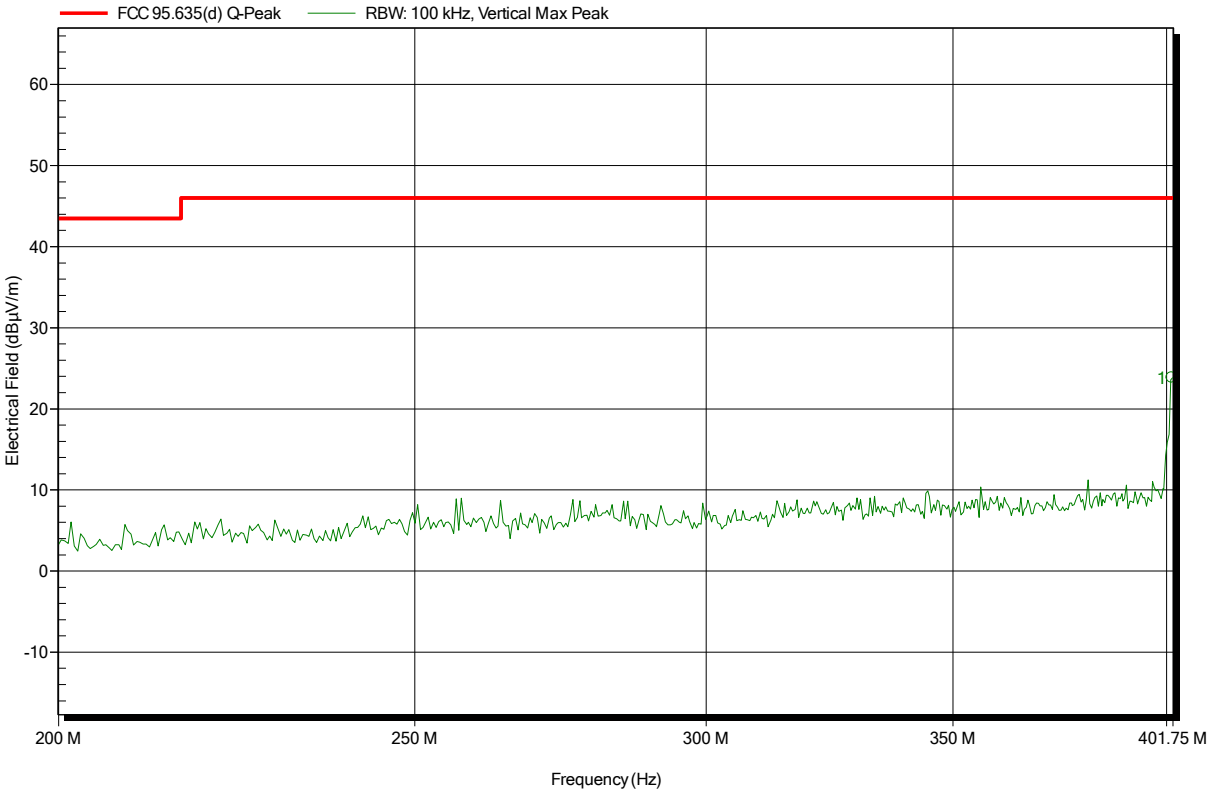


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 401.347 MHz | 23.86 dBµV/m | 46 dBµV/m | -22.14 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | Band-edge |

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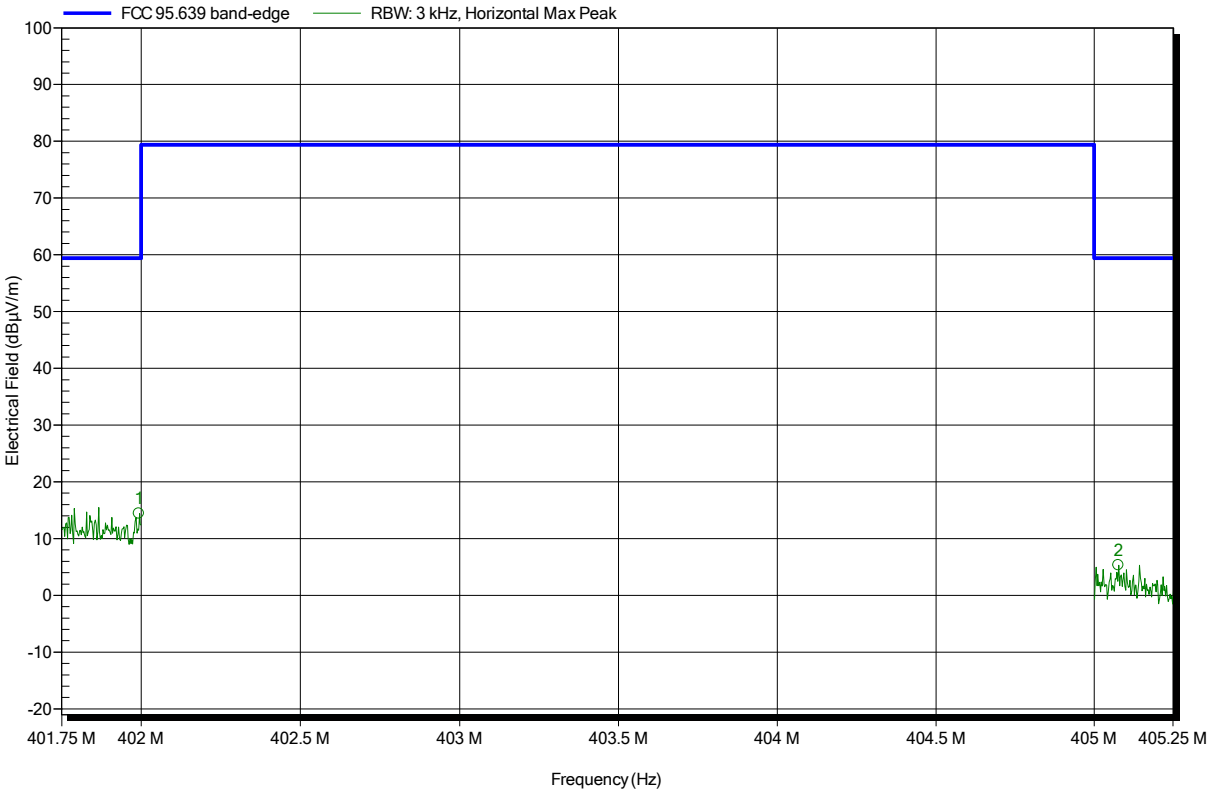


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 401.993 MHz | 14.42 dBµV/m | 59.4 dBµV/m | -44.98 dB | Pass |
| 405.076 MHz | 5.29 dBµV/m | 59.4 dBµV/m | -54.11 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | Band-edge |

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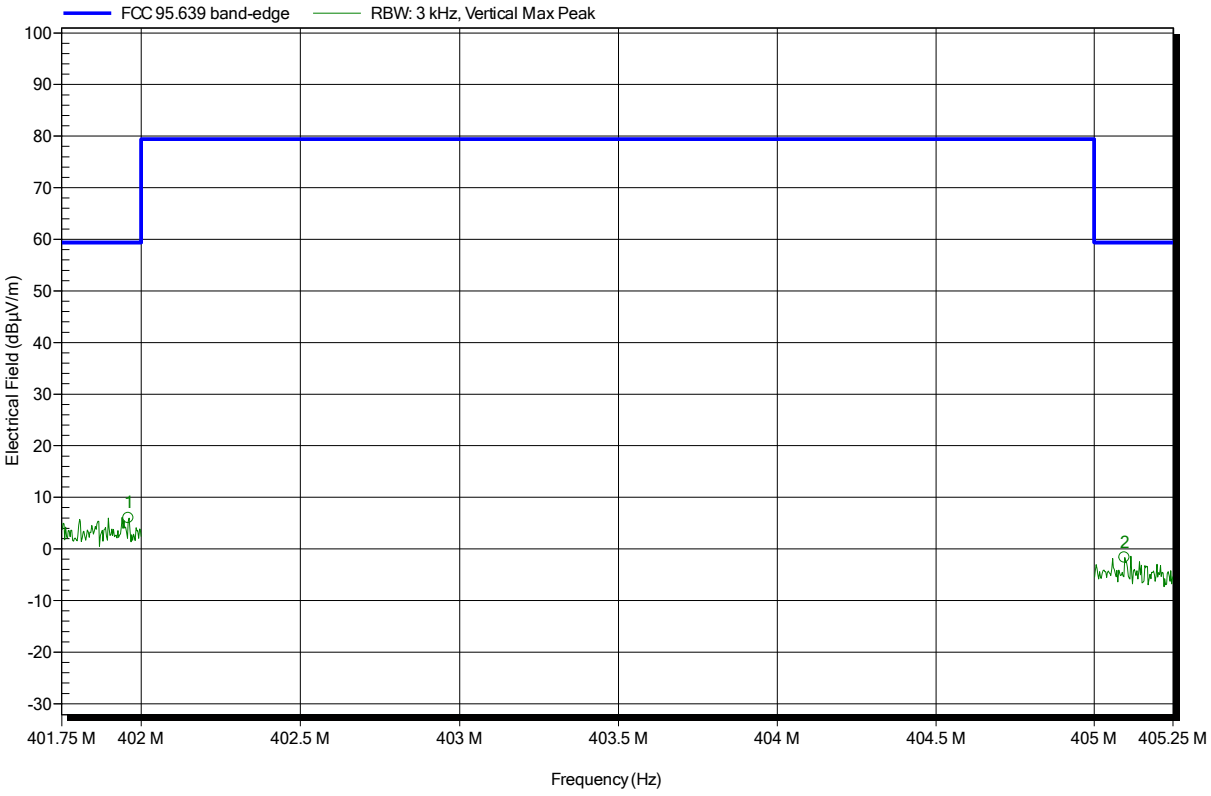


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 401.96 MHz | 5.95 dBµV/m | 59.4 dBµV/m | -53.45 dB | Pass |
| 405.095 MHz | -1.65 dBµV/m | 59.4 dBµV/m | -61.05 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | In-band emissions |

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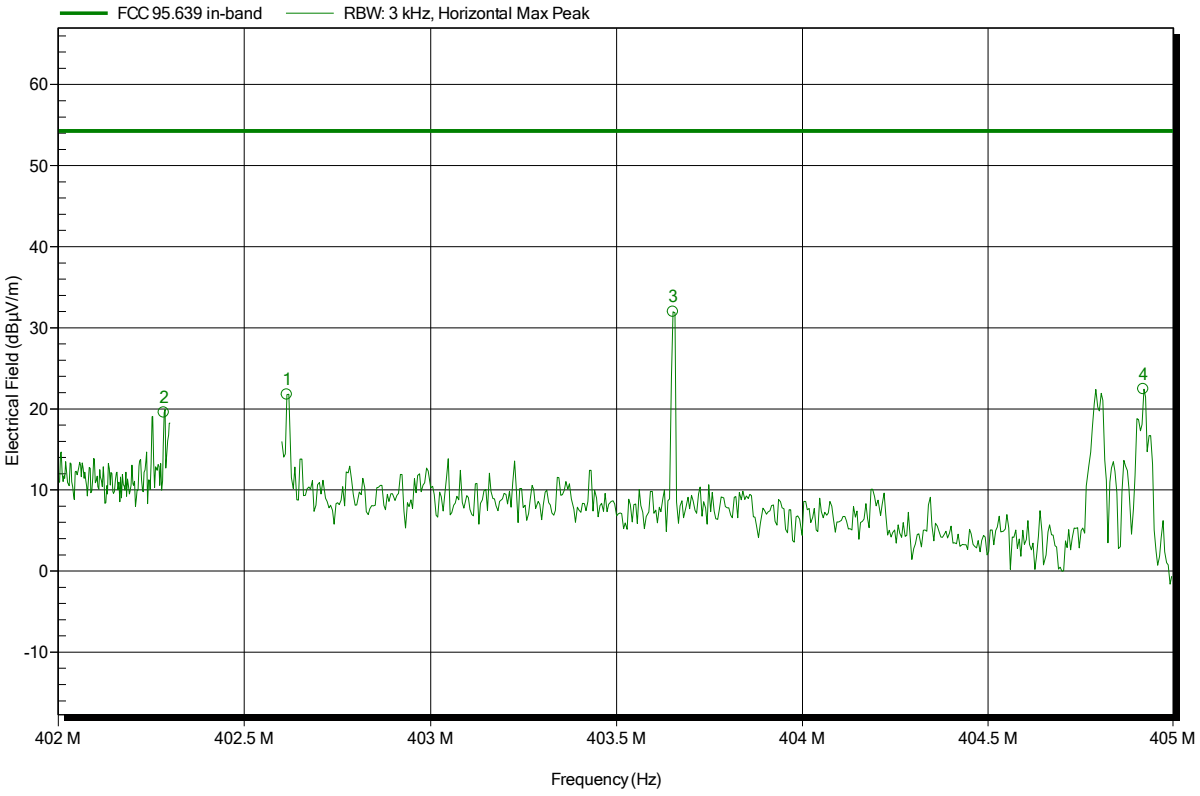


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 402.284 MHz | 19.55 dBµV/m | 54.3 dBµV/m | -34.75 dB | Pass |
| 402.614 MHz | 21.74 dBµV/m | 54.3 dBµV/m | -32.56 dB | Pass |
| 403.651 MHz | 31.96 dBµV/m | 54.3 dBµV/m | -22.34 dB | Pass |
| 404.918 MHz | 22.43 dBµV/m | 54.3 dBµV/m | -31.87 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | In-band emissions |

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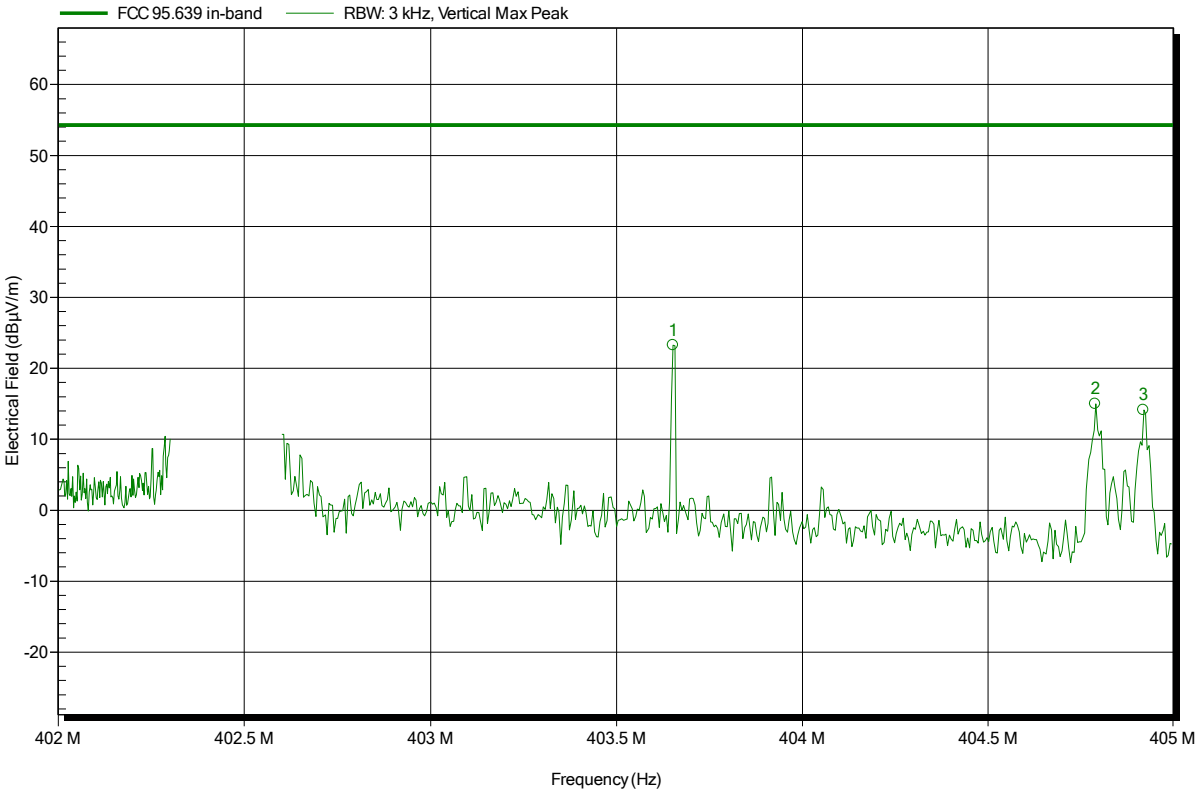


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 403.651 MHz | 23.26 dBµV/m | 54.3 dBµV/m | -31.04 dB | Pass |
| 404.789 MHz | 14.97 dBµV/m | 54.3 dBµV/m | -39.33 dB | Pass |
| 404.918 MHz | 14.12 dBµV/m | 54.3 dBµV/m | -40.18 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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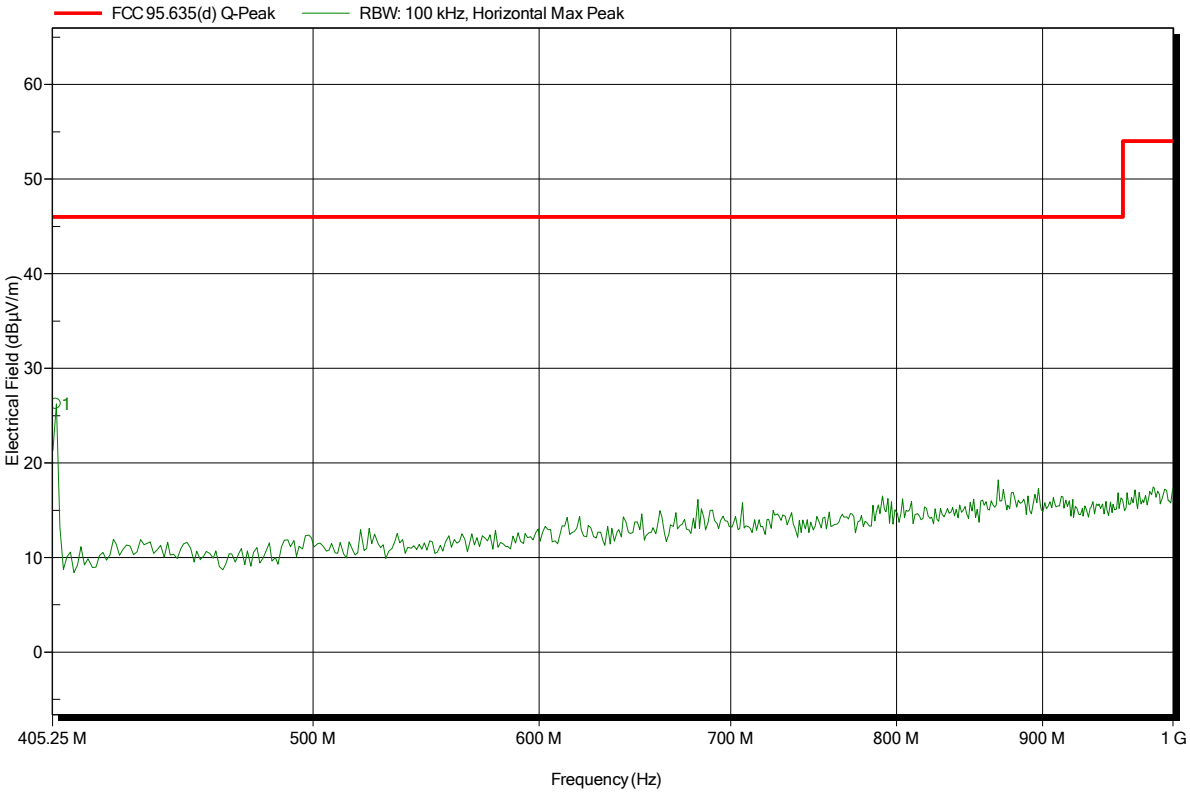


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 406.44 MHz | 26.24 dBµV/m | 46 dBµV/m | -19.76 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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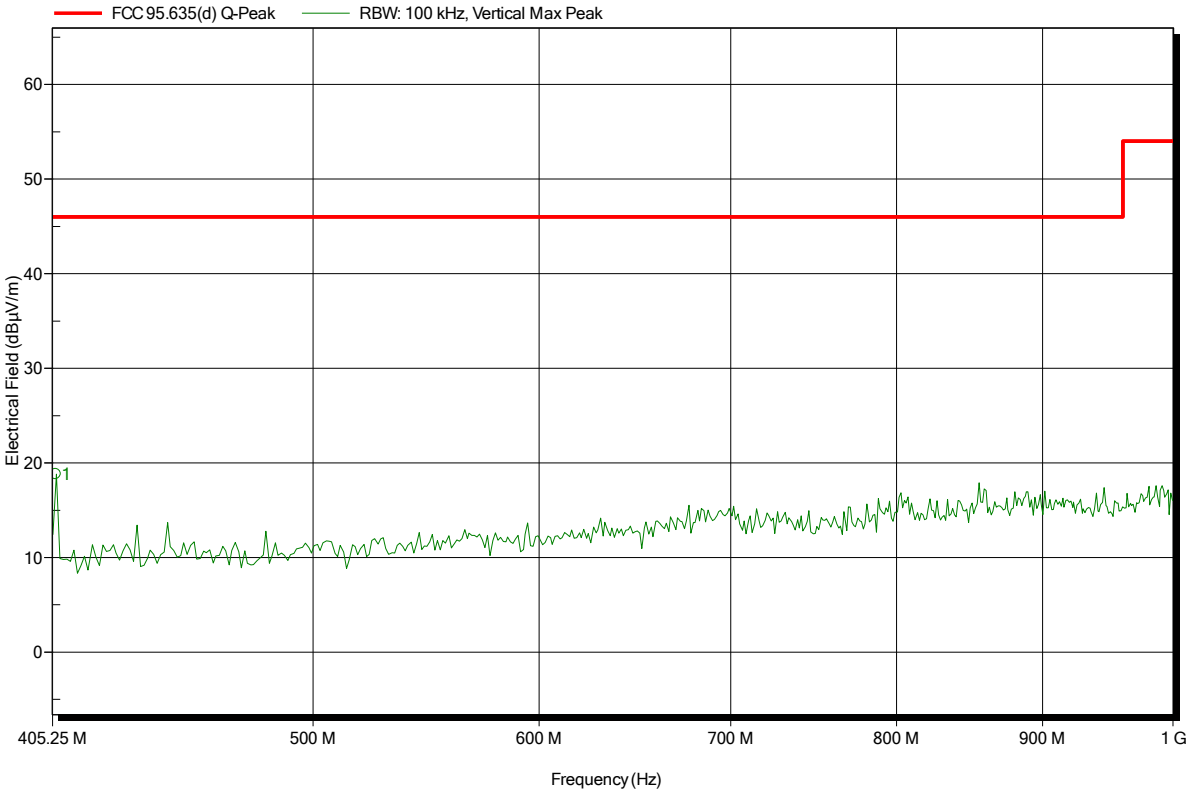


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 406.44 MHz | 18.81 dBµV/m | 46 dBµV/m | -27.19 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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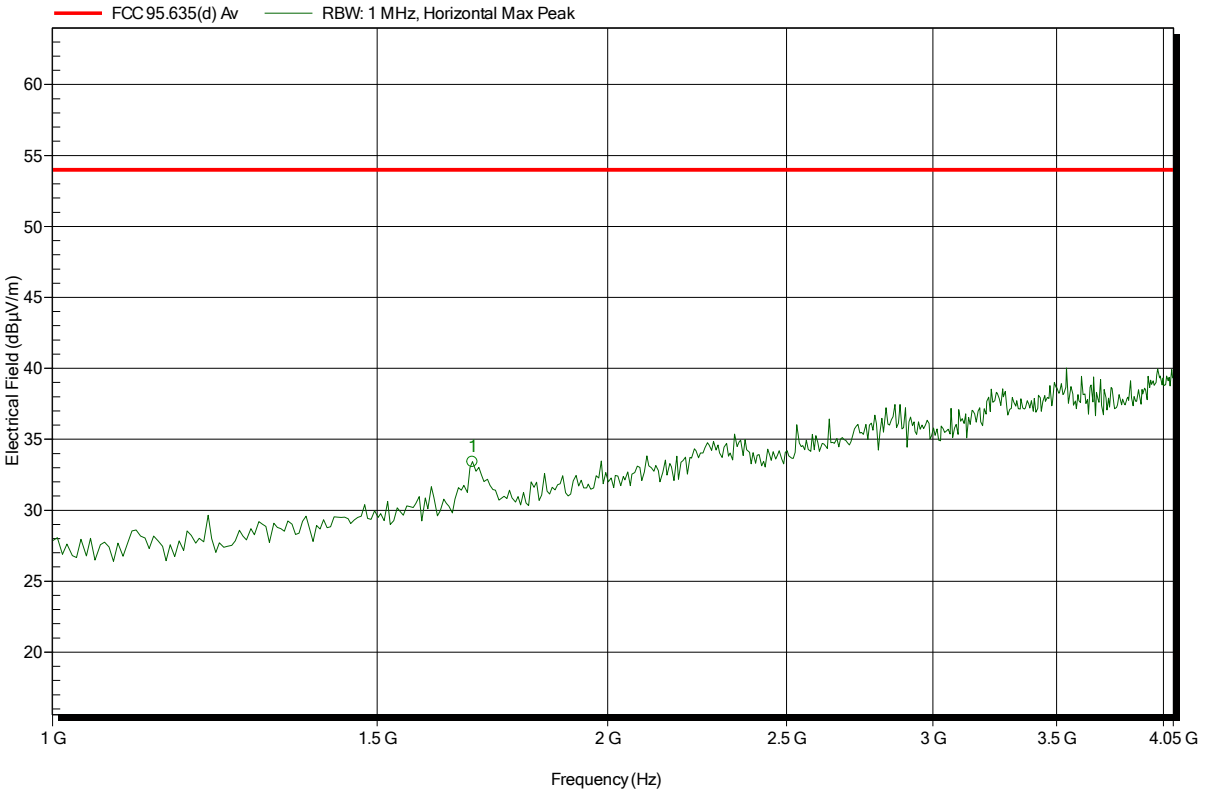


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 1.689 GHz | 33.4 dBµV/m | 54 dBµV/m | -20.6 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 402.45 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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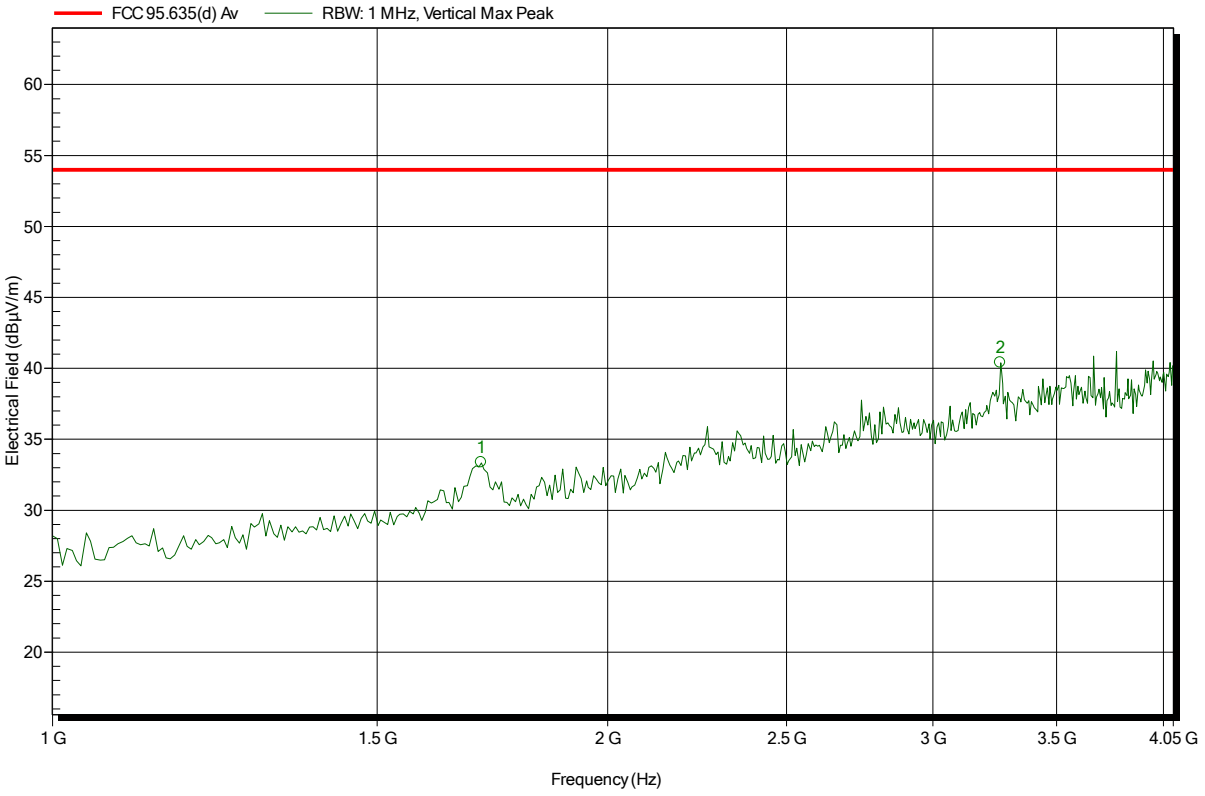


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 1.708 GHz | 33.37 dBµV/m | 54 dBµV/m | -20.63 dB | Pass |
| 3.263 GHz | 40.42 dBµV/m | 54 dBµV/m | -13.58 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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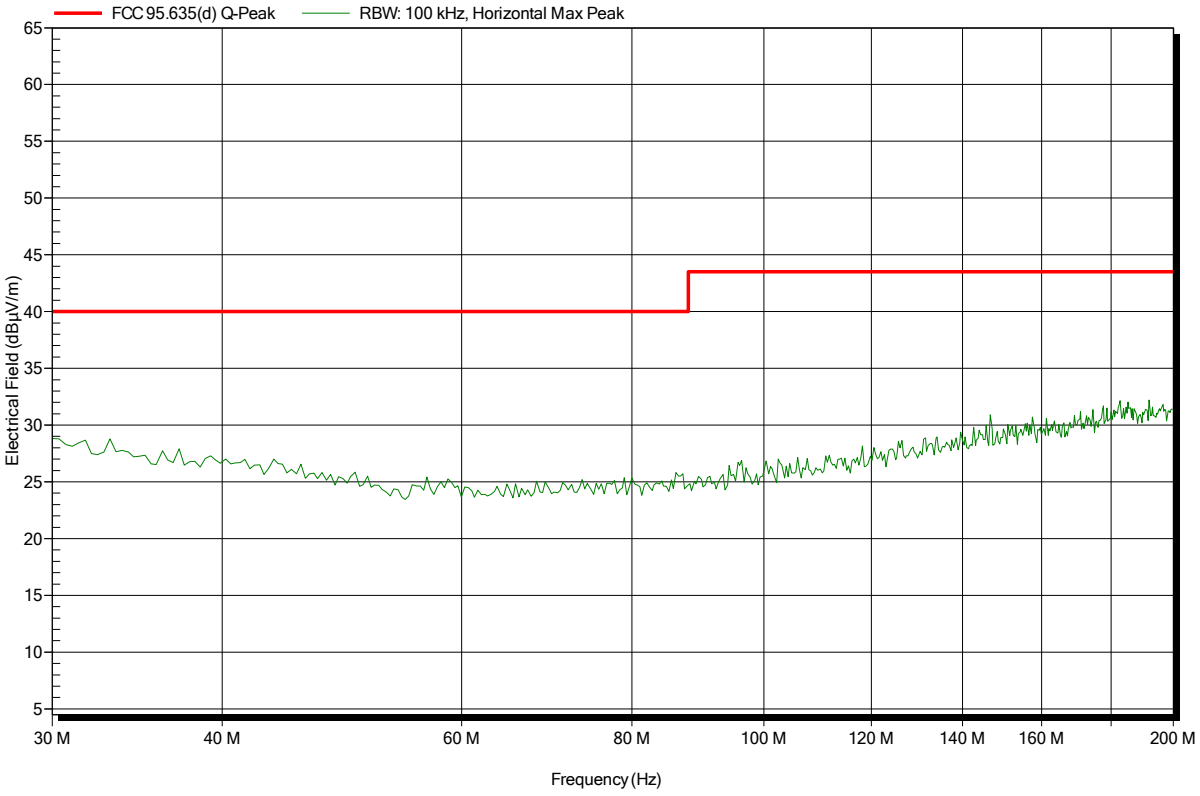

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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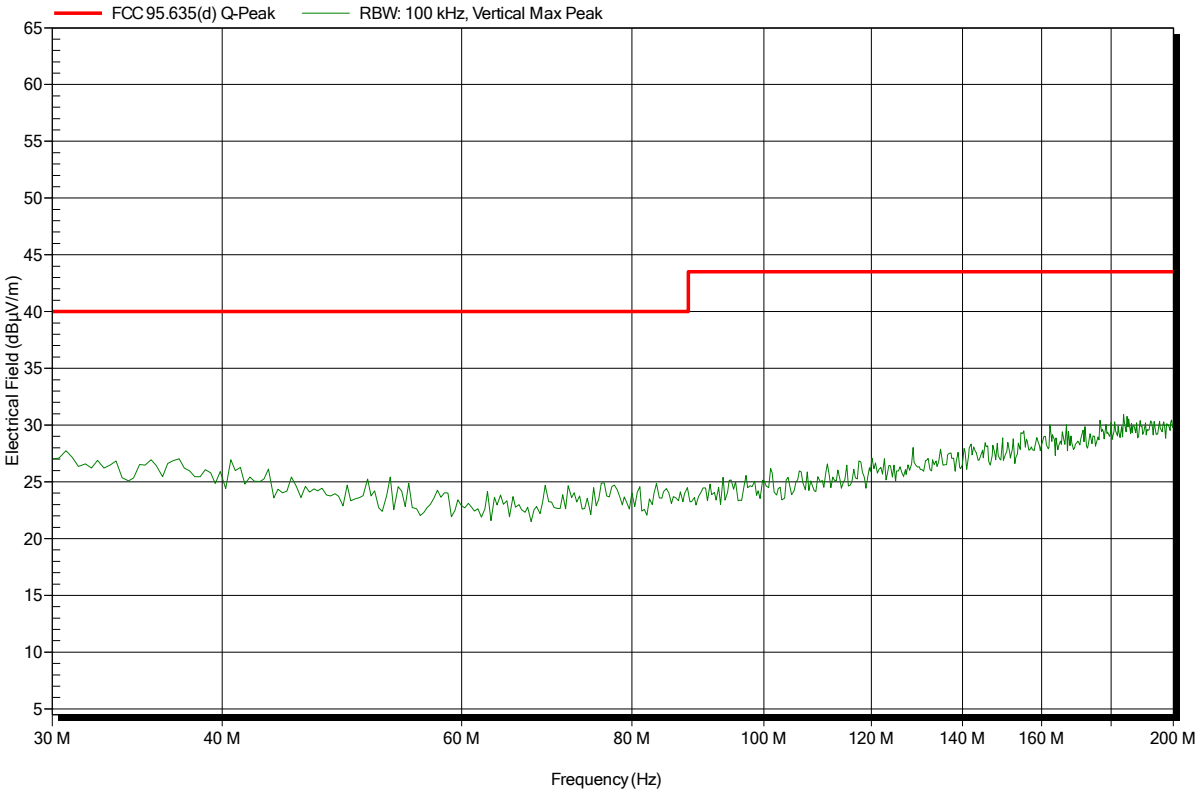

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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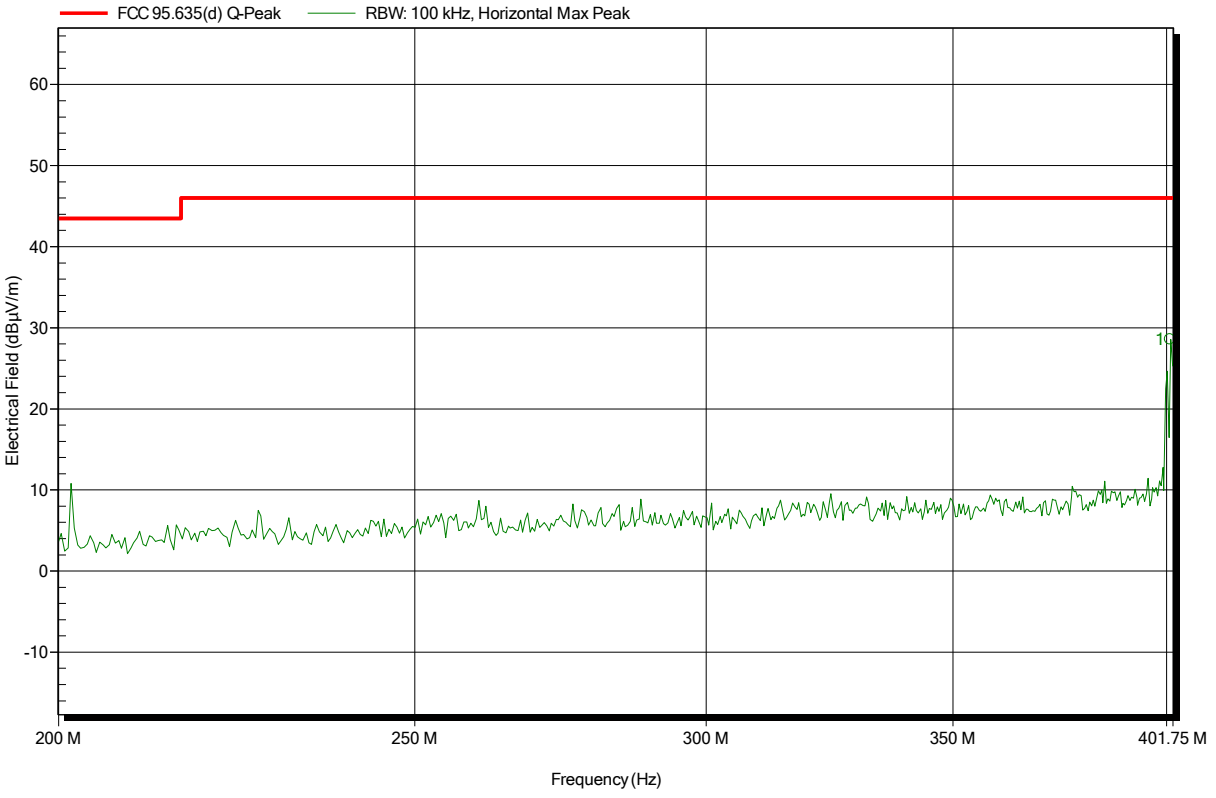
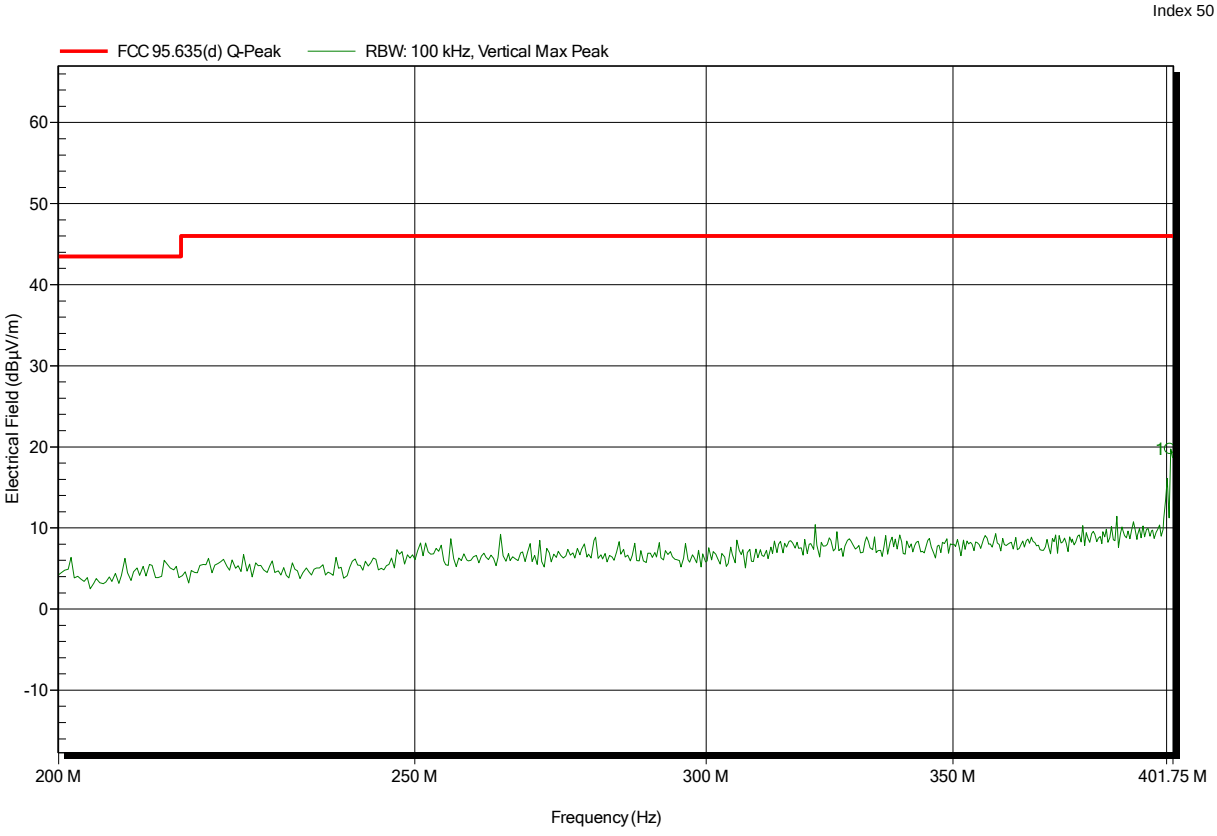



| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 400.943 MHz | 28.55 dBµV/m | 46 dBµV/m | -17.45 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-07 |
| Note: | |




| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 400.943 MHz | 19.73 dBµV/m | 46 dBµV/m | -26.27 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | Band-edge |

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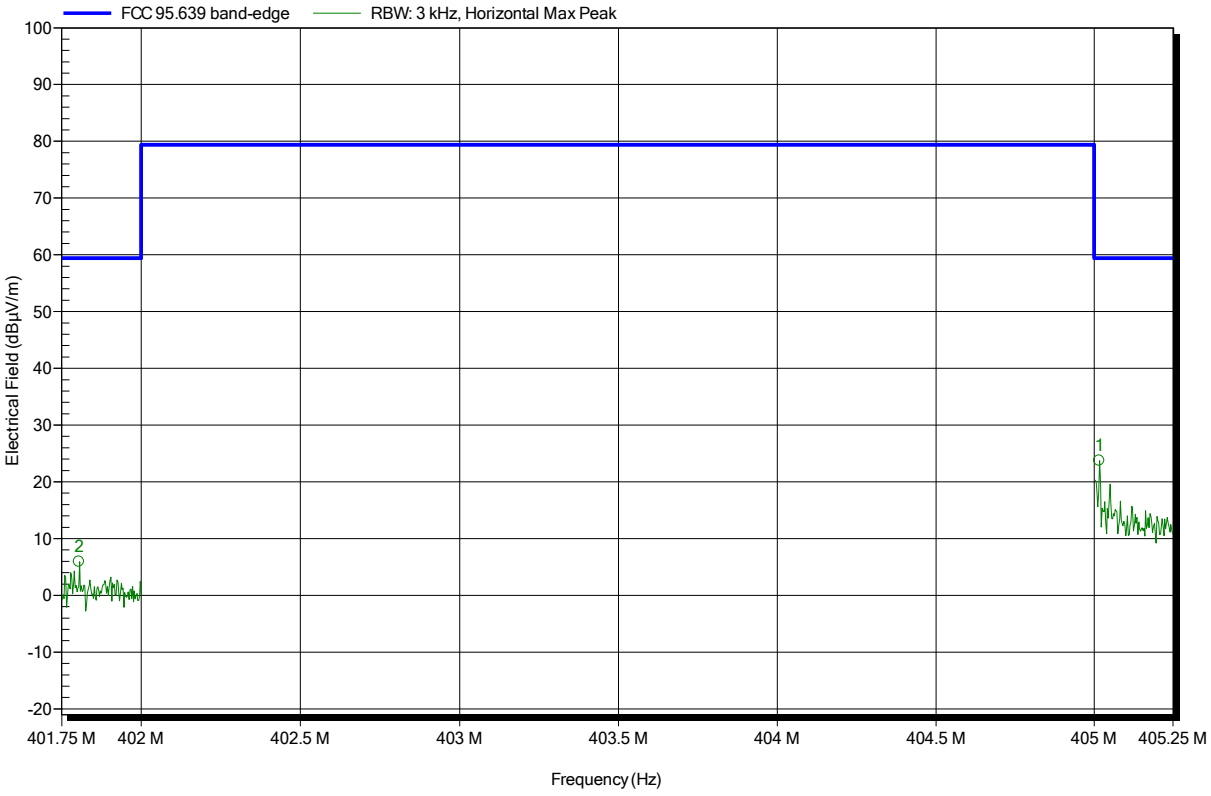


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 401.805 MHz | 5.94 dBµV/m | 59.4 dBµV/m | -53.46 dB | Pass |
| 405.015 MHz | 23.75 dBµV/m | 59.4 dBµV/m | -35.65 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-07 |
| Note: | Band-edge |

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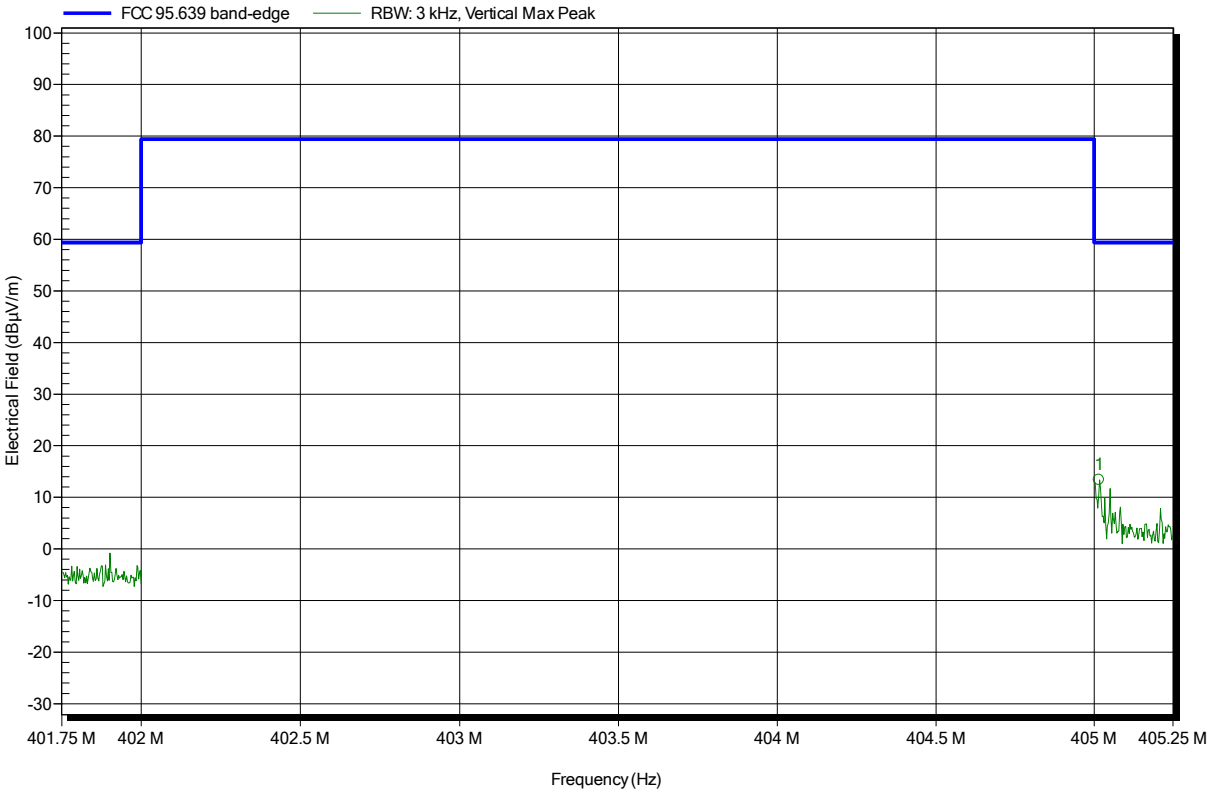


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 405.015 MHz | 13.39 dBµV/m | 59.4 dBµV/m | -46.01 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | In-band emissions |

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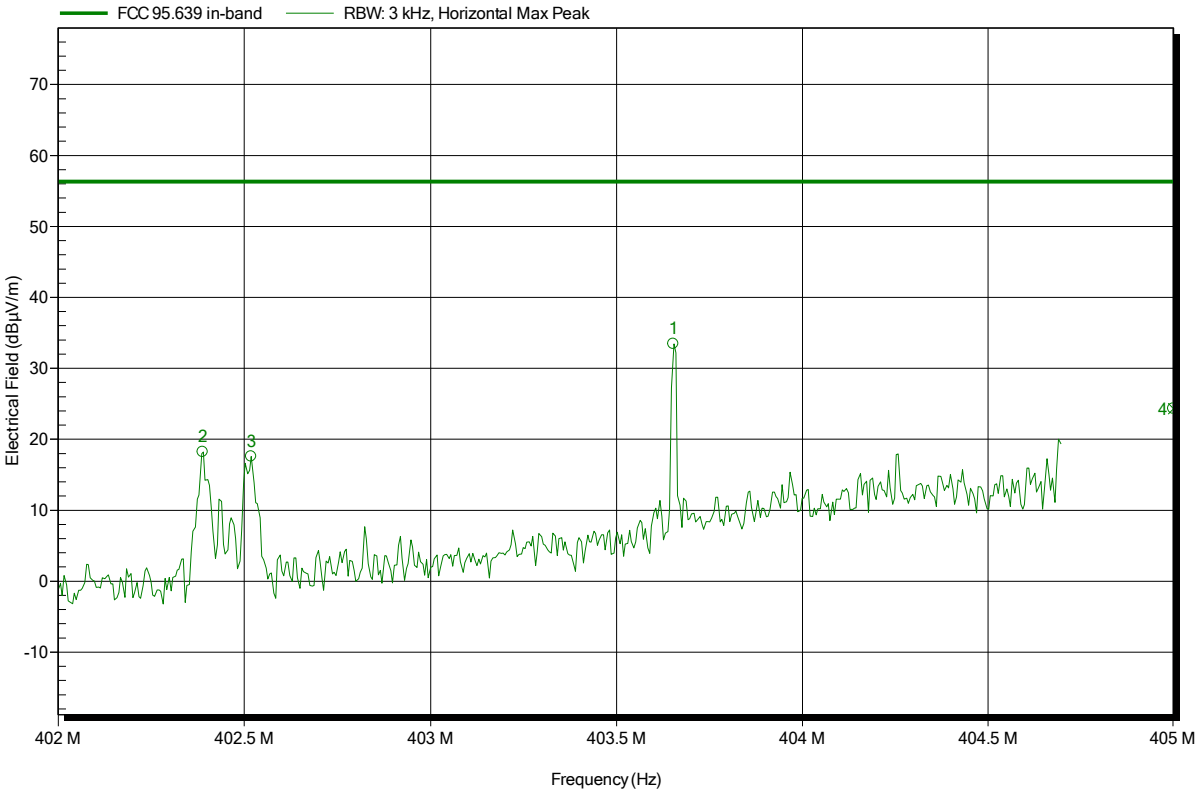


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 402.389 MHz | 18.21 dBµV/m | 56.3 dBµV/m | -38.09 dB | Pass |
| 402.518 MHz | 17.58 dBµV/m | 56.3 dBµV/m | -38.72 dB | Pass |
| 403.652 MHz | 33.43 dBµV/m | 56.3 dBµV/m | -22.87 dB | Pass |
| 404.999 MHz | 24.31 dBµV/m | 56.3 dBµV/m | -31.99 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-07 |
| Note: | In-band emissions |

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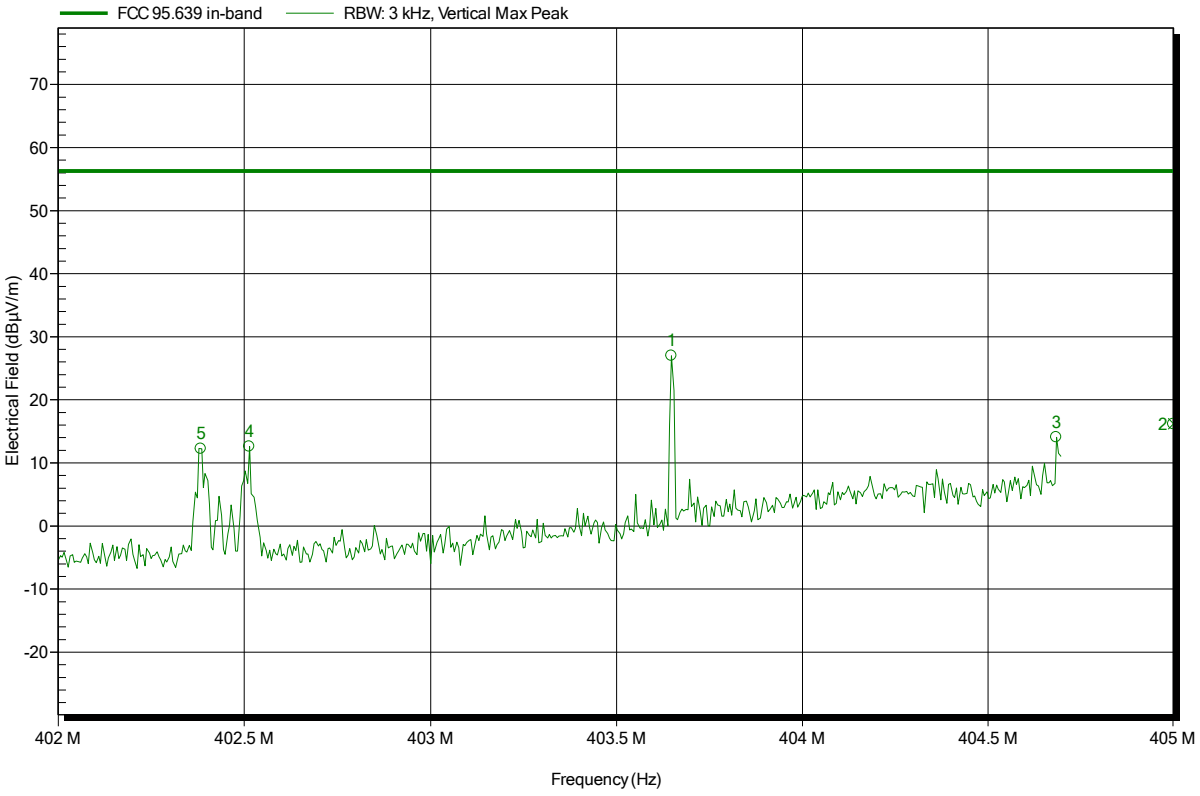


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 402.383 MHz | 12.24 dBµV/m | 56.3 dBµV/m | -44.06 dB | Pass |
| 402.513 MHz | 12.61 dBµV/m | 56.3 dBµV/m | -43.69 dB | Pass |
| 403.647 MHz | 26.98 dBµV/m | 56.3 dBµV/m | -29.32 dB | Pass |
| 404.684 MHz | 14.06 dBµV/m | 56.3 dBµV/m | -42.24 dB | Pass |
| 404.999 MHz | 16.16 dBµV/m | 56.3 dBµV/m | -40.14 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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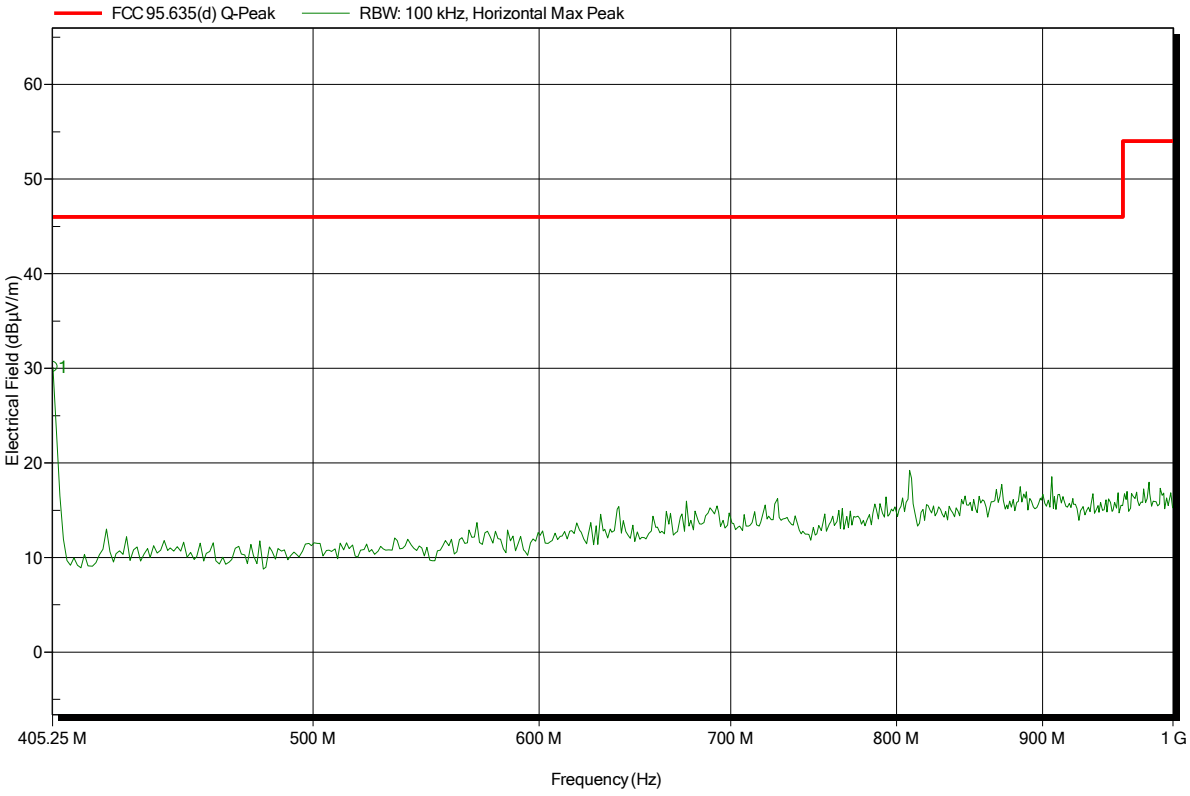


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 405.25 MHz | 30.15 dBµV/m | 46 dBµV/m | -15.85 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-07 |
| Note: | |

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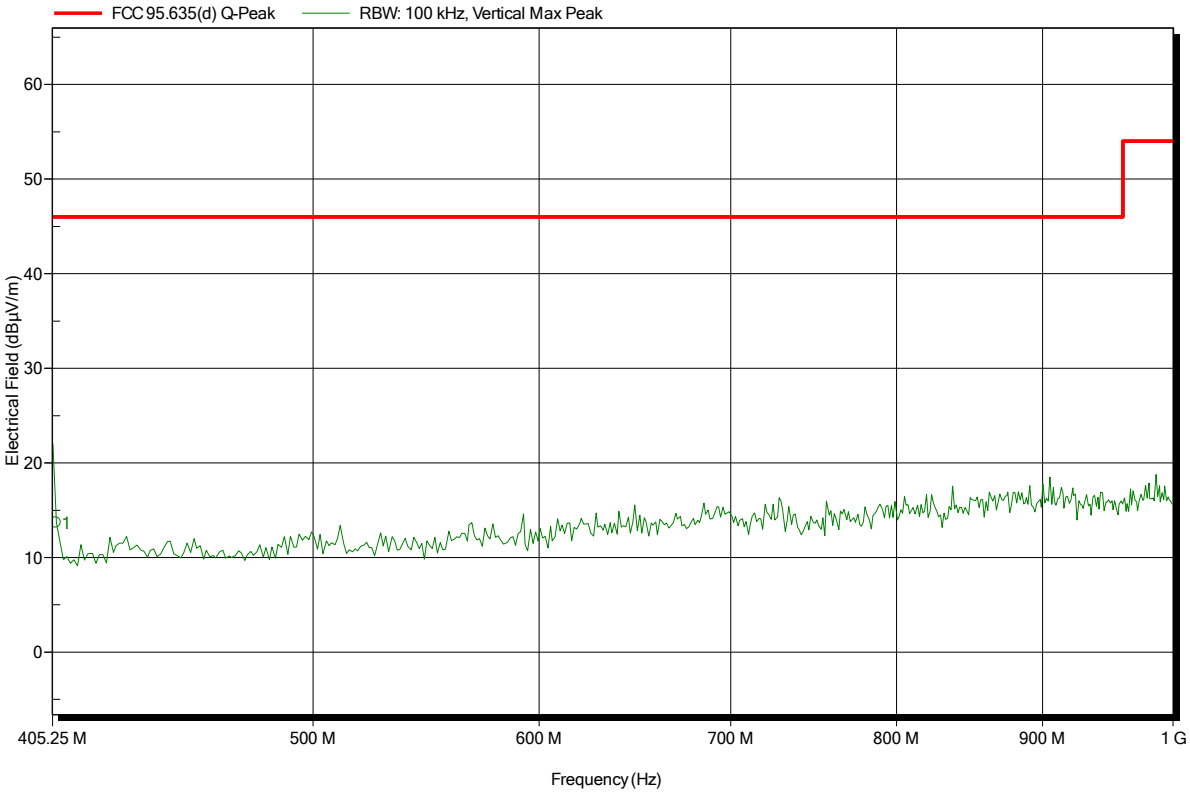


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 406.44 MHz | 13.71 dBµV/m | 46 dBµV/m | -32.29 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Horizontal |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-05 |
| Note: | |

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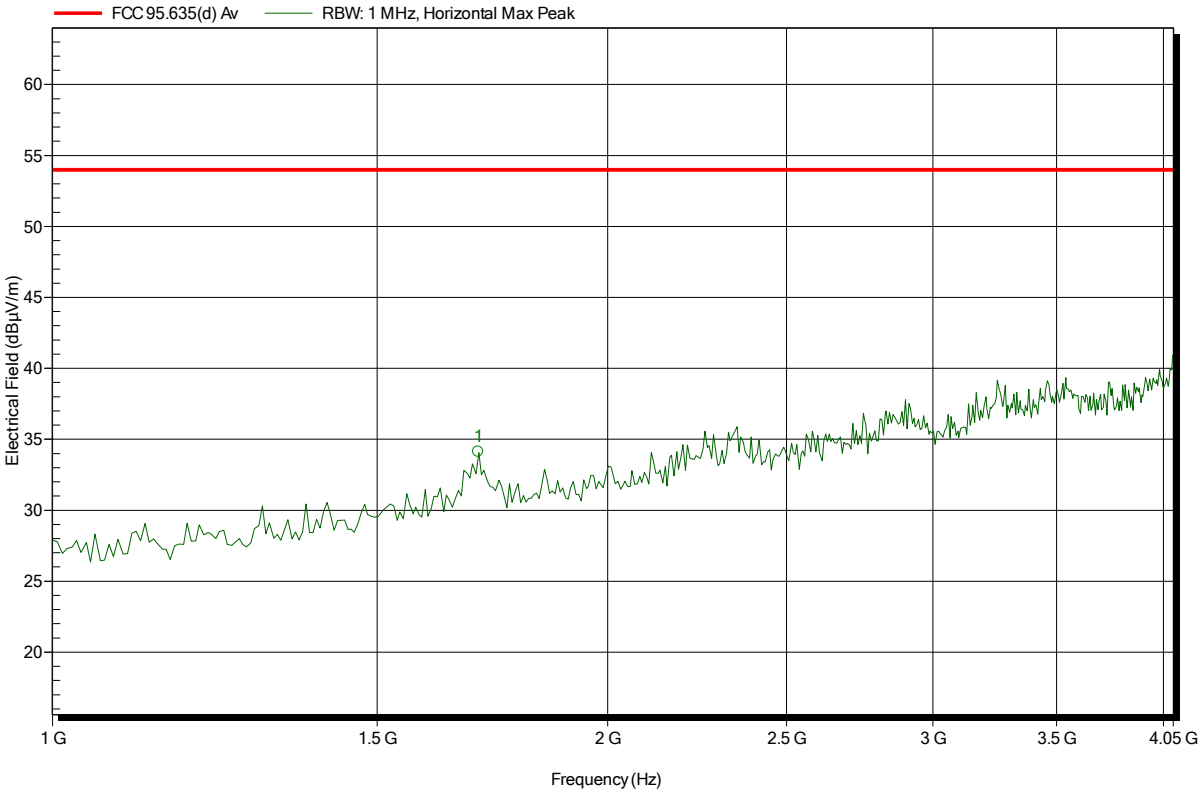


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 1.701 GHz | 34.12 dBµV/m | 54 dBµV/m | -19.88 dB | Pass |

**Spurious emissions according to FCC Part 95; Subpart E**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Vertical |
| Measurement distance: | 3 m |
| Mode: | TX; 404.85 MHz, 2FSK |
| Test Date: | 2015-10-07 |
| Note: | |

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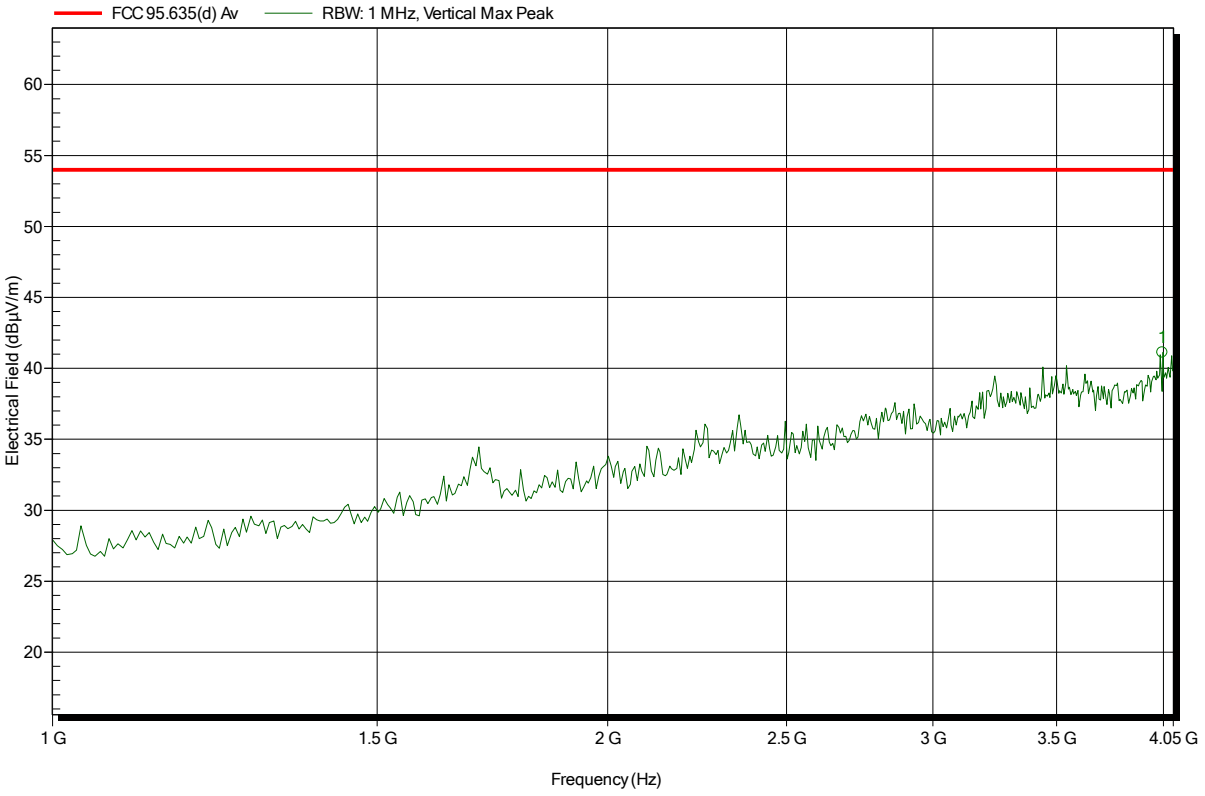


| Frequency | Peak | Peak Limit | Peak Difference | Peak Status |
|---|---|---|---|---|
| 3.995 GHz | 41.12 dBµV/m | 54 dBµV/m | -12.88 dB | Pass |

# ANNEX C Receiver radiated spurious emissions

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Horizontal |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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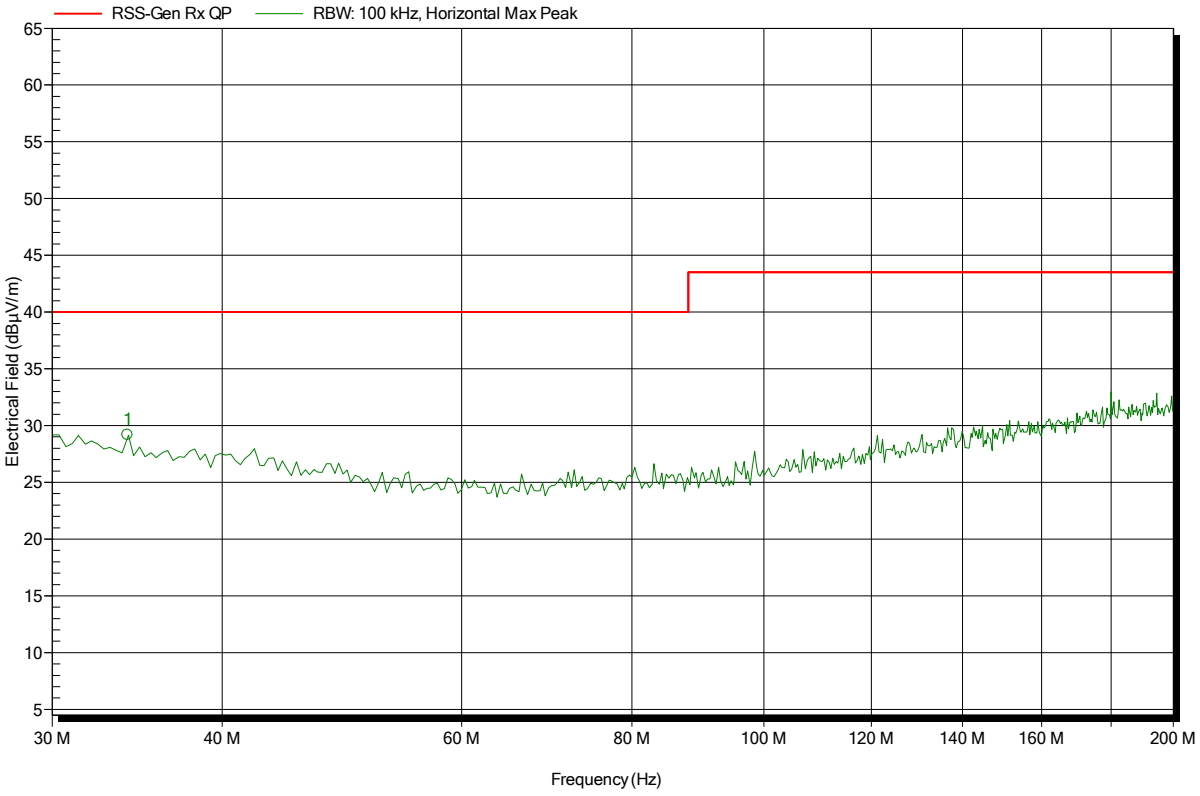


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 34.08 MHz | 29.18 dBµV/m | 40 dBµV/m | -10.82 dB | Pass |

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HK116, Vertical |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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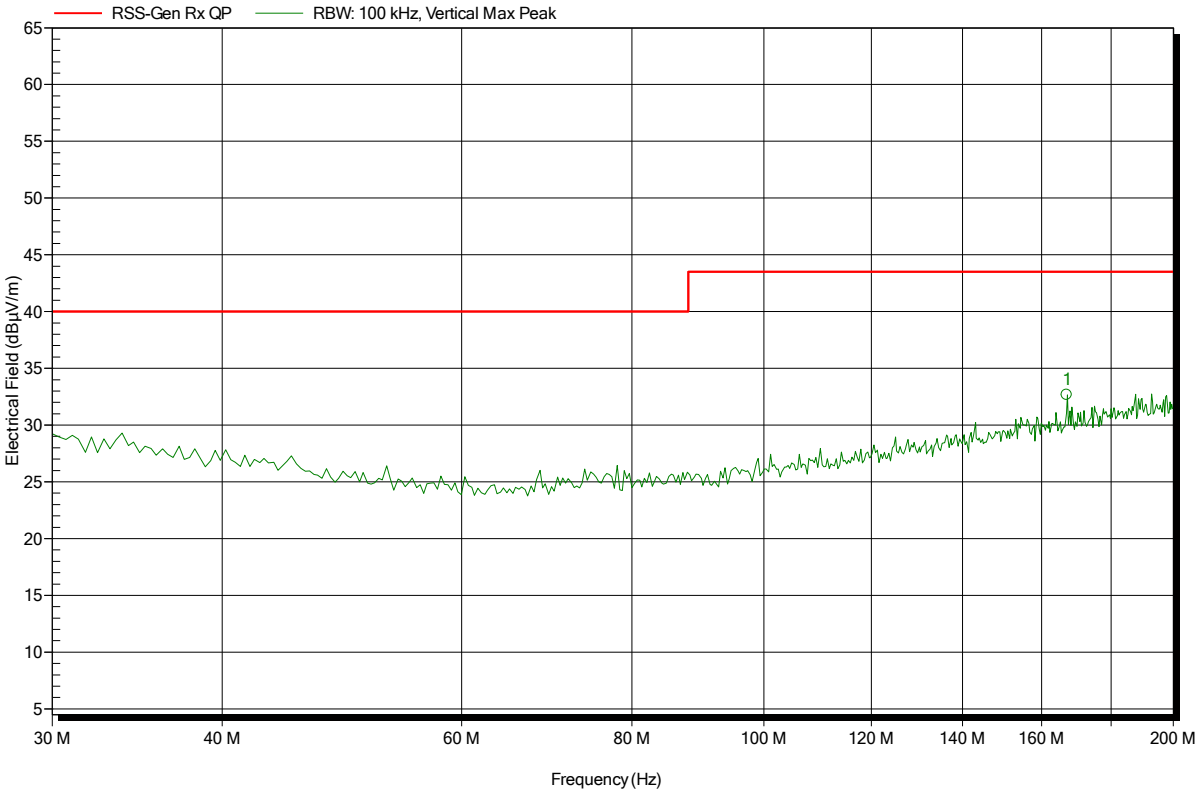


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 167.02 MHz | 32.66 dBµV/m | 43.5 dBµV/m | -10.84 dB | Pass |

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Horizontal |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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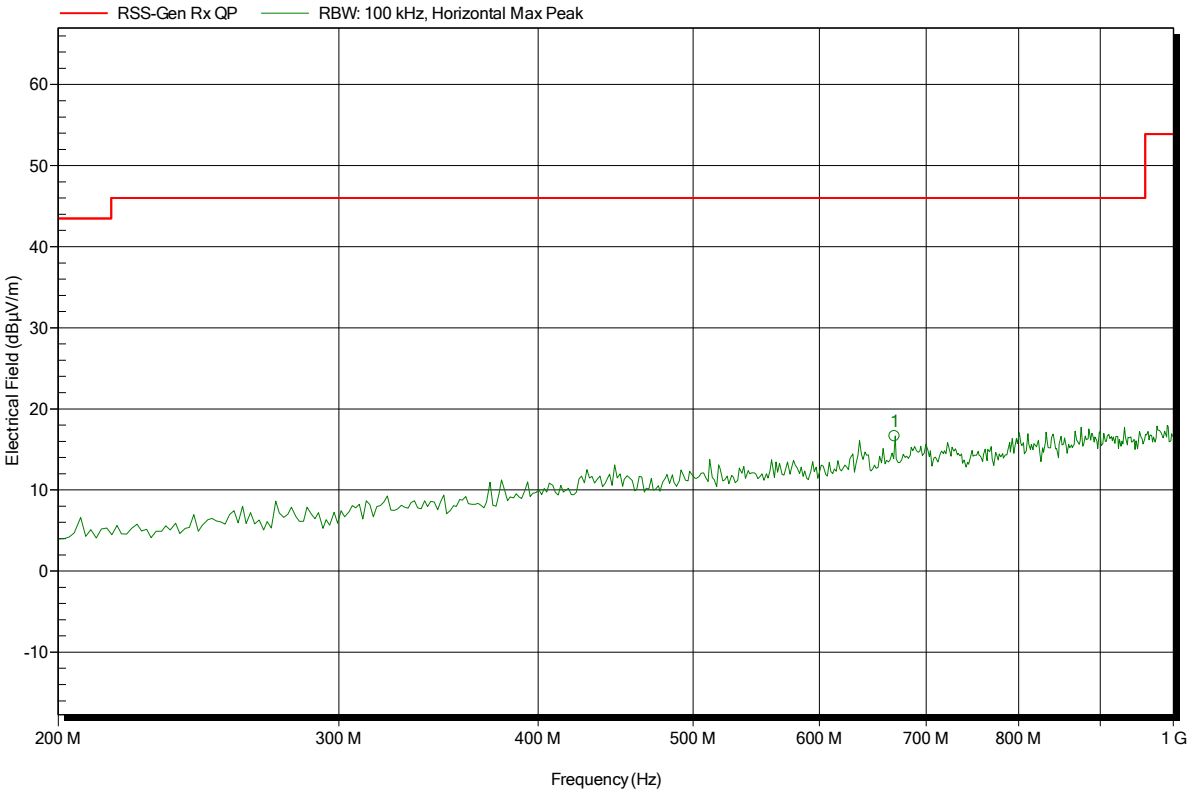


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 668.8 MHz | 16.61 dBµV/m | 46 dBµV/m | -29.39 dB | Pass |

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL223, Vertical |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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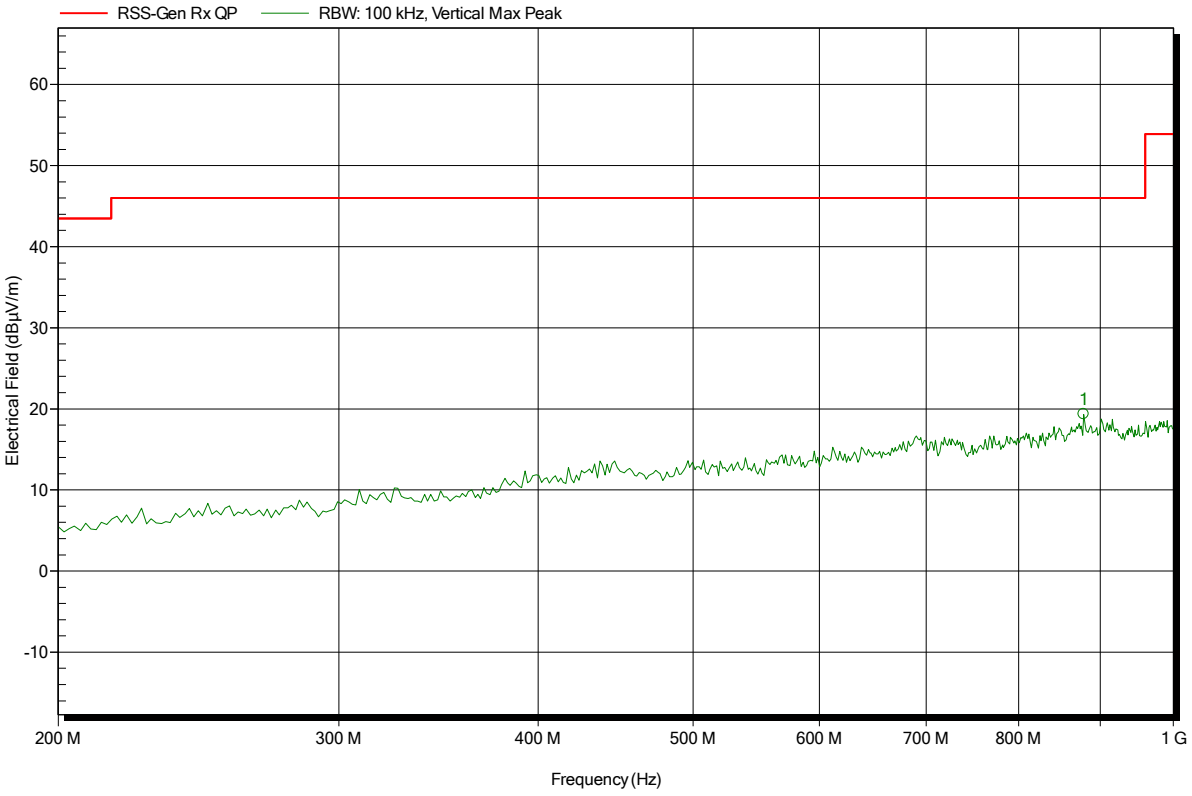


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 878.4 MHz | 19.33 dBµV/m | 46 dBµV/m | -26.67 dB | Pass |

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Horizontal |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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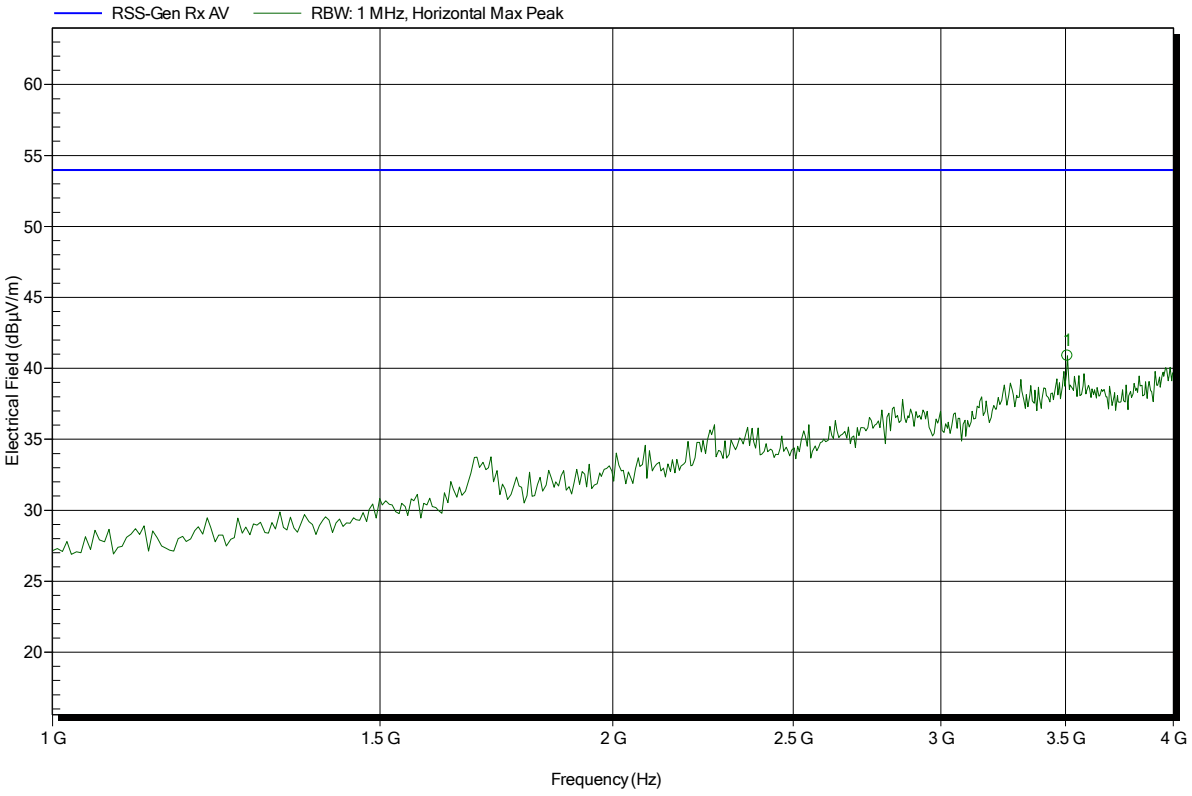


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 3.508 GHz | 40.89 dBµV/m | 53.98 dBµV/m | -13.09 dB | Pass |

**Spurious emissions according to RSS-Gen**

Project number: G0M-1509-5046

| | |
|---|---|
| Applicant: | Biotronik SE & Co. KG |
| EUT Name: | Pacemaker family PRIMUS NXT |
| Model: | Eluna 8 HF-T |
| Test Site: | Eurofins Product Service GmbH |
| Operator: | Treffke |
| Test Conditions: | Tnom: 25°C, Vnom: 3 V DC battery |
| Antenna: | HL025, Vertical |
| Measurement distance: | 3 m |
| Mode: | RX; 404.85 MHz |
| Test Date: | 2015-10-07 |
| Note: | |

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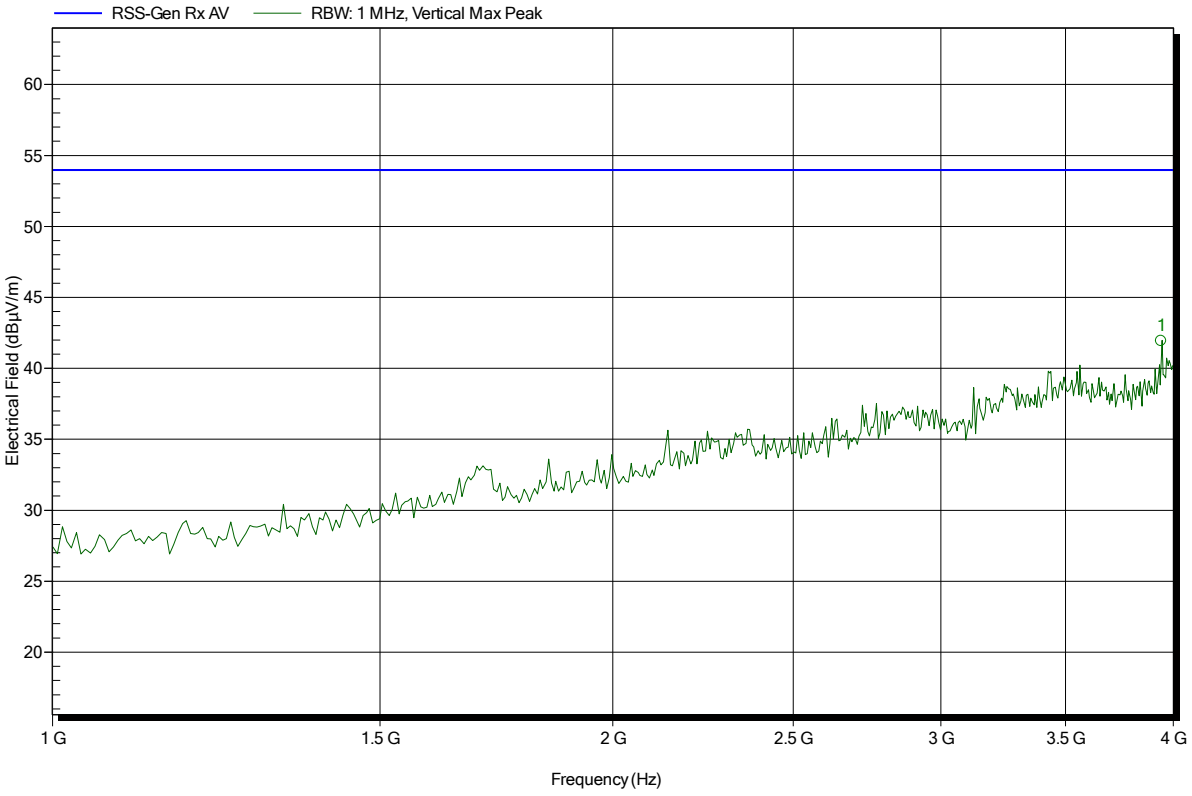


| Frequency | Peak | Peak Limit | Peak Difference | Status |
|---|---|---|---|---|
| 3.94 GHz | 41.91 dBµV/m | 53.98 dBµV/m | -12.07 dB | Pass |