

# Boston Scientific Corporation

100050-011

**INGENIO EDVT016016  
FCC and Industry Canada  
Compliance for RF Link  
Test Report**

**Ingenio PG Family**

Report No. BSTN0294.1

Report Prepared By



[www.nwemc.com](http://www.nwemc.com)

1-888-EMI-CERT

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**EMC Test Report**



22975 NW Evergreen Parkway  
Suite 400  
Hillsboro, Oregon 97124

**Certificate of Test**  
**Last Date of Test: October 14, 2010**  
**Boston Scientific Corporation**  
**Model: Ingenio**

| Emissions                            |                 |                  |           |
|--------------------------------------|-----------------|------------------|-----------|
| Test Description                     | Specification   | Test Method      | Pass/Fail |
| Field Strength of Spurious Emissions | FCC 15.249:2010 | ANSI C63.10:2009 | Pass      |
| Field Strength of Fundamental        | FCC 15.249:2010 | ANSI C63.10:2009 | Pass      |

**Modifications made to the product**  
See the Modifications section of this report

**Test Facility**

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.  
9349 W Broadway Ave.  
Brooklyn Park, MN 55445

Phone: (763) 425-2281      Fax: (763) 424-3469

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834E-1).

**Approved By:**  
  
Don Facteau, IS Manager



NVLAP Lab Code: 200881-0

*This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.*

*Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.*

| Revision Number | Description | Date | Page Number |
|-----------------|-------------|------|-------------|
| 00              | None        |      |             |

**Barometric Pressure**

The recorded barometric pressure has been normalized to sea level.



# Accreditations and Authorizations

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## FCC

Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



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## NVLAP

Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



NVLAP LAB CODE 200629-0  
NVLAP LAB CODE 200630-0  
NVLAP LAB CODE 200676-0  
NVLAP LAB CODE 200761-0  
NVLAP LAB CODE 200881-0

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## Industry Canada

Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1*)



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## CAB

Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



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## NEMKO

Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



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## Australia/New Zealand

The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



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## VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634).



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## BSMI

Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017). License No.SL2-IN-E-1017.



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## GOST

Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



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## KCC

Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)



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## VIETNAM

Vietnam MIC has approved Northwest EMC as an accredited test lab. Per Decision No. 194/QD-QLCL (dated December 15, 2009), Northwest EMC test reports can be used for Vietnam approval submissions.



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## SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>



# Northwest EMC Locations



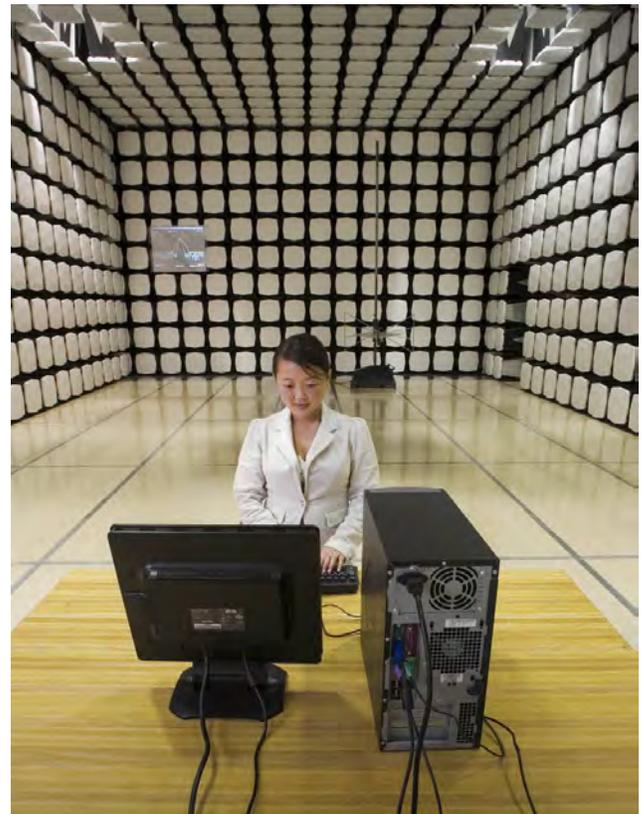
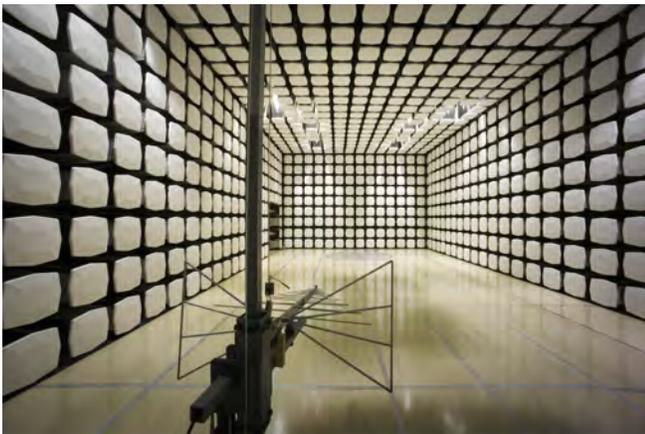
Oregon  
Labs EV01-EV12  
22975 NW Evergreen Pkwy  
Suite 400  
Hillsboro, OR 97124  
(503) 844-4066

California  
Labs OC01-OC13  
41 Tesla  
Irvine, CA 92618  
(949) 861-8918

Minnesota  
Labs MN01-MN08  
9349 W Broadway Ave.  
Brooklyn Park,  
MN 55445  
(763) 425-2281

Washington  
Labs SU01-SU07  
14128 339<sup>th</sup> Ave. SE  
Sultan, WA 98294  
(360) 793-8675

New York  
Labs WA01-WA04  
4939 Jordan Rd.  
Elbridge, NY 13060  
(315) 685-0796



**Party Requesting the Test**

|                                 |                               |
|---------------------------------|-------------------------------|
| <b>Company Name:</b>            | Boston Scientific Corporation |
| <b>Address:</b>                 | 4100 Hamline Avenue North     |
| <b>City, State, Zip:</b>        | St. Paul, MN 55112-5798       |
| <b>Test Requested By:</b>       | Dennis Larson                 |
| <b>Model:</b>                   | Ingenio PG Family             |
| <b>First Date of Test:</b>      | October 13, 2010              |
| <b>Last Date of Test:</b>       | October 14, 2010              |
| <b>Receipt Date of Samples:</b> | October 13, 2010              |
| <b>Equipment Design Stage:</b>  | Pilot A                       |
| <b>Equipment Condition:</b>     | No Damage                     |

**Information Provided by the Party Requesting the Test****Functional Description of the EUT (Equipment Under Test):**

Pulse Generator with 916.5 MHz transceiver operating with a maximum output power of -1.25 dBm

**Testing Objective:**

To demonstrate compliance to FCC 15.249 specifications

**CONFIGURATION 1 BSTN0294****Software/Firmware Running during test**

| Description                                 | Version    |
|---|------------|
| Ingenio SR IS1 Firmware (Primary Operation) | D_v0.05.30 |

**EUT**

| Description    | Manufacturer                  | Model/Part Number | Serial Number    |
|----------------|-------------------------------|-------------------|------------------|
| Ingenio SR IS1 | Boston Scientific Corporation | K172              | 849911 (EDVT474) |

**Cables**

| Cable Type   | Shield | Length (m) | Ferrite | Connection 1   | Connection 2 |
|--|--------|------------|---------|----------------|--------------|
| EZ Trak IS1 90CM Model:4538<br>SN:157887   | No     | 90 cm      | No      | Ingenio SR IS1 | Unterminated |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |                |              |

**CONFIGURATION 2 BSTN0294****Software/Firmware Running during test**

| Description                                     | Version    |
|---|------------|
| Ingenio DR STD IS1 Firmware (Primary Operation) | D_v0.05.30 |

**EUT**

| Description        | Manufacturer                  | Model/Part Number | Serial Number    |
|--------------------|-------------------------------|-------------------|------------------|
| Ingenio DR STD IS1 | Boston Scientific Corporation | K173              | 829205 (EDVT454) |

**Cables**

| Cable Type   | Shield | Length (m) | Ferrite | Connection 1       | Connection 2 |
|--|--------|------------|---------|--------------------|--------------|
| EZ Trak IS1 90CM Model:4538<br>SN:157499   | No     | 90 cm      | No      | Ingenio DR STD IS1 | Unterminated |
| EZ Trak IS1 90CM Model:4538<br>SN:158122   | No     | 90 cm      | No      | Ingenio DR STD IS1 | Unterminated |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. |        |            |         |                    |              |

**CONFIGURATION 3 BSTN0294****Software/Firmware Running during test**

| Description                                    | Version    |
|--|------------|
| Ingenio DR LL IS1 Firmware (Primary Operation) | D_v0.05.30 |

**EUT**

| Description       | Manufacturer                  | Model/Part Number | Serial Number    |
|-------------------|-------------------------------|-------------------|------------------|
| Ingenio DR LL IS1 | Boston Scientific Corporation | K174              | 850001 (EDVT433) |

**Cables**

| Cable Type                               | Shield | Length (m) | Ferrite | Connection 1      | Connection 2 |
|--|--------|------------|---------|-------------------|--------------|
| EZ Trak IS1 90CM Model:4538<br>SN:157887 | No     | 90 cm      | No      | Ingenio DR LL IS1 | Unterminated |
| EZ Trak IS1 90CM Model:4538<br>SN:158122 | No     | 90 cm      | No      | Ingenio DR LL IS1 | Unterminated |

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

**CONFIGURATION 4 BSTN0294****Software/Firmware Running during test**

| Description                                  | Version    |
|--|------------|
| Invive CRTP IS1 Firmware (Primary Operation) | D_v0.05.30 |

**EUT**

| Description     | Manufacturer                  | Model/Part Number | Serial Number    |
|-----------------|-------------------------------|-------------------|------------------|
| Invive CRTP IS1 | Boston Scientific Corporation | V173              | 849702 (EDVT403) |

**Cables**

| Cable Type                               | Shield | Length (m) | Ferrite | Connection 1    | Connection 2 |
|--|--------|------------|---------|-----------------|--------------|
| EZ Trak IS1 90CM Model:4538<br>SN:157499 | No     | 90 cm      | No      | Invive CRTP IS1 | Unterminated |
| EZ Trak IS1 90CM Model:4538<br>SN:157887 | No     | 90 cm      | No      | Invive CRTP IS1 | Unterminated |
| EZ Trak IS1 90CM Model:4538<br>SN:158122 | No     | 90 cm      | No      | Invive CRTP IS1 | Unterminated |

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

**Equipment modifications**

| Item | Date       | Test                                | Modification                         | Note  | Disposition of EUT                                |
|------|------------|-------------------------------------|--------------------------------------|---|---|
| 1    | 10/13/2010 | Field Strength of Fundamental       | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | EUT remained at Northwest EMC following the test. |
| 2    | 10/14/2010 | Field Strength of Spurious Emission | Tested as delivered to Test Station. | No EMI suppression devices were added or modified during this test. | Scheduled testing was completed.                  |

**EMC****Field Strength of Spurious Emissions**

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

**MODES OF OPERATION**

Continuous Transmit, Psuedorandom, 916.5 MHz

**POWER SETTINGS INVESTIGATED**

Battery

**CONFIGURATIONS INVESTIGATED**

4 - BSTN0294

3 - BSTN0294

2 - BSTN0294

1 - BSTN0294

**FREQUENCY RANGE INVESTIGATED**

|                 |        |                |        |
|-----------------|--------|----------------|--------|
| Start Frequency | 30 MHz | Stop Frequency | 10 GHz |
|-----------------|--------|----------------|--------|

**SAMPLE CALCULATIONS**

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

**TEST EQUIPMENT**

| Description                | Manufacturer    | Model                          | ID  | Last Cal.  | Interval |
|----------------------------|-----------------|--------------------------------|-----|------------|----------|
| High Pass Filter 0-425 MHz | Micro-Tronics   | LPM50003                       | HGO | 7/9/2010   | 13 mo    |
| High Pass Filter           | Micro-Tronics   | HPM50108                       | HGP | 7/9/2010   | 13 mo    |
| Attenuator, 6 dB, 'SMA'    | SM Electronics  | SA18H-06                       | REM | 7/9/2010   | 13 mo    |
| Attenuator, 20 dB, 'SMA'   | SM Electronics  | SA6-20                         | REO | 7/9/2010   | 13 mo    |
| Pre-Amplifier              | Miteq           | AMF-6F-08001200-30-10P         | AVV | 7/19/2010  | 13 mo    |
| Antenna, Horn              | ETS             | 3160-07                        | AXP | NCR        | 0 mo     |
| MN05 Cables                | ESM Cable Corp. | Standard Gain Horn Cables      | MNJ | 7/19/2010  | 13 mo    |
| MN05 Cables                | ESM Cable Corp. | Double Ridge Guide Horn Cables | MNI | 7/19/2010  | 13 mo    |
| Antenna, Horn (DRG)        | ETS Lindgren    | 3115                           | AIP | 12/22/2009 | 24 mo    |
| Pre-Amplifier              | Miteq           | AM-1616-1000                   | AVY | 7/19/2010  | 13 mo    |
| Pre-Amplifier              | Miteq           | AMF-3D-00100800-32-13P         | AVX | 7/19/2010  | 13 mo    |
| Antenna, Biconilog         | ETS Lindgren    | 3142D                          | AXN | 12/30/2009 | 13 mo    |
| MN05 Cables                | ESM Cable Corp. | Bilog Cables                   | MNH | 1/15/2010  | 13 mo    |
| Spectrum Analyzer          | Agilent         | E4446A                         | AAT | 2/24/2010  | 12 mo    |

**MEASUREMENT BANDWIDTHS**

|  | Frequency Range<br>(MHz) | Peak Data<br>(kHz) | Quasi-Peak Data<br>(kHz) | Average Data<br>(kHz) |
|--|--------------------------|--------------------|--------------------------|-----------------------|
|  | 0.01 - 0.15              | 1.0                | 0.2                      | 0.2                   |
|  | 0.15 - 30.0              | 10.0               | 9.0                      | 9.0                   |
|  | 30.0 - 1000              | 100.0              | 120.0                    | 120.0                 |
|  | Above 1000               | 1000.0             | N/A                      | 1000.0                |

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

**MEASUREMENT UNCERTAINTY**

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

**TEST DESCRIPTION**

The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the only available channel. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

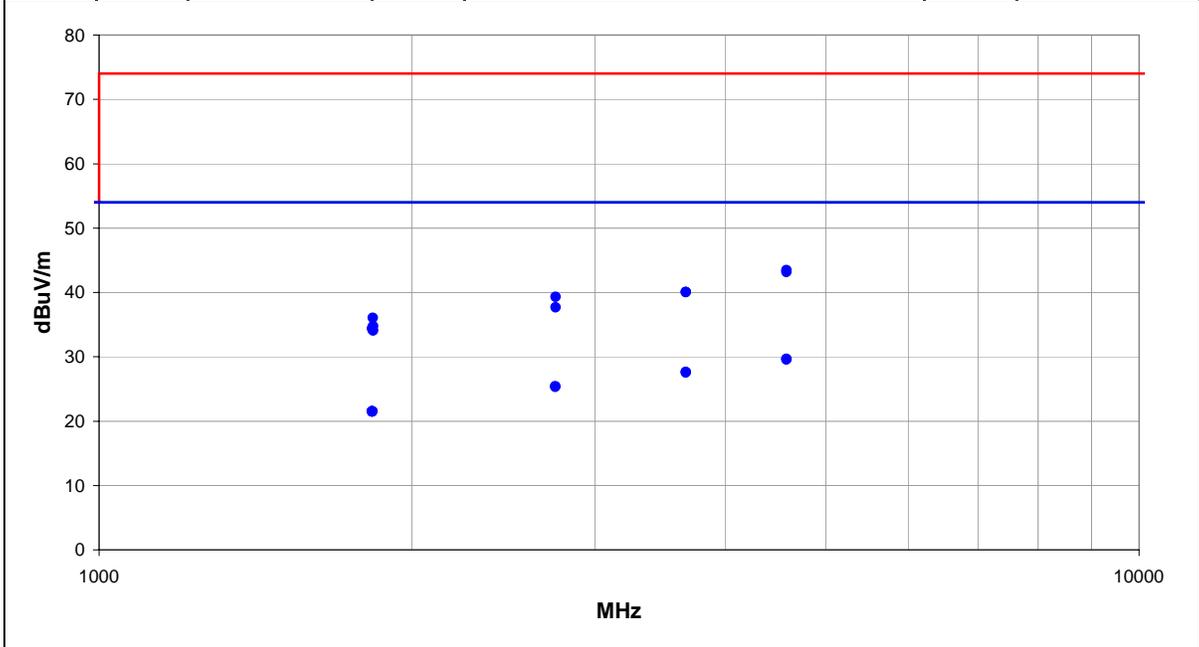
# EMC

## Field Strength of Spurious Emissions

|                        |  |                          |          |   |
|------------------------|--|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                     | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None   | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05   | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 849911 (EDVT474)                             | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Ingenio                                      |                          |          |   |
| <b>Configuration:</b>  | 1 - BSTN0294                                 |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation                |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                                |                          |          |   |
| <b>EUT Power:</b>      | Battery                                      |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, Psuedorandom, 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None   |                          |          |   |
| <b>Comments:</b>       | None   |                          |          |   |

|   |  |
|---|--|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.10:2009 |
|---|--|

|              |   |                          |   |                          |      |                |      |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 2 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 4582.567   | 27.0             | 2.7         | 1.3                     | 36.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 29.7              | 54.0                 | -24.3                  | EUT on Side    |
| 4581.142   | 26.9             | 2.7         | 1.3                     | 178.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 29.6              | 54.0                 | -24.4                  | EUT on Side    |
| 3666.833   | 28.5             | -0.9        | 2.3                     | 151.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT on Side    |
| 3666.808   | 28.4             | -0.9        | 3.4                     | 229.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 27.5              | 54.0                 | -26.5                  | EUT on Side    |
| 2747.000   | 29.1             | -3.7        | 1.3                     | 10.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 25.4              | 54.0                 | -28.6                  | EUT on Side    |
| 2747.117   | 29.0             | -3.7        | 1.3                     | 290.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.3              | 54.0                 | -28.7                  | EUT on Side    |
| 4580.558   | 40.8             | 2.7         | 1.3                     | 36.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 43.5              | 74.0                 | -30.5                  | EUT on Side    |
| 4581.850   | 40.5             | 2.7         | 1.3                     | 178.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 43.2              | 74.0                 | -30.8                  | EUT on Side    |
| 1830.917   | 27.5             | -6.0        | 1.3                     | 69.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT on Side    |
| 1830.867   | 27.5             | -6.0        | 1.3                     | 28.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Vertical   |
| 1830.842   | 27.5             | -6.0        | 3.7                     | 342.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Horizontal |
| 1830.658   | 27.5             | -6.0        | 1.6                     | 129.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Vertical   |
| 1830.658   | 27.5             | -6.0        | 1.3                     | 115.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT on Side    |
| 1830.550   | 27.5             | -6.0        | 2.0                     | 187.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Horizontal |
| 3666.542   | 40.9             | -0.9        | 3.4                     | 229.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 40.0              | 74.0                 | -34.0                  | EUT on Side    |
| 3666.442   | 40.9             | -0.9        | 2.3                     | 151.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.0              | 74.0                 | -34.0                  | EUT on Side    |
| 2747.550   | 43.0             | -3.7        | 1.3                     | 10.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 39.3              | 74.0                 | -34.7                  | EUT on Side    |
| 2748.417   | 41.4             | -3.7        | 1.3                     | 290.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 37.7              | 74.0                 | -36.3                  | EUT on Side    |
| 1833.233   | 42.0             | -6.0        | 1.3                     | 69.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 36.0              | 74.0                 | -38.0                  | EUT on Side    |
| 1834.442   | 40.7             | -5.9        | 1.3                     | 115.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 34.8              | 74.0                 | -39.2                  | EUT on Side    |

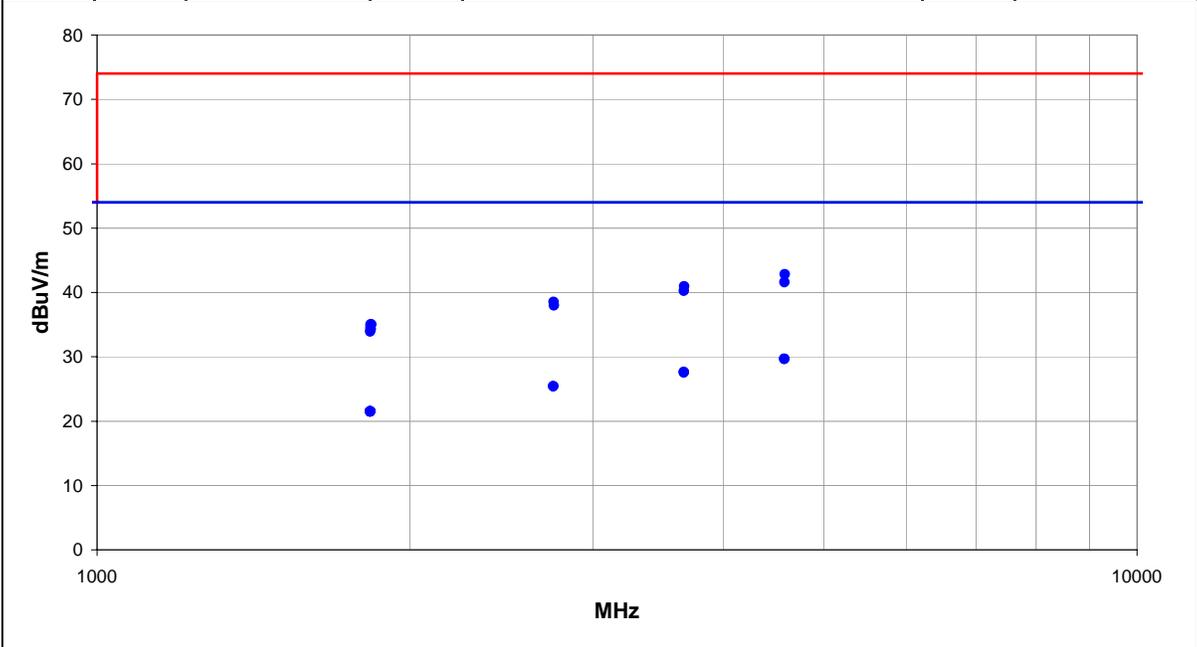
# EMC

## Field Strength of Spurious Emissions

|                        |  |                          |          |   |
|------------------------|--|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                     | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None   | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05   | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 829205 (EDVT454)                             | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Ingenio                                      |                          |          |   |
| <b>Configuration:</b>  | 2 - BSTN0294                                 |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation                |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                                |                          |          |   |
| <b>EUT Power:</b>      | Battery                                      |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, Psuedorandom, 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None   |                          |          |   |
| <b>Comments:</b>       | None   |                          |          |   |

|   |  |
|---|--|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.10:2009 |
|---|--|

|              |   |                          |   |                          |      |                |      |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 7 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 4581.775   | 27.0             | 2.7         | 1.3                     | 131.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 29.7              | 54.0                 | -24.3                  | EUT on Side    |
| 4579.758   | 27.0             | 2.7         | 1.3                     | 95.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 29.7              | 54.0                 | -24.3                  | EUT on Side    |
| 3666.308   | 28.5             | -0.9        | 1.3                     | 346.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT on Side    |
| 3666.217   | 28.4             | -0.9        | 1.3                     | 12.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 27.5              | 54.0                 | -26.5                  | EUT on Side    |
| 2746.550   | 29.1             | -3.7        | 3.0                     | 287.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.4              | 54.0                 | -28.6                  | EUT on Side    |
| 2746.833   | 29.1             | -3.7        | 1.3                     | 27.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 25.4              | 54.0                 | -28.6                  | EUT on Side    |
| 4584.117   | 40.1             | 2.7         | 1.3                     | 95.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 42.8              | 74.0                 | -31.2                  | EUT on Side    |
| 4582.133   | 38.9             | 2.7         | 1.3                     | 131.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 41.6              | 74.0                 | -32.4                  | EUT on Side    |
| 1830.983   | 27.5             | -6.0        | 1.3                     | 194.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT on Side    |
| 1830.908   | 27.5             | -6.0        | 1.3                     | 316.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Vertical   |
| 1830.767   | 27.5             | -6.0        | 3.9                     | 138.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Horizontal |
| 1830.608   | 27.5             | -6.0        | 1.3                     | 278.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT on Side    |
| 1830.592   | 27.5             | -6.0        | 1.3                     | 198.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Horizontal |
| 1830.525   | 27.5             | -6.0        | 1.3                     | 251.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.5              | 54.0                 | -32.5                  | EUT Vertical   |
| 3668.433   | 41.8             | -0.8        | 1.3                     | 12.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 41.0              | 74.0                 | -33.0                  | EUT on Side    |
| 3666.425   | 41.1             | -0.9        | 1.3                     | 346.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.2              | 74.0                 | -33.8                  | EUT on Side    |
| 2747.900   | 42.2             | -3.7        | 3.0                     | 287.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 38.5              | 74.0                 | -35.5                  | EUT on Side    |
| 2749.392   | 41.7             | -3.7        | 1.3                     | 27.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 38.0              | 74.0                 | -36.0                  | EUT on Side    |
| 1834.900   | 41.0             | -5.9        | 1.3                     | 198.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 35.1              | 74.0                 | -38.9                  | EUT Horizontal |
| 1835.225   | 40.9             | -5.9        | 1.3                     | 251.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 35.0              | 74.0                 | -39.0                  | EUT Vertical   |

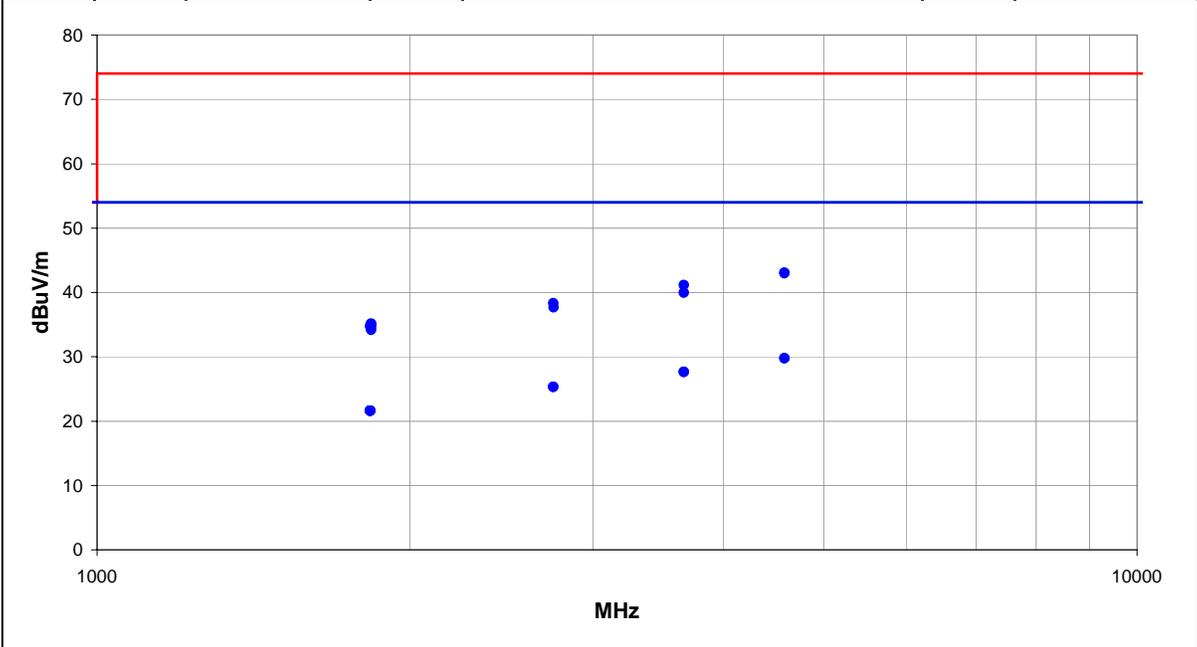
# EMC

## Field Strength of Spurious Emissions

|                        |  |                          |          |   |
|------------------------|--|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                     | <b>Date:</b>             | 10/14/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None   | <b>Temperature:</b>      | 22.79    |   |
| <b>Job Site:</b>       | MN05   | <b>Humidity:</b>         | 32.53    |   |
| <b>Serial Number:</b>  | 850001 (EDVT433)                             | <b>Barometric Pres.:</b> | 1018.5   |   |
| <b>EUT:</b>            | Ingenio                                      |                          |          |   |
| <b>Configuration:</b>  | 3 - BSTN0294                                 |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation                |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                                |                          |          |   |
| <b>EUT Power:</b>      | Battery                                      |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, Psuedorandom, 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None   |                          |          |   |
| <b>Comments:</b>       | None   |                          |          |   |

|   |  |
|---|--|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.10:2009 |
|---|--|

|              |    |                          |   |                          |      |                |      |
|--------------|----|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 12 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|----|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 4580.578   | 27.1             | 2.7         | 1.9                     | 128.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 29.8              | 54.0                 | -24.2                  | EUT Vertical   |
| 4580.529   | 27.1             | 2.7         | 1.3                     | 130.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 29.8              | 54.0                 | -24.2                  | EUT Vertical   |
| 3666.689   | 28.5             | -0.9        | 1.3                     | 43.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT Vertical   |
| 3665.873   | 28.5             | -0.9        | 1.6                     | 319.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT Vertical   |
| 2747.041   | 29.0             | -3.7        | 1.3                     | 21.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.3              | 54.0                 | -28.7                  | EUT Vertical   |
| 2747.201   | 29.0             | -3.7        | 2.0                     | 132.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 25.3              | 54.0                 | -28.7                  | EUT Vertical   |
| 4581.104   | 40.4             | 2.7         | 1.9                     | 128.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 43.1              | 74.0                 | -30.9                  | EUT Vertical   |
| 4580.656   | 40.3             | 2.7         | 1.3                     | 130.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 43.0              | 74.0                 | -31.0                  | EUT Vertical   |
| 1831.317   | 27.6             | -6.0        | 1.4                     | 133.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Vertical   |
| 1831.067   | 27.6             | -6.0        | 1.3                     | 320.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT on Side    |
| 1830.733   | 27.6             | -6.0        | 1.3                     | 321.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT on Side    |
| 1830.633   | 27.6             | -6.0        | 1.3                     | 113.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Horizontal |
| 1830.625   | 27.6             | -6.0        | 3.6                     | 115.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Horizontal |
| 1830.617   | 27.6             | -6.0        | 2.9                     | 208.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Vertical   |
| 3667.261   | 42.0             | -0.9        | 1.6                     | 319.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 41.1              | 74.0                 | -32.9                  | EUT Vertical   |
| 3666.182   | 40.8             | -0.9        | 1.3                     | 43.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 39.9              | 74.0                 | -34.1                  | EUT Vertical   |
| 2747.107   | 42.0             | -3.7        | 1.3                     | 21.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 38.3              | 74.0                 | -35.7                  | EUT Vertical   |
| 2747.508   | 41.4             | -3.7        | 2.0                     | 132.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 37.7              | 74.0                 | -36.3                  | EUT Vertical   |
| 1834.558   | 41.1             | -5.9        | 1.3                     | 321.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 35.2              | 74.0                 | -38.8                  | EUT on Side    |
| 1835.475   | 41.0             | -5.9        | 3.6                     | 115.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 35.1              | 74.0                 | -38.9                  | EUT Horizontal |

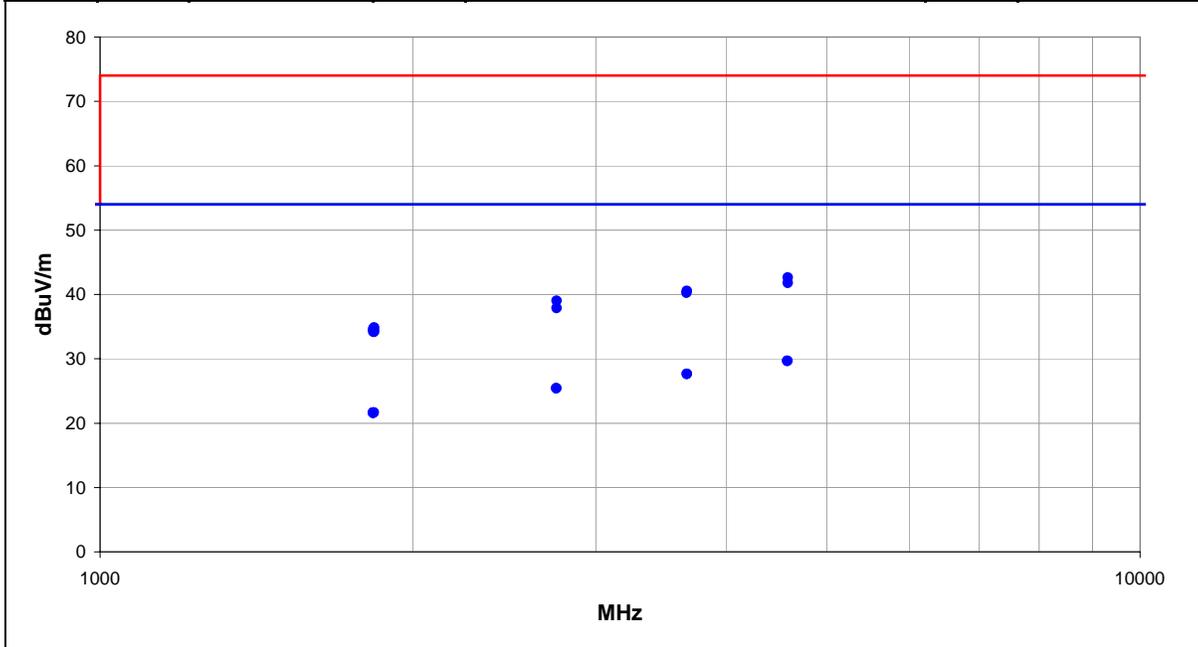
# EMC

## Field Strength of Spurious Emissions

|                        |  |                          |          |   |
|------------------------|--|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                     | <b>Date:</b>             | 10/14/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None   | <b>Temperature:</b>      | 22.79    |   |
| <b>Job Site:</b>       | MN05   | <b>Humidity:</b>         | 32.53    |   |
| <b>Serial Number:</b>  | 849702 (EDVT403)                             | <b>Barometric Pres.:</b> | 1018.5   |   |
| <b>EUT:</b>            | Invive                                       |                          |          |   |
| <b>Configuration:</b>  | 4 - BSTN0294                                 |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation                |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                                |                          |          |   |
| <b>EUT Power:</b>      | Battery                                      |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, Psuedorandom, 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None   |                          |          |   |
| <b>Comments:</b>       | None   |                          |          |   |

|   |  |
|---|--|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.10:2009 |
|---|--|

|              |    |                          |   |                          |      |                |      |
|--------------|----|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 17 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|----|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 4581.617   | 27.0             | 2.7         | 1.3                     | 23.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 29.7              | 54.0                 | -24.3                  | EUT Vertical   |
| 4580.175   | 27.0             | 2.7         | 1.8                     | 49.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 29.7              | 54.0                 | -24.3                  | EUT Vertical   |
| 3666.733   | 28.5             | -0.9        | 1.3                     | 286.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT Vertical   |
| 3666.642   | 28.5             | -0.9        | 2.4                     | 176.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 27.6              | 54.0                 | -26.4                  | EUT Vertical   |
| 2747.008   | 29.1             | -3.7        | 1.3                     | 154.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 25.4              | 54.0                 | -28.6                  | EUT Vertical   |
| 2747.033   | 29.1             | -3.7        | 1.3                     | 231.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 25.4              | 54.0                 | -28.6                  | EUT Vertical   |
| 4584.625   | 39.9             | 2.7         | 1.8                     | 49.0              | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 42.6              | 74.0                 | -31.4                  | EUT Vertical   |
| 4584.233   | 39.1             | 2.7         | 1.3                     | 23.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 41.8              | 74.0                 | -32.2                  | EUT Vertical   |
| 1833.042   | 27.6             | -6.0        | 1.3                     | 94.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Vertical   |
| 1831.350   | 27.6             | -6.0        | 1.3                     | 29.0              | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT on Side    |
| 1831.192   | 27.6             | -6.0        | 1.3                     | 338.0             | 3.0                    | 0.0                       | Vert                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Horizontal |
| 1830.617   | 27.6             | -6.0        | 1.3                     | 59.0              | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Horizontal |
| 1830.533   | 27.6             | -6.0        | 1.3                     | 248.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT Vertical   |
| 1830.500   | 27.6             | -6.0        | 1.3                     | 140.0             | 3.0                    | 0.0                       | Horz                     | AV       | 0.0                      | 21.6              | 54.0                 | -32.4                  | EUT on Side    |
| 3666.650   | 41.4             | -0.9        | 1.3                     | 286.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 40.5              | 74.0                 | -33.5                  | EUT Vertical   |
| 3665.467   | 41.1             | -0.9        | 2.4                     | 176.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 40.2              | 74.0                 | -33.8                  | EUT Vertical   |
| 2747.975   | 42.7             | -3.7        | 1.3                     | 231.0             | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 39.0              | 74.0                 | -35.0                  | EUT Vertical   |
| 2747.817   | 41.6             | -3.7        | 1.3                     | 154.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 37.9              | 74.0                 | -36.1                  | EUT Vertical   |
| 1834.992   | 40.8             | -5.9        | 1.3                     | 248.0             | 3.0                    | 0.0                       | Horz                     | PK       | 0.0                      | 34.9              | 74.0                 | -39.1                  | EUT Vertical   |
| 1831.392   | 40.6             | -6.0        | 1.3                     | 29.0              | 3.0                    | 0.0                       | Vert                     | PK       | 0.0                      | 34.6              | 74.0                 | -39.4                  | EUT on Side    |

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

**MODES OF OPERATION**

Continuous Transmit, 'All Ones' 916.5 MHz

**POWER SETTINGS INVESTIGATED**

Battery

**CONFIGURATIONS INVESTIGATED**

4 - BSTN0294

3 - BSTN0294

2 - BSTN0294

1 - BSTN0294

**FREQUENCY RANGE INVESTIGATED**

|                 |         |                |         |
|-----------------|---------|----------------|---------|
| Start Frequency | 902 MHz | Stop Frequency | 928 MHz |
|-----------------|---------|----------------|---------|

**SAMPLE CALCULATIONS**

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

**TEST EQUIPMENT**

| Description             | Manufacturer    | Model        | ID  | Last Cal.  | Interval |
|-------------------------|-----------------|--------------|-----|------------|----------|
| Attenuator, 6 dB, 'SMA' | SM Electronics  | SA18H-06     | REM | 7/9/2010   | 13 mo    |
| Pre-Amplifier           | Miteq           | AM-1616-1000 | AVY | 7/19/2010  | 13 mo    |
| Antenna, Biconilog      | ETS Lindgren    | 3142D        | AXN | 12/30/2009 | 13 mo    |
| MN05 Cables             | ESM Cable Corp. | Bilog Cables | MNH | 1/15/2010  | 13 mo    |
| Spectrum Analyzer       | Agilent         | E4446A       | AAT | 2/24/2010  | 12 mo    |

**MEASUREMENT BANDWIDTHS**

|  | Frequency Range<br>(MHz) | Peak Data<br>(kHz) | Quasi-Peak Data<br>(kHz) | Average Data<br>(kHz) |
|--|--------------------------|--------------------|--------------------------|-----------------------|
|  | 0.01 - 0.15              | 1.0                | 0.2                      | 0.2                   |
|  | 0.15 - 30.0              | 10.0               | 9.0                      | 9.0                   |
|  | 30.0 - 1000              | 100.0              | 120.0                    | 120.0                 |
|  | Above 1000               | 1000.0             | N/A                      | 1000.0                |

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

**MEASUREMENT UNCERTAINTY**

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

**TEST DESCRIPTION**

The antennas to be used with the EUT were tested. The EUT was transmitting and while set at the only available channel. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT and EUT antenna in 3 orthogonal planes (per ANSIC63.10:2009).

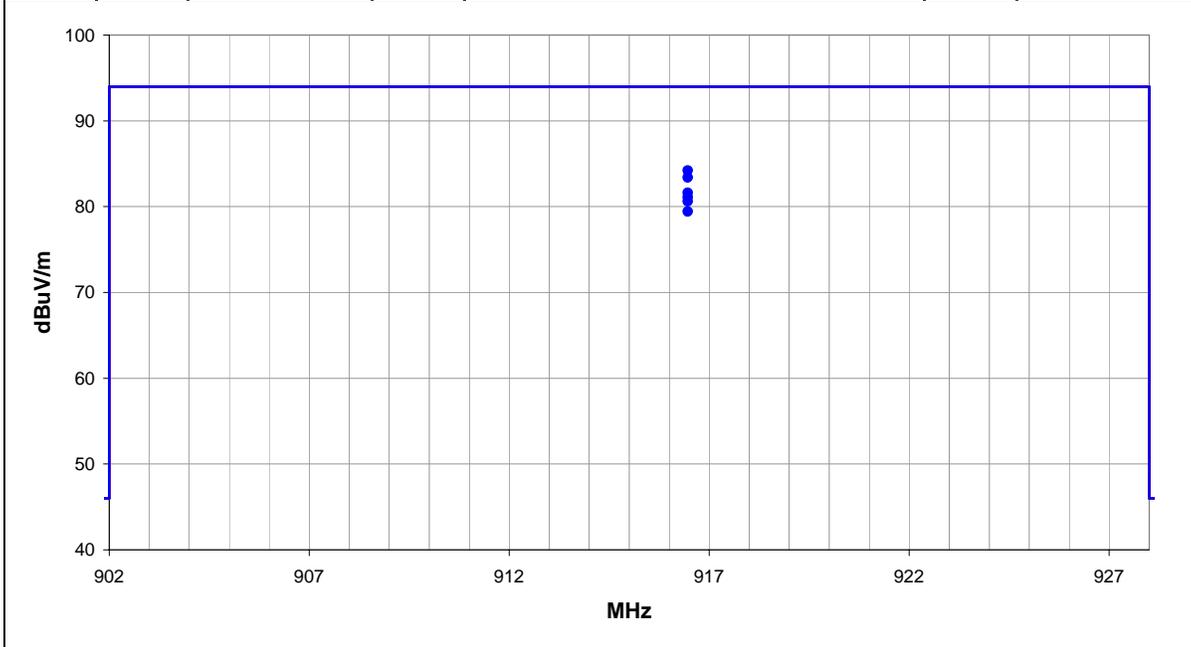
# EMC

## Field Strength of Fundamental

|                        |   |                          |          |   |
|------------------------|---|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                  | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None                                      | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05                                      | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 849911 (EDVT474)                          | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Ingenio                                   |                          |          |   |
| <b>Configuration:</b>  | 1 - BSTN0294                              |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation             |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                             |                          |          |   |
| <b>EUT Power:</b>      | Battery                                   |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, 'All Ones' 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None                                      |                          |          |   |
| <b>Comments:</b>       | None                                      |                          |          |   |

|   |                                       |
|---|---------------------------------------|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.4:2009 |
|---|---------------------------------------|

|              |   |                          |   |                          |      |                |      |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 0 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 916.464    | 67.7             | 10.5        | 1.1                     | 331.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 84.2              | 94.0                 | -9.8                   | EUT on Side    |
| 916.464    | 66.9             | 10.5        | 1.1                     | 339.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 83.4              | 94.0                 | -10.6                  | EUT Vertical   |
| 916.464    | 65.1             | 10.5        | 1.4                     | 20.0              | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 81.6              | 94.0                 | -12.4                  | EUT on Side    |
| 916.464    | 64.6             | 10.5        | 1.4                     | 333.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 81.1              | 94.0                 | -12.9                  | EUT Vertical   |
| 916.463    | 64.1             | 10.5        | 1.3                     | 210.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 80.6              | 94.0                 | -13.4                  | EUT Horizontal |
| 916.464    | 62.9             | 10.5        | 1.4                     | 229.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 79.4              | 94.0                 | -14.6                  | EUT Horizontal |

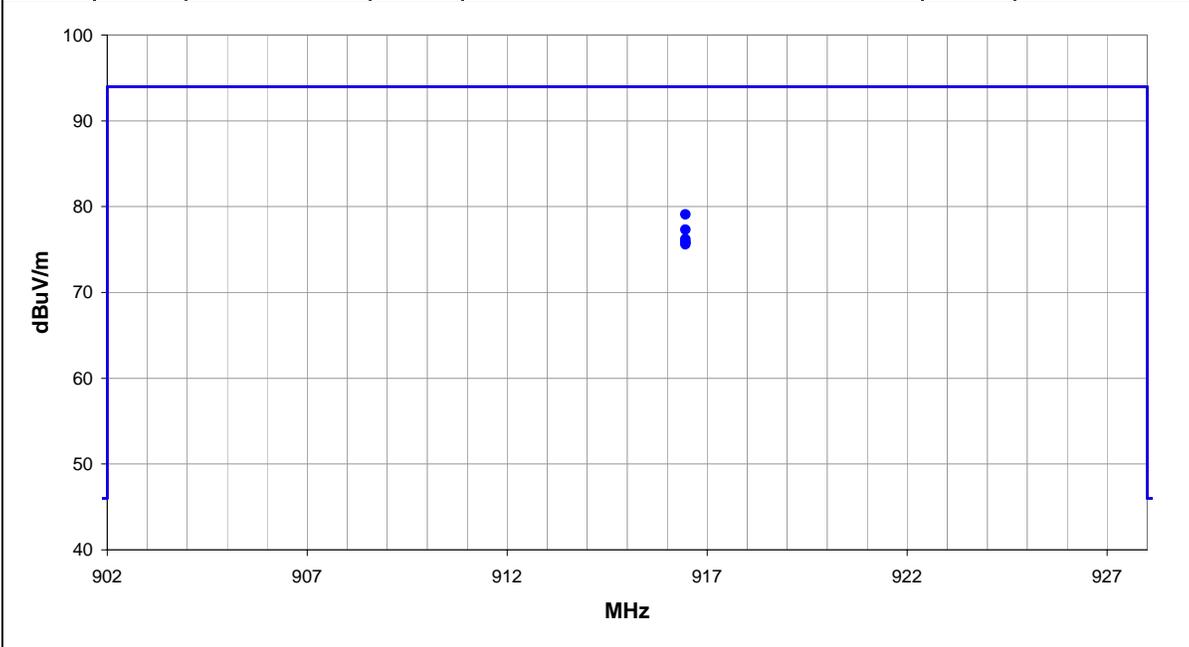
# EMC

## Field Strength of Fundamental

|                        |   |                          |          |   |
|------------------------|---|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                  | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None                                      | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05                                      | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 829205 (EDVT454)                          | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Ingenio                                   |                          |          |   |
| <b>Configuration:</b>  | 2 - BSTN0294                              |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation             |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                             |                          |          |   |
| <b>EUT Power:</b>      | Battery                                   |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, 'All Ones' 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None                                      |                          |          |   |
| <b>Comments:</b>       | None                                      |                          |          |   |

|   |                                       |
|---|---------------------------------------|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.4:2009 |
|---|---------------------------------------|

|              |   |                          |   |                          |      |                |      |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 1 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 916.461    | 62.6             | 10.5        | 1.1                     | 236.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 79.1              | 94.0                 | -14.9                  | EUT on Side    |
| 916.461    | 60.8             | 10.5        | 1.3                     | 325.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 77.3              | 94.0                 | -16.7                  | EUT on Side    |
| 916.460    | 59.7             | 10.5        | 2.4                     | 352.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 76.2              | 94.0                 | -17.8                  | EUT Vertical   |
| 916.459    | 59.4             | 10.5        | 1.6                     | 233.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 75.9              | 94.0                 | -18.1                  | EUT Horizontal |
| 916.459    | 59.3             | 10.5        | 1.3                     | 197.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 75.8              | 94.0                 | -18.2                  | EUT Horizontal |
| 916.460    | 59.1             | 10.5        | 1.3                     | 172.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 75.6              | 94.0                 | -18.4                  | EUT Vertical   |

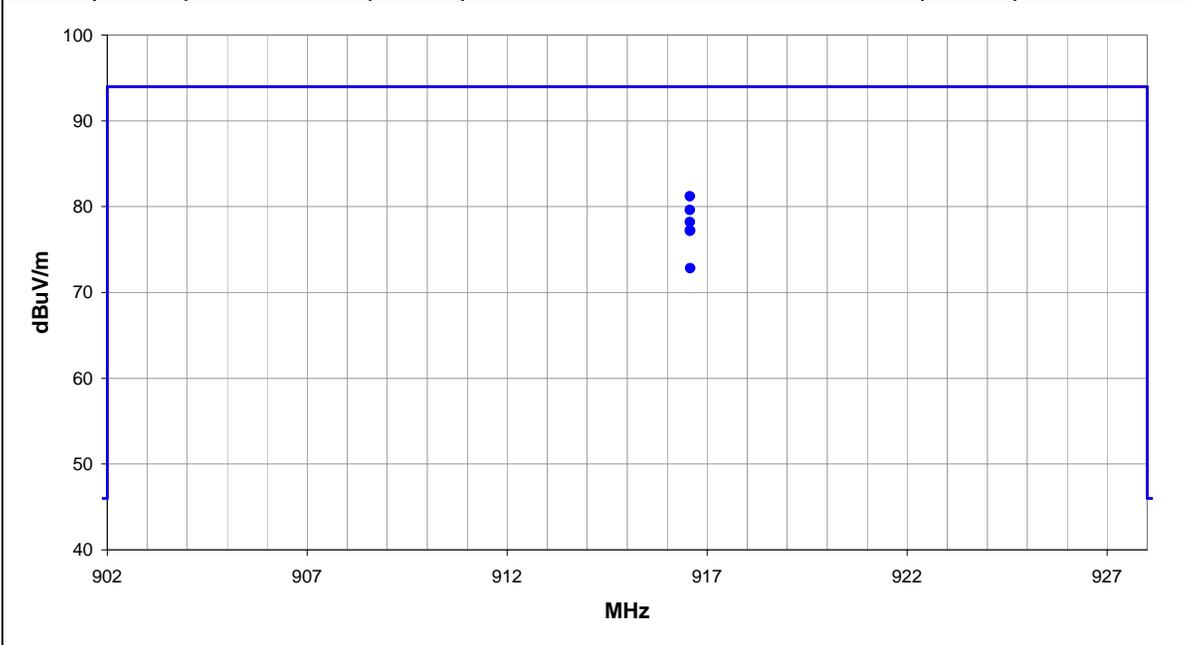
# EMC

## Field Strength of Fundamental

|                        |   |                          |          |   |
|------------------------|---|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                  | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None                                      | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05                                      | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 850001 (EDVT433)                          | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Ingenio                                   |                          |          |   |
| <b>Configuration:</b>  | 3 - BSTN0294                              |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation             |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                             |                          |          |   |
| <b>EUT Power:</b>      | Battery                                   |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, 'All Ones' 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None                                      |                          |          |   |
| <b>Comments:</b>       | None                                      |                          |          |   |

|   |                                       |
|---|---------------------------------------|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.4:2009 |
|---|---------------------------------------|

|              |   |                          |   |                          |      |                |      |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|
| <b>Run #</b> | 2 | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |
|--------------|---|--------------------------|---|--------------------------|------|----------------|------|



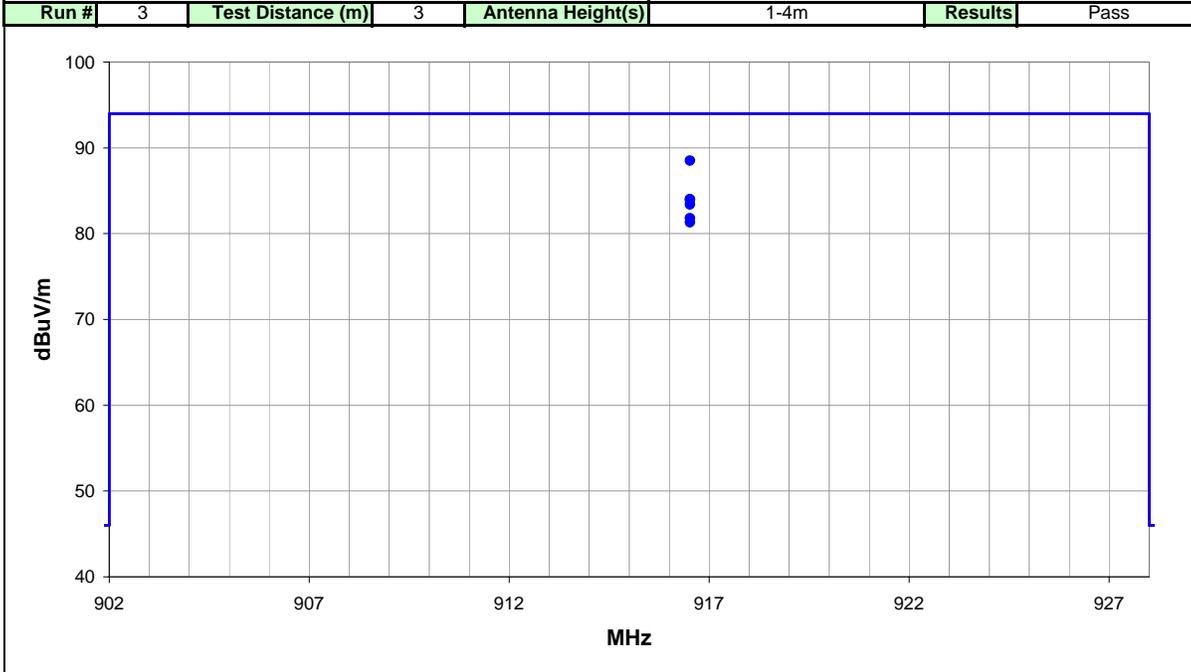
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 916.571    | 64.7             | 10.5        | 1.3                     | 172.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 81.2              | 94.0                 | -12.8                  | EUT Vertical   |
| 916.569    | 63.1             | 10.5        | 1.3                     | 197.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 79.6              | 94.0                 | -14.4                  | EUT Horizontal |
| 916.572    | 61.7             | 10.5        | 2.0                     | 320.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 78.2              | 94.0                 | -15.8                  | EUT Vertical   |
| 916.571    | 60.7             | 10.5        | 1.7                     | 236.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 77.2              | 94.0                 | -16.8                  | EUT Horizontal |
| 916.573    | 60.7             | 10.5        | 1.3                     | 204.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 77.2              | 94.0                 | -16.8                  | EUT on Side    |
| 916.573    | 56.3             | 10.5        | 1.0                     | 213.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 72.8              | 94.0                 | -21.2                  | EUT on Side    |

# EMC

## Field Strength of Fundamental

|                        |   |                          |          |   |
|------------------------|---|--------------------------|----------|---|
| <b>Work Order:</b>     | BSTN0294                                  | <b>Date:</b>             | 10/13/10 | <i>Trevor Buls</i><br><b>Tested by:</b> Trevor Buls |
| <b>Project:</b>        | None                                      | <b>Temperature:</b>      | 23.14    |   |
| <b>Job Site:</b>       | MN05                                      | <b>Humidity:</b>         | 40.44    |   |
| <b>Serial Number:</b>  | 849702 (EDVT403)                          | <b>Barometric Pres.:</b> | 1023.3   |   |
| <b>EUT:</b>            | Invive                                    |                          |          |   |
| <b>Configuration:</b>  | 4 - BSTN0294                              |                          |          |   |
| <b>Customer:</b>       | Boston Scientific Corporation             |                          |          |   |
| <b>Attendees:</b>      | Dennis Larson                             |                          |          |   |
| <b>EUT Power:</b>      | Battery                                   |                          |          |   |
| <b>Operating Mode:</b> | Continuous Transmit, 'All Ones' 916.5 MHz |                          |          |   |
| <b>Deviations:</b>     | None                                      |                          |          |   |
| <b>Comments:</b>       | None                                      |                          |          |   |

|   |                                       |                          |   |                          |      |                |      |
|---|---------------------------------------|--------------------------|---|--------------------------|------|----------------|------|
| <b>Test Specifications</b><br>FCC 15.249:2010 | <b>Test Method</b><br>ANSI C63.4:2009 |                          |   |                          |      |                |      |
| <b>Run #</b>                                  | 3                                     | <b>Test Distance (m)</b> | 3 | <b>Antenna Height(s)</b> | 1-4m | <b>Results</b> | Pass |



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments       |
|------------|------------------|-------------|-------------------------|-------------------|------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------|
| 916.521    | 72.0             | 10.5        | 1.1                     | 336.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 88.5              | 94.0                 | -5.5                   | EUT Vertical   |
| 916.520    | 67.5             | 10.5        | 1.1                     | 319.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 84.0              | 94.0                 | -10.0                  | EUT Horizontal |
| 916.521    | 67.4             | 10.5        | 1.3                     | 338.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 83.9              | 94.0                 | -10.1                  | EUT on Side    |
| 916.521    | 66.9             | 10.5        | 1.3                     | 333.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 83.4              | 94.0                 | -10.6                  | EUT Vertical   |
| 916.521    | 65.3             | 10.5        | 1.2                     | 266.0             | 3.0                    | 6.0                       | Vert                     | QP       | 0.0                      | 81.8              | 94.0                 | -12.2                  | EUT on Side    |
| 916.521    | 64.8             | 10.5        | 1.3                     | 307.0             | 3.0                    | 6.0                       | Horz                     | QP       | 0.0                      | 81.3              | 94.0                 | -12.7                  | EUT Horizontal |