

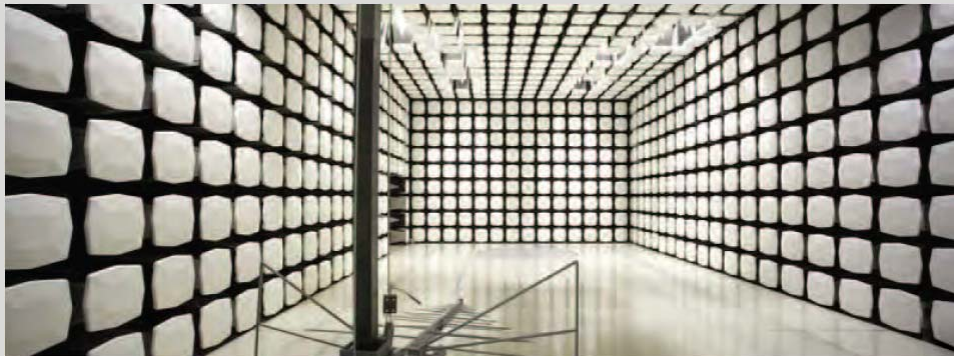


## **Boston Scientific Corporation**

**Model 6280**

**FCC 15.205:2013 / FCC 15.249:2013 / FCC 15.109:2013 / FCC 15.207:2013**

**Report #: BSTN0429**



Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – [www.nwemc.com](http://www.nwemc.com)

California – Minnesota – Oregon – New York – Washington

# CERTIFICATE OF TEST

**Last Date of Test: August 16, 2013**  
**Boston Scientific Corporation**  
**Model: 6280**

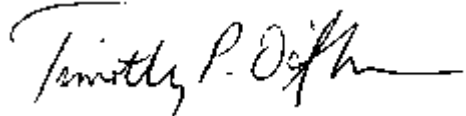
## Emissions

Test Description	Specification	Test Method	Pass/Fail
Field Strength of Spurious Emissions	FCC 15.205:2013	ANSI C63.10:2009	Pass
Field Strength of Fundamental	FCC 15.249:2013	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.249:2013	ANSI C63.10:2009	Pass
Receiver Spurious Emissions	FCC 15.109:2013 Class B	ANSI C63.4:2009	Pass
AC Powerline Conducted Emissions	FCC 15.207:2013	ANSI C63.10:2009	Pass

## Deviations From Test Standards

None

## Approved By:



Tim O'Shea, Operations 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 HISTORY

Revision Number	Description	Date	Page Number
00	None		

## Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

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## United States

**FCC** - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

**A2LA** - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

**NVLAP** - Each laboratory is accredited by NVLAP to ISO 17025

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## Canada

**IC** - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

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## European Union

**European Commission** – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

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## Australia/New Zealand

**ACMA** - Recognized by ACMA as a CAB for the acceptance of test data.

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## Korea

**KCC / RRA** - Recognized by KCC's RRA as a CAB for the acceptance of test data.

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## Japan

**VCCI** - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

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## Taiwan

**BSMI** – Recognized by BSMI as a CAB for the acceptance of test data.

**NCC** - Recognized by NCC as a CAB for the acceptance of test data.

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## Singapore

**IDA** – Recognized by IDA as a CAB for the acceptance of test data.

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## Hong Kong

**OFTA** – Recognized by OFTA as a CAB for the acceptance of test data.

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## Vietnam

**MIC** – Recognized by MIC as a CAB for the acceptance of test data.

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## Russia

**GOST** – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards.

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## SCOPE

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

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

## Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

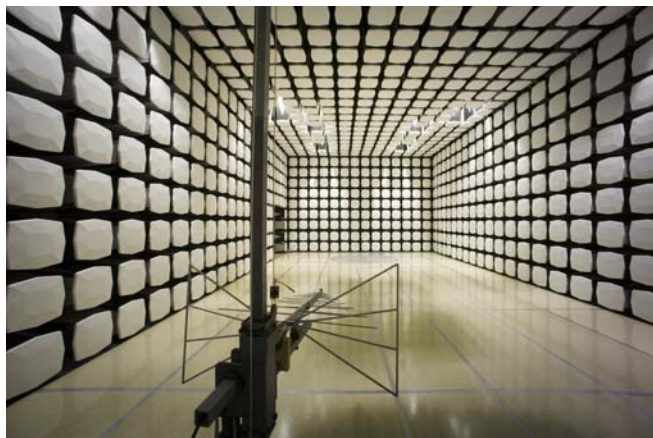
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is listed below. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

<b>Test</b>	<b>+ MU</b>	<b>- MU</b>
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	3.80	-3.80
AC Powerline Conducted Emissions (dB)	2.94	-2.94



<b>Oregon</b> Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	<b>California</b> Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	<b>New York</b> Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	<b>Minnesota</b> Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	<b>Washington</b> Labs NC01-05, SU02, SU07 19201 120 <sup>th</sup> Ave. NE Bothell, WA 98011 (425) 984-6600
<b>VCCI</b>				
A-0108	A-0029		A-0109	A-0110
<b>Industry Canada</b>				
2834D-1, 2834D-2	2834B-1, 2834B-2, 2834B-3		2834E-1	2834C-1
<b>NVLAP</b>				
NVLAP Lab Code: 200630-0	NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200629-0







# PRODUCT DESCRIPTION

## Client and Equipment Under Test (EUT) Information

<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>	Pete Musto
<b>Model:</b>	Model 6280
<b>First Date of Test:</b>	August 8, 2013
<b>Last Date of Test:</b>	August 16, 2013
<b>Receipt Date of Samples:</b>	August 1, 2013
<b>Equipment Design Stage:</b>	Production
<b>Equipment Condition:</b>	No Damage

## Information Provided by the Party Requesting the Test

<b>Functional Description of the EUT (Equipment Under Test):</b>
In-Home Patient Management System allows one to remotely follow most Boston Scientific device patients.
<b>Testing Objective:</b>
To demonstrate FCC compliance for the ISM radio per Boston Scientific EDVT Protocol 1114585.

## Configuration BSTN0429- 9

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Jaguar Communicator (ISM)	Boston Scientific Corporation	6280	0000270
Cell Modem (ISM)	Boston Scientific Corporation	400379-010	0000090
DC Brick (Jaguar)	GlobTek Inc.	GTM41061-1512-7.0	None
Bluetooth Dongle	Delta Mobile Systems	DM210	None

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Pulse Generator (ISM)	Boston Scientific Corporation	K274-200-0	300601

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Netbook (ISM)	Gateway	LT4004U	20210594576
DC Brick (Gateway Netbook)	Leader Electronics Inc.	1U40-11190-0115	None
USB to Serial Adapter	FTDI	None	None

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Power	No	1.90m	Yes	DC Brick	Jaguar Communicator
USB	Yes	0.20m	Yes	Cell Modem	Jaguar Communicator
Serial	Yes	1.90m	No	USB to Serial Adapter	Jaguar Communicator
DC Power	No	2.50m	Yes	DC Brick	Netbook
RJ11 (x2)	No	2.15m	No	Unterminated	Jaguar Communicator
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					



## Configuration BSTN0429- 14

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Cell Modem (MICS)	Boston Scientific Corporation	400379-010	0000085
DC Brick (Jaguar)	GlobTek Inc.	GTM41061-1512-7.0	None
Bluetooth Dongle	Delta Mobile Systems	DM210	None
Jaguar Communicator (ISM)	Boston Scientific Corporation	6280	0000245

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Power	No	1.90m	Yes	DC Brick	Jaguar Communicator
USB	Yes	0.20m	Yes	Cell Modem	Jaguar Communicator
RJ11 (x2)	No	2.15m	No	Unterminated	Jaguar Communicator
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	8/8/2013	AC Powerline Conducted Emissions	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	8/16/2013	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.
3	8/16/2013	Spurious Radiated Emissions	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.
4	8/16/2013	Receiver Spurious Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

## Field Strength of Fundamental

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

Per Boston Scientific EDVT# 1114585: Mode 2, Transmitting 916.5 MHz ISM, unmodulated (All ones).

### POWER SETTINGS INVESTIGATED

110VAC/60Hz

### CONFIGURATIONS INVESTIGATED

BSTN0429 - 14

### FREQUENCY RANGE INVESTIGATED

Start Frequency	902 MHz	Stop Frequency	928 MHz
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### 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
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/20/2013	12 mo
Antenna, Bilog	Teseq	CBL 6141B	AYD	12/17/2012	12 mo
Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2013	24 mo

### MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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

### TEST DESCRIPTION

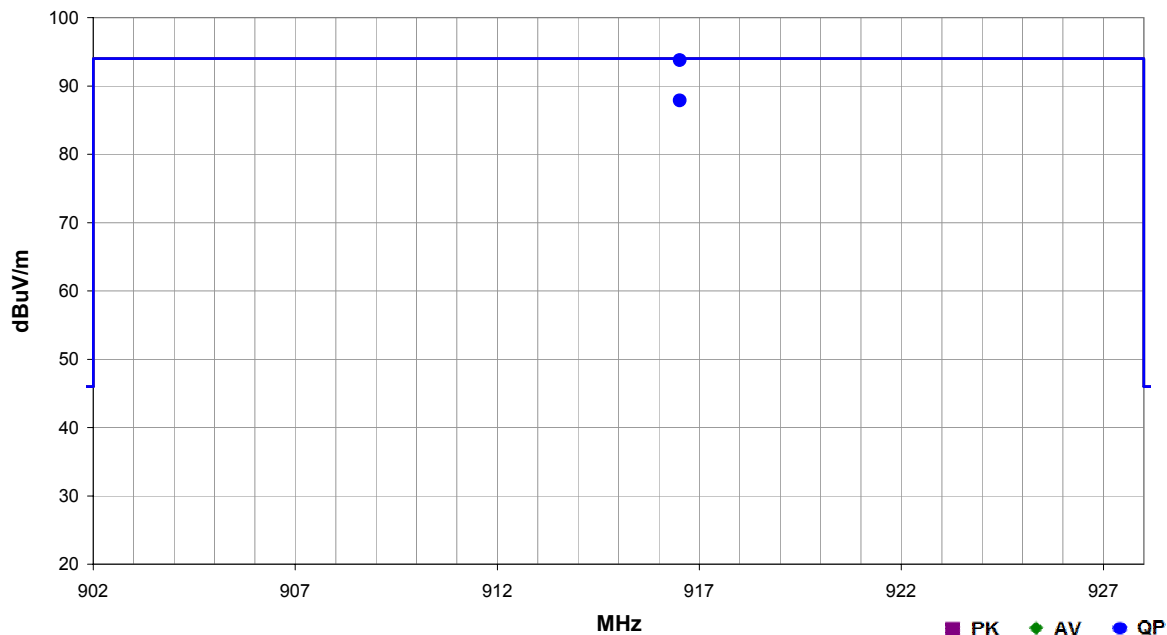
The antennas to be used with the EUT were tested. The EUT was transmitting and while set at the only channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT and EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009).

## Field Strength of Fundamental

Work Order:	BSTN0429	Date:	08/16/13	<i>Trevor Buls</i>
Project:	None	Temperature:	23.7 °C	
Job Site:	MN05	Humidity:	46.9% RH	
Serial Number:	245	Barometric Pres.:	1021.5 mbar	
EUT:	Model 6280			
Configuration:	14			
Customer:	Boston Scientific Corporation			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Per Boston Scientific EDVT# 1114585: Mode 2, Transmitting 916.5 MHz ISM, unmodulated (All ones).			
Deviations:	None			
Comments:	Manufacturer states that EUT will always be operated in horizontal position.			

Test Specifications	Test Method
FCC 15.249:2013	ANSI C63.10:2009

Run #	52	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
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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)
916.515	63.8	29.9	1.0	144.0	3.0	0.0	Horz	QP	0.0	93.7	94.0	-0.3
916.515	57.9	29.9	1.1	214.0	3.0	0.0	Vert	QP	0.0	87.8	94.0	-6.2

## Spurious Radiated 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

Per Boston Scientific EDVT# 1114585: Mode 2, Transmitting 916.5 MHz ISM, modulated (Pseudorandom).

### POWER SETTINGS INVESTIGATED

110VAC/60Hz

### CONFIGURATIONS INVESTIGATED

BSTN0429 - 14

### FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	10 GHz
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### 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	Micro-Tronics	HPM50108	HGP	5/31/2012	24 mo
Low Pass Filter 0-425 MHz	Micro-Tronics	LPM50003	HGO	5/31/2012	24 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	5/20/2013	12 mo
Attenuator, 10db, 'SMA'	S.M. Electronics	SA18H-10	REN	5/20/2013	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	5/20/2013	12 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	8/12/2013	12 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	8/12/2013	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	6/29/2011	36 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	5/20/2013	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	5/20/2013	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/20/2013	12 mo
Antenna, Bilog	Teseq	CBL 6141B	AYD	12/17/2012	12 mo
Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2013	24 mo

### MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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

### TEST DESCRIPTION

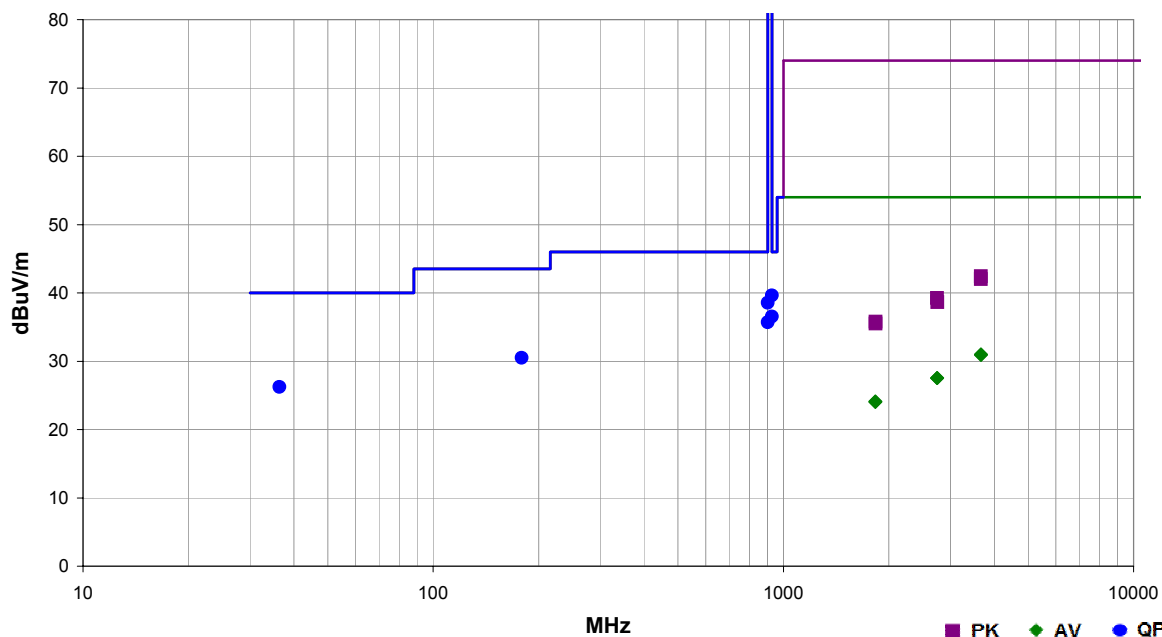
The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the only channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 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.

## Spurious Radiated Emissions

Work Order:	BSTN0429	Date:	08/16/13	<i>Trevor Buls</i>
Project:	None	Temperature:	23.7 °C	
Job Site:	MN05	Humidity:	46.9% RH	
Serial Number:	245	Barometric Pres.:	1021.5 mbar	
EUT:		Model 6280		
Configuration:	14			
Customer:	Boston Scientific Corporation			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Per Boston Scientific EDVT# 1114585: Mode 2, Transmitting 916.5 MHz ISM, modulated (Pseudorandom).			
Deviations:	None			
Comments:	Manufacturer states that EUT will always be operated in horizontal position.			

Test Specifications	Test Method
FCC 15.249:2013	ANSI C63.10:2009

Run #	53	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
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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)
928.000	20.5	9.1	1.0	139.0	3.0	10.0	Horz	QP	0.0	39.6	46.0	-6.4
902.000	19.3	9.3	1.0	131.0	3.0	10.0	Horz	QP	0.0	38.6	46.0	-7.4
928.000	17.4	9.1	1.7	225.0	3.0	10.0	Vert	QP	0.0	36.5	46.0	-9.5
901.867	16.4	9.3	1.0	301.0	3.0	10.0	Vert	QP	0.0	35.7	46.0	-10.3
179.065	36.9	-6.4	1.5	203.0	3.0	0.0	Horz	QP	0.0	30.5	43.5	-13.0
36.373	24.4	1.8	1.8	175.0	3.0	0.0	Vert	QP	0.0	26.2	40.0	-13.8
3663.683	29.6	1.4	1.0	98.0	3.0	0.0	Horz	AV	0.0	31.0	54.0	-23.0
3663.750	29.5	1.4	1.2	83.0	3.0	0.0	Vert	AV	0.0	30.9	54.0	-23.1
2749.533	29.5	-2.0	2.6	116.0	3.0	0.0	Horz	AV	0.0	27.5	54.0	-26.5
2748.642	29.5	-2.0	1.0	7.0	3.0	0.0	Vert	AV	0.0	27.5	54.0	-26.5
1830.767	28.4	-4.3	1.0	87.0	3.0	0.0	Horz	AV	0.0	24.1	54.0	-29.9
1831.208	28.3	-4.3	1.0	119.0	3.0	0.0	Vert	AV	0.0	24.0	54.0	-30.0
3664.683	41.0	1.4	1.0	98.0	3.0	0.0	Horz	PK	0.0	42.4	74.0	-31.6
3666.133	40.6	1.4	1.2	83.0	3.0	0.0	Vert	PK	0.0	42.0	74.0	-32.0
2748.025	41.2	-2.0	2.6	116.0	3.0	0.0	Horz	PK	0.0	39.2	74.0	-34.8
2750.333	40.6	-1.9	1.0	7.0	3.0	0.0	Vert	PK	0.0	38.7	74.0	-35.3
1834.917	40.0	-4.2	1.0	119.0	3.0	0.0	Vert	PK	0.0	35.8	74.0	-38.2
1835.250	39.7	-4.2	1.0	87.0	3.0	0.0	Horz	PK	0.0	35.5	74.0	-38.5

## Receiver 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

Per Boston Scientific EDVT# 1114585: Mode 3, Receiving 916.5 MHz ISM.

### POWER SETTINGS INVESTIGATED

110VAC/60Hz

### CONFIGURATIONS INVESTIGATED

BSTN0429 - 14

### FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	10 GHz
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### 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
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	8/12/2013	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	5/20/2013	12 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	5/20/2013	12 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	8/12/2013	12 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	6/29/2011	36 mo
Pre-Amplifier	Miteq	AM-1616-1000	PAD	5/20/2013	12 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	5/20/2013	12 mo
Antenna, Bilog	Teseq	CBL 6141B	AYD	12/17/2012	12 mo
Spectrum Analyzer	Agilent	N9010A	AFI	1/27/2013	24 mo

### MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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

### TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was receiving while set at the only channel available. 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 was used for this test in order to provide sufficient measurement sensitivity.

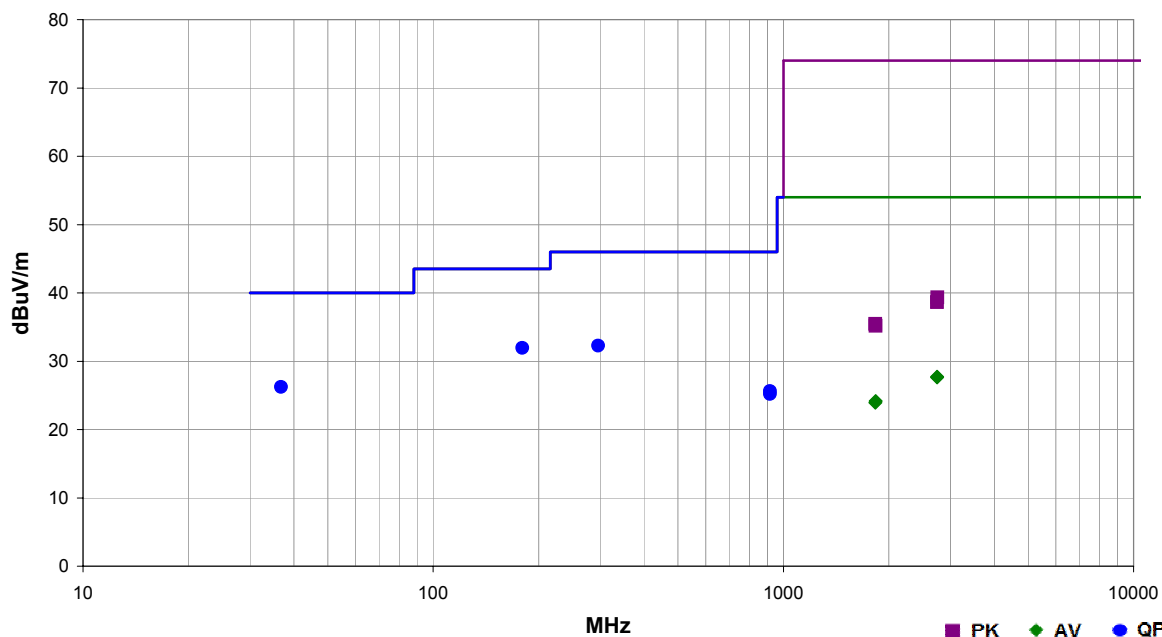


## Receiver Spurious Emissions

Work Order:	BSTN0429	Date:	08/16/13	<i>Trevor Buls</i>
Project:	None	Temperature:	23.7 °C	
Job Site:	MN05	Humidity:	46.9% RH	
Serial Number:	245	Barometric Pres.:	1021.5 mbar	
EUT:	Model 6280			
Configuration:	14			
Customer:	Boston Scientific Corporation			
Attendees:	None			
EUT Power:	110VAC/60Hz			
Operating Mode:	Per Boston Scientific EDVT# 1114585: Mode 3, Receiving 916.5 MHz ISM.			
Deviations:	None			
Comments:	Manufacturer states that EUT will always be operated in horizontal position.			

Test Specifications	Class B	Test Method
FCC 15.109:2013		ANSI C63.4:2009

Run #	55	Test Distance (m)	3	Antenna Height(s)	1-4m	Results	Pass
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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)
179.796	38.4	-6.5	1.5	201.0	3.0	0.0	Horz	QP	0.0	31.9	43.5	-11.6
296.215	35.7	-3.4	1.0	215.0	3.0	0.0	Horz	QP	0.0	32.3	46.0	-13.7
36.810	24.6	1.6	1.5	130.0	3.0	0.0	Vert	QP	0.0	26.2	40.0	-13.8
915.998	16.8	8.8	1.0	194.0	3.0	0.0	Horz	QP	0.0	25.6	46.0	-20.4
916.037	16.4	8.8	1.0	333.0	3.0	0.0	Vert	QP	0.0	25.2	46.0	-20.8
2747.633	29.7	-2.0	1.0	23.0	3.0	0.0	Horz	AV	0.0	27.7	54.0	-26.3
2747.775	29.6	-2.0	1.0	120.0	3.0	0.0	Vert	AV	0.0	27.6	54.0	-26.4
1834.125	28.4	-4.2	1.0	341.0	3.0	0.0	Vert	AV	0.0	24.2	54.0	-29.8
1832.167	28.2	-4.2	1.0	141.0	3.0	0.0	Horz	AV	0.0	24.0	54.0	-30.0
2750.575	41.3	-1.9	1.0	23.0	3.0	0.0	Horz	PK	0.0	39.4	74.0	-34.6
2749.242	40.6	-2.0	1.0	120.0	3.0	0.0	Vert	PK	0.0	38.6	74.0	-35.4
1831.117	39.7	-4.3	1.0	141.0	3.0	0.0	Horz	PK	0.0	35.4	74.0	-38.6
1833.275	39.4	-4.2	1.0	341.0	3.0	0.0	Vert	PK	0.0	35.2	74.0	-38.8

# AC POWERLINE CONDUCTED EMISSIONS

## TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50  $\Omega$  measuring port is terminated by a 50  $\Omega$  EMI meter or a 50  $\Omega$  resistive load. All 50  $\Omega$  measuring ports of the LISN are terminated by 50 $\Omega$ .

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESCI	ARG	04/01/2013	12 mo
Attenuator 20dB, BNC	Fairview Microwave	SA01B-20	AQP	08/09/2013	12 mo
High Pass Filter	TTE	H97-100K-50-720B	HGN	05/31/2012	24 mo
LISN	Solar Electronics	9252-50-R-24-BNC	LIY	05/24/2013	12 mo
MN03 Cables	ESM Cable Corp.	Conducted Cables	MNC	01/17/2013	12 mo

## CONFIGURATIONS INVESTIGATED

BSTN0429-9

## MODES INVESTIGATED

Per Boston Scientific EDVT# 1114585: Mode 2

# AC POWERLINE CONDUCTED EMISSIONS

EUT:	Model 6280	Work Order:	BSTN0429
Serial Number:	270	Date:	08/08/2013
Customer:	Boston Scientific Corporation	Temperature:	23.6°C
Attendees:	None	Relative Humidity:	48.5%
Customer Project:	None	Bar. Pressure:	1017.3 mb
Tested By:	Johnathan Lee	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	BSTN0429-9

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

## TEST PARAMETERS

Run #:	58	Line:	High Line	Ext. Attenuation (dB):	20
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## COMMENTS

None

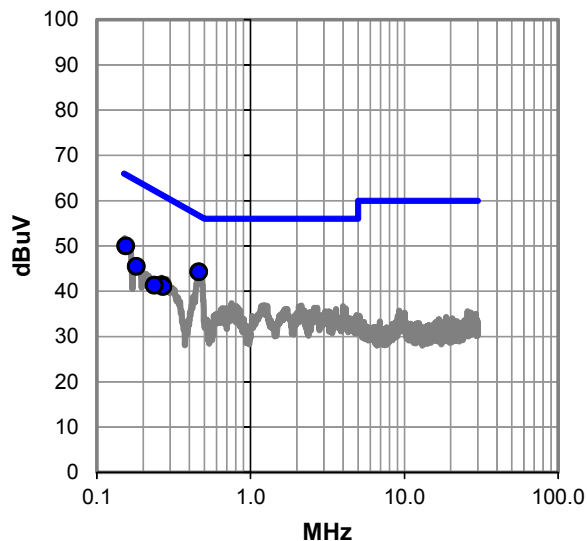
## EUT OPERATING MODES

Per Boston Scientific EDVT# 1114585: Mode 2

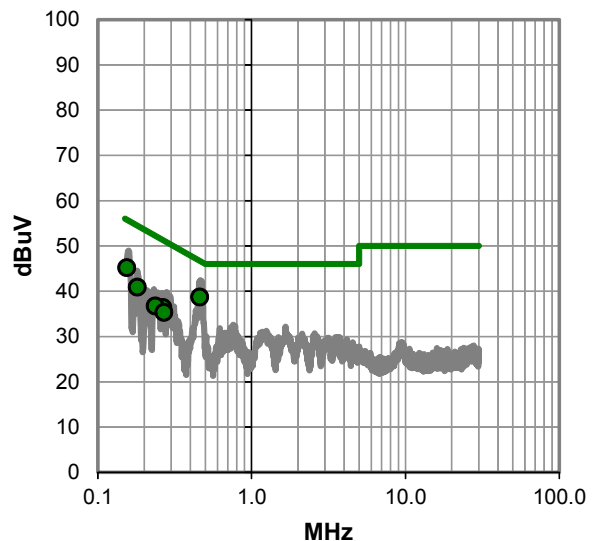
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #58

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.461	24.1	20.2	44.3	56.7	-12.4
0.154	29.8	20.2	50.0	65.8	-15.8
0.181	25.3	20.2	45.5	64.4	-18.9
0.265	21.2	20.2	41.4	61.3	-19.9
0.269	20.8	20.2	41.0	61.1	-20.1
0.236	21.1	20.2	41.3	62.2	-20.9

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.461	18.5	20.2	38.7	46.7	-8.0
0.154	25.0	20.2	45.2	55.8	-10.6
0.181	20.7	20.2	40.9	54.4	-13.5
0.265	16.2	20.2	36.4	51.3	-14.9
0.236	16.5	20.2	36.7	52.2	-15.5
0.269	15.1	20.2	35.3	51.1	-15.8

## CONCLUSION

Pass



Tested By

# AC POWERLINE CONDUCTED EMISSIONS

EUT:	Model 6280	Work Order:	BSTN0429
Serial Number:	270	Date:	08/08/2013
Customer:	Boston Scientific Corporation	Temperature:	23.6°C
Attendees:	None	Relative Humidity:	48.5%
Customer Project:	None	Bar. Pressure:	1017.3 mb
Tested By:	Johnathan Lee	Job Site:	MN03
Power:	110VAC/60Hz	Configuration:	BSTN0429-9

## TEST SPECIFICATIONS

Specification:	Method:
FCC 15.207:2013	ANSI C63.10:2009

## TEST PARAMETERS

Run #:	59	Line:	Neutral	Ext. Attenuation (dB):	20
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## COMMENTS

None

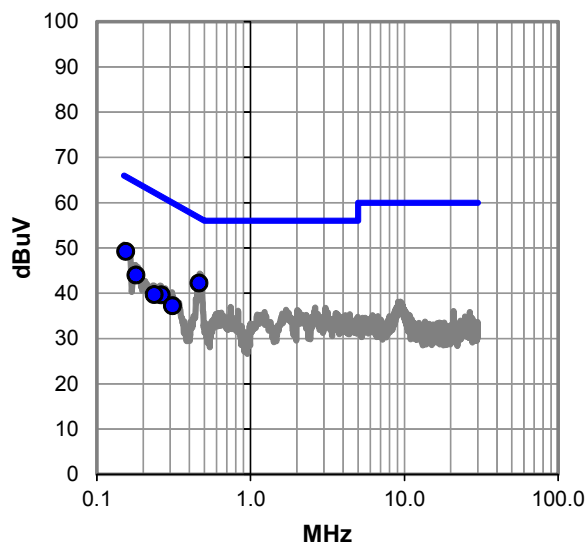
## EUT OPERATING MODES

Per Boston Scientific EDVT# 1114585: Mode 2

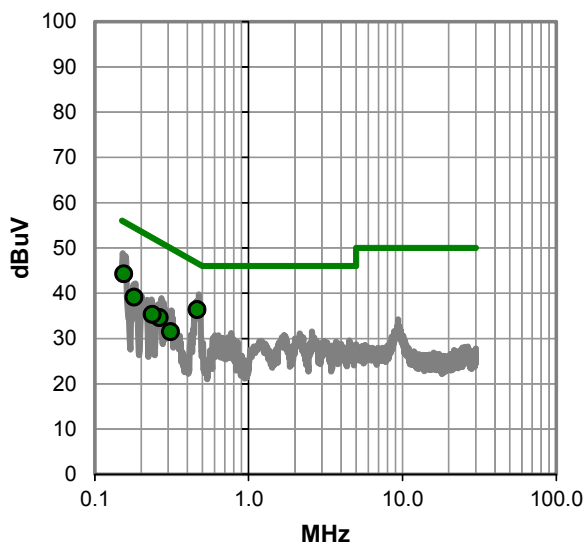
## DEVIATIONS FROM TEST STANDARD

None

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



# AC POWERLINE CONDUCTED EMISSIONS

## RESULTS - Run #59

Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.463	22.0	20.2	42.2	56.6	-14.4
0.154	29.0	20.2	49.2	65.8	-16.6
0.180	23.8	20.2	44.0	64.5	-20.5
0.263	19.4	20.2	39.6	61.3	-21.7
0.237	19.5	20.2	39.7	62.2	-22.5
0.311	17.0	20.2	37.2	59.9	-22.7

Average Data - vs - Average Limit

Freq (MHz)	Amp. (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Margin (dB)
0.463	16.2	20.2	36.4	46.6	-10.2
0.154	24.1	20.2	44.3	55.8	-11.5
0.180	18.9	20.2	39.1	54.5	-15.4
0.263	14.4	20.2	34.6	51.3	-16.7
0.237	15.1	20.2	35.3	52.2	-16.9
0.311	11.3	20.2	31.5	49.9	-18.4

## CONCLUSION

Pass



Tested By