



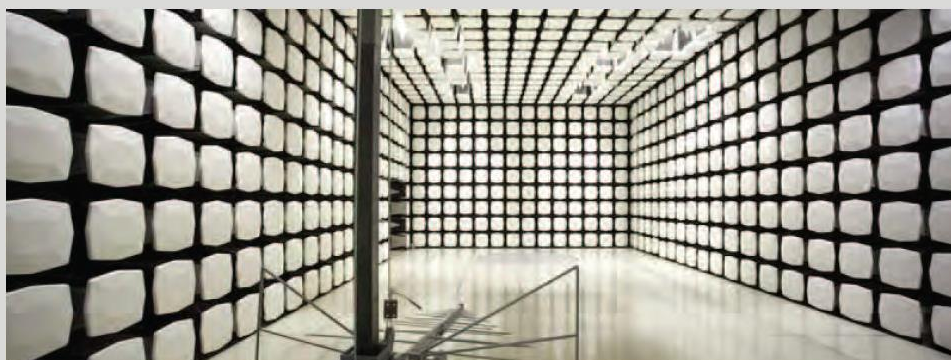
## **Boston Scientific Corporation**

**Ingenio 2**

**FCC 95I:2018**

**MedRadio**

**Report # BSTN0835**



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. This Report shall not be reproduced, except in full without written approval of the laboratory.*

# CERTIFICATE OF TEST

Last Date of Test: May 22, 2018  
 Boston Scientific Corporation  
 Model: Ingenio 2

## Radio Equipment Testing

### Standards

Specification	Method
FCC 95I:2018	ANSI C63.26:2015


### Results

Method	Test Description	Applied	Results	Comments
ANSI C63.26 5.4.3	Emission Bandwidth	Yes	Pass	
FCC 95.2579(a)(1)	Emission Mask	Yes	Pass	
ANSI C63.26 5.2.3.3	Conducted Output Power	Yes	Pass	
ANSI C63.26 5.6	Frequency Stability	Yes	Pass	
ANSI C63.26 5.5.4	Spurious Radiated Emissions	Yes	Pass	
ANSI C63.26 5.7	Spurious Conducted Emissions	Yes	Pass	
ANSI C63.26 5.2.3.3, 5.2.7	Radiated Power (EIRP)	Yes	Pass	

### Deviations From Test Standards

None

### Approved By:



Matt Nuernberg, Operations Manager

*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. 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. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.*

# REVISION HISTORY



Revision Number		Description	Date	Page Number
00		None		

# ACCREDITATIONS AND AUTHORIZATIONS



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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 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

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

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## Canada

**ISED** - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

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## European Union

**European Commission** – Within Element, we have a EU Notified Body validated for the EMCD and RED Directives.

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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

**MSIT / 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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## Israel

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

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## Hong Kong

**OFCA** – Recognized by OFCA 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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## SCOPE

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

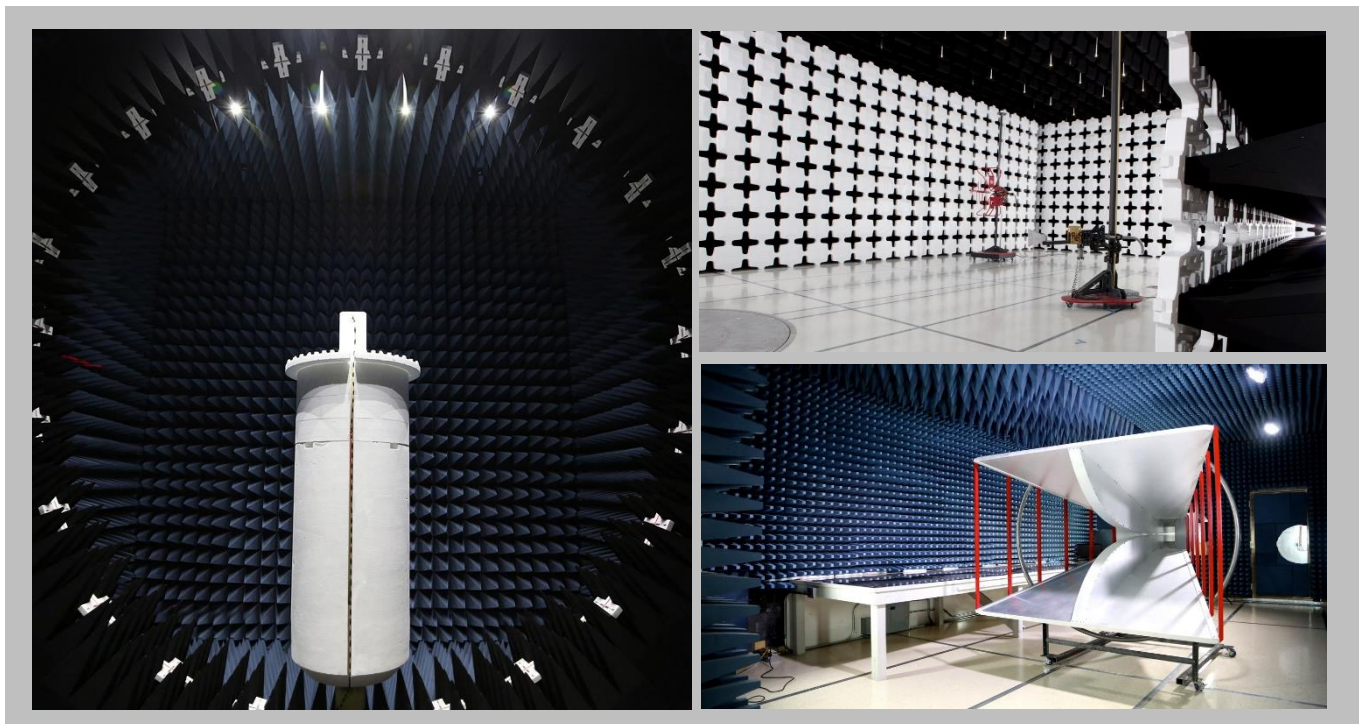
<http://portlandcustomer.element.com/ts/scope/scope.htm>

<http://gsi.nist.gov/global/docs/cabs/designations.html>

# FACILITIES



<b>California</b> Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	<b>Minnesota</b> Labs MN01-10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	<b>New York</b> Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	<b>Oregon</b> Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	<b>Texas</b> Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	<b>Washington</b> Labs NC01-05 19201 120 <sup>th</sup> Ave NE Bothell, WA 98011 (425)984-6600
<b>NVLAP</b>					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
<b>Innovation, Science and Economic Development Canada</b>					
2834B-1, 2834B-3	2834E-1, 2834E-3	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
<b>BSMI</b>					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
<b>VCCI</b>					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
<b>Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRR, MIC, MOC, NCC, OFCA</b>					
US0158	US0175	N/A	US0017	US0191	US0157



# EMISSIONS MEASUREMENTS



2017.1.25

## 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 QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. 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 16-4-2 as applicable), and are available upon request.

## 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

*Measurements were made using the bandwidths and detectors specified. No video filter was used.*

## Sample Calculations

### Radiated Emissions:

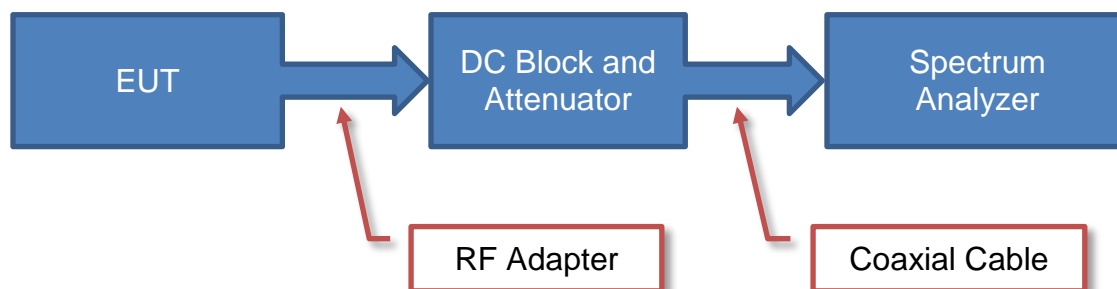
Field Strength	Measured Level	Antenna Factor	Cable Factor	Amplifier Gain	Distance Adjustment Factor	External Attenuation
33.5	42.6	28.6	3.1	40.8	0.0	0.0

### Conducted Emissions:

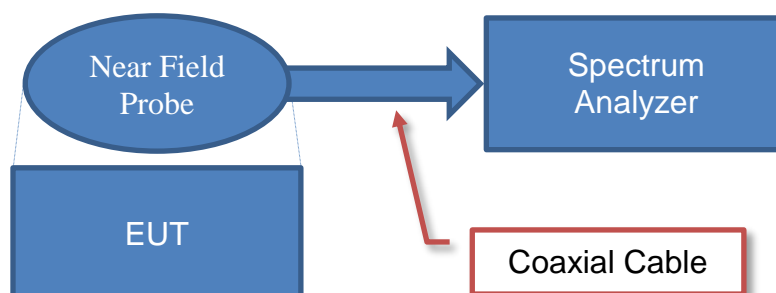
Adjusted Level	Measured Level	Transducer Factor	Cable Factor	External Attenuation
47.1	26.7	0.3	0.1	20.0

# Test Setup Block Diagrams

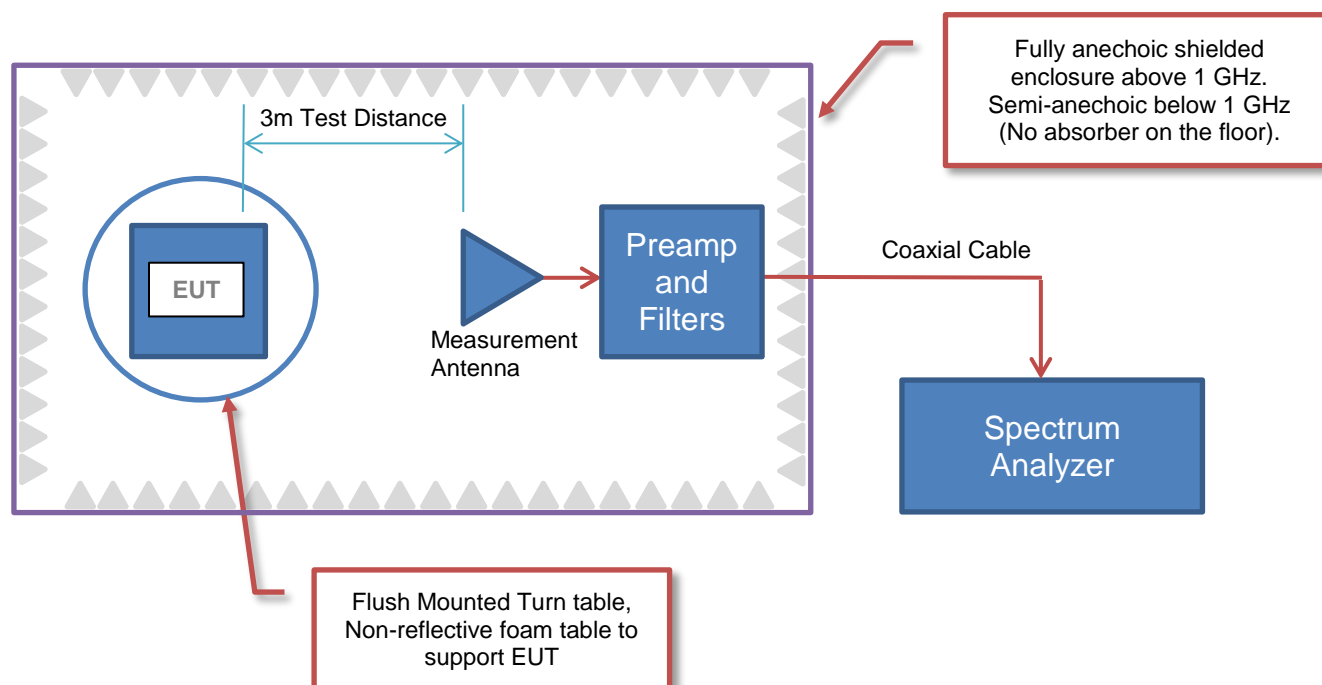
## Antenna Port Conducted Measurements



## Near Field Test Fixture Measurements



## Spurious Radiated Emissions





# 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>	Ching Wang
<b>Model:</b>	Ingenio 2
<b>First Date of Test:</b>	May 14, 2018
<b>Last Date of Test:</b>	May 22, 2018
<b>Receipt Date of Samples:</b>	May 14, 2018
<b>Equipment Design Stage:</b>	Production
<b>Equipment Condition:</b>	No Damage
<b>Purchase Authorization:</b>	Verified

## Information Provided by the Party Requesting the Test

<b>Functional Description of the EUT:</b>
MedRadio device with 1 antenna type
<b>Testing Objective:</b>
Seeking FCC authorization for the MedRadio transmitter to FCC Part 95I.



# CONFIGURATIONS

## Configuration BSTN0835- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Implant	Boston Scientific Corporation	U228	728066

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
RA Lead	Boston Scientific Corporation	IS-1 B1 GDT4555	169728
RV Lead	Boston Scientific Corporation	IS-1 B1 CPI0013	310303
LV Lead	Boston Scientific Corporation	IS-4 Nav2 19313	115705

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
RA Lead	No	0.9m	No	Implant	Tissue Simulant
RV Lead	No	1.0m	No	Implant	Tissue Simulant
LV Lead	No	1.0m	No	Implant	Tissue Simulant

## Configuration BSTN0835- 2

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Implant	Boston Scientific Corporation	L331	776657

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
RA Lead	Boston Scientific Corporation	IS-1 B1 GDT4555	169728
RV Lead	Boston Scientific Corporation	IS-1 B1 CPI0013	310303

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
RA Lead	No	0.9m	No	Implant	Tissue Simulant
RV Lead	No	1.0m	No	Implant	Tissue Simulant

# CONFIGURATIONS



## Configuration BSTN0835- 3

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Implant	Boston Scientific Corporation	L300	720522

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
RV Lead	Boston Scientific Corporation	IS-1 B1 CPI0013	310303

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
RV Lead	No	1.0m	No	Implant	Tissue Simulant

# CONFIGURATIONS

## Configuration BSTN0835- 4

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Hybrid Implant Board	Boston Scientific Corporation	E78789-401	75602703

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	EZ	GP-4303D	TQK
Hybrid Inductive Antenna	Boston Scientific Corporation	None	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Telemetry Test Module	Boston Scientific Corporation	SE11313-104	TTM1168
Telemetry Wand	Boston Scientific Corporation	6577	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Mains Cable (DC Power Supply)	No	1.8m	No	DC Power Supply	AC Mains
Banana Cables (x2)	No	1.0m	No	DC Power Supply	Hybrid Implant Board
AC Mains Cable (Telemetry Test Module)	No	1.8m	No	Telemetry Test Module	AC Mains
Telemetry Wand Cable	No	3.0m	No	Telemetry Wand	Telemetry Test Module
USB Cable	No	1.0m	No	Laptop	Telemetry Test Module
Hybrid Inductive Antenna Cable	No	0.45m	No	Hybrid Implant Board	Hybrid Inductive Antenna

# CONFIGURATIONS



## Configuration BSTN0835- 5

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Hybrid Implant Board	Boston Scientific Corporation	E78789-401	75602706

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	EZ	GP-4303D	TQK
Hybrid Inductive Antenna	Boston Scientific Corporation	None	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Telemetry Test Module	Boston Scientific Corporation	SE11313-104	TTM1168
Telemetry Wand	Boston Scientific Corporation	6577	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Mains Cable (DC Power Supply)	No	1.8m	No	DC Power Supply	AC Mains
Banana Cables (x2)	No	1.0m	No	DC Power Supply	Hybrid Implant Board
AC Mains Cable (Telemetry Test Module)	No	1.8m	No	Telemetry Test Module	AC Mains
Telemetry Wand Cable	No	3.0m	No	Telemetry Wand	Telemetry Test Module
USB Cable	No	1.0m	No	Laptop	Telemetry Test Module
Hybrid Inductive Antenna Cable	No	0.45m	No	Hybrid Implant Board	Hybrid Inductive Antenna

# CONFIGURATIONS



## Configuration BSTN0835- 6

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Hybrid Implant Board	Boston Scientific Corporation	E78789-401	75602701

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	EZ	GP-4303D	TQK
Hybrid Inductive Antenna	Boston Scientific Corporation	None	None

Remote Equipment Outside of Test Setup Boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Telemetry Test Module	Boston Scientific Corporation	SE11313-104	TTM1168
Telemetry Wand	Boston Scientific Corporation	6577	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Mains Cable (DC Power Supply)	No	1.8m	No	DC Power Supply	AC Mains
Banana Cables (x2)	No	1.0m	No	DC Power Supply	Hybrid Implant Board
AC Mains Cable (Telemetry Test Module)	No	1.8m	No	Telemetry Test Module	AC Mains
Telemetry Wand Cable	No	3.0m	No	Telemetry Wand	Telemetry Test Module
USB Cable	No	1.0m	No	Laptop	Telemetry Test Module
Hybrid Inductive Antenna Cable	No	0.45m	No	Hybrid Implant Board	Hybrid Inductive Antenna

# MODIFICATIONS



## Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	5/14/2018	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	5/16/2018	Radiated Power (EIRP)	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	5/21/2018	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	5/22/2018	Emission Mask	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
5	5/22/2018	Emission Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
6	5/22/2018	Conducted Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
7	5/22/2018	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

# EMISSIONS BANDWIDTH



XMit 2017.12.13

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Meter - Multimeter	Fluke	114	MMU	18-Jul-17	18-Jul-20
Power Supply - DC	EZ Digital Co., Ltd.	GP-4030D	TQK	NCR	NCR
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	15-Mar-18	15-Mar-19
Attenuator	S.M. Electronics	SA26B-20	RFW	13-Feb-18	13-Feb-19
Block - DC	Fairview Microwave	SD3379	AMI	12-Sep-17	12-Sep-18
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	19-Dec-17	19-Dec-18
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-17	2-Aug-18

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Per 47 CFR 95.2573(a), the emission bandwidth was determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 20 dB down relative to the maximum level of the modulated carrier. A spectrum analyzer using a peak detector with no video filtering was used with a resolution bandwidth equal to approximately 1.0 percent of the emission bandwidth of the EUT.



# EMISSIONS BANDWIDTH



TbTx 2017.12.14 XMt 2017.12.13

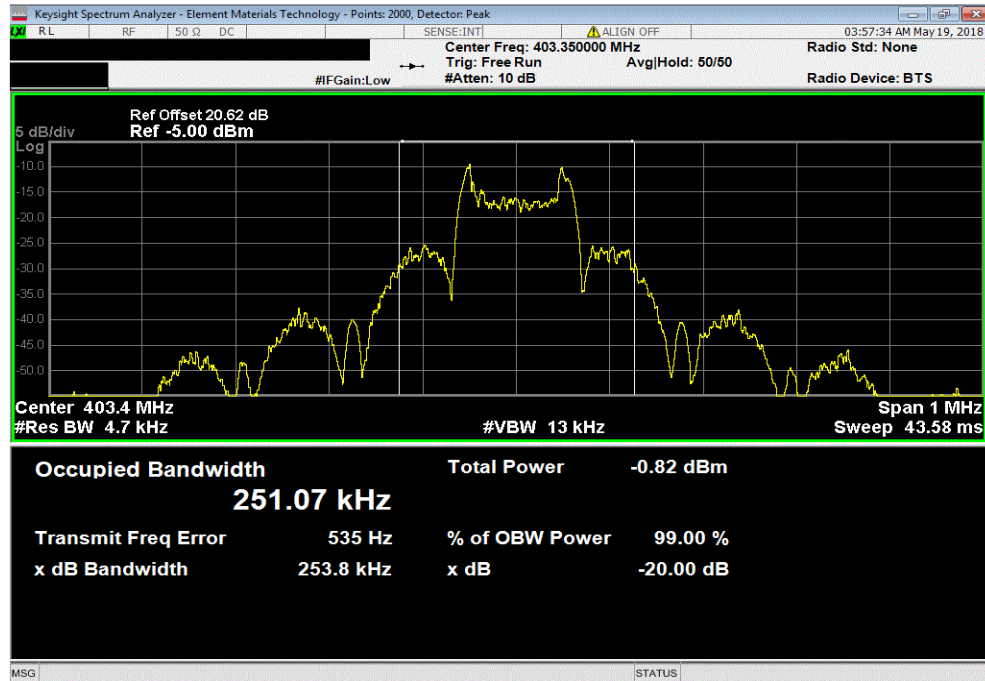
EUT: Ingenio 2		Work Order: BSTN0835	
Serial Number: See Comments		Date: 22-May-18	
Customer: Boston Scientific Corporation		Temperature: 23.2 °C	
Attendees: Ching Wang		Humidity: 46.2% RH	
Project: None		Barometric Pres.: 1020 mbar	
Tested by: Dustin Sparks	Power: 3.2VDC	Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 951:2018		ANSI C63.26:2015	
COMMENTS			
Three samples tested simultaneously - sample 1 (SN 75602703), sample 2 (SN 75602706), and sample 3 (SN 75602701).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4, 5, 6	Signature <i>Dustin Sparks</i>	
		Value	Limit (S) Result
Mid Channel, 403.35 MHz		253.8 kHz	300 kHz Pass
Mid Channel, 403.35 MHz		254.748 kHz	300 kHz Pass
Mid Channel, 403.35 MHz		249.804 kHz	300 kHz Pass

# EMISSIONS BANDWIDTH

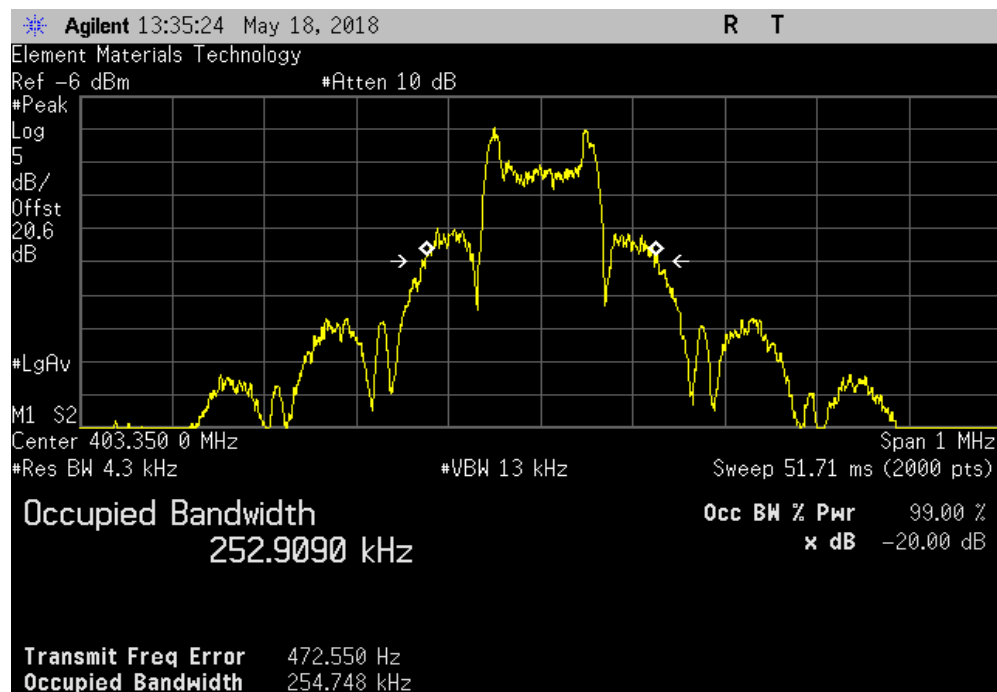


TMTx 2017.12.14 XMI 2017.12.13

Mid Channel, 403.35 MHz						
				Value	Limit (S)	Result
				253.8 kHz	300 kHz	Pass



Mid Channel, 403.35 MHz						
				Value	Limit (S)	Result
				254.748 kHz	300 kHz	Pass

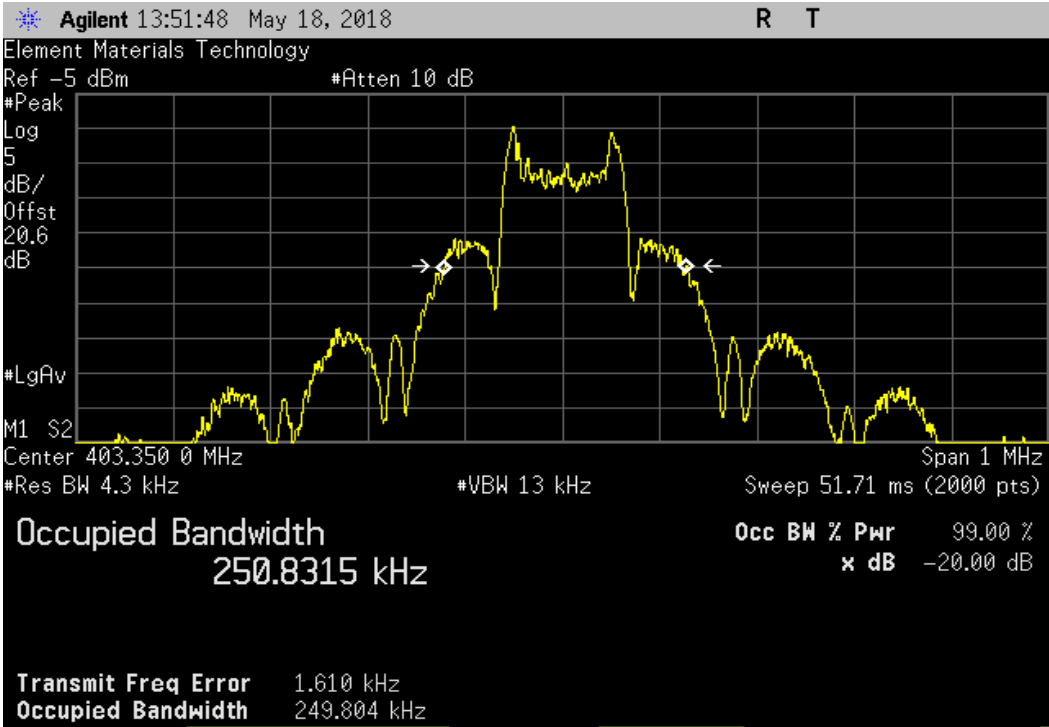


# EMISSIONS BANDWIDTH



TbTx 2017.12.14 XMn 2017.12.13

Mid Channel, 403.35 MHz					Value	Limit (S)	Result
					249.804 kHz	300 kHz	Pass



# EMISSIONS MASK



XMit 2017.12.13

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	19-Dec-17	19-Dec-18
Power Supply - DC	EZ Digital Co., Ltd.	GP-4030D	TQK	NCR	NCR
Meter - Multimeter	Fluke	114	MMU	18-Jul-17	18-Jul-20
Generator - Signal	Agilent	E4422B	TGQ	15-Mar-18	15-Mar-21
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	15-Mar-18	15-Mar-19
Attenuator	S.M. Electronics	SA26B-20	RFW	13-Feb-18	13-Feb-19
Block - DC	Fairview Microwave	SD3379	AMI	12-Sep-17	12-Sep-18
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-17	2-Aug-18

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Per 47 CFR 95.2579(a)(1) the emission mask was measured. Emissions more than 150 kHz away from the center frequency must be attenuated below the transmitter output power by at least 20 dB. This was evaluated by the Occupied Bandwidth measurement according to 47 CFR 95.2573(a). In addition, emissions 250 kHz or less above and below the MICS band (402-405 MHz) must be attenuated below the maximum permitted output power by at least 20 dB.

A spectrum analyzer was used to measure the emission mask. A spectrum analyzer using a peak detector with no video filtering was used with a resolution bandwidth equal to approximately 1.0 percent of the emission bandwidth of the EUT. However, various plots were made using different frequency spans and resolution bandwidths in an attempt to not only satisfy the measurement criteria, but to also show that all emissions outside of the occupied band are greatly attenuated.

# EMISSIONS MASK



TbTx 2017.12.14 XMt 2017.12.13

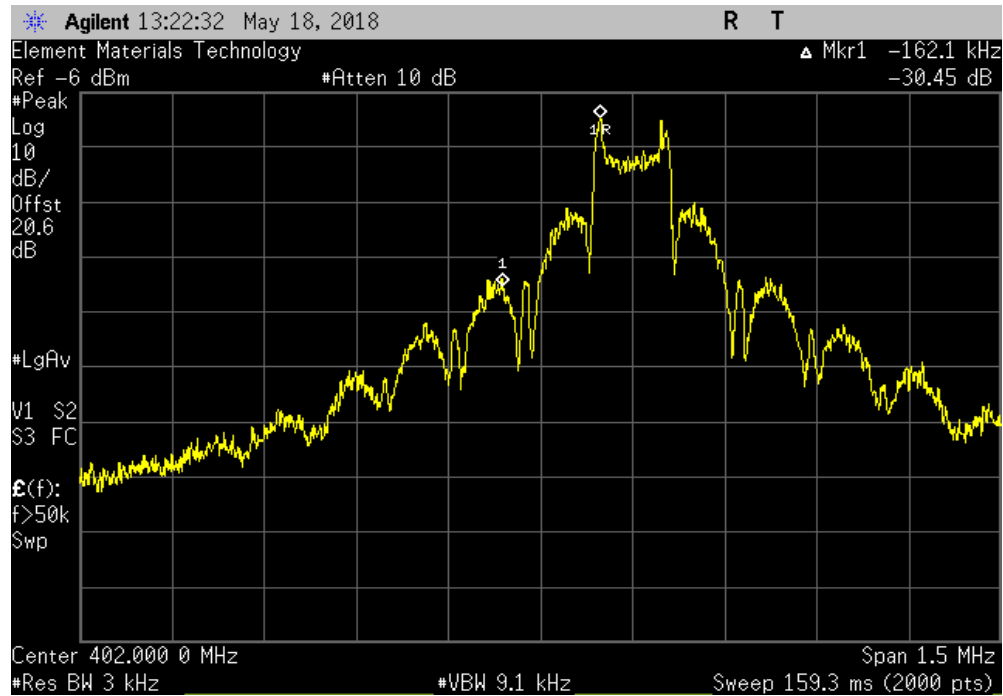
EUT: Ingenio 2		Work Order: BSTN0835	
Serial Number: See Comments		Date: 22-May-18	
Customer: Boston Scientific Corporation		Temperature: 23.5 °C	
Attendees: Ching Wang		Humidity: 46.9% RH	
Project: None		Barometric Pres.: 1021 mbar	
Tested by: Dustin Sparks	Power: 3.2VDC	Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 951:2018		ANSI C63.26:2015	
COMMENTS			
Three samples tested simultaneously - sample 1 (SN 75602703), sample 2 (SN 75602706), and sample 3 (SN 75602701).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4, 5, 6	Signature <i>Dustin Sparks</i>	
		Value (dBc)	Limit ≤ (dBc) Result
Low Channel, 402.15 MHz		-30.46	-20 Pass
High Channel, 404.85 MHz		-27.72	-20 Pass
Low Channel, 402.15 MHz		-28.67	-20 Pass
High Channel, 404.85 MHz		-29.32	-20 Pass
Low Channel, 402.15 MHz		-28.77	-20 Pass
High Channel, 404.85 MHz		-27.56	-20 Pass

# EMISSIONS MASK

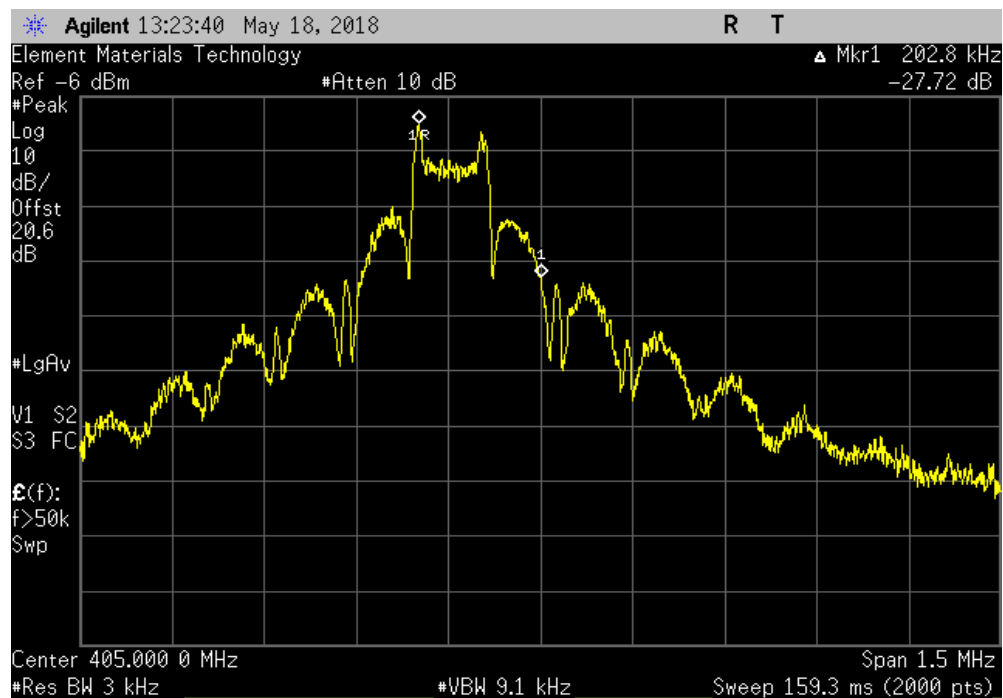


TMTx 2017.12.14 XMI 2017.12.13

Low Channel, 402.15 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-30.46	-20	Pass



High Channel, 404.85 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-27.72	-20	Pass



# EMISSIONS MASK

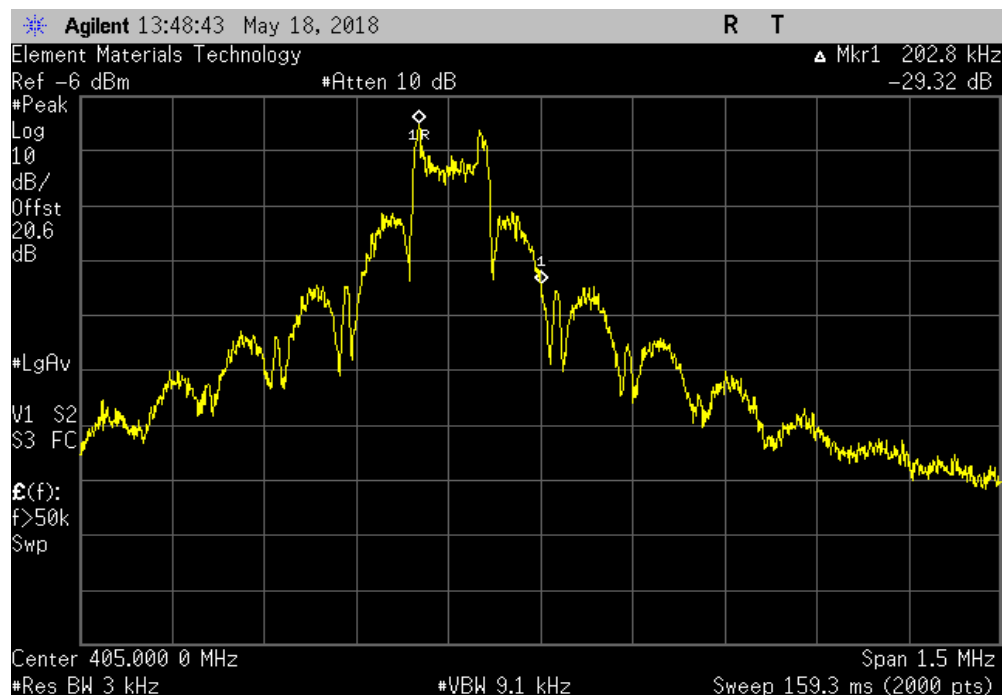


TMTx 2017.12.14 XMI 2017.12.13

Low Channel, 402.15 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-28.67	-20	Pass



High Channel, 404.85 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-29.32	-20	Pass





# EMISSIONS MASK

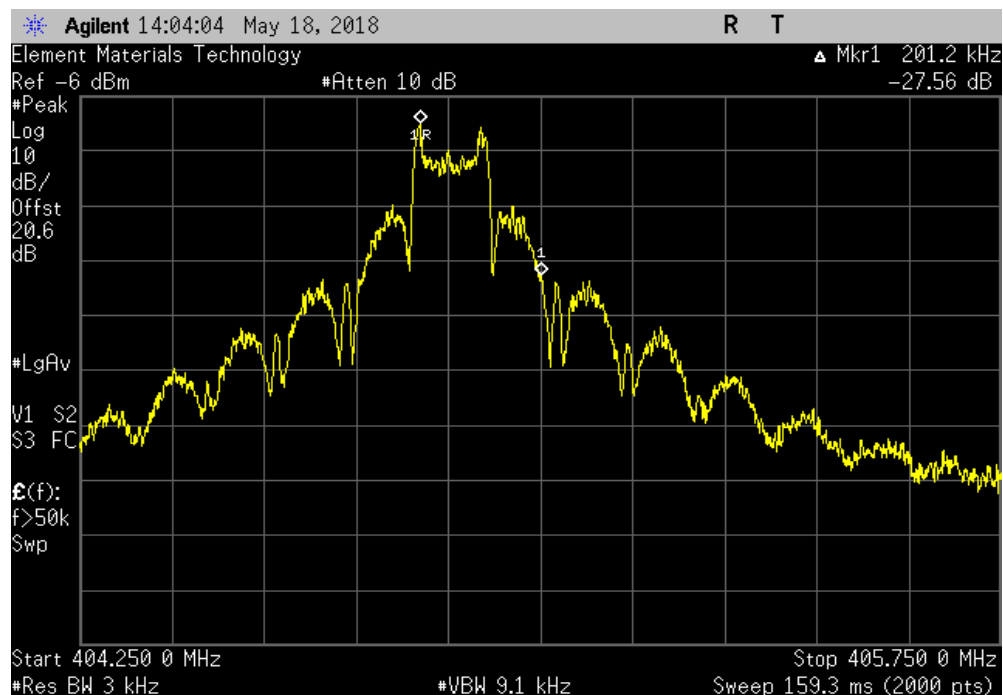


TMTx 2017.12.14 XMI 2017.12.13

Low Channel, 402.15 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-28.77	-20	Pass



High Channel, 404.85 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-27.56	-20	Pass



# OUTPUT POWER



XMit 2017.12.13

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Power Supply - DC	EZ Digital Co., Ltd.	GP-4030D	TQK	NCR	NCR
Meter - Multimeter	Fluke	114	MMU	18-Jul-17	18-Jul-20
Generator - Signal	Agilent	E4422B	TGQ	15-Mar-18	15-Mar-21
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	15-Mar-18	15-Mar-19
Attenuator	S.M. Electronics	SA26B-20	RFW	13-Feb-18	13-Feb-19
Block - DC	Fairview Microwave	SD3379	AMI	12-Sep-17	12-Sep-18
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	19-Dec-17	19-Dec-18
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-17	2-Aug-18

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Per FCC Part 2.1046, RSS-GEN, the output power shall be measured at the RF terminal. The peak output power was measured with the EUT configured in the modes listed in the datasheet. The EUT was transmitting at its maximum data rate.

FCC Part 95 and RSS-243 have no conducted output power limit. It is a requirement to characterize this information and that data is contained within this datasheet.

# OUTPUT POWER



TbTx 2017.12.14 XMt 2017.12.13

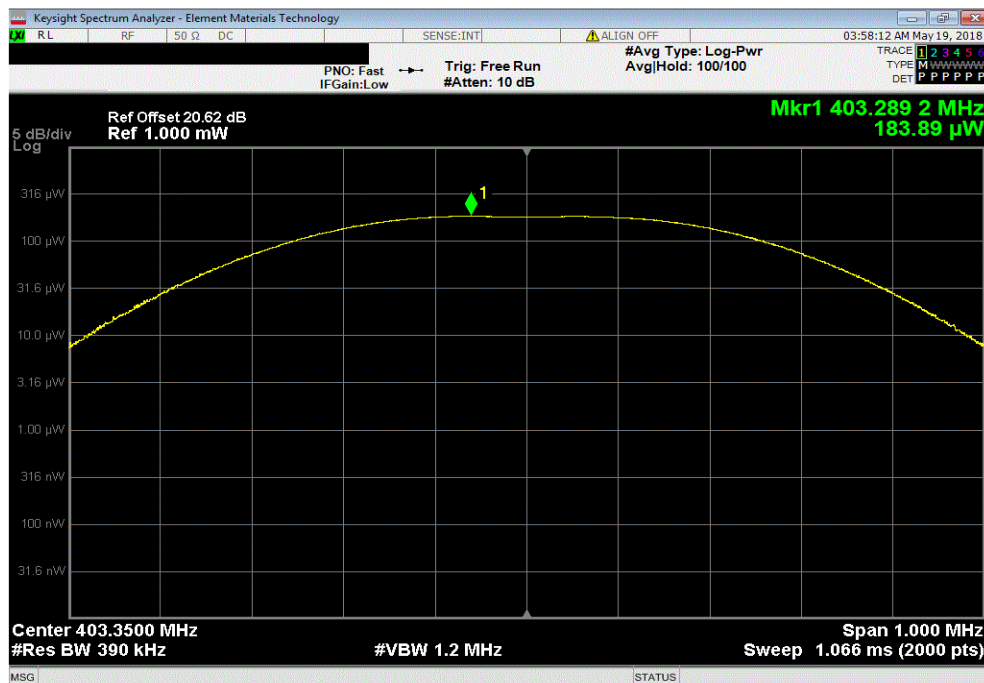
EUT: Ingenio 2		Work Order: BSTN0835	
Serial Number: See Comments		Date: 22-May-18	
Customer: Boston Scientific Corporation		Temperature: 23.4 °C	
Attendees: Ching Wang		Humidity: 46.9% RH	
Project: None		Barometric Pres.: 1021 mbar	
Tested by: Dustin Sparks	Power: 3.2VDC	Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 951:2018		ANSI C63.26:2015	
COMMENTS			
Three samples tested simultaneously - sample 1 (SN 75602703), sample 2 (SN 75602706), and sample 3 (SN 75602701).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4, 5, 6	Signature <i>Dustin Sparks</i>	
		Value	Limit
Mid Channel, 403.35 MHz		183.89 uW	N/A
Mid Channel, 403.35 MHz		167.148 uW	N/A
Mid Channel, 403.35 MHz		191.514 uW	N/A

# OUTPUT POWER

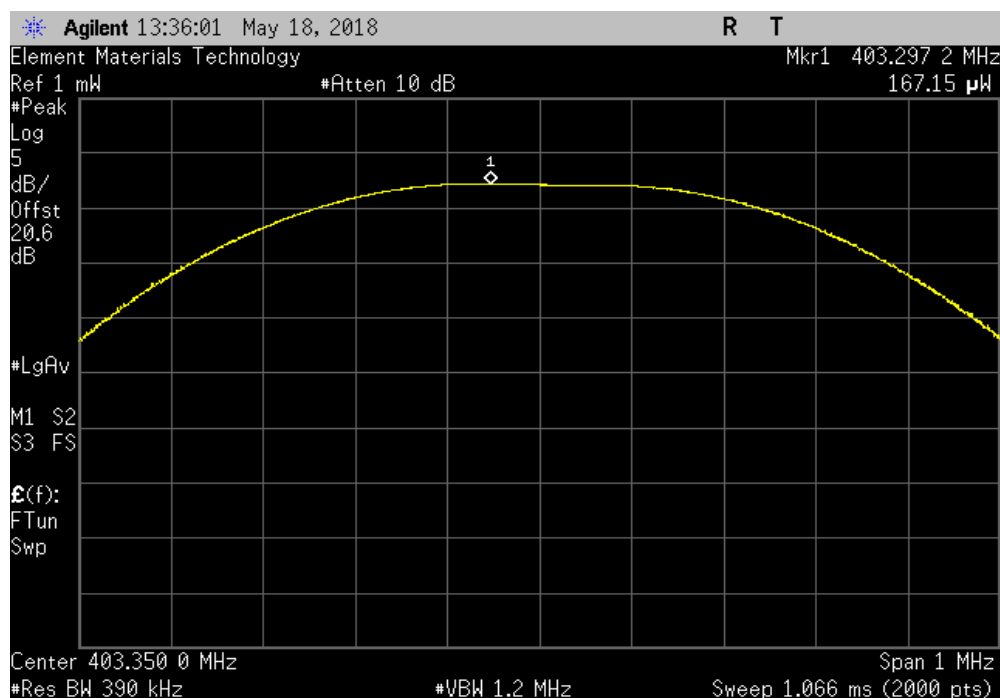


TMTx 2017.12.14 XMI 2017.12.13

Mid Channel, 403.35 MHz						
				Value	Limit	Result
				183.89 $\mu$ W	N/A	N/A



Mid Channel, 403.35 MHz						
				Value	Limit	Result
				167.148 $\mu$ W	N/A	N/A

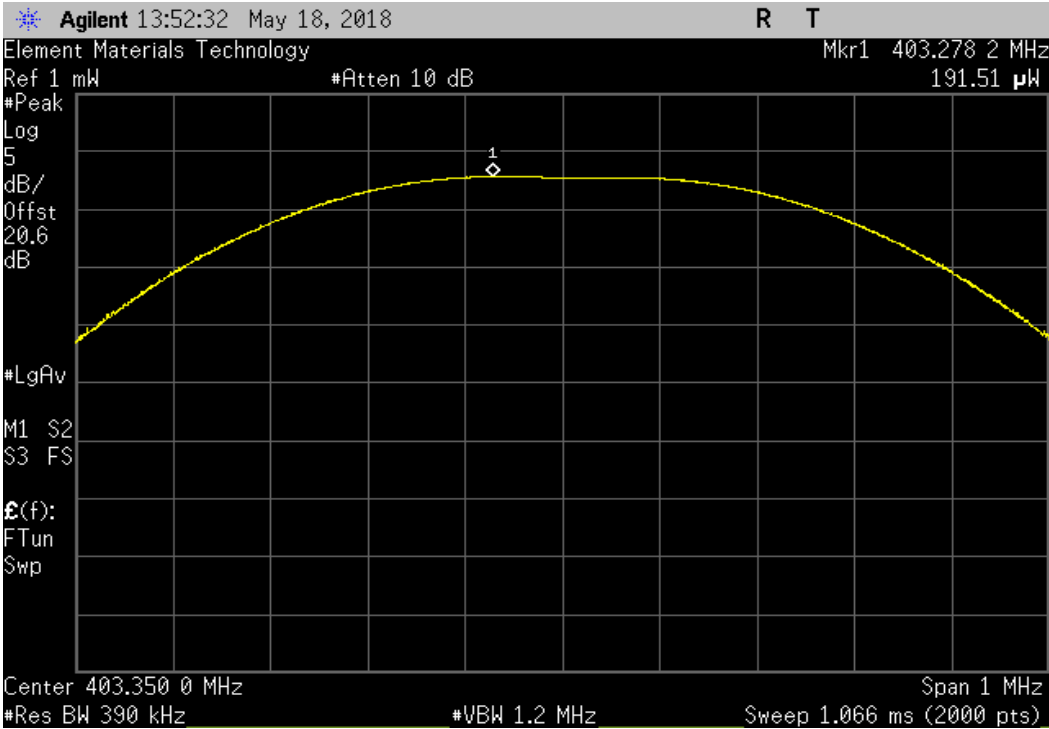


# OUTPUT POWER



TbTx 2017.12.14 XMt 2017.12.13

Mid Channel, 403.35 MHz						
				Value	Limit	Result
				191.514 uW	N/A	N/A



# FREQUENCY STABILITY



XMIT 2017.12.13

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Meter - Multimeter	Fluke	114	MMU	18-Jul-17	18-Jul-20
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPH-32-3.5-SCT/AC	TBF	NCR	NCR
Thermometer	Omega Engineering, Inc.	HH311	DUB	10-Nov-17	10-Nov-20
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	15-Mar-18	15-Mar-19
Attenuator	S.M. Electronics	SA26B-20	RFW	13-Feb-18	13-Feb-19
Block - DC	Fairview Microwave	SD3379	AMI	12-Sep-17	12-Sep-18
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-17	2-Aug-18

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spectrum analyzer is configured with a precision frequency reference that exceeds the stability requirement of the transmitter. The EUT was placed inside a temperature / humidity chamber.

### Variation of Supply Voltage

The primary supply voltage was varied from 85% to 115% of the nominal voltage. A DC lab supply was used to vary the supply voltage.

### Variation of Ambient Temperature

Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (+25°, 37°C and +45° C).

# FREQUENCY STABILITY



TbTx 2017.12.14 XMt 2017.12.13

EUT: Ingenio 2		Work Order: BSTN0835	
Serial Number: See Comments		Date: 21-May-18	
Customer: Boston Scientific Corporation		Temperature: 23.2 °C	
Attendees: Ching Wang		Humidity: 39.5% RH	
Project: None		Barometric Pres.: 1019 mbar	
Tested by: Dustin Sparks		Power: 3.2VDC	
Job Site: MN08			
TEST SPECIFICATIONS		Test Method	
FCC 951:2018		ANSI C63.26:2015	
COMMENTS			
Three samples tested simultaneously - sample 1 (SN 75602703), sample 2 (SN 75602706), and sample 3 (SN 75602701).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4, 5, 6	Signature <i>Dustin Sparks</i>	
		Measured Value (MHz)	Assigned Value (MHz)
		Error (ppm)	Limit (ppm)
			Results
Sample 1	Normal Voltage		
	Mid Channel, 403.35 MHz	403.350938	403.35
	Extreme Voltage +15%		
	Mid Channel, 403.35 MHz	403.350888	403.35
	Extreme Voltage -15%		
	Mid Channel, 403.35 MHz	403.350871	403.35
	25°C		
	Mid Channel, 403.35 MHz	403.350587	403.35
	35°C		
	Mid Channel, 403.35 MHz	403.349952	403.35
	45°C		
	Mid Channel, 403.35 MHz	403.349185	403.35
Sample 2	Normal Voltage		
	Mid Channel, 403.35 MHz	403.350854	403.35
	Extreme Voltage +15%		
	Mid Channel, 403.35 MHz	403.350854	403.35
	Extreme Voltage -15%		
	Mid Channel, 403.35 MHz	403.350871	403.35
	25°C		
	Mid Channel, 403.35 MHz	403.350704	403.35
	35°C		
	Mid Channel, 403.35 MHz	403.349685	403.35
	45°C		
	Mid Channel, 403.35 MHz	403.348918	403.35
Sample 3	Normal Voltage		
	Mid Channel, 403.35 MHz	403.351187	403.35
	Extreme Voltage +15%		
	Mid Channel, 403.35 MHz	403.351187	403.35
	Extreme Voltage -15%		
	Mid Channel, 403.35 MHz	403.351171	403.35
	25°C		
	Mid Channel, 403.35 MHz	403.351022	403.35
	35°C		
	Mid Channel, 403.35 MHz	403.350103	403.35
	45°C		
	Mid Channel, 403.35 MHz	403.349185	403.35

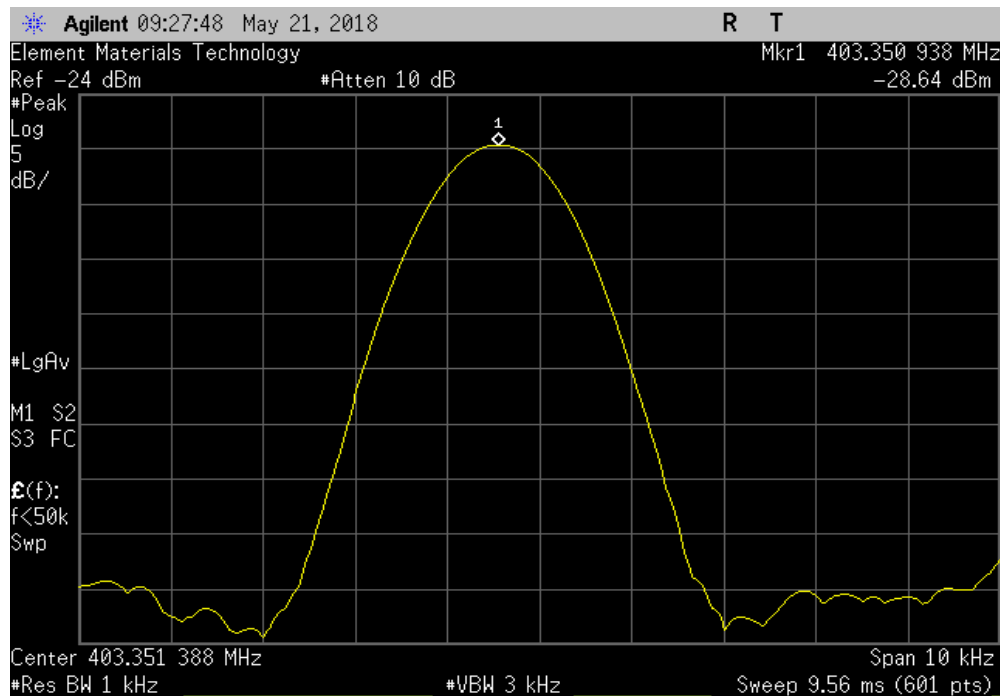


# FREQUENCY STABILITY

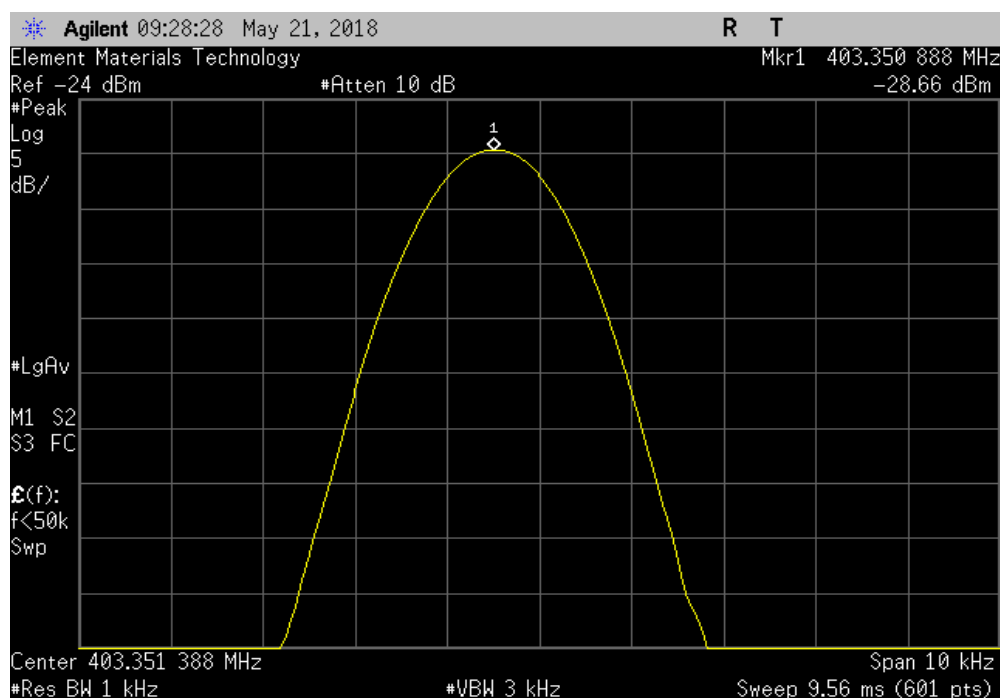


TMTx 2017.12.14 XMI 2017.12.13

Sample 1, Normal Voltage, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350938	403.35	2.3	100	Pass	



Sample 1, Extreme Voltage +15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350888	403.35	2.2	100	Pass	

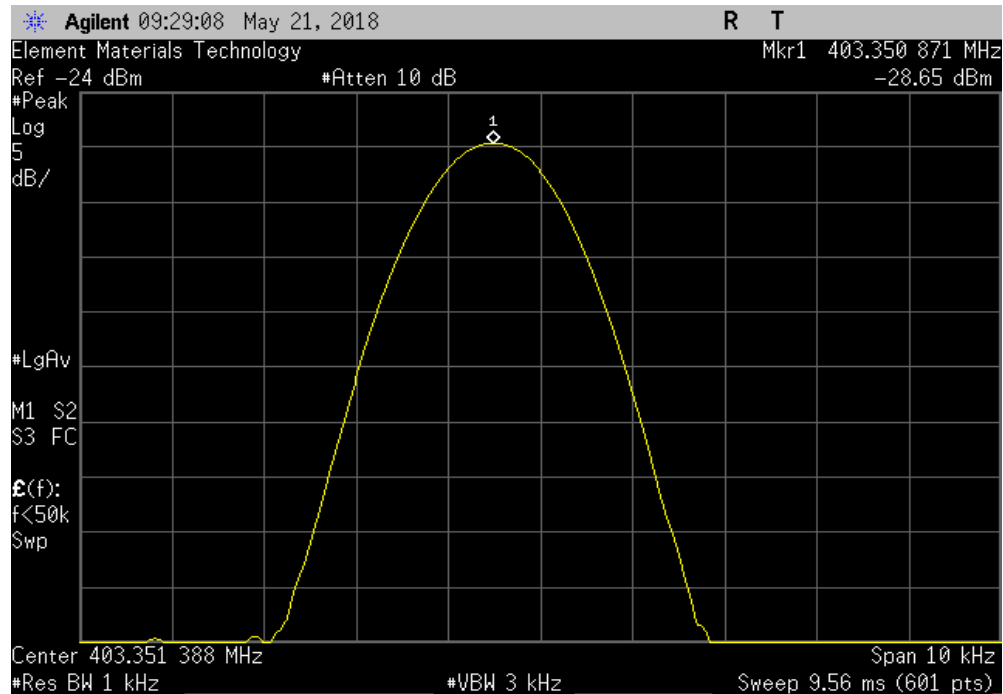


# FREQUENCY STABILITY

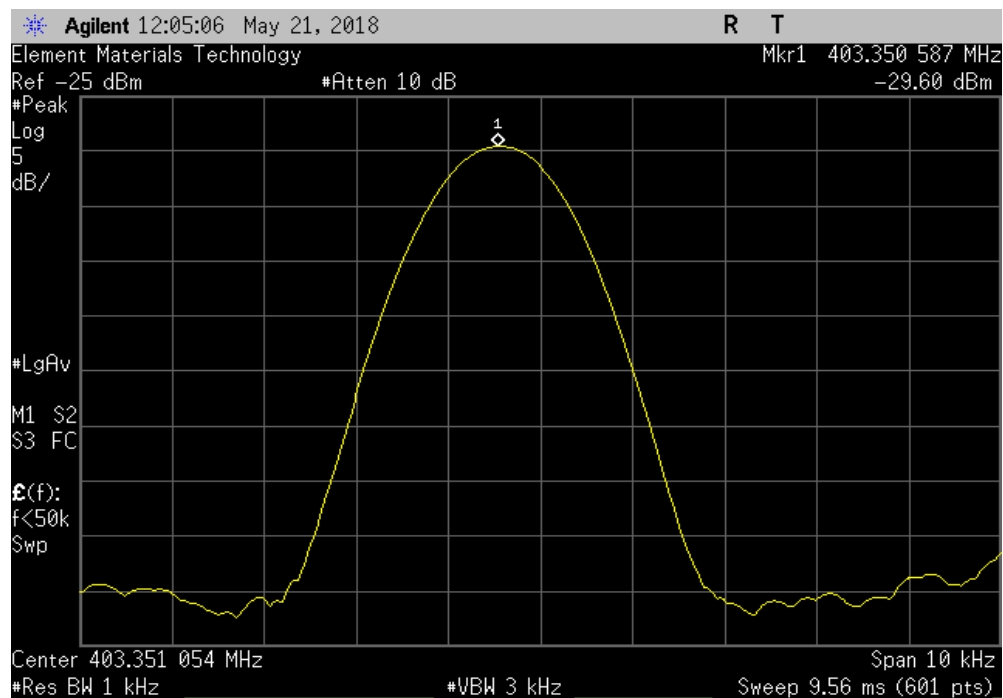


TMTx 2017.12.14 XMI 2017.12.13

Sample 1, Extreme Voltage -15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350871	403.35	2.2	100	Pass	



Sample 1, 25°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350587	403.35	1.5	100	Pass	

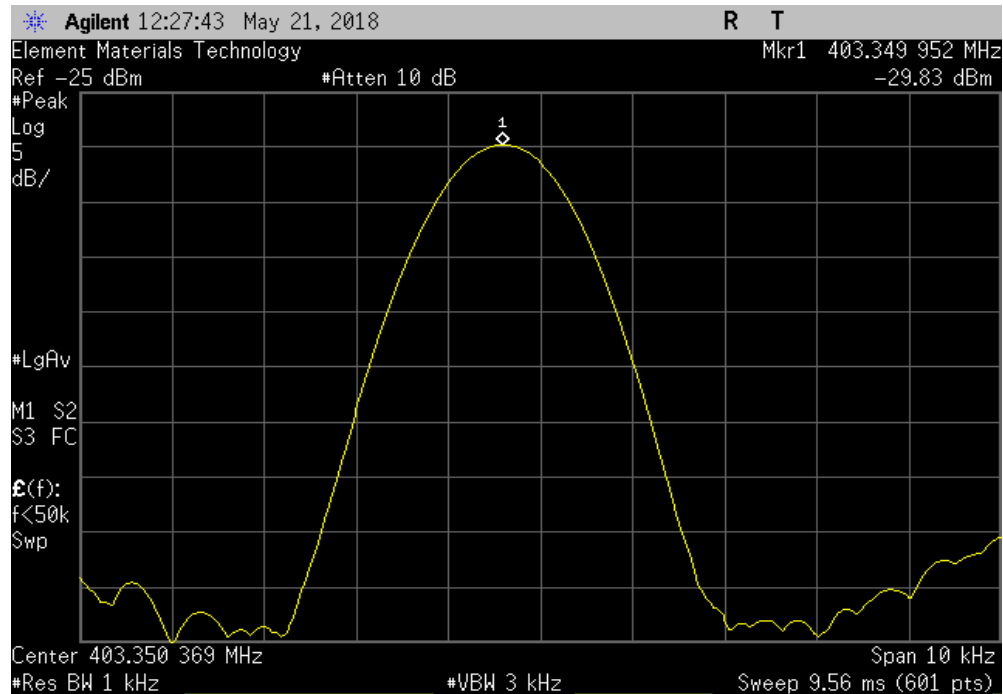


# FREQUENCY STABILITY

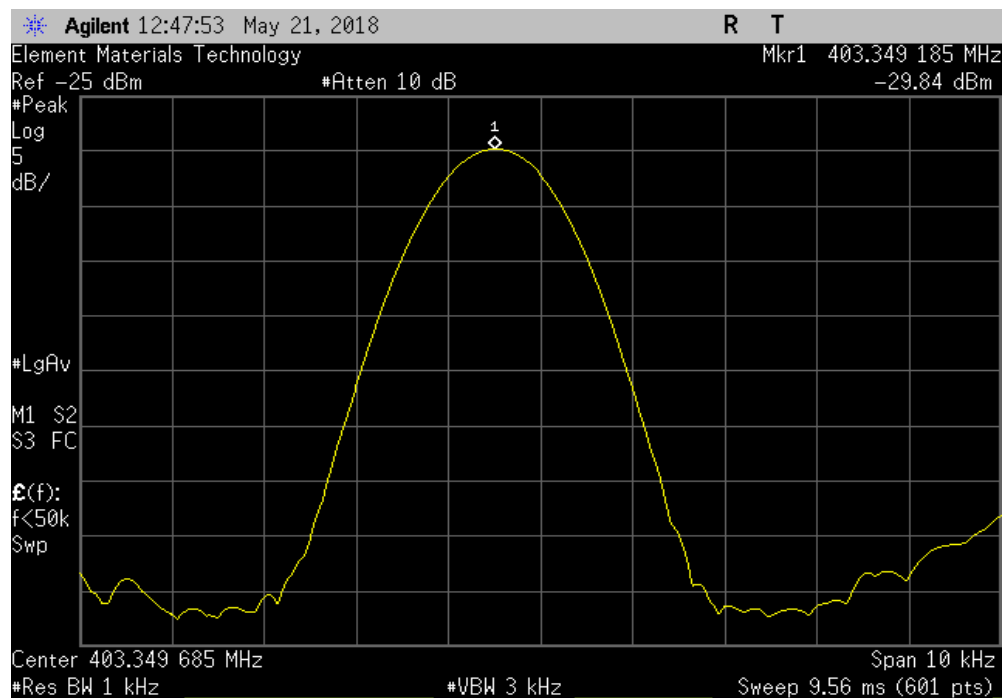


TMTx 2017.12.14 XMI 2017.12.13

Sample 1, 35°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.349952	403.35	0.1	100	Pass	



Sample 1, 45°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.349185	403.35	2	100	Pass	

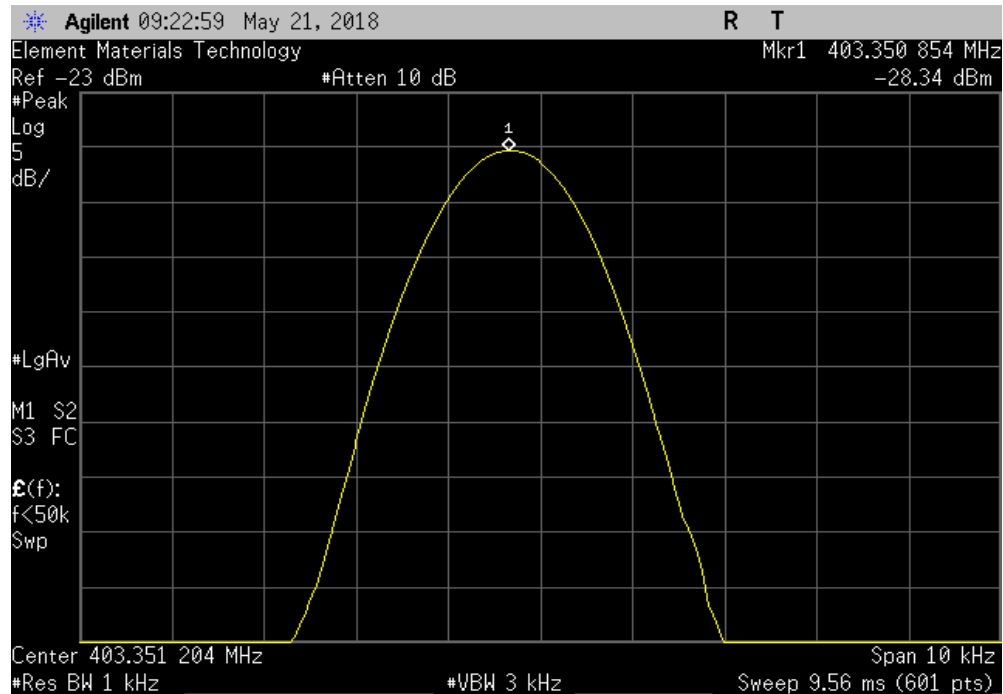


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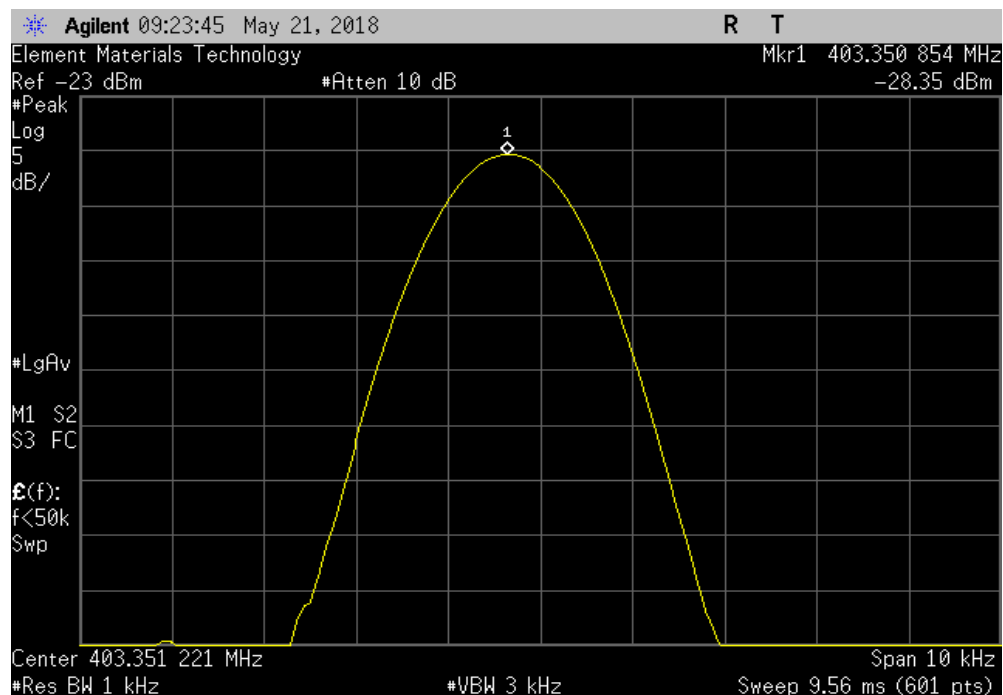


TMTx 2017.12.14 XMI 2017.12.13

Sample 2, Normal Voltage, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350854	403.35	2.1	100	Pass	



Sample 2, Extreme Voltage +15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350854	403.35	2.1	100	Pass	

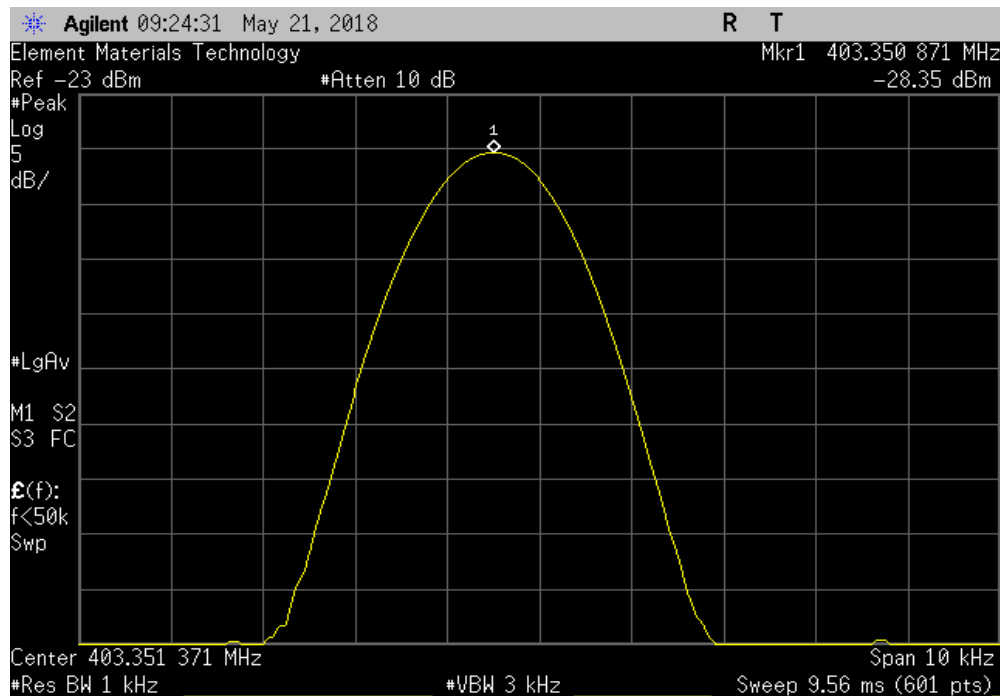


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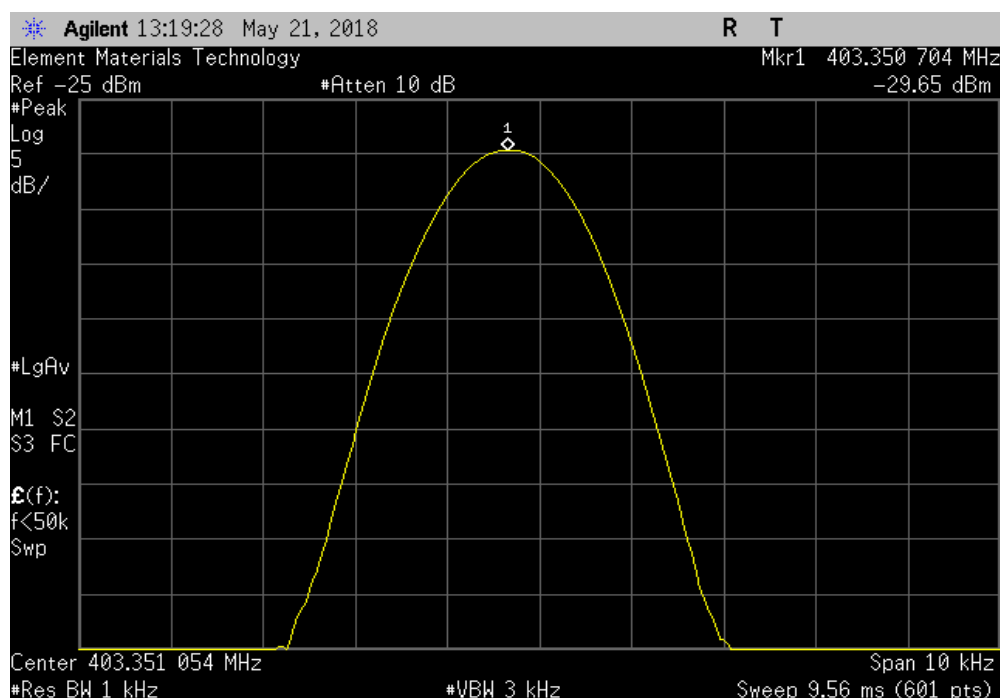


TMTx 2017.12.14 XMI 2017.12.13

Sample 2, Extreme Voltage -15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350871	403.35	2.2	100	Pass	



Sample 2, 25°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350704	403.35	1.8	100	Pass	

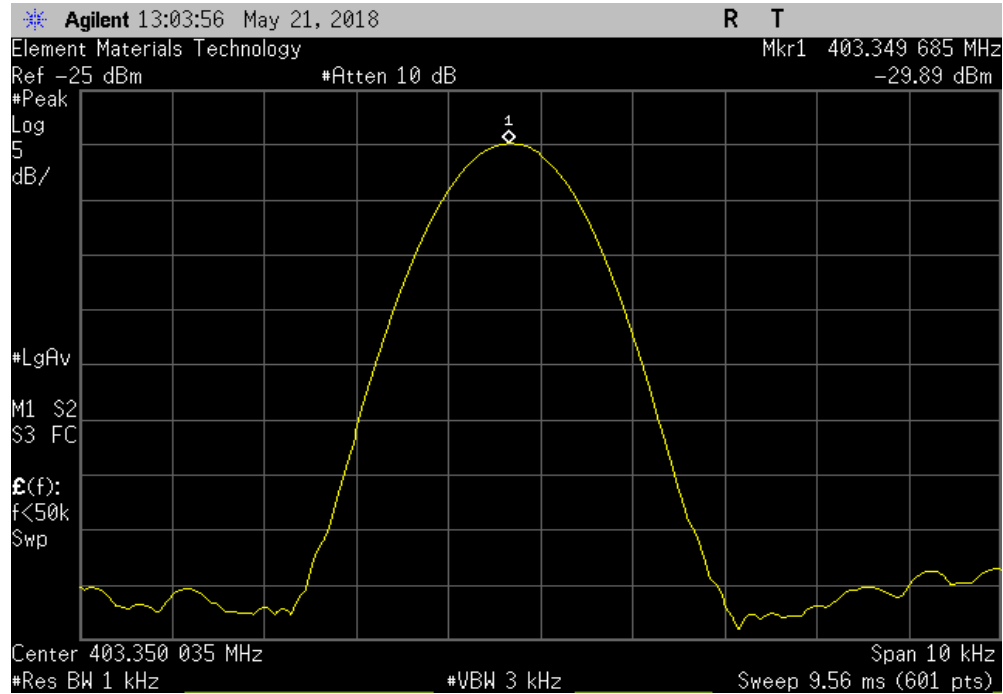


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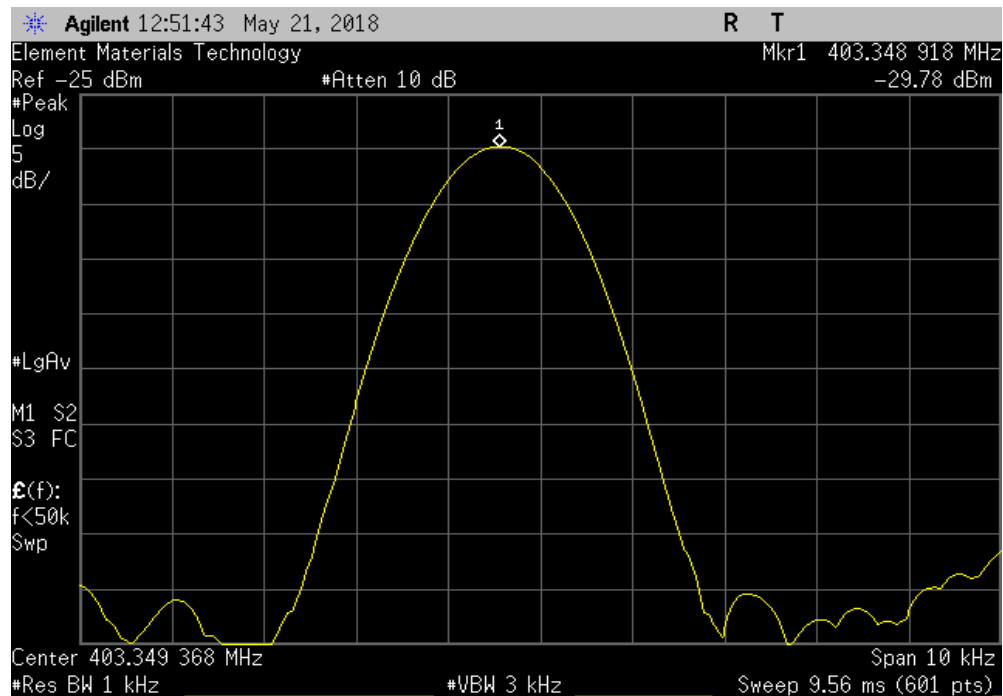


TMTx 2017.12.14 XMI 2017.12.13

Sample 2, 35°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.349685	403.35	0.8	100	Pass	



Sample 2, 45°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.348918	403.35	2.7	100	Pass	

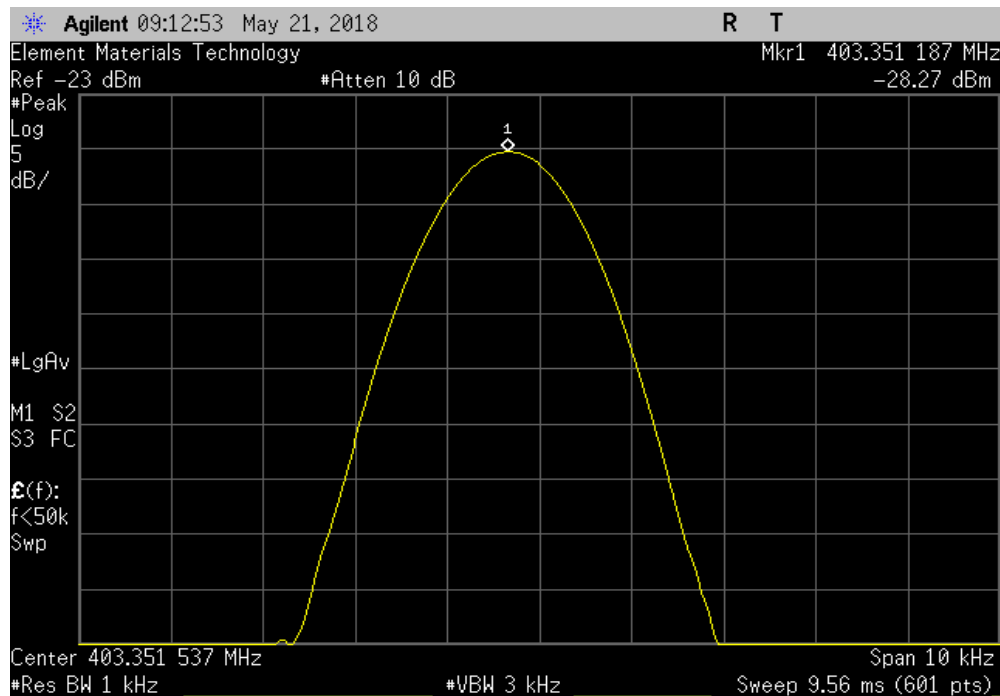


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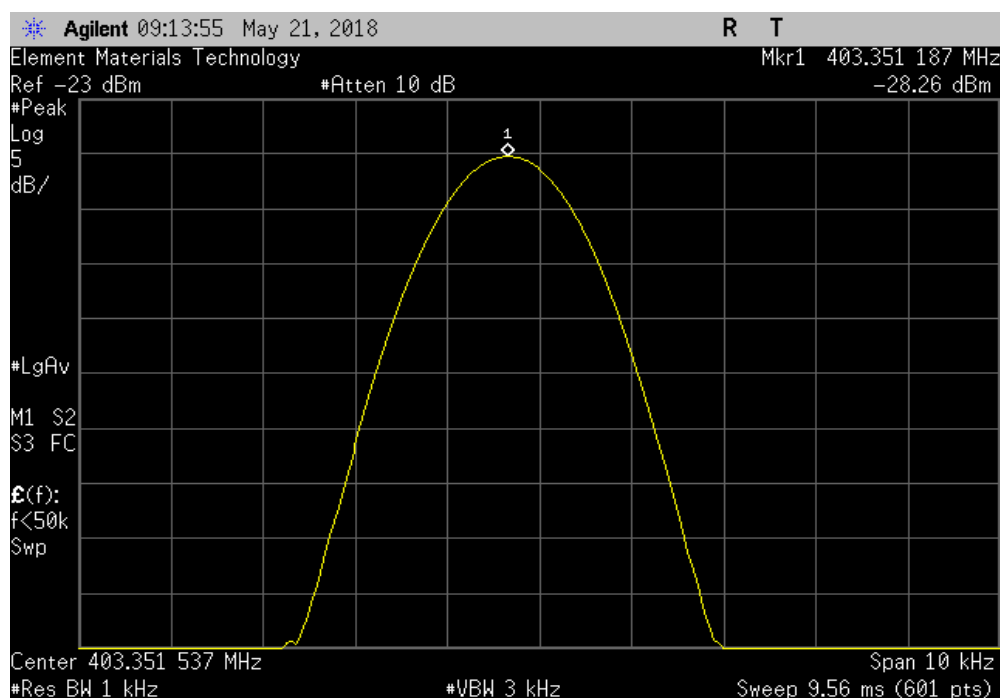


TMTx 2017.12.14 XMM 2017.12.13

Sample 3, Normal Voltage, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.351187	403.35	2.9	100	Pass	



Sample 3, Extreme Voltage +15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.351187	403.35	2.9	100	Pass	



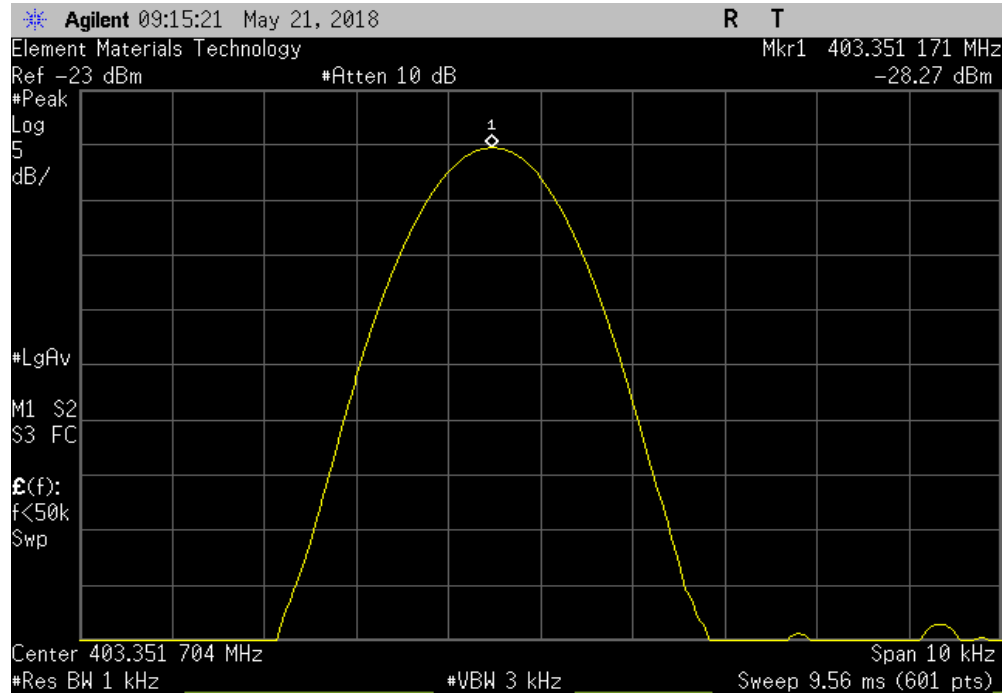


# FREQUENCY STABILITY

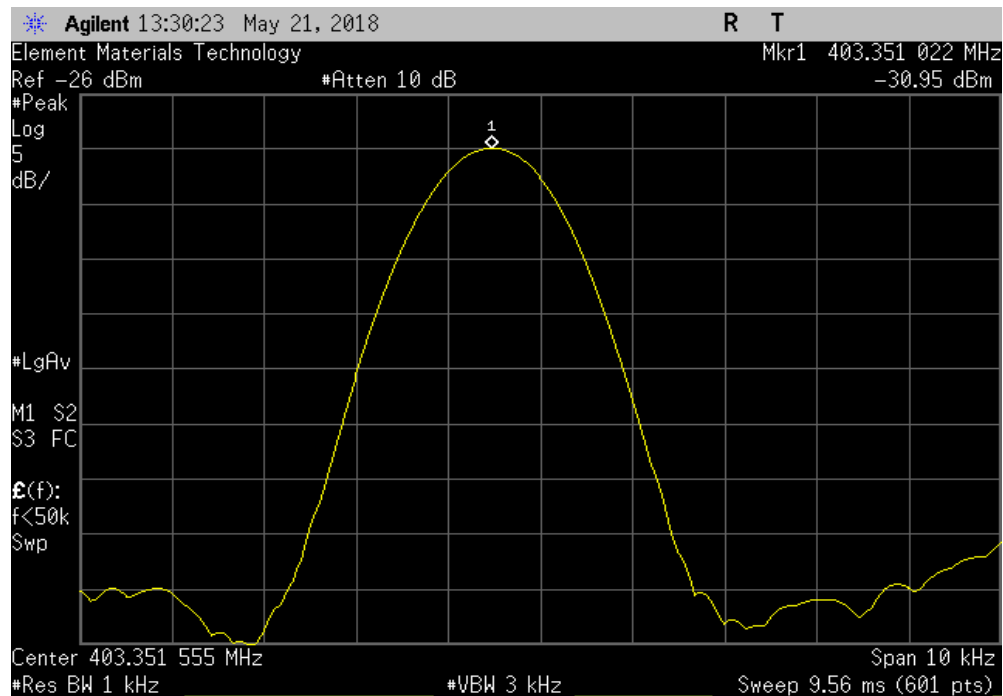


TMTx 2017.12.14 XMI 2017.12.13

Sample 3, Extreme Voltage -15%, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.351171	403.35	2.9	100	Pass	



Sample 3, 25°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.351022	403.35	2.5	100	Pass	

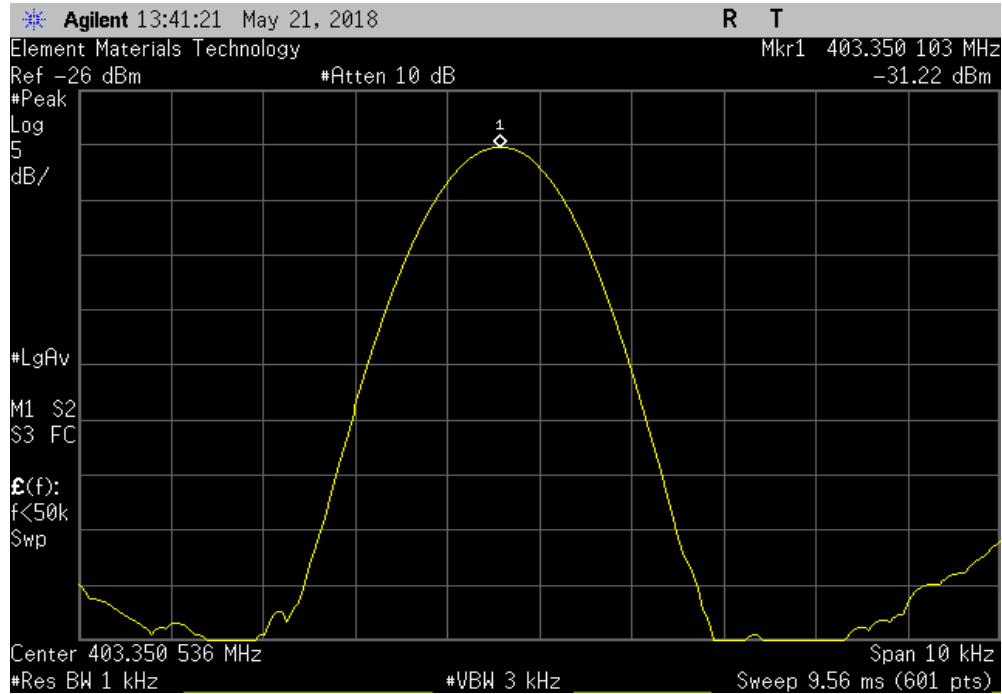


# FREQUENCY STABILITY

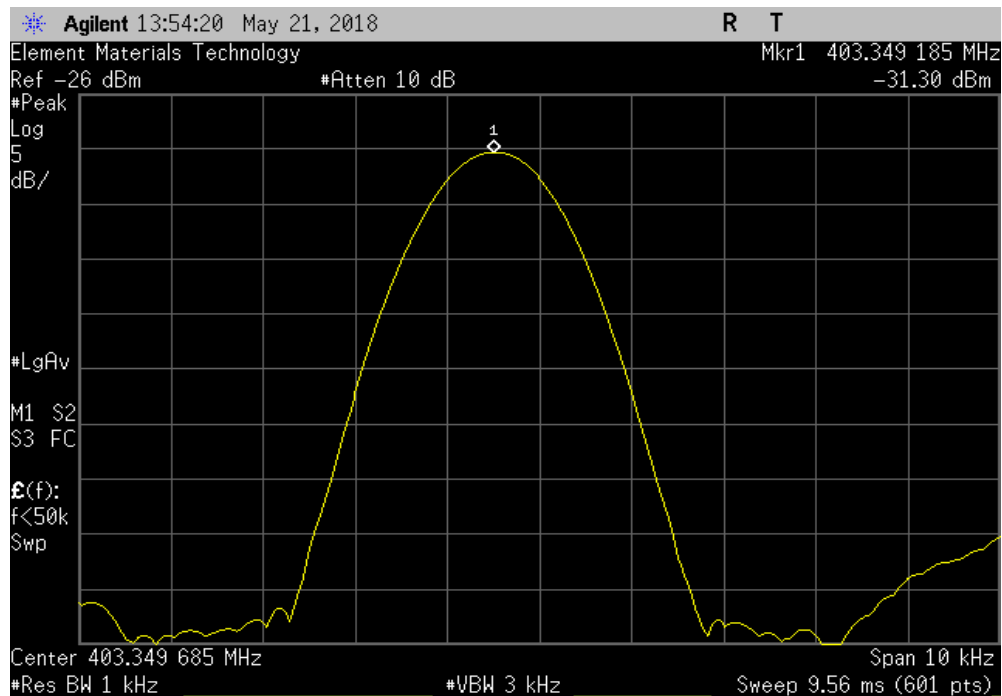


TMTx 2017.12.14 XMI 2017.12.13

Sample 3, 35°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.350103	403.35	0.3	100	Pass	



Sample 3, 45°C, Mid Channel, 403.35 MHz						
	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results	
	403.349185	403.35	2	100	Pass	



# SPURIOUS RADIATED EMISSIONS



PSA-ESCI 2018.03.06

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

Transmitting MICS - low channel (402.15 MHz), mid channel (403.35 MHz), and high channel (404.85 MHz) modulated

## POWER SETTINGS INVESTIGATED

Battery

## CONFIGURATIONS INVESTIGATED

BSTN0835 - 1

BSTN0835 - 2

BSTN0835 - 3

## FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 5000 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
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVT	13-Feb-2018	12 mo
Cable	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	21-Nov-2017	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AJA	23-Jun-2016	24 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	9-Nov-2017	12 mo
Cable	ESM Cable Corp.	Bilog Cables	MNH	9-Nov-2017	12 mo
Antenna - Biconilog	Teseq	CBL 6141B	AYD	25-Jan-2018	24 mo
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-2017	12 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 highest gain of each type of antenna to be used with the EUT was tested. For each configuration, the spectrum was scanned throughout the specified range. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.26). A preamp was used for this test in order to provide sufficient measurement sensitivity.

Per CFR 47 95.2579(a), field strength measurements were performed and compared to the specified limits.

# SPURIOUS RADIATED EMISSIONS



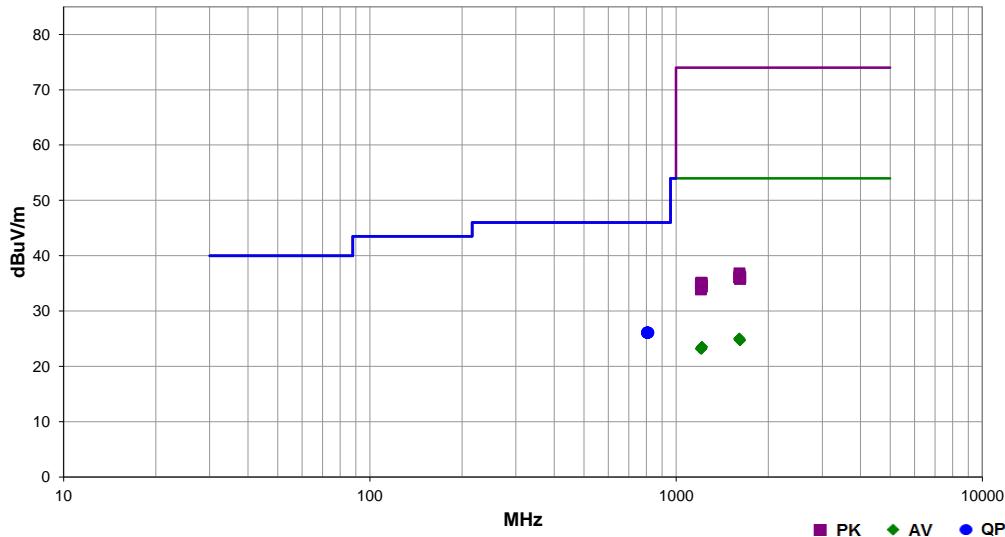
EmiRS 2018.03.06.1

PSA-ESCI 2018.03.06

Work Order:	BSTN0835	Date:	14-May-2018	<i>Dustin Sparks</i>
Project:	None	Temperature:	23 °C	
Job Site:	MN05	Humidity:	47.2% RH	
Serial Number:	728066	Barometric Pres.:	1016 mbar	
EUT:	Ingenio 2	Tested by:	Dustin Sparks	
Configuration:	1			
Customer:	Boston Scientific Corporation			
Attendees:	Ching Wang			
EUT Power:	Battery			
Operating Mode:	Transmitting MICS - low channel (402.15 MHz), mid channel (403.35 MHz), and high channel (404.85 MHz) modulated			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 951:2018	ANSI C63.26:2015

Run #	7	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	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)	Comments
804.536	15.7	10.4	1.0	250.9	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Low ch, EUT vertical
804.461	15.7	10.4	1.0	258.9	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Low ch, EUT vertical
803.971	15.7	10.4	1.0	149.1	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Low ch, EUT on side
803.501	15.7	10.4	1.0	23.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Low ch, EUT on side
804.526	15.7	10.4	1.0	231.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Low ch, EUT horizontal
805.227	15.7	10.4	1.0	163.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Low ch, EUT horizontal
806.487	15.7	10.4	2.3	145.1	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
806.713	15.7	10.4	1.0	339.0	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
811.011	15.7	10.4	1.0	120.1	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	High ch, EUT vertical
810.500	15.7	10.4	1.1	235.9	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT vertical
1609.225	31.0	-6.0	1.0	194.0	3.0	0.0	Horz	AV	0.0	25.0	54.0	-29.0	Low ch, EUT vertical
1608.208	31.0	-6.0	1.0	55.1	3.0	0.0	Vert	AV	0.0	25.0	54.0	-29.0	Low ch, EUT vertical
1611.692	30.9	-6.0	3.1	137.1	3.0	0.0	Horz	AV	0.0	24.9	54.0	-29.1	Mid ch, EUT vertical
1611.925	30.8	-6.0	1.0	246.9	3.0	0.0	Vert	AV	0.0	24.8	54.0	-29.2	Mid ch, EUT vertical
1617.833	30.6	-5.9	1.0	96.0	3.0	0.0	Horz	AV	0.0	24.7	54.0	-29.3	High ch, EUT vertical
1617.608	30.6	-5.9	1.0	24.0	3.0	0.0	Vert	AV	0.0	24.7	54.0	-29.3	High ch, EUT vertical
1214.983	31.6	-8.1	1.3	118.0	3.0	0.0	Horz	AV	0.0	23.5	54.0	-30.5	High ch, EUT vertical
1214.258	31.6	-8.1	1.6	66.1	3.0	0.0	Vert	AV	0.0	23.5	54.0	-30.5	High ch, EUT vertical
1211.725	31.5	-8.3	1.0	185.1	3.0	0.0	Horz	AV	0.0	23.2	54.0	-30.8	Mid ch, EUT vertical
1209.808	31.5	-8.3	2.4	44.1	3.0	0.0	Vert	AV	0.0	23.2	54.0	-30.8	Mid ch, EUT vertical
1207.908	31.5	-8.3	1.0	275.9	3.0	0.0	Horz	AV	0.0	23.2	54.0	-30.8	Low ch, EUT vertical
1204.300	31.5	-8.3	1.0	335.0	3.0	0.0	Vert	AV	0.0	23.2	54.0	-30.8	Low ch, EUT vertical
1610.017	42.8	-6.0	1.0	55.1	3.0	0.0	Vert	PK	0.0	36.8	74.0	-37.2	Low ch, EUT vertical
1612.942	42.3	-6.0	3.1	137.1	3.0	0.0	Horz	PK	0.0	36.3	74.0	-37.7	Mid ch, EUT vertical
1619.317	42.0	-5.9	1.0	24.0	3.0	0.0	Vert	PK	0.0	36.1	74.0	-37.9	High ch, EUT vertical
1606.825	42.1	-6.0	1.0	194.0	3.0	0.0	Horz	PK	0.0	36.1	74.0	-37.9	Low ch, EUT vertical
1611.942	42.0	-6.0	1.0	246.9	3.0	0.0	Vert	PK	0.0	36.0	74.0	-38.0	Mid ch, EUT vertical
1618.633	41.7	-5.9	1.0	96.0	3.0	0.0	Horz	PK	0.0	35.8	74.0	-38.2	High ch, EUT vertical
1207.950	43.4	-8.3	1.0	185.1	3.0	0.0	Horz	PK	0.0	35.1	74.0	-38.9	Mid ch, EUT vertical
1213.067	43.1	-8.1	1.3	118.0	3.0	0.0	Horz	PK	0.0	35.0	74.0	-39.0	High ch, EUT vertical
1205.225	43.2	-8.3	1.0	275.9	3.0	0.0	Horz	PK	0.0	34.9	74.0	-39.1	Low ch, EUT vertical
1212.492	42.7	-8.2	1.6	66.1	3.0	0.0	Vert	PK	0.0	34.5	74.0	-39.5	High ch, EUT vertical
1212.533	42.5	-8.1	2.4	44.1	3.0	0.0	Vert	PK	0.0	34.4	74.0	-39.6	Mid ch, EUT vertical
1205.858	42.2	-8.3	1.0	335.0	3.0	0.0	Vert	PK	0.0	33.9	74.0	-40.1	Low ch, EUT vertical

# SPURIOUS RADIATED EMISSIONS



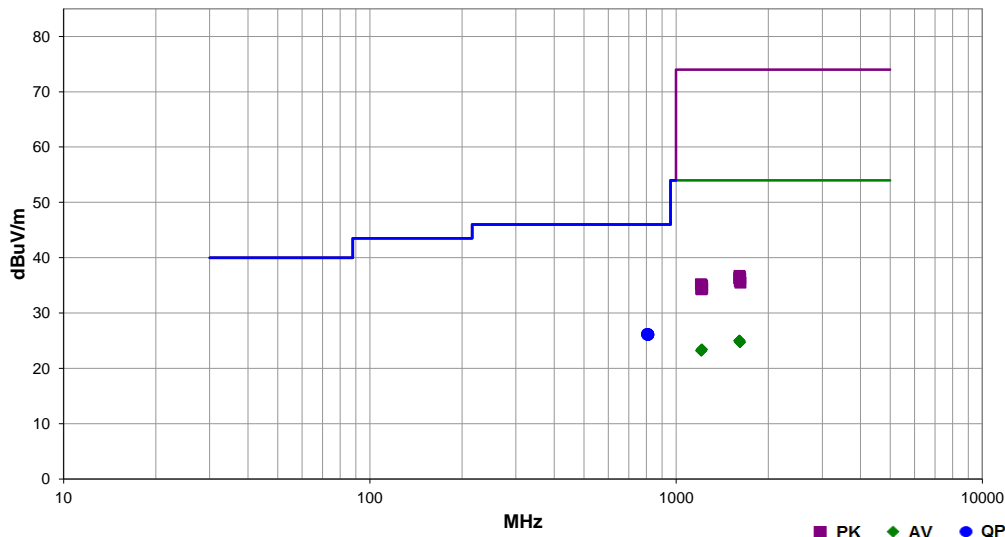
EmiRS 2018.03.06.1

PSA-ESCI 2018.03.06

Work Order:	BSTN0835	Date:	14-May-2018	
Project:	None	Temperature:	23 °C	
Job Site:	MN05	Humidity:	47.2% RH	
Serial Number:	776657	Barometric Pres.:	1016 mbar	
EUT:		Ingenio 2		
Configuration:		2		
Customer:		Boston Scientific Corporation		
Attendees:		Ching Wang		
EUT Power:		Battery		
Operating Mode:		Transmitting MICS - low channel (402.15 MHz), mid channel (403.35 MHz), and high channel (404.85 MHz) modulated		
Deviations:		None		
Comments:		None		

Test Specifications	Test Method
FCC 951:2018	ANSI C63.26:2015

Run #	13	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	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)	Comments
809.335	15.7	10.5	1.0	63.0	3.0	0.0	Horz	QP	0.0	26.2	46.0	-19.8	High ch, EUT vertical
802.843	15.7	10.5	1.7	154.0	3.0	0.0	Horz	QP	0.0	26.2	46.0	-19.8	Low ch, EUT vertical
810.692	15.7	10.4	1.0	199.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT vertical
810.741	15.7	10.4	1.0	310.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	High ch, EUT on side
810.744	15.7	10.4	1.0	281.0	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT on side
810.320	15.7	10.4	3.9	325.9	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	High ch, EUT horizontal
809.757	15.7	10.4	1.0	10.0	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT horizontal
806.385	15.7	10.4	1.0	61.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
806.037	15.7	10.4	2.2	229.0	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
804.503	15.7	10.4	1.0	184.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Low ch, EUT vertical
1609.275	31.0	-6.0	1.0	110.0	3.0	0.0	Horz	AV	0.0	25.0	54.0	-29.0	Low ch, EUT vertical
1607.050	31.0	-6.0	1.0	61.0	3.0	0.0	Vert	AV	0.0	25.0	54.0	-29.0	Low ch, EUT vertical
1612.292	31.0	-6.0	1.0	31.0	3.0	0.0	Horz	AV	0.0	25.0	54.0	-29.0	Mid ch, EUT vertical
1611.983	30.9	-6.0	3.3	294.9	3.0	0.0	Vert	AV	0.0	24.9	54.0	-29.1	Mid ch, EUT vertical
1617.275	30.6	-5.9	1.0	275.0	3.0	0.0	Horz	AV	0.0	24.7	54.0	-29.3	High ch, EUT vertical
1617.617	30.6	-5.9	1.0	330.9	3.0	0.0	Vert	AV	0.0	24.7	54.0	-29.3	High ch, EUT vertical
1212.383	31.6	-8.2	1.0	91.1	3.0	0.0	Horz	AV	0.0	23.4	54.0	-30.6	High ch, EUT vertical
1214.933	31.5	-8.1	1.0	33.1	3.0	0.0	Vert	AV	0.0	23.4	54.0	-30.6	High ch, EUT vertical
1211.542	31.6	-8.3	1.0	235.9	3.0	0.0	Vert	AV	0.0	23.3	54.0	-30.7	Mid ch, EUT vertical
1208.367	31.5	-8.3	1.0	303.0	3.0	0.0	Horz	AV	0.0	23.2	54.0	-30.8	Low ch, EUT vertical
1208.625	31.5	-8.3	1.0	300.0	3.0	0.0	Vert	AV	0.0	23.2	54.0	-30.8	Low ch, EUT vertical
1209.417	31.5	-8.3	1.0	160.1	3.0	0.0	Horz	AV	0.0	23.2	54.0	-30.8	Mid ch, EUT vertical
1610.550	42.7	-6.0	1.0	61.0	3.0	0.0	Vert	PK	0.0	36.7	74.0	-37.3	Low ch, EUT vertical
1614.942	42.5	-6.0	1.0	31.0	3.0	0.0	Horz	PK	0.0	36.5	74.0	-37.5	Mid ch, EUT vertical
1606.442	42.3	-6.0	1.0	110.0	3.0	0.0	Horz	PK	0.0	36.3	74.0	-37.7	Low ch, EUT vertical
1620.150	42.1	-5.9	1.0	330.9	3.0	0.0	Vert	PK	0.0	36.2	74.0	-37.8	High ch, EUT vertical
1614.067	41.8	-6.0	3.3	294.9	3.0	0.0	Vert	PK	0.0	35.8	74.0	-38.2	Mid ch, EUT vertical
1621.417	41.4	-5.9	1.0	275.0	3.0	0.0	Horz	PK	0.0	35.5	74.0	-38.5	High ch, EUT vertical
1204.867	43.5	-8.3	1.0	303.0	3.0	0.0	Horz	PK	0.0	35.2	74.0	-38.8	Low ch, EUT vertical
1216.067	43.1	-8.1	1.0	91.1	3.0	0.0	Horz	PK	0.0	35.0	74.0	-39.0	High ch, EUT vertical
1217.025	42.6	-8.1	1.0	33.1	3.0	0.0	Vert	PK	0.0	34.5	74.0	-39.5	High ch, EUT vertical
1208.908	42.7	-8.3	1.0	300.0	3.0	0.0	Vert	PK	0.0	34.4	74.0	-39.6	Low ch, EUT vertical
1210.242	42.7	-8.3	1.0	160.1	3.0	0.0	Horz	PK	0.0	34.4	74.0	-39.6	Mid ch, EUT vertical
1210.775	42.6	-8.3	1.0	235.9	3.0	0.0	Vert	PK	0.0	34.3	74.0	-39.7	Mid ch, EUT vertical

# SPURIOUS RADIATED EMISSIONS



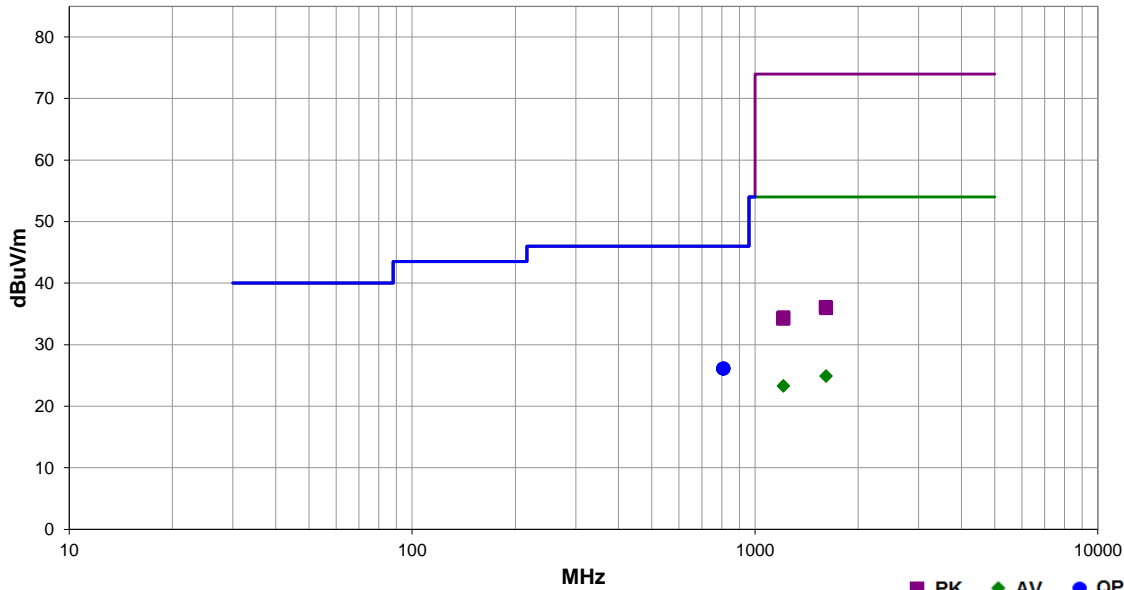
EmiR5 2018.03.06.1

PSA-ESCI 2018.03.06

Work Order:	BSTN0835	Date:	14-May-2018	
Project:	None	Temperature:	23 °C	
Job Site:	MN05	Humidity:	47.2% RH	
Serial Number:	720522	Barometric Pres.:	1016 mbar	Tested by: Dustin Sparks
EUT:	Ingenio 2			
Configuration:	3			
Customer:	Boston Scientific Corporation			
Attendees:	Ching Wang			
EUT Power:	Battery			
Operating Mode:	Transmitting MICS - low channel (402.15 MHz), mid channel (403.35 MHz), and high channel (404.85 MHz) modulated			
Deviations:	None			
Comments:	None			

<b>Test Specifications</b>	<b>Test Method</b>
FCC 951:2018	ANSI C63.26:2015

<b>Run #</b>	20	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1 to 4(m)	<b>Results</b>	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)	Comments
809.125	15.7	10.5	1.0	15.1	3.0	0.0	Horz	QP	0.0	26.2	46.0	-19.8	High ch, EUT on side
809.496	15.7	10.5	1.7	328.0	3.0	0.0	Vert	QP	0.0	26.2	46.0	-19.8	High ch, EUT on side
809.975	15.7	10.4	1.0	344.9	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	High ch, EUT vertical
810.405	15.7	10.4	1.0	264.9	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT vertical
810.728	15.7	10.4	1.0	290.9	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	High ch, EUT horizontal
809.926	15.7	10.4	1.0	40.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	High ch, EUT horizontal
805.302	15.7	10.4	1.0	56.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
805.150	15.7	10.4	1.0	34.1	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Mid ch, EUT vertical
805.360	15.7	10.4	1.0	108.0	3.0	0.0	Horz	QP	0.0	26.1	46.0	-19.9	Low ch, EUT vertical
805.188	15.7	10.4	1.0	243.9	3.0	0.0	Vert	QP	0.0	26.1	46.0	-19.9	Low ch, EUT vertical
1611.125	30.9	-6.0	3.0	49.0	3.0	0.0	Horz	AV	0.0	24.9	54.0	-29.1	Mid ch, EUT vertical
1612.425	30.9	-6.0	1.0	325.0	3.0	0.0	Vert	AV	0.0	24.9	54.0	-29.1	Mid ch, EUT vertical
1209.542	31.6	-8.3	3.5	119.1	3.0	0.0	Horz	AV	0.0	23.3	54.0	-30.7	Mid ch, EUT vertical
1211.650	31.6	-8.3	1.0	260.0	3.0	0.0	Vert	AV	0.0	23.3	54.0	-30.7	Mid ch, EUT vertical
1606.117	42.2	-6.0	1.0	346.0	3.0	0.0	Horz	PK	0.0	36.2	74.0	-37.8	Low ch, EUT vertical
1614.717	42.1	-6.0	3.0	49.0	3.0	0.0	Horz	PK	0.0	36.1	74.0	-37.9	Mid ch, EUT vertical
1606.233	42.0	-6.0	1.0	271.9	3.0	0.0	Vert	PK	0.0	36.0	74.0	-38.0	Low ch, EUT vertical
1611.967	41.9	-6.0	1.0	325.0	3.0	0.0	Vert	PK	0.0	35.9	74.0	-38.1	Mid ch, EUT vertical
1210.950	42.8	-8.3	3.5	119.1	3.0	0.0	Horz	PK	0.0	34.5	74.0	-39.5	Mid ch, EUT vertical
1207.233	42.7	-8.3	2.8	342.0	3.0	0.0	Horz	PK	0.0	34.4	74.0	-39.6	Low ch, EUT vertical
1212.217	42.4	-8.2	1.0	260.0	3.0	0.0	Vert	PK	0.0	34.2	74.0	-39.8	Mid ch, EUT vertical
1204.225	42.5	-8.3	3.9	105.1	3.0	0.0	Vert	PK	0.0	34.2	74.0	-39.8	Low ch, EUT vertical

# SPURIOUS CONDUCTED EMISSIONS



XMIT 2017.12.13

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.

## TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Power Supply - DC	EZ Digital Co., Ltd.	GP-4030D	TQK	NCR	NCR
Meter - Multimeter	Fluke	114	MMU	18-Jul-17	18-Jul-20
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	15-Mar-18	15-Mar-19
Attenuator	S.M. Electronics	SA26B-20	RFW	13-Feb-18	13-Feb-19
Block - DC	Fairview Microwave	SD3379	AMI	12-Sep-17	12-Sep-18
Generator - Signal	Agilent	E4422B	TGQ	15-Mar-18	15-Mar-21
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-17	2-Aug-18

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Per FCC Part 2.1051, RSS-GEN, the spurious emissions shall be measured at the RF terminal. The peak spurious emissions were measured with the EUT configured to the modes listed in the datasheet. The EUT was transmitting at its maximum data rate.

FCC Part 95 and RSS-243 have no conducted spurious emissions limit. It is a requirement to characterize this information and that data is contained within this datasheet.

# SPURIOUS CONDUCTED EMISSIONS



MM 2017.12.13

EUT: Ingenio 2		Work Order: BSTN0835	
Serial Number: See Comments		Date: 22-May-18	
Customer: Boston Scientific Corporation		Temperature: 23.6 °C	
Attendees: Ching Wang		Humidity: 46.5% RH	
Project: None		Barometric Pres.: 1021 mbar	
Tested by: Dustin Sparks	Power: 3.2VDC	Job Site: MN08	
TEST SPECIFICATIONS		Test Method	
FCC 951:2018		ANSI C63.26:2015	
COMMENTS			
Three samples tested simultaneously - sample 1 (SN 75602703), sample 2 (SN 75602706), and sample 3 (SN 75602701).			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	4, 5, 6	Signature <i>Dustin Sparks</i>	
		Value	Limit
Sample 1			
	Mid Channel, 403.35 MHz		
	Fundamental	-7.47 dBm	N/A
	9kHz-150kHz	-61.36 dBm	N/A
	150kHz-30MHz	-38.49 dBm	N/A
	30MHz-1GHz	-52.37 dBm	N/A
	1GHz-5GHz	-49.35 dBm	N/A
Sample 2			
	Mid Channel, 403.35 MHz		
	Fundamental	-7.86 dBm	N/A
	9kHz-150kHz	-60.69 dBm	N/A
	150kHz-30MHz	-39.95 dBm	N/A
	30MHz-1GHz	-54.90 dBm	N/A
	1GHz-5GHz	-49.74 dBm	N/A
Sample 3			
	Mid Channel, 403.35 MHz		
	Fundamental	-7.30 dBm	N/A
	9kHz-150kHz	-63.05 dBm	N/A
	150kHz-30MHz	-40.41 dBm	N/A
	30MHz-1GHz	-54.03 dBm	N/A
	1GHz-5GHz	-48.83 dBm	N/A



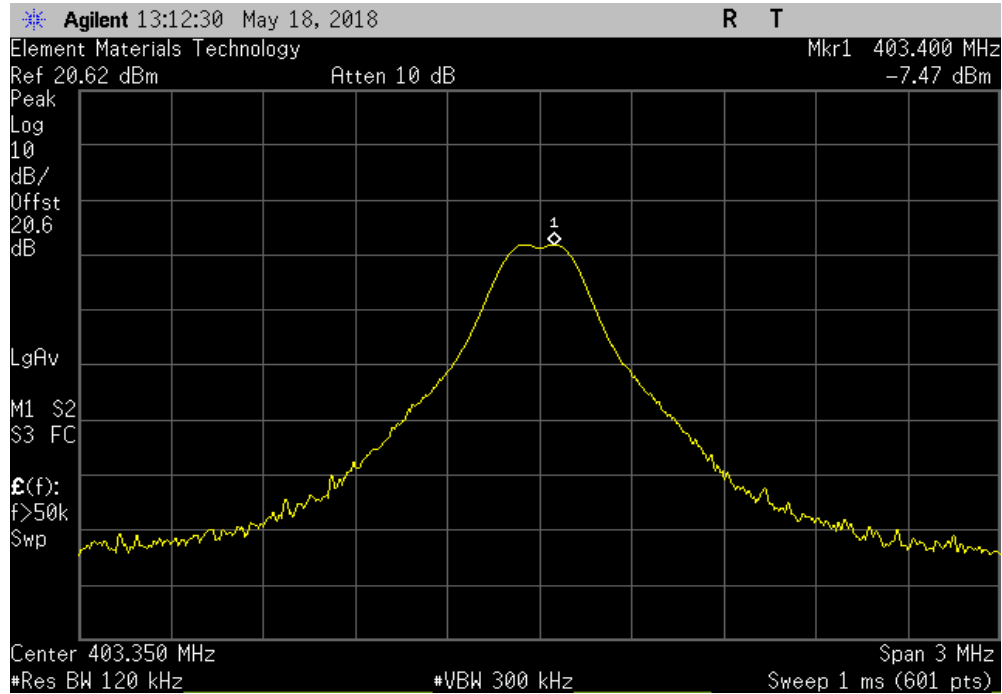
# SPURIOUS CONDUCTED EMISSIONS



XMM 2017.12.13

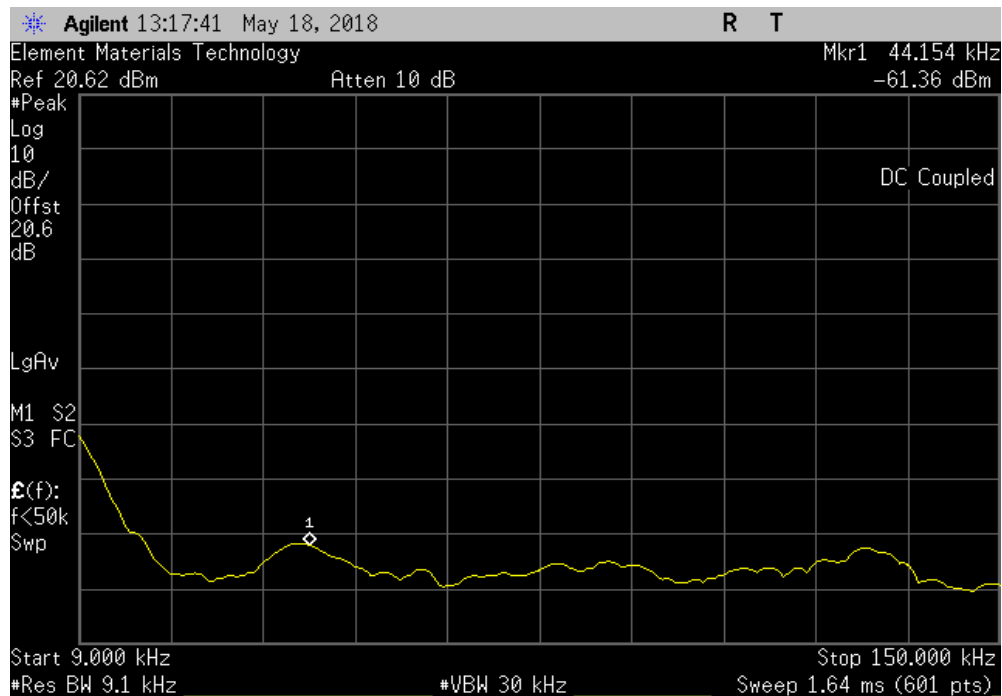
Sample 1, Mid Channel, 403.35 MHz, Fundamental

				Value	Limit	Result
				-7.47 dBm	N/A	N/A



Sample 1, Mid Channel, 403.35 MHz, 9kHz-150kHz

				Value	Limit	Result
				-61.36 dBm	N/A	N/A



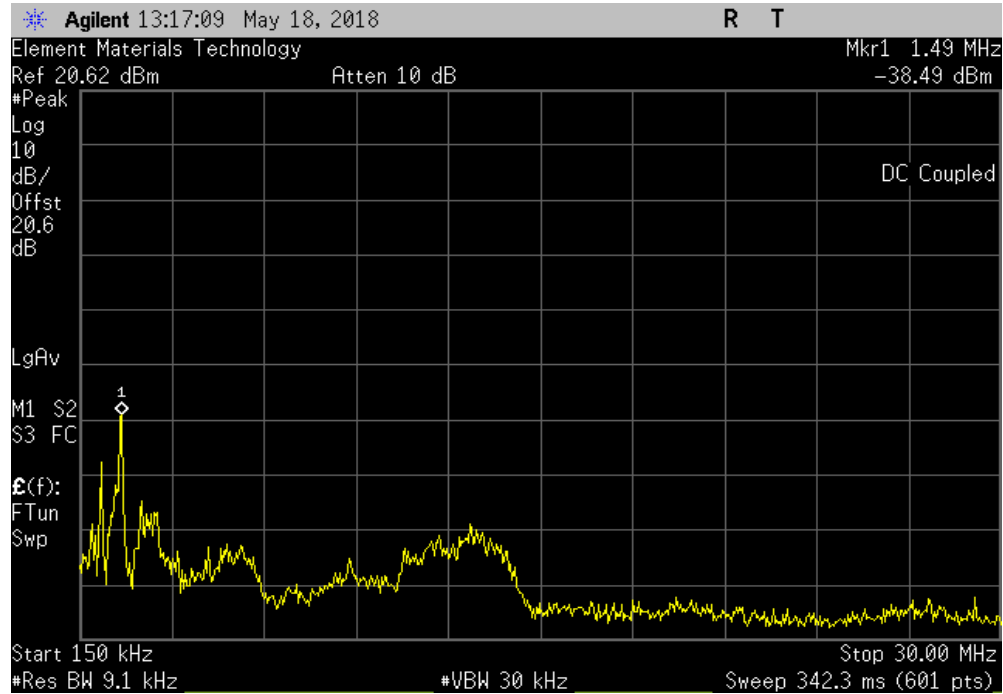
# SPURIOUS CONDUCTED EMISSIONS



XMI 2017.12.13

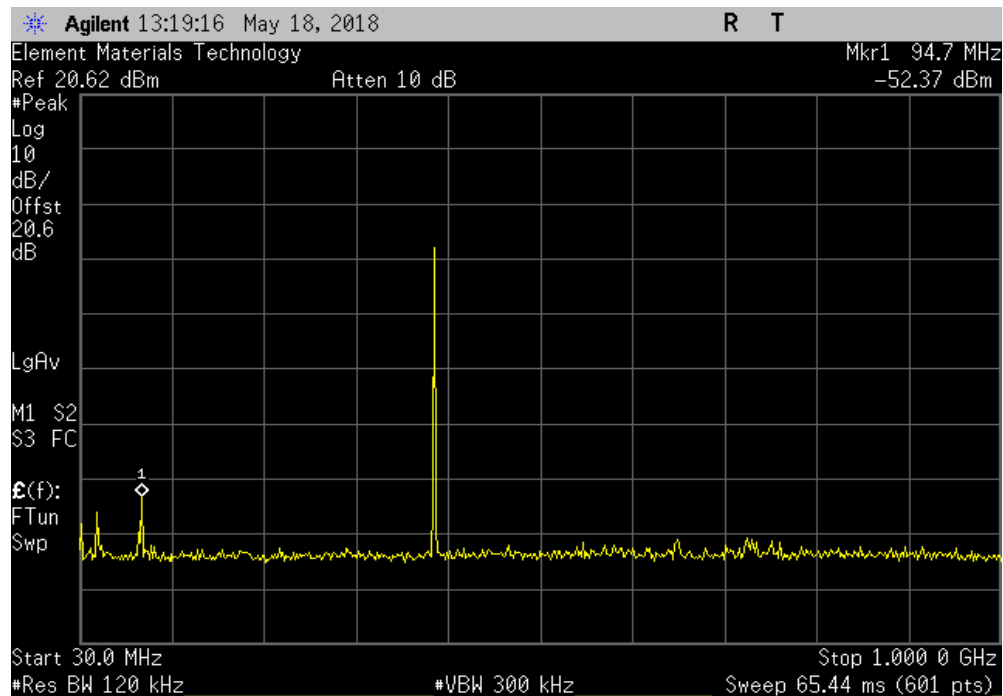
Sample 1, Mid Channel, 403.35 MHz, 150kHz-30MHz

				Value	Limit	Result
				-38.49 dBm	N/A	N/A



Sample 1, Mid Channel, 403.35 MHz, 30MHz-1GHz

				Value	Limit	Result
				-52.37 dBm	N/A	N/A



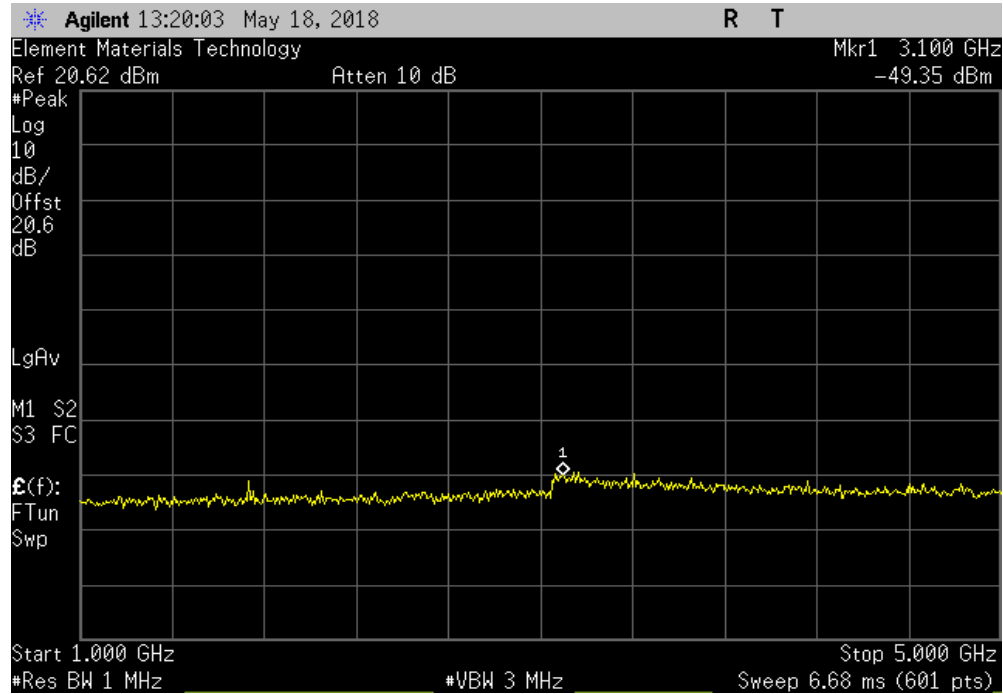
# SPURIOUS CONDUCTED EMISSIONS



XMM 2017.12.13

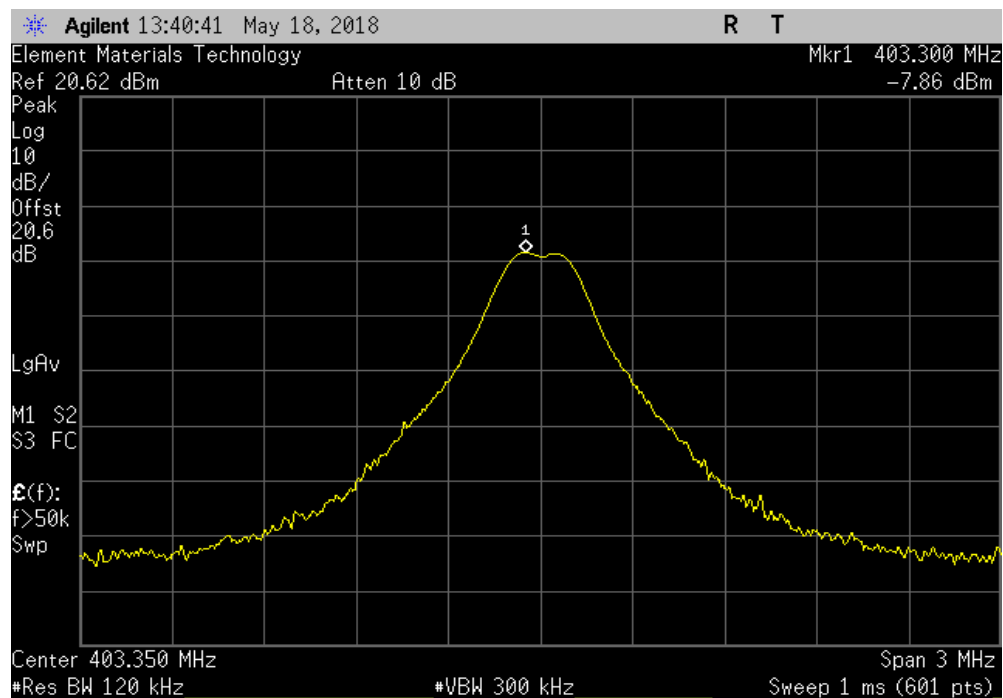
Sample 1, Mid Channel, 403.35 MHz, 1GHz-5GHz

				Value	Limit	Result
				-49.35 dBm	N/A	N/A



Sample 2, Mid Channel, 403.35 MHz, Fundamental

				Value	Limit	Result
				-7.86 dBm	N/A	N/A



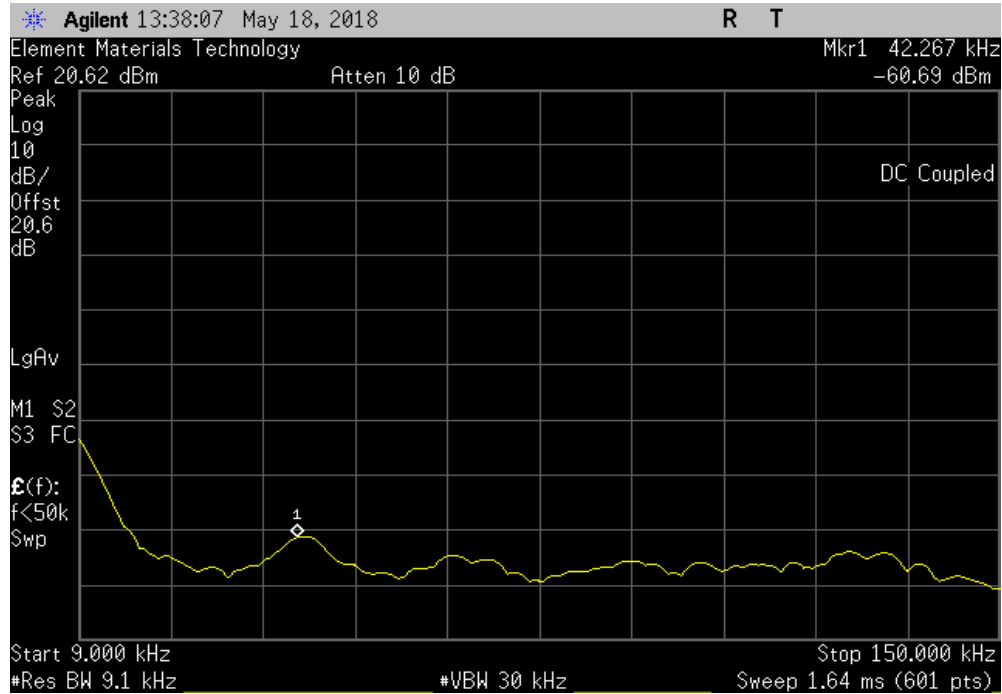
# SPURIOUS CONDUCTED EMISSIONS



XMI 2017.12.13

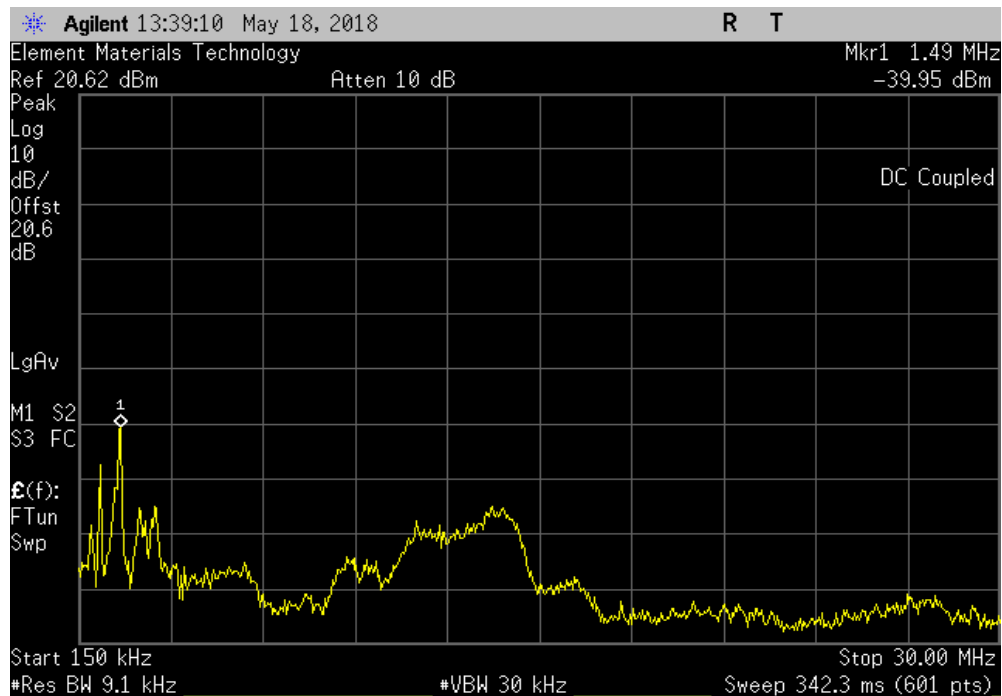
Sample 2, Mid Channel, 403.35 MHz, 9kHz-150kHz

				Value	Limit	Result
				-60.69 dBm	N/A	N/A



Sample 2, Mid Channel, 403.35 MHz, 150kHz-30MHz

				Value	Limit	Result
				-39.95 dBm	N/A	N/A



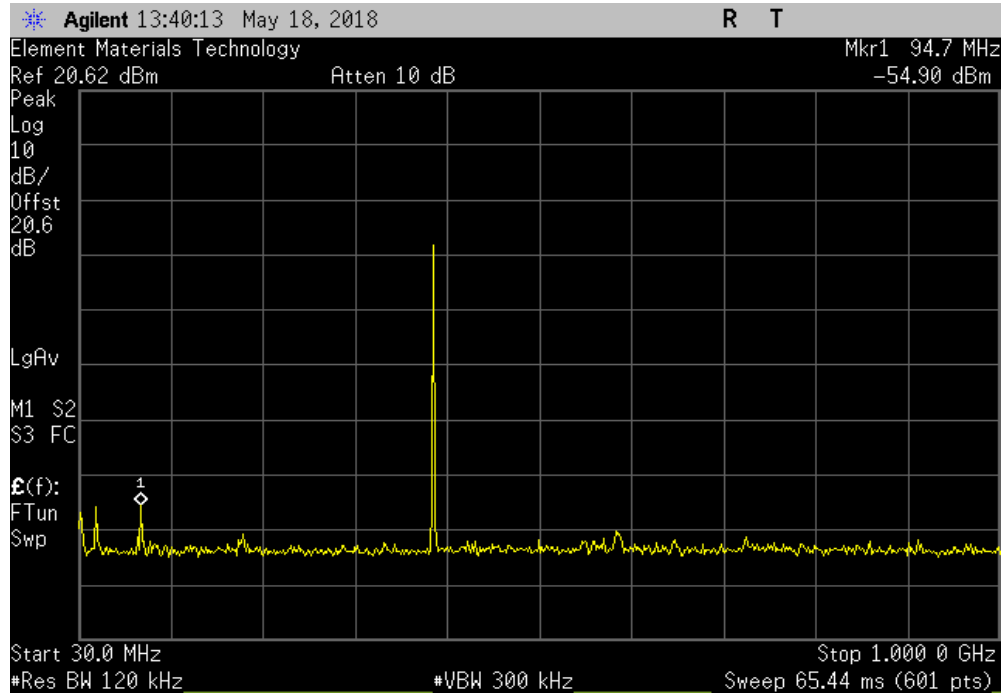
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XMI 2017.12.13

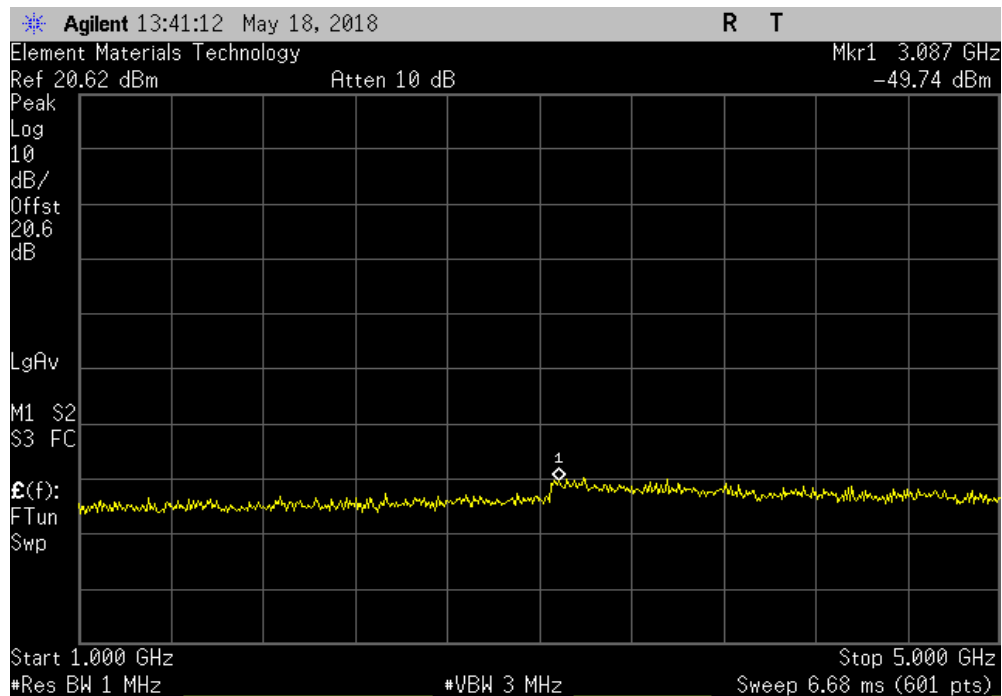
Sample 2, Mid Channel, 403.35 MHz, 30MHz-1GHz

	Value	Limit	Result
	-54.90 dBm	N/A	N/A



Sample 2, Mid Channel, 403.35 MHz, 1GHz-5GHz

	Value	Limit	Result
	-49.74 dBm	N/A	N/A



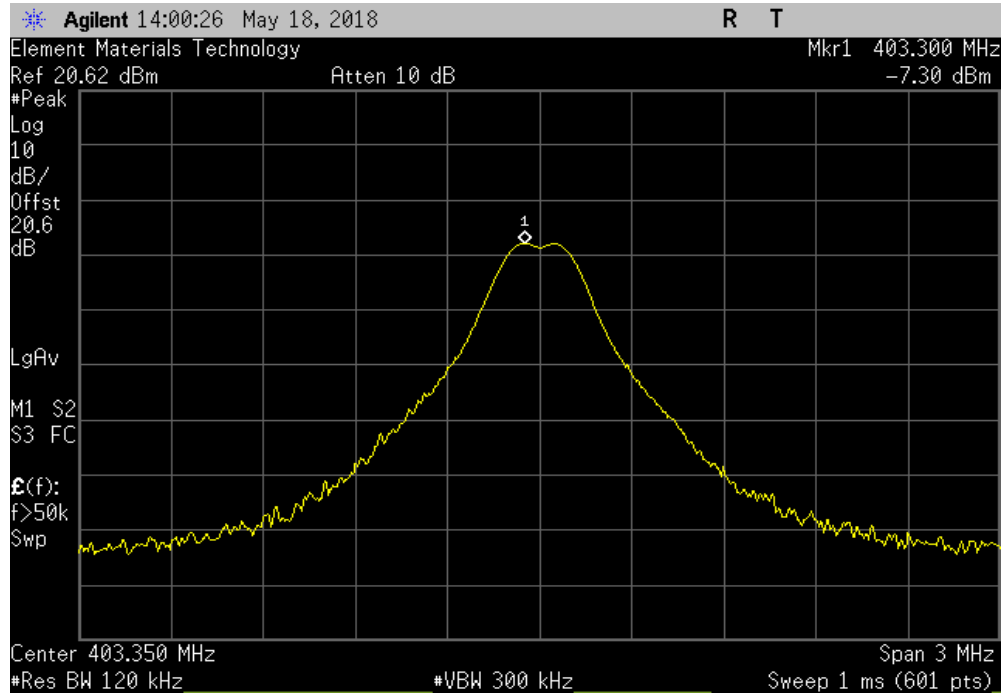
# SPURIOUS CONDUCTED EMISSIONS



XMI 2017.12.13

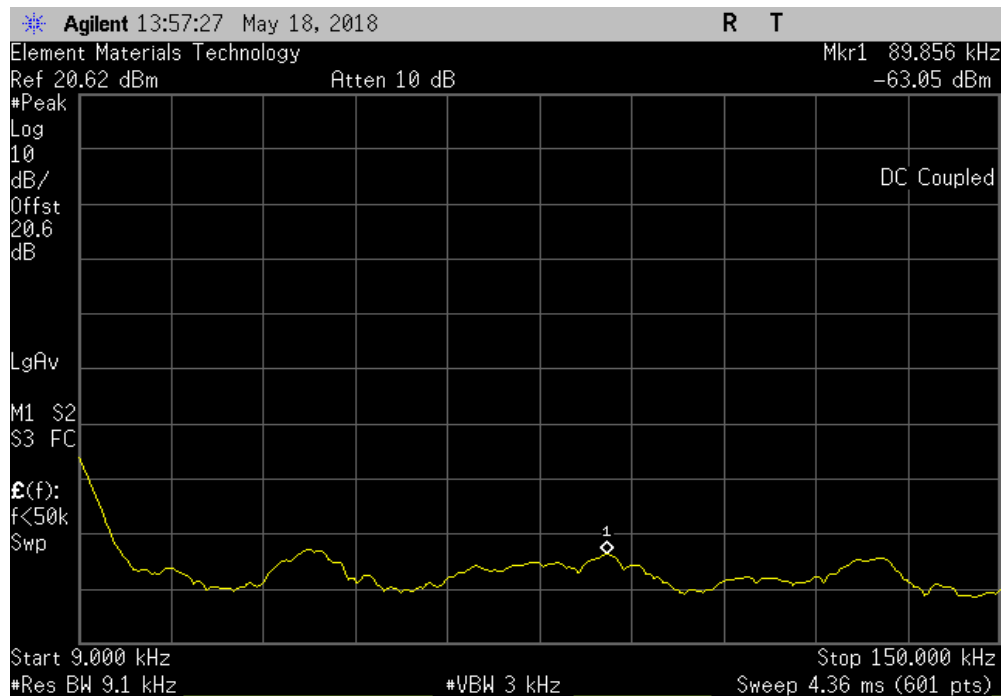
Sample 3, Mid Channel, 403.35 MHz, Fundamental

				Value	Limit	Result
				-7.30 dBm	N/A	N/A



Sample 3, Mid Channel, 403.35 MHz, 9kHz-150kHz

				Value	Limit	Result
				-63.05 dBm	N/A	N/A



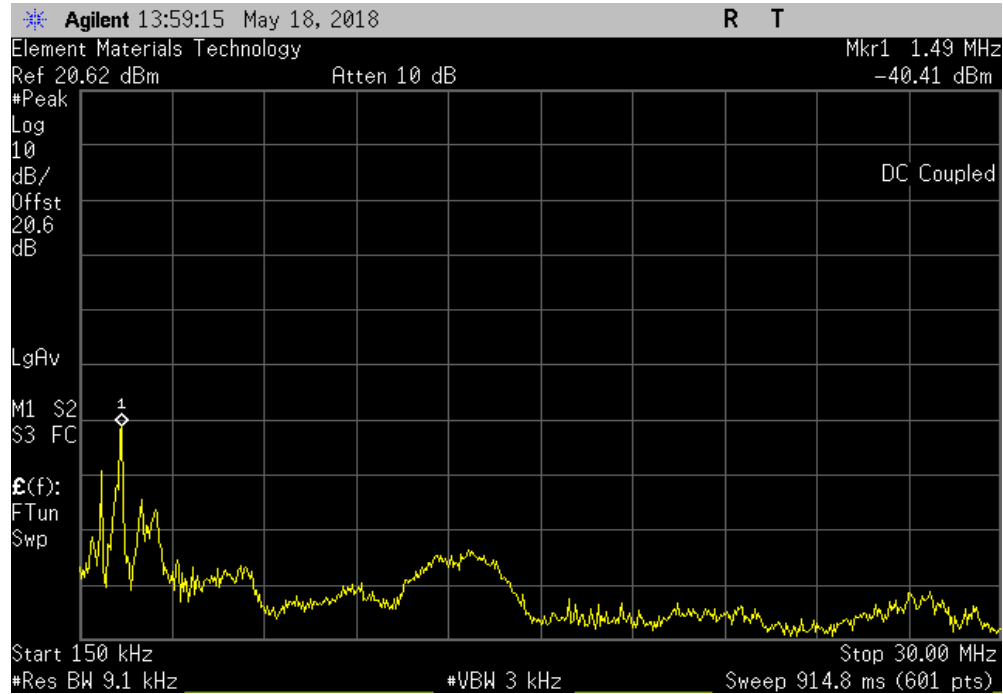
# SPURIOUS CONDUCTED EMISSIONS



XMI 2017.12.13

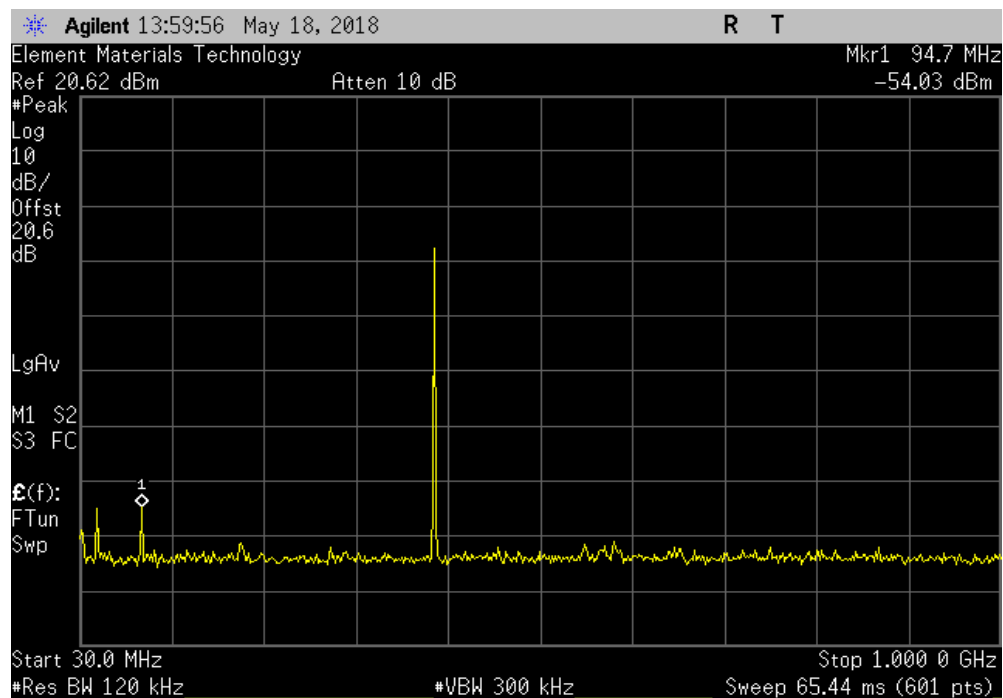
Sample 3, Mid Channel, 403.35 MHz, 150kHz-30MHz

				Value	Limit	Result
				-40.41 dBm	N/A	N/A



Sample 3, Mid Channel, 403.35 MHz, 30MHz-1GHz

				Value	Limit	Result
				-54.03 dBm	N/A	N/A

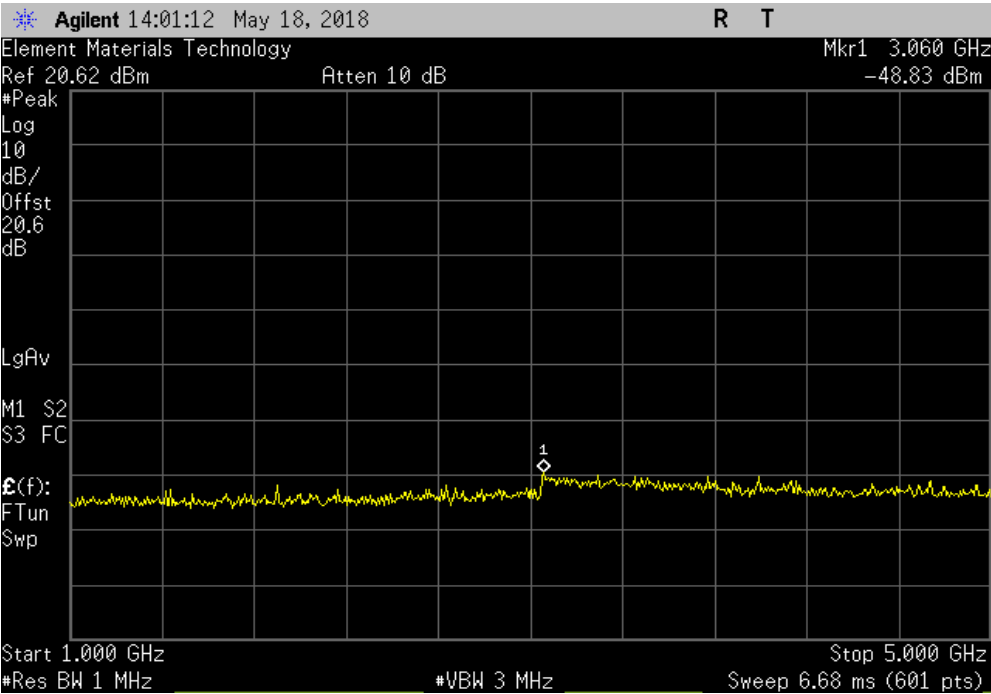


SPURIOUS CONDUCTED EMISSIONS



XMI 2017.12.13

Sample 3, Mid Channel, 403.35 MHz, 1GHz-5GHz						
				Value	Limit	Result
				-48.83 dBm	N/A	N/A





# RADIATED POWER (EIRP)



PSA-ESCI 2018.03.06

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

Tx CW on Low, Mid, or High Ch at 402.15, 403.35, or 404.85 MHz.

## POWER SETTINGS INVESTIGATED

Battery

## CONFIGURATIONS INVESTIGATED

BSTN0835 - 1

BSTN0835 - 2

BSTN0835 - 3

## FREQUENCY RANGE INVESTIGATED

Start Frequency 402 MHz Stop Frequency 405 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
Tank, Torso Simulator	None	None	PCN	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	9-Nov-2017	12 mo
Cable	ESM Cable Corp.	Bilog Cables	MNH	9-Nov-2017	12 mo
Antenna - Biconilog	Teseq	CBL 6141B	AYD	25-Jan-2018	24 mo
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFD	2-Aug-2017	12 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

Per 95.2567(a)(2), the maximum radiated field strength for a MICS transmitter is 25uW EIRP. The Field Strength of the Fundamental data was converted to EIRP with the formula based upon the Friis transmission equation with 6 dB removed due to reflections from the ground plane:  $EIRP = ((E/2)^2 \cdot d^2) / 30$  where E is V/m and d = distance = 3m, and  $EIRP = W$  (Reference 95.2569(a)).

The Field Strength of the Fundamental was measured in the far-field at an FCC Listed Semi-anechoic Chamber. Spectrum analyzer and linearly polarized antennas were used to measure the radiated field strength of the fundamental.

The orientation of the EUT and measurement antenna were manipulated to maximize the level of emissions. The turntable azimuth was varied to maximize the level of radiated emissions. The height of the measurement antenna was also varied from 1 to 4 meters. The amplitude and frequency of the emissions were noted.

The EUT was configured to transmit in a fixture that simulates the human torso. The dimensions of the test fixture and the characteristics of the tissue substitute material met the requirements 95.2569(c) and FCC KDB 617965. The height of the transmitter was 1.5-meter above the reference ground plane.

# RADIATED POWER (EIRP)



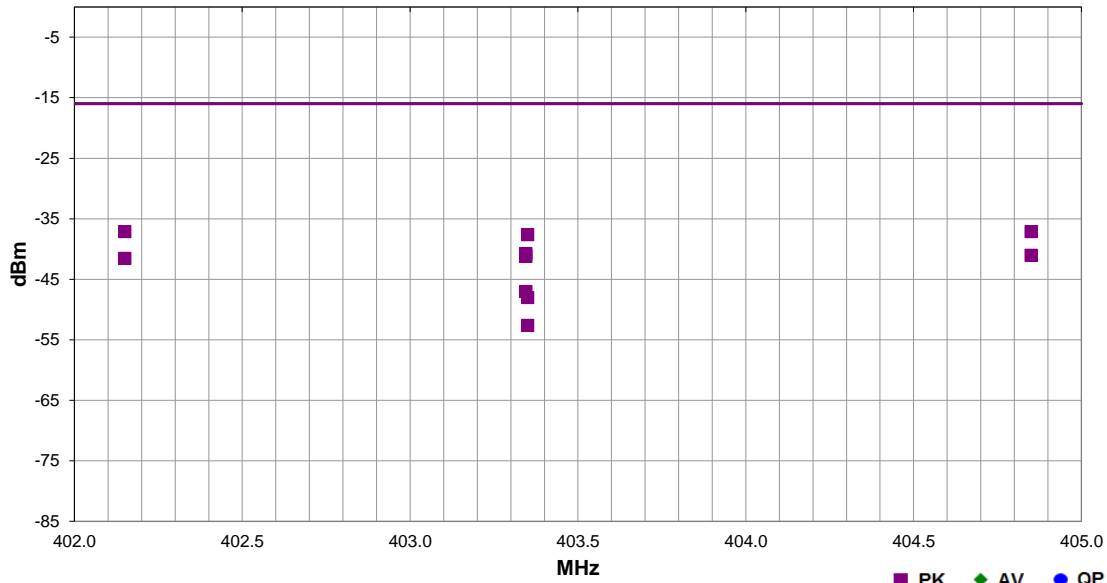
EmiRS 2018.03.06.1

PSA-ESCI 2018.03.06

<b>Work Order:</b>	BSTN0835	<b>Date:</b>	16-May-2018	<i>Kyle McMullan</i>
<b>Project:</b>	None	<b>Temperature:</b>	22.9 °C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	37.5% RH	
<b>Serial Number:</b>	728066	<b>Barometric Pres.:</b>	1018 mbar	
<b>EUT:</b>	Ingenio 2	<b>Tested by:</b>	Kyle McMullan	
<b>Configuration:</b>	1			
<b>Customer:</b>	Boston Scientific Corporation			
<b>Attendees:</b>	Tracy Seppelt			
<b>EUT Power:</b>	Battery			
<b>Operating Mode:</b>	Tx CW on Low, Mid, or High Ch at 402.15, 403.35, or 404.85 MHz.			
<b>Deviations:</b>	None			
<b>Comments:</b>	None			

<b>Test Specifications</b>	<b>Test Method</b>
FCC 951:2018	ANSI C63.26:2015

<b>Run #</b>	31	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1 to 4(m)	<b>Results</b>	Pass
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Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
402.150	1.6	308.9	Vert	PK	1.94E-07	-37.1	-16.0	-21.1	Low Ch, EUT Vert
404.850	1.6	315.0	Vert	PK	1.94E-07	-37.1	-16.0	-21.1	High Ch, EUT Vert
403.350	1.6	336.9	Vert	PK	1.73E-07	-37.6	-16.0	-21.6	Mid Ch, EUT Vert
403.345	1.1	265.9	Horz	PK	8.46E-08	-40.7	-16.0	-24.7	Mid Ch, EUT Vert
404.850	1.1	235.9	Horz	PK	7.89E-08	-41.0	-16.0	-25.0	High Ch, EUT Vert
403.345	1.2	50.0	Horz	PK	7.54E-08	-41.2	-16.0	-25.2	Mid Ch, EUT On Side
402.150	1.1	235.9	Horz	PK	7.03E-08	-41.5	-16.0	-25.5	Low Ch, EUT Vert
403.345	1.2	351.0	Horz	PK	1.98E-08	-47.0	-16.0	-31.0	Mid Ch, EUT Horz
403.350	1.5	315.0	Vert	PK	1.57E-08	-48.0	-16.0	-32.0	Mid Ch, EUT On Side
403.350	1.6	307.9	Vert	PK	5.46E-09	-52.6	-16.0	-36.6	Mid Ch, EUT Horz

# RADIATED POWER (EIRP)



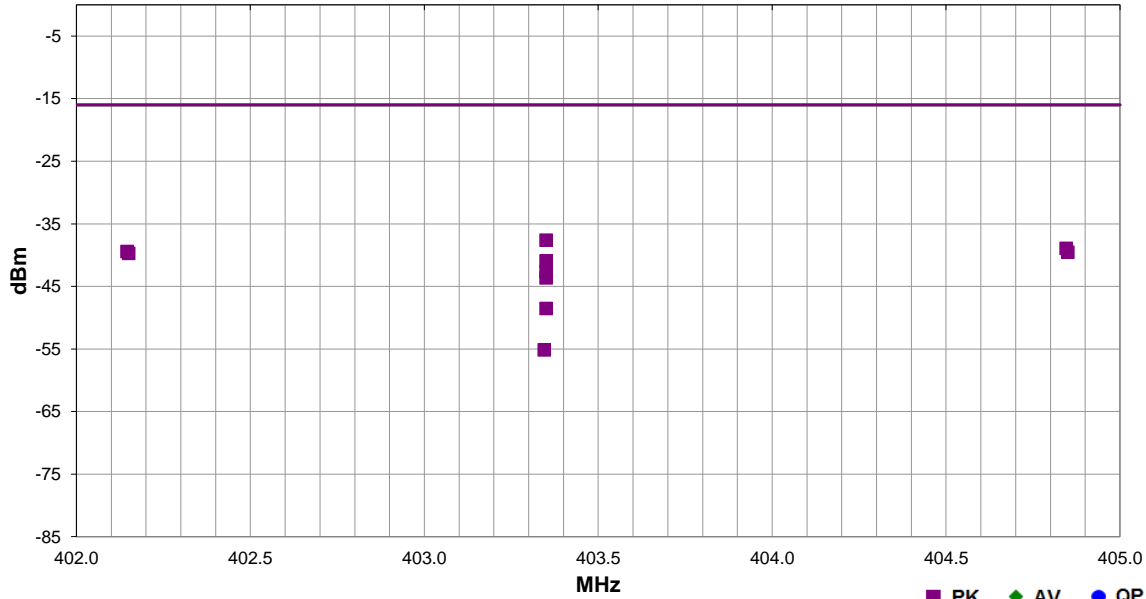
EmiR5 2018.03.06.1

PSA-ESCI 2018.03.06

Work Order:	BSTN0835	Date:	16-May-2018	
Project:	None	Temperature:	22.9 °C	
Job Site:	MN05	Humidity:	37.5% RH	
Serial Number:	776657	Barometric Pres.:	1018 mbar	
Tested by: Kyle McMullan				
EUT:	Ingenio 2			
Configuration:	2			
Customer:	Boston Scientific Corporation			
Attendees:	Tracy Seppelt			
EUT Power:	Battery			
Operating Mode:	Tx CW on Low, Mid, or High Ch at 402.15, 403.35, or 404.85 MHz.			
Deviations:	None			
Comments:	None			

Test Specifications	Test Method
FCC 95I:2018	ANSI C63.26:2015

Run #	32	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
403.350	1.6	329.9	Vert	PK	1.73E-07	-37.6	-16.0	-21.6	Mid Ch, EUT Vert
404.845	1.6	328.0	Vert	PK	1.28E-07	-38.9	-16.0	-22.9	High Ch, EUT Vert
402.145	1.6	311.0	Vert	PK	1.14E-07	-39.4	-16.0	-23.4	Low Ch, EUT Vert
404.850	1.1	253.9	Horz	PK	1.11E-07	-39.5	-16.0	-23.5	High Ch, EUT Vert
402.150	1.1	243.0	Horz	PK	1.06E-07	-39.7	-16.0	-23.7	Low Ch, EUT Vert
403.350	1.1	247.9	Horz	PK	8.07E-08	-40.9	-16.0	-24.9	Mid Ch, EUT Vert
403.350	1.2	37.1	Horz	PK	5.46E-08	-42.6	-16.0	-26.6	Mid Ch, EUT On Side
403.350	1.2	311.9	Horz	PK	4.34E-08	-43.6	-16.0	-27.6	Mid Ch, EUT Horz
403.350	1.6	303.0	Vert	PK	1.40E-08	-48.5	-16.0	-32.5	Mid Ch, EUT On Side
403.345	1.7	324.0	Vert	PK	3.07E-09	-55.1	-16.0	-39.1	Mid Ch, EUT Horz

# RADIATED POWER (EIRP)



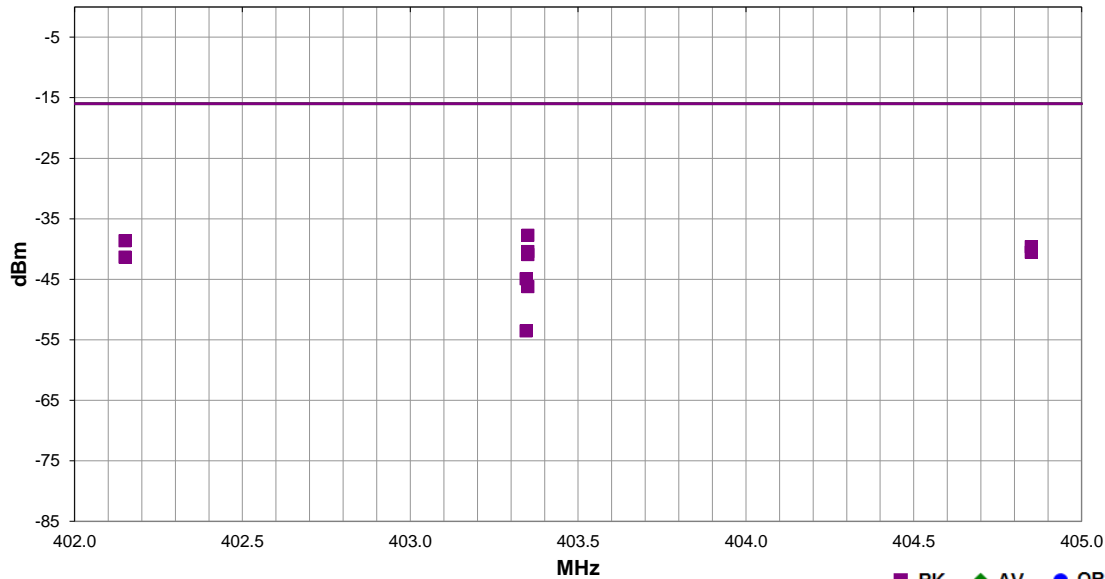
EmiRS 2018.03.06.1

PSA-ESCI 2018.03.06

<b>Work Order:</b>	BSTN0835	<b>Date:</b>	16-May-2018	<i>Kyle McMullan</i>
<b>Project:</b>	None	<b>Temperature:</b>	22.9 °C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	37.5% RH	
<b>Serial Number:</b>	750522	<b>Barometric Pres.:</b>	1018 mbar	<b>Tested by:</b> Kyle McMullan
<b>EUT:</b>	Ingenio 2			
<b>Configuration:</b>	3			
<b>Customer:</b>	Boston Scientific Corporation			
<b>Attendees:</b>	Tracy Seppelt			
<b>EUT Power:</b>	Battery			
<b>Operating Mode:</b>	Tx CW on Low, Mid, or High Ch at 402.15, 403.35, or 404.85 MHz.			
<b>Deviations:</b>	None			
<b>Comments:</b>	None			

<b>Test Specifications</b>	<b>Test Method</b>
FCC 95I:2018	ANSI C63.26:2015

<b>Run #</b>	33	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1 to 4(m)	<b>Results</b>	Pass
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Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
403.350	1.6	326.9	Vert	PK	1.69E-07	-37.7	-16.0	-21.7	Mid Ch, EUT Vert
402.150	1.6	308.9	Vert	PK	1.37E-07	-38.6	-16.0	-22.6	Low Ch, EUT Vert
404.850	1.6	310.0	Vert	PK	1.09E-07	-39.6	-16.0	-23.6	High Ch, EUT Vert
403.350	1.1	250.9	Horz	PK	9.06E-08	-40.4	-16.0	-24.4	Mid Ch, EUT Vert
404.850	1.1	245.0	Horz	PK	8.85E-08	-40.5	-16.0	-24.5	High Ch, EUT Vert
403.350	1.2	20.0	Horz	PK	8.07E-08	-40.9	-16.0	-24.9	Mid Ch, EUT On Side
402.150	1.1	250.9	Horz	PK	7.36E-08	-41.3	-16.0	-25.3	Low Ch, EUT Vert
403.345	1.6	301.9	Vert	PK	3.21E-08	-44.9	-16.0	-28.9	Mid Ch, EUT On Side
403.350	1.2	311.0	Horz	PK	2.38E-08	-46.2	-16.0	-30.2	Mid Ch, EUT Horz
403.345	1.6	71.0	Vert	PK	4.44E-09	-53.5	-16.0	-37.5	Mid Ch, EUT Horz