Axonics Modulation Technologies, Inc.

Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)

FCC 95I:2017

MedRadio

Report # AXON0097.2 Rev. 1

NVLAP Lab Code: 200676-0

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CERTIFICATE OF TEST

Last Date of Test: November 9, 2017
Axonics Modulation Technologies, Inc.
Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)

Radio Equipment Testing

Standards

Specification	Method
FCC 95I:2017	ANSI C63.26:2015

Results

Method Clause	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:

Victor Ratinoff, 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		
01	Removed test plan.	2019-06-04	57-89

ACCREDITATIONS AND AUTHORIZATIONS

2017.6.12

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

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.

European Union

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

Australia/New Zealand

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

Korea

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

Japan

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

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.

Singapore

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

Israel

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

Hong Kong

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

Vietnam

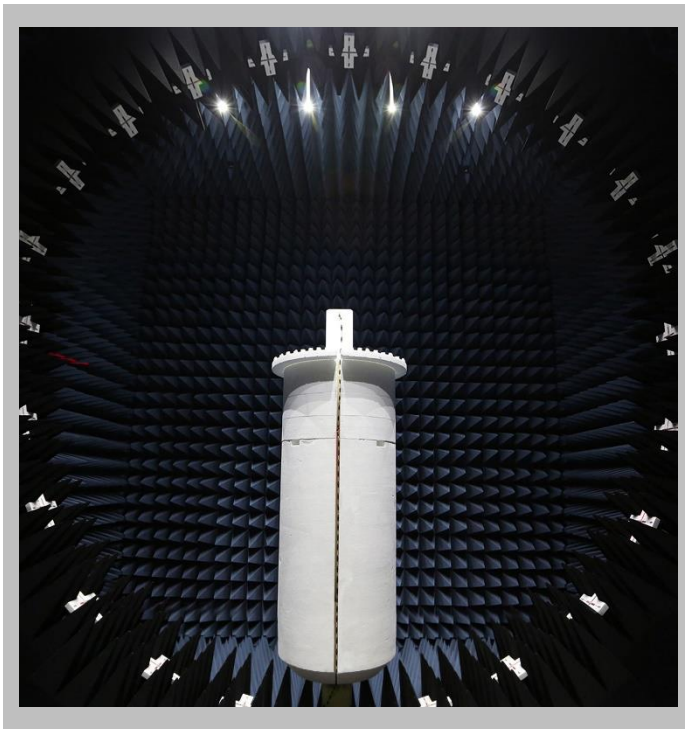
MIC – Recognized by MIC as a CAB for the acceptance of test data.

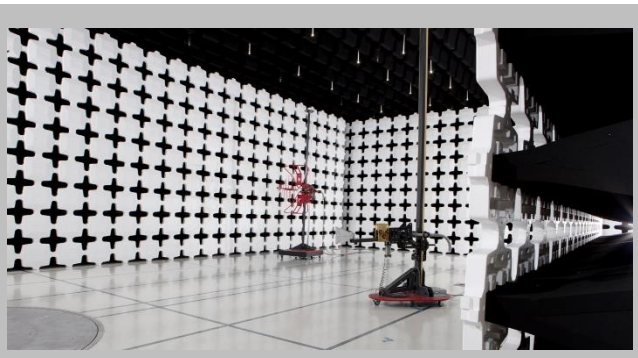
SCOPE

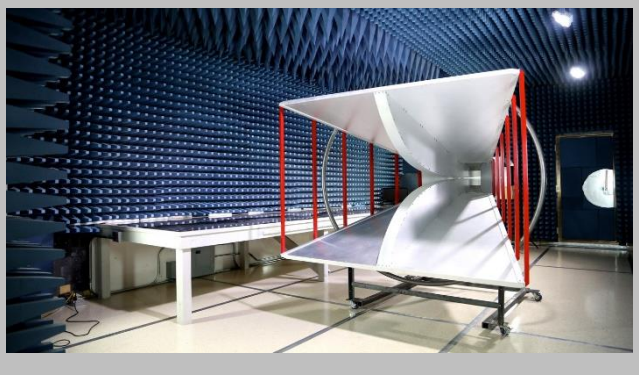
For details on the Scopes of our Accreditations, please visit:
http://portlandcustomer.element.com/ts/scope/scope.htm
http://gsi.nist.gov/global/docs/cabs/designations.html

FACILITIES

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
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
Innovation, Science and Economic Development Canada					
2834B-1, 2834B-3	2834E-1, 2834E-3	N/A	2834D-1, 2834D-2	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157







MEASUREMENT UNCERTAINTY

TMU.2015.07.10

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.

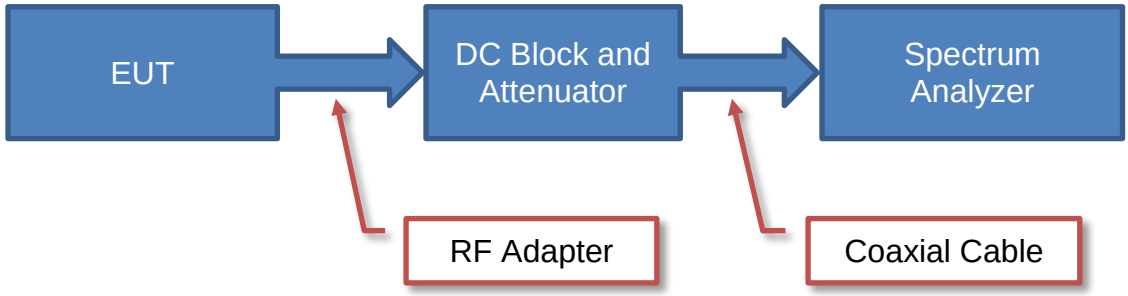
A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable 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.

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

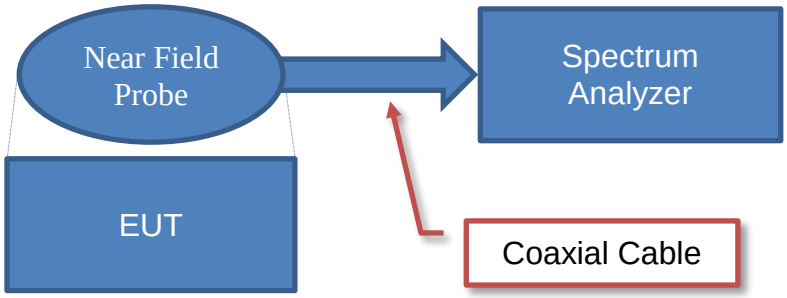
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

Test Setup Block Diagrams

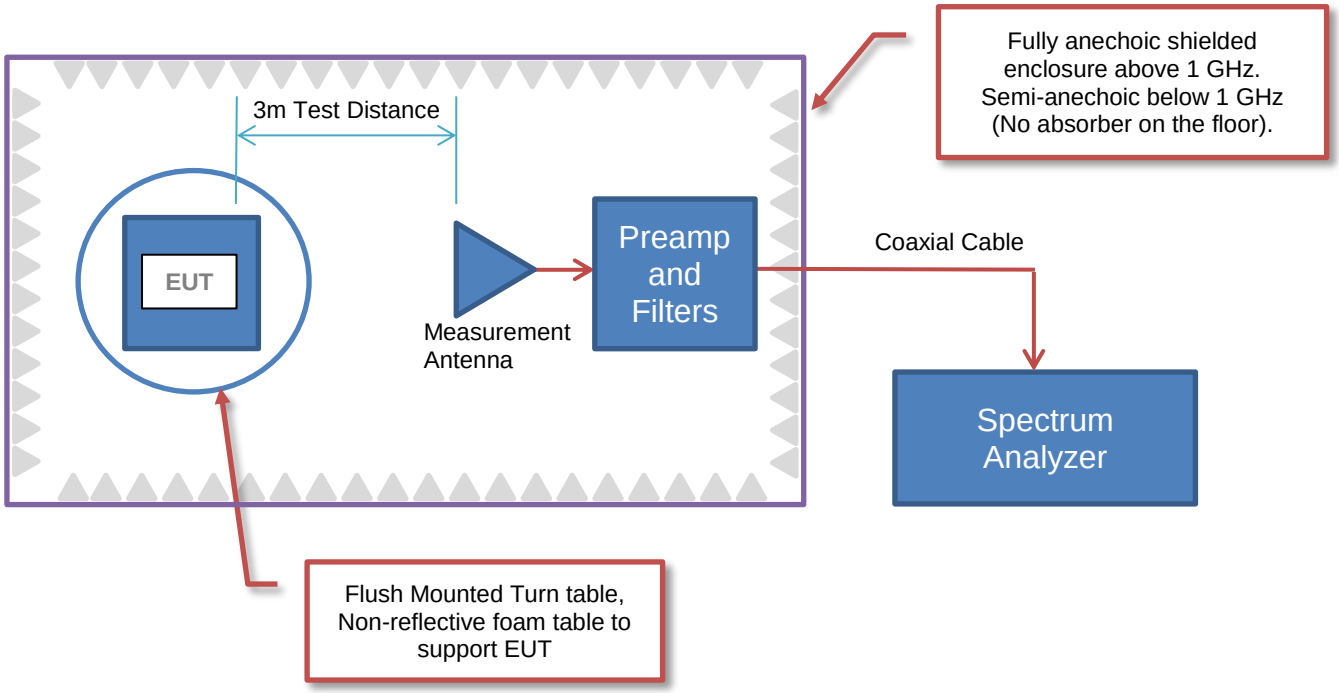
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Axonics Modulation Technologies, Inc.
Address:	7575 Irvine Center Drive Suite 200
City, State, Zip:	Irvine, CA 92618
Test Requested By:	Franklin Portillo
Model:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)
First Date of Test:	November 2, 2017
Last Date of Test:	November 9, 2017
Receipt Date of Samples:	October 19, 2017
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Clinician Programmer (CP): a tablet computer (battery operated and wall outlet) used by a clinician to program the EPG/IPG The CP generates stimulation pulses which are transferred to the region of therapy by foramen needle via a J-clip or by a Quadripolar tined lead via a Stimulation Test cable.

Testing Objective:
Seeking FCC authorization for the MedRadio transmitter to FCC Part 95I.

CONFIGURATIONS

Configuration AXON0097- 27

Software/Firmware Running during test	
Description	**Version**
Firmware	CP-282-ST-48-RF-42

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Clinician Programmer	Axonics Modulation Technologies, Inc.	2501	AC1C870004
AC/DC Power Supply	Power Box	XM 30 5009	151700033

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Ground Pad Cable X 2	No	2.0m	No	Clinician Programmer	Saline
EMG Cable X 4	No	2.0m	No	Clinician Programmer	Saline
Foramen Cable	No	2.0m	No	Clinician Programmer	Foramen Needle (unterminated)
DC Power	No	2.0m	No	AC/DC Power Supply	Clinician Programmer
Stim Cable	No	2.0m	No	Clinician Programmer	Lead (unterminated)

Configuration AXON0097- 28

Software/Firmware Running during test	
Description	**Version**
Firmware	CP-282-ST-48-RF-42

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Clinician Programmer	Axonics Modulation Technologies, Inc.	2501	AC1C870004

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Ground Pad Cable X 2	No	2.0m	No	Clinician Programmer	Saline
EMG Cable X 4	No	2.0m	No	Clinician Programmer	Saline
Foramen Cable	No	2.0m	No	Clinician Programmer	Foramen Needle (unterminated)
Stim Cable	No	2.0m	No	Clinician Programmer	Lead (unterminated)

CONFIGURATIONS

Configuration AXON0097- 29

Software/Firmware Running during test	
Description	**Version**
Firmware	CP-282-ST-48-RF-42

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Clinician Programmer (SMA)	Axonics Modulation Technologies, Inc.	2501	AC1C870003

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
DC Power Source	Not provided	Not provided	Not provided

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	11/2/2017	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	11/3/2017	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.
3	11/7/2017	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.
4	11/7/2017	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	11/7/2017	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.
6	11/7/2017	Spurious Conducted 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.
7	11/8/2017	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.
8	11/9/2017	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.
9	11/9/2017	Radiated Power (EIRP)	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

EMISSIONS BANDWIDTH

XMit 2017.09.21

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
Generator - Signal	Agilent	E8257D	TGU	5-Feb-15	5-Feb-18
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	6-Mar-17	6-Mar-18
Block - DC	Aeroflex	INMET 8535	AMO	27-Mar-17	27-Mar-18
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	28-Jan-17	28-Jan-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

TbtTx 2017.10.04 XMit 2017.09.21

EUT:	**Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)**	**Work Order:**	**AXON0097**
Serial Number:	**AC1C870003**	**Date:**	**7-Nov-17**
Customer:	**Axonics Modulation Technologies, Inc.**	**Temperature:**	**20.9 °C**
Attendees:	**Franklin Portillo**	**Humidity:**	**49.7% RH**
Project:	**None**	**Barometric Pres.:**	**1021 mbar**
Tested by:	**Johnny Candelas**	**Power:** **7.6VDC**	**Job Site:** **OC13**

TEST SPECIFICATIONS	**Test Method**
FCC 95I:2017	ANSI C63.26:2015

COMMENTS

DC Block + 20dB Attenuator + Coax Cable = 20.95dB Total Offset
Power Transmit Index = 33

DEVIATIONS FROM TEST STANDARD

None

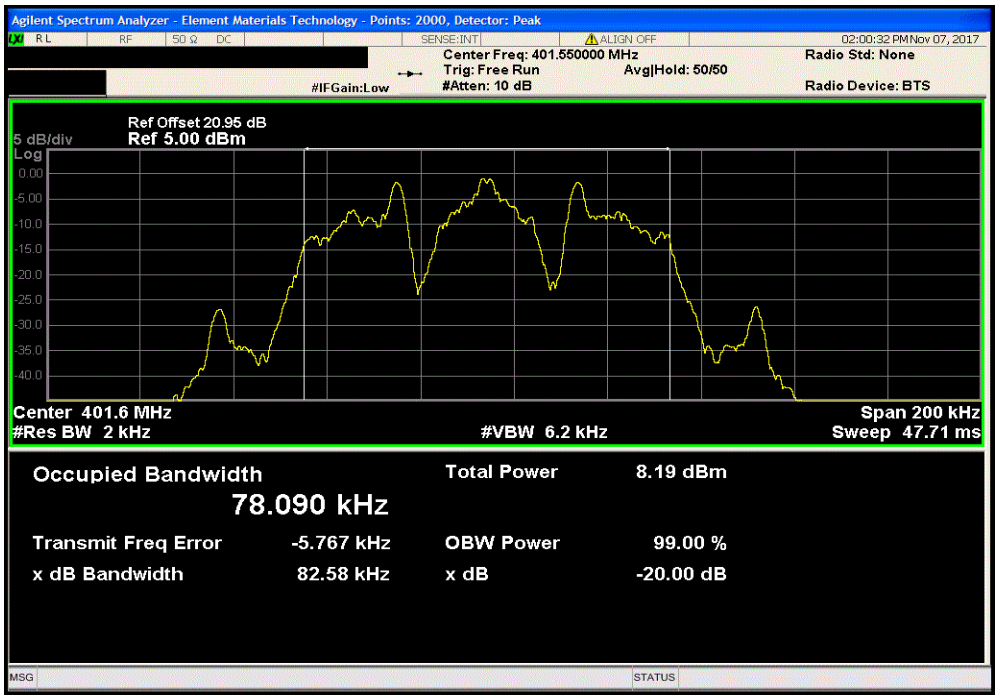
Configuration #	**29**	*Signature*

	Value	**Limit (≤)**	**Result**
MEDS Low Band, Mid Channel, 401.55 MHz	82.582 kHz	100 kHz	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	127.432 kHz	300 kHz	Pass
MEDS High Band, Mid Channel, 405.55 MHz	82.758 kHz	100 kHz	Pass

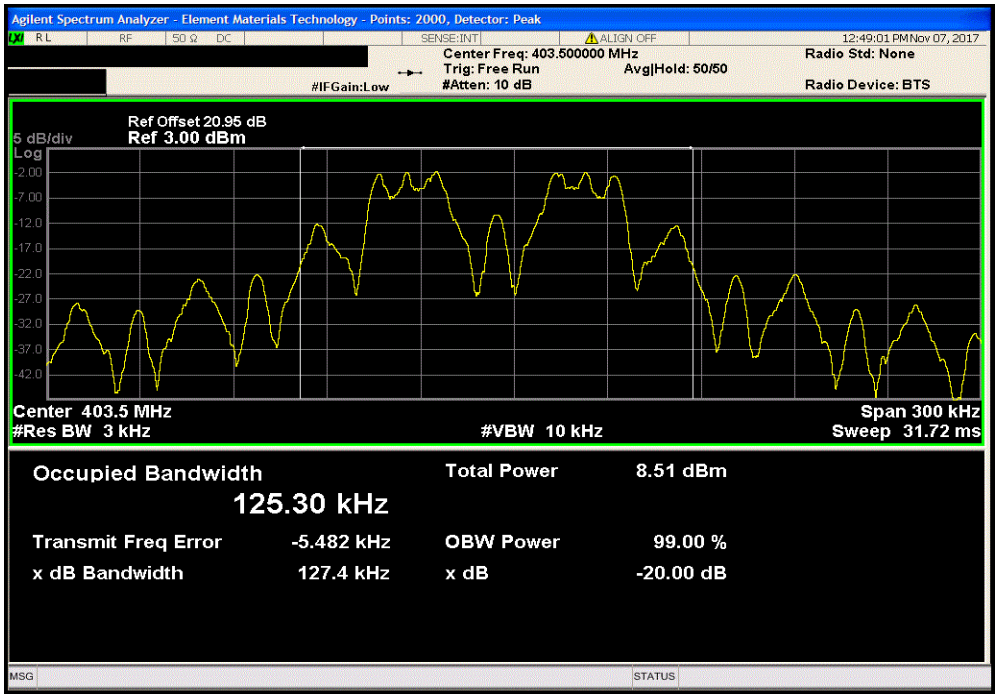
EMISSIONS BANDWIDTH

TbtTx 2017.10.04 XMit 2017.09.21

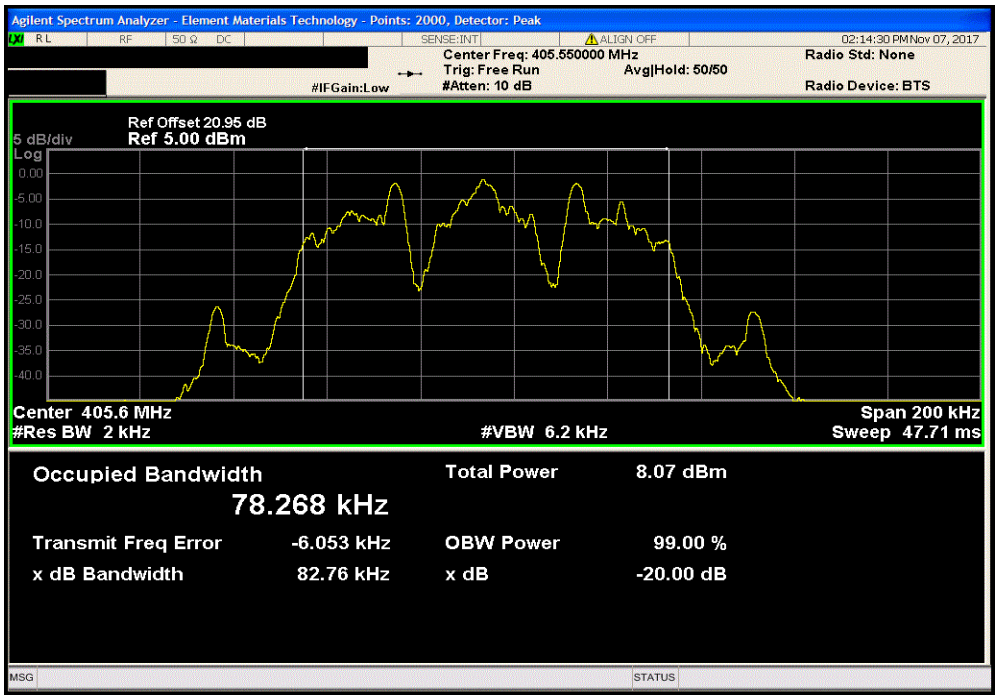
MEDS Low Band, Mid Channel, 401.55 MHz						
				Value	Limit (≤)	Result
				82.582 kHz	100 kHz	Pass



MICS Mid Band, Mid Channel, 403.5 MHz						
				Value	Limit (≤)	Result
				127.432 kHz	300 kHz	Pass



MEDS High Band, Mid Channel, 405.55 MHz						
				Value	Limit (≤)	Result
				82.758 kHz	100 kHz	Pass



EMISSIONS MASK

XMit 2017.09.21

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
Generator - Signal	Agilent	E8257D	TGU	5-Feb-15	5-Feb-18
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	6-Mar-17	6-Mar-18
Block - DC	Aeroflex	INMET 8535	AMO	27-Mar-17	27-Mar-18
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	28-Jan-17	28-Jan-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

TbtTx 2017.10.04 XMit 2017.09.21

EUT:	**Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)**	**Work Order:**	**AXON0097**
Serial Number:	**AC1C870003**	**Date:**	**7-Nov-17**
Customer:	**Axonics Modulation Technologies, Inc.**	**Temperature:**	**20.9 °C**
Attendees:	**Franklin Portillo**	**Humidity:**	**49.7% RH**
Project:	**None**	**Barometric Pres.:**	**1021 mbar**
Tested by:	**Johnny Candelas**	**Power:** **7.6VDC**	**Job Site:** **OC13**

TEST SPECIFICATIONS	**Test Method**
FCC 95I:2017	ANSI C63.26:2015

COMMENTS

DC Block + 20dB Attenuator + Coax Cable = 20.95dB Total Offset
Power Transmit Index = 33

DEVIATIONS FROM TEST STANDARD

None

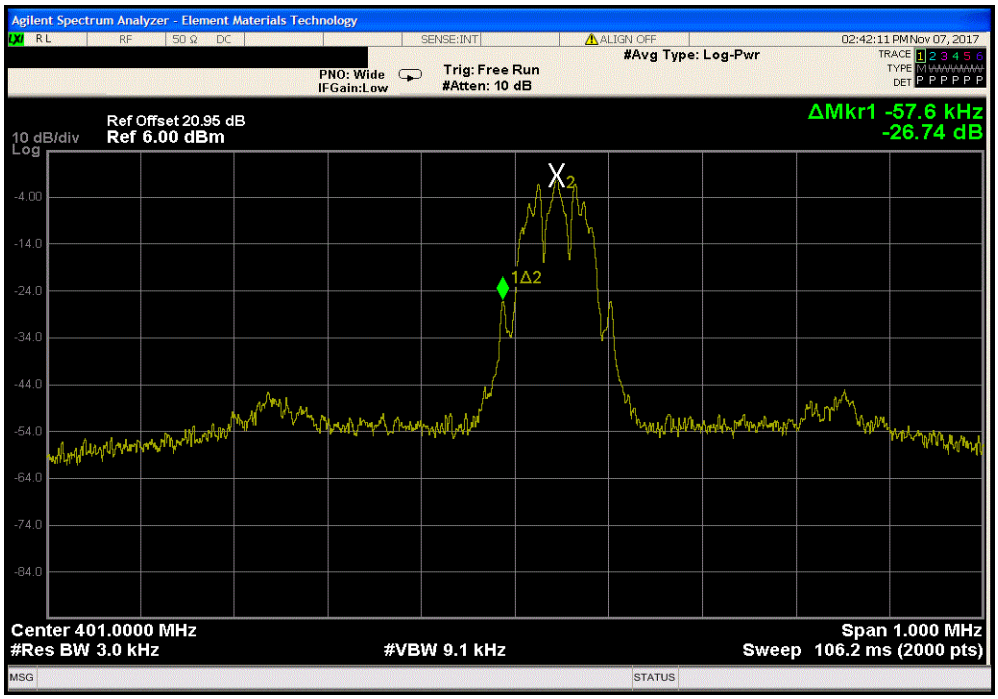
Configuration #	**29**	*Signature*

	Value (dBc)	**Limit ≤ (dBc)**	**Result**
MEDS Low Band, Low Channel, 401.05 MHz	-26.74	-20	Pass
MEDS Low Band, High Channel, 401.85 MHz	-43.87	-20	Pass
MICS Mid Band, Low Channel, 402.3 MHz	-40.25	-20	Pass
MICS Mid Band, High Channel, 404.7 MHz	-40.66	-20	Pass
MEDS High Band, Low Channel, 405.05 MHz	-26.12	-20	Pass
MEDS High Band, High Channel, 405.85 MHz	-45.93	-20	Pass

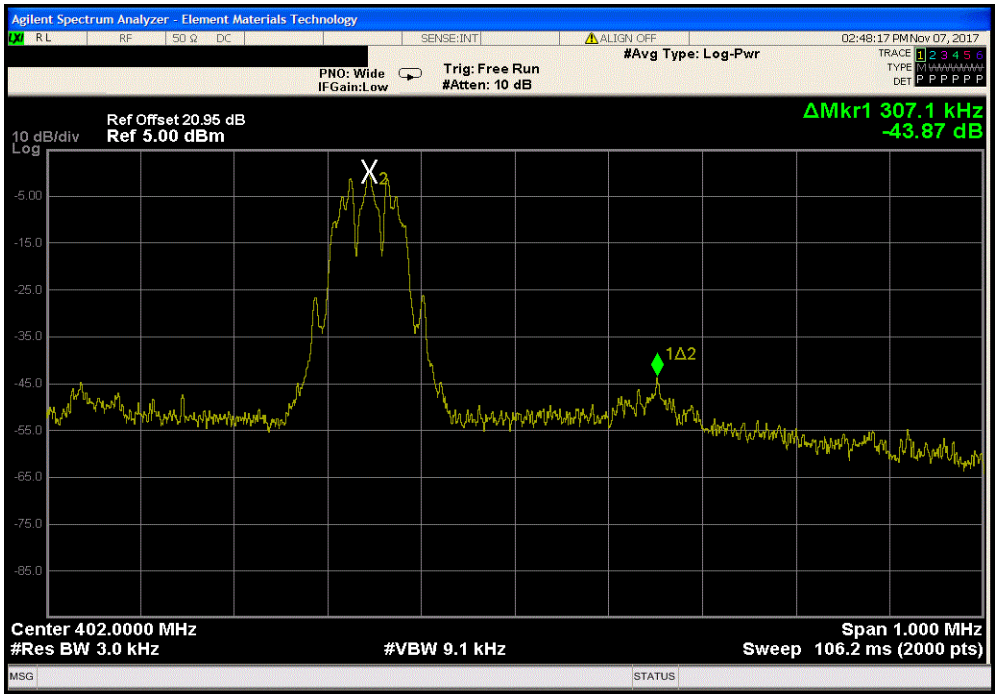
EMISSIONS MASK

TbtTx 2017.10.04 XMit 2017.09.21

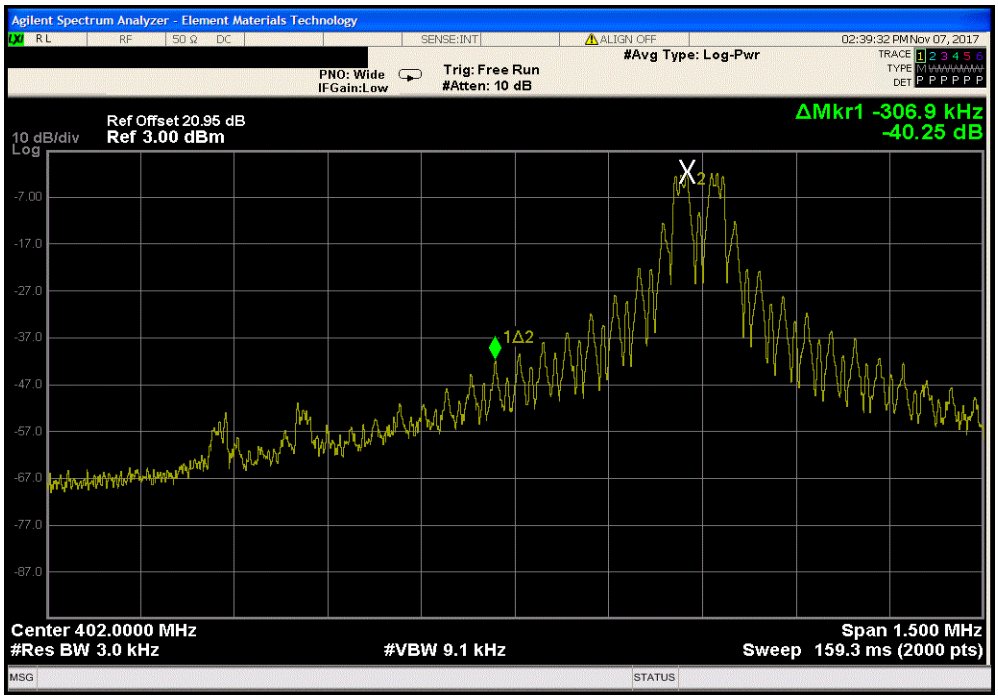
MEDS Low Band, Low Channel, 401.05 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-26.74	-20	Pass



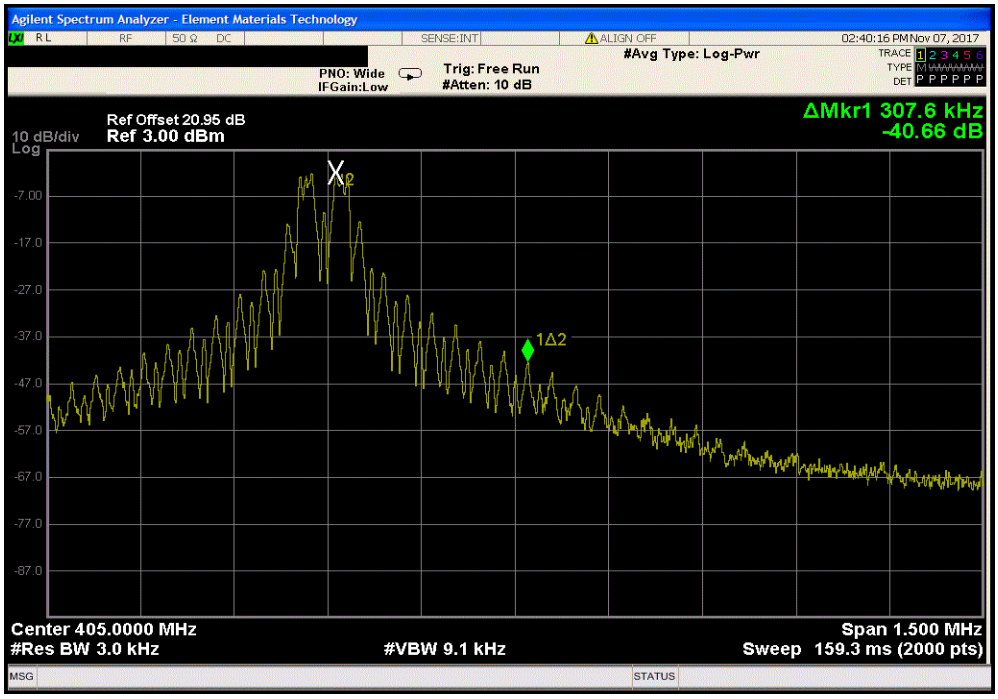
MEDS Low Band, High Channel, 401.85 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-43.87	-20	Pass



MICS Mid Band, Low Channel, 402.3 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-40.25	-20	Pass



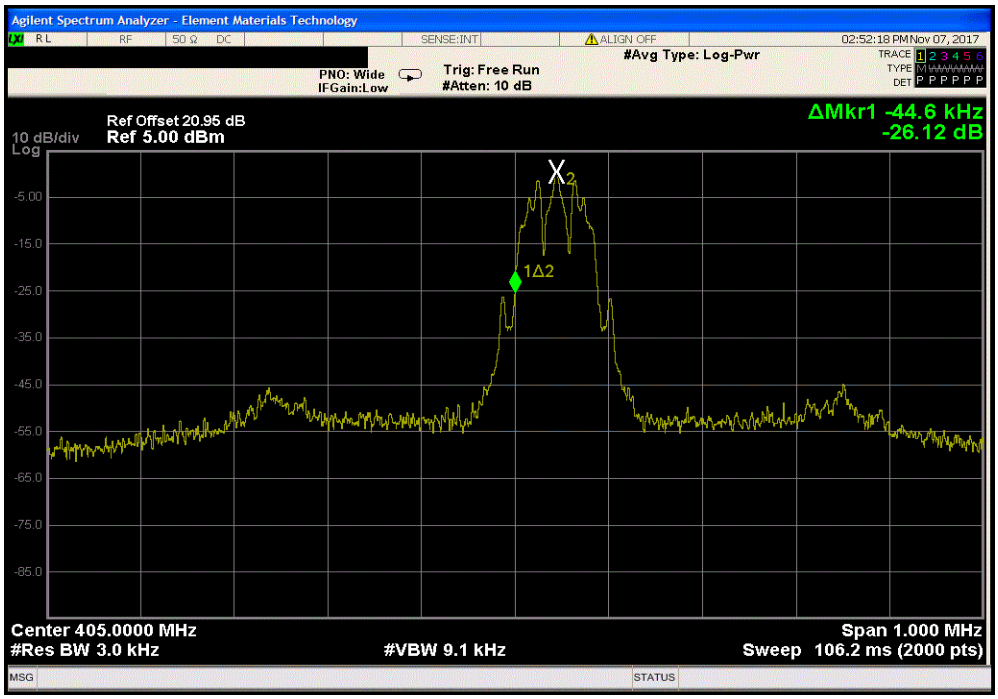
MICS Mid Band, High Channel, 404.7 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-40.66	-20	Pass



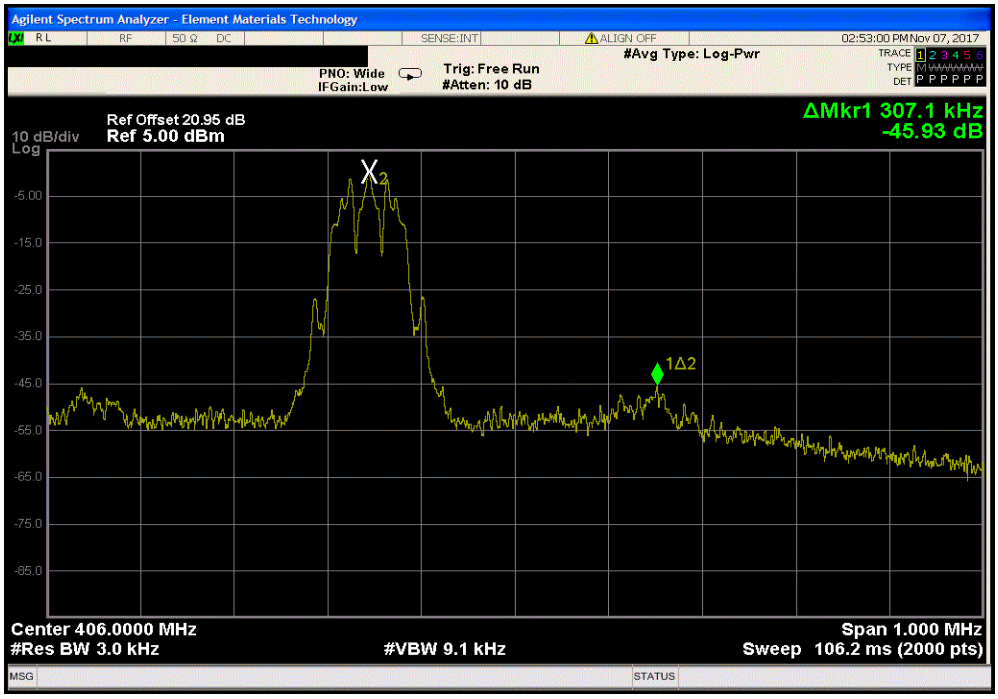
EMISSIONS MASK

TbtTx 2017.10.04 XMit 2017.09.21

MEDS High Band, Low Channel, 405.05 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-26.12	-20	Pass



MEDS High Band, High Channel, 405.85 MHz						
				Value (dBc)	Limit ≤ (dBc)	Result
				-45.93	-20	Pass



CONDUCTED OUTPUT POWER

XMit 2017.09.21

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
Generator - Signal	Agilent	E8257D	TGU	5-Feb-15	5-Feb-18
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	6-Mar-17	6-Mar-18
Block - DC	Aeroflex	INMET 8535	AMO	27-Mar-17	27-Mar-18
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	28-Jan-17	28-Jan-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.

CONDUCTED OUTPUT POWER

TbtTx 2017.10.04 XMit 2017.09.21

EUT:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)	Work Order:	AXON0097
Serial Number:	AC1C870003	Date:	7-Nov-17
Customer:	Axonics Modulation Technologies, Inc.	Temperature:	20.9 °C
Attendees:	Franklin Portillo	Humidity:	49.7% RH
Project:	None	Barometric Pres.:	1021 mbar
Tested by:	Johnny Candelas	Power: 7.6VDC	Job Site: OC13

TEST SPECIFICATIONS	Test Method
FCC 95I:2017	ANSI C63.26:2015

COMMENTS

DC Block + 20dB Attenuator + Coax Cable = 20.95dB Total Offset
Power Transmit Index = 33

DEVIATIONS FROM TEST STANDARD

None

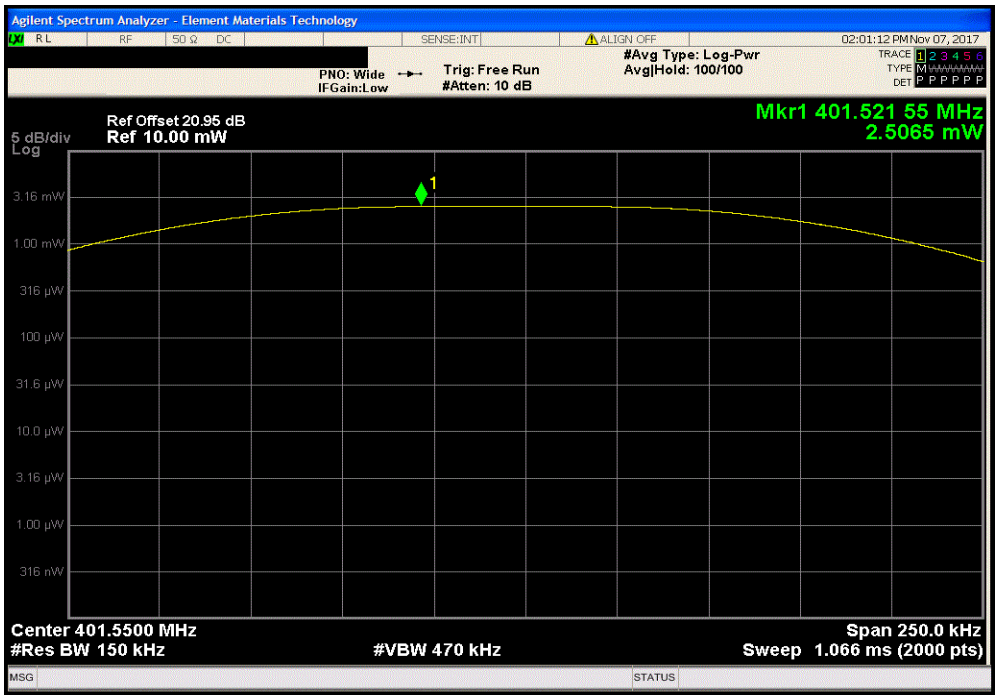
Configuration #	29	Signature

	Value	Limit	Result
MEDS Low Band, Mid Channel, 401.55 MHz	2.507 mW	N/A	N/A
MICS Mid Band, Mid Channel, 403.5 MHz	2.577 mW	N/A	N/A
MEDS High Band, Mid Channel, 405.55 MHz	2.419 mW	N/A	N/A

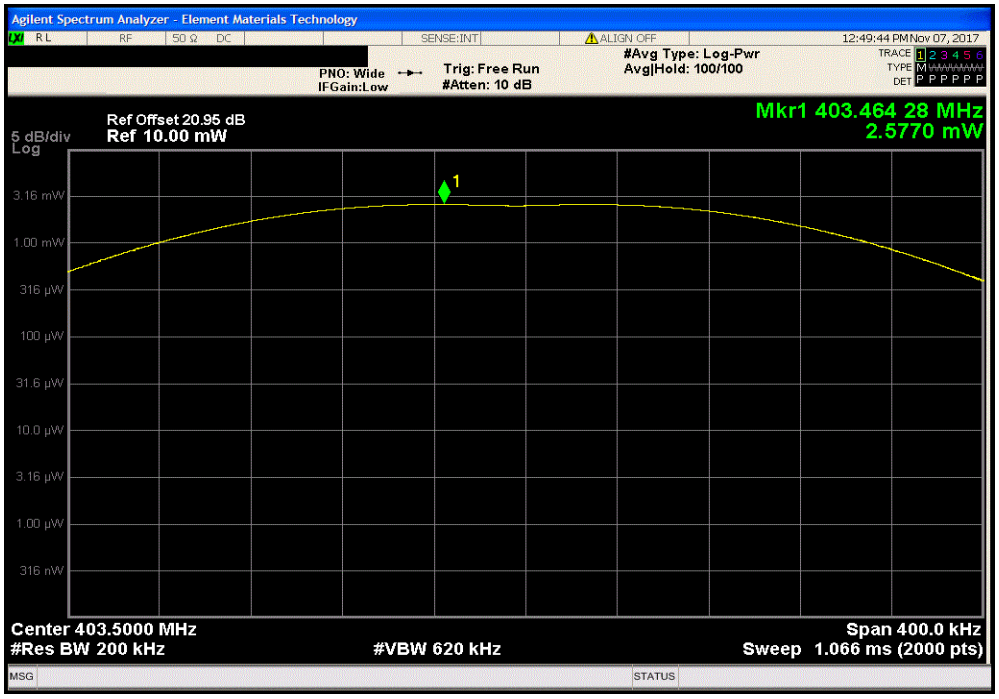
CONDUCTED OUTPUT POWER

TbtTx 2017.10.04 XMit 2017.09.21

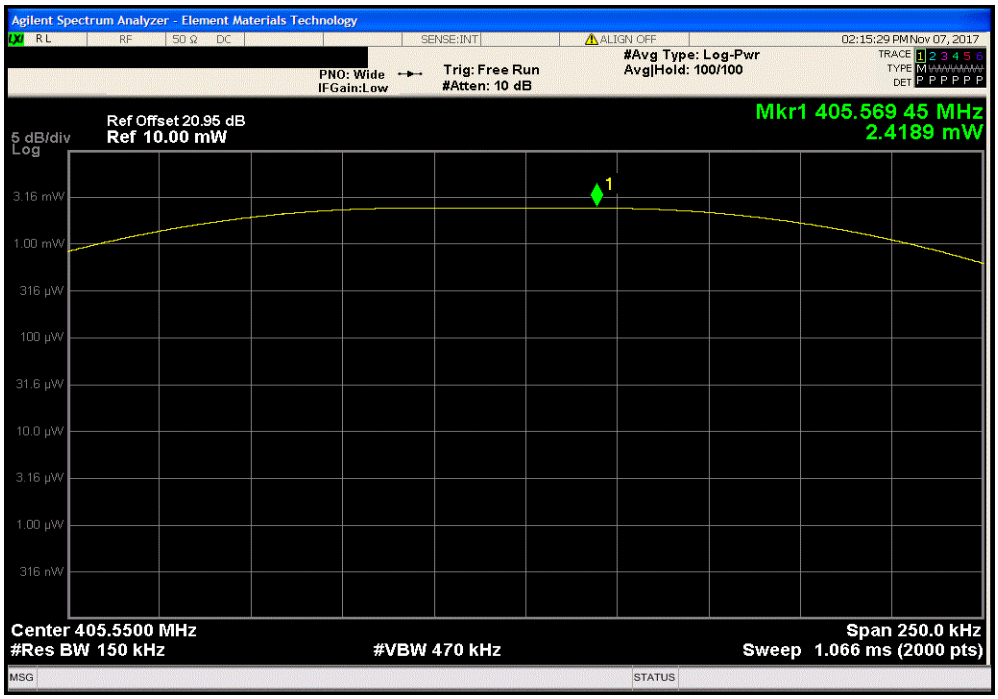
MEDS Low Band, Mid Channel, 401.55 MHz						
				Value	Limit	Result
				2.507 mW	N/A	N/A



MICS Mid Band, Mid Channel, 403.5 MHz						
				Value	Limit	Result
				2.577 mW	N/A	N/A



MEDS High Band, Mid Channel, 405.55 MHz						
				Value	Limit	Result
				2.419 mW	N/A	N/A



FREQUENCY STABILITY

XMit 2017.09.21

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	79 III	MMD	11-Feb-16	11-Feb-19
Thermometer	Omega Engineering, Inc.	HH311	DUC	9-Oct-17	9-Oct-20
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPHS-32-3.5-SCT/AC	TBE	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	5-Feb-15	5-Feb-18
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	6-Mar-17	6-Mar-18
Block - DC	Aeroflex	INMET 8535	AMO	27-Mar-17	27-Mar-18
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	28-Jan-17	28-Jan-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 over the range specified by the client. Per the client, the device only works over this voltage range; it will shut off if the voltage is outside the specified range.

Variation of Ambient Temperature

Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (0° to 55°C, in 10°C increments).

FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

EUT:	**Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)**	**Work Order:**	**AXON0097**
Serial Number:	**AC1C870003**	**Date:**	**8-Nov-17**
Customer:	**Axonics Modulation Technologies, Inc.**	**Temperature:**	**20.2 °C**
Attendees:	**Franklin Portillo**	**Humidity:**	**48.5% RH**
Project:	**None**	**Barometric Pres.:**	**1019 mbar**
Tested by:	**Johnny Candelas**	**Power:** **7.6VDC**	**Job Site:** **OC13**

TEST SPECIFICATIONS	**Test Method**
FCC 95I:2017	ANSI C63.26:2015

COMMENTS

DC Block + 20dB Attenuator + Coax Cable = 20.95dB Total Offset
Power Transmit Index = 33

DEVIATIONS FROM TEST STANDARD

None

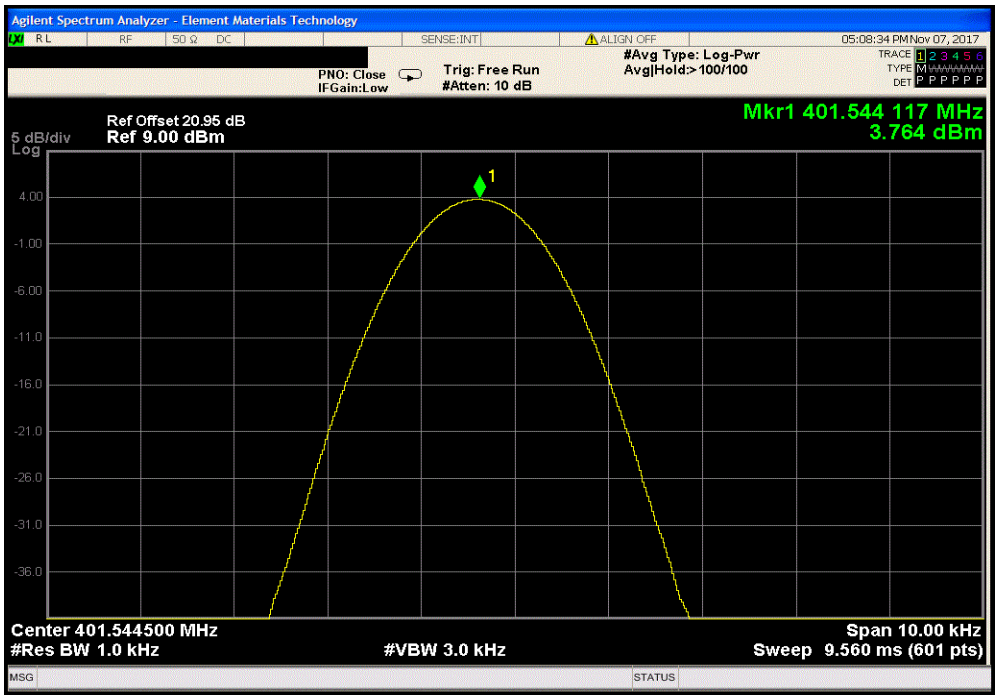
Configuration #	**29**	*Signature*

	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
Battery Nominal Voltage 7.6VDC					
MEDS Low Band, Mid Channel, 401.55 MHz	401.544	401.55	14.7	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.494	403.5	14.8	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.544	405.55	15.1	100	Pass
Extreme Battery Full Voltage 8.7VDC					
MEDS Low Band, Mid Channel, 401.55 MHz	401.544	401.55	14.7	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.494	403.5	14.8	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.544	405.55	15.2	100	Pass
Extreme Battery Shutdown Voltage 6.0VDC					
MEDS Low Band, Mid Channel, 401.55 MHz	401.544	401.55	14.7	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.494	403.5	14.8	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.544	405.55	15.2	100	Pass
Extreme Temperature +55°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.543	401.55	16.9	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.493	403.5	17.1	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.543	405.55	17.3	100	Pass
Extreme Temperature +50°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.543	401.55	17.3	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.493	403.5	17.5	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.543	405.55	17.7	100	Pass
Extreme Temperature +40°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.543	401.55	16.7	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.493	403.5	16.9	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.543	405.55	17.1	100	Pass
Extreme Temperature +30°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.544	401.55	15.3	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.494	403.5	15.5	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.544	405.55	15.7	100	Pass
Extreme Temperature +20°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.545	401.55	13.5	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.494	403.5	13.7	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.544	405.55	13.9	100	Pass
Extreme Temperature +10°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.545	401.55	12.0	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.495	403.5	12.1	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.545	405.55	12.4	100	Pass
Extreme Temperature 0°C					
MEDS Low Band, Mid Channel, 401.55 MHz	401.545	401.55	11.5	100	Pass
MICS Mid Band, Mid Channel, 403.5 MHz	403.495	403.5	11.7	100	Pass
MEDS High Band, Mid Channel, 405.55 MHz	405.545	405.55	11.9	100	Pass

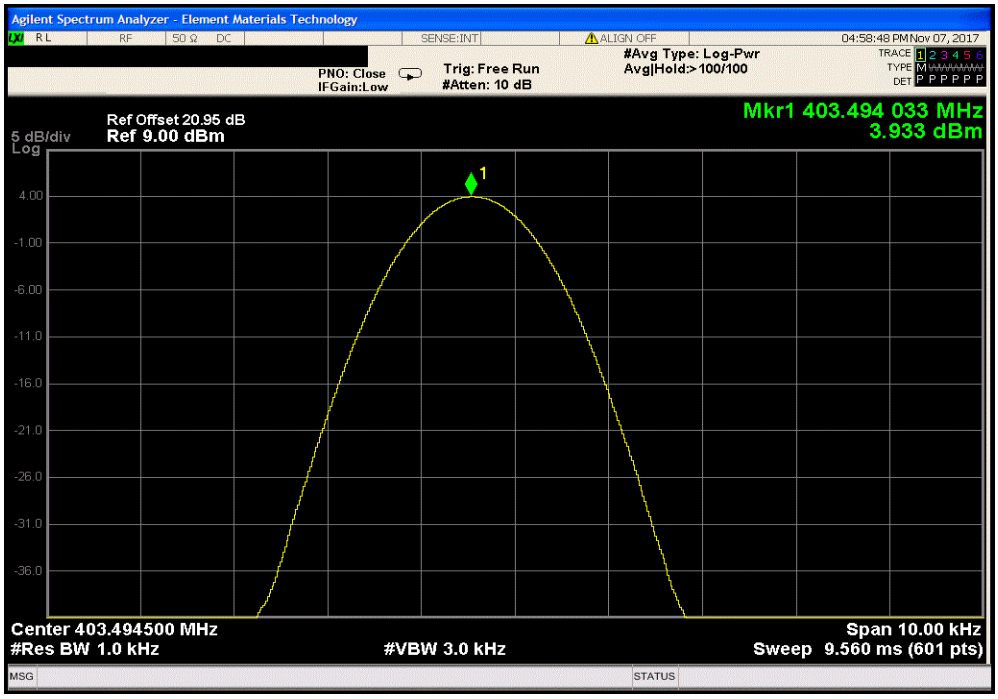
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Battery Nominal Voltage 7.6VDC, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.544	401.55	14.7	100	Pass



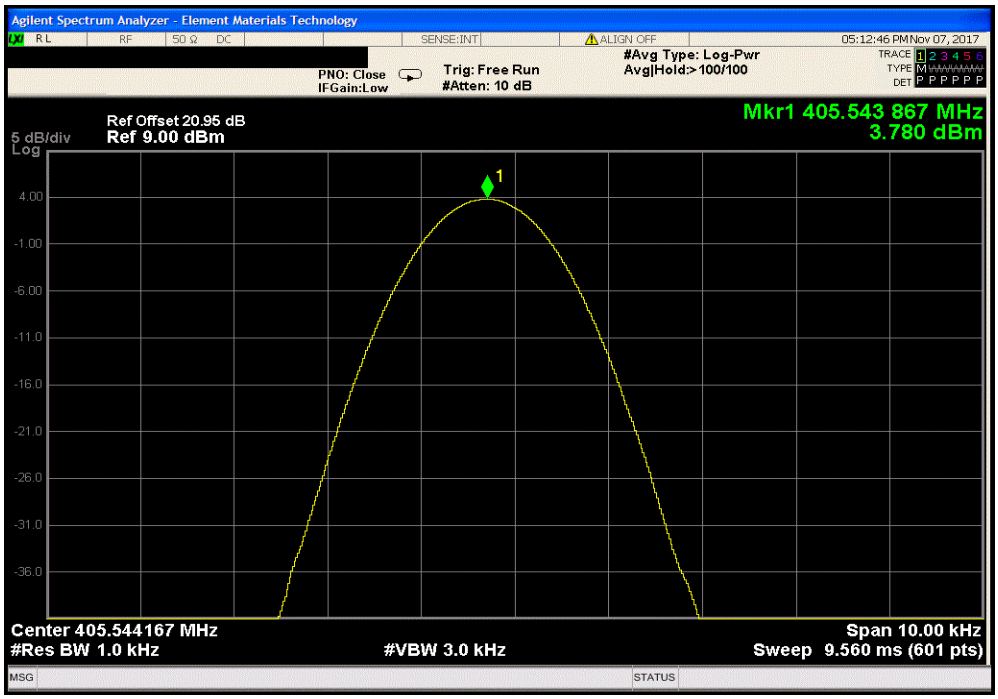
Battery Nominal Voltage 7.6VDC, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.494	403.5	14.8	100	Pass



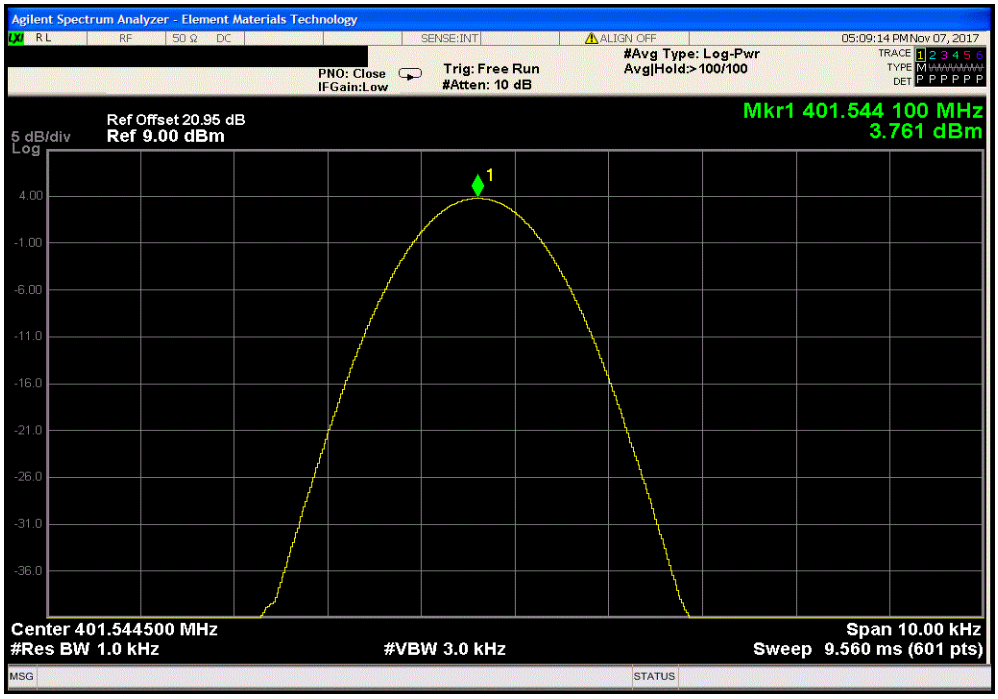
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Battery Nominal Voltage 7.6VDC, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.544	405.55	15.1	100	Pass



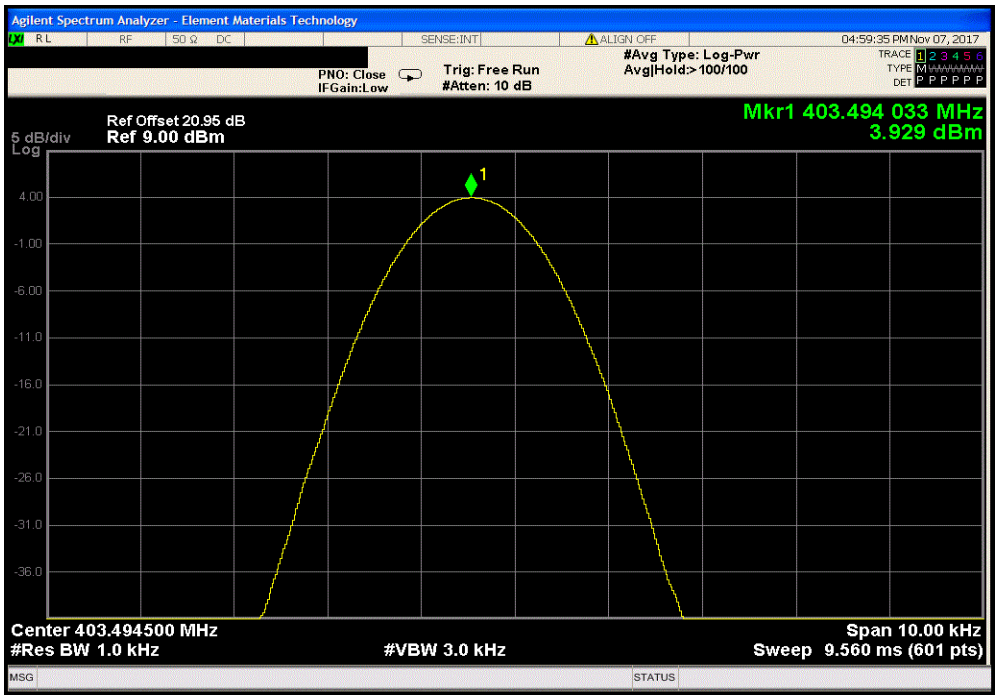
Extreme Battery Full Voltage 8.7VDC, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.544	401.55	14.7	100	Pass



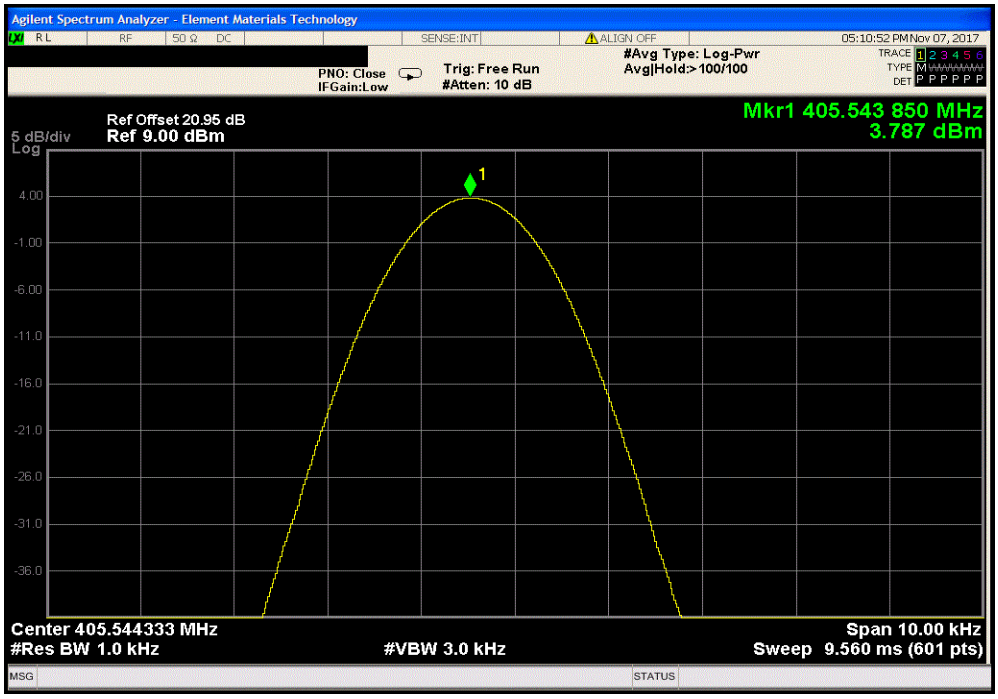
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Battery Full Voltage 8.7VDC, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.494	403.5	14.8	100	Pass



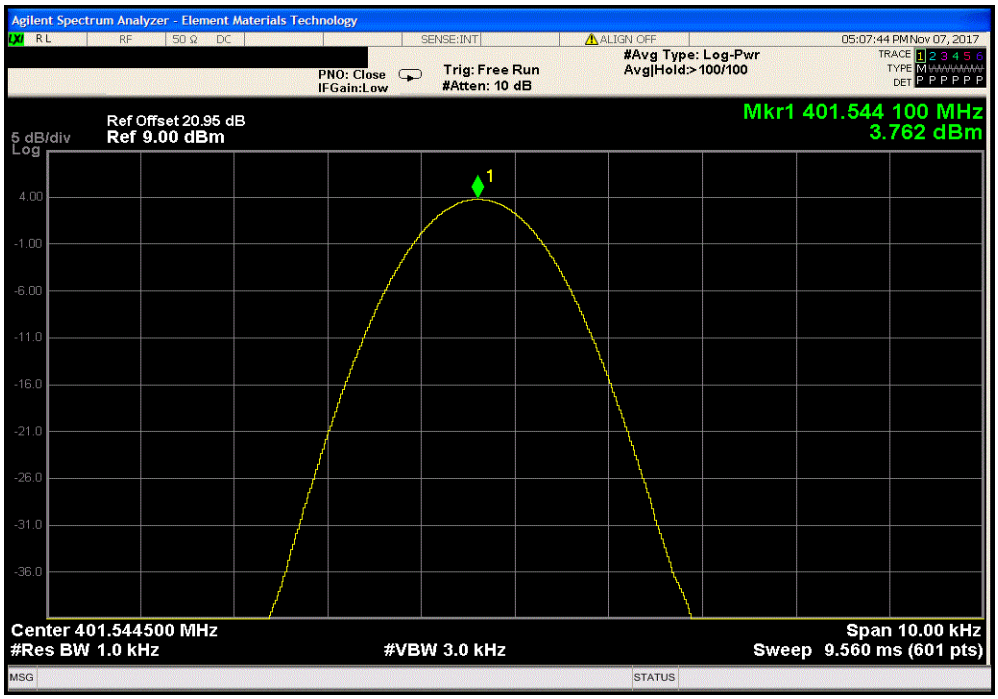
Extreme Battery Full Voltage 8.7VDC, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.544	405.55	15.2	100	Pass



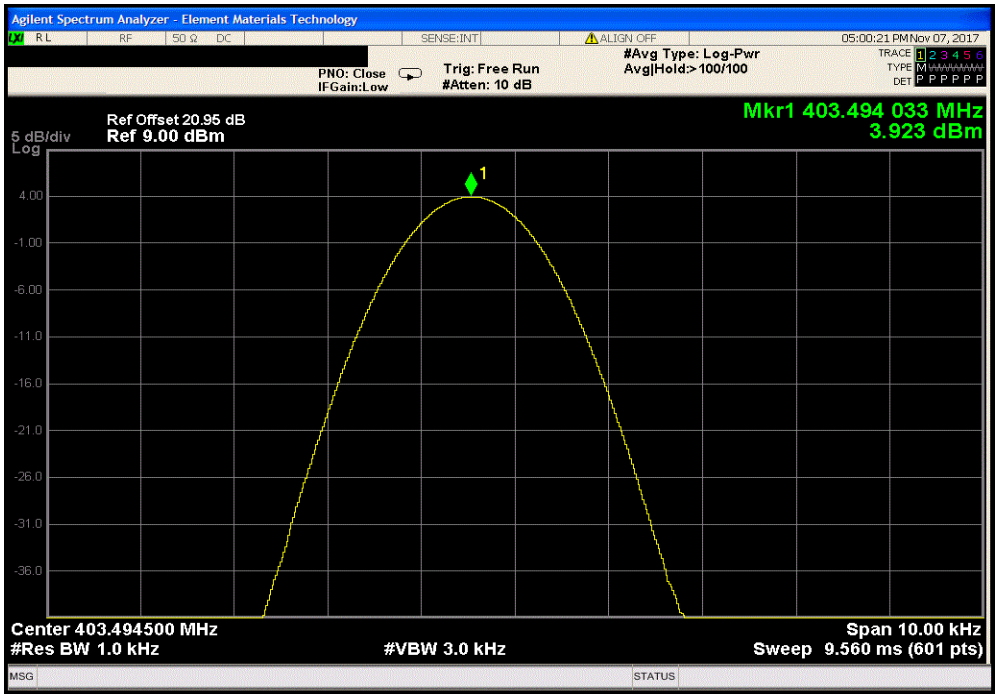
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Battery Shutdown Voltage 6.0VDC, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.544	401.55	14.7	100	Pass



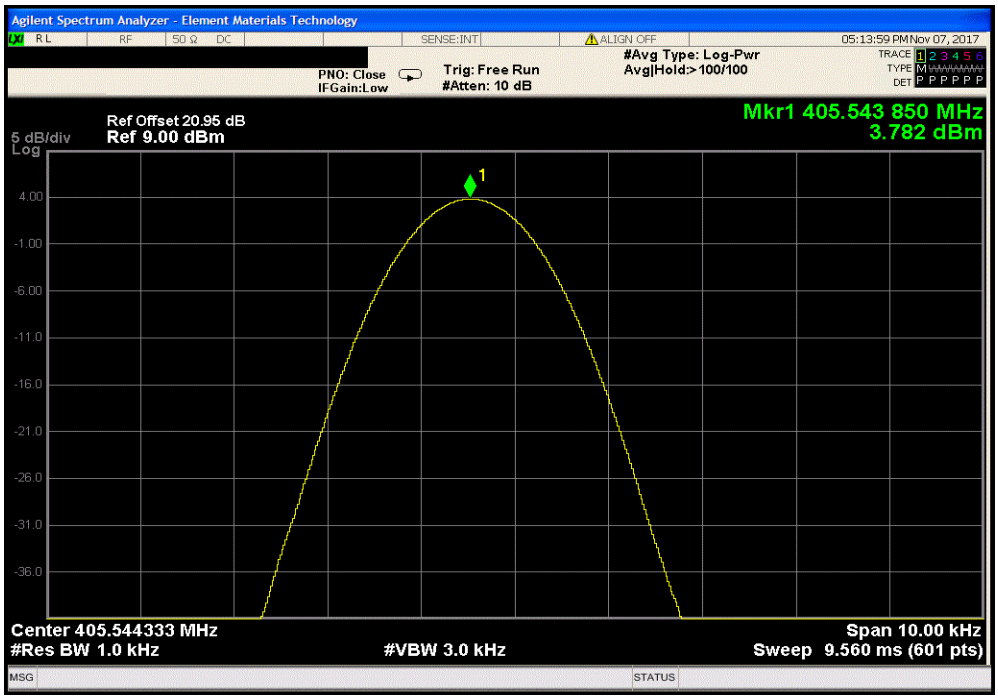
Extreme Battery Shutdown Voltage 6.0VDC, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.494	403.5	14.8	100	Pass



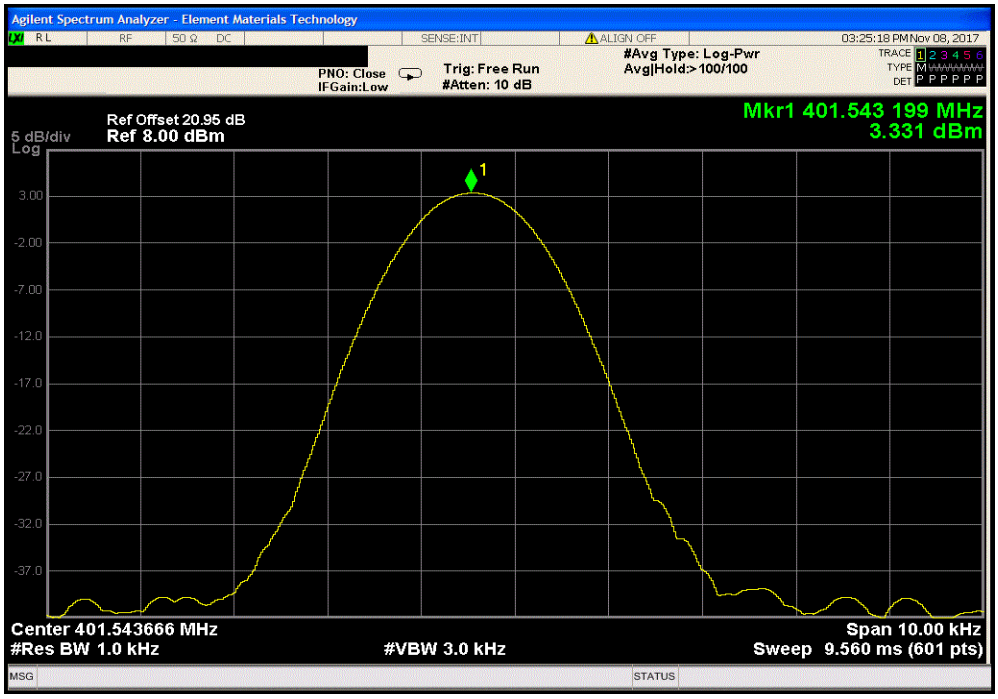
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Battery Shutdown Voltage 6.0VDC, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.544	405.55	15.2	100	Pass



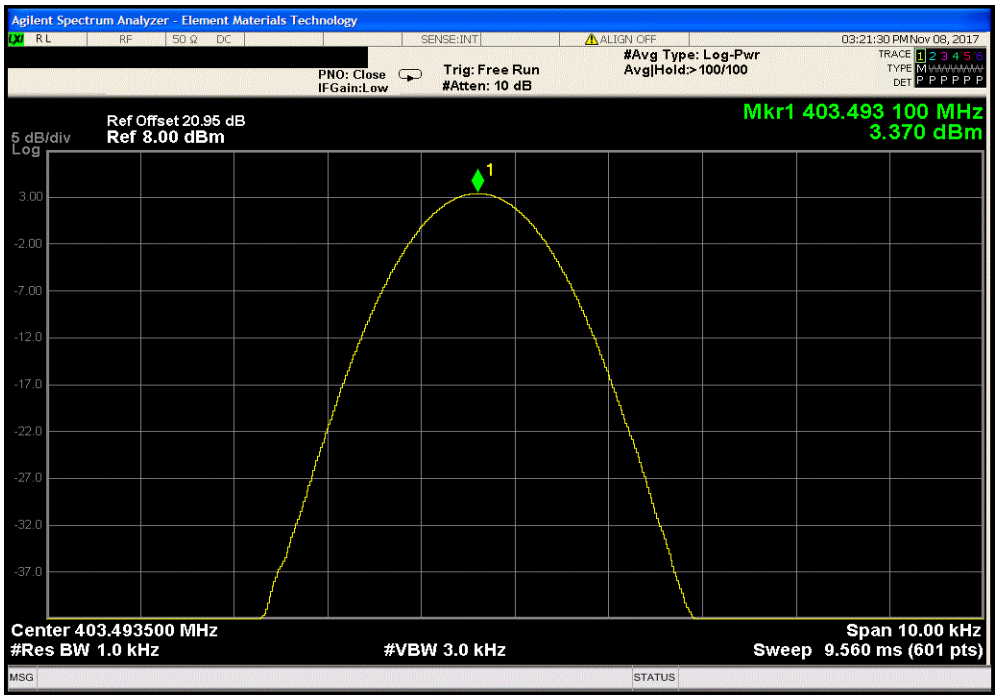
Extreme Temperature +55°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.543	401.55	16.9	100	Pass



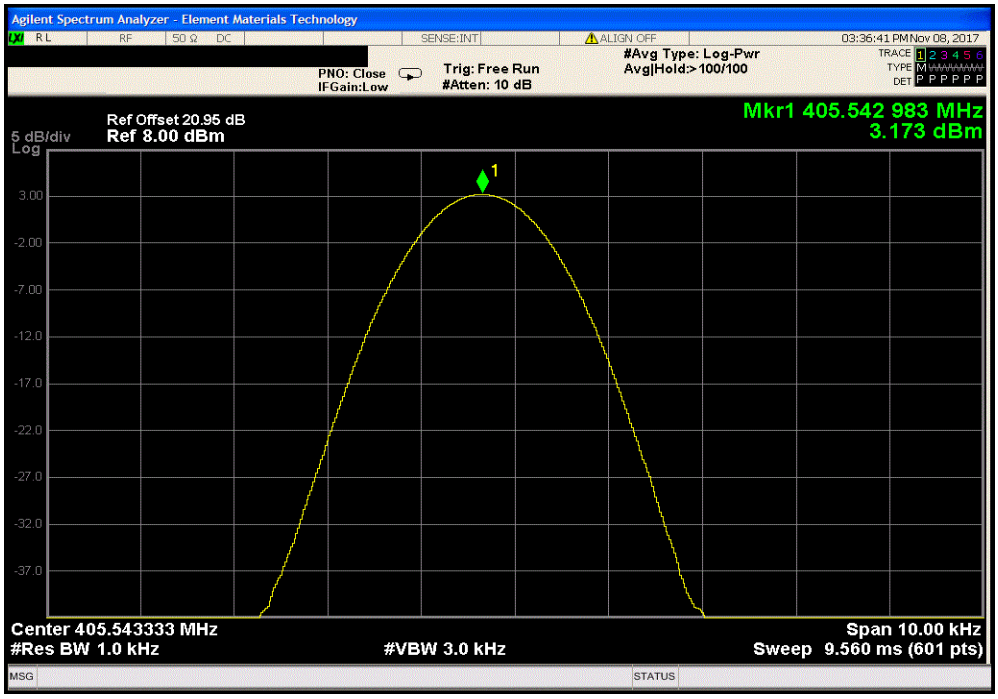
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +55°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.493	403.5	17.1	100	Pass



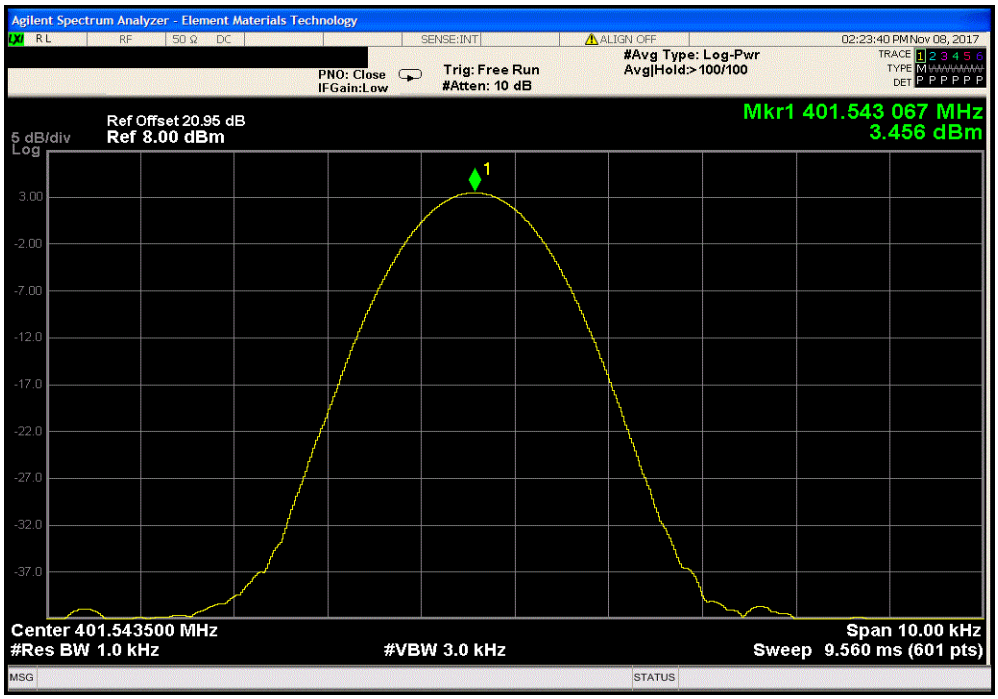
Extreme Temperature +55°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.543	405.55	17.3	100	Pass



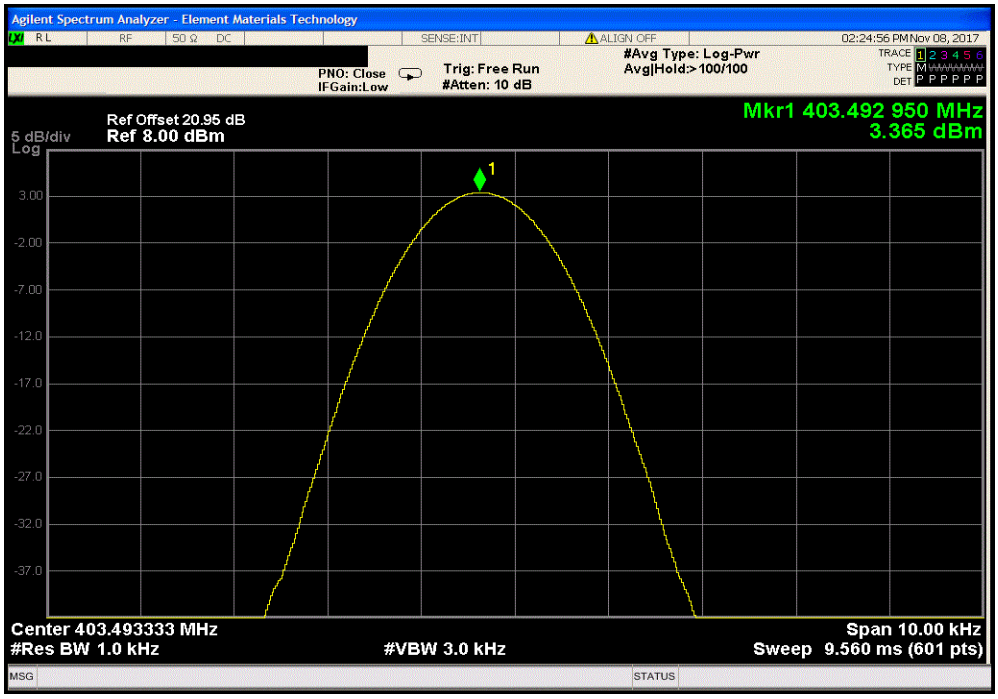
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +50°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.543	401.55	17.3	100	Pass



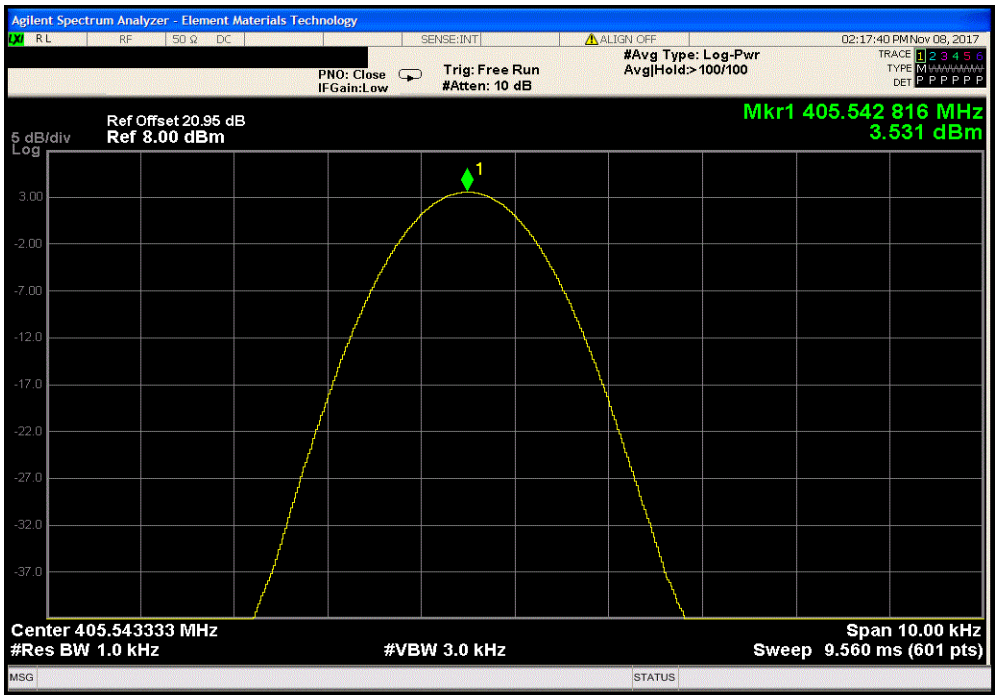
Extreme Temperature +50°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.493	403.5	17.5	100	Pass



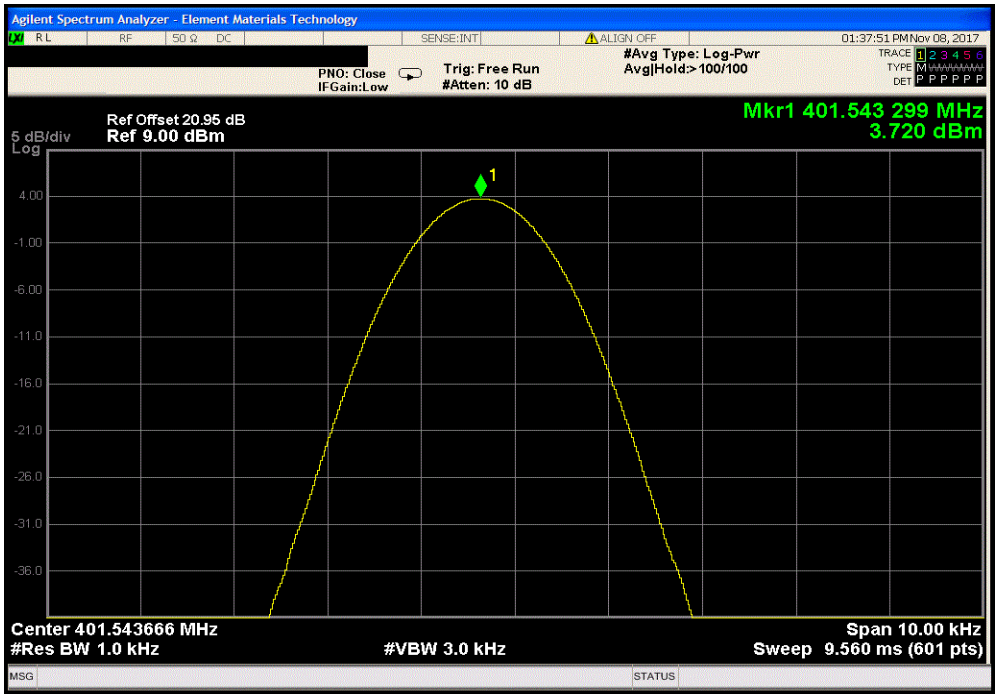
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

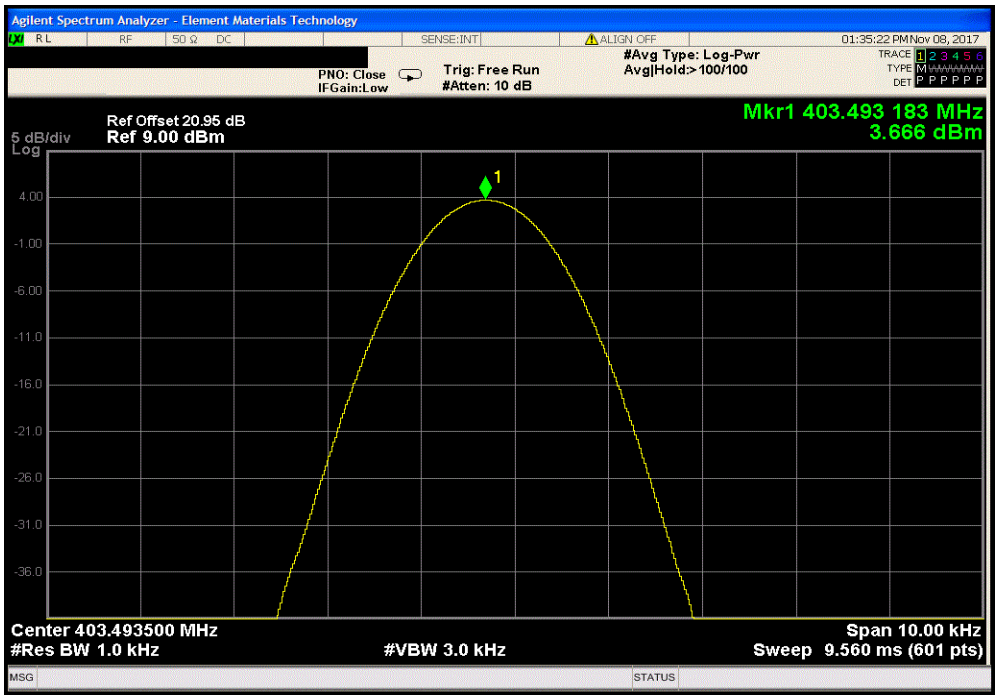
Extreme Temperature +50°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.543	405.55	17.7	100	Pass



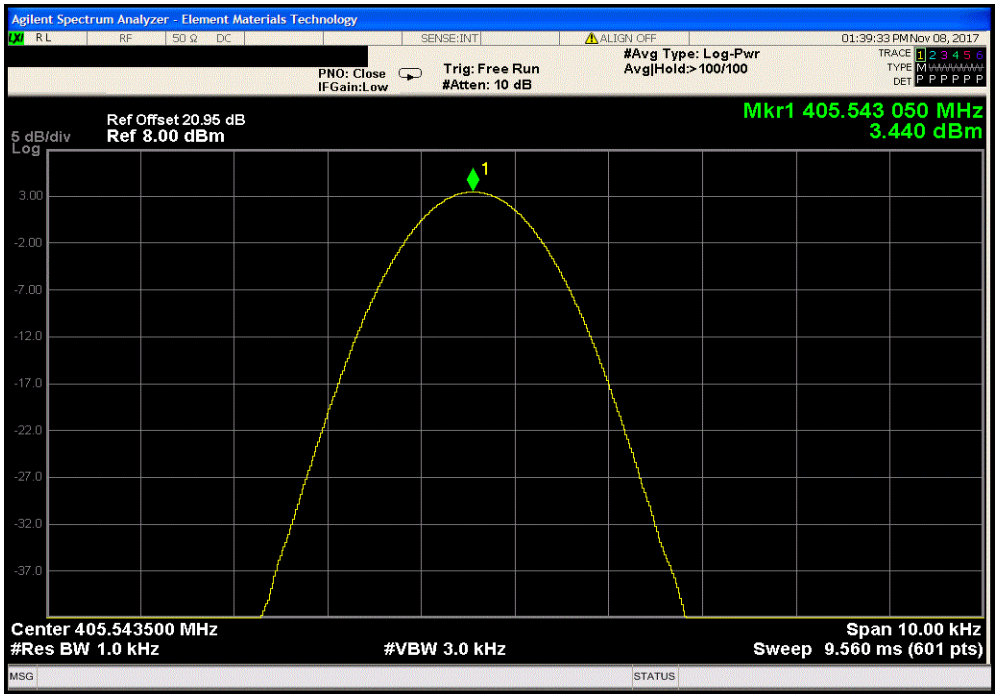
Extreme Temperature +40°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.543	401.55	16.7	100	Pass



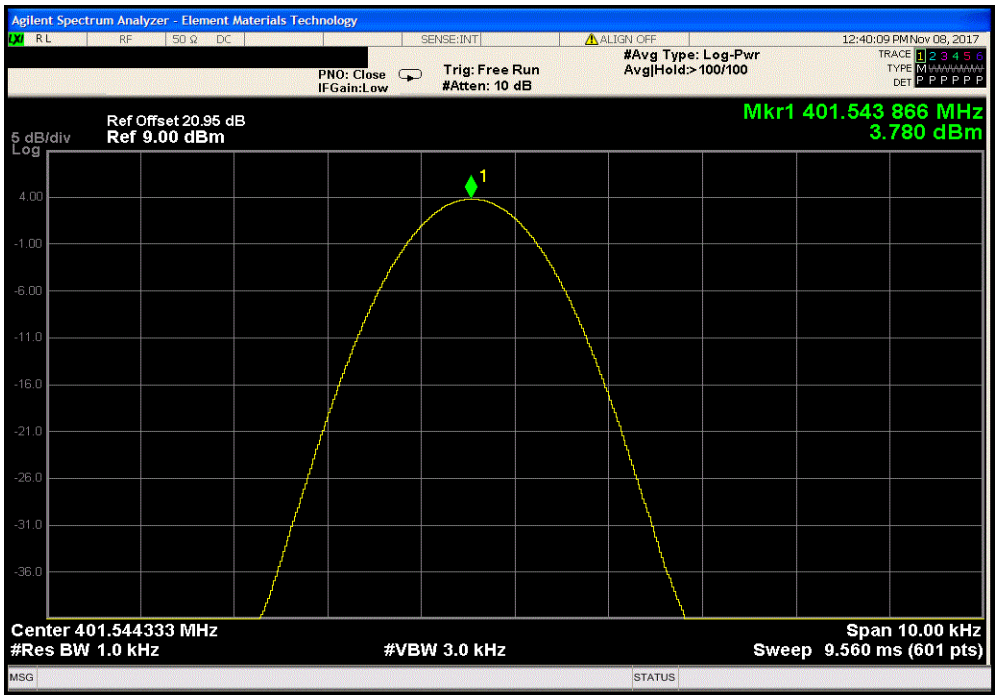
Extreme Temperature +40°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.493	403.5	16.9	100	Pass



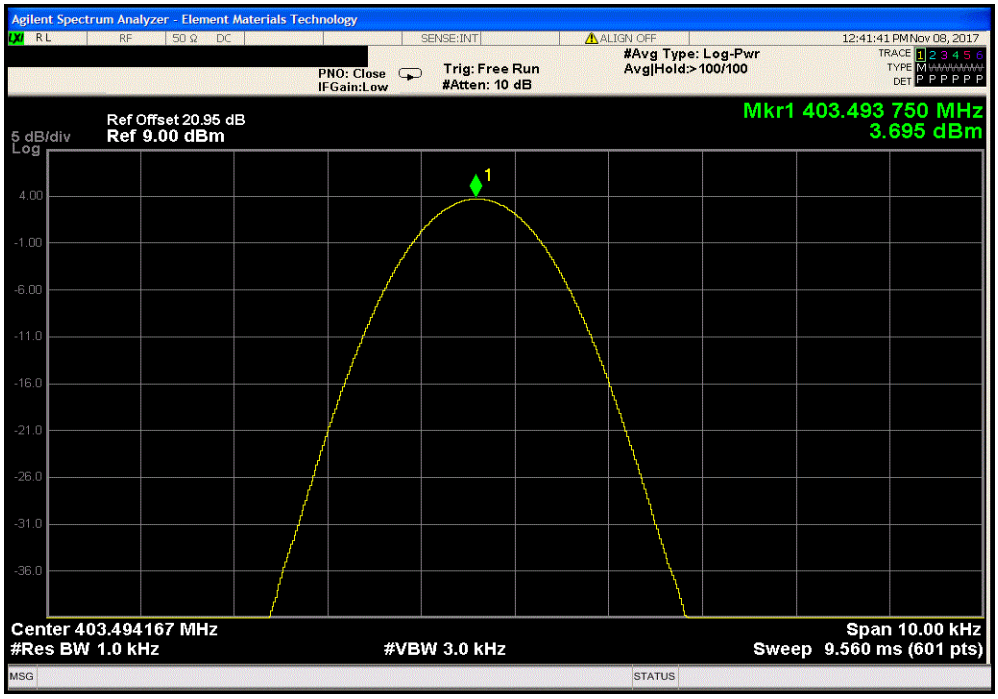
Extreme Temperature +40°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.543	405.55	17.1	100	Pass



Extreme Temperature +30°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.544	401.55	15.3	100	Pass



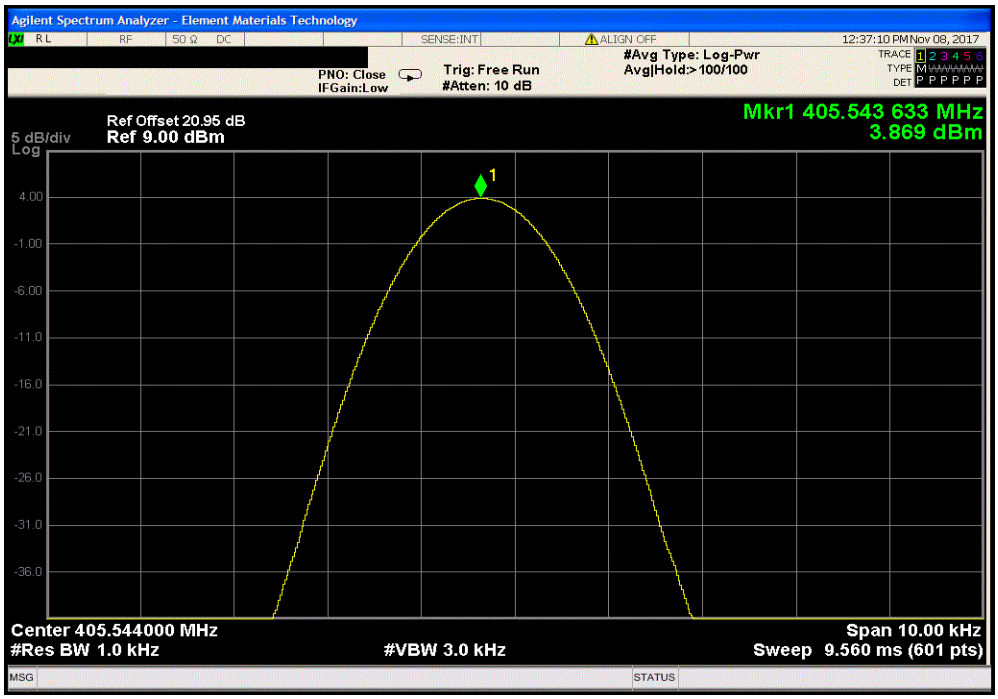
Extreme Temperature +30°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.494	403.5	15.5	100	Pass



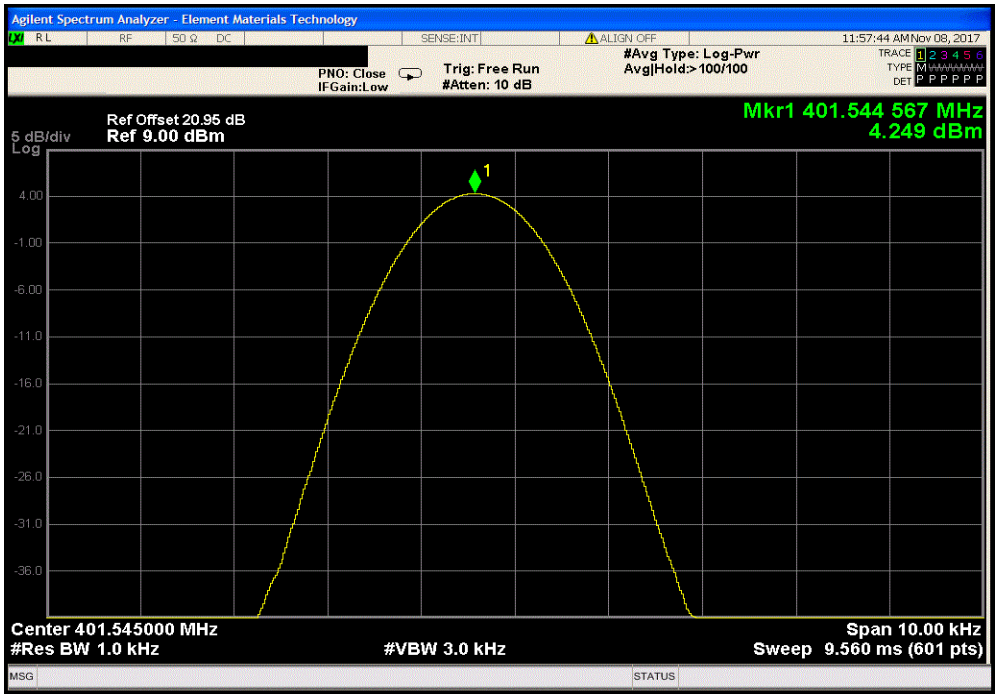
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +30°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.544	405.55	15.7	100	Pass



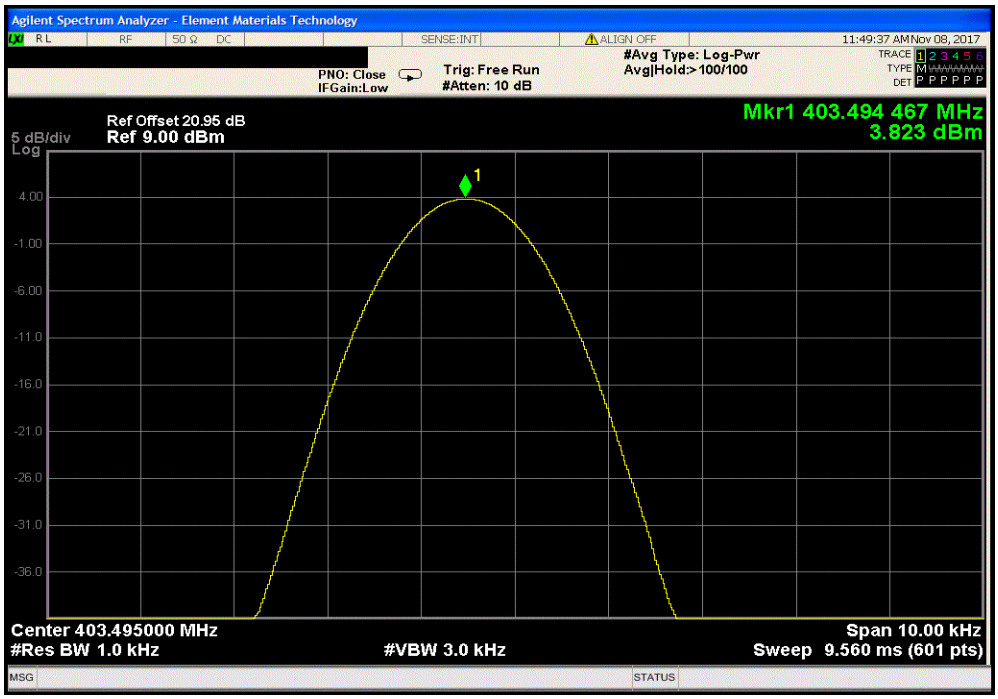
Extreme Temperature +20°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.545	401.55	13.5	100	Pass



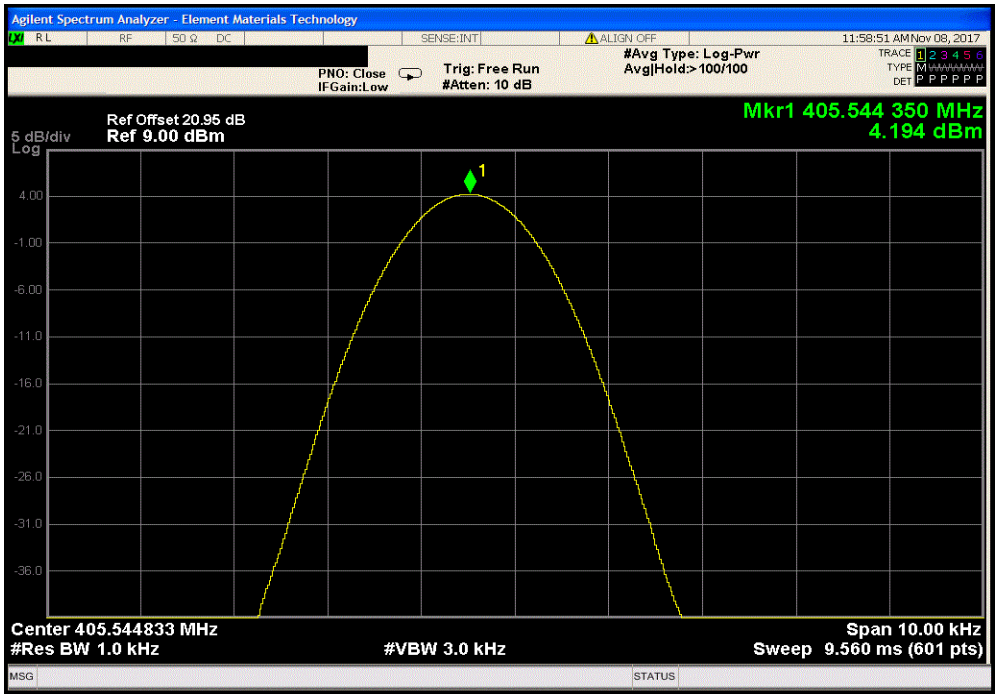
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +20°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.494	403.5	13.7	100	Pass



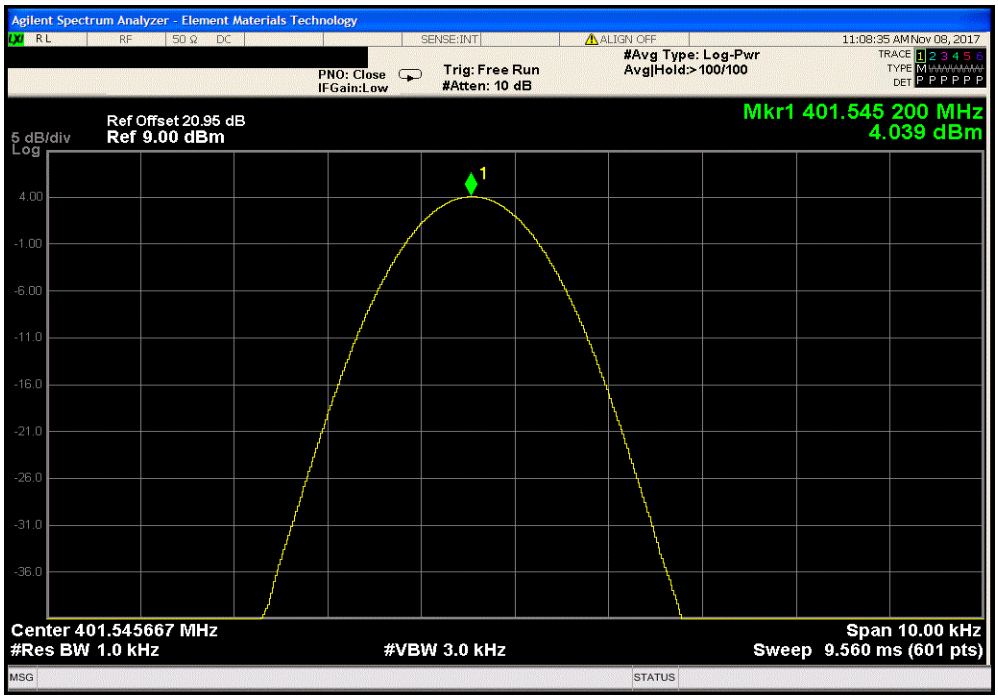
Extreme Temperature +20°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.544	405.55	13.9	100	Pass



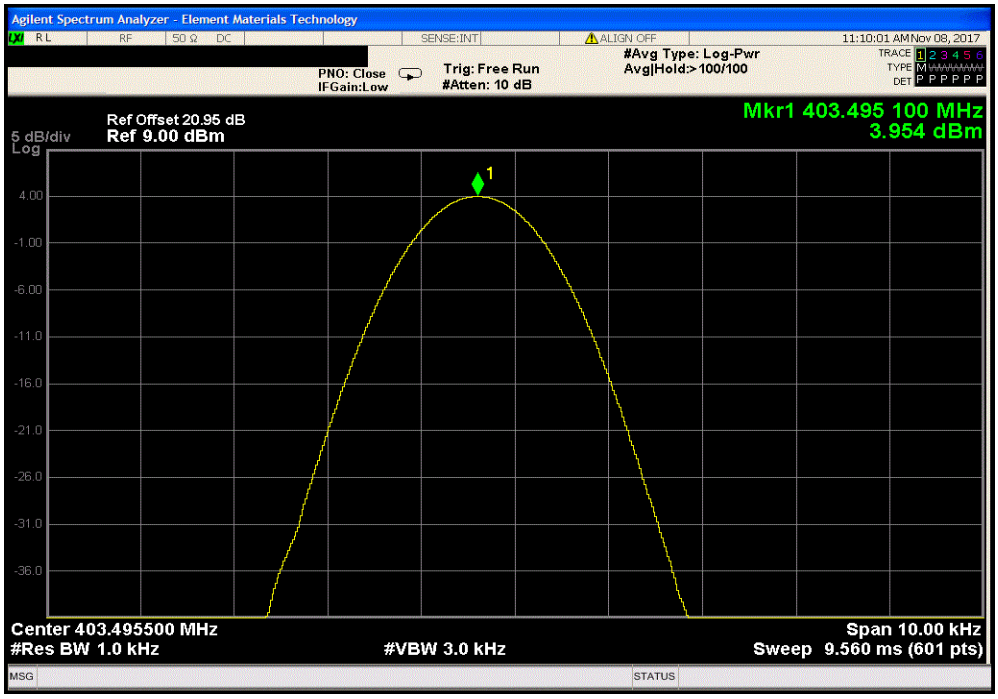
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +10°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.545	401.55	12.0	100	Pass



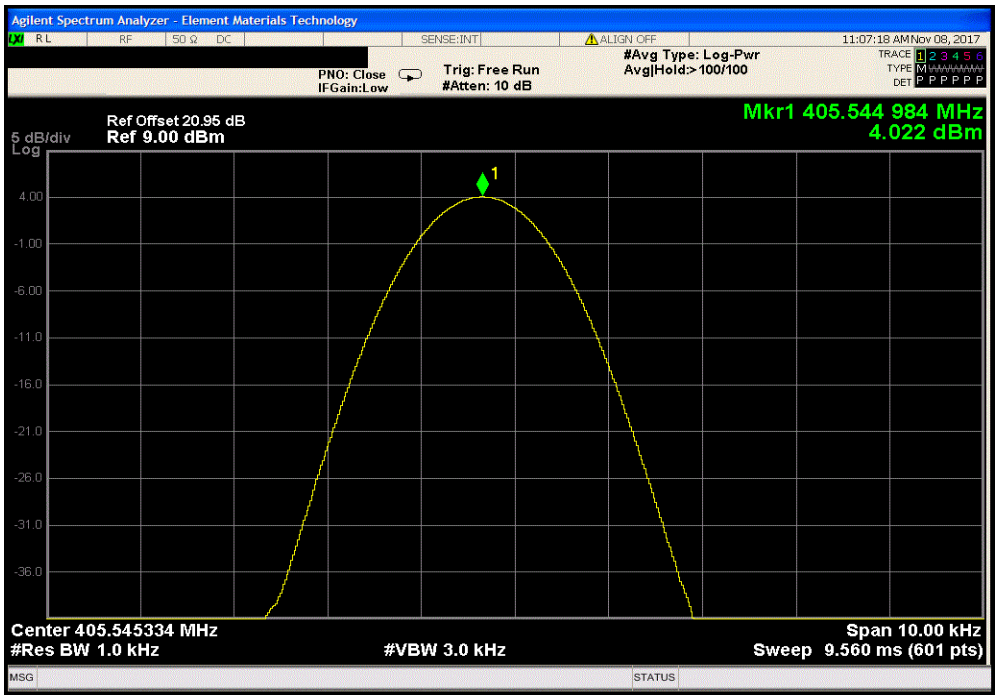
Extreme Temperature +10°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.495	403.5	12.1	100	Pass



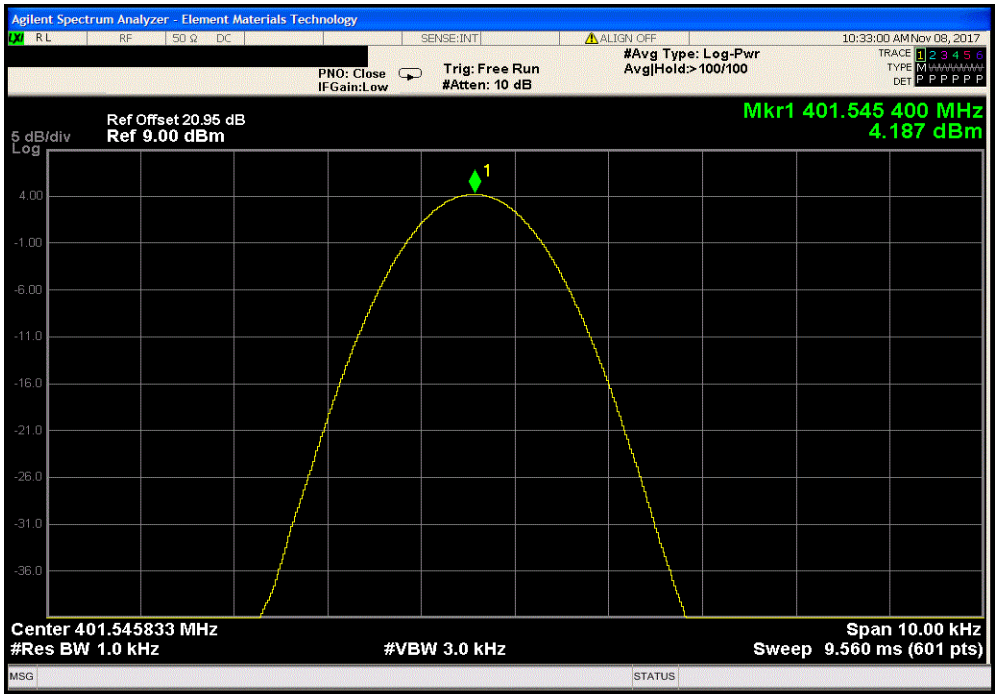
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature +10°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.545	405.55	12.4	100	Pass



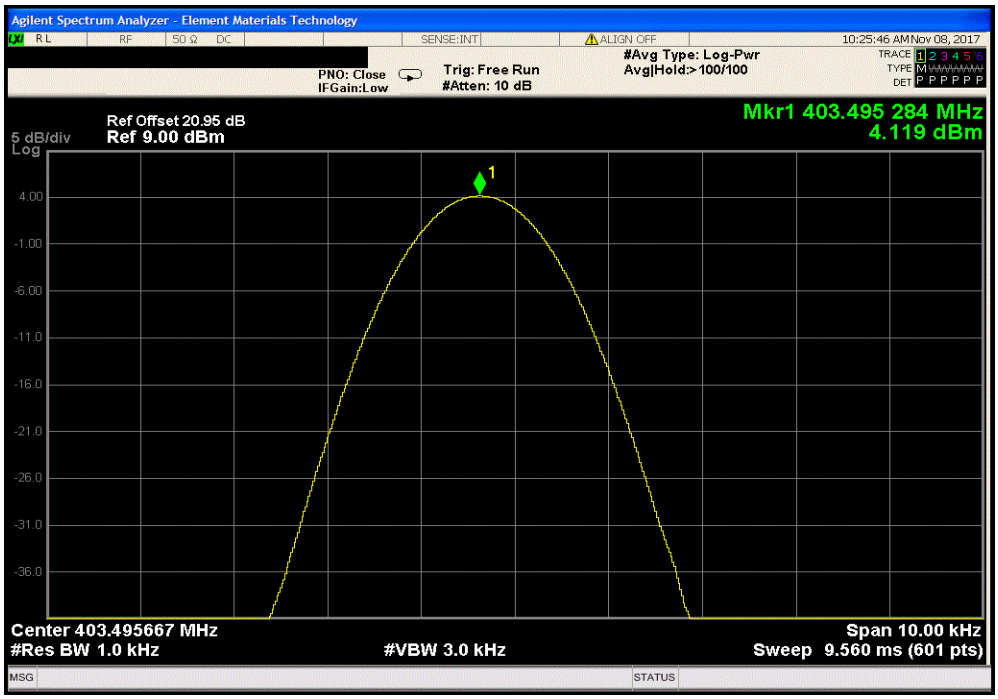
Extreme Temperature 0°C, MEDS Low Band, Mid Channel, 401.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		401.545	401.55	11.5	100	Pass



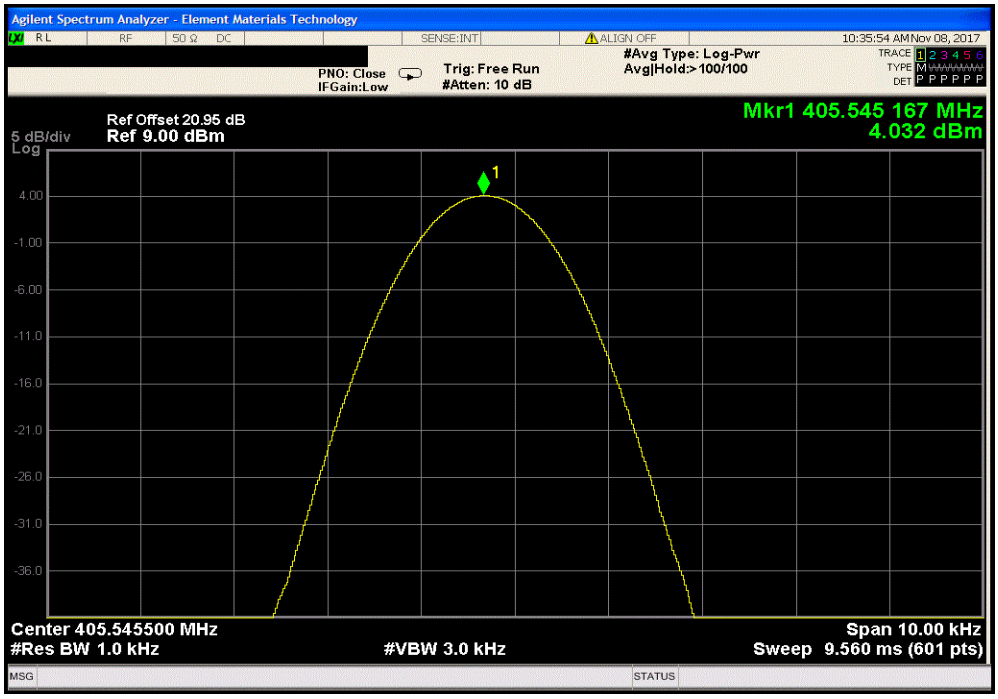
FREQUENCY STABILITY

TbtTx 2017.10.04 XMit 2017.09.21

Extreme Temperature 0°C, MICS Mid Band, Mid Channel, 403.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		403.495	403.5	11.7	100	Pass



Extreme Temperature 0°C, MEDS High Band, Mid Channel, 405.55 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		405.545	405.55	11.9	100	Pass



SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2017.06.01

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 Modulated at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz &
Mid Ch - MEDS High Band = 405.55 MHz

POWER SETTINGS INVESTIGATED

Battery
110VAC/60Hz

CONFIGURATIONS INVESTIGATED

AXON0097 - 28
AXON0097 - 27

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
Cable	Northwest EMC	1-8GHz RE Cables	OCJ	7/13/2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	7/13/2017	12 mo
Antenna - Double Ridge	EMCO	3115	AHB	3/21/2016	24 mo
Cable	Northwest EMC	10kHz-1GHz RE Cables	OCH	8/1/2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1402	AOZ	8/1/2017	12 mo
Antenna - Biconilog	Teseq	CBL 6141A	AYE	11/7/2017	24 mo
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	12/22/2016	12 mo

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 C63.4). 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.

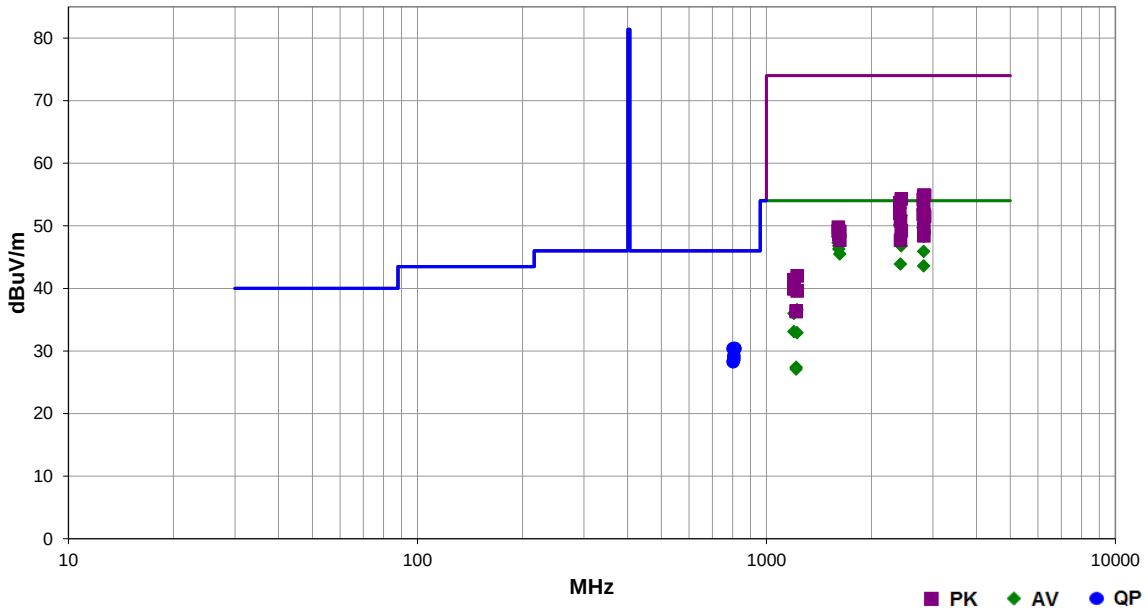
SPURIOUS RADIATED EMISSIONS

EmiR5 2017.07.11 PSA-ESCI 2017.06.01

Work Order:	AXON0097	**Date:**	11/02/17		
Project:	None	**Temperature:**	20.7 °C		
Job Site:	OC10	**Humidity:**	53.7% RH		
Serial Number:	AC1C870004	**Barometric Pres.:**	1019 mbar	**Tested by:**	Johnny Candelas
EUT:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)				
Configuration:	27				
Customer:	Axonics Modulation Technologies, Inc.				
Attendees:	Franklin Portillo				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting Modulated at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz & Mid Ch - MEDS High Band = 405.55 MHz				
Deviations:	None				
Comments:	Power Transmit Index = 33				

Test Specifications	**Test Method**
FCC 95I:2016	ANSI C63.26:2015

Run #	18	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 3(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2810.810	48.5	4.0	2.7	192.0	3.0	0.0	Horz	AV	0.0	52.5	54.0	-1.5	Low 401.55MHz, EUT Horiz
2824.460	48.4	4.0	2.7	191.0	3.0	0.0	Horz	AV	0.0	52.4	54.0	-1.6	Mid 403.5MHz, EUT Horiz
2838.835	48.0	4.2	2.6	194.0	3.0	0.0	Horz	AV	0.0	52.2	54.0	-1.8	High 405.55MHz, EUT Horiz
2433.280	48.7	2.9	1.4	30.0	3.0	0.0	Vert	AV	0.0	51.6	54.0	-2.4	High 405.55MHz, EUT on Side
2409.290	48.2	2.9	1.3	50.0	3.0	0.0	Vert	AV	0.0	51.1	54.0	-2.9	Low 401.55MHz, EUT on Side
2824.505	46.4	4.0	2.1	360.0	3.0	0.0	Horz	AV	0.0	50.4	54.0	-3.6	Mid 403.5MHz, EUT Vert
2409.285	47.2	2.9	2.9	238.0	3.0	0.0	Horz	AV	0.0	50.1	54.0	-3.9	Low 401.55MHz, EUT Horiz
2810.835	45.7	4.0	1.2	4.0	3.0	0.0	Vert	AV	0.0	49.7	54.0	-4.3	Low 401.55MHz, EUT on Side
2838.775	44.8	4.2	1.2	133.0	3.0	0.0	Vert	AV	0.0	49.0	54.0	-5.0	High 405.55MHz, EUT on Side
2824.475	44.8	4.0	3.0	15.0	3.0	0.0	Horz	AV	0.0	48.8	54.0	-5.2	Mid 403.5MHz, EUT on Side
2824.450	44.3	4.0	1.2	135.0	3.0	0.0	Vert	AV	0.0	48.3	54.0	-5.7	Mid 403.5MHz, EUT on Side
1606.170	48.1	0.1	2.5	96.0	3.0	0.0	Vert	AV	0.0	48.2	54.0	-5.8	Low 401.55MHz, EUT on Side
2421.000	45.1	2.9	1.2	51.0	3.0	0.0	Vert	AV	0.0	48.0	54.0	-6.0	Mid 403.5MHz, EUT on Side
1606.175	47.2	0.1	1.0	208.0	3.0	0.0	Horz	AV	0.0	47.3	54.0	-6.7	Low 401.55MHz, EUT Horiz
1622.185	47.1	0.1	2.6	99.0	3.0	0.0	Vert	AV	0.0	47.2	54.0	-6.8	High 405.55MHz, EUT on Side
1613.975	46.7	0.1	1.0	189.0	3.0	0.0	Horz	AV	0.0	46.8	54.0	-7.2	Mid 403.5MHz, EUT Horiz
2433.275	43.9	2.9	1.2	189.0	3.0	0.0	Horz	AV	0.0	46.8	54.0	-7.2	High 405.55MHz, EUT Horiz
1613.975	46.2	0.1	1.2	120.0	3.0	0.0	Vert	AV	0.0	46.3	54.0	-7.7	Mid 403.5MHz, EUT on Side
2824.475	41.9	4.0	2.8	182.0	3.0	0.0	Vert	AV	0.0	45.9	54.0	-8.1	Mid 403.5MHz, EUT Vert
1622.180	45.4	0.1	1.0	206.0	3.0	0.0	Horz	AV	0.0	45.5	54.0	-8.5	High 405.55MHz, EUT Horiz
2420.960	41.0	2.9	1.2	196.0	3.0	0.0	Horz	AV	0.0	43.9	54.0	-10.1	Mid 403.5MHz, EUT Horiz
2824.480	39.6	4.0	1.0	264.0	3.0	0.0	Vert	AV	0.0	43.6	54.0	-10.4	Mid 403.5MHz, EUT Horiz

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
803.123	16.8	13.6	1.2	247.0	3.0	0.0	Vert	QP	0.0	30.4	46.0	-15.6	Low 401.55MHz, EUT on Side
811.067	16.7	13.7	1.2	320.0	3.0	0.0	Horz	QP	0.0	30.4	46.0	-15.6	High 405.55MHz, EUT Horiz
811.070	16.7	13.7	1.2	252.0	3.0	0.0	Vert	QP	0.0	30.4	46.0	-15.6	High 405.55MHz, EUT on Side
806.940	15.6	13.6	1.0	183.0	3.0	0.0	Vert	QP	0.0	29.2	46.0	-16.8	Mid 403.5MHz, EUT on Side
807.058	15.1	13.6	1.0	206.0	3.0	0.0	Horz	QP	0.0	28.7	46.0	-17.3	Mid 403.5MHz, EUT Horiz
1223.985	38.4	-1.8	1.3	213.0	3.0	0.0	Horz	AV	0.0	36.6	54.0	-17.4	Mid 403.5MHz, EUT Horiz
803.123	14.7	13.6	1.2	4.0	3.0	0.0	Horz	QP	0.0	28.3	46.0	-17.7	Low 401.55MHz, EUT Horiz
1200.000	37.9	-1.9	1.3	236.0	3.0	0.0	Horz	AV	0.0	36.0	54.0	-18.0	Low 401.55MHz, EUT Horiz
2824.655	50.9	4.0	2.7	191.0	3.0	0.0	Horz	PK	0.0	54.9	74.0	-19.1	Mid 403.5MHz, EUT Horiz
2838.865	50.7	4.2	2.6	194.0	3.0	0.0	Horz	PK	0.0	54.9	74.0	-19.1	High 405.55MHz, EUT Horiz
2433.170	51.4	2.9	1.4	30.0	3.0	0.0	Vert	PK	0.0	54.3	74.0	-19.7	High 405.55MHz, EUT on Side
2810.980	50.2	4.0	2.7	192.0	3.0	0.0	Horz	PK	0.0	54.2	74.0	-19.8	Low 401.55MHz, EUT Horiz
2409.340	50.8	2.9	1.3	50.0	3.0	0.0	Vert	PK	0.0	53.7	74.0	-20.3	Low 401.55MHz, EUT on Side
2824.190	49.1	4.0	2.1	360.0	3.0	0.0	Horz	PK	0.0	53.1	74.0	-20.9	Mid 403.5MHz, EUT Vert
1200.015	35.0	-1.9	1.2	172.0	3.0	0.0	Vert	AV	0.0	33.1	54.0	-20.9	Low 401.55MHz, EUT on Side
1224.030	34.7	-1.8	1.2	167.0	3.0	0.0	Vert	AV	0.0	32.9	54.0	-21.1	Mid 403.5MHz, EUT on Side
2409.185	49.1	2.9	2.9	238.0	3.0	0.0	Horz	PK	0.0	52.0	74.0	-22.0	Low 401.55MHz, EUT Horiz
2824.705	47.9	4.0	3.0	15.0	3.0	0.0	Horz	PK	0.0	51.9	74.0	-22.1	Mid 403.5MHz, EUT on Side
2824.730	47.8	4.0	1.2	135.0	3.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Mid 403.5MHz, EUT on Side
2811.035	47.8	4.0	1.2	4.0	3.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Low 401.55MHz, EUT on Side
2838.650	47.3	4.2	1.2	133.0	3.0	0.0	Vert	PK	0.0	51.5	74.0	-22.5	High 405.55MHz, EUT on Side
2421.215	47.9	2.9	1.2	51.0	3.0	0.0	Vert	PK	0.0	50.8	74.0	-23.2	Mid 403.5MHz, EUT on Side
1606.285	49.7	0.1	2.5	96.0	3.0	0.0	Vert	PK	0.0	49.8	74.0	-24.2	Low 401.55MHz, EUT on Side
2824.745	45.6	4.0	2.8	182.0	3.0	0.0	Vert	PK	0.0	49.6	74.0	-24.4	Mid 403.5MHz, EUT Vert
1606.175	49.1	0.1	1.0	208.0	3.0	0.0	Horz	PK	0.0	49.2	74.0	-24.8	Low 401.55MHz, EUT Horiz
2433.255	46.3	2.9	1.2	189.0	3.0	0.0	Horz	PK	0.0	49.2	74.0	-24.8	High 405.55MHz, EUT Horiz
1622.205	49.0	0.1	2.6	99.0	3.0	0.0	Vert	PK	0.0	49.1	74.0	-24.9	High 405.55MHz, EUT on Side
1613.785	48.8	0.1	1.0	189.0	3.0	0.0	Horz	PK	0.0	48.9	74.0	-25.1	Mid 403.5MHz, EUT Horiz
1614.030	48.5	0.1	1.2	120.0	3.0	0.0	Vert	PK	0.0	48.6	74.0	-25.4	Mid 403.5MHz, EUT on Side
2824.790	44.4	4.0	1.0	264.0	3.0	0.0	Vert	PK	0.0	48.4	74.0	-25.6	Mid 403.5MHz, EUT Horiz
2421.250	44.8	2.9	1.2	196.0	3.0	0.0	Horz	PK	0.0	47.7	74.0	-26.3	Mid 403.5MHz, EUT Horiz
1622.210	47.6	0.1	1.0	206.0	3.0	0.0	Horz	PK	0.0	47.7	74.0	-26.3	High 405.55MHz, EUT Horiz
1216.610	29.3	-1.9	1.2	138.0	3.0	0.0	Vert	AV	0.0	27.4	54.0	-26.6	High 405.55MHz, EUT on Side
1216.550	29.0	-1.9	1.2	186.0	3.0	0.0	Horz	AV	0.0	27.1	54.0	-26.9	High 405.55MHz, EUT Horiz
1224.015	43.8	-1.8	1.3	213.0	3.0	0.0	Horz	PK	0.0	42.0	74.0	-32.0	Mid 403.5MHz, EUT Horiz
1199.900	43.3	-1.9	1.3	236.0	3.0	0.0	Horz	PK	0.0	41.4	74.0	-32.6	Low 401.55MHz, EUT Horiz
1200.000	41.8	-1.9	1.2	172.0	3.0	0.0	Vert	PK	0.0	39.9	74.0	-34.1	Low 401.55MHz, EUT on Side
1223.995	41.4	-1.8	1.2	167.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	Mid 403.5MHz, EUT on Side
1216.650	38.3	-1.9	1.2	138.0	3.0	0.0	Vert	PK	0.0	36.4	74.0	-37.6	High 405.55MHz, EUT on Side
1216.840	38.2	-1.9	1.2	186.0	3.0	0.0	Horz	PK	0.0	36.3	74.0	-37.7	High 405.55MHz, EUT Horiz

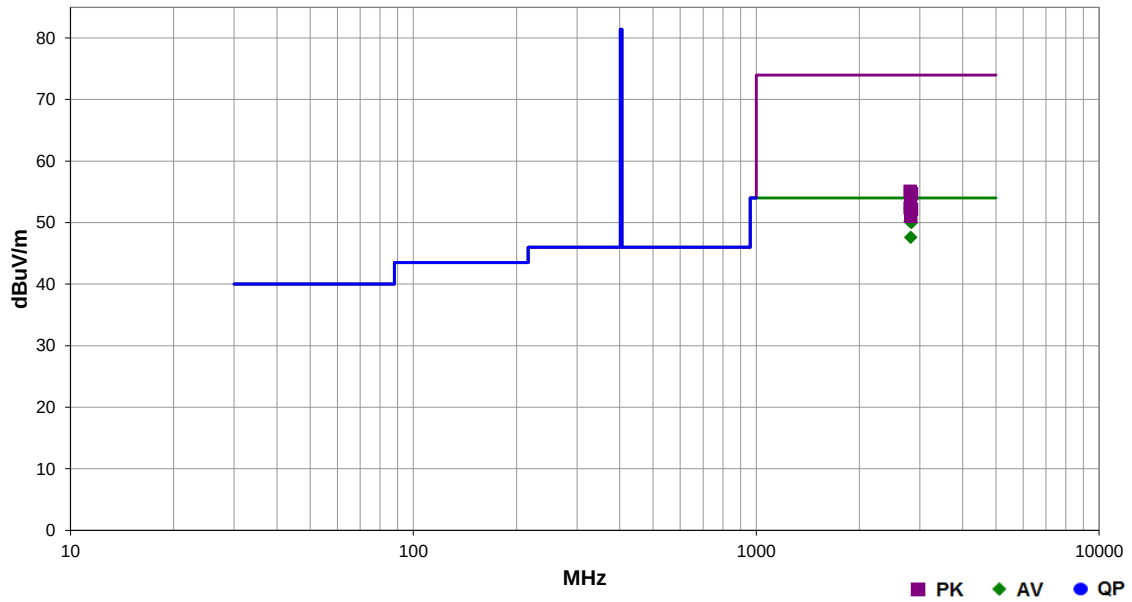
SPURIOUS RADIATED EMISSIONS

EmiR5 2017.07.11 PSA-ESCI 2017.06.01

Work Order:	AXON0097	**Date:**	11/03/17		
Project:	None	**Temperature:**	21.1 °C		
Job Site:	OC10	**Humidity:**	42.8% RH		
Serial Number:	AC1C870004	**Barometric Pres.:**	1022 mbar	**Tested by:**	Johnny Candelas
EUT:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)				
Configuration:	28				
Customer:	Axonics Modulation Technologies, Inc.				
Attendees:	Franklin Portillo				
EUT Power:	Battery				
Operating Mode:	Transmitting Modulated at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz & Mid Ch - MEDS High Band = 405.55 MHz				
Deviations:	None				
Comments:	Power Transmit Index = 33				

Test Specifications	**Test Method**
FCC 95I:2016	ANSI C63.26:2015

Run #	20	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 3(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2810.805	48.3	4.0	2.7	196.0	3.0	0.0	Horz	AV	0.0	52.3	54.0	-1.7	Low 401.55MHz, EUT Horiz, Batt
2824.495	48.2	4.0	2.7	194.0	3.0	0.0	Horz	AV	0.0	52.2	54.0	-1.8	Mid 403.5MHz, EUT Horiz, Batt
2838.805	47.9	4.2	2.7	194.0	3.0	0.0	Horz	AV	0.0	52.1	54.0	-1.9	High 405.55MHz, EUT Horiz, Batt
2810.785	46.2	4.0	1.2	360.0	3.0	0.0	Vert	AV	0.0	50.2	54.0	-3.8	Low 401.55MHz, EUT on Side, Batt
2838.810	45.8	4.2	1.2	63.0	3.0	0.0	Vert	AV	0.0	50.0	54.0	-4.0	High 405.55MHz, EUT on Side, Batt
2824.465	43.6	4.0	1.7	287.0	3.0	0.0	Vert	AV	0.0	47.6	54.0	-6.4	Mid 403.5MHz, EUT on Side, Batt
2810.915	51.1	4.0	2.7	196.0	3.0	0.0	Horz	PK	0.0	55.1	74.0	-18.9	Low 401.55MHz, EUT Horiz, Batt
2839.035	50.5	4.2	2.7	194.0	3.0	0.0	Horz	PK	0.0	54.7	74.0	-19.3	High 405.55MHz, EUT Horiz, Batt
2824.200	50.6	4.0	2.7	194.0	3.0	0.0	Horz	PK	0.0	54.6	74.0	-19.4	Mid 403.5MHz, EUT Horiz, Batt
2810.710	48.4	4.0	1.2	360.0	3.0	0.0	Vert	PK	0.0	52.4	74.0	-21.6	Low 401.55MHz, EUT on Side, Batt
2838.880	48.0	4.2	1.2	63.0	3.0	0.0	Vert	PK	0.0	52.2	74.0	-21.8	High 405.55MHz, EUT on Side, Batt
2824.690	47.0	4.0	1.7	287.0	3.0	0.0	Vert	PK	0.0	51.0	74.0	-23.0	Mid 403.5MHz, EUT on Side, Batt

SPURIOUS CONDUCTED EMISSIONS

XMit 2017.09.21

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
Generator - Signal	Agilent	E8257D	TGU	5-Feb-15	5-Feb-18
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Attenuator	Fairview Microwave	SA18E-20	TKS	6-Mar-17	6-Mar-18
Block - DC	Aeroflex	INMET 8535	AMO	27-Mar-17	27-Mar-18
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	28-Jan-17	28-Jan-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

TbtTx 2017.10.04 XMit 2017.09.21

EUT:	**Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)**	**Work Order:**	**AXON0097**
Serial Number:	**AC1C870003**	**Date:**	**7-Nov-17**
Customer:	**Axonics Modulation Technologies, Inc.**	**Temperature:**	**20.9 °C**
Attendees:	**Franklin Portillo**	**Humidity:**	**49.7% RH**
Project:	**None**	**Barometric Pres.:**	**1021 mbar**
Tested by:	**Johnny Candelas**	**Power:** **7.6VDC**	**Job Site:** **OC13**

TEST SPECIFICATIONS	**Test Method**
FCC 95I:2017	ANSI C63.26:2015

COMMENTS

DC Block + 20dB Attenuator + Coax Cable = 20.95dB Total Offset
Power Transmit Index = 33

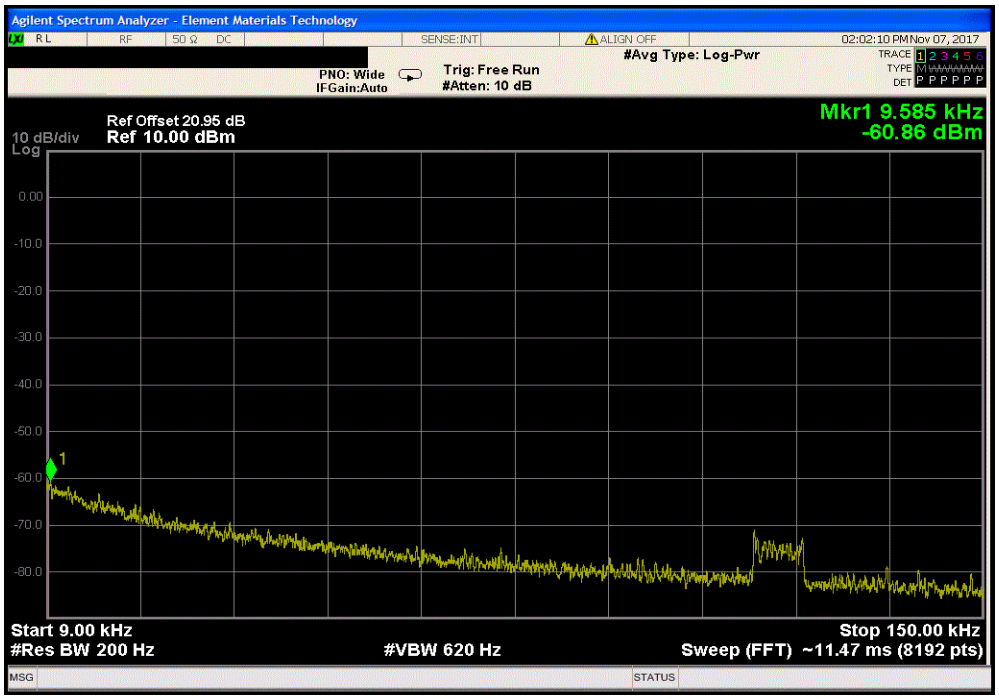
DEVIATIONS FROM TEST STANDARD

None

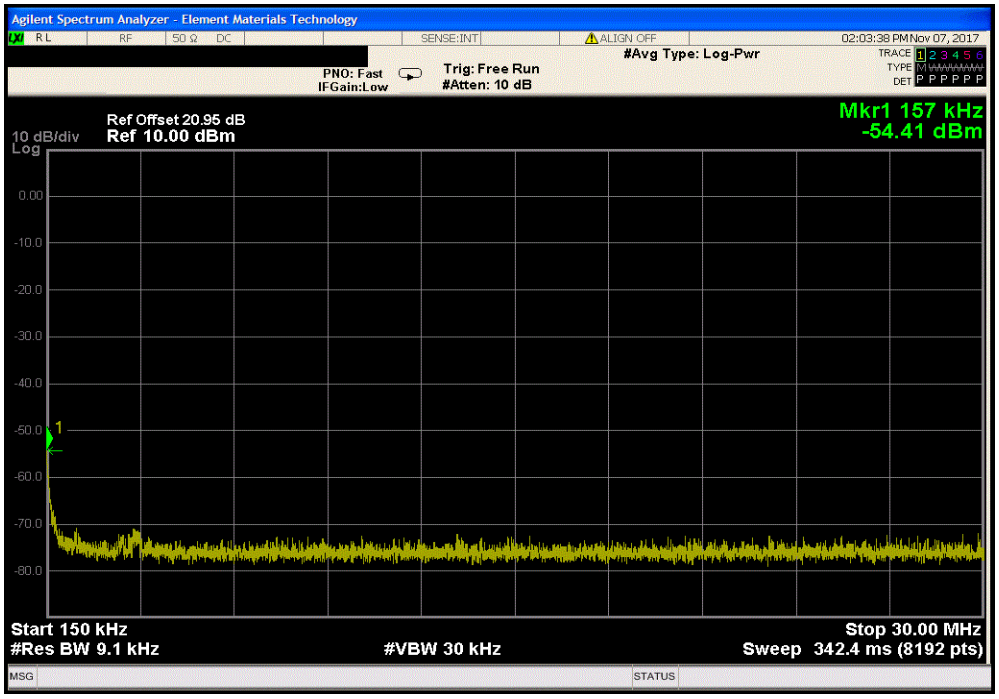
Configuration #	**29**	*Signature*

	Frequency Range	Max Value (dBc)	Limit A (dBc)	Result
MEDS Low Band, Mid Channel, 401.55 MHz	9 kHz - 150 kHz	-60.86	N/A	N/A
MEDS Low Band, Mid Channel, 401.55 MHz	150 kHz - 30 MHz	-54.41	N/A	N/A
MEDS Low Band, Mid Channel, 401.55 MHz	30 MHz - 1 GHz	-56.61	N/A	N/A
MEDS Low Band, Mid Channel, 401.55 MHz	1 GHz - 5 GHz	-43.18	N/A	N/A
MICS Mid Band, Mid Channel, 403.5 MHz	9 kHz - 150 kHz	-59.16	N/A	N/A
MICS Mid Band, Mid Channel, 403.5 MHz	150 kHz - 30 MHz	-54.06	N/A	N/A
MICS Mid Band, Mid Channel, 403.5 MHz	30 MHz - 1 GHz	-55.79	N/A	N/A
MICS Mid Band, Mid Channel, 403.5 MHz	1 GHz - 5 GHz	-43.50	N/A	N/A
MEDS High Band, Mid Channel, 405.55 MHz	9 kHz - 150 kHz	-60.54	N/A	N/A
MEDS High Band, Mid Channel, 405.55 MHz	150 kHz - 30 MHz	-53.96	N/A	N/A
MEDS High Band, Mid Channel, 405.55 MHz	30 MHz - 1 GHz	-56.10	N/A	N/A
MEDS High Band, Mid Channel, 405.55 MHz	1 GHz - 5 GHz	-42.98	N/A	N/A

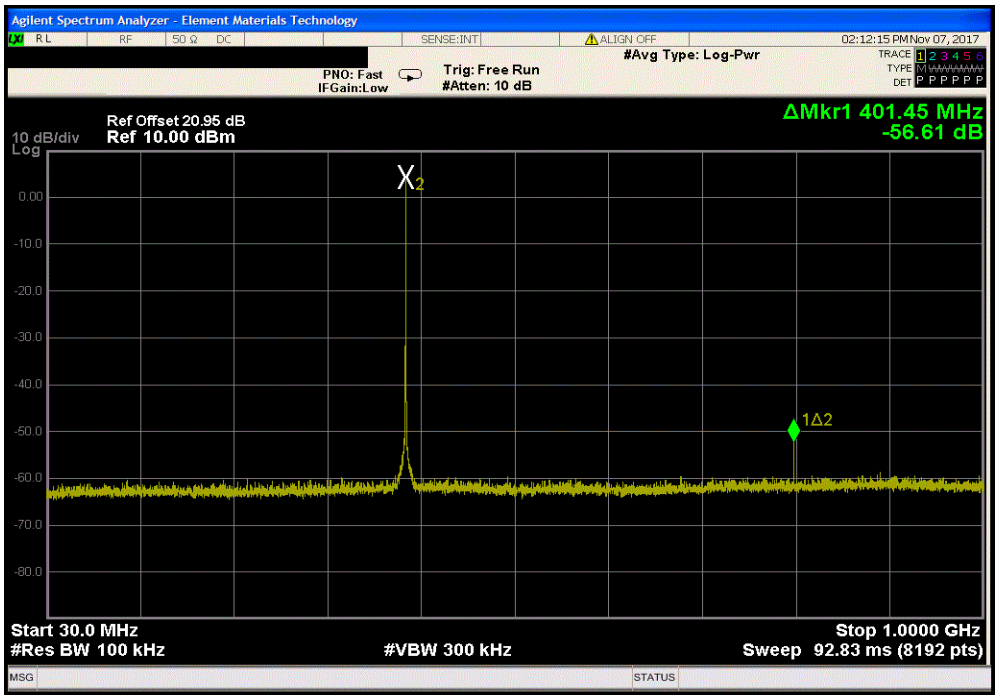
MEDS Low Band, Mid Channel, 401.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	9 kHz - 150 kHz			-60.86	N/A	N/A



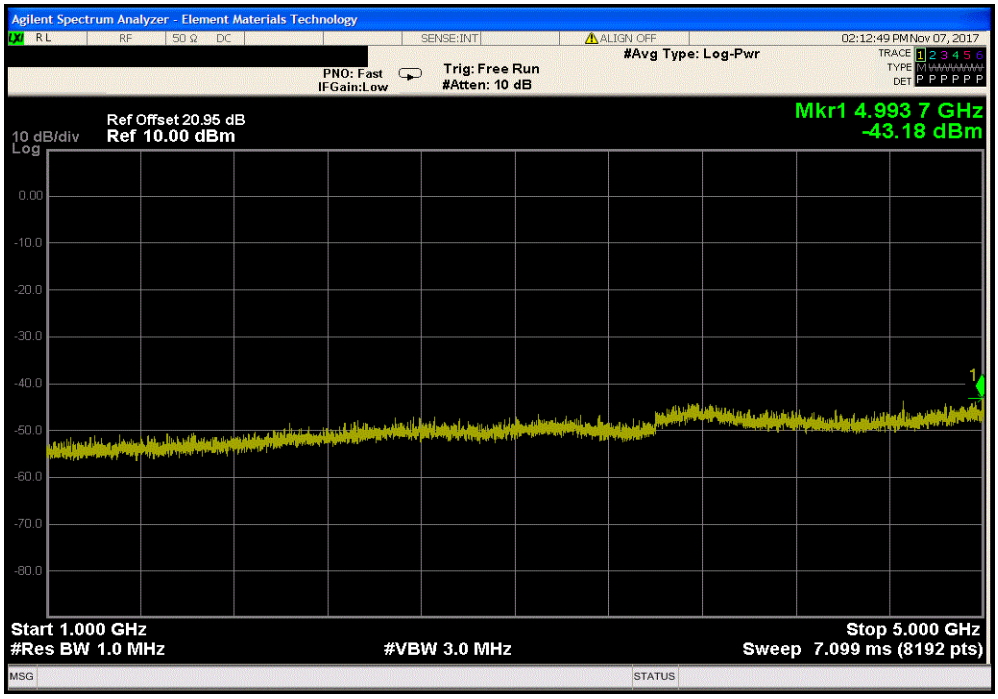
MEDS Low Band, Mid Channel, 401.55 MHz				
Frequency Range		Max Value (dBc)	Limit A (dBc)	Result
150 kHz - 30 MHz		-54.41	N/A	N/A



MEDS Low Band, Mid Channel, 401.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	30 MHz - 1 GHz			-56.61	N/A	N/A



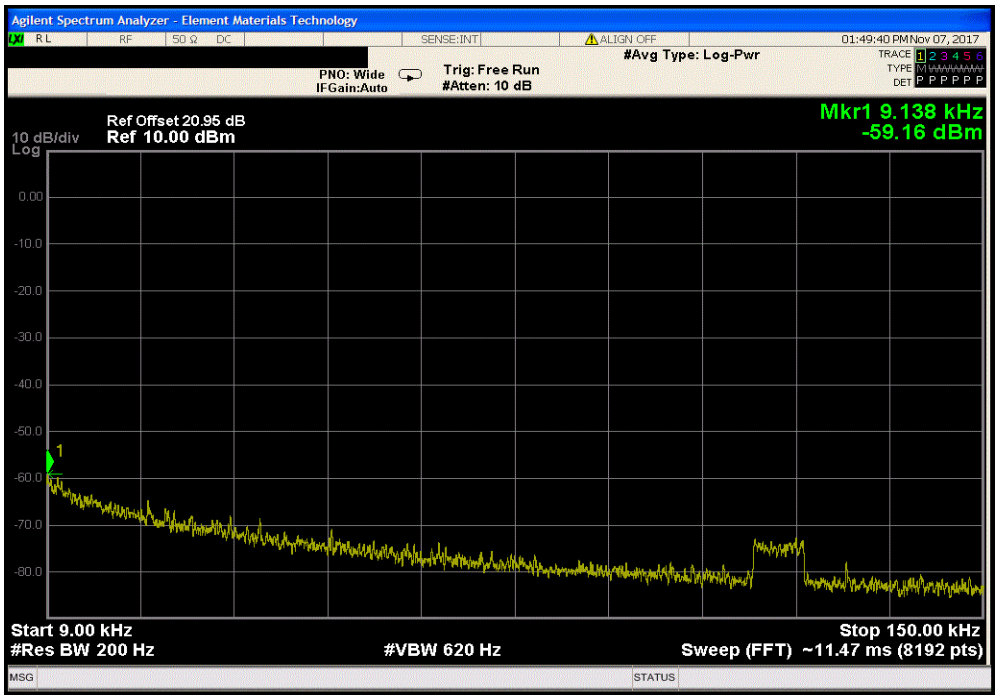
MEDS Low Band, Mid Channel, 401.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	1 GHz - 5 GHz			-43.18	N/A	N/A



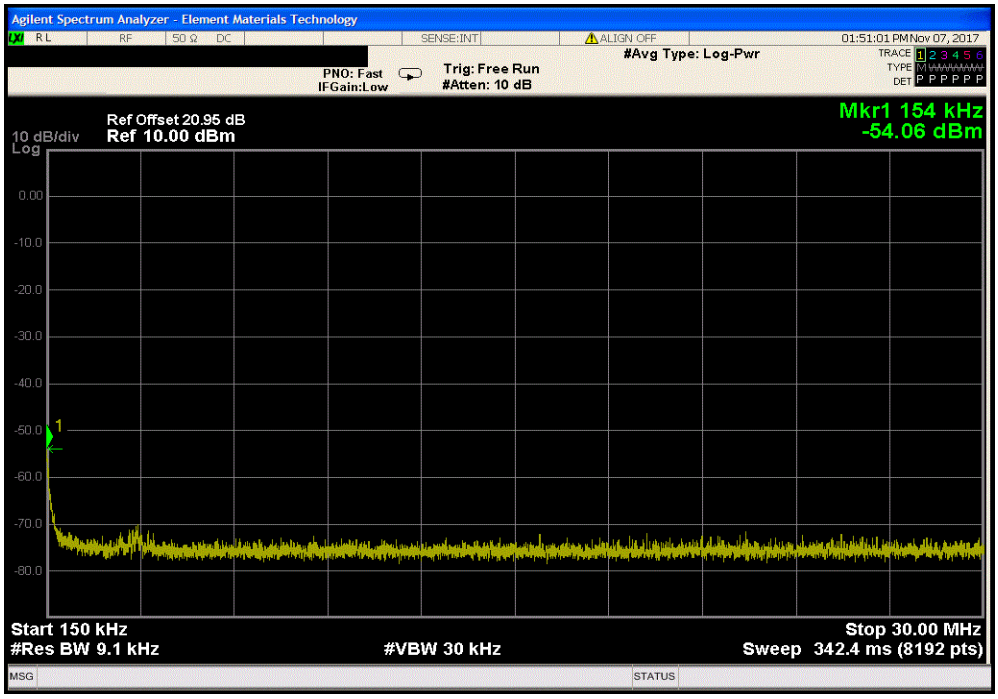
SPURIOUS CONDUCTED EMISSIONS

TbtTx 2017.10.04 XMit 2017.09.21

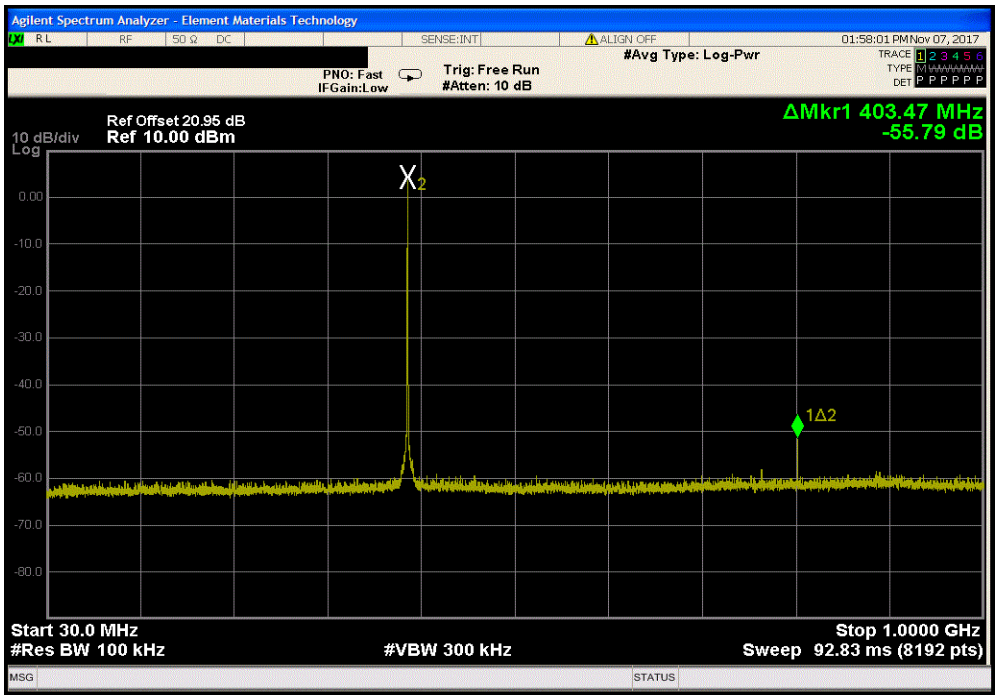
MICS Mid Band, Mid Channel, 403.5 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	9 kHz - 150 kHz			-59.16	N/A	N/A



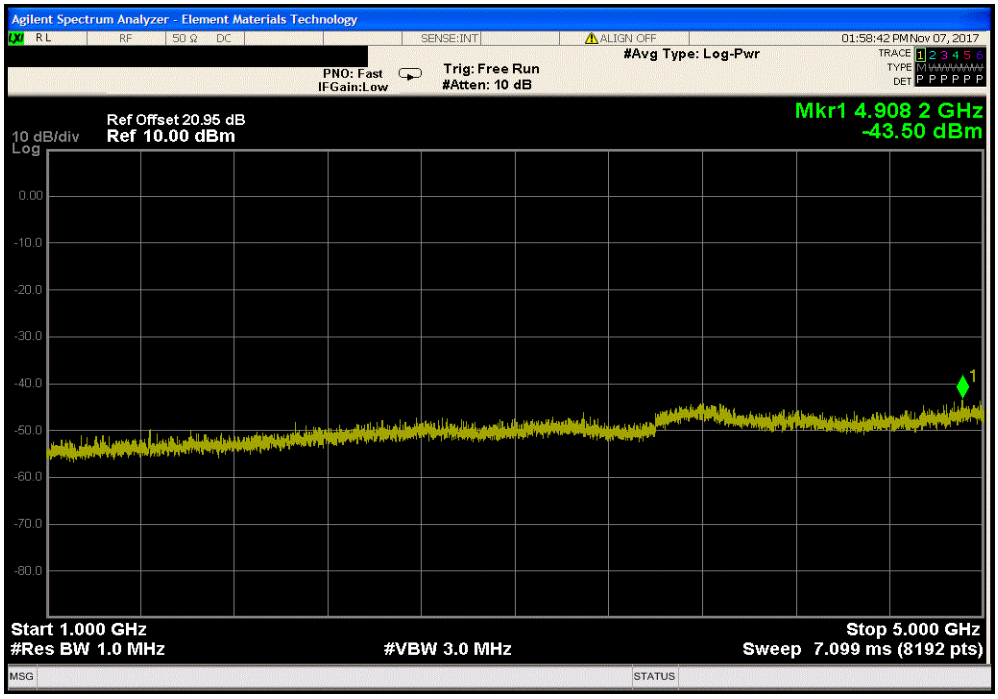
MICS Mid Band, Mid Channel, 403.5 MHz				
Frequency Range		Max Value (dBc)	Limit A (dBc)	Result
150 kHz - 30 MHz		-54.06	N/A	N/A



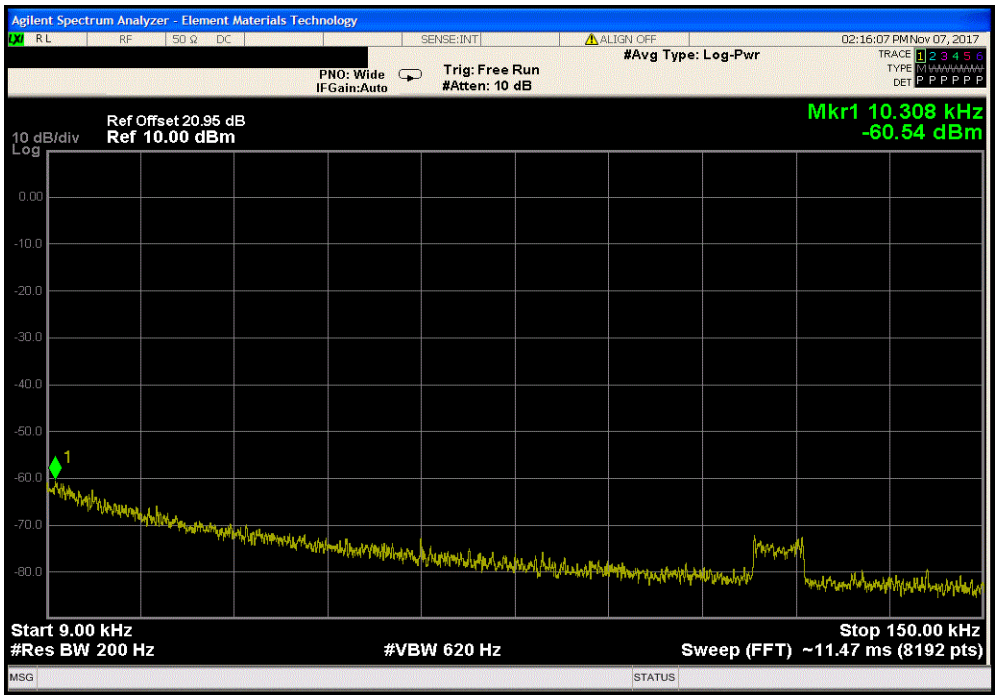
MICS Mid Band, Mid Channel, 403.5 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	30 MHz - 1 GHz			-55.79	N/A	N/A



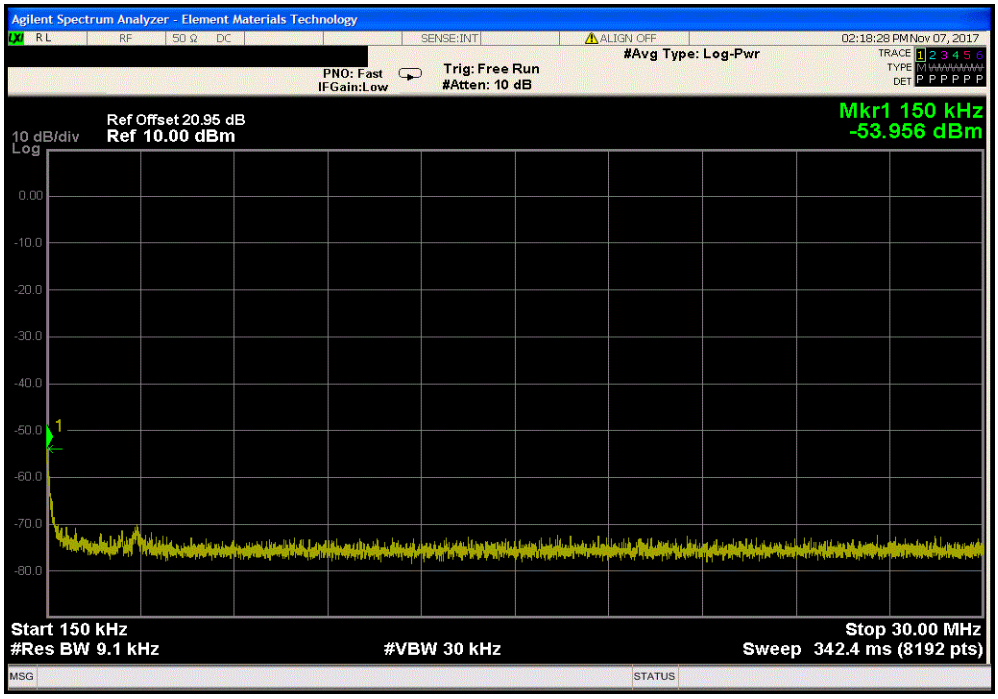
MICS Mid Band, Mid Channel, 403.5 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	1 GHz - 5 GHz			-43.50	N/A	N/A



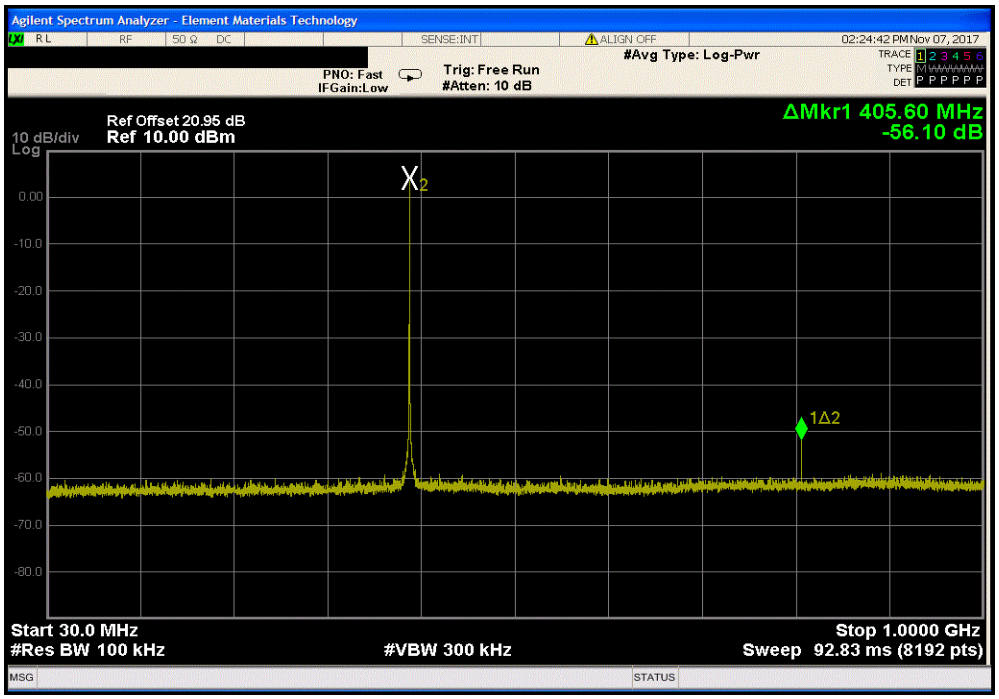
MEDS High Band, Mid Channel, 405.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	9 kHz - 150 kHz			-60.54	N/A	N/A



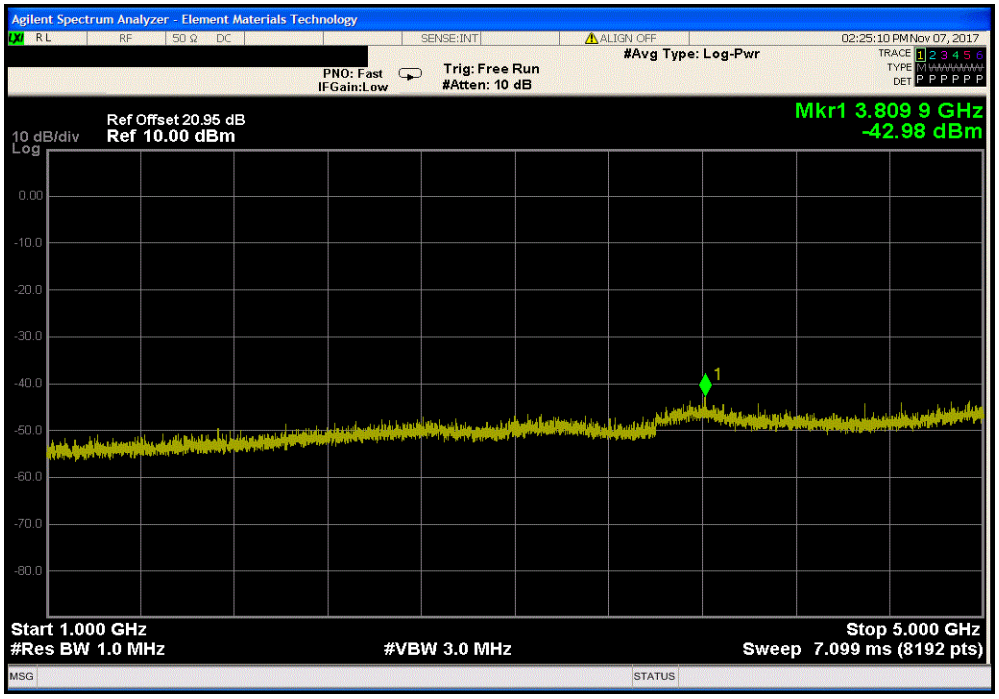
MEDS High Band, Mid Channel, 405.55 MHz				
Frequency Range		Max Value (dBc)	Limit A (dBc)	Result
150 kHz - 30 MHz		-53.96	N/A	N/A



MEDS High Band, Mid Channel, 405.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	30 MHz - 1 GHz			-56.10	N/A	N/A



MEDS High Band, Mid Channel, 405.55 MHz						
	Frequency Range			Max Value (dBc)	Limit A (dBc)	Result
	1 GHz - 5 GHz			-42.98	N/A	N/A



RADIATED POWER (EIRP)

PSA-ESCI 2017.06.01

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

Continuosuly Transmitting at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz &
Mid Ch - MEDS High Band = 405.55 MHz

POWER SETTINGS INVESTIGATED

Battery
110VAC/60Hz

CONFIGURATIONS INVESTIGATED

AXON0097 - 28
AXON0097 - 27

FREQUENCY RANGE INVESTIGATED

Start Frequency	401 MHz	Stop Frequency	406 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
Power Sensor	Agilent	E4412A	SQE	1/26/2017	12 mo
Meter - Power	Hewlett Packard	E4418A	SPA	1/26/2017	12 mo
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	36 mo
Antenna - Dipole	A.H. Systems, Inc.	FCC-4	ADCA	NCR	0 mo
Cable	Element	10kHz-1GHz RE Cables	OCH	8/1/2017	12 mo
Antenna - Biconilog	Teseq	CBL 6141A	AYE	11/7/2017	24 mo
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	12/22/2016	12 mo

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)*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 0.8-meter above the reference ground plane.

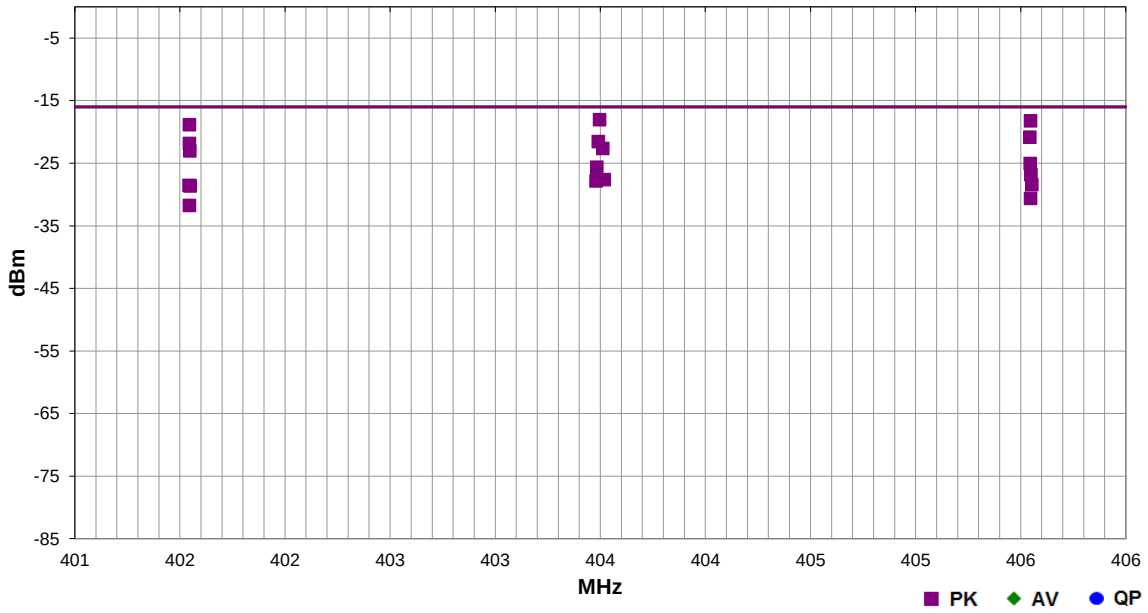
RADIATED POWER (EIRP)

EmiR5 2017.07.11 PSA-ESCI 2017.06.01

Work Order:	AXON0097	**Date:**	11/09/17		
Project:	None	**Temperature:**	21.4 °C		
Job Site:	OC10	**Humidity:**	48.7% RH		
Serial Number:	AC1C870004	**Barometric Pres.:**	1019 mbar	**Tested by:**	Johnny Candelas
EUT:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)				
Configuration:	27				
Customer:	Axonics Modulation Technologies, Inc.				
Attendees:	Franklin Portillo				
EUT Power:	110VAC/60Hz				
Operating Mode:	Continuosuly Transmitting at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz & Mid Ch - MEDS High Band = 405.55 MHz				
Deviations:	None				
Comments:	Power Transmit Index = 33				

Test Specifications	**Test Method**
FCC 95I:2016	ANSI C63.26:2015

Run #	44	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	403.497	1.0	204.0	Horz	PK	1.57E-05	-18.0	-16.0	-2.0	Mid 403.5MHz, EUT Horiz
	405.547	1.0	199.0	Horz	PK	1.50E-05	-18.2	-16.0	-2.2	High 405.55MHz, EUT Horiz
	401.545	1.0	199.0	Horz	PK	1.31E-05	-18.8	-16.0	-2.8	Low 401.55MHz, EUT Horiz
	405.543	1.3	228.0	Vert	PK	8.26E-06	-20.8	-16.0	-4.8	High 405.55MHz, EUT on Side
	403.490	1.3	227.0	Vert	PK	7.03E-06	-21.5	-16.0	-5.5	Mid 403.5MHz, EUT on Side
	401.545	1.3	231.0	Vert	PK	6.56E-06	-21.8	-16.0	-5.8	Low 401.55MHz, EUT on Side
	403.512	2.3	314.0	Horz	PK	5.46E-06	-22.6	-16.0	-6.6	Mid 403.5MHz, EUT Vert
	401.547	2.3	318.0	Horz	PK	4.98E-06	-23.0	-16.0	-7.0	Low 401.55MHz, EUT Vert
	405.545	1.0	289.0	Horz	PK	3.14E-06	-25.0	-16.0	-9.0	High 405.55MHz, EUT Vert
	403.483	3.1	291.0	Vert	PK	2.74E-06	-25.6	-16.0	-9.6	Mid 403.5MHz, EUT Horiz
	405.548	1.3	346.0	Vert	PK	2.08E-06	-26.8	-16.0	-10.8	High 405.55MHz, EUT Vert
	403.518	2.4	344.0	Vert	PK	1.73E-06	-27.6	-16.0	-11.6	Mid 403.5MHz, EUT Vert
	403.480	2.8	292.0	Horz	PK	1.65E-06	-27.8	-16.0	-11.8	Mid 403.5MHz, EUT on Side
	405.553	2.6	99.0	Horz	PK	1.44E-06	-28.4	-16.0	-12.4	High 405.55MHz, EUT on Side
	401.543	2.7	97.0	Horz	PK	1.40E-06	-28.5	-16.0	-12.5	Low 401.55MHz, EUT on Side
	401.548	1.2	163.0	Vert	PK	1.37E-06	-28.6	-16.0	-12.6	Low 401.55MHz, EUT Vert
	405.547	0.0	249.0	Vert	PK	8.65E-07	-30.6	-16.0	-14.6	High 405.55MHz, EUT Horiz
	401.545	1.1	223.0	Vert	PK	6.72E-07	-31.7	-16.0	-15.7	Low 401.55MHz, EUT Horiz

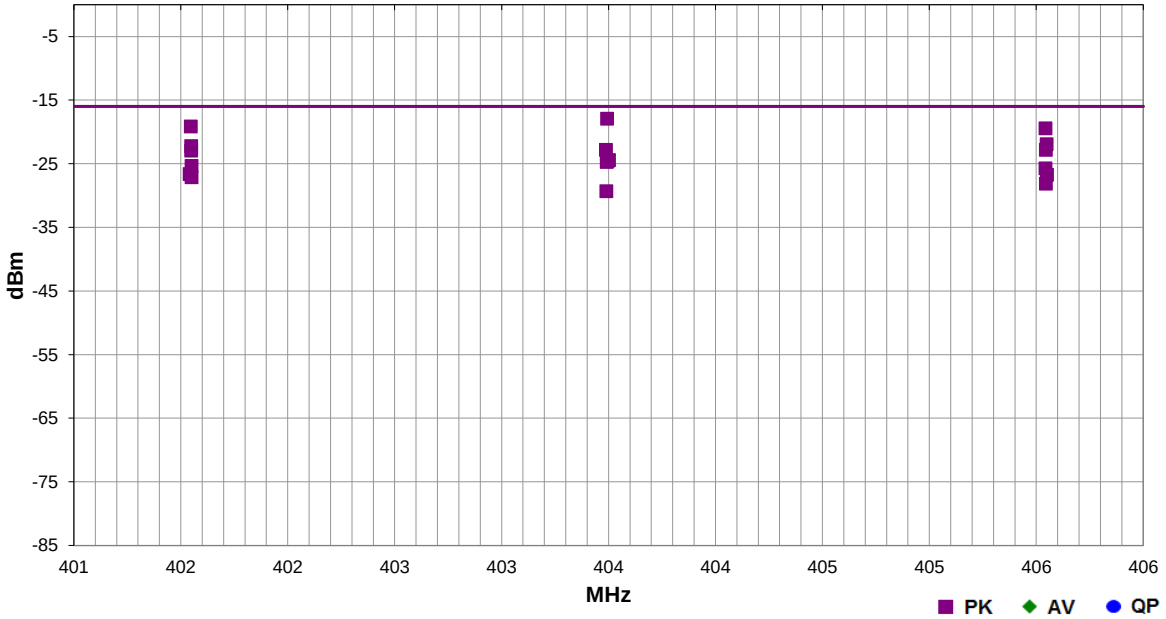
RADIATED POWER (EIRP)

EmiR5 2017.07.11 PSA-ESCI 2017.06.01

Work Order:	AXON0097	**Date:**	11/09/17		
Project:	None	**Temperature:**	21.4 °C		
Job Site:	OC10	**Humidity:**	48.7% RH		
Serial Number:	AC1C870004	**Barometric Pres.:**	1019 mbar	**Tested by:**	Johnny Candelas
EUT:	Clinician Programmer (CP) Model: 2501 (MICS/MEDS/MedRadio)				
Configuration:	28				
Customer:	Axonics Modulation Technologies, Inc.				
Attendees:	Franklin Portillo				
EUT Power:	Battery				
Operating Mode:	Continuosuly Transmitting at Mid Ch - MEDS Low Band = 401.55 MHz, Mid Ch - MICS Mid Band = 403.5 MHz & Mid Ch - MEDS High Band = 405.55 MHz				
Deviations:	None				
Comments:	Power Transmit Index = 33				

Test Specifications	**Test Method**
FCC 95I:2016	ANSI C63.26:2015

Run #	45	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	403.493	1.0	192.0	Horz	PK	1.61E-05	-17.9	-16.0	-1.9	Mid 403.5MHz, EUT Horiz, Batt
	401.547	1.0	162.0	Horz	PK	1.22E-05	-19.1	-16.0	-3.1	Low 401.55MHz, EUT Horiz, Batt
	405.543	1.0	155.0	Horz	PK	1.14E-05	-19.4	-16.0	-3.4	High 405.55MHz, EUT Horiz, Batt
	405.548	1.2	200.0	Vert	PK	6.41E-06	-21.9	-16.0	-5.9	High 405.55MHz, EUT on Side, Batt
	401.548	1.2	211.0	Vert	PK	5.99E-06	-22.2	-16.0	-6.2	Low 401.55MHz, EUT on Side, Batt
	403.488	1.2	206.0	Vert	PK	5.21E-06	-22.8	-16.0	-6.8	Mid 403.5MHz, EUT on Side, Batt
	405.545	1.0	182.0	Horz	PK	5.21E-06	-22.8	-16.0	-6.8	High 405.55MHz, EUT Vert, Batt
	401.548	1.0	180.0	Horz	PK	5.09E-06	-22.9	-16.0	-6.9	Low 401.55MHz, EUT Vert, Batt
	403.502	2.7	283.0	Horz	PK	3.61E-06	-24.4	-16.0	-8.4	Mid 403.5MHz, EUT on Side, Batt
	403.497	1.0	126.0	Horz	PK	3.52E-06	-24.5	-16.0	-8.5	Mid 403.5MHz, EUT Vert, Batt
	403.492	1.4	195.0	Vert	PK	3.37E-06	-24.7	-16.0	-8.7	Mid 403.5MHz, EUT Vert, Batt
	401.550	1.3	195.0	Vert	PK	2.93E-06	-25.3	-16.0	-9.3	Low 401.55MHz, EUT Vert, Batt
	405.543	1.3	197.0	Vert	PK	2.67E-06	-25.7	-16.0	-9.7	High 405.55MHz, EUT Vert, Batt
	401.542	2.6	129.0	Vert	PK	2.17E-06	-26.6	-16.0	-10.6	Low 401.55MHz, EUT Horiz, Batt
	405.550	2.6	121.0	Vert	PK	2.12E-06	-26.7	-16.0	-10.7	High 405.55MHz, EUT Horiz, Batt
	401.550	2.7	293.0	Horz	PK	1.94E-06	-27.1	-16.0	-11.1	Low 401.55MHz, EUT on Side, Batt
	405.545	1.0	150.0	Horz	PK	1.54E-06	-28.1	-16.0	-12.1	High 405.55MHz, EUT on Side, Batt
	403.490	3.1	304.0	Vert	PK	1.17E-06	-29.3	-16.0	-13.3	Mid 403.5MHz, EUT Horiz, Batt