

NORTHWEST EMC

BSX Athletics

XM200BLK
FCC 15.247:2015

Report # SPRX0005



NVLAP Lab Code: 201049-0

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 may only be duplicated in its entirety

CERTIFICATE OF TEST

Last Date of Test: September 17, 2015
BSX Athletics
Model: XM200BLK

Radio Equipment Testing

Standards

Specification	Method
FCC 15.247:2015	ANSI C63.10:2013

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N/A	Not required for a battery powered EUT.
6.5, 6.6, 11.12.1, 11.13.2	Spurious Radiated Emissions	Yes	Pass	
6.10.4	Band Edge Compliance	No	N/A	Not required for permissive change.
11.6	Duty Cycle	No	N/A	Not required for permissive change.
11.8.2	Occupied Bandwidth	No	N/A	Not required for permissive change.
11.9	Output Power	No	N/A	Not required for permissive change.
11.10	Power Spectral Density	No	N/A	Not required for permissive change.
11.11	Spurious Conducted Emissions	No	N/A	Not required for permissive change.

Deviations From Test Standards

None

Approved By:



Jeremiah Darden, 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

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 Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

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

European Union

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

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://www.nwemc.com/accreditations/>
<http://gsi.nist.gov/global/docs/cabs/designations.html>

MEASUREMENT UNCERTAINTY

Measurement Uncertainty

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

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is on each data sheet. 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.

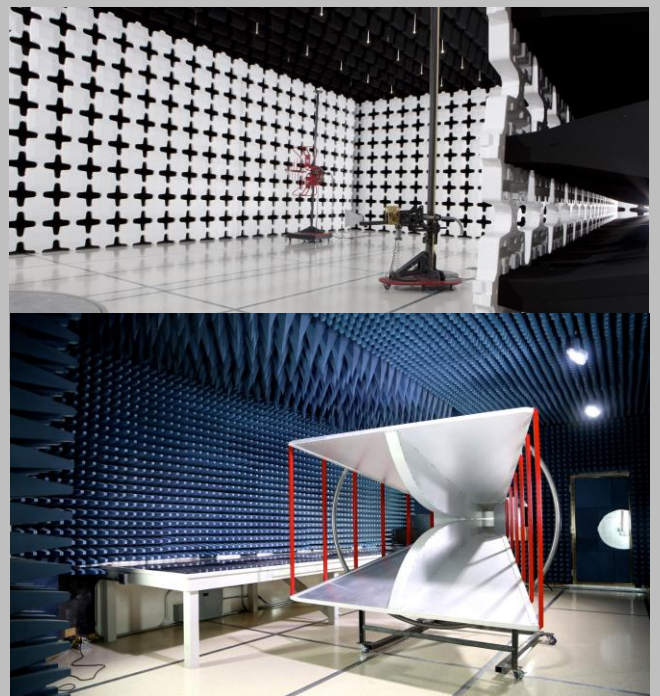
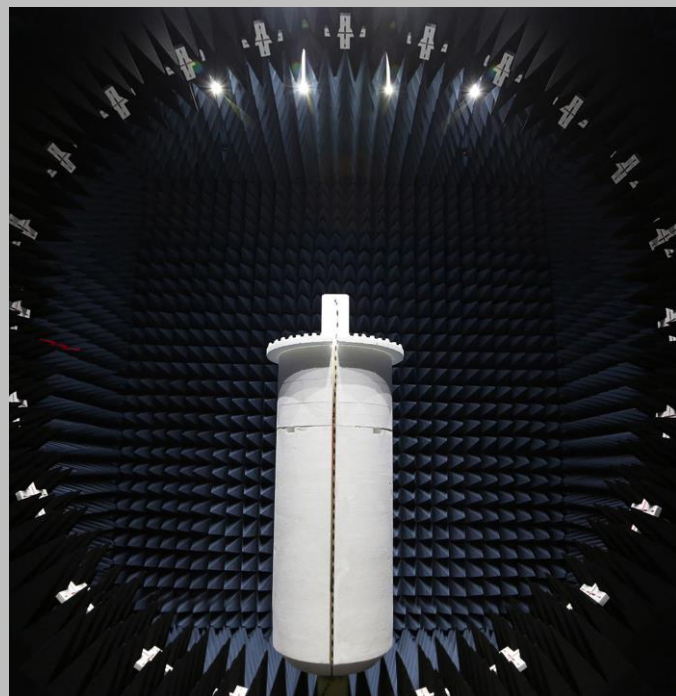
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

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)	4.9 dB	-4.9 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

FACILITIES



California Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 9801 (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
Industry Canada					
2834B-1, 2834B-3	2834E-1	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/RRR, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	BSX Athletics
Address:	206 E. 9 th Street #1400
City, State, Zip:	Austin, TX 78701
Test Requested By:	Daniel Nichols
Model:	XM200BLK
First Date of Test:	September 17, 2015
Last Date of Test:	September 17, 2015
Receipt Date of Samples:	September 15, 2015
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

Wearable fitness device that attaches to the calf. The device captures blood oxygenation data to determine the athletes oxygenation levels. It helps determine the athlete's ideal pace for finishing the run, bike or swim event. It gathers the data from the body by shining a light into the calf and it measures the reflected data from a photo sensor on the product. That data is transmitted from the device using the Bluetooth Low Energy protocol and / or the Ant+ radio protocol. The device is also capable of receiving data from external sensors over Ant+ to store and correlate with internally generated data.

Testing Objective:

Additional memory was added and the antenna matching was improved. The testing was required to validate the changes made to the equipment and ensure no degradation in the reported results.

CONFIGURATIONS

Configuration SPRX0005- 1

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Sensor	BSX Athletics	XM200BLK	None

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	9/17/2015	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

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 BLE Low, Mid, High Channel @ 2402, 2442, 2480MHz, 100% Duty Cycle, Power +4dB

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

SPRX0005 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26000 MHz
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SAMPLE CALCULATIONS

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

TEST EQUIPMENT

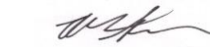
Description	Manufacturer	Model	ID	Last Cal.	Interval
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	1/28/2015	12 mo
Antenna - Biconilog	ETS Lindgren	3143B	AYF	4/7/2014	24 mo
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	9/18/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1551	PAH	9/18/2015	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AJL	9/15/2014	24 mo
Cable	Northwest EMC	1-8.2 GHz	TXC	9/18/2015	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAJ	9/18/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AJF	NCR	0 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AJG	NCR	0 mo
Antenna - Double Ridge	A.H. Systems, Inc.	SAS-574	AXW	4/23/2014	24 mo
Cable	Northwest EMC	18-40GHz	TXE	11/21/2014	12 mo
Amplifier - Pre-Amplifier	Miteq	JSDQK42-18004000-60-5P	PAM	11/21/2014	12 mo
Cable	Northwest EMC	8-18GHz	TXD	10/27/2014	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	PAL	10/27/2014	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	PAK	10/27/2014	12 mo
Filter - Low Pass	Micro-Tronics	LPM50004	HHV	8/11/2015	12 mo
Filter - High Pass	Micro-Tronics	HPM50111	HHX	8/11/2015	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

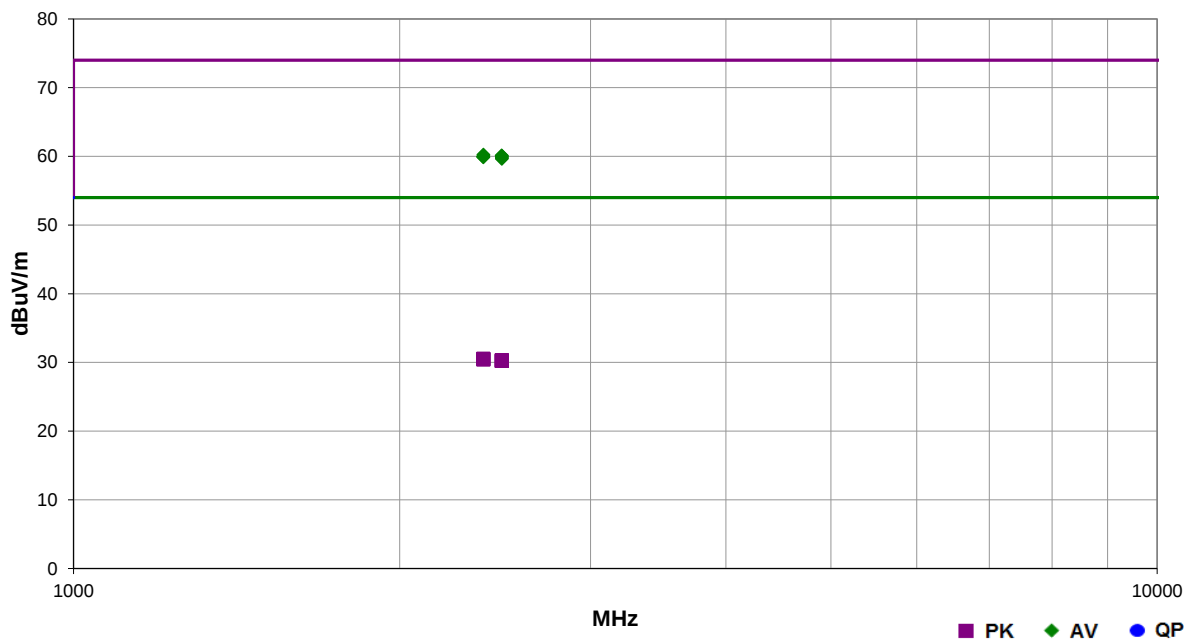
TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. 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. A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity. A duty cycle correction was used based on the actual operating mode during normal use. A calculation is provided within the comment section of the datasheet.

Work Order:	SPRX0005	Date:	09/17/15	
Project:	None	Temperature:	24.6 °C	
Job Site:	TX02	Humidity:	46.8% RH	
Serial Number:	None	Barometric Pres.:	1021 mbar	
EUT:	XM200BLK			
Configuration:	1			
Customer:	BSX Athletics			
Attendees:	David Smoot			
EUT Power:	Battery			
Operating Mode:	Transmitting BLE Low, High Channel @ 2402, 2480MHz, 100% Duty Cycle, Power +4dB			
Deviations:	None			
Comments:	Band Edge, Duty Cycle Adjustment: Measured 2.555ms pulses, 5 pulses in 100ms. 5*2.555/100=12.8% Duty Cycle. 20*log(0.128)= -17.8dB			

Test Specifications	Test Method
FCC 15.247:2015	ANSI C63.10:2013

Run #	19	Test Distance (m)	3	Antenna Height(s)	1 to 4(m)	Results	Pass
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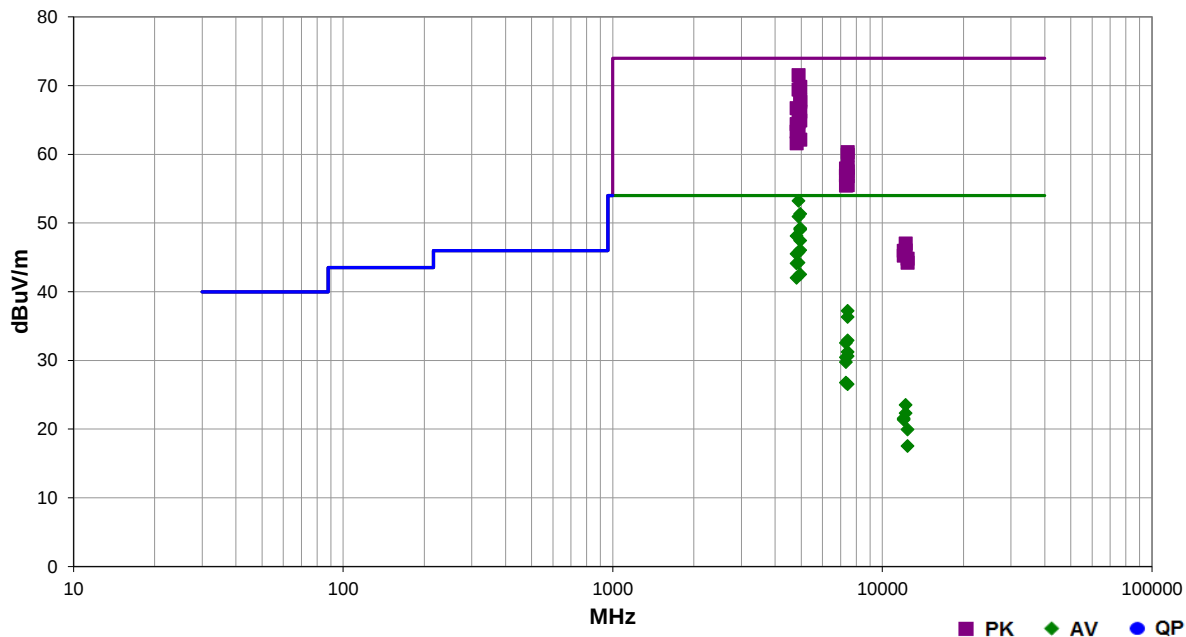


Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Duty Cycle Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2389.530	45.0	-4.8	2.8	50.0	3.0	20.0	Vert	PK	0.0	60.2	74.0	-13.8	Low Ch, EUT Horz
2483.517	44.8	-4.7	1.0	360.0	3.0	20.0	Horz	PK	0.0	60.1	74.0	-13.9	High Ch, EUT Horz
2389.723	44.8	-4.8	1.0	358.9	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	Low Ch, EUT Vert
2485.447	44.7	-4.7	1.0	74.0	3.0	20.0	Horz	PK	0.0	60.0	74.0	-14.0	High Ch, EUT Side
2485.270	44.7	-4.7	1.3	15.9	3.0	20.0	Vert	PK	0.0	60.0	74.0	-14.0	High Ch, EUT Side
2388.027	44.7	-4.8	1.0	250.9	3.0	20.0	Vert	PK	0.0	59.9	74.0	-14.1	Low Ch, EUT Horz
2389.990	44.6	-4.8	1.0	46.9	3.0	20.0	Vert	PK	0.0	59.8	74.0	-14.2	Low Ch, EUT Vert
2484.617	44.5	-4.7	2.2	92.0	3.0	20.0	Horz	PK	0.0	59.8	74.0	-14.2	High Ch, EUT Vert
2485.373	44.4	-4.7	1.0	34.9	3.0	20.0	Horz	PK	0.0	59.7	74.0	-14.3	High Ch, EUT Horz
2484.747	44.3	-4.7	1.0	229.0	3.0	20.0	Vert	PK	0.0	59.6	74.0	-14.4	High Ch, EUT Vert
2388.697	33.1	-4.8	2.8	50.0	3.0	20.0	Vert	AV	17.8	30.5	54.0	-23.5	Low Ch, EUT Horz
2388.137	33.1	-4.8	1.0	358.9	3.0	20.0	Horz	AV	17.8	30.5	54.0	-23.5	Low Ch, EUT Vert
2389.697	33.0	-4.8	1.0	250.9	3.0	20.0	Vert	AV	17.8	30.4	54.0	-23.6	Low Ch, EUT Horz
2388.363	33.0	-4.8	1.0	46.9	3.0	20.0	Vert	AV	17.8	30.4	54.0	-23.6	Low Ch, EUT Vert
2485.477	32.8	-4.7	1.0	229.0	3.0	20.0	Vert	AV	17.8	30.3	54.0	-23.7	High Ch, EUT Vert
2483.633	32.8	-4.7	2.2	92.0	3.0	20.0	Horz	AV	17.8	30.3	54.0	-23.7	High Ch, EUT Vert
2484.657	32.7	-4.7	1.0	360.0	3.0	20.0	Horz	AV	17.8	30.2	54.0	-23.8	High Ch, EUT Horz
2484.573	32.7	-4.7	1.0	34.9	3.0	20.0	Horz	AV	17.8	30.2	54.0	-23.8	High Ch, EUT Horz
2484.420	32.7	-4.7	1.0	74.0	3.0	20.0	Horz	AV	17.8	30.2	54.0	-23.8	High Ch, EUT Side
2483.670	32.7	-4.7	1.3	15.9	3.0	20.0	Vert	AV	17.8	30.2	54.0	-23.8	High Ch, EUT Side

Work Order:	SPRX0005	Date:	09/17/15	
Project:	None	Temperature:	24.6 °C	
Job Site:	TX02	Humidity:	46.8% RH	
Serial Number:	None	Barometric Pres.:	1021 mbar	
EUT: XM200BLK				Tested by: Frank Sun
Configuration:	1			
Customer:	BSX Athletics			
Attendees:	David Smoot			
EUT Power:	Battery			
Operating Mode:	Transmitting BLE Low, Mid, High Channel @ 2402, 2442, 2480MHz, 100% Duty Cycle, Power +4dB			
Deviations:	None			
Comments:	Duty Cycle Adjustment: Measured 2.555ms pulses, 5 pulses in 100ms. $5 \times 2.555 / 100 = 12.8\%$ Duty Cycle. $20 \times \log(0.128) = -17.8\text{dB}$			

Test Specifications	Test Method
FCC 15.247:2015	ANSI C63.10:2013

Run #	22	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	Duty Cycle Correction (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
4883.995	63.0	8.0	1.8	338.0	3.0	0.0	Horz	AV	17.8	53.2	54.0	-0.8	Mid Ch, EUT Horz
4959.965	60.9	8.2	2.2	166.9	3.0	0.0	Horz	AV	17.8	51.3	54.0	-2.7	High Ch, EUT Horz
4883.985	60.7	8.0	4.0	206.0	3.0	0.0	Horz	AV	17.8	50.9	54.0	-3.1	Mid Ch, EUT Side
4959.985	58.8	8.2	1.7	260.0	3.0	0.0	Horz	AV	17.8	49.2	54.0	-4.8	High Ch, EUT Side
4959.995	58.6	8.2	3.8	304.9	3.0	0.0	Vert	AV	17.8	49.0	54.0	-5.0	High Ch, EUT Side
4803.955	58.1	7.8	2.0	166.9	3.0	0.0	Horz	AV	17.8	48.1	54.0	-5.9	Low Ch, EUT Horz
4960.010	57.0	8.2	1.1	255.0	3.0	0.0	Vert	AV	17.8	47.4	54.0	-6.6	High Ch, EUT Vert
4959.970	55.6	8.2	3.1	193.0	3.0	0.0	Vert	AV	17.8	46.0	54.0	-8.0	High Ch, EUT Horz
4883.990	55.5	8.0	1.3	270.0	3.0	0.0	Vert	AV	17.8	45.7	54.0	-8.3	Mid Ch, EUT Side
4804.000	55.5	7.8	3.6	207.0	3.0	0.0	Vert	AV	17.8	45.5	54.0	-8.5	Low Ch, EUT Horz
4884.005	54.0	8.0	1.7	63.0	3.0	0.0	Vert	AV	17.8	44.2	54.0	-9.8	Mid Ch, EUT Horz
4803.955	54.1	7.8	1.4	247.0	3.0	0.0	Vert	AV	17.8	44.1	54.0	-9.9	Low Ch, EUT Vert
4959.990	52.1	8.2	1.4	231.0	3.0	0.0	Horz	AV	17.8	42.5	54.0	-11.5	High Ch, EUT Vert
4803.975	52.0	7.8	3.4	205.0	3.0	0.0	Horz	AV	17.8	42.0	54.0	-12.0	Low Ch, EUT Vert
7439.975	41.6	13.4	3.8	211.0	3.0	0.0	Horz	AV	17.8	37.2	54.0	-16.8	High Ch, EUT Horz
7440.010	40.7	13.4	1.4	327.0	3.0	0.0	Vert	AV	17.8	36.3	54.0	-17.7	High Ch, EUT Side
4884.015	63.5	8.0	1.8	338.0	3.0	0.0	Horz	PK	0.0	71.5	74.0	-2.5	Mid Ch, EUT Side
7440.030	37.3	13.4	1.0	135.0	3.0	0.0	Vert	AV	17.8	32.9	54.0	-21.1	High Ch, EUT Vert
7325.965	37.0	13.4	1.5	36.0	3.0	0.0	Horz	AV	17.8	32.6	54.0	-21.4	Mid Ch, EUT Horz
4959.985	61.6	8.2	2.2	166.9	3.0	0.0	Horz	PK	0.0	69.8	74.0	-4.2	High Ch, EUT Horz
4883.990	61.4	8.0	4.0	206.0	3.0	0.0	Horz	PK	0.0	69.4	74.0	-4.6	Mid Ch, EUT Side
7440.005	35.6	13.4	1.0	81.0	3.0	0.0	Horz	AV	17.8	31.2	54.0	-22.8	High Ch, EUT Side

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Duty Cycle Correction (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7439.950	35.0	13.4	1.0	61.0	3.0	0.0	Horz	AV	17.8	30.6	54.0	-23.4	High Ch, EUT Vert
7325.940	34.9	13.4	1.0	320.0	3.0	0.0	Vert	AV	17.8	30.5	54.0	-23.5	Mid Ch, EUT Side
4959.980	59.7	8.2	1.7	260.0	3.0	0.0	Horz	PK	0.0	67.9	74.0	-6.1	High Ch, EUT Side
4960.000	59.4	8.2	3.8	304.9	3.0	0.0	Vert	PK	0.0	67.6	74.0	-6.4	High Ch, EUT Side
7326.010	34.2	13.4	3.0	1.0	3.0	0.0	Horz	AV	17.8	29.8	54.0	-24.2	Mid Ch, EUT Side
4804.025	58.9	7.8	2.0	166.9	3.0	0.0	Horz	PK	0.0	66.7	74.0	-7.3	Low Ch, EUT Horz
4960.020	58.0	8.2	1.1	255.0	3.0	0.0	Vert	PK	0.0	66.2	74.0	-7.8	High Ch, EUT Vert
4959.960	56.7	8.2	3.1	193.0	3.0	0.0	Vert	PK	0.0	64.9	74.0	-9.1	High Ch, EUT Horz
4883.835	56.7	8.0	1.3	270.0	3.0	0.0	Vert	PK	0.0	64.7	74.0	-9.3	Mid Ch, EUT Side
7326.095	31.2	13.4	1.0	39.0	3.0	0.0	Vert	AV	17.8	26.8	54.0	-27.2	Mid Ch, EUT Horz
4803.870	56.6	7.8	3.6	207.0	3.0	0.0	Vert	PK	0.0	64.4	74.0	-9.6	Low Ch, EUT Horz
7439.920	30.9	13.4	1.0	93.9	3.0	0.0	Vert	AV	17.8	26.5	54.0	-27.5	High Ch, EUT Horz
4883.805	55.6	8.0	1.7	63.0	3.0	0.0	Vert	PK	0.0	63.6	74.0	-10.4	Mid Ch, EUT Horz
4803.980	55.5	7.8	1.4	247.0	3.0	0.0	Vert	PK	0.0	63.3	74.0	-10.7	Low Ch, EUT Vert
4960.000	53.9	8.2	1.4	231.0	3.0	0.0	Horz	PK	0.0	62.1	74.0	-11.9	High Ch, EUT Vert
4804.040	53.8	7.8	3.4	205.0	3.0	0.0	Horz	PK	0.0	61.6	74.0	-12.4	Low Ch, EUT Vert
12209.970	42.1	-0.8	1.1	104.0	3.0	0.0	Vert	AV	17.8	23.5	54.0	-30.5	Mid Ch, EUT Side
7440.065	46.9	13.4	3.8	211.0	3.0	0.0	Horz	PK	0.0	60.3	74.0	-13.7	High Ch, EUT Horz
12209.970	40.9	-0.8	2.7	104.0	3.0	0.0	Horz	AV	17.8	22.3	54.0	-31.7	Mid Ch, EUT Side
7440.205	46.5	13.4	1.4	327.0	3.0	0.0	Vert	PK	0.0	59.9	74.0	-14.1	High Ch, EUT Side
12009.930	40.7	-1.3	1.0	86.0	3.0	0.0	Vert	AV	17.8	21.6	54.0	-32.4	Low Ch, EUT Horz
12009.960	40.5	-1.3	3.2	7.0	3.0	0.0	Horz	AV	17.8	21.4	54.0	-32.6	Low Ch, EUT Horz
7439.670	44.6	13.4	1.0	135.0	3.0	0.0	Vert	PK	0.0	58.0	74.0	-16.0	High Ch, EUT Vert
7325.840	44.6	13.4	1.5	36.0	3.0	0.0	Horz	PK	0.0	58.0	74.0	-16.0	Mid Ch, EUT Horz
12399.990	38.1	-0.4	1.1	84.0	3.0	0.0	Vert	AV	17.8	19.9	54.0	-34.1	High Ch, EUT Horz
7440.215	44.1	13.4	1.0	81.0	3.0	0.0	Horz	PK	0.0	57.5	74.0	-16.5	High Ch, EUT Side
7325.625	43.6	13.4	3.0	1.0	3.0	0.0	Horz	PK	0.0	57.0	74.0	-17.0	Mid Ch, EUT Side
7325.935	43.5	13.4	1.0	320.0	3.0	0.0	Vert	PK	0.0	56.9	74.0	-17.1	Mid Ch, EUT Side
7439.690	43.4	13.4	1.0	61.0	3.0	0.0	Horz	PK	0.0	56.8	74.0	-17.2	High Ch, EUT Vert
7439.875	42.1	13.4	1.0	93.9	3.0	0.0	Vert	PK	0.0	55.5	74.0	-18.5	High Ch, EUT Horz
7326.155	42.1	13.4	1.0	39.0	3.0	0.0	Vert	PK	0.0	55.5	74.0	-18.5	Mid Ch, EUT Horz
12399.970	35.7	-0.4	1.0	22.9	3.0	0.0	Horz	AV	17.8	17.5	54.0	-36.5	High Ch, EUT Horz
12209.850	47.8	-0.8	1.1	104.0	3.0	0.0	Vert	PK	0.0	47.0	74.0	-27.0	Mid Ch, EUT Side
12209.920	46.8	-0.8	2.7	104.0	3.0	0.0	Horz	PK	0.0	46.0	74.0	-28.0	Mid Ch, EUT Side
12009.760	47.3	-1.3	1.0	86.0	3.0	0.0	Vert	PK	0.0	46.0	74.0	-28.0	Low Ch, EUT Horz
12009.720	46.6	-1.3	3.2	7.0	3.0	0.0	Horz	PK	0.0	45.3	74.0	-28.7	Low Ch, EUT Horz
12399.890	45.2	-0.4	1.1	84.0	3.0	0.0	Vert	PK	0.0	44.8	74.0	-29.2	High Ch, EUT Horz
12399.460	44.6	-0.4	1.0	22.9	3.0	0.0	Horz	PK	0.0	44.2	74.0	-29.8	High Ch, EUT Horz