# Application for Certification For a Transmitter.

Icon Health and Fitness, Inc. 1500 South 1000 West Logan, UT 84321

**BLE** Transmitter

M/N: A1643

FCC ID: OMCIQSSA15 IC ID: 3673A-IQSSA15

#### REPORT # UT76072A-001

This report was prepared in accordance with the requirements of the FCC Rules and Regulations Part 2, Subpart J, 2.1033, Part 15.247, RSS-247 Issue 1, and other applicable sections of the rules as indicated herein.

Prepared By:

DNB Engineering, Inc. 1100 E Chalk Creek Road Coalville, UT 84017

22 May 2017

# TABLE OF CONTENTS

Paragraph numbers in this report follow the application section numbers found in the FEDERAL COMMUNICATIONS COMMISSION Rules and Regulations, Part 2, Subpart J for Certification of electronic equipment.

| TABL   | E OF C                                    | ONTENTS         |   | 2   |  |  |
|--------|---|-----------------|---|-----|--|--|
| 1.0    | ADMI                                      | NISTRATIVE      | DATA  | . 3 |  |  |
|        | 1.1                                       | Certifications  | and Qualifications.                           | 3   |  |  |
|        | 1.2 Measurement Repeatability Information |                 |   |     |  |  |
|        | 1.3                                       | Test Equipme    | nt List.                                      | . 4 |  |  |
|        | 1.4                                       | Test Summary    | Cross Reference                               | . 5 |  |  |
|        | 1.5                                       | Measurement     | Uncertainty                                   | 5   |  |  |
| 2.1033 | (b) (2)                                   | FCC Identifie   | r   | 7   |  |  |
| 2.1033 | (b) (3)                                   | Installation an | d Operating Instructions.                     | 8   |  |  |
| 2.1033 | (b) (4)                                   | Brief Descript  | ion of Circuit Function                       | 9   |  |  |
| 2.1033 | (b) (5)                                   | Block Diagram   | n   | 10  |  |  |
| 2.1033 | (b) (6)                                   | Report of Mea   | asurements                                    | 11  |  |  |
|        | 15.203                                    | -               | Antenna Requirement .                         | 12  |  |  |
|        | 15.207                                    |                 | Conducted Emissions (General Provisions)      | 13  |  |  |
|        | 15.209                                    |                 | Radiated Emissions (General Provisions)       | 19  |  |  |
|        | 15.247                                    |                 | Spurious Radiated Emissions                   | 26  |  |  |
|        | 15.247                                    | (a,2)           | 6 dB Bandwidth.                               | 30  |  |  |
|        |   |                 | 99% Occupied Bandwidth.                       | 36  |  |  |
|        | 15.247                                    | (a,2,b3)        | Maximum Peak Output Power (Conducted)         | 39  |  |  |
|        | 15.247                                    | (a,2,d)         | Conducted Band Edge and Out of Band Emissions | 43  |  |  |
|        | 15.247                                    | (a,2,d)         | Spurious RF Conducted Emissions               | 46  |  |  |
|        | 15.247                                    | (a,2,e):        | Power spectral density(PSD)                   | 50  |  |  |
| 2.1033 | (b) (7)                                   | Equipment Ph    | otographs                                     | 54  |  |  |
| End of | Report                                    | UT76072A-00     | )1  | 55  |  |  |

# 1.0 ADMINISTRATIVE DATA

## 1.1 Certifications and Qualifications

I certify that DNB Engineering, Inc conducted the tests performed in order to obtain the technical data presented in this application. Also, based on the results of the enclosed data, I have concluded that the equipment tested meets or exceeds the requirements of the Rules and Regulations governing this application.

## 1.2 Measurement Repeatability Information

The test data presented in this report has been acquired using the guidelines set forth in FCC Part 2.1031 through 2.1057, Part 15. The test results presented in this document are valid only for the equipment identified herein under the test conditions described. Repeatability of these test results will only be achieved with identical measurement conditions. These conditions include: The same test distance, EUT Height, Measurement Site Characteristics, and the same EUT System Components. The system must have the same Interconnecting Cables arranged in identical placement to that in the test set-up, with the system and/or EUT functioning in the identical mode of operation (i.e. software and so on) as on the date of the test. Any deviation from the test conditions and the environment on the date of the test may result in measurement repeatability difficulties.

All changes made to the EUT during the course of testing as identified in this test report must be incorporated into the EUT or identical models to ensure compliance with the FCC regulations.

Coffayne II

C. L. Payne III (Para. 1.1) Sr Compliance Engineer Coalville Facility. DNB Engineering, Inc. Tel. (435) 336-4433 FAX (435) 336-4436

# 1.3 Test Equipment List

| <b>TEST EQUIPMENT LIST - CONDUCTED EMISSIONS</b> |                           |         |            |           |  |  |  |
|--|---------------------------|---------|------------|-----------|--|--|--|
| Description                                      | Manufacturer/MN           | Asset # | Serial #   | Cal Due   |  |  |  |
| LISN   | Fisher LISN-50/32-4-01    | U-286   | 2020       | 17-Dec-17 |  |  |  |
| LISN   | FisherFCCLISN-50/250/25/8 | U-062   | 5003       | 16-Nov-17 |  |  |  |
| Spectrum Analyzer                                | Agilent/E7401A            | U-257   | MY42000103 | 29-Dec-17 |  |  |  |
| CDN 16 amp                                       | Fischer/FCC801M316A       | U-169   | 64         | 09-Jul-17 |  |  |  |
| TILE Software                                    | ETS Lindgren/ 3.4.11.13   | U-317   | 8112006    | 01-Dec-17 |  |  |  |
| Current Probe                                    | Solar/ 6741-1             | U-267   | 966727     | 17-Dec-17 |  |  |  |

| TEST EQUIPMENT LIST - RADIATED EMISSIONS |                          |         |            |           |  |  |  |
|--|--------------------------|---------|------------|-----------|--|--|--|
| Description                              | Manufacturer/MN          | Asset # | Serial #   | Cal Due   |  |  |  |
| Amplifier                                | HP/8447D                 | U-065   | 2727A06180 | 31-May-17 |  |  |  |
| Bicon Antenna                            | SCH/BBA9106              | U-186   | 7          | 18-May-17 |  |  |  |
| Log P Antenna                            | SCH/UHAL09107            | U-010   | 10         | 21-Dec-17 |  |  |  |
| DRG Horn Antenna                         | AH Systems/SAS-200/571   | U-156   | 222        | 23-Apr-18 |  |  |  |
| Spectrum Analyzer                        | Agilent/E7401A           | U-257   | MY42000103 | 29-Dec-17 |  |  |  |
| Spectrum Analyzer                        | R&S/FSV30                | U-248   | 101367     | 18-Jun-18 |  |  |  |
| TILE Software                            | ETS- Lindgern/ 3.4.11.13 | U-317   | 8112006    | 01-Dec-17 |  |  |  |

| <b>TEST EQUIPMENT LIST - ANTENNA CONDUCTED</b>   |           |       |        |           |  |  |  |
|--|-----------|-------|--------|-----------|--|--|--|
| DescriptionManufacturer/MNAsset #Serial #Cal Due |           |       |        |           |  |  |  |
| Spectrum Analyzer                                | R&S/FSV30 | U-248 | 101367 | 18-Jun-18 |  |  |  |

| Test Item  | FCC Requirement                                    | IC Requirement                             | Test Method                                       | Result |
|--|--|--|---|--------|
| Antenna<br>Requirement                           | FCC Part 15, Subpart C<br>Section 15.203 / 15.247  | RSS-Gen<br>Section 8.1.3                   |   | Pass   |
| AC Power Line<br>Conducted Emissions             | FCC Part 15, Subpart C<br>Section 15.207           | RSS-Gen<br>Section 8.8                     | ANSI C63.10 (2013)<br>Section 6.2                 | Pass   |
| Minimum 6dB<br>Bandwidth                         | FCC Part 15, Subpart C<br>Section 15.247 (a,2)     | RSS-247 Issue 1<br>May 2015<br>Section 5.2 | ANSI C63.10 (2013)<br>Section 11.8.1              | Pass   |
| 99% Occupied<br>Bandwidth                        |  | RSS-Gen<br>Section 6.6                     | RSS-Gen<br>Section 6.6                            | Pass   |
| Conducted Peak<br>Output Power                   | FCC Part 15, Subpart C<br>Section 15.247 (a,2,b,3) | RSS-247 Issue 1<br>May 2015<br>Section 5.4 | ANSI C63.10 (2013)<br>Section 11.9.1.2            | Pass   |
| Power Spectrum<br>Density                        | FCC Part 15, Subpart C<br>Section 15.247 (a,2,e)   | RSS-247 Issue 1<br>May 2015<br>Section 5.2 | ANSI C63.10 (2013)<br>Section 11.10.2             | Pass   |
| Conducted Spurious<br>Emissions and<br>Band Edge | FCC Part 15, Subpart C<br>Section 15.247 (a,2,d)   | RSS-247 Issue 1<br>May 2015<br>Section 5.5 | ANSI C63.10 (2013)<br>Section 11.12.2.4           | Pass   |
| Radiated Spurious<br>Emissions and<br>Band Edge  | FCC Part 15, Subpart C<br>Section 15.209 / 15.205  | RSS-247 Issue 1<br>May 2015<br>Section 5.5 | ANSI C63.10 (2013)<br>Section 6.4, 6.5, 6.6, 6.10 | Pass   |

# 1.4 Test Summary Cross Reference

Preliminary scans were performed to determine worst case modulation, packet length, and data rates. Only worst case data has been recorded within the body of the test report.

# 1.5 Measurement Uncertainty

| Measurement Type  | Uncertainty   |
|---|---------------|
| AC Conducted Emissions  | N/A           |
| OATS - Radiated Emissions - Vertical Biconical (30-300MHz)        | ± 4.17 dB     |
| OATS - Radiated Emissions - Horizontal Biconical (30-300MHz)      | ± 4.22 dB     |
| OATS - Radiated Emissions - Vertical Log Periodic (300-100MHz)    | ± 4.92 dB     |
| OATS - Radiated Emissions - Horizontal Log Periodic (300-1000MHz) | ± 4.79 dB     |
| OATS - Radiated Emissions - Vertical DRG Horn (> 1GHz)            | $\pm$ 5.74 dB |
| OATS - Radiated Emissions - Horizontal DRG Horn (>1GHz)           | $\pm$ 5.80 dB |
| Antenna Conducted Measurements                                    | ± 1.96 dB     |

2.1033 (b) (1) Application for Certification

| Name of Applicant:               | Icon Health and Fitness, Inc.<br>1500 South 1000 West<br>West Logan, UT 84321  |
|----------------------------------|--|
| FRN Number:<br>IC Number:        | 0009109950<br>3673A  |
| Name of Manufacturer :           | Multek<br>Xin Qing Science & Tech Ind Park<br>Jing An Town, Doumen<br>Zhuhai, Guangdong, PRC (P.C. 519180)           |
| Description:                     | BLE Transmitter  |
| Part Name:                       | A1643  |
| Part Number(s):                  | N/A  |
| Anticipated Production Quantity: | Multiple Units   |
| Frequency Band:                  | 2402 - 2480 MHz  |
| Rated Power:                     | -7dBm (0.2mW)  |
| Type of Signal:                  | Digital Transmission System (DTS)  |
| Channels:                        | 40 (BLE)   |
| Max Data Rate:                   | 1Mpbs (mega-bit) - Data transmission is not continuous, it<br>happens for short intervals for short periods of time. |
| Antenna Type:                    | Monopole   |
| Antenna Gain:                    | 2dBi   |
| Firmware/Software Version:       | 0.90   |

# 2.1033 (b) (2) FCC Identifier

FCC ID: IC ID: OMCIQSSA15 3673A-IQSSA15

Figure 1 - Label and location







# 2.1033 (b) (3) Installation and Operating Instructions

Supplied separately.

# 2.1033 (b) (4) Brief Description of Circuit Function

The BLE circuit device is a potted non-adjustable transmitter located in a "Smart Shoe", with the coin cell battery as the only accessible part. The antennas are 2 PCB trace soldered to the main PCB, which utilizes the nRF51822 BLE chip.

# 2.1033 (b) (5) Block Diagram

Supplied separately for confidentiality.

2.1033 (b) (6) Report of Measurements

# 15.203 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

- Pass Antenna gain is less than 2dBi
- Pass The antenna is permanently attached within the device and can not be replaced by the user.

# 15.207 Conducted Emissions (General Provisions)

Test Procedure: As specified in ANSI C63.10-2013

To measure conducted emissions, the EUT was set upon a wooden table in the shielded enclosure. AC power was fed into the EUT from the Artificial Mains Network. With the Artificial Mains Network connected to an Rhode & Schwarz FSV Signal and Spectrum Analyzer, and using Personal Computer with TILES Measurement Software, the spectrum was searched from 0.15 - 30 MHz for emissions emanating from the EUT.

| Frequency of emission | Conducted Limit (dBuV) |           |  |  |
|-----------------------|------------------------|-----------|--|--|
| (MHz)                 | Quasi-Peak             | Average   |  |  |
| 0.15 - 0.5            | 66 to 56*              | 56 to 46* |  |  |
| 0.5 - 5               | 56                     | 46        |  |  |
| 5 - 30                | 60                     | 50        |  |  |

\* Decreases with the logarithm of the frequency.

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously.

Test Set Up:



- AE = Associated equipment
- EUT = Equipment under test ISN = Impedance stabilization network

| <b>ONB</b>          | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |       | Conducted   | l Emissions          |
|---------------------|--|-------|-------------|----------------------|
| DNB Job Number:     | 76072  | Date: | 22 May 2017 | Specification        |
| Customer:           | Icon Health and Fitness, Inc.  |       |             | [X] 15 207           |
| Model Number:       | A1643  |       |             | [X] ANSI C63.10-2013 |
| Description:        | BLE Transmitter  |       |             |                      |
|                     |  |       |             |                      |
| CONDUCTED EMISSIONS |  |       |             |                      |

Not Applicable EUT is Battery Operated

# 15.209 Radiated Emissions (General Provisions)

Test Procedure: ANSI C63.10-2013

The EUT was measured on an open area test site (OATS).

A measuring distance of at least 3 m shall be used for measurements at frequencies up to 1 GHz. For frequencies above 1 GHz, any suitable measuring distance may be used. The equipment size (excluding the antenna) shall be less than 20 % of the measuring distance.

Sufficient precautions shall be taken to ensure that reflections from extraneous objects adjacent to the site do not degrade the measurement results, in particular:

- no extraneous conducting objects having any dimension in excess of a quarter wavelength of the highest frequency tested shall be in the immediate vicinity of the site;

- all cables shall be as short as possible; as much of the cables as possible shall be on the ground plane or preferably below; and the low impedance cables shall be screened.

- EUT was positioned in three orthogonal axis - only the worst case data (X-Axis) has been recorded

The EUT shall be placed upon a non-conductive table (wooden for below 1GHz and styrene above 1GHz) 0.80 meters above the ground plane for frequencies from 30 to 1000MHz and 1.5 meters above the ground plane above 1 Ghz and shall be placed in the "worst case" transmitting mode. The EUT shall be rotated 360 degrees to find the azimuth maxima. The receive antenna shall then be raised and lowered between 1 to 4 meters to find the maximum signal emanating from the EUT. This signal strength is then recorded on the data sheets.

| Frequency<br>(MHz) | Field Strength<br>(uV/m) | Field Strength (dBuV/m)              | Measurement Distance<br>(meters) |
|--------------------|--------------------------|--------------------------------------|----------------------------------|
| .0009 - 0.490      | 2400/F(kHz)              | 20*(Log <sub>10</sub> (2400/F(kHz))  | 300                              |
| 0.490 - 1.705      | 24000/F(kHz)             | 20*(Log <sub>10</sub> (24000/F(kHz)) | 30                               |
| 1.705 - 30.0       | 30                       | 29.5                                 | 30                               |
| 30 - 88            | 100                      | 40.0                                 | 3                                |
| 88 - 216           | 150                      | 43.5                                 | 3                                |
| 216 - 960          | 200                      | 46.0                                 | 3                                |
| Above 960          | 500                      | 54.0                                 | 3                                |

| <b>ONB</b>      | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | Ra    | diated En   | <b>vissions</b> (General) |
|-----------------|--|-------|-------------|---------------------------|
| DNB Job Number: | 76072  | Date: | 12 Dec 2016 | Specification             |
| Customer:       | Icon Health and Fitness, Inc.  |       |             | [X] 15 200                |
| Model Number:   | A1643  |       |             | [X] ANSI C63.10-2013      |
| Description:    | BLE Transmitter  |       |             |                           |
|                 | Test Set Up  |       |             |                           |



| <b>NB</b>                             | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | Ra    | idiated Em  | <b>vissions</b> (General) |  |
|---------------------------------------|--|-------|-------------|---------------------------|--|
| DNB Job Number:                       | 76072  | Date: | 12 Dec 2016 | Specification             |  |
| Customer:                             | Icon Health and Fitness, Inc.  |       |             | [X] 15 209                |  |
| Model Number:                         | A1643  |       |             | [X] ANSI C63.10-2013      |  |
| Description:                          | BLE Transmitter  |       |             |                           |  |
|                                       |  |       |             |                           |  |
| Test Set Up - Horizontal - 30-1000MHz |  |       |             |                           |  |



|               | VB         | 11        | 00 E Ch<br>Coalville<br>(435)<br>FAX (43 | alk Creek<br>e, UT 84<br>336-443<br>35) 336-4 | x Road<br>017<br>3<br>436 | R      | adiate | nissior | <b>1S</b> (Gene     | eral)        |        |  |
|---------------|------------|-----------|--|---|---------------------------|--------|--------|---------|---------------------|--------------|--------|--|
| DNB Job N     | umber:     | 7607      | 2  |   |                           | Date:  | 12 D   | ec 2016 | S                   | pecificatio  | on     |  |
| Customer:     |            | Icon      | Health ar                                | nd Fitness                                    | , Inc.                    |        |        |         | [X] 15 <sup>/</sup> | 209          |        |  |
| Model Num     | ber:       | A164      | 43                                       |   |                           |        |        |         | [X] AN              | SI C63.10    | )-2013 |  |
| Description   | :          | BLE       | Transmit                                 | ter   |                           |        |        |         |                     |              |        |  |
|               |            |           |  |   |                           |        |        |         |                     |              |        |  |
| EUT           | is in conf | ormance v | with FCC                                 | 15.209  | X                         | YES    | NO S   | Signed  |                     | CL Payne III |        |  |
| FREQ<br>(Mhz) | Meter      | Correct   | orrection Factors (dB) d                 |   |                           | dBuV/m | Dolto  | Tun     | Posi                | tions<br>Di  | Uat    |  |
| 038.010       | 28.64      | 23.80     | 7.80                                     | 27 20   | 33.04                     | 46.00  | -12.06 | ОР      | 3/                  | Vort         | 1 00   |  |
| 930.010       | 20.04      | 23.00     | 7.00                                     | 27.20   | 33.04                     | 40.00  | -12.70 |         |                     |              | 1.00   |  |
| 109.996       | 41.83      | 7.70      | 2.00                                     | 26.40   | 25.13                     | 43.50  | -18.37 | QP      | 0                   | Horz         | 4.00   |  |
| 109.998       | 40.49      | 7.70      | 2.00                                     | 26.40   | 23.79                     | 43.50  | -19.71 | QP      | 335                 | Vert         | 1.00   |  |
| 55.000        | 36.99      | 7.60      | 1.50                                     | 26.50   | 19.59                     | 40.00  | -20.41 | QP      | 324                 | Horz         | 4.00   |  |
| 30.000        | 24.38      | 17.60     | 1.00                                     | 26.50   | 16.48                     | 40.00  | -23.52 | QP      | 256                 | Vert         | 1.00   |  |
| 38.987        | 27.43      | 12.70     | 1.40                                     | 26.50   | 15.03                     | 40.00  | -24.97 | QP      | 305                 | Vert         | 1.00   |  |
| 45.666        | 29.89      | 9.40      | 1.30                                     | 26.50   | 14.09                     | 40.00  | -25.91 | QP      | 307                 | Vert         | 1.00   |  |
| 41.628        | 27.38      | 11.40     | 1.30                                     | 26.50   | 13.58                     | 40.00  | -26.42 | QP      | 0                   | Horz         | 4.00   |  |
| 119.981       | 25.60      | 7.40      | 2.10                                     | 26.30   | 8.80                      | 43.50  | -34.70 | QP      | 95                  | Vert         | 3.20   |  |
| 135.788       | 23.43      | 8.10      | 2.40                                     | 26.30   | 7.63                      | 43.50  | -35.87 | QP      | 224                 | Vert         | 1.00   |  |

### 15.247 Spurious Radiated Emissions

This test is required for any spurious emission or modulation product that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Follow the guidelines in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b). Submit this data.

Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from 20log(dwell time/100 ms), in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

If the emission on which a radiated measurement must be made is located at the edge of the authorized band of operation, then the alternative "marker-delta" method, listed at the end of this document, may be employed.

- Note 1:Limit listed is the general limit as specified in 15.209 in order to show compliance with the restricted bands of operation as well as the out of band limit in 15.247. No other identifiable signals were observed in the restricted bands as specified in 15.205.
- Note 2:Highest frequency investigated was the tenth harmonic of the fundamental, no radiated emissions were detected above the 3rd harmonic.

| <b>ONB</b>                     | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | Ra    | diated Em   | <b>issions</b> (Spurious) |  |  |  |  |  |
|--------------------------------|--|-------|-------------|---------------------------|--|--|--|--|--|
| DNB Job Number:                | 76072  | Date: | 11 Dec 2016 | Specification             |  |  |  |  |  |
| Customer:                      | Icon Health and Fitness, Inc.  |       |             | $[\mathbf{X}]$ 15 247 (c) |  |  |  |  |  |
| Model Number:                  | A1643  |       |             | [X] ANSI C63.10-2013      |  |  |  |  |  |
| Description:                   | BLE Transmitter  |       |             |                           |  |  |  |  |  |
|                                |  |       |             |                           |  |  |  |  |  |
| Test Set Up - (Vertical - DRG) |  |       |             |                           |  |  |  |  |  |



|                              | NF      | 3    |                                     | 00 E Cha<br>Coalville,<br>(435) 3<br>FAX (435 | lk Creek I<br>, UT 840<br>336-4433<br>5) 336-44 | Road<br>17<br>36 | Rad                             | iated E | missi        | nissions (Spurious) |          |  |  |
|------------------------------|---------|------|-------------------------------------|---|---|------------------|---------------------------------|---------|--------------|---------------------|----------|--|--|
| DNB Job                      | Number: | 7    | 7607                                | 2   |   |                  | Date: 11 Dec 2016 Specification |         |              |                     |          |  |  |
| Customer                     | :       | I    | Icon Health and Fitness, Inc.       |   |   |                  |                                 |         | [ <b>X</b> ] | 15.247 (c)          |          |  |  |
| Model N                      | umber:  | I    | 4164                                | 13  |   |                  |                                 |         | [X]          | ANSI C63.           | 10-2013  |  |  |
| Description: BLE Transmitter |         |      |                                     |   |   |                  |                                 |         |              |                     |          |  |  |
| Low Channel                  |         |      |                                     |   |   |                  |                                 |         |              |                     |          |  |  |
| FREQ                         | Mat     | Cor  | rect                                | tion Facto                                    | rs (dB)   |                  | dBuV/m                          |         | Т            | уре                 | D.1. 11  |  |  |
| (Mhz)                        | Meter   | An   | t                                   | Cbl   | Amp   | Corr             | Lim                             | Delta   | Lim          | Rdng                | Polarity |  |  |
| 4804                         | 43.22   | 33.0 | )6                                  | 5.59  | 25.59   | 56.28            | 74.00                           | -17.72  | Peak         | Peak                | Hor      |  |  |
| 4804                         | 39.76   | 33.0 | )6                                  | 5.59  | 25.59   | 52.82            | 54.00                           | -1.18   | Ave          | Ave                 | Hor      |  |  |
| 7206                         | 40.50   | 37.6 | 57                                  | 7.18  | 25.30   | 60.05            | 74.00                           | -13.95  | Peak         | Peak                | Hor      |  |  |
| 7206                         | 27.86   | 37.6 | .67 7.18 25.30 47.41 54.00 -6.59    |   |   |                  |                                 | Ave     | Ave          | Hor                 |          |  |  |
| 9608                         | 38.39   | 38.4 | .45 8.34 24.91 60.27 74.00 -13.73 I |   |   |                  |                                 |         | Peak         | Peak                | Hor      |  |  |
| 9608                         | 25.41   | 38.4 | 15                                  | 8.34  | 24.91   | 47.29            | 54.00                           | -6.71   | Ave          | Ave                 | Hor      |  |  |
| 12010                        | 47.15   | 39.8 | 33                                  | 9.76  | 24.99   | 71.75            | 74.00                           | -2.25   | Peak         | Peak                | Hor      |  |  |
| 12010                        | 22.99   | 39.8 | 33                                  | 9.76  | 24.99   | 47.59            | 54.00                           | -6.41   | Ave          | Ave                 | Hor      |  |  |
| 14412                        | 34.12   | 41.8 | 33                                  | 11.02   | 24.34   | 62.63            | 74.00                           | -11.37  | Peak         | Peak                | Hor      |  |  |
| 14412                        | 16.56   | 41.8 | 33                                  | 11.02   | 24.34   | 45.07            | 54.00                           | -8.93   | Ave          | Ave                 | Hor      |  |  |
| 16814                        | 34.71   | 41.9 | 94                                  | 11.93   | 23.04   | 65.54            | 74.00                           | -8.46   | Peak         | Peak                | Hor      |  |  |
| 16814                        | 16.98   | 41.9 | 94                                  | 11.93   | 23.04   | 47.81            | 54.00                           | -6.19   | Ave          | Ave                 | Hor      |  |  |
| 4804                         | 39.55   | 33.0 | )6                                  | 5.59  | 25.59   | 52.61            | 74.00                           | -21.39  | Peak         | Peak                | Vert     |  |  |
| 4804                         | 33.85   | 33.0 | )6                                  | 5.59  | 25.59   | 46.91            | 54.00                           | -7.09   | Ave          | Ave                 | Vert     |  |  |
| 7206                         | 33.77   | 37.6 | 57                                  | 7.18  | 25.30   | 53.32            | 74.00                           | -20.68  | Peak         | Peak                | Vert     |  |  |
| 7206                         | 20.85   | 37.6 | o7                                  | 7.18  | 25.30   | 40.40            | 54.00                           | -13.60  | Ave          | Ave                 | Vert     |  |  |
| 9608                         | 33.55   | 38.4 | 5                                   | 8.34  | 24.91   | 55.43            | 74.00                           | -18.57  | Peak         | Peak                | Vert     |  |  |
| 9608                         | 21.82   | 38.4 | 5                                   | 8.34  | 24.91   | 43.70            | 54.00                           | -10.30  | Ave          | Ave                 | Vert     |  |  |
| 12010                        | 24.14   | 39.8 | 33                                  | 9.76  | 24.99   | 48.74            | 74.00                           | -25.26  | Peak         | Peak                | Vert     |  |  |
| 12010                        | 21.52   | 39.8 | 33                                  | 9.76  | 24.99   | 46.12            | 54.00                           | -7.88   | Ave          | Ave                 | Vert     |  |  |
| 14412                        | 24.31   | 41.8 | 33                                  | 11.02   | 24.34   | 52.82            | 74.00                           | -21.18  | Peak         | Peak                | Vert     |  |  |
| 14412                        | 16.59   | 41.8 | 33                                  | B 11.02 24.34 45.10 54.00 -8.90 A             |   |                  |                                 |         | Ave          | Ave                 | Vert     |  |  |
| 16814                        | 24.54   | 41.9 | 94                                  | 11.93   | 23.04   | 55.37            | 74.00                           | -18.63  | Peak         | Peak                | Vert     |  |  |
| 16814                        | 16.91   | 41.9 | 94                                  | 11.93   | 23.04   | 47.74            | 54.00                           | -6.26   | Ave          | Ave                 | Vert     |  |  |

|                              | NF      | 3     | 1100 E Cha<br>Coalville<br>(435) 1<br>FAX (43 | lk Creek I<br>, UT 840<br>336-4433<br>5) 336-44 | Road<br>17<br>36 | Radi   | iated E   | Cmissi | nissions (Spurious) |         |  |  |
|------------------------------|---------|-------|---|---|------------------|--------|-----------|--------|---------------------|---------|--|--|
| DNB Job                      | Number: | 76    | 072   |   |                  | Date:  | 11 Dec 20 | 16     | Specifica           | tion    |  |  |
| Customer                     | r:      | Ic    | on Health an                                  | d Fitness, I                                    | nc.              |        |           | ۲VI    | 15 247 (a)          |         |  |  |
| Model N                      | umber:  | A     | 1643  |   |                  |        |           | [X]    | ANSI C63.           | 10-2013 |  |  |
| Description: BLE Transmitter |         |       |   |   |                  |        |           |        |                     |         |  |  |
| Middle Channel               |         |       |   |   |                  |        |           |        |                     |         |  |  |
| FRE                          | Mator   | Cor   | rection Fa                                    | actors  |                  | dBuV/m | l         | T      | уре                 | Polarit |  |  |
| Q                            | wieter  | Ant   | Cbl   | Amp   | Corr             | Lim    | Delta     | Lim    | Rdng                | У       |  |  |
| (M4880                       | 42.53   | 33.33 | 5.64  | 25.55   | 55.95            | 74.00  | -18.05    | Peak   | Peak                | Hor     |  |  |
| 4880                         | 38.12   | 33.33 | 5.64  | 25.55   | 51.54            | 54.00  | -2.46     | Ave    | Ave                 | Hor     |  |  |
| 7320                         | 33.39   | 37.90 | 7.24  | 25.30   | 53.23            | 74.00  | -20.77    | Peak   | Peak                | Hor     |  |  |
| 7320                         | 21.29   | 37.69 | 9 7.24 25.30 40.92 54                         |   |                  |        | -13.08    | Ave    | Ave                 | Hor     |  |  |
| 9760                         | 34.90   | 38.36 | 8.40  | 24.87   | 56.79            | 74.00  | -17.21    | Peak   | Peak                | Hor     |  |  |
| 9760                         | 22.20   | 38.36 | .36 8.40 24.87 44.09 54.00 -9.91              |   |                  |        |           |        | Ave                 | Hor     |  |  |
| 12200                        | 23.40   | 40.63 | 9.87  | 24.81   | 49.09            | 74.00  | -24.91    | Peak   | Peak                | Hor     |  |  |
| 12200                        | 15.11   | 40.63 | 9.87  | 24.81   | 40.80            | 54.00  | -13.20    | Ave    | Ave                 | Hor     |  |  |
| 14640                        | 24.73   | 42.19 | 11.13   | 24.09   | 53.96            | 74.00  | -20.04    | Peak   | Peak                | Hor     |  |  |
| 14640                        | 15.86   | 42.19 | 11.13   | 24.09   | 45.09            | 54.00  | -8.91     | Ave    | Ave                 | Hor     |  |  |
| 17080                        | 24.93   | 42.94 | 12.01   | 22.74   | 57.14            | 74.00  | -16.86    | Peak   | Peak                | Hor     |  |  |
| 17080                        | 16.79   | 42.94 | 12.01   | 22.74   | 49.00            | 54.00  | -5.00     | Ave    | Ave                 | Hor     |  |  |
| 4880                         | 38.67   | 33.33 | 5.64  | 25.55   | 52.09            | 74.00  | -21.91    | Peak   | Peak                | Vert    |  |  |
| 4880                         | 31.00   | 33.33 | 5.64  | 25.55   | 44.42            | 54.00  | -9.58     | Ave    | Ave                 | Vert    |  |  |
| 7320                         | 34.44   | 37.90 | 7.24  | 25.30   | 54.28            | 74.00  | -19.72    | Peak   | Peak                | Vert    |  |  |
| 7320                         | 20.77   | 37.69 | 7.24  | 25.30   | 40.40            | 54.00  | -13.60    | Ave    | Ave                 | Vert    |  |  |
| 9760                         | 33.67   | 38.36 | 8.40  | 24.87   | 55.56            | 74.00  | -18.44    | Peak   | Peak                | Vert    |  |  |
| 9760                         | 20.38   | 38.36 | 8.40  | 24.87   | 42.27            | 54.00  | -11.73    | Ave    | Ave                 | Vert    |  |  |
| 12200                        | 23.45   | 40.63 | 9.87  | 24.81   | 49.14            | 74.00  | -24.86    | Peak   | Peak                | Vert    |  |  |
| 12200                        | 15.07   | 40.63 | 3 9.87 24.81 40.76 54.00 -13.24 Ave           |   |                  |        |           |        | Ave                 | Vert    |  |  |
| 14640                        | 23.99   | 42.19 | 11.13   | 24.09   | 53.22            | 74.00  | -20.78    | Peak   | Peak                | Vert    |  |  |
| 14640                        | 15.86   | 42.19 | 11.13   | 24.09   | 45.09            | 54.00  | -8.91     | Ave    | Ave                 | Vert    |  |  |
| 17080                        | 26.64   | 42.94 | 12.01   | 22.74   | 58.85            | 74.00  | -15.15    | Peak   | Peak                | Vert    |  |  |
| 17080                        | 15.73   | 42.94 | 12.01   | 22.74   | 47.94            | 54.00  | -6.06     | Ave    | Ave                 | Vert    |  |  |

|                              | NF      | 3     | 1100 E Cha<br>Coalville<br>(435) 1<br>FAX (435 | lk Creek I<br>, UT 840<br>336-4433<br>5) 336-44 | Road<br>17<br>36 | Radi                            | iated E | Emi | nissions (Spurious) |           |         |  |
|------------------------------|---------|-------|--|---|------------------|---------------------------------|---------|-----|---------------------|-----------|---------|--|
| DNB Job                      | Number: | 70    | 5072   |   |                  | Date: 11 Dec 2016 Specification |         |     |                     |           |         |  |
| Customer                     | :       | Ic    | on Health and                                  | d Fitness, I                                    | nc.              |                                 |         |     | [ <b>V</b> ] 1      | 5 247 (a) |         |  |
| Model N                      | umber:  | A     | 1643   |   |                  |                                 |         |     | [A] I<br>[X] A      | ANSI C63. | 10-2013 |  |
| Description: BLE Transmitter |         |       |  |   |                  |                                 |         |     |                     |           |         |  |
| High Channel                 |         |       |  |   |                  |                                 |         |     |                     |           |         |  |
| FRE                          | Mator   | Co    | rrection Fa                                    | actors  |                  | dBuV/m                          | l       |     | Ту                  | pe        | Polarit |  |
| Q                            | wieter  | Ant   | Cbl  | Amp   | Corr             | Lim                             | Delta   | Li  | m                   | Rdng      | У       |  |
| (Mhzo                        | 47.19   | 33.60 | 5 5.68   | 25.52   | 61.01            | 74.00                           | -12.99  | Pe  | ak                  | Peak      | Hor     |  |
| 4960                         | 39.38   | 33.60 | 5 5.68   | 25.52   | 53.20            | 54.00                           | -0.80   | A   | ve                  | Ave       | Hor     |  |
| 7440                         | 35.24   | 37.38 | 3 7.31   | 25.30   | 54.63            | 74.00                           | -19.37  | Pe  | ak                  | Peak      | Hor     |  |
| 7440                         | 23.16   | 37.38 | 38 7.31 25.30 42.55 54.00 -11.45 A             |   |                  |                                 |         | A   | ve                  | Ave       | Hor     |  |
| 9920                         | 34.19   | 38.22 | 22 8.47 24.82 56.06 74.00 -17.94 F             |   |                  |                                 |         |     | ak                  | Peak      | Hor     |  |
| 9920                         | 21.11   | 38.22 | 2 8.47   | 24.82   | 42.98            | 54.00                           | -11.02  | A   | ve                  | Ave       | Hor     |  |
| 12400                        | 24.42   | 41.08 | 9.99   | 24.63   | 50.86            | 74.00                           | -23.14  | Pe  | ak                  | Peak      | Hor     |  |
| 12400                        | 16.39   | 41.08 | 9.99   | 24.63   | 42.83            | 54.00                           | -11.17  | A   | ve                  | Ave       | Hor     |  |
| 14880                        | 25.01   | 42.23 | 3 11.24  | 23.83   | 54.65            | 74.00                           | -19.35  | Pe  | ak                  | Peak      | Hor     |  |
| 14880                        | 16.09   | 42.23 | 3 11.24  | 23.83   | 45.73            | 54.00                           | -8.27   | A   | ve                  | Ave       | Hor     |  |
| 17360                        | 25.37   | 43.29 | 9 12.10  | 22.54   | 58.22            | 74.00                           | -15.78  | Pe  | ak                  | Peak      | Hor     |  |
| 17360                        | 16.22   | 43.29 | 9 12.10  | 22.54   | 49.07            | 54.00                           | -4.93   | A   | ve                  | Ave       | Hor     |  |
| 4960                         | 42.87   | 33.60 | 5 5.68   | 25.52   | 56.69            | 74.00                           | -17.31  | Pe  | ak                  | Peak      | Vert    |  |
| 4960                         | 39.21   | 33.60 | 5 5.68   | 25.52   | 53.03            | 54.00                           | -0.97   | A   | ve                  | Ave       | Vert    |  |
| 7440                         | 34.30   | 37.38 | 3 7.31   | 25.30   | 53.69            | 74.00                           | -20.31  | Pe  | ak                  | Peak      | Vert    |  |
| 7440                         | 22.68   | 37.38 | 3 7.31   | 25.30   | 42.07            | 54.00                           | -11.93  | A   | ve                  | Ave       | Vert    |  |
| 9920                         | 34.14   | 38.22 | 8.47   | 24.82   | 56.01            | 74.00                           | -17.99  | Pe  | ak                  | Peak      | Vert    |  |
| 9920                         | 21.17   | 38.22 | 2 8.47   | 24.82   | 43.04            | 54.00                           | -10.96  | A   | ve                  | Ave       | Vert    |  |
| 12400                        | 24.71   | 41.08 | 8 9.99   | 24.63   | 51.15            | 74.00                           | -22.85  | Pe  | ak                  | Peak      | Vert    |  |
| 12400                        | 16.17   | 41.08 | 3 9.99   | 9.99 24.63 42.61 54.00 -11.39 Ave Ave Ve        |                  |                                 |         |     |                     | Vert      |         |  |
| 14880                        | 24.43   | 42.23 | 3 11.24  | 23.83   | 54.07            | 74.00                           | -19.93  | Pe  | ak                  | Peak      | Vert    |  |
| 14880                        | 16.10   | 42.23 | 3 11.24  | 23.83   | 45.74            | 54.00                           | -8.26   | A   | ve                  | Ave       | Vert    |  |
| 17360                        | 24.94   | 43.29 | 9 12.10  | 22.54   | 57.79            | 74.00                           | -16.21  | Pe  | ak                  | Peak      | Vert    |  |
| 17360                        | 14.27   | 43.29 | 9 12.10  | 22.54   | 47.12            | 54.00                           | -6.88   | A   | ve                  | Ave       | Vert    |  |

| <b>ONB</b>      | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | Ra    | diated Em   | <b>issions</b> (Spurious) |
|-----------------|--|-------|-------------|---------------------------|
| DNB Job Number: | 76072  | Date: | 11 Dec 2016 | Specification             |
| Customer:       | Icon Health and Fitness, Inc.  |       |             | $[\mathbf{Y}]$ 15 247 (a) |
| Model Number:   | A1643  |       |             | [X] ANSI C63.10-2013      |
| Description:    | BLE Transmitter  |       |             |                           |
|                 | 1 Mbps (Basic data rate)   |       |             |                           |

|        | <b>Radiated Corrected Band Edge - BLE</b> |        |     |       |           |       |       |     |      |          |  |  |  |
|--------|---|--------|-----|-------|-----------|-------|-------|-----|------|----------|--|--|--|
| FREQ   | Motor                                     | Correc |     | Ту    | Dalaritar |       |       |     |      |          |  |  |  |
| (Mhz)  | Meter                                     | Ant    | Cbl | Amp   | Corr      | Lim   | Delta | Lim | Rdng | Polarity |  |  |  |
| 2400.0 | 43.7                                      | 29.8   | 5.0 | -26.3 | 52.19     | 54.00 | -1.81 | Ave | Ave  | Hor      |  |  |  |
| 2400.0 | 43.0                                      | 29.8   | 5.0 | -26.3 | 51.49     | 54.00 | -2.51 | Ave | Ave  | Vert     |  |  |  |
| 2483.5 | 43.2                                      | 30.1   | 5.1 | -26.3 | 52.11     | 54.00 | -1.89 | Ave | Ave  | Hor      |  |  |  |
| 2483.5 | 43.3                                      | 30.1   | 5.1 | -26.3 | 52.21     | 54.00 | -1.79 | Ave | Ave  | Vert     |  |  |  |

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15.247 (a,2)
6 dB Bandwidth
Test Procedure: ANSI C63.10-2013
6 dB Bandwidth
Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 6 dB bandwidth, centered on a hopping channel
RBW 1% of the 6 dB bandwidth
VBW RBW
Sweep = auto
Detector function = peak
Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 6 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 6 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously.

Test Set Up: (Note following set up was used for all antenna conducted measurements)



| <b>NB</b>                            | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | N     | Aeasurement Te | st Set Up               |  |  |  |  |
|--------------------------------------|--|-------|----------------|-------------------------|--|--|--|--|
| DNB Job Number:                      | 76072  | Date: | 8 Dec 2016     | Conformance             |  |  |  |  |
| Customer:                            | Icon Health and Fitness, Inc.  |       |                | Standard                |  |  |  |  |
| Model Number:                        | A1643  |       |                | FCC Part 15             |  |  |  |  |
| Description:                         | BLE Transmitter  |       |                | <b>Clause</b><br>15.247 |  |  |  |  |
| Antenna Conducted Measurement Set Up |  |       |                |                         |  |  |  |  |



| <b>ONB</b>   | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | 6 dB Si     | ngle Channe | l Bandwidth |  |  |  |
|--|-----------------------------------|---|-------------|-------------|-------------|--|--|--|
| DNB Job Number:  | 76072                             |   | Conformance |             |             |  |  |  |
| Customer:  | Icon Health                       |   | Standard    |             |             |  |  |  |
| Model Number:  | A1643                             | A1643   |             |             |             |  |  |  |
| Description:   | BLE Transı                        | mitter  |             |             | Clause      |  |  |  |
|  | Test Proced                       | lure  |             |             | 15.247(a,2) |  |  |  |
|  |                                   | Environmental C   | Conditions  |             |             |  |  |  |
| Ambient Temperature Relative Humidity Barometric Pressure                                |                                   |   |             |             |             |  |  |  |
| 21 °C  | 01.2 kPa                          |   |             |             |             |  |  |  |
| EUT performed within the requirements of the applicable standard [X] Yes [] No Les Payne |                                   |   |             |             |             |  |  |  |

# 6 dB Bandwidth

Use the following spectrum analyzer settings: Span = approximately 2 to 3 times the 6dB bandwidth, centered on a hopping channel RBW 1% of the 6dB bandwidth VBW RBW Sweep = auto Detector function = peak Trace = max hold

The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 6 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 6 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

| <b>NB</b>            | 1100 E Ch<br>Coalvill<br>(435)<br>FAX (4 | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |               |          |           | ngle Channe            | l Bandwidth     |  |
|----------------------|--|--|---------------|----------|-----------|------------------------|-----------------|--|
| DNB Job Number:      | 76072                                    | 76072  |               |          |           | 8 Dec 2016 Conformance |                 |  |
| Customer:            | Icon Health a                            | and Fitne  | ess, Inc.     |          |           |                        | Standard        |  |
| Model Number:        | A1643                                    |  |               |          |           |                        | FCC Part 15     |  |
| Description:         | BLE Transmi                              | BLE Transmitter  |               |          |           |                        |                 |  |
|                      | 1 Mbps (Basi                             | ic data ra   | ate)          |          |           |                        | 15.247(a,2)     |  |
|                      |  | Env  | vironmental C | onditior | ıs        |                        |                 |  |
| Ambient Tempe        | erature                                  |  | Relative Hun  | nidity   |           | Baron                  | netric Pressure |  |
| 21 °C                |  | 25 %   |               |          |           |                        | 01.2 kPa        |  |
| EUT performed within | the requirements                         | he requirements of the applicable standard [X] Yes [] No Le                            |               |          |           |                        |                 |  |
| Channel              | Chl Freq (MHz) 6dB BW (l                 |  |               | Hz)      | z) Limit  |                        | Pass/Fail       |  |
| Low                  | 2402                                     | 2402 533.560   |               |          | > 500 kHz |                        | Pass            |  |



Date: 8.DEC.2016 09:08:41

| <b>NB</b>            | 1100 E C<br>Coalvii<br>(435<br>FAX (4 | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |                |          |           | ngle Channe            | l Bandwidth     |  |
|----------------------|---------------------------------------|--|----------------|----------|-----------|------------------------|-----------------|--|
| DNB Job Number:      | 76072                                 | 76072  |                |          |           | 8 Dec 2016 Conformance |                 |  |
| Customer:            | Icon Health a                         | and Fit  | ness, Inc.     |          |           |                        | Standard        |  |
| Model Number:        | A1643                                 |  |                |          |           |                        | FCC Part 15     |  |
| Description:         | BLE Transm                            | BLE Transmitter  |                |          |           |                        |                 |  |
|                      | 1 Mbps (Bas                           | sic data   | rate)          |          |           |                        | 15.247(a,2)     |  |
|                      |                                       | E  | nvironmental C | onditior | 18        |                        |                 |  |
| Ambient Tempe        | erature                               |  | Relative Hur   | nidity   |           | Baron                  | netric Pressure |  |
| 21 °C                |                                       |  | 25 %           |          |           | 1                      | 01.2 kPa        |  |
| EUT performed within | the requirement                       | he requirements of the applicable standard [X] Yes [] No Le                            |                |          |           |                        |                 |  |
| Channel              | el Chl Freq (MHz) 6dB BW (            |  |                | Hz)      | ) Limit   |                        | Pass/Fail       |  |
| Middle               | 2440                                  | 2440 530.930   |                |          | > 500 kHz |                        | Pass            |  |



Date: 8.DEC.2016 09:38:39

| <b>NB</b>            | 1100 E Ch<br>Coalvill<br>(435)<br>FAX (4 | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |               |          |           | ngle Channe            | l Bandwidth     |  |
|----------------------|--|--|---------------|----------|-----------|------------------------|-----------------|--|
| DNB Job Number:      | 76072                                    | 76072  |               |          |           | 8 Dec 2016 Conformance |                 |  |
| Customer:            | Icon Health a                            | and Fitne  | ess, Inc.     |          |           |                        | Standard        |  |
| Model Number:        | A1643                                    |  |               |          |           |                        | FCC Part 15     |  |
| Description:         | BLE Transmi                              | BLE Transmitter  |               |          |           |                        |                 |  |
|                      | 1 Mbps (Basi                             | ic data r  | rate)         |          |           |                        | 15.247(a,2)     |  |
|                      |  | En   | vironmental C | onditior | 18        |                        |                 |  |
| Ambient Tempe        | erature                                  |  | Relative Hun  | nidity   |           | Baron                  | netric Pressure |  |
| 21 °C                |  | 25 %   |               |          |           |                        | 01.2 kPa        |  |
| EUT performed within | the requirements                         | e requirements of the applicable standard [X] Yes [] No Le                             |               |          |           |                        |                 |  |
| Channel              | Chl Freq (MHz) 6dB BW (l                 |  |               | Hz)      | Limit     |                        | Pass/Fail       |  |
| High                 | 2480                                     | 2480 531.310   |               |          | > 500 kHz |                        | Pass            |  |



Date: 8.DEC.2016 09:59:34

| <b>NB</b>              | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | 99%        | Occupied B | Bandwidth       |  |  |
|------------------------|-----------------------------------|---|------------|------------|-----------------|--|--|
| DNB Job Number:        | 76072                             | 76072 Date: 8 Dec 2016  |            |            |                 |  |  |
| Customer:              | Icon Health                       | and Fitness, Inc.   |            | Standard   |                 |  |  |
| Model Number:          | A1643                             |   |            |            | RSS-Gen         |  |  |
| Description:           | BLE Transı                        | mitter  | Clause     |            |                 |  |  |
|                        | 1 Mbps (Ba                        | sic data rate)  |            |            | Section 6.6     |  |  |
|                        |                                   | Environmental C   | Conditions |            |                 |  |  |
| Ambient Temper         | ature                             | Relative Hur  | nidity     | Baron      | netric Pressure |  |  |
| 21 °C                  |                                   | 25 %  |            | 1          | 01.2 kPa        |  |  |
| EUT performed within t | L Payne                           |   |            |            |                 |  |  |
| Channel                |                                   | 99%   | BW (MHz)   |            |                 |  |  |
| Low                    |                                   | 2402  |            | -          | 1.060367        |  |  |

99% Occupied Bandwidth



Date: 8.DEC.2016 09:10:55

| <b>NB</b>              | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | 99%        | o Occupied B | andwidth       |  |  |
|------------------------|-----------------------------------|---|------------|--------------|----------------|--|--|
| DNB Job Number:        | 76072                             | 76072 Date: 8 Dec 2016  |            |              |                |  |  |
| Customer:              | Icon Health                       | and Fitness, Inc.   |            | Standard     |                |  |  |
| Model Number:          | A1643                             |   |            |              | RSS-Gen        |  |  |
| Description:           | BLE Transr                        | BLE Transmitter   |            |              |                |  |  |
|                        | 1 Mbps (Ba                        | sic data rate)  |            |              | Section 6.6    |  |  |
|                        |                                   | Environmental C   | Conditions |              |                |  |  |
| Ambient Temper         | ature                             | Relative Hur  | nidity     | Barom        | etric Pressure |  |  |
| 21 °C                  | 21 °C 25 % 1                      |   |            |              |                |  |  |
| EUT performed within t | L Payne                           |   |            |              |                |  |  |
| Channel                |                                   | Chl Freq (M   | /Hz)       | 99%          | BW (MHz)       |  |  |
| Middle                 |                                   | 2440  |            | 1            | .060367        |  |  |



Date: 8.DEC.2016 09:10:55

| <b>NB</b>              | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | 99%        | Occupied Ba | andwidth       |  |  |
|------------------------|-----------------------------------|---|------------|-------------|----------------|--|--|
| DNB Job Number:        | 76072                             | 76072 Date: 8 Dec 2016  |            |             |                |  |  |
| Customer:              | Icon Health                       | and Fitness, Inc.   |            | Standard    |                |  |  |
| Model Number:          | A1643                             |   |            |             | RSS-Gen        |  |  |
| Description:           | BLE Transr                        | BLE Transmitter   |            |             |                |  |  |
|                        | 1 Mbps (Ba                        | sic data rate)  |            |             | Section 6.6    |  |  |
|                        |                                   | Environmental C   | Conditions |             |                |  |  |
| Ambient Temper         | ature                             | Relative Hur  | nidity     | Barom       | etric Pressure |  |  |
| 21 °C                  |                                   | 25 %  |            | 1           | 01.2 kPa       |  |  |
| EUT performed within t | L Payne                           |   |            |             |                |  |  |
| Channel                |                                   | Chl Freq (M   | /Hz)       | 99%         | BW (MHz)       |  |  |
| High                   |                                   | 2480  |            | 1           | .170228        |  |  |



Date: 8.DEC.2016 10:00:40

15.247 (a,2,b3) Maximum Peak Output Power (Conducted)

Test Procedure: ANSI C63.10-2013

## Peak Output Power

Use the following spectrum analyzer settings: Span = approximately 5 times the 6 B bandwidth, centered on a hopping channel RBW > the 6 dB bandwidth of the emission being measured VBW RBW Sweep = auto Detector function = peak Trace = max hold

Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power (see the NOTE above regarding external attenuation and cable loss). The limit is specified in one of the subparagraphs of this Section. Submit this plot. A peak responding power meter may be used instead of a spectrum analyzer.

The transmitter output was connected to a spectrum analyzer.

Requirement: The maximum peak output power shall not exceed 1W (30dBm)

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously at the low, mid, and upper channels respectively.

Test Set Up:



|              | B                    | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk C<br>ille, UT<br>5) 336-<br>(435) 33 | Сгеек Road<br>Г 84017<br>-4433<br>36-4436 | Pe                    | ak Out        | put P  | ower (Cond)   |           |  |
|--------------|----------------------|-----------------------------------|--|---|-----------------------|---------------|--------|---------------|-----------|--|
| DNB Job Nu   | mber:                | 76072                             | 76072 Date: 8 Dec 20                       |   |                       |               |        |               | formance  |  |
| Customer:    |                      | Icon Health                       | and Fit                                    |   | St                    | andard        |        |               |           |  |
| Model Numb   | er:                  | A1643                             | FCC Par                                    |   |                       |               |        |               |           |  |
| Description: |                      | BLE Transı                        | nitter                                     |   | Clause                |               |        |               |           |  |
|              |                      | Low Chann                         | el - 1 M                                   | Ibps (Basic c                             | lata rate)            |               |        | 15            | 5.247(b)  |  |
|              |                      |                                   | E  | Environmenta                              | al Conditions         |               |        |               |           |  |
| Ambie        | ent Tempera          | ature                             |  | Relative I                                | Humidity              |               | Baro   | ometric Pre   | ssure     |  |
|              | 21 °C                | 25 %                              |  |   | %                     |               |        | 101.2 kPa     |           |  |
| EUT perform  | ned within the       | ne requireme                      | nts of th                                  | ne applicable                             | standard [X           | []Yes [       | ] No . | Les Payne     |           |  |
| Freq MHz     | Meas Pea<br>Pwr (dBn | k Limit<br>1) (dBm                | t<br>)                                     | Delta<br>(dBm)                            | Meas Peak<br>Pwr (mW) | Limit<br>(mW) |        | Delta<br>(mW) | Pass/Fail |  |
| 2402         | -7.77                | 30.00                             | )  | -37.77                                    | 0.167                 | 1000          | -9     | 999.833       | Pass      |  |



Date: 8.DEC.2016 09:26:43

|              | B                    | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk<br>ille, U<br>5) 336<br>(435) 1 | Creek Road<br>JT 84017<br>6-4433<br>336-4436 | Pe                    | ak (   | Output       | t Po       | ower (Cond)          |           |  |
|--------------|----------------------|-----------------------------------|---------------------------------------|--|-----------------------|--------|--------------|------------|----------------------|-----------|--|
| DNB Job Nu   | mber:                | 76072                             | 76072 Date: 8 Dec 2016                |  |                       |        |              |            | 6 <b>Conformance</b> |           |  |
| Customer:    |                      | Icon Health                       | and F                                 |  | St                    | andard |              |            |                      |           |  |
| Model Numb   | er:                  | A1643                             | FCC Part                              |  |                       |        |              |            |                      | C Part 15 |  |
| Description: |                      | BLE Transmitter                   |                                       |  |                       |        |              |            | Clause               |           |  |
|              | -                    | Middle Cha                        | nnel -                                | 1 Mbps (Bas                                  | ic data rate)         |        |              |            | 15                   | 5.247(b)  |  |
|              |                      |                                   |                                       | Environment                                  | al Conditions         |        |              |            |                      |           |  |
| Ambie        | ent Tempera          | iture                             |                                       | Relative                                     | Humidity              |        | ]            | Baron      | netric Pre           | ssure     |  |
|              | 21 °C                |                                   |                                       | 25   | %                     |        |              | 1          | 01.2 kPa             |           |  |
| EUT perform  | ned within th        | ne requirement                    | nts of t                              | the applicable                               | standard [X           | K] Yes | s []No       | <i>C</i> . | L Payne              |           |  |
| Freq MHz     | Meas Pea<br>Pwr (dBm | k Limit<br>a) (dBm                | t<br>)                                | Delta<br>(dBm)                               | Meas Peak<br>Pwr (mW) | <br>(  | Limit<br>mW) | [<br>(1    | Delta<br>mW)         | Pass/Fail |  |
| 2440         | -7.59                | 30.00                             | )                                     | -37.59                                       | 0.174                 |        | 1000         | -99        | 9.826                | Pass      |  |



Date: 8.DEC.2016 09:44:45

|              | B                    | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Cre<br>ille, UT 8<br>5) 336-44<br>435) 336 | ek Road<br>4017<br>-33<br>-4436 | Pe                    | Peak Output                         |        |       |            | Cond)     |  |
|--------------|----------------------|-----------------------------------|--|---------------------------------|-----------------------|-------------------------------------|--------|-------|------------|-----------|--|
| DNB Job Nu   | mber:                | 76072 Date: 8                     |  |                                 |                       |                                     |        | 016   | Con        | formance  |  |
| Customer:    |                      | Icon Health and Fitness, Inc.     |  |                                 |                       |                                     |        |       | St         | andard    |  |
| Model Numb   | er:                  | A1643                             | A1643  |                                 |                       |                                     |        |       |            | C Part 15 |  |
| Description: |                      | BLE Transmitter                   |  |                                 |                       |                                     |        |       | Clause     |           |  |
|              |                      | High Chann                        | el - 1 Mbp                                       | os (Basic o                     | data rate)            |                                     |        |       | 15         | 5.247(b)  |  |
|              |                      |                                   | Env  | ironmenta                       | al Conditions         |                                     |        |       |            |           |  |
| Ambie        | ent Tempera          | iture                             | •  | Relative I                      | Humidity              |                                     | ]      | Baron | netric Pre | essure    |  |
|              | 21 °C                |                                   |  | 25                              | %                     |                                     |        | 1     | 01.2 kPa   | ι         |  |
| EUT perform  | ned within th        | ne requiremen                     | nts of the a                                     | pplicable                       | standard [X           | [] Ye                               | s []No | C     | L Payne    |           |  |
| Freq MHz     | Meas Pea<br>Pwr (dBm | k Limit<br>1) (dBm                | ) [(   | Delta<br>lBm)                   | Meas Peak<br>Pwr (mW) | Meas PeakLimitDeltaPwr (mW)(mW)(mW) |        |       |            |           |  |
| 2480         | -7.21                | 30.00                             | -3   | 37.21                           | 0.190                 |                                     | 1000   | -99   | 99.81      | Pass      |  |



Date: 8.DEC.2016 10:04:22

15.247 (a,2,d) Conducted Band Edge and Out of Band Emissions

Test Procedure: ANSI C63.10-2013

# Band-edge Compliance of RF Conducted Emissions

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation RBW 1% of the span VBW RBW Sween = auto

Sweep = auto Detector function = peak Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section. Submit this plot.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit. Submit this plot.

Test Set Up: Same as 15.247 (a,2) 6dB Emission Bandwidth

| <b>ONB</b>                           | 1100 E C<br>Coalv<br>(43)<br>FAX ( | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |                  |        |        | Edge Me        | asurements      |  |
|--------------------------------------|------------------------------------|--|------------------|--------|--------|----------------|-----------------|--|
| DNB Job Number:                      | 76072                              | 76072         Date:         8 Dec 201  |                  |        |        |                | Conformance     |  |
| Customer:                            | Icon Health                        | Icon Health and Fitness, Inc.  |                  |        |        |                |                 |  |
| Model Number:                        | A1643                              | A1643  |                  |        |        |                |                 |  |
| Description:                         | BLE Transr                         | BLE Transmitter  |                  |        |        |                |                 |  |
|                                      | 1 Mbps (Ba                         | 1 Mbps (Basic data rate)   |                  |        |        |                |                 |  |
| Ambient Tempe                        | erature                            |  | Relative Hur     | nidity |        | Baro           | metric Pressure |  |
| 21 °C                                |                                    |  | 25 %             |        |        |                | 101.2 kPa       |  |
| EUT performed within                 | the requirement                    | nts of th  | e applicable sta | indard | [X] Ye | s []No (       | CL Payne        |  |
| Conducted Band Edge Measurement Freq |                                    |  |                  |        |        |                |                 |  |
| Limit                                | Lower (MH                          | Lower (MHz) Upper (MH  |                  |        |        | Delta<br>(MHz) | Pass/Fail       |  |
| 2400                                 | 2401.675                           | 5  |                  |        |        | 1.675          | Pass            |  |



Date: 8.DEC.2016 09:17:03

| <b>ONB</b>           | 1100 E C<br>Coalv<br>(43<br>FAX ( | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |                  |              |        | Edge Me    | asurements      |  |
|----------------------|-----------------------------------|--|------------------|--------------|--------|------------|-----------------|--|
| DNB Job Number:      | 76072                             |  |                  | Date:        |        | 8 Dec 2016 | Conformance     |  |
| Customer:            | Icon Health                       | Icon Health and Fitness, Inc.  |                  |              |        |            |                 |  |
| Model Number:        | A1643                             |  | FCC Part 15      |              |        |            |                 |  |
| Description:         | BLE Transı                        | nitter   | Clause           |              |        |            |                 |  |
|                      | 1 Mbps (Ba                        | sic data   | rate)            |              |        |            | 15.247(a,2,d)   |  |
| Ambient Tempe        | erature                           |  | Relative Hur     | midity Baron |        |            | netric Pressure |  |
| 21 °C                |                                   |  | 25 %             |              |        |            | 101.2 kPa       |  |
| EUT performed within | the requirement                   | nts of th  | e applicable sta | ndard        | [X] Ye | s []No (   | CL Payne        |  |
| Conduc               | ted Band Edge                     | d Band Edge Measurement Freq   |                  |              |        |            |                 |  |
| Limit                | Lower (MI                         | wer (MHz) Upper (M   |                  |              |        | (MHz)      | Pass/Fail       |  |
| 2483.5               |                                   |  | 2480.32          | 5            | 3.175  |            | Pass            |  |



Date: 8.DEC.2016 10:12:53

| <b>NB</b>              | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | C            | onducted S  | purious       |  |  |
|------------------------|-----------------------------------|---|--------------|-------------|---------------|--|--|
| DNB Job Number:        | 76072                             |   | 8 Dec 2016   | Conformance |               |  |  |
| Customer:              | Icon Health                       | and Fitness, Inc.   |              | Standard    |               |  |  |
| Model Number:          | A1643                             | A1643   |              |             |               |  |  |
| Description:           | BLE Transr                        | mitter  |              |             | Clause        |  |  |
|                        | Test Proced                       | lure  |              |             | 15.247(a,2,d) |  |  |
| Ambient Temper         | netric Pressure                   |   |              |             |               |  |  |
| 21 °C                  | 01.2 kPa                          |   |              |             |               |  |  |
| EUT performed within t | he requirement                    | nts of the applicable sta   | andard [X] Y | es []No Le  | es Payne      |  |  |

Test Procedure: ANSI C63.10-2013

15.247 (a,2,d) Spurious RF Conducted Emissions

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the  $10^{th}$  harmonic. Typically, several plots are required to cover this entire span. RBW = 100 kHz

VBW RBW Sweep = auto Detector function = peak Trace = max hold

Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this Section. Submit these plots.

| <b>NB</b>                | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | C              | onducte  | ed Sj               | purious       |  |  |
|--------------------------|-----------------------------------|---|----------------|----------|---------------------|---------------|--|--|
| DNB Job Number:          | 76072                             |   | Conformance    |          |                     |               |  |  |
| Customer:                | Icon Health                       | and Fitness, Inc.   |                | Standard |                     |               |  |  |
| Model Number:            | A1643                             | A1643   |                |          |                     |               |  |  |
| Description:             | BLE Transı                        | BLE Transmitter   |                |          |                     |               |  |  |
|                          | Low Chann                         | el - 1 Mbps (Basic o  | lata rate)     |          |                     | 15.247(a,2,d) |  |  |
| Ambient Tempera          | ature                             | Relative 1  | Humidity       | ]        | Barometric Pressure |               |  |  |
| 21 °C                    |                                   | 25  | %              |          | 1                   | 01.2 kPa      |  |  |
| EUT performed within the | ne requireme                      | nts of the applicable   | standard [X] Y | es []No  | o Cl                | L Payne       |  |  |
| Peak Output Power        | er Reading (dBm) -20dBc (dBm)     |   |                |          |                     | Pass/Fall     |  |  |
| -7.77 dBm                |                                   | -7.74   | -27.74         |          |                     | Pass          |  |  |



Date: 8.DEC.2016 09:32:04

| <b>NB</b>                | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | Co              | onducte             | ed Sp     | ourious       |  |  |
|--------------------------|-----------------------------------|---|-----------------|---------------------|-----------|---------------|--|--|
| DNB Job Number:          | 76072                             | 76072 Date: 8 Dec 2016  |                 |                     |           |               |  |  |
| Customer:                | Icon Health                       | and Fitness, Inc.   |                 | Standard            |           |               |  |  |
| Model Number:            | A1643                             | A1643   |                 |                     |           |               |  |  |
| Description:             | BLE Transı                        | BLE Transmitter   |                 |                     |           |               |  |  |
|                          | Middle Cha                        | nnel - 1 Mbps (Bas  | ic data rate)   |                     |           | 15.247(a,2,d) |  |  |
| Ambient Tempera          | ature                             | Relative  | Humidity        | Barometric Pressure |           |               |  |  |
| 21 °C                    |                                   | 25  | %               |                     | 10        | )1.2 kPa      |  |  |
| EUT performed within the | ne requireme                      | nts of the applicable   | standard [X] Ye | es []No             | CL        | Payne         |  |  |
| Peak Output Power        | Re                                | ading (dBm)   | m)              |                     | Pass/Fall |               |  |  |
| -7.58 dBm                |                                   | -6.96   | -26.96          |                     |           | Pass          |  |  |



Date: 8.DEC.2016 09:46:38

| <b>ONB</b>               | 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | C              | onducte  | ed Sp               | ourious       |  |  |  |
|--------------------------|-----------------------------------|---|----------------|----------|---------------------|---------------|--|--|--|
| DNB Job Number:          | 76072                             | 76072         Date:         30 Dec 2015                             |                |          |                     |               |  |  |  |
| Customer:                | Icon Health                       | and Fitness, Inc.   |                | Standard |                     |               |  |  |  |
| Model Number:            | A1643                             | A1643   |                |          |                     |               |  |  |  |
| Description:             | BLE Transı                        | BLE Transmitter   |                |          |                     |               |  |  |  |
|                          | High Chann                        | el - 1 Mbps (Basic  | data rate)     |          |                     | 15.247(a,2,d) |  |  |  |
| Ambient Tempera          | ature                             | Relative 1  | Humidity       | ]        | Barometric Pressure |               |  |  |  |
| 21 °C                    |                                   | 25  | %              |          | 1(                  | 01.2 kPa      |  |  |  |
| EUT performed within the | ne requiremen                     | nts of the applicable   | standard [X] Y | es []No  | ) CL                | . Payne       |  |  |  |
| Peak Output Power        | Re                                | ading (dBm)   | 3m)            |          | Pass/Fall           |               |  |  |  |
| -7.21 dBm                |                                   | -7.13   | -27.13         |          |                     | Pass          |  |  |  |



Date: 8.DEC.2016 10:06:58

15.247(a,2,e): Power spectral density(PSD).

Test Procedure: ANSI C63.10-2013

The same method of determining the conducted output power shall be used to determine the power spectral density.

If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

Locate and zoom in on emission peak(s) within the passband. Set RBW = 3 kHz, VBW > RBW, sweep= (SPAN/3 kHz) e.g., for a span of 1.5 MHz, the sweep should be  $1.5 \times 10_6 8 3 \times 10_3 = 500$  seconds.

The peak level measured must be no greater than + 8 dBm. If external attenuation is used, don`t forget to add this value to the reading. Use the following guidelines for modifying the power spectral density measurement procedure when necessary.

For devices with spectrum line spacing greater than 3 kHz no change is required.

For devices with spectrum line spacing equal to or less than 3 kHz, the resolution bandwidth must be reduced below 3kHz until the individual lines in the spectrum are resolved. The measurement data must then be normalized to 3 kHz by summing the power of all the individual spectral lines within a 3kHz band (in linear power units) to determine compliance.

If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 35dB for correction to 3 kHz.

Should all the above fail or any controversy develop regarding accuracy of measurement, the Laboratory will use the HP 89440A Vector Signal Analyzer for final measurement unless a clear showing can be made for a further alternate.

| <b>N</b>  | 3   | 1100 E C<br>Coalv<br>(43)<br>FAX ( | Chalk Creek Road<br>ille, UT 84017<br>5) 336-4433<br>435) 336-4436 | Pow            | ver Spectral l      | Density     |  |
|---|-----|------------------------------------|--|----------------|---------------------|-------------|--|
| DNB Job Number  | :   | 76072                              |  | Date:          | 8 Dec 2016          | Conformance |  |
| Customer:   |     | Icon Health                        |  | Standard       |                     |             |  |
| Model Number:   |     | A1643                              |  | FCC Part 15    |                     |             |  |
| Description:  |     | BLE Transr                         |  | Clause         |                     |             |  |
| Low Channel - 1 Mbps (Basic data rate)  |     |                                    |  |                |                     | 15.247(d)   |  |
| Environmental Conditions  |     |                                    |  |                |                     |             |  |
| Ambient Temperature   |     |                                    | Relative 1   | Humidity       | Barometric Pressure |             |  |
| 21 °C   |     |                                    | 25 %   |                | 101.2 kPa           |             |  |
| EUT performed within the requirements of the applicable standard [X] Yes [] No CL Payne |     |                                    |  |                |                     |             |  |
| Channel   | Fre | eq MHz                             | Meas PSD<br>(dBm)  | Limit<br>(dBm) | Delta<br>(dBm)      | Pass/Fail   |  |
| Low   |     | 2402                               | -16.50   | 8.0            | -24.5               | Pass        |  |



Date: 8.DEC.2016 09:20:38

| <b>N</b>  | 3 1100 E C<br>Coalv<br>(43<br>FAX ( | Chalk Creek Road<br>rille, UT 84017<br>5) 336-4433<br>(435) 336-4436 | Pow            | ver Spectral 1 | Density             |  |  |
|---|-------------------------------------|--|----------------|----------------|---------------------|--|--|
| DNB Job Number:   | 76072                               |  | Date:          | 8 Dec 2016     | Conformance         |  |  |
| Customer:   | Icon Health                         | Icon Health and Fitness, Inc.  |                |                |                     |  |  |
| Model Number:   | A1643                               | A1643  |                |                |                     |  |  |
| Description:  | BLE Trans                           | BLE Transmitter  |                |                |                     |  |  |
| Middle Channel - 1 Mbps (Basic data rate)   |                                     |  |                |                | 15.247(d)           |  |  |
| Environmental Conditions  |                                     |  |                |                |                     |  |  |
| Ambient Te  | emperature                          | Relative   | Humidity       | Baromet        | Barometric Pressure |  |  |
| 21 °  | °C                                  | 25 %   |                | 101.2 kPa      |                     |  |  |
| EUT performed within the requirements of the applicable standard [X] Yes [] No CL Payne |                                     |  |                |                |                     |  |  |
| Channel   | Freq MHz                            | Meas PSD<br>(dBm)  | Limit<br>(dBm) | Delta<br>(dBm) | Pass/Fail           |  |  |
| Middle  | 2440                                | -15.29   | 8.0            | -23.29         | Pass                |  |  |



Date: 8.DEC.2016 09:42:23

| <b>N</b>  | 3 1100 E Coalv<br>(43)<br>FAX | Chalk Creek Road<br>ville, UT 84017<br>5) 336-4433<br>(435) 336-4436 | Pow            | ver Spectral I | Density            |  |  |
|---|-------------------------------|--|----------------|----------------|--------------------|--|--|
| DNB Job Number:   | 76072                         |  | Date:          | 8 Dec 2016     | Conformance        |  |  |
| Customer:   | Icon Health                   | Icon Health and Fitness, Inc.  |                |                |                    |  |  |
| Model Number:   | A1643                         | A1643  |                |                |                    |  |  |
| Description:  | BLE Trans                     |  | Clause         |                |                    |  |  |
| High Channel - 1 Mbps (Basic data rate)   |                               |  |                |                | 15.247(d)          |  |  |
| Environmental Conditions  |                               |  |                |                |                    |  |  |
| Ambient Te  | emperature                    | Relative   | Humidity       | Barometr       | arometric Pressure |  |  |
| 21 °  | °C                            | 25 %   |                | 101.2 kPa      |                    |  |  |
| EUT performed within the requirements of the applicable standard [X] Yes [] No CL Payne |                               |  |                |                |                    |  |  |
| Channel   | Freq MHz                      | Meas PSD<br>(dBm)  | Limit<br>(dBm) | Delta<br>(dBm) | Pass/Fail          |  |  |
| High  | 2480                          | -15.40   | 8.0            | -23.4          | Pass               |  |  |



Date: 8.DEC.2016 10:02:32

2.1033 (b) (7) Equipment Photographs

Supplied separately for confidentiality

End of Report UT76072A-001