

**Application for Certification
For a Transceiver**

Icon Health and Fitness, Inc.
1500 South 1000 West
Logan, UT 81321

Transceiver for use with Icon products
M/N: ISRR12

FCC ID: OMCISRR12

REPORT # UT36045F-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, and other applicable sections of the rules as indicated herein.

Prepared By:

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

19 Nov 2012

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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.

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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.



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2.1033 (b) (1) Application for Certification

Name of Applicant: Icon Health and Fitness, Inc.
1500 South 1000 West
Logan, UT 81321

FRN Number: 0009109950

Applicant is: X Icon Health and Fitness, Inc.
Vendor
Licensee
Prospective Licensee
Other

Name of Manufacturer #1: ATR Manufacturing Co.LTD.
Pingshan 188 Industrial Zone, Tangxia, 51170
Dongguan People's Republic of China

Name of Manufacturer #2: Chang Chen Instrument Co.
No. 342 Tatung Road, Taiwan ROC Taoyuan Hsien
Koeishang Hsiang

Description: Transceiver for use with Icon products

Part Number: ISRR12

Anticipated Production Quantity: Multiple Units

Frequency Band: 2401.3 - 2480.7 MHz

Rated Power: 0.230 mW

Type of Signal: Digital Transmission System (DTS)

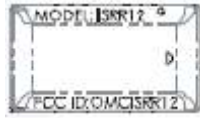
Hopping Channels: 40

Max Data Rate: 1Mpbs (mega-bit) - Data transmission is not continuous, it happens for short intervals for short periods of time.

2.1033 (b) (2) FCC Identifier

FCC ID: OMCISRR12

Figure 1 - Label and location



2.1033 (b) (3) Installation and Operating Instructions

Supplied separately.

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

Theory of Operation

The ISRR12 Speed Ring is designed for use with Icon Health and Fitness products.

The ISRR12 Speed Ring is a customized device designed to remotely make adjustments to the fitness product. It is a standalone device that has no physical connection to the fitness product. The speed ring will manage and maintain a connection with the product using the BLE protocol at 2.4GHz. The speed ring will:

Notify the device it is connected with when the speed ring keys are pressed. The key pressed state is sent independent of a request from the device it is connected with, and it does not expect acknowledgement from that device that the key data was received.

The speed ring will also monitor the voltage level of the battery that supplies its power. It will check the battery voltage level once every 10 seconds. The device the speed ring is connected with can request this voltage level.

Maintain a connection with one device at a time.

BLE Speed Ring Transceiver Configuration (cc2540 BLE Radio)

Uses Texas Instrument's cc2540 BLE radio IC, (the cc2540 has an internal microprocessor that will manage key presses and monitor battery life).

Operates at 2.4GHz ISM band.

Will transmit at -6 dBm. This is fixed and will not change.

Receiver gain is set to standard. This is fixed and will not change.

Uses GFSK modulation.

Uses 40 channels with 2MHz spacing between each channel.

There are 3 fixed advertising channels for broadcasting. This is to avoid interference with 802.11.

There are 37 adaptively frequency hopped data channels.

2.1033 (b) (5) Block Diagram

Supplied separately for confidentiality.

2.1033 (b) (6) Report of Measurements

TEST EQUIPMENT LIST					
Description	Manufacturer	Model No:	Asset No:	Serial No:	Cal Due
Spectrum Analyzer	Rhode & Schwarz	FSV30	U-248	101367	30 May 2013
Bicon Antenna	Schwarzbeck	BBA9106	U-186	7	04 May 2013
Log P Antenna	Schwarzbeck	UHAL09107	U-010	10	23 Sep 2013
DRG Horn	AH Systems	SAS-571	U-071	417	29 Jun 2013
Pre-Amplifier	HP	8447D	U-065	2727A06180	04 Jan 2013
Pre-Amp HF	Miteq	AFS6-02002000 18-P-MP	U-162	428738	14 Dec 2012
Datalogger	Stanford Research	SR630	U-135	17877	27 Apr 2013
Power Analyzer	Valhalla	2101	U-127	3-6058	16 Jan 2013
Temp Chamber	Tenny	THJr	N/A	10,314-508	Reference
Power Supply	HP	6255A	N/A	1812A01181	Reference

15.207 Conducted Emissions (General Provisions)

Test Procedure: As specified in IEEE C63.10

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.

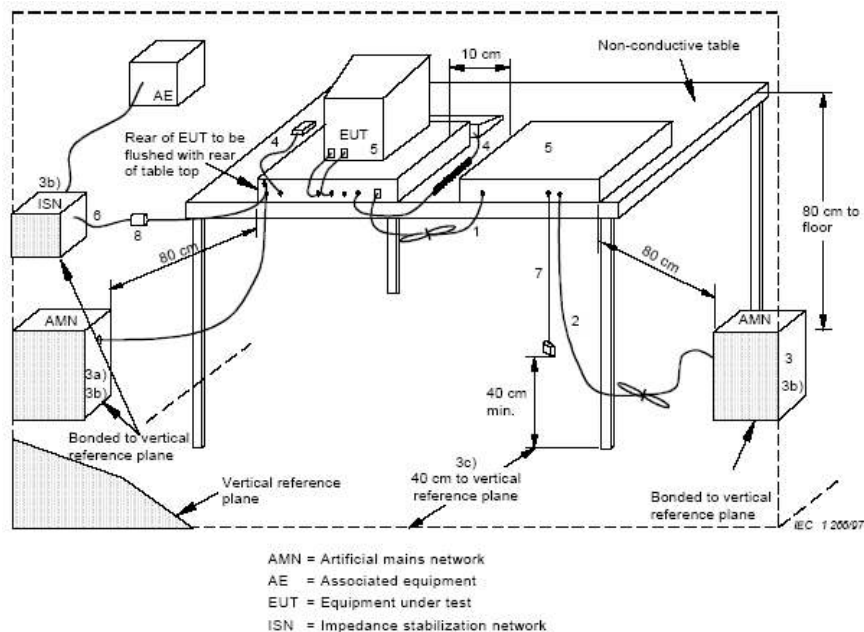
Frequency of emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

* 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:





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Coalville, UT 84017
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Conducted Emissions

DNB Job Number:	36045	Date:	19 Nov 2012	Specification [X] 15.207 [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver Set Up			

Not Applicable - Device is battery operated.

15.209 Radiated Emissions (General Provisions)

Test Procedure: IEEE C63.10

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.

The EUT shall be placed upon a non-conductive table 1.5 meters above the ground plane 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.

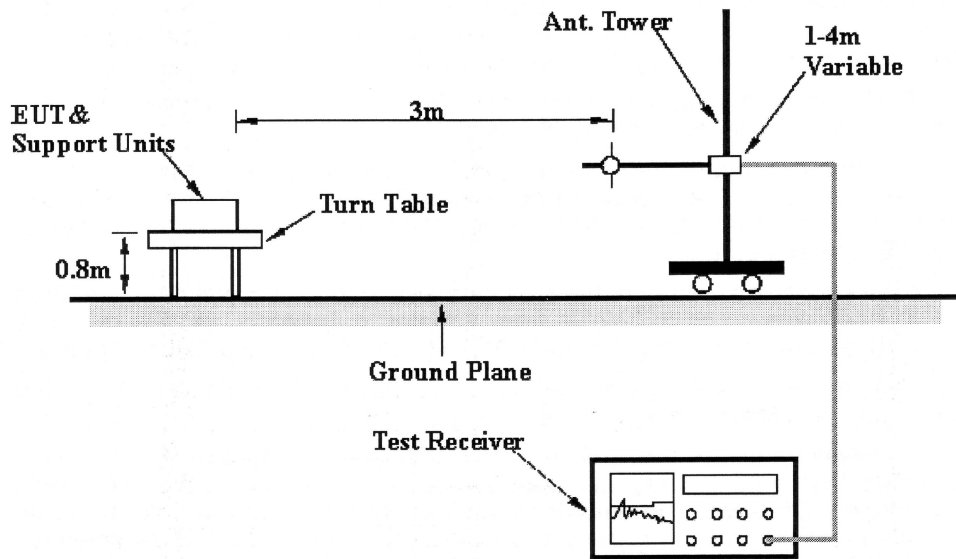
Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measurement Distance (meters)
.0009 - 0.490	2400/F(kHz)	20*(Log ₁₀ (2400/F(kHz)))	300
0.490 - 1.705	24000/F(kHz)	20*(Log ₁₀ (24000/F(kHz)))	30
1.705 - 30.0	30	29.5	30
30 - 88	100	40.0	3
88 - 216	150	43.5	3
216 - 960	200	46.0	3
Above 960	500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




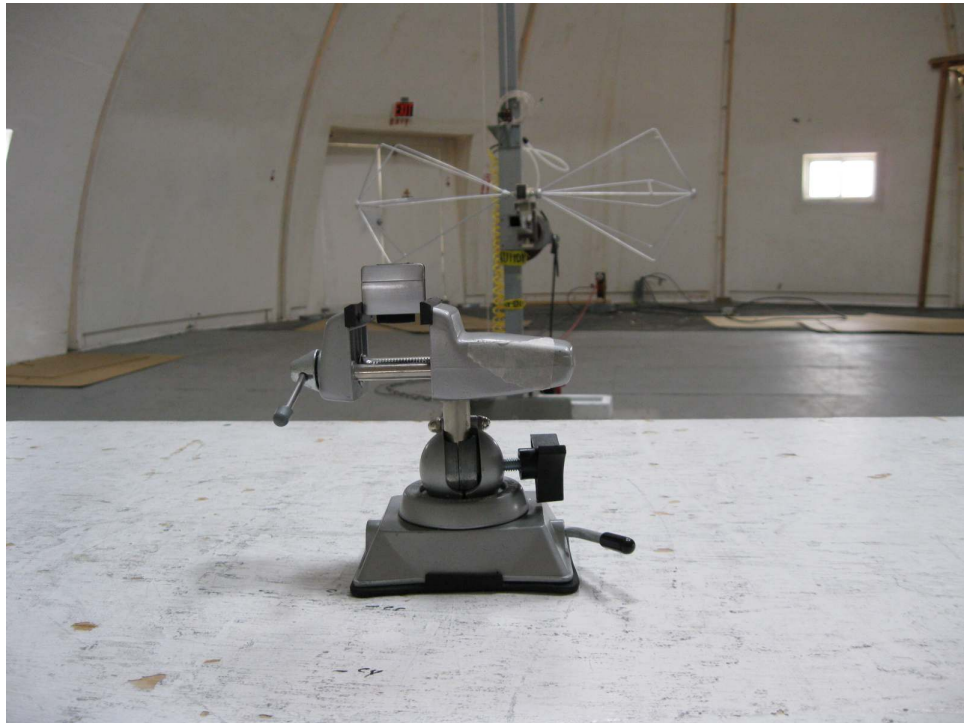
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Radiated Emissions (Spurious)

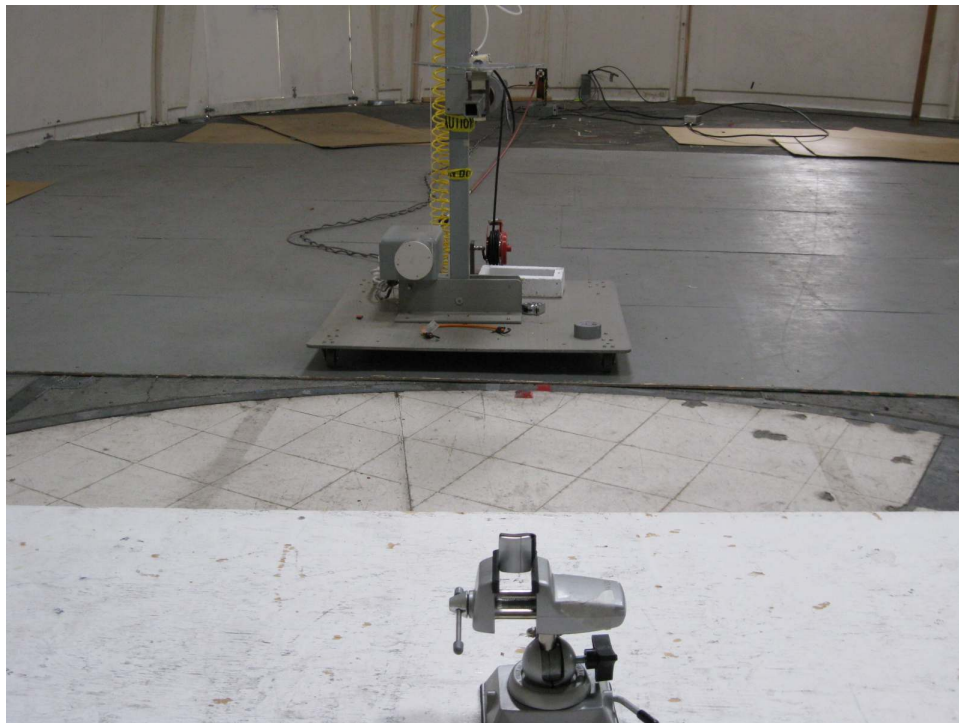
DNB Job Number:	36045	Date:	22 Oct 2012	Specification [X] 15.209 [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Test Set Up			



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436	Radiated Emissions (General)	
DNB Job Number:	36045	Date: 22 Oct 2012	Specification <input checked="" type="checkbox"/> 15.209 <input checked="" type="checkbox"/> IEEE C63.10
Customer:	Icon Health and Fitness, Inc.		
Model Number:	ISRR12		
Description:	Transceiver for use with Icon products		
Test Set Up - Bicon - Horizontal			



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436	Radiated Emissions (General)	
DNB Job Number:	36045	Date: 22 Oct 2012	Specification
Customer:	Icon Health and Fitness, Inc.		<input checked="" type="checkbox"/> 15.209
Model Number:	ISRR12		<input checked="" type="checkbox"/> IEEE C63.10
Description:	Transceiver for use with Icon products		
Test Set Up - Log Periodic - Horizontal			



15.247 (c) 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:

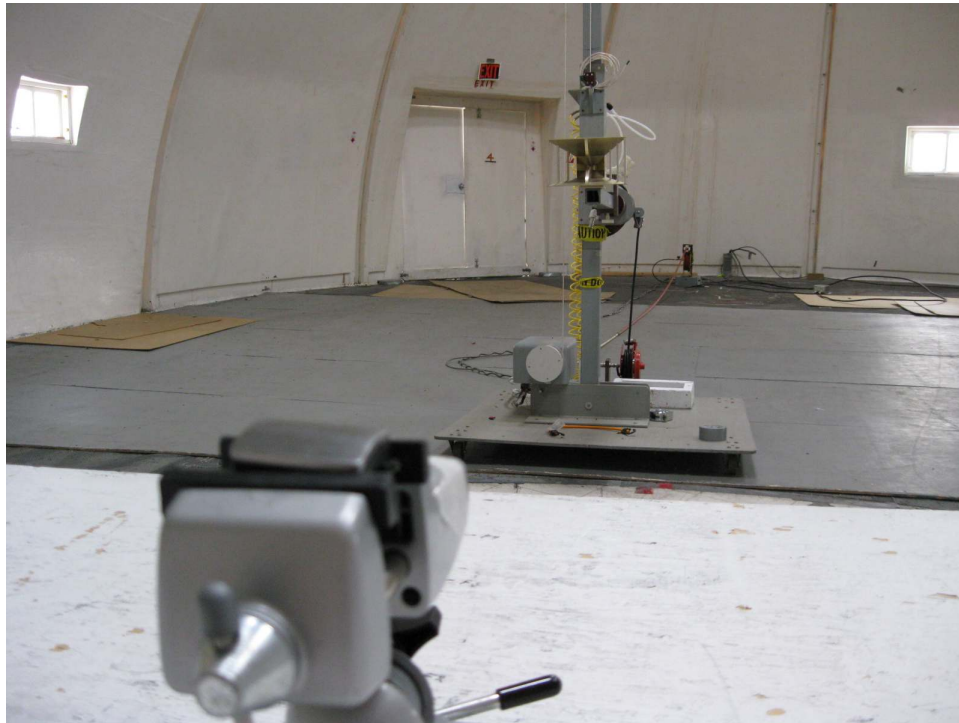
Span = wide enough to fully capture the emission being measured
RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz
VBW = RBW
Sweep = auto
Detector function = peak
Trace = max hold


Follow the guidelines in ANSIC63.4-1992 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.

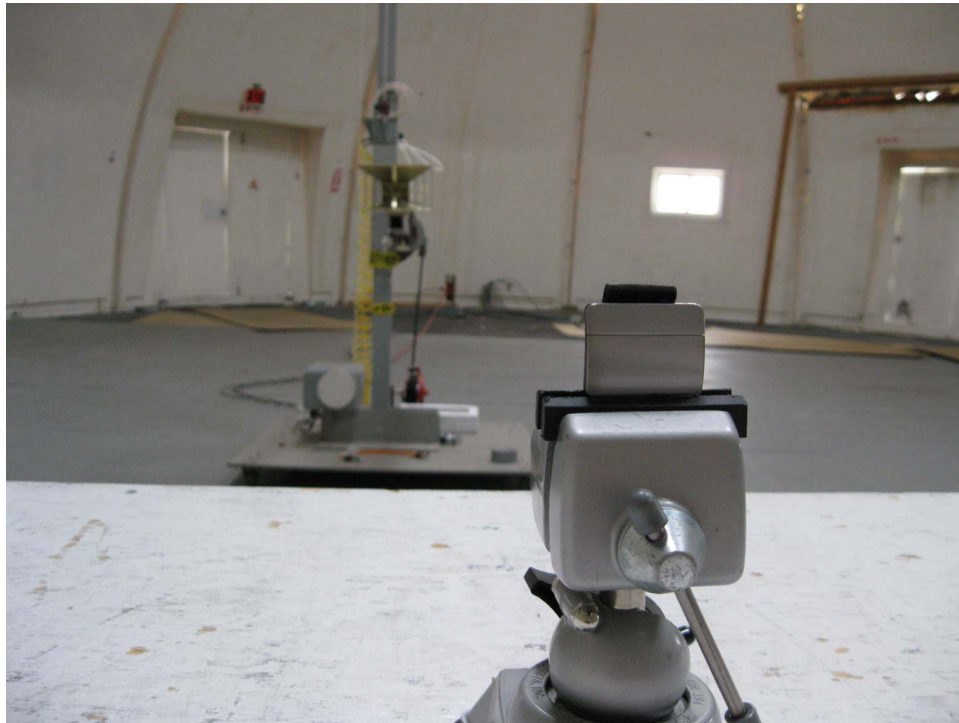
Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further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

	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436	Radiated Emissions (Spurious)	
DNB Job Number:	36045	Date: 25 Oct 2012	Specification
Customer:	Icon Health and Fitness, Inc.		<input checked="" type="checkbox"/> 15.247 (c)
Model Number:	ISRR12		<input checked="" type="checkbox"/> IEEE C63.10
Description:	Transceiver for use with Icon products		
Test Set Up - X-Axis (Horizontal/ Vertical - Bicon / Log Periodic / DRG)			



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436	Radiated Emissions (Spurious)	
DNB Job Number:	36045	Date: 25 Oct 2012	Specification
Customer:	Icon Health and Fitness, Inc.		<input checked="" type="checkbox"/> 15.247 (c) <input checked="" type="checkbox"/> IEEE C63.10
Model Number:	ISRR12		
Description:	Transceiver for use with Icon products		
Test Set Up - Y-Axis (Horizontal/ Vertical - Bicon / Log Periodic / DRG)			



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436	Radiated Emissions (Spurious)	
DNB Job Number:	36045	Date: 25 Oct 2012	Specification
Customer:	Icon Health and Fitness, Inc.		<input checked="" type="checkbox"/> 15.247 (c) <input checked="" type="checkbox"/> IEEE C63.10
Model Number:	ISRR12		
Description:	Transceiver for use with Icon products		
Test Set Up - Z-Axis (Horizontal/ Vertical - Bicon / Log Periodic / DRG)			





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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	25 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Low Channel - X-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2402.243	104.10	29.45	4.18	41.11	96.62	114.00	-17.38	Peak	313	H	1	N
2402.243	93.30	29.45	4.18	41.11	85.82	114.00	-28.18	Ave	313	H	1	N
4805.976	54.80	33.00	6.34	41.48	52.67	74.00	-21.33	Peak	120	H	1	N
4805.976	51.80	33.00	6.34	41.48	49.67	54.00	-4.33	Ave	120	H	1	N
7207.900	40.70	37.18	8.51	39.54	46.85	74.00	-27.15	Peak	313	H	1	Y
7207.900	30.00	37.18	8.51	39.54	36.15	54.00	-17.85	Ave	313	H	1	Y
9606.900	39.30	37.84	11.63	36.14	52.63	74.00	-21.37	Peak	19	H	1	Y
9606.900	30.30	37.84	11.63	36.14	43.63	54.00	-10.37	Ave	19	H	1	Y
12011.964	41.00	39.73	14.40	38.50	56.63	74.00	-17.37	Peak	314	H	1	Y
12011.964	30.50	39.73	14.40	38.50	46.13	54.00	-7.87	Ave	314	H	1	Y
14413.960	42.60	41.51	14.75	39.74	59.12	74.00	-14.88	Peak	52	H	1	Y
14413.960	32.30	41.51	14.75	39.74	48.82	54.00	-5.18	Ave	52	H	1	Y
16815.956	43.50	41.92	16.06	40.04	61.44	74.00	-12.56	Peak	288	H	1	Y
16815.956	33.10	41.92	16.06	40.04	51.04	54.00	-2.96	Ave	288	H	1	Y
2401.590	92.50	29.44	4.18	41.11	85.02	114.00	-28.98	Peak	100	V	1	N
2401.590	85.20	29.44	4.18	41.11	77.72	114.00	-36.28	Ave	100	V	1	N
4805.988	57.10	33.00	6.34	41.48	54.97	74.00	-19.03	Peak	362	V	1	N
4805.988	49.90	33.00	6.34	41.48	47.77	54.00	-6.23	Ave	362	V	1	N
7202.862	41.62	37.18	8.50	39.54	47.76	74.00	-26.24	Peak	124	V	1	Y
7202.862	30.15	37.18	8.50	39.54	36.29	54.00	-17.71	Ave	124	V	1	Y
9607.984	40.20	37.84	11.63	36.14	53.54	74.00	-20.46	Peak	335	V	1	Y
9607.984	30.30	37.84	11.63	36.14	43.64	54.00	-10.36	Ave	335	V	1	Y
12009.980	40.10	39.73	14.40	38.50	55.72	74.00	-18.28	Peak	52	V	1	Y
12009.980	30.40	39.73	14.40	38.50	46.02	54.00	-7.98	Ave	52	V	1	Y
14411.976	41.20	41.51	14.74	39.73	57.72	74.00	-16.28	Peak	333	V	1	Y
14411.976	32.20	41.51	14.74	39.73	48.72	54.00	-5.28	Ave	333	V	1	Y
16813.972	42.60	41.92	16.06	40.04	60.54	74.00	-13.46	Peak	44	V	1	Y
16813.972	33.50	41.92	16.06	40.04	51.44	54.00	-2.56	Ave	44	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	25 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Low Channel - Y-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 3rd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2401.751	93.90	29.44	4.18	41.11	86.42	114.00	-27.58	Peak	282	H	1	N
2401.751	83.30	29.44	4.18	41.11	75.82	114.00	-38.18	Ave	282	H	1	N
4805.990	48.40	33.00	6.34	41.48	46.27	74.00	-27.73	Peak	0	H	1	N
4805.990	44.30	33.00	6.34	41.48	42.17	54.00	-11.83	Ave	0	H	1	N
7207.986	40.30	37.18	8.51	39.54	46.45	74.00	-27.55	Peak	326	H	1	Y
7207.986	29.90	37.18	8.51	39.54	36.05	54.00	-17.95	Ave	326	H	1	Y
9607.739	39.20	37.84	11.63	36.14	52.53	74.00	-21.47	Peak	27	H	1	Y
9607.739	30.60	37.84	11.63	36.14	43.93	54.00	-10.07	Ave	27	H	1	Y
12009.735	40.20	39.73	14.40	38.50	55.82	74.00	-18.18	Peak	160	H	1	Y
12009.735	30.70	39.73	14.40	38.50	46.32	54.00	-7.68	Ave	160	H	1	Y
14411.731	41.80	41.51	14.74	39.73	58.32	74.00	-15.68	Peak	288	H	1	Y
14411.731	33.13	41.51	14.74	39.73	49.65	54.00	-4.35	Ave	288	H	1	Y
16813.727	42.70	41.92	16.06	40.04	60.64	74.00	-13.36	Peak	35	H	1	Y
16813.727	33.10	41.92	16.06	40.04	51.04	54.00	-2.96	Ave	35	H	1	Y
2401.744	92.10	29.44	4.18	41.11	84.62	114.00	-29.38	Peak	84	V	1	N
2401.744	78.80	29.44	4.18	41.11	71.32	114.00	-42.68	Ave	84	V	1	N
4805.998	51.40	33.00	6.34	41.48	49.27	74.00	-24.73	Peak	362	V	1	N
4805.998	44.80	33.00	6.34	41.48	42.67	54.00	-11.33	Ave	362	V	1	N
7207.994	39.90	37.18	8.51	39.54	46.05	74.00	-27.95	Peak	30	V	1	Y
7207.994	30.00	37.18	8.51	39.54	36.15	54.00	-17.85	Ave	30	V	1	Y
9609.990	39.60	37.84	11.64	36.14	52.94	74.00	-21.06	Peak	316	V	1	Y
9609.990	30.80	37.84	11.64	36.14	44.14	54.00	-9.86	Ave	316	V	1	Y
12011.986	40.10	39.73	14.40	38.50	55.73	74.00	-18.27	Peak	38	V	1	Y
12011.986	30.90	39.73	14.40	38.50	46.53	54.00	-7.47	Ave	38	V	1	Y
14413.982	40.80	41.51	14.75	39.74	57.32	74.00	-16.68	Peak	343	V	1	Y
14413.982	32.40	41.51	14.75	39.74	48.92	54.00	-5.08	Ave	343	V	1	Y
16815.978	42.60	41.92	16.06	40.04	60.54	74.00	-13.46	Peak	29	V	1	Y
16815.978	33.40	41.92	16.06	40.04	51.34	54.00	-2.66	Ave	29	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	25 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Low Channel - Z-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 4th harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2401.751	89.00	29.44	4.18	41.11	81.52	114.00	-32.48	Peak	19	H	1	N
2401.751	79.00	29.44	4.18	41.11	71.52	114.00	-42.48	Ave	19	H	1	N
4805.990	53.80	33.00	6.34	41.48	51.67	74.00	-22.33	Peak	284	H	1	N
4805.990	49.40	33.00	6.34	41.48	47.27	54.00	-6.73	Ave	284	H	1	N
7207.986	39.80	37.18	8.51	39.54	45.95	74.00	-28.05	Peak	68	H	1	Y
7207.986	30.10	37.18	8.51	39.54	36.25	54.00	-17.75	Ave	68	H	1	Y
9609.982	39.70	37.84	11.64	36.14	53.04	74.00	-20.96	Peak	327	H	1	Y
9609.982	30.30	37.84	11.64	36.14	43.64	54.00	-10.36	Ave	327	H	1	Y
12011.978	40.60	39.73	14.40	38.50	56.23	74.00	-17.77	Peak	24	H	1	Y
12011.978	30.50	39.73	14.40	38.50	46.13	54.00	-7.87	Ave	24	H	1	Y
14413.974	40.90	41.51	14.75	39.74	57.42	74.00	-16.58	Peak	316	H	1	Y
14413.974	32.10	41.51	14.75	39.74	48.62	54.00	-5.38	Ave	316	H	1	Y
16815.970	43.20	41.92	16.06	40.04	61.14	74.00	-12.86	Peak	126	H	1	Y
16815.970	32.90	41.92	16.06	40.04	50.84	54.00	-3.16	Ave	126	H	1	Y
2401.727	89.70	29.44	4.18	41.11	82.22	114.00	-31.78	Peak	2	V	1	N
2401.727	78.70	29.44	4.18	41.11	71.22	114.00	-42.78	Ave	2	V	1	N
4799.319	44.80	32.98	6.34	41.48	42.64	74.00	-31.36	Peak	306	V	1	N
4799.319	34.80	32.98	6.34	41.48	32.64	54.00	-21.36	Ave	306	V	1	N
7205.729	40.20	37.18	8.51	39.54	46.34	74.00	-27.66	Peak	58	V	1	Y
7205.729	29.90	37.18	8.51	39.54	36.04	54.00	-17.96	Ave	58	V	1	Y
9609.983	40.40	37.84	11.64	36.14	53.74	74.00	-20.26	Peak	322	V	1	Y
9609.983	30.70	37.84	11.64	36.14	44.04	54.00	-9.96	Ave	322	V	1	Y
12011.979	40.00	39.73	14.40	38.50	55.63	74.00	-18.37	Peak	70	V	1	Y
12011.979	30.80	39.73	14.40	38.50	46.43	54.00	-7.57	Ave	70	V	1	Y
14413.975	41.30	41.51	14.75	39.74	57.82	74.00	-16.18	Peak	325	V	1	Y
14413.975	32.50	41.51	14.75	39.74	49.02	54.00	-4.98	Ave	325	V	1	Y
16815.971	43.60	41.92	16.06	40.04	61.54	74.00	-12.46	Peak	69	V	1	Y
16815.971	33.20	41.92	16.06	40.04	51.14	54.00	-2.86	Ave	69	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	24 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Middle Channel - X-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2440.230	102.00	29.54	4.23	41.14	94.63	114.00	-19.37	Peak	229	H	1	N
2440.230	90.20	29.54	4.23	41.14	82.83	114.00	-31.17	Ave	229	H	1	N
4881.988	54.80	33.28	6.41	41.49	52.99	74.00	-21.01	Peak	92	H	1	N
4881.988	52.40	33.28	6.41	41.49	50.59	54.00	-3.41	Ave	92	H	1	N
7322.210	41.00	37.11	8.62	39.44	47.29	74.00	-26.71	Peak	253	H	1	Y
7322.210	31.20	37.11	8.62	39.44	37.49	54.00	-16.51	Ave	253	H	1	Y
9762.440	39.20	37.90	12.25	36.10	53.26	74.00	-20.74	Peak	95	H	1	Y
9762.440	30.20	37.90	12.25	36.10	44.26	54.00	-9.74	Ave	95	H	1	Y
12202.670	40.60	40.27	14.32	38.50	56.69	74.00	-17.31	Peak	300	H	1	Y
12202.670	31.20	40.27	14.32	38.50	47.29	54.00	-6.71	Ave	300	H	1	Y
14642.900	40.80	41.80	14.53	40.01	57.11	74.00	-16.89	Peak	82	H	1	Y
14642.900	31.70	41.80	14.53	40.01	48.01	54.00	-5.99	Ave	82	H	1	Y
17083.130	44.00	42.53	15.98	40.33	62.19	74.00	-11.81	Peak	286	H	1	Y
17083.130	33.60	42.53	15.98	40.33	51.79	54.00	-2.21	Ave	286	H	1	Y
2440.233	99.70	29.54	4.23	41.14	92.33	114.00	-21.67	Peak	109	V	1	N
2440.233	92.30	29.54	4.23	41.14	84.93	114.00	-29.07	Ave	109	V	1	N
4881.982	57.50	33.28	6.41	41.49	55.69	74.00	-18.31	Peak	339	V	1	N
4881.982	52.20	33.28	6.41	41.49	50.39	54.00	-3.61	Ave	339	V	1	N
7322.212	41.00	37.11	8.62	39.44	47.29	74.00	-26.71	Peak	38	V	1	Y
7322.212	31.20	37.11	8.62	39.44	37.49	54.00	-16.51	Ave	38	V	1	Y
9762.442	39.80	37.90	12.25	36.10	53.86	74.00	-20.14	Peak	328	V	1	Y
9762.442	30.50	37.90	12.25	36.10	44.56	54.00	-9.44	Ave	328	V	1	Y
12202.672	41.10	40.27	14.32	38.50	57.19	74.00	-16.81	Peak	31	V	1	Y
12202.672	31.10	40.27	14.32	38.50	47.19	54.00	-6.81	Ave	31	V	1	Y
14642.902	41.40	41.80	14.53	40.01	57.71	74.00	-16.29	Peak	331	V	1	Y
14642.902	31.90	41.80	14.53	40.01	48.21	54.00	-5.79	Ave	331	V	1	Y
17081.453	44.88	42.53	15.98	40.33	63.06	74.00	-10.94	Peak	124	V	1	Y
17081.453	33.88	42.53	15.98	40.33	52.06	54.00	-1.94	Ave	124	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	24 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Middle Channel - Y-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2440.230	95.80	29.54	4.23	41.14	88.43	114.00	-25.57	Peak	299	H	1	N
2440.230	84.80	29.54	4.23	41.14	77.43	114.00	-36.57	Ave	299	H	1	N
4881.980	51.10	33.28	6.41	41.49	49.29	74.00	-24.71	Peak	4	H	1	N
4881.980	49.30	33.28	6.41	41.49	47.49	54.00	-6.51	Ave	4	H	1	N
7322.210	35.30	37.11	8.62	39.44	41.59	74.00	-32.41	Peak	334	H	1	Y
7322.210	26.00	37.11	8.62	39.44	32.29	54.00	-21.71	Ave	334	H	1	Y
9762.440	34.20	37.90	12.25	36.10	48.26	74.00	-25.74	Peak	35	H	1	Y
9762.440	24.30	37.90	12.25	36.10	38.36	54.00	-15.64	Ave	35	H	1	Y
12202.670	35.00	40.27	14.32	38.50	51.09	74.00	-22.91	Peak	346	H	1	Y
12202.670	24.70	40.27	14.32	38.50	40.79	54.00	-13.21	Ave	346	H	1	Y
14642.900	35.40	41.80	14.53	40.01	51.71	74.00	-22.29	Peak	20	H	1	Y
14642.900	25.10	41.80	14.53	40.01	41.41	54.00	-12.59	Ave	20	H	1	Y
17079.396	39.57	42.53	15.97	40.33	57.75	74.00	-16.25	Peak	277	H	1	Y
17079.396	27.20	42.53	15.97	40.33	45.38	54.00	-8.62	Ave	277	H	1	Y
2439.742	94.50	29.54	4.23	41.14	87.13	114.00	-26.87	Peak	87	V	1	N
2439.742	85.30	29.54	4.23	41.14	77.93	114.00	-36.07	Ave	87	V	1	N
4881.964	52.70	33.28	6.41	41.49	50.89	74.00	-23.11	Peak	362	V	1	N
4881.964	49.60	33.28	6.41	41.49	47.79	54.00	-6.21	Ave	362	V	1	N
7362.189	34.90	37.08	8.66	39.40	41.24	74.00	-32.76	Peak	36	V	1	Y
7362.189	24.70	37.08	8.66	39.40	31.04	54.00	-22.96	Ave	36	V	1	Y
9842.414	36.00	37.94	12.57	36.07	50.43	74.00	-23.57	Peak	299	V	1	Y
9842.414	24.70	37.94	12.57	36.07	39.13	54.00	-14.87	Ave	299	V	1	Y
12322.638	34.60	40.60	14.27	38.50	50.97	74.00	-23.03	Peak	104	V	1	Y
12322.638	24.40	40.60	14.27	38.50	40.77	54.00	-13.23	Ave	104	V	1	Y
14802.863	35.30	42.02	14.11	40.03	51.41	74.00	-22.59	Peak	316	V	1	Y
14802.863	27.00	42.02	14.11	40.03	43.11	54.00	-10.89	Ave	316	V	1	Y
17283.088	36.80	42.85	16.42	40.37	55.71	74.00	-18.29	Peak	28	V	1	Y
17283.088	27.40	42.85	16.42	40.37	46.31	54.00	-7.69	Ave	28	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	24 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products Middle Channel - Z-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2439.736	90.67	29.54	4.23	41.14	83.30	114.00	-30.70	Peak	21	H	1	N
2439.736	81.44	29.54	4.23	41.14	74.07	114.00	-39.93	Ave	21	H	1	N
4881.976	54.91	33.28	6.41	41.49	53.10	74.00	-20.90	Peak	266	H	1	N
4881.976	54.85	33.28	6.41	41.49	53.04	54.00	-0.96	Ave	266	H	1	N
7362.187	35.20	37.08	8.66	39.40	41.54	74.00	-32.46	Peak	112	H	1	Y
7362.187	25.70	37.08	8.66	39.40	32.04	54.00	-21.96	Ave	112	H	1	Y
9842.412	35.99	37.94	12.57	36.07	50.42	74.00	-23.58	Peak	50	H	1	Y
9842.412	24.68	37.94	12.57	36.07	39.11	54.00	-14.89	Ave	50	H	1	Y
12322.636	35.00	40.60	14.27	38.50	51.37	74.00	-22.63	Peak	265	H	1	Y
12322.636	24.60	40.60	14.27	38.50	40.97	54.00	-13.03	Ave	265	H	1	Y
14802.861	36.20	42.02	14.11	40.03	52.31	74.00	-21.69	Peak	70	H	1	Y
14802.861	24.40	42.02	14.11	40.03	40.51	54.00	-13.49	Ave	70	H	1	Y
17283.086	36.70	42.85	16.42	40.37	55.61	74.00	-18.39	Peak	257	H	1	Y
17283.086	27.10	42.85	16.42	40.37	46.01	54.00	-7.99	Ave	257	H	1	Y
2440.234	92.64	29.54	4.23	41.14	85.27	114.00	-28.73	Peak	139	V	1	N
2440.234	82.20	29.54	4.23	41.14	74.83	114.00	-39.17	Ave	139	V	1	N
4881.973	53.07	33.28	6.41	41.49	51.26	74.00	-22.74	Peak	74	V	1	N
4881.973	31.40	33.28	6.41	41.49	29.59	54.00	-24.41	Ave	74	V	1	N
7320.000	36.60	37.11	8.62	39.44	42.89	74.00	-31.11	Peak	71	V	1	Y
7320.000	25.40	37.11	6.00	39.44	29.07	54.00	-24.93	Ave	71	V	1	Y
9842.221	35.00	37.94	12.57	36.07	49.43	74.00	-24.57	Peak	291	V	1	Y
9842.221	24.60	37.94	12.57	36.07	39.03	54.00	-14.97	Ave	291	V	1	Y
12322.488	34.50	40.60	14.27	38.50	50.87	74.00	-23.13	Peak	47	V	1	Y
12322.488	24.30	40.60	14.27	38.50	40.67	54.00	-13.33	Ave	47	V	1	Y
14802.873	36.10	42.02	14.11	40.03	52.21	74.00	-21.79	Peak	228	V	1	Y
14802.873	27.10	42.02	14.11	40.03	43.21	54.00	-10.79	Ave	228	V	1	Y
17282.938	36.80	42.85	16.42	40.37	55.71	74.00	-18.29	Peak	43	V	1	Y
17282.938	27.10	42.85	16.42	40.37	46.01	54.00	-7.99	Ave	43	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	23 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products High Channel - X-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2479.738	94.60	29.65	4.28	41.17	87.35	114.00	-26.65	Peak	132	H	1	N
2479.738	82.10	29.65	4.28	41.17	74.85	114.00	-39.15	Ave	132	H	1	N
4957.970	55.80	33.55	6.47	41.51	54.30	74.00	-19.70	Peak	330	H	1	N
4957.970	42.30	33.55	6.47	41.51	40.80	54.00	-13.20	Ave	330	H	1	N
7438.259	37.67	37.04	8.74	39.33	44.11	74.00	-29.89	Peak	108	H	1	Y
7438.259	25.32	37.04	8.74	39.33	31.76	54.00	-22.24	Ave	108	H	1	Y
9924.790	31.11	37.97	12.90	36.05	45.93	74.00	-28.07	Peak	303	H	1	Y
9924.790	21.02	37.97	12.90	36.05	35.84	54.00	-18.16	Ave	303	H	1	Y
12404.665	33.66	40.83	14.24	38.50	50.23	74.00	-23.77	Peak	97	H	1	Y
12404.665	18.26	40.83	14.24	38.50	34.83	54.00	-19.17	Ave	97	H	1	Y
14883.165	32.82	42.14	13.90	40.04	48.82	74.00	-25.18	Peak	306	H	1	Y
14883.165	21.71	42.14	13.90	40.04	37.71	54.00	-16.29	Ave	306	H	1	Y
17356.020	32.92	42.97	16.58	40.38	52.09	74.00	-21.91	Peak	88	H	1	Y
17356.020	22.88	42.97	16.58	40.38	42.05	54.00	-11.95	Ave	88	H	1	Y
2479.738	96.85	29.65	4.28	41.17	89.60	114.00	-24.40	Peak	198	V	1	N
2479.738	87.66	29.65	4.28	41.17	80.41	114.00	-33.59	Ave	198	V	1	N
4957.970	55.68	33.55	6.47	41.51	54.18	74.00	-19.82	Peak	297	V	1	N
4957.970	54.60	33.55	6.47	41.51	53.10	54.00	-0.90	Ave	297	V	1	N
7438.259	32.35	37.04	8.74	39.33	38.79	74.00	-35.21	Peak	122	V	1	Y
7438.259	22.64	37.04	8.74	39.33	29.08	54.00	-24.92	Ave	122	V	1	Y
9924.790	35.09	37.97	12.90	36.05	49.91	74.00	-24.09	Peak	219	V	1	Y
9924.790	22.19	37.97	12.90	36.05	37.01	54.00	-16.99	Ave	219	V	1	Y
12404.665	33.53	40.83	14.24	38.50	50.10	74.00	-23.90	Peak	174	V	1	Y
12404.665	22.50	40.83	14.24	38.50	39.07	54.00	-14.93	Ave	174	V	1	Y
14883.165	32.77	42.14	13.90	40.04	48.77	74.00	-25.23	Peak	169	V	1	Y
14883.165	20.46	42.14	13.90	40.04	36.46	54.00	-17.54	Ave	169	V	1	Y
17356.020	34.74	42.97	16.58	40.38	53.91	74.00	-20.09	Peak	148	V	1	Y
17356.020	21.64	42.97	16.58	40.38	40.81	54.00	-13.19	Ave	148	V	1	Y



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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	23 Oct 2012	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products High Channel - Y-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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.

Note3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2480.200	45.53	29.65	4.28	41.17	38.28	114.00	-75.72	Peak	51	Hor	1	N
2480.200	35.89	29.65	4.28	41.17	28.64	114.00	-85.36	Ave	51	Hor	1	N
4957.982	33.96	33.55	6.47	41.51	32.46	74.00	-41.54	Peak	304	Hor	1	N
4957.982	24.10	33.55	6.47	41.51	22.60	54.00	-31.40	Ave	304	Hor	1	N
7440.876	35.42	37.04	8.74	39.33	41.86	74.00	-32.14	Peak	123	Hor	1	Y
7440.876	24.08	37.04	8.74	39.33	30.52	54.00	-23.48	Ave	123	Hor	1	Y
9918.423	30.00	37.97	12.87	36.05	44.79	74.00	-29.21	Peak	300	Hor	1	Y
9918.423	19.77	37.97	12.87	36.05	34.56	54.00	-19.44	Ave	300	Hor	1	Y
12398.648	31.93	40.82	14.24	38.50	48.49	74.00	-25.51	Peak	64	Hor	1	Y
12398.648	21.69	40.82	14.24	38.50	38.25	54.00	-15.75	Ave	64	Hor	1	Y
14878.873	32.59	42.13	13.91	40.04	48.60	74.00	-25.40	Peak	299	Hor	1	Y
14878.873	22.31	42.13	13.91	40.04	38.32	54.00	-15.68	Ave	299	Hor	1	Y
17359.097	37.28	42.97	16.59	40.38	56.46	74.00	-17.54	Peak	275	Hor	1	Y
17359.097	31.79	42.97	16.59	40.38	50.97	54.00	-3.03	Ave	275	Hor	1	Y
2480.200	94.51	29.65	4.28	41.17	87.26	114.00	-26.74	Peak	107	Vert	1	N
2480.200	83.99	29.65	4.28	41.17	76.74	114.00	-37.26	Ave	107	Vert	1	N
4957.982	51.39	33.55	6.47	41.51	49.89	74.00	-24.11	Peak	250	Vert	1	N
4957.982	50.75	33.55	6.47	41.51	49.25	54.00	-4.75	Ave	250	Vert	1	N
7440.876	42.89	37.04	8.74	39.33	49.33	74.00	-24.67	Peak	126	Vert	1	Y
7440.876	24.59	37.04	8.74	39.33	31.03	54.00	-22.97	Ave	126	Vert	1	Y
9918.423	43.66	37.97	12.87	36.05	58.45	74.00	-15.55	Peak	257	Vert	1	Y
9918.423	25.44	37.97	12.87	36.05	40.23	54.00	-13.77	Ave	257	Vert	1	Y
12398.648	44.42	40.82	14.24	38.50	60.98	74.00	-13.02	Peak	256	Vert	1	Y
12398.648	25.78	40.82	14.24	38.50	42.34	54.00	-11.66	Ave	256	Vert	1	Y
14878.873	42.68	42.13	13.91	40.04	58.69	74.00	-15.31	Peak	116	Vert	1	Y
14878.873	24.99	42.13	13.91	40.04	41.00	54.00	-13.00	Ave	116	Vert	1	Y
17359.097	45.97	42.97	16.59	40.38	65.15	74.00	-8.85	Peak	113	Vert	1	Y
17359.097	27.76	42.97	16.59	40.38	46.94	54.00	-7.06	Ave	113	Vert	1	Y



1100 E Chalk Creek Road
 Coalville, UT 84017
 (435) 336-4433
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Radiated Emissions (Spurious)

DNB Job Number:	36045	Date:	24 Oct 2013	Specification [X] 15.247 (c) [X] IEEE C63.10
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products High Channel - Z-Axis			

Note 1: GF = Ground Floor = If Y reading was at ground floor, If N reading was identifiable signal

Note 2: 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 3: Highest frequency investigated was the tenth harmonic of the fundamental, no emissions were detected above the 2nd harmonic. Only data to the 7th harmonic has been provided.

FREQ (Mhz)	Meter	Correction Factors (dB)			dBuV/m			Positions				G F
		Ant	Cbl	Amp	Corr	Lim	Delta	Typ	Tbl	Pl	Hgt	
2480.242	92.87	29.65	4.28	41.17	85.62	114.00	-28.38	Peak	23	H	1	N
2480.242	83.71	29.65	4.28	41.17	76.46	114.00	-37.54	Ave	23	H	1	N
4957.976	57.79	33.55	6.47	41.51	56.29	74.00	-17.71	Peak	276	H	1	N
4957.976	54.00	33.55	6.47	41.51	52.50	54.00	-1.50	Ave	276	H	1	N
7438.187	33.90	37.04	8.74	39.33	40.34	74.00	-33.66	Peak	102	H	1	Y
7438.187	24.48	37.04	8.74	39.33	30.92	54.00	-23.08	Ave	102	H	1	Y
9918.412	35.25	37.97	12.87	36.05	50.04	74.00	-23.96	Peak	334	H	1	Y
9918.412	25.33	37.97	12.87	36.05	40.12	54.00	-13.88	Ave	334	H	1	Y
12398.636	36.61	40.82	14.24	38.50	53.17	74.00	-20.83	Peak	168	H	1	Y
12398.636	25.50	40.82	14.24	38.50	42.06	54.00	-11.94	Ave	168	H	1	Y
14878.861	34.81	42.13	13.91	40.04	50.82	74.00	-23.18	Peak	324	H	1	Y
14878.861	25.00	42.13	13.91	40.04	41.01	54.00	-12.99	Ave	324	H	1	Y
17359.086	36.65	42.97	16.59	40.38	55.83	74.00	-18.17	Peak	60	H	1	Y
17359.086	27.70	42.97	16.59	40.38	46.88	54.00	-7.12	Ave	60	H	1	Y
2479.746	95.12	29.65	4.28	41.17	87.87	114.00	-26.13	Peak	345	V	1	N
2479.746	84.72	29.65	4.28	41.17	77.47	114.00	-36.53	Ave	345	V	1	N
4957.974	50.44	33.55	6.47	41.51	48.94	74.00	-25.06	Peak	253	V	1	N
4957.974	49.77	33.55	6.47	41.51	48.27	54.00	-5.73	Ave	253	V	1	N
7438.213	34.90	37.04	8.74	39.33	41.34	74.00	-32.66	Peak	95	V	1	Y
7438.213	24.71	37.04	8.74	39.33	31.15	54.00	-22.85	Ave	95	V	1	Y
9918.437	35.24	37.97	12.87	36.05	50.03	74.00	-23.97	Peak	208	V	1	Y
9918.437	24.91	37.97	12.87	36.05	39.70	54.00	-14.30	Ave	208	V	1	Y
12398.662	36.12	40.82	14.24	38.50	52.68	74.00	-21.32	Peak	322	V	1	Y
12398.662	25.55	40.82	14.24	38.50	42.11	54.00	-11.89	Ave	322	V	1	Y
14878.887	34.39	42.13	13.91	40.04	50.40	74.00	-23.60	Peak	203	V	1	Y
14878.887	25.25	42.13	13.91	40.04	41.26	54.00	-12.74	Ave	203	V	1	Y
17359.112	36.91	42.97	16.59	40.38	56.09	74.00	-17.91	Peak	100	V	1	Y
17359.112	27.83	42.97	16.59	40.38	47.01	54.00	-6.99	Ave	100	V	1	Y

15.247 (a,2) 6 dB Bandwidth

Test Procedure: IEEE C63.10

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

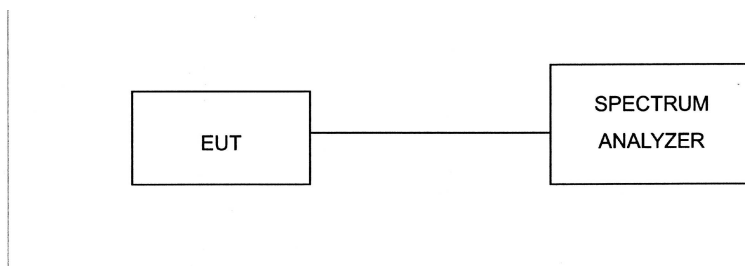
Trace = max hold


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).

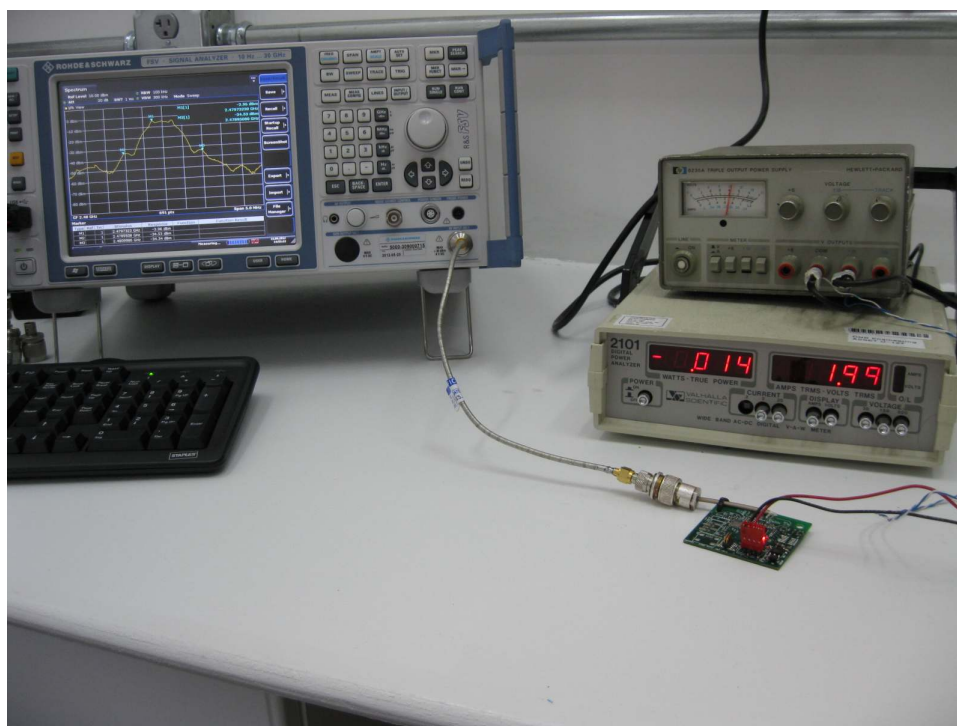
EUT operating conditions:


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)



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		Measurement Test Set Up	
DNB Job Number:	36045	Date:	5 Nov 2012	Conformance Standard FCC Part 15
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products			Clause 15.247
Antenna Conducted Measurement Set Up				



	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		6 dB Single Channel Bandwidth	
DNB Job Number:	36045	Date:	5 Nov 2012	Conformance Standard FCC Part 15
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products			Clause 15.247(a,2)
	Test Procedure			
Environmental Conditions				
Ambient Temperature		Relative Humidity		Barometric Pressure
21 °C		25 %		101.2 kPa
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>				

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

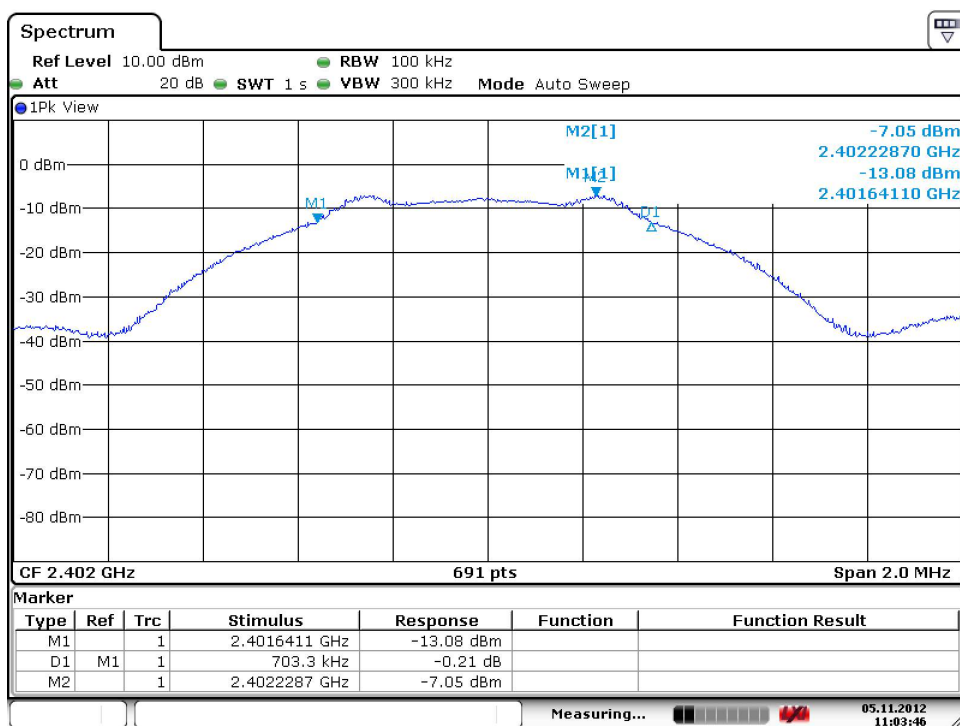
Sweep = auto

Detector function = peak


Trace = max hold

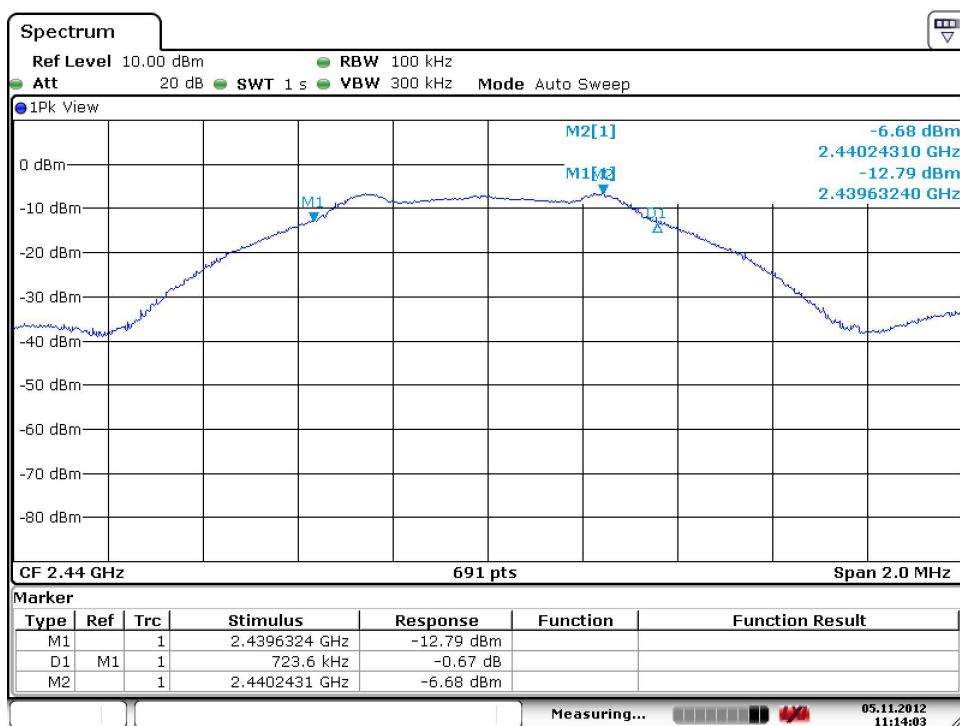
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 6 dB down one side of the emission. Reset the marker-delta function, and move the marker to the 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).

	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		6 dB Single Channel Bandwidth	
	DNB Job Number:	36045	Date:	5 Nov 2012
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products 1Mbps data rate (Basic data rate)			
Environmental Conditions				
Ambient Temperature		Relative Humidity		Barometric Pressure
21 °C		25 %		101.2 kPa
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>				
Channel	Chl Freq (MHz)	6dB BW (kHz)	Limit	Pass/Fail
Low	2402	703.300	> 500 kHz	Pass




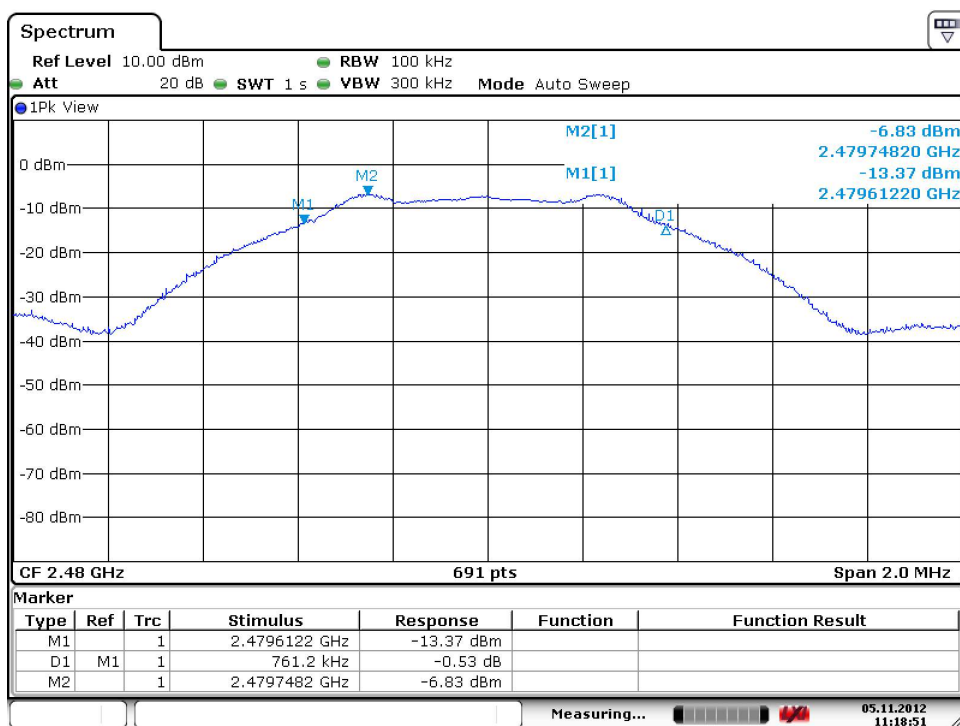
Date: 5.NOV.2012 11:03:45

		1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		6 dB Single Channel Bandwidth	
DNB Job Number:	36045	Date:	5 Nov 2012	Conformance Standard FCC Part 15 Clause 15.247(a,2)	
Customer:	Icon Health and Fitness, Inc.				
Model Number:	ISRR12				
Description:	Transceiver for use with Icon products 1Mbps data rate (Basic data rate)				
Environmental Conditions					
Ambient Temperature		Relative Humidity		Barometric Pressure	
21 °C		25 %		101.2 kPa	
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>					
Channel	Chl Freq (MHz)	6dB BW (kHz)	Limit	Pass/Fail	
Middle	2440	723.600	> 500 kHz	Pass	



Date: 5.NOV.2012 11:14:02

	1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		6 dB Single Channel Bandwidth	
	DNB Job Number:	36045	Date:	5 Nov 2012
Customer:	Icon Health and Fitness, Inc.			
Model Number:	ISRR12			
Description:	Transceiver for use with Icon products 1Mbps data rate (Basic data rate)			
Environmental Conditions				
Ambient Temperature		Relative Humidity		Barometric Pressure
21 °C		25 %		101.2 kPa
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>				
Channel	Chl Freq (MHz)	6dB BW (MHz)	Limit	Pass/Fail
High	2480	761.200	> 500 kHz	Pass



Date: 5.NOV.2012 11:18:50

15.247 (b) Maximum Peak Output Power (Conducted)

Test Procedure: IEEE C63.10

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.

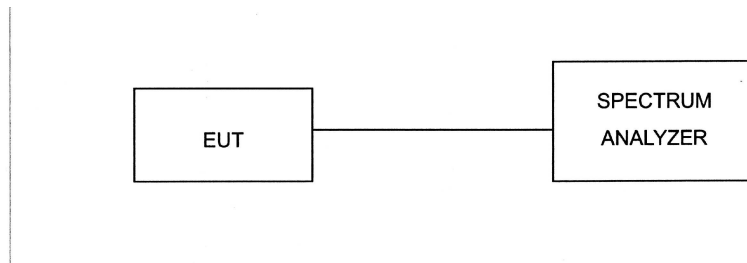
The transmitter output was connected to a spectrum analyzer.


Requirement: The maximum peak output power shall not exceed .125W (21dBm)

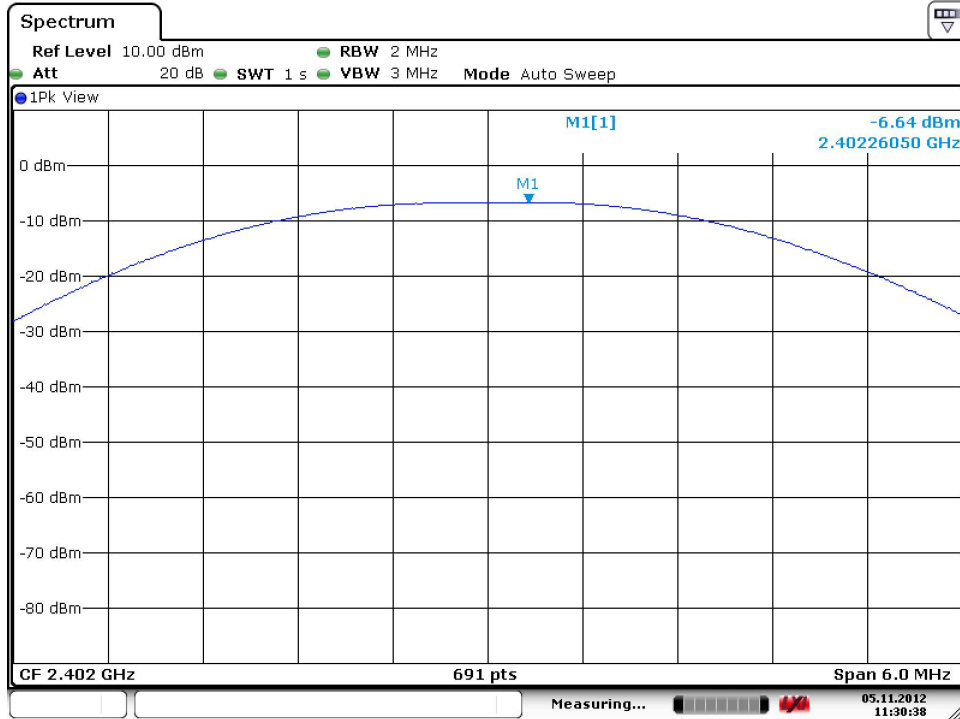
EUT operating conditions:

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


Test Set Up:

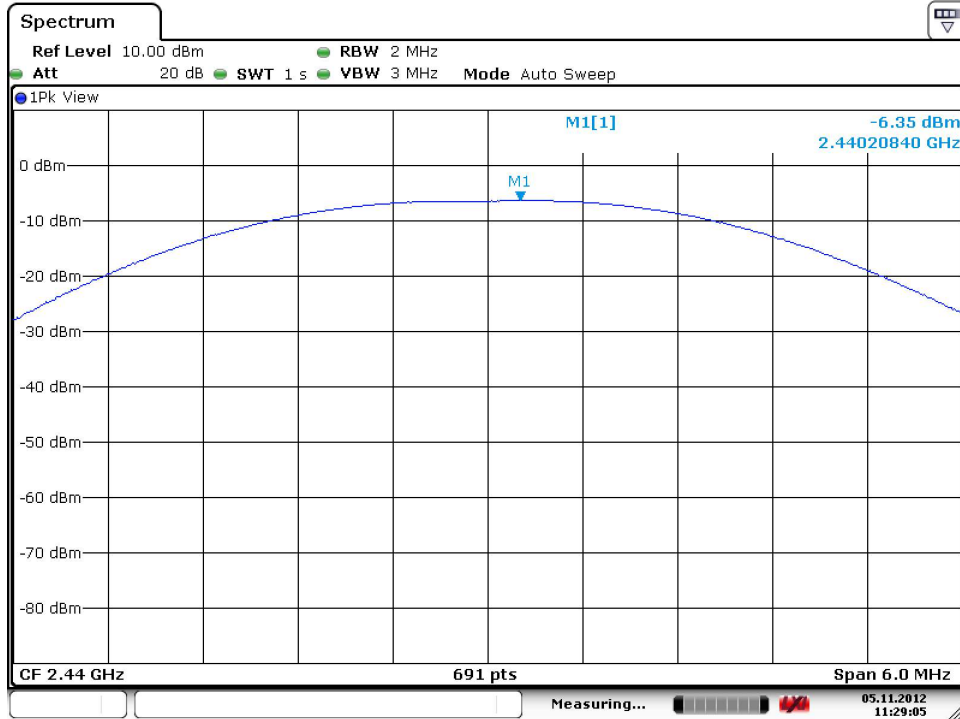


		1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		Peak Output Power (Cond)			
DNB Job Number:		36045		Date:		5 Nov 2012	
Customer:		Icon Health and Fitness, Inc.					
Model Number:		ISRR12					
Description:		Transceiver for use with Icon products					
		1Mbps data rate (Basic data rate) - Low Channel					
Environmental Conditions							
Ambient Temperature			Relative Humidity			Barometric Pressure	
21 °C			25 %			101.2 kPa	
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>							
Freq MHz	Meas Peak Pwr (dBm)	Limit (dBm)	Delta (dBm)	Meas Peak Pwr (mW)	Limit (mW)	Delta (mW)	Pass/Fail
2402	- 6.64	20.97	-27.61	0.217	125	-124.783	Pass




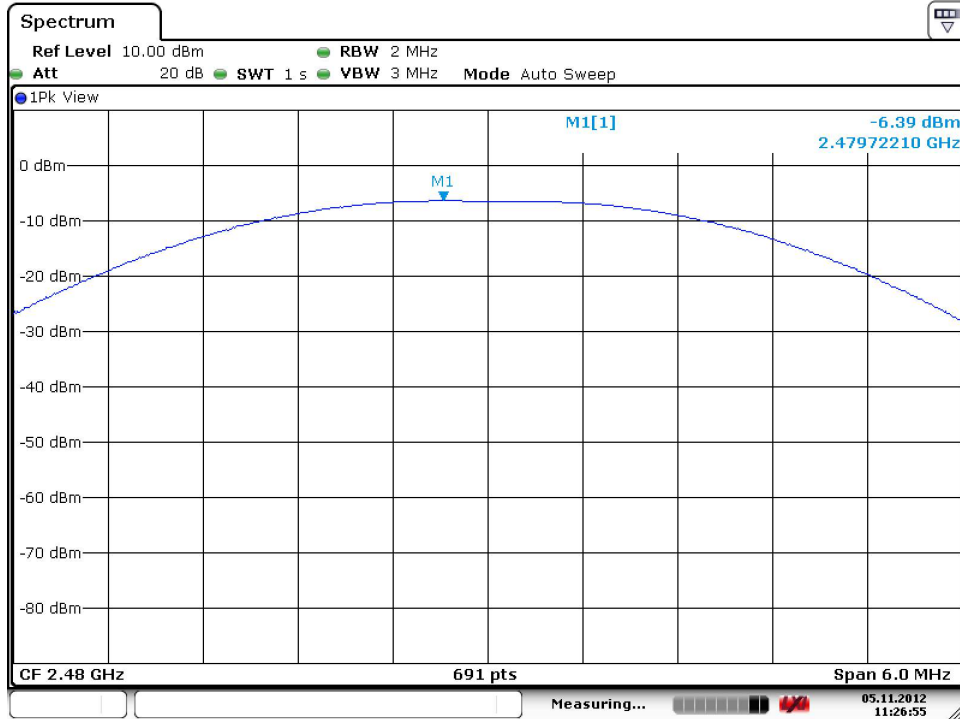
Date: 5.NOV.2012 11:30:37

		1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		Peak Output Power (Cond)			
DNB Job Number:		36045		Date:		5 Nov 2012	
Customer:		Icon Health and Fitness, Inc.					
Model Number:		ISRR12					
Description:		Transceiver for use with Icon products					
		1Mbps data rate (Basic data rate) - Mid Channel					
Environmental Conditions							
Ambient Temperature			Relative Humidity			Barometric Pressure	
21 °C			25 %			101.2 kPa	
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>							
Freq MHz	Meas Peak Pwr (dBm)	Limit (dBm)	Delta (dBm)	Meas Peak Pwr (mW)	Limit (mW)	Delta (mW)	Pass/Fail
2440	-6.35	20.97	-27.32	0.232	125	-124.768	Pass



Date: 5.NOV.2012 11:29:05

		1100 E Chalk Creek Road Coalville, UT 84017 (435) 336-4433 FAX (435) 336-4436		Peak Output Power (Cond)			
DNB Job Number:		36045		Date:		5 Nov 2012	
Customer:		Icon Health and Fitness, Inc.					
Model Number:		ISRR12					
Description:		Transceiver for use with Icon products					
		1Mbps data rate (Basic data rate) - High Channel					
Environmental Conditions							
Ambient Temperature			Relative Humidity			Barometric Pressure	
21 °C			25 %			101.2 kPa	
EUT performed within the requirements of the applicable standard <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Les Payne</i>							
Freq MHz	Meas Peak Pwr (dBm)	Limit (dBm)	Delta (dBm)	Meas Peak Pwr (mW)	Limit (mW)	Delta (mW)	Pass/Fail
2480	-6.39	20.97	-27.36	0.230	125	-124.770	Pass



Date: 5.NOV.2012 11:26:55

15.247 (d) Conducted Band Edge Measurements and Out of Band Emissions

Test Procedure: IEEE C63.10

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

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