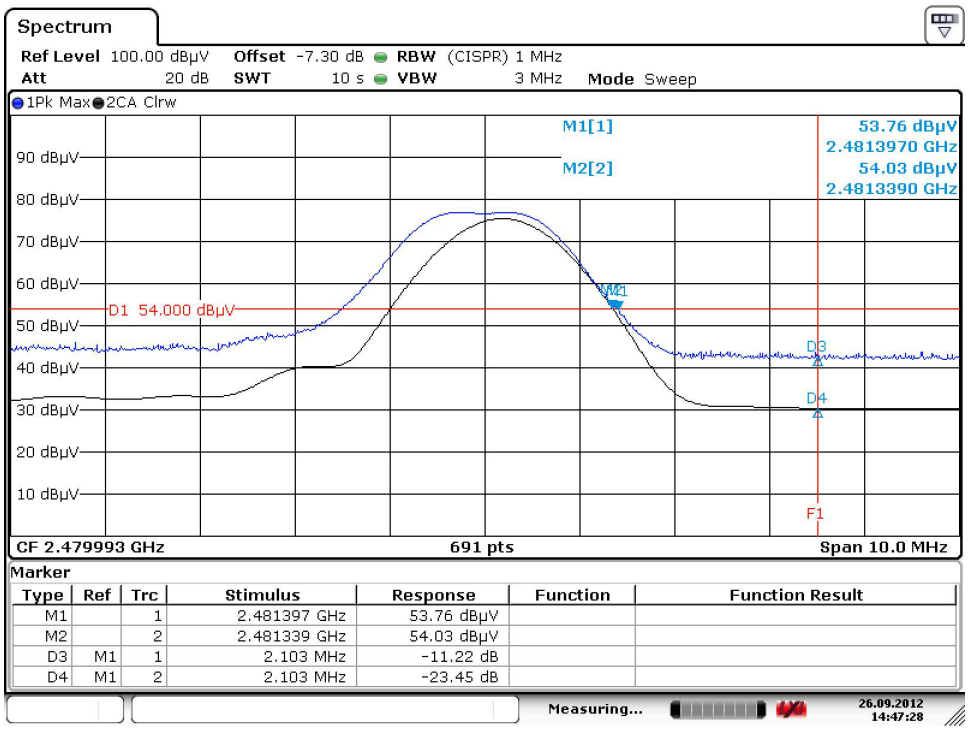
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - Single Channel - Horz - Y Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.970 | 54.0 | 42.78 | -11.22 | -1.530 | Pass |



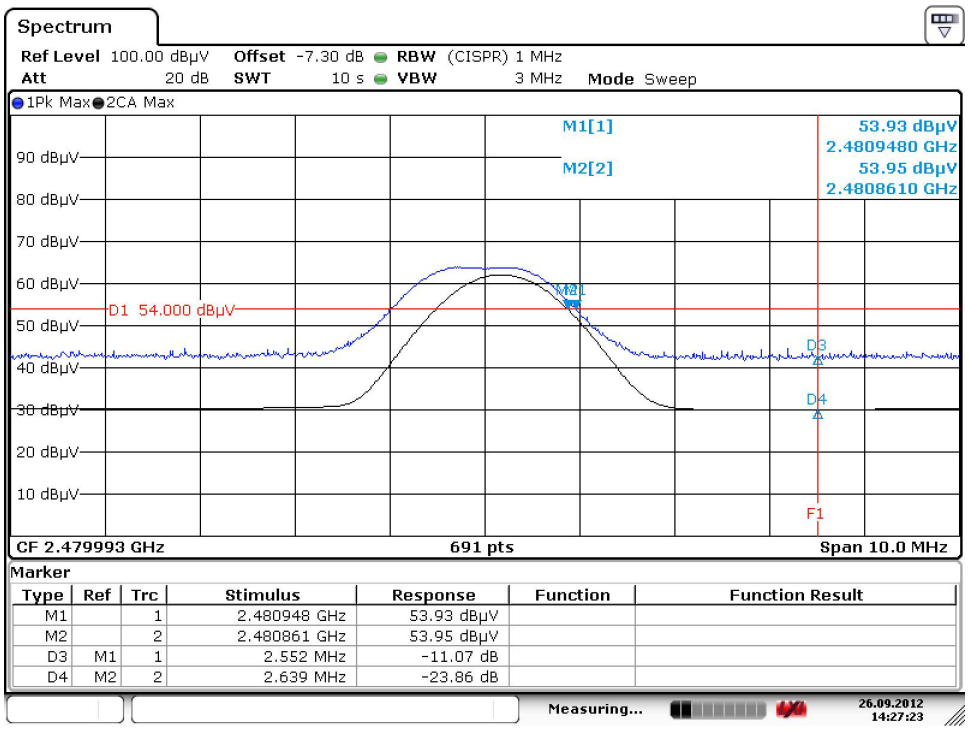

Date: 26.SEP.2012 14:47:28

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - Single Channel - Horz - Z Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2480.948 | 54.0 | 42.93 | -11.07 | -2.552 | Pass |




Date: 26.SEP.2012 14:27:23

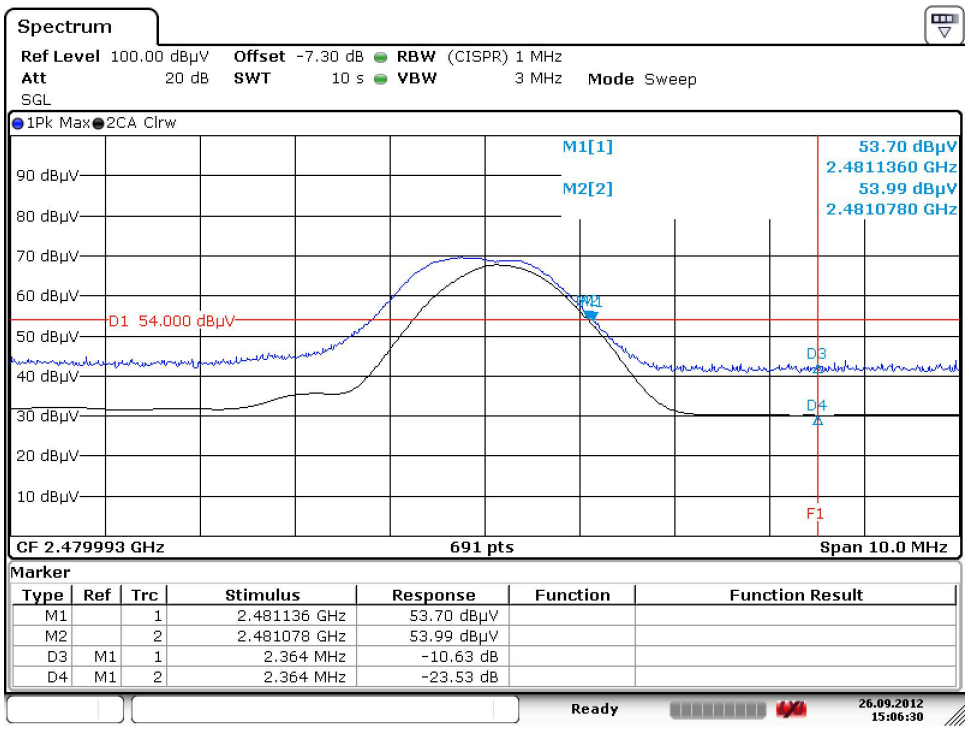
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - Single Channel - Vert - X Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.136 | 54.0 | 43.37 | -10.63 | -2.364 | Pass |




Date: 26.SEP.2012 15:06:30

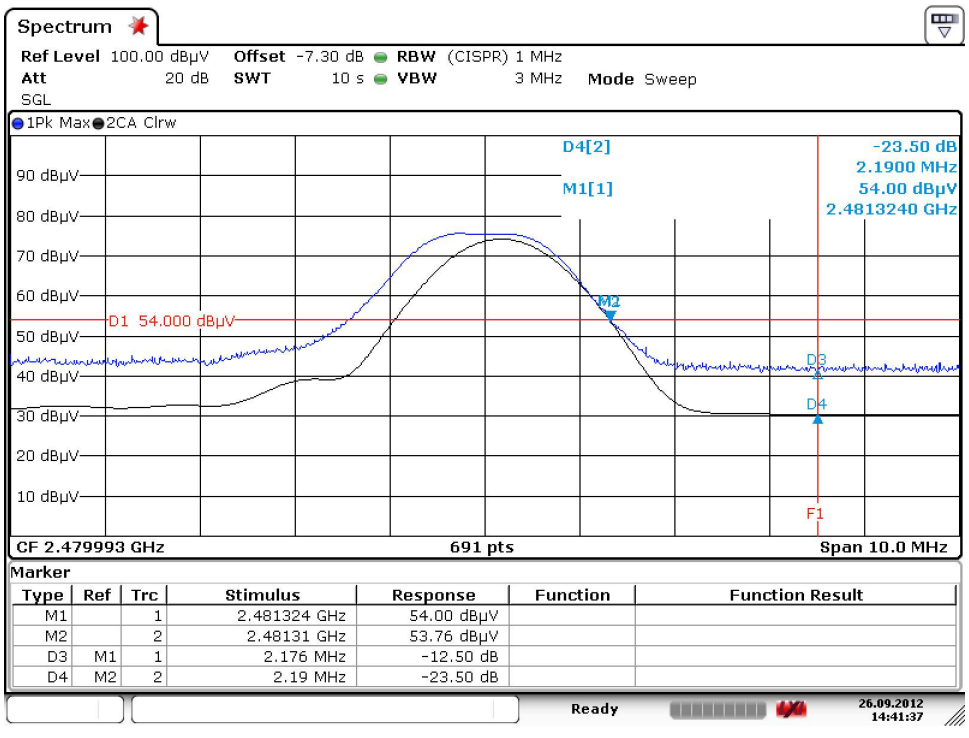
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>15.247(d) |
| | 1Mbps data rate (Basic data rate) | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - Single Channel - Vert - Y Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.324 | 54.0 | 41.50 | -12.50 | -2.176 | Pass |



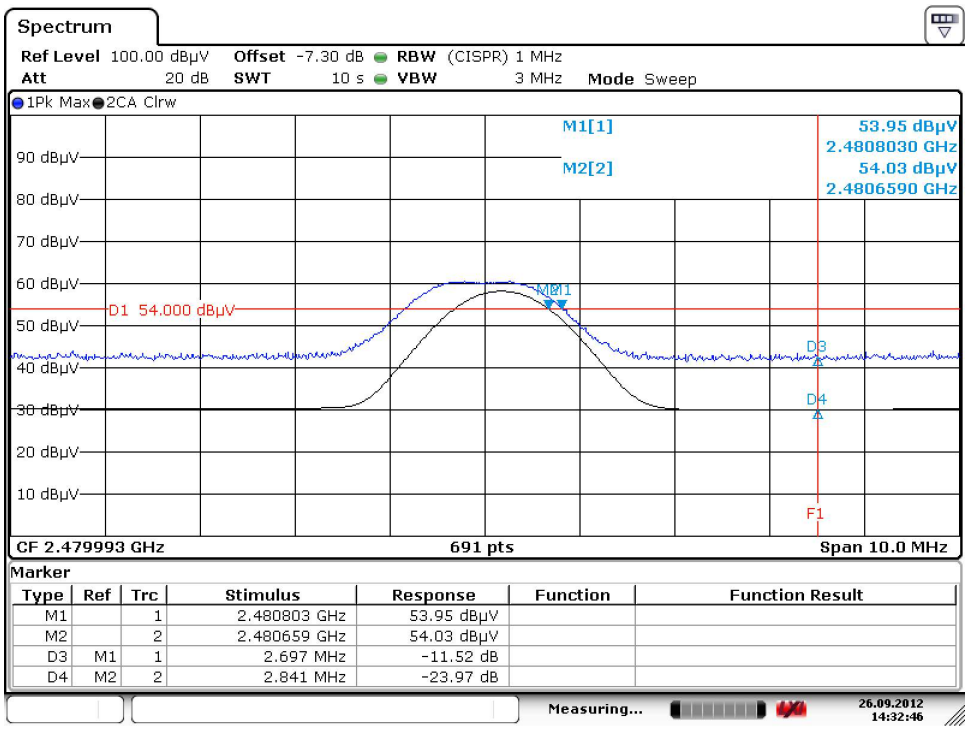

Date: 26.SEP.2012 14:41:37

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - Single Channel - Vert - Z Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2480.803 | 54.0 | 42.48 | -11.52 | -2.697 | Pass |



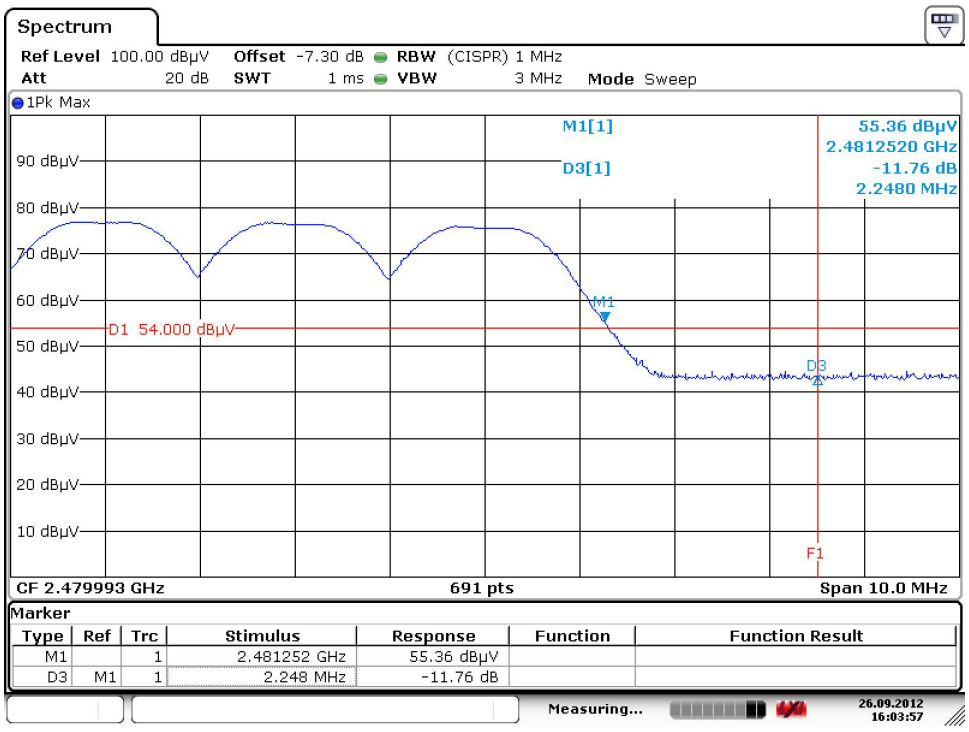

Date: 26.SEP.2012 14:32:46

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Horz - X Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.252 | 54.0 | 42.24 | -11.76 | -2.248 | Pass |




Date: 26.SEP.2012 16:03:57

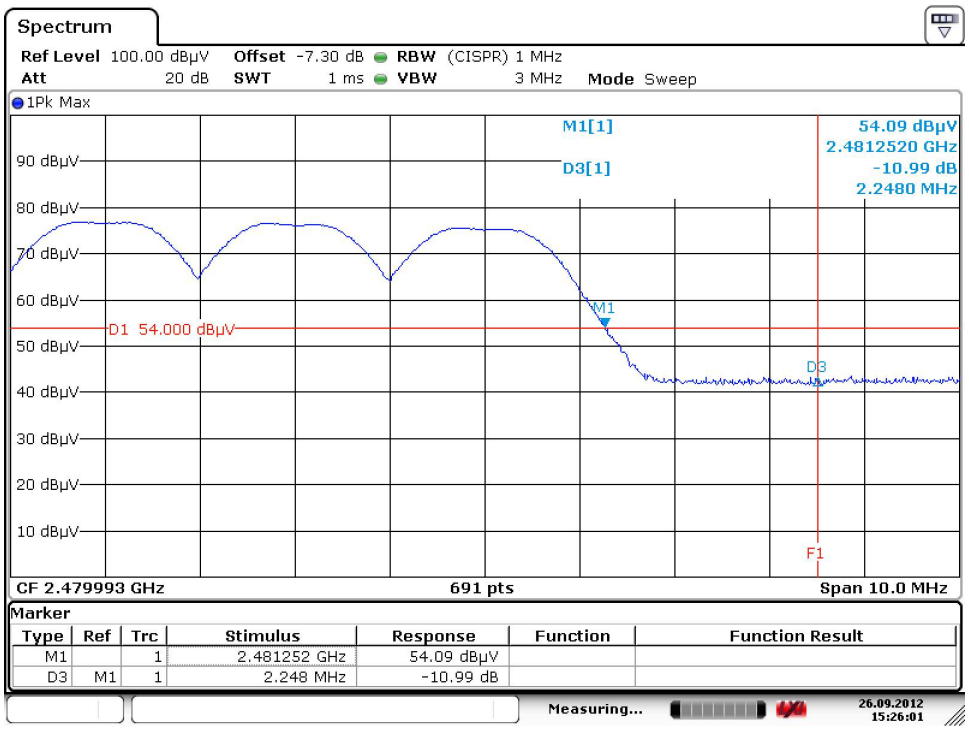
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Horz - Y Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.252 | 54.0 | 43.01 | -10.99 | -2.248 | Pass |



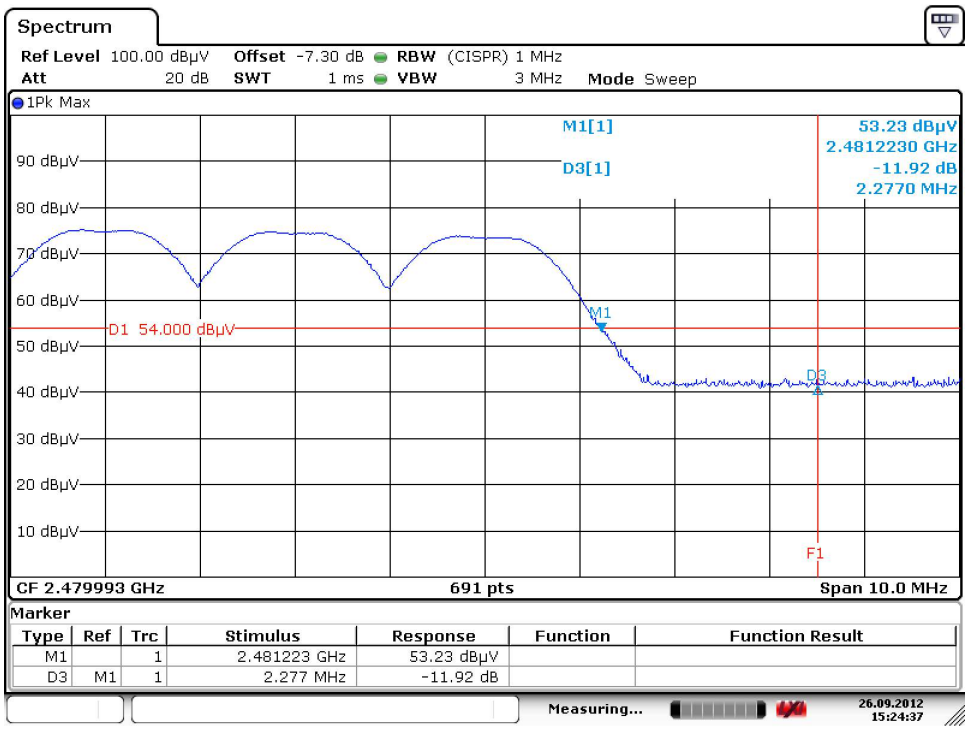

Date: 26.SEP.2012 15:26:01

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Horz - Z Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.223 | 54.0 | 42.08 | -11.92 | -2.277 | Pass |



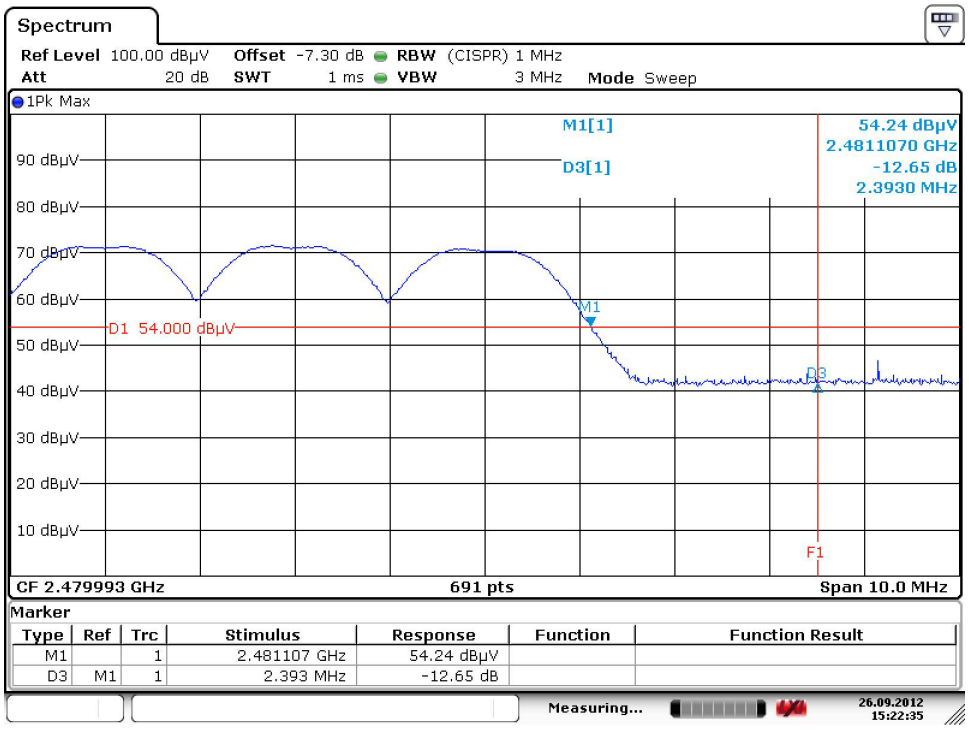

Date: 26.SEP.2012 15:24:37

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Vert - X Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.107 | 54.0 | 41.35 | -12.65 | -2.393 | Pass |



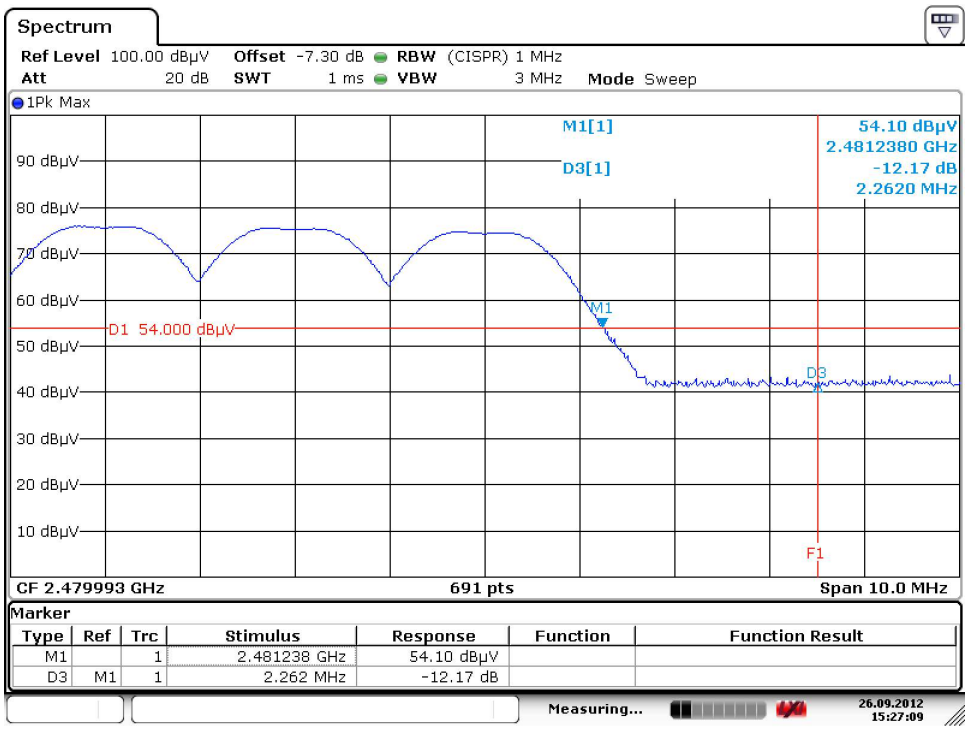

Date: 26.SEP.2012 15:22:35

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Vert - Y Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.238 | 54.0 | 41.83 | -12.17 | -2.262 | Pass |



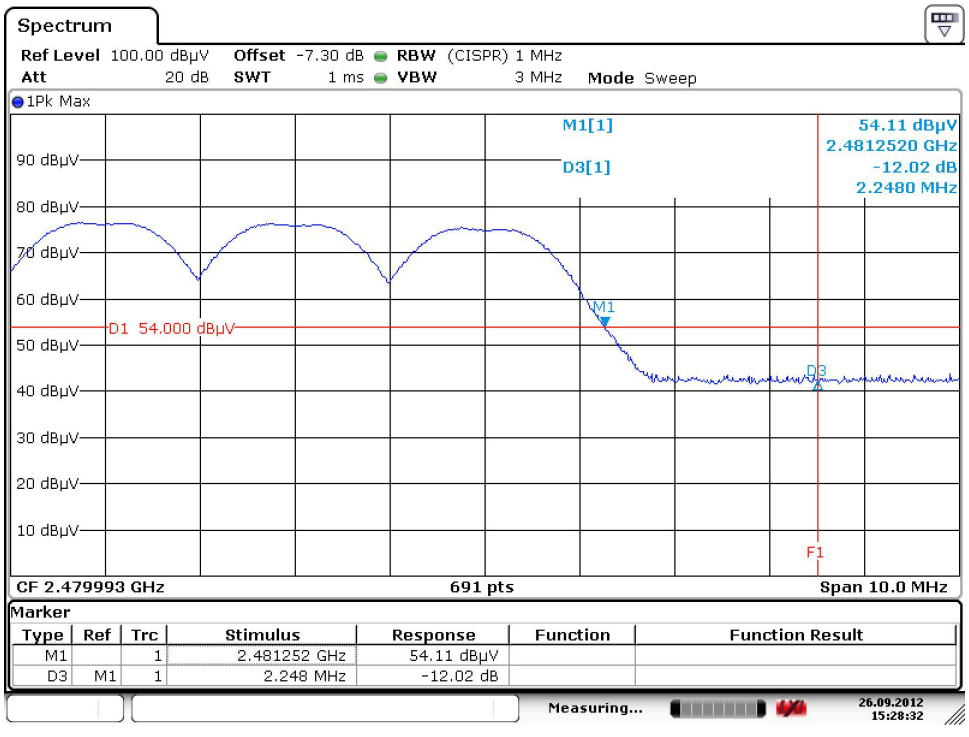

Date: 26.SEP.2012 15:27:09

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |
| DNB Job Number: | 36045 | Date: 26 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Radiated Corrected Band Edge Measurement - All Channels - Vert - Z Axis | | | | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2481.252 | 54.0 | 41.98 | -12.02 | -2.248 | Pass |




Date: 26.SEP.2012 15:28:32

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 36045 | Date: 4 Oct 2012 | **Conformance Standard**<br><br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>15.247(c) |
| | Test Procedure | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

Test Procedure: IEEE C63.10

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

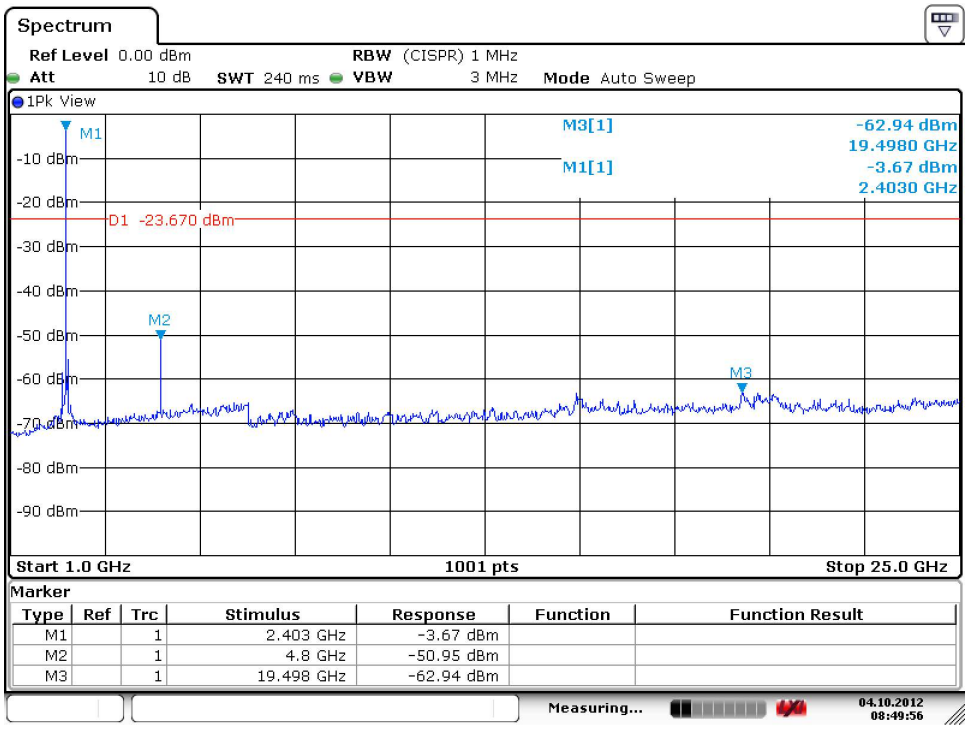
Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this Section. Submit these plots.

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 36045 | Date: 4 Oct 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) - Low Channel | | **Clause**<br>15.247(c) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| -2.48 dBm | -3.67 dBm | -23.67 dBm | Pass |



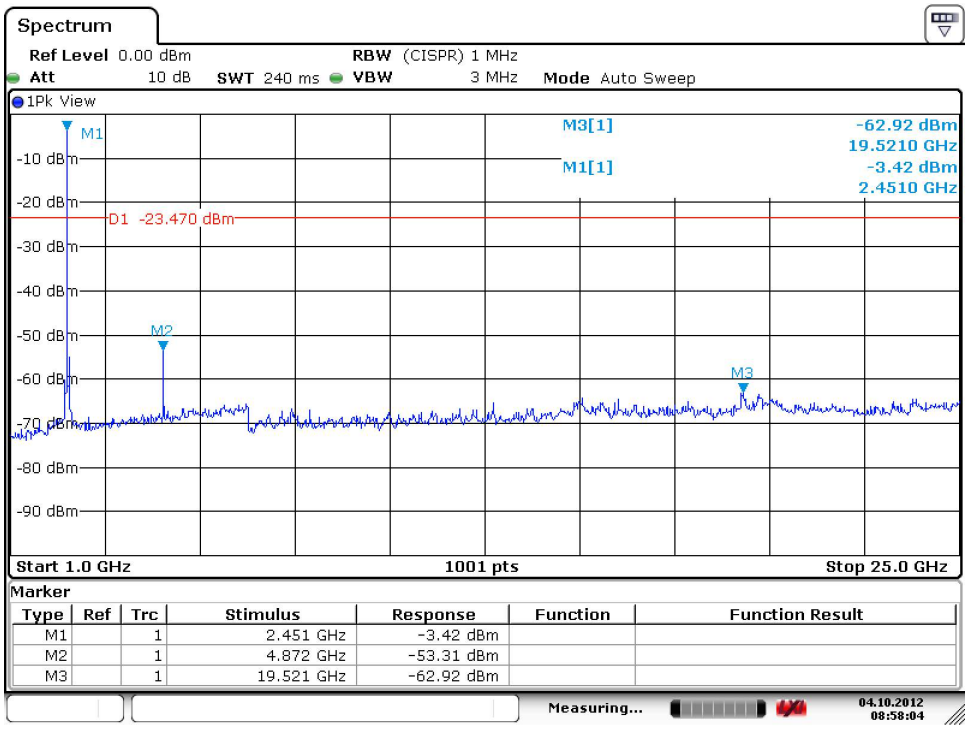

Date: 4.OCT.2012 08:49:57

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 36045 | Date: 4 Oct 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) - Mid Channel | | **Clause**<br>15.247(c) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| -3.10 dBm | -3.42 dBm | -23.42 dBm | Pass |



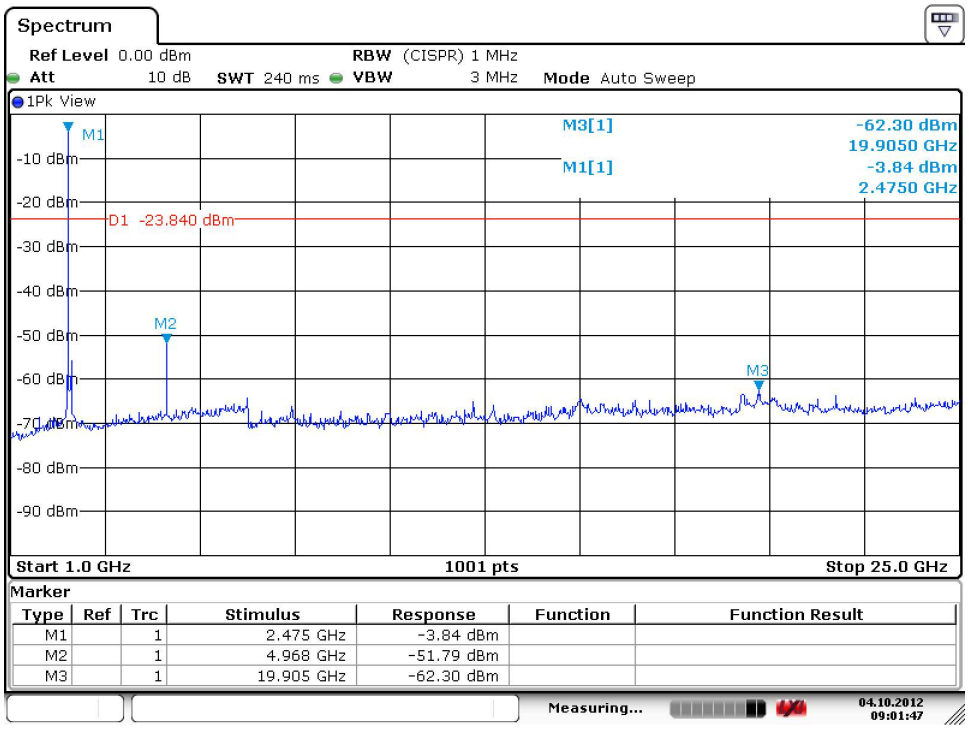

Date: 4.OCT.2012 08:58:03

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 36045 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>15.247(c) |
| | 1Mbps data rate (Basic data rate) - High Channel | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| -3.75 dBm | -3.84 dBm | -23.84 dBm | Pass |




Date: 4.OCT.2012 09:01:47

15.247(d): Power spectral density(PSD).

Test Procedure: IEEE C63.10

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 measure d, 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.

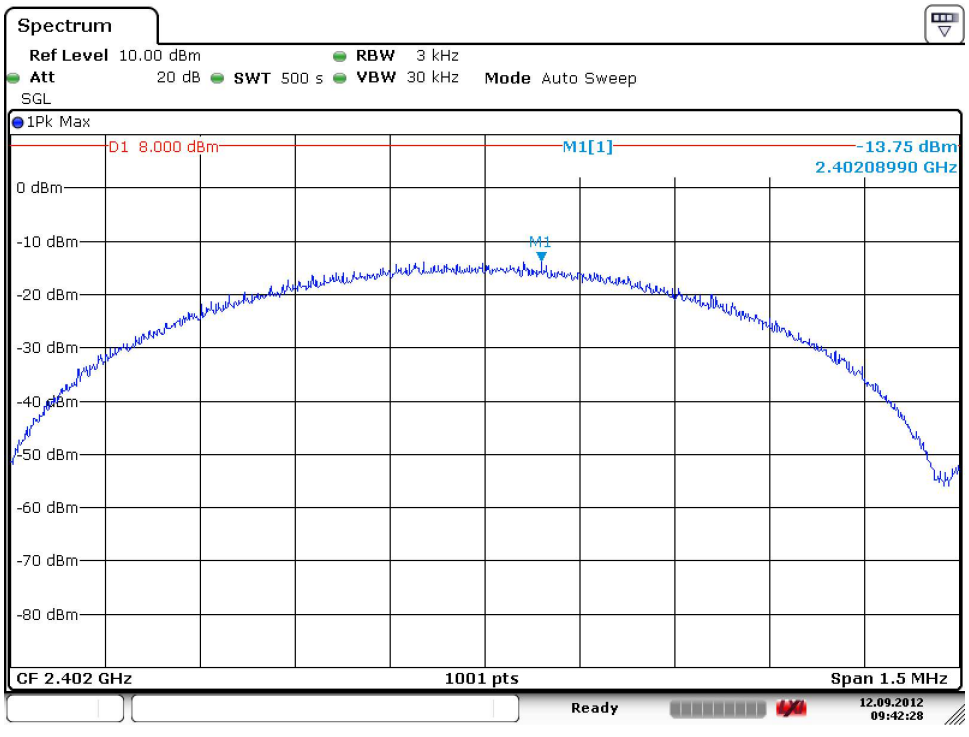
Should all the above fail or any controversy develop regarding accuracy of measurement, the Laboratory will use the HP 89440A Vector Signal Analyzer for final measurement unless a clear showing can be made for a further alternate.

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |
| DNB Job Number: | 36045 | Date: 12 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>15.247(d) |
| | 1Mbps data rate (Basic data rate) | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Low | 2402 | -13.75 | 8.0 | -21.75 | Pass |



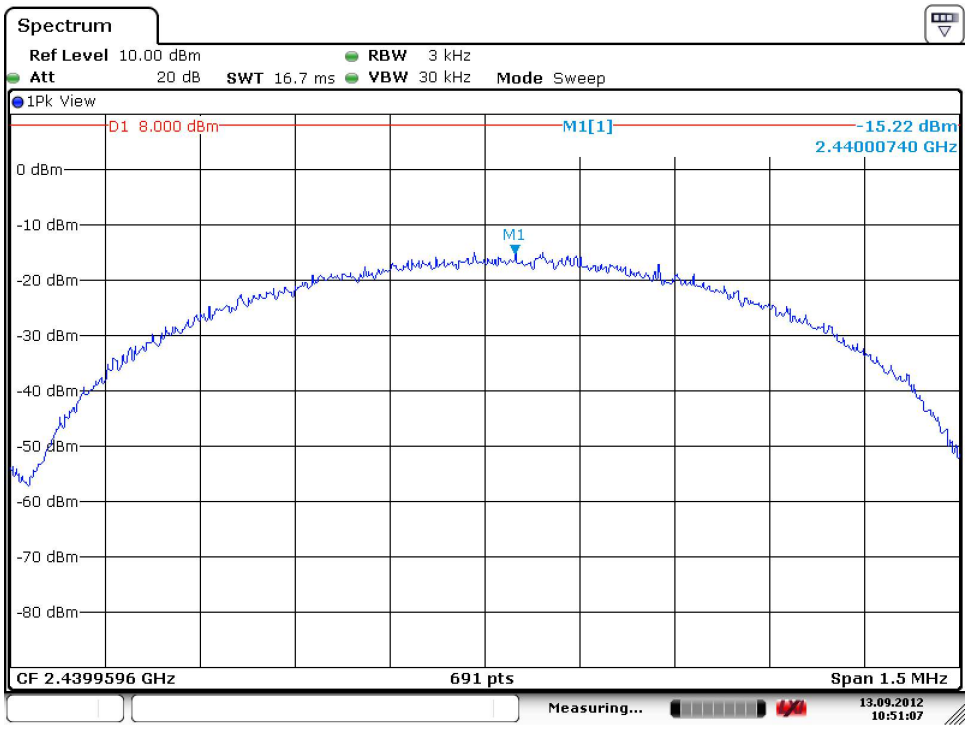

Date: 12.SEP.2012 09:42:27

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |
| DNB Job Number: | 36045 | Date: 13 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Middle | 2440 | -15.22 | 8.0 | -23.22 | Pass |

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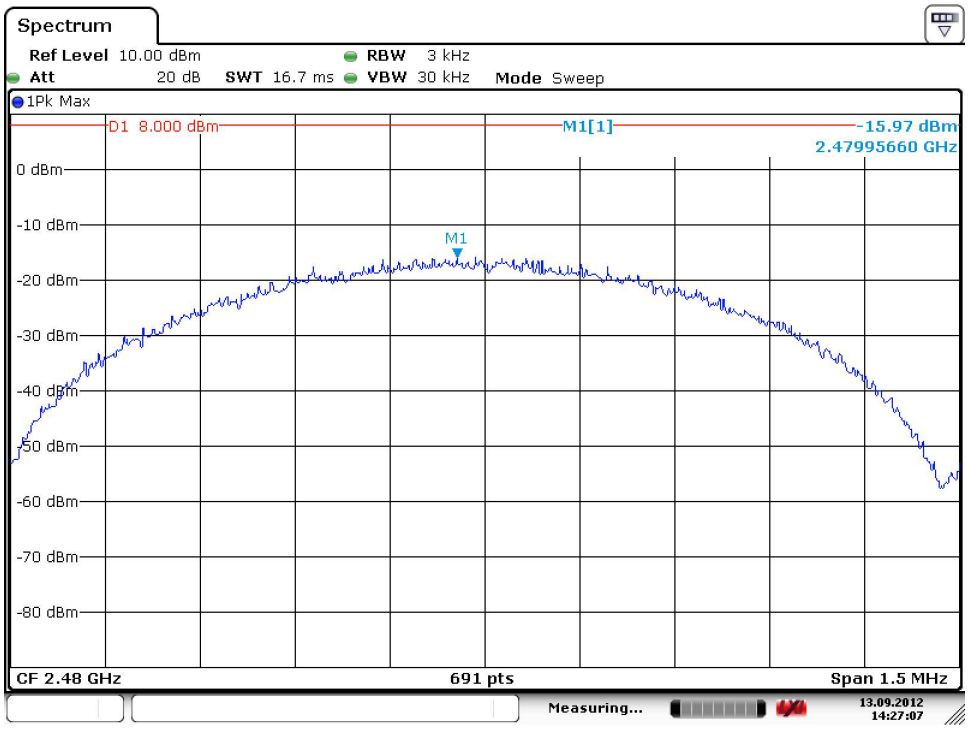
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |
| DNB Job Number: | 36045 | Date: 13 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| High | 2480 | -15.97 | 8.0 | -23.97 | Pass |

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2.1055 Frequency stability.

Test Procedure: IEEE C63.10

The frequency stability shall be measured with variation of ambient temperature from -30 to +50 degrees centigrade and the voltage shall be measured at 85% and 115% of the nominal voltage.

Use the following spectrum analyzer settings:

Span = 5MHz
RBW = 100 kHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

Allow the trace to stabilize. Set marker M1 On the peak of the channel, set marker M2 on the -30dB down point of the leading edge of the channel, set marker M3 on the -30dB down point of the trailing edge of the channel. Record this data in the appropriate table.

Verify that the lower channel does not exceed below the lower band edge and the upper channel does not exceed the upper band edge.

Temperature Stability:

Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10 centigrade through the range. A period of time sufficient to stabilize all of the components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. Only the extreme temperature range data shall be recorded in the table unless significant variations occur during the measurements.

Voltage Stability:

Vary primary supply voltage from 85 to 115 percent of the nominal value or values in the case of a nominal voltage range.

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Measurement Test Set Up** | |
| DNB Job Number: | 36045 | Date: 15 Aug 2008 | **Conformance Standard**<br><br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>15.247 |
| | | | |
| Frequency Stability Measurement Set Up | | | |

| | | |
|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **XMTR Frequency Range** |

| | | | |
|---|---|---|---|
| DNB Job Number: | 36045 | Date: 13 Sep 2012 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Icon Health and Fitness, Inc. | | |
| Model Number: | IABR12 | | |
| Description: | Modular Transceiver for use in Icon products | | **Clause**<br>2.1055 |
| | 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 [X] Yes [ ] No *Les Payne*

| TEST CONDITIONS | | Measured Frequency Bandwidth | | | | | |
|---|---|---|---|---|---|---|---|
| | | Lo Channel | | Mid Channel | | Hi Channel | |
| Temperature | Voltage | Fl | Fh | Fl | Fh | Fl | Fh |
| -30.00 °C | 7 Vdc | 2.400971030 | 2.403004000 | 2.438972500 | 2.441020300 | 2.478979700 | 2.481020300 |
| -30.00 °C | 9 Vdc | 2.400976020 | 2.403004000 | 2.438958000 | 2.441020300 | 2.478979700 | 2.481027500 |
| -30.00 °C | 12 Vdc | 2.400981020 | 2.403014000 | 2.438972500 | 2.441013000 | 2.478979700 | 2.481005800 |
| -30.00 °C | 15 Vdc | 2.400986010 | 2.402984300 | 2.438972500 | 2.441005800 | 2.478979700 | 2.481002500 |
| 25.00 °C | 7 Vdc | 2.400941060 | 2.403009000 | 2.438958000 | 2.441013000 | 2.478958000 | 2.480991300 |
| **25.00 °C** | **9 Vdc** | **2.401230770** | **2.402729270** | **2.438965300** | **2.441005800** | **2.478950800** | **2.480998600** |
| **25.00 °C** | **12 Vdc** | **2.400975770** | **2.403004000** | **2.438965300** | **2.441005800** | **2.478950800** | **2.480998600** |
| 25.00 °C | 15 Vdc | 2.400956040 | 2.402994000 | 2.438958000 | 2.440991300 | 2.478965300 | 2.480998600 |
| 55.00 °C | 7 Vdc | 2.400950800 | 2.402976800 | 2.438969300 | 2.440995400 | 2.478939700 | 2.480977000 |
| 55.00 °C | 9 Vdc | 2.400950800 | 2.402976800 | 2.438969300 | 2.441002600 | 2.478947000 | 2.480965800 |
| 55.00 °C | 12 Vdc | 2.400943600 | 2.402984100 | 2.438965400 | 2.441002600 | 2.478925300 | 2.480987500 |
| 55.00 °C | 15 Vdc | 2.400943600 | 2.402984100 | 2.438969300 | 2.440995400 | 2.478932500 | 2.480973000 |

Note 1 : Shaded area represents nominal voltage and temperature range.

Note 2 : Fl = Lower channel frequency edge (-30dB down)
Fh = Upper channel frequency edge (-30dB down)

2.1033 (b) (7) Equipment Photographs

| | | |
|---|---|---|
| Photo 1 | Internal | Top of PCB |
| Photo 2 | Internal | Bottom of PCB |
| Photo 3 | Internal | Label Location |

Photo 1 Internal Top of PCB

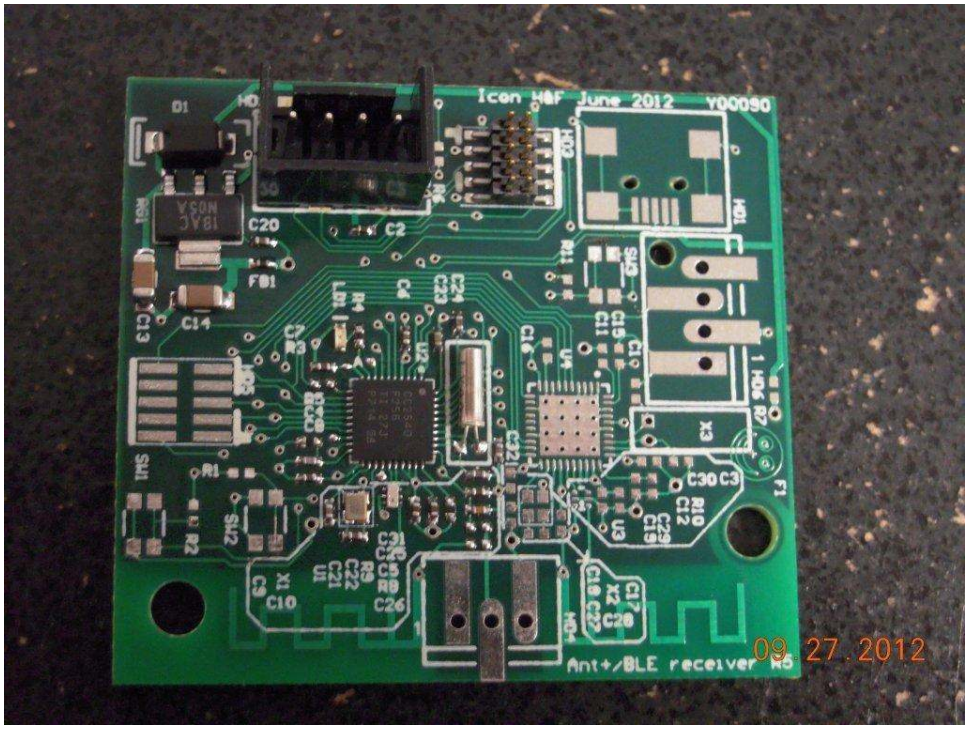


Photo 2 Internal Bottom of PCB

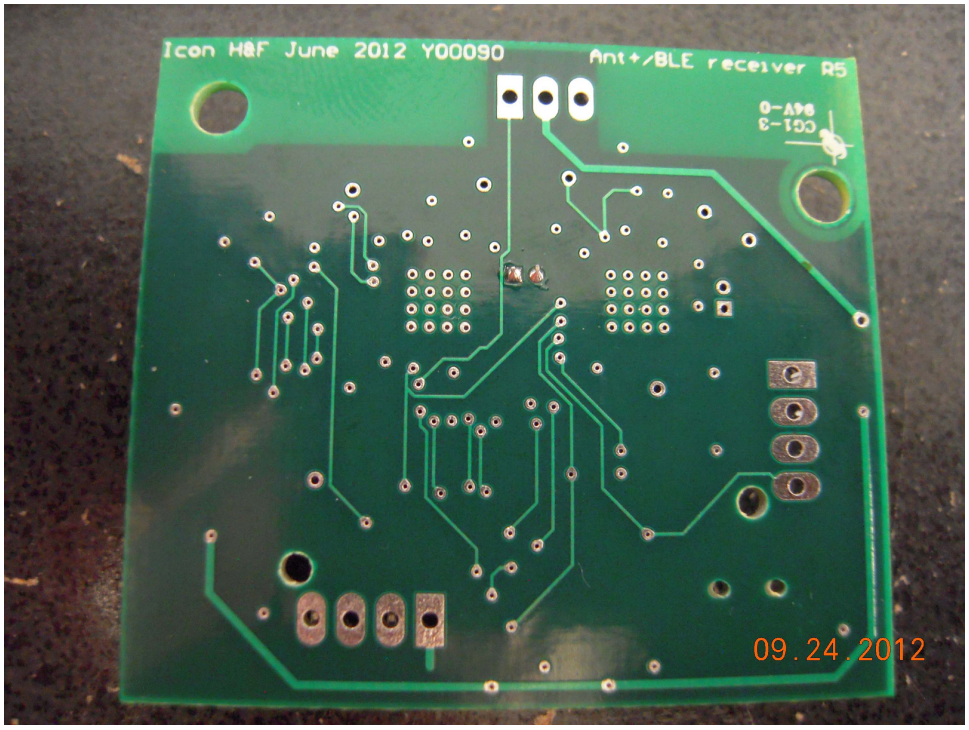
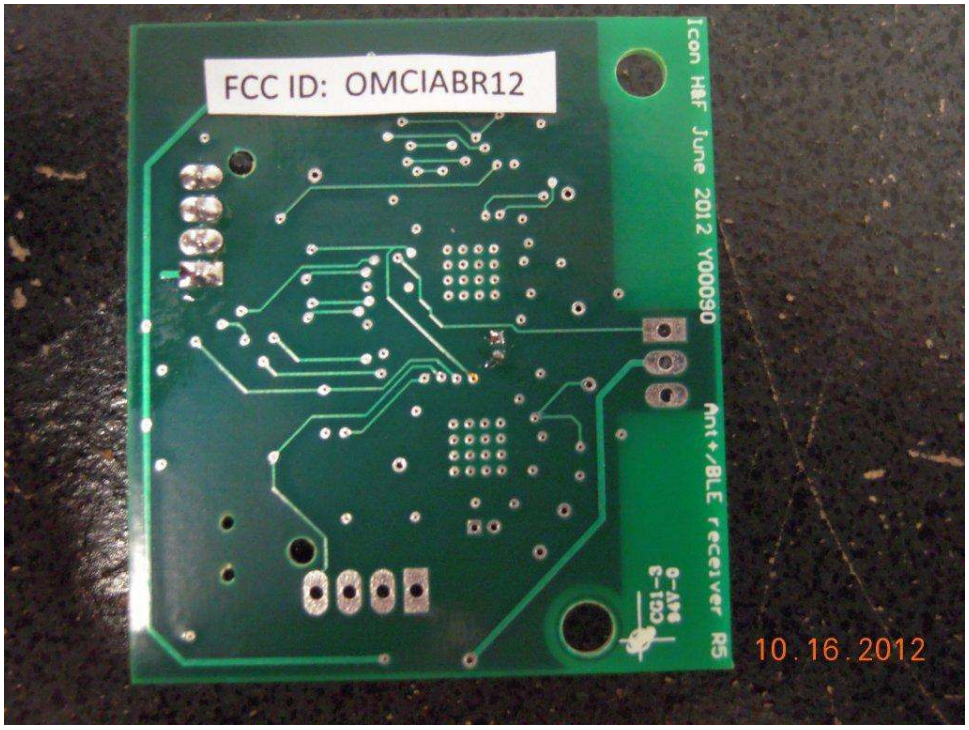


Photo 3 Internal Label Location



15.247 (b) (5) RF Exposure Requirements

RF Exposure – MPE Calculations (2400-2483.5 MHz Band)

Transmitter Power: 1 mW

Antenna Gain: 2.3 dB

Cable loss: 0 dB

Frequency range: 2400 - 2483.5 MHz

Assumptions

1. A single ¼ wavelength radiating antenna is assumed.

2. Closest exposure distance is assumed to be 2 cm.

Calculations

The following results shall be assumed to be accurate for the far-field only. These predictions will over-estimate power density in the near–field. Based on the use of a ¼ wavelength radiator, a distance of 2 cm is considered to be in the far-field for all cases.

$S = PG/4*PI*R^2$

P is 1 mW
G is 2.3 dB (Antenna gain – loss) or $10^{(2.3/10)}$ or 2.3

| | R = (Distance in cm) | | | | |
|---|---|---|---|---|---|
| | 20cm | 10cm | 5cm | 2cm | |
| S = | 0.000351 | 0.001403 | 0.005614 | 0.035086 | $mW/cm^2$ |

For Occupational/Controlled Exposure
From 1,500 to 100,000 MHz, power density limit is **5 $mW/cm^2$ for 6 minutes**

For General Population/Uncontrolled Exposure
From 1,500 to 100,000 MHz, power density limit is **1 $mW/cm^2$ for 30 minutes**

Conclusion: ***Meets MPE limits***

End of Report UT36045B-002