



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: Garmin International, Inc.

Model: A03071

Description: Short Range Transceiver

Serial Number: N/A

FCC ID: IPH-03071

To

FCC Part 1.1310

Date of Issue: November 8, 2017

On the behalf of the applicant:

**Garmin International, Inc.
1705 S. Research Loop
Tucson, AZ 85710**

Attention of:

**Rick Waybright, Regulatory Manager
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**Prepared By
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Project No: p1780018**

**Alex Macon
Project Test Engineer**

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	November 7, 2017	Alex Macon	Original Document

ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

EUT Description

Model: A03071

Description: Short Range Transceiver

Firmware: N/A

Software: N/A

Serial Number: N/A

Additional Information:

The system consists of a base unit intended to be operated by the end user and a roaming device which is intended to be moving at various locations near the base unit. These devices are described as Base Unit (A03070) and Roaming Device (A03071). The Base Unit was tested to the SAR requirements whereas the roaming device will be assessed to the MPE requirements in this report.

EUT Operation during Tests

The devices were placed into test modes using manufacturer supplied software. Continuous output in both CW and modulated tones were possible for high mid and low channels.



Source Based Time Averaged Power Calculation

Average Power calculations

Average Power = Peak Power * duty-cycle%

Tuned Frequency (MHz)	Conducted Peak Output Power (mW)	Duty Cycle (%)	Average Power (mW)
2405	1.77	100	1.77mW

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{25} \text{ where}$$

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁶
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

$$\left[\frac{(1.77)}{(5\text{mm})} \right] \cdot (\sqrt{2.405})$$

$$(.354) \cdot (1.55)$$

$$0.549$$

The outcome is below the 3.0 threshold.

END OF TEST REPORT