



# **Compliance Testing, LLC**

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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## **Test Report**

**Prepared for: PCI Race Radios, Inc.**

**Model: Intercom and Two Way Radio**

**Description: Comlink RTX**

**Serial Number: 1512000001**

**FCC ID: 2AEVE-PCI-CL-RTX**

**To**

**FCC Part 1.1310**

**Date of Issue: November 4, 2015**

**On the behalf of the applicant:**

**PCI Race Radios, Inc.  
2888 Gundry Avenue  
Signal Hill, CA 90755**

**Attention of:**

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Project No: p1550025**

**Alex Macon  
Project Test Engineer**

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### Test Report Revision History

| Revision | Date             | Revised By | Reason for Revision                     |
|----------|------------------|------------|-----------------------------------------|
| 1.0      | October 16, 2015 | Alex Macon | Original Document                       |
| 2.0      | November 4, 2015 | Alex Macon | Added minimum safe distance calculation |
|          |                  |            |                                         |
|          |                  |            |                                         |



## 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:** Comlink RTX

**Description:** Intercom and Two Way Radio

**Firmware:** N/A

**Software:** N/A

**Serial Number:** 1512000001

### **Additional Information:**

EUT was powered with a 12VDC power supply. All conducted measurements were taken with the loss of the supplied antenna cable in mind.



## Source Based Time Averaged Power Calculation

### Average Power calculations

Average Power = Peak Power \* duty-cycle%

| Tuned Frequency<br>(MHz) | Conducted Peak Output Power<br>(mW) | Duty Cycle<br>(%) | Average Power<br>(mW) |
|--------------------------|-------------------------------------|-------------------|-----------------------|
| 154.60                   | 1950                                | 100               | 1950                  |



## MPE Evaluation

This is a mobile device used in Uncontrolled Exposure environment.

### Limits Uncontrolled Exposure 47 CFR 1.1310 Table 1, (B)

|                  |                                                     |
|------------------|-----------------------------------------------------|
| 0.3-1.234 MHz:   | Limit [mW/cm <sup>2</sup> ] = 100                   |
| 1.34-30 MHz:     | Limit [mW/cm <sup>2</sup> ] = (180/f <sup>2</sup> ) |
| 30-300 MHz:      | Limit [mW/cm <sup>2</sup> ] = 0.2                   |
| 300-1500 MHz:    | Limit [mW/cm <sup>2</sup> ] = f/1500                |
| 1500-100,000 MHz | Limit [mW/cm <sup>2</sup> ] = 1.0                   |

## Test Data

|                          |       |
|--------------------------|-------|
| Test Frequency, MHz      | 154.6 |
| Power, Conducted, mW (P) | 1950  |
| Antenna Gain Isotropic   | 0dBi  |
| Antenna Gain Numeric (G) | 1     |
| Antenna Type             | omni  |
| Distance (R)             | 20 cm |

|                                      |
|--------------------------------------|
| $S = \frac{P * G}{4\pi r^2}$         |
| Power Density (S) mw/cm <sup>2</sup> |
|                                      |

|                                 |
|---------------------------------|
| Power Density (S) = 0.3879      |
| Limit =(from above table) = 0.2 |

The power spectral density of 0.3879 mw/cm<sup>2</sup> is over the limit of 0.2 mw/cm<sup>2</sup>. The Minimum safe distance was calculated as follows

|                                  |            |                  |               |
|----------------------------------|------------|------------------|---------------|
| formula $R = \sqrt{(PG/4\pi L)}$ |            |                  |               |
| Distance (R) (cm)                | Power (mW) | Numeric Gain (G) | Limit (mW/cm) |
| 27.86169208                      | 1950       | 1                | 0.2           |

The minimum safe distance is 27.8 cm.

END OF TEST REPORT