



Test Report

Prepared for: Robert Bosch, LLC

Model: CLN-ILB Ballast

Description: 2.4 GHz Transmitter

To

FCC Part 1.1310

Date of Issue: November 4, 2013

On the behalf of the applicant:

Robert Bosch, LLC
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Attention of:

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Alex Macon
Project Test Engineer

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Test Report Revision History

| Revision | Date | Revised By | Reason for Revision |
|----------|--------------------|------------|--------------------------------------|
| 1.0 | September 20, 2013 | Alex Macon | Original Document |
| 2.0 | November 4, 2013 | Alex Macon | Updated numeric gain and calculation |
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ILAC / A2LA

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

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Testing Certificate Number: **2152.01**



FCC OATS Reg, #933597

IC Reg. #2044A-1

Non-accredited tests contained in this report:

N/A



Description

The EUT is a lighting ballast with an incorporated 2.4 GHz Zigbee transceiver.

This is a mobile device used in Uncontrolled Exposure environment.

| | | |
|---------------------------------------|------------------|---|
| Limits - Uncontrolled Exposure | 0.3-1.234 MHz: | Limit [mW/cm ²] = 100 |
| 47 CFR 1.1310 | 1.34-30 MHz: | Limit [mW/cm ²] = (180/f ²) |
| Table 1, (B) | 30-300 MHz: | Limit [mW/cm ²] = 0.2 |
| | 300-1500 MHz: | Limit [mW/cm ²] = f/1500 |
| | 1500-100,000 MHz | Limit [mW/cm ²] = 1.0 |

| | |
|--------------------------|------------|
| Test Frequencies, MHz | 2405.0 MHz |
| Power, Conducted, mW (P) | 39.3 mW |
| Antenna Gain Isotropic | 3.3dBi |
| Antenna Gain Numeric (G) | 2.14 |
| Antenna Type | |
| Distance (R) | 20 cm |

| | | |
|----------------------------|---------------------|---------------------------|
| Power Density Calculations | Formula = | $S = PG / 4\pi R^2$ |
| | Power Density (S) = | 0.0167 mW/cm ² |
| | Limit = | 1.0 mW/cm ² |

The Power Density is below the Limit.

The SAR measurement is not necessary.

END OF TEST REPORT