



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: Centralite Systems

Model: 3146

Description: Villa 3-Button In-Wall Relay

Serial Number: N/A

FCC ID: T3L-SS041

IC: 12192A-SS041

To

FCC Part 1.1310

Date of Issue: July 3, 2017

On the behalf of the applicant:

**Centralite Systems
1000 Cody Road South
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Attention of:

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**Prepared By
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Project No: p1740018**

**Poona Saber
Project Test Engineer**

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	May 3, 2017	Poona Saber	Original Document
2.0	June 30, 2017	Poona Saber	Revised calculations

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: 3146

Description: Villa 3-Button In-Wall Relay

Firmware: N/A

Software: N/A

Serial Number: N/A

Additional Information: The EUT is a wall mounted switched intended to control lighting in a residential environment. It incorporates a 2.4 GHz radio which spans from 2405MHz – 2480MHz with an emissions designator 2M52F7D



Average Power calculations

Average Power = Peak Power * duty-cycle%

Tuned Frequency (MHz)	Peak EIRP (mW)	Duty Cycle (%)	Average Power (mW)
2440	3.08	100	3.08



EUT comes to close proximity of human's body and is investigated below for SAR exclusion per KDB 447498

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

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

- 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

$$(3.08/5) \times \sqrt{2.44} = 0.95 \leq 3.0$$

Note: The test exclusions are applicable only when the minimum *test separation distance* is $\leq$ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is $<$ 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

END OF TEST REPORT