



## **Compliance Testing, LLC**

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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### **Test Report**

**Prepared for: Knox Company**

**Model: KSM200K2 & KLS400K2**

**Description: Key Retention Device**

**Serial Number: N/A**

**FCC ID: Z64-CC3100MODR1**

**To**

**FCC Part 1.1310**

**Date of Issue: August 3, 2017**

**On the behalf of the applicant:**

**Knox Company  
1601 W Deer Valley Rd  
Phoenix, AZ 85027**

**Attention of:**

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Project No: p1690016-TCB**

**Poona Saber  
Project Test Engineer**

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All results contained herein relate only to the sample tested



### Test Report Revision History

| Revision | Date           | Revised By  | Reason for Revision |
|----------|----------------|-------------|---------------------|
| 1.0      | August 3, 2017 | Poona Saber | 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:** KSM200K2 & KLS-400K2

**Description:** Keysecure is a key retention device used for securing the Knox mechanical key in emergency vehicles

**Firmware:** NA

**Software:** NA

**Serial Number:** NA

**Additional Information:**

Device incorporates a 2.4 GHz module incorporating a 5dBi Air802 antenna, Model: ANRD2405-RPSMA



### 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) |
|--------------------------|-------------------------------------|-------------------|-----------------------|
| 2437                     | 0.029                               | 100               | 0.029                 |



## MPE Evaluation

This is a portable 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      | 2437  |
| Power, Conducted, mW (P) | 29.1  |
| Antenna Gain Isotropic   | 5 dBi |
| Antenna Gain Numeric (G) | 3.16  |
| Antenna Type             | patch |
| Distance (R)             | 20 cm |

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

|                               |
|-------------------------------|
| Power Density (S) = 0.018     |
| Limit =(from above table) = 1 |

So the Unit shall be at least 20 centimeters away from human bodies.

END OF TEST REPORT