



# 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:

Howard Needham, Sr. Engineer  
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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**

<b>Revision</b>	<b>Date</b>	<b>Revised By</b>	<b>Reason for Revision</b>
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%

<b>Tuned Frequency (MHz)</b>	<b>Conducted Peak Output Power (mW)</b>	<b>Duty Cycle (%)</b>	<b>Average Power (mW)</b>
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