



# RF Exposure Evaluation Report

Applicant's company	Tesla Motors, Inc.
Applicant Address	3500 Deer Creek Road Palo Alto, California US 94304 United States Of America
FCC ID	2AEIM-1089774
Manufacturer's company	Tesla Motors, Inc.
Manufacturer Address	3500 Deer Creek Road Palo Alto, California US 94304 United States Of America

Product Name	Security Controller
Brand Name	Tesla
Model Name	1089774
Ref. Standard(s)	47 CFR FCC Part 2 Subpart J, section 2.1093
Received Date	May 03, 2017
Final Test Date	Jun. 06, 2017
Submission Type	Original Equipment

  
**Kevin Liang**  
**SPORTON INTERNATIONAL INC.**





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### **PHOTOGRAPHS OF EUT V01**



### History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA741006	Rev. 01	Initial issue of report	Aug. 01, 2017



# 1. GENERAL DESCRIPTION

## 1.1. EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)

## 1.2. Testing Location Information

Testing Location		
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL : 886-3-327-3456      FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.		
<input type="checkbox"/>	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) TEL : 886-3-656-9065      FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.		

## 2. RF EXPOSURE EVALUATION

### 2.1. Applicable Standard

In accordance with FCC 47 CFR part 2 (2.1093) this device has been defined as a portable device which is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

Portable devices must be evaluated using the specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2003.

### 2.2. SAR evaluation

- Per FCC KDB 447498 D01 v06, 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:  

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f_{\text{(GHz)}}} \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR
  - ♦  $f_{\text{(GHz)}}$  is the RF channel transmit frequency in GHz
  - ♦ Power and distance are rounded to the nearest mW and mm before calculation
  - ♦ The result is rounded to one decimal place for comparison

Tune-up Average Power		Test Distance (mm)	Frequency (GHz)	Exclusion Thresholds
(dBm)	(mW)			
5.00	3.16	5	2.402	1.0

- Per FCC KDB 447498 D01 v06 exclusion thresholds is  $1.0 < 3$ , RF exposure evaluation is not required.