



RF Exposure Evaluation Declaration

Product Name: Level Lock

Model No. : # A1 SHORT /# A2 LONG

FCC ID : 2ATIO1

Applicant: California Things

Address: 650 Main Street Redwood City, CA 94063

Date of Receipt: Apr. 25, 2019

Test Date : Apr. 26, 2019~ May. 20, 2019

Issued Date : May. 24, 2019

Report No. : 1942175R-RF-US-P20V01

Report Version: V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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The test report shall not be reproduced without the written approval of DEKRA Testing & Certification (Suzhou)

Co., Ltd.



Test Report Certification

Issued Date: May. 24, 2019

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Product Name : Level Lock

Applicant : California Things

Address : 650 Main Street Redwood City, CA 94063

Manufacturer : California Things

Address : 650 Main Street Redwood City, CA 94063

Model No. : # A1 SHORT /# A2 LONG

FCC ID : 2ATIO1 EUT Voltage : DC 3V

Test Voltage : AC 120V/60Hz Applicable Standard : KDB 447498D01V06

FCC Part1.1310

Test Result : Complied

Performed Location : DEKRA Testing & Certification (Suzhou) Co., Ltd.

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FCC Designation Number: CN1199

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1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	Average Time (Minutes)			
(A) Limits for ((A) Limits for Occupational/ Control Exposures						
300-1500			F/300	6			
1500-100,000			5	6			
(B) Limits for General Population/ Uncontrolled Exposures							
300-1500			F/1500	6			
1500-100,000			1	30			

F= Frequency in MHz

Friis Formula

Friis transmission formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/ cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

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1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18 and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	•	Level Lock
Test Item	:	RF Exposure Evaluation
Test Site	•	AC-6

Antenna Information:

Antenna manufacturer	N/A							
Antenna Delivery		1*TX+1*RX				3*TX+3*RX		
Antenna technology		SISO						
		MIMO		Basic				
				CDD				
				Beam-forming				
Antenna Type		External		Dipole				
		Internal		PIFA				
			\boxtimes	PCB				
				Ceramic Chip Antenna				
				Stamping Antenna				
				Metal plate type F antenna				
				Monopole antenna				
Antenna Gain	-6.5dBi							



• Power Density:

Test Mode	Frequency Band (MHz)	EIRP (dBm)	Limit of Power Density S(mW/cm²)	Power Density at R = 20 cm (mW/cm ²)
BT	2400 ~ 2483.5	-4.19	1	0.00008

Note: The maximum power density is 0.00008mW/cm² for Level Lock without any other radio equipment.

— The End	