



## RF EXPOSURE REPORT

<b>Applicant</b>	:	Camden Door Control
<b>Address of Applicant</b>	:	2395 Skymark Avenue, Mississauga, Ontario, L4W 4Y6, Canada
<b>Manufacturer</b>	:	PH ELECTRONICS CO., LTD
<b>Address of Manufacturer</b>	:	901, No. 72, Longhai 3rd Road, Daya Bay West Huizhou, P.R.China Postal code: 516083
<b>Equipment under Test</b>	:	Microwave Touchless Switch
<b>Model No.</b>	:	40-31A090, 40-31A091
<b>FCC ID</b>	:	2AHAB-40-31A090
<b>Test Standard(s)</b>	:	KDB447498 D01 General RF Exposure Guidance v06
<b>Report No.</b>	:	DDT-RE25060607-1E01
<b>Issue Date</b>	:	2025/08/18
<b>Issue By</b>	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

# REPORT

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## Test Report Declare

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**Test Standard Used:**

KDB447498 D01 General RF Exposure Guidance v06

**We Declare:**

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE25060607-1E01		
Date of Receipt:	2025/06/23	Date of Test:	2025/06/23~2025/07/16

Created: Zoe Peng	Reviewed: Ella Gong	Approved: Ella Gong
		
2025/07/16	2025/08/18	2025/08/18

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

## Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2025/08/18	Ella Gong

## 1. General Test Information

### 1.1. Description of EUT

EUT Name	:	Microwave Touchless Switch
Model Number	:	40-31A090, 40-31A091
Difference of model number	:	Except for the color of the light, other electronic components and appearance are the same, so the test model is 40-31A090
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC 12V~24V

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual.

### 1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

### 1.3. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: [ddt@dgddt.com](mailto:ddt@dgddt.com).

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20240, G-20118

## 2. RF Exposure evaluation for FCC

### 2.1. Assessment procedure

#### Requirement:

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

#### Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100000			1.0	30

Note: f= frequency in MHz; \*Plane-wave equivalent power density

#### Calculation method

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } S(mW/cm^2) = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = Peak RF output power (mW)

**G** = EUT Antenna numeric gain (numeric)=

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.

## 2.2. Assess result

Mode	Output power (dBm)	Output power (mW)	Tune up power (dBm)	Tune up power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
24G radar	2.7	1.862	3	1.995	0.5	1.122	0.0004	1

24G radar PK Output Power=97.90dB<sub>u</sub>V/m@3m-95.2=2.7dBm

Simultaneous transmit evaluation result: 0.0004<1.

Note: The estimation distance is 20 cm

Conclusion: MPE evaluation required since transmitter power is below FCC threshold

### 3. Photos of the EUT

Please refer to photo document

-----End Report-----