



# Radio Exposure Evaluation Report

**FCC ID** : YL6-143P100  
**Equipment** : EZ Point  
**Brand Name** : ALARM.COM  
**Model Name** : ADC-EZ100P-US, ADC-EZ100-US  
**Applicant** : Alarm.com Incorporated  
8281 Greensboro Drive, Suite 100,  
Tysons, VA 22102 United States  
**Manufacturer** : Alarm.com Incorporated  
8281 Greensboro Drive, Suite 100,  
Tysons, VA 22102 United States  
**Standard** : 47 CFR FCC Part 2 Subpart J, section 2.1

The product was received on Jul. 01, 2025, and testing was started from Jul. 09, 2025 and completed on Jul. 30, 2025. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR FCC Part 2 Subpart J, section 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

**SPORTON INTERNATIONAL INC. Hsinhua Laboratory**  
No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



## Table of Contents

<b>HISTORY OF THIS TEST REPORT .....</b>	<b>3</b>
<b>SUMMARY OF TEST RESULT .....</b>	<b>4</b>
<b>1 GENERAL DESCRIPTION .....</b>	<b>5</b>
1.1 Information.....	5
1.2 Applicable Standards .....	7
1.3 Testing Location .....	7
<b>2 MAXIMUM PERMISSIBLE EXPOSURE .....</b>	<b>8</b>
2.1 Limit of Maximum Permissible Exposure .....	8
2.2 RF Exposure Exempt Measurement .....	9
2.3 Multiple RF Sources Exposure.....	10
2.4 MPE Calculation Method.....	11
2.5 Calculated Result and Limit.....	12

### Photographs of EUT V01



## History of this test report



## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

None

Reviewed by: Daniel Hsu

Report Producer: Amber Chiu

# 1 General Description

## 1.1 Information

### 1.1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
Z-Wave	902-928	908.4, 916,	2FSK & GFSK
		912, 920	DSSS (O-QPSK)

### 1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	LITEON	EC1110	Print	N/A	Z-Wave

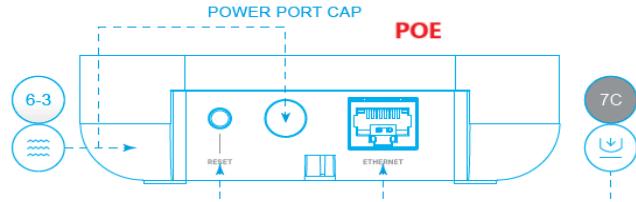
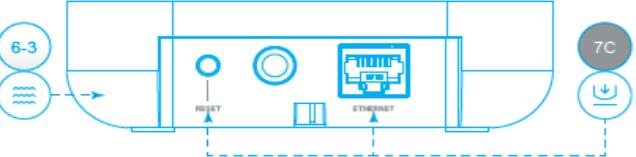
Ant.	Port	Gain (dBi)	
		902-928MHz	
1	1	3.3	

#### For Z-wave function:

Ant. 1 (port 1) could transmit/receive simultaneously.

### 1.1.3 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Input		Difference
	PoE IN	DC IN	
ADC-EZ100P-US	V		
ADC-EZ100-US		V	

From the above models, model: ADC-EZ100P-US, ADC-EZ100-US was selected as representative model for the



test and its data was recorded in this report

Product Configuration	Brand	Model	Description
SKU 1	LITEON	ADC-EZ100P-US	for POE Version (Main Source)
SKU 2	LITEON	ADC-EZ100P-US	for POE Version (2nd Source)
SKU 3	LITEON	ADC-EZ100-US	for Non POE Version (DC IN)

ADC-EZ100P-US for Table for Explanation of 2nd Source

Object/part or Description (location)	Location	Main source (SKU1)	2nd source (SKU 2)
PoE flyback transformer	T2	TNK, TEP1313-C628	M-TEK, EP13-174SA
Flash	U7	Winbond, W25N01KVZEIR	GigaDevice, GD5F1GM7UEYIGR

Note: The information presented above originates from the manufacturer.

#### 1.1.4 Accessories

Accessories				
AC Adapter (for Sku 3)	Brand Name	HONOR	Model Name	ADS-6AM-06 05050EPCU
	Manufacturer	SHENZHEN HONOR ELECTRONIC CO.,LTD	SN	-
	Power Rating	I/P: 100- 240 Vac, 0.3 A, 50/60Hz O/P: 5 Vdc, 1A		
	Power Cord	1.5 meter, non-shielded cable, w/o ferrite core		
RJ45 Cable	Category	CAT5e		
	Power Cord	1.8 meter, non-shielded cable		

Reminder: Regarding to more detail and other information, please refer to user manual.



## 1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 2 Subpart J, section 2.1091
- ♦ KDB 447498 D04 Interim General RF Exposure Guidance v01

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ 47 CFR Part 1.1307
- ♦ 47 CFR Part 1.1310

## 1.3 Testing Location

<b>Test Lab. : Sporton International Inc. Hsinhua Laboratory</b>			
<input checked="" type="checkbox"/> Hsinhua (TAF: 3785)	<b>ADD:</b> No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.) <b>TEL:</b> 886-3-327-3456	<b>FAX:</b> 886-3-327-0973	
Test site Designation No. TW3785 with FCC.			
<input type="checkbox"/> Wen 33rd.St. (TAF: 3785)	<b>ADD:</b> No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) <b>TEL:</b> 886-3-318-0787	<b>FAX:</b> 886-3-318-0287	
Test site Designation No. TW0008 with FCC.			



## 2 Maximum Permissible Exposure

### 2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled 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)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	F/300	6
1500-100,000	-	-	5	6

(B) 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 <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	F/1500	30
1500-100,000	-	-	1.0	30

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



## 2.2 RF Exposure Exempt Measurement

Option	Refer Std.	Exemption Exposure Thresholds (TL)
A	§1.1307(b)(3)(i)(A)	Available maximum time-averaged power is no more than 1 mW
B	§1.1307(b)(3)(i)(B)	$P_{th}(mW) = \begin{cases} ERP_{20cm} (d / 20cm)^x \rightarrow d \leq 20cm \\ ERP_{20cm} \rightarrow 20cm < d \leq 40cm \end{cases}$ $x = -\log_{10}\left(\frac{60}{ERP_{20cm} \sqrt{f}}\right)$ and f is in GHz $\begin{cases} ERP_{20cm} : 0.3GHz \leq f < 1.5GHz \rightarrow 2040 f(mW) \\ ERP_{20cm} : 1.5GHz \leq f \leq 6GHz \rightarrow 3060 (mW) \end{cases}$
C	§1.1307(b)(3)(i)(C)	$0.3 \sim 1.34MHz \rightarrow ERP(W) = 1920 R^2$ $1.34 \sim 30MHz \rightarrow ERP(W) = 3450 R^2 / f^2$ $30 \sim 300MHz \rightarrow ERP(W) = 3.83R^2$ $300 \sim 1500MHz \rightarrow ERP(W) = 0.0128 R^2 f$ $1500 \sim 100000MHz \rightarrow ERP(W) = 19.2R^2$ f is in MHz; R is in m; $R > \lambda / 2\pi$



## 2.3 Multiple RF Sources Exposure

Refer Std.	Exemption Exposure Thresholds (TL)
§1.1307(b)(3)(ii)(A)	<p>The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required)</p>
§1.1307(b)(3)(ii)(B)	$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{ExposureLimit_k} \leq 1$ <p>a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(B) of this section for P, including existing exempt transmitters and those being added.</p> <p>b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.</p> <p>c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.</p> <p><math>P_i</math> = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).</p> <p><math>P_{th,i}</math> = the exemption threshold power ( <math>P_{th}</math> ) according to paragraph §1.1307(b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.</p> <p><math>ERP_j</math> = the ERP of fixed, mobile, or portable RF source j.</p> <p><math>ERP_{th,j}</math> = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least <math>\lambda/2\pi</math> according to the applicable formula of paragraph §1.1307(b)(3)(i)(C) of this section.</p> <p><math>Evaluated_k</math> = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.</p> <p><math>ExposureLimit_k</math> = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310 of this chapter.</p>



## 2.4 MPE Calculation Method

The MPE was calculated at 20 cm to show compliance with the power density limit.  
The following formula was used to calculate the Power Density:

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

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

**P** = RF output power (W)

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

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

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



## 2.5 Calculated Result and Limit

### Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
0.9G;	3.30	18.50	21.80	0.50	103.514	20.00	B	1860.5	0.0556

Note 1: Option A, B and C refer as clause 2.2

Note 2: For option B, Pth(mW) convert to TL ERP(mW); For option C, ERP(W) convert to TL ERP(mW)

Note 3: TL Ratio=Tune-up ERP(mW)/TL ERP(mW)

THE END