

# Quick Installation Guide

## EAO2001S(RoHS)

Enterprise Access Point (Outdoor)

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## **FCC CAUTION**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Increase the separation between the equipment and receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced radio/TV technician for help.**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device is restricted to outdoor use when operated in the 5.15 to 5.25GHz and 5.725 to 5.825GHz frequency range.

※ FCC requires this product to be used indoors for the frequency range 5.15 to 5.25GHz and 5.725 to 5.825GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 21cm between the radiator & your body.

### Taiwan NCC Statement

以下警語適用台灣地區

- (1) 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- (2) 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- (3) 無線資訊傳輸設備必須具備安全功能，以保護未經授權之一方任意更改軟體進而避免發射機操作於非經認證之頻率、輸出功率、調變形式或其他射頻參數設定。
- (4) 無線資訊傳輸設備避免影響附近雷達系統之操作。
- (5) 無線資訊傳輸設備高增益指向性天線只得應用於固定式點對點系統。
- (6) 本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者。
- (7) MPE 標準值及送測產品實測值:電磁波暴露量 MPE 標準值  $1\text{mW}/\text{cm}^2$ ，送測產品實測值為： $0.57194\text{ mW}/\text{cm}^2$ ，本產品使用時建議應距離人體  $21\text{cm}$ 。

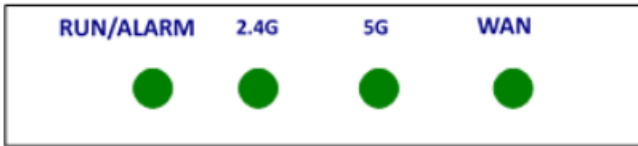
## Introduction

EAO2001S(RoHS) can be installed by wall-mounted installation kit in any occasion, EAO2001S(RoHS) provide IP67 waterproof, dustproof metal cabinet design, can be against Taiwan's outdoor environment and climate conditions, even if long-term outdoors, high and low temperature environment can operate

## EAO2001S(RoHS)



## LED



1	<b>RUN/ALARM_LED</b>	An LED indicator to show the system status
2	<b>2.4G_LED</b>	An LED indicator to show the 2.4G status
3	<b>5G_LED</b>	An LED indicator to show the 5G status
4	<b>WAN_LED</b>	An LED indicator to show the internet connection status

## I/O Port



1	<b>N-type Connector</b>	For connecting to an antenna (RF Card A x 3, RF Card B x 3) Utilize all connectors for optimized MIMO performance.
2	<b>Console</b>	Console port for debugging
3	<b>Reset</b>	Press once to restart the system; to reset the system to factory default settings, hold for more than 5 seconds.
4	<b>LAN (Uplink (PoE) Port)</b>	Offers uplink connection. This port can be used to connect to a controller, gateway, or directly to the Internet. 802.3at PoE is also supported

## Connecting Askey EAO2001S(RoHS) to Internet Access device

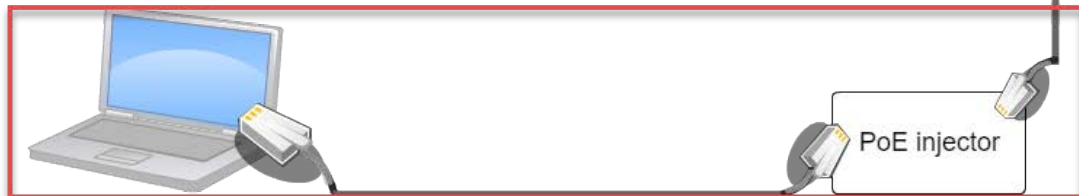
1. Connect the Ethernet to PoE injector.



2. Plug PoE Injector on.
3. Make sure the RUN/ALARM LED is on.

### Askey EAO2001S(RoHS) setup for Windows PC.

1. Plug in RJ45 cable from your PC to the PoE Injector Ethernet port.



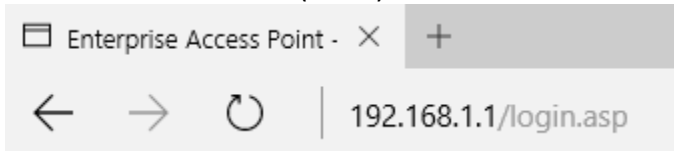
2. From PC and start browser, e.g. Microsoft Edge.



Microsoft Edge 20.10240.16384.0

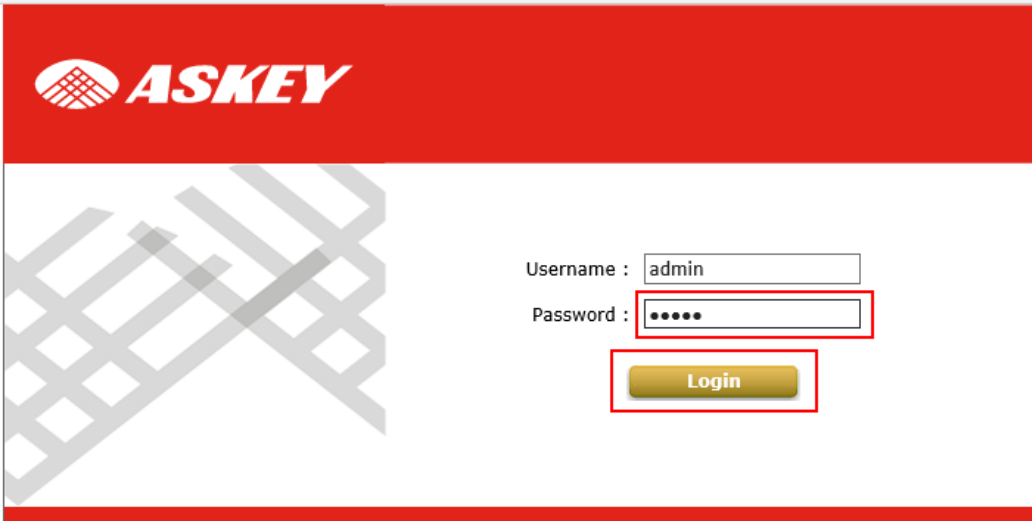
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3. Open Microsoft Edge and fill in IP address e.g. "<http://192.168.1.1>" in the URL. This default EAO2001S(RoHS) IP address is 192.168.1.1

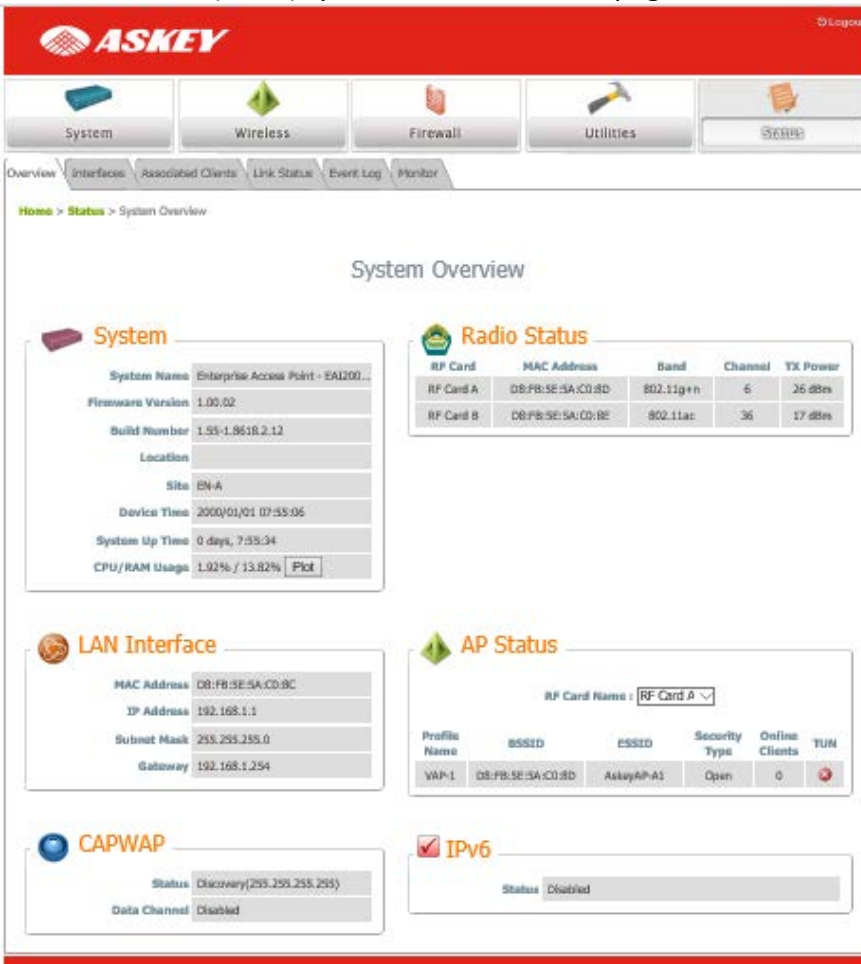




- Pop up authorization required username and password. Default username is "admin" and password is "admin", then click "login" button.



- Enter EAO2001S(RoHS) system overview status page.



6. Change Wireless settings, please click wireless item then select general page.

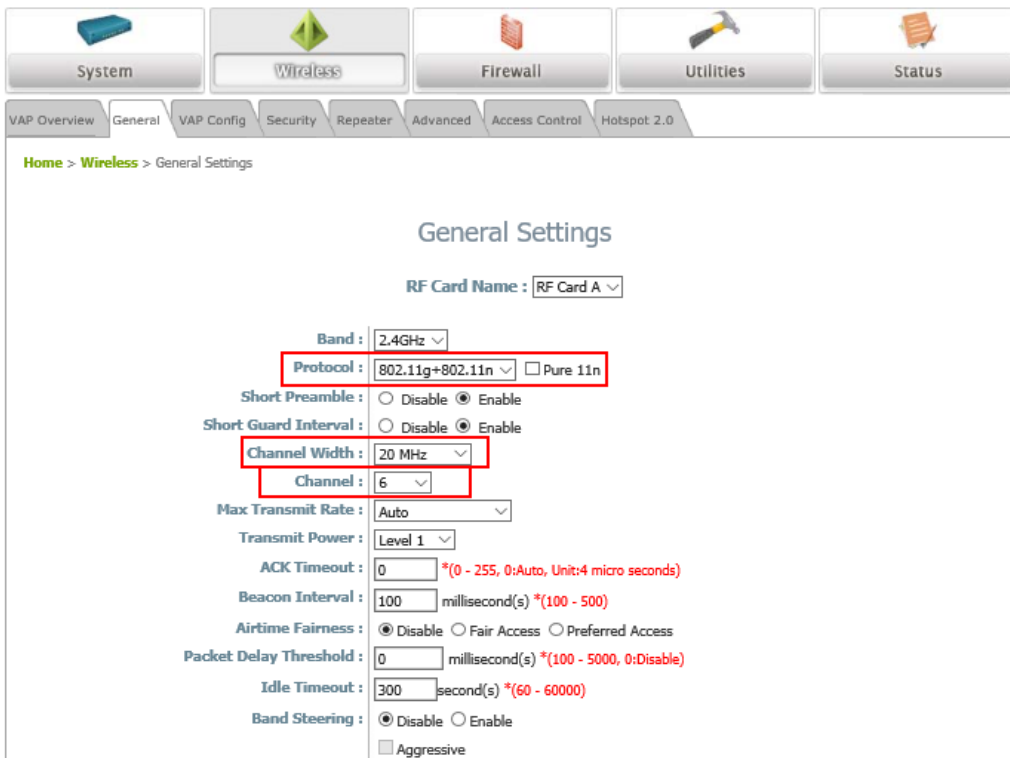


The screenshot shows the 'General Settings' page for the wireless configuration. The interface includes a top navigation bar with icons for System, Wireless, Firewall, Utilities, and Status. Below this is a sub-navigation bar with tabs for VAP Overview, General, VAP Config, Security, Repeater, Advanced, Access Control, and Hotspot 2.0. The main content area is titled 'General Settings' and features a breadcrumb trail: Home > Wireless > General Settings. The 'RF Card Name' is set to 'RF Card A'. The configuration options include:

- Band:** 2.4GHz
- Protocol:** 802.11g+802.11n (with a 'Pure 11n' checkbox)
- Short Preamble:** Enable (radio button selected)
- Short Guard Interval:** Enable (radio button selected)
- Channel Width:** 20 MHz
- Channel:** 6
- Max Transmit Rate:** Auto
- Transmit Power:** Level 1
- ACK Timeout:** 0 (microseconds)
- Beacon Interval:** 100 (milliseconds)
- Airtime Fairness:** Disable (radio button selected)
- Packet Delay Threshold:** 0 (milliseconds)
- Idle Timeout:** 300 (seconds)
- Band Steering:** Disable (radio button selected)
- Interference Detection:**
  - Adjacent Channel:**
    - Utilization Threshold: 0%
    - Latency: 10 (seconds)
  - Co-Channel:**
    - Utilization Threshold: 0%
    - Invalid Packet Rate: 50%
    - Latency: 10 (seconds)
- WME Configuration:** Configure
- Transmission Rate Threshold:** 1001 (kbps)

At the bottom of the page, there are two buttons: 'SAVE' and 'CLEAR'.

7. Home > Wireless > General Settings > Setup wireless mode, channel bandwidth and wireless channel.



Home > Wireless > General Settings

### General Settings

RF Card Name : RF Card A

Band : 2.4GHz

Protocol : 802.11g+802.11n  Pure 11n

Short Preamble :  Disable  Enable

Short Guard Interval :  Disable  Enable

Channel Width : 20 MHz

Channel : 6

Max Transmit Rate : Auto

Transmit Power : Level 1

ACK Timeout : 0 \*(0 - 255, 0:Auto, Unit:4 micro seconds)

Beacon Interval : 100 millisecond(s) \*(100 - 500)

Airtime Fairness :  Disable  Fair Access  Preferred Access

Packet Delay Threshold : 0 millisecond(s) \*(100 - 5000, 0:Disable)

Idle Timeout : 300 second(s) \*(60 - 60000)

Band Steering :  Disable  Enable

Aggressive

8. Home > Wireless > VAP Configuration > Change Wireless SSID.



Home > Wireless > VAP Configuration

### VAP Configuration

Profile Name : RF Card A : VAP-1

VAP :  Disable  Enable

Profile Name : VAP-1

ESSID : AskeyAP-A1

VLAN ID :  Disable  Enable

VLAN ID : \*(1 - 4094)

CAPWAP Tunnel Interface : Disable

SAVE CLEAR

## 9. Home &gt; Wireless &gt; Security Settings &gt; Setup wireless security.



## 10. I/O port design.

- One RJ45 (not shielding acts WAN/POE) IEEE 802.3u 10/100/1000 Base-T auto-sensing and auto-crossover Ethernet connection.
- Antenna connector N type.
- RJ-11 Port for Console.
- Reset button.( Press and hold for five seconds to return to the factory settings. )

## 11. Power:

PoE Input: 48V, 0.53A.

## 12. Environment specification

- Operating Temperature:  $-40^{\circ}\text{C} \sim 60^{\circ}\text{C}$  (outdoor without heater)
- Storage Temperature:  $-40 \sim 85^{\circ}\text{C}$
- Operating Humidity: 10 ~ 90% RH
- Storage Humidity: 5 ~ 95% RH
- Water-proof level: IP67

## 13. Ground potential rise

It should be noted that when the fault is cleared, it is possible that the hazardous voltage remains and may be touched for a longer period of time than the indoor equipment, so that special grounding conditions may be required. The relevant regulations are generally specified in the electrical code. Check the installation instructions to check their compliance.

14. Safety Warning

The equipment must be installed and set up by professional engineers, was set to use, and shall not be sold directly to the general consumer.

15. Remind the AP shall be suitable connection with ground before installation.



**Warning**

This equipment must be externally grounded using a customer-supplied ground wire before power is applied. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 366

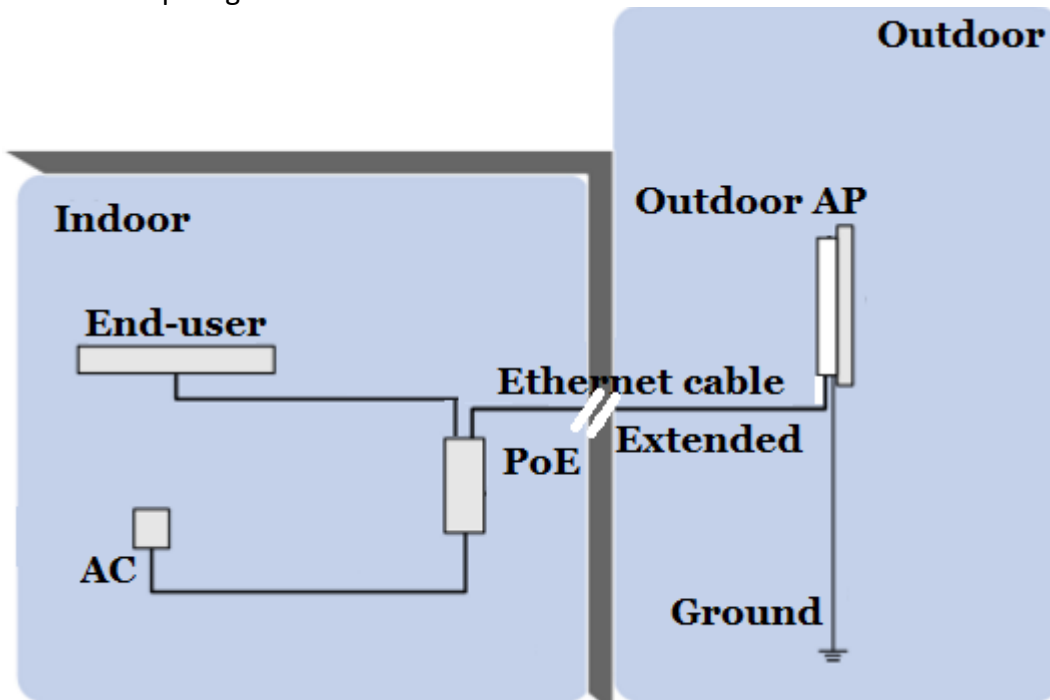
16. Caution: Use PoE connection shall be extended from indoor environment.



**Caution**

Power injectors must be used indoors only. Do not place a power injector in an unprotected outdoor environment because water could get into the power injector and cause a short circuit and possible fire.

17. The setup diagram would reference below:



- *It is strongly recommended to make a backup copy of your configuration settings.*
- *This device is only allowed for outdoor use purpose.*
- *For further configuration and backup information, please refer to the User's Manual.*