

HAN NETWORKS

HAN Access Point

AP311

Installation Guide

Rev. A

XXXXXX-XX

Summary of Installation Steps

- WLAN Planning. Usually, a comprehensive site survey is required before installation, such as installation location, brackets, cables, power source, etc.
- Unpack the AP box and check all contents
- Install the AP bracket on ceiling or wall
- Installing the AP
- Connecting required cables
- Power connection
- Verifying post-installation connectivity
- AP provisioning

Access points are radio transmission devices and are subject to governmental regulation. Network administrators who are responsible for the configuration and operation of access points must comply with local broadcast regulations. Specifically, access point must use channel assignments appropriate to the location where the access point will be deployed.

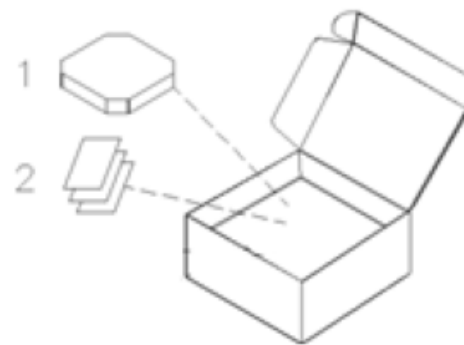
Package Contents

Item	Name	Qty	Unit
1	Access Point	1	Pcs
2	Quick Start Guide	1	Pcs
	Installation Guide	1	Pcs
	Regulatory Compliance and Safety Information	1	Pcs
	User Guide Info Card	1	Pcs

◆ Optional Accessories (To be ordered separately)

Item	Name	Description
1	OAW-AP-MNT-B	Indoor mounting kit, Type B1(9/16") and B2(15/16") for T shaped ceiling rail.
2	OAW-AP-MNT-C	Indoor mounting kit, Type C1(Open Silhouette) and C2 (Flanged Interlude), for other shaped ceiling rail mounting.
3	OAW-AP-MNT-W	Indoor mounting kit, Type W wall and ceiling mounting with screws.

Figure 1: Product Packing

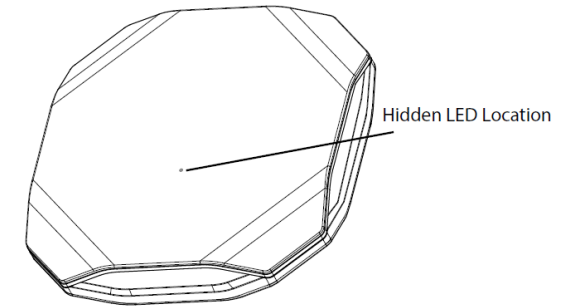


Inform your HAN sales representative of incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use these materials to repack and return the unit to the supplier if needed. Additional mounting kits for use with the HAN Access Points are sold separately. Contact your HAN sales representative for details.

Hardware Overview

The following sections outline the hardware components of the AP311 Series access point.

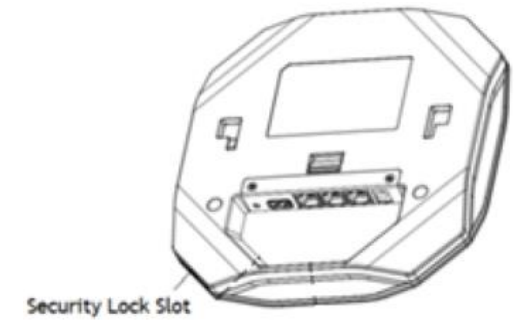
Figure 2: AP311 Front View



LED

The AP311 Series access point is equipped with hidden LED display that indicates different status with different color. For the details of the LED status, please refer to the Quick Start Guide.

Figure 3: AP311 Back View



◆ AP311 series External Interfaces

Table 1

Interface	Specifications
1 Gigabit Eth0	1x 10/100/1000BASE-T autosensing (RJ-45) port, Power over Ethernet (PoE, 55V, 450mA). In case of only one WAN link, Eth0 would be preferred.
1 Gigabit Eth1	1x 10/100/1000BASE-T autosensing (RJ-45) port, Power over Ethernet (PoE, 55V, 450mA). In case of only one WAN link, either of Eth0 and Eth1 could work as WAN, Eth0 would be more preferred. In case of two WAN links, Eth0 + Eth1 would be preferred.
1 Gigabit LAN	1x 10/100/1000BASE-T autosensing (RJ-45) port.
Console	RJ-45 female connector, default is RS-232 Console for Service & Support only. Support software configure to RS-485 mode.
USB	USB 2.0 host interface (Type C, output DC 5V, 0.5A)
DC Power Socket	DC 48V, 500mA, power jack, support powering AP through a designated AC-DC power adapter.
Reset	Factory reset. Press reset button for 5s, AP LEDs will quickly flash for 3s, then AP will restart and restore factory configurations.
Security Lock Slot	The AP is equipped with a security lock slot for additional security.

Table 2
Ethernet Port Pinout

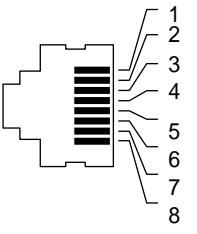
Connector	Pin	Signal Name	PoE
	1	RJ45_DA+	PoE-
	2	RJ45_DA-	PoE-
	3	RJ45_DB+	PoE+
	4	RJ45_DC+	PoE+
	5	RJ45_DC-	PoE+
	6	RJ45_DB-	PoE+
	7	RJ45_DD+	PoE-
	8	RJ45_DD-	PoE-

Table 3
Console Port Pinout

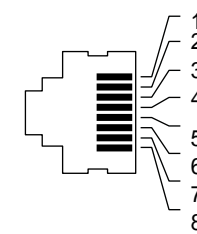
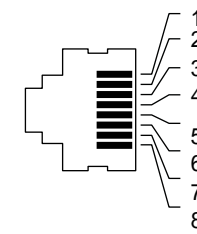
Connector	Pin	Signal Name	Function
	3	TXD	Transmit
	4	GND	Ground
	5	GND	Ground
	6	RXD	Receive
	Pins not listed are not connected.		

Table 4
RS-485 Port Pinout

Connector	Pin	Signal Name	Function
	1	RS485_B	Data-
	2	RS485_A	Data+
	4	GND	Ground
	5	GND	Ground
	7	PSE_12V	12V+ OUT
	8	PSE_12V	12V+ OUT
	Pins not listed are not connected.		

✧ Note: The serial console port allows you to connect the AP to a serial terminal or a laptop for direct local management. This port is an RJ-45 female connector with the pinouts described in Table 3. Currently for use by Service & Support only.

Note: The RS-485 port allows you to connect the AP to a RS-485 terminal. The maximum allowable current of PSE 12V power output is 300mA. In addition, PSE 12V power output can be turned on and off by software. This port is an RJ-45 female connector with the pinouts described in Table 4.

Power

The AP311 series access point supports direct DC power adapter (48V DC nominal, sold separately) and Power over Ethernet (PoE).

The DC power connector port is located on the back of the device, as shown in Figure 3.

The PoE allows the Ethernet port to draw power from an IEEE 802.3at compliant source.

HAN Access Point supports the power adapter provided by HAN ONLY.

Before You Begin

Refer to the sections below before beginning the installation process.

Pre-installation Checklist

Before installing your AP311 Stellar access point, be sure that you have the following items:

- 8-conductor, CAT5 or better UTP cable of required length.
- One of the following power sources:
 - IEEE 802.3at compliant Power over Ethernet (PoE) source (PoE switch or PoE injector).
 - AC-DC adapter (sold separately), output voltage DC 48V, output current $\geq 0.6A$
- A terminal or a notebook

Identifying Specific Installation Locations

You can mount the HAN Access Points on a ceiling rail or on a wall. You should first determine the location of the installation. The installation position is located at the center of the required coverage area and should be free from obstructions or obvious sources of interference.

- Minimize the number of obstructions (such as walls) between the AP and user terminals.
- Electronic equipment or devices (such as microwave ovens) which may produce radio frequency noise should be away from the installation position of the AP.

It is strictly prohibited to install around stagnant water, water seepage, leakage or condensation. Avoid cable condensation or water seepage along the cables connecting to the AP.

AP Installation

Refer to mounting kits installation Guide.

Verifying Post-Installation Connectivity

The LED on the AP can be used to verify that the AP is receiving power and initializing successfully.

Product Specifications

AP311 series Dimensions/Weight

Unboxed AP311:

- Net Weight: 1.64lbs / 0.74kg
- Dimensions (HxWxD): 7.1 inches x 7.1 inches x 1.42 inches (18 cm x 18cm x 3.6cm)

Environmental

- Operating :
 - Temperature: 0°C to +50°C (+32°F to +122°F)
 - Humidity: 10% to 90% non-condensing
- Storage and transportation :
 - Temperature: -40°C to +70°C (-40°F to +158°F)

For additional specifications on this product, please refer to the Datasheet.

HAN Access Point AP311 Regulatory Compliance and Safety Information

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Introduction

This document contains domestic and international regulatory compliance information for the access point. To ensure that this device complies with the regulatory standards for your region, please refer to the content below.

FCC Part 15:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, 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 of the following measures:

- Reorient or relocate the receiving antenna.
- 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.

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.

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

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This product may not be collocated or operated in conjunction with any other antenna or transmitter

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

California Proposition 65 Warning

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.