



AMY-5133-AC-PD

Industrial IEEE 802.11 AC 5GHz Wireless AP/Client Bridge



Hardware Manual

Version 1.0
(June 2023)


www.antaira.com

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FCC Warning

This equipment has been tested and found to comply with the limits for a Class-A 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. It may cause harmful interference to radio communications if the equipment is not installed and used in accordance with the instructions. 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:

- 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.

Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Avertissement FCC

Cet équipement a été testé et déclaré conforme aux limites d'un appareil numérique de classe A, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence. Cela peut provoquer des interférences nuisibles aux communications radio si l'équipement n'est pas installé et utilisé conformément aux instructions. Cependant, il n'y a aucune garantie qu'aucune interférence ne se produira dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou télévision, ce qui peut être déterminé en éteignant puis en rallumant l'équipement, l'utilisateur est encouragé à essayer de corriger les interférences par une ou plusieurs des mesures suivantes:

- Réorientez ou déplacez l'antenne de réception.
- Augmentez la distance entre l'équipement et le récepteur.
- Connectez l'équipement à une prise sur un circuit différent de celui auquel le récepteur est connecté.
- Consultez le revendeur ou un technicien radio / TV expérimenté pour obtenir de l'aide.

CE Mark Warning

This is a Class-A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Avertissement de marque CE

Ceci est un produit de classe A. Dans un environnement domestique, ce produit peut provoquer des interférences radio, auquel cas l'utilisateur peut être amené à prendre des mesures adéquates.

Industrial Wireless Access Points

Industrial-Grade Wireless Access Points

Hardware Manual

Version 1.0 (June 2023)

The manual supports the following models:

- AMY-5133-AC-PD

Antaira Technologies - Industrial Wireless Access Points
AMY-5133-AC-PD - Hardware Manual - v1.0

This document is the current official release hardware manual. Please check our website (www.antaira.com) for any updated manual or contact us by e-mail (support@antaira.com).

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1 Overview

Antaira Technologies' AMY-5133-AC-PD is a simple point to point or point to multipoint IEEE 802.11 radio with a gigabit PoE wired interface. The gigabit Ethernet IEEE 802.3af/at interface provides a means to power and deliver data making setup fast and clean. Alternatively an external power supply may also be used to power the device, power supply sold separately. Industrial Switches on the device make it possible to set up a bridging pair without having to access the software for simple solutions. This product is ideal for applications where a quick and easy wireless bridge is required.

1.1 Product Hardware Features

System Interface and Performance

- All RJ45 ports support the auto MDI/MDI-X function
- Embedded 2*10/100/1000Tx RJ45 ports with 1*PoE+/PD Port (30W)
- WLAN supports 5GHz Wi-Fi

Power Requirements

- 48VDC IN, 0.5A, IEEE 802.3at PoE+, OR
- 12VDC IN, 1.0A from DC Jack

Operating Temperature

- Standard operating temperature model: -30°C to 45°C

Case / Installation

- Plastic housing
- Pole / Wall mount design

1.2 Package Contents

- AMY-5133-AC-PD
- Quick Installation Guide
- Pole Mounting Bracket Set

1.3 Safety Precaution

Attention: If the DC voltage is supplied by an external circuit, please use a protection device on the power supply input. The industrial wireless access point's hardware specs, ports, cabling information, and wiring installation will be described within this hardware manual.

Attention: Si la tension CC est fournie par un circuit externe, veuillez utiliser un dispositif de protection sur l'entrée d'alimentation. Les spécifications matérielles, les ports, les informations de câblage et l'installation du câblage du point d'accès sans fil industriel seront décrits dans ce manuel du matériel.

Warning Labels

The caution label means that you should check certain information on the user manual when working with the device.
(Shown in *Figure 1.1*)

Étiquettes d'avertissement

L'étiquette d'avertissement signifie que vous devez vérifier certaines informations du manuel d'utilisation lorsque vous travaillez avec l'appareil. (Illustré à la *figure 1.1*)



Figure 1.1 - Caution Label
Figure 1.1 - Étiquette de mise en garde



Figure 1.2 - Hot Surface Warning Label
Figure 1.2 - Étiquette d'avertissement de surface chaude

2 Hardware Description

2.1 Physical Dimensions

Figure 2.1, below, shows the physical dimensions of this product:

(W x D x H) is 87mm x 38mm x 260mm

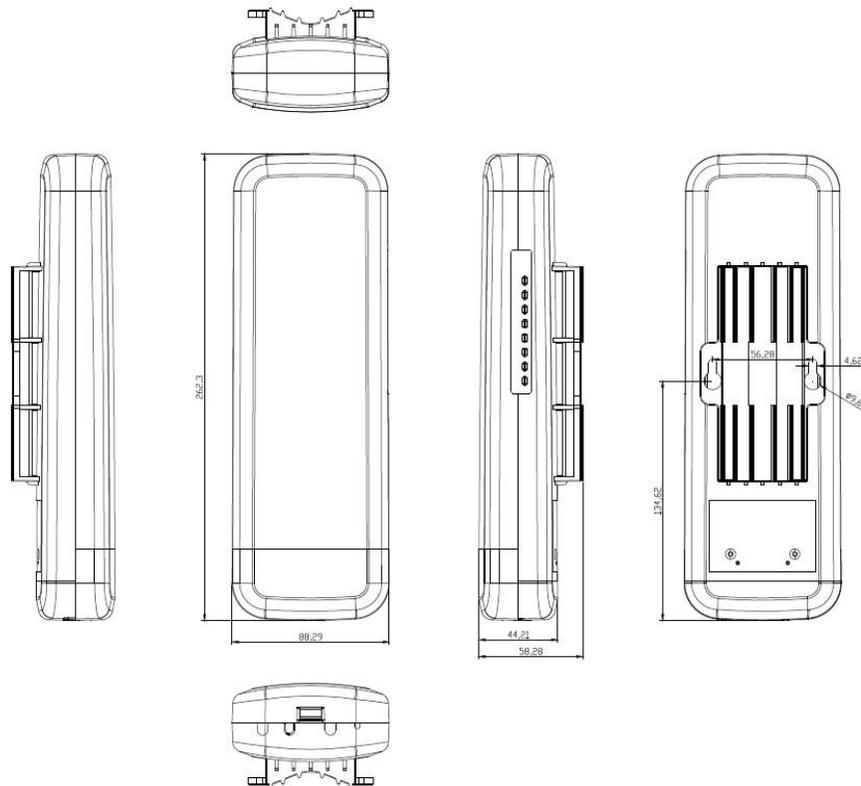


Figure 2.1 - Physical Dimensions

2.2 Inside View Panel

Figure 2.2, below, shows the inside panel of the product:

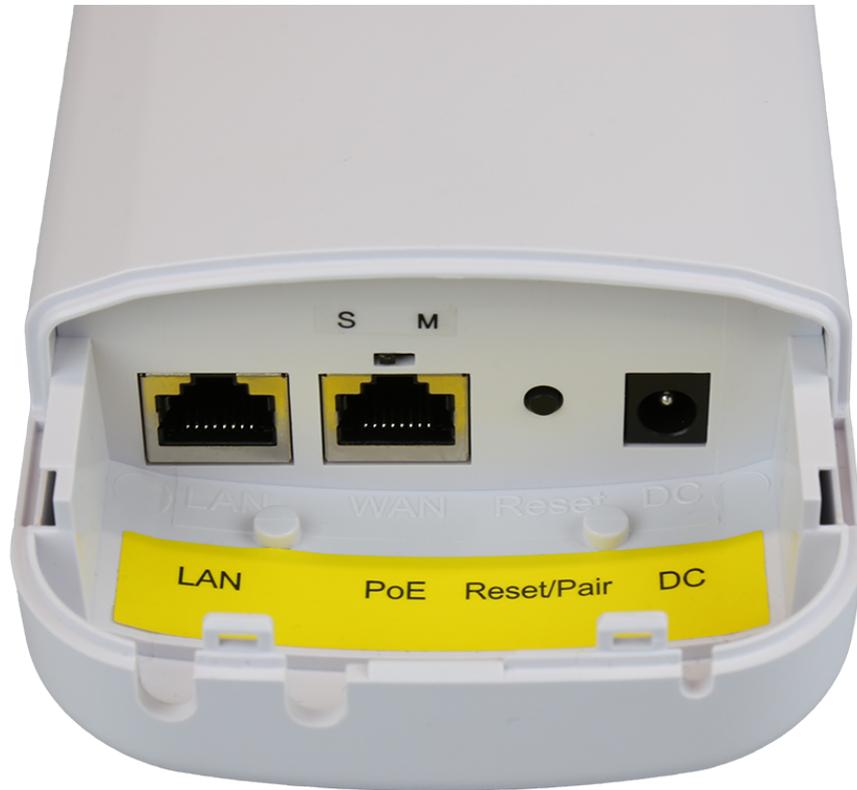


Figure 2.2 - Inside View Panel

2.3 LED Indicators

There are LED light indicators located on the front panel of the industrial wireless access point that display the power status and network status. Each LED indicator has a different color and has its own specific meaning, see below in *Table 2.1*.

LED	Description	
Power	On	The device is powered on
	Off	The device is powered off
WAN Port	On	Port linked
	Blinking	Data is transmitting or receiving data
	Off	No link

LAN Port	On	Port linked
	Blinking	Data is transmitting or receiving data
	Off	No link
WLAN	On	The wireless radio is on
	Blinking	Data is transmitting or receiving over wireless
	Off	The wireless radio is off

2.4 Reset Button

Press and hold the reset button on the device for over 15 seconds to return to the factory default setting.

2.5 Ethernet Ports

- RJ45 Ports**

RJ45 Ports (Auto MDI/MDI-X): The RJ45 ports are auto-sensing for 10Base-T, 100Base-TX, or 1000Base-T connections. Auto MDI means that the switch can connect to another switch or workstation without changing the straight-through or crossover cabling. See the figures below for straight-through and crossover cabling schematics.

- RJ45 Pin Assignments**

Crossover Cable		Straight Through Cable	
Pin Number / Signal	Pin Number / Signal	Pin Number / Signal	Pin Number / Signal
1 / RX+	3 / TX+	1 / RX+	1 / TX+
2 / RX-	6 / TX-	2 / RX-	2 / TX-
3 / TX+	1 / RX+	3 / TX+	3 / RX+
6 / TX-	2 / RX-	6 / TX-	6 / RX-

Table 2.2 - 10/100Base-T(X) RJ45 Pin Assignments

Crossover Cable		Straight Through Cable	
Pin Number / Signal	Pin Number / Signal	Pin Number / Signal	Pin Number / Signal

1 / TP0+	3 / TP1+	1 / TP0+	1 / TP1+
2 / TP0-	6 / TP1-	2 / TP0-	2 / TP1-
3 / TP1+	1 / TP0+	3 / TP1+	3 / TP0+
4 / TP2+	7 / TP3+	4 / TP2+	4 / TP3+
5 / TP2-	8 / TP3-	5 / TP2-	5 / TP3-
6 / TP1-	2 / TP0-	6 / TP1-	6 / TP0-
7 / TP3+	4 / TP2+	7 / TP3+	7 / TP2+
8 / TP3-	5 / TP2-	8 / TP3-	8 / TP2-

Table 2.3 - 1000Base-T RJ45 Pin Assignments

Note: "+" and "-" signs represent the polarity of the wires that make up each wire pair.

2.7 Cabling

Twisted-pair segments can be connected with an Unshielded Twisted Pair (UTP) or Shielded Twisted Pair (STP) cable. The cable between the wireless access point and the link partner (wireless AP, switch, hub, workstation, etc.) must be less than 100 meters (328 ft.) in length.

2.8 Wireless Antenna

This device has a Built-in 14dBi MIMO panel antenna.

3 Mounting Installation

3.1 Pole Mounting

This unit has a pole mounting strap in the box. Place the mounting strap through the slot on the back of the device and then around the pole as shown on *Figure 3.1*. Tighten the mounting strap to secure the device.

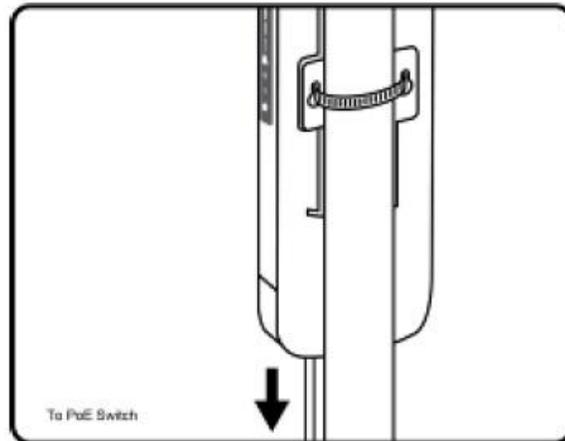


Figure 3.1 - Example of Mounting the Device on the Pole

3.2 Wall Mounting

This device has a built-in wall mount bracket. Use the screws to screw the wall and then line the device with the bracket to the screws and push down to mount.

To remove the device from the wall, push up to unmount.

4 Hardware Installation

4.1 Installation Steps

This section will explain how to install the industrial wireless access point:

Installation Steps

1. Unpack the industrial wireless access point from the original packing box.
2. Check if the pole mount bracket is included in the original packing box..
 - If the pole mount bracket is not screwed on the industrial wireless access point, please refer to the **Pole Mounting** section for pole mount installation.
3. To hang the industrial wireless access point on a pole, please refer to the **Mounting Installation** section.
4. Power on the industrial wireless access point and then the power LED light will turn on.
 - Please refer to the **LED Indicators** section for LED light indication.
5. Prepare the twisted-pair, straight-through category 5 cable for Ethernet connection.
6. Insert one side of the RJ45 cable into the wireless access point's Ethernet port and on the other side into the networking device's Ethernet port, e.g. switch PC or server.
 - The Ethernet port's (RJ45) LED on the industrial wireless access point will turn on when the cable is connected to the networking device.
 - Please refer to the **LED Indicators** section for LED light indication.
7. When all connections are set and the LED lights all show normal, the installation is complete.

4.2 Maintenance and Service

- If the device requires servicing of any kind, the user is required to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.
- Voltage / Power lines should be properly insulated as well as other cables. Be careful when handling them so as to not trip over.
- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout, but might cause harm to users as well.
- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions within the manual.

- Clean the device with dry soft cloth.

4.3 Troubleshooting

- Always verify the right power cord or adapter is being used. Never use a power supply or adapter with a non-compliant DC output voltage or it will burn the equipment.
- Select the proper UTP or STP cable in order to construct the network. Use an unshielded twisted-pair (UTP) or shield twisted-pair (STP) cable for RJ45 connections: 100Ω Category 5e for 10/100Mbps. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).
- Diagnosing LED Indicators: To assist in identifying problems, the switch can be easily monitored with the LED indicators which help to identify if any problems exist.
 - Please refer to the LED Indicators section for LED light indication.
- If the power indicator LED does not turn on when the power cord is plugged in, the user may have a problem with the power cord. Check for loose power connections, power losses, or surges at the power outlet.
 - Please contact Antaira for technical support service if the problem still cannot be resolved.
- If the industrial switch LED indicators are normal and the connected cables are correct but the packets still cannot transmit, please check the system's Ethernet devices' configuration or status.

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