ARX-7234-AC-PD-T

Industrial Outdoor IP67 Metal Housing IEEE 802.11a/b/g/n/ac

Dual Radio Wireless AP/Client/Bridge/Repeater

Version 1.0

(December 2018)

Hardware User Manual

www.antaira.com

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FCC Notice

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.

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.

Industrial Ethernet Wireless APs

Hardware User Manual

This manual supports the following models:

- ARX-7234-AC-PD-T

Please check our website (www.antaira.com) for any updated manual or contact us by e-mail (support@antaira.com).

Table of Contents

1. Overview

Antaira Technologies' ARX-7234-AC-PD-T is designed for industrial and enterprise wireless access applications. Embedded with the Qualcomm IPQ4029 Quad-Core chipset, it boasts network robustness, stability, and wider network coverage. Based on IEEE 802.11a/b/g/n/ac, the access point supports high-speed data transmission of up to 867Mbps.

The ARX-7234-AC-PD-T is capable of operating in different modes, which makes it suitable for a wide variety of wireless applications including long-distance deployments.

1.1 Key Features

- System Interface/Performance
  - Quad-core, 4x ARM Cortex A7, 717MHz
  - WAN 1*10/100/1000Tx
  - LAN 1*10/100/1000Tx
  - WLAN supports concurrent 2.4G/5GHz Wi-Fi
- Power Input
  - PoE 48-56VDC
- Power Device
  - IEEE 802.3af/at compliant
- Operating Temperature
  - Extended operating temperature model (–T): -40°C ~ 70°C
- Case/Installation
  - IP67 Metal Housing Protection
  - Pole and Wall Mountable Design

1.2 Package Contents

- 1 - Quick Installation Guide
- 1 - ARX-7234-AC-PD-T
- 1 - Wall Mounting Bracket Set with Screws
- 1 - Pole Mounting Bracket with Screws

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. Supply by UL Listed industrial use power. The industrial Wireless AP's hardware specs, ports, cabling information, and wiring installation will be described within this user manual.

Warning Labels

The caution label means that you should check the certain information on user manual when working with the device. (Shown in *Figure 1*)

Figure 1

Caution Label

2. Hardware Description

2.1 Physical Dimensions

Figure 2.1, below, shows the physical dimensions of ARX-7234-AC-PD-T

(W x H x D) is **269mm x 81mm x 239mm**

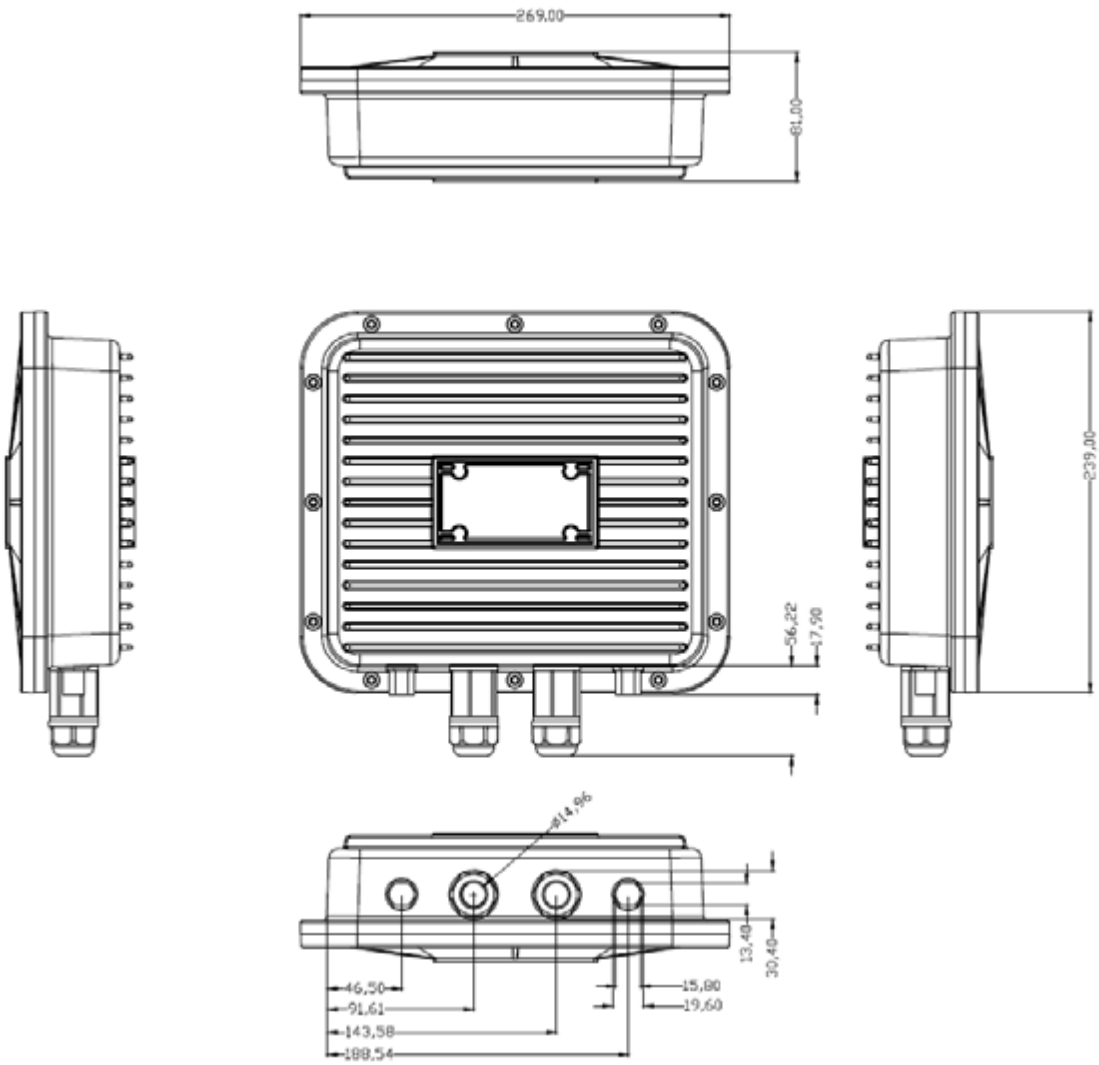

Figure 2.1

Physical Dimensions

2.2 Front Panel

The front panel of the ARX-7234-AC-PD-T can be seen below (*Figure 2.2)*.

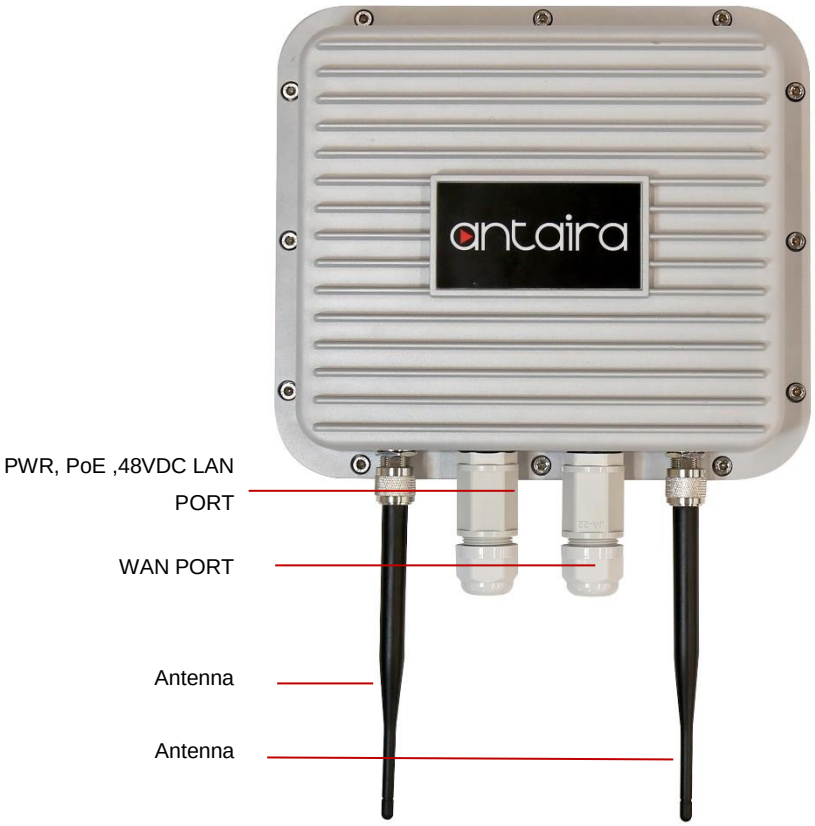

Figure 2.2

Front Panel

2.3 Ethernet Ports

- **RJ-45 Ports**

RJ-45 Ports (Auto MDI/MDIX): The RJ-45 port is auto-sensing for 10/100Base-Tx or 1000Base-Tx device connections. Auto MDI/MDIX means that the wireless AP can connect to another switch or workstation without changing the straight-through or crossover cabling. See the figures shown below for the straight-through and crossover cabling schematics.

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

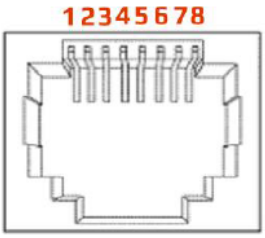

Figure 2.3
RJ-45 Ethernet Port Pin

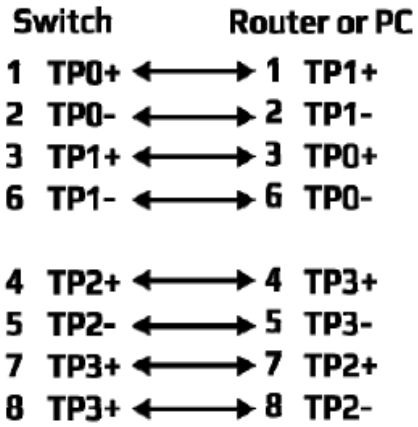

Figure 2.4
Straight-Through Cables Schematic

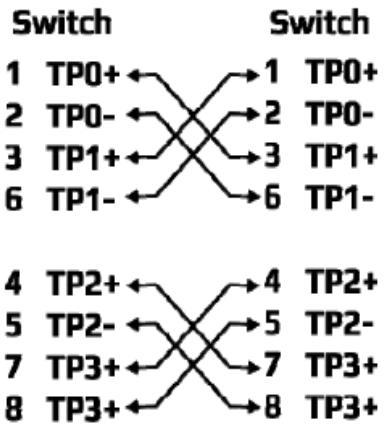

Figure 2.5
Crossover Cables Schematic

2.4 Cabling

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

2.5 Wireless Antenna

The 2.4GHz/5GHz antennas are connected with N-Type connectors. Other external antennas can be used.

3. Mounting Installation

3.1 Pole Mounting

This unit has a pole mounting kit on the rear panel. Please see *Figure 3.1* for instructions on how to pole mount the ARX-7234-AC-PD-T.

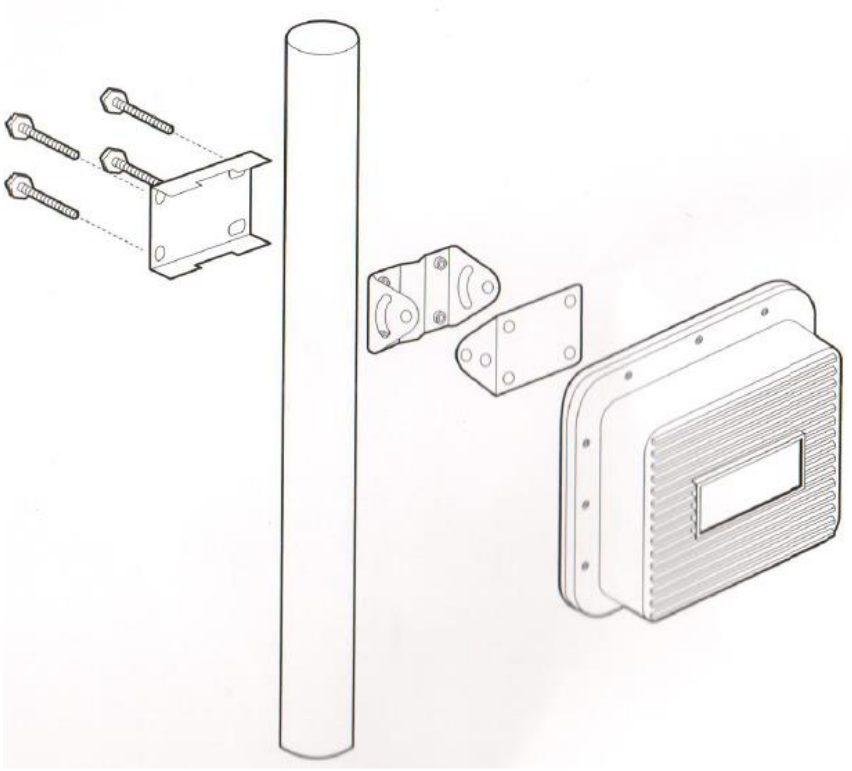

Figure 3.1
Poll Mounting Bracket Instructions

3.2 Wall Mounting

Follow the steps below to mount the industrial wireless AP using the wall mounting bracket as shown below in *Figure 3.1*.

Caution: “Wall” means industrial control panel wall.

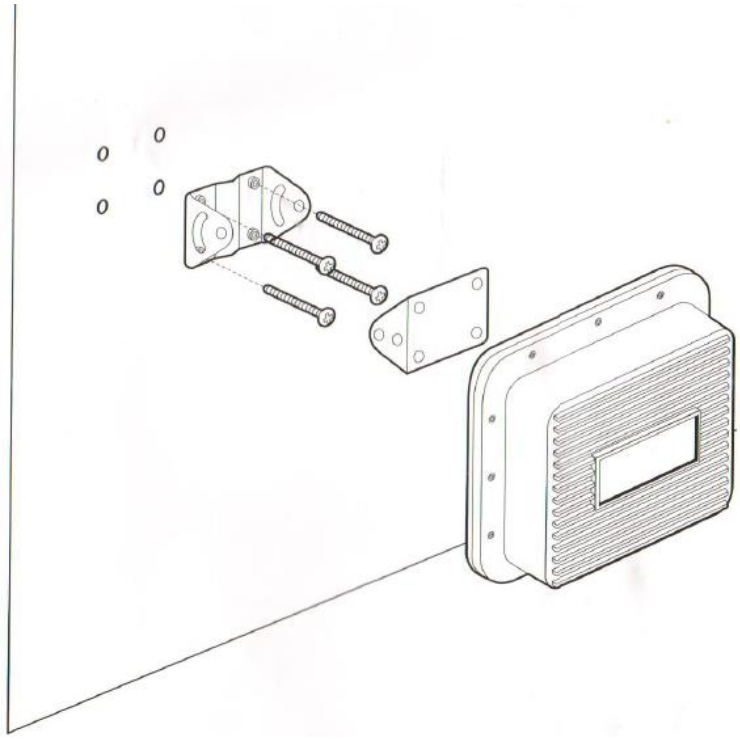

Figure 3.2
Wall Mounting Bracket Instructions

3.3 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 user 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. 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 RJ-45 connections: 100Ω Category 5e for 10/100/1000Mbps. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).

5. Technical Specifications

Table 5.1 has the technical specifications for Antaira Technologies' ARX-7234-AC-PD-T:

Standards	IEEE 802.11a/b/g/n/ac	
	IEEE 802.3	10Base-T Ethernet
	IEEE 802.3u	100Base-TX Fast Ethernet
	IEEE 802.3ab	1000Base-T Gigabit Ethernet
	IEEE 802.3af/at	PoE
WLAN Operation Mode	AP/Client/Bridge/Repeater	
Protocol	IP, TCP, UDP, ARP, BOOTP, ICMP, HTTP, HTTPS, DNS Proxy, NAPT, SNTP, RADIUS, Dynamic DNS, SMTP, SNMP	
WiFi Encryption	WEP, WPA, WPA2, TKIP, AES	
Port Interface	Ethernet (RJ45) Port	WAN: 10/100/1000Mbps LAN (PoE PD): 10/100/1000Mbps
	WLAN	Dual Radio 2.4GHz/5GHz concurrent
	Antenna	Two External N-Type Antennas: 5dBi for 2.4GHz, 5dBi for 5GHz (MIMO support, Dual 2Tx/2Rx)
Frequency Range	IEEE 802.11b/g/n (2.4GHz)	US/TW : 2.412G~2.462GHz EU/AU/NZ : 2.412G~2.472GHz
	IEEE 802.11a/n/ac (5GHz)	US/AU/NZ : 5.15G~5.25GHz, 5.725G~5.85GHz EU : 5.15G~5.25GHz TW : 5.15G~5.35GHz , 5.725G~5.85GHz
Mechanical Characteristics	Housing	Metal, IP67 protection
	Dimension	269 x 81 x 239 mm (W x H x D)
	Weight	Unit Weight: 5.82 lbs. Shipping Weight: 7.729 lbs.
	Mounting	Pole Mounting, Wall Mounting
Power Requirement	Input Voltage	PoE 48 to 56VDC
	Power Consumption	18.9 Watts
Environmental Limits	Operating Temperature	EOT: -40 to 70˚C (-40 to 158°F)
	Operating Humidity	5% to 95% (Non-Condensing)
	Storage Temperature	-40 to 80˚C (-40 ~ 176°F)
Regulatory Approvals	EMI	FCC Part 15 Subpart B CE EN 55032,

		EN301489-1/-17 FCC Part 15 subpart B CNS13438 AS/NZS CSIPR 32
	EMS	CE EN 55024 IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field) IEC61000-4-11
	RF	FCC Part 15 Subpart C/E CE-RED EN300328 EN301893 EN301489-1/-17 LP0002 AS/NZS 4268
	RF Radiation Exposure	EN62311 FCC Part 2.1091
	Safety	EN60950-1 CNS14336-1
	Green	RoHS Compliant
	Certifications	FCC, CE, NCC, RCM

Table 5.1

Technical Specifications

Antaira Customer Service and Support

(Antaira US Headquarter) + 844-268-2472

(Antaira Europe Office) + 48-22-862-88-81

(Antaira Asia Office) + 886-2-2218-9733

Please report any problems to Antaira:

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