

e-PoE204/e-PoE404

2-port/4-port PoE Ethernet Expansion Module

Features

- Intel Gigabit Ethernet Controller
- Supports 2/4 Gigabit Ethernet MAC Controller and PHY ports
- Supports 9 kB jumbo frame and link aggregation
- IEEE 1588 (Precise time synchronization, hardware only)
- Supports IEEE802.3af and IEEE802.3at for PoE
- Powered Device (PD) auto detection and classification
- Power Management and PoE status monitoring
- IEEE 802.3at for PoE 53V, 30W per port
- Support PoE GigE camera

Introduction

e-PoE204/e-PoE404 is an e-Busx4 (similar to PCI-E x4) Ethernet communication module that supports 2/4 independent 10/100/1000BaseT(X) and 802.3af/802.3at PoE compatible Ethernet ports. This module needs to be installed on an e-Busx4 slot of the AXP-9000-IoT Programmable Automation Controller (PAC).

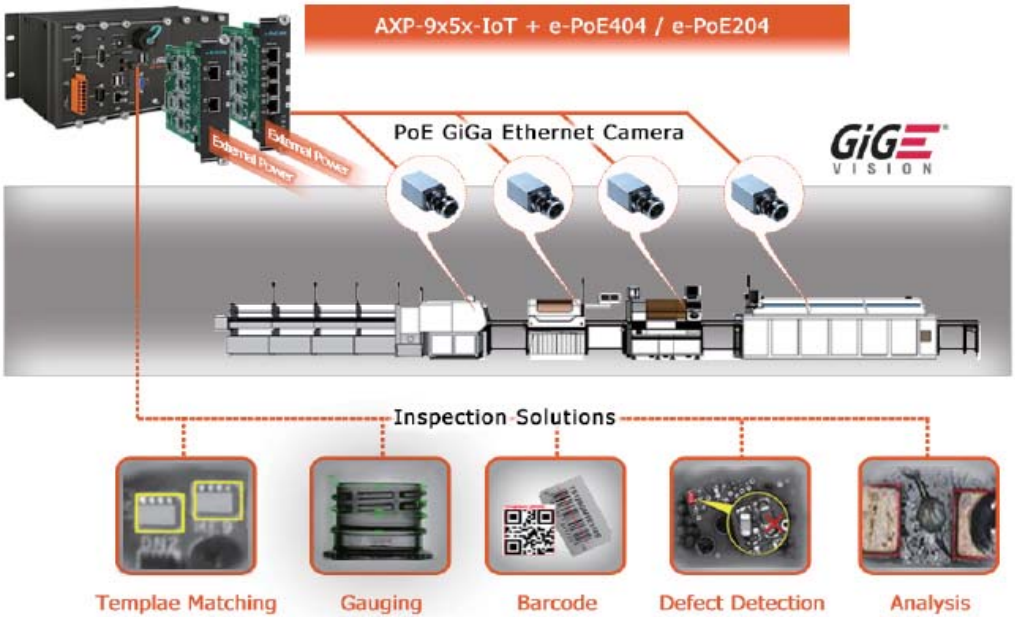
e-PoE204/e-PoE404 supports 2/4-channel independent Gigabit Ethernet ports for the connection of multiple Gigabit devices (such as GigE Vision camera) and the data transmission speed of each port is up to 1 Gb/s. The module also supports jumbo frame package, link aggregation which conduct exceptional performance for continuously receiving large amount of image data and IEEE 1588 (Precise time synchronization) which achieve synchronization with multiple cameras or powered device (PD) acquisition.

The e-PoE204/e-PoE404, which is fully compliant with the 802.3af/802.3at PoE standard, provides up to 30W of PoE power for each port (external 24 VDC is required) and automatically detects to achieve a stable and reliable connection between the powered devices, eliminating the need for power wiring. The module has enhanced PoE protection functions to prevent under-voltage, overvoltage, overcurrent and overheating. It can be programmed not only to turn on and off the PoE power supply, but also to monitor the PoE status and automatically manage the power budget. If there is insufficient power on all PoE ports, the available power will be directed to higher priority ports.

Combining Gigabit bandwidth and PoE capability, the e-PoE204/e-PoE404 module is suitable for use as a frame grabber to capture large amount of image data using PoE GigE Vision cameras for machine vision, factory automation and medical imaging applications.

Applications

- Machine Vision Inspection
- Automated Optical Inspection
- Quality Assurance
- Medical Imaging

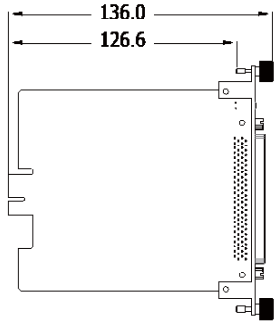


System Specifications

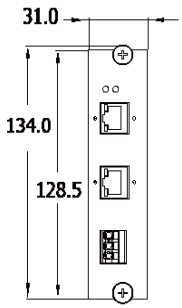
Model	e-PoE204	e-PoE404
General		
Type	e-Busx4 (4.0 GB/s total bandwidth)	
System LED Indicator	1 x PoE Power, 1 x System Power, 2 x Link Status, 2 x PoE Status	
Software		
SDK	Power Management SDK, Windows 10 IoT OS compatible, VC++ dll	
Utility	PoE Power Management Uility (Voltage, current Power monitor, PoE Power ON/OFF)	
Ethernet		
Ports	2 x RJ-45, Intel I211AT Controller, 10/100/1000 Mbps	4 x RJ-45, Intel I211AT Controller, 10/100/1000 Mbps
Protocol	IEEE 1588	
Jumbo Frame	9 KB	
Link Aggregation	Yes	
PoE Technology		
PoE Compliance	IEEE802.3af Compliance, IEEE802.3at Compliance	
PoE Power	Up to 30 W per port (Total 120 W)	
PoE Operation	Automatic detection and power management	
PoE Pin Assignments	B Type V+(4, 5), V- (7, 8)	
PoE Output Voltage	+53 VDC	
PoE Disconnect Mode	DC Disconnect	
PoE Protection	Yes, undervoltage, overvoltage, overcurrent, overheating, and budget overages (Setting by software)	
Power		
Consumption	0.1 A @ 24 VDC without PD loading, 3 A @ 24 VDC with PD full loading (30 W per ports) 0.05 A @ 48 VDC without PD loading, 1.5 A @ 48 VDC with PD full loading (30 W per ports)	0.15 A @ 24 VDC without PD loading, 6 A @ 24 VDC with PD full loading (30 W per ports) 0.10 A @ 48 VDC without PD loading, 3 A @ 48 VDC with PD full loading (30 W per ports)
Input Range	24 ~ 52 V VDC Input	
Reverse Polarity Protection	Yes	
Mechanical		
Dimensions (W x L x H)	31 mm x 134 mm x 136 mm	
Environment		
Operating Temperature	-25 ~ +60 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 90 % RH, Non-condensing	

Dimensions (Units: mm)

e-PoE204

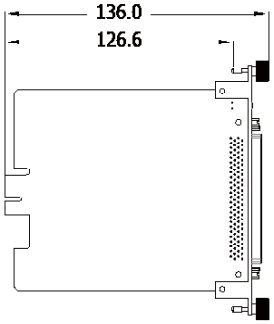


Left View

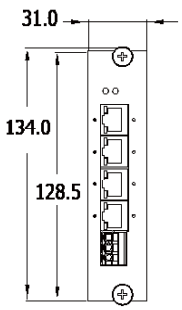


Front View

e-PoE404



Left View



Front View

Ordering Information

e-PoE204 CR	2-port PoE Ethernet Expansion Module (RoHS)
e-PoE404 CR	4-port PoE Ethernet Expansion Module (RoHS)