

# e-USB404

4-port USB 3.1 Gen 1 Expansion Module

## Features

- 4 Independent USB 3.1 Gen 1 Host Controllers
- Data Transfer Rates: SuperSpeed (5 Gbps), High Speed (480 Mbps), Full Speed (12 Mbps) and Low Speed (1.5 Mbps)
- LED indicator for each port
- 4 x USB 3.1 Gen 1 ports (the same as USB 3.0)
- 4 x USB 3.1 Gen 1 Type-A connectors
- 5V, up to 900mA per port
- Support USB vision camera

## Introduction

e-USB404 is an e-Bus x 4 (similar to PCI-E x4) industrial-grad expansion module that supports 4 independent USB 3.1 Gen 1 ( same as USB 3.0) ports. This module needs to be installed on an e-Bus x4 slot of the AXP-9000-IoT Programmable Automation Controller (PAC).

All the USB ports of e-USB404 can be accessed on the panel for easy wiring and including an LED indicator for each port. Each port can provide a standard 700mA regulated 5V output to power USB devices. It also supports software programmable power on/off control for each port to reset the USB device for failure recovery.

The module supports 4-channel independent USB ports for the connection of 4 USB devices (such as USB Vision camera) operating simultaneously with an independent bandwidth of 5 Gbps. The e-USB404 module is suitable for use as a frame grabber to capture large amount of image data using USB Vision cameras for machine vision, factory automation and medical imaging applications.

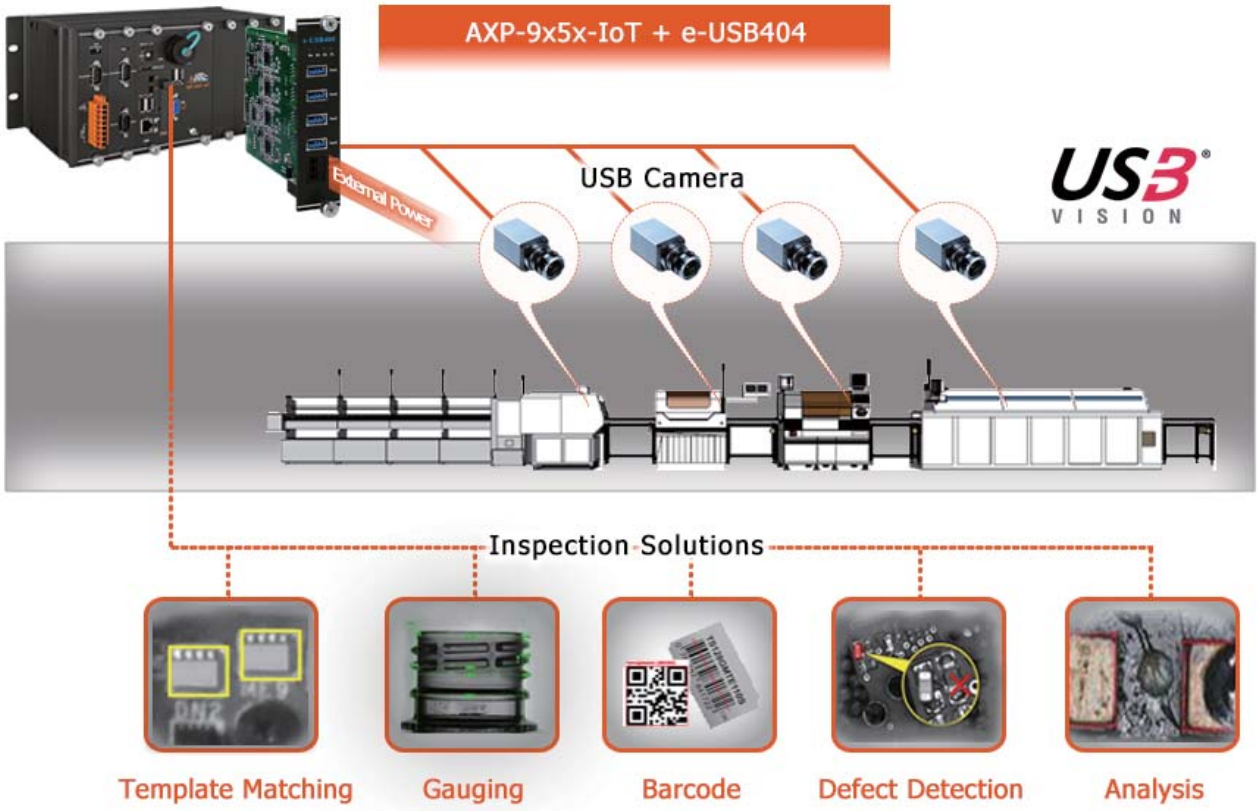
## Specifications

| | |
|---|---|
| **USB** | |
| Ports | 4 x USB 3.1 host controllers |
| Specification | Compliant with USB 3.1 Specification and Intel® x HCI Specification, Rev1.0 |
| Transfer Speed | SuperSpeed (5 Gbps), High Speed (480 Mbps), Full Speed (12 Mbps), Low Speed (1.5 Mbps) |
| Supply Current | Max. 4 W USB Power from e-Bus Slot only |
| Connector | 4 x USB Type-A Connector |
| Overload Protection | 900 mA Max. (Per Port) |
| Short-circuit Protection | Yes |
| **General** | |
| Type | e-Busx4 |
| System LED Indicator | 4 x Link Status |
| **Software** | |
| OS Support | Microsoft Windows 7/8.1/10 and Linux |
| SDK | Yes, USB power ON/OFF by API |
| **Power** | |
| Reverse Polarity Protection | Yes |
| Input Type | Max. 4 W USB Power from e-Bus Slot only, Max. 20W USB Power from external Power |
| Consumption | 0.1 A @ 24 VDC without PD loading, 0.5 A @ 24 VDC with PD full loading (4.5 W per ports) |
| **Mechanical** | |
| Dimensions (W x L x H) | 31 mm x 136 mm x 133 mm |
| **Environment** | |
| Operating Temperature | -25 ~ +60 °C |
| Storage Temperature | -40 ~ +85 °C |
| Humidity | 10 ~ 90 % RH, Non-condensing |

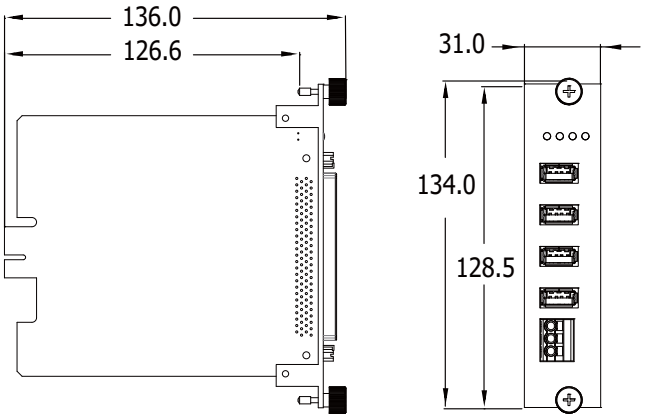
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## Applications

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



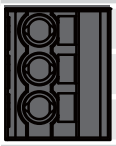

## Dimensions (Units: mm)




Left View | Front View

## Appearance





| Terminal No. | Pin Assignment |
|---|---|
| 01 | +VS |
| 02 | GND |
| 03 | F.G. |

## Ordering Information

| | |
|---|---|
| **e-USB404 CR** | 4-port USB 3.1 Gen 1 Expansion Module (RoHS) |

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