

Ei-U220

Industrial Raspberry Pi 4 Gateway Kit with 1 x RS-232/485, 4 x GPIO, 1 x 8 GB SD Card, and AdvRaspbian OS

NEW



CE FCC

Features

- Automation kit for creating RPi-based IoT systems
- Industrial grade I/O board with RS-232/485 and GPIO for flexible expansion
- Battery-backed RTC enabling fail-safe time keeping
- AdvRaspbian OS enables automatic board identification and GPIO and driver configuration
- Easy four-step RPi 4 installation
- Supports wall and DIN rail mounting for industrial applications
- Can be equipped with TPM technology for hardware-based security upon request

Introduction

Ei-U220 is designed to facilitate the use of Raspberry Pi (RPi) single-board computers (SBCs) in unique IoT applications. Featuring an SD card equipped with an OS image, an RPi 4 HAT I/O board, additional RS-232/485 GPIOs, and an RTC with battery for precise time keeping, the Ei-U220 industrial-grade chassis transforms RPi 4 into an intelligent gateway.

Ei-U220 is designed with pre-finished mounting holes and attachment screws that enable plug-and-play assembly with separately purchased RPi 4 SBCs. Advantech's Ei-U220 provides developers with a complete RPi-ready industrial-grade gateway kit ideal for rapid prototyping and mass deployment.

Specifications

General

- **Certification** CE, FCC
- **Dimensions (W x D x H)** 100 x 70 x 32 mm (3.9 x 2.7 x 1.2 in)
- **Form Factor** Micro
- **Enclosure** Aluminum housing
- **Mount Options** Wall mount, DIN rail (optional)
- **Weight (Net)** 0.5 kg (1.10 lbs)
- **Power Consumption** 15 W (typical)
- **OS Support** AdvRaspbian

System Hardware

- **Watchdog Timer** Programmable 255 level timer interval (1 ~ 255 sec.)
- **Hardware Security** TPM 2.0 (available upon request)
- **Storage** 1 x Micro SD slot (dummy)
(internal 8 GB SD card interchangeable with Raspberry Pi 4)

I/O Interfaces

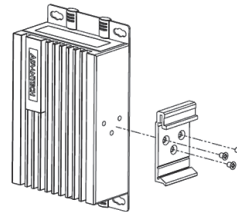
- **Serial Ports** 1 x RS232/485 (5-pin terminal block), automatic direction control, 300 ~ 115.2k bps
- **GPIO** GPI 0-3: VIH: 2 ~ 5V
VIL: 0 ~ 0.8V
GPO 0-3: 0 ~ 5V

Environment

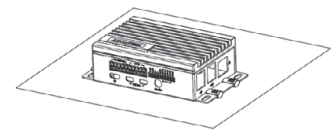
- **Operating Temperature** 0 ~ 50 °C (32 ~ 122 °F) @ 5 ~ 85% RH without 0.7m/s airflow
- **Storage Temperature** 20 ~ 60 °C (-4 ~ 140 °F)
- **Relative Humidity** 10 ~ 95% RH @ 40 °C, non-condensing
- **Ingress Protection** IP40

Installation Scenario

DIN-Rail Mount Illustration



Stand Mount Illustration



Ordering Information

- **EI-U220** Industrial Raspberry Pi gateway kit with 1 x RS-232/485, 4 x GPIO, 8 GB SD card, and AdvRaspbian
- **EI-U220P** Industrial Raspberry Pi 4 Gateway Kit with POE function, TPM, 1 x RS-232/485, 8 x GPIO, 8 GB SD Card, and AdvRaspbian OS

Optional Accessories

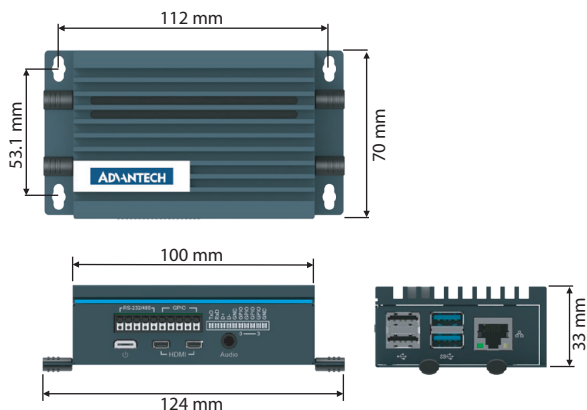
- **UNO-200-DMKAE** Optional DIN-rail kit

Adapter and power cord

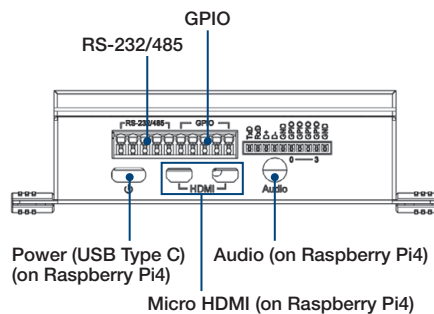
- **XUNO-FSP015-DPAN3** 15W 5V USB-Type C connector
- **1702002600** Power cable, US plug, 1.8 m (industrial grade)
- **1702002605** Power cable, EU plug, 1.8 m (industrial grade)
- **1702031801** Power cable, UK plug, 1.8 m (industrial grade)
- **1700000596** Power cable, China/Australia plug, 1.8 m (industrial grade)

Dimensions

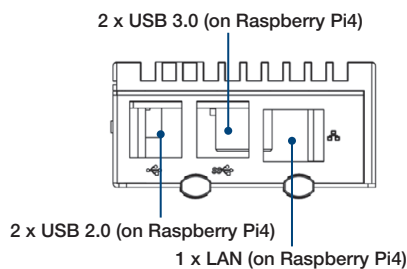
Unit: mm



Front I/O View



Side I/O View



Raspberry Pi4 Installation Guide

