

UNO-220

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



Features

- Automation kit featuring an industrial-grade I/O board for creating RPi-based IoT systems
- Industrial grade I/O board utilizing RS-232/485 and GPIO for flexible expansion
- Battery-backed RTC enabling fail-safe time keeping
- Included OS enables RPi identification of UNO-220, and automatically configures GPIOs and drivers for the board
- Easy 4-step RPi 4 installation
- Supports wall-mount and DIN rail installation for industrial applications
- Supports TPM hardware security upon request

C E FCC

Introduction

UNO-220 is designed for customers using Raspberry Pi (RPi) single-board computers (SBCs) in unique loT applications. Featuring a system-image OS equipped micro SD card, an RPi 4 HAT I/O board, additional RS-232/485 GPIOs, and an RTC battery backup for precise time keeping; the UNO-220 industrial-grade chassis transforms RPi 4 into an intelligent gateway. UNO-220 features pre-finished mounting holes and attachment screws enabling plug-and-play assembly with separately purchased RPi 4 SBCs. This system 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)
Power Consumption
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 $0 \sim 50 \,^{\circ}\text{C} \, (32 \sim 122 \,^{\circ}\text{F}) \,@ 5 \sim 85\% \, \text{RH}$ without

0.7m/s airflow

• Storage Temperature $20 \sim 60 \, ^{\circ}\text{C} \, (-4 \sim 140 \, ^{\circ}\text{F})$

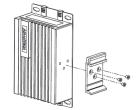
• Relative Humidity $10 \sim 95\%$ RH @ 40 °C, non-condensing

Ingress Protection IP40

Installation Scenario

DIN-Rail Mount Illustration

Stand Mount Illustration





Ordering Information

• **UNO-220-P4N1AE** Industrial Raspberry Pi gateway kit with

1 x RS-232/485, 4 x GPIO, 8 GB SD card, and

Raspbian OS

■ UNO-220-P4N2AE 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

■ UN0220P4N22101-T UN0-220-P4N2AE without SD card, Quick LT

Optional Accessories

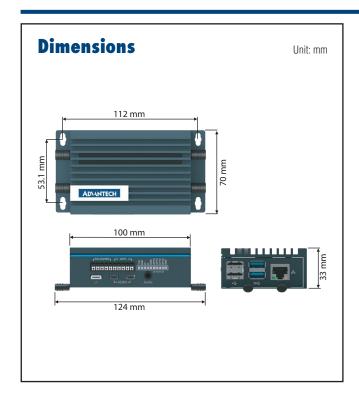
• UNO-200-DMKAE Optional DIN-rail kit

Adapter and power cord

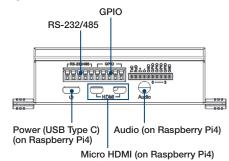
■ XUNO-FSP015-DPAN3 15W 5V USB-Type C connector

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

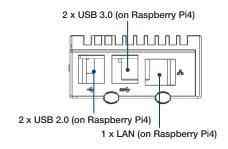
grade)



Front I/O View



Side I/O View



Raspberry Pi4 Installation Guide

