# UNO-4672

# Intel® Pentium® M/Celeron® M Fanless Box PC with 6 x LAN, 10 x COM, 8 x DI, 8 x DO. PC/104+



### **Features**

- IEC-61850-3 and IEEE1613 compliant
- Onboard Celeron M 1 GHz or Pentium M 1.4 GHz processor
- 2 x RS-232 and 8x RS-232/422/485 isolated serial ports with automatic flow control and 128KB FIFO
- 2 x 10/100/1000 Base-T (supports teaming function) and 4 x 10/100 Base-T
- Supports 2 x internal CF card and 1 x 2.5" SATA HDD
- PC/104+ extension and 4 x USB 2.0 (1 x internal)
- Rear wiring, rich system & I/O LED status indicators
- Windows® CE 6.0, Windows XP Embedded SP2, and Linux ready solution
- Fanless design with no internal cabling









## Introduction

UNO-4672 is compliant with IEC-61850-3 certification which defines the international standards of network and system communications in power substations. Featuring a fanless design with built-in isolated PSU and ten isolated serial communication ports, UNO-4672 is even suitable for any harsh applications. The rear I/O connection and LEDs on front panel for all ports and modes highly simplify monitoring for operation and maintenance.

## **Specifications**

#### General

IEC 61850-3, IEEE 1613, CE, FCC class A, UL, CCC Certifications

**Dimensions (W x D x H)** 2U (440 x 220 x 88) mm (17.3" x 8.6" x 3.4")

**Enclosure** SECC Mounting Rack mount **Power Consumption** 45W (Typical)

AC: 90 ~ 250 V<sub>AC</sub> (47 ~ 400 Hz) **Power Requirements** 

DC: 106 ~ 250 V<sub>DC</sub>

With isolation protection, AT

- Weight

Windows® XP Embedded, Windows 2000/XP, Windows OS Support

CE 6.0, Linux

#### **System Hardware**

- CPU Pentium M 1.4 GHz, Celeron M 1.0 GHz

Memory 1 GB DDR DRAM

Indicators LEDs for Power, IDE, Alarm for battery backup SRAM, Diagnosis (programmable), LAN (Active, Status) and

Serial (Tx, Rx)

Storage

SSD

HDD Build-in one 2.5" SATA HDD bracket DB15 VGA connector, 1600 x 1200 @ 85 Hz Display PC/104 Slot PC/104+ supports +3.3 V & +5 V power

Watchdog Timer Programmable 256 levels timer interval, from 1 to 255

 Battery Backup SRAM 512 KB

## I/O Interface

Serial Ports 2 x DB-9 RS-232 & 8 x screw terminals with 5-wired

RS-232/422/485

Automatic RS-485 data flow control

2000 V<sub>DC</sub> surge protection & 2000 V<sub>DC</sub> isolation Serial Port Speed (COM1, COM2) RS-232: 50 ~ 115.2 kbps,

(COM3 ~ COM10) RS-232: 50 ~ 230.4 kbps RS-422/485: 50 ~ 921.6 kbps (Max.)

2 x 10/100/1000Base-T RJ-45 ports LAN 4 x 10/100Base-T RJ-45 ports

USB Ports 4 x USB, UHCI, Rev. 2.0 compliant 1 x Front, 2 x Rear and 1 x Internal ports

 Digital Inputs 8-ch wet contact

Logic 0: 0 ~ 3  $V_{DC}$ ; Logic 1: 10 ~ 50  $V_{DC}$ 

 $2,000 \ V_{DC}$  isolation,  $2,000 \ V_{DC}$  ESD protection and 70

V<sub>DC</sub> over-voltage protection Interrupt handling: IRQ 7 photo couple response: 100 µs

 Digital Outputs 8-ch D0

2,000 V<sub>DC</sub> isolation and 200 mA max/channel sink

current

Keep output status after system hot reset 5 ~ 40 V<sub>DC</sub> output range and 10 kHz speed

#### Timer/Counter

**Counter Source** DI1 & DI3 D02 & D03 **Pulse Output** 

Can be cascaded as one 32-bit counter/timer Down counting, preset counting value

100 kHz, 10 kHz, 1 kHz, 100 Hz **Timer Time Base** 

#### **Environment**

95% @ 40° C (non-condensing) Humidity Operating Temperature -20 ~ 55° C (-4 ~ 131° F) @ 5 ~ 85%

-20 ~ 65° C (-4 ~ 149° F) @ 100% CPU for 48 hrs

**Operating Humidity** 

 $20 \sim 95\%$  (non-condensing) IEC 68 2-27 CompactFlash®: 50 G half sine, 11 ms **Shock Protection** 

HDD: 20 G half sine, 11 ms

 Vibration Protection IEC 68 2-64 (Random 1 Oct./min, 1hr/axis.) CompactFlash®: 2 Grms @ 5 ~ 500 Hz, HDD: 1 Grms @ 5 ~ 500 Hz

# Ordering Information

UNO-4672-C12E Celeron M 1 GHz, 1 GB RAM Fanless Box PC UNO-4672-P12E Pentium M 1.4 GHz, 1 GB RAM Fanless Box PC