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

- **Certifications** IEC 61850-3, IEEE 1613, CE, FCC class A, UL, CCC
- **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)
- **Power Requirements** AC : 90 ~ 250 V_{AC} (47 ~ 400 Hz)
  DC : 106 ~ 250 V_{DC}
  With isolation protection, AT
- **Weight** 6.0 kg
- **OS Support** Windows® XP Embedded, Windows 2000/XP, Windows 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 2x internal
  HDD Build-in one 2.5" SATA HDD bracket
- **Display** DB15 VGA connector, 1600 x 1200 @ 85 Hz
- **PC/104 Slot** PC/104+ supports +3.3 V & +5 V power
- **Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- **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_{DC} surge protection & 2000 V_{DC} 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.)
- **LAN** 2 x 10/100/1000Base-T RJ-45 ports
  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_{DC} over-voltage protection
  Interrupt handling: IRQ 7
  photo couple response: 100 µs
- **Digital Outputs** 8-ch DO
  2,000 V_{DC} isolation and 200 mA max/channel sink current
  Keep output status after system hot reset
  5 ~ 40 V_{DC} output range and 10 kHz speed

Timer/Counter

- **Counter Source** DI1 & DI3
- **Pulse Output** DO2 & DO3
- **Can be cascaded as one 32-bit counter/timer**
- **Down counting, preset counting value**
- **Timer Time Base** 100 kHz, 10 kHz, 1 kHz, 100 Hz

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Operating Temperature** -20 ~ 55° C (-4 ~ 131° F) @ 5 ~ 85%
  -20 ~ 65° C (-4 ~ 149° F) @ 100% CPU for 48 hrs
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Shock Protection** IEC 68 2-27 CompactFlash®: 50 G half sine, 11 ms
  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