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UNO-4673A
UNO-4683

Intel® Atom™ / Core™ i7 Automation Computers with 6 x LAN, 2 x COM and 3 x Expansion Slots

NEW

IEC 61850-3 / IEEE 1613 Compliant | Windows Embedded | RoHS | CCC | CE | FCC | cULus

Features

- IEC 61850-3 and IEEE 1613 compliant for substation automation applications
- Onboard Intel Atom 1.66 GHz / Core i7 2.0 GHz processor
- 2 x 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 1 x internal CF card and 1 x 2.5" SATA HDD
- 6 x USB 2.0 (1 x internal) and 3 x Domain I/O expansions
- Rear wiring, multiple system & I/O LED status indicators
- Windows related and Linux
- Fanless design
- Isolation power design with wide AC / DC input range
- Isolation between chassis and power ground
- One internal USB for dongle and flash drive
- Redundant power supplier for system power backup

Introduction

The UNO-4673A and UNO-4683 are compliant with the hardware requirements of IEC 61850-3, which defines the international standards of network and system communications in power substations. Featuring fanless designs with built-in isolated PSU and 3 expansion slots for I/O plug-in cards, the UNO-4673A and UNO-4683 are suitable for harsh environment 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

- **Certification**: IEC 61850-3, IEEE 1613, CE, FCC Class A, UL, CCC
- **Dimensions (W x D x H)**: 2U (440 x 280 x 88) mm (17.3" x 11" x 3.4")
  fits into standard 19 inch rack
- **Enclosure**: SECC
- **Mounting**: 2U Rackmount
- **Power Consumption**: 45W (Typical)
- **Power Requirements**: AC : 100 ~ 240 V_{AC} (47 ~ 63 Hz)
  DC : 106 ~ 250 V_{DC}
  With isolation protection, AT
- **Weight**: 6.0 kg
- **OS Support**: WES7, Windows XP Embedded, Windows /XP, Windows CE 6.0, Linux, QNX, Win10, Win7, Windows Server 2008R2/ 2012/ 2012R2
- **System Design**: Fanless
- **Remote Management**: Built-in Advantech DiagAnywhere agent on Windows CE/XPe

System Hardware

- **CPU**: Intel Dual Core Atom D510 1.66 GHz / Core i7 2.0 GHz
- **Memory**: 2G DDR2 SDRAM/4G DDR3 SDRAM built-in
- **Indicators**: LEDs for Power, IDE, Alarm for battery backup SRAM, Diagnosis (programmable), LAN (Active, Status) and Serial (Tx, Rx)
- **Keyboard/Mouse**: 2 x PS/2 connector for Keyboard & Mouse
- **Storage**
  CF: 1 x internal type I/II CompactFlash® slot
  HDD: 1 x build-in 2.5" SATA HDD bracket
  *RAID capable with 2nd HDD kit
- **Display**: DB15 VGA connector, 2048 x 1536 @ 85 Hz (UNO-4673A)
  1 x DVI-I (UNO-4683)
- **Watchdog Timer**: Programmable 7-tier event handler, from 1 to 255 seconds for each tier
- **Battery Backup SRAM**: 1 MB
- **Relay:**
  Relay output: Form C
  Contact: 5A@250V_{AC}\5A@30V_{DC}

I/O Interface

- **Serial Ports**: 2 x DB-9
  Automatic RS-485 data flow control
  2000 V_{DC} EFT protection & 2000 V_{DC} isolation
- **Serial Port Speed**: RS-232: 50 ~ 115.2 kbps
  RS-422/485: 50 ~ 921.6 kbps (Max.)
- **LAN**: 2 x 10/100/1000 Base-T RJ-45 ports,teaming function supported
  4 x 10/100Base-T RJ-45 ports
- **Audio**: Line-out
- **USB Ports**: 6 x USB, UHCI, Rev. 2.0 compliant
  2 x Front, 3 x Rear and 1 x Internal ports
- **Expansion**: 3 x Domain I/O expansions (Only slot 1 supports PCIe resource)

Environment

- **Storage Humidity**: 5 ~ 95% RH (non-condensing)
- **Operating Temperature**: IEC 60068-2-2 with 100% CPU/ I/O loading, 48 hrs
  -20 ~ 70°C
- **Operating Humidity**: 5 ~ 95% RH (non-condensing)
- **Shock Protection**: IEC 60068-2-27 CompactFlash®: 50 G half sine, 11 ms
  HDD: 20 G half sine, 11 ms
- **Vibration Protection**: IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.)
  CompactFlash®: 2 Grms @ 5 ~ 500 Hz,
  HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

- **UNO-4673A-A33E**: Intel Atom 1.66 GHz, 2 GB RAM Automation Computer
- **UNO-4683-D34E**: Core i7 2.0 GHz, 4 GB RAM Automation Computer
- **UNO-4673ADP-A33E**: Intel Atom 1.66 GHz, 2 GB RAM, dual PSU Automation Computer
- **UNO-4683DP-D34E**: Core i7 2.0 GHz, 4 GB RAM, dual PSU Automation Computer