# UNO-4673A UNO-4683

# Intel® Atom™ D510/ Core™ i7 Power & Energy **Automation Computers with 6 x LAN, 2 x COM** and 3 x Expansion Slots



## **Features**

- China Electricity Certificate IV level
- IEC 61850-3 and IEEE 1613 certified for substation automation applications
- Onboard Intel Atom 1.66 GHz / Core i7 2.0 GHz processor
- Support Intel Virtualization Technology for Direct IO (VT-D)
- 2 x RS-232/422/485 isolated serial ports with automatic flow control and 128KB FIFO
- 2 x 10/100/1000Base-T (supports teaming function) and 4 x 10/100Base-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, 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
- Isolation power design with wide AC / DC input range
- Isolation between chassis and power ground
- One internal USB for dongle and flash drive

## Introduction

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 environments. 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,

Electricity IV level for China

Dimensions (W x D x H) 2U (440 x 220 x 89 mm/ 17.3" x 8.6" x 3.4")

fits into standard 19 inch rack

Enclosure SECC + Aluminum 2U Rackmount Mounting Power Consumption 45 W (Typical)

AC: 81~275 V<sub>AC</sub> (47 ~ 63 Hz), DC: 90~300 V<sub>DC</sub>, With Power Requirements

isolation protection, AT

Weight

WES. Windows XP Embedded, Windows /XP, Windows OS Support

CE 6.0, Linux, QNX, Window server 2008 R2 (64bits)

 System Design Fanless Design

Built-in Advantech DiagAnywhere agent on Windows Remote Management

CE/XPe

### **System Hardware**

- CPU Intel Atom D510 1.66 GHz/Core i7 2.0 GHz Memory 2 GB DDR2 SDRAM/4G DDR3 SDRAM built-in

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

Serial (Tx, Rx)

Keyboard/Mouse 2 x PS/2

Storage

CF 1 x internal type I/II CompactFlash® slot HDD Built-in one 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

#### Relay

 Relay output Form C

Contact 5 A @ 250 V<sub>AC</sub>\5 A @ 30 V<sub>DC</sub>

I/O Interface

2 x DB-9Automatic RS-485 data flow control2000 V<sub>DC</sub> Serial Ports

EFT protection & 2000 V<sub>DC</sub> isolation

 Serial Port Speed RS-232: 50 ~ 115.2 kbps

RS-422/485: 50 ~ 921.6 kbps (Max.)

2 x 10/100/1000Base-T RJ-45 ports, teaming function LAN

4 x 10/100Base-T RJ-45 ports

Audio Line-out

6 x USB, UHCI, Rev. 2.0 compliant2 x Front, 3 x Rear **USB Ports** 

and 1 x Internal ports

3 x Domain I/O expansions (Only slot 1 supports PCle Expansion

resource)

## **Environment**

 Storage Humidity 95% @ 40°C (non-condensing)

Operating Temperature IEC 60068-2-2 with 100% CPU/ I/O loading, 48 hrs

-20 ~ 70°C (optional for -40°C)

**Operating Humidity** 20 ~ 95% (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 Power & Energy

**Automation Computer** 

UNO-4683-D34E Intel Core i7 2.0 GHz, 4 GB RAM Power & Energy

**Automation Computer** 

UNO-4673ADP-A33E Intel Atom 1.66 GHz, 2 GB RAM, dual PSU Power &

**Energy Automation Computer** 

UNO-4683DP-D34E Core i7 2.0 GHz, 4 GB RAM, dual PSU Power & Energy

**Automation Computer** 

Online Download www.advantech.com/products

**ADVANTECH** Last updated: 25-Mar-2014