UNO-4673A
UNO-4683

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

NEW

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, 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
- Optional Dual power supplier for system power backup

IEC 61850-3 / IEEE 1613 Compliant · Windows Embedded · RoHS COMPLIANT 2002/95/EC · CCC · CE · FCC · c UL us LISTED E180881 I.T.E.

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, 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

Certifications	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	WES, Windows XP Embedded, Windows /XP, Windows CE 6.0, Linux, QNX
System Design	Fanless with no internal cabling
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	Build-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, 1 x DVI-D (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

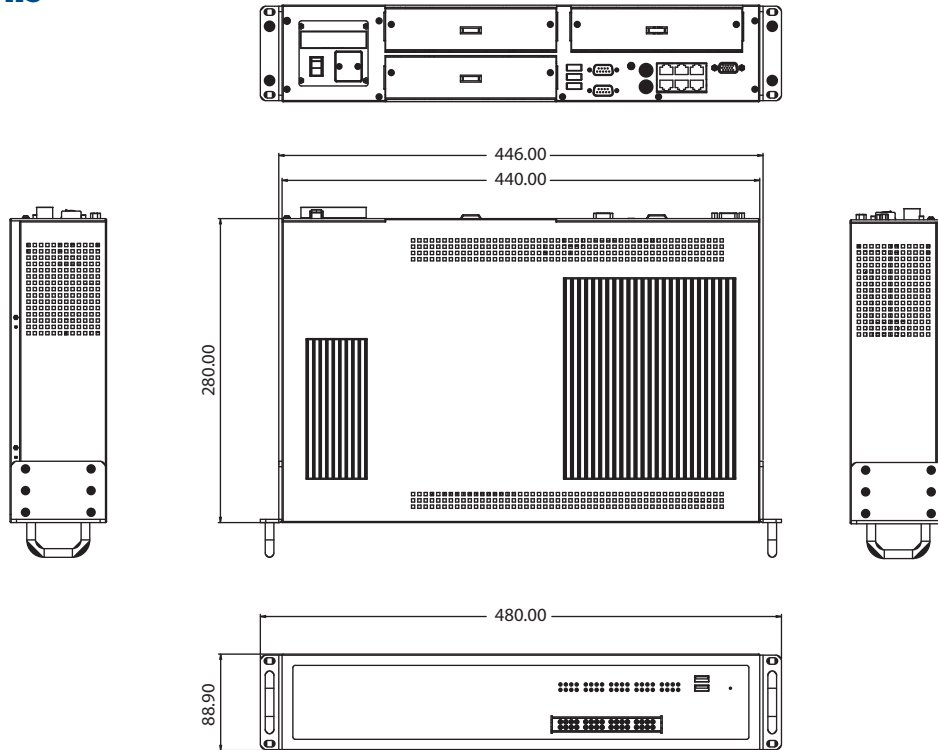|	
Serial Ports	2 x DB-9 Automatic RS-485 data flow control 2000 V_{DC} EFT protection & 2000 V_{DC} isolation
Serial Port Speed	RS-232: 50 ~ 115.2 kbps RS-422/485: 50 ~ 921.6 kbps (Max.)
LAN	2 x 10/100/1000 Base-T RJ-45 ports, teaming function supported 4 x 10/100Base-T RJ-45 ports
Audio	Line-out
USB 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

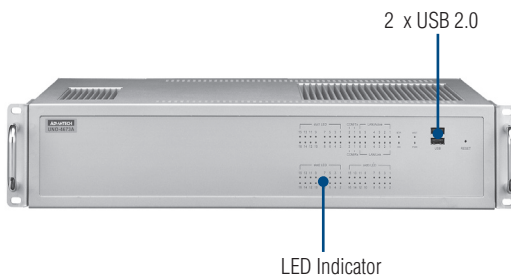|	
Humidity	95% @ 40°C (non-condensing)
Operating Temperature	IEC 60068-2-2 with 100% CPU/ I/O loading, 48 hrs -20 ~ 70°C
Operating Humidity	20 ~ 95% (non-condensing)
Shock Protection	IEC 60068-2-27 CompactFlash®: 50 G half sine, 11 ms HDD: 20 G half sine, 11 ms
Vibration Protection	IEC 60068-2-64 (Random 1 Oct./min, 1hr/axis.) CompactFlash®: 2 Grms @ 5 ~ 500 Hz, HDD: 1 Grms @ 5 ~ 500 Hz

Ordering Information

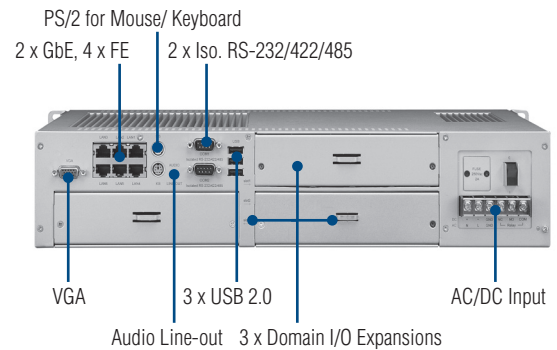|	
UNO-4673A-A33E	Intel Atom 1.66 GHz, 2 GB RAM Automation Computer
UNO-4683-D34E	Core i7 2.0 GHz, 4 GB RAM Automation Computer
UNO-4673ADP-A33E	Intel Atom 1.66 GHz, 2 GB RAM, dual PSU Automation Computer
UNO-4683DP-D34E	Core i7 2.0 GHz, 4 GB RAM, dual PSU Automation Computer

Dimensions

Unit: mm

446.00
440.00
280.00
480.00
88.90

Front I/O

Rear I/O

2 x USB 2.0

LED Indicator

PS/2 for Mouse/ Keyboard
2 x GbE, 4 x FE
2 x Iso. RS-232/422/485

VGA
3 x USB 2.0
AC/DC Input
Audio Line-out
3 x Domain I/O Expansions

AC/DC Dual Power Input

Accessories

- **UNOP-1000I-BE**   Expansion card for standard PCI and Mini PCI
- **UNOP-1000J-BE**   Expansion card for standard PCI-104 and Mini PCIe
- **UNOP-1514C-AE**   4-port Fiber Optic LAN card
- **UNOP-1514RE-AE**   4-port RJ45 Gigabit Base Ethernet Card
- **UNOP-1514PE-AE**   4-port SFP Gigabit Base Ethernet Card
- **UNOP-1618D-AE**   8-port RS-232/422/485 w/EFT protection
- **UNOP-1628D-AE**   8-port RS-232/422/485 w/Iso and EFT
- **UNOP-1624D-AE**   4-port RS-232/422/485 w/Iso and EFT, 1-port IRIG-B
- **PCLS-DIAGAW10**   Advantech Remote Monitoring & Diagnosis Utility