# UNO-4672/P154

## Substation Network **Recorder/Analyzer**



#### **Features**

- IEC 61850-3 and IEEE 1613 compliant for substation automation applications
- Intel Core Duo LV L2400 1.66 GHz SOM-4780
- 4-ch Fiber Smart LAN for data acquisition
- DSP LAN data manage and support online firmware update
- 10 Mbyte for IEC 61850 standard MU (20 MU Module Data Acquisition)
- 2-ch 10/100Base-F LAN, SC Multi-Mode 1300 nm
- 1-ch Fiber IRIG interface, ST Multi-Mode 850 nm
- 1-ch RS-485 IRIG interface
- 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-4672 features a fanless design with built-in isolated PSU and ten isolated serial communication ports and is even suitable for any harsh applications. The rear I/O connection and LEDs on the front panel for all ports and modes highly simplify monitoring operation and maintenance.

As for data recording and analysis from a network, the UNO-P154 provides four smart LAN ports to collect high-density network packets that come with 32K byte FIFO to keep data integrity, and two standard 10/100 Mbps fiber optic interfaces, which are used to respond to real-time data. IRIG time decode could more accurately record time information to facilitate data analysis.

## **Specifications**

#### General

Certification CE, FCC class A, UL, CCC, Electricity IV level for

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

fits into standard 19 inch rack

Enclosure SECC Mounting 2U Rackmount **Power Consumption** 44 W (Typical)

**Power Requirements** AC: 90 ~ 250 V<sub>AC</sub> (47 ~ 400 Hz), DC: 106 ~ 250 V<sub>DC</sub>

Weight ~6.0 ka

Windows® XP Embedded, Windows CE 6.0, Linux OS Support

System Design Fanless Design

Remote Management Built-in Advantech DiagAnywhere agent on Windows

CE/XPe

#### **System Hardware**

CPU Intel Core Duo LV L2400 1.66 GHz

Memory 2 GB DRAM built-in

Indicators LEDs for Power, IDE, Diagnosis (programmable), LAN

> (Active, Status) and Serial (Tx, Rx) 2 x internal typel/II CompactFlash® slot,

Storage 1 x Built-in 2.5" SATA HDD bracket

VGA, 1600 x 1200 @ 85 Hz Display

PC/104 Slot

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

seconds for each tier

#### **IRIG Time Code**

Channels 1 ST Multi-mode, 1 Isolated RS-485

Accuracy 0.1us

 Transmission Distance ST Multi-mode 2.7 km

RS485 1.2 km

#### I/O Interface

Serial Ports 10 Ports, 2 x RS-232, 8 x RS-232/422/485 (Automatic RS-485 data flow control)

**Communication 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

supported

4 x 10/100Base-T RJ-45 ports 2 x 10/100 SC Multi-Mode 4 x 10/100 SC Mutil-Mode

Smart LAN Data Sampling Rate 10 MBytes (max.)

20 MU (IEC 61850 standard)

Data Transfer Mode DMA

USB Ports 4 x USB (include 1 x internal USB), UHCI, Rev. 2.0

compliants

1 x PCI-104 Expansion

#### **Environment**

Humidity 95% @ 40°C (non-condensing)

IEC 60068-2-1 with 100% CPU/ I/O loading, 48 hrs **Operating Temperature** 

-20 ~ 60°C (-4 ~ 140°F)

**Operating Humidity** 20 ~ 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-P154-AE 4-ch Fiber Smart LAN network DAQ Card for UNO-

4672

UNO-4672-D03E Intel Core Duo LV L2400 1.66 GHz, 2 GB RAM

**Automation Computer** 

Intel Core Duo LV L2400 1.66 GHz, 2 GB RAM UNO-4672I-D03E

Automation Computer W/ 4-ch Smart IAN and IRIG-B



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