

UNO-4672/P154

Substation Network Recorder/Analyzer

NEW



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** IEC 1613, CE, FCC class A, UL, CCC
- **Dimension (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_{AC} (47 ~ 400 Hz)
- **Weight** 6.0 kg
- **OS Support** WES, Windows® XP Embedded, Windows 2000/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 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)
- **Storage** 2 x internal type I/II Compact Flash® slots
SSD One built-in 2.5" SATA HDD bracket
HDD DB15 VGA connector, 1600 x 1200 @ 85 Hz
- **Display** PC-104
- **PC/104 Slot** Programmable 256 levels time interval, from 1 to 255 seconds for each tier
- **Watchdog Timer**

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** 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} EFT protection & 2000 V_{DC} isolation
- **Serial Port Speed** (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, teaming function supported
4 x 10/100Base-T RJ-45 ports
2 x 10/100 SC Multi-Mode
4 x 10/100 SC Multi-Mode
- **Smart LAN** Data Sampling Rate 10 MBytes (Max.)
20 MU (IEC 61850 standard)
Data Transfer Mode DMA
- **USB Ports** 4 x USB, UHCI, Rev. 2.0 compliant
1 x Front, 2 x Rear and 1 x Internal ports

Environment

- **Humidity** 95% @ 40°C (non-condensing)
- **Operating Temperature** IEC 60068-2-1 with 100% CPU/ I/O loading, 48 hrs
-20 ~ 60°C (-4 ~ 140°F)
- **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-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
- **UNO-4672I-D03E** Intel Core Duo LV L2400 1.66 GHz, 2 GB RAM Automation Computer W/ 4-ch Smart LAN and IRIG-B