

ECU-4674

Intel® Atom™ N2600 Power & Energy
Computers with 8xLAN, 18xCOM, 8DI,
8DO, 1x IRIG-B and 1 x PCI-104

NEW



Features

- China Electricity Certificate IV level
- IEC 61850-3 and IEEE 1613 compliant for substation automation applications
- Intel Atom N2600 1.6GHz processor
- 2 x RS-232 isolated serial ports, 16 x RS-232/485 isolated serial ports
- 2 x 10/100/1000 Base-T RJ-45 connector (Support teaming function and IEEE-1588 hardware capability) and 6 x 10/100 Base-T RJ-45 connector
- Support 1 x internal CF, 2x 2.5" SATA HDD
- 5x USB2.0 (1 x internal)
- Front or Rear wiring, programmable LED indicator
- Isolated 8-ch Digital Input and 8-ch Digital Output
- 1 x Time Synchronize IRIG-B
- Fanless design
- Supports Redundant isolated power with wide AC/DC input range
- iCDManager: intelligent Connectivity Diagnosis and Management

Introduction

The ECU-4674 series of products is compliant with Electricity Certificate level IV (especially for China) and IEC 61850-3 and IEEE 1613 certification, which provide higher reliability and stability, suitable for any Global P&E automation market and harsh environment. With versatile communication interface to use for Smart substation Communication server and IED Analyzer to fulfill the Data Gateway & Protocol Conversion requirement easily. Featuring a fanless design with high performance Intel Atom N2600 processor, the ECU-4674 comes with 18 isolated serial ports, 8 x LAN and 1 x PCI-104 extension. With iCDManager support, users can easily diagnose System & Communication and enhance maintenance efficiency, with Structured and functional module Internal design for easy customization and Fast assembly to fulfill the different kind of application.

Specifications

General

- **Certification** CE, FCC class A, CCC, Electricity IV level for China (Compatible IEC 61850-3, IEEE 1613)
- **Dimensions (W x D x H)** 440 x 220 x 88 mm
- **Enclosure** SECC & Aluminum
- **Mounting** 2U Rack mount
- **Power Requirements** Supports Redundant power input
Power 1: 100 ~ 240 V_{AC} or 100 ~ 240 V_{DC}
Power 2: 100 ~ 240 V_{AC} or 100 ~ 240 V_{DC}
Supports Power Monitoring during power loss
- **Weight** < 5.5 kg
- **OS Support** WES7, Windows7, Linux
- **System Design** Fanless

System Hardware

- **CPU** Intel Atom N2600, 1.6GHz
- **Memory** 2G DDR3 SDRAM built-in
- **Indicators** LEDs for Power, HDD, Programmable LED, IRIG-B, LAN (Active, Status) and Serial (Tx, Rx)
- **Storage** 1 x internal CF, 2 x 2.5" SATA HDD
- **Display** DB15 VGA connector
- **PC/104 slot** 1 x PCI-104
- **Watchdog Timer** Programmable 256 levels time interval, from 1 to 255 seconds for each tier

I/O Interface

- **Serial Ports** 18 Ports, 2 x RS-232, 16 x RS-232/485
2000 V_{DC} isolation
(Automatic RS-485 data flow control)
- **Serial Port Speed** RS-232: 50 ~ 115.2 kbps,
RS-485: 50 ~ 921.6 kbps
- **LAN** 2 x 10/100/1000Base-T RJ-45 ports, teaming function supported, IEEE-1588 hardware capability,
6 x 10/100Base-T RJ-45 ports
- **USB Ports** 5 x USB (1x internal), UHCI, Rev. 2.0 compliant

- **Digital Input** 8-ch isolated digital input
Wet contact: Logic 0:0~3 V_{DC}; Logic 1: 10~30 V_{DC}
Isolation protect: 2000 V_{DC}, 30~50 V_{DC} over voltage protection (Only for ECU-4674-A53SAE)
 - **Digital Output** Opto-Isolator Response: 25us-interrupt capable
8-ch isolated digital output
2000 V_{DC} isolation, 200mA max/channel sink current
Keeps output status after system hot reset
Open collector to 40V (200mA maximum sink current load) 3 kHz speed (Only for ECU-4674-A53SAE)
 - **Programmable LED** 8-ch programmable LED indicator
- ### Time Synchronization Interface
- **Type** IRIG-B (RS-485)
 - **Channel** 1
 - **Support Format** IRIG-B00X according to IRIG STANDARD 04, 200-98
 - **Message Syntax** QQQHMMSS (year, day, hour, minute & second)
 - **Resolution of Time** 1s

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 (-4 ~ 140°F)
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Shock Protection** IEC 68 2-27 CompactFlash®: 30 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

- **ECU-4674-A53SAE** Intel Atom N2600 1.6GHz 8LAN 18COM 8DI/DO, 1IRIG Computer
- **ECU-4674-LBA53SAE** Intel Atom N2600 1.6GHz 8LAN 10COM+IRIG Computer
- **XECU-FSP150-1H35(*)** FSP AC 100-240V 150W W/PFC (Note: For ECU-4674 Dual Power, by CTOS configuration center)