

# 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<sub>AC</sub> or 100 ~ 240 V<sub>DC</sub>  
Power 2: 100 ~ 240 V<sub>AC</sub> or 100 ~ 240 V<sub>DC</sub>  
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<sub>DC</sub> 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<sub>DC</sub>; Logic 1: 10~30 V<sub>DC</sub>  
Isolation protect: 2000 V<sub>DC</sub>, 30~50 V<sub>DC</sub> over voltage protection (Only for ECU-4674-A53SAE)  
Opto-Isolator Response: 25us-interrupt capable
- Digital Output** 8-ch isolated digital output  
2000 V<sub>DC</sub> 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)