ECU-1251D

IEC62351 Enabled RTU for Secure SCADA Applications

NEW

Features

- TI Cortex A8 600MHz CPU with DDR3L 256MB RAM
- Onboard IO - 4DI / 4DO , 2xSerial Ports (RS232/RS485)
- Support pbsSoftLogic for easy programming and configuration
- Support DNP3 , IEC104, Modbus , MQTT ,OPCUA , redis , S7 ,.. protocols
- Support IEC62351 for DNP3 and IEC104 protocols for secure communication
- Easy Function Block programming with Lua Scripting for user defined FB
- Support 4G modem with ability to make it off/on from logic
- Wide Operating temperature: -40 ~ 70°C

CE FCC RoHS COMPLIANT 2002/95/EC

Introduction

For facility monitoring, distributed solar power, smart factory sector, especially cloud based applications which require a total wireless and Ethernet communication solutions, Advantech has released the ECU-1251D RISC-based industrial communication gateway. ECU-1251D has an open platform design with Cortex A8 processor, two 10/100 Ethernet ports and operating temperature range of -40~70°C.With Linux operating system and pbssoftLogic programming IDE , which enable to system integrators to develop applications which precisely fit their need.

Specifications

General

- **Certification**   CE, FCC (No RED certification)
- **Mounting**   Wall-Mount/ DIN-Rail
- **Power consumption (typical)**   2.5W @ 24V_{DC}
- **Power Requirements**   10 ~ 30 V_{DC}

System

- **CPU**   TI Cortex A8, 600MHz
- **Memory**   DDR3L 256MB
- **Indicators**   LEDs for Power, LAN (LINK, ACT), Programmable
- **Storage**   512MB NAND Flash
- **SD Slot**   1 x Micro-SD slot
- **Watchdog**   Yes
- **Real-time clock**   Yes

Communication

- **Serial Port**   Serial Port: 2 x RS232/RS485 (isolation optional)
- **USB Port**   1 x USB2.0
- **Serial Port Speed**   RS-232/RS-485: 50 ~ 115200 bps
- **Ethernet Port**   2 x 10/100 Base-T RJ-45 ports
- **Wireless (Optional)**   Interface: 1x Mini-PCIe (Full-size) Type: WIFI/Cellular/4G Signal: USB
- **Communication Protocol Drivers**   IEC-60870-5-101/104 Master / Slave , DNP3 Master /Slave , Modbus TCP/RTU Master /Slave , MQTT Client , IEC62351 for DNP3 and IEC104 with TLS S7Connect , redis , Email Publishing , Vestas Wind Turbine , OPC UA Client/Server , IEC62056-21

Digital Input

- **Channel**   4
- **Input Type**   Wet Contact Logic 0: 0-4V, Logic 1: 11-30V
- **Isolation**   2,000 V_{DC}

Digital Output

- **Channel**   4
- **Output Type**   Open Collector (Sink)
- **Rated Voltage**   10 ~ 30 V_{DC}, 100 mA per channel
- **Isolation**   2,000 V_{DC}
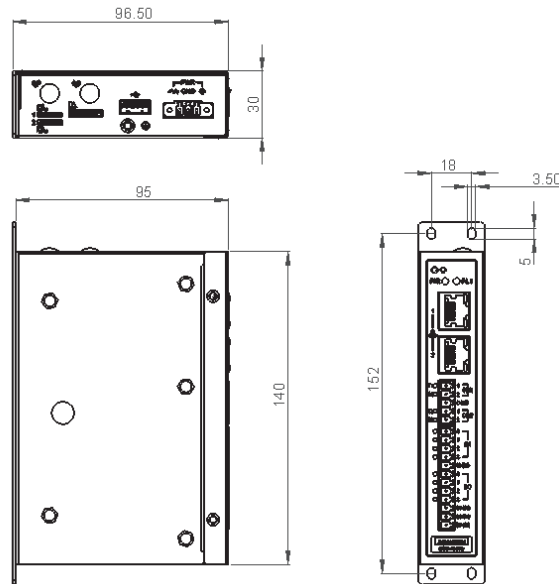
Software

- **OS Support**   Linux Kernel 4.9
- **Configuration Tool**   pbsControl pbsSoftLogic

Environment

- **Operating Temperature** -40~70°C
- **Storage Temperature**   -40~85°C
- **Humidity**   5 ~ 95% (non-condensing)

ADVANTECH **Power & Energy Solution**

All product specifications are subject to change without notice.   Last updated: 11-Sep-2021

Dimensions

Unit: mm

96.50

30

95

140

18

3.50

5

152

Ordering Information

- **ECU-1251D-R10AA**   TI Cortex A8 industrial communication gateway with Edgelink

Cellular Solution (SIM card is not included)

- **96PD-EC25EFA**   LTE Cat 4 Module with GNSS
- **1750006264**   SMA(F) Cable, 15 cm
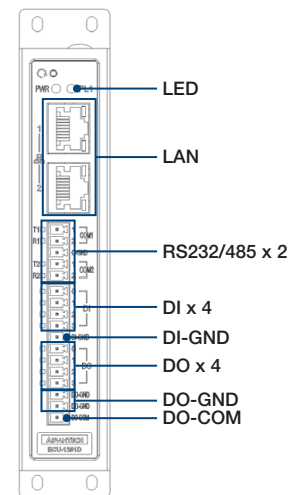- **1750005865**   Dipole Antenna, 11 cm

WIFI Solution (recommended)

- **96PD-RYUW131**   2.4GHz Wi-Fi Full/Half Size Mini PCIe Card
- **1750006043**   SMA(M) cable, 15 cm
- **1750000318**   2dBi antenna for testing, 11 cm

Storage Solution

- **96FMMSDI-4G-ET-AT1**   ATP 4G MICRO SD CARD I-GRD SLC(G)
- **96FMMSDI-8G-ET-AT1**   ATP 8G MICRO SD CARD I-GRD SLC(G)

Front View

LED
LAN
RS232/485 x 2
DI x 4
DI-GND
DO x 4
DO-GND
DO-COM

Top View

SIM Slot x 2
SD Slot
USB
Power In