

# ECU-1251D

## Cloud enabled Intelligent Communication Gateway with DI/DO for IIOT application

NEW



CE FCC RoHS COMPLIANT PRODUCT

### Features

- TI Cortex A8 600MHz CPU with DDR3L 256MB RAM
- Onboard IO - 4DI / 4DO
- Support web service for remotely on-line monitoring
- Firmware update by SD card and online update
- Data logger on SD card
- Support dual SIM slots for communication redundant
- Support MQTT Client for cloud communication
- Wide Operating temperature: -40 ~ 70°C

### 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 open Edgelink SDK, 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<sub>DC</sub>
- **Power Requirements** 10 ~ 30 V<sub>DC</sub>

#### 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-60870-5-104  
Modbus TCP/RTU  
MQTT  
FTP/HTTP/DHCP/TCP/IP
- **PLC Driver Support** 100+ PLC drivers
- **Data Logger** Real-time datalogger
- **Database uplink** ODBC/ FTP
- **Programming support** Linux C, Restful API, Web service API.  
Event Manager

#### Digital Input

- **Channel** 4
- **Input Type** Wet Contact  
Logic 0: 0-4V,  
Logic 1: 11-30V
- **Isolation** 2,000 V<sub>DC</sub>

#### Digital Output

- **Channel** 4
- **Output Type** Open Collector (Sink)
- **Rated Voltage** 10 ~ 30 V<sub>DC</sub>, 100 mA per channel
- **Isolation** 2,000 V<sub>DC</sub>

#### Software

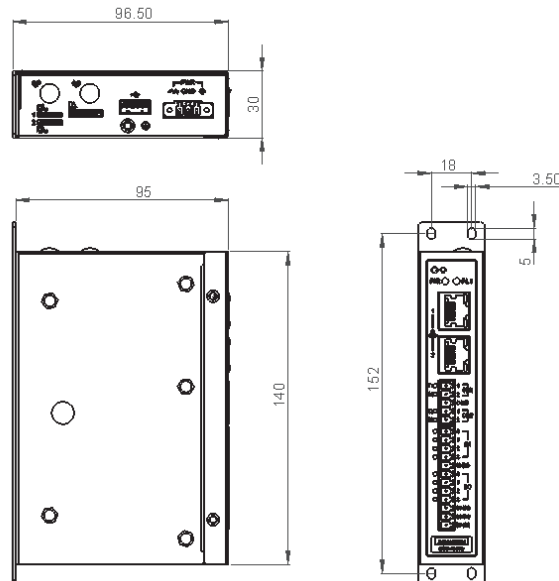
- **OS Support** Linux Kernel 4.9
- **Configuration Tool** Advantech Edgelink Studio

#### Environment

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

## Dimensions

Unit: mm



## Ordering Information

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

## Optional Accessories

### Wifi Module and Antenna

- **96PD-RYUW131A1** WiFi 4 2.4GHz mPCIe with Antenna and cable
- **EWM-W172H01E** Wi-Fi 5+BT 4.2 Module 2.4/5GHz Mini PCIe
- **1750008717-01** WiFi 2.4G+5G dipole antenna (Recommend qty: 2pcs)
- **1750006043** WiFi Coaxial Cable, 150 mm (Recommend qty: 2pcs)
- **9656EWMG00E** Half-size miniPCIe to miniPCIe bracket set
- **EWM-W180H01E** Wi-Fi 5+BT 5.0 Module 2.4/5GHz Mini PCIe
- **1750008717-01** WiFi 2.4G+5G dipole antenna (Recommend qty: 2pcs)
- **1750006043** WiFi Coaxial Cable, 150 mm (Recommend qty: 2pcs)
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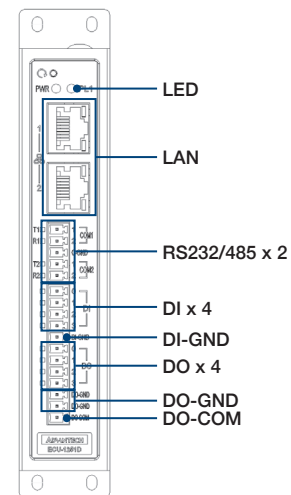
### Cellular Module and Antenna

- **96PD-EC25EFA** LTE Module Cat. 4, Mini-PCIe for EU, TW, IN, KR, SEA
- **96PD-EC25JFA** LTE Module Cat. 4, Mini-PCIe for JP
- **96PD-EG25GGB** LTE Module Cat. 4, Mini-PCIe for Global
- **1750006264** SMA(F) Cable, 15 cm
- **1751000532-01** Dipole Ant. LTE+5G 5.5dB SMA/M 135.7mm
- **96PD-MDG200AU0** AMIC 4G.Cat4 Socket Modem(US)
- **1750006264** SMA(F) Cable, 15 cm
- **1750008303-01** Antenna, 13cm (-40 °C ~ +80 °C)

### 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



## Top View

