ECU-1251D

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

CE FCC RoHS

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_{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-60870-5-104 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_{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	Advantech Edgelink Studio

Environment

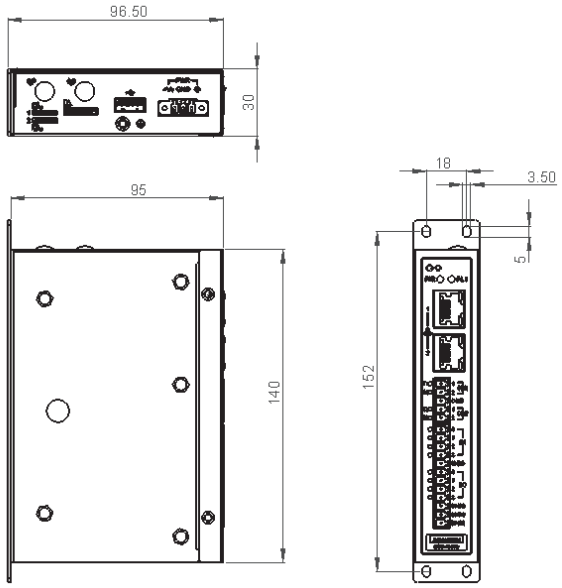
Operating Temperature	-40~70°C
Storage Temperature	-40~85°C
Humidity	5 ~ 95% (non-condensing)

All product specifications are subject to change without notice.

Last updated: 11-Sep-2021

Dimensions

Unit: mm



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

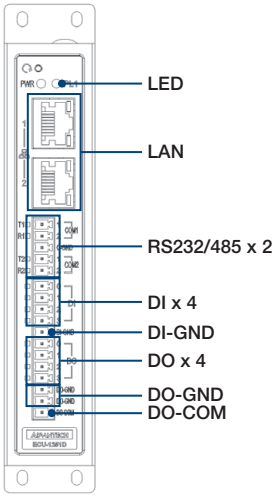
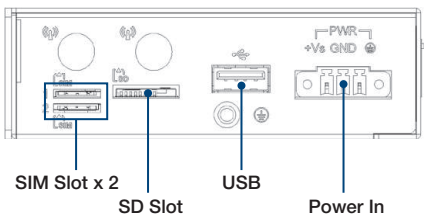
WIFI Solution (recommended)

- **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



Top View