ECU-1251

TI Cortex A8 Industrial Communication Gateway with 2 x LAN, 4 x COM Ports

NEW

Features

- TI Cortex A8 800MHz CPU
- DDR3L256MB RAM
- 1GB Micro-SD card for system storage
- 1 x Micro-SD Slot
- 4 x RS-232/485 isolated serial ports
- 2 x 10/100 Base-T Ethernet ports
- 1 x Mini-PCIe for WIFI/Cellular/4G
- Support web service for remotely on-line monitoring
- Support SD card & on-line firmware update
- Support Modbus, IEC-60870-101/104 protocol
- Support Data logger on SD card
- Operation System: RT-Linux
- Operation Temperature -40~70°C

Introduction

For solar power, electricity and factory related applications which require a total wireless and Ethernet communication solutions, Advantech has released the ECU-1251 RISC-based industrial communication gateway. ECU-1251 has an open platform design with Cortex A8 processor, up to four RS-232/485 isolated serial ports, two 10/100 Ethernet ports and operating temperature range of -40~70°C.WithLinux operating system and open Edgelink SDK, which enable to system integrators to develop applications which precisely fit their need.

Specifications

General

- **Certification** — CE, FCC (RED Compliance)
- **Mounting** — Wall-Mount/ DIN-Rail
- **Power consumption (typical)** — 2.4W @ 24V_{DC}
- **Power Requirements** — 10 ~ 30 V_{DC}

System

- **CPU** — TI Cortex A8, 800MHz
- **Memory** — DDR3L 256MB
- **Indicators** — LEDs for Power, LAN (LINK, ACT), Serial (Tx, Rx), Programmable
- **Storage** — 1GB Micro-SD card for system storage
- **SD Slot** — 1 x Micro-SD slot
- **Watchdog** — Yes
- **Real-time clock** — Yes
- **Node ID** — 8-bit

Communication

- **Serial Port** — 4 x RS-232/485
- **Isolation** — 3000 V_{DC}
- **Serial Port Speed** — RS-232/RS-485: 50 ~ 115200 bps
- **Ethernet Port** — 2 x 10/100 Base-T RJ-45 ports
- **USB Port** — 1 x USB2.0
- **Wireless (Optional)** — Interface: 1x Mini-PCIe (Full-size)
  Type: WIFI/Cellular/4G
  Signal: USB

Software

- **OS Support** — RT-Linux 4.9
- **Configuration Tool** — Advantech Edgelink Studio
- **Protocol Support** — Modbus, IEC-60870-101(master)/ 104(slave)
- **Programming** — Linux C

Environment

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

Ordering Information

- **ECU-1251TL-R10AAE** — TI Cortex A8 Industrial Communication Gateway with 2 x LAN, 4 x COM, 1 x Mini-PCIe

Wi-Fi Solution

- **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

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

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)

Dimensions

Unit: mm

96.50 140 1.50 18 162 152 5 18 30 3.50