

ECU-1051E

Cloud enabled Intelligent Communication Gateway for IIOT application

Preliminary



CE FCC RoHS COMPLIANT PRELIMINARY

Features

- TI Cortex A8 300MHz CPU with DDR3L 128MB RAM
- Support web service for remotely on-line monitoring
- Firmware update by SD card and online update
- Data logger on SD card
- 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-1051E RISC-based industrial communication gateway. ECU-1051E 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)** 2.4W @ 24V_{dc}
- **Power Requirements** 10 ~ 30 V_{dc}

System

- **CPU** TI Cortex A8, 300MHz
- **Memory** DDR3L 128MB
- **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** 2 x RS232/RS485 (isolation optional)
- **Serial Port Speed** 50 ~ 115200 bps
- **Ethernet Port** 2 x 10/100 Base-T RJ-45 ports
- **Wireless (Optional)** Interface: 1x Mini-PCle (Full-size)
Type: WIFI/Cellular/4G
Signal: USB

Software

- **OS Support** Linux Kernel 4.9
- **Configuration Tool** Advantech Edgelink Studio
- **Protocol Support** DNP3.0 Client & Server, OPC-UA Client & Server, BACNet/IP Client & Server, Modbus RTU/TCP Master & Slave, IEC-60870-5-101 Master, IEC-60870-5-103 Master, IEC-60870-5-104 Master & Slave
- **PLC driver support** Siemens/Mitsubishi/Omron/Allen-Bradley, Delta etc 200+ PLC drivers
- **Programming** Linux C, Python

Environment

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

Ordering Information

- **ECU-1051E-R10AAE** 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 PCle 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)

Dimensions

Unit: mm

