ESRP-PCS-ECU1251

Edge Intelligent Communication Gateway with WISE-PaaS/EdgeLink

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/3G/GPRS/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

RoHS COMPLIANT 2002/95/EC CE FCC

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 ESRP-PCS-ECU1251 RISC-based industrial communication gateway. ESRP-PCS-ECU1251 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.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
- **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** — Micro SD card/ 1GB included for system storage SD card/ 4GB included for data storage
- **Watchdog** — Yes
- **Real-time clock** — Yes
- **Node ID** — 8-bit

Communication

- **Serial Port** — 4 x RS-232/485 ECU-1251
- **Isolation** — 3000 V$_{DC}$
- **Serial Port Speed** — RS-232/RS-485: 300~115.2 kbps
- **Ethernet Port** — 2 x 10/100 Base-T RJ-45 ports ECU-1251
  1 x 10/100 Base-T RJ-45 ports ECU-1251L
- **USB Port** — 1 x USB2.0
- **Wireless (Optional)** — Interface: 1x Mini-PCIe (Full-size)
  Type: WIFI/3G/GPRS/4G
  Signal: USB
- **Communication Protocol Drivers** — DNP3.0
  IEC-60870-5
  Modbus TCP/RTU
  MQTT
  FTP/HTTP/DHCP/TCP/IP
- **PLC Driver Support** — Siemens/Mitsubishi/Omron/Allen-Bradley, Delta etc.
- **Data Logger** — Real-time datalogger
- **Data Remote backup** — ODBC/ FTP
- **Programming support** — Linux C, Restful API, Web service API.
  Event Manager

Software

- **OS Support** — RT-Linux 3.12
- **Configuration Tool** — WISE-PaaS/EdgeLink Studio

Environment

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

Ordering Information

- **ESRP-PCS-ECU1251** — Edge intelligent communication gateway

4G/3G Solution (SIM card is not included)

- **EWM-C117FL04E** — LTE/HSPA+/GPRS module, w/ SIM Slot,
- **1750006264** — SMA(F) Cable, 15 cm
- **1750008424-01** — 4G LTE 700 ~ 960 MHz, 1710 ~ 2700 MHz

WIFI Solution (recommended)

- **96PD-RYUW131** — 2.4GHz Wi-Fi Full/Half Size Mini PCIe Card
- **9656EWMG00E** — Half to full-size Mini PCIe bracket pack(optional)
- **1750006043** — SMA(M) cable, 15 cm
- **1750000318** — 2dBi antenna for testing, 11 cm

Dimensions

Unit: mm

All product specifications are subject to change without notice. Last updated: 20-Dec-2018