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

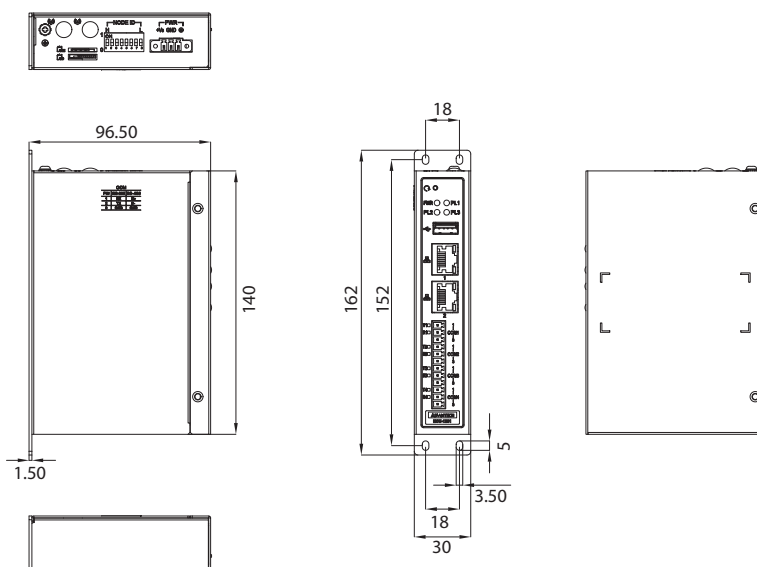CE FCC RoHS COMPLIANT 2002/95/EC

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

		ECU-1251TL-R10AAE	ECU-1251TL-R10ABE
System	CPU	TI Cortex A8, 800MHz	
	RAM	DDR3L 256MB	
	Storage	4GB Micro-SD card	
	SD Slot	1 x Micro-SD	
	Real Time Clock	Yes	
	Watchdog Timer	Yes	
	Node ID	Yes	
	TPM	NA	
I/O Interfaces	Serial Ports	4 x RS-232/485 isolation 3000VDC, 1 x 12-Pin Terminal Block, 50 ~ 115.2kbps	
	LAN Ports	2 x 10/100 RJ-45	
	USB Ports	1 x USB 2.0	
	Displays	NA	
	Mini-PCIE	1x Mini-PCIe (Full-size),Type: WIFI/Cellular/4G,Signal: USB 2.0	
WISE-Edgelink	Protocol Support	OPC-UA Client & Server,BACNet/IP Client & Server,Modbus RTU/TCP, IEC-60870-5-101,IEC-60870-5-103,IEC-60870-5-104	
	PLC driver support	Siemens/Mitsubishi/Omron/Allen-Bradley, Delta etc 200+ PLC drivers	
	Programming Support	Linux C, Phython	
	Configuration Tool	WISE-EdgeLink Studio	
	Data Monitoring	2000 Tags MAX.	
	Cloud Connectivity	WISE-Edge365, MQTT, AWS, Azure, LwM2M, Google Cloud IoT Core and more	
	Database Transmission	SQL Server, MySQL, ORACEL, FTP Server	
	VPN	Open VPN	
Gerneral	Certification	CE, FCC,EN-62368-1,UKCA	
	Dimensions (W x D x H)	140 x 96.5 x 30mm	
	Form Factor	Small Size	
	Enclosure	SGCC	
	Mounting	Wall-Mount/DIN-Rail	
	Weight(Net)	0.6kg	
	Power Requirement	10 ~ 30 V_{DC}	10 ~ 48 V_{DC}
	Power Consumption	2.2W @ 24V_{DC}	
	Power Connector	1 x 3-Pin Terminal Block	
Environment	Operating Temperature	-40~70°C	
	Storage Temparature	-40~85°C	
	Relative Humidity	5 ~ 95% (non-condensing)	
	Ingress Protection	IP30	
	Vibration Protection	2Grms, Random/Sine, 5 ~ 500Hz	

ADVANTECH | **Power & Energy Solution**

Dimensions

Unit: mm

96.50

140

1.50

18

162

152

5

3.50

18

30

Ordering Information

Part Number	CPU	RAM	Storage for OS	OS	Configuration Tool	TPM 2.0	LAN	COM	USB	Console	Power Requirement	Country of Origin
ECU-1251TL-R10AAE	TI Cortex A8, 800MHz	DDR3L 256MB	4GB	Yocto	WISE-EdgeLink	N/A	2	4	1	3pin COM on board	10 ~ 30 V$_{DC}$	China
ECU-1251TL-R10ABE	TI Cortex A8, 800MHz	DDR3L 256MB	4GB	Yocto	WISE-EdgeLink	N/A	2	4	1	3pin COM on board	10 ~ 48 V$_{DC}$	Taiwan

Optional Accessory

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)