

ECU-1051

Cloud enabled Intelligent Communication Gateway for IIOT application

NEW



Features

- TI Cortex A8 processor
- 2 x RS-232/485 serial ports
- 2 x 10/100 Ethernet ports
- 1 x Mini-PCle for WIFI/Cellular/4G
- Support web service for remotely on-line monitoring
- Supports SD cards and OTA firmware updates
- EdgeLink IoT software for data acquisition and cloud communication
- Wide Operating temperature: -40 ~ 70°C



Introduction

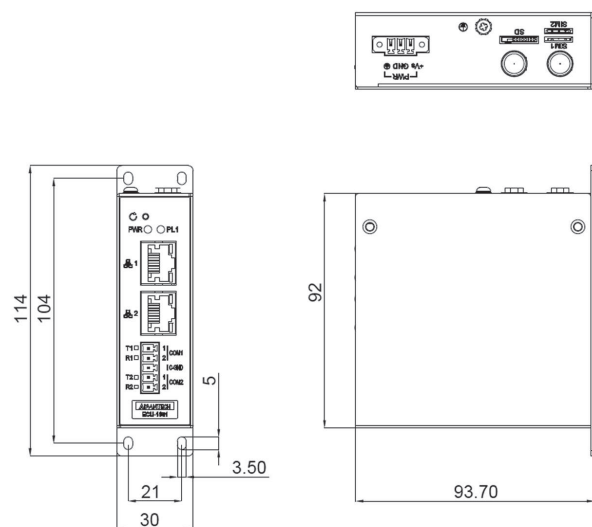
For facility monitoring, distributed solar power, smart factory sector, especially cloud based applications which require a total wireless and Ethernet communication solutions, Advantech has released the ECU-1051 RISC-based industrial communication gateway. ECU-1051 has an open platform design with Cortex A8 processor, two 10/100 Ethernet ports and operating temperature range of -40~70°C. With Linux operating system and EdgeLink IoT software, ECU-1051 enable system integrators to develop applications which precisely fit their need.

Specifications

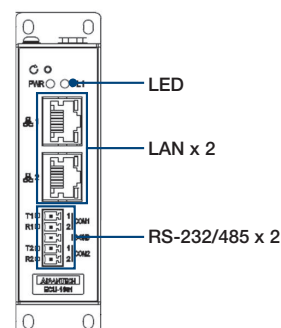
		ECU-1051TL-R10AAE	ECU-1051TL-R10AB	ECU-1051TL-R10ABU	ECU-1051E-R10AAE
System	CPU	TI Cortex A8, 600MHz			TI Cortex A8, 300MHz
	RAM	DDR3L 256MB			DDR3L 128MB
	Storage	512MB NAND			
	SD Slot	1 x Micro-SD			
	SIM Slot	2 x Nano SIM			1 x Nano SIM
	LED Indicators	Power, LAN (LINK, ACT), Programmable			
	Real Time Clock	Yes			
	Watchdog Timer	Yes			
I/O Interfaces	TPM	NA			
	Serial Ports	2 x RS-232/485 (isolation optional), 5-Pin Terminal Block, 50 ~ 115.2kbps		2 x RS-232/485 (isolation 3000V _{DC}) 5-Pin Terminal Block, 50 ~ 115.2kbps	2 x RS-232/485 (isolation optional) 5-Pin Terminal Block, 50 ~ 115.2kbps
	LAN Ports	2 x 10/100 Base-T Ethernet (RJ45)			
	USB Ports	NA	1 x USB 2.0		NA
	Displays	NA			
	Mini-PCIE	1x Mini-PCle (Full-size) for Wireless Module Signal: USB 2.0			
EdgeLink	Protocol Support	SouthBound	NorthBound		
		IEC 60870-5-101	Modbus Server		
		IEC 60870-5-103	IEC 60870-104 Server		
		IEC 60870-5-104	WASCADA (WebAccess)		
		DL/T 645-2007	BACnet Server		
		DL/T 645-1997	OPC UA Server		
		IEC 62056-21	Data Transfer		
		ODBC			
		JDBC			
		OPCUA Client			
		BACnet IP			
		BACnet MS/TP			
		SNMP			
		Modbus Client			
	PLC driver support	200+ PLC drivers ABB/Advantech/Allen-Bradley/BECKHOFF/ DELTA/FATEK/GE/Honeywell/Keyence/Mitsubishi/Omron/Panasonic/Schneider/Sharp/Siemens/Toyopuc/Wago 750/Yaskawa/Yokogawa			
	Programming Support	IEC-61131-3, Linux C, Python			
	Configuration Tool	EdgeLink Studio			
	Data Monitoring	2000 Tags MAX.			500 Tags MAX.
Cloud Connectivity(MQTT)	Edge365, WISE-PaaS, Azure, AWS, Google Cloud IoT Core and more				
Database Transmission	SQL Server, MySQL, ORACLE, FTP Server				
VPN	Open VPN				
General	Certification	CE, FCC, UKCA			
	Dimensions (W x D x H)	93.7 x 92 x 30mm			
	Form Factor	Small Size			
	Enclosure	SGCC			
	Mounting	Wall-Mount/DIN-Rail			
	Weight(Net)	0.6kg			
	Power Requirement	10 ~ 30 V _{DC}			
	Power Consumption	1.2W @ 24V _{DC}			
	Power Connector	1 x 3-Pin Terminal Block			
	Operating Temperature	-40~70°C			
Environment	Storage Temperature	-40~85°C			
	Relative Humidity	95% (non-condensing)			
	Ingress Protection	IP30			
	Vibration Protection	2Grms, Random/Sine, 5 ~ 500Hz			

Dimensions

Unit: mm

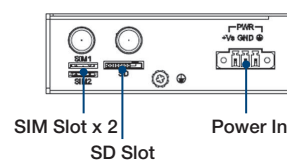


Front View

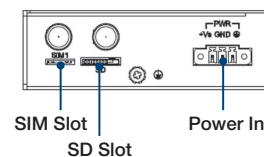


Top View

ECU-1051



ECU-1051E



Ordering Information

Part Number	CPU	RAM	NAND	OS	IoT Software	TPM 2.0	LAN	COM	USB	Console	Country of Origin
ECU-1051TL-R10AAE	TI Cortex A8, 600MHz	DDR3L 256MB	512MB	Yocto	EdgeLink	N/A	2	2	0	3pin COM on board	China
ECU-1051TL-R10AB									1		China
ECU-1051TL-R10ABU									1		Taiwan
ECU-1051E-R10AAE	TI Cortex A8, 300MHz								0		China

Optional Accessory

Cellular Module and Antenna

- 96PD-EC25EFA LTE Module Cat. 4, Mini-PCle for EU,TW,IN,KR,SEA
- 96PD-EC25JFA LTE Module Cat. 4, Mini-PCle for JP
- 96PD-EG25GGB LTE Module Cat. 4, Mini-PCle for Global
- 1750006264 SMA(F) Cable, 15 cm
- 1750005865 Dipole Antenna, 11 cm
- 96PD-MDG200AU0 AMIC 4G.Cat4 Socket Modem(US)
- 1750006264 SMA(F) Cable, 15 cm
- 1750008303-01 Antenna, 13cm

Wifi Module and Antenna

WIFI

- 96PD-RYUW131A1 Wi-Fi 4 2.4GHz mPCIe with Antenna and cable

WIFI+BT:

- EWM-W172H01E 802.11ac/a/b/g/n 2T2R Wi-fi + Bluetooth 4.2 Half
- 1750008717-01 Wi-Fi 2.4GHz+5GHz dipole antenna
- 1750006043 SMA(M) Coaxial Cable, 150 mm
- 9656EWMG00E Half-size miniPCIe to miniPCIe bracket set

Micro SD Card

- 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)

DIN-Rail Power Supply

- 96PSD-A20W24-MM A/D 100-240V 20W 24V Power Supply
- PSD-A40W24 DIN RAIL A/D 100-240V 40W 24V Power Supply

Adapters and Power Cables

- 96PSA-A60W24T2-3 AC100-240V to DC24V, 60W Adapter, C14 CORD END 2PIN
- 1702002600 Power cable (US) 1.8 M
- 1702002605 Power cable (EU) 1.8 M
- 1702031801 Power cable (UK) 1.8 M
- 1700000596 Power cable (China/Australia) 1.8 M