ECU-150

NXP i.MX8M Quad Core Cortex A53 **High-Performance IoT Gateway** with 2 x LAN. 2 x COM. 1 x USB



Features

- NXP i.MX8M Quad Core Cortex A53 1.3G CPU
- DDR4 2GB RAM, 16GB eMMC for system storage
- 2 x RS-232/485 isolated serial ports
- 2 x 10/100/1000 Ethernet ports
- 1 x Mini-PCle 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 Temperature -40~70°C



Introduction

ECU-150 is an i.MX8M based high-performance IoT gateway, which has an open platform design with Quad Core processor, two RS-232/485 isolated serial ports, two 10/100/1000 Ethernet ports, one USB 3.0 port and operating temperature range of -40-70°C. It offers Mini-PCle and M.2 slot for integrating Wi-Fi/4G/5G modules. With Linux operating system and EdgeLink configure tool, ECU-150 enable system integrators to develop applications precisely for solar power, electricity and factory, which require massive data collection, cloud based application and video related monitoring solutions.

Specifications

General

 Certification CE, FCC

Mounting Wall-Mount/ DIN-Rail Power consumption 8W @ 24V_{DC} **Power Requirements** $10 \sim 30 V_{DC}$

System

- CPU NXP i.MX8M Quad Core Cortex A53 1.3G

Memory LPDDR4 2GB Indicators LEDs for Power, LAN (LINK, ACT),

Serial (Tx, Rx), Programmable

16GB eMMC for OS

Storage SD Slot 1 x Micro-SD slot

1 x HDMI resolution 1280 x 720 (Optional) Dispaly

Watchdog

1 x Nano SIM slot SIM Slot

RTC

Security TPM2.0 (Optional) 128KB (Optional) FRAM

Communication

Serial Port 2 x RS-232/485, 50 ~ 115200 bps

2500 Vnc Isolation

2 x 10/100/1000 RJ-45 ports **Ethernet Port**

USB Port 1 x USB3.0

Interface: 1x Mini-PCle (Full-size) Expansion Type: WIFI/Cellular/4G

Software

 OS Support Yocto Kernel 4.14/Ubuntu 20.04 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,

Signal: USB 2.0/PCIe (Optional)

IEC-60870-5-104 Master & Slave

*Please refer to EdgeLink Protocol & Driver Support List for details

PLC driver support

Siemens/Mitsubishi/Omron/Allen-Bradley, Delta etc

200+ PLC drivers

Programming Support Configuration Tool **Data Monitoring**

IEC-61131-3, Linux C, Phython WISE-EdgeLink Studio 20000 Tags Max.

Environment

Operating Temperature -40~70°C Storage Temperature -40~85°C

Humidity 5~95% (non-condensing)

Ordering Information

ECU-150-12A i.MX8M Quad Core Industrial Communication Gateway with 2 x LAN, 2 x COM, 1 x USB

ECU-150P-M1A 2nd stack expansion module support 1 x M.2 ECU-150P-P2A 2nd stack expansion module support 2 x mPCIE ECU-150P-D1A 2nd stack expansion module support 1 x iDOOR

Wi-Fi Solution

EWM-W172H01E 802.11ac/a/b/g/n 2T2R Wi-fi + Bluetooth 4.2 Half

1750008717-01 WiFi 2.4GHz+5GHz dipole antenna Wi-Fi Coaxial Cable, 150 mm 1750006043

9656EWMG00E Half-size miniPCle to miniPCle bracket set

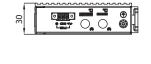
Cellular Solution (SIM card is not included)

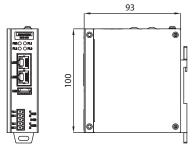
96PD-EC25EFA LTE Cat 4 Module with GNSS 1750006264 SMA(F) Cable, 15 cm Antenna AN0727-64SP6BSM 1750008303-01

96PD-MDG200AU0 AMIC 4G.Cat4 Socket Modem(US) 1750006264 SMA(F) Cable, 15 cm

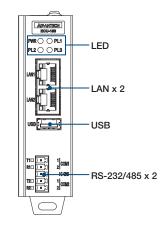
1750008303-01 Antenna AN0727-64SP6BSM

Dimensions

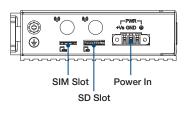




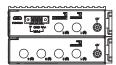
Front View

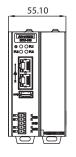


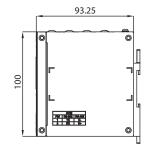
Top View

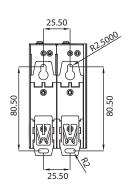


Dimensions with 2nd Stack









5G Module Supported

Manufacturer	Model
Quectel	RM500Q-GL
Quectel	RM502Q-AE (North America)
Unicom	CU-QM1
Fibocom	FM-150-AE
Gosuncn	GM800

iDoor Module Supported

PCM-24D2R2-BE Isolated RS-232, DB9 x 2, (USB type)
PCM-24D2R4-BE Isolated RS-422/485, DB9 x 2, (USB type)
PCM-24D4R4-BE Non-Isolated RS-422/485, DB37 x 1 (USB Type)
PCM-26D2CA-AE SJA1000 CANBus, CANOpen, DB9 x 2