

UC-8100-ME-T Series

Arm Cortex-A8 1 GHz IloT gateways with 1 Mini PCIe expansion slot for a wireless module



Features and Benefits

- Armv7 Cortex-A8 1000 MHz processor
- Dual auto-sensing 10/100 Mbps Ethernet ports
- SD slot for storage expansion
- Programmable LEDs and a programmable button for easy installation and maintenance
- Mini PCIe slot for cellular module
- Cybersecurity functions
- Debian 9 open platform

Certifications



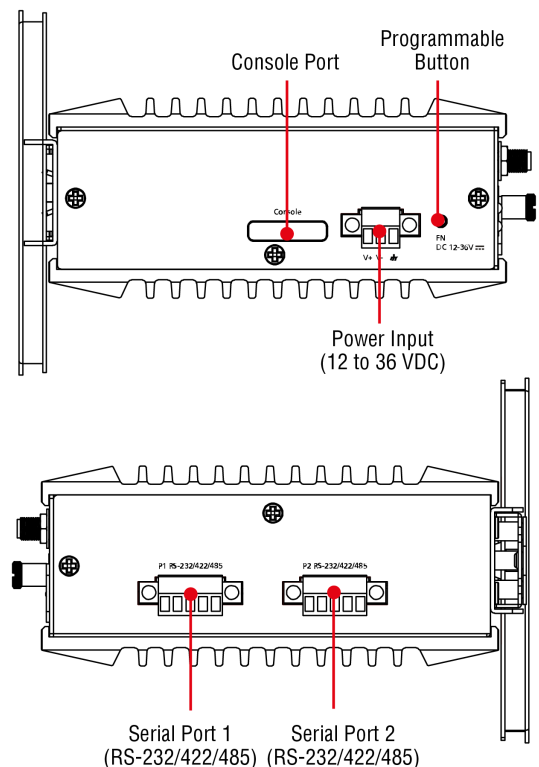
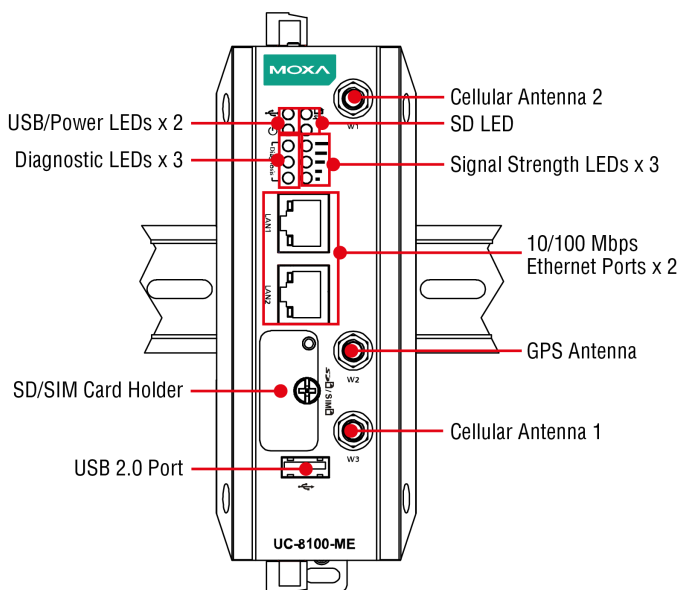
Introduction

The UC-8100-ME-T computing platform is designed for embedded data acquisition applications. The computer comes with dual RS- 232/422/485 serial ports and dual 10/100 Mbps Ethernet ports, as well as a Mini PCIe socket to support cellular modules. These versatile capabilities let users efficiently adapt the UC-8100-ME-T to a variety of complex communications solutions.

The UC-8100-ME-T is built around a Cortex-A8 processor that has been optimized for use in energy monitoring systems, but is widely applicable to a variety of industrial solutions. With flexible interfacing options, this tiny embedded computer is a reliable and secure gateway for data acquisition and processing at field sites as well as a useful communications platform for many other large-scale deployments.

Wide-temperature and LTE-enabled models are available. All units are thoroughly tested in a testing chamber, guaranteeing that the LTE-enabled computing platforms are suitable for wide-temperature applications.

Appearance



Specifications

Computer

CPU	Armv7 Cortex-A8 1 GHz
DRAM	UC-8112-ME-T-LX: 512 MB DDR3 UC-8112-ME-T-LX1: 1 GB DDR3
Storage Pre-installed	4 GB eMMC
Pre-installed OS	Linux Debian 9 (kernel v4.4)

Computer Interface

USB 2.0	USB 2.0 hosts x 1, type-A connectors
Expansion Slots	mPCIe slot x 1
Number of SIMs	1
SIM Format	Mini
Buttons	Reset button

Ethernet Interface

Ethernet Ports	Auto-sensing 10/100 Mbps ports (RJ45 connector) x 2
Magnetic Isolation Protection	1.5 kV (built-in)

LED Indicators

System	Power x 1 SD slots x 1 Programmable x 4
Wireless Signal Strength	Cellular/Wi-Fi x 3

Serial Interface

Serial Ports	2 x RS-232/422/485
Console Port	1 x 4-pin header to DB9 console port
Data Bits	5, 6, 7, 8
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

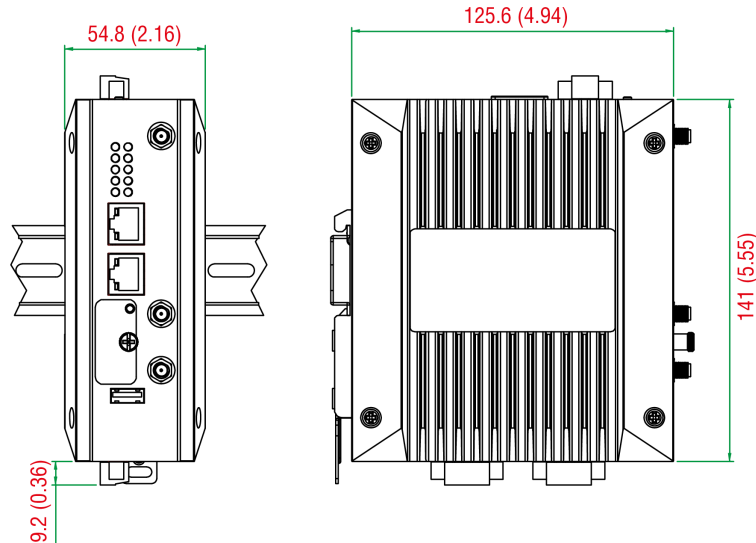
Power Parameters

Input Voltage	12 to 36 VDC
Input Current	500 mA @ 12 VAC
Power Consumption	6 W

Reliability	
Alert Tools	External RTC (real-time clock)
Automatic Reboot Trigger	External WDT (watchdog timer)
Physical Characteristics	
Housing	Metal
Dimensions	141 x 125.6 x 54.8 mm (5.55 x 4.94 x 2.15 in)
Weight	550 g (1.22 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	-40 to 85°C (-40 to 185°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Vibration	2 Grms @ IEC 60068-2-64, random wave, 5-500 Hz, 1 hr per axis (without USB devices attached)
Shock	IEC 60068-2-27
Standards and Certifications	
Safety	UL 60950-1
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Green Product	RoHS, CRoHS, WEEE
Hazardous Locations	Class I Division 2
MTBF	
Time	535,916 hrs
Standards	Telcordia (Bellcore) Standard
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x UC-8100-ME-T Series computer
Documentation	1 x quick installation guide 1 x warranty card
Installation Kit	1 x DIN-rail kit (preinstalled) 1 x power jack

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	CPU	RAM	Storage	US LTE Module Built-in	Operating Temp.
UC-8112-ME-T-LX	Armv7 Cortex-A8 1 GHz	512 MB	4 GB eMMC	–	-40 to 70°C
UC-8112-ME-T-LX1	Armv7 Cortex-A8 1 GHz	1 GB	4 GB eMMC	–	-40 to 85°C

Accessories (sold separately)

Cables

CBL-F9DPF1x4-BK-100	Console cable with 4-pin connector, 1 m
---------------------	---

Power Cords

PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
PWC-C7CN-2B-183	Power cord with three-prong China (CN) plug, 2.5A/250V, 1.83 m
PWC-C7EU-2B-183	Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m
PWC-C7UK-2B-183	Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m
PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 1.83 m

Antennas

ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 1 dBi
ANT-LTE-OSM-06-3m BK MIMO	700-2700/2400-2500/5150-5850 MHz, multi-band antenna, 3 m cable
ANT-LTE-ASM-05 BK	704-960/1710-2620 MHz, LTE stick antenna, 5 dBi
ANT-LTE-ASM-04 BK	704-960/1710-2620 MHz, LTE omni-directional stick antenna, 4.5 dBi
ANT-LTE-OSM-03-3m BK	700-2700 MHz, multi-band antenna, specifically designed for 2G, 3G, and 4G applications, 3 m cable

Wall-Mounting Kits

UC-8100-ME Wall Mount Kit	Wall-mounting kit with screws
---------------------------	-------------------------------

DIN-Rail Mounting Kits

DK-25-01	DIN-rail mounting kit, 2 screws
----------	---------------------------------

© Moxa Inc. All rights reserved. Updated Jan 06, 2021.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.