MXE-110i

Intel® Quark™ Processor-Based Industrial IoT Gateway

Features

- Intel® Quark™ SoC X1021
- Compact 120 mm (W) x 100 mm (D) x 50 mm (H)
- Industrial grade EMC, EN 61000-6-4/6-2
- Onboard memory and eMMC storage for maximum reliability
- Industrial I/O:
  - 2x USB 2.0, 2x 10/100 LAN
  - 2x mPCIe slots w/ 1x USIM socket
  - 2x COM ports (RS-232, RS-232/422/485)
  - 3x user-defined LED
- Built-in ADLINK SEMA management utility
- Full support for Intel® IoT Gateway Technology for the Industrial Internet of Things



Introduction

ADLINK's Matrix MXE-110i industrial IoT gateway supports Intel® Gateway Solutions for the Internet of Things (IoT), in an extremely compact housing with versatile RF connectivity and fanless rugged construction, all in a more cost-effective package than any of its predecessors. Based on the Intel® Quark™ SoC X1021, and integrating Wind River® Intelligent Device Platform XT 3.1, the new Matrix MXE-110i industrial IoT gateway delivers manageability and security critical to industrial IoT applications.

2x 10/100MbE, 2x COM, 2x USB 2.0 host, 2x mini PCIe slots and USIM socket supporting connections such as Wi-Fi, BT, LoRa, 3G, and 4G/LTE, the MXE-110i delivers widely versatile RF connectivity while dramatically conserving system power.
Factory-installed eMMC storage secures assets, and proven Matrix rugged construction assures operation in harsh environments under operating vibration up to 5Grms, shock tolerance up to 100 G and an extended operating temperature range of -20°C to 70°C, with optional industrial grade EMC, EN 61000-6-4/6-2.

The MXE-110i presents an intelligent and robust embedded system supporting wide application development and easy service deployment, delivering outstanding performance in industrial IoT applications like Smart City, Facility Management, and Industrial Automation applications.

Software Support

- **OS Information**
  Wind River® IDP XT 3.1

Ordering Information

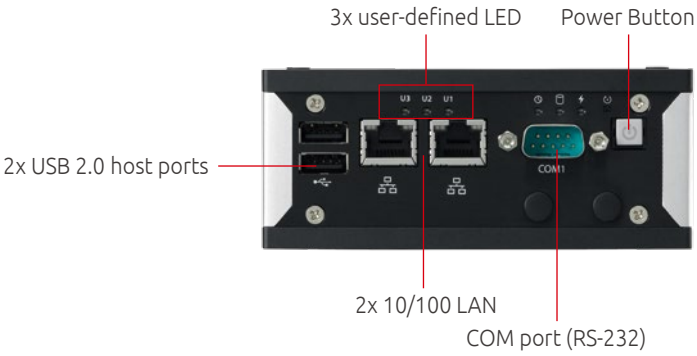
- **MXE-110i-M5ME4G-MI31**
  Intel® Quark™ SoC X1021, 512MB DDR3 800 memory, 4GB eMMC with preloaded Wind River IDP XT 3.1
- **MXE-110i-M1GE8G-MI31**
  Intel® Quark™ SoC X1021, 1GB DDR3 800 memory, 8GB eMMC with preloaded Wind River IDP XT 3.1

Optional Accessories

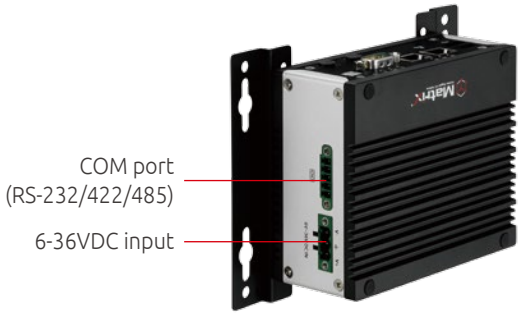
- **4/8/16/32 GB eMMC Option**
  Factory installed 4/8/16 GB MLC type industrial grade eMMC (-20°C t o 85°C) (-4˚F to 185˚F)
- **40 W AC Adapter**
  40 W industrial grade AC-DC adapter (-20°C to 70°C) (-4˚F to 158˚F)
- **Wireless Module Option**
  Wi-Fi/BT, 3G, LoRa, 4G/LTE mPCIe card w/ Antenna Kit
- **Extended Temperature Option***
  Optional screening service extends operating temperatures to -20°C to 70°C (-4˚F to 158˚F)

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Product Illustration



Front view of MXE-110i



Right side view of MXE-110i

Specifications

Model Name	MXE-110i
System Core	
Processor	Intel® Quark™ SoC X1021
Memory	DDR3 800 512MB (up to 1GB)
I/O Interface	
Ethernet	2x 10/100 LAN
Serial Ports	2x COM (1x RS232 + 1x RS232/422/485)**
USB	2x USB 2.0 host port
Expansion	
Mini PCIe	2x PCIe Mini Card slots
USIM	1x USIM slot
Manageability	
WDT	Watch Dog Timer support
SEMA	SEMA support with BMC
Power Supply	
DC Input	6-36VDC
AC Input	Optional 40 W AC-DC adapter
Storage Device	
eMMC	1x 4GB eMMC (up to 32GB)
Mechanical	
Dimensions	120 (W) x 100 (D) x 50 (H) mm (4.68" x 3.9" x 1.96")
Construction	Full aluminum alloy
Weight	650 g (1.43 lbs)
Mounting	DIN rail/Wall mount
Environmental	
Operating Temperature*	Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 70°C (-4°F to 158°F) w/ industrial grade eMMC
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	~95% @40°C (non-condensing)
Vibration	Operating 5 Grms, 5-500 Hz, 3 axes w/ SD
Shock	Operating 100 G, half sine 11 ms duration w/ SD
ESD	Contact +/-4KV, Air +/-8KV
EMC	CE & FCC Class A, EN 61000-6-4/6-2
Safety	UL by CB

*Extending operating temperature is optional and requires use of an industrial solid-state drive storage device
** RS-232 supports Tx, Rx, RTS, CTS only.



MXE-110i with Antenna



The MXE-110i is easily installed in popular mounting configurations, including DIN rail and wall mounting.

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