

MXE-200/200i Series

Intel® Atom™ Processor-Based Ultra Compact Embedded Platform



Introduction

ADLINK's new Matrix MXE-200/200i ultra-compact embedded platform, based on the Intel® Atom™ SoC processor E3845/E3826, delivers the most reliable I/O design for maximum connectivity, housing full aluminum alloy enclosure with industry-class construction make it the best embedded system of choice for industrial automation and applications demanding reliability in harsh environment. Combined with ADLINK's embedded SEMA Cloud solution, MXE-200/200i delivers the manageability and robustness required by mission critical operations. In addition, MXE-200i fully support Intel® IoT Gateway, integrated Wind River® Intelligent Device Platform XT, and McAfee Embedded Control all together guarantee the essential cornerstone manageability and security critical to IoT-ready platforms.

With its two GbE LAN, two COM, two USB 2.0 and one USB 3.0 host ports, optional four isolated DI and four isolated DO w/ interrupt support, dual mini PCIe slots with one mSATA support and USIM socket support communication with connections such as WiFi, BT, 3G, and LTE, the MXE-200/200i enables seamless interconnection, ensuring interoperability between systems. Matrix's proven rugged construction assures operation in harsh environments with operating shock tolerance up to 100 G and an extended operating temperature range up to -20°C to 70°C option.

Implementation of ADLINK's proprietary SEMA Cloud tool, the MXE-200/200i maximizes manageability and security for a world of applications, delivering efficient remote monitoring of system activity and health in real time, system control over a robust secured channel, and complete, fully manageable utilization of system resources.

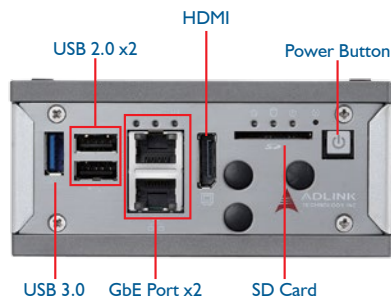
All told, the MXE-200/200i presents an intelligent, robust embedded system supporting wide application development and easy service deployment, presenting outstanding performance in Intelligent Transportation, Facility Management, Industrial Automation and Internet of Things (IoT).

Features

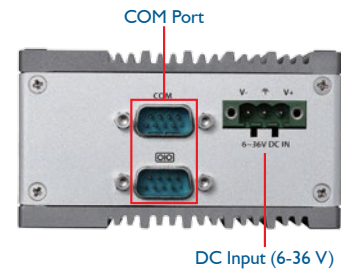
- Intel® Atom™ SoC processor E3845/E3826
- Extremely compact: 120 (W) x 100 (D) x 55 (H) mm
- Rich I/O:
 - 1x HDMI, 2x USB 2.0 + 1x USB 3.0, 2x GbE ports, optional 4 isolated DI/O
 - 2x mPCIe slots (one supporting mSATA), 1x USIM socket, 1x SDIO
- Optional DIN-Rail / Wall mounting
- Built-in ADLINK SEMA Cloud solution
- Full support Intel® IoT Gateway

Applications

- Industrial Automation
- Machine Automation
- In-Vehicle/Transportation
- Machine to Machine Communication
- Facility/Residential Security & Automation
- Internet of Things / Machine to Machine Gateway



■ Front view of MXE-200/200i



■ Right side view of MXE-200/200i

Software Support

OS Information

- Windows Embedded 7 Standard
- Wind River® IDP XT (MXE-200i only)



■ MXE-200/200i with Antenna

- The MXE-200/200i is easily installed in popular mounting configurations, including DIN rail and wall mounting.



Specifications

Model Name	MXE-201	MXE-202	MXE-202i
System Core			
■ Processor	Intel® Atom™ E3845 Quad Core Processor	Intel® Atom™ E3826 Dual Core Processor	
■ Video	1x HDMI		
■ Memory	DDR3L 1066 2 GB (Memory Down)		
I/O Interface			
■ Ethernet	2x GbE LAN (Intel® I210-IT)		
■ Serial Ports	2x COM (1x RS-232 + 1x RS-232/422/485**)		
■ USB	2x USB 2.0 host port + 1x USB 3.0		
■ DIO	Optional 4x Isolated DI + 4x Isolated DO		
Expansions			
■ Mini PCIe	2x PCIe Mini Card Slots		
■ USIM	1x USIM Slot		
Manageability			
■ WDT	Watchdog Timer Support		
■ SEMA	SEMA support with BMC		
Power Supply			
■ DC Input	6-36 V _{DC}		
■ AC Input	Optional 40 W AC-DC adapter		
Storage Device			
■ mSATA	1x mSATA (same slot with mPCIe)		
■ SD	1x SD card slot (up to 16 GB)		
■ OS Preload	-	-	Wind River® IDP XT 2.0***
Mechanical			
■ Dimensions	120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17")		
■ Construction	Full Aluminum Alloy		
■ Weight	650 g (1.43 lbs)		
■ Mounting	DIN-Rail / Wall mounting		
Environmental			
■ Operating Temperature*	Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 60°C (-4°F to 140°F) (w/industrial SD/mSATA)	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 SD/mSATA)	
■ 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/mSATA		
■ ESD	Contact +/-4 KV, Air +/-8 KV		
■ Shock	Operating 100 G, half sine 11 ms duration w/ SD/mSATA		
■ EMC	CE & FCC Class A (EN61000-6-4/EN61000-6-2)		
■ Safety	UL by CB		

*Extending the operating temperature is optional and requires use of an industrial solid-state drive storage device

** RS-232 supports Tx, Rx,CTS, and RTS signal only

*** Wind River® IDP XT 2.0 is pre-loaded in to 8/16G mSATA

Ordering Information

Model Name	Description	OS Preload	Storage	Memory	DIO	Expansion
MXE-201	Quad-Core Intel® Atom™ Processor E3845 Ultra Compact Embedded Platform	-	SD card / mSATA	DDR3L 1066 2 GB	Optional isolated 4 DI + 4 DO	2x mPCIe + 1x USIM
MXE-202	Duo-Core Intel® Atom™ Processor E3826 Ultra Compact Embedded Platform	-	SD card / mSATA	DDR3L 1066 2 GB	Optional isolated 4 DI + 4 DO	2x mPCIe + 1x USIM
MXE-202i	Duo-Core Intel® Atom™ Processor E3826 Embedded IoT Gateway Platform	Wind River® IDP XT 2.0	SD card / mSATA	DDR3L 1066 2 GB	Optional isolated 4 DI + 4 DO	2x mPCIe + 1x USIM

Optional Accessories

8/16 GB SD Option	Factory installed 8/16 GB MLC type industrial grade SD (-40°C to 85°C) (-40°F to 185°F)
32/64 GB mSATA SSD Option	Factory installed 32/64 GB MLC type industrial grade mSATA (-40°C to 85°C) (-40°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	WiFi/BT/3G wireless modules
Extended Temperature Option*	Optional screening service extends operating temperatures of the MXE-201 to -20°C to 60°C (-4°F to 140°F) and MXE-202/202i to -20°C to 70°C (-4°F to 158°F)