

MXC-2300 Series

Intel® Atom™ Quad-Core Processor-based Fanless Expandable Embedded Computer with PCI/PCIe Slots

Features

- Intel® Atom™ E3845 processor with 4 core @1.91 GHz SoC
- 2x DDR3L SO-DIMM, supporting up to 8 GB memory
- 2 PCI + 1 PCIe x4 or 3 PCI expansion slots
- Built-in dual-port isolated CAN and 16-CH isolated DI and DO
- 1 DisplayPort + 1 DVI-I
- 2 Intel GbE ports with teaming function, 1 USB 3.0 + 4 USB 2.0 ports
- 1 external CF slot and 1 internal PCIe Mini Card socket with USIM socket
- 2 software-programmable RS-232/422/485 + 2 RS-232 ports
- Built-in 9 to 32 VDC wide-range DC power input
- Rugged, -20°C to 70°C Fanless operation (w/ industrial SSD)
- Built-in ADLINK SEMA 2.2 (Smart Embedded Management Agent)

Introduction

Featuring the latest Intel® Atom™ E3845 processor (Formerly Bay Trail), the Matrix MXC-2300 series excels with minimal power consumption, exceptional 3D graphics, and powerful media acceleration, delivering a leading improvement in performance and cost-efficiency over any previous generation Atom-based system.

Features include dual-port CAN connectivity supported by a Philips SJA1000 controller that can run independently or bridged at the same time, bus arbitration and error detection with auto correction and mission capability, and 16-CH isolated DI/O for general industrial control.

An increased total 3PCI/PCIe expansion slot count allows installation of a variety of off-the-shelf PCI/PCIe cards for configurable applications, and an internal PCI Express Mini Card socket and USIM slot support extension of additional functions, such as wireless connection.

In addition, the MXC-2300 series offers one DisplayPort and one DVI-I port for dual independent display with full HD, four USB 2.0 and one USB 3.0 ports, and 2 GbE LAN ports with teaming function. With ADLINK's proprietary SEMA (Smart Embedded Management Agent) tool, the MXC-2300 maximizes manageability and security for a world of applications. Provide efficient remote monitoring of system activity and health in real time, system control over a robust secured channel, and fully manageable complete utilization of system resources.

With its ruggedized architecture, flexibility, and rich I/O capacity, the MXC-2300's minimal power consumption, abundant features, and leading performance and cost-efficiency make it the embedded system of choice for industrial automation, facility management, and intelligent transportation systems and applications demanding reliability in harsh environments.



Software Support

- Windows® 8/Windows® 8 Embedded
- Windows® 7/Windows® 7 Embedded
- Linux* Fedora 18

Applications

- Machine Automation/Factory Automation
- Maritime Automation
- Intelligent Transportation System/ Surveillance
- Test Instrumentation

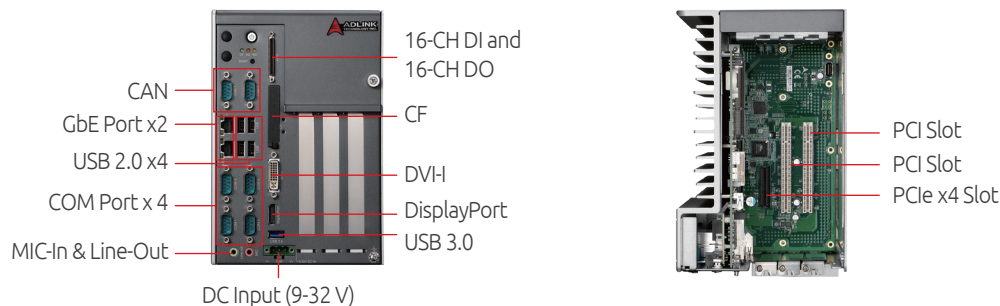
Ordering Information

- **MXC-2300CD-3E1**
Intel® Atom™ E3845 Fanless computer
- **MXC-2300CD-3S**
Intel® Atom™ E3845 Fanless computer
- **MXC-2300-3E1**
Intel® Atom™ E3845 Fanless computer
- **MXC-2300-3S**
Intel® Atom™ E3845 Fanless computer

Optional Accessories

- **MXC-2300 Optional Fan Module**
Fan module for MXC-2300 series
- **500 GB HDD Option**
Factory-installed 500 GB SATA hard disk drive (0°C to 50°C, 32°F to 122°F)
- **32/64 GB SSD Option**
Factory-installed 32/64 GB MLC SATA solid-state drive (0°C to 70°C, 32°F to 158°F)
- **32G CF**
Factory-installed 32 GB industrial Compact Flash (-40°C to 85°C, -40°F to 185°F)
- **100 W AC-DC Adapter**
100 W industrial grade AC-DC adapter (-20°C to 70°C, -4°F to 158°F)
- **90 W AC-DC Adapter**
90 W commercial grade AC-DC adapter (0°C to 50°C, 32°F to 122°F)
- **Extended Temperature Option***
Optional screening service to extend the operating temperature to -20°C to 70°C (-4°F to 158°F)

Product Illustration



Specifications

Model Name	MXC-2300CD-3E1	MXC-2300CD-3S	MXC-2300-3E1	MXC-2300-3S
System Core				
Processor	Intel® Atom™ Processor E3845 Processor, 1.91 GHz, 4 cores; 542/792 MHz graphics frequency (Base/Turbo)			
Chipset	Intel SoC (System on Chip)			
Video	DisplayPort: resolution up to 2560x1600 VGA: resolution up to 2560x1600 DVI: resolution up to 1920x1200			
Memory	4GB DDR3L 1333 MHz SODIMM module, (up to 8 GB with 2 SODIMM sockets)			
I/O Interface				
Expansion slots	2 PCI+1 PCIe x4	3 PCI	2 PCI+1 PCIe x4	3 PCI
Ethernet	2 Intel® GbE ports (Intel® Springville WGI210IT chipset) Teaming function, Wake On LAN			
Serial Ports	2 software-programmable RS-232/422/485 (COM 1&2) with auto-flow control, 2 RS-232 (COM 3&4)			
USB	5 external USB ports (4 USB 2.0 + 1 USB 3.0) + 1 internal USB 2.0			
CAN	2 DB9 isolated CAN port with SJA1000 CAN controller		-	
DIO	16-CH DI and 16-CH DO with 1.5KV isolation		-	
Mini PCIe	1 internal mini PCIe card socket		-	
USIM	1 USIM socket for 3G communication		-	
Audio	1 MIC-in and 1 Line-out			
Manageability				
WDT	Hierarchical WDT supported			
SEMA	SEMA 2.2 (Smart Embedded Management Agent)			
Power Supply				
DC Input	Built-in 9-32 VDC wide-range DC input pluggable connectors with latch (GND, V-, V+), 2-pin remote power on/off switch			
AC Input	Optional 100 W external AC-DC adapter for AC input			
Storage Device				
SATA HDD	1x onboard SATA-II port for 2.5" HDD/SSD installation			
CompactFlash	1 Type II CF socket CompactFlash socket			
Mechanical				
Optional Fan Module	Optional fan module for heat dissipation, smart fan control			
Dimensions	142 (W) x219 (D) x210(H) mm (WxDxH) (5.84" x 8.76" x 8.4)			
Weight	3.5 kg (7.73 lbs)			
Mounting	Wall-mount kit			
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 SSD or CF)			
Storage Temperature	-40°C to 85°C (-40°F to 185°F) (excl. HDD/SDD/CF)			
Humidity	~95% @ 40°C (104°F) (non-condensing)			
Vibration	Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CF or SSD) Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ HDD)			
ESD	Contact +/-4 KV and Air +/-8 KV			
Shock	Operating, 50 G, half sine 11 ms duration (w/ CF or SSD)			
EMC	CE and FCC Class A			
Safety	UL/cUL, CB			