Matrix MXC-2000 Series

Intel® Atom™ Fanless Configurable Controller with PCI/PCIe Slots

NEW

Introduction

ADLINK's MXC-2000 series is an exceptionally rugged controller with configurable PCI and PCIe slots. It is designed to provide a reliable platform for a wide variety of applications by accepting standard PCI and PCIe cards. The Matrix MXC-2000 series can operate in a -20 to 70°C temperature range and withstands 5 Grms vibration. Its fanless and cable-less structure provides additional durability for long-term usage.

The Matrix MXC-2000 series features the Intel® Atom™ N270 1.6 GHz processor to deliver adequate performance at low power. Its PCI and PCIe slots enable the possibility of integrating off-the-shelf PCI/PCIe cards for a configurable application platform. Generic I/O interfaces, such as Gigabit Ethernet, COM, and USB are provided for connecting devices, while VGA+S-Video dual graphic outputs to allow connections to larger displays such as an LCD TV. The Matrix MXC-2000 series also integrates ADLINK in-house DIO design to deliver optional isolated DIO channels for industrial control usage.
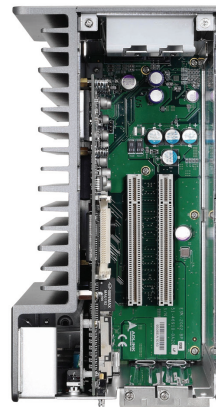
ADLINK's Matrix MXC-2000 series is the perfect combination of configurability, reliability, durability, and compactness. With the MXC-2000 series, creating your rugged application system has never been easier.

Features

- Intel® Atom™ N270 1.6 GHz processor + 945GSE chipset
- Configurable, providing both PCI and PCIe slot options
- Rugged, -20°C to 70°C fanless operation
- Built-in 9 V$_{DC}$ to 32 V$_{DC}$ wide-range DC power input
- Dual 1000/100/10 Mbps Ethernet ports
- Two RS-232 ports and two RS-232/422/485 ports
- Two CF sockets for HDD replacement and hot-swappable data storage
- VGA + S-Video independent dual display outputs
- Optional on-board 16-CH isolated DI and 16-CH isolated DO

Applications

- Industrial Automation
- Factory Control
- Test Instrumentation
- Security Surveillance
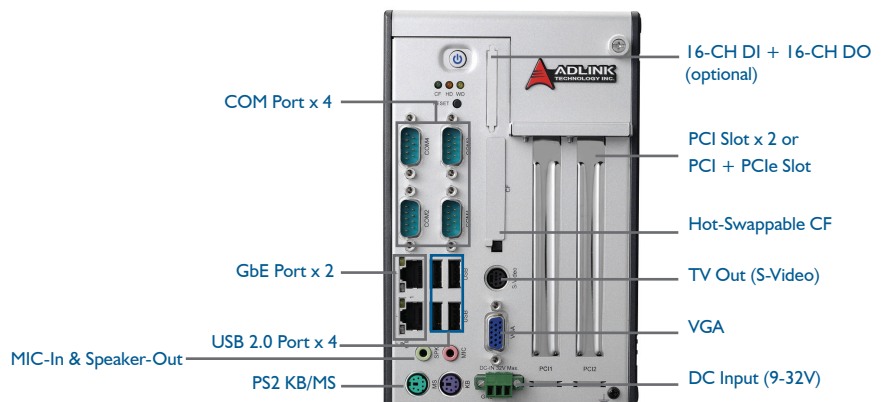- Data Acquisition System
- Building Automation

Cable-free! Trouble-free!

Inside MXC-2000 Series

Easy Installation for HDD and PCI/PCIe Cards

COM Port x 4

GbE Port x 2

USB 2.0 Port x 4

MIC-In & Speaker-Out

PS2 KB/MS

16-CH DI + 16-CH DO (optional)

PCI Slot x 2 or PCI + PCIe Slot

Hot-Swappable CF

TV Out (S-Video)

VGA

DC Input (9-32V)

MXC-2000 Series Front Panel

Specifications

Model Name	MXC-2002	MXC-2011
System Core		
■ Processor		Intel®Atom™ N270 1.6 GHz CPU
■ Chipset	Intel® 945GSE Graphic Memory Control Hub Intel® I/O Controller Hub 7 Mobile (ICH7-M)	
■ Video	Analog CRT, Supports QXGA (2048 x 1536) Resolution TV-out, Supports S-Video and Composite Outputs	
■ Memory	1 GB DDR2 533 MHz SODIMM module	
I/O Interface		
■ Expansion Slots	Two PCI slots	One PCI slot and one x1 PCIe slot
■ Ethernet	2x GbE Ports (Realtek® 8111C)	
■ Serial Port	2x RS-232/422/485 (jumper selectable, COM1 & COM2) 2x RS-232 (COM3 & COM4)	
■ USB	4x USB 2.0 Ports	
■ Audio	1x Mic-in and 1x Speaker-out	
■ KB/MS	1x PS/2 Keyboard and 1x PS/2 Mouse	
■ DIO	Optional 16-CH isolated DI + 16-CH isolated DO	
Power Supply		
■ DC Input	Built-in 9-32 V DC Input with Over-voltage Protection 3P Pluggable Connector with Latch (GND, V-, V+)	
■ AC Input	Optional 60W external AC-DC adapter for AC input	
Storage Device		
■ SATA HDD	On-board SATA Port for 2.5" HDD/SSD Installation	
■ CompactFlash	2x Type II CF Sockets, Supporting PIO and DMA Modes CF1 (internal) for HDD Replacement CF2 (external) Supports Hot-swapping	
Mechanical		
■ Dimensions	118 mm (W) x 219 mm (D) x 183 mm (H)	
■ Weight	2.8 kg (6.16 lbs)	
■ Mounting	Wall-mount Kit	
Environmental		
■ Operating Temperature	Standard: -10°C to 60°C Extended option: -20°C to 70°C	
■ Storage Temperature	-40°C to 85°C (excluding HDD/SSD/CF)	
■ Humidity	~95% @ 40°C (non-condensing)	
■ Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/CF or SSD) Operating, 0.7 Grms, 5-500 Hz, 3 Axes (w/HDD)	
■ Shock	Operating, 50 Grms, Half-sine 11 ms duration (w/CF or SSD)	

Ordering Information

Model Name	Description	PCI	x1 PCIe	GbE	COM	USB	Memory	DIO
MXC-2002	Intel® Atom™ N270 fanless configurable controller	2	0	2	4	4	1 GB DDR2	
MXC-2002D	Intel® Atom™ N270 fanless configurable controller	2	0	2	4	4	1 GB DDR2	16 DI+16 DO
MXC-2011	Intel® Atom™ N270 fanless configurable controller	1	1	2	4	4	1 GB DDR2	
MXC-2011D	Intel® Atom™ N270 fanless configurable controller	1	1	2	4	4	1 GB DDR2	16 DI+16 DO

Optional Accessories

2 GB DDR2 Upgrade	Upgrade to 2 GB DDR2 Memory
160 GB HDD Option	Factory-installation of 160 GB SATA Hard Disk Drive (0-50°C)
32 GB SSD Option	Factory-installation of 32 GB SATA Solid State Disk (0-70°C)
8 GB Industrial SSD Option	Factory-installation of 8 GB Industrial-grade SATA Solid State Disk (-40 to 85°C)
60 W AC Adapter	60 W Industrial-grade AC adapter (-20 to 70°C)
Extended Temperature Option*	Extend the operating temperature of the MXC-2000 series to -20 to 70°C