

Matrix MXC-2000 Series

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



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.

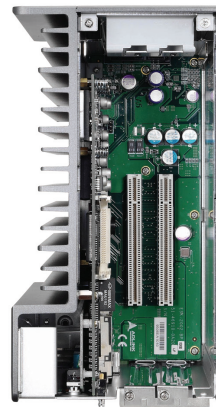
ADLINK's Matrix MXC-2000 series is the perfect combination of configurability, reliability, durability, and compactness. With the MXC-2000 series, creating your rugged application system has never been easier.

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 Vdc to 32 Vdc 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

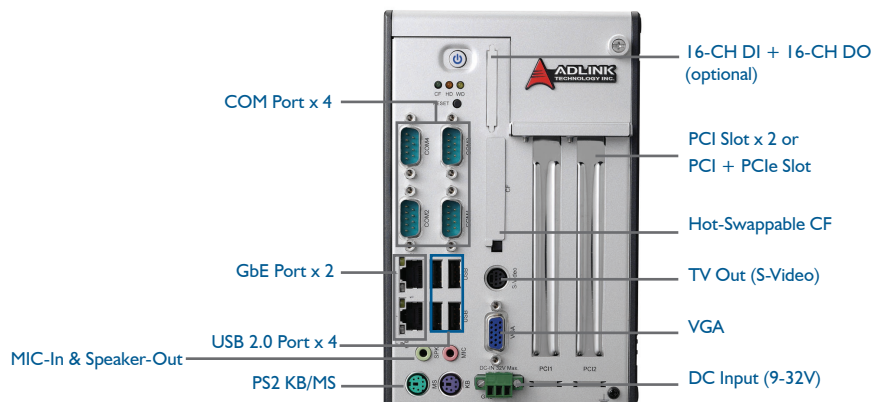


**Cable-free!
Trouble-free!**

Inside MXC-2000 Series



Easy Installation for HDD and PCI/PCIe Cards



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 |

*This option guarantees cold boot of the system at -20°C and operation with 100% loading at 70°C