

Matrix MXC-6000 Series

Powerful Intel® Core i7 Fanless Expandable Embedded Computer with PCI/PCIe Slots



Coming Soon!

Introduction

The Matrix MXC-6000 series is a powerful fanless, expandable embedded computer using the new Intel® Core i7 2.0 GHz processor to offer greater computing performance for your applications. The MXC-6000 inherits its exceptional fanless and cable-less design from existing Matrix C series.

The MXC-6000 series features an Intel® Core i7 2.0 GHz processor and Intel® QM57 to boost its performance, making it ideal for image and vision measurement and automation applications. Its PCI and PCIe slots provide the possibility to integrate off-the-shelf PCI/PCIe cards and develop a configurable application platform. The built-in 16 isolated DIO channels are provided for general industrial control. Its DVI-I connector output on the front panel allows direct connection to a LCD panel. The MXC-6000 series also provides one eSATA port to enable the capability of either expanding storage capacity or using hot-swappable SATA drives.

Leveraging a reliable fanless and durable cable-less design, the MXC-6000 series exhibits excellent dependability in harsh environments, where severe temperature variation and vibration may exist. The MXC-6000 series provides an optional hot-pluggable fan module to dissipate heat generated within the system when high power consumption PCI/PCIe cards are installed. This inventive mechanical design retains a cable-less structure which dramatically improves thermal stability when PCI/PCIe cards are installed.

The MXC-6000 also provides an USB 2.0 port internally on riser card. This function provides more reliable usage in security applications where license keys or password encryption through an internal USB dongle dramatically improves the security of the Matrix I/O controller.

Combining a reliable design with more computing power and innovative features, the Matrix MXC-6000 series is the optimal choice to base your rugged application system on.

*Extending the operating temperature to -10°C to +60°C is optional and requires use of an industrial solid-state drive storage device. Heat dissipation from inserted PCI/PCIe cards may affect thermal performance.

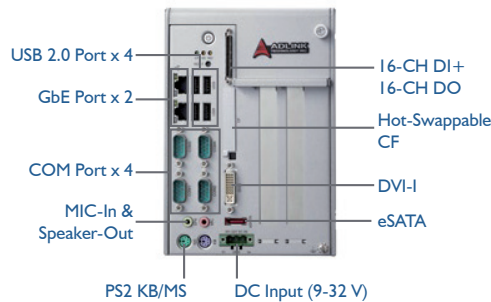
Features

- Intel® Core i7-620LE 2.0 GHz processor + Intel® QM57 chipset
- Configurable, providing PCI and PCIe x4 slots
- Rugged, -10°C to 60°C fanless operation*
- Built-in 9 Vdc to 32 Vdc wide-range DC power input
- VGA+DVI-D display by DVI-I connector
- Dual 1000/100/10 Mbps Ethernet ports
- Two RS-232 ports and two software-selectable RS-232/422/485 ports
- USB 2.0 port internally on riser card
- Built-in 16-CH isolated DI and 16-CH isolated DO

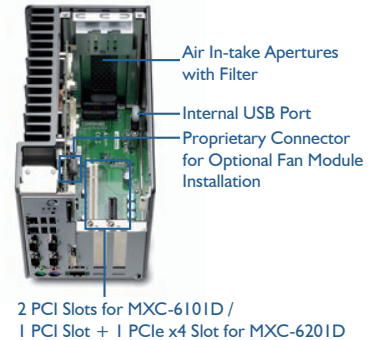
Applications

- Machine Automation
- Image & Vision Measurement
- Factory Control
- Test Instrumentation
- Safety Surveillance
- Networking Security

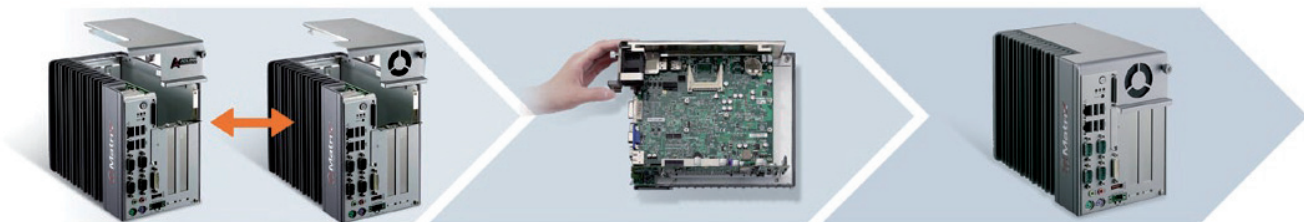
■ MXC-6000 Series Front Panel



■ Inside of the MXC-6000 Series



■ An Ingenious Design of Easy-to-install and Hot-pluggable Fan Module



1. Open the top cover of MXC-6000
2. Insert the optional fan module by gently sliding it into the fan connector
3. Replace the cover

■ A More Reliable Design of Internal USB Port



Use USB license keys or password encryption dongle through Matrix internal USB 2.0 port to improve the security applications.

Specifications

| Model Name | MXC-6101D | MXC-6201D |
|--------------------------|---|-------------------------------|
| System Core | | |
| ■ Processor | Intel® Core i7-620LE 2.0 GHz CPU | |
| ■ Chipset | Intel® QM57 | |
| ■ Video | VGA+DVI-D display by DVI-I connector • Analog CRT, supports QXGA (2048 x 1536) resolution • DVI-I 1.0 (DVI-D + VGA) (with external cable for connecting DVI-I connector to DVI-D and VGA device) • Optional 48-bit LVDS (by Internal box header) | |
| ■ Memory | 2 GB DDR3 800/1066 MHz SODIMM module | |
| I/O Interface | | |
| ■ Expansion Slots | 2 PCI slots | 1 PCI slot and 1 PCIe x4 slot |
| ■ Ethernet | 2 GbE ports (2 Intel® 82574L) | |
| ■ Serial Ports | 2 software-programmable RS-232/422/485 (COM1 & COM2) 2 RS-232 (COM3 & COM4) | |
| ■ USB | 4 USB 2.0 ports (external), 1 USB 2.0 port (internal) | |
| ■ Audio | 1 mic-in and 1 speaker-out | |
| ■ KB/MS | 1 PS/2 keyboard and 1 PS/2 mouse | |
| ■ DIO | 16-CH isolated DI + 16-CH isolated DO | |
| Power Supply | | |
| ■ DC Input | AT/ATX, built-in 9-32 Vdc wide-range DC power input 3P pluggable connector with latch (GND, V-, V+) | |
| ■ AC Input | Optional 100 W external AC-DC adapter for AC input | |
| Storage Device | | |
| ■ SATA HDD | Two On-board SATA ports for 2.5" HDD/SSD installation | |
| ■ CompactFlash | 1 external type II CompactFlash socket 1 internal type II CompactFlash socket | |
| ■ eSATA | 1 eSATA interface connector for external storage expansion | |
| Mechanical | | |
| ■ Optional Fan Module | Optional hot-pluggable fan module for dissipating heat generated by PCI/PCIe card | |
| ■ Dimensions | 130 mm (W) x 225 mm (D) x 183 mm (H) (5.1" x 8.9" x 7.2") | |
| ■ Weight | 3.5 kg (7.72 lbs) | |
| ■ Mounting | Wall-mount kit | |
| Environmental | | |
| ■ Operating Temperature* | Standard: 0°C to 50°C (w/HDD) Extended option: -10°C to 60°C (w/industrial SSD) | |
| ■ Storage Temperature | -40°C to 85°C (excl. HDD/SSD/CF) | |
| ■ Humidity | ~95% @ 40°C (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) | |
| ■ Shock | Operating, 50 Grms, Half sine 11 ms duration (w/ CF or SSD) | |
| ■ EMC | CE and FCC | |

*Without PCI/PCIe card installation.

Ordering Information

| Model Name | Description | PCI | x4 PCIe | GbE | eSATA | COM | USB | Memory | DIO |
|------------------------------|---|--|---------|-----|-------|-----|-----|-----------|--------------|
| MXC-6101D | Intel® Core i7-620LE 2.0 GHz fanless expandable embedded computer | 2 | 0 | 2 | 1 | 4 | 5 | 2 GB DDR3 | 16 DI+ 16 DO |
| MXC-6201D | Intel® Core i7-620LE 2.0 GHz fanless expandable embedded computer | 1 | 1 | 2 | 1 | 4 | 5 | 2 GB DDR3 | 16 DI+ 16 DO |
| MXC-6000 Optional Fan Module | | Hot-pluggable fan module for the MXC-6000 series | | | | | | | |