



Features

- Eight 6U CompactPCI™ slots
- Easy installation, rackmount or panelmount
- Device bay accommodates up to four devices, secured by a lockable door
- Hot-swap compliant backplane
- Hot-swap fan tray module
- Optional fault detection and alarm notification

Introduction

The MIC-3021/8 is a 7U-size enclosure with eight CompactPCI™ slots for rack or panel mounting. It has eight slots for standard 6U-size cards, and space reserved to accommodate peripherals such as an alarm module, hard disk drives, floppy disk drives, CD/DVD ROM drives, and power supplies. With its flexible modular design, various configurations can be made according to particular application requirements.

Hot-swap Passive Backplane

The 6U-sized 8-slot backplane of the MIC-3021/8 supports 32-bit or 64-bit (optional) operation. The backplane complies with PICMG 2.1 Hot-swap Specification. Users can build hot-swap systems with hot-swappable CompactPCI™ boards and software.

Two IDE and one floppy interface connectors are on the rear side of the backplane. The P3 connector on the system slot provides the necessary signals to the IDE and floppy connectors while Advantech's 6U-sized CPU boards are used. Users can easily connect IDE devices and floppy drives to the backplane, and the CPU board is free to be inserted and removed.

Hot-swap Fan Tray Module

A 1U-high fan module provides forced cooling air into the system. Two 86-CFM high-speed fans are mounted in a hot-swap tray directly underneath the card slots. The fan's tachometer output enables the alarm module to monitor the speed of the fans. A protective circuit has been designed into the fan backplane to reduce spikes and noise during hot-swapping. This design allows users to replace new fans safely without turning the system off.

Device Bay with Door Protection

The device bay accommodates up to three 5.25" or 3.5" devices and one 3.5" hard disk drive. Standard HDDs and FDDs can be installed, so there is no need for expensive special devices. The front-access

device bay circumvents the need to disassemble the chassis during device replacement, yielding the shortest MTTR for maintenance.

System Fault Detection and Alarm Notification (optional)

The MIC-3921 (optional intelligent alarm module) can be installed in the top space of the device bay to monitor and report internal conditions. The system's status (including temperature, power voltage levels and fan speed) can be easily checked from its LCD message display. The serial port connector and relay terminals are located on the back of the enclosure for easy access. Three relays can be activated by different alarm levels. The alarm module's serial port can communicate via a remote host for real time monitoring, module configuration and alarm reporting.



Alarm output on the rear side



Specifications

- **Construction:** Aluminum frame and galvanized sheet steel
- **Device bay:** Accommodates up to three 5.25"/3.5" devices and one 3.5" HDD. Front removable
- 12-slot space (48 TE), 8 CompactPCI™ slots, including one system slot and seven peripheral slots
- 32-bit CompactPCI bus (64-bit available upon request)
- "Hot swap" platform complies with PICMG 2.1 R 1.0 Hot Swap Specification
- **Dimensions (W x H x D, mounting flanges not included):** 440 x 311 x 240 mm (17.3" x 12.25" x 10")
- **Weight:** 12 kg (26.5 lb)
- **Operating temperature:** 0 ~ 50° C (32 ~ 122° F)
- **Relative humidity:** 10 ~ 95% @ 40° C, non-condensing
- **Shock:** 10 G (operating); 30 G (storage/transit)
- **Random vibration:** 1.0 Grms

Backplane

- 8 CompactPCI™ slots (one system slot and 7 peripheral slots)
- **Bus width:** 32-bit (64-bit upon request)
- 8-layer PCB, 3.0 mm thick
- Separate power and ground planes
- Two ATX power connectors for connecting standard ATX power supplies
- 20-pin connector for MIC-3920/MIC-3921 alarm board signals
- Two IDE and one FDD connectors (routed to P3 connector, supporting Advantech's 6U CPU board)
- Complies with PICMG 2.0, Ver. 2.1 CompactPCI™ Specification and PICMG 2.1, Ver. 1.0 Hot Swap Specification
- **V I/O voltage:** 3.3 V or 5 V, jumper selectable
- Logic Ground and Chassis Ground can be isolated or common
- **Dimensions (W x H):** 243.2 x 262.2 mm

Fan Tray Module

- **Air flow:** Two 86-CFM fans, providing 172 CFM in total
- **Power consumption:** 0.45 A @ 12 V per fan, 0.9 A total
- **Rated fan speed:** 2170 rpm
- **Life span:** 50,000 hours @ 25° C

ATX Power Supply

- **Input:** 90 ~ 135 or 180 ~ 265 V_{AC} @ 47 ~ 63 Hz, switchable
- **Output:** +3.3 V @ 15 A, +5 V @ 26 A, +12 V @ 9 A, -12 V @ 0.8 A
- **Minimum load:** +3.3 V @ 0.3 A, +5 V @ 2 A, +12 V @ 1 A
- **Max output:** 250 W total, 170 W for 5 V and 3.3 V
- **MTBF:** 50,000 hours @ 70% load
- **Safety:** UL/CUL/TUV/CE



The MIC-3021/8 front removable devices

Ordering Information

- **MIC-3021/8-7A:** 6U CompactPCI™ chassis with 8-slot backplane, fan tray module, and AC ATX power supply