

MIC-3462

6U 8-slot backplane with CT bus and
rear I/O for ***CompactPCI™***

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5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Packing List

Before installation, ensure that the following materials have been received:

- * The MIC-3462 backplane
- * This user's manual

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

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If you have any technical questions about the MIC-3462 or any other Advantech products, please visit our support website at:

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Contents

1. Introduction	1
1.1 General Information	2
1.2 Features	3
1.3 Specification	4
2. Hardware Configuration	5
2.1 Slot Assignments	6
2.2 Connector and Jumper Locations	9
2.3 Ground Configuration	14
2.4 Computer Telephony Bus	15
2.5 Clock Routing Configuration	15
B. Pin Assignments	17
B.1 System Slot P1 Connector (1-P1)	18
B.2 System Slot P2 Connector (1-P2)	19
B.3 System Slot P3 Connector (1-P3)	20
B.4 System Slot P4 Connector (1-P4)	21
B.5 System Slot P5 Connector (1-P5)	22
B.6 Peripheral Slot P1 Connector (2-P1 to 8-P1)	23
B.7 Peripheral Slot P2 Connector (2-P2 to 8-P2)	24
B.8 Peripheral Slot P3 Connector (2-P3 to 8-P3)	25
B.9 Peripheral Slot P4 Connector (2-P4 to 8-P4)	26
B.10 Peripheral Slot P5 Connector (2-P5 to 8-P5)	27
B.11 Alarm Board Interface Connector (CN6)	28
B.12 Fan Module Connector (CN7)	28
B.13 ATX Power Connector (ATX1 and ATX2)	29
B.14 Power Connector for Peripherals (CN8 and CN9)	30
B.15 Power Switch Connector (JP2)	30
B.16 Power Supply Status Connector (CN5)	30
B.17 Screw Terminal for External Power Supply	31

Figures

Figure 2-1: Slot numbering of the MIC-3462	7
Figure 2-2: The connector and jumper locations on the front side	10
Figure 2-3: The connector and jumper locations on the rear side	11
Figure 2-4: Mounting Holes Illustration	14

Tables

Table 2-1: System to peripheral slot signal assignment	8
Table 2-2: MIC-3462 Connector and jumper description	9
Table 2-3: V I/O voltage selection	13
Table B-1: System slot P1 connector	18
Table B-2: System slot P2 connector	19
Table B-3: System slot P3 connector	20
Table B-4: System slot P4 connector	21
Table B-5: System slot P5 connector	22
Table B-6: Peripheral slot P1 connector	23
Table B-7: Peripheral slot P2 connector	24
Table B-8: Peripheral slot P3 connector	25
Table B-9: Peripheral slot P4 connector	26
Table B-10: Peripheral slot P5 connector	27

CHAPTER

1

Introduction

1.1 General Information

The MIC-3462 is a 6U-sized CT backplane that provides eight CompactPCI slots. One slot is assigned to the CPU board and seven slots to the peripheral boards. The MIC-3462 supports front and rear I/O wiring, providing simplified system cabling. The backplane also complies with PICMG 2.5 Computer Telephony Specification, providing H.110 CT bus on the P4 connectors.

The MIC-3462 provides a 6-pin connector for connecting up to 4 cooling fans. A 20-pin connector can be used for connecting an external alarm module (MIC-3920/MIC-3921) to detect system internal conditions, such as bus voltages and fan speed.

In order to provide users with a flexible system configuration, the MIC-3462 includes two standard ATX power connectors to accept up to two ATX power supplies.

The MIC-3462 complies with PICMG 2.1 Hot-Swap Specification, providing full hot-swapping capability. Users can build a hot-swap system using hot-swap plug-in boards and software.

1.2 Features

- Front and rear I/O supports
- H.110 CT bus compliant (PICMG 2.5)
- Eight 32-bit CompactPCI slots (64-bit upon request)
- Complies with PICMG 2.1 Hot-Swap Specification
- Accepts up to two ATX power supplies
- Alarm module interface
- Fan interface

1.3 Specification

- 8 CompactPCI slots (one system slot and 7 peripheral slots)
- Front and rear I/O supports
- Bus width: 32-bit (64-bit upon request)
- 8-layer PCB, 3.0 mm thick
- Separate power and ground planes
- Power connectors: Two ATX power connectors for connecting standard ATX power supplies
- 20-pin connector for MIC-3920/MIC-3921 alarm board signals
- Complies with CompactPCI Specification PICMG 2.0, Ver.2.1
- Complies with CompactPCI Hot Swap Specification PICMG 2.1, Ver.1.0
- Complies with Computer Telephony Specification PICMG 2.5, Ver.1.0
- V I/O Voltage: 3.3 V or 5 V, jumper selectable
- Logic Ground and Chassis Ground can be isolated or common
- Dimensions: 18305 x 262.2 mm
- Operating temperature: -40 ~ 80°C (-40 ~ 176°F)

CHAPTER
2

Hardware Configuration

2.1 Slot Assignments

The CompactPCI specification defines slot numbering separating for physical and logical slots. Each slot has a physical number and a logical number (refer to the CompactPCI specification version 2.0 R2.1 for further information on slot assignments). The physical numbers are printed on the backplane, enclosed in circles or triangles, below each slot. Slot 8, marked by a triangle, is the system slot and can only be used by a CPU board. The other slots (slot 1~7) are peripheral slots and can be used by peripheral cards.

The logical number of each slot is defined according to the IDSEL signal and the associated address used to select the slot. Table 2-1 shows the system slot and peripheral slot relationships on the MIC-3462. Physical slot 8 (system slot) has a logical number of 1, physical slot 7 has a logical number of 2, physical slot 6 has a logical number of 3, ..., and physical slot 1 has a logical number of 8. The connectors in logical slot 1 are designated as 1-P1, 1-P2, 1-P3, 1-P4, and I-P5, from the bottom up. Nomenclature for connectors in other slots is similar, such as 2-P1, 2-P2, 3-P1, 3-P2, etc.

Connector 1-P1 is a keyed connector providing 32-bit CompactPCI bus between the system slot and the peripheral slots (2-P1~8-P1). Connector 1-P2 is an un-keyed connector providing 64-bit CompactPCI bus between the system slot and the peripheral slots (2-P2~8-P2). Connector 2-P4 to 8-P4 are un-keyed connectors which provide H.110 CT bus used for TDM signals transmission.

Appendix A gives the pin assignment for all the slots on the MIC-3462.

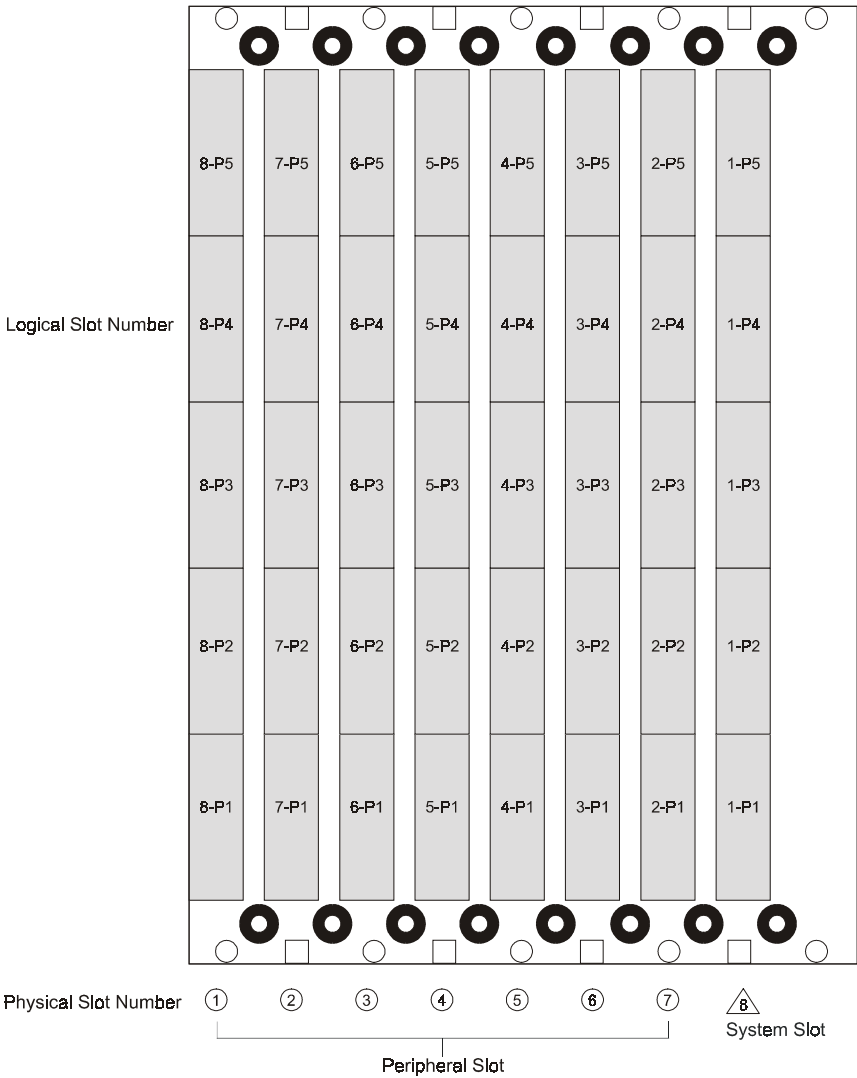


Figure 2-1: Slot numbering of the MIC-3462

Table 2-1: System to peripheral slot signal assignment

Signal	Connector: Pin	Signal	Connector: Pin
System Slot 8, (Logical Slot 1):		Peripheral Slot 7, (Logical slot 2)	
CLK1	P2:A1	CLK	P1:D6
AD31	P1:E6	IDSEL	P1:B9
REQ0#	P1:A6	REQ#	P1:A6
GNT0#	P1:E5	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 6, (Logical slot 3)	
CLK6	P2:A21	CLK	P1:D6
AD30	P1:A7	IDSEL	P1:B9
REQ1#	P2:C1	REQ#	P1:A6
GNT1#	P2:D1	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 5, (Logical slot 4)	
CLK0	P1:D6	CLK	P1:D6
AD29	P1:B7	IDSEL	P1:B9
REQ2#	P2:E1	REQ#	P1:A6
GNT2#	P2:D2	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 4, (Logical slot 5)	
CLK5	P2:A20	CLK	P1:D6
AD28	P1:C7	IDSEL	P1:B9
REQ3#	P2:E2	REQ#	P1:A6
GNT3#	P2:C3	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 3, (Logical slot 6)	
CLK2	P2:A2	CLK	P1:D6
AD27	P1:E7	IDSEL	P1:B9
REQ4#	P2:D3	REQ#	P1:A6
GNT4#	P2:E3	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 2, (Logical slot 7)	
CLK3	P2:B2	CLK	P1:D6
AD26	P1:A8	IDSEL	P1:B9
REQ5#	P2:D15	REQ#	P1:A6
GNT5#	P2:E15	GNT#	P1:E5
System Slot 8, (Logical Slot 1):		Peripheral Slot 1, (Logical slot 8)	
CLK4	P2:A3	CLK	P1:D6
AD25	P1:D8	IDSEL	P1:B9
REQ6#	P2:D17	REQ#	P1:A6
GNT6#	P2:E17	GNT#	P1:E5

2.2 Connector and Jumper Locations

The MIC-3462 provides connectors and jumpers for users to configure the backplane for specific application. Table 2-2 gives a brief description to each connector on the backplane. Figure 2-2 and Figure 2-3 illustrate the connector locations of the MIC-3462.

Table 2-2: MIC-3462 Connector and jumper description

Name	Function
JP1	V I/O voltage selection jumper
JP2	Power switch connector
ATX1	ATX power connector 1
ATX2	ATX power connector 2
CN5	Power supply status connector
CN6	Alarm board interface connector
CN7	Fan module connector
CN8	Peripheral power connector 1
CN9	Peripheral power connector 2
M1 ~ M22	Screw terminal for external power supply

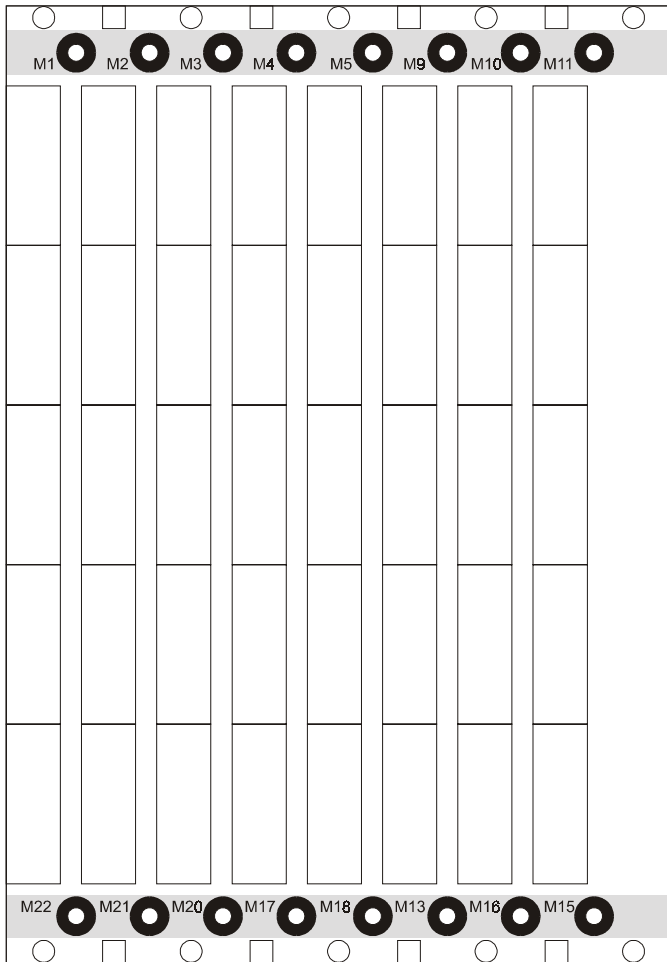


Figure 2-2: The connector and jumper locations on the front side

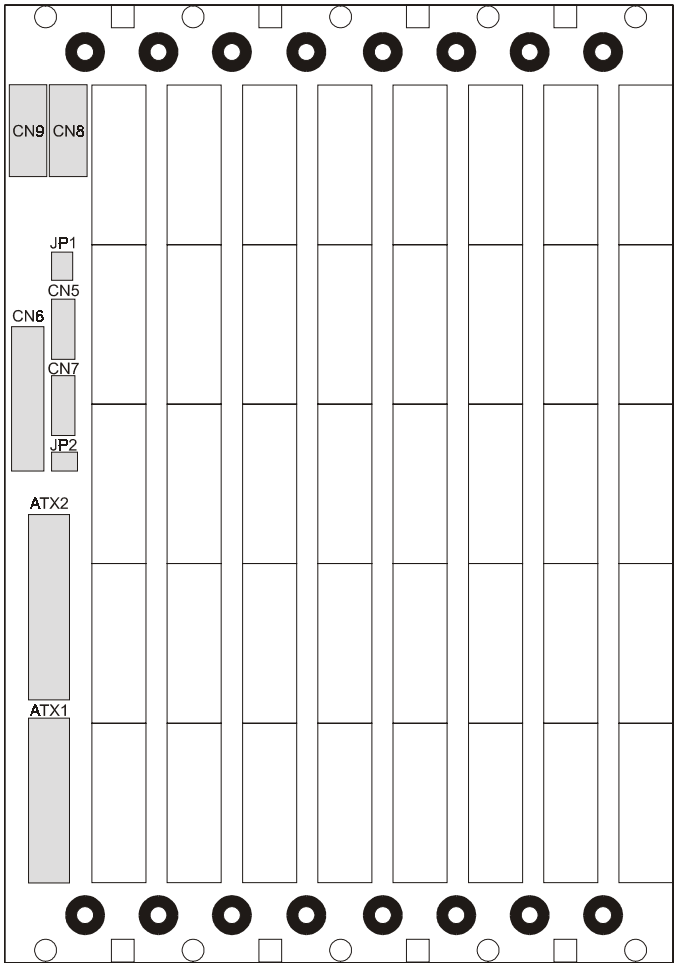


Figure 2-3: The connector and jumper locations on the rear side

2.2.1 Alarm Board Interface (CN6)

The 20-pin connector CN6 is an interface for an external monitoring and alarm module, such as MIC-3920/MIC-3921, which monitors the conditions of the system. It contains bus voltages 3.3 V, 5 V, 12 V and -12 V, and utilizes four fan tachometer signals.

2.2.2 Fan Module Connector (CN7)

The CN7 connector provides +12 V power for fan operation and accepts the tachometer output from the fans. It accepts up to four fan signals.

2.2.3 ATX Power Connector (ATX1 and ATX2)

These connectors accept two standard ATX power supplies.

Note: Do not use ATX power supplies and plug-in power modules at the same time.



2.2.4 Power Connectors for Peripherals (CN8 and CN9)

The CN8 and CN9 connectors provide power to the peripherals, such as hard disk drives or floppy disk drives.

2.2.5 V I/O Voltage Selection (JP1)

This jumper is used to select the V I/O voltage. MIC-3462 allows V I/O to be set to either 5 V or 3.3 V. Since the MIC-3462 default is configured for use with 5 V CompactPCI boards (blue keyed connectors), once the jumper is set to 3.3 V, the CompactPCI keys must be changed to 3.3 V at the same time (as yellow keyed connectors).

Table 2-3: V I/O voltage selection

V I/O	JP1
3.3 V	 <p>A diagram of a 3-pin connector labeled JP1. The pins are arranged in two columns. The left column has two pins, and the right column has one pin. The top-left pin is labeled +3.3V, the middle-left pin is labeled VIO, and the bottom-right pin is labeled +5V.</p>
5 V	 <p>A diagram of a 3-pin connector labeled JP1. The pins are arranged in two columns. The left column has one pin, and the right column has two pins. The top-left pin is labeled +3.3V, the middle-right pin is labeled VIO, and the bottom-right pin is labeled +5V.</p>

2.2.6 Power Switch (JP2)

This connector provides power on/off control of the ATX power supply or the plug-in power module. If the CompactPCI chassis provides a 2-pin power switch cord, connect this cord to the JP2 connector and users can control the power on/off by the power switch. Or users can directly short this connector by a jumper and control the power on/off by the ATX power supply switch.

2.2.7 Power Supply Status Connector (CN5)

This connector provides voltage feedbacks for the power supply used. Three voltages can be sensed: +3.3 V, +5 V, and +12 V, and then the feedback to the power supply will stabilize the power supply output. A power good signal can be detected and transferred to the alarm module (MIC-3920/MIC-3921) for power supply status monitoring. This connector can function well only if the power supply provides the same function and pin assignment as the CN5 connector.

2.2.8 Screw terminal for external power supply

Along the upper and lower edges of the MIC-3462 are 16 power pads providing external power supply I/O. These 16 pads facilitate input or output of the different powers and grounds. Contact Advantech for installation help.

2.3 Ground Configuration

Along the top and bottom of the MIC-3462 are 18 mounting holes. The holes are arranged in an alternating pattern of chassis (frame) grounded pads and logic grounded pads. The square pad holes are connected to chassis ground, and the round pad holes are connected to logic ground. To isolate chassis and logic grounds, install mounting screws in only square pad mounting holes.

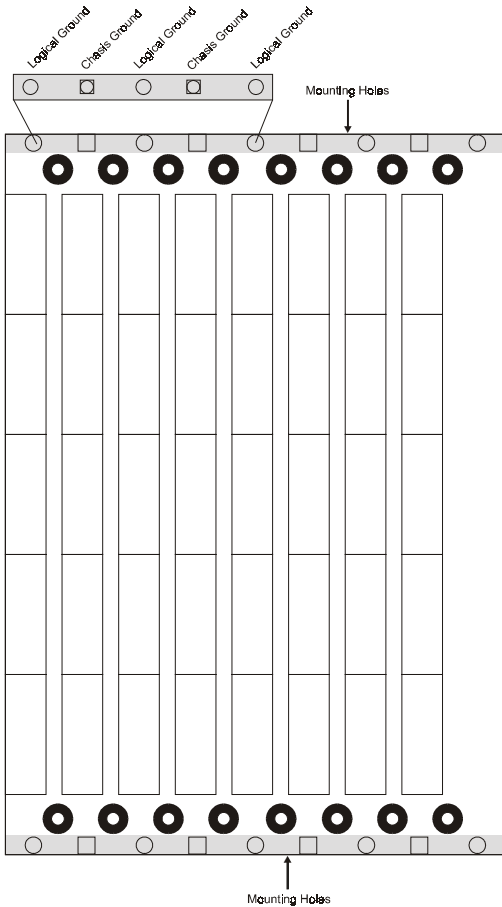


Figure 2-4. Mounting Holes Illustration

2.4 Computer Telephony Bus

The MIC-3462 provides H.110 CT bus on the P4 connectors, which complies with the PICMG 2.5 Computer Telephony Specification. The CT bus is routed across the P4 connectors on the peripheral slots. Please refer to Appendix A for pin assignment information.

2.5 Clock Routing Configuration

The MIC-3462 is configured to comply with the clock routing specified in the CompactPCI Hot Swap Specification, PICMG 2.1, version 1.0. This Specification requires that each slot be independently clocked.

If users would like to reconfigure the backplane to comply with the earlier CompactPCI Specification, PICMG 2.0, version 2.1, which allows the MIC-3462 to be backward compatible with CPUs using shared clocks, please contact Advantech for help.

APPENDIX

A

Pin Assignments

B.1 System Slot P1 Connector (1-P1)

Table B-1: System slot P1 connector

Pin	Z	A	B	C	D	E	F
25	GND	5V	REQ64#	ENUM#	3.3V	5V	GND
24	GND	AD[1]	5V	V(I/O)	AD[0]	ACK64#	GND
23	GND	3.3V	AD[4]	AD[3]	5V	AD[2]	GND
22	GND	AD[7]	GND	3.3V	AD[6]	AD[5]	GND
21	GND	3.3V	AD[9]	AD[8]	M66EN	C/BE[0]#	GND
20	GND	AD[12]	GND	V(I/O)	AD[11]	AD[10]	GND
19	GND	3.3V	AD[15]	AD[14]	GND	AD[13]	GND
18	GND	SERR#	GND	3.3V	PAR	C/BE[1]#	GND
17	GND	3.3V	SDONE	SBO#	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	3.3V	FRAME#	IRDY#	GND	TRDY#	GND
12-14	KEY AREA						
11	GND	AD[18]	AD[17]	AD[16]	GND	C/BE[2]#	GND
10	GND	AD[21]	GND	3.3V	AD[20]	AD[19]	GND
9	GND	C/BE[3]#	IDSEL	AD[23]	GND	AD[22]	GND
8	GND	AD[26]	GND	V(I/O)	AD[25]	AD[24]	GND
7	GND	AD[30]	AD[29]	AD[28]	GND	AD[27]	GND
6	GND	REQ#	GND	3.3V	CLK	AD[31]	GND
5	GND	BRSVP1A5	BRSVP1B5	RST#	GND	GNT#	GND
4	GND	BRSVP1A4	Healthy#	V(I/O)	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC#	5V	INTD#	GND
2	GND	TCK	5V	TMS	TDO	TDI	GND
1	GND	5V	-12V	TRST#	+12V	5V	GND

= long pins
 = short pins
 = medium length pins

#: Low active

B.2 System Slot P2 Connector (1-P2)

Table B-2: System slot P2 connector

Pin	Z	A	B	C	D	E	F
22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	CLK6	GND	RSV	RSV	RSV	GND
20	GND	CLK5	GND	RSV	GND	RSV	GND
19	GND	GND	GND	RSV	RSV	RSV	GND
18	GND	N/C	N/C	N/C	GND	N/C	GND
17	GND	N/C	GND	PRST#	REQ6#	GNT6#	GND
16	GND	N/C	N/C	DEG#	GND	N/C	GND
15	GND	N/C	GND	FAL#	REQ5#	GNT5#	GND
14	GND	AD[35]	AD[34]	AD[33]	GND	AD[32]	GND
13	GND	AD[38]	GND	V (I/O)	AD[37]	AD[36]	GND
12	GND	AD[42]	AD[41]	AD[40]	GND	AD[39]	GND
11	GND	AD[45]	GND	V (I/O)	AD[44]	AD[43]	GND
10	GND	AD[49]	AD[48]	AD[47]	GND	AD[46]	GND
9	GND	AD[52]	GND	V (I/O)	AD[51]	AD[50]	GND
8	GND	AD[56]	AD[55]	AD[54]	GND	AD[53]	GND
7	GND	AD[59]	GND	V (I/O)	AD[58]	AD[57]	GND
6	GND	AD[63]	AD[62]	AD [61]	GND	AD[60]	GND
5	GND	C/BE[5]#	GND	V (I/O)	C/BE[4]#	PAR64	GND
4	GND	V (I/O)	N/C	C/BE[7]#	GND	C/BE[6]#	GND
3	GND	CLK4	GND	NT3#	EQ4#	GNT4#	GND
2	GND	CLK2	CLK3	SYSEN#	GNT2#	REQ3#	GND
1	GND	CLK1	GND	REQ1#	GNT1#	REQ2#	GND

#: Low active

Note: GA[4...0] shall be used for geographic addressing on the backplane

B.3 System Slot P3 Connector (1-P3)

Table B-3: System slot P3 connector

Pin	Z	A	B	C	D	E	F
19	GND	N/C	N/C	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	N/C	N/C	GND
17	GND	N/C	N/C	N/C	N/C	N/C	GND
16	GND	N/C	N/C	N/C	N/C	N/C	GND
15	GND	N/C	N/C	N/C	N/C	N/C	GND
14	GND	N/C	N/C	N/C	N/C	N/C	GND
13	GND	N/C	N/C	N/C	N/C	N/C	GND
12	GND	N/C	N/C	N/C	N/C	N/C	GND
11	GND	N/C	N/C	N/C	N/C	N/C	GND
10	GND	N/C	N/C	N/C	N/C	N/C	GND
9	GND	N/C	N/C	N/C	N/C	N/C	GND
8	GND	N/C	N/C	N/C	N/C	N/C	GND
7	GND	N/C	N/C	N/C	N/C	N/C	GND
6	GND	N/C	N/C	N/C	N/C	N/C	GND
5	GND	N/C	N/C	N/C	N/C	N/C	GND
4	GND	N/C	N/C	N/C	N/C	N/C	GND
3	GND	N/C	N/C	N/C	N/C	N/C	GND
2	GND	N/C	N/C	N/C	N/C	N/C	GND
1	GND	N/C	N/C	N/C	N/C	N/C	GND

B.4 System Slot P4 Connector (1-P4)

Table B-4: System slot P4 connector

Pin	Z	A	B	C	D	E	F
25	GND	N/C	N/C	N/C	N/C	N/C	GND
24	GND	N/C	N/C	N/C	N/C	N/C	GND
23	GND	N/C	N/C	N/C	N/C	N/C	GND
22	GND	N/C	N/C	N/C	N/C	N/C	GND
21	GND	N/C	N/C	N/C	N/C	N/C	GND
20	GND	N/C	N/C	N/C	N/C	N/C	GND
19	GND	N/C	N/C	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	N/C	N/C	GND
17	GND	N/C	N/C	N/C	N/C	N/C	GND
16	GND	N/C	N/C	N/C	N/C	N/C	GND
15	GND	N/C	N/C	N/C	N/C	N/C	GND
12-14	KEY AREA						
11	GND	N/C	N/C	N/C	N/C	N/C	GND
10	GND	N/C	N/C	N/C	N/C	N/C	GND
9	GND	N/C	N/C	N/C	N/C	N/C	GND
8	GND	N/C	N/C	N/C	N/C	N/C	GND
7	GND	N/C	N/C	N/C	N/C	N/C	GND
6	GND	N/C	N/C	N/C	N/C	N/C	GND
5	GND	N/C	N/C	N/C	N/C	N/C	GND
4	GND	N/C	N/C	N/C	N/C	N/C	GND
3	GND	N/C	N/C	N/C	N/C	N/C	GND
2	GND	N/C	N/C	N/C	N/C	N/C	GND
1	GND	N/C	N/C	N/C	N/C	N/C	GND

B.5 System Slot P5 Connector (1-P5)

Table B-5: System slot P5 connector

Pin	Z	A	B	C	D	E	F
22	GND	N/C	N/C	N/C	N/C	N/C	GND
21	GND	N/C	N/C	N/C	N/C	N/C	GND
20	GND	N/C	N/C	N/C	N/C	N/C	GND
19	GND	N/C	N/C	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	N/C	N/C	GND
17	GND	N/C	N/C	N/C	N/C	N/C	GND
16	GND	N/C	N/C	N/C	N/C	N/C	GND
15	GND	N/C	N/C	N/C	N/C	N/C	GND
14	GND	N/C	N/C	N/C	N/C	N/C	GND
13	GND	N/C	N/C	N/C	N/C	N/C	GND
12	GND	N/C	N/C	N/C	N/C	N/C	GND
11	GND	N/C	N/C	N/C	N/C	N/C	GND
10	GND	N/C	N/C	N/C	N/C	N/C	GND
9	GND	N/C	N/C	N/C	N/C	N/C	GND
8	GND	N/C	N/C	N/C	N/C	N/C	GND
7	GND	N/C	N/C	N/C	N/C	N/C	GND
6	GND	N/C	N/C	N/C	N/C	N/C	GND
5	GND	N/C	N/C	N/C	N/C	N/C	GND
4	GND	N/C	N/C	N/C	N/C	N/C	GND
3	GND	N/C	N/C	N/C	N/C	N/C	GND
2	GND	N/C	N/C	N/C	N/C	N/C	GND
1	GND	N/C	N/C	N/C	N/C	N/C	GND

B.6 Peripheral Slot P1 Connector (2-P1 to 8-P1)

Table B-6: Peripheral slot P1 connector

Pin	Z	A	B	C	D	E	F
25	GND	5V	REQ64#	ENUM#	3.3V	5V	GND
24	GND	AD[1]	5V	V(I/O)	AD[0]	ACK64#	GND
23	GND	3.3V	AD[4]	AD[3]	5V	AD[2]	GND
22	GND	AD[7]	GND	3.3V	AD[6]	AD[5]	GND
21	GND	3.3V	AD[9]	AD[8]	M66EN	C/BE[0]#	GND
20	GND	AD[12]	GND	V(I/O)	AD[11]	AD[10]	GND
19	GND	3.3V	AD[15]	AD[14]	GND	AD[13]	GND
18	GND	SERR#	GND	3.3V	PAR	C/BE[1]#	GND
17	GND	3.3V	SDONE	SBO#	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	3.3V	FRAME#	IRDY#	GND	TRDY#	GND
12-14				KEY AREA			
11	GND	AD[18]	AD[17]	AD[16]	GND	C/BE[2]#	GND
10	GND	AD[21]	GND	3.3V	AD[20]	AD[19]	GND
9	GND	C/BE[3]#	IDSEL	AD[23]	GND	AD[22]	GND
8	GND	AD[26]	GND	V(I/O)	AD[25]	AD[24]	GND
7	GND	AD[30]	AD[29]	AD[28]	GND	AD[27]	GND
6	GND	REQ#	GND	3.3V	CLK	AD[31]	GND
5	GND	BRSVP1A5	BRSVP1B5	RST#	GND	GNT#	GND
4	GND	BRSVP1A4	Healthy#	V(I/O)	INTP	INTS	GND
3	GND	INTA#	INTB#	INTC#	5V	INTD#	GND
2	GND	TCK	5V	TMS	TDO	TDI	GND
1	GND	5V	-12V	TRST#	+12V	5V	GND

= long pins
 = short pins
 = medium length pins

#: Low active

B.7 Peripheral Slot P2 Connector (2-P2 to 8-P2)

Table B-7: Peripheral slot P2 connector

Pin	Z	A	B	C	D	E	F
22	GND	GND4	GND3	GND2	GND1	GND0	GND
21	GND	N/C	GND	N/C	N/C	N/C	GND
20	GND	N/C	N/C	N/C	GND	N/C	GND
19	GND	N/C	GND	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	GND	N/C	GND
17	GND	N/C	GND	PRST#	N/C	N/C	GND
16	GND	N/C	N/C	DEG#	GND	N/C	GND
15	GND	N/C	GND	FAL#	N/C	N/C	GND
14	GND	AD[35]	AD[34]	AD[33]	GND	AD[32]	GND
13	GND	AD[38]	GND	V (I/O)	AD[37]	AD[36]	GND
12	GND	AD[42]	AD[41]	AD[40]	GND	AD[39]	GND
11	GND	AD[45]	GND	V (I/O)	AD[44]	AD[43]	GND
10	GND	AD[49]	AD[48]	AD[47]	GND	AD[46]	GND
9	GND	AD[52]	GND	V (I/O)	AD[51]	AD[50]	GND
8	GND	AD[56]	AD[55]	AD[54]	GND	AD[53]	GND
7	GND	AD[59]	GND	V (I/O)	AD[58]	AD[57]	GND
6	GND	AD[63]	AD[62]	AD[61]	GND	AD[60]	GND
5	GND	C/BE[5]#	GND	V (I/O)	C/BE[4]#	PAR64	GND
4	GND	V (I/O)	N/C	C/BE[7]#	GND	C/BE[6]#	GND
3	GND	N/C	GND	N/C	N/C	N/C	GND
2	GND	N/C	N/C	SYSEN#	N/C	N/C	GND
1	GND	N/C	GND	N/C	N/C	N/C	GND

#: Low active

Note: GA[4...0] shall be used for geographic addressing on the backplane

B.8 Peripheral Slot P3 Connector (2-P3 to 8-P3)




Table B-8: Peripheral slot P3 connector

Pin	Z	A	B	C	D	E	F
19	GND	N/C	N/C	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	N/C	N/C	GND
17	GND	N/C	N/C	N/C	N/C	N/C	GND
16	GND	N/C	N/C	N/C	N/C	N/C	GND
15	GND	N/C	N/C	N/C	N/C	N/C	GND
14	GND	N/C	N/C	N/C	N/C	N/C	GND
13	GND	N/C	N/C	N/C	N/C	N/C	GND
12	GND	N/C	N/C	N/C	N/C	N/C	GND
11	GND	N/C	N/C	N/C	N/C	N/C	GND
10	GND	N/C	N/C	N/C	N/C	N/C	GND
9	GND	N/C	N/C	N/C	N/C	N/C	GND
8	GND	N/C	N/C	N/C	N/C	N/C	GND
7	GND	N/C	N/C	N/C	N/C	N/C	GND
6	GND	N/C	N/C	N/C	N/C	N/C	GND
5	GND	N/C	N/C	N/C	N/C	N/C	GND
4	GND	N/C	N/C	N/C	N/C	N/C	GND
3	GND	N/C	N/C	N/C	N/C	N/C	GND
2	GND	N/C	N/C	N/C	N/C	N/C	GND
1	GND	N/C	N/C	N/C	N/C	N/C	GND

B.9 Peripheral Slot P4 Connector (2-P4 to 8-P4)

Table B-9: Peripheral slot P4 connector

Pin	Z	A	B	C	D	E	F
25	N/C	SAG4	SGA3	SGA2	SGA1	SGA0	FGND
24	N/C	GA4	GA3	GA2	GA1	GA0	FGND
23	N/C	-12V	#CT_RT	#CT_EN	+12V	CT_MC	FGND
22	N/C	#PF_S0	RSV	RSV	RSV	RSV	FGND
21	N/C	-SELVbat	#PF_S1	RSV	RSV	SELVbatRtn	FGND
20	N/C	N/C	N/C	N/C	N/C	N/C	N/C
19	N/C	N/C	N/C	N/C	N/C	N/C	N/C
18	N/C	VRG	N/C	N/C	N/C	VRGRtn	N/C
17	N/C	N/C	N/C	N/C	N/C	N/C	N/C
16	N/C	N/C	N/C	N/C	N/C	N/C	N/C
15	N/C	-Vbat	N/C	N/C	N/C	VbatRtn	N/C
12-14	KEY AREA						
11	N/C	CT_D29	CT_D30	CT_D31	VIO	#CT_FA	GND
10	N/C	CT_D27	+3.3V	CT_D28	+5V	#CT_FB	GND
9	N/C	CT_D24	CT_D25	CT_D26	GND	#FR_CP	GND
8	N/C	CT_D21	CT_D22	CT_D23	+5V	CT_C8A	GND
7	N/C	CT_D19	+5V	CT_D20	GND	CT_C8B	GND
6	N/C	CT_D16	CT_D17	CT_D18	GND	CT_N1	GND
5	N/C	CT_D13	CT_D14	CT_D15	+3.3V	CT_N2	GND
4	N/C	CT_D11	+5V	CT_D12	+3.3V	SCLK	GND
3	N/C	CT_D8	CT_D9	CT_D10	GND	SCLK_D	GND
2	N/C	CT_D4	CT_D5	CT_D6	CT_D7	GND	GND
1	N/C	CT_D0	+3.3V	CT_D1	CT_D2	CT_D3	GND

 = long pins  = short pins  = medium length pins

#: Low active

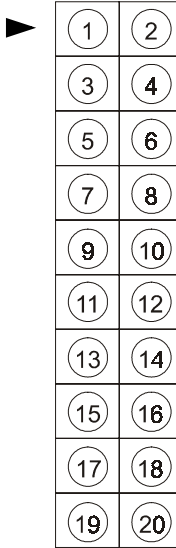
B.10 Peripheral Slot P5 Connector (2-P5 to 8-P5)

Table B-10: Peripheral slot P5 connector

Pin	Z	A	B	C	D	E	F
22	GND	N/C	N/C	N/C	N/C	N/C	GND
21	GND	N/C	N/C	N/C	N/C	N/C	GND
20	GND	N/C	N/C	N/C	N/C	N/C	GND
19	GND	N/C	N/C	N/C	N/C	N/C	GND
18	GND	N/C	N/C	N/C	N/C	N/C	GND
17	GND	N/C	N/C	N/C	N/C	N/C	GND
16	GND	N/C	N/C	N/C	N/C	N/C	GND
15	GND	N/C	N/C	N/C	N/C	N/C	GND
14	GND	N/C	N/C	N/C	N/C	N/C	GND
13	GND	N/C	N/C	N/C	N/C	N/C	GND
12	GND	N/C	N/C	N/C	N/C	N/C	GND
11	GND	N/C	N/C	N/C	N/C	N/C	GND
10	GND	N/C	N/C	N/C	N/C	N/C	GND
9	GND	N/C	N/C	N/C	N/C	N/C	GND
8	GND	N/C	N/C	N/C	N/C	N/C	GND
7	GND	N/C	N/C	N/C	N/C	N/C	GND
6	GND	N/C	N/C	N/C	N/C	N/C	GND
5	GND	N/C	N/C	N/C	N/C	N/C	GND
4	GND	N/C	N/C	N/C	N/C	N/C	GND
3	GND	N/C	N/C	N/C	N/C	N/C	GND
2	GND	N/C	N/C	N/C	N/C	N/C	GND
1	GND	N/C	N/C	N/C	N/C	N/C	GND

B.11 Alarm Board Interface Connector (CN6)

Pin	Assignment
20	FAN2
19	FAN1
18	FAN4
17	FAN3
16	N/C
15	POWER_FAIL#
14	SDCLK
13	GPI02
12	SDDAT
11	GPI01
10	N/C
9	PSON#
8	GND
7	GND
6	PRST#
5	+12V
4	-12V
3	+3.3V
2	+5V
1	+5V



B.12 Fan Module Connector (CN7)

Pin	Assignment
6	+12V
5	GND
4	FAN1
3	FAN2
2	FAN3
1	FAN4

B.13 ATX Power Connector (ATX1 and ATX2)

ATX 1		ATX 2	
Pin	Signal	Pin	Signal
1	+3.3V	1	+3.3V
2	+3.3V	2	+3.3V
3	GND	3	GND
4	+5V	4	+5V
5	GND	5	GND
6	+5V	6	+5V
7	GND	7	GND
8	#FAL	8	#FAL
9	N/C	9	N/C
10	+12V	10	+12V
11	+3.3V	11	+3.3V
12	-12V	12	-12V
13	GND	13	GND
14	#PSON	14	#PSON
15	GND	15	GND
16	GND	16	GND
17	GND	17	GND
18	N/C	18	N/C
19	+5V	19	+5V
20	+5V	20	+5V

B.14 Power Connector for Peripherals (CN8 and CN9)

CN 8		CN 9	
Pin	Signal	Pin	Signal
1	+12V	1	+12V
2	GND	2	GND
3	GND	3	GND
4	+5V	4	+5V

B.15 Power Switch Connector (JP2)

Pin	Signal
1	#PSON
2	GND

B.16 Power Supply Status Connector (CN5)

Pin	Signal
1	+5V
2	N/C
3	#FAL
4	+3.3V
5	GND
6	+12V

B.17 Screw Terminal for External Power Supply

Number	Name
M1	VCC3
M2	GND
M3	+5V
M4	GND
M5	+5V
M9	VBATR
M10	-VBAT
M11	FGND
M15	-12V
M16	GND
M13	+12V
M18	GND
M17	VCC3
M20	GND
M21	+5V
M22	FGND

