cPCIS-3330 Series

8-Slot for 6U

CompactPCI Platform

User's Manual

powerBridge
C o m p u t e r

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Product Model	
Environment	OS: M/B:　　　　　　CPU: Chipset:　　　　Bios:

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1 Introduction

The cPCIS-3330 Series is a 19" 8-slot 6U CompactPCI Sub-system ideally suited to Network Equipment Providers, Computing Telephony Integrators and Voice over IP applications. This flexible and reliable development platform with optimized I/O and storage provides the best solution for equipment manufacturers and system integrators and shortens time-to-market for fast growing business revenues.

The cPCIS-3330 provides scalability up to 7 peripheral slots with either 32-bit/33MHz or 64-bit/33MHz PCI and H.110 CT busses, redundant cooling system (5+5 front access hot swappable fans), 750W + 250W redundant PICMG 2.11 cPCI power supply, two 5.25", one 3.5" drive bays, and one slim type CD-ROM drive.

1.1 Features

- ▶ Standard 6U CompactPCI and PICMG 2.5 compliant H.110 CT Bus
- ▶ One cPCI segment, right-hand-side system slot
- ▶ 1 system slot, 7 peripheral slots
- ▶ PICMG 2.1 Hot Swap compliant 32-bit or 64-bit 8-slot CompactPCI backplane with P3 & P5 rear I/O
- ▶ Two 5.25", one 3.5", and one slim type CD-ROM drive bays
- ▶ 3+1 (750W + 250W) hot swappable redundant cPCI power suppies with Universal AC input
- ▶ 5+5 front access, push-pull, hot swappable fan redundant cooling architecture; removable air filter; two rear access fans
- ▶ Alarm module monitors temperature and fan status
- ▶ Guarded power switch and alarm reset button
- ▶ Designed for NEBS Level 3 compliance

1.2 cPCIS-3330 Configurations

The cPCIS-3330 Series comes in the configurations shown in the table below. .

Model Number	Description
cPCIS-3330/AC	8-slot 6U 32-bit CompactPCI Chassis with 4 cPS-325/AC Redundant Power Supplies
cPCIS-3330/64/AC	8-slot 6U 64-bit CompactPCI Chassis with 4 cPS-325/AC Redundant Power Supplies
cPCIS-3330/DC4	8-slot 6U 32-bit CompactPCI Chassis with 4 cPS-325/48 Redundant Power Supplies

1.3 Specifications

CompactPCI Standards	PICMG 2.0; 2.1; 2.5; 2.9; 2.11
Form Factor	6U cPCI with 80 mm depth rear I/O
Enclosure	EIA RS-310C 19" 9U high rack-mount enclosure Coated metal plate outer covering Guarded power switch and reset button
Backplane	32-bit/33MHz PCI or 64-bit/33MHz PCI (model dependent) H.110 CT Bus 1 system slot, 7 peripheral slots P3, P4 and P5 rear I/O with AB-type shroud (see Chapter 3 for detailed specifications)
Power Supply	Supports up to 4 in-rack 3U cPCI 8HP power modules Supports current sharing on 5V, 3.3V and 12V PICMG 2.11 47-pin power interface Available power module: cPS-H325/AC or cPS-H325/48 (250W N+1 redundant each)

Cooling System	Front access hot swappable fan trays for intake and exhaust with removable air filter:
	  12V DC brushless, dual ball bearing
	  5 fans for intake and 5 fans for exhaust
	  Rated power for each fan: 2.64W
	  Air flow: 241 CFM
	Two rear access fans for exhaust (51CFM, 2.9W each)

Alarm Module	Monitors inner chassis temperature & fan status (model dependent) Abnormal status will generate alarm and LED warning Audible alarm reset LED indicators display voltage status on 5V, 3.3V, 12V, -12V
Drive Bays	Two 5.25" one 3.5" and one slim type CD-ROM drive bays
Dimension	483.2 x 399 x 299.1 (mm, WxHxD, w/o handles)
Operating temperature	0 to 55°C (depending on system configuration)
Storage temperature	-20 to 80°C
Humidity	5% to 95%, non-condensing
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation: 1.88Grms, 5-500Hz, each axis Operation: 0.5Grms, 5-500Hz, each axis (tested with 2.5" HDD)
Safety, Certification, EBS	CE, FCC class A, designed for NEBS Level 3

1.4 Mechanical Layout

Refer to the figures below for the mechanical layout and external dimensions of the cPCIS-3330.

cPCIS-3330 Series Mechanical Layout
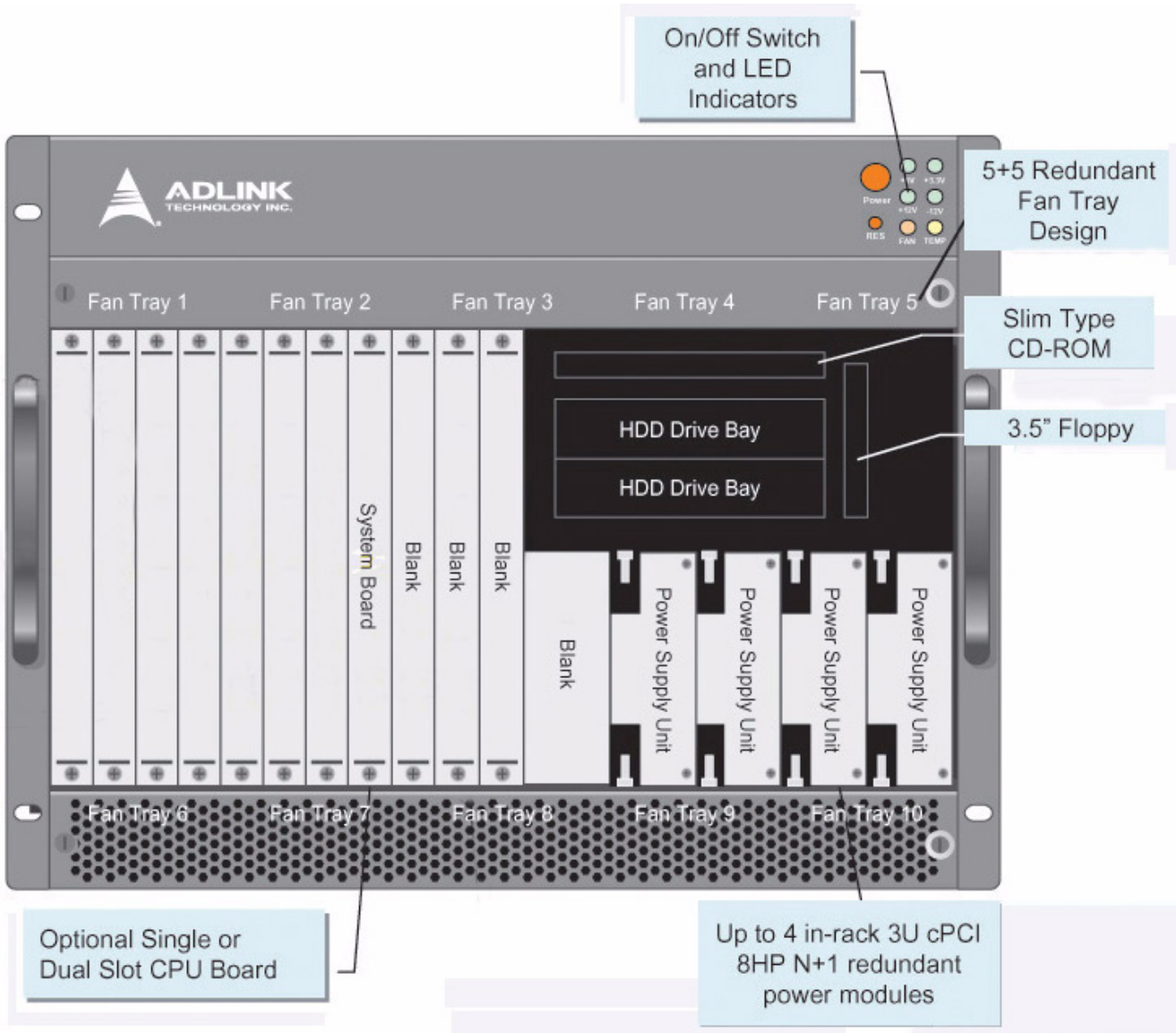
Figure 1-1: Mechanical Layout of the cPCIS-3330

cPCIS-3330 Series External Dimensions (mm)

Figure 1-2: cPCIS-3330 Series Front View

Figure 1-3: cPCIS-3330 Series Side View
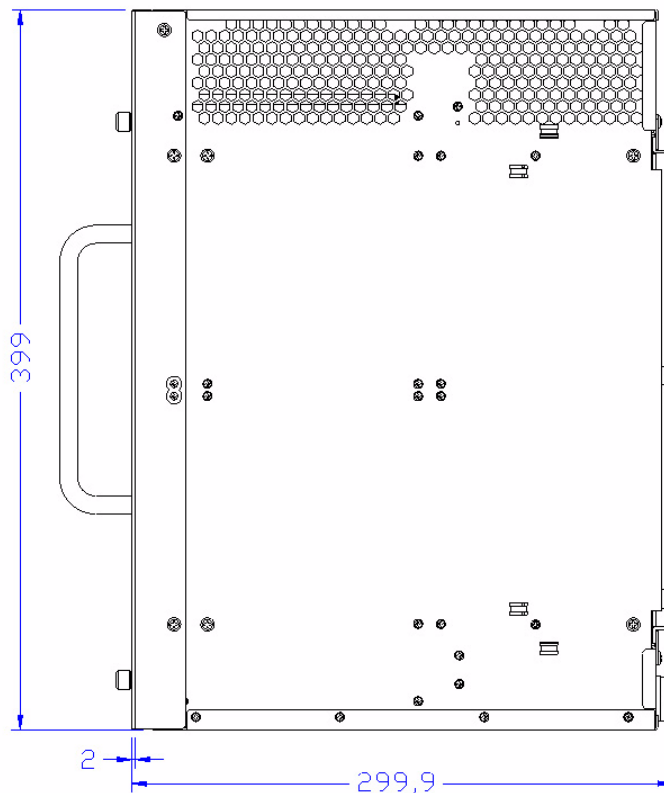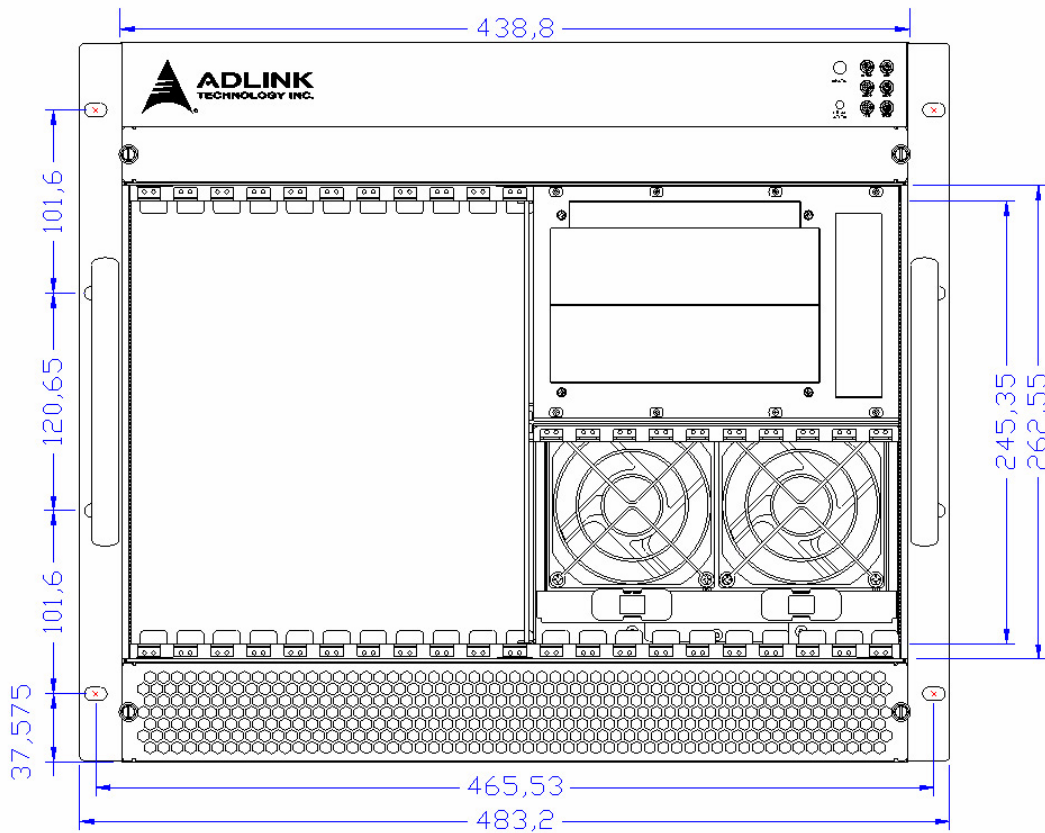
2   Getting Started

This chapter describes the unpacking procedure of the sub-system and installation procedures for CompactPCI boards, power supply units (PSUs) and drive bays.

2.1   Shipping Contents

Check the shipping carton for any damage. If the shipping carton and contents are damaged, please notify the dealer for a replacement. Retain the shipping carton and packing material for inspection by the dealer. Obtain authorization before returning any product to ADLINK.

Check that the following items are included in the package. If there are any missing items, please contact your dealer:

▶ One cPCIS-3330 Series Subsystem

▶ This User's Manual

▶ Accessory Kit (includes N. American or European power cord, air filter and spare screws)

2.2   CompactPCI Card & PSU Installation

The CompactPCI connectors are rigid and require careful handling when inserted and removed. Improper handling of cards can easily damage the backplane.

The system slot is red, peripheral slots are gray, and PSU slots are green. Be certain to insert each module into the correct type of slot.

System slots have obvious indicators (e.g. red card guide rail, triangle mark enclosing the slot number on the backplane) A system board can only be installed in a system slot. Do not insert a system board into any other slot, or insert any peripheral card into a system slot.
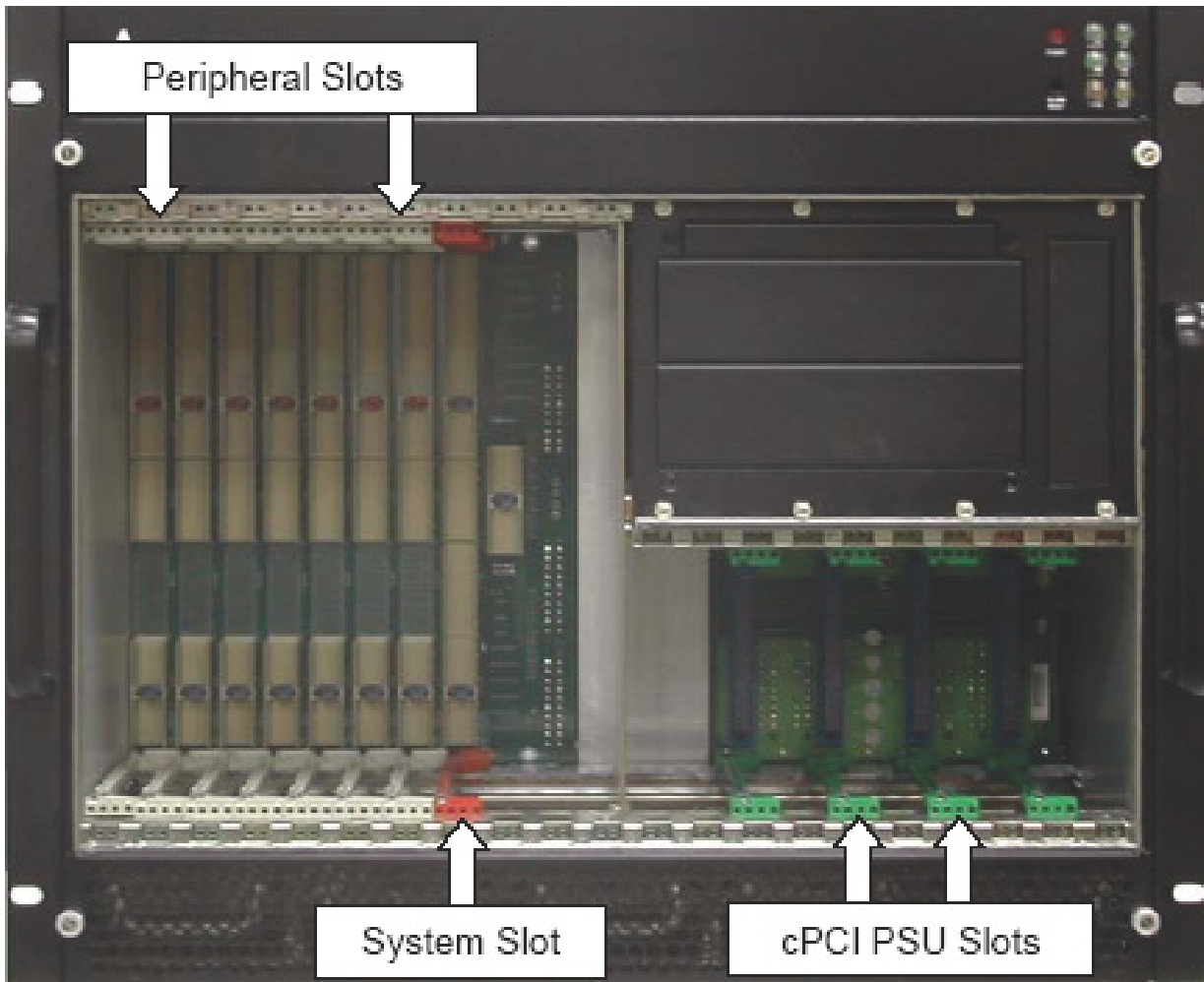
Figure 2-1: cPCIS-3330 Series slot layout

The handles on CompactPCI cards and PSUs ensure simple and safe installation and removal. Please follow the procedures below to install a CompactPCI module into a chassis:

CompactPCI Card Installation/Removal Procedure

1. Place the sub-system on a level surface or rackmount it. Remove the blanking plates where required by undoing the retaining screws at each end. Retain the blanking plates for possible future use. The system should not be put into use without blanking plates covering all empty slots, otherwise the EMC and cooling performance will be compromised

2. Hold the system board or peripheral card module vertically. Make sure that the handles are unlatched (i.e. that

they are pulled outwards) by first pressing on the release buttons with your thumb.

3. Carefully insert the module into the desired slot by sliding the edges of the board into the appropriate card guide rail. Take care to ensure correct alignment of the card with the chassis during insertion to prevent damage to the card and/or backplane.
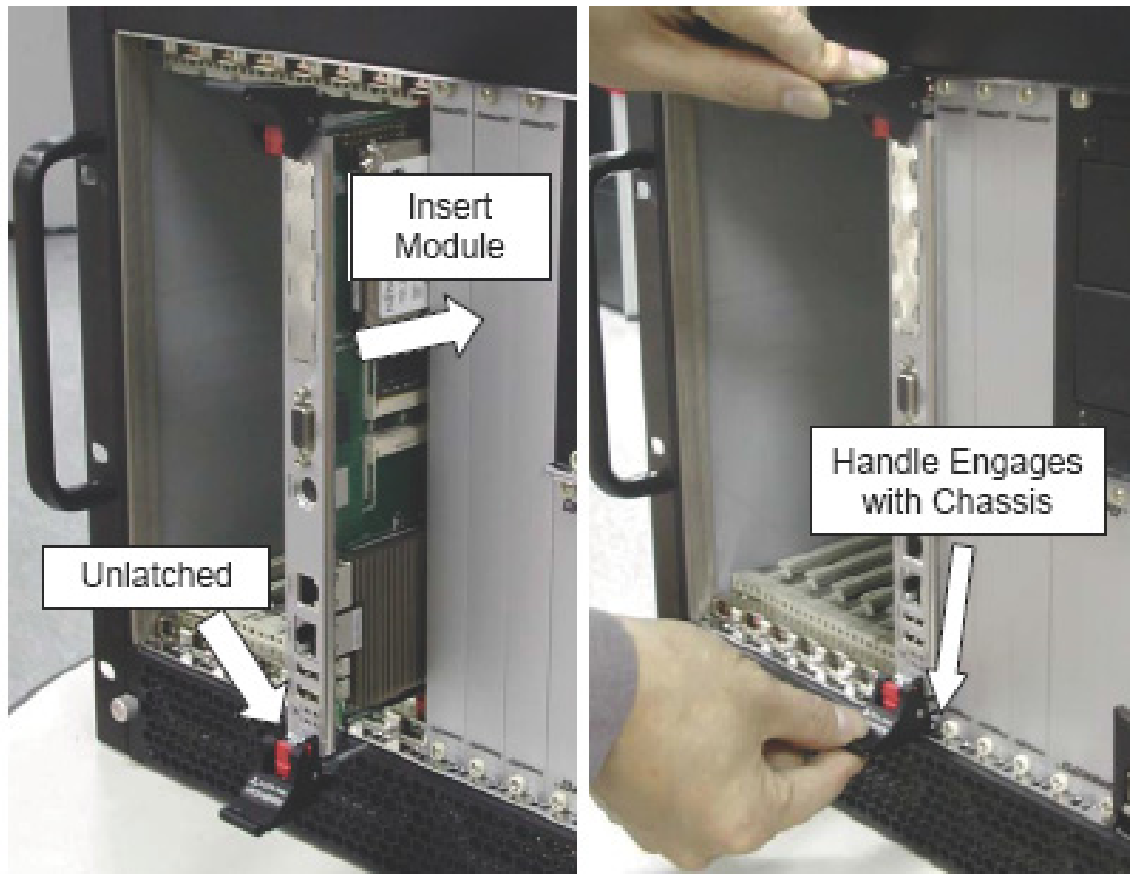
Figure 2-2: Installing 6U CompactPCI card

4. Continue inserting the card until the handles engage with the chassis.

5. Push inwards on the handles for final insertion. Ensure that the buttons on the handles fully latch into position as unless this is done the card is not correctly inserted. Fasten the retaining screws at each end of the card (2 for single slot cards, 4 for double slot cards).
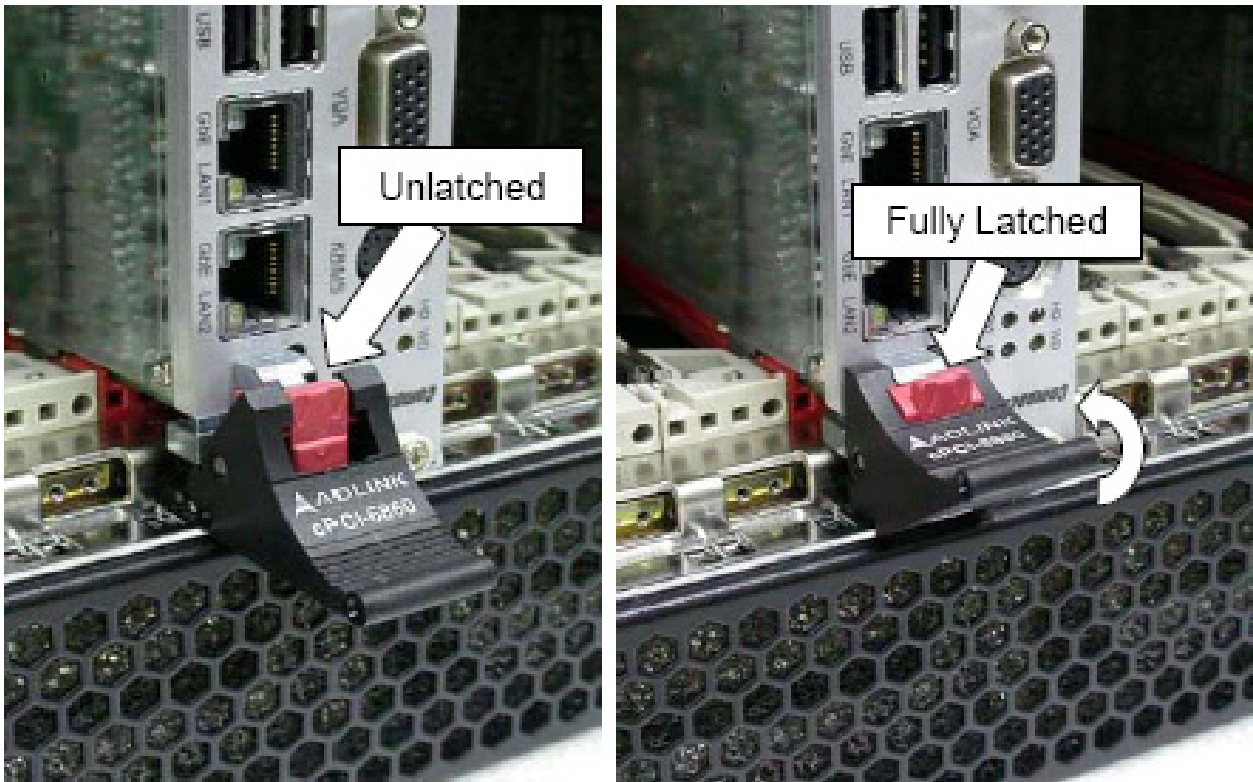
Figure 2-3: Latching the cPCI module handles securely

6. To remove the module, undo the retaining screws, press the release buttons (if necessary), and reverse steps 1 through 5 above.

CompactPCI PSU Installation/Removal Procedure

The cPCIS-3330 Series come with cPS-H325 PSUs pre-installed. The removal and installation procedures for PSUs are the same as for CompactPCI cards, except there is only one handle. To replace a PSU module, refer to the figures and instructions below.

1. To remove the PSU module, undo the retaining screws and unlatch the handle by pressing on the release button.
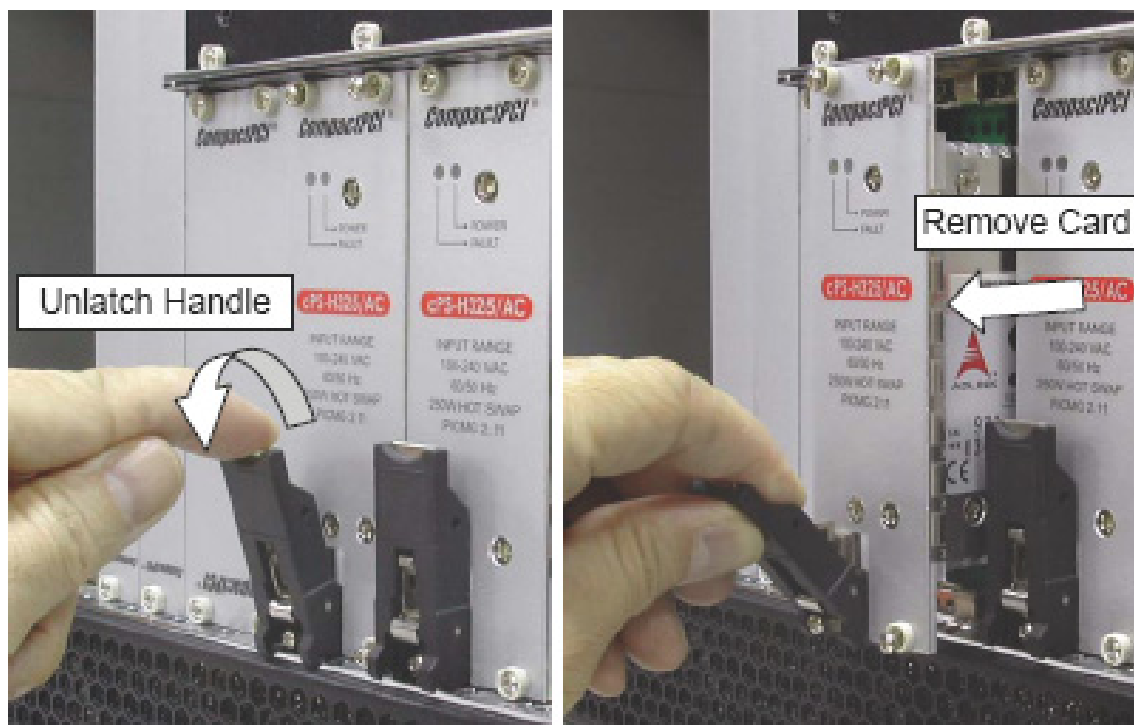
Figure 2-4: Unlatching and removing a cPCI PSU

2. Pull outwards to remove the PSU.

3. Insert the new PSU module, push on the handle until it latches into position, and replace the retaining screws.

2.3 Rear Transition Module Installation/Removal

The installation and removal procedures for a Rear Transition Module (RTM) are the same as those for CompactPCI boards. Because they are shorter than front boards, pay careful attention when inserting or removing RTMs. Only models with an "R" at the end of the model number support RTMs.

Note: We strongly recommended the use of RTMs with AB type connectors to prevent the damage to the backplane during RTM installation.

2.4 Drive Bay Access

To install the required hardware in the two 5.25", one 3.5", and one slim type CD-ROM drive bays, follow the procedure below:

1. Loosen the 8 screws securing the drive bay bracket to the cPCIS-3330 chassis as shown in the figure below.
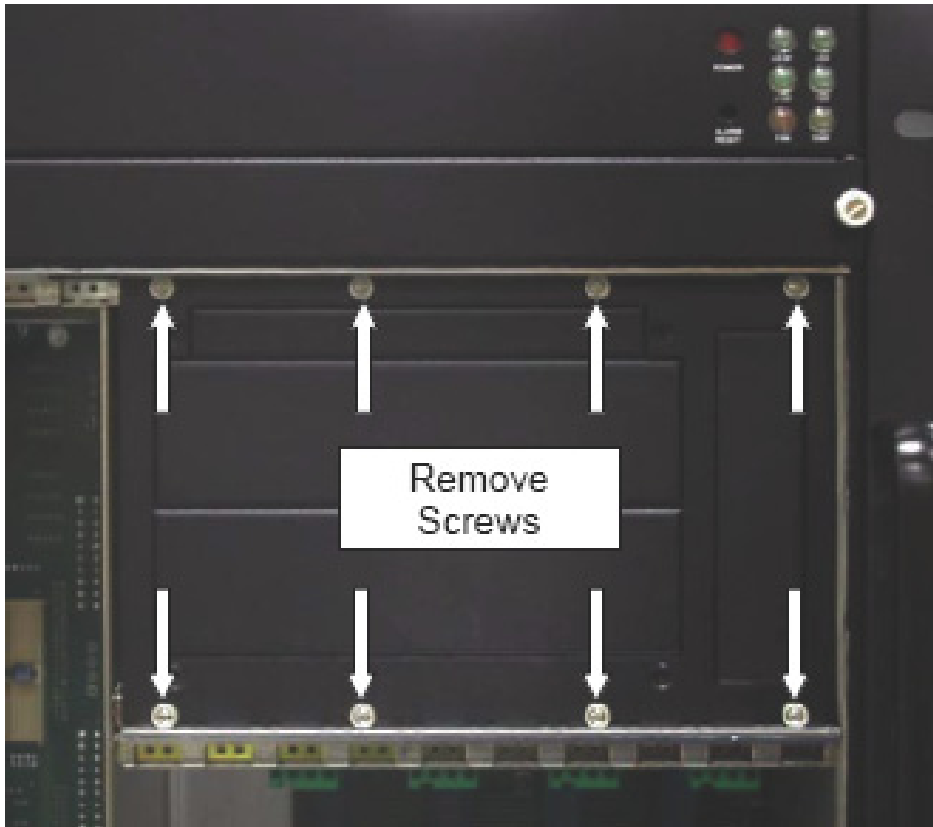
Figure 2-5: Remove drive bay bracket fastening screws

2. Loosen the 8 screws fastening the PSU rear panel to the chassis as shown in the figure below. Remove the rear panel, reach inside the chassis, and push the drive bay bracket forwards out of the chassis.

3. Undo the screws attaching the drive bay blanking covers to the drive bay bracket as required. Note the locations of the CD-ROM drive bay blanking cover screws in the figure below.
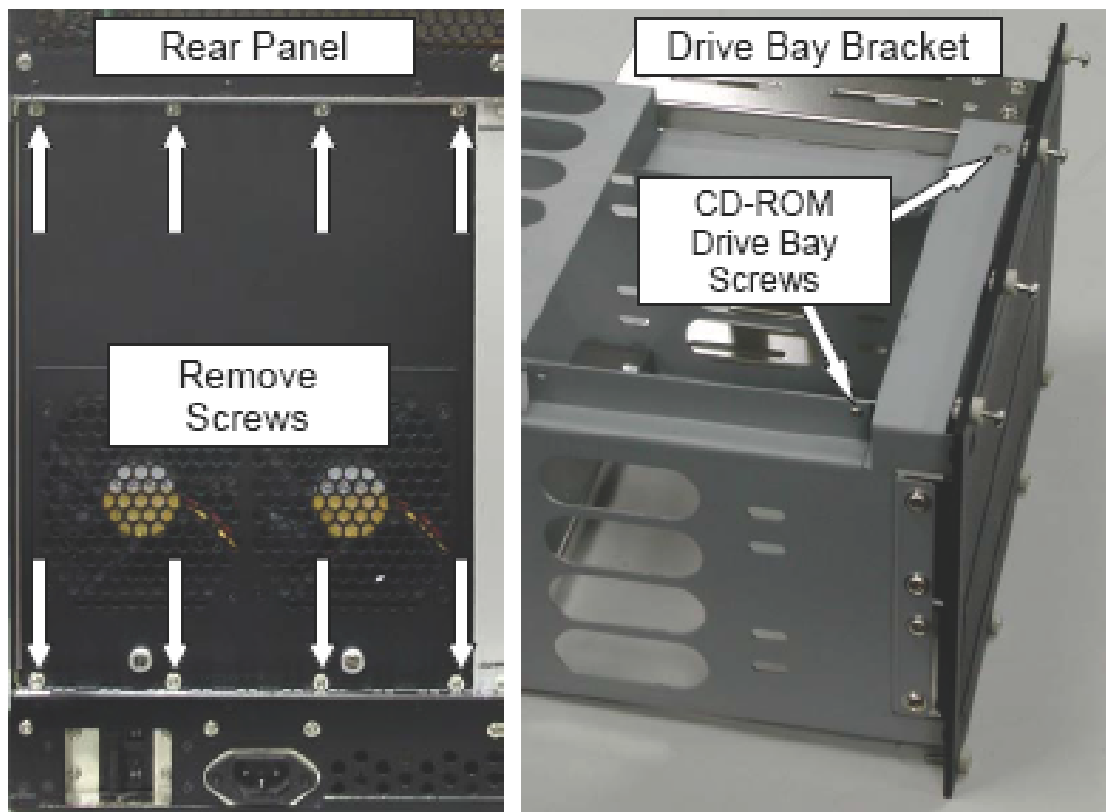
**Figure 2-6: Remove rear panel fastening screws;
CD-ROM drive bay blanking cover screw locations**

4. Install the necessary hardware into the drive bay bracket, replace the bracket into the chassis, and fasten the 8 screws attaching it to the chassis.

5. Make the necessary cable connections from the rear of the chassis and replace the rear panel.

2.5 Powering Up the System

Connect the supplied power cord to the socket on the back of the chassis. All supplied PSUs are full range 90-240VAC and do not require input voltage setting. Insert the desired boards into the appropriate card slots as described in Sections 2.2 and 2.3.

The cPCIS-3330 Series features a guarded power switch. Use a suitably shaped object (such as a pen) to actuate the power switch. After the system is powered up, all LEDs will light up to indicate normal operating conditions.
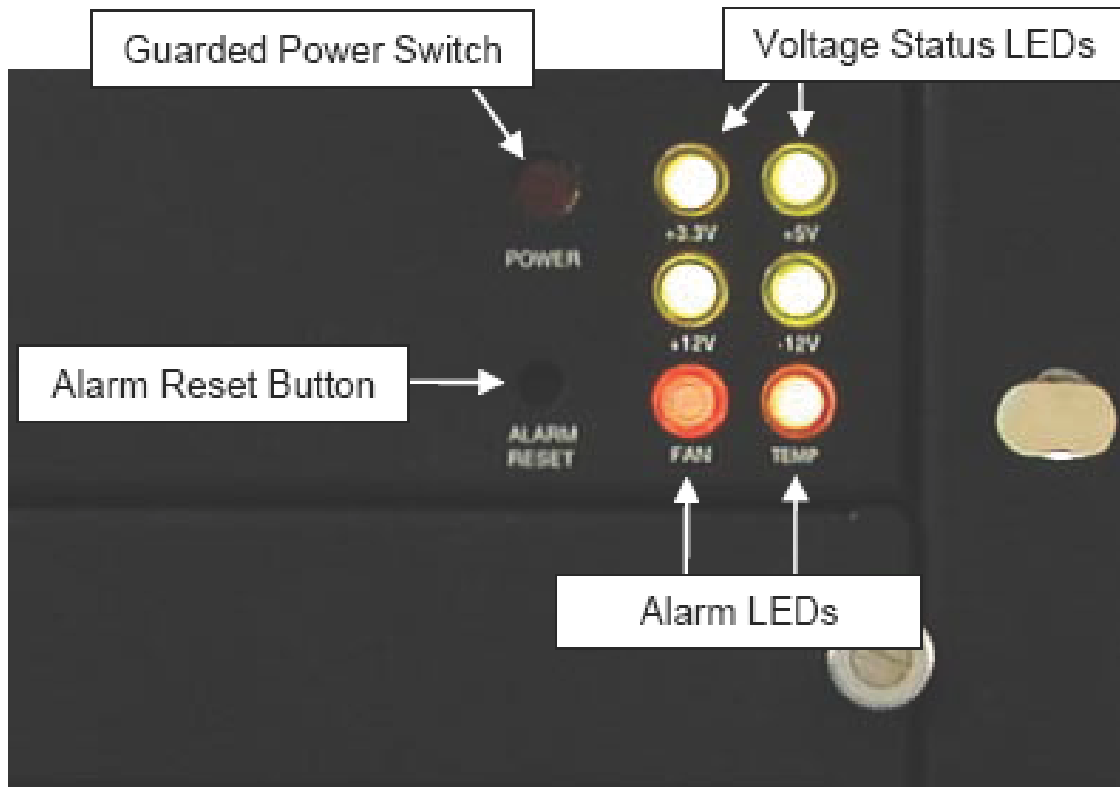
Figure 2-7: cPCIS-3330 switch and LED legend

2.6 System Alarm Board

The cPCIS-3330 Series features an embedded alarm board that monitors temperature and fan status. Should a fan become disabled or the temperature exceed 50°C, the Alarm LED will light up and an audible warning will be heard.

To disable the audible warning, press the Alarm Reset button. The Alarm LED will continue to flash until the fault is corrected.

See Chapter 4 Cooling System for instructions on fan removal and replacement.

3 Backplanes

In this chapter, we will describe the backplanes for the cPCIS-3330 Series. The following table outlines the backplanes that correspond to each model.

Model	Type	Backplane	Power
cPCIS-3330/AC	32-bit/33MHz	cBP-6108R	AC
cPCIS-3330/DC4	32-bit/33MHz	cBP-6108R	DC48V
cPCIS-3330/64/AC	64-bit/33MHz	cBP-6408R	AC

The cPCIS-3330 Series models use the cBP-3064 CompactPCI Power Backplane.

3.1 cBP-6108R (32-bit/33MHz)

The backplane for the cPCIS-3330 Series 6U 32-bit, 8-slot chassis is the cBP-6108R, a 6U 8-slot H.110 32-bit CompactPCI backplane with rear I/O.

Features

▶ Standard CompactPCI 8-slot 32-bit backplane for 6U cPCI cards

▶ One segment with R-hand side system slot; 7 peripheral slots

▶ Supports 80mm P3 & P5 rear I/O for each slot

▶ Supports PICMG 2.5 H.110 CT Bus

▶ PICMG 2.1 Hot Swap compliant

Specifications

CompactPCI Standards	PICMG 2.0 R3.0, 2.1 R2.0, 2.5 R1.0, 2.9 R1.0
Dimensions	202.5 x 262.05 (mm, W x H)
Segments	One
CompactPCI Bus	32-bit/33MHz
System Slot	One (R-hand side)
System Slot Rear I/O	P3, P4, and P5 rear I/O with AB-type shroud
Peripheral Slots	7
Peripheral Slot Rear I/O	P3 and P5 rear I/O with AB-type shroud
H.110 Bus	Complies with PICMG 2.5, for all peripheral slots
V (I/O)	3.3V or 5V selectable, default 5V
Power Connectors	ATX connector x 3
System Slot Legacy I/O	FDD, IDE1, and IDE2 (pin compatible with cPCI-6760D and cPCI-6780 only)
Utility Board Slot	Yes (pin compatible with cPCI-6760D)
Other Connectors	INH#, Reset, PWR_FAL#, Voltage LEDs, H.110 Power Pairs (VRG, Vbat), PICMG 2.9 IPMB
Recommended System Boards	cPCI-6760D, cPCI-6780V/VS, cPCI-6841

Mechanical Drawing
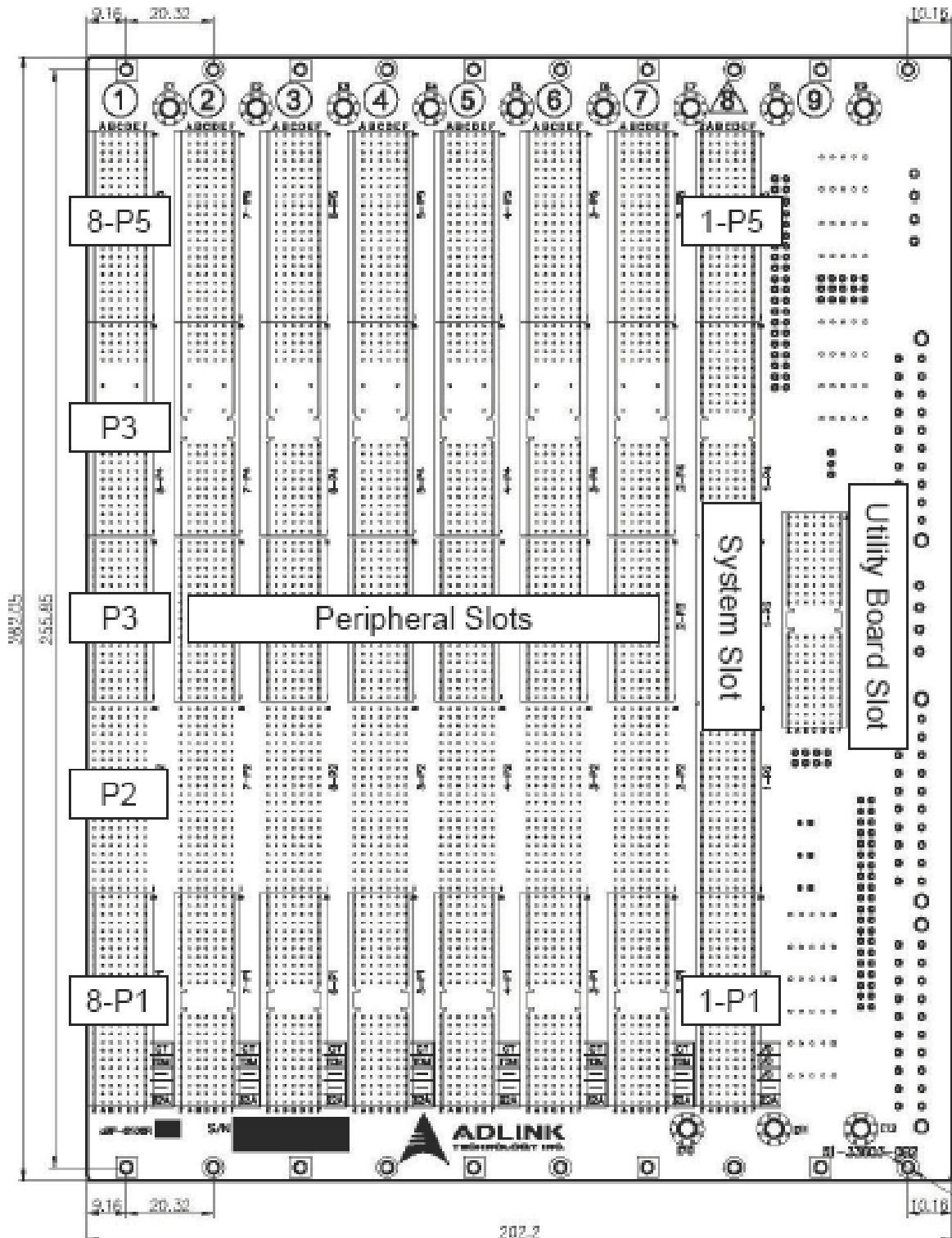
Figure 3-1: cBP-6108R Backplane Front View
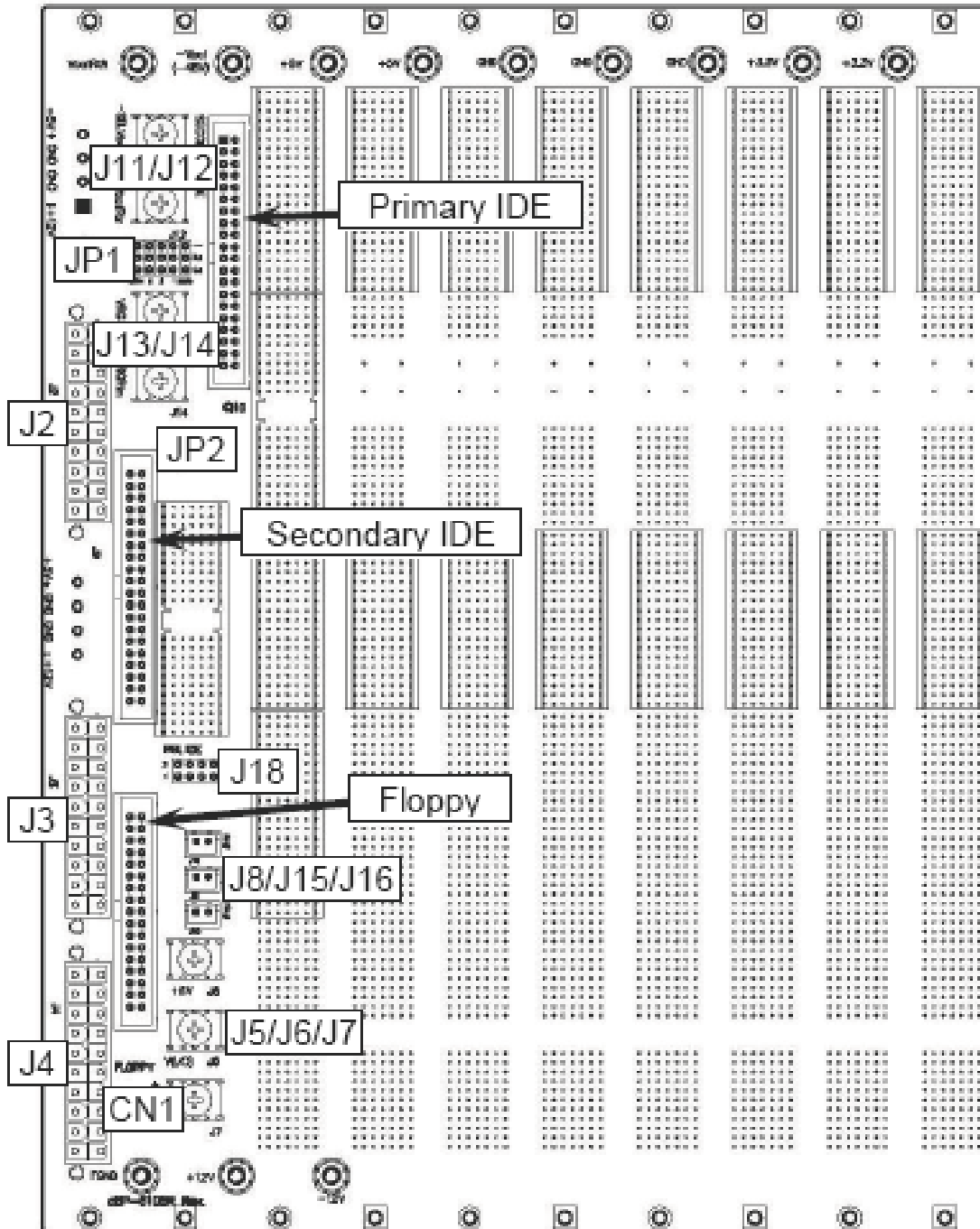
Figure 3-2: cBP-6108R Backplane Rear View

Connector Pin Assignments

System Slot: [1–P1]

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	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	+3.3V	FRAME#	IRDY#	BDSEL	TRDY#	GND
12-14				Keying 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]#	GND	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	Reserved	Reserved	PCIRST#	GND	GNT#	GND
4	GND	IPMB_PWR	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

System Slot: [1–P2]

Pin	Z	A	B	C	D	E	F
22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	CLK6	GND	Reserved	Reserved	Reserved	GND
20	GND	CLK5	GND	Reserved	GND	Reserved	GND
19	GND	GND	GND	SMDATA	SMCLK	ALERT#	GND
18	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
17	GND	Reserved	GND	PRST#	REQ6#	GNT6#	GND
16	GND	Reserved	Reserved	DEG#	GND	Reserved	GND
15	GND	Reserved	GND	FAL#	REQ5#	GNT5#	GND
14	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
13	GND	Reserved	GND	V(I/O)	Reserved	Reserved	GND
12	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
11	GND	Reserved	GND	V(I/O)	Reserved	Reserved	GND
10	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
9	GND	Reserved	GND	V(I/O)	Reserved	Reserved	GND
8	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
7	GND	Reserved	GND	V(I/O)	Reserved	Reserved	GND
6	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
5	GND	Reserved	GND	V(I/O)	Reserved	Reserved	GND
4	GND	V(I/O)	Reserved	Reserved	GND	Reserved	GND
3	GND	CLK4	GND	GNT3#	REQ4#	GNT4#	GND
2	GND	CLK2	CLK3	SYSEN#	GNT2#	REQ3#	GND
1	GND	CLK1	GND	REQ1#	GNT1#	REQ2#	GND

System Slot: [1–P3]

Pin	Z	A	B	C	D	E	F
19	GND	PPWRGD	PDCS16#	PIORDY	AP3D19	PIRQ	GND
18	GND	PDACT#	AP3B18	PCS3#	PCS1#	PPDIAG	GND
17	GND	PDD15	PDD14	PDD13	PDD12	AP3E17	GND
16	GND	PDD11	PDD10	PDD9	PDD8	DDAK0#	GND
15	GND	PDA0	PDA1	NC	PDA2	DDRQ0	GND
14	GND	PDD7	PDD6	PDD5	PDD4	DIOW0#	GND
13	GND	PDD3	PDD2	PDD1	PDD0	DIOR0#	GND
12	GND	DR0#	MSEN0	MTR0#	INDEX#	WDATA#	GND
11	GND	DR1#	DSKCHG#	MTR1#	DENSL	RDATA#	GND
10	GND	WP#	HDSEL#	DIR#	TRK0#	STEP#	GND
9	GND	WGATE#	AP3B9	AP3C9	AP3D9	AP3E9	GND
8	GND	AP3A8	AP3B8	NC	AP3D8	AP3E8	GND
7	GND	AP3A7	AP3B7	AP3C7	AP3D7	AP3E7	GND
6	GND	AP3A6	AP3B6	AP3C6	AP3D6	AP3E6	GND
5	GND	AP3A5	AP3B5	AP3C5	AP3D5	AP3E5	GND
4	GND	AP3A4	AP3B4	NC	AP3D4	AP3E4	GND
3	GND	AP3A3	AP3B3	AP3C3	AP3D3	AP3E3	GND
2	GND	AP3A2	AP3B2	AP3C2	AP3D2	AP3E2	GND
1	GND	AP3A1	AP3B1	AP3C1	AP3D1	AP3E1	GND

System Slot: [1–P4]

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

System Slot: [1–P5]

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

Peripheral Slot: [2–P1] - [8–P1]

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	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	+3.3V	FRAME#	IRDY#	BDSEL	TRDY#	GND
12-14	Keying 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	Reserved	Reserved	PCIRST#	GND	GNT#	GND
4	GND	IPMB_PWR	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

Peripheral Slot: [2–P3] - [8–P3]

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

Peripheral Slot: [2–P4] - [8–P4]

Pin	Z	A	B	C	D	E	F
25	GND	SGA4	SGA3	SGA2	SGA1	SGA0	GND
24	GND	GA4	GA3	GA2	GA1	GA0	GND
23	GND	+12V	Reserved	CT_EN#	-12V	CT_MC	GND
22	GND	PFS0#	CT_RESET	Reserved	Reserved	Reserved	GND
21	GND	-SELVbat	PFS1#	Reserved	Reserved	-SELVbat Rtn	GND
20	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
19	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
18	GND	VRG	No Pin	No Pin	No Pin	VRG Rtn	GND
17	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
16	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
15	GND	-Vbat	No Pin	No Pin	No Pin	-Vbat Rtn	GND
12-14				Keying Area			
11	GND	CT_D29	CT_D30	CT_D31	V(I/O)	CT_FRAME_A	GND
10	GND	CT_D27	+3.3V	CT_D28	+5V	CT_FRAME_B	GND
9	GND	CT_D24	CT_D25	CT_D26	GND	RF_COMP	GND
8	GND	CT_D21	CT_D22	CT_D23	+5V	CT_C8_A	GND
7	GND	CT_D19	+5V	CT_D20	GND	CT_C8_B	GND
6	GND	CT_D16	CT_D17	CT_D18	GND	CT_NETREF_1	GND
5	GND	CT_D13	CT_D14	CT_D16	+3.3V	CT_NETREF_2	GND
4	GND	CT_D11	+5V	CT_D12	+3.3V	SCLK	GND
3	GND	CT_D8	CT_D9	CT_D10	GND	SCLK-D	GND
2	GND	CT_D4	CT_D5	CT_D6	CT_D7	GND	GND
1	GND	CT_D0	+3.3V	CT_D1	CT_D2	CT_D3	GND

Peripheral Slot: [2–P5] - [8–P5]

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

IDE Add-on Card: [0–P3]

Pin	Z	A	B	C	D	E	F
25	GND	+12V	GND	+5V	NC	GND	GND
24	GND	+12V	GND	+5V	NC	GND	GND
23	GND	+12V	GND	+5V	NC	GND	GND
22	GND	PPWRGD	PDCS16#	PIORDY	AP3D19	PIRQ	GND
21	GND	PDACT#	AP3B18	PCS3#	PCS1#	PPDIAG	GND
20	GND	PDD15	PDD14	PDD13	PDD12	AP3E17	GND
19	GND	PDD11	PDD10	PDD9	PDD8	DDAK0#	GND
18	GND	PDA0	PDA1	NC	PDA2	DDRQ0	GND
17	GND	PDD7	PDD6	PDD5	PDD4	DIOW0#	GND
16	GND	PDD3	PDD2	PDD1	PDD0	DIOR0#	GND
15	GND	DR0#	MSEN0	MTR0#	INDEX#	WDATA#	GND
12-14	Keying Area						
11	GND	DR1#	DSKCHG#	MTR1#	DENSL	RDATA#	GND
10	GND	WP#	HDSEL#	DIR#	TRK0#	STEP#	GND
9	GND	WGATE#	AP3B9	AP3C9	AP3D9	AP3E9	GND
8	GND	AP3A8	AP3B8	NC	AP3D8	AP3E8	GND
7	GND	AP3A7	AP3B7	AP3C7	AP3D7	AP3E7	GND
6	GND	AP3A6	AP3B6	AP3C6	AP3D6	AP3E6	GND
5	GND	AP3A5	AP3B5	AP3C5	AP3D5	AP3E5	GND
4	GND	AP3A4	AP3B4	NC	AP3D4	AP3E4	GND
3	GND	AP3A3	AP3B3	AP3C3	AP3D3	AP3E3	GND
2	GND	AP3A2	AP3B2	AP3C2	AP3D2	AP3E2	GND
1	GND	AP3A1	AP3B1	AP3C1	AP3D1	AP3E1	GND

SM Bus Connector [CN1]
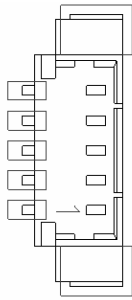
Pin	Signal
1	CLK
2	GND
3	DATA
4	V(I/O)
5	ALERT#

ATX Power Connector [J2, J3, J4]
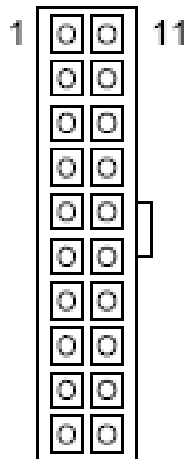
Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	INH#
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	FAL#	18	NC
9	5V STB	19	+5V
10	+12V	20	+5V

H.110 DC Power Terminal [J1 - J4]

Connector	Signal
J1	-SELVbat
J2	-SELVbat Rtn
J3	VRG
J4	VRGRtn

RST# Connector [J8]
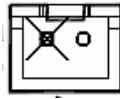
Pin	Signal
1	PRSTA#
2	GND

FAL# Connector [J15]
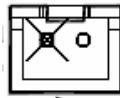
Pin	Signal
1	FAL#
2	GND

INH# Connector [J16]
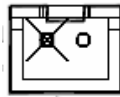
Pin	Signal
1	INH#
2	GND

Power LED Connector [J18]
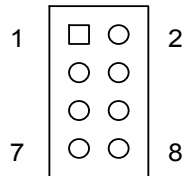
Pin	Signal	Pin	Signal
1	+12V	2	GND
3	-12V	4	GND
5	+3.3V	6	GND
7	+5V	8	GND

Power Sense Connector [JP2]
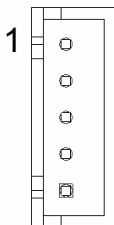
Pin	Signal
1	NC
2	+12V
3	+3.3V
4	GND
5	+5V

Secondary IDE Connector [J10]

Signal	Pin	Pin	Signal
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	No connect
DRQ0 / DRQ1	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK0 / DACK1	29	30	Ground
IRQ14 / IRQ 15	31	32	No connect
Address 1	33	34	No connect
Address 0	35	36	Address 2
Chip select 0	37	38	Chip select 1
Activity	39	40	Ground

Primary IDE Connector [J19]

Signal	Pin	Pin	Signal
Reset IDE	1	2	Ground
Host data 7	3	4	Host data 8
Host data 6	5	6	Host data 9
Host data 5	7	8	Host data 10
Host data 4	9	10	Host data 11
Host data 3	11	12	Host data 12
Host data 2	13	14	Host data 13
Host data 1	15	16	Host data 14
Host data 0	17	18	Host data 15
Ground	19	20	No connect
DRQ0 / DRQ1	21	22	Ground
Host IOW	23	24	Ground
Host IOR	25	26	Ground
IOCHRDY	27	28	Host ALE
DACK0 / DACK1	29	30	Ground
IRQ14 / IRQ 15	31	32	No connect
Address 1	33	34	No connect
Address 0	35	36	Address 2
Chip select 0	37	38	Chip select 1
Activity	39	40	Ground
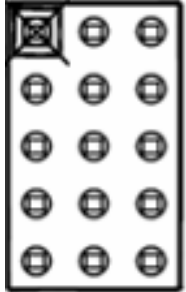
Floppy Connector [J20]
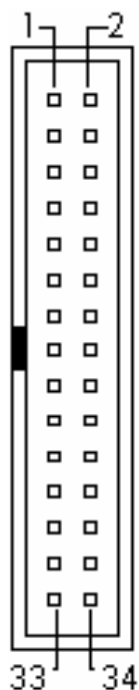
Signal	Pin	Pin	Signal
Ground	1	2	DENSL#
Ground	3	4	No connect
No connect	5	6	MSEN0
Ground	7	8	IDEX#
Ground	9	10	MIR0#
Ground	11	12	DR1#
Ground	13	14	DR0#
Ground	15	16	MTR1#
Ground	17	18	DIR#
Ground	19	20	STER#
Ground	21	22	WDATA#
Ground	23	24	WGATE#
Ground	25	26	TRK0#
Ground	27	28	WP#
Ground	29	30	RDATA#
Ground	31	32	HDSEL#
Ground	33	34	DSKCHG#

Jumper Settings

H.110 CT Bus Shelf Address Header [JP1]

Column 1	Column 2	Column 3
NC	SGA0	GND
NC	SGA1	GND
NC	SGA2	GND
NC	SGA3	GND
NC	SGA4	GND

(default: 1-2 shorted)

V(I/O) Select [J5 - J6 - J7]

Connector	Signal
J5	+5V
J6	V(I/O)
J7	+3.3V

(default: J5-J6 shorted)

3.2 cBP-6408R (64-bit/33MHz)

The backplane for the cPCIS-3330 Series 6U 64-bit, 8-slot chassis is the cBP-6408R, a 6U 64-bit, 8-slot, H.110 CompactPCI backplane with rear I/O.

Features

▶ Standard CompactPCI 8-slot 64-bit backplane for 6U cPCI cards

▶ One segment with R-hand side system slot; 7 peripheral slots

▶ Supports 80mm P3 & P5 rear I/O for each slot

▶ Supports PICMG 2.5 H.110 CT Bus

▶ PICMG 2.1 Hot Swap compliant

Specifications

|	
CompactPCI Standards	PICMG 2.0 R3.0, 2.1 R2.0, 2.5 R1.0, 2.9 R1.0
Dimensions	202.5 x 262.05 (mm, W x H)
Segments	One
CompactPCI Bus	64-bit/33MHz
System Slot	One (R-hand side)
System Slot Rear I/O	P3, P4, and P5 rear I/O with AB-type shroud
Peripheral Slots	7
Peripheral Slot Rear I/O	P3 and P5 rear I/O with AB-type shroud
H.110 Bus	Complies with PICMG 2.5, for all peripheral slots
V (I/O)	3.3V or 5V selectable, default 5V
Power Connectors	ATX connector x 3
System Slot Legacy I/O	None
Utility Board Slot	None
Other Connectors	INH#, Reset, PWR_FAL#, Voltage LEDs, H.110 Power Pairs (VRG, Vbat), PICMG 2.9 IPMB
Recommended System Boards	cPCI-6760D, cPCI-6780V/VS, cPCI- 6810, cPCI- 6820, cPCI- 6830, cPCI-6831, cPCI-6840, cPCI-6841, cPCI- 6860A

Mechanical Drawing
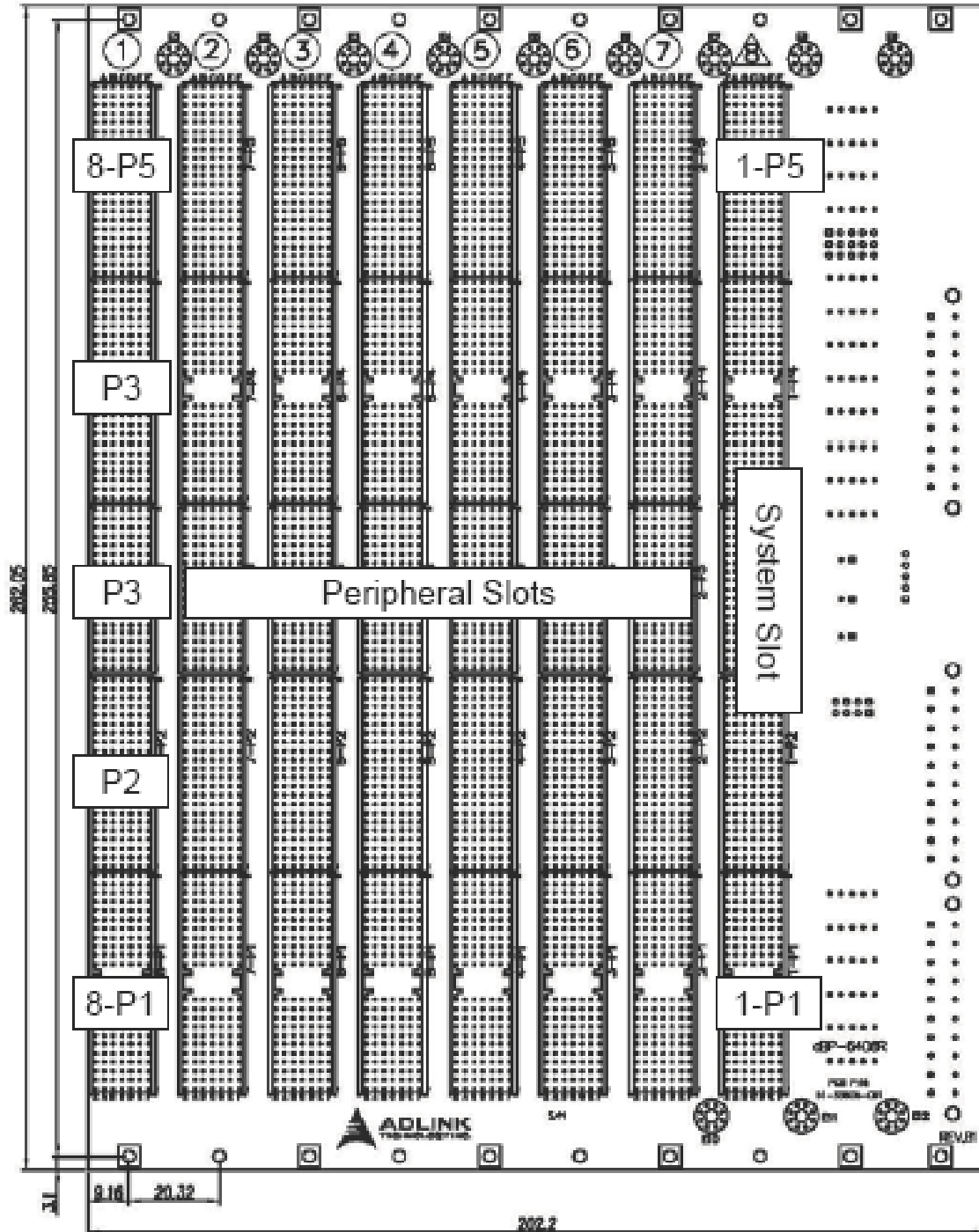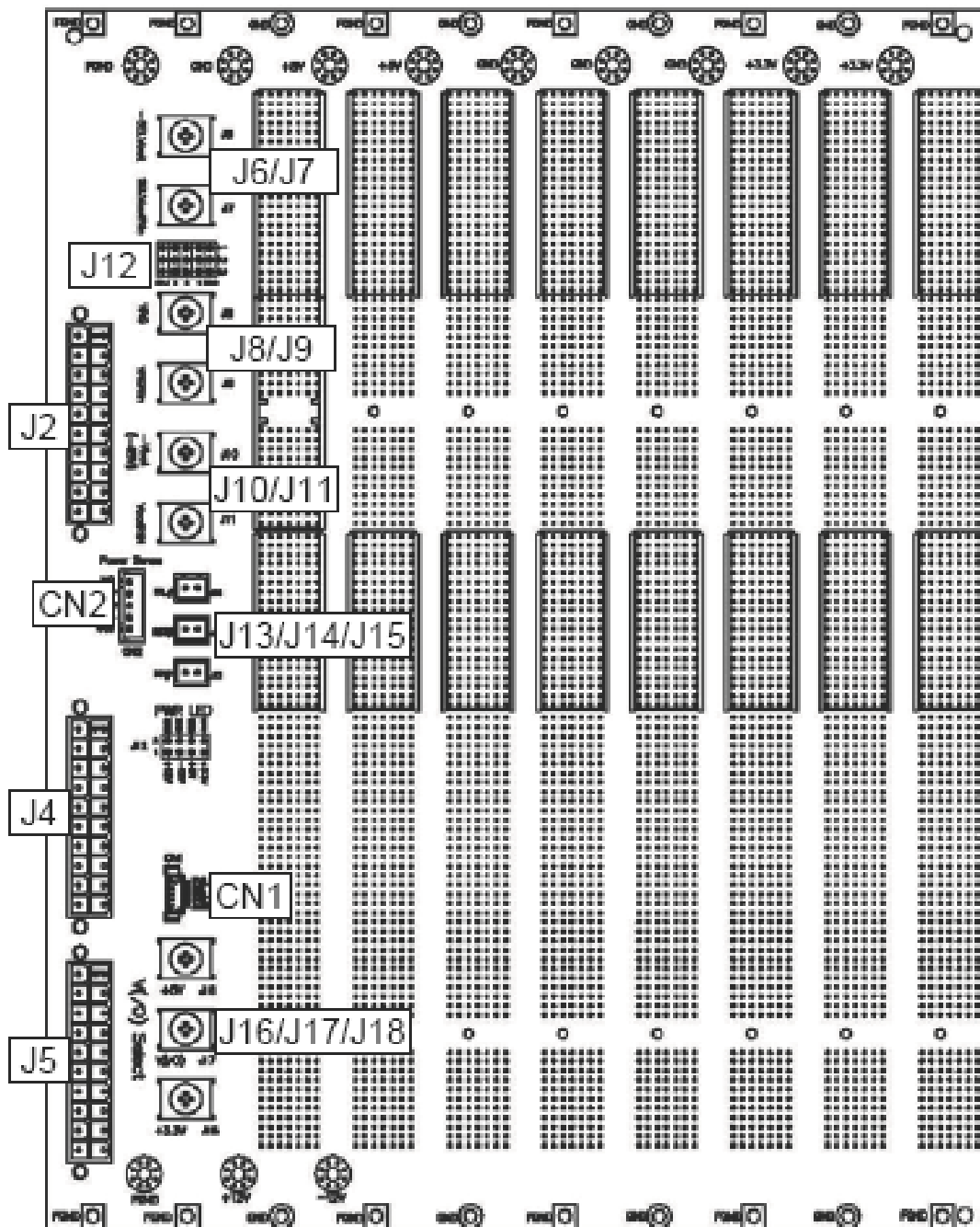

Figure 3-3: cBP-6408R Backplane Front View

Figure 3-4: cBP-6408R Backplane Rear View

Connector Pin Assignments

System Slot: [1–P1]

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	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	+3.3V	FRAME#	IRDY#	BDSEL	TRDY#	GND
12-14				Keying 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]#	GND	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	Reserved	Reserved	PCIRST#	GND	GNT#	GND
4	GND	IPMB_PWR	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

System Slot: [1–P2]

Pin	Z	A	B	C	D	E	F
22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	CLK6	GND	Reserved	Reserved	Reserved	GND
20	GND	CLK5	GND	Reserved	GND	Reserved	GND
19	GND	GND	GND	SMDATA	SMCLK	ALERT#	GND
18	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
17	GND	Reserved	GND	PRST#	REQ6#	GNT6#	GND
16	GND	Reserved	Reserved	DEG#	GND	Reserved	GND
15	GND	Reserved	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)	Reserved	C/BE[7]#	GND	C/BE[6]#	GND
3	GND	CLK4	GND	GNT3#	REQ4#	GNT4#	GND
2	GND	CLK2	CLK3	SYSEN#	GNT2#	REQ3#	GND
1	GND	CLK1	GND	REQ1#	GNT1#	REQ2#	GND

System Slot: [1–P3]

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

System Slot: [1–P4]

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

System Slot: [1–P5]

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

Peripheral Slot: [2–P1] - [8–P1]

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	IPMB_SCL	IPMB_SDA	GND	PERR#	GND
16	GND	DEVSEL#	GND	V(I/O)	STOP#	LOCK#	GND
15	GND	+3.3V	FRAME#	IRDY#	BDSEL	TRDY#	GND
12-14	Keying 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	Reserved	Reserved	PCIRST#	GND	GNT#	GND
4	GND	IPMB_PWR	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

Peripheral Slot: [2–P2] - [8–P2]

Pin	Z	A	B	C	D	E	F
22	GND	GA4	GA3	GA2	GA1	GA0	GND
21	GND	Reserved	GND	Reserved	Reserved	Reserved	GND
20	GND	Reserved	GND	Reserved	GND	Reserved	GND
19	GND	GND	GND	Reserved	Reserved	Reserved	GND
18	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
17	GND	Reserved	GND	Reserved	Reserved	Reserved	GND
16	GND	Reserved	Reserved	Reserved	GND	Reserved	GND
15	GND	Reserved	GND	Reserved	Reserved	Reserved	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)	Reserved	C/BE[7]#	GND	C/BE[6]#	GND
3	GND	Reserved	GND	Reserved	Reserved	Reserved	GND
2	GND	Reserved	Reserved	SYSEN#	Reserved	Reserved	GND
1	GND	Reserved	GND	Reserved	Reserved	Reserved	GND

Peripheral Slot: [2–P3] - [8–P3]

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

Peripheral Slot: [2–P4] - [8–P4]

Pin	Z	A	B	C	D	E	F
25	GND	SGA4	SGA3	SGA2	SGA1	SGA0	GND
24	GND	GA4	GA3	GA2	GA1	GA0	GND
23	GND	+12V	Reserved	CT_EN#	-12V	CT_MC	GND
22	GND	PFS0#	CT_RESET	Reserved	Reserved	Reserved	GND
21	GND	-SELVbat	PFS1#	Reserved	Reserved	-SELVbat Rtn	GND
20	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
19	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
18	GND	VRG	No Pin	No Pin	No Pin	VRG Rtn	GND
17	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
16	GND	No Pin	No Pin	No Pin	No Pin	No Pin	GND
15	GND	-Vbat	No Pin	No Pin	No Pin	-Vbat Rtn	GND
12-14				Keying Area			
11	GND	CT_D29	CT_D30	CT_D31	V(I/O)	CT_FRAME_A	GND
10	GND	CT_D27	+3.3V	CT_D28	+5V	CT_FRAME_B	GND
9	GND	CT_D24	CT_D25	CT_D26	GND	RF_COMP	GND
8	GND	CT_D21	CT_D22	CT_D23	+5V	CT_C8_A	GND
7	GND	CT_D19	+5V	CT_D20	GND	CT_C8_B	GND
6	GND	CT_D16	CT_D17	CT_D18	GND	CT_NETREF_1	GND
5	GND	CT_D13	CT_D14	CT_D16	+3.3V	CT_NETREF_2	GND
4	GND	CT_D11	+5V	CT_D12	+3.3V	SCLK	GND
3	GND	CT_D8	CT_D9	CT_D10	GND	SCLK-D	GND
2	GND	CT_D4	CT_D5	CT_D6	CT_D7	GND	GND
1	GND	CT_D0	+3.3V	CT_D1	CT_D2	CT_D3	GND

Peripheral Slot: [2–P5] - [8–P5]

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

SM Bus Connector [CN1]
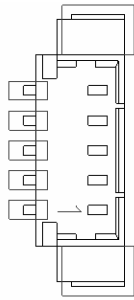
Pin	Signal
1	CLK
2	GND
3	DATA
4	V(I/O)
5	ALERT#

Power Sense Connector [CN2]
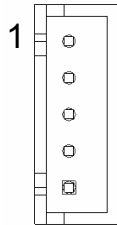
Pin	Signal
1	NC
2	+12V
3	+3.3V
4	GND
5	+5V

ATX Power Connector [J2, J4, J5]
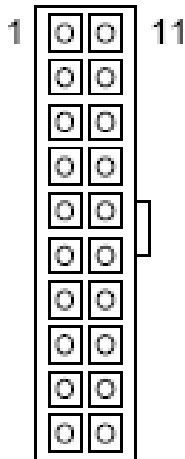
Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	INH#
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	FAL#	18	NC
9	5V STB	19	+5V
10	+12V	20	+5V

H.110 DC Power Terminal [J6 - J11]

Connector	Signal
J6	-SELVbat
J7	-SELVbat Rtn
J8	VRG
J9	VRG Rtn
J10	-Vbat (-48V)
J11	-Vbat Rtn

Power LED Connector [J12]
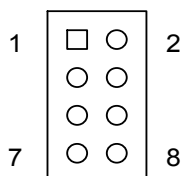
Pin	Signal	Pin	Signal
1	+12V	2	GND
3	-12V	4	GND
5	+3.3V	6	GND
7	+5V	8	GND

RST# Connector [J13]
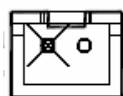
Pin	Signal
1	PRSTA#
2	GND

FAL# Connector [J14]
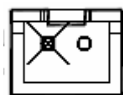
Pin	Signal
1	FAL#
2	GND

INH# Connector [J15]
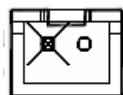
Pin	Signal
1	INH#
2	GND

Jumper Settings

H.110 CT Bus Shelf Address Header [JP1]

Column 1	Column 2	Column 3
NC	SGA0	GND
NC	SGA1	GND
NC	SGA2	GND
NC	SGA3	GND
NC	SGA4	GND

(default: 1-2 shorted)

V(I/O) Select [J16 - J17 - J18]

Connector	Signal
J16	+5V
J17	V(I/O)
J18	+3.3V

(default: J16-J17 shorted)

3.3 cBP-3064 CompactPCI Power Backplane

The power backplane for the cPCIS-3330 8-slot chassis is the cBP-3064.

Specifications

- ▶ PICMG 2.11 3U CompactPCI 47-pin Power Backplane
- ▶ Dimension: 161.56 x 128.7 (mm, W x H)
- ▶ Power Module Sockets: four
- ▶ DC output (ATX connector): four
- ▶ Cascading Current Sharing
- ▶ Cascading Voltage Sense: Dedicated voltage sense connector
- ▶ PICMG 2.9 IPMB Socket

Mechanical Drawing
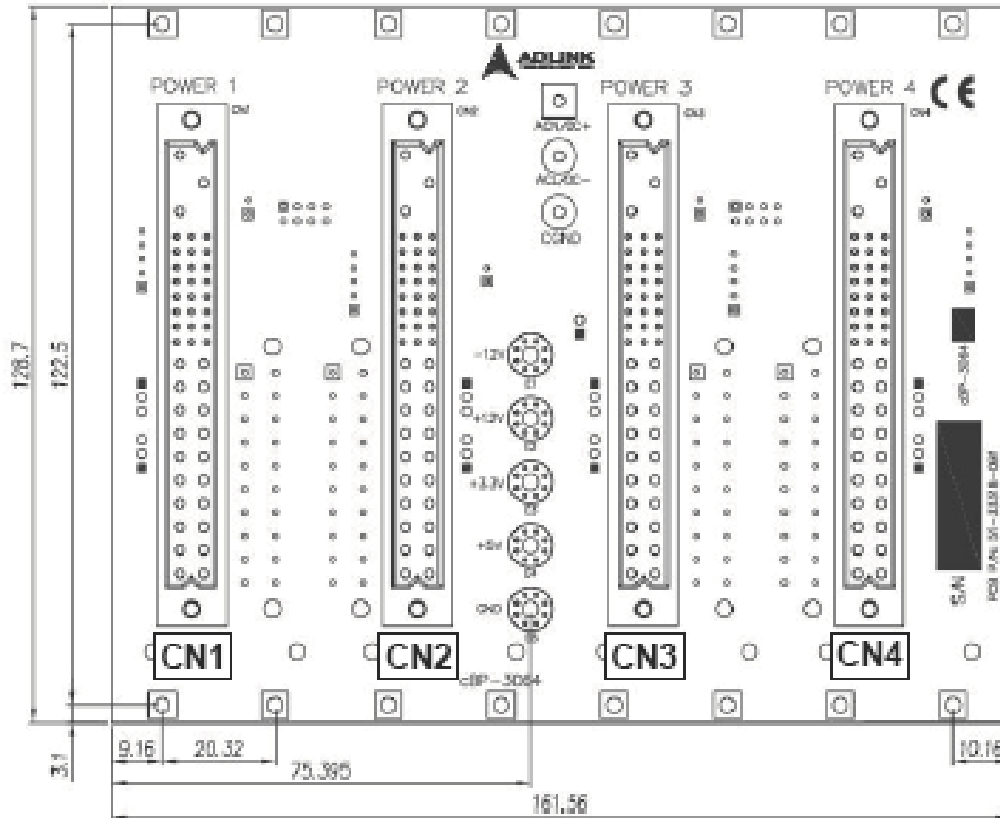
Figure 3-5: cBP-3064 Power Backplane Front View
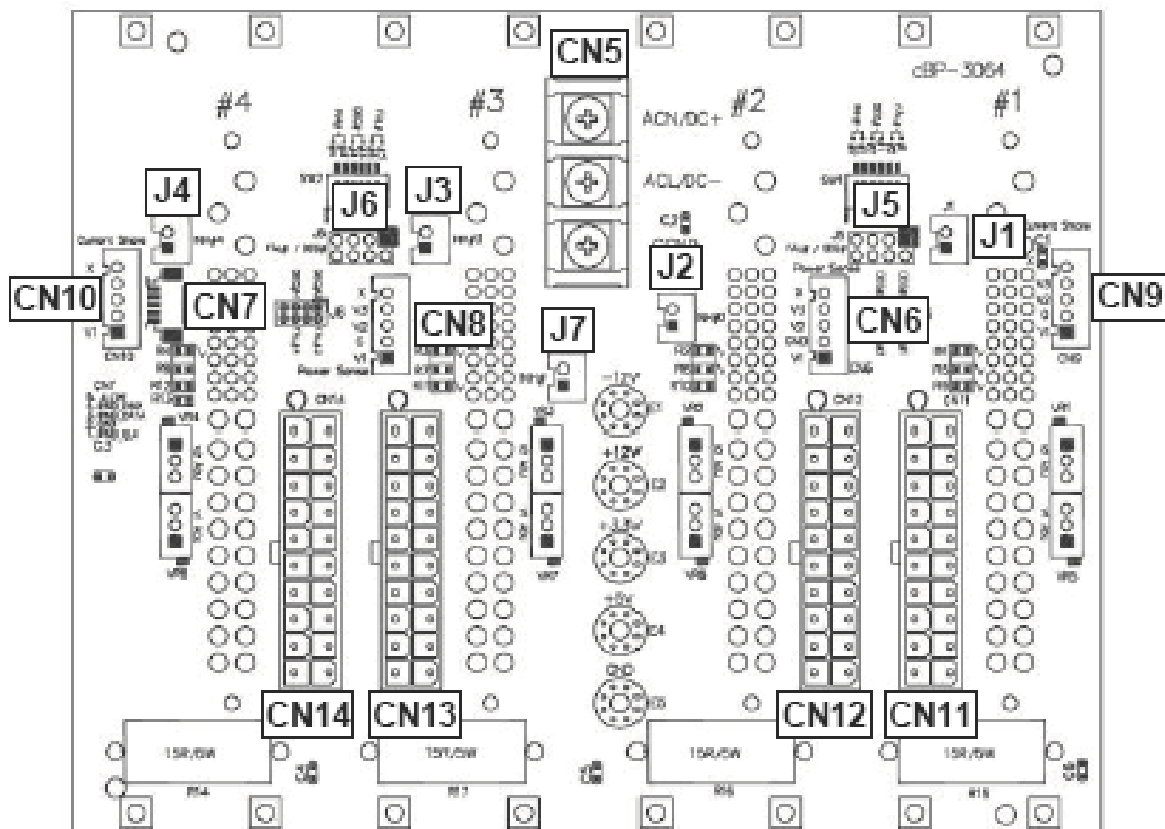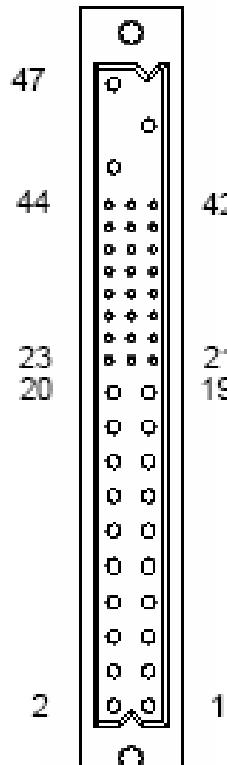
Figure 3-6: cBP-3064 Power Backplane Rear View

Connector Pin Assignments

CompactPCI 47-Pin PSU Connector: Power 1-4 [CN1-CN4]

Pin	Signal	Pin	Signal
47	ACL/-DC IN	31	GA2
46	ACN/+DC IN	30	V1 SENSE
45	CGND	29	V1ADJ
44	V3 SHARE	28	GA1
43	IPMB_PWR	27	EN#
42	+FAL#	26	RESERVED
41	V2 SHARE	25	GA0
40	IPMB_SDA	24	RTN
39	INH#	23	RESERVED
38	DEG#	22	RTN
37	IPMB_SCL	21	V4
36	V3 SENSE	20	V3
35	V1 SHARE	19	RTN
34	S RTN	13-18	V2
33	V2 SENSE	5-12	RTN
32	V2ADJ	1-4	V1

AC-Inlet Connector [CN5]

Pin	Signal
1	ACN/DC+
2	ACL/DC-
3	CGND

IPMB Connector [CN7]
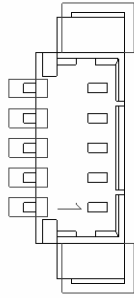
Pin	Signal
1	CLK
2	GND
3	DATA
	V(I/O)
	ALERT#

Power Sense Connector [CN6, CN8]
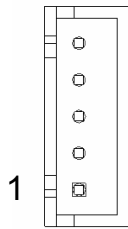
Pin	Signal
1	Ground
2	+3.3V
3	-12V
4	+12V
5	+5V

Current Share Connector [CN9, CN10]
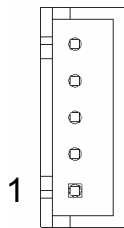
Pin	Signal
1	Ground
2	+3.3V
3	-12V
4	+12V
5	+5V

DC Power Out [CN11, C12, CN13, CN14])
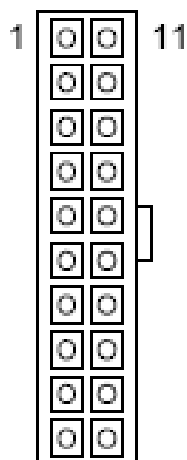
Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	INH#
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	FAL#	18	-5V
9	DEG#	19	+5V
10	+12V	20	+5V

INH#1 Connector [J1]
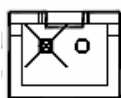
Pin	Signal
1	INH#1
2	GND

INH#2 Connector [J2]
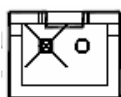
Pin	Signal
1	INH#2
2	GND

INH#3 Connector [J3]
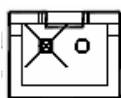
Pin	Signal
1	INH#3
2	GND

INH#4 Connector [J4]
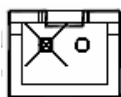
Pin	Signal
1	INH#4
2	GND

DEG#/FAL# (1, 2) Connector [J5]
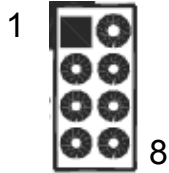
Pin	Signal
1	DEG#1
2	FAL#1
3	RSV23A
4	RSV26A
5	DEG#2
6	FAL#2
7	RSV23B
8	RSV26B

DEG#/FAL# (3, 4) Connector [J5]
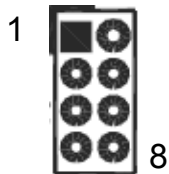
Pin	Signal
1	DEG#3
2	FAL#3
3	RSV23C
4	RSV26C
5	DEG#4
6	FAL#4
7	RSV23D
8	RSV26D

INH# Connector [J7]
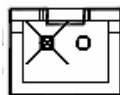
Pin	Signal
1	INH#
2	GND

4 Cooling System

The cPCIS-3330 Series subsystems are equipped with 10 front-access hot swappable fans (five intake on the bottom, five exhaust on the top) and two rear-access hot swappable fans to provide an effectively cooled environment. The chassis is equipped with an air filter that is removable for cleaning and/or replacement. The cPCIS-3330 Series features an embedded alarm board that monitors fan status and initiates a visible and audible alarm upon fan failure.

4.1 Fan Alarm

The embedded alarm board monitors temperature & fan status. Should a fan become disabled, the Alarm LED will light up and an audible warning will be heard.

To disable the audible warning, press the Alarm Reset Button. The Alarm LED will continue to flash until the faulty fan is replaced.

4.2 Fan Removal and Replacement

To remove and replace a faulty fan module, follow the procedures below.
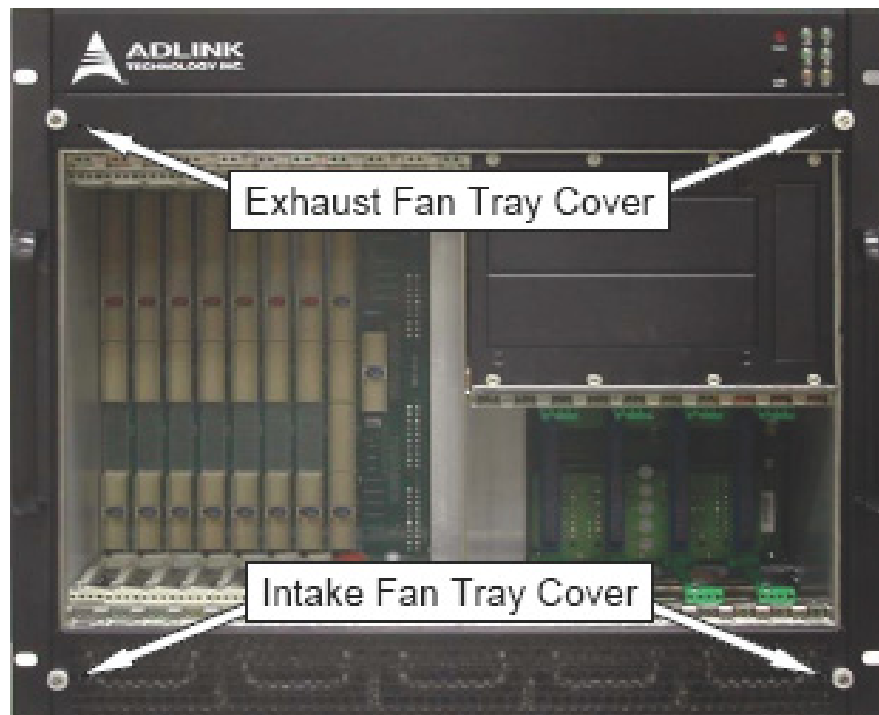
Figure 4-1: Front fan tray cover locations

Intake Fans

1. Loosen the two screws attaching the intake fan tray cover at the base of the chassis and remove the cover.
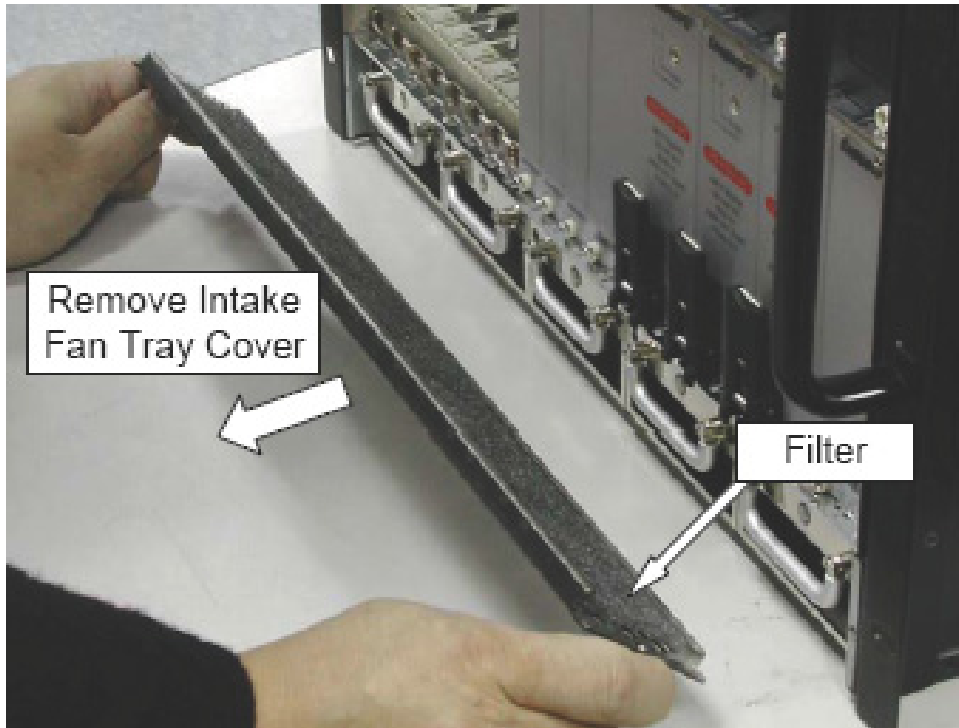

Figure 4-2: Remove the intake fan tray cover
(note filter location)

2. Remove the two screws securing the faulty fan module, lift the handle, and pull the module out of the fan tray.
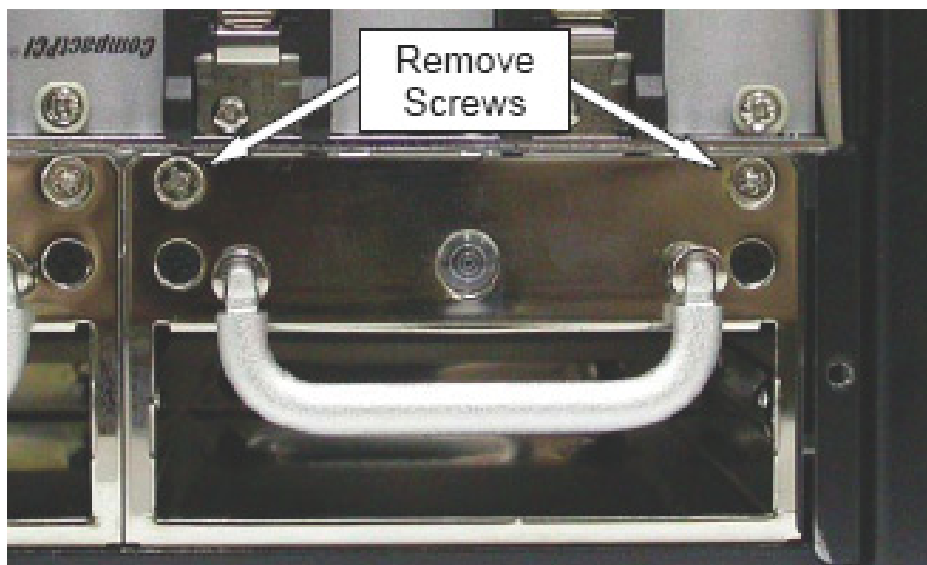

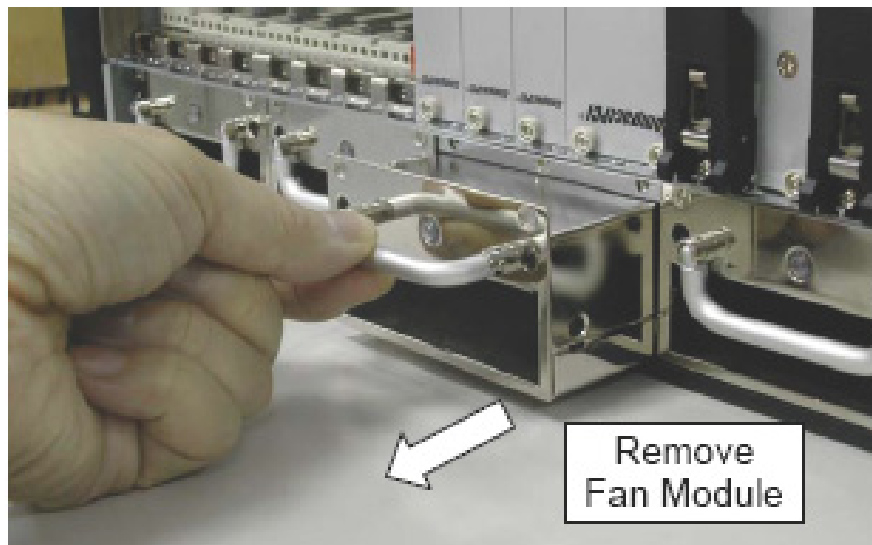**Figure 4-3: Remove the screws securing the fan module**

Figure 4-4: Remove the faulty intake fan module

3. Replace with a functional fan module and reinstall the fan tray cover.

Front Exhaust Fans

1. Loosen the two screws attaching the exhaust fan tray cover and remove the cover.

2. Remove the two screws securing the fan module, lift the handle, and pull the faulty fan module out of the fan tray.

Figure 4-5: Remove the screws securing the fan module

3. Replace with a functional fan module and reinstall the fan tray cover.

Rear Exhaust Fans

1. Loosen the four screws securing the rear exhaust fan module and pull the faulty fan module out of the chassis.
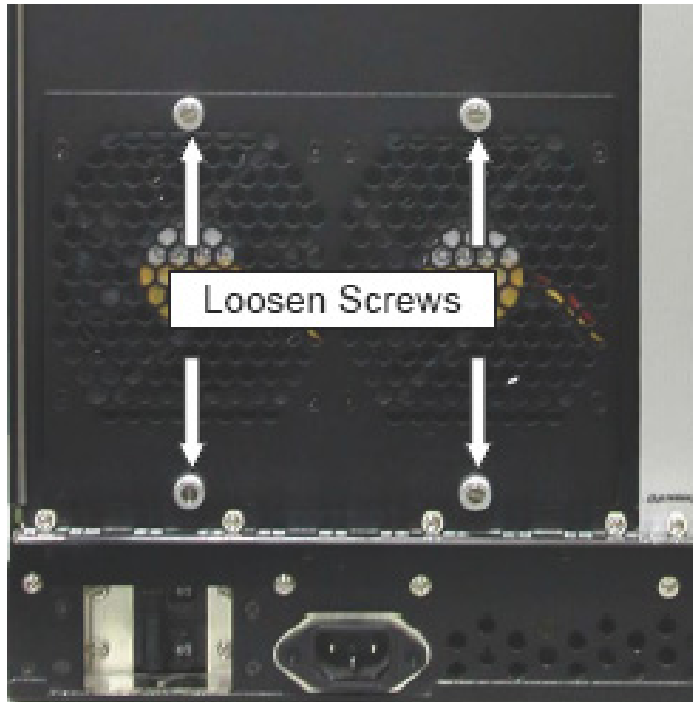

Figure 4-6: Loosen the screws securing the rear fan module

2. Replace with a functional fan module and reinstall the fan tray cover.

For replacement fan modules, please contact your ADLINK distributor.

4.3 Fan Tray Filter Replacement

The air filter is located in the front intake fan tray cover at the base of the chassis. To clean/replace the filter, remove the tray cover as shown in **Figure 4.2** above. Clean the filter or replace it with a new one, and reinstall the fan tray cover.

5 Power Supply Unit

The cPCIS-3330 Series Subsystems are equipped with four ADLINK cPS-H325 CompactPCI power modules (AC or DC input).

5.1 Features

▶ PICMG 2.11 CompactPCI power interface compliant
▶ 250W 3U X 8HP Eurocard package
▶ Meets IEC1000-3-2 harmonic correction
▶ Internal OR-ing diodes for N+1 redundancy
▶ Hot-swappable
▶ Third-wire current sharing
▶ EMI meets EN 55022 / FCC CLASS A
▶ CE marking compliance

5.2 Specifications

▶ Operating Temperature Range: 0°C to 50°C at full load with specified air flow (Derates linearly to 50% at +70 °C)
▶ Storage Temperature: -40 to +85 °C
▶ Temperature Coefficient: Typ. ±0.02% / °C
▶ Cooling: >20 CFM moving air required to achieve full rated power
▶ Dimensions: Eurocard 3U X 8HP X 160mm CompactPCI format
▶ Efficiency: 78-79% typical
▶ Switching Frequency: 120K Hz
▶ Safety: IEC60950 Class I
▶ Circuit Topology: Forward circuit
▶ Transient Response: Peak transient less than 100mV and recovers within 2ms after 25% load-change

5.3 Input Characteristics

▶ Input Voltage: 100-240 ± 10% VAC (cPS-H325/AC)
                        36 - 72 VDC (cPS-H325/48)

▶ Power Factor Correction: Meets Harmonic Correction IEC1000-3-2. Power Factor typ. 0.95-0.97

▶ Input Connector: Positronic 47-pin PCIH47M400A1

▶ Input Frequency: 47-63Hz

▶ Inrush Current: < 30A @ 230VAC (cPS-H325/AC only)

▶ Input Current: 2.8A @115VAC / 1.4A @230VAC (cPS-H325/AC)
                        7A @ 48VDC (cPS-H325/48)

▶ Dielectric Withstand: Meets IEC950 regulations

▶ EMI: Meets EN55022 / FCC Class A

▶ Hold-up Time: 5ms after power fail signal

▶ Remote ON/OFF: Available at [INH#] & [EN#] pins

▶ Power Fail Signal: Available at [FAL#] pin

▶ Status LED: <Green> means valid input voltage; <Amber> means a critical fault.

▶ Thermal Protection (OTP): Installed NTC and thermostat for thermal sensor at [DEG#] pin

▶ Power OK: Installed at all outputs

▶ Leakage Current: Typ. 0.5mA

5.4 Output Characteristics

Output Voltage (see below for properties)	Output Current (A)			
	MIN.	MAX.	TYP.	PEAK.
5V MAIN +VO1 (1, 2, 3, 4, 6)	2.0	33.0	25.0	–
3.3V AUX. +VO2 (1, 2, 3, 4, 6, 7)	0	33.0	18.0	–
12V AUX. +VO3 (1, 2, 3, 4, 6, 7)	0	5.5	5.5	6.0
-12V AUX. –VO4 (1, 5, 6, 8, 9)	0	1	0.5	1.5

Properties
1: OVP built-in
2: Adjustable
3: Remote sensing
4: 3rd-wire Load Sharing
5: Droop Current Sharing
6: Installed with Or-ing diode
7: Magnetic Amplifier
8: Installed with Post-regulator
9: Common Choke

Remarks Peak load sustainable for less than 60sec. with duty cycle <10%. Max. load is the continuous operating load of each rail. Max. load of each rail cannot be drawn from all outputs at the same time.

▶ Over Load Protection: Fully protected against output overload or short circuit. Typical 120% max. load.

▶ Over Current Protection: Installed at each rail

▶ Output Wattage: Typ. 250W continuous.

▶ Output Connector: Positronic 47-pin PCIH47M400A1.

▶ Line Regulation: Typ. 0.1%.

▶ Load Regulation: Typ. ±1–2%.

- ▶ Noise & Ripple: Typ. 1% peak to peak or 50mV, whichever is greater.
- ▶ OVP: Built-in at all outputs.
- ▶ Adjustability: Available at VO1, 2 & 3.
- ▶ Output Trim: Electrical trim available at VO1/VO2 [ADJ #].
- ▶ Remote Sensing: Available at VO1, VO2 & VO3.
- ▶ Hot-Swap: Available.
- ▶ N+1 Redundancy: Installed with internal OR-ing diodes at all outputs for N+1 redundancy operation.
- ▶ Current Sharing: Third-wire current sharing at VO1,2 &3.
- ▶ Power OK Signal: Available for all output.
- ▶ Over Current Protection: Installed at each rail.
- ▶ Overload Protection: Fully protected against output overload or short circuit. Typical 120% max. load.

Important Safety Instructions

Please read and follow all instructions marked on the product and in the documentation before operating the system. Retain all safety and operating instructions for future use.

▶ Please read these safety instructions carefully.

▶ Please keep this User's Manual for future reference.

▶ The equipment should be operated in an ambient temperature between 0 to 55°C.

▶ The equipment should be operated only from the type of power source indicated on the rating label. Make sure the voltage of the power source is correct when connecting the equipment to the power outlet.

▶ If the user's equipment has a voltage selector switch, make sure that the switch is set to the proper position for the area. The voltage selector switch is set at the factory to the correct voltage.

▶ For pluggable equipment, ensure they are installed near a socket-outlet that is easily accessible.

▶ Secure the power cord to prevent unnecessary accidents. Do not place anything over the power cord.

▶ If the equipment will not be in use for long periods of time, disconnect the equipment from mains to avoid being damaged by transient overvoltage.

▶ All cautions and warnings on the equipment should be noted.

▶ Please keep this equipment away from humidity.

▶ Do not use this equipment near water or a heat source.

▶ Place this equipment on a reliable surface when installing. A drop or fall could cause injury.

▶ Never pour any liquid into the opening, this could cause fire or electrical shock.

▶ Openings in the case are provided for ventilation. Do not block or cover these openings. Make sure there is adequate space around the system for ventilation when setting up the work area. Never insert objects of any kind into the ventilation openings.

▶ To avoid electrical shock, always unplug all power and modem cables from the wall outlets before removing covers.

▶ Lithium Battery provided (real time clock battery)

"CAUTION - Risk of explosion if battery is replaced by an incorrect type. Dispose used batteries as instructed in the instructions"

▶ The equipment should be checked by service personnel if one of the following situation arises:

▷ The power cord or plug is damaged.

▷ Liquid has penetrated the equipment.

▷ The equipment has been exposed to moisture.

▷ The equipment is not functioning or does not function according to the user's manual.

▷ The equipment has been dropped and damaged.

▷ If the equipment has obvious sign of breakage.

▶ Never open the equipment. For safety reasons, the equipment should only be opened by qualified service personnel.

Warranty Policy

Thank you for choosing ADLINK. To understand your rights and enjoy all the after-sales services we offer, please read the following carefully.

1. Before using ADLINK's products please read the user manual and follow the instructions exactly. When sending in damaged products for repair, please attach an RMA application form which can be downloaded from: http://rma.adlinktech.com/policy/.

2. All ADLINK products come with a limited two-year warranty, one year for products bought in China:

   ▶ The warranty period starts on the day the product is shipped from ADLINK's factory.

   ▶ Peripherals and third-party products not manufactured by ADLINK will be covered by the original manufacturers' warranty.

   ▶ For products containing storage devices (hard drives, flash cards, etc.), please back up your data before sending them for repair. ADLINK is not responsible for any loss of data.

   ▶ Please ensure the use of properly licensed software with our systems. ADLINK does not condone the use of pirated software and will not service systems using such software. ADLINK will not be held legally responsible for products shipped with unlicensed software installed by the user.

   ▶ For general repairs, please do not include peripheral accessories. If peripherals need to be included, be certain to specify which items you sent on the RMA Request & Confirmation Form. ADLINK is not responsible for items not listed on the RMA Request & Confirmation Form.

3. Our repair service is not covered by ADLINK's guarantee in the following situations:

▶ Damage caused by not following instructions in the User's Manual.

▶ Damage caused by carelessness on the user's part during product transportation.

▶ Damage caused by fire, earthquakes, floods, lightening, pollution, other acts of God, and/or incorrect usage of voltage transformers.

▶ Damage caused by unsuitable storage environments (i.e. high temperatures, high humidity, or volatile chemicals).

▶ Damage caused by leakage of battery fluid during or after change of batteries by customer/user.

▶ Damage from improper repair by unauthorized ADLINK technicians.

▶ Products with altered and/or damaged serial numbers are not entitled to our service.

▶ This warranty is not transferable or extendible.

▶ Other categories not protected under our warranty.

4. Customers are responsible for shipping costs to transport damaged products to our company or sales office.

5. To ensure the speed and quality of product repair, please download an RMA application form from our company website: http://rma.adlinktech.com/policy. Damaged products with attached RMA forms receive priority.

If you have any further questions, please email our FAE staff: service@adlinktech.com.