ADLINK
Solar-sys cSP-4502
User Manual

March 9, 2004

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Detailed Company Information			
Company/Organizati			
Contact Person			
E-mail Address			
Address			
Country			
TEL		FAX	
Web Site			
Questions			
Product Model			
Environment to Use	OS : Computer: M/B : CPU : Chipset : BIOS : Video Card : Network Interface Card : Other :		
Challenge Description			
Suggestions to ADLINK			

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1

Product Introduce

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1. Product Introduce

1.1 Product Overview

The **ADLINK cSP-4502** series is a Sun Microsystems UltraSPARC™ Platform family based on the 6U CompactPCI (or CPCI, Compact Peripheral Component Interconnect) standard.

cSP-4502 Series is designed for mission-critical applications that require high performance and integration in an innovative, four expansion slots, two HDD cages design. This industrial-standard system is ideal for meeting the demanding needs of today's communications, military, and industrial control applications.

This unique platform, with the UltraSPARC-Iii 440 MHz processor, delivers accelerated performance for memory-intensive, carrier grade applications. When combined with the robust Solaris™operating environment, world class real time operating system, or leading internet telephony/SS7 offerings, **cSP-4502** is your best choice for carrier grade high availability applications.

The cSP-4502 Series contains below materials:

1. 6U CompactPCI 64-bit 5 slots (1 system + 4 peripherial) backplane
2. Triple 250W hotswappable redundant power supply
3. One single slot Sun Microsystems UltraSPARC-IIi 650 MHz processor board
4. Rear Transition board which provide FDD connector*1(internal), internal SCSI connector*1, external SCSI connector*2, USB connector*2, Dual LAN, Dual COM Port
5. Default installed with 1GB SDRAM
6. Chassis provide Dual hotswappable 80 pin SCSI HDD cage, single Slim type FDD and Slim type CD-ROM. Each HDD cage have screw lock.

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1.2 Product Specifications

1.2.1 Chassis Feature

CompactPCI Standards	2.0 R3.0; 2.1 R2.0; 2.5 R1.0; 2.9 R1.0; 2.11 R1.0
Form Factor	6U cPCI with 80 mm depth rear I/O
Enclosure	EIA RS-310C 19" 4U high rack-mount enclosure
	Coated metal plate outer covering
	Guarded power switch and reset button
Basic Alarm Module	Monitoring inner chassis temperature, fan status
	Abnormal status will generate alarm and LED warning
	Alarm reset (silence of beeper)
	LED indications show power voltage status on 5V, 3.3V, 12V and -12V
Cooling System	
Front-access hot-swappable fan tray for in-take	12V DC brush-less, precise dual ball bearing
	One 90 CFM fan for in-take
	Rated speed for each fan: 3100 ± 250 RPM
	Rated power for each fan: 4.8W
Removable fan module for ventilation	12V DC brush-less, VAPO bearing
	Four 4.9 CFM fans for ventilation
	Rated speed for each fan: 5500 ± 1000 RPM
	Rated power for each fan: 0.6W
Rear-access hot-swappable fan modules for drive bays	12V DC brush-less, VAPO bearing
	Two 10.8 CFM fan modules for ventilation
	Rated speed for each fan: 8200 ± 1000 RPM
	Rated power for each fan: 1.6W
Rear-access hot-swappable fan modules for ventilation	12V DC brush-less, VAPO bearing
	One 51 CFM fan for ventilation
	Rated speed for each fan: 3600 ± 250 RPM
	Rated power for each fan: 2.8W
Drive Bay	Built-in one slim type floppy
	Dual Hot Swappable 80-pin SCSI HDD rack

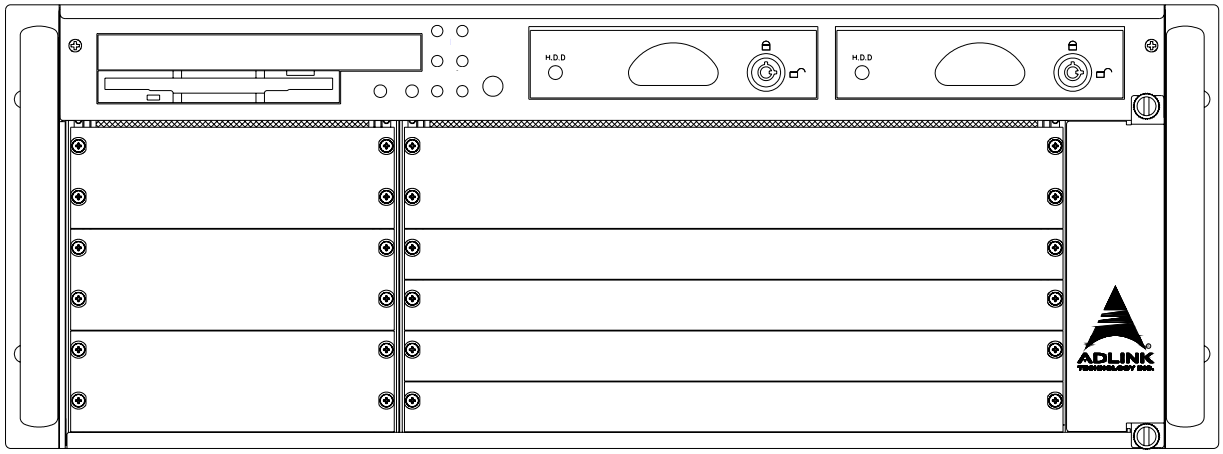
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Power Supply	Supports 3 in-rack 3U cPCI 8HP 250W power modules
	Supports current sharing on 5V, 3.3V and 12V
	PICMG 2.11 47-pin power interface
Backplane	5-slot 64-bit 6U cPCI CT Bus Backplane
Dimension	482.6 x 177.0 x 296.2 (mm, WxHxD, w/o handle)
Weight	14.5 Kg (including 500W + 250W redundant power supply and backplane)
Operating temperature	0 to 45°C
Storage temperature	-20 to 80°C
Humidity	5% to 95%, non-condensed
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
Safety or Certificate	CE, FCC class A

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1.2.2 Chassis Mechanic Outline

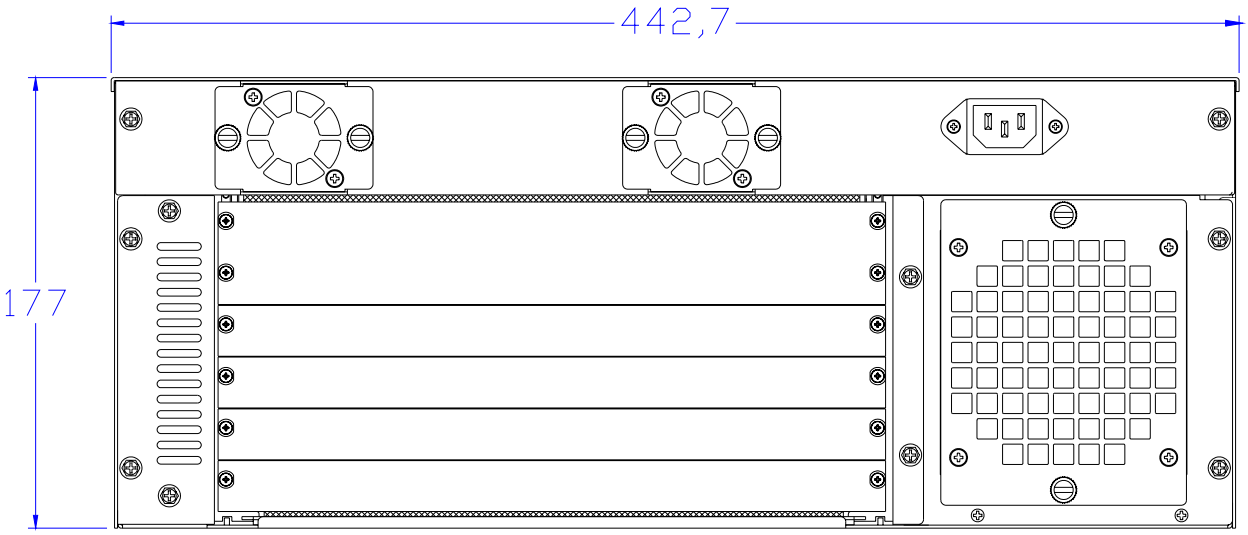
1.2.2.1 Chassis Front View



Front side view

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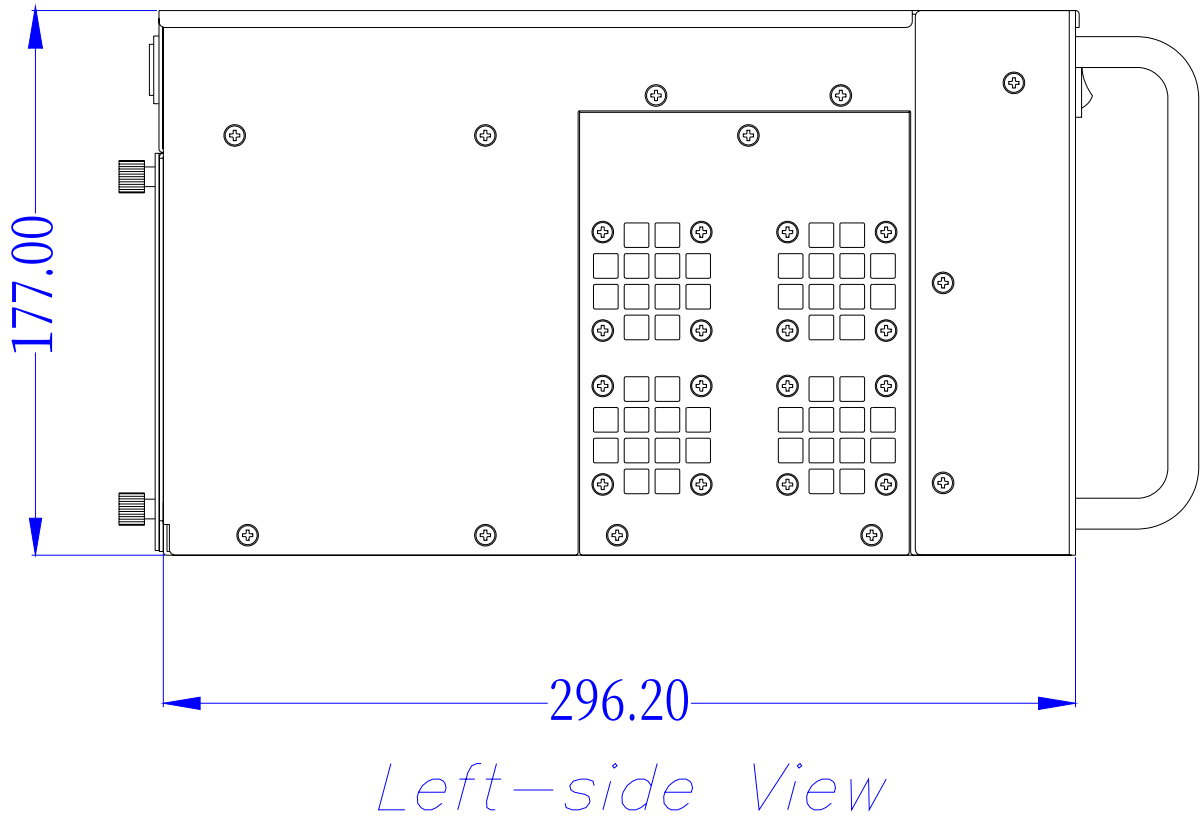
1.2.2.2 Chassis Back View



Rear view

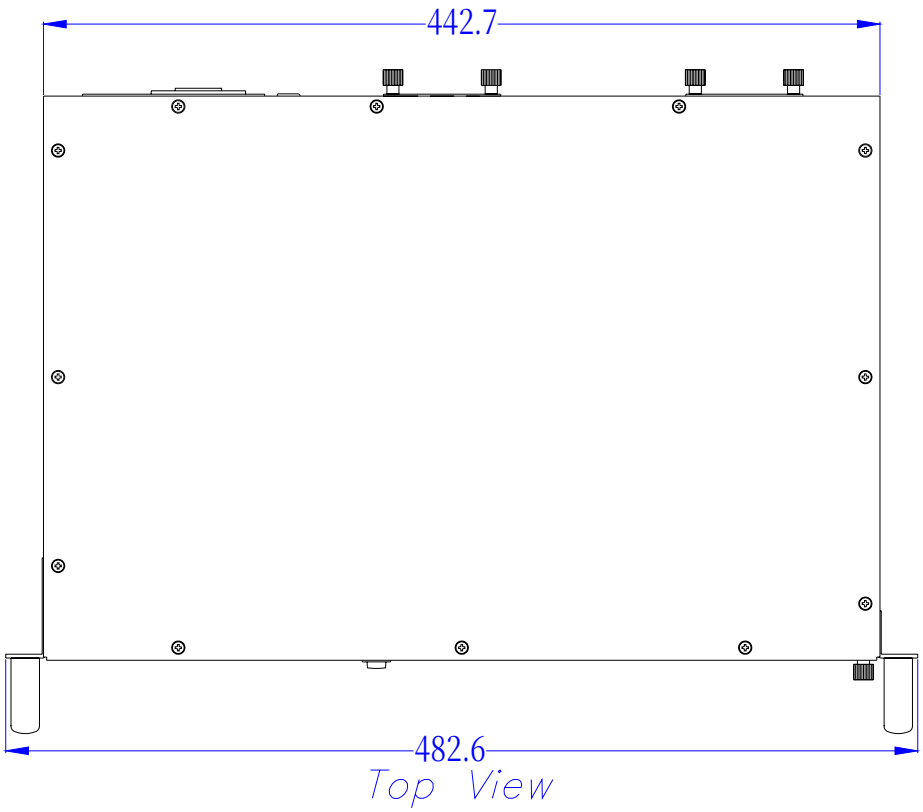
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1.2.2.3 Chassis Rear View



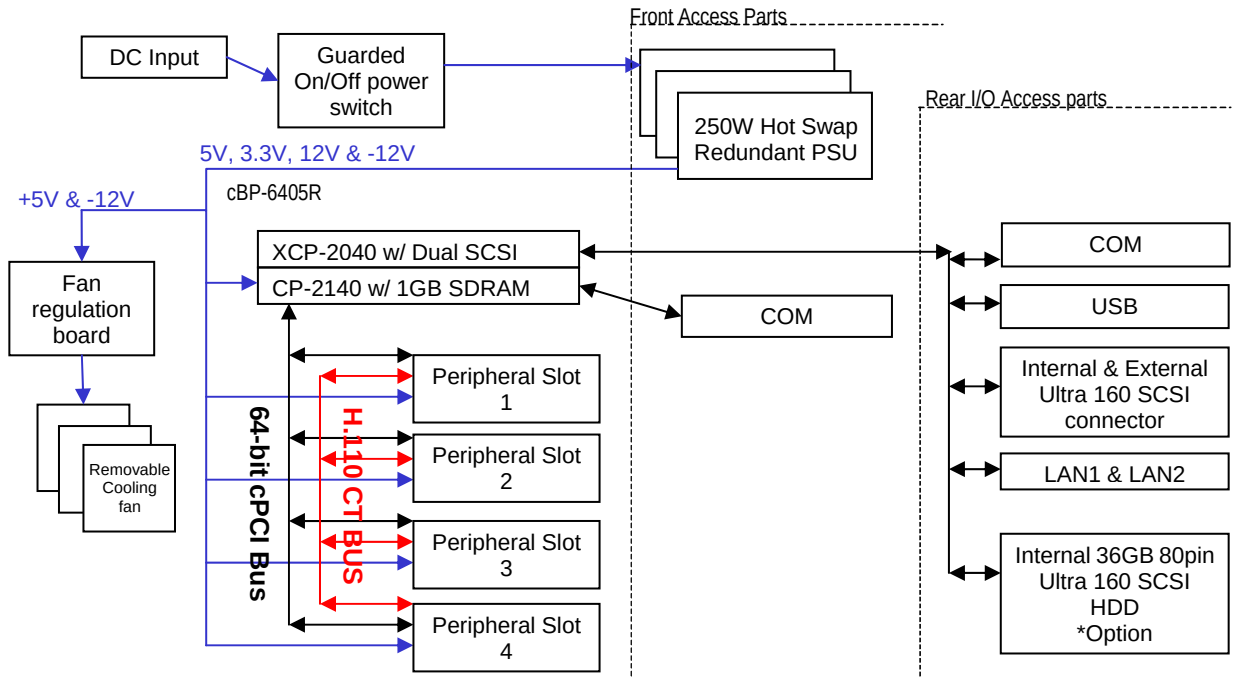
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1.2.2.4 Chassis Top View



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1.3 *System Board Block*



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Backplane Introduce

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2. Backplane Introduce

2.1 System Backplane Overview

The System backplane of **cSP-4502** series is cBP-6408R. cBP-6405R is a 64-bit, 5 slots backplane. P3, P4, P5 of each system slot are configured for rear I/O. It also support both cPCI bus and H.110 Bus.

The cBP-6405R contains below feature:

1. PICMG 2.0 CompactPCI Specification R3.0 Compliant
2. PICMG 2.1 CompactPCI Hot Swap Specification R2.0 Compliant
3. PICMG 2.5 H.110 Computer Telephony Specification R1.0 Compliant
4. Design for 64-bit/66-MHz CompactPCI computer system application
5. One system slot with four expansion slots, system on right hand side
6. P3, P4 and P5 on system slot are configured for rear I/O
7. 64-bit PCI bus on P1 and P2 of system and all expansion slots
8. All rear I/O connectors support "Type AB" connection
9. Separate chassis ground and signal ground on backplane
10. 10-layer PCB for accuracy impedance control and electronic noise immunity
11. Support H.100 VRG/VRGRtn, -Vbat(-48V)/VbatRtn power connectors
12. Backplane V(I/O) selectable for 5V or 3.3V, default is 5V
13. On board connectors for DC voltage LEDs, power on/off switch and reset button
14. Three ATX sockets with screw terminals for +5V, +3.3V, +12V and -12V DC input
15. 24TE/HP (6-slot) width, 6U height

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2.2 Screw Hole

The System backplane of **cSP-4502** series have two kinds of ground connection: **FGND** and **GND**.

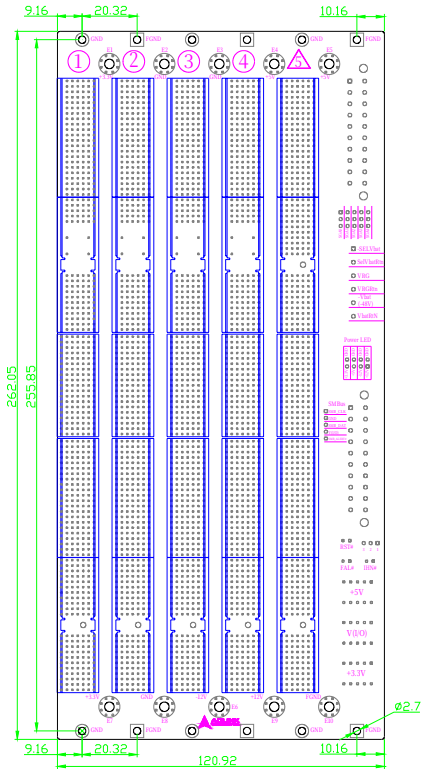
The screw hole with "**FGND**" printing, means the screw hole connects to **Signal Ground** (also know as ground reference). Usually, the screw of backplane will install to **GFND** screw hole.

The screw how with "**GND**" mark, means the screw hole reserves for **Chassis Ground**. General speaking, the **GND** screw hole will install nothing.

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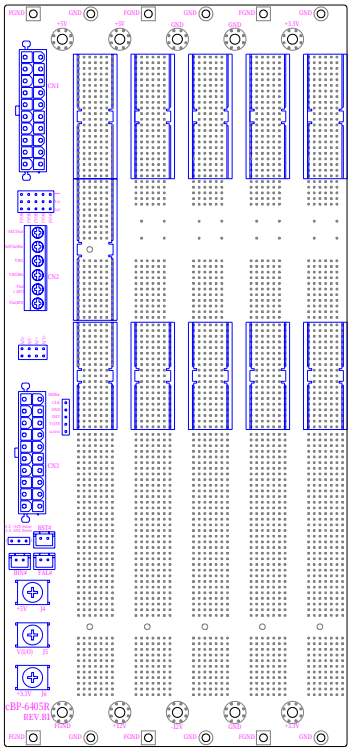
2.3 System Backplane Outline

2.3.1 Backplane Front View



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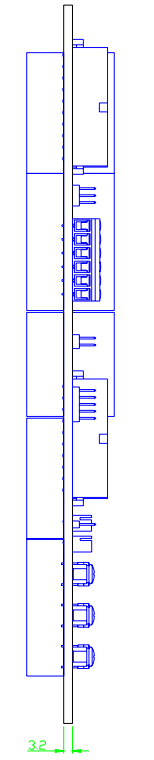
2.3.2 Backplane BackView



REAR VIEW

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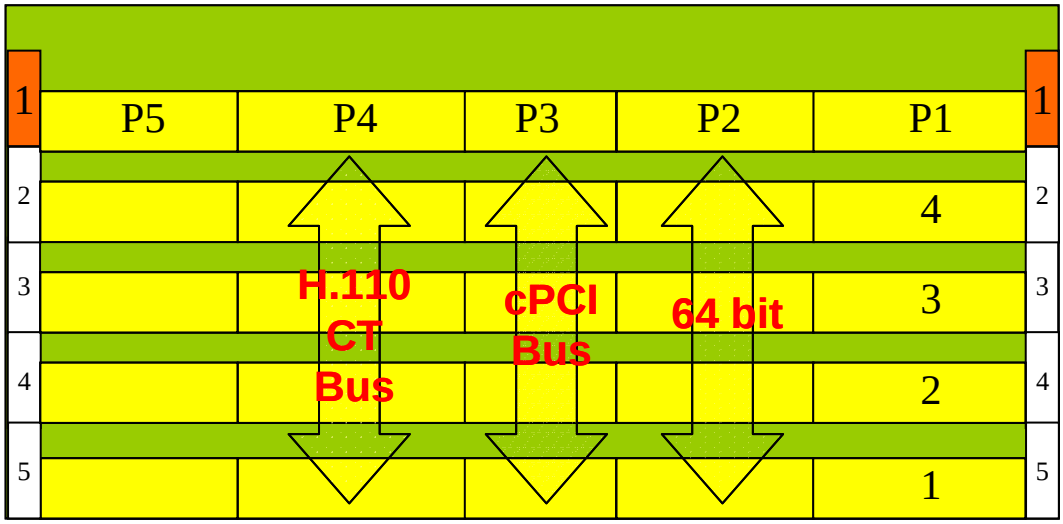
2.3.3 Backplane Rear View



LATERAL VIEW

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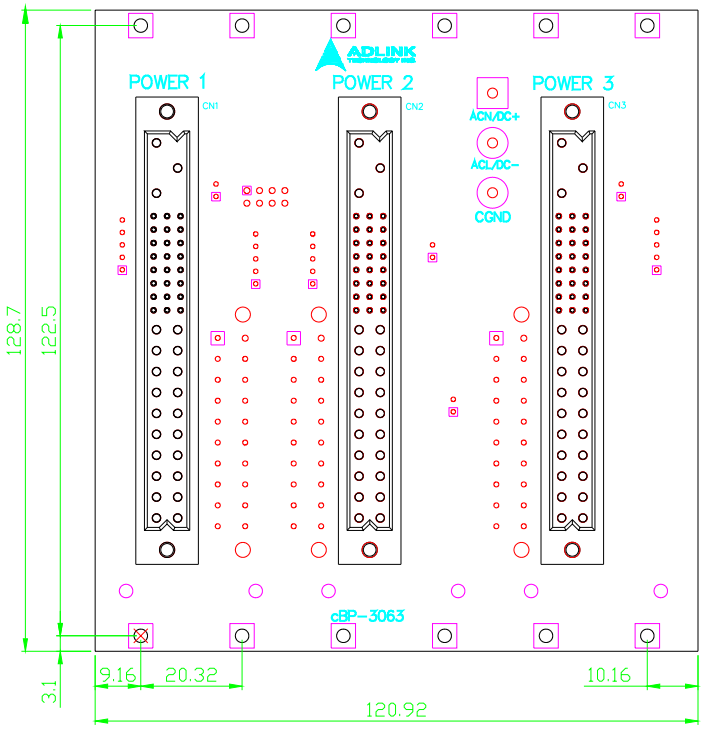
2.3.4 Backplane Slot definition



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2.4 Power Backplane Outline

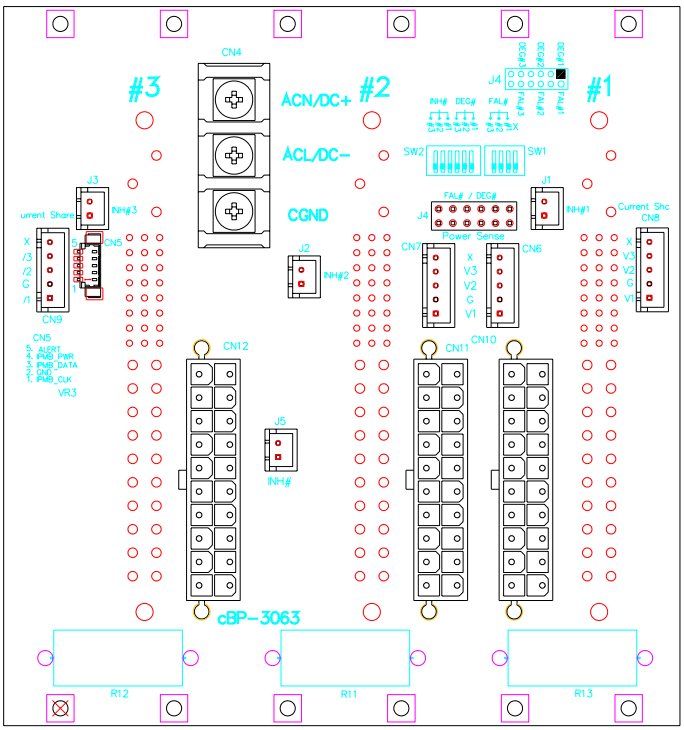
2.4.1 Power Backplane Front View



FRONT VIEW

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2.4.2 Power Backplane Rear View



REAR VIEW

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3

cPS-H325/AC 3U Compact PCI Power Supply Unit

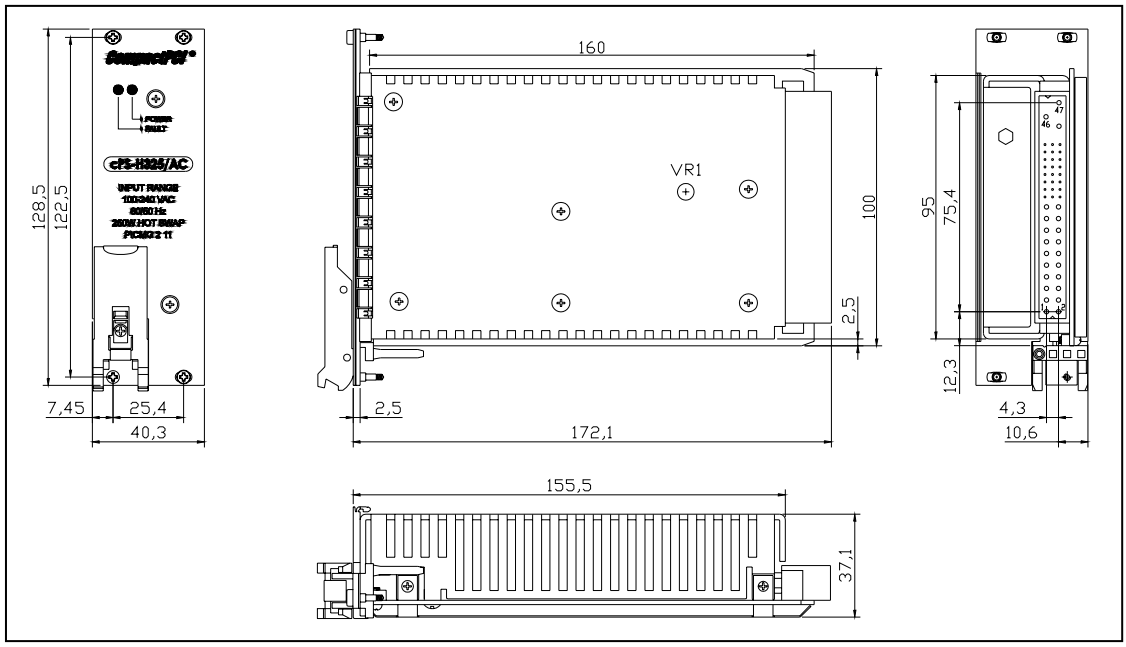
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3. cPS-H325/AC Introduce

3.1 cPS-H325/AC Overview

The Power Supply Unit (PSU) of cSP-4502/AC is cPS-H325/AC. It follows PICMG 2.11 standard, is 100% PICMG 2.11 CompactPCI Power Interface compliant. The cPS-H325/AC support Hot-Swappable function and N+1 Redundant Load-balance. It not only provide good, stable power supply, but also improve the convenience when maintain.

3.2 cPS-H325/AC Outline



3.3 Indicate Light

Normally, when PSU working regularly, the cPS-H325/AC will light **Power LED** ONLY! Below are the description of each indicate ligh:

"**POWER**" LED: Green Light On → Regular working
Green Light Out → Active Failure
"**FAULT** LED: Orange Light On → Active Failure
Orange Light Out → Regular working

3.4 Install cPS-H325/AC

cPS-H325/AC is a CompactPCI standard PSU. Because of the hot swap, redundant and load balance functions, user can remove or install cPS-H325/AC PSU whether the power on or off.

Caution – If the system in running, be careful that there is at least one cPS-H325/AC installed in cSP-4502.

3.5 cPS-H325/AC Feature

- PICMG 2.11 CompactPCI Power Interface compliant
- 3U CompactPCI 8HP form factor
- PICMG 2.11 47-pin CompactPCI in-rack power module interface
- 250W DC output
- Active PFC (Power Factor Correction) meet IEC1000-3-2 Harmonic Correction
- Internal OR-ing Diodes for N+1 redundancy
- Hot swappable
- Active current sharing
- EMI meet EN 55022 & FCC Class A
- Support remote ON/OFF
- Support power failure signal & degradation signal

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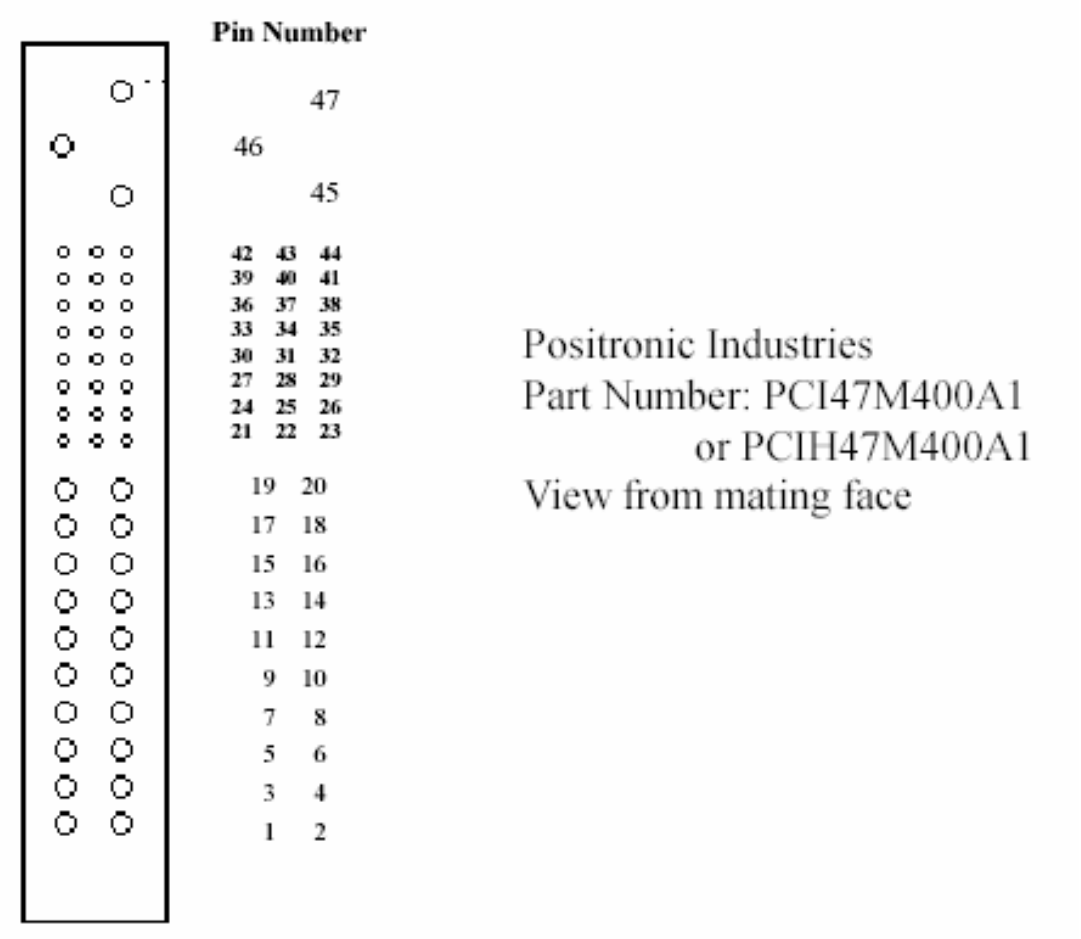
3.6 cPS-H325/AC Spec

General CompactPCI Features
▪ PICMG 2.11 CompactPCI Power Interface compliant
Input Voltage
▪ 100-240 ± 10% VAC
Input Frequency
▪ 50-60 ± 5% Hz
Input Current
▪ 2.5A@115VAC / 1.4A@230VAC
Inrush Current
▪ < 30A@230VAC
Power Factor Correction (PFC)
▪ Typical 0.95-0.97 ▪ Meet Harmonic Correction IEC1000-3-2
Output Voltage/Current
▪ 5V: Typ. 25.0A, Max. 33.0A ▪ 3.3V: Typ. 18.0A, Max. 33.0A ▪ +12V: Typ. 5.0A, Max. 5.5A ▪ -12V: Typ. 0.5A, Max 1A ▪ Max. load is the continuous operating load of each rail. But the max. load of each rail can not be drawn from all outputs at the same time
Output Voltage Minimum Load
▪ 0.5A@+5V
Output Wattage
▪ Typical 250W continuous
Line Regulation
▪ Typical 0.1%
Load Regulation
▪ Typical ± 1-2%
Ripple
▪ 50mV @+5V and 3.3V outputs ▪ 120mV @+12V and –12V outputs
Hold-up Time
▪ 5mS after power fail signal
Efficiency
▪ Typical 78-79%
Output voltage sense and current sharing
▪ Available at 5V, 3.3V and +12V outputs
N+1 Redundancy
▪ Installed with internal OR-ing diodes at all outputs for N+1 redundancy operation
Remote ON/OFF
▪ Available at [INH#] & [EN#]

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Power Failure Signal
▪ Available at [FAL#] pin
Degradation Signal
▪ Available at [DEG#] pin
Over Temperature Protection (OTP)
▪ 70°C
Over Current Protection (OCP)
▪ Installed at each rail
Over Load Protection (OLP)
▪ Fully protected against output overload or short circuit. ▪ Typical 120% max. load.
Over Voltage Protection (OVP)
▪ Built-in at all outputs
Status LED
▪ <Green LED> [POWER] means valid input voltage ▪ <Amber LED> [FAULT] means a critical fault
Dielectric Withstand
▪ Meet IEC950 regulation
EMI
▪ EN 55022 ▪ FCC Class A
Earth Leakage
▪ <0.5mA @230VAC
Safety Standard
▪ IEC60950 Class I
Environment
▪ Operating Temp: 0 to +70°C (0 to +50°C at full load with specified air flow. Derates linearly to 50% at +70°C. ▪ Storage Temp: -40 to +85°C ▪ Humidity: 5% to 95% non-condensed ▪ Shock: 15G peak, 11ms duration, non-operation ▪ Vibration: 1.88Grms, 5-500Hz each axis, operating
Cooling
▪ Min. 20 CFM is required for full rating (250W) power

3.7 cPS-H325/AC Connector type & Pin define



Pin#	Signal Name	Pin#	Signal Name
1-4	V1	32	V2ADJ
5-12	RTN	33	V2SENSE
13-18	V2	34	SRTN
19	RTN	35	V1SHARE
20	V3	36	X
21	V4	37	X
22	RTN	38	DEG#
23	X	39	INH#
24	RTN	40	X
25	GA0	41	V2SHARE
26	X	42	FAL#
27	EN#	43	X
28	GA1	44	X
29	V1ADJ	45	CGND
30	V1SENSE	46	ACN/+DC IN
31	GA2	47	ACL/-DC IN

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Thermal Management Card

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4. Thermal Management Card Introduce

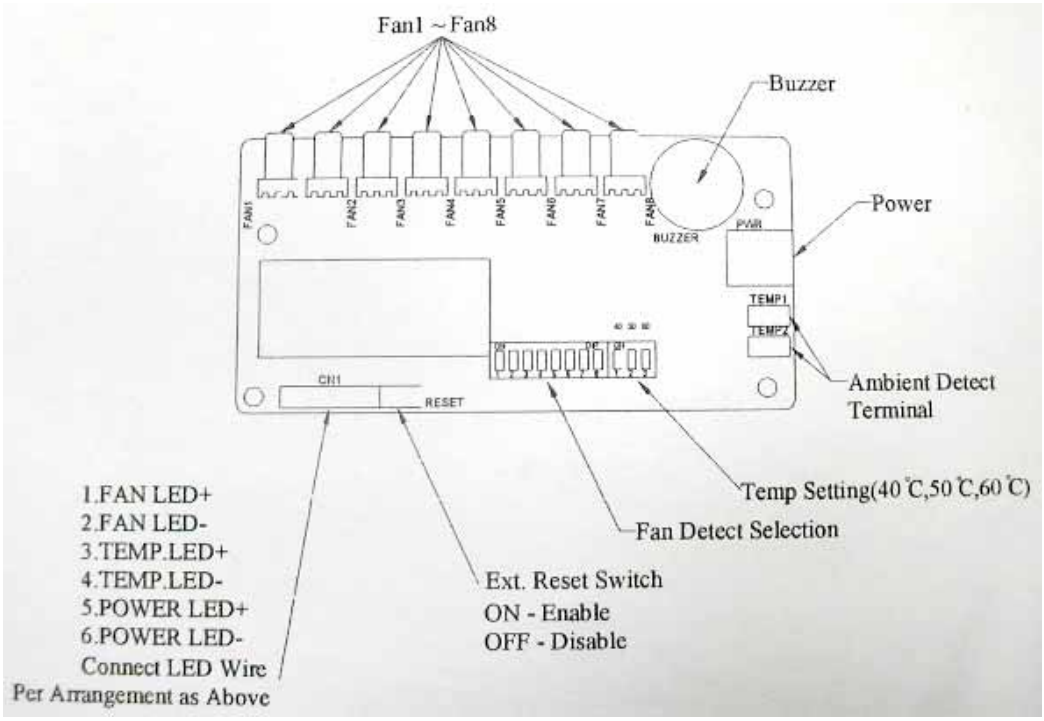
4.1 Thermal Management Card Feature

- FAN1 to FAN8 could be set on either “Enable” or “Disable”. When all the fan set on “Disable”, LED will have no light on.
- When LED keep light on, it indicate FAN 1 to FAN 8 are in normal condition. When LED flash, it indicate there is abnormal condition off the FAN.
- TEMP1, TEMP2 are two sensor points of AMBIENT temperature.
- AMBIENT Temperature could be set at 40°C, 50°C, 60°C. When AMBIENT is over the setting temperature, LED will flash and alarm.

4.2 Thermal Management Card Configuration

IN/OUT	Description	LED Display	WARN (Reset to Stop)
FAN1~FAN8	3 pin wire connector	Normal ----- Always on Abnormal ----- Flash	Warm
TEMP1	Detect wire sensor 1	Over Setting ----- Flash Under Setting ----- Always on	Warm
TEMP2	Detect wire sensor 2	Over Setting ----- Flash Under Setting ----- Always on	Warm
Power	+5V GND GND +12V	Normal ----- Always on Abnormal ----- No Light	

4.3 Thermal Management Card Layout



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5

Before Installation

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5. Before Installation

5.1 Before your installation

In order to prevent the **cSP-4502** from being damage by ESD (Electrostatic Discharge), please follow bellow ESD preventive measures:

5.2 ESD preventive

In order to prevent the **cPCIS-6400** from being damage by ESD (Electrostatic Discharge), please follow bellow ESD preventive measures:

1. Attach a ground strap to your wrist when connecting or disconnecting boards or peripherals.
2. Ensure that you and all the electrical equipment you handle during this installation are properly grounded to avoid damage from ESD.
3. Keep the boards in the antistatic bags until they are needed.
4. Place the boards only on an antistatic mat. Do not place boards on top of an antistatic bag unless the outside of the bag also has antistatic protection.
5. Remove a board from its antistatic bag only when you are properly grounded to the chassis ground with a ground strap.
6. If you are servicing a system or installing a hardware upgrade, do not disconnect the power cord from the wall socket and the chassis. Otherwise, you lose the system ground and could damage the equipment as a result.
7. Follow all other safety rules.

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5.3 Check the Contents of Your Shipment

Thank you for your purchase of the cSP-4502 series. Below is the content list:

1. Chassis:

   Dual Hotswappable 80 pin SCSI HDD Tray

   Triple Redundant Hotswappable 250W Compact PSU

   Sun Netra CP2140 board with 1GB RAM(pre-installed)

   XCP2040-TRN(pre-installed)

2. Accessary Kit:

   Key*2: For H/W HDD tray

   Spare screws packet*1

   Sponge*1

   Power Cord 110V*1

   Power Cord 220V*1

   DC Power Connector packet*1

   Thermal Card Manual

3. Document:

   User Manual*1

   Read Me Firs for CP2140

   Read Me First for XCP2040-TRN

   Certificate of Paid Royalty for Embedded Use of Solaris Operating Environment

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6

Hardware Installation

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6. Hardware Installation

6.1 CP2140-650 Installation

This section describes how to install the CP2140 CPU board.

6.2.1 Installation Overview

CompactPCI boards are designed for front loading and removal from a card cage. The boards is firmly held in position by its connector, card guides on both sides, and a face plate which solidly screws into the card cage. Cards are mounted vertically allowing for natural forced air convection cooling.

The CompactPCI connectors are rigid and require careful handling when inserting and removing. Improper operation of cards can easily damage the backplane.

System slots usually have obvious indicators (i.e. red card guide rail, triangle mark enclosing the slot number on the backplane, etc.) The system card can only be installed in the system slot. Do not insert system card into any other slot, or insert any peripheral card into system slot. The redundant power supply unit slot also has an obvious indicator (a green card guide rail in standard CompactPCI chassis).

The handle on CompactPCI card and PSU ensures simple and safe installation and removal. Please follow the procedures below to install a CompactPCI module into a chassis:

6.2.2 CP2140 Installation procedure

Please follow these instructions to install the CP2140 board into a CompactPCI chassis.

1. Install the CP2140 board connector-side first into the chassis. Hold the card vertically. Be sure that the card is pointing in the correct direction. The components of the card should be pointing to the right-hand side.

Note – The CP2140 board must be inserted in the primary 6U slot of the chassis.

---

2. Be sure that the handles of the card are not latched. Release the handles if they are latched. Handles from different vendors may have different latch designs. Slide the board into the top and bottom mounting rails and into the backplane while gently keeping the board handles pushed inwards and pushing the board into the chassis.

3. Push the card into the slot gently by sliding the card along the card guide until the handles meet the rectangular holes of the cross rails. Lift the lower handle up to push the card into place.

4. Install two screws at the top and bottom of the front connector plate to secure the board.

Caution – No connector keying implementation is provided on the CP214 motherboard, to ensure that the board may only be installed in the correct slot on a CPCI chassis card guide. Installing the CP2140 in an incorrect slot will result in the board not functioning as a system card. Therefore the CP2140 must be plugged into the CPCI system controller slot.

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6.3 Install a XCP2040-TRN Transition Card

As the CP2140 board brings most of its I/O interfaces to the CompactPCI backplane, all cables are attached only to the XCP2040-TRN Transition Card to the rear of the system. The XCP2040-TRN Transition Card must provide the necessary ports for various cables.

Note – It is the responsibility of the system designer to integrate peripheral devices to the connectors on the backplane. A designer can either connect directly to the backplane signals or use a XCP2040-TRN I/O Transition Card. For example, the hard disk drive can be mounted directly onto the J4 backplane connector of the CP2140 board or connected via a XCP2040-TRN I/O Transition Card.

The XCP2040-TRN I/O Transition Card requires a CompactPCI chassis with a backplane that accommodates front and rear CompactPCI board installation. The primary purpose of this board is to provide connection to all CP2140 I/O devices.

Note – The SCSI implementation supported on the J4 CPCI backplane connector provides an UltraWide, single-ended, 16-bit data bus with a maximum transfer rate of 160 MBytes per second.

---

1. Install the CP2140 board into the front of the chassis.
2. Install the XCP2040-TRN I/O Transition Card into the rear connector slot that lines up directly with the CP2140 board.

Note – Using an RTM with an AB type connector is strongly recommended to prevent damage to the backplane. Because the RTM shorter than the front board, pay careful attention when inserting or removing the RTM.

Caution – You must install the XCP2040-TRN I/O Transition Card in the slot directly aligned behind the CP1500 board for proper operation. These back-to-back slots share common pins to enable passing of signals from one board to the other.

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6.4 Remove a card

To remove a card, please follow below procedure:

1. Unscrew the screws on the card front panel. Release the locking latches on the handles.
2. Press the lower handle down to release the card from the backplane.
3. Slide the card out.

6.5 Replacing the Air Filter

The air filter can become dirty after a period of use. Follow the steps below to replace a filter:

1. Remove the filter cover.
2. Replace the dirty filter by a clean one.
3. Re-attach the filter cover.

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7

Setup an Assembled cSP-4502

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7. Setup an Assembled cSP-4502

7.1 Introduce

This section describes how to setup the **UltraSPARC cSP-4502**.

7.2 CP2140 Setup Procedure

1. Connect the Ethernet (if required).

2. Use the tip utility on the host system to establish a full-duplex terminal connection with the machine with the CP2140 board.

3. At the UNIX prompt in a Command Tool or Shell Tool, type:

   tip -9600 /dev/ttya

4. Connect a serial cable to Port A (COM port) on the CP2140 or ttya port of the XCP2040 TRN I/O Transition Card of the target machine and to the serial port of the host machine.

5. Connect any other peripheral devices (such as a printer) to the appropriate connector.

6. Power on the system (that contains the CP2140) to run the power-on self-tests (POST). If the server is not configured to provide an Ethernet address, a warning message appears on the TTYA screen requesting you to provide one.

If POST is successful, install the Solaris package on the system that contains CP2140.

Read the following cautions carefully before plugging devices into the XCP-TRN I/O Transition Card.

Caution – There are a total of three serial port connections available (one on the CP2140 board and two on the XCP2040-TRN I/O Transition Card). At any one time, up to two serial ports may be used. Also, the serial port connector (TTYA) on the XCP2040-TRN I/O Transition Card and the serial interface (COM) on the CP2140 board may not be used at the same time.

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7.3 Plugging Devices into a XCP2040-TRN I/O Transition Card

The XCP2040-TRN I/O Transition Card is an optional device that provides the following connector ports that are supported by the CP2140.

- SCSI (standard panel mount connector)
- TTYA (serial)
- TTYB (serial)
- ETH1 (Ethernet)
- ETH0 (Ethernet)
- USB
- FLOPPY
- PARALLEL

Please follow these instructions to connect peripheral devices to this board.

1. Install a SCSI drive and cable to the internal vertical SCSI connector on the XCP2040-TRN I/O Transition Card which is more suitable for attaching internal devices to the system.

Caution – Both SCSI connectors on the XCP2040-TRN I/O Transition Card are on the same SCSI bus but only one connector should be used at a time to avoid signal problems on the SCSI chain. Also, the SCSI cable should not exceed more than 3 meters (9 feet) in length to avoid possible data errors.

2. Install other supported peripheral devices as required.

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7.4 Adding Additional CPCI Cards and Drivers into cSP-4502

The CP2140 board configuration supports other vendors ' CompactPCI cards. To add CPCI cards and drivers, refer to the documentation provided with the CPCI card.

Usually software drivers and related documentation are provided on the CD-ROM or floppy diskettes. Read all documentation furnished with the package. The manufacturers Web site may also be referred to for the latest product and driver information.

Note – You can only install one CP1500 board into a single CompactPCI chassis. Also, you cannot " hot swap " or install the CPCI board while the system is in operation. To add or to swap out boards, the CP1500 must first be shut down.

7.4.1 To Install a peripheral CPCI Card

1. Halt the operating system and power down the system.
2. Install the CPCI card.
3. Make necessary connections.
4. Power up the system.
5. Boot with -r option (or with -rv for verbose messages).
6. At system prompt, become super user.
7. Add package using pkgadd command.
8. Reboot if necessary.

7.4.2 To Verify the Board is Seen by the System

1. Use the prtconf -D command to print the device tree.
   It should show the PCI bus instances #0 and #1 for the two PCI buses on the CP1500. There will be instances of various PCI cards connected to each one. A PCI card may show up as pciVVVV,DDDD, where VVVV is the vendor id, for example, 1011 and DDDD is the device id, for example 008e. If the driver for the card is already loaded, then you may see the device name supplied by the driver in the device tree.
2. Use the modinfo command to see if the driver for the card is loaded or not.
   Typically the description of the driver will contain name of the product or the vendor.
3. At the OBP prompt the PCI board should be visible in the device tree even if the driver is not installed.

7.4.3 To Obtain Additional Assistance

1. Run the following commands and record the output.

prtconf
modinfo
dmesg
cat /etc/driver_aliases
cat /etc/path_to_inst

2. Contact the vendor of the PCI card.

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8

Solaris 8(02/02) Installation

8. Solaris 8(02/02) Installation

8.1 Prepare installation peocedure

1. Check if the SCSI device available at the ok prompt:
   probe-scsi

   The system will check the entire connected SCSI device. Make sure there is at least one HDD.

2. To install the system from the CD-ROM, at the ok prompt, enter:
   boot cdrom

   The system boots from the CD-ROM and Solaris installation begins from the CDROM. Provide appropriate answers to various prompts that are displayed as the system comes up.

   To install the system from a server, obtain the boot client Ethernet address (the system being built).

   a. At the ok prompt (on the system being built) enter:
   banner
   This displays the Ethernet address in the following format:
   X:X:X:X:X:X:X an example is: 8:0:20:7e:f6:dc
   b. Enter the Ethernet address obtained in Step a. in the install server as a boot client.
   c. At the ok prompt on the client (of the system being built), enter:
   boot net
   The System boots from the network and Solaris is installed from the network. Various prompts are displayed as the system comes up; answer them as appropriate.

3. After the Solaris is installed, at the ok prompt, enter:
   boot disk -rv
   The system configures itself after the installation. If the installation is successful, the system will eventually boot to a Solaris login prompt.

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8.2 Installation procedure

This section describes how to install Sun Solaris 8(02/02) on **cSP-4502**.

Note – The content just for sample, please install the Sun Solaris OS depends on the reality, your network setting and customer's requirement.

After input **boot cdrom** at the ok prompt, the cSP-4502 will begin to initial and start the install procedure. Wait a while, and below item will appear:

1.

```
     1) English                    6)    Japanese
     2) German                     7)    Korea
     3) Spanish                    8)    Swedish
     4) French                     9)    Simplified_Chinese
     5) Italian                    10)   Traditional_Chinese
Select the language you want to use to run the Installer:
```

Select which language you want. Here we select [1].

Note – If the storage device is un-used, the install procedure will stop at this step, and back to # prompt. You need to format the HDD and then re-boot from CD-ROM again. Please check **Sector 6 Format & Label HDD.**

2.

```
Can c0t0d0s1 be used for the Solaris installation software [y,n,?,q]
```

Select [y].

3.

```
WARNING: ALL INFORMATION ON THE DISK WILL BE ERASED!
Is this OK  [y,n,?,q]
```

Select [y]. The system will reboot soon.

4.

```
This information will be used to configure:
                Network
                Kerberos Security
                Name Service
                Date and Time
                Root Password
                Power Management
<Press Return to continue>
```

Press Enter or Return to next step.

5.

```
Is this machine networked ( y/n )  [ n ]?
```

Select [y].

6.

```
Multiple network interfaces have been detected on your machine.

1.  hme0
2.  hme1

Please select a primary network interface [ 1 ]
```


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Select [1].

7.

DHCP enables host systems in a TCP/IP network to be configured automatically for the network as they boot. Upon a host's request, the DHCP server provides information about the host that includes the host's IP address.

Would you like to configure using DHCP [n]?

Select [n].

8.

Please enter a host name, which identifies this system on the network. The
Name must be unique within the domain in which it resides; creating a duplicate host name will cause problems on the network after you install Solaris.

A host name must be at least two characters; it can contain letters, digits, and minus sgns (-).

Enter host name [ ]:

Input the host name of this **cSP-4502.** Here we will use [Sparc-01].

9.

Please enter the Internet Protocol (IP) Address for this system. It must be unique and follow your site's address conventions, or a system/network failure could result.

IP Addresses contain four sets of numbers separated by periods (for example 129.20.9.1).

Enter this machine's IP Address [ ]:

Input the IP for the **cSP-4502**. Here we input [203.70.94.100].

10.

Please specify the network of your subnet. A default netmask is shown; do not accept the default unless you are sure it is correct for your subnet. A netmask must contains four sets of numbers separated by periods (for example 255.255.255.0).

Enter the subnet netmask [255.255.255.0]:

Press Enter or Return.

11.

Specify whether or not Ipv6, the next generation Internet Protocol, will be enabled on this machine. Enable Ipv6 will no effect if this machine is not on a network that provides Ipv6 service. IPv4 service will not be affected if Ipv6 is enabled.

Enable Ipv6 [n]:

Press Enter or Return.

12.

You must specify how to set the default route. You can let the software try to find one or you can specify one. The software can find a default route only if the system is on a network that has a router that broadcasts itself.

1. Find one
2. Specify one

Please enter the number corresponding to your router discovery method [1]:

Press Enter or Return.

13.

Specify whether or not Kerberos Security will be enable on this machine.

Enable Kerberos [n]:

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Press Enter or Return.

14.

```
Please provide name service information. Select the name service that will be used by this
system, or None if your system will either, not use a name service at all, or if it will use a name
service not listed here.

Available name services:

1. NIS+
2. NIS
3. DNS
4. LDAP
5. None

        Please enter the number corresponding to the type of name service you would like
[ 5 ]:
```

Press Enter or Return.

15.

```
Please select how to specify your default time zone.

Specify Time Zone by:

1. Geographic region
2. Offset from GMT
3. Time zone file

Please enter the number corresponding to how you would like to specify the time zone  [ 1 ]:
```

Press Enter or Return.

16.

```
Please specify your default time zone by geographic region.
Select a region from the first menu and a time zone from the second menu.

Available Regions:

1. Africa
2. Asia, Eastern
3. Asia, Western
4. Australia / New Zealand
5. Canada
6. Europe
7. Mexico
8. South American
9. United States

        Please enter the number corresponding to the correct region  [ 1 ]:
```

Select your time zone. Here we select [2].

17.

```
Available Zones:

1. People's Republic of China
2. Taiwan
3. Hong Kong
4. Japan
5. Republic of Korea
6. Singapore
```


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```
Please enter the number corresponding to the correct zone [ 1 ]:
```

Here we select [2].

18.

```
Accept the default date and time or enter new values.

        The default date and time is Thursday August 15 10:12:55 CST 2002
        .       Do you want to use this date and time (y/n)  [ y ]?
```

Press Enter or Return.

19.

```
Type in an alphanumeric string to be used as the root password for the computer you are
setting up.

        Enter the root password  [ ]:
```

Input the root's password.

20.

```
Retype the above password for confirmation.

        Enter the root password again  [ ]:
```

Input the root's password again.

21.

```
Do you want Power Management turned on (y/n)  [ y ]?
```

Here we select [n], and press Enter or Return.

22.

```
You can choose to be asked the preceding question every time you reboot the system.
Alternatively, you can choose never to be asked about Power Management again. Which do
you prefer?

        Ask about Power Management at each reboot  (y/n)  [ n ]?
```

Press Enter or Return to confirm.

23.

```
You have enter the following values:
Host Name:                      SPARC-01
IP Address:                     203.70.94.100
System part of subnet:          Yes
Netmask:                        255.255.255.0
Primary Network Interface:      hme0
Enable Ipv6:                    No
Default Route:                  Autodetect Default Route
Name Service:                   None
Enable Kerberos:                No
Time Zone:                      Asia/Taipei
Power Management:
                                Turn Power Management Off
                                Do not ask about Power Management at reboot.

Enter 'y' to apply there value and proceed to the next stage of the installation, or 'n' to return to
the beginning and make changes  ( y/n ):
```

Select [y], and press Enter or Return to confirm. If you would like to change any setting, select [n].

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24.

Please wait while the system is configured with your settings…

Solaris Web Start will assist you in installing software for Solaris.

<Press Enter to continue> { " ! " exits }

Press Enter or Return.

25.

Install Options

For many installations the following operations can be automatic. Manual operation may be appropriate if you plan to perform post-install system administration.

Reboot automatically after software installation [y]?

Press Enter or Return.

26.

Eject a CD/DVD automatically after software installation [y]?

Press Enter or Return.

27.

AutoReboot: y
AutoEject: y

Enter ' y ' if this correct, or ' n ' to make changes [y]?

Press Enter or Return.

28.

Please specify the media from which you will install the Solaris Operating Environment.

Media:

1. CD/DVD
2. Network File System
3. HTTP (Flash archive only)
4. Local Tape (Flash Archive only)

Media [1]:

Press Enter or Return.

29.

Please insert the first Solaris Software disc from which you will install the Solaris Operating Environment.

To select a different media, enter B to go Back.

[ ]

Insert the CD labeled "Solaris Operating Environment", and press Enter or Return.

30.

Reading disc for Solaris Operating Environment…

The system is being initialized, please wait… /

To install basic Solaris products into their default directory locations, select Default Install.

Custom install provides a choice of which Solaris products to install. For each product, it also provides an option to customize the products install.

Type of install available:

1. Default Install
2. Custom install

Select the number corresponding to the type of install you would like [1]:

Press Enter or Return. You can custom the installation type you want by select 2.

31.

The Solaris Installer is determining size requirements base on your choices, please wait… /

The following items will be installed:

Solaris Operating Environment:	Solaris 8 Software 2/02
Solaris Software Group:	Entire Group
64-Bit Selection:	
	North American
	English (United States) (en_US)
	English (POSIX C) (C)
System Locale:	English (United States, ISO8859-1)
(en_US.IS08167.16)	
Products:	Solaris 8 Documentation European
	European Collections for Solaris

Enter ‘ y ’ to accept these values and start the install action, or ‘ n ‘ to return to the beginning and make changes (y/n):

Select [y], and press Enter or Return.

32.

Installing…
Installing Solaris software group
|-1%----------25%----------50%----------75%----------100%|

Pausing for 90 seconds at the “summary” screen. The wizard will coniine to the next step unless you select “Pause”. Enter ‘p’ to pause. Enter ‘c’ to continue. [c]

Please specify the media which you will install Solaris 8 Software 2 of 2 (2/02 SPARC Platform Edition).

Alternatively choose the selection for “Skip” to skip this disc and go on to the next one.

Media:

1. CD/DVD
2. Network File System
3. Skip

Media [1]:

Press Enter or Return.

33.

Please insert the CD/DVD for Solaris 8 Software 2 of 2 (2/02 SPARC Platform Edition).

After you insert the disc, Please press Enter.

Insert the disc labeled “Solaris 8 Software 2 of 2” into CD-ROM, and press Enter or Return.

34.

Launching Installer for Solaris 8 Software 2 of 2 (2/02 SPARC Platform Edition). Please Wait…

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```
Checking disk space.

The following items will be installed:

Product:          Solaris 8 Packages (Part 2)
Location: /
Size: 323.0 MB
Solaris 8 Packages (Part 2)       323.0 MB

Ready to Install

1.  Install Now
2.  Start Over
3.  Exit Installation

What would like to do [ 1 ]?
```

Press Enter or Return.

35.

```
    Installing…
    Installing Solaris 8 packages (part 2)
|-1%----------25%----------50%----------75%----------100%|

Installation details:

          Product                                    Result   More Info

1.  Solaris 8 Packages (part2)          Installed Available
2.  Done

    Enter the number corresponding to the desired selection for more information, or enter 2 to
    continue [ 2 ]:
```

Press Enter or Return.

36.

```
Installation Additional Software
|-1%----------25%----------50%----------75%----------100%|
        Pausing for 30 seconds at the “summary” screen. The wizard will coniine to the next
step unless you select “Pause”. Enter ‘p’ to pause. Enter ‘c’ to continue. [c]


        Please specify the media which you will install Solaris 8 Solaris 8 Documentation
    European.

    Alternatively choose the selection for “Skip” to skip this disc and go on to the next one.

Media:

4.  CD/DVD
5.  Network File System
6.  Skip

        Media [ 1 ]:
```

Press Enter or Return.

37.

```
Please insert the CD/DVD for Solaris 8 Documentation European.

After you insert the disc, Please press Enter.
```

Insert the disc labeled “Solaris 8 Documentation European” into CD-ROM, and press Enter or Return.

38.

```
Launching Installer for Solaris 8 Documentation European. Please Wait…

Checking disk space.

The following item will be installed:

Produce: Solaris 8 Collections – European
Location: /opt
Size: 188.1 MB
Solaris 8          Release Documents Collection              425 KB
Solaris 8  System Administrator Collection                        16.5
Solaris 8  Reference Manual Collection              86.5 MB
AnswerBook2 Documentation Server                    33.3 MB
Solaris 8  Software Developer Collection            12.8 MB
OpenBoot Collection                 3.3 MB
Solaris 8  Common Desktop Environment Developer Collection              7.0 MB
Solaris 8  User Collection                  13.6 MB
Solaris 8  Installation Collection          6.2 MBSolaris 8  02.02
Update Collection                   7.2 MB
KCMS Collection                     1.8 MB

Ready to Install
Install Now
Start Over
Exit Installation

What would like to do [ 1 ]?
```

Press Enter or Return.

39.

```
Installation Solaris 8 Collections - European
|-1%----------25%----------50%----------75%----------100%|

Installation details:

        Product                                     Result   More Info
1.  Solaris 8 Collections – European      Installed          Available
2.  Done

Enter the number corresponding to the desired selection for more information, or enter 2 to
continue [ 2 ]:
```

Press Enter or Return.

40.

```
Prepare to Reboot…
```

The Installation was end here.

9

Format & Label HDD

9.Format & Label HDD

When install Solaris 8 into a new, un-used SCSI HDD, the SCSI HDD need to be format and label.

Note – If you use a un-used SCSI HDD, the install procedure will transfer to run level 1 automatically,

Perform the following steps to format and label:

a. At the # prompt, enter:

format

The system will search for disks, and slist the available disk like below:

```
C0t0d0:configured with capacity of 33.68GB


AVAILABLE DISK SELECTIONS:
0. c0t0d0 <IBM-IC35L036UCD210-0-S5BS cyl 20763 alt 2 hd 6 sec 567>
   /pci@1f, 0/pci@1, 1/scsi@2/sd@0, 0
```

There is one IBM 33.68G SCSI HDD in cSP-4502. You can also use **format** to check the status of each HDD.

b. Select the HDD you want to modify.

Here we select **0**. If there are two or more SCSI devices, make sure the selected device is the target device. You might erase all the data in that device.

c. The target device will be formatted, and follow message will show:

```
[Disk formatted]
Disk not labeled. Label it now?
```

Input **y**, and press Enter to label the disk.

d. Usually, the label is ok. You can quit and back to # prompt. Run **boot cdrom** and install. Please check **Sector 5 Software Installation.**

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10

Nerwork Setting

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10. Network Setting

Below is the example shows how to set up the network setting.

```
==================================
Host Name = ADLINK-SPARC01
NodeName = ADLINK-SPARC01
Domain Name= adlinktech.com
TCP/IP address = 203.70.94.100
Router IP = 203.70.94.254
IP Range = 203.70.94.0 ~ 203.70.94.255
DNS IP = 203.70.94.254, 168.95.1.1
==================================
```

10.1 Setup hostname & nodename

This section describes how to setup hostname and nodename. Type those command under command line.

```
# echo “ADLINK-SPARC01” > /etc/nodename

# echo “ADLINK-SPARC01” > /etc/hostname
```

10.2 Setup IP Address

This section describes how to setup IP Address of cSP-4502. Please use “vi” or “vim” to edit **/etc/inet/hosts**. Below is the sample content:

```
#
# Internet host table
#
127.0.0.1       localhost
203.70.94.100      SPARC-01  loghost
```

Please edit **/etc/inet/netmasks**. Below is the sample content:

```
#
# The netmasks file associates Internet Protocol (IP) address
# masks with IP network numbers.
#
#       network-number  netmask
#
# The term network-number refers to a number obtained from the Internet Network
# Information Center.  Currently this number is restricted to being a class
# A, B, or C network number.  In the future we should be able to support
# arbitrary network numbers per the Classless Internet Domain Routing
# guidelines.
#
#
#             128.32.0.0 255.255.255.0
#
203.70.94.0      255.255.255.0
```


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10.3 Setup Router IP(Gateway IP)

This section describes how to setup Router IP Address of cSP-4502. Type those command under command line.

```
# echo “203.70.94.254” > /etc/defaultrouter
```

10.4 Setup Domain Name

This section describes how to setup Domain Name of cSP-4502. Type those command under command line.

```
# echo “adlinktech.com” > /etc/defaultdomain
```

10.5 Setup DNS IP

This section describes how to setup Router IP Address of cSP-4502. Please use “vi” or “vim” to edit **/etc/resolv.conf**. Below is the sample content:

```
search adlinktech.com
nameserver 203.70.94.254
nameserver 168.95.1.1
```

10.6 Reboot

The network has been modify, and you have to reboot the system and enable those setting.

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