# CP-RTM6014 User's Guide

CompactPCI™



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kontron

# Revision History

| Rev. Index | Brief Description of Changes | Date of Issue |
|---|---|---|
| 1.0 | first release | May 2008 |
| 1.0.1 | Change FCC Compliance Statement Class A Devices to Class B Device | May 2008 |
| 1.1 | second release | October 2008 |

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Kontron reserves the right to make changes without notice in product or component design as warranted by evolution in user needs or progress in engineering or manufacturing technology. Changes that affect the operation of the unit will be documented in the next revision of this user's guide.

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# Safety Instructions

## Before You Begin

Before handling the board, read the instructions and safety guidelines on the following pages to prevent damage to the product and to ensure your own personal safety. Refer to the "Advisories" section in the Preface for advisory conventions used in this user's guide, including the distinction between Warnings, Cautions and Notes.

- Always use caution when handling/operating the computer. Only qualified, experienced, authorized electronics service personnel should access the interior of the computer. The power supplies produce high voltages and energy hazards, which can cause bodily harm.
- Use extreme caution when installing or removing components. Refer to the installation instructions in this user's guide for precautions and procedures. If you have any questions, please contact Kontron Technical Support

**WARNING**



High voltages are present inside the chassis when the unit's power cord is plugged into an electrical outlet. Turn off system power, turn off the power supply, and then disconnect the power cord from its source before removing the chassis cover. Turning off the system power switch does not remove power to components.



# When Working Inside a Computer

Before taking covers off a computer, perform the following steps:

- Turn off the computer and any peripherals.
- Disconnect the computer and peripherals from power sources or subsystems to prevent electric shock or system board damage. This does not apply to when hot-swapping parts.
- Follow the guidelines provided in "Preventing Electrostatic Discharge" on the following page.
- Disconnect telephone or telecommunications lines from the computer.

In addition, take note of these safety guidelines when appropriate:

- To help avoid possible damage to system boards, wait five seconds after turning off the computer before removing a component, removing a system board, or disconnecting a peripheral device from the computer.
- When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs. If you are disconnecting this type of cable, press in on the locking tabs before disconnecting the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before connecting a cable, make sure both connectors are correctly oriented and aligned.

**CAUTION**



Do not attempt to service the system yourself, except as explained in this user's guide. Follow installation and troubleshooting instructions closely.



# Preventing Electrostatic Discharge

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedure to reduce the risk of damage to components. Kontron strongly encourages you to follow proper ESD procedures, which can include wrist straps and smocks, when servicing equipment.

Take the following steps to prevent damage from electrostatic discharge (ESD):

- When unpacking a static-sensitive component from its shipping carton, do not remove the component's antistatic packing material until you are ready to install the component in a computer. Just before unwrapping the antistatic packaging, be sure you are at an ESD workstation or grounded. This will discharge any static electricity that may have built up in your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all sensitive components at an ESD workstation. If possible, use antistatic floor pads and workbench pads.
- Handle components and boards with care. Don't touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.
- Do not handle or store system boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.

# Preface

## How to Use This Guide

This user's guide is designed to be used as step-by-step instructions for installation and as a reference for operation, troubleshooting, and upgrades.

You can find the latest release of this User's Guide at:

http://www.kontron.com or at: ftp://ftp.kontron.ca/support/

For the circuits, descriptions and tables indicated, Kontron assumes no responsibility as far as patents or other rights of third parties are concerned.

The following is a summary of chapter contents:

- Chapter 1, Product Description
- Chapter 2, Board Features
- Chapter 3, Installing the board
- Appendix A, Connector Pinout
- Appendix B, Getting Help

# Customer Comments

If you have any difficulties using this user's guide, discover an error, or just want to provide some feedback, please send a message to: Tech.Writer@ca.kontron.com. Detail any errors you find. We will correct the errors or problems as soon as possible and post the revised user's guide on our Web site. Thank you.

# Advisory Conventions

Seven types of advisories are used throughout the user guides to provide helpful information or to alert you to the potential for hardware damage or personal injury. They are Note, Signal Paths, Jumpers Settings, BIOS Settings, Software Usage, Cautions, and Warnings. The following is an example of each type of advisory. Use caution when servicing electrical components.



**Note:**
Indicate information that is important for you to know.



**Signal Path:**
Indicate the places where you can fin the signal on the board.



**Jumper Settings:**
Indicate the jumpers that are related to this sections.




**BIOS Settings:**
Indicate where you can set this option in the BIOS.



**Software Usage:**
Indicates how you can access this feature through software.



**CAUTION**
Indicate potential damage to hardware and tells you how to avoid the problem.





**WARNING**
Indicates potential for bodily harm and tells you how to avoid the problem.



Disclaimer: We have tried to identify all situations that may pose a warning or a caution condition in this user's guide. However, Kontron does not claim to have covered all situations that might require the use of a Caution or a Warning.

# Unpacking

Follow these recommendations while unpacking:

- Remove all items from the box. If any items listed on the purchase order are missing, notify Kontron customer service immediately.
- Inspect the product for damage. If there is damage, notify Kontron customer service immediately.
- Save the box and packing material for possible future shipment.

# Powering Up the System

Before any installation or setup, ensure that the board is unplugged from power sources or subsystems.

If you encounter a problem, verify the following items:

- Make sure that all connectors are properly connected.
- Verify your boot devices.
- If the system does not start properly, try booting without any other I/O peripherals attached.

Make sure your system provides the minimum DC voltages required at the board's slot, especially if DC power is carried by cables.

If you are still not able to get your board running, contact our Technical Support for assistance.

# Adapter Cables

Because adapter cables come from various manufacturers, pinouts can differ. The direct crimp design offered by Kontron allows the simplest cable assembly. All cables are available from Kontron Sales Department.

# Storing Boards

Electronic boards are sensitive devices. Do not handle or store device near strong electrostatic, electromagnetic, magnetic or radioactive fields.

# Regulatory Compliance Statements

## *FCC Compliance Statement for Class B Devices*

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generated, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experience radio/TV technician for help.

**WARNING**



This is a Class B product. If not installed in a properly shielded enclosure and used in accordance with this User's Guide, this product may cause radio interference in which case users may need to take additional measures at their own expense.



## *Safety Certification*

All Kontron equipment meets or exceeds safety requirements based on the IEC/EN/UL/CSA 60950-1 family of standards entitled, "Safety of information technology equipment." All components are chosen to reduce fire hazards and provide insulation and protection where necessary. Testing and reports when required are performed under the international IECEE CB Scheme. Please consult the "Kontron Safety Conformity Policy Guide" for more information. For Canada and USA input voltage must not exceed -60Vdc for safety compliance.

## *CE Certification*

The product(s) described in this user's guide complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques. Although Kontron offers accessories, the customer must ensure that these products are installed with proper shielding to maintain CE compliance. Kontron does not offer engineering services for designing cabling systems. In addition, Kontron will not retest or recertify systems or components that have been reconfigured by customers.

# Limited Warranty

Kontron grants the original purchaser of Kontron's products a TWO YEAR LIMITED HARDWARE WARRANTY as described in the following. However, no other warranties that may be granted or implied by anyone on behalf of Kontron are valid unless the consumer has the express written consent of Kontron.

Kontron warrants their own products, excluding software, to be free from manufacturing and material defects for a period of 24 consecutive months from the date of purchase. This warranty is not transferable nor extendible to cover any other users or long- term storage of the product. It does not cover products which have been modified, altered or repaired by any other party than Kontron or their authorized agents. Furthermore, any product which has been, or is suspected of being damaged as a result of negligence, improper use, incorrect handling, servicing or maintenance, or which has been damaged as a result of excessive current/voltage or temperature, or which has had its serial number(s), any other markings or parts thereof altered, defaced or removed will also be excluded from this warranty.

If the customer's eligibility for warranty has not been voided, in the event of any claim, he may return the product at the earliest possible convenience to the original place of purchase, together with a copy of the original document of purchase, a full description of the application the product is used on and a description of the defect. Pack the product in such a way as to ensure safe transportation (see our safety instructions).

Kontron provides for repair or replacement of any part, assembly or sub-assembly at their own discretion, or to refund the original cost of purchase, if appropriate. In the event of repair, refunding or replacement of any part, the ownership of the removed or replaced parts reverts to Kontron, and the remaining part of the original guarantee, or any new guarantee to cover the repaired or replaced items, will be transferred to cover the new or repaired items. Any extensions to the original guarantee are considered gestures of goodwill, and will be defined in the "Repair Report" issued by Kontron with the repaired or replaced item.

Kontron will not accept liability for any further claims resulting directly or indirectly from any warranty claim, other than the above specified repair, replacement or refunding. In particular, all claims for damage to any system or process in which the product was employed, or any loss incurred as a result of the product not functioning at any given time, are excluded. The extent of Kontron liability to the customer shall not exceed the original purchase price of the item for which the claim exists.

Kontron issues no warranty or representation, either explicit or implicit, with respect to its products reliability, fitness, quality, marketability or ability to fulfil any particular application or purpose. As a result, the products are sold "as is," and the responsibility to ensure their suitability for any given task remains that of the purchaser. In no event will Kontron be liable for direct, indirect or consequential damages resulting from the use of our hardware or software products, or documentation, even if Kontron were advised of the possibility of such claims prior to the purchase of the product or during any period since the date of its purchase.

Please remember that no Kontron employee, dealer or agent is authorized to make any modification or addition to the above specified terms, either verbally or in any other form, written or electronically transmitted, without the company's consent.

# 1. Product Description

## 1.1 Product Overview

The RTM-CP6014 is a 8HP CPCI Rear Transition Module. This Rear I/O provides additional connectivity to the CP6014 CPU front blade.

## 1.2 What's Included

This board is shipped with the following items:

- One RTM-CP6014 board
- One CD-ROM containing documentations.
- Cables that have been ordered

If any item is missing or damaged, contact the supplier.

# 1.3 Board Specifications

Table 1-1: Board Specifications

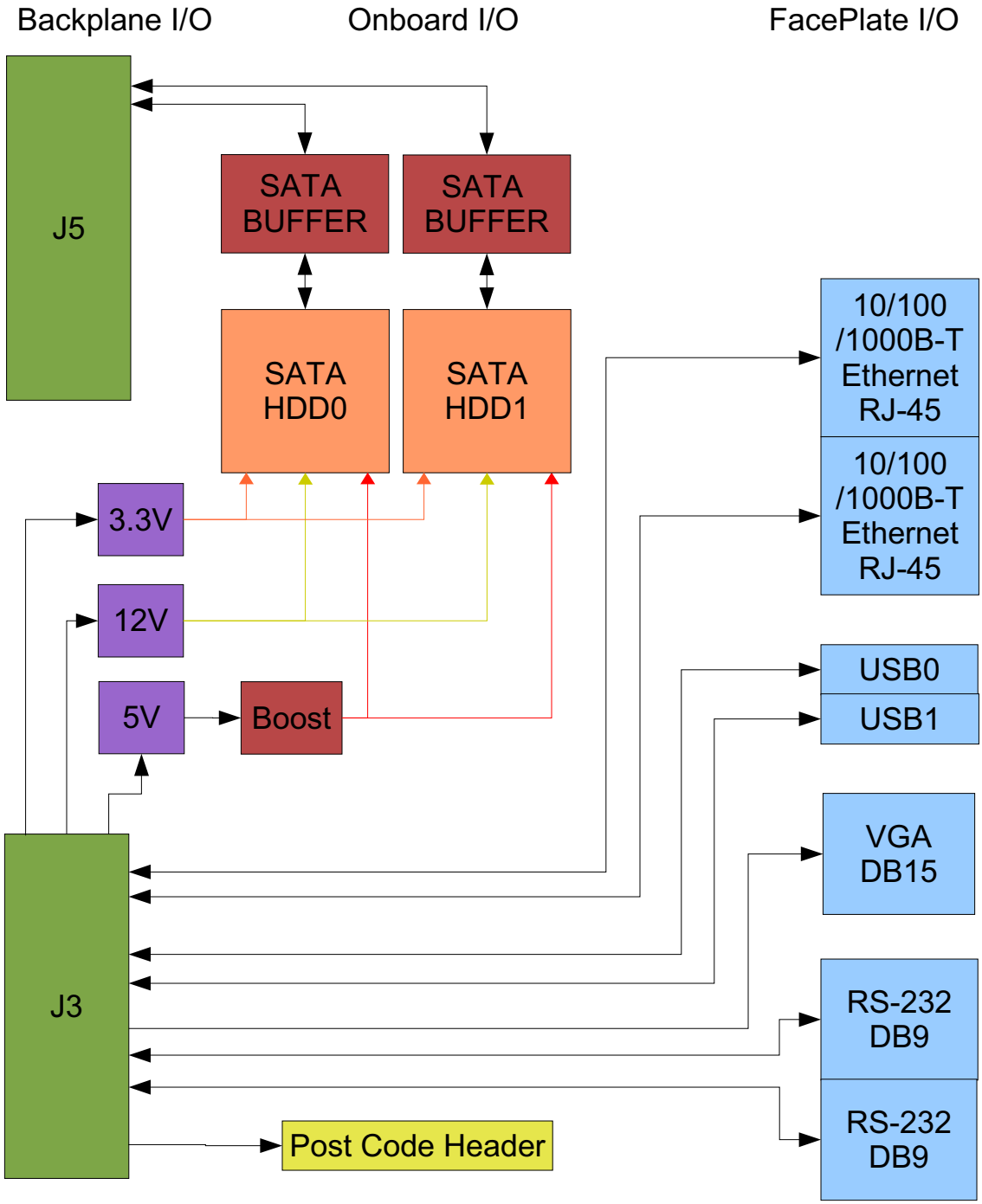
| Features | Description |
|---|---|
| Compatible Products | • CP6014 |
| Environmental Temperature* | • Operating: 0-55°C/32-131°F with 30CFM airflow (might be limitted by HDD spec.)<br>• Storage and Transit: -40 to +70°C/-40 to 158°F |
| Environmental Humidity* | • Operating: 15% to 90% @55°C/131°F non-condensing<br>• Storage and Transit: 5% to 95% @ 40°C/104°F non-condensing |
| Environmental Altitude* | • Operating: 4,000 m / 13,123 ft<br>• Storage and Transit: 15,000 m / 49,212 ft |
| Environmental Shock* | • Operating: 3G, half-sine 11ms, each axis<br>• Storage and Transit: 18G, half-sine 11ms, each axis |
| Environmental Vibration* | • Operating: 5-200Hz. 0.2G, each axis<br>• Storage and Transit: 5 Hz to 20 Hz @ 1 m2/s3 (0.01 g2 /Hz) (flat) 20 Hz to 200 Hz @ -3 dB/oct (slope down) |
| Reliability | • MTBF: > 680 000 hours @ 30 C / 86 F (Telcordia SR-332, Issue 1) |
| Safety / EMC | • Safety: CE Mark to EN 60950-1:2001. Meets or exceeds UL 60950-1/CSA C22.2 No 60950-1-07.<br>• Designed to meet GR-1089-CORE<br>• EMI/EMC: FCC 47 CFR Part 15, Class A; CE Mark to EN55022/EN55024/EN300386 |
| Warranty | • Two years limited warranty |

* Designed to meet or exceed

# 2. Board Features

## 2.1 Block Diagram

Figure 2-1: Block Diagram



# 2.2 SATA

The SATA signals connection between the Rear I/O and the front board passes through cPCI J5 connector. The Rear I/O has the possibility to mount two SATA hard drives. The hard drives are placed on a mezzanine board above the main PCB of the Rear I/O.

# 2.3 Video

Video ports signals are coming from the front blade through J3 connector. Analog display is provided on the faceplate through a standard HD15 VGA connector.

Table 2-1: Video Connector Pinout

| Pin | Signal |
|---|---|
| 1 | RED |
| 2 | GREEN |
| 3 | BLUE |
| 4 | N.C. |
| 5 | GND |
| 6 | GND_R |
| 7 | GND_G |
| 8 | GND_B |
| 9 | N.C. |
| 10 | GND |
| 11 | N.C. |
| 12 | SDATA |
| 13 | HSYNC |
| 14 | VSYNC |
| 15 | SCLK |



**Signal Path:**
The video signal is available through J9 of the Rear I/O faceplate.

# 2.4 USB 2.0 Interfaces

Two USB Type A connectors are available on the faceplate. They are connected to cPCI J3 connector.

USB features include:

- Capability to daisy chain as many as 127 devices per interface
- Fast bi-directional
- Isochronous/asynchronous interface
- 480 MBPS transfer rate
- Standardization of peripheral interfaces into a single format
- Backward compatible with USB 1.1 devices

USB supports Plug and Play and hot-swapping operations (OS level). These features allow USB devices to be automatically attached, configured and detached, without reboot or running setup.

Table 2-2: USB Connector Pinout

| Pin | Signal |
|---|---|
| 1 | VCC |
| 2 | DATA- |
| 3 | DATA+ |
| 4 | GND |



**Signal Path:**
The USB Ports are available through the Rear I/O front plate (J6 & J7).

# 2.5 Serial Port

Two DB9 serial port connectors are available on the faceplate. Those interfaces come from cPCI J3 connector and are RS-232 signaling levels (not TTL). Serial port works from 9kbits/s to 115kbits/s.

Table 2-3: Serial Port Connector Pinout

| Pin | Signal |
|---|---|
| 1 | DCD |
| 2 | RXD# |
| 3 | TXD# |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI |



**Signal Path:**
The Serial Ports are available through the Rear I/O front plate (J11 & J13).

# 2.6 Ethernet Interface

Two 10/100/1000Base-T Ethernet interfaces are available on the faceplate through two RJ45 connectors. The RJ45 signals are connected to Ethernet signals on cPCI J3 connector. Based on CompactPCI 2.16 application, the cPCI J3 backplane connector might not have Ethernet signals pins. If the CompactPCI 2.16 compliant backplane has pins, then the Rear I/O is assembled with a cPCI J3 connector with no Ethernet signal pin if ordered with this option.

Table 2-4: Ethernet Connector Pinout

| Pin | Signal |
|---|---|
| 1 | MDI0+ |
| 2 | MDI0- |
| 3 | MDI1+ |
| 4 | MDI2+ |
| 5 | MDI2- |
| 6 | MDI1- |
| 7 | MDI3+ |
| 8 | MDI3- |



**Signal Path:**
The Ethernet Ports are available through the Rear I/O front plate (J2 & J4).

## 2.6.1 Ethernet LEDs Significations

Table 2-5: Upper LED/Lower LED Signification

| Upper LED (Link LED) | |
|---|---|
| Off | No link |
| Green | Link |

| Lower LED (Activity LED) | |
|---|---|
| Blinking | Activity |



**Note:**
If the IPMI is disabled, the LEDs will stay off.

# 3. Installing the Rear I/O

## 3.1 Rear I/O Installation

Because of the high-density pinout of the hard-metric connector, some precautions must be taken when connecting or disconnecting a board to/from a backplane:

1 Rail guides must be installed on the enclosure to slide the board to the backplane.

2 Do not force the board if there is mechanical resistance while inserting the board.

3 Screw the frontplate to the enclosure to firmly attach the board to its enclosure.

4 Use extractor handles to disconnect and extract the board from its enclosure.

**WARNING**

Always use a grounding wrist wrap before installing or removing the board from a chassis.

### 3.1.1 Installing the Rear I/O in the chassis

To install the rear I/O:

1 Turn off the front CP6014 board before installing the Rear I/O.

2 Remove the filler panel of the slot.

3 Ensure the board is configured properly.

4 Carefully align the PCB edges in the bottom and top card guide.

5 Insert the board in the system until it makes contact with the backplane.

6 Using both ejector handles, engage the board in backplane connectors until both ejectors are locked.

7 Fasten screws at the top and bottom of the faceplate.

8 Turn on the front CP6014 board

### 3.1.2 Removing the Rear I/O from the chassis

To remove the Rear I/O:

1 Turn off the front CP6014 board before removing the Rear I/O.

2 Unscrew the top and the bottom screw of the faceplate.

3 Use both ejectors to disengage theRear I/O from the backplane connectors.

4 Pull the board out of the chassis.

## 3.2 Hard Disk Installation

### 3.2.1 Installation Procedure for Both Hard Disk

1 Position the hard disk on all three (3) points indicated in figure3-1.

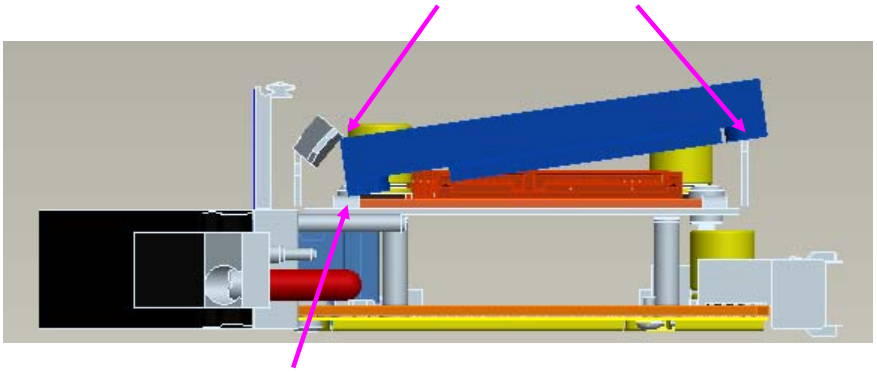


Figure 3-1: Hard Disk Installation Step 1

2 Make sure the connector side of the hard disk is aligned with the edge of leaf spring as shown in figure3-2.

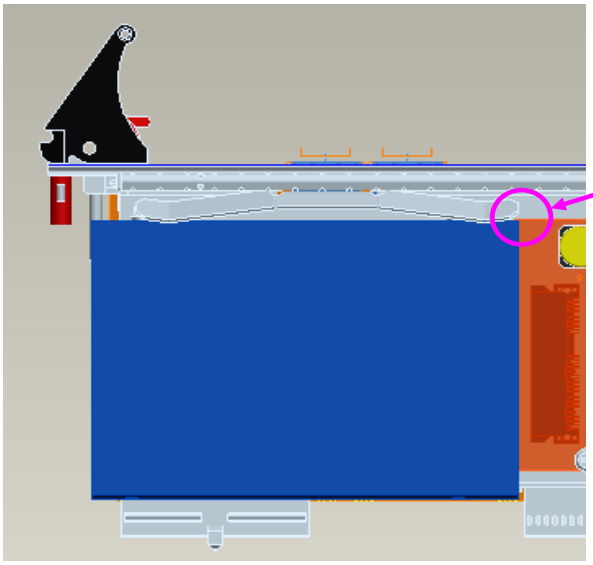


Figure 3-2:Hard Disk Installation Step 2

3 Push the hard disk against the leaf spring as per figure 3-3.

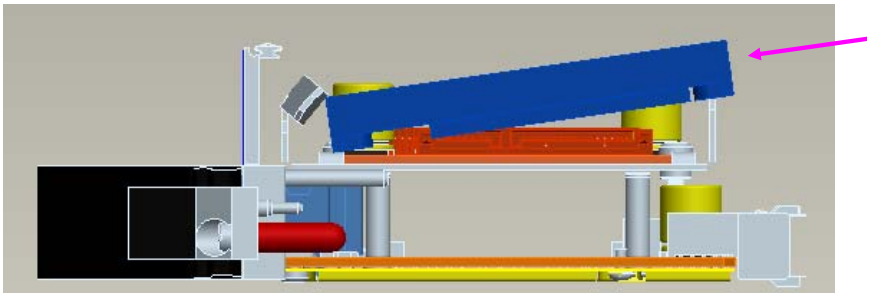


Figure 3-3:Hard Disk Installation Step 3

4 Make sure the hard disk is properly seated in the bracket (figure 3-4).

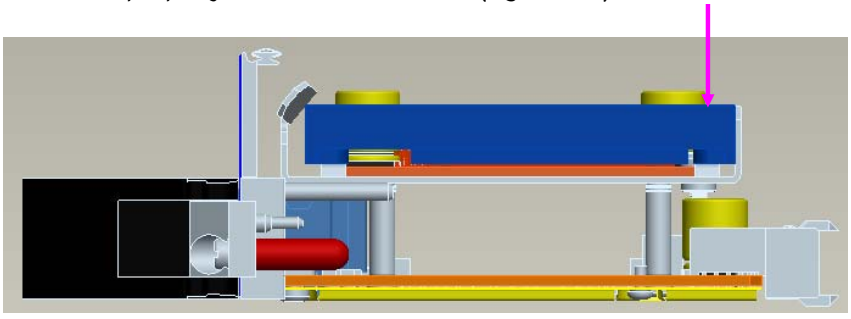


Figure 3-4:Hard Disk Installation Step 4

5 Push the hard disk into the SATA connector (figure 3-5).

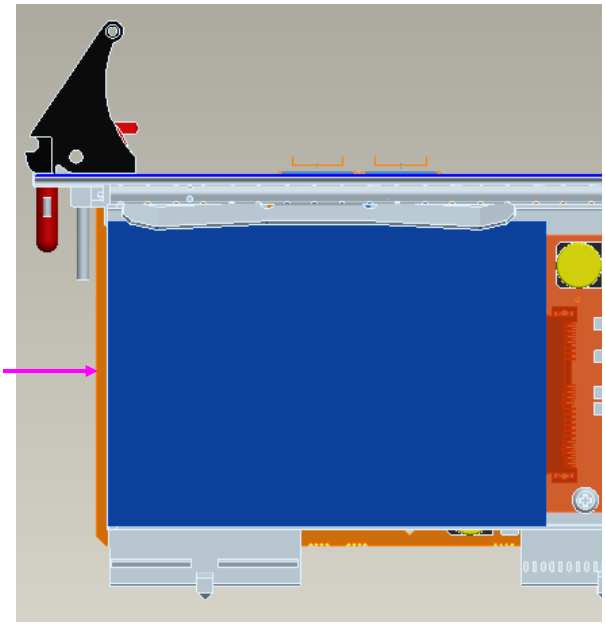


Figure 3-5:Hard Disk Installation Step 5

6 Insert the retaining screws with proper torque (4 lbs-pi) (figure 3-6).

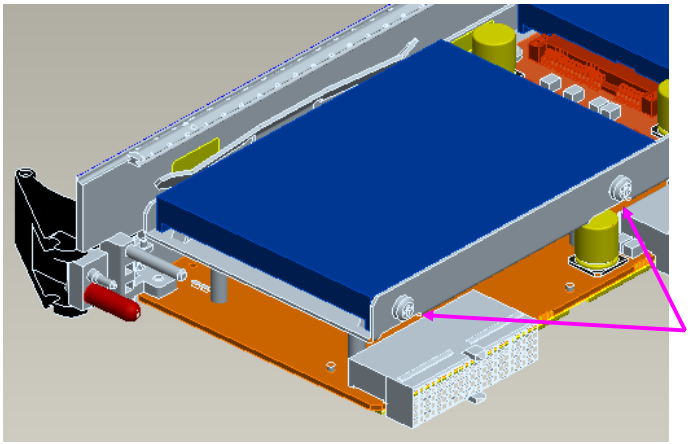


Figure 3-6:Hard Disk Installation Step 6

### 3.2.2 Removal Procedure for Both Hard Disk

1 Remove the retaining screws (figure 3-7).

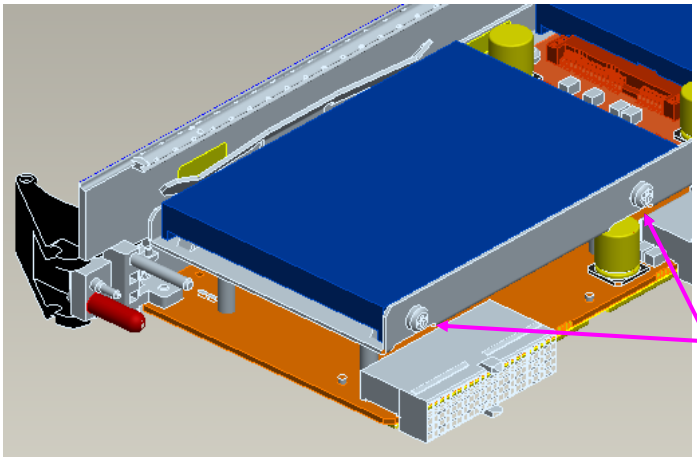


Figure 3-7:Hard Disk Removal Step 1

2 Pull the hard disk out of the SATA Connector (figure 3-8). Make sure the hard disk clears completely the connector before moving to next step.

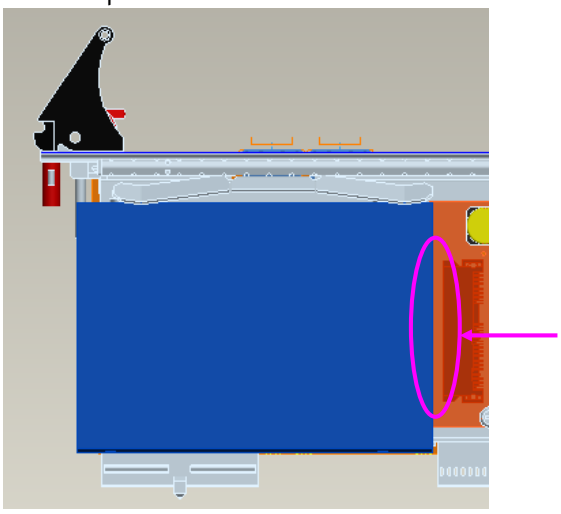


Figure 3-8:Hard Disk Removal Step 2

3 Push out the hard disk from the bracket (figure 3-9).

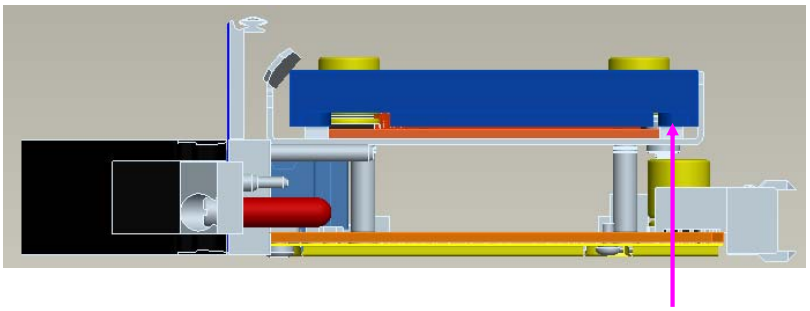


Figure 3-9:Hard Disk Removal Step 3

# A. Connectors Pinouts

## A.1 Connectors and Headers Summary

| Connector | Description |
|---|---|
| J2 | Ethernet Connector |
| J3 | J3 CPCI Connector |
| J4 | Ethernet Connector |
| J5 | J5 CPCI Connector |
| J6 | USB Connector |
| J7 | USB Connector |
| J9 | Video Connector |
| J11 | Serial Connector |
| J12 | Post Codes Connector |
| J13 | Serial Connector |
| J1 Mez | SATA HDD Connector |
| J2 Mez | SATA HDD Connector |

# A.2 Ethernet Connector (J2 & J4)

| Pin | Signal |
|---|---|
| 1 | DA+ |
| 2 | DA- |
| 3 | DB+ |
| 4 | DC+ |
| 5 | DC- |
| 6 | DB- |
| 7 | DD+ |
| 8 | DD- |

# A.3 J3 CPCI Connector (J3)

| Pin | ROW A | ROW B | ROW C | ROW D | ROW E |
|---|---|---|---|---|---|
| 1 | SP0:RTS | SP0:RXD | SP0:DSR | SP0:DCD | ID1 |
| 2 | SP0:RI | SP0:DTR | SP0:CTS | SP0:TXD | RSV |
| 3 | SP1:RTS | SP1:RXD | SP1:DSR | SP1:DCD | RSV |
| 4 | SP1:RI | SP1:DTR | SP1:CTS | SP1:TXD | RSV |
| 5 | VGA:BLUE | VGA:HSYNC | VGA:VSYNC | VGA:SCL | RSV |
| 6 | VGA:RED | VGA:GREEN | VGA:SDA | POST:CLK | POST:DATA |
| 7 | 3V3 | ID2 | ID3 | ID4 | RSV |
| 8 | USB0:DATA- | USB0:DATA+ | RSV | RSV | RSV |
| 9 | USB1:DATA- | USB1:DATA+ | GND | RSV | RSV |
| 10 | USB1:VCC | USB0:VCC | GND | RSV | RSV |
| 11 | RSV | RSV | GND | RSV | RSV |
| 12 | RSV | RSV | GND | RSV | RSV |
| 13 | LPA:ACT# | LPB:ACT# | N.C. | RSV | RSV |
| 14 | LPA:LINK# | LPB:LINK# | LPAB:CT | RSV | RSV |
| 15 | LPB:DB+ | LPB:DB- | GND | LAN1:DD+ | LAN1:DD- |
| 16 | LPB:DA+ | LPB:DA- | GND | LAN1:DC+ | LAN1:DC- |
| 17 | LPA:DB+ | LPA:DB- | GND | LAN2:DD+ | LAN2:DD- |
| 18 | LPA:DA+ | LPA:DA- | GND | LAN2:DC+ | LAN2:DC- |
| 19 | 5V | 5V | 3V3 | +12V | -12V |

# Active Low

# A.4 J5 CPCI Connector(J5)

| Pin | ROW A | ROW B | ROW C | ROW D | ROW E |
|---|---|---|---|---|---|
| 1 | GND | GND | GND | GND | GND |
| 2 | HT0:TX+ | HT0:TX- | GND | HT0:RX+ | HT0:RX- |
| 3 | GND | GND | GND | GND | GND |
| 4 | RSV | RSV | GND | RSV | RSV |
| 5 | GND | GND | GND | GND | GND |
| 6 | HT2_TX+ | HT2_TX- | GND | HT2_RX+ | HT2_RX- |
| 7 | GND | GND | GND | GND | GND |
| 8 | RSV | RSV | GND | RSV | RSV |
| 9 | GND | GND | GND | GND | GND |
| 10 | RSV | RSV | GND | SMB:SDA | SMB:SCL |
| 11 | RSV | RSV | GND | RSV | RSV |
| 12 | RSV | RSV | GND | RSV | RSV |
| 13 | RSV | RSV | GND | RSV | RSV |
| 14 | RSV | RSV | GND | RSV | RSV |
| 15 | RSV | RSV | GND | RSV | RSV |
| 16 | RSV | RSV | GND | RSV | RSV |
| 17 | RSV | RSV | GND | RSV | RSV |
| 18 | RSV | RSV | GND | RSV | RSV |
| 19 | RSV | RSV | GND | RSV | RSV |
| 20 | RSV | RSV | GND | RSV | RSV |
| 21 | RSV | RSV | GND | RSV | RSV |
| 22 | RSV | RSV | GND | RSV | RSV |

# Active Low

# A.5 USB Port (J6 & J7)

| Pin | Signal |
|---|---|
| 1 | VCC |
| 2 | DATA- |
| 3 | DATA+ |
| 4 | GND |

# A.6 Video Connector (J9)

| Signal | Pin | Pin | Signal |
|---|---|---|---|
| RED | 1 | 9 | N.C. |
| GREEN | 2 | 10 | GND |
| BLUE | 3 | 11 | N.C. |
| N.C. | 4 | 12 | SDATA |
| GND | 5 | 13 | HSYNC |
| GND | 6 | 14 | VSYNC |
| GND | 7 | 15 | SCLCK |
| GND | 8 | | |

# A.7 SERIAL PORT(J11 & J13)

| Pin | Signal |
|---|---|
| 1 | DCD# |
| 2 | RXD |
| 3 | TXD |
| 4 | DTR# |
| 5 | GND |
| 6 | DSR# |
| 7 | RTS# |
| 8 | CTS# |
| 9 | RI# |

# A.8 POST Codes Connector (J12)

| Signal | Pin |
|---|---|
| VCC3 | 1 |
| DATA | 2 |
| CLOCK | 3 |
| GND | 4 |

# A.9 SATA HDD J1Mez & J2Mez

| Pin | Signal | Pin | Signal |
|---|---|---|---|
| S1 | GND | P1 | 3.3V |
| S2 | PortA_TX+ | P2 | 3.3V |
| S3 | PortA_TX- | P3 | 3.3V |
| S4 | GND | P4 | GND |
| S5 | PortA_RX- | P5 | GND |
| S6 | PortA_RX+ | P6 | GND |
| S7 | GND | P7 | 5V |
| S8 | GND | P8 | 5V |
| S9 | N.C. | P9 | 5V |
| S10 | N.C. | P10 | GND |
| S11 | GND | P11 | Ready LED |
| S12 | N.C. | P12 | GND |
| S13 | N.C. | P13 | 12V |
| S14 | GND | P14 | 12V |
| | | P15 | 12V |

# B. Getting Help

If, at any time, you encounter difficulties with your application or with any of our products, or if you simply need guidance on system setups and capabilities, contact our Technical Support at:

| North America | EMEA |
|---|---|
| Tel.: (450) 437-5682 | Tel.: +49 (0) 8341 803 333 |
| Fax: (450) 437-8053 | Fax: +49 (0) 8341 803 339 |

If you have any questions about Kontron, our products, or services, visit our Web site at: www.kontron.com

You also can contact us by E-mail at:

North America: support@ca.kontron.com

EMEA: support-kom@kontron.com

Or at the following address:

| North America | EMEA |
|---|---|
| Kontron Canada, Inc. | Kontron Modular Computers GmbH |
| 616 Curé Boivin | Sudetenstrasse 7 |
| Boisbriand, Québec | 87600 Kaufbeuren |
| J7G 2A7 Canada | Germany |

# B.1 Returning Defective Merchandise

Before returning any merchandise please do one of the following:

- Call

    1 Call our Technical Support department in North America at (450) 437-5682 and in EMEA at +49 (0) 8341 803 333. Make sure you have the following on hand: our Invoice #, your Purchase Order #, and the Serial Number of the defective unit.

    2 Provide the serial number found on the back of the unit and explain the nature of your problem to a service technician.

    3 The technician will instruct you on the return procedure if the problem cannot be solved over the telephone.

    4 Make sure you receive an RMA # from our Technical Support before returning any merchandise.

- Fax

    1 Make a copy of the request form on the following page.

    2 Fill it out.

    3 Fax it to us at: North America (450) 437-0304, EMEA +49 (0) 8341 803 339

- E-mail

    1 Send us an e-mail at: RMA@ca.kontron.com in North America and at: orderprocessing@kontron-modular.com in EMEA. In the e-mail, you must include your name, your company name, your address, your city, your postal/zip code, your phone number, and your e-mail. You must also include the serial number of the defective product and a description of the problem.

# B.2 When Returning a Unit

- In the box, you must include the name and telephone number of a contact person, in case further explanations are required. Where applicable, always include all duty papers and invoice(s) associated with the item(s) in question.
- Ensure that the unit is properly packed. Pack it in a rigid cardboard box.
- Clearly write or mark the RMA number on the outside of the package you are returning.
- Ship prepaid. We take care of insuring incoming units.

| North America | EMEA |
|---|---|
| Kontron Canada, Inc. | Kontron Modular Computers GmbH |
| 616 Curé Boivin | Sudetenstrasse 7 |
| Boisbriand, Québec | 87600 Kaufbeuren |
| J7G 2A7 Canada | Germany |

**Return to Manufacturer Authorization Request**

| | | | |
|---|---|---|---|
| Contact Name: | _____ | | |
| Company Name: | _____ | | |
| Street Address: | _____ | | |
| City: | _____ | Province/State: | _____ |
| Country: | _____ | Postal/Zip Code: | _____ |
| Phone Number: | _____ | Extension: | _____ |
| Fax Number: | _____ | E-Mail: | _____ |

| Serial Number | Failure or Problem Description | P.O. # (if not under warranty) |
|---|---|---|
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**Fax this form to Kontron's Technical Support department**
**in North America at (450) 437-0304**
**in EMEA at +49 (0) 8341 803 339**