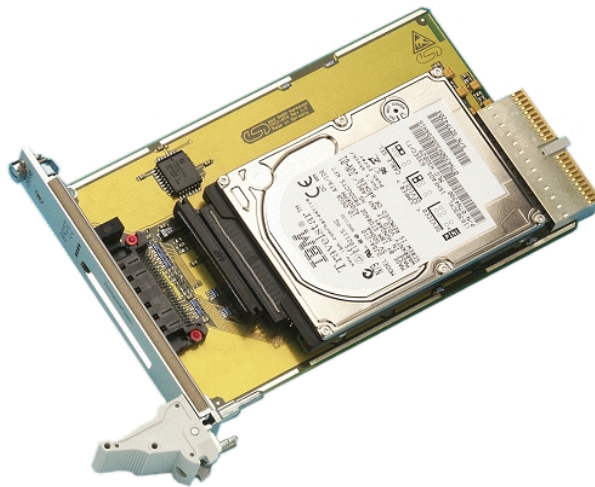


# CPCI-HD

## On-Board HD-Drive and CompactFlash Slot



### Hardware Manual

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### Changes in the chapters

The changes in the user's manual listed below affect changes in the **hardware**, as well as changes in the **description** of the facts only.

Chapter	Changes versus previous version
-	First version
-	

Further technical changes are subject to change without notice.

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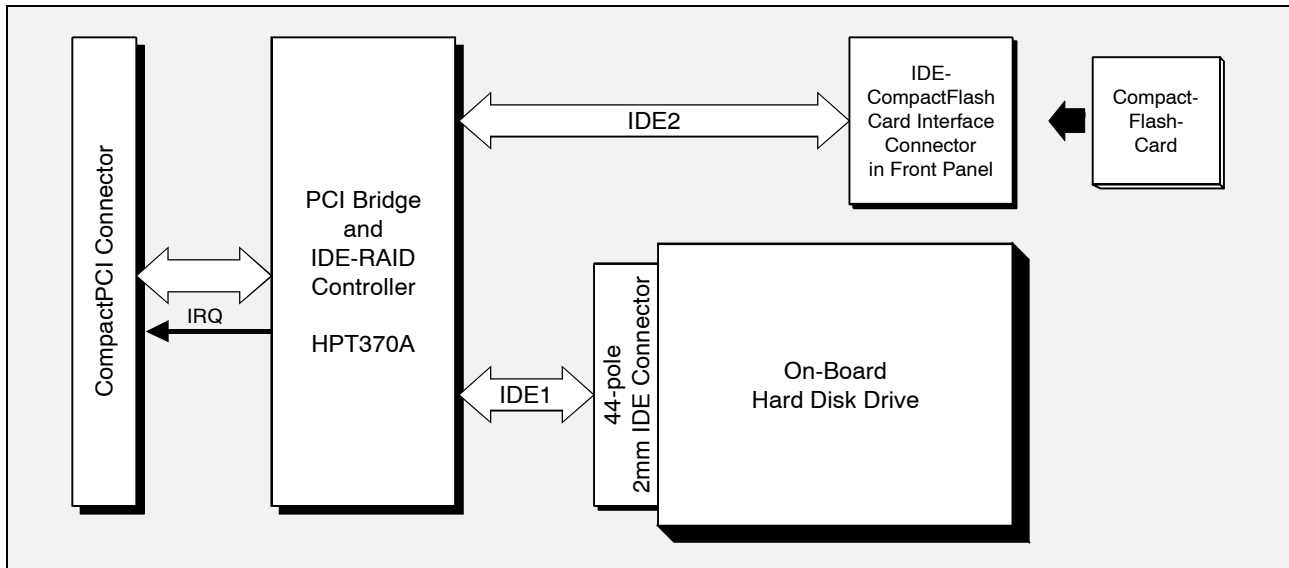
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# 1. Overview

## 1.1 Description of CPCI-HD Module



**Fig. 1.1:** Block-circuit diagram of the CPCI-HD module

The CPCI-HD is a CompactPCI board in Euro format and offers an on-board hard disk drive and a CompactFlash card interface.

The CPCI-HD module is equipped with a HPT370A IDE-drive controller which supports two IDE-channels. One channel is used to control the local HD-drive and the other channel is used to control the CompactFlash slot.

The CompactFlash slot is in the front panel. The CompactFlash card is accessed in 'True IDE'-mode.

The board is also available without HD-drive. Up to two IDE-devices can then be connected via a 44-pole ribbon cable.

LEDs in the front panel show the status of the board.



## 1.2 Summary of Technical Data

### 1.2.1 General Technical Data

Ambient temperature	0...50 °C
Humidity	max. 90 %, non-condensing
Power supply	via CompactPCI-bus, nominal voltage: 5 V, 3.3 V
Connectors	X31 (44-pin IDE-connector) - HD-drive connector, 2 mm pitch X40 (50-pin CompactFlash board connector, AMP-C- FLASH ) - CompactFlash card slot X100 (132-pin post connector) - CompactPCI-board connector
Dimensions	100 mm x 160 mm
Weight	250 g

**Table 1.1:** General technical data



### 1.2.2 CompactPCI Bus

Host bus	PCI-Bus according to PCI Local Bus Specification 2.0
PCI-data/address bus	32 bits
Controller	HPT370A
Interrupt	Interrupt signal A
Board dimensions	according to CompactPCI-Specification, Rev. 2.0
Connectors	
Connector Coding	Universal-Board, not keyed (3,3 V or 5 V signalling voltage)

**Table 1.2:** CompactPCI-bus interface

### 1.2.3 Hard Disk Drive

Number	1 Hard-Disk-Drive
Data transfer mode	UDMA 33
IDE-controller	HPT370A
Hard disk drive	2.5" drive, capacity: 10 GB (other capacities on request), access time: 12 ms (for drive type DJSA-210)

**Table 1.3:** HD-drive

### 1.2.4 CompactFlash Interface

Number	1 CompactFlash slot
Data transfer mode	PIO 0
IDE-controller	HPT370A
CompactFlash	according to CompactFlash™ specification, Type I CompactFlash-card slot, 'True IDE'-mode, 3.3 V supply voltage

**Table 1.4:** CompactFlash interface





## Overview

### 1.2.5 Software Support

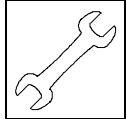
The CPCI-HD module works with the standard-system drivers of VxWorks, Linux, QNX or Windows NT/2000.

### 1.2.6 Order Information

Type	Properties	Order No.
CPCI-HD	10 GB Hard Disk Drive, CompactFlash Interface	I.2310.02
CPCI-CF	as CPCI-HD, but without HD-drive	I.2310.10
CPCI-HD-ME *)	English manual	I.2310.21

\*) The manual is free, if it was ordered together with the product.

**Table 1.5:** Order information



## 2. Hardware Installation

### Attention!

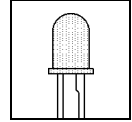
Electro-static discharges may cause damage to electronic components. In order to avoid this please make sure to follow the steps below *before* touching the CAN-module:

- Switch off the power supply of your computer, but leave it connected to mains.
- Now touch the metal case of the computer to discharge yourself.
- Even your clothes must not touch the CAN-module.

### Installation:

1. Switch off your computer and all connected peripheral devices (monitor, printers, etc.).
2. Discharge yourself as described above.
3. Disconnect the computer from mains.
4. Insert the CPCI-HD module into a free CompactPCI slot.
5. Attach the module by means of the front panel screws.
6. Connect the computer to mains again.
7. Switch on the computer and the peripheral devices.
8. End of hardware installation.
9. Now, you can install the HD-drive and the CompactFlash interface. For further information refer to the documentation of your operating system.

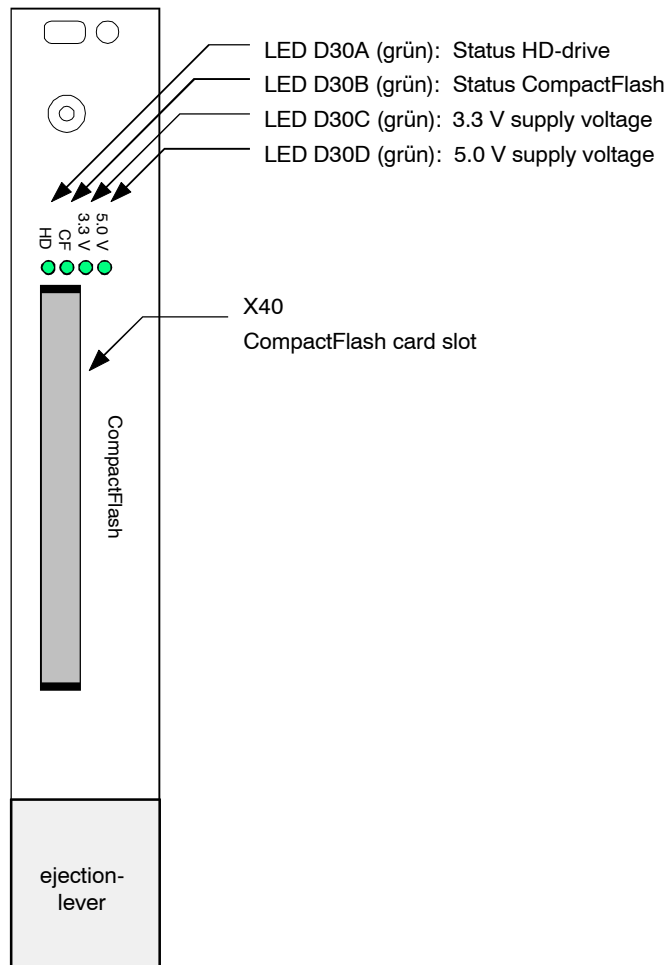
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### 3. Front Panel View with LED-Display

The Module has got four green LEDs in the front panel.

#### 3.1 LEDs in the Front Panel

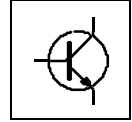


**Fig. 3.1:** Position and colour of the LEDs

LED	Colour	Name	Meaning of LED (LED on)
LEDD30A	green	HD	Access to HD-drive
LEDD30B	green	CF	Access to CompactFlash card
LEDD30C	green	3.3 V	The 3.3 V supply voltage is active
LEDD30D	green	5.0 V	The 5 V supply voltage is active

**Table 3.1:** Display functions of the LEDs

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## 4. Circuit Diagrams

The PDF-file of this document does not contain the circuit diagrams. The circuit diagrams are shipped on request.



## Information about Usage of CompactFlash® Cards!

A correct functionality of the CompactFlash interface can only be ensured by usage of CompactFlash cards with guaranteed SSD-properties.  
esd therefore recommends to use one of the listed SLC-cards:

- Western Digital SiliconDrive II (e.g. 4GB: SSDC04G-4600)
- Cactus CompactFlash 303 Series (e.g. 4GB: KC4GR-303)
- Swissbit C-320 (e.g. 4GB: SFCF4096H1BO2TO-C-D1-523-SMA)

Only with this CF-cards the correct function of the CF-card interface is ensured and support for the devices is provided.

esd will evaluate more CF-cards and release them on success.