CPCI-CPU/750
CompactPCI® PowerPC® with ETHERNET and CAN

- **PowerPC IBM 750FX with up to 1850 DMIPS**
- **Gigabit ETHERNET (IEEE 802.3)**
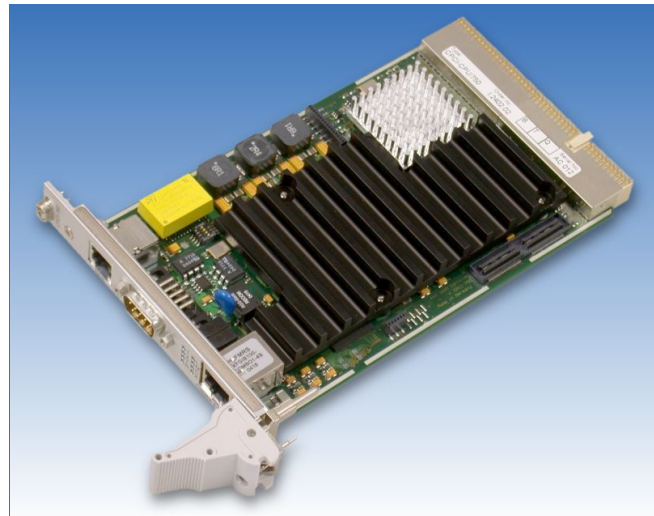- **CAN & RS-232 interfaces**

CompactPCI PowerPC Board
The CPCI-CPU/750 is a CompactPCI board in 3U format. The powerful IBM PPC750FX with 800 MHz enables a performance of up to 1850 DMIPS. With on-board PCI-arbiter and PCI-clock distributor it acts as a CompactPCI host. The board is equipped with 256 Mbyte or 512 Mbyte DDR-SDRAM with ECC and 64 Mbyte Flash. A non-volatile NVRAM/RTC enables the CPCI-CPU/750 to save valuable process variables during power off sequences.
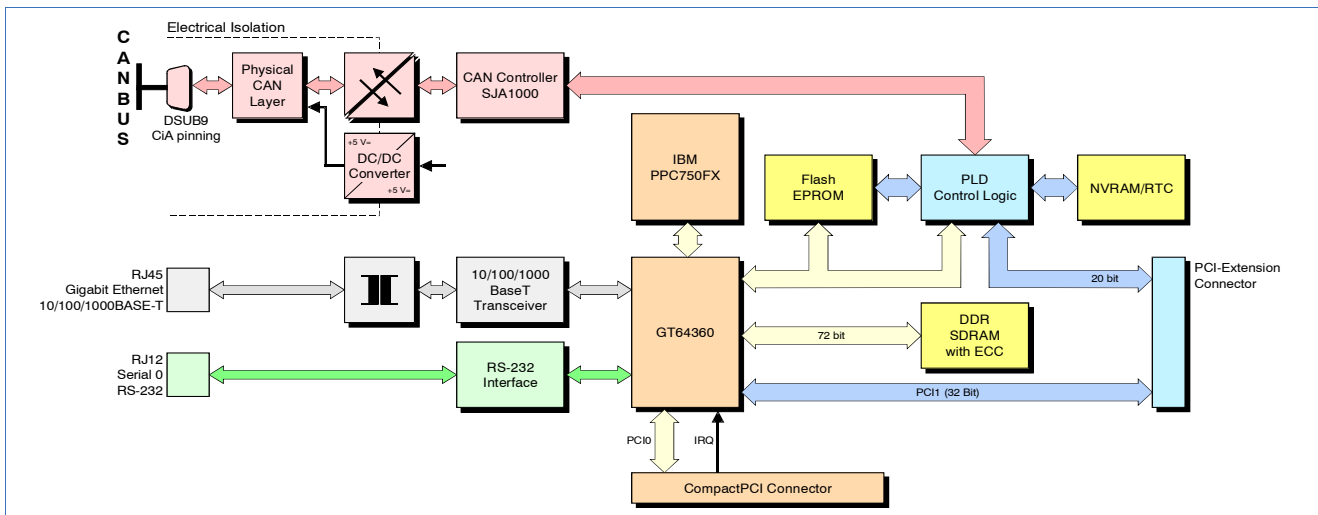
Network Interfaces
The CPCI-CPU/750 comes with an ETHERNET interface (IEEE 802.3) that is accessible via RJ45 connector in the front panel. The CPCI-CPU/750 provides a CAN interface based on a SJA1000 CAN controller. It is designed according to ISO 11898-2 with electrically isolation and a DSUB9 connector and allows data transfer rates of 1 Mbit/s. A serial port is available as RS-232 via RJ12 connector.

Software Support
The Flash memory carries the standard 'U-Boot' program that enables the CPCI-CPU/750 to boot various operating systems from network or on-board Flash. Thus Linux® and VxWorks® are directly

supported with full support of on-board drivers by esd, others on request. There is also a bunch of higher layer protocols like CANopen® as well as an on-board web server available.

Technical Specifications:

CompactPCI interface and microcontroller:	
Microcontroller:	IBM® PowerPC 750FX, 800 MHz, 32 bit
Memory equipped:	32 M x 64 bit DDR SDRAM (256 MB) or 64 M x 64 bit DDR SDRAM (512 MB), 32 M x 16 bit Flash EPROM (64 MB), 32 KB NVRAM
CompactPCI bus	according to PIC-MG® 2.0 R2.1, 32/64 bit, 33/66 MHz, 3.3 V/5 V signals, PCI bus master capability, non system master option

Interfaces:	
ETHERNET:	1000BASE-T, IEEE 802.3, 10/100/1000 Mbit/s, RJ45-connector
Serial:	1x RS-232 at RJ12
CAN:	controller: SJA1000, ISO 11898-1 interface: electrically isolated, bitrate up to 1 Mbit/s, ISO 11898-2, DSUB9 connector

General:	
Ambient temperature:	0 ... +50 °C
Relative humidity:	max. 90 % (non-condensing)

General (continued):	
Power supply:	5 V / 3 A, 3.3 V / 1 A
Connectors:	CAN: 9-pole DSUB (male), Serial: RJ12 Gigabit Ethernet: RJ45

Order information:

Designation		order no.
CPCI-CPU/750 256MB	System master CPU, 256 MB	I.2402.03
CPCI-CPU/750 512MB	System master CPU, 512 MB	I.2402.05
CPCI-CPU/750-N 256MB	Non system master, 256 MB	I.2402.12
CPCI-CPU/750-N 512MB	Non system master, 512 MB	I.2402.14
CPCI-CPU/AddOn	VGA/SVGA (DVI) graphics add-on, up to 1280x1024 16/32Bit, 1x USB type A, 3U/8HP	I.2403.02
CPCI-CPU/750-VxW-5.5	VxWorks 5.5 BSP	I.2402.31
CPCI-CPU/750-VxW-6.7	VxWorks 6.7 BSP	I.2402.55
CPCI-CPU/750-Linux	Linux adaption	I.2402.32
CPCI-CPU/750-RTEMS	RTEMS BSP	I.2402.40