PrPMC520

Processor PMC with MPC5200 and FPGA for flexible solutions
By AcQ Inducom

The PrPMC is an MPC5200 based processor PMC. It is the heart of the Low Power Data Acquisition System (LpDAS), but it can also be used as a standard PMC on a PMC carrier card.
Inside LpDAS, the PrPMC520 is meant for applications with low power consumption and high performance in a harsh environment. The PrPMC520 can also be used as processor card on a PMC carrier card and act as a single board computer.
The PrPMC520 has a maximum of 256MByte SDRAM and a maximum of 128MByte Flash memory to store your application program and data.
Besides the MPC5200, the PrPMC520 has an FPGA for flexible solutions. In this FPGA it is possible to have the PCI interface, but also several different I/O interfaces, like ARINC-429/573, serial interface, USB1.1, digital I/O, MIL-STD-1533. Please contact for more information on this subject, to translate your requirements into a tailored solution or a standard available solution. Standard available interface:
1 x Ethernet 10/100Mb
2 x CAN
1 x UART
1x CompactFlash slot

As the PrPMC is a conduction cooled PMC card, the interface connections are all through the rear I/O. We provide PIM cards for your application. The PrPMC520 is only available as a conduction cooled version.
Also available is a development carrier card for the PrPMC520. This carrier card is meant for software development purposes; it provides connectors and signal conditioning.
The PrPMC520 can be delivered with an OS-less software support for the GNU development environment. Optional, with TCP/IP stack. The PrPCM520 is able to run various operating systems such as VxWorks, Embedded Linux, Integrity and many more.

Features:
> MPC5200B CPU @ 396MHz
> Maximum 256MByte SDRAM
> Maximum 128MByte Flash
> 64Kbit Eeprom
> RTC with GoldCap/Battery option
> FPGA for flexible I/O and implementation of protocol stacks
> Conduction cooled PMC form factor
> PCI interface

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PrPMC520 Interfaces

* 1x Ethernet 10/100Mb, routed to rear I/O
* 2x CAN (no transceivers), routed to rear I/O
* 1x PMC5200 Uart -> RS232 with hardware handshake, routed to rear I/O
* 1x FPGA for flexible I/O configurations
* 1x COP interface for debugging, routed to rear I/O
* 1x Temperature Sensor
* 1x Watchdog
* Maximum 2x CompactFlash Type I or II slot, 3.3V only, hot-swap

Host Interface

* Softcore PCI v2.2 compliant
* Host and Agent support
* Monarch and non-monarch support
* 32-bit PCI bus @ 33MHz
* 3.3V PCI signalling

Development Carrier Card

Development
* Mount the PrPMC520 and develop your software
* Connections are taken from rear I/O of the PrPMC520
* Connections from the rear I/O which are not used are routed to a connector to mount an additional PIM

Connections
* Battery for RTC
* Power switch
* Power supply circuit (power input is 5Vdc, connected by screw terminal)
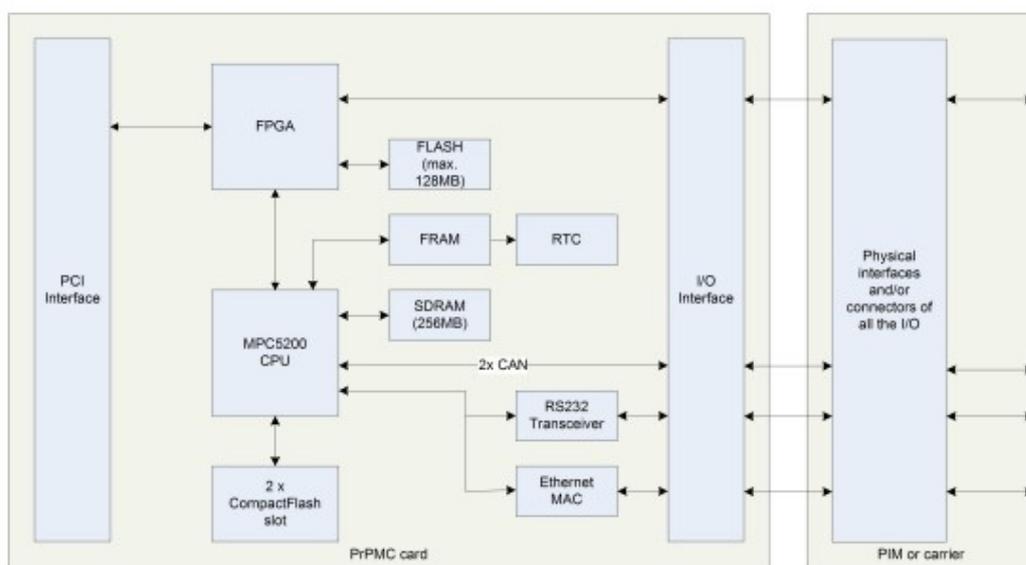* Reset button

Development Carrier Card IO

* 1 x Ethernet RJ45
* 2 x SUBD for CAN, non isolated
* 1 x RS232 RJ45, non isolated
* COP interface
* Rear I/O connection for mounting a additional PIM

Software support

* OS-less software support for the GNU development environment
* Bootloader (UBOOT implementation
* TCP/IP stack
* Various operating systems, such as VxWorks and Embedded Linux. Contact us for more information.

Ordering Information

* **PrPMC520/T01** PrPMC520 Board 256MB SDRAM, 128MB Flash
* **PrPMC520/DCR/T01** Development carrier for the PrPMC520
* **PrPMC520/BSP** Board Support Pack software (OS-less)
* **PrPMC520/BL** Bootloader
* **PrPMC520/TCP** TCP/IP protocol stack (one-time fee)
* **PrPMC520/TCPT** TCP/IP protocol stack (target fee)
* **PIM520/T01** , available on request
* Other configurations and operating systems on request

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