



PMC-CPU/405

PowerPCTM PrPMC Module with Ethernet and CAN

- PowerPC AMCC PPC 405GPr, 400 MHz, 32 bit
- Ethernet IEEE 802.3, 100BASE-TX, 10/100 Mbit/s
- 2x CAN interfaces, TTL-level signals via PMC-I/O connector, PIM adapter module available
- 1x RS-232 access via PMC-I/O connector
- 1x RS-232 access via DSUB9 in front panel
- IRIG-B time code interface via PMC-I/O connector
- Linux and VxWorks supported, others on request

PMC PowerPCTM Board

The PMC-CPU/405 is a PCI Mezzanine Card that automatically switches to monarch (PrPMC) or non-monarch mode according to the systems requirements. The PowerPCTM AMCC PPC-405GPr with 400 MHz enables a performance of 608 MIPS. The board is equipped with 64 Mbyte SDRAM and 32 Mbyte Flash. You can support system time by RTC (with Gold Cap) or IRIG-B. For CAN bus synchronization tasks a high-resolution CAN hardware timestamp is supported.

Connectivity

The PMC-CPU/405 comes with an Ethernet interface that is accessible as 100BaseT via a RJ45 connector at the front panel. The PMC-CPU/405 provides 2 CAN interfaces based on SJA1000 CAN controllers. The CAN signals are available as TTL only via PMC connector. External converters from CAN-TTL to CANISO11898 are available. Both CAN allow data transfer rates of 1 Mbit/s. One of two RS-232 serial ports is available at the front panel via a DSUB9 connector, the other one via PMC-I/O connector.



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Software Support

The flash memory carries the open source firmware 'U-Boot' enabling the PMC-CPU/405 to boot various operating systems from network and on-board Flash. The PMC-CPU/405 directly supports Linux and VxWorks with full support of on-board drivers by esd, others on request. There are also higher layer protocols available i.e. CANopen and DeviceNet.

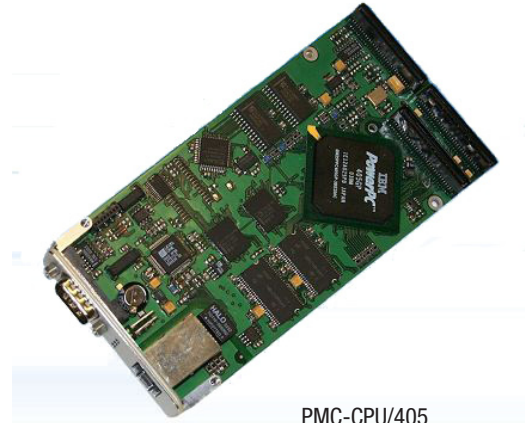
For further information please visit
<http://www.esd-electronics-usa.com/PMC.html>

growing with the
challenge

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Technical Specifications:

PMC interface and microprocessor:	
Microprocessor:	AMCC PPC405GPr, 400 MHz, 32 bit
Memory:	From 16M x 32 bit SDRAM (64MB) up to 32M x 32 bit SDRAM (128 MB), 32 Mbyte flash
RTC:	DS1685, backup by Gold Cap
PCI:	PCI 2.2, 32 bit 33/66 MHz, PrPMC acc. to Vita 32, monarch and non-monarch operation
Interfaces:	
Ethernet:	100BaseT, IEEE802.3, RJ45-connector
Serial:	1x RS-232 at front panel (DSUB9), 1x RS-232 at PMC-I/O connector Pn4 (4-pin)
CAN:	2x CAN, controller SJA1000, CAN 2.0A/B, TTL-level signals, 1 Mbit/s, high resolution CAN hard- ware timestamp (FPGA), PMC-connector
IRIG-B:	Digital differential physical layer, IRIG B100 time code format, Decoding and time code generation
General:	
Ambient temp.:	0 ...+70 /C
Humidity:	Max. 90 %, non-condensing
Power supply:	5 V, 3.3 V
Connectors:	PMC-connector Pn4: 2x CAN, Serial, IRIG-B, I ² C front panel: Serial (console), 1000BaseT

Order Information:

Designation		Order no.
PMC-CPU/405	PrPMC processor AMCC PPC-405GPr, 400MHz 64 MB RAM, 32 MB Flash	V.2020.02
PIM-CPU/405	2x DSUB9 connector	V.2025.02
PMC-CPU/405-VxW	VxWorks BSP	V.2020.30
PMC-CPU/405-Linux	Linux BSP/adaption	V.2020.32

For further information please visit
<http://www.esd-electronics-usa.com/PMC.html>

