

An intelligent quad channel CAN controller PMC, suitable for the standard CAN2.0B, but also for the CAN aerospace, ARINC-825 protocol.

CAN is a widely used fieldbus, in automotive, industry and other types of applications. In the last years CAN is more and more used in aerospace applications too. Starting with CANaerospace, nowadays with the new ARINC-825 specification, CAN also contains the specification to be a subsystem bus for ARINC 664 Part 7 networked IMA (Integrated Modular Avionics) architectures. This standard is (will be) used by large aircraft builders like Airbus and Boeing.

The PMC408 is built around the MPC8247 PowerQUICC II processor with four MCP2515 CAN controllers. Each CAN channel is independently isolated using its own DC/DC converter and opto-coupler.

The PMC408 also features a digital input channel for 1PPS timing signal, which may be used for time synchronization.

The PMC408 is also available as a conduction cooled version (ccPMC408).

**Features:**

- > PowerQUICC II
- > 32-bit PCI bus @ 33MHz or 66 MHz
- > 4x CAN interface, MCP2515
- > 4 x Independant CAN 2.0B, ISO11898 interfaces

## Board Features

- \* PCI v2.2 compliant
- \* 32-bit PCI bus @ 33MHz or 66 MHz
- \* 3.3V PCI signalling
- \* 5V Supply voltage
- \* PowerQUICC II MPC8247
- \* Intelligent card by use of controller, memory with local firmware (application interface for ARINC 825, CANaerospace, CAN and others on request)

## CAN Features

- \* 4x CAN interfaces, MCP2515
- \* 4x independent CAN 2.0B, ISO11898 interfaces
- \* each channel is independent isolated by a opto-coupler and an onboard DC/DC converter
- \* Fixed or Software programmable CAN termination with 120 Ohm resistor
- \* CAN transceiver TJA1040 automatically detects a dominant state

## Time SYNC Features

- \* Hardware counter, resolution 1 microsecond
- \* One digital optical isolated input for 1PPS timing signal
- \* IRIG-B on request

## Board Characteristics

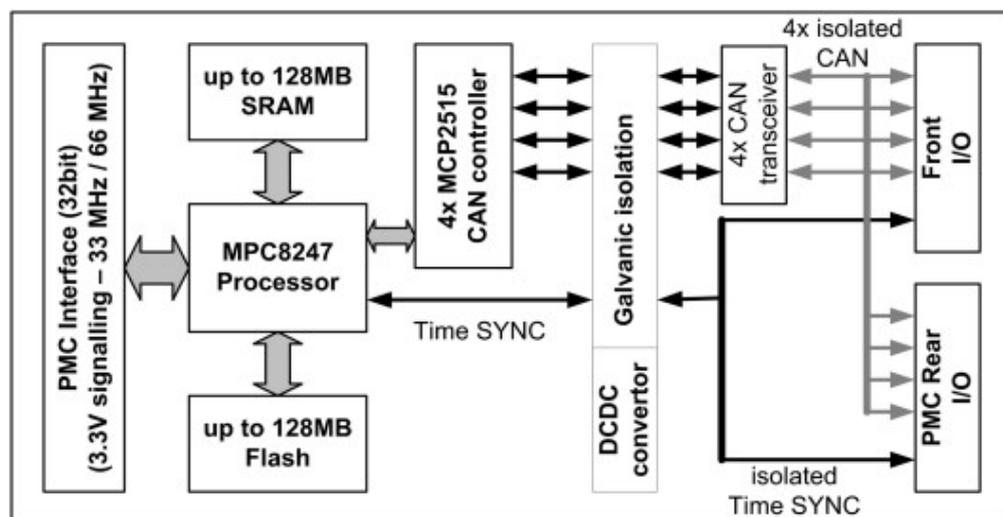
- \* Single PMC slot (IEEE 1386.1-2001 compliant) with front I/O and/or rear I/O
- \* Temperature range standard 0 to 60°C and industrial -40 to +85°C
- \* Standard PMC with front panel
- \* Standard PMC front with two DB-9 connectors for two standard CAN connections. All four channels are connectable using a split-cable

## Board Support

- \* APIS software support for standard CAN2.0B interface
- \* ARINC-825 support for Windows, Linux and Solaris (on request)

## Ordering Information

- \* **PMC408/T01** Intelligent quad channel CAN (CAN, ARINC-825) controller PMC
- \* **PMC408/T02** Intelligent quad channel CAN (CAN, ARINC-825) controller PMC (industrial temperature)
- \* **PMC408/SW** APIS based software for PMC408



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