

An intelligent quad channel CAN controller PMC with conduction cooling, 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 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 ccPMC408 is built around the MPC8247 PowerQUICC II processor with four MPC2515 CAN controllers. Each CAN channel is independent isolated using its own DC/DC converter and opto-coupler.

The ccPMC408 also features a digital input channel for 1PPS timing signal, which may be used for time synchronization.

The ccPMC408 must be used together with the PIM408

The ccPMC408 is also available as an air cooled cooled version (PMC408).

#### Features:

- > PowerQUICC II
- > 32-bit PCI bus @ 33MHz or 66 MHz
- > 4x CAN interface, MCP2515
- > 4x Independant CAN 2.0B, IS11898 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

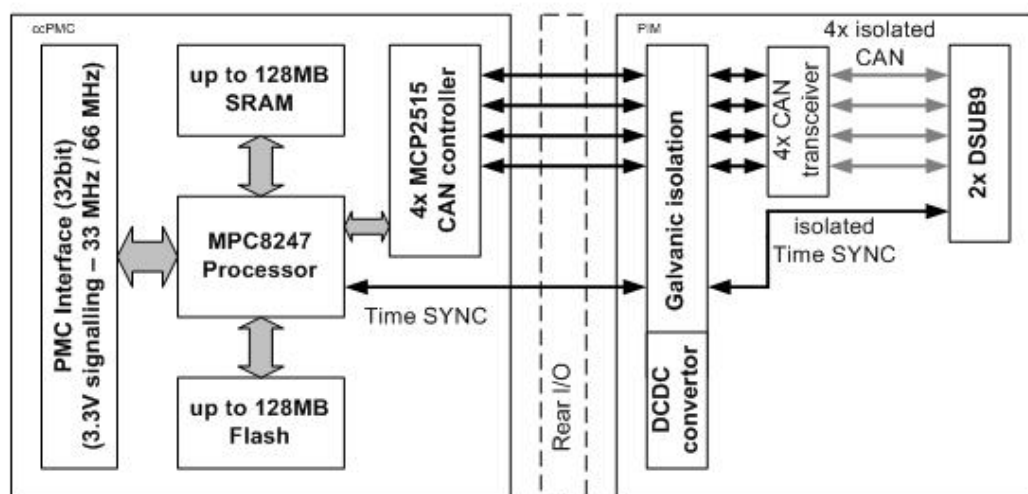
- \* Single PMC slot (IEEE 1386.1-2001 compliant) with front I/O and/or rear I/O
- \* Conduction Cooled PMC with PIM
- \* PIM with two DB-9 connectors for two standard CAN connections. All four channels are connectable using a split-cable

## Board Support

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

## Ordering Information

- \* **ccPMC408/T03** Intelligent quad channel CAN (CAN, ARINC-825) controller conduction cooled PMC (industrial temperature), only with rear I/O
- \* **PIM408/T01** PIM module for ccPMC408, with 2 times DB-9 connectors
- \* **ccPMC408/SW** APIS based software for ccPMC408



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