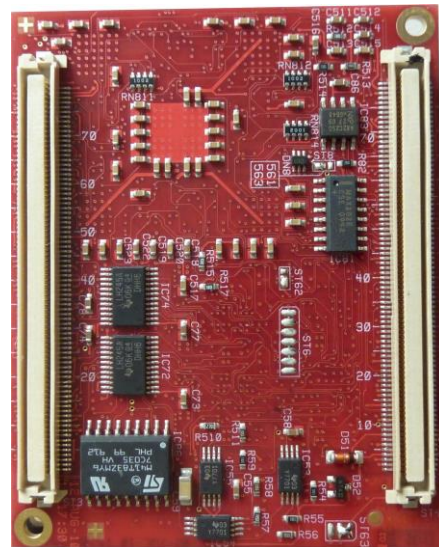


Core-563

Processor module MPC563



(Pictures in full scale)

Freescales MPC5xx-microcontroller are designed for the use in vehicles, e.g. in engine control units. The **Core-563** makes this rugged and versatile technology also available for the use in industrial control systems. Benefit from the powerful processor and the RTOS-UH-system, use the proven and tested processor module as core part of your application specific electronics!

As a stand-alone module, the **Core-563** only needs a power supply and is simple to deploy in customer specific designs, even in small lots. All functional modules of the processor are made accessible by high density connectors; the versatile I/O of the MPC563, it's high computational power, especially in floating point calculations, and it's low power design are key features for the successful deployment in all kinds of measurement and control applications. Concentrate on your application as core competence and use the **Core-563** as cost-effective processor module!

Core-563

Modul



Controller

The MPC563 integrates versatile IO-modules:

- 2x TPU – Time Processing Unit – 16 digitale IOs each, offering functions like PWM, quadrature decoder, counter, stepper motor driver, ...
- 22 MIOS Timer – Modular Input/Output Subsystem
- 2x QADC – Queued Analog to Digital Converter – with 16 channels each, 10 Bit resolution und 10 µs conversion time
- 1 QSM – Queued Serial Module – with SPI and 2 asynchronous serial ports, 2 CAN-channels

The **Core-563** makes all these functions accessible via high density connectors.

Processor

As a processor, the MPC563 core features are

- 56 MHz clock frequency, 64 Bit FPU
- external 32 bit bus with burst support
- 512 kByte internal Flash
- JTAG/Nexus/BDM-Debug-Port

Low current consumption and availability in the -40°C – 125°C temprature range allow for the deployment even under difficult environmental conditions.

Modul

The **Core-563** completes the MPC563 by all those functions, that are necessary to convert a bare bone controller into a ready-to-run workhorse:

- 8 MB PS-DRAM, 8 MB Flash
- 4 kB EEPROM for configuration data
- RTC, real time clock with calendar
- 2 channels RS-232, 5-wire
- supply 5 V / 50 mA and 3,3 V / 400 mA
- size 72 x 57 x 12 mm

All signals are routed via high density connectors. Using the **Core-563** as proven and tested building block gives access to the high performance feature of the MPC563 and still allows for the application specific design of IO periperals, even in small lots.

The IF555-3 e.g. especially supports additional high-level interfaces as network, display, keyboard and CF-card, aside from and in addition to the standard IO-ports of the controller.

Programmierung

The realtime operating system RTOS-UH is in the standard scope of supply and works out of the internal flash of the controller. The external flash is usable by application software.

Crest-C, PEARL and IEC 61131-3 are available as programming languages.