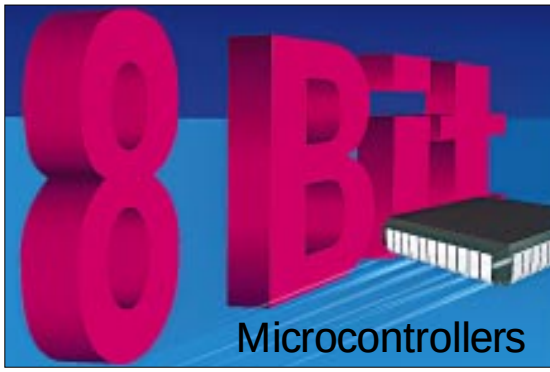
SIEMENS

C515
Your Best Choice for a Multipurpose Microcontroller

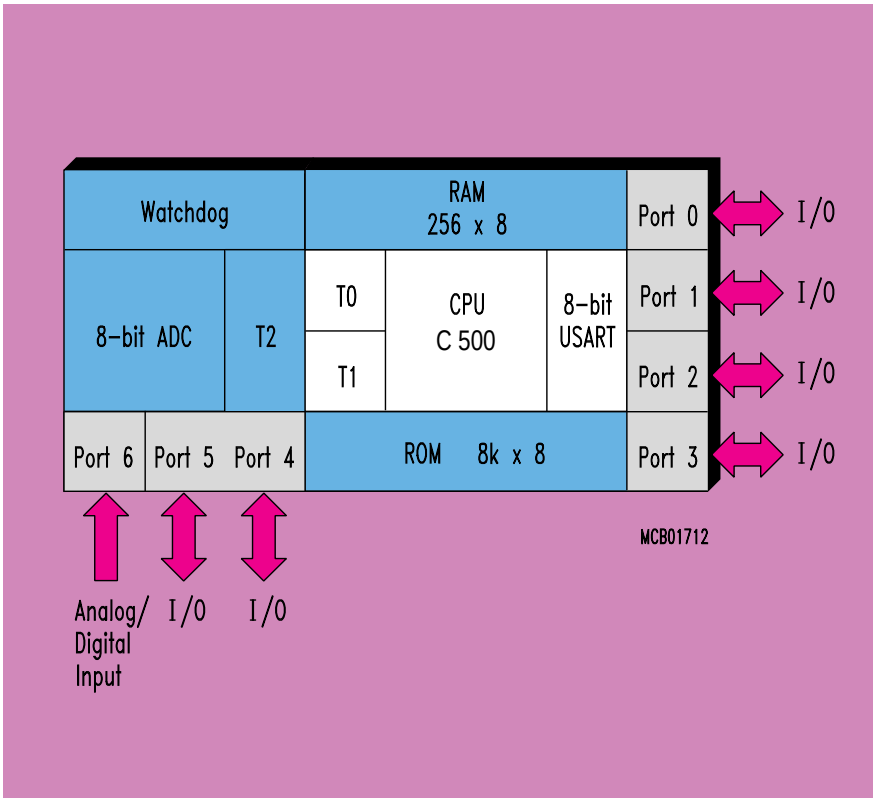


The C515 is a new derivative of the C500 family of 8-Bit-microcontrollers. It is fully compatible to the standard 80C515/535 family and upgrades it with a slow-down mode, a ROM-Protection and the Enhanced Hooks Emulation Technology™ by keeping it fully compatible.

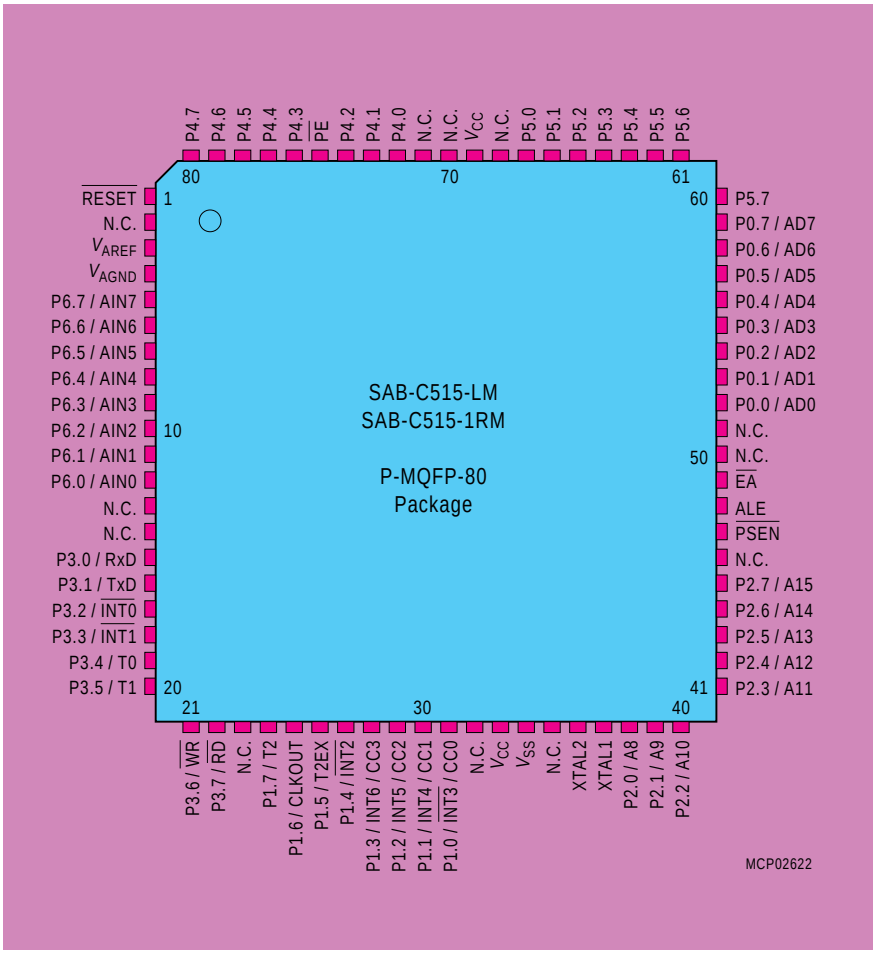
The C515 features a highly flexible 4 Channel PWM, a 8-Channel 8-Bit A/D-Converter, a programmable Watchdog Timer and 6 multifunctional I/O-Ports. These features in cooperation with its Enhanced EMC/RFI Improvements and the attractive price performance ratio makes the C515 suitable for a broad range of applications in the industrial, automotive, consumer and telecom segment.

- Enhanced 8-Bit C500-CPU – Fully Software/Toolset Compatible to Standard 80C51 Microcontrollers
- Fully Compatible with SAB 80C515 and SAB 80C535
- 600 ns Instruction Cycle Time at 20 MHz oscillator frequency
- 12 Interrupt Vectors with 4 Priority Levels selectable
- 8 KBytes On-Chip ROM with ROM-Protection available (C515-1RM)
- 256 Byte On-Chip Internal RAM (IRAM)
- Supports external Address Range up to 64 KByte Program and 64 KBytes Data Memory
- Three 16-Bit Timer/Counters
- 4 Channel highly flexible Capture/Compare Unit for PWM Generation
- 8-Channel 8-bit A/D Converter with programmable internal reference voltage. A/D Converter Inputs can be used as Digital Inputs
- Full Duplex Serial Interface with Asynchronous and Synchronous Modes and Programmable Baudrate Generator
- 48 Multifunctional input/output Pins
- Extended Power-Down Features
- Enhanced EMC/RFI Improvements through latest design optimizations
- Fail Safe Mechanism with Programmable Watchdog Timer
- Support of Enhanced Hook Emulation Technology™
- P-MQFP-80 Package – Pin-Compatible to SAB 80C515-M and SAB 80C515A-M
- Temperature ranges:
  Standard 0 °C to + 70 °C
  Extended -40 °C to + 85 °C

C515
Block Diagram



C515
Pin Configuration



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