



Totally Logical

Z8E000

FEATURE-RICH Z8^{PLUS} ONE-TIME-PROGRAMMABLE MICROCONTROLLER

FEATURES

Part Number	ROM (Bytes)	RAM* (Bytes)	Speed (MHz)
Z8E000	512	32	10

* General-Purpose

Microcontroller Core Features

- All Instructions Execute in 1 μ s Instruction Cycle @ 10 MHz
- 512 x 8 On-Chip OTP EPROM Memory
- 32 x 8 General-Purpose Registers (SRAM)
- Four Vectored Hardware Interrupts with Fixed Priority
- Two Additional Software Interrupts
- Operating Speed: DC–10 MHz
- Six Addressing Modes: R, IR, X, D, RA, & IM

Peripheral Features

- One 16-Bit Standard Timer
- 16-Bit Programmable Watch-Dog Timer (WDT)
- 13 Total Input/Output Pins
- One 8-Bit I/O Port (Port A)
 - I/O Bit Programmable

- Each Bit Programmable as Push-Pull or Open-Drain
- One 5-Bit I/O Port (Port B)
 - I/O Bit Programmable
 - Includes Special Functionality: Stop-Mode Recovery Input, Selectable Edge Interrupts

Additional Features

- On-Chip Oscillator that Accepts XTAL, Ceramic Resonator, LC, or External Clock
- Programmable Options:
 - EPROM Protect
- Power Reduction Modes:
 - HALT Mode with Peripheral Units Active
 - STOP Mode with all Functionality Shut Down

CMOS/Technology Features

- Low-Power Consumption
- 3.5V to 5.5V Operating Range @ 0°C to +70°C
4.5V to 5.5V Operating Range @ –40°C to +105°C
- 18-Pin DIP, SOIC, and 20-Pin SSOP Packages.

GENERAL DESCRIPTION

ZiLOG's Z8E000 Microcontroller (MCU) is a One-Time Programmable (OTP) member of ZiLOG's single-chip Z8^{PLUS} MCU family. The Z8E000 allows easy software development, debug, and prototyping.

For applications demanding powerful I/O capabilities, the Z8E000's dedicated input and output lines are grouped into two ports, and are configurable under software control.

One 16-bit on-chip standard timer, offloads the system of administering real-time tasks such as counting/timing and I/O data communications.