



Z i L O G

Z8F320x Series



Advanced 20MHz 32KB Flash Microcontroller

PB009311-0903

Product Brief

Product Block Diagram

20MHz eZ8 CPU	12 Channel 10-bit ADC	
32KB Flash	3 to 4 16-bit Counter/Timers Capture/Compare/PWM	
2KB SRAM	Watch-Dog Timer	Crystal Oscillator & Reset Control
SPI, I ² C, Two UARTs with IrDA	On-Chip Debugger	
Up to 46 I/O Pins		

Overview

The Z8F320x series of devices are Flash microcontrollers based on ZiLOG's advanced eZ8 8-bit microprocessor core. The Z8 Encore![®] MCU family of devices sets a new standard for performance and on-chip peripherals.

The Z8F320x series features up to twelve channels of 10-bit A/D conversion for measuring analog signals.

These devices include four enhanced 16-bit timer blocks featuring PWMs and Capture and Compare.

Up to 24 vectored interrupts with programmable priorities provide increased application flexibility.

The new single-pin debugger and programming interface simplifies code development and allows for easy in-circuit programming.

Two full-duplex UARTs provide serial communications and IrDA encoding and decoding capability. SPI and I²C ports allow easy incorporation into any system.

Z8 Encore![®] MCU Features

- 20MHz ZiLOG eZ8 microprocessor core
- 32KB Flash program memory
- 2KB register RAM
- Up to twelve channels, 10-bit A/D conversion
- 3 or 4 enhanced 16-bit timer blocks with PWMs and Capture and Compare. The 40- and 44-pin packages feature only 3 timers. The fourth timer is available only in the 64-, and 68-pin packages.
- Full-duplex SPI, I²C, and two UART ports with IrDA encoder/decoders.
- Up to 46 available I/O pins
- 3-channel DMA controller
- On-chip debug with break and trap capability
- Single-pin Flash programming
- Watch-Dog Timer
- Up to 24 vectored interrupts
- Power-on reset and voltage brown-out
- 3.0 to 3.6 operating voltage with 5V-tolerant inputs
- Operating temperatures: Standard (0° to 70°C) and Extended (-40° to +105°C)
- 40-, 44-, 64- and 68-pin packages