# *Z8 ⊜ Encore!*™
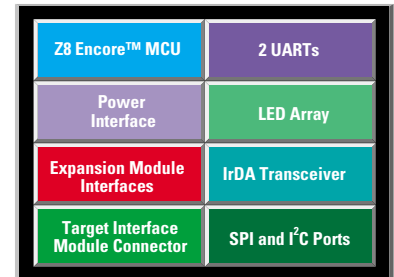## *Flash Microcontrollers* Development Kit

The Z8 Encore!™ Microcontroller (MCU) Development Kit is a general-purpose platform that allows design engineers to evaluate the capabilities and operation of the Z8 Encore!™ family of microcontrollers and provides tools to shorten the development cycle. Included with the Development Kit is a free full-version ANSI C-Compiler and a Target Interface Module board that interfaces with the on-chip debugger converting a one-wire interface to a two-wire RS-232-like interface. All the necessary hardware, software tools, and technical documentation are included, to provide a complete solution at minimal cost.

## Evaluation Board

The evaluation board demonstrates the complete peripheral set of the Z8 Encore!™ family of Flash microcontrollers and serves as a prototyping platform. Use the evaluation board to review the features of the Z8 Encore!™ MCU or begin an application design immediately.

## Z8 Encore!™ MCU Development Kit Contents:

### Hardware
- Evaluation Board
- Target Module Interface Board
- RS-232 DB9 Serial Cable
- 9VDC Universal Power Supply

### Software
- ZDS II IDE
- ANSI C-Compiler
- Sample Code
- Device Driver Software

### Documentation/CD-ROM
- Quick Start Guide
- Development Kit User Manual
- ZDS II User Manual
- eZ8 CPU User Manual
- Product Specification
- Product Briefs
- Application Notes
- Flyer
- Product Line Card
- Programmer's Quick Reference Sheet

## Features:
- Z8 Encore!™ Flash MCU
    - 20MHz performance
    - 12-channel, 10-bit A/D Converter
    - 3-channel DMA
    - Up to 64KB of Flash
    - Up to 4KB SRAM
    - SPI and I$^2$C Ports
    - Two 9-bit UARTs
    - 24 Interrupts
    - Four 16-bit Timers with PWMs
    - Single-pin, On-chip Debugger
- RS-232 Connectors (2)
- RS-485 Interface
- IrDA Port
- Modem Socket
- Expansion Module Headers
- Temperature Sensor with SPI Interface
- External Voltage Reference for A/D Converter
- I$^2$C Configuration IC
- Z8 Encore!™ Target Module Interface Board
- Push Buttons (3)
- LED Matrices (4)

| Z8 Encore™ MCU | 2 UARTs |
|---|---|
| Power Interface | LED Array |
| Expansion Module Interfaces | IrDA Transceiver |
| Target Interface Module Connector | SPI and I$^2$C Ports |

**Z8 Encore!™
Evaluation Board Block Diagram**

## Z
### ZiLOG

# Z8 ⬮ Encore!™
## Flash Microcontrollers

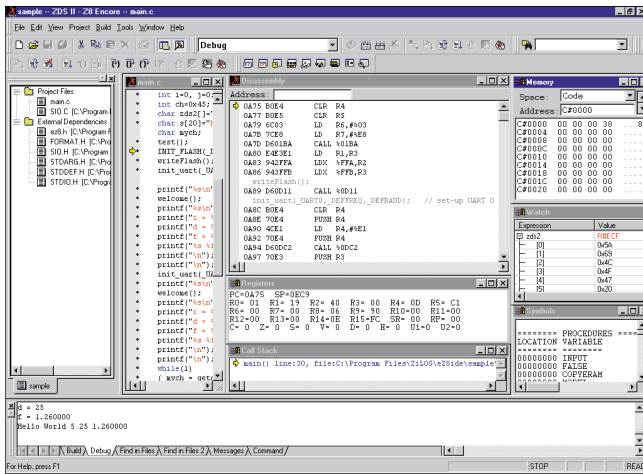# Development Kit



**Z8 Encore!™ MCU ZDS II IDE GUI**

## ZDS II Integrated Development Environment

ZiLOG Developer Studio II Integrated Development Environment (IDE) is a complete suite of software tools that supports development with the Z8 Encore!™ MCU. Combining an easy-to-use Windows-based GUI with multithreading capability, ZDS II provides an environment that simplifies code compilation and development. A language sensitive editor, project manager, compiler, assembler, linker, librarian, and debugger are included in ZDS II.

## C-Compiler

A full version ANSI C-Compiler is included in this kit at no additional cost. Simplify application software development and reduce time-to-market. The C-Compiler supports a powerful configurable optimizer allowing code to be optimized for speed or size.

## Z8 Encore!™ Flash MCU Supported Parts

| Device | Memory | | Core Speed (MHz) | I/O Lines | Interrupts | 16-Bit Timers | PWMs | 10-Bit A/D Channels | DMA Controller | UARTs | Operating Voltage | Pin Count |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Flash (Bytes) | RAM (Bytes) | | | | | | | | | | |
| **Z8F640X** | 64K | 4K | 20 | 60 | 24 | 4 | 4 | 12 | yes | 2 | 3.0V to 3.6V | 40,44,64,68,80 |
| **Z8F480X** | 48K | 4K | 20 | 60 | 24 | 4 | 4 | 12 | yes | 2 | 3.0V to 3.6V | 40,44,64,68,80 |
| **Z8F320X** | 32K | 2K | 20 | 46 | 24 | 4 | 4 | 12 | yes | 2 | 3.0V to 3.6V | 40,44,64,68 |
| **Z8F240X** | 24K | 2K | 20 | 46 | 24 | 4 | 4 | 12 | yes | 2 | 3.0V to 3.6V | 40,44,64,68 |
| **Z8F160X** | 16K | 2K | 20 | 46 | 24 | 4 | 4 | 12 | yes | 2 | 3.0V to 3.6V | 40,44,64,68 |

**Z8 Encore!™ UPDATE** *For the latest soon to be released ZiLOG Z8 Encore!™ parts visit www.zilog.com/z8encore*



### Z8 Encore!™ MCU Support Tools

**Z8 Encore!™ MCU Development Kit**
Part number:  Z8ENCORE000ZCO
Description:  Complete development kit with evaluation board, ZDS II IDE, ANSI C-Compiler and documentation

**For additional support and ordering information visit www.zilog.com/z8encore**



**www.zilog.com**

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