

eZ80Acclaim![®] Flash Microcontrollers



Product Overview

The eZ80Acclaim![®] family of Flash Microcontrollers (MCUs) is the latest addition to ZiLOG's microcontroller line-up offering on-chip Flash memory. With speeds up to 50MHz and an on-chip Ethernet MAC (eZ80F91 only), designers have the necessary performance to execute complex applications quickly and efficiently. Combining up to 256KB of Flash with up to 16KB SRAM (when not using the EMAC's 8KB Frame Buffer), the eZ80Acclaim![®] Flash MCU devices provide the memory needed to implement communication protocol stacks and achieve the flexibility when performing in-system updates of application firmware.

The eZ80Acclaim![®] Flash MCU can operate in full 24-bit linear mode addressing 16MB without a Memory Management Unit. Additionally, support for the Z80-compatible mode allows Z80[®]/Z180 customers to execute legacy code within multiple 64KB memory blocks with minimum modification. With an external bus supporting eZ80[®], Z80[®], Intel[®], and Motorola[®] bus modes, designers have several options when interfacing to external devices.

These high performance, 8-bit Flash microcontrollers offer a rich set of serial communication peripherals including two UARTs supporting multi-drop mode, I²C, SPI, and an IrDA EnDec that facilitates wireless data transfer. In addition, the eZ80F92 and eZ80F93 devices offer a pin-compatible footprint with the eZ80L92 and backwards compatibility to the Z80[®] and Z180.

Overall, the eZ80Acclaim![®] MCUs are an exceptional value for customers designing high performance, 8-bit MCU-based systems.

Applications

- Vending Machines
- Point of Sale
- Security
- Automation
- Communication
- Industrial control
- Facility monitoring and remote control

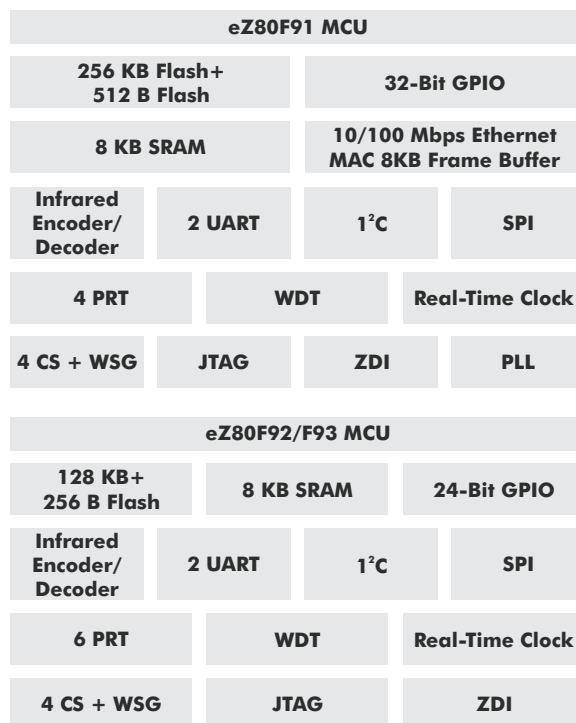


eZ80Acclaim!® Flash Microcontrollers

Features/Benefits

- eZ80® core operating at speeds up to 50MHz
 - Achieves high performance
- On-chip 10/100BaseT Ethernet MAC (eZ80F91 only)
 - Enables low-cost network applications
- Up to 256KB on-chip Flash memory with up to an extra 512-byte configuration Flash memory
 - Offers flexibility during development and manufacturing
- Up to 16KB on-chip SRAM (8KB Frame Buffer + 8KB SRAM when not using the EMAC)
 - Provides ample data space
- Power management features supporting Sleep, Halt and peripheral power-down controls
 - Reduces current consumption
- Glueless external bus supporting eZ80®, Z80®, Intel®, and Motorola® modes
 - Reduces system cost, provides expandability
- Up to 32 General-Purpose I/O pins
 - Rich MCU-like I/Os
- IrDA compatible Infrared Encoder/Decoder
 - Enables wireless data communication
- Two independent UARTs with multidrop mode
 - Support asynchronous communications SPI and I²C Ports
 - Allows synchronous serial communication
- Up to six 16-bit Counter/Timers with I/O capability
 - Manage real-time events and control input and output ports
- Watchdog Timer with selectable clock inputs
 - Increases system reliability
- Real-time clock with on-chip 32KHz oscillator
 - Maintains real time
- Full-feature PLL (eZ80F91 only)
 - Provides flexible system clocking and power management options
- JTAG and ZiLOG Debug interface (ZDI)
 - Allow in-system debugging and low-cost emulation
- Interrupt controller supports internal and external maskable interrupts as well as non-maskable interrupts input
 - Processes real-time events efficiently
- New DMA-like eZ80® instructions
 - Speeds block data transfer

eZ80Acclaim!® Block Diagrams



Silicon Ordering Information

Device	Flash	Speed	Pin Count	Package Types Supported
eZ80F91	256	50MHz	144	LQFP, BGA
eZ80F92	128	20MHz	100	LQFP
eZ80F93	64	20MHz	100	LQFP
eZ80L92	n/a	50MHz, 20MHz	100	LQFP

Development Tool Ordering Information

- eZ80F910300ZCOG : eZ80F91 Development Kit
- eZ80F910200KITG : eZ80F91 Modular Development Kit
- eZ80F916005MODG : eZ80F91 Mini Enet Module (included in kit, also sold separately)
- eZ80F916050MODG : eZ80F91 Device Kit

For complete eZ80Acclaim!® software solutions, visit <http://www.zilog.com/products/software>



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