



eZ80 Acclaim![™]

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
-Provides ample data space
- Power management features supporting Sleep,Halt and peripherals power-down controls
-Reduce current consumption
- Glueless external bus supporting eZ80[®], Z80[®], Intel[®], and Motorola[®] modes
-Reduces system cost, provides expandability and great flexibility
- 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

eZ80Acclaim![™] Flash Microcontrollers

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, 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

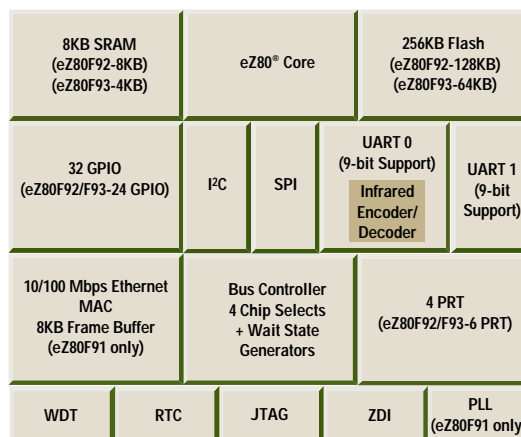
- Vending Machines
- Point of Sale
- Security
- Automation
- Communication
- Industrial control
- Facility monitoring and remote control



Features/Benefits (continued)

- 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

eZ80F91 Block Diagram
(eZ80F92/93 Differences Indicated)



Support Tools

- ZDS II Integrated Development Environment (IDE)
- C-Compiler
- ZPAK II Debug Interface Tool

eZ80Acclaim![™] Family Matrix



New BGA Packaging

Device	Memory		EMAC	Speed	GPIO	Counter/Timers	Package	Temp Range
	Flash (Bytes)	SRAM (Bytes)						
eZ80F91AZ050SC	256KB	16KB	Yes	50MHz	32	4	144-Pin	0°C to +70°C
eZ80F91AZ050EC	256KB	16KB	Yes	50MHz	32	4	144-Pin	-40°C to +105°C
eZ80F91NA050SC	256KB	16KB	Yes	50MHz	32	4	144-BGA	0°C to +70°C
eZ80F91NA050EC	256KB	16KB	Yes	50MHz	32	4	144-BGA	-40°C to +105°C
eZ80F92AZ020SC	128KB	8KB	No	20MHz	24	6	100-Pin	0°C to +70°C
eZ80F92AZ020EC	128KB	8KB	No	20MHz	24	6	100-Pin	-40°C to +105°C
eZ80F93AZ020SC	64KB	4KB	No	20MHz	24	6	100-Pin	0°C to +70°C
eZ80F93AZ020EC	64KB	4KB	No	20MHz	24	6	100-Pin	-40°C to +105°C

ZiLOG XTools	Part #	Description
eZ80F91 Module	eZ80F915050MOD	eZ80F91 device, 50MHz operation, 512KB SRAM, 1 MB Flash, Ethernet Interface
eZ80F92 Flash Module	eZ80F920020MOD	eZ80F92 device, 20MHz operation, 512KB SRAM
eZ80F92 Ethernet Module	eZ80F920120MOD	eZ80F92 device, 20MHz operation, 512KB SRAM, 1 MB Flash, Ethernet Interface
eZ80F91 Development Kit	eZ80F910200ZCO	eZ80F91 Module, Ethernet hub, C-Compiler, Development Board
eZ80F92 Development Kit	eZ80F920200ZCO	eZ80F92 Flash Module, C-Compiler, Development Board and Emulator

www.zilog.com

ZiLOG, eZ80Acclaim! and Z8 are trademarks or registered trademarks of Zilog Inc. in the United States and in other countries. Other logos, product names and service names mentioned herein may be trademarks of the companies with which they are associated.

FL003205-0104