

ZILOG eZ80Acclaim! Flash Microcontrollers



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ZILOG EZ80F91 FLASH MICROCONTROLLER

Features:

- eZ80 core operating at 50MHz
- On-chip 10/100BaseT Ethernet MAC
- 256KB on-chip Flash memory
- 16KB on-chip SRAM
- Power management features supporting Sleep, Halt, and peripheral power-down controls
- Glueless external bus supporting eZ80, Z80, Intel, and Motorola modes
- 32 GPIO
- IrDA compatible Infrared Encoder/Decoder
- Two independent UARTs with multidrop mode
- SPI and I2C ports
- Four, 16-bit counter/timers with I/O capability
- Watch Dog Timer with selectable clock inputs
- Real-time clock with on-chip 32KHz oscillator
- Full-feature PLL
- JTAG and ZILOG Debug Interfaces
- Interrupt controller supporting internal and external maskable interrupts as well as non-maskable interrupts input
- New DMA-like eZ80 instructions

Description:

The eZ80F91 is the flagship device of the eZ80Acclaim! family of Flash Microcontrollers (MCUs). With 50MHz speed and an on-chip Ethernet MAC, designers now have the necessary performance to execute complex applications quickly and efficiently. Combining 256KB of Flash with 16KB SRAM, the eZ80F91 provides the memory needed to implement communication protocol stacks and achieve the flexibility when performing in-system updates of application firmware. Complementing the high performance, the eZ80F91 offers a rich set of serial communication peripherals to address application designs ranging from consumer electronics and point-of-sale terminals to security systems and industrial control.

| MOUSER STOCK NO. | | Package | Mem. Flash (bytes) | SRAM (bytes) | Speed (MHz) | Count /timers | Temp. Range | Price Each | | |
|------------------|-----------------|----------|--------------------|--------------|-------------|---------------|-------------|------------|------|------|
| Mfr. | Mfr. Part No. | | | | | | | 1 | 25 | 100 |
| 692 | —EZ80F91AZ050SG | LQFP-144 | 256K | 16K | 50 | 4 | 0 - 70 | 7.64 | 6.96 | 6.37 |
| 692 | —EZ80F91AZ050EG | LQFP-144 | 256K | 16K | 50 | 4 | -40-105 | 8.40 | 7.65 | 7.00 |
| 692 | —EZ80F91NA050EG | BGA-144 | 256K | 16K | 50 | 4 | -40-105 | 9.35 | 8.50 | 7.79 |
| 692 | —EZ80F91NA050SG | BGA-144 | 256K | 16K | 50 | 4 | 0 - 70 | 8.51 | 7.74 | 7.09 |

ZILOG EZ80F92 FLASH MICROCONTROLLER

Features:

- eZ80 core operating at 20MHz
- Up to 128KB on-chip Flash memory
- Up to 8KB on-chip SRAM
- Power management features supporting Sleep, Halt, and peripheral power-down controls
- Glueless external bus supporting eZ80, Z80, Intel, and Motorola modes
- Up to 24 GPIO
- IrDA compatible Infrared Encoder/Decoder
- Two independent UARTs with multidrop mode
- SPI and I2C ports
- Six, 16-bit counter/timers with I/O capability
- Watch Dog Timer with selectable clock inputs
- Real-time clock with on-chip 32KHz oscillator
- JTAG and ZILOG Debug Interfaces
- Interrupt controller supporting internal and external maskable interrupts as well as non-maskable interrupts input
- New DMA-like eZ80 instructions

Description:

The eZ80F92 is another of the devices which make up the eZ80Acclaim!™ family of Flash Microcontrollers (MCUs). Combining 20MHz speed, 128KB of Flash, and 8KB SRAM, the eZ80F92 provides the performance and memory needed to implement communication protocol stacks and achieve the flexibility when performing in-system updates of application firmware. Complementing the high performance, the eZ80F92 offers a rich set of serial communication peripherals to address application designs ranging from consumer electronics and point-of-sale terminals to security systems and industrial control. The eZ80F92 is the ROMless equivalent to the eZ80F92/93.

| MOUSER STOCK NO. | | Description | Price Each | |
|------------------|-----------------|-------------------------|------------|-------|
| Mfr. | Mfr. Part No. | | 1 | 25 |
| 692 | —EZ80F920020MOD | eZ80F92 Flash Module | 84.10 | 76.54 |
| 692 | —EZ80F920120MOD | eZ80F92 Ethernet Module | 108.00 | 98.28 |

| MOUSER STOCK NO. | | Package | Mem. Flash (bytes) | SRAM (bytes) | Speed (MHz) | Count /timers | Temp. Range | Price Each | | |
|------------------|-----------------|----------|--------------------|--------------|-------------|---------------|-------------|------------|------|------|
| Mfr. | Mfr. Part No. | | | | | | | 1 | 25 | 100 |
| 692 | —EZ80F92AZ020SG | LQFP-100 | 128K | 8K | 20 | 6 | 0 - 70 | 5.24 | 4.77 | 4.37 |
| 692 | —EZ80F92AZ020EG | LQFP-100 | 128K | 8K | 20 | 6 | -40-105 | 5.77 | 5.26 | 4.81 |

Development Kit

| MOUSER STOCK NO. | | Description | Price Each |
|------------------|-----------------|-------------------------|------------|
| Mfr. | Mfr. Part No. | | |
| 692 | —EZ80F920200ZCO | eZ80F92 Development Kit | 399.95 |

ZILOG EZ80F93 FLASH MICROCONTROLLER

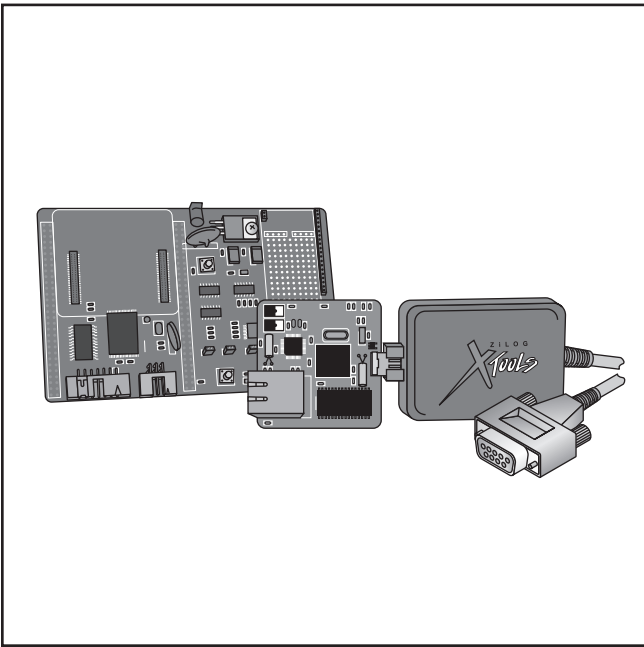
Attention:

- Above features and development kit for eZ80F92Acclaim!™ are applicable to eZ80F93Acclaim!™.

Description:

The eZ80F93 is a new part comprising part of the eZ80Acclaim!™ family of Flash Microcontrollers (MCU's). Combining 20MHz speed, 64KB of Flash, and 4KB SRAM, the eZ80F93 provides the performance and memory needed to implement communication protocol stacks and achieve the flexibility when performing in-system updates of application firmware. Complementing the high performance, the eZ80F93 offers a rich set of serial communication peripherals to address application designs ranging from consumer electronics and point-of-sale terminals to security systems and industrial control.

| MOUSER STOCK NO. | | Package | Mem. Flash (bytes) | SRAM (bytes) | Speed (MHz) | Count /timers | Temp. Range | Price Each | | |
|------------------|-----------------|----------|--------------------|--------------|-------------|---------------|-------------|------------|------|------|
| Mfr. | Mfr. Part No. | | | | | | | 1 | 25 | 100 |
| 692 | —EZ80F93AZ020SG | LQFP-100 | 64K | 4K | 20 | 6 | 0 - 70 | 4.21 | 3.85 | 3.51 |
| 692 | —EZ80F93AZ020EG | LQFP-100 | 64K | 4K | 20 | 6 | -40-105 | 4.75 | 4.34 | 3.96 |



| Feature: | eZ80F91 | eZ80F92 | eZ80F93 |
|---|---|---|---|
| Maximum Speed | 50MHz | 20MHz | 20MHz |
| Address/Data Bus Width | 24-Bit / 8-Bit | 24-Bit / 8-Bit | 24-Bit / 8-Bit |
| Flash / SRAM Memory | 256KB / 16KB | 128KB / 8KB | 64KB / 4KB |
| Other On-Chip Memory | 512 Bytes Configuration Flash | 256 Bytes Configuration Flash | 256 Bytes Configuration Flash |
| Access Time / Flash / SRAM | 60ns / <20ns | 60ns / <20ns | 60ns / <20ns |
| Maximum Addressable Space | 16MB Linear | 16MB Linear | 16MB Linear |
| External Bus I / F | Yes | Yes | Yes |
| Chip Selects and Wait- State Generators | 4 | 4 | 4 |
| EMAC | 1 X 10/100Mbps | No | No |
| UART with HW Handshake | 2 (UART0 has IrDA Endec) | 2 (UART0 has IrDA Endec) | 2 (UART0 has IrDA Endec) |
| SPI | 1 | 1 | 1 |
| I2C | 1 | 1 | 1 |
| Timers | 4 X 16-Bit | 6 X 16-Bit | 6 X 16-Bit |
| Special Timer Features | Selectable timer clock inputs, 2X external event counter, 2X Tout, 4X PWM, 4X Captures, 4X Compares | 2X Tin, 2X Tout | 2X Tin, 2X Tout |
| Real-Time Clock | Yes | Yes | Yes |
| Watchdog Timer | Yes | Yes | Yes |
| GPIO | 32 | 24 | 24 |
| Full Featured PLL | Yes | No | No |
| JTAG | Yes, Also supports ZDI | Yes, Supports debugging only. Also supports ZDI | Yes, Supports debugging only. Also supports ZDI |
| Operating Voltage | 3.0 - 3.6V | 3.0 - 3.6V | 3.0 - 3.6V |
| Package | LQFP - 144 | LQFP - 100 | LQFP - 100 |