

eZ80™
Webserver

ZiLOG introduces the next generation

A new Z80 for the Internet generation of products

Just as the Z80 revolutionized the semiconductor industry, the next generation eZ80 is revolutionizing the way that communications are happening today. This elegant system-on-a-chip can serve web pages over a TCP/IP network, allowing easy system monitoring and control, effortless processor code updates, and system compatibility. This solution enables any browser with access to your network the ability to control and monitor a network application.

Who says you need a 16- or 32-bit processor?

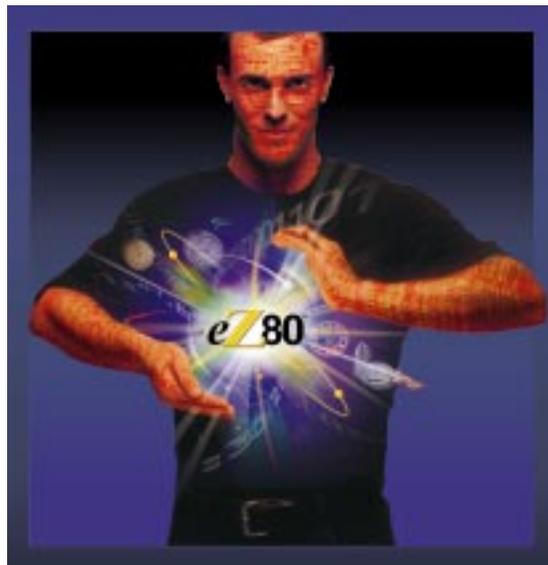
The super-fast eZ80 rivals the performance of many 16- and 32-bit architectures. It executes Z80 code four times faster at the same clock speed of traditional Z80s and can operate up to 50 MHz. Unlike most 8-bit microprocessors, which can only address 64 KBytes, the eZ80 can address 16 MBytes without a Memory Management Unit (MMU). Designed with over 25 years of experience with the Z80, this Internet processor has been specifically developed for web-based applications.

Offering a complete embedded software package

The eZ80 features a complete software package featuring more than just a TCP/IP stack that enables the transmission and reception of HTML form data and the dynamic generation of web pages. The stack



includes IPv4, TCP, UDP, ARP, RARP, ICMP, PPP, HTTP 1.1, DHCP/BOOTP, SMTP, TFTP, SNMP, and Telnet protocols. This solution also includes Ethernet and serial device drivers and implements all of the relevant and latest approved RFCs.



Perfect for Internet-based applications

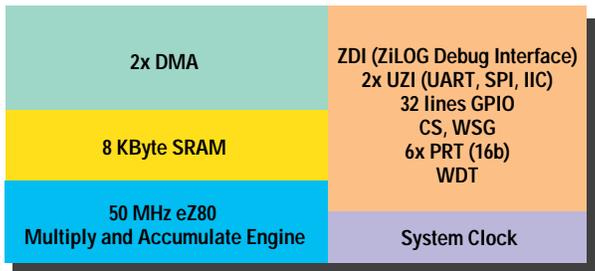
Applications for the eZ80 are broad. It is especially suited for embedded Internet appliances that require fast time-to-market, low-system cost, and Internet connectivity to household/commercial LANs and WANs. It also serves the needs of the industrial control, office automation, and Web management markets as well as modem controller, high-performance electronic games, and personal digital assistant (PDA) applications.



eZ80190 Silicon Features

- 50 MHz processor
- Multiply and accumulate engine
- 16 MByte linear addressing and single cycle
- 3.3V/5V tolerant
- 2 DMA channels
- Universal ZiLOG Interface (selectable UART, IIC, SPI)
- 6 PRTs with prescalers
- 8KB SRAM
- 32-bit GPIO with interrupt support
- On-chip oscillator
- Optimized pipeline architecture
- External Flash support

eZ80190 Block Diagram



eZ80190 Software Features

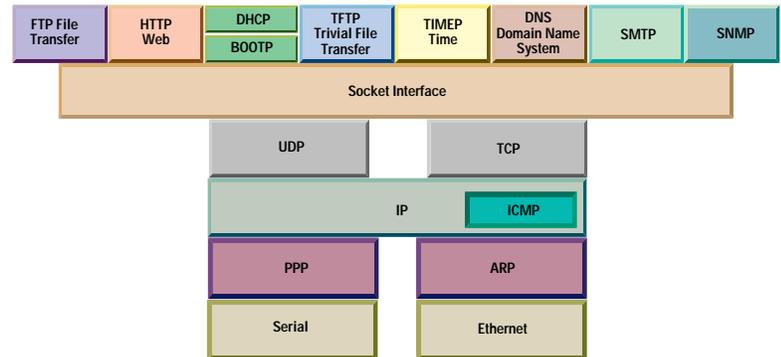
- Full protocol support

| | | |
|------|------------|--------|
| IPv4 | ICMP | FTP |
| TCP | PPP | SMTP |
| UDP | HTTP 1.1 | SNMP |
| ARP | DHCP/BOOTP | Telnet |
| RARP | IGMP | TFTP |
- Stack configuration utility
- Ethernet and serial device drivers
- OS
- Secure Socket Layer (SSL)

Tools

- C-Compiler
- ZPAK emulator
- ZDS IDE with Web files to C Conversion utility

eZ80190 Protocol Stack Diagram



Ordering Information

| Item | Part Number | Description |
|-----------------------|----------------------------------|--|
| eZ80 Webserver | EZ80190AZ050SC EZ80190AZ050EC | 100-pin VQFP, 50 MHz, standard temperature 100-pin VQFP, 50 MHz, extended temperature |
| Evaluation Kit | EZ801900110ZCO | Evaluation board with support documentation |
| Developer's Kit | EZ801900210ZCO | Complete kit with C-Compiler, evaluation board, and ZPAK emulator |
| ZPAK emulator | ZDI23200ZPK | Emulation support |
| C-Compiler | EZ80ZDS0100ZCC | C-Compiler for C-source level debugging |
| Intl. Evaluation Kit | eZ801900111ZCO | Evaluation board with support documentation and power converter |
| Intl. Developer's Kit | eZ801900211ZCO | Complete Development kit with C-Compiler, evaluation board, ZPAK emulator, and power converter |

For additional support documentation: www.zilog.com/eZ80

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