

eZ80™

ZiLOG introduces the next generation

High-performance eZ80 delivers unprecedented 8-bit capability

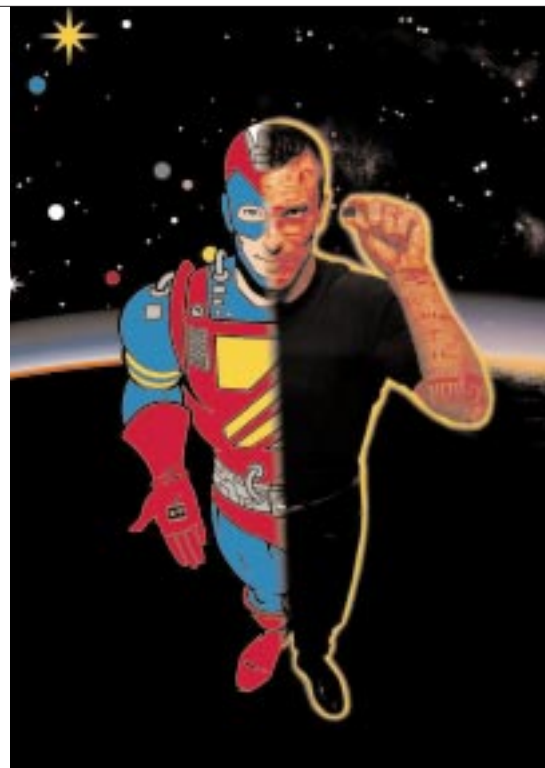
"The new ZiLOG has shown real innovation in designing the eZ80. It enhances the value of the extensive installed Z80 base by providing a step-jump increase in performance for OEMs, enabling them to expand on their existing Z80 expertise for new product designs. What's more, the eZ80 provides extensive new features which makes it a natural for next-decade Internet appliances." –Will Strauss, President, Forward Concepts

Embedded engine for the Internet highway

The eZ80 Internet family of processors leverages the ZiLOG's expertise in digital signal processing (DSP), modem, and high-speed serial communication and establishes a level of unparalleled 8-bit performance with enhanced embedded Internet capabilities. The new eZ80 line delivers single-chip microprocessor and DSP capabilities. Until now, MPU and DSP functions were available only on separate chips and were often too expensive to deploy. In addition, ZiLOG has integrated intellectual property to allow customers to take advantage of the new Web economy with Internet-enabled devices that connect to the Internet. The eZ80's single-chip solutions are smaller, more powerful, and deliver greater functions, so you can develop new Internet-enabled products.

Revolutionary features combined with Z80 functionality

The eZ80 executes Z80 code four times faster at the same clock speed of traditional Z80s. At the same time, the eZ80 can operate up to 80 MHz. These features give the eZ80 the processor power comparable and often superior to 16-bit microprocessors. Unlike most 8-bit microprocessors, which can address only 64K Bytes, the eZ80 can address 16 MBytes. And it does this without an Memory Management Unit (MMU). The synthesizable processor allows rapid porting to any process geometry which allows the eZ80 to tailor cost and performance to market needs. The eZ80 also provides an on-chip emulation support. The 2-pin interface will allow rapid debugging, thus reducing time to market.

**Application possibilities are endless**

The application possibilities for the new eZ80 Internet processors are almost endless. The signal processing capability will enable engineers to design applications

that require complex polynomial calculations, such as basic filters. It will also enhance handwriting and voice recognition applications and enable Internet communication devices.



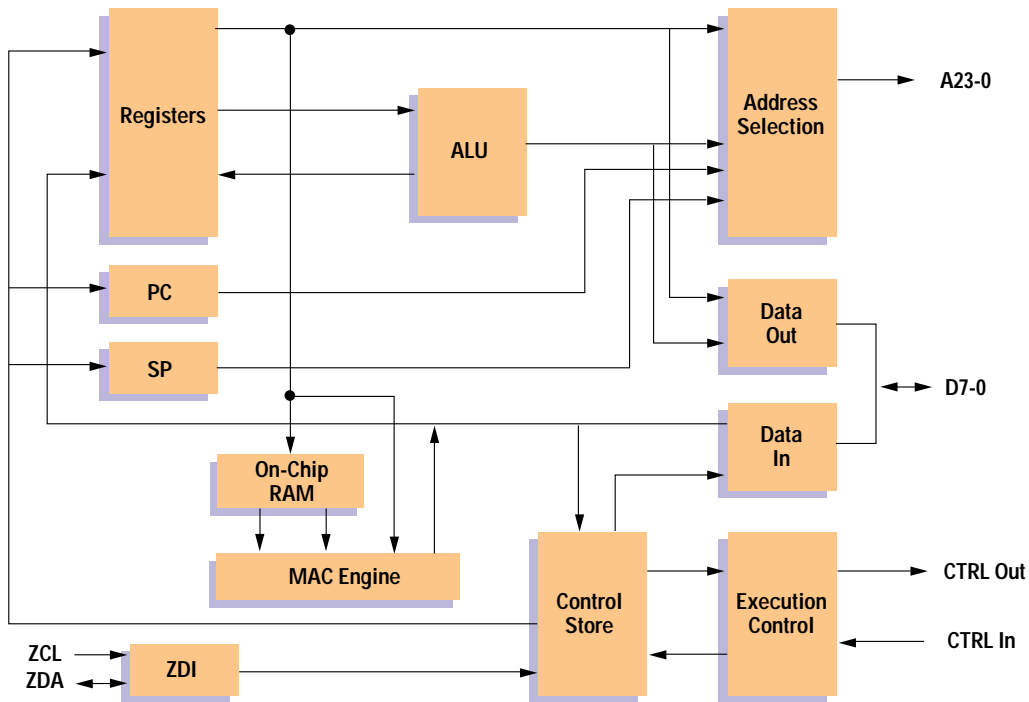
Microprocessor Core Features

- Improved CPU performance
 - Single-cycle instruction fetch makes it four times faster at the same clock speed
 - up to 80 MHz operation
- 100 percent binary code compatible with Z80
- Multiply and Accumulate Engine
- 16 megabyte linear address
- Internet-ready TCP/IP stack
- ZiLOG Debug Interface (ZDI)

Microprocessor Benefits

- Easy to integrate
- Fast time to market
- Low power
- High speed
- More code addressing space
- Easily portable to manufacturing facilities
- Allows high-performance mathematical functions

Block Diagram



Support Tools

Evaluation/Emulator Kit	Z80S1900100ZCO
ZPAK	ZDI23200ZPK
C Compiler	ZE80XX0000ZCC

Additional Support Documentation: www.zilog.com/eZ80

