Mixed-Signal Z183 Webserver

A complete embedded Internet solution

The Mixed-Signal Z183 Webserver combines a high-performance embedded processor with a turnkey Internet software suite. On-chip TCP/IP protocols work in conjunction with a physical layer interface to enable connectivity in a wide gamut of applications. By taking advantage of this system-on-a-chip solution, you can concentrate on developing applications instead of integrating stacks and testing functionality and interoperability.

Offers power and performance

Like all Z180 class products, the Z80S183 contains the popular Z8S180 microprocessor. This CPU improves the Z80 execution efficiency while still providing full backward compatibility with existing ZiLOG Z80 devices. It offers faster execution speeds, EMI noise reduction, and power-saving modes. Not only does the core consume less power during normal operations, it contains six low-power modes to reduce power consumption even more.

Provides endless application possibilities

The Z80S183 can enhance the performance of a broad range of products. Applications include cash registers, electronic banking and gaming, gas meters, industrial and motor controls, musical instruments, factory automation, and alarm systems.

Benefits

- Z80 code-compatible for an easy migration path
- Integrated A/D and D/A reduces real estate and lowers board-level costs, includes on-chip voltage reference
- Powerful ASCI ports allow high-end communication
- Programmable Output Generator (POG) can produce 8 channels of complex waveforms, schedule A/D and D/A events, function as 8-channel PWM, and schedule interrupts
- On-Chip Boot ROM (boot code included) enables remote recovery and easy factory or field FLASH Programming
- On-chip emulation supported by ZiLOG's debug interface (ZDI)

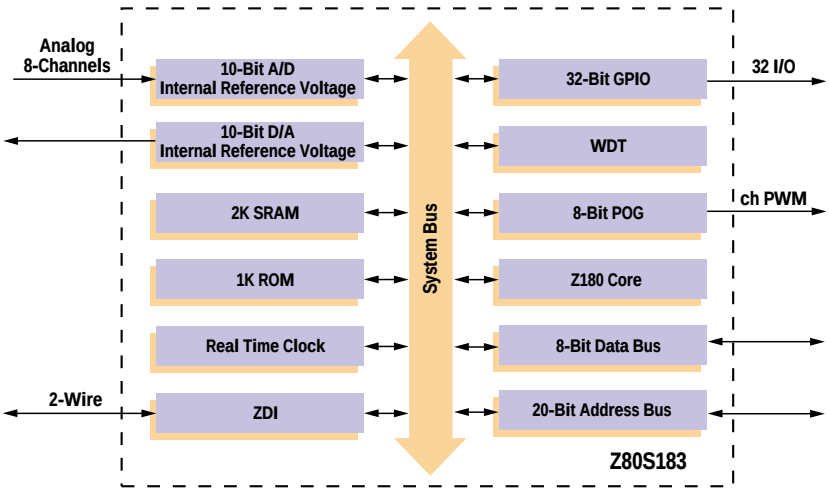
Features

- Improved CPU performance
- Full static core (DC to 33 MHz)
- 5 V and 3.3 V operation
- 2 DMA channels
- 2 enhanced UARTs (512 Kbps)
- 2 16-bit timers
- CSIO
- 1 MByte address capability
- 32-bits of GPIO
- 8 channel10-bit A/D at 500 Ksps
- 10-bit 1 µs D/A
- 8-bit programmable output generator (POG)
- 2K SRAM for program and variable space
- 1K boot ROM w/FLASH support
- Real-time clock w/calendar and alarm
- Watch-dog timer
- Edge/level triggered interrupt controller
- Wait state generator
- Low-power modes
- Low EMI modes
- Economical 100-pin VQFP package

ZiLOG

Z80S183

Product Block Diagram



Electrical Features

- DC - 33 MHz
- 3.3 V or 5 V operating range

Applications and Support Tools

- ZiLOG Development Suite (ZDS)
  Available at **www.zilog.com**
- Third-party software support
  www.zilog.com/support/z80_z185.html
- Extensive support documentation
  www.zilog.com/products/z180specs.html

Ordering Information

Item	Part Number	Description
Z80S183	Z80S183AZ033SCR4567	100 VQFP, standard temperature
	Z80S183AZ033SCRXXXX	Customer code
	Z80S183AZ033ECR4567	5 V extended temperature, boot ROM
	Z80S183AZ083ECRXXXX	5 V extended temperature, customer ROM
Low-voltage Z80S183	Z80L183AZ020SCR4567	100 VQFP, standard temperature, low power
	Z80L183AZ020SCRXXXX	Customer code
	Z80L183AZ020ECR4567	3 V extended temperature, boot ROM
	Z80L183AZ020ECRXXXX	3 V extended temperature, customer ROM
Z80S183 Eval Board	Z80S1830100ZCO	Low-cost evaluation board with support documentation
ZPAK	ZDI23200ZPK	Emulation support
C-Compiler	Z180ZDS0100ZCC	C-Compiler for C-source level debugging
Developer's Kit	Z80S1830300ZCO	Complete kit with C-Compiler, eval kit, and ZPAK
LCD Board	Z80S1830100ZAC	LCD Demo Board

Related Products

ZiLOG Integrated Controllers

Z84C00	Z80™ CPU (up to 20 MHz)
Z84C15	Z80™ + 2 SIO + 4x8 CTC + 2 PIO + WDT (up to 16 MHz)
Z8S180	Improved Z80™ + 1MByte MMU + 2 DMA + 2 16-bit PRT + 2 UARTs + CSIO (up to 33 MHz)
Z80181	Z8S180™ + SCC + CTC + 16-bit GPIO (up to 33 MHz)
Z80182	Z8S180™ + 2 ESCC + 24-bit GPIO + 16550 Mimic interface (up to 33 MHz)

ZiLOG

Worldwide Customer Support Center (Toll Free US and Canada) 877-945-6427 • All other countries 512-306-4169
www.zilog.com

FLY-Z80S183X-0301