

## Summary

The SOckit evaluation board provides all the essentials for implementing a compact and cost effective Altera® Cyclone™ and Nios design. A complete embedded FPGA/Nios system example is included with the evaluation kit. This is not a "chip on a board", but a complete hardware/software example solution. When coupled with Altera's Quartus II/SOPC builder (starter-suite version) and the GNUpro C and Eclipse IDE software tools, the kit allows implementation and experimentation with the powerful features of SOC (system on a chip) in a programmable logic environment. This design utilizes Altera's latest low cost EPCS4 series of serial flash configuration device. The SOckit can use this serial flash for FPGA initialization, software boot, and non-volatile data storage.

## Design Features

- Eight LVDS channels available for loopback or board to board testing. Data rate is configurable.
- LVDS pattern generation and detection with byte error rate testing.
- 32bit Nios processor supporting interrupts, UART and PIO.
- Nios Software image store to EPCS4 flash device (selected from LCD Menu)
- Configurable Nios software boot using GERMS RS-232 monitor or EPCS4 image copy to SRAM (configurable via dip-switch)
- Nios program execution from external 128Kx8 bit SRAM.
- EPCS4 nonvolatile flash data storage.
- LCD menu operation
- Six available LEDs

## Kit Contents

- SOckit evaluation board
- 16x2 character LCD display.
- 14 pin LCD ribbon cable
- LVDS patch cable
- 5VDC/2A switching power supply
- DB-9 RS232 cable
- Altera ByteBlaster II FPGA programmer
- Altera "starter-suite" tools CD.
- SOckit data files CD.



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