

Altera Corporation

101 Innovation Drive • San Jose, CA 95134
 408-544-7000
www.altera.com

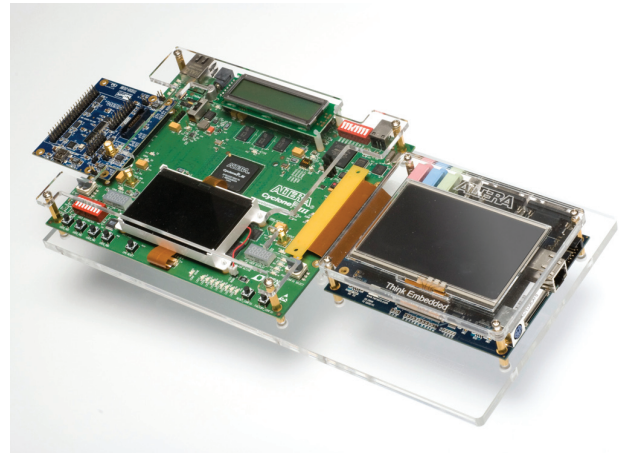
**Embedded Systems Development Kit, Cyclone III Edition**

The Embedded Systems Development Kit, Cyclone® III Edition is a complete development platform for developing embedded systems on Altera's low-cost, low-power FPGAs. It provides a Cyclone III board with High-Speed Mezzanine Card (HSMC) connectors to interface to a wide range of daughter cards and an LCD multimedia HSMC to interface to common peripherals such as Secure Digital (SD) card, LCD color touch panel, audio in/out, etc., and a multipurpose HSMC card with USB 2.0 port, software debug/trace connector, and Santa Cruz daughter card header.

This kit offers a variety of Intellectual Property (IP) cores to speed development, including a family of three Nios® II 32-bit processors supported by an Integrated Development Environment (IDE). The Nios II processors – fast, standard, and economy – are each optimized for a specific price and performance range, allowing you to choose a system configuration that is an exact fit for your embedded needs. With these processors, you can upgrade system performance at any stage of the product life cycle without having to redesign the board or develop hand-optimized software. All three processors use the same instruction set architecture and are 100 percent binary code compatible. The Nios II C-to-Hardware Acceleration (C2H) Compiler boosts performance of time-critical C subroutines, converting them to powerful hardware accelerators with a simple “right-click to accelerate” interface.

The low-cost Cyclone III FPGA family is the third generation in the Altera® Cyclone series. With its unprecedented combination of low power, high functionality, and low cost, Cyclone III FPGAs broaden the number of high-volume, cost-sensitive applications that can benefit from FPGAs. Built on 65-nm low-power process technology, Cyclone III devices offer the lowest power consumption of any 65-nm FPGA and an optimal set of features to drive high-bandwidth parallel processing and many other cost- and power-sensitive applications. Cyclone III devices range from 5 K to 120 K logic elements, and offer up to 535 user I/O pins, up to 4-Mbit of embedded memory, 288 embedded 18x18 multipliers, dedicated external memory interface circuitry, Phase-Locked Loops (PLLs), and high-speed differential I/O capabilities.

Visit www.altera.com/nios for more information.

**FEATURES**

- › Embedded software development tools:
 - Nios II Embedded Design Suite with Nios II IDE, C2H Compiler*, MicroC/OS-II RTOS*, and NicheStack TCP/IP Stack* (* licensed separately)
 - Software applications and tutorials inc. remote system update, picture viewer, hardware acceleration, and application selector utility
- › Hardware design tools, including the Quartus® II design software with the SOPC Builder system development tool
- › Library of standard embedded IP cores and suite of pre-built hardware and software reference designs, including:
 - Three Nios II 32-bit CPU cores (fast, standard, economy)
 - DDR, SRAM, timer, UART, SPI, JTAG UART, GPIO, DMA, 10/100 Ethernet, LCD controller, SD card interface, custom instruction, and more
- › Complete embedded development board with color touch panel, LCD touch screen, and LCD multimedia HSMC card featuring:
 - Cyclone III EP3C120 FPGA and 10/100 Ethernet PHY, 256-Mbyte DDR2 SDRAM, 8-Mbyte pseudo SRAM, 64-Mbyte flash, three HDSM debug cards and connectors
 - Audio in, audio out, composite video input, VGA output, push buttons, LEDs, PS2, SD card socket, and embedded USB-Blaster™ circuitry for FPGA configuration
- › HSMC daughter card featuring:
 - Santa Cruz header connector
 - Mictor connector for software debug and trace
 - High-speed USB 2.0 On-The-Go transceiver and connector
 - SMA connector for external clock input
 - SD card socket
- › No license or royalty fees when developing with the Nios II processor in Altera FPGAs and HardCopy® series structured ASICs

For more information, contact: nios_info@altera.com

RSC# 42365 @ www.embedded-computing.com/rsc