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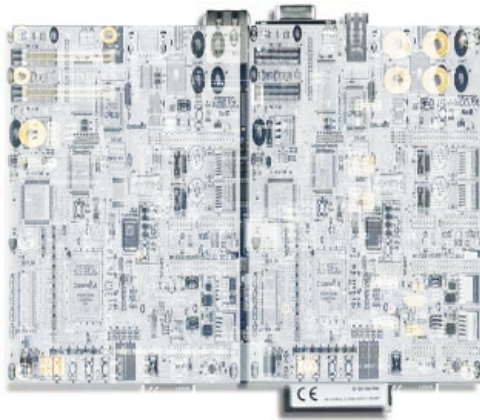
Nios II Development Kit, Cyclone II Edition

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Altera's Nios® II Development Kit, Cyclone® II Edition provides everything needed for system-on-a-programmable-chip (SOPC) development. Based on Altera's [Nios II family of embedded processors](#) and the low-cost [Cyclone II](#) EP2C35 device, this development kit provides an ideal environment for developing and prototyping a wide range of price-sensitive embedded applications.

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Figure 1. Nios II Development Kit Board



Ordering Information

You can order the Nios II Development Kit, Cyclone II Edition today (see Table 1).

Table 1. Nios II Development Kit, Cyclone II Edition Ordering Code and Pricing Information		
Ordering Code	Price	Ordering Information
DK-NIOS-2C35N	Kit no longer available	Kit no longer available for purchase. Visit the Nios II kits page for other embedded development kits.

Development Kit Contents

The Nios II Development Kit, Cyclone II Edition includes the following:

- Nios II family of embedded processors
- Nios II development tools, including
 - Nios II integrated development environment (IDE) and debugger
 - GNU tools
 - Nios II instruction set simulator (ISS)
- MicroC/OS-II real-time operating system evaluation
- [Nios II C-to-Hardware \(C2H\) acceleration compiler evaluation](#)
- [NicheStack TCP/IP Network Stack - Nios II Edition evaluation](#)
- Quartus® II design software, including the SOPC Builder system development tool
 - One-year license
 - Windows platform only
- Library of standard microprocessor peripherals
- RoHS-compliant development board (shown in Figure 1), featuring [MorethanIP](#)
 - Cyclone II EP2C35F672 device
 - MAX® EPM7128AE CPLD configuration control logic
 - 2-Mbyte synchronous SRAM
 - 16-Mbyte DDR SDRAM
 - 16-Mbyte flash memory
 - EPCS64 serial configuration device (64 Mbits)
 - CompactFlash connector header for Type I CompactFlash cards (40 available user I/O pins)
 - 10/100 Ethernet physical layer/media access control (PHY/MAC)
 - Ethernet connector (RJ-45)
 - One serial connector (RS-232 DB9 port)
 - Two expansion/prototype headers (2 x 41 available user I/O pins)
 - JTAG connectors for FPGA and CPLD
 - Mictor trace/debug connector
 - One set PMC headers (32 bit)
 - Four user-defined push-button switches
 - Eight user-defined LEDs
 - Dual seven-segment LED display
 - Power-on reset circuitry
- 10/100/1000 PHY daughter board with Marvell 88E1111 Ethernet PHY device from [MorethanIP](#)
- OpenCore Plus evaluation of the [Altera® Triple-Speed Ethernet IP Core](#) and supporting [design example](#)
- Cables and accessories
 - USB-Blaster™ download cable
 - One serial cable (RS-232)
 - 9-V power supply
 - International power cords
 - LCD module
 - Ethernet (RJ-45) cable (7 ft.)
 - Ethernet crossover adapter
- Many hardware and software reference designs targeted to the Nios II development board, Cyclone II edition
- One-year subscription to Nios II processor-related tool upgrades. (This subscription does not include Quartus II software updates. The [Altera Software Subscription](#) includes the Quartus II design software.)
- There are no license or royalty fees connected with the Nios II development kit used to develop with Altera FPGAs and HardCopy® ASICs
- Coupon for a 20 percent discount on any one instructor-led [Altera Technical Training course scheduled in North America](#)

Software Development Tools

Software engineers do not need any prior FPGA design experience to use the Nios II Development Kit, Cyclone II Edition. Altera's [Nios II Embedded Design Suite](#) provides a complete embedded software design environment for the Nios II family of embedded processors, with facilities for:

- C/C++ code entry and editing
- Project management and compilation
- Software debugging
- Flash programming

World-class development tools and complete documentation as well as multiple reference designs and a step-by-step software development tutorial (available in the online help browser) get you up and running immediately. You can write, compile, and run software on your Nios II development board within minutes of opening the box.

The Nios II ISS allows you to begin developing programs before the target hardware platform is ready. The Nios II IDE lets you run programs on the ISS as easily as running them on a real hardware target.

Altera provides ports of the MicroC/OS-II real-time operating system (RTOS) and the NicheStack TCP/IP Network Stack, Nios II Edition. The MicroC/OS-II RTOS is built on the thread-safe Hardware Abstraction Layer (HAL) system library and implements a simple, well-documented RTOS scheduler. The TCP/IP stack is built on MicroC/OS-II and implements the standard UNIX Sockets application program interface (API).

Documented software example designs are provided to demonstrate all prominent features of the Nios II processors and the development environment.

Additional software development tools are offered by [Altera's embedded software partners](#).

Hardware Development Tools

This Nios II development kit is a complete design environment for hardware engineers. You can create your own custom embedded system within hours by using the world-class FPGA design tools, example projects, complete documentation, and step-by-step tutorial included in the kit.

The Quartus II design software allows you to process multi-million gate designs, streamline development flows, and decrease time-to-market. The Nios II Development Kit, Cyclone II Edition includes the Quartus II design software with a one-year non-perpetual license.

Although a one-year Quartus II license is included with the kit, we recommend that you purchase a full [Altera design software subscription](#) to receive Quartus II software upgrades.

[SOPC Builder](#), integrated within the Quartus II software, is an automated system development tool that dramatically simplifies the task of creating high-performance SOPC designs.

Documentation

Documents related to the Nios II Development Kit, Cyclone II Edition, shown in Table 2, are now available.

Table 2. Nios II Development Kit, Cyclone II Edition Documentation	
Document	Comment
Nios Development Board Reference Manual, Cyclone II Edition	PDF
Nios II Development Kit Getting Started User Guide	PDF
Nios Development Board Cyclone II 2C35 Schematic	Zip File
Nios Development Board Cyclone II PCB Layout Files	Zip File
Nios Development Board Cyclone II PCB Layout Bill of Materials	Excel File
10/100/1000 Ethernet Phy Daughter Board Reference Guide from MorethanIP	PDF

Related Links

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