



## Programming Cable, USB



The USB-Blaster™ download cable interfaces to a standard USB PC port. The cable is a hardware interface to either a standard PC or UNIX workstation RS-232 port or a USB port. It provides configuration data to Excalibur™, Mercury™, APEX™ II, APEX 20K, ACEX™ 1K, FLEX™ 10K, FLEX 8000 and FLEX 6000 devices and programming data to MAX™ 9000, MAX 7000S, MAX 3000A, MAX 7000B and MAX 7000A devices. The MasterBlaster™ supports the SignalTap™ feature, which allows designers to view internal device logic nodes with a virtual logic analyzer.

544-1775-ND USB (PL-USB-BLASTER-RGN) ..... \$300.00

## ByteBlaster™ Programming Cable

This cable can program and configure 1.8V, 2.5V, 3.3V and 5.0V devices. The cable also provides support for active serial programming of serial configuration devices. The cable drives configuration data from the PC to Stratix™, Stratix GX, Cyclone™, APEX™ II, APEX 20K (including APEX 20K, APEX 20KE, and APEX 20KC), ACEX™ 1K, Mercury™, Excalibur™, FLEX™ 10K (including FLEX 10KA and FLEX 10KE), FLEX 8000, and FLEX 6000 devices, as well as programming data to MAX™ 9000, MAX 7000S, MAX 7000A, MAX 7000B, MAX 5000A devices and EPC/EPCS configuration devices.

544-1289-ND Parallel-Port Cable (PL-BYTEBLASTER2) ..... \$150.00

## EthernetBlaster™ Cable

The EthernetBlaster communications cable connects to a standard Ethernet network port with an RJ-45 connector. This cable communicates with client systems using the TCP/IP protocol and supports both static and dynamic IP addressing. It can be plugged into an existing 10/100 Base-T Ethernet network to communicate with clients remotely or interfaced directly via a standard 10/100 Base-T Ethernet port using a crossover cable. Because design changes are downloaded directly to the device, prototyping is easy and you can accomplish multiple design iterations in quick succession. Harnessing the power of an Ethernet network, multiple users can remotely access Altera devices, bringing a new level of productivity to prototyping and debugging.

### Supported Devices:

• Stratix™ series FPGAs • Cyclone™ series FPGAs • MAX™ series CPLDs • APEX™ series FPGAs • ACEX™ 1K FPGAs • Mercury™ FPGAs • FLEX™ series FPGAs • Excalibur™ FPGAs • You can perform in-system programming of the following devices: • Advanced configuration devices, including EPC2, EPC4, EPC8, EPC16 and EPC1441 devices • Serial configuration devices, including EPCS1, EPCS4, EPCS16 and EPCS64 devices

### Power Requirements:

The EthernetBlaster communications cable requires between 1.5V and 5.0V from the target circuit board and 12VDC (0.875A) input power for the EthernetBlaster Vcc supply (12VDC wall transformer is supplied)

### Software Requirements:

• Windows NT 4.0 • Windows 2000 • Windows XP • Solaris 2.6 • Solaris 2.7/7 • Solaris 8/9 • Red Hat Linux version 7.3 • Red Hat Linux version 8.0 • Red Hat Enterprise Linux WS 3.0 • HP-UX version 11.0

544-1705-ND Cable Ethernet Programming (PL-ENET-BLASTER) ..... \$575.00

## Max® II Development Kit



Altera's MAX II Development Kit 1270 comes with a complete design environment. The kit enables users to evaluate the MAX II feature set or begin prototyping a design prior to receiving custom hardware. It includes all software, cables, and accessories needed to ensure an easy and productive evaluation of the MAX II CPLD.

**Kit Includes:** MAX II Development Board • MAX II EPM1270F256C5 CPLD • USB media access control (MAC) with physical layer (PHY) and Type B connector • PCI Edge connector (3.3-V and 5-V tolerant) • LCD module • SRAM (128K x 8 bit) • Temperature gauge with serial peripheral interface (SPI) • Onboard power meter • Active I/O sense circuitry • One 3.3V-tolerant expansion/prototype header (41 available user I/O pins) • JTAG connectors • Four user-defined push-button switches • Four user-defined LEDs • Quartus® II Web Edition software • Cables and accessories: • ByteBlaster™ II parallel download cable • Type A-B USB cable (3 feet) • Reference designs and demos for MAX II including: • USB reference design • PCI reference design • Low power demo • Real-time in-system programmability (ISP) demo

544-2380-ND (DK-MAXII-1270N) ..... \$150.00

## Arria® GX FPGA Development Kit



The Arria GX FPGA Development Kit delivers a complete environment for the development and testing of designs implementing high-speed serial interfaces in Arria GX FPGAs. This development kit is built on a PCIe form-factor card and targets the development of designs utilizing PCI Express x1 and x4, Gigabit Ethernet, and/or Serial RapidIO™ protocols.

**Kit Includes:** Arria GX Development Board • Arria GX EP1AGX60DF780C6N FPGA • PCI Express x4 edge connector • One High-Speed Mezzanine Connector for Gigabit Ethernet and SRIIO connectivity • 32Mbyte x 16DDR2 SDRAM operating at 233MHz • Switches and Indicators: • Four user-definable, pushbutton switches • Eight-position, user-definable, DIP package switch • Eight user-definable LEDs • One nCONFIG pushbutton • One power-on reset pushbutton • Configuration circuitry: • Max® II/flash configuration circuit • JTAG download port • Quartus® II design software: • One-year license • Windows platform only • MegaCore® IP Library CD • PCI Express Development Kit, Arria GX Edition CD ROM: • PCI Express reference design • Complete documentation • Cables and Accessories: • USB-Blaster™ download cable • External AC adapter power supply • Power cord

544-2372-ND Arria GX FPGA Development Kit (DK-DEV-1AGX60N) ..... \$995.00

## Altera Subscription Program



The Altera Subscription Program offers the most recent versions of the Quartus® II and MAX+PLUS® II software which extends over a duration of a 12 month period. With a valid subscription, the program provides support for the latest programmable logic devices, new software features, performance enhancements, and up-to-date online and printed documentation.

544-1247-ND (FIXEDPC) ..... \$2495.00

## Cyclone® II FPGA Starter Development Kit



The low-cost Cyclone II FPGA Starter Development Kit is ideal if you want to evaluate Altera's high performance, low-power, 90-nm Technology. Several reference designs and demonstrations included in the kit, make for a quick "out-of-the-box" evaluation experience.

**Kit Includes:** Cyclone II Starter Development Board • Cyclone II EP2C20F484C7N device Configuration: • USB-Blaster™ download cable (embedded) • EPCS4 serial configuration device • Memory: • 8-Mbyte SDRAM • 512Kb SRAM • 1 to 4Mbyte flash • Clocking: • SMA connector (external clock input) • Audio: • 24-bit coder/decoder (CODEC) • Switches and Indicators: • Ten switch and four push buttons • Four 7-segment displays • Ten red and eight green LEDs • Connectors: • VGA, RS-232, and PS/2 ports • Two 40-pin expansion ports • SD/MMC socket • Cables/Power: • USB cable • External power supply (optional, but recommended when using the kit with additional accessory daughtercards) • Cyclone II FPGA Starter Development Kit CD-ROM: • Reference designs and demonstrations targets for the Cyclone II FPGA Starter Development Board • User manual • Reference guide • Quartus® II Web Edition CD-ROM • Nios II® Web Edition CD-ROM

544-1736-ND Cyclone II FPGA Starter Development Kit (DK-CYCLII-2C20N) ..... \$150.00

## Cyclone® II Edition PCI Development Kit



Altera's Development Kit, Cyclone II Edition provides a flexible, low-cost FPGA development platform in a PCI standard card form factor. With a universal PCI edge connector, the PCI Development Kit, Cyclone II Edition, plugs into any short card PCI or PCI-X slot. The kit can be used as a development platform for 32bit and 64bit PCI, PCI-X, DDR2 SDRAM, and Altera Megafunction Partners Program partner intellectual property cores.

### Kit Includes:

Cyclone II PCI Development Board: • Cyclone II EP2C35F672 FPGA • Short-form universal PCI (3.3 or 5.0V) card • Memory: • Two 64MByte DDR2 SDRAM devices • FPGA Device Configuration: Switch-selectable on power-up, choose one of two serial configuration devices. One device contains the pre-loaded factory default design and the other device is for user-programming. Configuration data is downloaded via the USB-Blaster™ download cable • Flexible Clocking Options: • Sockets 100MHz high-speed clock oscillator • SMA connector clock input • PCI edge connector clock input • Switches and Indicators: • Four user-definable push-button switches • Eight-position user-definable dual in-line package (DIP) switch • Eight user-definable LEDs • Flexible Power Options: • PCI connector • External power supply • PCI Development Kit, Cyclone II Edition CD-ROM: • PCI-to-DDR2 Reference Design • Cyclone II PCI Development Kit application and drivers • PLD Applications PCI-X Core CD-ROM: • PLD Applications PCI-X function for OpenCore® evaluation • Reference designs and applications targeted to the Cyclone II PCI development board • Quartus® II design software, including the SOPC Builder system development tool • Jungo WinDriver Development Toolkit • USB-Blaster download cable • Power cable • Complete documentation

544-1733-ND PCI Development Kit, Cyclone II Edition (DK-PCI-2C35N) ..... \$995.00

## Cyclone® III FPGA Starter Development Kit



The economical Cyclone III FPGA Starter Kit is easy to use and an ideal introduction for users who have never designed with FPGAs before. The Cyclone III FPGAs are the first low-cost FPGA family available in the marketplace harnessing the low-power advantages of 65nm process technology.

### Kit Includes:

Cyclone III Starter Board • Cyclone III EP3C25F324 FPGA Configuration: • Embedded USB-Blaster™ circuitry allowing download of FPGA configuration files via the users USB port • Power and Analog Devices from Linear Technology: • Switching power supply LTM4603EV-1 • Switching and step-down regulators LTC3413, LT1959 • Memory: • 256Mbit DDR SDRAM • 1-Mbyte Synchronous SRAM • 16Mbyte Intel® P30/P33 flash • Clocking: • 50MHz on-board oscillator • Switches and Indicators: • Six pushbutton total, 4 user controlled • Seven LEDs total, 4 user controlled • Connectors: • High-Speed Mezzanine Connector • USB type B • Cables and Power: • USB cable • External power supply • Cyclone III FPGA Starter Kit CD-ROM: • Example designs targeting the Cyclone III FPGA Starter Board • Complete Documentation: • User guide • Reference manual • Board schematic and layout • Bill of Materials • Product and partner information

544-2370-ND Cyclone III FPGA Starter Development Kit (DK-START-3C25N) ..... \$199.00

## NEW! Cyclone® III Edition DSP Development Kit



The DSP Development Kit, Cyclone III Edition delivers a complete digital signal processing (DSP) development environment for design engineers. The kit facilitates the entire design process from design conception through hardware implementation. The DSP Development Kit, Cyclone III Edition includes the Cyclone III development board, the Data Conversion High-speed mezzanine card (HSMC), the DSP Builder development tool, Quartus® II development software, MATLAB/Simulink evaluation software, evaluation intellectual property (IP) cores, design examples, power supplies, cables, and documentation.

### Kit Includes:

Cyclone III Development Board: • Cyclone III EP3C120F780 FPGA • 128 x 64 graphics LCD • 2-line x 16-character LCD • Buttons, dip-switches, LEDs, 7-segment display, speaker header • Memory: • 256 Mbytes of dual-channel DDR2 SDRAM with ECC • 8 Mbytes of synchronous SRAM • 64 Mbytes of flash • Components and Interfaces: • 10/100/1000 Ethernet (RMII) • USB 2.0 (Type B) • Two high-speed mezzanine (HSMC) connectors • Data Conversion HSMC: • Dual 14-bit, 150-MSPS A/D converter • Dual 14-bit, 250-MSPS D/A converter • Audio in/out/mic • Cyclone III FPGA Development Kit, CD-ROM: • Design examples for the Cyclone III FPGA development board • Complete documentation includes: User guide, Reference manual, Board schematic and layout, Bill of Materials, and Product and partner information • MATLAB/Simulink Evaluation Software Altera® Complete Design Suite DVD: • Quartus II design software includes Subscription Edition (optional feature, available for purchase) and Web Edition (no charge, Windows only) • ModelSim®-Altera software includes Altera Edition (optional feature, available for purchase) and Web Edition (no charge, Windows only) • MegaCore® IP Library including Nios II processor • OpenCore Plus evaluation • Nios II Embedded Design Suite, Evaluation Edition (free) • DSP Builder • Video demos of Quartus II software and the Nios II processor • System reference designs and labs includes DSP Builder filtering design and Nios II processor reference designs

544-2566-ND Cyclone III DSP Development Kit (DK-DSP-3C120N) ..... \$2109.00

## Cyclone® III Development Kit



Altera's Cyclone III FPGA Development Kit combines the largest density low-cost, low-power FPGA available with a robust set of memories and user interfaces. The kit dramatically reduces the design and verification portion of your project, whether it's for automotive, consumer, wireless communications, video processing, or another high-volume, cost sensitive application.

### Kit Includes:

Cyclone III Development Board: • Cyclone III EP3C120F780 FPGA • Embedded USB-Blaster™ circuitry (includes an Altera MAX II CPLD) allowing download of FPGA configuration files via the flash device or the host computer • Memory: • 256 Mbytes of dual-channel DDR2 SDRAM with ECC • 8 Mbytes of synchronous SRAM • 64 Mbytes of flash • Communication Ports: • 10/100/1000 Ethernet • USB 2.0 • Clocking: • 50-MHz and 125-MHz on board oscillators • SMA Inputs/outputs • Input/outputs for the two HSMCs • Various Buttons, Switches, and Indicators • Display: • 128 x 64 graphics LCD • 2-line x 16-character LCD • Connectors: • Two HSMCs • USB type B • Debug Tools: Three HSMC debug cards (two loop-back and a debug header) • Cables and Power/Analog: • 14-V-20-V DC input • On-board power measurement circuitry • 19.8 W per HSMC interface • Power cord with plug adapters (US, UK, EU) • Cyclone III FPGA Development Kit, CD-ROM: • Design examples for the Cyclone III FPGA development board • Complete documentation includes user guide, reference manual, board schematic and layout, bill of materials and product and partner information • Altera Complete Design Suite DVD: • Quartus II Design software includes Subscription Edition (optional feature, available for purchase) and Web Edition (no charge, Windows only) • ModelSim®-Altera software includes Altera Edition (optional feature, available for purchase) and Web Edition (no charge, Windows only) • MegaCore® IP Library • OpenCore Plus evaluation includes Nios II® processor (evaluation license) • Nios II Embedded Design Suite, Evaluation Edition (no charge) • DSP Builder (optional feature, available for purchase) • Video demos of Quartus II software and Nios II embedded processor

544-2444-ND Cyclone III FPGA Starter Development Kit (DK-DEV-3C120N) ..... \$1495.00

More Product Available Online: [www.digkey.com](http://www.digkey.com)

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