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Package	Logic Elements	Pin-Pin Delay (ns)	I/O Pins	Voltage (V)	Speed (NS)	Digi-Key Part No.	Price Each	Altera Part No.
160-PQFP	12	7.5	124	5.0	10	544-2344-ND◆†	106.00	EPM7192SQI160-10N
256-FBGA	16	12.0	164	2.5	7	544-2355-ND	44.00	EPM7256BFC256-7
192-PGA	16	12.0	164	5.0	20	544-2356-ND†	426.00	EPM7256EGI192-20
208-PQFP	16	7.5	164	5.0	7	544-2065-ND	117.00	EPM7256SQC208-7
208-PQFP	16	7.5	164‡	5.0	10	544-1219-ND	87.50	EPM7256SQC208-10
208-PQFP	16	7.5	164‡	5.0	15	544-1220-ND	70.00	EPM7256SQC208-15
208-PQFP	16	7.5	164	5.0	15	544-2064-ND◆	70.00	EPM7256SQC208-15N
208-RQFP	16	7.5	164	5.0	7	544-2069-ND	180.00	EPM7256SRC208-7
208-RQFP	16	7.5	164	5.0	10	544-2067-ND	144.00	EPM7256SRC208-10
208-RQFP	16	7.5	164	5.0	15	544-2068-ND	86.00	EPM7256SRC208-15
208-RQFP	16	7.5	164	5.0	10	544-2070-ND†	187.00	EPM7256SRI208-10
MAX 7000A								
44-PLCC	2	6.0	36	5.0	7	544-1996-ND	2.60	EPM7032AELC44-7
44-PLCC	2	4.5	36	3.3	10	544-1177-5-ND◊	2.10	EPM7032AELC44-10
44-PLCC	2	6.0	36	5.0	10	544-1995-ND◆	2.10	EPM7032AELC44-10N
44-TQFP	2	4.5	36	3.3	4	544-1179-ND	4.50	EPM7032AETC44-4
44-TQFP	2	6.0	36	5.0	4	544-1998-ND◆	4.50	EPM7032AETC44-4N
44-TQFP	2	4.5	36	3.3	7	544-1180-ND	3.00	EPM7032AETC44-7
44-TQFP	2	6.0	36	5.0	7	544-1999-ND◆	3.00	EPM7032AETC44-7N
44-TQFP	2	4.5	36	3.3	10	544-1178-ND	2.40	EPM7032AETC44-10
44-TQFP	2	6.0	36	5.0	10	544-1997-ND◆	2.40	EPM7032AETC44-10N
44-TQFP	2	4.5	36	3.3	7	544-1181-ND†	3.95	EPM7032AETI44-7
44-TQFP	2	6.0	36	5.0	7	544-2000-ND◆†	3.95	EPM7032AETI44-7N
44-PLCC	4	6.0	68	5.0	10	544-2295-5-ND◊	7.20	EPM7064AELC44-10
44-TQFP	4	4.5	36	3.3	7	544-1193-ND	25.00	EPM7064AETC44-7
44-TQFP	4	4.5	36	3.3	10	544-1191-ND	7.60	EPM7064AETC44-10
44-TQFP	4	6.0	68	5.0	10	544-2008-ND◆	7.60	EPM7064AETC44-10N
44-TQFP	4	4.5	68	5.0	7	544-1194-ND†	32.50	EPM7064AETI44-7
44-TQFP	4	6.0	68	5.0	7	544-2011-ND◆†	32.50	EPM7064AETI44-7N
100-TQFP	4	4.5	68	3.3	10	544-1188-ND	11.30	EPM7064AETC100-10
100-TQFP	4	6.0	68	5.0	10	544-2007-ND◆	11.30	EPM7064AETC100-10N
84-PLCC	8	5.0	68	3.3	10	544-1201-5-ND◊	16.00	EPM7128AELC84-10
100-TQFP	8	7.5	100	5.0	7	544-2029-ND◆	43.50	EPM7128AETC100-7N
100-TQFP	8	5.0	84	3.3	10	544-1202-ND	16.75	EPM7128AETC100-10
100-TQFP	8	7.5	100	5.0	10	544-2027-ND◆	16.75	EPM7128AETC100-10N
100-TQFP	8	5.0	84	3.3	7	544-1206-ND†	79.50	EPM7128AETI100-7
144-TQFP	8	7.5	100	5.0	7	544-2316-ND	52.50	EPM7128AETC144-7
144-TQFP	8	7.5	100	5.0	10	544-2030-ND◆	29.50	EPM7128AETC144-10N
100-TQFP	16	12.0	164	5.0	7	544-2351-ND	80.00	EPM7256AETC100-7
144-TQFP	16	12.0	164	5.0	7	544-2353-ND	87.00	EPM7256AETC144-7
144-TQFP	16	5.5	120	3.3	10	544-1218-ND	59.00	EPM7256AETC144-10
144-TQFP	16	12.0	164	5.0	10	544-2059-ND◆	59.00	EPM7256AETC144-10N
144-TQFP	16	12.0	164	5.0	7	544-2062-ND†	152.00	EPM7256AETI144-7
208-PQFP	16	12.0	164	5.0	10	544-2349-ND	71.00	EPM7256AEQC208-10
256-FBGA	16	12.0	164	5.0	7	544-2348-ND†	200.00	EPM7256AEFI256-7
144-TQFP	32	7.5	120	5.0	7	544-2360-ND	270.00	EPM7512AETC144-7
144-TQFP	32	7.5	120	3.3	12	544-2074-ND	120.00	EPM7512AETC144-12
208-PQFP	32	7.5	164	5.0	7	544-2359-ND	302.00	EPM7512AEQC208-7
MAX 9000								
84-PLCC	20	10.0	60	5.0	15	544-2362-5-ND◊	123.00	EPM9320LC84-15
240-RQFP	35	10.0	191	5.0	10	544-2365-ND†	336.00	EPM9560ARI240-10
240-RQFP	35	10.0	191	5.0	15	544-2366-ND	364.00	EPM9560RC240-15

◆ ***RoHS Compliant*** † Industrial Temperature: -40°C ~ 100°C ◊ Tube ‡ Perform a complete thermal analysis before committing a design to this device package. For more information, see the *Operating Requirements for Altera Devices Data Sheet*, available at www.digikey.com.

Configuration Devices

During device operation, Altera® FPGA's store configuration data in SRAM cells. Because SRAM memory is volatile, the SRAM cells must be loaded with configuration data each time the device powers up. You can configure the devices using data stored in an Altera configuration device. Altera configuration devices are offered in different densities and provide a variety of features.

Memory Size (BIT)	On-Chip Decompression Support	ISP Support	Reprogrammable	Voltage (V)	Package	Digi-Key Part No.	Price Each	Altera Part No.
65K	No	No	No	5.0	8-DIP	544-1368-5-ND◊	7.70	EPC1064PI8
212K	No	No	No	5.0	8-DIP	544-1370-5-ND◊	13.25	EPC1213PI8
212K	No	No	No	5.0/3.3	20-PLCC	544-2188-5-ND◊	10.75	EPC1213LC20
400K	No	No	No	5.0/3.3	8-DIP	544-1224-5-ND◊	3.50	EPC1441PC8
400K	No	No	No	5.0/3.3	8-DIP	544-1225-5-ND◊	4.90	EPC1441PI8
400K	No	No	No	5.0/3.3	20-PLCC	544-1223-5-ND◊	3.50	EPC1441LC20
440K	No	No	No	5.0/3.3	20-PLCC	544-1371-5-ND◆◊	3.50	EPC1441LC20N
1M	No	No	No	5.0/3.3	8-DIP	544-1232-5-ND◊	15.50	EPC1PI8
1M	No	No	No	5.0/3.3	8-DIP	544-1375-5-ND◆◊	15.50	EPC1PI8N
1M	No	No	No	5.0/3.3	8-DIP	544-1231-5-ND◊	11.00	EPC1PC8
1M	No	No	Yes	3.3	8-SOIC	544-1241-5-ND◆◊	3.50	EPCS1SI8
1M	No	No	Yes	3.3	8-SOIC	544-1242-5-ND◆◊	3.50	EPCS1SI8N
1.6M	No	Yes	Yes	5.0/3.3	20-PLCC	544-1233-5-ND◊	33.50	EPC2LC20
1.6M	No	Yes	Yes	5.0/3.3	20-PLCC	544-1234-5-ND◊	45.00	EPC2LI20
1.6M	No	Yes	Yes	5.0/3.3	20-PLCC	544-1650-ND◆	45.00	EPC2LI20N
1.6M	No	Yes	Yes	5.0/3.3	20-PLCC	544-1376-5-ND◆◊	33.50	EPC2LC20N
1.6M	No	Yes	Yes	5.0/3.3	32-TQFP	544-1235-ND	37.50	EPC2TC32
1.6M	No	Yes	Yes	5.0/3.3	32-TQFP	544-1236-ND	52.50	EPC2TI32
1.6M	No	Yes	Yes	5.0/3.3	32-TQFP	544-1648-ND◆	52.50	EPC2TI32N
1.6M	No	Yes	Yes	5.0/3.3	32-TQFP	544-1377-ND◆	37.50	EPC2TC32N
4M	Yes	Yes	Yes	3.3	100-PQFP	544-1237-ND	41.00	EPC4QC100
4M	Yes	Yes	Yes	3.3	100-PQFP	544-1378-ND◆	41.00	EPC4QC100N
4M	Yes	Yes	Yes	3.3	100-PQFP	544-2189-ND	55.50	EPC4QI100
4M	Yes	Yes	Yes	3.3	100-PQFP	544-2190-ND◆	55.50	EPC4QI100N
4M	No	Yes	Yes	3.3	8-SOIC	544-1243-5-ND◊	13.00	EPCS4SI8
4M	No	Yes	Yes	3.3	8-SOIC	544-1379-5-ND◆◊	13.00	EPCS4SI8N
8M	Yes	Yes	Yes	3.3	100-PQFP	544-1238-ND	45.00	EPC8QC100
8M	Yes	Yes	No	3.3	100-PQFP	544-1683-ND◆	45.00	EPC8QC100N
8M	Yes	Yes	Yes	3.3	100-PQFP	544-1239-ND	61.00	EPC8QI100
16M	No	No	Yes	3.3	16-SOIC	544-1240-5-ND◆◊	16.25	EPCS16SI16N
16M	Yes	Yes	Yes	3.3	88-UBGA	544-1228-ND	87.00	EPC16UC88
16M	Yes	No	No	3.3	88-UBGA	544-1374-ND◆	87.00	EPC16UC88N
16M	Yes	Yes	Yes	3.3	100-PQFP	544-1226-ND	59.00	EPC16QC100
16M	Yes	Yes	No	3.3	100-PQFP	544-1681-ND◆	59.00	EPC16QC100N
16M	Yes	Yes	Yes	3.3	100-PQFP	544-1227-ND	80.00	EPC16QI100
16M	Yes	Yes	No	3.3	100-PQFP	544-1684-ND◆	80.00	EPC16QI100N
16M	No	Yes	Yes	3.3	8-SOIC	544-2567-5-ND◆◊	14.75	EPCS16SI8N
64M	No	Yes	Yes	3.3	16-SOIC	544-1380-5-ND◆◊	32.50	EPCS64SI16N

◆ ***RoHS Compliant*** ◊ Tube

USB-Blaster™ Programming Cable

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.

544-1775-ND (PL-USB-BLASTER-RCN) **$300.00**

ByteBlaster™ Programming Cable

The ByteBlaster 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 7000AE, MAX 7000B, MAX 5000A devices and EPC/EPCS configuration devices.

544-1289-ND Parallel-Port Cable (PL-BYTEBLASTER2N) **$150.00**

NEW! 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 and EPC16 devices • Serial configuration devices, including EPCS1, EPCS4, EPCS16, EPCS64 and EPCS128 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

544-2646-ND Cable Ethernet Programming (PL-ETH2-BLASTER) **$450.00**

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 (SW-QUARTUS-SE-FIX)	**$2995.01**
544-2591-ND	(RENEWAL)	**$2495.00**
544-2691-ND	***NEW!*** FIXED PC REPLACEMENT (SWR-QUARTUS-SE-FIX)	**$2495.00**
544-2692-ND	***NEW!*** FLOATALL REPLACEMENT (SW-QUARTUS-SE-FLT)	**$2995.01**
544-2693-ND	***NEW!*** ADD-FLOATALL REPLACEMENT (SW-QUARTUS-SE-ADD)	**$3994.99**
544-2694-ND	***NEW!*** FLOATALL RENEWAL REPLACEMENT (SWR-QUARTUS-SE-FLT)	**$2495.00**

ModelSim® -Altera® Software

Shorten your FPGA verification time by using the ModelSim® -Altera® software in your FPGA Design Flow. ModelSim-Altera software supports behavioral and gate-level simulation, including VHDL or Verilog testbenches, for all Altera devices.

544-2590-ND (SW-MODELSIM-AE) **$945.00**

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 (3.3V and 5V 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:** • USB-Blaster 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**

NEW! Arria® II GX FPGA Development Kit

The Arria II GX FPGA Development Kit delivers a complete system-level design environment that includes both the hardware and software needed to immediately begin developing FPGA designs.

Kit Includes: Arria II GX EP2AGX125EF35 FPGA in the 1152-pin Fine Pitch BGA package: • 124,100 logic elements (LEs) • 49,640 adaptive logic modules (ALMs) • 8,121Kb on-chip memory • 12 high-speed transceivers • 6 phase-locked loops (PLLs) • 576 18x18 multipliers • 0.9V core power **Max® II EPM2210F256 CPLD in the 256-pin Fine Pitch BGA Package:** • 2.5V core power **On-board Ports:** • One HSMC expansion port • One gigabit Ethernet port **On-board Memory:** • 128-MB 16-bit DDR3 device • 1-GB 64-bit DDR2 SODIMM • 2-MB SSRAM • 64-MB flash **FPGA Configuration Circuitry:** • MAX II CPLD and flash fast passive parallel configuration • On-board USB-Blaster™ circuitry using the Quartus II Programmer • On-board clocking circuitry: • Four on-board oscillators: 100 MHz, Programmable oscillator, default frequency 125 MHz, Programmable oscillator, default frequency 100 MHz, 155.52 MHz • SMA connectors for external LVPECL clock input • SMA connector for clock output **General User I/O:** • LEDs/displays: • Four user LEDs • Two-line character LCD display • One configuration-done LED • One HSMC interface transmit/receive LED (Tx/Rx) • Three PCI Express LEDs • Five Ethernet LEDs **Push-buttons:** • One user reset (CPU reset) • One MAX II CPLD reset • One load image (program FPGA from flash) • One image select (select image to load from flash) • Two general user push-buttons **DIP Switches:** • Four user DIP switches • Eight MAX II device control DIP switches **Power Supply:** • 14V ~ 20V DC input • PCI Express edge connector power • On-board power measurement circuitry **Mechanical:** • PCI Express full-length standard-height (8.48" x 4.376") • PCI Express chassis or bench-top operation **Arria II GX FPGA Development Kit CD-ROM Design Examples:** • Board Update Portal, featuring the Nios® II processor web server and remote system update • Board test system • Complete documentation **Altera's Complete Design Suite DVD:** • Quartus II Software Development Kit Edition, includes support for Arria II GX FPGAs • Includes one-year license • Nios II Embedded Design Suite • MegaCore® IP Library includes PCI Express, Triple Speed Ethernet, SDI, and DDR3 High-Performance Controller IP cores: IP evaluation available through OpenCore® Plus **Power Adaptor and Cables**

544-2600-ND (DK-DEV-2AGX125N) **$1495.00**

NEW! Arria® II GX FPGA Development Kit, 6G Edition

The Arria II GX FPGA development board, 6G Edition provides a hardware platform for developing and prototyping low-power, high-performance, and logic-intensive designs. The board provides a wide range of peripherals and memory interfaces to facilitate the development of the Arria II GX FPGA designs.

Board Features: Arria II GX EP2AGX260FF35 FPGA in the 1152-pin FineLine BGA (FBGA) Package: • 244,188 LEs • 102,600 adaptive logic modules (ALMs) • 11,756Kbit on-die memory • 16 high-speed transceivers • 6 phase locked loops (PLLs) • 736 18x18 multipliers • 0.9V core power **MAX® II EPM2210F256 CPLD in the 256-pin FBGA Package:** • 2.5V core power **FPGA Configuration Circuitry:** • MAX II CPLD EPM2210 System Controller and flash fast passive parallel (FPP) configuration • On-board USB-Blaster™ for use with the Quartus® II Programmer **On-Board Ports:** • Two HSMC expansion port • One gigabit Ethernet port **On-Board Memory:** • 128Mbyte 16-bit DDR3 memory • 1Gbyte 64-bit DDR2 small outline DIMM (SODIMM) • 2Mbyte Synchronous Static Random Access Memory (SSRAM) • 64Mbyte flash memory **On-Board Clocking Circuitry:** • Five on-board oscillator (50MHz oscillator, 100MHz oscillator, 155.52MHz oscillator, Programmable oscillator with a default frequency of 125MHz, Programmable oscillator with a default frequency of 100MHz) • SMA connectors for external LVPECL clock input • SMA connector for clock output

General User I/O: • LEDs and displays (Four user LEDs, Two-line character LCD display, Three configuration select LED, One configuration done LED, Two HSMC interface transmit/receive LED (TX/RX), Three PCI Express LEDs, Five Ethernet LEDs) • Push-Button switches (One CPU reset push-button switch, One Max II CPLD EPM2210 System Controller configuration reset push-button switch, One load image push-button switch to program the FPGA from flash memory, One image select push-button switch select image to load from flash memory, Two general user push-button switches) • DIP switches (Four user DIP switches, Eight MAX II control DIP switches) • Power supply (14V ~ 20VDC input, PCI Express edge connector power, On-board power measurement circuitry) • Mechanical (PCI Express full-length standard-height (8.48" x 4.376"), PCI Express chassis or bench-top operation)

544-2696-ND (DK-DEV-2AGX260N) **$3195.27**

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, 90nm 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:** • 8Mbyte 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 (DK-CYCII-2C20N) **$199.00**

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 (DK-START-3C25N) **$199.00**

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 (RGMII) • 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 (DK-DSP-3C120N) **$1595.00**