Virtex®-6 FPGA Development Boards and Kits

Product Name	Purpose	Part Number	Devices Supported	Features
Virtex-6 FPGA ML605 Evaluation Kit www.xilinx.com/ml605	General-purpose FPGA Evaluation kit	EK-V6-ML605-G	XC6VLX240T-1FFG1156	x8 PCI Express, FMC (HPC & LPC), DDR3 SO-DIMM (512 MB), PlatformFlash & BPI Flash Memory, System ACE™, USB-To-UART, USB 2.0 Host & Device, 10/100/1000 Ethernet, SFP, DVI Out, 16x2 Character Display
Virtex-6 FPGA ML623 Characterization Kit www.xilinx.com/ml623	GTX Characterization Kit	CK-V6-ML623-G	XC6VLX240T-1FFG1156	40 SMA pairs, System ACE controller, SuperClock-2 module, 10 differential SMA connector pairs for GTX transceiver clock inputs, Three FMC HPC connectors (Each with 79 differential user-defined pairs, no GTX transceivers), USB-to-UART bridge
Virtex-6 FPGA Connectivity Kit	Serial Connectivity Kit with Targeted Reference Design	DK-V6-CONN-G	XC6VLX240T-1FFG1156	ML605 (EK-V6-ML605-G) + Serial Connectivity FMC Module (HW-FMC-XM104-G) and Serial Connectivity Reference Design
Virtex-6 FPGA Embedded Kit	Embedded Kit with Targeted Reference Design	DK-V6-EMBD-G	XC6VLX240T-1FFG1156	ML605 (EK-V6-ML605-G) + Embedded Reference Design
Virtex-6 FPGA DSP Kit	DSP Kit with Targeted Reference Design	AES-V6DSP-LX240T-G	XC6VLX240T-1FFG1156	ML605 (EK-V6-ML605-G) + DSP Reference Design
Virtex-6 FPGA Broadcast Connectivity Kit	Broadcast Connectivity Kit with Targeted Reference Design	DK-V6-BCCN-G	XC6VLX240T-1FFG1156	ML605 (EK-V6-ML605-G) + Broadcast FMC Module and Broadcast Reference Design

Virtex®-5 FPGA Development Boards and Kits

Product Name	Purpose	Part Number	Devices Supported	Features
Virtex-5 FPGA ML501 www.xilinx.com/ml501	General-purpose FPGA development board	HW-V5-ML501-UNI-G	XC5VLX50FFG676	DDR2 SO-DIMM (256 MB), ZBT SRAM (1 MB), NOR Flash, PlatformFlash PROM and SPI Flash Memory, System ACE™ CompactFlash, JTAG Header or External JTAG Connector, 2x USB, 2x PS/2, 10/100/1000 Ethernet, RS-232, 2x Audio In/Out, DVI/VGA Video, XGI Expansion Port
Virtex-5 FPGA ML505 www.xilinx.com/ml505	General-purpose FPGA and RocketIO™ GTP development board	HW-V5-ML505-UNI-G	XC5VLX50TFF1136	DDR2 SO-DIMM (256 MB), ZBT SRAM (1 MB), Linear, platform, and SPI flash, System ACE CompactFlash, JTAG Header or External JTAG Connector, 2x USB, 2x PS/2, 10/100/1000 Ethernet, RS-232, 2x Audio In/Out, DVI/VGA Video, XGI Expansion Port, MGT support with PCI Express, SFP, SMA, SGMII
Virtex-5 FPGA ML506 www.xilinx.com/ml506	General-purpose FPGA, DSP, and RocketIO GTP transceiver development board	HW-V5-ML506-UNI-G	XC5VSX50TFF1136	DDR2 SO-DIMM (256 MB), ZBT SRAM (1 MB), Linear, platform, and SPI flash, System ACE CompactFlash, JTAG Header or External JTAG Connector, 2x USB, 2x PS/2, 10/100/1000 Ethernet, RS-232, 2x Audio In/Out, DVI/VGA Video, XGI Expansion Port, MGT support with PCI Express, SFP, SMA, SGMII
Virtex-5 FPGA ML507 www.xilinx.com/ml507	General-purpose FPGA , PPC®440 processor, and RocketIO GTX transceiver development platform	HW-V5-ML507-UNI-G	XC5VFX70TFF1136	DDR2 SO-DIMM (256 MB), ZBT SRAM (1 MB), Linear, platform, and SPI flash, System ACE CompactFlash, JTAG Header or External JTAG Connector, 2x USB, 2x PS/2, 10/100/1000 Ethernet, RS-232, 2x Audio In/Out, DVI/VGA Video, XGI Expansion Port, MGT support with PCI Express, SFP, SMA, SGMII
Virtex-5 FPGA ML510 www.xilinx.com/ml510	Advanced hardware/software embedded processing development platform	HW-V5-ML510-G	XC5VFX130T-FFG1738	32-bit component DDR memory and 64-bit DDR2 DIMM, 512 MB CompactFlash card and System ACE CompactFlash controller for configuration, Two onboard 10/100/1000 Ethernet PHYs with RJ-45 connectors, Two PCI Express® interface, VGA graphics interface, ATX Form Factor, 4x PCI 32-bit/33MHz slots, 2x USB ports, 2x SATA ports, 2x RS-232, 2x PS/2, XPM Expansion Port
Virtex-5 FPGA ML523 www.xilinx.com/ml523	RocketIO GTP transceiver characterization development platform	HW-V5-ML523-UNI-G	XC5VLX110T-FF1136	16 RocketIO GTP Transceivers connected to SMA pairs, 8 RocketIO GTP REFCLK inputs connected to SMA pairs, SuperClk module supporting a wide range of clock frequencies, Power indicator LEDs, General-purpose DIP switches, LEDs, and pushbutton switches
Virtex-5 FPGA Gigabit Ethernet Development Kit www.xilinx.com/ gbedevkit	Virtex-5 FPGA Gigabit Ethernet development	HW-V5GBE-DK-UNI-G	XC5VLX50T-1FF1136C	Quick Start Guide and platform USB programming cable, ISE® evaluation software and access to LogiCORE™ IP, Resource CD (reference designs, labs, and demonstrations), Connectors: GbE - SFP and RJ-45 connectors, 10/100 Mb/s, RJ-45 connector
Virtex-5 LXT Development Kit for PCI Express, PCI-X and PCI www.xilinx.com/v5pciekit	Application development board for PCI Express and PCI	HW-V5-ML555-G	Virtex-5 FPGA LXT XC5VLX50T-1FF1136CES	Quick Start Guide and platform USB programming cable, ISE evaluation software and access to LogiCORE IP, Resource CD (reference designs, labs, and demonstrations), Connectors: PCIe - 8-land add-in card connector, PCI/PCI-X; standard edge connector
Virtex-5 FPGA Embedded Kit www.xilinx.com/v5embedded	Advanced embedded processing development kit	DK-V5-EMBD-ML507-G	X5LX50T-1FFG1136C	Powerful Virtex-5 FPGA MC507 development board, Full seat of Platform Studio Embedded tool suite, Full seat of ISE Foundation™ FPGA design software, Reference designs, USB JTAG probe, flash device, cables, and power supply

Virtex-4 FPGA Development Boards and Kits

Product Name	Purpose	Part Number	Devices Supported	Features
Virtex-4 FPGA ML401 www.xilinx.com/ml401	General-purpose FPGA development board	HW-V4-ML401-UNI-G	XC4VLX25-FF668	64 MB DDR SDRAM, ZBT synchronous SRAM, 10/100/1000 tri-speed Ethernet PHY transceiver, USB interface device with host and peripheral ports, RS-232 serial port, XGI Expansion Port
Virtex-4 FPGA ML402 www.xilinx.com/ml402	General-purpose FPGA/DSP development board	HW-V4-ML402-UNI-G	XC4VSX35-FF668	64 MB DDR SDRAM, ZBT synchronous SRAM, 10/100/1000 tri-speed Ethernet PHY transceiver, USB interface device with host and peripheral ports, RS-232 serial port, XGI Expansion Port
Virtex-4 FPGA ML403 www.xilinx.com/ml403	General-purpose FPGA/PPC processor development board	HW-V4-ML403-UNI-G	XC4VFX12-FF668	64 MB DDR SDRAM, ZBT synchronous SRAM, 10/100/1000 tri-speed Ethernet PHY transceiver, USB interface device with host and peripheral ports, RS-232 serial port, XGI Expansion Port
Virtex-4 FPGA ML405 www.xilinx.com/ml405	General-purpose FPGA/PPC/RocketIO transceiver development board	HW-V4-ML405-UNI-G	XC4VFX20-FF672	128 MB SDRAM DDR SDRAM, ZBT synchronous DRAM, MGT: Serial ATA host connectors (x2), MGT: SFP connector (x1), MGT: SMA connector connected to one RocketIO MGT, XGI Expansion Port
Virtex-4 FPGA ML410 www.xilinx.com/ml410	Embedded system development platform	HW-V4-ML410-UNI-G	XC4VFX60-11FFG1152	ATX form factor motherboard, 64 MB DD and 256 MB DDR2 DIMM, 512 MB CompactFlash card and System ACE CompactFlash controller for configuration, 10/100/1000 tri-speed Ethernet PHY transceiver, RJ-45 connectors (x2), XPM Expansion Port
Virtex-4 FPGA ML423 www.xilinx.com/ml423	RocketIO transceiver characterization	HW-V4-ML423-UNI-G	XC4VFX100-11FF1152	20 RocketIO GTP Transceivers connected to SMA pairs, 10 RocketIO GTP REFCLK inputs connected to SMA pairs, SuperClk module supporting a wide range of clock frequencies, Power indicator LEDs, General-purpose DIP switches, LEDs, and pushbutton switches

Important: Verify all data in this document with the device data sheets found at www.xilinx.com

XILINX BOARDS AND KITS

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Spartan®-6 FPGA Development Boards and Kits

Product Name	Purpose	Part Number	Devices Supported	Features
Spartan-6 FPGA SP601 Evaluation Kit www.xilinx.com/sp601	General-purpose FPGA development board	EK-S6-SP601-G EK-S6-SP601-G-J (Japan)	XC6SLX16-CS324	Onboard configuration circuitry, Quad SPI flash 64 MB, 16 MB parallel (BPI) flash, DDR2 component memory 128 MB
Spartan-6 FPGA SP605 Evaluation Kit www.xilinx.com/sp605	General-purpose FPGA evaluation board	EK-S6-SP605-G EK-S6-SP605-G-J (Japan)	XC6SLX45T-FGG484 -3	Onboard JTAG configuration circuitry, 128 MB Platform Flash XL, Quad SPI flash 64 MB, System ACE 2G CompactFlash card
Avnet Spartan-6 LX150T Development Kit http://www.xilinx.com/products/devkits/AES-S6DEV-LX150T-G.htm	General-purpose FPGA evaluation board	AES-S6DEV-LX150T-G	XC6SLX150T-3FGG676	The Xilinx Spartan-6 LX150T Development Kit provides a complete development platform for designing and verifying applications based on the Xilinx Spartan-6 LXT FPGA family.
Avnet Spartan-6 LX16 Evaluation Kit http://www.xilinx.com/products/devkits/AES-S6EV-LX16-G.htm	General-purpose FPGA evaluation board	AES-S6EV-LX16-G	XC6SLX16-CSG324	Utilizing Spartan-6, Avnet introduces the first-ever battery-powered Xilinx FPGA development board, the Xilinx Spartan-6 LX16 Evaluation Kit.
Spartan-6 FPGA Embedded Kit http://www.xilinx.com/products/devkits/DK-S6-EMBD-G.htm	Spartan-6 FPGA Embedded Kit	DK-S6-EMBD-G DK-S6-EMBD-G-J (Japan)	XC6SLX45T-FGG484 -3	Embedded Design Platforms enable rapid software application development as well as easy customization of the processor hardware subsystems.
Spartan-6 FPGA Connectivity Kit http://www.xilinx.com/products/devkits/DK-S6-CONN-G.htm	Spartan-6 FPGA Connectivity Kit	DK-S6-CONN-G DK-S6-CONN-G-J (Japan)	XC6SLX45T-FGG484 -3	The Spartan®-6 FPGA Connectivity kit is a complete, easy-to-use Connectivity Development and Demonstration platform for designing with standards based protocols – PCIe®, Ethernet, implementing low-cost protocol bridging, providing higher efficiency alternative to LVDS communication, etc in multiple market segments.
Spartan-6 FPGA DSP Kit http://www.xilinx.com/products/devkits/AES-S6DSP-LX150T-G.htm	Spartan-6 FPGA DSP Development	AES-S6DSP-LX150T-G	XC6SLX150T-3	Wireless, aerospace and defense, instrumentation and medical imaging applications continue to demand greater performance to support standards, while high-level design flows continue to improve to provide an easier entry point for using FPGAs for DSP.
Spartan-6 FPGA Industrial Ethernet Kit http://www.xilinx.com/products/devkits/AES-S6IEK-LX150T-G.htm	Spartan-6 FPGA Industrial Ethernet Developmet	AES-S6IEK-LX150T-G	XC6SLX150T-3FGG676	The Spartan-6 FPGA Industrial Ethernet Kit is a comprehensive design environment for rapid prototyping and development of leading edge industrial applications in connectivity, motor control, and embedded processing.
Spartan-6 FPGA Industrial Video Processing Kit http://www.xilinx.com/products/devkits/AES-S6IVK-LX150T-G.htm	Spartan-6 FPGA Industrial Video Processing	AES-S6IVK-LX150T-3FGG676	XC6SLX150T-3	The Spartan-6 FPGA Industrial Video Processing Kit is a comprehensive design environment for rapid prototyping and streamlined development of high resolution video conferencing, video surveillance and machine vision systems.
Spartan-6 FPGA Consumer Video Kit http://www.xilinx.com/products/devkits/TB-6S-CVK.htm	Spartan-6 FPGA Consumer Video	TB-6S-CVK	XC6SLX150T-3	Speed up development of video algorithms and incorporate the latest video interface standards right out of the box. The Spartan-6 FPGA Consumer Video Kit is a comprehensive design environment for developing and debugging advanced video algorithms.

Spartan-3 FPGA Development Kits

Product Name	Purpose	Part Number	Devices Supported	Features
Spartan-3A FPGA Starter Kit www.xilinx.com/s3astarter	Low-cost Spartan-3A FPGA board evaluation kit	HW-SPAR3A-SK-UNI-G	XC3S700A-FG484	Evaluation board with Spartan-3A FPGA, onboard 10/100 Ethernet PHY, SPI based ADC and DAC circuitry, 64 MB DDR2, two 16 MB SPI serial flash. Interfaces include a 2x16 LCD display and various I/O ports, including a PS/2 port, a VGA display port, and two serial ports. Kit includes evaluation board, power supply with universal adaptors, programming cable, quick-start guide, design tools, evaluation software, and collateral.
Spartan-3AN FPGA Starter Kit www.xilinx.com/s3anstarter	Low-cost Spartan-3AN FPGA board evaluation kit	HW-SPAR3AN-SK-UNI-G	XC3S700AN-4FGG484C	Evaluation board with Spartan-3AN FPGA, onboard 10/100 Ethernet PHY, SPI based ADC and DAC circuitry, 64 MB DDR2, and two 16 MB SPI serial flash. Interfaces include a 2x16 LCD display and various I/O ports, including a PS/2 port, a VGA display port, and two serial ports. Kit includes evaluation board, power supply with universal adaptors, programming cable, quick-start guide, design tools, evaluation software, and collateral.
Spartan-3A DSP FPGA 1800A Edition XtremeDSP™ Solution Starter Board www.xilinx.com/s3adspstarter	Low-cost, entry-level environment for developing signal processing designs	HW-SD1800A-DSP-SB-UNI-G	XC3SD1800A-4FGG676C	Memory: 128 MB (32M x 32) DDR2 SDRAM; 16M x 8 parallel / BPA configuration flash; 64 Mb SPI configuration/storage flash (with 4 extra SPI selects), EXP expansion connector
Spartan-3E FPGA Starter Kit www.xilinx.com/s3estarterkit	Low-cost Spartan-3E FPGA development kit	HW-SPAR3E-SK-UNI-G	XC3S700A-FG484	Evaluation board with Spartan-3E FPGA, CoolRunner™-II CPLD, 128 Mb parallel flash, 16 Mb SPI flash, 64 MB DDR SDRAM, Interfaces include Ethernet 10/100 PHY, two RS-232 serial ports, PS/2 style mouse/keyboard, 2x16 character LCD, Kit includes evaluation board, power supply with universal adaptors, programming cable, quick-start-guide, design tools evaluation software, and collateral.
XtremeDSP Solution Video Kit www.xilinx.com/vsk_s3	Video application development on Spartan-3A FPGAs	DO-SEADSP-VIDEO-SK-UNI-G	XC3SD3400A-4FGG676C	Includes full seats of System Generator and EDK, Example video reference designs, Complete documentation, Platform USB cable, power supply, and video cables, Carrier board: Spartan-3A FPGA DSP DPFA F3400A Development Board, Mezzanine card: FMC-video
Spartan-3A DSP S3D1800A MicroBlaze Processor Edition Embedded Development HW/SW Kit www.xilinx.com/s3adspmb	Flexible embedded processing development kit	DO-SD1800A-EDK-DK-UNI-G	XC3SD1800A-4FGG676C	Full seat of Platform Studio embedded tool suite, ISE WebPACK FPGA design software, Reference designs, USB programming download cable, UART, Ethernet cables and power supply
Spartan-3A DSP FPGA 3400A Edition XtremeDSP Solution Development Platform www.xilinx.com/s3adap_dp	Spartan-3A FPGA DSP application development solution	HW-SD3400A-DSP-DB-UNI-G	XC3SD3400A-4FGG676C	Onboard 256 MB DDR2 SDRAM; 256 Mb flash; 9 Mb ZBT SRAM; 32 Mb Platform flash 16 Mb SPI EEPROM; 256 MB CompactFlash, Two FMC and a LPC expansion connector

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CPLD Starter Kits

Product Name	Purpose	Part Number	Devices Supported	Features
CoolRunner-II CPLD Starter Kit Featuring the DataGATE Low-Power Advantage www.xilinx.com/products/devkits/SK-CRII-L-G.htm	General-purpose CPLD evaluation board	SK-CRII-L-G	XC2C256-TQ144	Complete 'out-of-the-box' evaluation platform, CoolRunner-II CPLD utility window, Easy set-up and monitoring, DataGATE evaluation "switch", Free reference designs

FMC Daughter-cards

Product Name	Purpose	Part Number	Devices Supported	Features
FMC Debug Mezzanine Card www.xilinx.com/products/devkits/HW-FMC-DBG-G.htm	FMC XM105 Debug Mezzanine Card	HW-FMC-XM105-G		VITA 57.1 FMC HPC connector, Single-ended signals from the carrier board, clocks, JTAG, and power, 40 single-ended I/O (20 pairs) on the LPC pins, 80 single-ended I/O (40 pairs) on the HPC pins, Mictor connector 38 pins female Mictor connector
FMC XM104 Connectivity Card www.xilinx.com/xm104	FMC Connectivity	HW-FMC-XM104-G		The FMC XM104 Connectivity Card is designed to provide access to eight serial transceivers on the FMC HPC connector found on Xilinx FMC-supported boards including Virtex®-6 ML605. These eight serial transceivers can be accessed through one CX4 (x4 transceivers), two SATA (x2 transceivers), and eight SMA (x2 transceivers) connectors.

XMP080 (v1.0)

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29

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