



ADVANCED FPGA PLATFORM
FOR ACADEMIC RESEARCH
AND TEACHING ENVIRONMENTS

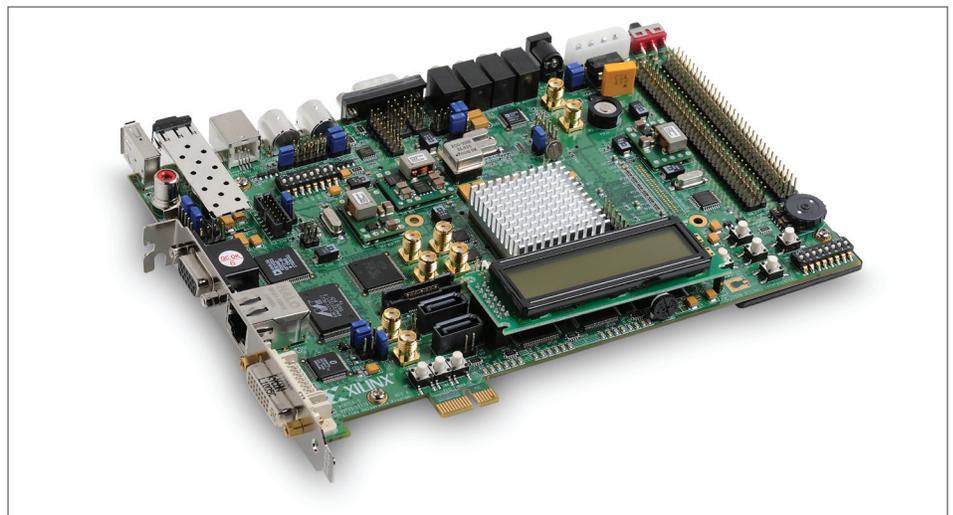
HIGH-END, OPENSARC-READY PLATFORM
FOR A BROAD RANGE OF APPLICATIONS

› The Challenges of Getting Started

- Selecting the right combination of features for the academic environment
- Tailoring hardware to the curriculum
- High costs for custom board fabrication
- Keeping hardware and associated curriculum up to date

› Xilinx University Program Development Kit

- High-density functional design, based on industry-leading Xilinx Virtex-5 FPGA
- Fully supported with a complete software environment (Xilinx ISE® Design Suite: System Edition)
- Part of a complete set of teaching materials that are regularly updated
- Professor workshops available to speed up adoption



Advanced Virtex-5 Academic Development Kit

The Xilinx® University Program development kit includes the XUPV5, a feature-rich general-purpose evaluation and development platform. The platform combines the power of a Xilinx Virtex™-5 FPGA with memory and connectivity that suit digital design, embedded systems, digital signal processing, computer architecture, operating systems, networking, imaging and video, and digital communications courses and projects.

Highlights of the development kit include:

- Virtex-5 XC5VLX110T FPGA
- 17,280 Virtex-5 logic slices
- 4 tri-mode Ethernet MACs, including one with on-board Gbit PHY
- 5,328 Kbits of block RAM
- 64 DSP slices
- 16 Rocket I/O transceivers

Development Kit Highlights

Kit Contents

- Virtex-5 board, manufactured by Digilent
- Universal power supply
- USB cable

On-Board Memory

- 1Gbit (16 x 64MB DDR2)
- 4 x 128Mbit quad SPI flash

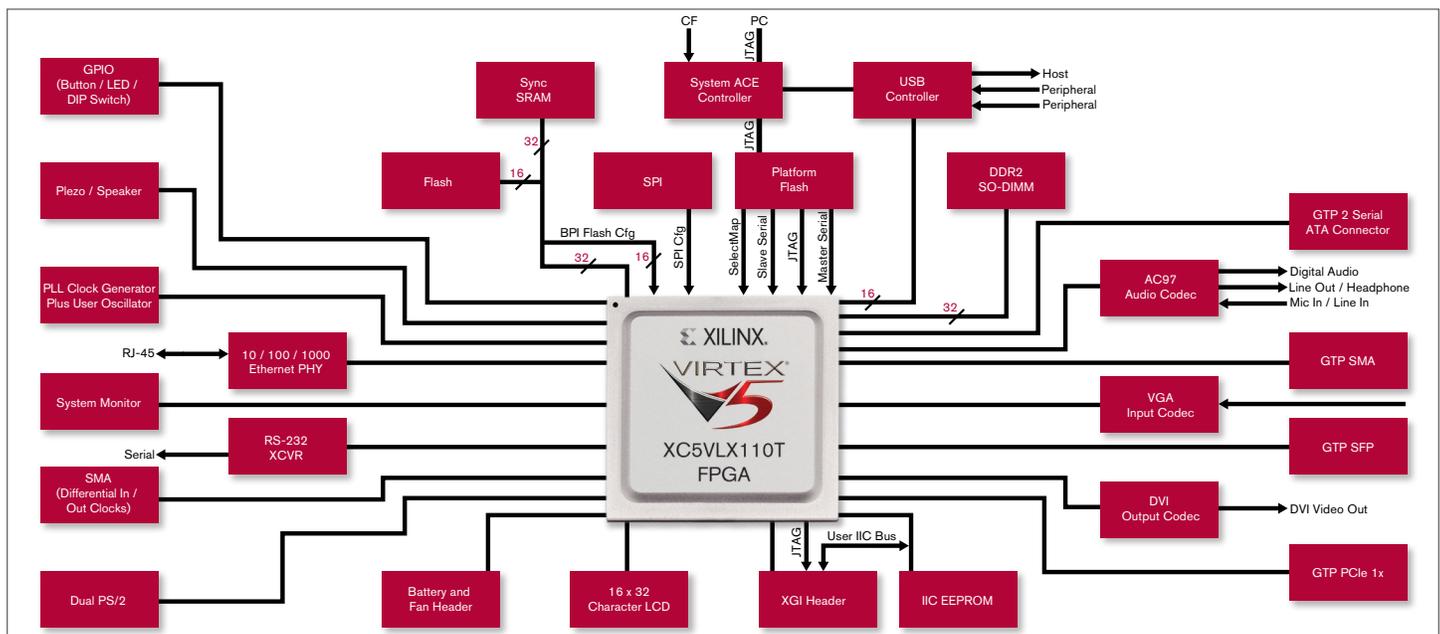
Configuration Flexibility

- Platform USB/JTAG download
- Compact flash

Connectivity

- 10/100/1000 Ethernet PHY (embedded MAC)
- USB2 host and peripheral ports
- Stereo AC-97 audio CODEC
- Integrated DVI/VGA output and video input
- RS232 and PS/2 ports
- Debug support includes Mictor Trace, BDM, and SoftTouch ports
- GTP clock synthesis chips
- 6 character x 2 line display
- Rocket I/O transceivers connectors:
 - 2 Serial ATA connector for use with Aurora protocol
 - SMA (Rx and Tx differential pairs)
 - Small Form Factor Pluggable (SFP) connector
 - SGMII
 - PCI Express (PCIe) edge connector (x1 end point)

V-5 BOARD FUNCTIONAL BLOCK DIAGRAM



Take the NEXT STEP

For pricing and availability, visit: www.digilentinc.com

For more information about other Xilinx University Program development kits, visit: www.xilinx.com/university

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