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NetFPGA

Part # 6006-410-000-KIT

IC: Xilinx Virtex-II Pro (53,136 Logic Cells)

Connector(s): Four RJ45 network ports

- Xilinx Virtex-II Pro 50
- JTAG cable connector can be used to run Xilinx ChipScope Pro
- 4.5 MB Static Random Access Memory (SRAM)
- Connector block on left of PCB interfaces to 4 external RJ45 plugs
- Interfaces to standard Gigabit Ethernet using Cat5E or Cat6 copper network cables
- Wire-speed processing on all ports at all time using FPGA logic
- Two SATA-style connectors to Multi-Gigabit I/O (MGIO) on right-side of PCB
- Double-Date Rate Random Access Memory (DDR2 DRAM)
- Standard PCI Form Factor
- Dimensions: 25cm long x 10cm tall (10" x 4")

Please Note: The NetFPGA is a legacy product and is no longer supported by Xilinx's newer tool sets. As a result we will no longer be producing the board, and once current stock is depleted there will be no more.

The NetFPGA platform enables researchers and instructors to build working prototypes of high-speed, hardware-accelerated networking systems. The platform can be used in the classroom to teach students how to build Ethernet switches and Internet Protocol (IP) routers using hardware rather than software. The platform can be used by researchers to prototype advanced services for next-generation networks.



The NetFPGA is an open platform and available to developers worldwide. Reference designs included with the system include an IPv4 router, an Ethernet switch, and a four-port NIC. Researchers have used the platform to build advanced network flow processing systems. A single NetFPGA board can route packets over four subnets, and multiple NetFPGA boards can be installed in the same PC.

The system consists of a reprogrammable development board, reference implementations, and sample courseware. The development board itself is a PCI card that can be installed in any PC with an available full-length slot. Hosted on the board are a user-programmable FPGA (with two PowerPC processors), SRAM, DRAM, and four 1Gbps Ethernet ports.

Programming and administration of the development board are performed by the host PC via the PCI bus. This allows users to remotely develop and deploy designs since physical access to the board is not required.

Accent Technology offers pre-assembled NetFPGA computer systems as approved by Stanford University. These pre-built and completely tested Linux-based computers are available in a compact desktop cube or standard 1U rack-mountable server configuration. Let Accent Technology streamline the process of getting the NetFPGA up and running quickly. Visit their [NetFPGA](#) products page to learn more and receive a quote.

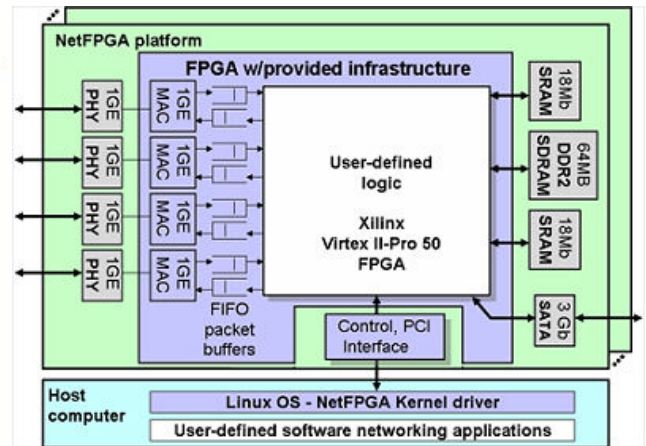
Documentation, gateway, and Linux device drivers are available on-line from at <http://netfpga.org>.

NOTE: The Virtex-2 Pro XC2VP30 FPGA is a mature chip and is no longer supported by Xilinx development tools. To use this board, you must already be a current Xilinx development tools version 10.1 or



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earlier license holder. A copy of 10.1 is included with the purchase of the NetFPGA.



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