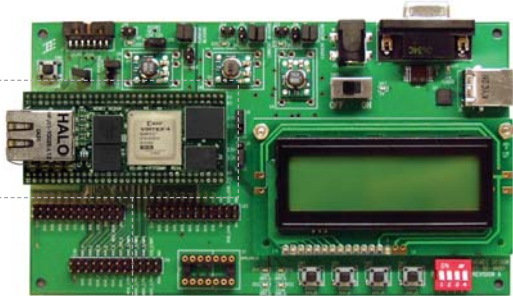


▶ Virtex-4 FX12 Mini-Module



The Memec Virtex-4 FX12 Mini-Module Development Kit provides a low cost, small footprint, fully integrated “system-on-a-module” ideal for high performance embedded applications.

▶ The Memec Virtex-4 FX12 Mini-Module is the ultimate programmable system. Designed as a complete system on a module, the Mini packages all the necessary functions needed for an embedded processor system, onto a tiny footprint slightly bigger than a stick of chewing gum. System Architects, FPGA designers, and board designers will find the flexibility of Virtex-4 FX12 Mini-Module ideal for high performance, embedded controller applications. The on-board PowerPC™ core provides processing horsepower, the 10/100/1000 Ethernet port adds networking capabilities for Internet appliance solutions, while the configurable I/O settings offer versatile interface options.

The Virtex-4 FX12 Mini-Module is offered as a development kit, with a companion baseboard, power supply, software, and reference designs. The Mini-Module is based on the Virtex-4 FX12 FPGA from Xilinx, and includes DDR memory, Flash memory, configuration memory, 10/100/1000 Ethernet PHY, system clock, and up to 76 user I/O. The I/O can be configured as single-ended signals as well as differential LVDS pairs. The module plugs into the baseboard via headers and can be removed for use in proprietary systems if desired. The baseboard provides the necessary power, user switches, LEDs, LCD panel, RS232 and USB ports, and a user I/O header. A JTAG compatible port is available on the baseboard to download configuration data to the FPGA directly or to program the Platform Flash with the FPGA .mcs file.

Designers looking for an off-the-shelf, fully configurable, high-performance embedded processor system capable of supporting PowerPC and real-time operating systems, will find the Virtex-4 FX12 Mini-Module from Memec an ideal fit. The Mini Development Kit helps jump start your design effort, while stand-alone modules can be easily integrated into custom applications. Migration options are also available from the family of Mini-Module platforms offered by Memec.

Features

Mini-Module

- ▶ Small Footprint (30 mm x 65.5 mm)
- ▶ Complete System-On-A-Module
- ▶ Supports PowerPC Processor
- ▶ Based on the Virtex-4 FX12 FPGA
- ▶ 10/100/1000 Ethernet Port
- ▶ DDR and Flash Memory
- ▶ 76 User I/O



Baseboard

- ▶ Supports Mini-Module Family
- ▶ Module Socket Allows Easy Connection
- ▶ Provides 3.3V, 2.5V and 1.2V
- ▶ USB and RS232 Ports
- ▶ 2 x 16 Character LCD
- ▶ User Switches and LEDs
- ▶ SAM Compatible I/O Header

Applications

- ▶ PowerPC Applications
- ▶ Ethernet/Internet Applications
- ▶ Embedded Controller
- ▶ General Purpose Development



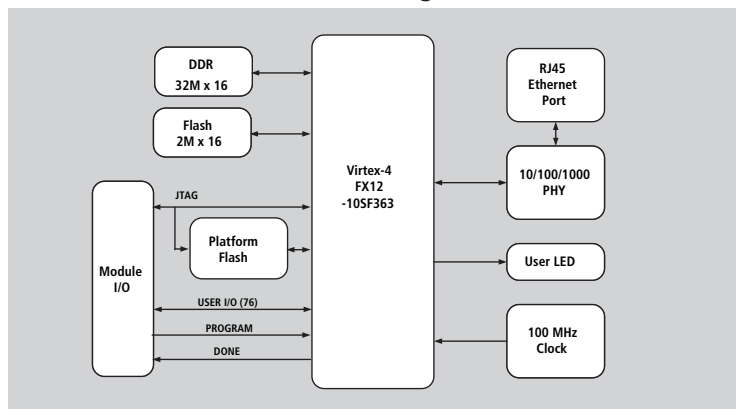
▶ Contact **Memec** at **888.488.4133 ext. 251** or **858.314.8190** or **www.memec.com/xilinxkits**

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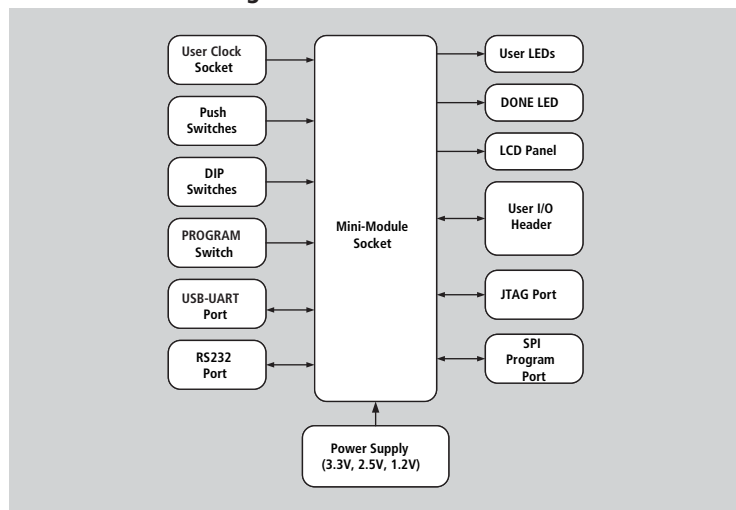
▶ Virtex-4 FX12 Mini-Module



Virtex-4 FX12 Mini-Module Block Diagram



Baseboard Block Diagram



Virtex-4 FX12 Mini-Module Development Kit Includes

- ▶ Virtex-4 FX12 Mini-Module
 - Virtex-4 FX12 FPGA
 - 10/100/1000 Ethernet Port
 - 32M x 16 DDR Memory
 - 2M x 16 Flash Memory
 - 8Mb Platform Flash
 - User LED
 - 76 User I/O
- ▶ Mini-Module Baseboard
 - Mini-Module Socket Adapter
 - 2 x 16 Character LCD
 - RS232 Port
 - USB-UART Port
 - User Switches and LEDs
 - System ACE Interface
 - JTAG and SPI Programming Ports
 - 3.3V, 2.5V and 1.2V Regulators
- ▶ Xilinx EDK Software
- ▶ AC/DC Power Supply Adapter
- ▶ Serial Cable
- ▶ Complete Reference Designs with Source Code (VHDL and/or Verilog HDL)
- ▶ Bundled Software Options

Ordering Information

Virtex-4 FX12 Mini-Module Development Kits	Americas Part#	International Part#
Virtex-4 FX12 Mini-Module Development Kit	DS-KIT-FX12MM1-EDK	DS-KIT-FX12MM1-EDK-EURO
Virtex-4 FX12 Mini-Module and Baseboard Only	DS-KIT-FX12MM1-BASE	DS-KIT-FX12MM1-BASE-EURO
Virtex-4 FX12 Mini-Module Only (Volume pricing available)	DS-KIT-FX12MM1	DS-KIT-FX12MM1-EURO



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