Virtex-5 FPGA
ML501

Purpose: General purpose FPGA development board
Board Part Number: HW-V5-ML501-UNI-G
Device Supported: XC5VLX50FFG676
Price: $995

Description

The ML501 is a feature-rich and low-cost evaluation/development platform which provides easy access to resources available on the on-board Virtex™-5 LX50 FPGA device. Supported by industry standard interfaces and connectors, the ML501 is a versatile development platform for multiple applications.

Features

- DDR2 SO-DIMM (256 MB)
- ZBT SRAM (1 MB)
- Linear, Platform & SPI Flash Flash
- System ACE CF (CompactFlash)
- JTAG Programming Interface
- External Clocking (2 Differential Pairs)
- USB (x2) – Host and Peripheral
- PS/2 (x2) – Keyboard, Mouse
- RJ-45 – 10/100 Networking
- RS-232 (Male) – Serial port
- Audio In (x2) – Line, Microphone
- Audio Out (x2) – Line, Amp, SPDIF, and Piezo Speaker
- Video (DVI/VGA) Output
- Single-Ended and Differential I/O Expansion (XGI)
- DIP Switch, LED, and Pushbuttons

Virtex-5 FPGA
ML505

Purpose: General purpose FPGA and RocketIO GTP Development Platform.
Board Part Number: HW-V5-ML505-UNI-G
Device Supported: XC5VLX50TFF1136
Price: $1,195

Description

The ML505 is a feature-rich general purpose evaluation and development platform. The ML505 offers users the ability to create high speed serial designs utilizing the Virtex™-5 RocketIO™ GTP transceivers. A variety of on-board memories and industry standard connectivity interfaces add to the ML505's ability to serve as a versatile development platform for embedded applications.

Features

- DDR2 SO-DIMM (256 MB)
- ZBT SRAM (1 MB)
- Linear, Platform & SPI Flash
- System ACE CF (CompactFlash)
- JTAG Programming Interface
- External Clocking (2 Differential Pairs)
- USB (x2) – Host and Peripheral
- PS/2 (x2) – Keyboard, Mouse
- RJ-45 – 10/100/1000 Networking
- RS-232 (Male) – Serial port
- Audio In (x2) – Line, Microphone
- Audio Out (x2) – Line, Amp, SPDIF, Piezo Speaker
- Rotary Encoder
- Video Input
- Video (DVI/VGA) Output
- Single-Ended and Differential I/O Expansion
- DIP Switch , LEDs and Pushbuttons
- GMII and SGMII Support for Ethernet PHY
- PCI Express Plug-In Card Form Factor (x1 endpoint)
- GTP: SFP (1000-base-x)
- GTP: 4 SMAs connected to one MGT
- GTP: SATA (x2)
- GTP Clock Synthesis Chips
- Header for 2nd Serial Port
- 2nd Platform Flash PROM (32Mb) for large device
- Mictor Trace, BDM Debug , & Soft Touch Ports

Virtex-5 FPGA
ML506

Purpose: General purpose FPGA, DSP and RocketIO GTP Transceiver Development Platform
Board Part Number: HW-V5-ML506-UNI-G
Device Supported: XC5VSX50TFF1136
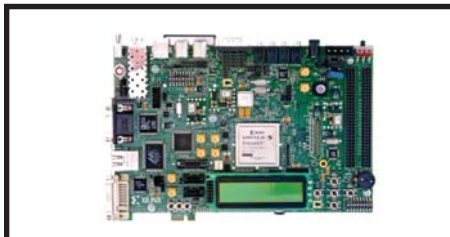Price: $1,195

Description

The ML506 is a feature-rich DSP general purpose evaluation and development platform. The ML506 offers users the ability to create DSP based and high speed serial designs utilizing the Virtex™-5 DSP48E slices and RocketIO™ GTP transceivers. A variety of on-board memories and industry standard connectivity interfaces add to the ML506's ability to serve as a versatile development platform for embedded applications.

Features

- DDR2 SO-DIMM (256 MB)
- ZBT SRAM (1 MB)
- Linear, Platform & SPI Flash
- System ACE CF (CompactFlash)
- JTAG Programming Interface
- External Clocking (2 Differential Pairs)
- USB (x2) – Host and Peripheral
- PS/2 (x2) – Keyboard, Mouse
- RJ-45 – 10/100/1000 Networking
- RS-232 (Male) – Serial port
- Audio In (x2) – Line, Microphone
- Audio Out (x2) – Line, Amp, SPDIF, and Piezo Speaker
- Rotary Encoder
- Video Input
- Video (DVI/VGA) Output
- Single-Ended and Differential I/O Expansion
- GPIO DIP Switch (8), LEDs (8), and Pushbuttons (5)
- GMII and SGMII Support for Ethernet PHY
- PCI Express Plug-In Card Form Factor (x1 endpoint)
- GTP: SFP (1000-base-x)
- GTP: 4 SMAs connected to one MGT
- GTP: SATA (x2)
- GTP Clock Synthesis Chips
- Header for 2nd Serial Port
- 2nd Platform Flash PROM (32Mb) for large device
- Mictor Trace, BDM Debug , & Soft Touch Ports

Development Board Advanced Search
Easily locate the board you need using the Development Board Advanced Search Tool found at **www.xilinx.com/board_search**

Virtex-5 FPGA
ML507

Purpose: General purpose FPGA, PPC 440 Processor & RocketIO GTX development.
Board Part Number: HW-V5-ML507-UNI-G
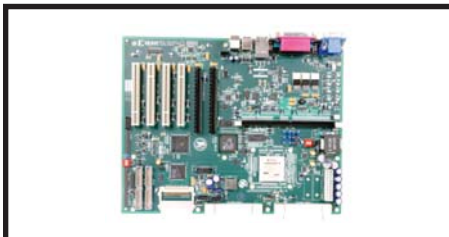Device Supported: XC5VFX70TFF1136
Price: $1,195

Description

The ML507 is a feature-rich PPC 440 Processor, RocketIO GTX, general purpose FPGA evaluation and development platform. The ML507 offers users the ability to create PPC 440 based and high speed serial designs utilizing the Virtex™-5 PPC 440 Processor and RocketIO™ GTX transceivers. A variety of on-board memories and industry standard connectivity interfaces add to the ML507's ability to serve as a versatile development platform for embedded applications.

Features

- DDR2 SO-DIMM (256 MB)
- ZBT SRAM (1 MB)
- Linear, Platform & SPI Flash
- System ACE CF (CompactFlash)
- JTAG Programming Interface
- External Clocking (2 Differential Pairs)
- USB (x2) – Host and Peripheral
- PS/2 (x2) – Keyboard, Mouse
- RJ-45 – 10/100/1000 Networking
- RS-232 (Male) – Serial port
- Audio In (x2) – Line, Microphone
- Audio Out (x2) – Line, Amp, SPDIF, Piezo Speaker
- Rotary Encoder
- Video Input
- Video (DVI/VGA) Output
- Single-Ended and Differential I/O Expansion
- DIP Switch , LEDs and Pushbuttons
- GMII and SGMII Support for Ethernet PHY
- PCI Express Plug-In Card Form Factor (x1 endpoint)
- GTP: SFP (1000-base-x)
- GTP: 4 SMAs connected to one MGT
- GTP: SATA (x2)
- GTP Clock Synthesis Chips
- Header for 2nd Serial Port
- 2nd Platform Flash PROM (32Mb) for large device
- Mictor Trace, BDM Debug , & Soft Touch Ports

Virtex-5 FPGA
ML510

Purpose: Advanced Hardware/Software Embedded Processing Development.
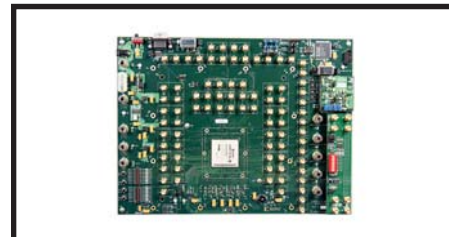Board Part Number: HW-V5-ML510-G
Device Supported: XC5VFX130T-FFG1738
Price: $3,100

Description

The ML510 is an embedded development platform based on the Xilinx Virtex™-5 XC5VFX130T FPGA. Software and Hardware development teams can take advantage of the FPGA's dual PowerPC™ 440 processors, a generous amount of FPGA fabric, and I/O capabilities that extend from the low bit rate UARTs to the high speed RocketIO™ Multi-Gigabit Transceivers (MGTs). When paired with the Xilinx Embedded Development Kit (EDK), and its catalog of IP peripherals, the ML510 can be used to rapidly prototype and verify system designs. Software applications using either standalone code or targeting an operating system, such as VxWorks, can also be created.

Features

- 32-bit component DDR memory and 64-bit DDR2 DIMM
- 512 MB CompactFlash (CF) card and System ACE CF controller for configuration
- Two onboard 10/100/1000 Ethernet PHYs with RJ-45 connectors
- Tow PCI Express interface
- Two UARTs with RS-232 connectors
- VGA graphics interface
- LEDs, LCD*, and switches
- 32/33 PCI subsystem (Two 3.3V slots and two 5V slots
  - PS/2 mouse and keyboard connectors
  - 3.5mm headphone and microphone connectors
  - Two USB peripheral ports and one parallel port
  - General purpose I/O (GPIO)
  - Flash memory interface
- Two serial ATA connectors
- Xilinx Personality Module (XPM) interface for access to:
- JTAG and trace debug ports
- Encryption battery
- IIC/SMBus interface
- SPI EEPROM*
- High-speed I/O through RocketIO transceivers

Virtex-5 FPGA
ML521

Board Part Number: HW-V5-ML521-UNI-G
Device Supported: XC5VSX50TFF665
Resale Price: $4,495
Purpose: RocketIO GTP Transceiver Characterization

Description

The ML521 platforms is ideal for characterization and evaluation of Virtex™-5 LX50T RocketIO™ GTP Transceivers. Each RocketIO GTP Transceiver is accessible via 4 SMA connectors.

Features

- 16 pairs of SMA connectors for the RocketIO transceivers
- 4 differential SMA connectors for RocketIO transceiver clock inputs
- Power indicator LEDs
- General purpose DIP switches, LEDs, and pushbutton switches
- 32 MB - 128 MB of DDR2 Memory
- Onboard power supplies for all necessary voltages
- Power supply jacks for optional use of external power supplies
- JTAG configuration port for use with Parallel Cable III and Parallel Cable IV cables
- System ACE™ controller with 8-bit MPU port support
- RS-232 serial port
- Power supply module supporting all transceiver power requirements
- Two 2.5V / 3.3V global clock oscillator sockets
- Two single-ended global clock inputs with SMA connectors
- Two pairs of differential global clock inputs with SMA connectors
- SuperClock module supporting multiple frequencies
- Xilinx Generic Interface (XGI)

XILINX VIRTEX®-6 FAMILY FPGAS

XILINX

Virtex-5 FPGA
ML525

Purpose: RocketIO GTP Transceiver Characterization Platform.

Devices Supported: XC5VLX110TFF1136 (ML523), XC5VLX50TFF665 (ML521), XC5VLX330TFF1738 (ML525)

Board Part Number: HW-V5-ML523-UNI-G
Price: $4,995

Board Part Number: HW-V5-ML521-UNI-G
Price: $9,995

Description

The ML52x platforms are ideal for characterization and evaluation of Virtex™-5 LXT RocketIO™ GTP Transceivers. Each RocketIO GTP Transceiver is accessible via 4 SMA connectors. ML52x platforms are available with XC5VLX50T-FF665 (ML521) , XC5VLX110T-FF1136 (ML523), and XC5VLX330T-FF1738 (ML525) FPGA device.

Features

- 32 to 96 pairs of SMA connectors for the RocketIO transceivers
- 4 to 12 differential SMA connectors for RocketIO transceiver clock inputs
- Power indicator LEDs
- General purpose DIP switches, LEDs, and pushbutton switches
- 32 MB - 128 MB of DDR2 Memory
- Onboard power supplies for all necessary voltages
- Power supply jacks for optional use of external power supplies
- JTAG configuration port for use with Parallel Cable III and
- Parallel Cable IV cables
- System ACE™ controller with 8-bit MPU port support
- RS-232 serial port
- Power supply module supporting all transceiver power requirements
- Two 2.5V / 3.3V global clock oscillator sockets
- Two single-ended global clock inputs with SMA connectors
- Two pairs of differential global clock inputs with SMA connectors
- SuperClock module supporting multiple frequencies
- Xilinx Generic Interface (XGI)

Virtex-5 FPGA
ML52x

Purpose: RocketIO GTP Transceiver Characterization Platform.

Devices Supported: XC5VLX330TFF1738 (ML525), XC5VLX110TFF1136 (ML523), XC5VLX50TFF665 (ML521)

Board Part Number: HW-V5-ML525-UNI-G
Price: $9,995

Board Part Number: HW-V5-ML523-UNI-G
Price: $4,995

Board Part Number: HW-V5-ML521-UNI-G
Price: $4,495

Description

The ML52x platforms are ideal for characterization and evaluation of Virtex™-5 LXT RocketIO™ GTP Transceivers. Each RocketIO GTP Transceiver is accessible via 4 SMA connectors. ML52x platforms are available with XC5VLX50T-FF665 (ML521) , XC5VLX110T-FF1136 (ML523), and XC5VLX330T-FF1738 (ML525) FPGA device.

Features

- 32 to 96 pairs of SMA connectors for the RocketIO transceivers
- 4 to 12 differential SMA connectors for RocketIO transceiver clock inputs
- Power indicator LEDs
- General purpose DIP switches, LEDs, and pushbutton switches
- 32 MB - 128 MB of DDR2 Memory
- Onboard power supplies for all necessary voltages
- Power supply jacks for optional use of external power supplies
- JTAG configuration port for use with Parallel Cable III and
- Parallel Cable IV cables
- System ACE™ controller with 8-bit MPU port support
- RS-232 serial port
- Power supply module supporting all transceiver power requirements
- Two 2.5V / 3.3V global clock oscillator sockets
- Two single-ended global clock inputs with SMA connectors
- Two pairs of differential global clock inputs with SMA connectors
- SuperClock module supporting multiple frequencies
- Xilinx Generic Interface (XGI)

Virtex-5 FPGA
ML52x-FXT

Purpose: RocketIO GTX Transceiver Characterization Platform.

Devices Supported: XC5VFX100TFF1136 (ML523-FXT), XC5VFX200TFF1738 (ML525-FXT)

Board Part Number: HW-V5-ML523-FXT-UNI-G
Price: $4,995

Board Part Number: HW-V5-ML525-FXT-UNI-G
Price: $8,495

Description

The AFX-LXT/SXT platforms provide access to different FPGA signals for performing functional tests, general evaluation, and Simple GTP Loopback. Each board's mounted ZIF socket hosts different Virtex-5 LXT/SXT devices with the same pin count (FF665, FF1136, or FF1738).

Features

- ZIF Socket for different Virtex-5 LXT/SXT devices in FF665, FF1136, or FF1738 package.
- Independent power supply jacks for VCCINT, VCCO, and VCCAUX
- Selectable VCCO-enable pins for each SelectIO™ bank
- Clock sources, LEDs & Switches
- 32 clock inputs
- 4 differential clock pairs
- 4 LVTTL-type oscillator sockets
- Breadboard area
- Pin Breakout area
- Card interface
- SMA clock inputs for MGT REF clocks
- GTPs looped back on the board
- Multiple configuration options (PROM, SPI Flash, Linear Flash Cable Download)
- Upstream and downstream System ACE™ and configuration interface connectors

Virtex-5 FPGA
AFX-LX

Purpose: Non-RocketIO Low Speed Functional Test
Board Part Numbers:
    HW-AFX-FF324-500-G $1,495
    HW-AFX-FF676-500-G $1,395
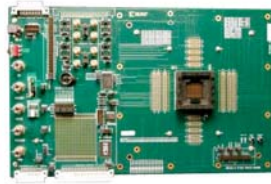   HW-AFX-FF1153-500-G $1,995
    HW-AFX-FF1760-500-G $2,200
Device Supported: Virtex-5 LX series

Description

The AFX -LX platforms provide access to different FPGA signals for performing functional tests and general evaluation. Each board's mounted ZIF socket hosts different Virtex-5 LX devices with the same pin count (FF324, FF676, FF1153, or FF1760).

Features

- ZIF Socket For different Virtex-5 devices in FF324, FF676, FF1153, or FF1760 package.
- Independent power supply jacks for VCCINT, VCCO, and VCCAUX
- Selectable VCCO-enable pins for each SelectIO™ bank
- Clock sources, LEDs & Switches
- 32 clock inputs
- 4 differential clock pairs
- 4 LVTTL-type oscillator sockets
- Breadboard area
- Pin Breakout area
- Card interface
- SMA clock inputs for MGT REF clocks
- MGTs looped back on the board
- Multiple configuration options (PROM, SPI Flash, Linear Flash, & Cable Download)
- Upstream and downstream System ACE™ and configuration interface connectors

Virtex-5 FPGA
AFX-LXT/SXT

Purpose: Low Speed Functional Test & GTP loopback
Part Numbers:
    HW-AFX-FF665-500-G $1,595
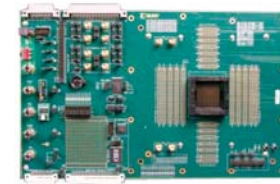   HW-AFX-FF1136-500-G $2,100
    HW-AFX-FF1738-500-G $2,300
Device Supported: Virtex-5 LXT or SXT series

Description

The AFX-LXT/SXT platforms provide access to different FPGA signals for performing functional tests, general evaluation, and Simple GTP Loopback. Each board's mounted ZIF socket hosts different Virtex-5 LXT/SXT devices with the same pin count (FF665, FF1136, or FF1738).

Features

- ZIF Socket for different Virtex-5 LXT/SXT devices in FF665, FF1136, or FF1738 package.
- Independent power supply jacks for VCCINT, VCCO, and VCCAUX
- Selectable VCCO-enable pins for each SelectIO™ bank
- Clock sources, LEDs & Switches
- 32 clock inputs
- 4 differential clock pairs
- 4 LVTTL-type oscillator sockets
- Breadboard area
- Pin Breakout area
- Card interface
- SMA clock inputs for MGT REF clocks
- GTPs looped back on the board
- Multiple configuration options (PROM, SPI Flash, Linear Flash & Cable Download)
- Upstream and downstream System ACE™ and configuration interface connectors

Virtex-5 FPGA
AFX-FXT

Purpose: Low Speed Functional Test & GTX loopback
Part Numbers:
    HW-AFX-FF665FXT-500-G- $2,000
    HW-AFX-FF1136FXT-500-G- $2,900
Device Supported: Virtex-5 FXT series

Description

The AFX -FXT platforms provide access to different FPGA signals for performing functional tests and general evaluation. Each board's mounted ZIF socket hosts different Virtex-5 FXT deviceswith the same pin count (FF665 and FF1136).

Features

- ZIF Socket For different Virtex-5 devices in FF665 or FF1136 package.
- Independent power supply jacks for VCCINT, VCCO, and VCCAUX
- Selectable VCCO-enable pins for each SelectIO™ bank
- Clock sources, LEDs & Switches
- 32 clock inputs
- 4 differential clock pairs
- 4 LVTTL-type oscillator sockets
- Breadboard area
- Pin Breakout area
- Card interface
- SMA clock inputs for MGT REF clocks
- MGTs looped back on the board
- Multiple configuration options (PROM, SPI Flash, Linear Flash, & Cable Download)
- Upstream and downstream System ACE™ and configuration interface connectors

XILINX VIRTEX®-6 FAMILY FPGAS

⚡ XILINX

Virtex-5 FPGA
ML550

Purpose: Networking Interface Evaluation Platform
Board Part Number: HW-V5-ML550-UNI-G
Device Supported: XC5VLX50TFF1136
Price: $2,200

Description

The ML550is ideal for evaluation of source-synchronous and networking interfaces

Features

- 64M x 8 DDR SDRAM memory
- 200 MHz, 250 MHz, 133 MHz, and 33 MHz on-board oscillators
- SMA (x2)differential clock input connectors
- USB "B" port
- 64 x 128 pixel LCD
- System ACE™ CompactFlash (CF) Configuration Controller
- Six Samtec LVDS connectors (53 differential input and 53 differential output channels)
- Power Monitor Header

Virtex-5 FPGA
ML561

Purpose: Memory Interface Evaluation Platform
Board Part Number: HW-V5-ML561-UNI-G
Device Supported: XC5VLX50TFF1136
Price: $5,995

Description

The ML561 is designed for evaluation of different memory interfaces including DDR, DDR-II, QDR-II, and RLDRAM.

Features

- x144 Wide and x72 Deep using (5) DDR2 DIMM Sockets
- (2) x16 DDR-II discrete parts
- (2) x16 DDR discrete parts
- (2) x36 QDR-II discrete parts
- (2) x18 RLDRAM 2 discrete parts
- SystemACE, JTAG, & Serial configuration options
- Debug ports: RS-232, USB, LEDs, DIPs

Virtex-4 FPGA
ML401

Purpose: General purpose FPGA development board
Board Part Number: HW-V4-ML401-UNI-G
Device Supported: XC4VLX25-FF668
Price: $495

Description

The ML401 is a feature-rich and low-cost general purpose evaluation/development platform which provides easy access to resources available on the on-board Virtex™-4 LX25 FPGA device. Supported by industry standard interfaces and connectors, the ML401 is a versatile development platform for multiple applications.

Features

- 64-MB DDR SDRAM
- ZBT synchronous SRAM
- 10/100/1000 tri-speed Ethernet PHY transceiver
- USB interface chip with host and peripheral ports
- RS-232 serial port
- Expansion header with 32 single-ended I/O and 16 LVDS differential pairs
- Stereo AC97 audio codec with line-in/out, headphone, and microphone jack
- One 4-Kb IIC EEPROM
- VGA output
- PS/2 mouse and keyboard connectors
- Xilinx Platform Flash configuration storage device
- System ACE™ CompactFlash configuration controller
- Intel StrataFlash linear flash chips (8 MB)
- JTAG configuration port
- 16-character x 2-line LCD display
- Onboard power supplies for all necessary voltages
- General purpose DIP switches, LEDs, and push buttons

Virtex-4 FPGA
ML402

Purpose: General purpose FPGA/DSP development board
Board Part Number: HW-V4-ML402-UNI-G
Device Supported: XC4VSX35-FF668
Price: $595

Description

The ML402 is a feature-rich and low-cost DSP and general purpose FPGA evaluation/development platform which provides easy access to resources available on the on-board Virtex™-4 SX35 FPGA device. Supported by industry standard interfaces and connectors, the ML402 is a versatile development platform for multiple applications.

Features

- 64-MB DDR SDRAM
- ZBT synchronous SRAM
- 10/100/1000 tri-speed Ethernet PHY transceiver
- USB interface chip with host and peripheral ports
- RS-232 serial port
- Expansion header with 32 single-ended I/O and 16 LVDS differential pairs
- Stereo AC97 audio codec with line-in/out, headphone, and microphone jack
- One 4-Kb IIC EEPROM
- VGA output
- PS/2 mouse and keyboard connectors
- Xilinx Platform Flash configuration storage device
- System ACE™ CompactFlash configuration controller
- Intel StrataFlash linear flash chips (8 MB)
- JTAG configuration port
- 16-character x 2-line LCD display
- Onboard power supplies for all necessary voltages
- General purpose DIP switches, LEDs, and push buttons

Virtex-4 FPGA
ML403

Purpose: General purpose FPGA/PPC Processor development board
Board Part Number: HW-V4-ML403-UNI-G
Device Supported: XC4VFX12-FF668
Price: $495

Description

The ML403 is a feature-rich and low-cost general purpose FPGA and PowerPC processor evaluation/development platform which provides easy access to resources available on the on-board Virtex™-4 FX12 FPGA device. Supported by industry standard interfaces and connectors, the ML403 is a versatile development platform for multiple applications.

Features

- 64-MB DDR SDRAM
- ZBT synchronous SRAM
- 10/100/1000 tri-speed Ethernet PHY transceiver
- USB interface chip with host and peripheral ports
- RS-232 serial port
- Expansion header with 32 single-ended I/O and 16 LVDS differential pairs
- Stereo AC97 audio codec with line-in/out, headphone, and microphone jack
- One 4-Kb IIC EEPROM
- VGA output
- PS/2 mouse and keyboard connectors
- Xilinx Platform Flash configuration storage device
- System ACE™ CompactFlash configuration controller
- Intel StrataFlash linear flash chips (8 MB)
- JTAG configuration port
- 16-character x 2-line LCD display
- Onboard power supplies for all necessary voltages
- General purpose LEDs, and push buttons

Virtex-4 FPGA
ML405

Purpose: General purpose FPGA/RocketIO MGT development board
Board Part Number: HW-V4-ML405-UNI-G
Device Supported: XC4VFX20-FF672
Price: $795

Description

The ML405 is a feature-rich and low-cost general purpose FPGA and RocketIO MGT evaluation/development platform which provides easy access to resources available on the on-board Virtex™-4 FX20 FPGA device. Supported by industry standard interfaces and connectors, the ML405 is a versatile development platform for multiple applications.

Features

- 128-MB SDRAM DDR SDRAM
- ZBT synchronous SRAM
- MGT: Serial ATA host connectors (x2)
- MGT: SFP connector (x1)
- MGT: SMA connectors connected to one RocketIO™ MGT
- 10/100/1000 tri-speed Ethernet PHY transceiver
- USB interface chip with host and peripheral ports
- RS-232 serial port
- Expansion header with 32 single-ended I/O and 16 LVDS differential pairs
- Stereo AC97 audio codec with line-in/out, headphone, and microphone jack
- One 4-Kb IIC EEPROM
- VGA output
- PS/2 mouse and keyboard connectors
- Xilinx Platform Flash configuration storage device
- System ACE™ CompactFlash configuration controller
- Intel StrataFlash linear flash chips (8 MB)
- JTAG configuration port
- 16-character x 2-line LCD display
- Onboard power supplies for all necessary voltages
- General purpose LEDs, and push buttons

Virtex-4 FPGA
ML410

Purpose: Embedded system development platform
Board Part Number: HW-V4-ML410-UNI-G
Device Supported: XC4VFX60-11FFG1152
Price: $2,995

Description

The ML410 is an embedded development platform based on the Xilinx Virtex™-4 XC4VFX60 FPGA. Software and Hardware development teams can take advantage of the FPGA's dual PowerPC™ 405 processors, a generous amount of FPGA fabric, and I/O capabilities that extend from the low bit rate UARTs to the high speed RocketIO™ Multi-Gigabit Transceivers (MGTs). When paired with the Xilinx Embedded Development Kit (EDK), and its catalog of IP peripherals, the ML410 can be used to rapidly prototype and verify system designs. Software applications using either standalone code or targeting an operating system, such as VxWorks, can also be created.

Features

- ATX form factor motherboard
- 64 MB DDR memory and 256 MB DDR2 DIMM
- 512 MB CompactFlash (CF) card and System ACE CF controller for configuration
- 10/100/1000 Ethernet PHYs (MII/RGMII and SGMII) with RJ-45 connectors (x2)
- PCI Express downstream connectors (x2)
- 32-bit/33 MHz PCI connectors (x4)
- ALi South Bridge SuperIO controller
- USB ports - peripheral (x2) and parallel port (x1)
- Serial ATA connectors (x2)
- UARTs with RS-232 connectors (x2)
- Xilinx Personality Module (XPM) interface (x2)
- JTAG and trace debug ports
- IIC/SMBus interface
- SPI EEPROM
- General purpose I/O (GPIO)
- VGA graphics interface
- LEDs, LCD, and switches
- Encryption battery
- PS/2 mouse and keyboard connectors
- 3.5mm headphone and microphone connectors

Virtex-4 FPGA
ML423

Purpose: RocketIO MGT characterization
Board Part Number: HW-V4-ML423-UNI-G
Device Supported: XC4VFX100-11FF1152
Price: $4,495

Description

The ML423 platform is ideal for characterization and evaluation of Virtex 4 FX RocketIO MGT Transceivers. yEach RocketIO MGT Transceiver is accessible via 4 SMA connectors.

Features

- MGT power supply module
- 2.5V/3.3V global clock oscillator sockets (x2)
- Single-ended global clock inputs with SMA connectors (x2)
- Differential global clock inputs with SMA connectors (x2)
- Xilinx Generic Interface (XGI)
- SuperClock module with XGI
- SMA connectors for the RocketIO transceivers
- General purpose DIP switches, LEDs, and pushbuttons
- Differential local clock input with SMAs
- Differential MGT clock inputs with SMAs (x4)
- Onboard power supplies for all necessary voltages
- JTAG configuration port
- System ACE configuration controller
- RS-232 serial port

Virtex-4 FPGA
AFX-LX/SX/FX

Purpose: Low Speed Functional Test & MGT loopback
Board Part Numbers:
    HW-AFX-SF363-400: $1,095
    HW-AFX-FF668-400: $1,200
    HW-AFX-FF1148-400: $2,100
    HW-AFX-FF1513-400: $2,295
Device Supported: Virtex-4 LX, SX, or FX

Description

The AFX-LX/SX/FX platforms provide access to different
FPGA signals for performing functional tests, general
evaluation, and MGT loop back. Each board's mounted ZIF
socket hosts different Virtex-4 LX/SX/FX devices with the
same pin count (FF363, FF668, FF1148, or FF1513).

Features

- Independent power supply jacks for VCCINT, VCCO, and
  VCCAUX
- Selectable VCCO enable pins for each SelectIO™ bank
- Configuration port
- Differential clock pairs (x4)
- LVTTL-type oscillator sockets (x4)
- 20 breakout clock pins
- Platform Flash ISPROM (32 Mb) for configuration
- JTAG port for reprogramming
- Upstream and downstream System ACE™ connectors and
  configuration interface connectors
- Onboard battery holder
- One low-voltage, 14-pin, DIP crystal oscillators

Virtex-4 FPGA
AFX-SX

Virtex-4 FPGA
AFX-FX

XILINX