



XMCV5

Virtex-5 processor with QDR2 and DDR2 memory

Features

- Xilinx Virtex-5 FPGA
 - FX100T with PPC440 hard cores or
 - SX95T or
 - LX110T
- External Memory
 - QDR2 SRAM
 - DDR2 SDRAM
 - SPI FLASH
- Rear I/O
 - VITA 42.3 PCIe gen2 (to 5 GHz) or
 - VITA 42.2 sRIO build option
 - Rocket I/O to 6.5 GHz via GTX ports
 - LVDS
 - GPIO
 - GbE
 - Serial ports
- Front I/O
 - GbE
 - Serial
 - LVDS
 - GPIO
- XMCV5VWRAP
 - EDK and ISE project with tested cores
 - Quick start FPGA image

GE Intelligent Platforms has worked closely with Xilinx to leverage the power and performance of their very latest Virtex-5 FPGAs.

Virtex-5 FX100T boasts two PowerPC® 440 embedded CPUs, multiple PCIe hard cores and GTX links at up to 6.5 Gigabits/s.

XMCV5 is the world's first rugged XMC to harness the power and flexibility of the Virtex-5 FXT with build options for SXT and LXT to address the complete range of performance requirements for demanding defense and aerospace applications.

Designed for use in harsh environments where extended temperature, shock and vibration is the norm, XMCV5 together with our market leading host Single Board Computers (SBC) and carrier cards provide the flexibility and compute power to cater for a range of deployed applications in both 3U and 6U form factors.

XMCV5 is the right choice for system architects when configurable co-processing is required to compliment GE's range of PowerPC or Intel® architecture SBCs and AXIS Multiprocessors.

Applications ranging from signal and image processing, fast data I/O and networked pro-

cessing are all within reach with this leading edge solution.

VWRAP support is delivered in the form of an ISE or EDK project with a variety of tested cores to support baseline connectivity providing a quick start reference for application development using the standard Xilinx tool chain.

Multi-processor support includes our AXIS Advanced Multiprocessor Integrated Software suite of fully integrated modules for system development, visualization and deployment running on the host CPU with support for a range of system fabrics; GbE, sRIO, PCIe, etc.

AXISView provides an intuitive GUI for system visualization and productivity tools that greatly reduce development time and shorten time to market.

AXISLib VSIPL and RSPL optimized math and function libraries provide a wide range of optimized functions for the PowerPC Altivec platform.

AXISFlow supports high through put, low latency, inter processor communication (IPC) across all system nodes to maximize system performance and flexibility.



XMCV5 Virtex-5 processor with QDR2 and DDR2 memory

Specifications

Xilinx Virtex-5 FPGA

- FX100T, SX95T or LX110T build options

External Memory

- 144 Mbits QDR2 SRAM
- 512 MBytes DDR2 SDRAM
- 384 Mbits user & configuration FLASH

Rear I/O

- VITA 42.3 PCIe (standard) or
- VITA 42.2 sRIO build option
- 16 x Rocket I/O, 20 LVDS, 28 GPIO,
- 2 x GbE RGMII & 5 GPIO (3V3),
- 2 x RS232/422, I2C Bus

Front I/O

- 80 pin header:
- 2x GbE (RGMII), 2x RS232/422, 28 LVDS, 24 GPIO &
- 5 GPIO (3v3), JTAG

XMCV5TST

- Front panel break-out module for SW development

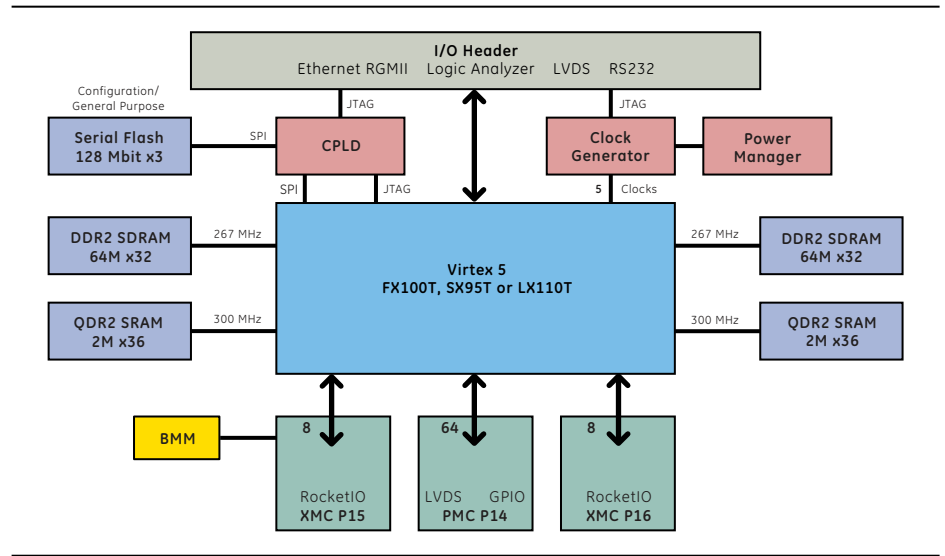
Form Factor

- Rugged VITA 42.0 form factor for air, and conduction cooled systems

XMCV5VWRAP:

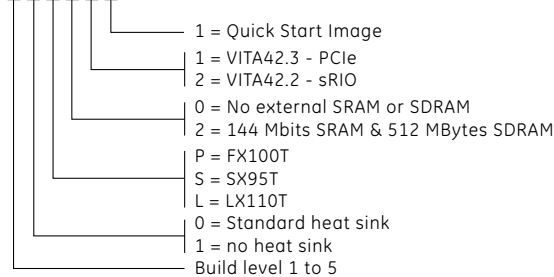
- EDK and ISE project with tested cores
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Block Diagram



Ordering Information

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About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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