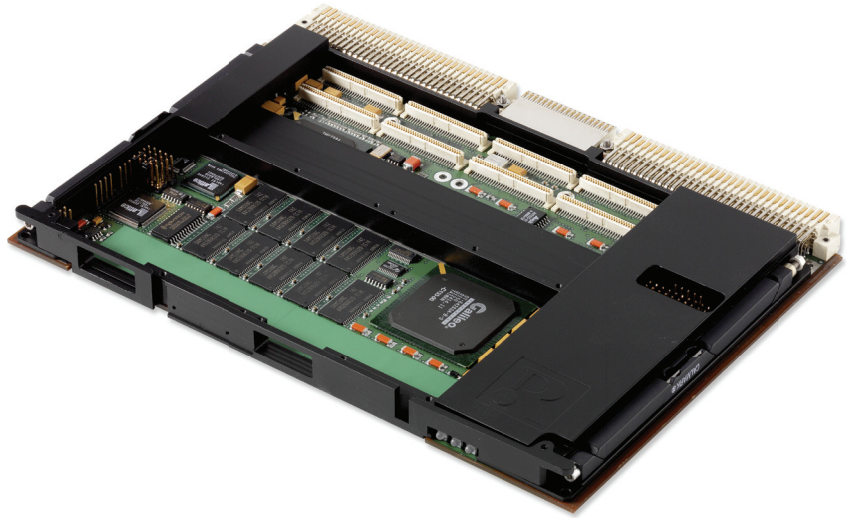
GE
Intelligent Platforms



PPC7A

PowerXtreme SBC with Certifiable BSP to DO-178B Level A

Features

- Latest PowerPC processors
- High performance architecture
- Extensive GE Intelligent Platforms software support
- Extended feature set
  - PowerPC 7410 or 7457
  - 64-bit 66 MHz PCI
  - 200 MHz L3 cache bus
  - 133 MHz main memory bus
  - 6 serial ports
  - 2 Ethernet ports
  - 2 USB Ports (or keyboard/mouse)
  - Digitial I/O (or parallel port)
  - SCSI interface

PPC7A is a cornerstone of GE Intelligent Platforms PowerXtreme family of single board computers (SBCs) offering a powerful combination of the latest technology plus full compatibility with the PowerXtreme feature set, first defined in 1995. PPC7A is fully supported by a comprehensive range of GE Intelligent Platforms software products including our Deployed Test modules (BIT [built- in test] and BCS [background condition screening]), plus support for VxWorks and VxWorks6 from Wind River Systems, LynxOS from LynuxWorks, and INTEGRITY from Green Hills Software Inc.

PPC7A offers a choice of the latest PowerPC processors. Two PMC sites via 64-bit 66 MHz PCI provide access to further incremental system expansion if required. In addition to PowerXtreme standard interfaces (SCSI, parallel, keyboard and mouse) the number of serial ports has been expanded to six and the number of Ethernet ports to two. New features for PowerXtreme include two USB ports, 16-bit digital I/O and a reserved board area which can accommodate custom design features for large volume production programs.

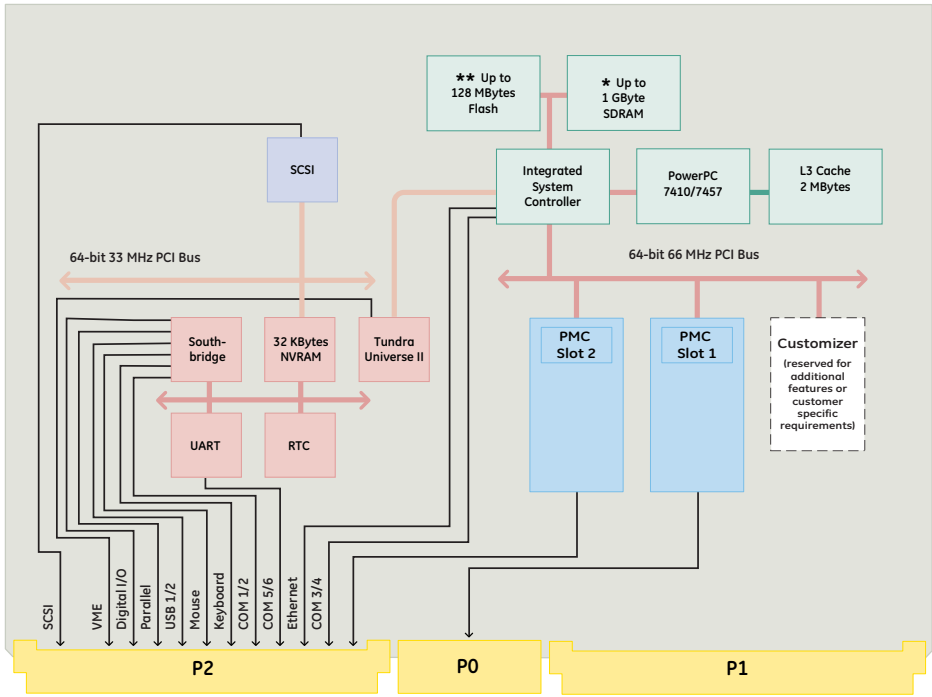
In addition to support for the standard (non certifiable) COTS operating systems above, the PPC7A is supported by a BSP for the certifiable VxWorksAE653 operating system from Wind River Systems.

PPC7A PowerXtreme SBC with Certifiable BSP to DO-178B Level A

Specifications

- PowerPC 7447 at up to 1.2 GHz
- The Marvell Discovery Integrated System Controller
- 512 KB on-chip L2 cache running at core frequency
- Up to 1 GB of SDRAM (ECC, 64 bit wide at 100 MHz)
- Up to 128 MB of FLASH (32 bit wide at 100 MHz)
- 32kB NVRAM
- Real-Time Clock (1 sec resolution)
- Ethernet Interfaces (2 ports, 10/100 BASE-T and 1 port 10/100/1000 BASE-T)
- USB 1,2 (USB1.1 compatible)
- USB 3,4 (USB 2.0 compatible)
- SCSI (8 bit Ultra SCSI 40 MB/sec)
- Discrete Digital I/O (16 bits)
- Parallel port (IEEE P1284 compatible)
- Timers (8 x 32 bit timer / counters)
- Watchdog Timer, 2 off
- 6 Serial ports
  - COM 1,2 (RS232, provided from the integrated Southbridge
  - COM 3,4 (RS232/422 or 485 software selectable, Async/Sync capable, provided from the Discovery)
  - COM 5,6 (RS232/422 or 485 software selectable provided from a UART)
- DMA engines (8 available)
- Deployed Test Suite including
  - BIT (comprehensive power-up Built-In-Test firmware
  - BCS (Background Condition Screening for non-destructive, continuous on-line testing)
- BSPs (Board Support Packages) and ESPs (Enhanced Support Packages)
  - WindRiver's VxWorks
  - LynuxWorks' LynxOS (planned)
  - Green Hills INTEGRITY (planned)

Block Diagram



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.

GE Intelligent Platforms Contact Information

Americas: **1 800 433 2682** or **1 434 978 5100**
Global regional phone numbers are listed by location on our web site at **www.ge-ip.com/contact**

www.ge-ip.com