SBC330

3U VPX Single Board Computer

Features

- High performance 3U VPX SBC
- 8641D PowerPC® to 1.5 GHz
- Dual- or single core variants
- 1 MByte L2 cache per core
- Up to 4 GBytes DDR2 SDRAM
- 512 Mbytes Flash
- Two PCI Express™ ports to backplane:
  – One x8 port, plus one x4 port
- Two Gigabit Ethernet ports
- Two serial ports, plus PS/2 keyboard and mouse

Designed to maximize the benefits of Freescale's™ newest processor, the SBC330 delivers huge gains over previous generations. Developed around the dual core 8641D PowerPC, the SBC330 benefits from the improved signal integrity and power management offered by the VPX form factor.

Each PowerPC core, operating at up to 1.5 GHz, has 1 MByte L2 cache and an AltiVec™ vector processor. The 8641D can support symmetric or asymmetric multiprocessing*, and its dual 64-bit DDR2 memory controllers can be assigned to each core for increased operating system isolation, or can be shared between the cores.

The 8641D natively supports two 8-lane PCI Express ports. One of these is routed directly to the backplane, where it may be used to connect to peripheral devices, such as the GRA110 graphics processing unit.

The second PCI Express interface routes into a PCI Express switch, from which four ports

are routed to the backplane and the remaining lanes provide interconnect to USB and Serial ATA interfaces.

The SBC330 is supported by Deployed Test software and a range of BSP packages for standard COTS operating systems.

* depending on operating system support

Optionally available as an LRM (Line Replaceable Module) in accordance with the VPX–REDI (formerly VITA 48) standard

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Specifications

Processor
- 8641D PowerPC

L2 cache
- 1 MByte per core

System controller
- Integrated controller

Main memory
- Up to 4 GBytes DDR2 SDRAM

Flash memory
- 512 GByte Flash

PCI Express ports
- One 8-lane PCIe directly to backplane
- One 4-lane PCIe to backplane via PCIe switch

Ethernet interfaces
- Two ports Gigabit Ethernet

Serial interfaces
- Two ports RS232, with hardware control

PS/2 interfaces
- PS/2 keyboard and mouse

USB interfaces
- Three USB 2.0 interfaces

SATA interfaces
- Two Serial ATA disk interfaces; SATA-2 300 Mbits/sec

Discrete digital I/O
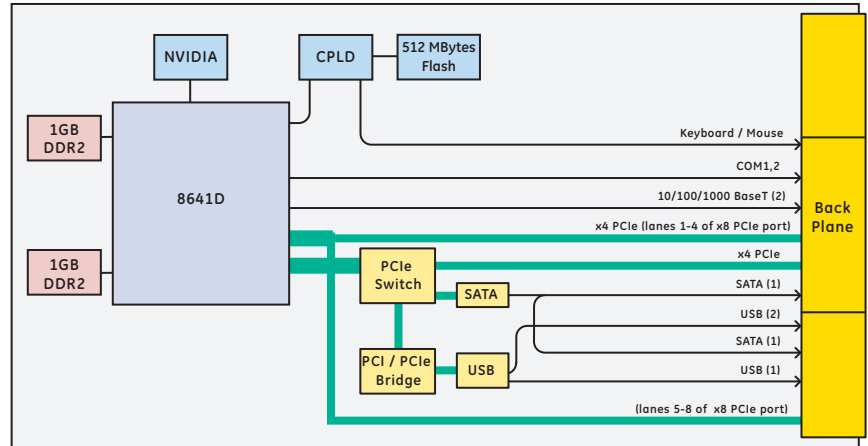- 8 bits of TTL compatible discrete digital I/O, each bit capable of generating an interrupt

Temperature sensors
- Two sensors

Software support
- Built-in test; VxWorks® BSP; INTEGRITY® BSP; AXIS support

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.

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