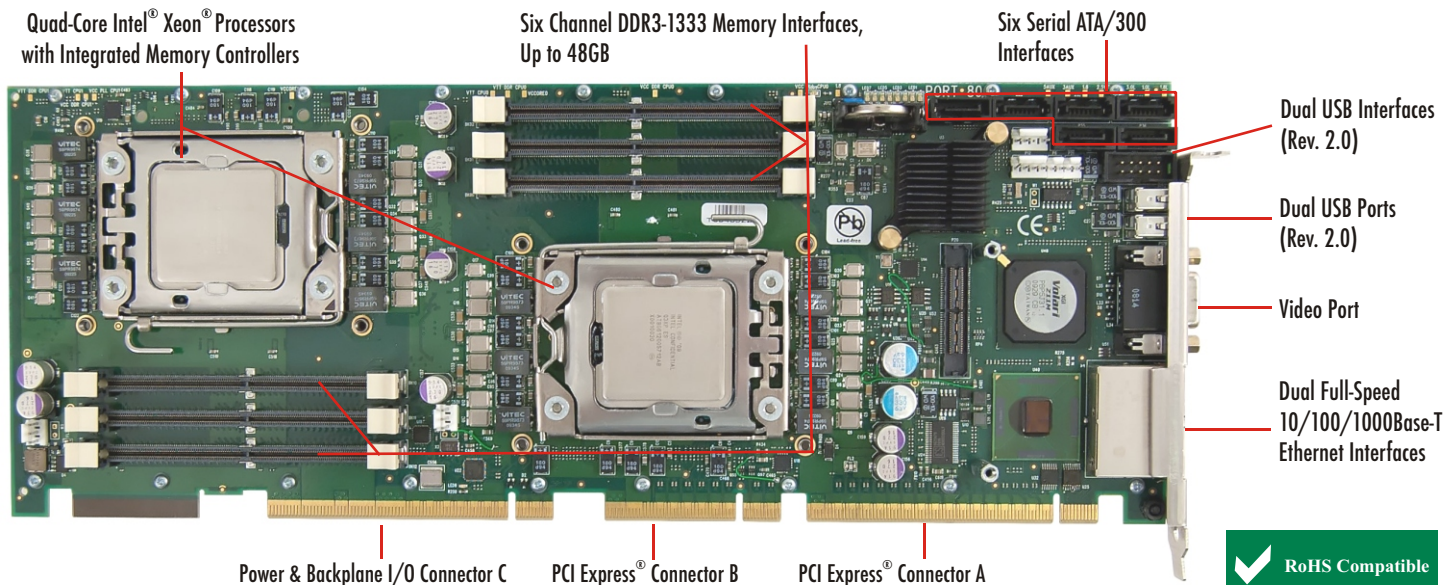


### SYSTEM HOST BOARD WITH MULTI-CORE PROCESSORS



Raising system performance levels while lowering new technology deployment risks and power consumption are key features of Trenton's JXT6966 single board computer. Here's a brief list of the SBC highlights:

- System performance boost with advanced micro-architecture
- New CPU core and chipset designs reduce power consumption
- Deployment risks lowered with extended-life board design
- 5-year product warranty maximizes system ROI
- 5x memory performance increases delivered with direct to the processor DDR3 six-channel memory interfaces

#### PROCESSORS:

Quad-Core Intel® Xeon® C5500 Processors, 2.13GHz - 2.53GHz\*  
Processor Package: LGA1366

\*Dual-core processor options available

The DDR3 integrated memory controllers of the Intel® Xeon® EC5500 series processors provide a five-fold speed increase in system memory processing compared to previous generation processors. The Intel® QuickPath Interconnect (QPI) between CPUs enables resource sharing for additional processing speed increases. Other features include:

- Extended-life, embedded components provide longevity
- Improved CPU thermal design saves power
- Quad-core micro-architecture with Intel® Hyper-Threading doubles core processing capability (LC5528 & EC5549)
- Intel® Virtualization Technology (VT-x2 & VT-d2)
- Integral PCI Express Gen 1.1 and Gen 2.0 links

#### BIOS (FLASH):

JXT6966 board use Aptio® 4.x BIOS from American Megatrends, Inc. or AMI. The board's BIOS resides in the SHB's SPI Flash device to simplify field upgrades and BIOS customization.

#### PLATFORM CONTROLLER HUB (PCH):

The Intel® 3420 is a Platform Controller Hub or PCH that takes the place of the traditional multi-component chipset. The PCH design approach saves power while providing enhanced system host board I/O, PCI Express and Ethernet interface capabilities.

#### THREE ETHERNET INTERFACES - 10/100/1000BASE-T:

The JXT6966 SHB supports two Gigabit Ethernet ports on the board's I/O bracket. A third Gigabit Ethernet interface is routed to edge connector C of the SHB for use on PICMG 1.3 backplanes.

#### PCI EXPRESS® GEN 2.0 and GEN 1.1 INTERFACES:

Trenton's JXT6966 SHB supports PICMG® 1.3 server or graphics-class systems with either a x16 or two x8 PCI Express® links on a PICMG 1.3 backplane. An additional x4 PCIe link and eight PCIe reference clocks are also supplied on edge connectors A & B of the SHB. Trenton's optional IOB33 and PEX10 modules can be used on the board to provide additional x1 and x16 PCIe links to a backplane. The Trenton JXT6966 automatically configures all of its PCIe links to operate as either PCIe Gen 2.0 or PCIe Gen 1.1 interfaces based on the type of PCI Express endpoints such as option cards, PCIe switches and bridge chips. The PCI Express auto-negotiation feature is fully supported on the SHB and enabling x1, x4, x8 and x16 PCI Express cards.

#### PCI EXPRESS CONFIGURATION:

- |                                      |   |
|--------------------------------------|---|
| PCI Express - Edge Connectors A & B  | - One x16 or two x8 links, plus one x4 link |
|                                      | - Eight reference clocks                    |
| PCI Express - (IOB33/PCIe Expansion) | - One x1 link                               |
| PCI Express - (PEX10/PCIe Expansion) | - One x16 link                              |
| PCI Express (on-board only)          | - Four x1 links                             |

#### DDR3-1333 MEMORY INTERFACE:

The DDR3-1333 memory interface is a six-channel interface with three channels on each Intel® Xeon® EC5500 Series Processor. The SHBs use ECC registered, PC3-8500 or PC3-10600 DDR3 Mini-DIMMs. A maximum memory capacity of 48GB is supported when using 8GB DDR3 Mini-DIMMs and 24GB with 4GB Mini-DIMMs. The JXT6966 can support a maximum memory capacity of 192GB. The peak memory interface bandwidth per channel is 32GB/s when using the PC3-10600 Mini-DIMMs.

#### BOARD STIFFENER BARS:

The two stiffener bars located on the back of the JXT6966 maximize system integrity by ensuring proper SHB alignment within the card guides of the computer chassis. The stiffeners provide reliable SHB operation by protecting sensitive board components from mechanical damage and assist in the safe insertion and removal of the SHB from the system.

#### VIDEO:

Trenton's JXT6966 SHB features a Graphics Processing Unit (GPU) driven with a x1 PCIe link from the PCH of the board. The GPU has 8MB of on-board video memory to support pixel resolutions up to 1920 x 1200 (WUXGA) with a 64K color depth.

#### SERIAL ATA/300 PORTS:

An integrated Serial ATA (SATA) controller in the Intel® 3420 provides six SATA ports with data transfer rates up to 300MB/s. Independent SATA drive operation and RAID drive array configurations are supported on the SHB. SATA drives reduce power consumption while simplifying system wiring.



