

WTM7026 MOTHERBOARD WITH SIX-CORE PROCESSORS



Trenton's WTM7026 is designed and built in the U. S. to deliver performance, data security and system longevity in embedded applications worldwide. The motherboard features extended-life, six-core or quad-core processors based on the Westmere-EP core. Here are some highlights of the Trenton WTM7026 embedded motherboard:

- ✓ Quad and Six-Core, Intel® Xeon® Series 5600 Processors
- ✓ Twelve, DDR3 DIMM slots (144GB max.)
- ✓ Trusted Computing support via TPM 1.2
- ✓ One x4 PCI Express Gen 1.1 card slot (electrical)
- ✓ Ten USB 2.0 interfaces
- ✓ Graphic Processing Unit (GPU)
- ✓ Audio Port
- ✓ Intel® TurboBoost
- ✓ Intel® 5520 Chipset with the Intel® ICH10R
- ✓ SSI-EEB Form Factor (12.0"/30.5cm x 13.0"/33.0cm)
- ✓ Three x8 PCI Express® Gen 2 card slots (electrical)
- ✓ One 32-bit/33MHz PCI card slot
- ✓ Six SATA II 300 ports with locking connectors
- ✓ PS/2 Mouse/Keyboard port
- ✓ Serial communication interfaces
- ✓ Intel® Hyper-Threading Technology
- ✓ Six, dual-channel DDR3-1333 memory interfaces
- ✓ SSI-EEB Enterprise Electronics Bay Specification 2008
- ✓ Two x4 PCI Express Gen 2 card slots (electrical)
- ✓ Four 10/100/1000Base-T Ethernet ports
- ✓ On-board SATA RAID support
- ✓ Video Port
- ✓ Intel® QuickPath Interconnect
- ✓ Intel® VT, Intel® VT-d and Intel® TXT Support

PROCESSORS:

Quad and Six-Core Intel® Xeon® Series 5600 Processors, Embedded core speeds of 2.0GHz - 2.4GHz*
Package: LGA 1366 socket **Higher speeds are supported*

The Intel® 5520 chipset and each Intel® Xeon® E5600 series processor on the WTM7026 supports the Intel® QuickPath Interconnect (QPI). The interface speed of an Intel® QPI is determined by the specific processor and is measured in Giga Transfers per second (GT/s). GT/s refers to how quickly data packets are transferred from a processor to the chipset or from processor-to-processor. The Intel® QPI enables the sharing of computing resources between processors and faster processor to chipset communications. Other processor features include:

- Quad-Core, 12MB Shared Last-Level Cache (LLC)
- Intel® Hyper-Threading enables 8 threads per processor
- Intel® VT, Intel® VT-d and Intel® TXT support with appropriate BIOS and application-level software
- Integrated Memory Controller (IMC) built into the processor for direct system memory connections
- Three, dual-channel DDR3 1333MHz memory interfaces per processor

CHIPSET:

Combining the Intel® 5520 Input Output Hub (IOH) with the Intel® ICH10R delivers chipset performance and functionality well suited for challenging embedded computing applications. Processor to IOH speeds of 4.8GT/s, 5.86GT/s and 6.4GT/s are supported and IOH to ICH10R communications are supported via the Controller Link (Clink) and the Enterprise Southbridge Interface (ESI). ESI features a x4 PCI Express® link with a transfer rate of 2.5Gbps between the IOH and the ICH10R. Many advanced I/O capabilities are built into this chipset combination including SATA RAID array support and direct option card slot interface capabilities that include PCI Express Gen 2, PCI Express Gen 1.1 and 32-bit/33MHz PCI.

DDR3-1333 MEMORY:

Each processor on the WTM7026 features three, dual channel DDR3-1333 system memory interface connections directly to six DIMM sockets for a total of twelve DDR3 DIMMs supported on the motherboard. PC3-10600, PC3-8500 or PC3-6400 DIMMs that are ECC registered, 72-bit, 240-pin gold-plated may be used. 144GB is the maximum memory capacity supported; however, memory market realities point to a practical maximum of 96GB.

OPTION CARD SLOTS:

A total of seven option card slots are supported on the Trenton WTM7026 motherboard.

- Three x16 PCI Express (PCIe) mechanical slots driven with x8 PCIe Gen 2 electrical links
- Two x8 PCIe mechanical slots driven with x4 PCIe Gen 2 links
- One x8 PCIe mechanical slot driven with a x4 PCIe Gen 1.1 link
- One 32-bit/33MHz PCI slot

STANDARDS:

- PCI Express® Base Specification 1.1 and 2.0
- PCI Local Bus Specification 2.3
- IEEE P996, Personal Computer Bus Standard
- SSI-EEB 2008 - Rev 1.0 (Extended ATX form factor std.)



Dependable, always.

