Intel® Pentium® 4 processor and Intel® E7221 chipset for affordable and dependable entry-level servers

Small Business Needs
For small companies productivity and revenue rely on dependable and trouble free servers handling their computing workloads. Should a server go down, these businesses lose their lifeblood — worker productivity and revenue. As they grow, small companies want to improve the performance and scalability of their business systems to accommodate more customers, more employees and more transactions. At the same time, they want reduced operating and maintenance costs because uptime is critical in order to ensure ongoing customer service and support 24 x 7. They require servers that are not only powerful enough to handle growing computing workloads, but also provide reliable and trouble-free operation at an affordable price.

The Intel® E7221 Chipset Response
Intel offers an affordable and highly dependable server platform targeted for the small business market segment. This entry-level platform incorporates the Intel® Pentium® 4 processor supporting HT (Hyper-Threading) Technology1 with the Intel® E7221 Chipset. Also for value-conscious business users, the Intel® E7221 chipset is an ideal server-platform solution for file and print sharing, web serving, load sharing and firewalls. This entry-level server chipset delivers impressive computing performance without compromising speed, affordability or system reliability — while also delivering the memory bandwidth, small businesses are looking for.

- The performance of a 3.60 GHz Intel Pentium 4 processor supporting HT Technology and the Intel E7221 chipset based server, as measured using the WebBench® benchmark, shows up to a 13% improvement in transactions per second when compared to a previous generation Intel Pentium 4 processor 3.20 GHz and Intel® E7210 chipset-based system.
- The highly integrated Intel E7221 chipset contains the Intel® E7221 Memory Controller Hub, the Intel® 6702PXH 64-bit PCI Hub and the Intel® 82801FR (ICH6R).
- Dual channel DDR2-400/533 and DDR-333/400 memory support options provide speeds up to 533 MHz and an aggregate memory bandwidth of up to 8.5 gigabytes per second (GB/s).
- Single memory channel operation keeps the system operating if a single channel fails.
- Error correction on the memory interface (ECC) protects vital data.
- More than 20 years of Intel® chipset expertise, significant investment in research and development, and thousands of man-hours committed to chipset and software validation.

Figure 1: Intel® Pentium® 4 processor Intel® E7221 chipset-based entry server

System configurations:
Source: Veritest® Labs (Sept '04)

(1) WMLS*: Intel® Pentium® 4 processor 3.20 GHz with 1MB cache, Intel® E7210 chipset-based server board, 4 GB DDR-400 ECC Unbuffered, Microsoft Windows® 2003, 2 Intel® PRO/1000 Gigabit Server adapters, Disk Subsystem: Adaptec AIC-7901, HD Make/Model/Size: Seagate/ST373453LC/70GB.


WebBench*: Intel® Pentium® 4 processor 3.20 GHz with 1MB cache, Intel® E7211 chipset-based server board, 4 GB DDR-400 ECC Unbuffered, Microsoft Windows® 2003, 2 Intel® PRO/1000 Gigabit Server adapters, Disk Subsystem: Adaptec AIC-7901, HD Make/Model/Size: Seagate/ST373453LC/70GB.

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