



CINT2000 Result

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Advanced Micro Devices

TYAN Thunder K8QSD Pro (S4882-D), AMD Opteron (TM) 254

SPECint_rate2000 = 44.8

SPECint_rate_base2000 = 42.0

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Aug-2005 | Hardware Avail: Aug-2005 | Software Avail: Mar-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	91.4	35.6	2	91.4	35.6
175.vpr	2	94.1	34.5	2	91.3	35.6
176.gcc	2	54.2	47.1	2	53.6	47.6
181.mcf	2	155	27.0	2	126	33.0
186.crafty	2	54.6	42.5	2	49.8	46.6
197.parser	2	104	40.1	2	104	40.1
252.eon	2	50.3	59.9	2	43.3	69.7
253.perlbnk	2	95.8	43.6	2	95.8	43.6
254.gap	2	56.7	45.0	2	56.7	45.0
255.vortex	2	67.8	65.0	2	61.6	71.6
256.bzip2	2	103	33.9	2	101	34.3
300.twolf	2	160	43.6	2	133	52.2

Hardware

CPU: AMD Opteron (TM) 254
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
 CPU(s) orderable: 1-2
 Parallel: no
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB (I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8x512 MB, DDR400 ECC Reg CL2.5
 Disk Subsystem: SATA, Western Digital WD740GD, 74GB 10000 rpm
 Other Hardware: None

Software

Operating System: Microsoft Windows Server 2003 Enterprise Edition SP1
 Compiler: Intel C++ 8.0 build 20040415Z for IA32
 Microsoft Visual Studio .NET 7.0.9466 (libraries)
 MicroQuill SmartHeap Library 7.0
 File System: NTFS
 System State: default

Notes/Tuning Information

shlw32M.lib is the SmartHeap library V7.0 from MicroQuill www.microquill.com

+FDO: PASS1=-Qprof_gen PASS2=-Qprof_use

Portability:

176.gcc: -Dalloca=_alloca /F10000000

186.crafty: -DNT_i386

253.perlbnk: -DSPEC_CPU2000_NTOS -DPERLDLL /MT

254.gap: -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_MALLOC_PROTO

Baseline C: -fast -arch:SSE2 -Oi- +FDO

Baseline C++: -fast -arch:SSE2 -GX -GR

Peak Tuning:

164.gzip: basepeak=yes

175.vpr: -fast -arch:SSE2 +FDO

-Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500

176.gcc: -fast -arch:SSE2 +FDO -Oi- -Qunroll3

181.mcf: -fast -QaxN +FDO

186.crafty: -fast -arch:SSE2 +FDO

197.parser: -arch:SSE2 +FDO -Oi- -Qipo

252.eon: -fast -arch:SSE2 +FDO -Qansi_alias

-Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500

253.perlbnk: basepeak=yes

Standard Performance Evaluation Corporation

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Notes/Tuning Information (Continued)

```
254.gap:      basepeak=yes
255.vortex:   -fast -arch:SSE +FDO -Oi- shlw32m.lib
              -Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500
256.bzip2:   -fast -Qunroll12
300.twolf:   -fast -arch:SSE2 +FDO -Qunroll13 shlw32m.lib -Qansi_alias
```

The system under test can be built using a 13" x 16" SSI MEB case and an Enermax EPS 12 Volt ATX-6ES 660 Watt power supply.
The 'start /b /wait /affinity' command was used to bind CPU(s) to processes.
All memory slots were populated with Kingston KRX3200AK2 on all CPU(s).
Memory timings were manually set in BIOS: CL=2.5, TRCD=3, TRAS=6, TRP=3
BIOS Rev E.1.02