



CINT2000 Result

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Advanced Micro Devices

TYAN Thunder K8QSD Pro (S4882-D), AMD Opteron (TM) 880

SPECint_rate2000 = 128

SPECint_rate_base2000 = 115

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	106	123	8	106	123
175.vpr	8	141	91.9	8	138	94.1
176.gcc	8	77.8	131	8	77.1	132
181.mcf	8	435	38.4	8	266	62.8
186.crafty	8	53.6	173	8	53.1	175
197.parser	8	187	89.3	8	150	111
252.eon	8	61.6	196	8	56.7	213
253.perlbnk	8	124	135	8	110	152
254.gap	8	83.8	122	8	83.2	123
255.vortex	8	91.7	192	8	84.2	209
256.bzip2	8	150	92.5	8	150	92.5
300.twolf	8	262	106	8	197	142

Hardware

CPU: AMD Opteron (TM) 880
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
 CPU(s) orderable: 1-4
 Parallel: No
 Primary Cache: 64KBI + 64KBD/core
 Secondary Cache: 1024KB (I+D)/core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 16x512 MB, DDR400 ECC Reg CL2.5
 Disk Subsystem: SATA, Western Digital WD740GD, 74 GB 10000 RPM
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 9 (SP2) for AMD64
 Compiler: PathScale EKOPATH(TM) Compiler Suite, Release 2.1
 File System: Linux/ext3
 System State: Multi-user, run level 3

Notes/Tuning Information

Tested by AMD

+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata

Baseline optimization flags:

C programs: -Ofast +FDO
 C++ programs: -Ofast +FDO

Portability Flags:

176.gcc: srcalt 64bitgcc
 186.crafty: -DLINUX_i386
 252.eon: -DHAS_ERRLIST -DSPEC_CPU2000_LP64 srcalt fmax_errno
 253.perlbnk: -DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
 -DSPEC_CPU2000_GLIBC22 -DSPEC_CPU2000_LP64
 254.gap: -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
 -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
 -DSPEC_CPU2000_LP64
 255.vortex: -DSPEC_CPU2000_LP64 srcalt closed_files



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Notes/Tuning Information (Continued)

Peak Tuning:

```

164.gzip:      basepeak = true
175.vpr:      -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000
              -INLINE:aggressive=on -IPA:plimit=10000:callee_limit=5000
              +FDO
176.gcc:      -O3 -ipa -OPT:goto=off +FDO
181.mcf:      -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty:   -O3 -OPT:goto=off +FDO
197.parser:   -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon:      -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -OPT:treeheight=on
              -TENV:X=4:frame_pointer=off -fno-exceptions
              -LNO:fu=10:full_unroll_outer=on -IPA:plimit=4000 +FDO
253.perlbnk:  -O2 -ipa -OPT:Ofast:transform_to_memlib=off
              -fno-math-errno -IPA:plimit=10000 +FDO
254.gap:      -Ofast -WOPT:aggstr=off +FDO
255.vortex:   -Ofast -OPT:goto=off -IPA:plimit=1800 -CG:p2align=on
              +FDO
256.bzip2:    basepeak = true
300.twolf:    -O2 -CG:gcm=off:p2align_freq=100000
              -OPT:Ofast:unroll_times_max=8:unroll_size=256:alias=disjoint
              -WOPT:mem_opnds=on -m32 +FDO

```

The system under test can be built using a SSI MEB case and a Zippy Technology Corp. PSL-6701P 12V 700W power supply. All memory slots were populated with Kingston KRX3200AK2 on all CPU(s). BIOS Rev E 1.03
 Taskset utility used to bind CPU(s) to processes.
 BIOS memory timing manually set CL=2.5