



CINT2000 Result

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Supermicro

Motherboard H8DM8-2, AMD Opteron(TM) 2220 SE

SPECint_rate2000 = 86.6

SPECint_rate_base2000 = 76.2

SPEC license #01176 | Tested by: Supermicro | Test date: Oct-2006 | Hardware Avail: Sep-2006 | Software Avail: Aug-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	82.2	79.0	4	81.9	79.3
175.vpr	4	112	57.8	4	106	61.2
176.gcc	4	59.5	85.8	4	59.0	86.5
181.mcf	4	291	28.7	4	173	48.3
186.crafty	4	40.2	115	4	39.1	119
197.parser	4	143	58.3	4	112	74.2
252.eon	4	46.4	130	4	38.6	156
253.perlbnk	4	98.6	84.7	4	85.3	98.0
254.gap	4	63.1	80.9	4	63.1	80.9
255.vortex	4	70.4	125	4	66.0	134
256.bzip2	4	99.9	69.6	4	99.9	69.6
300.twolf	4	212	65.7	4	161	86.6

Hardware

CPU: AMD Opteron(TM) 2220 SE processor
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip per core
 Secondary Cache: 1024KB (I+D) on chip per core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8x2048MB, DDR2-667 Dual Rank CL4 ECC Reg
 Disk Subsystem: SATA, 400 GB
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 9 for AMD64, SP3
 Compiler: PathScale EKOPath(TM) Compiler Suite, Release 2.3
 File System: Linux/reiserfs
 System State: Multi-user, run level 3

Notes/Tuning Information

Tested by Supermicro Computer, Inc.

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

Baseline optimization flags:

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

Portability Flags:

186.crafty: -DLINUX_i386
 252.eon: -DHAS_ERRLIST -DSPEC_CPU2000_LP64
 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_CALLOC_PROTO -DSPEC_CPU2000_LP64
 255.vortex: -DSPEC_CPU2000_LP64

Peak Tuning:

164.gzip: -O3 -ipa -WOPT:val=0 -OPT:unroll_size=0 +FDO
 175.vpr: -O3 -ipa -m32 +FDO



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Notes/Tuning Information (Continued)

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176.gcc:      -O3 -IPA:plimit=10000 -LNO:opt=0 -OPT:goto=off +FDO
181.mcf:      -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty:   -Ofast -CG:local_fwd_sched=on -LNO:opt=0 -WOPT:val=0 +FDO
197.parser:   -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon:      -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -IPA:plimit=4000
              -OPT:treeheight=on -TENV:X=4:frame_pointer=off -fno-exceptions
              -LNO:fu=10:full_unroll_outer=on -GRA:optimize_boundary=on +FDO
253.perlbmk:  -O2 -ipa -OPT:Ofast:transform_to_memlib=off
              -fno-math-errno -IPA:plimit=10000 +FDO
255.vortex:   -Ofast -OPT:goto=off -CG:p2align=on
              -GRA:optimize_boundary=on -IPA:min_hotness=120 +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

```

Taskset utility used to bind CPU(s) to processes

Memory populated at location DIMMA 1A, DIMMA 1B, DIMMA 2A, DIMMA 2B for CPU1 and DIMMB 1A, DIMMB 1B, DIMMB 2A, DIMMB 2B for CPU2

Tested systems can be used with SC811S-520 case,

To ensure system stability, a 550W (minimum) ATX power supply [4-pin (+12V), 8-pin (+12V) and 24-pin are required]

Product description located as of H8DM8: <http://www.supermicro.com/Aplus/motherboard/Opteron2000/MCP55/H8DM8-2.cfm>