CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

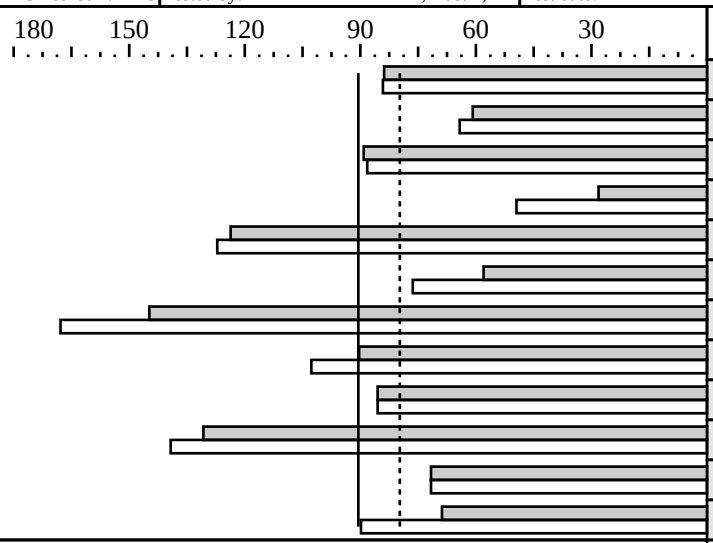
AMD

TYAN Thunder K8QW (S4881), AMD Opteron(TM) 856

SPECint_rate2000 = 90.5

SPECint_rate_base2000 = 79.7

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Mar-2006 | Hardware Avail: Apr-2006 | Software Avail: Jan-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	77.5	83.8	4	77.2	84.1
175.vpr	4	107	60.8	4	101	64.2
176.gcc	4	57.3	89.1	4	57.9	88.2
181.mcf	4	297	28.2	4	169	49.5
186.crafty	4	37.5	124	4	36.5	127
197.parser	4	144	58.0	4	109	76.4
252.eon	4	41.7	145	4	35.9	168
253.perlbmk	4	92.5	90.3	4	81.3	103
254.gap	4	59.7	85.5	4	59.7	85.5
255.vortex	4	67.4	131	4	63.3	139
256.bzip2	4	97.1	71.7	4	97.1	71.7
300.twolf	4	202	68.8	4	155	89.8

Hardware

CPU:	AMD Opteron(TM) 856
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	1,2,4
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x512MB, DDR400 CL2.5 ECC Reg
Disk Subsystem:	SATA, 250 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 9 SP3 (64 bit)
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3
File System:	Linux/ext3
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by Advanced Micro Devices

 +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.perlbmk: -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
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
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

BIOS 1.04
2 DIMMS/CPU in dual channel configuration
BIOS set to default settings
Tested system can be built with an SSI MEB case and
a Zippy 700W power supply
Taskset utility used to bind CPU(s) to processes
```