CINT2000 Result

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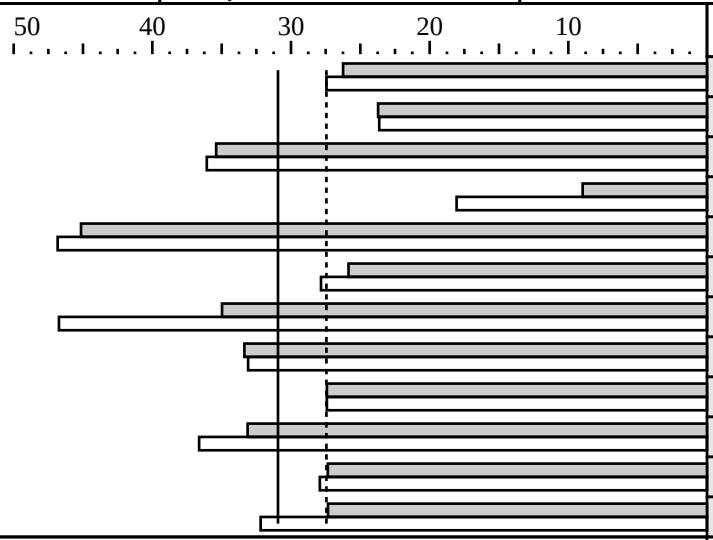
AMD

Rioworks HDAMA Motherboard, AMD Opteron (TM) 248

SPECint_rate2000 = 30.9

SPECint_rate_base2000 = 27.4

SPEC license #: 49 | Tested by: Advanced Micro Devices | Test date: Nov-2003 | Hardware Avail: Nov-2003 | Software Avail: Jul-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	124	26.2	2	118	27.4
175.vpr	2	137	23.7	2	137	23.6
176.gcc	2	72.1	35.4	2	70.7	36.1
181.mcf	2	466	8.97	2	231	18.1
186.crafty	2	51.4	45.1	2	49.5	46.8
197.parser	2	162	25.9	2	150	27.8
252.eon	2	86.2	35.0	2	64.5	46.7
253.perlbmk	2	125	33.4	2	126	33.1
254.gap	2	93.1	27.4	2	93.1	27.4
255.vortex	2	133	33.1	2	120	36.6
256.bzip2	2	127	27.3	2	125	27.9
300.twolf	2	255	27.3	2	216	32.2

Hardware

CPU:	AMD Opteron (TM) 248
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	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:	4 x 512MB PC3200 DDR SDRAM, ECC Registered
Disk Subsystem:	Seagate Cheetah ST336753LW SCSI, Ultra 320
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit Kernel 2.4.19 (SP2)
Compiler:	SuSE optional gcc 3.3 compiler (20030312) (from SLES8 SP2)
File System:	Linux/ext3
System State:	Multi-user SuSE Run level 3

Notes/Tuning Information

```
Tested by Advanced Micro Devices
  +FDO: PASS1=-fprofile-arcs PASS2=-fbranch-probabilities
  Portability:
                PORTABILITY=-DSPEC_CPU2000_LP64 is applied to all benchmarks,
                except for peak runs of 181.mcf, 197.parser and 300.twolf, which
                are compiled for 32-bit in peak.
   186.crafty:  CPORTABILITY=-DLINUX_i386
   176.gcc:     Approved src.alt is used
   252.eon:     CXXPORTABILITY=-DHAS_ERRLIST -DFMAX_IS_DOUBLE
   253.perlbmk: CPORTABILITY=-DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
                           -DSPEC_CPU2000_GLIBC22
   254.gap:     CPORTABILITY=-DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
                          -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
  Baseline C:      gcc -O3 -funroll-all-loops +FDO
  Baseline C++:    g++ -O3 -funroll-all-loops +FDO
  Peak tuning:
   gzip:    -O3 -funroll-all-loops -finline-limit=900 -freduce-all-givs +FDO
   vpr:     -O3 -funroll-loops -finline-limit=1000 +FDO
   gcc:     -O3 -funroll-all-loops -finline-limit=900 +FDO
   mcf:     -O3 -funroll-all-loops -m32 +FDO
```

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Notes/Tuning Information (Continued)

```
  crafty:  -O3 -funroll-loops -fprefetch-loop-arrays
  parser:  -O3 -funroll-all-loops -m32 +FDO
  eon:     -O3 -funroll-all-loops -ffast-math -finline-limit=3000 +FDO
  perlbmk: -O3 -funroll-all-loops -finline-limit=1800 +FDO
  gap:     basepeak=true
  vortex:  -O3 -funroll-all-loops -finline-limit=1000 +FDO
  bzip2:   -O3 -funroll-all-loops -freduce-all-givs -finline-limit=2700 +FDO
  twolf:   -O3 -funroll-all-loops -finline-limit=2000 -m32 +FDO
 ONESTEP is used for all base and peak runs
The tested system can be assembled using an ATX case such as the Antec KS-282,
a 480W power supply, and a PCI or AGP video card.
```