CINT2000 Result

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Advanced Micro Devices

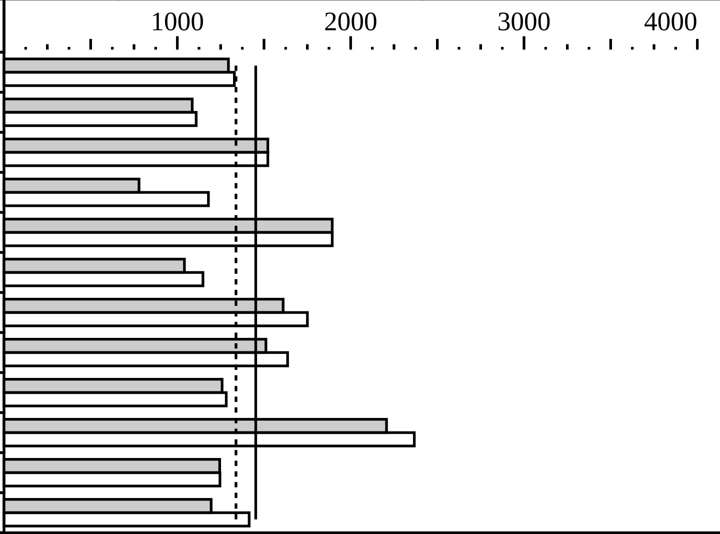
ASUS SK8N Motherboard, AMD Opteron (TM) Model 248

SPECint2000 = 1452

SPECint_base2000 = 1338

SPEC license #: 2323	Tested by: PathScale, Inc.	Test date: Apr-2004	Hardware Avail: Jan-2004	Software Avail: May-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	108	1295	105	1329
175.vpr	1400	129	1086	126	1109
176.gcc	1100	72.3	1522	72.3	1522
181.mcf	1800	231	779	153	1179
186.crafty	1000	52.8	1894	52.8	1894
197.parser	1800	173	1041	157	1148
252.eon	1300	80.7	1610	74.3	1750
253.perlbmk	1800	119	1511	110	1636
254.gap	1100	87.4	1258	85.8	1282
255.vortex	1900	86.1	2207	80.3	2367
256.bzip2	1500	121	1244	120	1246
300.twolf	3000	251	1195	212	1414



Hardware

CPU:	AMD Opteron 248
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4x512MB, DDR400, PC3200, Corsair, CL2
Disk Subsystem:	IDE, 80 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 (AMD64) 2.4.21-102-default
Compiler:	PathScale EKO Compiler Suite, Release 1.0
File System:	Linux/ext3
System State:	Multi-user, run level 3

Notes/Tuning Information

```
Tested by PathScale, Inc.

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

 Baseline optimization flags:
   C programs:       -O3 -ipa +FDO
   C++ programs:     -Ofast +FDO

 Portability Flags:
   164.gzip: -DNO_STRING_H
   175.vpr: -DSPEC_CPU2000
   181.mcf: -DWANT_STDC_PROTO
   186.crafty: -DLINUX_i386 -DSPEC_CPU2000
   252.eon: -DHAS_ERRLIST -DFMAX_IS_DOUBLE -DSPEC_CPU2000_LP64 -DNDEBUG
   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_SIGNAL_PROTO  -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
            -DSPEC_CPU2000_LP64
   255.vortex: -DSPEC_CPU2000_LP64
```

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Notes/Tuning Information (Continued)

```
  300.twolf: -DSPEC_CPU2000 -DHAVE_SIGNED_CHAR

Peak Tuning:
164.gzip: -O3 -ipa -WOPT:val=0 -CG:p2align_freq=10000 +FDO
175.vpr: -O2 -ipa -OPT:alias=disjoint -LNO:prefetch_ahead=2 -CG:p2align_freq=500000
         -INLINE:aggressive=on -IPA:space=300:plimit=10000:callee_limit=5000:linear=on
         +FDO
186.crafty: basepeak = true
181.mcf: -O3 -static -OPT:Ofast -m32 +FDO
197.parser: -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon: -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off
         -OPT:unroll_times_max=16:treeheight=on -TENV:X=4:frame_pointer=off
         -fno-exceptions +FDO
253.perlbmk: -O3 -ipa -TENV:X=3 +FDO -IPA:min_hotness=5:plimit=20000
254.gap:  -O3 -ipa +FDO -IPA:min_hotness=7
255.vortex: -Ofast -LNO:opt=0 -TENV:X=4
     -OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
     +FDO -IPA:min_hotness=14:space=500:plimit=3600
256.bzip2: -O3 -ipa -OPT:unroll_times=8:unroll_size=256 +FDO
300.twolf: -O2 -CG:gcm=off:p2align_freq=100000 -TENV:X=4 +FDO -m32
           -OPT:unroll_times=8:unroll_size=256:alias=disjoint:Ofast
```

Notes

a) Software availability date: PathScale EKO Compilers generate 64-bit code by default. The -m32 flag generates 32-bit code and is used as a peak flag for some codes above. This -m32 flag will be available and supported with PathScale EKO Compilers v1.0 in April, but will not be fully documented until May 2004.

b) The tested system can be assembled using an ATX case such as the Antec KS-282, a 480W power supply, and a AGP video card.

c) AMIBIOS version 08.00.09