



CINT2000 Result

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Advanced Micro Devices
ASUS SK8N Motherboard, AMD Opteron (TM) 148

SPECint_rate2000 = 16.3
SPECint_rate_base2000 = 15.1

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Nov-2003 | Hardware Avail: Dec-2003 | Software Avail: Nov-2003

	24	21	18	15	12	9	6	3	Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
									164.gzip	1	122	13.4	1	118	13.8
									175.vpr	1	124	13.1	1	124	13.1
									176.gcc	1	70.4	18.1	1	70.4	18.1
									181.mcf	1	250	8.35	1	158	13.2
									186.crafty	1	52.6	22.1	1	51.6	22.5
									197.parser	1	168	12.4	1	166	12.6
									252.eon	1	69.4	21.7	1	63.1	23.9
									253.perlbnk	1	117	17.9	1	117	17.9
									254.gap	1	87.3	14.6	1	87.3	14.6
									255.vortex	1	115	19.1	1	104	21.2
									256.bzip2	1	124	14.0	1	124	14.1
									300.twolf	1	267	13.0	1	219	15.9

Hardware

CPU: AMD Opteron (TM) 148
 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: 2 x 512MB PC3200 DDR SDRAM, ECC Registered
 Disk Subsystem: Western Digital WD2000, IDE
 Other Hardware: None

Software

Operating System: SuSE Linux 9.0 (AMD64) 2.4.21-102-default
 Compiler: SuSE gcc 3.3.1 compiler (from SuSE Linux 9.0)
 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

Approved src.alt is used.

253.perlbnk: 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: basepeak=true



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Notes/Tuning Information (Continued)

```
mcf: -O3 -funroll-all-loops -m32 +FDO
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: basepeak=true
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.