



# CINT2000 Result

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## Advanced Micro Devices

### Tyan Thunder K9QE (S4985) AMD Opteron (TM) 2220SE

SPECint\_rate2000 = 22.4

SPECint\_rate\_base2000 = 19.7

SPEC license #: 49 | Tested by: AMD Austin, TX | Test date: Jul-2006 | Hardware Avail: Sep-2006 | Software Avail: Sep-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	103	15.8	1	90.1	18.0
175.vpr	1	116	14.0	1	92.8	17.5
176.gcc	1	76.8	16.6	1	53.3	23.9
181.mcf	1	152	13.7	1	121	17.3
186.crafty	1	52.7	22.0	1	50.3	23.1
197.parser	1	104	20.1	1	104	20.0
252.eon	1	50.2	30.0	1	44.9	33.6
253.perlbnk	1	87.2	23.9	1	85.4	24.5
254.gap	1	58.6	21.8	1	58.6	21.8
255.vortex	1	73.6	29.9	1	68.9	32.0
256.bzip2	1	102	17.0	1	99.8	17.4
300.twolf	1	176	19.7	1	134	26.0

#### Hardware

CPU: AMD Opteron (TM) 2220SE  
 CPU MHz: 2800  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 CPU(s) orderable: 1,2,4  
 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: 4x512MB, DDR2-667 CL4 ECC Reg  
 Disk Subsystem: SATA, 74Gb  
 Other Hardware: None

#### Software

Operating System: Windows Server 2003 SP1 (32-bit)  
 Compiler: Intel C++ 9.0 build 20050912Z for IA32  
 Microsoft Visual Studio .NET 7.0.9466 (libraries)  
 MicroQuill Smartheap Library 7.0  
 File System: NTFS  
 System State: default

### Notes/Tuning Information

shlw32M.lib is the SmartHeap library V7.0 from MicroQuill ([www.microquill.com](http://www.microquill.com))

+FDO: PASS1=-Qprof\_gen PASS2=-Qprof\_use

Portability:

176.gcc: -Dalloca=\_alloca /F10000000

186.crafty: -DNT\_i386

253.perlbnk: -DSPEC\_CPU2000\_NTOS -DPERLDLL /MT

254.gap: -DSYS\_HAS\_CALLOC\_PROTO -DSYS\_HAS\_MALLOC\_PROTO

Baseline C: -O3 -Qipo -Op +FDO

Baseline C++: -O3 -Qipo -Qcxx-features +FDO

Peak Tuning:

164.gzip: -O3 -Qipo -QxW +FDO

175.vpr: -O3 -Qipo -QxW +FDO

-Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500

176.gcc: -O3 -Qipo -QxW -Oi- -Qunroll3 +FDO

181.mcf: -O3 -Qipo -QaxN +FDO

186.crafty: -O3 -Qipo -QxW +FDO

197.parser: -QxW +FDO -Oi- -Qipo

252.eon: -O3 -Qipo -QxW +FDO -Qansi\_alias

-Qoption,c,-ip\_ninl\_max\_stats=2000,-ip\_ninl\_max\_total\_stats=4500

253.perlbnk: -O3 -Qipo -QxW +FDO

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<http://www.spec.org>



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## Notes/Tuning Information (Continued)

```
254.gap:          basepeak = yes
255.vortex:      -O3 -Qipo -arch:SSE +FDO -Oi- shlW32M.lib
                 -Qoption,c,-ip_ninl_max_stats=2000,-ip_ninl_max_total_stats=4500
256.bzip2:       -O3 -Qipo          -Qunroll2
300.twolf:       -O3 -Qipo -QxW +FDO      -Qunroll13 shlW32M.lib -Qansi_alias
All memory slots populated on all CPU(s)
The system can be built using a Zippy 700W EPS12V power supply and any SSI-MEB case.
BIOS Changes: Enable Basic ECC
```