



CINT2000 Result

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Advanced Micro Devices

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

SPECint2000 = 1927

SPECint_base2000 = 1702

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	103	1365	90.1	1553	
175.vpr	1400	116	1210	92.8	1509	
176.gcc	1100	76.8	1433	53.3	2063	
181.mcf	1800	152	1184	121	1489	
186.crafty	1000	52.7	1897	50.3	1989	
197.parser	1800	104	1730	104	1724	
252.eon	1300	50.2	2589	44.9	2897	
253.perlbnk	1800	87.2	2063	85.4	2108	
254.gap	1100	58.6	1876	58.6	1876	
255.vortex	1900	73.6	2581	68.9	2759	
256.bzip2	1500	102	1464	99.8	1503	
300.twolf	3000	176	1702	134	2238	

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)

+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
```