OMPM2001 Result

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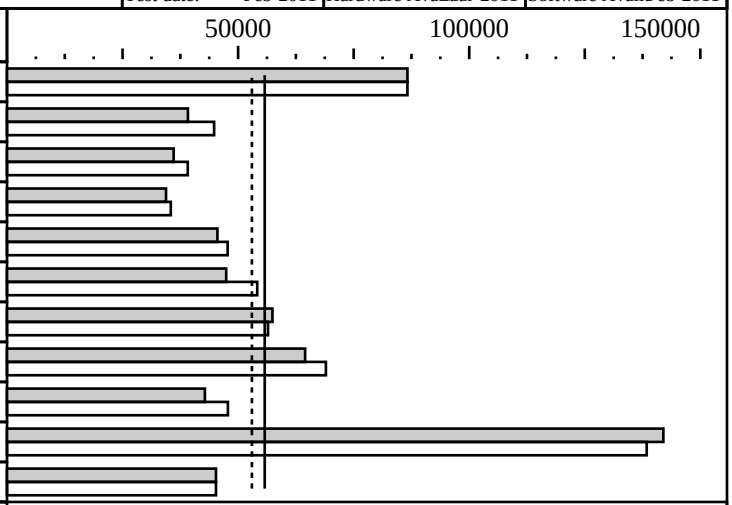
Cisco Systems
B200 M2

SPECompMpeak2001 = 55759

SPECompMbase2001 = 52986

SPEC license #: HPG9019 | Tested by: Cisco Systems | Test site: -- | Test date: Feb-2011 | Hardware Avail: Mar-2011 | Software Avail: Feb-2011

Benchmark	Reference Time	Base Runtime	Base Ratio	Peak Runtime	Peak Ratio
310.wupwise_m	6000	69.3	86631	69.3	86631
312.swim_m	6000	153	39140	134	44808
314.mgrid_m	7300	202	36056	187	39108
316.applu_m	4000	116	34401	113	35436
318.galgel_m	5100	112	45523	107	47738
320.equake_m	2600	54.8	47423	48.0	54135
324.apsi_m	3400	59.2	57422	60.2	56466
326.gafort_m	8700	135	64495	126	68995
328.fma3d_m	4600	107	42811	96.2	47794
330.art_m	6400	45.1	141999	46.2	138398
332.ammp_m	7000	155	45213	155	45213



Hardware

CPU:	Intel(R) Xeon(R) Processor X5690
CPU MHz:	3459
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip, 1 thread/core
CPU(s) orderable:	1,2
Primary Cache:	32KB(I)+32KB(D)/core on chip
Secondary Cache:	256KB/core (I+D) on chip
L3 Cache:	12288KB (I+D) on chip
Other Cache:	N/A
Memory:	48 GB (RDIMM 12x4-GB 1333 MHz)
Disk Subsystem:	Seagate 300 GB ST9300603SS
Other Hardware:	

Software

OpenMP Threads:	24
Parallel:	OpenMP
Operating System:	Suse Enterprise Linux 11.0
Compiler:	Intel C/C++ Compiler 11.1.059 for Linux Intel FORTRAN Compiler 11.1.059 for Linux GNU C Compiler 4.3.2
File System:	Linux ext3
System State:	Default

Notes/Tuning Information

```
    BIOS settings notes:
        Intel Hyper-Threading Technology (SMT): Enabled (default is Enabled)
       Intel Turbo Boost Technology (Turbo)  : Enabled (default is Enabled, Max 3.73GHz)
    Portability Flags:
        318.galgel_m: -FI -132
    Extra Flags:
        330.art_m: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8
        all: -gcc-name=/usr/bin/gcc
General Notes and Eviroment variables
export KMP_LIBRARY=turnaround
export KMP_STACKSIZE=31M
export KMP_BLOCKTIME=infinite
export OMP_DYNAMIC=FALSE
ONESTEP=yes
ulimit -s 64000
SMT Enabled, Turbo Enabled
For compiler/openmp flags description please refer:
Intel-ic11.1-intel64-linux-flags-file.html
Base optimization flags and eviroment variables:
Medium:
OPTIMIZE  = -O3 -xSSE4.2 -ipo1 -openmp
COPTIMIZE = -ansi_alias
export KMP_AFFINITY=compact,1
```

Notes/Tuning Information (Continued)

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Peak optimization flags and eviroment variables:
Medium:
OPTIMIZE  = -O3 -xSSE4.2 -ipo1 -openmp -rcd
COPTIMIZE = -ansi_alias
export KMP_AFFINITY=compact,1
Peak per-benchamrk optimization flags and eviroment variables:

310.wupwise_m
basepeak=yes

312.swim_m
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores always -align -rcd
srcalt = ompl.32
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

314.mgrid_m
OPTIMIZE=-O3 -xSSE4.2 -ipo1 -openmp -opt-streaming-stores never -align -rcd
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

316.applu_m
export KMP_AFFINITY=proclist=[0,1,2,3,4,5,6,7,8,9,10,11],explicit
export OMP_NUM_THREADS=12

318.galgel_m
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

320.equake_m
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

324.appsi_m
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

326.gafort_m
srcalt = ompl.32
export KMP_AFFINITY=scatter,0

328.fma3d_m
FOPTIMIZE=-no-prec-sqrt -fp-model fast=2
srcalt = ompl.32

330.art_m
export KMP_AFFINITY=proclist=[0,2,4,6,8,10,1,3,5,7,9,11],explicit
export OMP_NUM_THREADS=12

332.ammp_m
basepeak=yes
```