



OMPM2001 Result

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Cisco
B230 M2

SPECompMpeak2001 = --
SPECompMbase2001 = 67926

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

| Benchmark | Reference Time | Base Runtime | Base Ratio | Peak Runtime | Peak Ratio | |
|---------------|----------------|--------------|------------|--------------|------------|--|
| 310.wupwise_m | 6000 | 49.1 | 122171 | | | |
| 312.swim_m | 6000 | 114 | 52648 | | | |
| 314.mgrid_m | 7300 | 136 | 53710 | | | |
| 316.applu_m | 4000 | 34.9 | 114580 | | | |
| 318.galgel_m | 5100 | 169 | 30093 | | | |
| 320.quake_m | 2600 | 50.9 | 51057 | | | |
| 324.apsi_m | 3400 | 52.8 | 64361 | | | |
| 326.gafort_m | 8700 | 109 | 79655 | | | |
| 328.fma3d_m | 4600 | 97.7 | 47079 | | | |
| 330.art_m | 6400 | 34.2 | 186980 | | | |
| 332.ampm_m | 7000 | 135 | 51745 | | | |

Hardware

CPU: Intel Xeon processor E7-2870
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 20 cores, 2 chips, 10 cores/chip, 2 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: 30720KB (I+D) on chip
 Other Cache: N/A
 Memory: 128 GB (RDIMM 32x4-GB 1333 MHz)
 Disk Subsystem: LSI MRSASRoMB-8i (scsi)
 Other Hardware:

Software

OpenMP Threads: 40
 Parallel: OpenMP
 Operating System: SUSE Linux Enterprise Server 11.1, kernel 2.6.32.12-0.7-default x86_64
 Compiler: Intel C/C++ Compiler 12.0.2.137 for Linux
 Intel FORTRAN Compiler 12.0.2.137 for Linux
 GNU C Compiler 4.3.4
 File System: Linux ext3
 System State: Default

Notes/Tuning Information

BIOS settings notes:

Intel Hyper-Threading Technology (SMT): Enabled
 Intel Turbo Boost Technology (Turbo) : Enabled (Max 2.8 GHz)

Extra Flags:

318.galgel_m: -FI -132
 330.art_m: -DINTS_PER_CACHELINE=16 -DDBLS_PER_CACHELINE=8
 all: -gcc-name=/usr/bin/gcc

General Notes and Enviroment variables

export KMP_LIBRARY=turnaround
 export KMP_STACKSIZE=31M
 export KMP_BLOCKTIME=infinite
 export OMP_DYNAMIC=FALSE
 ONESTEP=yes
 ulimit -s 64000

For compiler/openmp flags description please refer:
 Intel-ic12.0-linux64-revB.html



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Notes/Tuning Information (Continued)

Base optimization flags and environment variables:

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Medium:

```
OPTIMIZE = -O3 -xSSE4.2 -ipo -openmp
COPTIMIZE = -ansi-alias
export OMP_NUM_THREADS=40
export KMP_AFFINITY=compact,1
```