



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp<sup>®</sup>\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19

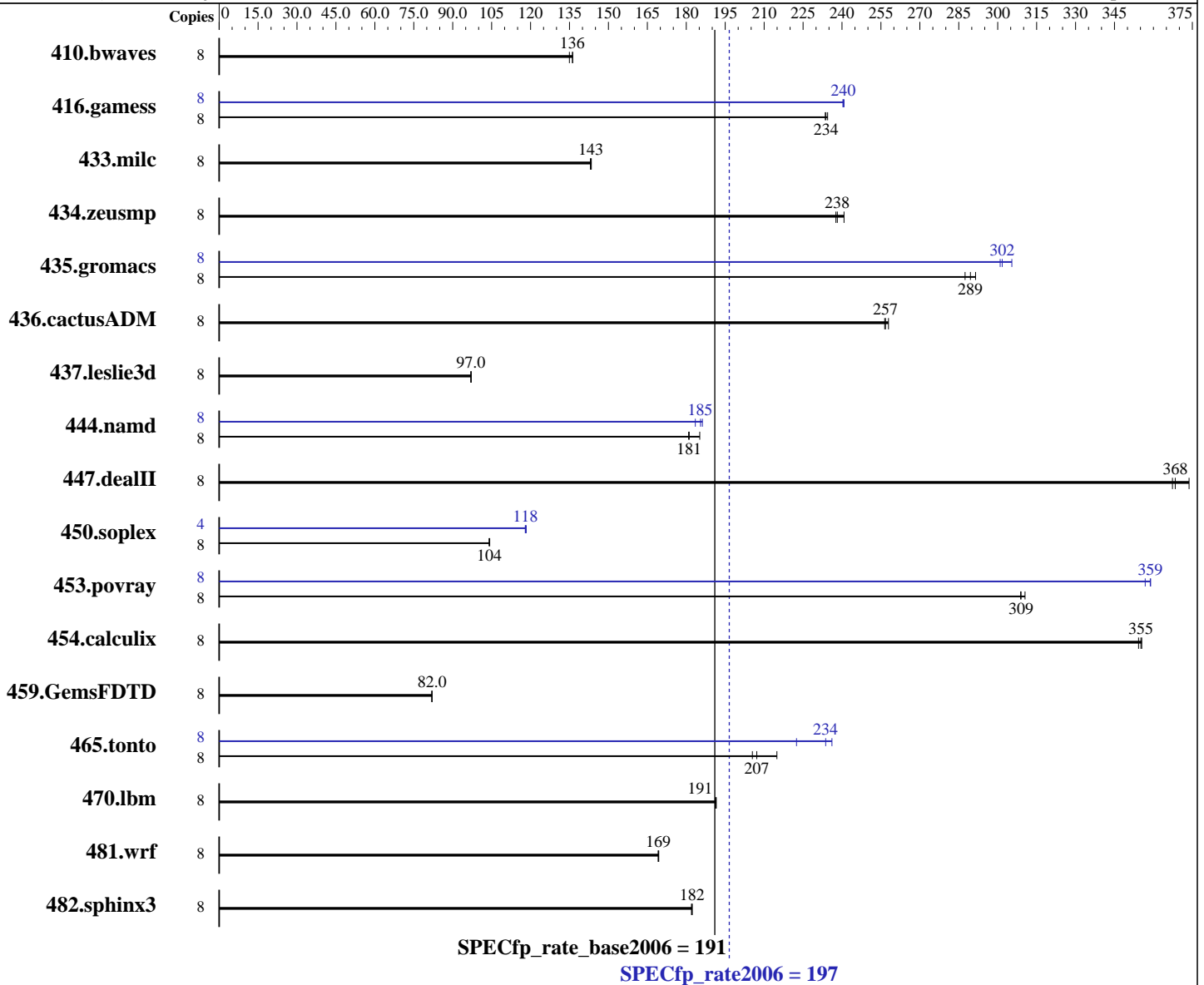
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Nov-2015

Hardware Availability: Feb-2016

Software Availability: Sep-2015



### Hardware

CPU Name: Intel Xeon E3-1270 v5  
 CPU Characteristics: Intel Turbo Boost Technology up to 4.00 GHz  
 CPU MHz: 3600  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core  
 CPU(s) orderable: 1 chip  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 256 KB I+D on chip per core

Continued on next page

### Software

Operating System: SUSE Linux Enterprise Server 12 (x86\_64)  
 Kernel 3.12.48-52.27-default  
 Compiler: C/C++: Version 16.0.0.101 of Intel C++ Studio XE for Linux;  
 Fortran: Version 16.0.0.101 of Intel Fortran Studio XE for Linux  
 Auto Parallel: No  
 File System: ext4  
 System State: Run level 3 (multi-user)

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Nov-2015

Hardware Availability: Feb-2016

Software Availability: Sep-2015

L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 64 GB (4 x 16 GB 2Rx8 PC4-2133P-E)  
Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM  
Other Hardware: None

Base Pointers: 32/64-bit  
Peak Pointers: 32/64-bit  
Other Software: None

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	806	135	<u>799</u>	<u>136</u>	798	136	8	806	135	<u>799</u>	<u>136</u>	798	136
416.gamess	8	671	234	668	234	<u>670</u>	<u>234</u>	8	651	241	<u>651</u>	<u>240</u>	652	240
433.milc	8	512	143	<u>513</u>	<u>143</u>	513	143	8	512	143	<u>513</u>	<u>143</u>	513	143
434.zeusmp	8	306	238	302	241	<u>306</u>	<u>238</u>	8	306	238	302	241	<u>306</u>	<u>238</u>
435.gromacs	8	196	291	199	287	<u>197</u>	<u>289</u>	8	<u>189</u>	<u>302</u>	187	305	190	301
436.cactusADM	8	371	258	<u>372</u>	<u>257</u>	373	256	8	371	258	<u>372</u>	<u>257</u>	373	256
437.leslie3d	8	774	97.1	775	97.0	<u>775</u>	<u>97.0</u>	8	774	97.1	775	97.0	<u>775</u>	<u>97.0</u>
444.namd	8	<u>354</u>	<u>181</u>	346	185	355	181	8	350	183	345	186	<u>346</u>	<u>185</u>
447.dealII	8	245	374	249	367	<u>248</u>	<u>368</u>	8	245	374	249	367	<u>248</u>	<u>368</u>
450.soplex	8	641	104	<u>641</u>	<u>104</u>	640	104	4	282	118	<u>283</u>	<u>118</u>	283	118
453.povray	8	137	311	138	309	<u>138</u>	<u>309</u>	8	119	359	<u>119</u>	<u>359</u>	119	357
454.calculix	8	186	354	<u>186</u>	<u>355</u>	186	356	8	186	354	<u>186</u>	<u>355</u>	186	356
459.GemsFDTD	8	1035	82.0	1036	81.9	<u>1035</u>	<u>82.0</u>	8	1035	82.0	1036	81.9	<u>1035</u>	<u>82.0</u>
465.tonto	8	<u>380</u>	<u>207</u>	366	215	383	205	8	333	236	354	222	<u>337</u>	<u>234</u>
470.lbm	8	574	192	575	191	<u>574</u>	<u>191</u>	8	574	192	575	191	<u>574</u>	<u>191</u>
481.wrf	8	528	169	528	169	<u>528</u>	<u>169</u>	8	528	169	528	169	<u>528</u>	<u>169</u>
482.sphinx3	8	857	182	855	182	<u>856</u>	<u>182</u>	8	857	182	855	182	<u>856</u>	<u>182</u>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset commands to bind each copy to a specific processor. For details, please see the config file.

## Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

## Platform Notes

BIOS configuration:  
Sysinfo program /home/SPECcpu2006/config/sysinfo.rev6914  
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu

Test date: Nov-2015  
Hardware Availability: Feb-2016  
Software Availability: Sep-2015

### Platform Notes (Continued)

running on TX1330M2 Thu Nov 19 11:08:20 2015

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see: <http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

```
From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E3-1270 v5 @ 3.60GHz
 1 "physical id"s (chips)
 8 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
  cpu cores : 4
  siblings  : 8
  physical 0: cores 0 1 2 3
  cache size : 8192 KB
```

```
From /proc/meminfo
MemTotal:      65902000 kB
HugePages_Total:      0
Hugepagesize:    2048 kB
```

```
/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 12
```

```
From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 0
# This file is deprecated and will be removed in a future service pack or
release.
# Please check /etc/os-release for details about this release.
os-release:
NAME="SLES"
VERSION="12"
VERSION_ID="12"
PRETTY_NAME="SUSE Linux Enterprise Server 12"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12"
```

```
uname -a:
Linux TX1330M2 3.12.28-4-default #1 SMP Thu Sep 25 17:02:34 UTC 2014
(9879bd4) x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 5 Nov 19 10:58
```

```
SPEC is set to: /home/SPECcpu2006
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda3       xfs   237G  3.8G  234G   2% /home
Continued on next page
```



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu

Test date: Nov-2015  
Hardware Availability: Feb-2016  
Software Availability: Sep-2015

### Platform Notes (Continued)

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS FUJITSU // American Megatrends Inc. V5.0.0.11 R1.1.0 for D3373-A1x 10/30/2015

Memory:  
4x SK Hynix HMA82GU7MFR8N-TF 16 GB 2 rank 2133 MHz

(End of data from sysinfo program)

### General Notes

Environment variables set by runspec before the start of the run:

LD\_LIBRARY\_PATH = "/home/SPECcpu2006/libs/32:/home/SPECcpu2006/libs/64:/home/SPECcpu2006/sh"

Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB memory using RedHat EL 7.1

Transparent Huge Pages enabled with:

echo always > /sys/kernel/mm/transparent\_hugepage/enabled

For information about Fujitsu please visit: <http://www.fujitsu.com>

### Base Compiler Invocation

C benchmarks:  
icc -m64

C++ benchmarks:  
icpc -m64

Fortran benchmarks:  
ifort -m64

Benchmarks using both Fortran and C:  
icc -m64 ifort -m64

### Base Portability Flags

410.bwaves: -DSPEC\_CPU\_LP64  
416.gamess: -DSPEC\_CPU\_LP64  
433.milc: -DSPEC\_CPU\_LP64  
434.zeusmp: -DSPEC\_CPU\_LP64

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu

Test date: Nov-2015  
Hardware Availability: Feb-2016  
Software Availability: Sep-2015

## Base Portability Flags (Continued)

```
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64
```

## Base Optimization Flags

C benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3
```

C++ benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3
```

Fortran benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
```

Benchmarks using both Fortran and C:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3
```

## Peak Compiler Invocation

C benchmarks:

```
icc -m64
```

C++ benchmarks (except as noted below):

```
icpc -m64
```

```
450.soplex: icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin
```

Fortran benchmarks:

```
ifort -m64
```

Benchmarks using both Fortran and C:

```
icc -m64 ifort -m64
```



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu

Test date: Nov-2015  
Hardware Availability: Feb-2016  
Software Availability: Sep-2015

## Peak Portability Flags

```

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -D_FILE_OFFSET_BITS=64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

```

## Peak Optimization Flags

C benchmarks:

433.milc: basepeak = yes

470.lbm: basepeak = yes

482.sphinx3: basepeak = yes

C++ benchmarks:

```

444.namd: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
         -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
         -par-num-threads=1(pass 1) -opt-mem-layout-trans=3(pass 2)
         -prof-use(pass 2) -fno-alias -auto-ilp32

```

447.dealII: basepeak = yes

```

450.soplex: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
           -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
           -par-num-threads=1(pass 1) -opt-mem-layout-trans=3(pass 2)
           -prof-use(pass 2) -opt-malloc-options=3

```

```

453.povray: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
           -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
           -par-num-threads=1(pass 1) -opt-mem-layout-trans=3(pass 2)
           -prof-use(pass 2) -unroll4 -ansi-alias

```

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Nov-2015

Hardware Availability: Feb-2016

Software Availability: Sep-2015

## Peak Optimization Flags (Continued)

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)  
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)  
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll2  
-inline-level=0 -scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)  
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)  
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll4 -auto  
-inline-calloc -opt-malloc-options=3

Benchmarks using both Fortran and C:

435.gromacs: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)  
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)  
-par-num-threads=1(pass 1) -opt-mem-layout-trans=3(pass 2)  
-prof-use(pass 2) -opt-prefetch -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Settings-V1.2-HSW-RevA.xml>



# SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Fujitsu

PRIMERGY TX1330 M2, Intel Xeon E3-1270 v5, 3.60 GHz

SPECfp\_rate2006 = 197

SPECfp\_rate\_base2006 = 191

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** Nov-2015

**Hardware Availability:** Feb-2016

**Software Availability:** Sep-2015

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.  
Report generated on Tue Jan 26 15:12:36 2016 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 26 January 2016.