SPEC® MPIM2007 Result

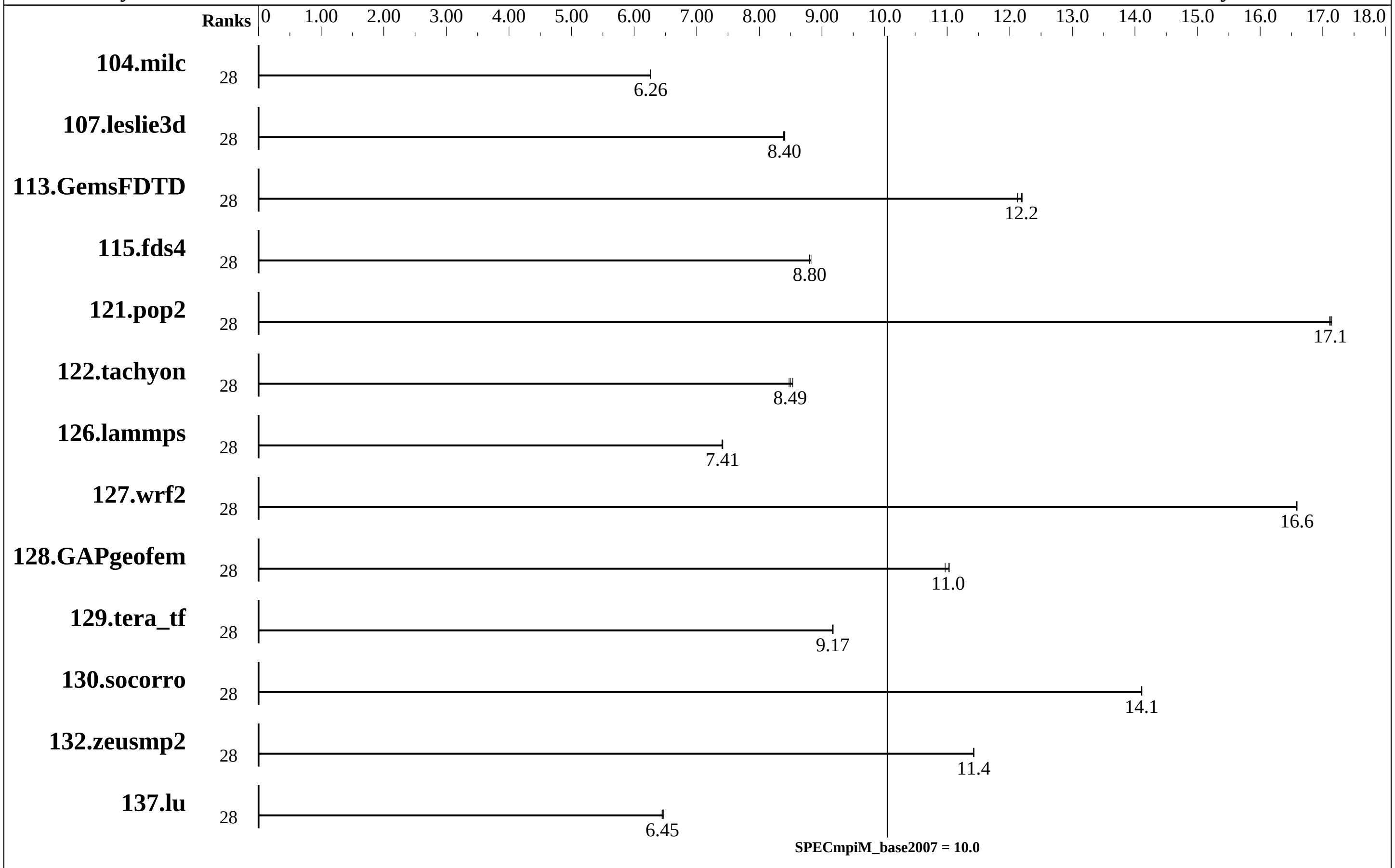
Huawei

Huawei 2288H V5 (Intel Xeon Platinum 8280 CPU, 2.70 GHz)

SPECmpiM_peak2007 = Not Run

SPECmpiM_base2007 = 10.0

MPI2007 license:	27	**Test date:**	Jan-2019
Test sponsor:	Huawei	**Hardware Availability:**	Apr-2019
Tested by:	Huawei	**Software Availability:**	Dec-2018



Results Table

Benchmark	Base							Peak						
	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
104.milc	28	250	6.26	**250**	**6.26**	250	6.26							
107.leslie3d	28	621	8.41	**621**	**8.40**	623	8.38							
113.GemsFDTD	28	517	12.2	**518**	**12.2**	520	12.1							
115.fds4	28	221	8.83	**222**	**8.80**	222	8.80							
121.pop2	28	241	17.1	**241**	**17.1**	241	17.1							
122.tachyon	28	**329**	**8.49**	328	8.53	330	8.47							
126.lammps	28	**393**	**7.41**	394	7.40	393	7.42							
127.wrf2	28	470	16.6	**470**	**16.6**	470	16.6							
128.GAPgeofem	28	**187**	**11.0**	188	11.0	187	11.0							
129.tera_tf	28	302	9.18	**302**	**9.17**	302	9.16							

Table continues on next page. Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

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Results Table (Continued)

	Base							Peak						
Benchmark	**Ranks**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Ranks**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
130.socorro	28	270	14.1	**271**	**14.1**	271	14.1							
132.zeusmp2	28	**272**	**11.4**	271	11.4	272	11.4							
137.lu	28	568	6.47	**570**	**6.45**	570	6.45							

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

Hardware Summary

Type of System:	Homogeneous
Compute Node:	Huawei 2288H V5
File Server Node:	Huawei 2288H V5
Head Node:	Huawei 2288H V5
Total Compute Nodes:	1
Total Chips:	1
Total Cores:	28
Total Threads:	28
Total Memory:	192 GB
Base Ranks Run:	28
Minimum Peak Ranks:	--
Maximum Peak Ranks:	--

Software Summary

C Compiler:	Intel C++ Composer XE 2018 for Linux, Version 18.0.5.274 Build 20180823
C++ Compiler:	Intel C++ Composer XE 2018 for Linux, Version 18.0.5.274 Build 20180823
Fortran Compiler:	Intel C++ Composer XE 2018 for Linux, Version 18.0.5.274 Build 20180823
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
MPI Library:	Intel MPI Library for Linux OS, Version 2018 Update 4 Build 20180823
Other MPI Info:	None
Pre-processors:	No
Other Software:	None

Node Description: Huawei 2288H V5

Hardware

Number of nodes:	1
Uses of the node:	head, compute, fileserver
Vendor:	Huawei
Model:	Huawei 2288H V5
CPU Name:	Intel Xeon Platinum 8280
CPU(s) orderable:	1,2 chip
Chips enabled:	1
Cores enabled:	28
Cores per chip:	28
Threads per core:	1
CPU Characteristics:	None
CPU MHz:	2700
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core
L3 Cache:	38.5 MB I+D on chip per chip
Other Cache:	None
Memory:	192 GB (12 x 16 GB 2Rx8 PC4-2933Y-R)
Disk Subsystem:	1 x 1200 GB 10K RPM SAS
Other Hardware:	None
Adapter:	N/A
Number of Adapters:	0
Slot Type:	N/A
Data Rate:	N/A
Ports Used:	0

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Software

Adapter:	N/A
Adapter Driver:	N/A
Adapter Firmware:	N/A
Operating System:	SUSE Linux Enterprise Server 12 SP4 4.12.14-94.41-default
Local File System:	xfs
Shared File System:	None
System State:	Multi-User, run level 3
Other Software:	None

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Node Description: Huawei 2288H V5

Interconnect Type: N/A

Submit Notes

```
The config file option 'submit' was used.
```

General Notes

```
BIOS configuration:
Power Policy Set to Performance
Hyper-Threading Set to Disabled
XPT Prefetch Set to Enabled


Yes: The test sponsor attests, as of date of publication,
that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication,
that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication,
that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.
```

Base Compiler Invocation

C benchmarks:
 mpiicc

C++ benchmarks:

 126.lammps: mpiicpc

Fortran benchmarks:
 mpiifort

Benchmarks using both Fortran and C:
 mpiicc mpiifort

Base Portability Flags

121.pop2: -DSPEC_MPI_CASE_FLAG
126.lammps: -DMPICH_IGNORE_CXX_SEEK

Continued on next page

Base Portability Flags (Continued)

127.wrf2: -DSPEC_MPI_CASE_FLAG -DSPEC_MPI_LINUX

Base Optimization Flags

C benchmarks:
-O3 -xCORE-AVX512 -no-prec-div

C++ benchmarks:

126.lammps: -O3 -xCORE-AVX512 -no-prec-div

Fortran benchmarks:
-O3 -xCORE-AVX512 -no-prec-div

Benchmarks using both Fortran and C:
-O3 -xCORE-AVX512 -no-prec-div

The flags files that were used to format this result can be browsed at
http://www.spec.org/mpi2007/flags/Huawei_x86_64_Intel_linux.20190402.html
http://www.spec.org/mpi2007/flags/Huawei-SPECmpi2007-Platform-Settings-SKL-V1.0.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/mpi2007/flags/Huawei_x86_64_Intel_linux.20190402.xml
http://www.spec.org/mpi2007/flags/Huawei-SPECmpi2007-Platform-Settings-SKL-V1.0.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC MPI2007 v2.0.1.
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