



SPEChpc™ 2021 Tiny Result

Copyright 2021-2023 Standard Performance Evaluation Corporation

Supermicro

SPEChpc 2021_tny_base = 11.4

A+ Server 2025HS-TNR (AMD EPYC 9754)

SPEChpc 2021_tny_peak = Not Run

hpc2021 License: 6569

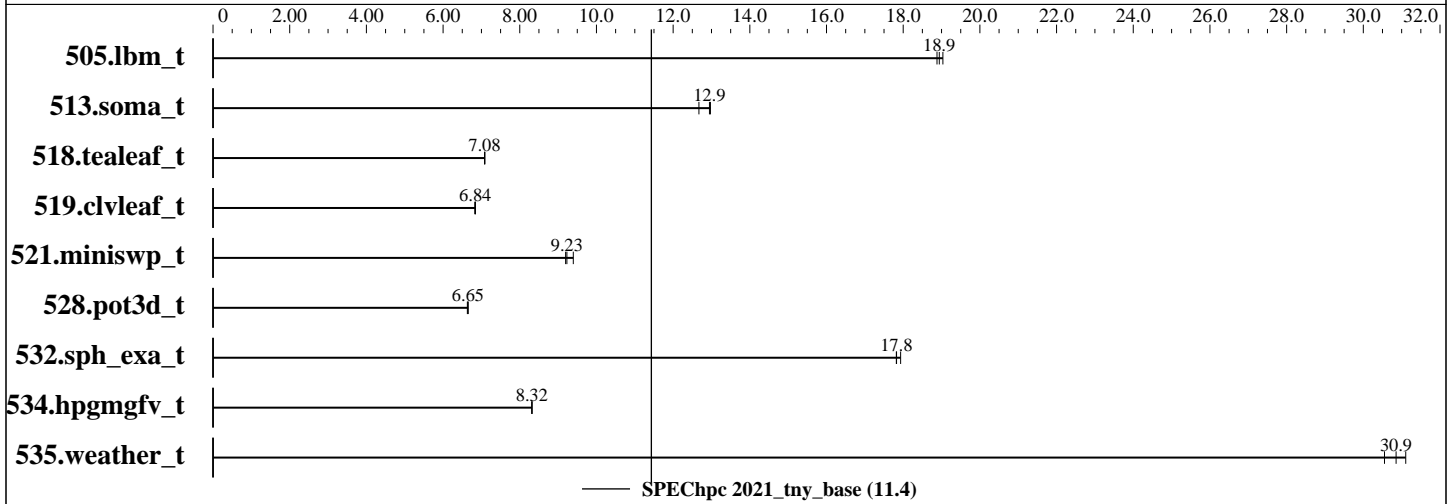
Test Sponsor: Supermicro

Tested by: Supermicro

Test Date: May-2023

Hardware Availability: Jun-2023

Software Availability: Feb-2023



Results Table

Benchmark	Base								Peak									
	Model	Ranks	Thrds/Rnk	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Model	Ranks	Thrds/Rnk	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
505.lbm_t	MPI	256	1	118	19.0	119	18.9	<u>119</u>	<u>18.9</u>									
513.soma_t	MPI	256	1	<u>286</u>	<u>12.9</u>	292	12.7	285	13.0									
518.tealeaf_t	MPI	256	1	233	7.09	233	7.08	<u>233</u>	<u>7.08</u>									
519.clvleaf_t	MPI	256	1	242	6.83	<u>241</u>	<u>6.84</u>	241	6.84									
521.miniswp_t	MPI	256	1	174	9.20	170	9.40	<u>173</u>	<u>9.23</u>									
528.pot3d_t	MPI	256	1	320	6.63	<u>320</u>	<u>6.65</u>	319	6.65									
532.sph_exa_t	MPI	256	1	<u>109</u>	<u>17.8</u>	109	17.8	109	17.9									
534.hpgmgfv_t	MPI	256	1	141	8.32	<u>141</u>	<u>8.32</u>	141	8.32									
535.weather_t	MPI	256	1	106	30.6	104	31.1	<u>105</u>	<u>30.9</u>									

SPEChpc 2021_tny_base = 11.4

SPEChpc 2021_tny_peak = Not Run

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



SPEChpc™ 2021 Tiny Result

Copyright 2021-2023 Standard Performance Evaluation Corporation

Supermicro

SPEChpc 2021_tny_base = 11.4

A+ Server 2025HS-TNR (AMD EPYC 9754)

SPEChpc 2021_tny_peak = Not Run

hpc2021 License: 6569
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: May-2023
Hardware Availability: Jun-2023
Software Availability: Feb-2023

Hardware Summary

Type of System: Homogenous
Compute Node: A+ Server 2025HS-TNR
Compute Nodes Used: 1
Total Chips: 2
Total Cores: 256
Total Threads: 512
Total Memory: 1536 GB
Max. Peak Threads: --

Software Summary

Compiler: AMD Optimizing C/C++ and Fortran Compilers (AOCC)
Version 4.0.0 Build 389 for Linux
MPI Library: OpenMPI Version 4.1.4
Other MPI Info: None
Other Software: None
Base Parallel Model: MPI
Base Ranks Run: 256
Base Threads Run: 1
Peak Parallel Models: Not Run
Minimum Peak Ranks: --
Maximum Peak Ranks: --
Max. Peak Threads: --
Min. Peak Threads: --

Node Description: A+ Server 2025HS-TNR

Hardware

Number of nodes: 1
Uses of the node: compute
Vendor: Supermicro
Model: A+ Server 2025HS-TNR
CPU Name: AMD EPYC 9754
CPU(s) orderable: 2 chips
Chips enabled: 2
Cores enabled: 256
Cores per chip: 128
Threads per core: 2
CPU Characteristics: Max. Boost Clock upto 3.1GHz
CPU MHz: 2250
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per core
L3 Cache: 256 MB I+D on chip per chip
16 MB shared / 8 cores
Other Cache: None
Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-4800B-R)
Disk Subsystem: 1 x 800 GB Samsung U.2 NVMe SSD
Other Hardware: None
Accel Count: 0
Accel Model: None
Accel Vendor: None
Accel Type: None
Accel Connection: None
Accel ECC enabled: None
Accel Description: None
Adapter: None
Number of Adapters: 0
Slot Type: None
Data Rate: None
Ports Used: 0

Software

Accelerator Driver: --
Adapter: None
Adapter Driver: None
Adapter Firmware: None
Operating System: Ubuntu 22.04.2 LTS
Kernel 5.15.0-71-generic
Local File System: ext4
Shared File System: None
System State: Multi-user, run level 5
Other Software: None

(Continued on next page)



SPEChpc™ 2021 Tiny Result

Copyright 2021-2023 Standard Performance Evaluation Corporation

Supermicro

SPEChpc 2021_tny_base = 11.4

A+ Server 2025HS-TNR (AMD EPYC 9754)

SPEChpc 2021_tny_peak = Not Run

hpc2021 License: 6569
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: May-2023
Hardware Availability: Jun-2023
Software Availability: Feb-2023

Node Description: A+ Server 2025HS-TNR

Hardware (Continued)

Interconnect Type: None

Submit Notes

The config file option 'submit' was used.
mpirun --bind-to core:overload-allowed --oversubscribe --mca topo basic -np \$ranks \$command

General Notes

MPI startup command:
mpirun command was used to start MPI jobs.

Compiler Version Notes

=====
CC 505.lbm_t(base) 513.soma_t(base) 518.tealeaf_t(base) 521.miniswp_t(base)
534.hpgmgfv_t(base)

AMD clang version 14.0.6 (CLANG: AOCC_4.0.0-Build#434 2022_10_28) (based on
LLVM Mirror.Version.14.0.6)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-4.0.0/bin

=====
CXXC 532.sph_exa_t(base)

AMD clang version 14.0.6 (CLANG: AOCC_4.0.0-Build#434 2022_10_28) (based on
LLVM Mirror.Version.14.0.6)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-4.0.0/bin

=====
FC 519.clvleaf_t(base) 528.pot3d_t(base) 535.weather_t(base)

AMD clang version 14.0.6 (CLANG: AOCC_4.0.0-Build#434 2022_10_28) (based on
LLVM Mirror.Version.14.0.6)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-4.0.0/bin

(Continued on next page)



SPEChpc™ 2021 Tiny Result

Copyright 2021-2023 Standard Performance Evaluation Corporation

Supermicro

SPEChpc 2021_tny_base = 11.4

A+ Server 2025HS-TNR (AMD EPYC 9754)

SPEChpc 2021_tny_peak = Not Run

hpc2021 License: 6569
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: May-2023
Hardware Availability: Jun-2023
Software Availability: Feb-2023

Compiler Version Notes (Continued)

Base Compiler Invocation

C benchmarks:

mpicc

C++ benchmarks:

mpicxx

Fortran benchmarks:

mpif90

Base Portability Flags

519.cvleaf_t: -DSPEC_USE_MPIFH
528.pot3d_t: -DSPEC_USE_MPIFH
535.weather_t: -DSPEC_USE_MPIFH

Base Optimization Flags

C benchmarks:

-O3 -ffast-math -flto -march=znver4

C++ benchmarks:

-O3 -ffast-math -flto -march=znver4

Fortran benchmarks:

-O3 -ffast-math -flto -march=znver4

Base Other Flags

C benchmarks (except as noted below):

-Ispecmpitime -I/include

521.miniswp_t: -Ispecmpitime/ -I/include

534.hpgmgfv_t: -Ispecmpitime -I/include

(Continued on next page)



SPEChpc™ 2021 Tiny Result

Copyright 2021-2023 Standard Performance Evaluation Corporation

Supermicro

SPEChpc 2021_tny_base = 11.4

A+ Server 2025HS-TNR (AMD EPYC 9754)

SPEChpc 2021_tny_peak = Not Run

hpc2021 License: 6569
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: May-2023
Hardware Availability: Jun-2023
Software Availability: Feb-2023

Base Other Flags (Continued)

C++ benchmarks:

-Ispecmpitime -I/include

Fortran benchmarks (except as noted below):

-I/include -I/include/

519.clvleaf_t: -Ispecmpitime -I/include -I/include/

The flags file that was used to format this result can be browsed at

http://www.spec.org/hpc2021/flags/amd2021_flags.2022-11-10.html

You can also download the XML flags source by saving the following link:

http://www.spec.org/hpc2021/flags/amd2021_flags.2022-11-10.xml

SPEChpc is a trademark 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 info@spec.org.

Tested with SPEChpc2021 v1.1.7 on 2023-05-29 04:39:40-0400.
Report generated on 2023-06-14 12:12:50 by hpc2021 PDF formatter v1.0.3.
Originally published on 2023-06-14.