



SPEC CPU®2026 Floating Point Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL385 Gen11

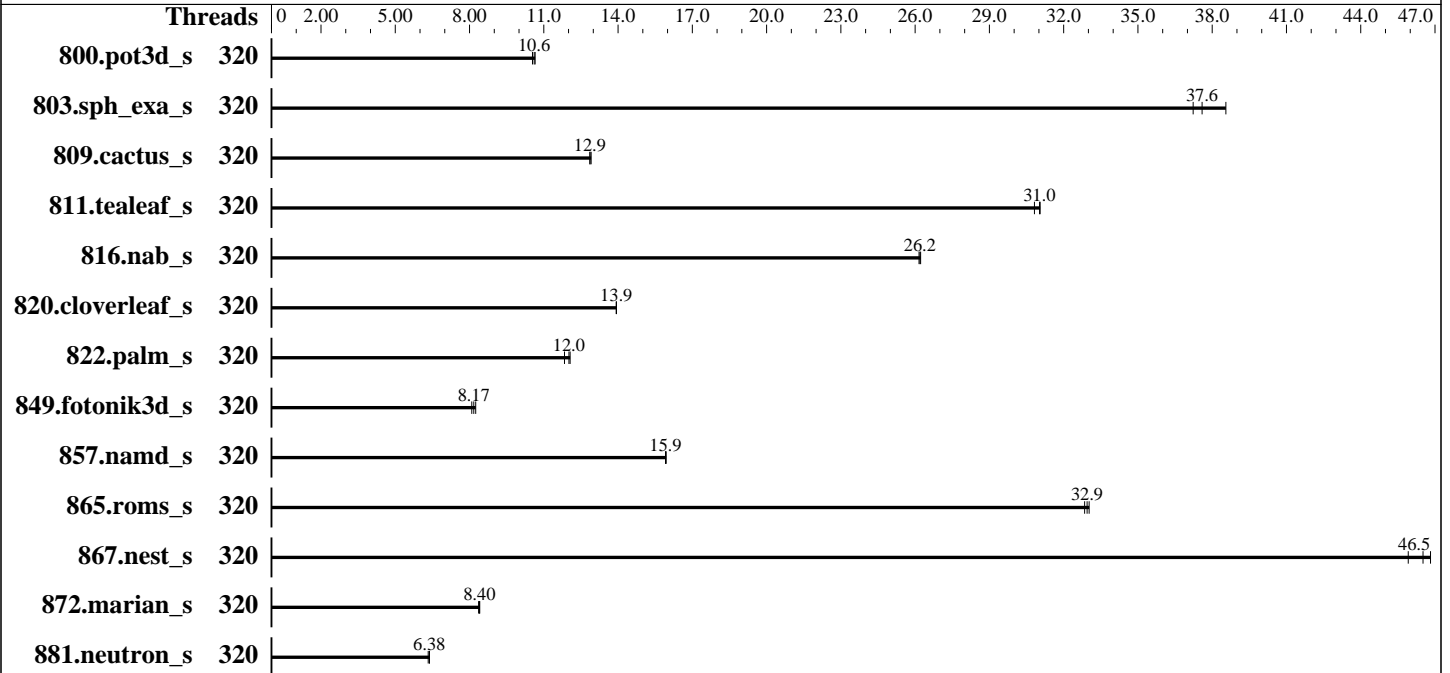
(2.10 GHz, AMD EPYC 9845)

SPECspeed®2026_fp_base = 16.6

SPECspeed®2026_fp_peak = 16.6

CPU2026 License: 3
Test Sponsor: HPE
Tested by: HPE

Test Date: Feb-2026
Hardware Availability: Mar-2025
Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9845
 Max MHz: 3700
 Nominal: 2100
 Enabled: 320 cores, 2 chips
 Orderable: 1,2 chips
 Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 1 MB I+D on chip per core
 L3: 320 MB I+D on chip per chip,
 32 MB shared / 16 cores
 Other: None
 Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 1 x 1.6 TB NVMe SSD
 Cooling: Air
 Other: None

Software

OS: Ubuntu 24.04.3 LTS
 Kernel 6.8.0-90-generic
 Compiler: C/C++: Version 5.1.0 of AOCC
 Fortran: Flang v22
 Compiler Category: Vendor
 Firmware: HPE BIOS Version v2.90
 released Jan-2026
 File System: ext4
 System State: Run level 5 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None
 Power Management: BIOS and OS is set to prefer performance at the cost of additional power usage



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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
800.pot3d_s	320	63.4	10.6	63.2	10.6	63.8	10.5	320	63.4	10.6	63.2	10.6	63.8	10.5
803.sph_exa_s	320	32.1	38.6	33.3	37.2	32.9	37.6	320	32.1	38.6	33.3	37.2	32.9	37.6
809.cactus_s	320	87.2	12.9	87.2	12.9	86.9	12.9	320	87.2	12.9	87.2	12.9	86.9	12.9
811.tealeaf_s	320	18.0	31.0	18.1	30.8	17.9	31.1	320	18.0	31.0	18.1	30.8	17.9	31.1
816.nab_s	320	43.0	26.2	42.9	26.2	43.0	26.2	320	43.0	26.2	42.9	26.2	43.0	26.2
820.cloverleaf_s	320	61.5	13.9	61.5	13.9	61.5	13.9	320	61.5	13.9	61.5	13.9	61.5	13.9
822.palm_s	320	104	11.8	102	12.1	102	12.0	320	104	11.8	102	12.1	102	12.0
849.fotonik3d_s	320	80.8	8.17	80.0	8.25	81.6	8.09	320	80.8	8.17	80.0	8.25	81.6	8.09
857.namd_s	320	91.2	15.9	91.2	15.9	91.1	15.9	320	91.2	15.9	91.2	15.9	91.1	15.9
865.roms_s	320	33.2	32.8	33.1	32.9	33.0	33.0	320	33.2	32.8	33.1	32.9	33.0	33.0
867.nest_s	320	46.1	46.8	47.0	45.9	46.4	46.5	320	46.1	46.8	47.0	45.9	46.4	46.5
872.marian_s	320	129	8.37	129	8.41	129	8.40	320	129	8.37	129	8.41	129	8.40
881.neutron_s	320	129	6.33	128	6.38	128	6.38	320	129	6.33	128	6.38	128	6.38

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

Compiler Notes

The AMD64 AOCC Compiler Suite is available at
<http://developer.amd.com/amd-aocc/>
Flang v22 is available at
<https://flang.llvm.org/>

Submit Notes

The config file option 'submit' was used.
'numactl' was used to bind copies to the cores.
See the configuration file for details.

Operating System Notes

'ulimit -s unlimited' was used to set environment stack size limit
'ulimit -l 2097152' was used to set environment locked pages in memory limit

runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

To limit dirty cache to 8% of memory, 'sysctl -w vm.dirty_ratio=8' run as root.
To limit swap usage to minimum necessary, 'sysctl -w vm.swappiness=1' run as root.
To free node-local memory and avoid remote memory usage,

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Operating System Notes (Continued)

```
'sysctl -w vm.zone_reclaim_mode=1' run as root.
To clear filesystem caches, 'sync; sysctl -w vm.drop_caches=3' run as root.
To disable address space layout randomization (ASLR) to reduce run-to-run
variability, 'sysctl -w kernel.randomize_va_space=0' run as root.
To enable Transparent Hugepages (THP) for all allocations,
'echo always > /sys/kernel/mm/transparent_hugepage/enabled' and
'echo always > /sys/kernel/mm/transparent_hugepage/defrag' run as root.
```

Environment Variables Notes

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

```
GOMP_CPU_AFFINITY = "0-319"
LD_LIBRARY_PATH =
"/home/cpu2026/amd_speed_aocc510_flang22_znver5_A_lib/lib:/home/cpu2026/
amd_speed_aocc510_flang22_znver5_A_lib/lib32:"
MALLOCCONF = "retain:true"
```

General Notes

Binaries were compiled on a system with an AMD EPYC 9754 CPU + 768 GiB Memory using Ubuntu 24.04

NA: 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.

Platform Notes

BIOS Configurations : Parameters are selected in the order shown below

Workload Profile set to General Peak Frequency Compute

Determinism Control set to Manual

Performance Determinism set to Power Deterministic

Memory Patrol Scrubbing set to Disabled

ACPI CST C2 Latency set to 18 microseconds

Thermal Configuration set to Maximum Cooling

AMD SMT Option set to Disabled

Workload Profile set to Custom

Power Regulator set to OS Control Mode

Sysinfo program /home/cpu2026/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f

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Platform Notes (Continued)

running on admin1 Sun Feb 8 11:36:14 2026

SUT (System Under Test) info as seen by some common utilities.

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- 1. uname -srvm
- 2. w
- 3. Username
- 4. ulimit -a
- 5. sysinfo process ancestry
- 6. /proc/cpuinfo
- 7. lscpu
- 8. numactl --hardware
- 9. /proc/meminfo
- 10. who -r
- 11. Systemd service manager version: systemd 255 (255.4-1ubuntu8.12)
- 12. Services, from systemctl list-unit-files
- 13. Linux kernel boot-time arguments, from /proc/cmdline
- 14. cpupower frequency-info
- 15. tuned-adm active
- 16. sysctl
- 17. /sys/kernel/mm/transparent_hugepage
- 18. /sys/kernel/mm/transparent_hugepage/khugepaged
- 19. OS release
- 20. Disk information
- 21. /sys/devices/virtual/dmi/id
- 22. dmidecode
- 23. BIOS

```
1. uname -srvm
Linux 6.8.0-90-generic #91-Ubuntu SMP PREEMPT_DYNAMIC Tue Nov 18 14:14:30 UTC 2025 x86_64
```

```
2. w
11:36:14 up 37 min, 3 users, load average: 0.18, 0.20, 0.16
USER      TTY      FROM          LOGIN@      IDLE        JCPU      PCPU      WHAT
admin1    -        172.16.0.100  11:22      37:28      0.00s     0.02s    sshd: admin1 [priv]
admin1    -        172.16.0.100  11:09      37:28      0.00s     0.02s    sshd: admin1 [priv]
admin1    tty1    -             11:08      27:34      0.04s     0.01s    -bash
```

```
3. Username
From environment variable $USER: root
```

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Platform Notes (Continued)

From the command 'logname': admin1

4. ulimit -a

```

time(seconds)          unlimited
file(blocks)           unlimited
data(kbytes)           unlimited
stack(kbytes)          unlimited
coredump(blocks)      0
memory(kbytes)         unlimited
locked memory(kbytes) 2097152
process                6190301
nofiles                1024
vmemory(kbytes)       unlimited
locks                  unlimited
rtprio                 0

```

5. sysinfo process ancestry

```

/sbin/init
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: admin1 [priv]
sshd: admin1@pts/0
-bash
sudo su
sudo su
su
bash
python3 ./run_amd_speed_aocc510_flang22_znver5_A1.py
/bin/bash ./amd_speed_aocc510_flang22_znver5_A1.sh
runcpu --config amd_speed_aocc510_flang22_znver5_A1.cfg --tune base --reportable --iterations 3 fpspeed
runcpu --configfile amd_speed_aocc510_flang22_znver5_A1.cfg --tune base --reportable --iterations 3
--nopower --runmode speed --tune base --size test:train:refspeed fpspeed --nopreenv --note-preenv
--logfile $SPEC/tmp/CPU2026.001/templogs/preenv.fpspeed.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026

```

6. /proc/cpuinfo

```

model name      : AMD EPYC 9845 160-Core Processor
vendor_id      : AuthenticAMD
cpu family     : 26
model          : 17
stepping       : 0
microcode      : 0xb101054
bugs           : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
TLB size       : 192 4K pages

```

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Platform Notes (Continued)

```

cpu cores      : 160
siblings      : 160
2 physical ids (chips)
320 processors (hardware threads)
physical id 0: core ids 0-159
physical id 1: core ids 0-159
physical id 0: apicids 0-159
physical id 1: apicids 256-415

```

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

7. lscpu

From lscpu from util-linux 2.39.3:

```

Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          52 bits physical, 57 bits virtual
Byte Order:             Little Endian
CPU(s):                 320
On-line CPU(s) list:   0-319
Vendor ID:              AuthenticAMD
BIOS Vendor ID:        Advanced Micro Devices, Inc.
Model name:             AMD EPYC 9845 160-Core Processor
BIOS Model name:       AMD EPYC 9845 160-Core Processor           CPU @ 2.1GHz
BIOS CPU family:       107
CPU family:             26
Model:                  17
Thread(s) per core:    1
Core(s) per socket:    160
Socket(s):              2
Stepping:               0
Frequency boost:        enabled
CPU(s) scaling MHz:    101%
CPU max MHz:           2100.0000
CPU min MHz:           1500.0000
BogoMIPS:              4193.66

```

```

Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt pdpe1gb
rdtscp lm constant_tsc rep_good amd_lbr_v2 nopl nonstop_tsc cpuid
extd_apicid aperfmperf rapl pni pclmulqdq monitor ssse3 fma cx16 pcid
sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx f16c rdrand lahf_lm
cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse 3dnowprefetch
osvw ibs skinit wdt tce topoext perfctr_core perfctr_nb bpext
perfctr_llc mwaitx cpb cat_l3 cdp_l3 hw_pstate ssbd mba perfmon_v2
ibrs ibpb stibp ibrs_enhanced vmmcall fsgsbase tsc_adjust bmi1 avx2
smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap

```

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Platform Notes (Continued)

```
avx512ifma clflushopt clwb avx512cd sha_ni avx512bw avx512vl xsaveopt
xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total
cqm_mbm_local user_shstk avx_vnni avx512_bf16 clzero irperf
xsaveerptr rdpru wbnoinvd amd_ppin cppc amd_ibpb_ret arat npt lbrv
svm_lock nrrip_save tsc_scale vmcb_clean flushbyasid decodeassists
pausefilter pfthreshold avic v_vmsave_vmload vgif x2avic v_spec_ctrl
vnni avx512vbmi umip pku ospke avx512_vbmi2 gfni vaes vpclmulqdq
avx512_vnni avx512_bitalg avx512_vpopcntdq la57 rdpid bus_lock_detect
movdiri movdir64b overflow_recov succor smca fsmr avx512_vp2intersect
flush_lld debug_swap
```

```
Virtualization: AMD-V
L1d cache: 15 MiB (320 instances)
L1i cache: 10 MiB (320 instances)
L2 cache: 320 MiB (320 instances)
L3 cache: 640 MiB (20 instances)
NUMA node(s): 2
NUMA node0 CPU(s): 0-159
NUMA node1 CPU(s): 160-319
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Reg file data sampling: Not affected
Vulnerability Retbleed: Not affected
Vulnerability Spec rstack overflow: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl
Vulnerability Spectre v1: Mitigation; usercopy/swaps barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; STIBP
disabled; RSB filling; PBRSE-eIBRS Not affected; BHI Not affected
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected
Vulnerability Vmscape: Not affected
```

From `lscpu --cache:`

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	15M	12	Data	1	64	1	64
L1i	32K	10M	8	Instruction	1	64	1	64
L2	1M	320M	16	Unified	2	1024	1	64
L3	32M	640M	16	Unified	3	32768	1	64

8. `numactl --hardware`

NOTE: a `numactl 'node'` might or might not correspond to a physical chip.

```
available: 2 nodes (0-1)
node 0 cpus: 0-159
```

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Platform Notes (Continued)

```

node 0 size: 773708 MB
node 0 free: 768704 MB
node 1 cpus: 160-319
node 1 size: 773947 MB
node 1 free: 771538 MB
node distances:
node 0 1
  0: 10 32
  1: 32 10

```

```

-----
9. /proc/meminfo
   MemTotal:      1584799092 kB

```

```

-----
10. who -r
    run-level 5 Feb 8 10:59

```

```

-----
11. Systemd service manager version: systemd 255 (255.4-lubuntu8.12)
    Default Target    Status
    graphical         running

```

```

-----
12. Services, from systemctl list-unit-files
    STATE          UNIT FILES
enabled           ModemManager apparmor appport blk-availability cloud-config cloud-final cloud-init
                  cloud-init-local console-setup cron dmesg e2scrub_reap finalrd getty@ gpu-manager
                  grub-common grub-initrd-fallback keyboard-setup lvm2-monitor multipathd
                  networkd-dispatcher open-iscsi open-vm-tools pollinate rsyslog secureboot-db setvtrgb
                  snapd sysstat systemd-networkd systemd-networkd-wait-online systemd-pstore
                  systemd-resolved systemd-timesyncd thermald tuned ua-reboot-cmds ubuntu-advantage udisks2
                  ufw unattended-upgrades vgauth
enabled-runtime   netplan-ovs-cleanup systemd-fsck-root systemd-remount-fs
disabled          console-getty debug-shell iscsid nftables rsync serial-getty@ ssh
                  systemd-boot-check-no-failures systemd-confext systemd-network-generator
                  systemd-networkd-wait-online@ systemd-pcrlock-file-system systemd-pcrlock-firmware-code
                  systemd-pcrlock-firmware-config systemd-pcrlock-machine-id systemd-pcrlock-make-policy
                  systemd-pcrlock-secureboot-authority systemd-pcrlock-secureboot-policy systemd-sysex
                  systemd-time-wait-sync upower
indirect          systemd-sysupdate systemd-sysupdate-reboot uidd
masked            cryptdisks cryptdisks-early hwclock multipath-tools-boot screen-cleanup sudo x11-common

```

```

-----
13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=/boot/vmlinuz-6.8.0-generic
    root=UUID=57c72845-ed81-43ec-a744-5b744b5d91fe

```

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Platform Notes (Continued)

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14. cpupower frequency-info

analyzing CPU 244:

current policy: frequency should be within 1.50 GHz and 2.10 GHz.

The governor "performance" may decide which speed to use within this range.

boost state support:

Supported: yes

Active: yes

Boost States: 0

Total States: 3

Pstate-P0: 2100MHz

15. tuned-adm active

Current active profile: balanced

16. sysctl

kernel.numa_balancing	1
kernel.randomize_va_space	0
vm.compaction_proactiveness	20
vm.dirty_background_bytes	0
vm.dirty_background_ratio	10
vm.dirty_bytes	0
vm.dirty_expire_centisecs	3000
vm.dirty_ratio	8
vm.dirty_writeback_centisecs	500
vm.dirtytime_expire_seconds	43200
vm.extfrag_threshold	500
vm.min_unmapped_ratio	1
vm.nr_hugepages	0
vm.nr_hugepages_mempolicy	0
vm.nr_overcommit_hugepages	0
vm.swappiness	1
vm.watermark_boost_factor	15000
vm.watermark_scale_factor	10
vm.zone_reclaim_mode	1

17. /sys/kernel/mm/transparent_hugepage

defrag	[always] defer defer+madvise madvise never
enabled	[always] madvise never
hpage_pmd_size	2097152
shmem_enabled	always within_size advise [never] deny force

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Platform Notes (Continued)

18. /sys/kernel/mm/transparent_hugepage/khugepaged

```
alloc_sleep_millisecs 60000
defrag 1
max_ptes_none 511
max_ptes_shared 256
max_ptes_swap 64
pages_to_scan 4096
scan_sleep_millisecs 10000
```

19. OS release

```
From /etc/*-release /etc/*-version
os-release Ubuntu 24.04.3 LTS
```

20. Disk information

SPEC is set to: /home/cpu2026

```
Filesystem Type Size Used Avail Use% Mounted on
/dev/nvme0nlp2 ext4 1.5T 32G 1.4T 3% /
```

21. /sys/devices/virtual/dmi/id

```
Vendor: HPE
Product: ProLiant DL385 Gen11
Product Family: ProLiant
Serial: DL385G11-012
```

22. dmidecode

Additional information from dmidecode 3.5 follows. 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.

Memory:

```
19x Hynix HMC94AHBRA480N 64 GB 2 rank 6400
1x Micron MTC40F2046S1RC64BD2 MWWF 64 GB 2 rank 6400
4x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400
```

23. BIOS

(This section combines info from /sys/devices and dmidecode.)

```
BIOS Vendor: HPE
BIOS Version: 2.90
BIOS Date: 01/09/2026
```

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Hardware Availability: Mar-2025
Software Availability: Jan-2026

Platform Notes (Continued)

BIOS Revision: 2.90
Firmware Revision: 1.73

Compiler Version Notes

=====
C | 811.tealeaf_s(base) 816.nab_s(base) 881.neutron_s(base)

AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin

=====
C++ | 803.sph_exa_s(base) 857.namd_s(base) 867.nest_s(base)
872.marian_s(base)

AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin

=====
C++, C | 809.cactus_s(base)

AMD clang version 17.0.6 (CLANG: AOCC_5.1.0-Build#1994 2025_12_23)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-5.1.0/bin

=====
Fortran | 800.pot3d_s(base) 820.cloverleaf_s(base) 822.palm_s(base)
849.fotonik3d_s(base) 865.roms_s(base)

flang version 22.1.0-rc2 (<https://github.com/llvm/llvm-project>
a47b42eb9f9b302167b4fc413e6c92798d65dd0b)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/llvm/llvm-22.1.0-rc2/install/bin



SPEC CPU®2026 Floating Point Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL385 Gen11

(2.10 GHz, AMD EPYC 9845)

SPECspeed®2026_fp_base = 16.6

SPECspeed®2026_fp_peak = 16.6

CPU2026 License: 3
Test Sponsor: HPE
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Test Date: Feb-2026
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Base Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Fortran benchmarks:

flang-22

Benchmarks using both C and C++:

clang++ clang

Base Portability Flags

800.pot3d_s: -DSPEC_LP64
803.sph_exa_s: -DSPEC_LP64
809.cactus_s: -DSPEC_LP64
811.tealeaf_s: -DSPEC_LP64
816.nab_s: -DSPEC_LP64
820.cloverleaf_s: -DSPEC_LP64
822.palm_s: -DSPEC_LP64
849.fotonik3d_s: -DSPEC_LP64
857.namd_s: -DSPEC_LP64
865.roms_s: -DSPEC_LP64
867.nest_s: -fno-finite-math-only -DSPEC_LP64
872.marian_s: -DSPEC_LP64
881.neutron_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-m64 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -flto -march=znver5
-fveclib=AMDLIBM -ffast-math -fremap-arrays -fstrip-mining
-fstruct-layout=7 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -mllvm -unroll-threshold=50 -zopt
-mrecip=none -fopenmp -DSPEC_OPENMP -lamdalloc -lamdlibm
-fopenmp=libomp -lomp

C++ benchmarks:

-m64 -std=c++17 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -flto -march=znver5

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Base Optimization Flags (Continued)

C++ benchmarks (continued):

```
-fveclib=AMDLIBM -ffast-math -mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -zopt -fopenmp -DSPEC_OPENMP
-pthread -lamdalloc -lamdlibm -fopenmp=libomp -lomp
```

Fortran benchmarks:

```
-m64 -std=f2018 -O3 -flto -march=znver5 -fveclib=AMDLIBM
-ffast-math -funroll-loops -DSPEC_OPENMP -fopenmp
-fdo-concurrent-to-openmp=host -lamdalloc -lamdlibm -fopenmp=libomp
-lomp
```

Benchmarks using both C and C++:

```
-m64 -std=c++17 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -flto -march=znver5
-fveclib=AMDLIBM -ffast-math -fremap-arrays -fstrip-mining
-fstruct-layout=7 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -mllvm -unroll-threshold=50 -zopt
-mllvm -unroll-threshold=100 -mllvm -loop-unswitch-threshold=200000
-mrecip=none -fopenmp -DSPEC_OPENMP -pthread -lamdalloc -lamdlibm
-fopenmp=libomp -lomp
```

Base Other Flags

C benchmarks:

```
-Wno-return-type -Wno-unused-command-line-argument
```

Benchmarks using both C and C++:

```
-Wno-return-type -Wno-unused-command-line-argument
```

Peak Optimization Flags

C benchmarks:

811.tealeaf_s: basepeak = yes

816.nab_s: basepeak = yes

881.neutron_s: basepeak = yes

C++ benchmarks:

(Continued on next page)



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CPU2026 License: 3

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Tested by: HPE

Test Date: Feb-2026

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Peak Optimization Flags (Continued)

803.sph_exa_s: basepeak = yes

857.namd_s: basepeak = yes

867.nest_s: basepeak = yes

872.marian_s: basepeak = yes

Fortran benchmarks:

800.pot3d_s: basepeak = yes

820.cloverleaf_s: basepeak = yes

822.palm_s: basepeak = yes

849.fotonik3d_s: basepeak = yes

865.roms_s: basepeak = yes

Benchmarks using both C and C++:

809.cactus_s: basepeak = yes

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

<http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-AMD-Turin-rev1.11.html>

<http://www.spec.org/cpu2026/results/flags/aocc-flags.html>

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

<http://www.spec.org/cpu2026/results/flags/HPE-Platform-Flags-AMD-Turin-rev1.11.xml>

<http://www.spec.org/cpu2026/results/flags/aocc-flags.xml>

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