



SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Supermicro

Hyper A+ Server AS -2126HS-TN
(H14DSH , AMD EPYC 9655)

SPECrate®2026_fp_base = 820

SPECrate®2026_fp_peak = 820

CPU2026 License: 001176

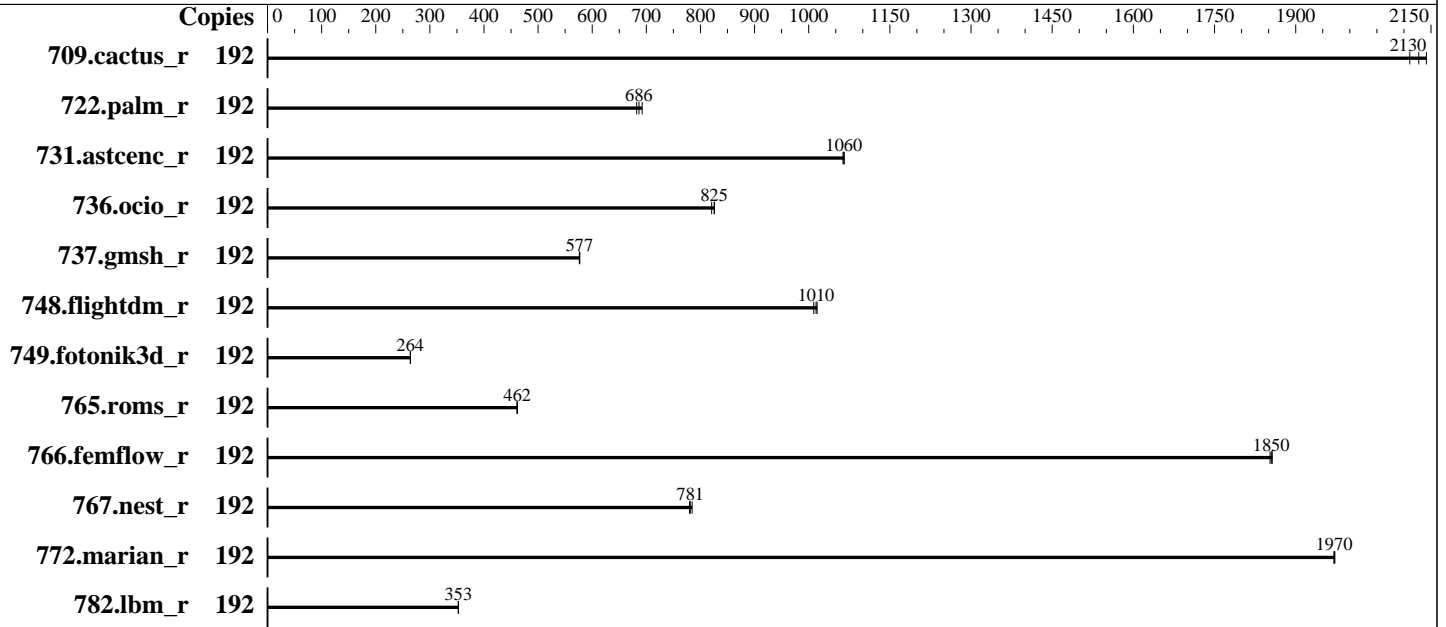
Test Sponsor: Supermicro

Tested by: Supermicro

Test Date: Feb-2026

Hardware Availability: Oct-2024

Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9655
 Max MHz: 4500
 Nominal: 2600
 Enabled: 192 cores, 2 chips
 Orderable: 2 chips
 Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 1 MB I+D on chip per core
 L3: 384 MB I+D on chip per chip, 32 MB shared / 8 cores
 Other: None
 Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 1 x 480 GB NVMe SSD
 Cooling: Air
 Other: None

Software

OS: Ubuntu 24.04.3 LTS
 6.8.0-94-generic
 Compiler: C/C++/Fortran: Version 5.1.0 of AOCC
 Compiler Category: Vendor
 Firmware: Version 1.5 released May-2025
 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 set to prefer performance at the cost of additional power usage.



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	192	78.0	2110	<u>77.4</u>	<u>2130</u>	76.9	2140	192	78.0	2110	<u>77.4</u>	<u>2130</u>	76.9	2140
722.palm_r	192	366	692	<u>369</u>	<u>686</u>	372	682	192	366	692	<u>369</u>	<u>686</u>	372	682
731.ascenc_r	192	151	1070	<u>151</u>	<u>1060</u>	152	1060	192	151	1070	<u>151</u>	<u>1060</u>	152	1060
736.ocio_r	192	203	826	205	821	<u>204</u>	<u>825</u>	192	203	826	205	821	<u>204</u>	<u>825</u>
737.gmsh_r	192	<u>153</u>	<u>577</u>	153	576	153	577	192	<u>153</u>	<u>577</u>	153	576	153	577
748.flightdm_r	192	135	1020	136	1010	<u>136</u>	<u>1010</u>	192	135	1020	136	1010	<u>136</u>	<u>1010</u>
749.fotonik3d_r	192	840	264	<u>841</u>	<u>264</u>	841	264	192	840	264	<u>841</u>	<u>264</u>	841	264
765.roms_r	192	656	461	<u>655</u>	<u>462</u>	655	462	192	656	461	<u>655</u>	<u>462</u>	655	462
766.femflow_r	192	152	1850	152	1860	<u>152</u>	<u>1850</u>	192	152	1850	152	1860	<u>152</u>	<u>1850</u>
767.nest_r	192	195	780	<u>195</u>	<u>781</u>	194	785	192	195	780	<u>195</u>	<u>781</u>	194	785
772.marian_r	192	154	1970	<u>154</u>	<u>1970</u>	154	1970	192	154	1970	<u>154</u>	<u>1970</u>	154	1970
782.lbm_r	192	<u>312</u>	<u>353</u>	312	353	312	353	192	<u>312</u>	<u>353</u>	312	353	312	353

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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/>

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,
'sysctl -w vm.zone_reclaim_mode=1' run as root.
To clear filesystem caches, 'sync; sysctl -w vm.drop_caches=3' run as root.

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Operating System Notes (Continued)

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:
LD_LIBRARY_PATH =
"/spec/speccpu2026rc2bsub/amd_rate_aocc510_znver5_A_lib/lib:/spec/speccpu2026rc2bsub/amd_rate_aocc510_znver5_A_lib/lib32:"
MALLOC_CONF = "retain:true"

General Notes

Binaries were compiled on a system with 2x AMD EPYC Venice256 CPU + 2TiB Memory using Ubuntu 24.04

Platform Notes

BIOS settings:
SEV Control = Disabled
SMEE = Disabled
Memory Target Speed = DDR6400
Determinism Control = Manual
Determinism Enable = Power
TDP control = Manual
TDP = 400
Package Power Limit Control = Manual
Package Power Limit = 400
TSME = Disabled
NUMA nodes per socket = NPS4
SMT Control = Disabled

Sysinfo program /spec/speccpu2026rc2bsub/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on smc4706turin-u24-os Mon Feb 2 16:44:33 2026

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

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Platform Notes (Continued)

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-lubuntu8.10)`
12. Services, from `systemctl list-unit-files`
13. Linux kernel boot-time arguments, from `/proc/cmdline`
14. `cpupower frequency-info`
15. `sysctl`
16. `/sys/kernel/mm/transparent_hugepage`
17. `/sys/kernel/mm/transparent_hugepage/khugepaged`
18. OS release
19. Disk information
20. `/sys/devices/virtual/dmi/id`
21. `dmidecode`
22. BIOS

```
-----
1. uname -srvm
Linux 6.8.0-94-generic #96-Ubuntu SMP PREEMPT_DYNAMIC Fri Jan 9 20:36:55 UTC 2026 x86_64
-----
```

```
-----
2. w
16:44:33 up 48 min, 2 users, load average: 0.07, 0.02, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU   WHAT
root      pts/0    10.23.196.148 16:43   47:54  0.00s  0.06s  sshd: root@notty
root      pts/0    10.23.196.148 16:43   47:54  0.00s  0.09s  sshd: root@pts/0
-----
```

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

```
-----
4. ulimit -a
time(seconds)      unlimited
file(blocks)       unlimited
data(kbytes)       unlimited
stack(kbytes)      unlimited
coredump(blocks)   0
memory(kbytes)     unlimited
-----
```

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Platform Notes (Continued)

```
locked memory(kbytes) 2097152
process                6190327
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: root@pts/0
-bash
screen -S cpu
SCREEN -S cpu
/bin/bash
python3 ./run_amd_rate_aocc510_znver5_A1.py
/bin/bash ./amd_rate_aocc510_znver5_A1.sh
runcpu --config amd_rate_aocc510_znver5_A1.cfg --tune base --reportable --iterations 3 fprate
runcpu --configfile amd_rate_aocc510_znver5_A1.cfg --tune base --reportable --iterations 3 --nopower
--runmode rate --tune base --size test:train:refrate fprate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.002/temlogs/preenv.fprate.002.0.log --lognum 002.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /spec/speccpu2026rc2bsub
```

6. /proc/cpuinfo

```
model name      : AMD EPYC 9655 96-Core Processor
vendor_id      : AuthenticAMD
cpu family     : 26
model          : 2
stepping       : 1
microcode      : 0xb002147
bugs           : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
TLB size      : 192 4K pages
cpu cores     : 96
siblings      : 96
2 physical ids (chips)
192 processors (hardware threads)
physical id 0: core ids 0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183
physical id 1: core ids 0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183
physical id 0: apicids 0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183
physical id 1: apicids
256-263,272-279,288-295,304-311,320-327,336-343,352-359,368-375,384-391,400-407,416-423,432-439
Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
virtualized systems. Use the above data carefully.
```

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Platform Notes (Continued)

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):                      192
On-line CPU(s) list:        0-191
Vendor ID:                   AuthenticAMD
BIOS Vendor ID:              Advanced Micro Devices, Inc.
Model name:                  AMD EPYC 9655 96-Core Processor
BIOS Model name:             AMD EPYC 9655 96-Core Processor           Unknown CPU @ 2.6GHz
BIOS CPU family:             107
CPU family:                  26
Model:                       2
Thread(s) per core:         1
Core(s) per socket:         96
Socket(s):                   2
Stepping:                    1
Frequency boost:             enabled
CPU(s) scaling MHz:         101%
CPU max MHz:                 2600.0000
CPU min MHz:                 1500.0000
BogoMIPS:                    5200.28

```

```

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 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
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 fsrm avx512_vp2intersect
flush_lld debug_swap
Lld cache:                   9 MiB (192 instances)

```

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Platform Notes (Continued)

```

L1i cache:                6 MiB (192 instances)
L2 cache:                  192 MiB (192 instances)
L3 cache:                  768 MiB (24 instances)
NUMA node(s):              8
NUMA node0 CPU(s):         0-23
NUMA node1 CPU(s):         24-47
NUMA node2 CPU(s):         48-71
NUMA node3 CPU(s):         72-95
NUMA node4 CPU(s):         96-119
NUMA node5 CPU(s):         120-143
NUMA node6 CPU(s):         144-167
NUMA node7 CPU(s):         168-191
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	9M	12	Data	1	64	1	64
L1i	32K	6M	8	Instruction	1	64	1	64
L2	1M	192M	16	Unified	2	1024	1	64
L3	32M	768M	16	Unified	3	32768	1	64

8. `numactl --hardware`

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

```

available: 8 nodes (0-7)
node 0 cpus: 0-23
node 0 size: 193084 MB
node 0 free: 192595 MB
node 1 cpus: 24-47
node 1 size: 193527 MB
node 1 free: 192763 MB
node 2 cpus: 48-71

```

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Platform Notes (Continued)

```

node 2 size: 193527 MB
node 2 free: 193073 MB
node 3 cpus: 72-95
node 3 size: 193527 MB
node 3 free: 193113 MB
node 4 cpus: 96-119
node 4 size: 193527 MB
node 4 free: 193095 MB
node 5 cpus: 120-143
node 5 size: 193527 MB
node 5 free: 193069 MB
node 6 cpus: 144-167
node 6 size: 193527 MB
node 6 free: 193143 MB
node 7 cpus: 168-191
node 7 size: 193409 MB
node 7 free: 192641 MB
node distances:
node  0  1  2  3  4  5  6  7
0:  10 12 12 12 32 32 32 32
1:  12 10 12 12 32 32 32 32
2:  12 12 10 12 32 32 32 32
3:  12 12 12 10 32 32 32 32
4:  32 32 32 32 10 12 12 12
5:  32 32 32 32 12 10 12 12
6:  32 32 32 32 12 12 10 12
7:  32 32 32 32 12 12 12 10

```

```

-----
9. /proc/meminfo
   MemTotal:          1584803380 kB

```

```

-----
10. who -r
    run-level 5 Feb 2 15:56

```

```

-----
11. Systemd service manager version: systemd 255 (255.4-lubuntu8.10)
    Default Target  Status
    graphical      running

```

```

-----
12. Services, from systemctl list-unit-files
    STATE          UNIT FILES
    enabled        ModemManager apparmor apport 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

```

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Platform Notes (Continued)

```

networkd-dispatcher nvme-fc-boot-connections nvme-fc-autoconnect 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
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 ipmievd 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-sysext
systemd-time-wait-sync upower
generated openipmi
indirect systemd-sysupdate systemd-sysupdate-reboot uuid
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-6.8.0-94-generic
root=UUID=03383914-c98d-47f6-9c7e-25b8eb120794
ro

```

14. cpupower frequency-info

```

analyzing CPU 111:
  current policy: frequency should be within 1.50 GHz and 2.60 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: 2600MHz

```

15. 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

```

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Platform Notes (Continued)

```

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

```

```

-----
16. /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

```

```

-----
17. /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

```

```

-----
18. OS release
From /etc/*-release /etc/*-version
os-release Ubuntu 24.04.3 LTS

```

```

-----
19. Disk information
SPEC is set to: /spec/speccpu2026rc2bsub
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/nvme4n1p2 ext4  457G   25G  409G   6% /

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:      Supermicro
Product:     AS -2126HS-TN
Product Family: SMC H14
Serial:      S920464X4524706

```

```

-----
21. dmidecode
Additional information from dmidecode 3.5 follows.  WARNING: Use caution when you interpret this section.

```

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Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Feb-2026
Hardware Availability: Oct-2024
Software Availability: Jan-2026

Platform Notes (Continued)

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:

24x Samsung M321R8GA0PB1-CCPWC 64 GB 2 rank 6400

22. BIOS

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

BIOS Vendor: American Megatrends International, LLC.
BIOS Version: 1.5
BIOS Date: 05/12/2025
BIOS Revision: 5.35

Compiler Version Notes

=====
C | 782.lbm_r(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++ | 731.astcenc_r(base) 736.ocio_r(base) 748.flightdm_r(base)
| 766.femflow_r(base) 767.nest_r(base) 772.marian_r(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 | 709.cactus_r(base) 737.gmsh_r(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
=====

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SPEC CPU®2026 Floating Point Rate Result

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Hyper A+ Server AS -2126HS-TN
(H14DSH , AMD EPYC 9655)

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CPU2026 License: 001176
Test Sponsor: Supermicro
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Test Date: Feb-2026
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Compiler Version Notes (Continued)

Fortran | 722.palm_r(base) 749.fotonik3d_r(base) 765.roms_r(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

Base Compiler Invocation

C benchmarks:
clang

C++ benchmarks:
clang++

Fortran benchmarks:
flang

Benchmarks using both C and C++:
clang++ clang

Base Portability Flags

709.cactus_r: -DSPEC_LP64
722.palm_r: -DSPEC_LP64
731.ascenc_r: -DSPEC_LP64
736.ocio_r: -fno-finite-math-only -DSPEC_LP64
737.gmsh_r: -fno-fast-math -DSPEC_LP64
748.flightdm_r: -fno-reciprocal-math -DSPEC_LP64
749.fotonik3d_r: -DSPEC_LP64
765.roms_r: -DSPEC_LP64
766.femflow_r: -DSPEC_LP64
767.nest_r: -fno-finite-math-only -DSPEC_LP64
772.marian_r: -DSPEC_LP64
782.lbm_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6

(Continued on next page)



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Base Optimization Flags (Continued)

C benchmarks (continued):

```
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-ldist-scalar-expand -fenable-aggressive-gather
-ffast-math -O3 -march=znver5 -fveclib=AMDLIBM -fno-PIE -no-pie
-flto -fstruct-layout=7 -mllvm -unroll-threshold=50
-mllvm -inline-threshold=1000 -fremap-arrays -fstrip-mining
-mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc
-lflang
```

C++ benchmarks:

```
-m64 -std=c++17 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-x86-use-vzeroupper=false -Wl,-mllvm -Wl,-extra-inliner
-ffast-math -O3 -march=znver5 -fveclib=AMDLIBM -flto
-mllvm -unroll-threshold=100 -mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc
-lflang
```

Fortran benchmarks:

```
-m64 -Mstandard -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-enable-X86-prefetching
-Wl,-mllvm -Wl,-enable-aggressive-gather=true
-Wl,-mllvm -Wl,-enable-masked-gather-sequence=false -ffast-math -O3
-march=znver5 -fveclib=AMDLIBM -flto -Mrecursive -funroll-loops
-mllvm -lsr-in-nested-loop -mllvm -reduce-array-computations=3
-fepilog-vectorization-of-inductions -zopt -lamdlibm -lamdalloc
-lflang
```

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
-Wl,-mllvm -Wl,-x86-use-vzeroupper=false -Wl,-mllvm -Wl,-extra-inliner
-ffast-math -O3 -march=znver5 -fveclib=AMDLIBM -fno-PIE -no-pie
-flto -fstruct-layout=7 -mllvm -unroll-threshold=50
-mllvm -inline-threshold=1000 -fremap-arrays -fstrip-mining
-mllvm -reduce-array-computations=3 -zopt -mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000 -lamdlibm -lamdalloc -lflang
```

Peak Optimization Flags

C benchmarks:

(Continued on next page)



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Peak Optimization Flags (Continued)

782.lbm_r: basepeak = yes

C++ benchmarks:

731.astcenc_r: basepeak = yes

736.ocio_r: basepeak = yes

748.flightdm_r: basepeak = yes

766.femflow_r: basepeak = yes

767.nest_r: basepeak = yes

772.marian_r: basepeak = yes

Fortran benchmarks:

722.palm_r: basepeak = yes

749.fotonik3d_r: basepeak = yes

765.roms_r: basepeak = yes

Benchmarks using both C and C++:

709.cactus_r: basepeak = yes

737.gmsh_r: basepeak = yes

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

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.html>

<http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-Turin-revG.html>

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

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.xml>

<http://www.spec.org/cpu2026/results/flags/Supermicro-Platform-Settings-V1.2-Turin-revG.xml>

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

Tested with SPEC CPU®2026 v0.902.0 on 2026-02-02 11:44:32-0500.
Report generated on 2026-05-11 16:37:43 by CPU2026 PDF formatter (unknown).
Originally published on 2026-05-05.