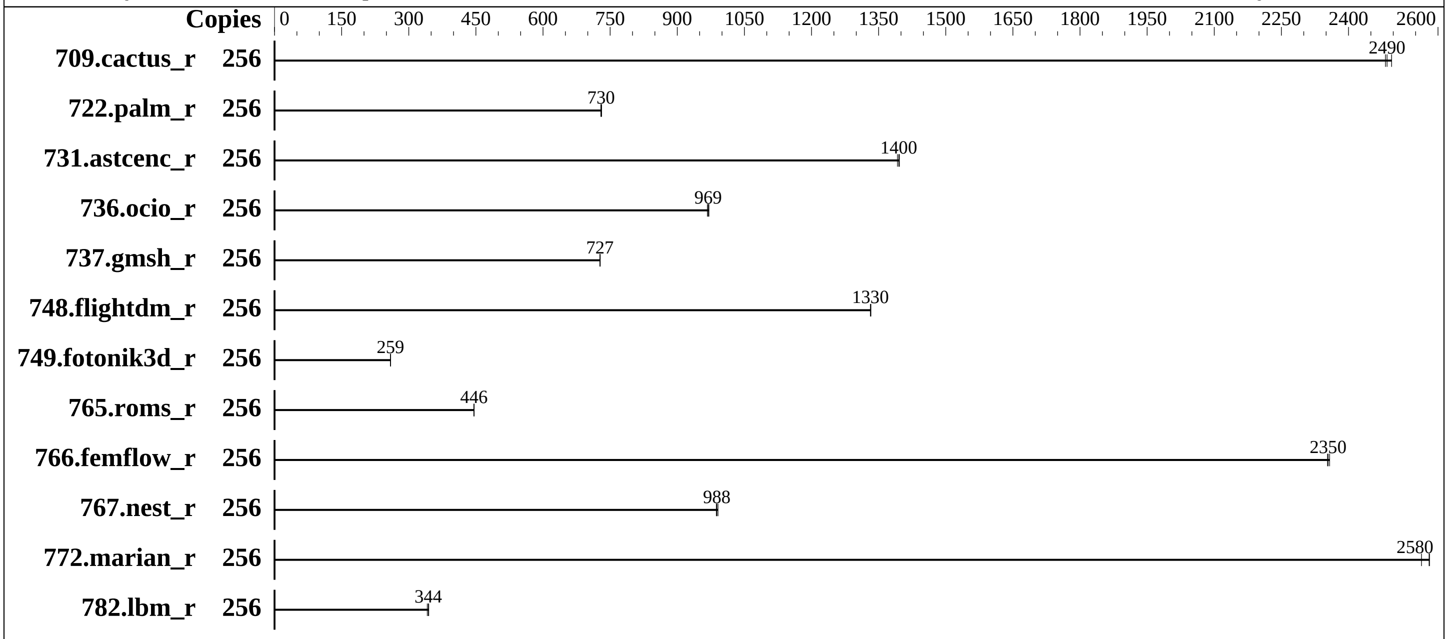
SPEC CPU®2026 Floating Point Rate Result

Quanta Cloud Technology
(Test Sponsor: Quanta Computer Inc.)
QuantaGrid D44N-1U
AMD EPYC 9755

SPECrate®2026_fp_base = 954

SPECrate®2026_fp_peak = Not Run

CPU2026 License:	9050	**Test Date:**	Aug-2026
Test Sponsor:	Quanta Computer Inc.	**Hardware Availability:**	Oct-2024
Tested by:	Quanta Computer Inc.	**Software Availability:**	Jul-2026



Hardware

CPU Name:	AMD EPYC 9755
Max MHz:	4100
Nominal:	2700
Enabled:	256 cores, 2 chips, 2 threads/core
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:	512 MB I+D on chip per chip, 32 MB shared / 8 cores
Other:	None
Memory:	2304 GB (24 x 96 GB 2Rx4 PC5-6400B-R)
Storage:	1 x3.84 TB NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	Ubuntu 24.04.3 LTS 6.8.0-136-generic
Compiler:	C/C++/Fortran: Version 5.1.0 of AOCC
Compiler Category:	Vendor
Firmware:	Version 3B10 released Apr-2026
File System:	ext4
System State:	Run level 5 (graphical multi-user)
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other:	None
Power Management:	BIOS and OS set to prefer performance at the cost of additional power usage

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	256	88.0	2500	**88.3**	**2490**	88.5	2480							
722.palm_r	256	463	729	**463**	**730**	462	731							
731.astcenc_r	256	154	1400	154	1390	**154**	**1400**							
736.ocio_r	256	232	967	**231**	**969**	231	971							
737.gmsh_r	256	**162**	**727**	162	727	161	728							
748.flightdm_r	256	138	1330	138	1330	**138**	**1330**							
749.fotonik3d_r	256	1142	259	1141	259	**1141**	**259**							
765.roms_r	256	905	445	**904**	**446**	904	446							
766.femflow_r	256	159	2360	**160**	**2350**	160	2350							
767.nest_r	256	205	991	206	987	**205**	**988**							
772.marian_r	256	**157**	**2580**	157	2580	158	2560							
782.lbm_r	256	426	345	**427**	**344**	430	341							

SPECrate®2026_fp_base = 954

SPECrate®2026_fp_peak = Not Run

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 =
     "/root/cpu2026/amd_rate_aocc510_znver5_B_lib/lib:/root/cpu2026/amd_rate_
     aocc510_znver5_B_lib/lib32:/opt/AMD/aocc-compiler-5.2.0/ompd:/opt/AMD/ao
     cc-compiler-5.2.0/lib:/opt/AMD/aocc-compiler-5.2.0/lib32:/usr/lib/x86_64
     -linux-gnu:/usr/lib64:/usr/lib32:/usr/lib:"
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 Configuration:
 NUMA nodes per socket set to NPS4
 Determinism Control is Manual
 Determinism Slider set to Power
 cTDP Control set to Manual
 cTDP set to 500
 PPT Control set to Manual
 PPT set to 500

 Sysinfo program /root/cpu2026/bin/sysinfo
 Rev: 779ab21020787073335a329f3a45e2cd
 running on quanta Tue Aug  4 12:35:58 2026

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

 ------------------------------------------------------------
 Table of contents
 ------------------------------------------------------------
  1. uname -srvm
  2. w
  3. Username
```

(Continued on next page)

Platform Notes (Continued)

```
  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 (255.4-1ubuntu8.16)
 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 6.8.0-136-generic #136-Ubuntu SMP PREEMPT_DYNAMIC Wed Jul  1 21:53:05 UTC 2026 x86_64

------------------------------------------------------------
2. w
   12:35:58 up 18:58,  3 users,  load average: 261.82, 439.33, 468.35
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
  root     tty1     -                08:38   18:57m 14.82s 12.72s python3 ./run_amd_rate_aocc510_znver5_B1.py
  root              192.168.118.1    00:49   18:57m  0.00s  0.06s sshd: root@notty
  root              192.168.118.1    00:49   18:57m  0.00s 56.01s 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
  locked memory(kbytes) 2048
```

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Platform Notes (Continued)

```
    process              9285508
    nofiles              1024
    vmemory(kbytes)      unlimited
    locks                unlimited
    rtprio               0

 ------------------------------------------------------------
 5. sysinfo process ancestry
  /sbin/init
  /bin/login -f --
  -bash
  python3 ./run_amd_rate_aocc510_znver5_B1.py
  runcpu --config amd_rate_aocc510_znver5_B1.cfg --tune base --reportable --iterations 3 fprate
  runcpu --configfile amd_rate_aocc510_znver5_B1.cfg --tune base --reportable --iterations 3 --nopower
    --runmode rate --tune base --size test:train:refrate fprate --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2026.002/templogs/preenv.fprate.002.0.log --lognum 002.0 --from_runcpu 2
  specperl $SPEC/bin/sysinfo
 $SPEC = /root/cpu2026

 ------------------------------------------------------------
 6. /proc/cpuinfo
     model name      : AMD EPYC 9755 128-Core Processor
     vendor_id       : AuthenticAMD
     cpu family      : 26
     model           : 2
     stepping        : 1
     microcode       : 0xb002162
     bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
     TLB size        : 192 4K pages
     cpu cores       : 128
     siblings        : 256
     2 physical ids (chips)
     512 processors (hardware threads)
     physical id 0: core ids 0-127
     physical id 1: core ids 0-127
     physical id 0: apicids 0-255
     physical id 1: apicids 256-511
   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:                         46 bits physical, 57 bits virtual
```

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Platform Notes (Continued)

```
Byte Order:                      Little Endian
CPU(s):                          512
On-line CPU(s) list:             0-511
Vendor ID:                       AuthenticAMD
BIOS Vendor ID:                  Advanced Micro Devices, Inc.
Model name:                      AMD EPYC 9755 128-Core Processor
BIOS Model name:                 AMD EPYC 9755 128-Core Processor                Unknown CPU @
                                 2.7GHz
BIOS CPU family:                 107
CPU family:                      26
Model:                           2
Thread(s) per core:              2
Core(s) per socket:              128
Socket(s):                       2
Stepping:                        1
Frequency boost:                 enabled
CPU(s) scaling MHz:              66%
CPU max MHz:                     4121.1909
CPU min MHz:                     1500.0000
BogoMIPS:                        5391.52
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 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
                                 nrip_save tsc_scale vmcb_clean flushbyasid decodeassists
                                 pausefilter pfthreshold avic v_vmsave_vmload vgif x2avic
                                 v_spec_ctrl vnmi 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_l1d sev sev_es debug_swap
                                 srso_user_kernel_no
Virtualization:                  AMD-V
L1d cache:                       12 MiB (256 instances)
L1i cache:                       8 MiB (256 instances)
L2 cache:                        256 MiB (256 instances)
L3 cache:                        1 GiB (32 instances)
```

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Platform Notes (Continued)

```
  NUMA node(s):                          8
  NUMA node0 CPU(s):                     0-31,256-287
  NUMA node1 CPU(s):                     32-63,288-319
  NUMA node2 CPU(s):                     64-95,320-351
  NUMA node3 CPU(s):                     96-127,352-383
  NUMA node4 CPU(s):                     128-159,384-415
  NUMA node5 CPU(s):                     160-191,416-447
  NUMA node6 CPU(s):                     192-223,448-479
  NUMA node7 CPU(s):                     224-255,480-511
  Vulnerability Gather data sampling:    Not affected
  Vulnerability Indirect target selection: 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/swapgs barriers and __user pointer
                                         sanitization
  Vulnerability Spectre v2:              Mitigation; Enhanced / Automatic IBRS; IBPB conditional; STIBP
                                         always-on; PBRSB-eIBRS Not affected; BHI Not affected
  Vulnerability Srbds:                   Not affected
  Vulnerability Tsa:                     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      12M   12 Data            1    64        1             64
     L1i       32K       8M    8 Instruction     1    64        1             64
     L2         1M     256M   16 Unified         2  1024        1             64
     L3        32M       1G   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: 0-31,256-287
  node 0 size: 289684 MB
  node 0 free: 245275 MB
  node 1 cpus: 32-63,288-319
  node 1 size: 290238 MB
  node 1 free: 240018 MB
  node 2 cpus: 64-95,320-351
```

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Platform Notes (Continued)

```
  node 2 size: 290282 MB
  node 2 free: 248839 MB
  node 3 cpus: 96-127,352-383
  node 3 size: 290282 MB
  node 3 free: 248784 MB
  node 4 cpus: 128-159,384-415
  node 4 size: 290282 MB
  node 4 free: 238618 MB
  node 5 cpus: 160-191,416-447
  node 5 size: 290282 MB
  node 5 free: 247580 MB
  node 6 cpus: 192-223,448-479
  node 6 size: 290282 MB
  node 6 free: 245565 MB
  node 7 cpus: 224-255,480-511
  node 7 size: 290182 MB
  node 7 free: 250002 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:       2377233832 kB

------------------------------------------------------------
10. who -r
  run-level 5 Aug 3 17:38

------------------------------------------------------------
11. Systemd service manager version: systemd 255 (255.4-1ubuntu8.16)
  Default Target  Status
  graphical       running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          apparmor blk-availability cloud-init-local console-setup cron dmesg e2scrub_reap finalrd
                   getty@ grub-common ipmievd keyboard-setup lvm2-monitor multipathd networkd-dispatcher
                   open-iscsi open-vm-tools pollinate rsyslog secureboot-db setvtrgb systemd-networkd
```

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Platform Notes (Continued)

```
                  systemd-networkd-wait-online systemd-pstore systemd-resolved systemd-timesyncd tuned
                  ua-reboot-cmds ubuntu-advantage vgauth
  enabled-runtime  netplan-ovs-cleanup rc-local systemd-fsck-root systemd-remount-fs
  disabled        ModemManager apport cloud-config cloud-final cloud-init console-getty debug-shell
                  gpu-manager grub-initrd-fallback iscsid nftables powertop rpcbind rsync serial-getty@
                  snapd ssh sysstat 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 thermald udisks2 ufw unattended-upgrades upower
  generated        openipmi
  indirect         systemd-sysupdate systemd-sysupdate-reboot uuidd
  masked          cryptdisks cryptdisks-early hwclock multipath-tools-boot nfs-common screen-cleanup sudo
                  x11-common

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.8.0-136-generic
  root=UUID=d680ea38-6dda-4ab8-88d3-4f36bc5baa6c
  ro
  amd_iommu=on
  iommu=pt
  nohz_full=1-511
  rcu_nocbs=1-511

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 489:
    current policy: frequency should be within 1.50 GHz and 2.70 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:  2700MHz

------------------------------------------------------------
15. tuned-adm active
  Current active profile: throughput-performance

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing              1
  kernel.randomize_va_space          0
  vm.compaction_proactiveness       20
```

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Platform Notes (Continued)

```
  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

------------------------------------------------------------
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: /root/cpu2026
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme1n1p2 ext4  3.5T   57G  3.3T   2% /

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

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Platform Notes (Continued)

```
    Vendor:          Quanta Cloud Technology Inc.
    Product:         QuantaGrid D44N-1U

 ------------------------------------------------------------
 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:
     8x Samsung M321RYGA0PB2-CCPEC 96 GB 2 rank 6400
     14x Samsung M321RYGA0PB2-CCPPC 96 GB 2 rank 6400
     2x Samsung M321RYGA0PB2-CCPWC 96 GB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      3B10.QCT301
    BIOS Date:         04/29/2026
    BIOS Revision:     5.35
    Firmware Revision: 5.7
```

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
------------------------------------------------------------------------------

==============================================================================
```

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Compiler Version Notes (Continued)

```
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
------------------------------------------------------------------------------

==============================================================================
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

736.ocio_r: `-fno-finite-math-only`
737.gmsh_r: `-fno-fast-math`
748.flightdm_r: `-fno-reciprocal-math`
767.nest_r: `-fno-finite-math-only`

Base Optimization Flags

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

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.00.html
http://www.spec.org/cpu2026/results/flags/Quanta-Computer-Inc-amd-speccpu-setting-v1.1_AMD_Turin.html

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

http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-05-04.00.xml
http://www.spec.org/cpu2026/results/flags/Quanta-Computer-Inc-amd-speccpu-setting-v1.1_AMD_Turin.xml

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

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