



SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2026_fp_base = 627

PowerEdge R7625 (AMD EPYC 9654 96-Core Processor)

SPECrate®2026_fp_peak = 627

CPU2026 License: 6573

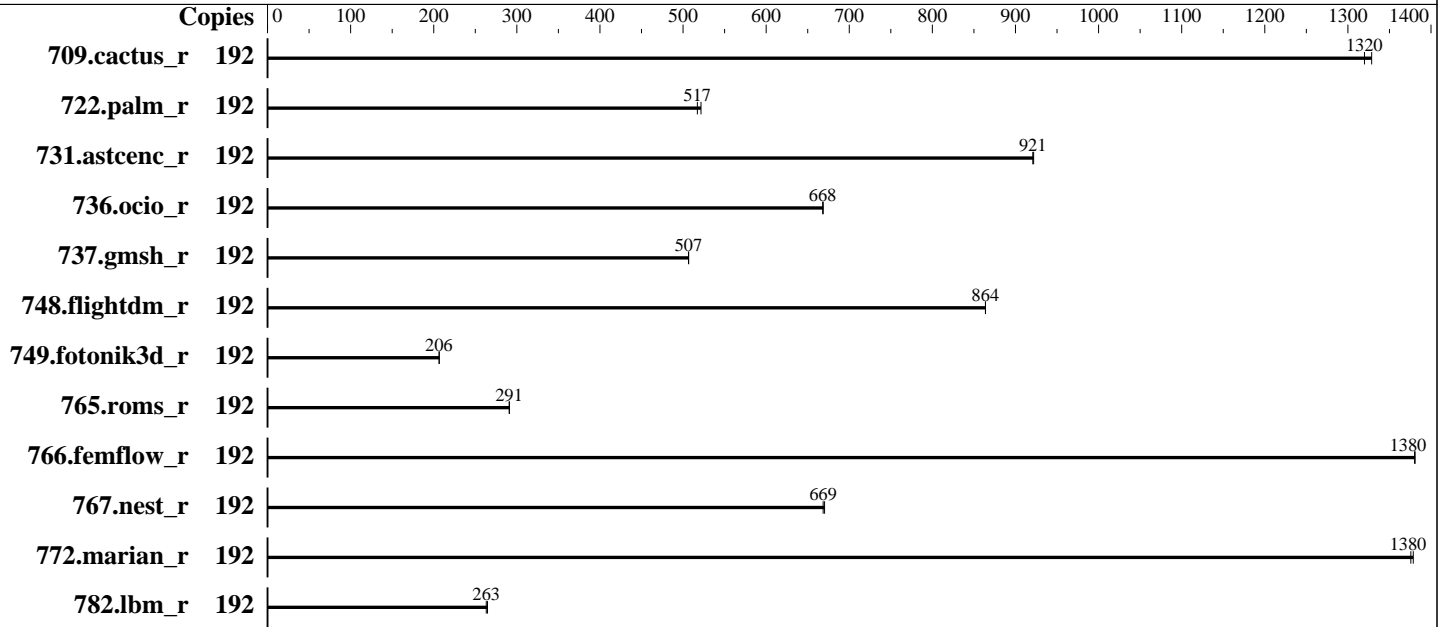
Test Date: Feb-2026

Test Sponsor: Dell Inc.

Hardware Availability: Nov-2022

Tested by: Dell Inc.

Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9654
 Max MHz: 3700
 Nominal: 2400
 Enabled: 192 cores, 2 chips
 Orderable: 1,2 chips
 Cache L1: 32 KB I + 32 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: 2304 GB (24 x 96 GB 2Rx4 PC5-5600B-R, running at 4800)
 Storage: 120 GB on tmpfs
 Cooling: Air
 Other: None

Software

OS: Ubuntu 24.04 LTS
 6.8.0-44-generic
 Compiler: C/C++/Fortran: Version 5.1.0 of AOCC
 Compiler Category: Vendor
 Firmware: Version 1.15.3 released Oct-2025
 File System: tmpfs
 System State: Run level 5 (graphical multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None
 Power Management: BIOS 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	<u>125</u>	<u>1320</u>	124	1330			192	<u>125</u>	<u>1320</u>	124	1330		
722.palm_r	192	<u>490</u>	<u>517</u>	486	522			192	<u>490</u>	<u>517</u>	486	522		
731.ascenc_r	192	<u>175</u>	<u>921</u>	175	922			192	<u>175</u>	<u>921</u>	175	922		
736.ocio_r	192	251	669	<u>252</u>	<u>668</u>			192	251	669	<u>252</u>	<u>668</u>		
737.gmsh_r	192	174	507	<u>174</u>	<u>507</u>			192	174	507	<u>174</u>	<u>507</u>		
748.flightdm_r	192	159	864	<u>159</u>	<u>864</u>			192	159	864	<u>159</u>	<u>864</u>		
749.fotonik3d_r	192	<u>1075</u>	<u>206</u>	1074	207			192	<u>1075</u>	<u>206</u>	1074	207		
765.roms_r	192	1039	291	<u>1040</u>	<u>291</u>			192	1039	291	<u>1040</u>	<u>291</u>		
766.femflow_r	192	<u>204</u>	<u>1380</u>	204	1380			192	<u>204</u>	<u>1380</u>	204	1380		
767.nest_r	192	227	670	<u>228</u>	<u>669</u>			192	227	670	<u>228</u>	<u>669</u>		
772.marian_r	192	220	1380	<u>220</u>	<u>1380</u>			192	220	1380	<u>220</u>	<u>1380</u>		
782.lbm_r	192	<u>418</u>	<u>263</u>	416	265			192	<u>418</u>	<u>263</u>	416	265		

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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 =
    "/mnt/ramdisk/cpu2026rc2/amd_rate_aocc510_znver5_A_lib/lib:/mnt/ramdisk/
    cpu2026rc2/amd_rate_aocc510_znver5_A_lib/lib32:"
MALLOCONF = "retain:true"
```

General Notes

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

Benchmark run from a 120 GB ramdisk created with the cmd: "mount -t tmpfs -o size=120G tmpfs /mnt/ramdisk"

Platform Notes

BIOS Settings:

Logical Processor : Disabled
Virtualization Technology : Disabled
NUMA Nodes Per Socket : 4

System Profile : Custom
C-States : Disabled

Memory Patrol Scrub : Disabled
PCI ASPM L1 Link Power Management : Disabled
Determinism Slider : Power Determinism
Dram Refresh Delay : Performance
DIMM Self Healing -
on Uncorrectable Memory Error : Disabled

Sysinfo program /mnt/ramdisk/cpu2026rc2/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on H27JNZ3-R7625 Sun Feb 8 02:15:02 2026

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

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Platform Notes (Continued)

Table of contents

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)
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 6.8.0-44-generic #44-Ubuntu SMP PREEMPT_DYNAMIC Tue Aug 13 13:35:26 UTC 2024 x86_64

2. w
02:15:02 up 11 min, 1 user, load average: 0.44, 0.56, 0.66
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root tty1 - 02:13 54.00s 4.51s 2.34s /bin/bash ./amd_rate_aocc510_znver5_A1.sh

3. Username
From environment variable \$USER: root

4. ulimit -a
time(seconds) unlimited
file(blocks) unlimited
data(kbytes) unlimited
stack(kbytes) unlimited

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Platform Notes (Continued)

```

coredump(blocks)      0
memory(kbytes)        unlimited
locked memory(kbytes) 2097152
process                9286958
nofiles                1024
vmemory(kbytes)       unlimited
locks                  unlimited
rtprio                 0

```

5. sysinfo process ancestry

```

/sbin/init
/bin/login -p --
-bash
/bin/bash /home/DellFiles/bin/DELL_rate.sh
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/AMD/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format
html,pdf,txt
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 2 --define
DL-VERS=6.4_T17 --output_format html,pdf,txt fprate
runcpu --configfile amd_rate_aocc510_znver5_A1.cfg --tune base --reportable --iterations 2 --define
DL-VERS=6.4_T17 --output_format html,pdf,txt --nopower --runmode rate --tune base --size
test:train:refrate fprate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.001/templogs/preenv.fprate.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2026rc2

```

6. /proc/cpuinfo

```

model name      : AMD EPYC 9654 96-Core Processor
vendor_id       : AuthenticAMD
cpu family      : 25
model           : 17
stepping        : 1
microcode       : 0xa101158
bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
TLB size        : 3584 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

```

(Continued on next page)



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Platform Notes (Continued)

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.

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:             AMD
Model name:                  AMD EPYC 9654 96-Core Processor
BIOS Model name:            AMD EPYC 9654 96-Core Processor          CPU @ 2.4GHz
BIOS CPU family:            107
CPU family:                  25
Model:                       17
Thread(s) per core:         1
Core(s) per socket:         96
Socket(s):                   2
Stepping:                    1
Frequency boost:             enabled
CPU(s) scaling MHz:         42%
CPU max MHz:                 3707.8120
CPU min MHz:                 1500.0000
BogoMIPS:                    4799.98

```

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
rdtsmp lm constant_tsc rep_good amd_lbr_v2 nopl nonstop_tsc cpuid
extd_apicid aperfmperf rapl pni pclmulqdq monitor sse3 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 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 avx512_bf16 clzero irperf xsaveerptr rdpru wbnoinvd
amd_ppin cppc 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 unip pku

```

(Continued on next page)



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Platform Notes (Continued)

```
ospke avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg
avx512_vpopcntdq la57 rdpid overflow_recov succor smca fsrm flush_l1d
debug_swap
```

```

L1d cache: 6 MiB (192 instances)
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: Mitigation; Safe RET
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

```

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	32K	6M	8	Data	1	64	1	64
L1i	32K	6M	8	Instruction	1	64	1	64
L2	1M	192M	8	Unified	2	2048	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: 289838 MB
node 0 free: 289335 MB
node 1 cpus: 24-47

```

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Platform Notes (Continued)

```

node 1 size: 290294 MB
node 1 free: 289564 MB
node 2 cpus: 48-71
node 2 size: 290250 MB
node 2 free: 274695 MB
node 3 cpus: 72-95
node 3 size: 290278 MB
node 3 free: 289894 MB
node 4 cpus: 96-119
node 4 size: 290294 MB
node 4 free: 289853 MB
node 5 cpus: 120-143
node 5 size: 290294 MB
node 5 free: 289903 MB
node 6 cpus: 144-167
node 6 size: 290294 MB
node 6 free: 289744 MB
node 7 cpus: 168-191
node 7 size: 290267 MB
node 7 free: 289851 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:      2377534052 kB

```

```

-----
10. who -r
run-level 5 Feb 8 02:03

```

```

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

```

```

-----
12. Services, from systemctl list-unit-files
STATE          UNIT FILES

```

(Continued on next page)



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Platform Notes (Continued)

```

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 lm-sensors lvm2-monitor multipathd
                 networkd-dispatcher open-iscsi open-vm-tools pollinate rsyslog secureboot-db setvtrgb
                 sysstat systemd-networkd systemd-networkd-wait-online systemd-pstore systemd-resolved
                 systemd-timesyncd thermald ua-reboot-cmds ubuntu-advantage udisks2 ufw 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 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-6.8.0-44-generic
root=UUID=8458ae54-58cc-4621-9289-b1d743fde503
ro

```

```

-----
14. cpupower frequency-info
analyzing CPU 148:
  current policy: frequency should be within 1.50 GHz and 2.40 GHz.
                  The governor "schedutil" may decide which speed to use
                  within this range.

  boost state support:
    Supported: yes
    Active: yes
    Boost States: 0
    Total States: 3
    Pstate-P0: 2400MHz

```

```

-----
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

```

(Continued on next page)



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Platform Notes (Continued)

```

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

```

```

-----
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 LTS

```

```

-----
19. Disk information
SPEC is set to: /mnt/ramdisk/cpu2026rc2
Filesystem      Type      Size  Used Avail Use% Mounted on
tmpfs           tmpfs    120G   11G  110G   9% /mnt/ramdisk

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:          Dell Inc.
Product:         PowerEdge R7625
Product Family: PowerEdge
Serial:          H27JNZ3

```

```

-----
21. dmidecode

```

(Continued on next page)



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Platform Notes (Continued)

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:

24x 802C0000802C MTC40F204WS1RC56BB1 96 GB 2 rank 5600, configured at 4800

22. BIOS

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

BIOS Vendor: Dell Inc.
BIOS Version: 1.15.3
BIOS Date: 10/29/2025
BIOS Revision: 1.15

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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Dell Inc.

SPECrate®2026_fp_base = 627

PowerEdge R7625 (AMD EPYC 9654 96-Core Processor)

SPECrate®2026_fp_peak = 627

CPU2026 License: 6573

Test Date: Feb-2026

Test Sponsor: Dell Inc.

Hardware Availability: Nov-2022

Tested by: Dell Inc.

Software Availability: Jan-2026

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



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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
```

Peak Optimization Flags

C benchmarks:

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Software Availability: Jan-2026

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/Dell-Platform-Flags-PowerEdge-AMD-EPYC-v1.8.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/Dell-Platform-Flags-PowerEdge-AMD-EPYC-v1.8.xml>

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