



SPEC

SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Fsas Technologies Inc.

(Test Sponsor: Fujitsu)

PRIMERGY RX2450 M2,
AMD EPYC 9335, 3.00 GHz

SPECrate®2026_fp_base = 463

SPECrate®2026_fp_peak = Not Run

CPU2026 License: 19

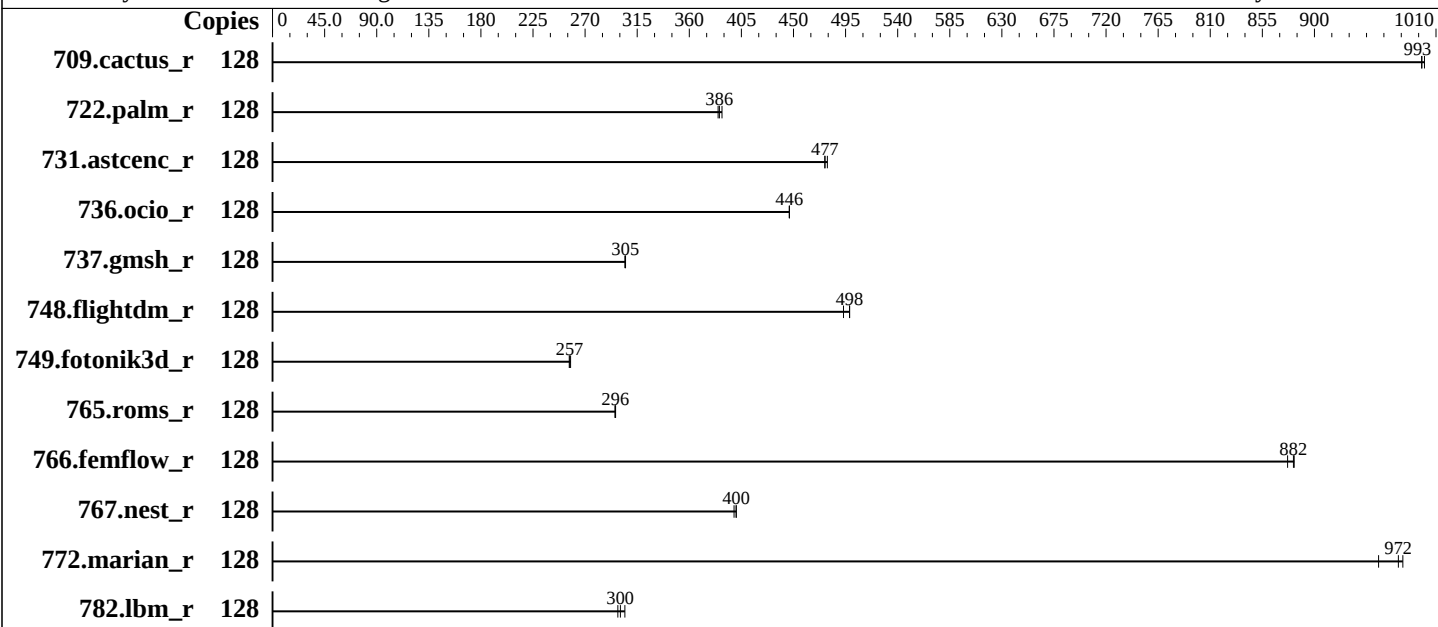
Test Sponsor: Fujitsu

Tested by: Fsas Technologies Inc.

Test Date: Aug-2026

Hardware Availability: Jul-2026

Software Availability: Jan-2026



Hardware

CPU Name: AMD EPYC 9335
Max MHz: 4400
Nominal: 3000
Enabled: 64 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: 128 MB I+D on chip per chip, 32 MB shared / 8 cores
Other: None
Memory: 768 GB (24 x 32 GB 2Rx8 PC5-6400B-R)
Storage: 1 x SATA SSD, 1.92 TB
Cooling: Air
Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP6
kernel version
6.4.0-150600.23.22-default
Compiler: C/C++/Fortran: Version 5.1.0 of AOCC
Compiler Category: Vendor
Firmware: Fujitsu BIOS Version V5.0.0.35 R2.13.0 for D4129-A1x. Released Aug-2026
tested as V5.0.0.35 R2.11.0 for D4129-A1x Jan-2026
File System: xfs
System State: Run level 3 (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



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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	128	111	993	110	995	<u>111</u>	<u>993</u>							
722.palm_r	128	435	388	<u>438</u>	<u>386</u>	439	385							
731.astcenc_r	128	<u>225</u>	<u>477</u>	224	479	225	477							
736.ocio_r	128	251	447	251	446	<u>251</u>	<u>446</u>							
737.gmsh_r	128	193	304	193	305	<u>193</u>	<u>305</u>							
748.flightdm_r	128	186	493	<u>184</u>	<u>498</u>	184	498							
749.fotonik3d_r	128	575	257	577	256	<u>576</u>	<u>257</u>							
765.roms_r	128	682	296	<u>681</u>	<u>296</u>	680	296							
766.femflow_r	128	213	882	214	877	<u>213</u>	<u>882</u>							
767.nest_r	128	255	399	<u>253</u>	<u>400</u>	253	401							
772.marian_r	128	207	976	<u>208</u>	<u>972</u>	212	955							
782.lbm_r	128	246	298	241	304	<u>244</u>	<u>300</u>							

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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.
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,

(Continued on next page)



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Operating System Notes (Continued)

'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 =

"/home/Benchmark/cpu2026-1.0.1/amd_rate_aocc510_znver5_B_lib/lib:/home/Benchmark/cpu2026-1.0.1/amd_rate_aocc510_znver5_B_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 configuration:

Determinism Slider = Power

TDP Control = Manual

TDP Limit = 240

Package Power Limit Control = Manual

Package Power Limit = 240

Power Profile Selection = High Performance

NUMA nodes per socket = NPS4

Probe Filter Organization = Shared

Interleaving Region Size = 1K Region Size

FAN Control = Full

Sysinfo program /home/Benchmark/cpu2026-1.0.1/bin/sysinfo

Rev: 779ab21020787073335a329f3a45e2cd

running on localhost Thu Aug 20 17:37:55 2026

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

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-
1. uname -srv
 2. w
 3. Username
 4. ulimit -a
 5. sysinfo process ancestry
 6. /proc/cpuinfo

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Platform Notes (Continued)

```
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
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 -srv
```

```
Linux 6.4.0-150600.23.22-default #1 SMP PREEMPT_DYNAMIC Fri Sep 13 10:42:50 UTC 2024 (5c05eeb) x86_64
```

```
2. w
```

```
17:37:55 up 2 min,  1 user,  load average: 0.53, 0.33, 0.13
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1      -               17:37   19.00s  2.73s  1.66s python3
./run_aml_rate_aocc510_znver5_B1_fprate.py
```

```
3. Username
```

```
From environment variable $USER:  root
```

```
4. ulimit -a
```

```
core file size          (blocks, -c) unlimited
data seg size           (kbytes, -d) unlimited
scheduling priority      (-e) 0
file size                (blocks, -f) unlimited
pending signals          (-i) 3090740
max locked memory        (kbytes, -l) 2048
max memory size          (kbytes, -m) unlimited
open files               (-n) 65536
pipe size                (512 bytes, -p) 8
POSIX message queues     (bytes, -q) 819200
real-time priority       (-r) 0
stack size               (kbytes, -s) unlimited
```

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Platform Notes (Continued)

```
cpu time          (seconds, -t) unlimited
max user processes (-u) 3090740
virtual memory    (kbytes, -v) unlimited
file locks        (-x) unlimited
```

5. sysinfo process ancestry

```
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
login -- root
-bash
-bash
python3 ./run_amd_rate_aocc510_znver5_B1_fprate.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/CPU2026.001/templogs/preenv.fprate.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/Benchmark/cpu2026-1.0.1
```

6. /proc/cpuinfo

```
model name      : AMD EPYC 9335 32-Core Processor
vendor_id       : AuthenticAMD
cpu family      : 26
model           : 2
stepping        : 1
microcode       : 0xb00215a
bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass
TLB size        : 192 4K pages
cpu cores       : 32
siblings        : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0:  core ids 0-31
physical id 1:  core ids 0-31
physical id 0:  apicids 0-63
physical id 1:  apicids 64-127
```

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
```

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Platform Notes (Continued)

Byte Order: Little Endian
CPU(s): 128
On-line CPU(s) list: 0-127
Vendor ID: AuthenticAMD
BIOS Vendor ID: Advanced Micro Devices, Inc.
Model name: AMD EPYC 9335 32-Core Processor
BIOS Model name: AMD EPYC 9335 32-Core Processor
BIOS CPU family: 107
CPU family: 26
Model: 2
Thread(s) per core: 2
Core(s) per socket: 32
Socket(s): 2
Stepping: 1
Frequency boost: enabled
CPU(s) scaling MHz: 71%
CPU max MHz: 4420.8979
CPU min MHz: 1500.0000
BogoMIPS: 5990.86
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 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_lld debug_swap amd_lbr_pmc_freeze
Virtualization: AMD-V
L1d cache: 3 MiB (64 instances)
L1i cache: 2 MiB (64 instances)
L2 cache: 64 MiB (64 instances)
L3 cache: 256 MiB (8 instances)
NUMA node(s): 8
NUMA node0 CPU(s): 0-7, 64-71
NUMA node1 CPU(s): 8-15, 72-79

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Platform Notes (Continued)

NUMA node2 CPU(s): 16-23,80-87
NUMA node3 CPU(s): 24-31,88-95
NUMA node4 CPU(s): 32-39,96-103
NUMA node5 CPU(s): 40-47,104-111
NUMA node6 CPU(s): 48-55,112-119
NUMA node7 CPU(s): 56-63,120-127
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/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; STIBP
always-on; 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	48K	3M	12	Data	1	64	1	64
L1i	32K	2M	8	Instruction	1	64	1	64
L2	1M	64M	16	Unified	2	1024	1	64
L3	32M	256M	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: 0-7,64-71

node 0 size: 95879 MB

node 0 free: 95407 MB

node 1 cpus: 8-15,72-79

node 1 size: 96725 MB

node 1 free: 96312 MB

node 2 cpus: 16-23,80-87

node 2 size: 96763 MB

node 2 free: 96316 MB

node 3 cpus: 24-31,88-95

node 3 size: 96763 MB

node 3 free: 96349 MB

node 4 cpus: 32-39,96-103

node 4 size: 96763 MB

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Platform Notes (Continued)

```
node 4 free: 96423 MB
node 5 cpus: 40-47,104-111
node 5 size: 96763 MB
node 5 free: 96405 MB
node 6 cpus: 48-55,112-119
node 6 size: 96763 MB
node 6 free: 96137 MB
node 7 cpus: 56-63,120-127
node 7 size: 96288 MB
node 7 free: 95867 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: 791256204 kB

10. who -r

run-level 3 Aug 20 17:36

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

Default Target Status

multi-user running

12. Services, from systemctl list-unit-files

STATE

UNIT FILES

```
enabled      YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron display-manager getty@ irqbalance
              iscsi issue-generator kbdsettings kdump kdump-early kdump-notify klog lvm2-monitor nsd
              postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore virtqemud wicked
              wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
disabled      autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
              chronyd console-getty cups cups-browsed debug-shell dnsmasq ebttables exchange-bmc-os-info
              firewallld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd iscsi-init iscsid
              issue-add-ssh-keys kexec-load ksm kvm_stat libvirt-guests lunmask man-db-create multipathd
              nfs nfs-blkmap nfs-server nfsserver rpcbind rpmconfigcheck rsyncd serial-getty@
```

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Platform Notes (Continued)

```
smartd_generate_opts snmpd snmptrapd strongswan strongswan-starter svnserve
systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-nspawn@
systemd-sysextd systemd-time-wait-sync systemd-timesyncd tcsd udisks2 virtinterfaced
virtlockd virtlogd virtnetworkd virtnodevd virtnwfilterd virtsecret virtstoraged
vncserver@
indirect pcsd systemd-userdbd tftp wickedd
```

13. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.23.22-default
root=UUID=0c0fd396-12b8-460e-af5f-2d1dba73ae32
splash=silent
mitigations=auto
quiet
security=apparmor
crashkernel=384M,high
crashkernel=72M,low
```

14. cpupower frequency-info

```
analyzing CPU 26:
  current policy: frequency should be within 1.50 GHz and 3.00 GHz.
                  The governor "performance" may decide which speed to use
                  within this range.

  boost state support:
    Supported: yes
    Active: yes
```

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
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
```

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Platform Notes (Continued)

```
vm.watermark_scale_factor      10
vm.zone_reclaim_mode           1
```

16. /sys/kernel/mm/transparent_hugepage

```
defrag      [always] defer defer+madvice madvice never
enabled     [always] madvice 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 SUSE Linux Enterprise Server 15 SP6
```

19. Disk information

SPEC is set to: /home/Benchmark/cpu2026-1.0.1

```
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda3        xfs   1.4T  155G  1.3T  11% /home
```

20. /sys/devices/virtual/dmi/id

```
Vendor:      FUJITSU
Product:     PRIMERGY RX2450 M2
Product Family: SERVER
Serial:      xxxxxxxxxx
```

21. dmidecode

Additional information from dmidecode 3.4 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:

```
12x Micron Technology MTC20F2085S1RC64BD2 MWHF 32 GB 2 rank 6400
12x Samsung M321R4GA3EB2-CCPKF 32 GB 2 rank 6400
```

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Platform Notes (Continued)

22. BIOS

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

BIOS Vendor: FUJITSU // American Megatrends Inc.

BIOS Version: V5.0.0.35 R2.11.0 for D4129-A1x

BIOS Date: 01/29/2026

BIOS Revision: 2.11

Firmware Revision: 2.47

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

=====
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

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SPEC CPU®2026 Floating Point Rate Result

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Fsas Technologies Inc.

(Test Sponsor: Fujitsu)

PRIMERGY RX2450 M2,
AMD EPYC 9335, 3.00 GHz

SPECrate®2026_fp_base = 463

SPECrate®2026_fp_peak = Not Run

CPU2026 License: 19

Test Sponsor: Fujitsu

Tested by: Fsas Technologies Inc.

Test Date: Aug-2026

Hardware Availability: Jul-2026

Software Availability: Jan-2026

Compiler Version Notes (Continued)

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

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Base Optimization Flags (Continued)

C++ benchmarks (continued):

```
-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/Fujitsu-Platform-Settings-V1.0-Turin-RevF.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/Fujitsu-Platform-Settings-V1.0-Turin-RevF.xml>

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