SPEC CPU®2026 Floating Point Rate Result

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Compal Electronics, Inc.

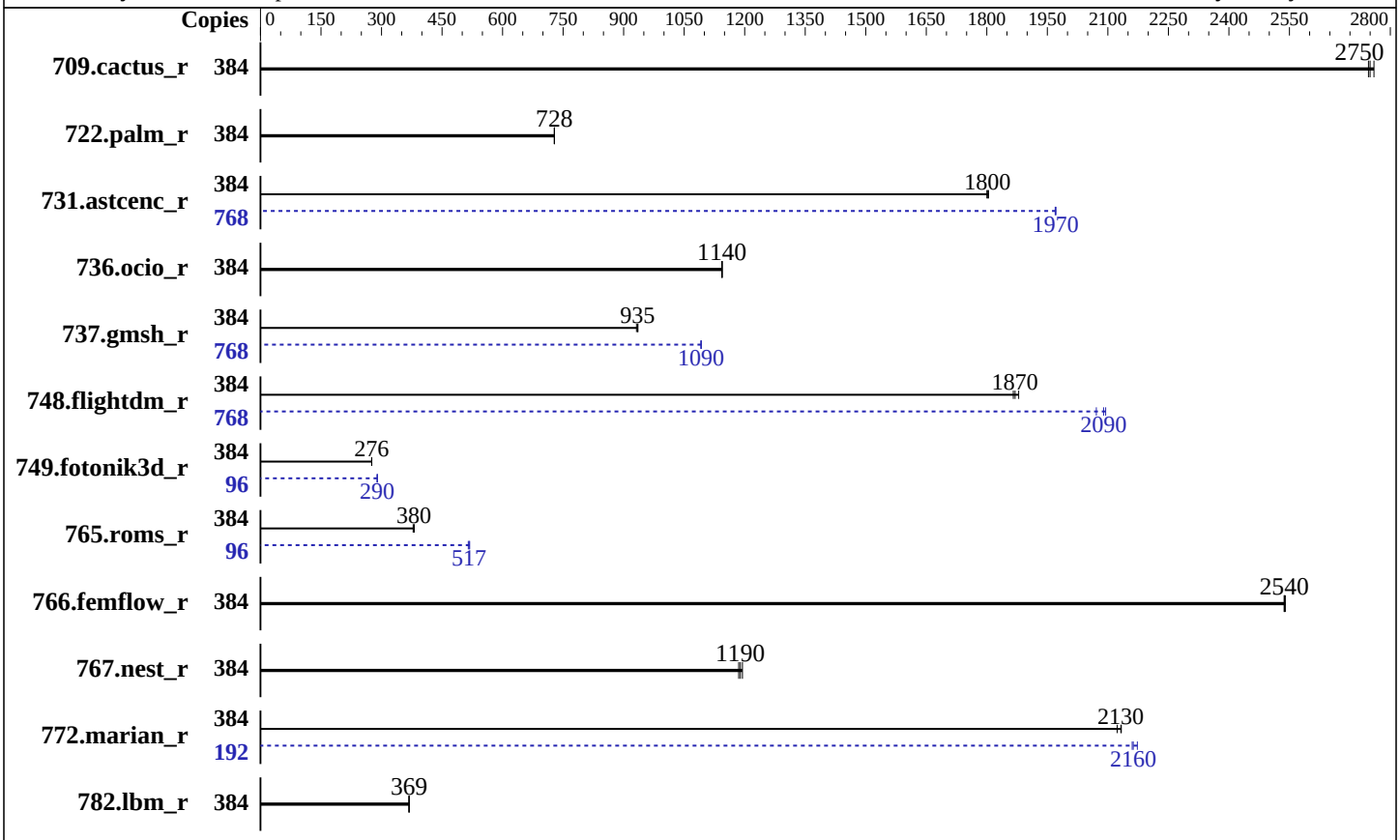
SR224-2A
AMD EPYC 9965

SPECrate®2026_fp_base = 1050

SPECrate®2026_fp_peak = 1120

CPU2026 License: 6857
Test Sponsor: Compal Electronics, Inc.
Tested by: Compal Electronics, Inc.

Test Date: Jul-2026
Hardware Availability: Jul-2025
Software Availability: May-2026



Hardware

CPU Name:	AMD EPYC 9965
Max MHz:	3700
Nominal:	2250
Enabled:	384 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:	384 MB I+D on chip per chip, 32 MB shared / 16 cores
Other:	None
Memory:	768 GB (24 x 32 GB 2Rx8 PC5-6400B-R)
Storage:	1x3.84TB M.2 NVMe SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP7 kernel version 6.4.0-150700.51-default
Compiler:	C/C++/Fortran: Version 5.2.0 of AOCC
Compiler Category:	Vendor
Firmware:	American Megatrends Version 10.28.00 released Jan-2026
File System:	btrfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	jemalloc: jemalloc memory allocator library v5.3.1
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	384	120	2750	119	2760	**120**	**2750**	384	120	2750	119	2760	**120**	**2750**
722.palm_r	384	696	729	696	728	**696**	**728**	384	696	729	696	728	**696**	**728**
731.astcenc_r	384	179	1800	**179**	**1800**	179	1800	768	328	1970	**327**	**1970**	327	1970
736.ocio_r	384	**294**	**1140**	294	1140	294	1140	384	**294**	**1140**	294	1140	294	1140
737.gmsh_r	384	189	932	188	935	**189**	**935**	768	323	1090	**323**	**1090**	323	1090
748.flightdm_r	384	146	1880	**147**	**1870**	147	1870	768	265	2070	263	2090	**263**	**2090**
749.fotonik3d_r	384	1612	275	**1610**	**276**	1609	276	96	383	290	**383**	**290**	384	289
765.roms_r	384	1587	381	1598	378	**1591**	**380**	96	292	518	294	515	**292**	**517**
766.femflow_r	384	222	2540	222	2540	**222**	**2540**	384	222	2540	222	2540	**222**	**2540**
767.nest_r	384	**256**	**1190**	257	1190	255	1190	384	**256**	**1190**	257	1190	255	1190
772.marian_r	384	286	2120	284	2130	**284**	**2130**	192	**140**	**2160**	140	2170	140	2160
782.lbm_r	384	598	368	**597**	**369**	597	369	384	598	368	**597**	**369**	597	369

SPECrate®2026_fp_base = 1050

SPECrate®2026_fp_peak = 1120

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.
```

(Continued on next page)

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 =
"/cpu2026/amd_rate_aocc520_znver5_A_lib/lib:/cpu2026/amd_rate_aocc520_zn
ver5_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
jemalloc: configured and built with GCC v15.2.0 in Ubuntu 24.04 (No options specified)
jemalloc 5.3.1 is available here:
https://github.com/jemalloc/jemalloc/releases/tag/5.3.1

Platform Notes

BIOS settings:
TDP Control: Manual
TDP: 500
PPT Control: Manual
PPT: 500
NUMA Nodes Per Socket: NPS4
SMT Control : Enable
Power Profile Selection : High Performance Mode
ACPI CST C2 Latency : 18
DF Cstates: Disabled
DRAM Scrub Time: Disabled
Global C-state Control: Disabled
L1 Stream HW Prefetcher: Disable
L2 Stream HW Prefetcher: Disable
SVM mode: Disabled
SMEE: Disable
GMI encryption control: Disabled
xGMI Encryption control: Disabled

(Continued on next page)

Platform Notes (Continued)

```
Sysinfo program /cpu2026/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Fri Jul 31 10:31:09 2026

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

------------------------------------------------------------
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 254 (254.24+suse.148.g83b9060b6e)
12. Failed units, from systemctl list-units --state=failed
13. Services, from systemctl list-unit-files
14. Linux kernel boot-time arguments, from /proc/cmdline
15. cpupower frequency-info
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 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611) x86_64

------------------------------------------------------------
2. w
   10:31:09 up 17:32,  4 users,  load average: 0.33, 0.19, 0.07
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
 root     pts/0    192.168.68.2     Thu17    8.00s  1.57s  0.22s python3 ./run_amd_rate_aocc520_znver5_A1.py
  root     pts/1    192.168.68.2     Thu17   17:06m  0.16s  0.16s -bash

------------------------------------------------------------
3. Username
```


(Continued on next page)

Platform Notes (Continued)

```
  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) 3091974
  max locked memory       (kbytes, -l) 2048
  max memory size         (kbytes, -m) unlimited
  open files                      (-n) 1024
  pipe size            (512 bytes, -p) 8
  POSIX message queues     (bytes, -q) 819200
  real-time priority              (-r) 0
  stack size              (kbytes, -s) unlimited
  cpu time               (seconds, -t) unlimited
  max user processes              (-u) 3091974
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@pts/0
 -bash
 python3 ./run_amd_rate_aocc520_znver5_A1.py
 runcpu --config amd_rate_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 fprate
 runcpu --configfile amd_rate_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 --nopower
   --runmode rate --tune base:peak --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 = /cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9965 192-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 26
    model           : 17
    stepping        : 0
    microcode       : 0xb101054
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
    TLB size        : 192 4K pages
    cpu cores       : 192
```

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Platform Notes (Continued)

```
     siblings        : 384
     2 physical ids (chips)
     768 processors (hardware threads)
     physical id 0: core ids 0-191
     physical id 1: core ids 0-191
     physical id 0: apicids 0-383
     physical id 1: apicids 512-895
   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 2.40.4:
   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):                               768
   On-line CPU(s) list:                  0-767
   Vendor ID:                            AuthenticAMD
   Model name:                           AMD EPYC 9965 192-Core Processor
   CPU family:                           26
   Model:                                17
   Thread(s) per core:                   2
   Core(s) per socket:                   192
   Socket(s):                            2
   Stepping:                             0
   Frequency boost:                      enabled
   CPU(s) scaling MHz:                   100%
   CPU max MHz:                          3700.0000
   CPU min MHz:                          1200.0000
   BogoMIPS:                             4493.30
   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
```


(Continued on next page)

Platform Notes (Continued)

```
                                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 debug_swap hv_inuse_wr_allowed srso_user_kernel_no
                                        amd_lbr_pmc_freeze
  L1d cache:                            18 MiB (384 instances)
  L1i cache:                            12 MiB (384 instances)
  L2 cache:                             384 MiB (384 instances)
  L3 cache:                             768 MiB (24 instances)
  NUMA node(s):                         8
  NUMA node0 CPU(s):                    0-47,384-431
  NUMA node1 CPU(s):                    48-95,432-479
  NUMA node2 CPU(s):                    96-143,480-527
  NUMA node3 CPU(s):                    144-191,528-575
  NUMA node4 CPU(s):                    192-239,576-623
  NUMA node5 CPU(s):                    240-287,624-671
  NUMA node6 CPU(s):                    288-335,672-719
  NUMA node7 CPU(s):                    336-383,720-767
  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; IBPB on VMEXIT only
  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; PBRSB-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      18M   12 Data            1    64        1             64
     L1i       32K      12M    8 Instruction     1    64        1             64
     L2         1M     384M   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)
```


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Platform Notes (Continued)

```
   node 0 cpus: 0-47,384-431
   node 0 size: 96108 MB
   node 0 free: 95464 MB
   node 1 cpus: 48-95,432-479
   node 1 size: 96742 MB
   node 1 free: 96091 MB
   node 2 cpus: 96-143,480-527
   node 2 size: 96742 MB
   node 2 free: 96162 MB
   node 3 cpus: 144-191,528-575
   node 3 size: 96704 MB
   node 3 free: 96130 MB
   node 4 cpus: 192-239,576-623
   node 4 size: 96742 MB
   node 4 free: 96151 MB
   node 5 cpus: 240-287,624-671
   node 5 size: 96742 MB
   node 5 free: 95003 MB
   node 6 cpus: 288-335,672-719
   node 6 size: 96742 MB
   node 6 free: 96118 MB
   node 7 cpus: 336-383,720-767
   node 7 size: 96495 MB
   node 7 free: 95922 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:       791574364 kB

------------------------------------------------------------
10. who -r
  run-level 3 Jul 30 16:59

------------------------------------------------------------
11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
  Default Target  Status
  multi-user      degraded
```

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Platform Notes (Continued)

```
------------------------------------------------------------
12. Failed units, from systemctl list-units --state=failed
    UNIT                                LOAD   ACTIVE SUB    DESCRIPTION
  * firewalld.service                 loaded failed failed firewalld - dynamic firewall daemon
  * kdump-early.service               loaded failed failed Load kdump kernel early on startup
  * kdump.service                       loaded failed failed Load kdump kernel and initrd
  * NetworkManager-wait-online.service loaded failed failed Network Manager Wait Online

------------------------------------------------------------
13. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online
                  YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth chronyd
                   cron display-manager firewalld getty@ irqbalance issue-generator kbdsettings kdump
                  kdump-early kdump-notify klog lvm2-monitor nscd nvmefc-boot-connections nvmf-autoconnect
                   postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wpa_supplicant
  enabled-runtime  systemd-remount-fs
  disabled         accounts-daemon autofs autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl
                  ca-certificates chrony-wait console-getty cups cups-browsed debug-shell dnsmasq ebtables
                   exchange-bmc-os-info fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd
                   issue-add-ssh-keys kexec-load ksm kvm_stat lunmask man-db-create mariadb mariadb@
                  multipathd munge nfs nfs-blkmap nmb ntp-wait ntpd ostree-remount ostree-state-overlay@
                 rpcbind rpmconfigcheck rsyncd rtkit-daemon salt-minion samba-bgqd serial-getty@ slurmctld
                  slurmd slurmdbd smartd_generate_opts smb snmpd snmptrapd speech-dispatcherd svnserve
                  systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext
                 systemd-time-wait-sync systemd-timesyncd udisks2 update-system-flatpaks upower vncserver@
                  wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant@ ypbind
  indirect             systemd-userdbd wickedd

------------------------------------------------------------
14. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default
  root=UUID=03f2994f-ee68-4440-b1db-7d3f781cf8b4
  splash=silent
  mitigations=auto
  quiet
  security=apparmor
  crashkernel=380M,high
  crashkernel=72M,low,
  amd_pstate=passive

------------------------------------------------------------
15. cpupower frequency-info
  analyzing CPU 53:
    current policy: frequency should be within 1.20 GHz and 3.70 GHz.
                    The governor "performance" may decide which speed to use
```

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Platform Notes (Continued)

```
                    within this range.
     boost state support:
       Supported: yes
       Active: yes

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

------------------------------------------------------------
17. /sys/kernel/mm/transparent_hugepage
  defrag          [always] defer defer+madvise madvise never
  enabled         [always] madvise never
  hpage_pmd_size  2097152
  shmem_enabled   always within_size advise [never] deny force

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

(Continued on next page)

Platform Notes (Continued)

```
   os-release SUSE Linux Enterprise Server 15 SP7

 ------------------------------------------------------------
 20. Disk information
 SPEC is set to: /cpu2026
   Filesystem     Type   Size  Used Avail Use% Mounted on
   /dev/nvme0n1p2 btrfs  1.0T   66G  956G   7% /

 ------------------------------------------------------------
 21. /sys/devices/virtual/dmi/id
     Vendor:          COMPAL
     Product:         COMPAL SERVER
     Product Family: COMPAL
     Serial:          7901567500001

 ------------------------------------------------------------
 22. dmidecode
   Additional information from dmidecode 3.7 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 Samsung M321R4GA3EB2-CCPKC 32 GIB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      10.28.00
    BIOS Date:         01/29/2026
    BIOS Revision:     5.35
    Firmware Revision: 5.35
```

Compiler Version Notes

```
==============================================================================
C       | 782.lbm_r(base, peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------

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

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Compiler Version Notes (Continued)

```
C++      | 731.astcenc_r(base, peak) 736.ocio_r(base, peak)
         | 748.flightdm_r(base, peak) 766.femflow_r(base, peak)
         | 767.nest_r(base, peak) 772.marian_r(base, peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------

==============================================================================
C++, C   | 709.cactus_r(base, peak) 737.gmsh_r(base, peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/bin
------------------------------------------------------------------------------

==============================================================================
Fortran | 722.palm_r(base, peak) 749.fotonik3d_r(base, peak) 765.roms_r(base,
         | peak)
------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.2.0-Build#2035 2026_04_10)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.2.0-4925-2035/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:
`-std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -fstrip-mining -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -fremap-arrays -mllvm -inline-threshold=1500 -ljemalloc -lamdlibm`

C++ benchmarks:
`-std=c++17 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -fvirtual-function-elimination -fvisibility=hidden -mllvm -inline-threshold=1500 -ljemalloc -lamdlibm`

Fortran benchmarks:
`-std=f2008 -no-pie -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -mllvm -fuse-tile-inner-loop -ljemalloc -lamdlibm`

Benchmarks using both C and C++:
`-std=c++17 -std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -fremap-arrays -mllvm -inline-threshold=1500 -fvirtual-function-elimination -fvisibility=hidden -ljemalloc -lamdlibm`

Peak Compiler Invocation

C benchmarks:
`clang`

C++ benchmarks:
`clang++`

Fortran benchmarks:
`flang`

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Peak Compiler Invocation (Continued)

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

Peak 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

Peak Optimization Flags

C benchmarks:

782.lbm_r: basepeak = yes

C++ benchmarks:

731.astcenc_r: -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 -O3 -march=znver5
-fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math
-mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -zopt -ljemalloc
-lamdlibm

736.ocio_r: basepeak = yes

748.flightdm_r: -std=c++17 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500
-O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE
-fno-plt -ffast-math -fvirtual-function-elimination
-fvisibility=hidden -mllvm -inline-threshold=1500
-ljemalloc -lamdlibm

766.femflow_r: basepeak = yes

767.nest_r: basepeak = yes

772.marian_r: Same as 731.astcenc_r

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Peak Optimization Flags (Continued)

Fortran benchmarks:

722.palm_r: `basepeak = yes`

749.fotonik3d_r: `-std=f2008 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6 -Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -Ofast -Mrecursive -mllvm -reduce-array-computations=3 -fepilog-vectorization-of-inductions -zopt -ljemalloc -lamdlibm`

765.roms_r: `Same as 749.fotonik3d_r`

Benchmarks using both C and C++:

709.cactus_r: `basepeak = yes`

737.gmsh_r: `-std=c++17 -std=c18 -no-pie -Wl,-mllvm -Wl,-inline-threshold=1500 -O3 -march=znver5 -fveclib=AMDLIBM -flto -fno-PIE -fno-plt -ffast-math -fremap-arrays -mllvm -inline-threshold=1500 -fvirtual-function-elimination -fvisibility=hidden -ljemalloc -lamdlibm`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Compal-Platform-Flags-Linux-AMD_V1.8.html
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-08-11.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Compal-Platform-Flags-Linux-AMD_V1.8.xml
http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-08-11.xml

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

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