



SPEC CPU®2026 Integer Speed Result

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Compal Electronics, Inc.

SR224-2A
AMD EPYC 9845

SPECspeed®2026_int_base = 7.66

SPECspeed®2026_int_peak = 7.95

CPU2026 License: 6857

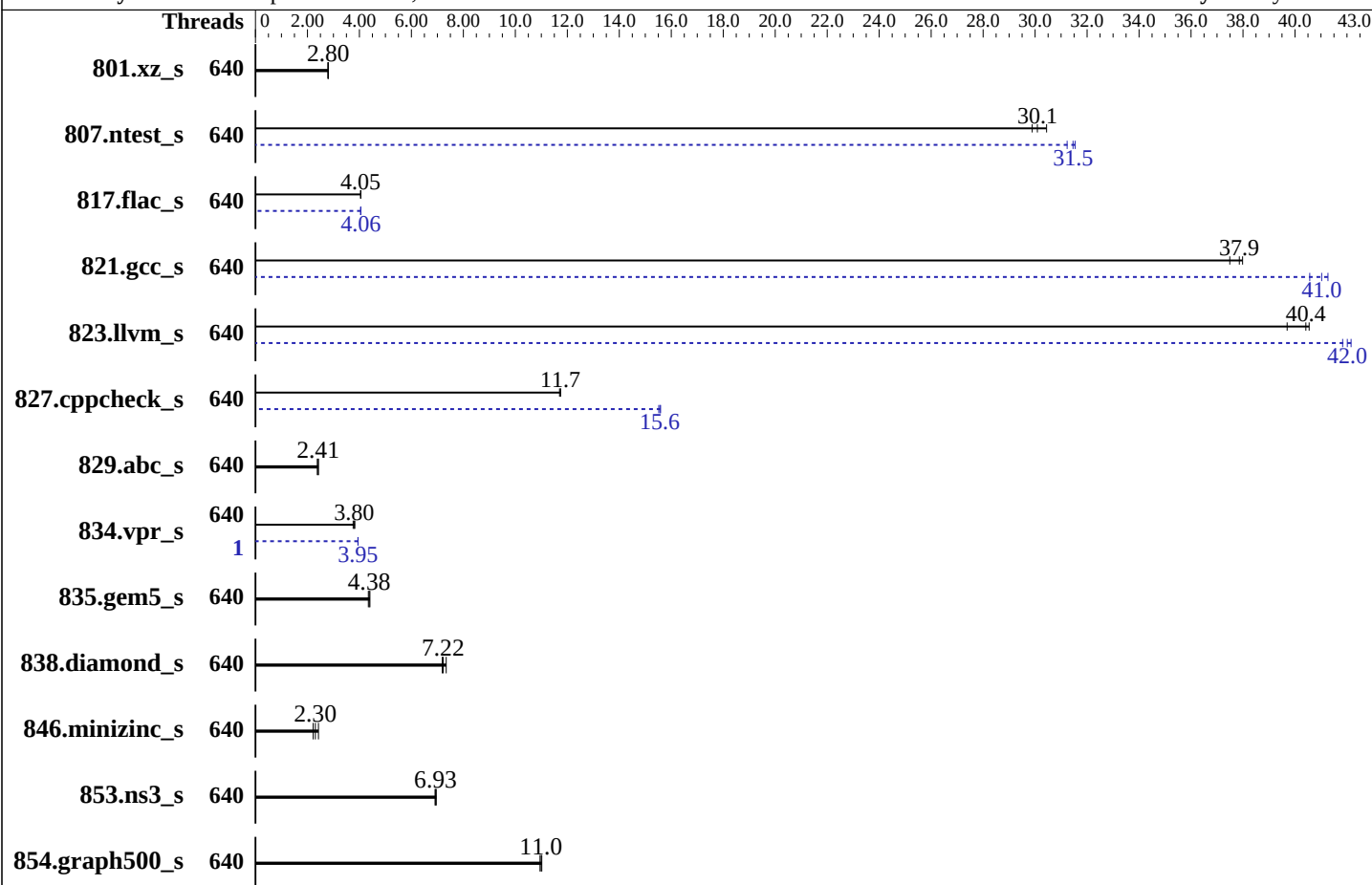
Test Sponsor: Compal Electronics, Inc.

Tested by: Compal Electronics, Inc.

Test Date: Sep-2026

Hardware Availability: Jul-2025

Software Availability: May-2026



Hardware

CPU Name: AMD EPYC 9845
Max MHz: 3700
Nominal: 2100
Enabled: 320 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: 320 MB I+D on chip per chip, 32 MB shared / 16 cores
Other: None
Memory: 1536 GB (24 x 64 GB 2Rx8 PC5-6400B-R)

Storage: 1 x 3.84TB 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++: Version 5.2.0 of AOCC
Fortran: Flang v22
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: 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						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
801.xz_s	640	212	2.78	210	2.81	<u>211</u>	<u>2.80</u>	640	212	2.78	210	2.81	<u>211</u>	<u>2.80</u>
807.ntest_s	640	<u>37.9</u>	<u>30.1</u>	38.1	29.9	37.4	30.4	640	36.1	31.5	<u>36.2</u>	<u>31.5</u>	36.5	31.2
817.flac_s	640	429	4.05	<u>429</u>	<u>4.05</u>	429	4.05	640	429	4.04	<u>428</u>	<u>4.06</u>	428	4.06
821.gcc_s	640	55.2	37.5	<u>54.7</u>	<u>37.9</u>	54.5	38.0	640	<u>50.5</u>	<u>41.0</u>	51.0	40.6	50.2	41.3
823.llvm_s	640	<u>34.9</u>	<u>40.4</u>	34.8	40.5	35.5	39.7	640	<u>33.6</u>	<u>42.0</u>	33.7	41.8	33.5	42.2
827.cppcheck_s	640	95.6	11.7	95.3	11.7	<u>95.4</u>	<u>11.7</u>	640	71.8	15.6	<u>71.9</u>	<u>15.6</u>	72.1	15.5
829.abc_s	640	<u>344</u>	<u>2.41</u>	343	2.42	349	2.38	640	<u>344</u>	<u>2.41</u>	343	2.42	349	2.38
834.vpr_s	640	249	3.82	254	3.76	<u>251</u>	<u>3.80</u>	1	<u>242</u>	<u>3.95</u>	242	3.95	242	3.94
835.gem5_s	640	<u>260</u>	<u>4.38</u>	259	4.40	262	4.34	640	<u>260</u>	<u>4.38</u>	259	4.40	262	4.34
838.diamond_s	640	139	7.19	<u>139</u>	<u>7.22</u>	136	7.34	640	139	7.19	<u>139</u>	<u>7.22</u>	136	7.34
846.minizinc_s	640	302	2.22	<u>291</u>	<u>2.30</u>	276	2.42	640	302	2.22	<u>291</u>	<u>2.30</u>	276	2.42
853.ns3_s	640	166	6.96	<u>166</u>	<u>6.93</u>	167	6.91	640	166	6.96	<u>166</u>	<u>6.93</u>	167	6.91
854.graph500_s	640	55.8	10.9	<u>55.6</u>	<u>11.0</u>	55.5	11.0	640	55.8	10.9	<u>55.6</u>	<u>11.0</u>	55.5	11.0

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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/>
Flang v22 is available at
<https://flang.llvm.org/>

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 --physcpubind=0-15 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,

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Operating System Notes (Continued)

'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,
'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:
GOMP_CPU_AFFINITY = "0-639"
LD_LIBRARY_PATH =
 "/cpu2026/amd_speed_aocc520_znver5_A_lib/lib:/cpu2026/amd_speed_aocc520_znver5_A_lib/lib32:"
MALLOC_CONF = "retain:true"
OMP_THREAD_LIMIT = "640"

General Notes

Binaries were compiled on a system with an AMD EPYC 9754 CPU + 768 GiB Memory using Ubuntu 24.04

Platform Notes

BIOS settings:
TDP Control: Manual
TDP: 400
PPT Control: Manual
PPT: 400
NUMA Nodes Per Socket: NPS1
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
SVM mode: Disable
SR-IOV Support: Disable
GMI folding: Disabled
Prefetch/Request Throttle: Disable
SMEE: Disable
separate cpu power plane throttling: Disable

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Platform Notes (Continued)

OS setting:

cpupower: amd-pstate-epp

Sysinfo program /cpu2026/bin/sysinfo

Rev: 779ab21020787073335a329f3a45e2cd

running on localhost Tue Sep 15 00:01:47 2026

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

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11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
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17. /sys/kernel/mm/transparent_hugepage/khugepaged
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22. 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

00:01:47 up 7:35, 2 users, load average: 0.15, 0.03, 0.01

USER	TTY	FROM	LOGIN@	IDLE	JCPU	PCPU	WHAT
root	pts/0	192.168.68.2	16:26	12.00s	6.76s	5.66s	python3
./run_amd_speed_aocc520_znver5_A1.py							

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Platform Notes (Continued)

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) 6186920
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) 6186920
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_speed_aocc520_znver5_A1.py
runcpu --config amd_speed_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 intspeed
runcpu --configfile amd_speed_aocc520_znver5_A1.cfg --tune all --reportable --iterations 3 --nopower
--runmode speed --tune base:peak --size test:train:refspeed intspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.001/temlogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /cpu2026
```

6. /proc/cpuinfo

```
model name      : AMD EPYC 9845 160-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 srs0
```

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Platform Notes (Continued)

TLB size : 192 4K pages
cpu cores : 160
siblings : 320
2 physical ids (chips)
640 processors (hardware threads)
physical id 0: core ids 0-159
physical id 1: core ids 0-159
physical id 0: apicids 0-319
physical id 1: apicids 512-831

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): 640
On-line CPU(s) list: 0-639
Vendor ID: AuthenticAMD
Model name: AMD EPYC 9845 160-Core Processor
CPU family: 26
Model: 17
Thread(s) per core: 2
Core(s) per socket: 160
Socket(s): 2
Stepping: 0
CPU(s) scaling MHz: 33%
CPU max MHz: 3718.0000
CPU min MHz: 1200.0000
BogoMIPS: 4193.57

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 bpxt
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

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Platform Notes (Continued)

xsaveerptr rdpru wbnoinvd amd_ppin cpgc 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 debug_swap hv_inuse_wr_allowed srso_user_kernel_no
amd_lbr_pmc_freeze

Virtualization:

AMD-V
L1d cache: 15 MiB (320 instances)
L1i cache: 10 MiB (320 instances)
L2 cache: 320 MiB (320 instances)
L3 cache: 640 MiB (20 instances)

NUMA node(s): 2

NUMA node0 CPU(s): 0-159,320-479

NUMA node1 CPU(s): 160-319,480-639

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; 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	15M	12	Data	1	64	1	64
L1i	32K	10M	8	Instruction	1	64	1	64
L2	1M	320M	16	Unified	2	1024	1	64
L3	32M	640M	16	Unified	3	32768	1	64

8. numactl --hardware

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

available: 2 nodes (0-1)

node 0 cpus: 0-159,320-479

node 0 size: 773317 MB

node 0 free: 771011 MB

node 1 cpus: 160-319,480-639

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Platform Notes (Continued)

node 1 size: 773441 MB

node 1 free: 770632 MB

node distances:

node 0 1

0: 10 32

1: 32 10

9. /proc/meminfo

MemTotal: 1583880464 kB

10. who -r

run-level 3 Sep 14 16:26

11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)

Default Target Status

multi-user running

12. Services, from systemctl list-unit-files

STATE UNIT FILES

enabled ModemManager NetworkManager NetworkManager-dispatcher YaST2-Firstboot YaST2-Second-Stage
apparmor appstream-sync-cache auditd bluetooth chronyd cron display-manager getty@
irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections
nvme-fc-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore
wpa_supplicant

enabled-runtime systemd-remount-fs

disabled NetworkManager-wait-online accounts-daemon autofs autoyast-initscripts blk-availability
bluetooth-mesh boot-sysctl ca-certificates chrony-wait console-getty cups cups-browsed
debug-shell dnsmasq ebttables exchange-bmc-os-info firewallld fsidd gpm grub2-once haveged
hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys kdump kdump-early kdump-notify
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@ slurmd smartd_generate_opts smb
snmpd snmptrapd speech-dispatcherd svnserve systemd-boot-check-no-failures systemd-confext
systemd-network-generator systemd-sysextd 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

masked packagekit

13. 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

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Platform Notes (Continued)

```
splash=silent
mitigations=auto
quiet
security=apparmor
crashkernel=380M,high
crashkernel=72M,low
amd_pstate=active
```

14. cpupower frequency-info

analyzing CPU 573:

current policy: frequency should be within 1.20 GHz and 3.72 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
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
```

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Platform Notes (Continued)

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 SP7
```

19. Disk information

SPEC is set to: /cpu2026

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme0n1p2	btrfs	1.0T	70G	953G	7%	/

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

```
Vendor:      COMPAL
Product:     COMPAL SERVER
Product Family: COMPAL
Serial:      7901567500001
```

21. 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 Unknown A5-RE1BH64M64-RP1R4R 64 GIB 2 rank 6400

22. 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
```



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Compiler Version Notes

C | 854.graph500_s(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++ | 807.ntest_s(base, peak) 827.cppcheck_s(base, peak) 853.ns3_s(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 | 801.xz_s(base, peak) 817.flac_s(base, peak) 821.gcc_s(base, peak)
| 823.llvm_s(base, peak) 829.abc_s(base, peak) 834.vpr_s(base, peak)
| 835.gem5_s(base, peak) 838.diamond_s(base, peak)
| 846.minizinc_s(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++

Benchmarks using both C and C++:

clang++ clang



SPEC CPU®2026 Integer Speed Result

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Compal Electronics, Inc.

SR224-2A
AMD EPYC 9845

SPECspeed®2026_int_base = 7.66

SPECspeed®2026_int_peak = 7.95

CPU2026 License: 6857

Test Sponsor: Compal Electronics, Inc.

Tested by: Compal Electronics, Inc.

Test Date: Sep-2026

Hardware Availability: Jul-2025

Software Availability: May-2026

Base Portability Flags

801.xz_s: -DSPEC_LP64
807.ntest_s: -DSPEC_LP64
817.flac_s: -DSPEC_LP64
821.gcc_s: -DSPEC_LP64
823.llvm_s: -DSPEC_LP64
827.cppcheck_s: -DSPEC_LP64
829.abc_s: -DSPEC_LP64
834.vpr_s: -fno-finite-math-only -DSPEC_LP64
835.gem5_s: -fno-finite-math-only -DSPEC_LP64
838.diamond_s: -DSPEC_LP64
846.minizinc_s: -DSPEC_LP64
853.ns3_s: -fno-finite-math-only -DSPEC_LP64
854.graph500_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-m64 -std=c18 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-allow-multiple-definition -Wl,-mllvm -Wl,-extra-inliner -O3 -flto
-march=znver5 -fveclib=AMDLIBM -ffast-math -zopt -fremap-arrays
-fstrip-mining -fstruct-layout=7 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -mllvm -unroll-threshold=50
-fopenmp -DSPEC_OPENMP -lamdalloc -lamdlibm -fopenmp=libomp -lomp

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 -O3 -flto -march=znver5
-fveclib=AMDLIBM -ffast-math -zopt -mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=2000000
-mllvm -reduce-array-computations=3 -fopenmp -DSPEC_OPENMP
-fvirtual-function-elimination -fvisibility=hidden -lamdalloc
-lamdlibm -fopenmp=libomp -lomp

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 -O3 -flto -march=znver5
-fveclib=AMDLIBM -ffast-math -zopt -fremap-arrays -fstrip-mining
-fstruct-layout=7 -mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -mllvm -unroll-threshold=50
-mllvm -unroll-threshold=100 -mllvm -loop-unswitch-threshold=2000000
-fopenmp -DSPEC_OPENMP -fvirtual-function-elimination

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Base Optimization Flags (Continued)

Benchmarks using both C and C++ (continued):

-fvisibility=hidden -lamdalloc -lamdlibm -fopenmp=libomp -lomp

Base Other Flags

C benchmarks:

-Wno-return-type

Benchmarks using both C and C++:

-Wno-return-type

Peak Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Benchmarks using both C and C++:

clang++ clang

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

854.graph500_s: basepeak = yes

C++ benchmarks:

807.ntest_s: -m64 -std=c++17

-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6

-Wl,-mllvm -Wl,-reduce-array-computations=3

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Peak Optimization Flags (Continued)

807.ntest_s (continued):

-Wl, -mllvm -Wl, -x86-use-vzeroupper=false
-fprofile-instr-generate(pass 1) -fprofile-instr-use(pass 2)
-Ofast -flto -march=znver5 -fveclib=AMDLIBM -ffast-math
-zopt -mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=100 -fopenmp -DSPEC_OPENMP
-fvirtual-function-elimination -fvisibility=hidden
-lamdalloc -lamdlibm -fopenmp=libomp -lomp

827.cppcheck_s: Same as 807.ntest_s

853.ns3_s: basepeak = yes

Benchmarks using both C and C++:

801.xz_s: basepeak = yes

817.flac_s: -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 -Ofast -flto
-march=znver5 -fveclib=AMDLIBM -ffast-math -zopt
-fremap-arrays -fstrip-mining -fstruct-layout=7
-mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=50 -mllvm -unroll-threshold=100
-fopenmp -DSPEC_OPENMP -fvirtual-function-elimination
-fvisibility=hidden -lamdalloc -lamdlibm -fopenmp=libomp
-lomp

821.gcc_s: -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
-fprofile-instr-generate(pass 1) -fprofile-instr-use(pass 2)
-Ofast -flto -march=znver5 -fveclib=AMDLIBM -ffast-math
-zopt -fremap-arrays -fstrip-mining -fstruct-layout=7
-mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3
-mllvm -unroll-threshold=50 -mllvm -unroll-threshold=100
-fopenmp -DSPEC_OPENMP -fvirtual-function-elimination
-fvisibility=hidden -lamdalloc -lamdlibm -fopenmp=libomp
-lomp

823.llvm_s: Same as 821.gcc_s

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Peak Optimization Flags (Continued)

829.abc_s: basepeak = yes

834.vpr_s: Same as 821.gcc_s

835.gem5_s: basepeak = yes

838.diamond_s: basepeak = yes

846.minizinc_s: basepeak = yes

Peak Other Flags

C benchmarks:

-Wno-return-type

Benchmarks using both C and C++:

-Wno-return-type

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_V1.9.html

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-10-07.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_V1.9.xml

<http://www.spec.org/cpu2026/results/flags/aocc-flags.2026-10-07.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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