SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

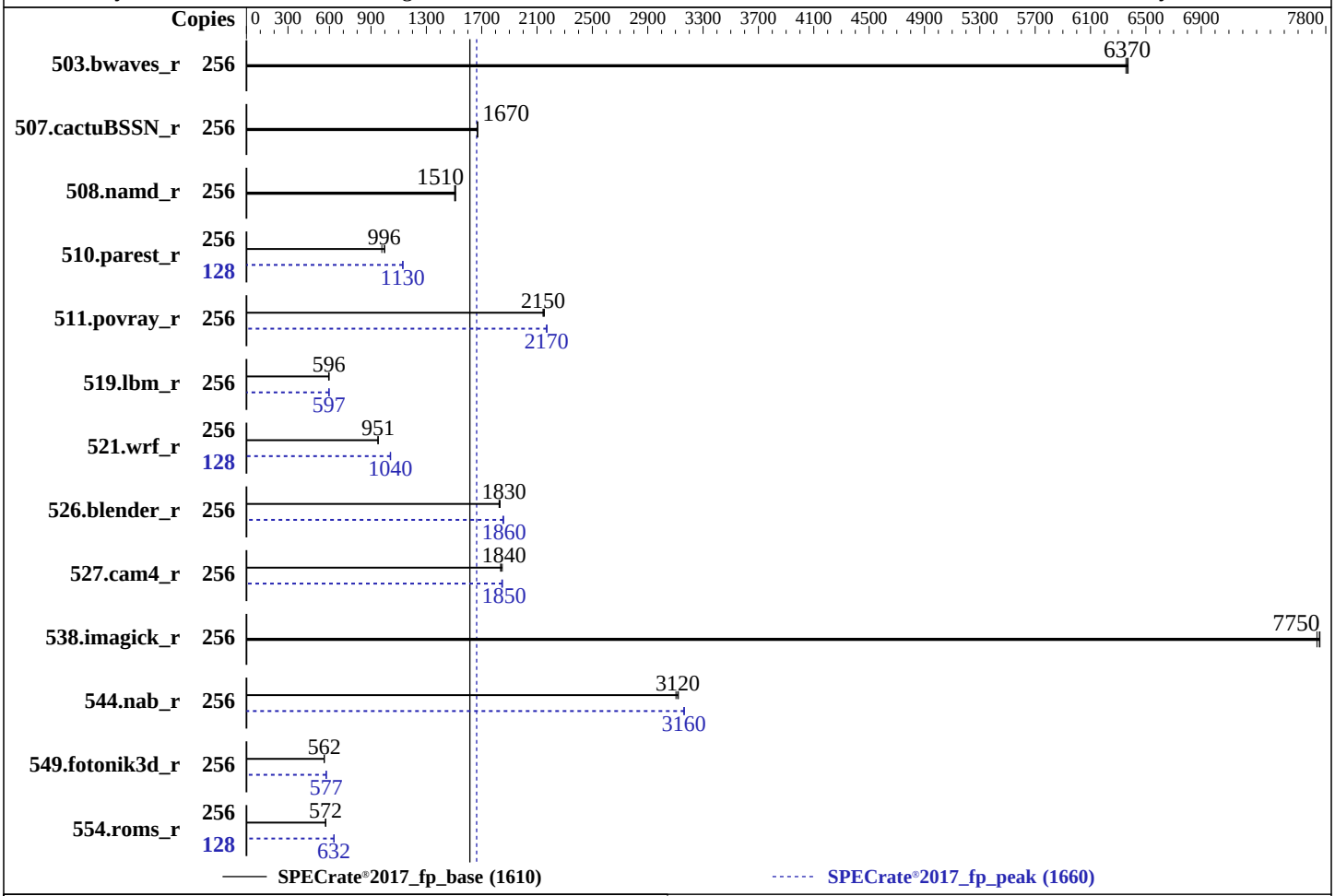
H3C UniServer R4950 G7
AMD EPYC 9754

SPECrate®2017_fp_base = 1610

SPECrate®2017_fp_peak = 1660

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.

Test Date: Mar-2025
Hardware Availability: Oct-2024
Software Availability: Oct-2024



Hardware

CPU Name:	AMD EPYC 9754
Max MHz:	3100
Nominal:	2250
Enabled:	256 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:	256 MB I+D on chip per chip, 16 MB shared / 8 cores
Other:	None
Memory:	1536 GB (24 x 64 GB 2Rx4 PC5-4800B-R)
Storage:	1 x 3.84TB SSD
Other:	CPU Cooling: Air

Software

OS:	Red Hat Enterprise Linux 9.4 (Plow) kernel version 5.14.0-427.13.1.el9_4.x86_64
Compiler:	C/C++/Fortran: Version 5.0.0 of AOCC
Parallel:	No
Firmware:	Version 6.30.37P01 released Mar-2025
File System:	xfs
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

SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

New H3C Technologies Co., Ltd.

H3C UniServer R4950 G7
AMD EPYC 9754

SPECrate®2017_fp_base = 1610

SPECrate®2017_fp_peak = 1660

CPU2017 License: 9066
Test Sponsor: New H3C Technologies Co., Ltd.
Tested by: New H3C Technologies Co., Ltd.

Test Date: Mar-2025
Hardware Availability: Oct-2024
Software Availability: Oct-2024

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	256	403	6370	404	6360	**403**	**6370**	256	403	6370	404	6360	**403**	**6370**
507.cactuBSSN_r	256	194	1670	**194**	**1670**	194	1670	256	194	1670	**194**	**1670**	194	1670
508.namd_r	256	162	1510	**162**	**1510**	161	1510	256	162	1510	**162**	**1510**	161	1510
510.parest_r	256	670	999	684	978	**672**	**996**	128	297	1130	**296**	**1130**	296	1130
511.povray_r	256	**279**	**2150**	278	2150	279	2140	256	276	2170	275	2170	**276**	**2170**
519.lbm_r	256	452	597	454	594	**453**	**596**	256	453	596	**452**	**597**	452	597
521.wrf_r	256	603	951	**603**	**951**	602	952	128	276	1040	**276**	**1040**	275	1040
526.blender_r	256	**213**	**1830**	214	1830	213	1830	256	210	1850	210	1860	**210**	**1860**
527.cam4_r	256	**243**	**1840**	242	1850	244	1840	256	**242**	**1850**	242	1850	243	1840
538.imagick_r	256	**82.1**	**7750**	82.1	7760	82.3	7740	256	**82.1**	**7750**	82.1	7760	82.3	7740
544.nab_r	256	138	3120	**138**	**3120**	139	3100	256	136	3160	**136**	**3160**	136	3160
549.fotonik3d_r	256	**1775**	**562**	1775	562	1775	562	256	**1730**	**577**	1730	577	1731	576
554.roms_r	256	710	573	711	572	**711**	**572**	128	322	632	321	633	**322**	**632**

SPECrate®2017_fp_base = 1610

SPECrate®2017_fp_peak = 1660

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)

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/cpu2017/amd_rate_aocc500_znver5_A_lib/lib:/home/cpu2017/amd_rate_aocc500_znver5_A_lib/lib32:/us
     r/local/mpc-131/lib:/usr/local/gmp-630/lib:/usr/local/mpfr-421/lib:/usr/local/isl-027/lib:/usr/local/g
     cc-1420/lib64:/usr/local/lib:/usr/lib"
MALLOC_CONF = "retain:true"
```

General Notes

```
Binaries were compiled on a system with 2x AMD EPYC 9174F CPU + 1.5TiB Memory using RHEL 8.6

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
is mitigated in the system as tested and documented.
```

Platform Notes

```
BIOS settings:
SMT Control set to Disabled
SVM Mode set to Disabled
Power Profile Selection set to High Performance Mode
Determinism Slider set to Power
cTDP set to 400
PPT set to 400
NUMA nodes per socket set to NPS 4
ACPI SRAT L3 cache as NUMA domain set to Enabled

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on localhost.localdomain Fri Mar 21 19:28:50 2025

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

 ------------------------------------------------------------
 Table of contents
 ------------------------------------------------------------
  1. uname -a
  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
```

(Continued on next page)

Platform Notes (Continued)

```
 11. Systemd service manager version: systemd 252 (252-32.el9_4)
 12. Services, from systemctl list-unit-files
 13. Linux kernel boot-time arguments, from /proc/cmdline
 14. cpupower frequency-info
 15. tuned-adm active
 16. sysctl
 17. /sys/kernel/mm/transparent_hugepage
 18. /sys/kernel/mm/transparent_hugepage/khugepaged
 19. OS release
 20. Disk information
 21. /sys/devices/virtual/dmi/id
 22. dmidecode
 23. BIOS
------------------------------------------------------------

------------------------------------------------------------
1. uname -a
  Linux localhost.localdomain 5.14.0-427.13.1.el9_4.x86_64 #1 SMP PREEMPT_DYNAMIC Wed Apr 10 10:29:16 EDT
  2024 x86_64 x86_64 x86_64 GNU/Linux

------------------------------------------------------------
2. w
   19:28:50 up 2 min,  1 user,  load average: 1.49, 1.25, 0.52
  USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
  root     pts/0     19:28   26.00s  1.55s  0.17s /bin/bash ./amd_rate_aocc500_znver5_A1.sh

------------------------------------------------------------
3. Username
  From environment variable $USER:  root

------------------------------------------------------------
4. ulimit -a
  real-time non-blocking time  (microseconds, -R) unlimited
  core file size              (blocks, -c) 0
  data seg size               (kbytes, -d) unlimited
  scheduling priority                 (-e) 0
  file size                   (blocks, -f) unlimited
  pending signals                     (-i) 6188742
  max locked memory           (kbytes, -l) 2097152
  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) 6188742
  virtual memory              (kbytes, -v) unlimited
  file locks                          (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize 31
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@pts/0
 -bash
 python3 ./run_amd_rate_aocc500_znver5_A1.py
 /bin/bash ./amd_rate_aocc500_znver5_A1.sh
 runcpu --config amd_rate_aocc500_znver5_A1.cfg --tune all --reportable --iterations 3 fprate
```

(Continued on next page)

Platform Notes (Continued)

```
 runcpu --configfile amd_rate_aocc500_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/CPU2017.006/templogs/preenv.fprate.006.0.log --lognum 006.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9754 128-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 25
    model           : 160
    stepping        : 1
    microcode       : 0xaa00116
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
    TLB size        : 3584 4K pages
    cpu cores       : 128
    siblings        : 128
    2 physical ids (chips)
    256 processors (hardware threads)
    physical id 0: core ids
    0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183,192-199,208-215,224-231,
    240-247
    physical id 1: core ids
    0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183,192-199,208-215,224-231,
    240-247
    physical id 0: apicids
    0-7,16-23,32-39,48-55,64-71,80-87,96-103,112-119,128-135,144-151,160-167,176-183,192-199,208-215,224-231,
    240-247
    physical id 1: apicids
    256-263,272-279,288-295,304-311,320-327,336-343,352-359,368-375,384-391,400-407,416-423,432-439,448-455,4
    64-471,480-487,496-503
  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 2.37.4:
  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):                               256
  On-line CPU(s) list:                  0-255
  Vendor ID:                            AuthenticAMD
  BIOS Vendor ID:                       Advanced Micro Devices, Inc.
  Model name:                           AMD EPYC 9754 128-Core Processor
  BIOS Model name:                      AMD EPYC 9754 128-Core Processor
  CPU family:                           25
  Model:                                160
  Thread(s) per core:                   1
  Core(s) per socket:                   128
  Socket(s):                            2
  Stepping:                             1
  Frequency boost:                      enabled
  CPU(s) scaling MHz:                   73%
  CPU max MHz:                          3100.3411
  CPU min MHz:                          1500.0000
  BogoMIPS:                             4489.82
```

(Continued on next page)

Platform Notes (Continued)

```
  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 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 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 overflow_recov succor smca
                                   fsrm flush_l1d debug_swap
  L1d cache:                       8 MiB (256 instances)
  L1i cache:                       8 MiB (256 instances)
  L2 cache:                        256 MiB (256 instances)
  L3 cache:                        512 MiB (32 instances)
  NUMA node(s):                    32
  NUMA node0 CPU(s):               0-7
  NUMA node1 CPU(s):               8-15
  NUMA node2 CPU(s):               16-23
  NUMA node3 CPU(s):               24-31
  NUMA node4 CPU(s):               32-39
  NUMA node5 CPU(s):               40-47
  NUMA node6 CPU(s):               48-55
  NUMA node7 CPU(s):               56-63
  NUMA node8 CPU(s):               64-71
  NUMA node9 CPU(s):               72-79
  NUMA node10 CPU(s):              80-87
  NUMA node11 CPU(s):              88-95
  NUMA node12 CPU(s):              96-103
  NUMA node13 CPU(s):              104-111
  NUMA node14 CPU(s):              112-119
  NUMA node15 CPU(s):              120-127
  NUMA node16 CPU(s):              128-135
  NUMA node17 CPU(s):              136-143
  NUMA node18 CPU(s):              144-151
  NUMA node19 CPU(s):              152-159
  NUMA node20 CPU(s):              160-167
  NUMA node21 CPU(s):              168-175
  NUMA node22 CPU(s):              176-183
  NUMA node23 CPU(s):              184-191
  NUMA node24 CPU(s):              192-199
  NUMA node25 CPU(s):              200-207
  NUMA node26 CPU(s):              208-215
  NUMA node27 CPU(s):              216-223
  NUMA node28 CPU(s):              224-231
  NUMA node29 CPU(s):              232-239
  NUMA node30 CPU(s):              240-247
  NUMA node31 CPU(s):              248-255
  Vulnerability Gather data sampling: Not affected
  Vulnerability Itlb multihit:     Not affected
  Vulnerability L1tf:              Not affected
  Vulnerability Mds:               Not affected
  Vulnerability Meltdown:          Not affected
```

(Continued on next page)

Platform Notes (Continued)

```
  Vulnerability Mmio stale data:      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/swapgs barriers and __user pointer sanitization
  Vulnerability Spectre v2:           Mitigation; Enhanced / Automatic IBRS, IBPB conditional, STIBP
                                      disabled, RSB filling, PBRSB-eIBRS 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       8M    8 Data            1    64        1             64
     L1i       32K       8M    8 Instruction     1    64        1             64
     L2         1M     256M    8 Unified         2  2048        1             64
     L3        16M     512M   16 Unified         3 16384        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 32 nodes (0-31)
  node 0 cpus: 0-7
  node 0 size: 47502 MB
  node 0 free: 47362 MB
  node 1 cpus: 8-15
  node 1 size: 48381 MB
  node 1 free: 48273 MB
  node 2 cpus: 16-23
  node 2 size: 48381 MB
  node 2 free: 48256 MB
  node 3 cpus: 24-31
  node 3 size: 48381 MB
  node 3 free: 48257 MB
  node 4 cpus: 32-39
  node 4 size: 48381 MB
  node 4 free: 48195 MB
  node 5 cpus: 40-47
  node 5 size: 48381 MB
  node 5 free: 48260 MB
  node 6 cpus: 48-55
  node 6 size: 48381 MB
  node 6 free: 48263 MB
  node 7 cpus: 56-63
  node 7 size: 48381 MB
  node 7 free: 48250 MB
  node 8 cpus: 64-71
  node 8 size: 48381 MB
  node 8 free: 48235 MB
  node 9 cpus: 72-79
  node 9 size: 48381 MB
  node 9 free: 48254 MB
  node 10 cpus: 80-87
  node 10 size: 48381 MB
  node 10 free: 48239 MB
  node 11 cpus: 88-95
  node 11 size: 48381 MB
  node 11 free: 47705 MB
  node 12 cpus: 96-103
  node 12 size: 48381 MB
  node 12 free: 48269 MB
```

(Continued on next page)

Platform Notes (Continued)

```
  node 13 cpus: 104-111
  node 13 size: 48381 MB
  node 13 free: 48266 MB
  node 14 cpus: 112-119
  node 14 size: 48381 MB
  node 14 free: 48270 MB
  node 15 cpus: 120-127
  node 15 size: 48381 MB
  node 15 free: 48268 MB
  node 16 cpus: 128-135
  node 16 size: 48381 MB
  node 16 free: 48262 MB
  node 17 cpus: 136-143
  node 17 size: 48381 MB
  node 17 free: 48238 MB
  node 18 cpus: 144-151
  node 18 size: 48381 MB
  node 18 free: 48212 MB
  node 19 cpus: 152-159
  node 19 size: 48381 MB
  node 19 free: 48260 MB
  node 20 cpus: 160-167
  node 20 size: 48379 MB
  node 20 free: 48207 MB
  node 21 cpus: 168-175
  node 21 size: 48383 MB
  node 21 free: 48218 MB
  node 22 cpus: 176-183
  node 22 size: 48379 MB
  node 22 free: 48234 MB
  node 23 cpus: 184-191
  node 23 size: 48383 MB
  node 23 free: 48228 MB
  node 24 cpus: 192-199
  node 24 size: 48381 MB
  node 24 free: 48257 MB
  node 25 cpus: 200-207
  node 25 size: 48381 MB
  node 25 free: 48268 MB
  node 26 cpus: 208-215
  node 26 size: 48381 MB
  node 26 free: 48258 MB
  node 27 cpus: 216-223
  node 27 size: 48381 MB
  node 27 free: 48243 MB
  node 28 cpus: 224-231
  node 28 size: 48381 MB
  node 28 free: 48253 MB
  node 29 cpus: 232-239
  node 29 size: 48381 MB
  node 29 free: 48262 MB
  node 30 cpus: 240-247
  node 30 size: 48381 MB
  node 30 free: 48252 MB
  node 31 cpus: 248-255
  node 31 size: 48271 MB
  node 31 free: 48137 MB
  node distances:
  node   0   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24
  25  26  27  28  29  30  31
```

(Continued on next page)

Platform Notes (Continued)

```
 0:  10  11  11  11  12  12  12  12  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 1:  11  10  11  11  12  12  12  12  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 2:  11  11  10  11  12  12  12  12  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 3:  11  11  11  10  12  12  12  12  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 4:  12  12  12  12  10  11  11  11  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 5:  12  12  12  12  11  10  11  11  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 6:  12  12  12  12  11  11  10  11  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 7:  12  12  12  12  11  11  11  10  12  12  12  12  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 8:  12  12  12  12  12  12  12  12  10  11  11  11  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
 9:  12  12  12  12  12  12  12  12  11  10  11  11  12  12  12  12  12  22  22  22  22  22  22  22  22  22
 22  22  22  22  22  22  22
10:  12  12  12  12  12  12  12  12  11  11  10  11  12  12  12  12  12  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
11:  12  12  12  12  12  12  12  12  11  11  11  10  12  12  12  12  12  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
12:  12  12  12  12  12  12  12  12  12  12  12  12  12  12  10  11  11  11  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
13:  12  12  12  12  12  12  12  12  12  12  12  12  12  12  11  10  11  11  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
14:  12  12  12  12  12  12  12  12  12  12  12  12  12  12  11  11  10  11  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
15:  12  12  12  12  12  12  12  12  12  12  12  12  12  12  11  11  11  10  22  22  22  22  22  22  22  22  22
22  22  22  22  22  22  22
16:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  10  11  11  11  12  12  12  12  12
12  12  12  12  12  12  12
17:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  11  10  11  11  12  12  12  12  12
12  12  12  12  12  12  12
18:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  11  11  10  11  12  12  12  12  12
12  12  12  12  12  12  12
19:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  11  11  11  10  12  12  12  12  12
12  12  12  12  12  12  12
20:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  10  11  11  11  12
12  12  12  12  12  12  12
21:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  11  10  11  11  12
12  12  12  12  12  12  12
22:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  11  11  10  11  12
12  12  12  12  12  12  12
23:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  11  11  11  10  12
12  12  12  12  12  12  12
24:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  10
11  11  11  12  12  12  12
25:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  11
10  11  11  12  12  12  12
26:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  11
11  10  11  12  12  12  12
27:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  11
11  11  10  12  12  12  12
28:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  12
12  12  12  10  11  11  11
29:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  12
12  12  12  11  10  11  11
```

(Continued on next page)

Platform Notes (Continued)

```
    30:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  12
    12  12  12  11  11  10  11
    31:  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  22  12  12  12  12  12  12  12  12  12
    12  12  12  11  11  11  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1584362024 kB

------------------------------------------------------------
10. who -r
  run-level 3 Mar 21 19:27

------------------------------------------------------------
11. Systemd service manager version: systemd 252 (252-32.el9_4)
  Default Target  Status
  multi-user      running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd chronyd crond
                   dbus-broker getty@ insights-client-boot irqbalance kdump lvm2-monitor mdmonitor microcode
                   nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sshd sssd systemd-boot-update
                   systemd-network-generator tuned udisks2
  enabled-runtime  systemd-remount-fs
  disabled         blk-availability chrony-wait chronyd-restricted console-getty cpupower debug-shell
                   dnf-system-upgrade firewalld hwloc-dump-hwdata kvm_stat man-db-restart-cache-update
                   nftables rdisc rhcd rhsm rhsm-facts rpmdb-rebuild selinux-check-proper-disable
                   serial-getty@ sshd-keygen@ systemd-boot-check-no-failures systemd-pstore systemd-sysext
  indirect         sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
                   systemd-sysupdate-reboot

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-427.13.1.el9_4.x86_64
  root=/dev/mapper/rhel-root
  ro
  crashkernel=1G-4G:192M,4G-64G:256M,64G-:512M
  resume=/dev/mapper/rhel-swap
  rd.lvm.lv=rhel/root
  rd.lvm.lv=rhel/swap

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 186:
    current policy: frequency should be within 1.50 GHz and 2.25 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes
      Boost States: 0
      Total States: 3
      Pstate-P0:  2250MHz

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

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
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
  os-release     Red Hat Enterprise Linux 9.4 (Plow)
  redhat-release Red Hat Enterprise Linux release 9.4 (Plow)
  system-release Red Hat Enterprise Linux release 9.4 (Plow)

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2017
  Filesystem            Type  Size  Used Avail Use% Mounted on
  /dev/mapper/rhel-home xfs   3.5T   44G  3.4T   2% /home

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         N/A
    Product:        N/A
    Product Family: Rack
    Serial:         N/A

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

(Continued on next page)

Platform Notes (Continued)

```
 22. dmidecode
   Additional information from dmidecode 3.5 follows.  WARNING: Use caution when you interpret this section.
   The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately
   determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
   "DMTF SMBIOS" standard.
   Memory:
     1x SK Hynix HMCG94AEBRA102N 64 GB 2 rank 4800
     17x SK Hynix HMCG94AEBRA109N 64 GB 2 rank 4800
     4x SK Hynix HMCG94AEBRA123N 64 GB 2 rank 4800
     2x SK Hynix HMCG94MEBRA109N 64 GB 2 rank 4800


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      6.30.37P01
    BIOS Date:         03/20/2025
    BIOS Revision:     5.27
```

Compiler Version Notes

```
==============================================================================================================
C               | 519.lbm_r(base, peak) 538.imagick_r(base, peak) 544.nab_r(base, peak)
--------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
C++             | 508.namd_r(base, peak) 510.parest_r(base, peak)
--------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
C++, C          | 511.povray_r(base, peak) 526.blender_r(base, peak)
--------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
C++, C, Fortran | 507.cactuBSSN_r(base, peak)
--------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
```

(Continued on next page)

Compiler Version Notes (Continued)

```
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
------------------------------------------------------------------------------------------------------------

============================================================================================================
Fortran         | 503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak) 554.roms_r(base, peak)
------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
------------------------------------------------------------------------------------------------------------

============================================================================================================
Fortran, C      | 521.wrf_r(base, peak) 527.cam4_r(base, peak)
------------------------------------------------------------------------------------------------------------
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
AMD clang version 17.0.6 (CLANG: AOCC_5.0.0-Build#1316 2024_09_09)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc/aocc-compiler-rel-5.0.0-4925-1316/bin
------------------------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
`clang`

C++ benchmarks:
`clang++`

Fortran benchmarks:
`flang`

Benchmarks using both Fortran and C:
`flang clang`

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

Benchmarks using Fortran, C, and C++:
`clang++ clang flang`

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.lbm_r: -DSPEC_LP64
521.wrf_r: -DSPEC_CASE_FLAG -Mbyteswapio -DSPEC_LP64
526.blender_r: -funsigned-char -DSPEC_LP64
527.cam4_r: -DSPEC_CASE_FLAG -DSPEC_LP64
538.imagick_r: -DSPEC_LP64
544.nab_r: -DSPEC_LP64
549.fotonik3d_r: -DSPEC_LP64
554.roms_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-ldist-scalar-expand -fenable-aggressive-gather -O3
-march=znver5 -fveclib=AMDLIBM -ffast-math -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 -ldl

C++ benchmarks:
-m64 -std=c++14 -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 -ffast-math -flto
-mllvm -unroll-threshold=100 -mllvm -loop-unswitch-threshold=200000
-mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc
-lflang -ldl

Fortran benchmarks:
-m64 -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 -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -flto -Mrecursive -funroll-loops
-mllvm -lsr-in-nested-loop -mllvm -reduce-array-computations=3
-fepilog-vectorization-of-inductions -zopt -lamdlibm -lamdalloc

(Continued on next page)

Base Optimization Flags (Continued)

Fortran benchmarks (continued):
-lflang -ldl

Benchmarks using both Fortran and C:
-m64 -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 -O3 -march=znver5
-fveclib=AMDLIBM -ffast-math -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 -Mrecursive -funroll-loops
-mllvm -lsr-in-nested-loop -fepilog-vectorization-of-inductions
-lamdlibm -lamdalloc -lflang -ldl

Benchmarks using both C and C++:
-m64 -std=c++14 -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 -ffast-math -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
-ldl

Benchmarks using Fortran, C, and C++:
-m64 -std=c++14 -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 -ffast-math -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 -Mrecursive -funroll-loops
-mllvm -lsr-in-nested-loop -fepilog-vectorization-of-inductions
-lamdlibm -lamdalloc -lflang -ldl

Base Other Flags

C benchmarks:
-Wno-unused-command-line-argument

(Continued on next page)

Base Other Flags (Continued)

C++ benchmarks:
`-Wno-unused-command-line-argument`

Fortran benchmarks:
`-Wno-unused-command-line-argument`

Benchmarks using both Fortran and C:
`-Wno-unused-command-line-argument`

Benchmarks using both C and C++:
`-Wno-unused-command-line-argument`

Benchmarks using Fortran, C, and C++:
`-Wno-unused-command-line-argument`

Peak Compiler Invocation

C benchmarks:
`clang`

C++ benchmarks:
`clang++`

Fortran benchmarks:
`flang`

Benchmarks using both Fortran and C:
`flang clang`

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

Benchmarks using Fortran, C, and C++:
`clang++ clang flang`

Peak Portability Flags

`Same as Base Portability Flags`

Peak Optimization Flags

C benchmarks:

519.lbm_r: `-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6 -Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast -march=znver5 -fveclib=AMDLIBM -ffast-math -flto -fstruct-layout=7 -mllvm -unroll-threshold=50 -fremap-arrays -fstrip-mining -mllvm -inline-threshold=1000 -mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc -ldl`

538.imagick_r: `basepeak = yes`

544.nab_r: `-m64 -flto -Wl,-mllvm -Wl,-ldist-scalar-expand -fenable-aggressive-gather -Ofast -march=znver5 -fveclib=AMDLIBM -ffast-math -fstruct-layout=7 -mllvm -unroll-threshold=50 -fremap-arrays -fstrip-mining -mllvm -inline-threshold=1000 -mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc -ldl`

C++ benchmarks:

508.namd_r: `basepeak = yes`

510.parest_r: `-m64 -std=c++14 -flto -Wl,-mllvm -Wl,-suppress-fmas -Wl,-mllvm -Wl,-x86-use-vzeroupper=false -Ofast -march=znver5 -fveclib=AMDLIBM -ffast-math -mllvm -unroll-threshold=100 -mllvm -reduce-array-computations=3 -zopt -lamdlibm -lamdalloc -ldl`

Fortran benchmarks:

503.bwaves_r: `basepeak = yes`

549.fotonik3d_r: `-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6 -Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast -march=znver5 -fveclib=AMDLIBM -ffast-math -flto -Mrecursive -mllvm -reduce-array-computations=3 -fepilog-vectorization-of-inductions -fvector-transform -fscalar-transform -lamdlibm -lamdalloc -ldl -lflang`

554.roms_r: `-m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6 -Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast -march=znver5 -fveclib=AMDLIBM -ffast-math -flto`

(Continued on next page)

Peak Optimization Flags (Continued)

554.roms_r (continued):
-Mrecursive -mllvm -reduce-array-computations=3
-fepilog-vectorization-of-inductions -zopt -lamdlibm
-lamdalloc -ldl -lflang

Benchmarks using both Fortran and C:

521.wrf_r: -m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast
-march=znver5 -fveclib=AMDLIBM -ffast-math -flto
-fstruct-layout=7 -mllvm -unroll-threshold=50
-fremap-arrays -fstrip-mining
-mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -zopt -Mrecursive
-funroll-loops -mllvm -lsr-in-nested-loop
-fepilog-vectorization-of-inductions -lamdlibm -lamdalloc
-ldl -lflang

527.cam4_r: -m64 -Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3
-Wl,-mllvm -Wl,-enable-X86-prefetching -Ofast
-march=znver5 -fveclib=AMDLIBM -ffast-math -flto
-fstruct-layout=7 -mllvm -unroll-threshold=50
-mllvm -inline-threshold=1000 -fremap-arrays
-mllvm -reduce-array-computations=3 -zopt -Mrecursive
-funroll-loops -mllvm -lsr-in-nested-loop
-fepilog-vectorization-of-inductions -lamdlibm -lamdalloc
-ldl -lflang

Benchmarks using both C and C++:

511.povray_r: -m64 -std=c++14
-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 -Ofast -march=znver5
-fveclib=AMDLIBM -ffast-math -flto -fstruct-layout=7
-mllvm -unroll-threshold=50 -mllvm -inline-threshold=1000
-fremap-arrays -mllvm -reduce-array-computations=3 -zopt
-mllvm -unroll-threshold=100
-mllvm -loop-unswitch-threshold=200000 -lamdlibm
-lamdalloc -ldl

526.blender_r: -m64 -std=c++14
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3

(Continued on next page)

Peak Optimization Flags (Continued)

526.blender_r (continued):
-Wl,-mllvm -Wl,-x86-use-vzeroupper=false -Ofast
-march=znver5 -fveclib=AMDLIBM -ffast-math -flto
-fstruct-layout=7 -mllvm -unroll-threshold=50
-fremap-arrays -fstrip-mining
-mllvm -inline-threshold=1000
-mllvm -reduce-array-computations=3 -zopt
-mllvm -unroll-threshold=100 -lamdlibm -lamdalloc -ldl

Benchmarks using Fortran, C, and C++:

507.cactuBSSN_r: basepeak = yes

Peak Other Flags

C benchmarks:
-Wno-unused-command-line-argument

C++ benchmarks:
-Wno-unused-command-line-argument

Fortran benchmarks:
-Wno-unused-command-line-argument

Benchmarks using both Fortran and C:
-Wno-unused-command-line-argument

Benchmarks using both C and C++:
-Wno-unused-command-line-argument

Benchmarks using Fortran, C, and C++:
-Wno-unused-command-line-argument

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/aocc500-flags.2024-10-10.html
http://www.spec.org/cpu2017/flags/New_H3C-Platform-AMD-Settings-V1.7-Turin.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/aocc500-flags.2024-10-10.xml
http://www.spec.org/cpu2017/flags/New_H3C-Platform-AMD-Settings-V1.7-Turin.xml

SPEC CPU and SPECrate are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU®2017 v1.1.9 on 2025-03-21 19:28:50-0400.
Report generated on 2025-06-18 10:24:32 by CPU2017 PS formatter v6716.
Originally published on 2025-06-18.