SPEC CPU®2026 Integer Speed Result

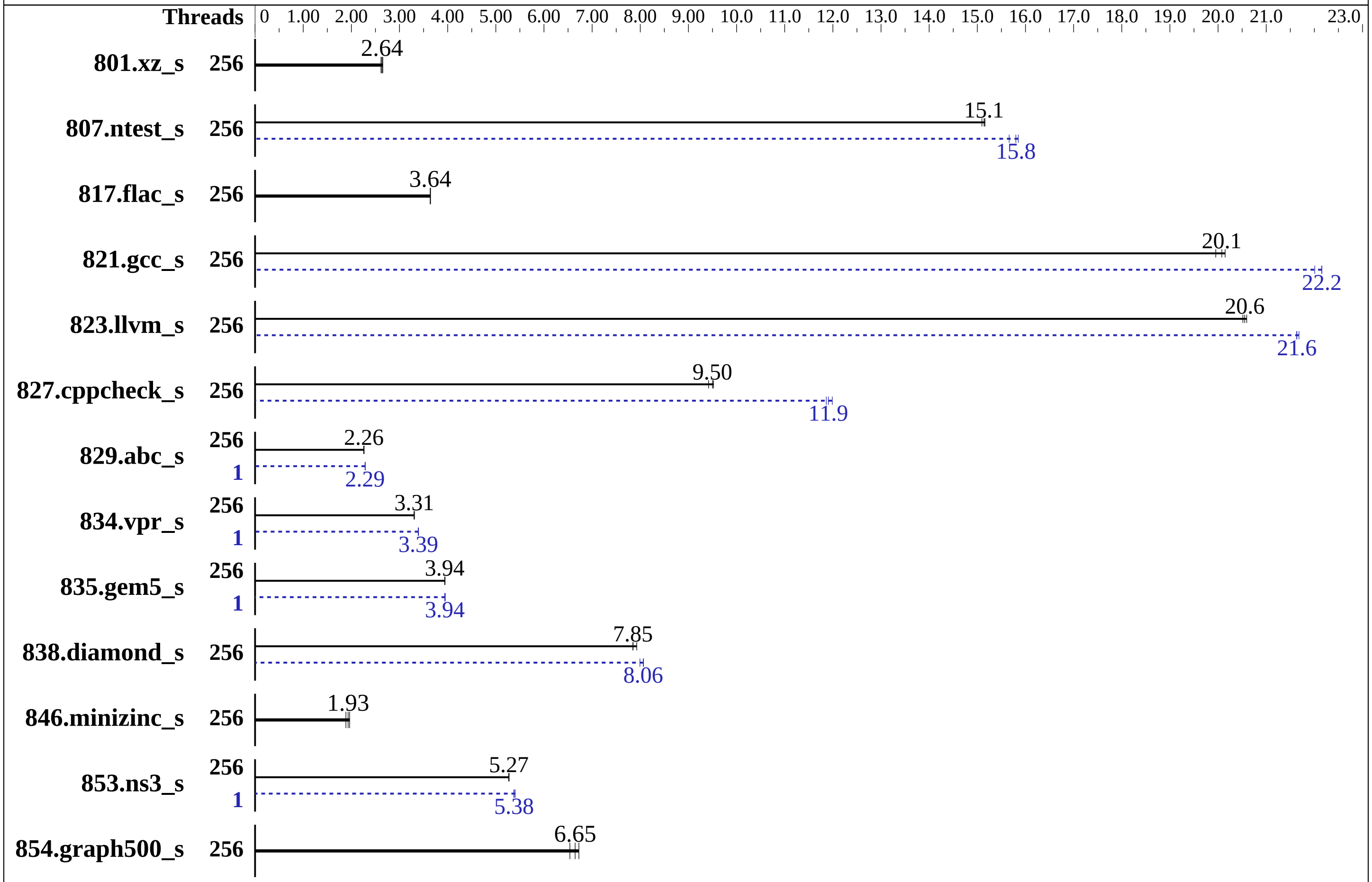
Esconet Technologies Ltd.

Hexadata HD-RS4000 Ver:TUR-02/10G
(AMD EPYC 9554 64-Core Processor)

SPECspeed®2026_int_base = 5.83

SPECspeed®2026_int_peak = 6.06

CPU2026 License:	7385	**Test Date:**	Sep-2026
Test Sponsor:	Esconet Technologies Ltd.	**Hardware Availability:**	Feb-2026
Tested by:	Esconet Technologies Ltd.	**Software Availability:**	May-2026



Hardware

CPU Name:	AMD EPYC 9554
Max MHz:	3750
Nominal:	3100
Enabled:	128 cores, 2 chips, 2 threads/core
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, 32 MB shared / 8 cores
Other:	None
Memory:	1 TB (16 x 64 GB 2Rx4 PC5-5600B-R, running at 4800)
Storage:	1 x 500 GB M.2 SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP6 6.4.0-150600.21-default
Compiler:	C/C++: Version 5.2.0 of AOCC Fortran: Flang v22
Compiler Category:	Vendor
Firmware:	Version 11.04.HD01 released Feb-2026
File System:	btrfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	None
Power Management:	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	256	226	2.61	223	2.65	**224**	**2.64**	256	226	2.61	223	2.65	**224**	**2.64**
807.ntest_s	256	75.5	15.1	**75.3**	**15.1**	75.2	15.2	256	**72.1**	**15.8**	71.9	15.9	72.8	15.7
817.flac_s	256	477	3.64	477	3.64	**477**	**3.64**	256	477	3.64	477	3.64	**477**	**3.64**
821.gcc_s	256	**103**	**20.1**	104	20.0	103	20.1	256	93.4	22.2	**93.4**	**22.2**	94.1	22.0
823.llvm_s	256	68.8	20.5	**68.6**	**20.6**	68.5	20.6	256	**65.2**	**21.6**	65.1	21.7	65.2	21.6
827.cppcheck_s	256	119	9.42	118	9.52	**118**	**9.50**	256	93.3	12.0	**94.0**	**11.9**	94.3	11.9
829.abc_s	256	**368**	**2.26**	368	2.26	367	2.27	1	**364**	**2.29**	364	2.28	363	2.29
834.vpr_s	256	289	3.30	288	3.31	**289**	**3.31**	1	281	3.39	282	3.39	**281**	**3.39**
835.gem5_s	256	**289**	**3.94**	289	3.94	289	3.95	1	**289**	**3.94**	289	3.94	288	3.95
838.diamond_s	256	126	7.93	128	7.85	**128**	**7.85**	256	125	7.99	**124**	**8.06**	124	8.07
846.minizinc_s	256	341	1.96	**347**	**1.93**	355	1.89	256	341	1.96	**347**	**1.93**	355	1.89
853.ns3_s	256	219	5.27	219	5.28	**219**	**5.27**	1	**214**	**5.38**	214	5.38	213	5.40
854.graph500_s	256	**91.9**	**6.65**	93.5	6.54	90.9	6.73	256	**91.9**	**6.65**	93.5	6.54	90.9	6.73

SPECspeed®2026_int_base = 5.83

SPECspeed®2026_int_peak = 6.06

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,
```

(Continued on next page)

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 = "0-255"
LD_LIBRARY_PATH =
     "/root/cpu2026/amd_speed_aocc520_znver5_A_lib/lib:/root/cpu2026/amd_spee
     d_aocc520_znver5_A_lib/lib32:"
MALLOC_CONF = "retain:true"
OMP_THREAD_LIMIT = "256"
```

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:
              Default

 Sysinfo program /root/cpu2026/bin/sysinfo
 Rev: 779ab21020787073335a329f3a45e2cd
 running on localhost Fri Sep 18 13:07:59 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
```

(Continued on next page)

Platform Notes (Continued)

```
  6. /proc/cpuinfo
  7. lscpu
  8. numactl --hardware
  9. /proc/meminfo
 10. who -r
 11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
 12. Services, from systemctl list-unit-files
 13. Linux kernel boot-time arguments, from /proc/cmdline
 14. cpupower frequency-info
 15. 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 -srvm
   Linux 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09) x86_64

 ------------------------------------------------------------
 2. w
    13:07:59 up 20 min,  1 user,  load average: 0.33, 0.21, 0.11
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
   root     tty1     -                02Jul26 47.00s  1.93s  0.47s python3.11
   run_amd_speed_aocc520_znver5_A1.py

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

 ------------------------------------------------------------
 4. ulimit -a
   core file size          (blocks, -c) unlimited
   data seg size           (kbytes, -d) unlimited
   scheduling priority             (-e) 0
   file size               (blocks, -f) unlimited
   pending signals                 (-i) 4124621
   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
```

(Continued on next page)

Platform Notes (Continued)

```
  real-time priority              (-r) 0
  stack size              (kbytes, -s) unlimited
  cpu time               (seconds, -t) unlimited
  max user processes              (-u) 4124621
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=31
 login -- root
 -bash
 python3.11 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/templogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /root/cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : AMD EPYC 9554 64-Core Processor
    vendor_id       : AuthenticAMD
    cpu family      : 25
    model           : 17
    stepping        : 1
    microcode       : 0xa101148
    bugs            : sysret_ss_attrs spectre_v1 spectre_v2 spec_store_bypass srso
    TLB size        : 3584 4K pages
    cpu cores       : 64
    siblings        : 128
    2 physical ids (chips)
    256 processors (hardware threads)
    physical id 0: core ids 0-63
    physical id 1: core ids 0-63
    physical id 0: apicids 0-127
    physical id 1: apicids 128-255
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
  virtualized systems.  Use the above data carefully.

------------------------------------------------------------
7. lscpu

From lscpu from util-linux 2.39.3:
  Architecture:                            x86_64
  CPU op-mode(s):                          32-bit, 64-bit
```

(Continued on next page)

Platform Notes (Continued)

```
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 9554 64-Core Processor
BIOS Model name:                 AMD EPYC 9554 64-Core Processor                Unknown CPU @ 3.1GHz
BIOS CPU family:                 107
CPU family:                      25
Model:                           17
Thread(s) per core:              2
Core(s) per socket:              64
Socket(s):                       2
Stepping:                        1
Frequency boost:                 enabled
CPU(s) scaling MHz:              83%
CPU max MHz:                     3762.9880
CPU min MHz:                     1500.0000
BogoMIPS:                        6200.27
Flags:                           fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
                                 pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt pdpe1gb
                                 rdtscp lm constant_tsc rep_good amd_lbr_v2 nopl nonstop_tsc cpuid
                                 extd_apicid aperfmperf rapl pni pclmulqdq monitor ssse3 fma cx16 pcid
                                 sse4_1 sse4_2 x2apic movbe popcnt aes xsave avx f16c rdrand lahf_lm
                                 cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse 3dnowprefetch
                                 osvw ibs skinit wdt tce topoext perfctr_core perfctr_nb bpext
                                 perfctr_llc mwaitx cpb cat_l3 cdp_l3 hw_pstate ssbd mba perfmon_v2
                                 ibrs ibpb stibp ibrs_enhanced vmmcall fsgsbase bmi1 avx2 smep bmi2
                                 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma
                                 clflushopt clwb avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec
                                 xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
                                 user_shstk avx512_bf16 clzero irperf xsaveerptr rdpru wbnoinvd
                                 amd_ppin cppc arat npt lbrv svm_lock nrip_save tsc_scale vmcb_clean
                                 flushbyasid decodeassists pausefilter pfthreshold avic
                                 v_vmsave_vmload vgif x2avic v_spec_ctrl vnmi avx512vbmi 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
Virtualization:                  AMD-V
L1d cache:                       4 MiB (128 instances)
L1i cache:                       4 MiB (128 instances)
L2 cache:                        128 MiB (128 instances)
L3 cache:                        512 MiB (16 instances)
NUMA node(s):                    2
NUMA node0 CPU(s):               0-63,128-191
NUMA node1 CPU(s):               64-127,192-255
```

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Platform Notes (Continued)

```
  Vulnerability Gather data sampling:   Not affected
  Vulnerability Itlb multihit:          Not affected
  Vulnerability L1tf:                   Not affected
  Vulnerability Mds:                    Not affected
  Vulnerability Meltdown:               Not affected
  Vulnerability Mmio stale data:        Not affected
  Vulnerability Reg file data sampling: Not affected
  Vulnerability Retbleed:               Not affected
  Vulnerability Spec rstack overflow:   Mitigation; Safe RET
  Vulnerability Spec store bypass:      Mitigation; Speculative Store Bypass disabled via prctl
  Vulnerability Spectre v1:             Mitigation; usercopy/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       32K       4M    8 Data            1    64        1             64
     L1i       32K       4M    8 Instruction     1    64        1             64
     L2         1M     128M    8 Unified         2  2048        1             64
     L3        32M     512M   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: 0-63,128-191
  node 0 size: 515659 MB
  node 0 free: 513480 MB
  node 1 cpus: 64-127,192-255
  node 1 size: 515521 MB
  node 1 free: 514026 MB
  node distances:
  node   0   1
    0:  10  32
    1:  32  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1055929120 kB

------------------------------------------------------------
10. who -r
  run-level 3 Jul 2 22:37

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

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(AMD EPYC 9554 64-Core Processor)

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CPU2026 License:	7385	**Test Date:**	Sep-2026
Test Sponsor:	Esconet Technologies Ltd.	**Hardware Availability:**	Feb-2026
Tested by:	Esconet Technologies Ltd.	**Software Availability:**	May-2026

Platform Notes (Continued)

```
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
  Default Target  Status
  multi-user      running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          apparmor auditd cron firewalld getty@ irqbalance issue-generator kbdsettings kdump
                   kdump-early kdump-notify nvmefc-boot-connections nvmf-autoconnect postfix purge-kernels
                   rollback sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6
                   wickedd-nanny
  enabled-runtime  systemd-remount-fs
  disabled         boot-sysctl ca-certificates chrony-wait chronyd console-getty debug-shell ebtables fsidd
                   grub2-once haveged hwloc-dump-hwdata issue-add-ssh-keys kexec-load lunmask nfs nfs-blkmap
                   rpcbind rpmconfigcheck serial-getty@ systemd-boot-check-no-failures systemd-confext
                   systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
  indirect         systemd-userdbd wickedd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
  root=UUID=a9f42cc9-bff7-45f3-9acc-353a5217934b
  splash=silent
  mitigations=auto
  quiet
  security=apparmor
  crashkernel=383M,high
  crashkernel=72M,low

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 36:
    current policy: frequency should be within 1.50 GHz and 3.10 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. tuned-adm active
  It seems that tuned daemon is not running, preset profile is not activated.
  Preset profile: throughput-performance

------------------------------------------------------------
16. sysctl
  kernel.numa_balancing               1
```

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Platform Notes (Continued)

```
  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 SUSE Linux Enterprise Server 15 SP6

------------------------------------------------------------
20. Disk information
SPEC is set to: /root/cpu2026
  Filesystem     Type   Size  Used Avail Use% Mounted on
  /dev/nvme0n1p2 btrfs  464G   25G  436G   6% /root
```

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Platform Notes (Continued)

```
------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         HexaData
    Product:        HD-RS4000
    Serial:         HDS20260998

------------------------------------------------------------
22. dmidecode
  Additional information from dmidecode 3.4 follows.  WARNING: Use caution when you interpret this section.
  The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately
  determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the
  "DMTF SMBIOS" standard.
  Memory:
    16x Samsung M321R8GA0PB0-CWMCJ 64 GB 2 rank 5600, configured at 4800


------------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       HexaData
   BIOS Version:      11.04.HD01
   BIOS Date:         02/09/2026
   BIOS Revision:     5.27
```

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
------------------------------------------------------------------------------

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

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Compiler Version Notes (Continued)

```
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`

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=200000
-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=200000
-fopenmp -DSPEC_OPENMP -fvirtual-function-elimination
-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
```

(Continued on next page)

Peak Compiler Invocation (Continued)

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:
`-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`
`-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`

Benchmarks using both C and C++:

801.xz_s: `basepeak = yes`

817.flac_s: `basepeak = yes`

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`

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Peak Optimization Flags (Continued)

821.gcc_s (continued):
-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

829.abc_s: Same as 821.gcc_s

834.vpr_s: Same as 821.gcc_s

835.gem5_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

838.diamond_s: Same as 821.gcc_s

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/aocc520-flags.html
http://www.spec.org/cpu2026/results/flags/HexaData-Platform-Settings-V1.2-Genoa-revA.html

Esconet Technologies Ltd.

Hexadata HD-RS4000 Ver:TUR-02/10G
(AMD EPYC 9554 64-Core Processor)

SPECspeed®2026_int_base = 5.83

SPECspeed®2026_int_peak = 6.06

CPU2026 License:	7385	**Test Date:**	Sep-2026
Test Sponsor:	Esconet Technologies Ltd.	**Hardware Availability:**	Feb-2026
Tested by:	Esconet Technologies Ltd.	**Software Availability:**	May-2026

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/aocc520-flags.xml
http://www.spec.org/cpu2026/results/flags/HexaData-Platform-Settings-V1.2-Genoa-revA.xml

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

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