SPECaccel®2023 Result

ESLIM KOREA
(Test Sponsor: Telecommunications Technology Association)

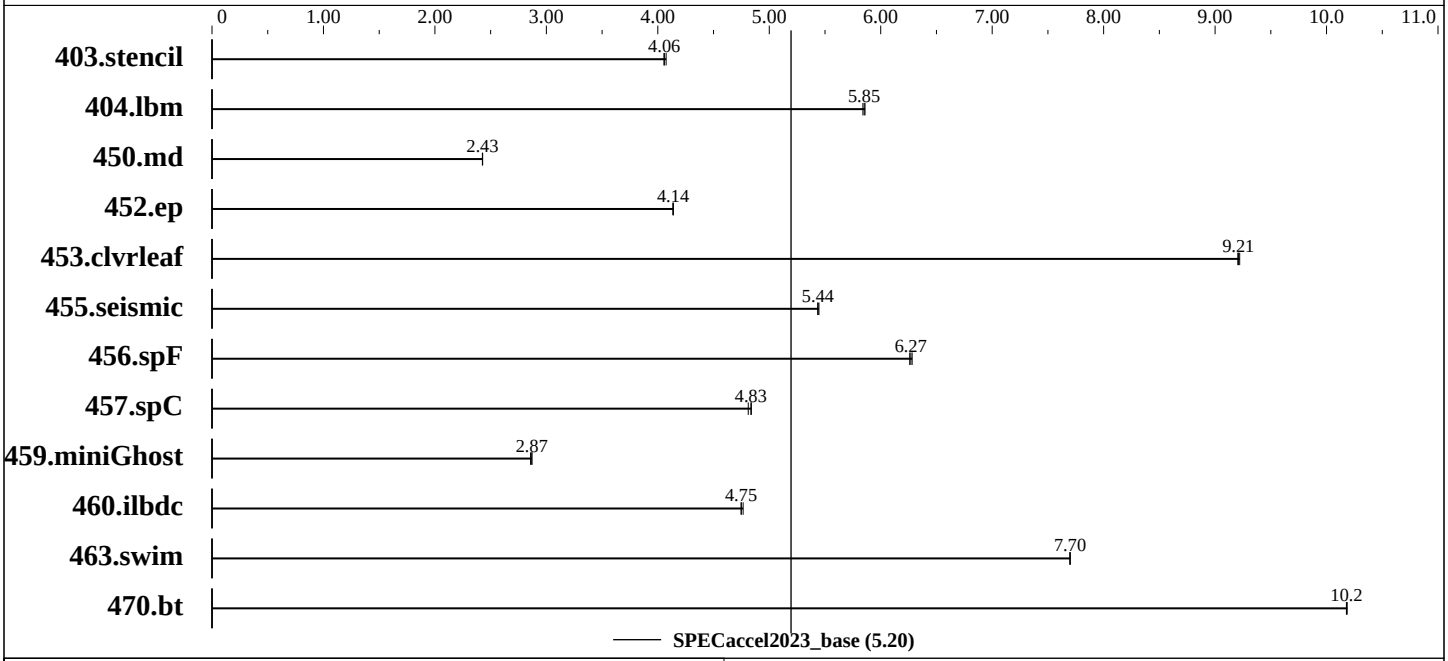
NVIDIA H100 NVL 94GB
SU7-2408BGN

SPECaccel 2023_base = 5.20

SPECaccel 2023_peak = Not Run

accel2023 License: 068A
Test Sponsor: Telecommunications Technology Association
Tested by: Telecommunications Technology Association

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



Hardware

CPU Name:	Intel Xeon 6515P
Max MHz.:	3800
Nominal:	2300
Enabled:	32 cores, 2 chips, 2 threads/core
Orderable:	2 chips
Cache L1:	64 KB I + 48 KB D on chip per core
L2:	2 MB I+D on chip per core
L3:	72 MB I+D on chip per chip
Other:	None
Memory:	512 GB (8 x 64 GB DDR5, 5600 MT/s, ECC)
Storage:	1 x 2.2 TB SAS HDD, Hardware RAID (LSI MegaRAID 3108)
Other:	None
Base Threads Run:	1
Min. Peak Threads:	--
Max. Peak Threads:	--

Accelerator

Accel Model Name:	H100 NVL 94GB
Accel Vendor:	NVIDIA Corporation
Accel Name:	NVIDIA H100 NVL 94GB
Type of Accel:	GPU
Accel Connection:	PCIe Gen5 x16
Does Accel Use ECC:	Yes
Accel Description:	NVIDIA H100 NVL 94GB
Accel Driver:	595.71.05

Software

OS:	Rocky Linux release 9.7 (Blue Onyx) 5.14.0-611.49.1.el9_7.x86_64
Compiler:	C/Fortran: Version 25.9 NVHPC SDK
Firmware:	American Megatrends Inc. 0603 10/15/2025
File System:	xfs
System State:	Run level 3 (multi-user)
Other:	None
Base Parallel Model:	ACC
Base Threads Run:	1

(Continued on next page)

Software (Continued)

Peak Parallel Models: Not Run
Max. Peak Threads: --
Min. Peak Threads: --

Results Table

Benchmark	Base							Peak						
	Model	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Model	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
403.stencil	ACC	108	4.07	108	4.06	**108**	**4.06**							
404.lbm	ACC	77.9	5.84	**77.8**	**5.85**	77.7	5.86							
450.md	ACC	247	2.43	247	2.43	**247**	**2.43**							
452.ep	ACC	**100**	**4.14**	100	4.14	100	4.14							
453.clvrleaf	ACC	108	9.22	**109**	**9.21**	109	9.20							
455.seismic	ACC	144	5.43	143	5.45	**143**	**5.44**							
456.spF	ACC	75.6	6.28	**75.8**	**6.27**	75.9	6.26							
457.spC	ACC	112	4.84	**112**	**4.83**	112	4.81							
459.miniGhost	ACC	206	2.87	**206**	**2.87**	206	2.86							
460.ilbdc	ACC	116	4.77	117	4.75	**117**	**4.75**							
463.swim	ACC	57.2	7.70	**57.1**	**7.70**	57.1	7.70							
470.bt	ACC	104	10.2	104	10.2	**104**	**10.2**							

SPEC accel2023_base = 5.20

SPEC accel2023_peak = Not Run

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

```
The config file option 'submit' was used.
```

Platform Notes

```
Sysinfo program /home/spec/accel2023/bin/sysinfo
Rev: r6622 of 2021-04-07 b1a7d5f8f71be5aff70a755cad7211a0
running on localhost.localdomain Thu May  7 11:50:27 2026

SUT (System Under Test) info as seen by some common utilities.
For more information on this section, see
   https://www.spec.org/cpu2017/Docs/config.html#sysinfo

From /proc/cpuinfo
   model name : Intel(R) Xeon(R) 6515P
      2  "physical id"s (chips)
      64 "processors"
   cores, siblings (Caution: counting these is hw and system dependent. The following
   excerpts from /proc/cpuinfo might not be reliable.  Use with caution.)
```

(Continued on next page)

Platform Notes (Continued)

```
       cpu cores : 16
       siblings  : 32
       physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
       physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

 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):                               64
      On-line CPU(s) list:                  0-63
      Vendor ID:                            GenuineIntel
      Model name:                           Intel(R) Xeon(R) 6515P
      CPU family:                           6
      Model:                                173
      Thread(s) per core:                   2
      Core(s) per socket:                   16
      Socket(s):                            2
      Stepping:                             1
      CPU(s) scaling MHz:                   34%
      CPU max MHz:                          3800.0000
      CPU min MHz:                          800.0000
      BogoMIPS:                             4600.00
      Flags:                                fpu vme de pse tsc msr pae mce cx8 apic sep
      mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall
      nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology
      nonstop_tsc cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx
      smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
      tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault
      epb cat_l3 cat_l2 cdp_l3 intel_ppin cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced
      tpr_shadow flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
      invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb
      intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc
      cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect user_shstk avx_vnni
      avx512_bf16 wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp hwp_pkg_req
      vnmi avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni
      avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri
      movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr ibt amx_bf16
      avx512_fp16 amx_tile amx_int8 flush_l1d arch_capabilities
      Virtualization:                       VT-x
      L1d cache:                            1.5 MiB (32 instances)
      L1i cache:                            2 MiB (32 instances)
      L2 cache:                             64 MiB (32 instances)
      L3 cache:                             144 MiB (2 instances)
      NUMA node(s):                         2
      NUMA node0 CPU(s):                    0-15,32-47
```

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Platform Notes (Continued)

```
      NUMA node1 CPU(s):                       16-31,48-63
      Vulnerability Gather data sampling:      Not affected
      Vulnerability Indirect target selection: Not affected
      Vulnerability Itlb multihit:             Not affected
      Vulnerability L1tf:                      Not affected
      Vulnerability Mds:                       Not affected
      Vulnerability Meltdown:                  Not affected
      Vulnerability Mmio stale data:           Not affected
      Vulnerability Reg file data sampling:    Not affected
      Vulnerability Retbleed:                  Not affected
      Vulnerability Spec rstack overflow:      Not affected
      Vulnerability Spec store bypass:         Mitigation; Speculative Store Bypass
      disabled via prctl
      Vulnerability Spectre v1:                Mitigation; usercopy/swapgs barriers and
      __user pointer sanitization
      Vulnerability Spectre v2:               Mitigation; Enhanced / Automatic IBRS; IBPB
      conditional; PBRSB-eIBRS Not affected; BHI BHI_DIS_S
      Vulnerability Srbds:                     Not affected
      Vulnerability Tsa:                       Not affected
      Vulnerability Tsx async abort:           Not affected
      Vulnerability Vmscape:                   Mitigation; IBPB before exit to userspace

  From lscpu --cache:
       NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL  SETS PHY-LINE COHERENCY-SIZE
       L1d       48K     1.5M   12 Data            1    64        1             64
       L1i       64K       2M   16 Instruction     1    64        1             64
       L2         2M      64M   16 Unified         2  2048        1             64
       L3        72M     144M   16 Unified         3 73728        1             64

  /proc/cpuinfo cache data
     cache size : 73728 KB

  From numactl --hardware
  WARNING: a numactl 'node' might or might not correspond to a physical chip.
    available: 2 nodes (0-1)
    node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 32 33 34 35 36 37 38 39 40 41 42 43
    44 45 46 47
    node 0 size: 257029 MB
    node 0 free: 254484 MB
    node 1 cpus: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 48 49 50 51 52 53 54 55 56
    57 58 59 60 61 62 63
    node 1 size: 258031 MB
    node 1 free: 243681 MB
    node distances:
    node     0    1
       0:   10   21
       1:   21   10
```

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Platform Notes (Continued)

```
From /proc/meminfo
   MemTotal:       527422020 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

/sbin/tuned-adm active
    Current active profile: accelerator-performance

/sys/devices/system/cpu/cpu*/cpufreq/scaling_governor has
   performance

From /etc/*release* /etc/*version*
   os-release:
      NAME="Rocky Linux"
      VERSION="9.7 (Blue Onyx)"
      ID="rocky"
      ID_LIKE="rhel centos fedora"
      VERSION_ID="9.7"
      PLATFORM_ID="platform:el9"
      PRETTY_NAME="Rocky Linux 9.7 (Blue Onyx)"
      ANSI_COLOR="0;32"
   redhat-release: Rocky Linux release 9.7 (Blue Onyx)
   rocky-release: Rocky Linux release 9.7 (Blue Onyx)
   rocky-release-upstream: Derived from Red Hat Enterprise Linux 9.7
   system-release: Rocky Linux release 9.7 (Blue Onyx)
   system-release-cpe: cpe:/o:rocky:rocky:9::baseos

uname -a:
   Linux localhost.localdomain 5.14.0-611.49.1.el9_7.x86_64 #1 SMP PREEMPT_DYNAMIC Thu
   Apr 23 13:13:41 UTC 2026 x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

gather_data_sampling:                                Not affected
indirect_target_selection:                           Not affected
CVE-2018-12207 (iTLB Multihit):                      Not affected
CVE-2018-3620 (L1 Terminal Fault):                   Not affected
Microarchitectural Data Sampling:                    Not affected
CVE-2017-5754 (Meltdown):                            Not affected
mmio_stale_data:                                     Not affected
reg_file_data_sampling:                              Not affected
retbleed:                                            Not affected
spec_rstack_overflow:                                Not affected
CVE-2018-3639 (Speculative Store Bypass):            Mitigation: Speculative Store
                                                     Bypass disabled via prctl
CVE-2017-5753 (Spectre variant 1):                   Mitigation: usercopy/swapgs
```

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Platform Notes (Continued)

```
                                                      barriers and __user pointer
                                                      sanitization
 CVE-2017-5715 (Spectre variant 2):                  Mitigation: Enhanced / Automatic
                                                      IBRS; IBPB: conditional;
                                                      PBRSB-eIBRS: Not affected; BHI:
                                                      BHI_DIS_S
 CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
 tsa:                                                 Not affected
 CVE-2019-11135 (TSX Asynchronous Abort):             Not affected
 vmscape:                                             Mitigation: IBPB before exit to
                                                      userspace

 run-level 3 Apr 30 13:11

 SPEC is set to: /home/spec/accel2023
    Filesystem          Type  Size  Used Avail Use% Mounted on
    /dev/mapper/rl-home xfs   2.2T   17G  2.1T   1% /home

 From /sys/devices/virtual/dmi/id
     Vendor:         ASUSTeK COMPUTER INC.
     Product:        ESC8000-E12_EM
     Product Family: Server

 Cannot run dmidecode; consider saying (as root)
    chmod +s /usr/sbin/dmidecode

 BIOS:
    BIOS Vendor:       American Megatrends Inc.
    BIOS Version:      0603
    BIOS Date:         10/15/2025

 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
C          | 457.spC(base)
------------------------------------------------------------------------------
/usr/bin/ld: /usr/lib64/crt1.o: in function `_start':
(.text+0x1b): undefined reference to `main'
pgacclnk: child process exit status 1: /usr/bin/ld
nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
Copyright (c) 2025, NVIDIA CORPORATION & AFFILIATES.  All rights reserved.
------------------------------------------------------------------------------
```

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Compiler Version Notes (Continued)

```
==============================================================================
C          | 403.stencil(base) 404.lbm(base) 452.ep(base) 470.bt(base)
------------------------------------------------------------------------------
nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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------------------------------------------------------------------------------

==============================================================================
C          | 403.stencil(base) 404.lbm(base) 452.ep(base) 470.bt(base)
------------------------------------------------------------------------------
nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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------------------------------------------------------------------------------

==============================================================================
Fortran    | 450.md(base) 455.seismic(base) 456.spF(base) 460.ilbdc(base)
------------------------------------------------------------------------------
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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------------------------------------------------------------------------------

==============================================================================
Fortran    | 463.swim(base)
------------------------------------------------------------------------------
nvfortran-Warning-The option -Mipa has been deprecated and is ignored.
nvfortran-Warning- The -gpu=pinned option is deprecated; please use
  -gpu=mem:separate:pinnedalloc instead
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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------------------------------------------------------------------------------

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

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Compiler Version Notes (Continued)

```
Fortran    | 450.md(base) 455.seismic(base) 456.spF(base) 460.ilbdc(base)
------------------------------------------------------------------------------
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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------------------------------------------------------------------------------

==============================================================================
Fortran    | 463.swim(base)
------------------------------------------------------------------------------
nvfortran-Warning-The option -Mipa has been deprecated and is ignored.
nvfortran-Warning- The -gpu=pinned option is deprecated; please use
  -gpu=mem:separate:pinnedalloc instead
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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------------------------------------------------------------------------------

==============================================================================
Fortran, C | 453.clvrleaf(base)
------------------------------------------------------------------------------
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nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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------------------------------------------------------------------------------

==============================================================================
Fortran, C | 459.miniGhost(base)
------------------------------------------------------------------------------
nvfortran-Warning-The option -Mipa has been deprecated and is ignored.
nvfortran-Warning- The -gpu=pinned option is deprecated; please use
  -gpu=mem:separate:pinnedalloc instead
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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------------------------------------------------------------------------------

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

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Compiler Version Notes (Continued)

```
Fortran, C | 453.clvrleaf(base)
------------------------------------------------------------------------------
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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------------------------------------------------------------------------------

==============================================================================
Fortran, C | 459.miniGhost(base)
------------------------------------------------------------------------------
nvfortran-Warning-The option -Mipa has been deprecated and is ignored.
nvfortran-Warning- The -gpu=pinned option is deprecated; please use
  -gpu=mem:separate:pinnedalloc instead
nvfortran 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
NVIDIA Compilers and Tools
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nvc-Warning-The option -Mipa has been deprecated and is ignored.
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nvc 25.9-0 64-bit target on x86-64 Linux -tp graniterapids
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------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
nvc

Fortran benchmarks:
nvfortran

Benchmarks using both Fortran and C:
nvfortran nvc

Base Portability Flags

457.spC: -mcmodel=medium -Wl,--no-relax

Base Optimization Flags

C benchmarks:

403.stencil: `-fast -acc`

404.lbm: `Same as 403.stencil`

452.ep: `-fast -acc -Mfprelaxed -Mstack_arrays`

457.spC: `Same as 403.stencil`

470.bt: `Same as 403.stencil`

Fortran benchmarks:

450.md: `-O3 -acc -Mfprelaxed -Mstack_arrays`

455.seismic: `-fast -acc -Mfprelaxed -Mstack_arrays`

456.spF: `-fast -acc`

460.ilbdc: `Same as 456.spF`

463.swim: `-O4 -gpu=cc90 -gpu=ptx -gpu=nordc -gpu=pinned -gpu=fastmath -acc -Mfprelaxed -Mstack_arrays -Mlre=assoc -Mipa=fast,inline`

Benchmarks using both Fortran and C:

453.clvrleaf: `-O3 -acc -Mfprelaxed -Mstack_arrays`

459.miniGhost: `-Mnomain -O4 -gpu=cc90 -gpu=ptx -gpu=nordc -gpu=pinned -gpu=fastmath -acc -Mfprelaxed -Mstack_arrays -Mlre=assoc -Mipa=fast,inline`

The flags files that were used to format this result can be browsed at
http://www.spec.org/accel2023/flags/nv2023_flags_v2.html
http://www.spec.org/accel2023/flags/nv2021_flags_v1.0.3.2026-05-14.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/accel2023/flags/nv2023_flags_v2.xml
http://www.spec.org/accel2023/flags/nv2021_flags_v1.0.3.2026-05-14.xml

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

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