SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

ZTE Corporation

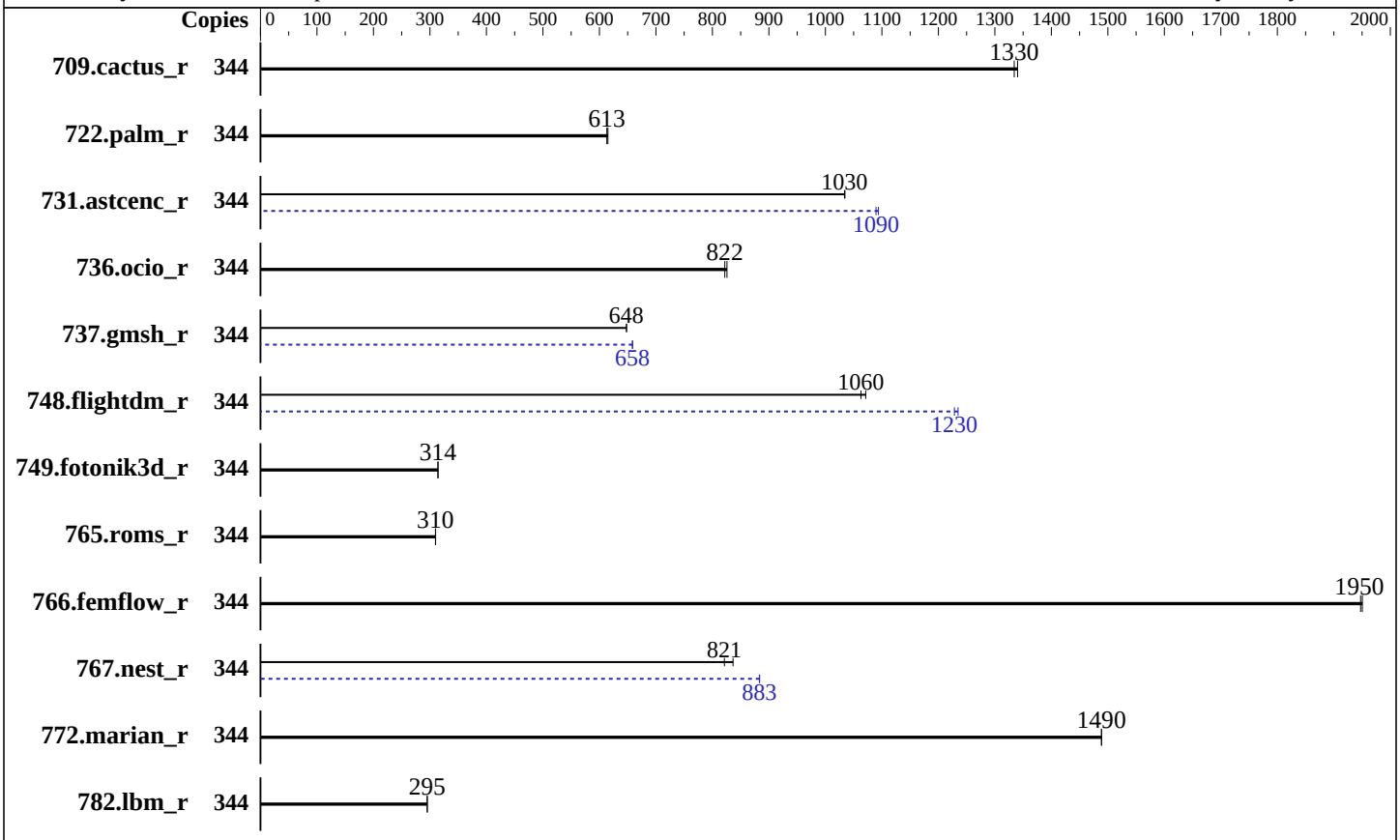
ZTE R5300G6 Server System
(2.0 GHz, Intel Xeon 6787P)

SPECrate®2026_fp_base = 752

SPECrate®2026_fp_peak = 770

CPU2026 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

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



Hardware

CPU Name:	Intel Xeon 6787P
Max MHz:	3800
Nominal:	2000
Enabled:	172 cores, 2 chips, 2 threads/core
Orderable:	1,2 chips
Cache L1:	64 KB I + 48 KB D on chip per core
L2:	2 MB I+D on chip per core
L3:	336 MB I+D on chip per chip
Other:	None
Memory:	1 TB (16 x 64 GB 4Rx8 PC5-88/64B-M, running at 8000)
Storage:	1 x 3.84 TB NVME SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP6 6.4.0-150600.21-default
Compiler:	C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2026.0 of Intel Fortran Compiler for Linux
Compiler Category:	Vendor
Firmware:	Version 05.25.03.11 released Aug-2025
File System:	ext4
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	jemalloc memory allocator v5.3
Power Management:	BIOS and OS set to prefer performance at the cost of additional power usage

SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

ZTE Corporation

ZTE R5300G6 Server System
(2.0 GHz, Intel Xeon 6787P)

SPECrate®2026_fp_base = 752

SPECrate®2026_fp_peak = 770

CPU2026 License: 9061
Test Sponsor: ZTE Corporation
Tested by: ZTE Corporation

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

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	344	220	1340	**221**	**1330**			344	220	1340	**221**	**1330**		
722.palm_r	344	738	615	**741**	**613**			344	738	615	**741**	**613**		
731.astcenc_r	344	**280**	**1030**	279	1030			344	264	1090	**265**	**1090**		
736.ocio_r	344	365	826	**366**	**822**			344	365	826	**366**	**822**		
737.gmsh_r	344	244	648	**244**	**648**			344	**240**	**658**	240	659		
748.flightdm_r	344	**232**	**1060**	230	1070			344	**201**	**1230**	199	1230		
749.fotonik3d_r	344	1265	314	**1266**	**314**			344	1265	314	**1266**	**314**		
765.roms_r	344	1748	310	**1749**	**310**			344	1748	310	**1749**	**310**		
766.femflow_r	344	**259**	**1950**	259	1950			344	**259**	**1950**	259	1950		
767.nest_r	344	326	837	**332**	**821**			344	**309**	**883**	309	884		
772.marian_r	344	365	1490	**365**	**1490**			344	365	1490	**365**	**1490**		
782.lbm_r	344	**668**	**295**	668	295			344	**668**	**295**	668	295		

SPECrate®2026_fp_base = 752

SPECrate®2026_fp_peak = 770

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

Submit Notes

```
The numactl mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate numactl commands to bind each copy to a specific processor.
For details, please see the config file.
```

Operating System Notes

```
Stack size set to unlimited using "ulimit -s unlimited"
OS set to performance mode via cpupower frequency-set -g performance
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/nhome/cpu2026/lib"
MALLOC_CONF = "retain:true"
```

General Notes

```
Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using CentOS Stream 9.
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
```

(Continued on next page)

General Notes (Continued)

```
sync; echo 3>       /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
jemalloc, a general purpose malloc implementation
built with the CentOS Stream 9, and the system compiler gcc 11.5.0
sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
```

Platform Notes

```
BIOS Configuration:
LLC dead line alloc set to Disabled
Patrol Scrub set to Disabled
Intel VT for Directed I/O (VT-d) set to Disabled
Hardware P-states set to Disable
Sub NUMA(SNC) set to Enable

Sysinfo program /nhome/cpu2026/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Mon Jun 22 10:28:43 2026

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

------------------------------------------------------------
Table of contents
------------------------------------------------------------
 1. uname -srvm
 2. w
 3. Username
 4. ulimit -a
 5. sysinfo process ancestry
 6. /proc/cpuinfo
 7. lscpu
 8. numactl --hardware
 9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.10+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
```

(Continued on next page)

Platform Notes (Continued)

```
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/lp) x86_64

------------------------------------------------------------
2. w
   10:28:43 up 25 min,  3 users,  load average: 0.00, 0.02, 0.04
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
  root     pts/0    192.2.223.15     10:22   11.00s  1.45s  0.01s -bash
  root     pts/1    192.2.223.15     10:22    6:21   0.07s  0.07s -bash
  root     pts/2    192.2.223.15     10:22    6:20   0.06s  0.06s -bash

------------------------------------------------------------
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) 4124045
  max locked memory       (kbytes, -l) 8192
  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) 4124045
  virtual memory          (kbytes, -v) unlimited
  file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42 3
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@pts/0
 -bash
 -bash
```

(Continued on next page)

Platform Notes (Continued)

```
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 344 -c
   ic2026.0-graniterapids-cpu2026-1.0.1-rate-20260429.cfg --define smt-on --define cores=172 --define
   physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak -o all fprate
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 344 --configfile
   ic2026.0-graniterapids-cpu2026-1.0.1-rate-20260429.cfg --define smt-on --define cores=172 --define
   physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak --output_format all
   --nopower --runmode rate --tune base:peak --size refrate fprate --nopreenv --note-preenv --logfile
    $SPEC/tmp/CPU2026.063/templogs/preenv.fprate.063.0.log --lognum 063.0 --from_runcpu 2
  specperl $SPEC/bin/sysinfo
$SPEC = /nhome/cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6787P
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 173
    stepping        : 1
    microcode       : 0x10003c2
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores       : 86
    siblings        : 172
    2 physical ids (chips)
    344 processors (hardware threads)
    physical id 0: core ids 0-42,64-106
    physical id 1: core ids 0-42,64-106
    physical id 0: apicids 0-85,128-213
    physical id 1: apicids 256-341,384-469
  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
  Address sizes:                        46 bits physical, 57 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               344
  On-line CPU(s) list:                  0-343
  Vendor ID:                            GenuineIntel
  BIOS Vendor ID:                       Intel(R) Corporation
  Model name:                           Intel(R) Xeon(R) 6787P
  BIOS Model name:                      Intel(R) Xeon(R) 6787P  CPU @ 2.0GHz
  BIOS CPU family:                      179
  CPU family:                           6
```

(Continued on next page)

Platform Notes (Continued)

```
Model:                                173
Thread(s) per core:                   2
Core(s) per socket:                   86
Socket(s):                            2
Stepping:                             1
CPU(s) scaling MHz:                   23%
CPU max MHz:                          3800.0000
CPU min MHz:                          800.0000
BogoMIPS:                             4000.00
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 hle avx2 smep bmi2 erms invpcid
                                      rtm 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:                            8.1 MiB (172 instances)
L1i cache:                            10.8 MiB (172 instances)
L2 cache:                             344 MiB (172 instances)
L3 cache:                             672 MiB (2 instances)
NUMA node(s):                         4
NUMA node0 CPU(s):                    0-42,172-214
NUMA node1 CPU(s):                    43-85,215-257
NUMA node2 CPU(s):                    86-128,258-300
NUMA node3 CPU(s):                    129-171,301-343
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
```

(Continued on next page)

Platform Notes (Continued)

```
   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; RSB filling;
                                                   PBRSB-eIBRS Not affected; BHI BHI_DIS_S
   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     8.1M   12 Data            1     64        1             64
     L1i       64K    10.8M   16 Instruction     1     64        1             64
     L2         2M     344M   16 Unified         2   2048        1             64
     L3       336M     672M   16 Unified         3 344064        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 4 nodes (0-3)
  node 0 cpus: 0-42,172-214
  node 0 size: 257429 MB
  node 0 free: 256411 MB
  node 1 cpus: 43-85,215-257
  node 1 size: 258025 MB
  node 1 free: 255867 MB
  node 2 cpus: 86-128,258-300
  node 2 size: 258025 MB
  node 2 free: 256988 MB
  node 3 cpus: 129-171,301-343
  node 3 size: 257561 MB
  node 3 free: 256674 MB
  node distances:
  node   0   1   2   3
    0:  10  12  21  21
    1:  12  10  21  21
    2:  21  21  10  12
    3:  21  21  12  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1055787224 kB

------------------------------------------------------------
10. who -r
  run-level 3 Jun 22 10:04

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

(Continued on next page)

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          ModemManager NetworkManager NetworkManager-dispatcher YaST2-Firstboot YaST2-Second-Stage
                   apparmor appstream-sync-cache auditd bluetooth cron display-manager getty@ irqbalance
                   issue-generator kbdsettings kdump kdump-early kdump-notify klog lvm2-monitor nginx nscd
                   postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked wickedd-auto4
                       wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny 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 chronyd console-getty cups
                   cups-browsed debug-shell dmraid-activation dnsmasq ebtables exchange-bmc-os-info firewalld
                    fsidd gpm grub2-once haveged ipmi ipmievd issue-add-ssh-keys kexec-load ksm kvm_stat
                    lunmask man-db-create multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount rpcbind
                   rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd_generate_opts smb snmpd snmptrapd
                       speech-dispatcherd systemd-boot-check-no-failures systemd-confext
                   systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd tuned
                       udisks2 update-system-flatpaks upower vncserver@ wpa_supplicant@
  indirect             pcscd saned@ systemd-userdbd wickedd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
  root=UUID=340a3597-b723-40ec-9271-f634cfe77411
  splash=silent
  resume=/dev/disk/by-uuid/63163e0d-6dab-4d02-90fb-3a6f9615eeab
  mitigations=auto
  quiet
  security=apparmor
  crashkernel=383M,high
  crashkernel=72M,low
  3
  iomem=relaxed

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 70:
    current policy: frequency should be within 800 MHz and 3.80 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes
```

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
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
  kernel.randomize_va_space           2
  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                     20
  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                      60
  vm.watermark_boost_factor       15000
  vm.watermark_scale_factor          10
  vm.zone_reclaim_mode                0

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

(Continued on next page)

Platform Notes (Continued)

```
   From /etc/*-release /etc/*-version
   os-release SUSE Linux Enterprise Server 15 SP6

 ------------------------------------------------------------
 20. Disk information
 SPEC is set to: /nhome/cpu2026
   Filesystem                Type  Size  Used Avail Use% Mounted on
   /dev/mapper/vg_data-lv_data ext4  1.8T  241G  1.5T  14% /nhome

 ------------------------------------------------------------
 21. /sys/devices/virtual/dmi/id
     Vendor:         ZTE
     Product:        R5300 G6
     Product Family: Server
     Serial:         219587958508

 ------------------------------------------------------------
 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:
      4x Hynix HMCG98BDJHA380N 64 GB 4 rank 8800, configured at 8000
      4x Hynix HMCG98BDJHA383N 64 GB 4 rank 8800, configured at 8000
      4x Hynix HMCG98BDJHA462N 64 GB 4 rank 8800, configured at 8000
      4x Hynix HMCG98BDJHA464N 64 GB 4 rank 8800, configured at 8000


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends Inc.
    BIOS Version:      05.25.03.11
    BIOS Date:         08/19/2025
    BIOS Revision:     5.25
```

Compiler Version Notes

```
==============================================================================
C       | 782.lbm_r(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

(Continued on next page)

Compiler Version Notes (Continued)

```
==============================================================================
C++     | 731.astcenc_r(base, peak) 736.ocio_r(base, peak)
        | 748.flightdm_r(base, peak) 766.femflow_r(base, peak)
        | 767.nest_r(base, peak) 772.marian_r(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++, C  | 709.cactus_r(base, peak) 737.gmsh_r(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
Fortran | 722.palm_r(base, peak) 749.fotonik3d_r(base, peak) 765.roms_r(base,
        | peak)
------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
  2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

737.gmsh_r: `-fno-associative-math`

Base Optimization Flags

C benchmarks:
`-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

C++ benchmarks:
`-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

Fortran benchmarks:
`-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte -auto -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

Benchmarks using both C and C++:
`-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500 -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

Peak Compiler Invocation

C benchmarks:
`icx`

C++ benchmarks:
`icpx`

Fortran benchmarks:
`ifx`

(Continued on next page)

Peak Compiler Invocation (Continued)

Benchmarks using both C and C++:
icpx icx

Peak Portability Flags

737.gmsh_r: -fno-associative-math

Peak Optimization Flags

C benchmarks:

782.lbm_r: basepeak = yes

C++ benchmarks:

731.astcenc_r: -m64 -std=c++17 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xHost(pass 1)
-ffp-model=fast -xgraniterapids(pass 2) -flto
-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3
-mfpmath=sse -funroll-loops
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

736.ocio_r: basepeak = yes

748.flightdm_r: Same as 731.astcenc_r

766.femflow_r: basepeak = yes

767.nest_r: Same as 731.astcenc_r

772.marian_r: basepeak = yes

Fortran benchmarks:

722.palm_r: basepeak = yes

749.fotonik3d_r: basepeak = yes

765.roms_r: basepeak = yes

(Continued on next page)

Peak Optimization Flags (Continued)

Benchmarks using both C and C++:

709.cactus_r: basepeak = yes

737.gmsh_r: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xHost(pass 1)
-ffp-model=fast -xgraniterapids(pass 2) -flto
-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3
-mfpmath=sse -funroll-loops
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64.html
http://www.spec.org/cpu2026/results/flags/ZTE-Platform-Settings-GNR-V2.1.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64.xml
http://www.spec.org/cpu2026/results/flags/ZTE-Platform-Settings-GNR-V2.1.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®2026 v1.0.1 on 2026-06-21 22:28:42-0400.
Report generated on 2026-08-11 15:38:59 by CPU2026 PS formatter (86729d3b).
Originally published on 2026-08-06.