SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

IEIT Systems Co., Ltd.

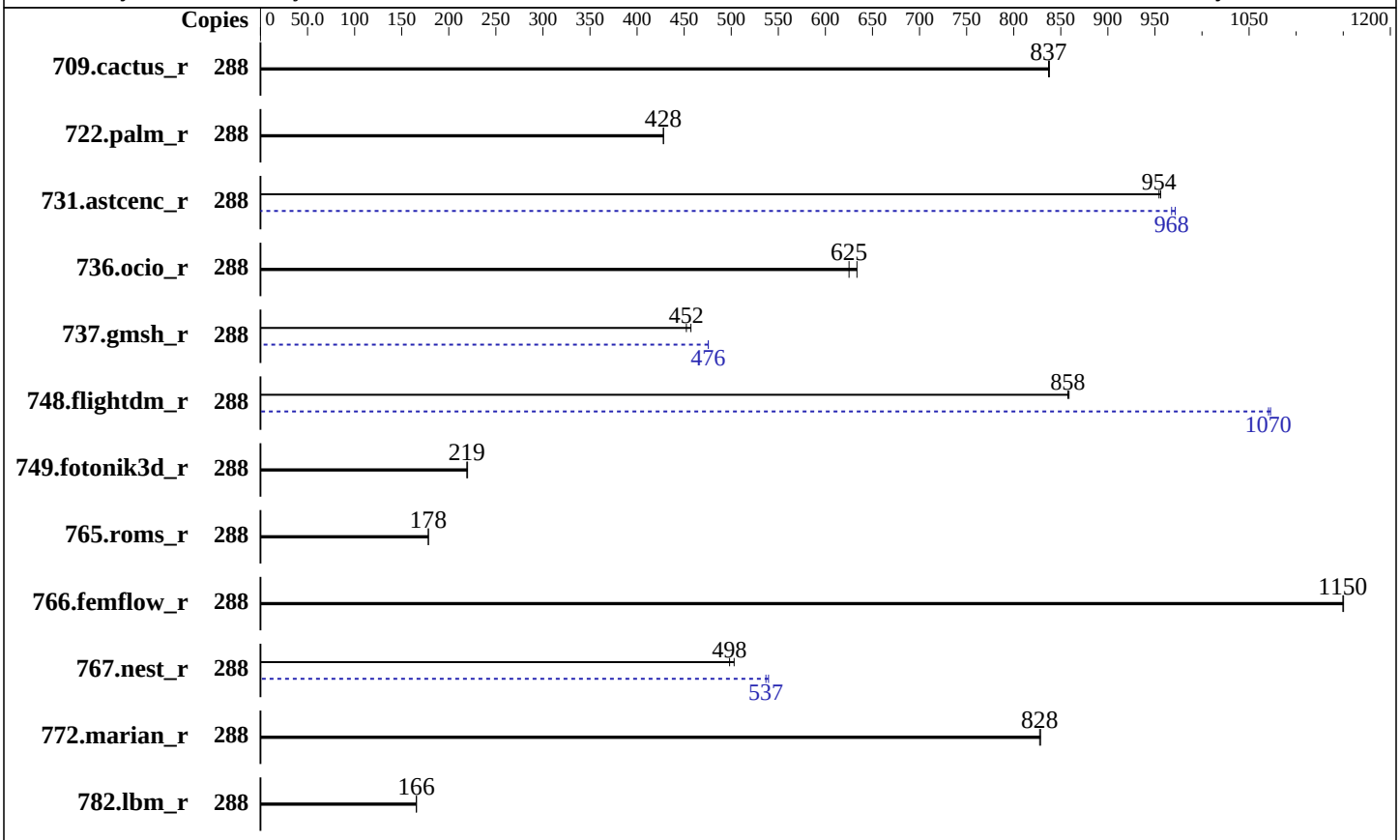
meta brain NF5280G8 (Intel Xeon 6780E)

SPECrate®2026_fp_base = 502

SPECrate®2026_fp_peak = 517

CPU2026 License: 3358
Test Sponsor: IEIT Systems Co., Ltd.
Tested by: IEIT Systems Co., Ltd.

Test Date: Jun-2026
Hardware Availability: Apr-2025
Software Availability: Mar-2026



Hardware

CPU Name:	Intel Xeon 6780E
Max MHz:	3000
Nominal:	2200
Enabled:	288 cores, 2 chips
Orderable:	1,2 chips
Cache L1:	64 KB I + 32 KB D on chip per core
L2:	144 MB I+D on chip per chip, 4 MB shared / 4 cores
L3:	108 MB I+D on chip per chip
Other:	None
Memory:	1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 1 TB NVME SSD
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 15 SP7 6.4.0-150700.51-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 03.04.01 released Jun-2025
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other:	tcmalloc memory allocator v2.18.1
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

IEIT Systems Co., Ltd.

meta brain NF5280G8 (Intel Xeon 6780E)

SPECrate®2026_fp_base = 502

SPECrate®2026_fp_peak = 517

CPU2026 License: 3358
Test Sponsor: IEIT Systems Co., Ltd.
Tested by: IEIT Systems Co., Ltd.

Test Date: Jun-2026
Hardware Availability: Apr-2025
Software Availability: Mar-2026

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	288	**295**	**837**	295	838			288	**295**	**837**	295	838		
722.palm_r	288	888	428	**888**	**428**			288	888	428	**888**	**428**		
731.astcenc_r	288	253	956	**253**	**954**			288	249	972	**250**	**968**		
736.ocio_r	288	**403**	**625**	398	634			288	**403**	**625**	398	634		
737.gmsh_r	288	289	457	**292**	**452**			288	**278**	**476**	278	476		
748.flightdm_r	288	240	859	**240**	**858**			288	192	1070	**193**	**1070**		
749.fotonik3d_r	288	1514	220	**1519**	**219**			288	1514	220	**1519**	**219**		
765.roms_r	288	**2544**	**178**	2544	178			288	**2544**	**178**	2544	178		
766.femflow_r	288	**368**	**1150**	367	1150			288	**368**	**1150**	367	1150		
767.nest_r	288	**458**	**498**	454	503			288	**425**	**537**	423	540		
772.marian_r	288	**550**	**828**	549	829			288	**550**	**828**	549	829		
782.lbm_r	288	**997**	**166**	996	166			288	**997**	**166**	996	166		

SPECrate®2026_fp_base = 502

SPECrate®2026_fp_peak = 517

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"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2026/lib"
```

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:
sync; echo 3>       /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
```

(Continued on next page)

General Notes (Continued)

```
numactl --interleave=all runcpu <etc>
tcmalloc, a fast, multithreaded malloc implementation
built with the CentOS Stream 9, and the system compiler gcc 11.5.0
sources available from github.com/gperftools/gperftools
```

Platform Notes

```
BIOS configuration:
ENERGY_PERF_BIAS_CFG mode set to Performance
VT Support set to Disable
Hardware P-states set to Disable

Sysinfo program /home/cpu2026/bin/sysinfo
Rev: 779ab21020787073335a329f3a45e2cd
running on localhost Wed Jun 10 04:58:38 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 (254.24+suse.148.g83b9060b6e)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. 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
------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
1. uname -srvm
  Linux 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611) x86_64

------------------------------------------------------------
2. w
   04:58:38 up  9:33,  1 user,  load average: 73.15, 215.39, 252.08
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
  root     tty1     -                19Mar25  4:58m  1.93s  0.02s sh
  reportable-ic2026.0-lin-sierraforest-rate-20260429_revB.sh

------------------------------------------------------------
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) 4123835
  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) 4123835
  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
 sh reportable-ic2026.0-lin-sierraforest-rate-20260429_revB.sh
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 288 -c
   ic2026.0-sierraforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define peakfpcopies=144
   --define physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak
    -o all fprate
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 288 --configfile
   ic2026.0-sierraforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define peakfpcopies=144
   --define physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak
```

(Continued on next page)

Platform Notes (Continued)

```
   --output_format all --nopower --runmode rate --tune base:peak --size refrate fprate --nopreenv
   --note-preenv --logfile $SPEC/tmp/CPU2026.004/templogs/preenv.fprate.004.0.log --lognum 004.0
    --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6780E
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 175
    stepping        : 3
    microcode       : 0x3000362
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores       : 144
    siblings        : 144
    2 physical ids (chips)
    288 processors (hardware threads)
    physical id 0: core ids 0-143
    physical id 1: core ids 0-143
    physical id 0: apicids
   0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72
   ,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126,128,130,1
   32,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,180,182,18
   4,186,188,190,192,194,196,198,200,202,204,206,208,210,212,214,216,218,220,222,224,226,228,230,232,234,236
   ,238,240,242,244,246,248,250,252,254,256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286
    physical id 1: apicids
   512,514,516,518,520,522,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,554,556,558,560,562,5
   64,566,568,570,572,574,576,578,580,582,584,586,588,590,592,594,596,598,600,602,604,606,608,610,612,614,61
   6,618,620,622,624,626,628,630,632,634,636,638,640,642,644,646,648,650,652,654,656,658,660,662,664,666,668
   ,670,672,674,676,678,680,682,684,686,688,690,692,694,696,698,700,702,704,706,708,710,712,714,716,718,720,
   722,724,726,728,730,732,734,736,738,740,742,744,746,748,750,752,754,756,758,760,762,764,766,768,770,772,7
    74,776,778,780,782,784,786,788,790,792,794,796,798
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
   virtualized systems.  Use the above data carefully.

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

From lscpu from util-linux 2.40.4:
  Architecture:                         x86_64
  CPU op-mode(s):                       32-bit, 64-bit
  Address sizes:                        52 bits physical, 48 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               288
  On-line CPU(s) list:                  0-287
```

(Continued on next page)

Platform Notes (Continued)

```
  Vendor ID:                           GenuineIntel
  Model name:                          Intel(R) Xeon(R) 6780E
  CPU family:                          6
  Model:                               175
  Thread(s) per core:                  1
  Core(s) per socket:                  144
  Socket(s):                           2
  Stepping:                            3
  Frequency boost:                     enabled
  CPU(s) scaling MHz:                  102%
  CPU max MHz:                         2201.0000
  CPU min MHz:                         800.0000
  BogoMIPS:                            4400.00
  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 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 rdseed adx smap
                                       clflushopt clwb intel_pt sha_ni xsaveopt xsavec xgetbv1 xsaves
                                       cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect
                                       user_shstk avx_vnni lam wbnoinvd dtherm ida arat pln pts vnmi umip
                                       pku ospke waitpkg gfni vaes vpclmulqdq tme rdpid bus_lock_detect
                                       cldemote movdiri movdir64b enqcmd fsrm md_clear serialize pconfig
                                       arch_lbr ibt flush_l1d arch_capabilities
  Virtualization:                      VT-x
  L1d cache:                           9 MiB (288 instances)
  L1i cache:                           18 MiB (288 instances)
  L2 cache:                            288 MiB (72 instances)
  L3 cache:                            216 MiB (2 instances)
  NUMA node(s):                        2
  NUMA node0 CPU(s):                   0-143
  NUMA node1 CPU(s):                   144-287
  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:  Not affected
  Vulnerability Spec store bypass:     Mitigation; Speculative Store Bypass disabled via prctl
```

(Continued on next page)

Platform Notes (Continued)

```
  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       32K       9M    8 Data            1     64        1             64
      L1i       64K      18M    8 Instruction     1    128        1             64
      L2         4M     288M   16 Unified         2   4096        1             64
      L3       108M     216M   12 Unified         3 147456        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: 0-143
   node 0 size: 515388 MB
   node 0 free: 482562 MB
   node 1 cpus: 144-287
   node 1 size: 515597 MB
   node 1 free: 483067 MB
   node distances:
   node   0   1
     0:  10  21
     1:  21  10

 ------------------------------------------------------------
 9. /proc/meminfo
    MemTotal:       1055728856 kB

 ------------------------------------------------------------
 10. who -r
   run-level 3 Mar 19 08:00

 ------------------------------------------------------------
 11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
   Default Target  Status
   multi-user      running

 ------------------------------------------------------------
 12. Services, from systemctl list-unit-files
   STATE            UNIT FILES
   enabled         apparmor auditd cron getty@ irqbalance issue-generator kbdsettings kdump kdump-early
                   kdump-notify nvmefc-boot-connections nvmf-autoconnect postfix purge-kernels rollback
                     systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
```

(Continued on next page)

Platform Notes (Continued)

```
   enabled-runtime  systemd-remount-fs
   disabled         boot-sysctl ca-certificates chrony-wait chronyd console-getty debug-shell
                  exchange-bmc-os-info fsidd grub2-once haveged ipmievd 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-6.4.0-150700.51-default
  root=UUID=abf2f043-1a11-4e74-925a-2d92d4c037b3
  splash=silent
  mitigations=auto
  quiet
  security=apparmor
  crashkernel=382M,high
  crashkernel=72M,low

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 21:
    current policy: frequency should be within 800 MHz and 2.20 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
  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
```

(Continued on next page)

Platform Notes (Continued)

```
  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
  From /etc/*-release /etc/*-version
  os-release SUSE Linux Enterprise Server 15 SP7

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2026
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p2 xfs   931G  137G  794G  15% /

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:          IEIT SYSTEMS
    Product:         NF5280-M8-A0-R0-00
    Product Family: Not specified
    Serial:          000000000

------------------------------------------------------------
22. dmidecode
  Additional information from dmidecode 3.6 follows.  WARNING: Use caution when you interpret this section.
```

(Continued on next page)

Platform Notes (Continued)

```
   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:
      13x Samsung M321R8GA0PB2-CCPEC 64 GB 2 rank 6400
      3x Samsung M321R8GA0PB2-CCPWC 64 GB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      03.04.01
    BIOS Date:         06/10/2025
```

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.
------------------------------------------------------------------------------

==============================================================================
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)
```

(Continued on next page)

Compiler Version Notes (Continued)

```
------------------------------------------------------------------------------
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
-xsierraforest -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib
-ltcmalloc_minimal

C++ benchmarks:
-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsierraforest -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib
-ltcmalloc_minimal

Fortran benchmarks:
-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsierraforest -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops

(Continued on next page)

Base Optimization Flags (Continued)

Fortran benchmarks (continued):
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-auto -L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal

Benchmarks using both C and C++:
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500 -xsierraforest -O3
-ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -L/usr/local/tcmalloc-2.18.1/lib
-ltcmalloc_minimal

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

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)

(Continued on next page)

Peak Optimization Flags (Continued)

731.astcenc_r (continued):
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xsierraforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal

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

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) -xCORE-AVX2(pass 1)
-ffp-model=fast -xsierraforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html
http://www.spec.org/cpu2026/results/flags/IEIT-Platform-Settings-intel-V2.0.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml
http://www.spec.org/cpu2026/results/flags/IEIT-Platform-Settings-intel-V2.0.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 2026-06-10 04:58:37-0400.
Report generated on 2026-06-30 17:15:39 by CPU2026 PS formatter (86729d3b).
Originally published on 2026-06-30.