



# SPEC CPU®2026 Floating Point Speed Result

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## Supermicro

Blade SBI-612BA-1NE34-LCC  
(B14SBE-CPU-AP, Intel Xeon 6990E+)

SPECspeed®2026\_fp\_base = 9.92

SPECspeed®2026\_fp\_peak = 10.1

CPU2026 License: 001176

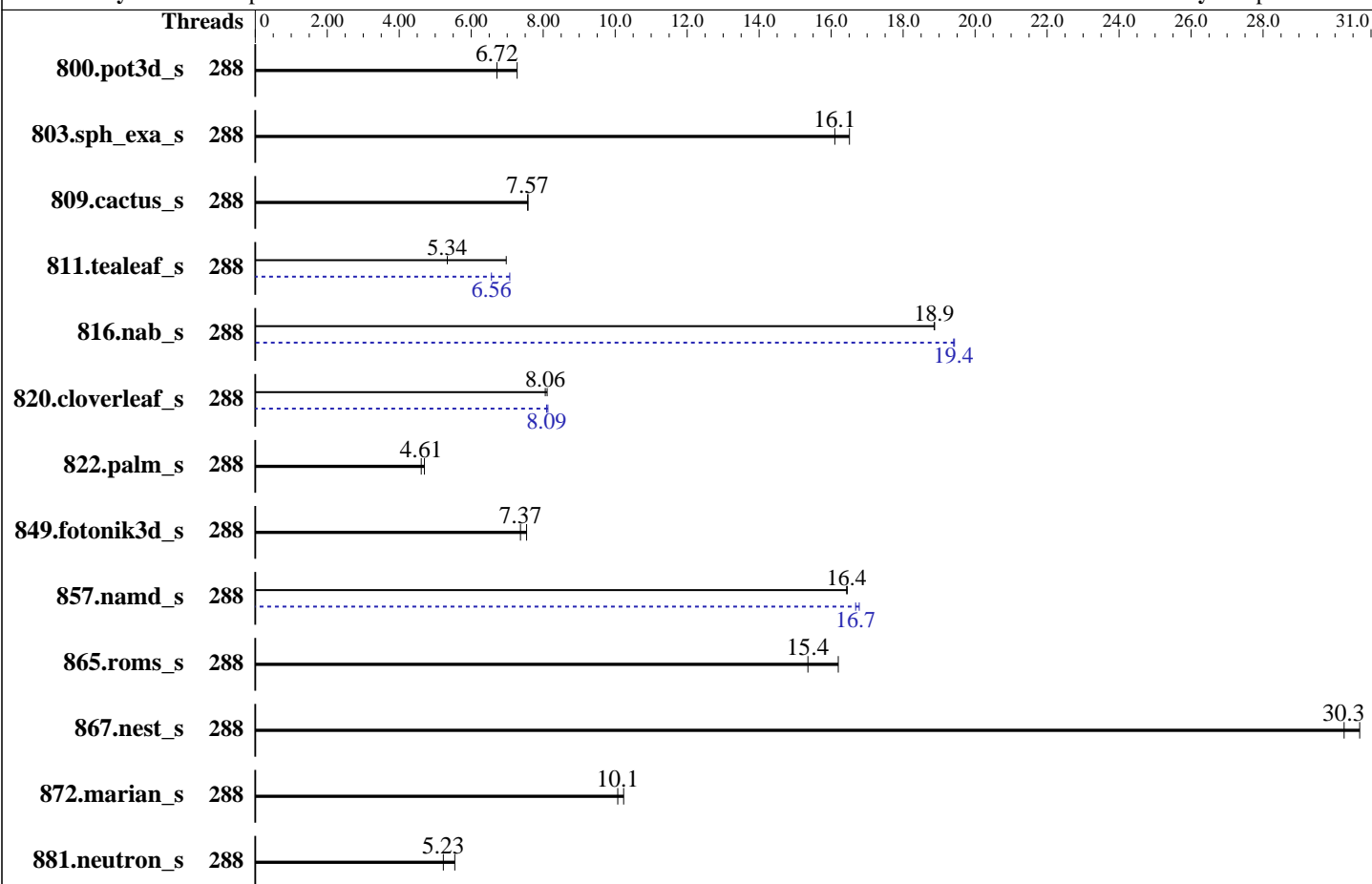
Test Sponsor: Supermicro

Tested by: Supermicro

Test Date: May-2026

Hardware Availability: Jun-2026

Software Availability: Apr-2026



### Hardware

CPU Name: Intel Xeon 6990E+  
 Max MHz: 3200  
 Nominal: 2200  
 Enabled: 288 cores, 1 chip  
 Orderable: 1 chip  
 Cache L1: 64 KB I + 32 KB D on chip per core  
 L2: 288 MB I+D on chip per chip, 4 MB shared / 4 cores  
 L3: 576 MB I+D on chip per chip  
 Other: None  
 Memory: 1152 GB (12 x 96 GB 2Rx4 PC5-8000B-R)  
 Storage: 1 x 480 GB NVMe SSD  
 Cooling: DLC  
 Other: None

### Software

OS: Red Hat Enterprise Linux 9.7  
 Kernel 5.14.0-611.5.1.el9\_7.x86\_64  
 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 1.5 released Apr-2026  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other: jemalloc memory allocator v5.3.0  
 Power Management: BIOS and 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
800.pot3d_s	288	92.5	7.28	<b>100</b>	<b>6.72</b>			288	92.5	7.28	<b>100</b>	<b>6.72</b>		
803.sph_exa_s	288	75.0	16.5	<b>76.9</b>	<b>16.1</b>			288	75.0	16.5	<b>76.9</b>	<b>16.1</b>		
809.cactus_s	288	148	7.58	<b>148</b>	<b>7.57</b>			288	148	7.58	<b>148</b>	<b>7.57</b>		
811.tealeaf_s	288	79.9	6.97	<b>104</b>	<b>5.34</b>			288	78.8	7.07	<b>84.9</b>	<b>6.56</b>		
816.nab_s	288	<b>59.7</b>	<b>18.9</b>	59.7	18.9			288	<b>58.0</b>	<b>19.4</b>	58.0	19.4		
820.cloverleaf_s	288	<b>106</b>	<b>8.06</b>	106	8.11			288	105	8.13	<b>106</b>	<b>8.09</b>		
822.palm_s	288	261	4.70	<b>266</b>	<b>4.61</b>			288	261	4.70	<b>266</b>	<b>4.61</b>		
849.fotonik3d_s	288	87.6	7.54	<b>89.6</b>	<b>7.37</b>			288	87.6	7.54	<b>89.6</b>	<b>7.37</b>		
857.namd_s	288	88.3	16.4	<b>88.4</b>	<b>16.4</b>			288	86.5	16.8	<b>87.0</b>	<b>16.7</b>		
865.roms_s	288	<b>71.0</b>	<b>15.4</b>	67.3	16.2			288	<b>71.0</b>	<b>15.4</b>	67.3	16.2		
867.nest_s	288	70.4	30.7	<b>71.4</b>	<b>30.3</b>			288	70.4	30.7	<b>71.4</b>	<b>30.3</b>		
872.marian_s	288	<b>107</b>	<b>10.1</b>	106	10.2			288	<b>107</b>	<b>10.1</b>	106	10.2		
881.neutron_s	288	147	5.54	<b>156</b>	<b>5.23</b>			288	147	5.54	<b>156</b>	<b>5.23</b>		

SPECspeed®2026\_fp\_base = 9.92

SPECspeed®2026\_fp\_peak = 10.1

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

## 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"  
MALLOCONF = "retain:true"  
OMP\_STACKSIZE = "192M"

## 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
```

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

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

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### General Notes (Continued)

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

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 settings:  
Workload Profile = HPC  
KTI Prefetch = Enable  
Stale AtoS = Disable  
LLC Dead Line Alloc = Disable

Sysinfo program /home/cpu2026/bin/sysinfo  
Rev: 779ab21020787073335a329f3a45e2cd  
running on Sat May 9 10:07:53 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 252 (252-55.e19)
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

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### Platform Notes (Continued)

1. `uname -srv`  
Linux 5.14.0-611.5.1.el9\_7.x86\_64 #1 SMP PREEMPT\_DYNAMIC Fri Oct 17 14:16:35 EDT 2025 x86\_64

2. `w`  
10:07:53 up 19:33, 1 user, load average: 79.91, 72.58, 48.20  
USER TTY LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 Fri14 16:43m 1.77s 0.00s -bash

3. Username  
From environment variable \$USER: root

4. `ulimit -a`  
real-time non-blocking time (microseconds, -R) unlimited  
core file size (blocks, -c) 0  
data seg size (kbytes, -d) unlimited  
scheduling priority (-e) 0  
file size (blocks, -f) unlimited  
pending signals (-i) 4640255  
max locked memory (kbytes, -l) 64  
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) 4640255  
virtual memory (kbytes, -v) unlimited  
file locks (-x) unlimited

5. `sysinfo process ancestry`  
/usr/lib/systemd/systemd rhgb --switched-root --system --deserialize 31  
login -- root  
-bash  
-bash  
runcpu --nobuild --reportable --action validate --define default-platform-flags -c  
ic2026.0-clearwaterforest-cpu2026-1.0.1-speed-20260429.cfg --threads 288 --define cores=288 --tune  
base,peak -o all --define smt-on --define drop\_caches fpspeed  
runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile  
ic2026.0-clearwaterforest-cpu2026-1.0.1-speed-20260429.cfg --threads 288 --define cores=288 --tune

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### Platform Notes (Continued)

```
base,peak --output_format all --define smt-on --define drop_caches --nopower --runmode speed --tune
base:peak --size refspeed fpspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.004/templogs/preenv.fpspeed.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) 6990E+
vendor_id      : GenuineIntel
cpu family     : 6
model          : 221
stepping       : 1
microcode      : 0x1000120
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi spectre_v2_user
cpu cores      : 288
siblings       : 288
1 physical ids (chips)
288 processors (hardware threads)
physical id 0: core ids 0-95,128-223,256-351
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, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300
, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352,
354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 4
06, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 512, 514, 516, 518, 520, 52
2, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 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, 616, 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, 6
80, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702
```

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

### 7. lscpu

From lscpu from util-linux 2.37.4:

```
Architecture:      x86_64
CPU op-mode(s):    32-bit, 64-bit
Address sizes:     52 bits physical, 48 bits virtual
Byte Order:        Little Endian
CPU(s):            288
On-line CPU(s) list: 0-287
Vendor ID:         GenuineIntel
BIOS Vendor ID:   Intel(R) Corporation
```

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### Platform Notes (Continued)

```

Model name: Intel(R) Xeon(R) 6990E+
BIOS Model name: Intel(R) Xeon(R) 6990E+
CPU family: 6
Model: 221
Thread(s) per core: 1
Core(s) per socket: 288
Socket(s): 1
Stepping: 1
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 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 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 vmmi 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_lld 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: 576 MiB (1 instance)
NUMA node(s): 3
NUMA node0 CPU(s): 0-95
NUMA node1 CPU(s): 96-191
NUMA node2 CPU(s): 192-287
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/swaps barriers and __user pointer

```

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### Platform Notes (Continued)

```

sanitization
Vulnerability Spectre v2:      Mitigation; Enhanced / Automatic IBRS; IBPB conditional;
                                PBRSE-eIBRS Not affected; BHI BHI_DIS_S
Vulnerability Srbds:          Not affected
Vulnerability Tsa:            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	576M	576M	16	Unified	3	589824	1	64

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```

available: 3 nodes (0-2)
node 0 cpus: 0-95
node 0 size: 386086 MB
node 0 free: 373347 MB
node 1 cpus: 96-191
node 1 size: 387047 MB
node 1 free: 317811 MB
node 2 cpus: 192-287
node 2 size: 386975 MB
node 2 free: 347641 MB
node distances:
node    0    1    2
 0:   10   15   17
 1:   15   10   15
 2:   17   15   10

```

9. /proc/meminfo

MemTotal: 1187952444 kB

10. who -r

run-level 3 May 8 14:34

11. Systemd service manager version: systemd 252 (252-55.e19)

```

Default Target Status
multi-user      running

```

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### Platform Notes (Continued)

#### 12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online atd auditd bluetooth chronyd crond dbus-broker firewalld getty@ insights-client-boot irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt lvm2-monitor mcelog mdmonitor microcode multipathd nis-domainname nvme-fc-boot-connections rhsmcertd rsyslog selinux-autorelabel-mark smartd sshd sssd systemd-boot-update systemd-network-generator systemd-pstore tas tuned udisks2
enabled-runtime	systemd-remount-fs
disabled	arp-ethers blk-availability chrony-wait chronyd-restricted cni-dhcp console-getty cpupower debug-shell dnf-system-upgrade iprdump iprinit iprupdate iscsi-init iscsid iscsiuiopatch kvm_stat ledmon lvm-devices-import man-db-restart-cache-update netavark-dhcp-proxy netavark-firewalld-reload nftables nvme-fc-autoconnect podman podman-auto-update podman-clean-transient podman-kube@ podman-restart psacct rdisc rhcd rhsm rhsm-facts rpmdb-rebuild selinux-check-proper-disable serial-getty@ sshd-keygen@ systemd-boot-check-no-failures systemd-sysext
indirect	iscsi sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate systemd-sysupdate-reboot

#### 13. Linux kernel boot-time arguments, from /proc/cmdline

```

BOOT_IMAGE=(hdd,gpt2)/vmlinuz-5.14.0-611.5.1.el9_7.x86_64
root=/dev/mapper/rhel_135--171--45-root
ro
crashkernel=1G-2G:192M,2G-64G:256M,64G-:512M
resume=/dev/mapper/rhel_135--171--45-swap
rd.lvm.lv=rhel_135-171-45/root
rd.lvm.lv=rhel_135-171-45/swap
rhgb
quiet

```

#### 14. cpupower frequency-info

```

analyzing CPU 207:
  Unable to determine current policy
  boost state support:
    Supported: yes
    Active: yes

```

#### 15. tuned-adm active

Current active profile: throughput-performance

#### 16. sysctl

kernel.numa_balancing	1
kernel.randomize_va_space	2
vm.compaction_proactiveness	20

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### Platform Notes (Continued)

```

vm.dirty_background_bytes      0
vm.dirty_background_ratio     10
vm.dirty_bytes                 0
vm.dirty_expire_centisecs     3000
vm.dirty_ratio                 40
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                  10
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+madvice [madvice] never
enabled        [always] madvice never
hpage_pmd_size 2097152
shmem_enabled  always within_size advise [never] deny force

```

```

-----
18. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs  60000
defrag                  1
max_ptes_none          511
max_ptes_shared        256
max_ptes_swap          64
pages_to_scan          4096
scan_sleep_millisecs  10000

```

```

-----
19. OS release
From /etc/*-release /etc/*-version
os-release      Red Hat Enterprise Linux 9.7 (Plow)
redhat-release Red Hat Enterprise Linux release 9.7 (Plow)
system-release Red Hat Enterprise Linux release 9.7 (Plow)

```

```

-----
20. Disk information
SPEC is set to: /home/cpu2026
Filesystem                                Type  Size  Used Avail Use% Mounted on
/dev/mapper/rhel135--171--45-home xfs   344G   99G  246G   29% /home

```

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Hardware Availability: Jun-2026  
Software Availability: Apr-2026

### Platform Notes (Continued)

-----  
21. /sys/devices/virtual/dmi/id  
Vendor: PM\_1768968004  
Product: PPM\_1768968004  
Product Family: SMC B14  
Serial: PS\_1768968004  
-----

22. dmidecode  
Additional information from dmidecode 3.6 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:  
12x SK Hynix HMCGM4AMBRB970N 96 GB 2 rank 8000  
-----

23. BIOS  
(This section combines info from /sys/devices and dmidecode.)  
BIOS Vendor: American Megatrends International, LLC.  
BIOS Version: 1.5  
BIOS Date: 04/22/2026  
BIOS Revision: 5.35  
-----

### Compiler Version Notes

=====  
C | 811.tealeaf\_s(base, peak) 816.nab\_s(base, peak) 881.neutron\_s(base,  
peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
Version 2026.0.0 Build 20260331  
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-----

=====  
C++ | 803.sph\_exa\_s(base, peak) 857.namd\_s(base, peak) 867.nest\_s(base,  
peak) 872.marian\_s(base, peak)

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# SPEC CPU®2026 Floating Point Speed Result

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## Supermicro

Blade SBI-612BA-1NE34-LCC  
(B14SBE-CPU-AP , Intel Xeon 6990E+)

SPECspeed®2026\_fp\_base = 9.92

SPECspeed®2026\_fp\_peak = 10.1

**CPU2026 License:** 001176  
**Test Sponsor:** Supermicro  
**Tested by:** Supermicro

**Test Date:** May-2026  
**Hardware Availability:** Jun-2026  
**Software Availability:** Apr-2026

### Compiler Version Notes (Continued)

C++, C | 809.cactus\_s(base, peak)

-----  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
Version 2026.0.0 Build 20260331  
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-----

=====  
Fortran | 800.pot3d\_s(base, peak) 820.cloverleaf\_s(base, peak)  
| 822.palm\_s(base, peak) 849.fotonik3d\_s(base, peak) 865.roms\_s(base,  
peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version  
2026.0.0 Build 20260331  
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-----

### Base Compiler Invocation

C benchmarks:  
icx

C++ benchmarks:  
icpx

Fortran benchmarks:  
ifx

Benchmarks using both C and C++:  
icpx icx

### Base Optimization Flags

C benchmarks:  
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500  
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse  
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC\_OPENMP  
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

C++ benchmarks:  
-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500  
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse  
-funroll-loops -qopt-mem-layout-trans=4 -pthread -fiopenmp  
-DSPEC\_OPENMP -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

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## Base Optimization Flags (Continued)

Fortran benchmarks:

```
-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -DSPEC_OPENMP -fiopenmp
-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 -xclearwaterforest -O3
-ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -pthread
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Benchmarks using both C and C++:

icpx icx

## Peak Optimization Flags

C benchmarks:

```
811.tealeaf_s: -m64 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc
```

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# SPEC CPU®2026 Floating Point Speed Result

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## Supermicro

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## Peak Optimization Flags (Continued)

816.nab\_s: Same as 811.tealeaf\_s

881.neutron\_s: basepeak = yes

C++ benchmarks:

803.sph\_exa\_s: basepeak = yes

857.namd\_s: -m64 -std=c++17 -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 -xclearwaterforest(pass 2) -flto  
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops  
-pthread -fiopenmp -DSPEC\_OPENMP  
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

867.nest\_s: basepeak = yes

872.marian\_s: basepeak = yes

Fortran benchmarks:

800.pot3d\_s: basepeak = yes

820.cloverleaf\_s: -m64 -stand f18 -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 -xclearwaterforest(pass 2) -flto  
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops  
-nostandard-realloc-lhs -align array32byte -auto  
-DSPEC\_OPENMP -fiopenmp -L/usr/local/jemalloc-5.3.0/lib  
-ljemalloc

822.palm\_s: basepeak = yes

849.fotonik3d\_s: basepeak = yes

865.roms\_s: basepeak = yes

Benchmarks using both C and C++:

809.cactus\_s: basepeak = yes



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**Test Date:** May-2026

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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/Supermicro-Platform-Settings-V1.2-CWF-revC.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/Supermicro-Platform-Settings-V1.2-CWF-revC.xml>

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