



# SPEC CPU®2026 Integer Speed Result

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## Supermicro

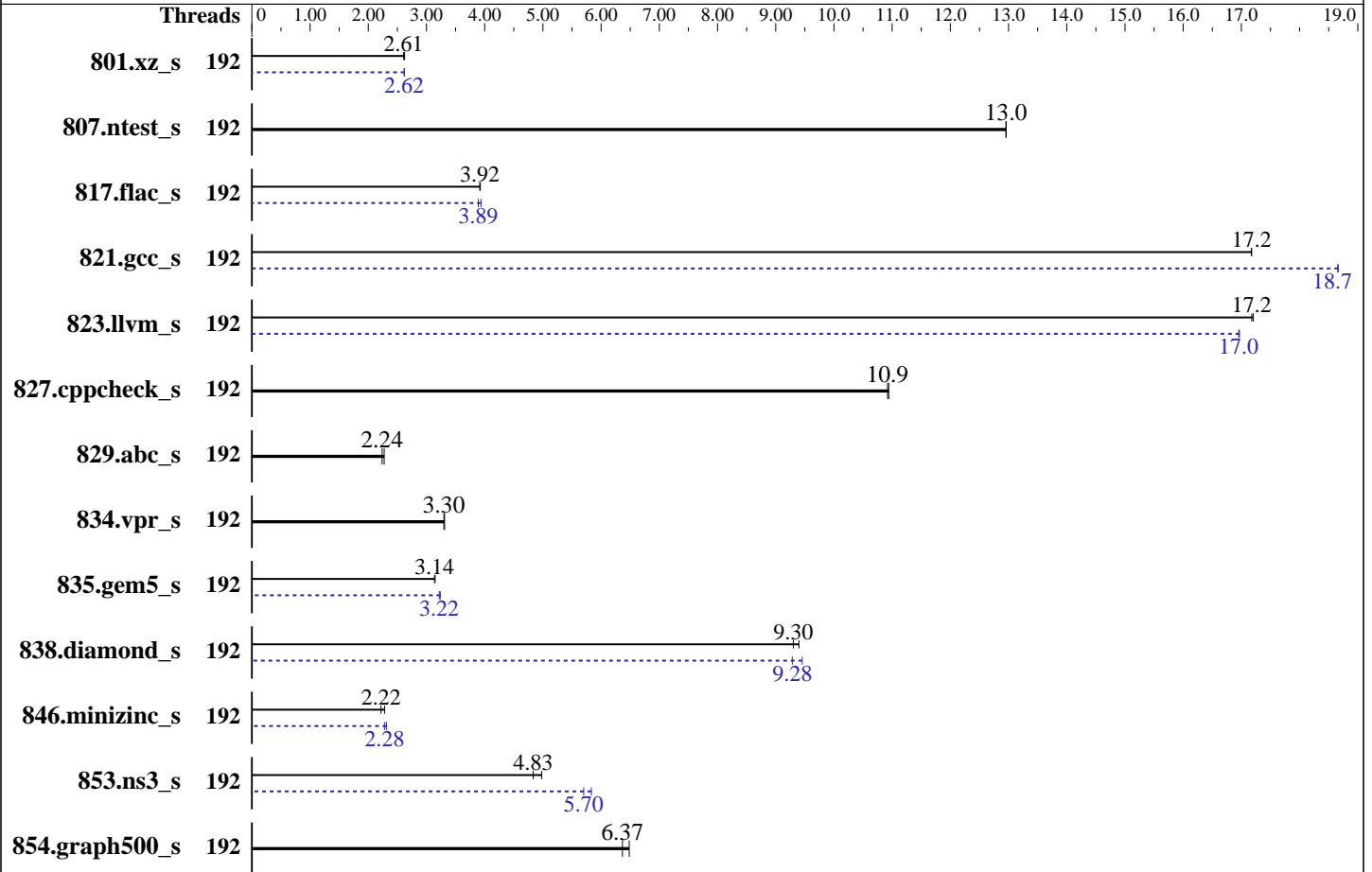
SuperServer SYS-112HA-TN  
(X14SBH-AP , Intel Xeon 6970E+)

SPECspeed®2026\_int\_base = 5.67

SPECspeed®2026\_int\_peak = 5.79

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 6970E+  
Max MHz: 3200  
Nominal: 2300  
Enabled: 192 cores, 1 chip  
Orderable: 1 chip  
Cache L1: 64 KB I + 32 KB D on chip per core  
L2: 192 MB I+D on chip per chip, 4 MB shared / 4 cores  
L3: 480 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: Air  
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 1.5b released May-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
801.xz_s	192	225	2.62	<u>227</u>	<u>2.61</u>			192	225	2.62	<u>226</u>	<u>2.62</u>		
807.ntest_s	192	<b>88.0</b>	<b>13.0</b>	88.0	13.0			192	<b>88.0</b>	<b>13.0</b>	88.0	13.0		
817.flac_s	192	<b>444</b>	<b>3.92</b>	443	3.92			192	<b>447</b>	<b>3.89</b>	441	3.94		
821.gcc_s	192	<b>121</b>	<b>17.2</b>	121	17.2			192	111	18.7	<b>111</b>	<b>18.7</b>		
823.llvm_s	192	82.0	17.2	<b>82.1</b>	<b>17.2</b>			192	<b>83.2</b>	<b>17.0</b>	83.2	17.0		
827.cppcheck_s	192	<b>102</b>	<b>10.9</b>	102	10.9			192	<b>102</b>	<b>10.9</b>	102	10.9		
829.abc_s	192	<b>371</b>	<b>2.24</b>	366	2.27			192	<b>371</b>	<b>2.24</b>	366	2.27		
834.vpr_s	192	288	3.31	<b>289</b>	<b>3.30</b>			192	288	3.31	<b>289</b>	<b>3.30</b>		
835.gem5_s	192	<b>363</b>	<b>3.14</b>	362	3.15			192	352	3.24	<b>354</b>	<b>3.22</b>		
838.diamond_s	192	107	9.40	<b>108</b>	<b>9.30</b>			192	106	9.45	<b>108</b>	<b>9.28</b>		
846.minizinc_s	192	294	2.28	<b>302</b>	<b>2.22</b>			192	290	2.31	<b>294</b>	<b>2.28</b>		
853.ns3_s	192	232	4.98	<b>239</b>	<b>4.83</b>			192	<b>202</b>	<b>5.70</b>	198	5.83		
854.graph500_s	192	94.2	6.48	<b>96.0</b>	<b>6.37</b>			192	94.2	6.48	<b>96.0</b>	<b>6.37</b>		

SPECspeed®2026\_int\_base = **5.67**

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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"  
MALLOC\_CONF = "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 Fri May 29 02:15:27 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`  
02:15:27 up 10:29, 1 user, load average: 26.94, 126.25, 162.72  
USER TTY LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 15:46 10:26m 1.31s 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) 4640390  
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) 4640390  
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 192 --define cores=192 --tune  
base,peak -o all --define intspeeraffinity --define smt-on --define drop\_caches intspeer  
runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile  
ic2026.0-clearwaterforest-cpu2026-1.0.1-speed-20260429.cfg --threads 192 --define cores=192 --tune

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### Platform Notes (Continued)

```
base,peak --output_format all --define intspeedaffinity --define smt-on --define drop_caches --nopower
--runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.003/templogs/preenv.intspeed.003.0.log --lognum 003.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6970E+
vendor_id      : GenuineIntel
cpu family     : 6
model          : 221
stepping       : 1
microcode      : 0x1000120
bugs           : spectre_v1 spectre_v2 spec_store_bypass swaps bhi spectre_v2_user
cpu cores      : 192
siblings       : 192
1 physical ids (chips)
192 processors (hardware threads)
physical id 0: core ids 0-63,128-191,256-319
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, 256, 258, 2
60, 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, 31
2, 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, 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, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 5
98, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638
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):           192
On-line CPU(s) list: 0-191
Vendor ID:        GenuineIntel
BIOS Vendor ID:   Intel(R) Corporation
Model name:       Intel(R) Xeon(R) 6970E+
BIOS Model name:  Intel(R) Xeon(R) 6970E+
CPU family:       6
Model:           221
```

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### Platform Notes (Continued)

```

Thread(s) per core:          1
Core(s) per socket:        192
Socket(s):                  1
Stepping:                   1
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
                             pdpelgb 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 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_lld arch_capabilities

Virtualization:              VT-x
L1d cache:                   6 MiB (192 instances)
L1i cache:                   12 MiB (192 instances)
L2 cache:                    192 MiB (48 instances)
L3 cache:                    480 MiB (1 instance)
NUMA node(s):                3
NUMA node0 CPU(s):           0-63
NUMA node1 CPU(s):           64-127
NUMA node2 CPU(s):           128-191
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; PBR SB-eIBRS Not affected; BHI BHI_DIS_S
Vulnerability Srbds:         Not affected

```

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### Platform Notes (Continued)

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	6M	8	Data	1	64	1	64
L1i	64K	12M	8	Instruction	1	128	1	64
L2	4M	192M	16	Unified	2	4096	1	64
L3	480M	480M	16	Unified	3	491520	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: 0-63
node 0 size: 386111 MB
node 0 free: 382600 MB
node 1 cpus: 64-127
node 1 size: 387055 MB
node 1 free: 384037 MB
node 2 cpus: 128-191
node 2 size: 386994 MB
node 2 free: 384028 MB
node distances:
node    0    1    2
 0:   10   15   17
 1:   15   10   15
 2:   17   15   10

```

9. /proc/meminfo

MemTotal: 1188005544 kB

10. who -r

run-level 3 May 28 15:46

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

Default	Target	Status
multi-user		running

12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon atd auditd avahi-daemon bluetooth chronyd crond cups dbus-broker firewalld

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### Platform Notes (Continued)

```

gdm getty@ insights-client-boot irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt
low-memory-monitor lvm2-monitor mcelog mdmonitor microcode multipathd nis-domainname
nvme-fc-boot-connections ostree-remount qemu-guest-agent rhsmcertd rsyslog rtkit-daemon
selinux-autorelabel-mark smartd sshd sssd switcheroo-control systemd-boot-update
systemd-network-generator systemd-pstore tuned udisks2 upower vgauthd vmtoolsd
enabled-runtime systemd-remount-fs
disabled arp-ethers blk-availability brltty canberra-system-bootup canberra-system-shutdown
canberra-system-shutdown-reboot chrony-wait chronyd-restricted cni-dhcp console-getty
cpupower cups-browsed dbus-daemon debug-shell dnf-system-upgrade dnsmasq iprump iprinit
iprupdate iscsi-init iscsid iscsiui kpatch kvm_stat ledmon lvm-devices-import
man-db-restart-cache-update netavark-dhcp-proxy netavark-firewalld-reload nftables
nvme-autoconnect ostree-readonly-sysroot-migration ostree-state-overlay@ podman
podman-auto-update podman-clean-transient podman-kube@ podman-restart psacct ras-mc-ctl
rasdaemon rdisc rhcd rhsm rhsm-facts rpmdb-rebuild selinux-check-proper-disable
serial-getty@ speech-dispatcherd sshd-keygen@ systemd-boot-check-no-failures
systemd-sysexit tuned-ppd wpa_supplicant
indirect iscsi spice-vdagentd 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=(hd0,gpt2)/vmlinuz-5.14.0-611.5.1.el9_7.x86_64
root=/dev/mapper/rhel_135--180--133-root
ro
resume=/dev/mapper/rhel_135--180--133-swap
rd.lvm.lv=rhel_135-180-133/root
rd.lvm.lv=rhel_135-180-133/swap
rhgb
quiet
crashkernel=1G-2G:192M,2G-64G:256M,64G-:512M

```

```

-----
14. cpupower frequency-info
analyzing CPU 8:
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

```

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### Platform Notes (Continued)

```

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                   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+advise [advise] never
enabled        [always] advise 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--180--133-home xfs   372G  37G  336G  10% /home

```

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### Platform Notes (Continued)

-----  
21. /sys/devices/virtual/dmi/id  
Vendor: Supermicro  
Product: Super Server  
Product Family: Family  
Serial: 0123456789

-----  
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 HMC4M4AMBRB970N 96 GB 2 rank 8000

-----  
23. BIOS

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: American Megatrends International, LLC.  
BIOS Version: 1.5b  
BIOS Date: 05/04/2026  
BIOS Revision: 5.35

### Compiler Version Notes

=====  
C | 854.graph500\_s(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++ | 807.nctest\_s(base, peak) 827.cppcheck\_s(base, peak) 853.ns3\_s(base,  
| peak)

-----  
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
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# SPEC CPU®2026 Integer Speed Result

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## Supermicro

SuperServer SYS-112HA-TN  
(X14SBH-AP, Intel Xeon 6970E+)

SPECspeed®2026\_int\_base = 5.67

SPECspeed®2026\_int\_peak = 5.79

**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 | 801.xz_s(base, peak) 817.flac_s(base, peak) 821.gcc_s(base, peak)
      | 823.llvm_s(base, peak) 829.abc_s(base, peak) 834.vpr_s(base, peak)
      | 835.gem5_s(base, peak) 838.diamond_s(base, peak)
      | 846.minizinc_s(base, peak)
```

-----  
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-----

### Base Compiler Invocation

C benchmarks:  
icx

C++ benchmarks:  
icpx

Benchmarks using both C and C++:  
icpx icx

### Base Portability Flags

834.vpr\_s: -fno-fast-math

### 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 -fno-strict-aliasing -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
```

Benchmarks using both C and C++:

```
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs
```

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## Base Optimization Flags (Continued)

Benchmarks using both C and C++ (continued):

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

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Benchmarks using both C and C++:

icpx icx

## Peak Portability Flags

834.vpr\_s: -fno-fast-math

## Peak Optimization Flags

C benchmarks:

854.graph500\_s: basepeak = yes

C++ benchmarks:

807.ntest\_s: basepeak = yes

827.cppcheck\_s: basepeak = yes

```
853.ns3_s: -m64 -std=c++17 -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
-pthread -fiopenmp -DSPEC_OPENMP
```

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## Peak Optimization Flags (Continued)

853.ns3\_s (continued):

```
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

Benchmarks using both C and C++:

```
801.xz_s: -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 -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -fiopenmp -DSPEC_OPENMP -pthread
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

817.flac\_s: Same as 801.xz\_s

```
821.gcc_s: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-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
-fno-strict-aliasing -fiopenmp -DSPEC_OPENMP -pthread
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc
```

823.llvm\_s: Same as 821.gcc\_s

829.abc\_s: basepeak = yes

834.vpr\_s: basepeak = yes

835.gem5\_s: Same as 801.xz\_s

838.diamond\_s: Same as 801.xz\_s

846.minizinc\_s: Same as 801.xz\_s

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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Tested with SPEC CPU®2026 v1.0.1 on 2026-05-28 14:15:26-0400.

Report generated on 2026-06-16 17:20:08 by CPU2026 PDF formatter (unknown).

Originally published on 2026-06-16.