



SPEC CPU®2026 Floating Point Rate Result

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New H3C Technologies Co., Ltd.

SPECrate®2026_fp_base = 927

H3C UniServer R4900 G7 (Intel Xeon 6970E+)

SPECrate®2026_fp_peak = 944

CPU2026 License: 9066

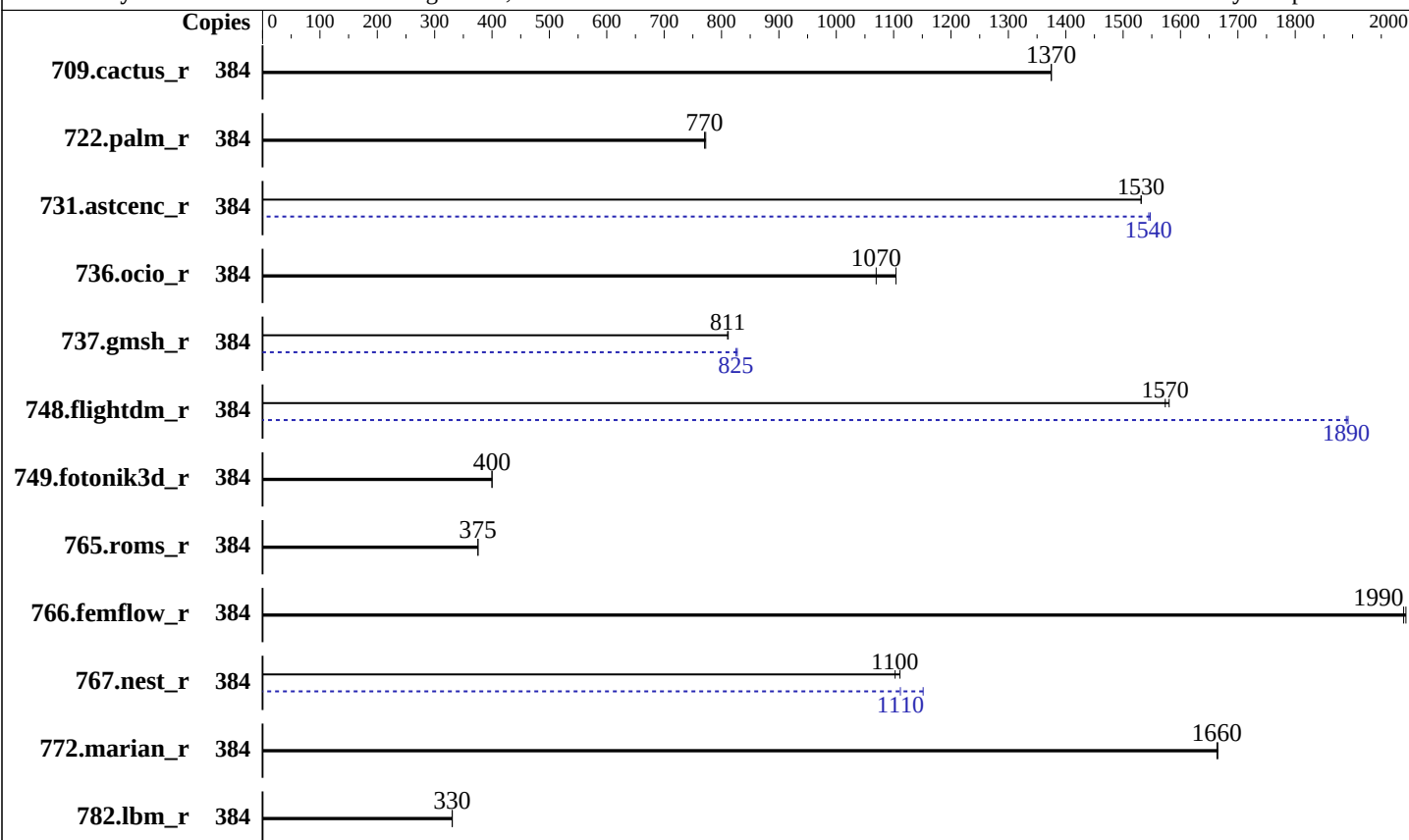
Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Sep-2026

Hardware Availability: Jun-2026

Software Availability: Apr-2026



Hardware

CPU Name: Intel Xeon 6970E+
Max MHz: 3200
Nominal: 2300
Enabled: 384 cores, 2 chips
Orderable: 1,2 chips
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: 1536 GB (24 x 64 GB 2Rx4 PC5-8000B-R)
Storage: 1 x 3.84 TB NVME SSD
Cooling: Air
Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP7
kernel 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 7.10.25P94 released May-2026 BIOS
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.



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	384	240	1370	240	1370			384	240	1370	240	1370		
722.palm_r	384	656	772	658	770			384	656	772	658	770		
731.astcenc_r	384	211	1530	211	1530			384	209	1540	208	1550		
736.ocio_r	384	314	1070	304	1100			384	314	1070	304	1100		
737.gmsh_r	384	217	812	217	811			384	214	825	213	827		
748.flightdm_r	384	174	1580	175	1570			384	145	1890	146	1890		
749.fotonik3d_r	384	1110	400	1110	400			384	1110	400	1110	400		
765.roms_r	384	1611	375	1610	376			384	1611	375	1610	376		
766.femflow_r	384	283	1990	283	1990			384	283	1990	283	1990		
767.nest_r	384	276	1100	274	1110			384	264	1150	274	1110		
772.marian_r	384	364	1660	364	1670			384	364	1660	364	1670		
782.lbm_r	384	665	331	666	330			384	665	331	666	330		

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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/spec2026/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)



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General Notes (Continued)

numactl --interleave=all runcpu <etc>

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.

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.

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 Settings:

SNC = Enable

ACPI C6x Enumeration = C6 as ACPI C2

Latency Optimized Mode = Enabled

BMC Settings:

Fan mode = powerful mode

Sysinfo program /home/spec2026/bin/sysinfo

Rev: 779ab21020787073335a329f3a45e2cd

running on localhost Mon Sep 7 04:03:01 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. Failed units, from systemctl list-units --state=failed
13. Services, from systemctl list-unit-files
14. Linux kernel boot-time arguments, from /proc/cmdline
15. cpupower frequency-info
16. sysctl
17. /sys/kernel/mm/transparent_hugepage

(Continued on next page)



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Platform Notes (Continued)

18. /sys/kernel/mm/transparent_hugepage/khugepaged

19. OS release

20. Disk information

21. /sys/devices/virtual/dmi/id

22. dmidecode

23. BIOS

1. uname -srvnm

Linux 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611/lp) x86_64

2. w

04:03:01 up 3:53, 1 user, load average: 118.18, 294.75, 335.62

USER	TTY	FROM	LOGIN@	IDLE	JCPU	PCPU	WHAT
root	tty1	-	00:13	3:48m	1.74s	0.03s	-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)	6190019
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)	6190019
virtual memory	(kbytes, -v)	unlimited
file locks	(-x)	unlimited

5. sysinfo process ancestry

/usr/lib/systemd/systemd --switched-root --system --deserialize=42

login -- root

-bash

-bash

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Platform Notes (Continued)

```
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 384 -c
ic2026.0-clearwaterforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define peakfpcopies=192
--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 384 --configfile
ic2026.0-clearwaterforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define peakfpcopies=192
--define physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak
--output_format all --nopower --runmode rate --tune base:peak --size refrate fprate --nopreenv
--note-preenv --logfile $SPEC/tmp/CPU2026.021/templogs/preenv.fprate.021.0.log --lognum 021.0
--from_runcpu 2
```

```
specperl $SPEC/bin/sysinfo
```

```
$SPEC = /home/spec2026
```

6. /proc/cpuinfo

```
model name      : Intel(R) Xeon(R) 6970E+
vendor_id       : GenuineIntel
cpu family      : 6
model           : 221
stepping        : 1
microcode       : 0x11000120
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores       : 192
siblings        : 192
2 physical ids (chips)
384 processors (hardware threads)
physical id 0:  core ids 0-63,128-191,256-319
physical id 1:  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
physical id 1:  apicids
```

```
1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064,
1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106,
1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148,
1150, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318,
1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360,
1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402,
1404, 1406, 1536, 1538, 1540, 1542, 1544, 1546, 1548, 1550, 1552, 1554, 1556, 1558, 1560, 1562, 1564, 1566, 1568, 1570, 1572,
1574, 1576, 1578, 1580, 1582, 1584, 1586, 1588, 1590, 1592, 1594, 1596, 1598, 1600, 1602, 1604, 1606, 1608, 1610, 1612, 1614,
1616, 1618, 1620, 1622, 1624, 1626, 1628, 1630, 1632, 1634, 1636, 1638, 1640, 1642, 1644, 1646, 1648, 1650, 1652, 1654, 1656,
1658, 1660, 1662
```

(Continued on next page)



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Platform Notes (Continued)

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):	384
On-line CPU(s) list:	0-383
Vendor ID:	GenuineIntel
Model name:	Intel(R) Xeon(R) 6970E+
CPU family:	6
Model:	221
Thread(s) per core:	1
Core(s) per socket:	192
Socket(s):	2
Stepping:	1
CPU(s) scaling MHz:	28%
CPU max MHz:	3200.0000
CPU min MHz:	800.0000
BogoMIPS:	4600.00

Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx
pdpe1gb rdtscp lm constant_tsc art arch_perfmon 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 hwp
hwp_act_window hwp_epp hwp_pkg_req 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: 12 MiB (384 instances)
L1i cache: 24 MiB (384 instances)
L2 cache: 384 MiB (96 instances)
L3 cache: 960 MiB (2 instances)

(Continued on next page)



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Platform Notes (Continued)

NUMA node(s): 6
NUMA node0 CPU(s): 0-63
NUMA node1 CPU(s): 64-127
NUMA node2 CPU(s): 128-191
NUMA node3 CPU(s): 192-255
NUMA node4 CPU(s): 256-319
NUMA node5 CPU(s): 320-383
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
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling; PBRBSB-eIBRS Not affected; BHI Not affected
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	12M	8	Data	1	64	1	64
L1i	64K	24M	8	Instruction	1	128	1	64
L2	4M	384M	16	Unified	2	4096	1	64
L3	480M	960M	16	Unified	3	491520	1	64

8. numactl --hardware

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

available: 6 nodes (0-5)

node 0 cpus: 0-63

node 0 size: 257498 MB

node 0 free: 242057 MB

node 1 cpus: 64-127

node 1 size: 258030 MB

node 1 free: 242103 MB

node 2 cpus: 128-191

node 2 size: 257992 MB

node 2 free: 242697 MB

node 3 cpus: 192-255

node 3 size: 258030 MB

node 3 free: 242922 MB

node 4 cpus: 256-319

(Continued on next page)



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Platform Notes (Continued)

```
node 4 size: 258030 MB
node 4 free: 242869 MB
node 5 cpus: 320-383
node 5 size: 257951 MB
node 5 free: 242484 MB
node distances:
node  0  1  2  3  4  5
 0:  10  15  17  21  28  26
 1:  15  10  15  23  26  23
 2:  17  15  10  26  23  21
 3:  21  28  26  10  15  17
 4:  23  26  23  15  10  15
 5:  26  23  21  17  15  10
```

9. /proc/meminfo

MemTotal: 1584675796 kB

10. who -r

run-level 3 Sep 7 00:10

11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)

Default Target	Status
multi-user	degraded

12. Failed units, from systemctl list-units --state=failed

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
* sep5.service	loaded	failed		systemd script to load sep5 driver at boot time

13. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth chronyd cron display-manager getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels rollback rsyslog sep5 smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant
enabled-runtime	systemd-remount-fs
disabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs autostart-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebtables exchange-bmc-os-info firewallld fsidd gnome-remote-desktop gpm grub2-once haveged ipmi ipmievad issue-add-ssh-keys kexec-load ksm kvm_stat lunmask man-db-create multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount ostree-state-overlay@ rpcbind rpmconfigcheck rsyncd

(Continued on next page)



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Platform Notes (Continued)

indirect
rtkit-daemon samba-bgqd serial-getty@ smartd_generate_opts smb snmpd snmptrapd
speech-dispatcherd systemd-boot-check-no-failures systemd-confext
systemd-network-generator systemd-sysextd systemd-time-wait-sync systemd-timesyncd udisks2
update-system-flatpaks upower vncserver@ wpa_supplicant@
pcscd saned@ systemd-userdbd wickedd

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

BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default
root=UUID=0ae3eb24-ab4b-4b8e-874e-74e44871a98f
splash=silent
resume=/dev/disk/by-uuid/ee1f2cac-1352-4dc9-8ca2-e927f2abe04e
mitigations=auto
quiet
security=apparmor

15. cpupower frequency-info

analyzing CPU 53:
current policy: frequency should be within 800 MHz and 3.20 GHz.
The governor "performance" may decide which speed to use
within this range.
boost state support:
Supported: yes
Active: yes

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

(Continued on next page)



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Platform Notes (Continued)

```
-----
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 SUSE Linux Enterprise Server 15 SP7
-----
```

```
-----
20. Disk information
   SPEC is set to: /home/spec2026
   Filesystem      Type  Size  Used Avail Use% Mounted on
   /dev/nvme0n1p3  xfs   3.0T  670G  2.4T  23% /home
-----
```

```
-----
21. /sys/devices/virtual/dmi/id
   Vendor:      H3C
   Product:     R4900 G7 AP
   Product Family: Rack
   Serial:      210235A5QEH202606251
-----
```

```
-----
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:
     24x Hynix HMC94CMBRA772N 64 GB 2 rank 8000
-----
```

(Continued on next page)



SPEC CPU®2026 Floating Point Rate Result

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SPECrate®2026_fp_base = 927

H3C UniServer R4900 G7 (Intel Xeon 6970E+)

SPECrate®2026_fp_peak = 944

CPU2026 License: 9066

Test Sponsor: New H3C Technologies Co., Ltd.

Tested by: New H3C Technologies Co., Ltd.

Test Date: Sep-2026

Hardware Availability: Jun-2026

Software Availability: Apr-2026

Platform Notes (Continued)

23. BIOS

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

BIOS Vendor: American Megatrends International, LLC.

BIOS Version: 7.10.25P94

BIOS Date: 05/28/2026

BIOS Revision: 5.35

Firmware Revision: 3.1

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

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```
=====
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

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```
=====
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

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```
=====
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

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

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Base Optimization Flags (Continued)

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

-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)

-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

-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal

736.ocio_r: basepeak = yes

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Hardware Availability: Jun-2026

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Peak Optimization Flags (Continued)

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.profddata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(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/New_H3C-Platform-Settings-Intel-CWF-RevA.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/New_H3C-Platform-Settings-Intel-CWF-RevA.xml

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