



SPEC CPU®2026 Integer Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2026_int_base = 542

PowerEdge R770 (Intel Xeon 6780E)

SPECrate®2026_int_peak = 583

CPU2026 License: 6573

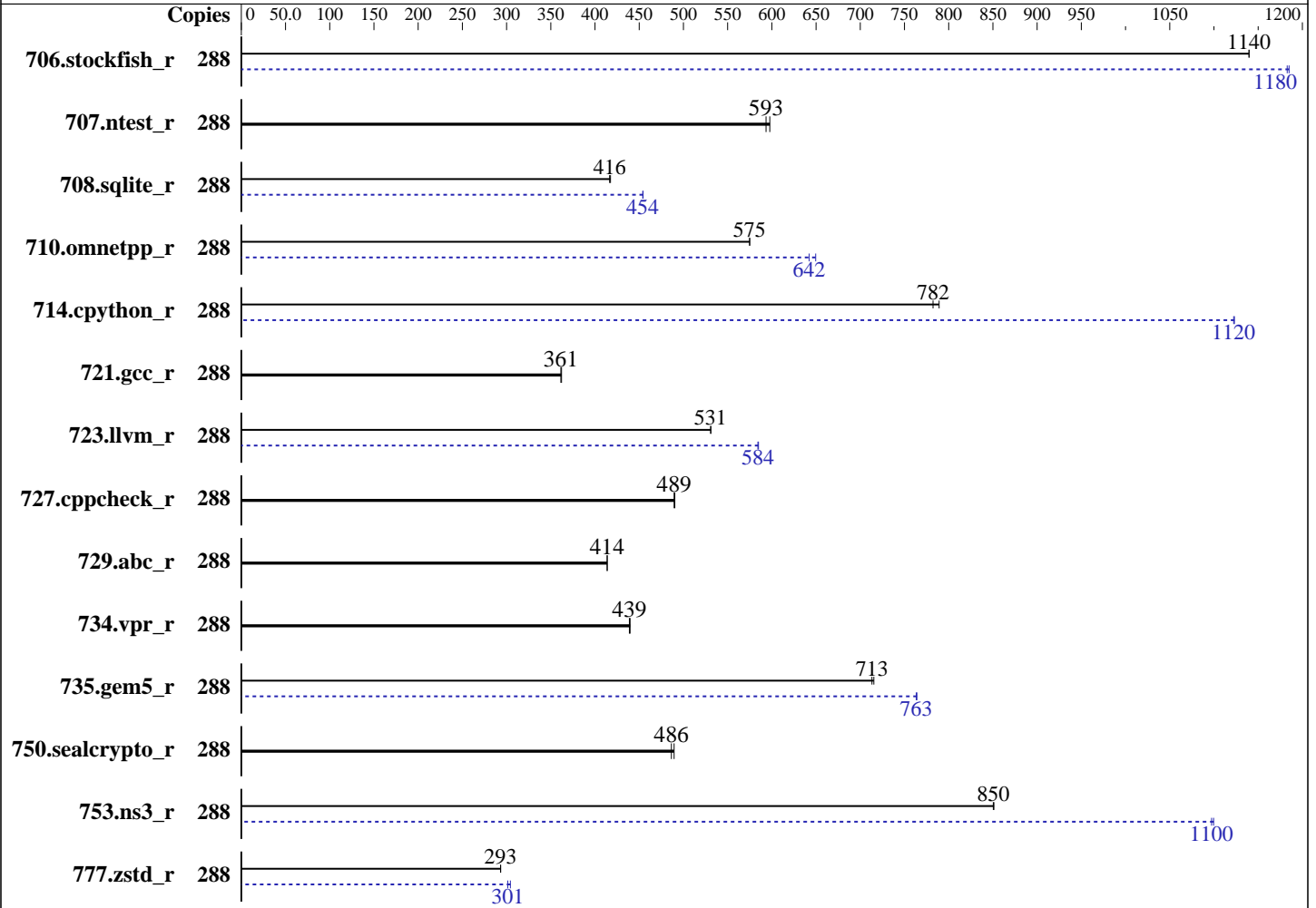
Test Date: Feb-2026

Test Sponsor: Dell Inc.

Hardware Availability: Mar-2025

Tested by: Dell Inc.

Software Availability: Nov-2025



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: 4 MB I+D on chip per core
 L3: 108 MB I+D on chip per chip
 Other: None
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)
 Storage: 160 GB on tmpfs
 Cooling: Air
 Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP6
 6.4.0-150600.21-default
 Compiler: C/C++: Version 2025.3 of Intel oneAPI DPC++/C++
 Compiler for Linux;
 Fortran: Version 2025.3 of Intel Fortran
 Compiler for Linux
 Compiler Category: Vendor
 Firmware: Version 1.6.4 released Nov-2025
 File System: tmpfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: None
 Power Management: BIOS 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
706.stockfish_r	288	318	1140	318	1140			288	306	1180	307	1180		
707.nctest_r	288	287	593	285	598			288	287	593	285	598		
708.sqlite_r	288	365	416	364	418			288	335	454	335	454		
710.omnetpp_r	288	243	575	244	575			288	215	650	218	642		
714.cpython_r	288	176	782	175	789			288	123	1120	123	1120		
721.gcc_r	288	546	362	547	361			288	546	362	547	361		
723.llvm_r	288	275	531	275	531			288	250	584	250	585		
727.cppcheck_r	288	211	490	211	489			288	211	490	211	489		
729.abc_r	288	319	414	319	414			288	319	414	319	414		
734.vpr_r	288	303	439	302	440			288	303	439	302	440		
735.gem5_r	288	197	713	196	715			288	184	763	184	764		
750.sealcrypto_r	288	315	489	317	486			288	315	489	317	486		
753.ns3_r	288	208	850	207	851			288	161	1100	161	1100		
777.zstd_r	288	632	293	633	293			288	610	304	616	301		

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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 = "/mnt/ramdisk/cpu2026-RC2/lib"
MALLOC_CONF = "retain:true"

General Notes

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

(Continued on next page)



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General Notes (Continued)

Filesystem page cache synced and cleared with:

```
sync; echo 3> /proc/sys/vm/drop_caches
```

runcpu command invoked through numactl i.e.:

```
numactl --interleave=all runcpu <etc>
```

Benchmark run from a 160 GB ramdisk created with the cmd: "mount -t tmpfs -o size=160G tmpfs /mnt/ramdisk"

Platform Notes

BIOS Settings:

System Profile : Custom

CPU Power Management : Maximum Performance

C-States : Autonomous

Latency Optimized Mode : Enabled

Energy Efficient Policy : Performance

Sysinfo program /mnt/ramdisk/cpu2026-RC2/bin/sysinfo

Rev: 069f95da7e7f5d81b2ce48a82150e54f

running on W407216-R770 Wed Feb 4 15:26:35 2026

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

Table of contents

1. uname -srvm
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
16. /sys/kernel/mm/transparent_hugepage
17. /sys/kernel/mm/transparent_hugepage/khugepaged
18. OS release
19. Disk information
20. /sys/devices/virtual/dmi/id

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Platform Notes (Continued)

21. dmidecode
22. BIOS

1. `uname -srvm`
Linux 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09) x86_64

2. `w`
15:26:35 up 13 min, 1 user, load average: 0.76, 1.88, 1.24
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root ttyl - 15:15 27.00s 2.01s 0.01s /bin/bash
/home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T01 --output_format html,pdf,txt

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) 4126060
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) 4126060
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
/bin/bash /home/DellFiles/bin/DELL_rate.sh
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T01 --output_format

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Platform Notes (Continued)

```

html, pdf, txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T01 --output_format
html, pdf, txt
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 288 -c
ic2025.3-sierraforest-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=288 --define
physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak -o all
--iterations 2 --define DL-VERS=7.0_T01 --output_format html, pdf, txt intrate
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 288 --configfile
ic2025.3-sierraforest-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=288 --define
physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak
--output_format all --iterations 2 --define DL-VERS=7.0_T01 --output_format html, pdf, txt --nopower
--runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2026.001/templogs/preenv.intrate.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2026-RC2

```

```

-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6780E
vendor_id      : GenuineIntel
cpu family     : 6
model          : 175
stepping       : 3
microcode      : 0x3000382
bugs           : spectre_v1 spectre_v2 spec_store_bypass swags 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.

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Platform Notes (Continued)

7. lscpu

From lscpu from util-linux 2.39.3:

```

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
Model name:                   Intel(R) Xeon(R) 6780E
BIOS Model name:             Intel(R) Xeon(R) 6780E  CPU @ 2.2GHz
BIOS CPU family:             179
CPU family:                   6
Model:                       175
Thread(s) per core:          1
Core(s) per socket:          144
Socket(s):                    2
Stepping:                     3
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 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:                   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, 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, 13

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Platform Notes (Continued)

0, 132, 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, 184, 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

NUMA node1 CPU(s):

1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 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
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling; PBRSE-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, 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, 132, 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, 184, 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
node 0 size: 515597 MB

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Platform Notes (Continued)

```

node 0 free: 489068 MB
node 1 cpus:
1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 7
5, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 1
35, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187,
189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241
, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287
node 1 size: 515944 MB
node 1 free: 512318 MB
node distances:
node   0   1
   0:  10  21
   1:  21  10

```

```

-----
9. /proc/meminfo
MemTotal:      1056298400 kB

```

```

-----
10. who -r
run-level 3 Feb 4 15:14

```

```

-----
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
Default Target Status
multi-user      running

```

```

-----
12. Services, from systemctl list-unit-files
STATE UNIT FILES
enabled YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron display-manager getty@ irqbalance
issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog
smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
disabled autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info
firewalld fsidd gpm grub2-once haveged ipmi ipmievd issue-add-ssh-keys kexec-load lunmask
man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd serial-getty@
smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures systemd-confext
systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd udisks2
vncserver@
indirect systemd-userdbd wickedd

```

```

-----
13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=e81515a8-96ce-43a6-8780-d2ae771756fe

```

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Platform Notes (Continued)

```
splash=silent
mitigations=auto
quiet
security=apparmor
```

```
-----
14. cpupower frequency-info
analyzing CPU 110:
  Unable to determine current policy
  boost state support:
    Supported: yes
    Active: yes
```

```
-----
15. 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
```

```
-----
16. /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
```

```
-----
17. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs  60000
defrag                  1
max_ptes_none          511
```

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SPEC CPU®2026 Integer Rate Result

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Dell Inc.

SPECrate®2026_int_base = 542

PowerEdge R770 (Intel Xeon 6780E)

SPECrate®2026_int_peak = 583

CPU2026 License: 6573
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Feb-2026
Hardware Availability: Mar-2025
Software Availability: Nov-2025

Platform Notes (Continued)

```
max_ptes_shared      256
max_ptes_swap        64
pages_to_scan        4096
scan_sleep_millisecs 10000
```

18. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP6

19. Disk information
SPEC is set to: /mnt/ramdisk/cpu2026-RC2
Filesystem Type Size Used Avail Use% Mounted on
tmpfs tmpfs 160G 13G 148G 9% /mnt/ramdisk

20. /sys/devices/virtual/dmi/id
Vendor: Dell Inc.
Product: PowerEdge R770
Product Family: PowerEdge
Serial: W407216

21. dmidecode
Additional information from dmidecode 3.4 follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.
Memory:
6x 00AD042300AD HMC94AHBRA480N 64 GB 2 rank 6400
10x 00AD063200AD HMC94AHBRA277N 64 GB 2 rank 6400

22. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor: Dell Inc.
BIOS Version: 1.6.4
BIOS Date: 11/02/2025
BIOS Revision: 1.6

Compiler Version Notes

=====
C | 708.sqlite_r(base, peak) 714.cpython_r(base, peak) 777.zstd_r(base,

(Continued on next page)



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Compiler Version Notes (Continued)

| peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
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=====
C++ | 706.stockfish_r(base, peak) 707.ntest_r(base, peak)
727.cppcheck_r(base, peak) 753.ns3_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
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=====
C++, C | 710.omnetpp_r(base, peak) 721.gcc_r(base, peak) 723.llvm_r(base,
| peak) 729.abc_r(base, peak) 734.vpr_r(base, peak) 735.gem5_r(base,
peak) 750.sealcrypto_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2025.3.0 Build 20251010
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Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

706.stockfish_r: -DSPEC_LP64
707.ntest_r: -DSPEC_LP64
708.sqlite_r: -DSPEC_LP64
710.omnetpp_r: -DSPEC_LP64

(Continued on next page)



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Base Portability Flags (Continued)

714.cpython_r: -DSPEC_LP64
721.gcc_r: -DSPEC_LP64
723.llvm_r: -DSPEC_LP64
727.cppcheck_r: -DSPEC_LP64
729.abc_r: -DSPEC_LP64
734.vpr_r: -DSPEC_LP64
735.gem5_r: -DSPEC_LP64
750.sealcrypto_r: -DSPEC_LP64
753.ns3_r: -DSPEC_LP64
777.zstd_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-m64 -std=c18 -Wl,-z,muldefs -xsierraforest -O3 -ffp-model=fast
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2025.3/lib -lqkmalloc

C++ benchmarks:

-m64 -std=c++17 -Wl,-z,muldefs -xsierraforest -O3 -ffp-model=fast
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2025.3/lib -lqkmalloc

Benchmarks using both C and C++:

-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xsierraforest -O3
-ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -L/opt/intel/oneapi/compiler/2025.3/lib
-lqkmalloc

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Benchmarks using both C and C++:

icpx icx



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Test Date: Feb-2026

Hardware Availability: Mar-2025

Software Availability: Nov-2025

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

```
-m64 -std=c18 -Wl,-z,muldefs -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/opt/intel/oneapi/compiler/2025.3/lib -lqkmalloc
```

C++ benchmarks:

```
706.stockfish_r: -m64 -std=c++17 -Wl,-z,muldefs
-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/opt/intel/oneapi/compiler/2025.3/lib -lqkmalloc
```

707.ntest_r: basepeak = yes

727.cppcheck_r: basepeak = yes

753.ns3_r: Same as 706.stockfish_r

Benchmarks using both C and C++:

```
710.omnetpp_r: -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 -xsierraforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-L/opt/intel/oneapi/compiler/2025.3/lib -lqkmalloc
```

721.gcc_r: basepeak = yes

723.llvm_r: Same as 710.omnetpp_r

729.abc_r: basepeak = yes

734.vpr_r: basepeak = yes

(Continued on next page)



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Peak Optimization Flags (Continued)

735.gem5_r: Same as 710.omnetpp_r

750.sealcrypto_r: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.html>

<http://www.spec.org/cpu2026/results/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.19.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.xml>

<http://www.spec.org/cpu2026/results/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.19.xml>

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