



SPEC CPU®2017 Integer Rate Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(2.00 Ghz, Intel Xeon 6788P)

SPECrate®2017_int_base = 3110

SPECrate®2017_int_peak = 3220

CPU2017 License: 3

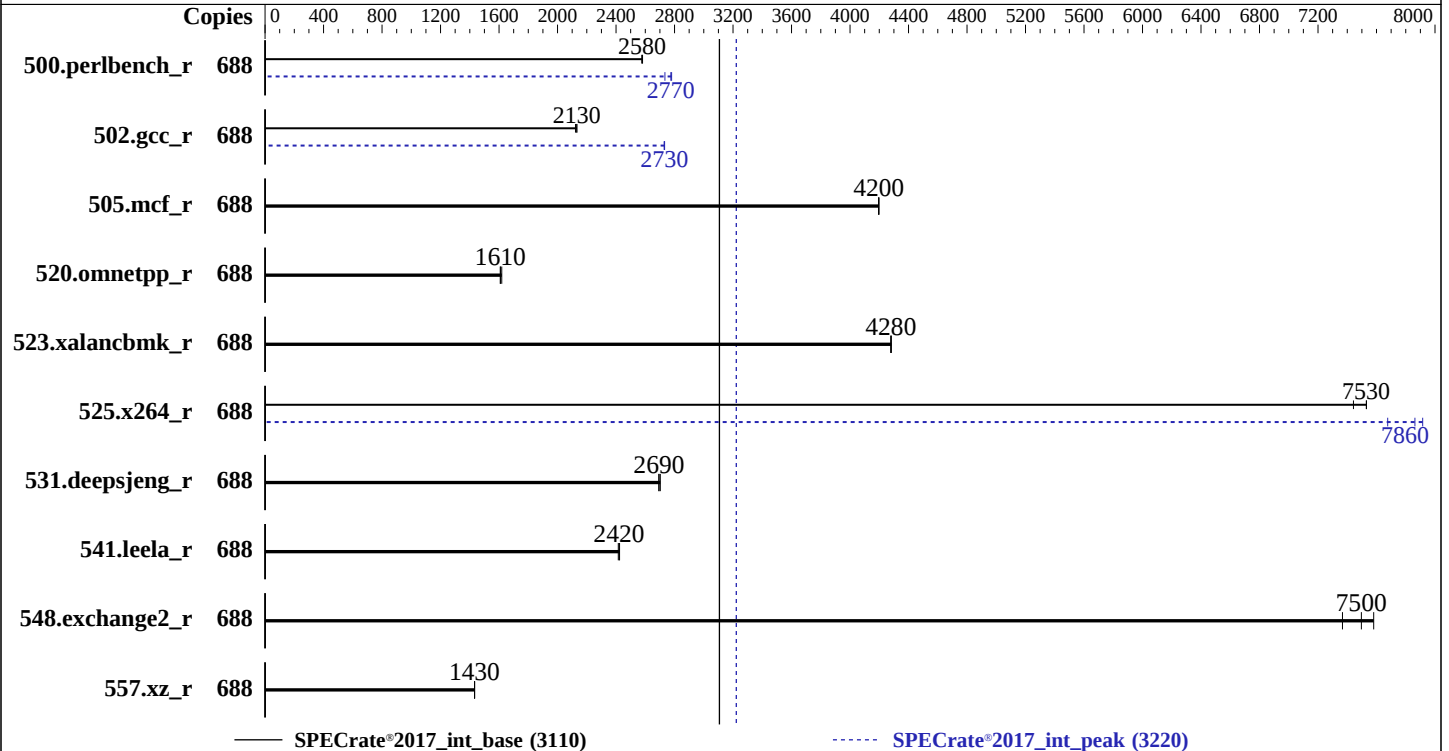
Test Sponsor: HPE

Tested by: HPE

Test Date: Jun-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024



Hardware

CPU Name: Intel Xeon 6788P
Max MHz: 3800
Nominal: 2000
Enabled: 344 cores, 4 chips, 2 threads/core
Orderable: 1,2,4 Chips
Cache L1: 64 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 336 MB I+D on chip per chip
Other: None
Memory: 2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 1 x 3.2 TB NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
Kernel 6.4.0-150600.21-default
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;
Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;
Parallel: No
Firmware: HPE BIOS Version v1.34 04/18/2025 released Apr-2025
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS 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
500.perlbench_r	688	425	2580	425	2580	424	2580	688	394	2780	395	2770	401	2730
502.gcc_r	688	457	2130	457	2130	459	2120	688	357	2730	357	2730	357	2730
505.mcf_r	688	265	4200	265	4200	265	4190	688	265	4200	265	4200	265	4190
520.omnetpp_r	688	558	1620	561	1610	561	1610	688	558	1620	561	1610	561	1610
523.xalancbmk_r	688	170	4280	170	4280	170	4280	688	170	4280	170	4280	170	4280
525.x264_r	688	160	7530	162	7440	160	7530	688	157	7680	152	7920	153	7860
531.deepsjeng_r	688	293	2690	292	2700	293	2690	688	293	2690	292	2700	293	2690
541.leela_r	688	471	2420	470	2420	472	2420	688	471	2420	470	2420	472	2420
548.exchange2_r	688	238	7580	245	7370	240	7500	688	238	7580	245	7370	240	7500
557.xz_r	688	519	1430	519	1430	519	1430	688	519	1430	519	1430	519	1430

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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"
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.:
numactl --interleave=all runcpu <etc>
tuned-adm profile was stopped using "systemctl stop tuned"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"
MALLOCONF = "retain:true"

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
memory using Red Hat Enterprise Linux 8.4
runcpu command invoked through numactl i.e.:
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)

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General Notes (Continued)

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.

jemalloc, a general purpose malloc implementation

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

Platform Notes

BIOS Configurations : Parameters are selected in the order shown below

Workload Profile set to General Throughput Compute

Enhanced Processor Performance Profile set to Aggressive

Thermal Configuration set to Maximum Cooling

Memory Patrol Scrubbing set to Disabled

Last Level Cache (LLC) Prefetch set to Enabled

XPT Prefetch set to Disabled

Intel UPI Prefetch set to Disabled

Workload Profile set to Custom

DCU Stream Prefetcher set to Disabled

Adjacent Sector Prefetch set to Disabled

Sysinfo program /home/cpu2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost Mon Jun 16 04:16:36 2025

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

Table of contents

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

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Platform Notes (Continued)

```
-----
2. w
  04:16:36 up 7 min,  3 users,  load average: 0.00, 0.18, 0.14
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU   WHAT
root      pts/0    172.17.1.97     04:15   8.00s   1.10s   0.02s  -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) 8253545
max locked memory       (kbytes, -l) 8192
max memory size         (kbytes, -m) unlimited
open files              (-n) 65536
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) 8253545
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=31
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@pts/0
-bash
-bash
-bash
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=688 -c
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=344 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak -o all intrate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=688 --configfile
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=344 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --nopower
--runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.003/templogs/preenv.intrate.003.0.log --lognum 003.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6788P
vendor_id       : GenuineIntel
cpu family      : 6
model           : 173
stepping        : 1
microcode       : 0x10003a5
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores       : 86
```

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Platform Notes (Continued)

siblings : 172
4 physical ids (chips)
688 processors (hardware threads)
physical id 0: core ids 0-42,64-106
physical id 1: core ids 0-42,64-106
physical id 2: core ids 0-42,64-106
physical id 3: core ids 0-42,64-106
physical id 0: apicids 0-85,128-213
physical id 1: apicids 256-341,384-469
physical id 2: apicids 512-597,640-725
physical id 3: apicids 768-853,896-981

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 2.39.3:

Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Address sizes:	46 bits physical, 57 bits virtual
Byte Order:	Little Endian
CPU(s):	688
On-line CPU(s) list:	0-687
Vendor ID:	GenuineIntel
BIOS Vendor ID:	Intel(R) Corporation
Model name:	Intel(R) Xeon(R) 6788P
BIOS Model name:	Intel(R) Xeon(R) 6788P CPU @ 2.0GHz
BIOS CPU family:	179
CPU family:	6
Model:	173
Thread(s) per core:	2
Core(s) per socket:	86
Socket(s):	4
Stepping:	1
BogoMIPS:	4000.00
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 hle avx2 smep bmi2 erms invpcid rtm cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts vnni avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile amx_int8 flush_l1d arch_capabilities
Virtualization:	VT-x
L1d cache:	16.1 MiB (344 instances)
L1i cache:	21.5 MiB (344 instances)
L2 cache:	688 MiB (344 instances)
L3 cache:	1.3 GiB (4 instances)

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Platform Notes (Continued)

```
NUMA node(s): 8
NUMA node0 CPU(s): 0-42,344-386
NUMA node1 CPU(s): 43-85,387-429
NUMA node2 CPU(s): 86-128,430-472
NUMA node3 CPU(s): 129-171,473-515
NUMA node4 CPU(s): 172-214,516-558
NUMA node5 CPU(s): 215-257,559-601
NUMA node6 CPU(s): 258-300,602-644
NUMA node7 CPU(s): 301-343,645-687
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	48K	16.1M	12	Data	1	64	1	64
L1i	64K	21.5M	16	Instruction	1	64	1	64
L2	2M	688M	16	Unified	2	2048	1	64
L3	336M	1.3G	16	Unified	3	344064	1	64

8. numactl --hardware

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

```
available: 8 nodes (0-7)
node 0 cpus: 0-42,344-386
node 0 size: 257428 MB
node 0 free: 256307 MB
node 1 cpus: 43-85,387-429
node 1 size: 258025 MB
node 1 free: 257003 MB
node 2 cpus: 86-128,430-472
node 2 size: 258025 MB
node 2 free: 257119 MB
node 3 cpus: 129-171,473-515
node 3 size: 257986 MB
node 3 free: 257082 MB
node 4 cpus: 172-214,516-558
node 4 size: 258025 MB
node 4 free: 257306 MB
node 5 cpus: 215-257,559-601
node 5 size: 258025 MB
node 5 free: 257353 MB
node 6 cpus: 258-300,602-644
node 6 size: 258025 MB
node 6 free: 257134 MB
node 7 cpus: 301-343,645-687
node 7 size: 257868 MB
node 7 free: 256270 MB
```

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Platform Notes (Continued)

node distances:

node	0	1	2	3	4	5	6	7
0:	10	12	21	21	31	31	21	21
1:	12	10	21	21	31	31	21	21
2:	21	21	10	12	21	21	31	31
3:	21	21	12	10	21	21	31	31
4:	31	31	21	21	10	12	21	21
5:	31	31	21	21	12	10	21	21
6:	21	21	31	31	21	21	10	12
7:	21	21	31	31	21	21	12	10

9. /proc/meminfo

MemTotal: 2112932884 kB

10. who -r

run-level 3 Jun 16 04:10

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	apparmor auditd cron getty@ irqbalance issue-generator kbdsettings nvme-fc-boot-connections nvmf-autoconnect postfix purge-kernels rollback sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime	systemd-remount-fs
disabled	boot-sysctl ca-certificates chrony-wait chronyd console-getty debug-shell grub2-once haveged hwloc-dump-hwdata issue-add-ssh-keys kexec-load rpmconfigcheck serial-getty@ systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysex systemd-time-wait-sync systemd-timesyncd tuned
indirect	systemd-userdbd wickedd

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

BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=8768ae42-b33d-4d60-86a6-ea0d3af247df
splash=silent
resume=/dev/disk/by-uuid/593e1cfb-89a6-4a54-a92b-64b3ebc471c6
mitigations=auto
quiet
security=apparmor

14. cpupower frequency-info

analyzing CPU 37:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes

15. tuned-adm active

It seems that tuned daemon is not running, preset profile is not activated.
Preset profile: virtual-host

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Platform Notes (Continued)

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

17. /sys/kernel/mm/transparent_hugepage

defrag	always 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 SP6

20. Disk information

SPEC is set to: /home/cpu2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme0n1p3	xfs	1.9T	958G	975G	50%	/home

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

Vendor:	HPE
Product:	HPE ProLiant Compute DL580 Gen12
Product Family:	ProLiant
Serial:	7CED2FP014

22. dmidecode

Additional information from dmidecode 3.4 follows. WARNING: Use caution when you interpret this section.

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Platform Notes (Continued)

The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:

16x Hynix HMC94AHBRA480N 64 GB 2 rank 6400

3x Micron MTC40F2046S1RC64BD2 MWFF 64 GB 2 rank 6400

13x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400

23. BIOS

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

BIOS Vendor: HPE

BIOS Version: 1.34

BIOS Date: 04/18/2025

BIOS Revision: 1.34

Firmware Revision: 1.13

Compiler Version Notes

=====
C | 502.gcc_r(peak)
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

=====
C | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
| 557.xz_r(base, peak)
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

=====
C | 502.gcc_r(peak)
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

=====
C | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
| 557.xz_r(base, peak)
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

=====
C++ | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak) 531.deepsjeng_r(base, peak)
| 541.leela_r(base, peak)
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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=====

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(2.00 Ghz, Intel Xeon 6788P)

SPECrate®2017_int_base = 3110

SPECrate®2017_int_peak = 3220

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Jun-2025

Hardware Availability: Jul-2025

Software Availability: Jun-2024

Compiler Version Notes (Continued)

Fortran | 548.exchange2_r(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64

502.gcc_r: -DSPEC_LP64

505.mcf_r: -DSPEC_LP64

520.omnetpp_r: -DSPEC_LP64

523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX

525.x264_r: -DSPEC_LP64

531.deepsjeng_r: -DSPEC_LP64

541.leela_r: -DSPEC_LP64

548.exchange2_r: -DSPEC_LP64

557.xz_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xsapfirerapids -O3 -ffast-math

-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4

-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

C++ benchmarks:

-w -std=c++14 -m64 -Wl,-z,muldefs -xsapfirerapids -O3 -ffast-math

-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4

-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

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SPEC CPU®2017 Integer Rate Result

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Base Optimization Flags (Continued)

Fortran benchmarks:

-w -m64 -wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmallo

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Peak Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64

Peak Optimization Flags

C benchmarks:

500.perlbench_r: -w -std=c11 -m64 -wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow

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Peak Optimization Flags (Continued)

500.perlbench_r (continued):

-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmallo

502.gcc_r: -m32 -L/opt/intel/oneapi/compiler/2024.1/lib32 -std=gnu89

-Wl, -z, muldefs -fprofile-generate(pass 1)

-fprofile-use=default.profd

-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse

-funroll-loops -qopt-mem-layout-trans=4

-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

505.mcf_r: basepeak = yes

525.x264_r: -w -std=c11 -m64 -Wl, -z, muldefs -xsaphirerapids -Ofast

-ffast-math -flto -mfpmath=sse -funroll-loops

-qopt-mem-layout-trans=4 -fno-alias

-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmallo

557.xz_r: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes

523.xalancbmk_r: basepeak = yes

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes

Fortran benchmarks:

548.exchange2_r: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.3.html>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

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

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.3.xml>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>



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