



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

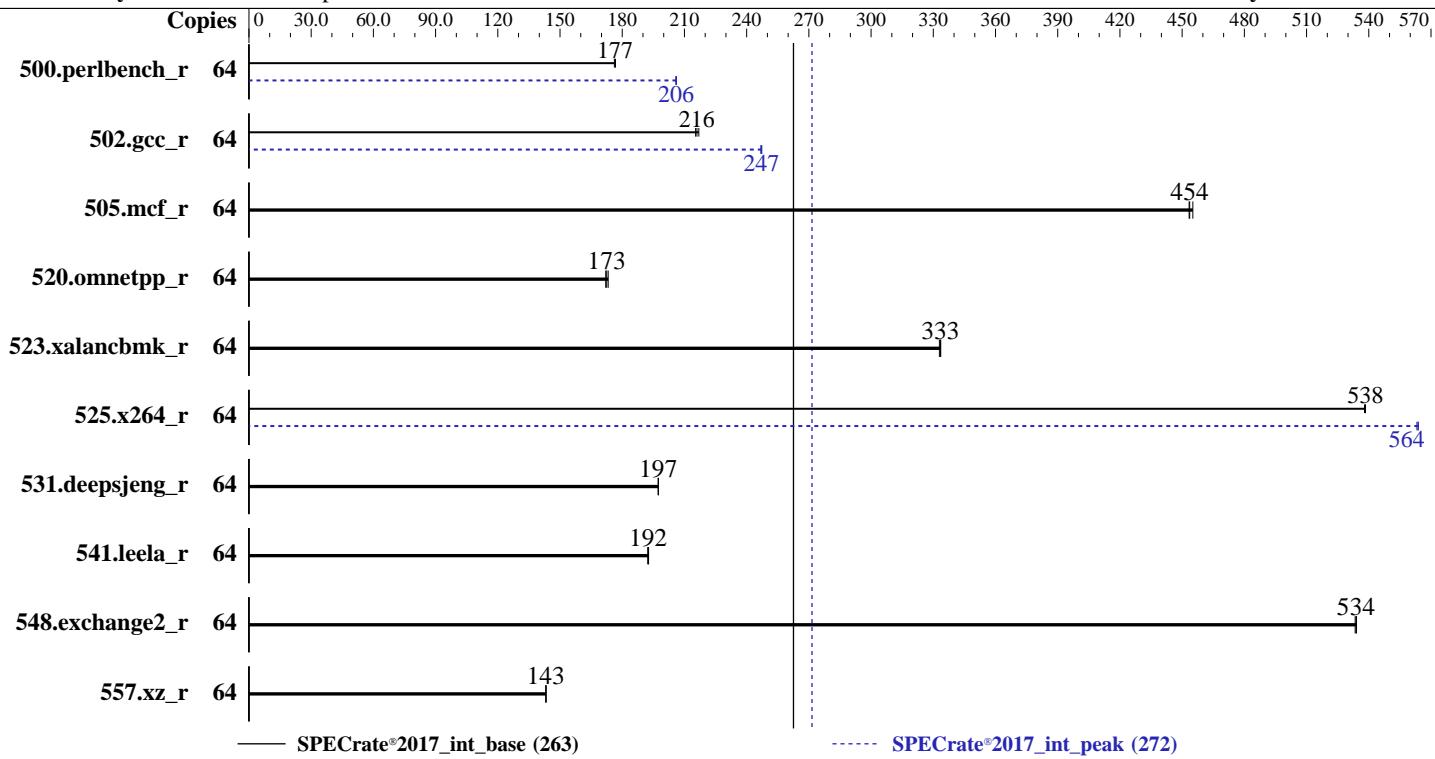
**SPECrate®2017\_int\_base = 263**

**SPECrate®2017\_int\_peak = 272**

**Test Date:** Jul-2021

**Hardware Availability:** Jul-2021

**Software Availability:** Dec-2020



— SPECrate®2017\_int\_base (263)

----- SPECrate®2017\_int\_peak (272)

### Hardware

CPU Name: Intel Xeon Gold 6326  
 Max MHz: 3500  
 Nominal: 2900  
 Enabled: 32 cores, 2 chips, 2 threads/core  
 Orderable: 1,2 chips  
 Cache L1: 32 KB I + 48 KB D on chip per core  
 L2: 1.25 MB I+D on chip per core  
 L3: 24 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (32 x 32 GB 2Rx4 PC4-3200AA-R)  
 Storage: 1 x 800 GB SAS SSD, RAID 0  
 Other: None

### Software

OS: Red Hat Enterprise Linux release 8.3 (Ootpa) 4.18.0-240.el8.x86\_64  
 Compiler: C/C++: Version 2021.1 of Intel oneAPI DPC++/C++ Compiler Build 20201113 for Linux;  
 Fortran: Version 2021.1 of Intel Fortran Compiler Classic Build 20201112 for Linux;  
 C/C++: Version 2021.1 of Intel C/C++ Compiler Classic Build 20201112 for Linux  
 Parallel: No  
 Firmware: NEC BIOS Version U46 v1.40 04/28/2021 released Jul-2021  
 File System: ext4  
 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 set to prefer performance at the cost of additional power usage.



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	64	578	176	576	177	<b>577</b>	<b>177</b>	64	<b>495</b>	<b>206</b>	495	206	494	206
502.gcc_r	64	418	217	<b>420</b>	<b>216</b>	421	215	64	<b>367</b>	<b>247</b>	366	247	367	247
505.mcf_r	64	<b>228</b>	<b>454</b>	228	453	227	455	64	<b>228</b>	<b>454</b>	228	453	227	455
520.omnetpp_r	64	485	173	488	172	<b>487</b>	<b>173</b>	64	485	173	488	172	<b>487</b>	<b>173</b>
523.xalancbmk_r	64	<b>203</b>	<b>333</b>	203	334	203	333	64	<b>203</b>	<b>333</b>	203	334	203	333
525.x264_r	64	208	538	208	538	<b>208</b>	<b>538</b>	64	<b>199</b>	<b>564</b>	199	564	199	563
531.deepsjeng_r	64	372	197	372	197	<b>372</b>	<b>197</b>	64	372	197	372	197	<b>372</b>	<b>197</b>
541.leela_r	64	<b>551</b>	<b>192</b>	550	193	551	192	64	<b>551</b>	<b>192</b>	550	193	<b>551</b>	<b>192</b>
548.exchange2_r	64	<b>314</b>	<b>534</b>	314	534	314	533	64	<b>314</b>	<b>534</b>	314	534	314	533
557.xz_r	64	<b>483</b>	<b>143</b>	483	143	483	143	64	<b>483</b>	<b>143</b>	483	143	483	143
SPECrate®2017_int_base =			<b>263</b>											
SPECrate®2017_int_peak =			<b>272</b>											

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/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-
    32"
MALLOC_CONF = "retain:true"
```

## General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM memory using Red Hat Enterprise Linux 8.1

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)

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

CPU2017 License: 9006

Test Date: Jul-2021

Test Sponsor: NEC Corporation

Hardware Availability: Jul-2021

Tested by: NEC Corporation

Software Availability: Dec-2020

## 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.

This benchmark result is intended to provide perspective on past performance using the historical software and/or firmware described on this result page.

The system as described on this result page was formerly generally available. At the time of this publication, it may not be shipping, and/or may not be supported, and/or may fail to meet other tests of General Availability described in the SPEC OSG Policy document, <http://www.spec.org/osg/policy.html>. This measured result may not be representative of the result that would be measured were this benchmark run with software and firmware available as of the publication date.

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>

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](http://jemalloc.net) or <https://github.com/jemalloc/jemalloc/releases>

## Platform Notes

BIOS Settings:

Thermal Configuration: Maximum Cooling

Workload Profile: General Throughput Compute

Advanced Memory Protection: Advanced ECC Support

Memory Patrol Scrubbing: Disabled

Minimum Processor Idle Power Core C-State: C6 State

LLC Dead Line Allocation: Disabled

Enhanced Processor Performance: Enabled

XPT Prefetcher: Enabled

Intel UPI Link Enablement: Single Link Operation

Intel UPI Link Frequency: Min UPI Speed

Direct To UPI (D2K): Disabled

Workload Profile: Custom

Adjacent Sector Prefetch: Disabled

DCU Stream Prefetcher: Disabled

Intel UPI Link Power Management: Enabled

Energy Efficient Turbo: Enabled

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

CPU2017 License: 9006

Test Date: Jul-2021

Test Sponsor: NEC Corporation

Hardware Availability: Jul-2021

Tested by: NEC Corporation

Software Availability: Dec-2020

## Platform Notes (Continued)

```
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acafcc64d
running on r120i1m Tue Jul 13 11:32:13 2021
```

SUT (System Under Test) info as seen by some common utilities.  
For more information on this section, see  
<https://www.spec.org/cpu2017/Docs/config.html#sysinfo>

From /proc/cpuinfo

```
model name : Intel(R) Xeon(R) Gold 6326 CPU @ 2.90GHz
  2 "physical id"s (chips)
  64 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following
excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
  cpu cores : 16
  siblings   : 32
  physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
  physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
```

From lscpu from util-linux 2.32.1:

```
Architecture:           x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                64
On-line CPU(s) list:  0-63
Thread(s) per core:   2
Core(s) per socket:   16
Socket(s):             2
NUMA node(s):          4
Vendor ID:             GenuineIntel
CPU family:            6
Model:                 106
Model name:            Intel(R) Xeon(R) Gold 6326 CPU @ 2.90GHz
Stepping:               6
CPU MHz:                3404.409
BogoMIPS:              5800.00
Virtualization:        VT-x
L1d cache:              48K
L1i cache:              32K
L2 cache:                1280K
L3 cache:                24576K
NUMA node0 CPU(s):     0-7,32-39
NUMA node1 CPU(s):     8-15,40-47
NUMA node2 CPU(s):     16-23,48-55
NUMA node3 CPU(s):     24-31,56-63
Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Platform Notes (Continued)

```
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 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 invpcid_single ssbd
mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnumi flexpriority ept vpid ept_ad
fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid 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 wbnoinvd dtherm ida arat pln pts avx512vbmi umip pkru
ospke avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme
avx512_vpopcntdq la57 rdpid md_clear pconfig flush_lld arch_capabilities
```

```
/proc/cpuinfo cache data
cache size : 24576 KB
```

From numactl --hardware

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

```
available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 32 33 34 35 36 37 38 39
node 0 size: 253463 MB
node 0 free: 257094 MB
node 1 cpus: 8 9 10 11 12 13 14 15 40 41 42 43 44 45 46 47
node 1 size: 254112 MB
node 1 free: 257553 MB
node 2 cpus: 16 17 18 19 20 21 22 23 48 49 50 51 52 53 54 55
node 2 size: 253510 MB
node 2 free: 257795 MB
node 3 cpus: 24 25 26 27 28 29 30 31 56 57 58 59 60 61 62 63
node 3 size: 253809 MB
node 3 free: 257707 MB
node distances:
node   0   1   2   3
  0: 10 20 30 30
  1: 20 10 30 30
  2: 30 30 10 20
  3: 30 30 20 10
```

```
From /proc/meminfo
MemTotal:      1056523360 kB
HugePages_Total:      0
Hugepagesize:     2048 kB
```

```
/sbin/tuned-adm active
Current active profile: throughput-performance
```

```
From /etc/*release* /etc/*version*
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Platform Notes (Continued)

```
os-release:  
  NAME="Red Hat Enterprise Linux"  
  VERSION="8.3 (Ootpa)"  
  ID="rhel"  
  ID_LIKE="fedora"  
  VERSION_ID="8.3"  
  PLATFORM_ID="platform:el8"  
  PRETTY_NAME="Red Hat Enterprise Linux 8.3 (Ootpa)"  
  ANSI_COLOR="0;31"  
redhat-release: Red Hat Enterprise Linux release 8.3 (Ootpa)  
system-release: Red Hat Enterprise Linux release 8.3 (Ootpa)  
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.3:ga
```

```
uname -a:  
Linux r120i1m 4.18.0-240.el8.x86_64 #1 SMP Wed Sep 23 05:13:10 EDT 2020 x86_64 x86_64  
x86_64 GNU/Linux
```

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit):	Not affected
CVE-2018-3620 (L1 Terminal Fault):	Not affected
Microarchitectural Data Sampling:	Not affected
CVE-2017-5754 (Meltdown):	Not affected
CVE-2018-3639 (Speculative Store Bypass):	Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1):	Mitigation: usercopy/swaps barriers and __user pointer sanitization
CVE-2017-5715 (Spectre variant 2):	Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling):	Not affected
CVE-2019-11135 (TSX Asynchronous Abort):	Not affected

run-level 3 Jul 13 11:30

SPEC is set to: /home/cpu2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/sda3	ext4	724G	170G	518G	25%	/

From /sys/devices/virtual/dmi/id

Vendor:	NEC
Product:	Express5800/R120i-1M
Product Family:	Express5800
Serial:	CN70450X8H

Additional information from dmidecode 3.2 follows. WARNING: Use caution when you

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Platform Notes (Continued)

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:

32x Hynix HMA84GR7CJR4N-XN 32 GB 2 rank 3200

BIOS:

BIOS Vendor: NEC  
BIOS Version: U46  
BIOS Date: 04/28/2021  
BIOS Revision: 1.40  
Firmware Revision: 2.44

(End of data from sysinfo program)

## Compiler Version Notes

=====

C | 500.perlbench\_r(peak)

=====

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)  
64, Version 2021.1 Build 20201112\_000000  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 502.gcc\_r(peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version  
2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 500.perlbench\_r(base) 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 2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 500.perlbench\_r(peak)

=====

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120i-1M (Intel Xeon Gold 6326)

**SPECrate®2017\_int\_base = 263**

**SPECrate®2017\_int\_peak = 272**

**CPU2017 License:** 9006

**Test Date:** Jul-2021

**Test Sponsor:** NEC Corporation

**Hardware Availability:** Jul-2021

**Tested by:** NEC Corporation

**Software Availability:** Dec-2020

## Compiler Version Notes (Continued)

64, Version 2021.1 Build 20201112\_000000

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 502.gcc\_r(peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version  
2021.1 Build 20201113

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 500.perlbench\_r(base) 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 2021.1 Build 20201113

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 500.perlbench\_r(peak)

=====

Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)  
64, Version 2021.1 Build 20201112\_000000

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 502.gcc\_r(peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version  
2021.1 Build 20201113

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====

C | 500.perlbench\_r(base) 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 2021.1 Build 20201113

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

**SPECrate®2017\_int\_base = 263**

**SPECrate®2017\_int\_peak = 272**

**Test Date:** Jul-2021

**Hardware Availability:** Jul-2021

**Software Availability:** Dec-2020

## Compiler Version Notes (Continued)

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 2021.1 Build 20201113  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

=====  
Fortran | 548.exchange2\_r(base, peak)

-----  
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on  
Intel(R) 64, Version 2021.1 Build 20201112\_000000  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifort

## 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



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Base Optimization Flags

C benchmarks:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math  
-fsto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-mbranches-within-32B-boundaries  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin  
-lqkmalloc
```

C++ benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -fsto  
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-mbranches-within-32B-boundaries  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin  
-lqkmalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ipo -no-prec-div  
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte  
-auto -mbranches-within-32B-boundaries  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin  
-lqkmalloc
```

## Peak Compiler Invocation

C benchmarks (except as noted below):

icx

500.perlbench\_r: icc

C++ benchmarks:

icpx

Fortran benchmarks:

ifort

## 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

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R120i-1M (Intel Xeon Gold 6326)

CPU2017 License: 9006

Test Sponsor: NEC Corporation

Tested by: NEC Corporation

SPECrate®2017\_int\_base = 263

SPECrate®2017\_int\_peak = 272

Test Date: Jul-2021

Hardware Availability: Jul-2021

Software Availability: Dec-2020

## Peak Portability Flags (Continued)

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: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)  
-xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=4 -fno-strict-overflow  
-mbranches-within-32B-boundaries  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64\_lin  
-lqkmalloc  
  
502.gcc\_r: -m32  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/ia32\_lin  
-std=gnu89 -Wl,-z,muldefs -fprofile-generate(pass 1)  
-fprofile-use=default.propdata(pass 2) -xCORE-AVX512 -flto  
-Ofast(pass 1) -O3 -ffast-math -qopt-mem-layout-trans=4  
-mbranches-within-32B-boundaries  
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

505.mcf\_r: basepeak = yes

525.x264\_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -flto  
-O3 -ffast-math -qopt-mem-layout-trans=4 -fno-alias  
-mbranches-within-32B-boundaries  
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64\_lin  
-lqkmalloc

557.xz\_r: basepeak = yes

C++ benchmarks:

520.omnetpp\_r: basepeak = yes

523.xalancbmk\_r: basepeak = yes

531.deepsjeng\_r: basepeak = yes

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/R120i-1M (Intel Xeon Gold 6326)

**SPECrate®2017\_int\_base = 263**

**SPECrate®2017\_int\_peak = 272**

**CPU2017 License:** 9006

**Test Sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test Date:** Jul-2021

**Hardware Availability:** Jul-2021

**Software Availability:** Dec-2020

## Peak Optimization Flags (Continued)

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/Intel-ic2021-official-linux64\\_revA.html](http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.html)

<http://www.spec.org/cpu2017/flags/NEC-Platform-Settings-V1.2-R120i-RevE.html>

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

[http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64\\_revA.xml](http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml)

<http://www.spec.org/cpu2017/flags/NEC-Platform-Settings-V1.2-R120i-RevE.xml>

SPEC CPU and SPECrate are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester. For other inquiries, please contact [info@spec.org](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.8 on 2021-07-12 22:32:12-0400.

Report generated on 2023-03-02 11:18:00 by CPU2017 PDF formatter v6442.

Originally published on 2023-02-28.