



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

CPU2017 License: 55

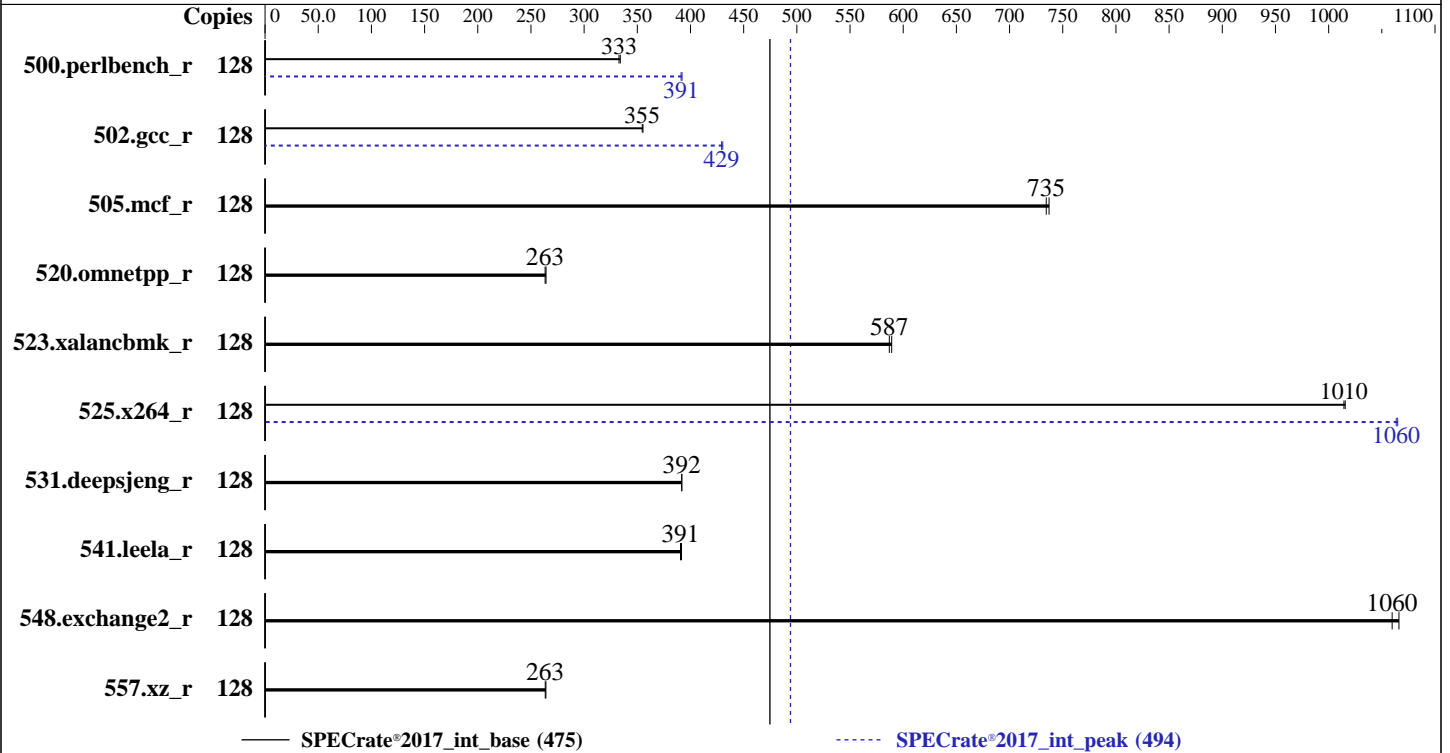
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2021

Hardware Availability: Apr-2021

Software Availability: Dec-2020



### Hardware

CPU Name: Intel Xeon Platinum 8362  
 Max MHz: 3600  
 Nominal: 2800  
 Enabled: 64 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: 48 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC4-3200AA-R)  
 Storage: 125 GB on tmpfs  
 Other: None

### Software

OS: Red Hat Enterprise Linux 8.2 (Ootpa)  
 4.18.0-193.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: Version 1.1.3 released Apr-2021  
 File System: tmpfs  
 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 and OS set to prefer performance  
 at the cost of additional power usage.



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.

Test Date: Jun-2021  
Hardware Availability: Apr-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	128	610	334	<b><u>612</u></b>	<b><u>333</u></b>			128	520	392	<b><u>521</u></b>	<b><u>391</u></b>		
502.gcc_r	128	510	355	<b><u>511</u></b>	<b><u>355</u></b>			128	421	430	<b><u>422</u></b>	<b><u>429</u></b>		
505.mcf_r	128	281	737	<b><u>282</u></b>	<b><u>735</u></b>			128	281	737	<b><u>282</u></b>	<b><u>735</u></b>		
520.omnetpp_r	128	636	264	<b><u>638</u></b>	<b><u>263</u></b>			128	636	264	<b><u>638</u></b>	<b><u>263</u></b>		
523.xalancbmk_r	128	<b><u>230</u></b>	<b><u>587</u></b>	229	589			128	<b><u>230</u></b>	<b><u>587</u></b>	229	589		
525.x264_r	128	<b><u>221</u></b>	<b><u>1010</u></b>	221	1020			128	<b><u>211</u></b>	<b><u>1060</u></b>	210	1060		
531.deepsjeng_r	128	<b><u>374</u></b>	<b><u>392</u></b>	374	392			128	<b><u>374</u></b>	<b><u>392</u></b>	374	392		
541.leela_r	128	<b><u>543</u></b>	<b><u>391</u></b>	541	392			128	<b><u>543</u></b>	<b><u>391</u></b>	541	392		
548.exchange2_r	128	<b><u>316</u></b>	<b><u>1060</u></b>	315	1070			128	<b><u>316</u></b>	<b><u>1060</u></b>	315	1070		
557.xz_r	128	<b><u>525</u></b>	<b><u>263</u></b>	524	264			128	<b><u>525</u></b>	<b><u>263</u></b>	524	264		

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

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/cpu2017-1.1.7-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.7-ic2021.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.7-ic2021.1/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) is mitigated in the system as tested and documented.

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2021

Hardware Availability: Apr-2021

Software Availability: Dec-2020

## General Notes (Continued)

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

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 or <https://github.com/jemalloc/jemalloc/releases>

Benchmark run from a 125 GB ramdisk created with the cmd: "mount -t tmpfs -o size=125G tmpfs /mnt/ramdisk"

## Platform Notes

BIOS Settings:

Sub NUMA Cluster : 2-Way Clustering

Virtualization Technology : Disabled

System Profile : Custom

CPU Power Management : Maximum Performance

C1E : Disabled

C States : Autonomous

Memory Patrol Scrub : Disabled

Energy Efficiency Policy : Performance

CPU Interconnect Bus Link

Power Management : Disabled

PCI ASPM L1 Link

Power Management : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.7-ic2021.1/bin/sysinfo

Rev: r6538 of 2020-09-24 e8664e66d2d7080afeaa89d4b38e2f1c

running on localhost.localdomain Tue Jun 15 17:22:31 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) Platinum 8362 CPU @ 2.80GHz

2 "physical id"s (chips)

128 "processors"

cores, siblings (Caution: counting these is hw and system dependent. The following

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

**Test Date:** Jun-2021  
**Hardware Availability:** Apr-2021  
**Software Availability:** Dec-2020

## Platform Notes (Continued)

excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

```
cpu cores : 32
siblings  : 64
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
25 26 27 28 29 30 31
physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
25 26 27 28 29 30 31
```

From lscpu:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                128
On-line CPU(s) list:  0-127
Thread(s) per core:    2
Core(s) per socket:    32
Socket(s):             2
NUMA node(s):         4
Vendor ID:             GenuineIntel
CPU family:            6
Model:                106
Model name:            Intel(R) Xeon(R) Platinum 8362 CPU @ 2.80GHz
Stepping:              6
CPU MHz:               3500.161
BogoMIPS:              5600.00
Virtualization:        VT-x
L1d cache:             48K
L1i cache:             32K
L2 cache:              1280K
L3 cache:              49152K
NUMA node0 CPU(s):    0-15,64-79
NUMA node1 CPU(s):    16-31,80-95
NUMA node2 CPU(s):    32-47,96-111
NUMA node3 CPU(s):    48-63,112-127
```

```
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
aperfperf 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 fl6c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 invpcid_single ssbd
mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid 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 wbnoinvd dtherm ida arat pln pts avx512vbmi umip pku ospke
avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq
la57 rdpid md_clear pconfig flush_lld arch_capabilities
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

**Test Date:** Jun-2021  
**Hardware Availability:** Apr-2021  
**Software Availability:** Dec-2020

## Platform Notes (Continued)

```
/proc/cpuinfo cache data
cache size : 49152 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 8 9 10 11 12 13 14 15 64 65 66 67 68 69 70 71 72 73 74 75
76 77 78 79
node 0 size: 257407 MB
node 0 free: 247649 MB
node 1 cpus: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 80 81 82 83 84 85 86 87 88
89 90 91 92 93 94 95
node 1 size: 258040 MB
node 1 free: 257778 MB
node 2 cpus: 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 96 97 98 99 100 101 102
103 104 105 106 107 108 109 110 111
node 2 size: 258040 MB
node 2 free: 257802 MB
node 3 cpus: 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 112 113 114 115 116 117
118 119 120 121 122 123 124 125 126 127
node 3 size: 258038 MB
node 3 free: 257810 MB
node distances:
node  0  1  2  3
 0:  10  11  20  20
 1:  11  10  20  20
 2:  20  20  10  11
 3:  20  20  11  10
```

```
From /proc/meminfo
MemTotal: 1056284476 kB
HugePages_Total: 0
Hugepagesize: 2048 kB
```

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

```
From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux"
VERSION="8.2 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.2"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.2 (Ootpa)"
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Jun-2021

Hardware Availability: Apr-2021

Software Availability: Dec-2020

## Platform Notes (Continued)

```
ANSI_COLOR="0;31"
```

```
redhat-release: Red Hat Enterprise Linux release 8.2 (Ootpa)
```

```
system-release: Red Hat Enterprise Linux release 8.2 (Ootpa)
```

```
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.2:ga
```

```
uname -a:
```

```
Linux localhost.localdomain 4.18.0-193.el8.x86_64 #1 SMP Fri Mar 27 14:35:58 UTC 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/swapgs 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):	No status reported
CVE-2019-11135 (TSX Asynchronous Abort):	Not affected

```
run-level 3 Jun 15 17:19
```

```
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.7-ic2021.1
```

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
tmpfs	tmpfs	125G	4.4G	121G	4%	/mnt/ramdisk

```
From /sys/devices/virtual/dmi/id
```

Vendor:	Dell Inc.
Product:	PowerEdge C6520
Product Family:	PowerEdge
Serial:	SDPT078

Additional information from dmidecode 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:

```
16x 00AD063200AD HMAA8GR7AJR4N-XN 64 GB 2 rank 3200
```

BIOS:

```
BIOS Vendor: Dell Inc.
```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

**Test Date:** Jun-2021  
**Hardware Availability:** Apr-2021  
**Software Availability:** Dec-2020

## Platform Notes (Continued)

BIOS Version: 1.1.3  
BIOS Date: 04/27/2021  
BIOS Revision: 1.1

(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) 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

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

**Test Date:** Jun-2021  
**Hardware Availability:** Apr-2021  
**Software Availability:** Dec-2020

## Compiler Version Notes (Continued)

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.

=====  
C++ | 520.omnetpp\_r(base, peak) 523.xalanbmk\_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.

(Continued on next page)





# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Jun-2021

**Hardware Availability:** Apr-2021

**Software Availability:** Dec-2020

## Compiler Version Notes (Continued)

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

## Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math  
-flto -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  
-lqkmallocc

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Jun-2021

**Hardware Availability:** Apr-2021

**Software Availability:** Dec-2020

## Base Optimization Flags (Continued)

C++ benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-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
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 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Jun-2021

**Hardware Availability:** Apr-2021

**Software Availability:** Dec-2020

## 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
-lqkmallocc
```

```
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.profddata(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 -ljemallocc
```

```
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
-lqkmallocc
```

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

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-ICX-rev1.4.html>



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

**Dell Inc.**

PowerEdge C6520 (Intel Xeon Platinum 8362, 2.80 GHz)

SPECrate®2017\_int\_base = 475

SPECrate®2017\_int\_peak = 494

**CPU2017 License:** 55

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Jun-2021

**Hardware Availability:** Apr-2021

**Software Availability:** Dec-2020

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/Dell-Platform-Flags-PowerEdge-Intel-ICX-rev1.4.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 v1.1.7 on 2021-06-15 17:22:29-0400.

Report generated on 2021-07-21 15:43:05 by CPU2017 PDF formatter v6442.

Originally published on 2021-07-20.