# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

## NEC Corporation
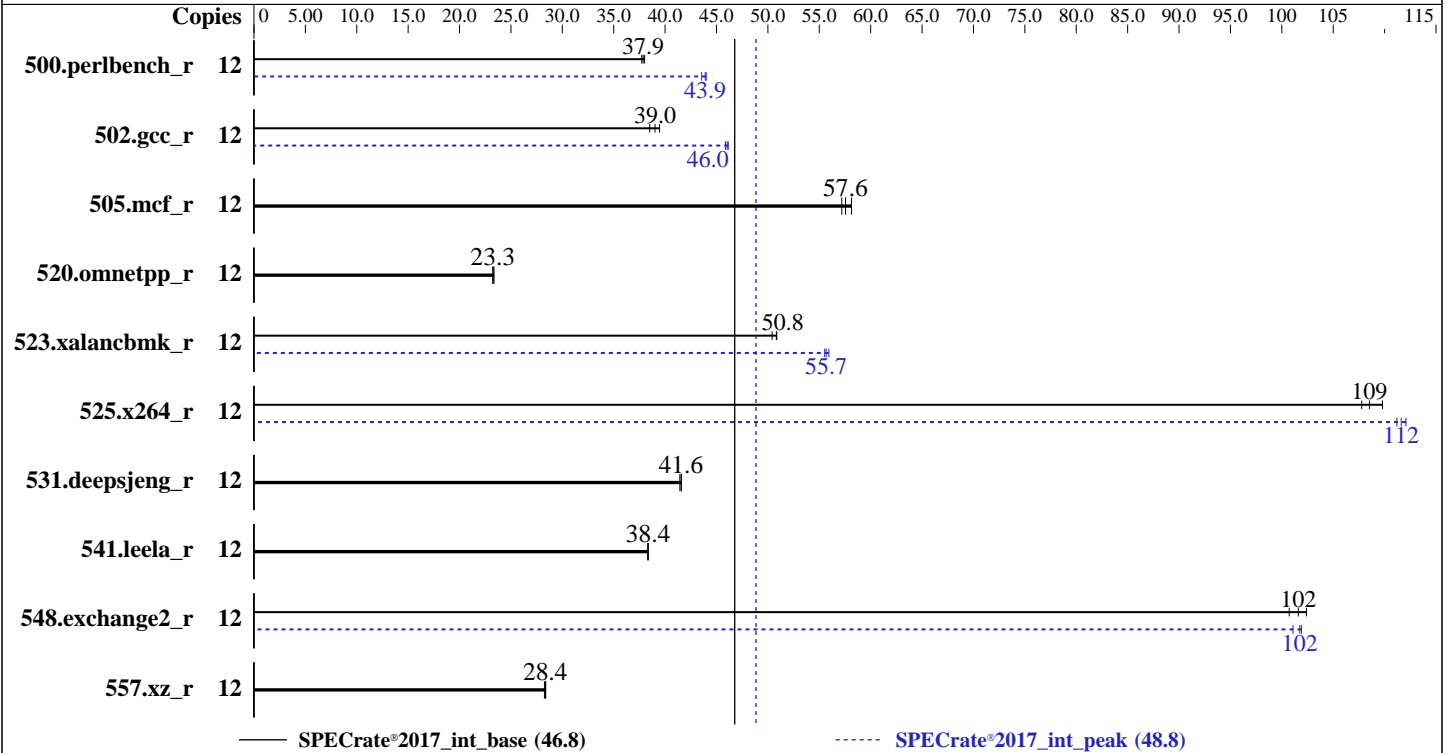
Express5800/R110j-1 (Intel Xeon E-2286G)

$SPECrate®2017\_int\_base = 46.8$

$SPECrate®2017\_int\_peak = 48.8$

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

| Benchmark | Copies | Base | Peak |
|---|---|---|---|
| 500.perlbench_r | 12 | 37.9 | 43.9 |
| 502.gcc_r | 12 | 39.0 | 46.0 |
| 505.mcf_r | 12 | 57.6 | |
| 520.omnetpp_r | 12 | 23.3 | |
| 523.xalancbmk_r | 12 | 50.8 | 55.7 |
| 525.x264_r | 12 | 109 | 112 |
| 531.deepsjeng_r | 12 | 41.6 | |
| 541.leela_r | 12 | 38.4 | |
| 548.exchange2_r | 12 | 102 | 102 |
| 557.xz_r | 12 | 28.4 | |

SPECrate®2017_int_base (46.8) ....... SPECrate®2017_int_peak (48.8)

## Hardware

CPU Name: Intel Xeon E-2286G
 Max MHz: 4900
 Nominal: 4000
Enabled: 6 cores, 1 chip, 2 threads/core
Orderable: 1 chip
Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 256 KB I+D on chip per core
 L3: 12 MB I+D on chip per chip
 Other: None
Memory: 32 GB (2 x 16 GB 2Rx8 PC4-2666V-E)
Storage: 1 x 1 TB SATA, 7200 RPM, RAID 0
Other: None

## Software

OS: Red Hat Enterprise Linux Server release 7.7 (Maipo)
 Kernel 3.10.0-1062.1.1.el7.x86_64
Compiler: C/C++: Version 19.0.4.227 of Intel C/C++ Compiler Build 20190416 for Linux;
 Fortran: Version 19.0.4.227 of Intel Fortran Compiler Build 20190416 for Linux
Parallel: No
Firmware: NEC BIOS Version U43 v2.12 12/06/2019 released Mar-2020
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 and OS set to prefer performance at the cost of additional power usage.

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006  
**Test Sponsor:** NEC Corporation  
**Tested by:** NEC Corporation  

**Test Date:** Mar-2020  
**Hardware Availability:** Jan-2020  
**Software Availability:** Sep-2019

## Results Table

| Benchmark | Copies | Base Seconds | Base Ratio | Base Seconds | Base Ratio | Base Seconds | Base Ratio | Copies | Peak Seconds | Peak Ratio | Peak Seconds | Peak Ratio | Peak Seconds | Peak Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 500.perlbench_r | 12 | 506 | 37.7 | **505** | **37.9** | 503 | 38.0 | 12 | **435** | **43.9** | 434 | 44.0 | 439 | 43.6 |
| 502.gcc_r | 12 | 441 | 38.5 | 431 | 39.5 | **435** | **39.0** | 12 | 368 | 46.1 | **369** | **46.0** | 370 | 45.9 |
| 505.mcf_r | 12 | 339 | 57.2 | 334 | 58.1 | **337** | **57.6** | 12 | 339 | 57.2 | 334 | 58.1 | **337** | **57.6** |
| 520.omnetpp_r | 12 | 677 | 23.2 | **677** | **23.3** | 674 | 23.4 | 12 | 677 | 23.2 | **677** | **23.3** | 674 | 23.4 |
| 523.xalancbmk_r | 12 | 251 | 50.4 | **249** | **50.8** | 249 | 50.9 | 12 | **228** | **55.7** | 227 | 55.9 | 228 | 55.5 |
| 525.x264_r | 12 | 191 | 110 | **194** | **109** | 195 | 108 | 12 | 187 | 112 | **188** | **112** | 189 | 111 |
| 531.deepsjeng_r | 12 | 332 | 41.4 | 331 | 41.6 | **331** | **41.6** | 12 | 332 | 41.4 | 331 | 41.6 | **331** | **41.6** |
| 541.leela_r | 12 | **518** | **38.4** | 518 | 38.4 | 519 | 38.3 | 12 | **518** | **38.4** | 518 | 38.4 | 519 | 38.3 |
| 548.exchange2_r | 12 | 307 | 102 | 312 | 101 | **309** | **102** | 12 | 311 | 101 | **309** | **102** | 309 | 102 |
| 557.xz_r | 12 | **457** | **28.4** | 459 | 28.3 | 457 | 28.4 | 12 | **457** | **28.4** | 459 | 28.3 | 457 | 28.4 |

**SPECrate®2017_int_base =** 46.8

**SPECrate®2017_int_peak =** 48.8

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Submit Notes

```
The taskset mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate taskset 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"
IRQ balance service was stopped using "systemctl stop irqbalance.service"
Process tuning settings:
  echo 500000 > /proc/sys/kernel/sched_cfs_bandwidth_slice_us
  echo 5000000 > /proc/sys/kernel/sched_migration_cost_ns
```

## 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"
```

## General Notes

```
Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default
Prior to runcpu invocation
```

**(Continued on next page)**

Standard Performance Evaluation Corporation (info@spec.org)     https://www.spec.org/

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006　　　　　　　　　　　　　　　　　　　　**Test Date:** Mar-2020
**Test Sponsor:** NEC Corporation　　　　　　　　　　　**Hardware Availability:** Jan-2020
**Tested by:** NEC Corporation　　　　　　　　　　　　　**Software Availability:** Sep-2019

## General Notes (Continued)

```
Filesystem page cache synced and cleared with:
sync; echo 3 >        /proc/sys/vm/drop_caches

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
is mitigated in the system as tested and documented.


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 Settings:
 Thermal Configuration: Maximum Cooling
 Intel Virtualization Technology (Intel VT): Disabled
 Workload Profile: Custom
  Adjacent Sector Prefetch: Disabled
  DCU Stream Prefetcher: Disabled


Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7edb1e6e46a485a0011
running on r110j1 Sun Mar  8 19:56:48 2020

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) E-2286G CPU @ 4.00GHz
      1  "physical id"s (chips)
      12 "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 : 6
      siblings  : 12
      physical 0: cores 0 1 2 3 4 5

From lscpu:
    Architecture:          x86_64
    CPU op-mode(s):        32-bit, 64-bit
    Byte Order:            Little Endian
    CPU(s):                12
```

**(Continued on next page)**

# NEC Corporation

SPECrate®2017_int_base = 46.8

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006　　　　　　　　　　　　　　　　**Test Date:** Mar-2020
**Test Sponsor:** NEC Corporation　　　　　　　　　　　**Hardware Availability:** Jan-2020
**Tested by:** NEC Corporation　　　　　　　　　　　　**Software Availability:** Sep-2019

## Platform Notes (Continued)

```
       On-line CPU(s) list:    0-11
       Thread(s) per core:     2
       Core(s) per socket:     6
       Socket(s):              1
       NUMA node(s):           1
       Vendor ID:              GenuineIntel
       CPU family:             6
       Model:                  158
       Model name:             Intel(R) Xeon(R) E-2286G CPU @ 4.00GHz
       Stepping:               10
       CPU MHz:                4897.949
       CPU max MHz:            4900.0000
       CPU min MHz:            800.0000
       BogoMIPS:               8016.00
       Virtualization:         VT-x
       L1d cache:              32K
       L1i cache:              32K
       L2 cache:               256K
       L3 cache:               12288K
       NUMA node0 CPU(s):      0-11
       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
   aperfmperf eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg
   fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes
   xsave avx f16c rdrand lahf_lm abm 3dnowprefetch epb invpcid_single intel_pt ssbd
   ibrs ibpb stibp tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle
   avx2 smep bmi2 erms invpcid rtm mpx rdseed adx smap clflushopt xsaveopt xsavec
   xgetbv1 dtherm ida arat pln pts hwp hwp_notify hwp_act_window hwp_epp md_clear
   spec_ctrl intel_stibp flush_l1d

 /proc/cpuinfo cache data
    cache size : 12288 KB

 From numactl --hardware  WARNING: a numactl 'node' might or might not correspond to a
 physical chip.
   available: 1 nodes (0)
   node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11
   node 0 size: 32617 MB
   node 0 free: 31383 MB
   node distances:
   node   0
     0:  10

 From /proc/meminfo
    MemTotal:       32789724 kB
    HugePages_Total:        0
```

**(Continued on next page)**

# NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

## Platform Notes (Continued)

```
    Hugepagesize:         2048 kB

 From /etc/*release* /etc/*version*
    os-release:
       NAME="Red Hat Enterprise Linux Server"
       VERSION="7.7 (Maipo)"
       ID="rhel"
       ID_LIKE="fedora"
       VARIANT="Server"
       VARIANT_ID="server"
       VERSION_ID="7.7"
       PRETTY_NAME="Red Hat Enterprise Linux Server 7.7 (Maipo)"
    redhat-release: Red Hat Enterprise Linux Server release 7.7 (Maipo)
    system-release: Red Hat Enterprise Linux Server release 7.7 (Maipo)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:7.7:ga:server

 uname -a:
    Linux r110j1 3.10.0-1062.1.1.el7.x86_64 #1 SMP Tue Aug 13 18:39:59 UTC 2019 x86_64
    x86_64 x86_64 GNU/Linux

 Kernel self-reported vulnerability status:

 CVE-2018-3620 (L1 Terminal Fault):      Mitigation: PTE Inversion
 Microarchitectural Data Sampling:       Mitigation: Clear CPU buffers; SMT vulnerable
 CVE-2017-5754 (Meltdown):               Mitigation: PTI
 CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled
                                          via prctl and seccomp
 CVE-2017-5753 (Spectre variant 1):      Mitigation: Load fences, usercopy/swapgs
                                          barriers and __user pointer sanitization
 CVE-2017-5715 (Spectre variant 2):      Mitigation: Full retpoline, IBPB

 run-level 3 Mar 8 19:51

 SPEC is set to: /home/cpu2017
    Filesystem      Type  Size  Used Avail Use% Mounted on
    /dev/sda3       ext4  908G   43G  819G   5% /

 From /sys/devices/virtual/dmi/id
    BIOS:    NEC U43 12/06/2019
    Vendor:  NEC
    Product: Express5800/R110j-1
    Serial:  CN69380JHR

 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.
```

# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

## Platform Notes (Continued)

```
    Memory:
      2x UNKNOWN NOT AVAILABLE
      2x UNKNOWN NOT AVAILABLE 16 GB 2 rank 2666

   (End of data from sysinfo program)
```

## Compiler Version Notes

```
==============================================================================
C        | 502.gcc_r(peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version
  19.0.4.227 Build 20190416
Copyright (C) 1985-2019 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) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
  Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
C        | 502.gcc_r(peak)
------------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version
  19.0.4.227 Build 20190416
Copyright (C) 1985-2019 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) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
  Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
------------------------------------------------------------------------------


==============================================================================
C++      | 523.xalancbmk_r(peak)
------------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version
```

**(Continued on next page)**

Standard Performance Evaluation Corporation (info@spec.org)

https://www.spec.org/

# NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

## Compiler Version Notes (Continued)

```
   19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==============================================================================
C++      | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base)
         | 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
-------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
  Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==============================================================================
C++      | 523.xalancbmk_r(peak)
-------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version
  19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==============================================================================
C++      | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base)
         | 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
-------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
  Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------


==============================================================================
Fortran | 548.exchange2_r(base, peak)
-------------------------------------------------------------------------
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
  64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-------------------------------------------------------------------------
```

## Base Compiler Invocation

C benchmarks:
icc -m64 -std=c11

C++ benchmarks:
icpc -m64

**(Continued on next page)**

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

# Base Compiler Invocation (Continued)

Fortran benchmarks:
`ifort -m64`

# 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:
```
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc
```

C++ benchmarks:
```
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc
```

Fortran benchmarks:
```
-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc
```

# Peak Compiler Invocation

C benchmarks (except as noted below):
`icc -m64 -std=c11`

**(Continued on next page)**

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006　　　　　　　　　　　　　　　　**Test Date:**　　　　　Mar-2020
**Test Sponsor:** NEC Corporation　　　　　　　　　　　**Hardware Availability:** Jan-2020
**Tested by:**　　NEC Corporation　　　　　　　　　　　**Software Availability:**　Sep-2019

# Peak Compiler Invocation (Continued)

502.gcc_r: `icc -m32 -std=c11 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin`

C++ benchmarks (except as noted below):
`icpc -m64`

523.xalancbmk_r: `icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin`

Fortran benchmarks:
`ifort -m64`

# 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: `-D_FILE_OFFSET_BITS=64 -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: `-Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo`
`-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4`
`-fno-strict-overflow`
`-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`
`-lqkmalloc`

502.gcc_r: `-Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo`
`-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4`
`-L/usr/local/je5.0.1-32/lib -ljemalloc`

505.mcf_r: `basepeak = yes`

**(Continued on next page)**

## NEC Corporation

Express5800/R110j-1 (Intel Xeon E-2286G)

SPECrate®2017_int_base = 46.8

SPECrate®2017_int_peak = 48.8

**CPU2017 License:** 9006
**Test Sponsor:** NEC Corporation
**Tested by:** NEC Corporation

**Test Date:** Mar-2020
**Hardware Availability:** Jan-2020
**Software Availability:** Sep-2019

# Peak Optimization Flags (Continued)

525.x264_r: `-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div`
`-qopt-mem-layout-trans=4 -fno-alias`
`-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`
`-lqkmalloc`

557.xz_r: `basepeak = yes`

C++ benchmarks:

520.omnetpp_r: `basepeak = yes`

523.xalancbmk_r: `-Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo`
`-xCORE-AVX2 -O3 -no-prec-div -qopt-mem-layout-trans=4`
`-L/usr/local/je5.0.1-32/lib -ljemalloc`

531.deepsjeng_r: `basepeak = yes`

541.leela_r: `basepeak = yes`

Fortran benchmarks:
`-Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div`
`-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte`
`-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`
`-lqkmalloc`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.html
http://www.spec.org/cpu2017/flags/NEC-Platform-Settings-R110j-RevD.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic19.0u1-official-linux64.2019-07-09.xml
http://www.spec.org/cpu2017/flags/NEC-Platform-Settings-R110j-RevD.xml

For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

Tested with SPEC CPU®2017 v1.1.0 on 2020-03-08 06:56:47-0400.
Report generated on 2020-04-14 14:03:03 by CPU2017 PDF formatter v6255.
Originally published on 2020-04-14.