## SPEC CPU®2017 Integer Rate Result

### Supermicro

Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)

**CPU2017 License:** 001176  
**Test Sponsor:** Supermicro  
**Tested by:** Supermicro  
**Test Date:** Oct-2021  
**Hardware Availability:** Sep-2021  
**Software Availability:** May-2021

<table>
<thead>
<tr>
<th>CPU2017 Int Base</th>
<th>CPU2017 Int Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_base = 65.4</td>
<td>SPECrate®2017_int_peak = 68.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>47.8</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>44.1</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>56.7</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>32.6</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>84.9</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>148</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>54.8</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>54.3</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>146</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>36.8</td>
</tr>
</tbody>
</table>

### Hardware

- **CPU Name:** Intel Xeon E-2378G  
- **Max MHz:** 5100  
- **Nominal:** 2800  
- **Enabled:** 8 cores, 1 chip, 2 threads/core  
- **Orderable:** 1 xhip  
- **Cache L1:** 32 KB I + 48 KB D on chip per core  
- **Cache L2:** 512 KB I+D on chip per core  
- **Cache L3:** 16 MB I+D on chip per chip  
- **Other:** None  
- **Memory:** 128 GB (4 x 32 GB 2Rx8 PC4-3200AA-E)  
- **Storage:** 1 x 200 GB SATA III SSD  
- **Other:** None

### Software

- **OS:** Red Hat Enterprise Linux release 8.4  
- **Kernel:** 4.18.0-305.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 1.0 released Sep-2021  
- **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:** OS set to prefer performance at the cost of additional power usage.
Supermicro
Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)

SPEC CPU®2017 Integer Rate Result
Copyright 2017-2021 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 65.4
SPECrate®2017_int_peak = 68.3

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>16</td>
<td>531</td>
<td>47.9</td>
<td>534</td>
<td>47.7</td>
<td>533</td>
<td>47.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>502/gcc_r</td>
<td>16</td>
<td>516</td>
<td>43.9</td>
<td>514</td>
<td>44.1</td>
<td>512</td>
<td>44.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>16</td>
<td>253</td>
<td>102</td>
<td>252</td>
<td>103</td>
<td>252</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>16</td>
<td>645</td>
<td>32.6</td>
<td>646</td>
<td>32.5</td>
<td>644</td>
<td>32.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>16</td>
<td>198</td>
<td>85.5</td>
<td>199</td>
<td>84.9</td>
<td>199</td>
<td>84.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525.x264_r</td>
<td>16</td>
<td>189</td>
<td>148</td>
<td>189</td>
<td>148</td>
<td>189</td>
<td>148</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>16</td>
<td>335</td>
<td>54.8</td>
<td>335</td>
<td>54.7</td>
<td>334</td>
<td>54.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>541.leela_r</td>
<td>16</td>
<td>489</td>
<td>54.2</td>
<td>488</td>
<td>54.3</td>
<td>488</td>
<td>54.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>16</td>
<td>287</td>
<td>146</td>
<td>286</td>
<td>147</td>
<td>287</td>
<td>146</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>557.xz_r</td>
<td>16</td>
<td>462</td>
<td>37.4</td>
<td>462</td>
<td>37.4</td>
<td>461</td>
<td>37.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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"

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
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

(Continued on next page)
### SPEC CPU®2017 Integer Rate Result

<table>
<thead>
<tr>
<th>Supermicro Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base = 65.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak = 68.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU2017 License: 001176</th>
<th>Test Date: Oct-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Supermicro</td>
<td>Hardware Availability: Sep-2021</td>
</tr>
<tr>
<td>Tested by: Supermicro</td>
<td>Software Availability: May-2021</td>
</tr>
</tbody>
</table>

## General Notes (Continued)

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.

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.


## Platform Notes

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acacfc64d
running on X12STH-02 Tue Oct  5 14:17:05 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) E-2378G CPU @ 2.80GHz
 1 "physical id"s (chips)
 16 "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 : 8
  siblings : 16
physical 0: cores 0 1 2 3 4 5 6 7
```

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):              16
On-line CPU(s) list: 0-15
Thread(s) per core:  2
Core(s) per socket:  8
Socket(s):           1
NUMA node(s):        1
Vendor ID:           GenuineIntel
BIOS Vendor ID:      Intel(R) Corporation
CPU family:          6
Model:               167
Model name:          Intel(R) Xeon(R) E-2378G CPU @ 2.80GHz
```

(Continued on next page)
## SPEC CPU®2017 Integer Rate Result

**Supermicro**

Microcloud SuperServer SYS-530MT-H12TRF
(X12STE-F , Intel Xeon E-2378G)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>65.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak</td>
<td>68.3</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 001176  
**Test Sponsor:** Supermicro  
**Tested by:** Supermicro

<table>
<thead>
<tr>
<th>Test Date:</th>
<th>Oct-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Availability:</td>
<td>Sep-2021</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>May-2021</td>
</tr>
</tbody>
</table>

### Platform Notes (Continued)

- BIOS Model name: Intel(R) Xeon(R) E-2378G CPU @ 2.80GHz  
- Stepping: 1  
- CPU MHz: 3832.916  
- CPU max MHz: 2801.0000  
- CPU min MHz: 800.0000  
- BogoMIPS: 5616.00  
- Virtualization: VT-x  
- L1d cache: 48K  
- L1i cache: 32K  
- L2 cache: 512K  
- L3 cache: 16384K  
- NUMA node0 CPU(s): 0-15  
- Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflsh dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc 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 sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3nowprefetch cpuid_fault epb invpcid_single ssbd ibrs ibpb ibrs enhanced tpr_shadow vnni flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 ersed msrs invpcid mpx avx512f avx512dq rdseed adx smap avx512sfma clflushopt intel_pt avx512cd sha ni avx512bw avx512vl xsaveopt xsaves xsaveopt xsave xsetbv1 xsaves dtherm ida arat pin pts avx512vbm1 umip pku ospke avx512_vbmi2 gfnl vaes vpcmldqpgd avx512_vnni avx512_bitalg avx512_vpopcntdq rdpid fscr md_clear flush_lld arch_capabilities

### Proc/cpuinfo

- cache size : 16384 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 12 13 14 15
- node 0 size: 128808 MB
- node 0 free: 128020 MB
- node distances:
  - node 0
    - 0: 10

### From /proc/meminfo

- MemTotal: 131899856 kB
- HugePages_Total: 0
- Hugepagesize: 2048 kB

###/sbin/tuned-adm active

- Current active profile: throughput-performance

### /sys/devices/system/cpu/cpu*/cpufreq/scaling_governor

(Continued on next page)
SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

Supermicro
Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

SPECrate®2017_int_base = 65.4
SPECrate®2017_int_peak = 68.3

Test Date: Oct-2021
Hardware Availability: Sep-2021
Software Availability: May-2021

Platform Notes (Continued)

performance

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

os-release:
NAME="Red Hat Enterprise Linux"
VERSION="8.4 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.4"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.4 (Ootpa)"
ANSI_COLOR="0;31"

redhat-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.4:ga

uname -a:
Linux X12STE-02 4.18.0-305.el8.x86_64 #1 SMP Thu Apr 29 08:54:30 EDT 2021 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): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2018-3639 (Speculative Store Bypass): Mitigation: usercopy/swaps barriers and __user pointer sanitization
CVE-2017-5753 (Spectre variant 1): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
CVE-2017-5715 (Spectre variant 2):
CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Oct 5 14:12

SPEC is set to: /home/cpu2017

Filesystem Type Size Used Avail Use% Mounted on
/dev/sda4 xfs 184G 36G 149G 20% /

From /sys/devices/virtual/dmi/id
Vendor: PM_1631628443
Product: PPM_1631628443
Serial: PS_1631628443

(Continued on next page)
SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

Supermicro

Microcloud SuperServer SYS-530MT-H12TRF
(X12STE-F, Intel Xeon E-2378G)

SPECrater®2017_int_base = 65.4
SPECrater®2017_int_peak = 68.3

CPU2017 License: 001176
Test Sponsor: Supermicro
Test Date: Oct-2021
Tested by: Supermicro
Hardware Availability: Sep-2021
Software Availability: May-2021

Platform Notes (Continued)

Additional information from dmidecode 3.2 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:
4x Micron Technology 18ADF4G72AZ-3G2B3 32 GB 2 rank 3200

BIOS:
BIOS Vendor: American Megatrends International, LLC.
BIOS Version: 1.0
BIOS Date: 09/17/2021
BIOS Revision: 5.22

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
C     | 500.perlbench_r(peak) 557.xz_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)
-----  |-----------------------------------
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) 557.xz_r(peak)
---    |-------------------
(Continued on next page)
Compiler Version Notes (Continued)

```
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)
```

```
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) 557.xz_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)
```

```
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

Supermicro
Microcloud SuperServer SYS-530MT-H12TRF
(X12STE-F , Intel Xeon E-2378G)

SPECrate®2017_int_base = 65.4
SPECrate®2017_int_peak = 68.3

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Oct-2021
Hardware Availability: Sep-2021
Software Availability: May-2021

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
### Base Optimization Flags

C benchmarks:

C++ benchmarks:

Fortran benchmarks:

### Peak Compiler Invocation

C benchmarks (except as noted below):
- `icx`
- `500.perlbench_r:icc`
- `557.xz_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`

(Continued on next page)
Supermicro
Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)

SPEC CPU®2017 Integer Rate Result
Copyright 2017-2021 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 65.4
SPECrate®2017_int_peak = 68.3

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Oct-2021
Hardware Availability: Sep-2021
Software Availability: May-2021

Peak Portability Flags (Continued)

520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leea_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
-1qkmalloc

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.profdelta(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 -1jemalloc

505.mcf_r: basepeak = yes

525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -flto
-03 -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
-1qkmalloc

557.xz_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-1qkmalloc

C++ benchmarks:

520.omnetpp_r: basepeak = yes

(Continued on next page)
# SPEC CPU®2017 Integer Rate Result

## Supermicro

**Microcloud SuperServer SYS-530MT-H12TRF (X12STE-F, Intel Xeon E-2378G)**

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base = 65.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_int_peak = 68.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU2017 License: 001176</th>
<th>Test Date: Oct-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Supermicro</td>
<td>Hardware Availability: Sep-2021</td>
</tr>
<tr>
<td>Tested by: Supermicro</td>
<td>Software Availability: May-2021</td>
</tr>
</tbody>
</table>

**Peak Optimization Flags (Continued)**

- 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


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/Supermicro-Platform-Settings-V1.2-RKL-revA.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.

Tested with SPEC CPU®2017 v1.1.8 on 2021-10-05 02:17:04-0400.
Originally published on 2021-10-26.