#### SPEC CPU®2017 Integer Speed Result Copyright 2017-2020 Standard Performance Evaluation Corporation not applicable SPECspeed®2017\_int\_base SPECspeed®2017 int **M**ot Run Test Date: CPU2017 License: nnn (Your SPEC license number) Oct-2020 **Test Sponsor:** not applicable Hardware Availability: Software Availability: Tested by: not applicable **Threads** 0 0.0100 0.0250 0.0400 0.0550 0.110 0.130 0.140 0.150 0.160 0.170 0.180 0.195 600.perlbench\_s 602.gcc\_s 605.mcf s 0.191 620.omnetpp\_s 623.xalancbmk\_s 625.x264 s 631.deepsjeng\_s 641.leela s 648.exchange2\_s 657.xz\_s SRECspeed®2017\_int\_base (0.1906) Hardware Software OS: Ubuntu 18.04.3 LTS CPU Name: Intel Xeon Bronze 3106 Max MHz: 4.15.0-70-generic Nominal: Compiler: C/C++/Fortran: Version 10.1.0 of GCC, the Enabled: cores, 1 chip, threads/core **GNU** Compiler Collection Orderable: Parallel: Yes Cache L1: Firmware: L2: File System: nfs L3: System State: Run level 5 (add definition here) Base Pointers: 64-bit Other: 78.334 GB fixme: If using DDR4, the format is: Peak Pointers: Not Applicable Memory: 'N GB (Nx N GB nRxn PC4-nnnnX-X)' Other: 9 TB add more disk info here Power Management: --Storage: **Ø**ther: **Errors** 'reportable' flag not set during run

641.leela\_s (base) did not have enough runs! 602.gcc\_s (base) did not have enough runs! 620.omnetpp) s (base) did not have enough runs! 600.perlbench\_s (base) did not have enough runs! 625.x264\_s (base) did not have enough runs! 657.xz\_s (base) did not have enough runs! 623.xalancbmk\_s (base) did not have enough runs!

648.exchange2\_s (base) did not have enough runs!

605.mcf\_s (base) did not have enough runs!

631.deepsjeng s (base) did not have enough runs!

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SPECspeed®2017\_int\_base 0.1906

SPECspeed®2017 int peak 7 **Mot Run** 

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Hardware Availability: Software Availability:

### **Errors** (Continued)

Unknown flags were used! See

https://www.spec.org/cpu2017/Docs/runcpu.html#flagsurl for information about how to get rid of this error.

#### Results Table

	Base							$\searrow$	Peak						
Benchmark	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	
600.perlbench_s				$\bigcirc$				7							
602.gcc_s							$\searrow$								
605.mcf_s					$\langle \rangle$		$\overline{}$								
620.omnetpp_s	1	<u>8557</u>	0/91												
623.xalancbmk_s						1	/								
625.x264_s						)/									
631.deepsjeng_s						Ý									
641.leela_s															
648.exchange2_s					N										
657.xz_s		Λ	$\bigcup /$												

SPECspeed<sup>®</sup>2017\_int\_base = 0.1906

SPECspeed®2017\_int\_peak Not Run

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

#### **Submit Notes**

The config file option 'submit' was used.

#### **Environment Variables Notes**

Environment variables set by runcpu before the start of the run: D NBRARY PATH

/u/home/s/hmidtf/riscv-gnu-toolchain/build/lib64/:/u/home/schmidtf/risc v-qnu-todichain/build/lib/:/lib64"

#### **Platform Notes**

Sysinfo program /u/home/schmidtf/spec/bin/sysinfo Rev: r6365 of 2019-08-21 295195f888a3d7edb1e6e46a485a0011 running on sksmall Sat Oct 24 22:01:20 2020

SUT (System Under Test) info as seen by some common utilities. For more information on this section, see

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SPECspeed®2017\_int\_base

SPECspeed®2017\_int Mot Run

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#### Platform Notes (Continued)

https://www.spec.org/cpu2017/Docs/config.html#sysinfo

```
From /proc/cpuinfo
```

model name : Intel(R) Xeon(R) Bronze 3106 CPU @ 1.70GHz 1 "physical id"s (chips)

8 "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 : 8

physical 0: cores 0 1 2

#### From lscpu:

**Test Sponsor:** 

**Tested by:** 

Architecture: <del>38</del>6 64-bit CPU op-mode(s): 32-bit, Byte Order: Little Endian

CPU(s):

On-line CPU(s) list;

Thread(s) per core Core(s) per socket 8

Socket(s):

NUMA node(s):

Vendor ID: Genuine Intel CPU family;

Model:

Model name:

Intel(R) Xeon(R) Bronze 3106 CPU @ 1.70GHz

Stepping:

1685.165 CPU MHz: 1700.0000 CPU max MNz: CPU min MHz 800.0000 Bog dMIPS: 3400.00 Wirtualizati x-TVLld cache: 32K

Lli cache: 32K L2 cache: 1024K 11264K L3 cache

NUMA nøde0 CPU(s): 0 - 7

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 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\_13 cdp\_13 invpcid\_single pti intel\_ppin ssbd mba ibrs ibpb stibp tpr\_shadow vnmi flexpriority ept vpid fsgsbase tsc\_adjust bmil hle avx2 smep bmi2 erms invpcid rtm cqm mpx rdt\_a avx512f avx512dq rdseed adx smap clflushopt clwb intel\_pt avx512cd avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm\_llc cqm\_occup\_llc cqm\_mbm\_total cqm\_mbm\_local

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**Tested by:** 

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Software Availability:

#### Platform Notes (Continued)

dtherm arat pln pts hwp hwp\_act\_window hwp\_pkg\_req pku ospke md\_clear flush\_11d

/proc/cpuinfo cache data
 cache size : 11264 KB

From numactl --hardware WARNING: a numactl 'hode' might or might not correspond to a physical chip.

From /proc/meminfo

MemTotal: 82139464 kB HugePages\_Total: 0 Hugepagesize: 2048 kB

/usr/bin/lsb\_release -d Ubuntu 18.04.3 LTS

VERSION="18.04.3 LTS (Bionic Beaver)"
ID=ubuntu

ID\_LIKE=debian

PRETTY\_NAME="Ubuntu 18.04.3 LTS"

VERSION\_ZD="18.04\"

HOME\_URL="https://www.ubuntu.com/"
SUPPORT\_URL="https://help.ubuntu.com/"

uname -a/:

Linux sksmall 4.15.0-70-generic #79-Ubuntu SMP Tue Nov 12 10:36:11 UTC 2019 x86\_64 x86\_64 GNU/Linux

Kernel self-keported vulnerability status:

itlb\_multihit: KVM: Mitigation: Split huge pages

CVE 2018-3620 (L1 Terminal Fault): Mitigation: PTE Inversion; VMX: conditional

cache flushes, SMT disabled

Microarchitectural Data Sampling: Mitigation: Clear CPU buffers; SMT disabled

CVE-2017/5754 (Meltdown): Mitigation: PTI

CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled via prctl and seccomp

via picci and seccomp

CVE-2017-5753 (Spectre variant 1): Mitigation: usercopy/swapgs barriers and \_\_user

pointer sanitization

CVE-2017-5715 (Spectre variant 2): Mitigation: Full generic retpoline, IBPB: conditional, IBRS\_FW, STIBP: disabled, RSB

filling

tsx\_async\_abort: Mitigation: Clear CPU buffers; SMT disabled

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Used Avail Use% Mounted

### Platform Notes (Continued)

run-level 5 Nov 28 09:46

SPEC is set to: /u/home/schmidtf/spec

on

nasil10.informatik.tu-muenchen.de:/srv/j110/home nfs 6.9T 4.4T 2.3T 66% /u/home

Type

From /sys/devices/virtual/dmi/id

BIOS: HPE U32 11/13/2019

Vendor: HPE

Product: ProLiant DL36 Gen10

Product Family: ProLiant

Cannot run dmidecode; consider saying (as root

chmod +s /usr/sbin/dmidecode

(End of data from sysinfo program)

### Compiler Version Notes

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C++ | 620.omnetpp\_s(base)

Using built-in specs

COLLECT\_GCC=/u/home/schmidtf/riscv-gnu-toolchain/build/bin/riscv64-unknown-linux-gnu-g++
COLLECT\_LTO\_WRAPPER=/u/home/schmidtf/riscv-gnu-toolchain/build/libexec/gcc/riscv64-unknown-linux-gnu/10.1.0/lto-wrapper
Target: riscv64-unknown-linux-gnu

Configured with: \u/home/schmidtf/riscv-gnu-toolchain/riscv-gcc/configure

- --tayget=riscv64-unknown-linux-gnu
- --prefix /u/home/sghmidtf/riscv-gnu-toolchain/build
- --with-sysroot=/w/home/schmidtf/riscv-gnu-toolchain/build/sysroot
- -with-system-zlib --enable-shared --enable-tls
- --enable-languages=c,c++,fortran --disable-libmudflap --disable-libssp
- -disable-lipquadmath --disable-libsanitizer --disable-nls
- --disable-cotstrap --src=.././riscv-gcc --disable-multilib --with-abi=lp64
- --with arch=rv64ima --with-tune=rocket 'CFLAGS\_FOR\_TARGET=-02
- -mcmodel=medlow' 'CXXFLAGS\_FOR\_TARGET=-02 -mcmodel=medlow'

Thread model: posix

Supported LTO compression algorithms: zlib

gcc version 10.1.0 (GCC)

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### Base Unknown Flags

620.omnetpp\_s: "/u/home/schmidtf/riscv-gnu-toolchain/build/bin/riscv64-unknown-linux-gnu-" (in CXX) "/u/home/schmidtf/riscv-gnu-toolchain/build/bin/riscv64-unknown-linux-gnu-" (in LD)

### **Base Runtime Environment**

C++ benchmarks:

620.omnetpp\_s: No flags used

### **Base Compiler Invocation**

C++ benchmarks:

620.omnetpp\_s: g++

### **Base Portability Flags**

620.omnetpp\_s: -static(\*) -DSPEC\_LP64

(\*) Indicates a portability flag that was found in a non-portability variable.

### **Base Optimization Flags**

C++ benchmarks

620.omnetpp\_s:-std=c++03 -O3 -DSPEC\_SUPPRESS\_OPENMP -fno-unsafe\_math-optimizations -fno-openmp

### **Base Other Flags**

C++ benchmarks:

620.omnetpp\_s: -fcommon -fallow-argument-mismatch

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SPECspeed®2017\_int\_base = 0

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