SPEC® CPU2017 Floating Point Speed Result Copyright 2017-2020 Standard Performance Evaluation Corporation My Corporation SPECspeed2017_fp_base = **5**.15 (Test Sponsor: Intel Corporation) SPECspeed2017_fp_peak **M**ot Run Test Date: CPU2017 License: 13 May-2020 Hardware Availability: **Test Sponsor:** Intel Corporation Tested by: Software Availability: Sep-2017 Intel Corporation Threads 0 603.bwaves_s 607.cactuBSSN_s 5.15 619.lbm s 1 621.wrf_s 627.cam4_s 628.pop2_s 638.imagick_s 644.nab_s 649.fotonik3d_s 654.roms_s SPECspeed2017_fp_base (5.15) Hardware Software CPU Name: Genuine Intel 0000 OS: Fedora release 32 (Thirty Two) Max MHz.: 5.7.0-0.rc6.1.1.cet.fc32.x86_64 C/C++: Version 8.1.0 of GNU C/C++ Nominal: Compiler: Enabled: cores, 1 chip, threads/core Compiler for Linux; Orderable: Fortran: Version 8.1.0 of GNU Fortran Cache L1: Compiler for Linux Parallel: L2: No L3: Firmware: Other: File System: ext4 15.428 GB fixme: If using DDR3, format is: System State: Run level 3 (add definition here) Memory: 'N GB (M x N GB nRxn PCn-nnnnnR-n, ECC)' Base Pointers: 64-bit BØ1 GB add more disk info here Peak Pointers: 64-bit Storage: Other: Other: **Errors** 'reportable' flag not set during run

638.imagick s (base) did not have enough runs! 619.lbm_s (base) did not have enough runs! 649.fotonik3ds (base) did not have enough runs! 654.roms s (base) did not have enough runs! 603.bwaves s (base) did not have enough runs! 628.pop2_s (base) did not have enough runs! 627.cam4_s (base) did not have enough runs!

644.nab_s (base) did not have enough runs!

607.cactuBSSN_s (base) did not have enough runs!

621.wrf s (base) did not have enough runs!

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Test Date: May-2020

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Hardware Availability:

Software Availability: Sep-2017

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							7	Peak					
Benchmark	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s								\mathcal{N}						
607.cactuBSSN_s								//						
619.lbm_s	1	<u>1017</u>	<u>5.15</u>											
621.wrf_s					_		_							
627.cam4_s							1							
628.pop2_s														
638.imagick_s						V)								
644.nab_s														
649.fotonik3d_s					776									
654.roms_s		^ /	\bigcirc 7											

SPECspeed2017_fp_base =

5.15 Not Run

SPECspeed2017_fp_peak

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

General Notes

Environment variables set by runcpu before the start of the run:

KMP_AFFINITY = "granularity=fine,compact"

LD_LIBRARY_PATH = //ome/ucsd/SpectreSandboxing/spec2017/lib/ia32:/home/ucsd/SpectreSandboxing/spec2017/lib/intel64"
OMP_STACKSIZE = "192M"

Binaries compiled on a system with Intel(R) Core(TM) i9-7900X CPU + 32GB RAM memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default

Platform Notes

Sysinfo program /home/ucsd/SpectreSandboxing/spec2017/bin/sysinfo Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f running on tigerlakel-ravi Sat May 30 21:54:29 2020

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Hardware Availability:

Software Availability: Sep-2017

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Platform Notes (Continued)
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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 : Genuine Intel(R) CPU 0000 @ 2.30GHz

1 "physical id"s (chips)

8 "processors"

cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo(m)ght not/be reliable/ Use with caution.)

> 32-b1t, 64-bit Little Endian

GenuineIntel

39 bits physical, 48 bits virtual

Genuine Intel(R) CPU 0000 @ 2.30GHz

KVM: Mitigation: Split huge pages

Vulnerable: Clear CPU buffers attempted, no

x86_

0-72

4

1

6

140

1817.448

400.0000

4608.00

192 KiB

128 KiB

5 MiB 12 MiB

0 - 7

VT-x

4200.0000

cpu cores : 4 siblings : 8

physical 0: cores 0

From lscpu:

Architecture:

CPU op-mode(s): Byte Order:

Address sizes:

CPU(s):

On-line CPU(s) list:

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

Socket(s):

NUMA node(s):

Vendor In:

CPU family:

Model:

Model name:

Stepping:

PU MHz: CPU max MHz:

CPU min MHz:

BogoMIRS: Virtualization:

L1d cache: Mi cache:

L2 cache: L3/cache:

NUMA node0 CPU(s):

Vulnerability Itlb multihit: Vulnerability L1tf:

Vulnerability Mds: microcode; SMT vulnerable

Vulnerability Meltdown:

Not affected

Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via

Not affected

prctl and seccomp

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Platform Notes (Continued)

Mitigation; usercopy/swapgs barriers and __user Vulnerability Spectre v1:

pointer sanitization

Mitigation; Enhanced IBRS/ IBPB conditional, RSB Vulnerability Spectre v2:

filling

Vulnerability Tsx async abort: Not affected

fpu wme de pse tsc msr pae mce cx8 apic sep mtrr Flags: pge mca cmov pat pse36 clflush dts agpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpelgb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf tsc_known_freq phi pc/mulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma x16 xtp dcm pcid se4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16d rdrand Vahf_lm abm 3dnowprefetch cpuid_fault epb invpcid_single ssbd ibrs ippb stibe ibrs_shanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_ddjust bmil avx2 smep bmi2 erms invpcid avx512f avx512dq rdseed adx map avx512ifma alflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbvl xsaves dtherm ida arat pln pts hwp hwp_notify hwp_act_window hwp_epp hwp_pkg_req avx512vbmi umip pku ospke avx512_vbmi2 shstk gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq rdpid movdiri movdir64b fsrm avx512_vp2infersect ibt flush_11d arch_capabilities

/proc/cpuinfo cache data cache size : 12288 KB

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

From /proc/meminfo

MemTotal: 16177588 kB HugePages_Total: Hugepagesize: 2048 kB

etc/*release*/etc/*version*

fedora-release Fedora release 32 (Thirty Two)

os-release:

NAME=Fedora

VERSION=/32 (Workstation Edition)"

ID=fedora

VERSION_ID=32

VERSION_CODENAME=""

PLATFORM_ID="platform:f32"

PRETTY_NAME="Fedora 32 (Workstation Edition)"

ANSI_COLOR="0;34"

redhat-release: Fedora release 32 (Thirty Two) system-release: Fedora release 32 (Thirty Two) system-release-cpe: cpe:/o:fedoraproject:fedora:32

uname -a:

Linux tigerlakel-ravi 5.7.0-0.rc6.1.1.cet.fc32.x86_64 #1 SMP Mon May 18 17:21:34 PDT

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Used Avail Use Mounted on

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Hardware Availability:

Software Availability: Sep-2017

Platform Notes (Continued)

2020 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 May 28 23:18

SPEC is set to: /home/ucsd/SpectreSandboxing/spec2017
Filesystem Type Size

/dev/mapper/fedora_localhost--live-home ext4 391G 128G 243G 35% /home

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.

(End of data from sysinfo program)

Compiler Version Notes

CC 619.1bm s(base)

clang version 10.0.0 (https://github.com/llvm/llvm-project

d32170dbd5b0d54436537b6b75beaf44324e0c28)

Target: wasm32-unknown wasi

Thread model: posix

InstalledDir: opt/wasi-adk/bin

Base Unknown Flags

619.lbm/s:"/opt/wasi_sdk/bin/clang --sysroot

opt/wasi sdk/shard/wasi-sysroot -Wl,--export-all

-I/opt/wasi-sdk/1/1b/clang/10.0.0/include/ARRAY(0x7b34830)

"/opt/wasi-sdk/b/n/clang --sysroot

/opt/wasi-sdk/share/wasi-sysroot -Wl,--export-all

-I/opt/wasi-sdk/lib/clang/10.0.0/include/ARRAY(0x7b13770)

"-02ARRAX(0x7b55cb0)

Base Runtime Environment

C benchmarks:

619.lbm_s: No flags used

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Software Availability: Sep-2017

Base Compiler Invocation

C benchmarks:

619.lbm_s: No flags used

Base Portability Flags

619.lbm_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

619.lbm_s: -fno-strict-aliasing DSPEC_SUPPRESS_OPENMP

Base Other Flags

C benchmarks:

619.lbm_s: No flags used

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

Tested with SPEC CPU2017 v1.0.2 on 2020-05-30 21:54:28-0700.

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