



SPEC CPU®2017 Integer Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

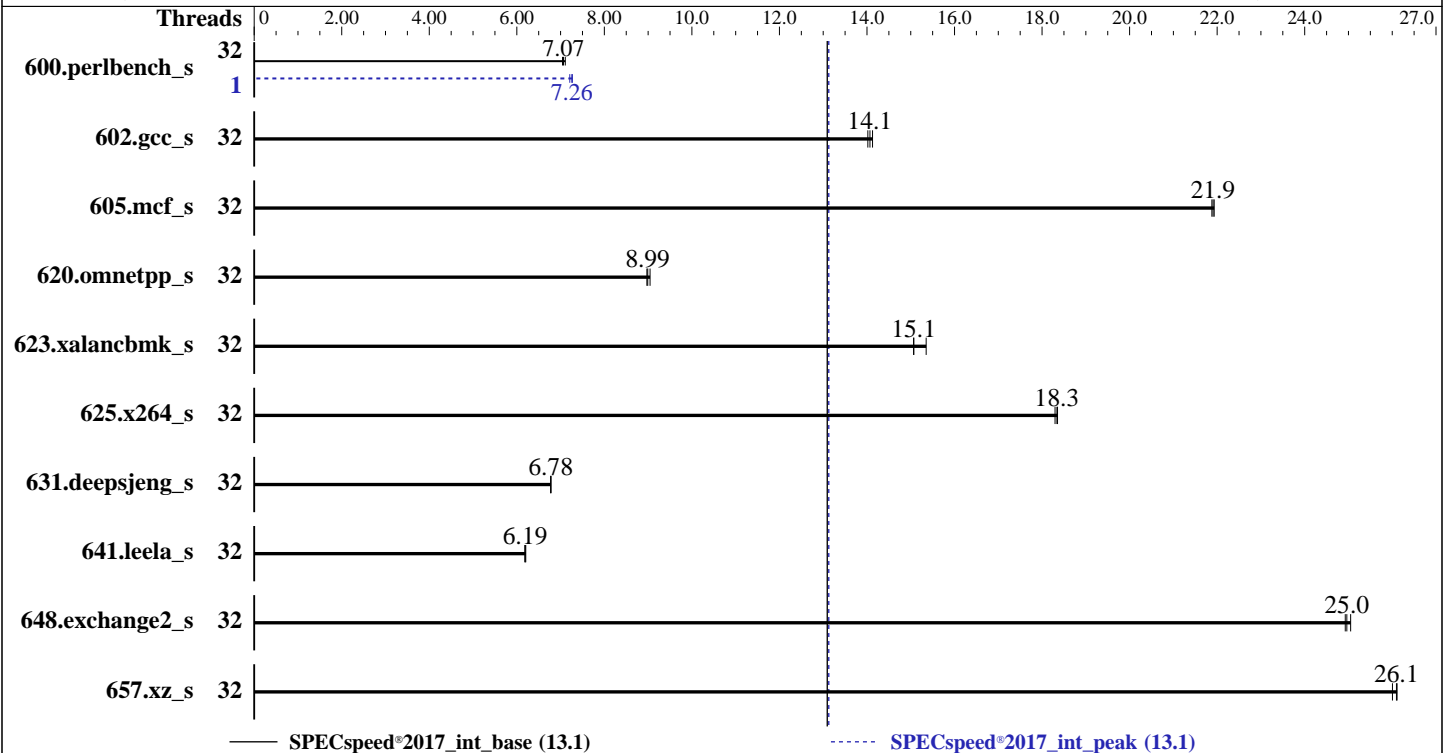
ProLiant DL365 Gen10 Plus
(3.20 GHz, AMD EPYC 7343)

SPECspeed®2017_int_base = 13.1

SPECspeed®2017_int_peak = 13.1

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

Test Date: May-2021
Hardware Availability: Jun-2021
Software Availability: Mar-2021



Hardware

CPU Name: AMD EPYC 7343
 Max MHz: 3900
 Nominal: 3200
 Enabled: 32 cores, 2 chips
 Orderable: 1,2 chip(s)
 Cache L1: 32 KB I + 32 KB D on chip per core
 L2: 512 KB I+D on chip per core
 L3: 128 MB I+D on chip per chip, 32 MB shared / 4 cores
 Other: None
 Memory: 2 TB (16 x 128 GB 4Rx4 PC4-3200AA-L)
 Storage: 1 x 196 GB SATA SSD, RAID 0
 Other: None

Software

OS: Ubuntu 20.04.1 LTS (x86_64)
 Kernel 5.4.0-56-generic
 Compiler: C/C++/Fortran: Version 3.0.0 of AOCC
 Parallel: Yes
 Firmware: HPE BIOS Version A42 v2.42 04/29/2021 released Apr-2021
 File System: ext4
 System State: Run level 5 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: jemalloc: jemalloc memory allocator library v5.1.0
 Power Management: BIOS set to prefer performance at the cost of additional power usage



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Results Table

| Benchmark | Base | | | | | | Peak | | | | | | | |
|-----------------|---------|------------|-------------|-------------|-------------|-------------|-------------|---------|------------|-------------|-------------|-------------|-------------|-------------|
| | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 600.perlbench_s | 32 | 250 | 7.11 | 252 | 7.04 | <u>251</u> | <u>7.07</u> | 1 | 246 | 7.21 | 244 | 7.27 | <u>245</u> | <u>7.26</u> |
| 602.gcc_s | 32 | <u>283</u> | <u>14.1</u> | 282 | 14.1 | 284 | 14.0 | 32 | <u>283</u> | <u>14.1</u> | 282 | 14.1 | 284 | 14.0 |
| 605.mcf_s | 32 | 216 | 21.9 | 215 | 21.9 | <u>216</u> | <u>21.9</u> | 32 | 216 | 21.9 | 215 | 21.9 | <u>216</u> | <u>21.9</u> |
| 620.omnetpp_s | 32 | <u>181</u> | <u>8.99</u> | 180 | 9.04 | 182 | 8.97 | 32 | <u>181</u> | <u>8.99</u> | 180 | 9.04 | 182 | 8.97 |
| 623.xalancbmk_s | 32 | 92.3 | 15.4 | 94.1 | 15.1 | <u>94.0</u> | <u>15.1</u> | 32 | 92.3 | 15.4 | 94.1 | 15.1 | <u>94.0</u> | <u>15.1</u> |
| 625.x264_s | 32 | 96.4 | 18.3 | <u>96.2</u> | <u>18.3</u> | 96.1 | 18.4 | 32 | 96.4 | 18.3 | <u>96.2</u> | <u>18.3</u> | 96.1 | 18.4 |
| 631.deepsjeng_s | 32 | 211 | 6.78 | 211 | 6.78 | <u>211</u> | <u>6.78</u> | 32 | 211 | 6.78 | 211 | 6.78 | <u>211</u> | <u>6.78</u> |
| 641.leela_s | 32 | 276 | 6.18 | 275 | 6.20 | <u>276</u> | <u>6.19</u> | 32 | 276 | 6.18 | 275 | 6.20 | <u>276</u> | <u>6.19</u> |
| 648.exchange2_s | 32 | 117 | 25.0 | <u>118</u> | <u>25.0</u> | 118 | 24.9 | 32 | 117 | 25.0 | <u>118</u> | <u>25.0</u> | 118 | 24.9 |
| 657.xz_s | 32 | 237 | 26.1 | 238 | 26.0 | <u>237</u> | <u>26.1</u> | 32 | 237 | 26.1 | 238 | 26.0 | <u>237</u> | <u>26.1</u> |

SPECspeed®2017_int_base = **13.1**

SPECspeed®2017_int_peak = **13.1**

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

Compiler Notes

The AMD64 AOCC Compiler Suite is available at
<http://developer.amd.com/amd-aocc/>

Submit Notes

The config file option 'submit' was used.
'numactl' was used to bind copies to the cores.
See the configuration file for details.

Operating System Notes

'ulimit -s unlimited' was used to set environment stack size
'ulimit -l 2097152' was used to set environment locked pages in memory limit
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
'echo 8 > /proc/sys/vm/dirty_ratio' run as root to limit dirty cache to 8% of memory.
'echo 1 > /proc/sys/vm/swappiness' run as root to limit swap usage to minimum necessary.
'echo 1 > /proc/sys/vm/zone_reclaim_mode' run as root to free node-local memory and avoid remote memory usage.
'sync; echo 3 > /proc/sys/vm/drop_caches' run as root to reset filesystem caches.
'sysctl -w kernel.randomize_va_space=0' run as root to disable address space layout randomization (ASLR) to reduce run-to-run variability.

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Operating System Notes (Continued)

'echo always > /sys/kernel/mm/transparent_hugepage/enabled' and
'echo always > /sys/kernel/mm/transparent_hugepage/defrag' run as root to enable
Transparent Hugepages (THP) for this run.
'echo madvise > /sys/kernel/mm/transparent_hugepage/enabled' run as root for peak
runs of 628.pop2_s and 638.imagick_s to enable THP only on request.

Environment Variables Notes

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

GOMP_CPU_AFFINITY = "0-31"

LD_LIBRARY_PATH =

"/home/SPEC_CPU2017/amd_speed_aocc300_milan_B_lib/64:/home/SPEC_CPU2017/
amd_speed_aocc300_milan_B_lib/32:"

MALLOC_CONF = "retain:true"

OMP_DYNAMIC = "false"

OMP_SCHEDULE = "static"

OMP_STACKSIZE = "128M"

OMP_THREAD_LIMIT = "32"

Environment variables set by runcpu during the 600.perlbench_s peak run:

GOMP_CPU_AFFINITY = "0"

General Notes

Binaries were compiled on a system with 2x AMD EPYC 7742 CPU + 1TiB Memory using openSUSE 15.2

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.

jemalloc: configured and built with GCC v4.8.2 in RHEL 7.4 (No options specified)

jemalloc 5.1.0 is available here:

<https://github.com/jemalloc/jemalloc/releases/download/5.1.0/jemalloc-5.1.0.tar.bz2>

Submitted_by: "Bhatnagar, Prateek" <prateek.bhatnagar@hpe.com>

Submitted: Mon May 24 12:41:46 EDT 2021

Submission: cpu2017-20210524-26429.sub

Submitted_by: "Bhatnagar, Prateek" <prateek.bhatnagar@hpe.com>

Submitted: Tue Jun 1 09:07:18 EDT 2021

Submission: cpu2017-20210524-26429.sub



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Platform Notes

BIOS Configuration
 Workload Profile set to General Peak Frequency Compute
 AMD SMT Option set to Disabled
 Determinism Control set to Manual
 Performance Determinism set to Power Deterministic
 Last-Level Cache (LLC) as NUMA Node set to Enabled
 NUMA memory domains per socket set to One memory domain per socket
 Thermal Configuration set to Maximum Cooling
 Workload Profile set to Custom
 Infinity Fabric Power Management set to Disabled
 Infinity Fabric Performance State set to P0
 Power Regulator set to OS Control Mode

Sysinfo program /home/SPEC_CPU2017/bin/sysinfo
 Rev: r6538 of 2020-09-24 e8664e66d2d7080afeaa89d4b38e2f1c
 running on admin Wed Apr 1 17:28:41 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 : AMD EPYC 7343 16-Core Processor
 2 "physical id"s (chips)
 32 "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 : 16
 siblings : 16
 physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

From lscpu:
 Architecture: x86_64
 CPU op-mode(s): 32-bit, 64-bit
 Byte Order: Little Endian
 Address sizes: 48 bits physical, 48 bits virtual
 CPU(s): 32
 On-line CPU(s) list: 0-31
 Thread(s) per core: 1
 Core(s) per socket: 16
 Socket(s): 2
 NUMA node(s): 8
 Vendor ID: AuthenticAMD
 CPU family: 25
 Model: 1
 Model name: AMD EPYC 7343 16-Core Processor

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Platform Notes (Continued)

```

Stepping: 1
Frequency boost: enabled
CPU MHz: 3212.357
CPU max MHz: 3200.0000
CPU min MHz: 1500.0000
BogoMIPS: 6388.32
Virtualization: AMD-V
L1d cache: 1 MiB
L1i cache: 1 MiB
L2 cache: 16 MiB
L3 cache: 256 MiB
NUMA node0 CPU(s): 0-3
NUMA node1 CPU(s): 4-7
NUMA node2 CPU(s): 8-11
NUMA node3 CPU(s): 12-15
NUMA node4 CPU(s): 16-19
NUMA node5 CPU(s): 20-23
NUMA node6 CPU(s): 24-27
NUMA node7 CPU(s): 28-31
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Full AMD retpoline, IBPB conditional, IBRS_FW, STIBP disabled, RSB filling
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse2 ht syscall nx mmxext fxsr_opt pdpe1gb rdtscp lm constant_tsc rep_good nopl nonstop_tsc cpuid extd_apicid aperfmperf pni pclmulqdq monitor ssse3 fma cx16 pcid sse4_1 sse4_2 movbe popcnt aes xsave avx f16c rdrand lahf_lm cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse 3dnowprefetch osvw ibs skinit wdt tce topoext perfctr_core perfctr_nb bpext perfctr_llc mwaitx cpb cat_l3 cdp_l3 invpcid_single hw_pstate ssbd mba ibrs ibpb stibp vmmcall fsgsbase bmi1 avx2 smep bmi2 invpcid cqm rdt_a rdseed adx smap clflushopt clwb sha_ni xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local clzero irperf xsaveerptr wbnoinvd arat npt lbrv svm_lock nrip_save tsc_scale vmcb_clean flushbyasid decodeassists pausefilter pfthreshold v_vmsave_vmload vgif umip pku ospke vaes vpclmulqdq rdpid overflow_recov succor smca

```

```
/proc/cpuinfo cache data
cache size : 512 KB
```

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Platform Notes (Continued)

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

```

available: 8 nodes (0-7)
node 0 cpus: 0 1 2 3
node 0 size: 257799 MB
node 0 free: 257614 MB
node 1 cpus: 4 5 6 7
node 1 size: 258046 MB
node 1 free: 257827 MB
node 2 cpus: 8 9 10 11
node 2 size: 258046 MB
node 2 free: 257868 MB
node 3 cpus: 12 13 14 15
node 3 size: 245935 MB
node 3 free: 245790 MB
node 4 cpus: 16 17 18 19
node 4 size: 258046 MB
node 4 free: 257928 MB
node 5 cpus: 20 21 22 23
node 5 size: 258022 MB
node 5 free: 257855 MB
node 6 cpus: 24 25 26 27
node 6 size: 258046 MB
node 6 free: 257873 MB
node 7 cpus: 28 29 30 31
node 7 size: 258044 MB
node 7 free: 257943 MB
node distances:
node  0  1  2  3  4  5  6  7
  0:  10  11  11  11  32  32  32  32
  1:  11  10  11  11  32  32  32  32
  2:  11  11  10  11  32  32  32  32
  3:  11  11  11  10  32  32  32  32
  4:  32  32  32  32  10  11  11  11
  5:  32  32  32  32  11  10  11  11
  6:  32  32  32  32  11  11  10  11
  7:  32  32  32  32  11  11  11  10

```

```

From /proc/meminfo
MemTotal:      2101238420 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

```

/sbin/tuned-adm active
Current active profile: balanced

```

```

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

```

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Platform Notes (Continued)

performance

```
/usr/bin/lsb_release -d
Ubuntu 20.04.1 LTS
```

```
From /etc/*release* /etc/*version*
debian_version: bullseye/sid
os-release:
  NAME="Ubuntu"
  VERSION="20.04.1 LTS (Focal Fossa)"
  ID=ubuntu
  ID_LIKE=debian
  PRETTY_NAME="Ubuntu 20.04.1 LTS"
  VERSION_ID="20.04"
  HOME_URL="https://www.ubuntu.com/"
  SUPPORT_URL="https://help.ubuntu.com/"
```

```
uname -a:
Linux admin 5.4.0-56-generic #62-Ubuntu SMP Mon Nov 23 19:20:19 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/swaps barriers and __user pointer sanitization |
| CVE-2017-5715 (Spectre variant 2): | Mitigation: Full AMD retpoline, IBPB: conditional, IBRS_FW, STIBP: disabled, RSB filling |
| CVE-2020-0543 (Special Register Buffer Data Sampling): | Not affected |
| CVE-2019-11135 (TSX Asynchronous Abort): | Not affected |

```
run-level 5 Apr 1 17:24
```

```
SPEC is set to: /home/SPEC_CPU2017
Filesystem                Type      Size  Used Avail Use% Mounted on
/dev/mapper/ubuntu--vg-ubuntu--lv ext4      196G   43G  144G  23% /
```

```
From /sys/devices/virtual/dmi/id
Vendor:                HPE
```

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Platform Notes (Continued)

Product: ProLiant DL365 Gen10 Plus
Product Family: ProLiant
Serial: CN70430NKR

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 Samsung M386AAG40AM3-CWE 128 GB 4 rank 3200
16x UNKNOWN NOT AVAILABLE

BIOS:
BIOS Vendor: HPE
BIOS Version: A42
BIOS Date: 04/29/2021
BIOS Revision: 2.42
Firmware Revision: 2.42

(End of data from sysinfo program)

Compiler Version Notes

```
=====  
C      | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base,  
      | peak) 625.x264_s(base, peak) 657.xz_s(base, peak)  
-----
```

AMD clang version 12.0.0 (CLANG: AOCC_3.0.0-Build#78 2020_12_10) (based on LLVM Mirror.Version.12.0.0)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-3.0.0/bin

```
=====  
C++   | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak)  
     | 631.deepsjeng_s(base, peak) 641.leela_s(base, peak)  
-----
```

AMD clang version 12.0.0 (CLANG: AOCC_3.0.0-Build#78 2020_12_10) (based on LLVM Mirror.Version.12.0.0)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-3.0.0/bin

=====

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Compiler Version Notes (Continued)

Fortran | 648.exchange2_s(base, peak)

AMD clang version 12.0.0 (CLANG: AOCC_3.0.0-Build#78 2020_12_10) (based on
LLVM Mirror.Version.12.0.0)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /opt/AMD/aocc-compiler-3.0.0/bin

Base Compiler Invocation

C benchmarks:

clang

C++ benchmarks:

clang++

Fortran benchmarks:

flang

Base Portability Flags

600.perlbench_s: -DSPEC_LINUX_X64 -DSPEC_LP64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LINUX -DSPEC_LP64
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-m64 -mno-adx -mno-sse4a -Wl,-allow-multiple-definition
-Wl,-mllvm -Wl,-enable-licm-vrp -Wl,-mllvm -Wl,-region-vectorize
-Wl,-mllvm -Wl,-function-specialize
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver3

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Base Optimization Flags (Continued)

C benchmarks (continued):

```
-fveclib=AMDLIBM -ffast-math -flto -fstruct-layout=5
-mllvm -unroll-threshold=50 -mllvm -inline-threshold=1000
-fremap-arrays -mllvm -function-specialize -flv-function-specialization
-mllvm -enable-gvn-hoist -mllvm -global-vectorize-slp=true
-mllvm -enable-licm-vrp -mllvm -reduce-array-computations=3 -z muldefs
-DSPEC_OPENMP -fopenmp -fopenmp=libomp -lomp -lamdlibm -ljemalloc
-lflang -lflangrti
```

C++ benchmarks:

```
-m64 -std=c++98 -mno-adx -mno-sse4a
-Wl,-mllvm -Wl,-do-block-reorder=aggressive
-Wl,-mllvm -Wl,-region-vectorize -Wl,-mllvm -Wl,-function-specialize
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver3
-fveclib=AMDLIBM -ffast-math -flto -mllvm -enable-partial-unswitch
-mllvm -unroll-threshold=100 -finline-aggressive
-flv-function-specialization -mllvm -loop-unswitch-threshold=200000
-mllvm -reroll-loops -mllvm -aggressive-loop-unswitch
-mllvm -extra-vectorizer-passes -mllvm -reduce-array-computations=3
-mllvm -global-vectorize-slp=true -mllvm -convert-pow-exp-to-int=false
-z muldefs -mllvm -do-block-reorder=aggressive
-fvirtual-function-elimination -fvisibility=hidden -DSPEC_OPENMP
-fopenmp -fopenmp=libomp -lomp -lamdlibm -ljemalloc -lflang
-lflangrti
```

Fortran benchmarks:

```
-m64 -mno-adx -mno-sse4a -Wl,-mllvm -Wl,-inline-recursion=4
-Wl,-mllvm -Wl,-lsr-in-nested-loop -Wl,-mllvm -Wl,-enable-iv-split
-Wl,-mllvm -Wl,-region-vectorize -Wl,-mllvm -Wl,-function-specialize
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -O3 -march=znver3
-fveclib=AMDLIBM -ffast-math -flto -z muldefs
-mllvm -unroll-aggressive -mllvm -unroll-threshold=150 -DSPEC_OPENMP
-fopenmp -fopenmp=libomp -lomp -lamdlibm -ljemalloc -lflang
-lflangrti
```

Base Other Flags

C benchmarks:

```
-Wno-unused-command-line-argument -Wno-return-type
```

C++ benchmarks:

```
-Wno-unused-command-line-argument -Wno-return-type
```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

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ProLiant DL365 Gen10 Plus
(3.20 GHz, AMD EPYC 7343)

SPECspeed®2017_int_base = 13.1

SPECspeed®2017_int_peak = 13.1

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

Test Date: May-2021
Hardware Availability: Jun-2021
Software Availability: Mar-2021

Base Other Flags (Continued)

Fortran benchmarks:
-Wno-return-type

Peak Compiler Invocation

C benchmarks:
clang

C++ benchmarks:
clang++

Fortran benchmarks:
flang

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -m64 -mno-adx -mno-sse4a -Wl,-allow-multiple-definition
-Wl,-mllvm -Wl,-enable-licm-vrp
-Wl,-mllvm -Wl,-function-specialize
-Wl,-mllvm -Wl,-align-all-nofallthru-blocks=6
-Wl,-mllvm -Wl,-reduce-array-computations=3 -Ofast
-march=znver3 -fveclib=AMDLIBM -ffast-math -flto
-fstruct-layout=5 -mllvm -unroll-threshold=50
-fremap-arrays -flv-function-specialization
-mllvm -inline-threshold=1000 -mllvm -enable-gvn-hoist
-mllvm -global-vectorize-slp=true
-mllvm -function-specialize -mllvm -enable-licm-vrp
-mllvm -reduce-array-computations=3 -DSPEC_OPENMP -fopenmp
-fopenmp=libomp -lomp -lamdlibm -ljemalloc -lflang
```

602.gcc_s: basepeak = yes

(Continued on next page)



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Peak Optimization Flags (Continued)

605.mcf_s: basepeak = yes

625.x264_s: basepeak = yes

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes

Peak Other Flags

C benchmarks:

-Wno-unused-command-line-argument -Wno-return-type

C++ benchmarks:

-Wno-unused-command-line-argument -Wno-return-type

Fortran benchmarks:

-Wno-return-type

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-AMD-V1.2-EPYC-revP.html>

<http://www.spec.org/cpu2017/flags/aocc300-flags-A1.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-AMD-V1.2-EPYC-revP.xml>

<http://www.spec.org/cpu2017/flags/aocc300-flags-A1.xml>



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