## SPEC CPU®2017 Integer Speed Result

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

**CPU2017 License**: 9016
**Test Sponsor**: ASUSTeK Computer Inc.
**Tested by**: ASUSTeK Computer Inc.

**Test Date**: Jun-2021
**Hardware Availability**: Mar-2021

**SPECspeed®2017_int_base** = 12.5
**SPECspeed®2017_int_peak** = 12.5

### Threads

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>perlbench</td>
<td>64</td>
<td>6.95</td>
<td>13.5</td>
</tr>
<tr>
<td>gcc</td>
<td>64</td>
<td>8.62</td>
<td>20.9</td>
</tr>
<tr>
<td>mcf</td>
<td>64</td>
<td>8.68</td>
<td>21.0</td>
</tr>
<tr>
<td>omnetpp</td>
<td>64</td>
<td>8.62</td>
<td>21.0</td>
</tr>
<tr>
<td>xalancbmk</td>
<td>64</td>
<td>14.2</td>
<td>23.4</td>
</tr>
<tr>
<td>x264</td>
<td>64</td>
<td>17.1</td>
<td>25.6</td>
</tr>
<tr>
<td>deepsjeng</td>
<td>64</td>
<td>5.78</td>
<td>6.62</td>
</tr>
<tr>
<td>leela</td>
<td>64</td>
<td>5.79</td>
<td>6.62</td>
</tr>
</tbody>
</table>

---

### Hardware

- **CPU Name**: AMD EPYC 7513
- **Max MHz**: 3650
- **Nominal**: 2600
- **Enabled**: 64 cores, 2 chips, 2 threads/core
- **Orderable**: 1.2 chips
- **Cache L1**: 32 KB I + 32 KB D on chip per core
- **Cache L2**: 512 KB I+D on chip per core
- **Cache L3**: 128 MB I+D on chip per chip, 32 MB shared / 8 cores
- **Other**: None
- **Memory**: 1 TB (16 x 64 GB 4Rx4 PC4-3200AA-L)
- **Storage**: 1 x 240 GB SATA SSD
- **Other**: None

### Software

- **OS**: SUSE Linux Enterprise Server 15 SP2 (x86_64) Kernel 5.3.18-22-default
- **Compiler**: C/C++/Fortran: Version 3.0.0 of AOCC
- **Parallel**: Yes
- **Firmware**: Version 0404 released Feb-2021
- **File System**: xfs
- **System State**: Run level 3 (multi-user)
- **Base Pointers**: 64-bit
- **Peak Pointers**: 64-bit
- **Other**: jemalloc: jemalloc memory allocator library v5.1.0
- **Power Management**: BIOS and OS set to prefer performance at the cost of additional power usage.
### RESULTS TABLE

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s</td>
<td>64</td>
<td>256</td>
<td>6.95</td>
<td>255</td>
<td>6.95</td>
<td>255</td>
<td>6.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>602.gcc_s</td>
<td>64</td>
<td>294</td>
<td>13.5</td>
<td>295</td>
<td>13.5</td>
<td>294</td>
<td>13.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>64</td>
<td>226</td>
<td>20.9</td>
<td>225</td>
<td>20.9</td>
<td>225</td>
<td>20.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>64</td>
<td>189</td>
<td>8.63</td>
<td>189</td>
<td>8.63</td>
<td>189</td>
<td>8.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>623.xalanchmk_s</td>
<td>64</td>
<td>101</td>
<td>14.0</td>
<td>99.7</td>
<td>14.2</td>
<td>100</td>
<td>14.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>625.x264_s</td>
<td>64</td>
<td>103</td>
<td>17.1</td>
<td>103</td>
<td>17.1</td>
<td>103</td>
<td>17.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>64</td>
<td>216</td>
<td>6.62</td>
<td>216</td>
<td>6.62</td>
<td>217</td>
<td>6.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>641.leela_s</td>
<td>64</td>
<td>296</td>
<td>5.79</td>
<td>295</td>
<td>5.79</td>
<td>295</td>
<td>5.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>648.exchange2_s</td>
<td>64</td>
<td>125</td>
<td>23.4</td>
<td>125</td>
<td>23.4</td>
<td>125</td>
<td>23.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>657.xz_s</td>
<td>64</td>
<td>241</td>
<td>25.7</td>
<td>241</td>
<td>25.6</td>
<td>241</td>
<td>25.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### COMPILER NOTES


### OPERATING SYSTEM NOTES

- 'ulimit -s unlimited' was used to set environment stack size limit
- 'ulimit -l 2097152' was used to set environment locked pages in memory limit
- OS set to performance mode via cpupower frequency-set -g performance
- runcpu command invoked through numacll 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.
To enable Transparent Hugepages (THP) for all allocations,
SPEC CPU®2017 Integer Speed Result

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

Operating System Notes (Continued)

'echo always > /sys/kernel/mm/transparent_hugepage/enabled' and
'echo always > /sys/kernel/mm/transparent_hugepage/defrag' run as root.

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
GOMP_CPU_AFFINITY = "0-127"
LD_LIBRARY_PATH =
    "/cpu118/amd_speed_aocc300_milan_B_lib/64;/cpu118/amd_speed_aocc300_milan_B_lib/32;"
MALLOC_CONF = "retain:true"
OMP_DYNAMIC = "false"
OMP_SCHEDULE = "static"
OMP_STACKSIZE = "128M"
OMP_THREAD_LIMIT = "128"

Environment variables set by runcpu during the 600.perlbench_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 602.gcc_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 605.mcf_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 620.omnetpp_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 625.x264_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 641.leela_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.
SPEC CPU®2017 Integer Speed Result

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

General Notes (Continued)
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

Platform Notes

BIOS Configuration:
DLWM Support = Disabled
SVM Mode = Disabled
NUMA nodes per socket = NPS2
APBDIS = 1
Fix SOC P-state = P0
Engine Boost = Enabled

Sysinfo program /cpu118/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acaf64d
running on localhost Fri Jun 18 08:57:00 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 : AMD EPYC 7513 32-Core Processor
  2 "physical id"s (chips)
  128 "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 : 32
  siblings : 64
  physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
             25 26 27 28 29 30 31
  physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
             25 26 27 28 29 30 31

From lscpu from util-linux 2.33.1:
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): 128
On-line CPU(s) list: 0-127
Thread(s) per core: 2
Core(s) per socket: 32
Socket(s): 2

(Continued on next page)
ASUSTeK Computer Inc.

ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPEC CPU®2017 Integer Speed Result

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Test Date: Jun-2021
Tested by: ASUSTeK Computer Inc.
Hardware Availability: Mar-2021
Software Availability: Mar-2021

Platform Notes (Continued)

NUMA node(s): 4
Vendor ID: AuthenticAMD
CPU family: 25
Model: 1
Model name: AMD EPYC 7513 32-Core Processor
Stepping: 1
CPU MHz: 3664.807
CPU max MHz: 2600.0000
CPU min MHz: 1500.0000
BogoMIPS: 5190.17
Virtualization: AMD-V
L1d cache: 32K
L1i cache: 32K
L2 cache: 512K
L3 cache: 32768K
NUMA node0 CPU(s): 0-15,64-79
NUMA node1 CPU(s): 16-31,80-95
NUMA node2 CPU(s): 32-47,96-111
NUMA node3 CPU(s): 48-63,112-127
Flags: fpu vme de pse tsc msr pae mca cmov pat pse36 clflush mmx fxsr sse 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 pclid sse4_1 sse4_2 movbe popcnt aes xsave avx f16c rdrand lahf_lm cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse 3dnowprefetch osvw ibrsk nit wd tce topoext perfctr_core perfctr_nb bext perfctr_l1c mwaitx cpb cat_13_l3 invpcid_single hw_pstate ssbd mba lbrs ibpb stibp vmmcall fsgsbase bmi1 avx2 smep bmi2 erts invpcid cqm rdt_a rdseed adx smap clflushopt clwb sha ni xsaveopt xsaves xsavec xgetbv1 xsavees cqm_llc cqm_occld_l1c cqm_mbb_total cqm_mbb_local clzero irperf xsaveerptr wbinvd arat npt lbrv svm_lock nrnval_save tsc_scale vmcb_clean flushbyasid decodeaasists pausefilter pthreshold v_vmsave_vmload vgif umip pkpu ospke vaes vpclmulqdq rdpid overflow_recoev succor smca

From numactl --hardware
WARNING: a numactl 'node' might or might not correspond to a physical chip.
available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79
node 0 size: 257833 MB
node 0 free: 257286 MB
node 1 cpus: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95
node 1 size: 258026 MB
node 1 free: 257692 MB
node 2 cpus: 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 96 97 98 99 100 101 102
## Platform Notes (Continued)

103 104 105 106 107 108 109 110 111
node 2 size: 258004 MB
node 2 free: 257786 MB
node 3 cpus: 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127
node 3 size: 258038 MB
node 3 free: 257853 MB
node distances:
node 0 1 2 3
0: 10 12 32 32
1: 12 10 32 32
2: 32 32 10 12
3: 32 32 12 10

From /proc/meminfo
MemTotal: 1056668668 kB
HugePages_Total: 0
Hugepagesize: 2048 kB
/sys/devices/system/cpu/cpu*/cpufreq/scaling_governor has performance

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

os-release:
NAME="SLES"
VERSION="15-SP2"
VERSION_ID="15.2"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP2"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp2"

uname -a:
Linux localhost 5.3.18-22-default #1 SMP Wed Jun 3 12:16:43 UTC 2020 (720aeba) 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/swapgs

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

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

Platform Notes (Continued)

CVE-2017-5715 (Spectre variant 2):
barriers and __user pointer sanitation
Mitigation: Full AMD retpoline,
IBPB: conditional, IBRS_FW, STIBP:
always-on, RSB filling

CVE-2020-0543 (Special Register Buffer Data Sampling): Not affected
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Jun 17 18:04
SPEC is set to: /cpu118
Filesystem Type Size Used Avail Use% Mounted on
/dev/sdb4 xfs 199G 45G 155G 23% /

From /sys/devices/virtual/dmi/id
Vendor: ASUSTeK COMPUTER INC.
Product: RS720A-E11-RS12E
Product Family: Server
Serial: 123456789012

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:
16x Samsung M386A8K40DM2-CWE 64 GB 4 rank 3200
16x Unknown Unknown

BIOS:
BIOS Vendor: American Megatrends Inc.
BIOS Version: 0404
BIOS Date: 02/02/2021
BIOS Revision: 4.4

(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

(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

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

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.

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

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

Compiler Version Notes (Continued)

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 |
------------------------------------------------------------------------------

------------------------------------------------------------------------------
| 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

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

ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Hardware Availability: Mar-2021
Test Date: Jun-2021
Tested by: ASUSTeK Computer Inc.
Software Availability: Mar-2021

Base Portability Flags (Continued)

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
-fveclib=AMDLIBM -ffast-math -f1to -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-lcm-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 -f1to -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

(Continued on next page)
### Base Optimization Flags (Continued)

Fortran benchmarks (continued):
- fveclib=AMDLIBM
-ffast-math
-flto
-z muldefs
-mlllvm
-unroll-aggressive
-mlllvm
-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

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:

(Continued on next page)
Peak Optimization Flags (Continued)


602.gcc_s: Same as 600.perlbench_s

605.mcf_s: Same as 600.perlbench_s

625.x264_s: Same as 600.perlbench_s

657.xz_s: basepeak = yes

C++ benchmarks:


623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: Same as 620.omnetpp_s

(Continued on next page)
ASUSTeK Computer Inc.
ASUS RS720A-E11(KMPP-D32) Server System
2.60 GHz, AMD EPYC 7513

SPECspeed®2017_int_base = 12.5
SPECspeed®2017_int_peak = 12.5

CPU2017 License: 9016
Test Sponsor: ASUSTeK Computer Inc.
Tested by: ASUSTeK Computer Inc.
Test Date: Jun-2021
Hardware Availability: Mar-2021
Software Availability: Mar-2021

Peak Optimization Flags (Continued)

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

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/ASUSTekPlatform-Settings-AMD-Milan-V1.3.2021-07-06.xml

SPEC CPU and SPECspeed 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 2021-06-17 20:57:00-0400.
Report generated on 2021-07-06 18:44:55 by CPU2017 PDF formatter v6442.
Originally published on 2021-07-06.