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# test1

2 x AMD EPYC 7763 64-Core testing with a Supermicro H12DSU-iN v1.01 (2.1 BIOS) and ASPEED on AlmaLinux 9.0 via the Phoronix Test Suite.

**Automated Executive Summary**

*20220915 had the most wins, coming in first place for 57% of the tests.*

*The results with the greatest spread from best to worst included:*

*CacheBench (Write Cache) at 26.58x*
*t-test1 (Threads: 1) at 14.509x*
*t-test1 (Threads: 2) at 11.005x*
*RAMspeed SMP (Type: Add - Benchmark: Floating Point) at 9.206x*
*RAMspeed SMP (Type: Add - Benchmark: Integer) at 9.158x*
*RAMspeed SMP (Type: Triad - Benchmark: Integer) at 9.092x*
*CacheBench (Read Cache) at 8.902x*
*RAMspeed SMP (Type: Average - Benchmark: Integer) at 8.32x*
*RAMspeed SMP (Type: Triad - Benchmark: Floating Point) at 8.315x*
*Tinymembench (Standard Memcpy) at 8.167x.*

# Test Systems:

## sample1

## 2 x AMD EPYC 7763 64-Core

## sample2

Processor: 2 x AMD EPYC 7763 64-Core @ 2.45GHz (128 Cores / 256 Threads), Motherboard: Supermicro H12DSU-iN v1.01 (2.1 BIOS), Chipset: AMD Starship/Matisse, Memory: 256GB, Disk: 512GB KINGSTON SKC6005 + 2 x 16001GB Seagate ST16000NM000J-2T, Graphics: ASPEED, Monitor: SMB1920NW, Network: 2 x Intel X710 for 10GBASE-T

OS: AlmaLinux 9.0, Kernel: 5.14.0-70.22.1.el9_0.x86_64 (x86_64), Desktop: GNOME Shell 40.9, Display Server: X Server 1.20.11, Compiler: GCC 11.2.1 20220127, File-System: xfs, Screen Resolution: 1440x900

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-host-bind-now --enable-host-pie --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-link-serialization=1 --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-arch_64=x86-64-v2 --with-build-config=bootstrap-lto --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver --without-isl
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa001144
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

## 20220915

Processor: 2 x AMD EPYC 7763 64-Core @ 2.45GHz (128 Cores / 256 Threads), Motherboard: Supermicro H12DSU-iN v1.01 (2.1 BIOS), Chipset: AMD Starship/Matisse, Memory: 256GB, Disk: 512GB KINGSTON SKC6005 + 2 x 16001GB Seagate ST16000NM000J-2T, Graphics: ASPEED, Network: 2 x Intel X710 for 10GBASE-T

OS: AlmaLinux 9.0, Kernel: 5.14.0-70.22.1.el9_0.x86_64 (x86_64), Desktop: GNOME Shell 40.9, Display Server: X Server 1.20.11, Compiler: GCC 11.2.1 20220127, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-host-bind-now --enable-host-pie --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-link-serialization=1 --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-arch_64=x86-64-v2 --with-build-config=bootstrap-lto --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver --without-isl
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa001144
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

## 20220917_setMax353

Processor: 2 x AMD EPYC 7763 64-Core @ 3.53GHz (128 Cores / 256 Threads), Motherboard: Supermicro H12DSU-iN v1.01 (2.1 BIOS), Chipset: AMD Starship/Matisse, Memory: 256GB, Disk: 512GB KINGSTON SKC6005 + 2 x 16001GB Seagate ST16000NM000J-2T, Graphics: ASPEED, Network: 2 x Intel X710 for 10GBASE-T

OS: AlmaLinux 9.0, Kernel: 5.14.0-70.22.1.el9_0.x86_64 (x86_64), Desktop: GNOME Shell 40.9, Display Server: X Server 1.20.11, Compiler: GCC 11.2.1 20220127, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-host-bind-now --enable-host-pie --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-link-serialization=1 --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man

# test1

--with-arch_32=x86-64 --with-arch_64=x86-64-v2 --with-build-config=bootstrap-lto --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver --without-isl
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa001144
Security Notes: SELinux + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

| | sample1 | 2 x AMD EPYC 7763 64-Core | sample2 | 20220915 | 20220917_setMax353 |
|---|---|---|---|---|---|
| **OpenSSL - SHA256 (byte/s)** | | 21738592173 | | 33832132286 | |
| **Normalized** | | 64.25% | | 100% | |
| **Standard Deviation** | | 166.6% | | 136.1% | |
| **Sysbench - CPU (Events/sec)** | | 47412 | | 47424 | |
| **Normalized** | | 99.97% | | 100% | |
| **Standard Deviation** | | 0.4% | | 0.3% | |
| **Kvazaar - Bosphorus 4K - Slow (FPS)** | | 31.61 | | 32.17 | |
| **Normalized** | | 98.26% | | 100% | |
| **Standard Deviation** | | 1.4% | | 2% | |
| **Kvazaar - Bosphorus 4K - Medium (FPS)** | | 31.97 | | 32.48 | |
| **Normalized** | | 98.43% | | 100% | |
| **Standard Deviation** | | 1.6% | | 2.1% | |
| **Kvazaar - Bosphorus 1080p - Slow (FPS)** | | 92.55 | | 93.34 | |
| **Normalized** | | 99.15% | | 100% | |
| **Standard Deviation** | | 1.7% | | 1.7% | |
| **Kvazaar - Bosphorus 1080p - Medium (FPS)** | | 94.31 | | 95.74 | |
| **Normalized** | | 98.51% | | 100% | |
| **Standard Deviation** | | 1.6% | | 1.6% | |
| **Kvazaar - Bosphorus 4K - Very Fast (FPS)** | | 57.14 | | 57.62 | |
| **Normalized** | | 99.17% | | 100% | |
| **Standard Deviation** | | 2.2% | | 2.5% | |
| **Kvazaar - Bosphorus 4K - Ultra Fast (FPS)** | | 59.93 | | 60.07 | |
| **Normalized** | | 99.77% | | 100% | |
| **Standard Deviation** | | 1.6% | | 2.4% | |
| **Kvazaar - Bosphorus 1080p - Very Fast (FPS)** | | 198.36 | | 198.07 | |
| **Normalized** | | 100% | | 99.85% | |
| **Standard Deviation** | | 1.6% | | 1.9% | |
| **Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)** | | 219.96 | | 216.89 | |
| **Normalized** | | 100% | | 98.6% | |
| **Standard Deviation** | | 3.7% | | 3.6% | |
| **x264 - Bosphorus 4K (FPS)** | | 66.50 | | 66.84 | |
| **Normalized** | | 99.49% | | 100% | |
| **Standard Deviation** | | 3.3% | | 7.3% | |
| **x264 - Bosphorus 1080p (FPS)** | | 183.48 | | 178.64 | |

# test1

| | | | |
|---|---|---|---|
| Normalized | 100% | | 97.36% |
| Standard Deviation | 2.2% | | 5% |
| **x265 - Bosphorus 4K (FPS)** | **19.92** | | **19.75** |
| Normalized | 100% | | 99.15% |
| Standard Deviation | 3.3% | | 3% |
| **x265 - Bosphorus 1080p (FPS)** | **64.69** | | **64.41** |
| Normalized | 100% | | 99.57% |
| Standard Deviation | 5.6% | | 5.9% |
| **RAMspeed SMP - Add - Integer (MB/s)** | **4128** | 37592 | **37805** |
| Normalized | 10.92% | 99.44% | 100% |
| Standard Deviation | 1.7% | 1.1% | 1.4% |
| **RAMspeed SMP - Copy - Integer (MB/s)** | **4942** | 34465 | **34659** |
| Normalized | 14.26% | 99.44% | 100% |
| Standard Deviation | 1.2% | 0.4% | 0.5% |
| **RAMspeed SMP - Scale - Integer (MB/s)** | **4721** | **38064** | 37730 |
| Normalized | 12.4% | 100% | 99.12% |
| Standard Deviation | 0.6% | 0.6% | 1% |
| **RAMspeed SMP - Triad - Integer (MB/s)** | **4063** | **36938** | 36839 |
| Normalized | 11% | 100% | 99.73% |
| Standard Deviation | 1.9% | 1.5% | 1.9% |
| **RAMspeed SMP - Average - Integer (MB/s)** | **4422** | **36793** | 36717 |
| Normalized | 12.02% | 100% | 99.79% |
| Standard Deviation | 0.9% | 0.6% | 0.4% |
| **RAMspeed SMP - Add - Floating Point (MB/s)** | **4082** | 37416 | **37575** |
| Normalized | 10.86% | 99.58% | 100% |
| Standard Deviation | 1.7% | 1.3% | 1.1% |
| **RAMspeed SMP - Copy - Floating Point (MB/s)** | **4882** | **34654** | 34328 |
| Normalized | 14.09% | 100% | 99.06% |
| Standard Deviation | 1.7% | 6.7% | 0.5% |
| **RAMspeed SMP - Scale - Floating Point (MB/s)** | **4847** | **35992** | 35159 |
| Normalized | 13.47% | 100% | 97.68% |
| Standard Deviation | 1.7% | 0.6% | 0.5% |
| **RAMspeed SMP - Triad - Floating Point (MB/s)** | **4110** | 33782 | **34175** |
| Normalized | 12.03% | 98.85% | 100% |
| Standard Deviation | 0.8% | 4.5% | 4.5% |
| **RAMspeed SMP - Average - Floating Point (MB/s)** | **4522** | **35275** | 34931 |
| Normalized | 12.82% | 100% | 99.02% |
| Standard Deviation | 0.6% | 1.5% | 0.7% |
| **Tinymembench - Standard Memcpy (MB/s)** | **2819** | | **23019** |
| Normalized | 12.24% | | 100% |
| Standard Deviation | 0.6% | | 0.9% |

# test1

| | | |
|---|---|---|
| **Tinymembench - Standard Memset (MB/s)** | **4230** | **33613** |
| **Normalized** | 12.58% | 100% |
| **Standard Deviation** | 0% | 0.2% |
| **CacheBench - Read Cache** | **301.889247** | **2687** |
| **Normalized** | 11.23% | 100% |
| **Standard Deviation** | 0% | 0% |
| **CacheBench - Write Cache** | **970.205040** | **25788** |
| **Normalized** | 3.76% | 100% |
| **Standard Deviation** | 0.3% | 0% |
| **MBW - Memory Copy - 1024 MiB (MiB/s)** | **2260** | **15853** |
| **Normalized** | 14.25% | 100% |
| **Standard Deviation** | 0.5% | 0.4% |
| **MBW - M.C.F.B.S - 1024 MiB (MiB/s)** | **1368** | **9219** |
| **Normalized** | 14.84% | 100% |
| **Standard Deviation** | 0.3% | 4.9% |
| **7-Zip Compression - Compression Rating (MIPS)** | 455735 | |
| **Standard Deviation** | 8.7% | |
| **7-Zip Compression - D.R (MIPS)** | 729143 | |
| **Standard Deviation** | 2.2% | |
| **Stockfish - Total Time (Nodes/s)** | **282471669** | **278527804** |
| **Normalized** | 99.26% | 97.87% |
| **Standard Deviation** | 7.5% | 7.8% |
| **asmFish - 1.H.M.2.D (Nodes/s)** | **312432408** | **318267093** |
| **Normalized** | 98.17% | 100% |
| **Standard Deviation** | 1.2% | 1.8% |
| **OpenSSL - RSA4096 (sign/s)** | **1688** | **1686** |
| **Normalized** | 100% | 99.9% |
| **Standard Deviation** | 0.2% | 0.2% |
| **OpenSSL - RSA4096 (verify/s)** | **114251** | **114709** |
| **Normalized** | 99.6% | 100% |
| **Standard Deviation** | 0.2% | 0.1% |
| **ctx_clock - C.S.T (Clocks)** | **1710** | **1712** |
| **Normalized** | 100% | 99.88% |
| **Standard Deviation** | 2.5% | 2.7% |
| **NAMD - ATPase Simulation - 327,506 Atoms (days/ns)** | **0.23453** | 0.23319 |
| **Normalized** | 98.17% | 98.73% |
| **Standard Deviation** | 4.9% | 4.7% |
| **Rodinia - OpenMP LavaMD (sec)** | **23.221** | **23.316** |
| **Normalized** | 100% | 99.59% |
| **Standard Deviation** | 2.5% | 2.2% |
| **Rodinia - OpenMP HotSpot3D (sec)** | 95.290 | |
| **Standard Deviation** | 12.6% | |
| **Rodinia - OpenMP Leukocyte** | 51.919 | |
| **Standard Deviation** | 2.8% | |
| **Rodinia - OpenMP CFD Solver (sec)** | **7.314** | **11.102** |
| **Normalized** | 100% | 65.88% |
| **Standard Deviation** | 23.2% | 50.7% |

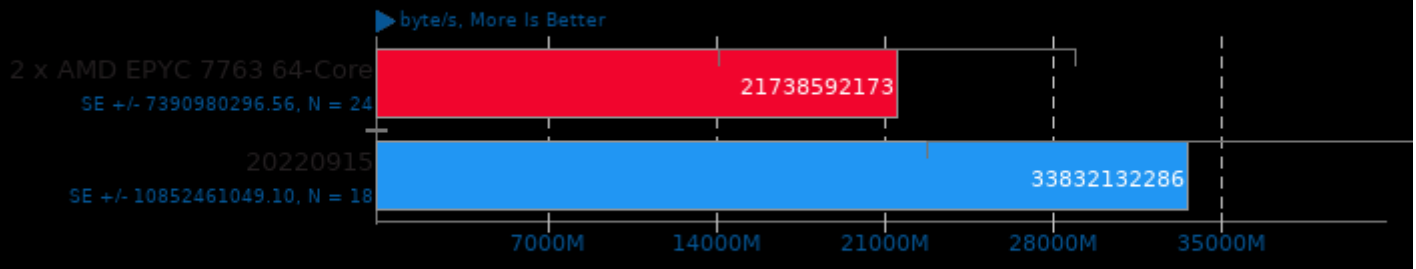
# test1

| | | |
|---|---|---|
| **Rodinia - O.S (sec)** | 7.509 | |
| **Standard Deviation** | 6.2% | |
| **Timed GCC Compilation - Time To Compile (sec)** | **661.767** | **659.024** |
| **Normalized** | 99.59% | 100% |
| **Standard Deviation** | 0.5% | 0.3% |
| **Timed Linux Kernel Compilation - defconfig (sec)** | **20.869** | **20.669** |
| **Normalized** | 99.04% | 100% |
| **Standard Deviation** | 2.4% | 2.4% |
| **POV-Ray - Trace Time (sec)** | **7.425** | **7.319** |
| **Normalized** | 98.57% | 100% |
| **Standard Deviation** | 0.6% | 1.7% |
| **Radiance Benchmark - Serial** | **578.28** | **578.979** |
| **Normalized** | 100% | 99.88% |
| **Radiance Benchmark - SMP Parallel (sec)** | **175.657** | **177.397** |
| **Normalized** | 100% | 99.02% |
| **Blender - Barbershop - CPU-Only (sec)** | 1728 | |
| **Standard Deviation** | 0.3% | |
| **t-test1 - 1 (sec)** | **192.276** | **13.252** |
| **Normalized** | 6.89% | 100% |
| **Standard Deviation** | 0.6% | 0.7% |
| **t-test1 - 2 (sec)** | **65.885** | **5.987** |
| **Normalized** | 9.09% | 100% |
| **Standard Deviation** | 0.3% | 0.5% |

# test1

## OpenSSL 3.0

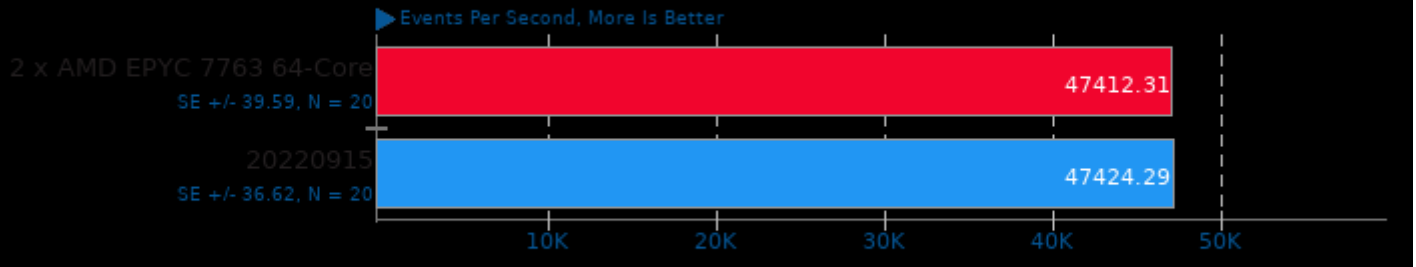
Algorithm: SHA256




1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

## Sysbench 1.0.20

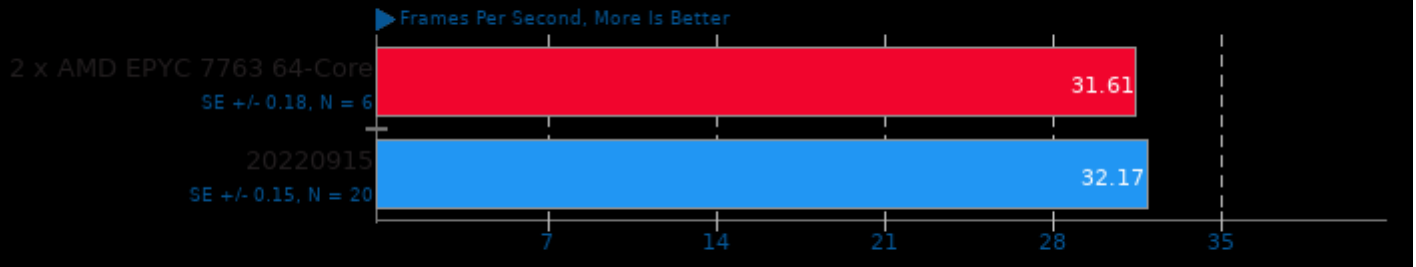
Test: CPU




1. (CC) gcc options: -O2 -funroll-loops -rdynamic -ldl -laio -lm

## Kvazaar 2.1

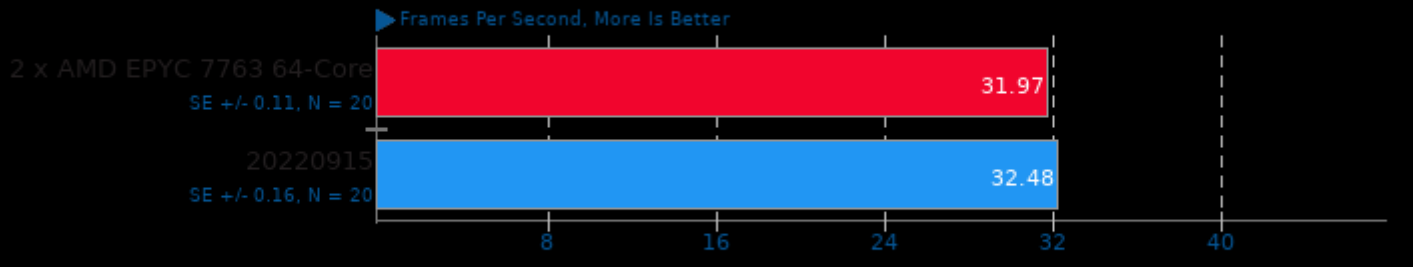
Video Input: Bosphorus 4K - Video Preset: Slow



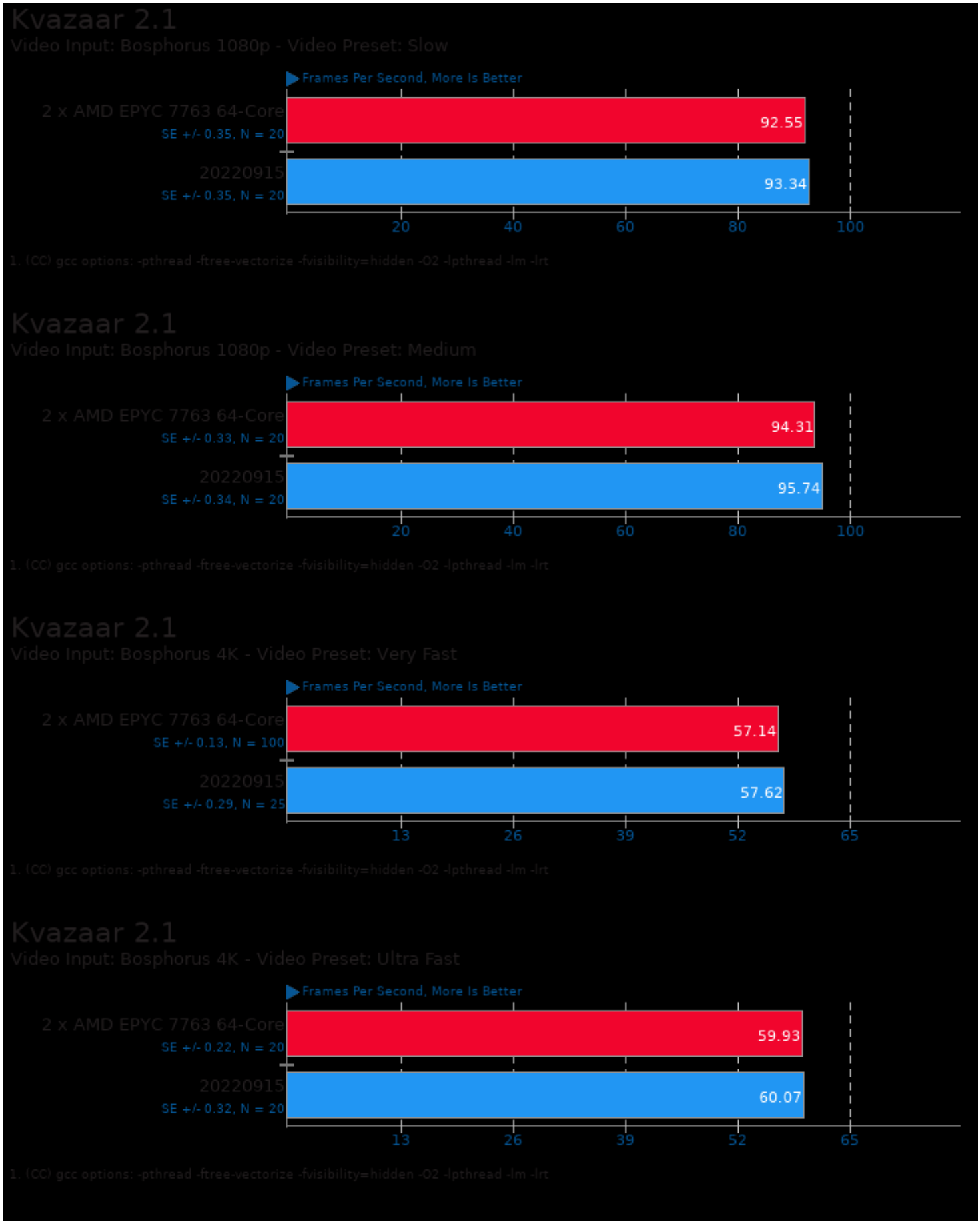

1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

Video Input: Bosphorus 4K - Video Preset: Medium

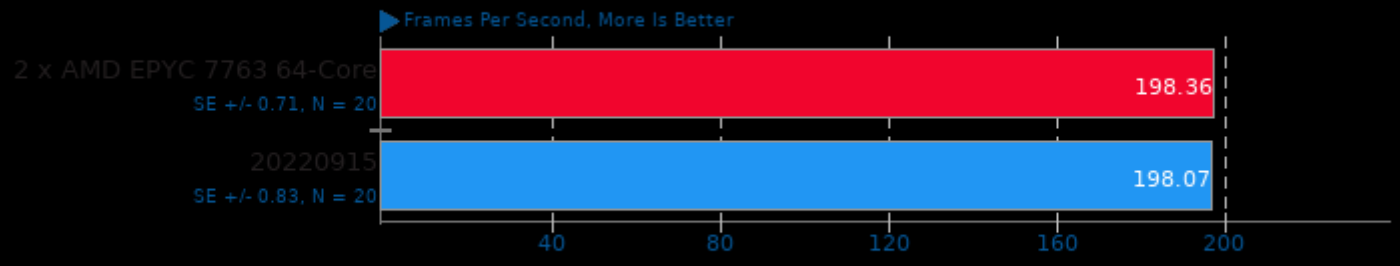



1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt


Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Slow
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.35, N = 20
92.55
20220915
SE +/- 0.35, N = 20
93.34
20
40
60
80
100
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Medium
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.33, N = 20
94.31
20220915
SE +/- 0.34, N = 20
95.74
20
40
60
80
100
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Very Fast
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.13, N = 100
57.14
20220915
SE +/- 0.29, N = 25
57.62
13
26
39
52
65
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Ultra Fast
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.22, N = 20
59.93
20220915
SE +/- 0.32, N = 20
60.07
13
26
39
52
65
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

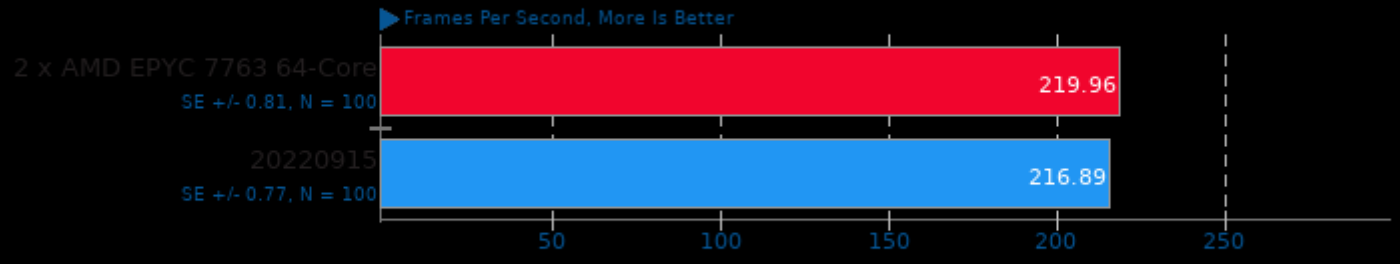
Video Input: Bosphorus 1080p - Video Preset: Very Fast




1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

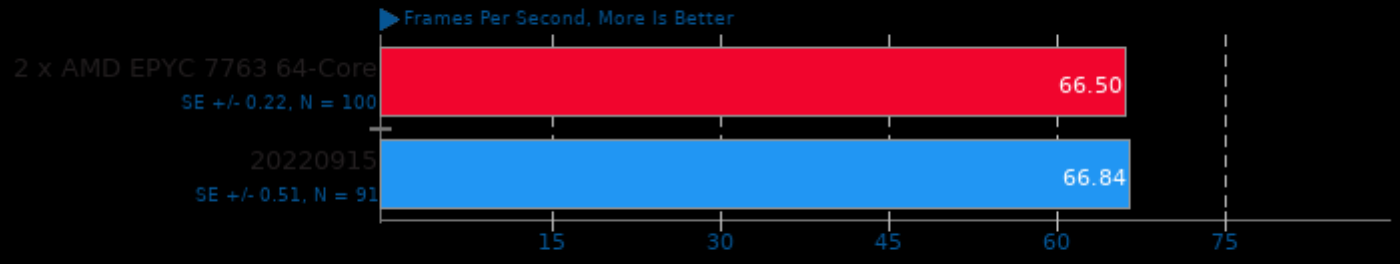
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast




1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## x264 2022-02-22

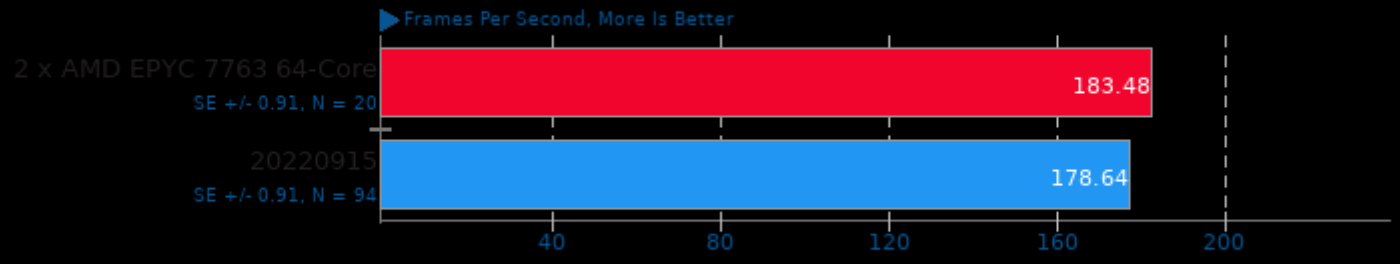
Video Input: Bosphorus 4K



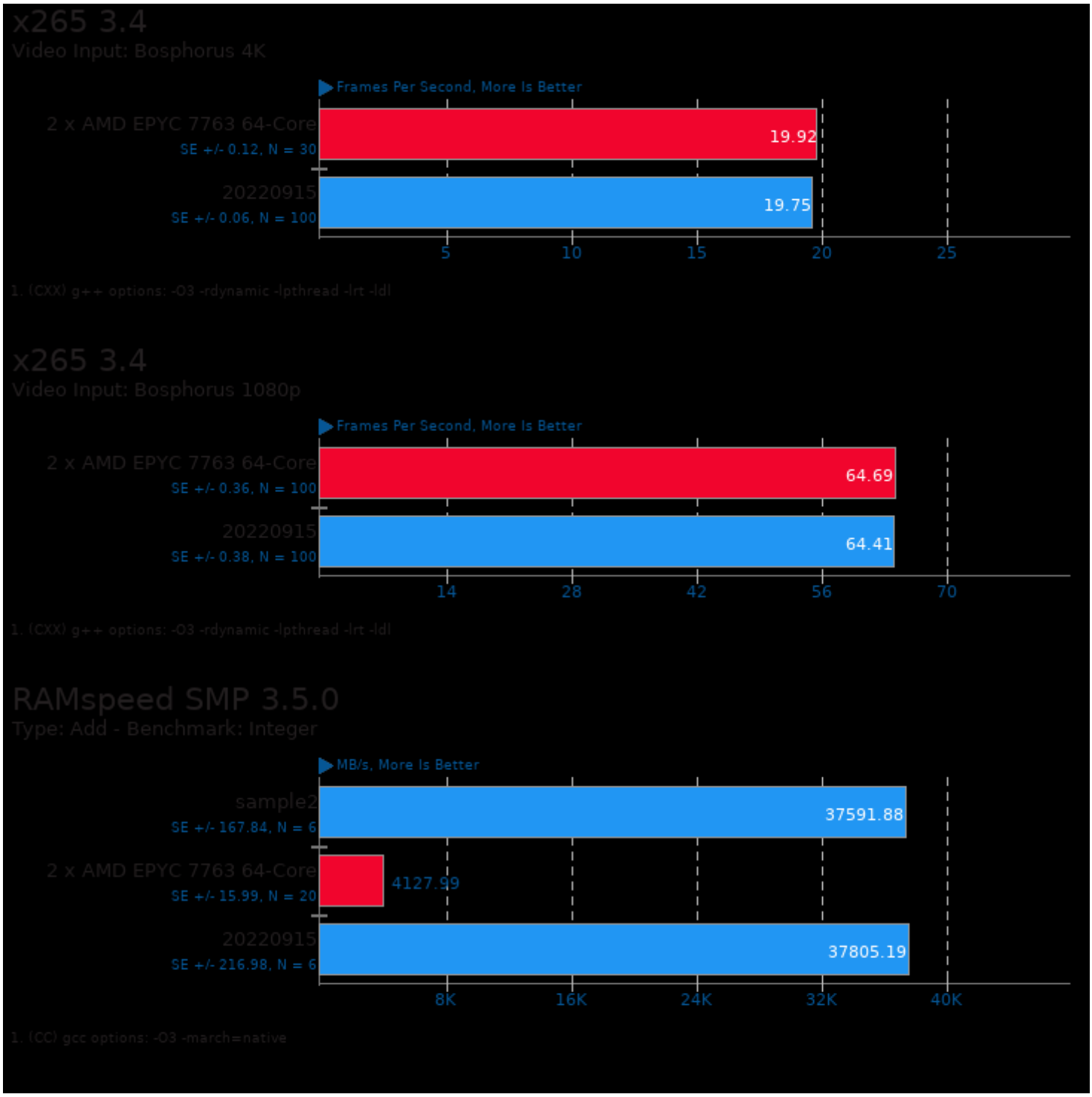

1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto

## x264 2022-02-22

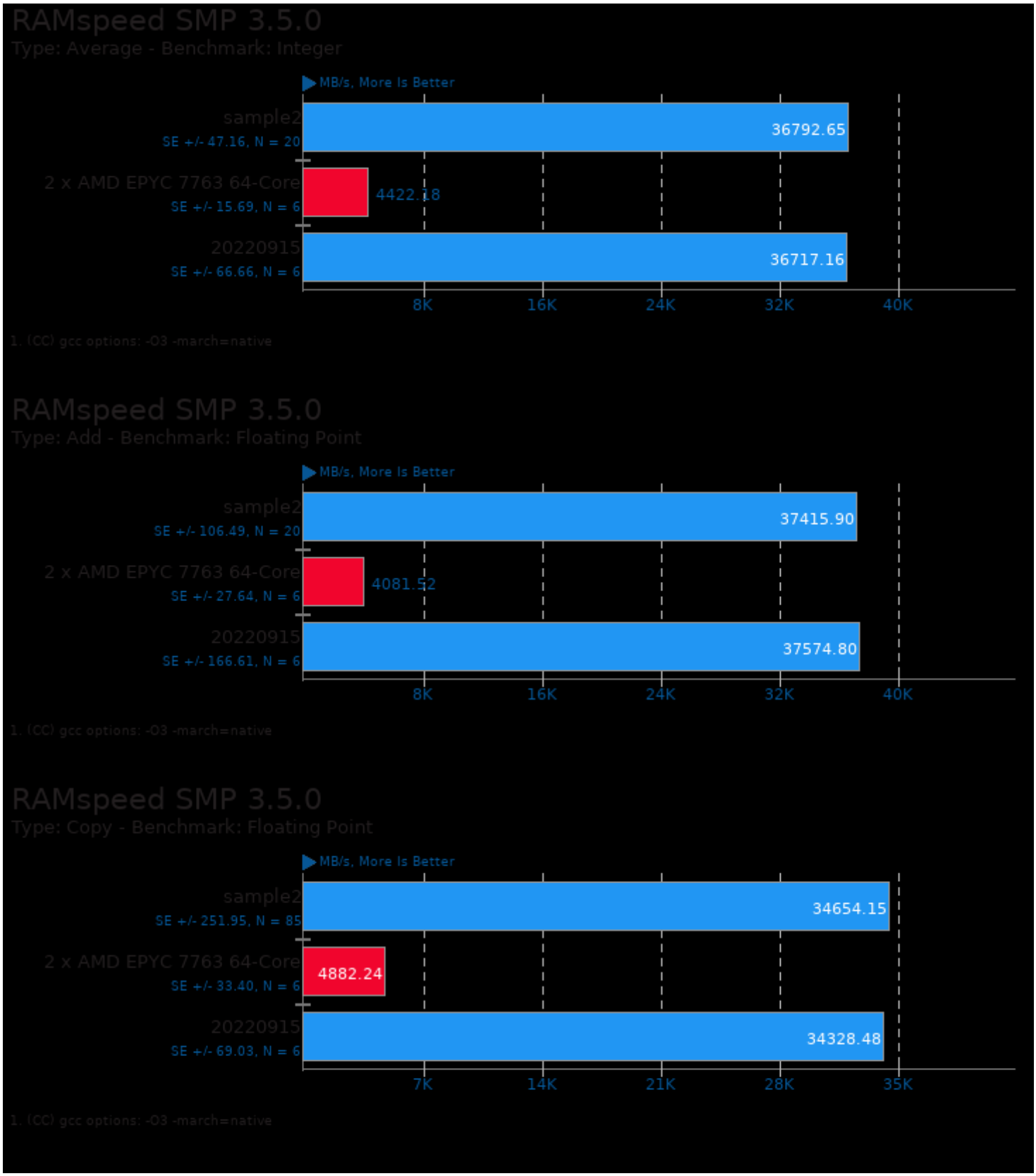
Video Input: Bosphorus 1080p

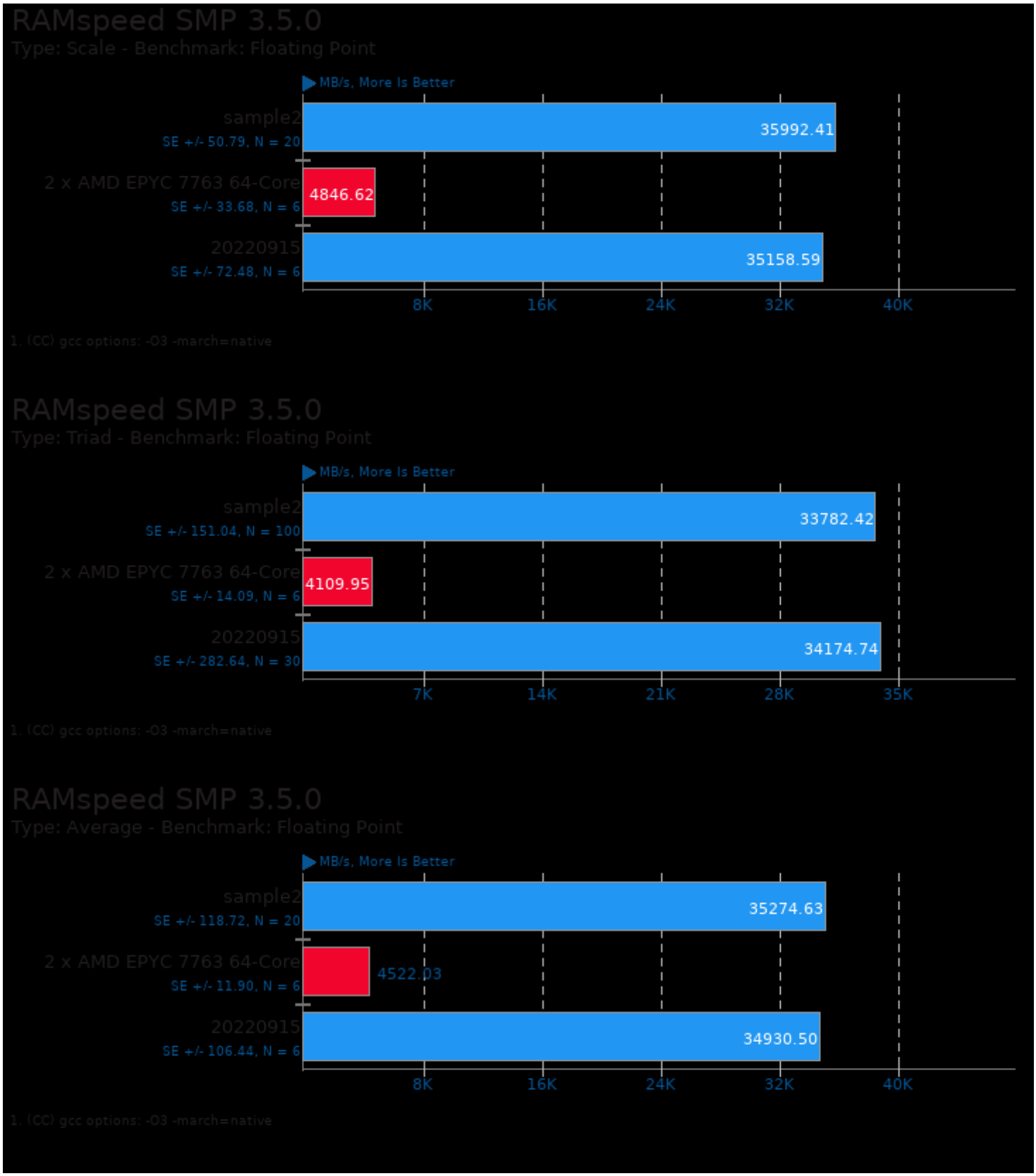



1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto


x265 3.4
Video Input: Bosphorus 4K
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.12, N = 30
19.92
20220915
SE +/- 0.06, N = 100
19.75
5
10
15
20
25
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl
x265 3.4
Video Input: Bosphorus 1080p
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.36, N = 100
64.69
20220915
SE +/- 0.38, N = 100
64.41
14
28
42
56
70
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl
RAMspeed SMP 3.5.0
Type: Add - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 167.84, N = 6
37591.88
2 x AMD EPYC 7763 64-Core
SE +/- 15.99, N = 20
4127.99
20220915
SE +/- 216.98, N = 6
37805.19
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native

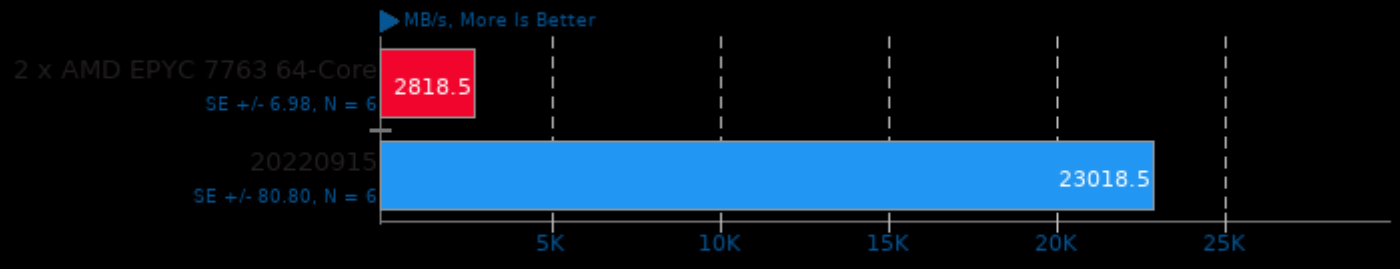

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 32.39, N = 20
34464.94
2 x AMD EPYC 7763 64-Core
SE +/- 12.77, N = 20
4941.66
20220915
SE +/- 72.73, N = 6
34658.70
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 48.92, N = 20
38063.72
2 x AMD EPYC 7763 64-Core
SE +/- 11.71, N = 6
4720.92
20220915
SE +/- 154.11, N = 6
37730.27
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 127.33, N = 20
36938.19
2 x AMD EPYC 7763 64-Core
SE +/- 31.20, N = 6
4062.91
20220915
SE +/- 291.15, N = 6
36839.12
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native


RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 47.16, N = 20
36792.65
2 x AMD EPYC 7763 64-Core
SE +/- 15.69, N = 6
4422.18
20220915
SE +/- 66.66, N = 6
36717.16
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Add - Benchmark: Floating Point
MB/s, More Is Better
sample2
SE +/- 106.49, N = 20
37415.90
2 x AMD EPYC 7763 64-Core
SE +/- 27.64, N = 6
4081.52
20220915
SE +/- 166.61, N = 6
37574.80
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Floating Point
MB/s, More Is Better
sample2
SE +/- 251.95, N = 85
34654.15
2 x AMD EPYC 7763 64-Core
SE +/- 33.40, N = 6
4882.24
20220915
SE +/- 69.03, N = 6
34328.48
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native


RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Floating Point
MB/s, More Is Better
sample2
SE +/- 50.79, N = 20
35992.41
2 x AMD EPYC 7763 64-Core
SE +/- 33.68, N = 6
4846.62
20220915
SE +/- 72.48, N = 6
35158.59
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Floating Point
MB/s, More Is Better
sample2
SE +/- 151.04, N = 100
33782.42
2 x AMD EPYC 7763 64-Core
SE +/- 14.09, N = 6
4109.95
20220915
SE +/- 282.64, N = 30
34174.74
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
sample2
SE +/- 118.72, N = 20
35274.63
2 x AMD EPYC 7763 64-Core
SE +/- 11.90, N = 6
4522.03
20220915
SE +/- 106.44, N = 6
34930.50
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native

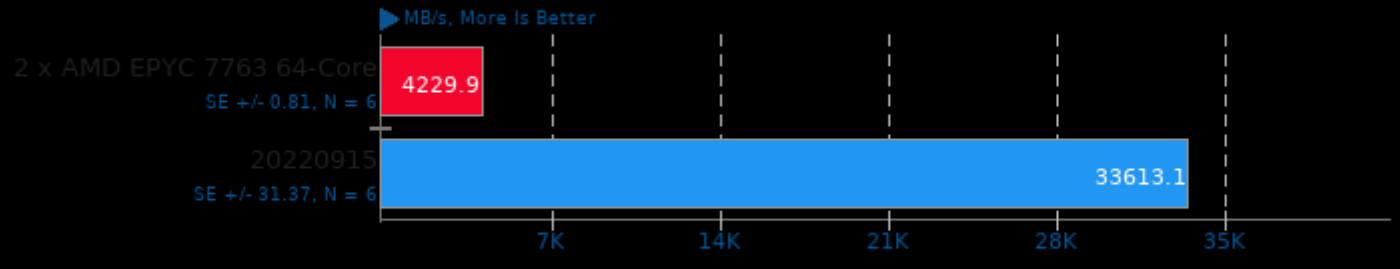
# test1

## Tinymembench 2018-05-28
### Standard Memcpy



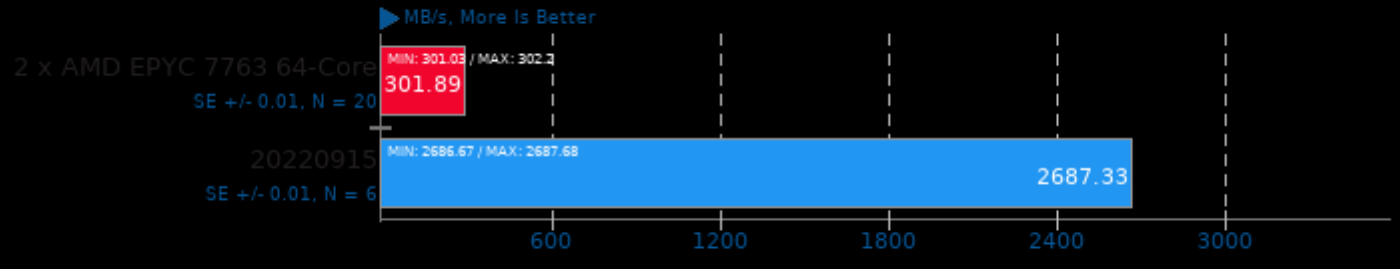

1. (CC) gcc options: -O2 -lm

## Tinymembench 2018-05-28
### Standard Memset



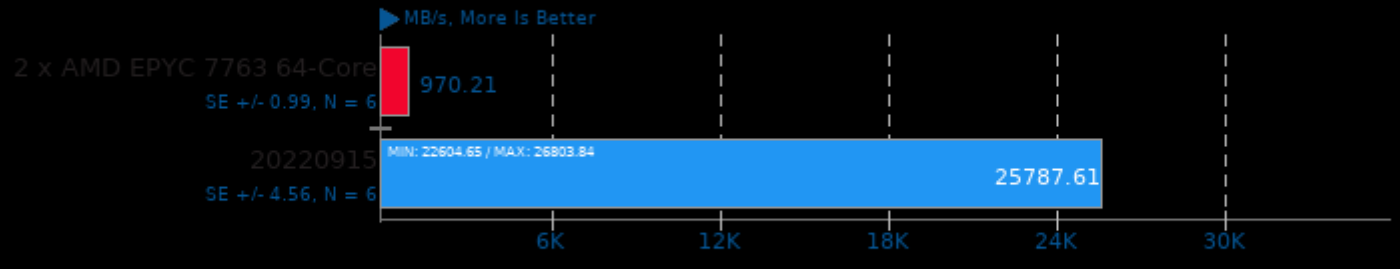

1. (CC) gcc options: -O2 -lm

## CacheBench
### Read Cache



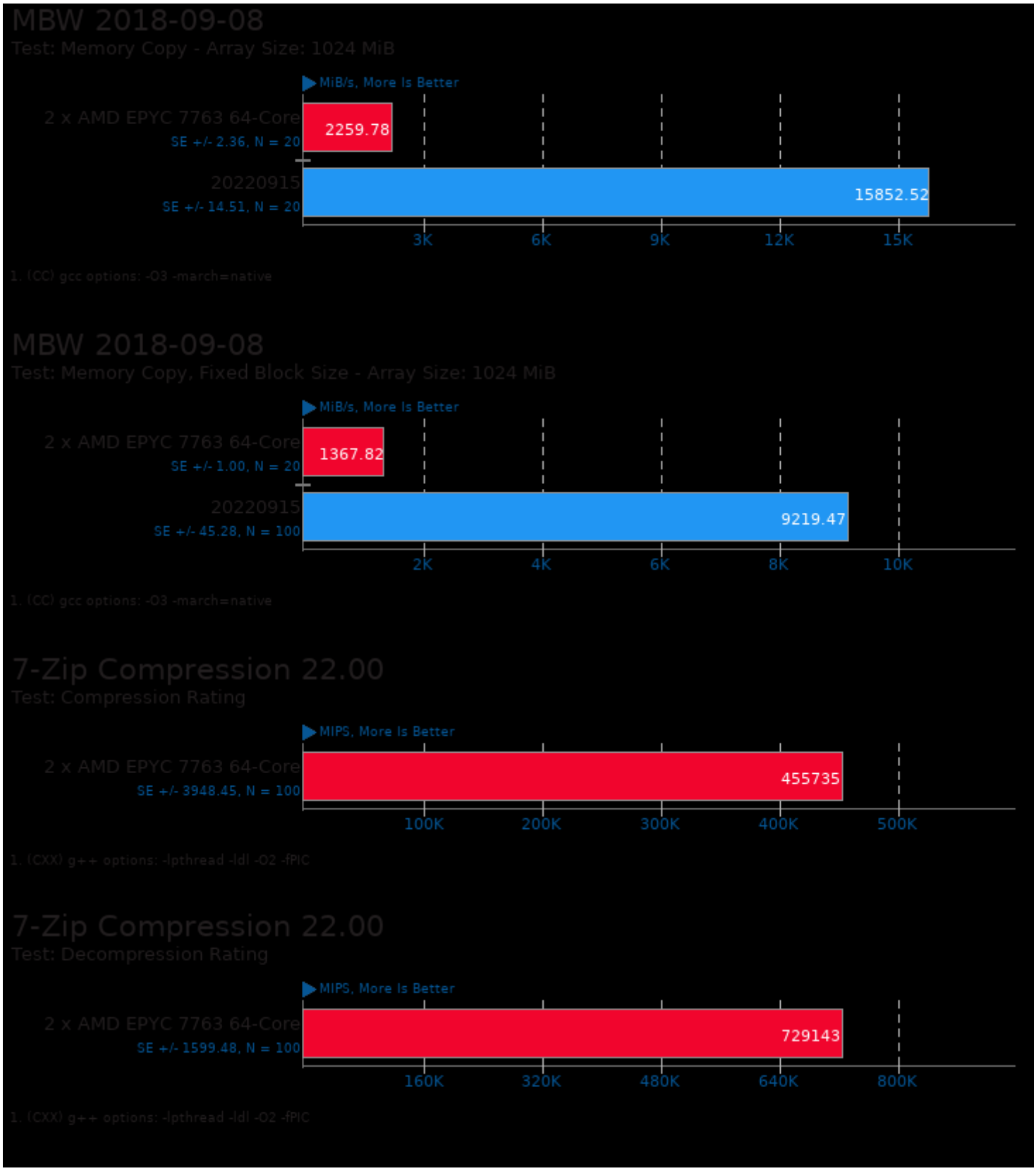

1. (CC) gcc options: -lrt

## CacheBench
### Write Cache




1. (CC) gcc options: -lrt

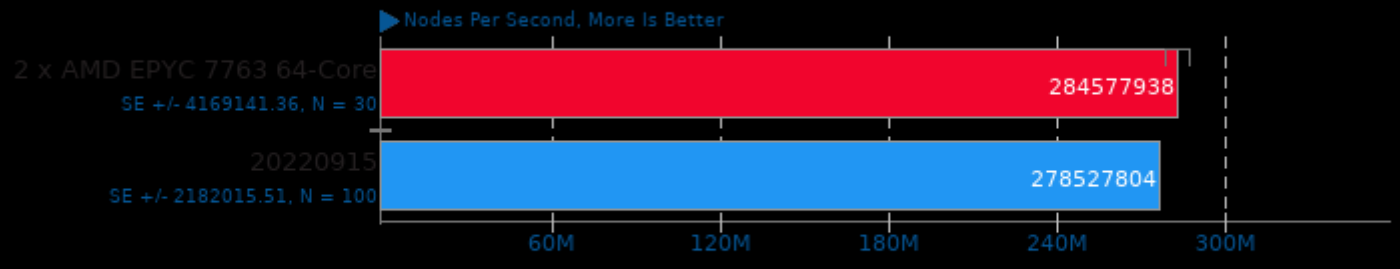
# test1


MBW 2018-09-08
Test: Memory Copy - Array Size: 1024 MiB
MiB/s, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 2.36, N = 20
2259.78
20220915
SE +/- 14.51, N = 20
15852.52
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -march=native
MBW 2018-09-08
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB
MiB/s, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 1.00, N = 20
1367.82
20220915
SE +/- 45.28, N = 100
9219.47
2K
4K
6K
8K
10K
1. (CC) gcc options: -O3 -march=native
7-Zip Compression 22.00
Test: Compression Rating
MIPS, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 3948.45, N = 100
455735
100K
200K
300K
400K
500K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC
7-Zip Compression 22.00
Test: Decompression Rating
MIPS, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 1599.48, N = 100
729143
160K
320K
480K
640K
800K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

# test1

## Stockfish 15

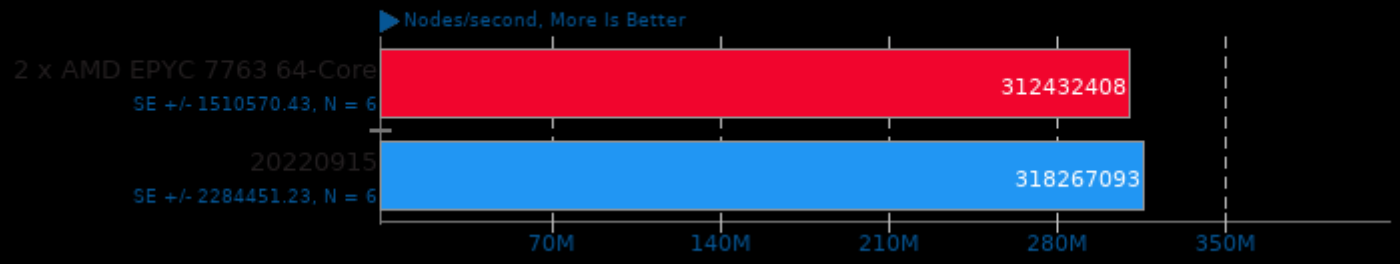
Total Time




1. (CXX) g++ options: -lgcov -m64 -lpthread -fno-exceptions -std=c++17 -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt -mavx2 -msse

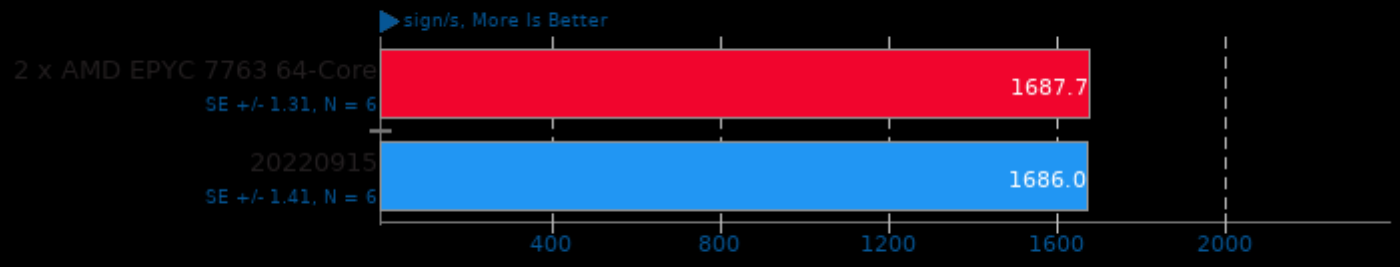
## asmFish 2018-07-23

1024 Hash Memory, 26 Depth




## OpenSSL 3.0

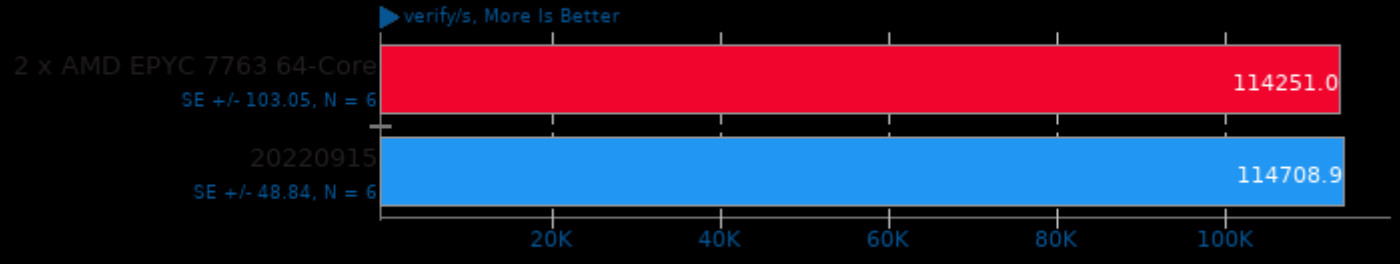
Algorithm: RSA4096




1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

## OpenSSL 3.0

Algorithm: RSA4096

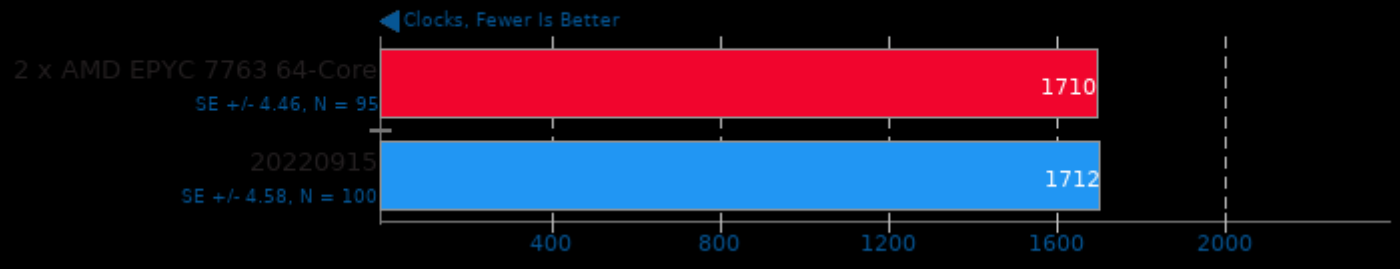



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

# test1

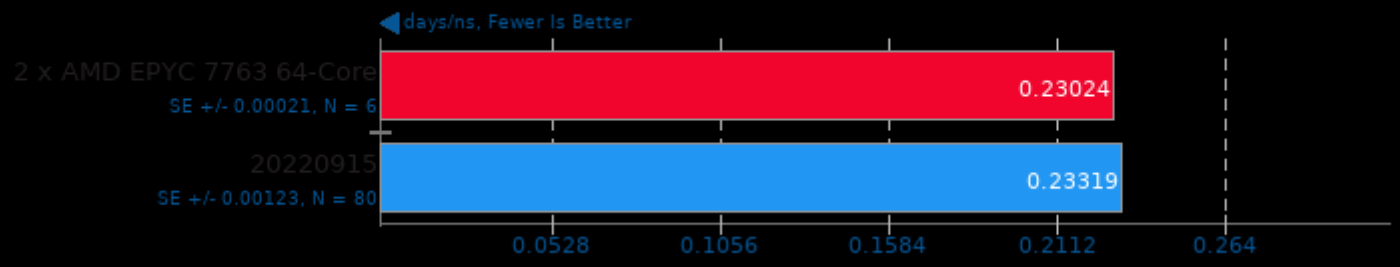
## ctx_clock

Context Switch Time



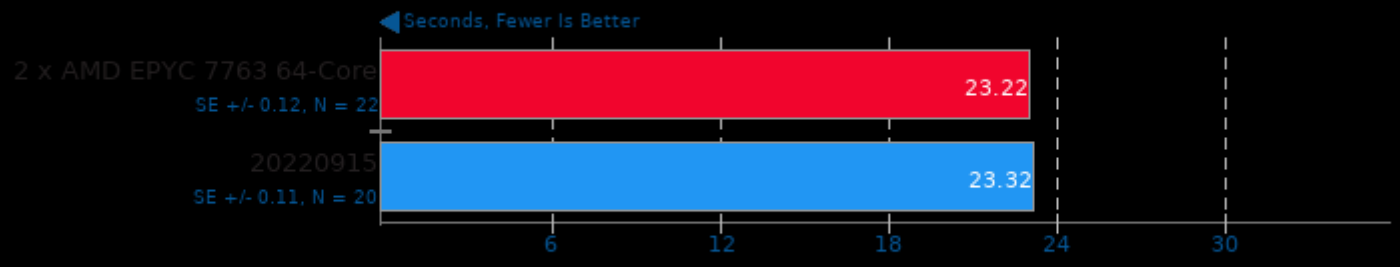

## NAMD 2.14

ATPase Simulation - 327,506 Atoms




## Rodinia 3.1

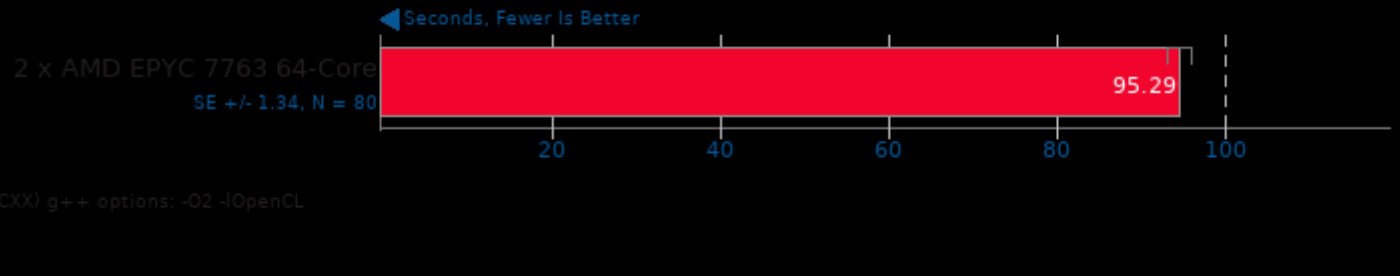
Test: OpenMP LavaMD



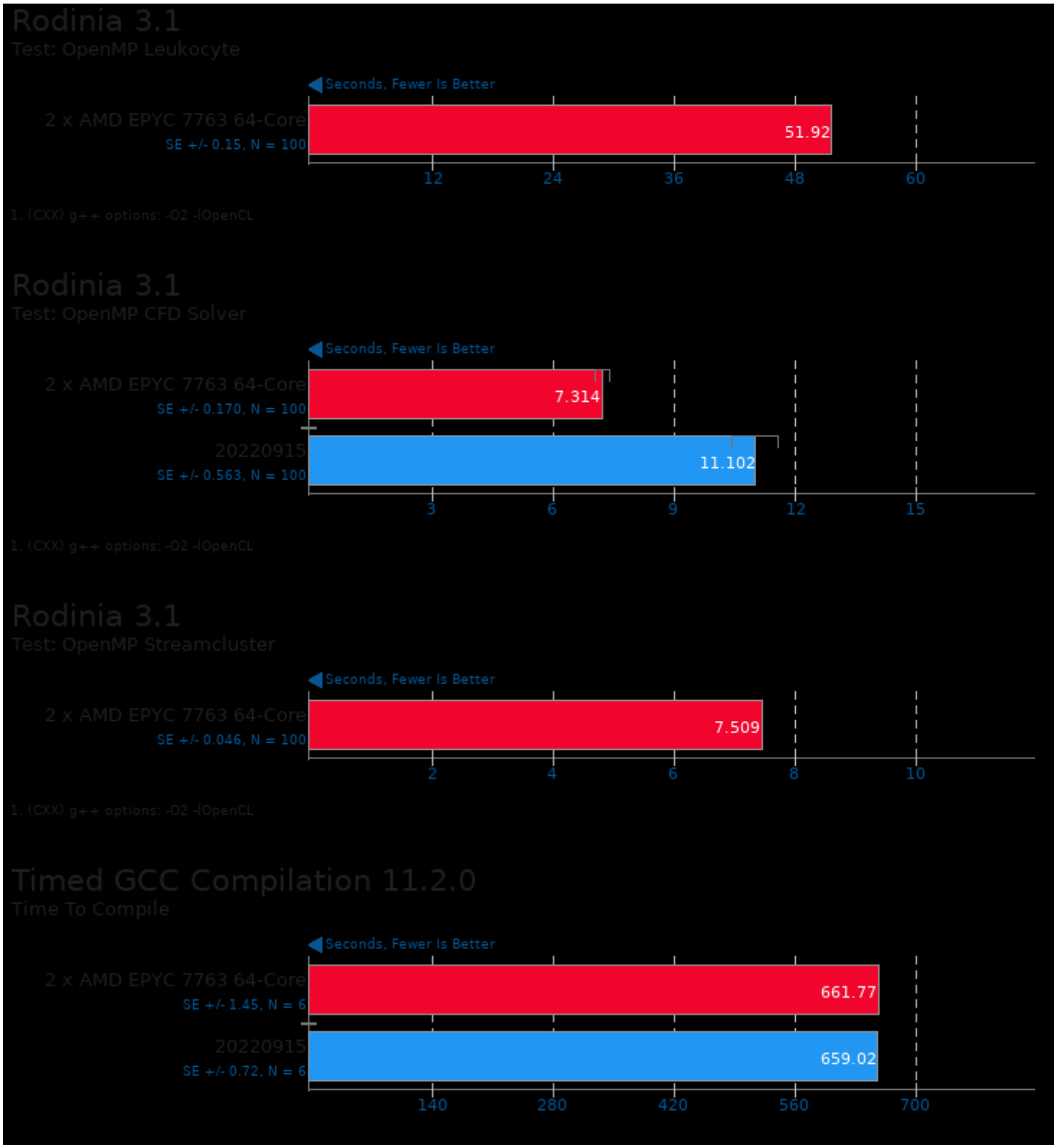

1. (CXX) g++ options: -O2 -lOpenCL

## Rodinia 3.1

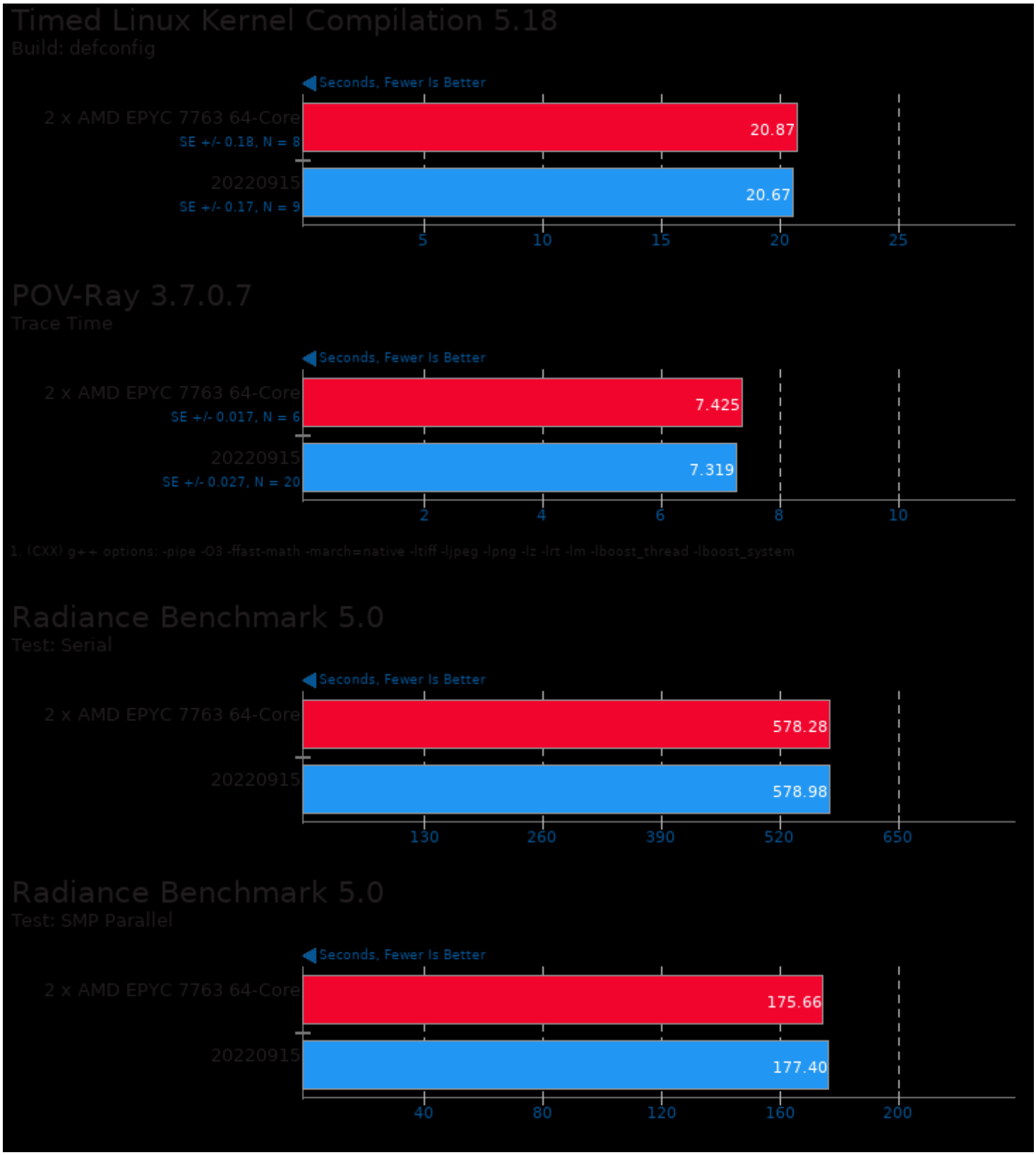
Test: OpenMP HotSpot3D



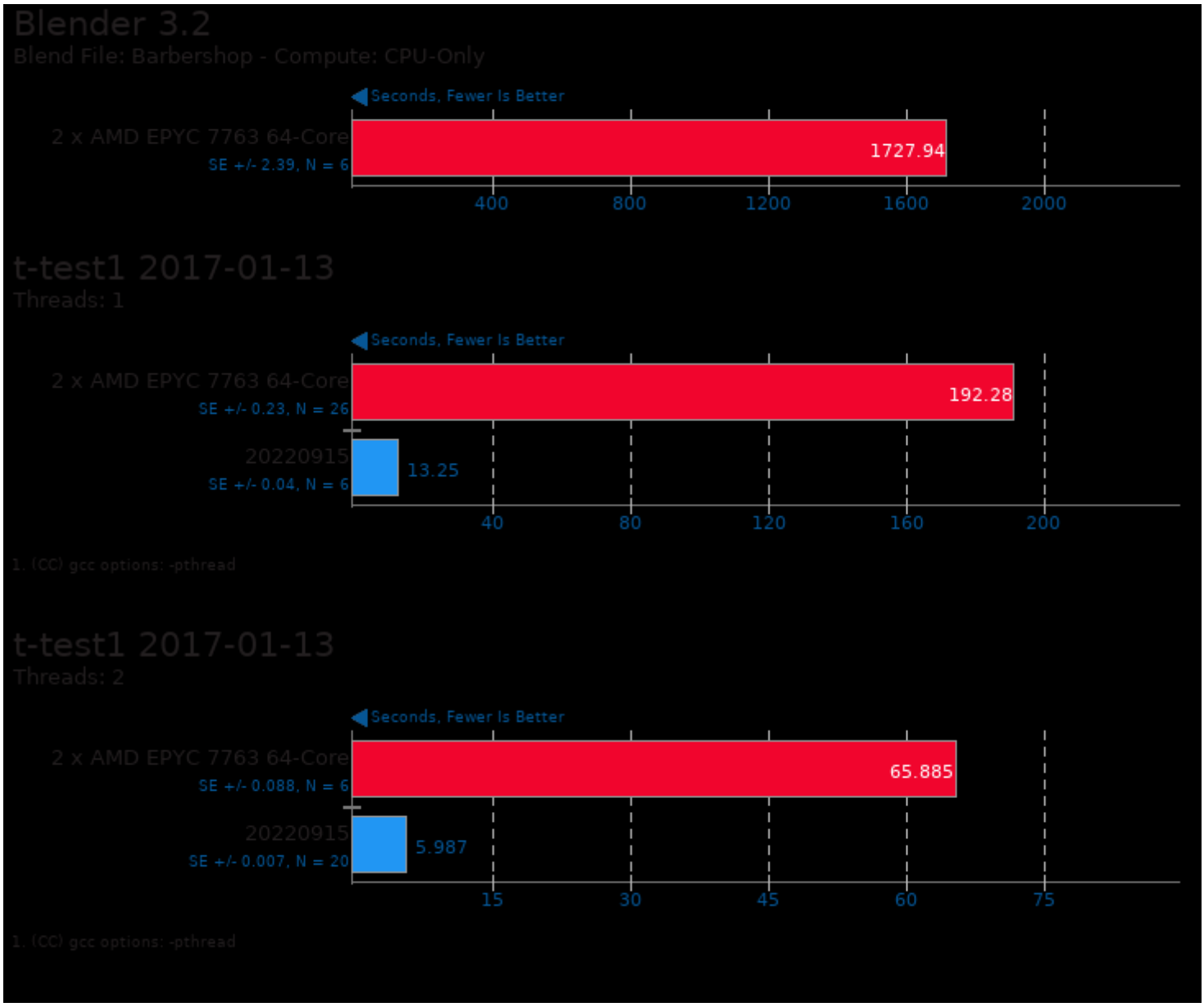

1. (CXX) g++ options: -O2 -lOpenCL


Rodinia 3.1
Test: OpenMP Leukocyte
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.15, N = 100
51.92
12
24
36
48
60
1. (CXX) g++ options: -O2 -lOpenCL
Rodinia 3.1
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.170, N = 100
7.314
20220915
SE +/- 0.563, N = 100
11.102
3
6
9
12
15
1. (CXX) g++ options: -O2 -lOpenCL
Rodinia 3.1
Test: OpenMP Streamcluster
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.046, N = 100
7.509
2
4
6
8
10
1. (CXX) g++ options: -O2 -lOpenCL
Timed GCC Compilation 11.2.0
Time To Compile
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 1.45, N = 6
661.77
20220915
SE +/- 0.72, N = 6
659.02
140
280
420
560
700

# test1


Timed Linux Kernel Compilation 5.18
Build: defconfig
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.18, N = 8
20.87
20220915
SE +/- 0.17, N = 9
20.67
5
10
15
20
25
POV-Ray 3.7.0.7
Trace Time
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.017, N = 6
7.425
20220915
SE +/- 0.027, N = 20
7.319
2
4
6
8
10
1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system
Radiance Benchmark 5.0
Test: Serial
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
578.28
20220915
578.98
130
260
390
520
650
Radiance Benchmark 5.0
Test: SMP Parallel
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
175.66
20220915
177.40
40
80
120
160
200

# test1




*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 10:45.*