

www.phoronix-test-suite.com

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
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%	
Rodinia - O.S (sec)		7.509			
Standard Deviation		6.2%			
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)		**0.23453**		0.23319	
Normalized		98.17%		98.73%	
Standard Deviation		4.9%		4.7%	
Stockfish - Total Time (Nodes/s)		**282471669**		**278527804**	
Normalized		99.26%		97.87%	
Standard Deviation		7.5%		7.8%	
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%	

test1

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%
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

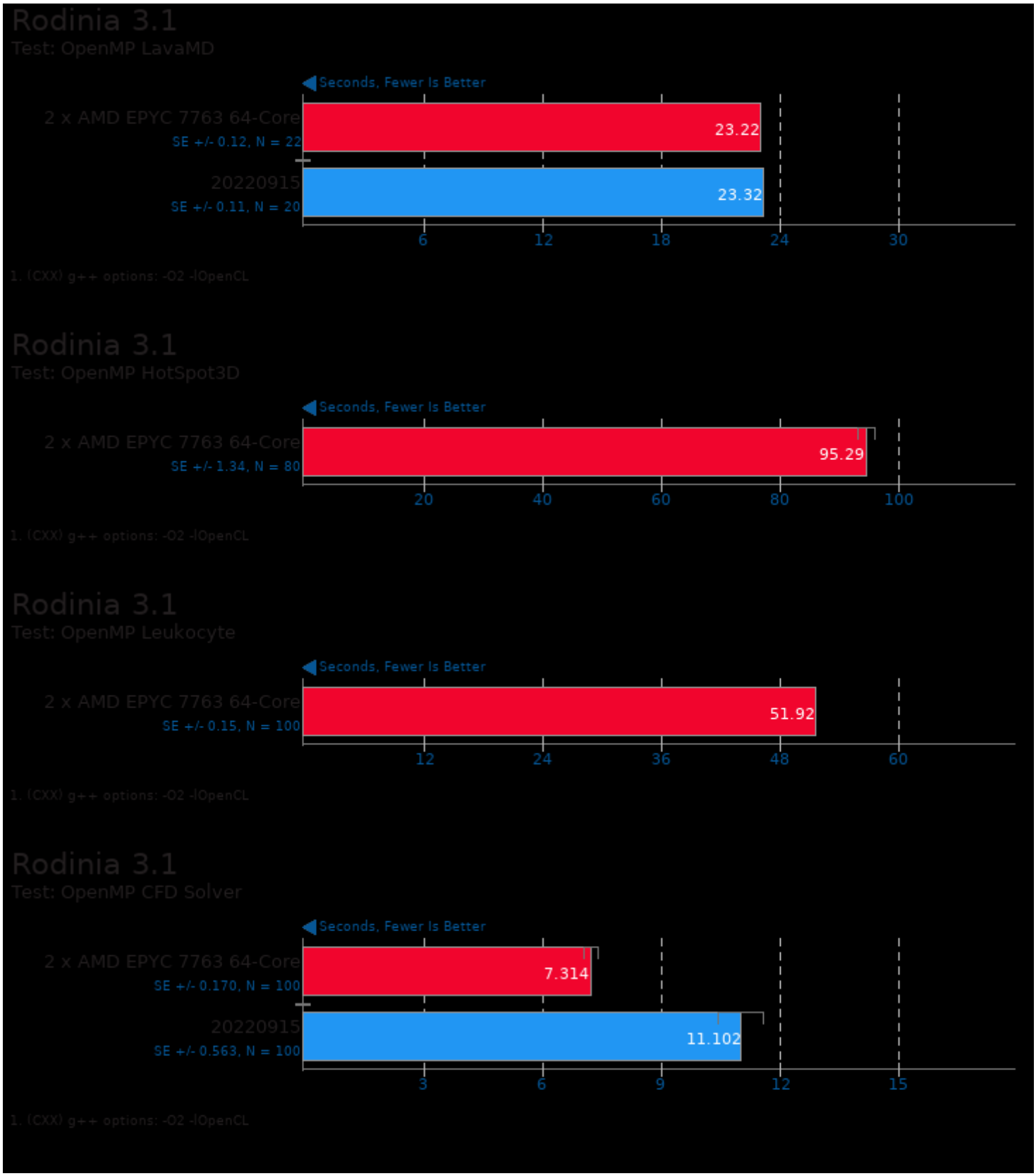
test1

Normalized	99.49%	100%
Standard Deviation	3.3%	7.3%
x264 - Bosphorus 1080p (FPS)	**183.48**	**178.64**
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%
7-Zip Compression - Compression Rating (MIPS)	455735	
Standard Deviation	8.7%	
7-Zip Compression - D.R (MIPS)	729143	
Standard Deviation	2.2%	
asmFish - 1.H.M.2.D (Nodes/s)	**312432408**	**318267093**
Normalized	98.17%	100%
Standard Deviation	1.2%	1.8%
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%
OpenSSL - SHA256 (byte/s)	**21738592173**	**33832132286**
Normalized	64.25%	100%
Standard Deviation	166.6%	136.1%
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%
Blender - Barbershop - CPU-Only (sec)	1728	
Standard Deviation	0.3%	
ctx_clock - C.S.T (Clocks)	**1710**	**1712**
Normalized	100%	99.88%
Standard Deviation	2.5%	2.7%
Sysbench - CPU (Events/sec)	**47412**	**47424**
Normalized	99.97%	100%
Standard Deviation	0.4%	0.3%

test1

Tinymembench - Standard Memcpy (MB/s)	**2819**	**23019**
Normalized	12.24%	100%
Standard Deviation	0.6%	0.9%
Tinymembench - Standard Memset (MB/s)	**4230**	**33613**
Normalized	12.58%	100%
Standard Deviation	0%	0.2%
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%
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%
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%

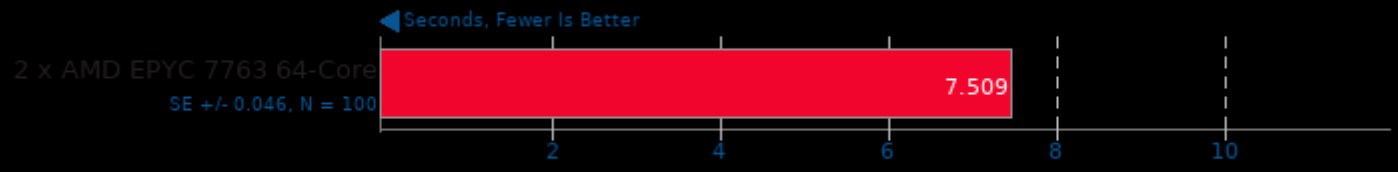
test1


Rodinia 3.1
Test: OpenMP LavaMD
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.12, N = 22
23.22
20220915
SE +/- 0.11, N = 20
23.32
6
12
18
24
30
1. (CXX) g++ options: -O2 -lOpenCL
Rodinia 3.1
Test: OpenMP HotSpot3D
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 1.34, N = 80
95.29
20
40
60
80
100
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

test1

Rodinia 3.1

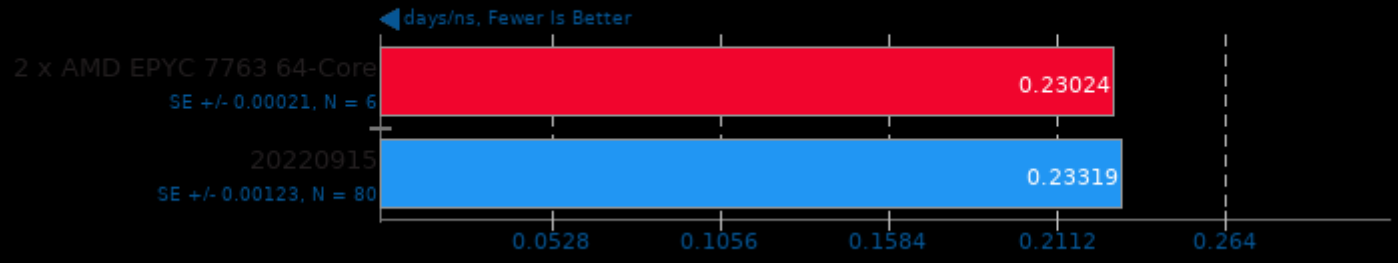
Test: OpenMP Streamcluster



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

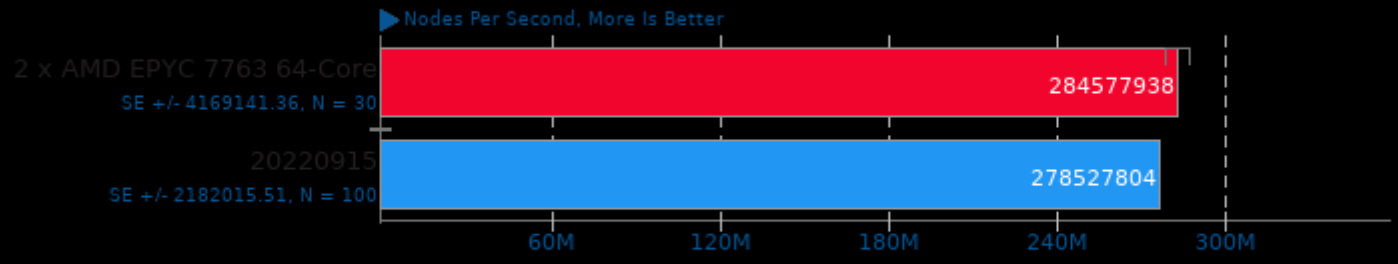
NAMD 2.14

ATPase Simulation - 327,506 Atoms



Stockfish 15

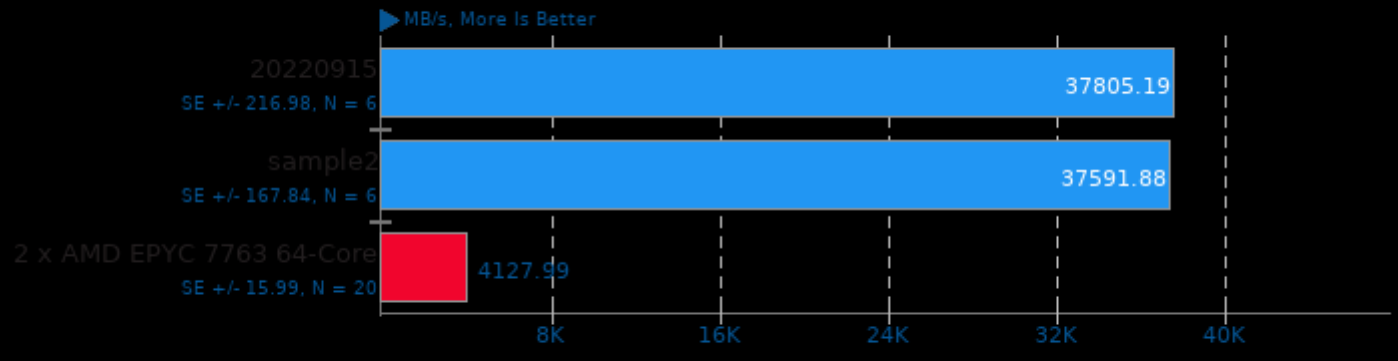
Total Time



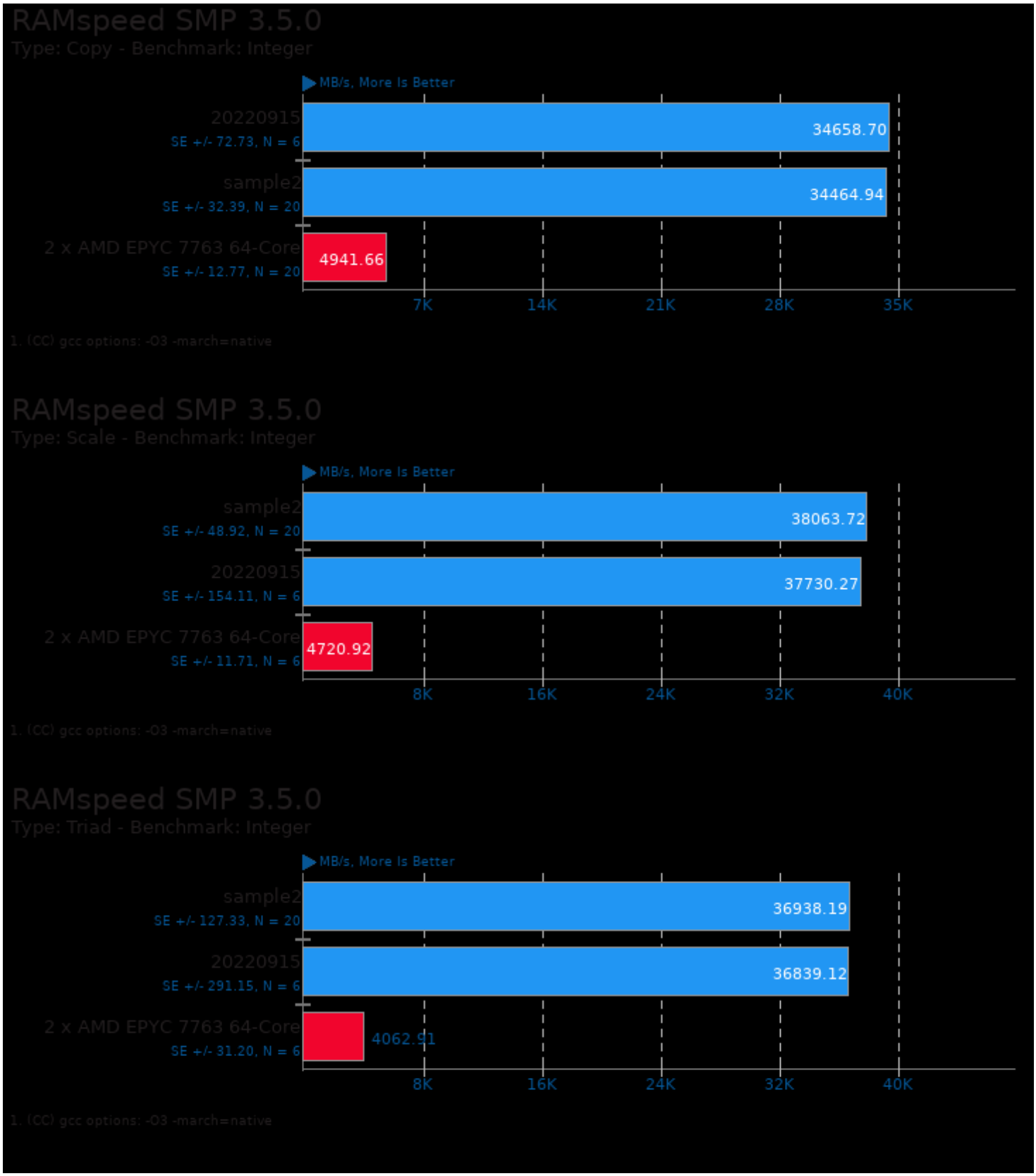
1. (CXX) g++ options: -lgcov -m64 -lpthread -fno-exceptions -std=c++17 -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt -mavx2 -msse

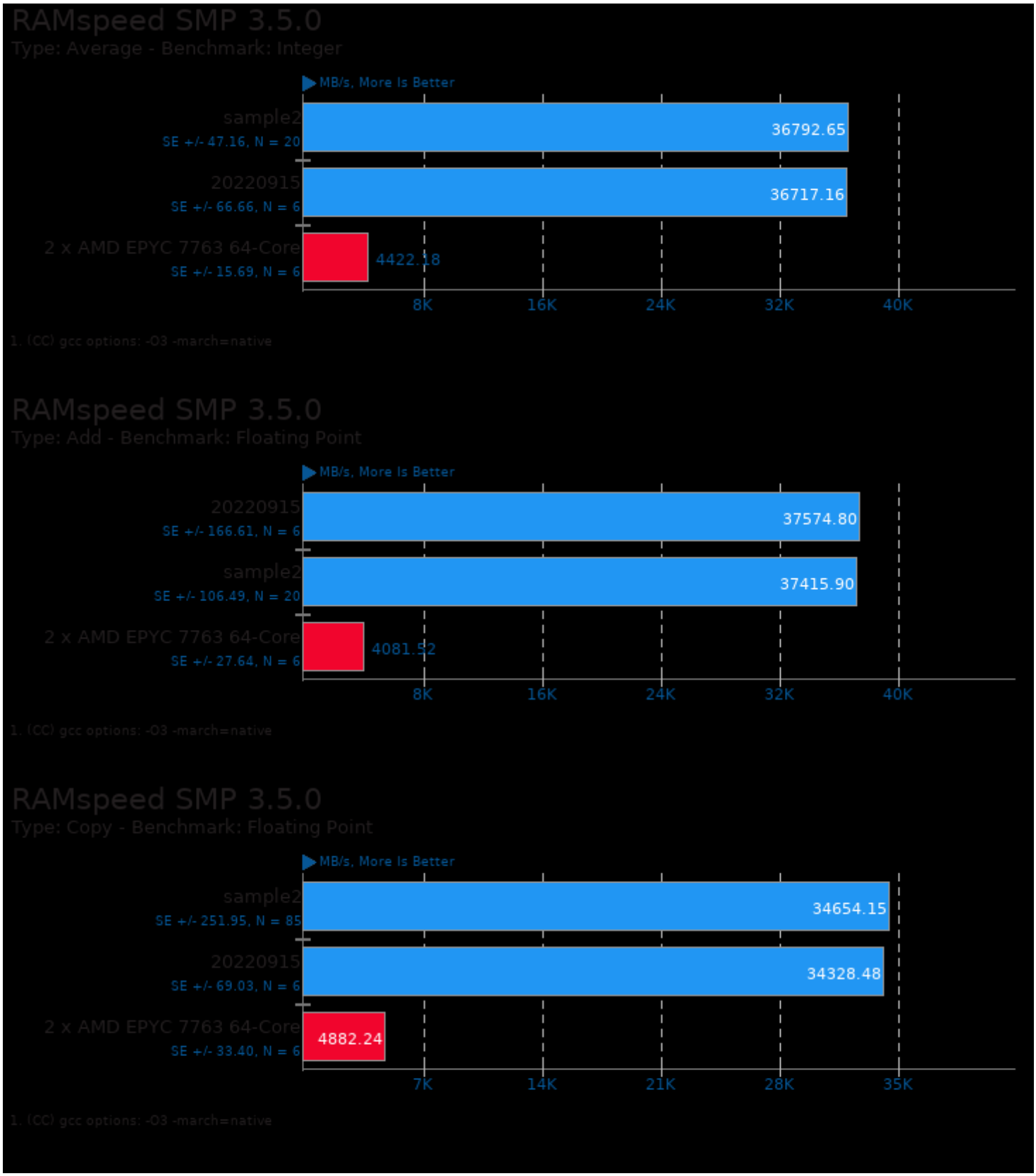
RAMspeed SMP 3.5.0

Type: Add - Benchmark: Integer

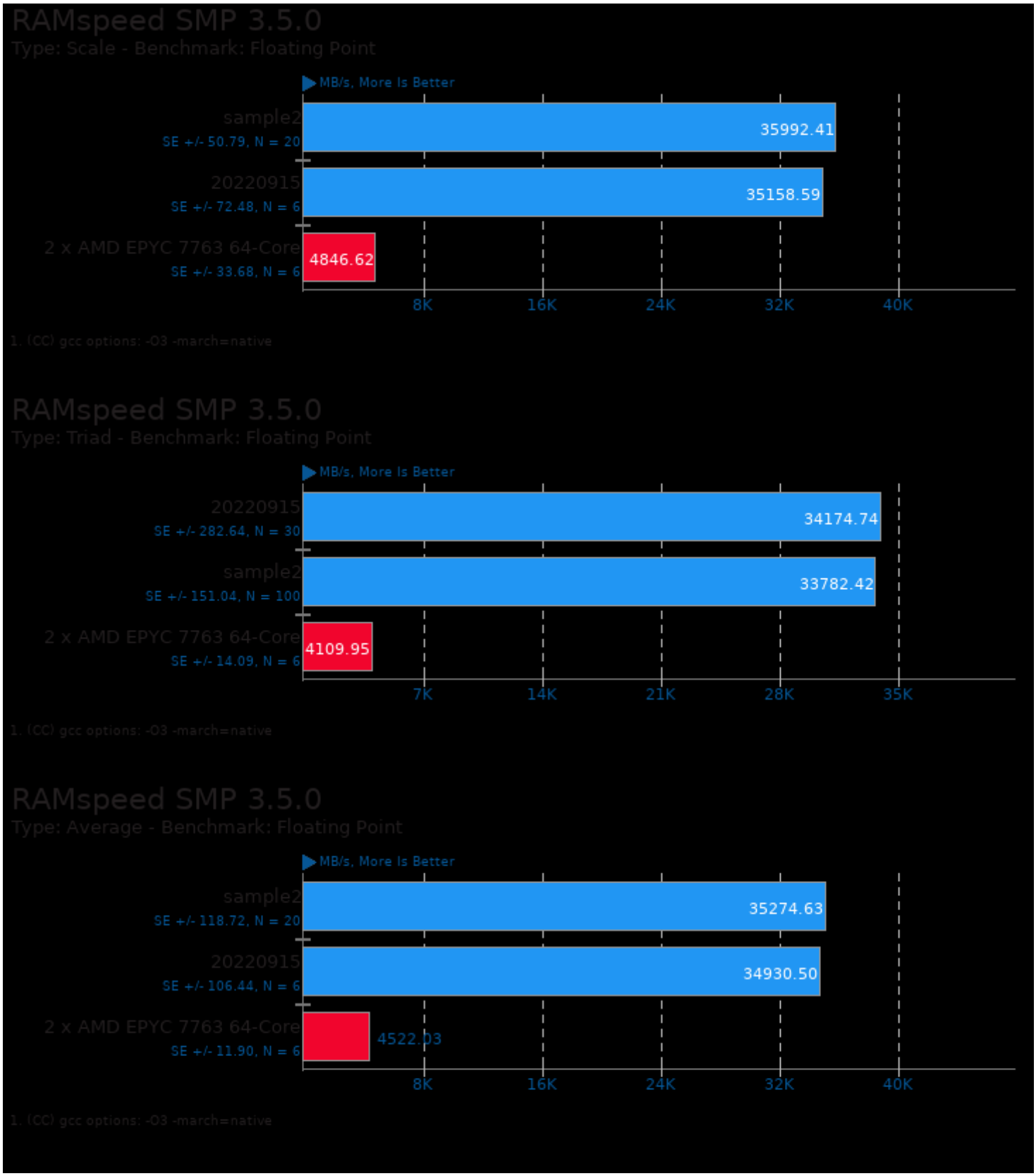


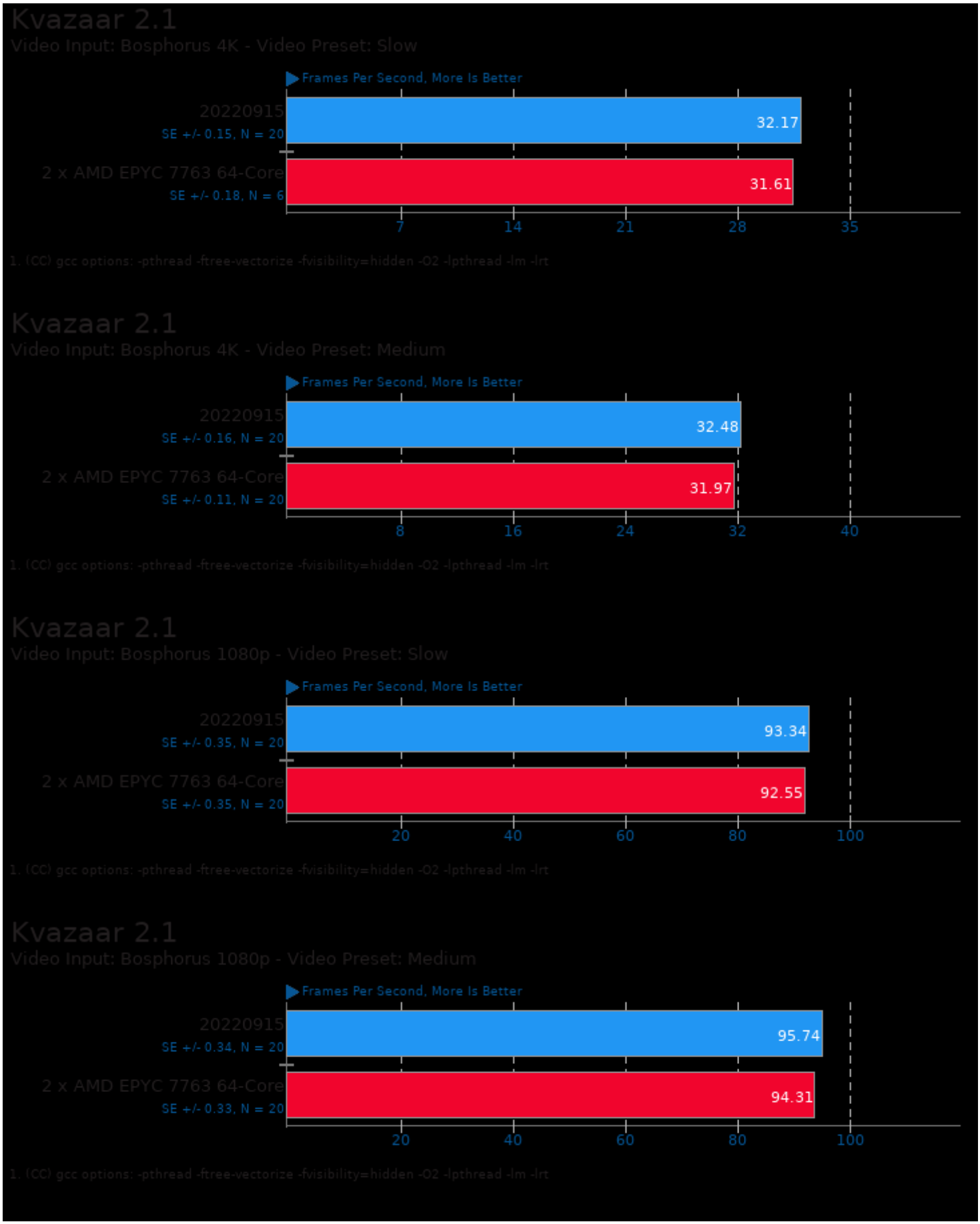
1. (CC) gcc options: -O3 -march=native

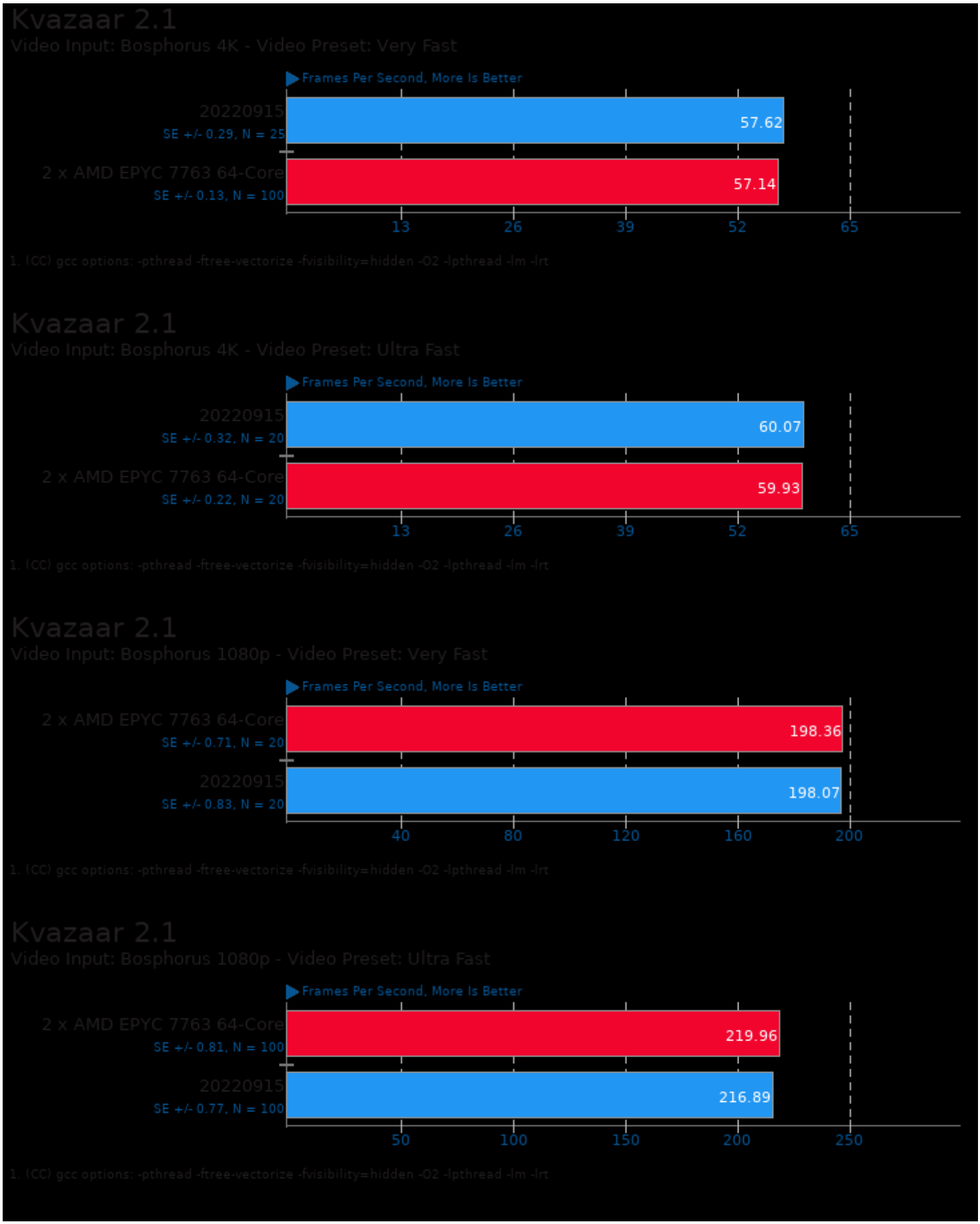

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer
MB/s, More Is Better
20220915
SE +/- 72.73, N = 6
34658.70
sample2
SE +/- 32.39, N = 20
34464.94
2 x AMD EPYC 7763 64-Core
SE +/- 12.77, N = 20
4941.66
7K
14K
21K
28K
35K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Scale - Benchmark: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

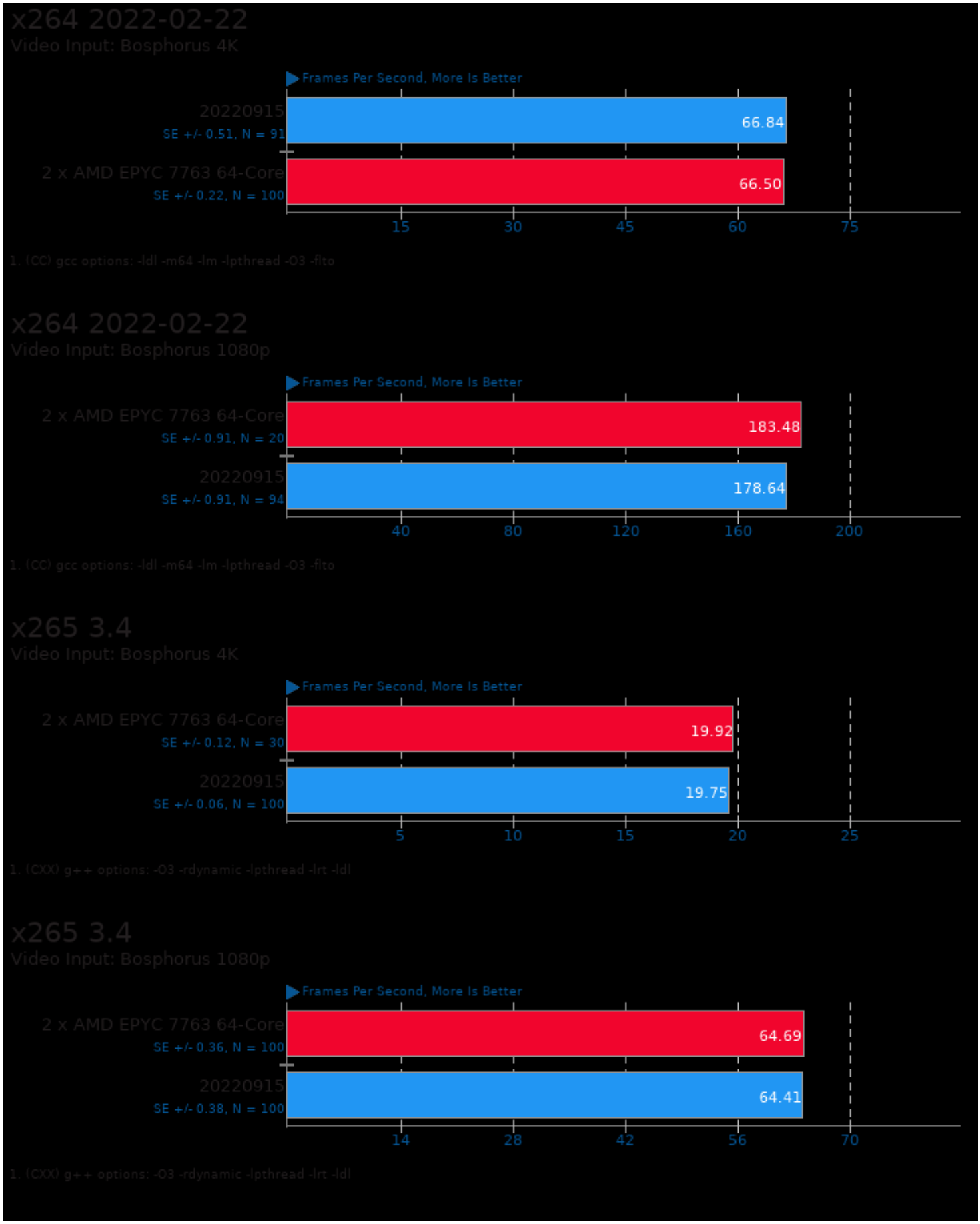

RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
sample2
SE +/- 47.16, N = 20
36792.65
20220915
SE +/- 66.66, N = 6
36717.16
2 x AMD EPYC 7763 64-Core
SE +/- 15.69, N = 6
4422.18
8K
16K
24K
32K
40K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Add - Benchmark: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

test1


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


Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Slow
Frames Per Second, More Is Better
20220915
SE +/- 0.15, N = 20
32.17
2 x AMD EPYC 7763 64-Core
SE +/- 0.18, N = 6
31.61
7
14
21
28
35
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Medium
Frames Per Second, More Is Better
20220915
SE +/- 0.16, N = 20
32.48
2 x AMD EPYC 7763 64-Core
SE +/- 0.11, N = 20
31.97
8
16
24
32
40
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
20220915
SE +/- 0.35, N = 20
93.34
2 x AMD EPYC 7763 64-Core
SE +/- 0.35, N = 20
92.55
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
20220915
SE +/- 0.34, N = 20
95.74
2 x AMD EPYC 7763 64-Core
SE +/- 0.33, N = 20
94.31
20
40
60
80
100
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

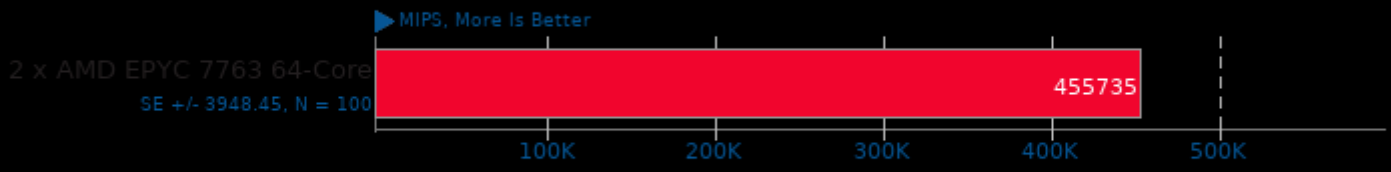

Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Very Fast
Frames Per Second, More Is Better
20220915
SE +/- 0.29, N = 25
57.62
2 x AMD EPYC 7763 64-Core
SE +/- 0.13, N = 100
57.14
13
26
39
52
65
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Ultra Fast
Frames Per Second, More Is Better
20220915
SE +/- 0.32, N = 20
60.07
2 x AMD EPYC 7763 64-Core
SE +/- 0.22, N = 20
59.93
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
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.71, N = 20
198.36
20220915
SE +/- 0.83, N = 20
198.07
40
80
120
160
200
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.81, N = 100
219.96
20220915
SE +/- 0.77, N = 100
216.89
50
100
150
200
250
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt


x264 2022-02-22
Video Input: Bosphorus 4K
Frames Per Second, More Is Better
20220915
SE +/- 0.51, N = 91
66.84
2 x AMD EPYC 7763 64-Core
SE +/- 0.22, N = 100
66.50
15
30
45
60
75
1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto
x264 2022-02-22
Video Input: Bosphorus 1080p
Frames Per Second, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 0.91, N = 20
183.48
20220915
SE +/- 0.91, N = 94
178.64
40
80
120
160
200
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

test1

7-Zip Compression 22.00

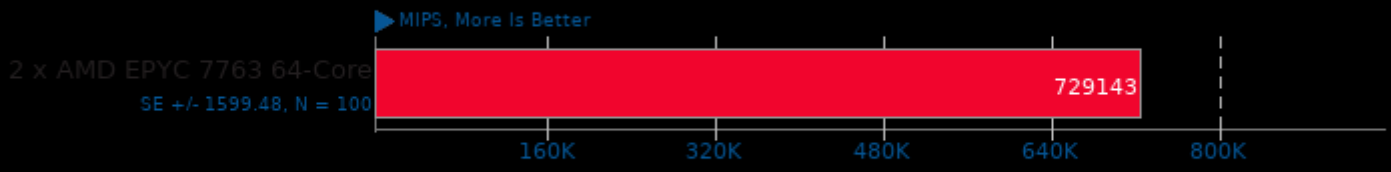
Test: Compression Rating



1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

7-Zip Compression 22.00

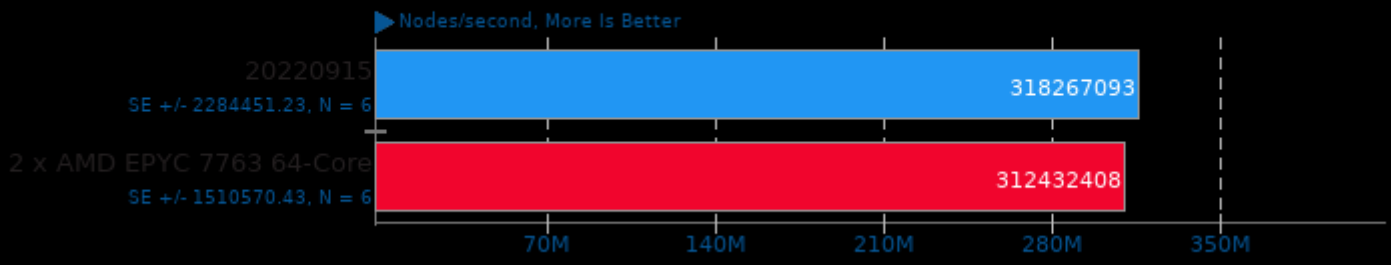
Test: Decompression Rating



1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

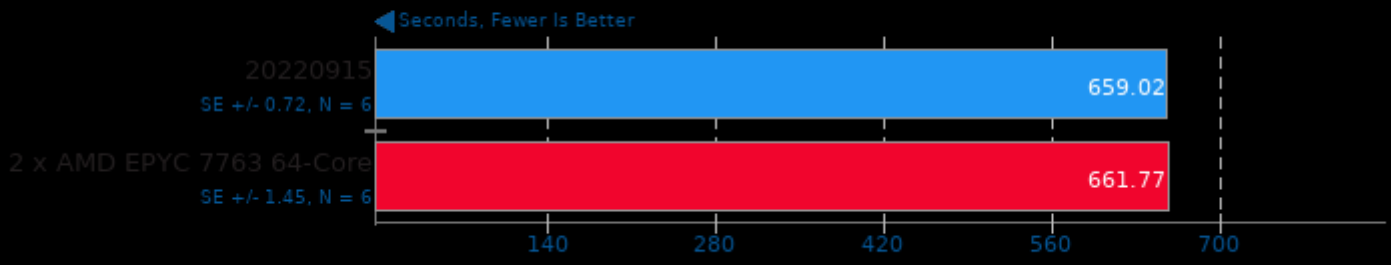
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



Timed GCC Compilation 11.2.0

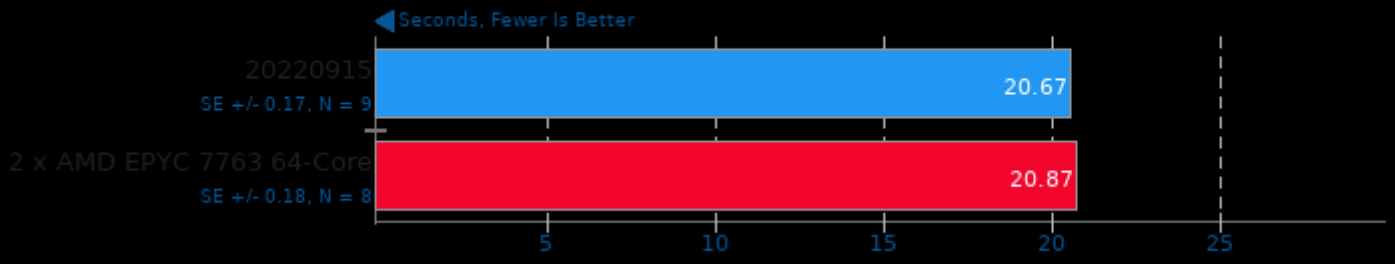
Time To Compile



test1

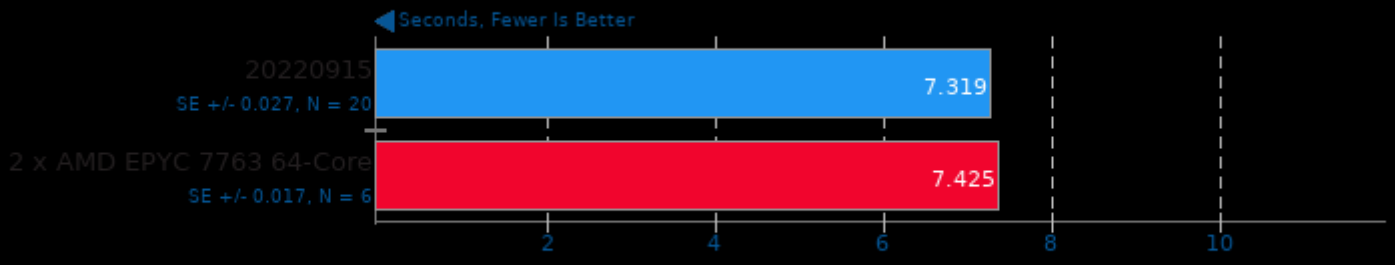
Timed Linux Kernel Compilation 5.18

Build: defconfig



POV-Ray 3.7.0.7

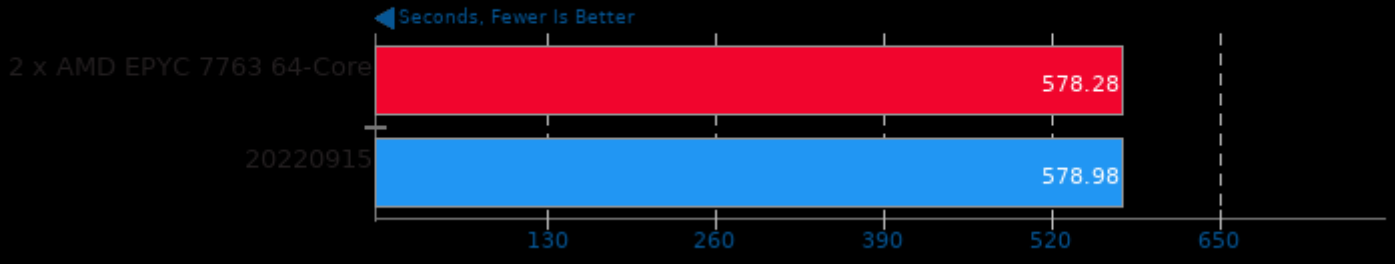
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

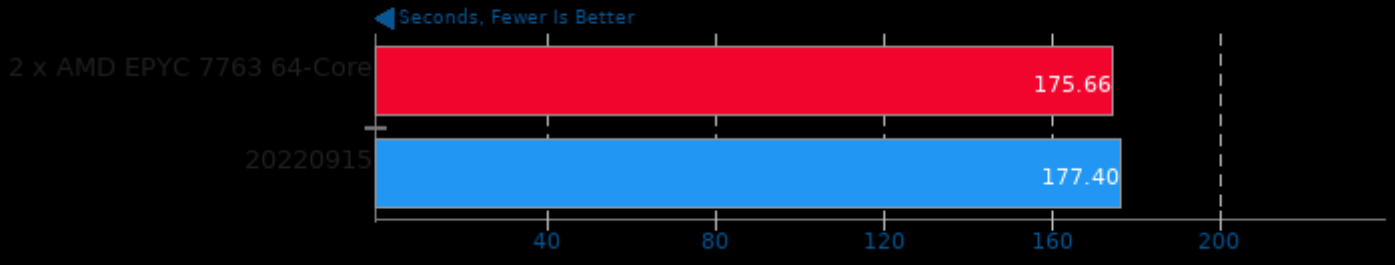
Radiance Benchmark 5.0

Test: Serial

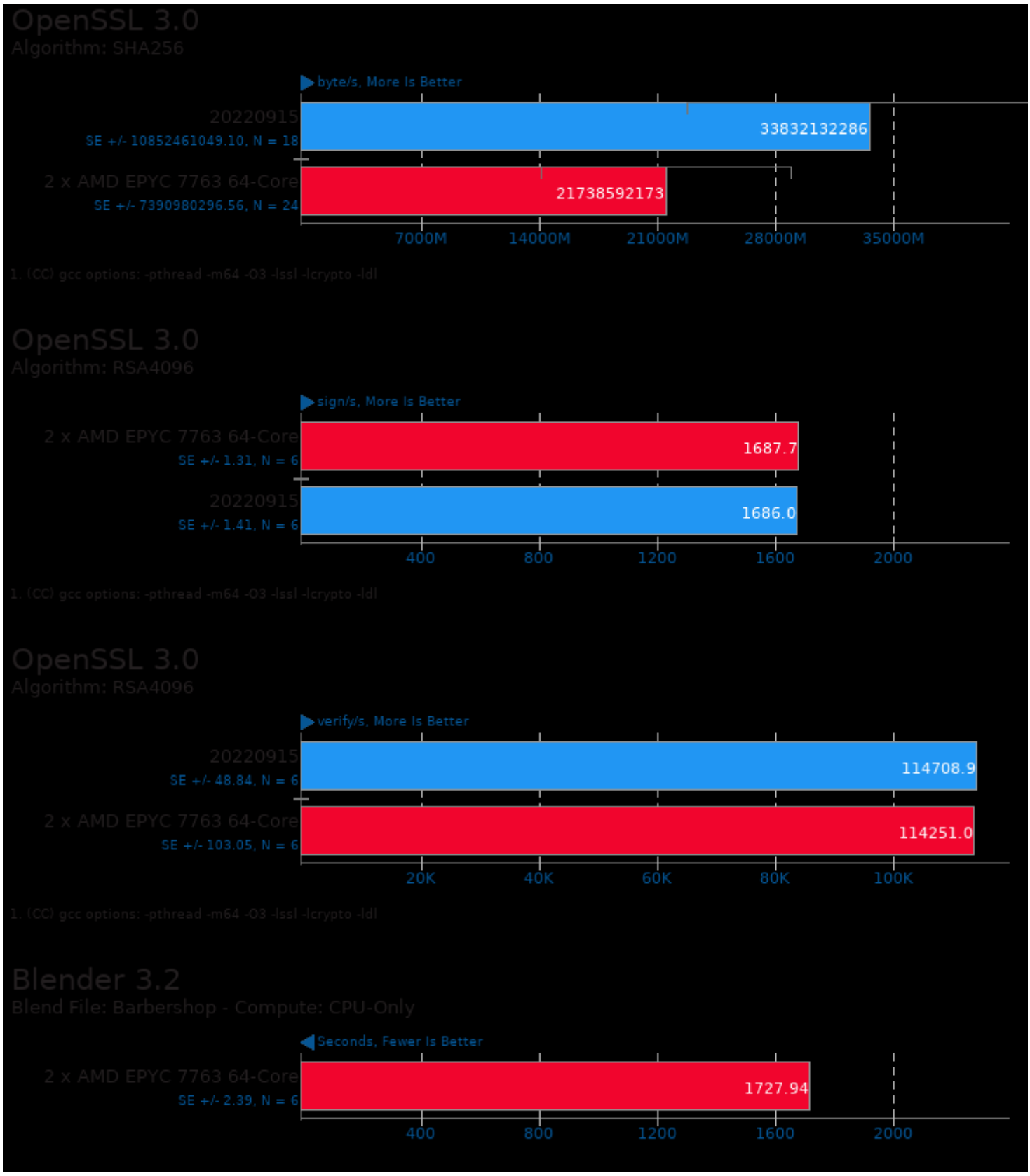


Radiance Benchmark 5.0

Test: SMP Parallel



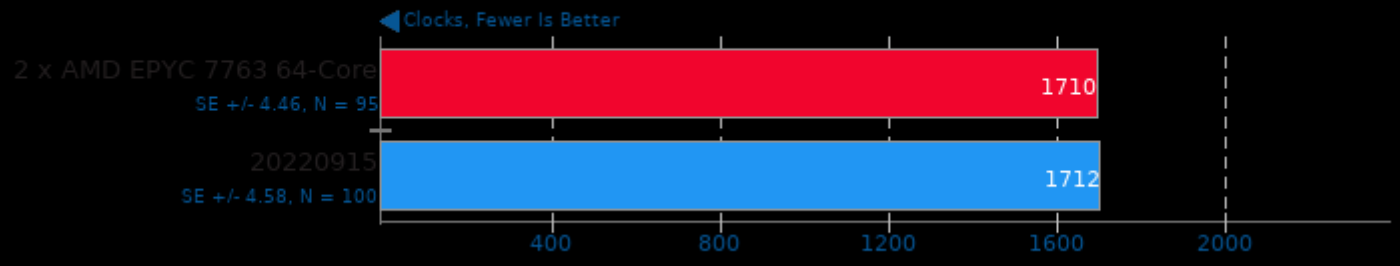
test1


OpenSSL 3.0
Algorithm: SHA256
byte/s, More Is Better
20220915
SE +/- 10852461049.10, N = 18
33832132286
2 x AMD EPYC 7763 64-Core
SE +/- 7390980296.56, N = 24
21738592173
7000M
14000M
21000M
28000M
35000M
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
OpenSSL 3.0
Algorithm: RSA4096
sign/s, More Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 1.31, N = 6
1687.7
20220915
SE +/- 1.41, N = 6
1686.0
400
800
1200
1600
2000
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
OpenSSL 3.0
Algorithm: RSA4096
verify/s, More Is Better
20220915
SE +/- 48.84, N = 6
114708.9
2 x AMD EPYC 7763 64-Core
SE +/- 103.05, N = 6
114251.0
20K
40K
60K
80K
100K
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
Blender 3.2
Blend File: Barbershop - Compute: CPU-Only
Seconds, Fewer Is Better
2 x AMD EPYC 7763 64-Core
SE +/- 2.39, N = 6
1727.94
400
800
1200
1600
2000

test1

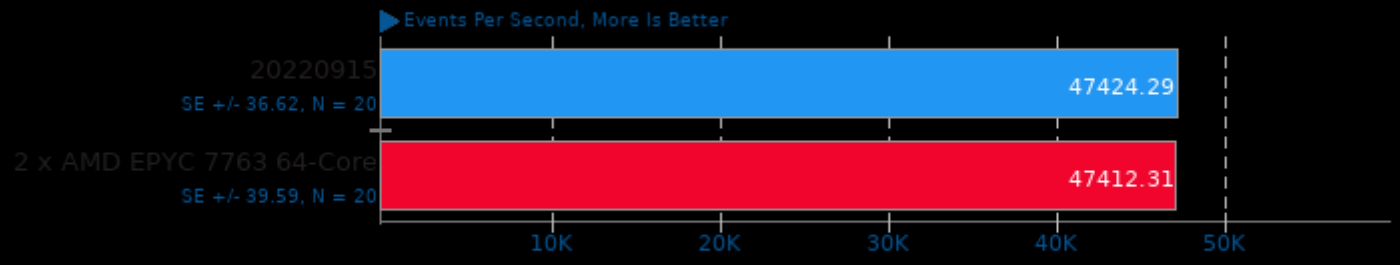
ctx_clock

Context Switch Time



Sysbench 1.0.20

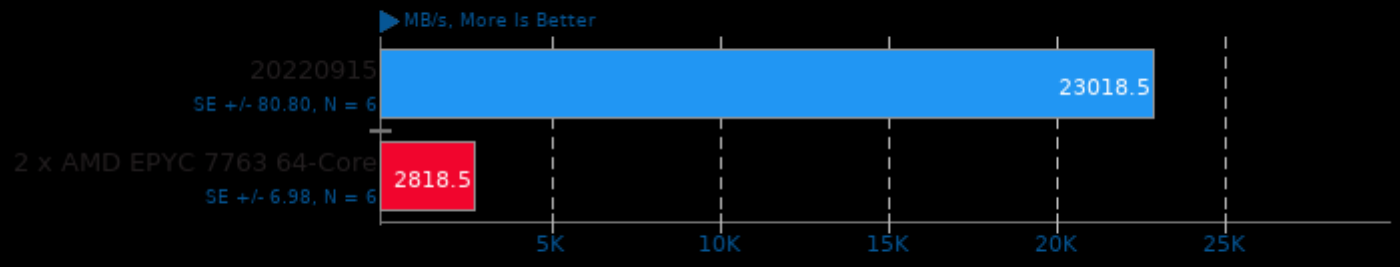
Test: CPU



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

Tinymembench 2018-05-28

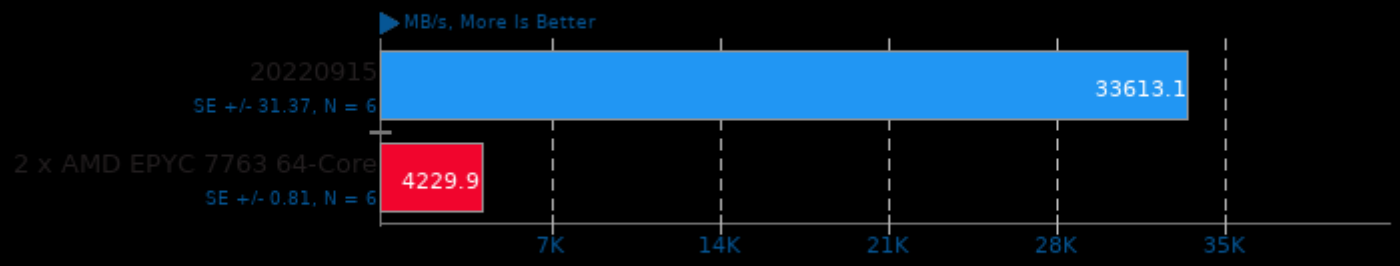
Standard Memcpy



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

Tinymembench 2018-05-28

Standard Memset

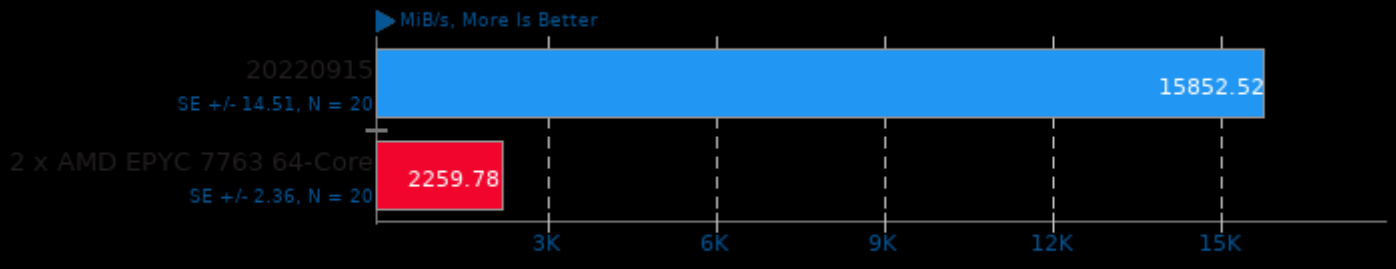


1. (CC) gcc options: -O2 -lm

test1

MBW 2018-09-08

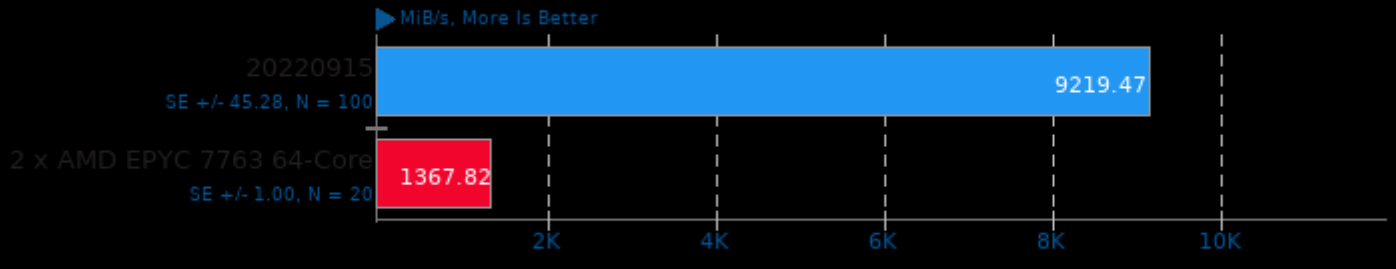
Test: Memory Copy - Array Size: 1024 MiB



1. (CC) gcc options: -O3 -march=native

MBW 2018-09-08

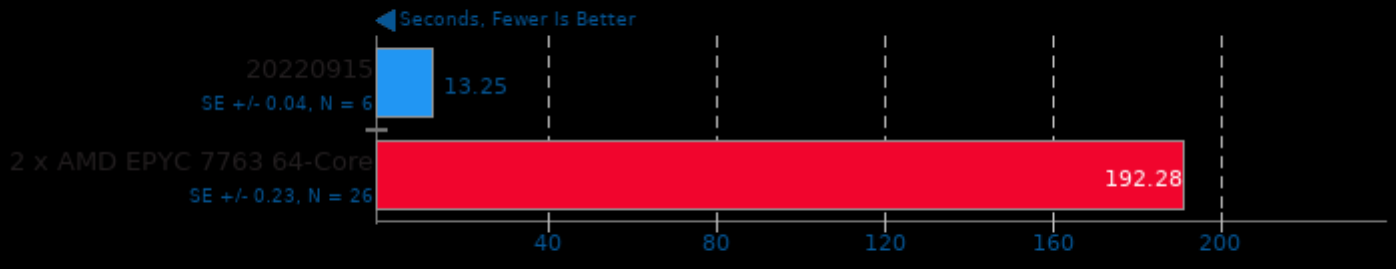
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB



1. (CC) gcc options: -O3 -march=native

t-test1 2017-01-13

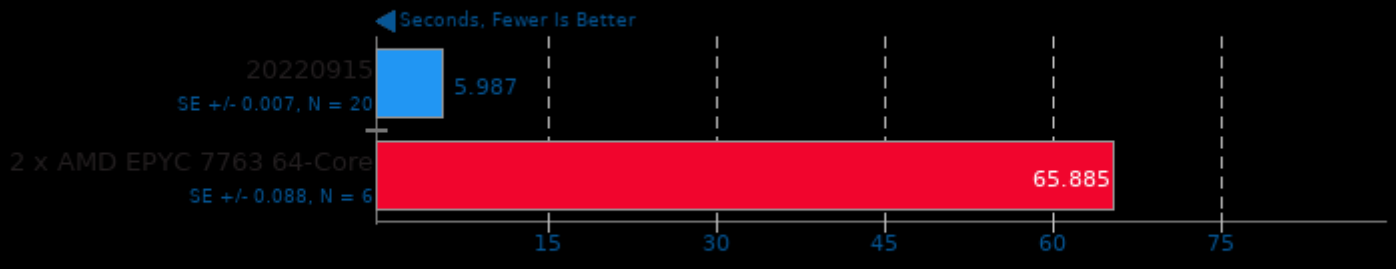
Threads: 1



1. (CC) gcc options: -pthread

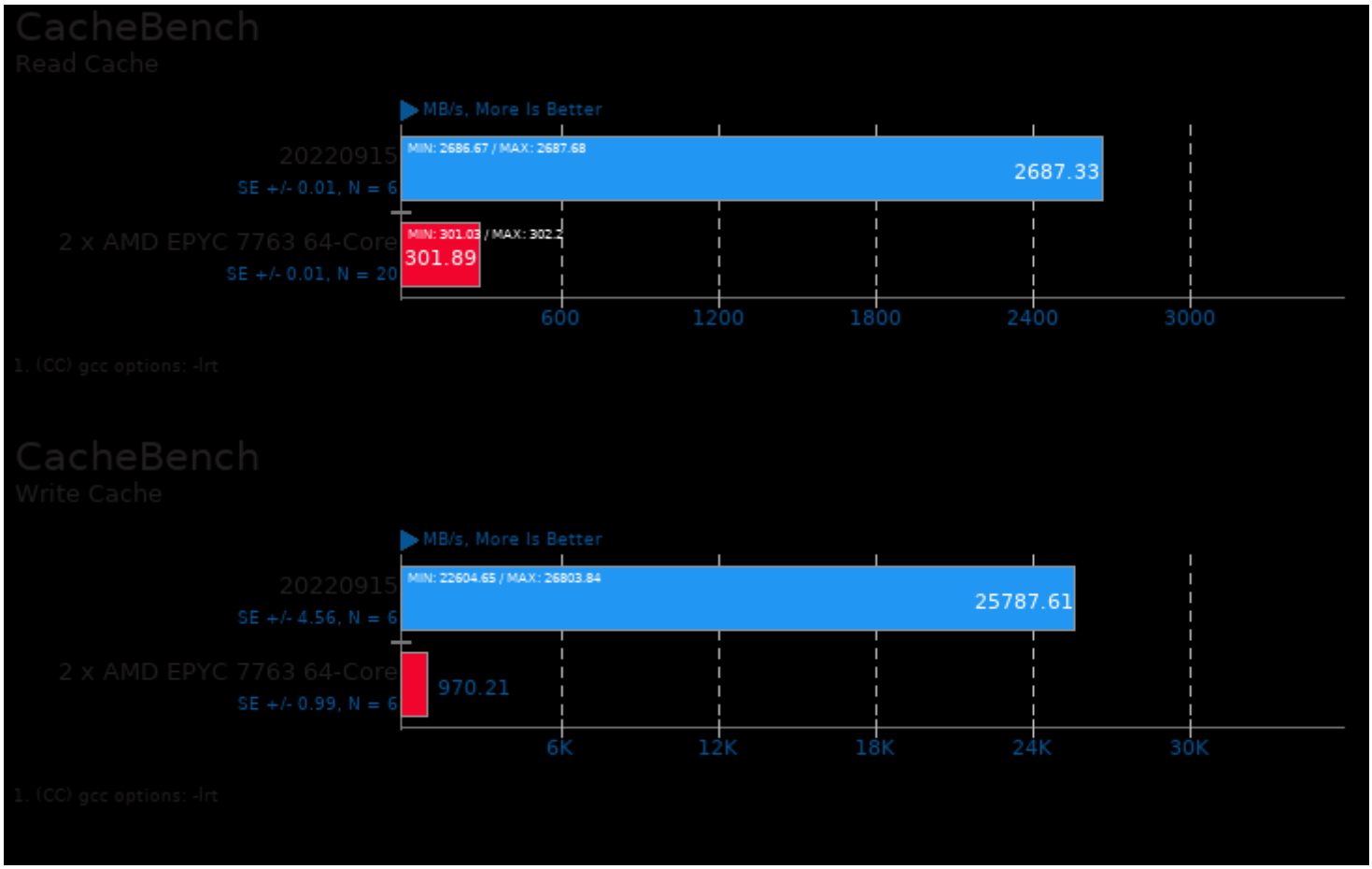
t-test1 2017-01-13

Threads: 2



1. (CC) gcc options: -pthread

test1



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 05:52.