www.phoronix-test-suite.com

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Intel Core i5-3570K testing with a Gigabyte Z77-D3H (F13 BIOS) and Gigabyte Intel HD 4000 1GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

46.1-2000-2 had the most wins, coming in first place for 72% of the tests.

Based on the geometric mean of all complete results, the fastest (46-2000-4) was 1.227x the speed of the slowest (46-1600). 46.1-2000-2 was 0.999x the speed of 46-2000-4, 46-2000-5 was 1x the speed of 46.1-2000-2, 46-2000-2 was 0.999x the speed of 46-2000-5, 46-2000-3 was 1x the speed of 46-2000-2, 46-2000 was 0.995x the speed of 46-2000-3, 46-1800 was 0.919x the speed of 46-2000, 46-1600 was 0.894x the speed of 46-1800.

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

Stream (Type: Copy) at 1.255x
Stream (Type: Scale) at 1.247x
Stream (Type: Add) at 1.246x
Stream (Type: Triad) at 1.246x
RAMspeed SMP (Type: Copy - Benchmark: Floating Point) at 1.243x
RAMspeed SMP (Type: Scale - Benchmark: Floating Point) at 1.241x
RAMspeed SMP (Type: Add - Benchmark: Integer) at 1.239x

RAMspeed SMP (Type: Triad - Benchmark: Floating Point) at 1.239x
RAMspeed SMP (Type: Scale - Benchmark: Integer) at 1.239x
Tinymembench (Standard Memset) at 1.239x.

Test Systems:

46-1600

Processor: Intel Core i5-3570K @ 4.60GHz (4 Cores), Motherboard: Gigabyte Z77-D3H (F13 BIOS), Chipset: Intel Xeon E3-1200 v2/3rd, Memory: 2 x 8192 MB DDR3-1600MT/s, Disk: 256GB Samsung SSD 860 + 4 x 1000GB TOSHIBA HDWD110, Graphics: Gigabyte Intel HD 4000 1GB (135/405MHz), Audio: VIA VT2020, Monitor: U28E590, Network: Qualcomm Atheros AR8151 v2.0

OS: Ubuntu 20.04, Kernel: 5.13.0-41-generic (x86_64), Desktop: GNOME Shell 3.36.9, Display Server: X Server 1.20.13, Display Driver: NVIDIA 470.103.01, OpenGL: 4.2 Mesa 21.2.6, OpenCL: OpenCL 3.0 CUDA 11.4.189, Vulkan: 1.2.175, Compiler: GCC 9.4.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-Av3uEd/gcc-9-9.4.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_cpufreq ondemand - CPU Microcode: 0x21 - Thermald 1.9.1
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Vulnerable: No microcode + tsx_async_abort: Not affected

46-1800

46-2000

46-2000-2

46-2000-3

46-2000-4

46-2000-5

46.1-2000-2

Processor: Intel Core i5-3570K @ 4.60GHz (4 Cores), Motherboard: Gigabyte Z77-D3H (F13 BIOS), Chipset: Intel Xeon E3-1200 v2/3rd, Memory: 16GB, Disk: 256GB Samsung SSD 860 + 4 x 1000GB TOSHIBA HDWD110, Graphics: Gigabyte Intel HD 4000 1GB (135/405MHz), Audio: VIA VT2020, Monitor: U28E590, Network: Qualcomm Atheros AR8151 v2.0

OS: Ubuntu 20.04, Kernel: 5.13.0-41-generic (x86_64), Desktop: GNOME Shell 3.36.9, Display Server: X Server

1.20.13, Display Driver: NVIDIA 470.103.01, OpenGL: 4.2 Mesa 21.2.6, OpenCL: OpenCL 3.0 CUDA 11.4.189, Vulkan: 1.2.175, Compiler: GCC 9.4.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-Av3uEd/gcc-9-9.4.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_cpufreq ondemand - CPU Microcode: 0x21 - Thermald 1.9.1
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Vulnerable: No microcode + tsx_async_abort: Not affected

	46-1600	46-1800	46-2000	46-2000-2	46-2000-3	46-2000-4	46-2000-5	46.1-2000-2
CacheBench - Read Cache (MB/s)	3902	3902	3902	3899	**3898**	3900		**3911**
Normalized	99.77%	99.78%	99.78%	99.71%	99.68%	99.74%		100%
Standard Deviation	0%	0%	0%	0.1%	0%	0.1%		0.1%
CacheBench - Write Cache (MB/s)	28772	28791	28782	28782	28781	**28772**		**28865**
Normalized	99.68%	99.74%	99.71%	99.71%	99.71%	99.68%		100%
Standard Deviation	0.1%	0%	0.1%	0.1%	0.1%	0.1%		0%
MBW - Memory Copy - 1024 MiB (MiB/s)	**8537**	9025	9787	9792	9794	9824	9836	**9863**
Normalized	86.56%	91.51%	99.23%	99.28%	99.3%	99.61%	99.73%	100%
Standard Deviation	4.2%	4.2%	4.1%	3.5%	3.7%	6.7%	3.4%	3.5%
MBW - M.C.F.B.S - 1024 MiB (MiB/s)	**9105**	10068	10979	11099	10326	**11109**	10475	10205
Normalized	81.96%	90.63%	98.83%	99.91%	92.95%	100%	94.3%	91.87%
Standard Deviation	1.9%	0.8%	0.5%	0.5%	1.9%	0.2%	3.1%	1.3%
RAMspeed SMP - Add - Integer (MB/s)	**16438**	18429	20096	20295	20356	20348	**20375**	20325
Normalized	80.68%	90.45%	98.63%	99.6%	99.91%	99.87%	100%	99.75%
Standard Deviation	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0%	0.3%
RAMspeed SMP - Copy - Integer (MB/s)	**14429**	16204	17605	17658	17759	17742	17837	**17874**
Normalized	80.72%	90.66%	98.5%	98.79%	99.36%	99.26%	99.79%	100%
Standard Deviation	0.2%	0%	0%	0.1%	0.2%	0.3%	0%	0.2%
RAMspeed SMP - Scale - Integer (MB/s)	**14448**	16207	17632	17678	17733	17715	17835	**17904**
Normalized	80.69%	90.52%	98.48%	98.73%	99.04%	98.94%	99.61%	100%
Standard Deviation	0%	0.1%	0%	0%	0%	0%	0.1%	0%
RAMspeed SMP - Triad - Integer (MB/s)	**16269**	18190	19886	20075	20132	**20147**	20143	20131
Normalized	80.75%	90.29%	98.7%	99.64%	99.92%	100%	99.98%	99.92%
Standard Deviation	0.1%	0%	0%	0%	0%	0%	0.1%	0%
RAMspeed SMP - Average - Integer	**15390**	17228	18798	18917	18990	18970	18991	**19058**
Normalized	80.75%	90.4%	98.64%	99.26%	99.64%	99.53%	99.65%	100%

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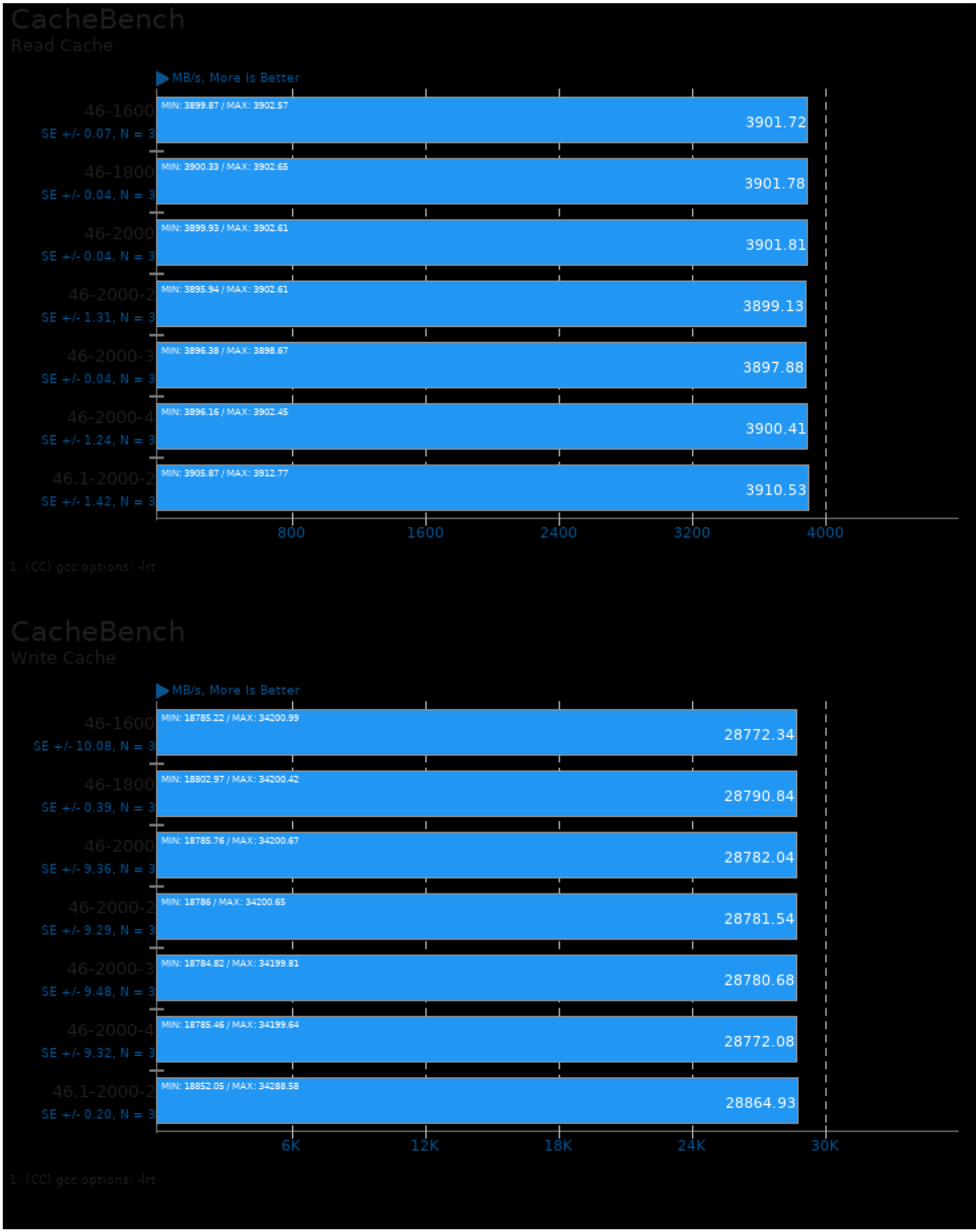
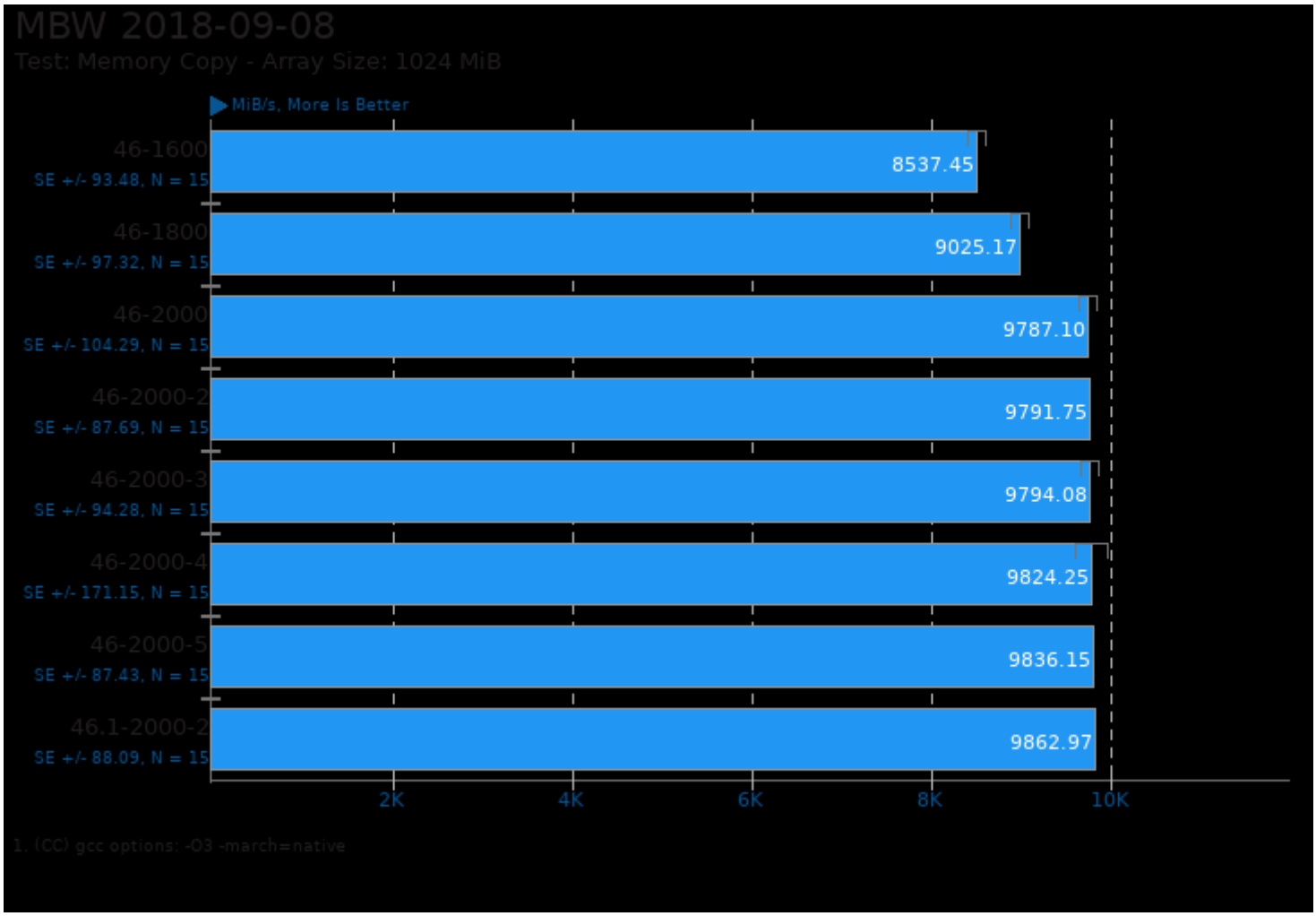
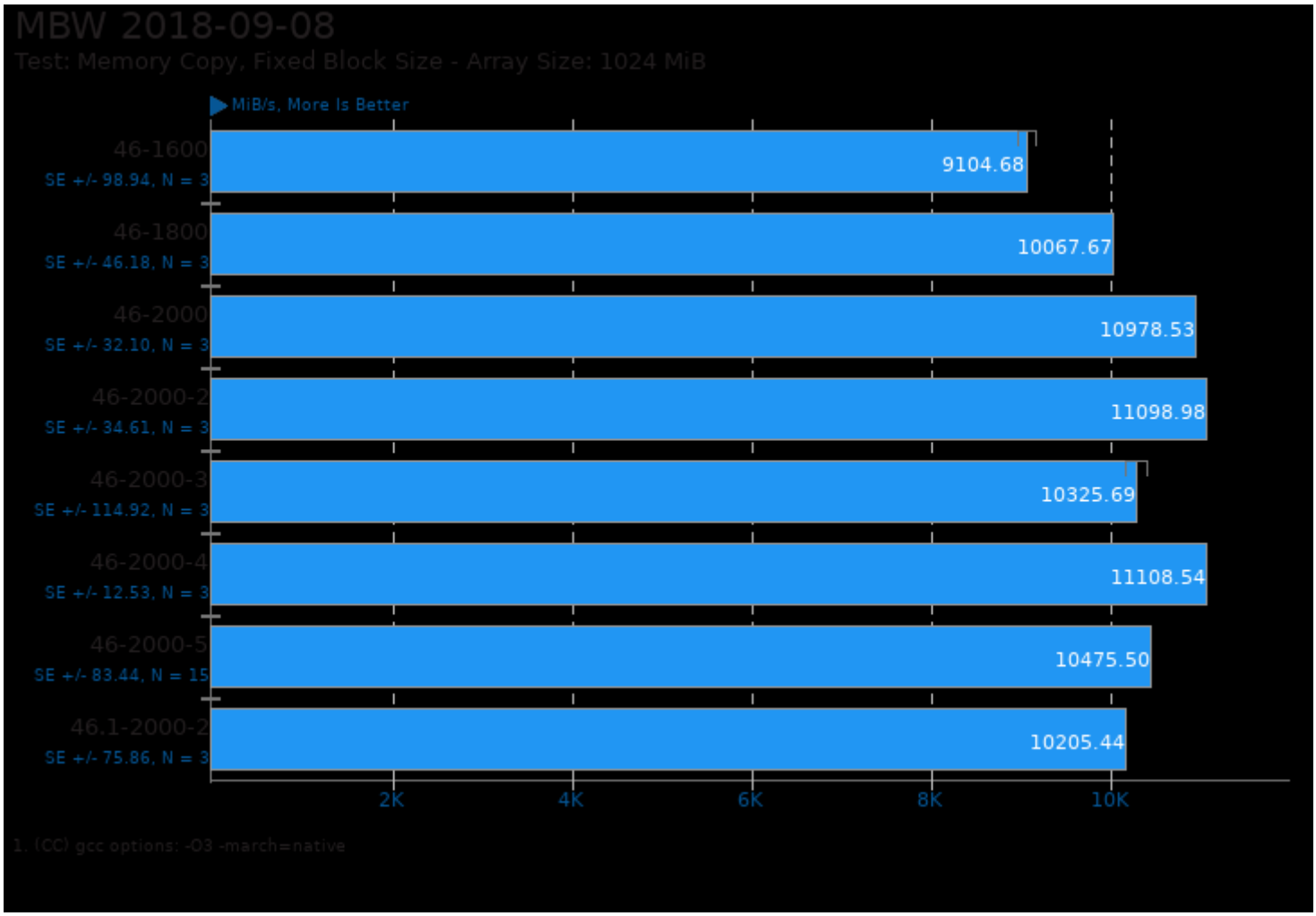
Standard Deviation	0%	0%	0%	0%	0%	0%	0%	0%
RAMspeed SMP - Add - Floating Point (MB/s)	**16327**	18217	19947	20135	20194	**20199**	20153	20171
Normalized	80.83%	90.19%	98.76%	99.69%	99.98%	100%	99.78%	99.86%
Standard Deviation	0.2%	0.1%	0%	0%	0%	0%	0.1%	0%
RAMspeed SMP - Copy - Floating Point (MB/s)	**14377**	16164	17614	17652	17713	17683	17807	**17872**
Normalized	80.45%	90.44%	98.55%	98.77%	99.11%	98.94%	99.64%	100%
Standard Deviation	0.5%	0%	0%	0.1%	0%	0%	0.1%	0%
RAMspeed SMP - Scale - Floating Point (MB/s)	**14342**	16105	17580	17592	17673	17647	17735	**17800**
Normalized	80.58%	90.48%	98.76%	98.83%	99.29%	99.14%	99.64%	100%
Standard Deviation	0%	0%	0%	0.1%	0%	0%	0%	0%
RAMspeed SMP - Triad - Floating Point (MB/s)	**16281**	18209	19933	20117	20175	**20178**	20153	20159
Normalized	80.69%	90.24%	98.78%	99.69%	99.99%	100%	99.88%	99.91%
Standard Deviation	0%	0%	0%	0%	0%	0%	0%	0%
RAMspeed SMP - Average - Floating Point (MB/s)	**15399**	17169	18764	18871	18967	18920	18961	**18995**
Normalized	81.07%	90.39%	98.79%	99.35%	99.85%	99.6%	99.82%	100%
Standard Deviation	1.3%	0%	0%	0%	0.1%	0%	0.1%	0%
Stream - Copy (MB/s)	**19538**	23286	24431	24438	24474	24448	24431	**24523**
Normalized	79.67%	94.95%	99.62%	99.65%	99.8%	99.69%	99.62%	100%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0%	0.1%	0.1%	0.2%
Stream - Scale (MB/s)	**14294**	16073	17687	17708	17771	17780	17754	**17828**
Normalized	80.17%	90.15%	99.21%	99.32%	99.68%	99.73%	99.58%	100%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Stream - Triad (MB/s)	**15985**	17958	19703	19772	19832	19870	19827	**19919**
Normalized	80.25%	90.15%	98.92%	99.26%	99.57%	99.76%	99.54%	100%
Standard Deviation	0.1%	0%	0.1%	0%	0.1%	0%	0.1%	0.1%
Stream - Add (MB/s)	**15983**	17965	19713	19777	19836	19872	19826	**19922**
Normalized	80.23%	90.18%	98.95%	99.27%	99.56%	99.75%	99.51%	100%
Standard Deviation	0.1%	0.1%	0.2%	0.1%	0.1%	0%	0.1%	0.2%
t-test1 - 1 (sec)	**20.510**	20.257	20.311	20.076	20.156	20.114		**20.041**
Normalized	97.71%	98.93%	98.67%	99.83%	99.43%	99.64%		100%
Standard Deviation	0.6%	0.5%	1.1%	1.3%	1.5%	0.8%		0.3%
t-test1 - 2 (sec)	**6.215**	6.187	6.171	6.098	6.107	6.101		**6.089**
Normalized	97.97%	98.42%	98.67%	99.85%	99.71%	99.8%		100%
Standard Deviation	0.3%	0.6%	0.5%	0.2%	0.1%	0.4%		0.2%
Tinymembench - Standard Memcpy	**10102**	11185	12018	11873	11978	11883	12005	**12071**
Normalized	83.69%	92.66%	99.57%	98.36%	99.23%	98.44%	99.46%	100%
Standard Deviation	0.1%	0.2%	0.1%	0.2%	0.3%	0.3%	0.2%	0.1%
Tinymembench - Standard Memset	**26566**	29586	31791	32636	**32910**	32712	32850	32349
Normalized	80.72%	89.9%	96.6%	99.17%	100%	99.4%	99.82%	98.3%
Standard Deviation	0.2%	0.2%	0%	0.2%	0.2%	0.5%	0.3%	0.5%

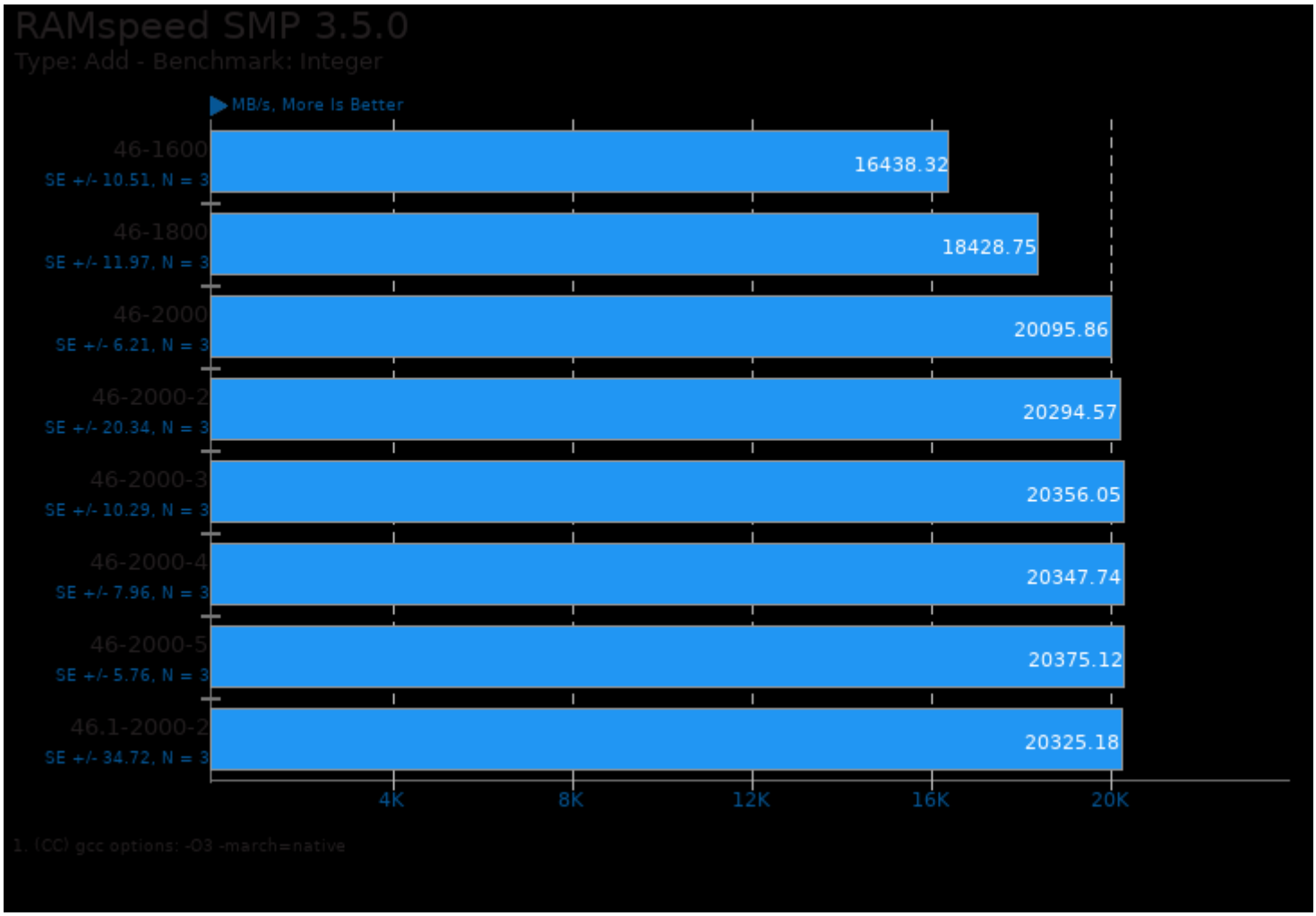

CacheBench
Read Cache
MB/s, More Is Better
46-1600
SE +/- 0.07, N = 3
MIN: 3899.87 / MAX: 3902.57
3901.72
46-1800
SE +/- 0.04, N = 3
MIN: 3900.33 / MAX: 3902.65
3901.78
46-2000
SE +/- 0.04, N = 3
MIN: 3899.93 / MAX: 3902.61
3901.81
46-2000-2
SE +/- 1.31, N = 3
MIN: 3895.94 / MAX: 3902.61
3899.13
46-2000-3
SE +/- 0.04, N = 3
MIN: 3896.38 / MAX: 3898.67
3897.88
46-2000-4
SE +/- 1.24, N = 3
MIN: 3896.16 / MAX: 3902.45
3900.41
46.1-2000-2
SE +/- 1.42, N = 3
MIN: 3905.87 / MAX: 3912.77
3910.53
800
1600
2400
3200
4000
1. (CC) gcc options: -lrt
CacheBench
Write Cache
MB/s, More Is Better
46-1600
SE +/- 10.08, N = 3
MIN: 18785.22 / MAX: 34200.99
28772.34
46-1800
SE +/- 0.39, N = 3
MIN: 18802.97 / MAX: 34200.42
28790.84
46-2000
SE +/- 9.36, N = 3
MIN: 18785.76 / MAX: 34200.67
28782.04
46-2000-2
SE +/- 9.29, N = 3
MIN: 18786 / MAX: 34200.65
28781.54
46-2000-3
SE +/- 9.48, N = 3
MIN: 18784.82 / MAX: 34199.81
28780.68
46-2000-4
SE +/- 9.32, N = 3
MIN: 18785.46 / MAX: 34199.64
28772.08
46.1-2000-2
SE +/- 0.20, N = 3
MIN: 18852.05 / MAX: 34288.58
28864.93
6K
12K
18K
24K
30K
1. (CC) gcc options: -lrt


MBW 2018-09-08
Test: Memory Copy - Array Size: 1024 MiB
MiB/s, More Is Better
46-1600
SE +/- 93.48, N = 15
8537.45
46-1800
SE +/- 97.32, N = 15
9025.17
46-2000
SE +/- 104.29, N = 15
9787.10
46-2000-2
SE +/- 87.69, N = 15
9791.75
46-2000-3
SE +/- 94.28, N = 15
9794.08
46-2000-4
SE +/- 171.15, N = 15
9824.25
46-2000-5
SE +/- 87.43, N = 15
9836.15
46.1-2000-2
SE +/- 88.09, N = 15
9862.97
2K
4K
6K
8K
10K
1. (CC) gcc options: -O3 -march=native

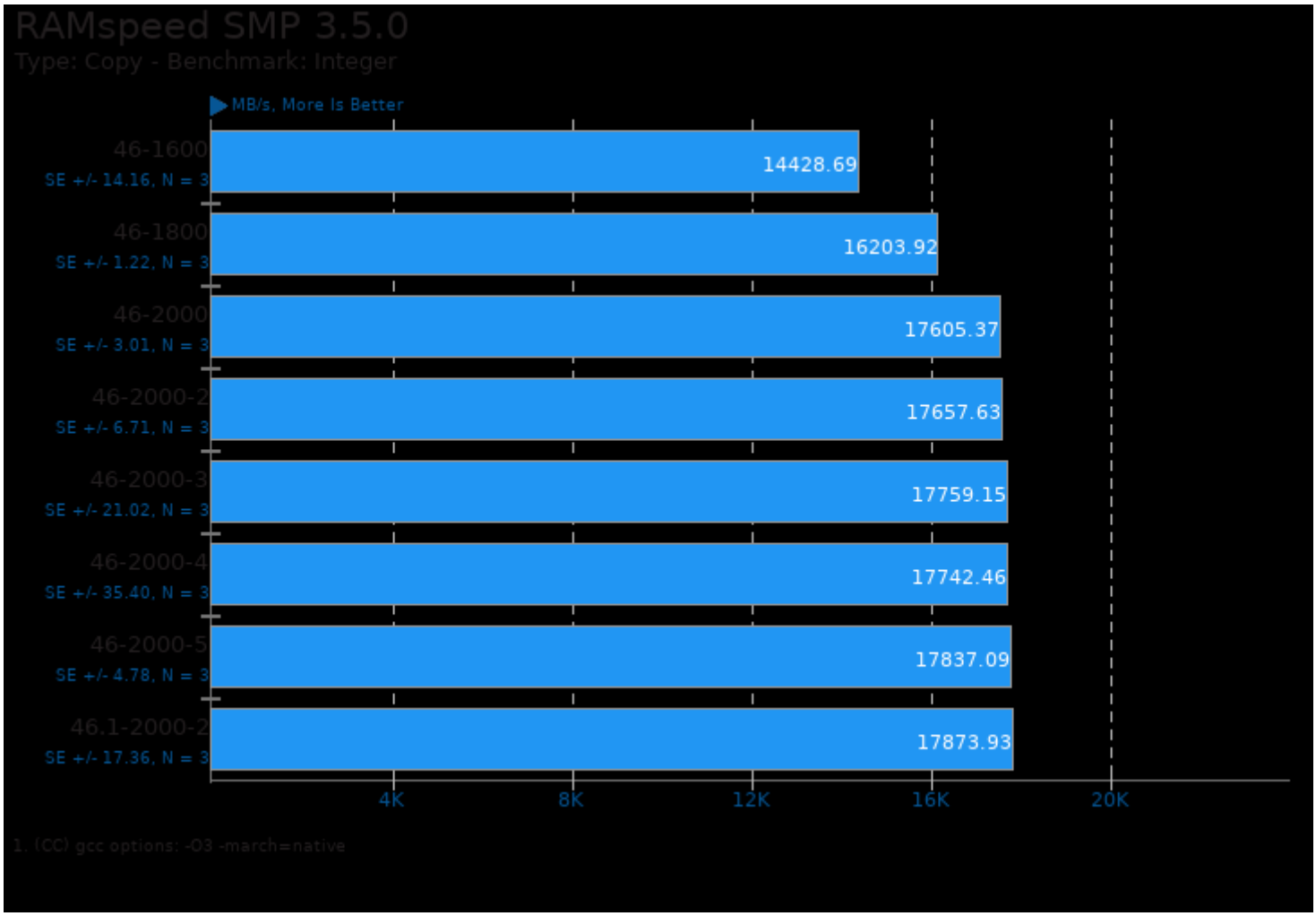
2-m1

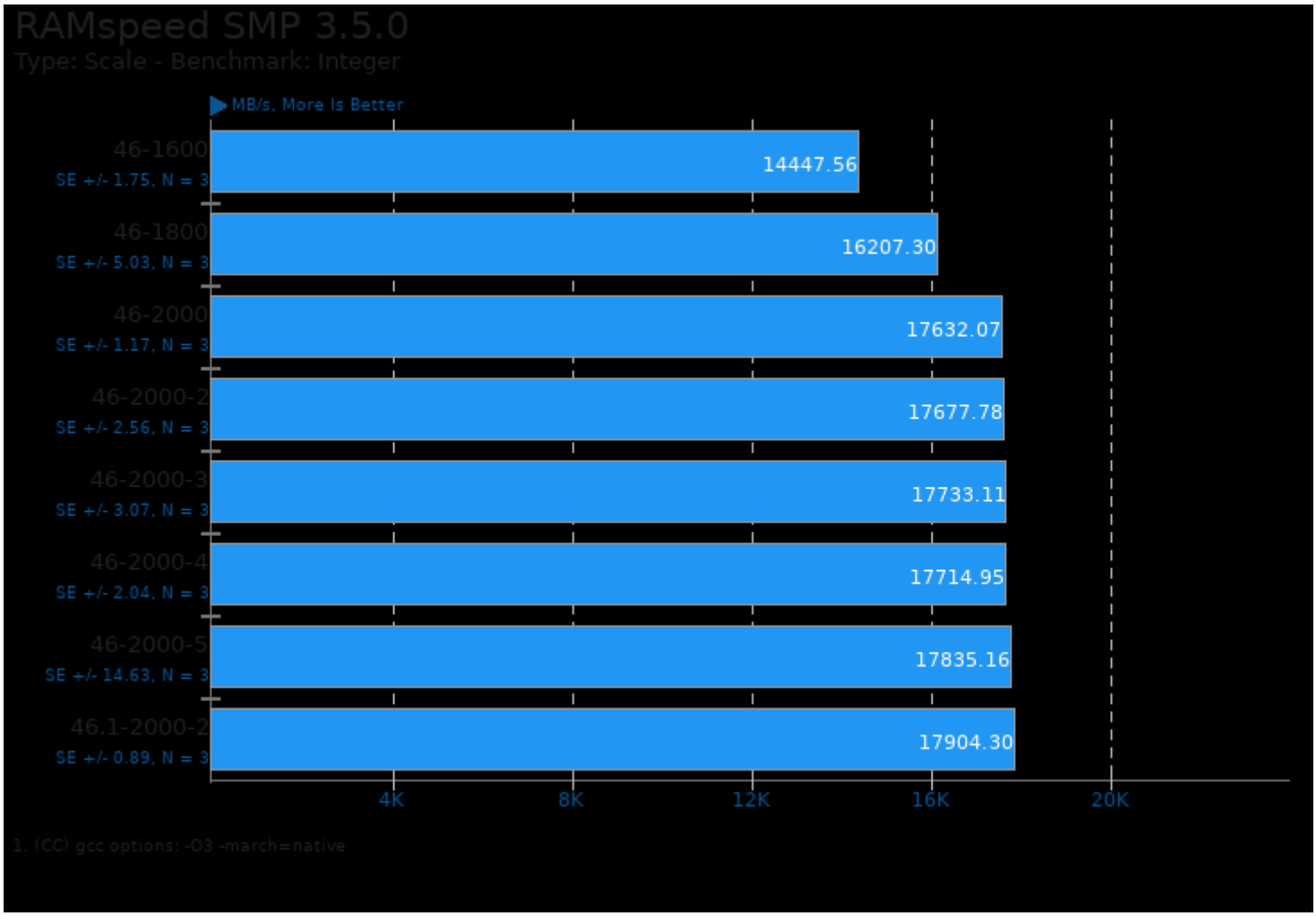

MBW 2018-09-08
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB
MiB/s, More Is Better
46-1600
SE +/- 98.94, N = 3
9104.68
46-1800
SE +/- 46.18, N = 3
10067.67
46-2000
SE +/- 32.10, N = 3
10978.53
46-2000-2
SE +/- 34.61, N = 3
11098.98
46-2000-3
SE +/- 114.92, N = 3
10325.69
46-2000-4
SE +/- 12.53, N = 3
11108.54
46-2000-5
SE +/- 83.44, N = 15
10475.50
46.1-2000-2
SE +/- 75.86, N = 3
10205.44
2K
4K
6K
8K
10K
1. (CC) gcc options: -O3 -march=native

2-m1

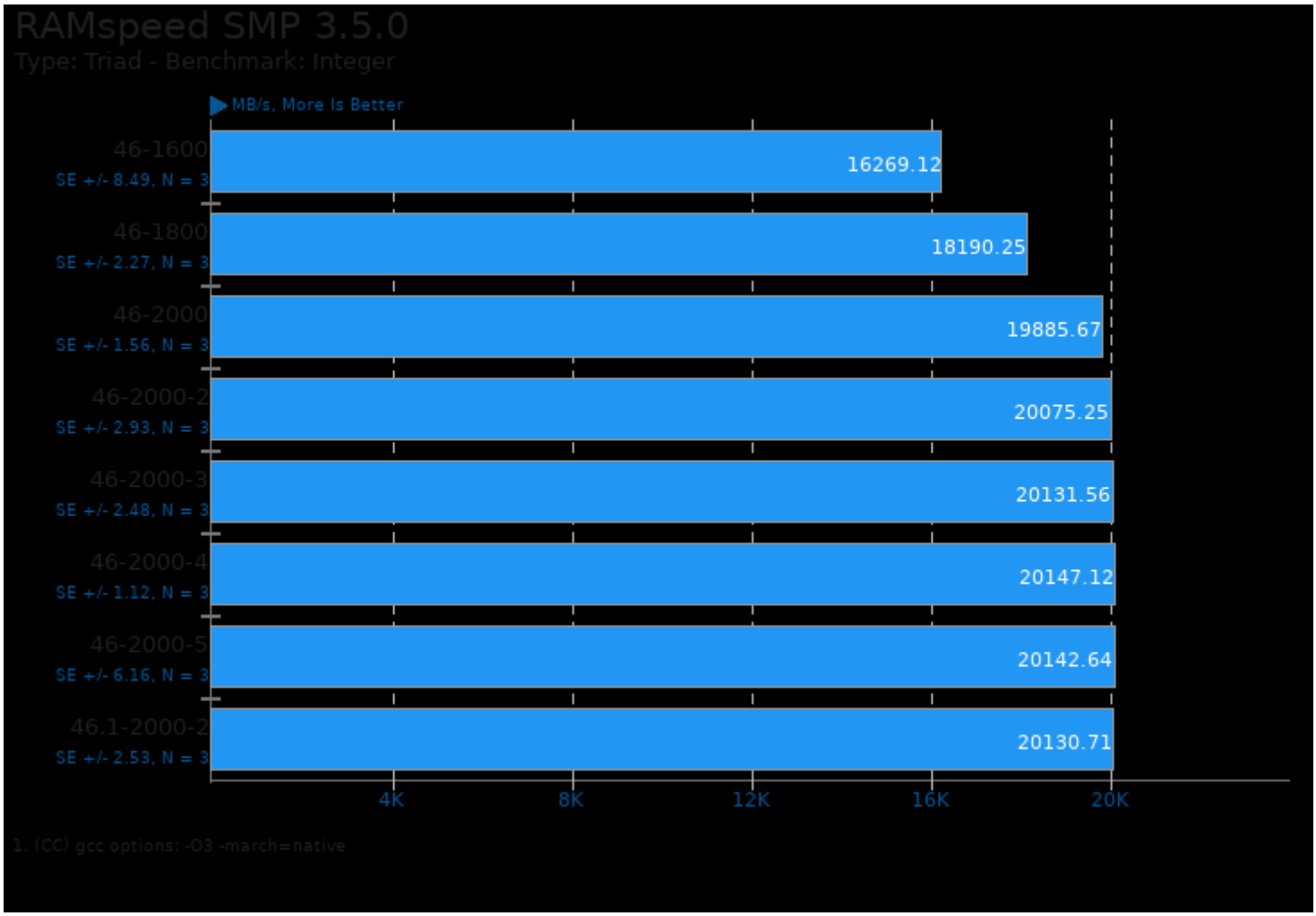

RAMspeed SMP 3.5.0
Type: Add - Benchmark: Integer
MB/s, More Is Better
46-1600
SE +/- 10.51, N = 3
16438.32
46-1800
SE +/- 11.97, N = 3
18428.75
46-2000
SE +/- 6.21, N = 3
20095.86
46-2000-2
SE +/- 20.34, N = 3
20294.57
46-2000-3
SE +/- 10.29, N = 3
20356.05
46-2000-4
SE +/- 7.96, N = 3
20347.74
46-2000-5
SE +/- 5.76, N = 3
20375.12
46.1-2000-2
SE +/- 34.72, N = 3
20325.18
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

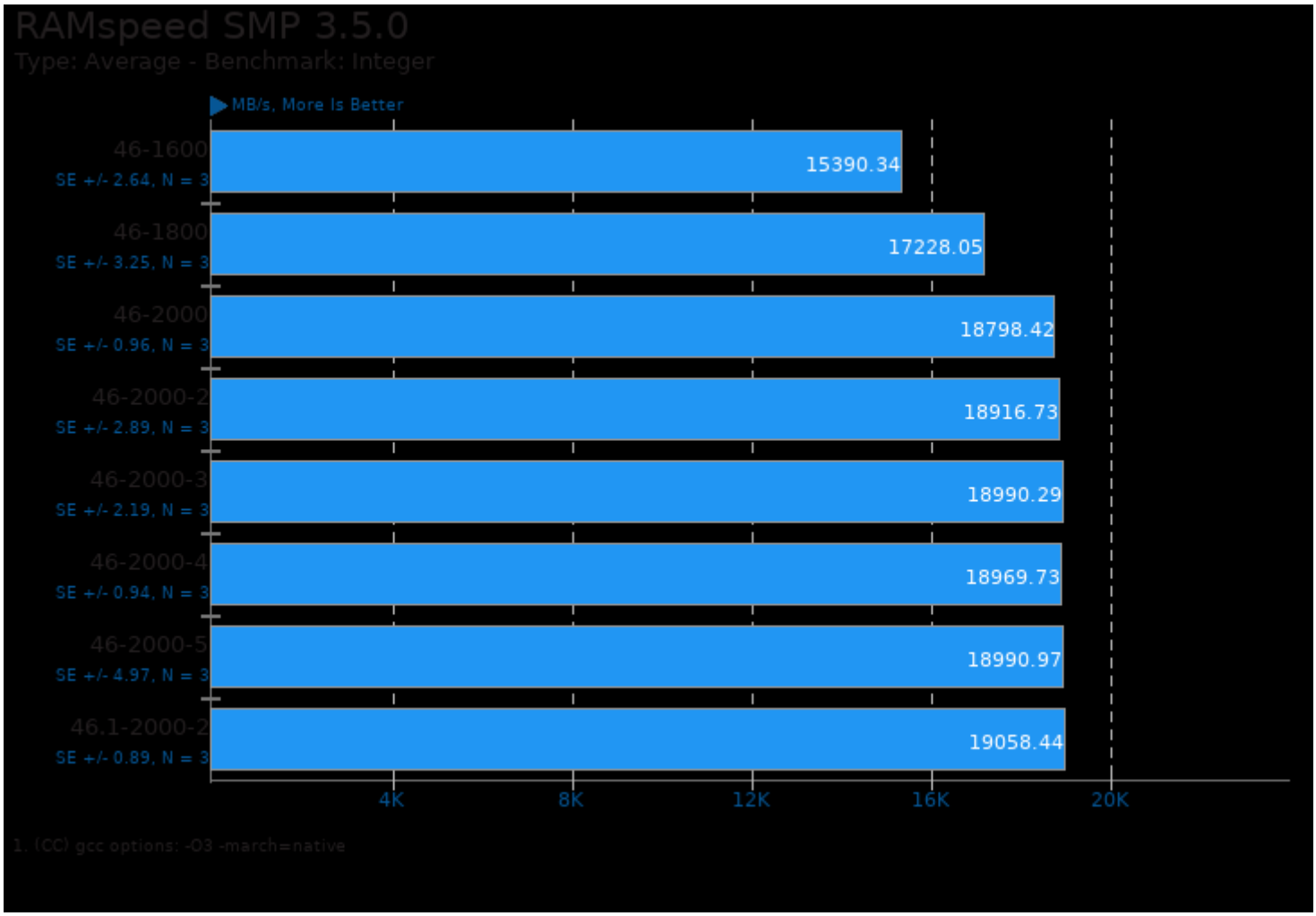
2-m1


RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer
MB/s, More Is Better
46-1600
SE +/- 14.16, N = 3
14428.69
46-1800
SE +/- 1.22, N = 3
16203.92
46-2000
SE +/- 3.01, N = 3
17605.37
46-2000-2
SE +/- 6.71, N = 3
17657.63
46-2000-3
SE +/- 21.02, N = 3
17759.15
46-2000-4
SE +/- 35.40, N = 3
17742.46
46-2000-5
SE +/- 4.78, N = 3
17837.09
46.1-2000-2
SE +/- 17.36, N = 3
17873.93
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

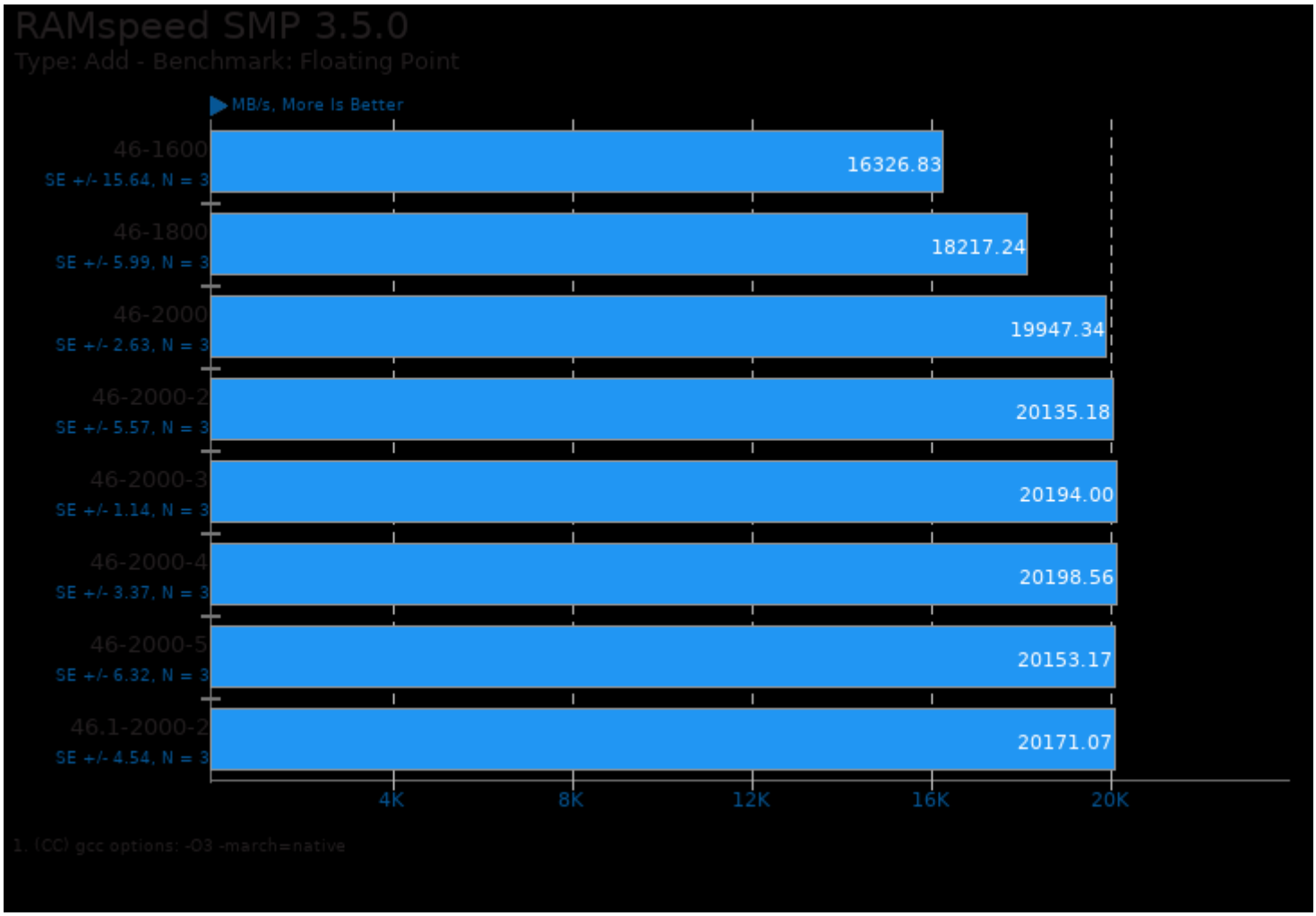

RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Integer
MB/s, More Is Better
46-1600
SE +/- 1.75, N = 3
14447.56
46-1800
SE +/- 5.03, N = 3
16207.30
46-2000
SE +/- 1.17, N = 3
17632.07
46-2000-2
SE +/- 2.56, N = 3
17677.78
46-2000-3
SE +/- 3.07, N = 3
17733.11
46-2000-4
SE +/- 2.04, N = 3
17714.95
46-2000-5
SE +/- 14.63, N = 3
17835.16
46.1-2000-2
SE +/- 0.89, N = 3
17904.30
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

2-m1

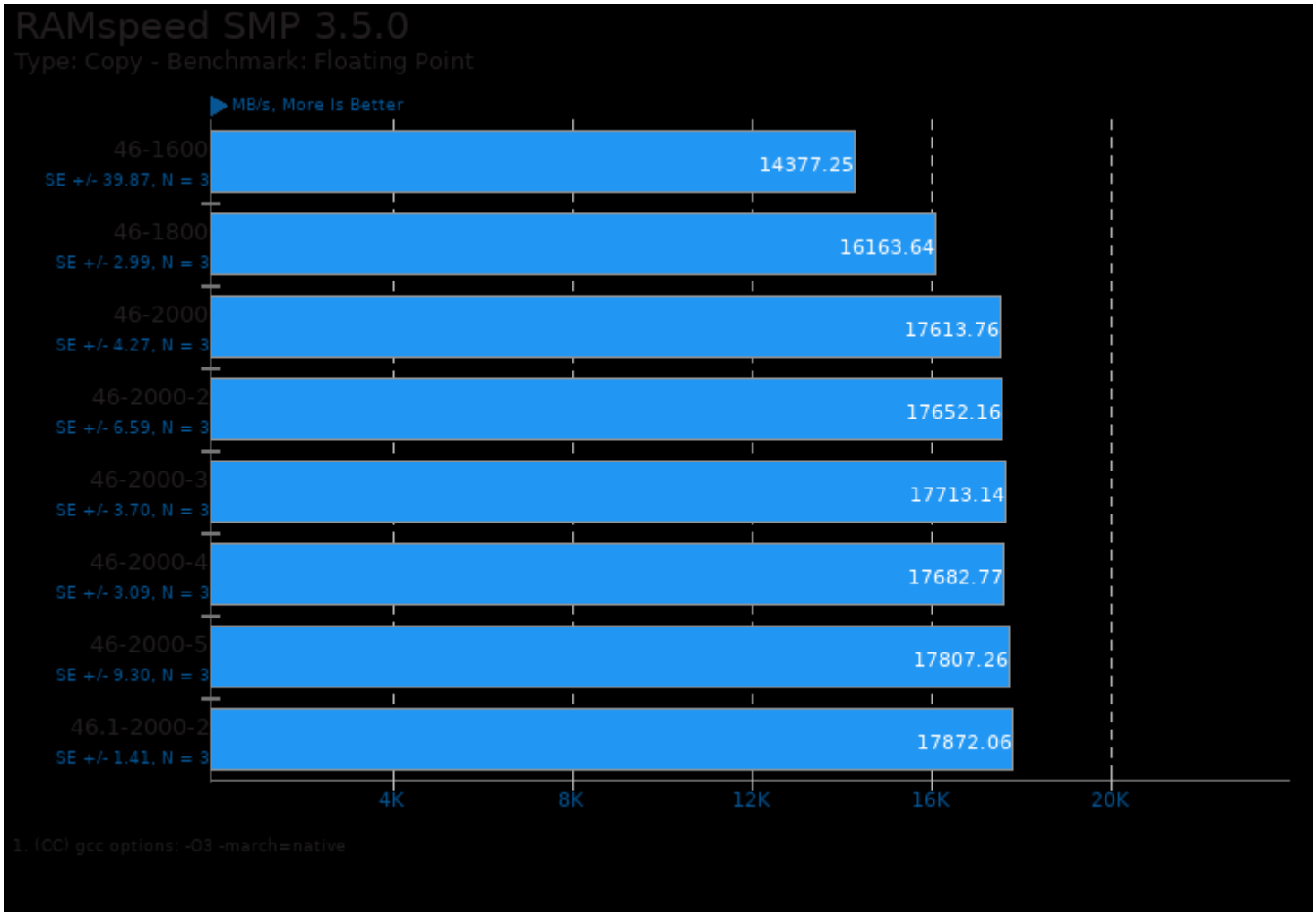

RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Integer
MB/s, More Is Better
46-1600
SE +/- 8.49, N = 3
16269.12
46-1800
SE +/- 2.27, N = 3
18190.25
46-2000
SE +/- 1.56, N = 3
19885.67
46-2000-2
SE +/- 2.93, N = 3
20075.25
46-2000-3
SE +/- 2.48, N = 3
20131.56
46-2000-4
SE +/- 1.12, N = 3
20147.12
46-2000-5
SE +/- 6.16, N = 3
20142.64
46.1-2000-2
SE +/- 2.53, N = 3
20130.71
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native


RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
46-1600
SE +/- 2.64, N = 3
15390.34
46-1800
SE +/- 3.25, N = 3
17228.05
46-2000
SE +/- 0.96, N = 3
18798.42
46-2000-2
SE +/- 2.89, N = 3
18916.73
46-2000-3
SE +/- 2.19, N = 3
18990.29
46-2000-4
SE +/- 0.94, N = 3
18969.73
46-2000-5
SE +/- 4.97, N = 3
18990.97
46.1-2000-2
SE +/- 0.89, N = 3
19058.44
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

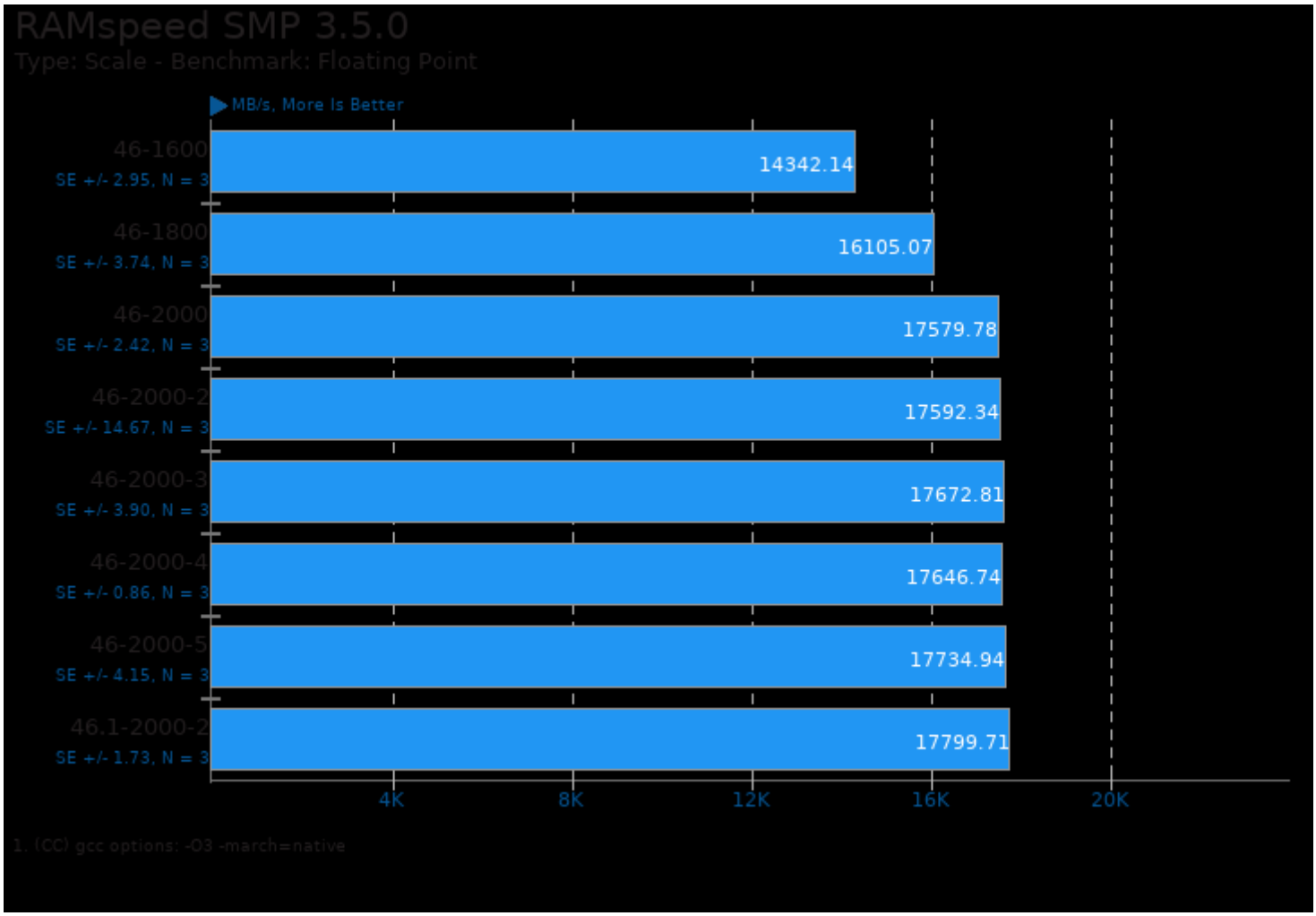
2-m1


RAMspeed SMP 3.5.0
Type: Add - Benchmark: Floating Point
MB/s, More Is Better
46-1600
SE +/- 15.64, N = 3
16326.83
46-1800
SE +/- 5.99, N = 3
18217.24
46-2000
SE +/- 2.63, N = 3
19947.34
46-2000-2
SE +/- 5.57, N = 3
20135.18
46-2000-3
SE +/- 1.14, N = 3
20194.00
46-2000-4
SE +/- 3.37, N = 3
20198.56
46-2000-5
SE +/- 6.32, N = 3
20153.17
46.1-2000-2
SE +/- 4.54, N = 3
20171.07
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

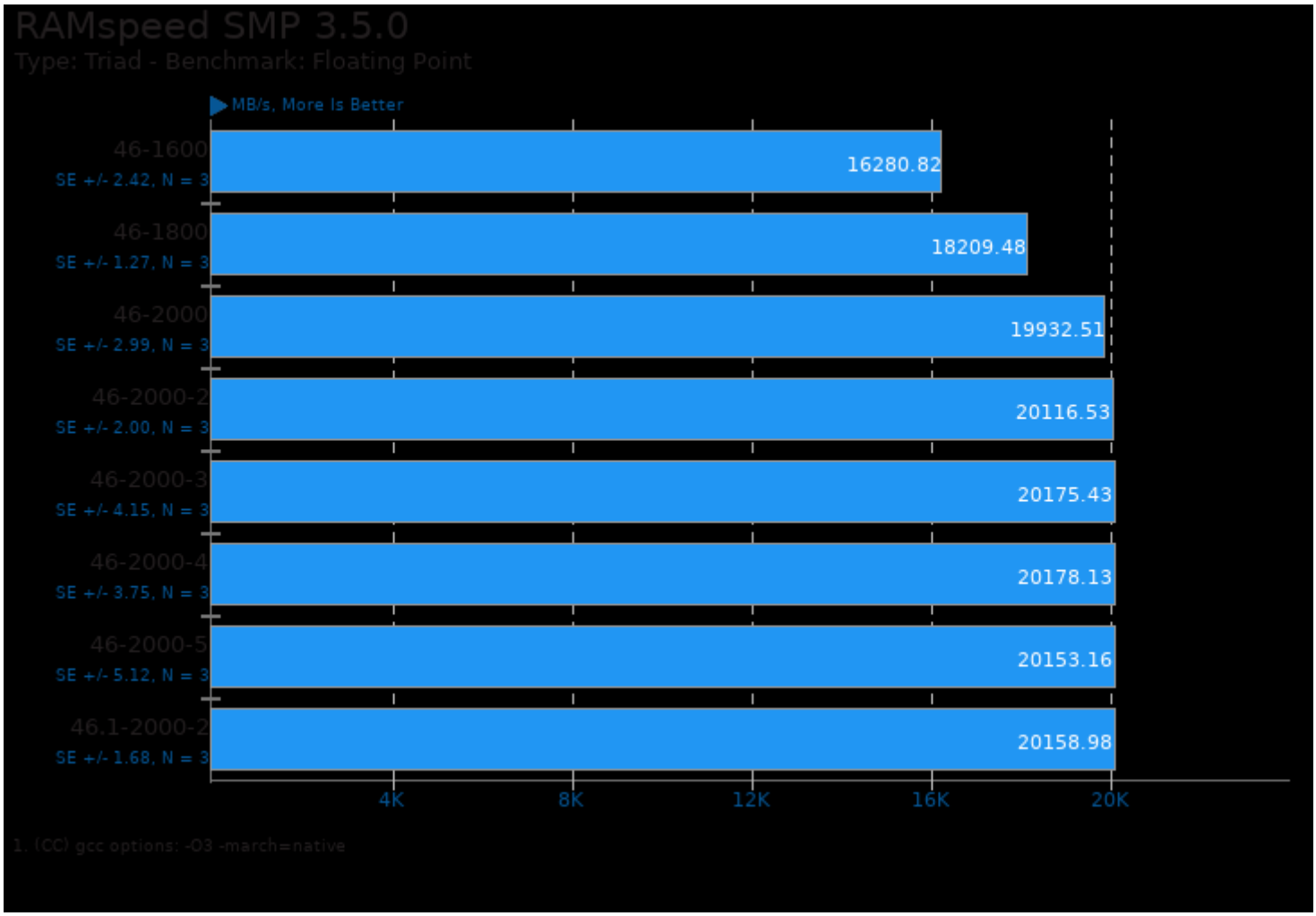
2-m1

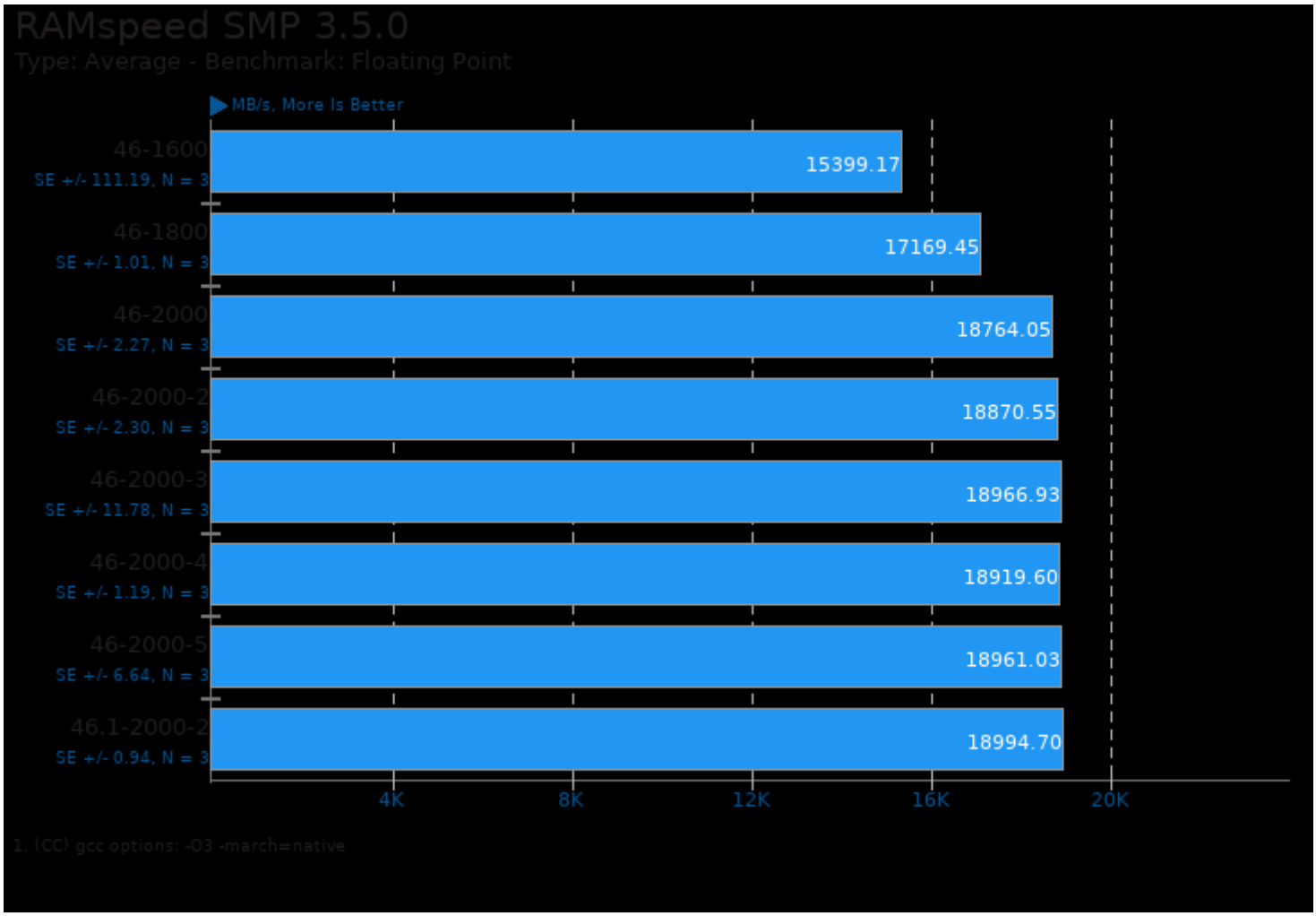

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Floating Point
MB/s, More Is Better
46-1600
SE +/- 39.87, N = 3
14377.25
46-1800
SE +/- 2.99, N = 3
16163.64
46-2000
SE +/- 4.27, N = 3
17613.76
46-2000-2
SE +/- 6.59, N = 3
17652.16
46-2000-3
SE +/- 3.70, N = 3
17713.14
46-2000-4
SE +/- 3.09, N = 3
17682.77
46-2000-5
SE +/- 9.30, N = 3
17807.26
46.1-2000-2
SE +/- 1.41, N = 3
17872.06
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

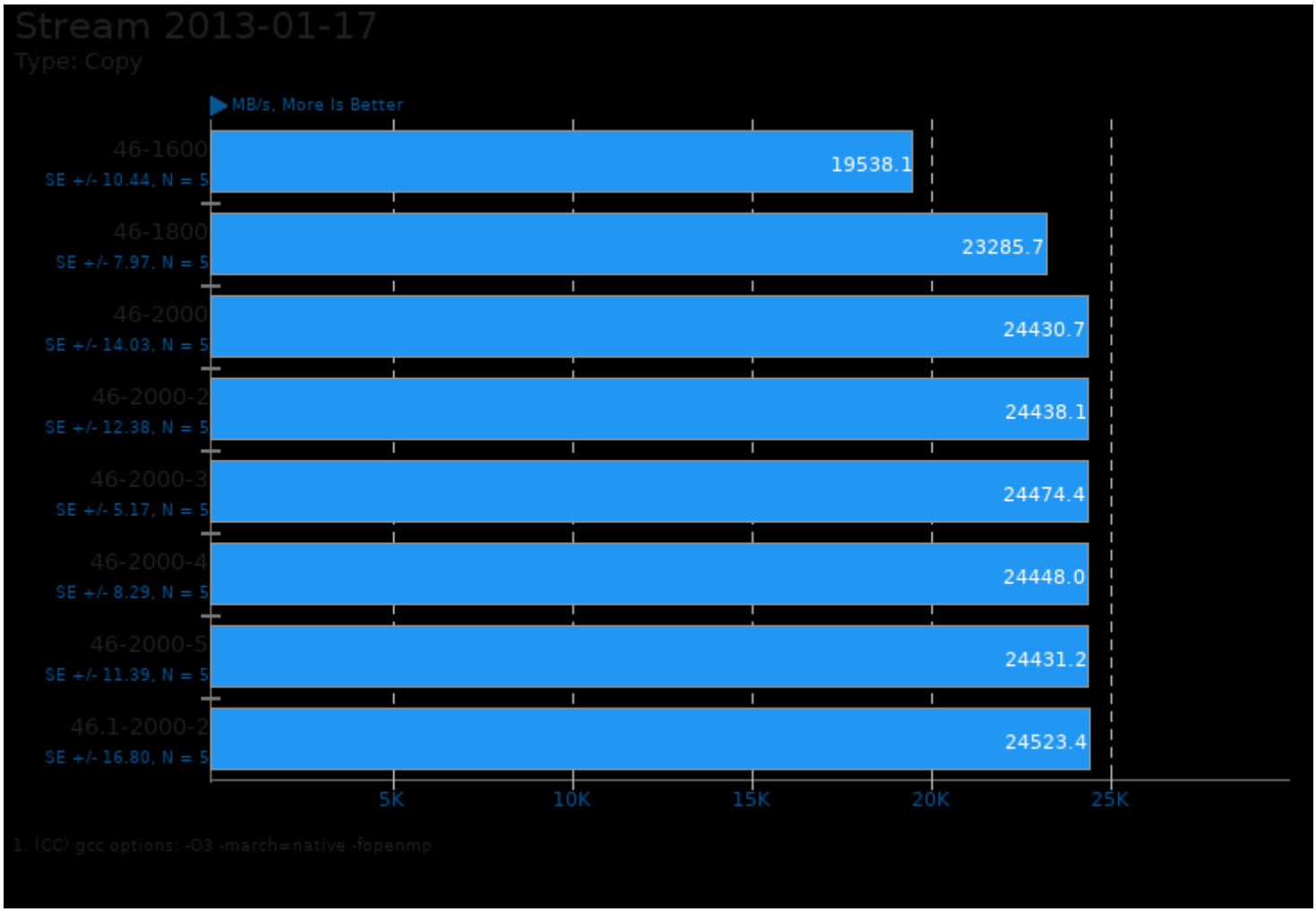
2-m1


RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Floating Point
MB/s, More Is Better
46-1600
SE +/- 2.95, N = 3
14342.14
46-1800
SE +/- 3.74, N = 3
16105.07
46-2000
SE +/- 2.42, N = 3
17579.78
46-2000-2
SE +/- 14.67, N = 3
17592.34
46-2000-3
SE +/- 3.90, N = 3
17672.81
46-2000-4
SE +/- 0.86, N = 3
17646.74
46-2000-5
SE +/- 4.15, N = 3
17734.94
46.1-2000-2
SE +/- 1.73, N = 3
17799.71
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

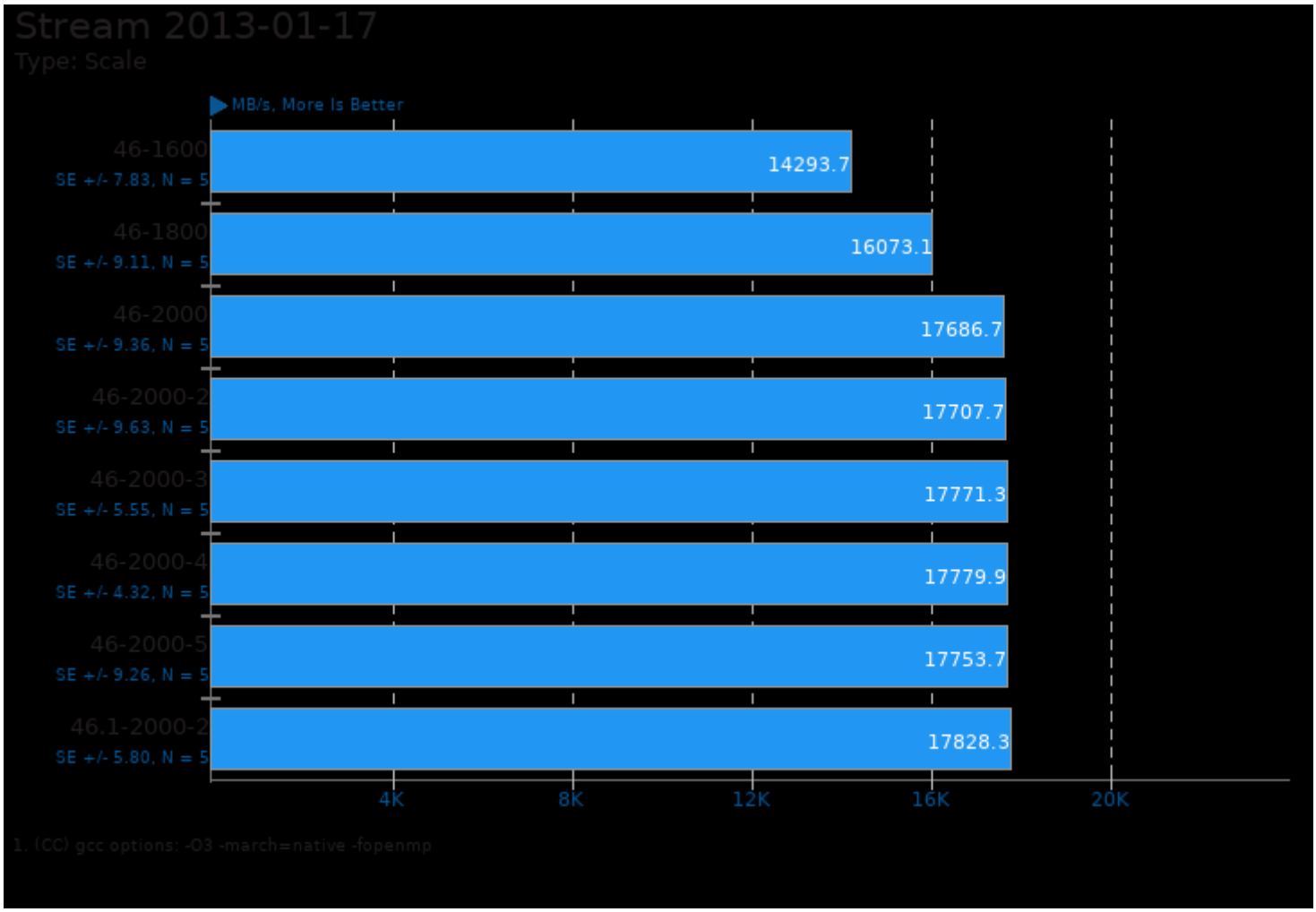
2-m1


RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Floating Point
MB/s, More Is Better
46-1600
SE +/- 2.42, N = 3
16280.82
46-1800
SE +/- 1.27, N = 3
18209.48
46-2000
SE +/- 2.99, N = 3
19932.51
46-2000-2
SE +/- 2.00, N = 3
20116.53
46-2000-3
SE +/- 4.15, N = 3
20175.43
46-2000-4
SE +/- 3.75, N = 3
20178.13
46-2000-5
SE +/- 5.12, N = 3
20153.16
46.1-2000-2
SE +/- 1.68, N = 3
20158.98
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

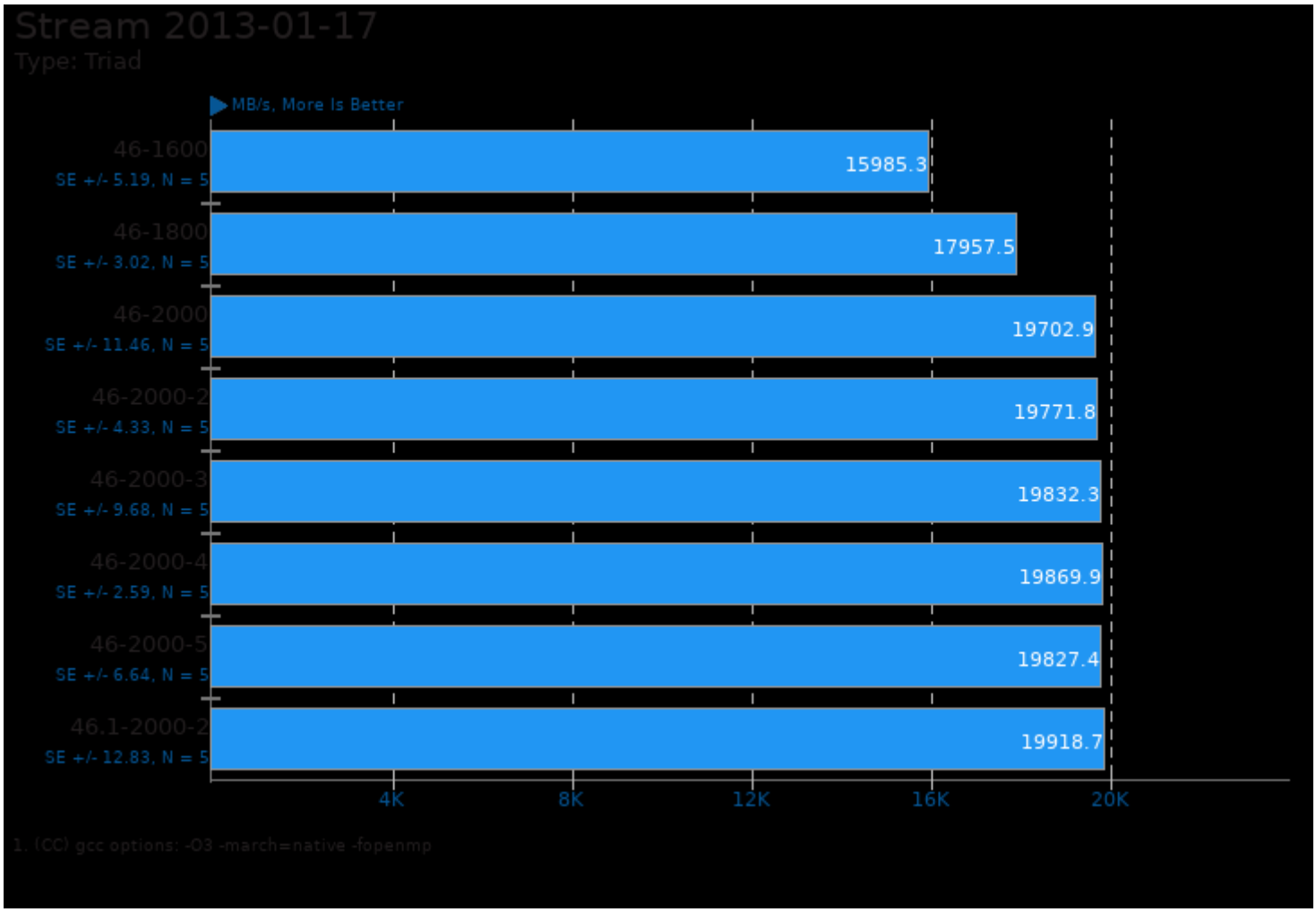

RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
46-1600
SE +/- 111.19, N = 3
15399.17
46-1800
SE +/- 1.01, N = 3
17169.45
46-2000
SE +/- 2.27, N = 3
18764.05
46-2000-2
SE +/- 2.30, N = 3
18870.55
46-2000-3
SE +/- 11.78, N = 3
18966.93
46-2000-4
SE +/- 1.19, N = 3
18919.60
46-2000-5
SE +/- 6.64, N = 3
18961.03
46.1-2000-2
SE +/- 0.94, N = 3
18994.70
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native


Stream 2013-01-17
Type: Copy
MB/s, More Is Better
46-1600
SE +/- 10.44, N = 5
19538.1
46-1800
SE +/- 7.97, N = 5
23285.7
46-2000
SE +/- 14.03, N = 5
24430.7
46-2000-2
SE +/- 12.38, N = 5
24438.1
46-2000-3
SE +/- 5.17, N = 5
24474.4
46-2000-4
SE +/- 8.29, N = 5
24448.0
46-2000-5
SE +/- 11.39, N = 5
24431.2
46.1-2000-2
SE +/- 16.80, N = 5
24523.4
5K
10K
15K
20K
25K
1. (CC) gcc options: -O3 -march=native -fopenmp

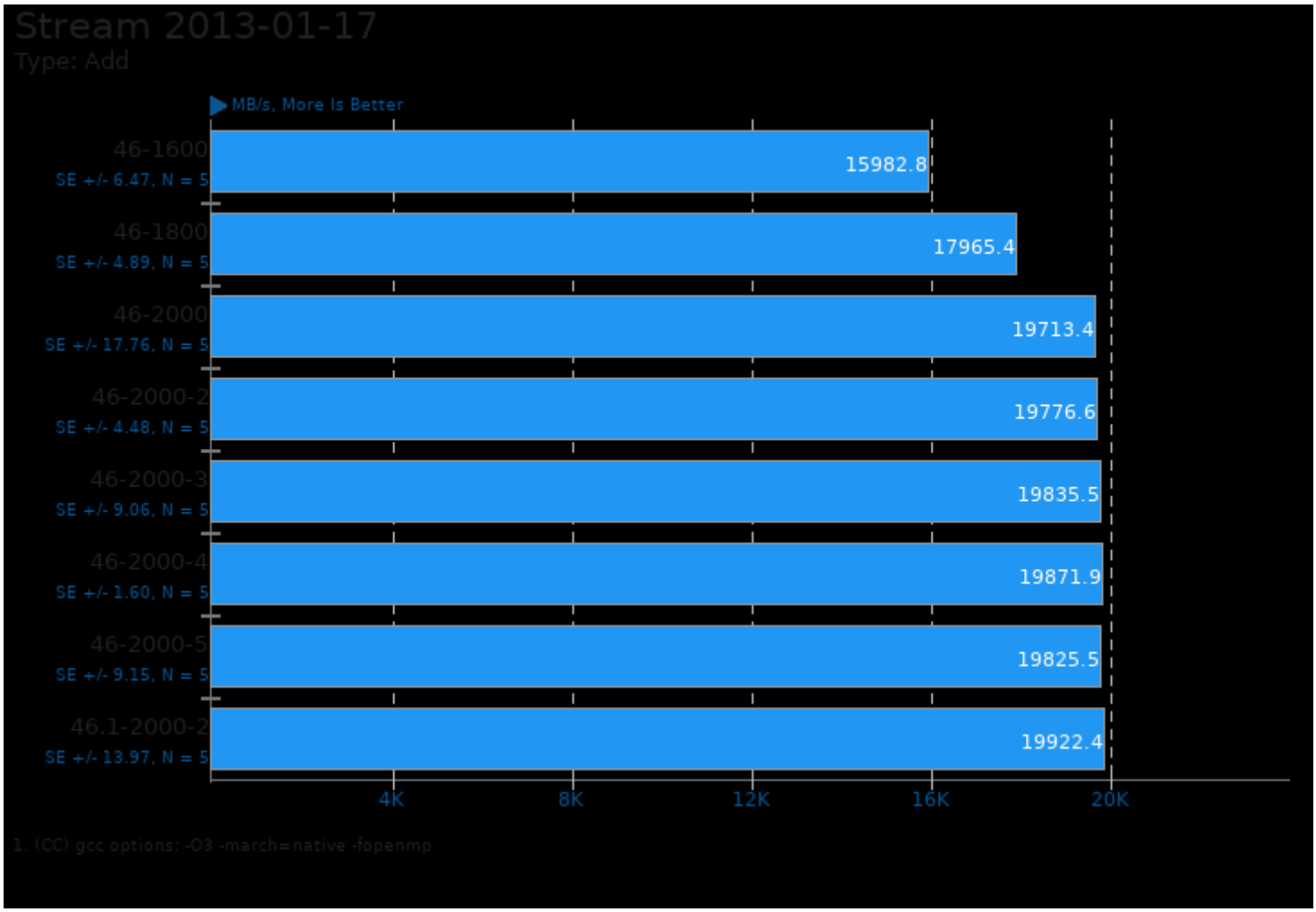
2-m1

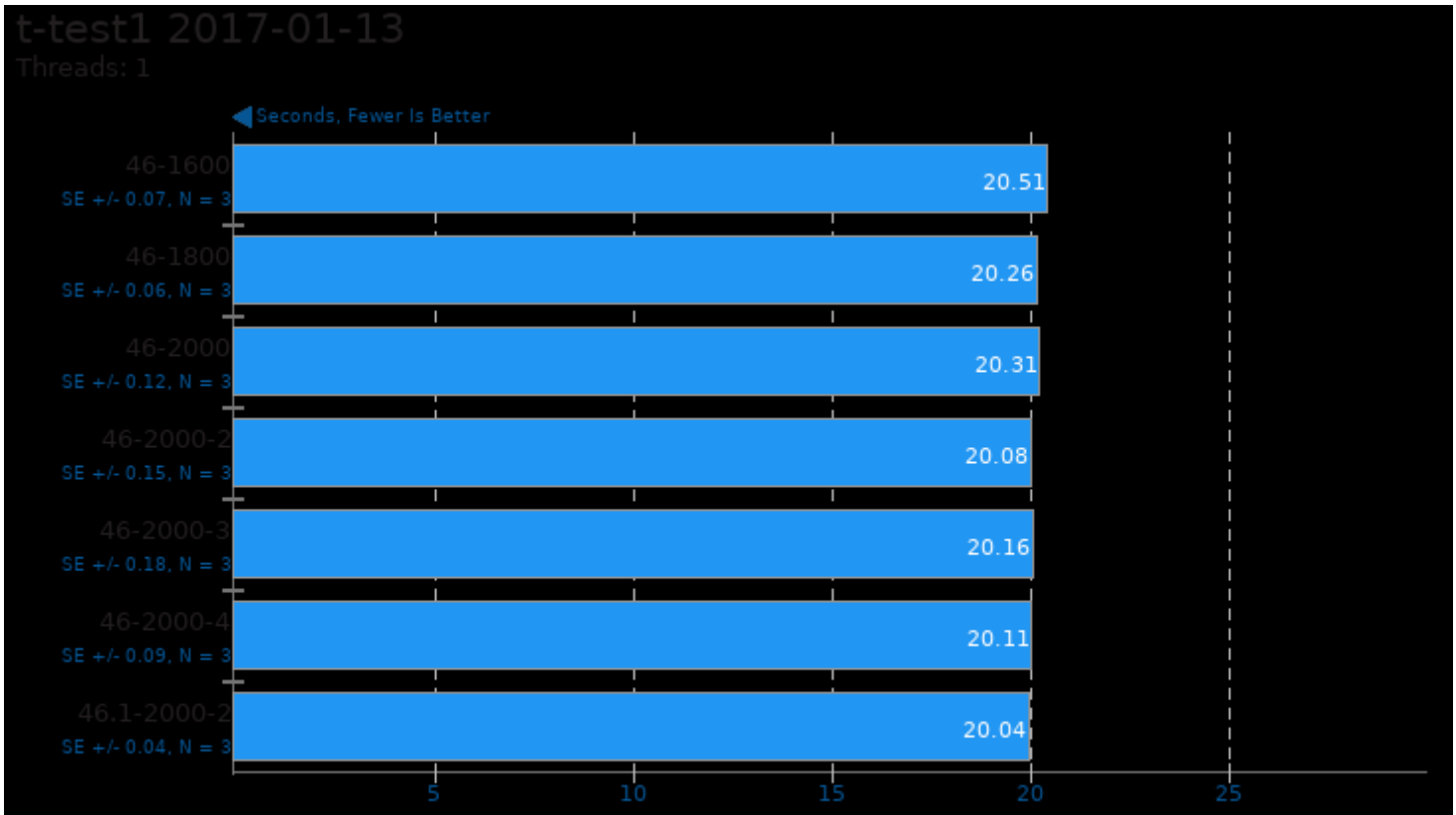

Stream 2013-01-17
Type: Scale
MB/s, More Is Better
46-1600
SE +/- 7.83, N = 5
14293.7
46-1800
SE +/- 9.11, N = 5
16073.1
46-2000
SE +/- 9.36, N = 5
17686.7
46-2000-2
SE +/- 9.63, N = 5
17707.7
46-2000-3
SE +/- 5.55, N = 5
17771.3
46-2000-4
SE +/- 4.32, N = 5
17779.9
46-2000-5
SE +/- 9.26, N = 5
17753.7
46.1-2000-2
SE +/- 5.80, N = 5
17828.3
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native -fopenmp

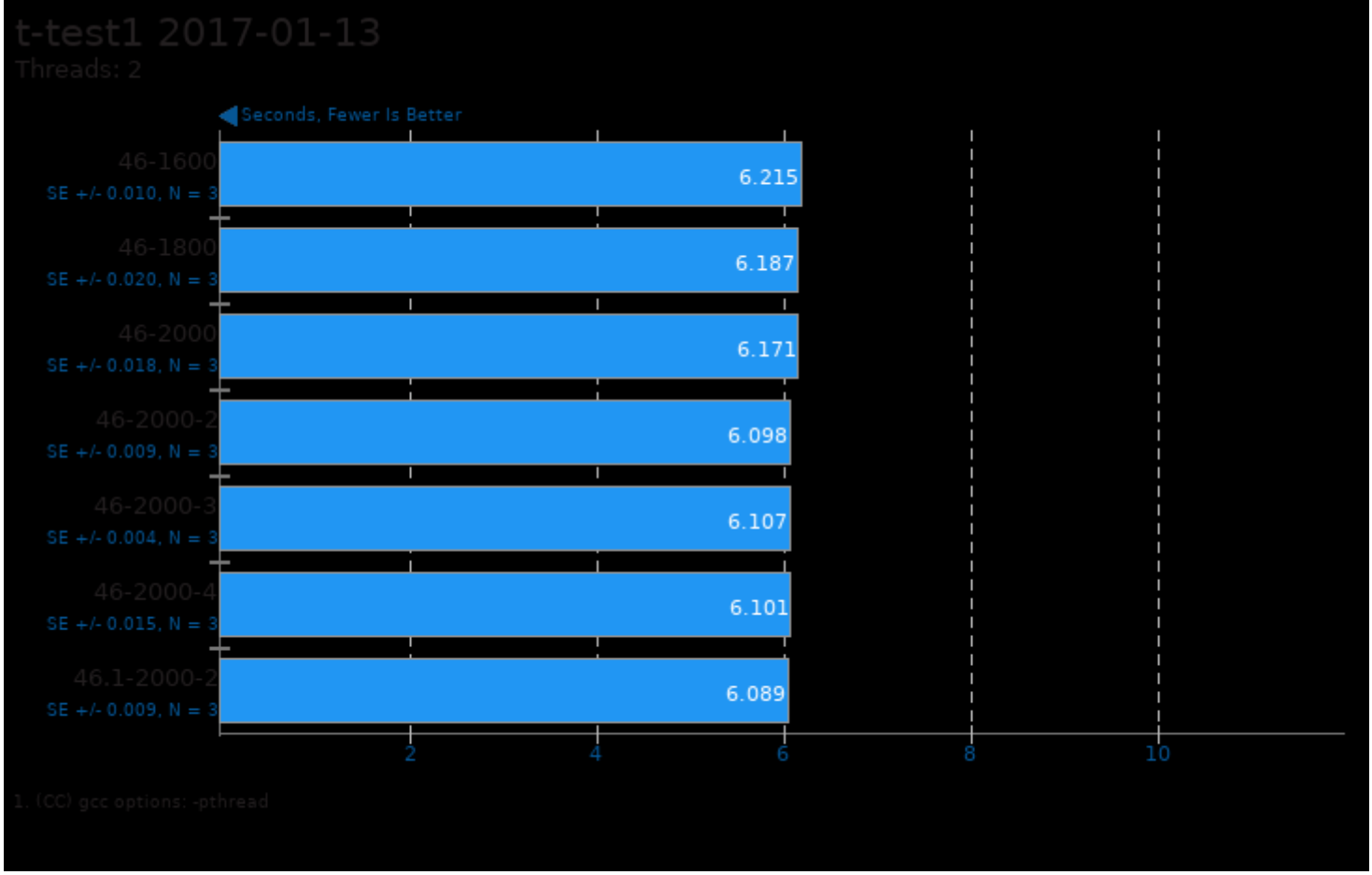
2-m1


Stream 2013-01-17
Type: Triad
MB/s, More Is Better
46-1600
SE +/- 5.19, N = 5
15985.3
46-1800
SE +/- 3.02, N = 5
17957.5
46-2000
SE +/- 11.46, N = 5
19702.9
46-2000-2
SE +/- 4.33, N = 5
19771.8
46-2000-3
SE +/- 9.68, N = 5
19832.3
46-2000-4
SE +/- 2.59, N = 5
19869.9
46-2000-5
SE +/- 6.64, N = 5
19827.4
46.1-2000-2
SE +/- 12.83, N = 5
19918.7
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native -fopenmp

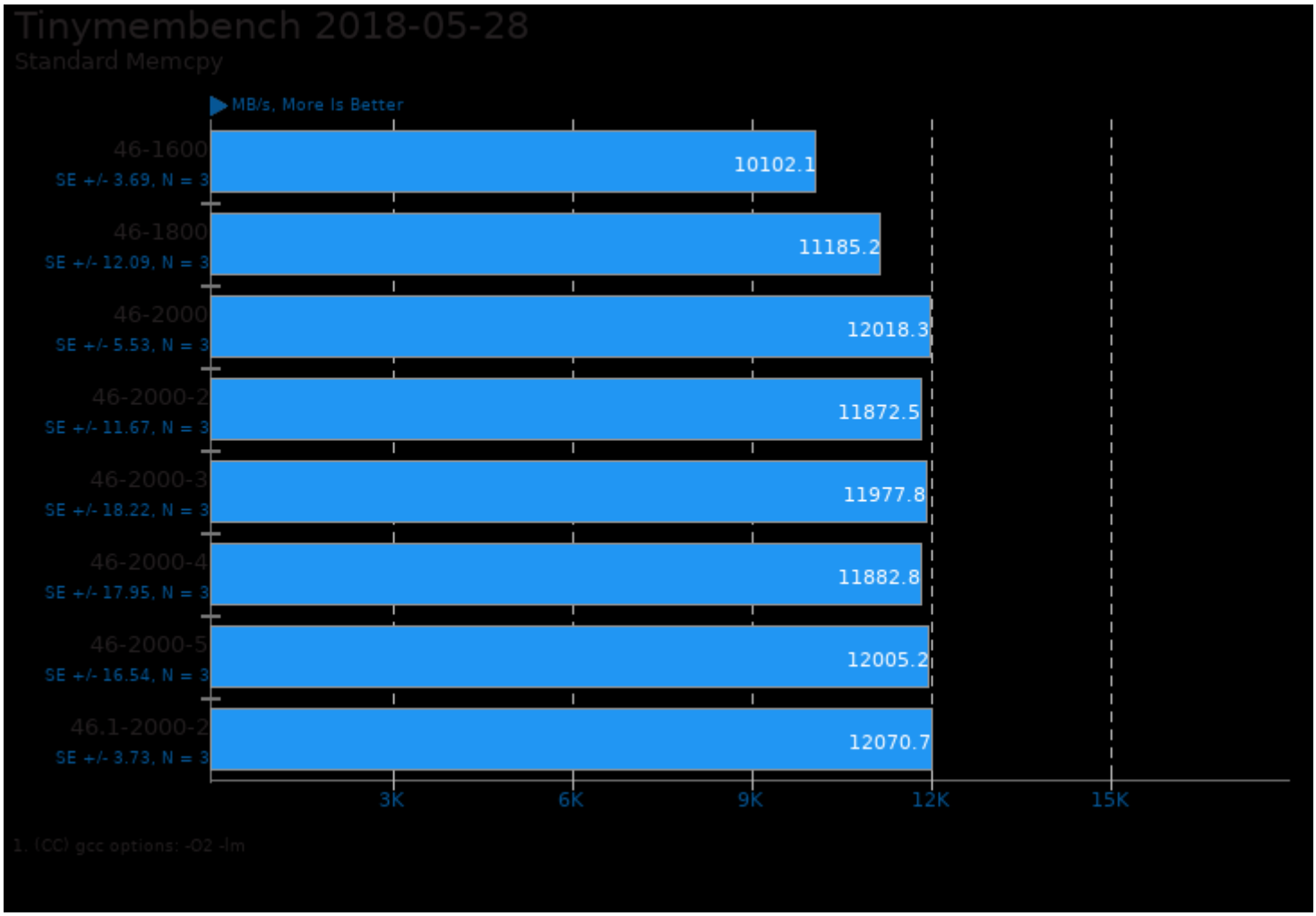
2-m1

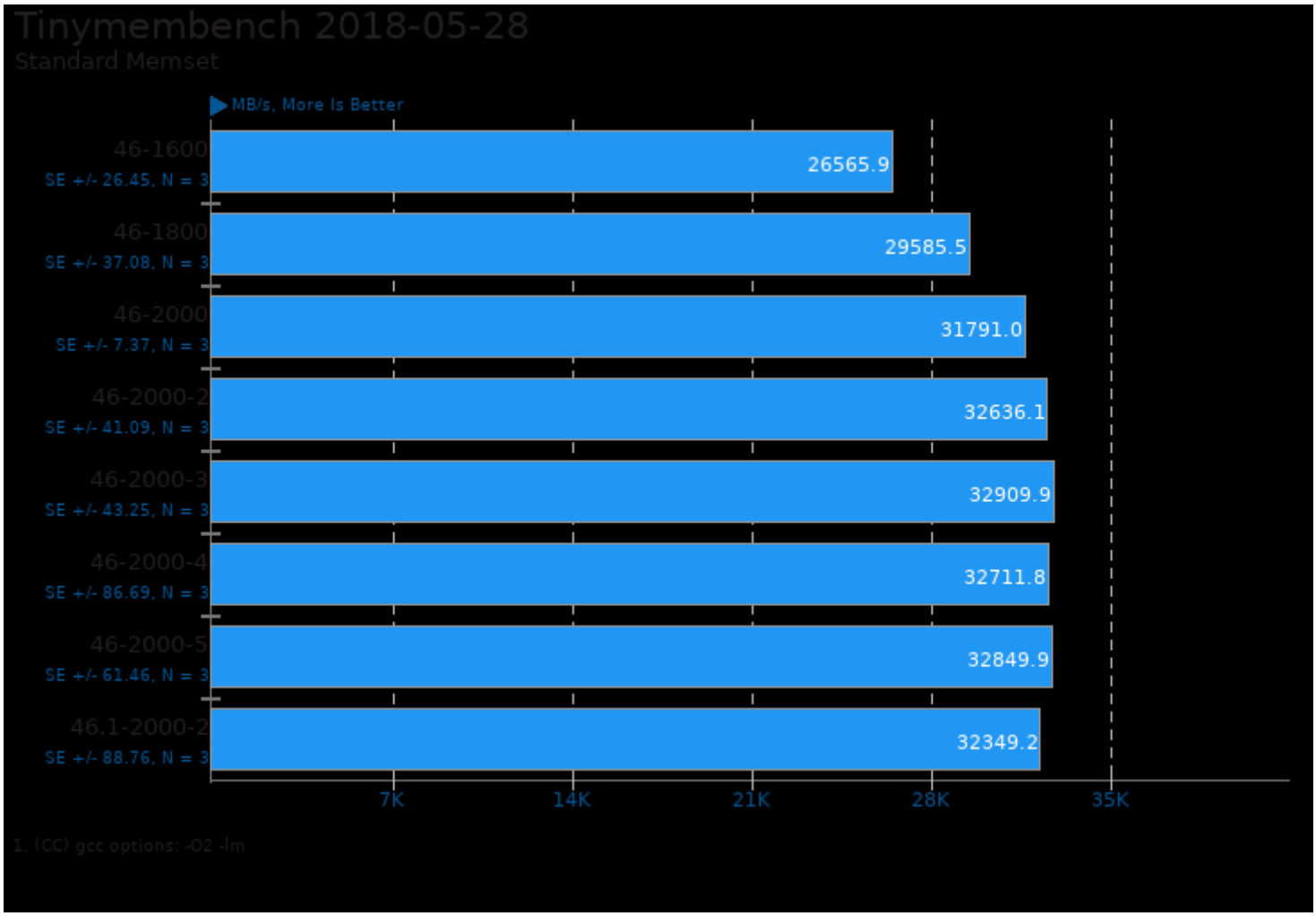

Stream 2013-01-17
Type: Add
MB/s, More Is Better
46-1600
SE +/- 6.47, N = 5
15982.8
46-1800
SE +/- 4.89, N = 5
17965.4
46-2000
SE +/- 17.76, N = 5
19713.4
46-2000-2
SE +/- 4.48, N = 5
19776.6
46-2000-3
SE +/- 9.06, N = 5
19835.5
46-2000-4
SE +/- 1.60, N = 5
19871.9
46-2000-5
SE +/- 9.15, N = 5
19825.5
46.1-2000-2
SE +/- 13.97, N = 5
19922.4
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native -fopenmp


t-test1 2017-01-13
Threads: 1
Seconds, Fewer Is Better
46-1600
SE +/- 0.07, N = 3
20.51
46-1800
SE +/- 0.06, N = 3
20.26
46-2000
SE +/- 0.12, N = 3
20.31
46-2000-2
SE +/- 0.15, N = 3
20.08
46-2000-3
SE +/- 0.18, N = 3
20.16
46-2000-4
SE +/- 0.09, N = 3
20.11
46.1-2000-2
SE +/- 0.04, N = 3
20.04
5
10
15
20
25
1. (CC) gcc options: -pthread

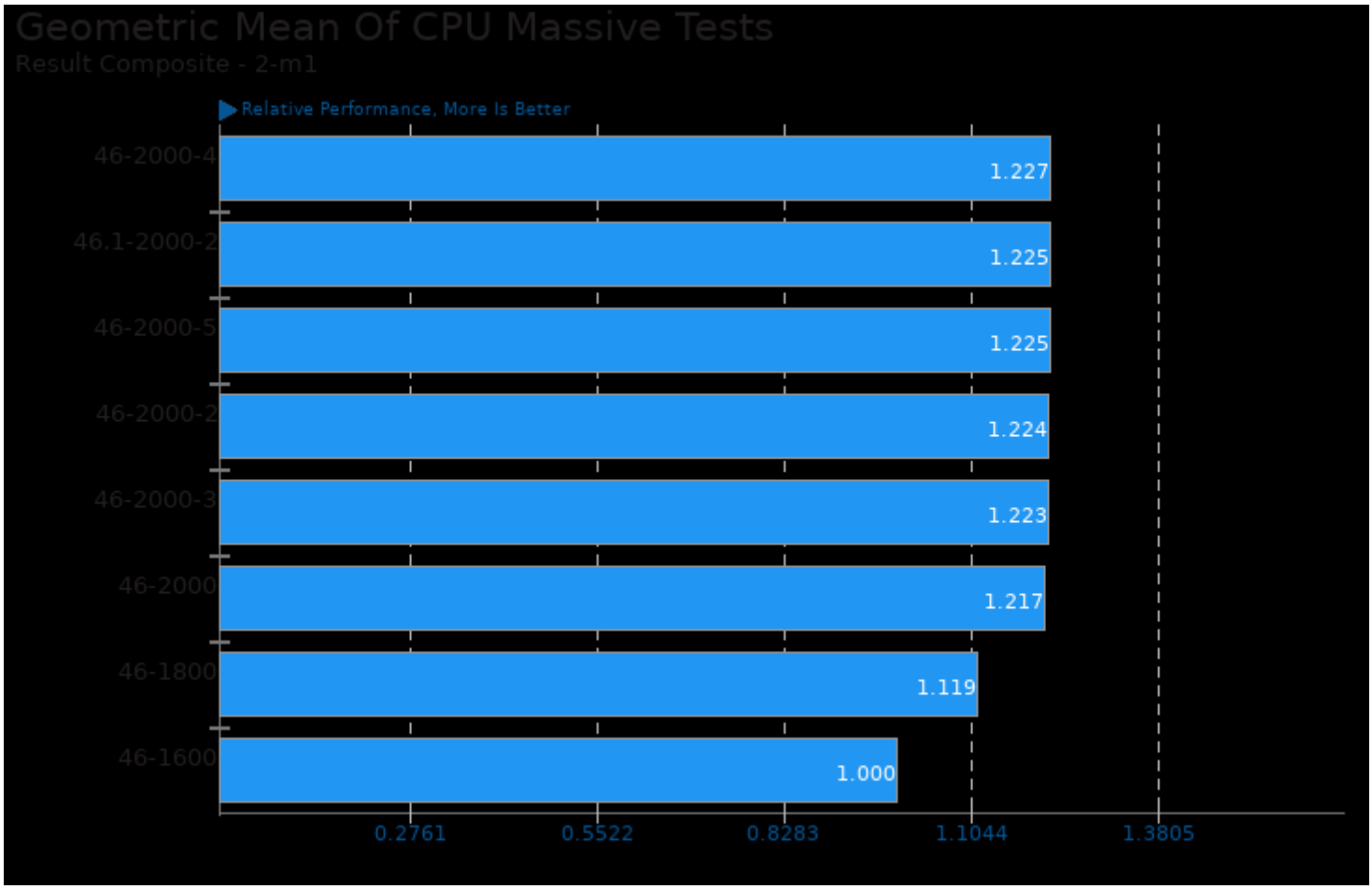

t-test1 2017-01-13
Threads: 2
Seconds, Fewer Is Better
46-1600
SE +/- 0.010, N = 3
6.215
46-1800
SE +/- 0.020, N = 3
6.187
46-2000
SE +/- 0.018, N = 3
6.171
46-2000-2
SE +/- 0.009, N = 3
6.098
46-2000-3
SE +/- 0.004, N = 3
6.107
46-2000-4
SE +/- 0.015, N = 3
6.101
46.1-2000-2
SE +/- 0.009, N = 3
6.089
2
4
6
8
10
1. (CC) gcc options: -pthread

2-m1

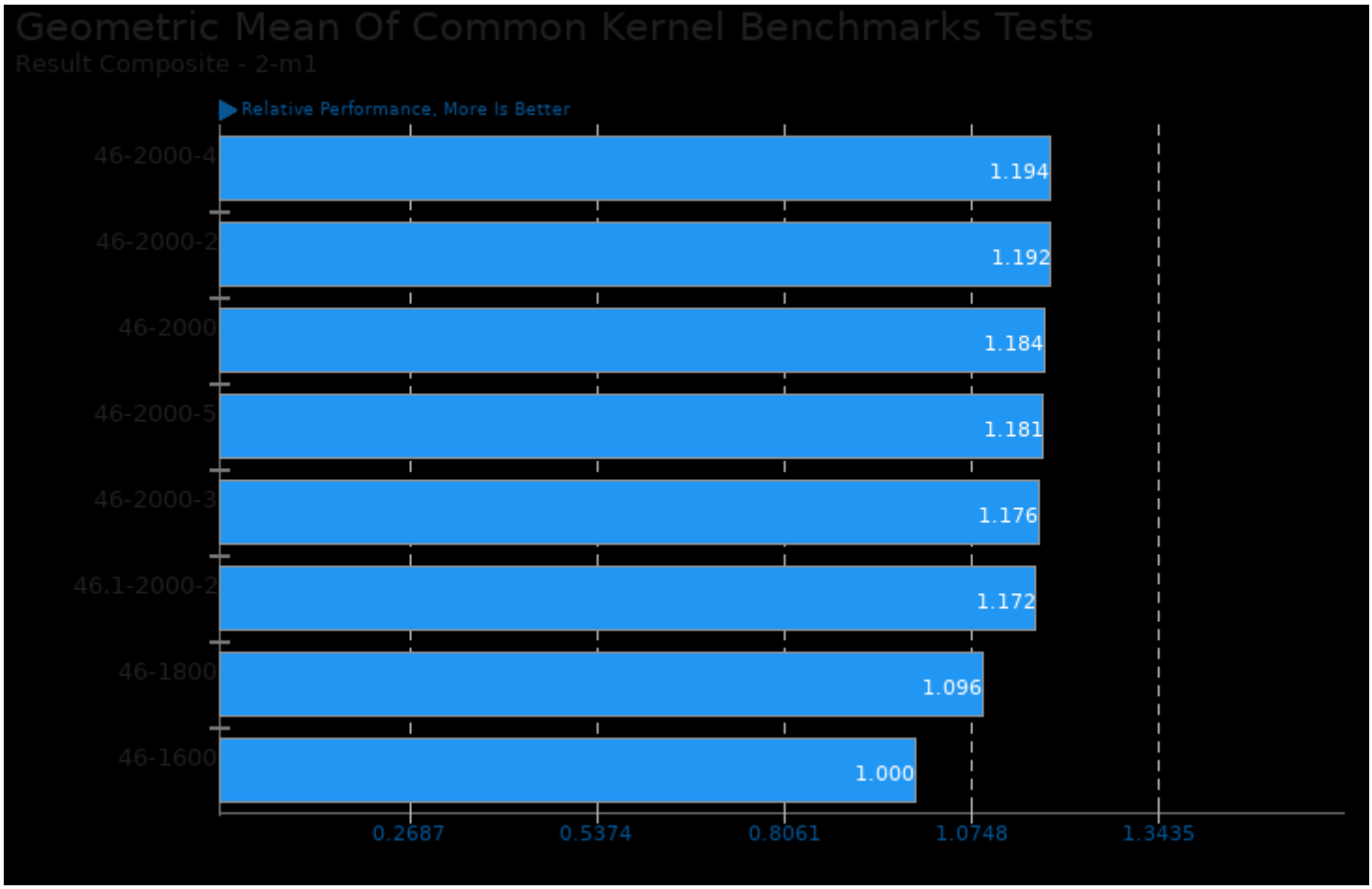

Tinymembench 2018-05-28
Standard Memcpy
MB/s, More Is Better
46-1600
SE +/- 3.69, N = 3
10102.1
46-1800
SE +/- 12.09, N = 3
11185.2
46-2000
SE +/- 5.53, N = 3
12018.3
46-2000-2
SE +/- 11.67, N = 3
11872.5
46-2000-3
SE +/- 18.22, N = 3
11977.8
46-2000-4
SE +/- 17.95, N = 3
11882.8
46-2000-5
SE +/- 16.54, N = 3
12005.2
46.1-2000-2
SE +/- 3.73, N = 3
12070.7
3K
6K
9K
12K
15K
1. (CC) gcc options: -O2 -lm


Tinymembench 2018-05-28
Standard Memset
MB/s, More Is Better
46-1600
SE +/- 26.45, N = 3
26565.9
46-1800
SE +/- 37.08, N = 3
29585.5
46-2000
SE +/- 7.37, N = 3
31791.0
46-2000-2
SE +/- 41.09, N = 3
32636.1
46-2000-3
SE +/- 43.25, N = 3
32909.9
46-2000-4
SE +/- 86.69, N = 3
32711.8
46-2000-5
SE +/- 61.46, N = 3
32849.9
46.1-2000-2
SE +/- 88.76, N = 3
32349.2
7K
14K
21K
28K
35K
1. (CC) gcc options: -O2 -lm

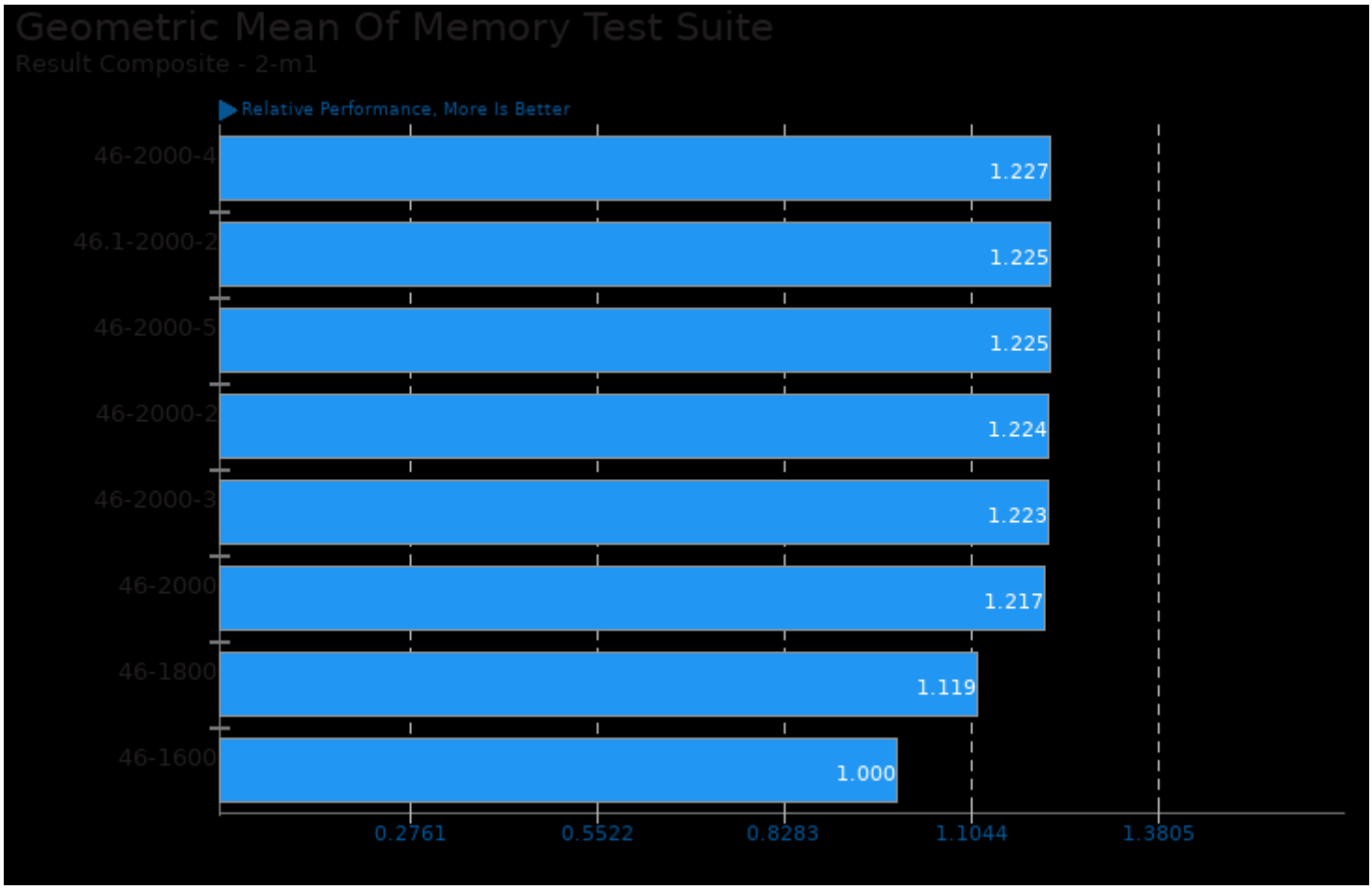
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/cachebench, pts/mbw, pts/ramspeed, pts/stream, pts/t-test1 and pts/tinymembench

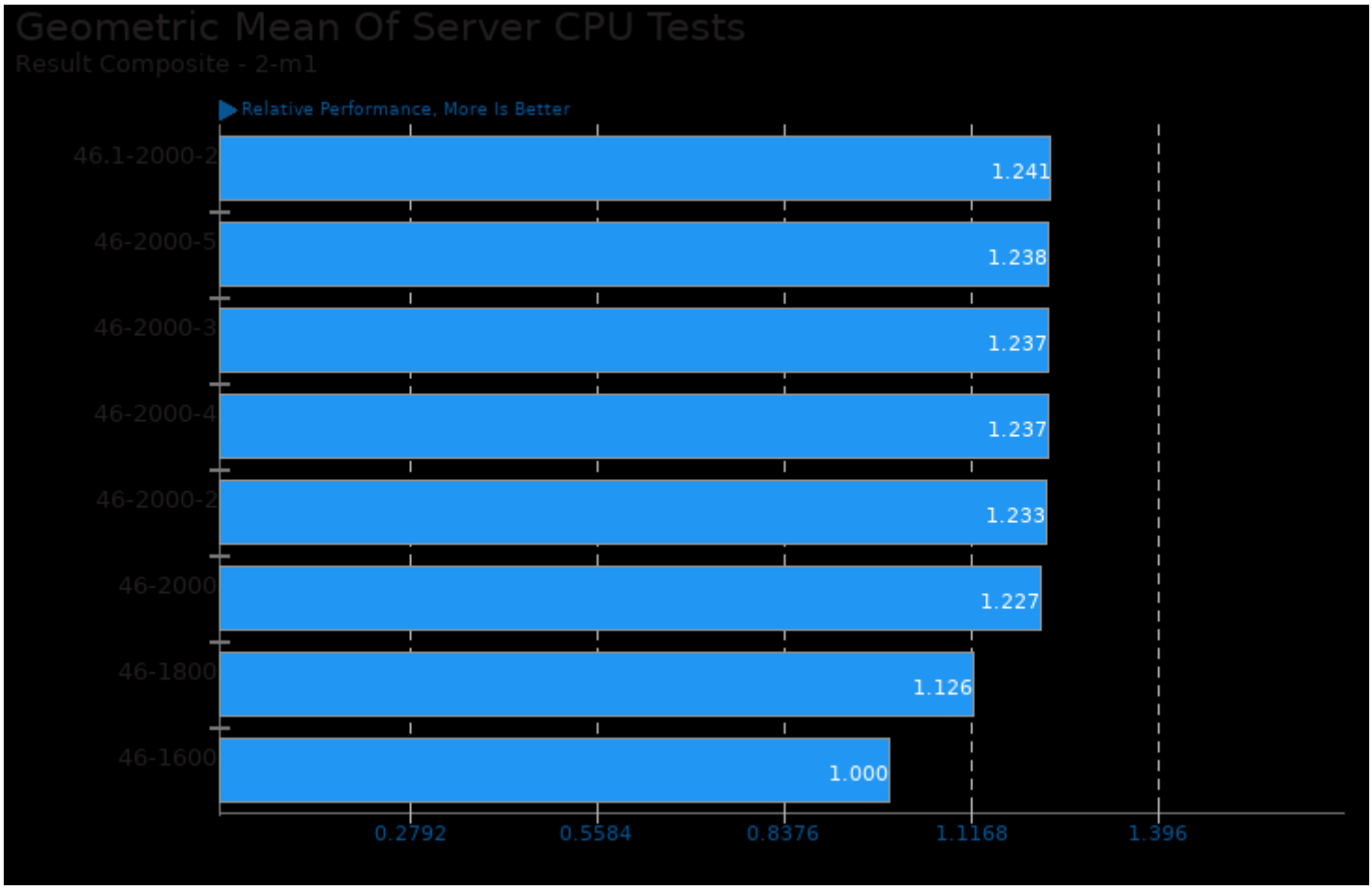


Geometric mean based upon tests: pts/tinymembench, pts/mbw and pts/t-test1



Geometric mean based upon tests: pts/ramspeed, pts/stream, pts/t-test1, pts/cachebench, pts/tinymembench and pts/mbw

2-m1



Geometric mean based upon tests: pts/ramspeed and pts/stream

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 09:32.