

www.phoronix-test-suite.com

stress-5950x

AMD Ryzen 9 5950X 16-Core testing with a ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3801 BIOS) and AMD Radeon RX 6700/6700 XT / 6800M 12GB on Ubuntu 21.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 35% of the tests.

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

Stress-NG (Test: IO_uring) at 4.36x
Stress-NG (Test: Socket Activity) at 1.164x
Stress-NG (Test: Context Switching) at 1.112x
Stress-NG (Test: CPU Cache) at 1.098x
Stress-NG (Test: Memory Copying) at 1.039x
Stress-NG (Test: Glibc C String Functions) at 1.038x
Stress-NG (Test: Forking) at 1.031x
Stress-NG (Test: SENDFILE) at 1.022x
Stress-NG (Test: Glibc Qsort Data Sorting) at 1.018x
Stress-NG (Test: Malloc) at 1.016x.

Test Systems:

1

2

3

4

5

6

7

8

9

10

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3801 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Sabrent Rocket 4.0 Plus, Graphics: AMD Radeon RX 6700/6700 XT / 6800M 12GB (2855/1000MHz), Audio: AMD Device ab28, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 21.10, Kernel: 5.15.0-rc1-phx (x86_64) 20210913, Desktop: GNOME Shell 40.2, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.1.4 (LLVM 12.0.1), Vulkan: 1.2.168, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-M6DaQn/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-M6DaQn/gcc-11-11.2.0/debian/tmp-gcn/usr --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-build-config=bootstrap-lto-lean --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: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201016
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + 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 Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

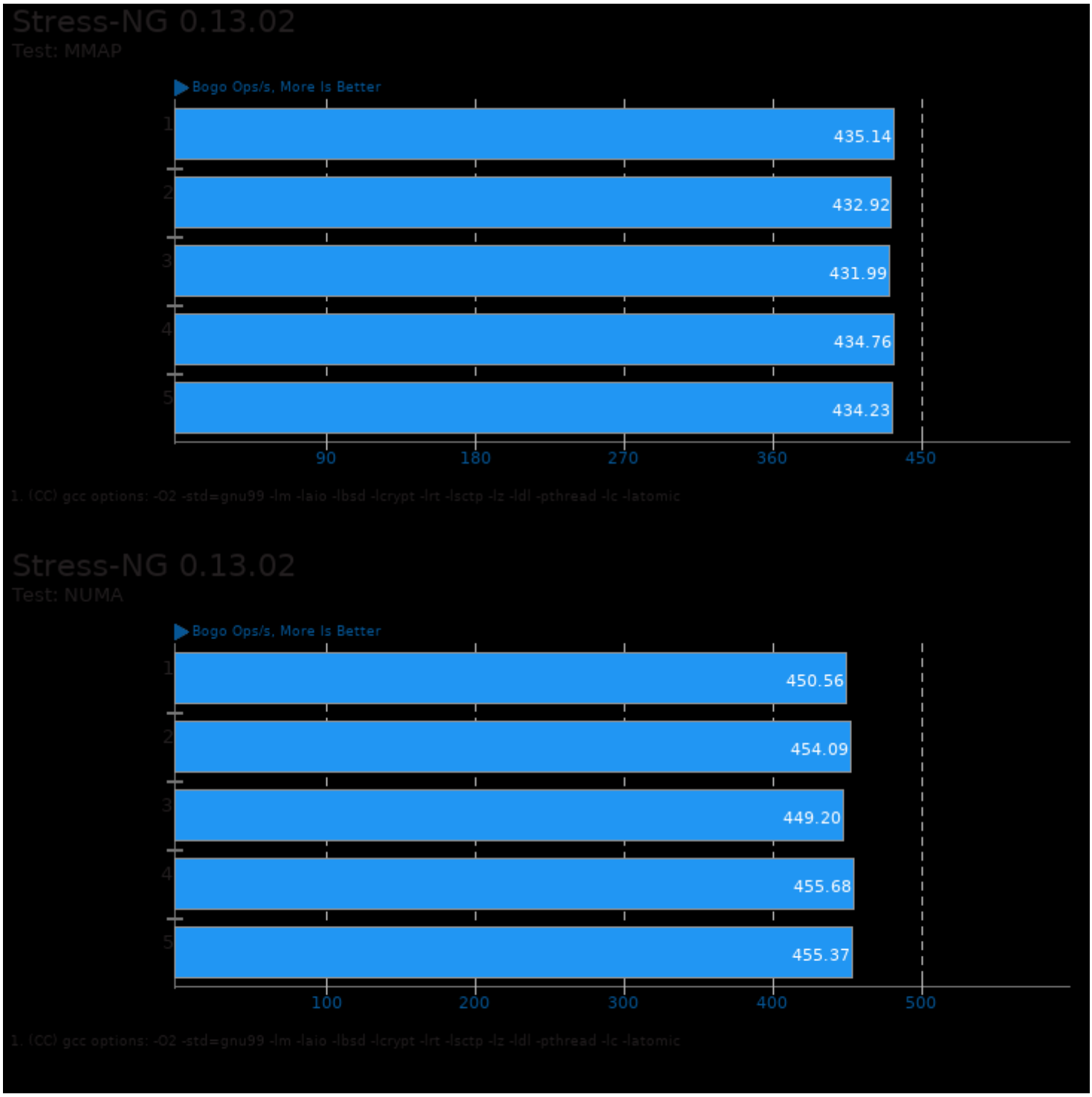
	1	2	3	4	5	6	7	8	9	10
Stress-NG - MMAP (Bogo Ops/s)	435.14	432.92	431.99	434.76	434.23					
Normalized	100%	99.49%	99.28%	99.91%	99.79%					

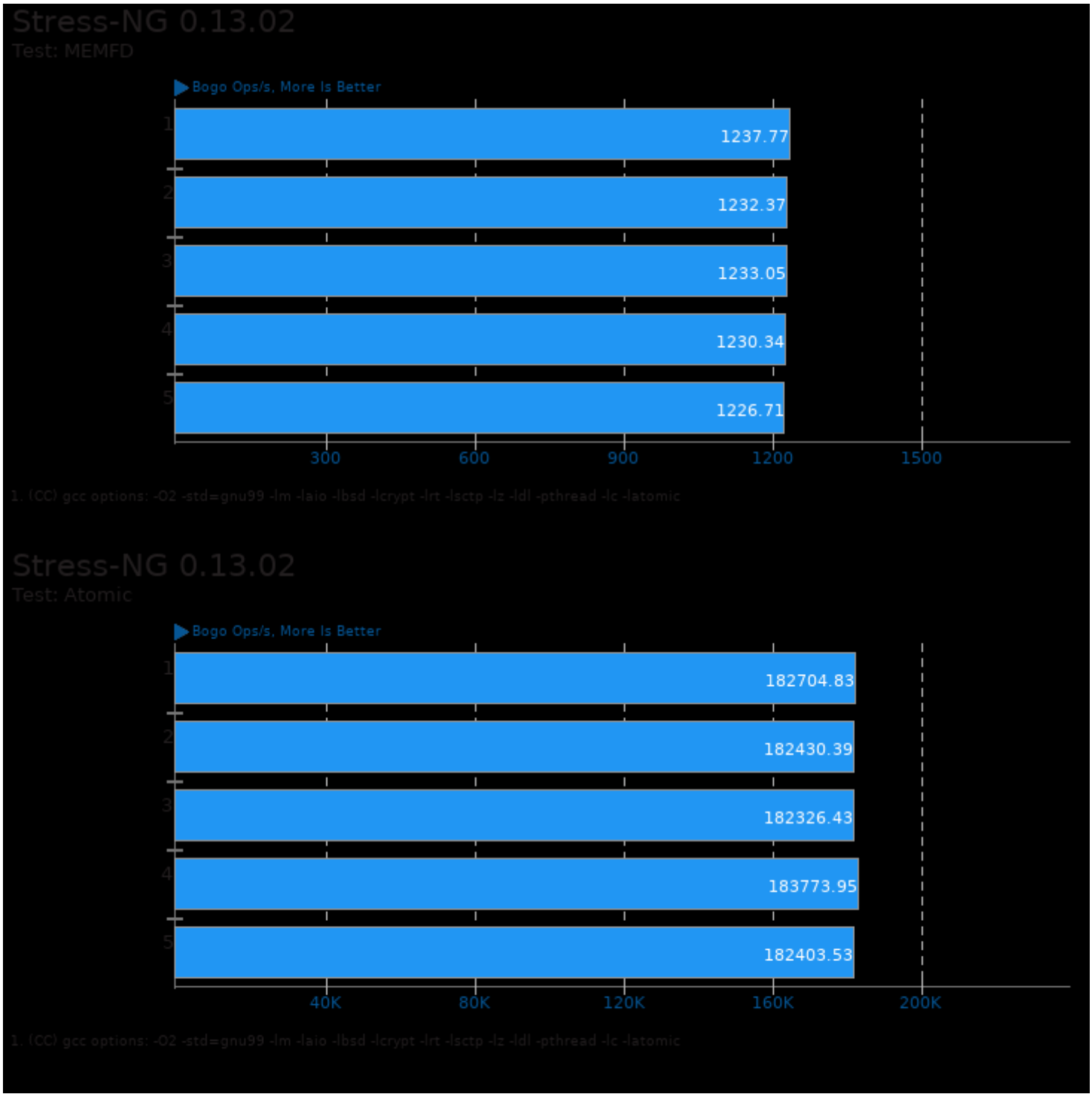
stress-5950x

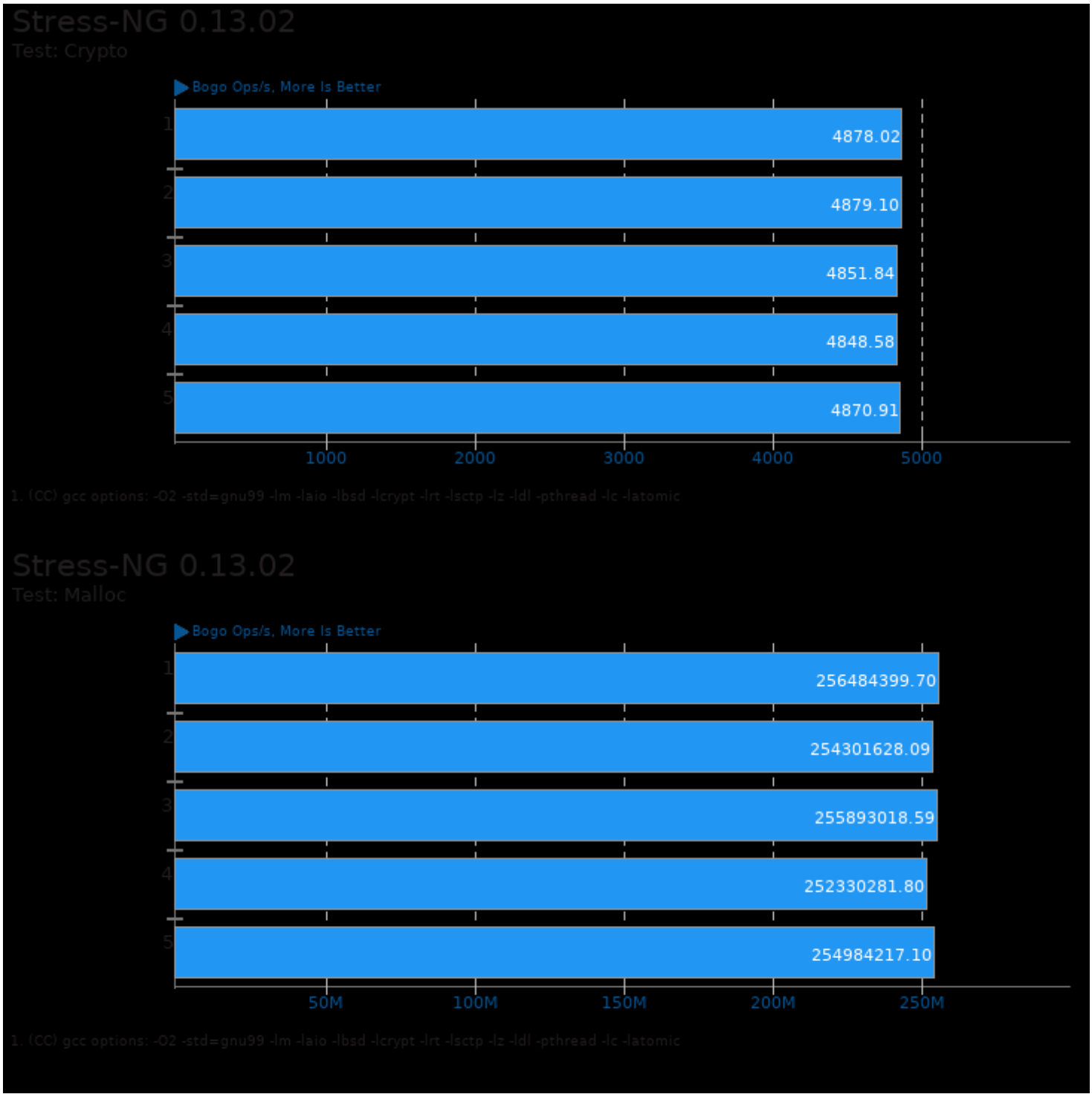
Stress-NG - NUMA (Bogo Ops/s)	450.56	454.09	**449.2**	**455.68**	455.37					
Normalized	98.88%	99.65%	98.58%	100%	99.93%					
Stress-NG - MEMFD (Bogo Ops/s)	**1238**	1232	1233	1230	**1227**					
Normalized	100%	99.56%	99.62%	99.4%	99.11%					
Stress-NG - Atomic (Bogo Ops/s)	182705	182430	**182326**	**183774**	182404					
Normalized	99.42%	99.27%	99.21%	100%	99.25%					
Stress-NG - Crypto (Bogo Ops/s)	4878	**4879**	4852	**4849**	4871					
Normalized	99.98%	100%	99.44%	99.37%	99.83%					
Stress-NG - Malloc (Bogo Ops/s)	**2564844 00**	2543016 28	2558930 19	**2523302 82**	2549842 17					
Normalized	100%	99.15%	99.77%	98.38%	99.42%					
Stress-NG - Forking (Bogo Ops/s)	**62032**	60915	61732	**60154**	60560					
Normalized	100%	98.2%	99.52%	96.97%	97.63%					
Stress-NG - IO_uring (Bogo	**211873**	211192	**48592**	210298	210513	211109	210164	210593	208732	211499
Normalized	100%	99.68%	22.93%	99.26%	99.36%	99.64%	99.19%	99.4%	98.52%	99.82%
Stress-NG - SENDFILE (Bogo Ops/s)	387387	389135	**390355**	386311	**381962**	383931	383995			
Normalized	99.24%	99.69%	100%	98.96%	97.85%	98.35%	98.37%			
Stress-NG - CPU Cache (Bogo	**129.05**	132.25	130.19	136.52	135.38		**141.69**			
Normalized	91.08%	93.34%	91.88%	96.35%	95.55%		100%			
Stress-NG - CPU Stress (Bogo	**49636**	49619	**49292**	49464	49443					
Normalized	100%	99.97%	99.31%	99.66%	99.61%					
Stress-NG - Semaphores (Bogo Ops/s)	2408026	2413165	2408133	**2402325**	**2430351**					
Normalized	99.08%	99.29%	99.09%	98.85%	100%					
Stress-NG - Matrix Math (Bogo Ops/s)	**74352**	**75026**	74894	74956	74352		74566			
Normalized	99.1%	100%	99.82%	99.91%	99.1%		99.39%			
Stress-NG - Vector Math (Bogo Ops/s)	107950	107904	107868	107756	**107744**	**108058**	107774			
Normalized	99.9%	99.86%	99.82%	99.72%	99.71%	100%	99.74%			
Stress-NG - Memory Copying (Bogo Ops/s)	2691	2670	2733	**2660**	**2763**					
Normalized	97.4%	96.63%	98.93%	96.26%	100%					
Stress-NG - Socket Activity (Bogo	12891	13095	**11352**	11933	12626		**13215**			
Normalized	97.55%	99.09%	85.9%	90.3%	95.54%		100%			

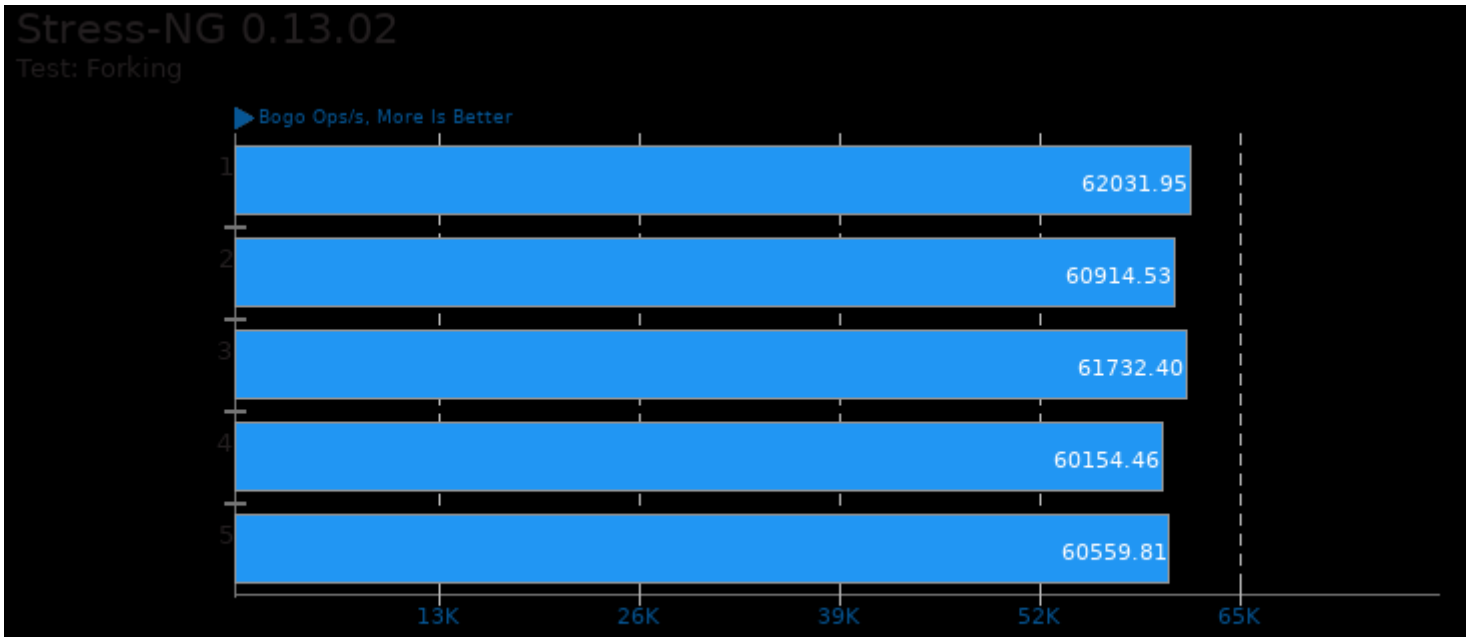
stress-5950x

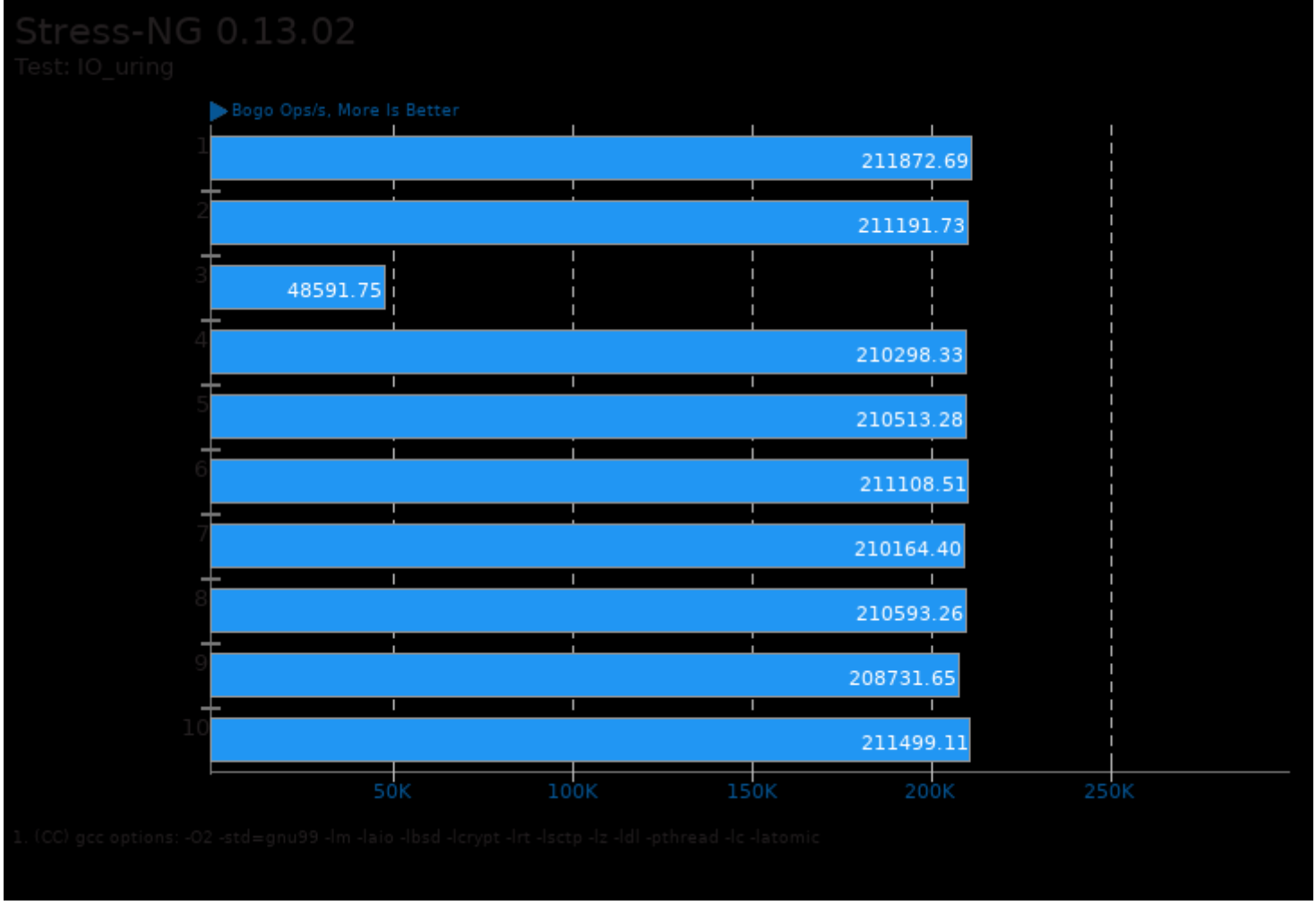
Stress-NG - Context Switching (Bogo Ops/s)	**3877675**	3969970	3974535	3918705	**4313849**	4175688	3918796
Normalized	89.89%	92.03%	92.13%	90.84%	100%	96.8%	90.84%
Stress-NG - G.C.S.F (Bogo Ops/s)	1311726	**1272988**	**1321521**	1308592	1303597		
Normalized	99.26%	96.33%	100%	99.02%	98.64%		
Stress-NG - G.Q.D.S (Bogo	258.83	**259.07**	259.03	**254.6**	258.9		
Normalized	99.91%	100%	99.98%	98.27%	99.93%		
Stress-NG - S.V.M.P (Bogo Ops/s)	**1428627 9**	**1423199 7**	1423335 7	1427126 2	1425438 2		
Normalized	100%	99.62%	99.63%	99.89%	99.78%		

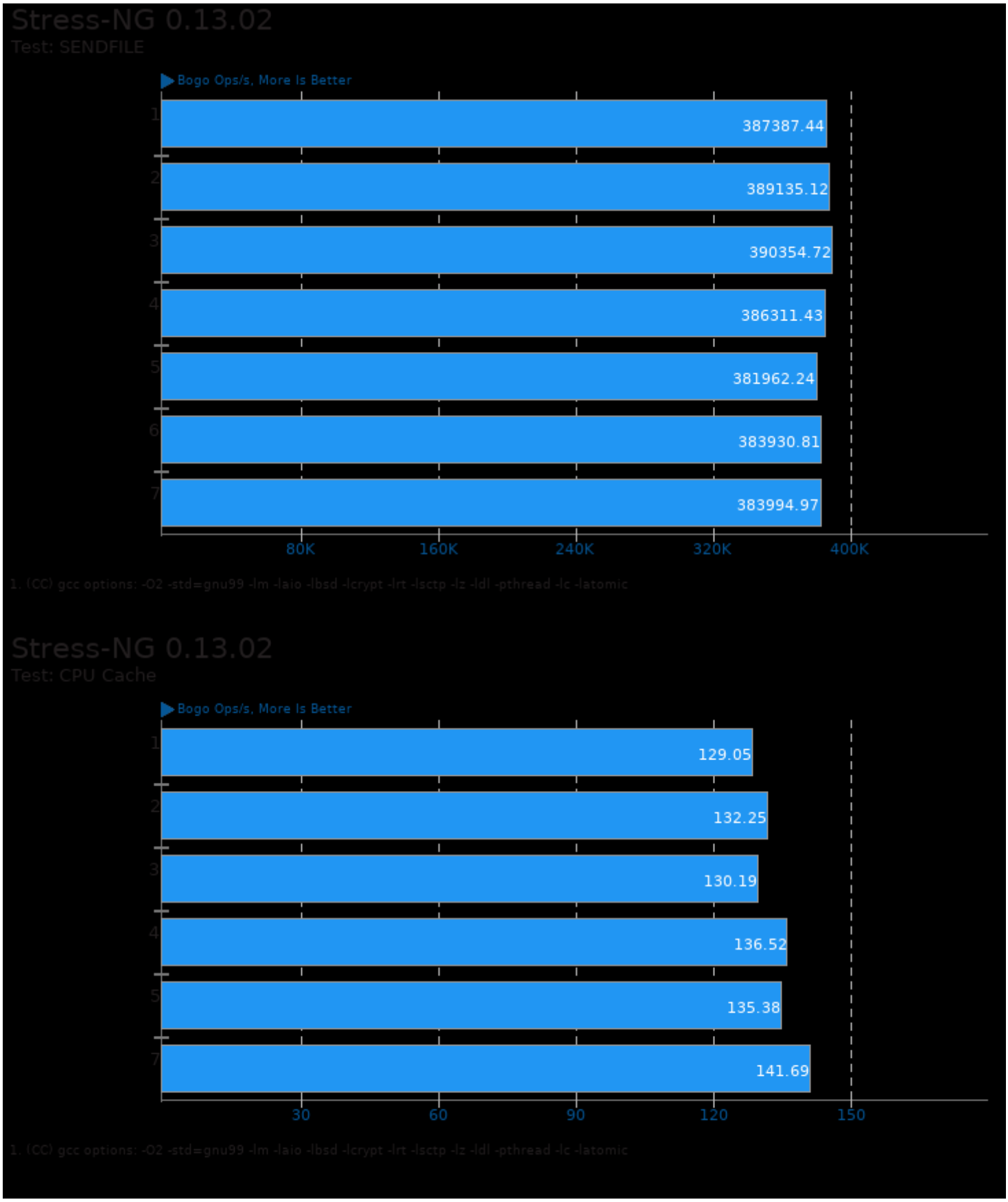

Stress-NG 0.13.02
Test: MMAP
Bogo Ops/s, More Is Better
1
2
3
4
5
435.14
432.92
431.99
434.76
434.23
90
180
270
360
450
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: NUMA
Bogo Ops/s, More Is Better
1
2
3
4
5
450.56
454.09
449.20
455.68
455.37
100
200
300
400
500
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic


Stress-NG 0.13.02
Test: MEMFD
Bogo Ops/s, More Is Better
1237.77
1232.37
1233.05
1230.34
1226.71
300
600
900
1200
1500
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Atomic
Bogo Ops/s, More Is Better
182704.83
182430.39
182326.43
183773.95
182403.53
40K
80K
120K
160K
200K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

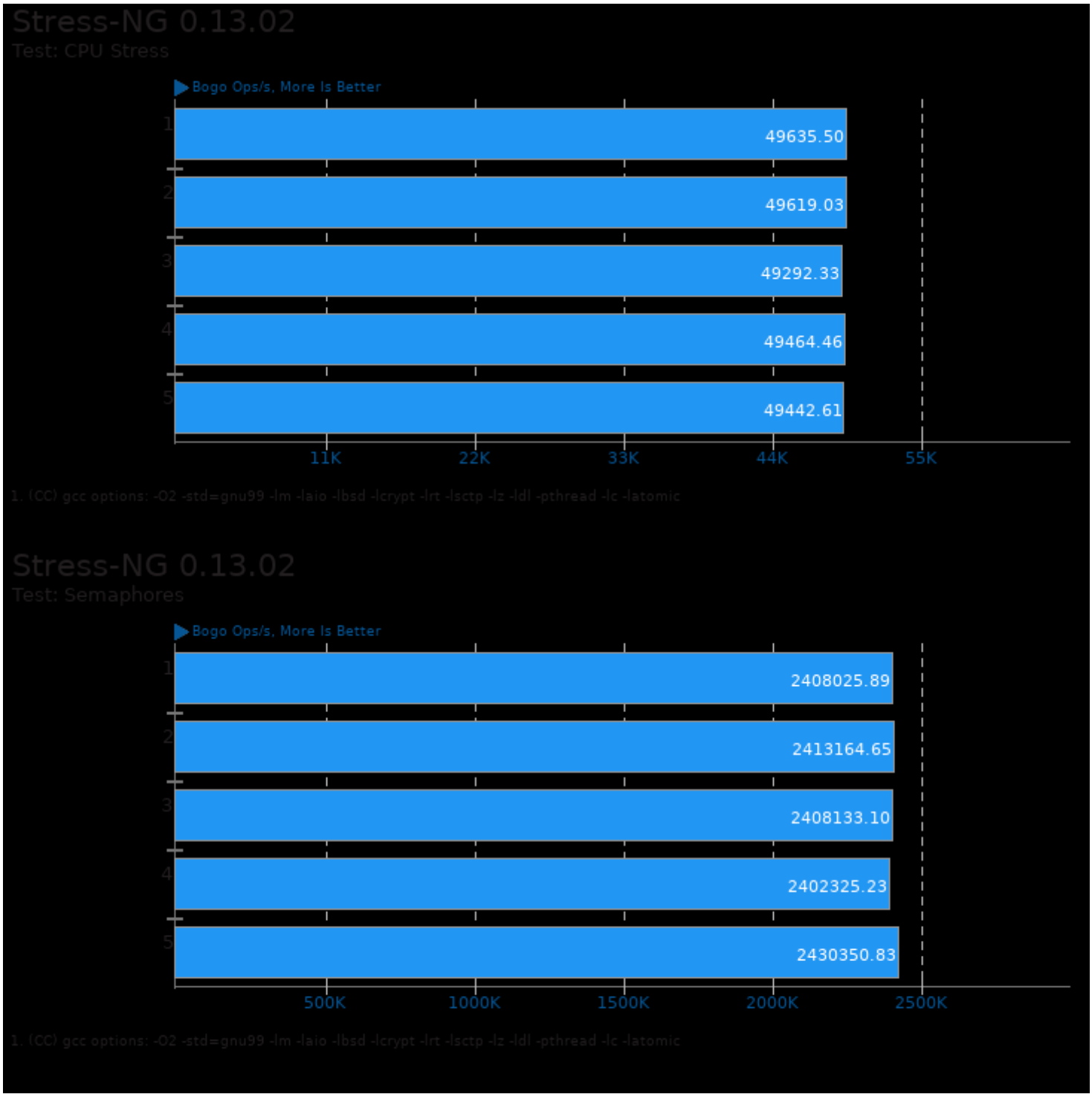

Stress-NG 0.13.02
Test: Crypto
Bogo Ops/s, More Is Better
1
2
3
4
5
4878.02
4879.10
4851.84
4848.58
4870.91
1000
2000
3000
4000
5000
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Malloc
Bogo Ops/s, More Is Better
1
2
3
4
5
256484399.70
254301628.09
255893018.59
252330281.80
254984217.10
50M
100M
150M
200M
250M
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

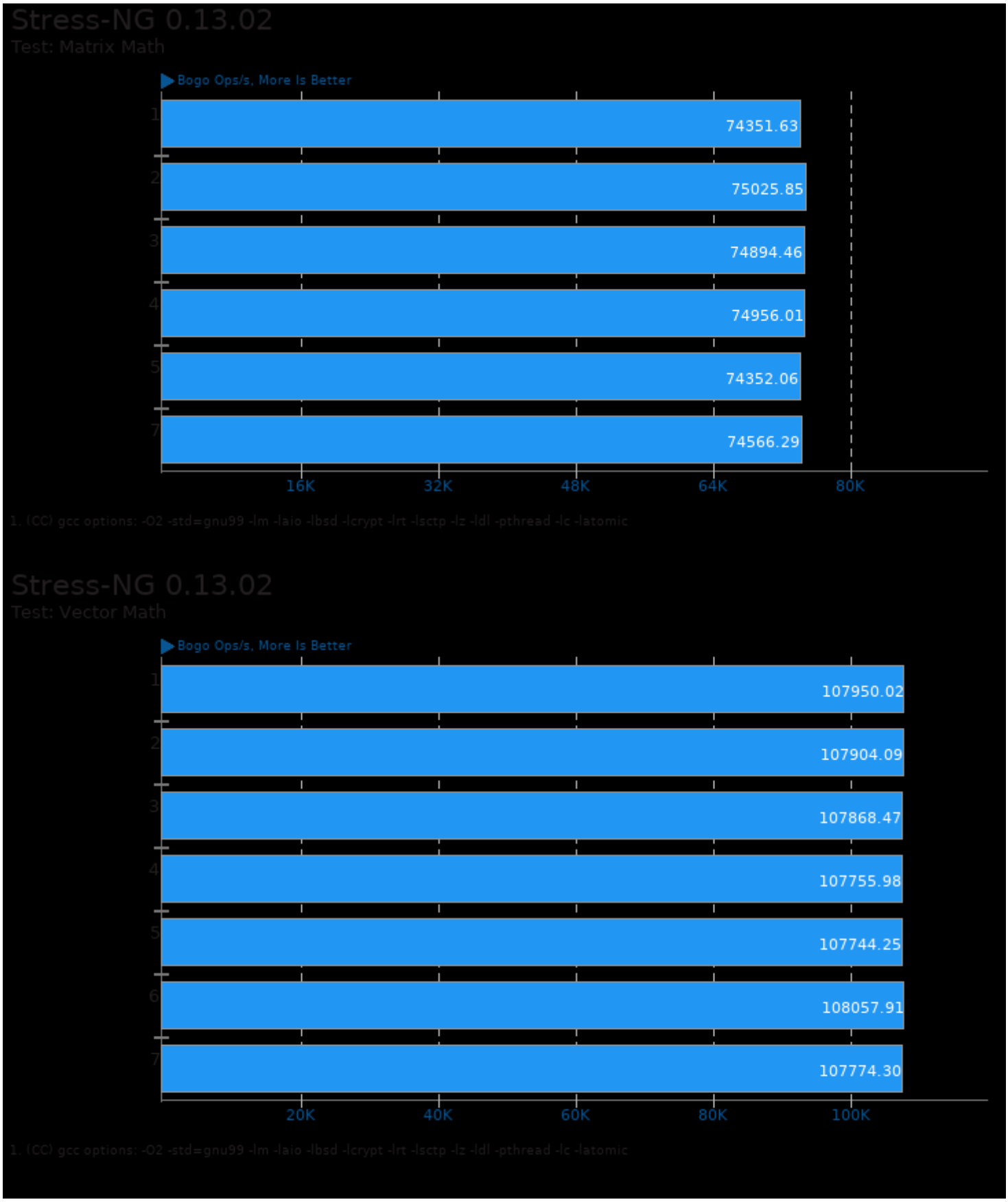

Stress-NG 0.13.02
Test: Forking
Bogo Ops/s, More Is Better
1
2
3
4
5
62031.95
60914.53
61732.40
60154.46
60559.81
13K
26K
39K
52K
65K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

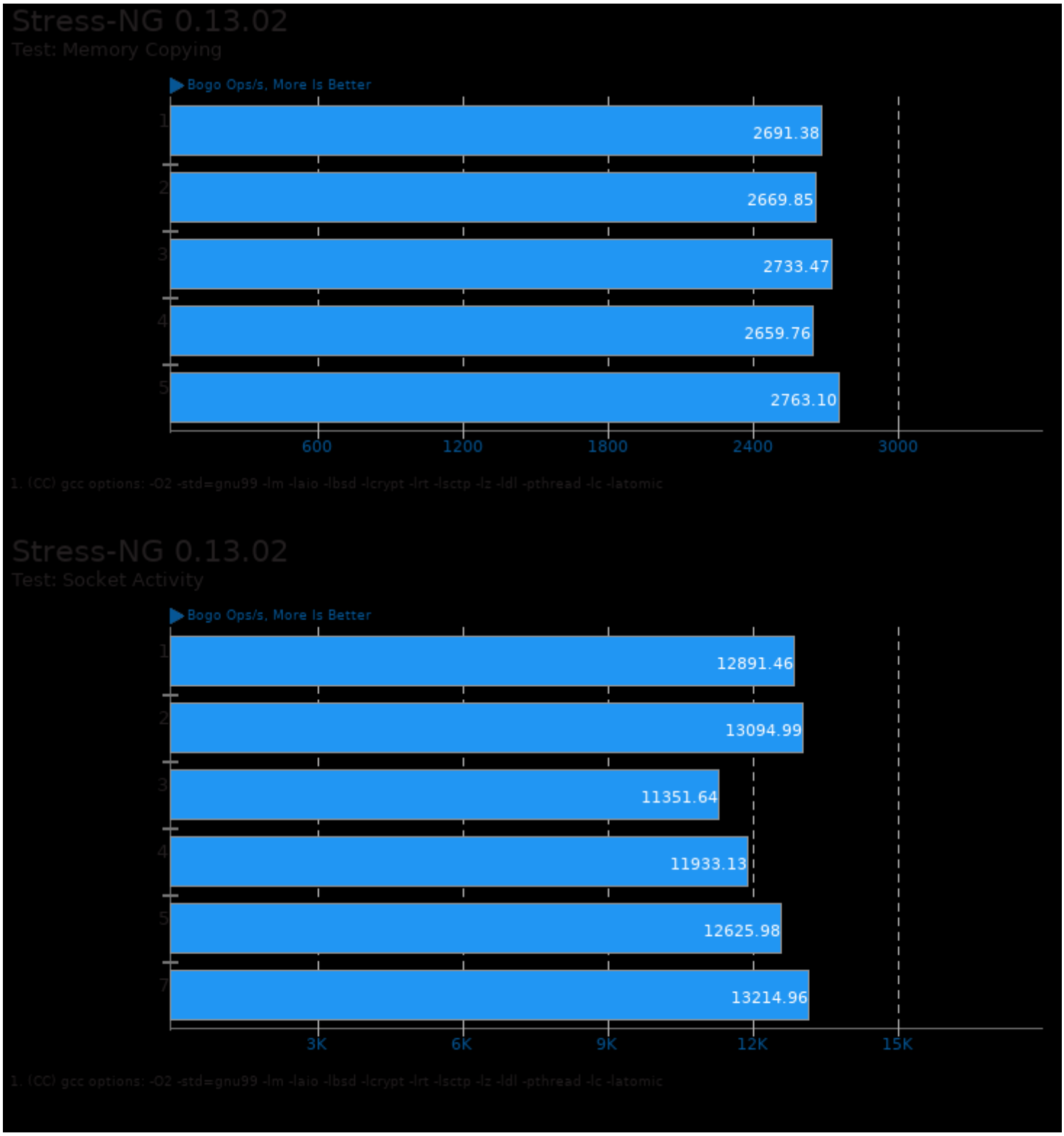

Stress-NG 0.13.02
Test: IO_uring
Bogo Ops/s, More Is Better
1
2
3
4
5
6
7
8
9
10
211872.69
211191.73
48591.75
210298.33
210513.28
211108.51
210164.40
210593.26
208731.65
211499.11
50K
100K
150K
200K
250K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

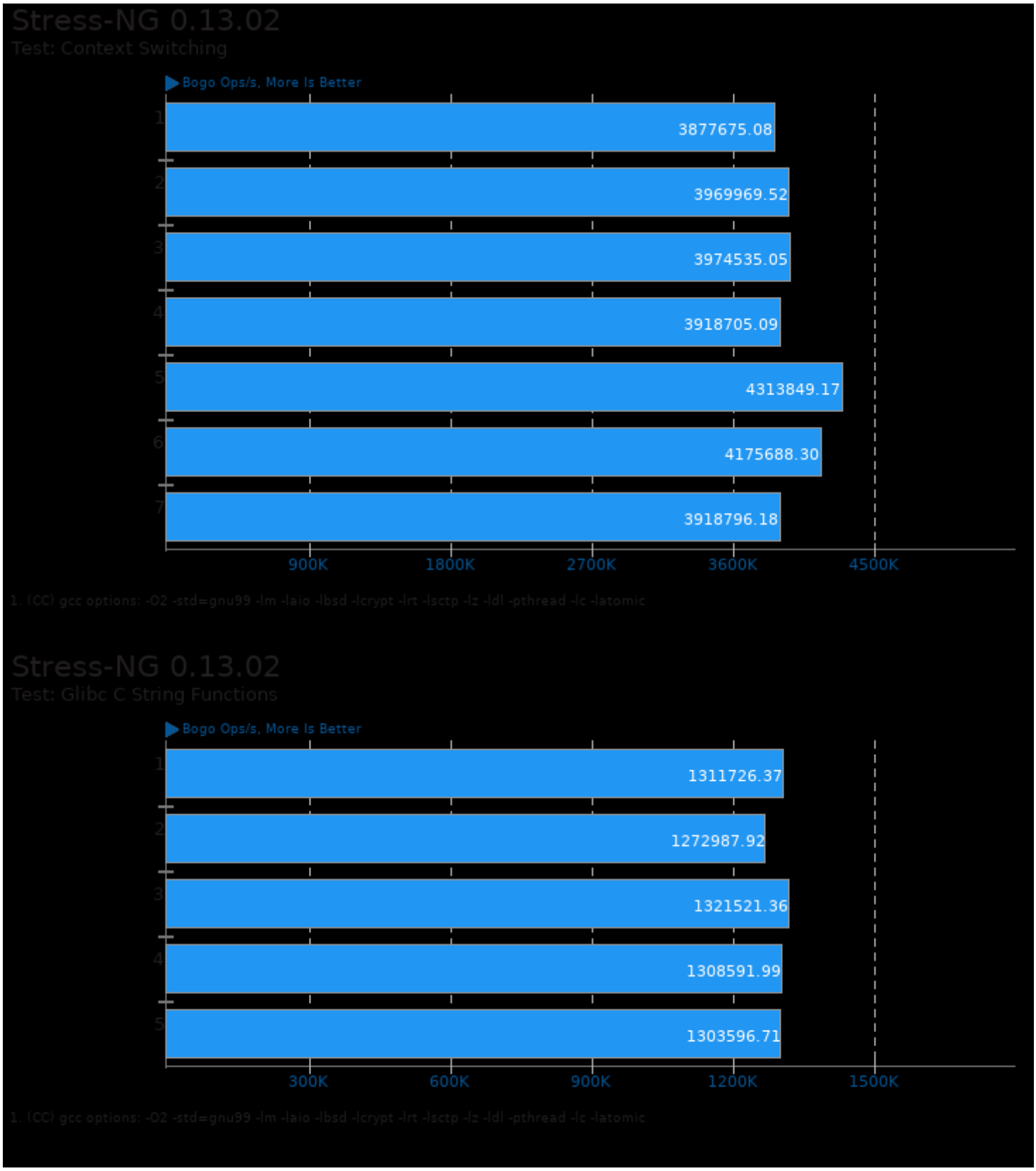

Stress-NG 0.13.02
Test: SENDFILE
Bogo Ops/s, More Is Better
1
2
3
4
5
6
7
387387.44
389135.12
390354.72
386311.43
381962.24
383930.81
383994.97
80K
160K
240K
320K
400K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: CPU Cache
Bogo Ops/s, More Is Better
1
2
3
4
5
7
129.05
132.25
130.19
136.52
135.38
141.69
30
60
90
120
150
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

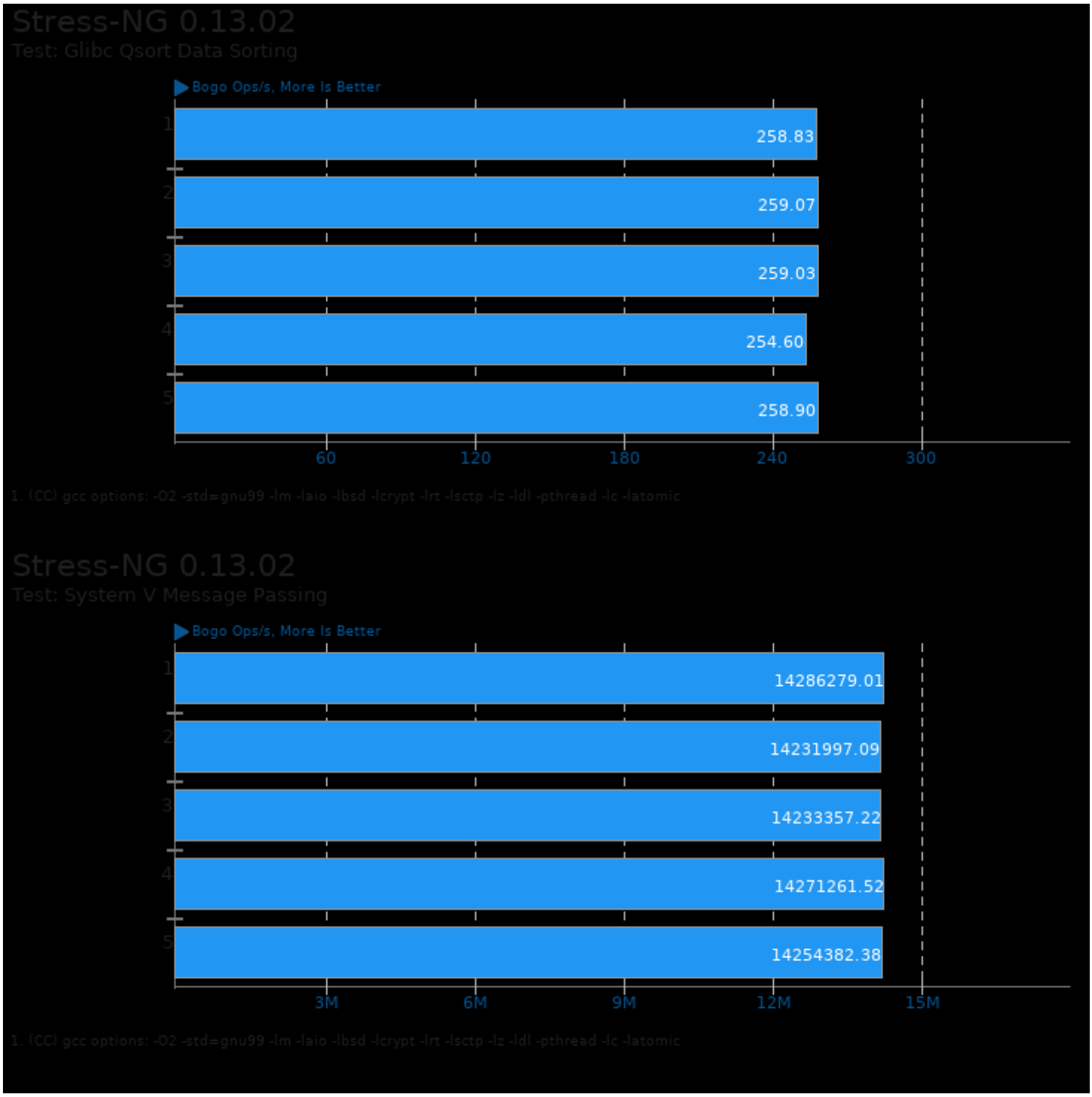
stress-5950x




Stress-NG 0.13.02
Test: Matrix Math
Bogo Ops/s, More Is Better
1
74351.63
2
75025.85
3
74894.46
4
74956.01
5
74352.06
7
74566.29
16K
32K
48K
64K
80K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Vector Math
Bogo Ops/s, More Is Better
1
107950.02
2
107904.09
3
107868.47
4
107755.98
5
107744.25
6
108057.91
7
107774.30
20K
40K
60K
80K
100K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic


Stress-NG 0.13.02
Test: Memory Copying
Bogo Ops/s, More Is Better
1
2691.38
2
2669.85
3
2733.47
4
2659.76
5
2763.10
600
1200
1800
2400
3000
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Socket Activity
Bogo Ops/s, More Is Better
1
12891.46
2
13094.99
3
11351.64
4
11933.13
5
12625.98
7
13214.96
3K
6K
9K
12K
15K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic


Stress-NG 0.13.02
Test: Context Switching
Bogo Ops/s, More Is Better
1
3877675.08
2
3969969.52
3
3974535.05
4
3918705.09
5
4313849.17
6
4175688.30
7
3918796.18
900K
1800K
2700K
3600K
4500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Glibc C String Functions
Bogo Ops/s, More Is Better
1
1311726.37
2
1272987.92
3
1321521.36
4
1308591.99
5
1303596.71
300K
600K
900K
1200K
1500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lbsd -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:27.