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JS-H01_AIE-CT42

ARMv8 Cortex-A57 testing with a lanai-3636 and NVIDIA TEGRA on Ubuntu 18.04 via the Phoronix Test Suite.

Test Systems:

USB 3.0

USB2.0

M.2 SSD

eMMC

Processor: ARMv8 Cortex-A57 @ 2.04GHz (6 Cores), Motherboard: lanai-3636, Memory: 4096MB, Disk: 120GB M.2 (P42) 3TE6 + 16GB USB Drive 3ME + 16GB DG4016, Graphics: NVIDIA TEGRA, Monitor: PHL 247E6, Network: 2 x Intel I210 + Intel 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.9.201-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Vulkan:

1.2.131, Compiler: GCC 7.5.0 + CUDA 10.2, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=aarch64-linux-gnu --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v
Disk Notes: none / data=ordered,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: tegra_cpufreq schedutil

SSD

CPU Stress

Processor: ARMv8 Cortex-A57 @ 2.04GHz (6 Cores), Motherboard: lanai-3636, Memory: 4096MB, Disk: 120GB M.2 (P42) 3TE6 + 16GB DG4016, Graphics: NVIDIA TEGRA, Monitor: PHL 247E6, Network: 2 x Intel I210 + Intel 8265 / 8275

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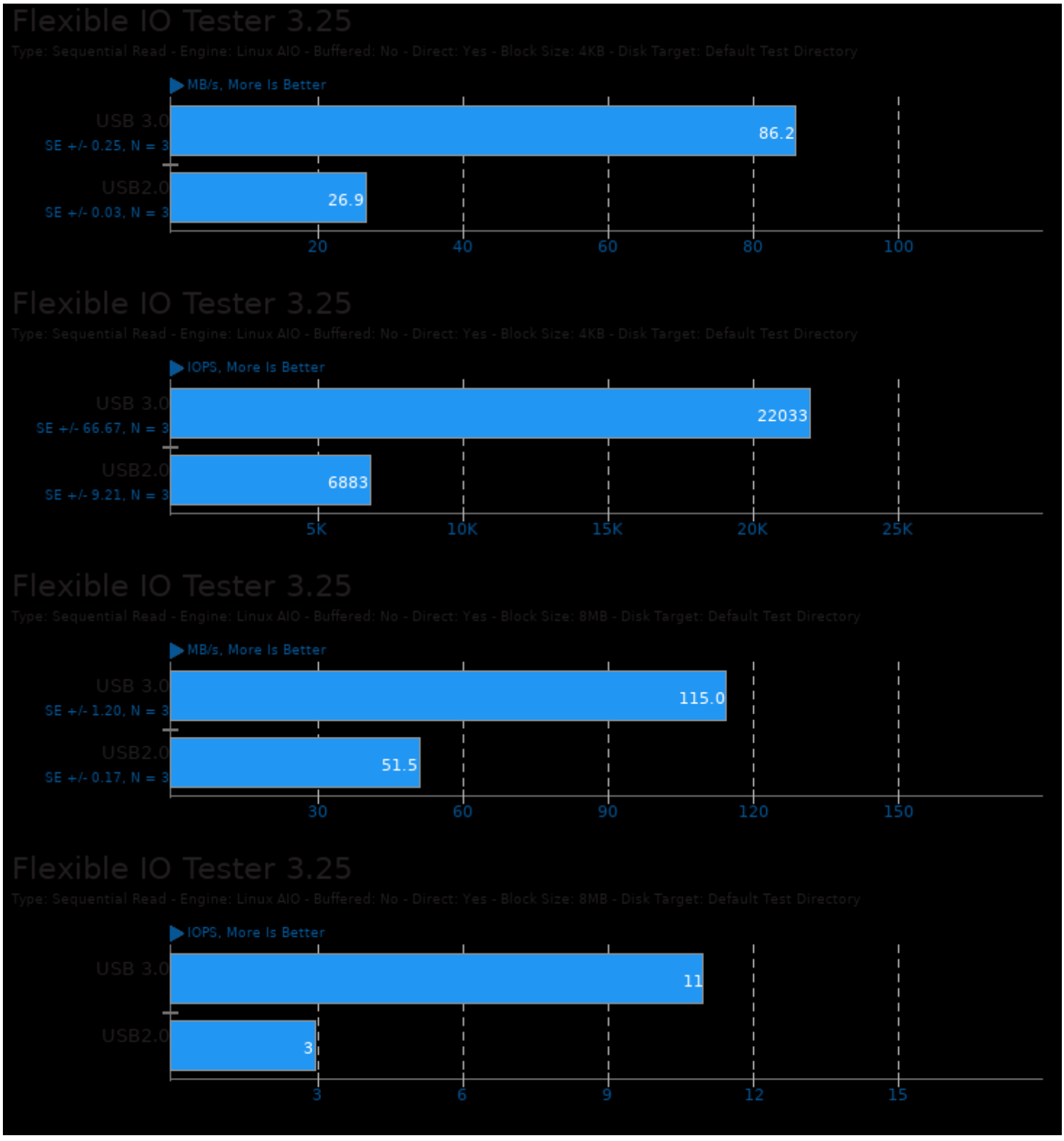
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Processor Notes: Scaling Governor: tegra_cpufreq schedutil

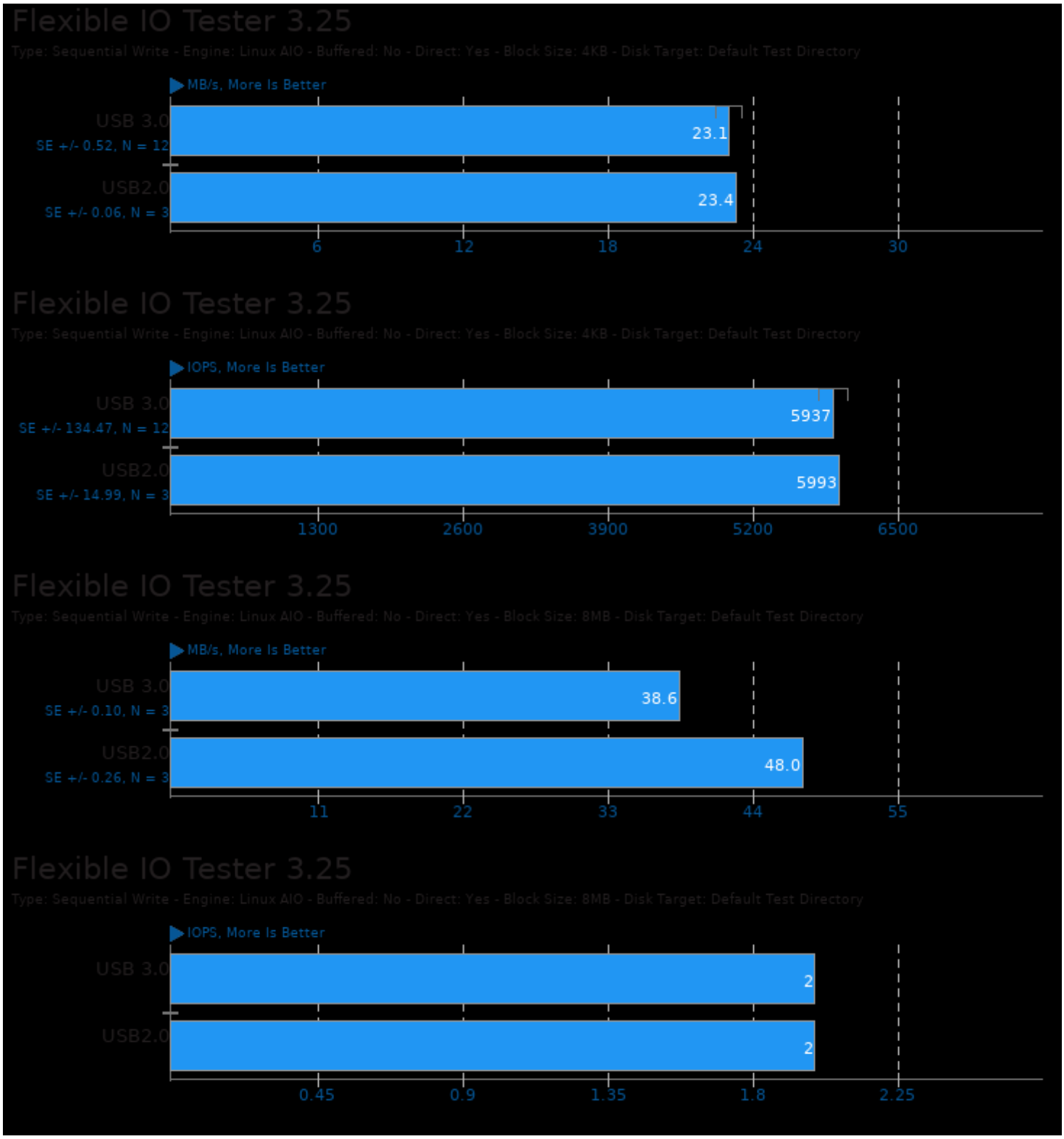
	USB 3.0	USB2.0	M.2 SSD	eMMC	SSD	CPU Stress
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 4KB (MB/s)	**86.2**	**26.9**				
Normalized	100%	31.21%				
Standard Deviation	0.5%	0.2%				
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 4KB (IOPS)	**22033**	**6883**				
Normalized	100%	31.24%				
Standard Deviation	0.5%	0.2%				
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 8MB (MB/s)	**115**	**51.5**				
Normalized	100%	44.78%				
Standard Deviation	1.8%	0.6%				
Flexible IO Tester - Seq Read - Linux AIO - No - Yes - 8MB (IOPS)	**11**	**3**				
Normalized	100%	27.27%				

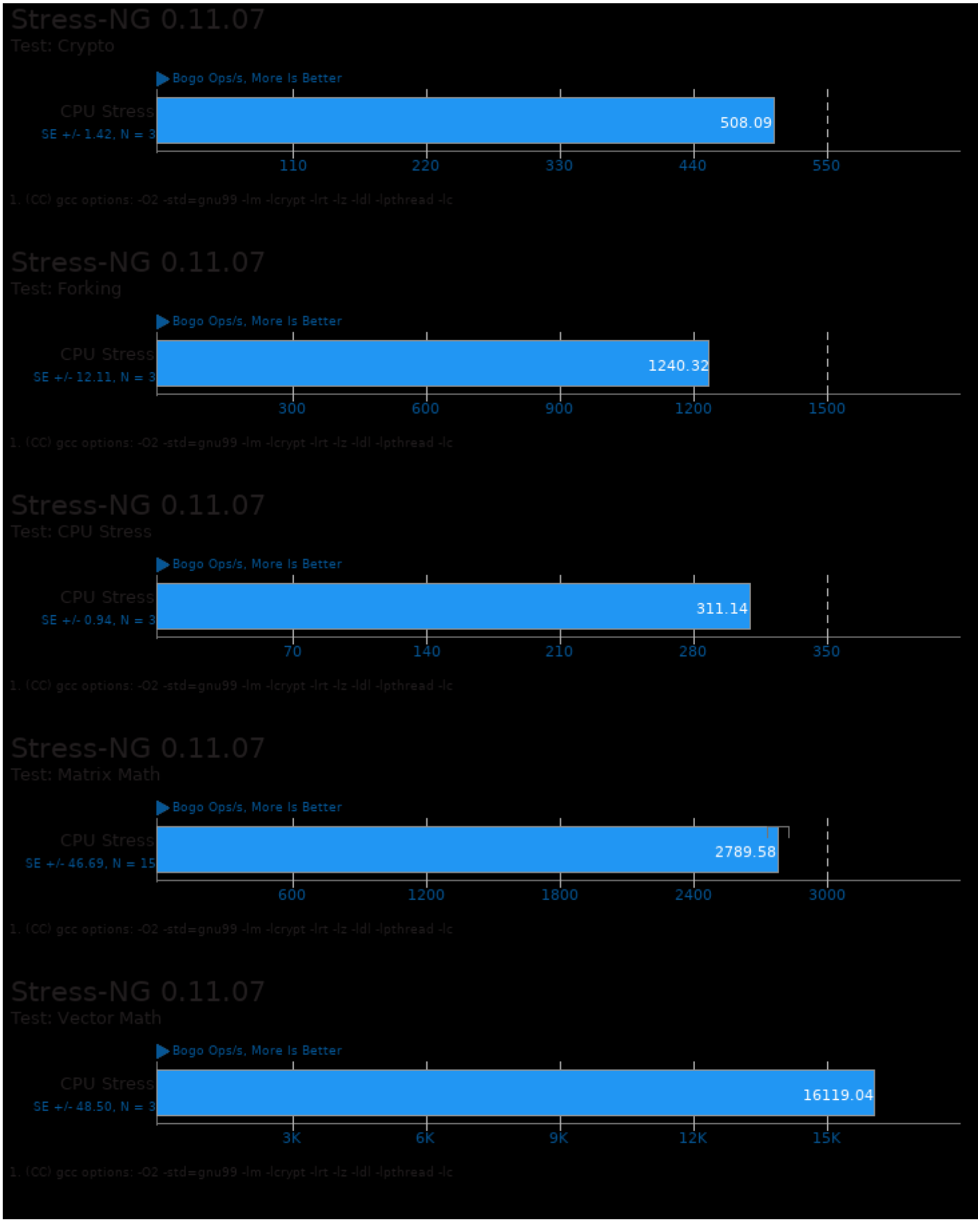
JS-H01_AIE-CT42

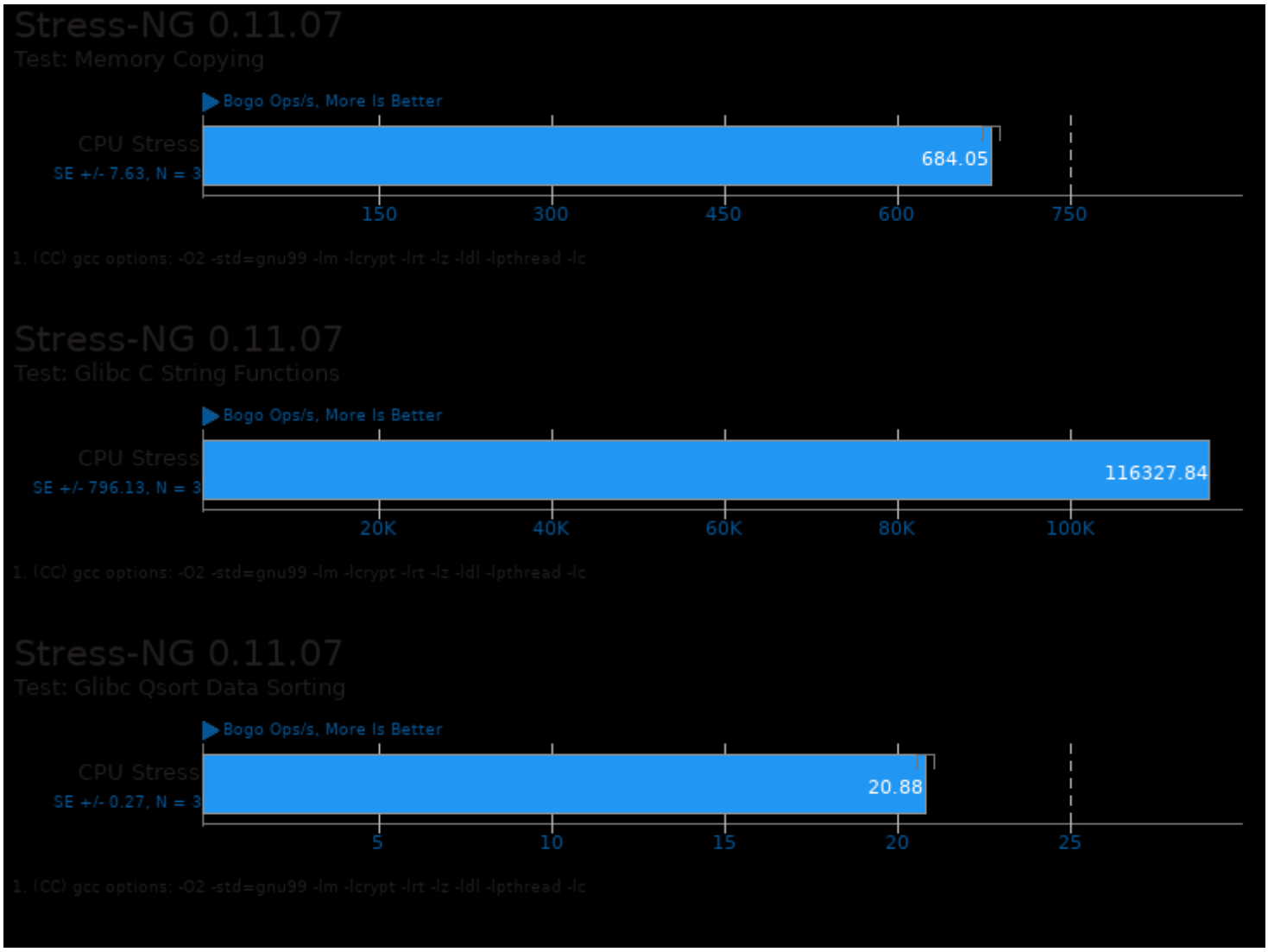
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 4KB (MB/s)	**23.1**	**23.4**
Normalized	98.72%	100%
Standard Deviation	7.7%	0.4%
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 4KB (IOPS)	**5937**	**5993**
Normalized	99.07%	100%
Standard Deviation	7.8%	0.4%
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (MB/s)	**38.6**	**48.0**
Normalized	80.42%	100%
Standard Deviation	0.4%	1%
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (IOPS)	2	2

Stress-NG - Crypto (Bogo Ops/s)	508.09
Standard Deviation	0.5%
Stress-NG - Forking (Bogo Ops/s)	1240
Standard Deviation	1.7%
Stress-NG - CPU Stress (Bogo Ops/s)	311.14
Standard Deviation	0.5%
Stress-NG - Matrix Math (Bogo Ops/s)	2790
Standard Deviation	6.5%
Stress-NG - Vector Math (Bogo Ops/s)	16119
Standard Deviation	0.5%
Stress-NG - Memory Copying (Bogo Ops/s)	684.05
Standard Deviation	1.9%
Stress-NG - G.C.S.F (Bogo Ops/s)	116328
Standard Deviation	1.2%
Stress-NG - G.Q.D.S (Bogo Ops/s)	20.88
Standard Deviation	2.3%


Flexible IO Tester 3.25
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
MB/s, More Is Better
USB 3.0
SE +/- 0.25, N = 3
86.2
USB2.0
SE +/- 0.03, N = 3
26.9
20
40
60
80
100
Flexible IO Tester 3.25
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
IOPS, More Is Better
USB 3.0
SE +/- 66.67, N = 3
22033
USB2.0
SE +/- 9.21, N = 3
6883
5K
10K
15K
20K
25K
Flexible IO Tester 3.25
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
MB/s, More Is Better
USB 3.0
SE +/- 1.20, N = 3
115.0
USB2.0
SE +/- 0.17, N = 3
51.5
30
60
90
120
150
Flexible IO Tester 3.25
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
IOPS, More Is Better
USB 3.0
11
USB2.0
3
3
6
9
12
15


Flexible IO Tester 3.25
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
MB/s, More Is Better
USB 3.0
SE +/- 0.52, N = 12
23.1
USB2.0
SE +/- 0.06, N = 3
23.4
6
12
18
24
30
Flexible IO Tester 3.25
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory
IOPS, More Is Better
USB 3.0
SE +/- 134.47, N = 12
5937
USB2.0
SE +/- 14.99, N = 3
5993
1300
2600
3900
5200
6500
Flexible IO Tester 3.25
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
MB/s, More Is Better
USB 3.0
SE +/- 0.10, N = 3
38.6
USB2.0
SE +/- 0.26, N = 3
48.0
11
22
33
44
55
Flexible IO Tester 3.25
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory
IOPS, More Is Better
USB 3.0
2
USB2.0
2
0.45
0.9
1.35
1.8
2.25


Stress-NG 0.11.07
Test: Crypto
Bogo Ops/s, More Is Better
CPU Stress
SE +/- 1.42, N = 3
508.09
110
220
330
440
550
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lz -ldl -lpthread -lc
Stress-NG 0.11.07
Test: Forking
Bogo Ops/s, More Is Better
CPU Stress
SE +/- 12.11, N = 3
1240.32
300
600
900
1200
1500
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lz -ldl -lpthread -lc
Stress-NG 0.11.07
Test: CPU Stress
Bogo Ops/s, More Is Better
CPU Stress
SE +/- 0.94, N = 3
311.14
70
140
210
280
350
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lz -ldl -lpthread -lc
Stress-NG 0.11.07
Test: Matrix Math
Bogo Ops/s, More Is Better
CPU Stress
SE +/- 46.69, N = 15
2789.58
600
1200
1800
2400
3000
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lz -ldl -lpthread -lc
Stress-NG 0.11.07
Test: Vector Math
Bogo Ops/s, More Is Better
CPU Stress
SE +/- 48.50, N = 3
16119.04
3K
6K
9K
12K
15K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lz -ldl -lpthread -lc



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:17.