



R32_4_4_Xavier-NX_AN110_Camera_IMX290_Dual_1

ARMv8 rev 0 testing with a NVIDIA Jetson Xavier NX Developer Kit and NVIDIA Tegra Xavier on Ubuntu 18.04 via the Phoronix Test Suite.

Test Systems:

eMMC

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB Storage Media + 16GB DG4016, Graphics: NVIDIA TEGRA, Monitor: Acer KG241Q

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 1.0.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0 + CUDA 10.2, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=aarch64-linux-gnu --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=glibc --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: CFQ / data=ordered,relatime,rw

Processor Notes: Scaling Governor: tegra_cpufreq schedutil

eMMC_W

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB Storage Media + 16GB DG4016, Graphics: NVIDIA TEGRA, Monitor: Acer KG241Q

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 1.0.0, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0 + CUDA 10.2, File-System: ext4, Screen Resolution: 1920x1080

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
Processor Notes: Scaling Governor: tegra_cpufreq schedutil
Disk Mount Options Notes: data=ordered,relatime,rw

usb3.0

usb3.0_w

usb2.0

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB Storage Media + 16GB DG4016, Graphics: NVIDIA TEGRA, Monitor: Acer KG241Q

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 1.0.0, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0, File-System: ext4, Screen Resolution: 1920x1080

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: CFQ / data=ordered,relatime,rw
Processor Notes: Scaling Governor: tegra_cpufreq schedutil

sd

sd_w

Memory

cpu

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB DG4016 + 31GB SD32G, Graphics: NVIDIA Tegra Xavier, Monitor: Acer KG241Q

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 32.4.4, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0, File-System: ext4, Screen Resolution: 1920x1080

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

Processor Notes: Scaling Governor: tegra_cpufreq schedutil

RS232_UART

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB DG4016, Graphics: NVIDIA Tegra Xavier, Monitor: Acer KG241Q

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 32.4.4, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: tegra_cpufreq schedutil

gpu

Lan

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB DG4016, Graphics: NVIDIA Tegra Xavier, Monitor: LG Ultra HD

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 32.4.4, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0, File-System: ext4, Screen Resolution: 3840x2160

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
Processor Notes: Scaling Governor: tegra_cpufreq schedutil

Wlan

Processor: ARMv8 rev 0 @ 1.42GHz (6 Cores), Motherboard: NVIDIA Jetson Xavier NX Developer Kit, Memory: 8GB, Disk: 16GB DG4016, Graphics: NVIDIA Tegra Xavier, Monitor: ASUS VN248, Network: Intel 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.9.140-tegra (aarch64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.6, Display Driver: NVIDIA 32.4.4, OpenGL: 4.6.0, Vulkan: 1.2.131, Compiler: GCC 7.5.0, File-System: ext4, Screen Resolution: 1920x1080

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
Processor Notes: Scaling Governor: tegra_cpufreq schedutil

eMMC	eMMC	usb3.0	usb3.0	usb2.0	sd	sd_w	Memor	cpu	RS232	gpu	Lan	Wlan
_W		_w					y		_UART			

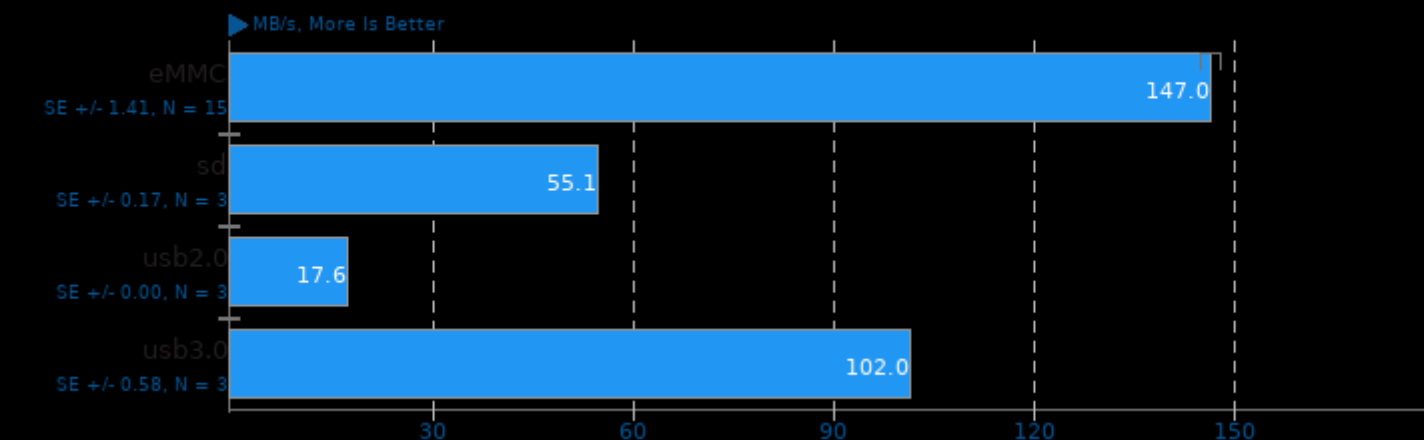
Flexible IO	147	102	17.6	55.1
Tester - Seq				
Read - Linux				
AIO - No - Yes -				
4KB (MB/s)				
Normalized	100%	69.39%	11.97%	37.48%
Standard Deviation	3.7%	1%	0%	0.5%
Flexible IO	37527	26100	4510	14100
Tester - Seq				
Read - Linux				
AIO - No - Yes -				
4KB (IOPS)				
Normalized	100%	69.55%	12.02%	37.57%
Standard Deviation	3.8%	0.8%	0%	0.7%
Flexible IO	305	163	102	
Tester - Seq				
Read - Linux				
AIO - No - Yes -				
8MB (MB/s)				
Normalized	100%	53.44%	33.44%	
Standard Deviation	3%		1%	
Flexible IO	35	17	9	
Tester - Seq				
Read - Linux				
AIO - No - Yes -				
8MB (IOPS)				
Normalized	100%	48.57%	25.71%	
Standard Deviation	4.4%			
Flexible IO	69.9	18.8	14.9	
Tester - Seq				
Write - Linux				
AIO - No - Yes -				
4KB (MB/s)				
Normalized	100%	26.9%	21.32%	
Standard Deviation	6.5%	36.6%	2.3%	
Flexible IO	17860	4855	3812	
Tester - Seq				
Write - Linux				
AIO - No - Yes -				
4KB (IOPS)				
Normalized	100%	27.18%	21.34%	
Standard Deviation	6.6%	36.3%	2.6%	

Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (MB/s)	92.9	33.9	57.6
Normalized	100%	36.49%	62%
Standard Deviation	4.7%	1.7%	1.5%
Flexible IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (IOPS)	8	1	4
Normalized	100%	12.5%	50%
Standard Deviation	7.9%	43.3%	
Stream - Copy (MB/s)			29759
Standard Deviation			1.1%
Stream - Scale (MB/s)			29456
Standard Deviation			2.4%
Stream - Triad (MB/s)			28934
Standard Deviation			1.1%
Stream - Add (MB/s)			28591
Standard Deviation			1.3%
Stress-NG - Crypto (Bogo Ops/s)			596.84
Standard Deviation			1.5%
Stress-NG - Forking (Bogo Ops/s)			4092
Standard Deviation			1.2%
Stress-NG - CPU Stress (Bogo Ops/s)			463.57
Standard Deviation			3.6%
Stress-NG - Matrix Math (Bogo Ops/s)			6698
Standard Deviation			0.6%
Stress-NG - Vector Math (Bogo Ops/s)			25479
Standard Deviation			0.3%

Stress-NG -	1841		
Memory			
Copying (Bogo			
Standard Deviation	0.2%		
Stress-NG -	120311		
G.C.S.F (Bogo			
Ops/s)			
Standard Deviation	3.9%		
Stress-NG -	28.35		
G.Q.D.S (Bogo			
Ops/s)			
Standard Deviation	10.9%		
GLmark2 - 800		4359	
x 600 (Score)			
GLmark2 - 1024		3318	
x 768 (Score)			
GLmark2 - 1280		2320	
x 1024 (Score)			
GLmark2 - 1600		1813	
x 1200 (Score)			
GLmark2 - 1920		1787	
x 1080 (Score)			
GLmark2 - 1920		1634	
x 1200 (Score)			
GLmark2 - 2560		1137	
x 1440 (Score)			
GLmark2 - 3840		551	
x 2160 (Score)			
iPerf -		100	100
192.168.1.2 -			
5201 - 10			
Seconds - UDP			
- 100Mbit			
Objective - 1			
(Mbits/s)			
iPerf -		941	127
192.168.1.2 -			
5201 - 10			
Seconds - UDP			
- 1000Mbit			
Objective - 1			
(Mbits/s)			
Normalized		100%	13.5%
Standard Deviation		0.3%	6.5%

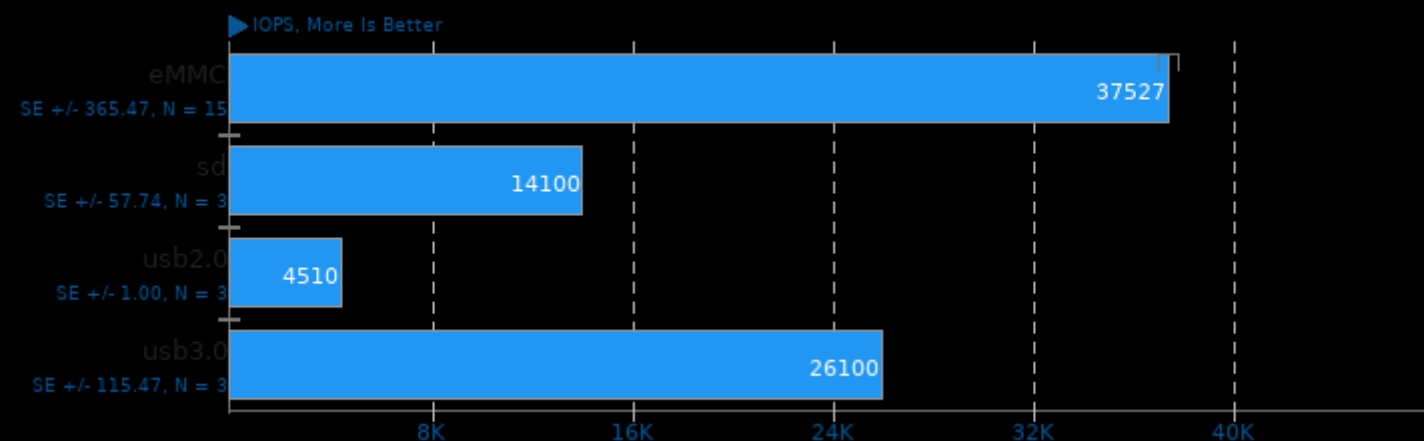
Flexible IO Tester 3.25

Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



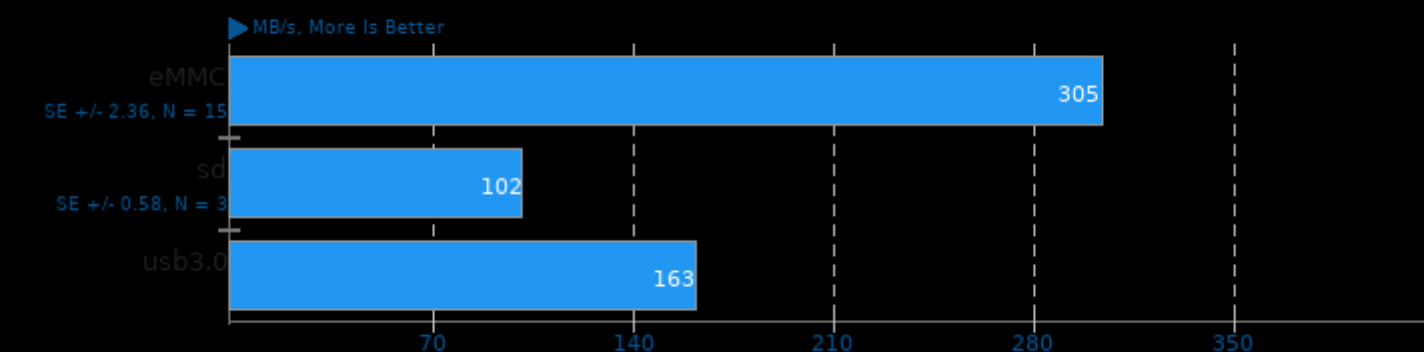
Flexible IO Tester 3.25

Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



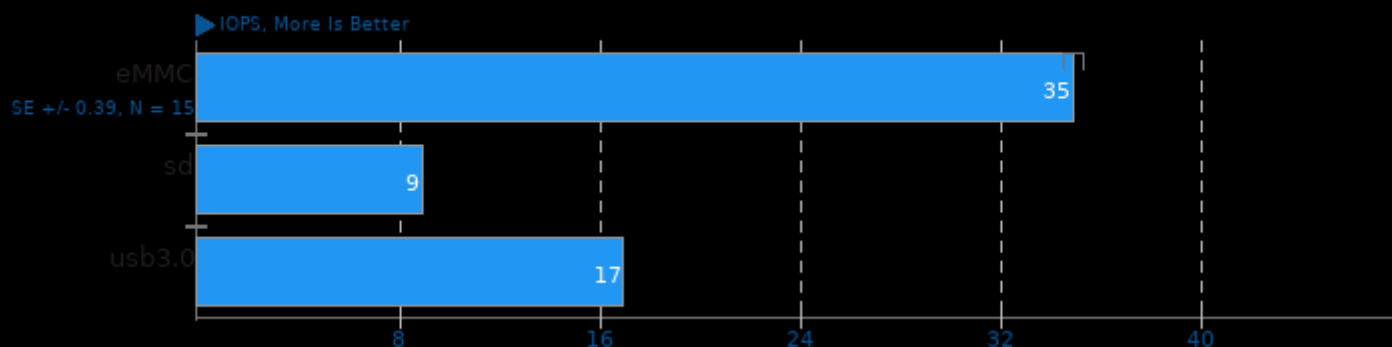
Flexible IO Tester 3.25

Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



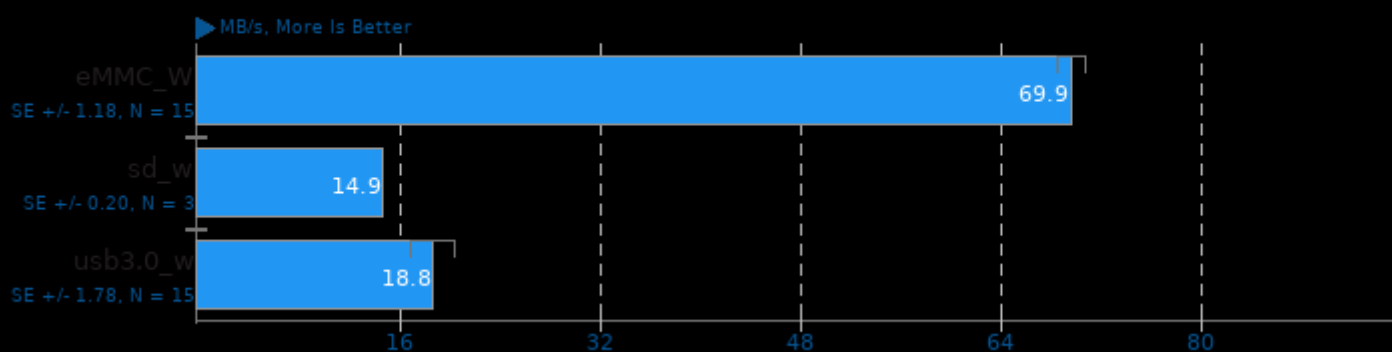
Flexible IO Tester 3.25

Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



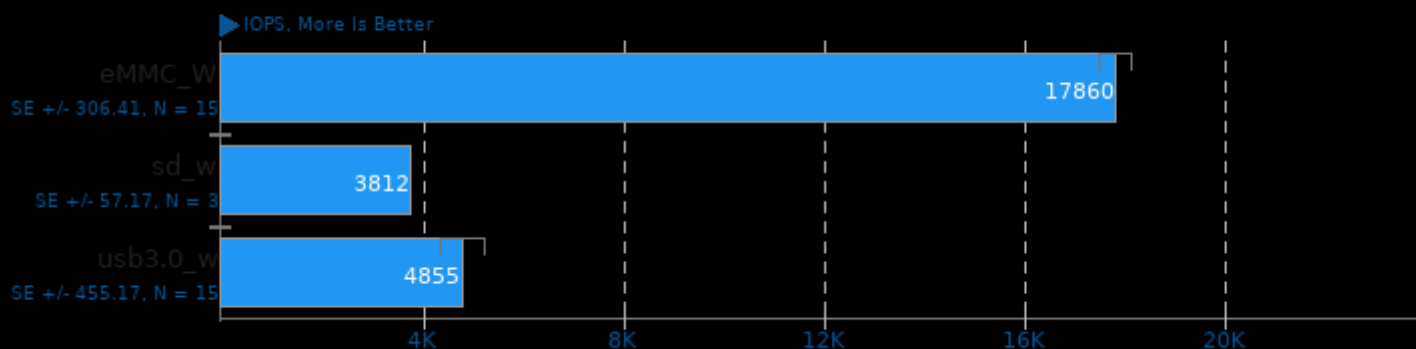
Flexible IO Tester 3.25

Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



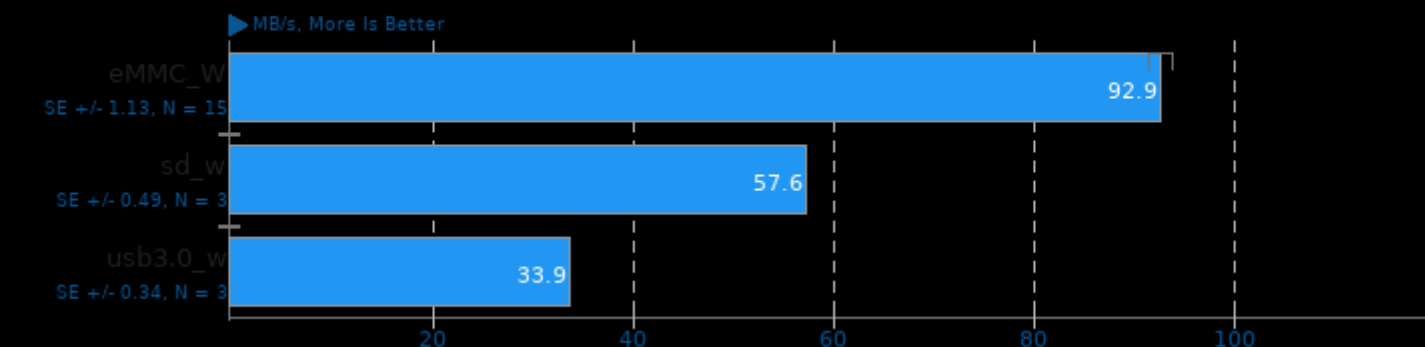
Flexible IO Tester 3.25

Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



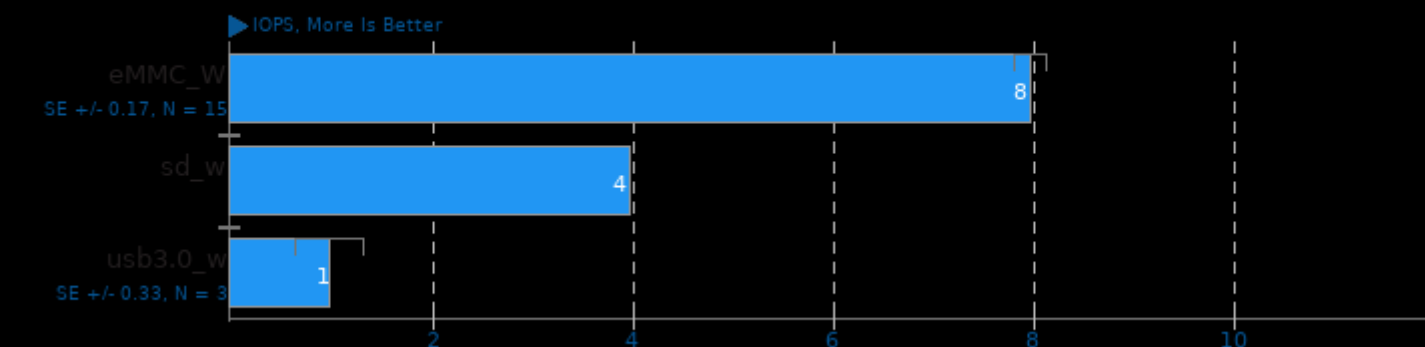
Flexible IO Tester 3.25

Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



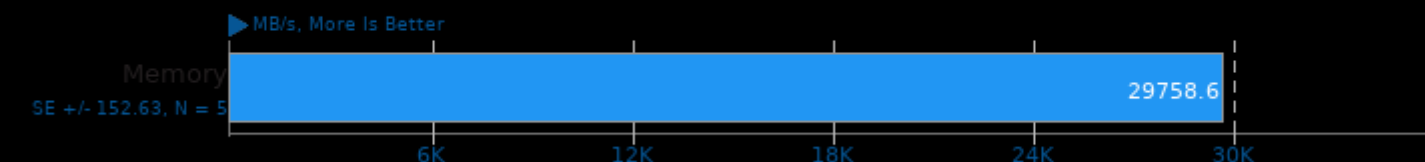
Flexible IO Tester 3.25

Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



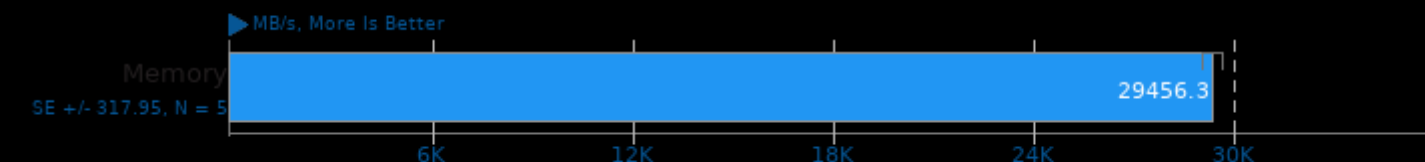
Stream 2013-01-17

Type: Copy



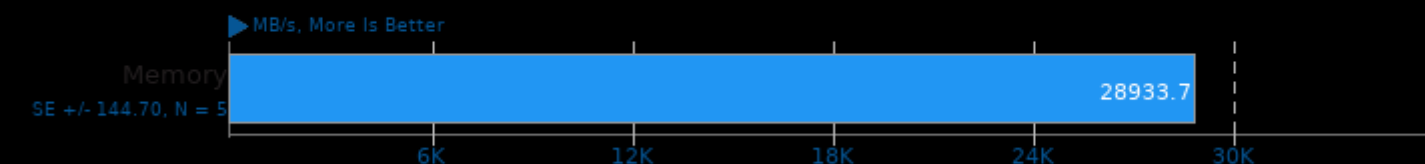
Stream 2013-01-17

Type: Scale



Stream 2013-01-17

Type: Triad



Stream 2013-01-17

Type: Add



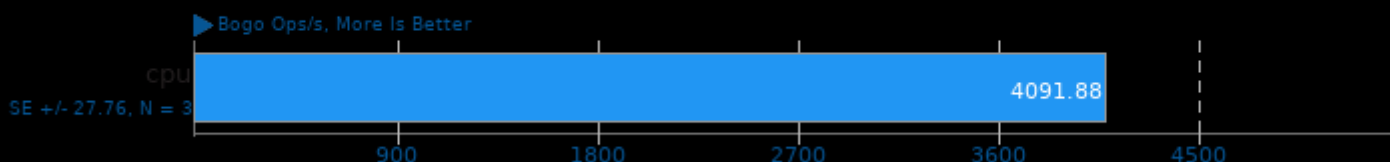
Stress-NG 0.11.07

Test: Crypto



Stress-NG 0.11.07

Test: Forking



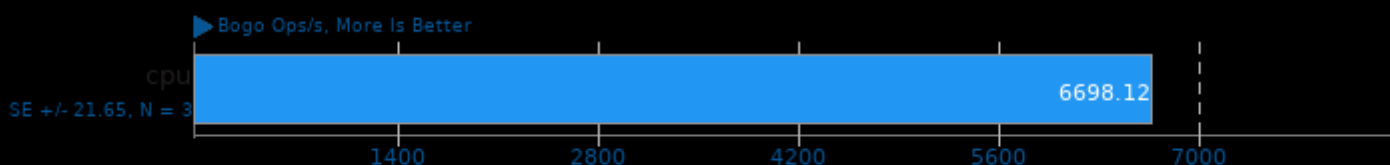
Stress-NG 0.11.07

Test: CPU Stress



Stress-NG 0.11.07

Test: Matrix Math



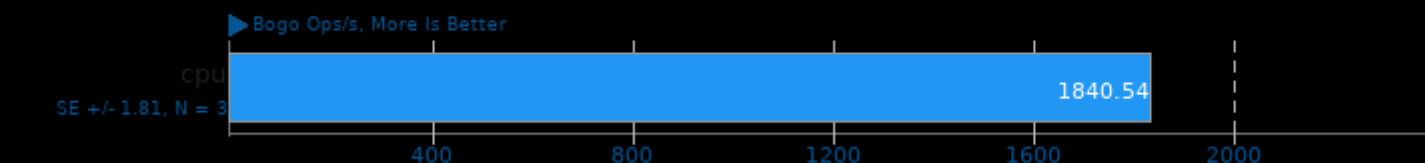
Stress-NG 0.11.07

Test: Vector Math



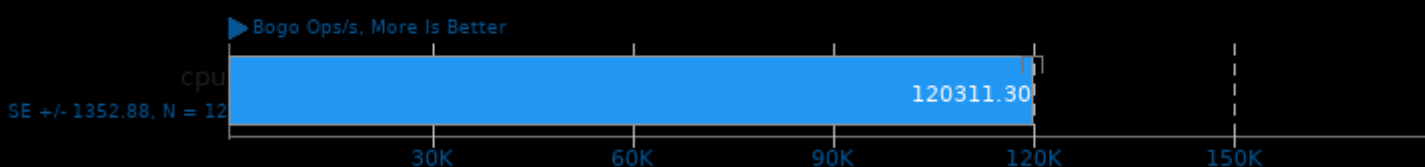
Stress-NG 0.11.07

Test: Memory Copying



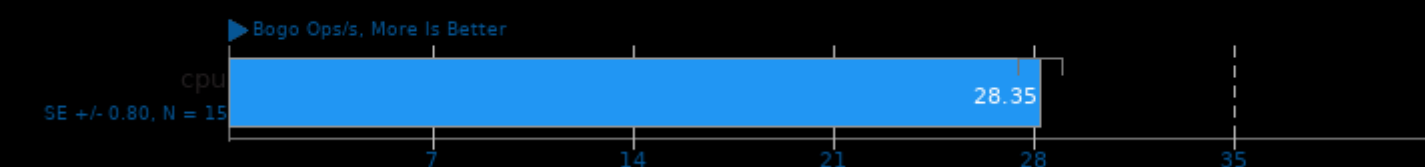
Stress-NG 0.11.07

Test: Glibc C String Functions



Stress-NG 0.11.07

Test: Glibc Qsort Data Sorting



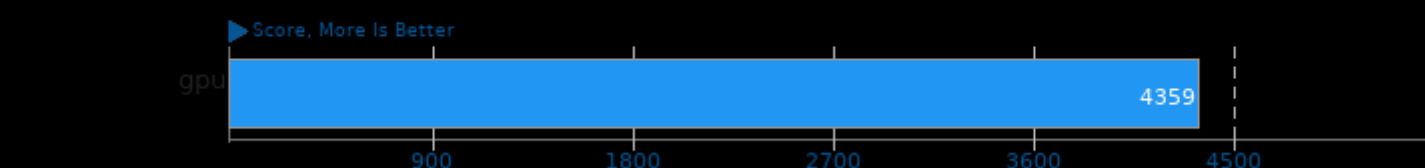
Serial Loopback Test

/dev/ttyTHS0, /dev/ttyTHS1, /dev/ttyTHS4



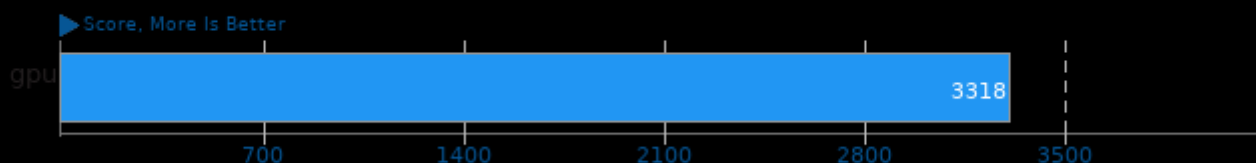
GLmark2 2020.04

Resolution: 800 x 600



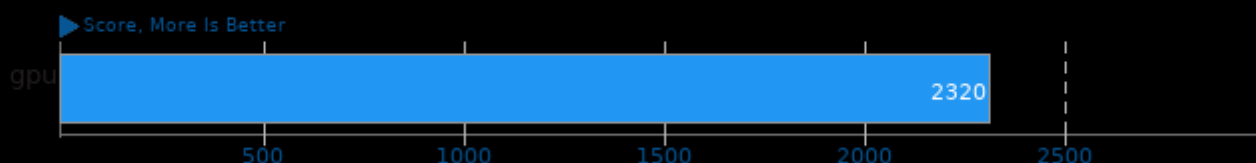
GLmark2 2020.04

Resolution: 1024 x 768



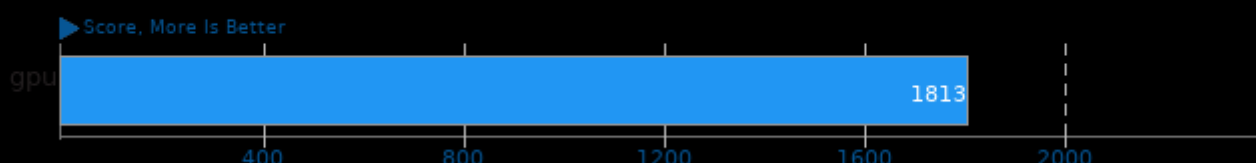
GLmark2 2020.04

Resolution: 1280 x 1024



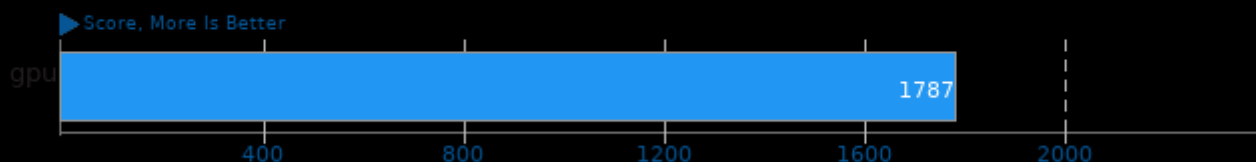
GLmark2 2020.04

Resolution: 1600 x 1200



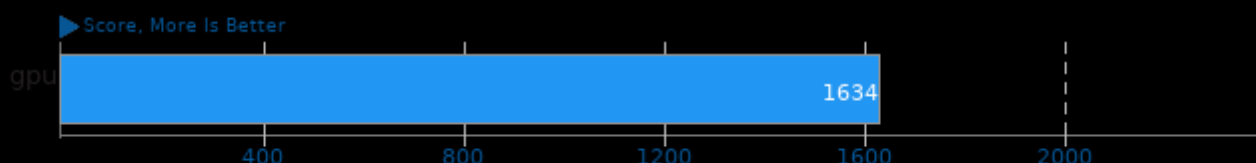
GLmark2 2020.04

Resolution: 1920 x 1080



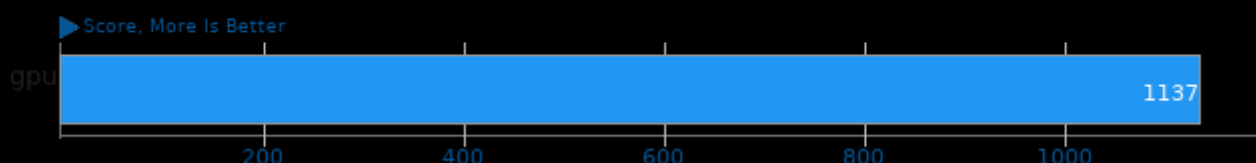
GLmark2 2020.04

Resolution: 1920 x 1200



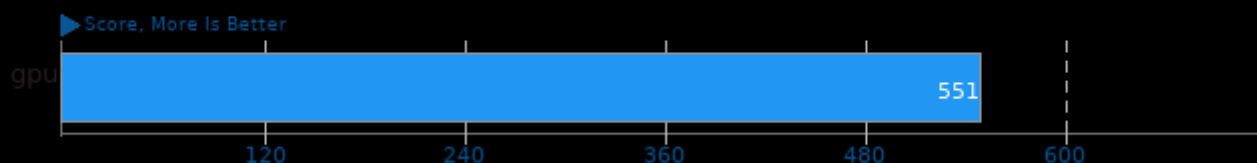
GLmark2 2020.04

Resolution: 2560 x 1440



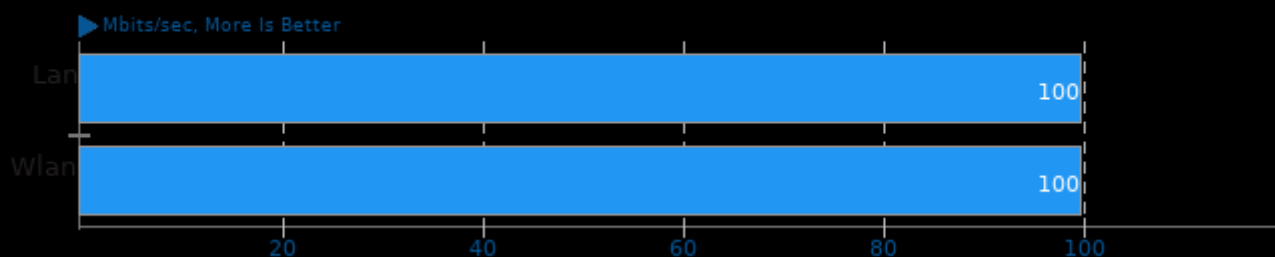
GLmark2 2020.04

Resolution: 3840 x 2160



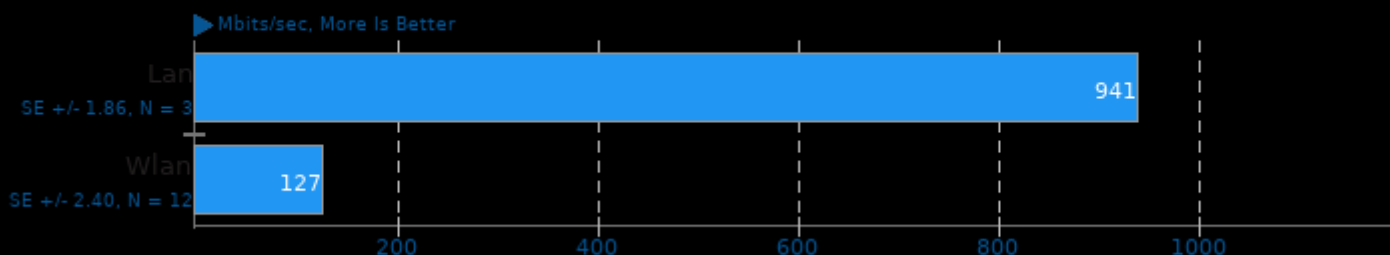
iPerf 3.7

Server Address: 192.168.1.2 - Server Port: 5201 - Duration: 10 Seconds - Test: UDP - 100Mbit Objective - Parallel: 1



iPerf 3.7

Server Address: 192.168.1.2 - Server Port: 5201 - Duration: 10 Seconds - Test: UDP - 1000Mbit Objective - Parallel: 1



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 18 October 2024 23:12.