



EGX_Edge_RTX2080

Intel Core i3-9100E testing with a GIGABYTE MH310AP-SI (F1 BIOS) and Gigabyte Intel UHD 630 8GB on Ubuntu 18.04 via the Phoronix Test Suite.

Automated Executive Summary

M.2_mSATA ATA_128GB had the most wins, coming in first place for 50% of the tests.

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

GLmark2 (Resolution: 3840 x 2160) at 58.778x

GLmark2 (Resolution: 2560 x 1440) at 41.984x

GLmark2 (Resolution: 1920 x 1200) at 33.995x

GLmark2 (Resolution: 1920 x 1080) at 31.648x

GLmark2 (Resolution: 1600 x 1200) at 30.395x

GLmark2 (Resolution: 1280 x 1024) at 22.591x

Flexible IO Tester (Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory) at 21x

GLmark2 (Resolution: 1024 x 768) at 12.528x

Flexible IO Tester (Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory) at 11.989x

Flexible IO Tester (Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk

Target: Default Test Directory) at 11.962x.

Test Systems:

M.2_mSATA ATA_128GB

USB3.0

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 62GB Ultra USB 3.0, Graphics: NVIDIA GeForce RTX 2080 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6.0, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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/swappgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

USB3.0 run2

USB2.0

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: NVIDIA GeForce RTX 2080 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6.0, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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/swappgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

USB2.0 run2

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: NVIDIA GeForce RTX 2080 8GB (420/405MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6.0, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1tft: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Graphics Test

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash, Graphics: Gigabyte Intel UHD 630 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Graphics Notes: SNA

Python Notes: Python 2.7.17 + Python 3.6.9

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1tft: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Gigabyte NVIDIA GeForce RTX 2080

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash, Graphics: Gigabyte NVIDIA GeForce RTX 2080 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6.0, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Python Notes: Python 2.7.17 + Python 3.6.9

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1tft: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

CPU stress

CPU stress 1

DRAM Test

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash, Graphics: Gigabyte NVIDIA GeForce RTX 2080 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6.0, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1tft: 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/swappgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

USB3.0 Port1

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: Gigabyte Intel UHD 630 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1tft: 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/swappgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

USB3.0 port2

USB3.0 Port3

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: Gigabyte Intel UHD 630 8GB (435/405MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8,

Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1t1f: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbsds: Mitigation of Microcode + tsx_async_abort: Not affected

USB3.0 Port4

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: Gigabyte Intel UHD 630 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1t1f: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbsds: Mitigation of Microcode + tsx_async_abort: Not affected

USB2.0 Port1

USB2.0 port 1

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: Gigabyte Intel UHD 630 8GB (435/405MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 1t1f: 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbsds: Mitigation of Microcode + tsx_async_abort: Not affected

USB2.0 Port2

USB2.0 Port3

USB2.0 Port4

Processor: Intel Core i3-9100E @ 3.10GHz (4 Cores), Motherboard: GIGABYTE MH310AP-SI (F1 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 1 x 8192 MB DDR4-2400MT/s GSLG42F-18-----, Disk: 128GB SATA Flash + 16GB USB Drive 3ME, Graphics: Gigabyte Intel UHD 630 8GB (1515/7000MHz), Audio: Realtek ALC887-VD, Monitor: Acer KG281K, Network: Intel I219-V + 3 x Intel I211

OS: Ubuntu 18.04, Kernel: 5.4.0-51-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Server: X Server 1.20.8, Display Driver: NVIDIA 450.66, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 7.5.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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 Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbsds: Mitigation of Microcode + tsx_async_abort: Not affected

M.2	USB	USB	USB	USB	Gra	Gig	CPU	CPU	DRA	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB
_mS	3.0	3.0	2.0	2.0	phic	abyt	stre	stre	M	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
ATA	run2	run2	run2	s	e	ss	ss	1	Test	Port	port	Port	Port	Port	port	Port	Port	Port	Port
ATA				Test	NVI					1	2	3	4	1	1	2	3	4	
_12					DIA														
8GB					GeF														
					orce														
					RTX														
					208														

Stream - 135

Copy 95

(MB/s)

Standard 0%

Deviation

GLmark2 -

3840 x

2160

(Score)

Normalized



GLmark2 - 800 x 600 (Score)	169 923 4 6
Normalized	18.34 100%
GLmark2 - 2560 x 1440 (Score)	125 524 8
Normalized	2.38 100%
GLmark2 - 1920 x 1200 (Score)	189 642 5
Normalized	2.94 100%
GLmark2 - 1920 x 1080 (Score)	213 674 1
Normalized	3.16 100%
GLmark2 - 1600 x 1200 (Score)	223 677 8
Normalized	3.29 100%
GLmark2 - 1280 x 1024 (Score)	337 761 3
Normalized	4.43 100%
GLmark2 - 1024 x 768 (Score)	678 849 4
Normalized	7.98 100%
	%

Flexible	28	33			33				33			
IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (IOPS)												
Normalized	100%	10.71			10.71				10.71			
Standard		%			%				%			
Deviation									9.9%			
Flexible	251	49.8			50.5				50.0			
IO Tester - Seq Write - Linux AIO - No - Yes - 8MB (MB/s)												
Normalized	100%	19.84			20.12				19.92			
Standard		%			%				%			
Deviation		0.8%			0.6%				0.8%			
Flexible	578	637			647				634			
IO Tester - Seq Write - Linux AIO - No - Yes - 4KB (IOPS)	33	0			4				6			
Normalized	100%	11.01			11.19				10.97			
Standard	0.2%	%			%				%			
Deviation		0.7%			1.6%				0.2%			
Flexible	226	24.6			25.3				24.8			
IO Tester - Seq Write - Linux AIO - No - Yes - 4KB (MB/s)												
Normalized	100%	10.88			11.19				10.97			
Standard		%			%				%			
Deviation		2.1%			1.7%				0.2%			

Flexible	61	12	3	3		12	12	12	12	3	3	3	63
IO Tester -													
Seq Read													
- Linux													
AIO - No -													
Yes - 8MB													
(IOPS)													
Normalized	96.83	19.05	4.76	4.76		19.05	19.05	19.05	19.05	4.76	4.76	4.76	100%
%		%	%	%		%	%	%	%	%	%	%	
Flexible	514	128	53.3	53.4		128	128	128	128	53.5	53.4	53.7	536
IO Tester -													
Seq Read													
- Linux													
AIO - No -													
Yes - 8MB													
(MB/s)													
Normalized	95.9	23.88	9.94	9.96		23.88	23.88	23.88	23.88	9.98	9.96	10.02	100%
%		%	%	%		%	%	%	%	%	%	%	
Standard			0.5%	0.2%						0.1%	0.3%	0.1%	
Deviation													
Flexible	802	221	677	717		231	224	226	226	721	721	721	811
IO Tester -	00	67	0	2		00	00	00	00	1	7	8	67
Seq Read													
- Linux													
AIO - No -													
Yes - 4KB													
(IOPS)													
Normalized	98.81	27.31	8.34	8.84		28.46	27.6	27.84	27.84	8.88	8.89	8.89	100%
%		%	%	%		%	%	%	%	%	%	%	
Standard		0.7%	1.6%				3.1%	2.3%	2.3%	0.1%	0.2%	0.2%	0.1%
Deviation													
Flexible	313	86.4	26.5	28		90.2	90.1	89.5	89.5	28.2	28.2	28.2	317
IO Tester -													
Seq Read													
- Linux													
AIO - No -													
Yes - 4KB													
(MB/s)													
Normalized	98.74	27.26	8.36	8.83		28.45	28.42	28.23	28.23	8.9%	8.9%	8.9%	100%
%		%	%	%		%	%	%	%				
Standard		1.4%	1.7%			0.5%	0.6%	0.2%	0.2%	0%	0.4%	0%	
Deviation													
Stress-NG					663.								
- Crypto					16								
(Bogo													
Ops/s)													
Standard					2.2%								
Deviation													

Stress-NG	127
- CPU	2
Stress	
(Bogo	
Ops/s)	
Standard	0.2%
Deviation	
Stress-NG	41.4
- G.Q.D.S	7
(Bogo	
Ops/s)	
Standard	0.5%
Deviation	
Stress-NG	214
- Forking	68
(Bogo	
Ops/s)	
Standard	0.8%
Deviation	
Stress-NG	331
- G.C.S.F	121
(Bogo	
Ops/s)	
Standard	1%
Deviation	
Stress-NG	751.
- Memory	45
Copying	
(Bogo	
Ops/s)	
Standard	0.2%
Deviation	
Stress-NG	145
- Vector	52
Math	
(Bogo	
Ops/s)	
Standard	0.1%
Deviation	
Stress-NG	114
- Matrix	69
Math	
(Bogo	
Ops/s)	
Standard	1.2%
Deviation	
Stream -	115
Add	30
Standard	0%
Deviation	

Stream -	115
Triad	39
(MB/s)	
Standard	0%
Deviation	
Stream -	100
Scale	27
(MB/s)	
Standard	0%
Deviation	

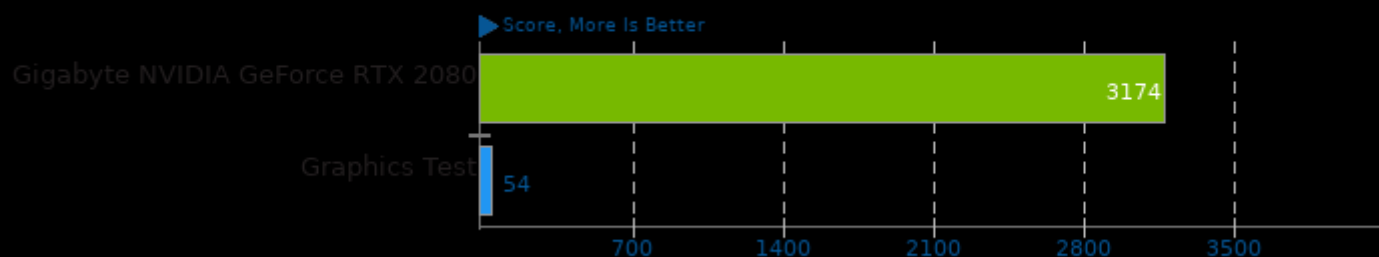
Stream 2013-01-17

Type: Copy



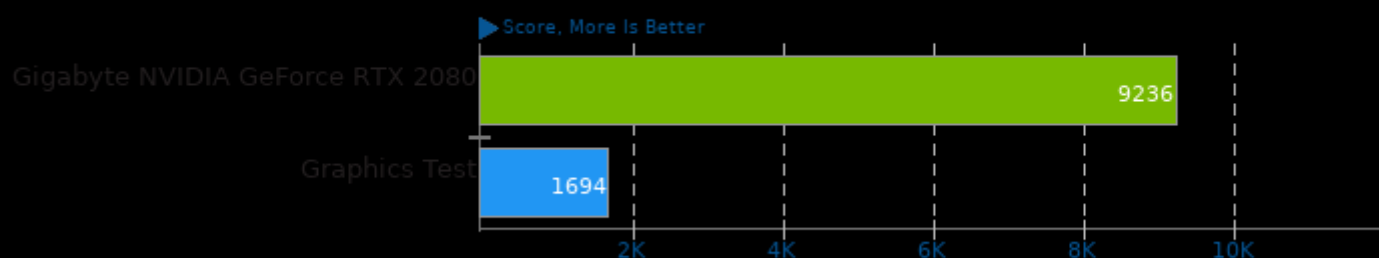
GLmark2 2020.04

Resolution: 3840 x 2160



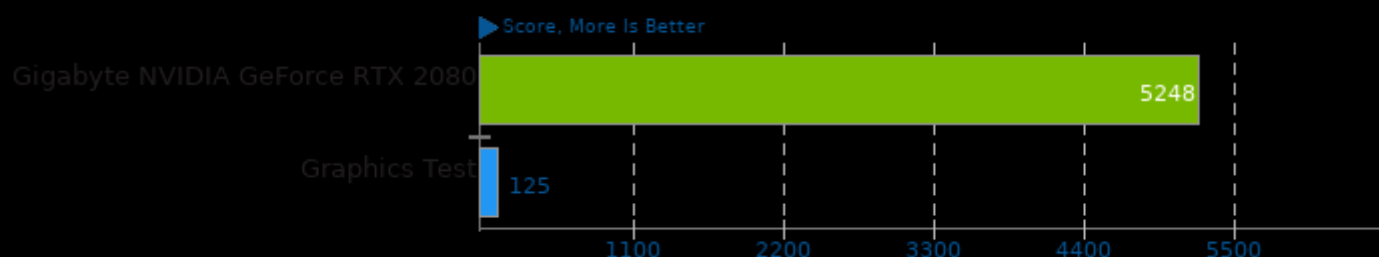
GLmark2 2020.04

Resolution: 800 x 600



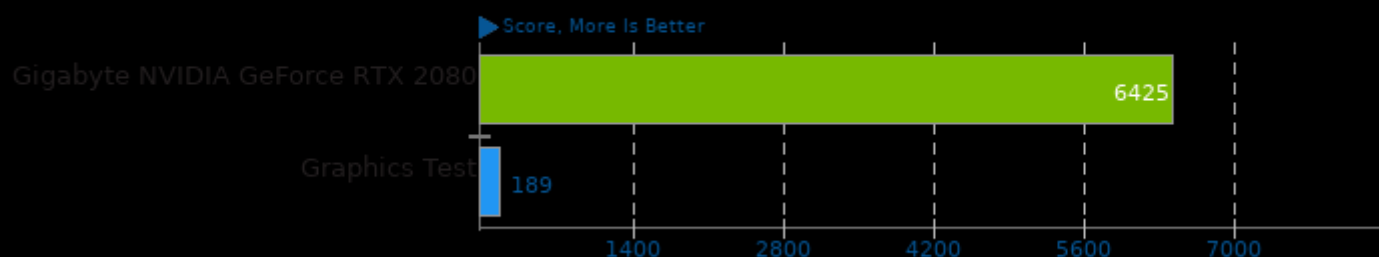
GLmark2 2020.04

Resolution: 2560 x 1440



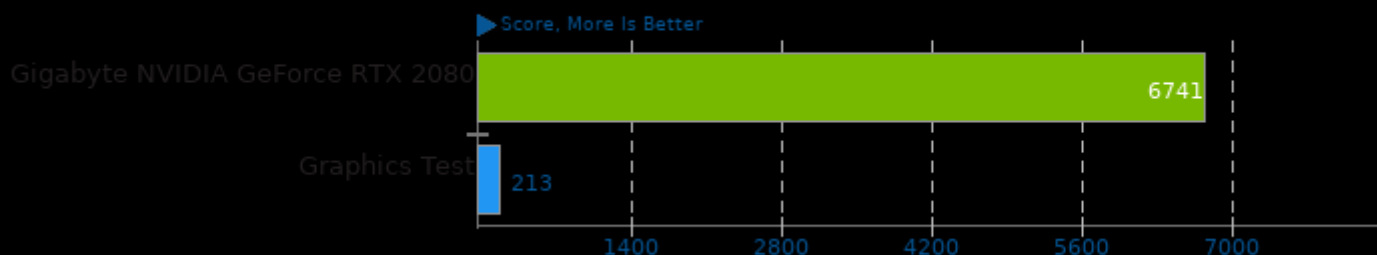
GLmark2 2020.04

Resolution: 1920 x 1200



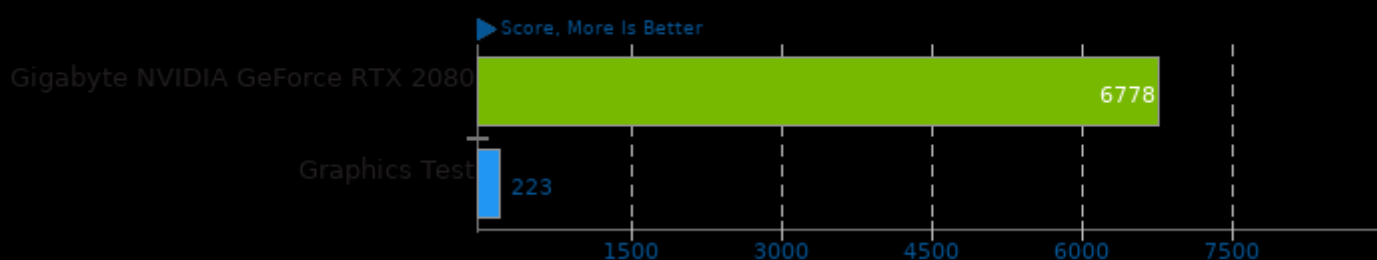
GLmark2 2020.04

Resolution: 1920 x 1080



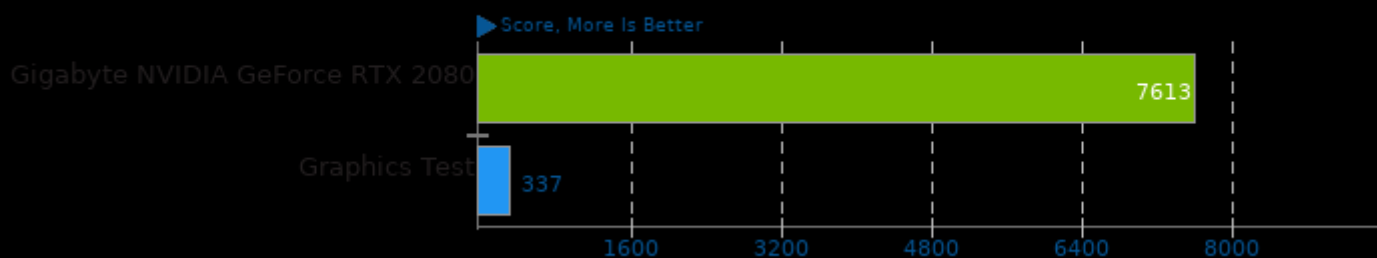
GLmark2 2020.04

Resolution: 1600 x 1200



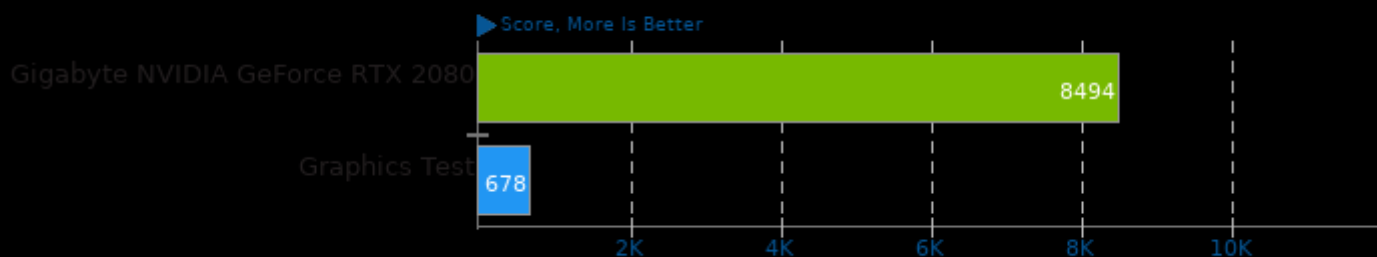
GLmark2 2020.04

Resolution: 1280 x 1024



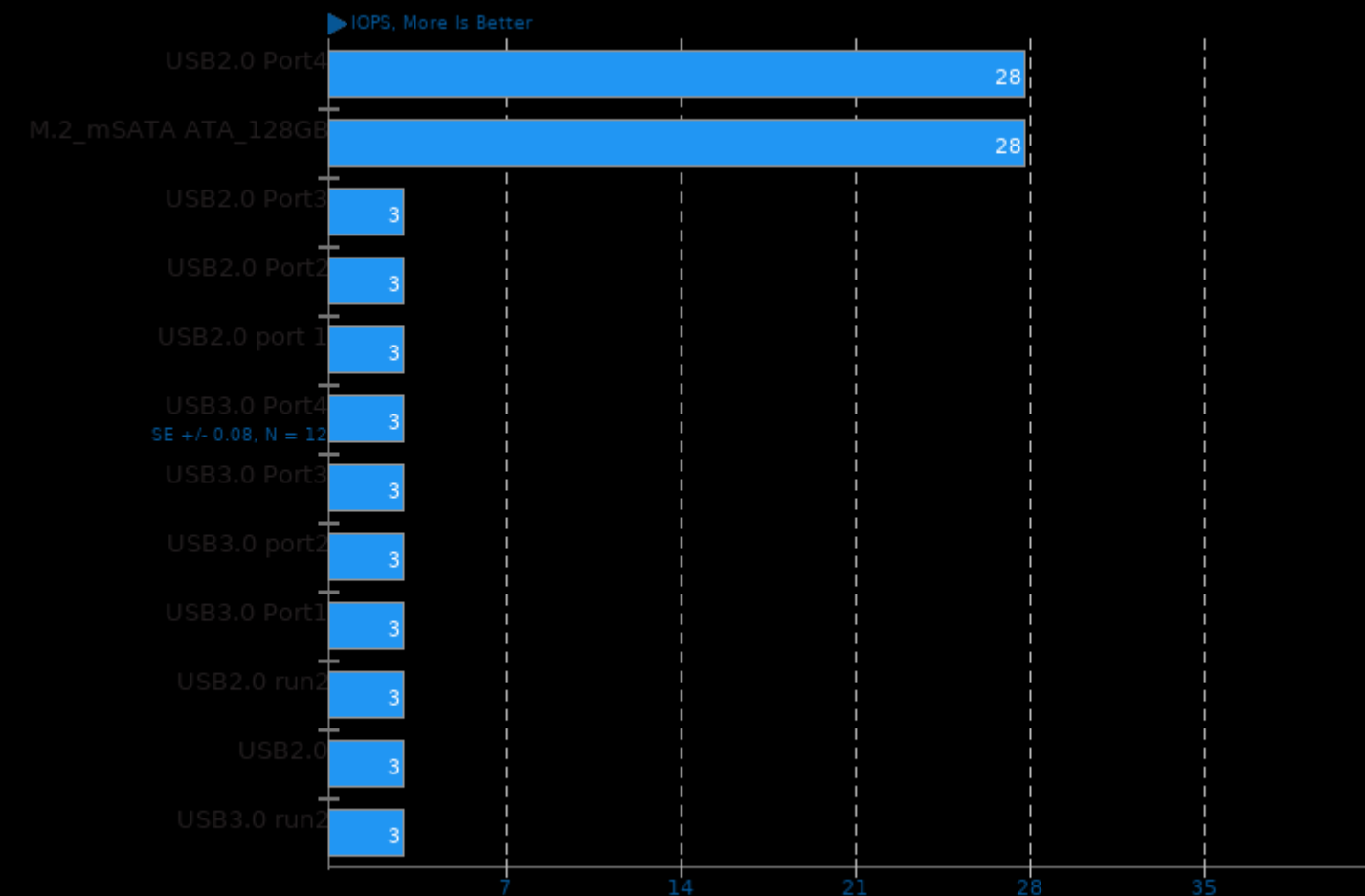
GLmark2 2020.04

Resolution: 1024 x 768



Flexible IO Tester 3.18

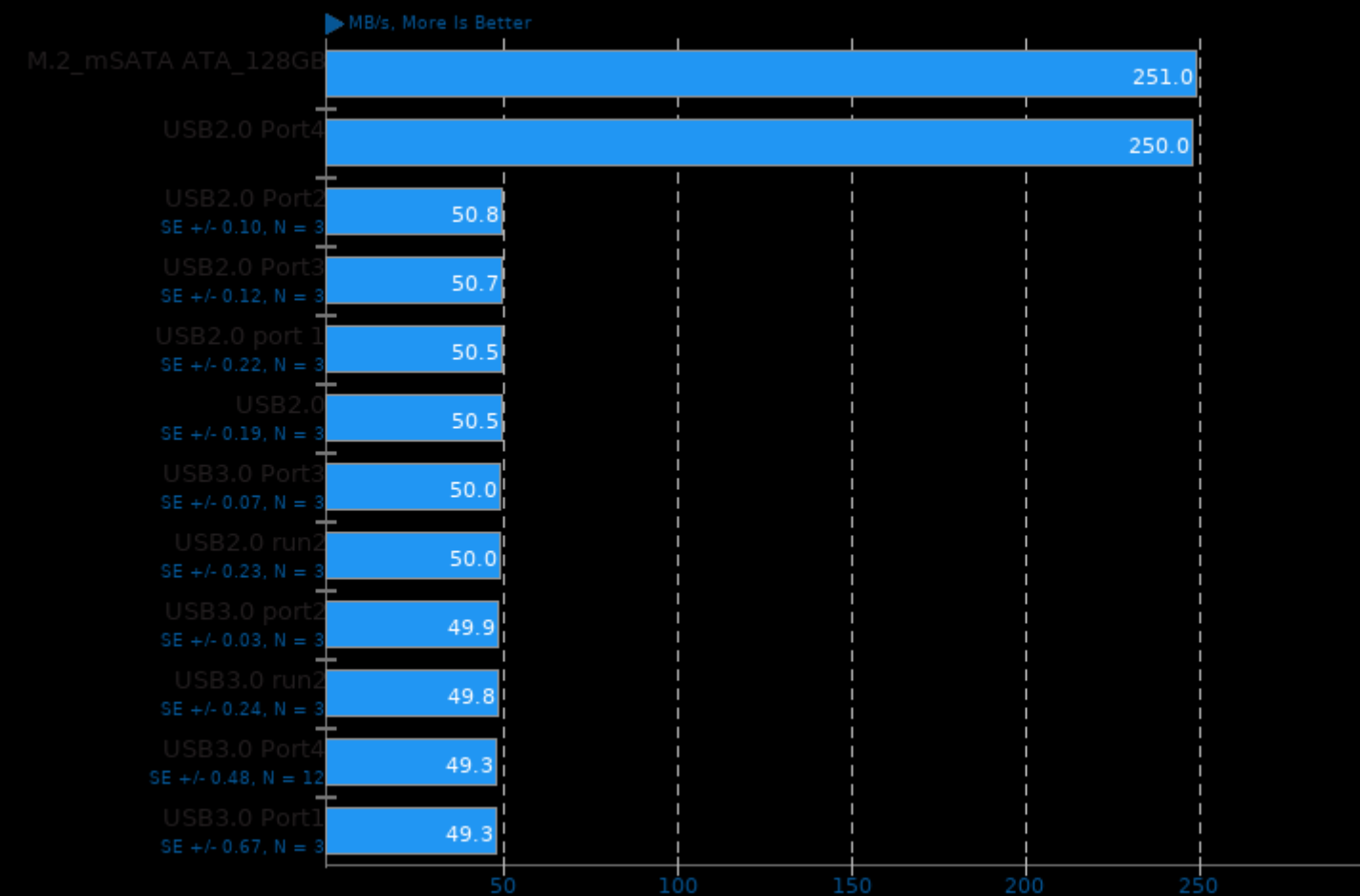
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

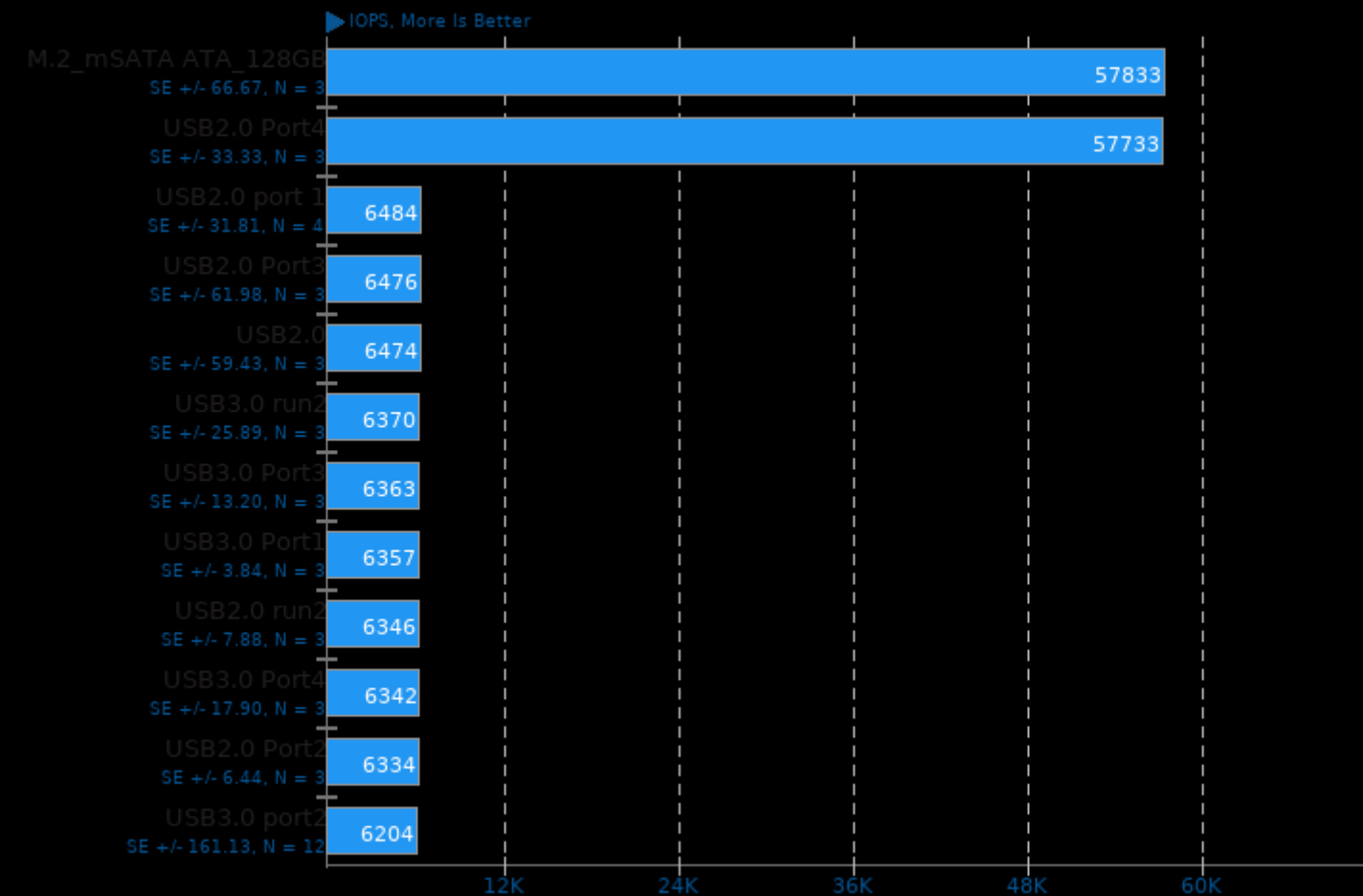
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

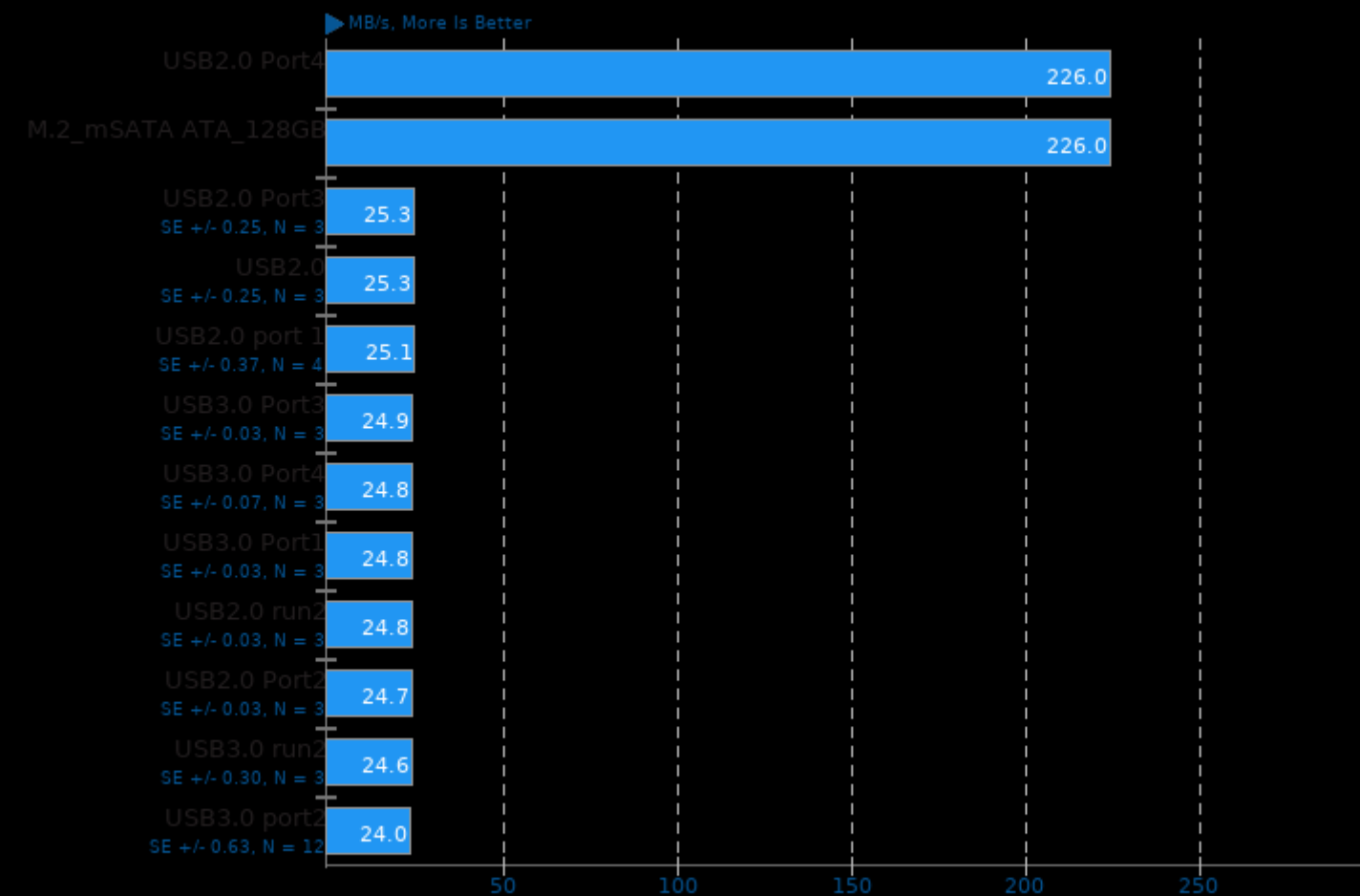
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

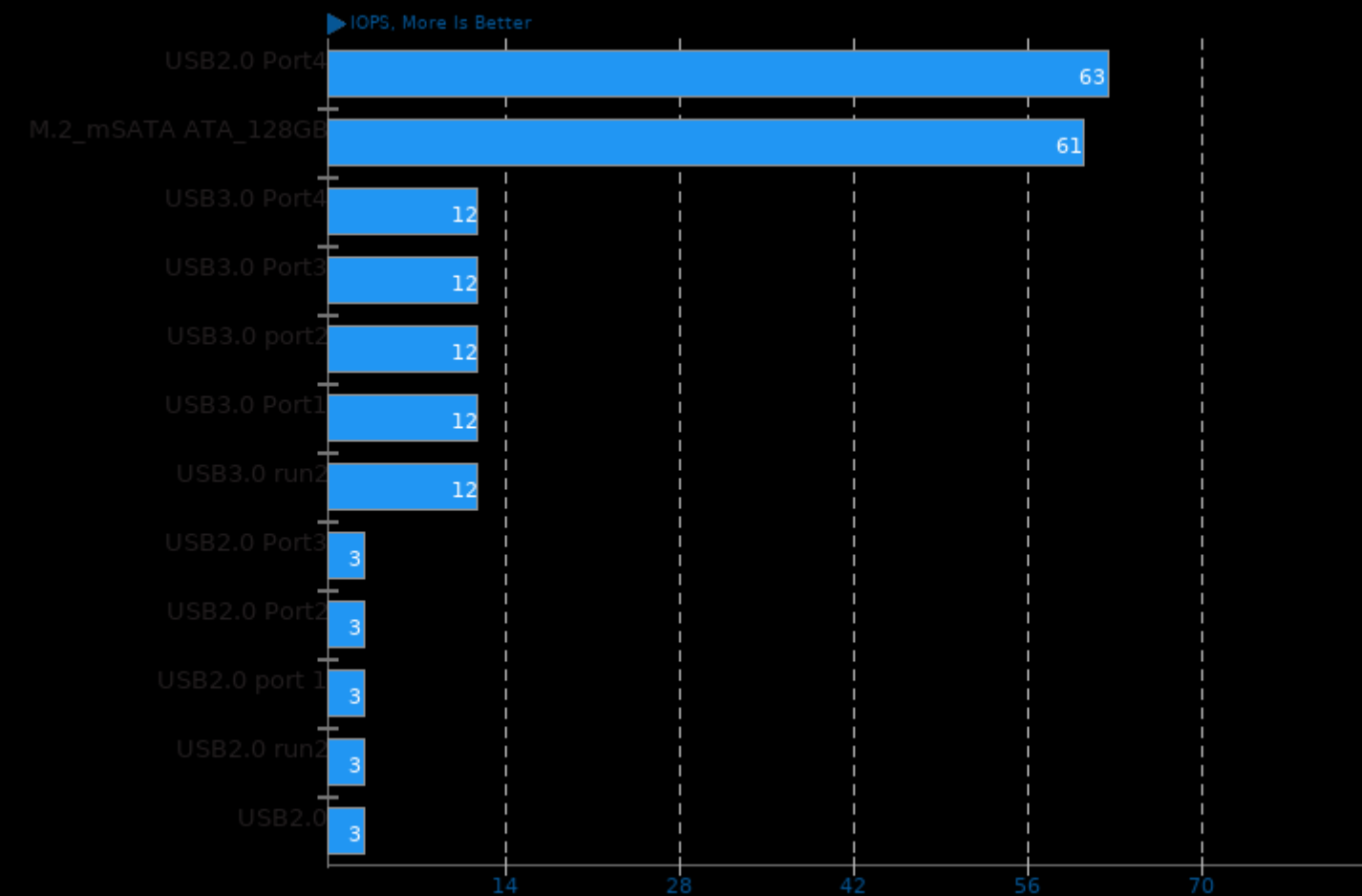
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

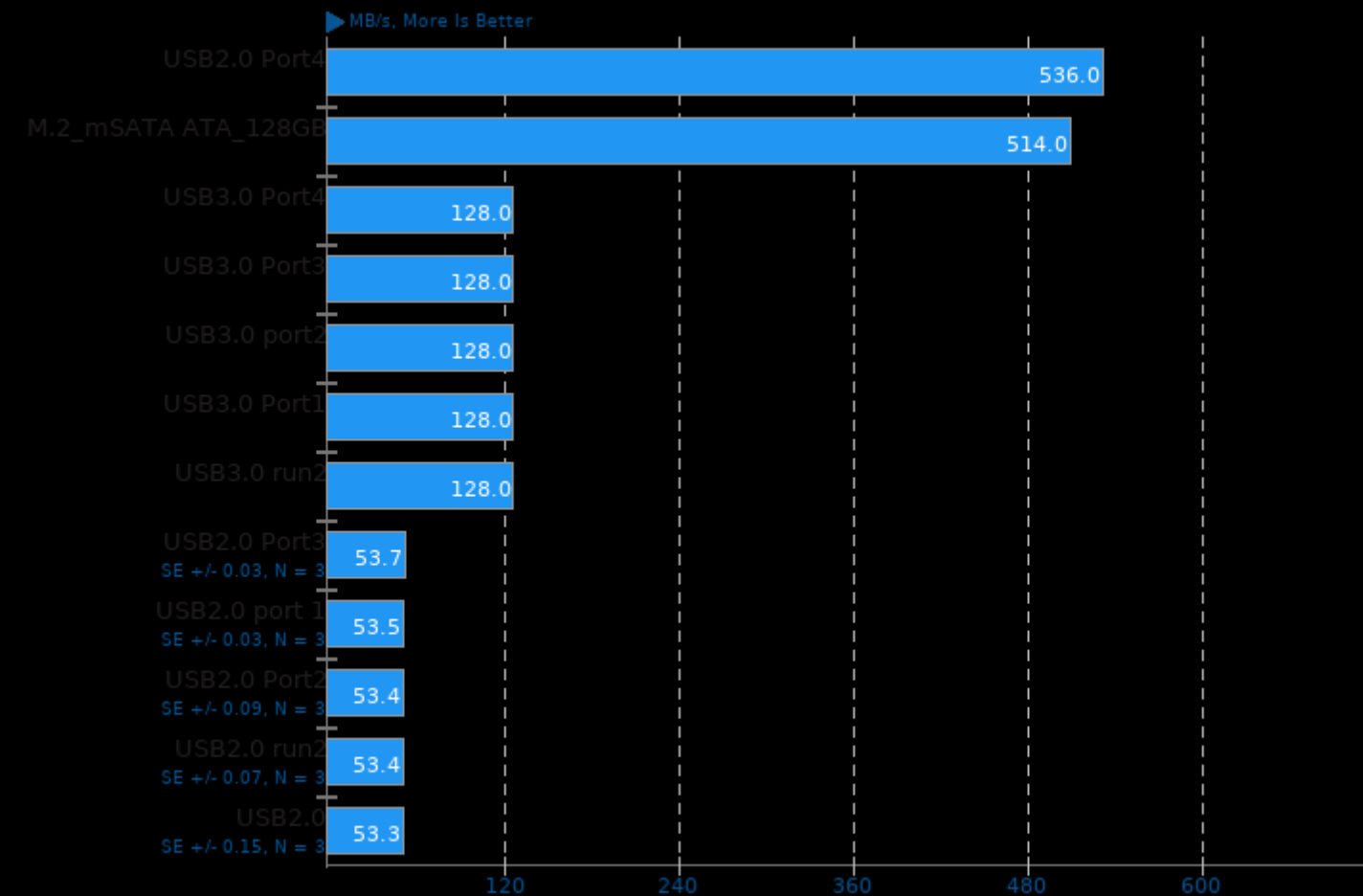
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

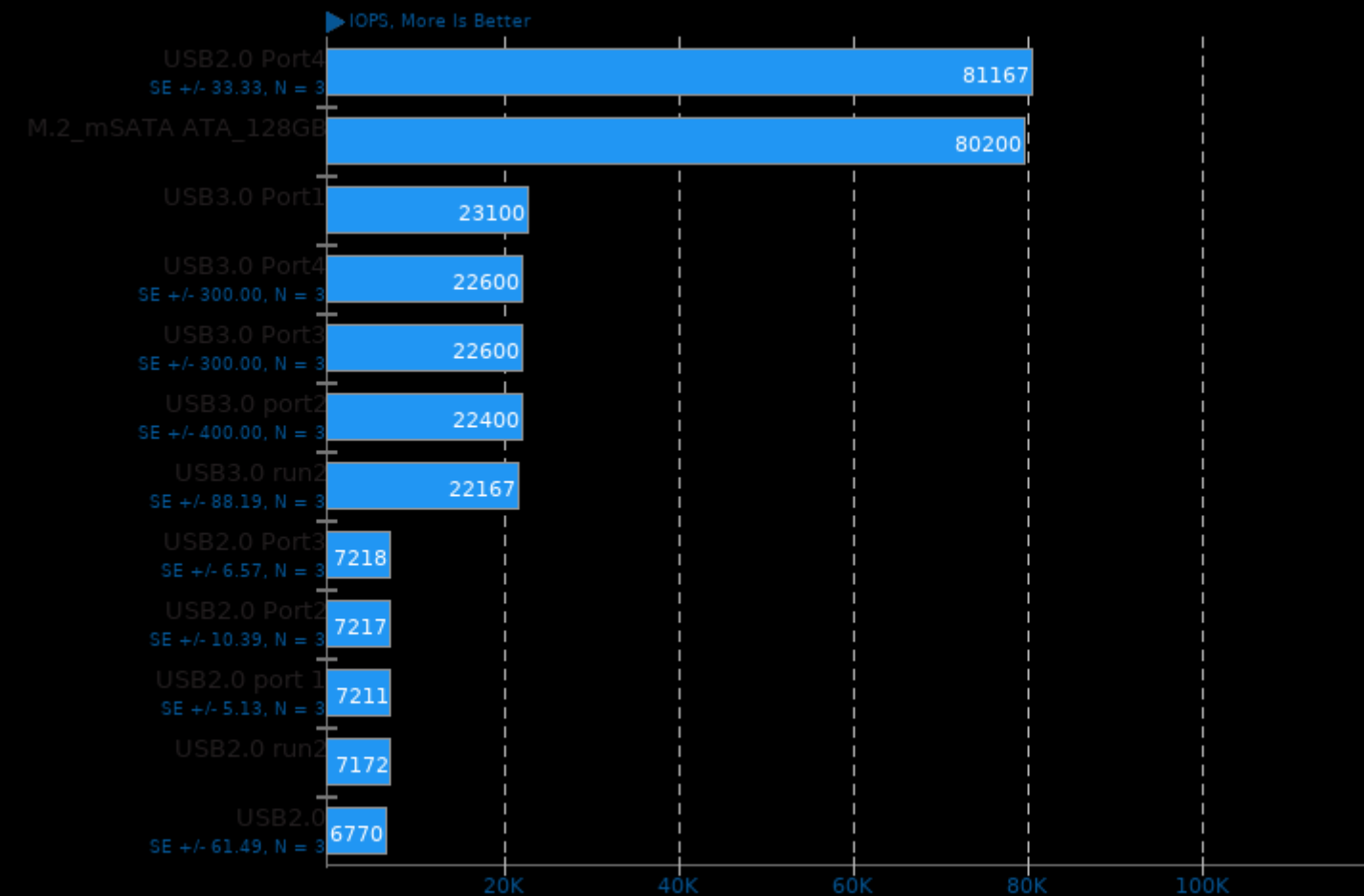
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 8MB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

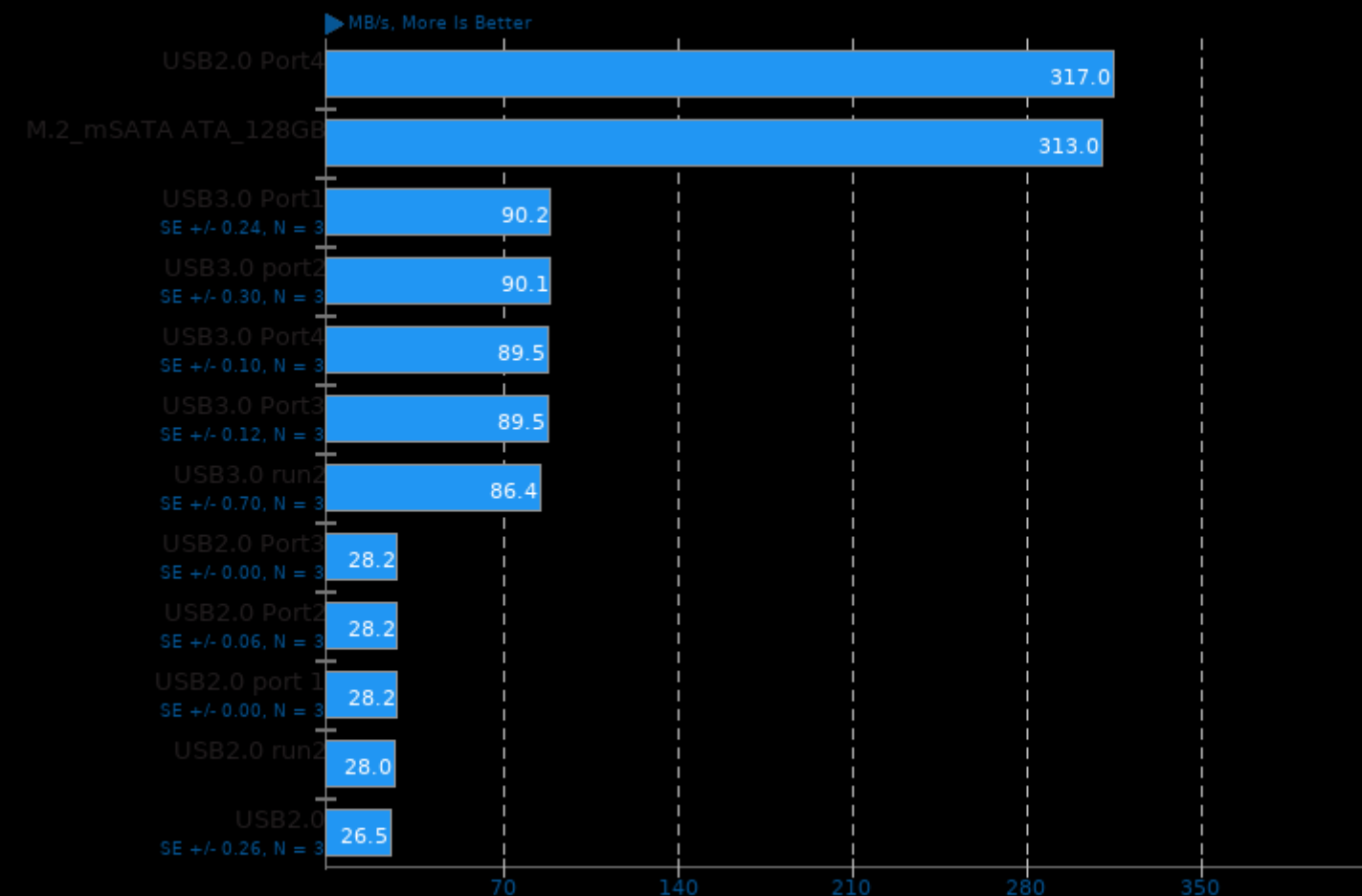
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Flexible IO Tester 3.18

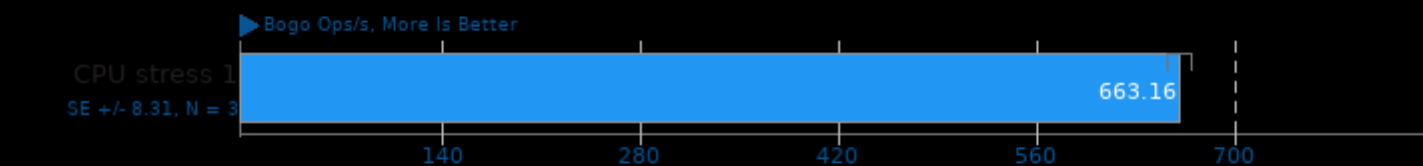
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: Yes - Block Size: 4KB - Disk Target: Default Test Directory



1, (CC) gcc options: -rdynamic -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native -lrt -laio -lz -lpthread -lm -ldl

Stress-NG 0.11.07

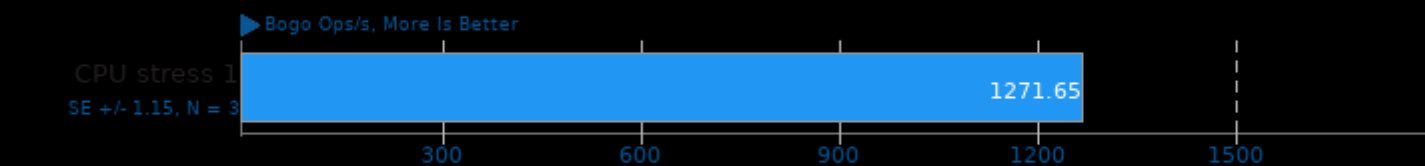
Test: Crypto



1, (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -lpthread -lc

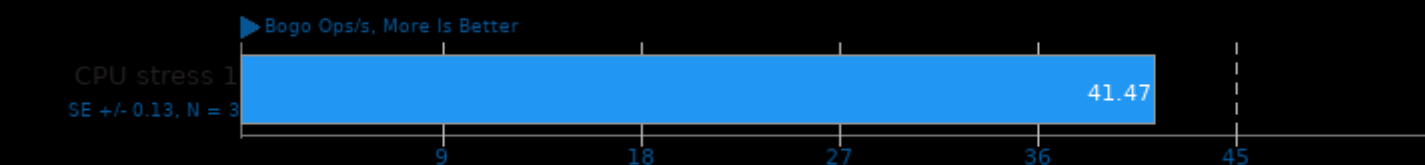
Stress-NG 0.11.07

Test: CPU Stress



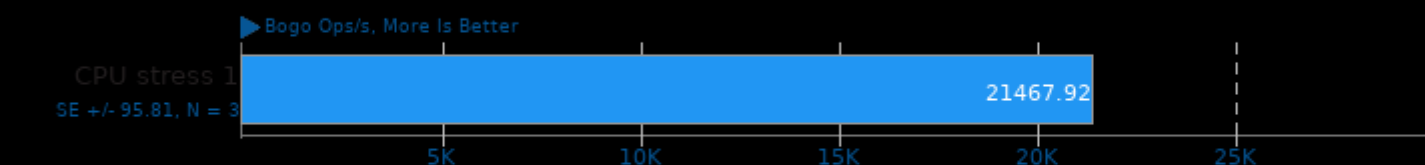
Stress-NG 0.11.07

Test: Glibc Qsort Data Sorting



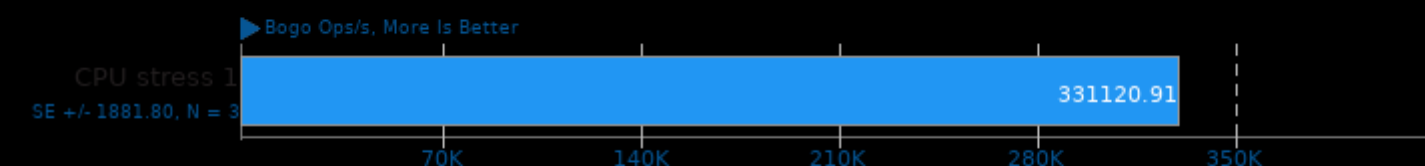
Stress-NG 0.11.07

Test: Forking



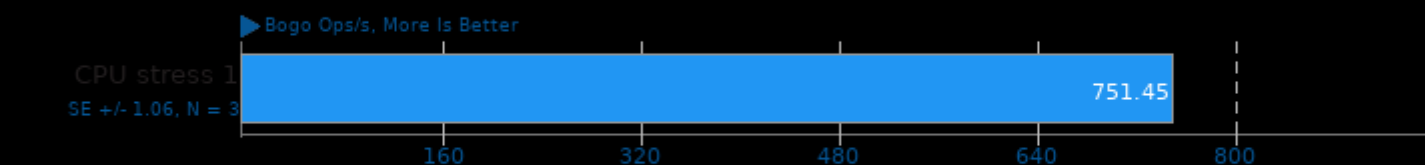
Stress-NG 0.11.07

Test: Glibc C String Functions



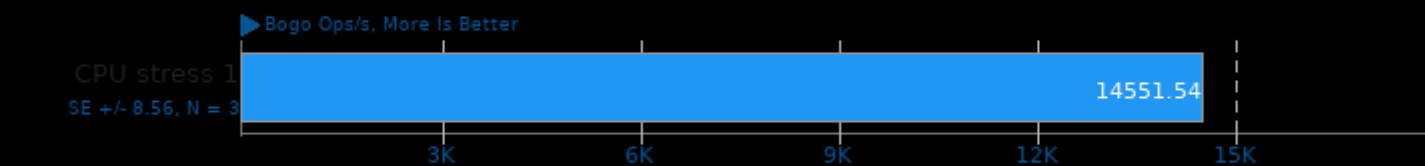
Stress-NG 0.11.07

Test: Memory Copying



Stress-NG 0.11.07

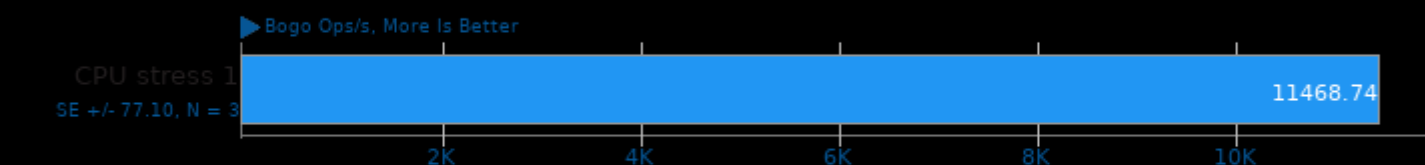
Test: Vector Math



1, (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -lpthread -lc

Stress-NG 0.11.07

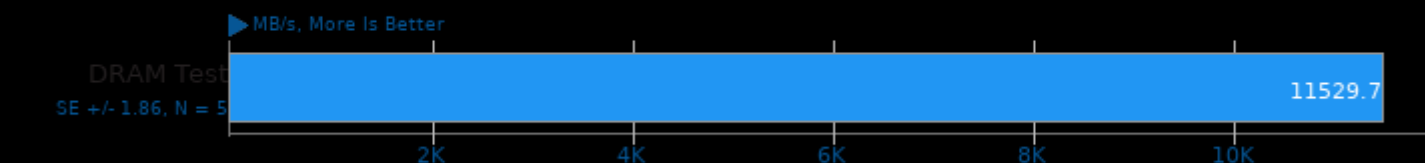
Test: Matrix Math



1, (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -ldl -lpthread -lc

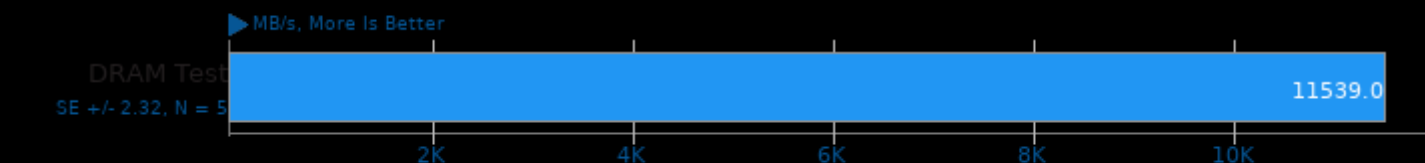
Stream 2013-01-17

Type: Add



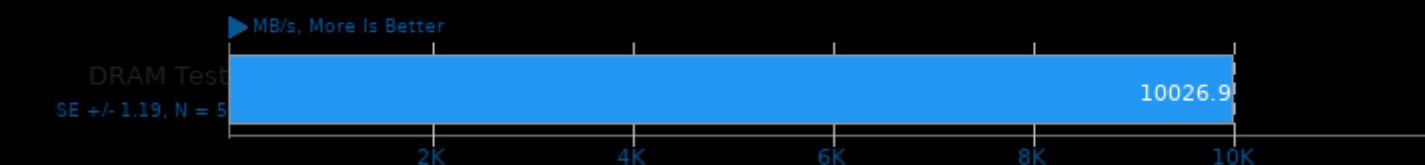
Stream 2013-01-17

Type: Triad



Stream 2013-01-17

Type: Scale



This file was automatically generated via the Phoronix Test Suite benchmarking software on Saturday, 21 December 2024 20:32.