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low-end-gpus

AMD Ryzen 7 5800X 8-Core testing with a ASRock X570 Pro4 (P4.20 BIOS) and Sapphire AMD Radeon RX 5500/5500M / Pro 5500M on Ubuntu 22.04 via the Phoronix Test Suite.

Test Systems:

A

Sapphire AMD Radeon RX 5500

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Sapphire AMD Radeon RX 5500/5500M / Pro 5500M (1900/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (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 + 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

B

Processor: AMD Ryzen 7 5800X 8-Core @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.20 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: Sapphire AMD Radeon RX 5500/5500M / Pro 5500M (1900/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.16.0-051600-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-2002e87 2022-01-24 jammy-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, 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-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-iOLsLC/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-iOLsLC/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 performance (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 + 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

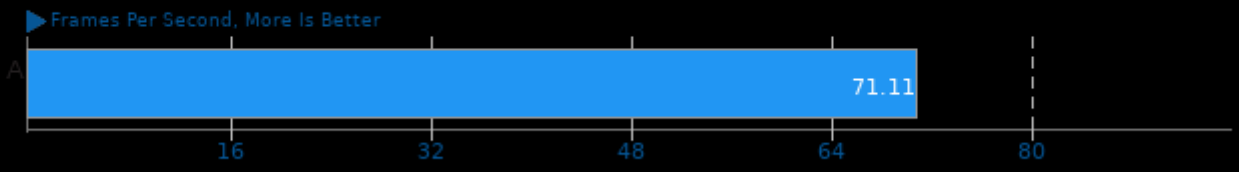
	A	Sapphire AMD Radeon RX 5500	B
Ashes of the Singulairty: Escalation - 1920 x 1080 (FPS)	71.109688		
Batman: Arkham Knight - 1920 x 1080 - Low (FPS)	124.56		
Batman: Arkham Knight - 1920 x 1080 - High (FPS)	113.08		
DiRT Rally 2.0 - 1920 x 1080 - Low (FPS)		313.905426	
DiRT Rally 2.0 - 1920 x 1080 - High (FPS)		78.847534	
DiRT Rally 2.0 - 1920 x 1080 - Ultra (FPS)		35.144882	
Dota 2 - 1920 x 1080 - Vulkan (FPS)		0.1	
Dawn of War III - 1920 x 1080 - Low - Vulkan (FPS)	122.867752		
Dawn of War III - 1920 x 1080 - High - Vulkan (FPS)	108.514961		
Dawn of War III - 1920 x 1080 - Medium - Vulkan (FPS)	114.041397		
Dawn of War III - 1920 x 1080 - Maximum - Vulkan (FPS)	95.661903		
F1 2020 - 1920 x 1080 - Low (FPS)	213		

F1 2020 - 1920 x 1080 - High (FPS)	151		
F1 2020 - 1920 x 1080 - Ultra (FPS)	94		
HITMAN 3 - 1920 x 1080 - Low (FPS)	112.22		
HITMAN 3 - 1920 x 1080 - Ultra (FPS)	100.11		
HITMAN 3 - 1920 x 1080 - Medium (FPS)	110.47		
Half-Life 2: Episode Two - 1920 x 1080 - OpenGL (FPS)	560.92		
Left 4 Dead 2 - 1920 x 1080 - OpenGL (FPS)	306.65		
Left 4 Dead 2 - 1920 x 1080 - Vulkan (FPS)	353.83		
Shadow of the Tomb Raider - 1920 x 1080 - High - Off (FPS)		45.6	
Standard Deviation		2.3%	
Shadow of the Tomb Raider - 1920 x 1080 - Medium - Off (FPS)		89.8	
Standard Deviation		0.1%	
Strange Brigade - 1920 x 1080 - Low (FPS)	159.7		
Strange Brigade - 1920 x 1080 - High (FPS)	120.3		
Strange Brigade - 1920 x 1080 - Ultra (FPS)	111.8		
Strange Brigade - 1920 x 1080 - Medium	134		
Total War: Three Kingdoms - 1920 x 1080 - Low - Battle Benchmark (FPS)	77.7		
Total War: Three Kingdoms - 1920 x 1080 - High - Battle Benchmark (FPS)	30.5		
Total War: Three Kingdoms - 1920 x 1080 - Medium - Battle Benchmark (FPS)	68		
Shadow of the Tomb Raider - 1920 x 1080 - Lowest - Off (FPS)		155.7	
Standard Deviation		0.1%	
DDraceNetwork - 1920 x 1080 - Fullscreen - OpenGL 3.3 - Default - RaiNyMore2 (FPS)			1418
DDraceNetwork - 1920 x 1080 - Fullscreen - OpenGL 3.3 - Default - Multeasymap (FPS)			988.09
Tesseract - 1920 x 1080 (FPS)			813.1992
Unigine Heaven - 1920 x 1080 - Fullscreen - OpenGL (FPS)			96.7623
Unigine Superposition - 1920 x 1080 - Fullscreen - Low - OpenGL (FPS)			147.7
Unigine Valley - 1920 x 1080 - Fullscreen - OpenGL (FPS)			109.687
Unvanquished - 1920 x 1080 - High (FPS)			414
Unvanquished - 1920 x 1080 - Ultra (FPS)			406.1
Unvanquished - 1920 x 1080 - Medium (FPS)			416.2
Warsow - 1920 x 1080 (FPS)			872.8
Xonotic - 1920 x 1080 - Low (FPS)			699.5733741
Xonotic - 1920 x 1080 - High (FPS)			582.0021623
Xonotic - 1920 x 1080 - Ultra (FPS)			530.0628854
Xonotic - 1920 x 1080 - Ultimate (FPS)			441.8628578
yquake2 - Vulkan - 1920 x 1080 (FPS)			610.6

yquake2 - OpenGL 3.x - 1920 x 1080 (FPS)	992.2

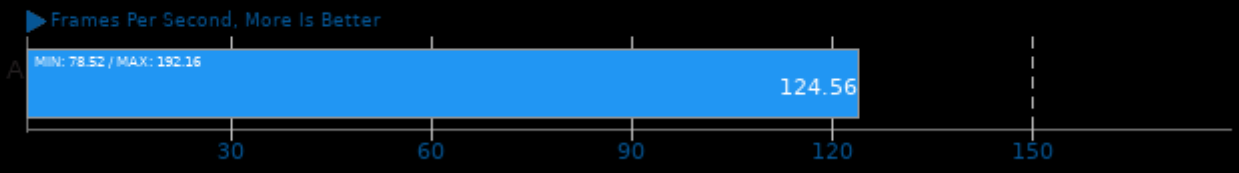
Ashes of the Singulairty: Escalation

Resolution: 1920 x 1080



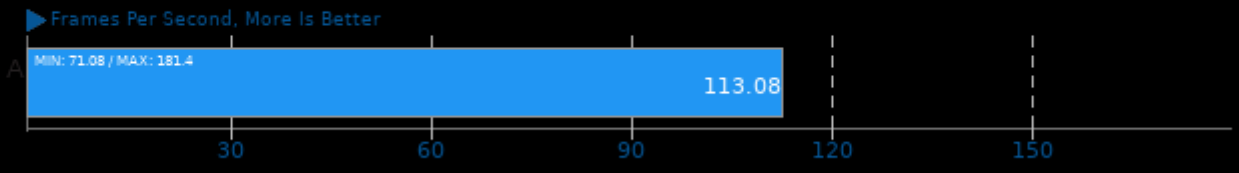
Batman: Arkham Knight

Resolution: 1920 x 1080 - Quality: Low



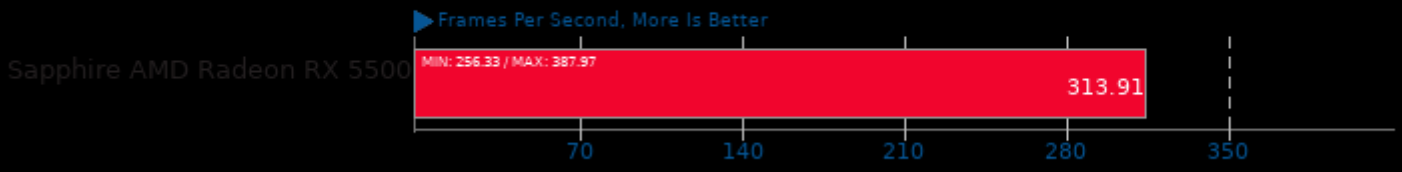
Batman: Arkham Knight

Resolution: 1920 x 1080 - Quality: High



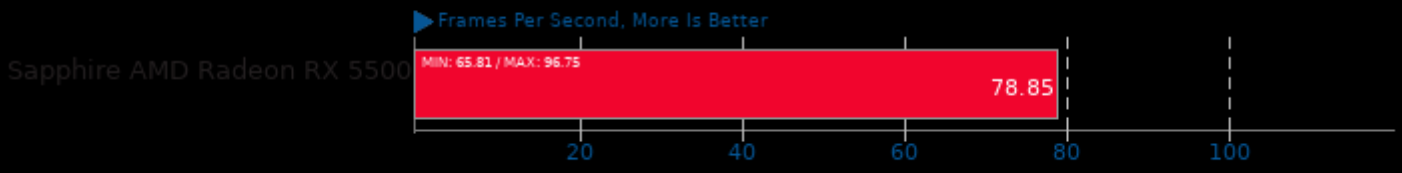
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: Low



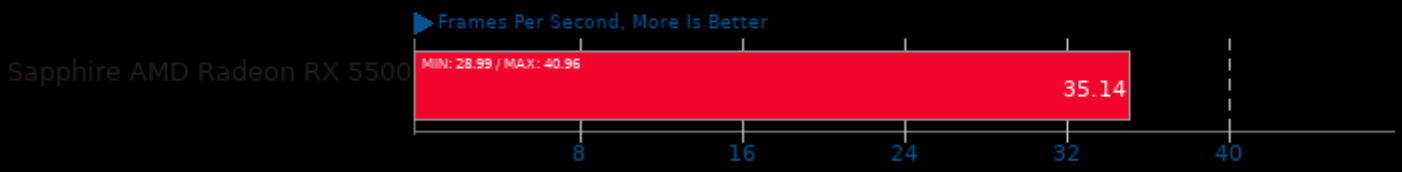
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: High



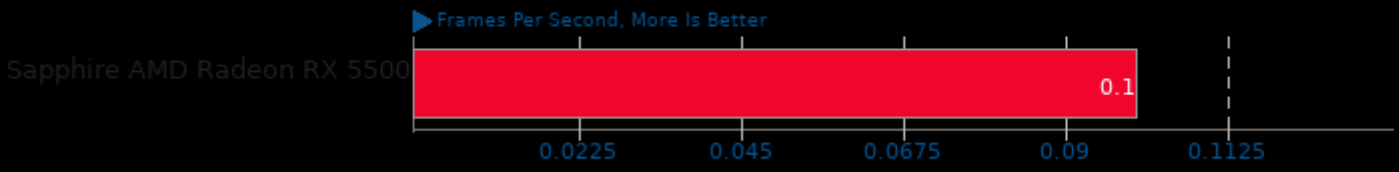
DiRT Rally 2.0

Resolution: 1920 x 1080 - Graphics Preset: Ultra



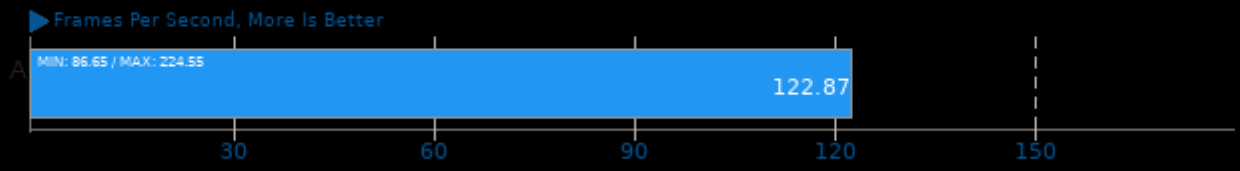
Dota 2

Resolution: 1920 x 1080 - Renderer: Vulkan



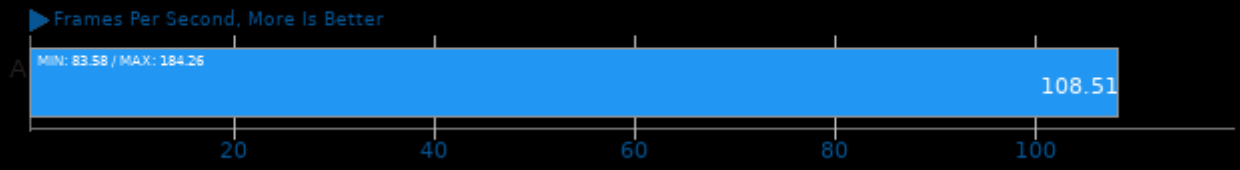
Dawn of War III

Resolution: 1920 x 1080 - Graphics Preset: Low - Renderer: Vulkan



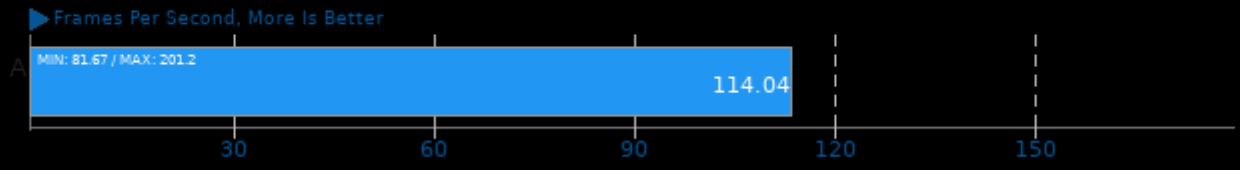
Dawn of War III

Resolution: 1920 x 1080 - Graphics Preset: High - Renderer: Vulkan



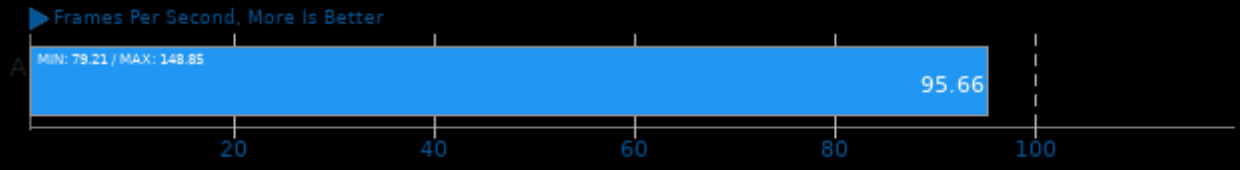
Dawn of War III

Resolution: 1920 x 1080 - Graphics Preset: Medium - Renderer: Vulkan



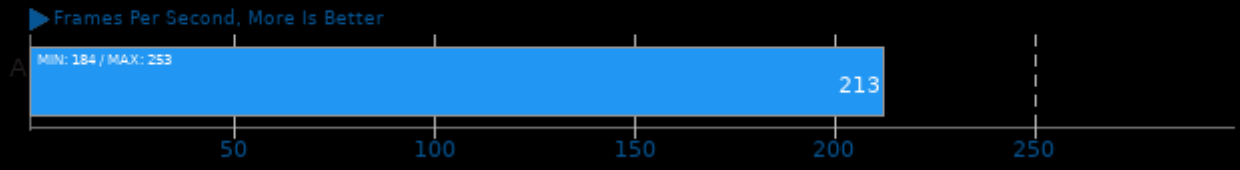
Dawn of War III

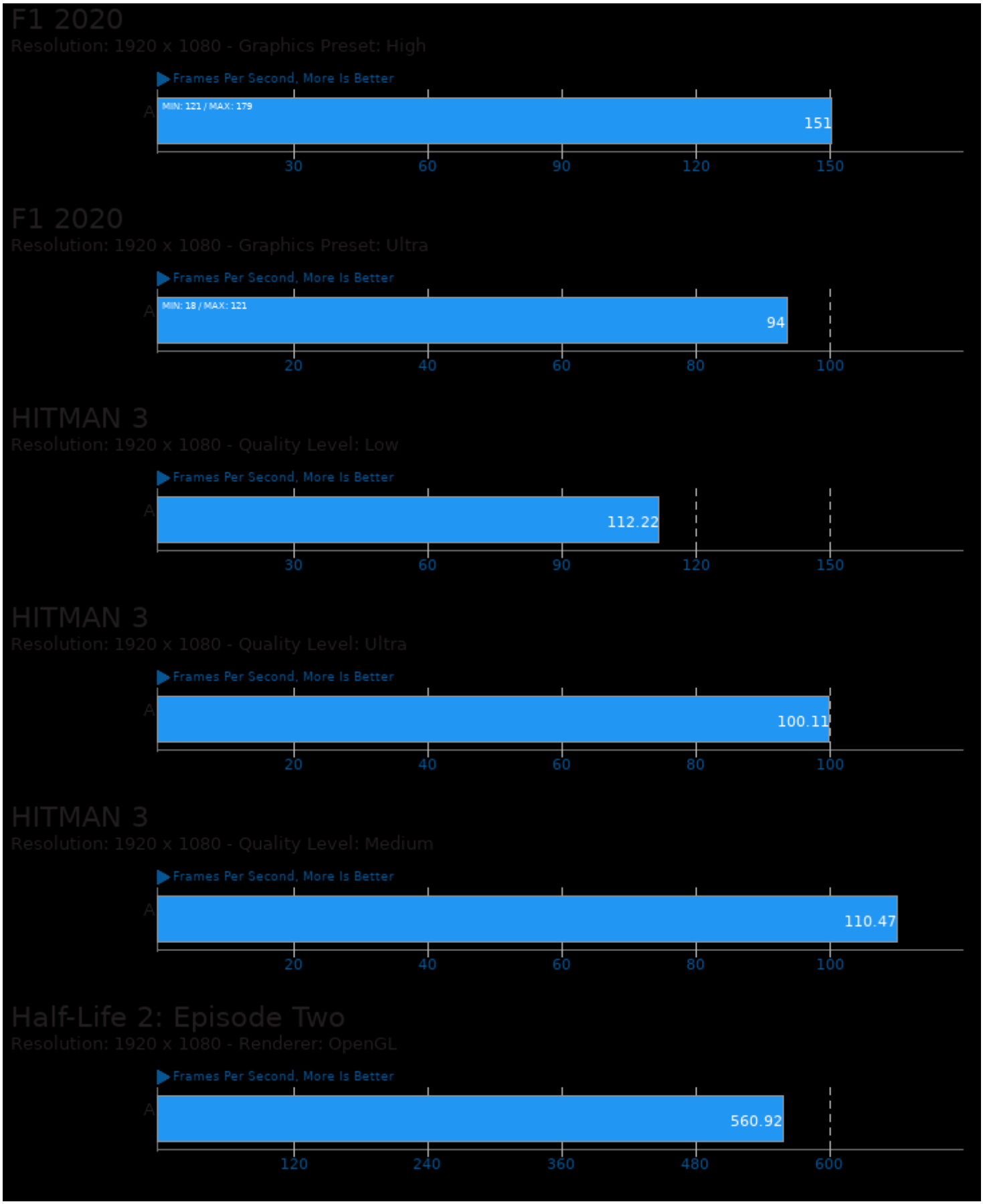
Resolution: 1920 x 1080 - Graphics Preset: Maximum - Renderer: Vulkan



F1 2020

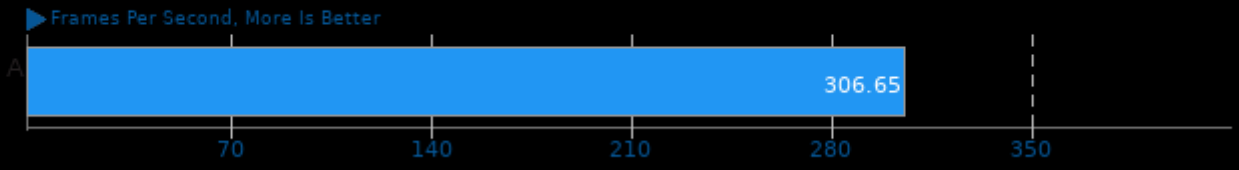
Resolution: 1920 x 1080 - Graphics Preset: Low




F1 2020
Resolution: 1920 x 1080 - Graphics Preset: High
Frames Per Second, More Is Better
A
MIN: 121 / MAX: 179
151
30
60
90
120
150
F1 2020
Resolution: 1920 x 1080 - Graphics Preset: Ultra
Frames Per Second, More Is Better
A
MIN: 18 / MAX: 121
94
20
40
60
80
100
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Low
Frames Per Second, More Is Better
A
112.22
30
60
90
120
150
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Ultra
Frames Per Second, More Is Better
A
100.11
20
40
60
80
100
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Medium
Frames Per Second, More Is Better
A
110.47
20
40
60
80
100
Half-Life 2: Episode Two
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
A
560.92
120
240
360
480
600

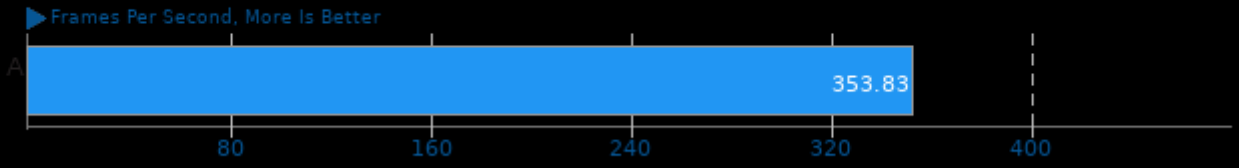
Left 4 Dead 2

Resolution: 1920 x 1080 - Renderer: OpenGL



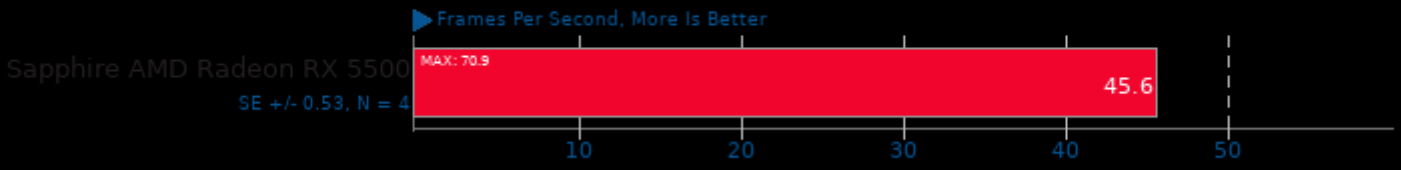
Left 4 Dead 2

Resolution: 1920 x 1080 - Renderer: Vulkan



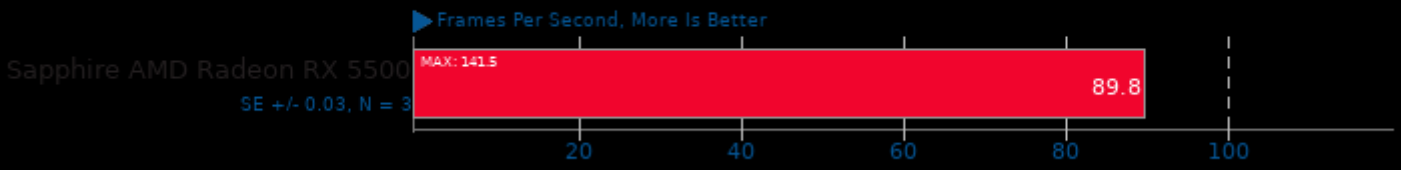
Shadow of the Tomb Raider

Resolution: 1920 x 1080 - Graphics Preset: High - Anti Aliasing: Off



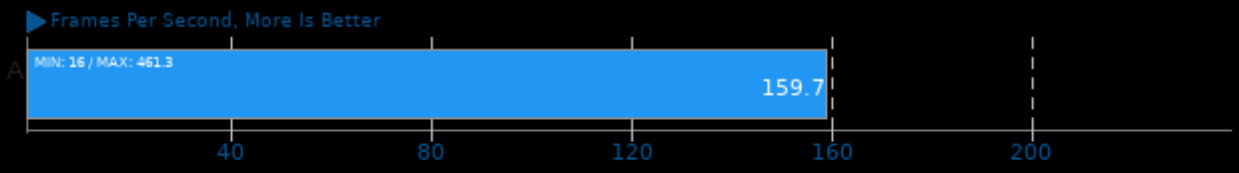
Shadow of the Tomb Raider

Resolution: 1920 x 1080 - Graphics Preset: Medium - Anti Aliasing: Off



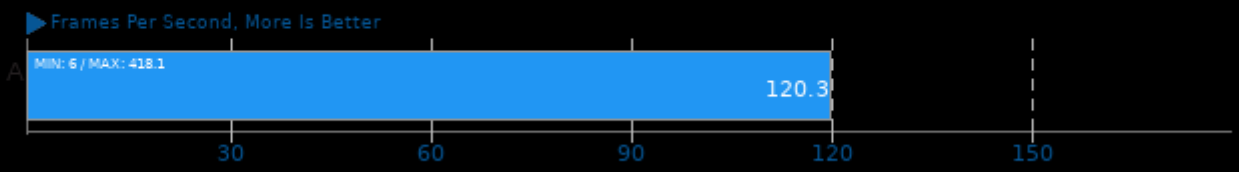
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Low



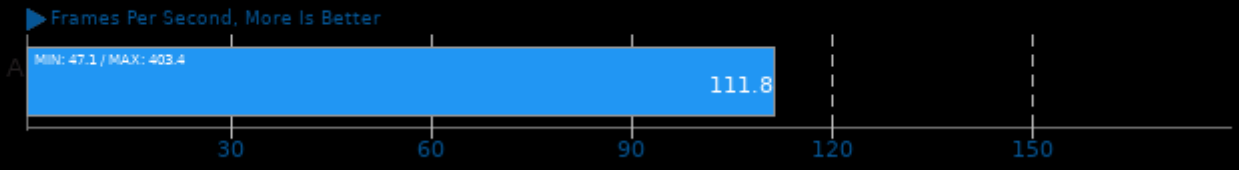
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: High



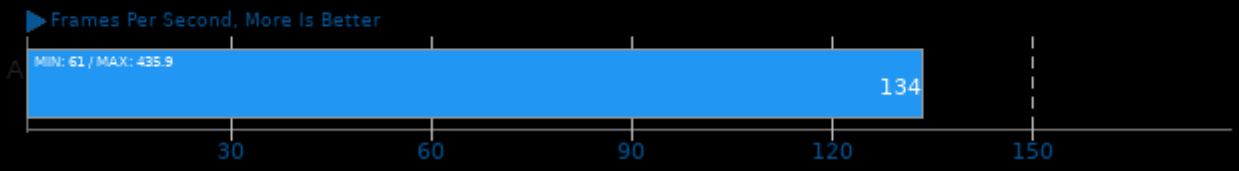
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Ultra



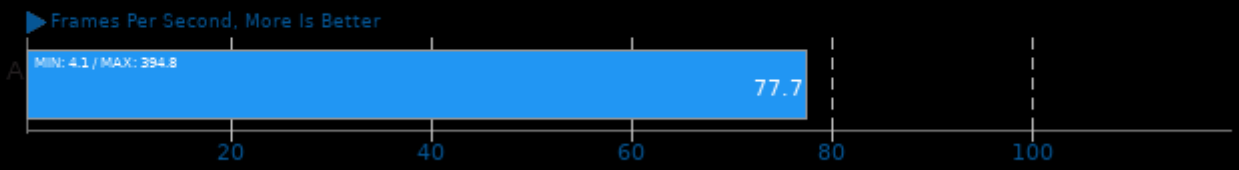
Strange Brigade

Resolution: 1920 x 1080 - Graphics Setting: Medium



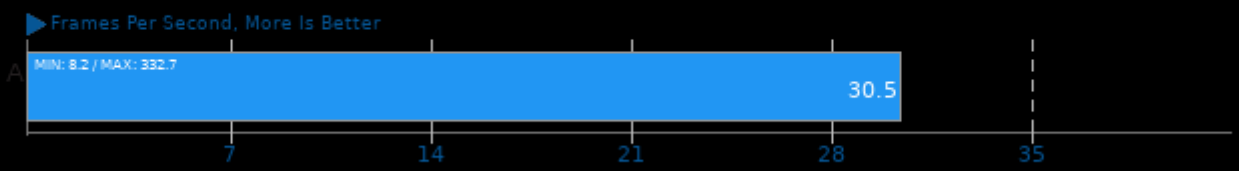
Total War: Three Kingdoms 1.0.1

Resolution: 1920 x 1080 - Graphics Preset: Low - Scenario: Battle Benchmark



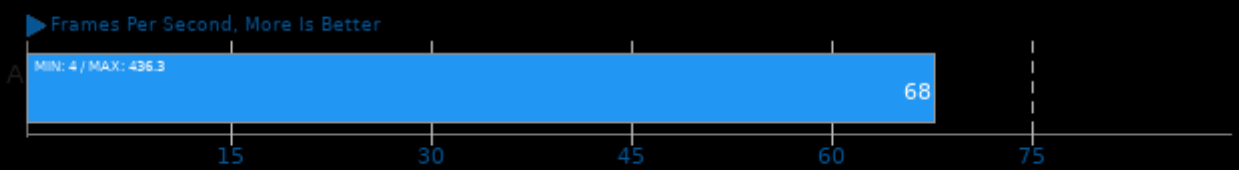
Total War: Three Kingdoms 1.0.1

Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Battle Benchmark



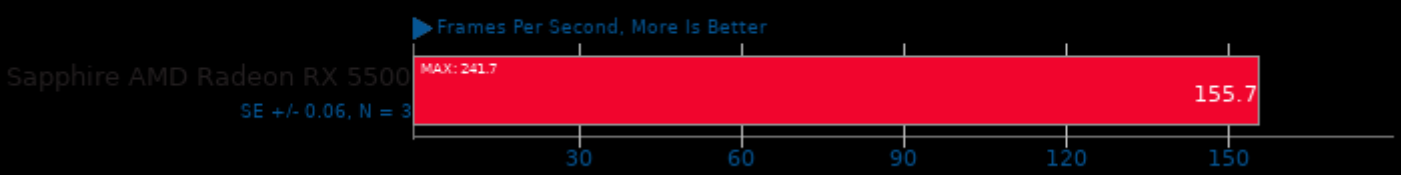
Total War: Three Kingdoms 1.0.1

Resolution: 1920 x 1080 - Graphics Preset: Medium - Scenario: Battle Benchmark



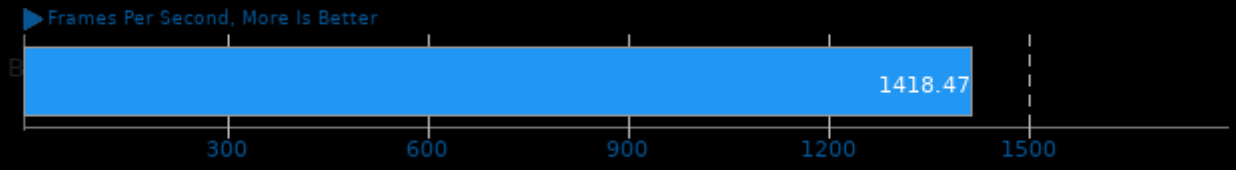
Shadow of the Tomb Raider

Resolution: 1920 x 1080 - Graphics Preset: Lowest - Anti Aliasing: Off



DDraceNetwork 15.8.1

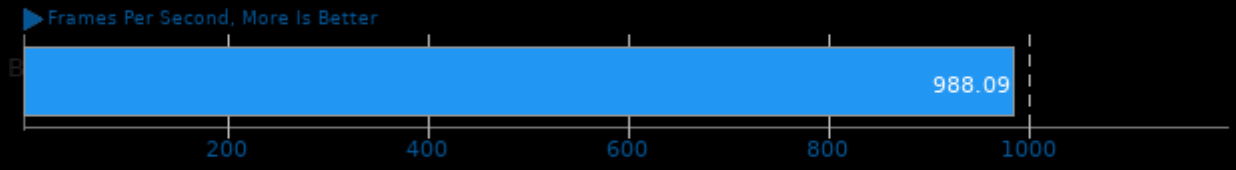
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2



1. (CXX) g++ options: -O3 -lrt -lnotify -lgdk_pixbuf-2.0 -lgio-2.0 -lgobject-2.0 -lglib-2.0

DDraceNetwork 15.8.1

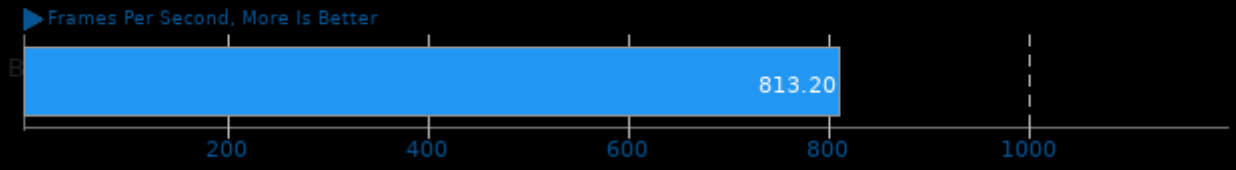
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap



1. (CXX) g++ options: -O3 -lrt -lnotify -lgdk_pixbuf-2.0 -lgio-2.0 -lgobject-2.0 -lglib-2.0

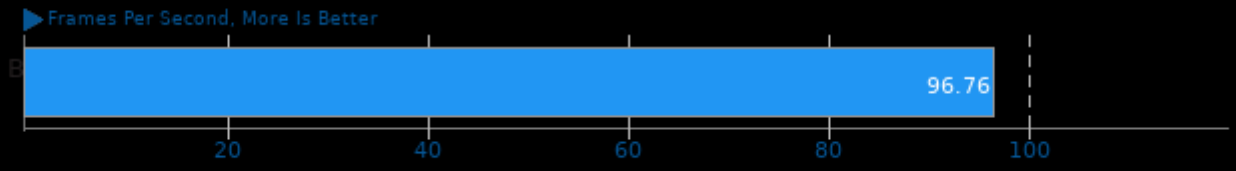
Tesseract 2014-05-12

Resolution: 1920 x 1080



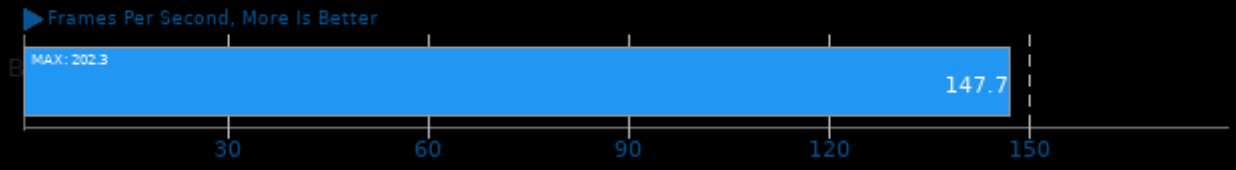
Unigine Heaven 4.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL



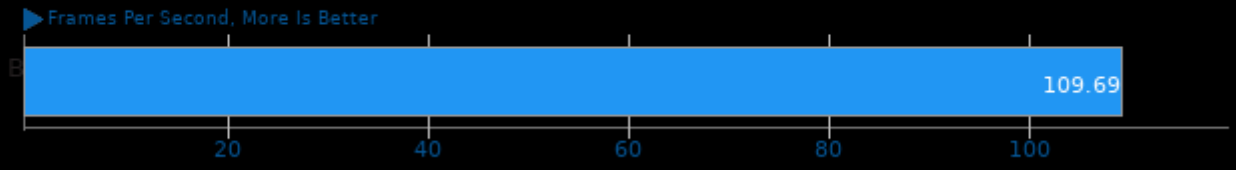
Unigine Superposition 1.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL



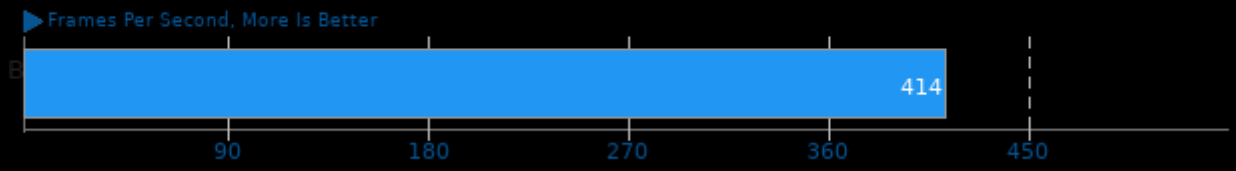
Unigine Valley 1.0

Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL



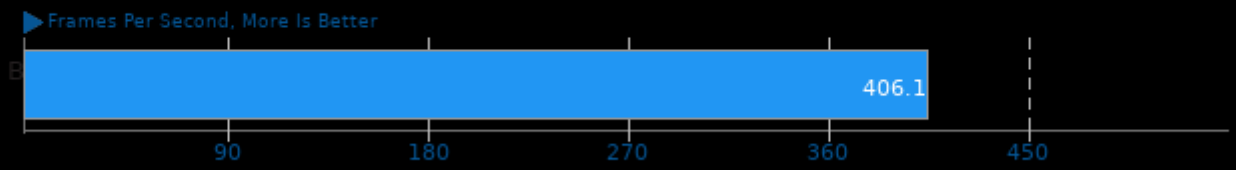
Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: High



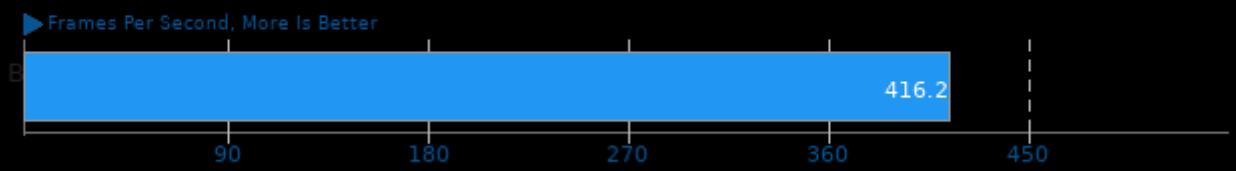
Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: Ultra



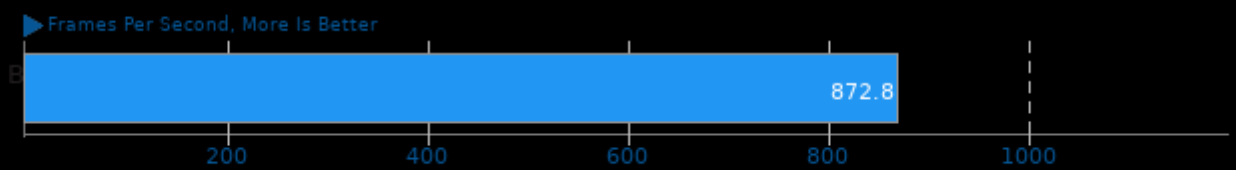
Unvanquished 0.52.1

Resolution: 1920 x 1080 - Effects Quality: Medium



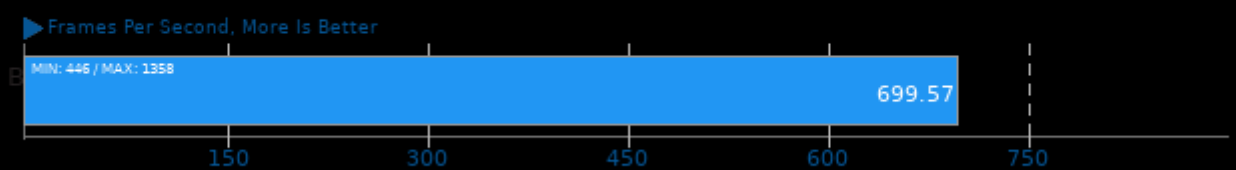
Warsow 2.5 Beta

Resolution: 1920 x 1080



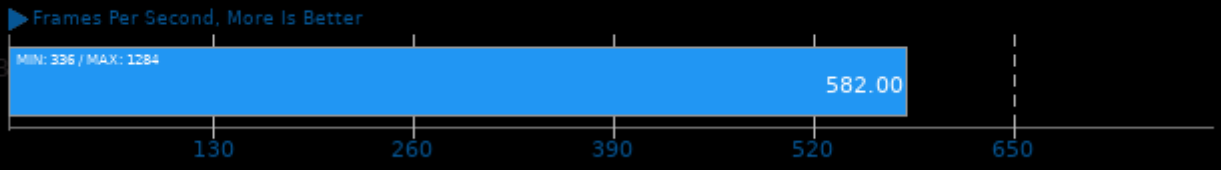
Xonotic 0.8.2

Resolution: 1920 x 1080 - Effects Quality: Low



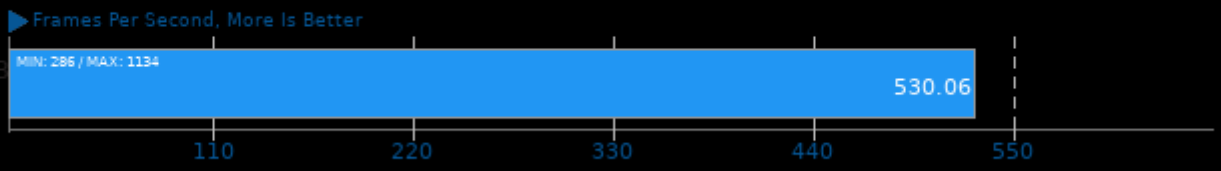
Xonotic 0.8.2

Resolution: 1920 x 1080 - Effects Quality: High



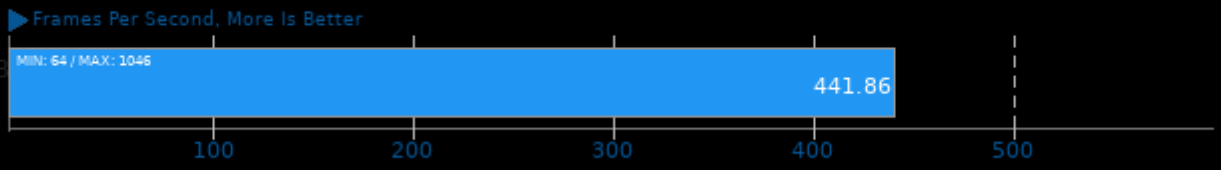
Xonotic 0.8.2

Resolution: 1920 x 1080 - Effects Quality: Ultra



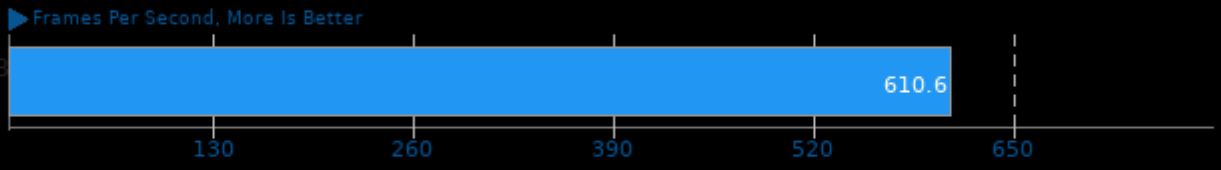
Xonotic 0.8.2

Resolution: 1920 x 1080 - Effects Quality: Ultimate



yquake2 8.0

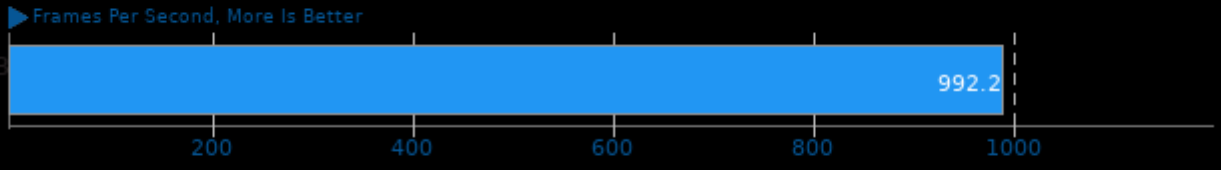
Renderer: Vulkan - Resolution: 1920 x 1080



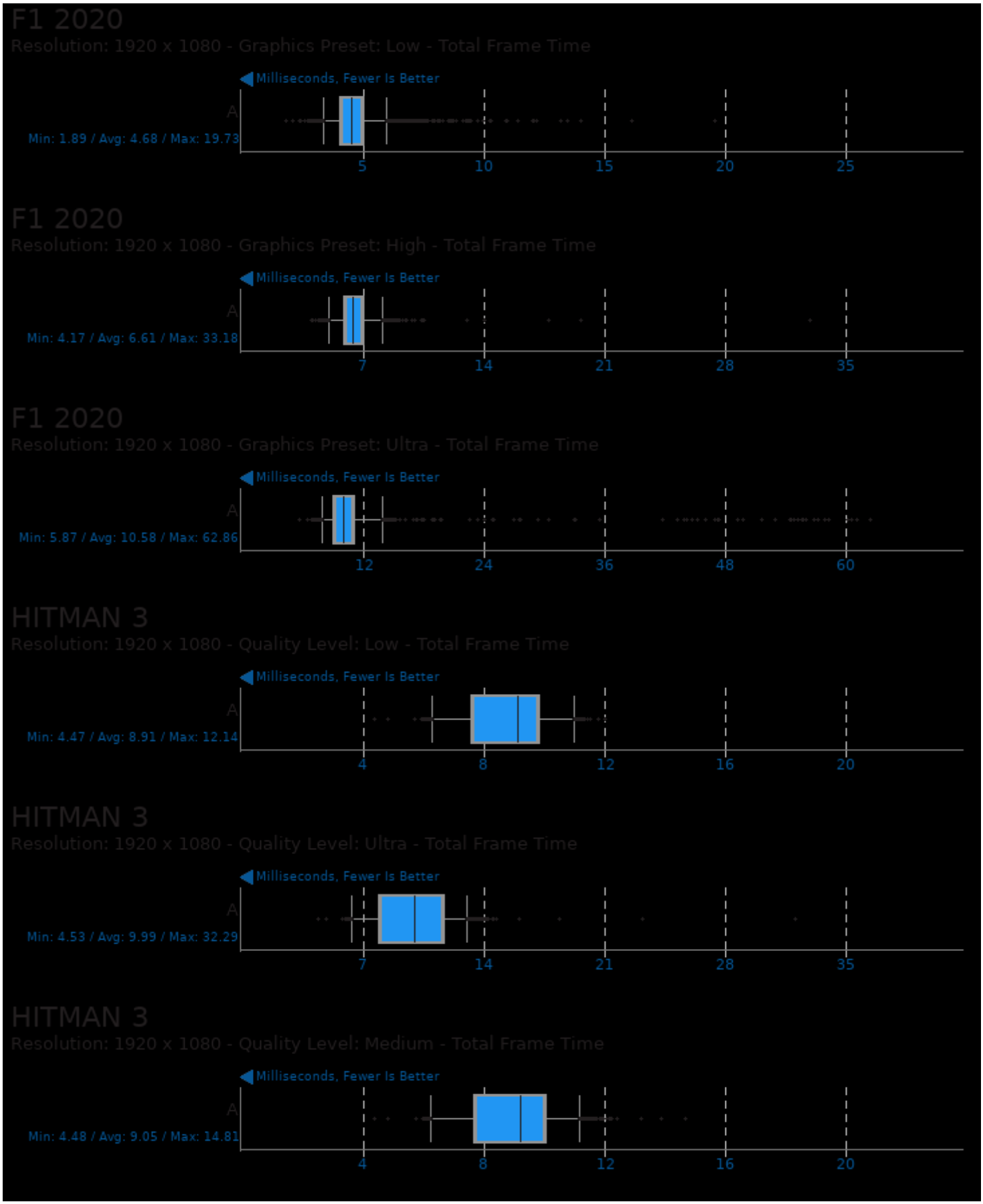
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf

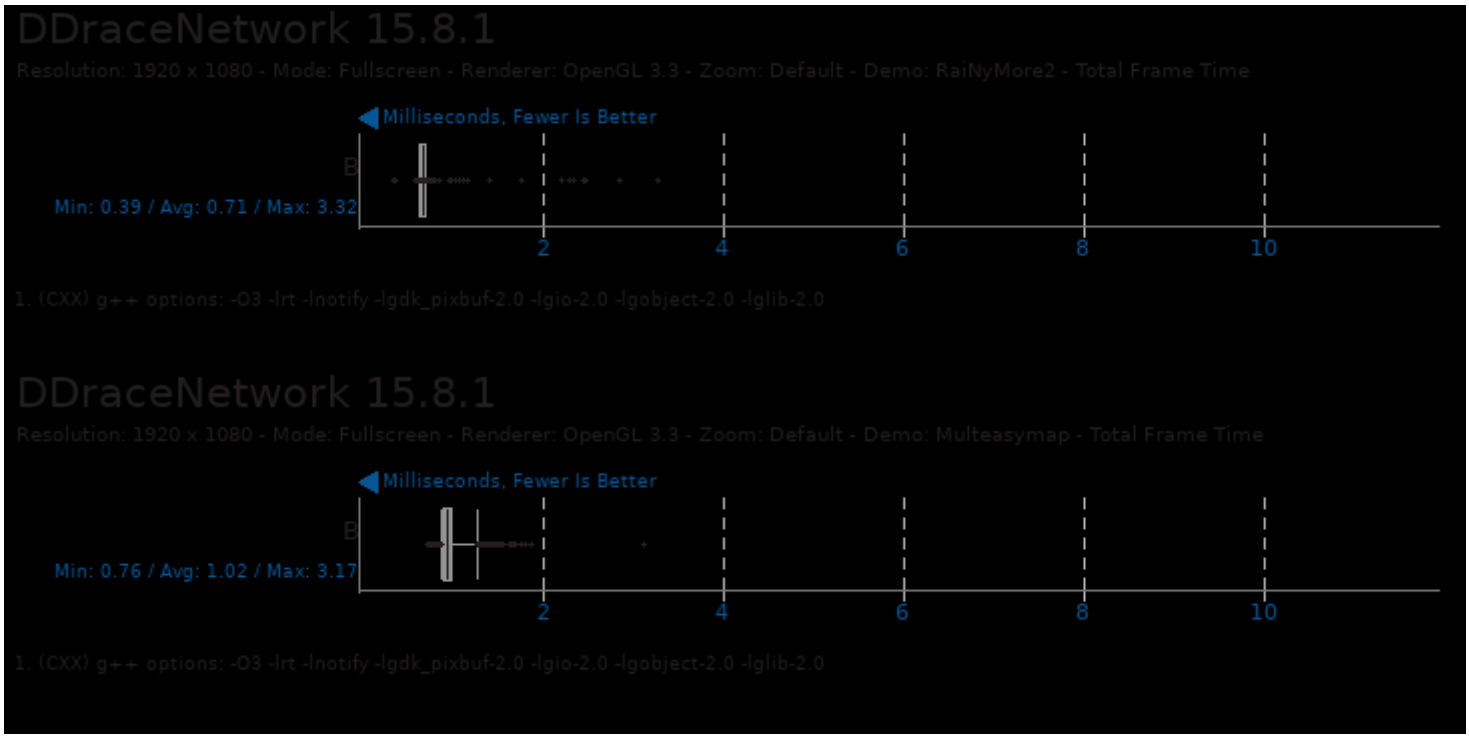
yquake2 8.0

Renderer: OpenGL 3.x - Resolution: 1920 x 1080



1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf


F1 2020
Resolution: 1920 x 1080 - Graphics Preset: Low - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 1.89 / Avg: 4.68 / Max: 19.73
5
10
15
20
25
F1 2020
Resolution: 1920 x 1080 - Graphics Preset: High - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 4.17 / Avg: 6.61 / Max: 33.18
7
14
21
28
35
F1 2020
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 5.87 / Avg: 10.58 / Max: 62.86
12
24
36
48
60
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Low - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 4.47 / Avg: 8.91 / Max: 12.14
4
8
12
16
20
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Ultra - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 4.53 / Avg: 9.99 / Max: 32.29
7
14
21
28
35
HITMAN 3
Resolution: 1920 x 1080 - Quality Level: Medium - Total Frame Time
Milliseconds, Fewer Is Better
A
Min: 4.48 / Avg: 9.05 / Max: 14.81
4
8
12
16
20



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 08:22.