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new gaming tests

Intel Core i9-12900K testing with a ASUS ROG STRIX Z690-E GAMING WIFI (1003 BIOS) and AMD Radeon RX 6800 XT 16GB on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (C) was 1.001x the speed of the slowest (B). A was 0.999x the speed of C and B was 1x the speed of A.

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

yquake2 (Renderer: OpenGL 3.x - AF: Off - MSAA: Off - Resolution: 3840 x 2160) at 1.046x
yquake2 (Renderer: OpenGL 3.x - AF: On - MSAA: Off - Resolution: 1920 x 1080) at 1.033x
yquake2 (Renderer: OpenGL ES 3.x - AF: Off - MSAA: On - Resolution: 3840 x 2160) at 1.031x
yquake2 (Renderer: OpenGL ES 3.x - AF: On - MSAA: On - Resolution: 3840 x 2160) at 1.031x
yquake2 (Renderer: OpenGL ES 3.x - AF: On - MSAA: Off - Resolution: 3840 x 2160) at 1.026x
yquake2 (Renderer: OpenGL 3.x - AF: Off - MSAA: On - Resolution: 3840 x 2160) at 1.026x
yquake2 (Renderer: OpenGL ES 3.x - AF: On - MSAA: On - Resolution: 1920 x 1080) at 1.025x
yquake2 (Renderer: OpenGL ES 3.x - AF: Off - MSAA: Off - Resolution: 2560 x 1440) at 1.024x
yquake2 (Renderer: OpenGL 3.x - AF: On - MSAA: On - Resolution: 1920 x 1080) at 1.024x

yquake2 (Renderer: OpenGL 3.x - AF: Off - MSAA: Off - Resolution: 2560 x 1440) at 1.024x.

Test Systems:

A

B

C

Processor: Intel Core i9-12900K @ 5.20GHz (16 Cores / 24 Threads), Motherboard: ASUS ROG STRIX Z690-E GAMING WIFI (1003 BIOS), Chipset: Intel Device 7aa7, Memory: 32GB, Disk: 1000GB Western Digital WDS100T1X0E-00AFY0 + 2000GB, Graphics: AMD Radeon RX 6800 XT 16GB (2575/1000MHz), Audio: Intel Device 7ad0, Monitor: ASUS VP28U, Network: Intel I225-V + Intel Wi-Fi 6 AX210/AX211/AX411

OS: Ubuntu 22.04, Kernel: 5.18.0-051800-generic (x86_64), Desktop: GNOME Shell 42.1, Display Server: X Server 1.21.1.3 + Wayland, OpenGL: 4.6 Mesa 22.2.0-devel (git-d67a3ec 2022-06-01 jammy-oibaf-ppa) (LLVM 14.0.0 DRM 3.46), Vulkan: 1.3.211, 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-gBFGDP/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-gBFGDP/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- --withabi=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: intel_pstate performance (EPP: performance) - CPU Microcode: 0x18 - ThermalD 2.4.9
 Graphics Notes: BAR1 / Visible vRAM Size: 16368 MB - vBIOS Version: 113-D4120500-101
 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/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbs: Not affected + tsx_async_abort: Not affected

	A	B	C
Total War: WARHAMMER III - 1920 x 1080 -	145.6	145.0	145.3
High - Battle Benchmark (FPS)			
Normalized	100%	99.59%	99.79%
Standard Deviation	0.3%	0.3%	0.4%
Total War: WARHAMMER III - 2560 x 1440 -	97.3	97.5	97.6
High - Battle Benchmark (FPS)			
Normalized	99.69%	99.9%	100%
Standard Deviation	0.3%	0.1%	0.3%
Total War: WARHAMMER III - 3840 x 2160 -	48.6	48.6	48.7
High - Battle Benchmark (FPS)			
Normalized	99.79%	99.79%	100%
Standard Deviation	0.4%	0.3%	0.2%

Total War: WARHAMMER III - 1920 x 1080 -	122.8	123.1	123.0
Ultra - Battle Benchmark (FPS)			
Normalized	99.76%	100%	99.92%
Standard Deviation	0.1%	0.1%	0.2%
Total War: WARHAMMER III - 2560 x 1440 -	85.6	85.7	85.6
Ultra - Battle Benchmark (FPS)			
Normalized	99.88%	100%	99.88%
Standard Deviation	0.2%	0.2%	0%
Total War: WARHAMMER III - 3840 x 2160 -	44.6	44.5	44.5
Ultra - Battle Benchmark (FPS)			
Normalized	100%	99.78%	99.78%
Standard Deviation	0.1%	0.3%	0.2%
Total War: WARHAMMER III - 1920 x 1080 -	194.8	195.3	195.6
Medium - Battle Benchmark (FPS)			
Normalized	99.59%	99.85%	100%
Standard Deviation	0.7%	0.2%	0.2%
Total War: WARHAMMER III - 2560 x 1440 -	128.7	128.6	128.7
Medium - Battle Benchmark (FPS)			
Normalized	100%	99.92%	100%
Standard Deviation	0.2%	0.1%	0.2%
Total War: WARHAMMER III - 3840 x 2160 -	62.3	62.4	62.4
Medium - Battle Benchmark (FPS)			
Normalized	99.84%	100%	100%
Standard Deviation	0%	0.2%	0.1%
yquake2 - Vulkan - On - On - 1920 x 1080	1784	1787	1784
(FPS)			
Normalized	99.82%	100%	99.81%
Standard Deviation	0.4%	0.3%	0.2%
yquake2 - Vulkan - On - On - 2560 x 1440	1139	1141	1138
(FPS)			
Normalized	99.88%	100%	99.76%
Standard Deviation	0.1%	0.2%	0.2%
yquake2 - Vulkan - On - On - 3840 x 2160	421.0	421.9	421.8
(FPS)			
Normalized	99.79%	100%	99.98%
Standard Deviation	0.1%	0.3%	0.1%
yquake2 - Vulkan - Off - On - 1920 x 1080	1848	1846	1846
(FPS)			
Normalized	100%	99.9%	99.9%
Standard Deviation	0.3%	0.2%	0.4%
yquake2 - Vulkan - Off - On - 2560 x 1440	1173	1171	1172
(FPS)			
Normalized	100%	99.88%	99.94%
Standard Deviation	0%	0.2%	0.2%
yquake2 - Vulkan - Off - On - 3840 x 2160	424.6	424.9	425.6
(FPS)			
Normalized	99.77%	99.84%	100%
Standard Deviation	0.2%	0.2%	0.1%
yquake2 - Vulkan - On - Off - 1920 x 1080	4204	4195	4177
(FPS)			
Normalized	100%	99.78%	99.34%
Standard Deviation	1%	1%	1.4%

yquake2 - Vulkan - On - Off - 2560 x 1440	3770	3800	3807
	(FPS)		
Normalized	99.01%	99.81%	100%
Standard Deviation	0.7%	1.3%	0.6%
yquake2 - Vulkan - On - Off - 3840 x 2160	2682	2674	2678
	(FPS)		
Normalized	100%	99.72%	99.86%
Standard Deviation	0.2%	0.6%	0.7%
yquake2 - Vulkan - Off - Off - 1920 x 1080	4186	4158	4150
	(FPS)		
Normalized	100%	99.34%	99.15%
Standard Deviation	1.1%	0.7%	2.3%
yquake2 - Vulkan - Off - Off - 2560 x 1440	3815	3786	3831
	(FPS)		
Normalized	99.59%	98.84%	100%
Standard Deviation	0.3%	2.4%	1.1%
yquake2 - Vulkan - Off - Off - 3840 x 2160	2705	2674	2690
	(FPS)		
Normalized	100%	98.88%	99.45%
Standard Deviation	0.2%	0.5%	1.3%
yquake2 - OpenGL 3.x - On - On - 1920 x 1080 (FPS)	1646	1667	1686
Normalized	97.65%	98.86%	100%
Standard Deviation	2.5%	2.1%	2.1%
yquake2 - OpenGL 3.x - On - On - 2560 x 1440 (FPS)	1673	1641	1673
Normalized	100%	98.1%	100%
Standard Deviation	2.2%	2.4%	2.4%
yquake2 - OpenGL 3.x - On - On - 3840 x 2160 (FPS)	1668	1648	1658
Normalized	100%	98.81%	99.42%
Standard Deviation	2.1%	2.2%	2.4%
yquake2 - OpenGL 3.x - Off - On - 1920 x 1080 (FPS)	1662	1653	1664
Normalized	99.87%	99.35%	100%
Standard Deviation	2.2%	0.2%	2.3%
yquake2 - OpenGL 3.x - Off - On - 2560 x 1440 (FPS)	1685	1651	1652
Normalized	100%	97.94%	98.03%
Standard Deviation	0.3%	1.8%	2.1%
yquake2 - OpenGL 3.x - Off - On - 3840 x 2160 (FPS)	1603	1633	1645
Normalized	97.46%	99.31%	100%
Standard Deviation	1.7%	1.6%	1.5%
yquake2 - OpenGL 3.x - On - Off - 1920 x 1080 (FPS)	1733	1695	1678
Normalized	100%	97.76%	96.8%
Standard Deviation	1.7%	1.2%	1%
yquake2 - OpenGL 3.x - On - Off - 2560 x 1440 (FPS)	1646	1676	1681
Normalized	97.94%	99.71%	100%
Standard Deviation	2.1%	2.5%	1.4%

yquake2 - OpenGL 3.x - On - Off - 3840 x	1650	1687	1681
	2160 (FPS)		
Normalized	97.81%	100%	99.62%
Standard Deviation	0.9%	2.1%	0.8%
yquake2 - OpenGL 3.x - Off - Off - 1920 x	1727	1693	1699
	1080 (FPS)		
Normalized	100%	98.07%	98.4%
Standard Deviation	0.8%	2.4%	1.5%
yquake2 - OpenGL 3.x - Off - Off - 2560 x	1658	1698	1690
	1440 (FPS)		
Normalized	97.67%	100%	99.55%
Standard Deviation	2.2%	1.8%	2.4%
yquake2 - OpenGL 3.x - Off - Off - 3840 x	1583	1632	1657
	2160 (FPS)		
Normalized	95.58%	98.53%	100%
Standard Deviation	2.3%	2.4%	2.4%
yquake2 - Software CPU - On - On - 1920 x	171.8	172.8	174.4
	1080 (FPS)		
Normalized	98.51%	99.08%	100%
Standard Deviation	0.9%	0.5%	0.3%
yquake2 - Software CPU - On - On - 2560 x	107.1	106.9	106.1
	1440 (FPS)		
Normalized	100%	99.81%	99.07%
Standard Deviation	0.2%	0.8%	0.3%
yquake2 - Software CPU - On - On - 3840 x	53.5	53.3	53.0
	2160 (FPS)		
Normalized	100%	99.63%	99.07%
Standard Deviation	0.5%	0.5%	0.3%
yquake2 - OpenGL ES 3.x - On - On - 1920 x	1672	1631	1636
	1080 (FPS)		
Normalized	100%	97.57%	97.88%
Standard Deviation	2.4%	2.1%	1.4%
yquake2 - OpenGL ES 3.x - On - On - 2560 x	1654	1653	1646
	1440 (FPS)		
Normalized	100%	99.96%	99.54%
Standard Deviation	2.3%	0.9%	3.3%
yquake2 - OpenGL ES 3.x - On - On - 3840 x	1673	1649	1699
	2160 (FPS)		
Normalized	98.43%	97.04%	100%
Standard Deviation	2.3%	1.4%	1.7%
yquake2 - Software CPU - Off - On - 1920 x	179.7	180.1	179.3
	1080 (FPS)		
Normalized	99.78%	100%	99.56%
Standard Deviation	0.1%	1.1%	0.4%
yquake2 - Software CPU - Off - On - 2560 x	109.3	110.3	110.3
	1440 (FPS)		
Normalized	99.09%	100%	100%
Standard Deviation	0.5%	0.7%	0.6%
yquake2 - Software CPU - Off - On - 3840 x	54.8	55.2	55.0
	2160 (FPS)		
Normalized	99.28%	100%	99.64%
Standard Deviation	0.7%	0.4%	1.5%

yquake2 - Software CPU - On - Off - 1920 x	174.1	174.4	174.1
1080 (FPS)			
Normalized	99.83%	100%	99.83%
Standard Deviation	0.4%	0.7%	0.8%
yquake2 - Software CPU - On - Off - 2560 x	106.3	106.7	106.6
1440 (FPS)			
Normalized	99.63%	100%	99.91%
Standard Deviation	0.7%	0.6%	0.6%
yquake2 - Software CPU - On - Off - 3840 x	53.1	53.4	53.0
2160 (FPS)			
Normalized	99.44%	100%	99.25%
Standard Deviation	0.2%	0.9%	0.4%
yquake2 - OpenGL ES 3.x - Off - On - 1920 x	1675	1686	1693
1080 (FPS)			
Normalized	98.94%	99.59%	100%
Standard Deviation	0.9%	2.3%	2.4%
yquake2 - OpenGL ES 3.x - Off - On - 2560 x	1669	1681	1651
1440 (FPS)			
Normalized	99.28%	100%	98.19%
Standard Deviation	2.9%	1.9%	2.2%
yquake2 - OpenGL ES 3.x - Off - On - 3840 x	1662	1637	1613
2160 (FPS)			
Normalized	100%	98.48%	97.02%
Standard Deviation	2.3%	3.6%	2.1%
yquake2 - OpenGL ES 3.x - On - Off - 1920 x	1682	1656	1682
1080 (FPS)			
Normalized	100%	98.44%	99.98%
Standard Deviation	0.6%	1.2%	2.5%
yquake2 - OpenGL ES 3.x - On - Off - 2560 x	1675	1640	1669
1440 (FPS)			
Normalized	100%	97.9%	99.63%
Standard Deviation	1.9%	0.8%	0.7%
yquake2 - OpenGL ES 3.x - On - Off - 3840 x	1661	1618	1636
2160 (FPS)			
Normalized	100%	97.42%	98.52%
Standard Deviation	1.8%	2.4%	0.9%
yquake2 - Software CPU - Off - Off - 1920 x	179.9	180.9	181.2
1080 (FPS)			
Normalized	99.28%	99.83%	100%
Standard Deviation	0.5%	0.3%	0.5%
yquake2 - Software CPU - Off - Off - 2560 x	110.2	109.7	110.0
1440 (FPS)			
Normalized	100%	99.55%	99.82%
Standard Deviation	0.5%	0.7%	1%
yquake2 - Software CPU - Off - Off - 3840 x	55.0	55.2	54.6
2160 (FPS)			
Normalized	99.64%	100%	98.91%
Standard Deviation	0.8%	0.1%	0.7%
yquake2 - OpenGL ES 3.x - Off - Off - 1920 x	1702	1691	1679
1080 (FPS)			
Normalized	100%	99.37%	98.67%
Standard Deviation	2.5%	2.5%	2.5%

yquake2 - OpenGL ES 3.x - Off - Off - 2560 x 1440 (FPS)	1653	1693	1667
Normalized	97.64%	100%	98.43%
Standard Deviation	1.3%	1.5%	2.9%
yquake2 - OpenGL ES 3.x - Off - Off - 3840 x 2160 (FPS)	1644	1666	1652
Normalized	98.66%	100%	99.12%
Standard Deviation	2.5%	0.9%	2.5%
yquake2 - S.C.C.L - On - On - 1920 x 1080 (FPS)	160.3	163.0	161.6
Normalized	98.34%	100%	99.14%
Standard Deviation	0.8%	0.6%	0.9%
yquake2 - S.C.C.L - On - On - 2560 x 1440 (FPS)	100.4	100.4	100.5
Normalized	99.9%	99.9%	100%
Standard Deviation	0.6%	0.6%	0.6%
yquake2 - S.C.C.L - On - On - 3840 x 2160 (FPS)	50.7	50.7	50.5
Normalized	100%	100%	99.61%
Standard Deviation	0.2%	0.4%	0.6%
yquake2 - S.C.C.L - Off - On - 1920 x 1080 (FPS)	166.1	167.2	167.1
Normalized	99.34%	100%	99.94%
Standard Deviation	1%	1.2%	0.3%
yquake2 - S.C.C.L - Off - On - 2560 x 1440 (FPS)	103.8	103.8	104.0
Normalized	99.81%	99.81%	100%
Standard Deviation	0.4%	0.7%	0.2%
yquake2 - S.C.C.L - Off - On - 3840 x 2160 (FPS)	52.3	52.1	51.7
Normalized	100%	99.62%	98.85%
Standard Deviation	0.8%	0.4%	0.7%
yquake2 - S.C.C.L - On - Off - 1920 x 1080 (FPS)	162.4	161.7	161.9
Normalized	100%	99.57%	99.69%
Standard Deviation	0.9%	0.4%	0.5%
yquake2 - S.C.C.L - On - Off - 2560 x 1440 (FPS)	100.3	100.6	101.0
Normalized	99.31%	99.6%	100%
Standard Deviation	1.3%	0.5%	0.9%
yquake2 - S.C.C.L - On - Off - 3840 x 2160 (FPS)	50.8	50.7	50.3
Normalized	100%	99.8%	99.02%
Standard Deviation	0.6%	0.6%	0.4%
yquake2 - S.C.C.L - Off - Off - 1920 x 1080 (FPS)	166.9	166.7	167.2
Normalized	99.82%	99.7%	100%
Standard Deviation	0.9%	0.9%	0.2%
yquake2 - S.C.C.L - Off - Off - 2560 x 1440 (FPS)	104.2	103.5	104.8
Normalized	99.43%	98.76%	100%
Standard Deviation	0.6%	0.3%	0.1%

yquake2 - S.C.C.L - Off - Off - 3840 x 2160 51.9
(FPS)

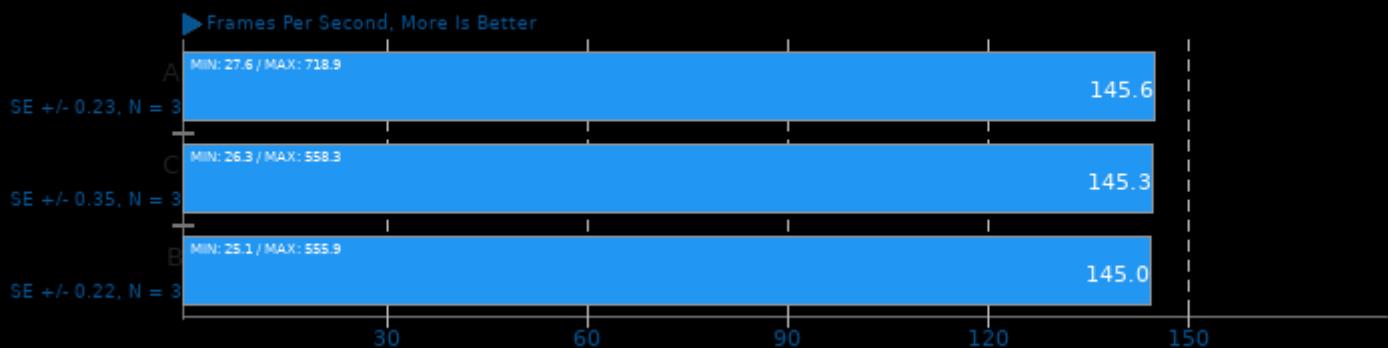
51.7 **52.4**

Normalized 99.05%
Standard Deviation 0.8%

98.66% 100%
0.6% 0.3%

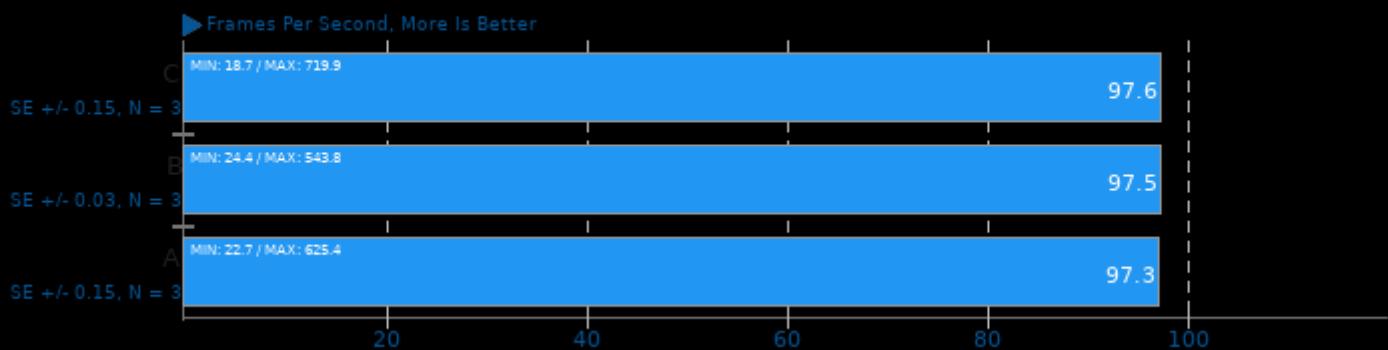
Total War: WARHAMMER III

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



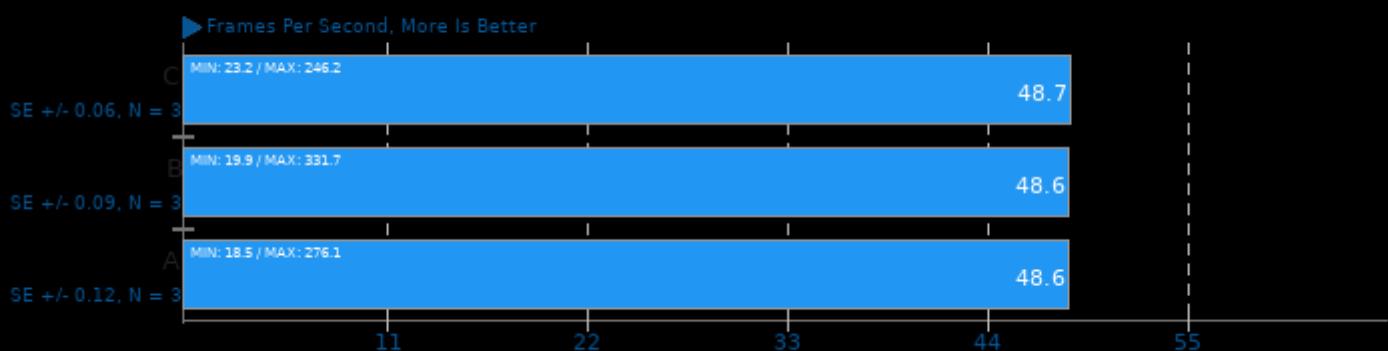
Total War: WARHAMMER III

Resolution: 2560 x 1440 - Graphics Preset: High - Scenario: Battle Benchmark



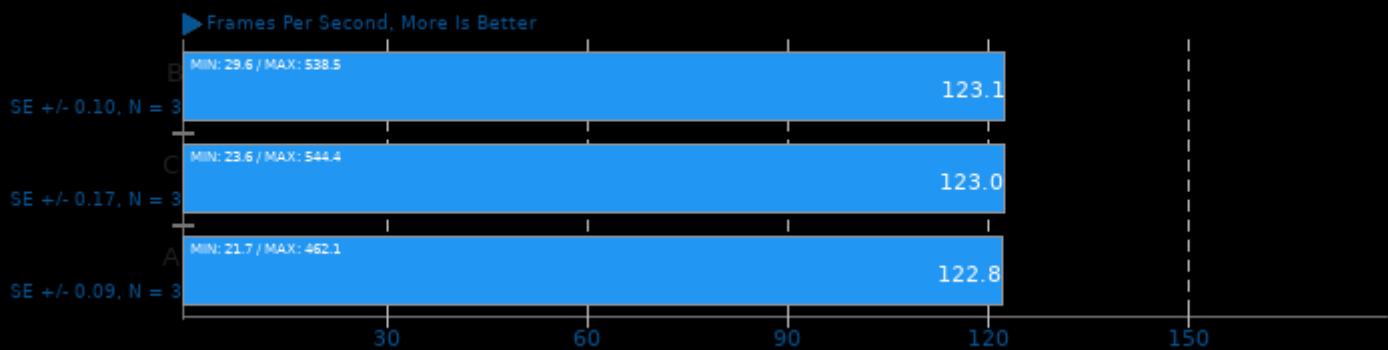
Total War: WARHAMMER III

Resolution: 3840 x 2160 - Graphics Preset: High - Scenario: Battle Benchmark



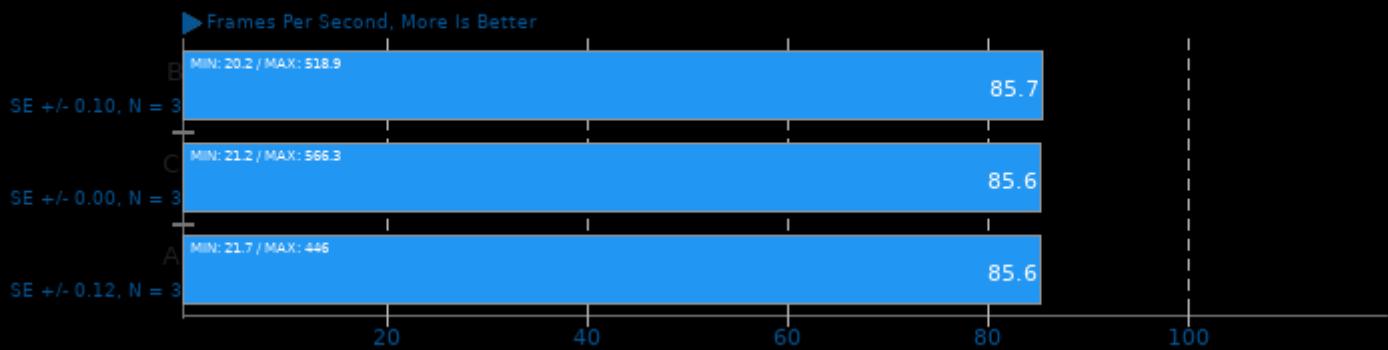
Total War: WARHAMMER III

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



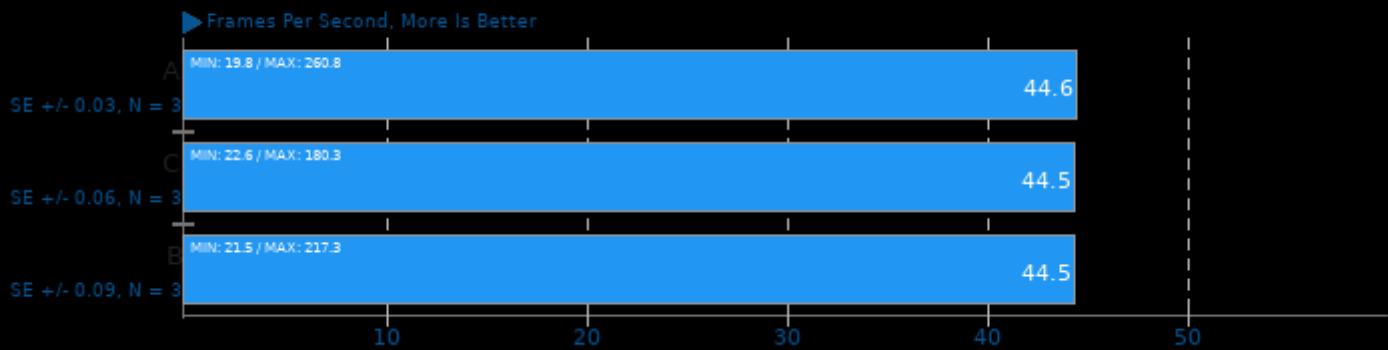
Total War: WARHAMMER III

Resolution: 2560 x 1440 - Graphics Preset: Ultra - Scenario: Battle Benchmark



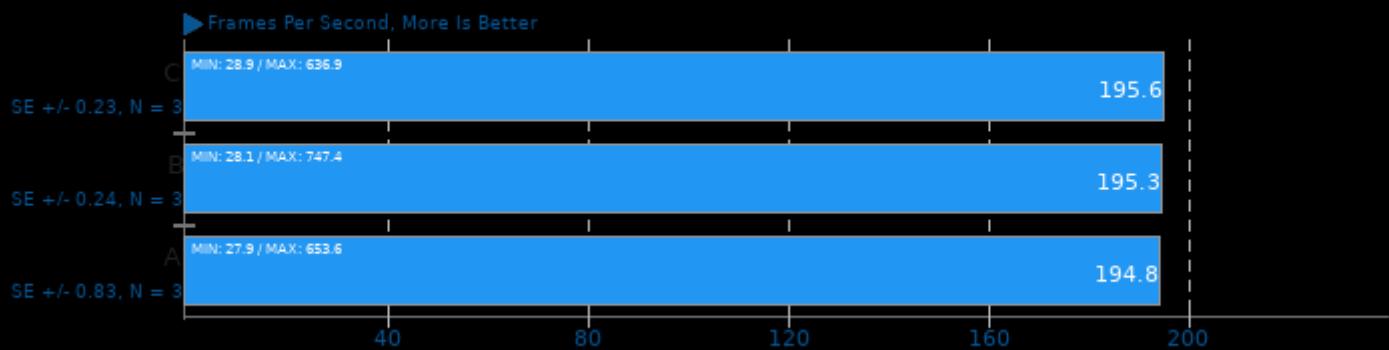
Total War: WARHAMMER III

Resolution: 3840 x 2160 - Graphics Preset: Ultra - Scenario: Battle Benchmark



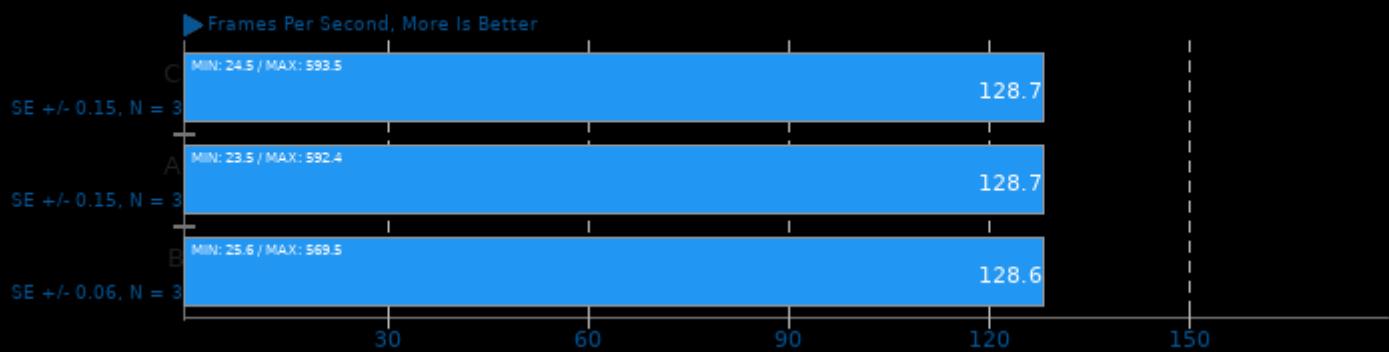
Total War: WARHAMMER III

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



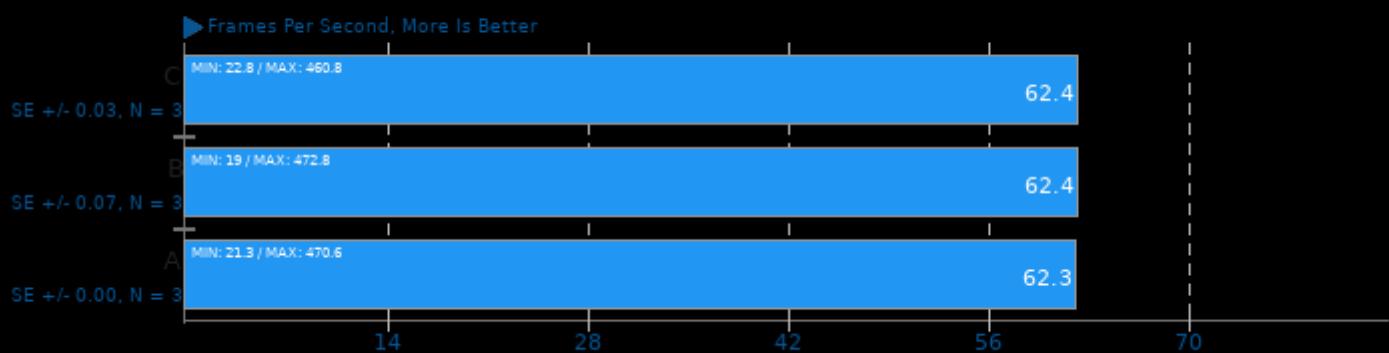
Total War: WARHAMMER III

Resolution: 2560 x 1440 - Graphics Preset: Medium - Scenario: Battle Benchmark



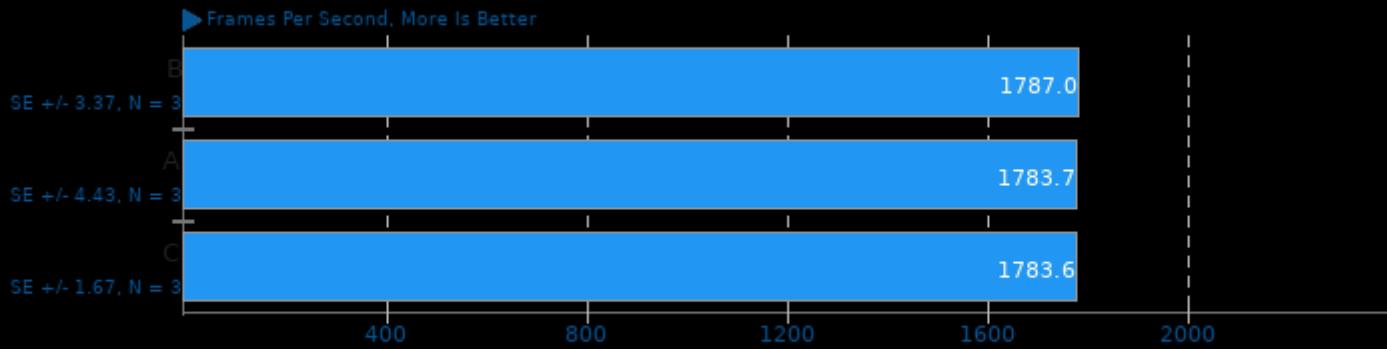
Total War: WARHAMMER III

Resolution: 3840 x 2160 - Graphics Preset: Medium - Scenario: Battle Benchmark



yquake2 8.10

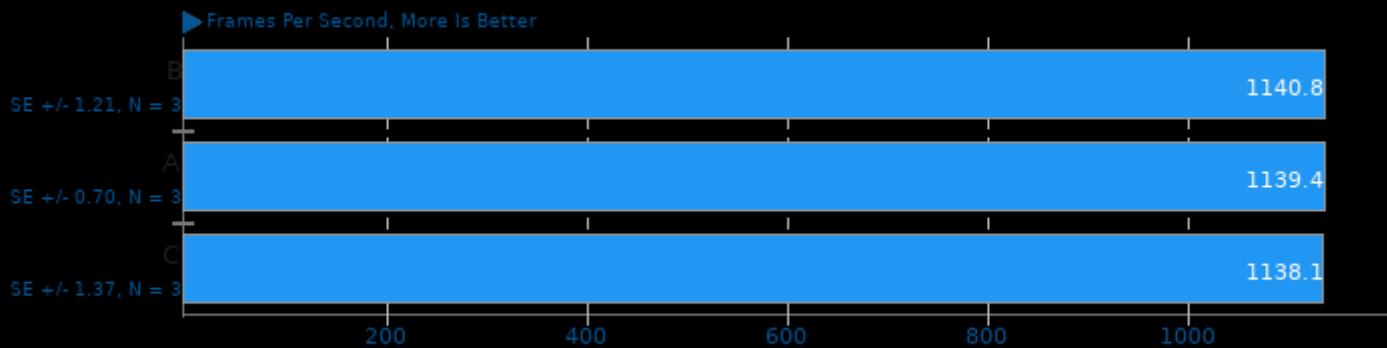
Renderer: Vulkan - AF: On - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -march=native -mfloat-abi=softfp -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

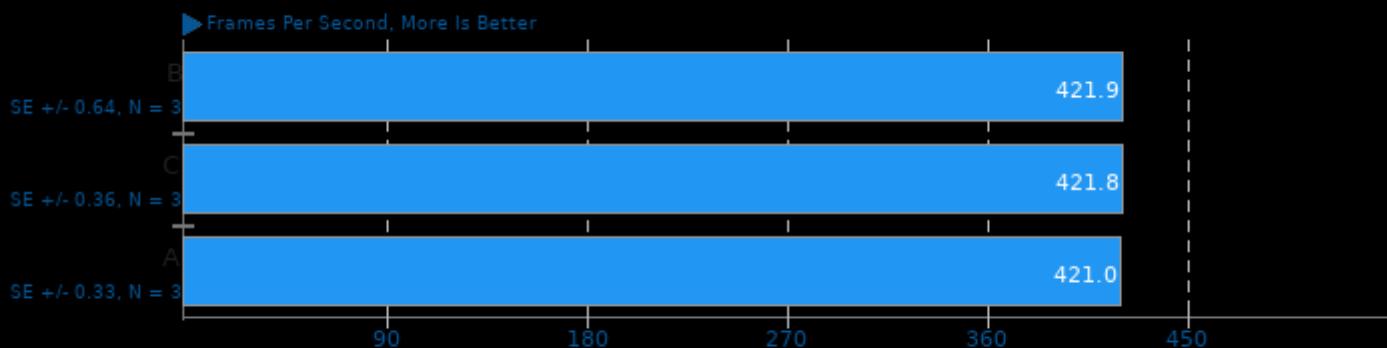
Renderer: Vulkan - AF: On - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

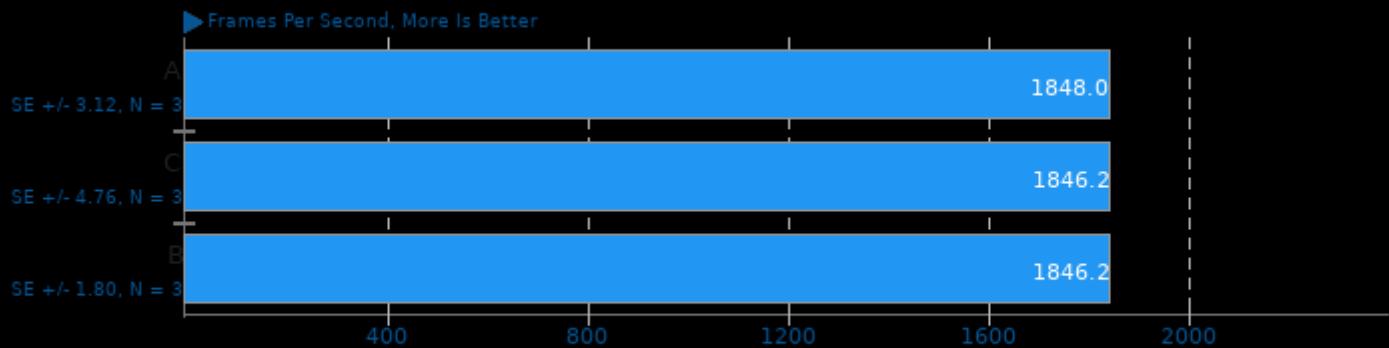
Renderer: Vulkan - AF: On - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

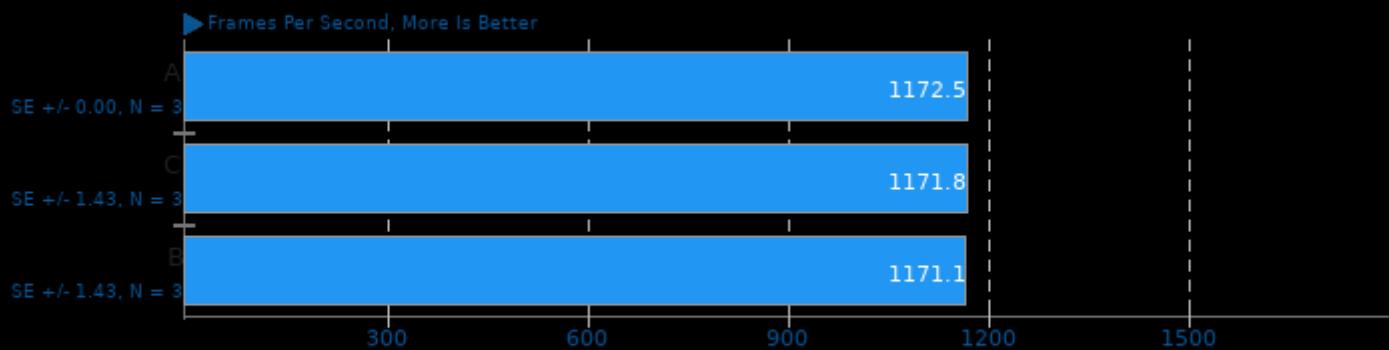
Renderer: Vulkan - AF: Off - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

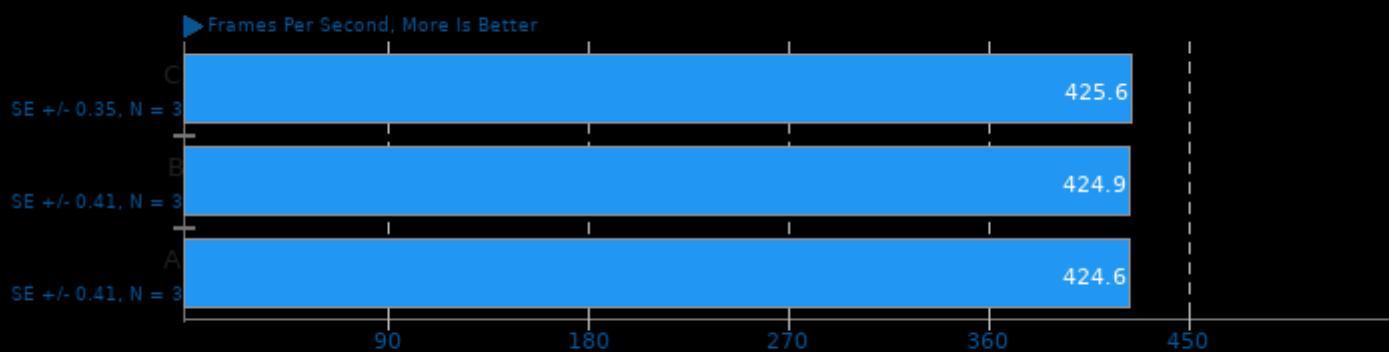
Renderer: Vulkan - AF: Off - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

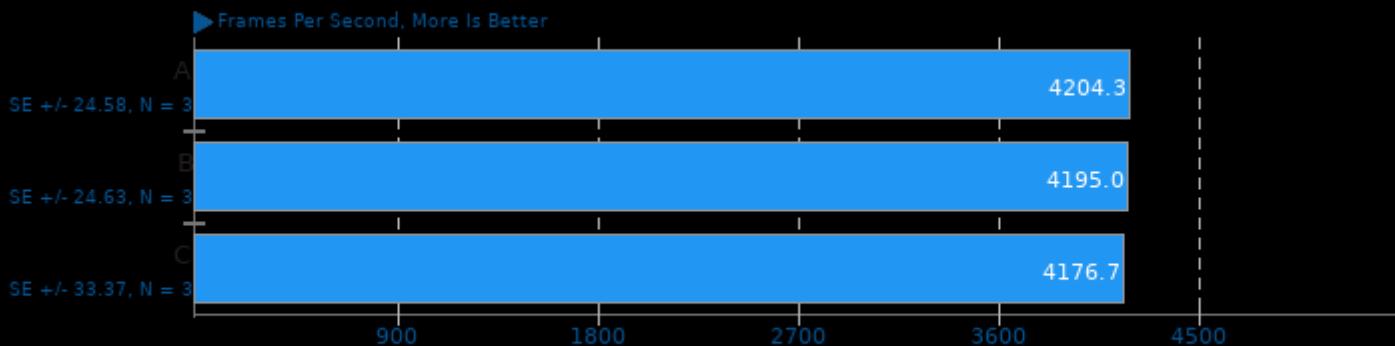
Renderer: Vulkan - AF: Off - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

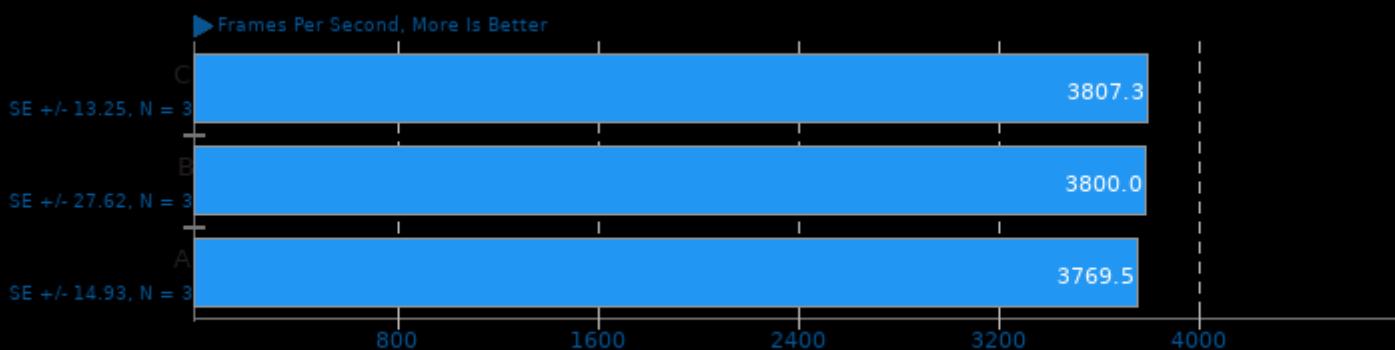
Renderer: Vulkan - AF: On - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC

yquake2 8.10

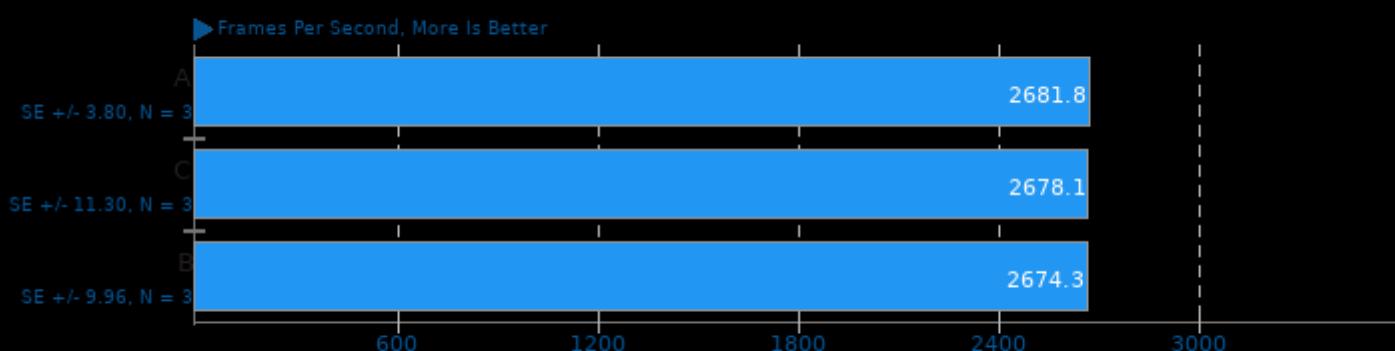
Renderer: Vulkan - AF: On - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC

yquake2 8.10

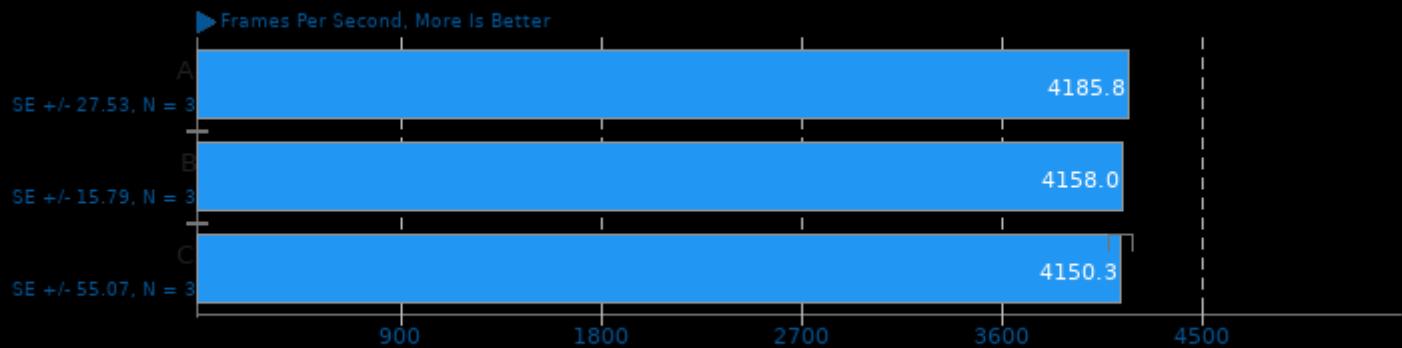
Renderer: Vulkan - AF: On - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC

yquake2 8.10

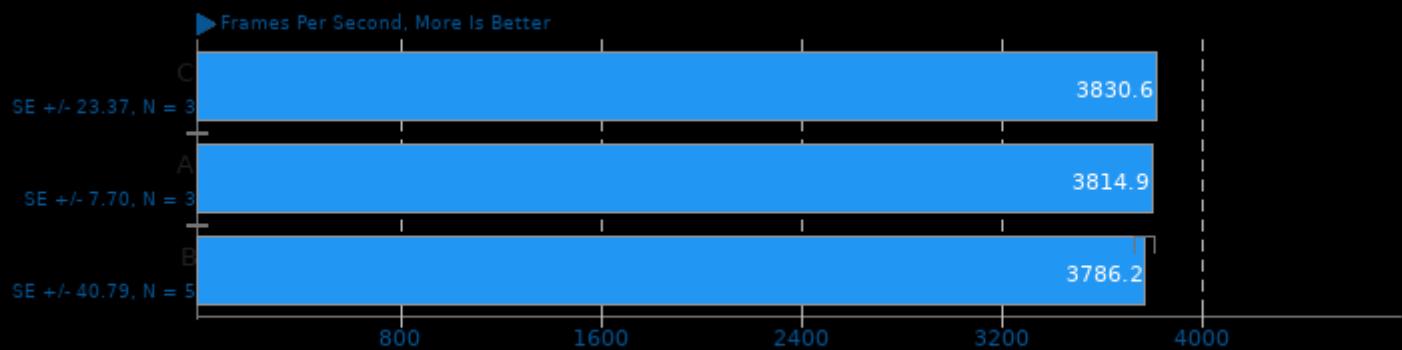
Renderer: Vulkan - AF: Off - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

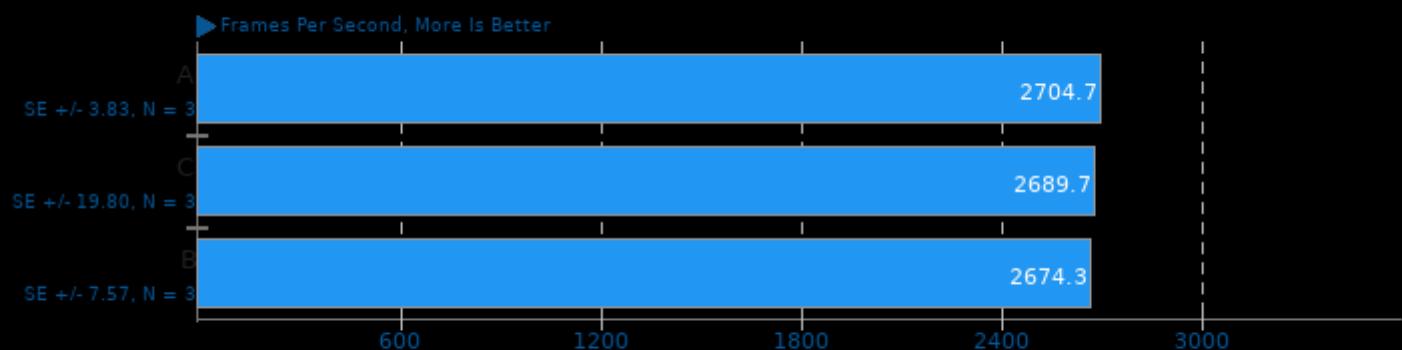
Renderer: Vulkan - AF: Off - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

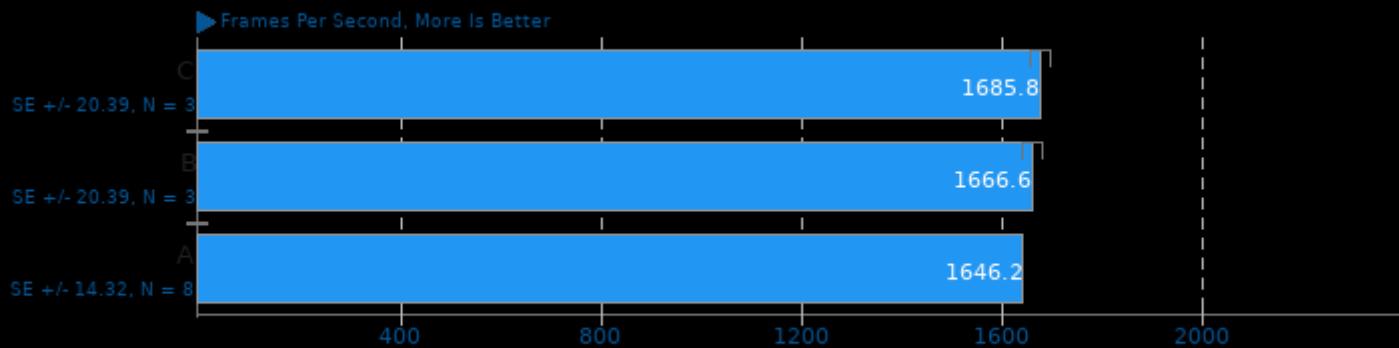
Renderer: Vulkan - AF: Off - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

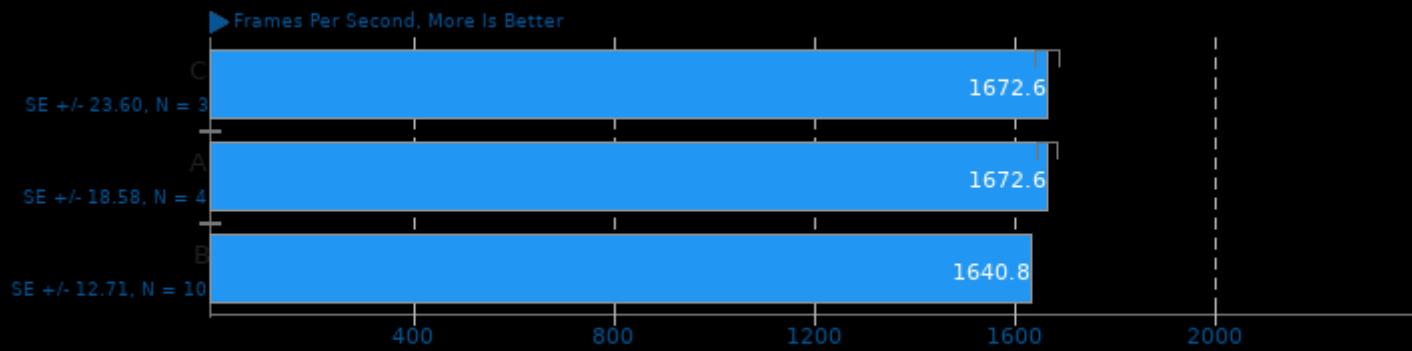
Renderer: OpenGL 3.x - AF: On - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

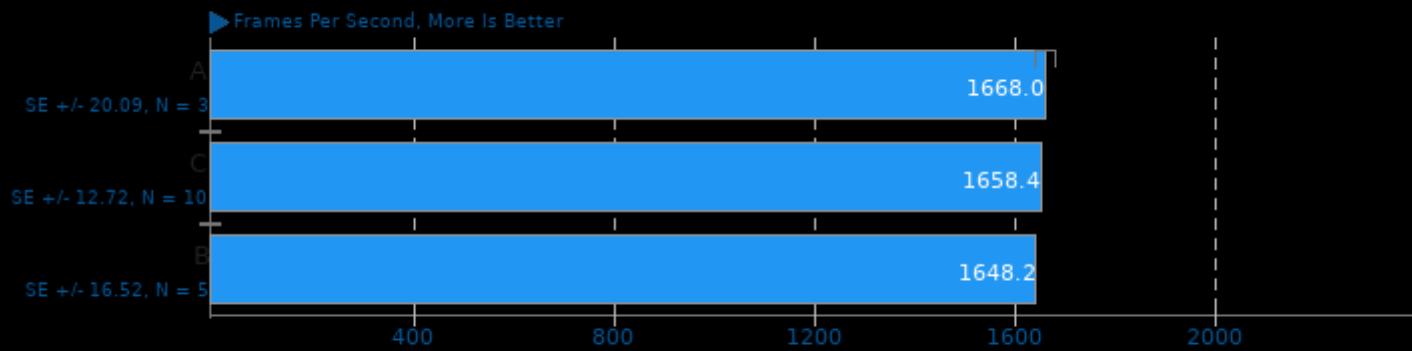
Renderer: OpenGL 3.x - AF: On - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

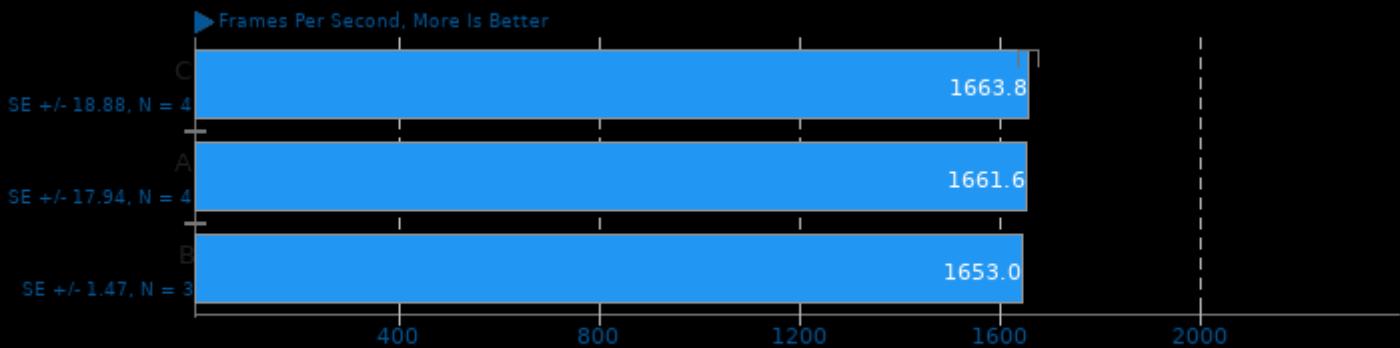
Renderer: OpenGL 3.x - AF: On - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

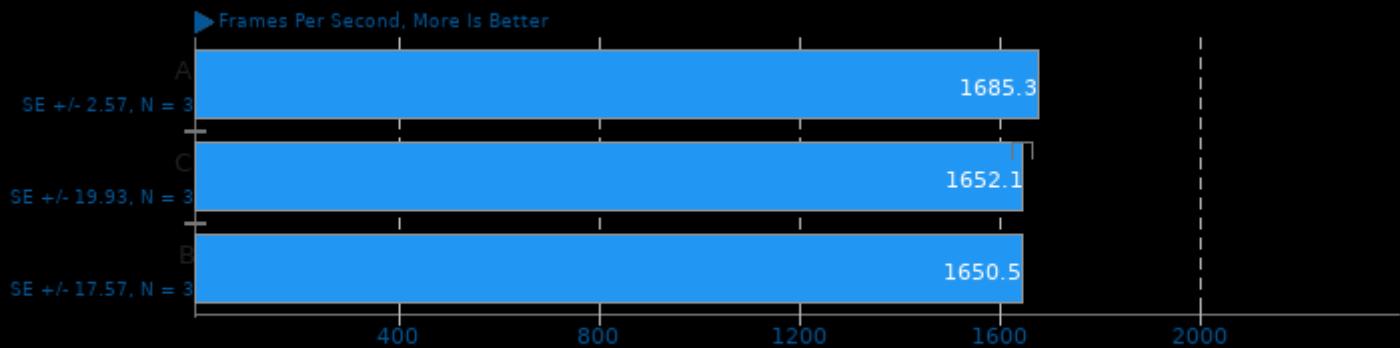
Renderer: OpenGL 3.x - AF: Off - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

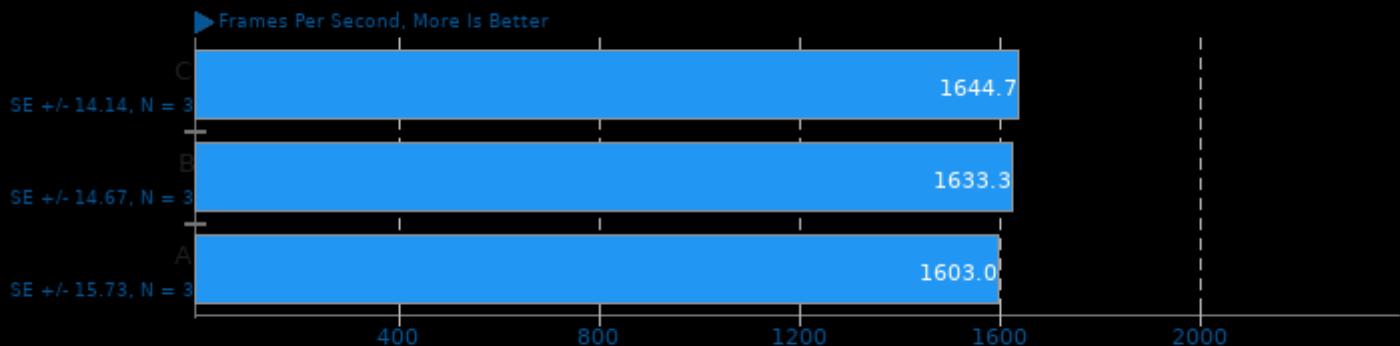
Renderer: OpenGL 3.x - AF: Off - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

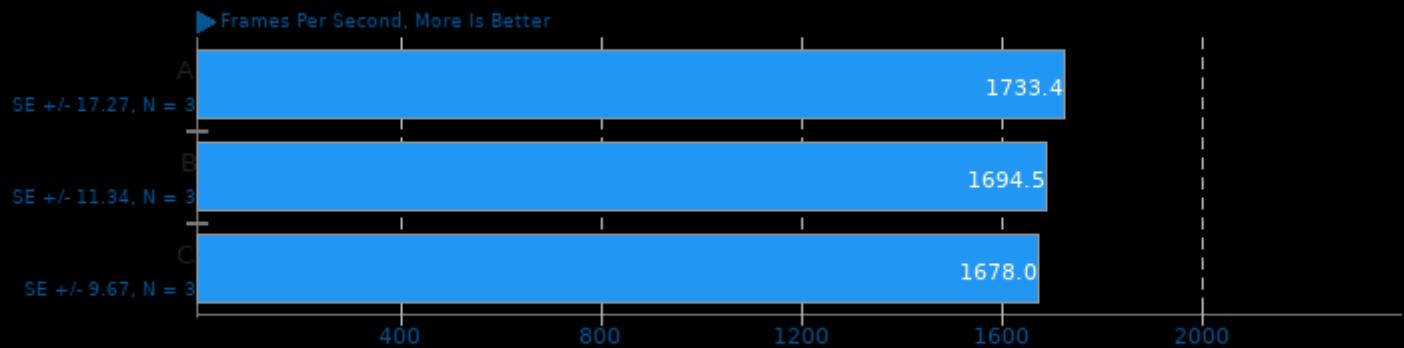
Renderer: OpenGL 3.x - AF: Off - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

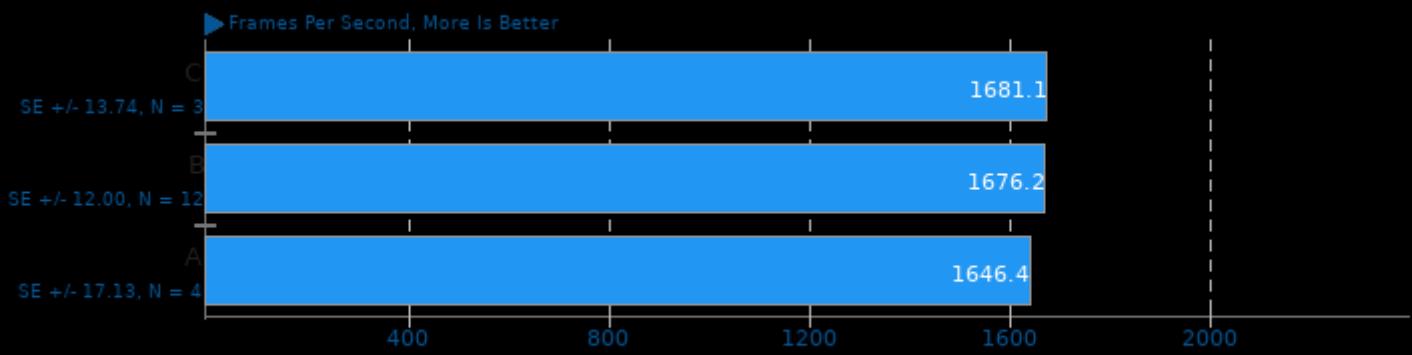
Renderer: OpenGL 3.x - AF: On - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

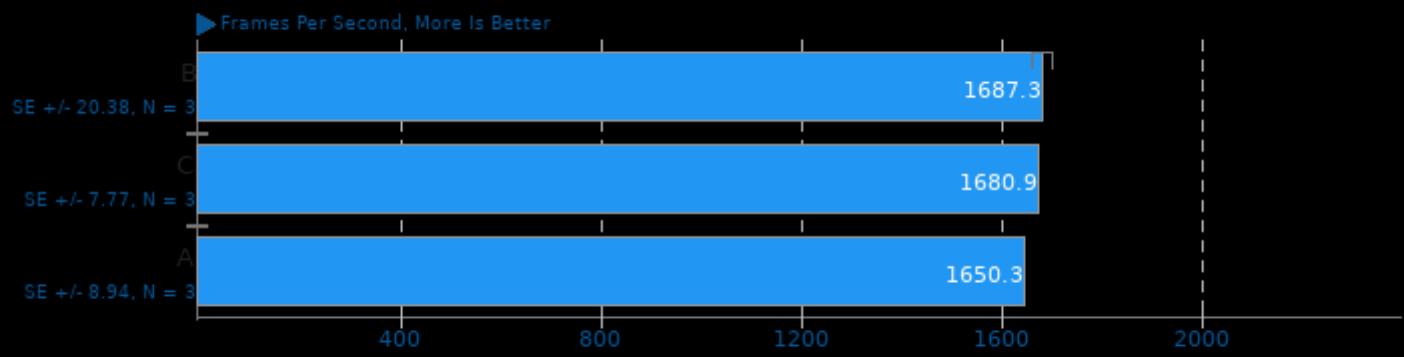
Renderer: OpenGL 3.x - AF: On - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

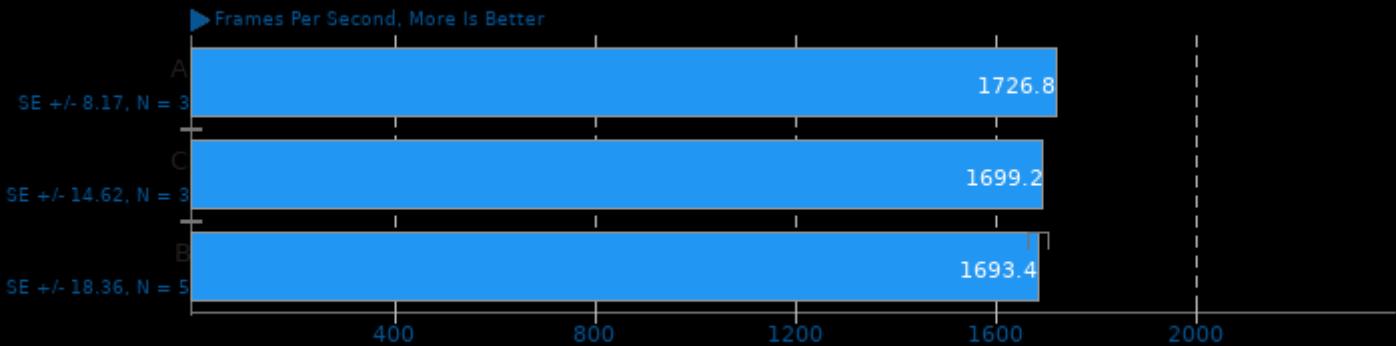
Renderer: OpenGL 3.x - AF: On - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

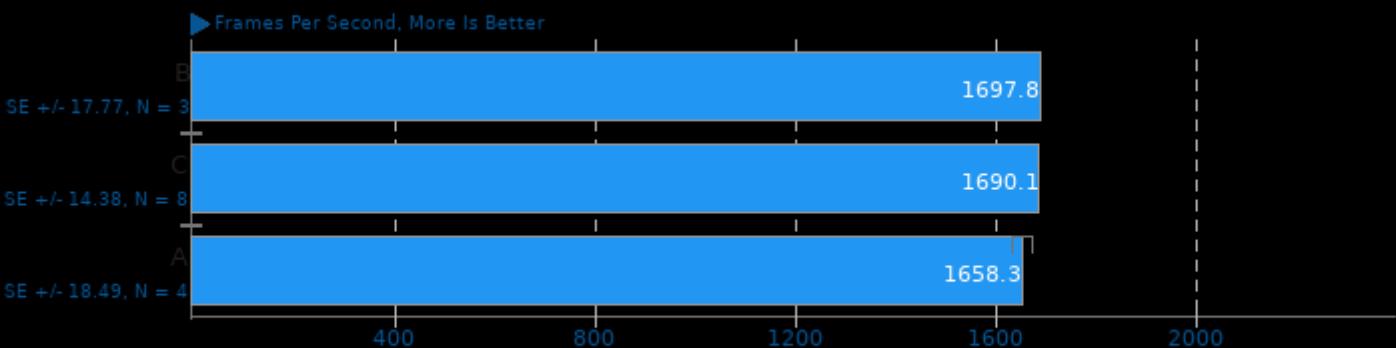
Renderer: OpenGL 3.x - AF: Off - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

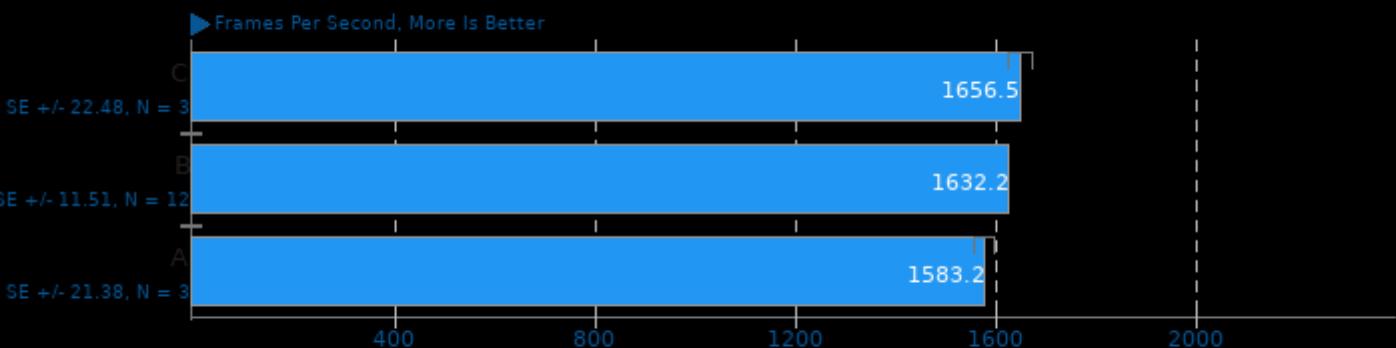
Renderer: OpenGL 3.x - AF: Off - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

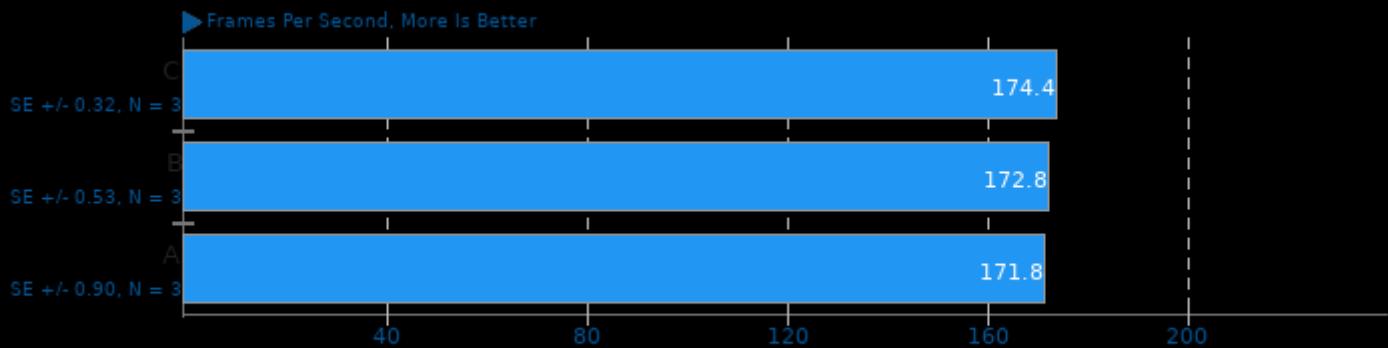
Renderer: OpenGL 3.x - AF: Off - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

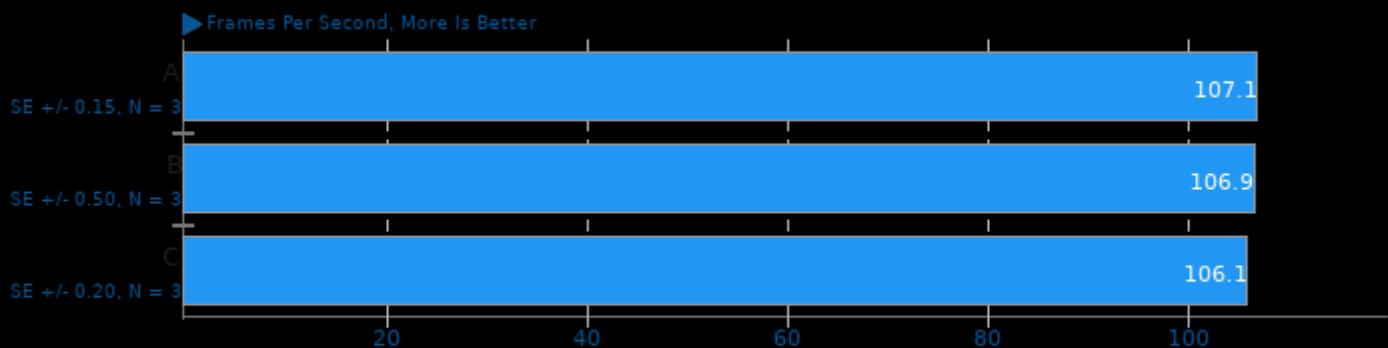
Renderer: Software CPU - AF: On - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

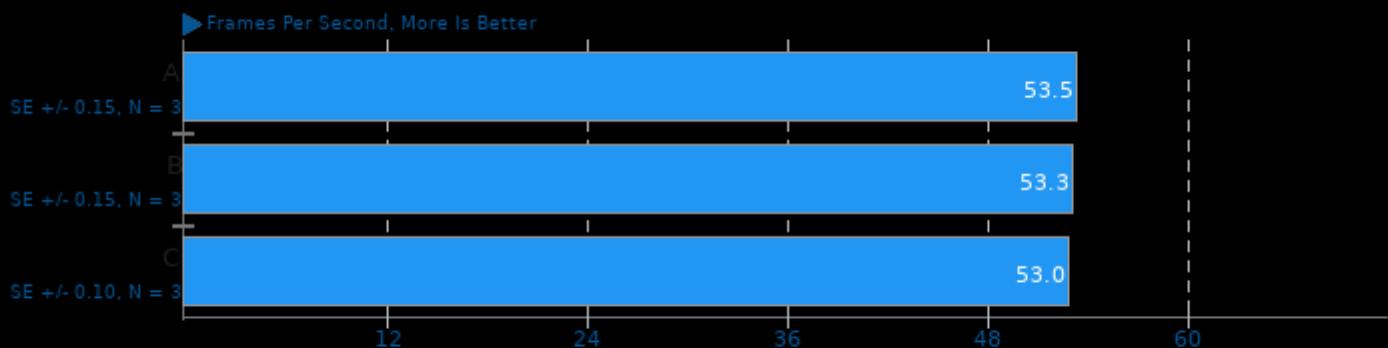
Renderer: Software CPU - AF: On - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

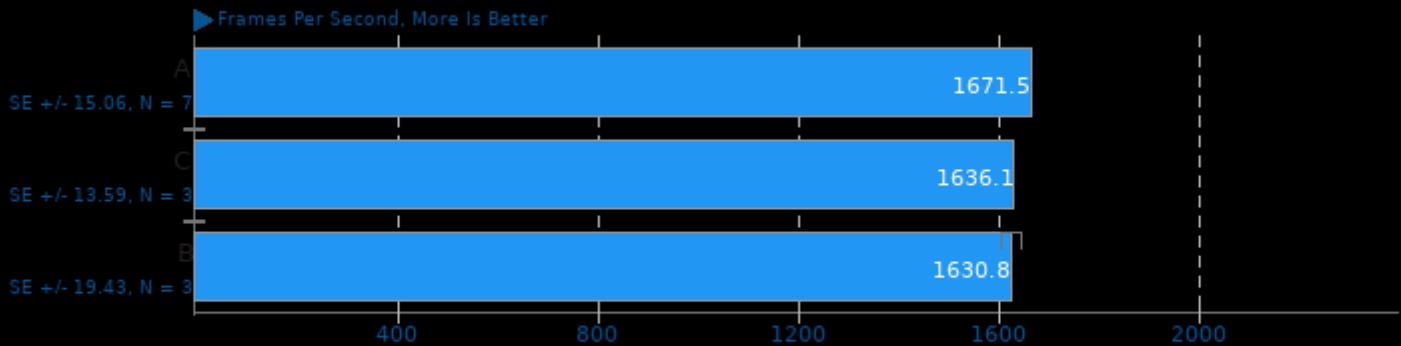
Renderer: Software CPU - AF: On - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

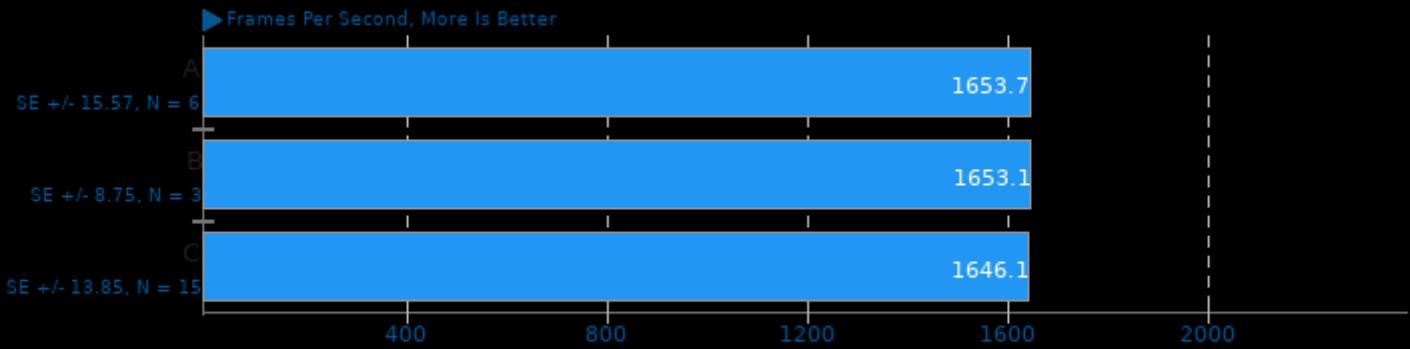
Renderer: OpenGL ES 3.x - AF: On - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

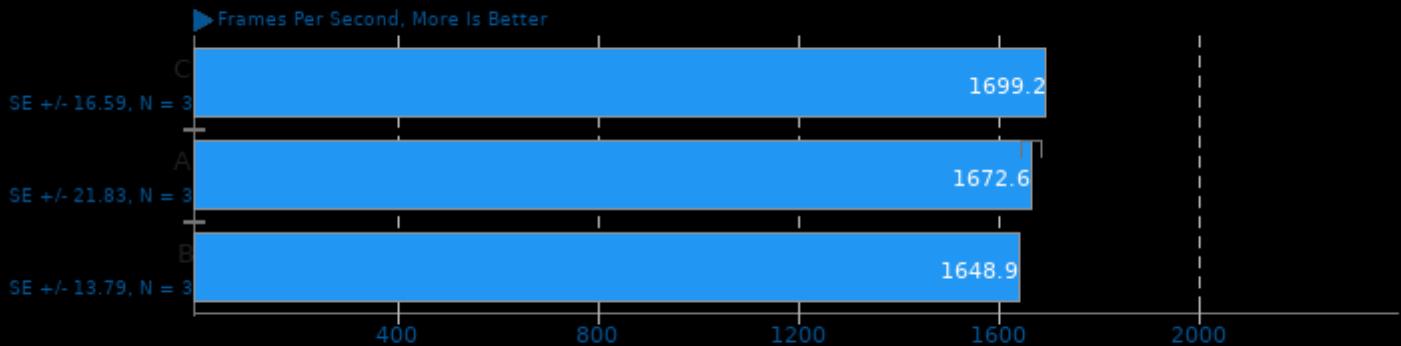
Renderer: OpenGL ES 3.x - AF: On - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

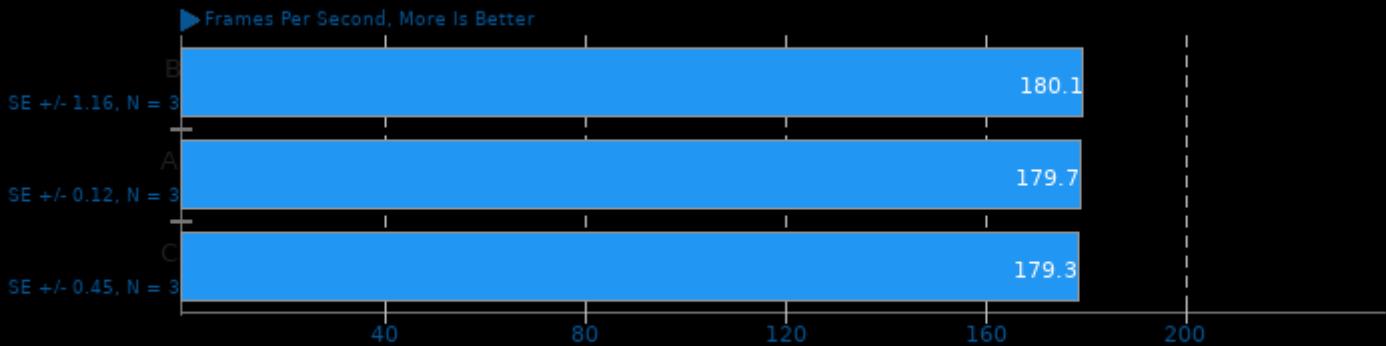
Renderer: OpenGL ES 3.x - AF: On - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

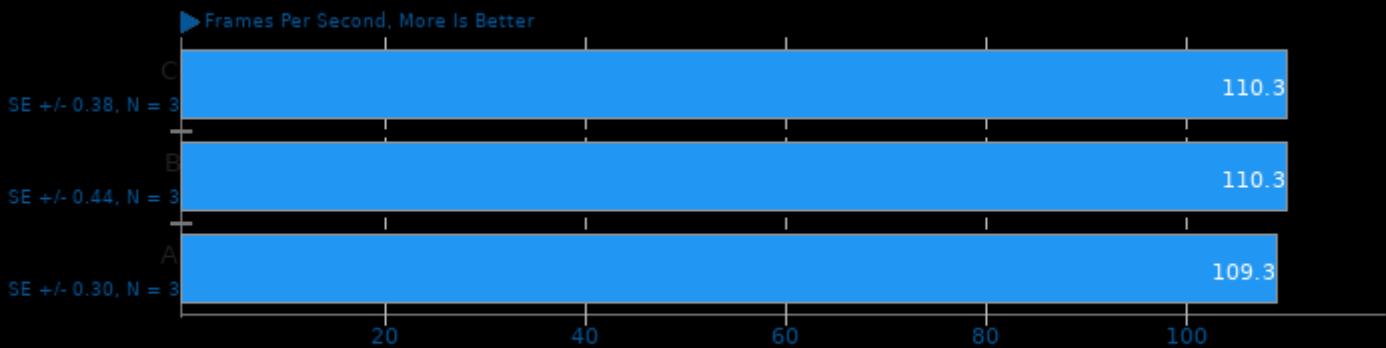
Renderer: Software CPU - AF: Off - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9

yquake2 8.10

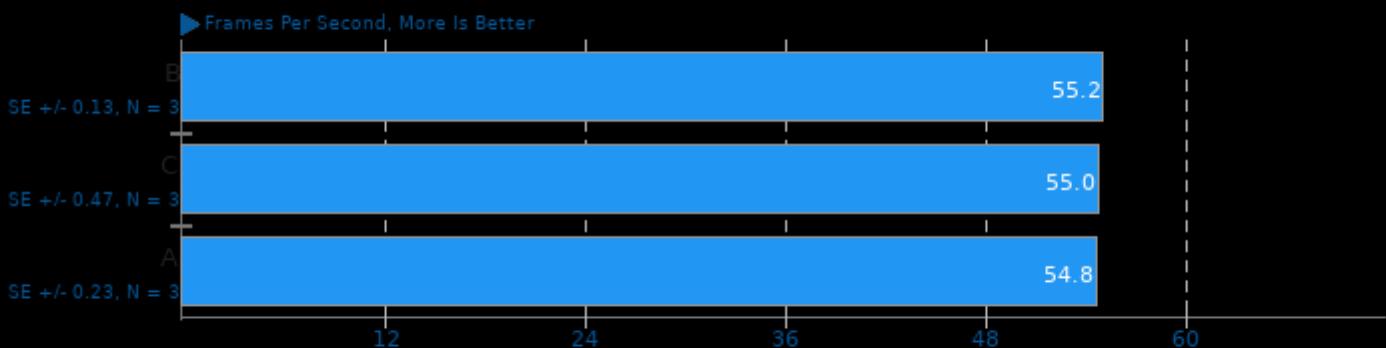
Renderer: Software CPU - AF: Off - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9

yquake2 8.10

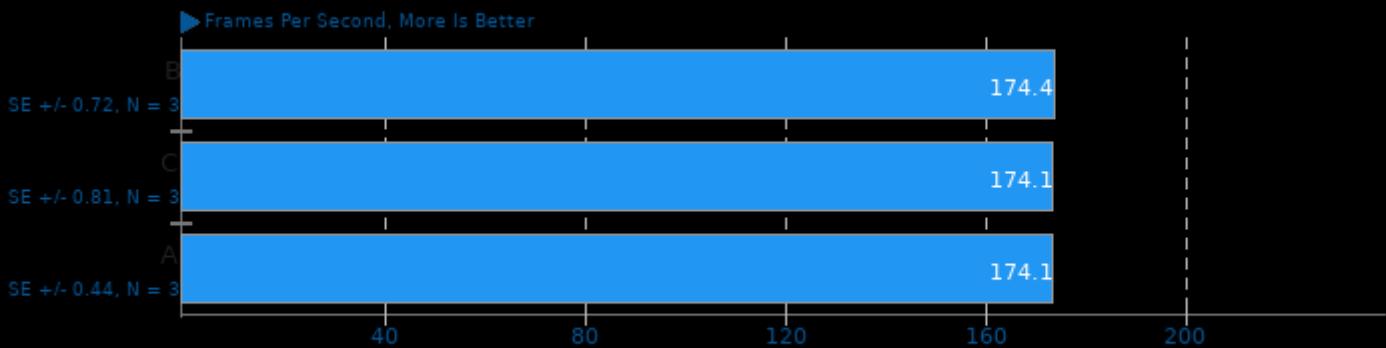
Renderer: Software CPU - AF: Off - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mcpu=cortex-a9

yquake2 8.10

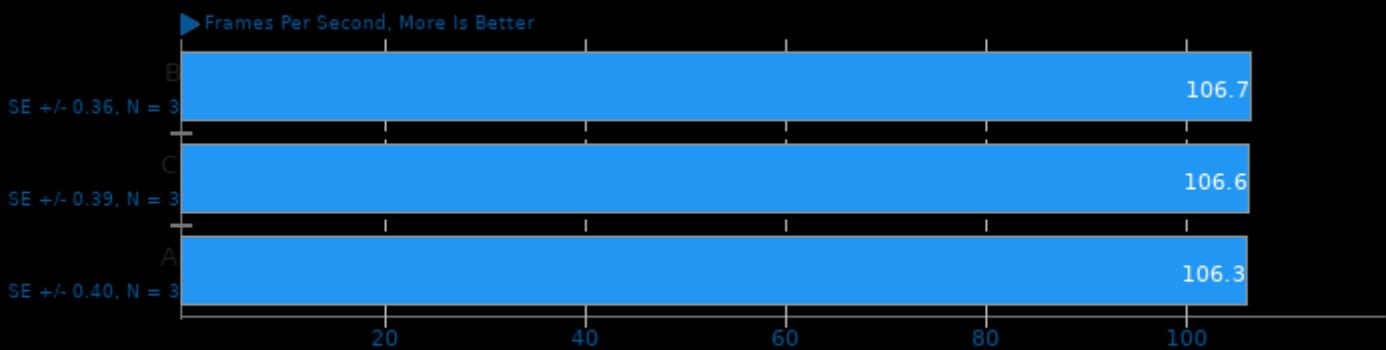
Renderer: Software CPU - AF: On - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

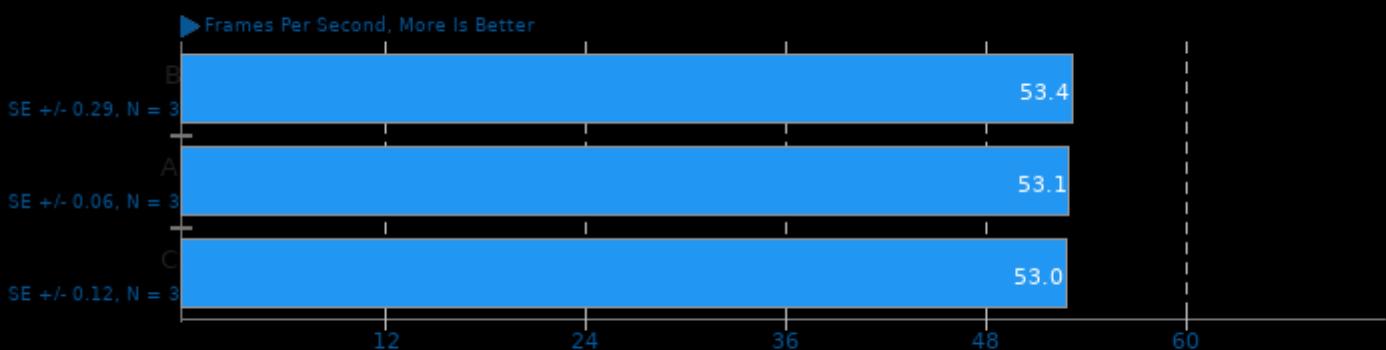
Renderer: Software CPU - AF: On - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

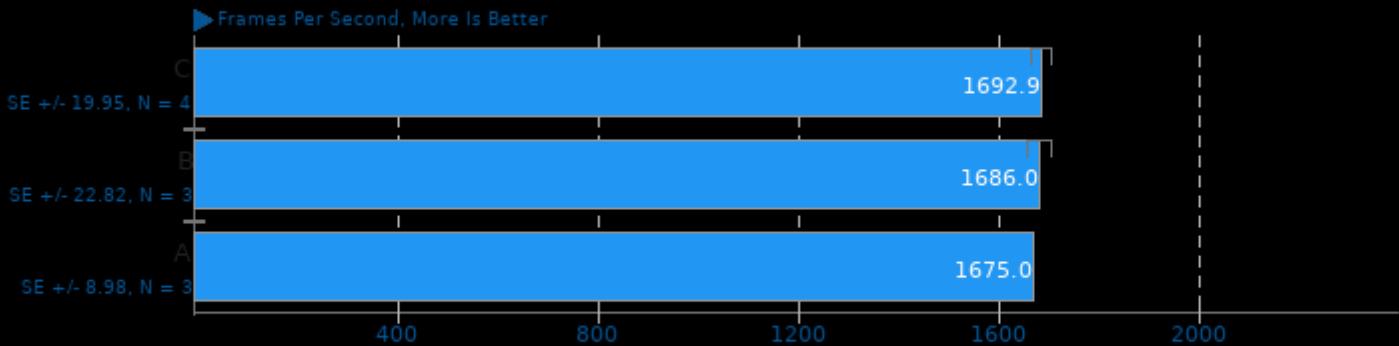
Renderer: Software CPU - AF: On - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

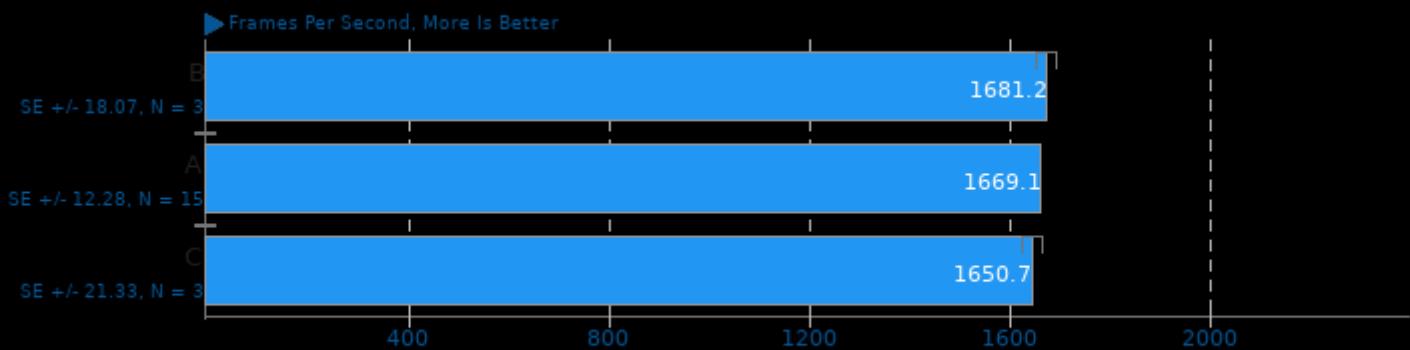
Renderer: OpenGL ES 3.x - AF: Off - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

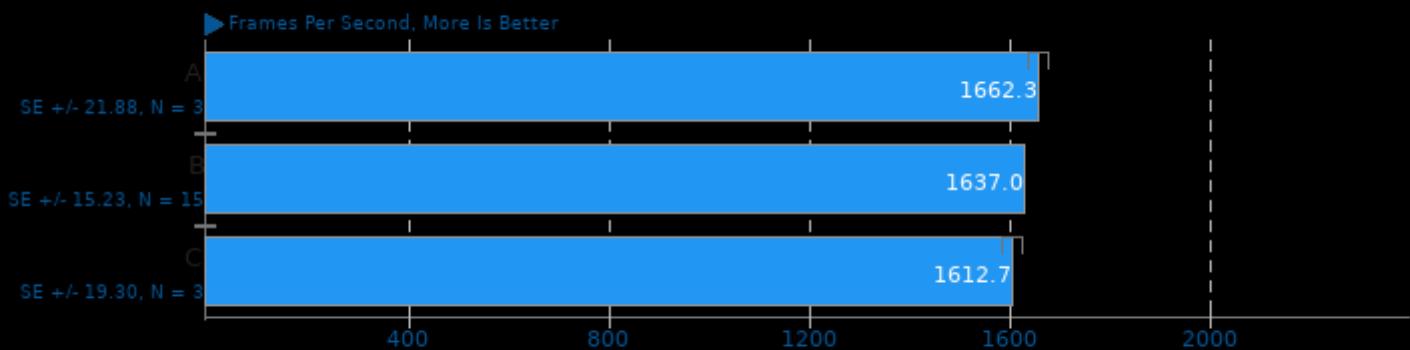
Renderer: OpenGL ES 3.x - AF: Off - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

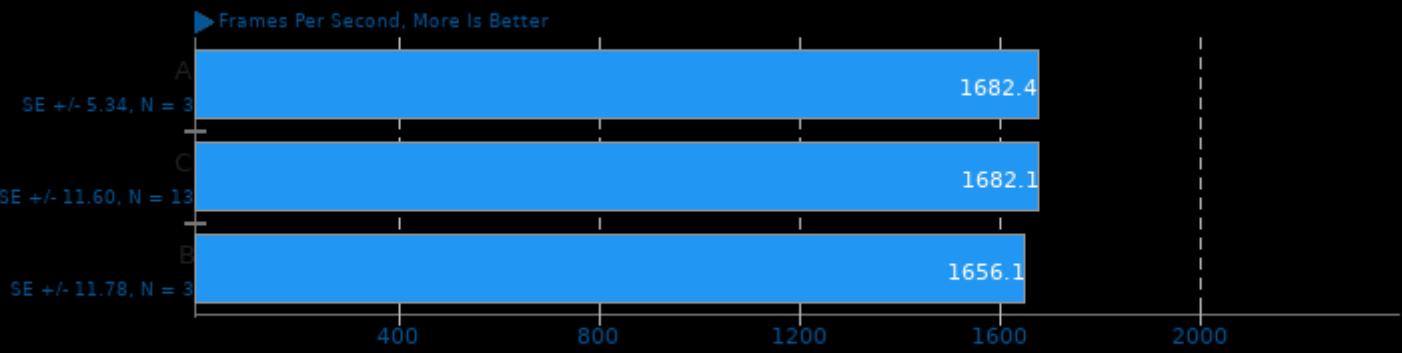
Renderer: OpenGL ES 3.x - AF: Off - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -fdynamic -fPIC -O2 -fno-omit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

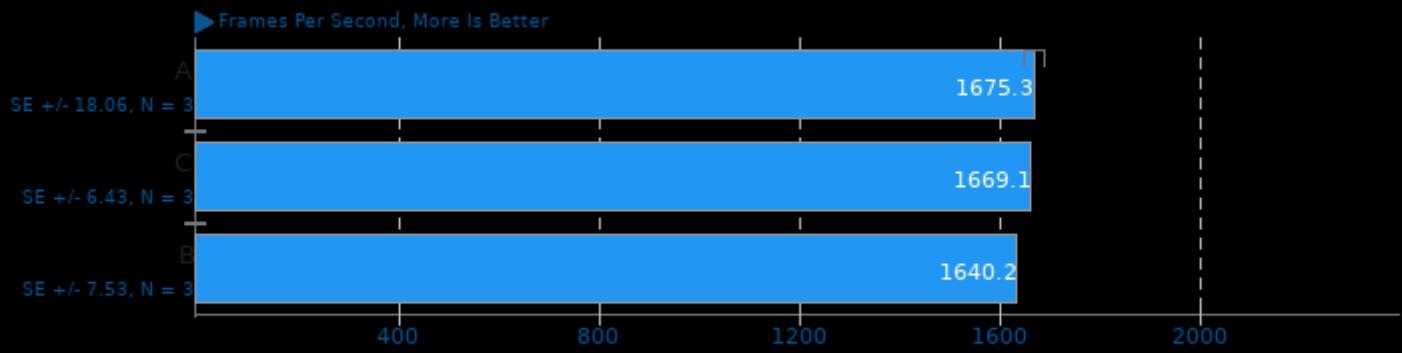
Renderer: OpenGL ES 3.x - AF: On - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIE -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

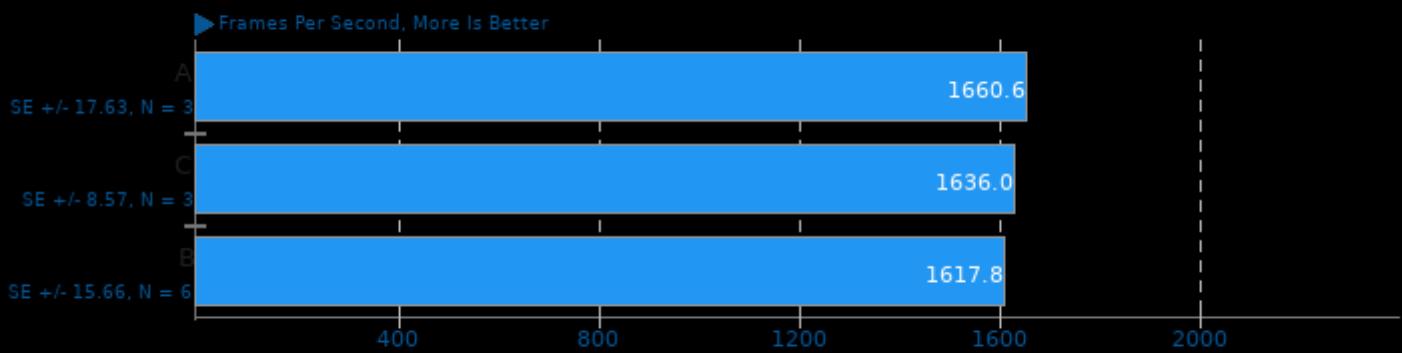
Renderer: OpenGL ES 3.x - AF: On - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIE -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

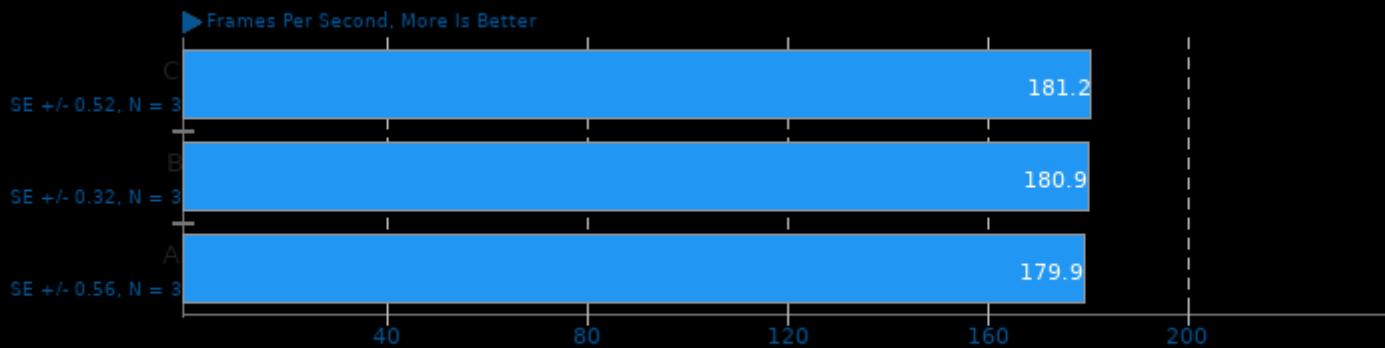
Renderer: OpenGL ES 3.x - AF: On - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIE -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon

yquake2 8.10

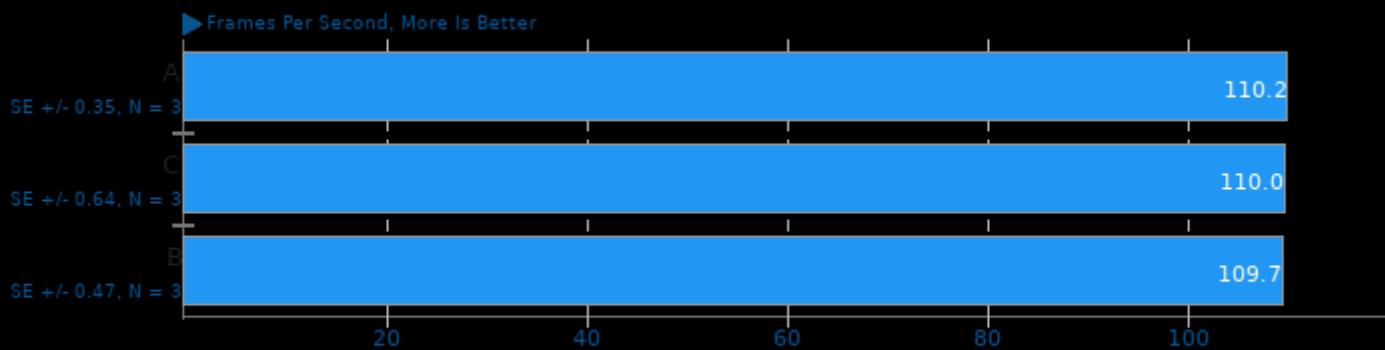
Renderer: Software CPU - AF: Off - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

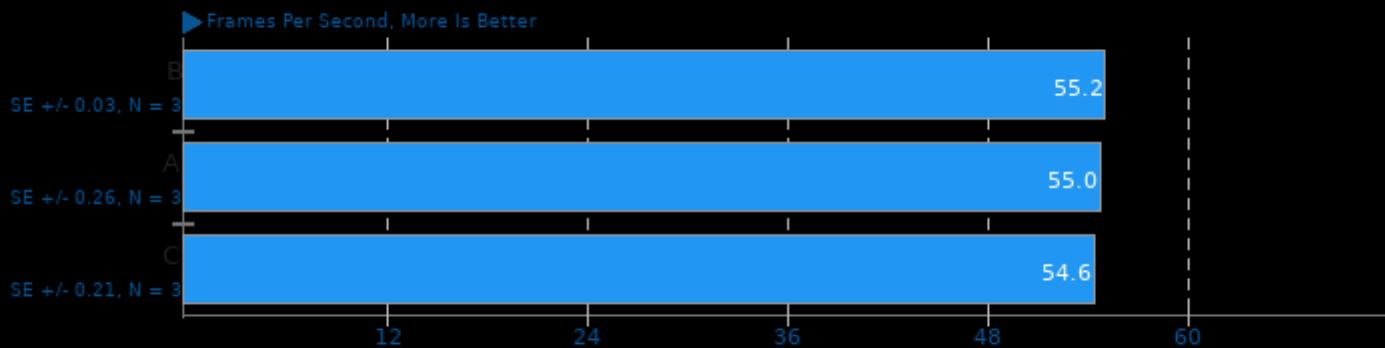
Renderer: Software CPU - AF: Off - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

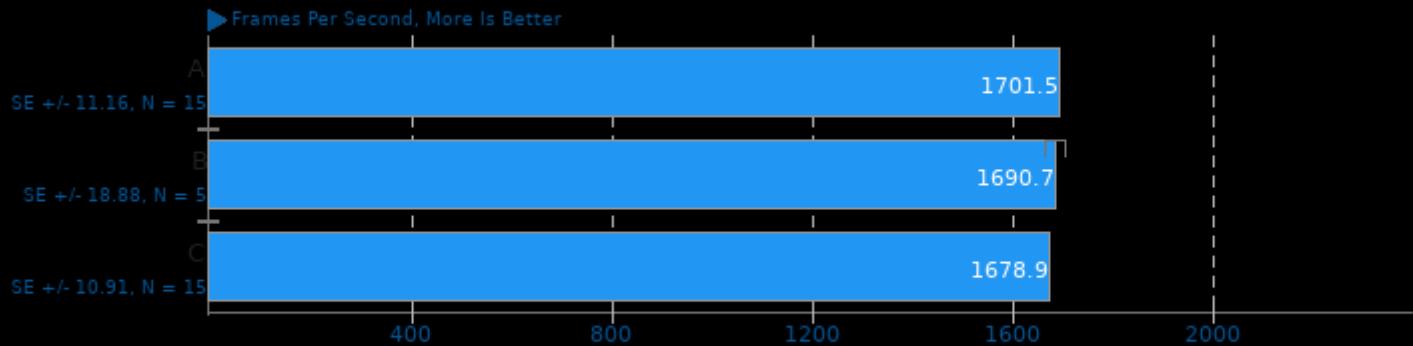
Renderer: Software CPU - AF: Off - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 8.10

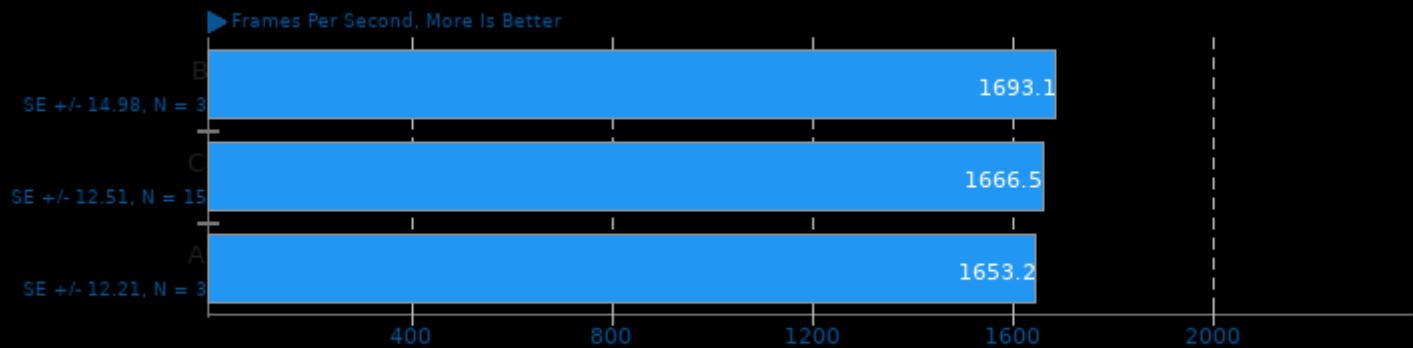
Renderer: OpenGL ES 3.x - AF: Off - MSAA: Off - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

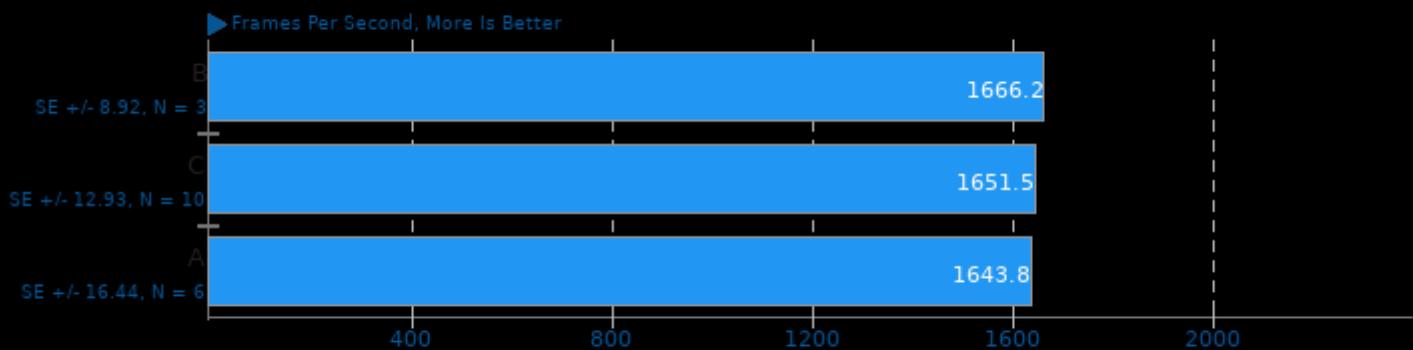
Renderer: OpenGL ES 3.x - AF: Off - MSAA: Off - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

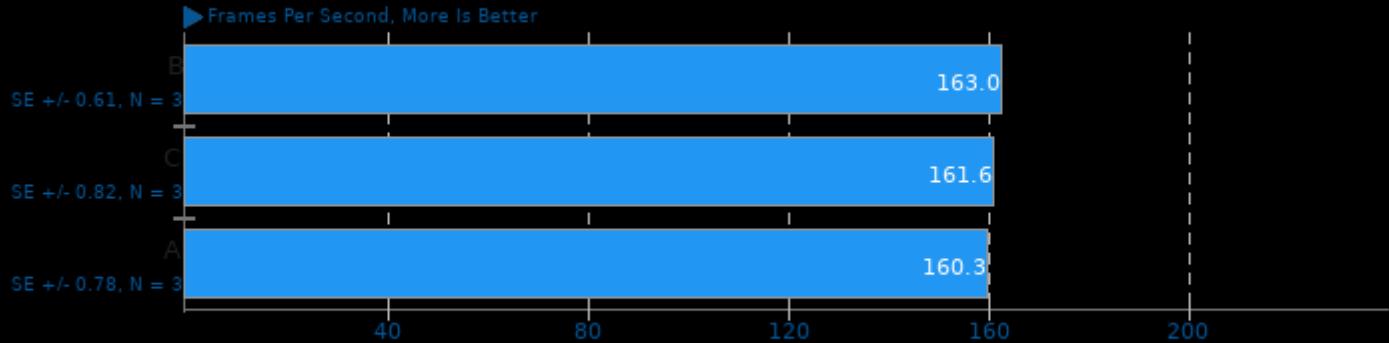
Renderer: OpenGL ES 3.x - AF: Off - MSAA: Off - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIC -rdynamic -fPIC -O2 -fPIC -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpu=neon -mfloat-abi=softfp

yquake2 8.10

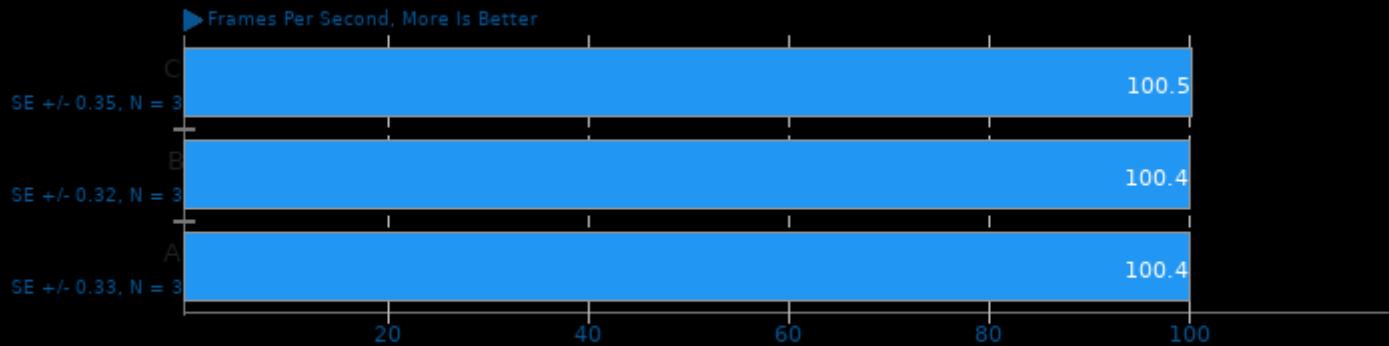
Renderer: Software CPU Color Light - AF: On - MSAA: On - Resolution: 1920 x 1080



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fPIC -fPIC -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC -fPIC

yquake2 8.10

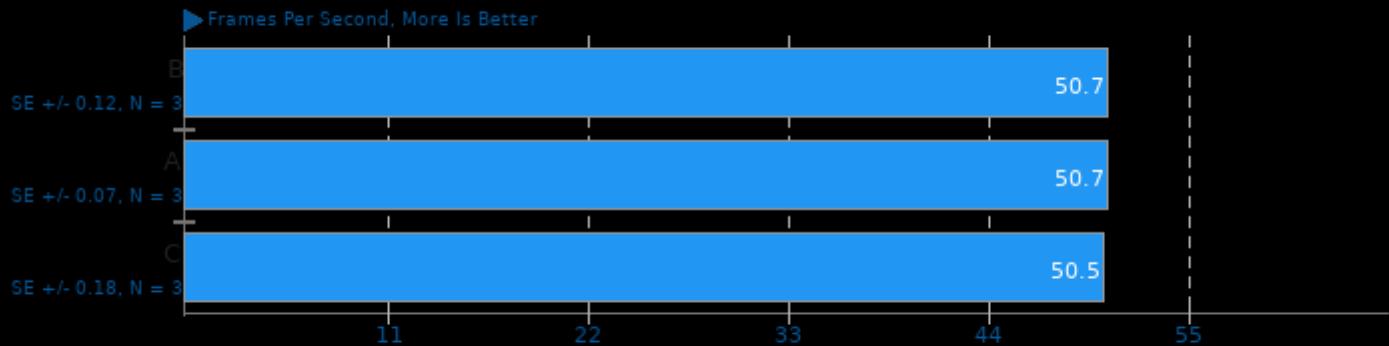
Renderer: Software CPU Color Light - AF: On - MSAA: On - Resolution: 2560 x 1440



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fPIC -fPIC -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC -fPIC

yquake2 8.10

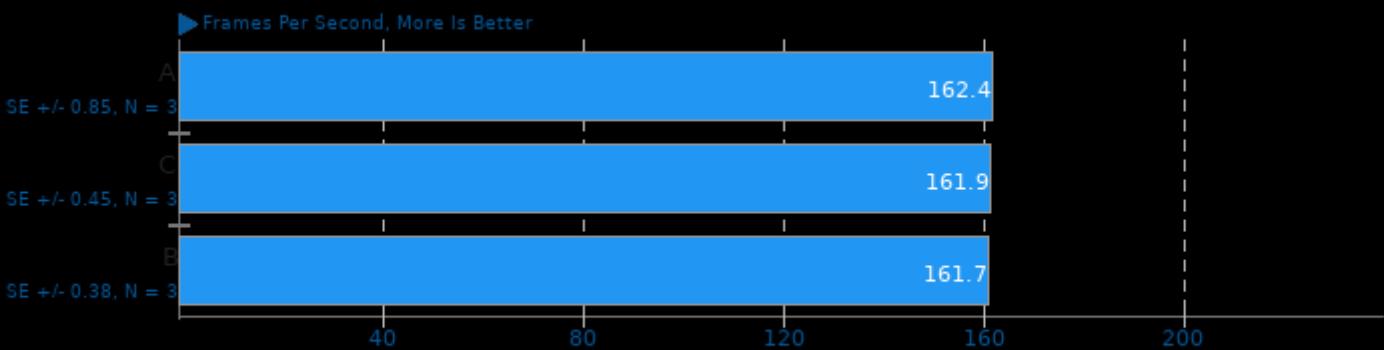
Renderer: Software CPU Color Light - AF: On - MSAA: On - Resolution: 3840 x 2160



1. (CC) gcc options: -shared -fPIC -fPIE -rdynamic -fPIC -O2 -fno-omit-frame-pointer -fPIC -fPIC -fno-strict-aliasing -fwrapv -fvisibility=hidden -fPIC -fPIC -fPIC -fPIC

yquake2 8.10

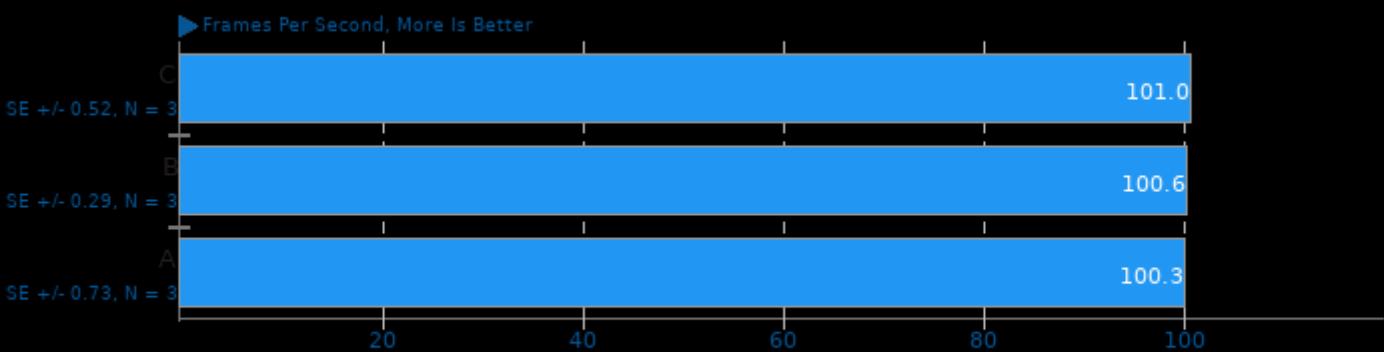
Renderer: Software CPU Color Light - AF: On - MSAA: Off - Resolution: 1920 x 1080



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

yquake2 8.10

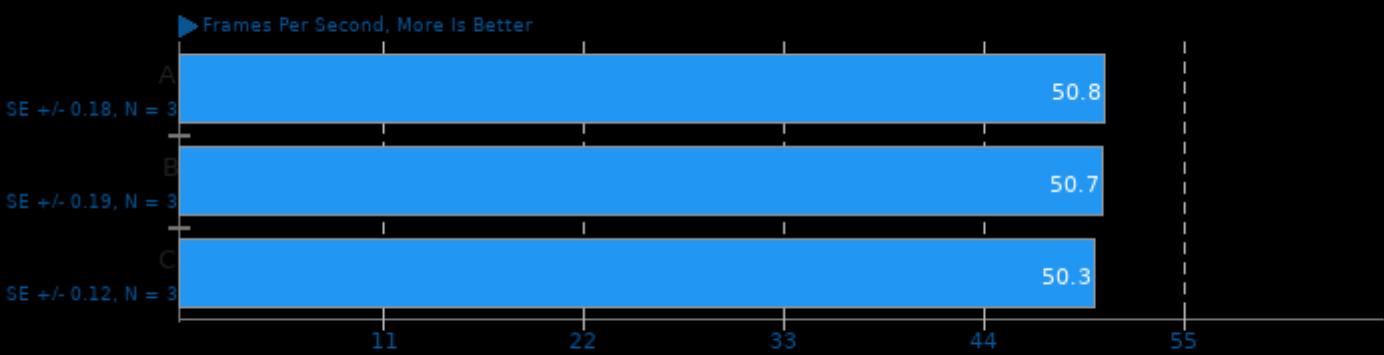
Renderer: Software CPU Color Light - AF: On - MSAA: Off - Resolution: 2560 x 1440



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

yquake2 8.10

Renderer: Software CPU Color Light - AF: On - MSAA: Off - Resolution: 3840 x 2160



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