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1080p Linux Gaming Benchmarks

Intel Core i9-9900K testing with a ASUS PRIME Z390-A (0802 BIOS) and NVIDIA GeForce RTX 2060 6GB on Ubuntu 19.04 via the Phoronix Test Suite.

Automated Executive Summary

RTX 2060 had the most wins, coming in first place for 86% of the tests.

Based on the geometric mean of all complete results, the fastest (RTX 2060) was 2.322x the speed of the slowest (RX 560). RX 590 was 0.832x the speed of RTX 2060, RX 580 was 0.925x the speed of RX 590, R9 285 was 0.592x the speed of RX 580, HD 7950 was 0.987x the speed of R9 285, RX 560 was 0.957x the speed of HD 7950.

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

A Total War Saga: THRONES OF BRITANNIA (Resolution: 1920 x 1080 - Graphics Preset: High - Total Frame Time) at 62.711x
HITMAN (Resolution: 1920 x 1080 - Quality Level: Ultra - Total Frame Time) at 34.177x
A Total War Saga: THRONES OF BRITANNIA (Resolution: 1920 x 1080 - Graphics Preset: Extreme - Total Frame Time) at 28.511x
Total War: WARHAMMER II (Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Fallen Gates Battle - Total Frame Time) at 21.44x
F1 2018 (Configuration: 1920 x 1080 - High Quality - Total Frame Time) at 19.075x

Total War: WARHAMMER II (Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Fallen Gates Battle - Total Frame Time) at 18.273x
Total War: WARHAMMER II (Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Skaven Battle - Total Frame Time) at 18.103x
Total War: WARHAMMER II (Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Skaven Battle - Total Frame Time) at 15.767x
F1 2018 (Configuration: 1920 x 1080 - Ultra High Quality - Total Frame Time) at 13.658x
F1 2018 (Configuration: 1920 x 1080 - Ultra High Quality) at 10.083x.

Test Systems:

HD 7950

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: XFX AMD Radeon HD 7950/8950 OEM / R9 280 3GB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.5 Mesa 19.0.2 (LLVM 8.0.0), Vulkan: 1.1.90, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: radeon.si_support=0 radeon.cik_support=0 amdgpu.si_support=1 amdgpu.cik_support=1
Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

R9 285

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: XFX AMD Radeon R9 285/380 2GB (918/1375MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.5 Mesa 19.0.2 (LLVM 8.0.0), Vulkan: 1.1.90, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: amdgpu.si_support=1 amdgpu.cik_support=1
Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

RX 560

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB (1300/1750MHz), Audio: Realtek ALC1220, Monitor: Acer B286HK, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.5 Mesa 19.0.2 (LLVM 8.0.0), Vulkan: 1.1.90, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

RX 580

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: MSI AMD Radeon RX 470/480/570/570X/580/580X 8GB (1366/2000MHz), Audio: Realtek ALC1220, Monitor: Acer B286HK, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.5 Mesa 19.0.2 (LLVM 8.0.0), Vulkan: 1.1.90, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

RX 590

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X 8GB (1560/2100MHz), Audio: Realtek ALC1220, Monitor: Acer B286HK, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: modesetting 1.20.4, OpenGL: 4.5 Mesa 19.0.2 (LLVM 8.0.0), Vulkan: 1.1.90, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

RTX 2060

Processor: Intel Core i9-9900K @ 5.00GHz (8 Cores / 16 Threads), Motherboard: ASUS PRIME Z390-A (0802 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: Samsung SSD 970 EVO 250GB + 2000GB SABRENT, Graphics: NVIDIA GeForce RTX 2060 6GB (1365/7000MHz), Audio: Realtek ALC1220, Monitor: Acer B286HK, Network: Intel I219-V

OS: Ubuntu 19.04, Kernel: 5.0.9-050009-generic (x86_64), Desktop: GNOME Shell 3.32.0, Display Server: X Server 1.20.4, Display Driver: NVIDIA 430.09, OpenGL: 4.6.0, Vulkan: 1.1.99, Compiler: GCC 8.3.0, 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 performance
OpenCL Notes: GPU Compute Cores: 1920
Security Notes: __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp

Phoronix Test Suite

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	HD 7950	R9 285	RX 560	RX 580	RX 590	RTX 2060
BioShock Infinite - 1920 x 1080 - Ultra (FPS)	157	186	**155**	217	213	**272**
Normalized	57.72%	68.38%	56.99%	79.78%	78.31%	100%
Standard Deviation	1.2%	1.9%	0.3%	2.7%	0.6%	0.8%
Deus Ex: Mankind Divided - 1920 x 1080 - High Quality (FPS)	27.60	32.00	**24.63**	51.30	55.73	**74.87**
Normalized	36.86%	42.74%	32.9%	68.52%	74.44%	100%
Standard Deviation	0.6%	0.3%	1.2%	1.3%	1.4%	0.7%
Deus Ex: Mankind Divided - 1920 x 1080 - Ultra Quality (FPS)	18.97	21.27	**17.33**	36.60	40.03	**55.00**
Normalized	34.49%	38.67%	31.51%	66.55%	72.78%	100%
Standard Deviation	0.3%	0.3%	0.9%	0.7%	2%	0.5%
Dota 2 - 1920 x 1080 - Vulkan (FPS)	**98.17**	125.63	105	137	137	**142.93**
Normalized	68.68%	87.9%	73.46%	95.85%	95.85%	100%
Standard Deviation	0.3%	0.5%	0.3%	1.1%	0.4%	0.6%
F1 2018 - 1920 x 1080 - High Quality (FPS)		**21**	66	133	148	**206**
Normalized		10.19%	32.04%	64.56%	71.84%	100%
Standard Deviation		12.7%		0.5%		
F1 2018 - 1920 x 1080 - Ultra High Quality (FPS)		**12**	33	67	75	**121**
Normalized		9.92%	27.27%	55.37%	61.98%	100%
HITMAN - 1920 x 1080 - Ultra (FPS)	**42.51**	53.54	43.85	84.24	**91.49**	84.18
Normalized	46.46%	58.52%	47.93%	92.08%	100%	92.01%
Standard Deviation	0%	0.1%	0.1%	0.4%	0.2%	0.3%
Rise of the Tomb Raider - 1920 x 1080 - High - FXAA - S.O.T.M (FPS)		61.47	**50.43**	89.44	107.80	**159.57**
Normalized		38.52%	31.6%	56.05%	67.56%	100%
Standard Deviation		1%	0.3%	22.2%	0.5%	0.2%
Rise of the Tomb Raider - 1920 x 1080 - High - FXAA - Prophets Tomb (FPS)		48.13	**38.87**	69.07	88.13	**130.10**
Normalized		36.99%	29.88%	53.09%	67.74%	100%
Standard Deviation		0.1%	0.1%	28.5%	0.2%	0.3%
Rise of the Tomb Raider - 1920 x 1080 - High - FXAA - Geothermal Valley (FPS)		41.53	**38.07**	68.25	87.77	**127.53**
Normalized		32.56%	29.85%	53.52%	68.82%	100%
Standard Deviation		12.8%	0.3%	28.1%	0.3%	0.2%
Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - S.O.T.M (FPS)		58.50	**47.20**	92.80	101.67	**153.70**
Normalized		38.06%	30.71%	60.38%	66.15%	100%
Standard Deviation		1.5%	0.4%	0.1%	0.5%	0.6%

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Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - Prophets Tomb (FPS)		44	**35.47**	71.93	81.00	**121.37**
Normalized		36.25%	29.22%	59.27%	66.74%	100%
Standard Deviation			0.2%	0.7%	0.4%	1.4%
Rise of the Tomb Raider - 1920 x 1080 - Very High - FXAA - Geothermal Valley (FPS)		**30.60**	33.20	67.70	76.43	**111.97**
Normalized		27.33%	29.65%	60.46%	68.26%	100%
Standard Deviation		1.8%	0.3%	0.3%	0.3%	0.3%
Tesseract - 1920 x 1080	368	405	**355**	610	**683**	484
Normalized	53.88%	59.3%	51.98%	89.31%	100%	70.86%
Standard Deviation	0.6%	0.9%	0.6%	1.3%	2.8%	1.4%
A Total War Saga: THRONES OF BRITANNIA - 1920 x 1080 - High (FPS)		61.23	**49.27**	95.73	106.03	**128.20**
Normalized		47.76%	38.43%	74.67%	82.71%	100%
Standard Deviation		0.8%	0.6%	0.2%	0.2%	1.7%
A Total War Saga: THRONES OF BRITANNIA - 1920 x 1080 - Extreme (FPS)		20.17	**15.07**	31.47	35.27	**53.90**
Normalized		37.42%	27.96%	58.39%	65.44%	100%
Standard Deviation		0.3%	0.4%	0.2%	0.6%	0.5%
Tomb Raider - 1920 x 1080 - Ultra (FPS)	68.17	73.57	**60.10**	123.93	137.80	**142.20**
Normalized	47.94%	51.74%	42.26%	87.15%	96.91%	100%
Standard Deviation	0.2%	0.3%	0.3%	0.6%	0.1%	0.1%
Total War: WARHAMMER II - 1920 x 1080 - High - Skaven Battle (FPS)		43.20	**34.80**	72.80	80.67	**109.50**
Normalized		39.45%	31.78%	66.48%	73.67%	100%
Standard Deviation		0.6%	2.1%	1.3%	0.7%	1.6%
Total War: WARHAMMER II - 1920 x 1080 - Ultra - Skaven Battle (FPS)		28.97	**22.77**	48.47	54.00	**76.87**
Normalized		37.69%	29.62%	63.05%	70.25%	100%
Standard Deviation		2%	1.3%	0.3%	1.3%	1.2%
Total War: WARHAMMER II - 1920 x 1080 - High - F.G.B (FPS)		36.67	**28.57**	61.07	68.37	**92.60**
Normalized		39.6%	30.85%	65.95%	73.83%	100%
Standard Deviation		0.4%	0.2%	0.2%	0.4%	0.1%
Total War: WARHAMMER II - 1920 x 1080 - Ultra - F.G.B (FPS)		24.67	**19.77**	42.93	47.47	**67.67**
Normalized		36.46%	29.22%	63.44%	70.15%	100%
Standard Deviation		2%	0.3%	0.1%	0.1%	0.2%
Unigine Heaven - 1920 x 1080 - Fullscreen - OpenGL	42.47	50.57	**38.24**	79.14	92.00	**152.51**
Normalized	27.85%	33.16%	25.07%	51.89%	60.32%	100%
Standard Deviation	0.1%	0.1%	0.1%	0.3%	0.2%	0.1%

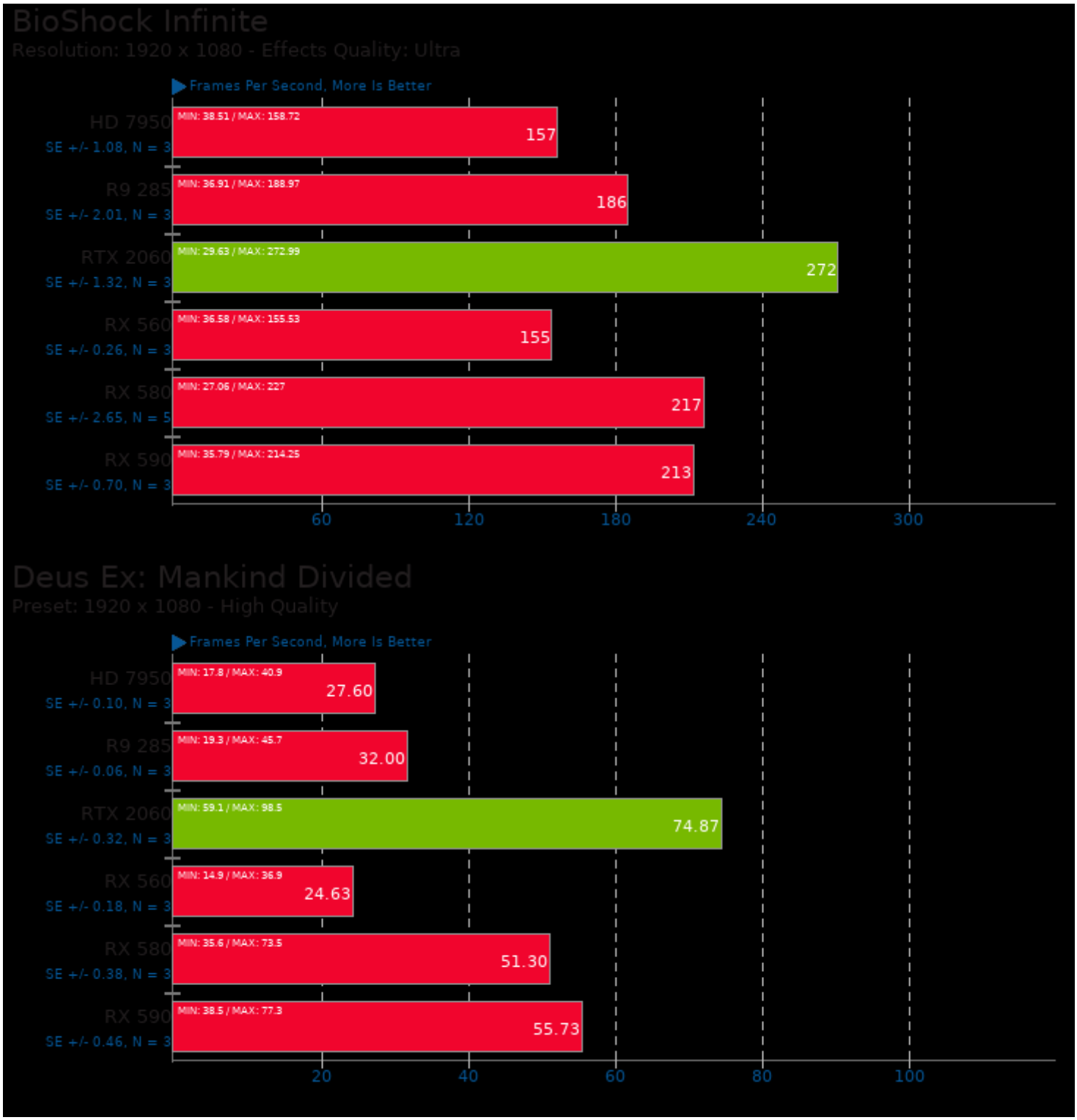
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Unigine Superposition - 1920 x 1080 - Fullscreen - High - OpenGL (FPS)	21.50	**8.97**	17.90	35.77	41.10	**69.67**
Normalized	30.86%	12.87%	25.69%	51.34%	58.99%	100%
Standard Deviation	0%	0.6%	0%	0.3%	0%	0.1%
Unigine Superposition - 1920 x 1080 - Fullscreen - Ultra - OpenGL (FPS)	8.90	**2.71**	7.40	15.40	18	**26.93**
Normalized	33.05%	10.06%	27.48%	57.19%	66.84%	100%
Standard Deviation	0%	7.1%	0%	0%		0.2%
Unigine Valley - 1920 x 1080 - Fullscreen - OpenGL (FPS)	48.94	57.56	**42.84**	85.80	100.90	**135.90**
Normalized	36.01%	42.35%	31.52%	63.13%	74.25%	100%
Standard Deviation	0%	0.1%	0%	0.2%	0.1%	0.2%
Xonotic - 1920 x 1080 - Ultimate (FPS)	304	311	**281**	**336**	335	328
Normalized	90.48%	92.56%	83.63%	100%	99.7%	97.62%
Standard Deviation	0.8%	0.4%	0.8%	1.2%	0.5%	0.9%
X-Plane - Very High - 1920 x 1080 (FPS)	**44.47**	80.27	63.79	86.65	86.15	**111.40**
Normalized	39.92%	72.06%	57.26%	77.78%	77.33%	100%
DiRT Rally 2.0 - 1920 x 1080 - Ultra (FPS)	17.19	17.23	**15.81**	42.36	47.52	**64.67**
Normalized	26.58%	26.64%	24.45%	65.5%	73.48%	100%
Standard Deviation	0%	5.3%	13.4%	0.4%	0.2%	0.1%
Dota 2 - 1920 x 1080 - OpenGL (FPS)	**98.40**	123.10	102	**152**	**152**	147.45
Normalized	64.74%	80.99%	67.11%	100%	100%	97.01%
Standard Deviation	1.9%	2.7%	2.1%	2.7%	2.9%	2.9%
IndigoBench - Supercar (M samples/s)						16.46
Standard Deviation						0.2%
IndigoBench - Bedroom (M samples/s)						4.43
Standard Deviation						0.1%
LuxMark - GPU - Luxball HDR (Score)						21600
Standard Deviation						0.6%
LuxMark - GPU - Microphone (Score)						13796
Standard Deviation						0.9%
LuxMark - GPU - Hotel						4853
Standard Deviation						0.8%
Darktable - Boat - OpenCL (sec)						2.29
Standard Deviation						0.5%
Darktable - Masskrug - OpenCL (sec)						3.82
Standard Deviation						0.5%
Darktable - Server Room - OpenCL (sec)						0.84
Standard Deviation						0.2%

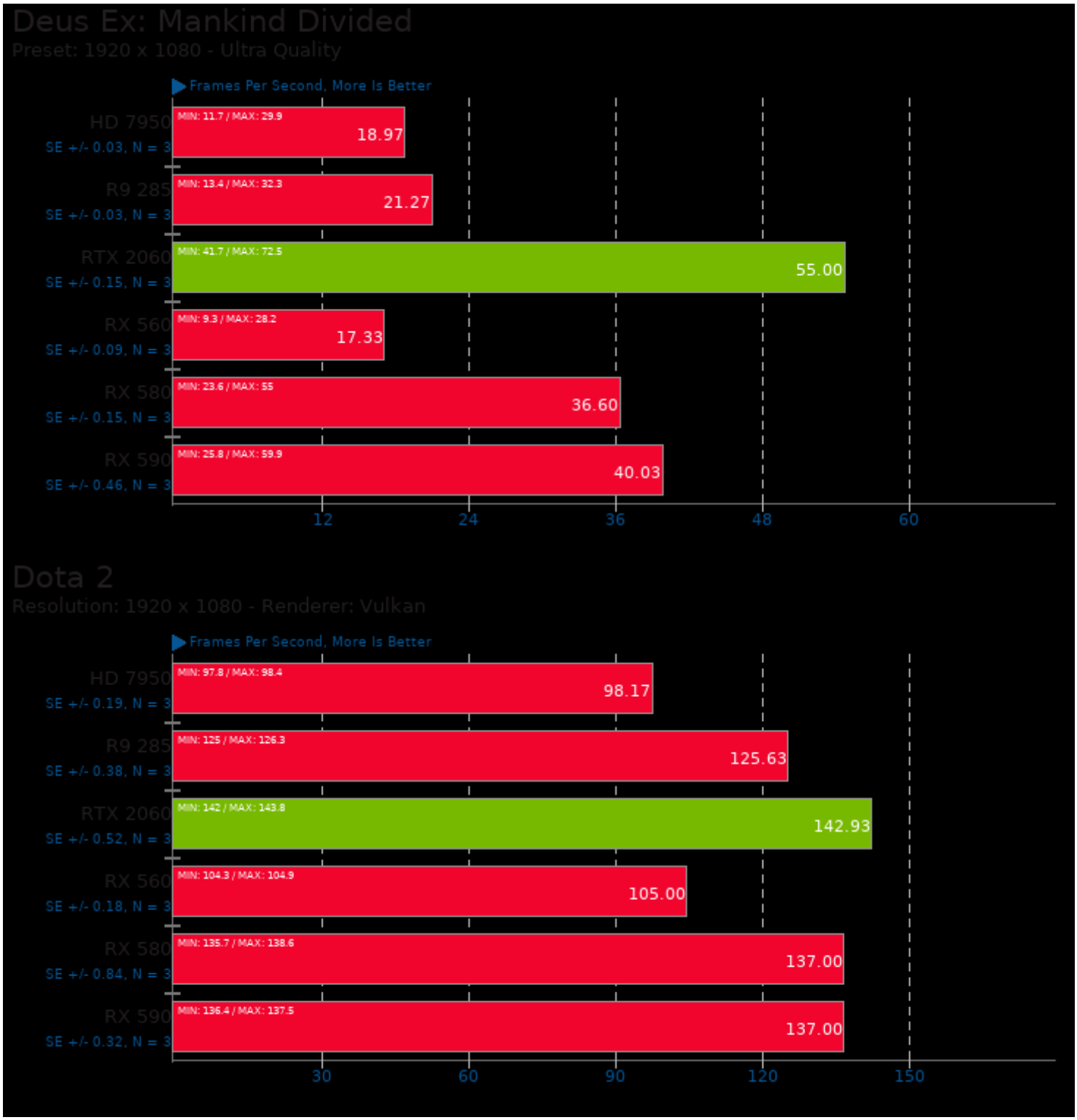
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Darktable - Server Rack - OpenCL (sec)	0.11
Standard Deviation	4.1%
NAMD CUDA - ATPase Simulation - 327,506 Atoms (days/ns)	0.20741
Standard Deviation	1%
LeelaChessZero - OpenCL (Nodes/s)	1462
Standard Deviation	1.7%

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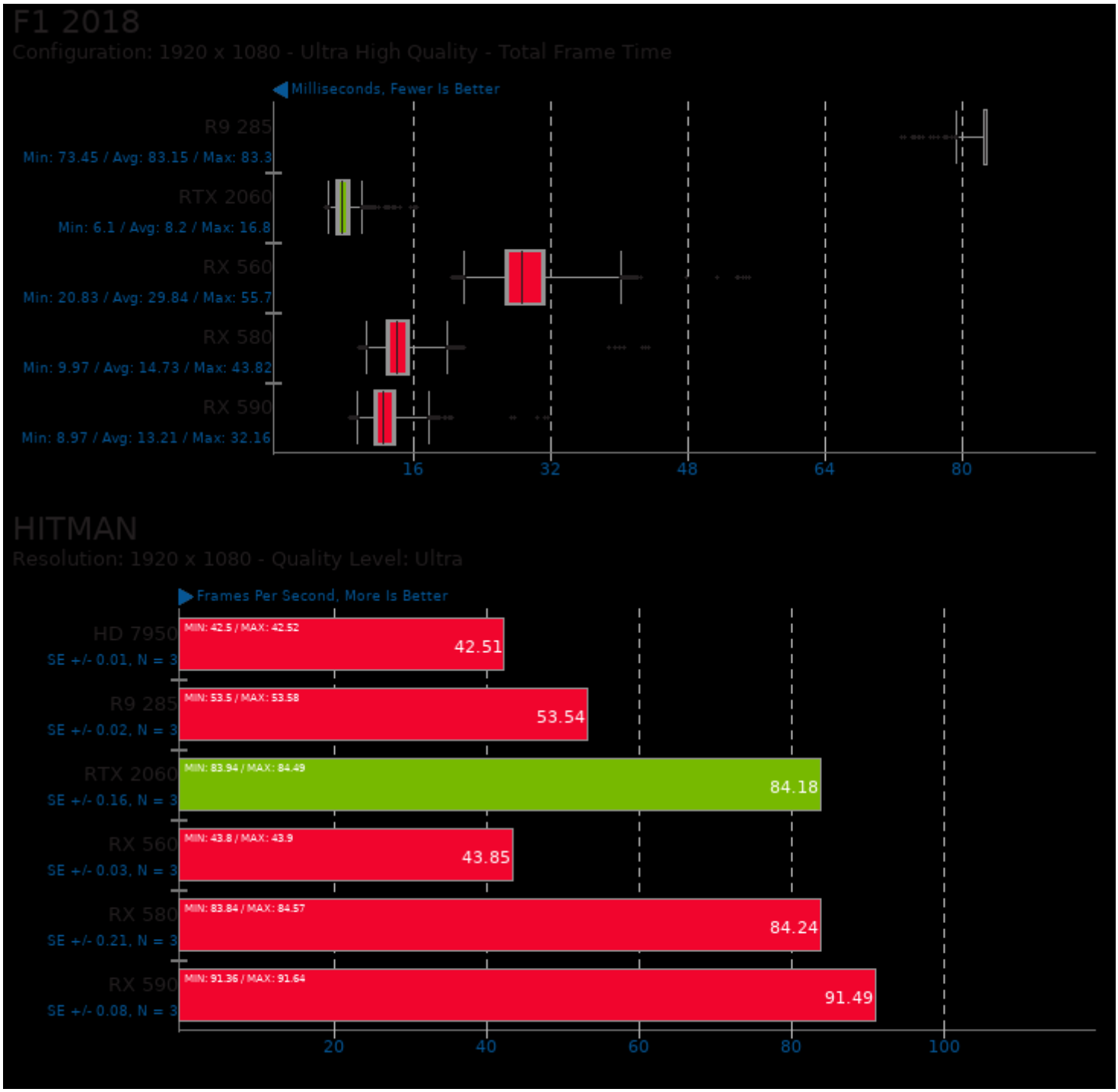
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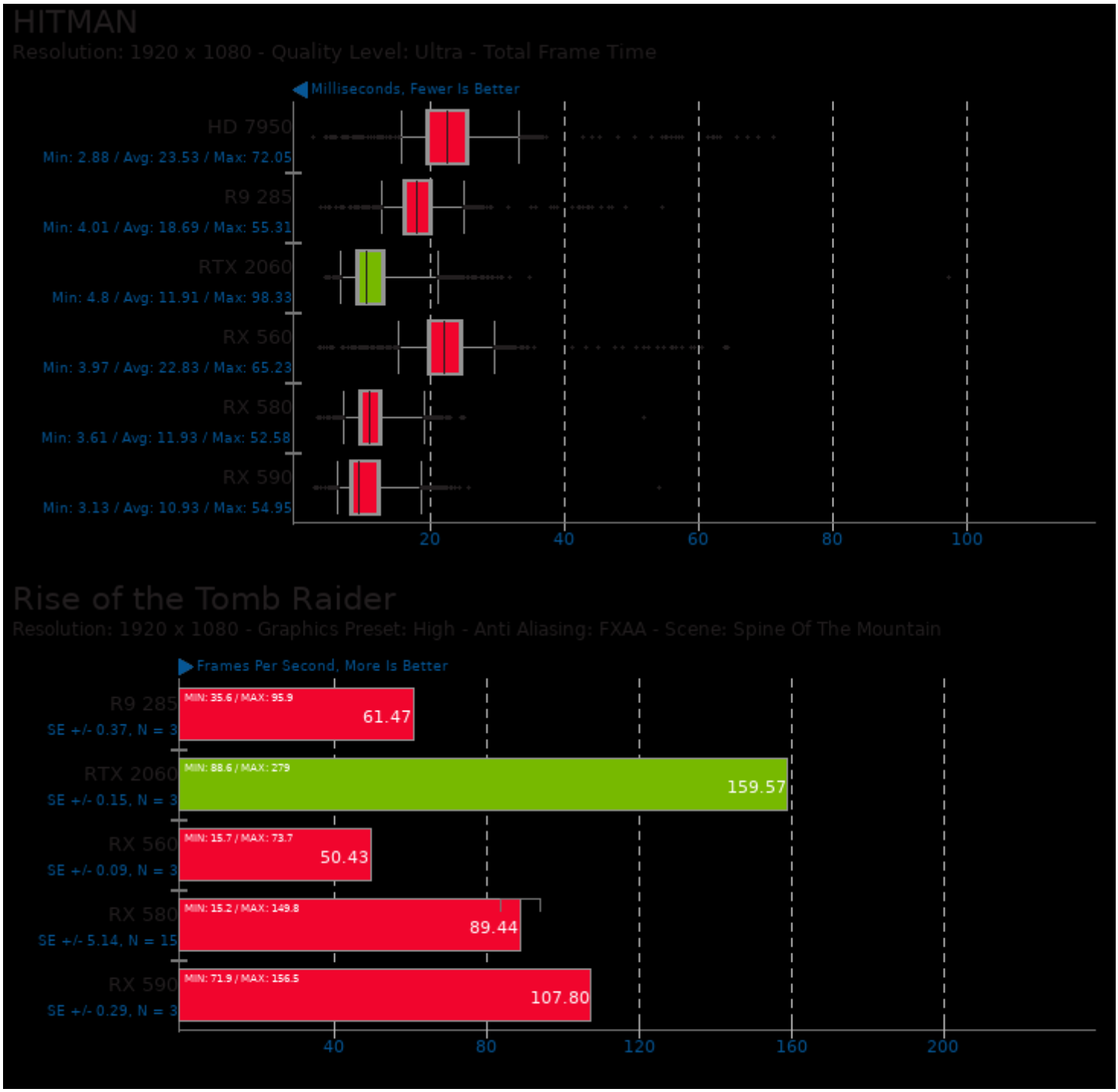
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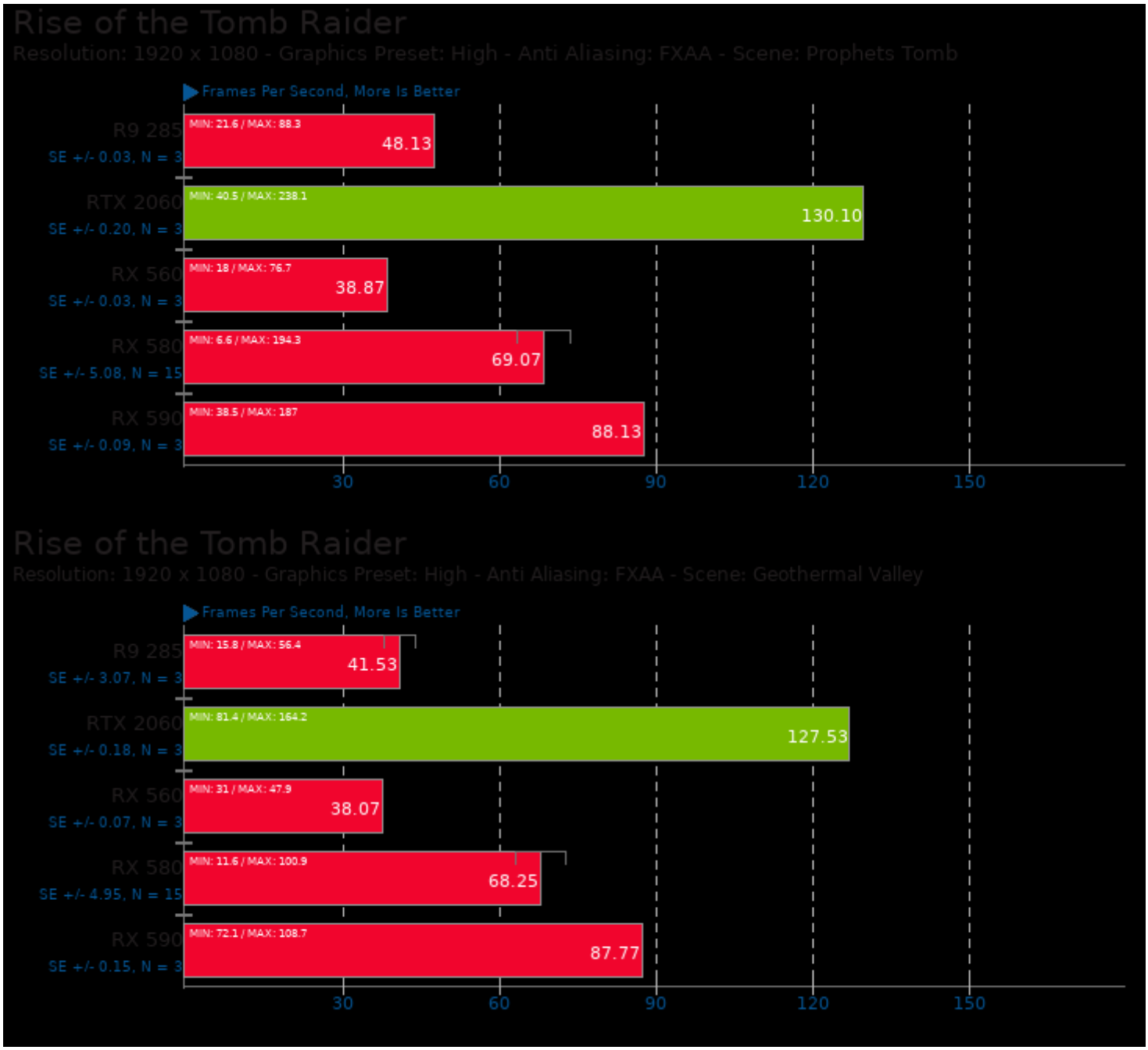


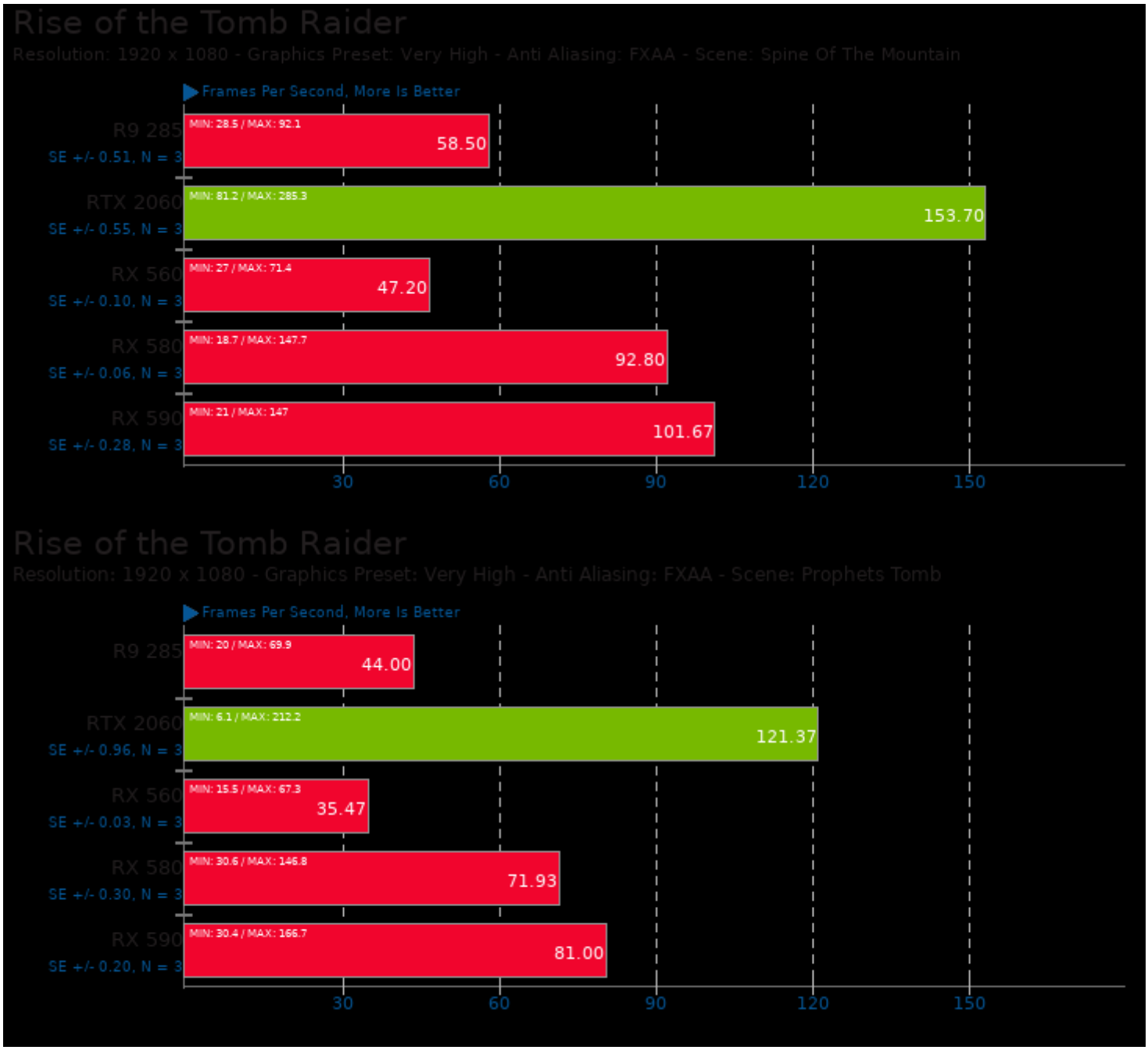
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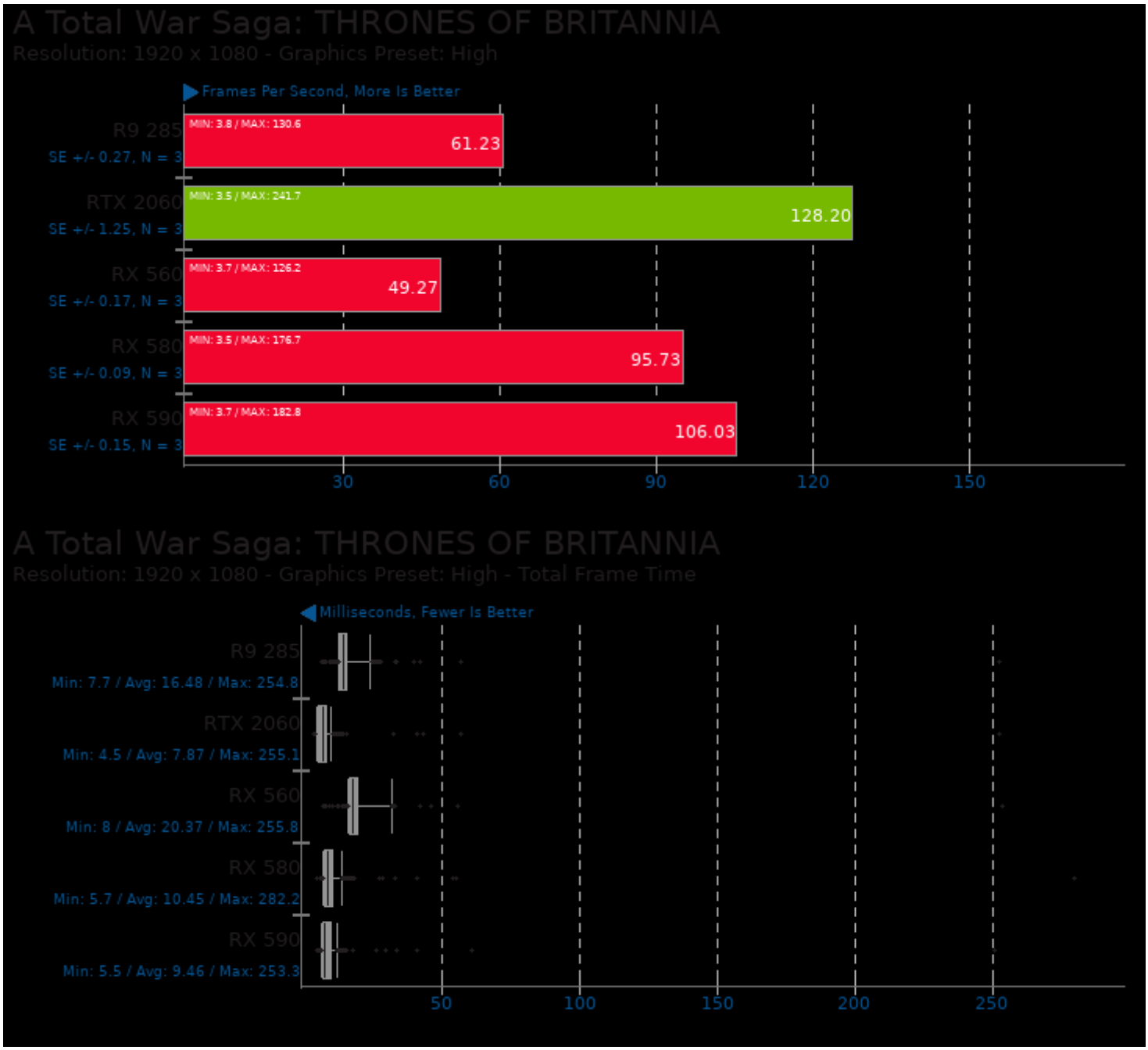


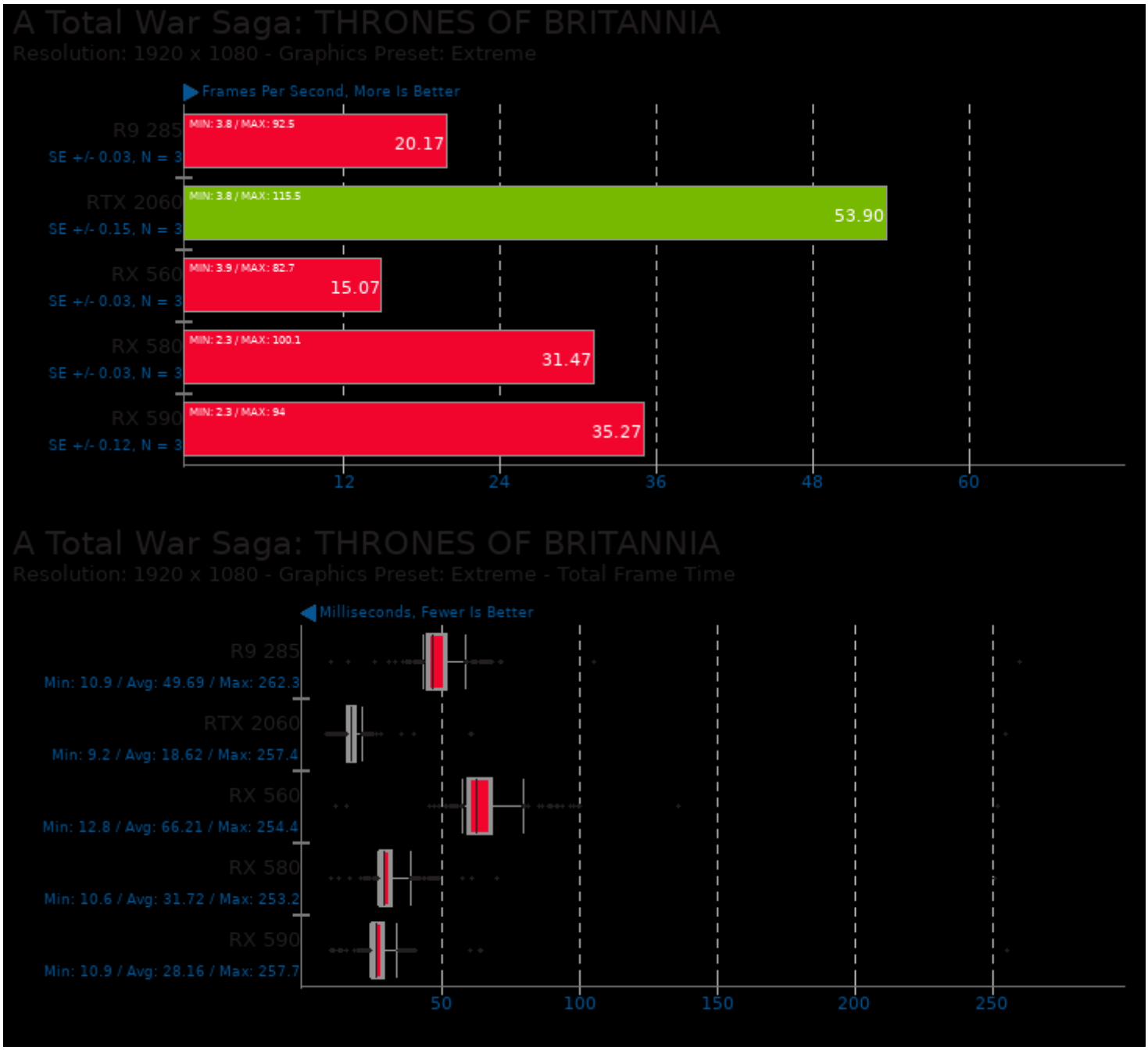

Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
R9 285
SE +/- 0.03, N = 3
MIN: 21.6 / MAX: 88.3
48.13
RTX 2060
SE +/- 0.20, N = 3
MIN: 40.5 / MAX: 238.1
130.10
RX 560
SE +/- 0.03, N = 3
MIN: 18 / MAX: 76.7
38.87
RX 580
SE +/- 5.08, N = 15
MIN: 6.6 / MAX: 194.3
69.07
RX 590
SE +/- 0.09, N = 3
MIN: 38.5 / MAX: 187
88.13
30
60
90
120
150
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: High - Anti Aliasing: FXAA - Scene: Geothermal Valley
Frames Per Second, More Is Better
R9 285
SE +/- 3.07, N = 3
MIN: 15.8 / MAX: 56.4
41.53
RTX 2060
SE +/- 0.18, N = 3
MIN: 81.4 / MAX: 164.2
127.53
RX 560
SE +/- 0.07, N = 3
MIN: 31 / MAX: 47.9
38.07
RX 580
SE +/- 4.95, N = 15
MIN: 11.6 / MAX: 100.9
68.25
RX 590
SE +/- 0.15, N = 3
MIN: 72.1 / MAX: 108.7
87.77
30
60
90
120
150


Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Spine Of The Mountain
Frames Per Second, More Is Better
R9 285
SE +/- 0.51, N = 3
MIN: 28.5 / MAX: 92.1
58.50
RTX 2060
SE +/- 0.55, N = 3
MIN: 81.2 / MAX: 285.3
153.70
RX 560
SE +/- 0.10, N = 3
MIN: 27 / MAX: 71.4
47.20
RX 580
SE +/- 0.06, N = 3
MIN: 18.7 / MAX: 147.7
92.80
RX 590
SE +/- 0.28, N = 3
MIN: 21 / MAX: 147
101.67
30
60
90
120
150
Rise of the Tomb Raider
Resolution: 1920 x 1080 - Graphics Preset: Very High - Anti Aliasing: FXAA - Scene: Prophets Tomb
Frames Per Second, More Is Better
R9 285
MIN: 20 / MAX: 69.9
44.00
RTX 2060
SE +/- 0.96, N = 3
MIN: 6.1 / MAX: 212.2
121.37
RX 560
SE +/- 0.03, N = 3
MIN: 15.5 / MAX: 67.3
35.47
RX 580
SE +/- 0.30, N = 3
MIN: 30.6 / MAX: 146.8
71.93
RX 590
SE +/- 0.20, N = 3
MIN: 30.4 / MAX: 166.7
81.00
30
60
90
120
150

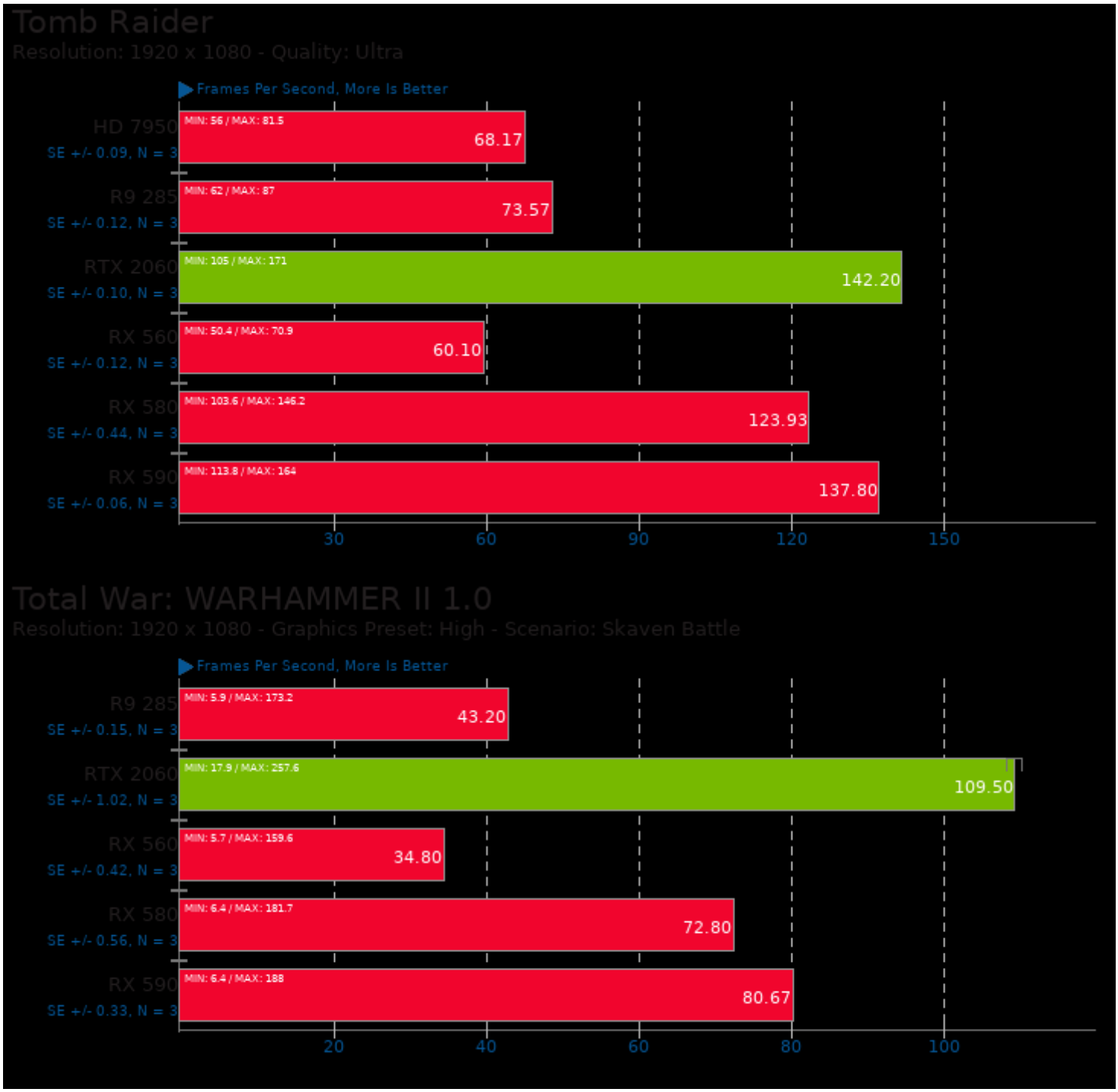
1080p Linux Gaming Benchmarks



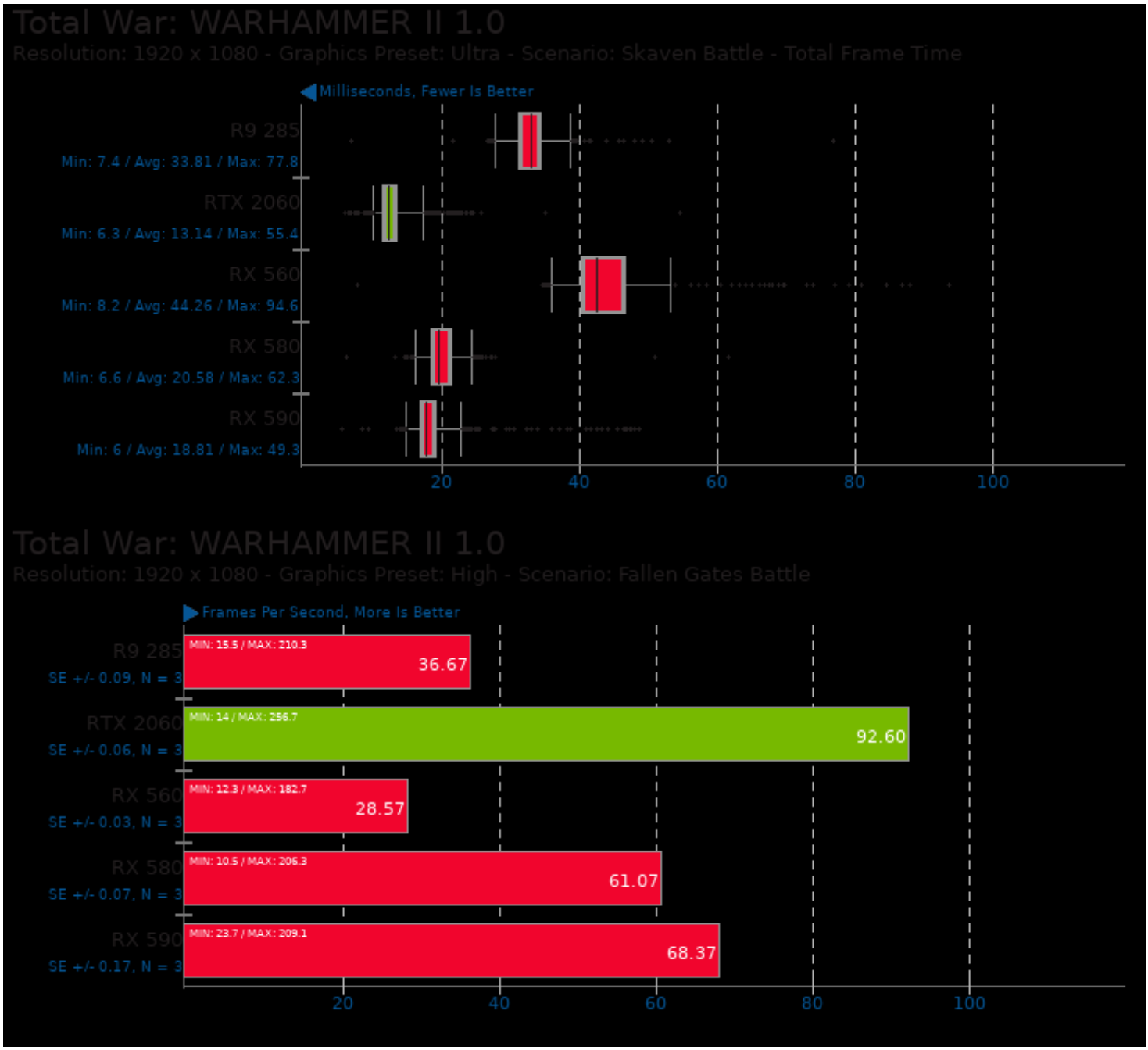

A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: High
Frames Per Second, More Is Better
R9 285
SE +/- 0.27, N = 3
MIN: 3.8 / MAX: 130.6
61.23
RTX 2060
SE +/- 1.25, N = 3
MIN: 3.5 / MAX: 241.7
128.20
RX 560
SE +/- 0.17, N = 3
MIN: 3.7 / MAX: 126.2
49.27
RX 580
SE +/- 0.09, N = 3
MIN: 3.5 / MAX: 176.7
95.73
RX 590
SE +/- 0.15, N = 3
MIN: 3.7 / MAX: 182.8
106.03
30
60
90
120
150
A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: High - Total Frame Time
Milliseconds, Fewer Is Better
R9 285
Min: 7.7 / Avg: 16.48 / Max: 254.8
RTX 2060
Min: 4.5 / Avg: 7.87 / Max: 255.1
RX 560
Min: 8 / Avg: 20.37 / Max: 255.8
RX 580
Min: 5.7 / Avg: 10.45 / Max: 282.2
RX 590
Min: 5.5 / Avg: 9.46 / Max: 253.3
50
100
150
200
250


A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: Extreme
Frames Per Second, More Is Better
R9 285
SE +/- 0.03, N = 3
MIN: 3.8 / MAX: 92.5
20.17
RTX 2060
SE +/- 0.15, N = 3
MIN: 3.8 / MAX: 115.5
53.90
RX 560
SE +/- 0.03, N = 3
MIN: 3.9 / MAX: 82.7
15.07
RX 580
SE +/- 0.03, N = 3
MIN: 2.3 / MAX: 100.1
31.47
RX 590
SE +/- 0.12, N = 3
MIN: 2.3 / MAX: 94
35.27
12
24
36
48
60
A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: Extreme - Total Frame Time
Milliseconds, Fewer Is Better
R9 285
Min: 10.9 / Avg: 49.69 / Max: 262.3
RTX 2060
Min: 9.2 / Avg: 18.62 / Max: 257.4
RX 560
Min: 12.8 / Avg: 66.21 / Max: 254.4
RX 580
Min: 10.6 / Avg: 31.72 / Max: 253.2
RX 590
Min: 10.9 / Avg: 28.16 / Max: 257.7
50
100
150
200
250

1080p Linux Gaming Benchmarks

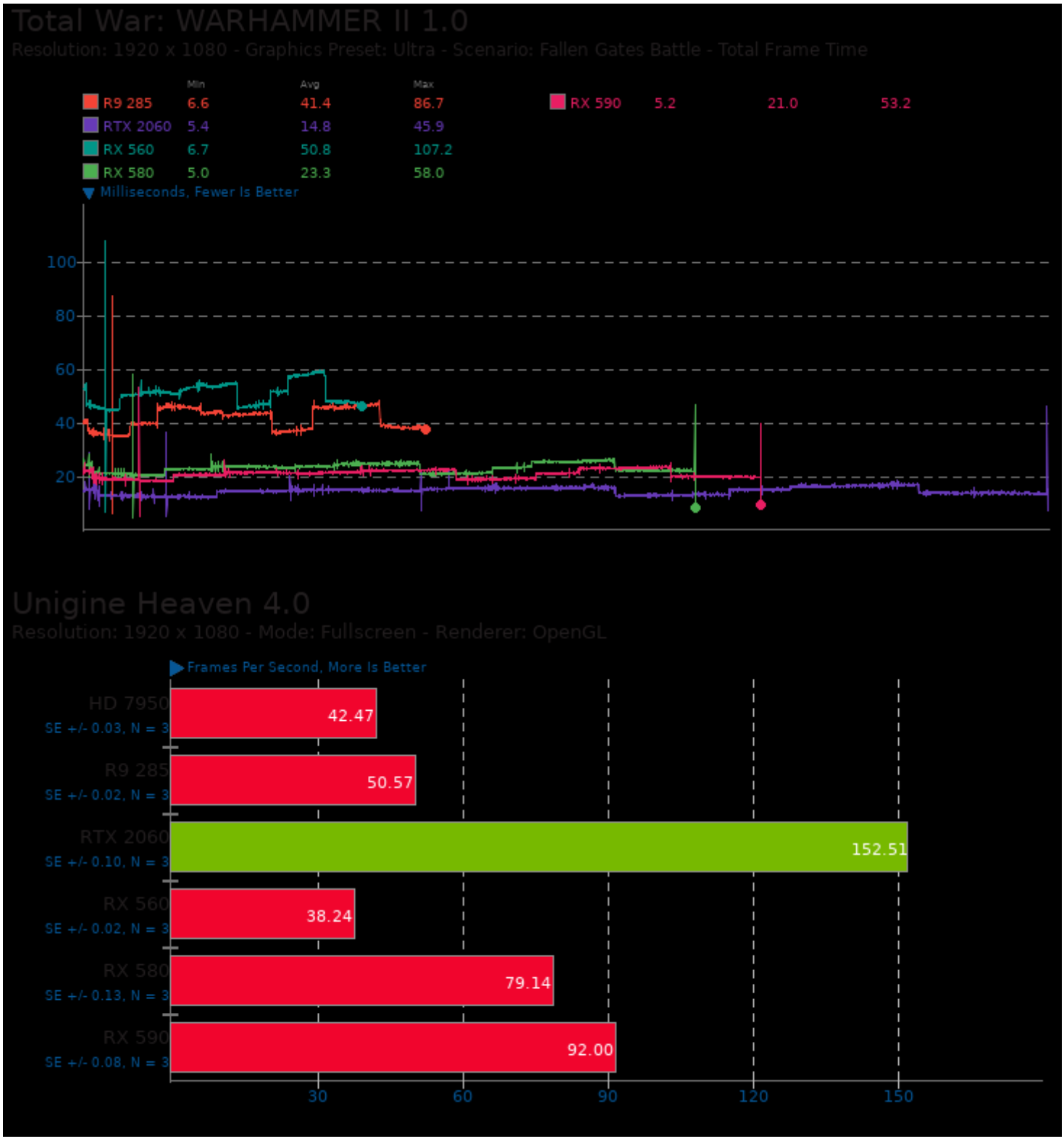



Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Skaven Battle - Total Frame Time
Milliseconds, Fewer Is Better
R9 285
Min: 5.8 / Avg: 23.03 / Max: 55.8
RTX 2060
Min: 3.9 / Avg: 9.27 / Max: 54.1
RX 560
Min: 6.4 / Avg: 29.23 / Max: 70.6
RX 580
Min: 5.5 / Avg: 13.82 / Max: 64
RX 590
Min: 6.2 / Avg: 12.42 / Max: 61.4
14
28
42
56
70
Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Skaven Battle
Frames Per Second, More Is Better
R9 285
SE +/- 0.33, N = 3
MIN: 12.9 / MAX: 135.4
28.97
RTX 2060
SE +/- 0.54, N = 3
MIN: 17.2 / MAX: 268.2
76.87
RX 560
SE +/- 0.17, N = 3
MIN: 10.3 / MAX: 135.6
22.77
RX 580
SE +/- 0.09, N = 3
MIN: 14.2 / MAX: 157
48.47
RX 590
SE +/- 0.40, N = 3
MIN: 15.7 / MAX: 166.7
54.00
20
40
60
80
100

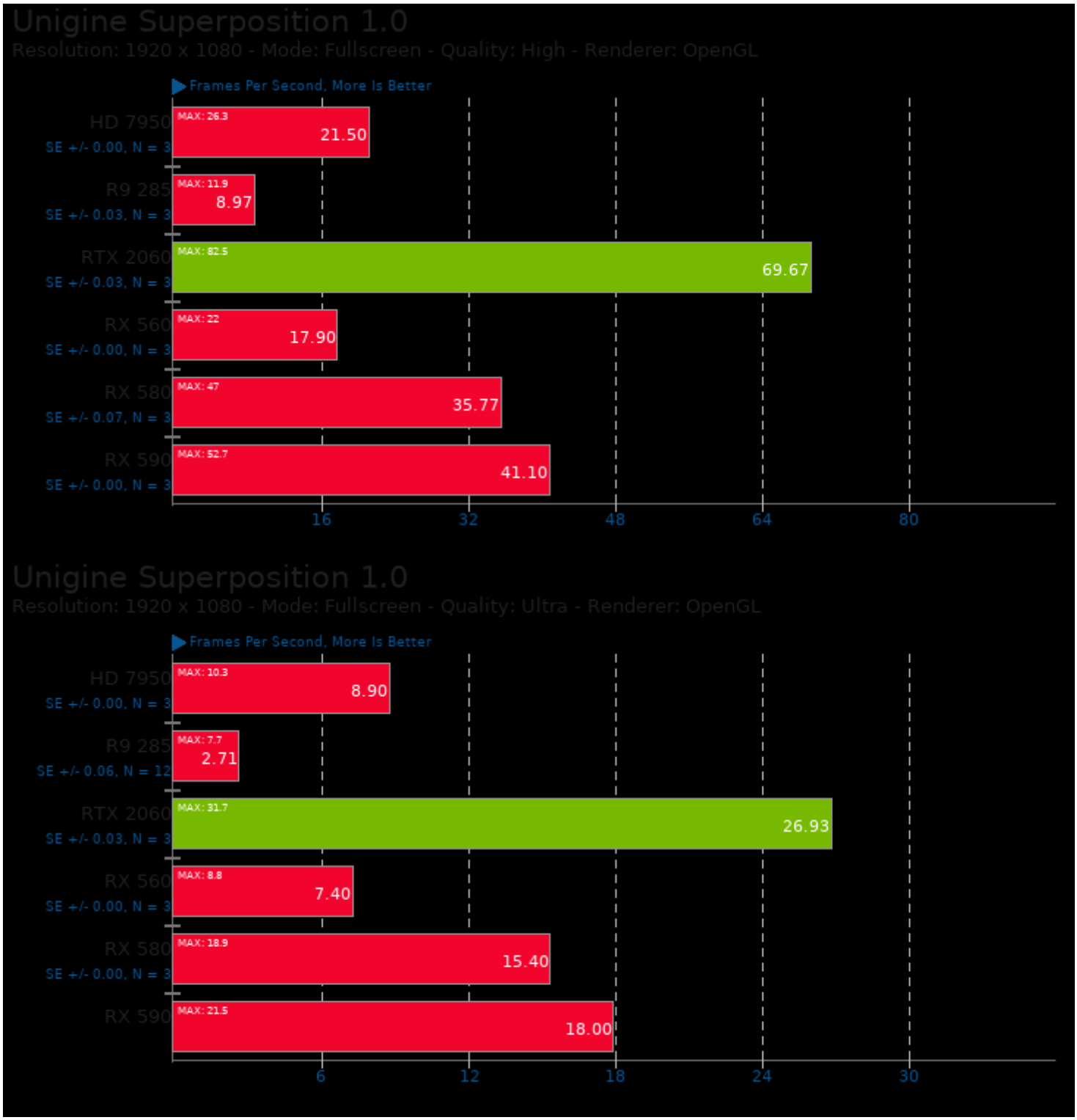

Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Skaven Battle - Total Frame Time
Milliseconds, Fewer Is Better
R9 285
Min: 7.4 / Avg: 33.81 / Max: 77.8
RTX 2060
Min: 6.3 / Avg: 13.14 / Max: 55.4
RX 560
Min: 8.2 / Avg: 44.26 / Max: 94.6
RX 580
Min: 6.6 / Avg: 20.58 / Max: 62.3
RX 590
Min: 6 / Avg: 18.81 / Max: 49.3
20
40
60
80
100
Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Fallen Gates Battle
Frames Per Second, More Is Better
R9 285
SE +/- 0.09, N = 3
MIN: 15.5 / MAX: 210.3
36.67
RTX 2060
SE +/- 0.06, N = 3
MIN: 14 / MAX: 256.7
92.60
RX 560
SE +/- 0.03, N = 3
MIN: 12.3 / MAX: 182.7
28.57
RX 580
SE +/- 0.07, N = 3
MIN: 10.5 / MAX: 206.3
61.07
RX 590
SE +/- 0.17, N = 3
MIN: 23.7 / MAX: 209.1
68.37
20
40
60
80
100


Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: High - Scenario: Fallen Gates Battle - Total Frame Time
Milliseconds, Fewer Is Better
R9 285
Min: 6.1 / Avg: 27.41 / Max: 64.1
RTX 2060
Min: 4.4 / Avg: 10.8 / Max: 71.5
RX 560
Min: 5.7 / Avg: 34.93 / Max: 80.4
RX 580
Min: 5.2 / Avg: 16.4 / Max: 44.8
RX 590
Min: 5.3 / Avg: 14.55 / Max: 42.2
15
30
45
60
75
Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Fallen Gates Battle
Frames Per Second, More Is Better
R9 285
SE +/- 0.28, N = 3
MIN: 11.5 / MAX: 157.9
24.67
RTX 2060
SE +/- 0.07, N = 3
MIN: 21.6 / MAX: 212.4
67.67
RX 560
SE +/- 0.03, N = 3
MIN: 9.3 / MAX: 160
19.77
RX 580
SE +/- 0.03, N = 3
MIN: 17.3 / MAX: 200.5
42.93
RX 590
SE +/- 0.03, N = 3
MIN: 18.5 / MAX: 193.8
47.47
15
30
45
60
75

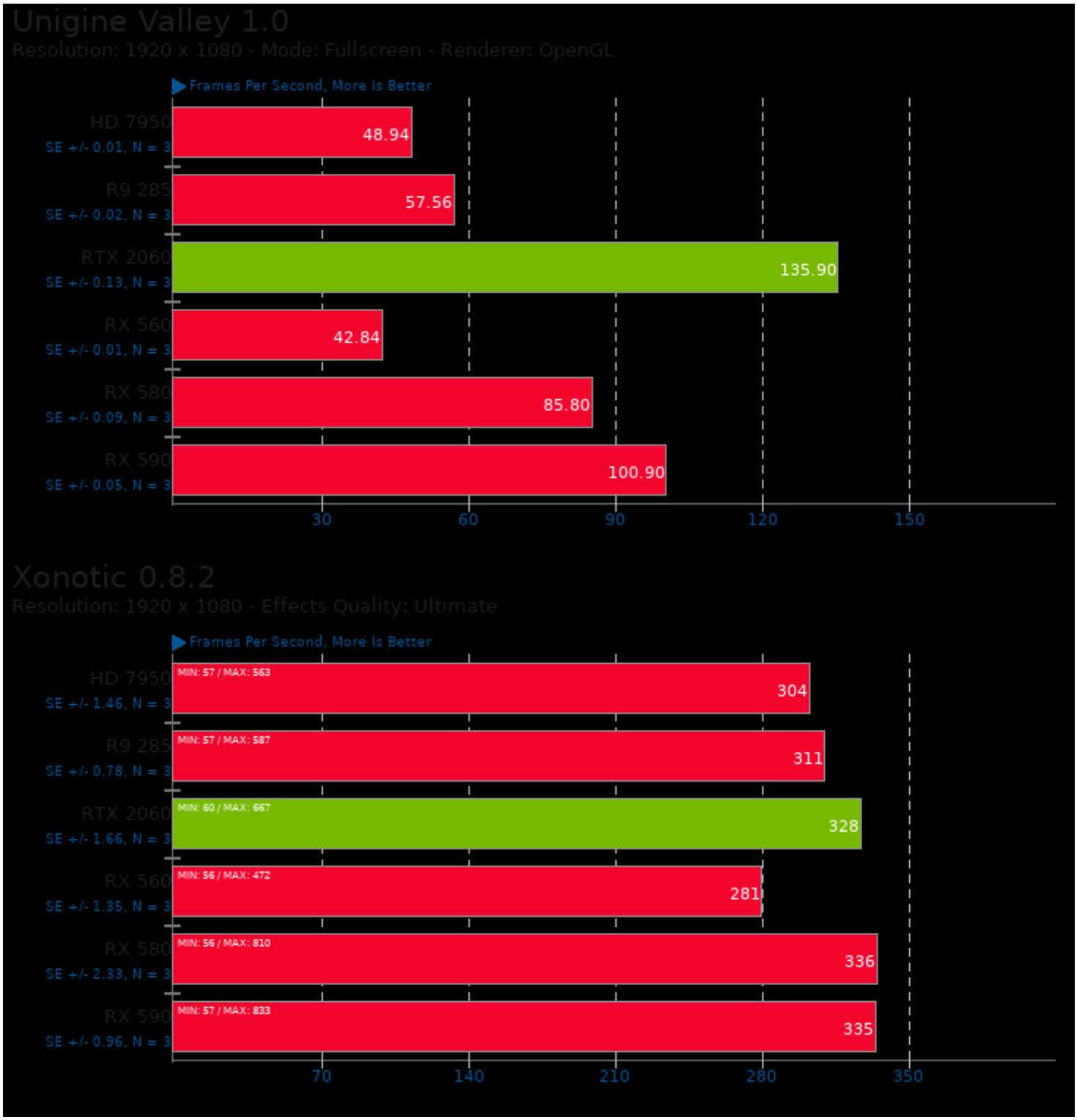
1080p Linux Gaming Benchmarks



1080p Linux Gaming Benchmarks



1080p Linux Gaming Benchmarks



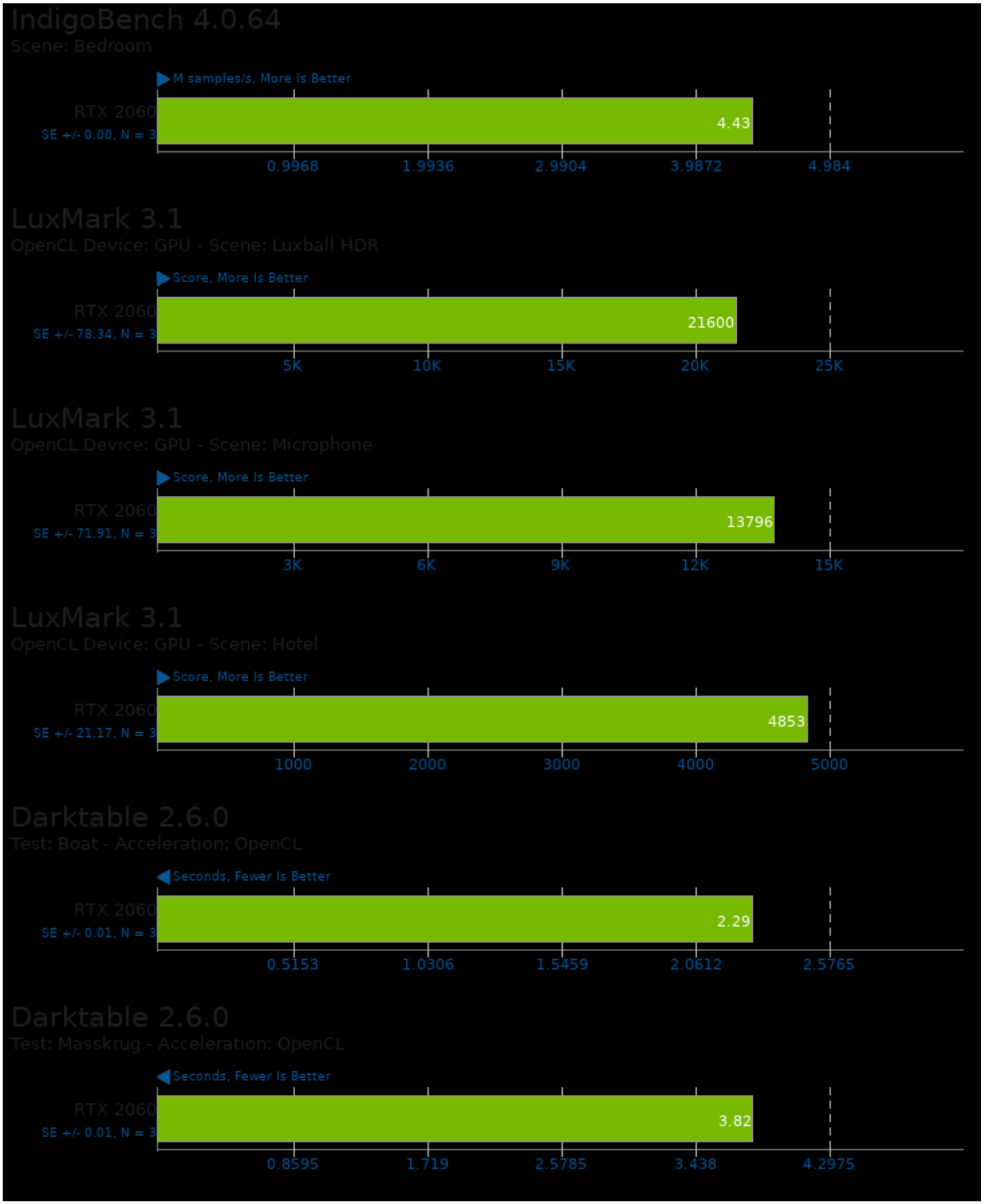
1080p Linux Gaming Benchmarks



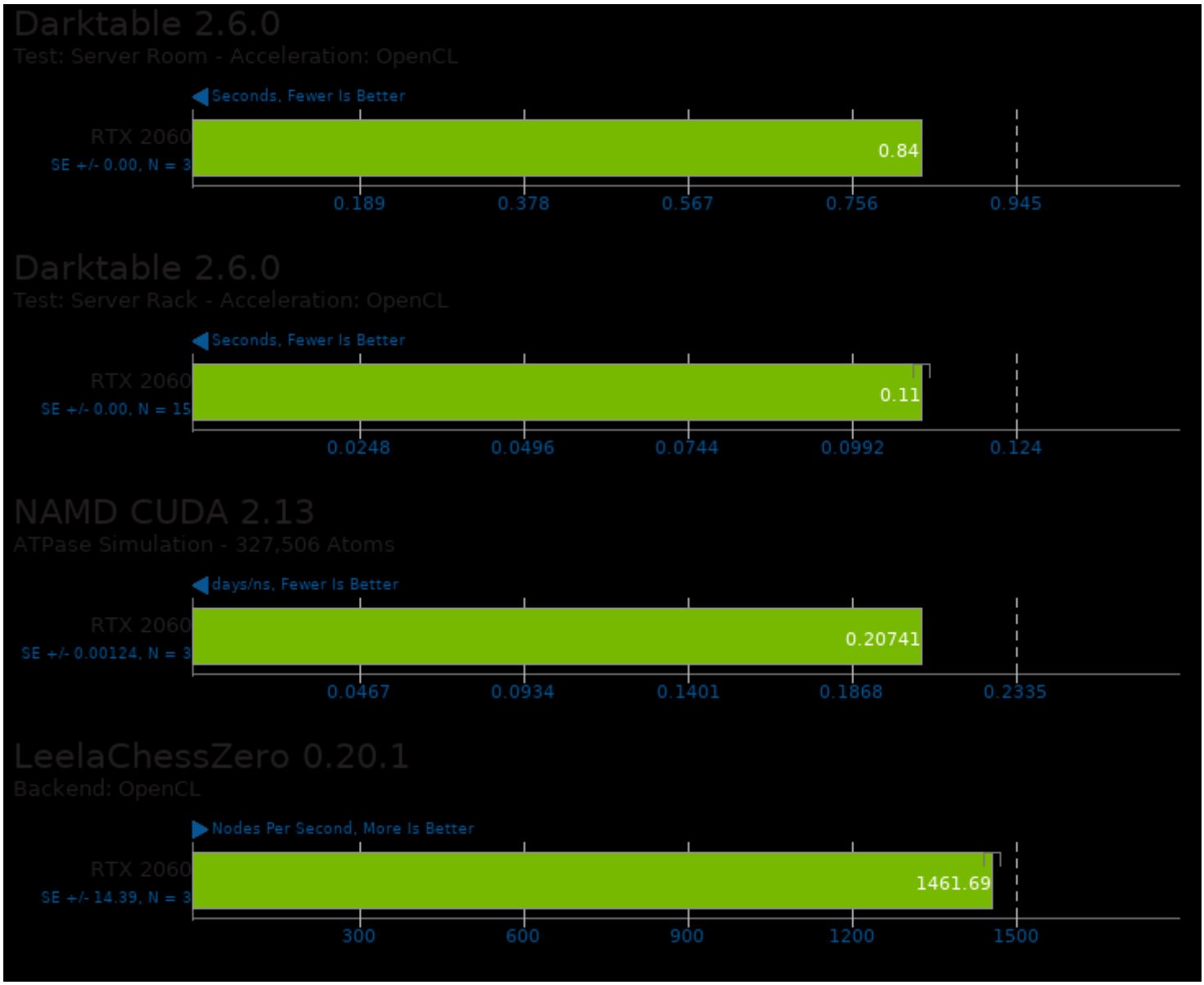
1080p Linux Gaming Benchmarks



1080p Linux Gaming Benchmarks

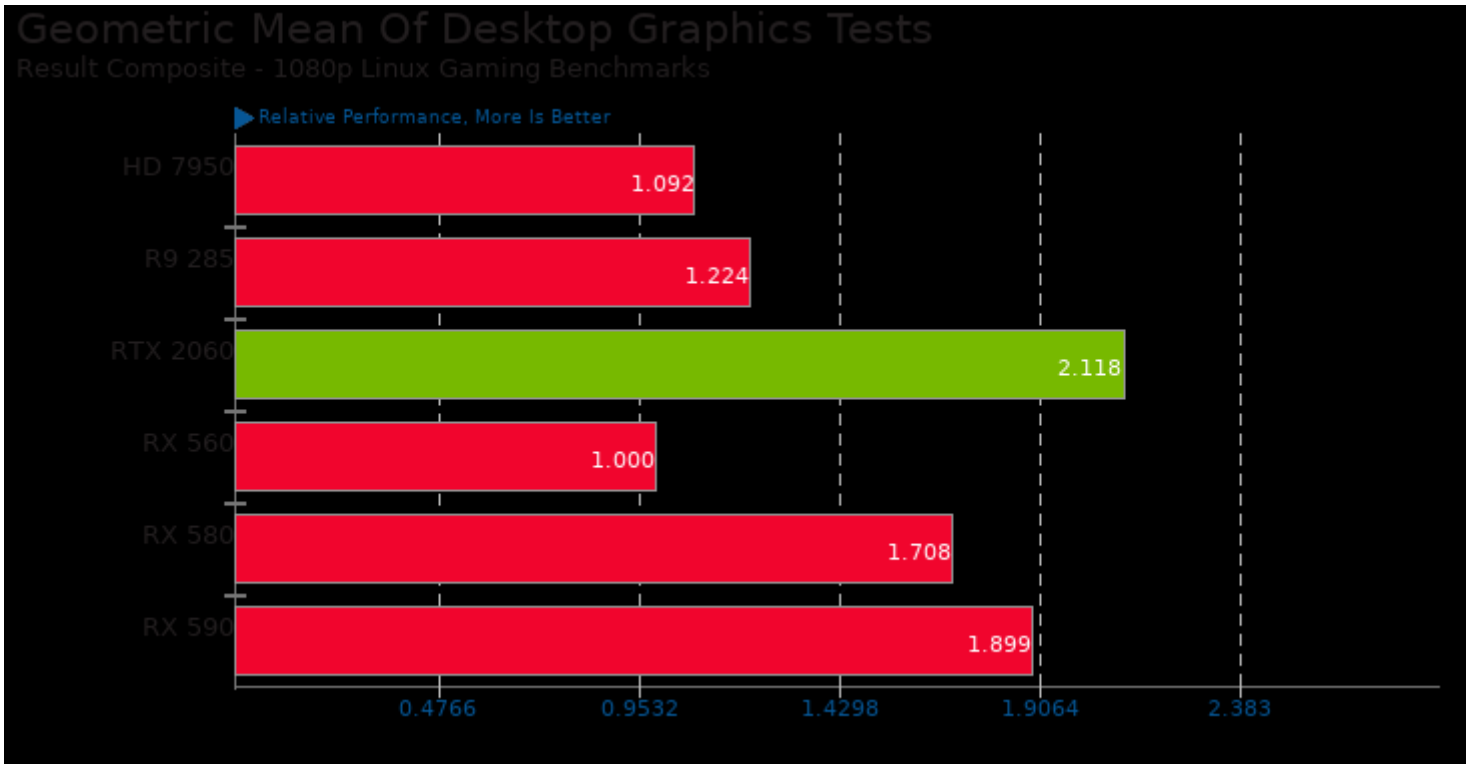


1080p Linux Gaming Benchmarks

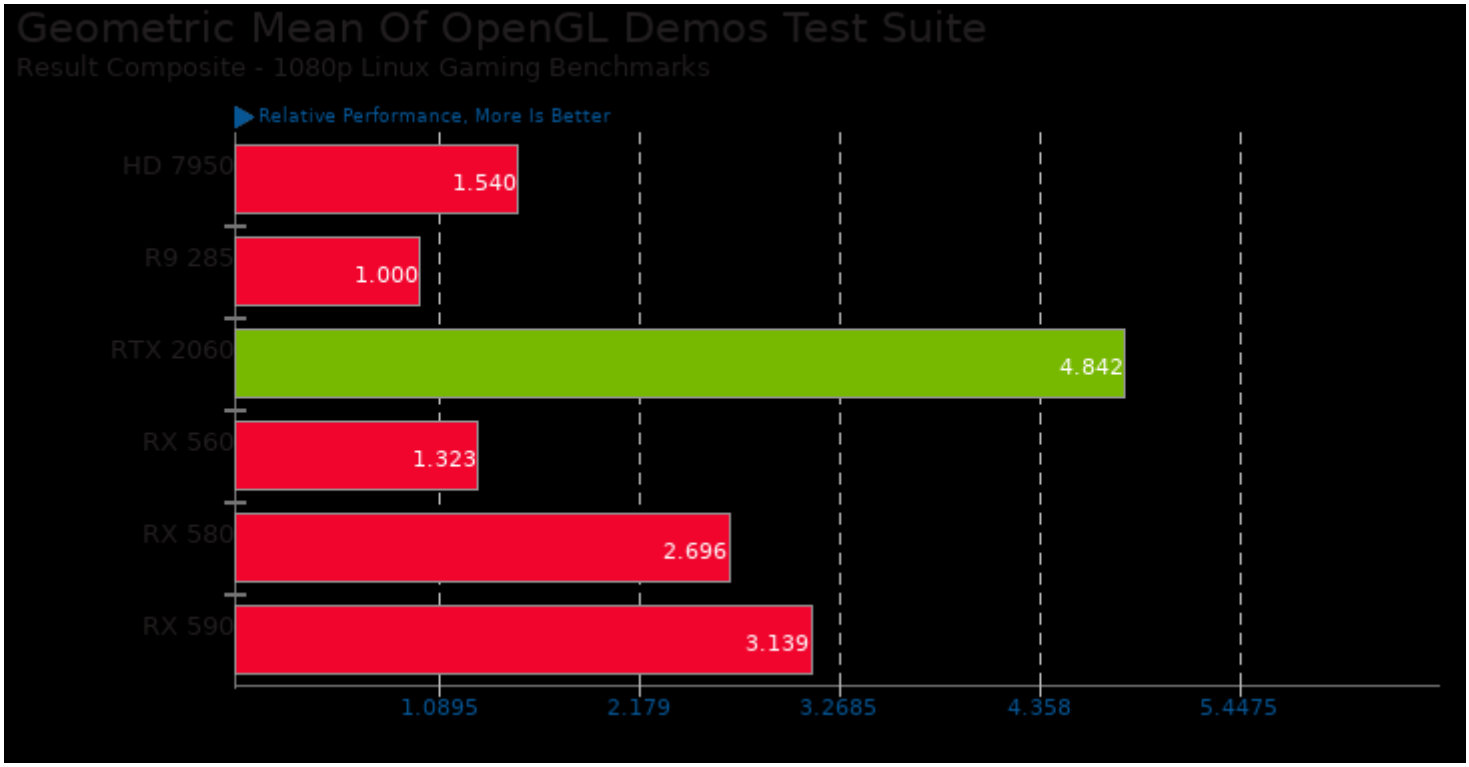


1080p Linux Gaming Benchmarks

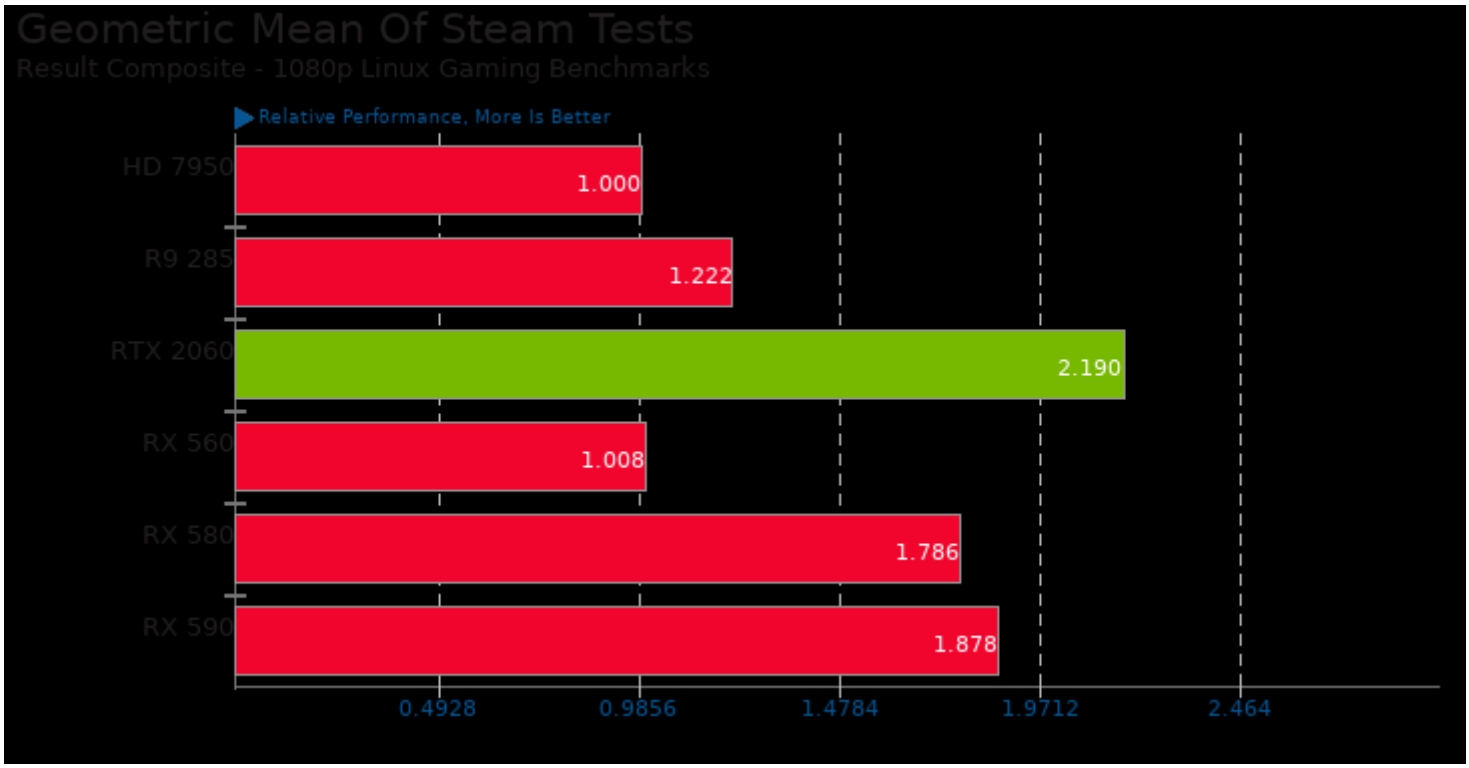
These geometric means are based upon test groupings / test suites for this result file.



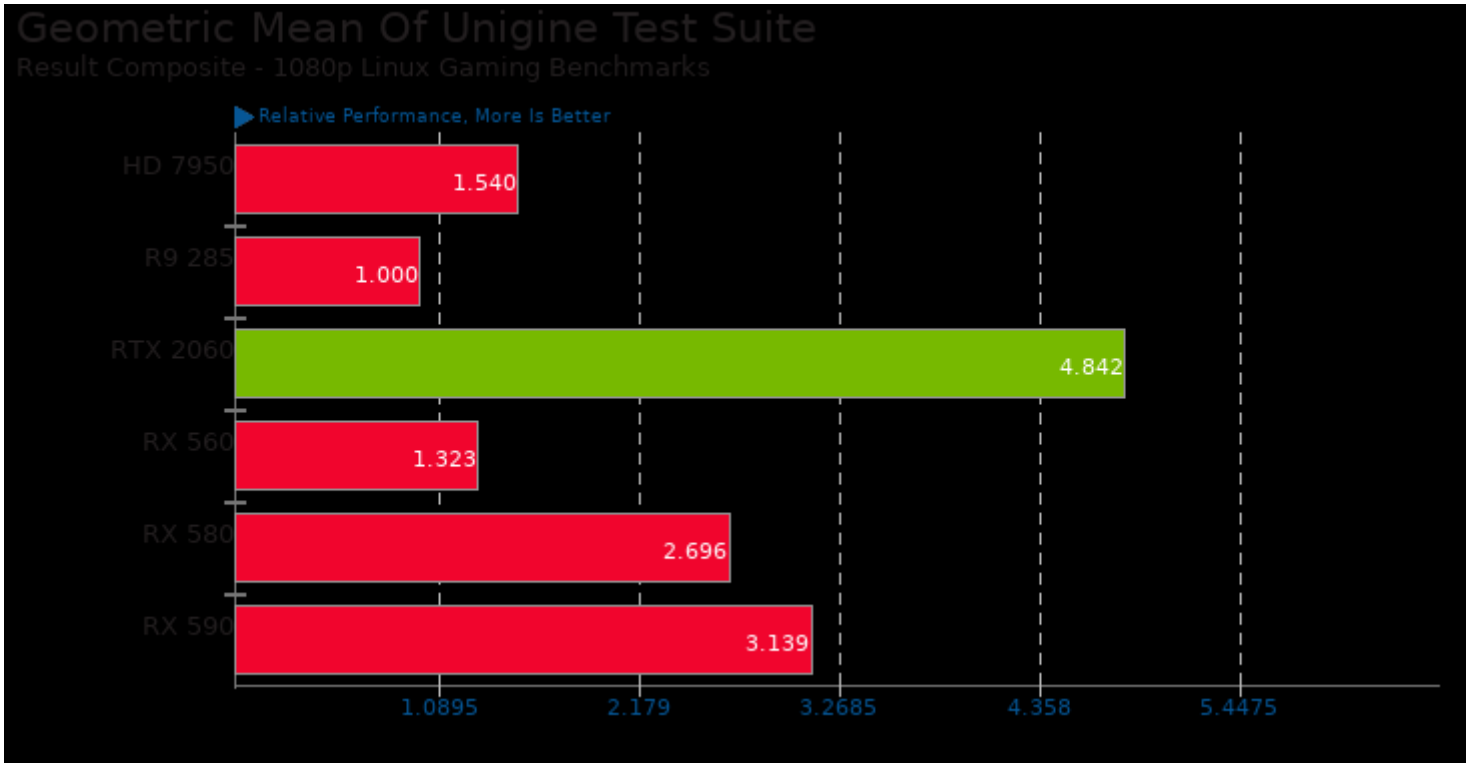
Geometric mean based upon tests: pts/xonotic, pts/tesseract, pts/unigine-valley and pts/unigine-heaven



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven and pts/unigine-super



Geometric mean based upon tests: pts/bioshock-infinite, pts/dirt-rally2, pts/dota2, pts/hitman, pts/riseofthetombraider, pts/thronesofbritannia, pts/tomb-raider, pts/tww2, pts/xplane11, pts/deus-exmd and pts/f12018



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven and pts/unigine-super

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 17:57.