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AMD Athlon 3000G Linux Graphics Vega 3 Performance

2600k at 4.4 vs newer archs

Test Systems:

Athlon 200GE

Processor: AMD Athlon 200GE @ 3.20GHz (2 Cores / 4 Threads), Motherboard: ASUS PRIME B350M-E (5220 BIOS), Chipset: AMD Raven/Raven2, Memory: 6144MB, Disk: 525GB 2115, Graphics: ASUS AMD Radeon Vega / Mobile 2GB (1000/1067MHz), Audio: AMD Raven/Raven2/Fenghuang, Monitor: DELL S2409W, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1 (LLVM 9.0.0), Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8101016
Graphics Notes: GLAMOR
Python Notes: Python 2.7.17 + Python 3.7.5

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx_async_abort: Not affected

Athlon 3000G

Processor: AMD Athlon 3000G @ 3.50GHz (2 Cores / 4 Threads), Motherboard: ASUS PRIME B350M-E (5220 BIOS), Chipset: AMD Raven/Raven2, Memory: 6144MB, Disk: 525GB 2115, Graphics: ASUS AMD Picasso 2GB (1100MHz), Audio: AMD Raven/Raven2/Fenghuang, Monitor: DELL S2409W, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1 (LLVM 9.0.0), Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8108109
Graphics Notes: GLAMOR
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx_async_abort: Not affected

A10-7850K

Processor: AMD A10-7850K APU @ 3.70GHz (2 Cores / 4 Threads), Motherboard: Gigabyte F2A88XM-D3H (F5 BIOS), Chipset: AMD 15h, Memory: 7168MB, Disk: 120GB KINGSTON SV300S3 + 525GB 2115, Graphics: AMD Radeon R7 1GB, Audio: AMD Kaveri HDMI/DP, Monitor: VA2431, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1 (LLVM 9.0.0), Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x6003103
Graphics Notes: GLAMOR
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline STIBP: disabled RSB filling + tsx_async_abort: Not affected

Ryzen 3 2200G

Processor: AMD Ryzen 3 2200G @ 3.50GHz (4 Cores), Motherboard: ASUS PRIME B350M-E (5220 BIOS), Chipset: AMD Raven/Raven2, Memory: 6144MB, Disk: 14GB INTEL MEMPEK1W016GA + 525GB 2115, Graphics: ASUS AMD Radeon Vega / Mobile 2GB (1100/1600MHz), Audio: AMD Raven/Raven2/Fenghuang, Monitor: DELL S2409W, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1 (LLVM 9.0.0), Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8101016
Graphics Notes: GLAMOR
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx_async_abort: Not affected

Ryzen 5 2400G

Processor: AMD Ryzen 5 2400G @ 3.60GHz (4 Cores / 8 Threads), Motherboard: MSI B350M GAMING PRO

(MS-7A39) v1.0 (2.NM BIOS), Chipset: AMD Raven/Raven2, Memory: 6144MB, Disk: 120GB Force MP500 + 525GB 2115, Graphics: MSI AMD Radeon Vega / Mobile 2GB (1250/1600MHz), Audio: AMD Raven/Raven2/Fenghuang, Monitor: DELL S2409W, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1 (LLVM 9.0.0), Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8101016
Graphics Notes: GLAMOR
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + tsx_async_abort: Not affected

Core i3 7100

Processor: Intel Core i3-7100 @ 3.90GHz (2 Cores / 4 Threads), Motherboard: Gigabyte B250M-DS3H-CF (F9 BIOS), Chipset: Intel Xeon E3-1200 v6/7th + B250, Memory: 8192MB, Disk: 250GB Western Digital WDS250G1B0A + 525GB 2115, Graphics: Gigabyte Intel HD 630 3GB (1100MHz), Audio: Realtek ALC887-VD, Monitor: VA2431, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1, Compiler: GCC 9.2.1 20191008, 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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-offload-targets=nvptx-none,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xca
Java Notes: OpenJDK Runtime Environment (build 11.0.5+10-post-Ubuntu-0ubuntu1.1)
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + tsx_async_abort: Not affected

Core i3 8100

Processor: Intel Core i3-8100 @ 3.60GHz (4 Cores), Motherboard: ASRock Z370M-ITX/ac (P4.10 BIOS), Chipset: Intel 8th Gen Core 4-core Desktop, Memory: 8192MB, Disk: 60GB DREVO X1 SSD + 525GB 2115, Graphics: Intel UHD 630 3GB (1100MHz), Audio: Realtek ALC892, Monitor: VA2431, Network: Intel I219-V + Intel I211 + Intel Dual Band-AC 3168NGW

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1, Compiler: GCC 9.2.1 20191008, 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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-offload-targets=nvptx-none,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xca
Java Notes: OpenJDK Runtime Environment (build 11.0.5+10-post-Ubuntu-0ubuntu1.1)
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + tsx_async_abort: Not

affected

Pentium G4400

Processor: Intel Pentium G4400 @ 3.30GHz (2 Cores), Motherboard: MSI B150M MORTAR (MS-7972) v2.0 (C.40 BIOS), Chipset: Intel Xeon E3-1200 v5/E3-1500, Memory: 8192MB, Disk: 120GB Samsung SSD 850 + 525GB 2115, Graphics: MSI Intel HD 510 3GB (1000MHz), Audio: Realtek ALC892, Monitor: VA2431, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 19.10, Kernel: 5.3.0-24-generic (x86_64), Desktop: GNOME Shell 3.34.1, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.2.1, Compiler: GCC 9.2.1 20191008, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xd6
Python Notes: Python 2.7.17 + Python 3.7.5
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + tsx_async_abort: Not affected

i72600k_4.4

Processor: Intel Core i7-2600K @ 3.40GHz (4 Cores / 8 Threads), Motherboard: ASUS P8Z77-M PRO (2203 BIOS), Memory: 2 x 8192 MB 1600MHz F3-1600C9-8GXM, Disk: 3726GB Seagate Backup+ Desktop Disk + 932GB WDC WD10EZEX-08M2NA0 + 233GB Samsung SSD 840 EVO 250GB + 238GB SAMSUNG SSD 830, Graphics: AMD Radeon RX 480 4GB, Network: TAP-Windows V9

OS: Microsoft Windows 10 Pro Build 18363, Kernel: 10.0 (x86_64), Display Driver: 26.20.15017.1005, OpenCL: OpenCL 2.1 AMD-APP (3004.8), File-System: NTFS, Screen Resolution: 2560x1440

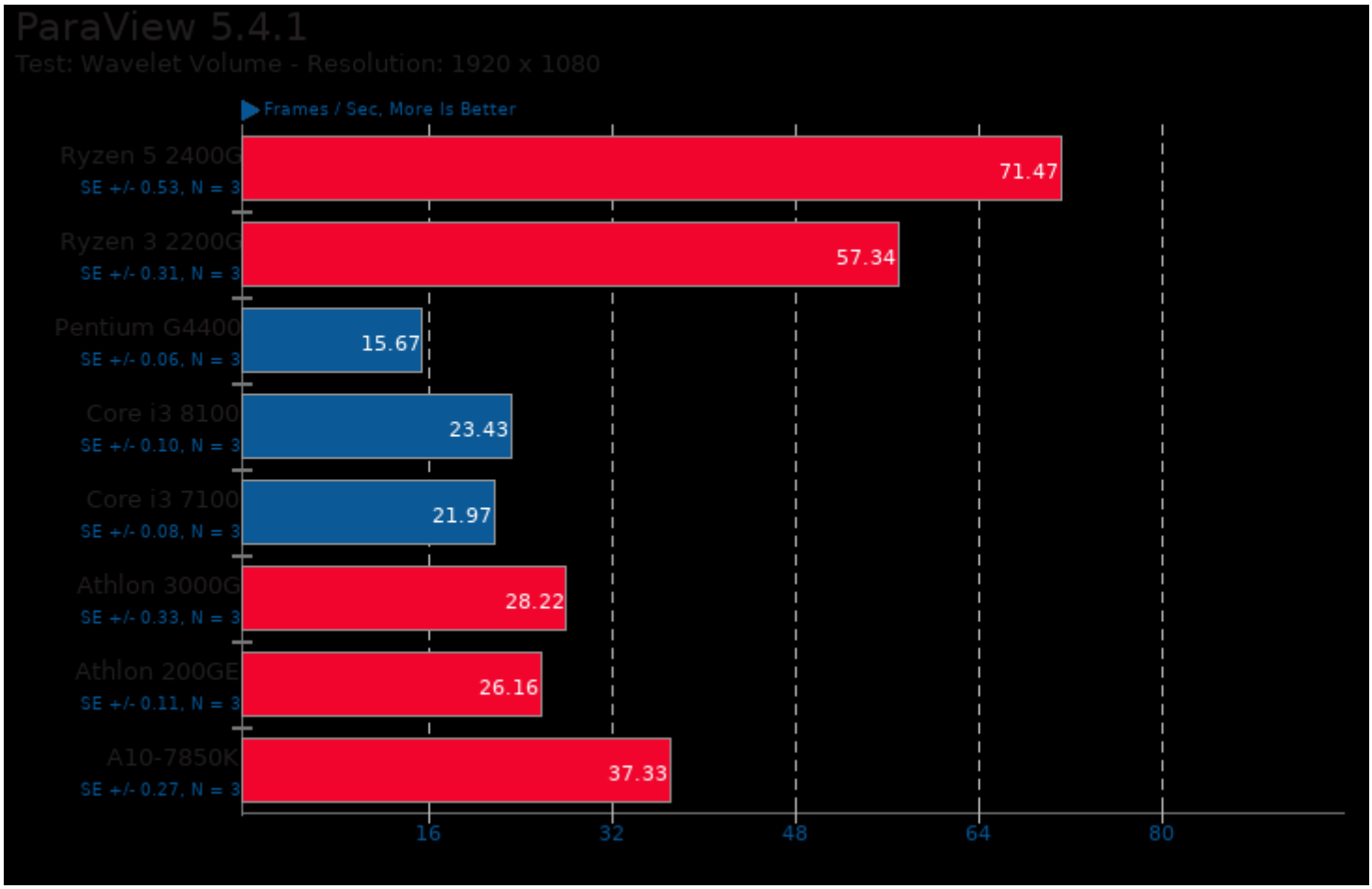
Python Notes: Python 3.7.1
Security Notes: __user pointer sanitization: Disabled + Retpoline: Full + IBPB: Always + IBRS: Enabled + STIBP: Enabled + KPTI Enabled: Yes + PTE Inversion: Yes

	Athlon 200GE	Athlon 3000G	A10-7850K	Ryzen 3 2200G	Ryzen 5 2400G	Core i3 7100	Core i3 8100	Pentium G4400	i72600k_4.4
ParaView - Wavelet Volume - 1920 x 1080 (Frames / Sec)	26.16	28.22	37.33	57.34	**71.47**	21.97	23.43	**15.67**	
Normalized	36.6%	39.49%	52.23%	80.23%	100%	30.74%	32.78%	21.93%	
Standard Deviation	0.7%	2%	1.3%	0.9%	1.3%	0.7%	0.8%	0.6%	
ParaView - Wavelet Volume - 1920 x 1080 (MiVoxels / Sec)	418.637	451.458	597.253	917.425	**1144**	351.453	374.838	**250.781**	
Normalized	36.61%	39.48%	52.23%	80.23%	100%	30.73%	32.78%	21.93%	
Standard Deviation	0.7%	2%	1.3%	0.9%	1.3%	0.7%	0.8%	0.6%	

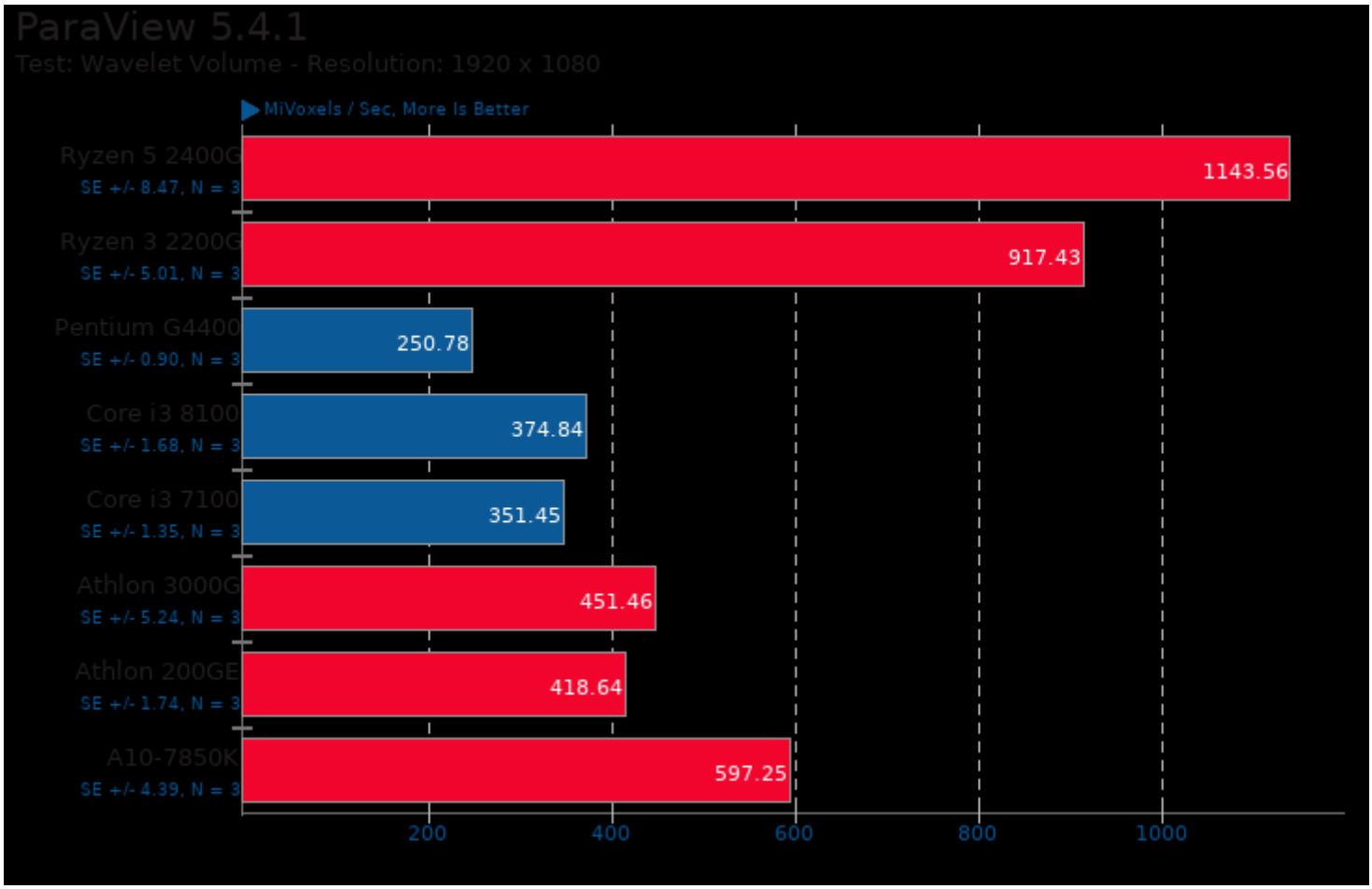
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ParaView - Wavelet Contour - 1920 x 1080 (Frames / Sec)	20.66	22.73	18.77	42.63	**54.08**	16.06	16.89	**8.09**	
Normalized	38.2%	42.03%	34.71%	78.83%	100%	29.7%	31.23%	14.96%	
Standard Deviation	0.3%	0.5%	0%	0.8%	0.3%	0.1%	0.1%	0.1%	
ParaView - Wavelet Contour - 1920 x 1080 (MiPolys / Sec)	215.274	236.874	195.668	444.267	**563.547**	167.416	176.064	**84.324**	
Normalized	38.2%	42.03%	34.72%	78.83%	100%	29.71%	31.24%	14.96%	
Standard Deviation	0.3%	0.5%	0%	0.8%	0.3%	0.1%	0.1%	0.1%	
SuperTuxKart - 1920 x 1080 - Fullscreen - Low - 2 - Candela City (FPS)	30.25054 7	31.81094 9	28.69371 6	60.94597 0	**77.32747 9**	28.08720 7	31.32744 7	**18.10259 5**	
Normalized	39.12%	41.14%	37.11%	78.82%	100%	36.32%	40.51%	23.41%	
Standard Deviation	0.8%	2.9%	0.7%	19.1%	0.8%	2.3%	0.7%	0.8%	
SuperTuxKart - 1920 x 1080 - Fullscreen - Low - 2 - Cocoa Temple (FPS)	30.06057 6	31.83899 1	29.78486 7	63.52316 0	**77.53743 0**	27.91377 8	31.31270 0	**17.75368 1**	
Normalized	38.77%	41.06%	38.41%	81.93%	100%	36%	40.38%	22.9%	
Standard Deviation	2.9%	1%	2.7%	0.3%	2.1%	3.5%	2.7%	2.8%	
Tesseract - 1920 x 1080 (FPS)	81.46053	85.55690	70.70322	160.2534	**188.2218**	56.71783	61.47094	**35.64314**	
Normalized	43.28%	45.46%	37.56%	85.14%	100%	30.13%	32.66%	18.94%	
Standard Deviation	0.5%	0.5%	0.8%	0.3%	1.3%	0.5%	0.8%	1.1%	
Xonotic - 1920 x 1080 - Low (FPS)	247.2136 890	272.2196 065	178.8655 671	320.1848 279	**330.2447 742**	174.1478 438	200.3361 674	**149.3342 157**	236.8301 077
Normalized	74.86%	82.43%	54.16%	96.95%	100%	52.73%	60.66%	45.22%	71.71%
Standard Deviation	0.2%	0.3%	0.1%	0.1%	0.4%	0.3%	0.6%	0%	0.3%
Xonotic - 1920 x 1080 - High (FPS)	153.2216 761	165.5928 620	106.6500 348	239.9673 497	**249.3097 362**	111.0442 262	124.7073 850	**68.46146 64**	190.9256 406
Normalized	61.46%	66.42%	42.78%	96.25%	100%	44.54%	50.02%	27.46%	76.58%
Standard Deviation	0.1%	0.2%	1.1%	0.2%	1%	0.1%	0.1%	0.1%	0.4%
Xonotic - 1920 x 1080 - Ultra (FPS)	115.5482 496	125.3427 445	91.67692 87	205.1011 401	**224.0684 680**	88.04287 19	96.74599 48	**51.83336 79**	160.9757 712
Normalized	51.57%	55.94%	40.91%	91.54%	100%	39.29%	43.18%	23.13%	71.84%
Standard Deviation	0.4%	0.3%	0.1%	0.2%	0.8%	0.2%	0.1%	0.1%	0%
Xonotic - 1920 x 1080 - Ultimate (FPS)	76.70680 77	83.33550 15	64.59598 89	153.2892 837	**174.7301 619**	64.35610 99	70.32779 41	**37.47025 87**	128.4177 392
Normalized	43.9%	47.69%	36.97%	87.73%	100%	36.83%	40.25%	21.44%	73.49%
Standard Deviation	0.1%	0.1%	0.3%	0.4%	4.2%	0%	0.2%	0%	0.1%

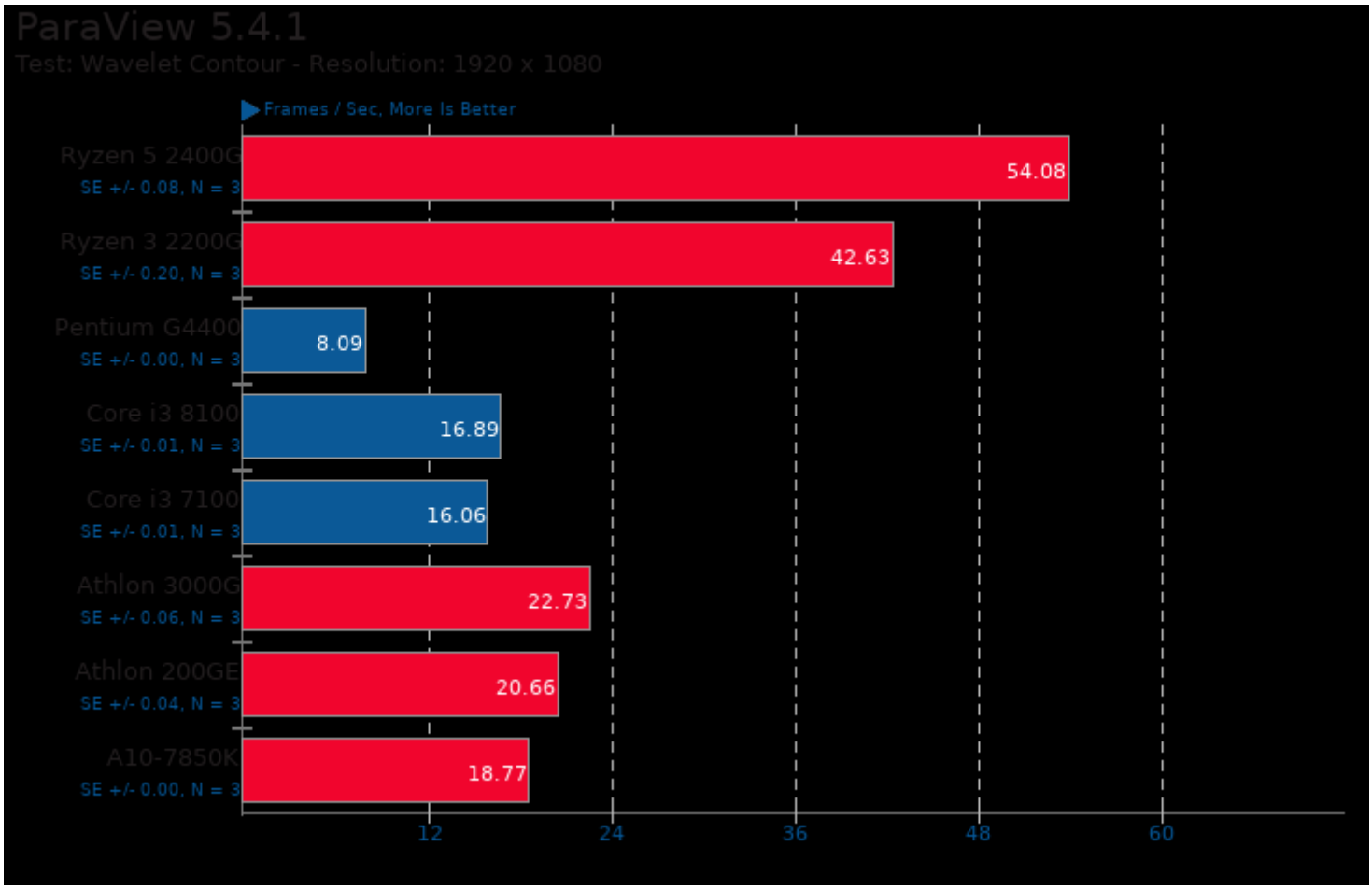
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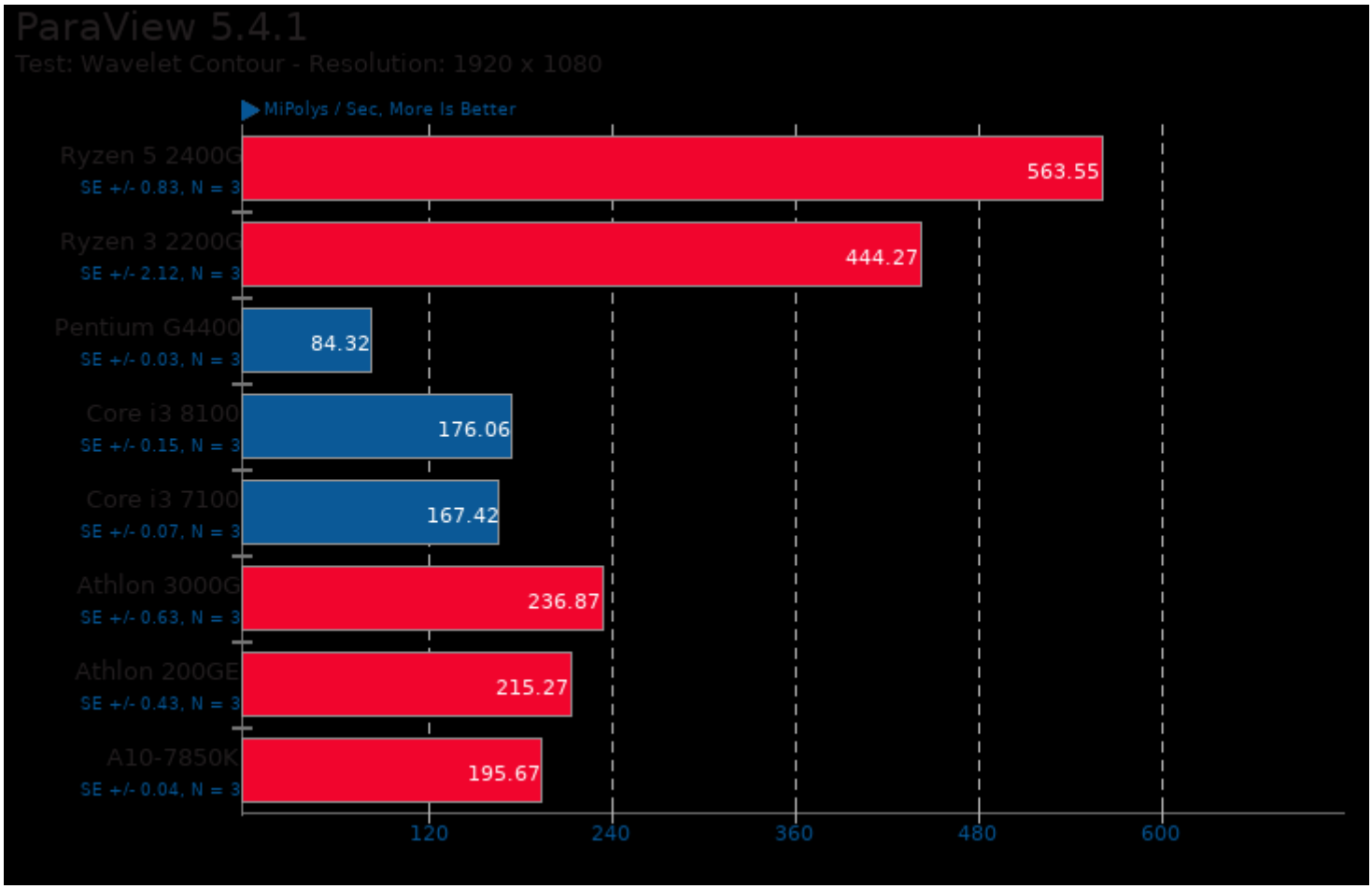
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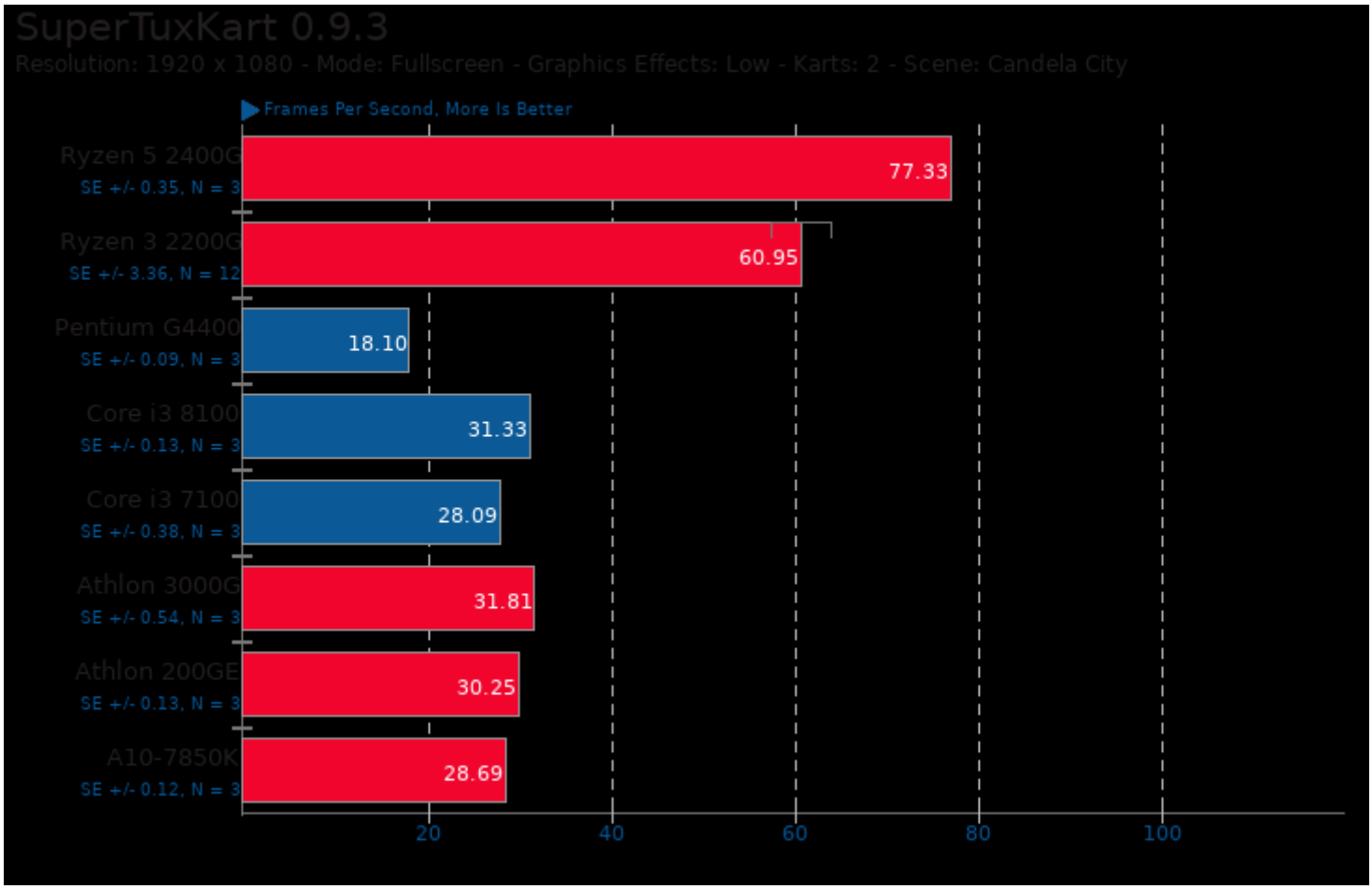
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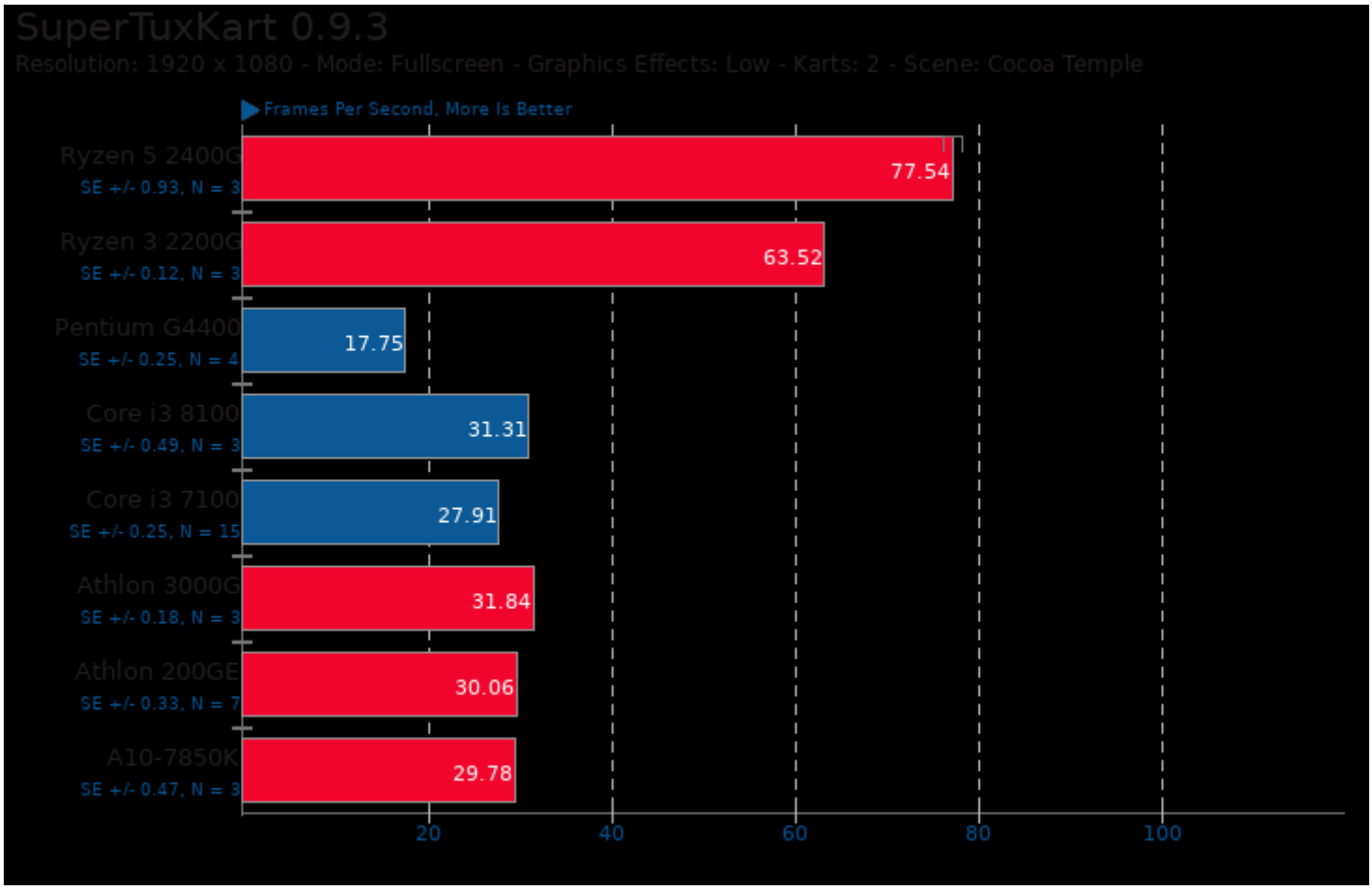
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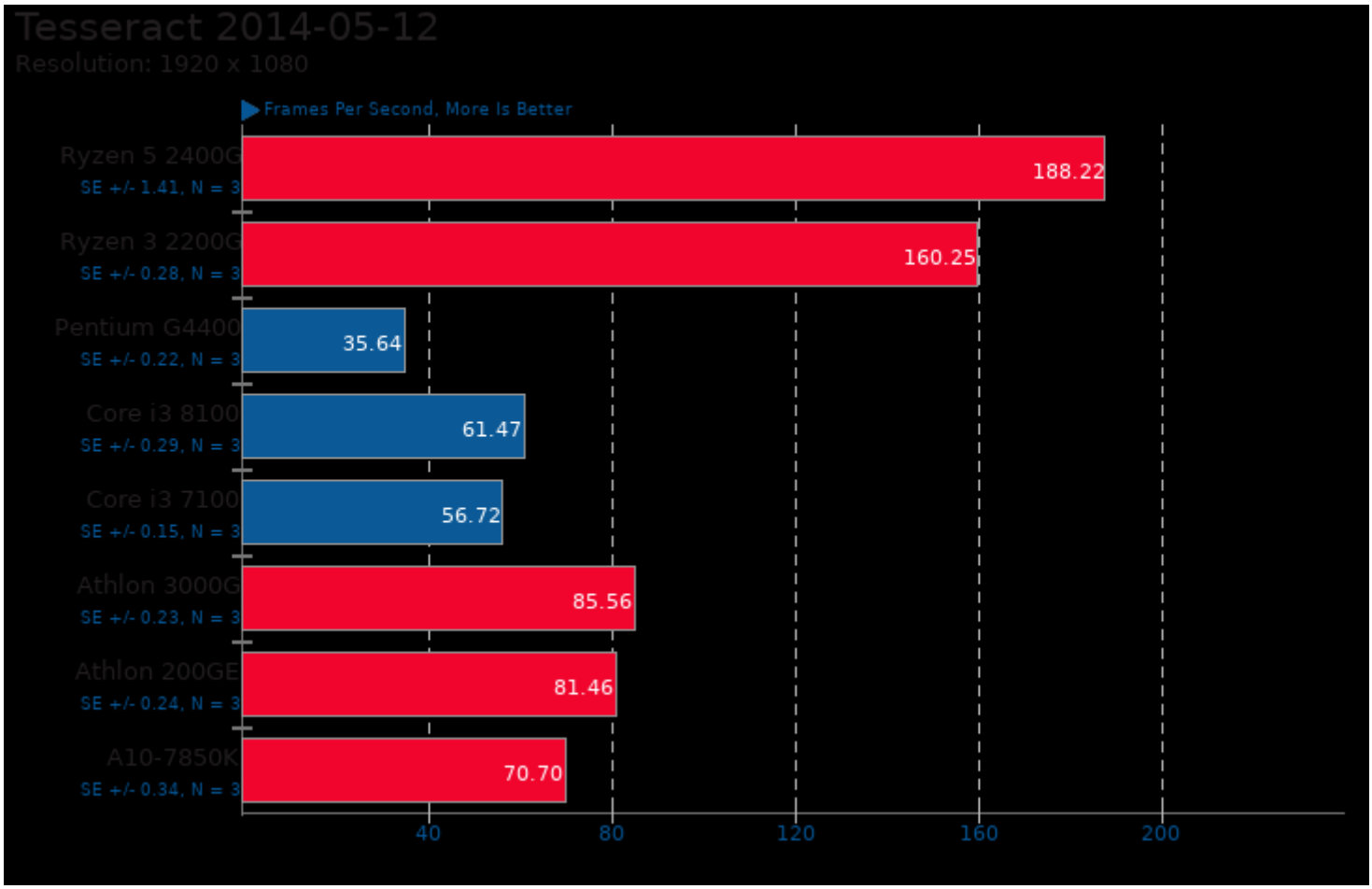
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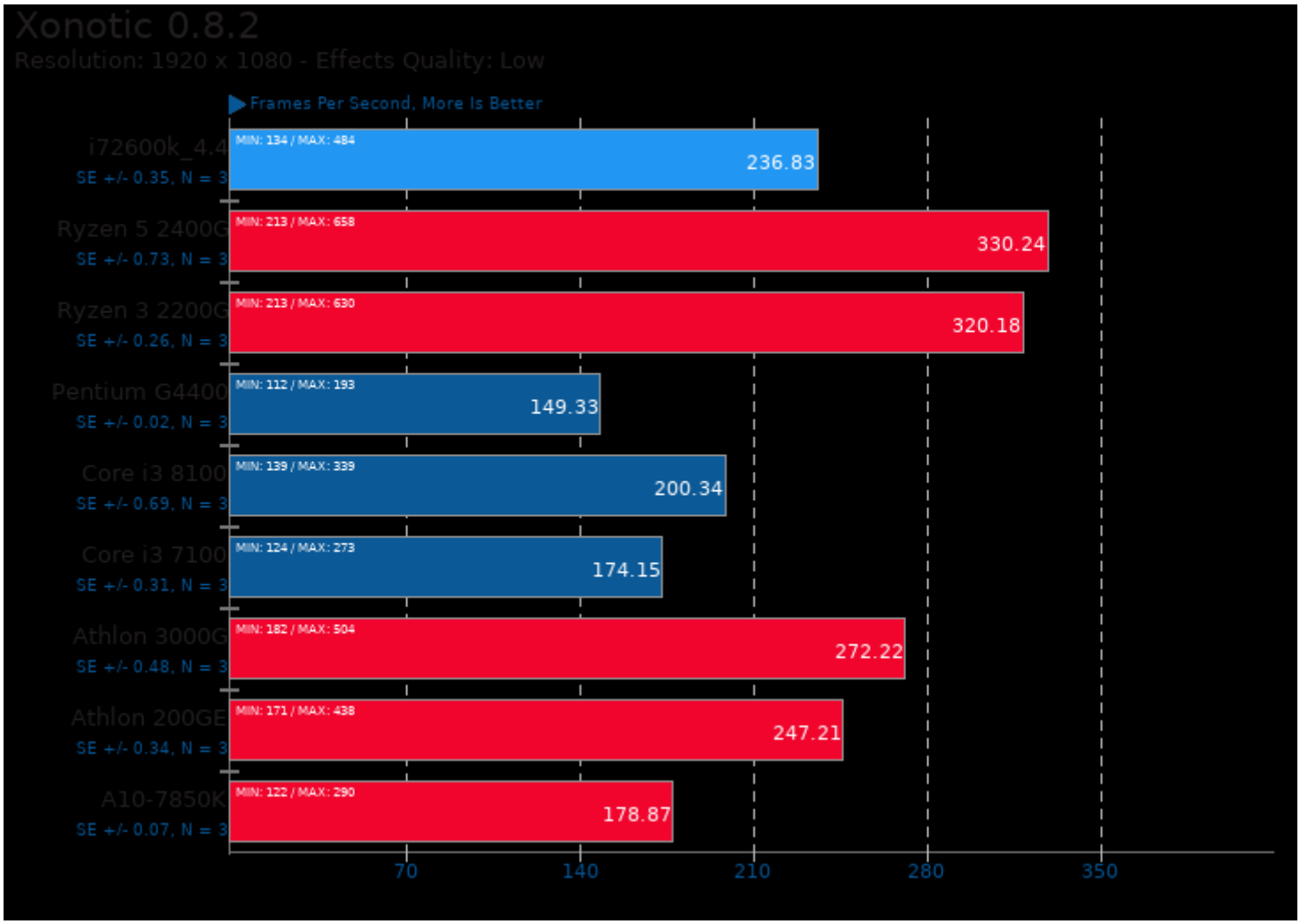
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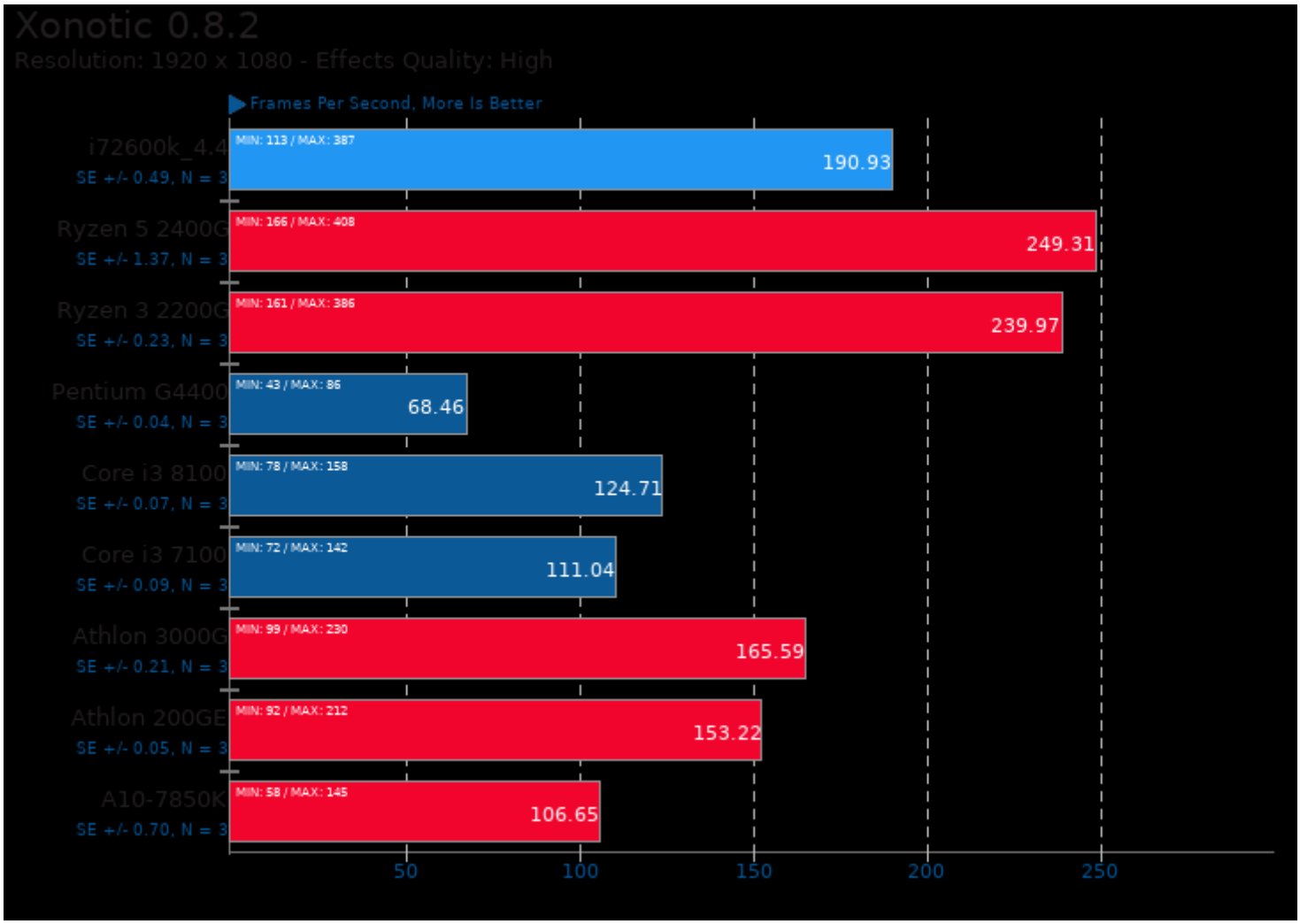
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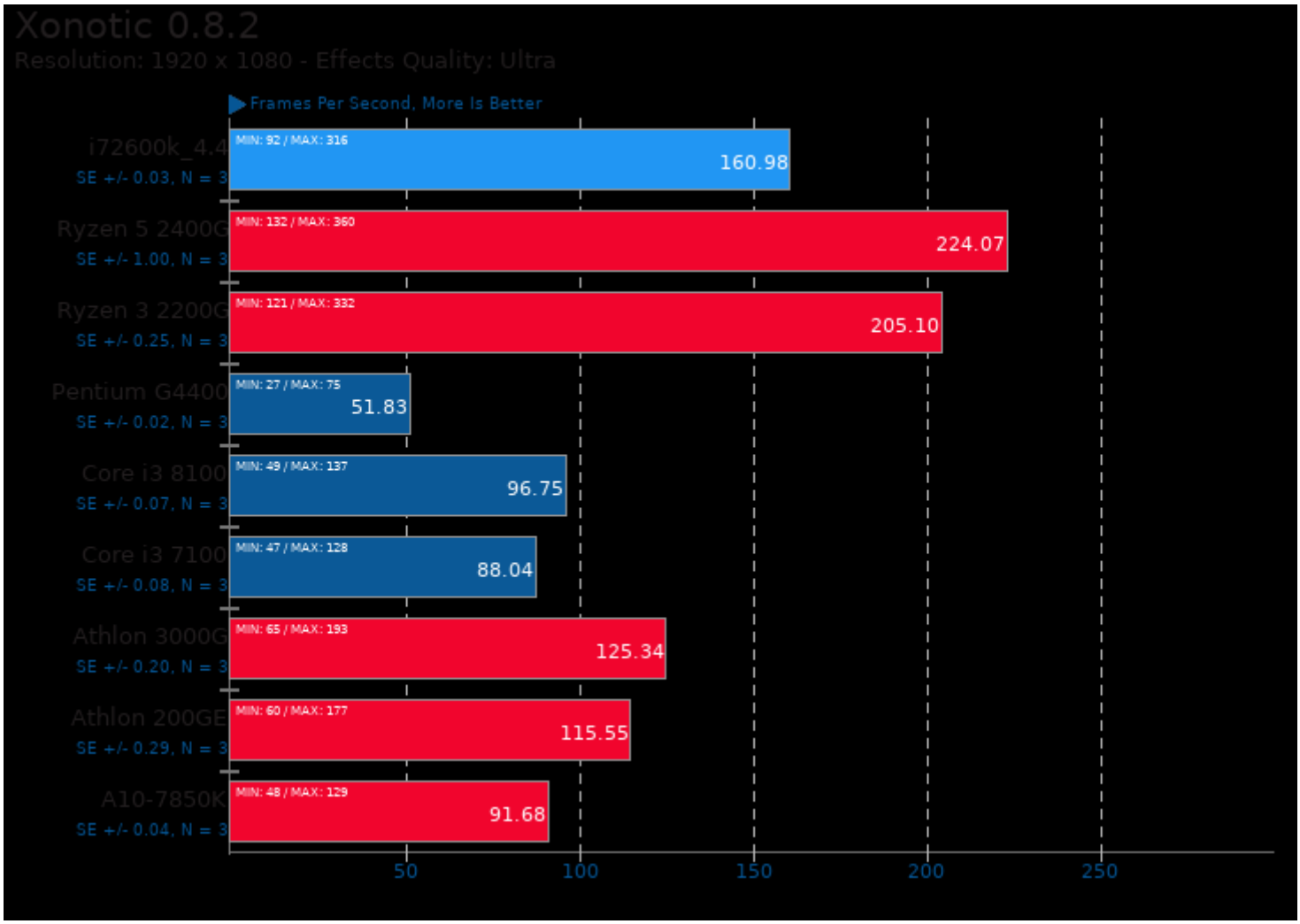
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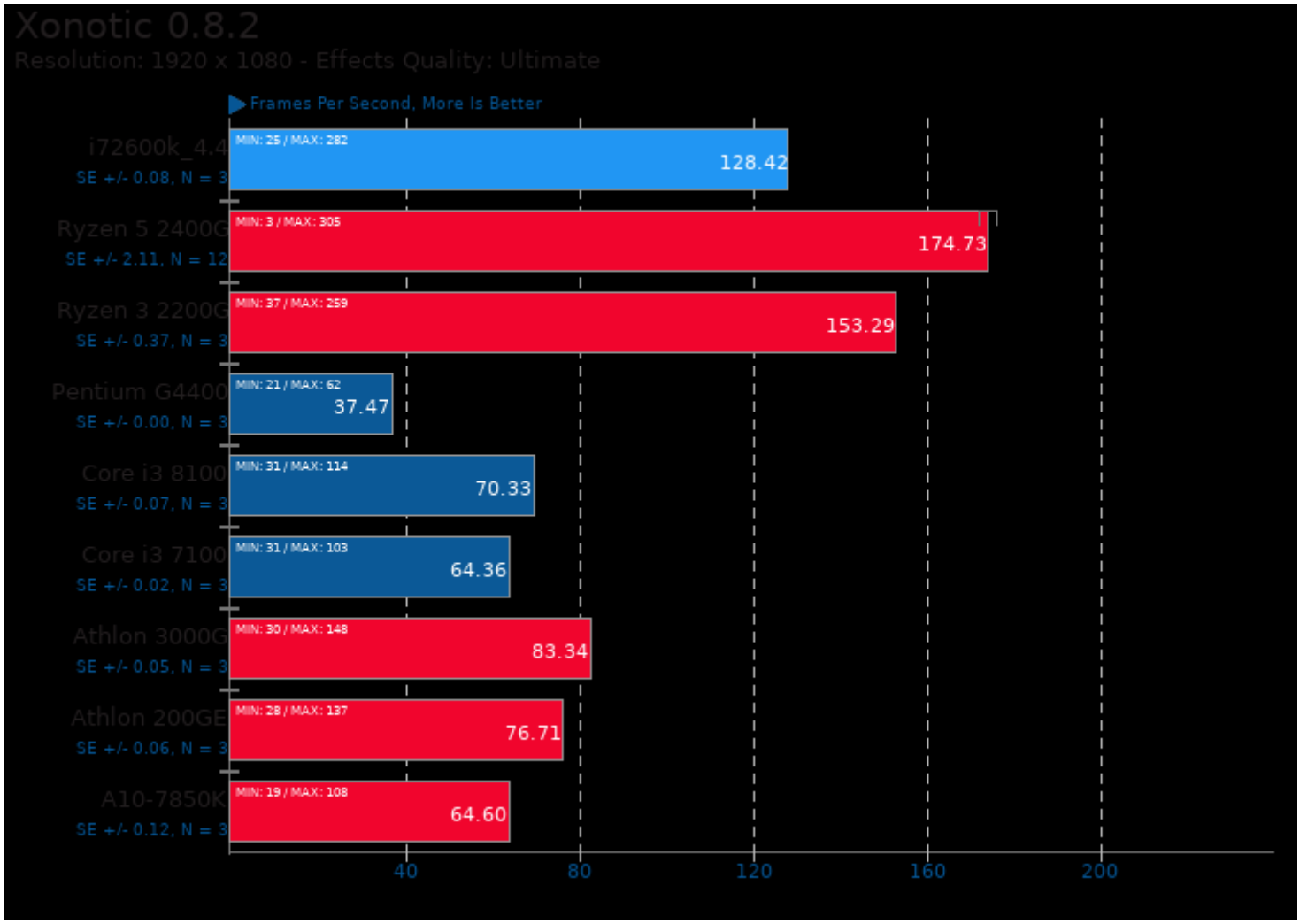
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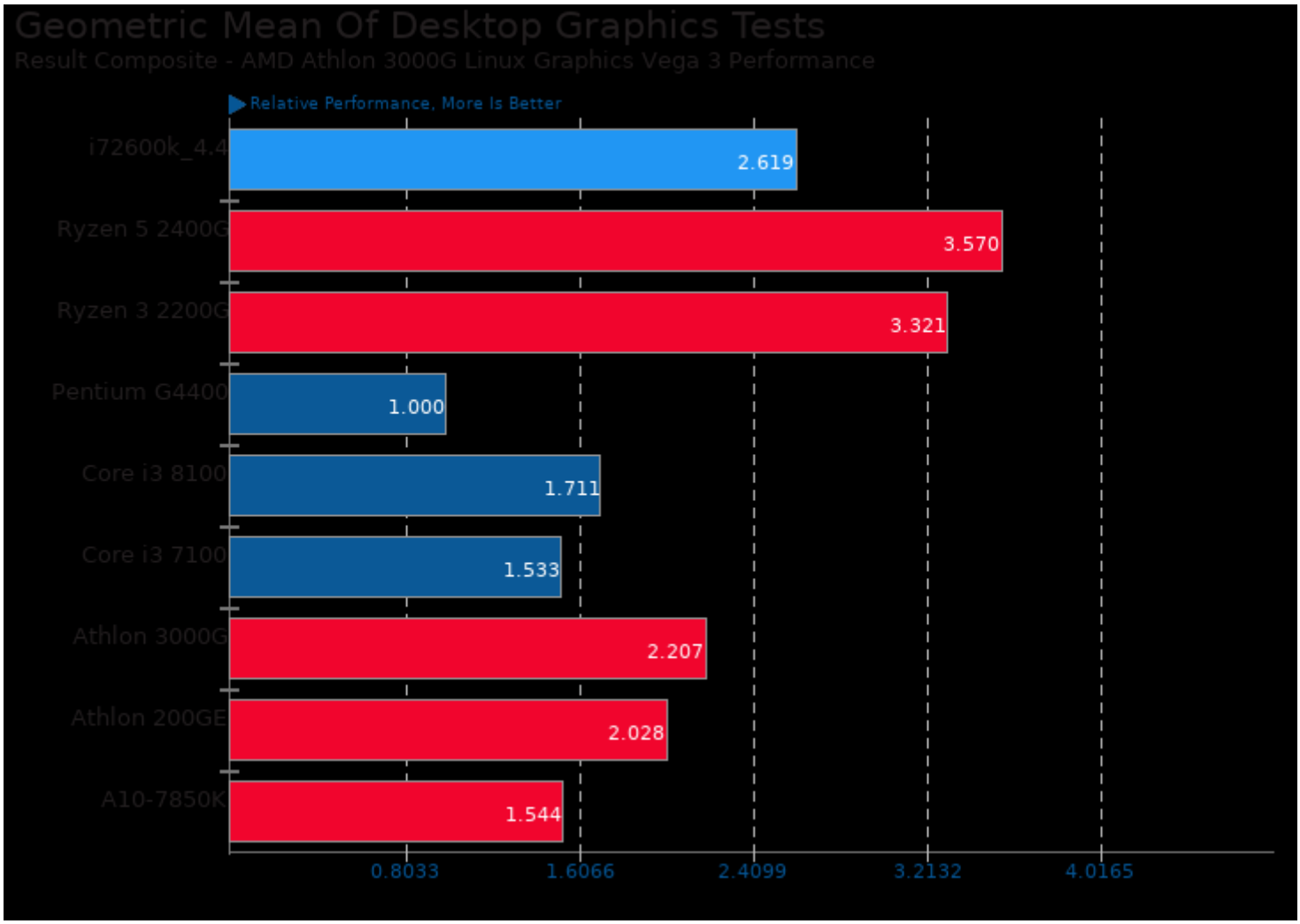


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These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/xonotic, pts/tesseract and pts/paraview

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 08:50.