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AMD Ryzen 7 5700G Linux Benchmarks

run with XMP@4000MT and pastes (TX13 and Kryonaut) applied

Automated Executive Summary

Streacom DB4 - 5700G had the most wins, coming in first place for 77% of the tests.

Based on the geometric mean of all complete results, the fastest (Streacom DB4 - 5700G) was 1.035x the speed of the slowest (Michael - Ryzen 7 5700G).

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

Ngspice (Circuit: C7552) at 1.424x

ctx_clock (Context Switch Time) at 1.25x

VP9 libvpx Encoding (Speed: Speed 5 - Input: Bosphorus 4K) at 1.19x

Ngspice (Circuit: C2670) at 1.167x

PJSIP (Method: INVITE) at 1.162x

Zstd Compression (Compression Level: 19 - Decompression Speed) at 1.149x

QuantLib at 1.117x

VP9 libvpx Encoding (Speed: Speed 5 - Input: Bosphorus 1080p) at 1.114x

PHPBench (PHP Benchmark Suite) at 1.094x

SVT-HEVC (Tuning: 10 - Input: Bosphorus 1080p) at 1.091x.

Test Systems:

Michael - Ryzen 7 5700G

Processor: AMD Ryzen 7 5700G @ 3.80GHz (8 Cores / 16 Threads), Motherboard: ASUS TUF GAMING B550M-PLUS (WI-FI) (2423 BIOS), Chipset: AMD Renoir Root Complex, Memory: 16GB, Disk: 1000GB Samsung SSD 980 PRO 1TB + 500GB, Graphics: ASUS AMD Cezanne 512MB (2000/1800MHz), Audio: AMD Device 1637, Monitor: LG Ultra HD, Network: Realtek RTL8125 2.5GbE + Intel Wi-Fi 6 AX200

OS: Ubuntu 21.04, Kernel: 5.11.0-25-generic (x86_64), Desktop: GNOME Shell 3.38.4, Display Server: X Server 1.20.11 + Wayland, OpenGL: 4.6 Mesa 21.3.0-devel (git-0092edf 2021-08-14 hirsute-oibaf-ppa) (LLVM 12.0.1), Vulkan: 1.2.185, Compiler: GCC 10.3.0, 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-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,objc++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/usr,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-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 schedutil (Boost: Enabled) - CPU Microcode: 0xa50000c
 Python Notes: Python 3.9.5
 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/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbd: Not affected + tsx_async_abort: Not affected

Streacom DB4 - 5700G

Processor: AMD Ryzen 7 5700G @ 3.80GHz (8 Cores / 16 Threads), Motherboard: Gigabyte B550I AORUS PRO AX (F14 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 32GB, Disk: 1000GB Samsung SSD 980 1TB + 64GB Seagate STORAGE DEVICE, Graphics: Gigabyte AMD Cezanne 512MB (2000/2000MHz), Audio: AMD Renoir Radeon HD Audio, Monitor: O243AT, Network: Realtek RTL8125 2.5GbE + Intel Wi-Fi 6 AX200

OS: Ubuntu 21.10, Kernel: 5.13.0-25-generic (x86_64), Desktop: Xfce 4.16, Display Server: X Server 1.20.13, OpenGL: 4.6 Mesa 21.2.2 (LLVM 12.0.1), OpenCL: OpenCL 1.1 Mesa 21.2.2, Vulkan: 1.2.182, Compiler: GCC 11.2.0 + Clang 13.0.0-2, 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,objc++,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-ZPT0kp/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgn-amdhsa=/build/gcc-11-ZPT0kp/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 schedutil (Boost: Enabled) - CPU Microcode: 0xa50000c
 Python Notes: Python 3.9.7
 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/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbd: Not affected + tsx_async_abort: Not affected

Michael - Ryzen 7 5700G Streacom DB4 - 5700G

QuantLib (MFLOPS)	3111	3476
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Normalized 89.51%

100%

	Standard Deviation	0.5%	1.5%
EtcPak - DXT1 (Mpx/s)	1462	1475	
Normalized	99.14%	100%	
	Standard Deviation	0.8%	0.2%
EtcPak - ETC2 (Mpx/s)	228.760	229.048	
Normalized	99.87%	100%	
	Standard Deviation	0.3%	0%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	1.99710	1.96739	
Normalized	98.51%	100%	
	Standard Deviation	1%	0.1%
Xcompact3d Incompact3d - i.i.1.C.P.D (sec)	48.0793600	45.9715576	
Normalized	95.62%	100%	
	Standard Deviation	2.4%	0.9%
Chia Blockchain VDF - Square Plain C++ (IPS)	202967	206333	
Normalized	98.37%	100%	
	Standard Deviation	0.4%	0.4%
LZ4 Compression - 3 - Compression Speed (MB/s)	68.15	67.39	
Normalized	100%	98.88%	
	Standard Deviation	2.8%	0.1%
LZ4 Compression - 9 - Compression Speed (MB/s)	66.70	65.80	
Normalized	100%	98.65%	
	Standard Deviation	2.4%	0.1%
Zstd Compression - 19 - Compression Speed (MB/s)	30.0	32.2	
Normalized	93.17%	100%	
	Standard Deviation	1.6%	0.5%
Zstd Compression - 19 - D.S (MB/s)	3359	3860	
Normalized	87.02%	100%	
	Standard Deviation	0.4%	1.1%
Zstd Compression - 3, Long Mode - D.S (MB/s)	4437	4646	
Normalized	95.49%	100%	
	Standard Deviation	0.2%	1.6%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	25.6	27.8	
Normalized	92.09%	100%	
	Standard Deviation	0.8%	1.5%
Zstd Compression - 19, Long Mode - D.S (MB/s)	3580	3623	
Normalized	98.81%	100%	
	Standard Deviation	0.4%	14.6%
LibRaw - P.P.B (Mpix/sec)	48.02	50.15	
Normalized	95.75%	100%	
	Standard Deviation	0.3%	0.1%
dav1d - Summer Nature 4K (FPS)	115.73	123.65	
Normalized	93.59%	100%	
	Standard Deviation	0.3%	0.1%
dav1d - S.N.1 (FPS)	430.85	461.34	
Normalized	93.39%	100%	
	Standard Deviation	0.8%	0.2%
OSPRay - San Miguel - SciVis (FPS)	15.38	15.625	
Normalized	98.43%	100%	
	Standard Deviation	0%	0%
OSPRay - San Miguel - Path Tracer (FPS)	1.26	1.30	
Normalized	96.92%	100%	
	Standard Deviation	0.3%	0.5%
OSPRay - M.R - SciVis (FPS)	11.76	12.05	
Normalized	97.59%	100%	

	Standard Deviation	0%	0%
OSPray - M.R - Path Tracer (FPS)	166.67	166.67	
	Standard Deviation	0%	0%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	3.44	3.65	
	Normalized	94.25%	100%
	Standard Deviation	0.3%	0.2%
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	13.03	13.49	
	Normalized	96.59%	100%
	Standard Deviation	0.3%	0.3%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	6.37	6.84	
	Normalized	93.13%	100%
	Standard Deviation	1.5%	0.5%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	38.58	40.94	
	Normalized	94.24%	100%
	Standard Deviation	0.5%	0.3%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p	6.44	6.74	
	Normalized	95.55%	100%
	Standard Deviation	0.1%	0.7%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p	22.85	24.20	
	Normalized	94.42%	100%
	Standard Deviation	0.1%	0.3%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p	17.57	18.66	
	Normalized	94.16%	100%
	Standard Deviation	0.3%	0.4%
Embree - Pathtracer - Crown (FPS)	12.3111	12.6865	
	Normalized	97.04%	100%
	Standard Deviation	0.7%	0.6%
Embree - Pathtracer ISPC - Crown (FPS)	11.4847	11.6586	
	Normalized	98.51%	100%
	Standard Deviation	0.4%	0.4%
Embree - Pathtracer - Asian Dragon (FPS)	14.3630	14.8965	
	Normalized	96.42%	100%
	Standard Deviation	0.6%	0.3%
Embree - Pathtracer ISPC - Asian Dragon (FPS)	13.0636	13.5264	
	Normalized	96.58%	100%
	Standard Deviation	0.3%	0.9%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	1.421	1.501	
	Normalized	94.67%	100%
	Standard Deviation	0.4%	0.2%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	13.701	14.52	
	Normalized	94.36%	100%
	Standard Deviation	1%	0.4%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	4.763	4.980	
	Normalized	95.64%	100%
	Standard Deviation	0.8%	0.2%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	44.578	48.531	
	Normalized	91.85%	100%
	Standard Deviation	0.7%	0.5%
SVT-HEVC - 7 - Bosphorus 1080p (FPS)	73.08	78.65	
	Normalized	92.92%	100%
	Standard Deviation	1.7%	0.6%
SVT-HEVC - 10 - Bosphorus 1080p (FPS)	154.17	168.19	
	Normalized	91.66%	100%
	Standard Deviation	0.7%	0.9%
SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)	102.57	109.45	

	Normalized	93.71%	100%
	Standard Deviation	2%	1.1%
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)	105.35	112.11	
	Normalized	93.97%	100%
	Standard Deviation	0.9%	0.4%
VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)	13.58	16.16	
	Normalized	84.03%	100%
	Standard Deviation	1.6%	1.6%
VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p	29.80	33.21	
	Normalized	89.73%	100%
	Standard Deviation	1%	2.6%
x265 - Bosphorus 4K (FPS)	10.31	11.03	
	Normalized	93.47%	100%
	Standard Deviation	1.7%	2%
x265 - Bosphorus 1080p (FPS)	47.61	48.31	
	Normalized	98.55%	100%
	Standard Deviation	2%	1%
Intel Open Image Denoise - RT.Idr_alb_nrm.3840x2160 (Images / Sec)	0.31	0.32	
	Normalized	96.88%	100%
	Standard Deviation	0.4%	0.8%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	398054	405510	
	Normalized	98.16%	100%
	Standard Deviation	0.1%	0.2%
7-Zip Compression - C.S.T (MIPS)	44004	45011	
	Normalized	97.76%	100%
	Standard Deviation	1%	0.5%
Stockfish - Total Time (Nodes/s)	28348320	28201873	
	Normalized	100%	99.48%
	Standard Deviation	2%	1.4%
asmFish - 1.H.M.2.D (Nodes/s)	33563123	33155850	
	Normalized	100%	98.79%
	Standard Deviation	1.4%	1.5%
PJSIP - INVITE (Responses/sec)	4192	4871	
	Normalized	86.06%	100%
	Standard Deviation	1.8%	1%
PJSIP - OPTIONS, Stateful (Responses/sec)	3496	3682	
	Normalized	94.95%	100%
	Standard Deviation	1.1%	0.1%
PJSIP - OPTIONS, Stateless (Responses/sec)	80100	87379	
	Normalized	91.67%	100%
	Standard Deviation	2.3%	0.3%
libavif avifenc - 2 (sec)	32.947	32.366	
	Normalized	98.24%	100%
	Standard Deviation	0.6%	0.3%
libavif avifenc - 6, Lossless (sec)	50.880	50.891	
	Normalized	100%	99.98%
	Standard Deviation	0.3%	0.2%
libavif avifenc - 10, Lossless (sec)	5.394	5.294	
	Normalized	98.15%	100%
	Standard Deviation	0.8%	0.3%
Timed Apache Compilation - Time To Compile (sec)	19.546	19.177	
	Normalized	98.11%	100%
	Standard Deviation	1.1%	0.4%
Timed FFmpeg Compilation - Time To Compile (sec)	52.428	50.990	

	Normalized	97.26%	100%
	Standard Deviation	0.4%	0.2%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	61.865	63.223	
	Normalized	100%	97.85%
	Standard Deviation	0.4%	0.2%
Timed Godot Game Engine Compilation - Time To Compile (sec)	127.793	117.352	
	Normalized	91.83%	100%
	Standard Deviation	0.4%	0.2%
Timed LLVM Compilation - Ninja (sec)	706.327	659.243	
	Normalized	93.33%	100%
	Standard Deviation	0%	0.2%
Timed LLVM Compilation - Unix Makefiles (sec)	726.263	676.714	
	Normalized	93.18%	100%
	Standard Deviation	0.8%	0.9%
Timed MPlayer Compilation - Time To Compile (sec)	33.985	33.820	
	Normalized	99.51%	100%
	Standard Deviation	0.2%	0.4%
DeepSpeech - CPU (sec)	67.51692	66.21751	
	Normalized	98.08%	100%
	Standard Deviation	0.7%	0.4%
Ngspice - C2670 (sec)	159.976	137.032	
	Normalized	85.66%	100%
	Standard Deviation	0.8%	2%
Ngspice - C7552 (sec)	159.918	112.335	
	Normalized	70.25%	100%
	Standard Deviation	1.9%	0.3%
RNNoise (sec)	15.868	15.842	
	Normalized	99.84%	100%
	Standard Deviation	0.7%	0.1%
SecureMark - SecureMark-TLS (marks)	316834	307290	
	Normalized	100%	96.99%
	Standard Deviation	0.3%	0.7%
Liquid-DSP - 2 - 256 - 57 (samples/s)	152306667	150620000	
	Normalized	100%	98.89%
	Standard Deviation	0%	0.1%
Liquid-DSP - 4 - 256 - 57 (samples/s)	294143333	291690000	
	Normalized	100%	99.17%
	Standard Deviation	0.6%	0.6%
Liquid-DSP - 8 - 256 - 57 (samples/s)	521266667	524090000	
	Normalized	99.46%	100%
	Standard Deviation	0.5%	0.5%
Liquid-DSP - 16 - 256 - 57 (samples/s)	535743333	532770000	
	Normalized	100%	99.45%
	Standard Deviation	0.2%	0%
Liquid-DSP - 32 - 256 - 57 (samples/s)	538673333	534266667	
	Normalized	100%	99.18%
	Standard Deviation	0.2%	0%
GROMACS - MPI CPU - water_GMX50_bare (Ns/Day)	0.796	0.802	
	Normalized	99.25%	100%
	Standard Deviation	0.1%	0.4%
LibreOffice - 2.D.T.P (sec)	6.038	5.933	
	Normalized	98.26%	100%
	Standard Deviation	3.8%	3.8%

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OCRMypdf - P.6.P.P.D (sec)	18.135	17.915
Normalized	98.79%	100%
Standard Deviation	0.6%	0.3%
OpenSCAD - Pistol (sec)	84.584	79.261
Normalized	93.71%	100%
Standard Deviation	0.2%	0.3%
OpenSCAD - Mini-ITX Case (sec)	37.038	35.291
Normalized	95.28%	100%
Standard Deviation	0.8%	0.4%
OpenSCAD - P.M.S (sec)	7.117	6.929
Normalized	97.36%	100%
Standard Deviation	1.7%	1.1%
OpenSCAD - L.P.C.S (sec)	15.065	14.436
Normalized	95.82%	100%
Standard Deviation	0.7%	0.4%
RawTherapee - T.B.T (sec)	60.449	62.625
Normalized	100%	96.53%
Standard Deviation	0.1%	0.1%
TNN - CPU - DenseNet (ms)	2723	2785
Normalized	100%	97.77%
Standard Deviation	0.2%	0%
TNN - CPU - MobileNet v2 (ms)	232.549	244.699
Normalized	100%	95.03%
Standard Deviation	0.6%	0.1%
TNN - CPU - SqueezeNet v1.1 (ms)	218.009	219.082
Normalized	100%	99.51%
Standard Deviation	0.5%	0%
ctx_clock - C.S.T (Clocks)	152	190
Normalized	100%	80%
Standard Deviation		0%
IndigoBench - CPU - Bedroom (M samples/s)	2.167	2.195
Normalized	98.72%	100%
Standard Deviation	0.5%	0.1%
IndigoBench - CPU - Supercar (M samples/s)	4.423	4.461
Normalized	99.15%	100%
Standard Deviation	0.2%	0.4%
Blender - BMW27 - CPU-Only (sec)	146.89	148.17
Normalized	100%	99.14%
Standard Deviation	0.2%	0.4%
ONNX Runtime - fcn-resnet101-11 - OpenMP CPU	69	71
(Inferences/min)		
Normalized	97.18%	100%
Standard Deviation	0%	0%
ONNX Runtime - super-resolution-10 - OpenMP CPU	5528	5676
(Inferences/min)		
Normalized	97.39%	100%
Standard Deviation	2.5%	0.6%
Natron - Spaceship (FPS)	2.8	2.8
Standard Deviation	2.1%	2%
Appleseed - Emily (sec)	353.86663	351.403512
Normalized	99.3%	100%
Appleseed - Disney Material (sec)	219.217196	227.201556
Normalized	100%	96.49%
Appleseed - Material Tester (sec)	191.276737	197.468193
Normalized	100%	96.86%

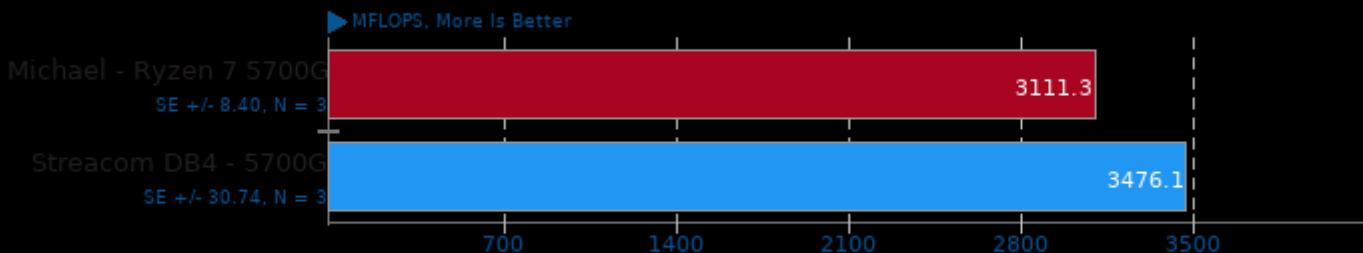
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PHPBench - P.B.S (Score)	816745	893756
Normalized	91.38%	100%
Standard Deviation	1.2%	0.6%
WavPack Audio Encoding - WAV To WavPack (sec)	11.774	11.702
Normalized	99.39%	100%
Standard Deviation	0.8%	0.3%
Git - T.T.C.C.G.C (sec)	43.765	42.436
Normalized	96.96%	100%
Standard Deviation	0.3%	0.3%
BRL-CAD - V.P.M (VGR Performance Metric)	144232	143461
Normalized	100%	99.47%
QuantLib (MFLOPS/Watt)	160.898	172.4
Normalized	93.33%	100%
Etpak - DXT1 (Mpx/s/Watt)	147.503	123.091
Normalized	100%	83.45%
Etpak - ETC2 (Mpx/s/Watt)	16.046	14.249
Normalized	100%	88.8%
Chia Blockchain VDF - Square Plain C++ (IPS/Watt)	12142	11160
Normalized	100%	91.91%
Zstd Compression - 19 - D.S (MB/s/Watt)	106.546	109.631
Normalized	97.19%	100%
Zstd Compression - 3, Long Mode - D.S (MB/s/Watt)	237.581	218.863
Normalized	100%	92.12%
Zstd Compression - 19, Long Mode - D.S (MB/s/Watt)	107.086	98.789
Normalized	100%	92.25%
LibRaw - P.P.B (Mpix/sec/Watt)	1.235	1.2
Normalized	100%	97.17%
dav1d - Summer Nature 4K (FPS/Watt)	2.761	2.81
Normalized	98.26%	100%
dav1d - S.N.1 (FPS/Watt)	14.832	15.588
Normalized	95.15%	100%
OSPray - San Miguel - SciVis (FPS/Watt)	0.367	0.356
Normalized	100%	97%
OSPray - San Miguel - Path Tracer (FPS/Watt)	0.018	0.018
OSPray - M.R - SciVis (FPS/Watt)	0.191	0.191
OSPray - M.R - Path Tracer (FPS/Watt)	6.398	6.206
Normalized	100%	97%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS/Watt)	0.07	0.068
Normalized	100%	97.14%
AOM AV1 - Speed 6 Realtime - Bosphorus 4K	0.287	0.279
Normalized	100%	97.21%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K	0.127	0.127
(FPS/Watt)		
AOM AV1 - Speed 8 Realtime - Bosphorus 4K	0.859	0.86
Normalized	99.88%	100%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS/Watt)	0.163	0.156
Normalized	100%	95.71%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p	0.444	0.443
(FPS/Watt)		
Normalized	100%	99.77%

AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS/Watt)	0.402	0.388
Normalized	100%	96.52%
Embree - Pathtracer - Crown (FPS/Watt)	0.167	0.176
Normalized	94.89%	100%
Embree - Pathtracer ISPC - Crown (FPS/Watt)	0.167	0.16
Normalized	100%	95.81%
Embree - Pathtracer - Asian Dragon (FPS/Watt)	0.205	0.207
Normalized	99.03%	100%
Embree - Pathtracer ISPC - Asian Dragon (FPS/Watt)	0.183	0.185
Normalized	98.92%	100%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS/Watt)	0.024	0.025
Normalized	96%	100%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS/Watt)	0.263	0.272
Normalized	96.69%	100%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS/Watt)	0.084	0.085
Normalized	98.82%	100%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS/Watt)	0.974	0.994
Normalized	97.99%	100%
SVT-HEVC - 7 - Bosphorus 1080p (FPS/Watt)	1.692	1.806
Normalized	93.69%	100%
SVT-HEVC - 10 - Bosphorus 1080p (FPS/Watt)	4.793	4.963
Normalized	96.57%	100%
SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS/Watt)	3.119	3.169
Normalized	98.42%	100%
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS/Watt)	3.173	3.158
Normalized	100%	99.53%
VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS/Watt)	0.366	0.374
Normalized	97.86%	100%
VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS/Watt)	0.816	0.864
Normalized	94.44%	100%
x265 - Bosphorus 4K (FPS/Watt)	0.226	0.217
Normalized	100%	96.02%
x265 - Bosphorus 1080p (FPS/Watt)	1.044	0.988
Normalized	100%	94.64%
Intel Open Image Denoise - RT.Idr_alb_nrm.3840x2160 (Images / Sec/Watt)	0.009	0.008
Normalized	100%	88.89%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec/Watt)	7280	6683
Normalized	100%	91.79%
7-Zip Compression - C.S.T (MIPS/Watt)	802.755	787.59
Normalized	100%	98.11%
Stockfish - Total Time (Nodes/s/Watt)	413318	403384
Normalized	100%	97.6%
asmFish - 1.H.M.2.D (Nodes/s/Watt)	416689	408550
Normalized	100%	98.05%
PJSIP - INVITE (Responses/sec/Watt)	155.432	146.109
Normalized	100%	94%

PJSIP - OPTIONS, Stateful (Responses/sec/Watt)	478.265	399.554
Normalized	100%	83.54%
PJSIP - OPTIONS, Stateless (Responses/sec/Watt)	1600	1811
Normalized	88.34%	100%
SecureMark - SecureMark-TLS (marks/Watt)	17563	15941
Normalized	100%	90.76%
Liquid-DSP - 2 - 256 - 57 (samples/s/Watt)	4946892	4562111
Normalized	100%	92.22%
Liquid-DSP - 4 - 256 - 57 (samples/s/Watt)	6321434	6030218
Normalized	100%	95.39%
Liquid-DSP - 8 - 256 - 57 (samples/s/Watt)	9344255	8949476
Normalized	100%	95.78%
Liquid-DSP - 16 - 256 - 57 (samples/s/Watt)	10396363	9988471
Normalized	100%	96.08%
Liquid-DSP - 32 - 256 - 57 (samples/s/Watt)	10316942	9938528
Normalized	100%	96.33%
GROMACS - MPI CPU - water_GMX50_bare	0.015	0.015
(Ns/Day/Watt)		
IndigoBench - CPU - Bedroom (M samples/s/Watt)	0.028	0.027
Normalized	100%	96.43%
IndigoBench - CPU - Supercar (M samples/s/Watt)	0.057	0.056
Normalized	100%	98.25%
ONNX Runtime - fcn-resnet101-11 - OpenMP CPU	1.541	1.51
(Inferences/min/Watt)		
Normalized	100%	97.99%
ONNX Runtime - super-resolution-10 - OpenMP CPU	130.105	126.605
(Inferences/min/Watt)		
Normalized	100%	97.31%
Natron - Spaceship (FPS/Watt)	0.044	0.043
Normalized	100%	97.73%
PHPBench - P.B.S (Score/Watt)	41146	38840
Normalized	100%	94.4%
BRL-CAD - V.P.M (VGR Performance Metric/Watt)	1842	1800
Normalized	100%	97.69%

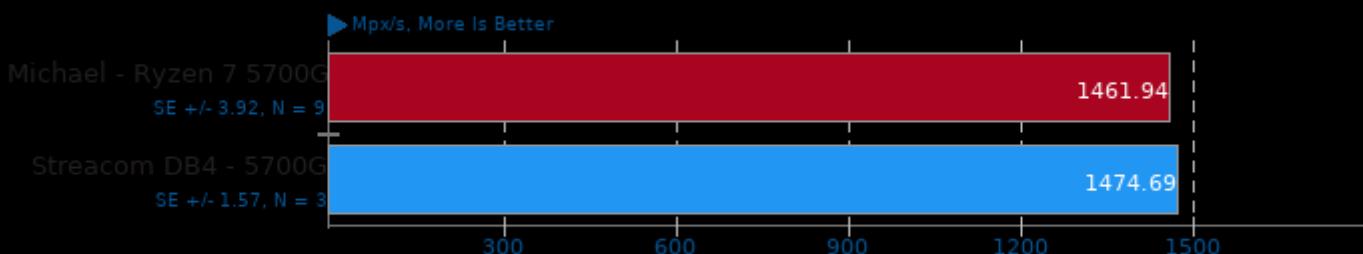
QuantLib 1.21



1. (CXX) g++ options: -O3 -march=native -dynamic

EtcPak 0.7

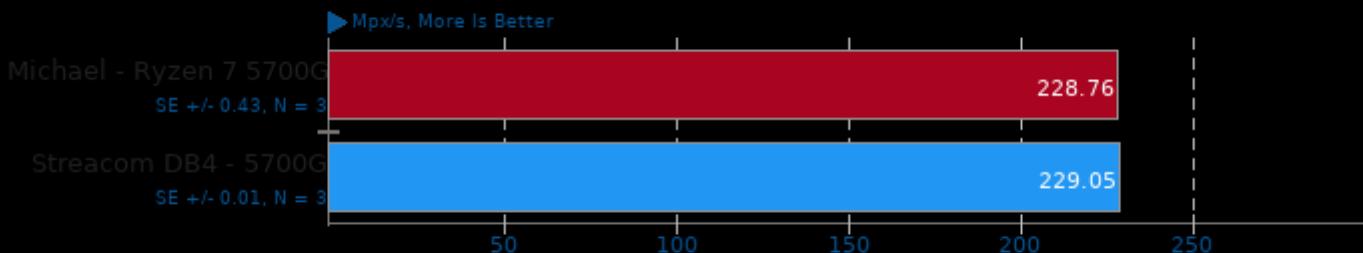
Configuration: DXT1



1. (CXX) g++ options: -O3 -march=native -std=c++11 -pthread

EtcPak 0.7

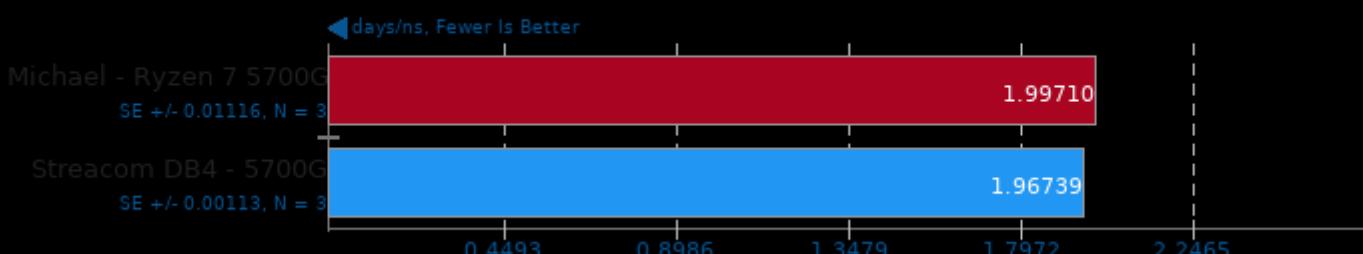
Configuration: ETC2



1. (CXX) g++ options: -O3 -march=native -std=c++11 -pthread

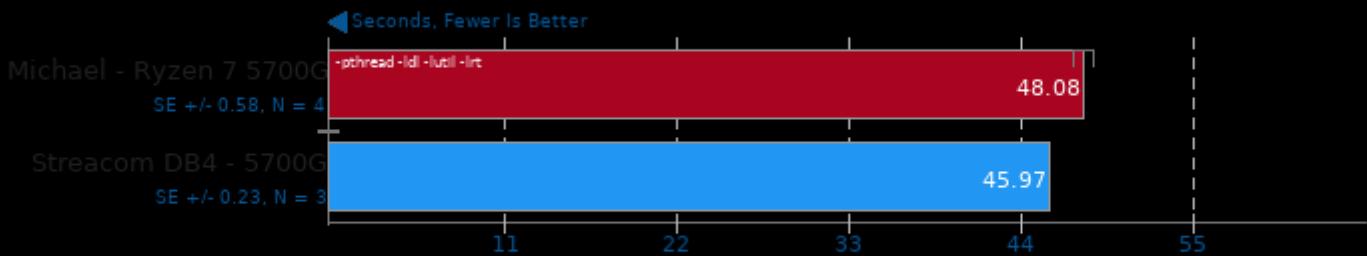
NAMD 2.14

ATPase Simulation - 327,506 Atoms



Xcompact3d Incompact3d 2021-03-11

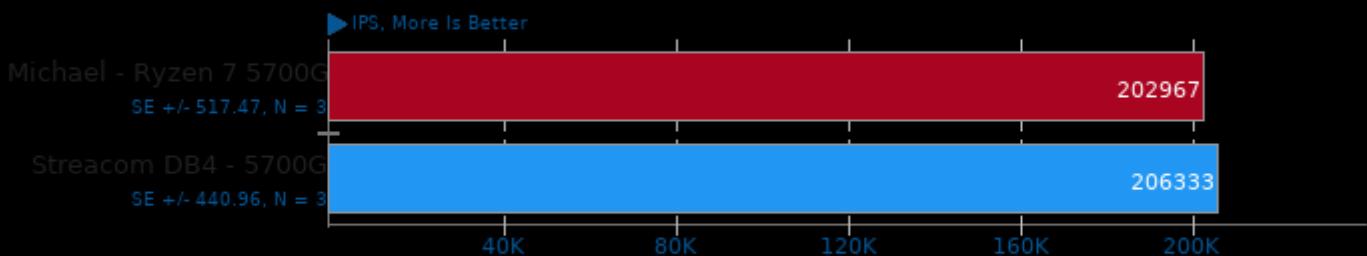
Input: input.i3d 129 Cells Per Direction



1. (F9X) gfortran options: -cpp -O2 -funroll-loops -floop-optimize -fcray-pointer -fbacktrace -lmpi_usempif08 -lmpi_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc

Chia Blockchain VDF 1.0.1

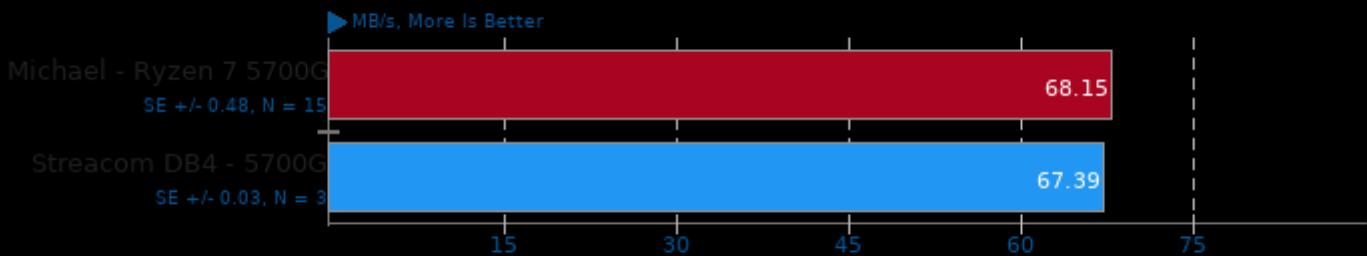
Test: Square Plain C++



1. (CXX) g++ options: -fno-pie -lgmpxx -lgmp -lboost_system -pthread

LZ4 Compression 1.9.3

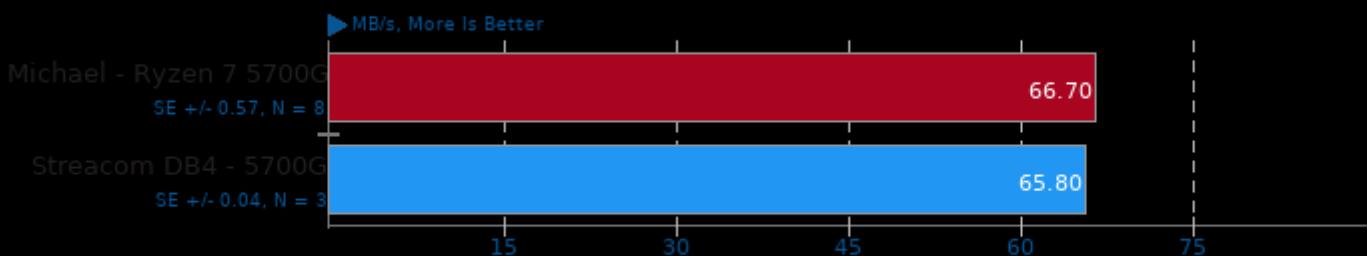
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

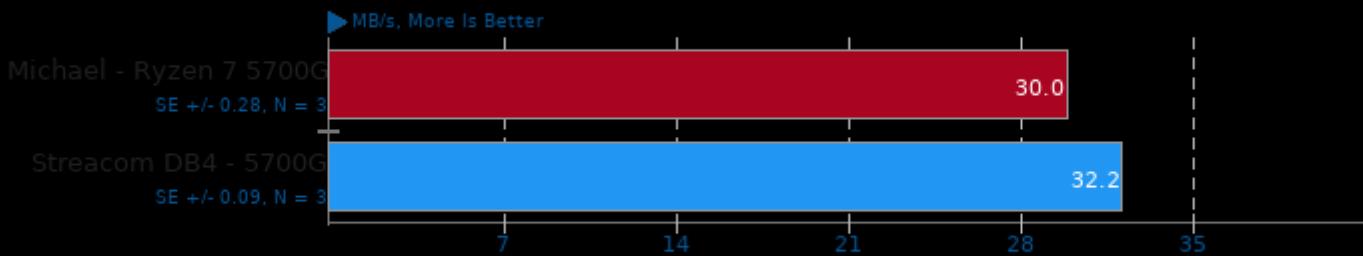
Compression Level: 9 - Compression Speed



1. (CC) gcc options: -O3

Zstd Compression 1.5.0

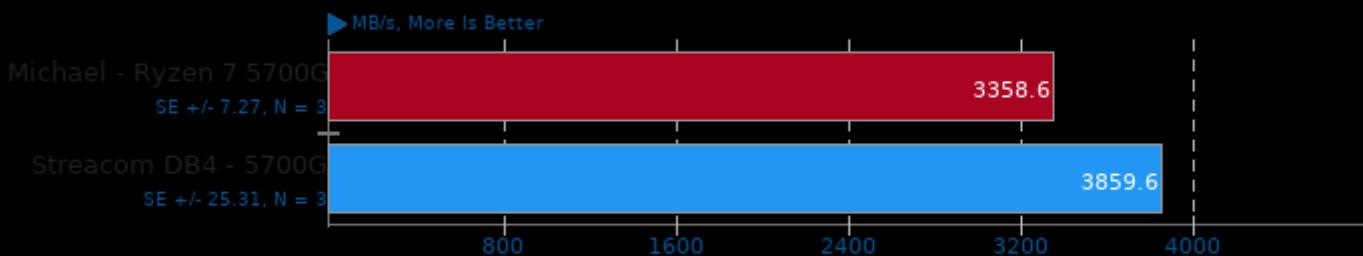
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.5.0

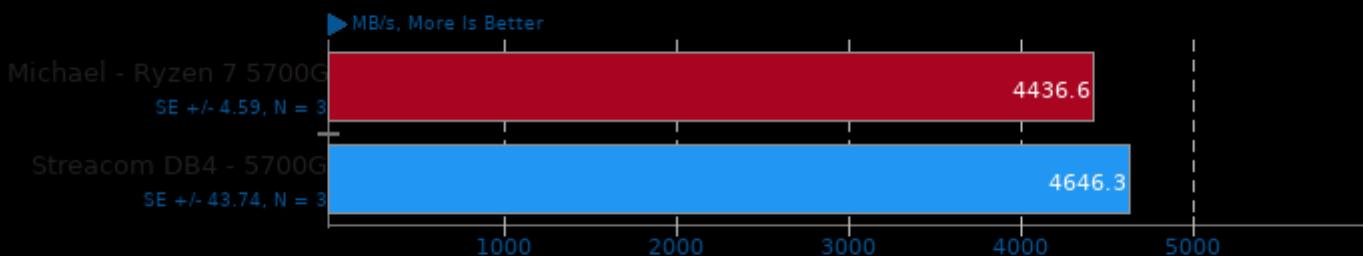
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.5.0

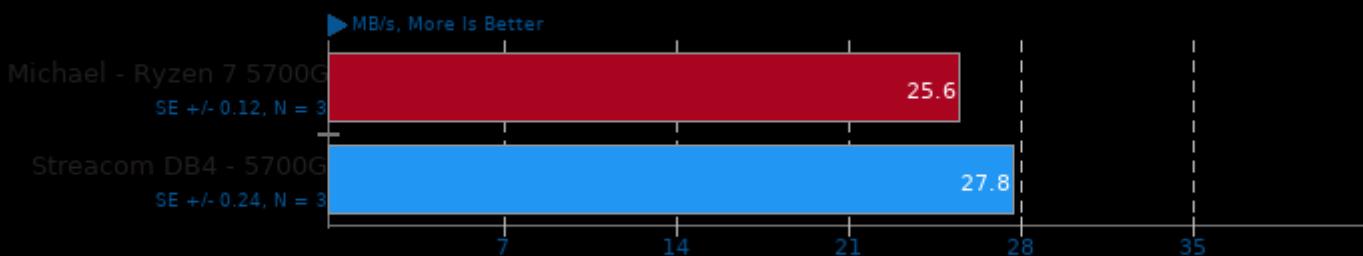
Compression Level: 3, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.5.0

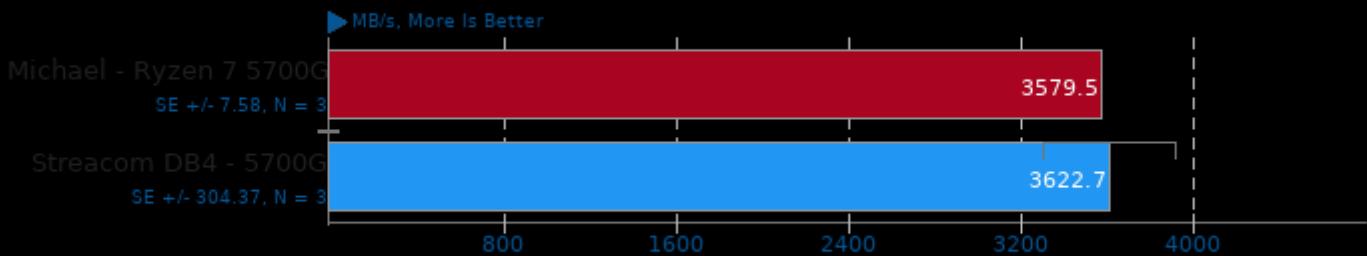
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.5.0

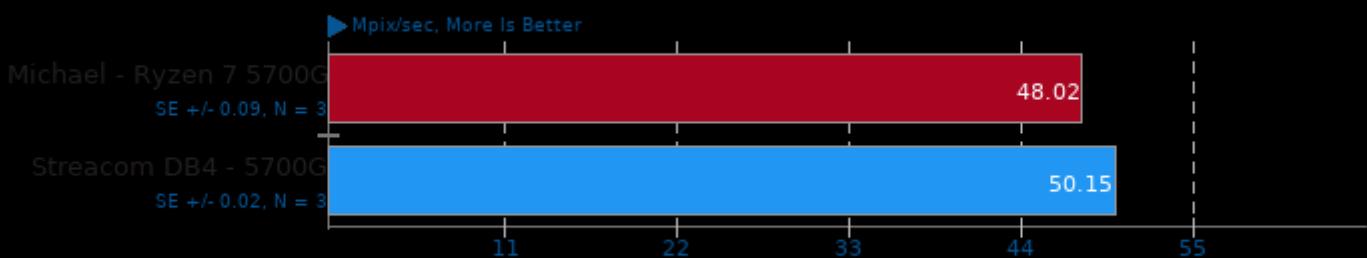
Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

LibRaw 0.20

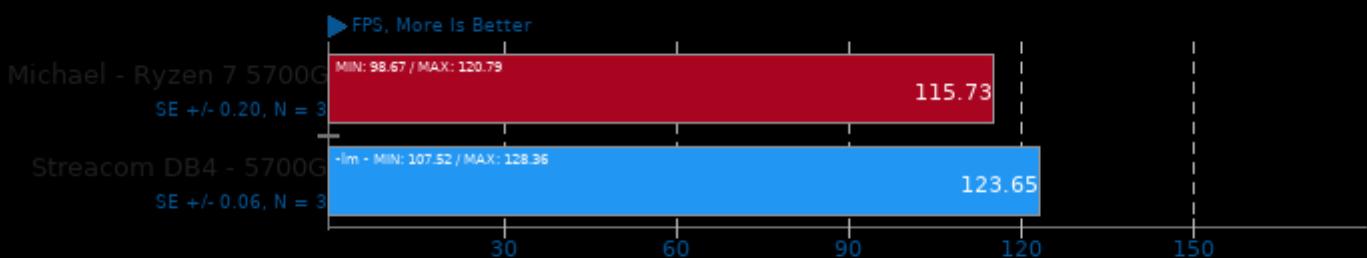
Post-Processing Benchmark



1. (CXX) g++ options: -O2 -fopenmp -ljpeg -lz -lm

dav1d 0.9.1

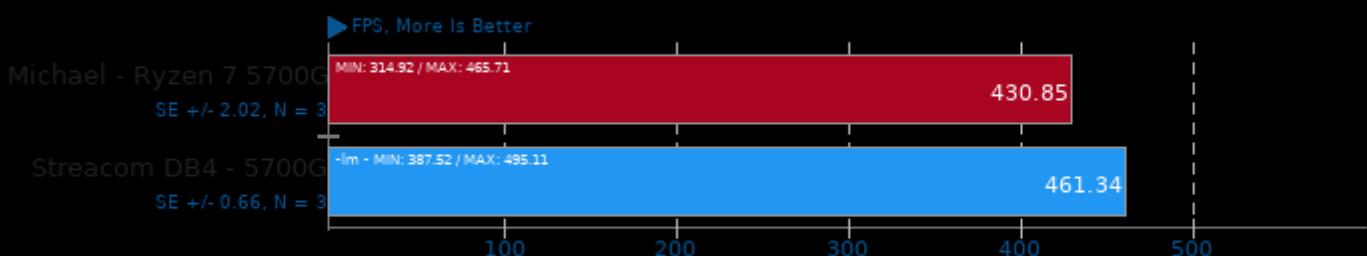
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread

dav1d 0.9.1

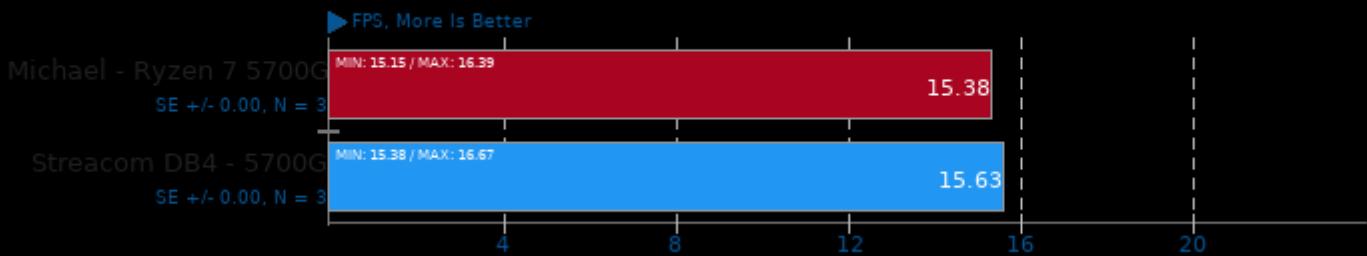
Video Input: Summer Nature 1080p



1. (CC) gcc options: -pthread

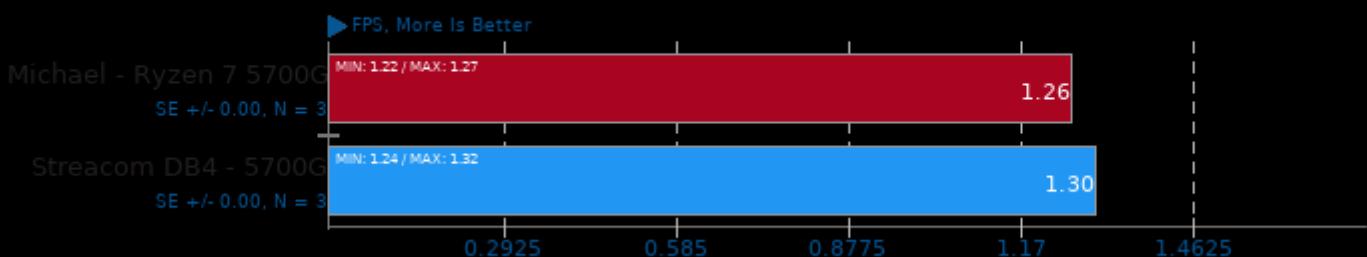
OSPray 1.8.5

Demo: San Miguel - Renderer: SciVis



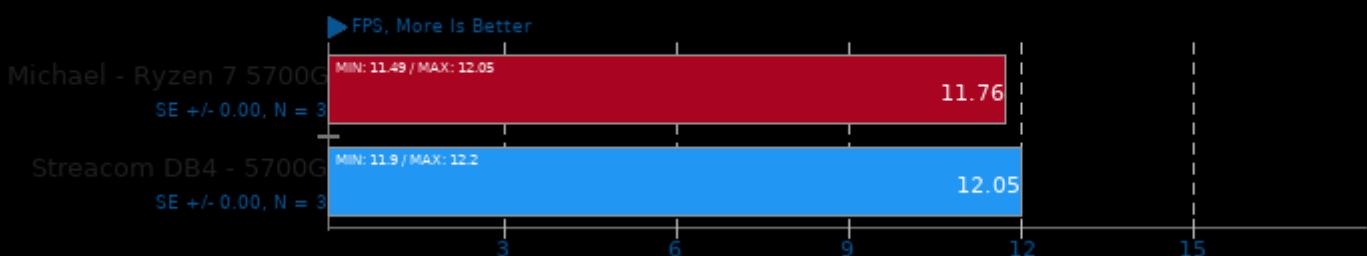
OSPray 1.8.5

Demo: San Miguel - Renderer: Path Tracer



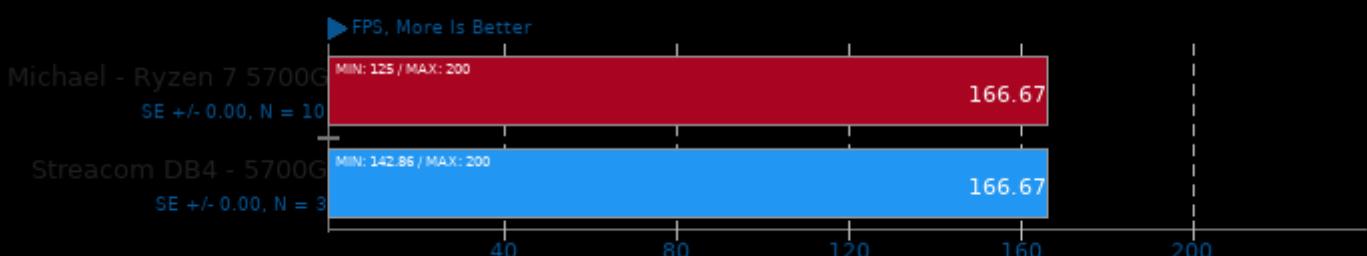
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



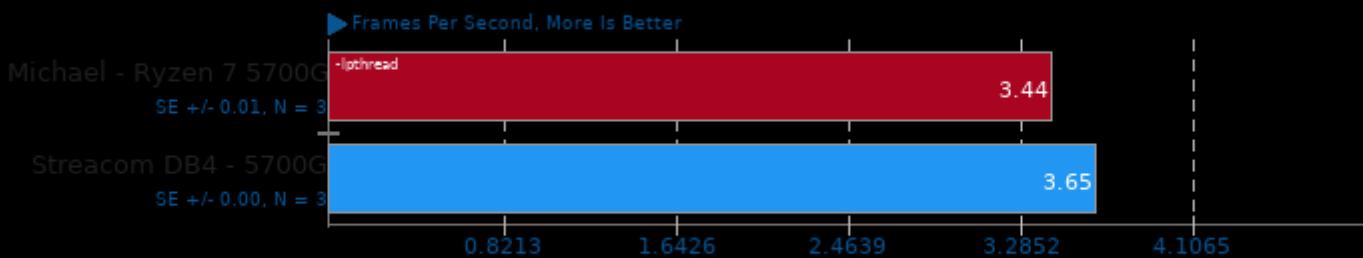
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: Path Tracer



AOM AV1 3.1

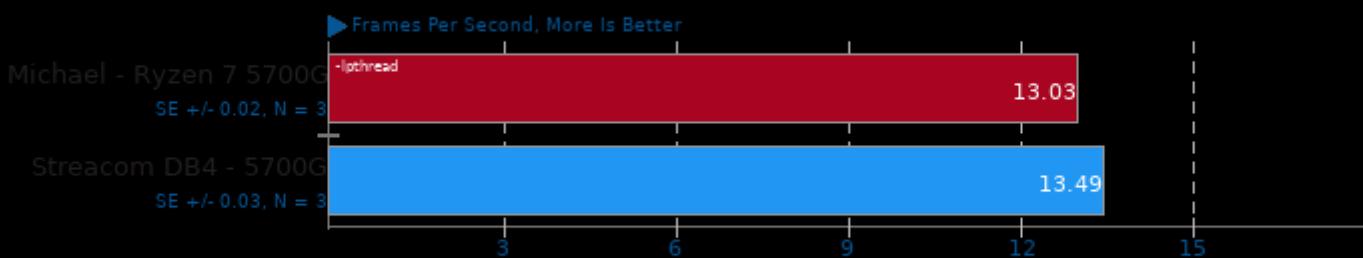
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

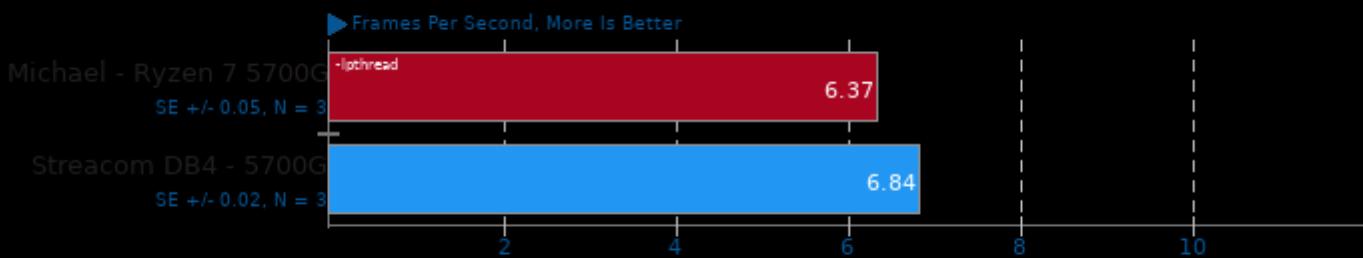
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

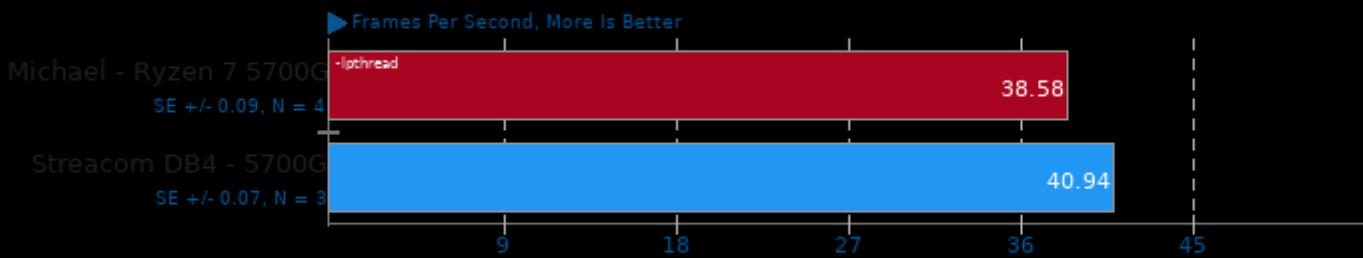
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

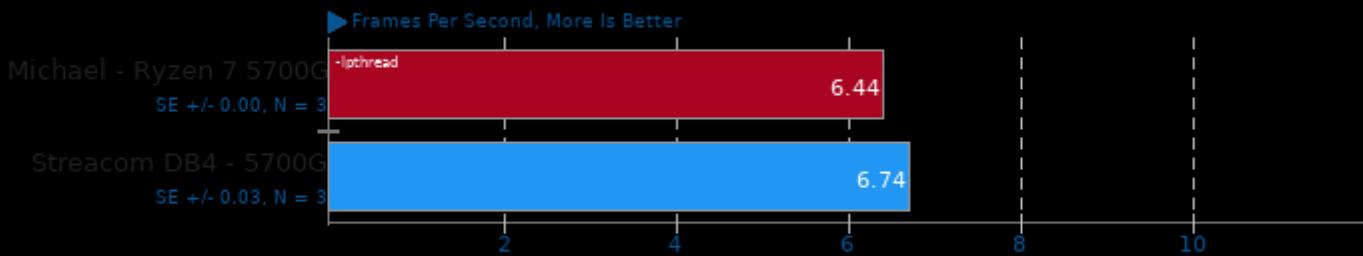
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

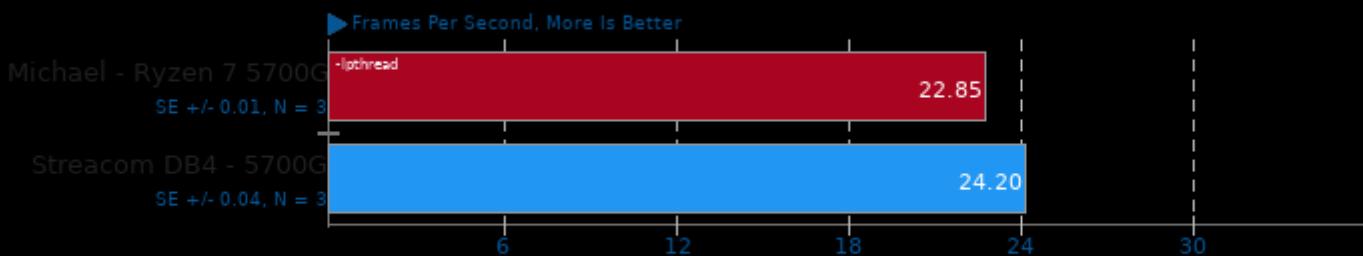
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

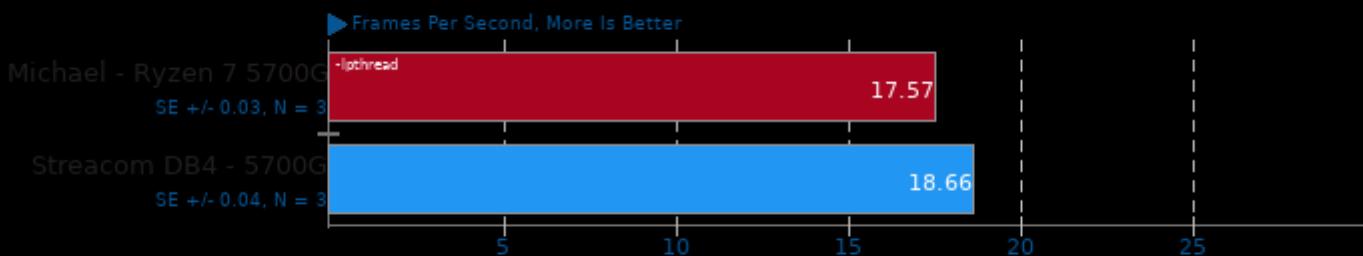
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

AOM AV1 3.1

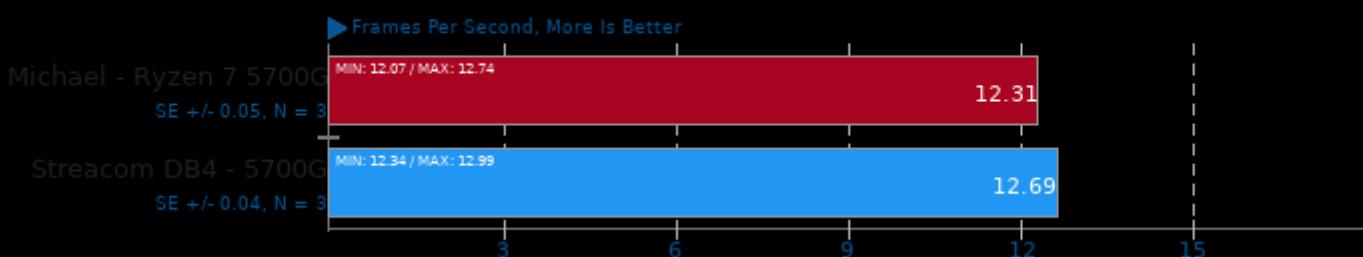
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

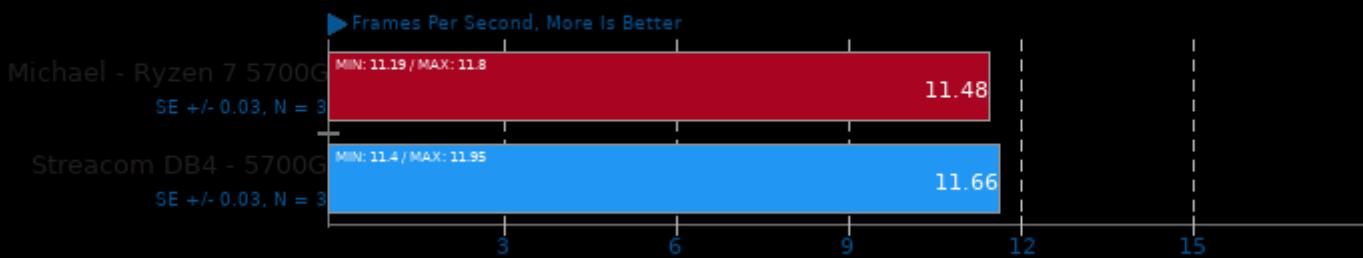
Embree 3.13

Binary: Pathtracer - Model: Crown



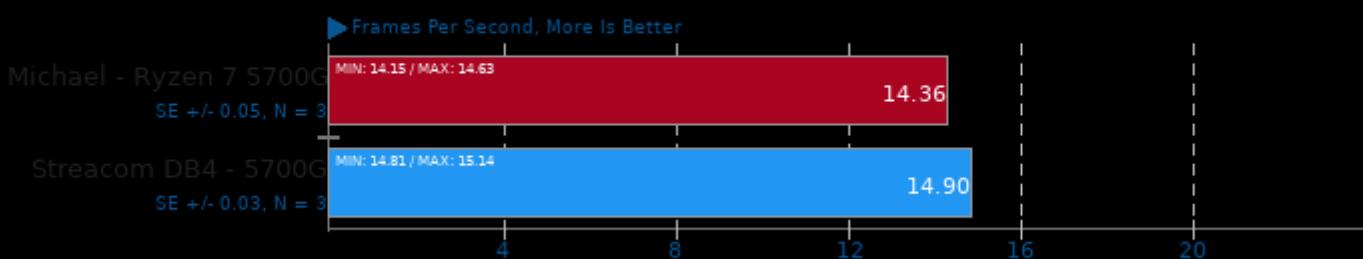
Embree 3.13

Binary: Pathtracer ISPC - Model: Crown



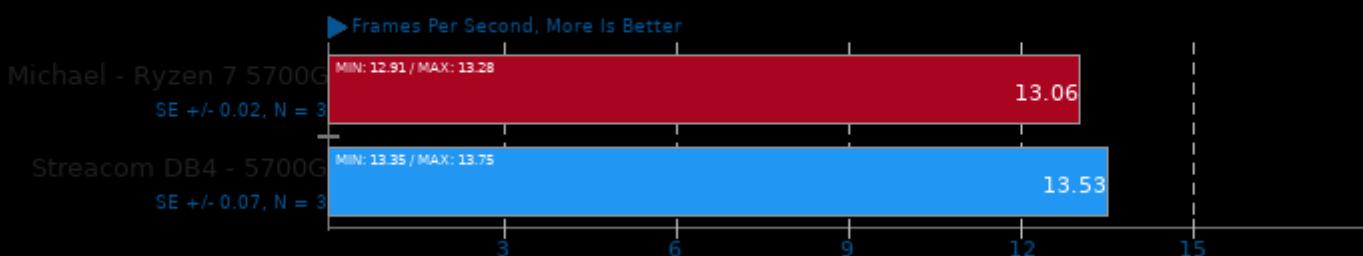
Embree 3.13

Binary: Pathtracer - Model: Asian Dragon



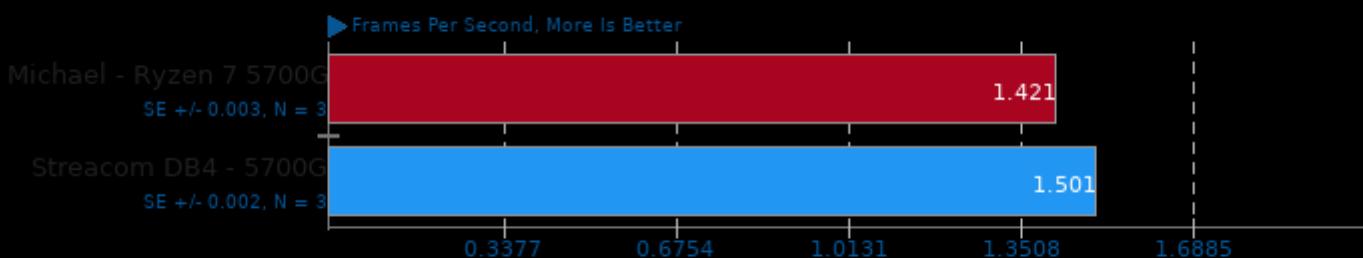
Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon



SVT-AV1 0.8.7

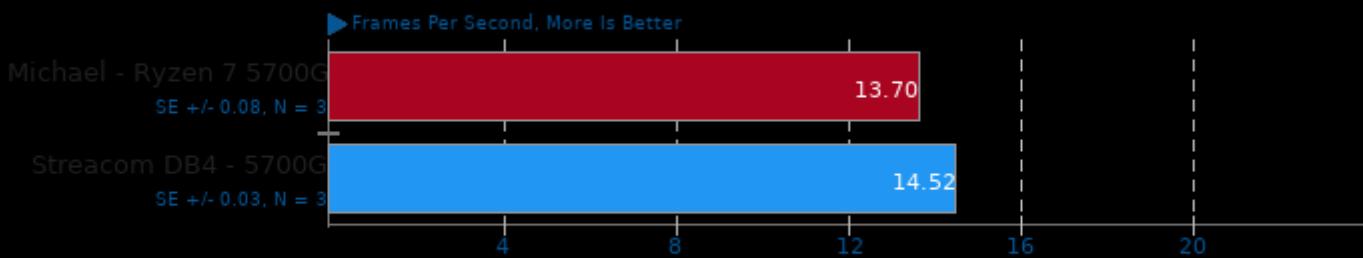
Encoder Mode: Preset 4 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

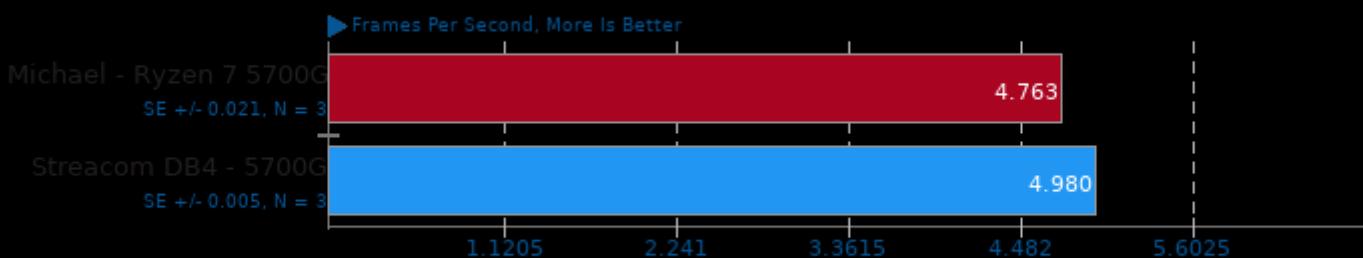
Encoder Mode: Preset 8 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

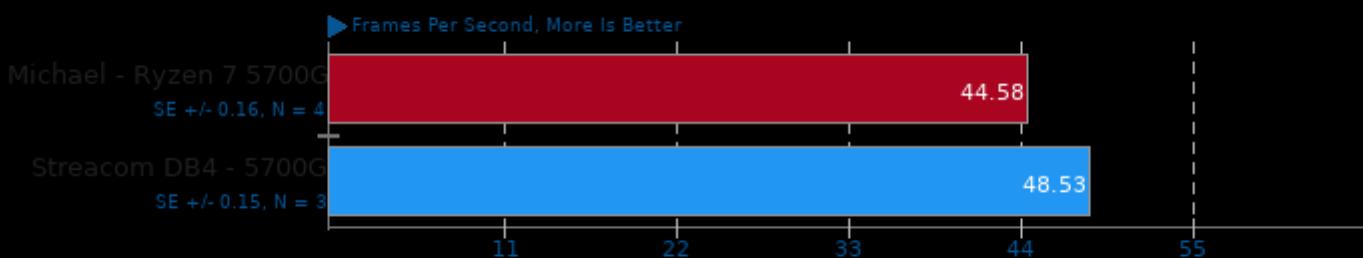
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

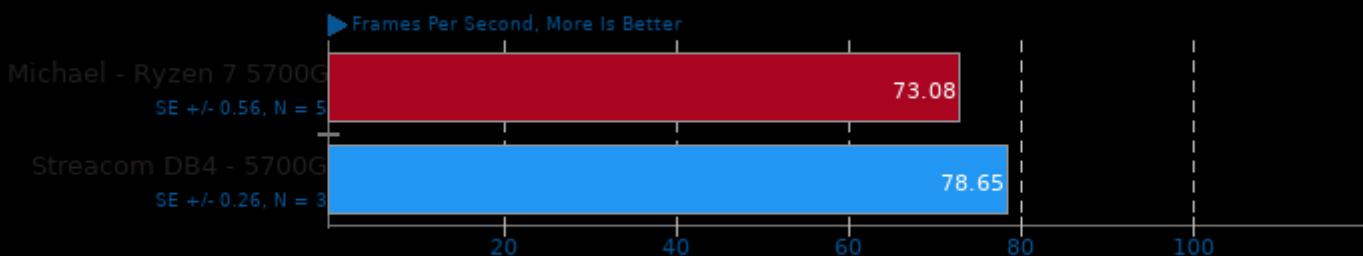
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-HEVC 1.5.0

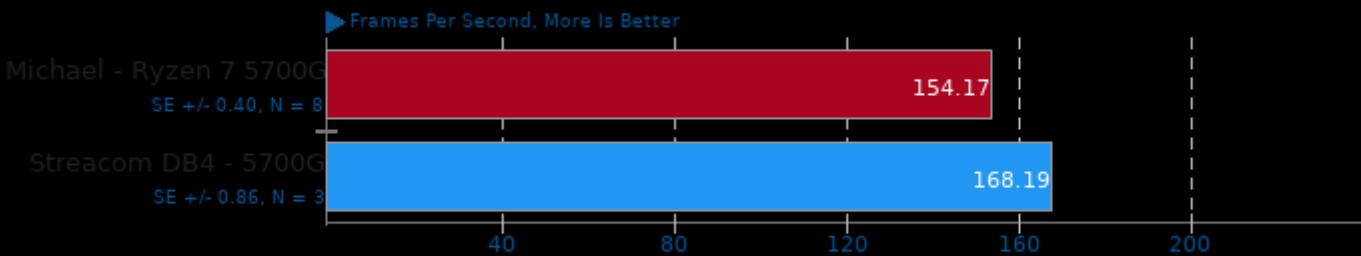
Tuning: 7 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

SVT-HEVC 1.5.0

Tuning: 10 - Input: Bosphorus 1080p

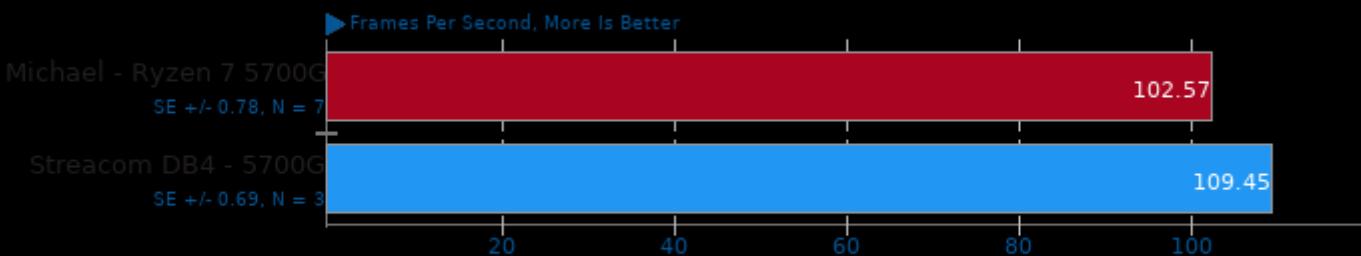


1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

This test scales linearly over the number of cores.

SVT-VP9 0.3

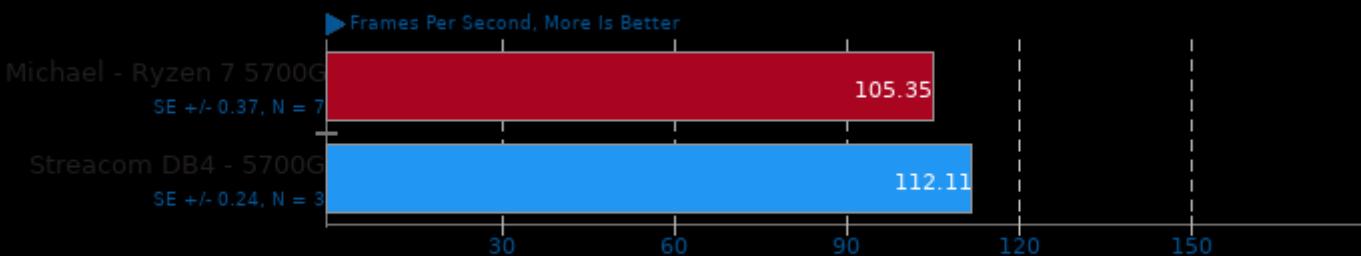
Tuning: VMAF Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

SVT-VP9 0.3

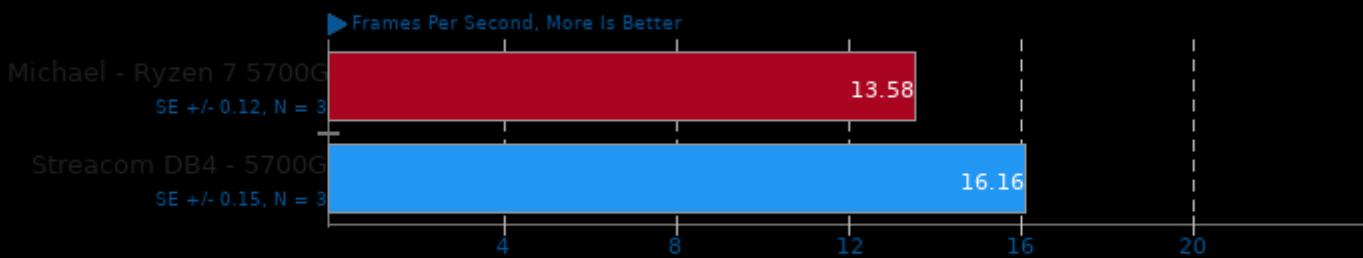
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

VP9 libvpx Encoding 1.10.0

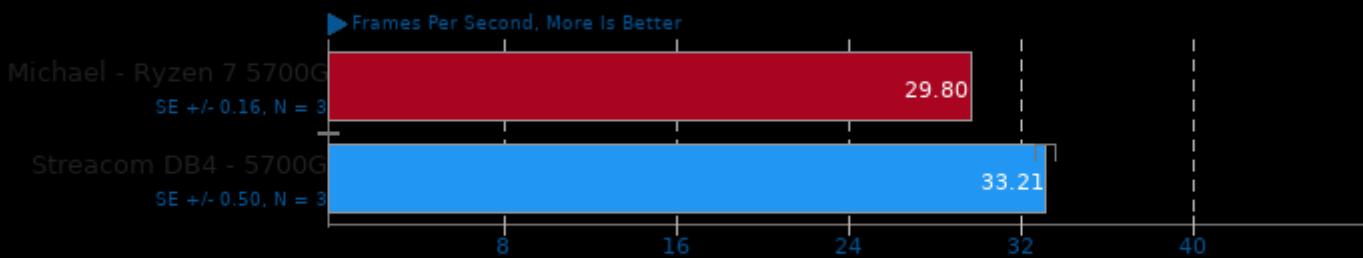
Speed: Speed 5 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

VP9 libvpx Encoding 1.10.0

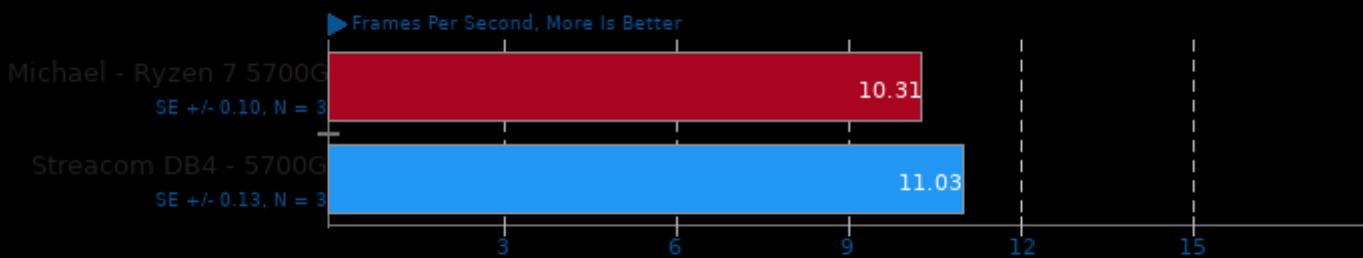
Speed: Speed 5 - Input: Bosphorus 1080p



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

x265 3.4

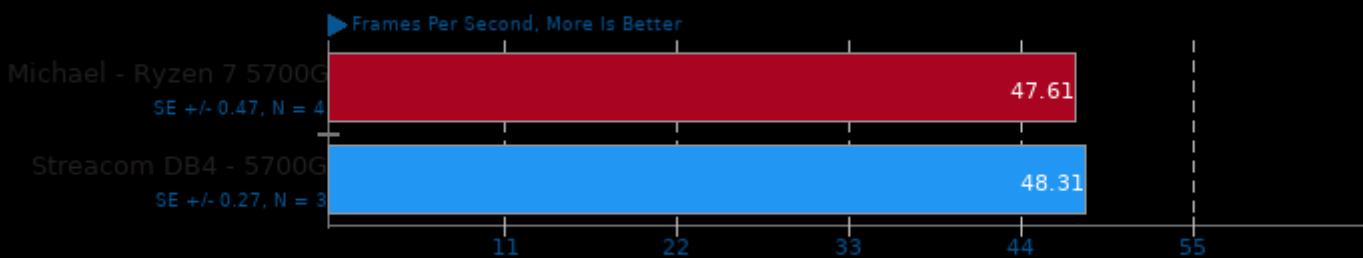
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

x265 3.4

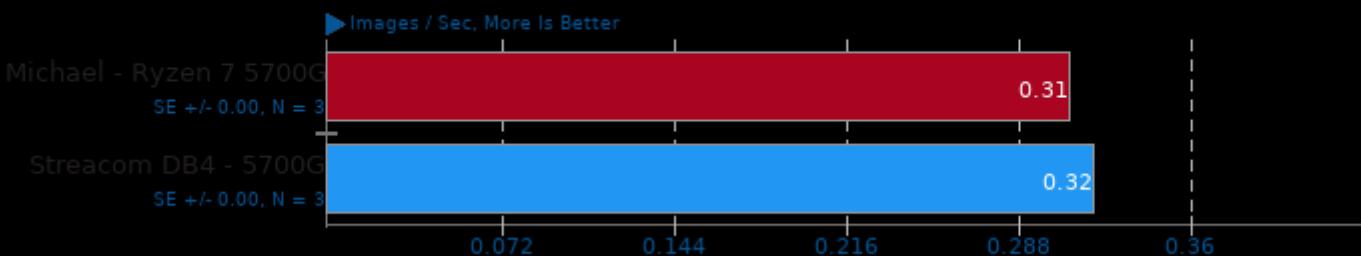
Video Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

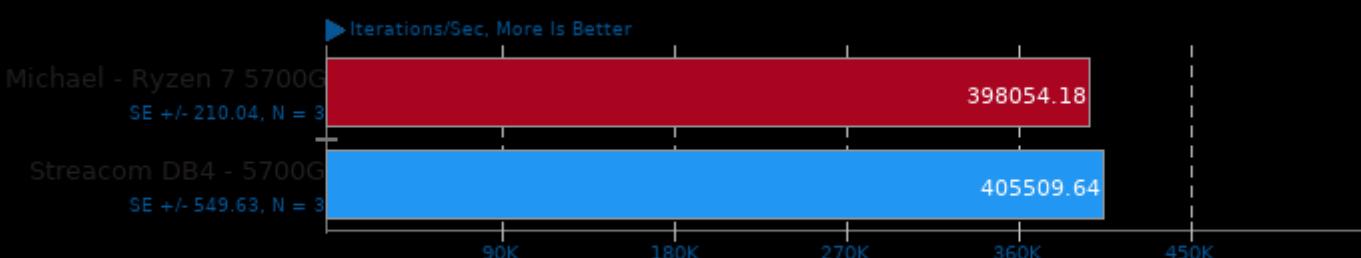
Intel Open Image Denoise 1.4.0

Run: RT.Idr_alb_nrm.3840x2160



Coremark 1.0

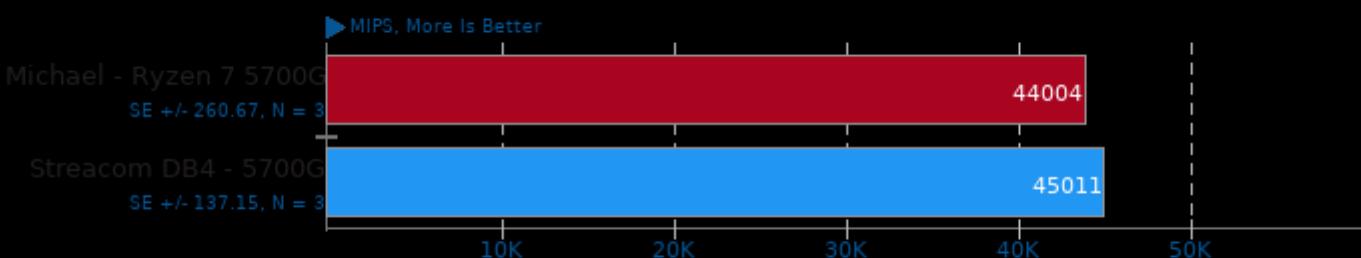
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fipa -fipa

7-Zip Compression 16.02

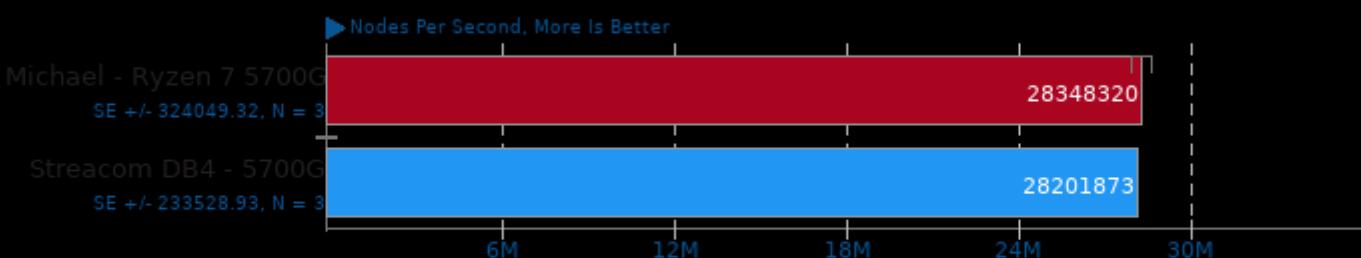
Compress Speed Test



1. (CXX) g++ options: -pipe -fthread

Stockfish 13

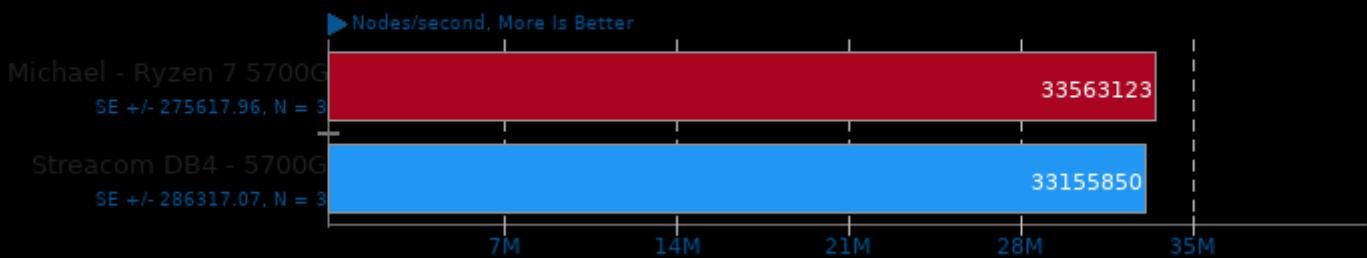
Total Time



1. (CXX) g++ options: -lgcov -m64 -fthread -fno-exceptions -std=c++17 -fprofile-use -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt -

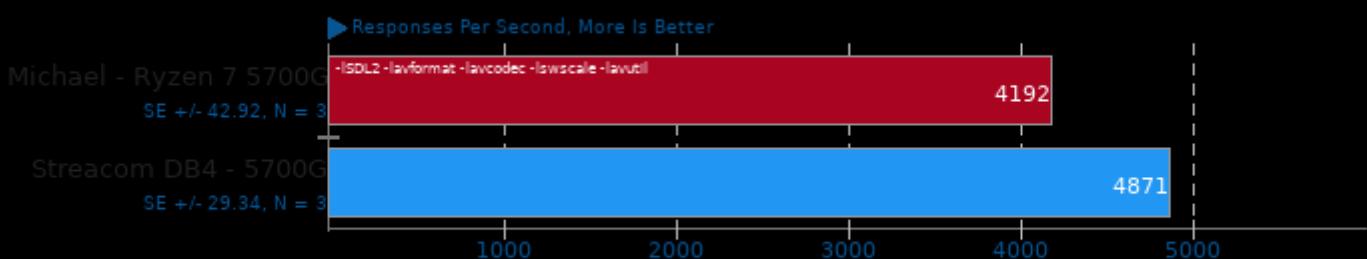
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



PJSIP 2.11

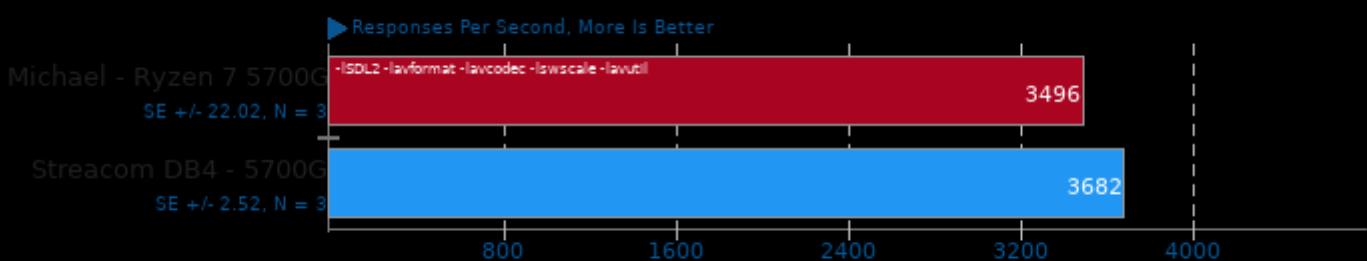
Method: INVITE



1. (CC) gcc options: -stdc++ -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

PJSIP 2.11

Method: OPTIONS, Stateful

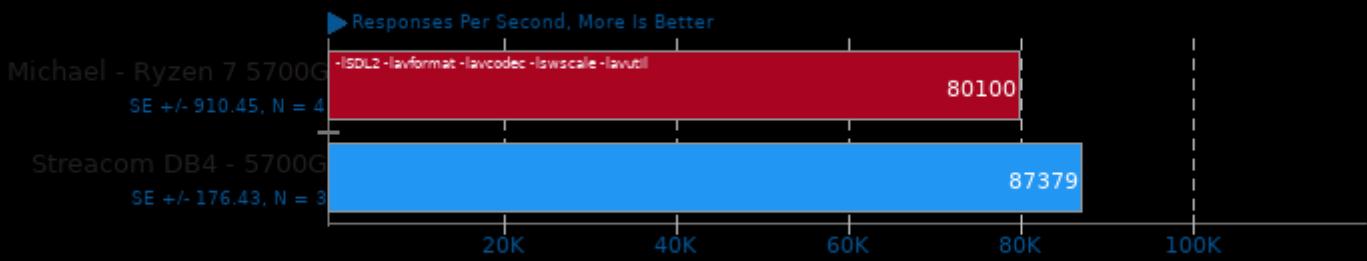


1. (CC) gcc options: -stdc++ -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

It is clear that in this test the APUs pay a hefty price for having a smaller cache.

PJSIP 2.11

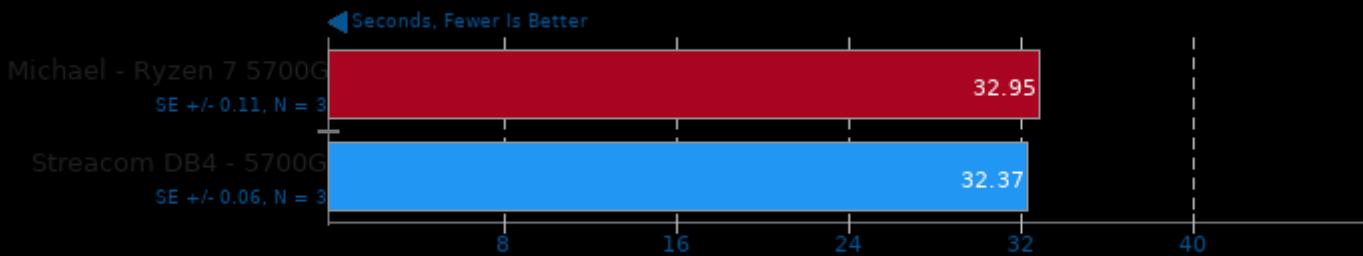
Method: OPTIONS, Stateless



1. (CC) gcc options: -stdc++ -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

libavif avifenc 0.9.0

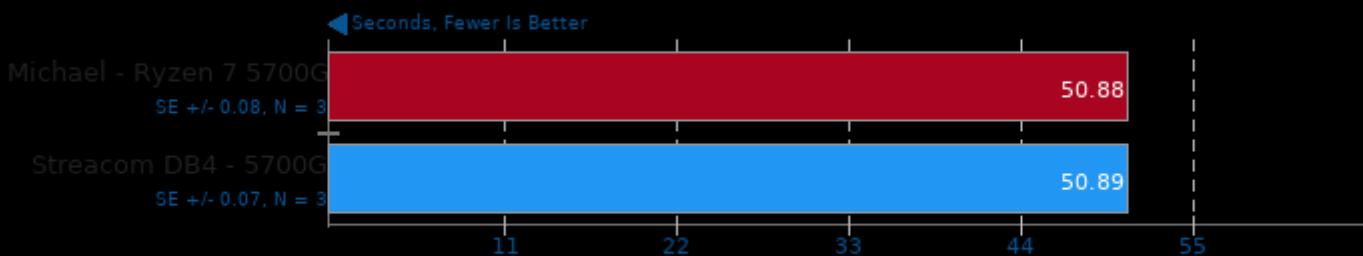
Encoder Speed: 2



1. (CXX) g++ options: -O3 -fPIC -lm

libavif avifenc 0.9.0

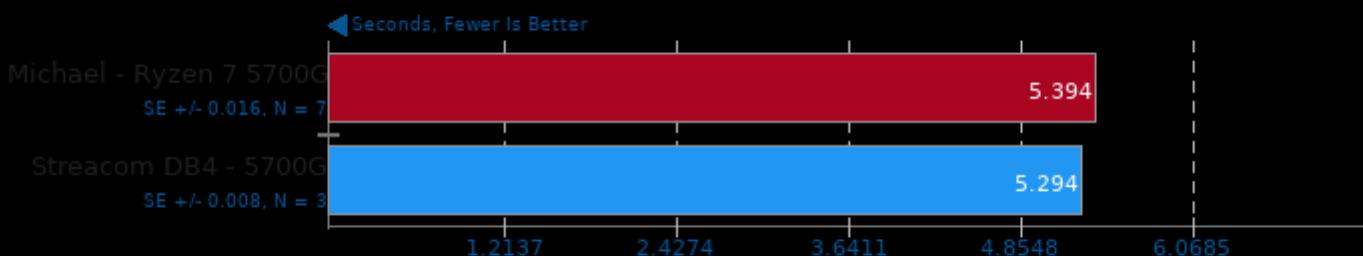
Encoder Speed: 6, Lossless



1. (CXX) g++ options: -O3 -fPIC -lm

libavif avifenc 0.9.0

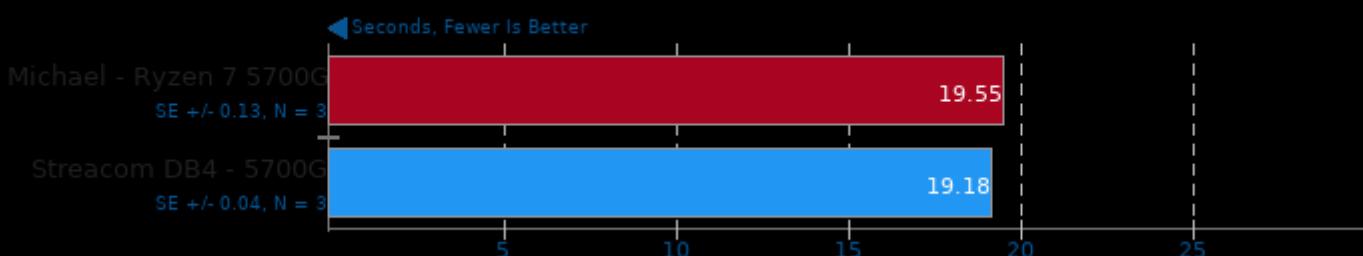
Encoder Speed: 10, Lossless



1. (CXX) g++ options: -O3 -fPIC -lm

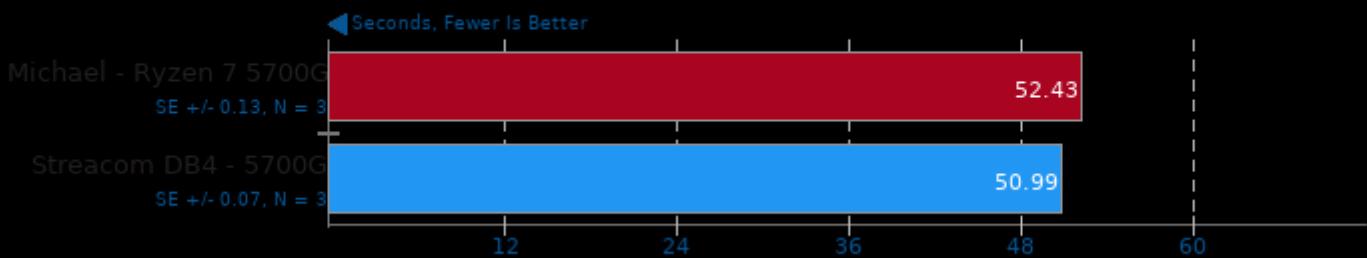
Timed Apache Compilation 2.4.41

Time To Compile



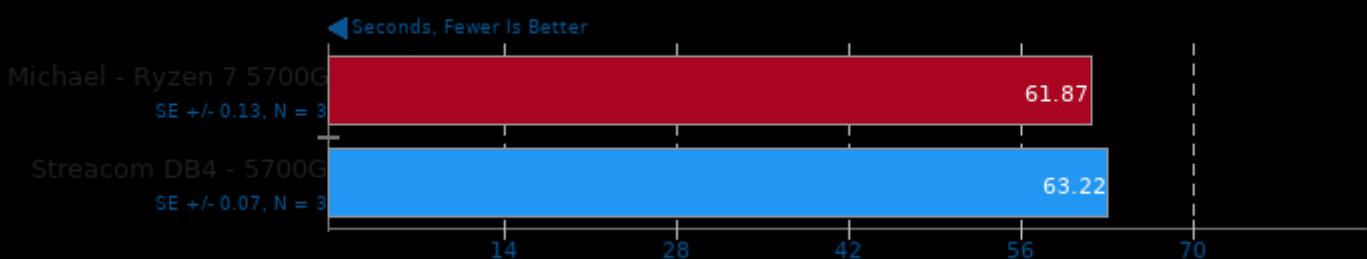
Timed FFmpeg Compilation 4.4

Time To Compile



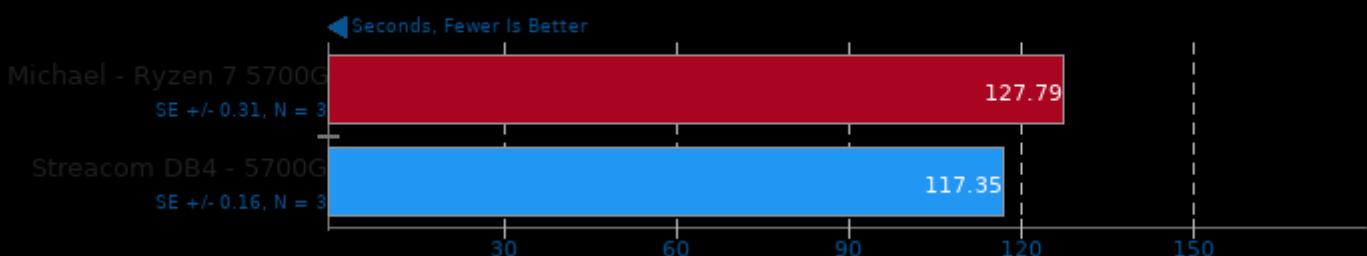
Timed GDB GNU Debugger Compilation 10.2

Time To Compile



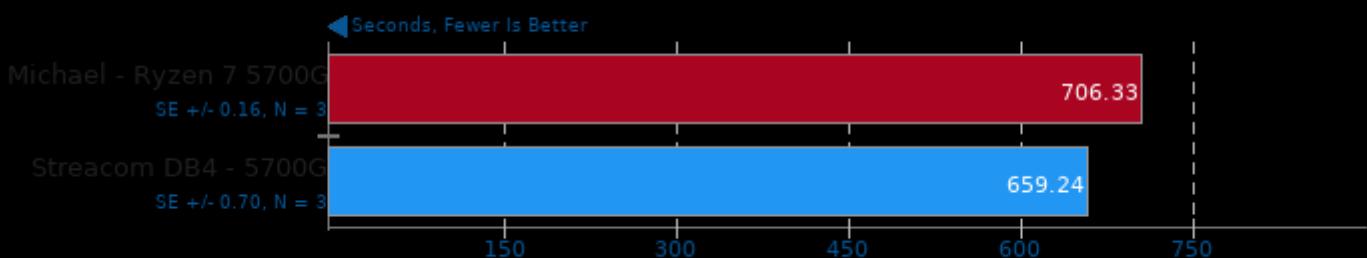
Timed Godot Game Engine Compilation 3.2.3

Time To Compile



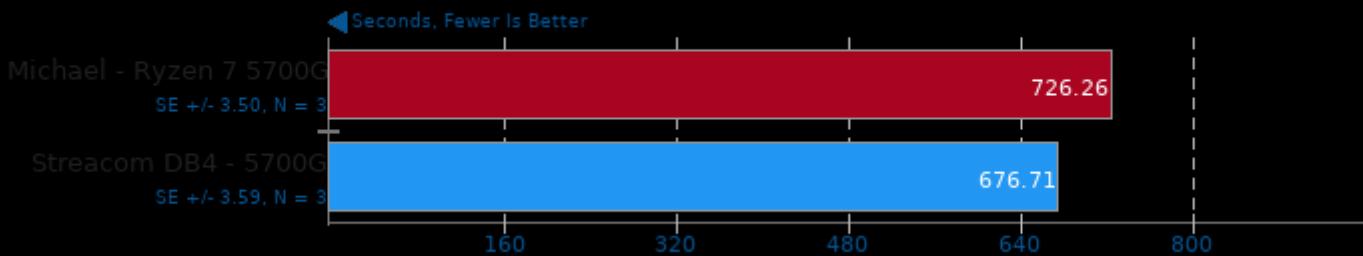
Timed LLVM Compilation 12.0

Build System: Ninja



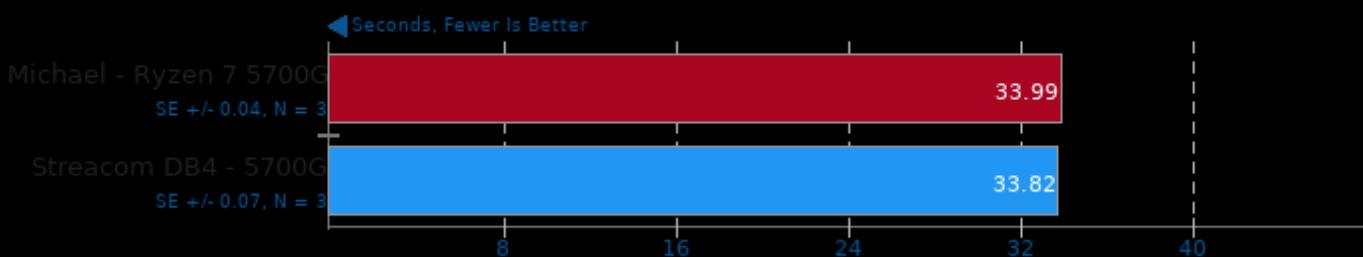
Timed LLVM Compilation 12.0

Build System: Unix Makefiles



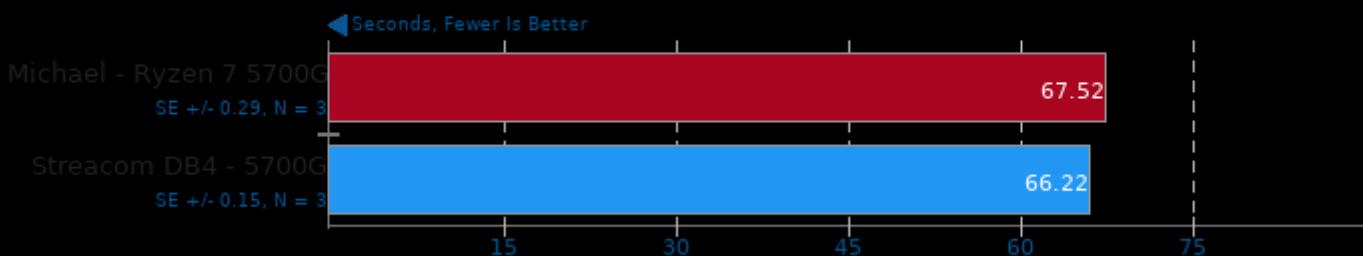
Timed MPlayer Compilation 1.4

Time To Compile



DeepSpeech 0.6

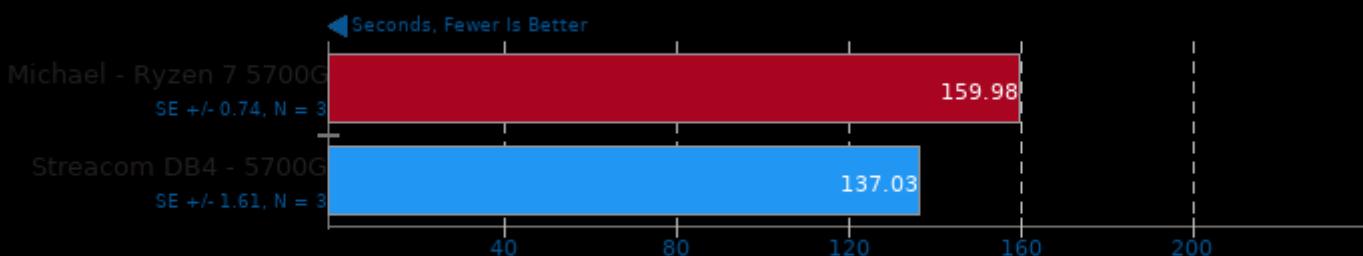
Acceleration: CPU



There is something deeply fishy about this test.

Ngspice 34

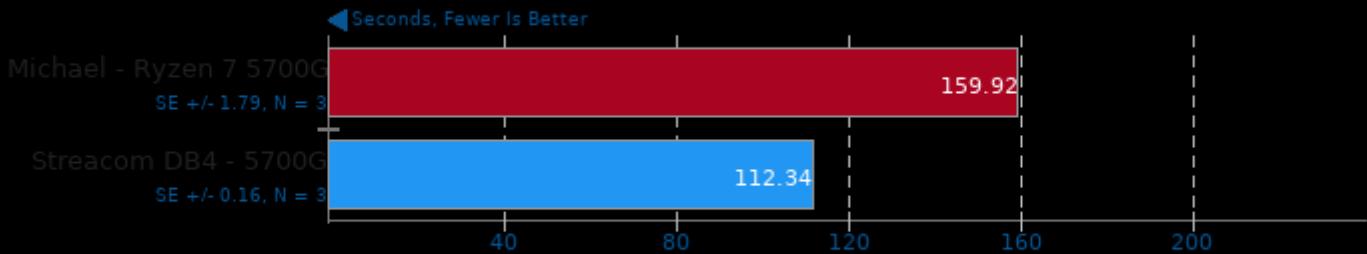
Circuit: C2670



1. (CC) gcc options: -O0 -fopenmp -lm -lstdc++ -lfftw3 -lXaw -lXmu -lXt -lXext -lX11 -lXft -lfontconfig -lXrender -lfreetype -lSM -lICE

Ngspice 34

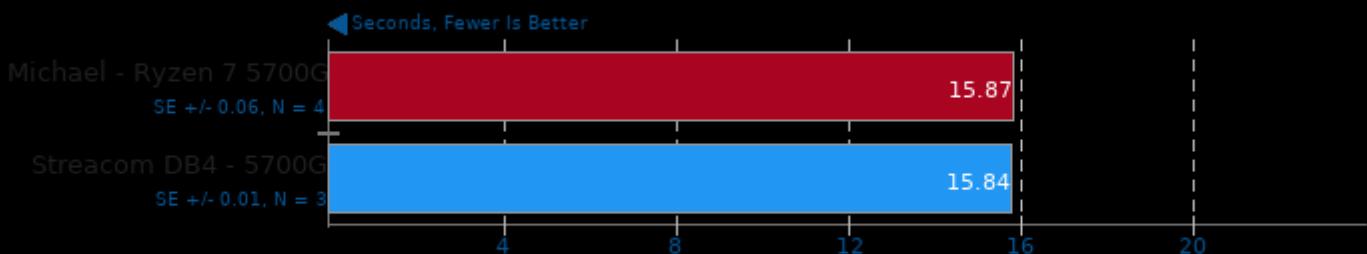
Circuit: C7552



1. (CC) gcc options: -O0 -fopenmp -lm -stdc++ -lfftw3 -lXaw -lXmu -lXt -lXext -lX11 -lXft -lfontconfig -lXrender -lfreetype -lSM -lICE

I think this test is heavily cache and memory dependent the DB4 has can compensate a little for its smaller cache with its faster RAM compared to its sibling.

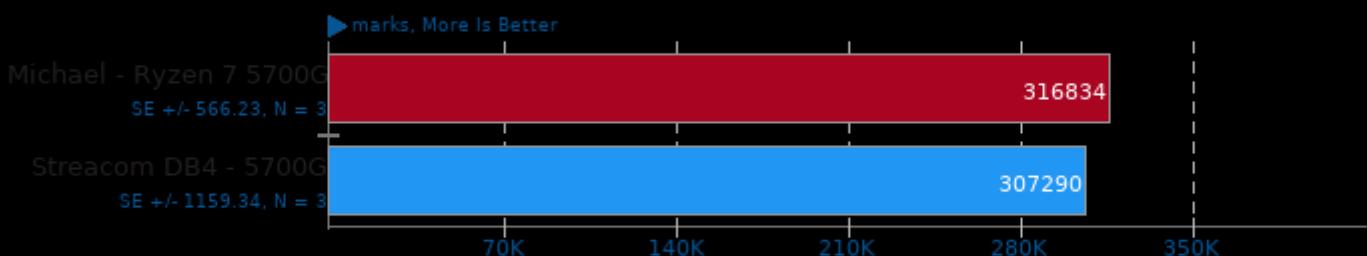
RNNoise 2020-06-28



1. (CC) gcc options: -O2 -pedantic -fvisibility=hidden

SecureMark 1.0.4

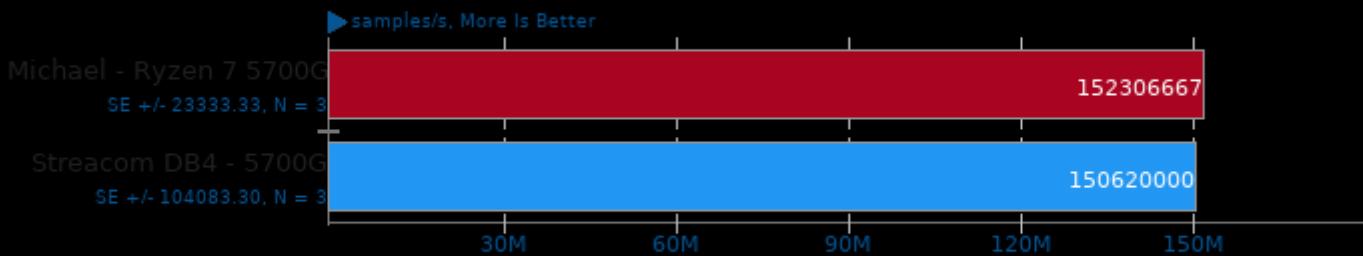
Benchmark: SecureMark-TLS



1. (CC) gcc options: -pedantic -O3

Liquid-DSP 2021.01.31

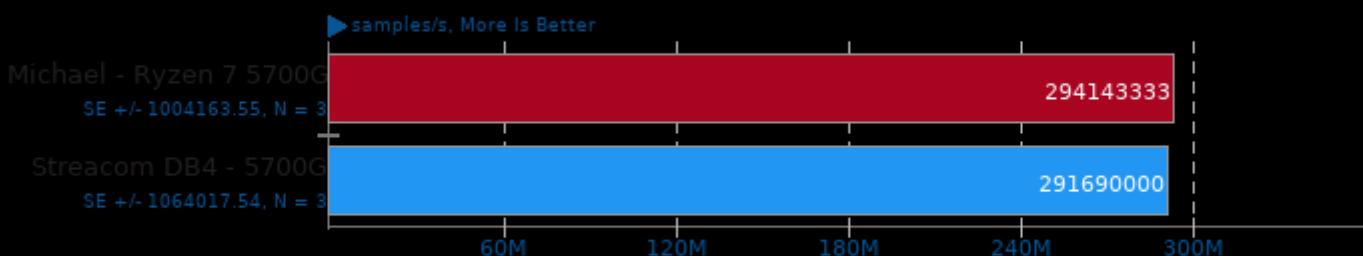
Threads: 2 - Buffer Length: 256 - Filter Length: 57



1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

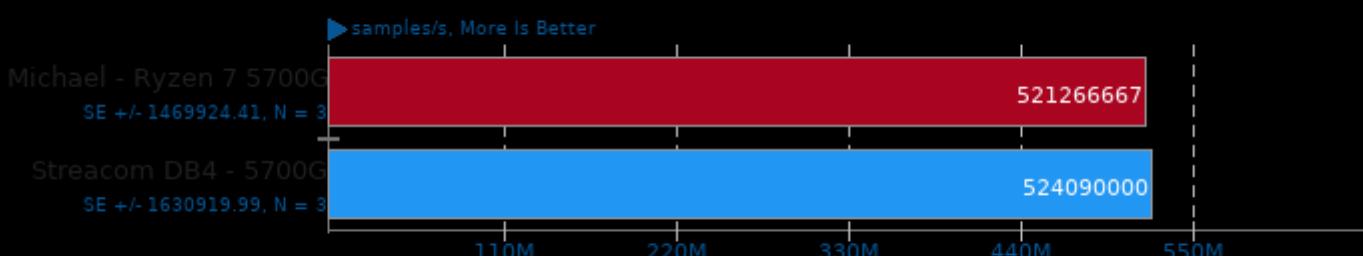
Threads: 4 - Buffer Length: 256 - Filter Length: 57



1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

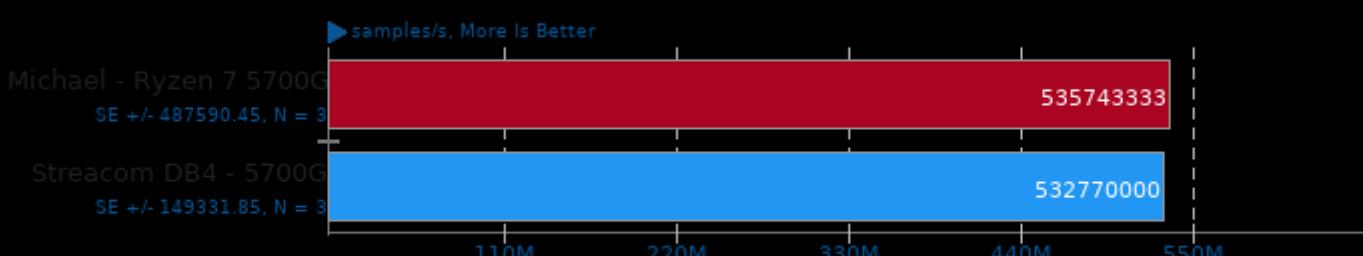
Threads: 8 - Buffer Length: 256 - Filter Length: 57



1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

Threads: 16 - Buffer Length: 256 - Filter Length: 57

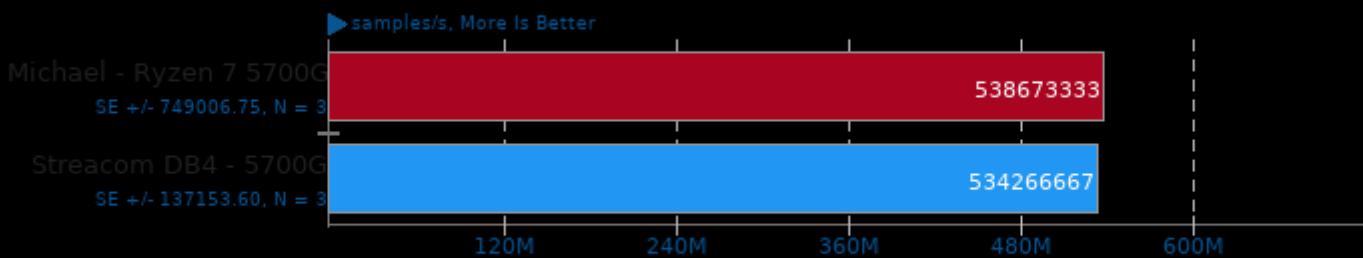


1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

AMD Ryzen 7 5700G Linux Benchmarks

Liquid-DSP 2021.01.31

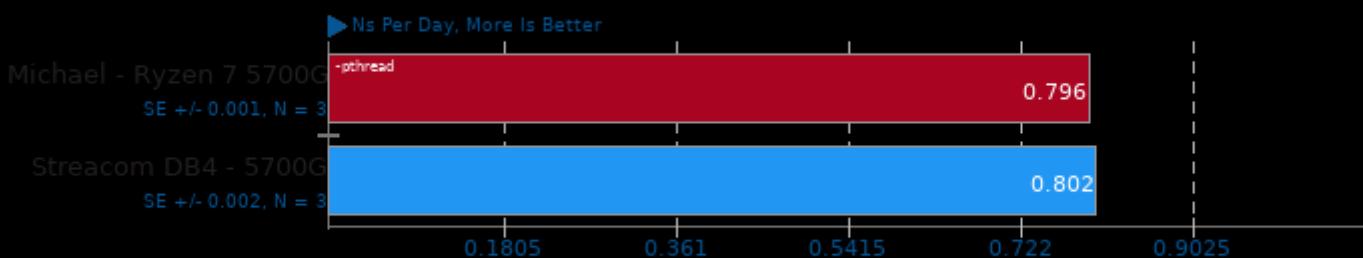
Threads: 32 - Buffer Length: 256 - Filter Length: 57



1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

GROMACS 2021.2

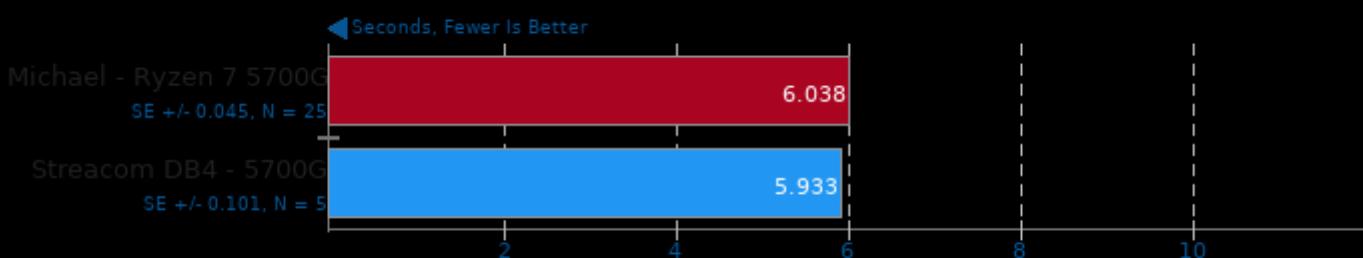
Implementation: MPI CPU - Input: water_GMX50_bare



1. (CXX) g++ options: -O3

LibreOffice

Test: 20 Documents To PDF

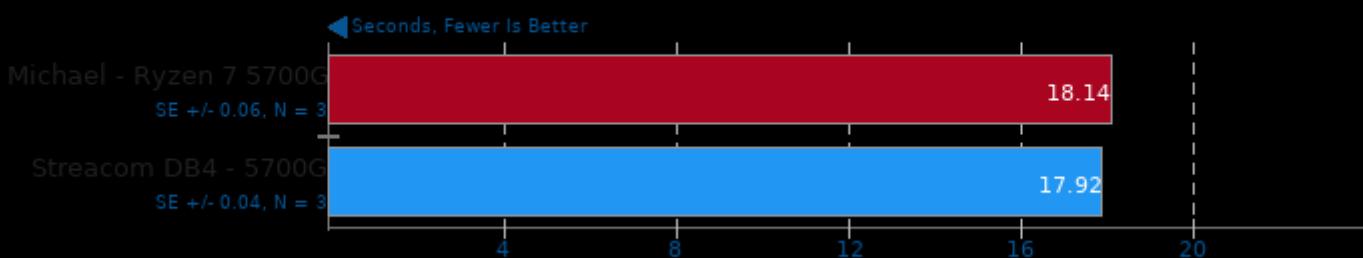


1. Michael - Ryzen 7 5700G: LibreOffice 7.1.4.2 10(Build:2)

2. Streacom DB4 - 5700G: LibreOffice 7.2.3.2 20(Build:2)

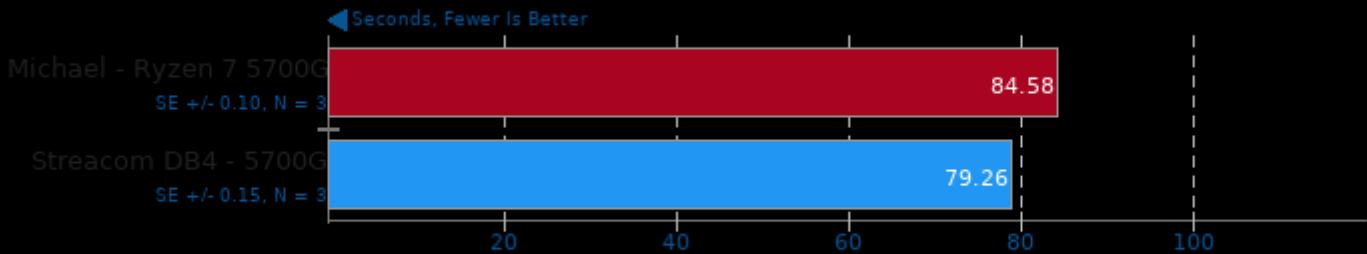
OCRMyPDF 10.3.1+dfsg

Processing 60 Page PDF Document



OpenSCAD

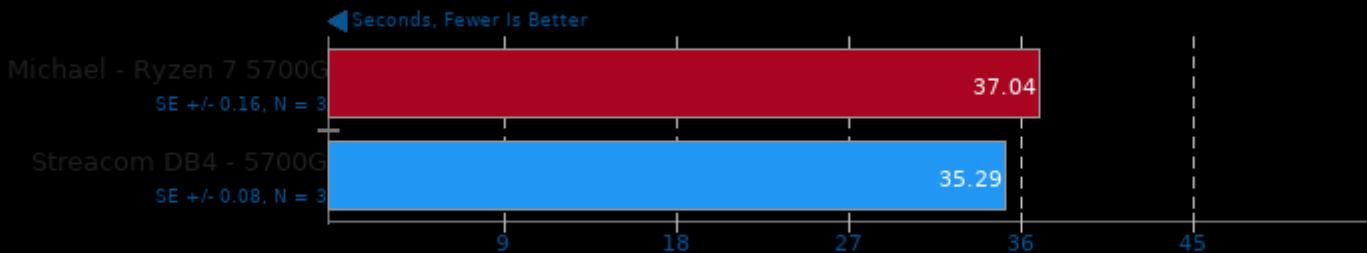
Render: Pistol



1. OpenSCAD version 2021.01

OpenSCAD

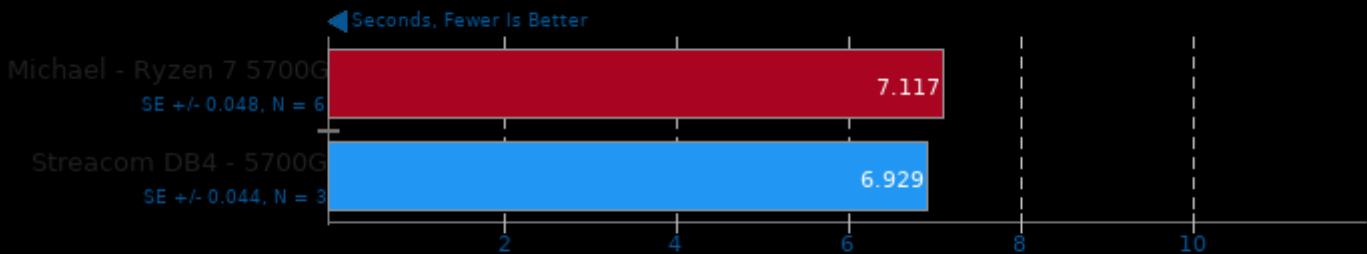
Render: Mini-ITX Case



1. OpenSCAD version 2021.01

OpenSCAD

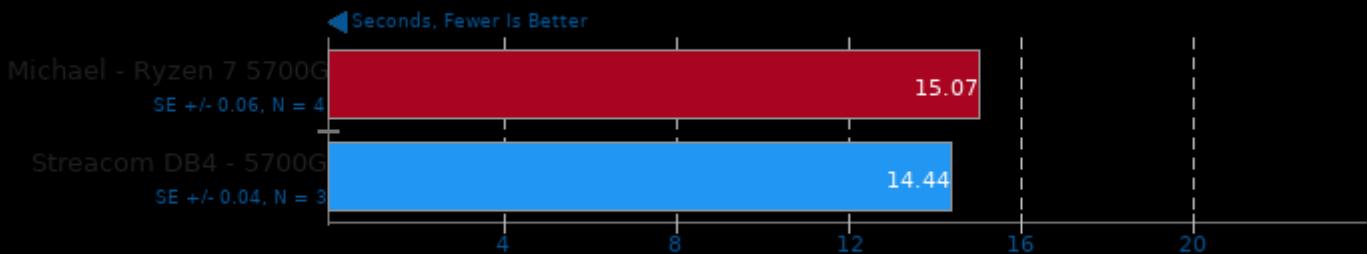
Render: Projector Mount Swivel



1. OpenSCAD version 2021.01

OpenSCAD

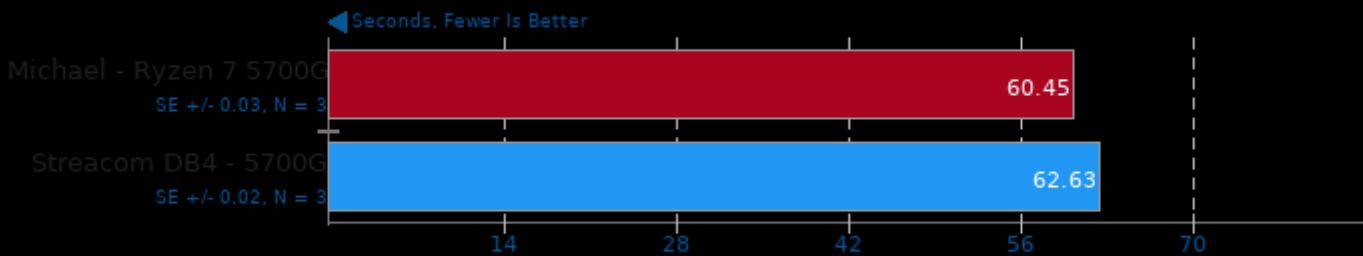
Render: Leonardo Phone Case Slim



1. OpenSCAD version 2021.01

RawTherapee

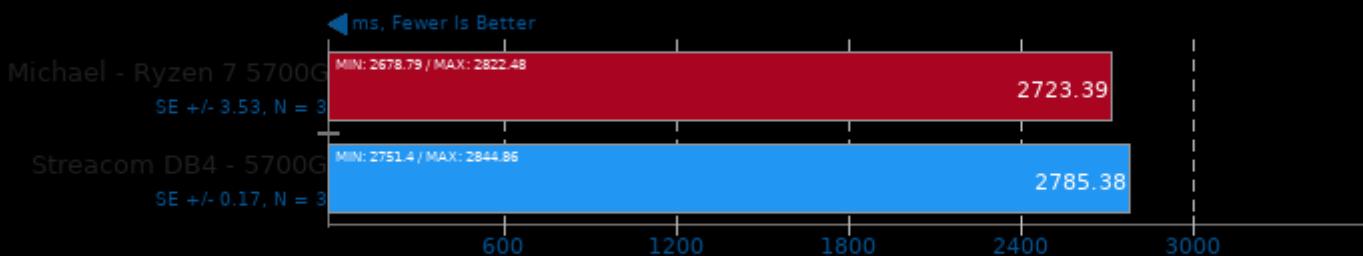
Total Benchmark Time



1. RawTherapee, version 5.8, command line.

TNN 0.3

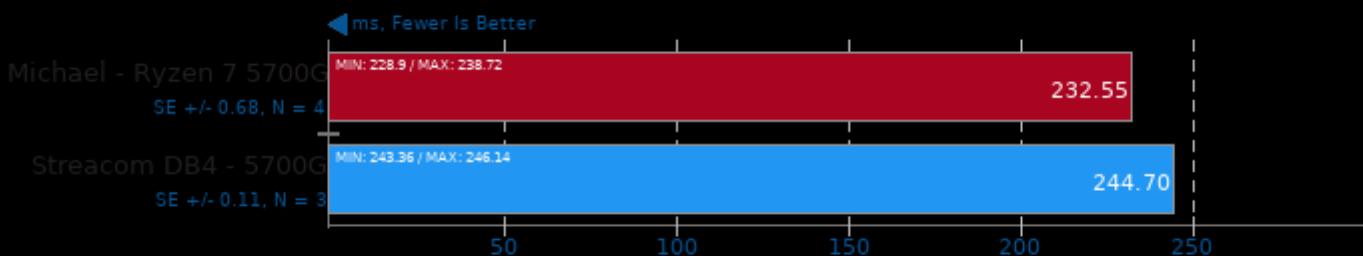
Target: CPU - Model: DenseNet



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

TNN 0.3

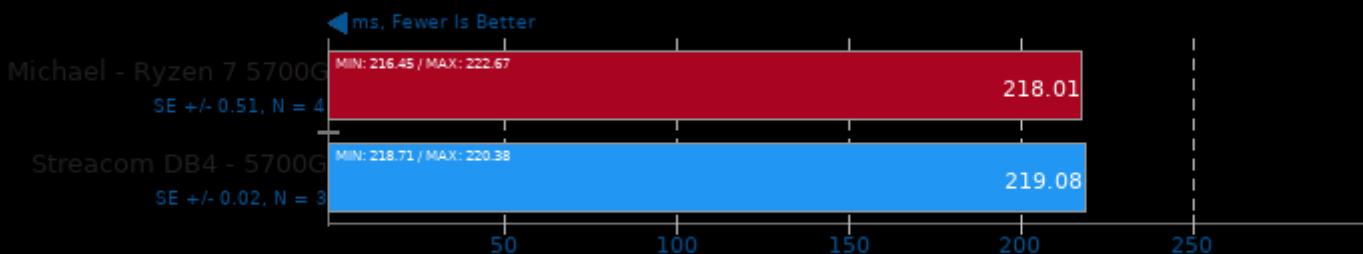
Target: CPU - Model: MobileNet v2



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

TNN 0.3

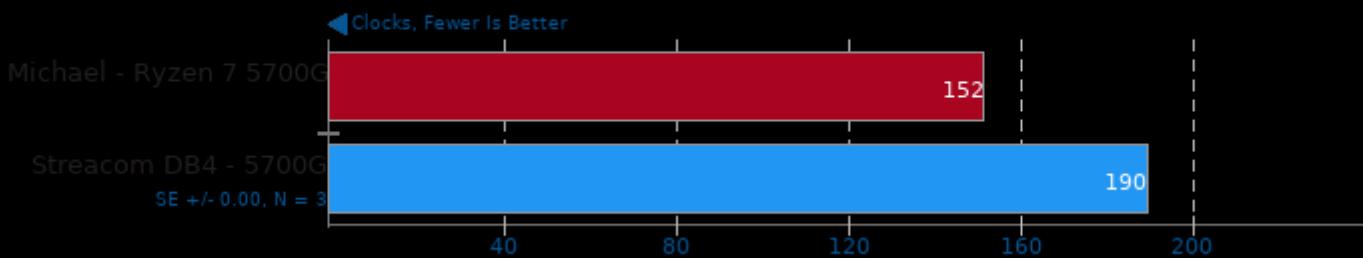
Target: CPU - Model: SqueezeNet v1.1



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

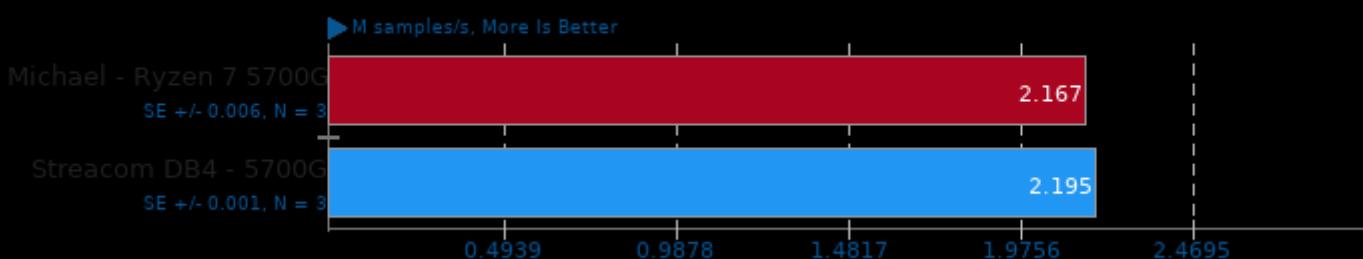
ctx_clock

Context Switch Time



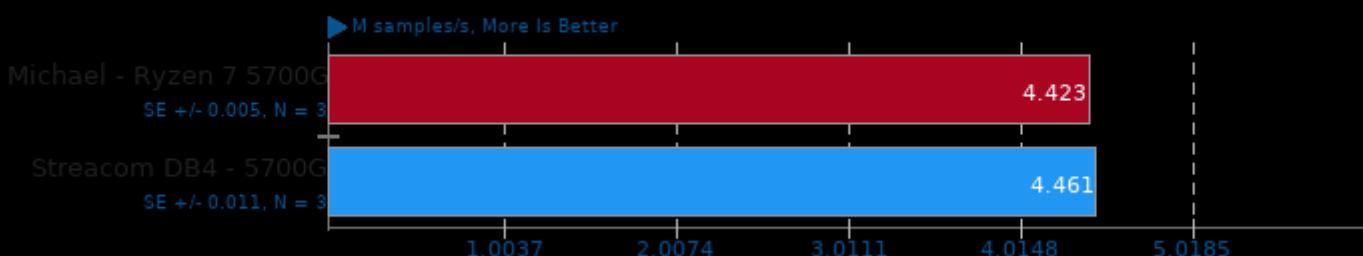
IndigoBench 4.4

Acceleration: CPU - Scene: Bedroom



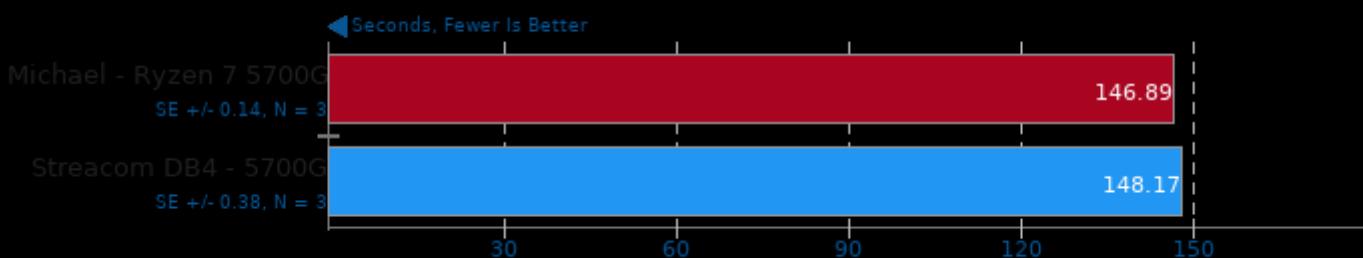
IndigoBench 4.4

Acceleration: CPU - Scene: Supercar



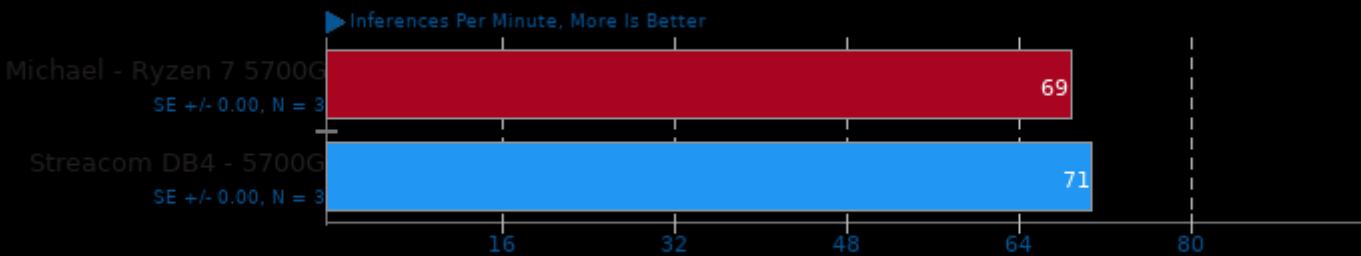
Blender 2.92

Blend File: BMW27 - Compute: CPU-Only



ONNX Runtime 1.6

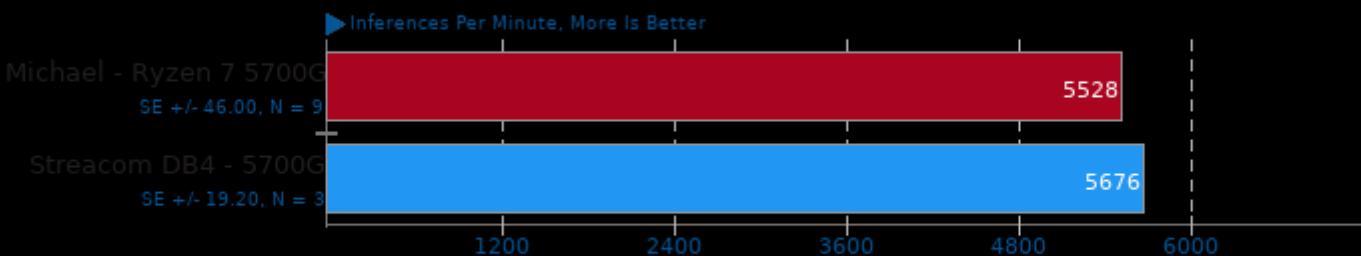
Model: fcn-resnet101-11 - Device: OpenMP CPU



1. (CXX) g++ options: -fopenmp -ffunction-sections -O3 -ldl -lrt

ONNX Runtime 1.6

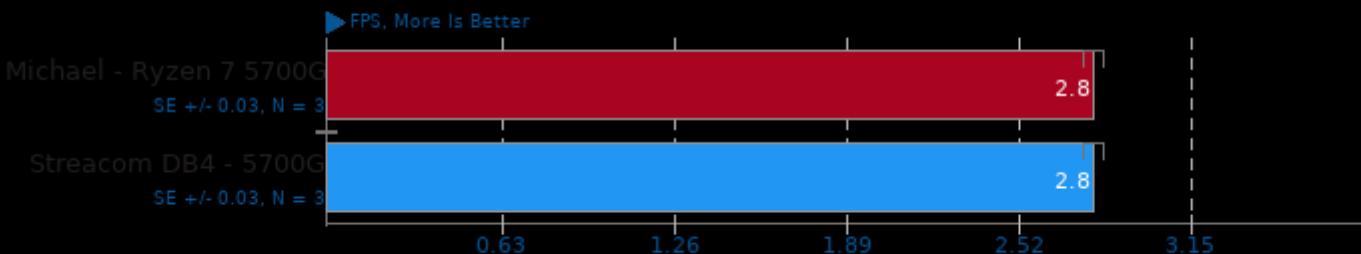
Model: super-resolution-10 - Device: OpenMP CPU



1. (CXX) g++ options: -fopenmp -ffunction-sections -O3 -ldl -lrt

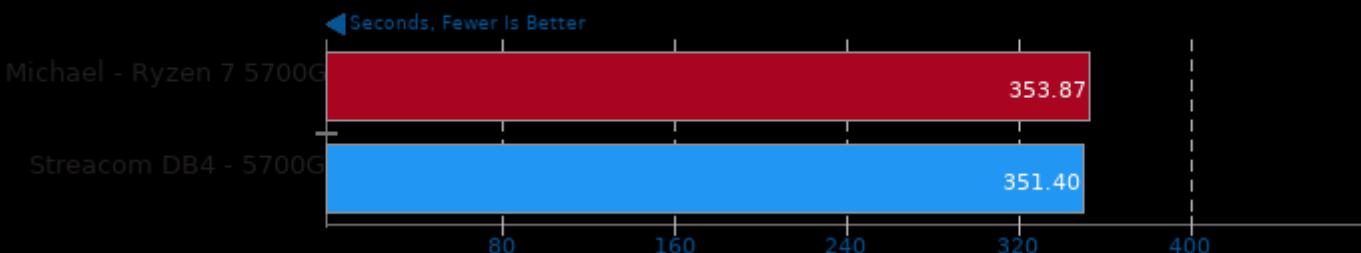
Natron 2.4

Input: Spaceship



Appleseed 2.0 Beta

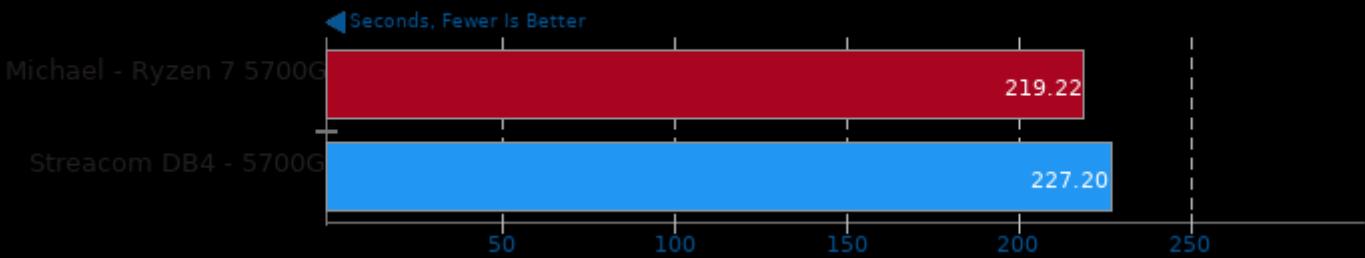
Scene: Emily



AMD Ryzen 7 5700G Linux Benchmarks

Appleseed 2.0 Beta

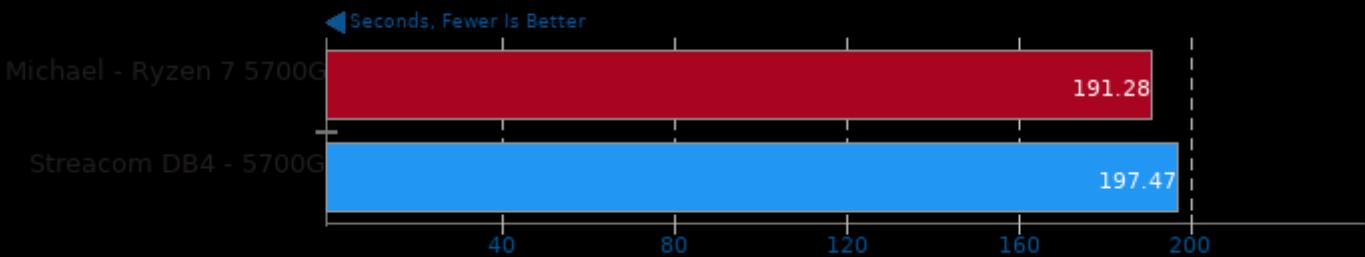
Scene: Disney Material



All renderers and tracers are strenuous tasks. While the actively cooled 5700G 'does not care' it already ran hot for half an hour, passive case becomes thermally saturated. This is typically when having active cooling is beneficial over being passively cooled.

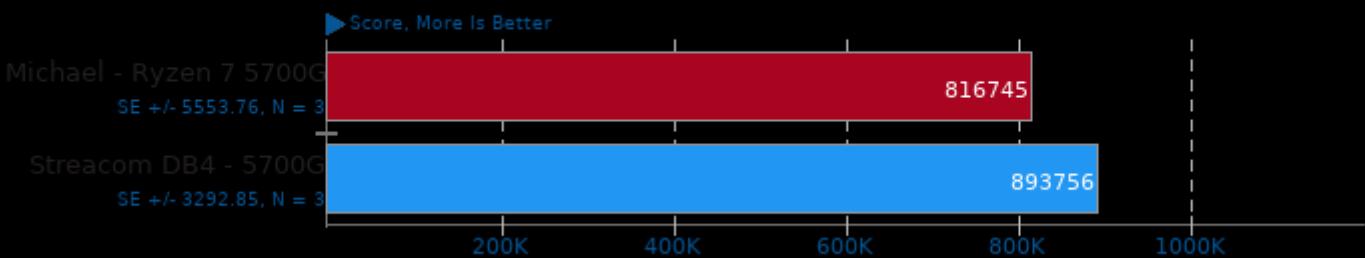
Appleseed 2.0 Beta

Scene: Material Tester



PHPBench 0.8.1

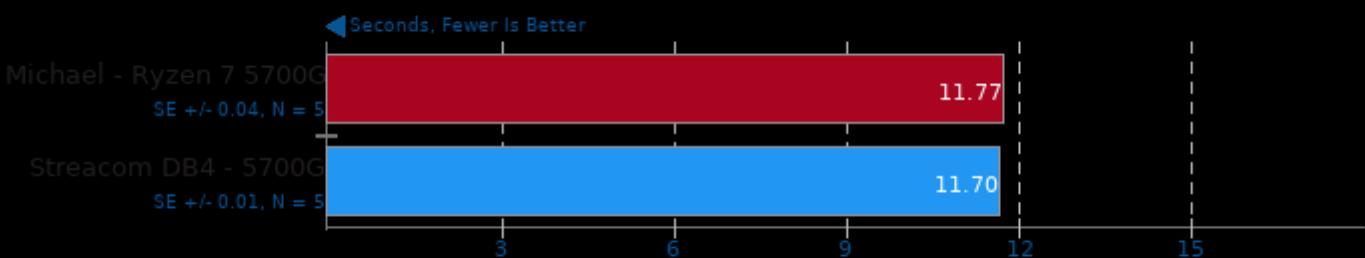
PHP Benchmark Suite



Memory bandwidth is of importance here.

WavPack Audio Encoding 5.3

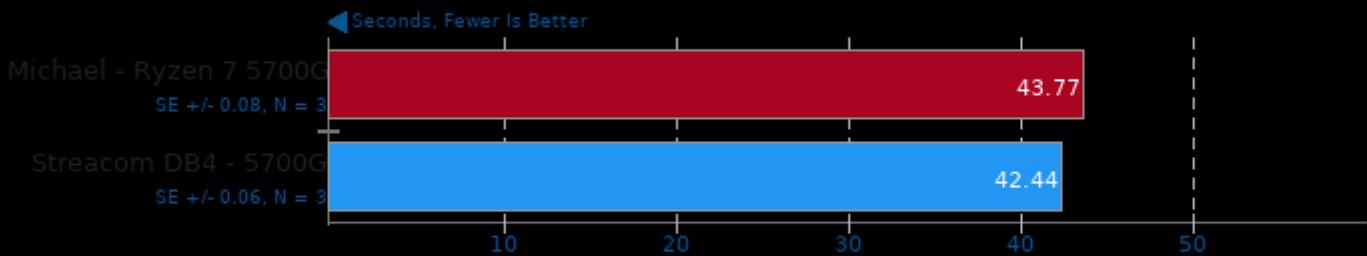
WAV To WavPack



1. (CXX) g++ options: -rdynamic

Git

Time To Complete Common Git Commands

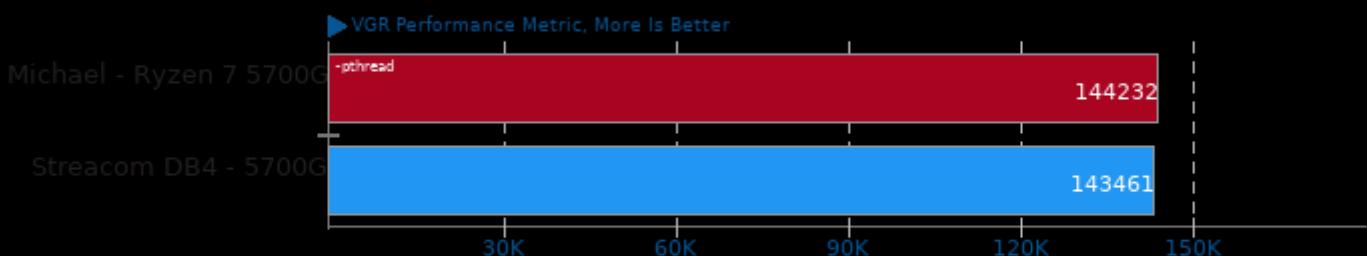


1. Michael - Ryzen 7 5700G: git version 2.30.2

2. Streacom DB4 - 5700G: git version 2.32.0

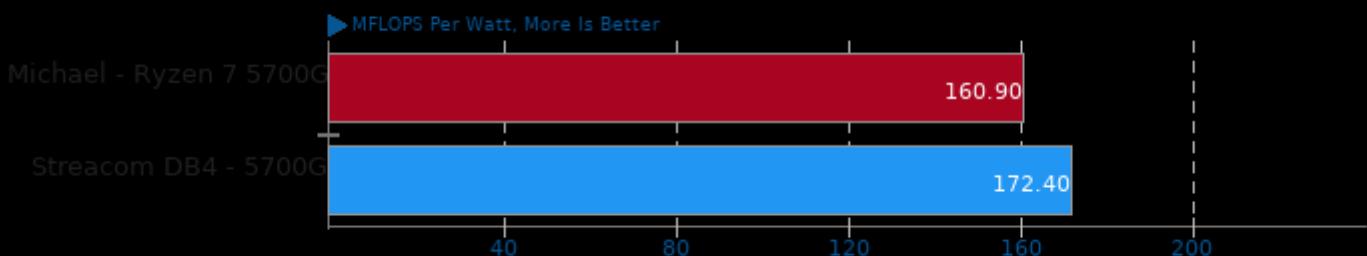
BRL-CAD 7.32.2

VGR Performance Metric



1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pt

QuantLib 1.21

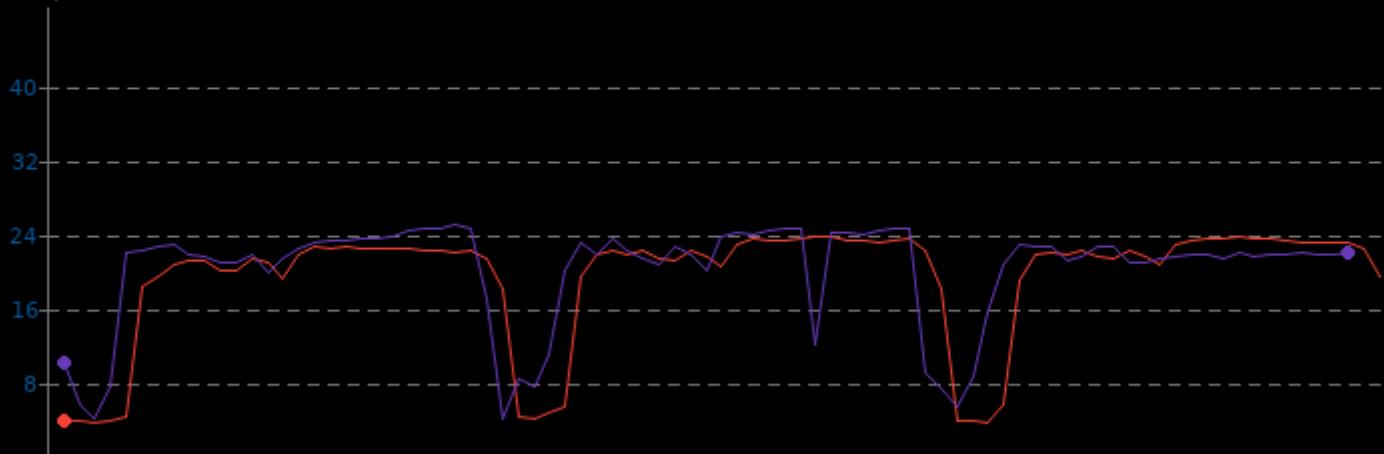


QuantLib 1.21

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	19.3	23.8
Streacom DB4 - 5700G	4.2	20.2	25.0

▼ Watts, Fewer Is Better



EtcPak 0.7

Configuration: DXT1

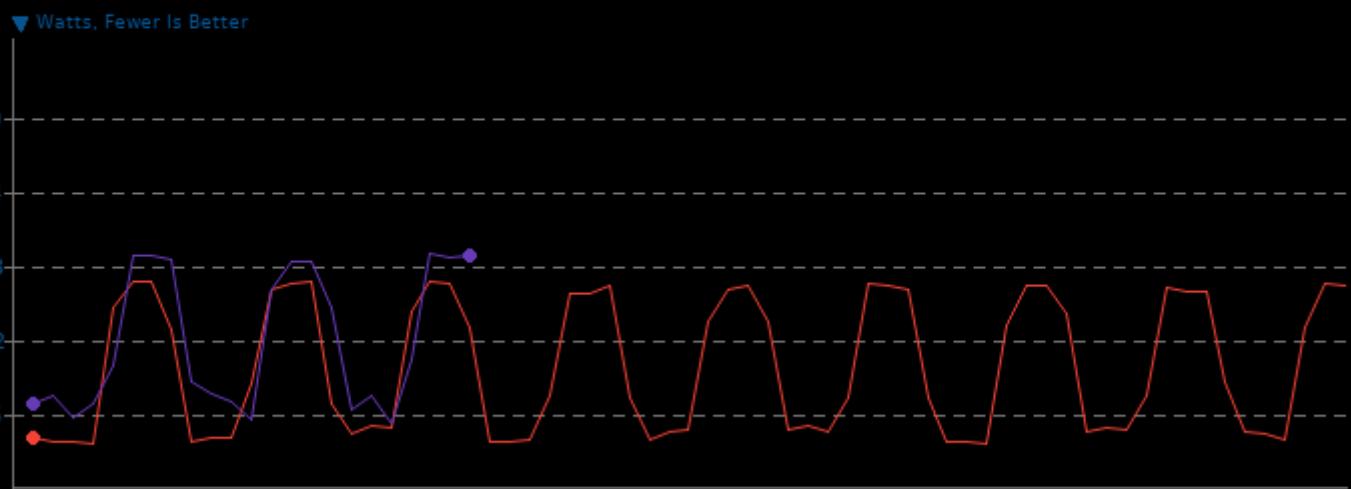
► Mpx/s Per Watt, More Is Better



EtcPak 0.7

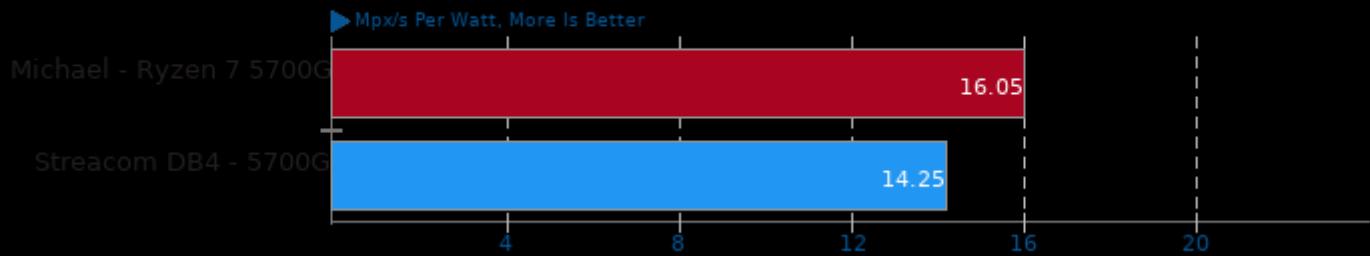
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	9.9	16.7
Streacom DB4 - 5700G	5.2	12.0	18.9



EtcPak 0.7

Configuration: ETC2

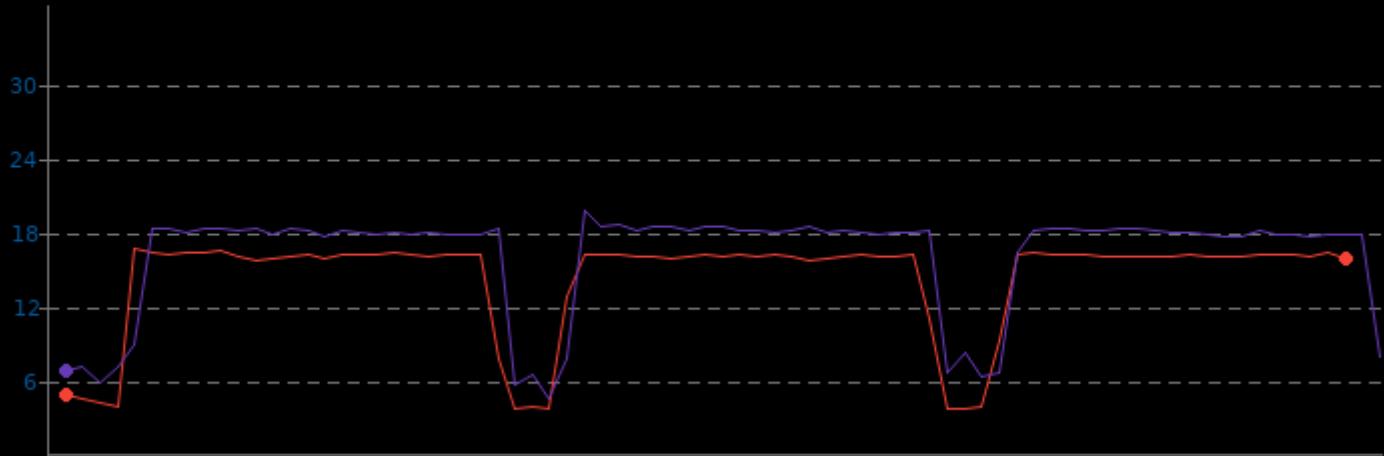


EtcPak 0.7

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	14.3	16.7
Streacom DB4 - 5700G	4.7	16.1	19.7

▼ Watts, Fewer Is Better

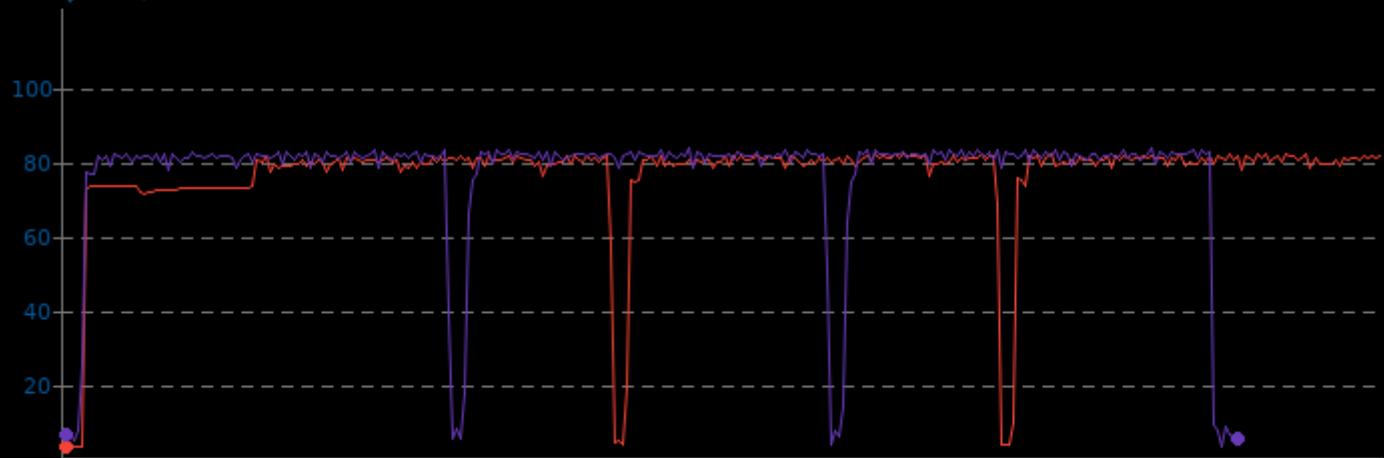


NAMD 2.14

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.6	76.1	82.2
Streacom DB4 - 5700G	4.0	76.0	83.4

▼ Watts, Fewer Is Better

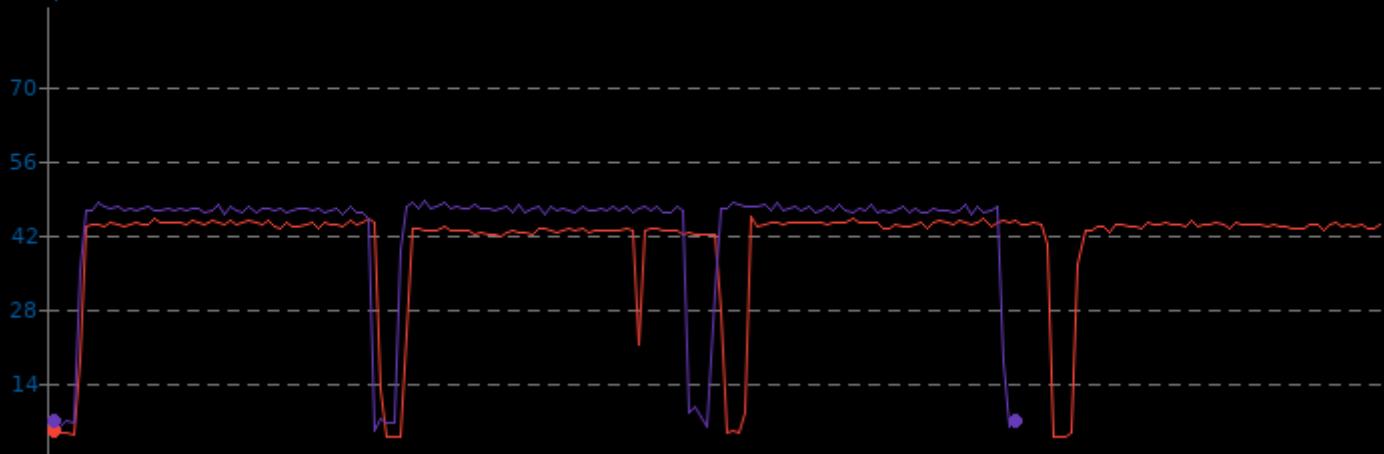


Xcompact3d Incompact3d 2021-03-11

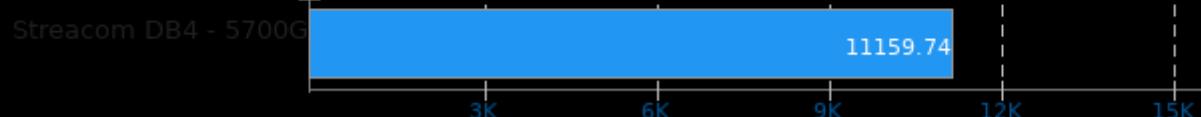
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.1	40.3	45.2
Streacom DB4 - 5700G	5.3	42.8	48.2

▼ Watts, Fewer Is Better

**Chia Blockchain VDF 1.0.1**

Test: Square Plain C++

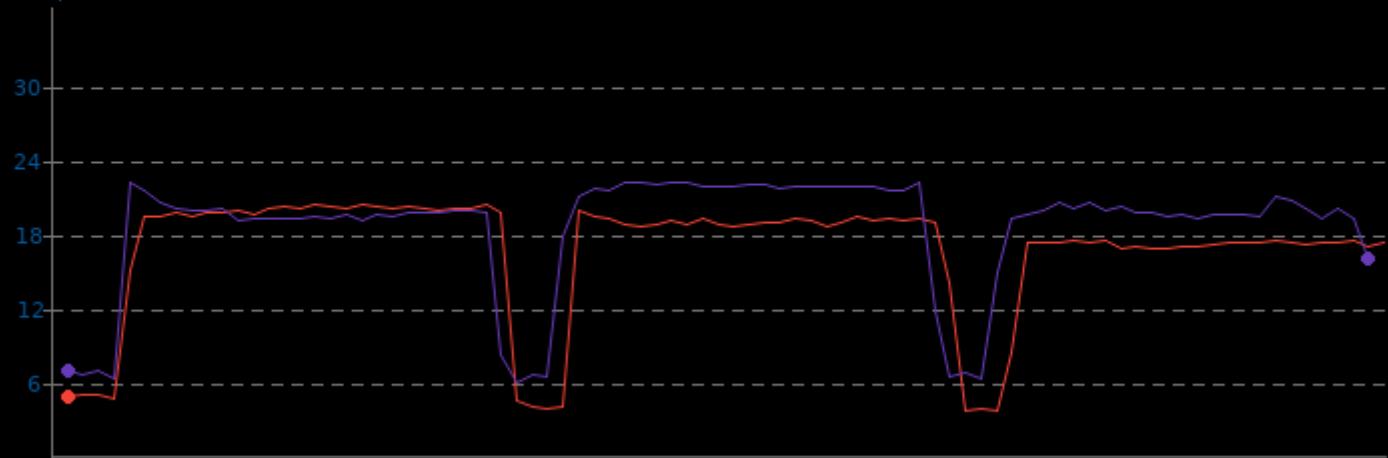


Chia Blockchain VDF 1.0.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	16.7	20.4
Streacom DB4 - 5700G	6.2	18.5	22.3

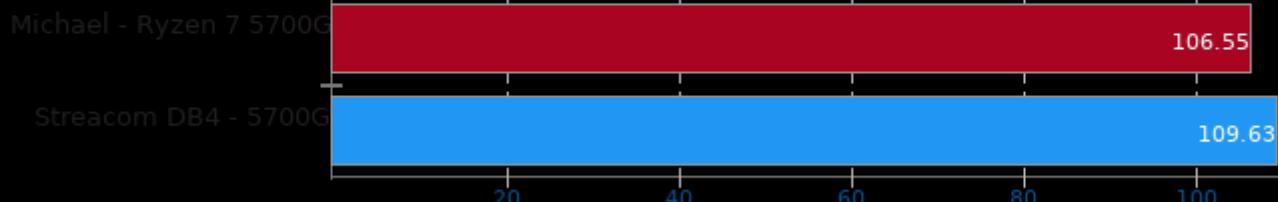
▼ Watts, Fewer Is Better



Zstd Compression 1.5.0

Compression Level: 19 - Decompression Speed

► MB/s Per Watt, More Is Better

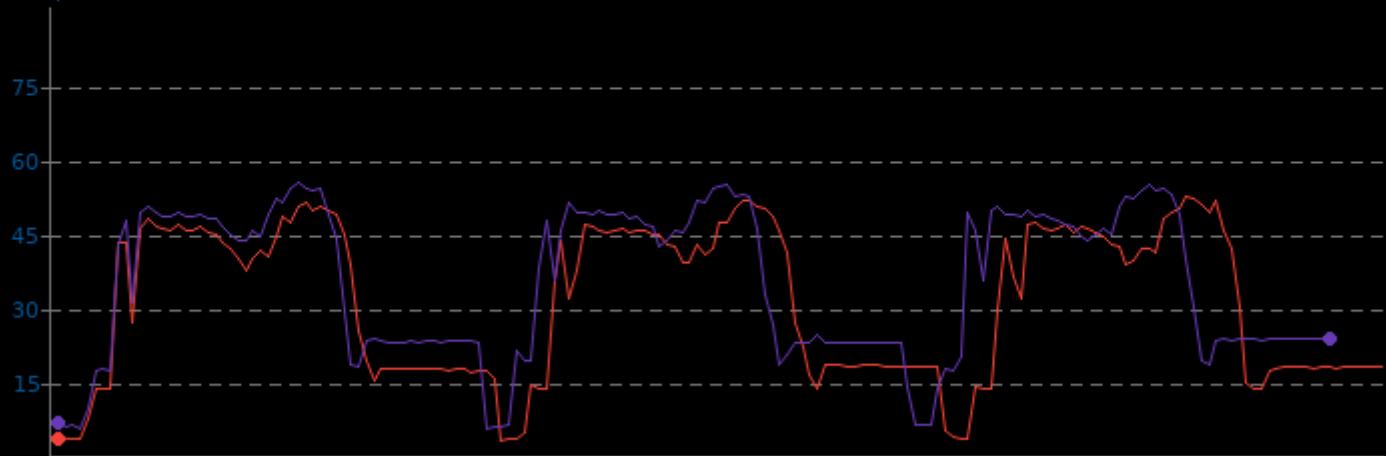


Zstd Compression 1.5.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	31.5	52.6
Streacom DB4 - 5700G	6.2	35.2	55.4

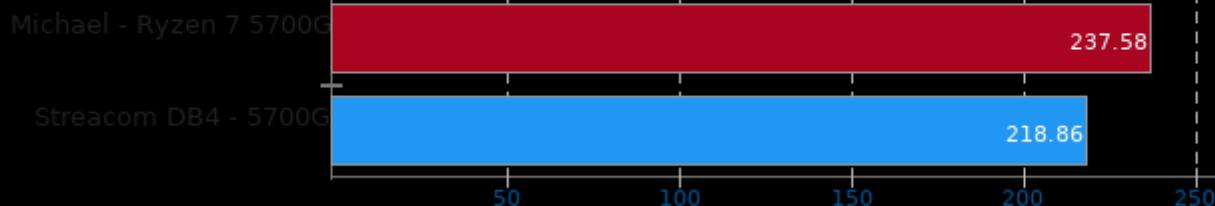
▼ Watts, Fewer Is Better



Zstd Compression 1.5.0

Compression Level: 3, Long Mode - Decompression Speed

► MB/s Per Watt, More Is Better

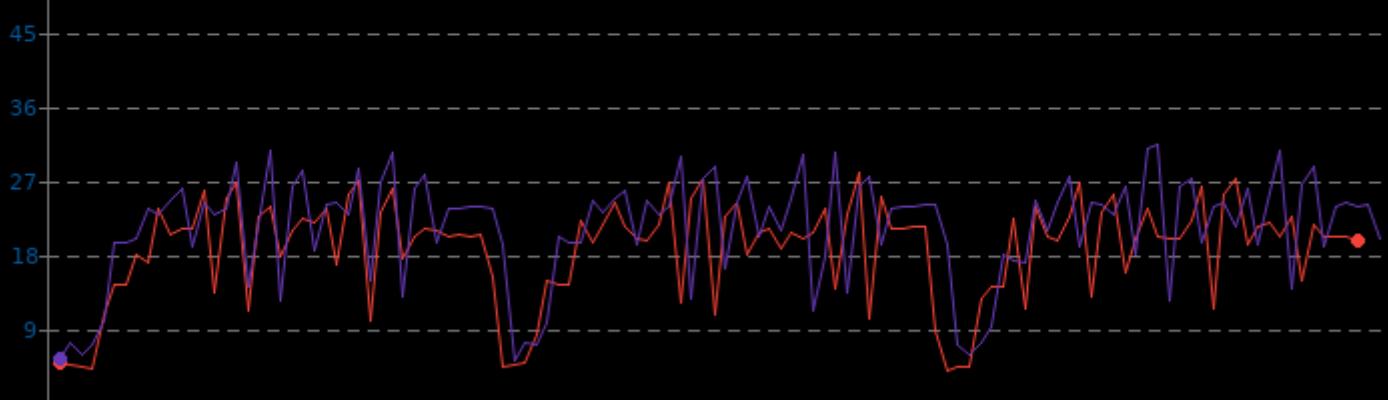


Zstd Compression 1.5.0

CPU Power Consumption Monitor

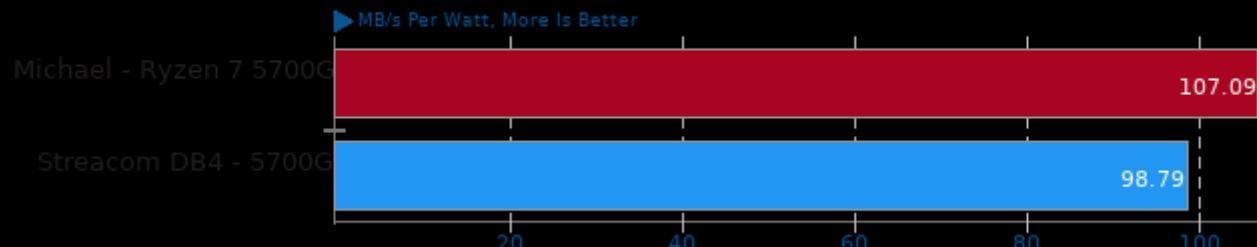
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	18.7	27.9
Streacom DB4 - 5700G	5.3	21.2	31.3

▼ Watts, Fewer Is Better



Zstd Compression 1.5.0

Compression Level: 19, Long Mode - Decompression Speed

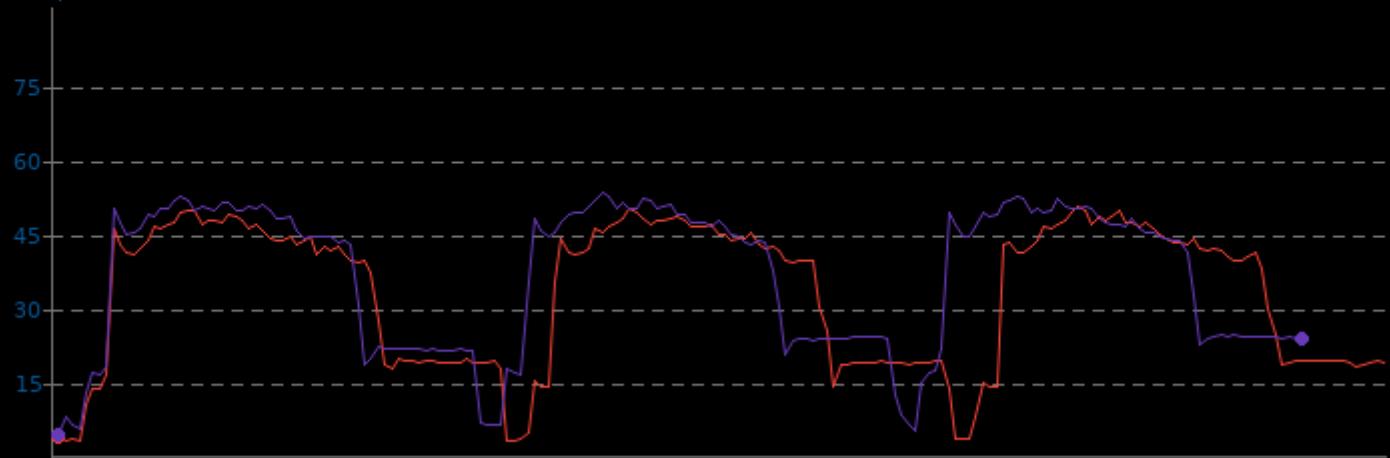


Zstd Compression 1.5.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.6	33.4	50.5
Streacom DB4 - 5700G	4.9	36.7	53.4

▼ Watts, Fewer Is Better



LibRaw 0.20

Post-Processing Benchmark

► Mpix/sec Per Watt, More Is Better

Michael - Ryzen 7 5700G

1.235

Streacom DB4 - 5700G

1.200

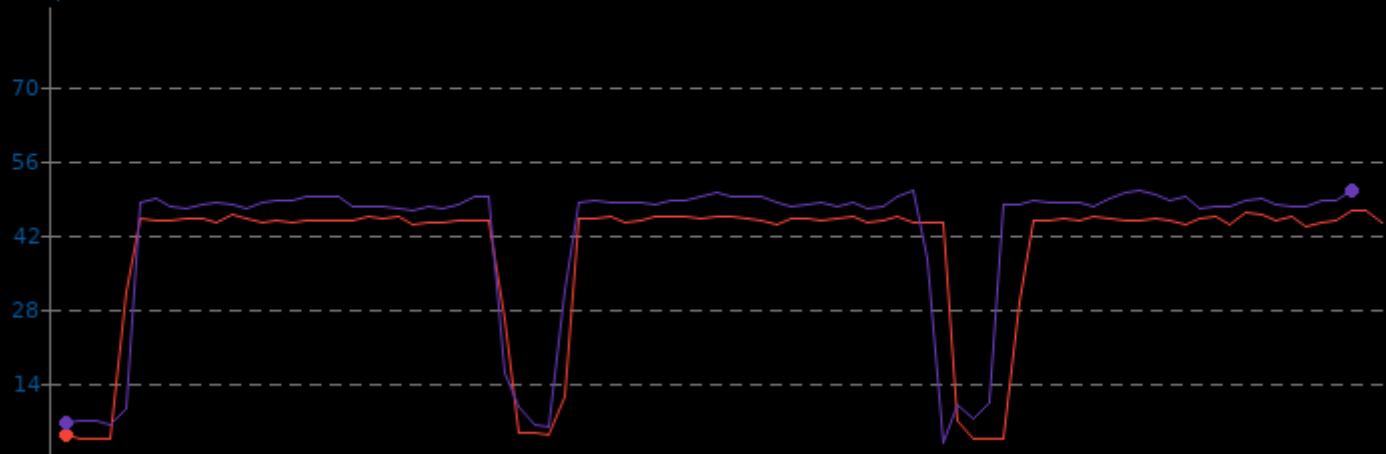
0.2779 0.5558 0.8337 1.1116 1.3895

LibRaw 0.20

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	38.9	46.5
Streacom DB4 - 5700G	2.9	41.8	50.3

▼ Watts, Fewer Is Better



dav1d 0.9.1

Video Input: Summer Nature 4K

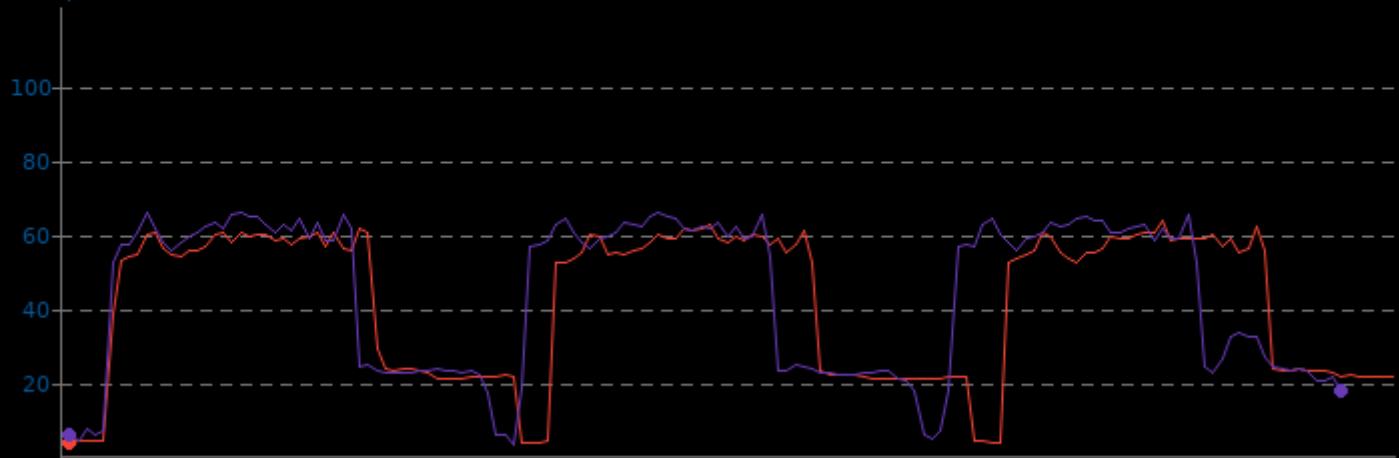


dav1d 0.9.1

CPU Power Consumption Monitor

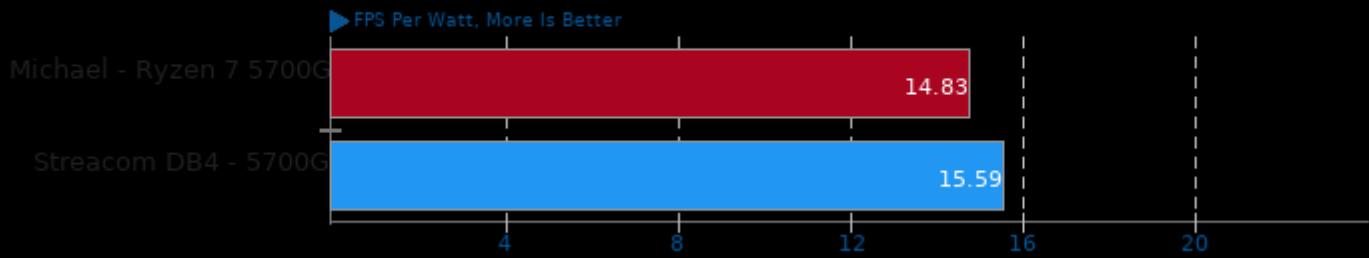
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	41.9	63.9
Streacom DB4 - 5700G	3.8	44.0	65.8

▼ Watts, Fewer Is Better



dav1d 0.9.1

Video Input: Summer Nature 1080p

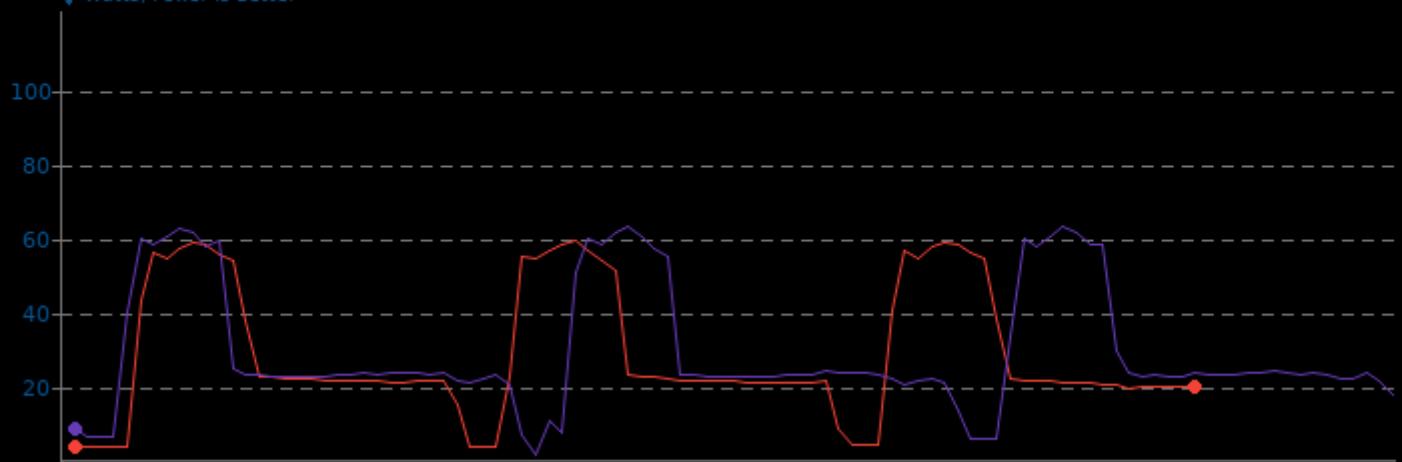


dav1d 0.9.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	29.0	59.3
Streacom DB4 - 5700G	2.0	29.6	63.3

▼ Watts, Fewer Is Better



OSPray 1.8.5

Demo: San Miguel - Renderer: SciVis

► FPS Per Watt, More Is Better

Michael - Ryzen 7 5700G 0.367

Streacom DB4 - 5700G 0.356

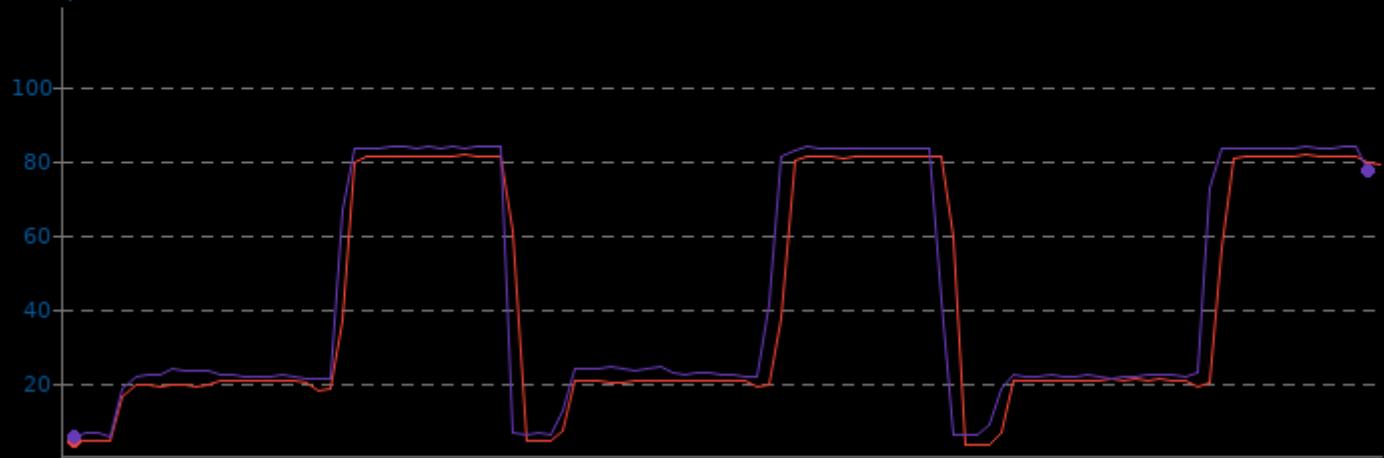
0.0826 0.1652 0.2478 0.3304 0.413

OSPray 1.8.5

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	41.9	81.2
Streacom DB4 - 5700G	5.7	43.9	83.6

▼ Watts, Fewer Is Better



OSPray 1.8.5

Demo: San Miguel - Renderer: Path Tracer

► FPS Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.018

Streacom DB4 - 5700G

0.018

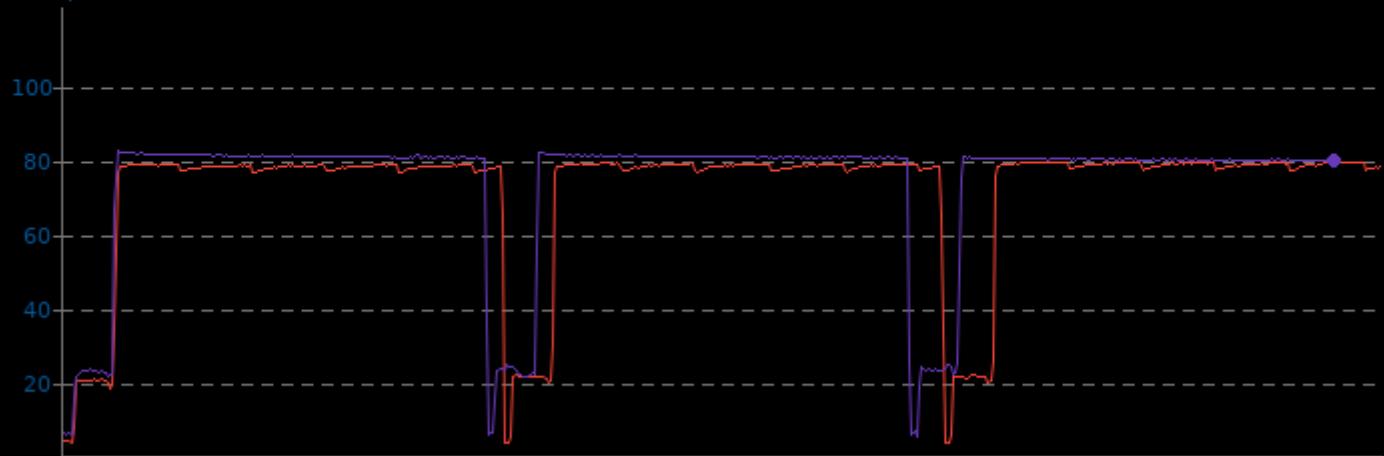
0.0041 0.0082 0.0123 0.0164 0.0205

OSPray 1.8.5

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	71.4	79.5
Streacom DB4 - 5700G	5.8	73.4	82.5

▼ Watts, Fewer Is Better



OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis

► FPS Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.191

Streacom DB4 - 5700G

0.191

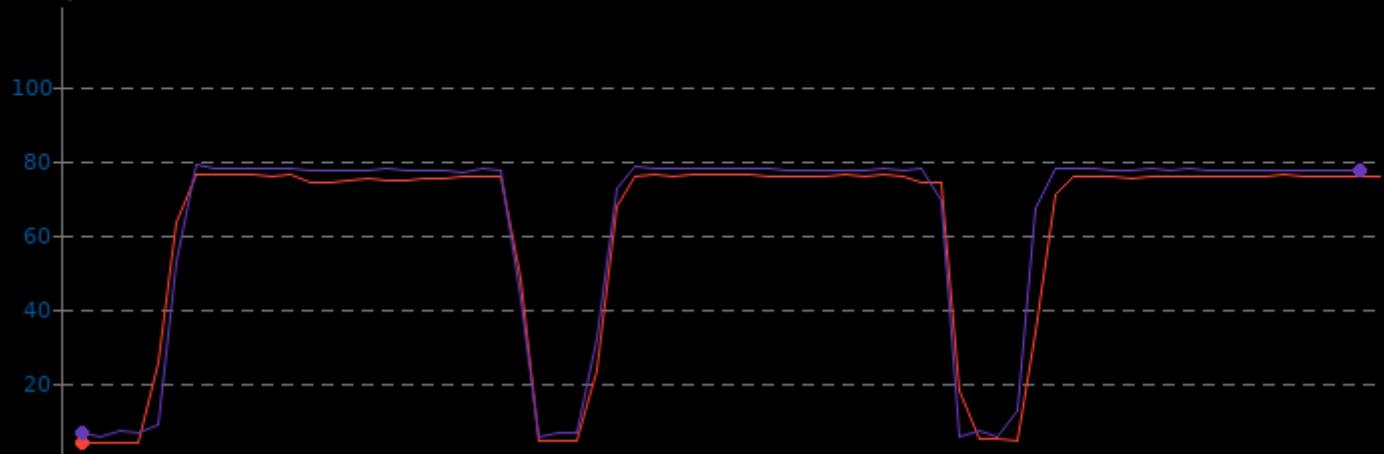
0.043 0.086 0.129 0.172 0.215

OSPray 1.8.5

CPU Power Consumption Monitor

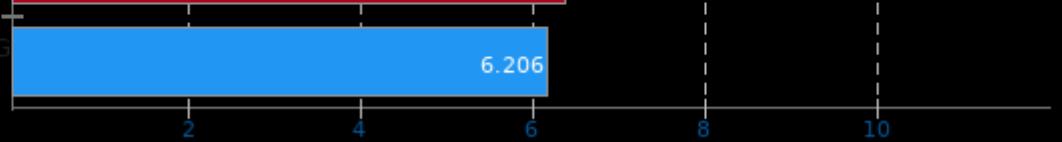
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	61.5	76.2
Streacom DB4 - 5700G	5.9	63.1	78.9

▼ Watts, Fewer Is Better



OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: Path Tracer

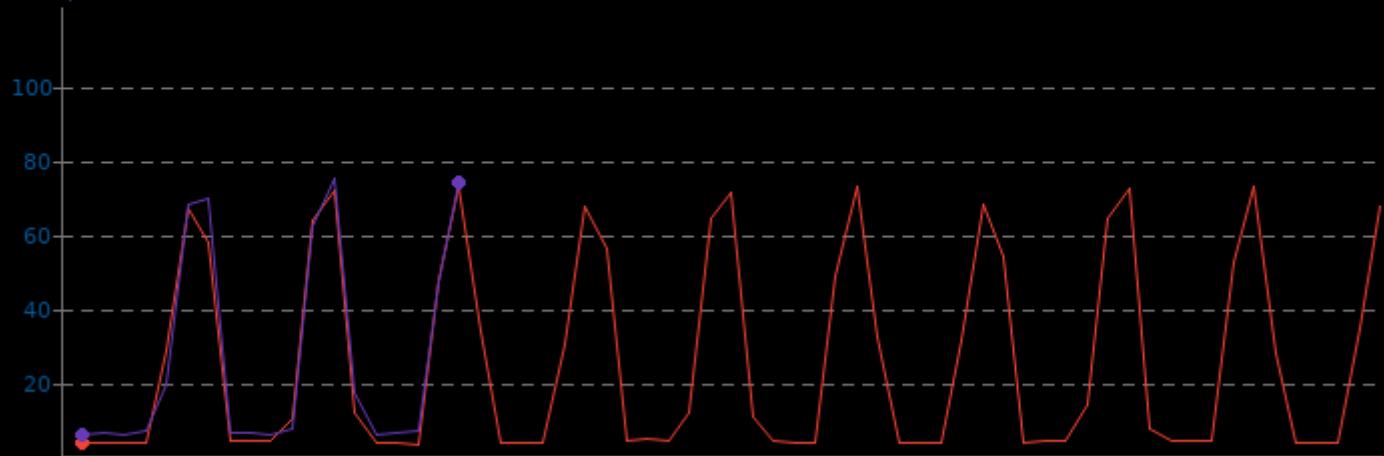


OSPray 1.8.5

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	26.1	73.0
Streacom DB4 - 5700G	6.2	26.9	74.8

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.070

Streacom DB4 - 5700G

0.068

0.0158 0.0316 0.0474 0.0632

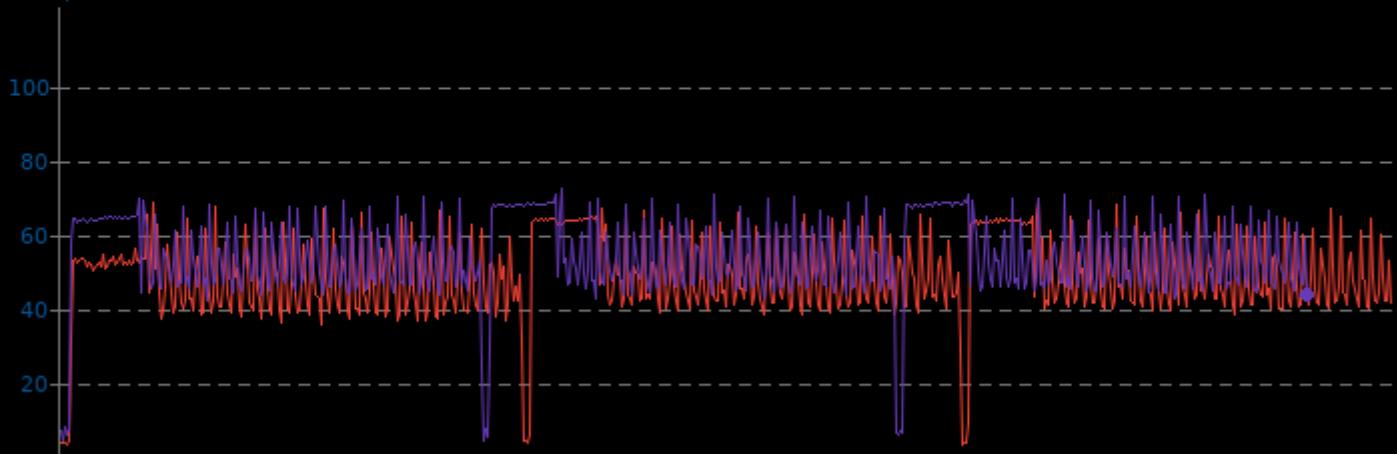
0.079

AOM AV1 3.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	48.9	69.7
Streacom DB4 - 5700G	5.0	53.8	72.5

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.287

Streacom DB4 - 5700G

0.279

0.0646 0.1292 0.1938 0.2584 0.323

AOM AV1 3.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	45.5	52.9
Streacom DB4 - 5700G	4.5	48.3	59.6

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K

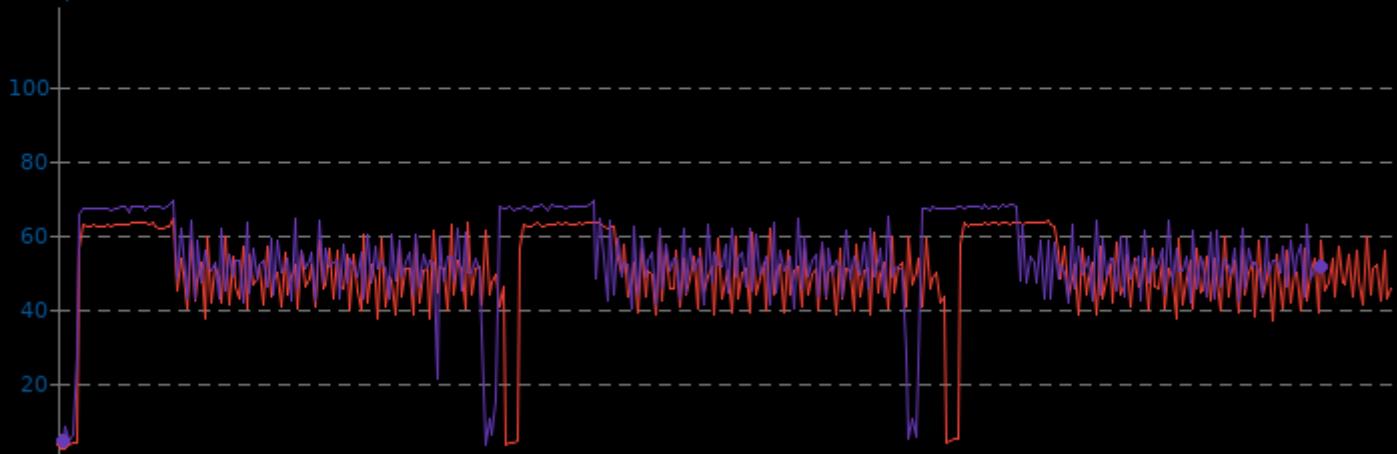


AOM AV1 3.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	50.0	64.6
Streacom DB4 - 5700G	4.0	53.8	69.3

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.859

Streacom DB4 - 5700G

0.860

0.1935

0.387

0.5805

0.774

0.9675

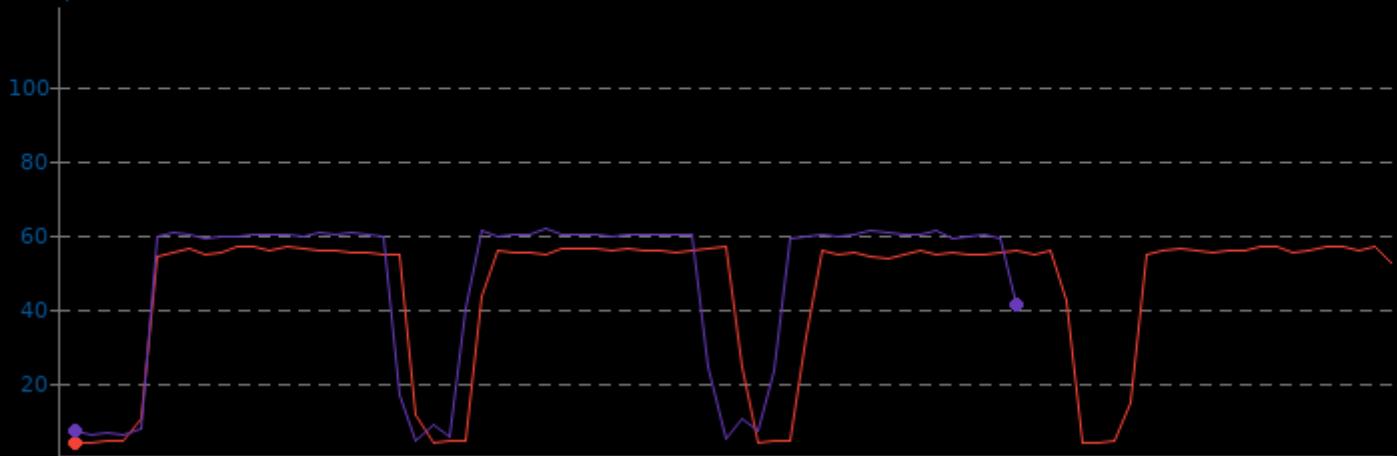
This chart compares the efficiency of the two systems in terms of frames per second per watt. The Y-axis represents FPS/Watt, with a scale from 0 to 1. The X-axis represents the FPS/Watt value. Two horizontal bars are shown: Michael - Ryzen 7 5700G (red bar) with a value of 0.859 and Streacom DB4 - 5700G (blue bar) with a value of 0.860. The Streacom bar is slightly longer than the Michael bar, indicating higher efficiency.

AOM AV1 3.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.1	44.9	57.0
Streacom DB4 - 5700G	5.0	47.5	61.4

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.163

Streacom DB4 - 5700G

0.156

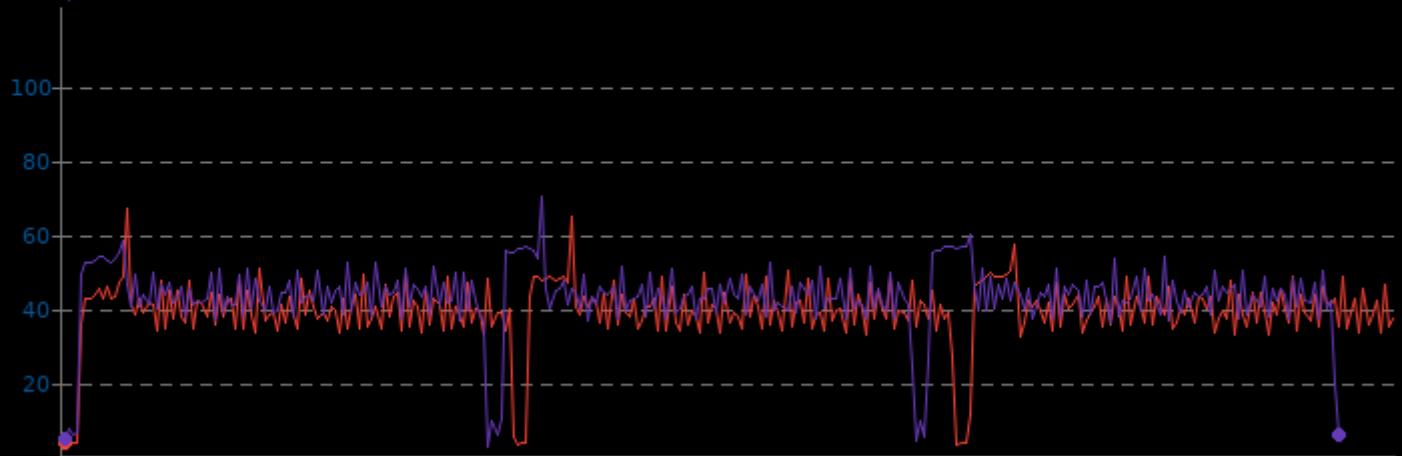
0.0367 0.0734 0.1101 0.1468 0.1835

AOM AV1 3.1

CPU Power Consumption Monitor

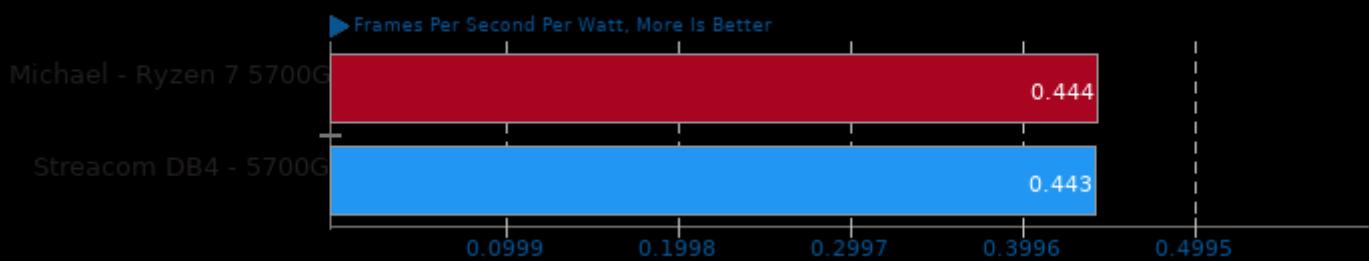
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	39.5	67.1
Streacom DB4 - 5700G	3.2	43.3	70.4

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p

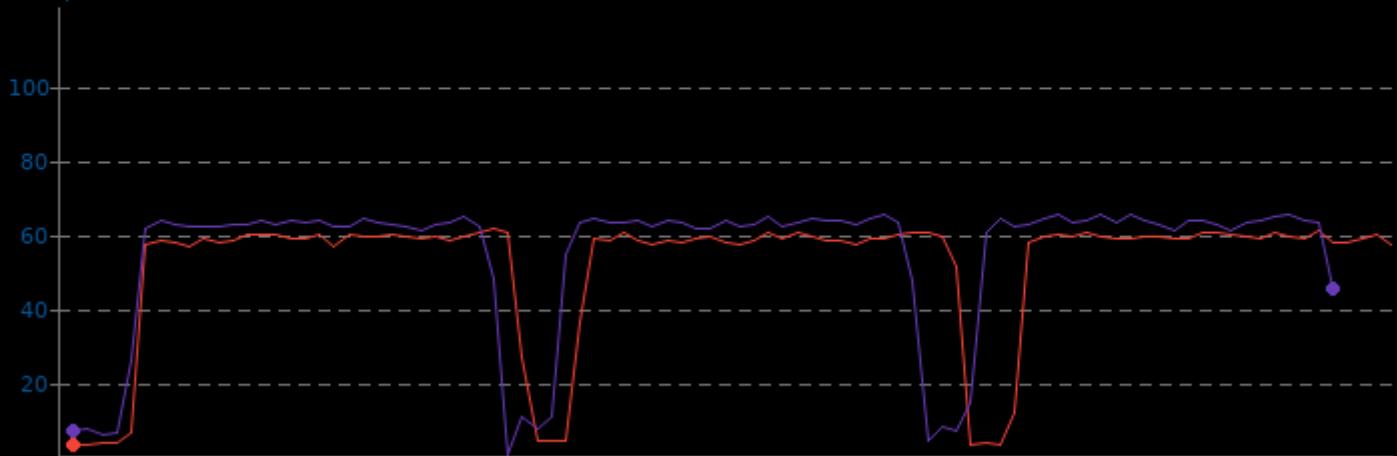


AOM AV1 3.1

CPU Power Consumption Monitor

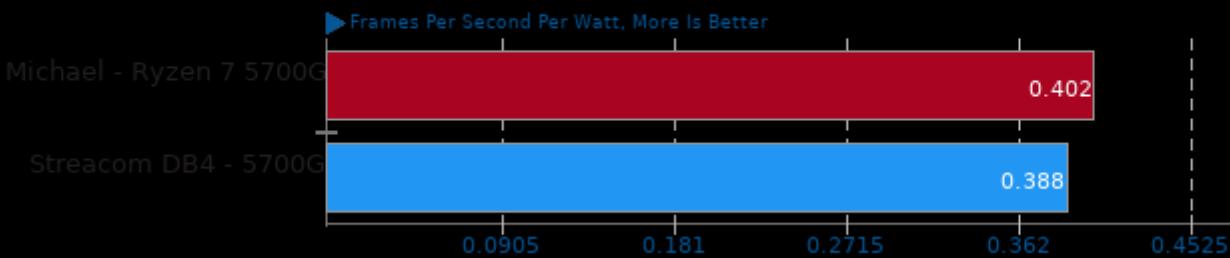
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	51.4	61.3
Streacom DB4 - 5700G	0.9	54.6	65.6

▼ Watts, Fewer Is Better



AOM AV1 3.1

Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p

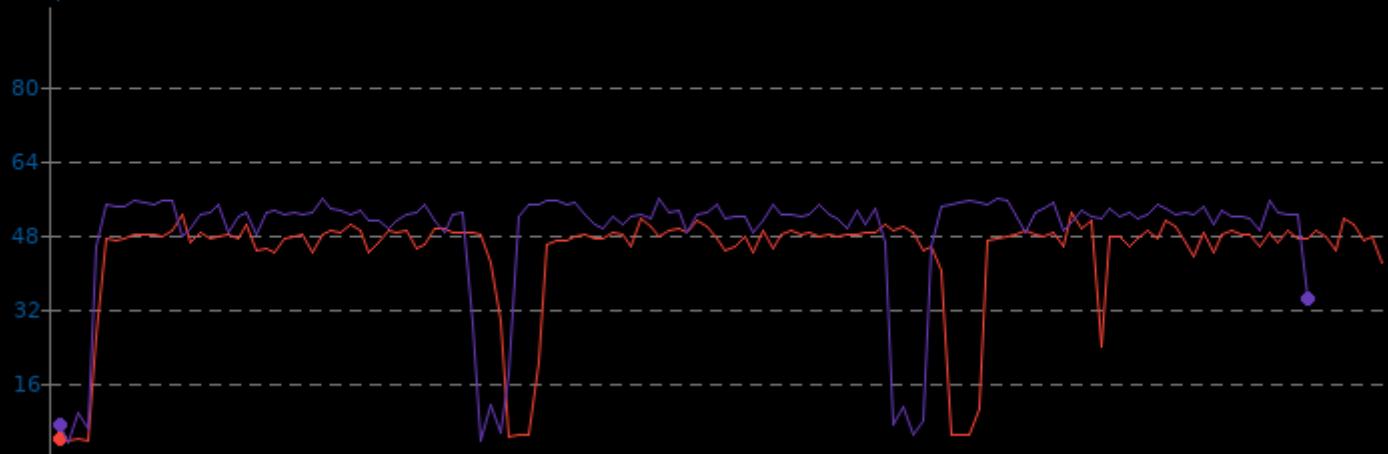


AOM AV1 3.1

CPU Power Consumption Monitor

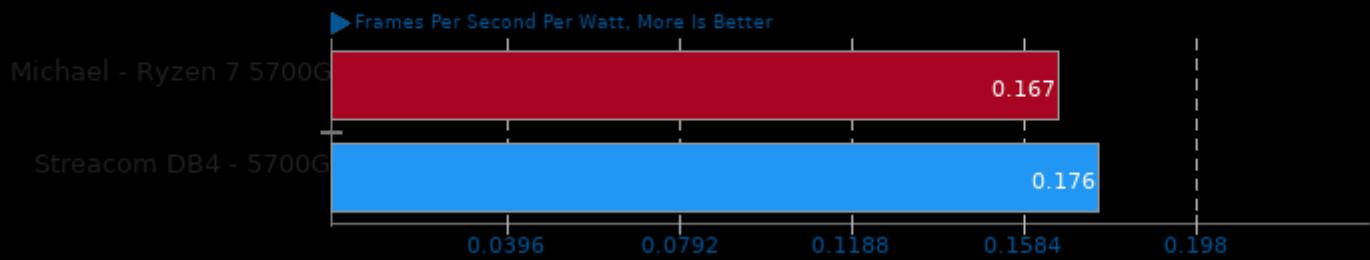
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	43.7	52.7
Streacom DB4 - 5700G	3.4	48.1	55.8

▼ Watts, Fewer Is Better



Embree 3.13

Binary: Pathtracer - Model: Crown

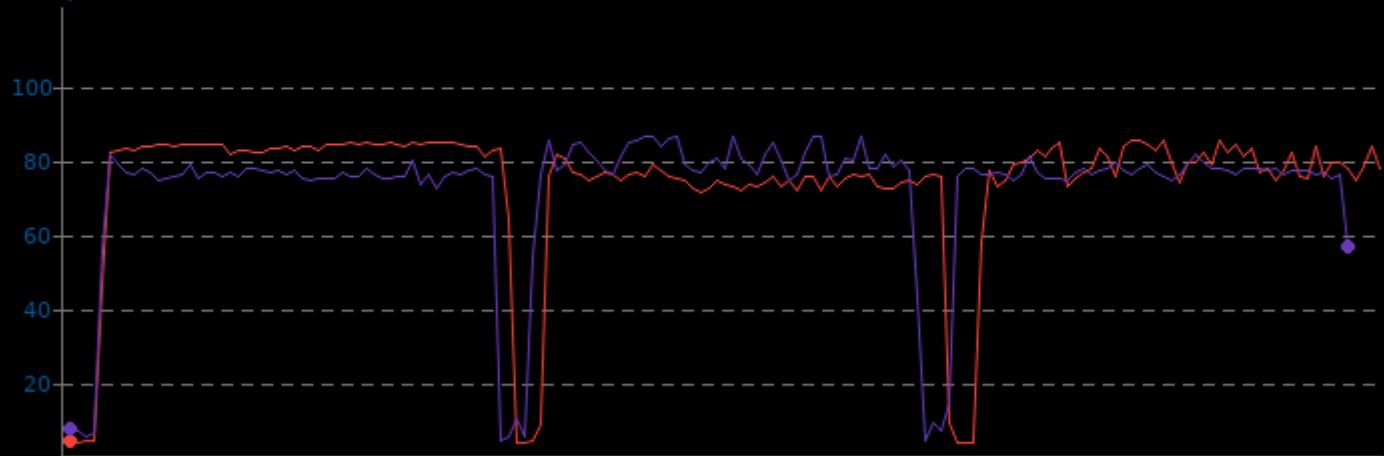


Embree 3.13

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	73.5	85.3
Streacom DB4 - 5700G	5.0	72.0	86.3

▼ Watts, Fewer Is Better



Embree 3.13

Binary: Pathtracer ISPC - Model: Crown

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.167

Streacom DB4 - 5700G

0.160

0.0376

0.0752

0.1128

0.1504

0.188

Embree 3.13

CPU Power Consumption Monitor

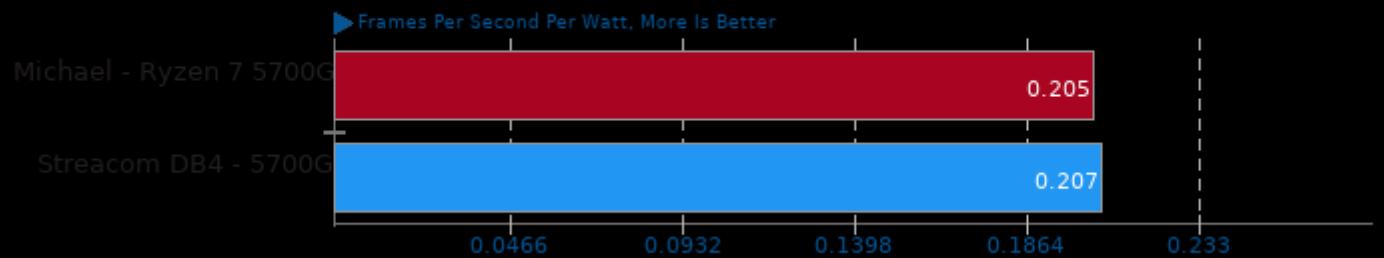
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	68.6	81.6
Streacom DB4 - 5700G	6.0	72.7	84.7

▼ Watts, Fewer Is Better



Embree 3.13

Binary: Pathtracer - Model: Asian Dragon

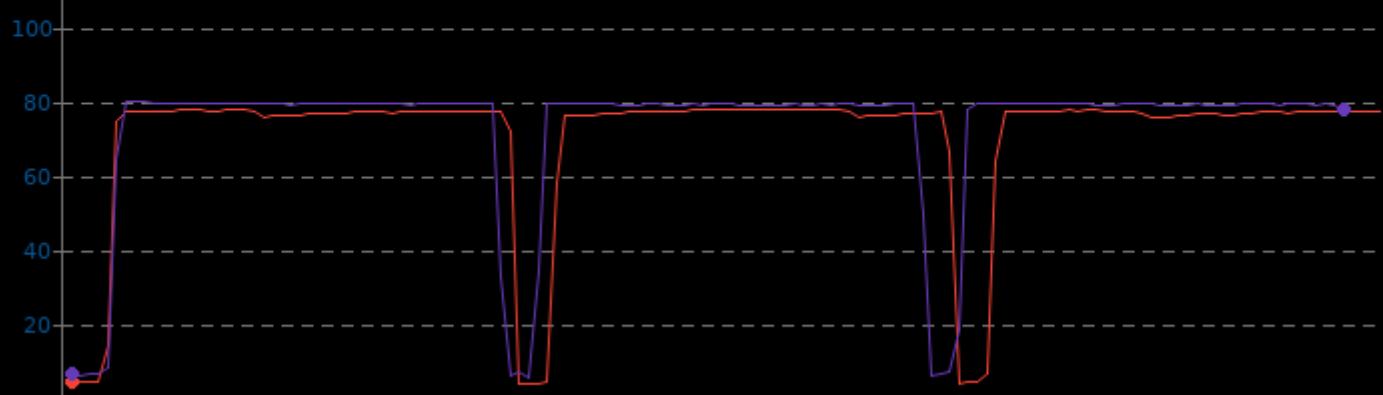


Embree 3.13

CPU Power Consumption Monitor

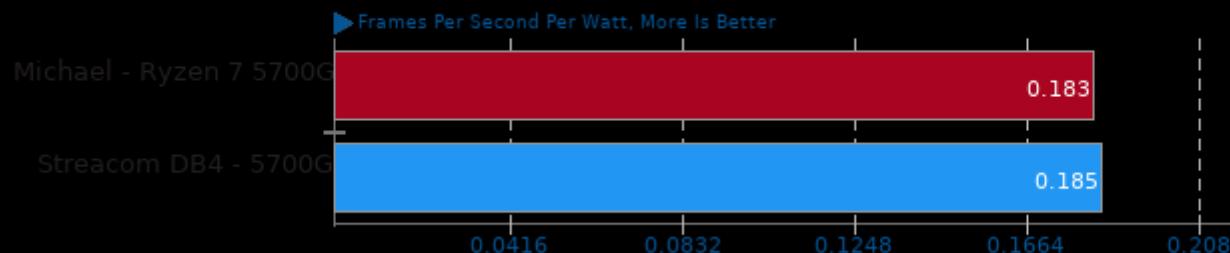
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	70.2	77.8
Streacom DB4 - 5700G	6.1	72.0	80.0

▼ Watts, Fewer Is Better



Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon

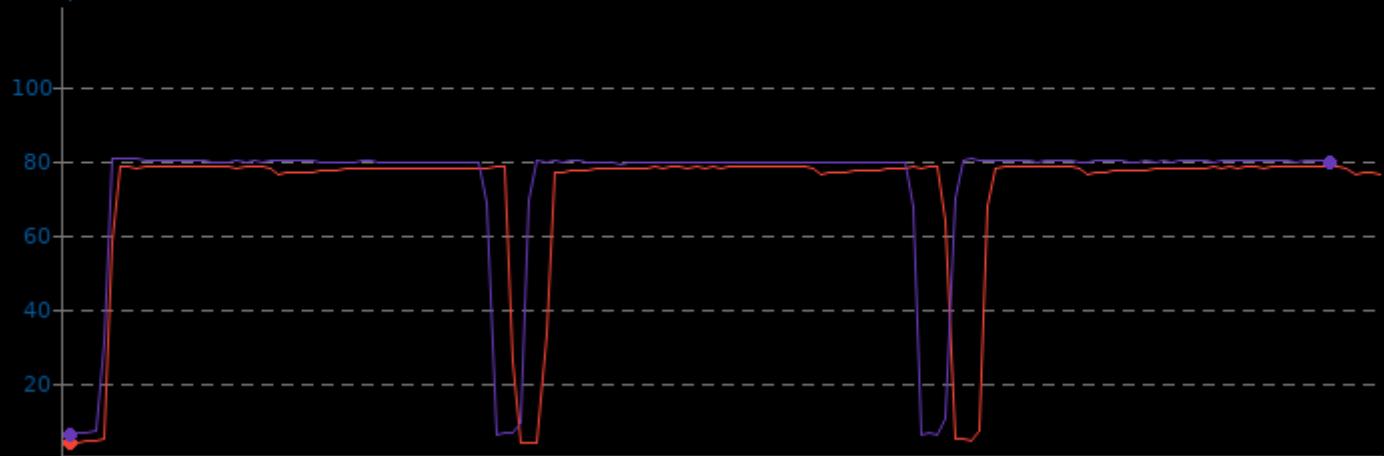


Embree 3.13

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.1	71.2	78.3
Streacom DB4 - 5700G	6.4	73.2	80.4

▼ Watts, Fewer Is Better



SVT-AV1 0.8.7

Encoder Mode: Preset 4 - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.024

Streacom DB4 - 5700G

0.025

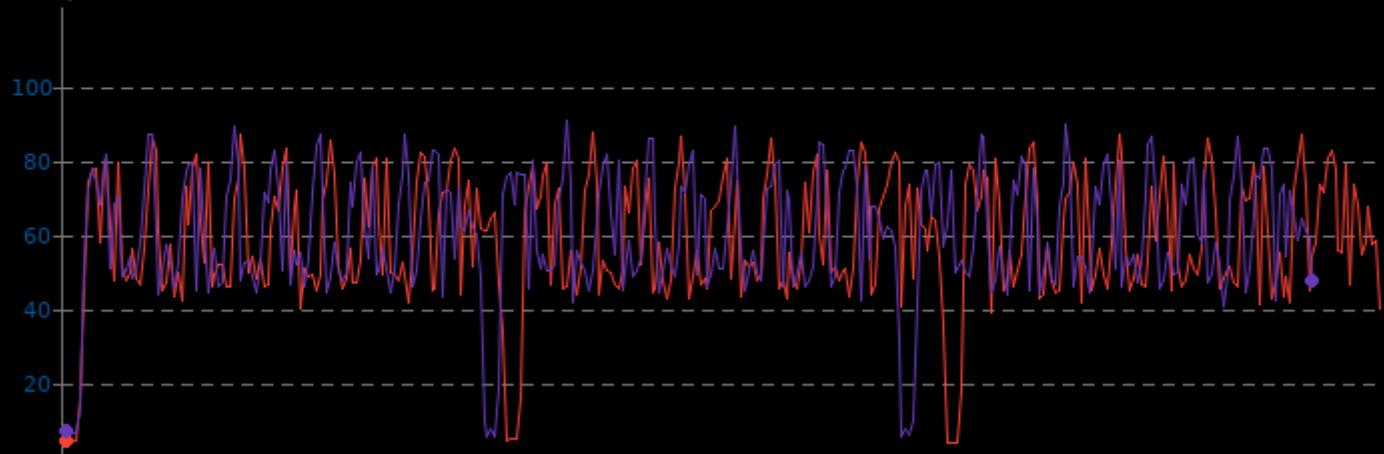
0.0056 0.0112 0.0168 0.0224 0.028

SVT-AV1 0.8.7

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	58.6	87.3
Streacom DB4 - 5700G	5.8	60.3	90.6

▼ Watts, Fewer Is Better



SVT-AV1 0.8.7

Encoder Mode: Preset 8 - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.263

Streacom DB4 - 5700G

0.272

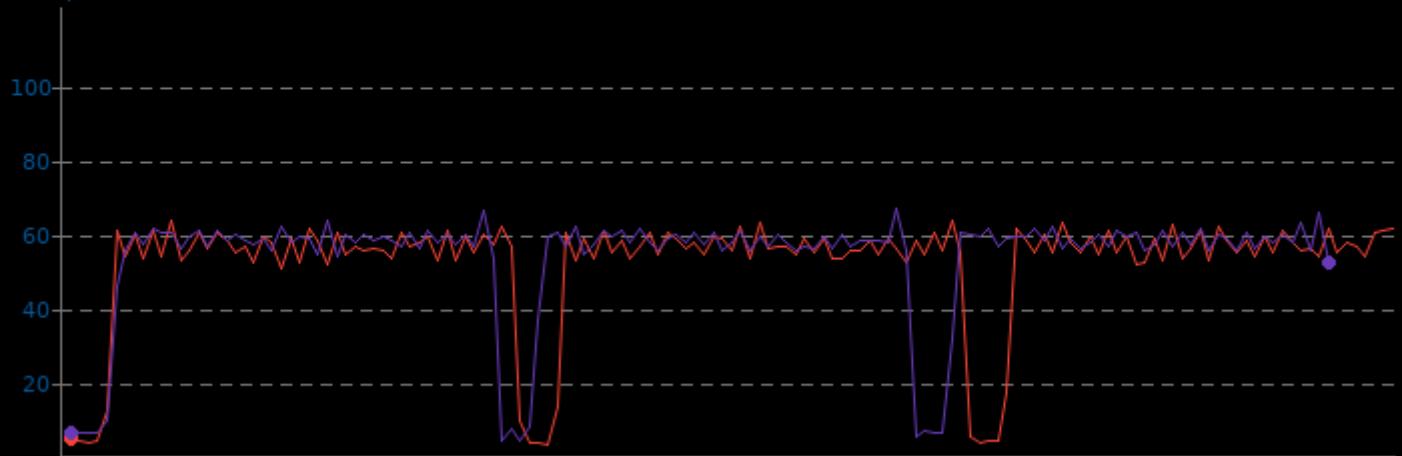
0.0612 0.1224 0.1836 0.2448 0.306

SVT-AV1 0.8.7

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	52.1	64.0
Streacom DB4 - 5700G	4.7	53.4	67.0

▼ Watts, Fewer Is Better



SVT-AV1 0.8.7

Encoder Mode: Preset 4 - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.084

Streacom DB4 - 5700G

0.085

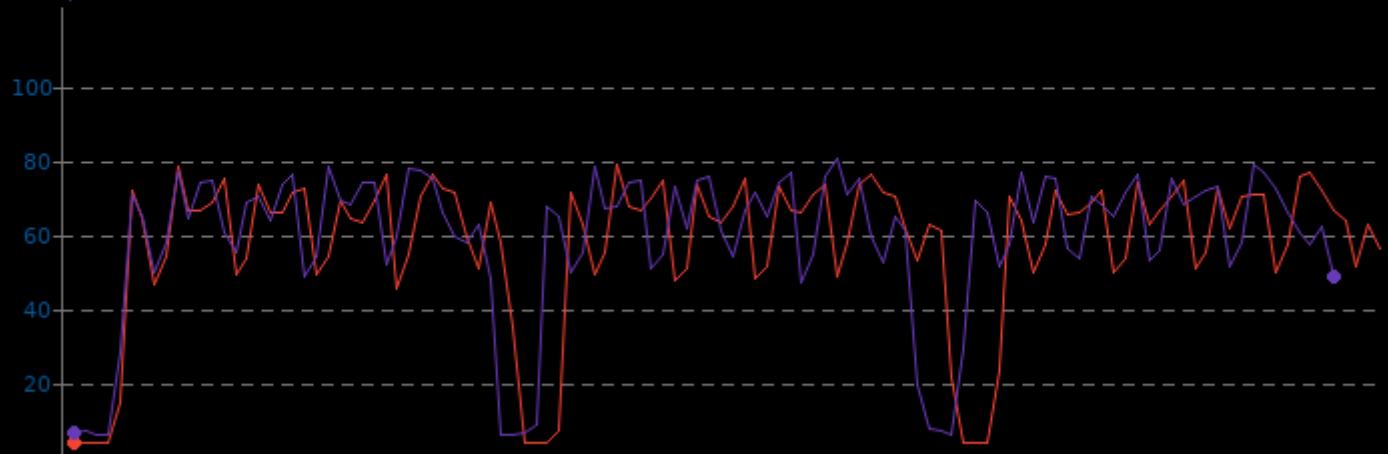
0.0191 0.0382 0.0573 0.0764 0.0955

SVT-AV1 0.8.7

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	57.0	78.7
Streacom DB4 - 5700G	6.2	58.6	80.4

▼ Watts, Fewer Is Better



SVT-AV1 0.8.7

Encoder Mode: Preset 8 - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.974

Streacom DB4 - 5700G

0.994

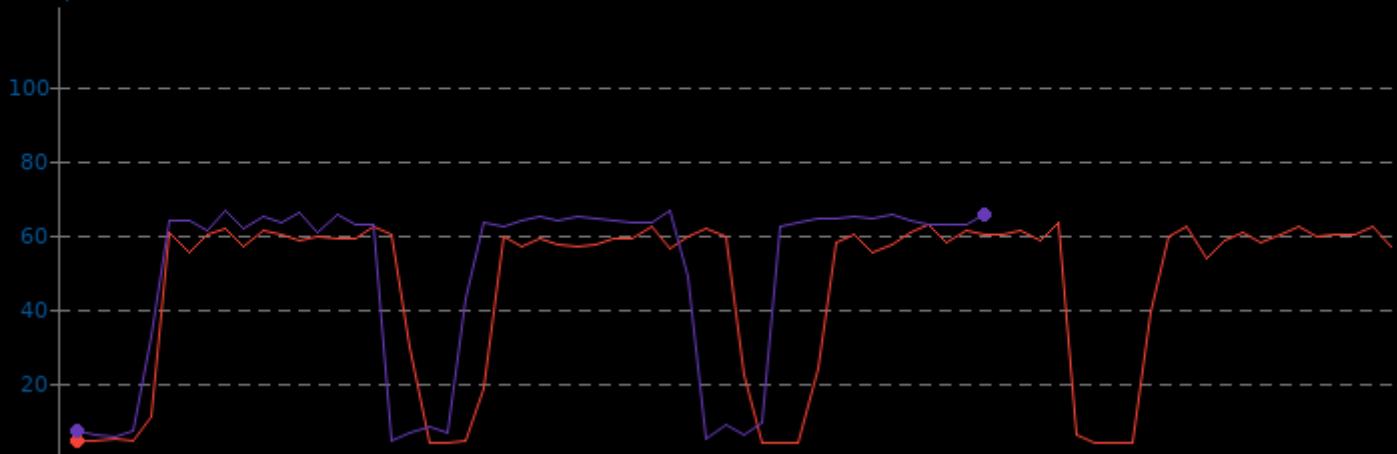
0.2237 0.4474 0.6711 0.8948 1.1185

SVT-AV1 0.8.7

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	45.8	63.0
Streacom DB4 - 5700G	4.7	48.8	66.7

▼ Watts, Fewer Is Better



SVT-HEVC 1.5.0

Tuning: 7 - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

1.692

Streacom DB4 - 5700G

1.806

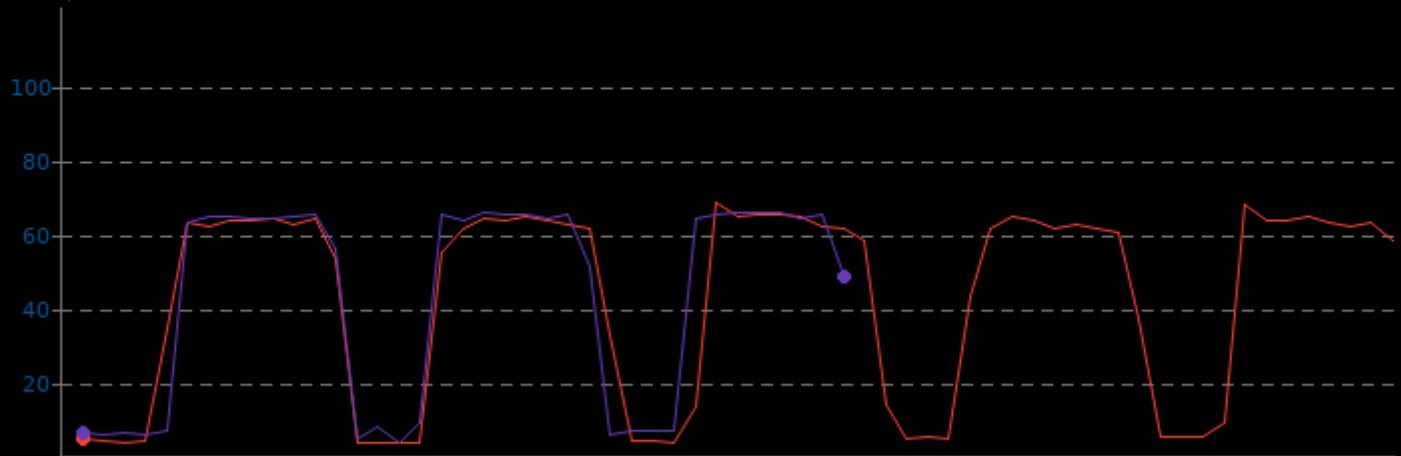
0.4064 0.8128 1.2192 1.6256 2.032

SVT-HEVC 1.5.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	43.2	68.7
Streacom DB4 - 5700G	4.2	43.5	66.1

▼ Watts, Fewer Is Better



SVT-HEVC 1.5.0

Tuning: 10 - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

4.793

Streacom DB4 - 5700G

4.963

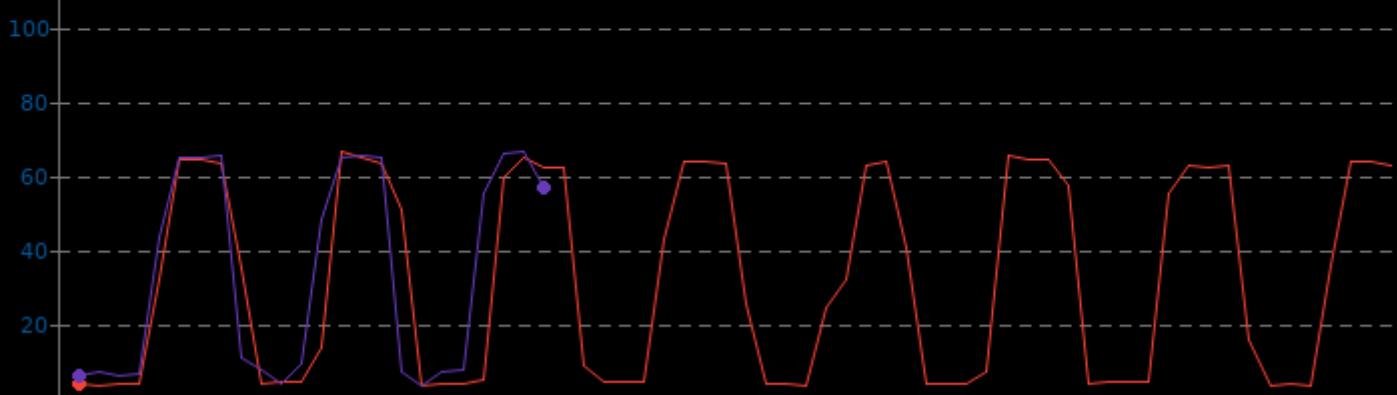
1.1167 2.2334 3.3501 4.4668 5.5835

SVT-HEVC 1.5.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	32.2	66.3
Streacom DB4 - 5700G	3.7	33.9	66.2

▼ Watts, Fewer Is Better



SVT-VP9 0.3

Tuning: VMAF Optimized - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G	3.119
Streacom DB4 - 5700G	3.169

Michael - Ryzen 7 5700G	3.119
Streacom DB4 - 5700G	3.169

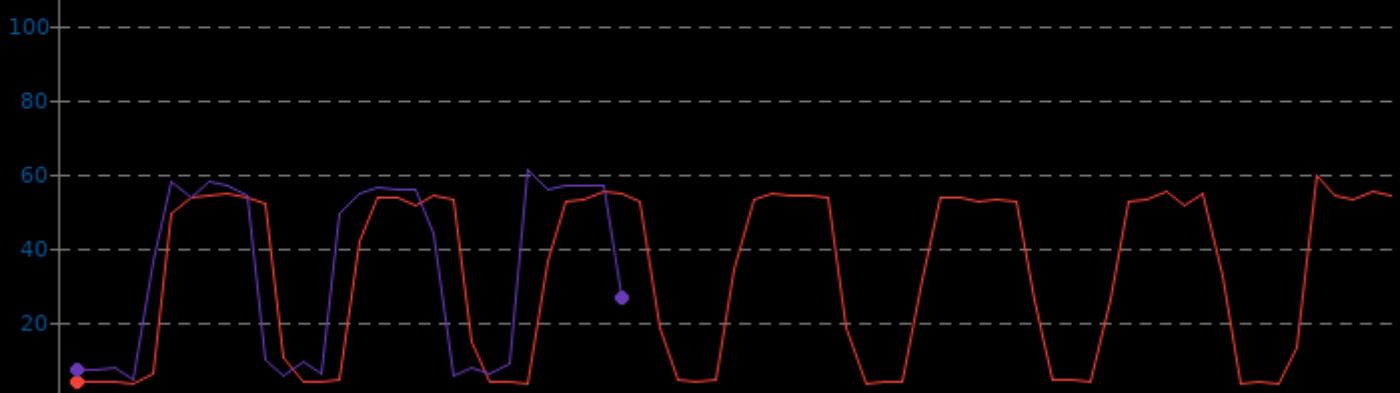
0.713 1.426 2.139 2.852 3.565

SVT-VP9 0.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	32.9	59.3
Streacom DB4 - 5700G	4.9	34.5	61.3

▼ Watts, Fewer Is Better



SVT-VP9 0.3

Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G 3.173

Streacom DB4 - 5700G 3.158

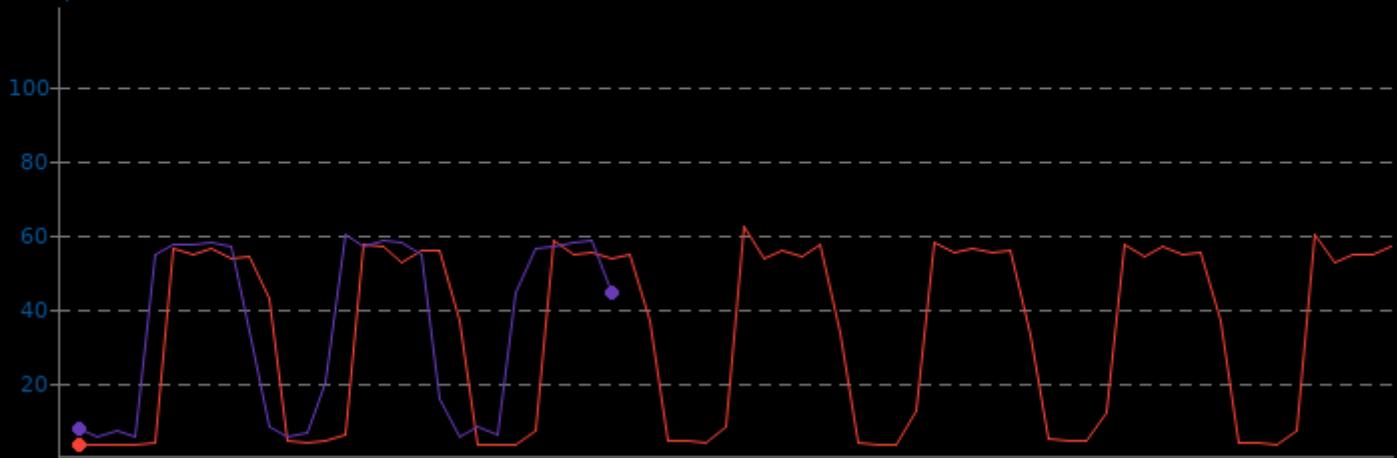
0.7139 1.4278 2.1417 2.8556 3.5695

SVT-VP9 0.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	33.2	62.0
Streacom DB4 - 5700G	5.8	35.5	60.0

▼ Watts, Fewer Is Better



VP9 libvpx Encoding 1.10.0

Speed: Speed 5 - Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.366

Streacom DB4 - 5700G

0.374

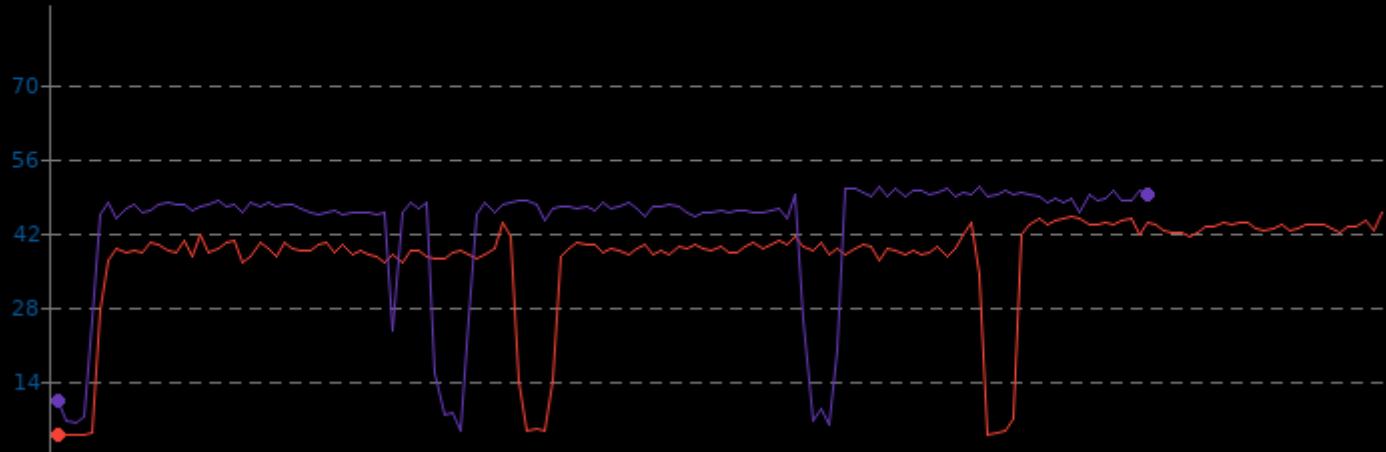
0.0842 0.1684 0.2526 0.3368 0.421

VP9 libvpx Encoding 1.10.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	37.1	45.6
Streacom DB4 - 5700G	5.1	43.2	50.7

▼ Watts, Fewer Is Better



VP9 libvpx Encoding 1.10.0

Speed: Speed 5 - Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.816

Streacom DB4 - 5700G

0.864

0.1944

0.3888

0.5832

0.7776

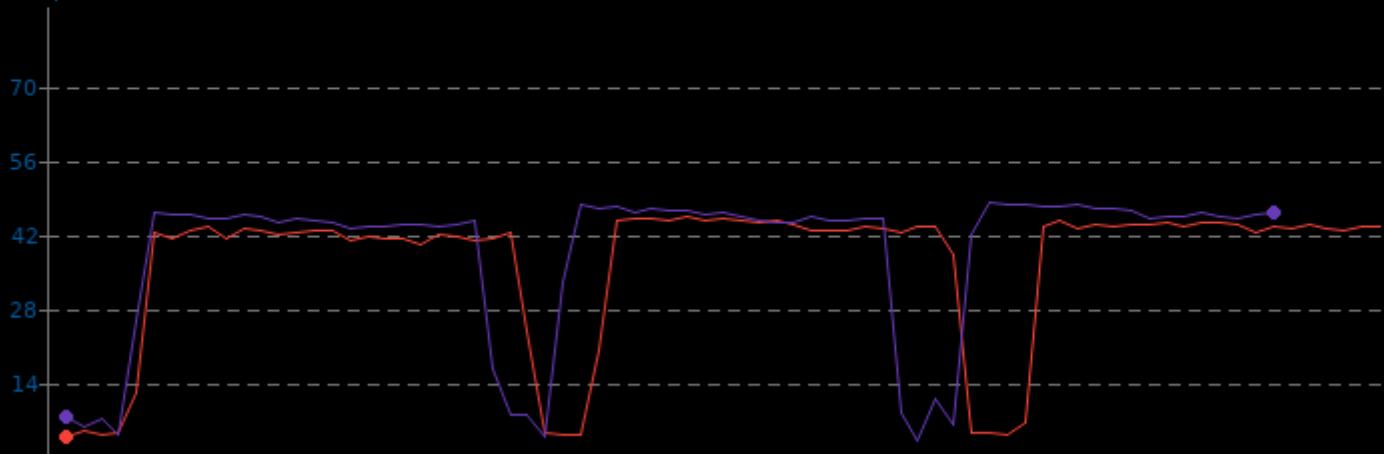
0.972

VP9 libvpx Encoding 1.10.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	36.5	45.2
Streacom DB4 - 5700G	3.5	38.5	47.9

▼ Watts, Fewer Is Better



x265 3.4

Video Input: Bosphorus 4K

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.226

Streacom DB4 - 5700G

0.217

0.0509 0.1018 0.1527 0.2036 0.2545

x265 3.4

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	45.6	73.8
Streacom DB4 - 5700G	5.3	50.9	75.7

▼ Watts, Fewer Is Better



x265 3.4

Video Input: Bosphorus 1080p

► Frames Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G 1.044

Streacom DB4 - 5700G 0.988

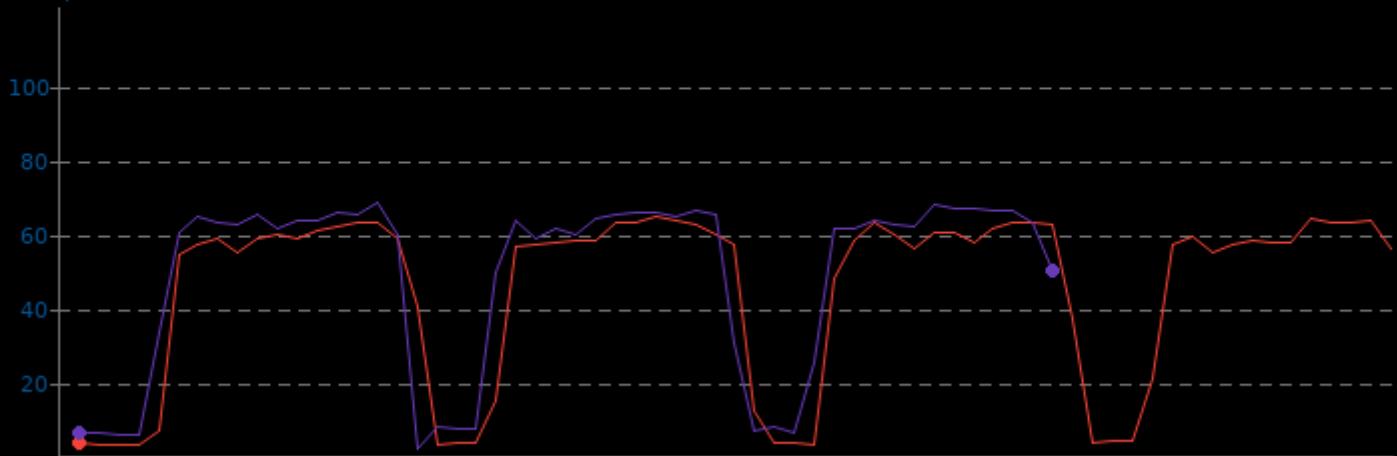
0.2349 0.4698 0.7047 0.9396 1.1745

x265 3.4

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	45.6	64.8
Streacom DB4 - 5700G	2.8	48.9	68.8

▼ Watts, Fewer Is Better



Intel Open Image Denoise 1.4.0

Run: RT.Idr_alb_nrm.3840x2160

► Images / Sec Per Watt, More Is Better

Michael - Ryzen 7 5700G 0.009

Streacom DB4 - 5700G 0.008

0.002 0.004 0.006 0.008 0.01

Intel Open Image Denoise 1.4.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	2.0	35.9	56.9
Streacom DB4 - 5700G	0.4	38.6	59.7

▼ Watts, Fewer Is Better



Coremark 1.0

CoreMark Size 666 - Iterations Per Second

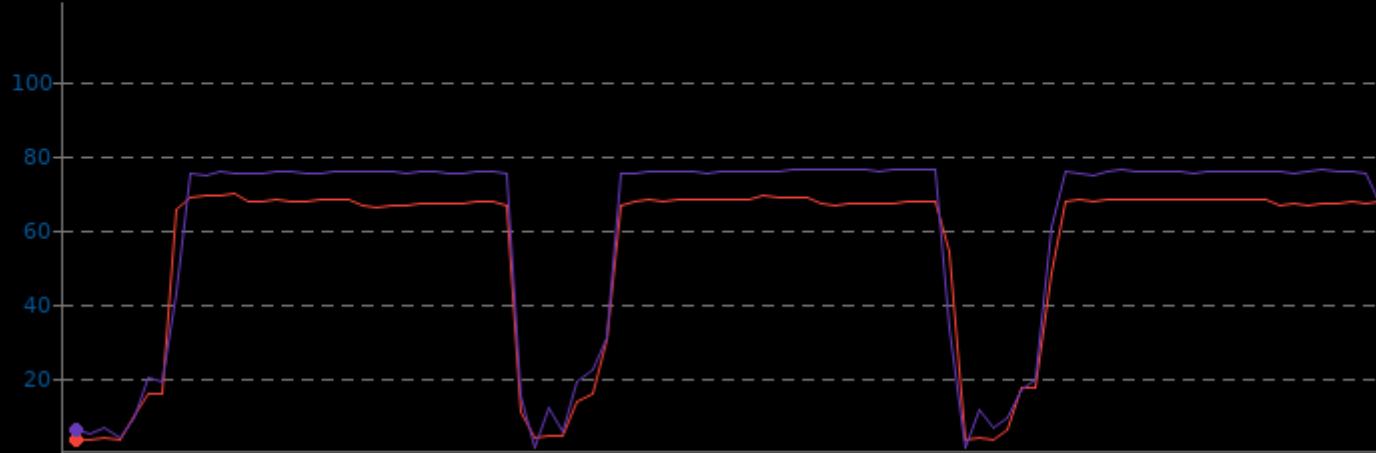


Coremark 1.0

CPU Power Consumption Monitor

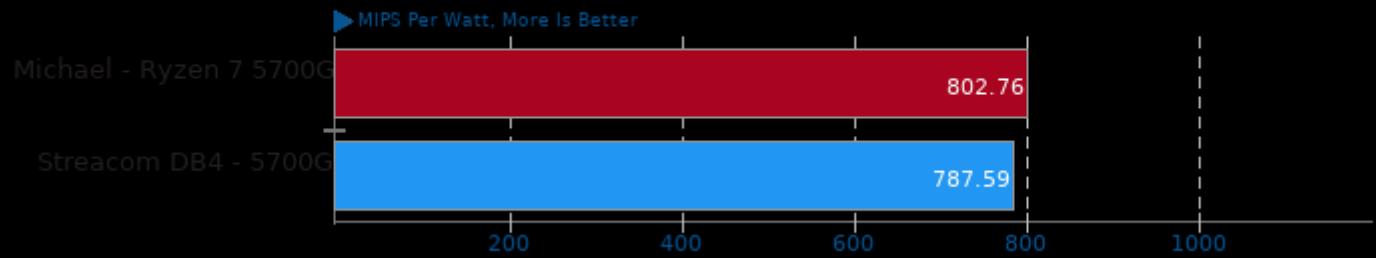
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	54.7	69.4
Streacom DB4 - 5700G	1.7	60.7	76.0

▼ Watts, Fewer Is Better



7-Zip Compression 16.02

Compress Speed Test

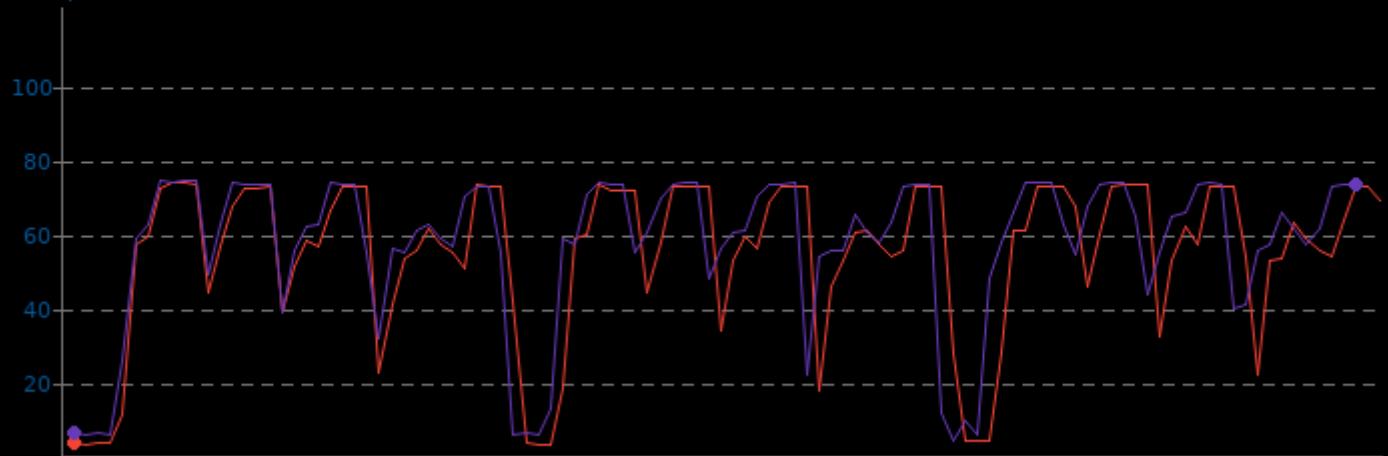


7-Zip Compression 16.02

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	54.8	74.0
Streacom DB4 - 5700G	4.8	57.2	74.4

▼ Watts, Fewer Is Better



Stockfish 13

Total Time

► Nodes Per Second Per Watt, More Is Better

Michael - Ryzen 7 5700G

413318.12

Streacom DB4 - 5700G

403383.88

90K

180K

270K

360K

450K

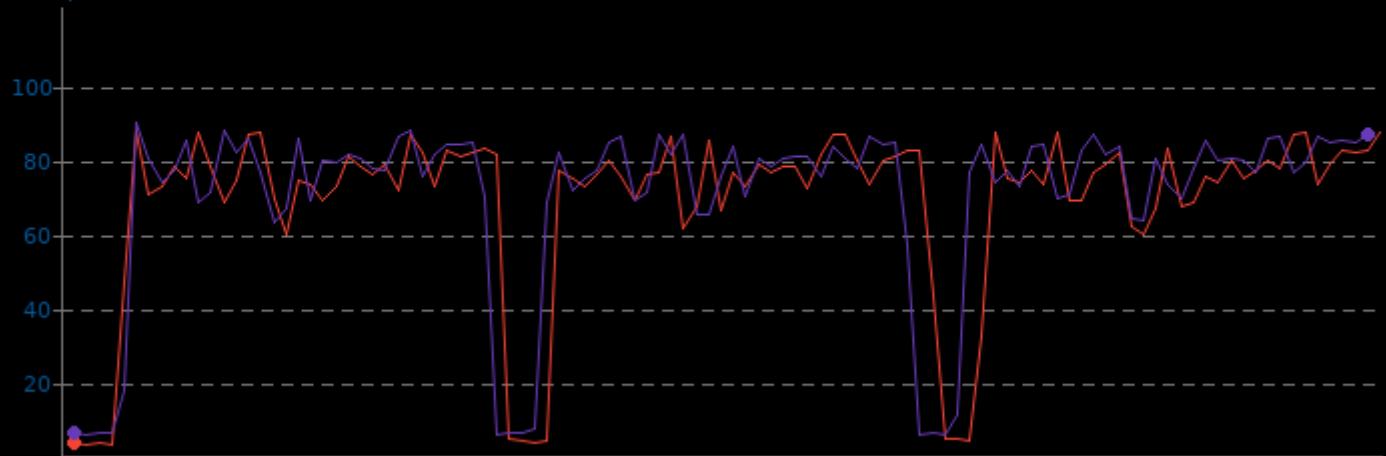
This horizontal bar chart compares the performance of two systems using the Stockfish 13 chess engine. The Y-axis lists the systems: 'Michael - Ryzen 7 5700G' and 'Streacom DB4 - 5700G'. The X-axis represents the total time in nodes per second per watt, with major ticks at 90K, 180K, 270K, 360K, and 450K. The 'Michael - Ryzen 7 5700G' bar is red and reaches approximately 413,318.12, while the 'Streacom DB4 - 5700G' bar is blue and reaches approximately 403,383.88. A legend indicates that higher values represent better performance.

Stockfish 13

CPU Power Consumption Monitor

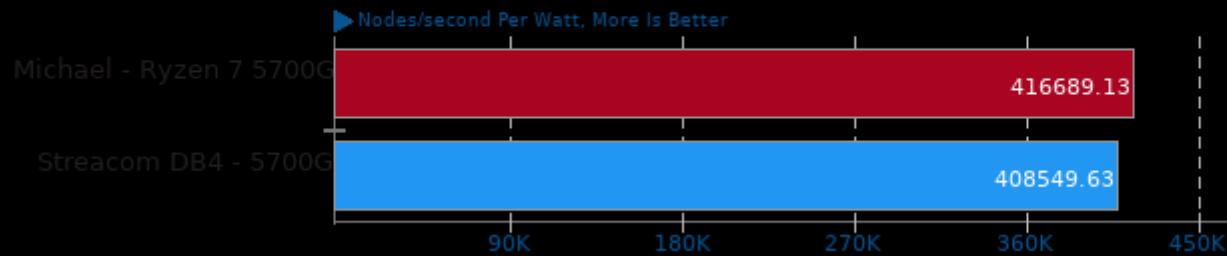
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	68.6	87.7
Streacom DB4 - 5700G	6.3	69.9	89.9

▼ Watts, Fewer Is Better



asmFish 2018-07-23

1024 Hash Memory, 26 Depth

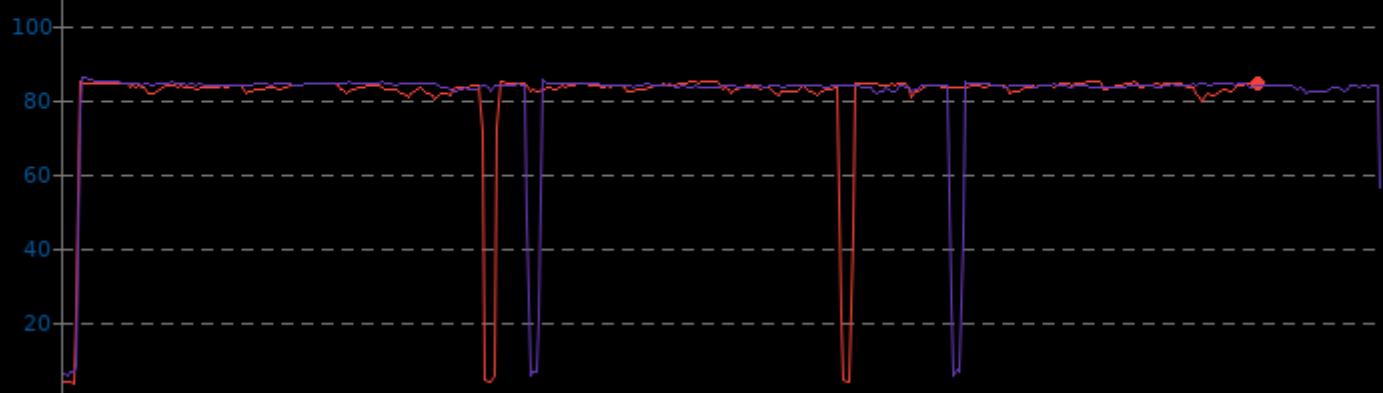


asmFish 2018-07-23

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	80.5	84.8
Streacom DB4 - 5700G	6.1	81.2	85.7

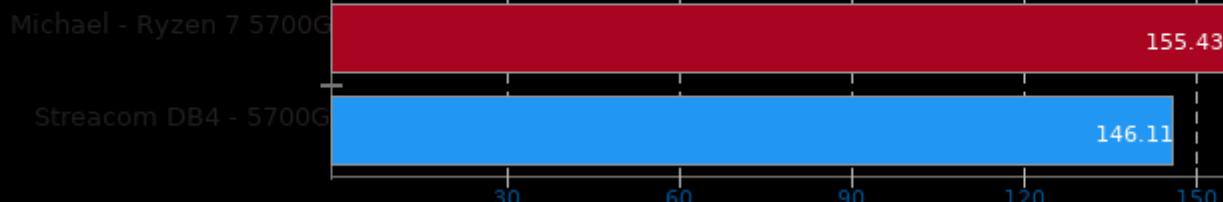
▼ Watts, Fewer Is Better



PJSIP 2.11

Method: INVITE

► Responses Per Second Per Watt, More Is Better

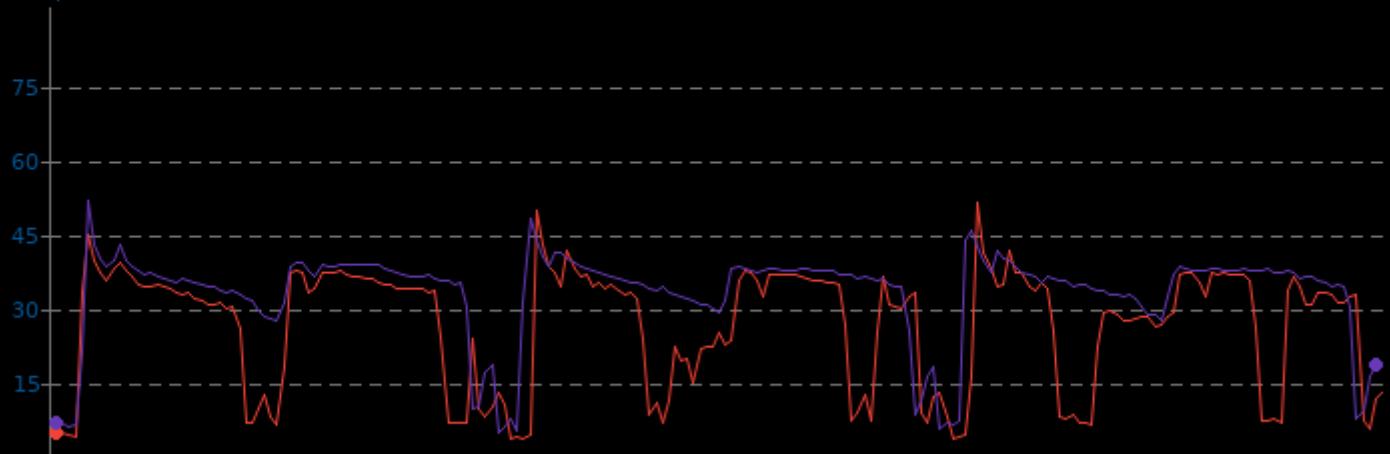


PJSIP 2.11

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	27.0	51.5
Streacom DB4 - 5700G	5.4	33.3	51.6

▼ Watts, Fewer Is Better



PJSIP 2.11

Method: OPTIONS, Stateful

► Responses Per Second Per Watt, More Is Better

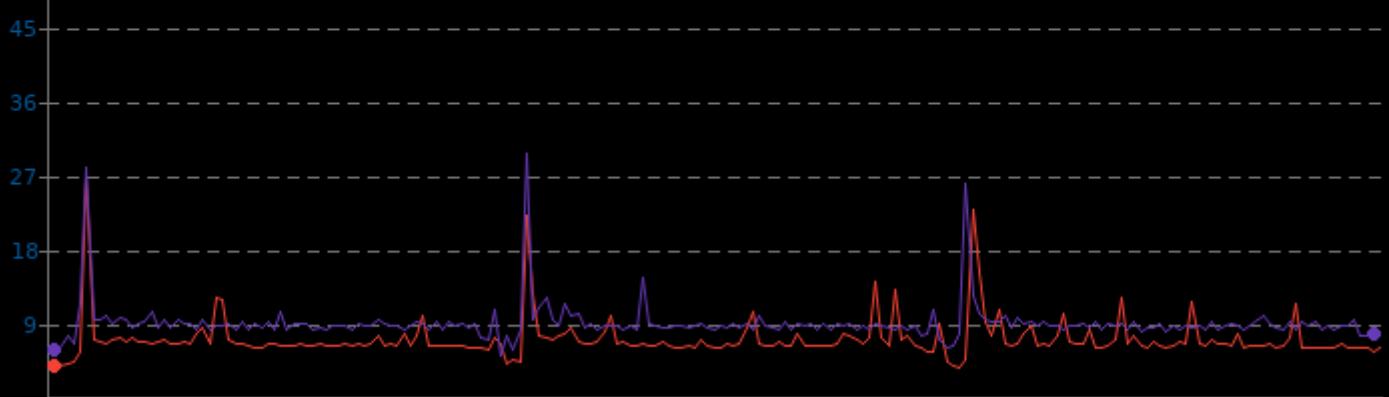


PJSIP 2.11

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	7.3	26.7
Streacom DB4 - 5700G	5.3	9.2	29.7

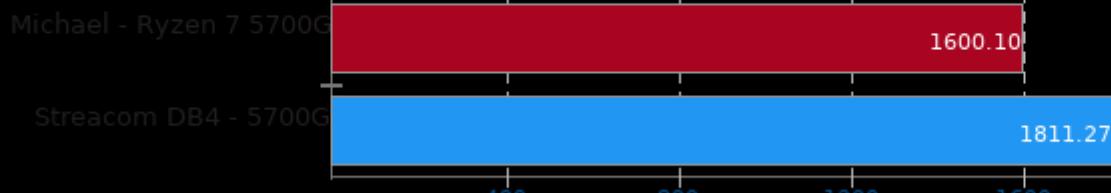
▼ Watts, Fewer Is Better



PJSIP 2.11

Method: OPTIONS, Stateless

► Responses Per Second Per Watt, More Is Better

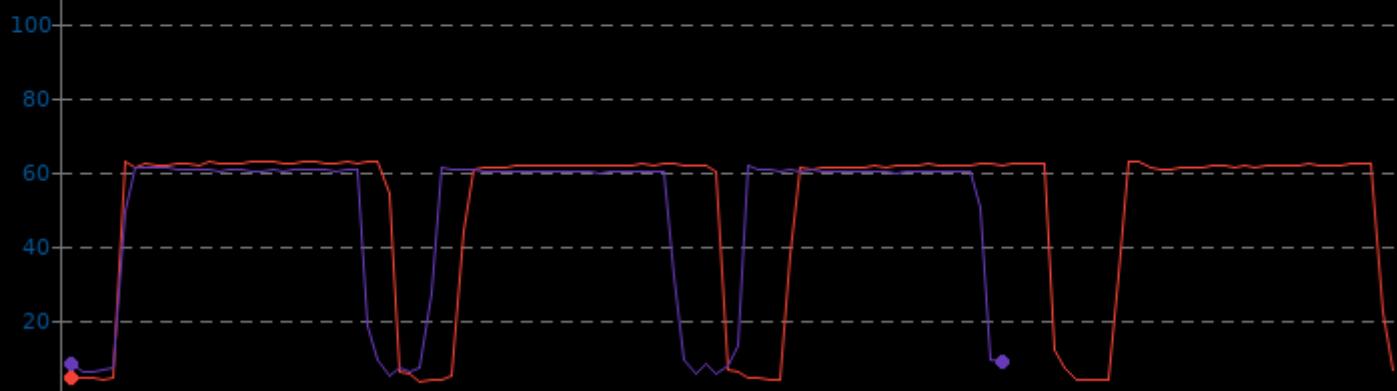


PJSIP 2.11

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	50.1	62.9
Streacom DB4 - 5700G	5.2	48.2	61.5

▼ Watts, Fewer Is Better

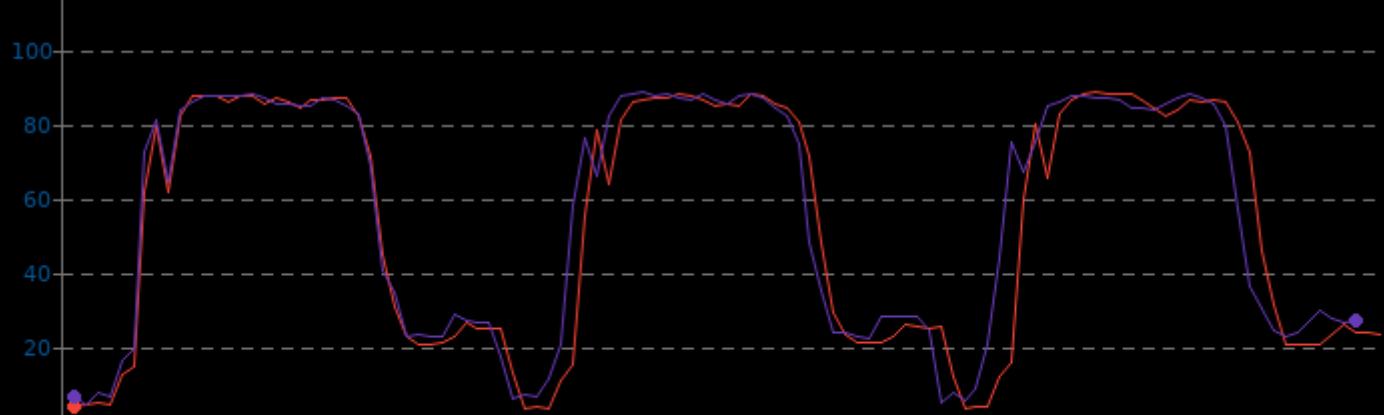


libavif avifenc 0.9.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	53.6	88.4
Streacom DB4 - 5700G	4.9	55.6	88.6

▼ Watts, Fewer Is Better

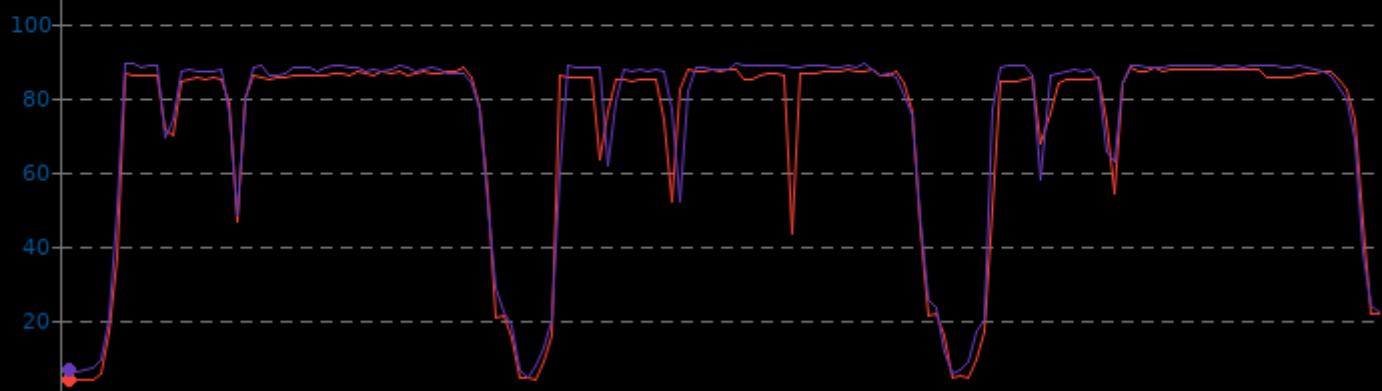


libavif avifenc 0.9.0

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	71.9	88.1
Streacom DB4 - 5700G	5.0	73.7	89.2

▼ Watts, Fewer Is Better

**libavif avifenc 0.9.0**

CPU Power Consumption Monitor

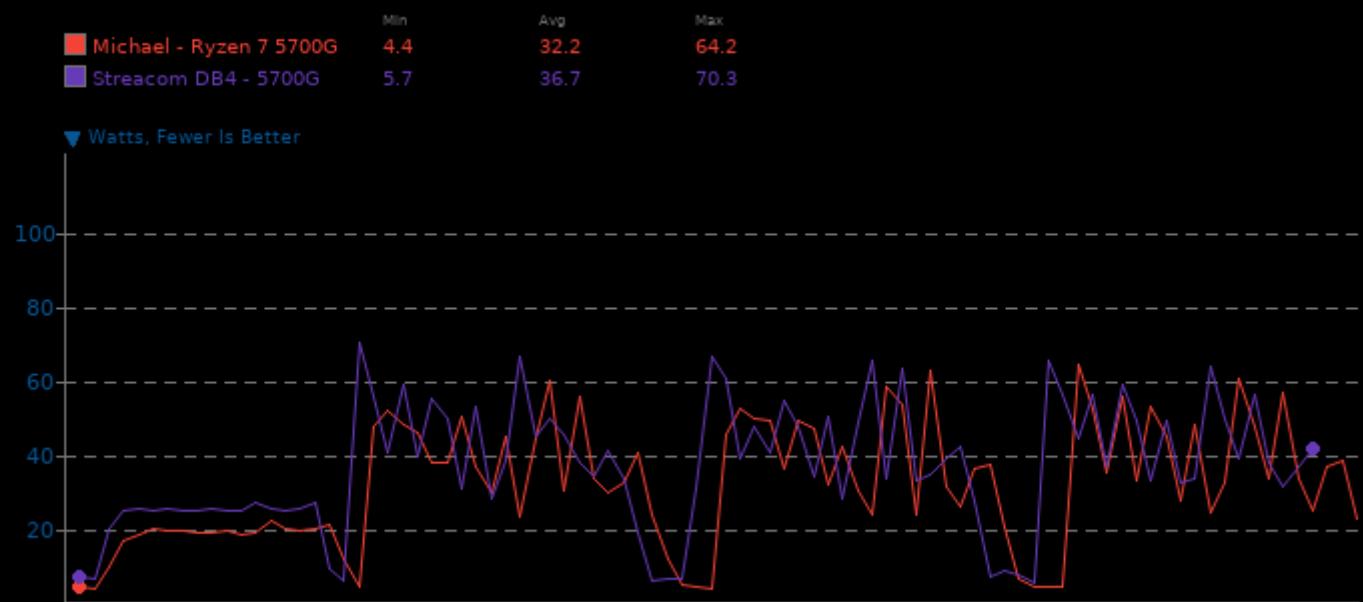
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	20.5	84.8
Streacom DB4 - 5700G	6.0	22.7	86.2

▼ Watts, Fewer Is Better



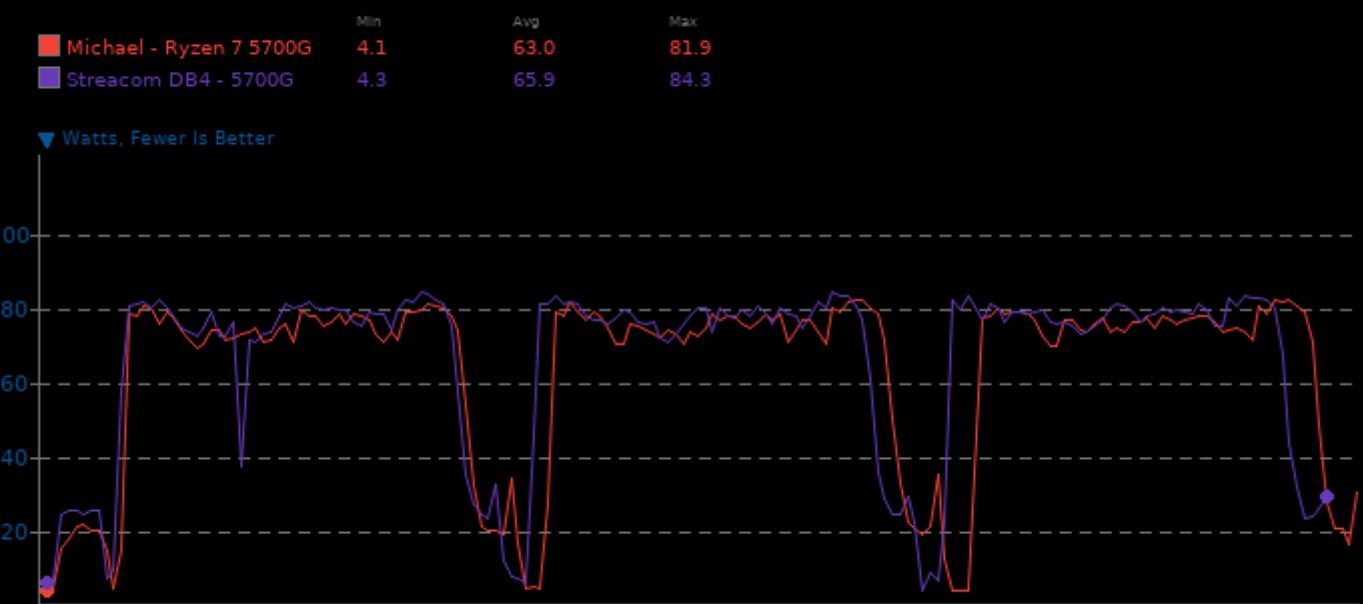
Timed Apache Compilation 2.4.41

CPU Power Consumption Monitor



Timed FFmpeg Compilation 4.4

CPU Power Consumption Monitor



Timed GDB GNU Debugger Compilation 10.2

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	50.8	80.3
Streacom DB4 - 5700G	4.4	55.6	79.8

▼ Watts, Fewer Is Better

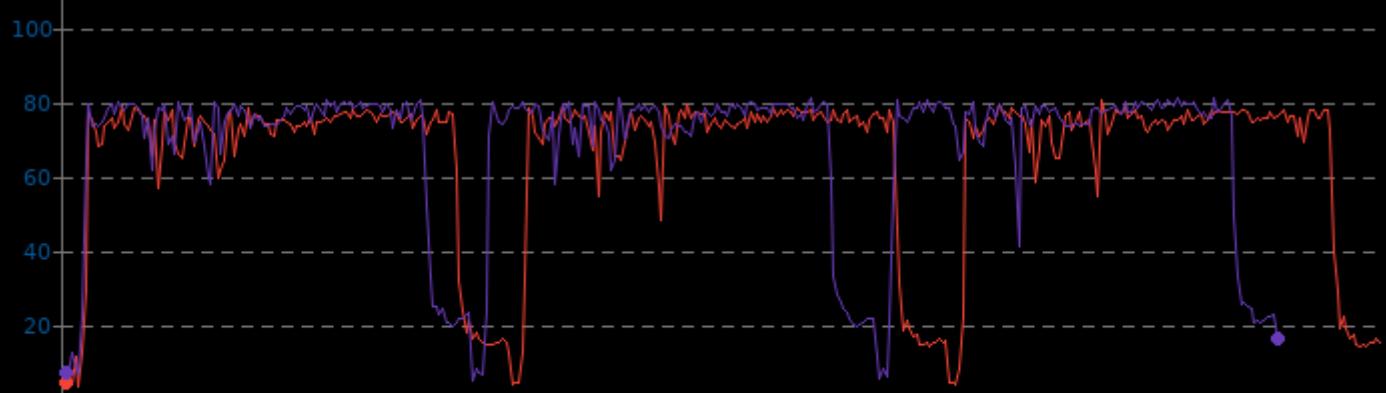


Timed Godot Game Engine Compilation 3.2.3

CPU Power Consumption Monitor

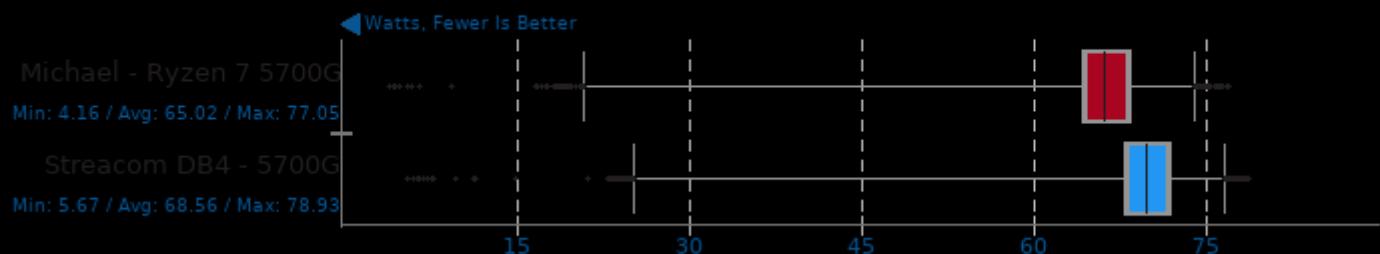
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	64.9	80.1
Streacom DB4 - 5700G	5.5	67.5	81.1

▼ Watts, Fewer Is Better



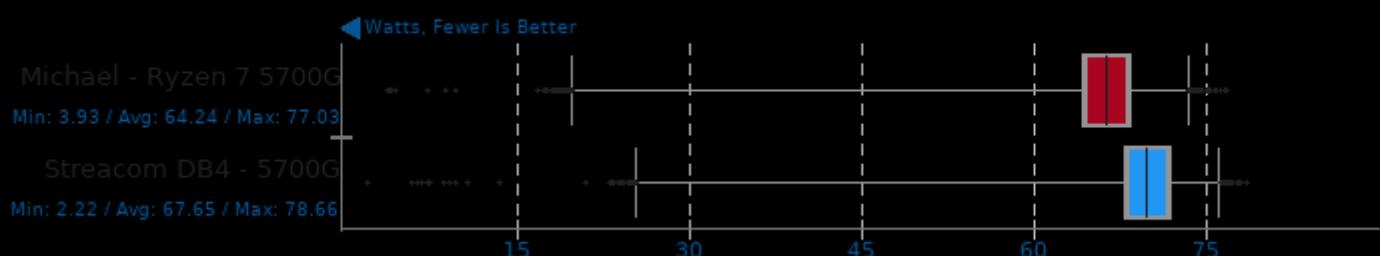
Timed LLVM Compilation 12.0

CPU Power Consumption Monitor



Timed LLVM Compilation 12.0

CPU Power Consumption Monitor



Timed MPlayer Compilation 1.4

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	62.5	82.8
Streacom DB4 - 5700G	6.3	64.9	83.1

▼ Watts, Fewer Is Better



DeepSpeech 0.6

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	20.9	24.9
Streacom DB4 - 5700G	5.9	23.7	28.7

▼ Watts, Fewer Is Better

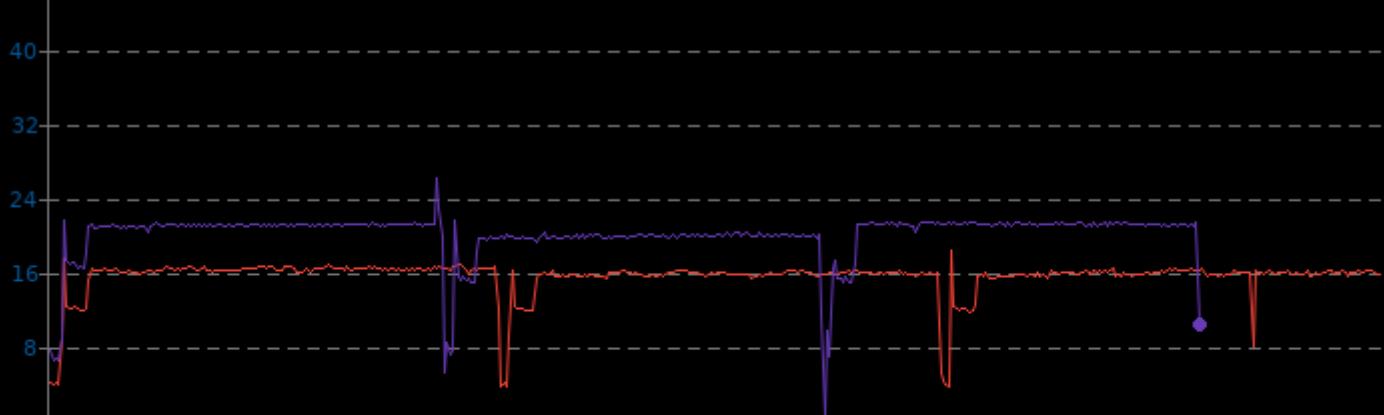


Ngspice 34

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	15.6	18.5
Streacom DB4 - 5700G	0.7	20.1	26.1

▼ Watts, Fewer Is Better

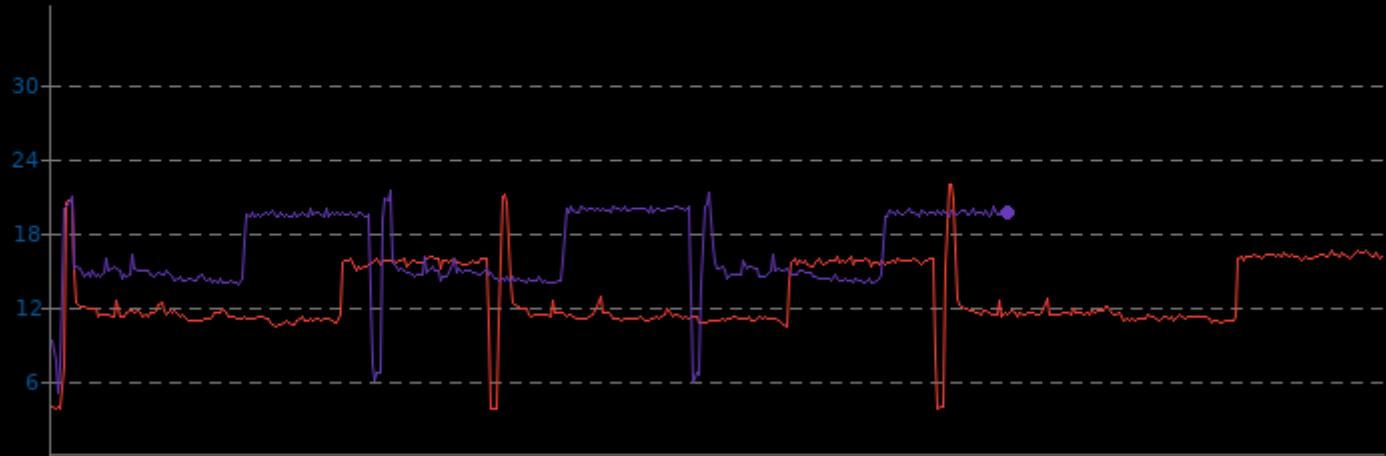


Ngspice 34

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	12.8	21.9
Streacom DB4 - 5700G	5.2	16.5	21.3

▼ Watts, Fewer Is Better

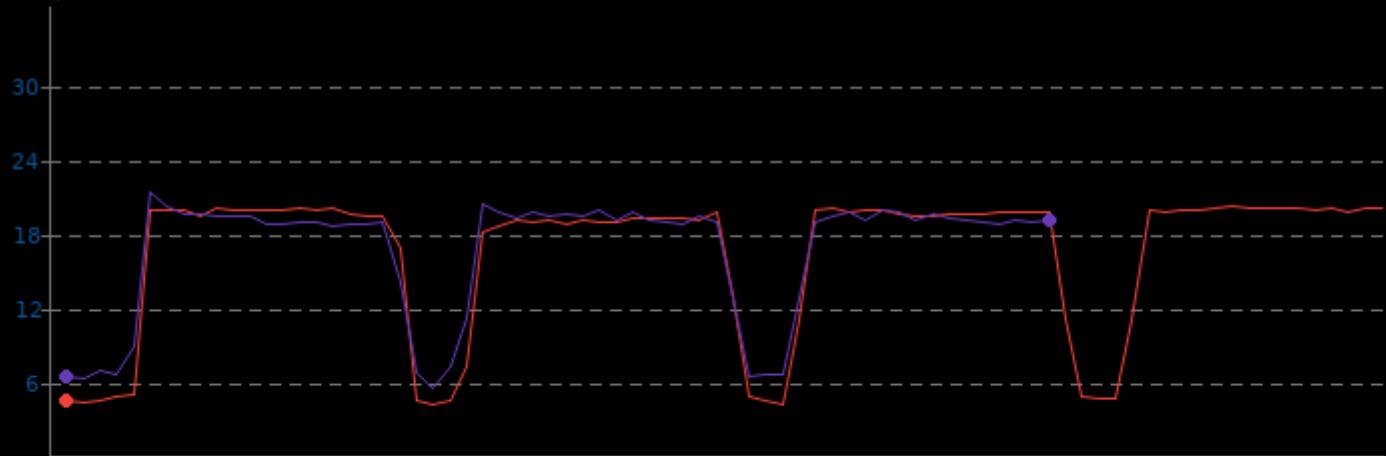


RNNoise 2020-06-28

CPU Power Consumption Monitor

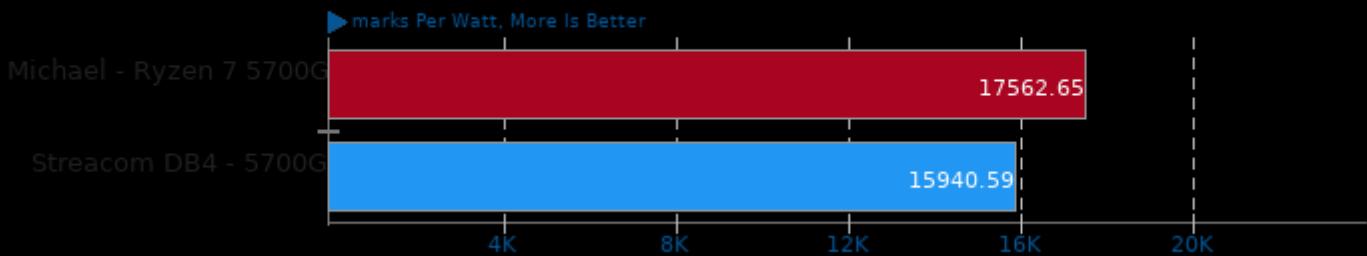
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.4	16.5	20.2
Streacom DB4 - 5700G	5.6	16.6	21.4

▼ Watts, Fewer Is Better



SecureMark 1.0.4

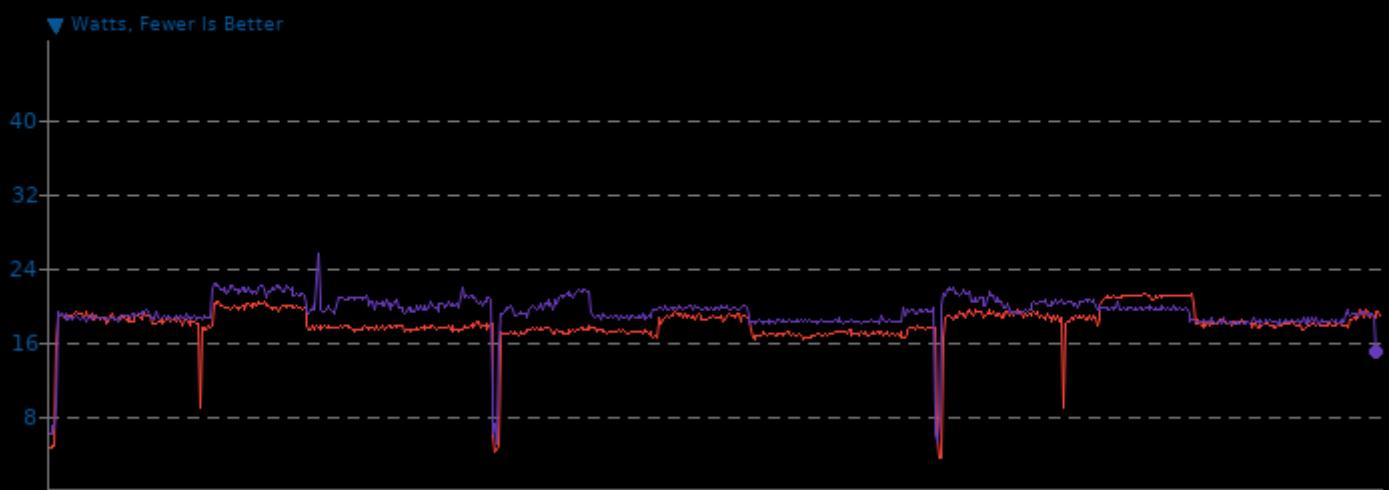
Benchmark: SecureMark-TLS



SecureMark 1.0.4

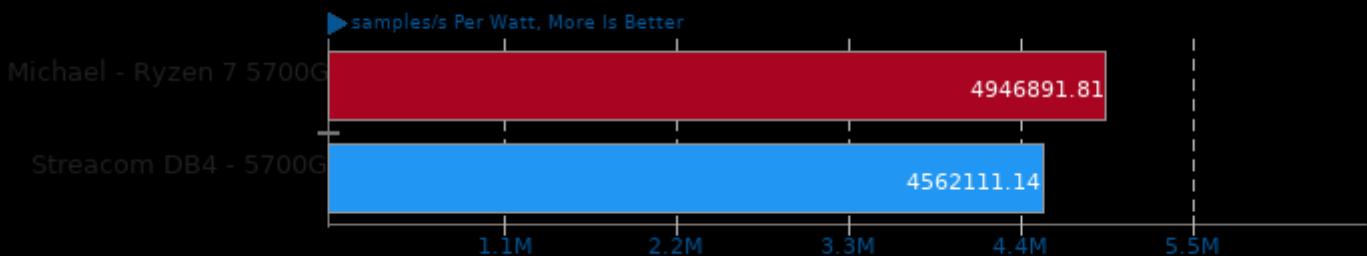
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	18.0	21.2
Streadcom DB4 - 5700G	5.2	19.3	25.4



Liquid-DSP 2021.01.31

Threads: 2 - Buffer Length: 256 - Filter Length: 57

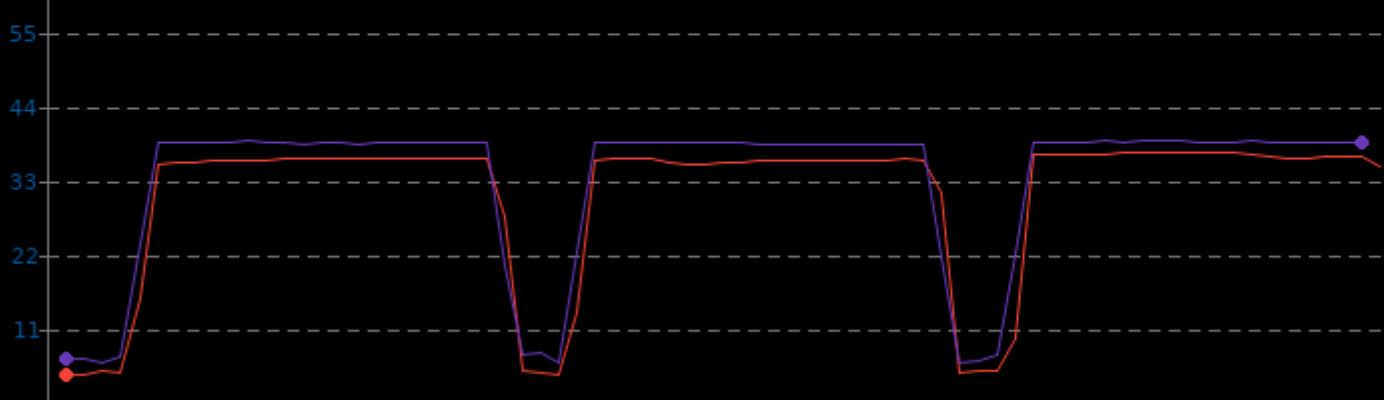


Liquid-DSP 2021.01.31

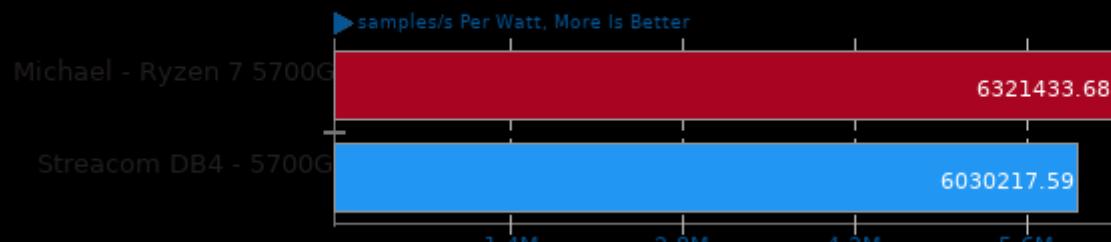
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.3	30.8	37.2
Streacom DB4 - 5700G	6.1	33.0	38.9

▼ Watts, Fewer Is Better

**Liquid-DSP 2021.01.31**

Threads: 4 - Buffer Length: 256 - Filter Length: 57

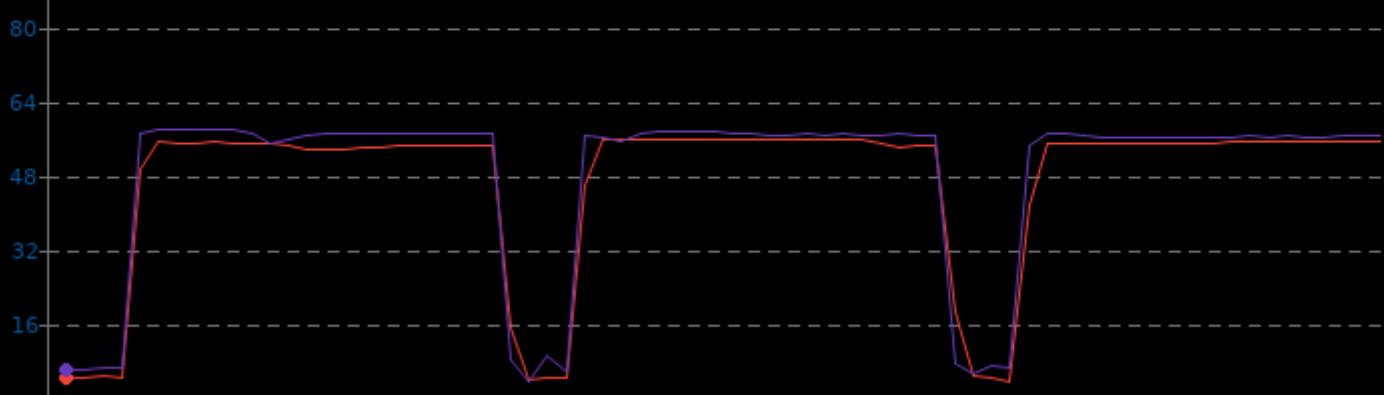


Liquid-DSP 2021.01.31

CPU Power Consumption Monitor

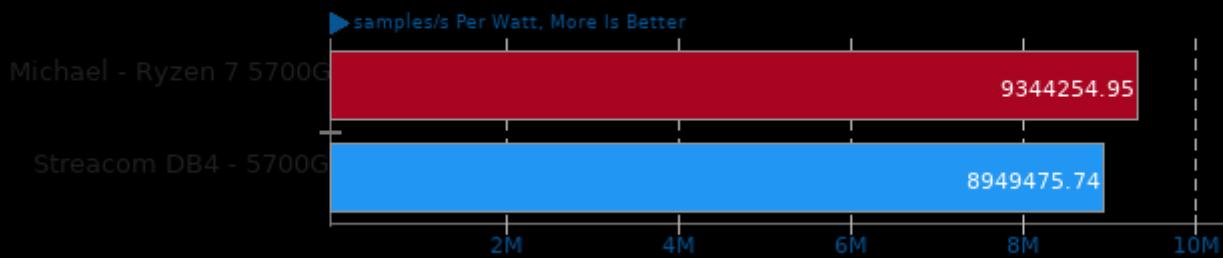
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	46.5	55.7
Streacom DB4 - 5700G	4.1	48.4	57.8

▼ Watts, Fewer Is Better



Liquid-DSP 2021.01.31

Threads: 8 - Buffer Length: 256 - Filter Length: 57

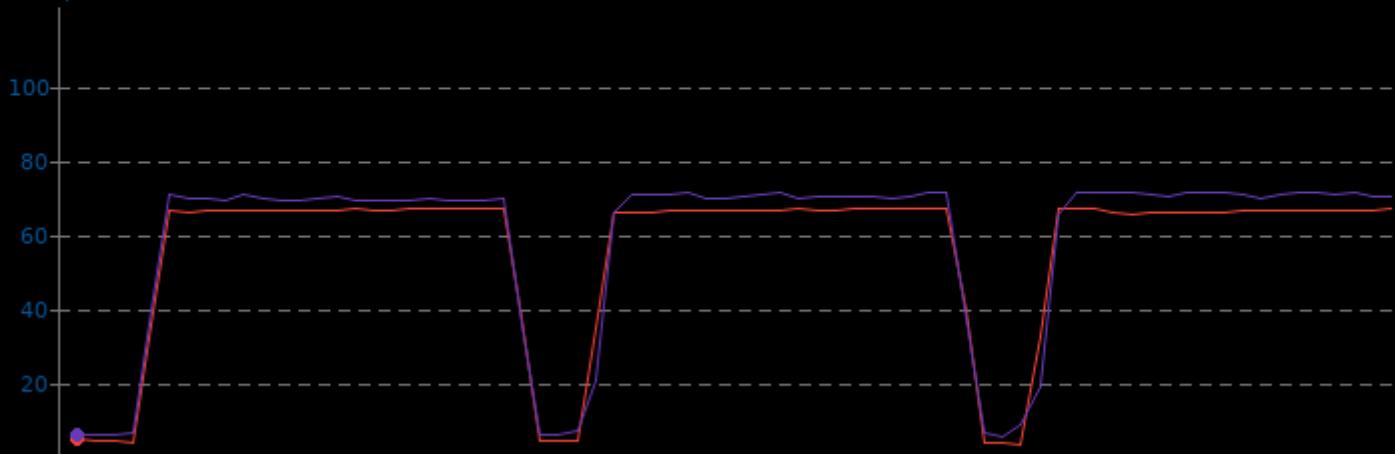


Liquid-DSP 2021.01.31

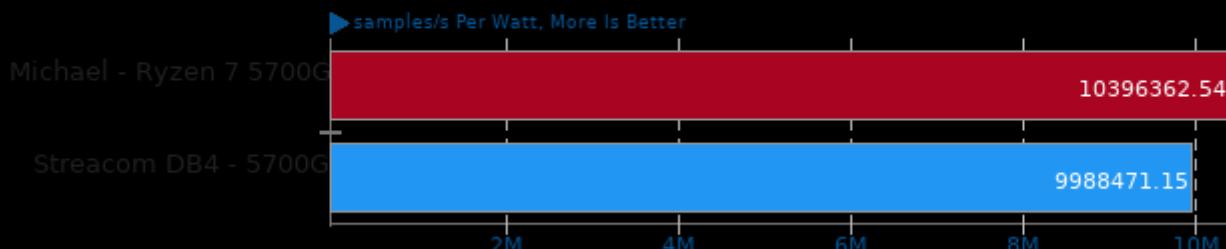
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	55.8	67.1
Streacom DB4 - 5700G	6.0	58.6	71.4

▼ Watts, Fewer Is Better

**Liquid-DSP 2021.01.31**

Threads: 16 - Buffer Length: 256 - Filter Length: 57

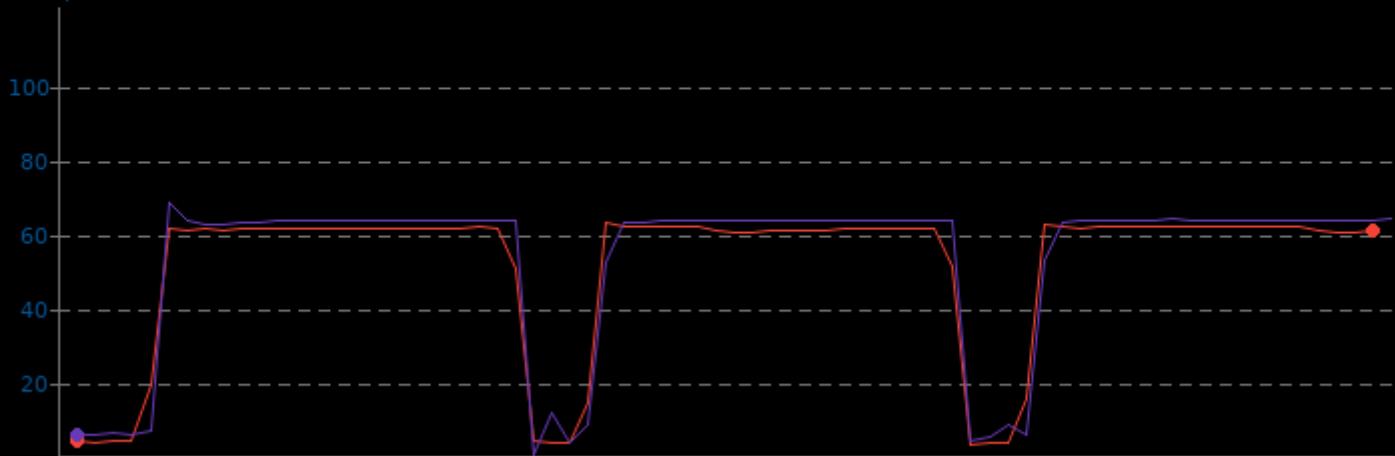


Liquid-DSP 2021.01.31

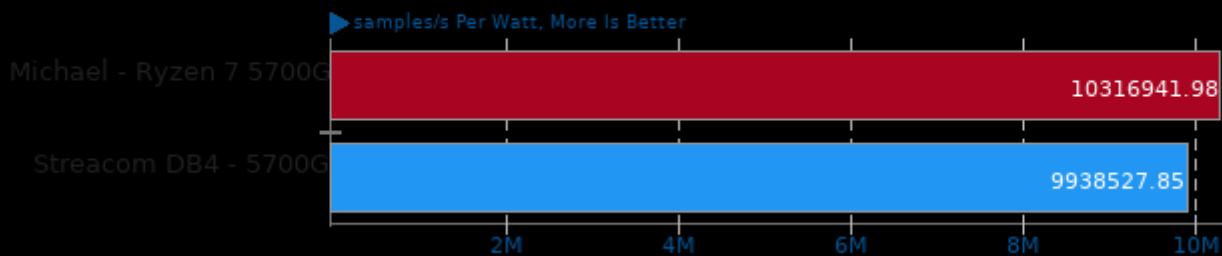
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	51.5	63.2
Streacom DB4 - 5700G	0.4	53.3	68.5

▼ Watts, Fewer Is Better

**Liquid-DSP 2021.01.31**

Threads: 32 - Buffer Length: 256 - Filter Length: 57

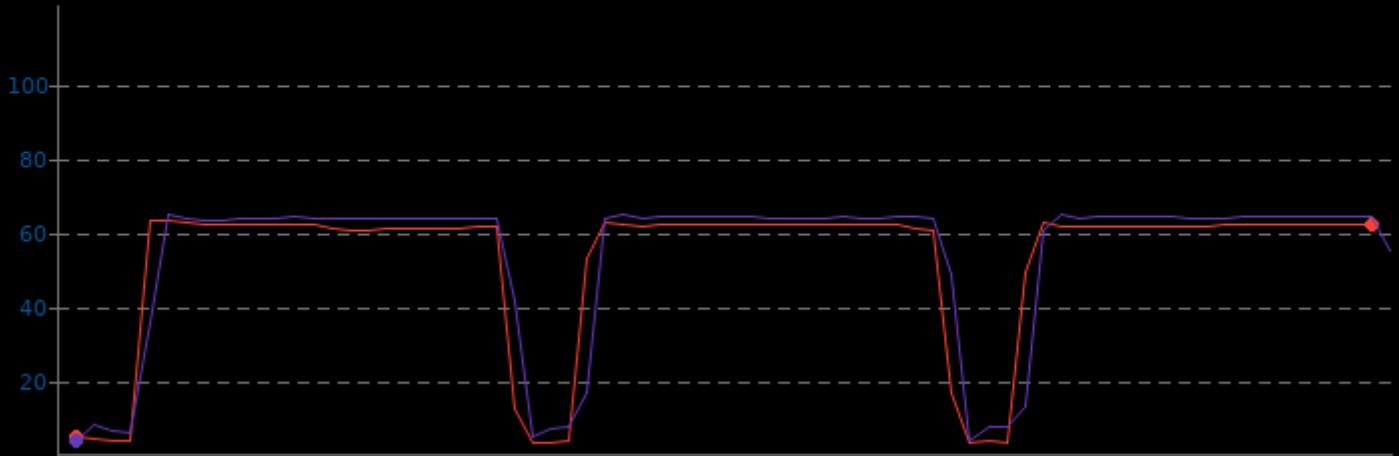


Liquid-DSP 2021.01.31

CPU Power Consumption Monitor

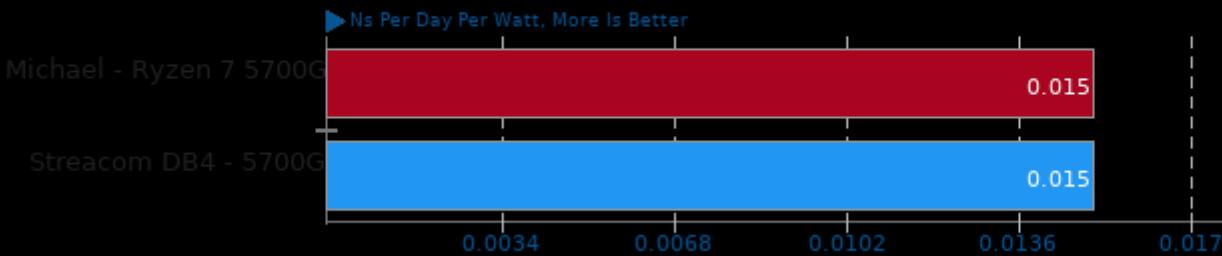
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	52.2	63.3
Streacom DB4 - 5700G	4.4	53.8	65.0

▼ Watts, Fewer Is Better



GROMACS 2021.2

Implementation: MPI CPU - Input: water_GMX50_bare

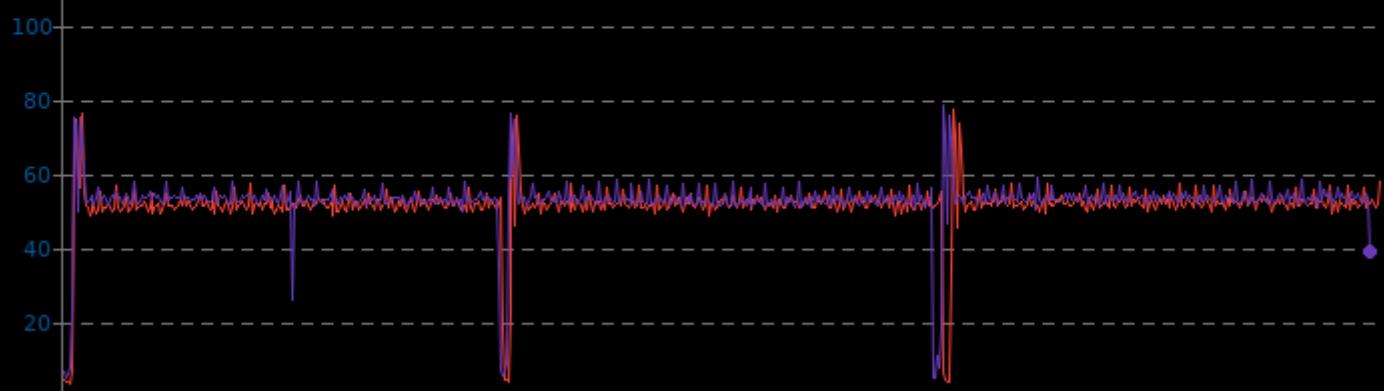


GROMACS 2021.2

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	51.4	77.3
Streacom DB4 - 5700G	5.1	52.7	78.2

▼ Watts, Fewer Is Better

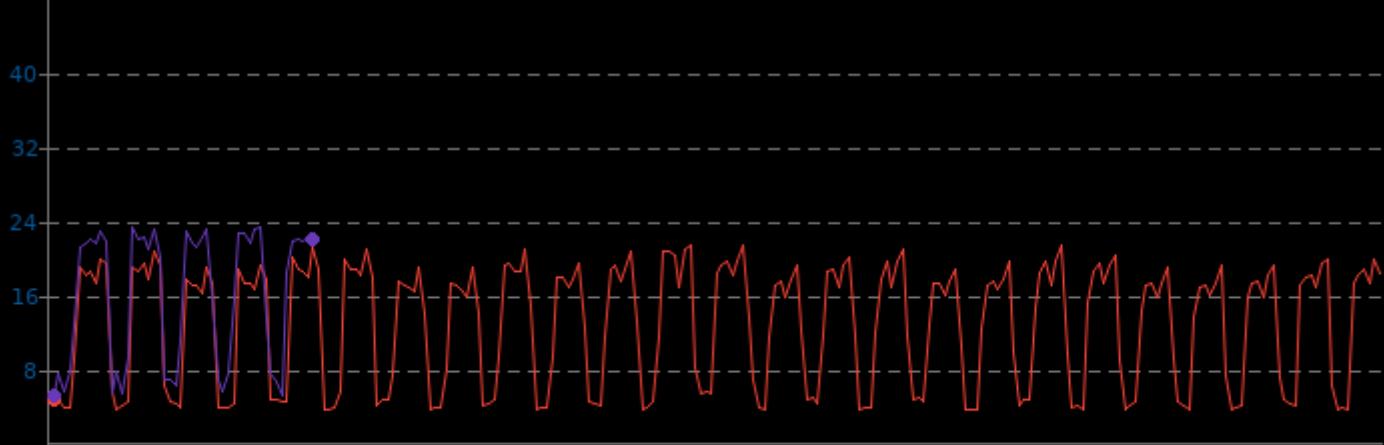


LibreOffice

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.8	13.0	21.5
Streacom DB4 - 5700G	5.4	16.0	23.4

▼ Watts, Fewer Is Better

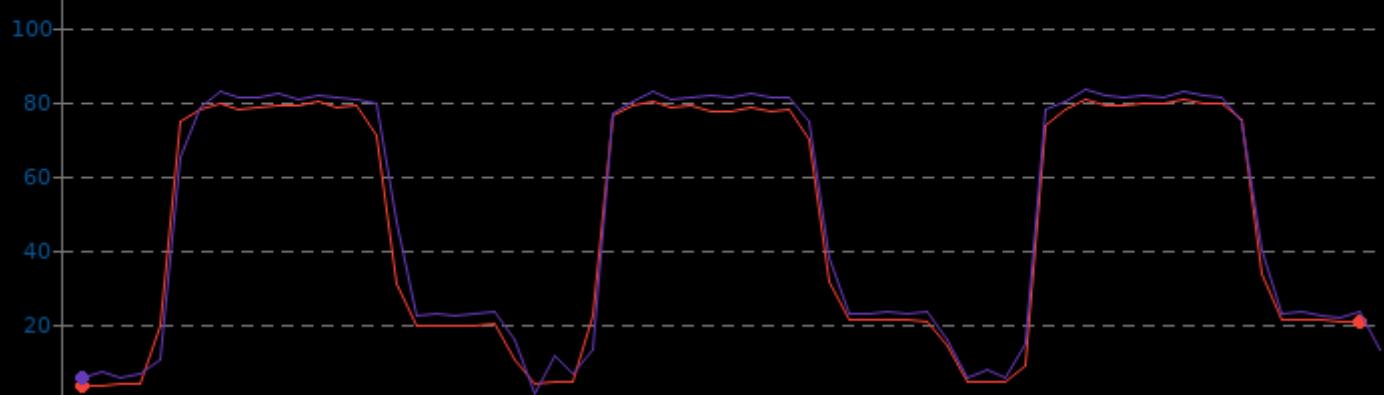


OCRMyPDF 10.3.1+dfsg

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	46.9	80.4
Streacom DB4 - 5700G	1.4	48.6	83.0

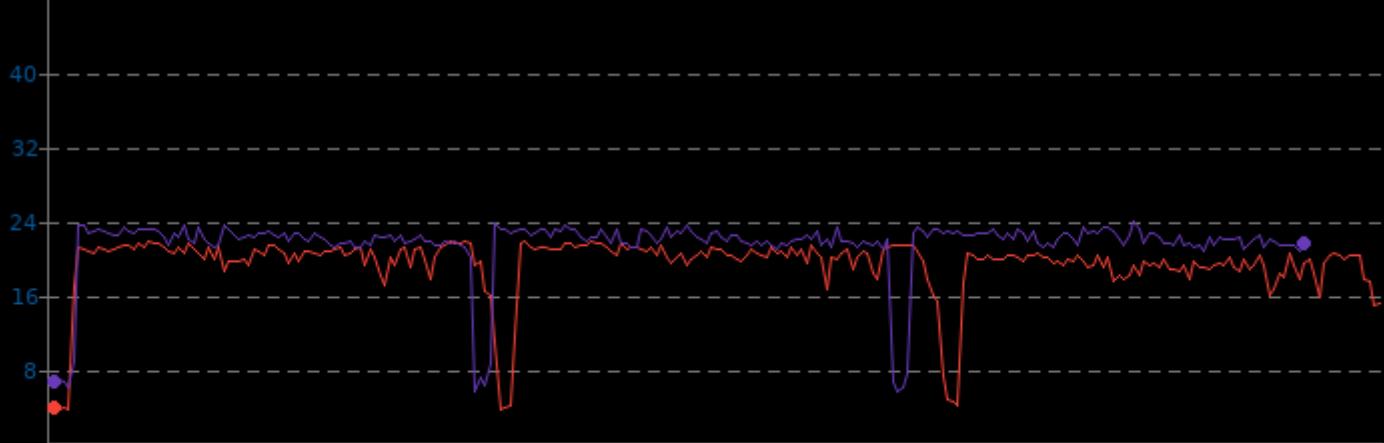
▼ Watts, Fewer Is Better

**OpenSCAD**

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	19.4	21.9
Streacom DB4 - 5700G	5.7	21.5	23.9

▼ Watts, Fewer Is Better

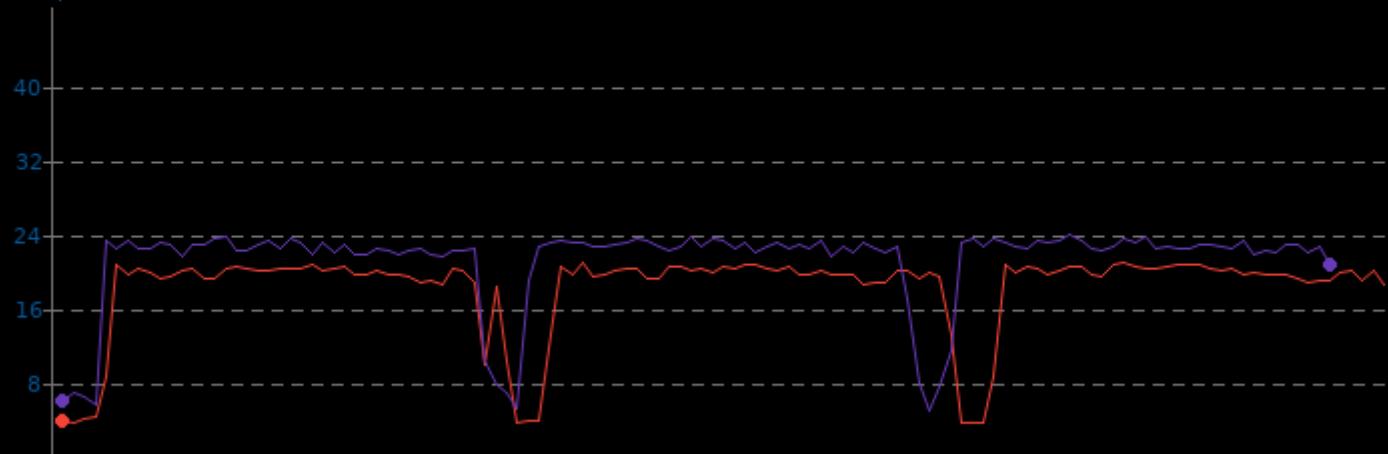


OpenSCAD

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	18.2	20.9
Streacom DB4 - 5700G	5.2	21.1	23.9

▼ Watts, Fewer Is Better

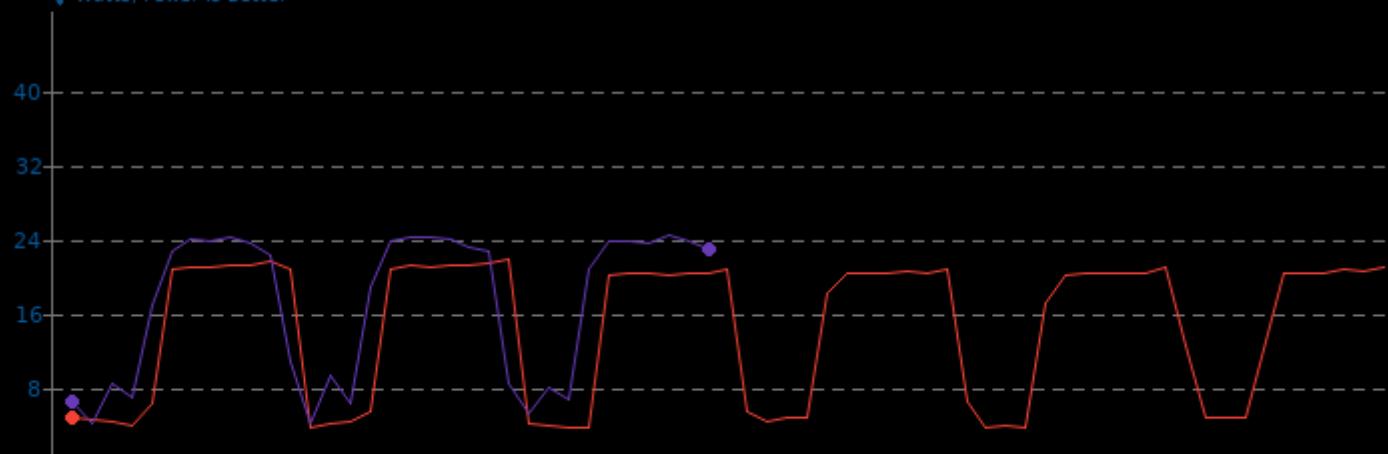


OpenSCAD

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	14.6	21.9
Streacom DB4 - 5700G	4.3	17.2	24.3

▼ Watts, Fewer Is Better

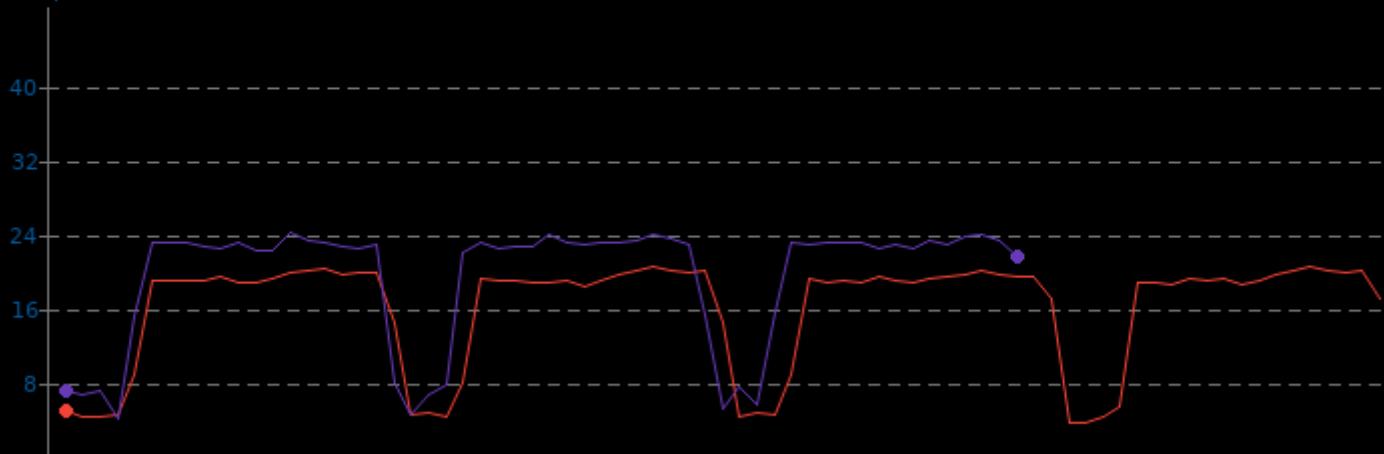


OpenSCAD

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	16.1	20.6
Streacom DB4 - 5700G	4.2	19.4	24.2

▼ Watts, Fewer Is Better



RawTherapee

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	33.0	56.7
Streacom DB4 - 5700G	5.1	35.2	60.6

▼ Watts, Fewer Is Better

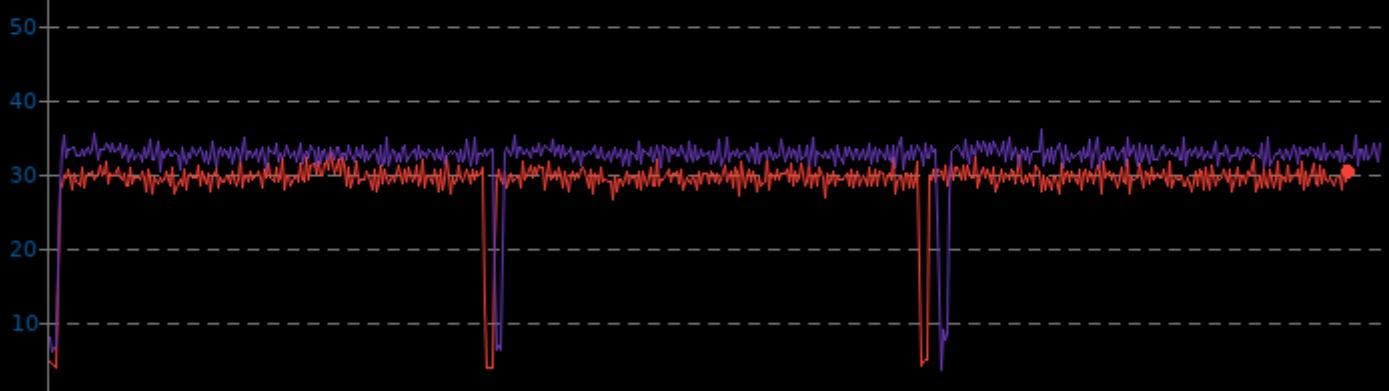


TNN 0.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	29.0	32.9
Streacom DB4 - 5700G	3.7	32.2	36.0

▼ Watts, Fewer Is Better

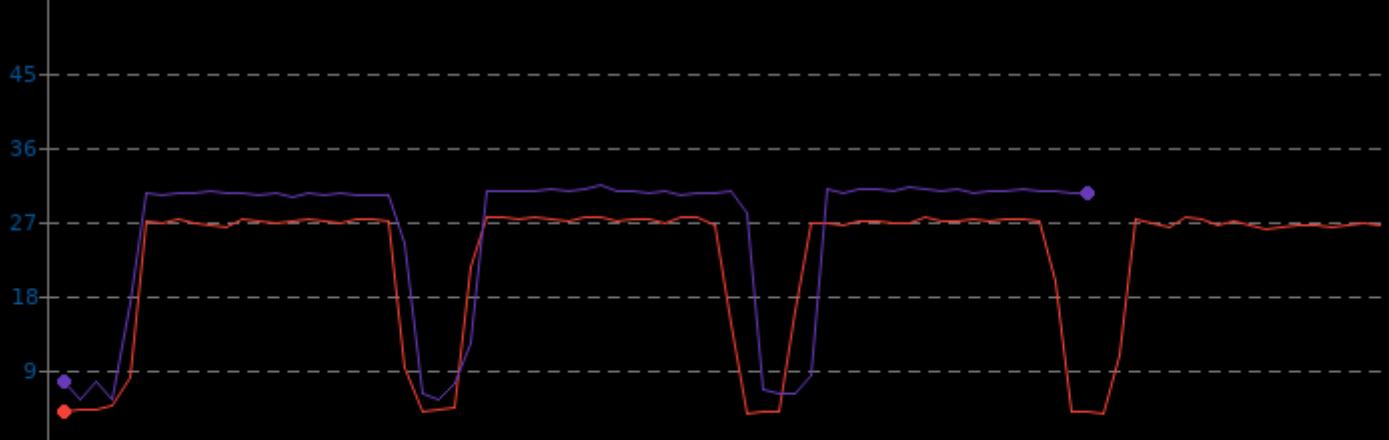


TNN 0.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	22.3	27.6
Streacom DB4 - 5700G	5.4	25.8	31.2

▼ Watts, Fewer Is Better

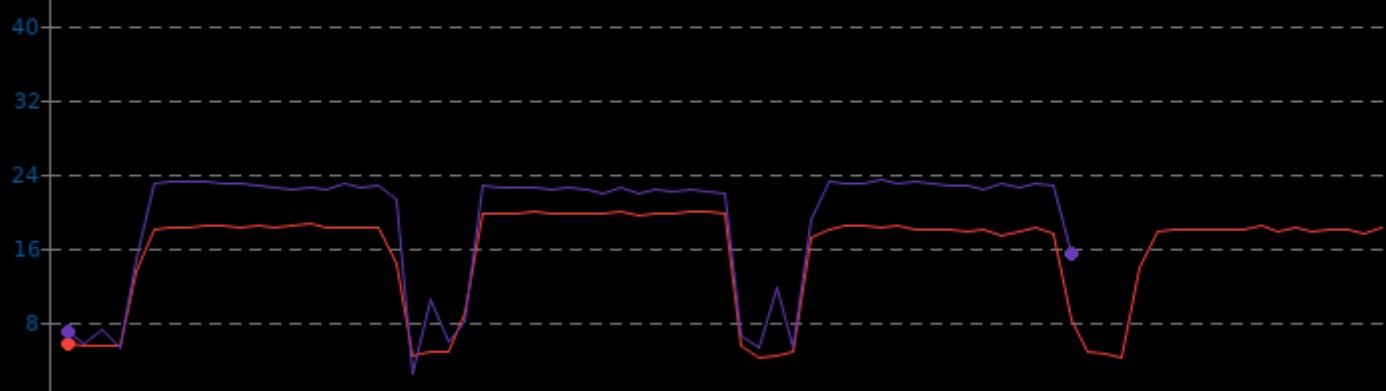


TNN 0.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.3	15.6	19.9
Streacom DB4 - 5700G	2.5	19.1	23.3

▼ Watts, Fewer Is Better

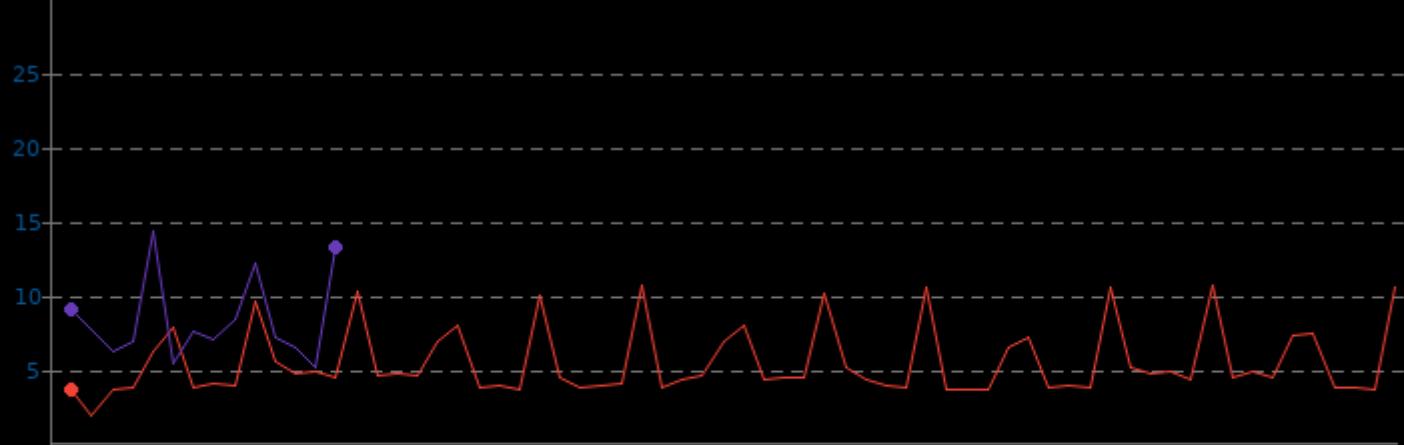


ctx_clock

CPU Power Consumption Monitor

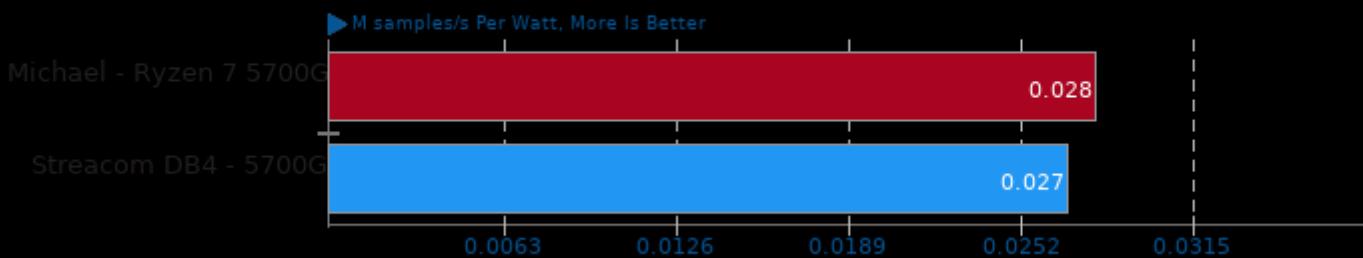
	Min	Avg	Max
Michael - Ryzen 7 5700G	2.0	5.6	10.8
Streacom DB4 - 5700G	5.3	8.4	14.3

▼ Watts, Fewer Is Better



IndigoBench 4.4

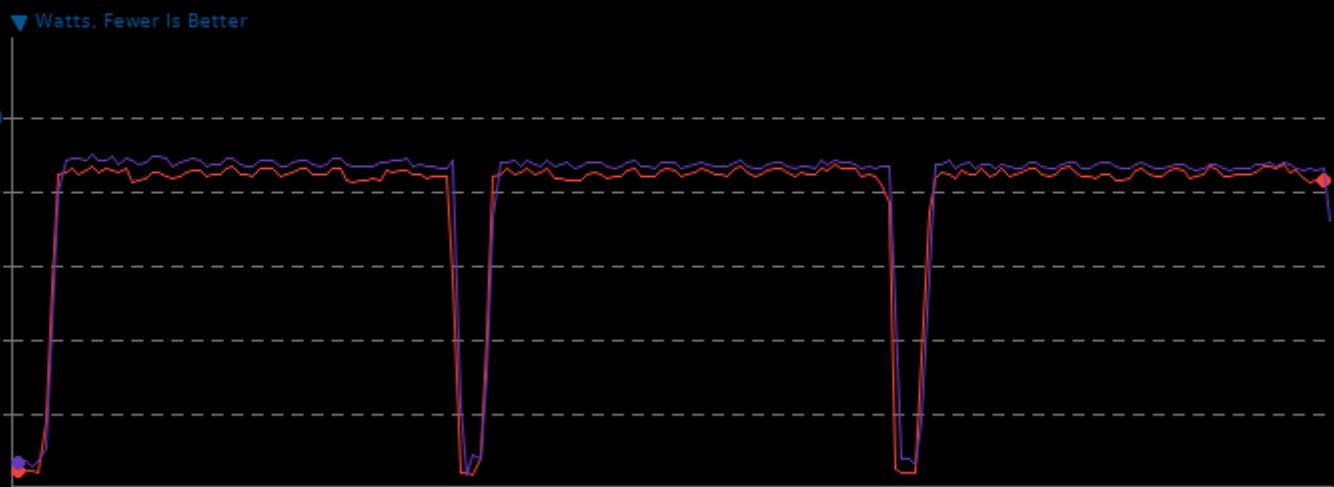
Acceleration: CPU - Scene: Bedroom



IndigoBench 4.4

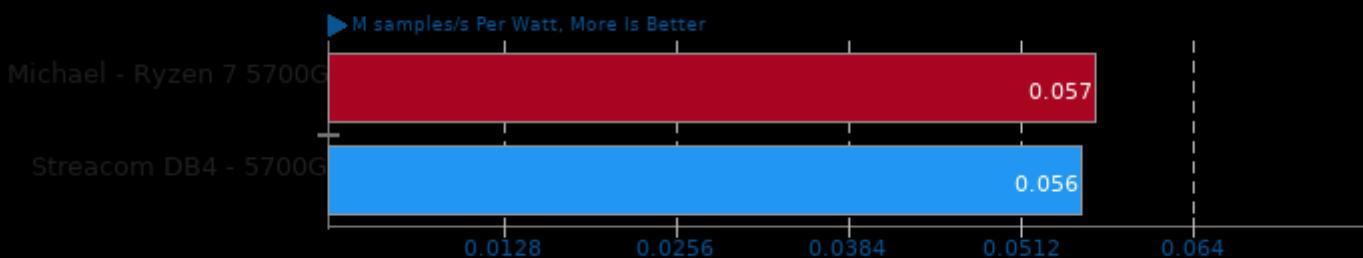
CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	78.3	86.6
Streadom DB4 - 5700G	4.0	80.7	89.6



IndigoBench 4.4

Acceleration: CPU - Scene: Supercar



IndigoBench 4.4

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.0	77.8	85.2
Streacom DB4 - 5700G	4.4	79.1	86.3

▼ Watts, Fewer Is Better



Blender 2.92

CPU Power Consumption Monitor

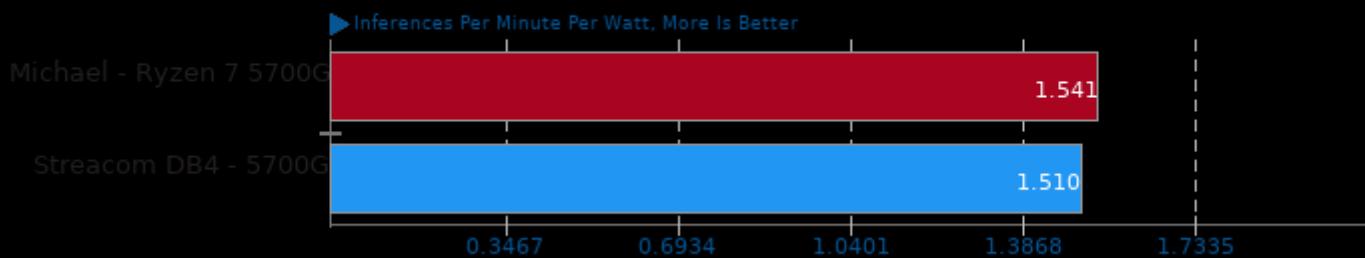
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.1	83.7	89.1
Streacom DB4 - 5700G	4.8	83.6	91.6

▼ Watts, Fewer Is Better



ONNX Runtime 1.6

Model: fcn-resnet101-11 - Device: OpenMP CPU

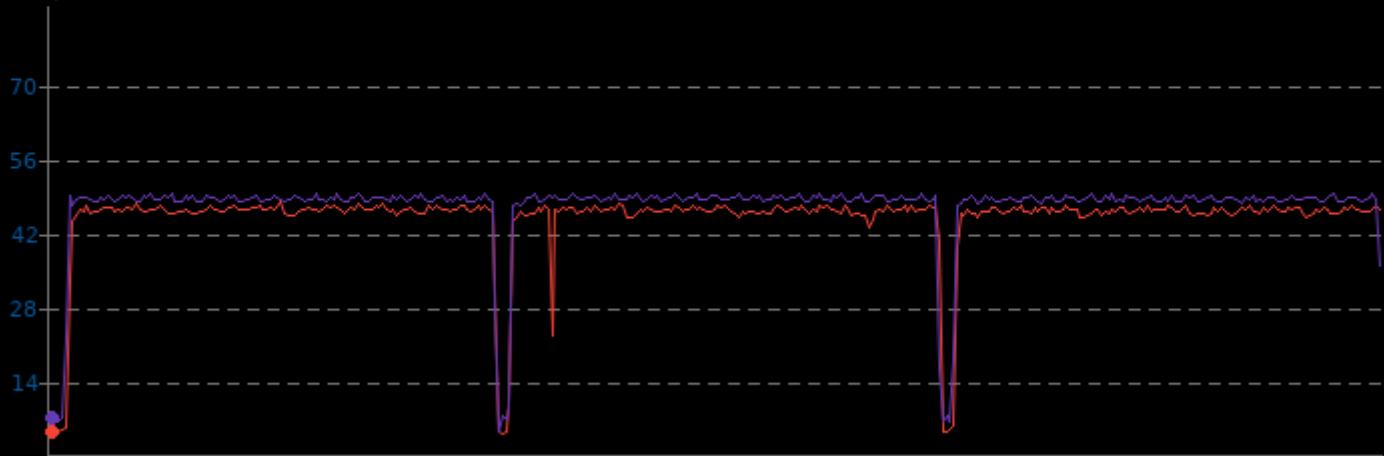


ONNX Runtime 1.6

CPU Power Consumption Monitor

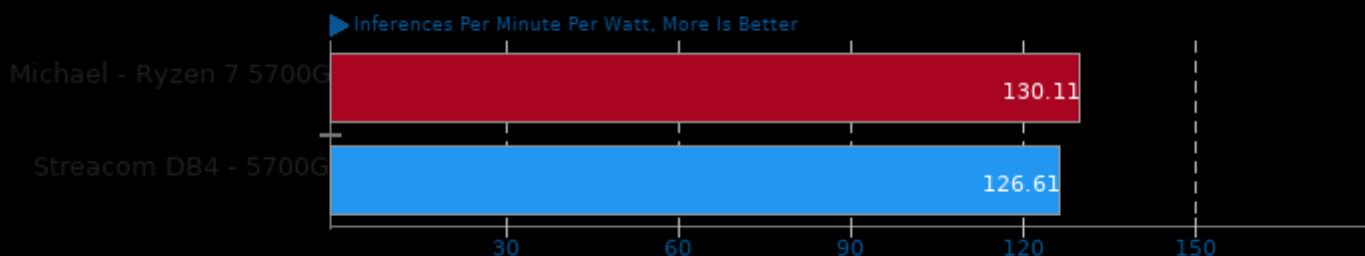
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.6	44.8	47.9
StREAMoM DB4 - 5700G	5.0	47.0	49.6

▼ Watts, Fewer Is Better



ONNX Runtime 1.6

Model: super-resolution-10 - Device: OpenMP CPU



ONNX Runtime 1.6

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.7	42.5	48.8
Streacom DB4 - 5700G	4.0	44.8	46.9

▼ Watts, Fewer Is Better



Natron 2.4

Input: Spaceship

► FPS Per Watt, More Is Better

Michael - Ryzen 7 5700G

0.044

Streacom DB4 - 5700G

0.043

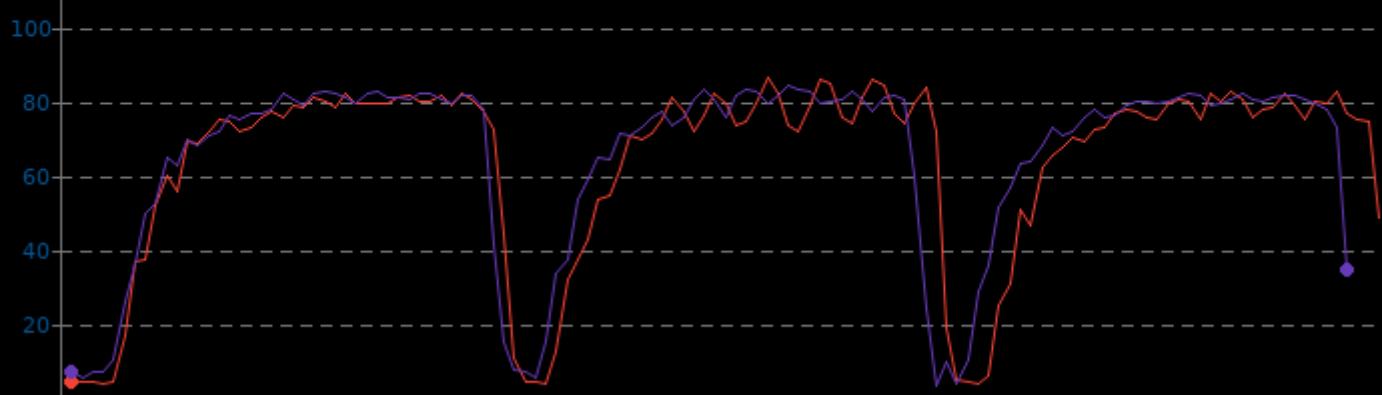
0.0099 0.0198 0.0297 0.0396 0.0495

Natron 2.4

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	63.8	86.0
Streacom DB4 - 5700G	3.7	65.1	84.0

▼ Watts, Fewer Is Better



Appleseed 2.0 Beta

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.6	78.1	85.6
Streacom DB4 - 5700G	6.7	78.4	84.8

▼ Watts, Fewer Is Better

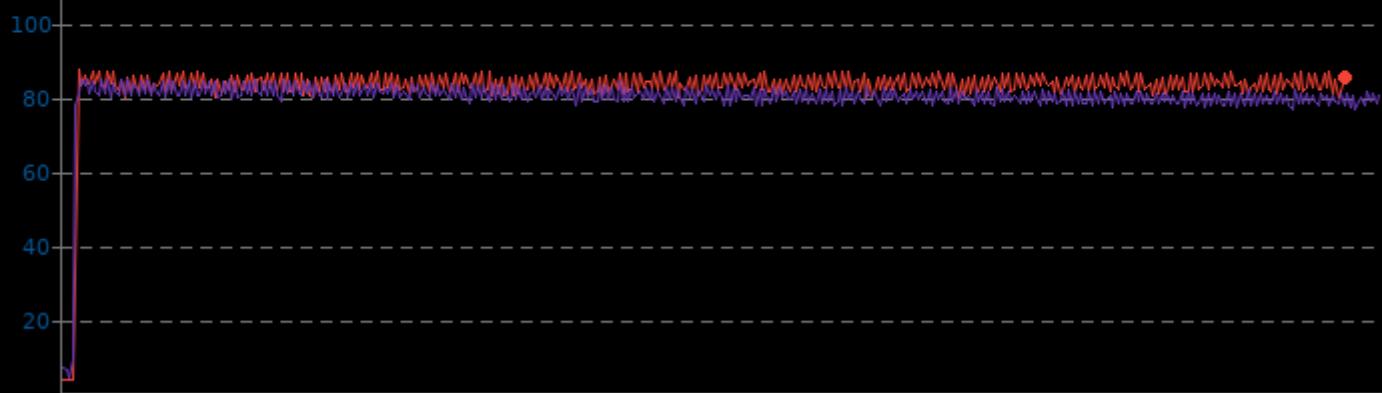


Appleseed 2.0 Beta

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.2	82.7	87.6
Streacom DB4 - 5700G	4.9	79.9	84.9

▼ Watts, Fewer Is Better



Appleseed 2.0 Beta

CPU Power Consumption Monitor

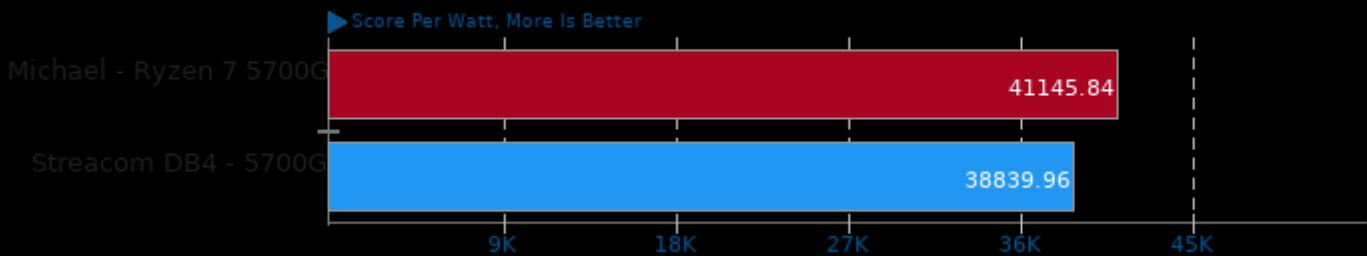
	Min	Avg	Max
Michael - Ryzen 7 5700G	4.6	81.8	86.8
Streacom DB4 - 5700G	6.2	78.2	84.8

▼ Watts, Fewer Is Better



PHPBench 0.8.1

PHP Benchmark Suite

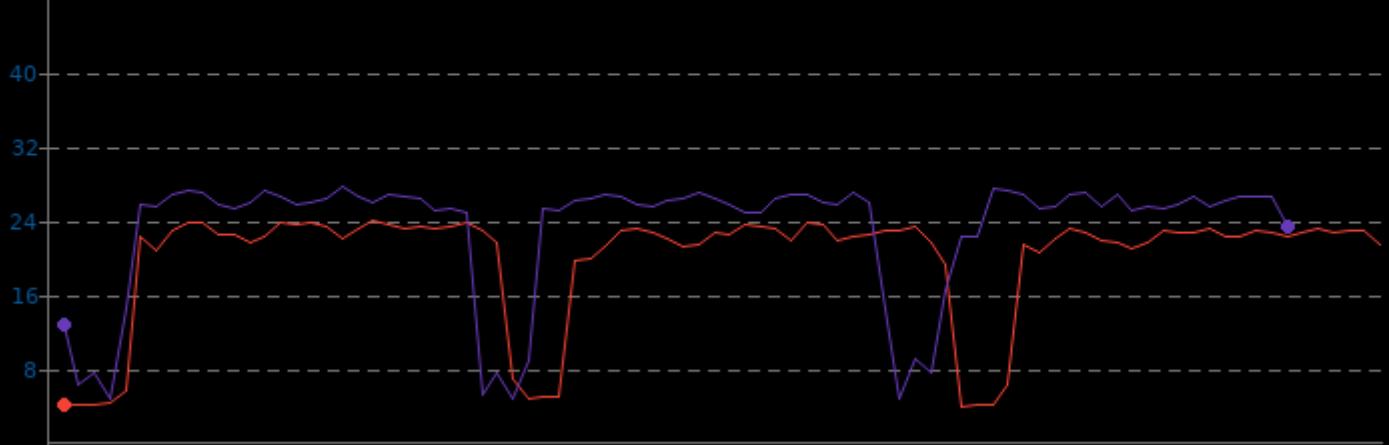


PHPBench 0.8.1

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	4.1	19.9	23.9
Streadcom DB4 - 5700G	4.9	23.0	27.6

▼ Watts, Fewer Is Better

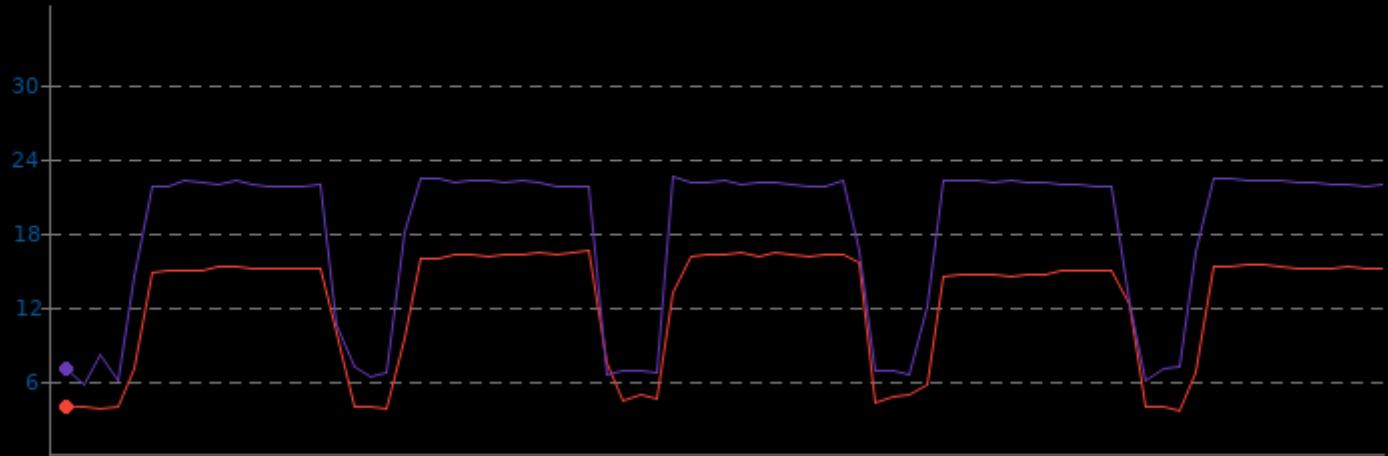


WavPack Audio Encoding 5.3

CPU Power Consumption Monitor

	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	12.5	16.6
Streacom DB4 - 5700G	5.9	18.0	22.5

▼ Watts, Fewer Is Better

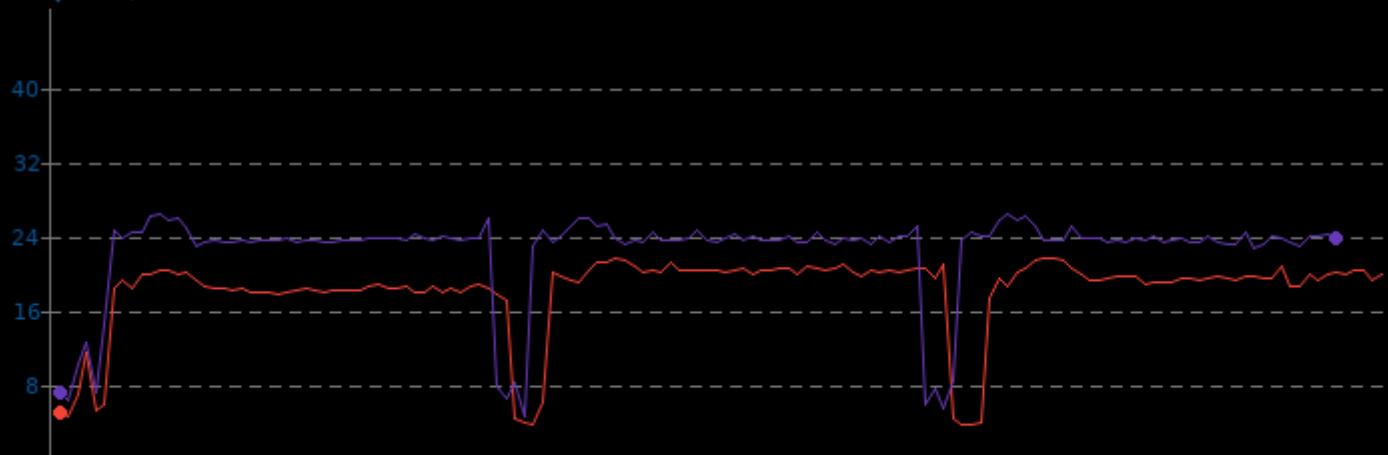


Git

CPU Power Consumption Monitor

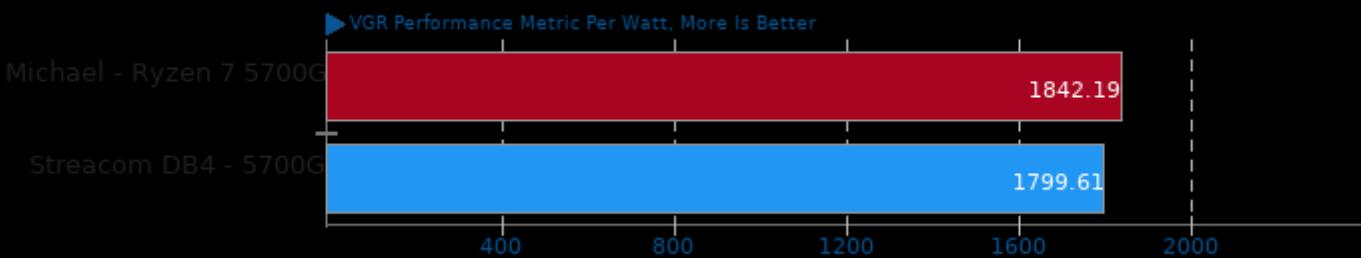
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.9	18.2	21.7
Streacom DB4 - 5700G	4.8	22.4	26.4

▼ Watts, Fewer Is Better



BRL-CAD 7.32.2

VGR Performance Metric

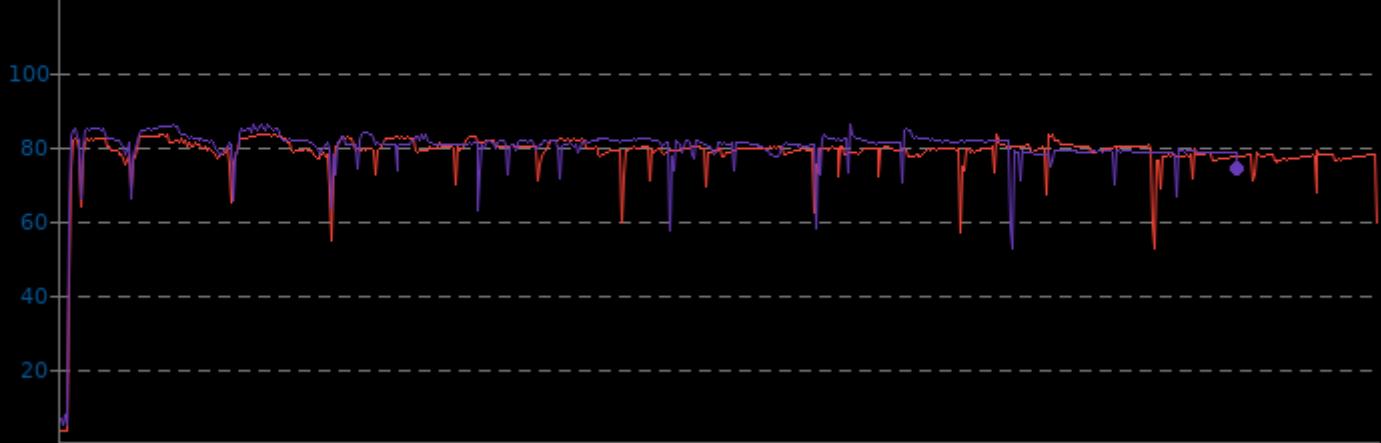


BRL-CAD 7.32.2

CPU Power Consumption Monitor

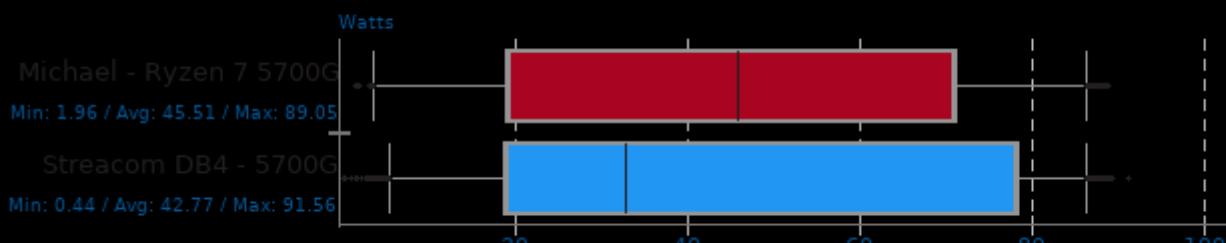
	Min	Avg	Max
Michael - Ryzen 7 5700G	3.7	78.3	83.3
Streacom DB4 - 5700G	5.2	79.7	85.7

▼ Watts, Fewer Is Better



CPU Power Consumption Monitor

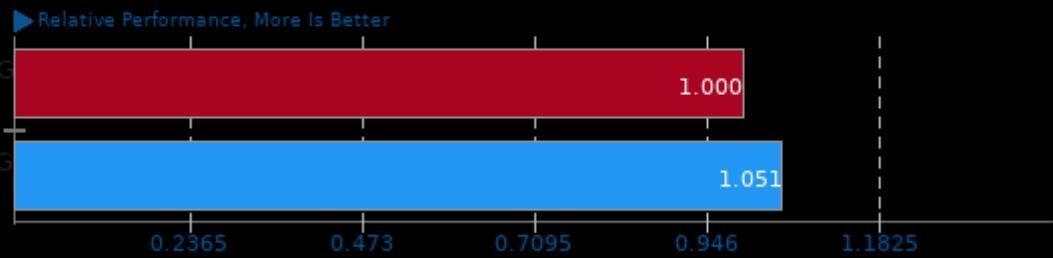
Phoronix Test Suite System Monitoring



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

Geometric Mean Of AV1 Tests

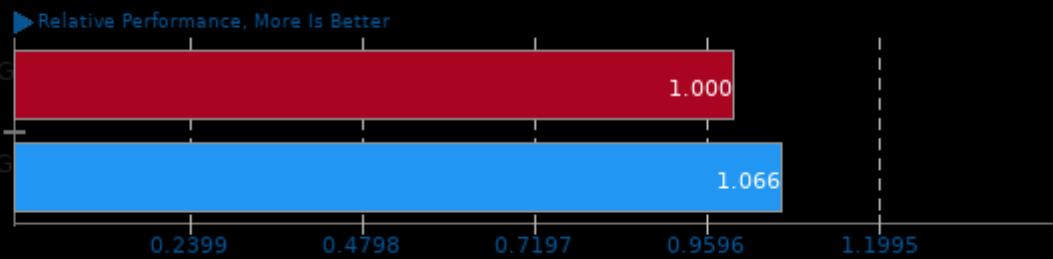
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/dav1d, pts/aom-av1, pts/svt-av1 and pts/avifenc

Geometric Mean Of C++ Boost Tests

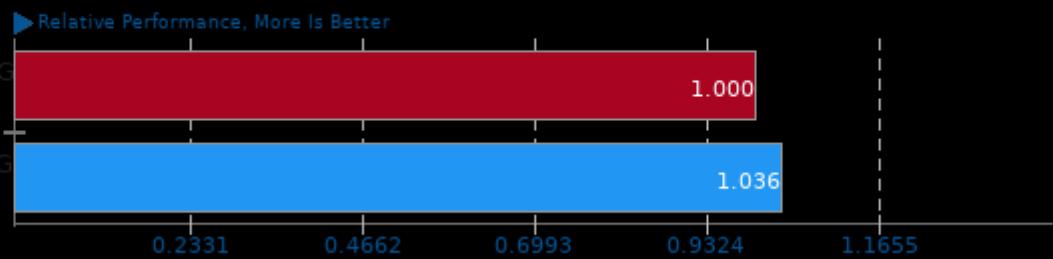
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/quantlib and pts/chia-vdf

Geometric Mean Of CAD Tests

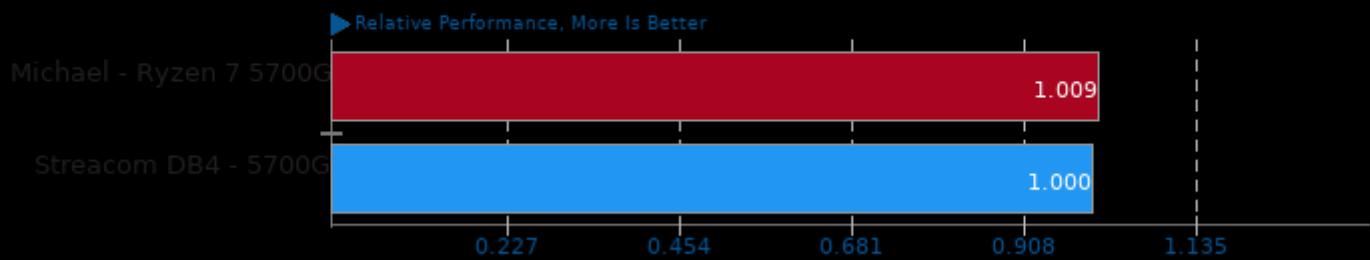
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: system/openscad and pts/brl-cad

Geometric Mean Of Chess Test Suite

Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/stockfish and pts/asmfish

Geometric Mean Of Timed Code Compilation Tests

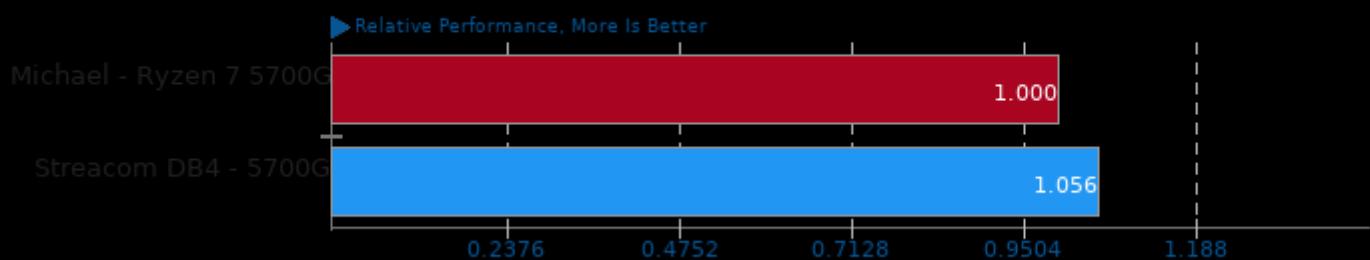
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/build-apache, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer and pts/build-godot

Geometric Mean Of C/C++ Compiler Tests

Result Composite - AMD Ryzen 7 5700G Linux Benchmarks

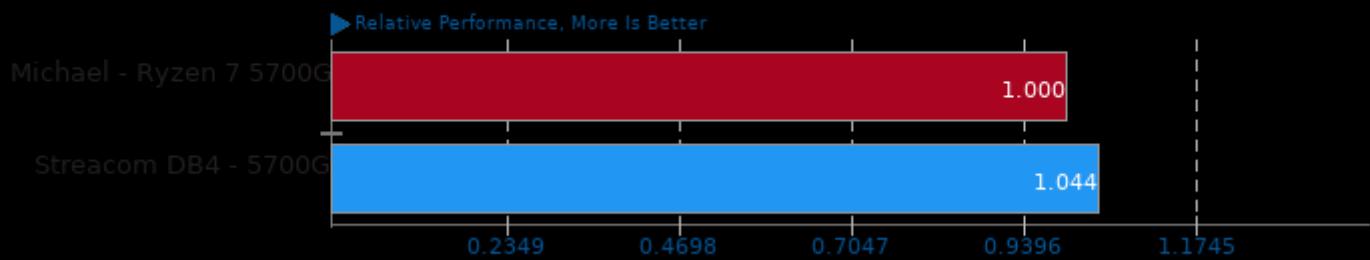


Geometric mean based upon tests: pts/vpxenc, pts/stockfish, pts/build-llvm, pts/compress-7zip, pts/dav1d, pts/x265, pts/compress-zstd, pts/aom-av1, pts/svt-av1, pts/svt-vp9, pts/gromacs, pts/build-gdb, pts/build-ffmpeg, pts/build-apache and pts/build-mplayer

AMD Ryzen 7 5700G Linux Benchmarks

Geometric Mean Of Compression Tests

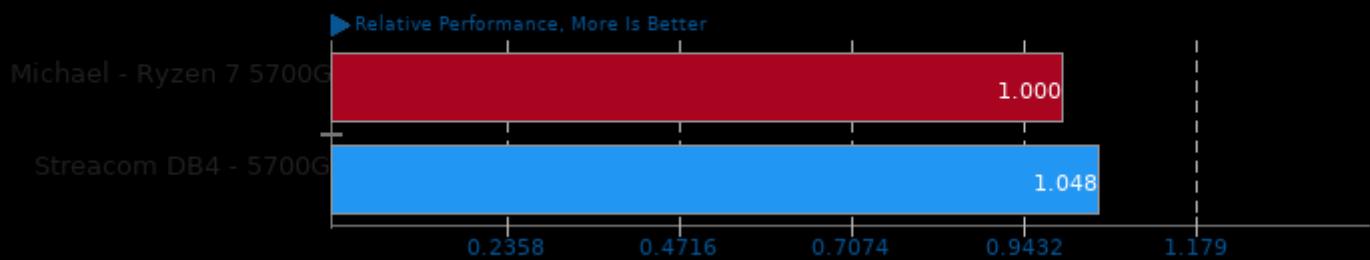
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/compress-7zip, pts/compress-zstd and pts/compress-lz4

Geometric Mean Of CPU Massive Tests

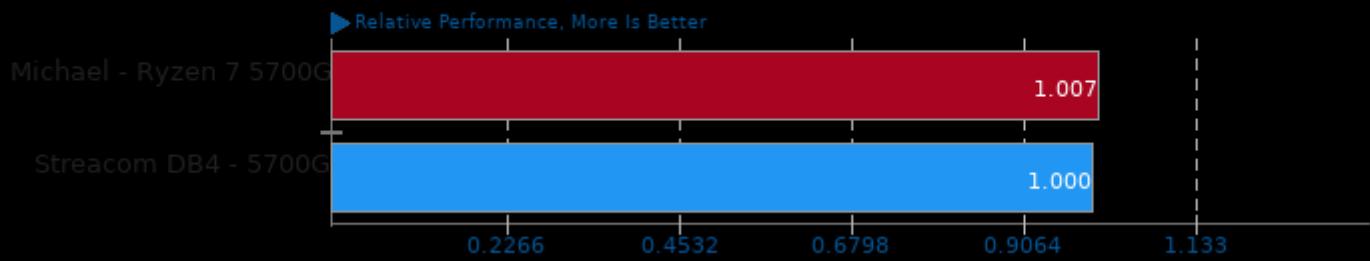
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/asmdash, pts/brl-cad, pts/build-apache, pts/build-llvm, pts/compress-7zip, pts/compress-zstd, pts/ctx-clock, pts/dav1d, pts/svt-av1, pts/svt-hevc, pts/svt-vp9, pts/vpxenc, pts/x265, pts/namd, pts/phpbench, pts/stockfish and pts/blender

Geometric Mean Of Cryptography Tests

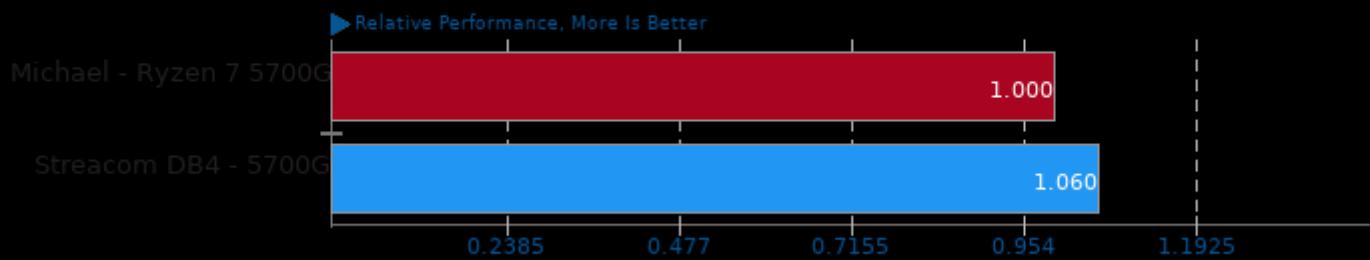
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/securemark and pts/chia-vdf

Geometric Mean Of Encoding Tests

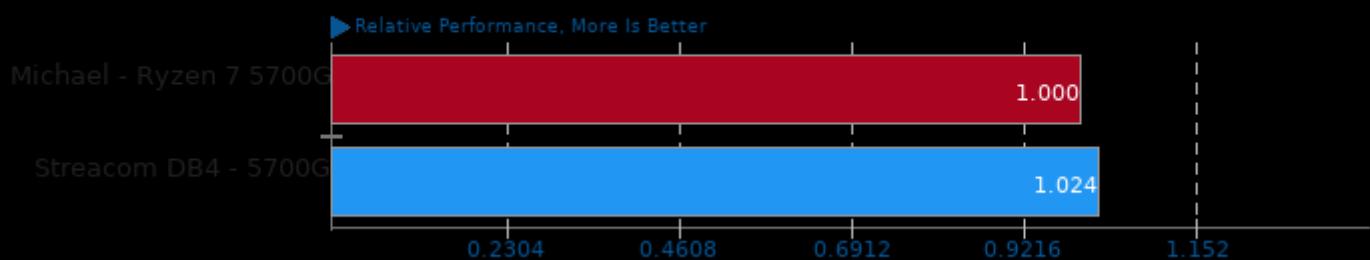
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/encode-wavpack, pts/svt-vp9, pts/svt-hevc, pts/x265, pts/vpxenc, pts/dav1d, pts/aom-av1, pts/svt-av1 and pts/avifenc

Geometric Mean Of Game Development Tests

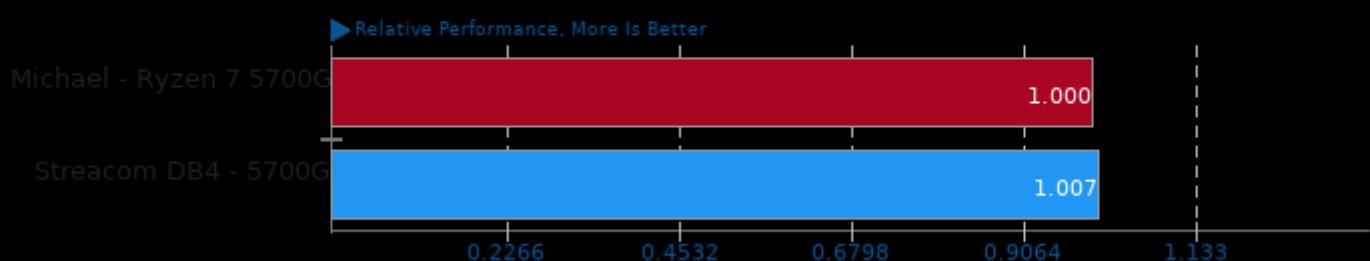
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/etcpar, pts/build-godot, pts/blender and pts/oidn

Geometric Mean Of HPC - High Performance Computing Tests

Result Composite - AMD Ryzen 7 5700G Linux Benchmarks

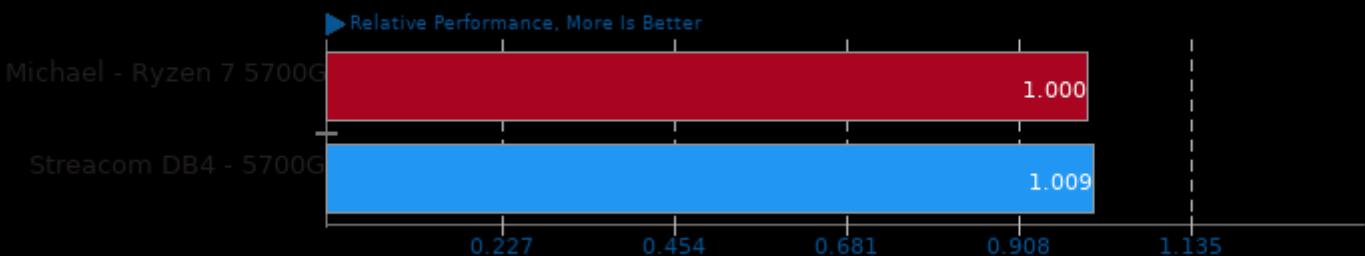


Geometric mean based upon tests: pts/namd, pts/gromacs, pts/incompact3d, pts/tnn, pts/deepspeech, pts/rnnoise and pts/onnx

AMD Ryzen 7 5700G Linux Benchmarks

Geometric Mean Of Imaging Tests

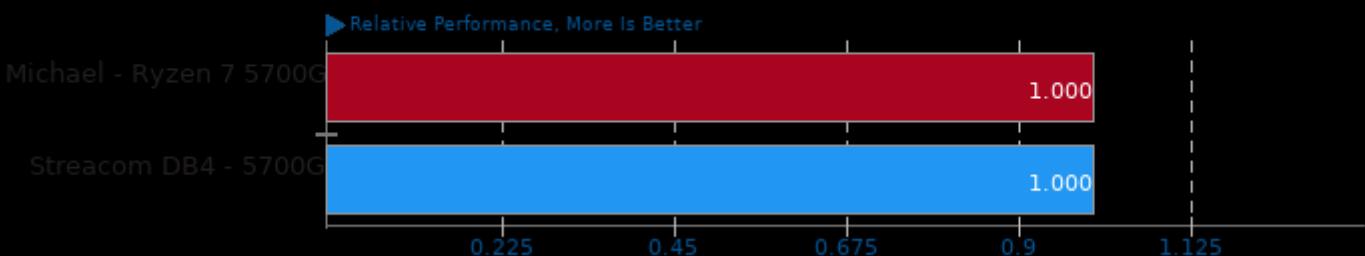
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/libraw, system/rawtherapee and pts/avifenc

Geometric Mean Of Machine Learning Tests

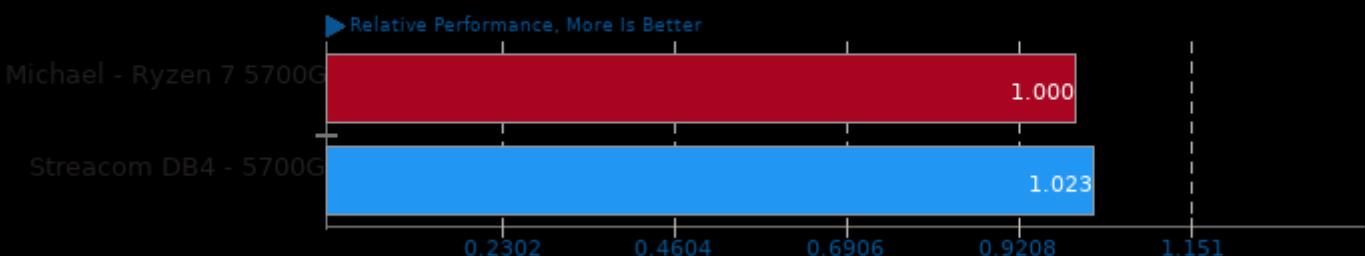
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/tnn, pts/deepspeech, pts/rnnoise and pts/onnx

Geometric Mean Of Molecular Dynamics Tests

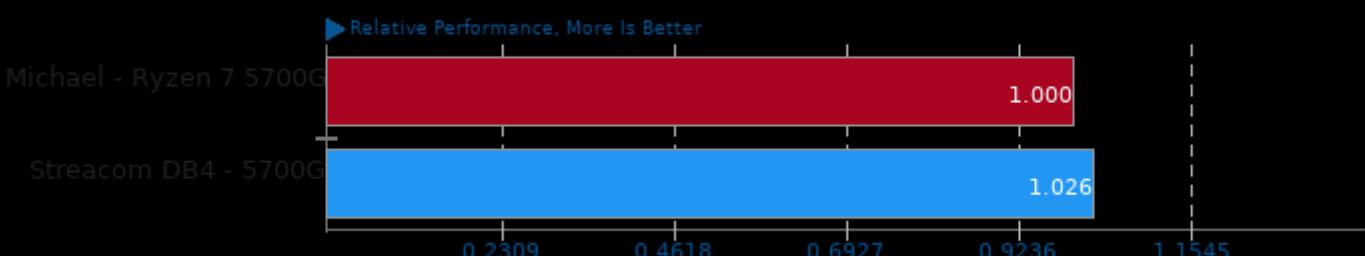
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/namd, pts/gromacs and pts/incompact3d

Geometric Mean Of MPI Benchmarks Tests

Result Composite - AMD Ryzen 7 5700G Linux Benchmarks

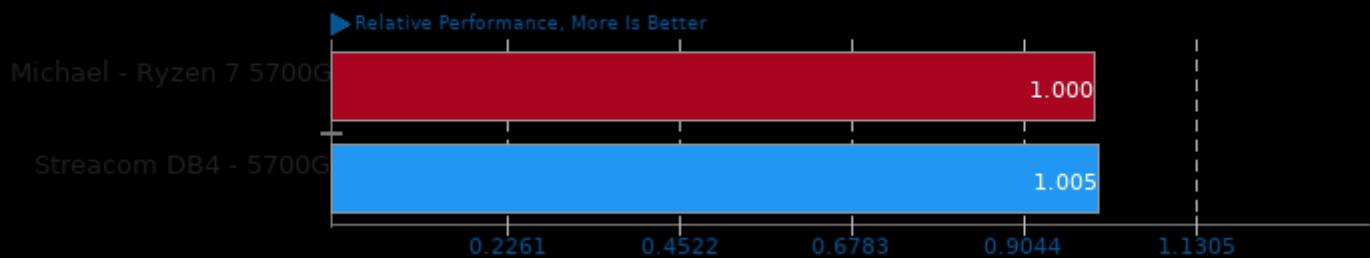


Geometric mean based upon tests: pts/incompact3d and pts/gromacs

AMD Ryzen 7 5700G Linux Benchmarks

Geometric Mean Of NVIDIA GPU Compute Tests

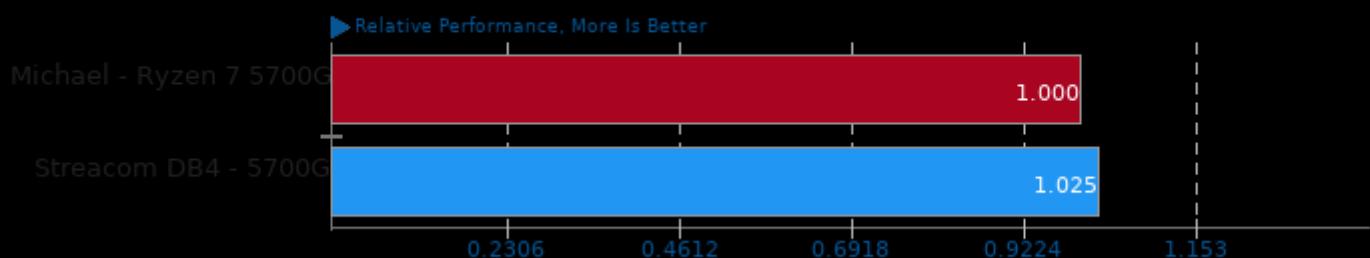
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/gromacs, pts/indigobench and pts/blender

Geometric Mean Of Intel oneAPI Tests

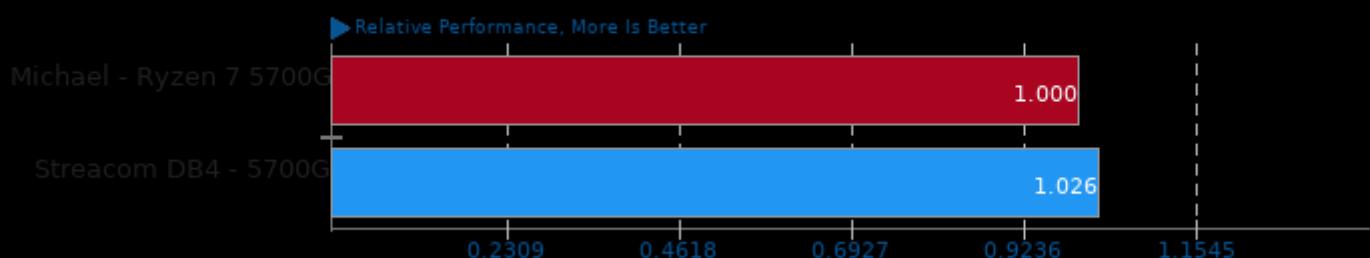
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/embree, pts/oidn and pts/ospray

Geometric Mean Of OpenMPI Tests

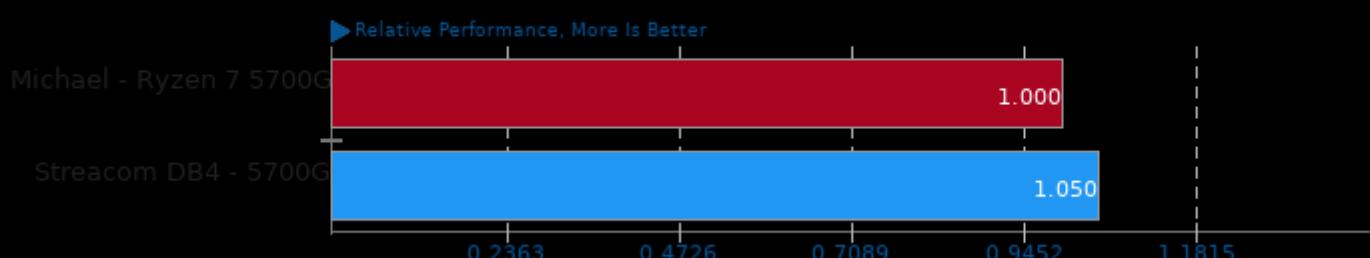
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/incompact3d and pts/gromacs

Geometric Mean Of Programmer / Developer System Benchmarks Tests

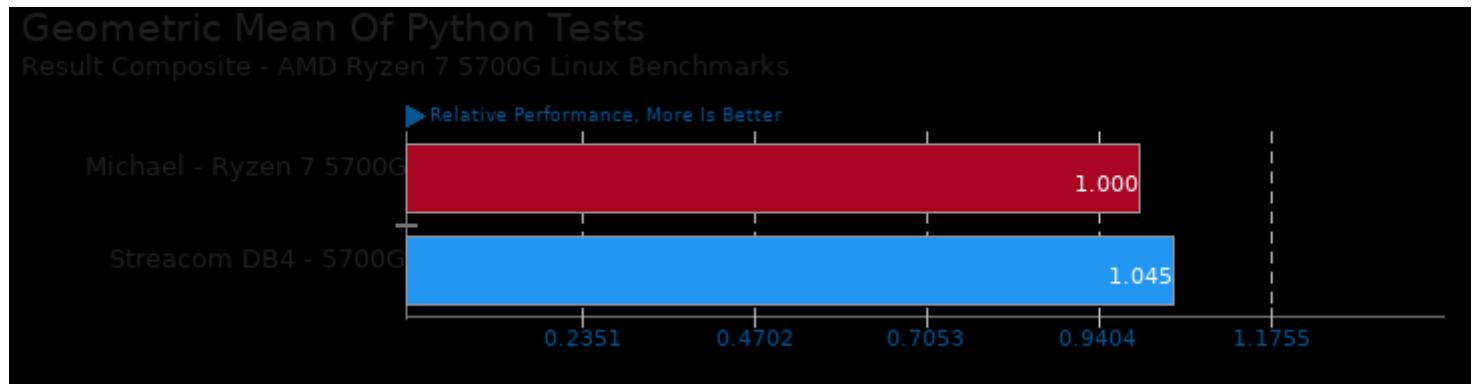
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



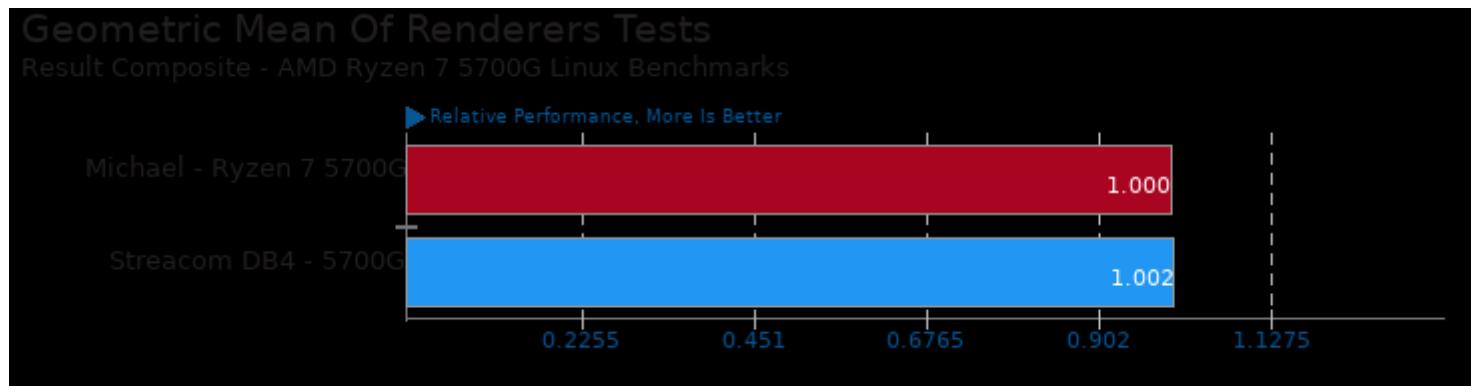
Geometric mean based upon tests: pts/git, pts/compress-zstd, pts/build-apache, pts/build-gdb, pts/build-llvm,

AMD Ryzen 7 5700G Linux Benchmarks

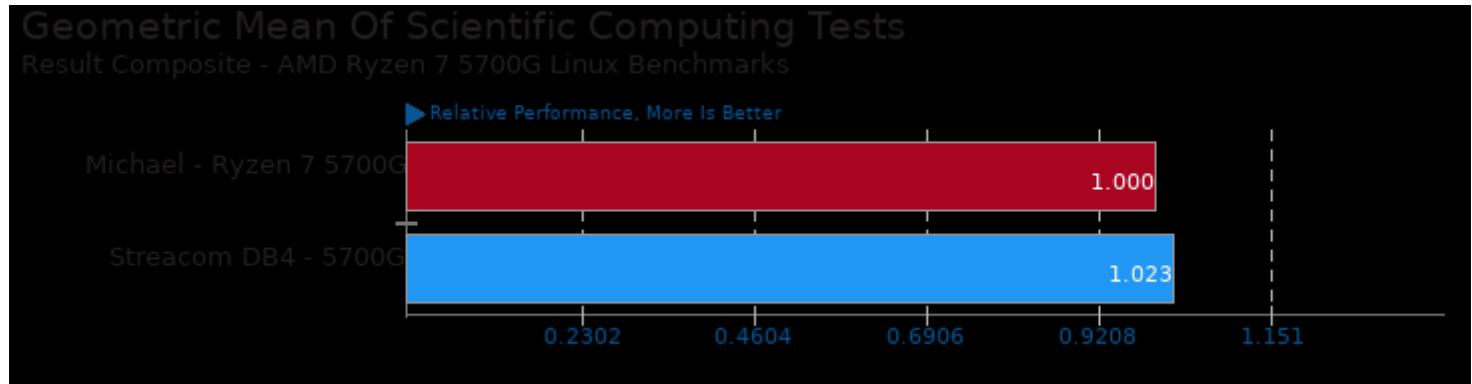
pts/build-ffmpeg, pts/build-mplayer and pts/build-godot



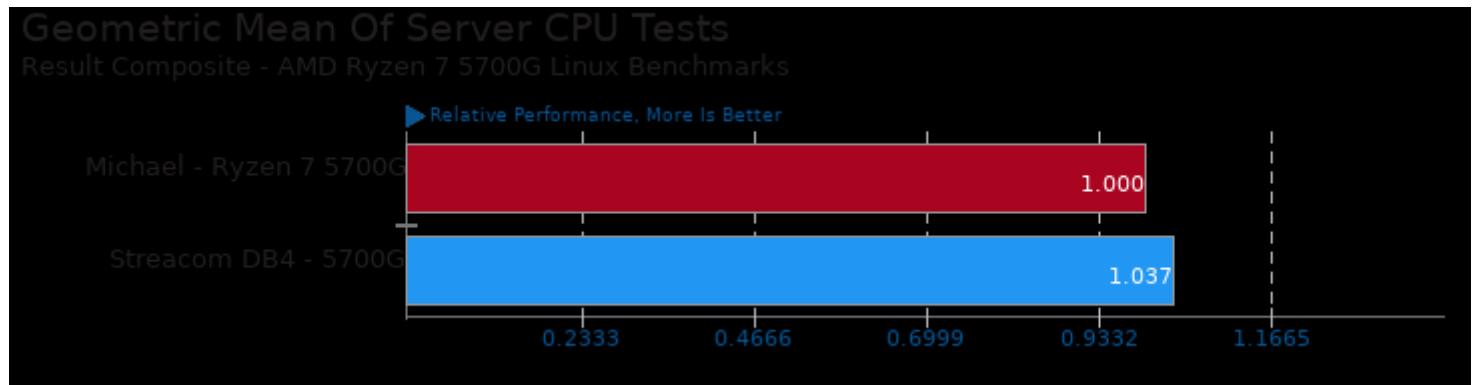
Geometric mean based upon tests: pts/chia-vdf, pts/build-godot, pts/build-llvm, system/ocrmypdf and pts/onnx



Geometric mean based upon tests: pts/ospray, pts/blender, pts/appleseed, pts/indigobench and pts/natron

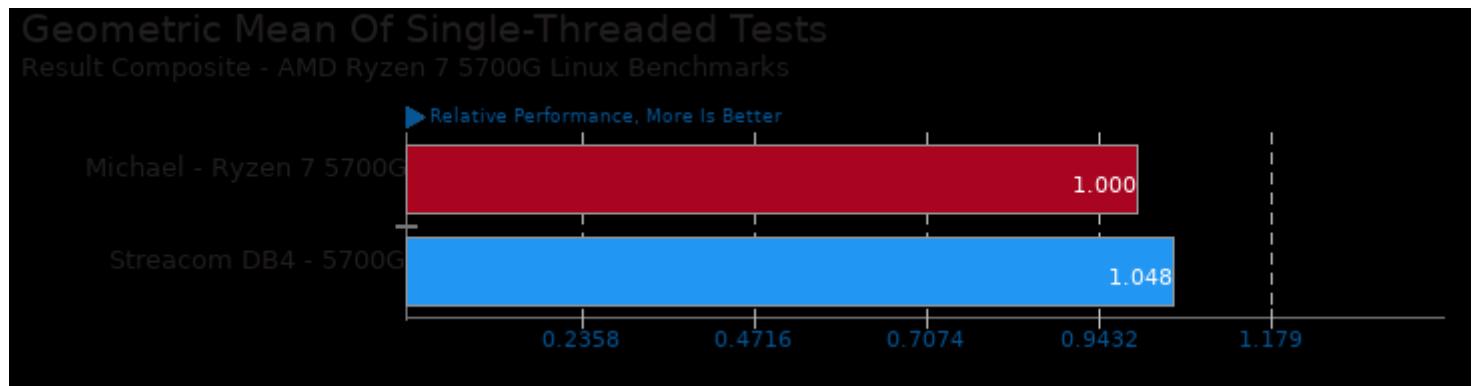


Geometric mean based upon tests: pts/namd, pts/gromacs and pts/incompact3d

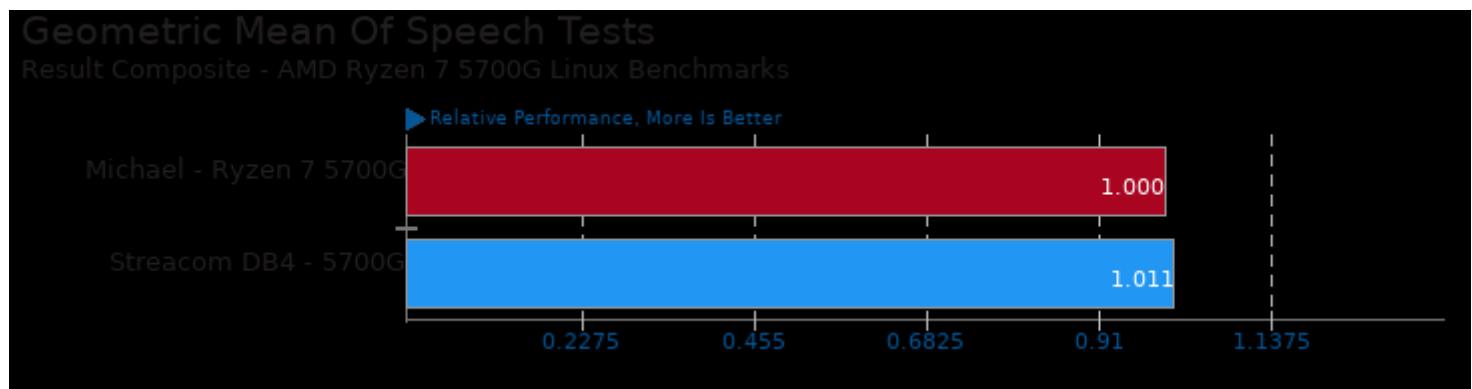


AMD Ryzen 7 5700G Linux Benchmarks

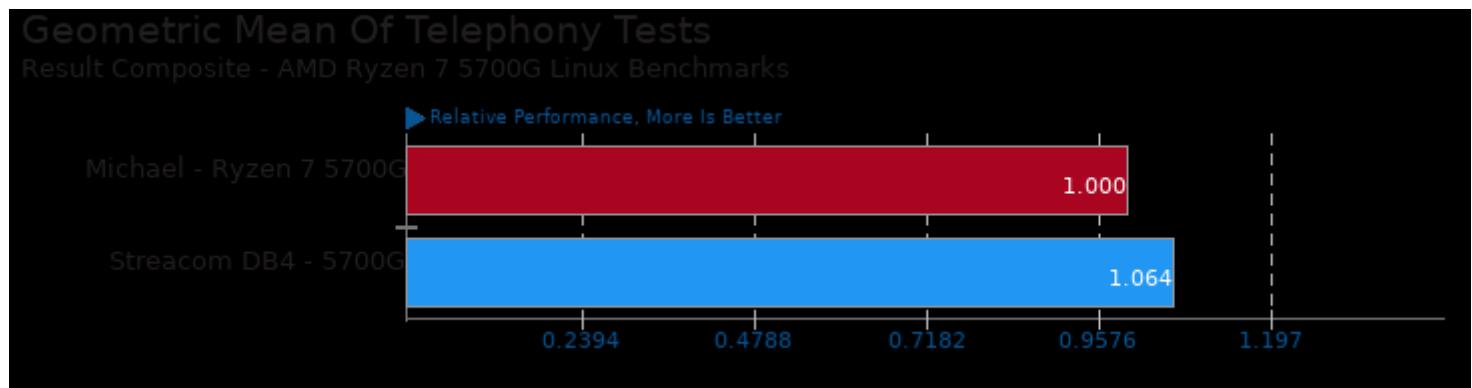
Geometric mean based upon tests: pts/namd, pts/svt-av1, pts/svt-hevc, pts/svt-vp9, pts/x265, pts/dav1d, pts/compress-7zip, pts/stockfish, pts/asmfish, pts/build-llvm, pts/compress-zstd, pts/ctx-clock, pts/blender, pts/appleseed and pts/phpbench



Geometric mean based upon tests: pts/deepspeech, pts/phpbench and pts/git



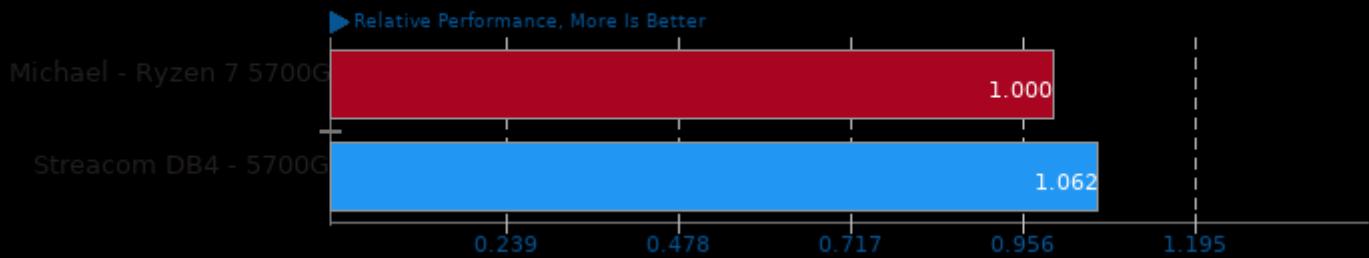
Geometric mean based upon tests: pts/deepspeech and pts/rnnoise



Geometric mean based upon tests: pts/pjsip, pts/deepspeech and pts/rnnoise

Geometric Mean Of Video Encoding Tests

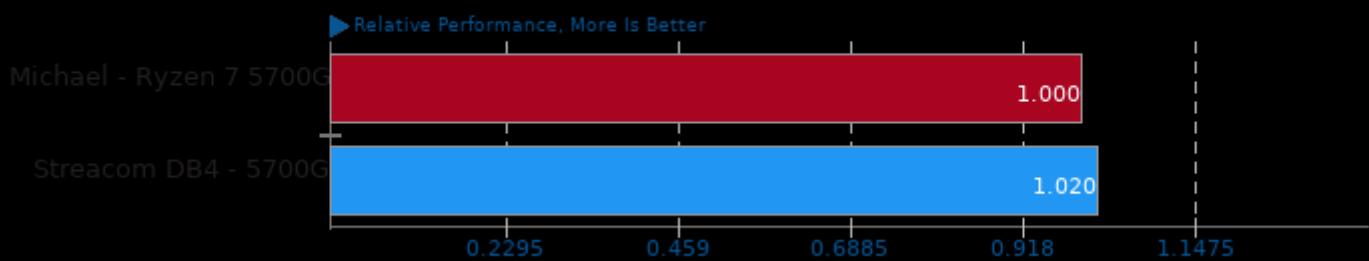
Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/svt-vp9, pts/svt-hevc, pts/x265, pts/vpxenc, pts/dav1d, pts/aom-av1, pts/svt-av1 and pts/avifenc

Geometric Mean Of Common Workstation Benchmarks Tests

Result Composite - AMD Ryzen 7 5700G Linux Benchmarks



Geometric mean based upon tests: pts/blender, pts/brl-cad, pts/x265 and pts/git

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