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AMD EPYC 7763 Cooling Performance

AMD EPYC 7763 64-Core CPU benchmarks by Michael Larabel evaluating some heatsink fans in a 4U server.

Automated Executive Summary

Noctua NH-U9 TR4-SP3 had the most wins, coming in first place for 43% of the tests.

Based on the geometric mean of all complete results, the fastest (Noctua NH-U9 TR4-SP3) was 1.001x the speed of the slowest (Dynatron A38). Dynatron A26 was 1x the speed of Noctua NH-U9 TR4-SP3 and Dynatron A38 was 0.999x the speed of Dynatron A26.

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

Xcompact3d Incompact3d (Input: X3D-benchmarking input.i3d) at 1.066x
oneDNN (Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU) at 1.035x
AOM AV1 (Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p) at 1.033x
AOM AV1 (Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K) at 1.023x
Stockfish (Total Time) at 1.022x
AOM AV1 (Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K) at 1.022x
ViennaCL (Test: CPU BLAS - sAXPY) at 1.021x
srsLTE (Test: OFDM_Test) at 1.019x
oneDNN (Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU) at 1.019x

AOM AV1 (Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K) at 1.018x.

Test Systems:

Noctua NH-U9 TR4-SP3

Dynatron A26

Dynatron A38

Processor: AMD EPYC 7763 64-Core @ 2.45GHz (64 Cores / 128 Threads), Motherboard: Supermicro H12SSL-i v1.01 (2.0 BIOS), Chipset: AMD Starship/Matisse, Memory: 126GB, Disk: 3841GB Micron_9300_MTFDHAL3T8TDP, Graphics: llvmpipe, Network: 2 x Broadcom NetXtreme BCM5720 2-port PCIe

OS: Ubuntu 20.04, Kernel: 5.12.0-051200rc6daily20210408-generic (x86_64) 20210407, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, OpenGL: 3.3 Mesa 20.0.8 (LLVM 10.0.0 128 bits), Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: madvise
 Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEA/gcc-9.3.0/debian/tmp-nvptx/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-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 ondemand (Boost: Enabled) - CPU Microcode: 0xa001119
 Python Notes: Python 3.8.2
 Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbs: Not affected + tsx_async_abort: Not affected

	Noctua NH-U9 TR4-SP3	Dynatron A26	Dynatron A38
IndigoBench - CPU - Supercar (M samples/s)	24.190	24.256	24.360
Normalized	99.3%	99.57%	100%
Standard Deviation	0.2%	0.2%	0.5%
IndigoBench - CPU - Bedroom (M samples/s)	11.394	11.399	11.404
Normalized	99.91%	99.96%	100%
Standard Deviation	0.5%	0.5%	0.2%
Chaos Group V-RAY - CPU (vsamples)	57912	58270	58504
Normalized	98.99%	99.6%	100%
Standard Deviation	0.8%	2.4%	1.4%
Blender - BMW27 - CPU-Only (sec)	31.92	31.85	31.92
Normalized	99.78%	100%	99.78%
Standard Deviation	0.6%	0.2%	0.4%
Blender - Classroom - CPU-Only (sec)	80.96	80.86	80.92
Normalized	99.88%	100%	99.93%
Standard Deviation	0.2%	0.2%	0.2%

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Blender - Fishy Cat - CPU-Only (sec)	45.98	45.80	46.01
Normalized	99.61%	100%	99.54%
Standard Deviation	0.3%	0.3%	0.2%
Blender - Pabellon Barcelona - CPU-Only	93.59	93.72	93.72
Normalized	100%	99.86%	99.86%
Standard Deviation	0.1%	0.2%	0%
Blender - Barbershop - CPU-Only (sec)	111.61	111.48	111.53
Normalized	99.88%	100%	99.96%
Standard Deviation	0.1%	0.1%	0.2%
Timed Linux Kernel Compilation - Time To Compile (sec)	26.930	26.877	26.844
Normalized	99.68%	99.88%	100%
Standard Deviation	3%	2.9%	2.9%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	98.814	99.326	99.086
Normalized	100%	99.48%	99.73%
Standard Deviation	0.2%	0.2%	0.1%
Timed Apache Compilation - Time To Compile (sec)	23.590	23.673	23.586
Normalized	99.98%	99.63%	100%
Standard Deviation	0.1%	0.2%	0.1%
Timed Mesa Compilation - Time To Compile (sec)	19.835	19.796	19.800
Normalized	99.8%	100%	99.98%
Standard Deviation	0.8%	0.5%	0.4%
Timed Node.js Compilation - Time To Compile (sec)	110.706	111.318	110.941
Normalized	100%	99.45%	99.79%
Standard Deviation	0.4%	0.2%	0.5%
Timed Erlang/OTP Compilation - Time To Compile (sec)	134.328	132.497	133.119
Normalized	98.64%	100%	99.53%
Standard Deviation	0.3%	0.5%	0.4%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)	104.57	101.70	101.27
Normalized	100%	97.26%	96.84%
Standard Deviation	2.7%	2.6%	1.6%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	37.45	38.06	37.46
Normalized	98.4%	100%	98.42%
Standard Deviation	2%	3%	2.9%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)	86.13	86.56	87.63
Normalized	98.29%	98.78%	100%
Standard Deviation	1%	1.7%	1.6%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	34.1	34.29	34.73
Normalized	98.19%	98.73%	100%
Standard Deviation	0.3%	1.1%	1.4%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)	24.61	24.71	24.82
Normalized	99.15%	99.56%	100%
Standard Deviation	0.4%	1.2%	0.7%

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AOM AV1 - Speed 6 Realtime - Bosphorus	16.09	16.25	16.14
4K (FPS)			
Normalized	99.02%	100%	99.32%
Standard Deviation	0.3%	0.7%	0.5%
AOM AV1 - Speed 6 Two-Pass - Bosphorus	21.31	21.47	21.46
1080p (FPS)			
Normalized	99.25%	100%	99.95%
Standard Deviation	0.4%	0.5%	0.2%
AOM AV1 - Speed 6 Two-Pass - Bosphorus	9.15	9.16	9.35
4K (FPS)			
Normalized	97.86%	97.97%	100%
Standard Deviation	1.4%	1.9%	2.8%
AOM AV1 - Speed 4 Two-Pass - Bosphorus	6.74	6.71	6.68
1080p (FPS)			
Normalized	100%	99.55%	99.11%
Standard Deviation	0.5%	0.2%	0.1%
AOM AV1 - Speed 4 Two-Pass - Bosphorus	4.72	4.83	4.77
4K (FPS)			
Normalized	97.72%	100%	98.76%
Standard Deviation	1.3%	0.7%	1.3%
AOM AV1 - Speed 0 Two-Pass - Bosphorus	0.5	0.50	0.50
1080p (FPS)			
Standard Deviation	0%	1.1%	1.1%
AOM AV1 - Speed 0 Two-Pass - Bosphorus	0.2	0.2	0.2
4K (FPS)			
Standard Deviation	0%	0%	0%
SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)	345.24	347.78	346.82
Normalized	99.27%	100%	99.72%
Standard Deviation	6.6%	7.1%	6.9%
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)	471.60	471.09	470.69
Normalized	100%	99.89%	99.81%
Standard Deviation	0.8%	0.8%	0.9%
SVT-VP9 - VMAF Optimized - Bosphorus	468.76	468.59	467.96
1080p (FPS)			
Normalized	100%	99.96%	99.83%
Standard Deviation	0.7%	0.7%	0.6%
SVT-HEVC - 1 - Bosphorus 1080p (FPS)	37.76	37.89	37.92
Normalized	99.58%	99.92%	100%
Standard Deviation	0.3%	0.6%	0.6%
SVT-HEVC - 7 - Bosphorus 1080p (FPS)	324.42	323.60	322.43
Normalized	100%	99.75%	99.39%
Standard Deviation	1.4%	0.6%	0.8%
SVT-HEVC - 10 - Bosphorus 1080p (FPS)	607.02	602.55	605.97
Normalized	100%	99.26%	99.83%
Standard Deviation	0.9%	0.8%	0.5%
SVT-AV1 - Enc Mode 8 - 1080p (FPS)	92.861	92.347	93.048
Normalized	99.8%	99.25%	100%
Standard Deviation	1%	1%	1.6%
SVT-AV1 - Enc Mode 4 - 1080p (FPS)	9.473	9.452	9.355
Normalized	100%	99.78%	98.75%
Standard Deviation	2.3%	1.7%	3%
SVT-AV1 - Enc Mode 0 - 1080p (FPS)	0.130	0.130	0.130
Standard Deviation	0.9%	0.4%	1.2%

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ViennaCL - CPU BLAS - sCOPY (GB/s)	1035	1052	1044
Normalized	98.38%	100%	99.24%
Standard Deviation	11.2%	10.1%	10.2%
ViennaCL - CPU BLAS - sAXPY (GB/s)	627	640	640
Normalized	97.97%	100%	100%
Standard Deviation	1.4%	1.6%	1.1%
ViennaCL - CPU BLAS - dCOPY (GB/s)	1401	1409	1399
Normalized	99.43%	100%	99.29%
Standard Deviation	1.5%	0.9%	0.9%
ViennaCL - CPU BLAS - dAXPY (GB/s)	1222	1205	1204
Normalized	100%	98.61%	98.53%
Standard Deviation	0.7%	0.7%	0.4%
ViennaCL - CPU BLAS - dDOT (GB/s)	1115	1116	1112
Normalized	99.91%	100%	99.64%
Standard Deviation	0.7%	0.6%	0.7%
ViennaCL - CPU BLAS - dGEMV-N (GB/s)	88.6	82.6	78.9
Normalized	100%	93.23%	89.05%
Standard Deviation	33.3%	44.2%	24%
ViennaCL - CPU BLAS - dGEMV-T (GB/s)	793	781	779
Normalized	100%	98.49%	98.23%
Standard Deviation	0.8%	0.9%	1.7%
ViennaCL - CPU BLAS - dGEMM-NN (GFLOPs/s)	88.1	88.6	88.2
Normalized	99.44%	100%	99.55%
Standard Deviation	2.3%	0.3%	1.5%
ViennaCL - CPU BLAS - dGEMM-NT (GFLOPs/s)	86.1	86.6	86.3
Normalized	99.42%	100%	99.65%
Standard Deviation	1.3%	0.3%	1.3%
ViennaCL - CPU BLAS - dGEMM-TN (GFLOPs/s)	92.1	92.1	91.9
Normalized	100%	100%	99.78%
Standard Deviation	0.2%	0.1%	0.5%
ViennaCL - CPU BLAS - dGEMM-TT (GFLOPs/s)	89.7	89.9	89.9
Normalized	99.78%	100%	100%
Standard Deviation	0.6%	0.1%	0.2%
ViennaCL - CPU BLAS - sDOT (GB/s)	637	640	636
Normalized	99.53%	100%	99.38%
Standard Deviation	0.5%	0.7%	0.7%
GNU GMP GMPbench - Total Time (GMPbench Score)	5099	5099	5089
Normalized	99.99%	100%	99.8%
OpenSCAD - P.M.S (sec)	100.902	100.723	101.045
Normalized	99.82%	100%	99.68%
Standard Deviation	0.5%	0.7%	0.2%
OpenSCAD - L.P.C.S (sec)	18.699	18.525	18.734
Normalized	99.07%	100%	98.88%
Standard Deviation	0.9%	0.4%	1%
OpenSCAD - Pistol (sec)	109.833	108.617	108.794
Normalized	98.89%	100%	99.84%
Standard Deviation	0.3%	0.2%	0.5%
OpenSCAD - Retro Car (sec)	19.063	18.886	18.927
Normalized	99.07%	100%	99.78%

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	Standard Deviation	0.2%	0.5%	0.3%
OpenSCAD - Mini-ITX Case (sec)	45.841	45.232		45.482
	Normalized	98.67%	100%	99.45%
	Standard Deviation	0.2%	0.6%	0.6%
Stockfish - Total Time (Nodes/s)	156656685	160107651		158512004
	Normalized	97.84%	100%	99%
	Standard Deviation	2.8%	5%	1.4%
Xcompact3d Incompact3d - i.i.1.C.P.D (sec)	5.15653072	5.15065159		5.15051767
	Normalized	99.88%	100%	100%
	Standard Deviation	0.9%	1.1%	1.2%
Xcompact3d Incompact3d - i.i.1.C.P.D (sec)	22.5096487	22.3308512		22.7087644
	Normalized	99.21%	100%	98.34%
	Standard Deviation	0.3%	2.4%	0.6%
Xcompact3d Incompact3d - X.b.i.i (sec)	625.812337	667.268494		627.667114
	Normalized	100%	93.79%	99.7%
	Standard Deviation	0.1%	5.2%	0.1%
oneDNN - C.B.S.A - f32 - CPU (ms)	0.880047	0.879752		0.879480
	Normalized	99.94%	99.97%	100%
	Standard Deviation	0.2%	0.2%	0.2%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	1.65220	1.65671		1.67256
	Normalized	100%	99.73%	98.78%
	Standard Deviation	0.5%	0.5%	2.3%
oneDNN - D.B.s - f32 - CPU (ms)	7.13608	7.17839		7.18002
	Normalized	100%	99.41%	99.39%
	Standard Deviation	0.9%	0.7%	0.5%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	0.605058	0.607655		0.603621
	Normalized	99.76%	99.34%	100%
	Standard Deviation	0.5%	0.5%	0.2%
oneDNN - D.B.s - f32 - CPU (ms)	3.03820	3.02459		3.04352
	Normalized	99.55%	100%	99.38%
	Standard Deviation	0.9%	0.9%	0.7%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	0.781851	0.783464		0.781060
	Normalized	99.9%	99.69%	100%
	Standard Deviation	1%	1%	0.9%
oneDNN - IP Shapes 1D - f32 - CPU (ms)	1.17796	1.17863		1.18087
	Normalized	100%	99.94%	99.75%
	Standard Deviation	0.3%	0.3%	0.5%
oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)	1.17758	1.18685		1.17906
	Normalized	100%	99.22%	99.87%
	Standard Deviation	1.3%	1.3%	2%
oneDNN - IP Shapes 3D - f32 - CPU (ms)	3.66307	3.64941		3.61762
	Normalized	98.76%	99.13%	100%
	Standard Deviation	2.5%	1.4%	2.1%
oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)	0.663059	0.650624		0.640331
	Normalized	96.57%	98.42%	100%
	Standard Deviation	2.2%	1.4%	1.9%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	0.384929	0.381495		0.385207
	Normalized	99.11%	100%	99.04%
	Standard Deviation	2.6%	0.8%	2.2%
oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms)	0.720928	0.726789		0.721586
	Normalized	100%	99.19%	99.91%
	Standard Deviation	0.7%	0.3%	0.5%
oneDNN - R.N.N.T - f32 - CPU (ms)	1374	1379		1400
	Normalized	100%	99.64%	98.12%
	Standard Deviation	0.4%	1.1%	1.9%

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oneDNN - R.N.N.T - u8s8f32 - CPU (ms)	1385	1370	1377
Normalized	98.89%	100%	99.45%
Standard Deviation	0.4%	0.4%	0.6%
oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)	1371	1391	1382
Normalized	100%	98.54%	99.21%
Standard Deviation	1%	0.6%	1%
oneDNN - R.N.N.I - f32 - CPU (ms)	665.228	666.049	665.526
Normalized	100%	99.88%	99.96%
Standard Deviation	0.1%	0.3%	0.3%
oneDNN - R.N.N.I - u8s8f32 - CPU (ms)	664.988	664.807	665.265
Normalized	99.97%	100%	99.93%
Standard Deviation	0.3%	0.3%	0.3%
oneDNN - R.N.N.I - bf16bf16bf16 - CPU (ms)	664.680	666.483	666.130
Normalized	100%	99.73%	99.78%
Standard Deviation	0.4%	0.3%	0.3%
Mobile Neural Network - SqueezeNetV1.0	5.785	5.797	5.878
Normalized	100%	99.79%	98.42%
Standard Deviation	1.2%	0.8%	0.4%
Mobile Neural Network - resnet-v2-50 (ms)	22.130	22.397	22.269
Normalized	100%	98.81%	99.38%
Standard Deviation	0.6%	0.7%	0.8%
Mobile Neural Network - MobileNetV2_224	3.757	3.789	3.780
Normalized	100%	99.16%	99.39%
Standard Deviation	0.8%	1%	0.7%
Mobile Neural Network - mobilenet-v1-1.0	2.328	2.342	2.332
Normalized	100%	99.4%	99.83%
Standard Deviation	0.7%	0.9%	1%
Mobile Neural Network - inception-v3 (ms)	28.171	28.451	28.328
Normalized	100%	99.02%	99.45%
Standard Deviation	0.2%	0.8%	0.6%
ASTC Encoder - Medium (sec)	4.9176	4.9412	4.9424
Normalized	100%	99.52%	99.5%
Standard Deviation	0.2%	0.2%	0.3%
ASTC Encoder - Thorough (sec)	7.9925	8.0062	7.9898
Normalized	99.97%	99.8%	100%
Standard Deviation	0.2%	0.2%	0.2%
ASTC Encoder - Exhaustive (sec)	20.4428	20.6196	20.5591
Normalized	100%	99.14%	99.43%
Standard Deviation	0.4%	0.2%	0.2%
simdjson - PartialTweets (GB/s)	3.64	3.63	3.63
Normalized	100%	99.73%	99.73%
Standard Deviation	0.4%	0.2%	0.2%
simdjson - LargeRand (GB/s)	0.96	0.96	0.96
Standard Deviation	0%	0%	0%
simdjson - Kostya (GB/s)	2.83	2.83	2.83
Standard Deviation	0%	0%	0.4%
simdjson - DistinctUserID (GB/s)	4.01	4.00	3.98
Normalized	100%	99.75%	99.25%
Standard Deviation	0.4%	0.4%	0.3%
srsLTE - OFDM_Test (Samples / Second)	1156333333	1162333333	1178666667
Normalized	98.11%	98.61%	100%
Standard Deviation	2.7%	2.8%	1.7%
srsLTE - PHY_DL_Test (eNb Mb/s)	257.4	257.1	255.9
Normalized	100%	99.88%	99.42%
Standard Deviation	0.1%	0.1%	0.6%

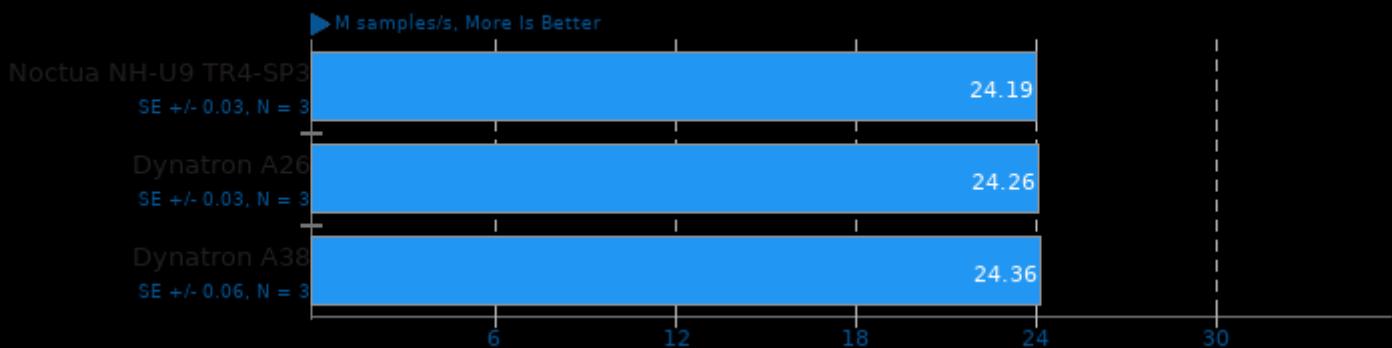
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srsLTE - PHY_DL_Test (UE Mb/s)	94.3	94.3	93.7
Normalized	100%	100%	99.36%
Standard Deviation	0.8%	0.4%	1%
GNU Radio - F.B.t.B.F.F (MiB/s)	560.9	567.7	560.1
Normalized	98.8%	100%	98.66%
Standard Deviation	2.9%	1.8%	3.2%
GNU Radio - S.S.C (MiB/s)	3322	3325	3304
Normalized	99.92%	100%	99.37%
Standard Deviation	0.4%	1.4%	1.6%
GNU Radio - FIR Filter (MiB/s)	639.0	641.6	642.0
Normalized	99.53%	99.94%	100%
Standard Deviation	0.2%	0.3%	0.5%
GNU Radio - IIR Filter (MiB/s)	608.6	604.7	607.0
Normalized	100%	99.36%	99.74%
Standard Deviation	0.4%	0.4%	0.6%
GNU Radio - F.D.F (MiB/s)	765.3	760.3	764.1
Normalized	100%	99.35%	99.84%
Standard Deviation	0.5%	0.2%	0.6%
GNU Radio - Hilbert Transform (MiB/s)	378.2	377.3	376.2
Normalized	100%	99.76%	99.47%
Standard Deviation	0.6%	0.8%	0.6%
LuaRadio - F.B.t.B.F.F (MiB/s)	1102	1111	1097
Normalized	99.19%	100%	98.81%
Standard Deviation	0.6%	0.2%	0.4%
LuaRadio - F.D.F (MiB/s)	344.7	344.2	343.4
Normalized	100%	99.85%	99.62%
Standard Deviation	0.1%	0.1%	0.2%
LuaRadio - Hilbert Transform (MiB/s)	93.5	93.6	93.5
Normalized	99.89%	100%	99.89%
Standard Deviation	0.1%	0.1%	0.1%
LuaRadio - Complex Phase (MiB/s)	591.8	591.6	591.0
Normalized	100%	99.97%	99.86%
Standard Deviation	0.2%	0.2%	0.1%
Liquid-DSP - 16 - 256 - 57 (samples/s)	803310000	800190000	804146667
Normalized	99.9%	99.51%	100%
Standard Deviation	1.4%	1.2%	0.6%
Liquid-DSP - 32 - 256 - 57 (samples/s)	1613766667	1614933333	1614566667
Normalized	99.93%	100%	99.98%
Standard Deviation	0.4%	0.4%	0.3%
Liquid-DSP - 64 - 256 - 57 (samples/s)	2792400000	2782866667	2793733333
Normalized	99.95%	99.61%	100%
Standard Deviation	0.3%	0.2%	0.2%
Liquid-DSP - 128 - 256 - 57 (samples/s)	3017933333	3028066667	3028133333
Normalized	99.66%	100%	100%
Standard Deviation	0.1%	0%	0%
GROMACS - water_GMX50_bare (Ns/Day)	5.577	5.582	5.599
Normalized	99.61%	99.7%	100%
Standard Deviation	0.1%	0.6%	0.3%
NAMD - ATPase Simulation - 327,506 Atoms	0.38110 (days/ns)	0.38164	0.38215
Normalized	100%	99.86%	99.73%
Standard Deviation	0.2%	0.2%	0.3%

AMD EPYC 7763 Cooling Performance

IndigoBench 4.4

Acceleration: CPU - Scene: Supercar

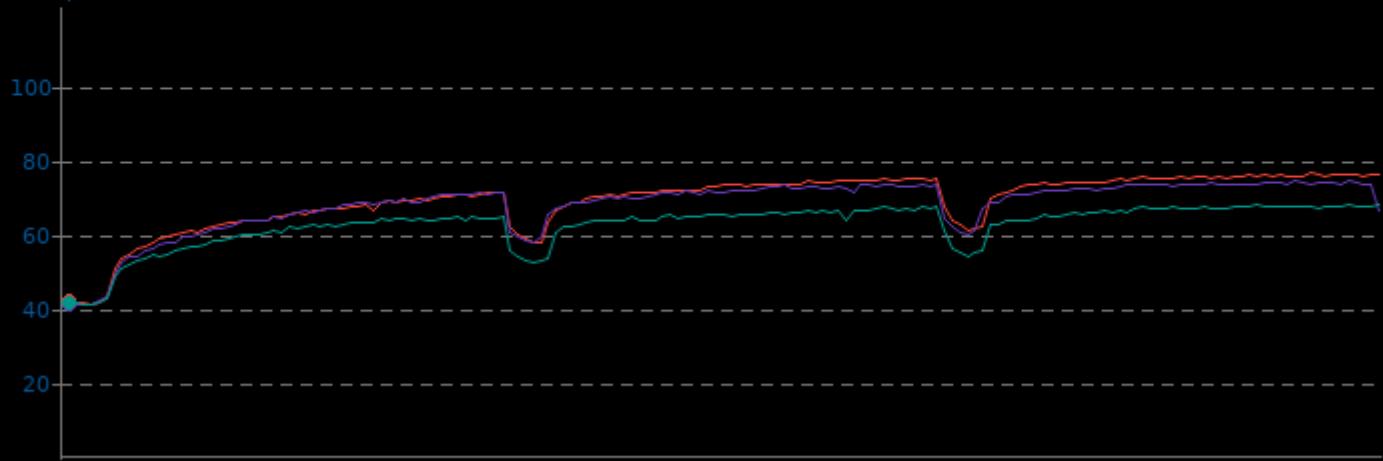


IndigoBench 4.4

CPU Temperature Monitor

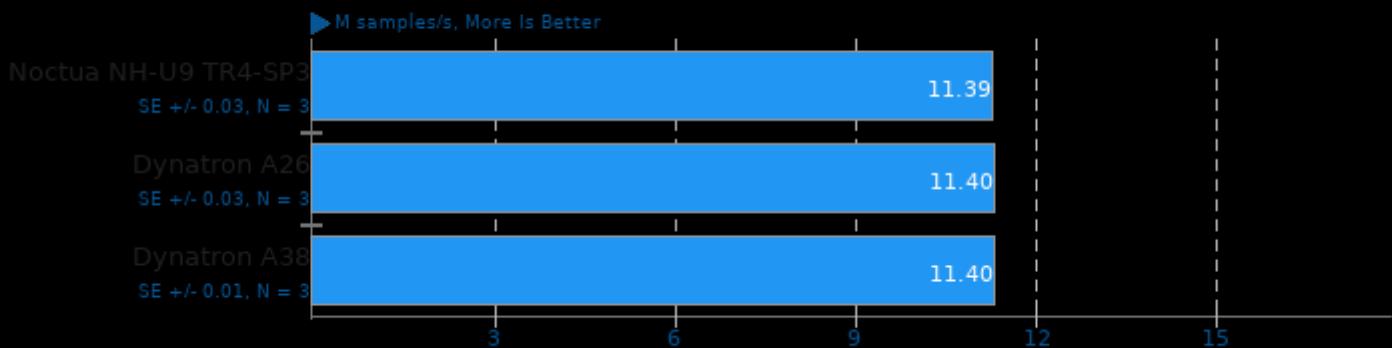
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	41.5	69.1	76.5
Dynatron A26	41.0	68.1	74.3
Dynatron A38	41.5	62.6	68.3

▼ Celsius, Fewer Is Better



IndigoBench 4.4

Acceleration: CPU - Scene: Bedroom

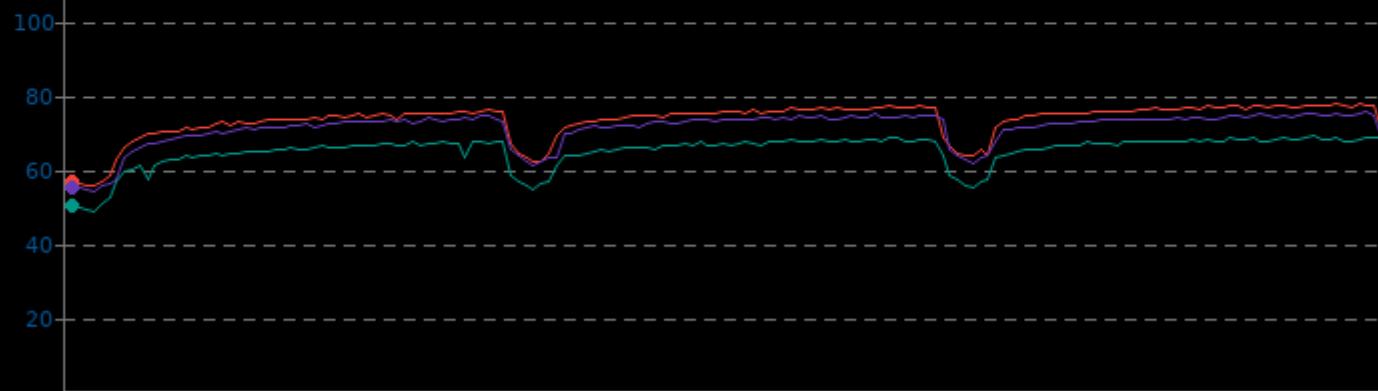


IndigoBench 4.4

CPU Temperature Monitor

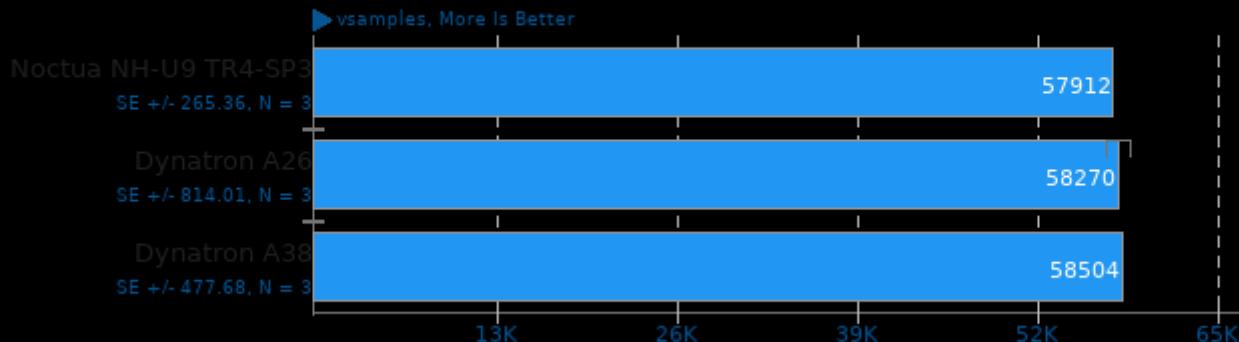
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	55.5	73.3	77.8
Dynatron A26	54.3	71.2	75.8
Dynatron A38	49.0	65.0	69.0

▼ Celsius, Fewer Is Better



Chaos Group V-RAY 5

Mode: CPU

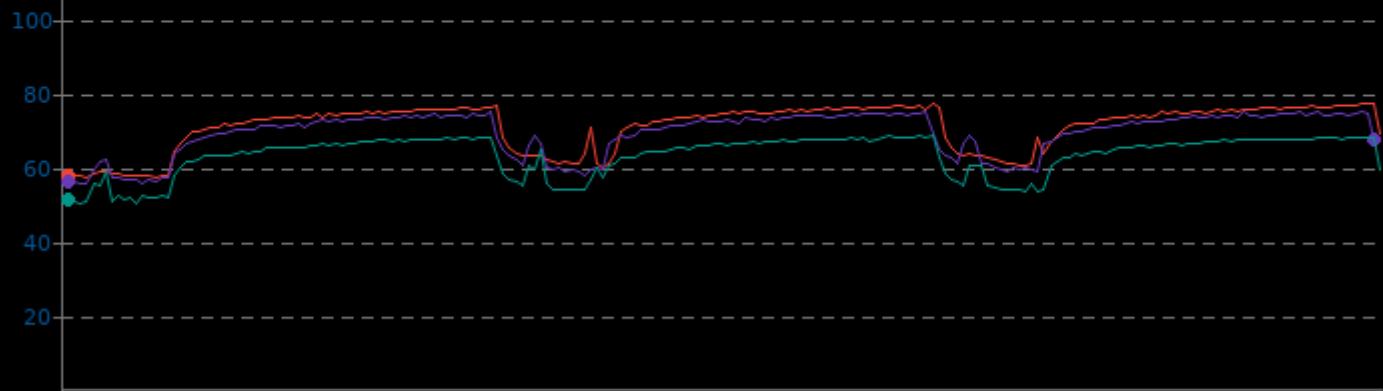


Chaos Group V-RAY 5

CPU Temperature Monitor

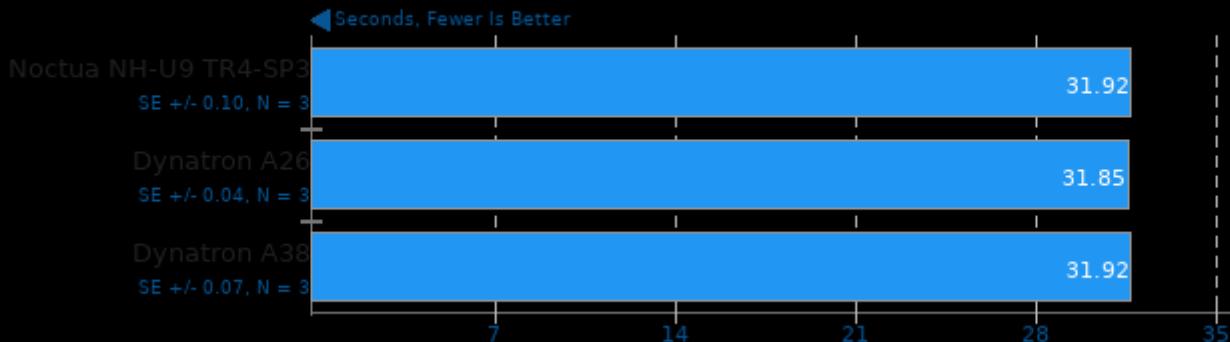
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	57.3	71.0	77.3
Dynatron A26	55.5	69.3	75.0
Dynatron A38	50.3	63.3	68.5

▼ Celsius, Fewer Is Better



Blender 2.92

Blend File: BMW27 - Compute: CPU-Only

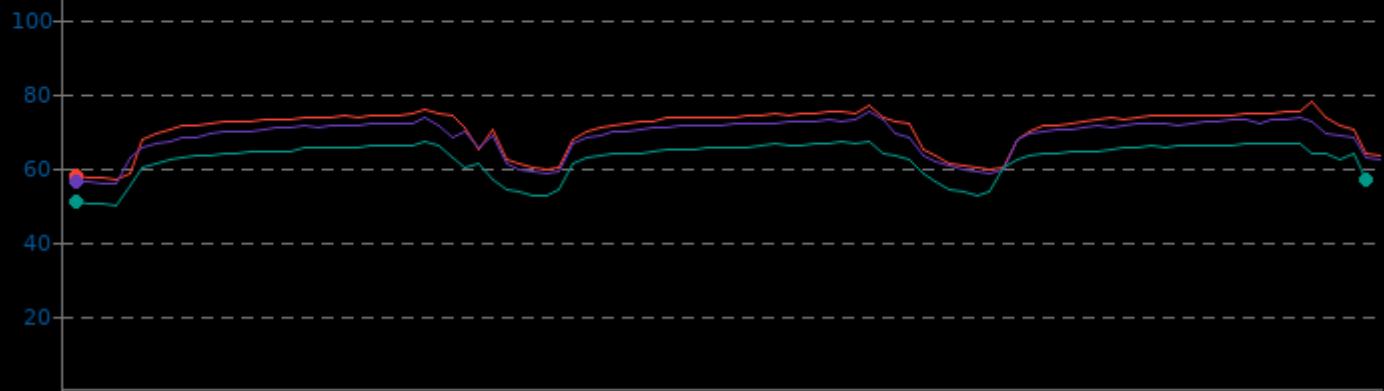


Blender 2.92

CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	57.0	70.3	77.8
Dynatron A26	55.5	68.4	75.0
Dynatron A38	49.8	62.5	67.0

▼ Celsius, Fewer Is Better



Blender 2.92

Blend File: Classroom - Compute: CPU-Only

◀ Seconds, Fewer Is Better

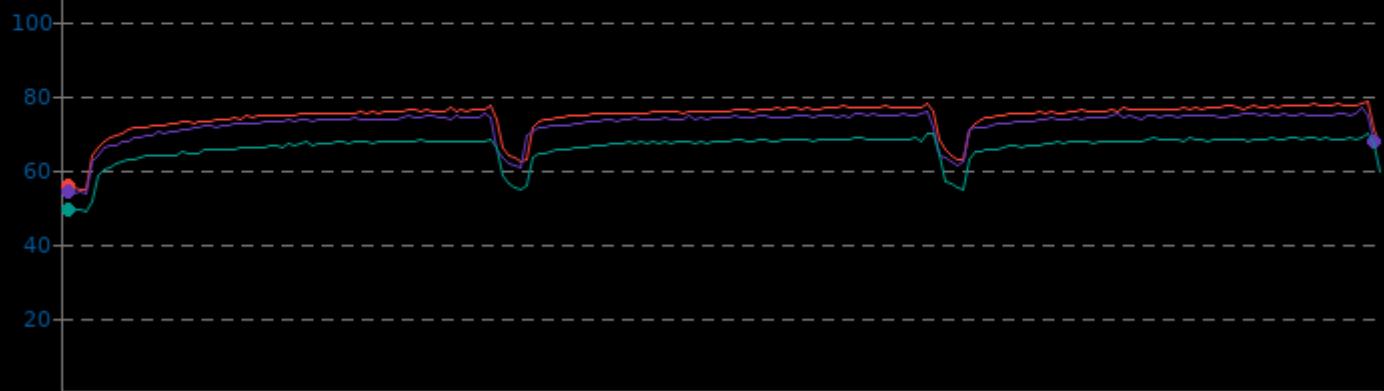


Blender 2.92

CPU Temperature Monitor

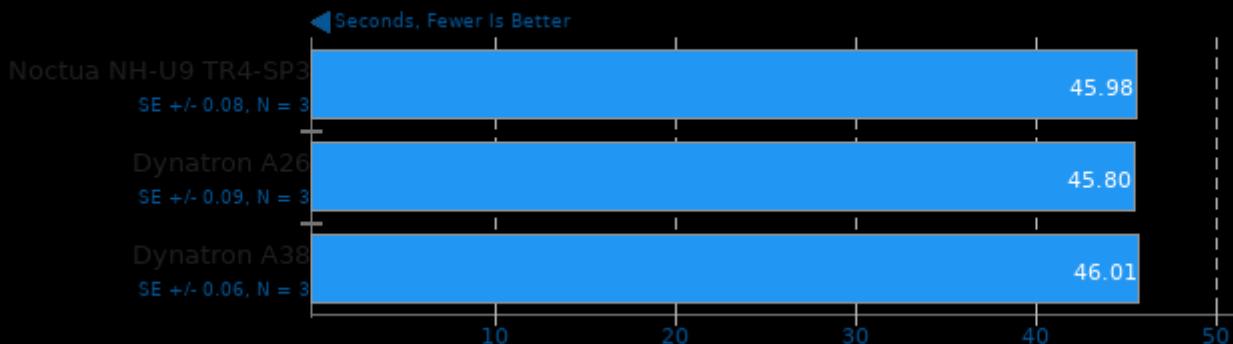
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	54.5	74.2	78.0
Dynatron A26	53.8	72.3	76.8
Dynatron A38	49.0	66.0	69.8

▼ Celsius, Fewer Is Better



Blender 2.92

Blend File: Fishy Cat - Compute: CPU-Only

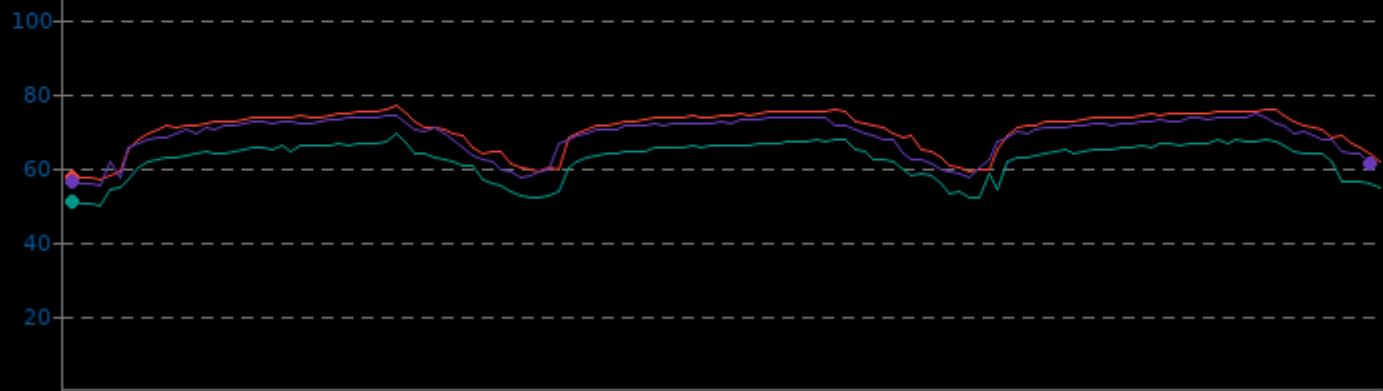


Blender 2.92

CPU Temperature Monitor

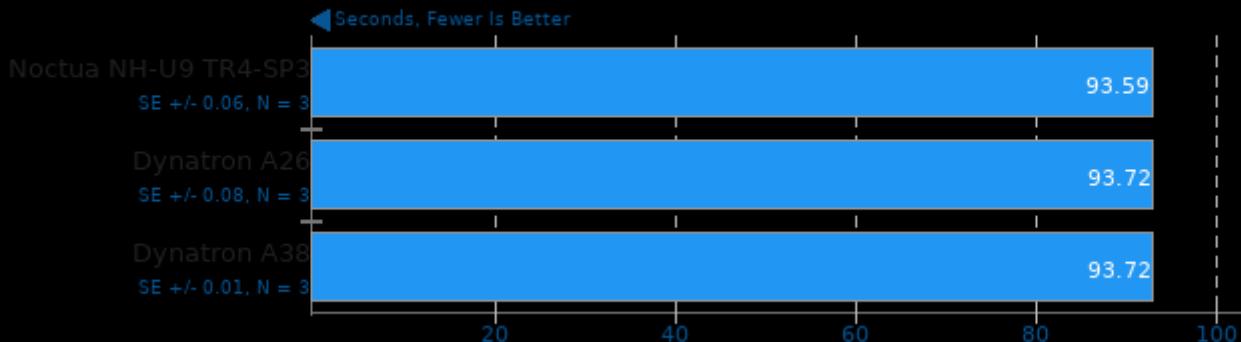
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	56.8	70.2	76.8
Dynatron A26	55.3	68.7	74.5
Dynatron A38	50.0	62.4	69.0

▼ Celsius, Fewer Is Better



Blender 2.92

Blend File: Pabellon Barcelona - Compute: CPU-Only

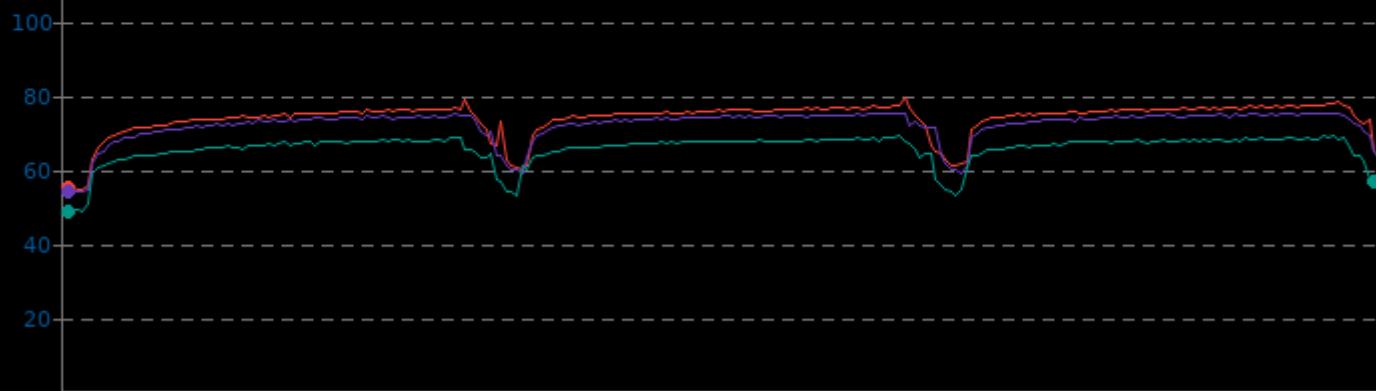


Blender 2.92

CPU Temperature Monitor

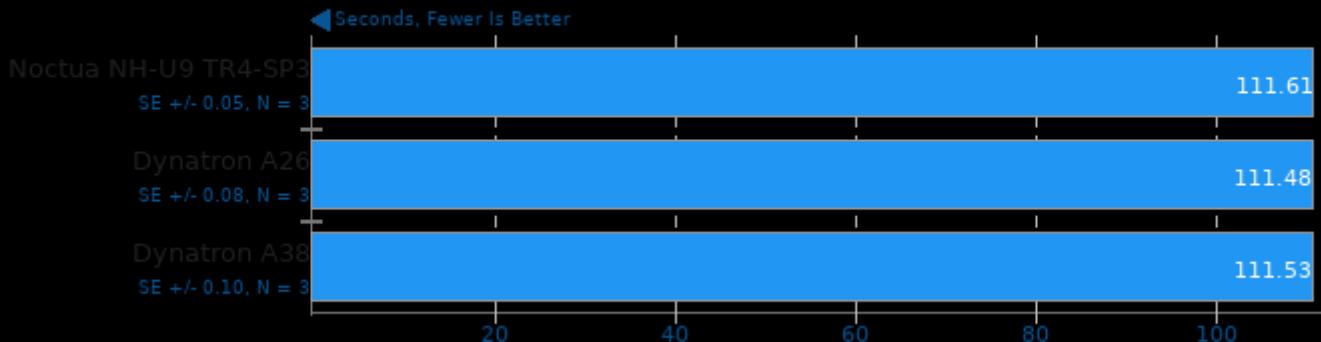
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	54.8	73.7	79.3
Dynatron A26	54.0	72.0	75.3
Dynatron A38	48.8	65.7	69.0

▼ Celsius, Fewer Is Better



Blender 2.92

Blend File: Barbershop - Compute: CPU-Only

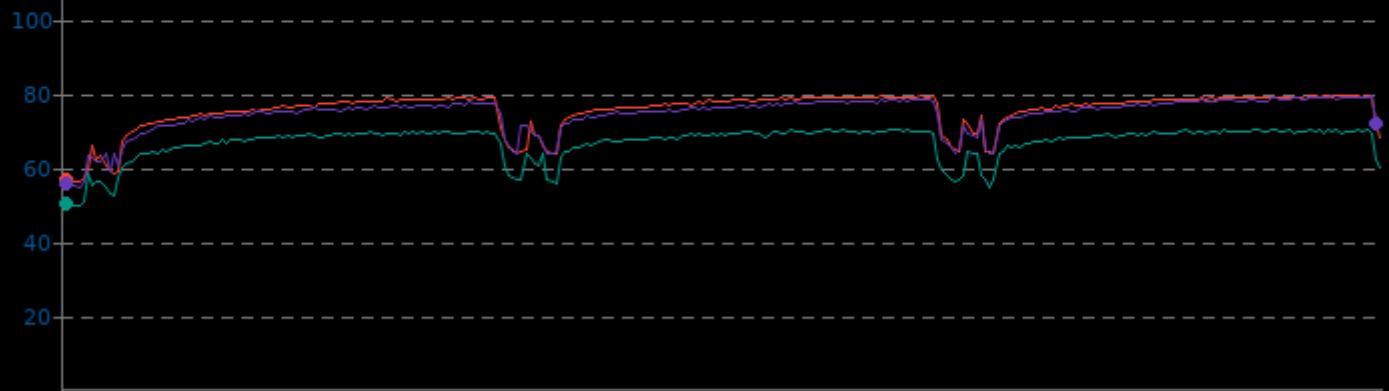


Blender 2.92

CPU Temperature Monitor

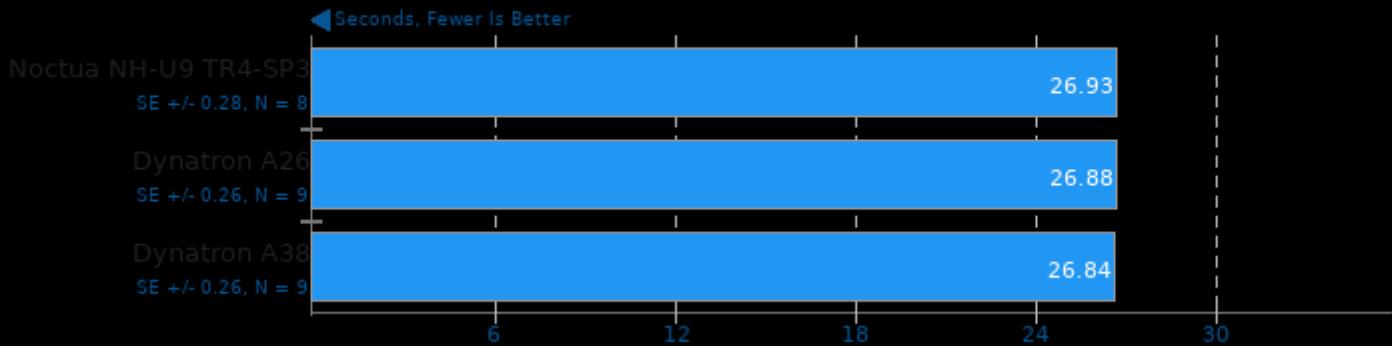
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	56.3	75.3	79.5
Dynatron A26	54.5	74.3	79.3
Dynatron A38	49.8	66.8	70.3

▼ Celsius, Fewer Is Better



Timed Linux Kernel Compilation 5.10.20

Time To Compile

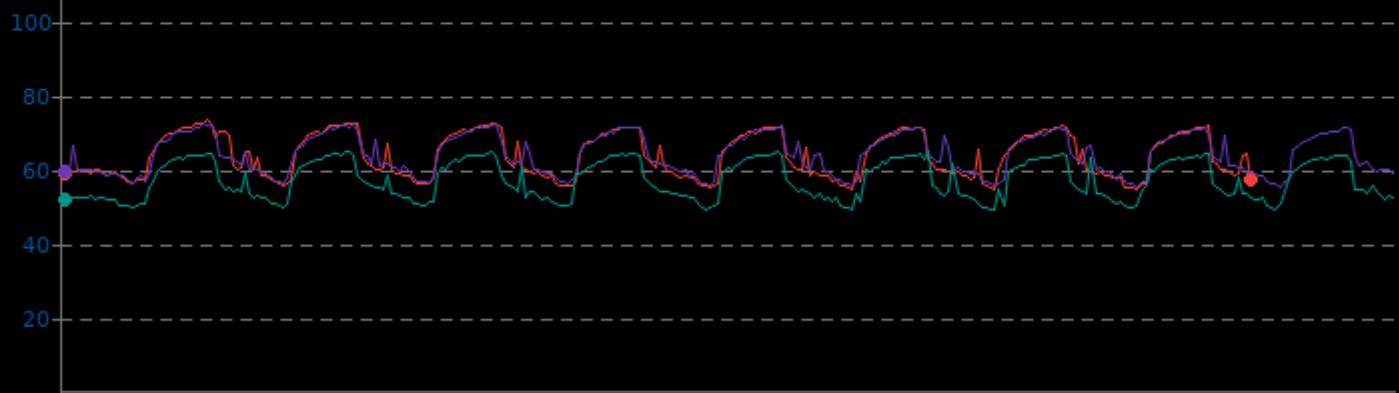


Timed Linux Kernel Compilation 5.10.20

CPU Temperature Monitor

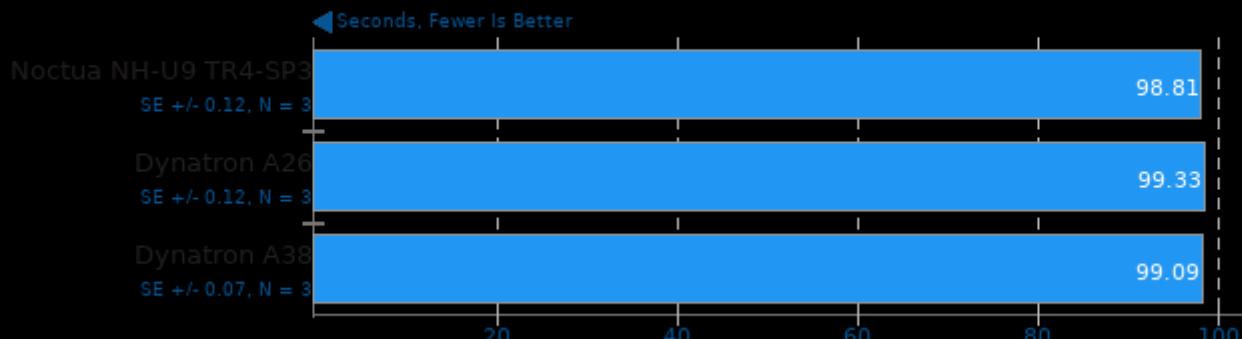
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	54.8	63.8	73.3
Dynatron A26	55.3	64.0	72.5
Dynatron A38	49.3	57.2	64.8

▼ Celsius, Fewer Is Better



Timed GDB GNU Debugger Compilation 9.1

Time To Compile

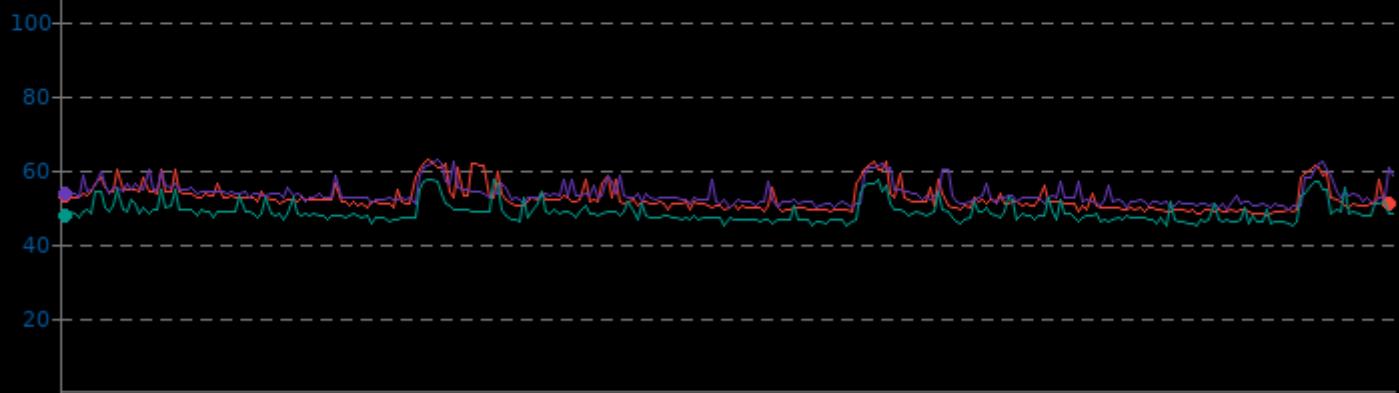


Timed GDB GNU Debugger Compilation 9.1

CPU Temperature Monitor

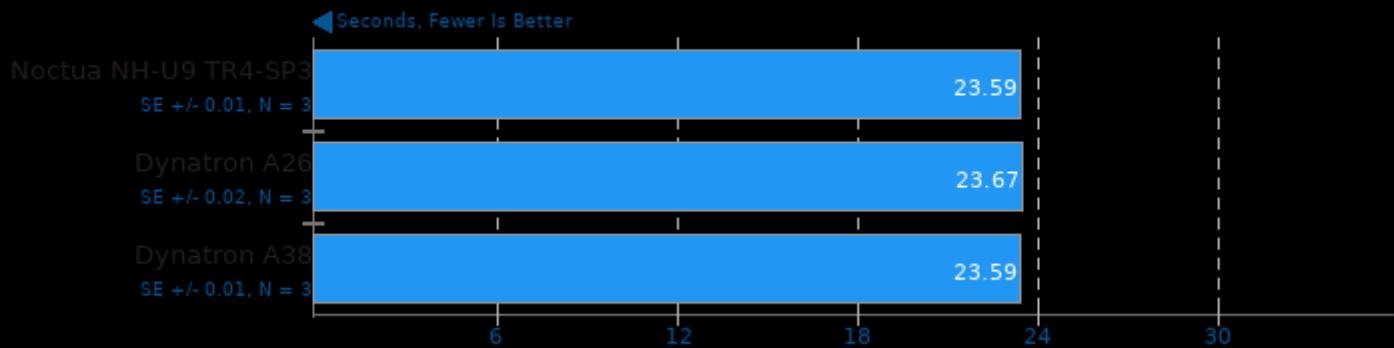
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.8	52.3	62.8
Dynatron A26	49.5	53.4	62.5
Dynatron A38	45.0	48.6	57.5

▼ Celsius, Fewer Is Better



Timed Apache Compilation 2.4.41

Time To Compile

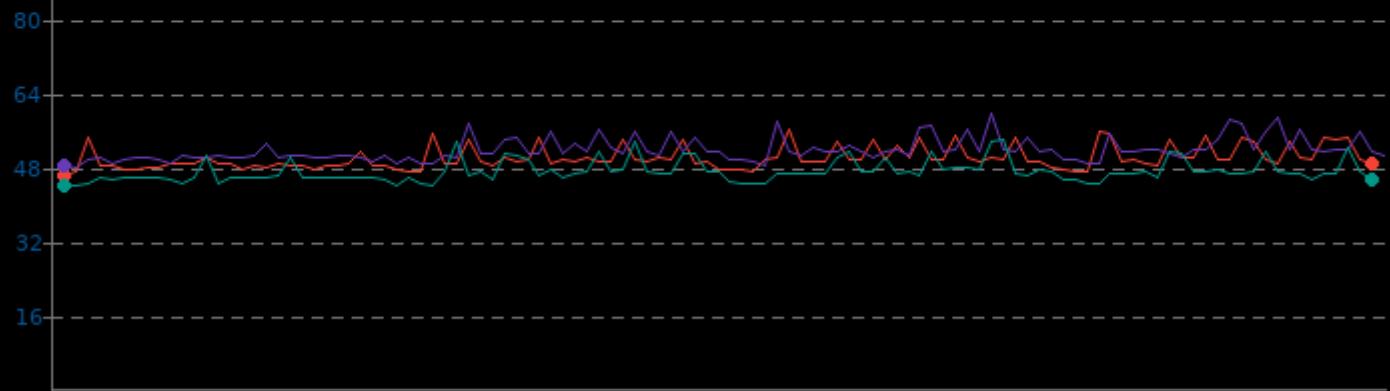


Timed Apache Compilation 2.4.41

CPU Temperature Monitor

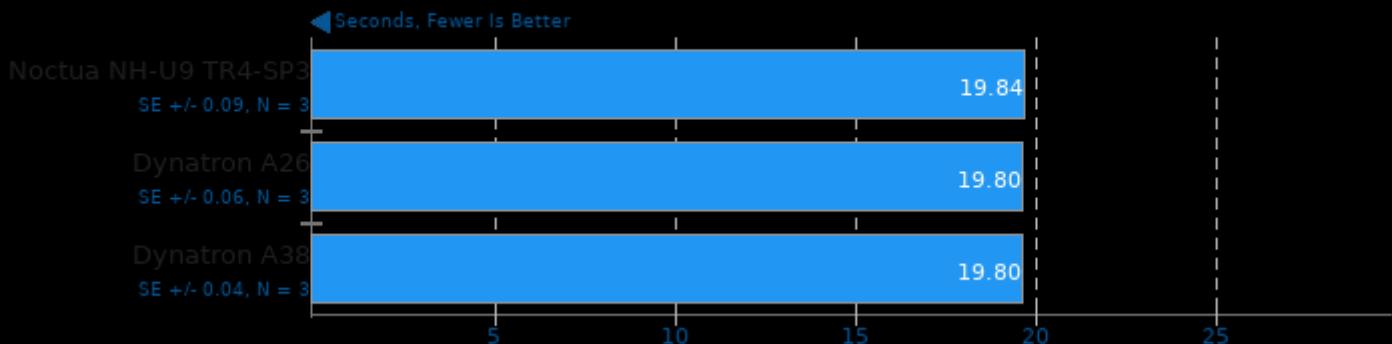
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.3	50.0	56.3
Dynatron A26	48.0	51.8	59.5
Dynatron A38	44.0	47.2	54.0

▼ Celsius, Fewer Is Better



Timed Mesa Compilation 21.0

Time To Compile

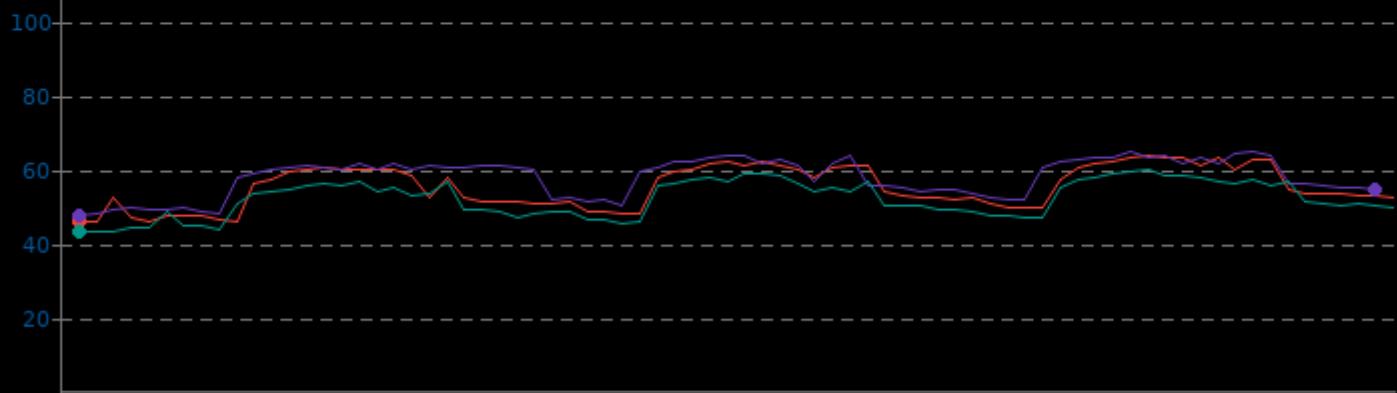


Timed Mesa Compilation 21.0

CPU Temperature Monitor

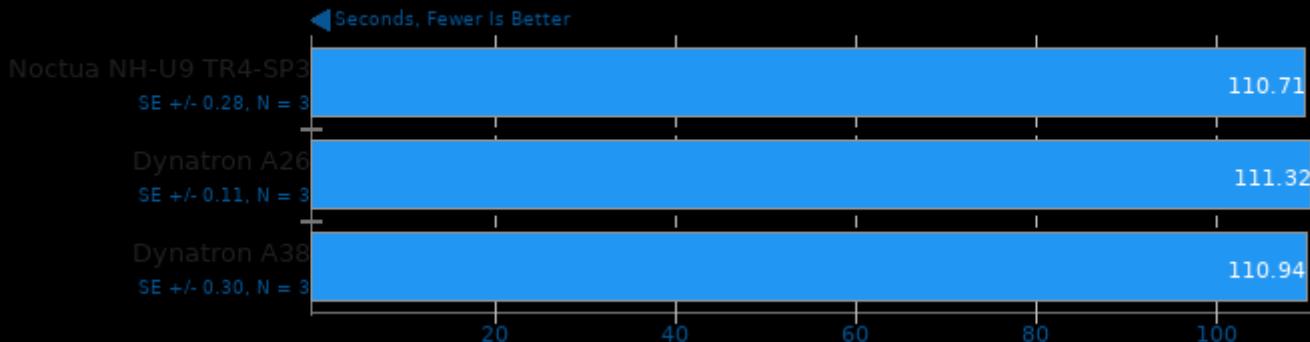
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.0	55.4	63.8
Dynatron A26	47.8	57.9	65.0
Dynatron A38	43.5	52.3	59.8

▼ Celsius, Fewer Is Better



Timed Node.js Compilation 15.11

Time To Compile

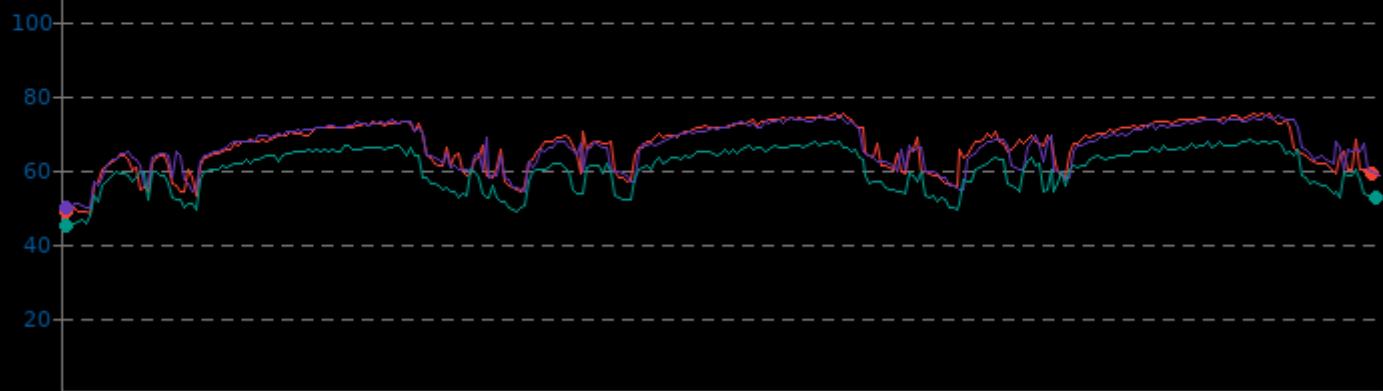


Timed Node.js Compilation 15.11

CPU Temperature Monitor

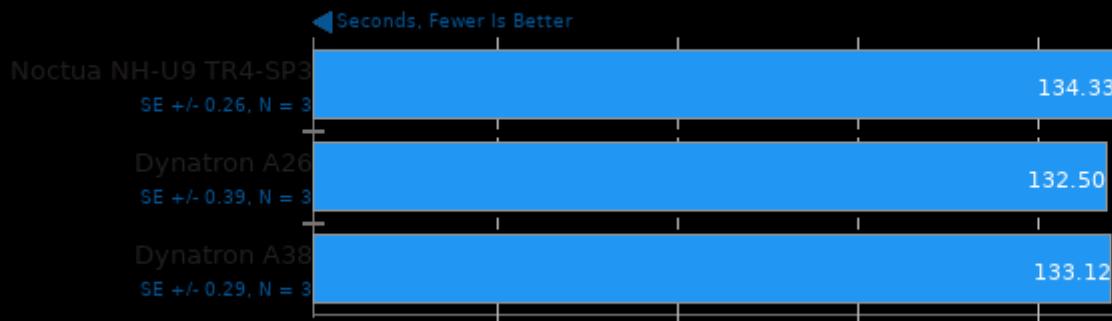
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.8	66.5	75.3
Dynatron A26	49.5	66.4	74.5
Dynatron A38	45.3	60.3	68.0

▼ Celsius, Fewer Is Better



Timed Erlang/OTP Compilation 23.2

Time To Compile

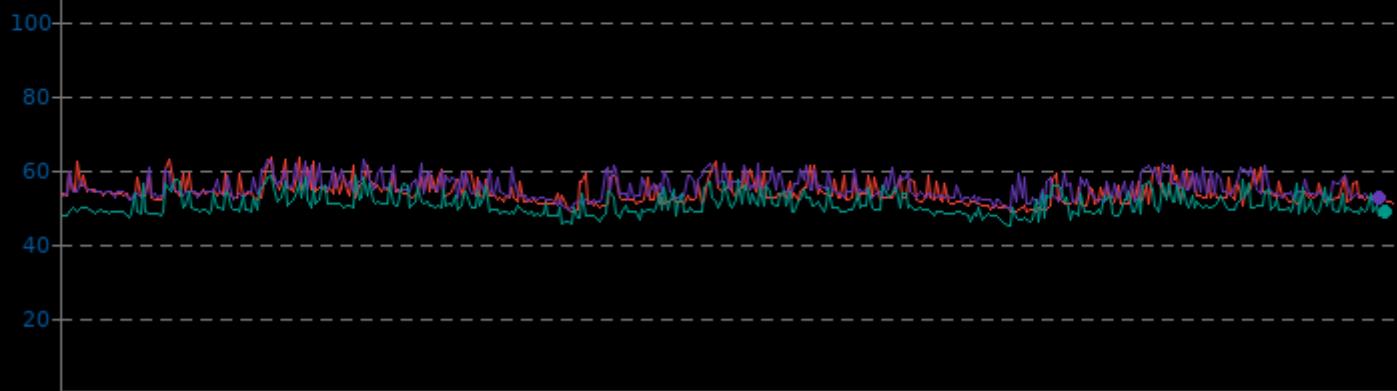


Timed Erlang/OTP Compilation 23.2

CPU Temperature Monitor

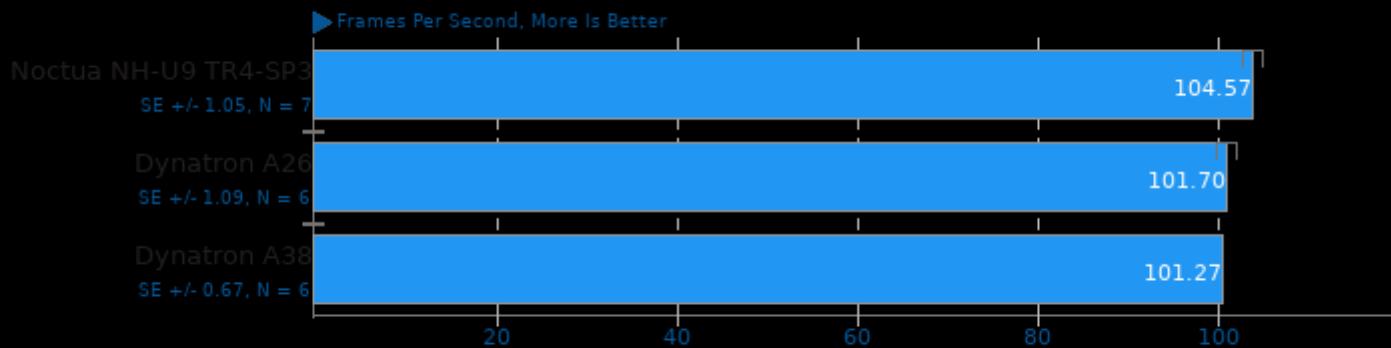
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	48.5	53.9	63.3
Dynatron A26	49.5	55.1	62.5
Dynatron A38	45.0	50.6	58.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0

Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p

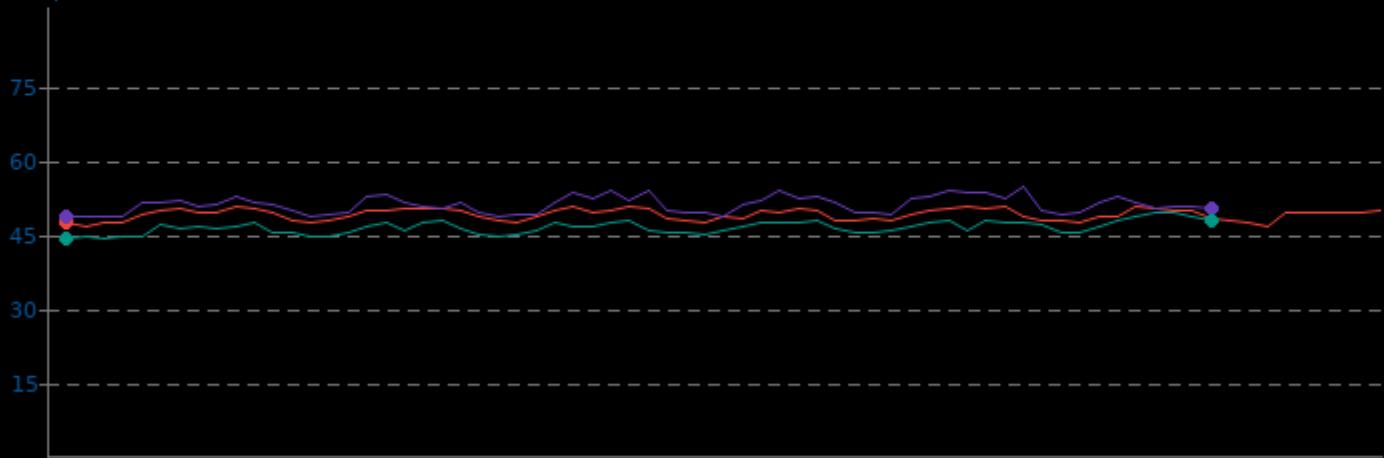


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

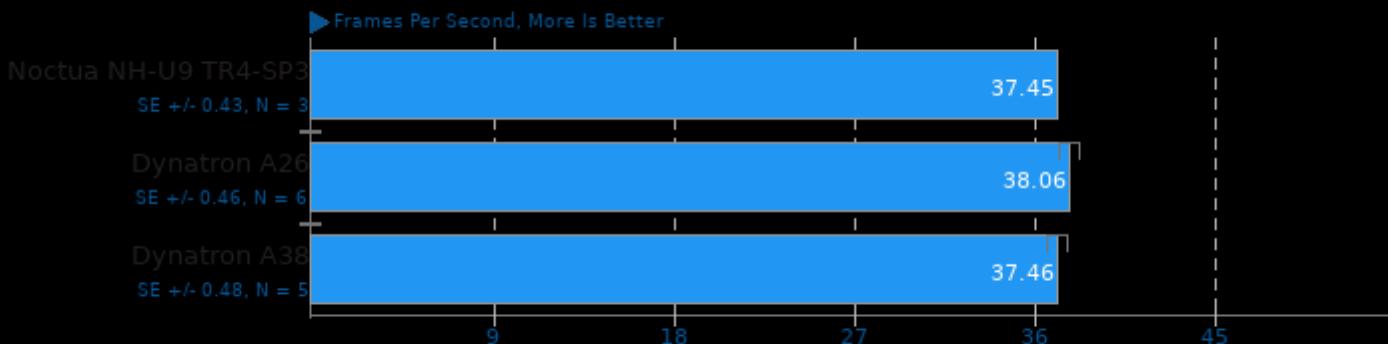
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.8	49.0	50.8
Dynatron A26	48.5	51.0	54.5
Dynatron A38	44.3	46.4	49.5

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K

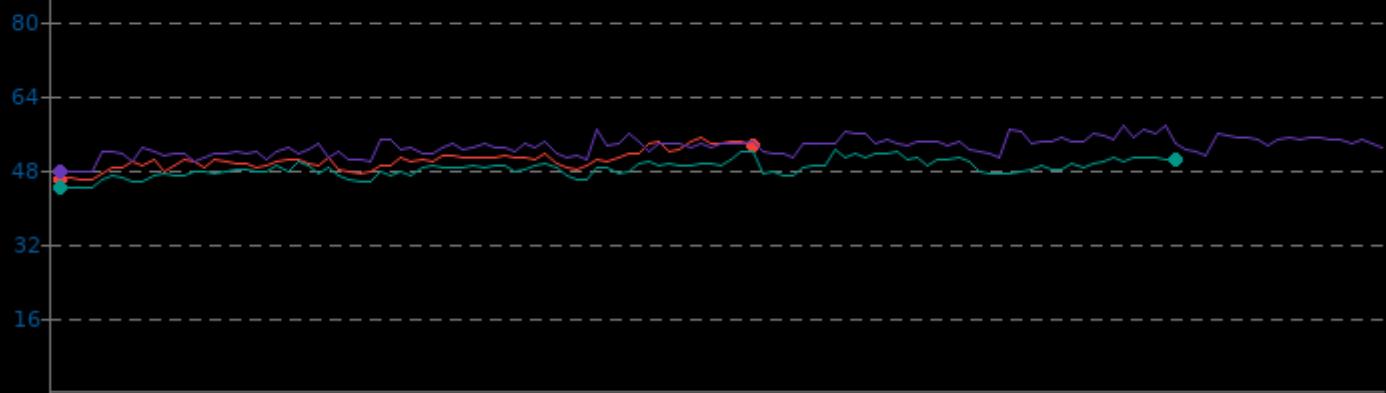


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

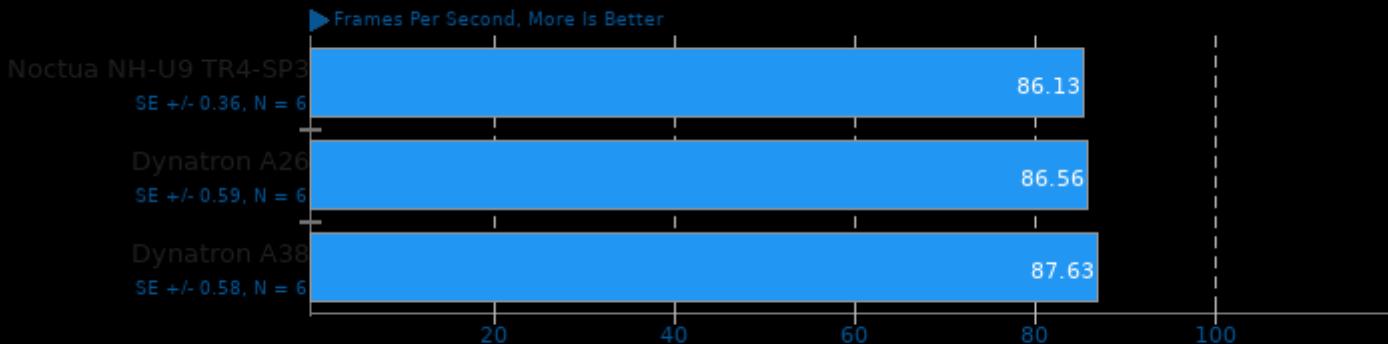
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.8	50.0	55.0
Dynatron A26	47.5	53.0	57.3
Dynatron A38	44.0	48.3	52.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p

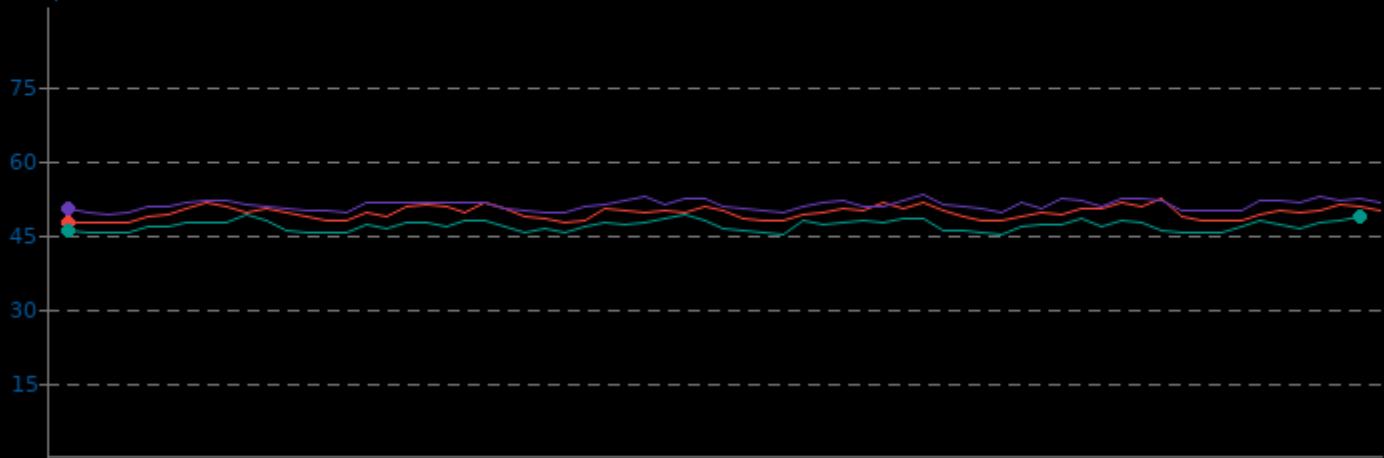


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

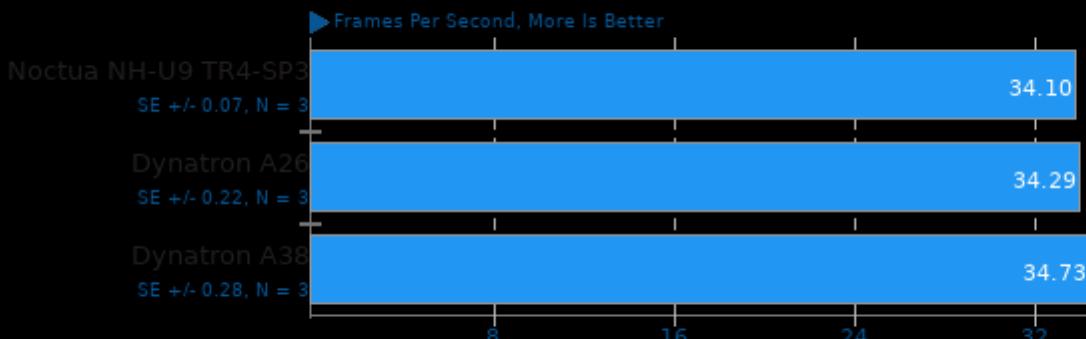
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.3	49.3	52.3
Dynatron A26	49.0	50.9	53.0
Dynatron A38	45.0	46.7	49.0

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K

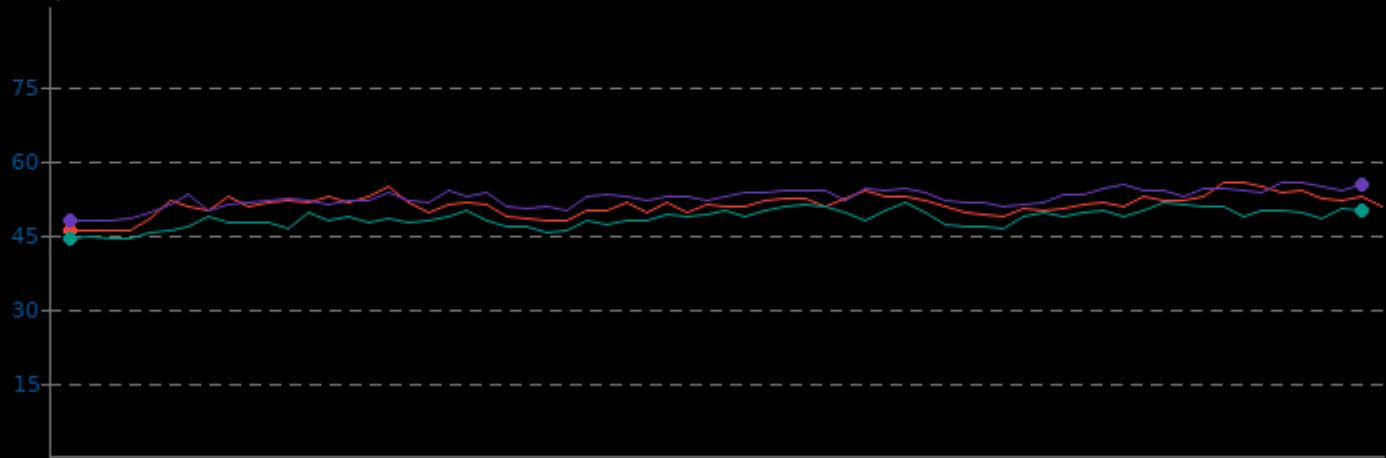


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

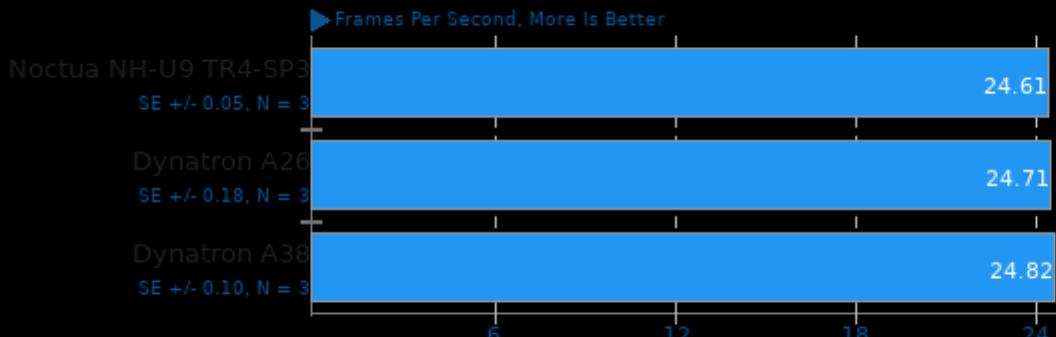
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.8	51.0	55.3
Dynatron A26	48.0	52.4	55.3
Dynatron A38	44.0	48.3	51.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p

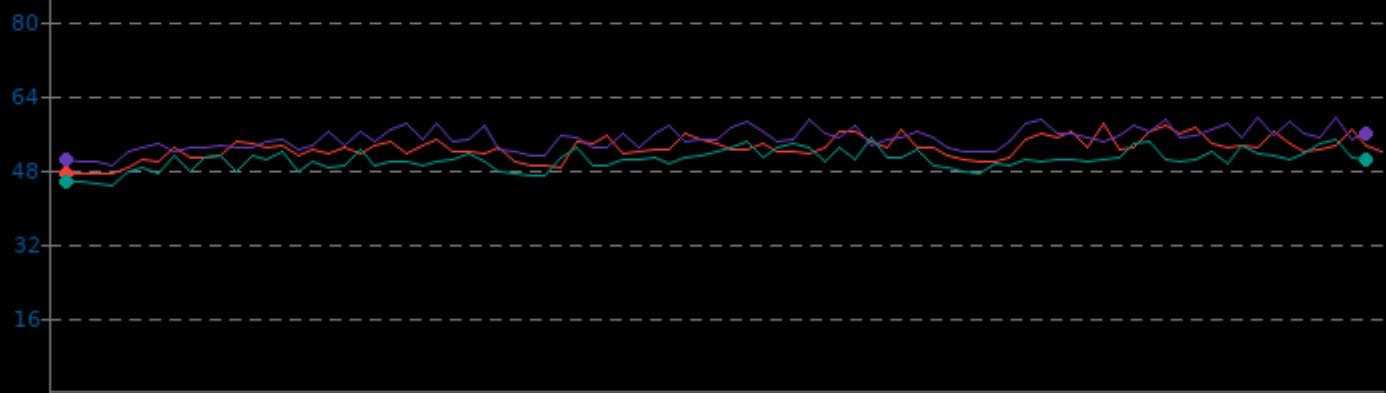


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt -fthread

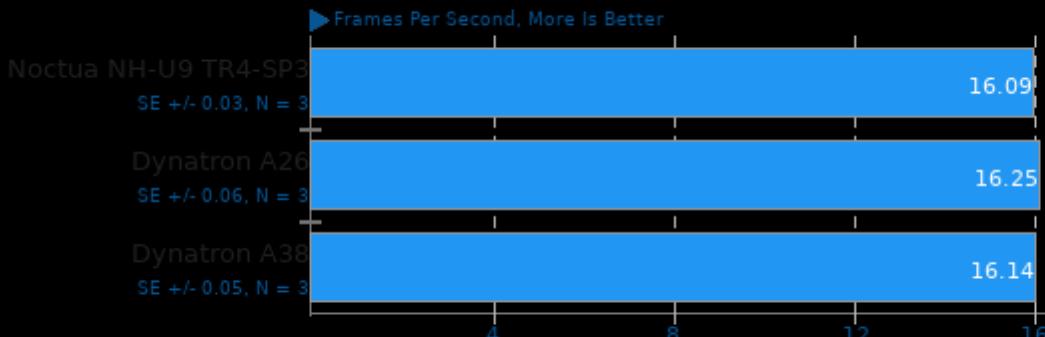
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.0	52.5	57.8
Dynatron A26	48.8	54.6	59.3
Dynatron A38	44.5	50.0	54.8

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K



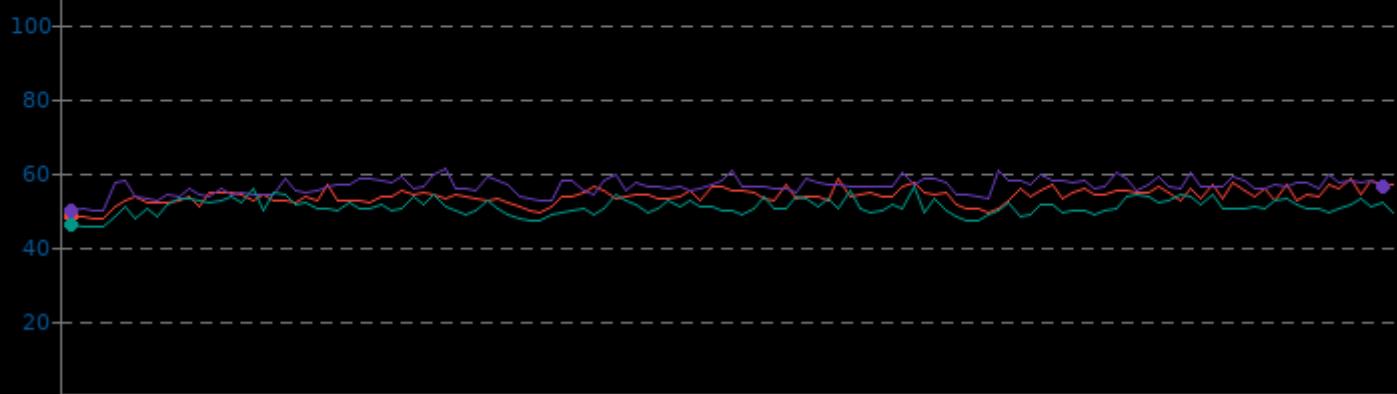
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fim -lpthread

AOM AV1 3.0

CPU Temperature Monitor

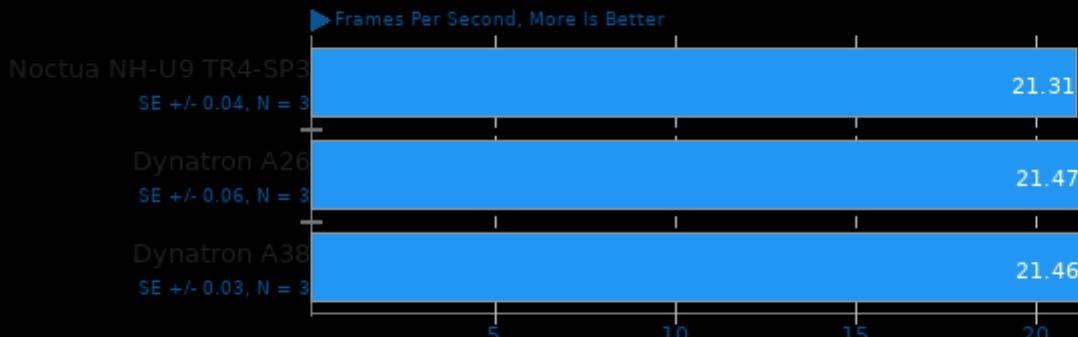
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.5	53.7	58.3
Dynatron A26	50.0	56.3	61.0
Dynatron A38	45.5	50.8	56.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0

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



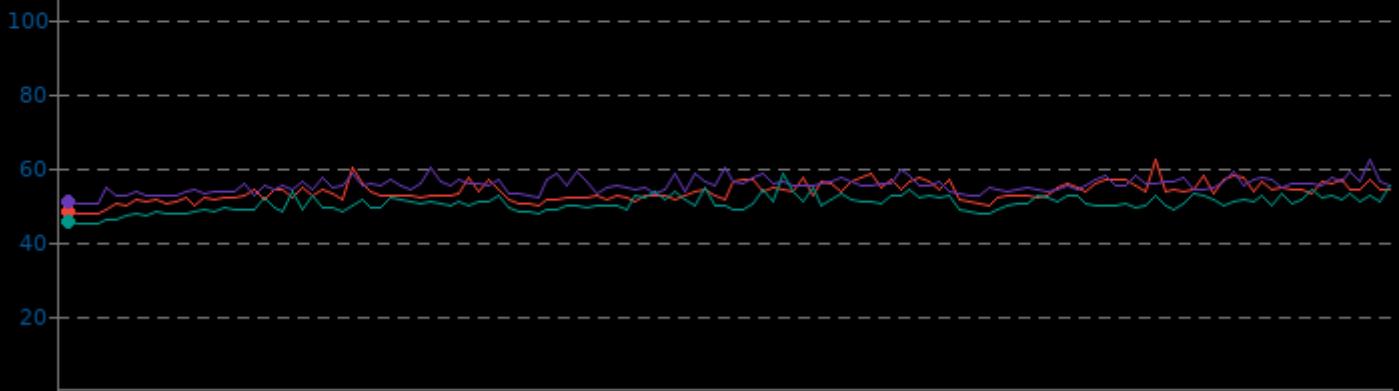
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

AOM AV1 3.0

CPU Temperature Monitor

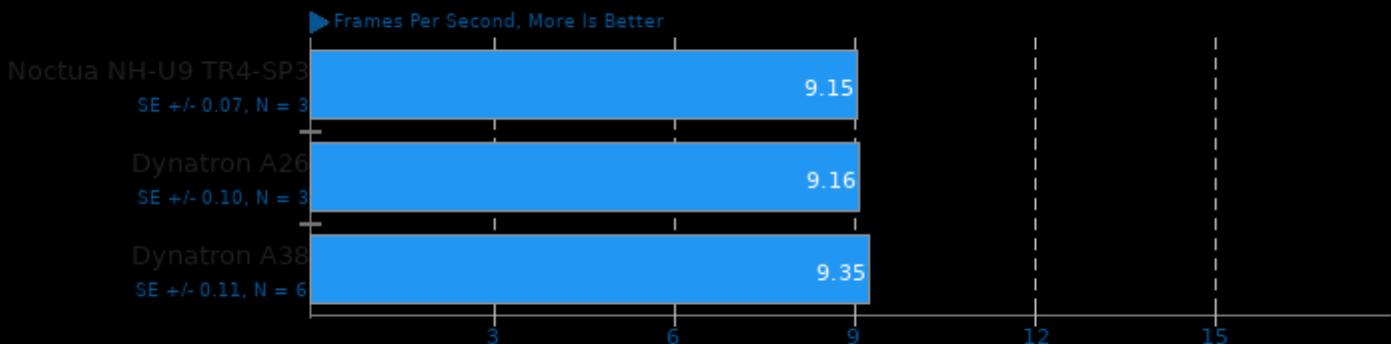
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.8	53.5	62.0
Dynatron A26	50.5	55.3	62.3
Dynatron A38	45.0	50.4	58.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0

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



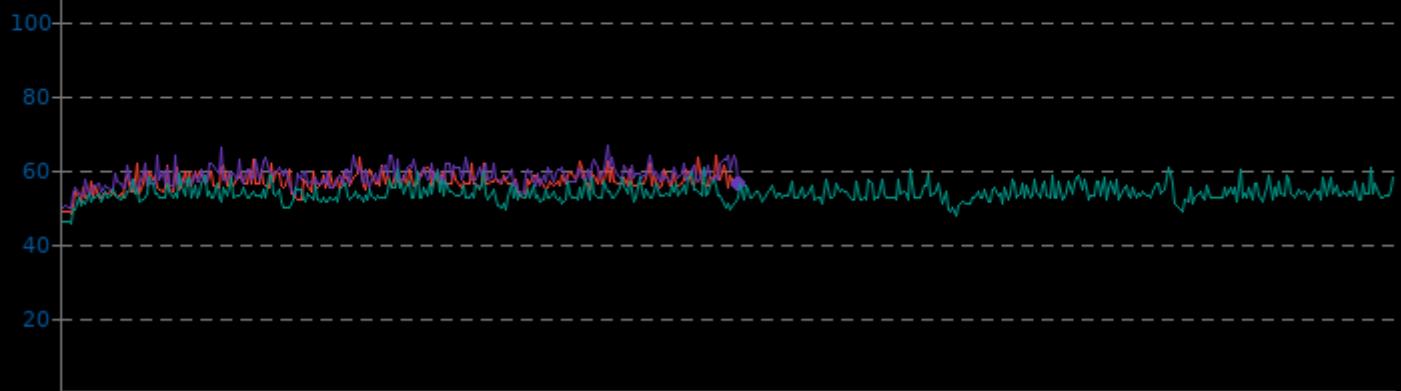
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fPIE -lpthread

AOM AV1 3.0

CPU Temperature Monitor

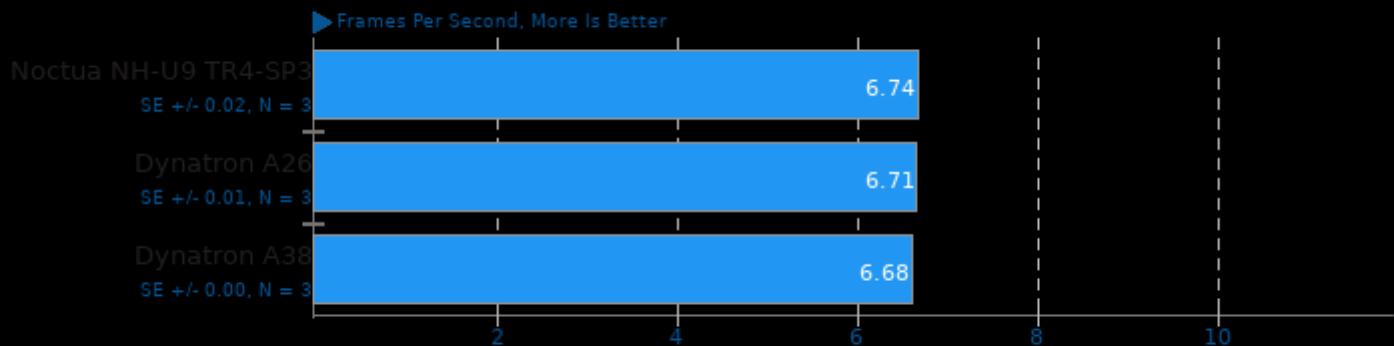
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	48.3	56.8	63.5
Dynatron A26	49.8	58.3	66.3
Dynatron A38	45.8	53.7	60.8

▼ Celsius, Fewer Is Better



AOM AV1 3.0

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



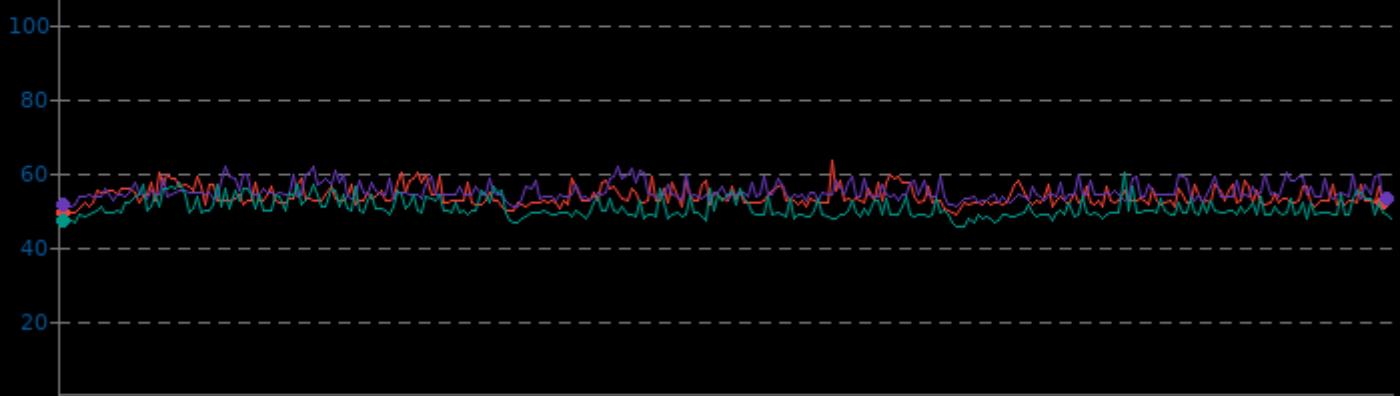
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt

AOM AV1 3.0

CPU Temperature Monitor

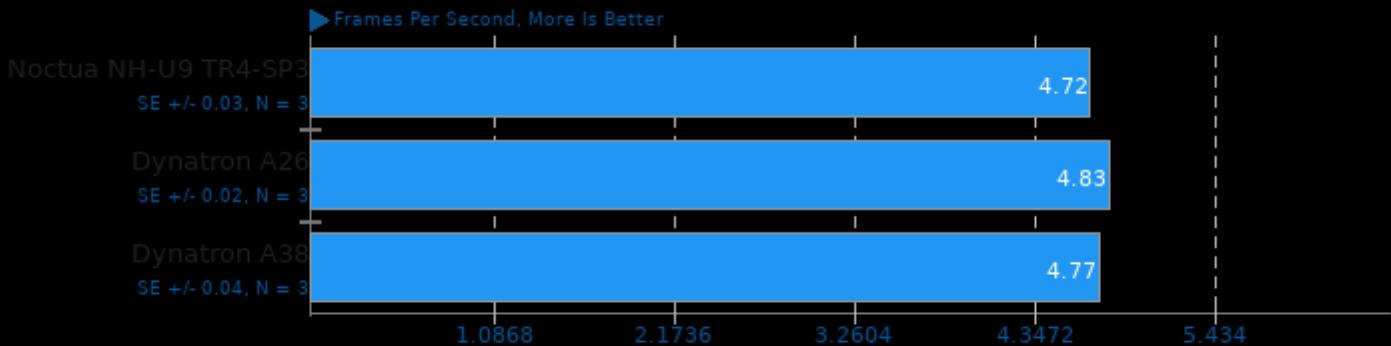
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	53.6	63.0
Dynatron A26	50.8	54.9	61.8
Dynatron A38	45.5	50.5	60.0

▼ Celsius, Fewer Is Better



AOM AV1 3.0

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



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

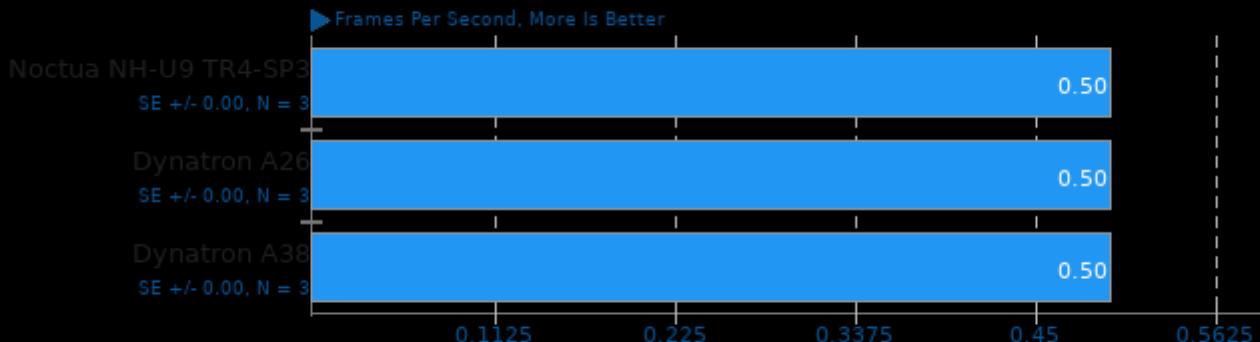
AOM AV1 3.0 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.3	56.2	67.0
Dynatron A26	48.3	57.3	65.5
Dynatron A38	44.3	52.7	61.3

▼ Celsius, Fewer Is Better



AOM AV1 3.0 Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p



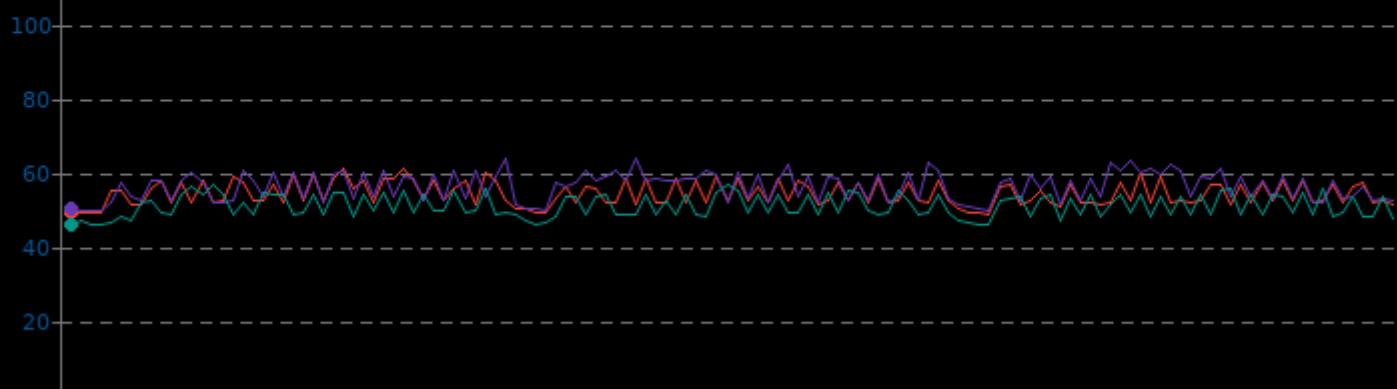
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fim -lpthread

AOM AV1 3.0

CPU Temperature Monitor

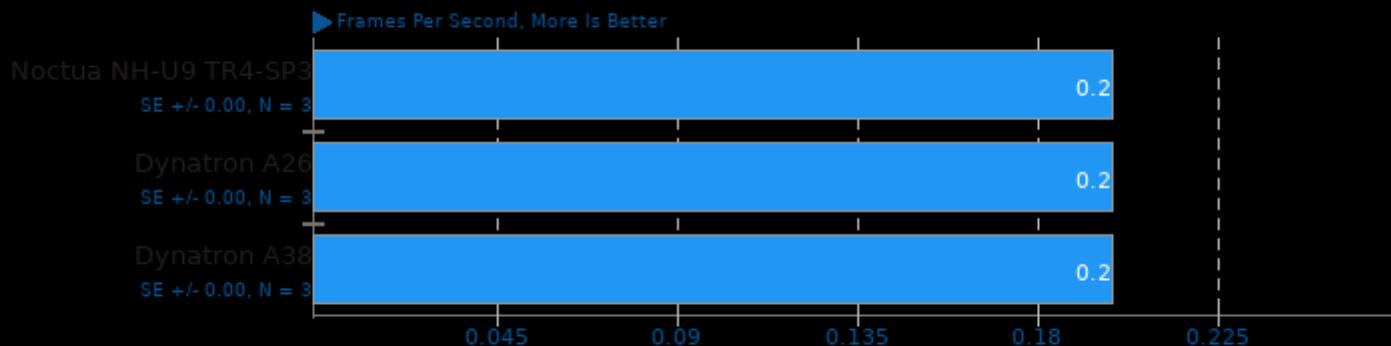
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	54.3	61.3
Dynatron A26	49.8	56.3	64.0
Dynatron A38	46.0	51.1	56.8

▼ Celsius, Fewer Is Better



AOM AV1 3.0

Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



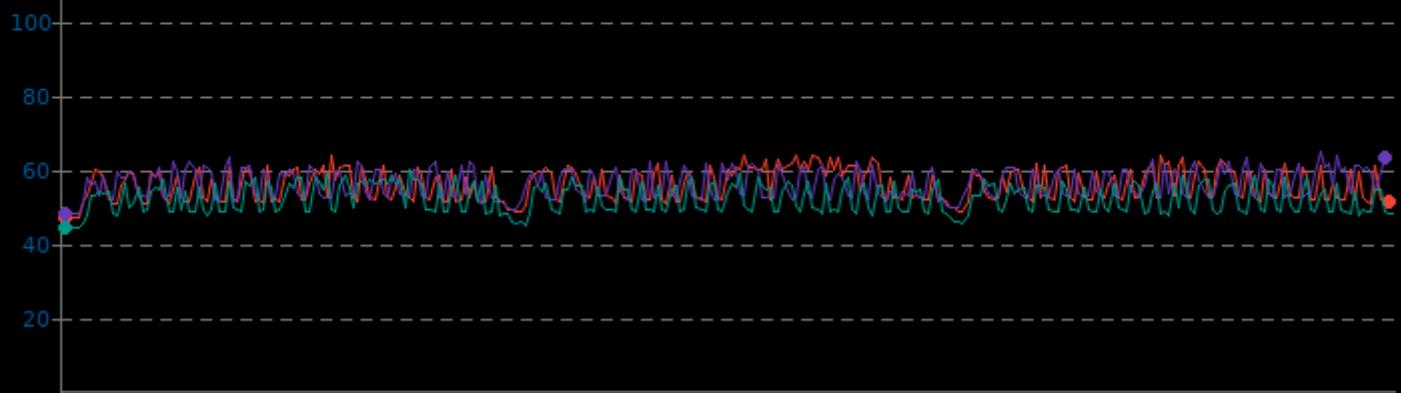
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fPIE -lpthread

AOM AV1 3.0

CPU Temperature Monitor

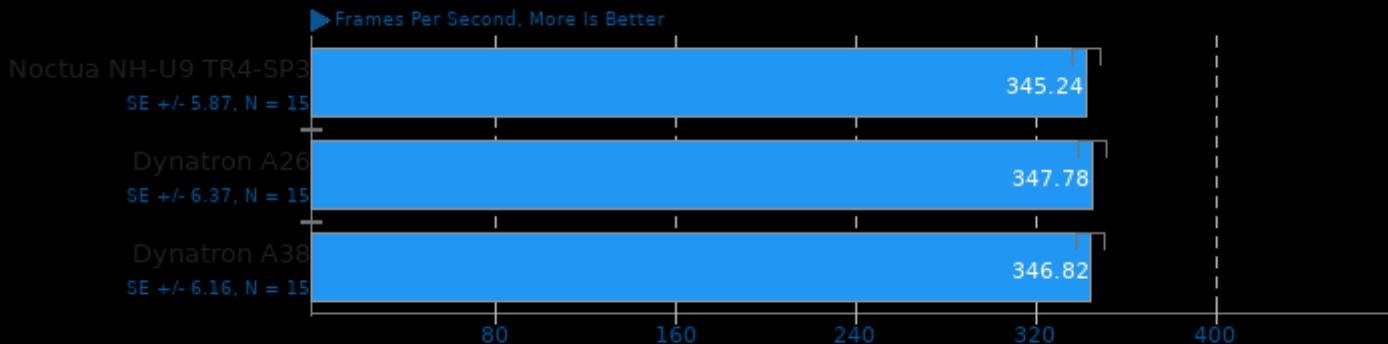
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.0	55.7	64.0
Dynatron A26	48.0	56.1	65.0
Dynatron A38	44.3	52.1	59.8

▼ Celsius, Fewer Is Better



SVT-VP9 0.3

Tuning: Visual Quality Optimized - Input: Bosphorus 1080p

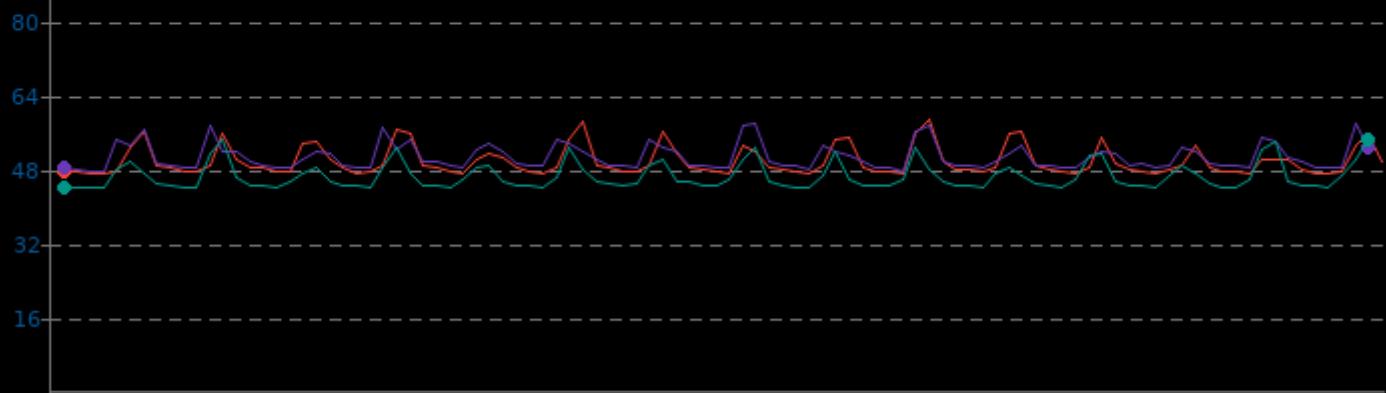


1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

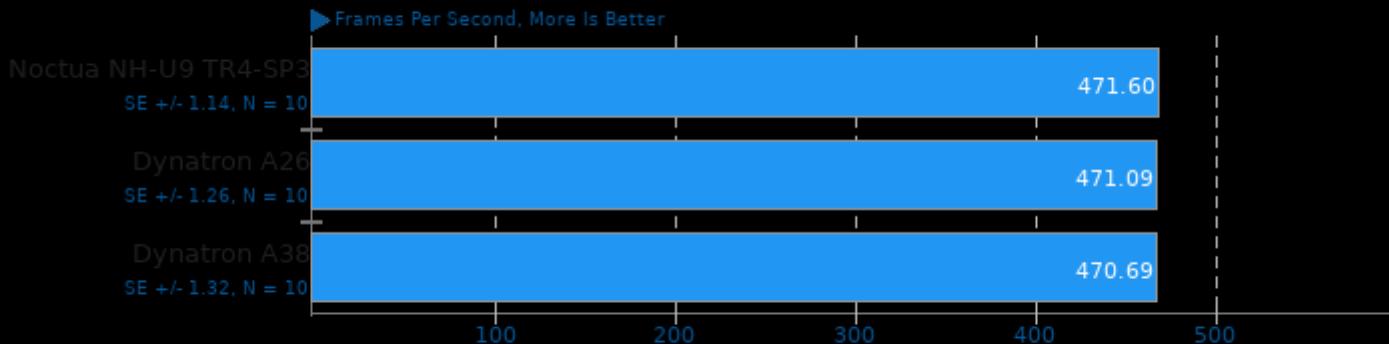
SVT-VP9 0.3 CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.0	49.7	58.5
Dynatron A26	47.5	50.6	58.0
Dynatron A38	44.0	46.5	54.5

▼ Celsius, Fewer Is Better



SVT-VP9 0.3 Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p

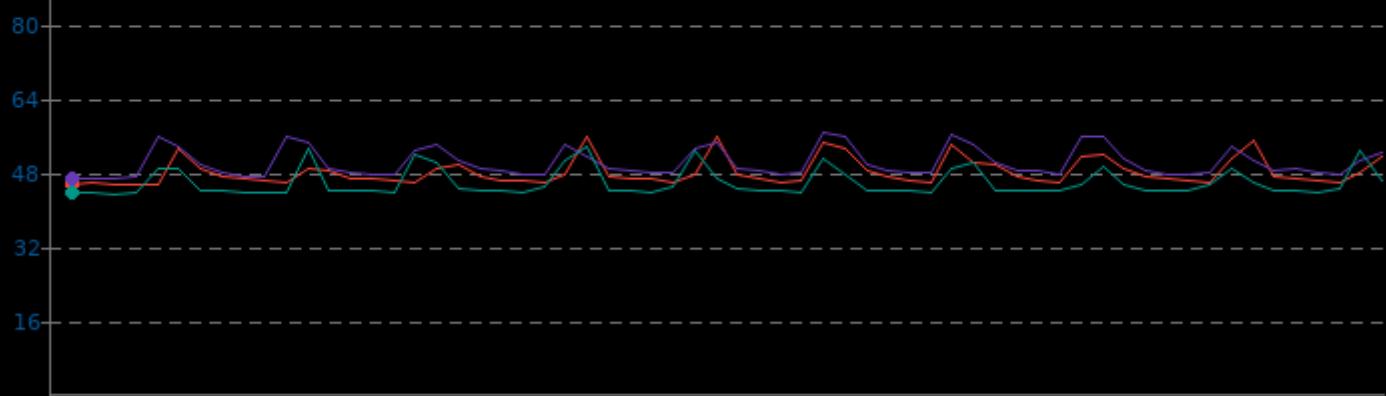


1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

SVT-VP9 0.3 CPU Temperature Monitor

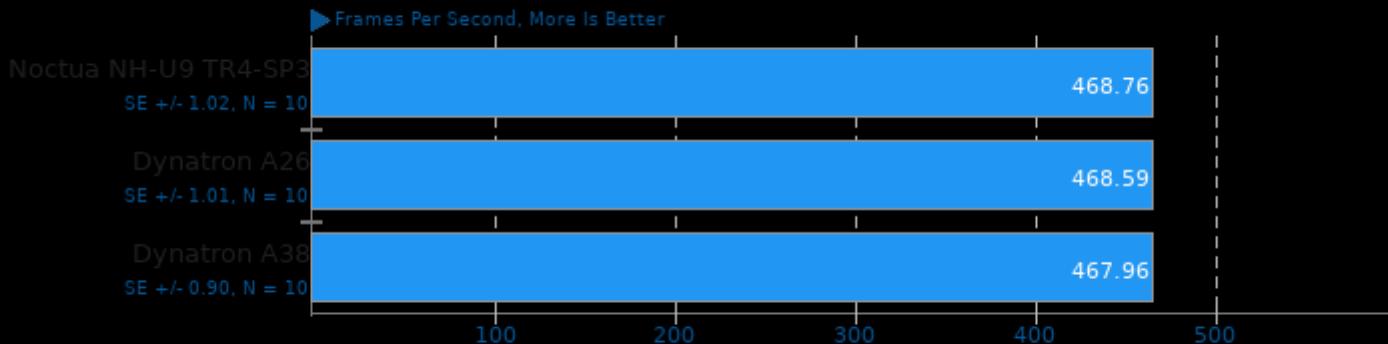
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.3	48.0	55.5
Dynatron A26	46.5	50.1	56.8
Dynatron A38	43.3	45.8	53.8

▼ Celsius, Fewer Is Better



SVT-VP9 0.3

Tuning: VMAF Optimized - Input: Bosphorus 1080p



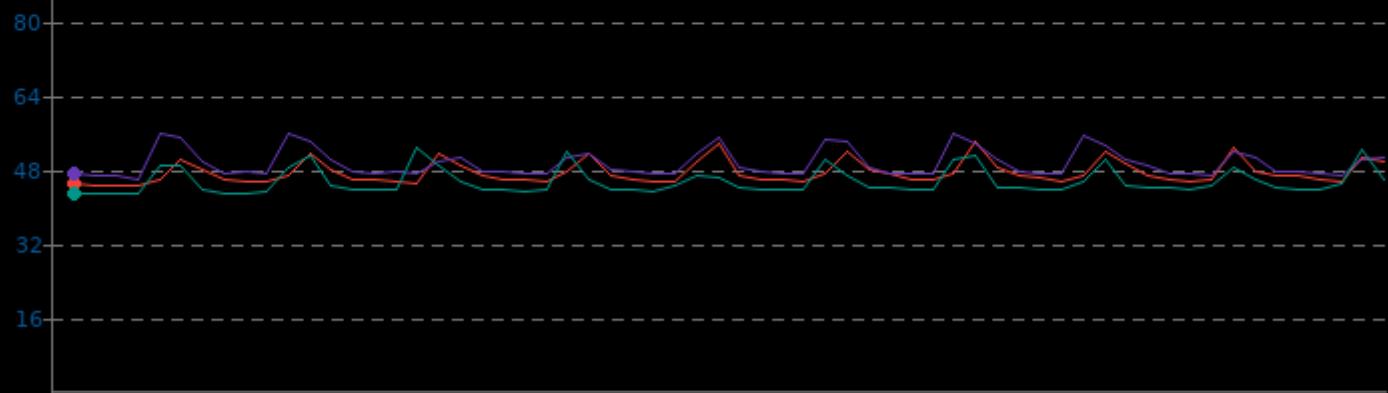
1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

SVT-VP9 0.3

CPU Temperature Monitor

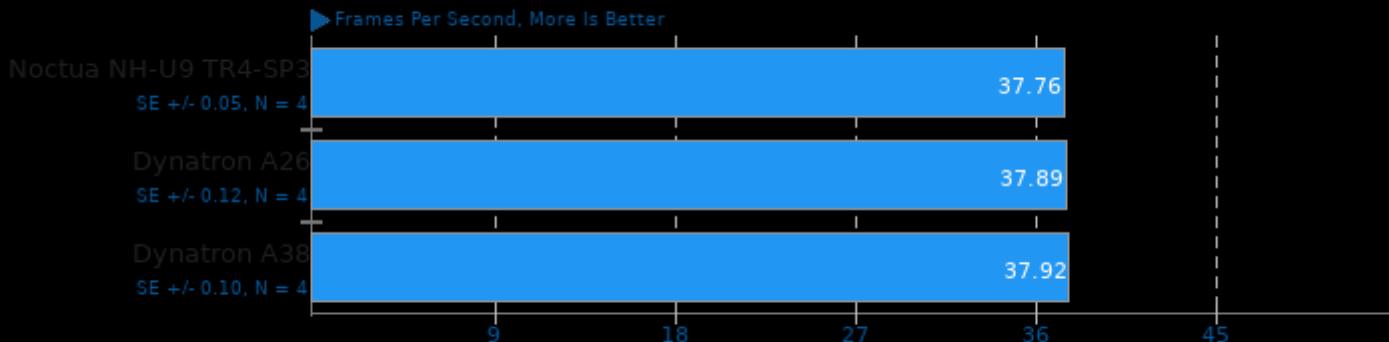
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	44.5	47.2	54.0
Dynatron A26	46.0	49.3	55.8
Dynatron A38	42.8	45.4	52.5

▼ Celsius, Fewer Is Better



SVT-HEVC 1.5.0

Tuning: 1 - Input: Bosphorus 1080p



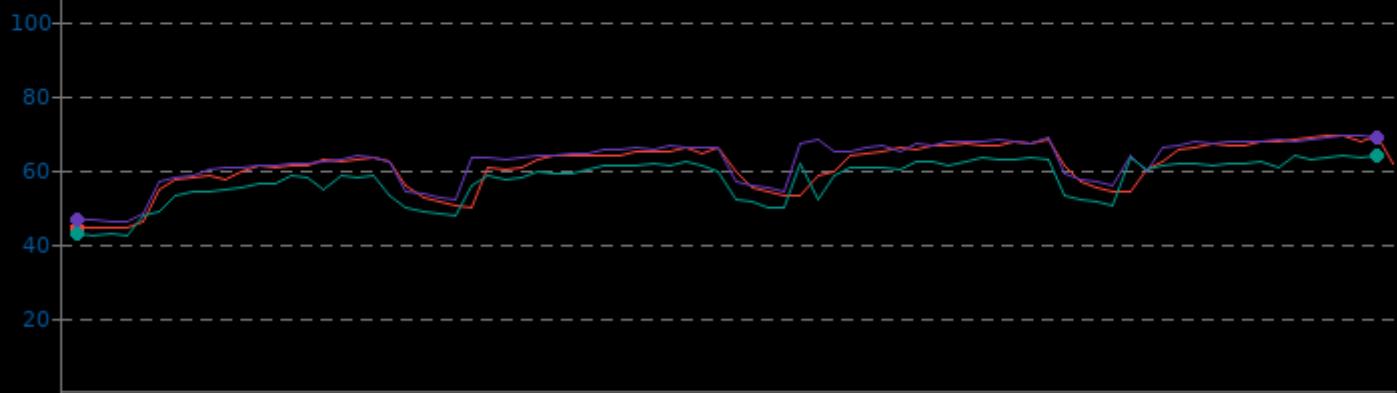
1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

SVT-HEVC 1.5.0

CPU Temperature Monitor

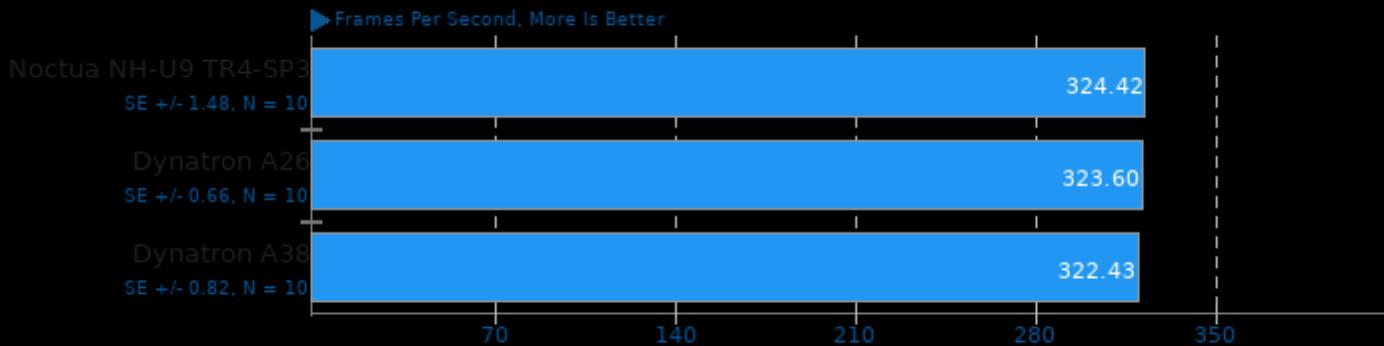
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	44.3	60.9	69.3
Dynatron A26	46.0	62.3	69.3
Dynatron A38	42.3	57.2	63.8

▼ Celsius, Fewer Is Better



SVT-HEVC 1.5.0

Tuning: 7 - Input: Bosphorus 1080p



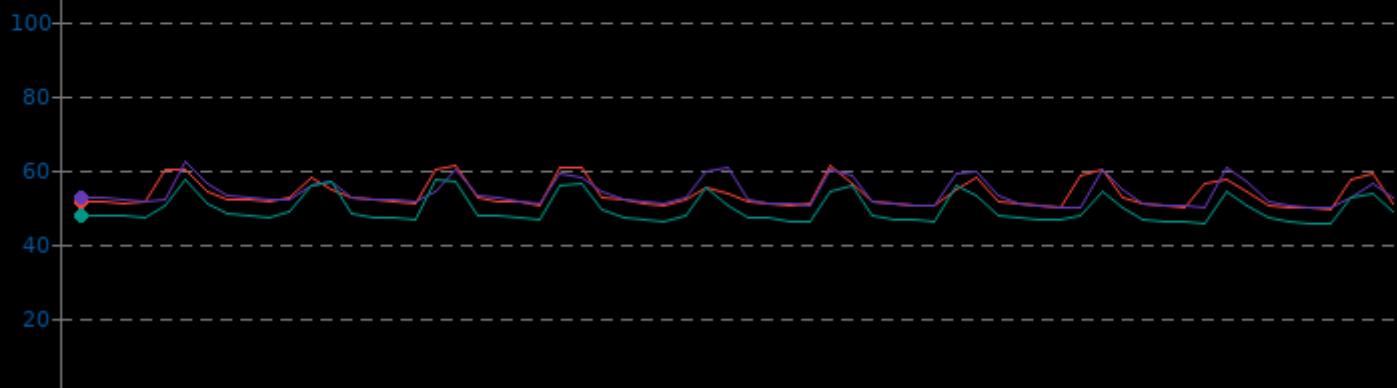
1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

SVT-HEVC 1.5.0

CPU Temperature Monitor

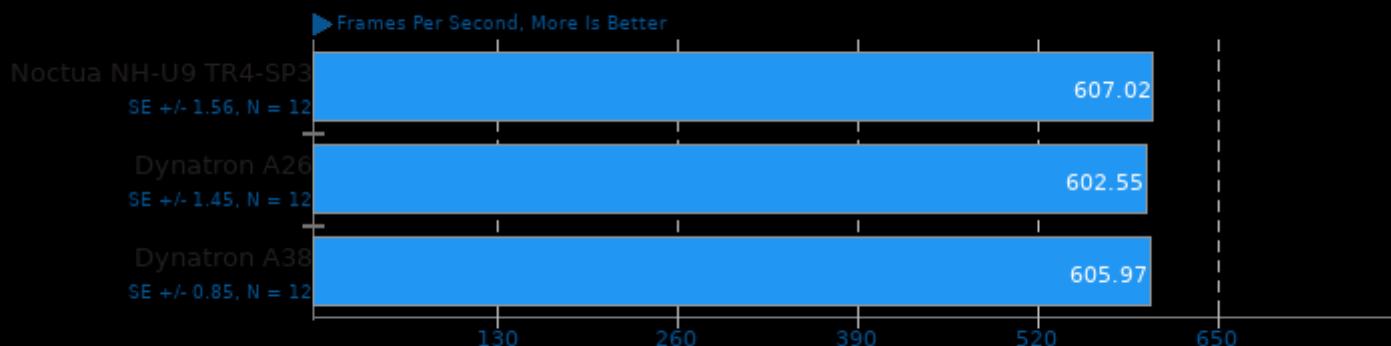
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.3	53.4	61.0
Dynatron A26	49.8	53.4	62.3
Dynatron A38	45.5	49.4	57.5

▼ Celsius, Fewer Is Better



SVT-HEVC 1.5.0

Tuning: 10 - Input: Bosphorus 1080p



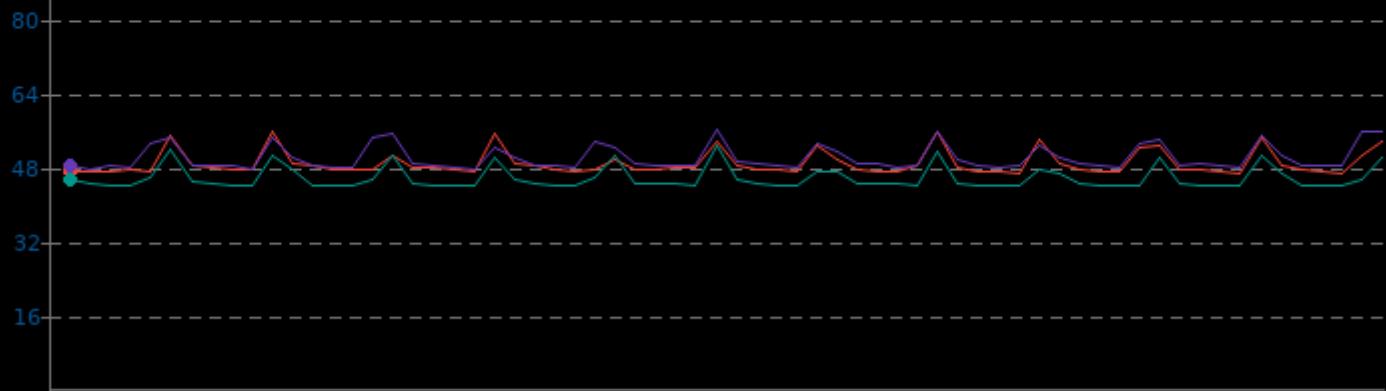
1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

SVT-HEVC 1.5.0

CPU Temperature Monitor

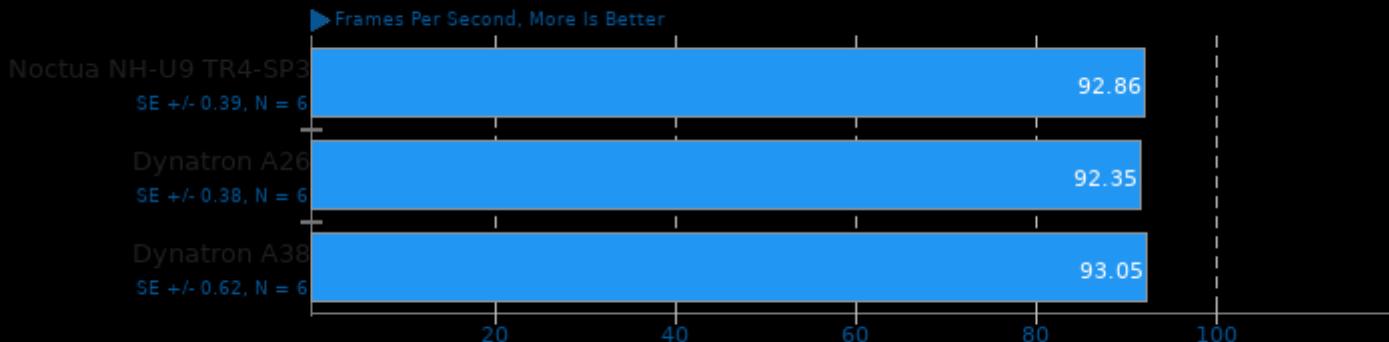
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.5	48.8	55.8
Dynatron A26	47.8	50.0	56.0
Dynatron A38	44.0	45.7	52.5

▼ Celsius, Fewer Is Better



SVT-AV1 0.8

Encoder Mode: Enc Mode 8 - Input: 1080p

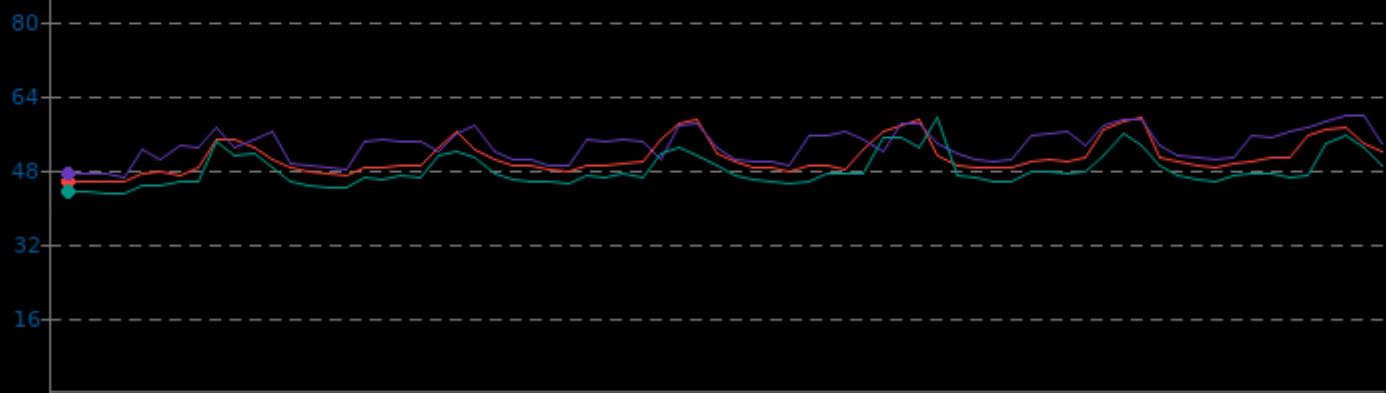


1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-AV1 0.8 CPU Temperature Monitor

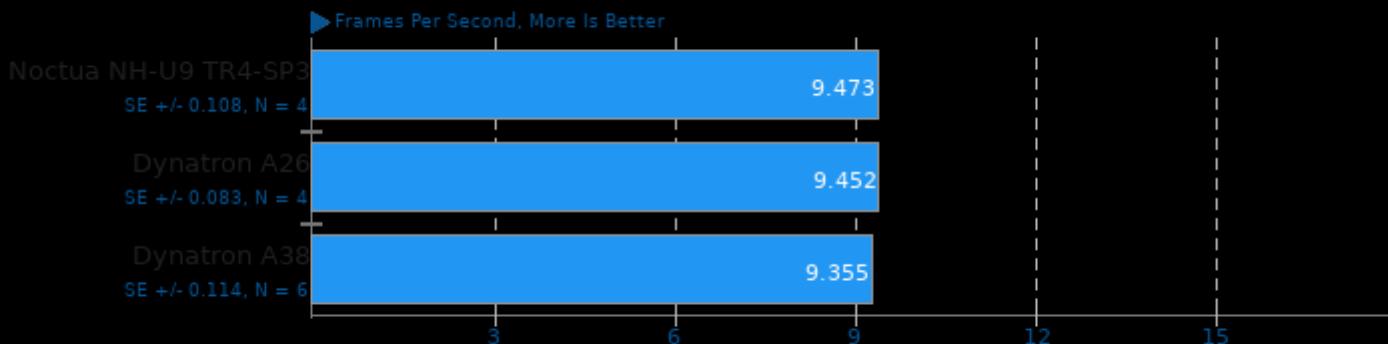
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.3	50.6	59.0
Dynatron A26	46.3	53.1	59.8
Dynatron A38	43.0	47.9	59.3

▼ Celsius, Fewer Is Better



SVT-AV1 0.8

Encoder Mode: Enc Mode 4 - Input: 1080p



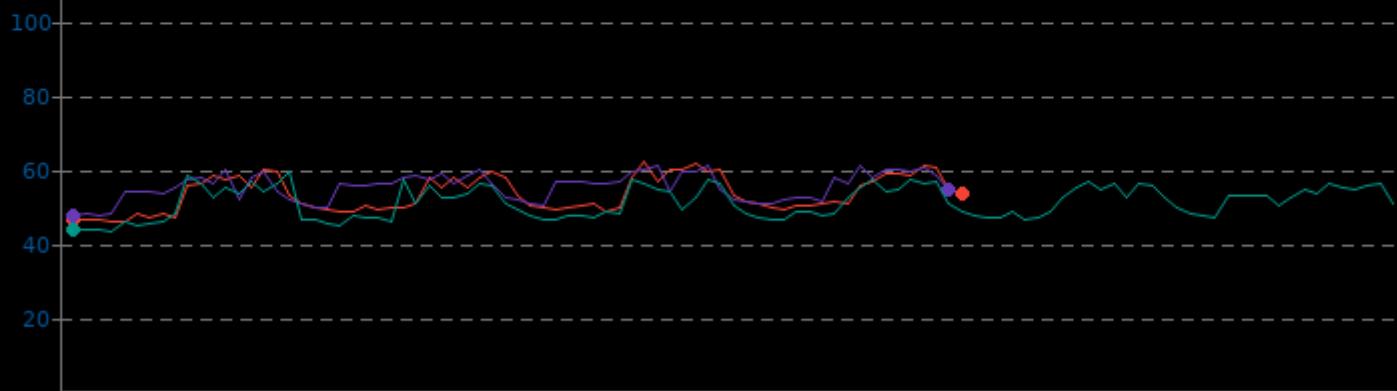
1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-AV1 0.8

CPU Temperature Monitor

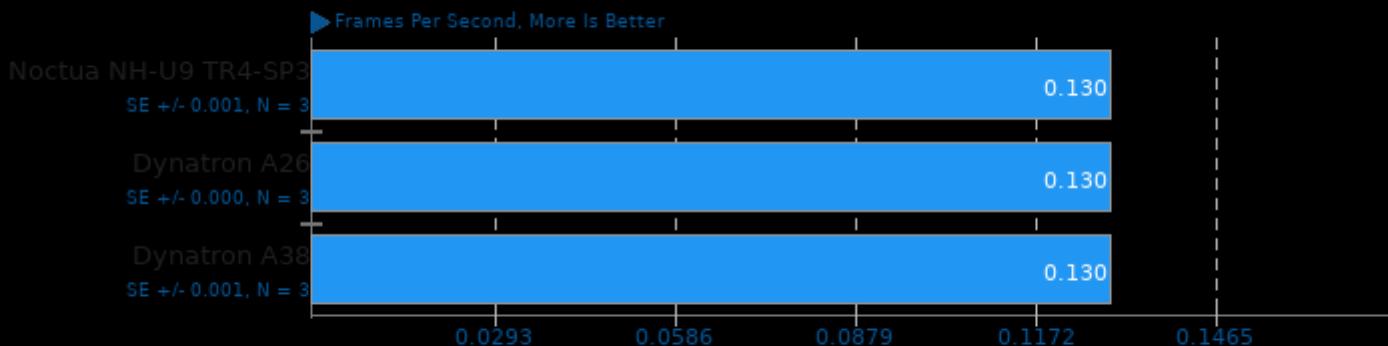
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.3	53.4	62.3
Dynatron A26	47.5	55.4	61.0
Dynatron A38	43.5	51.2	59.5

▼ Celsius, Fewer Is Better



SVT-AV1 0.8

Encoder Mode: Enc Mode 0 - Input: 1080p



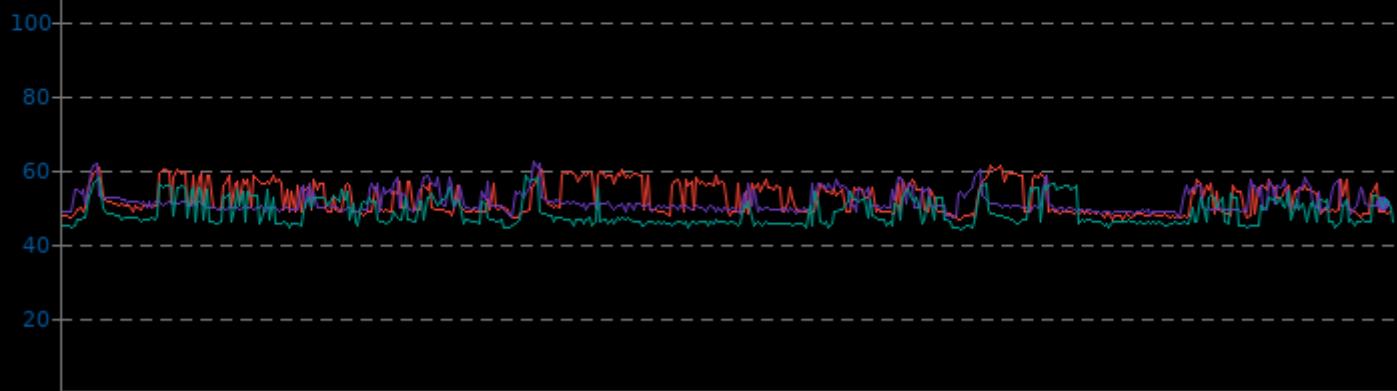
1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-AV1 0.8

CPU Temperature Monitor

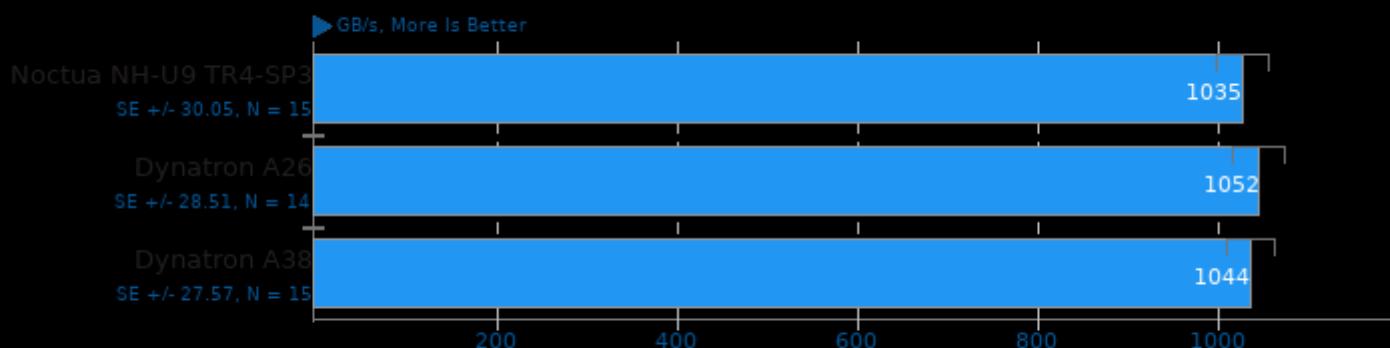
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.5	52.4	61.3
Dynatron A26	47.0	51.4	62.0
Dynatron A38	44.0	48.5	58.3

▼ Celsius, Fewer Is Better



ViennaCL 1.7.1

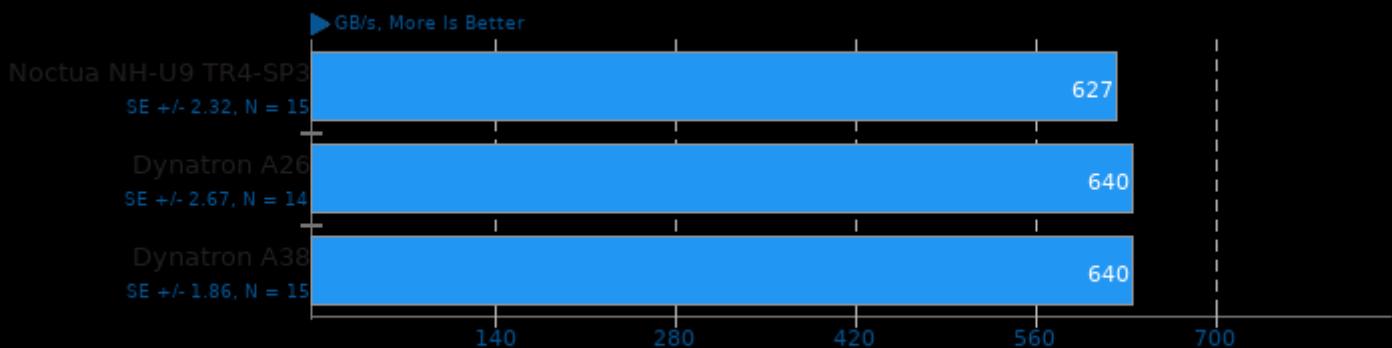
Test: CPU BLAS - sCOPY



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -IOpenCL

ViennaCL 1.7.1

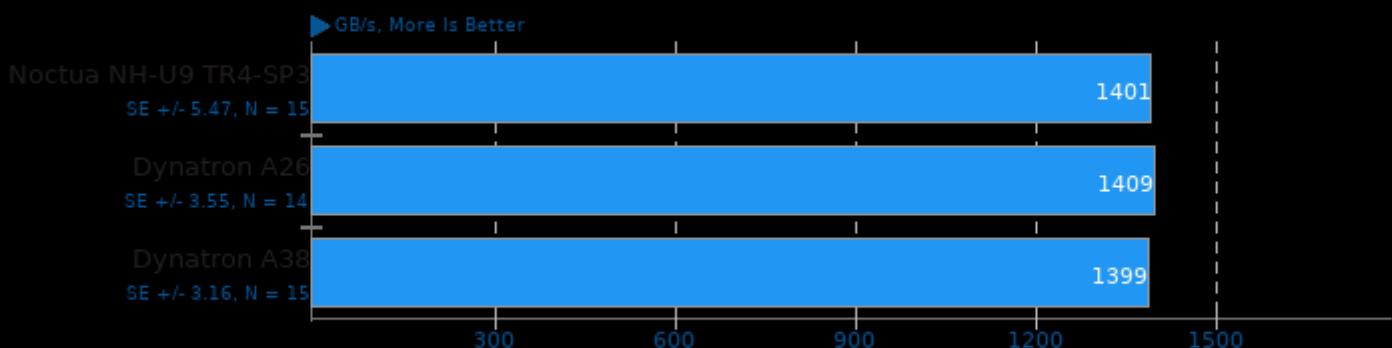
Test: CPU BLAS - sAXPY



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

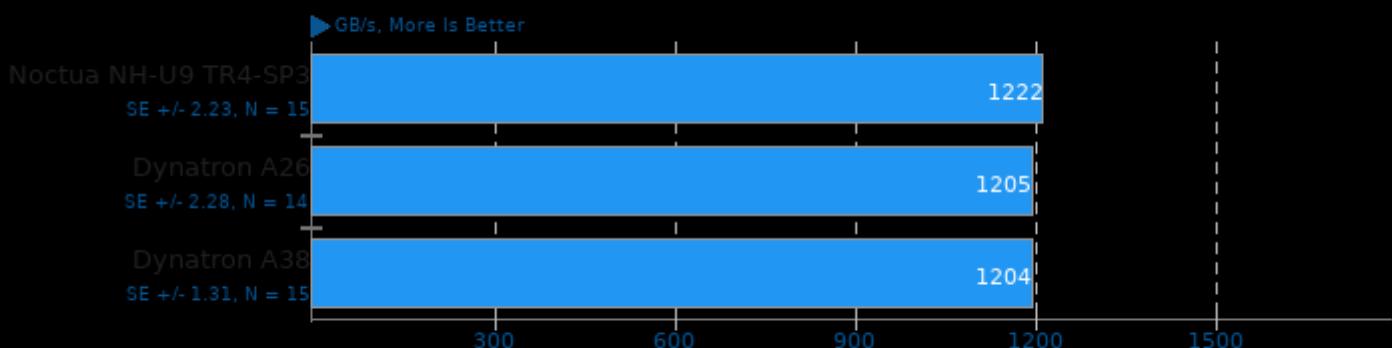
Test: CPU BLAS - dCOPY



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

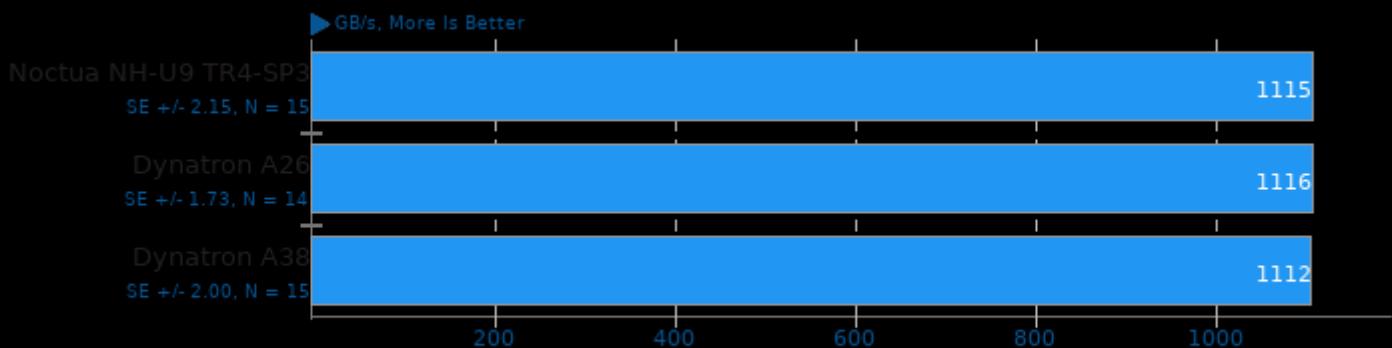
Test: CPU BLAS - dAXPY



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

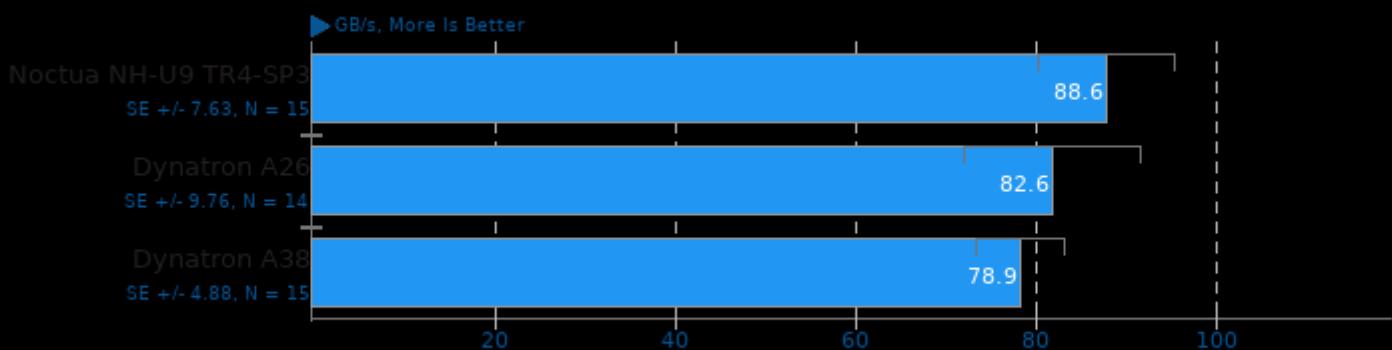
Test: CPU BLAS - dDOT



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

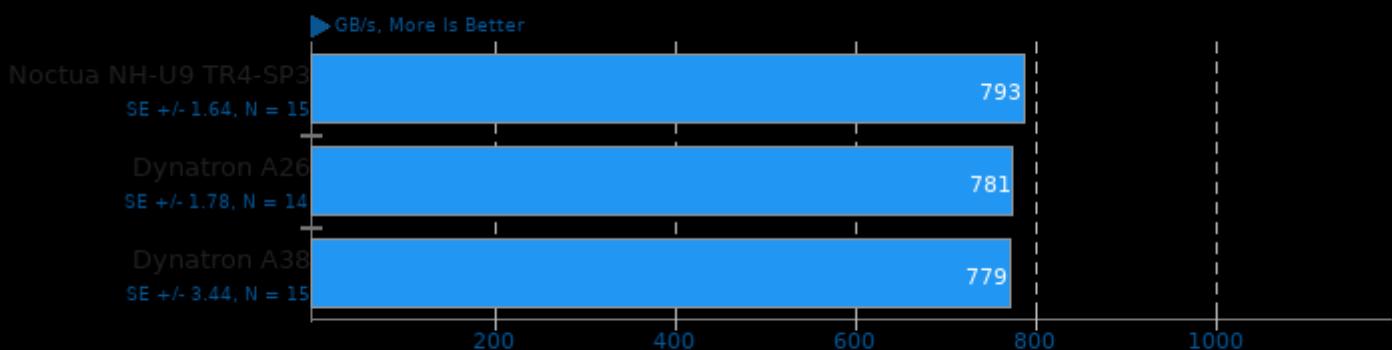
Test: CPU BLAS - dGEMV-N



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

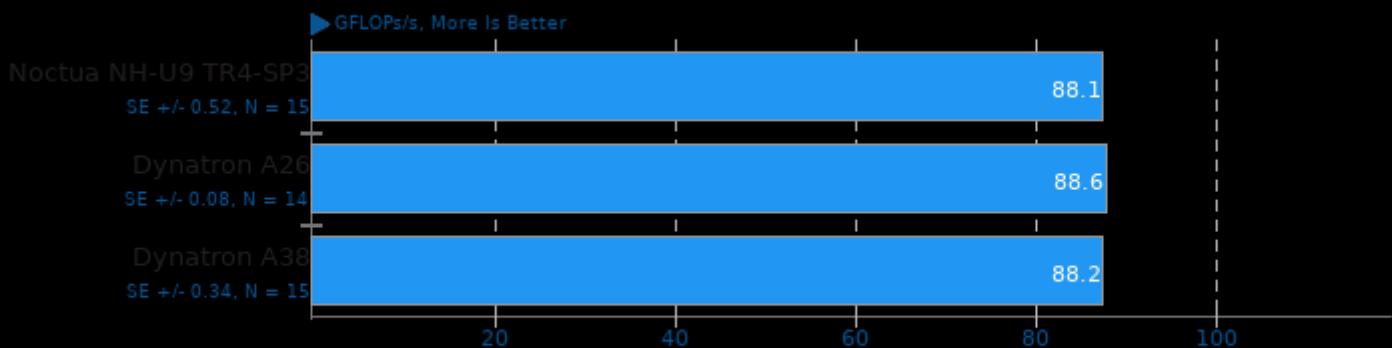
Test: CPU BLAS - dGEMV-T



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

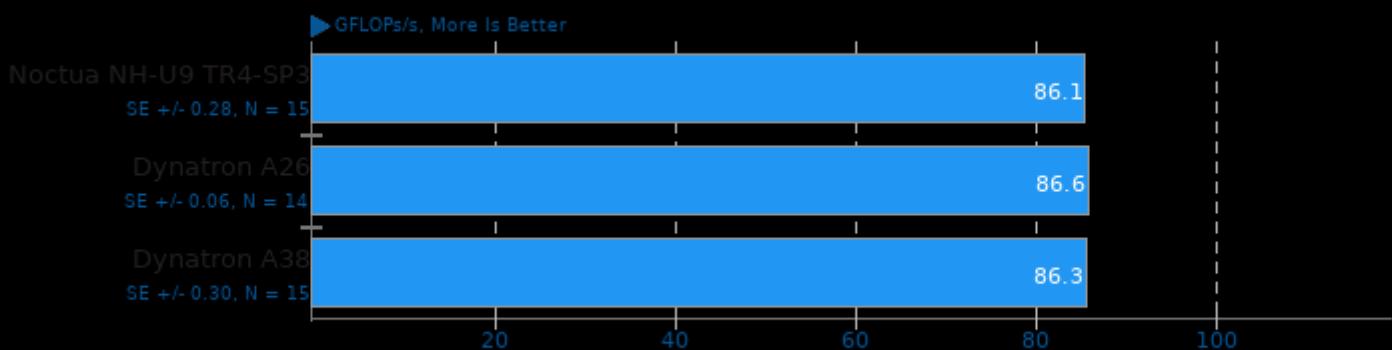
Test: CPU BLAS - dGEMM-NN



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

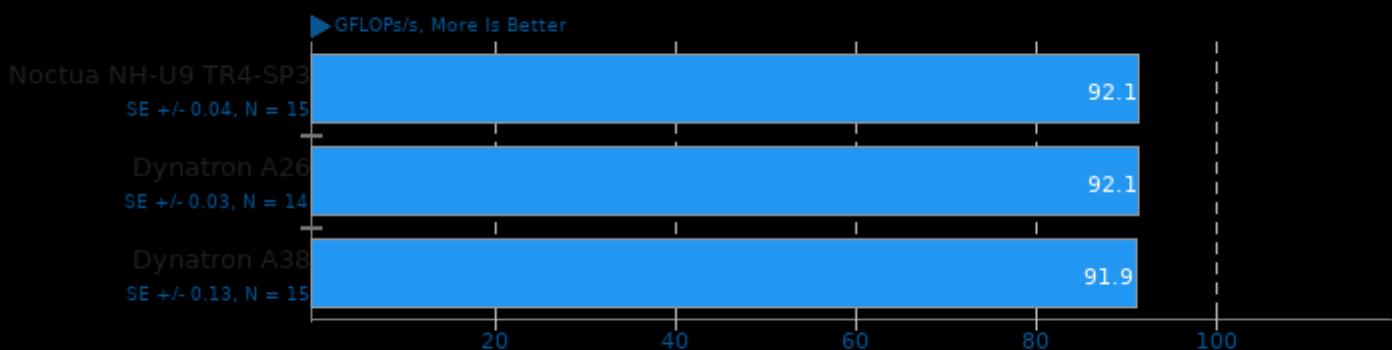
Test: CPU BLAS - dGEMM-NT



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

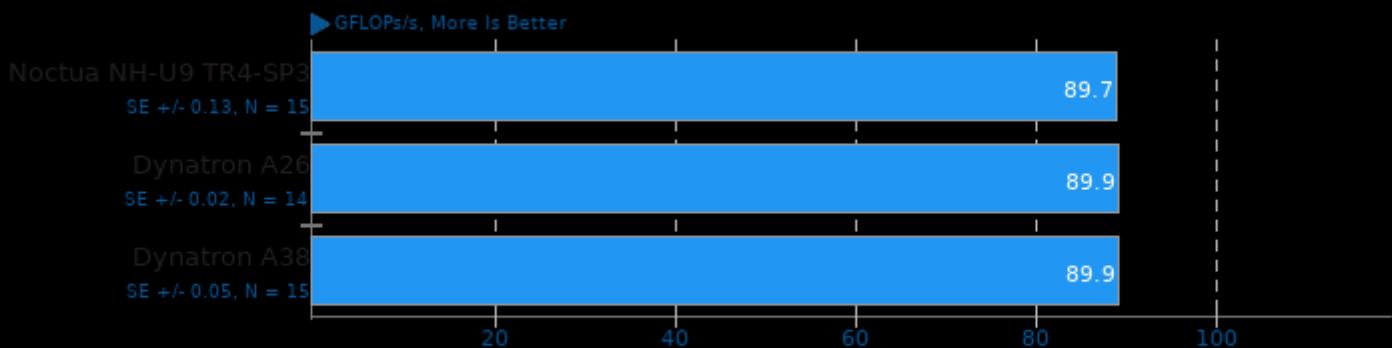
Test: CPU BLAS - dGEMM-TN



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

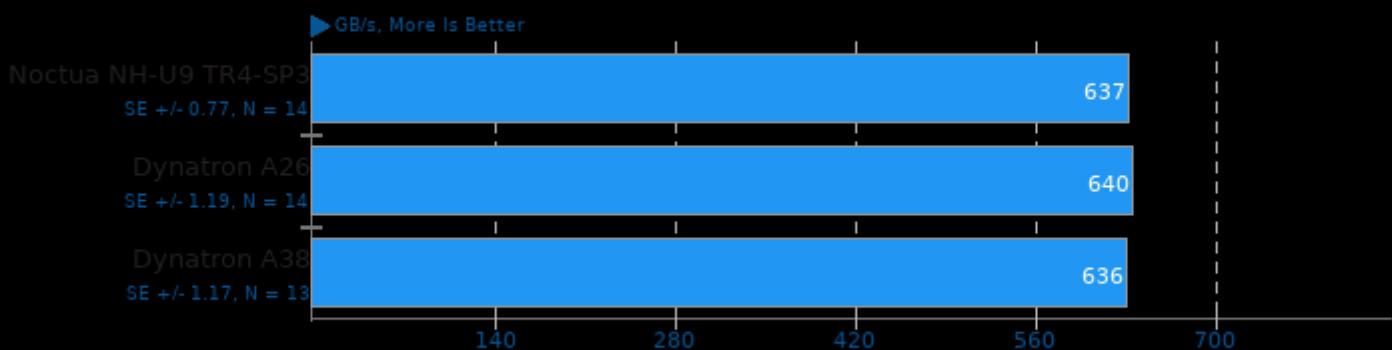
Test: CPU BLAS - dGEMM-TT



1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

Test: CPU BLAS - sDOT



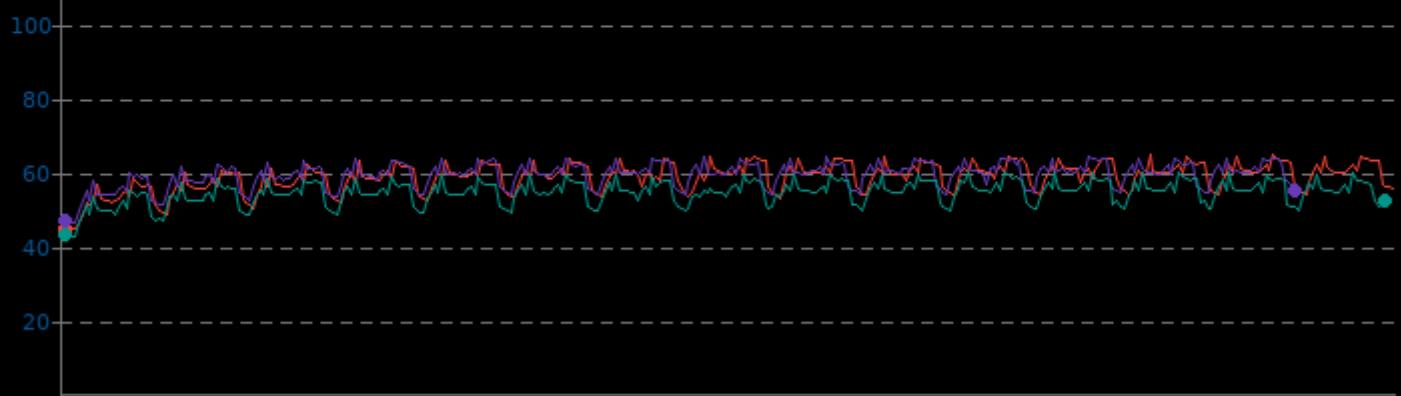
1. (CXX) g++ options: -fopenmp -O3 -rdynamic -lOpenCL

ViennaCL 1.7.1

CPU Temperature Monitor

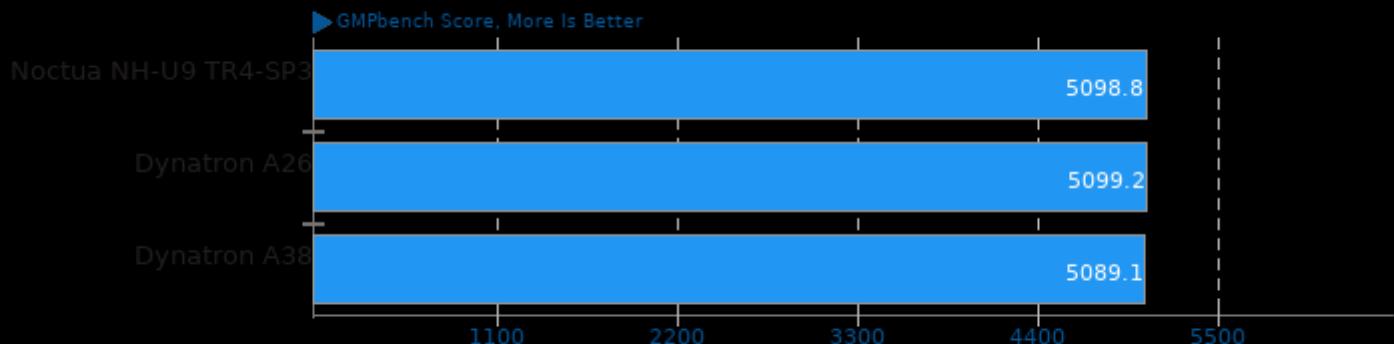
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	44.8	58.8	64.8
Dynatron A26	46.5	59.4	64.3
Dynatron A38	42.8	54.7	60.0

▼ Celsius, Fewer Is Better



GNU GMP GMPbench 6.2.1

Total Time



1. (CC) gcc options: -O3 -fomit-frame-pointer -lm

GNU GMP GMPbench 6.2.1

CPU Temperature Monitor

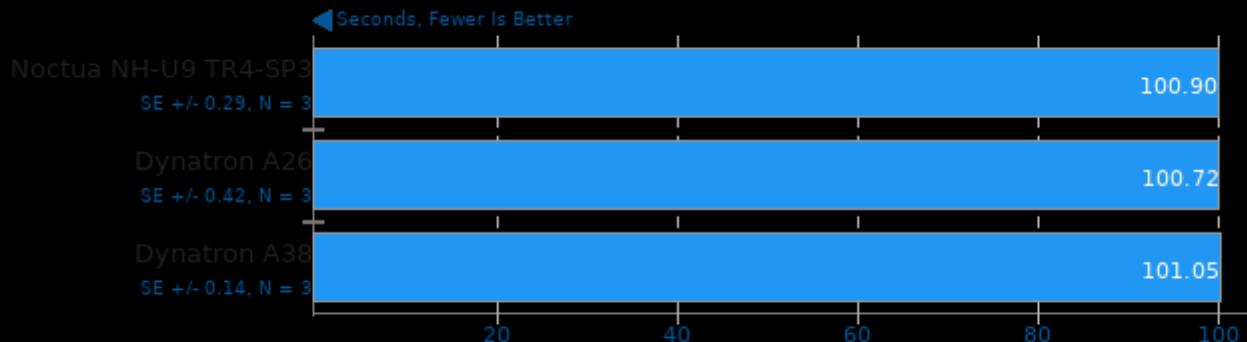
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.3	48.5	56.0
Dynatron A26	46.0	48.4	58.5
Dynatron A38	42.5	45.0	54.3

▼ Celsius, Fewer Is Better



OpenSCAD

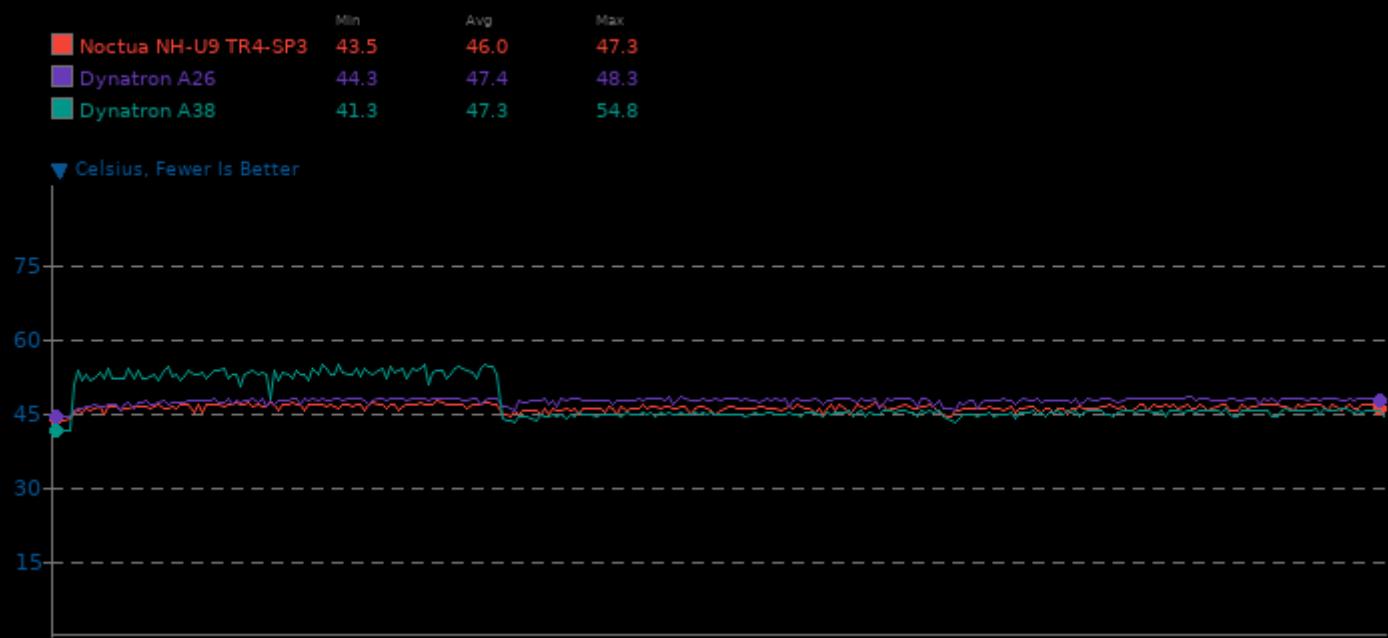
Render: Projector Mount Swivel



1. OpenSCAD version 2019.05

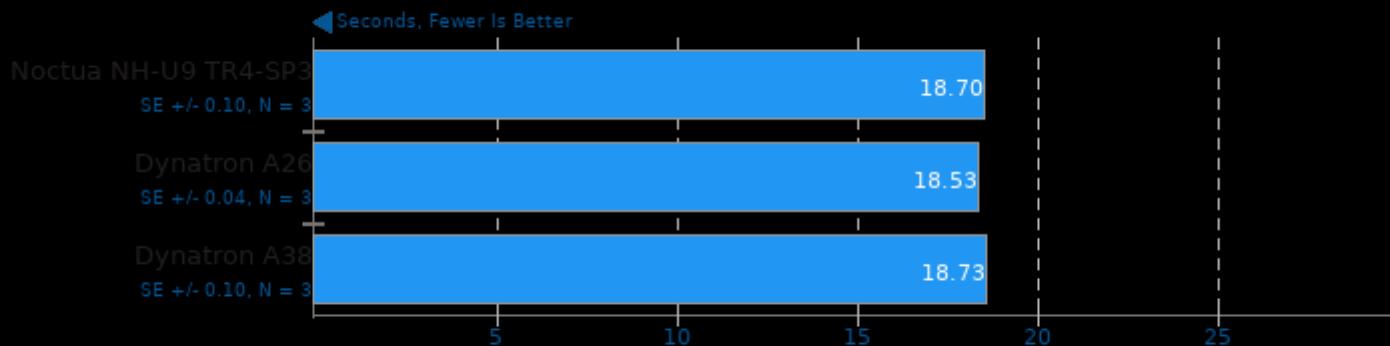
OpenSCAD

CPU Temperature Monitor



OpenSCAD

Render: Leonardo Phone Case Slim



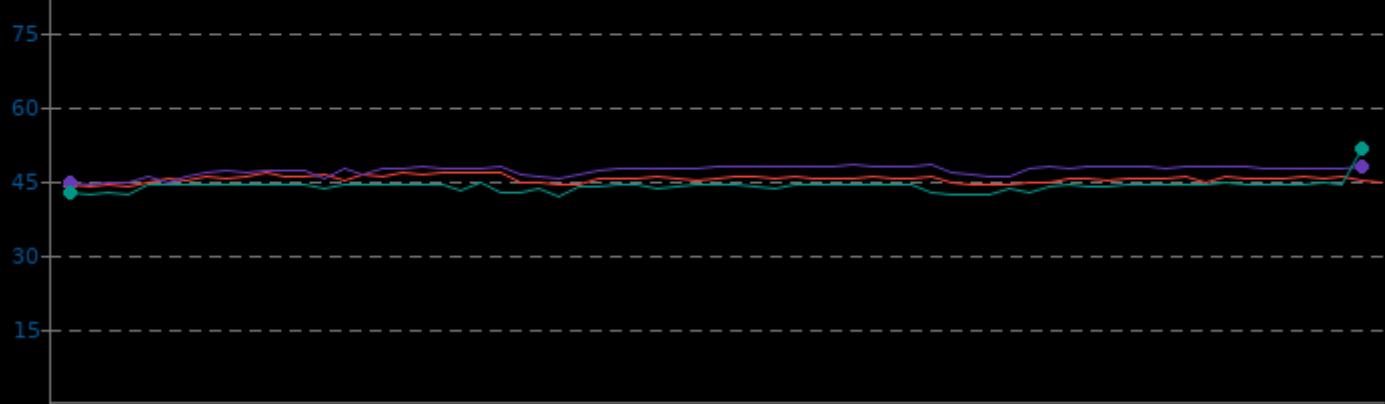
1. OpenSCAD version 2019.05

OpenSCAD

CPU Temperature Monitor

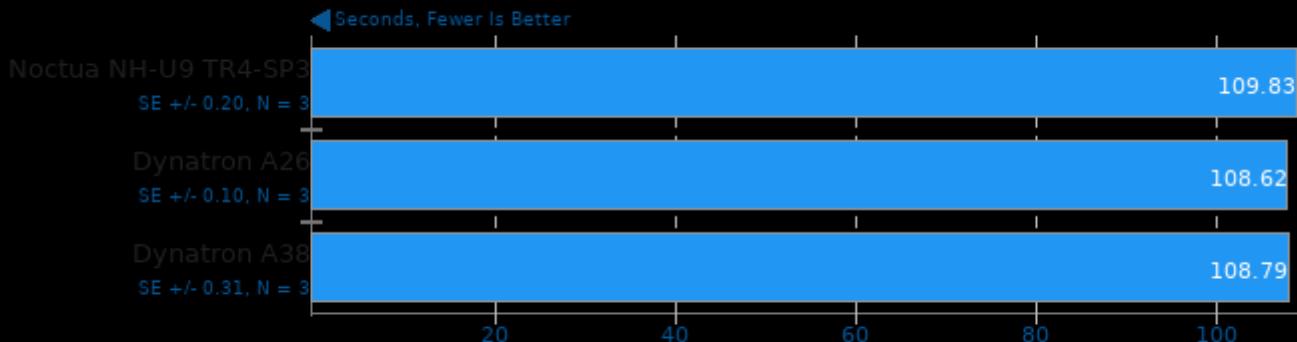
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.8	45.4	46.8
Dynatron A26	44.3	47.0	48.3
Dynatron A38	41.8	43.8	51.5

▼ Celsius, Fewer Is Better



OpenSCAD

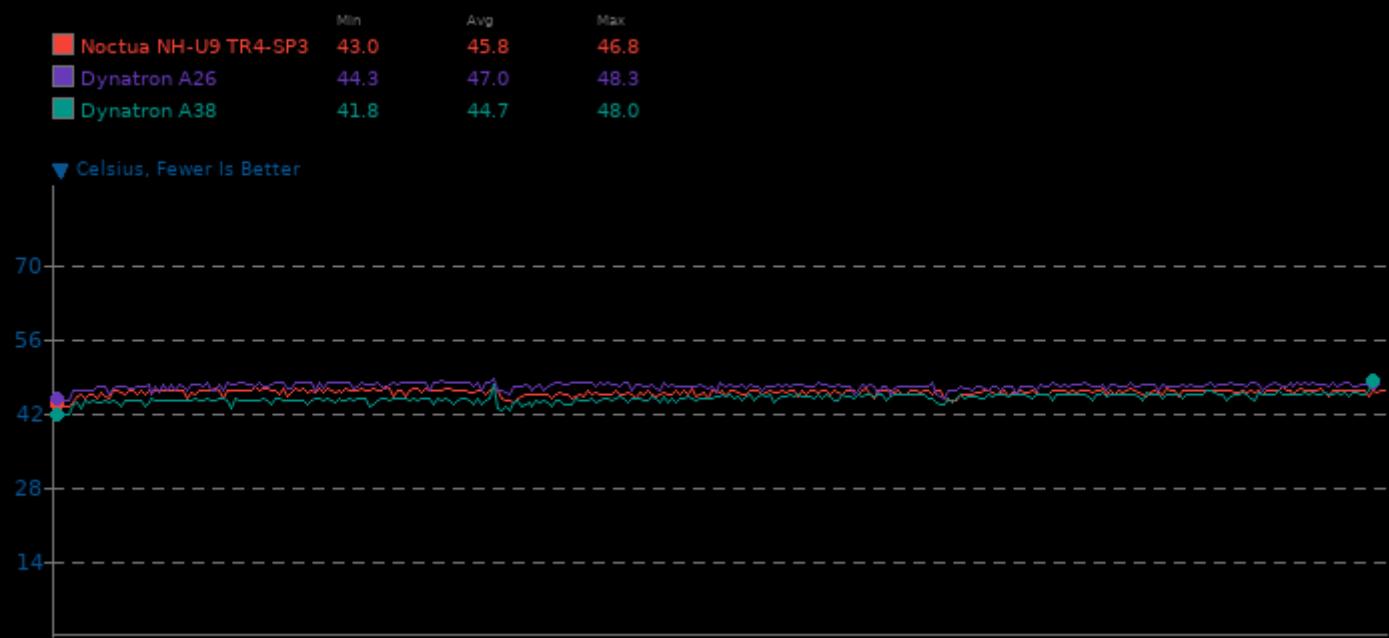
Render: Pistol



1. OpenSCAD version 2019.05

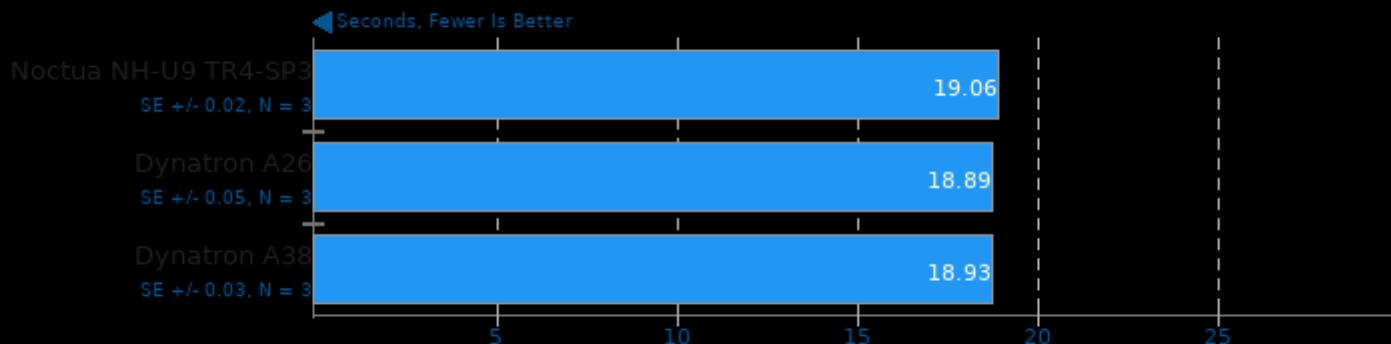
OpenSCAD

CPU Temperature Monitor



OpenSCAD

Render: Retro Car



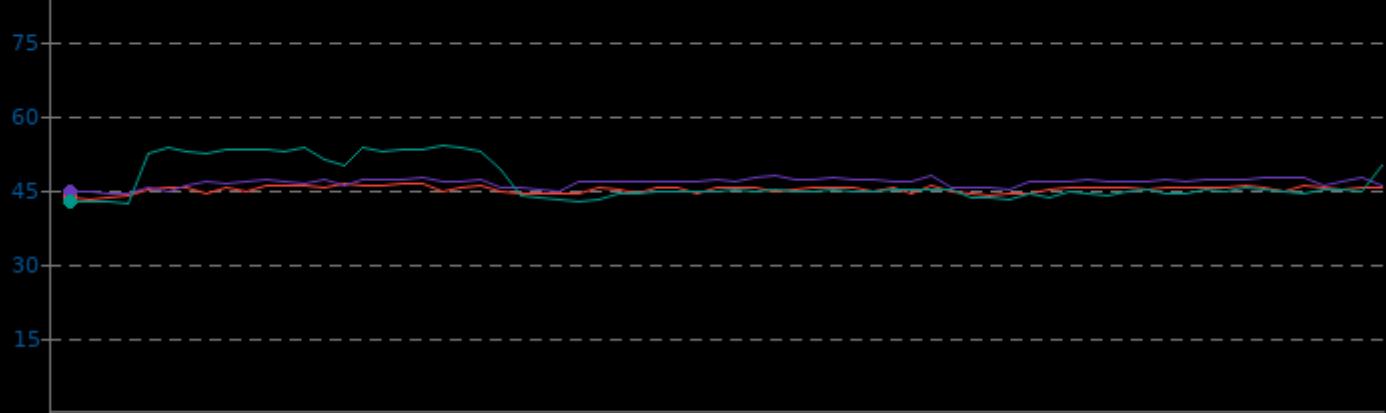
1. OpenSCAD version 2019.05

OpenSCAD

CPU Temperature Monitor

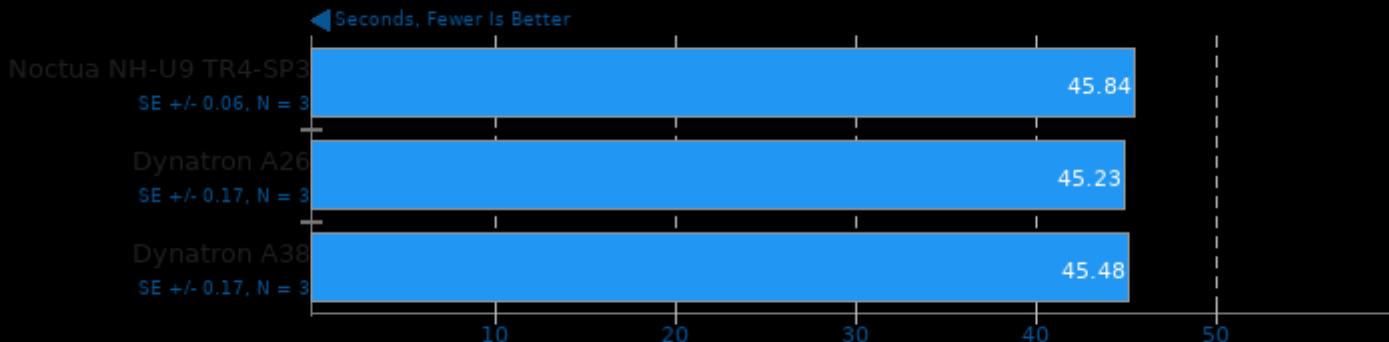
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.0	45.0	46.3
Dynatron A26	44.3	46.4	48.0
Dynatron A38	42.3	46.6	53.8

▼ Celsius, Fewer Is Better



OpenSCAD

Render: Mini-ITX Case



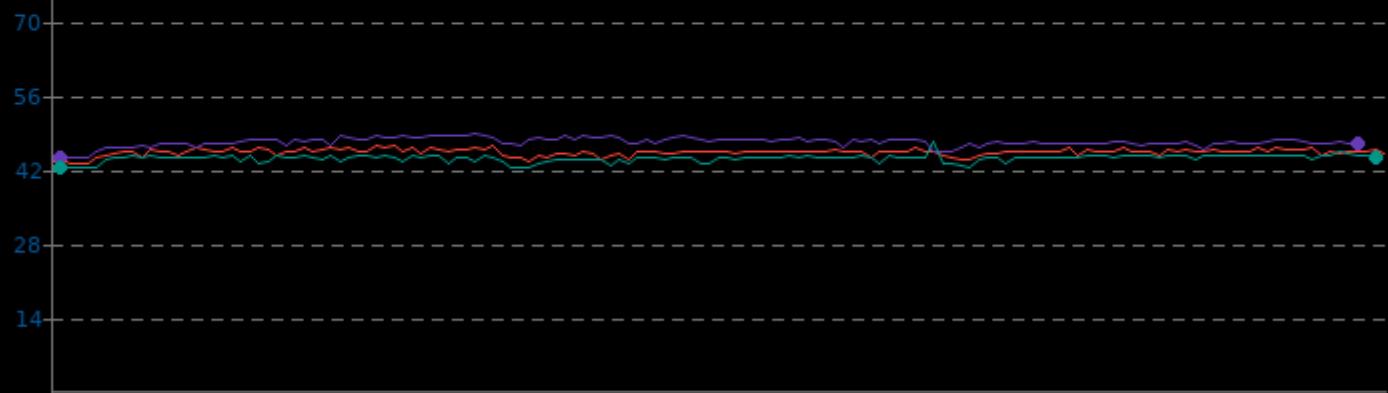
1. OpenSCAD version 2019.05

OpenSCAD

CPU Temperature Monitor

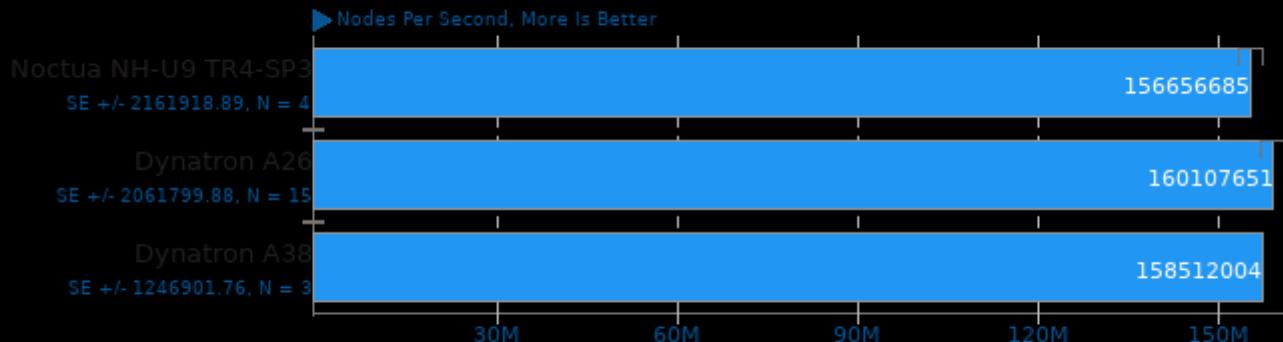
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.0	45.3	46.5
Dynatron A26	44.3	47.2	48.8
Dynatron A38	42.3	44.1	47.3

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Stockfish 13

Total Time



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

Stockfish 13 CPU Temperature Monitor

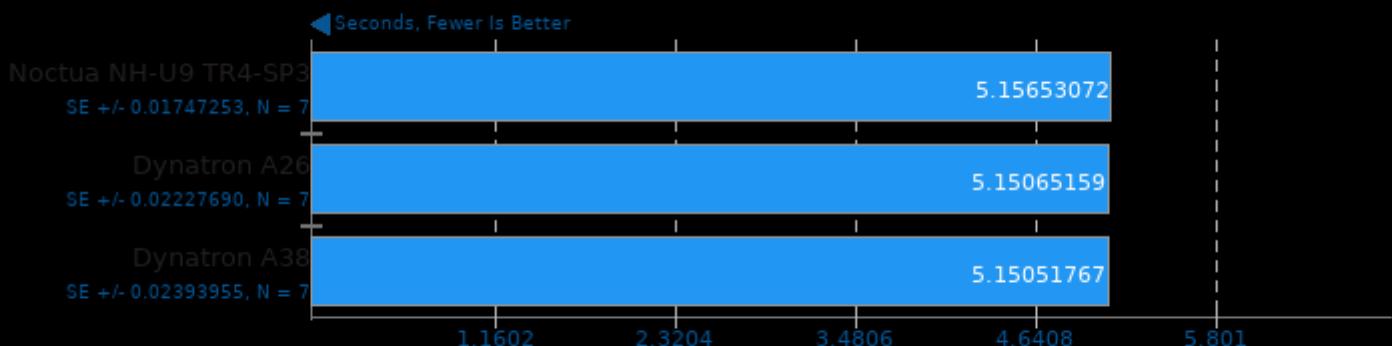
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.0	62.5	70.8
Dynatron A26	44.3	67.1	72.5
Dynatron A38	42.0	57.7	64.0

▼ Celsius, Fewer Is Better



Xcompact3d Incompact3d 2021-03-11

Input: input.i3d 129 Cells Per Direction



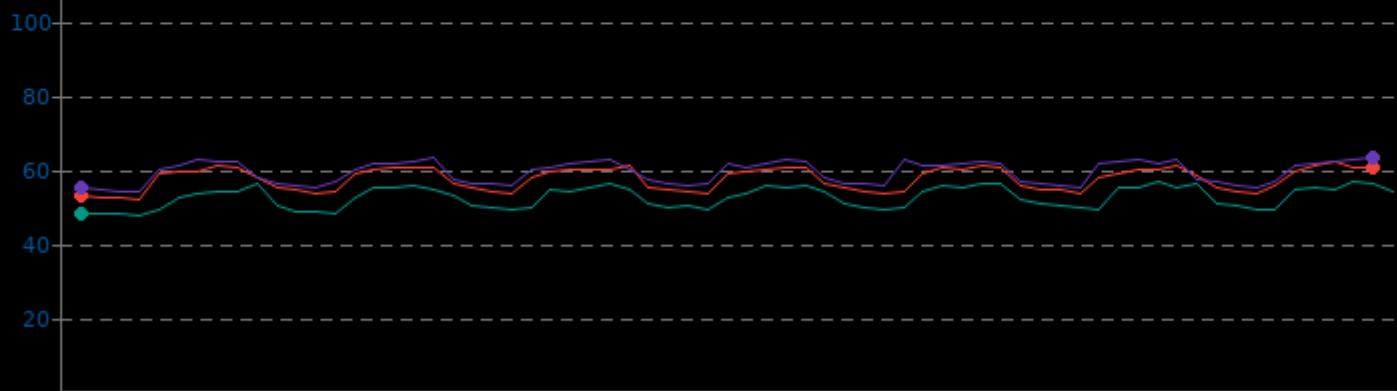
1. (F9X) gfortran options: -cpp -O2 -funroll-loops -floop-optimize -fcray-pointer -fbacktrace -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

Xcompact3d Incompact3d 2021-03-11

CPU Temperature Monitor

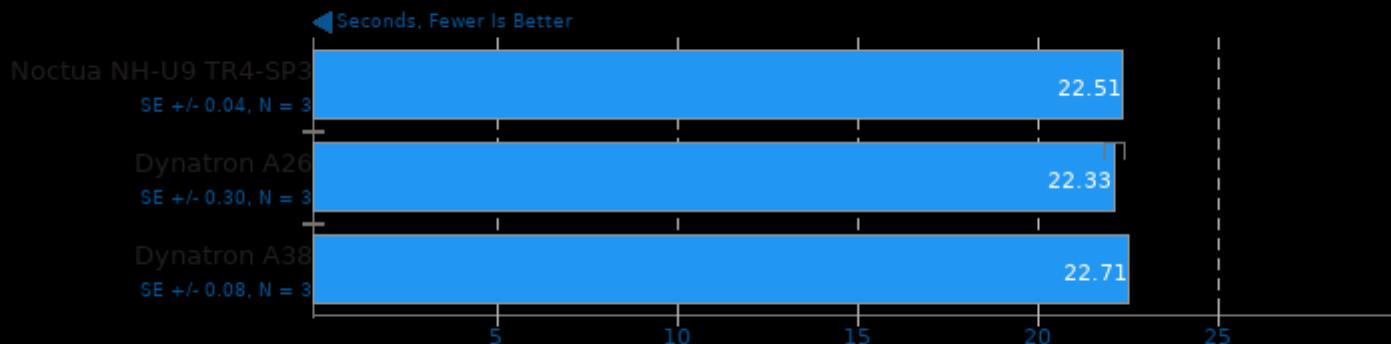
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	52.0	57.5	62.3
Dynatron A26	54.3	59.2	63.0
Dynatron A38	47.5	52.6	57.0

▼ Celsius, Fewer Is Better



Xcompact3d Incompact3d 2021-03-11

Input: input.i3d 193 Cells Per Direction



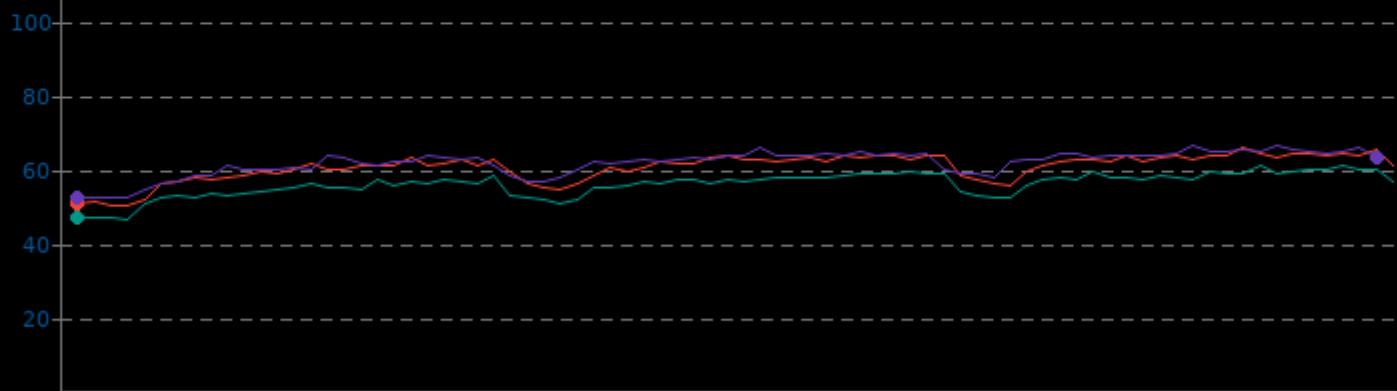
1. (F9X) gfortran options: -cpp -O2 -funroll-loops -floop-optimize -fcray-pointer -fbacktrace -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

Xcompact3d Incompact3d 2021-03-11

CPU Temperature Monitor

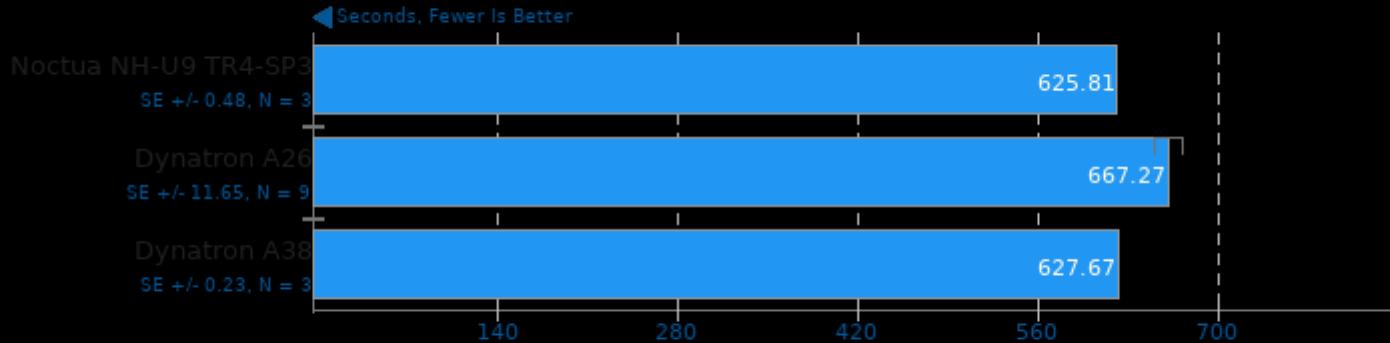
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	50.3	60.6	65.8
Dynatron A26	52.3	61.8	66.5
Dynatron A38	46.8	56.1	61.3

▼ Celsius, Fewer Is Better



Xcompact3d Incompact3d 2021-03-11

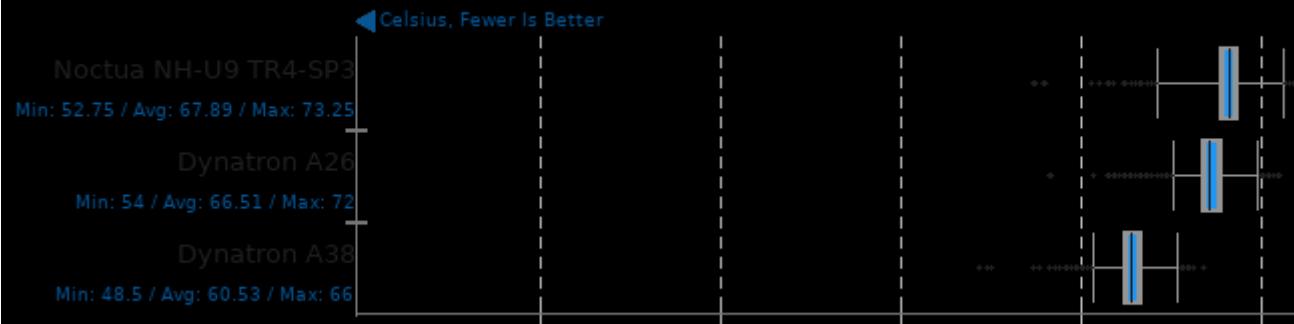
Input: X3D-benchmarking input.i3d



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

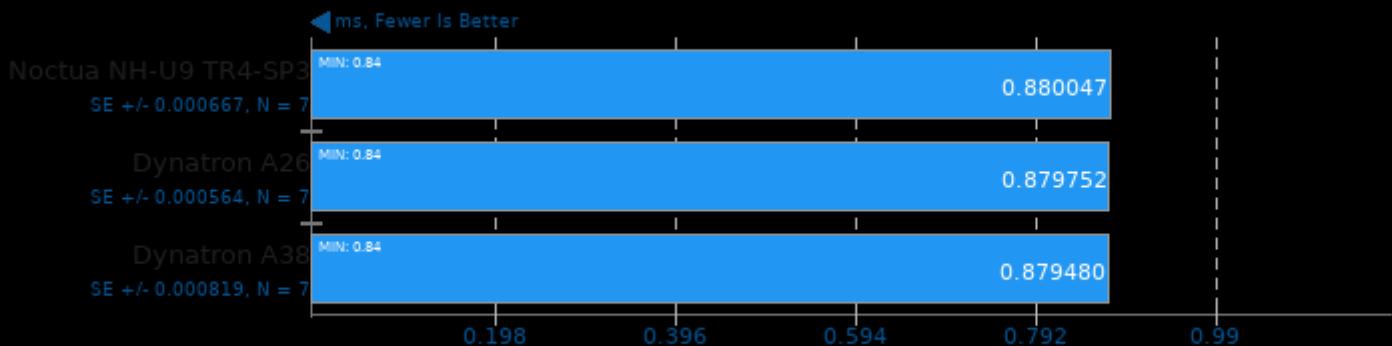
Xcompact3d Incompact3d 2021-03-11

CPU Temperature Monitor



oneDNN 2.1.2

Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



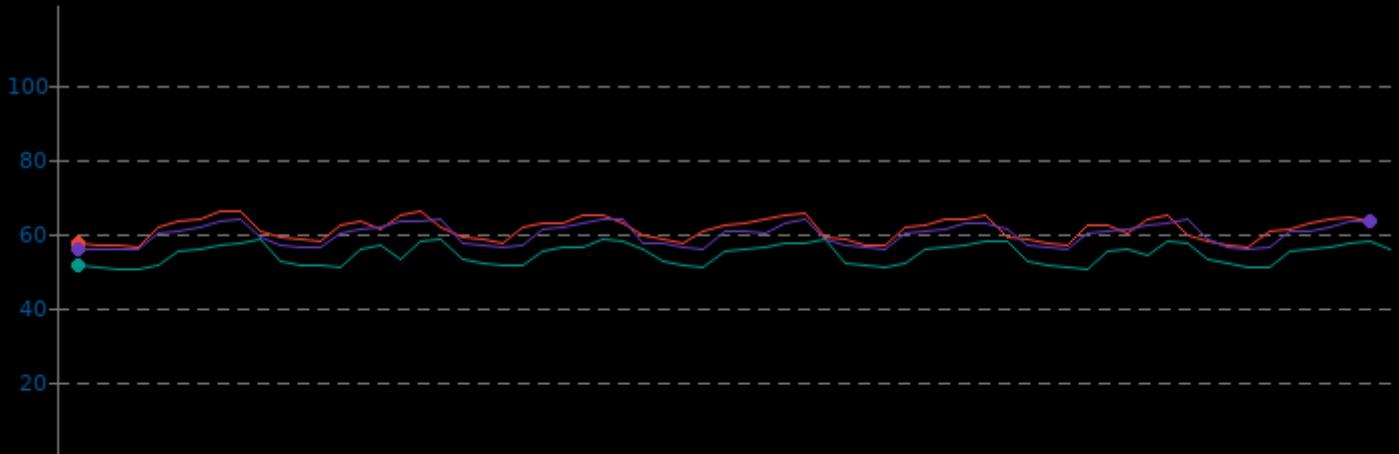
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

CPU Temperature Monitor

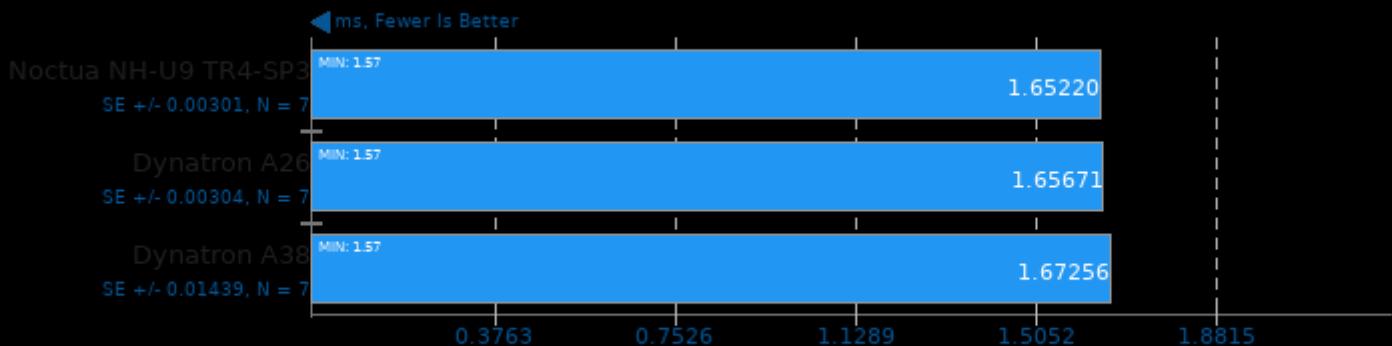
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	56.5	61.0	66.0
Dynatron A26	55.5	59.7	63.8
Dynatron A38	50.3	54.4	58.5

▼ Celsius, Fewer Is Better



oneDNN 2.1.2

Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



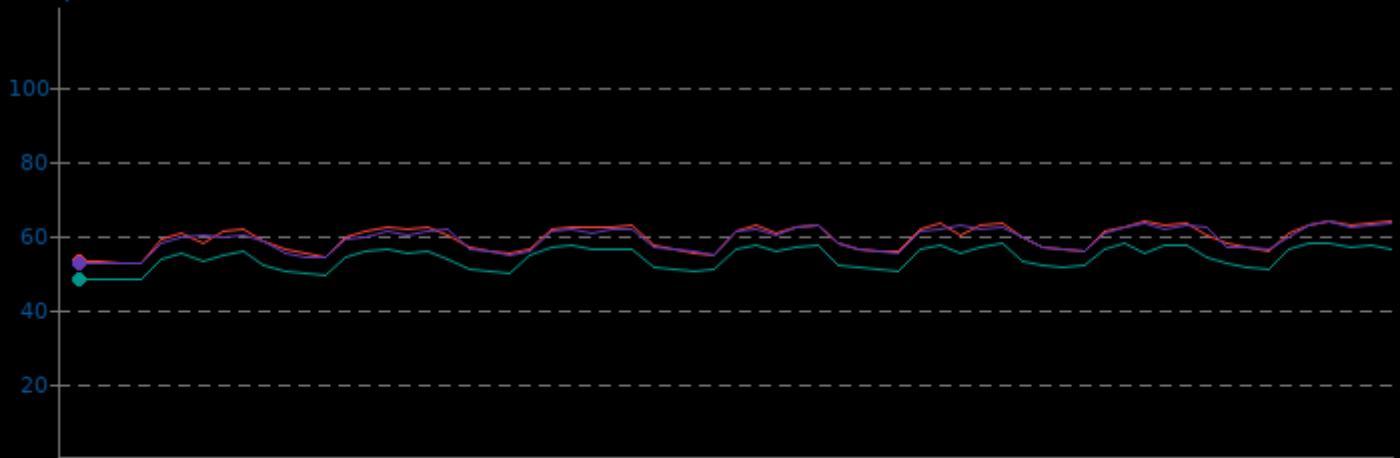
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

CPU Temperature Monitor

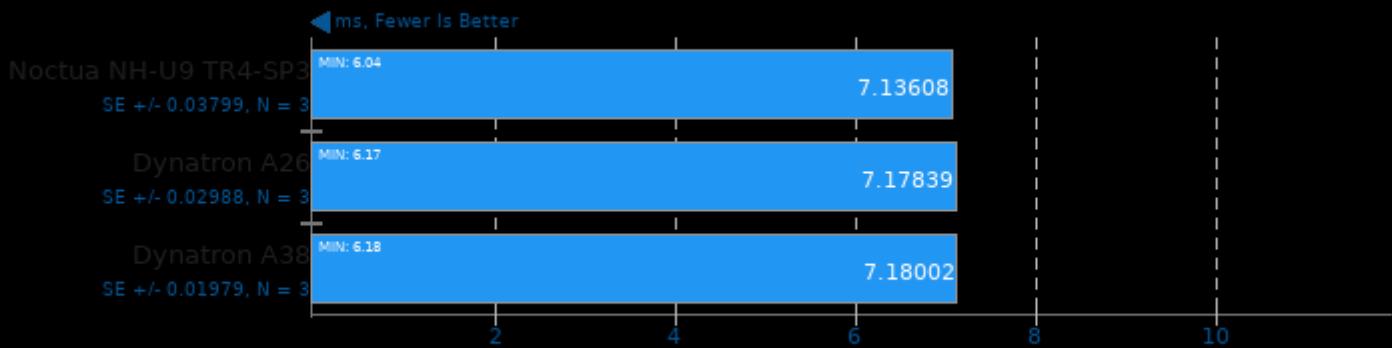
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	52.8	59.3	63.8
Dynatron A26	52.3	58.9	63.5
Dynatron A38	48.0	53.9	58.0

▼ Celsius, Fewer Is Better



oneDNN 2.1.2

Harness: Deconvolution Batch shapes_1d - Data Type: f32 - Engine: CPU

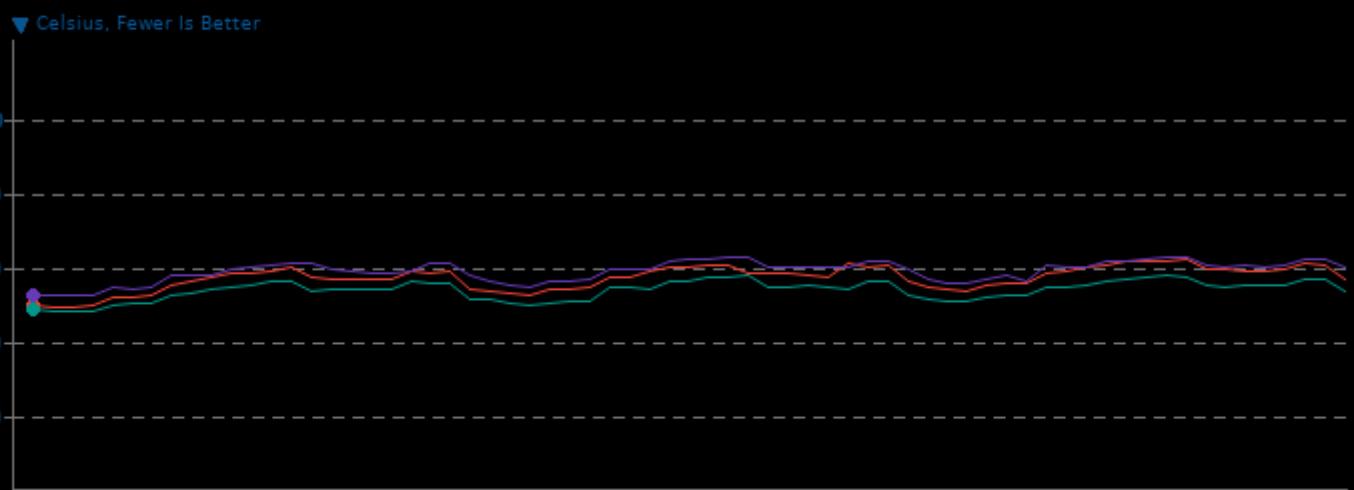


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

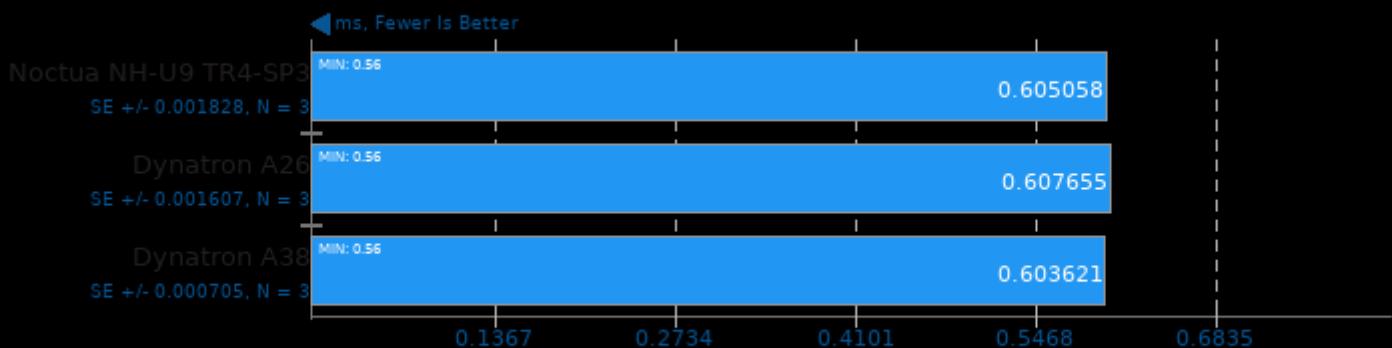
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.3	57.1	62.3
Dynatron A26	52.3	58.9	62.8
Dynatron A38	48.0	53.8	57.8



oneDNN 2.1.2

Harness: Deconvolution Batch shapes_1d - Data Type: u8s8f32 - Engine: CPU

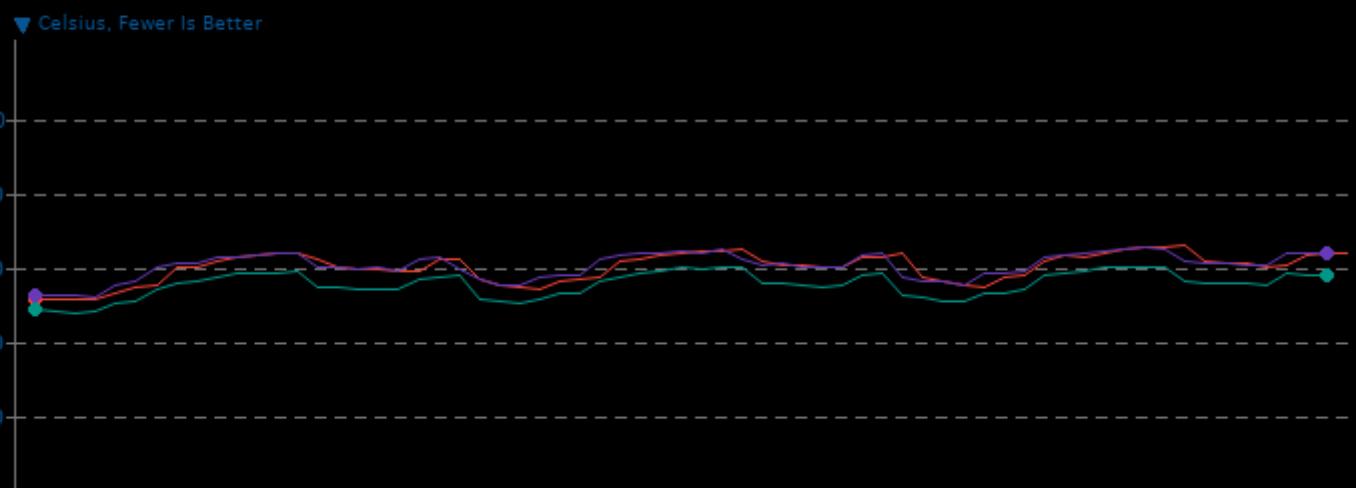


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

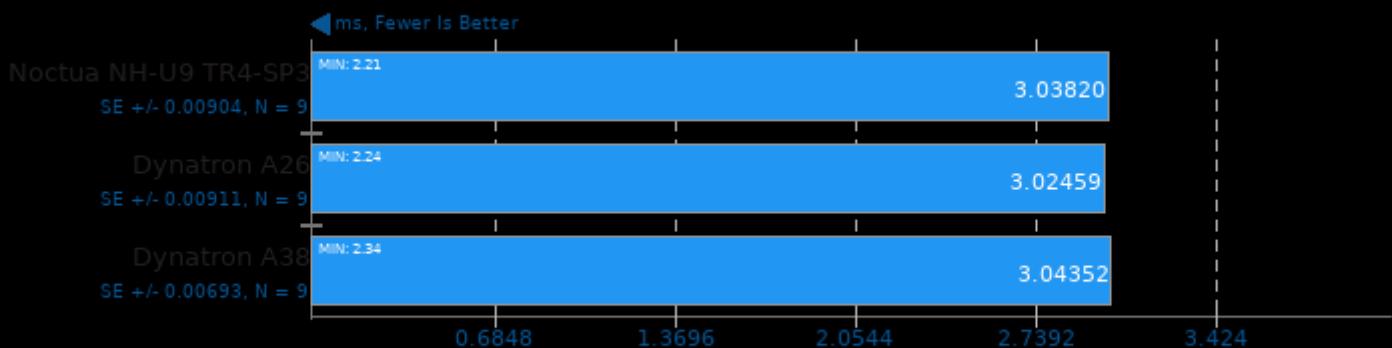
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	51.5	60.0	65.8
Dynatron A26	52.0	60.3	65.3
Dynatron A38	47.8	55.4	60.3



oneDNN 2.1.2

Harness: Deconvolution Batch shapes_3d - Data Type: f32 - Engine: CPU

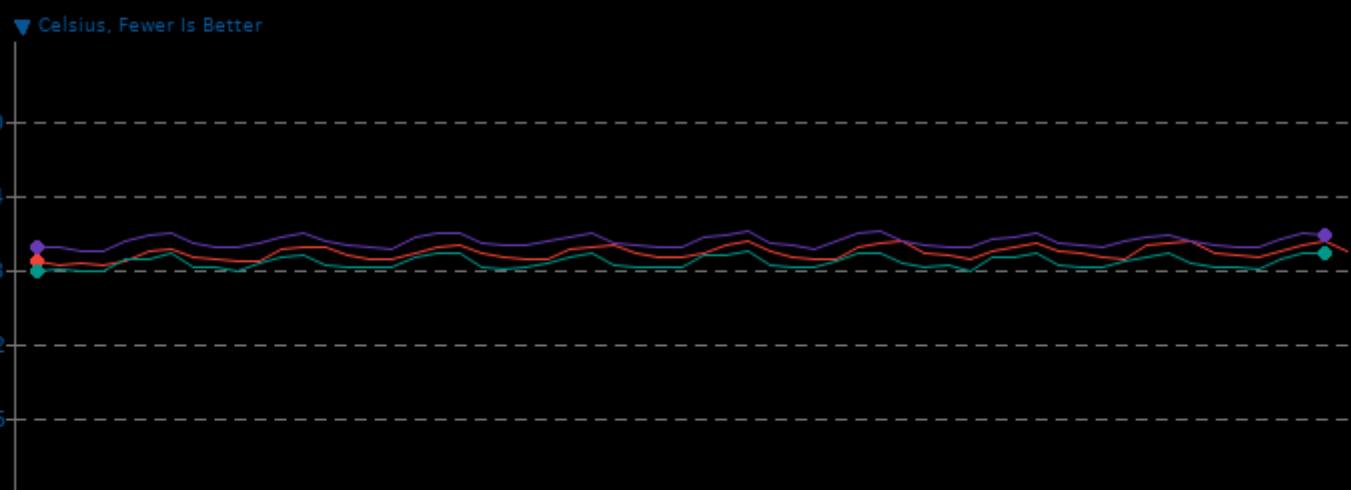


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

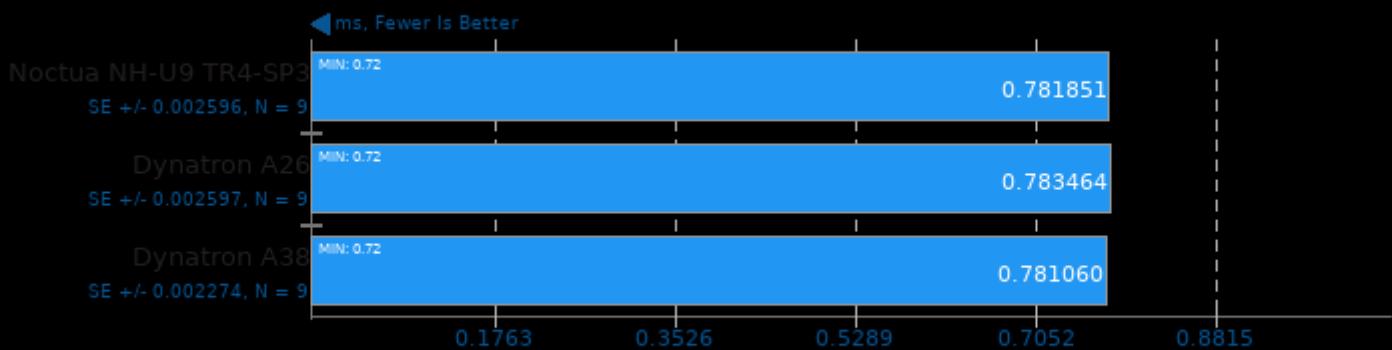
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	51.5	54.0
Dynatron A26	51.8	53.9	56.0
Dynatron A38	47.5	49.4	52.0



oneDNN 2.1.2

Harness: Deconvolution Batch shapes_3d - Data Type: u8s8f32 - Engine: CPU

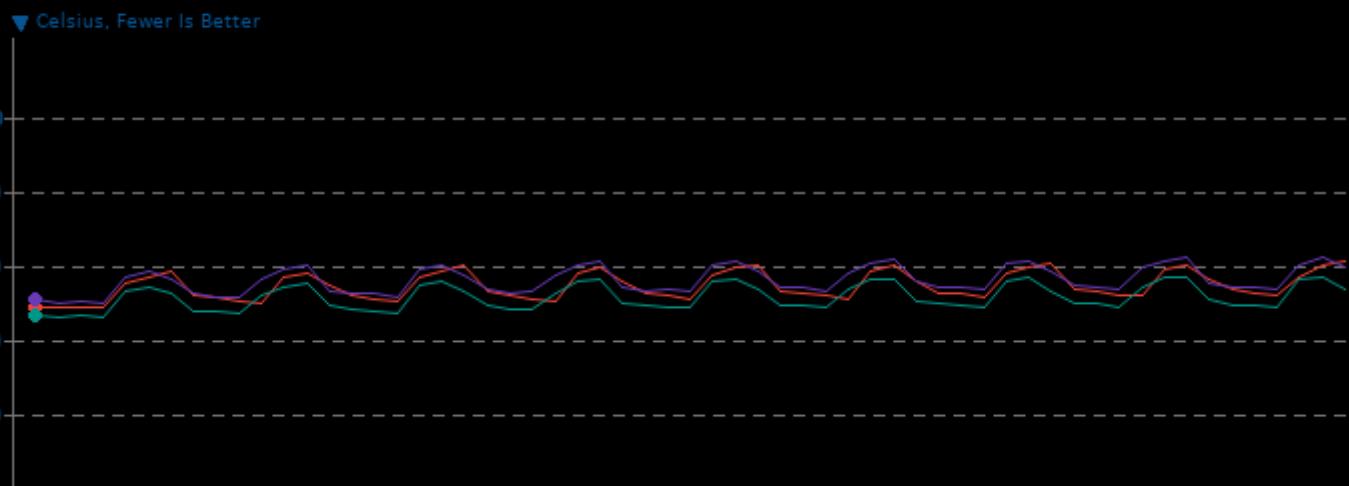


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

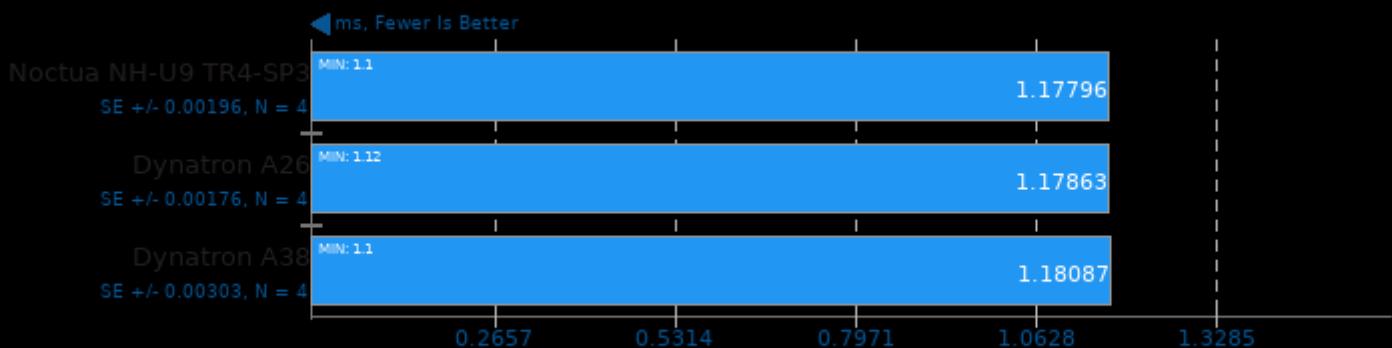
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	48.5	54.5	61.0
Dynatron A26	50.0	56.0	62.3
Dynatron A38	46.0	51.5	57.0



oneDNN 2.1.2

Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU

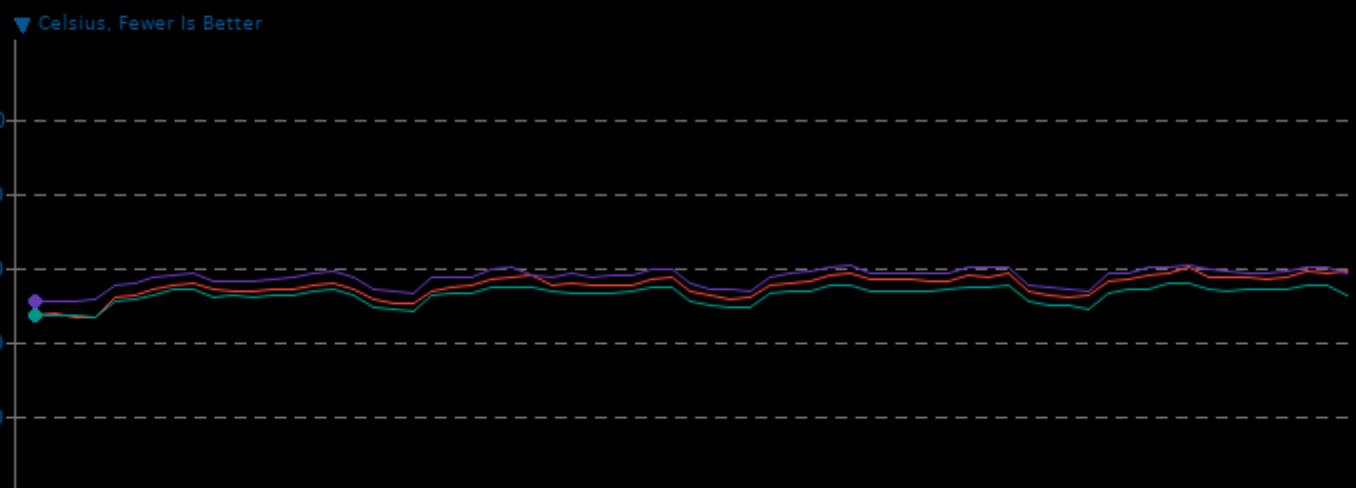


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

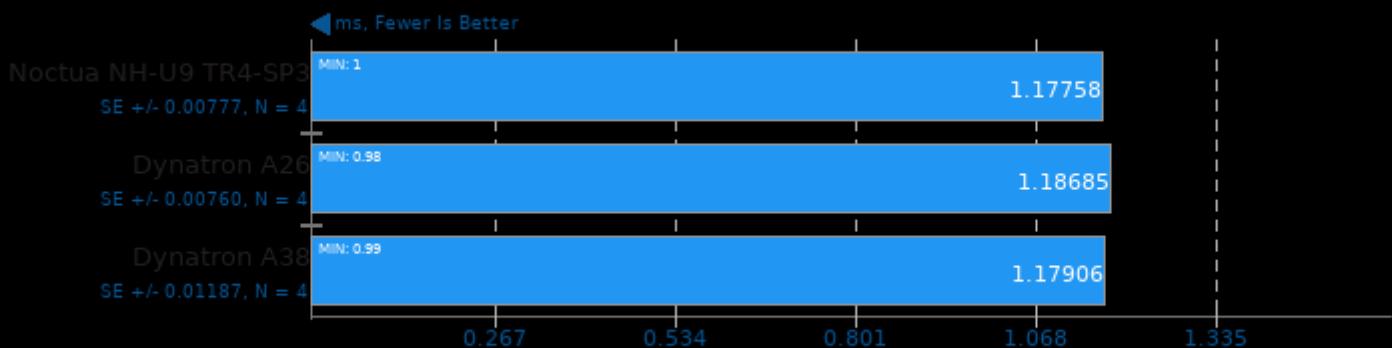
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.8	55.0	59.8
Dynatron A26	50.8	57.2	60.8
Dynatron A38	46.8	52.6	55.5



oneDNN 2.1.2

Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU

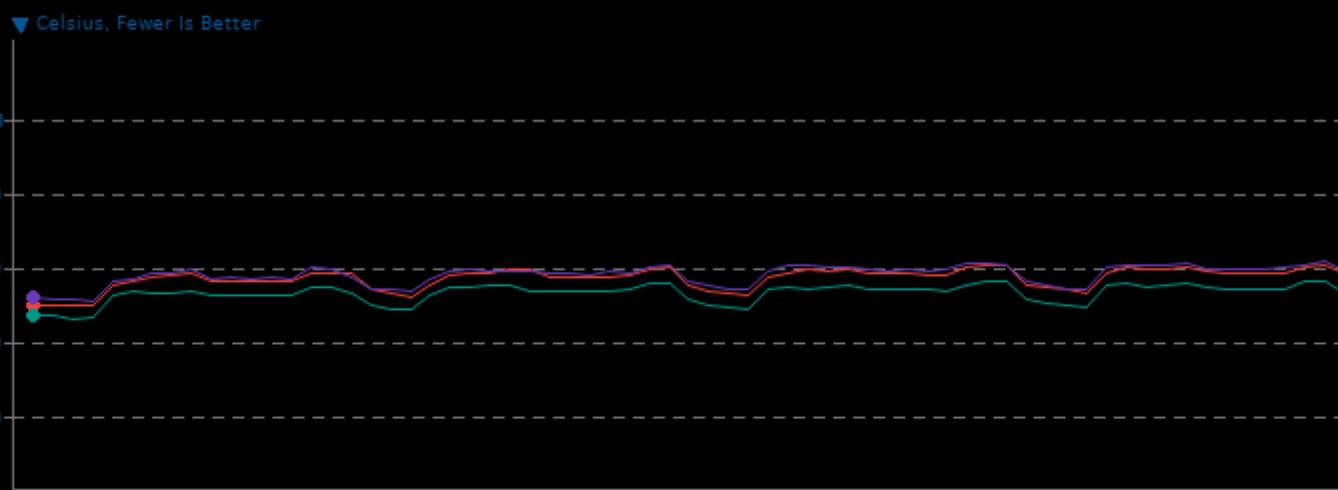


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

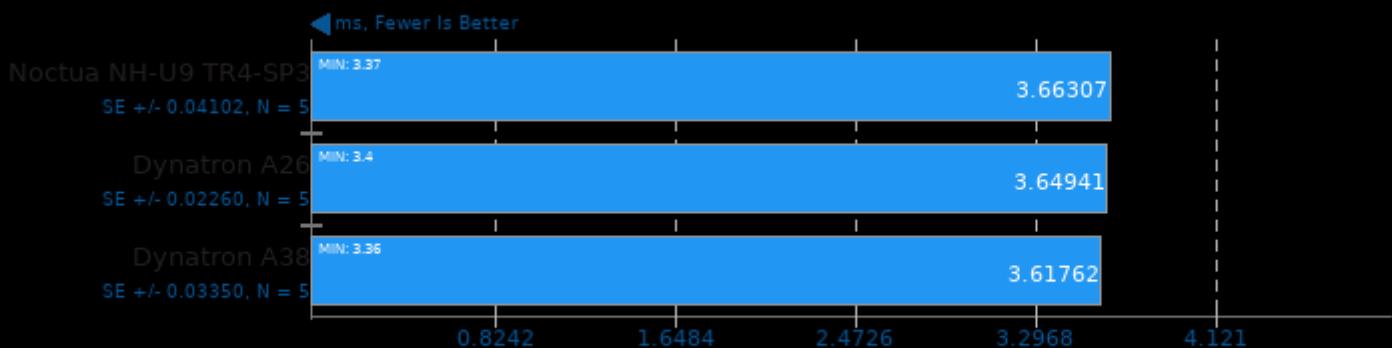
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.8	57.0	60.8
Dynatron A26	50.8	58.0	61.5
Dynatron A38	46.3	53.0	56.3



oneDNN 2.1.2

Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU

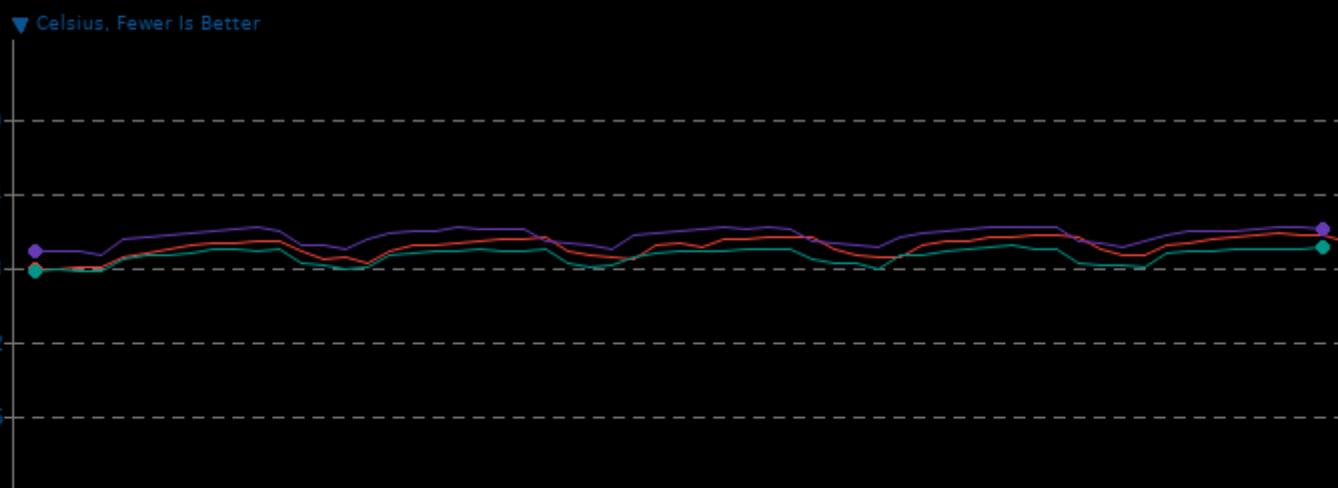


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

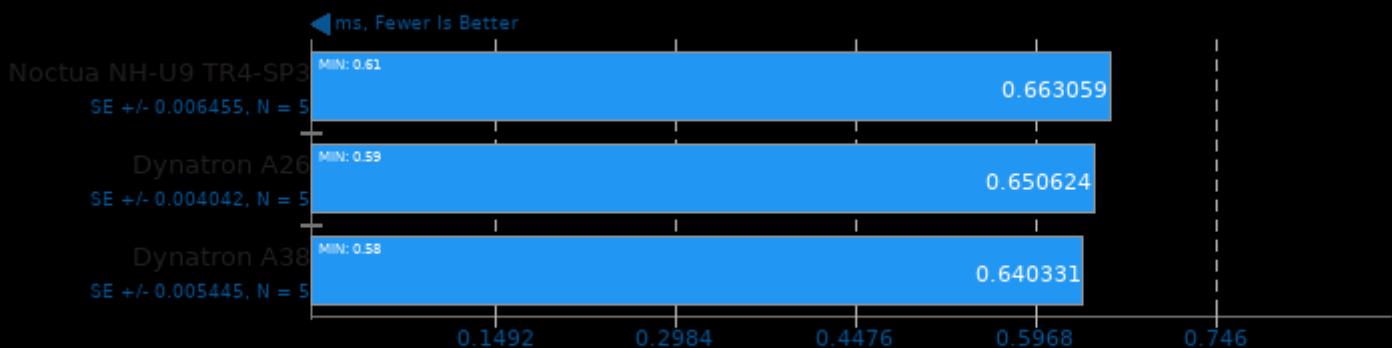
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.5	52.4	55.3
Dynatron A26	50.8	54.7	56.8
Dynatron A38	47.0	50.4	52.5



oneDNN 2.1.2

Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU



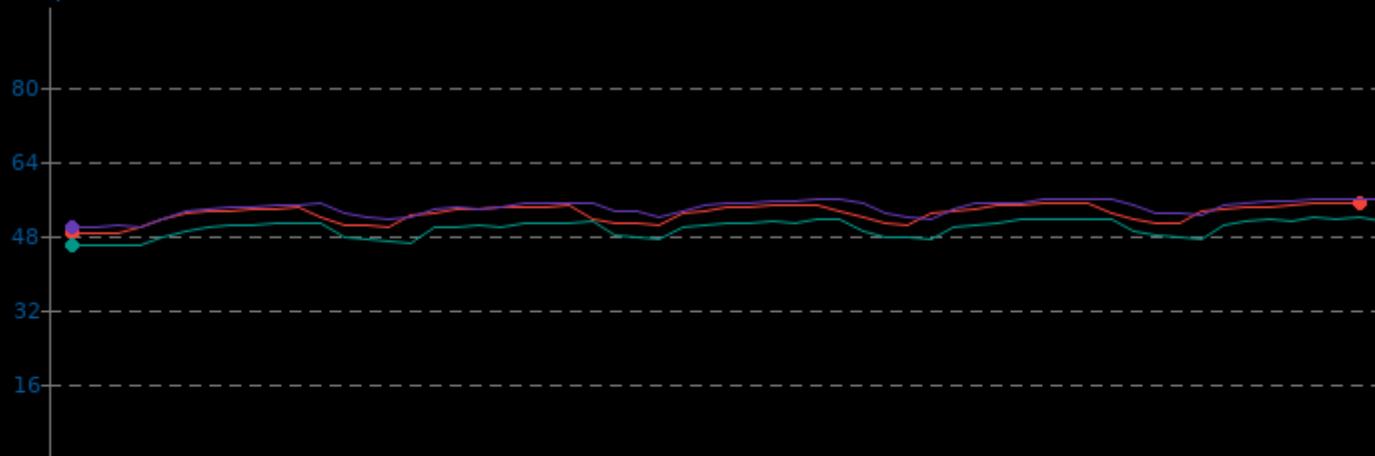
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

CPU Temperature Monitor

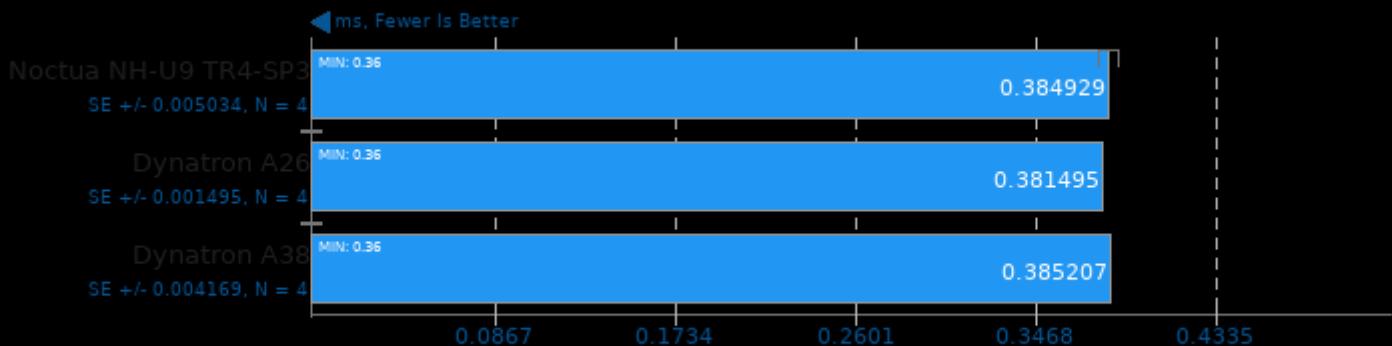
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	48.3	52.6	55.0
Dynatron A26	49.5	53.8	55.8
Dynatron A38	45.8	49.5	51.8

▼ Celsius, Fewer Is Better



oneDNN 2.1.2

Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU

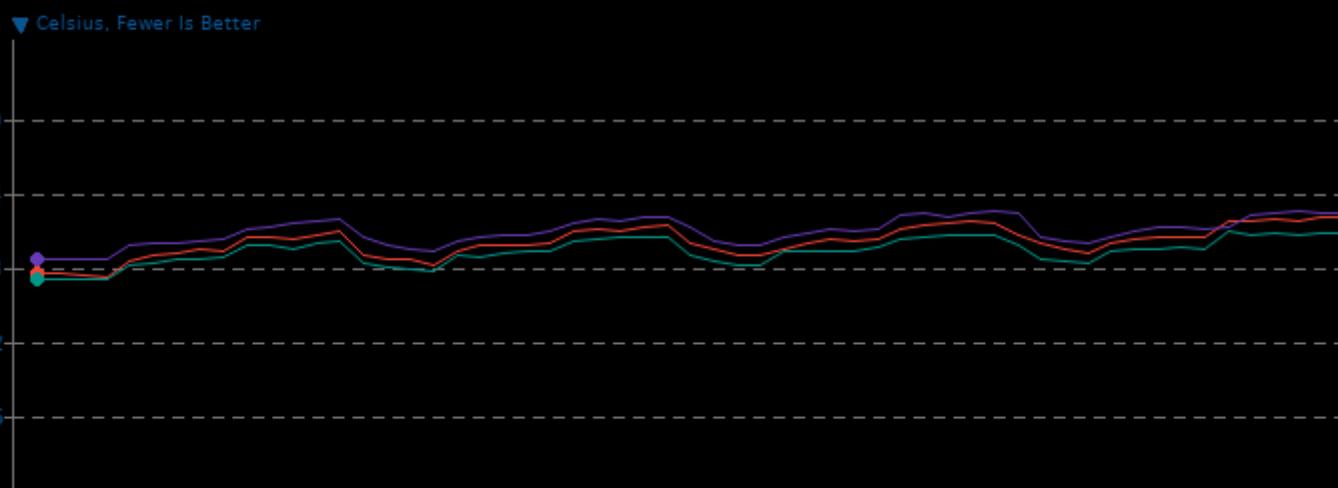


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

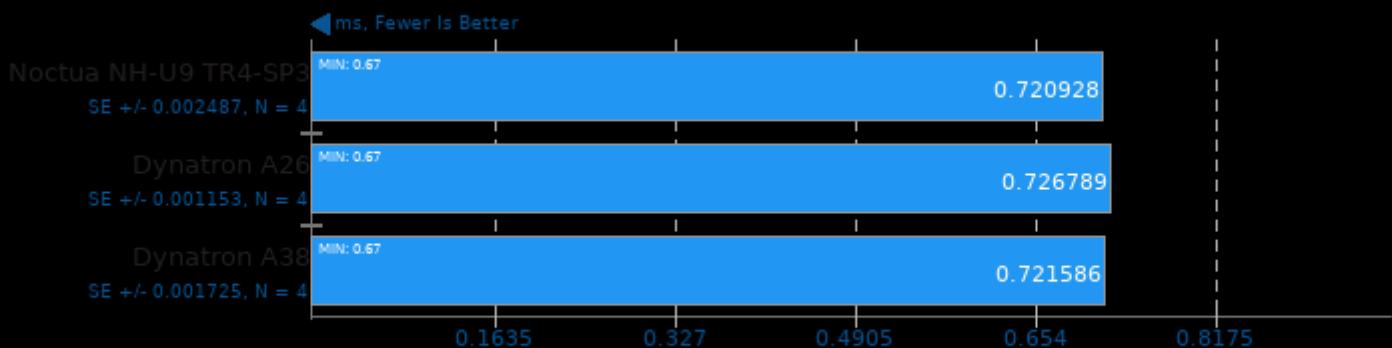
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.0	53.4	58.8
Dynatron A26	49.5	55.6	60.0
Dynatron A38	45.3	51.3	55.5



oneDNN 2.1.2

Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU

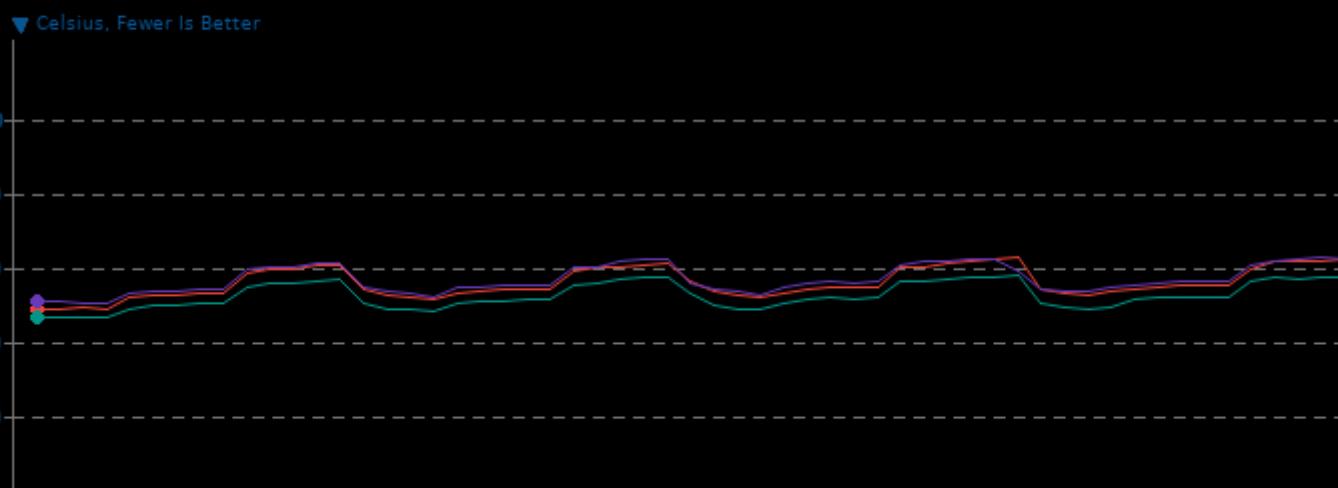


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

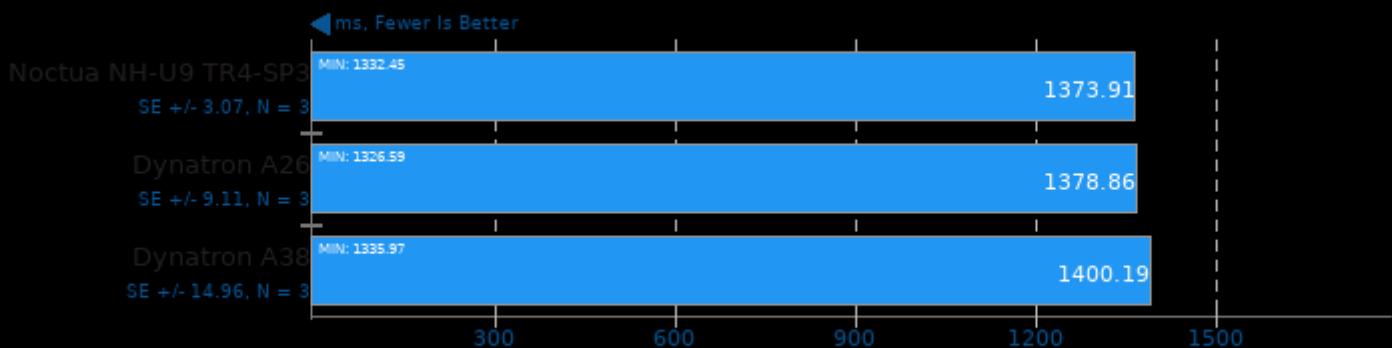
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	55.9	62.5
Dynatron A26	50.3	56.7	62.8
Dynatron A38	46.5	52.4	58.0



oneDNN 2.1.2

Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU

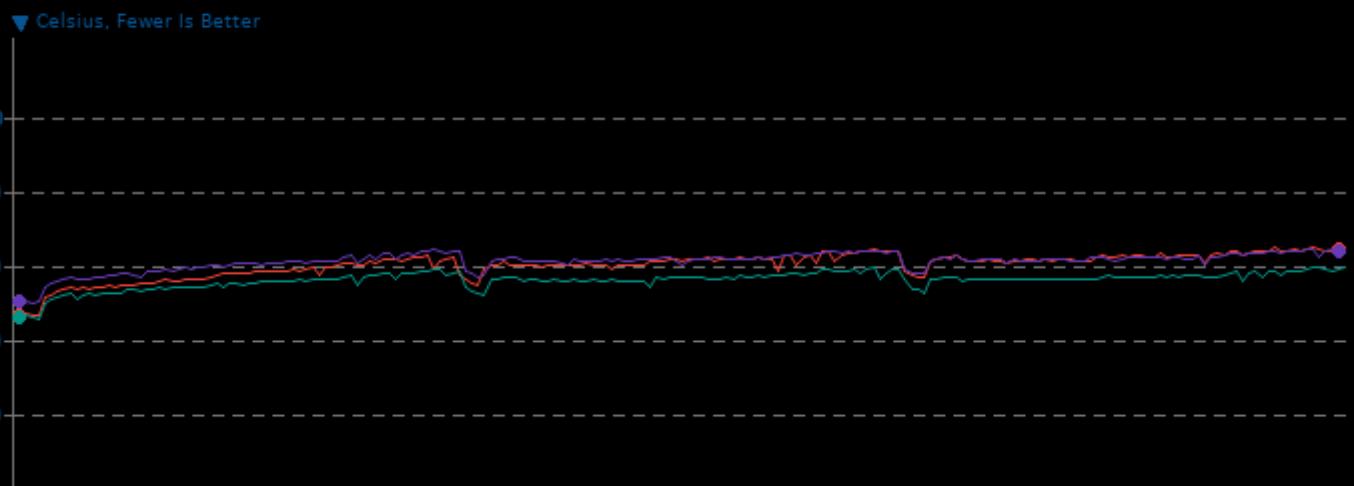


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

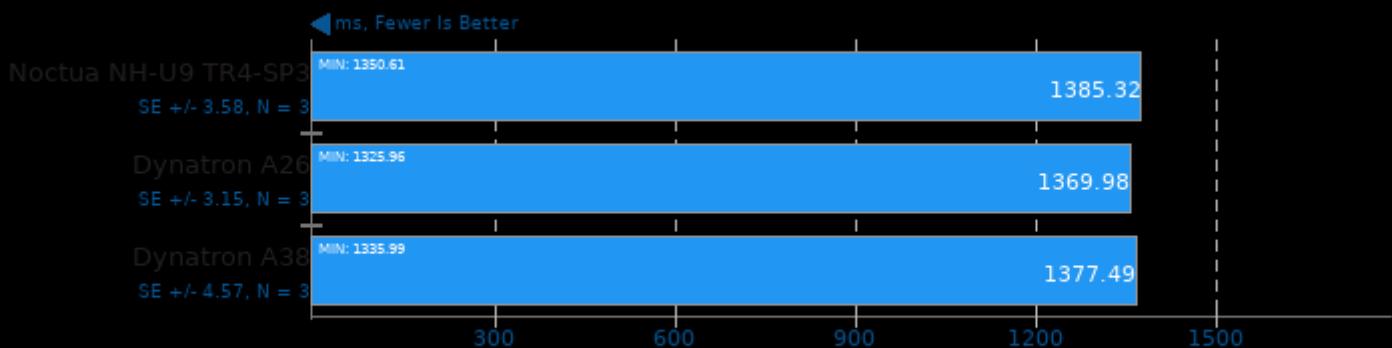
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	46.8	60.0	65.0
Dynatron A26	50.0	61.1	64.5
Dynatron A38	45.8	56.0	59.5



oneDNN 2.1.2

Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU

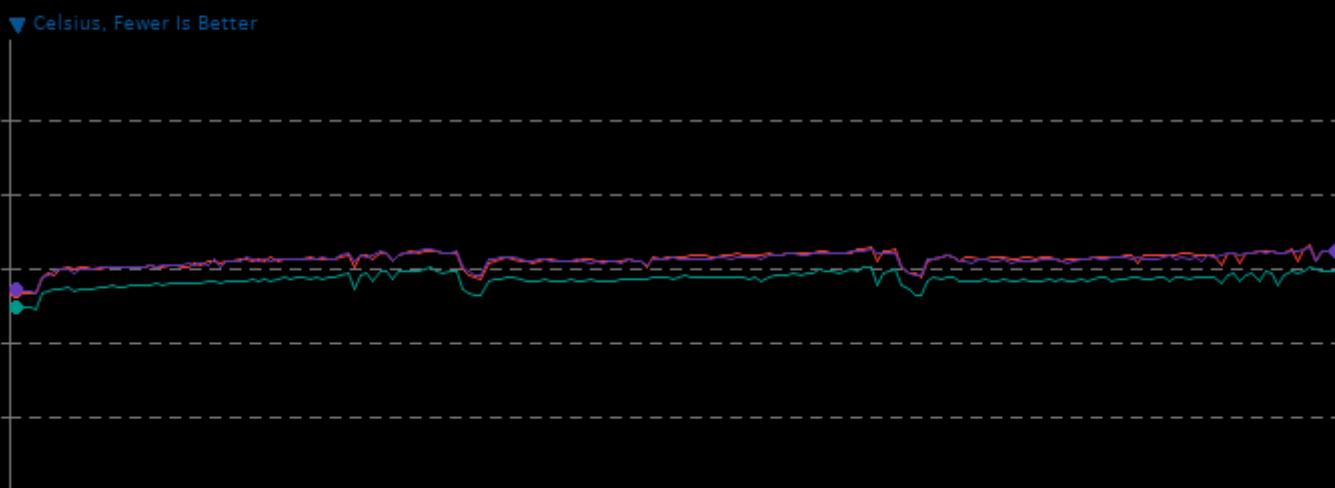


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

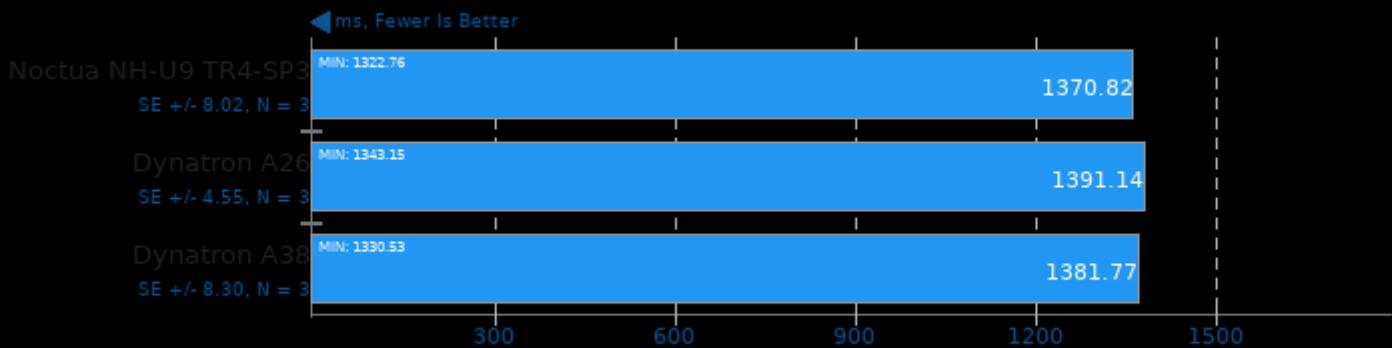
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.0	62.1	66.0
Dynatron A26	53.3	62.0	65.3
Dynatron A38	49.0	56.7	59.8



oneDNN 2.1.2

Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU

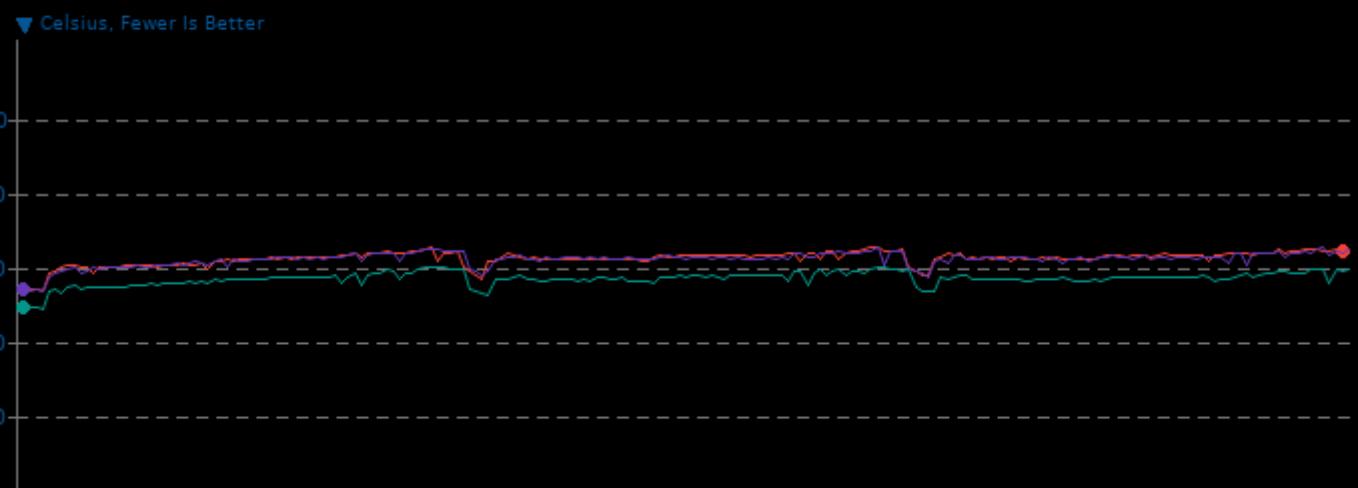


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

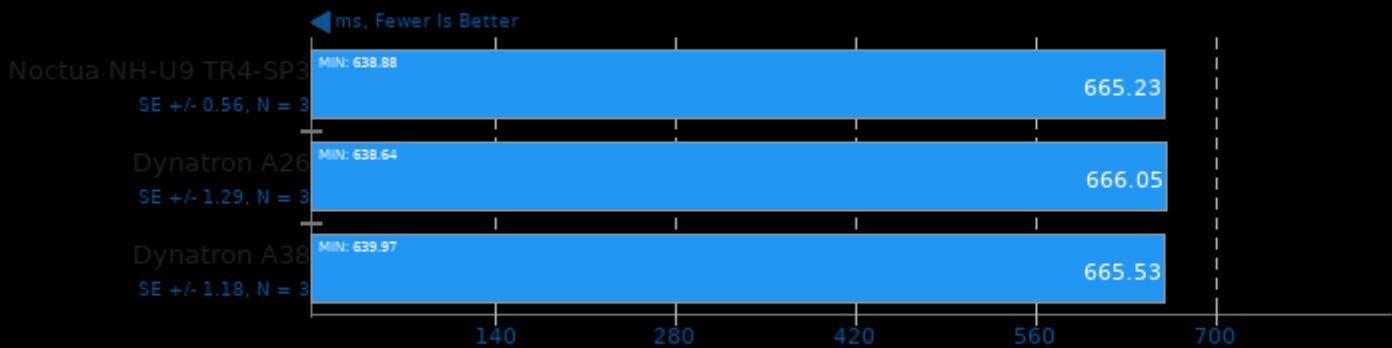
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.5	62.3	65.5
Dynatron A26	53.5	62.1	65.3
Dynatron A38	48.8	57.0	60.0



oneDNN 2.1.2

Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



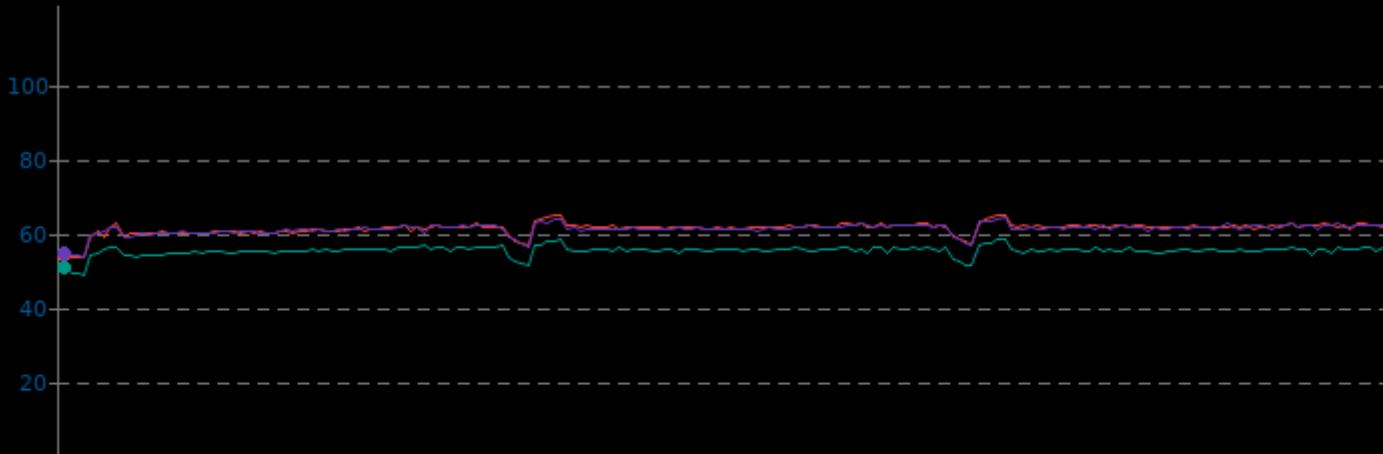
1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

CPU Temperature Monitor

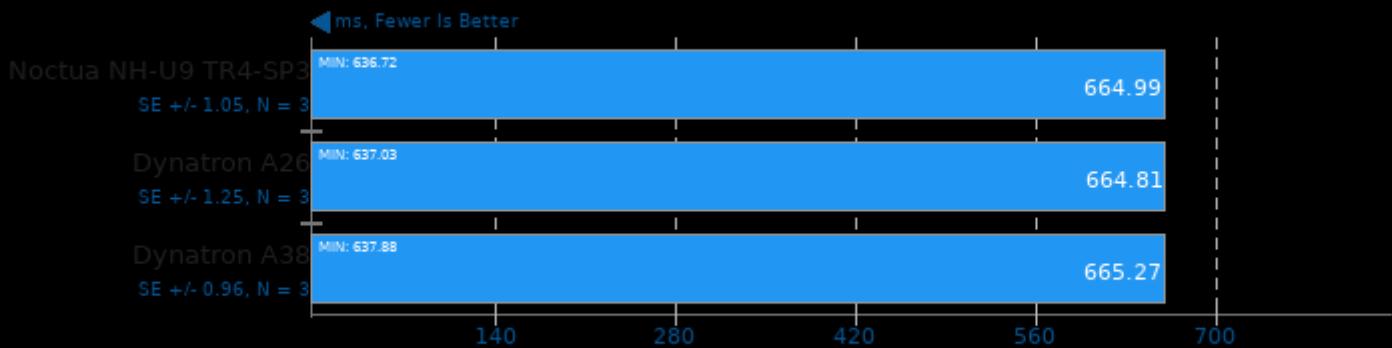
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.5	61.3	65.0
Dynatron A26	53.8	61.1	64.3
Dynatron A38	49.0	55.3	58.5

▼ Celsius, Fewer Is Better



oneDNN 2.1.2

Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU

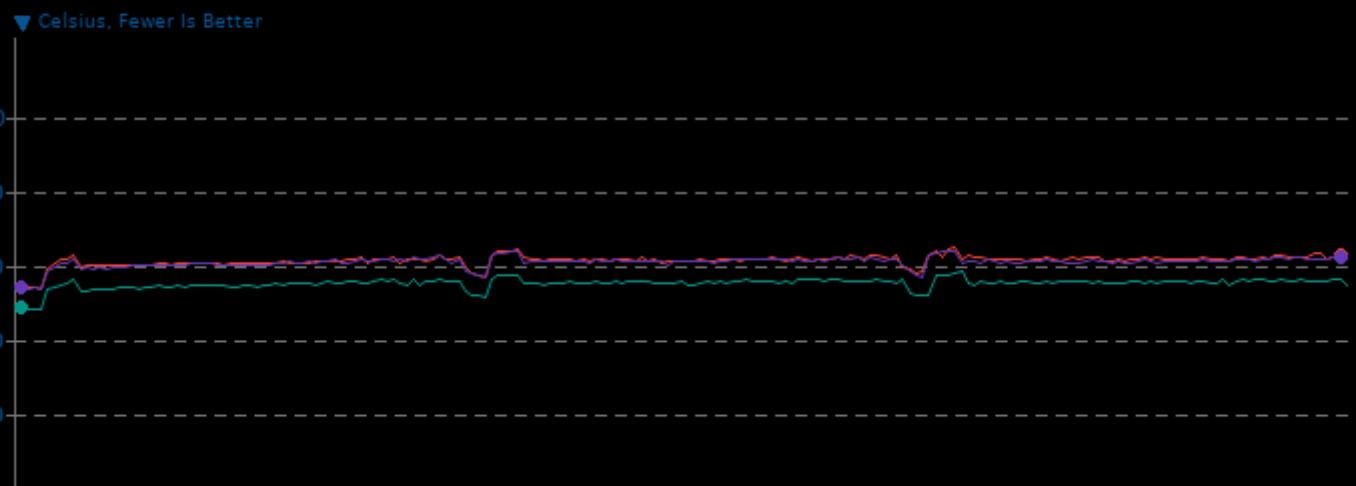


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

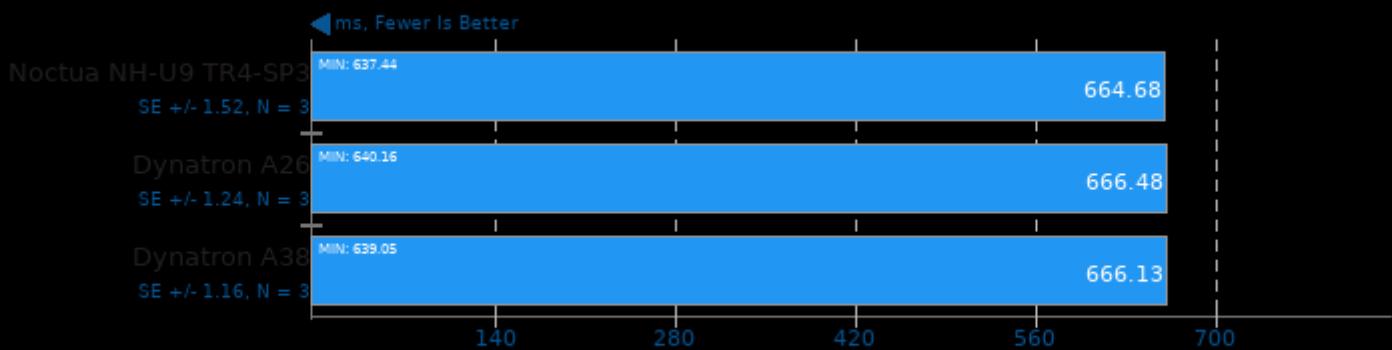
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.5	61.2	64.8
Dynatron A26	53.8	60.9	64.0
Dynatron A38	48.0	55.1	58.3



oneDNN 2.1.2

Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU

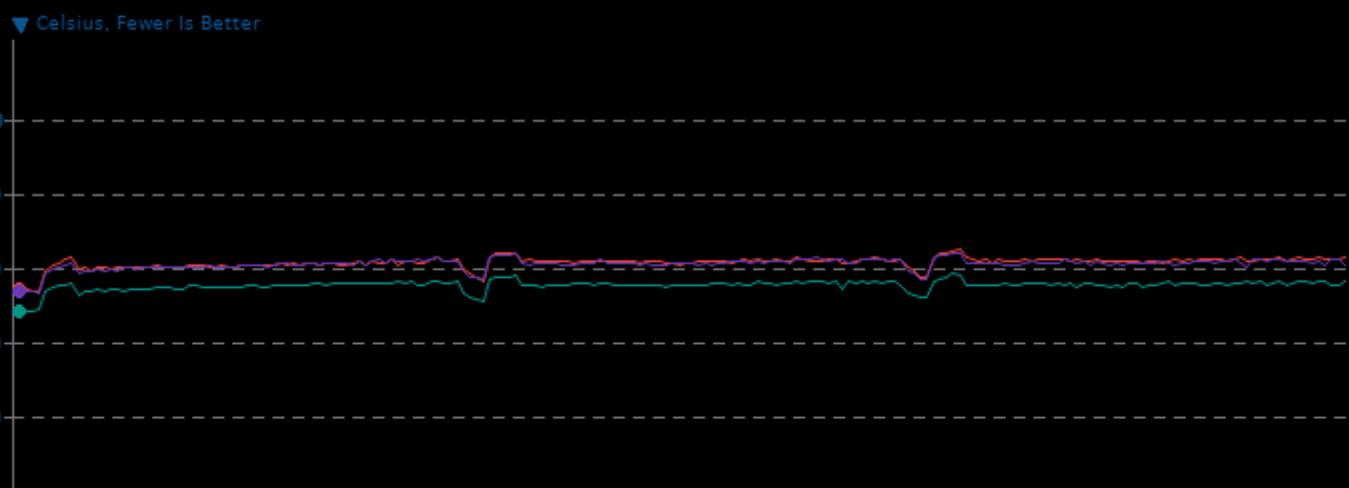


1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

oneDNN 2.1.2

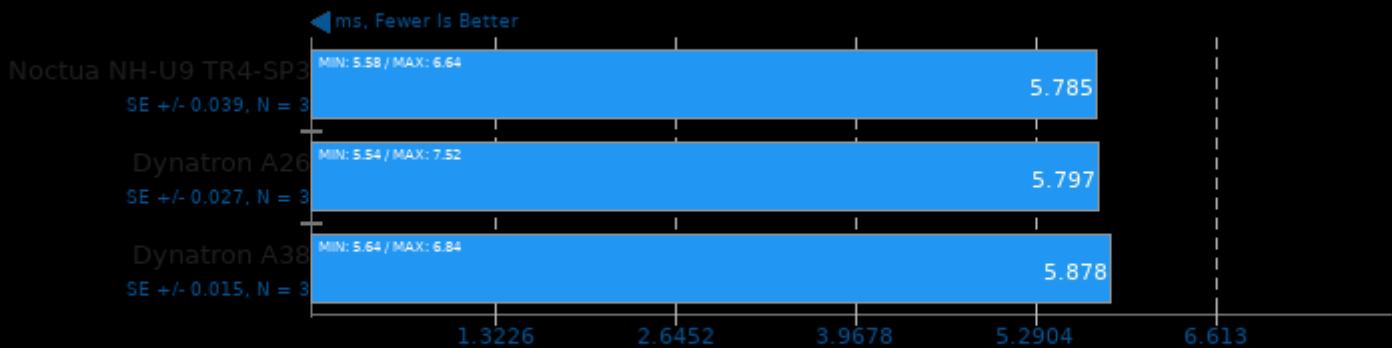
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.8	61.3	65.0
Dynatron A26	53.0	60.9	63.8
Dynatron A38	48.3	55.1	58.5



Mobile Neural Network 1.1.3

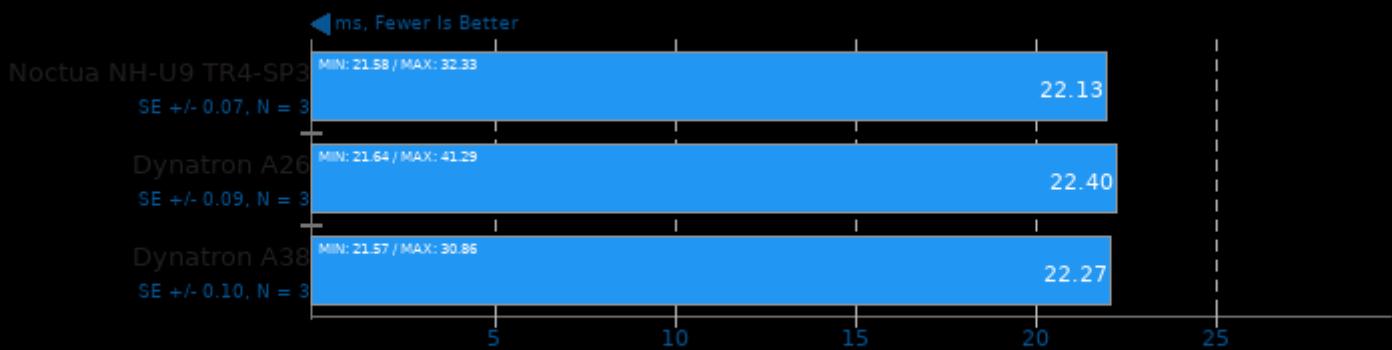
Model: SqueezeNetV1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

Mobile Neural Network 1.1.3

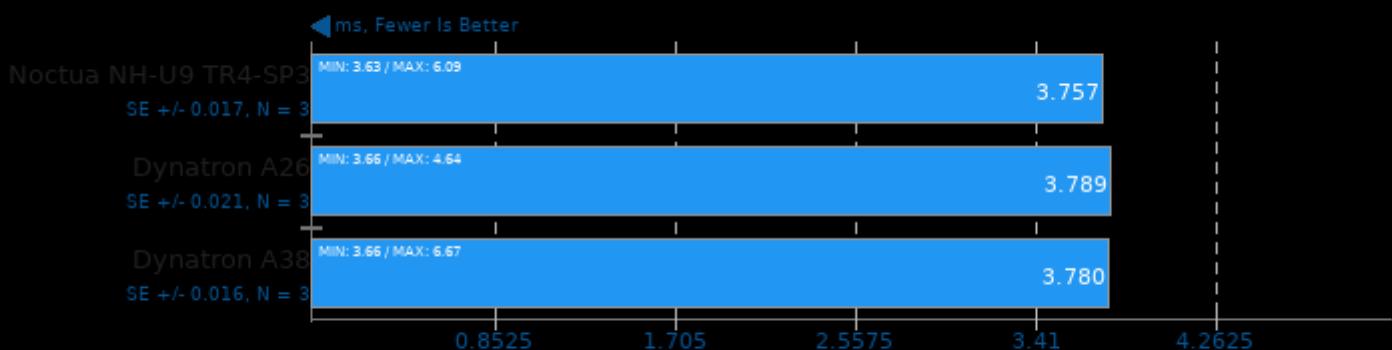
Model: resnet-v2-50



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

Mobile Neural Network 1.1.3

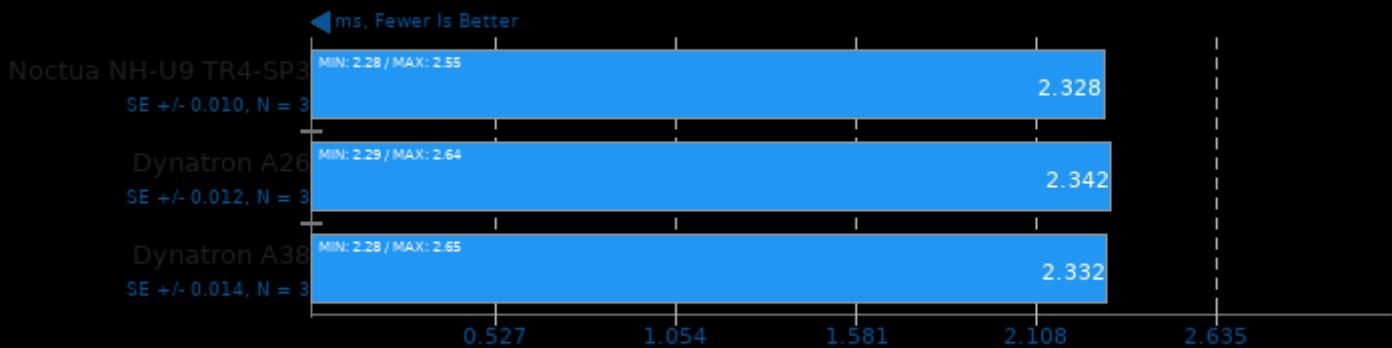
Model: MobileNetV2_224



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

Mobile Neural Network 1.1.3

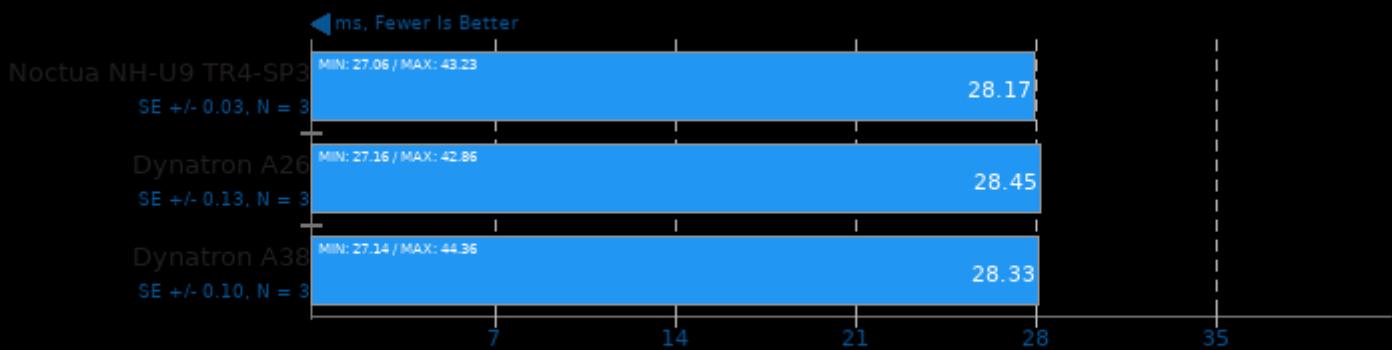
Model: mobilenet-v1-1.0



```
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
```

Mobile Neural Network 1.1.3

Model: inception-v3



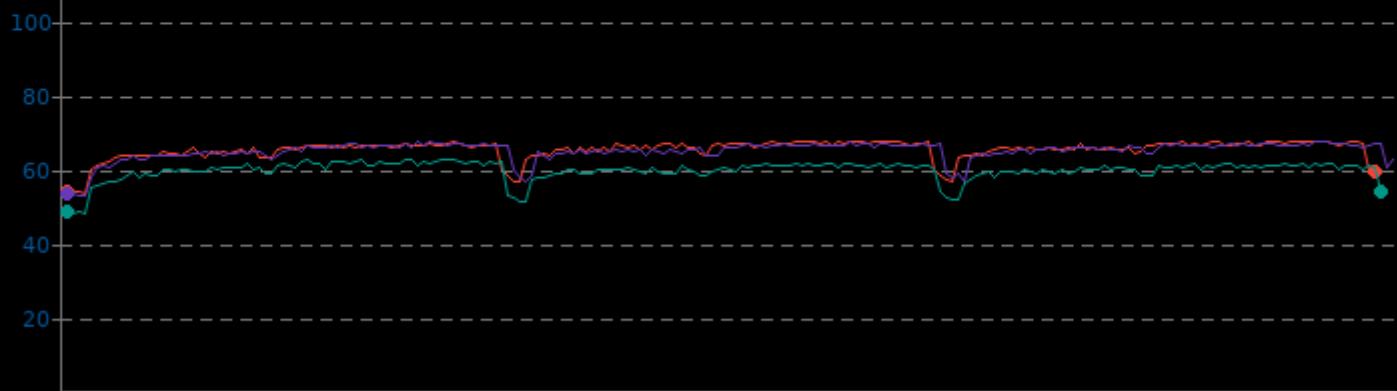
```
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
```

Mobile Neural Network 1.1.3

CPU Temperature Monitor

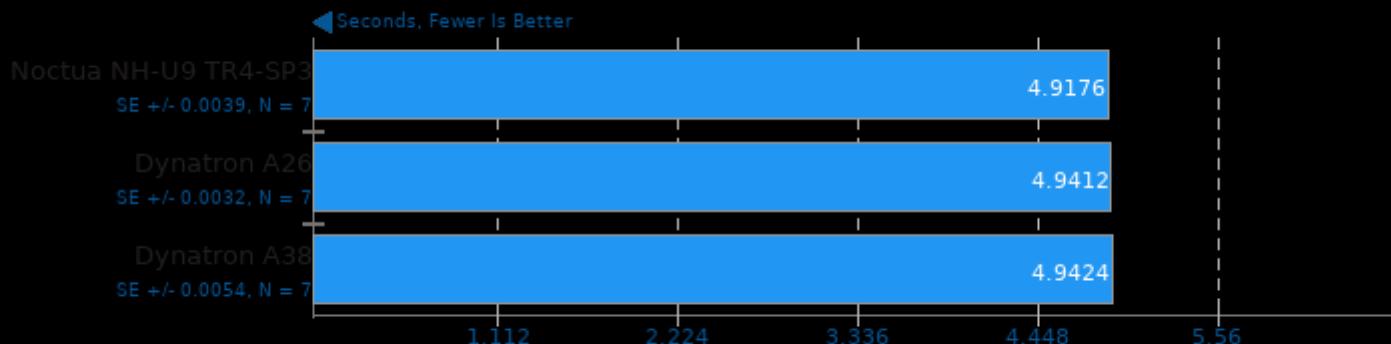
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	53.5	65.3	67.8
Dynatron A26	53.0	65.0	67.5
Dynatron A38	48.3	59.8	62.5

▼ Celsius, Fewer Is Better



ASTC Encoder 2.4

Preset: Medium

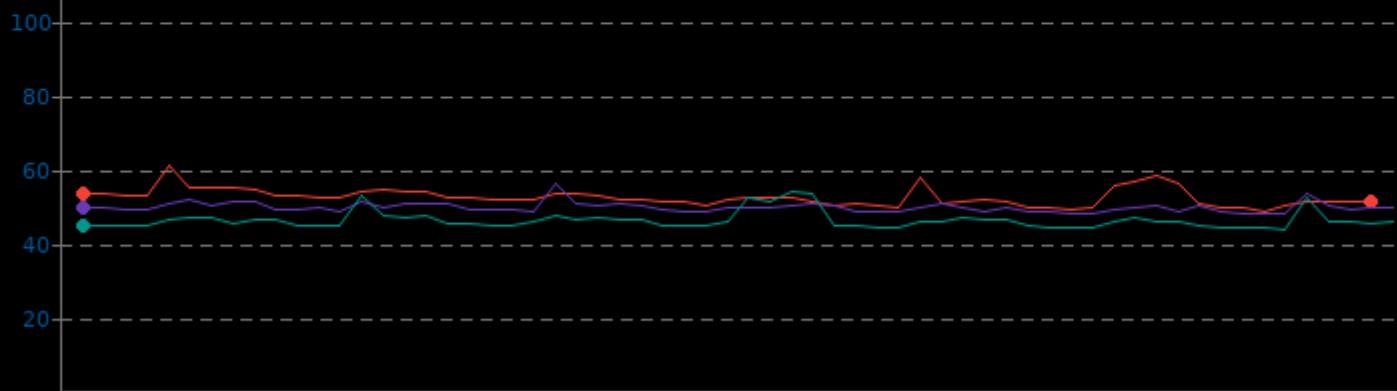


ASTC Encoder 2.4

CPU Temperature Monitor

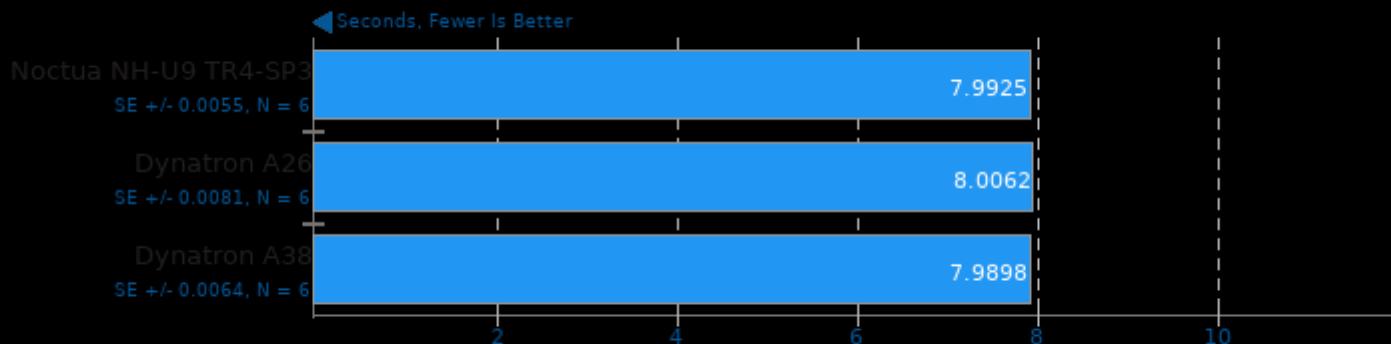
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	52.6	61.0
Dynatron A26	48.3	49.9	56.3
Dynatron A38	44.0	46.4	54.0

▼ Celsius, Fewer Is Better



ASTC Encoder 2.4

Preset: Thorough



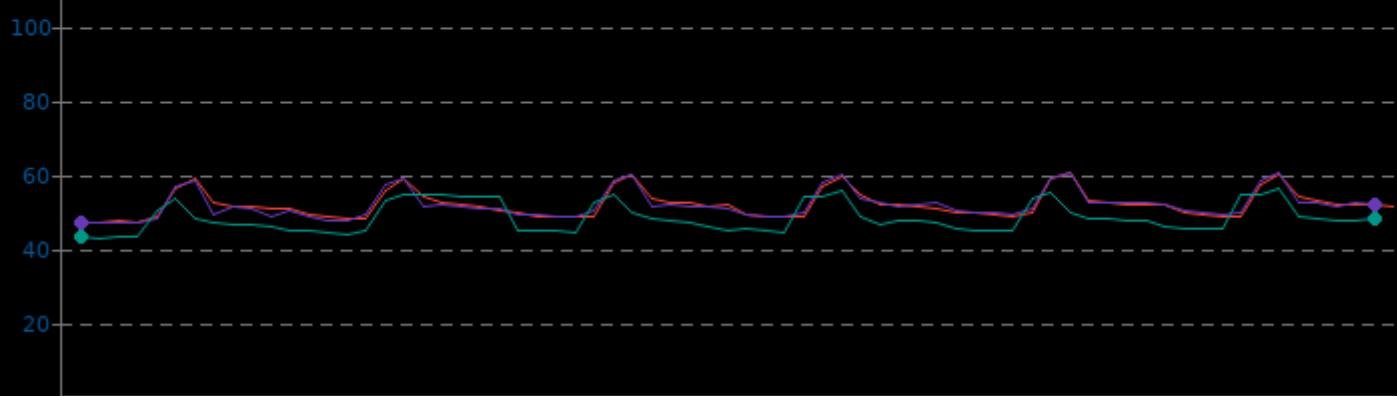
1. (CXX) g++ options: -O3 -fno -pthread

ASTC Encoder 2.4

CPU Temperature Monitor

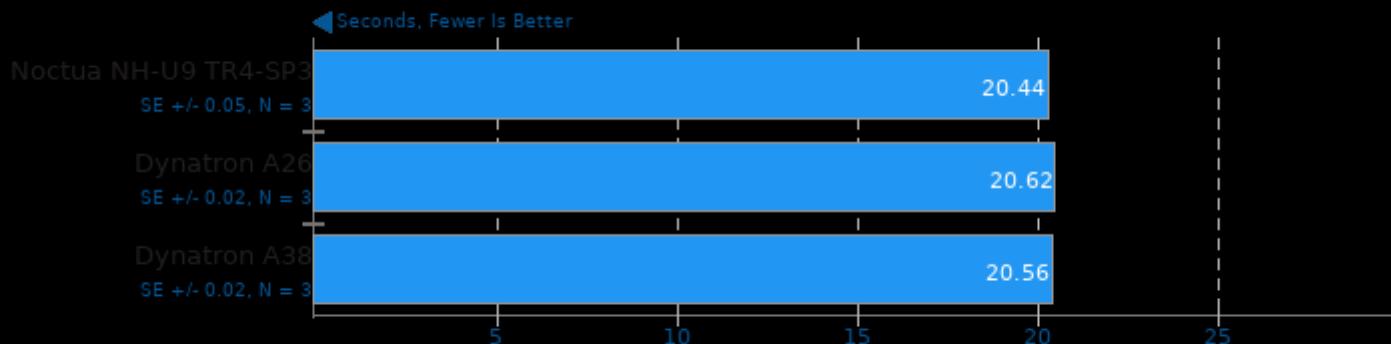
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.0	51.9	60.5
Dynatron A26	47.0	51.8	60.5
Dynatron A38	43.0	48.4	56.3

▼ Celsius, Fewer Is Better



ASTC Encoder 2.4

Preset: Exhaustive



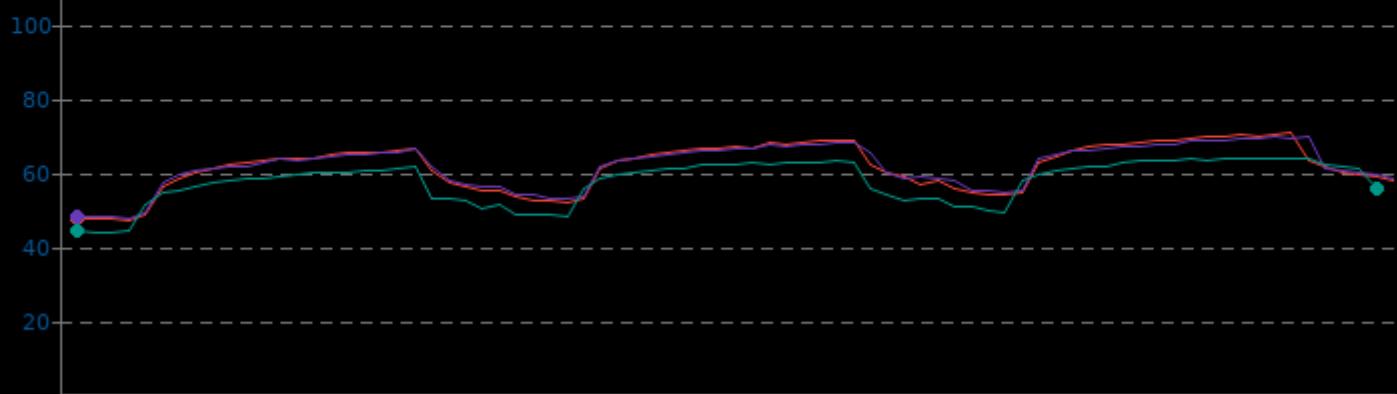
1. (CXX) g++ options: -O3 -fno -pthread

ASTC Encoder 2.4

CPU Temperature Monitor

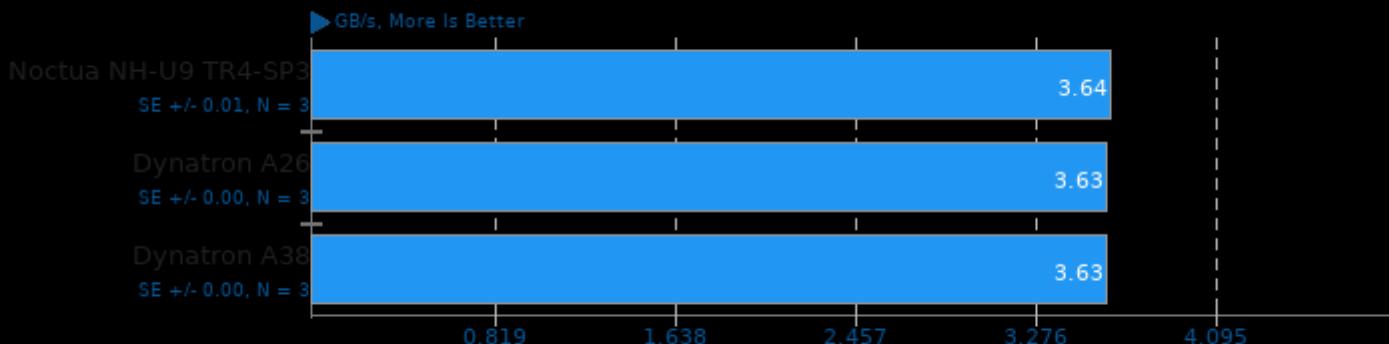
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.3	61.7	70.5
Dynatron A26	47.5	61.8	69.8
Dynatron A38	44.0	57.6	64.0

▼ Celsius, Fewer Is Better



simdjson 0.8.2

Throughput Test: PartialTweets



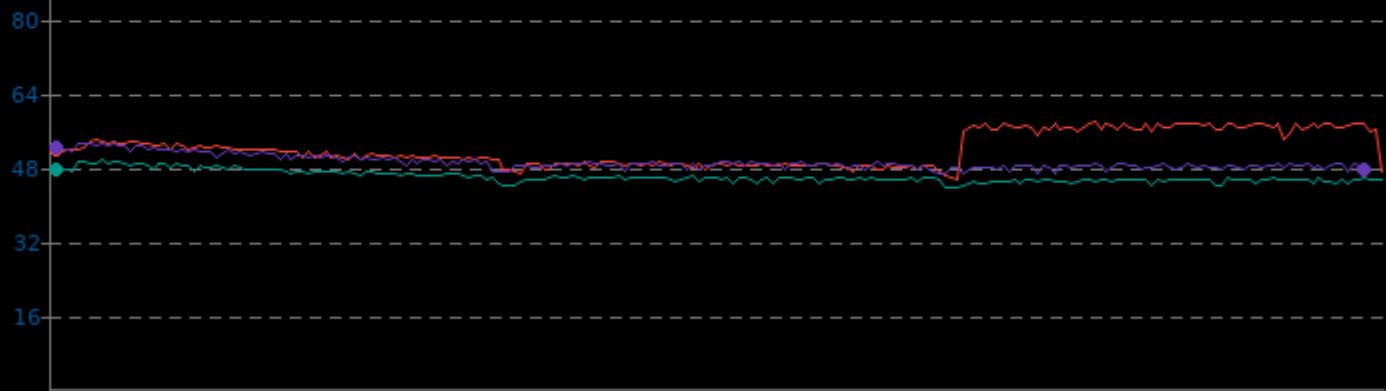
1. (CXX) g++ options: -O3 -pthread

simdjson 0.8.2

CPU Temperature Monitor

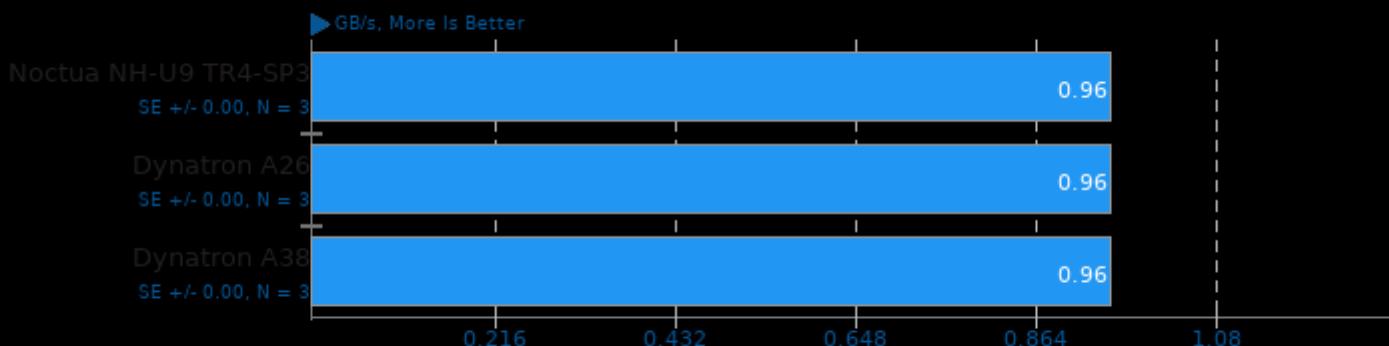
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.5	52.0	57.8
Dynatron A26	46.5	49.1	53.3
Dynatron A38	43.5	46.0	49.5

▼ Celsius, Fewer Is Better



simdjson 0.8.2

Throughput Test: LargeRandom



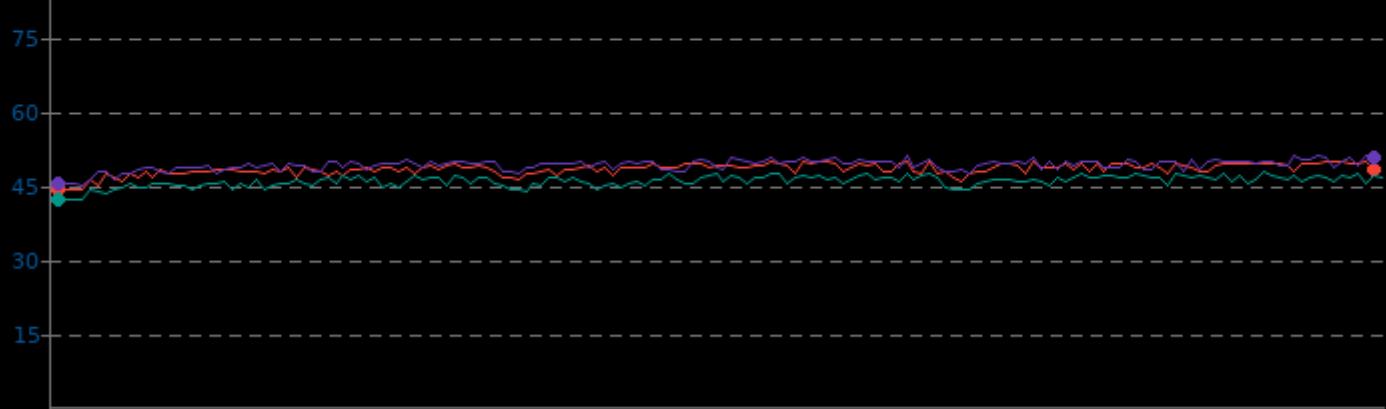
1. (CXX) g++ options: -O3 -pthread

simdjson 0.8.2

CPU Temperature Monitor

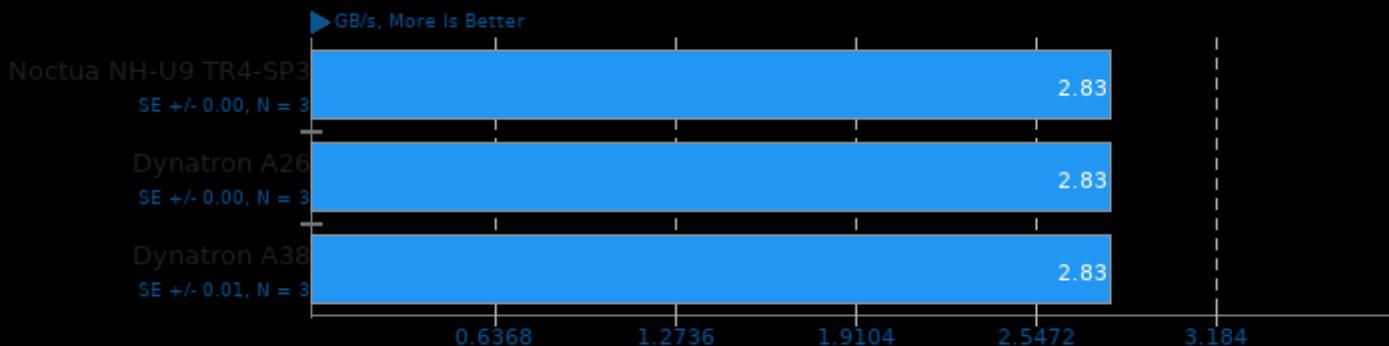
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	44.3	48.3	50.0
Dynatron A26	45.0	49.1	51.0
Dynatron A38	42.0	45.9	47.8

▼ Celsius, Fewer Is Better



simdjson 0.8.2

Throughput Test: Kostya



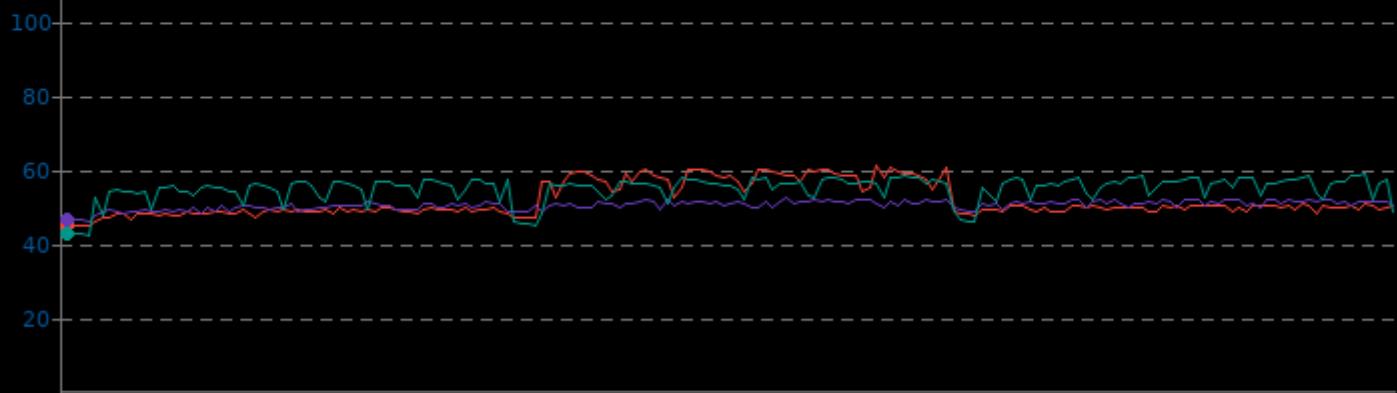
1. (CXX) g++ options: -O3 -pthread

simdjson 0.8.2

CPU Temperature Monitor

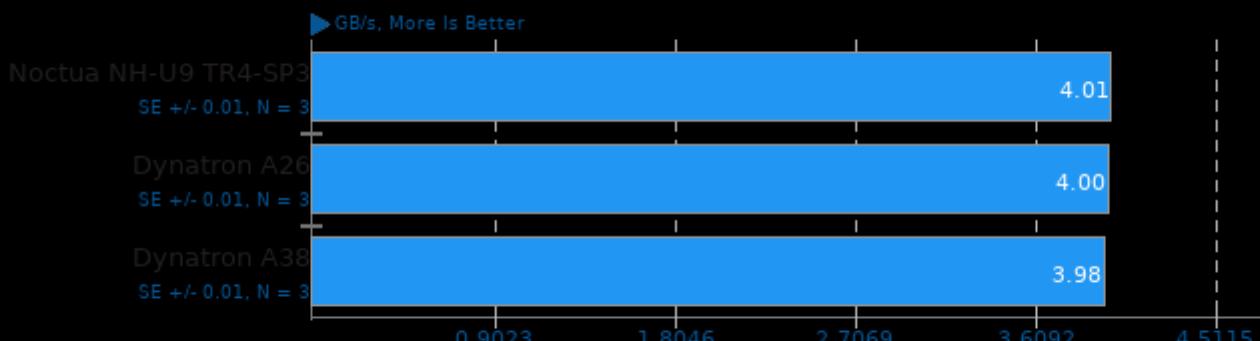
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	44.8	51.8	61.0
Dynatron A26	46.3	50.5	52.3
Dynatron A38	42.3	54.9	58.8

▼ Celsius, Fewer Is Better



simdjson 0.8.2

Throughput Test: DistinctUserID



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

simdjson 0.8.2

CPU Temperature Monitor

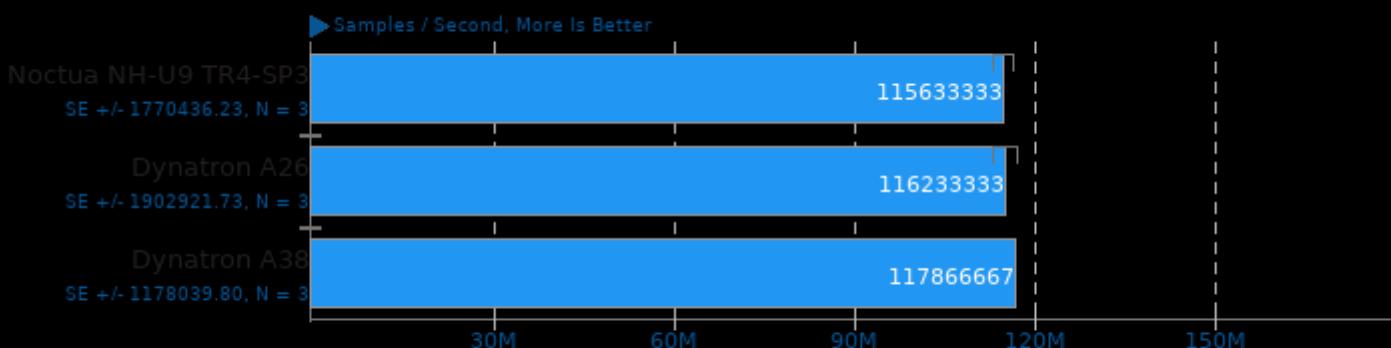
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	45.0	50.3	57.8
Dynatron A26	46.0	48.1	49.5
Dynatron A38	42.5	44.9	46.5

▼ Celsius, Fewer Is Better



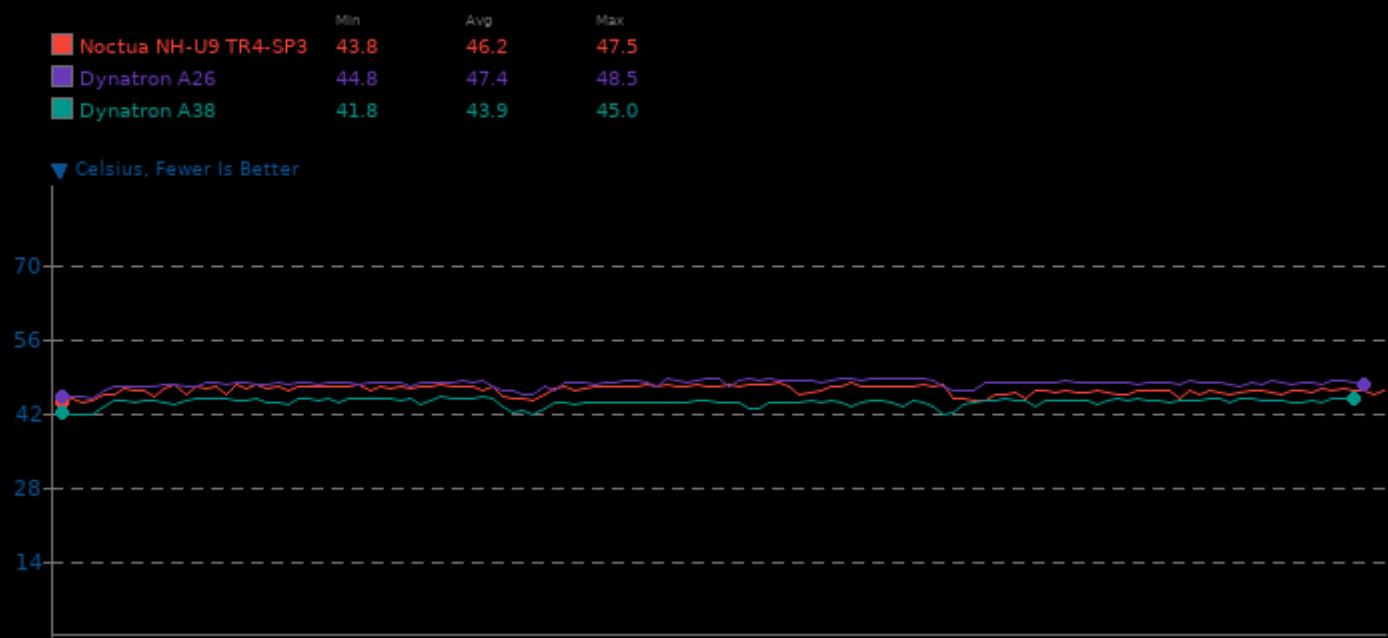
srsLTE 20.10.1

Test: OFDM_Test



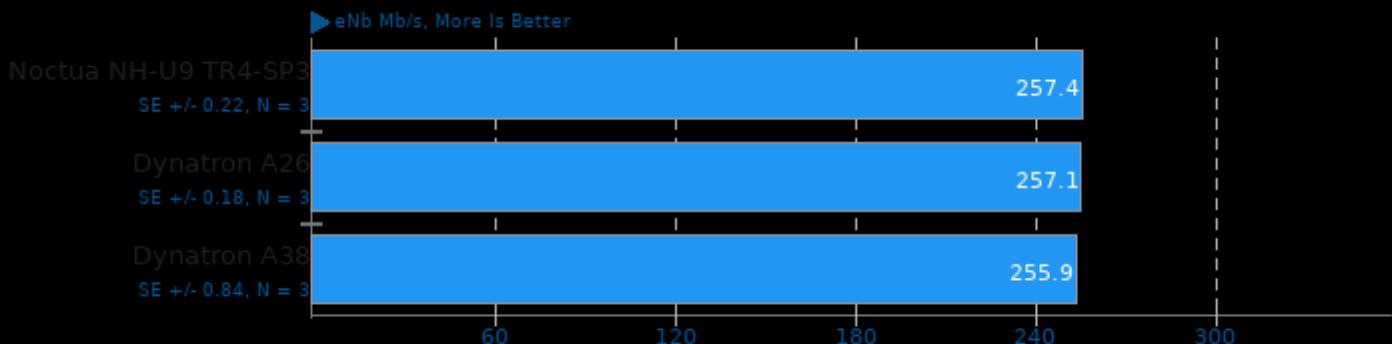
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsLTE 20.10.1 CPU Temperature Monitor



srsLTE 20.10.1

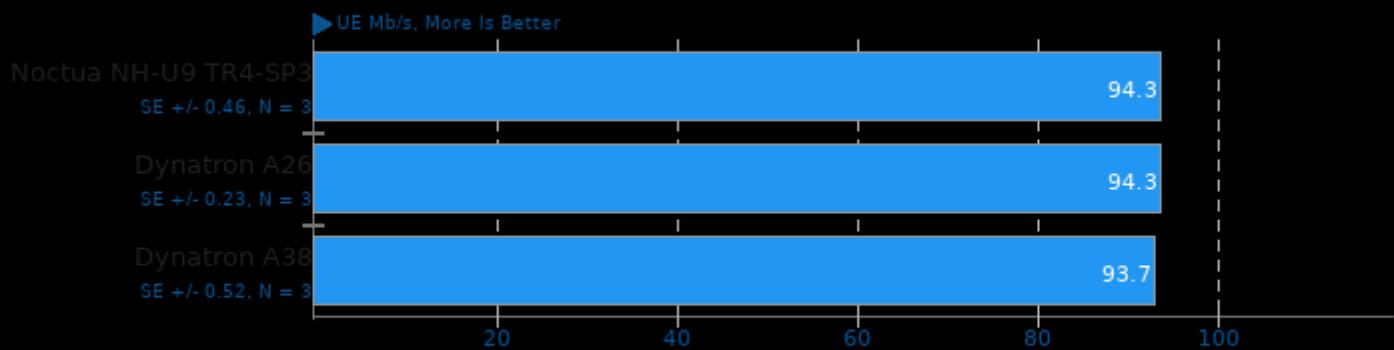
Test: PHY_DL_Test



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsLTE 20.10.1

Test: PHY_DL_Test

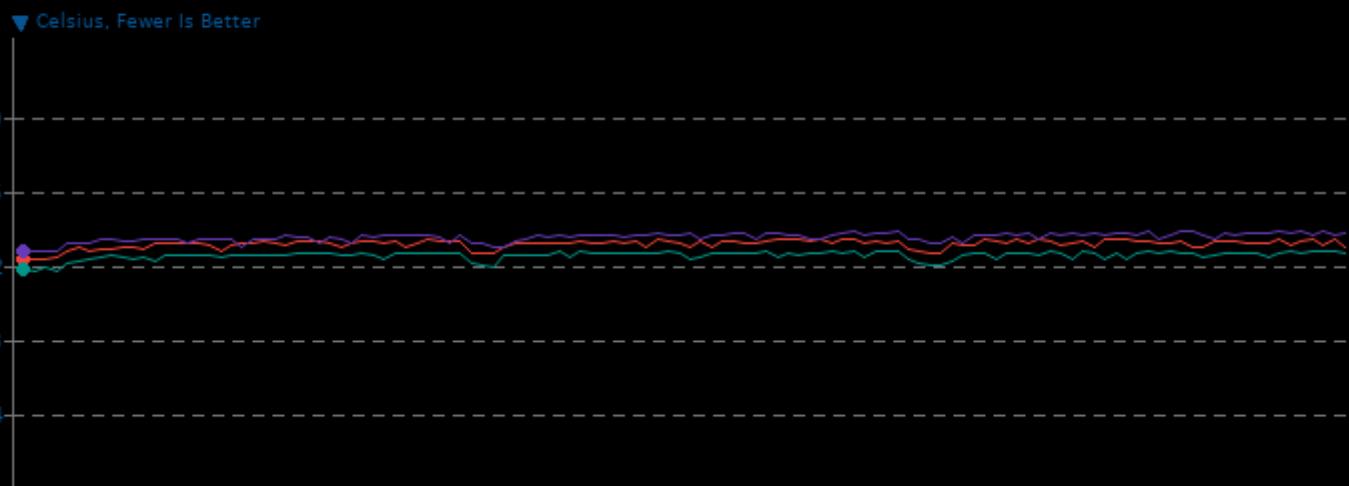


1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsLTE 20.10.1

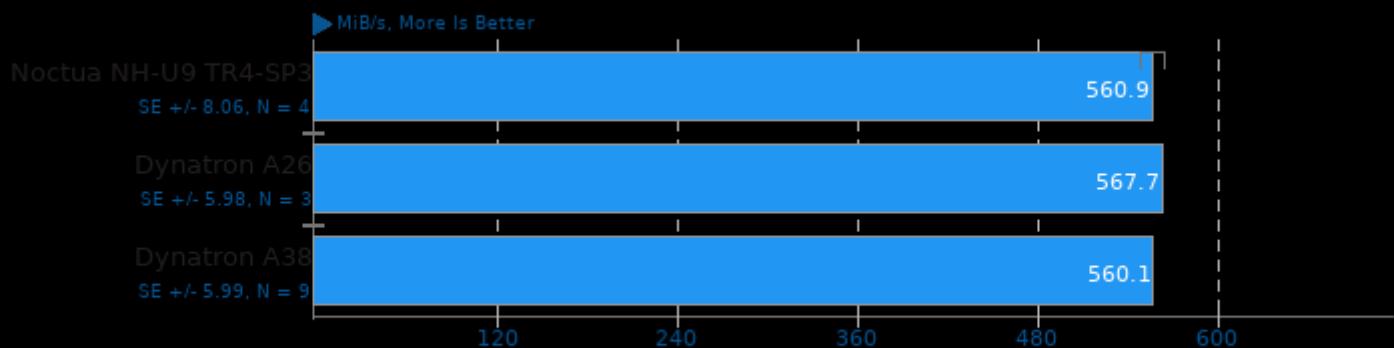
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.0	46.0	47.0
Dynatron A26	44.5	47.2	48.5
Dynatron A38	41.0	43.8	44.8



GNU Radio

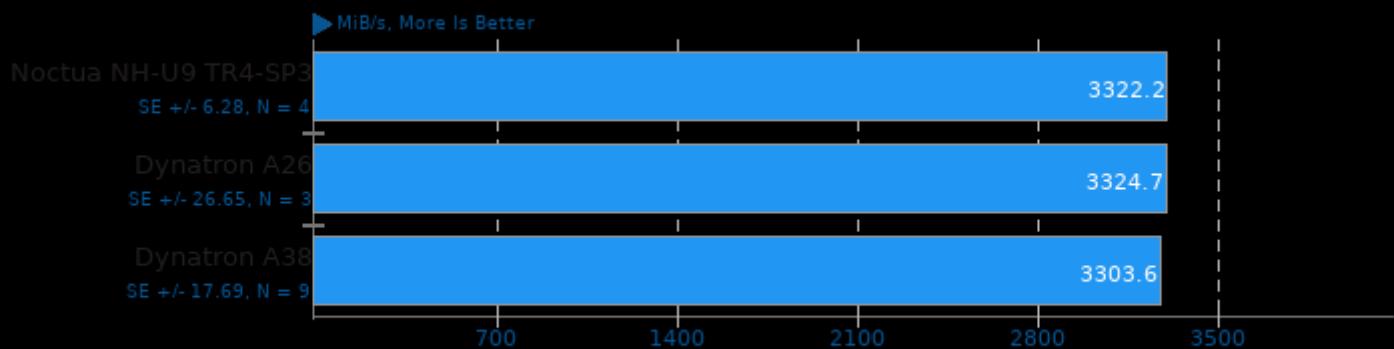
Test: Five Back to Back FIR Filters



1.3.8.1.0

GNU Radio

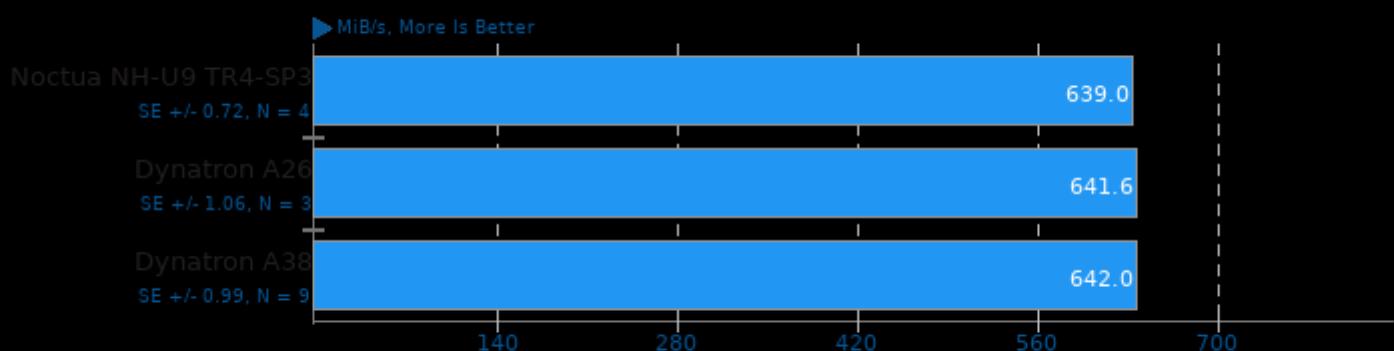
Test: Signal Source (Cosine)



1.3.8.1.0

GNU Radio

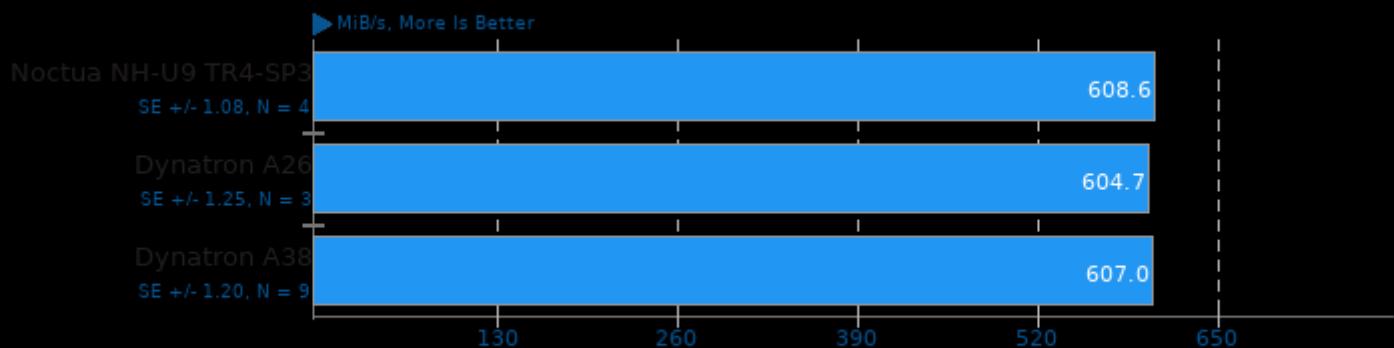
Test: FIR Filter



1.3.8.1.0

GNU Radio

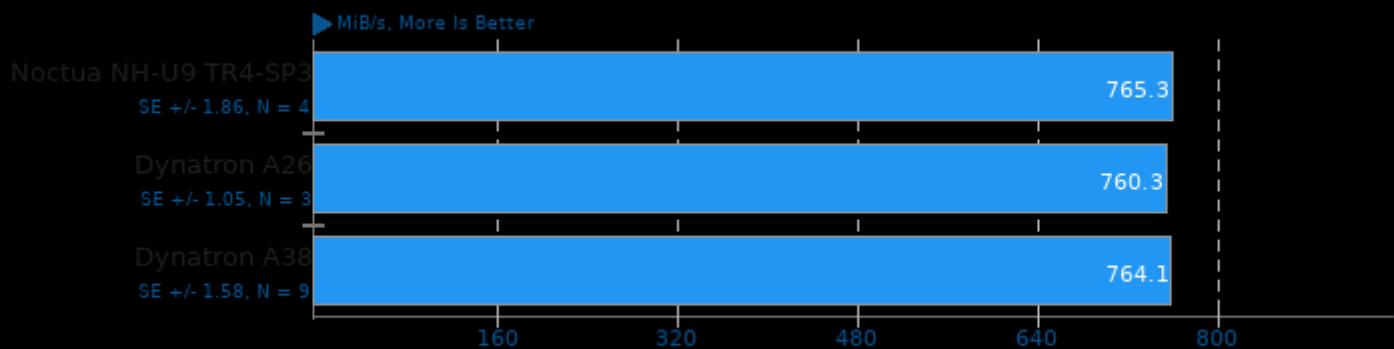
Test: IIR Filter



1.3.8.1.0

GNU Radio

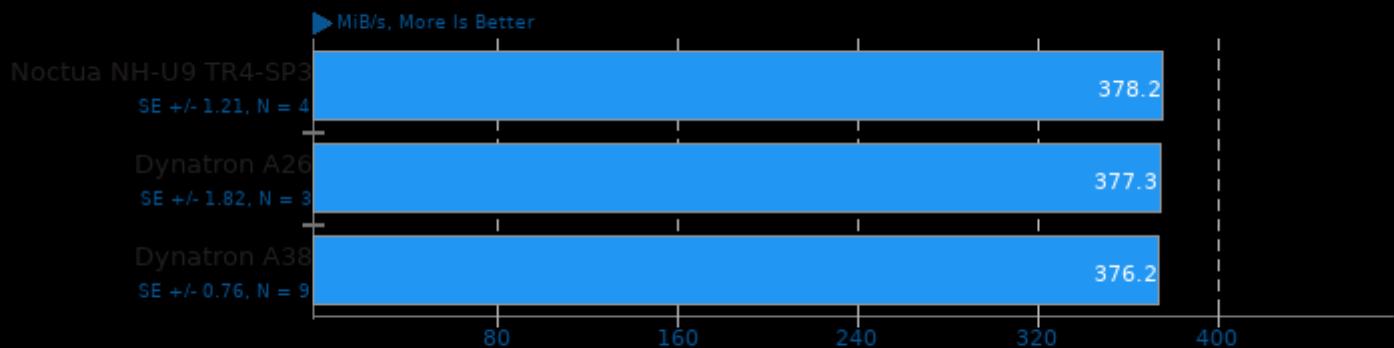
Test: FM Deemphasis Filter



1.3.8.1.0

GNU Radio

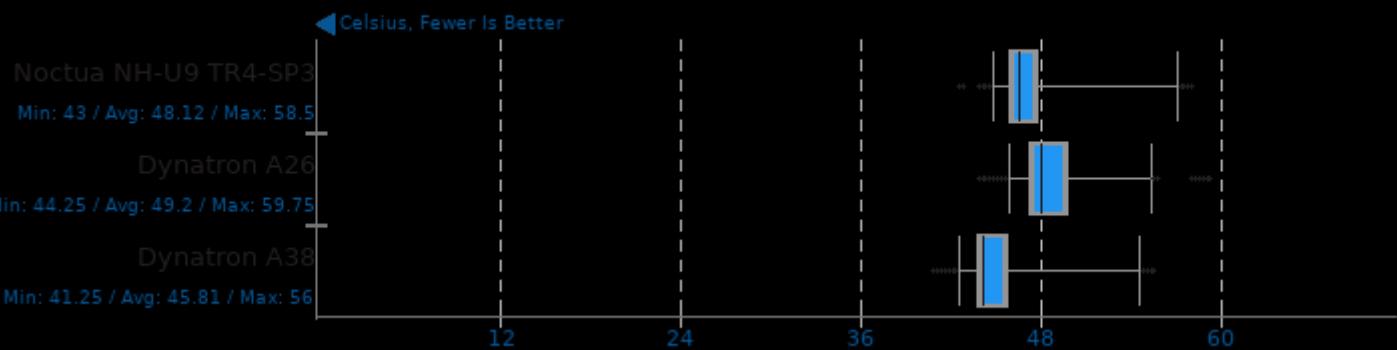
Test: Hilbert Transform



1.3.8.1.0

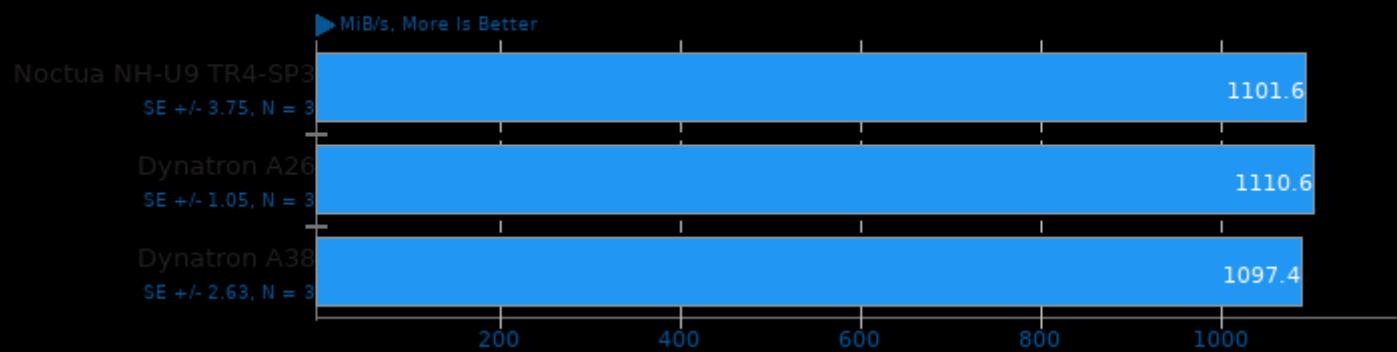
GNU Radio

CPU Temperature Monitor



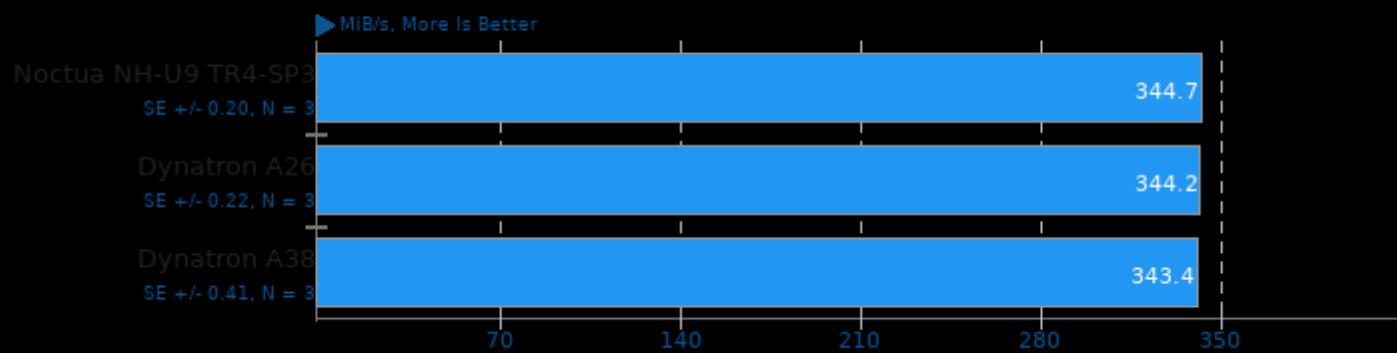
LuaRadio 0.9.1

Test: Five Back to Back FIR Filters



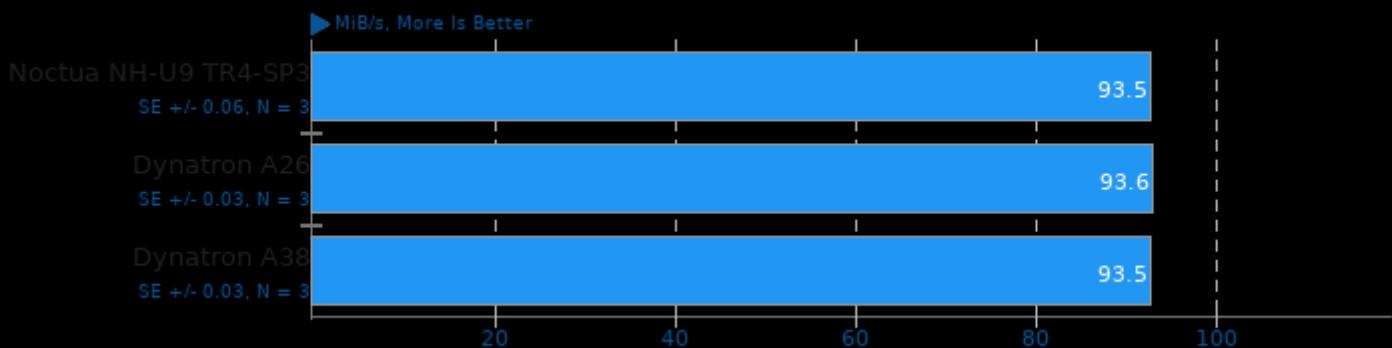
LuaRadio 0.9.1

Test: FM Deemphasis Filter



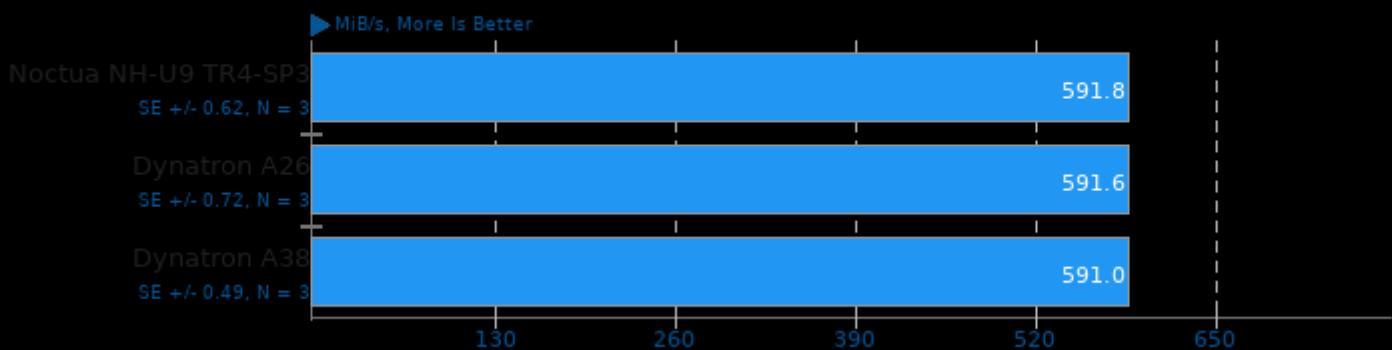
LuaRadio 0.9.1

Test: Hilbert Transform



LuaRadio 0.9.1

Test: Complex Phase

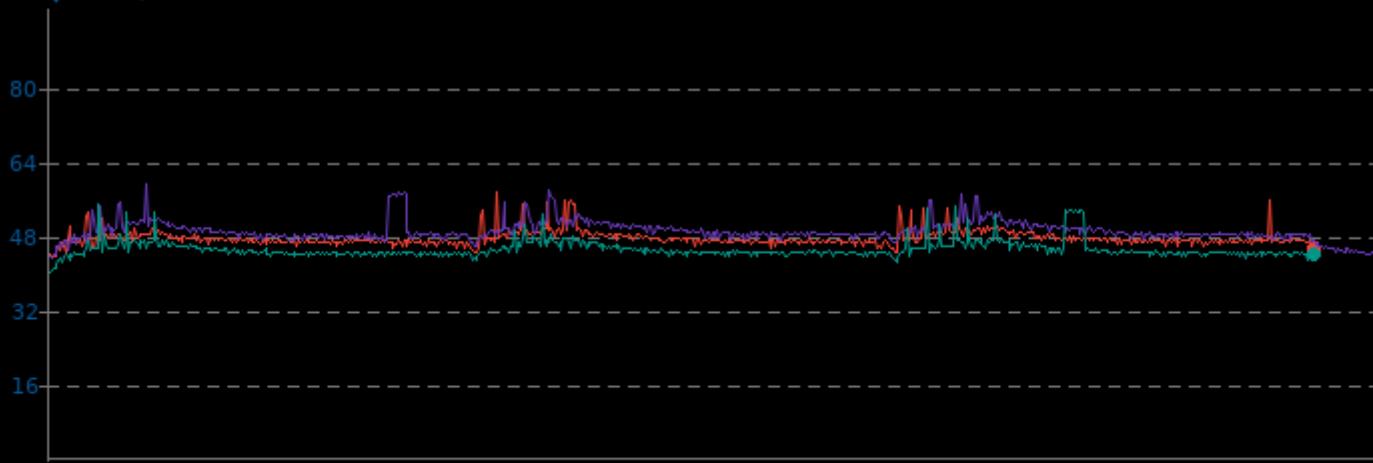


LuaRadio 0.9.1

CPU Temperature Monitor

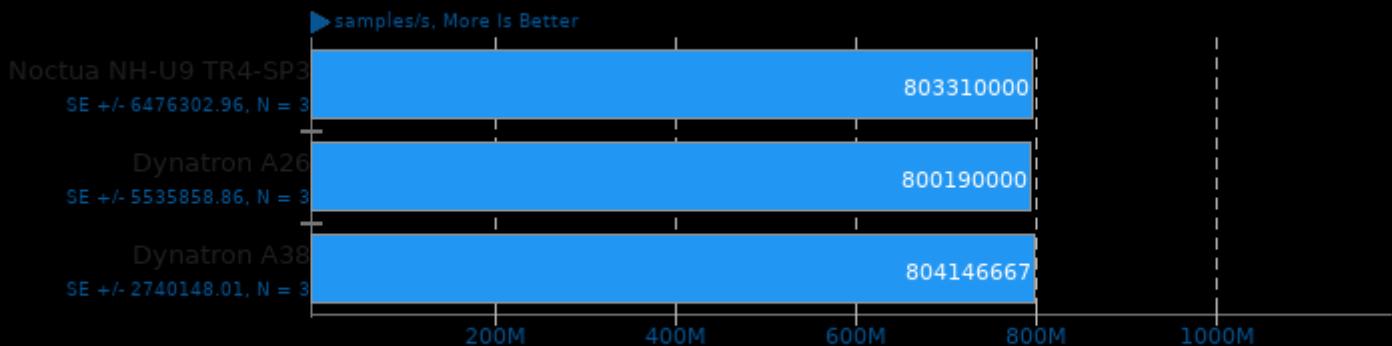
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.5	47.5	57.3
Dynatron A26	43.3	49.0	59.3
Dynatron A38	40.3	45.2	54.8

▼ Celsius, Fewer Is Better



Liquid-DSP 2021.01.31

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



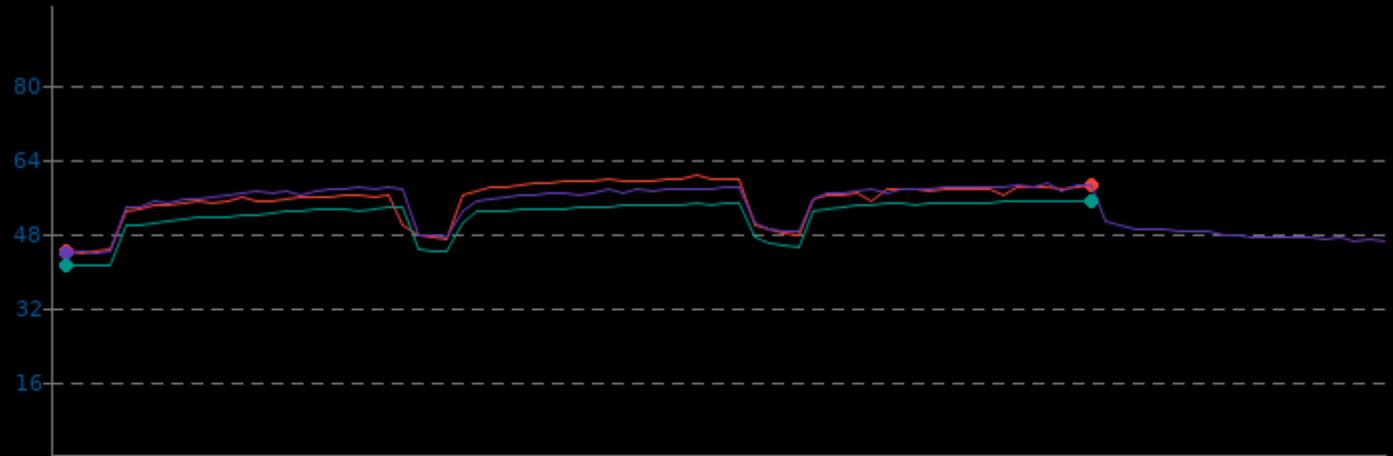
1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

CPU Temperature Monitor

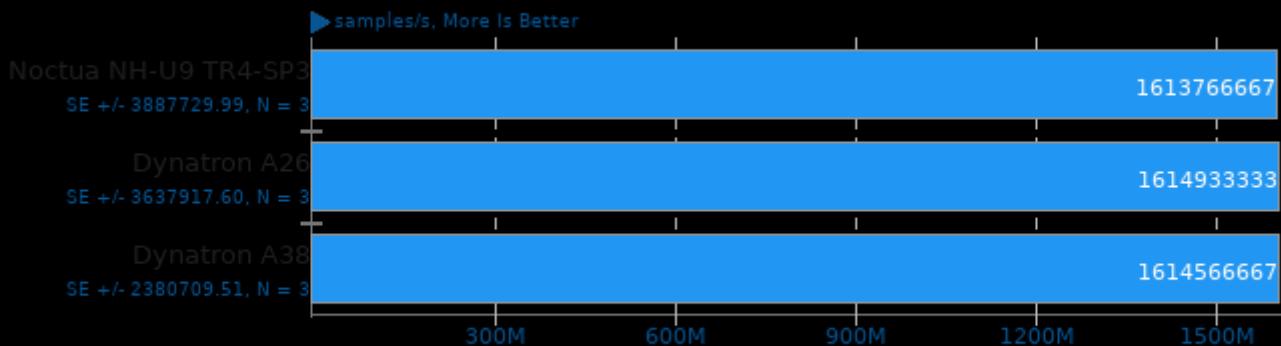
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	43.8	55.2	60.3
Dynatron A26	43.5	53.6	58.5
Dynatron A38	41.0	51.8	55.0

▼ Celsius, Fewer Is Better



Liquid-DSP 2021.01.31

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



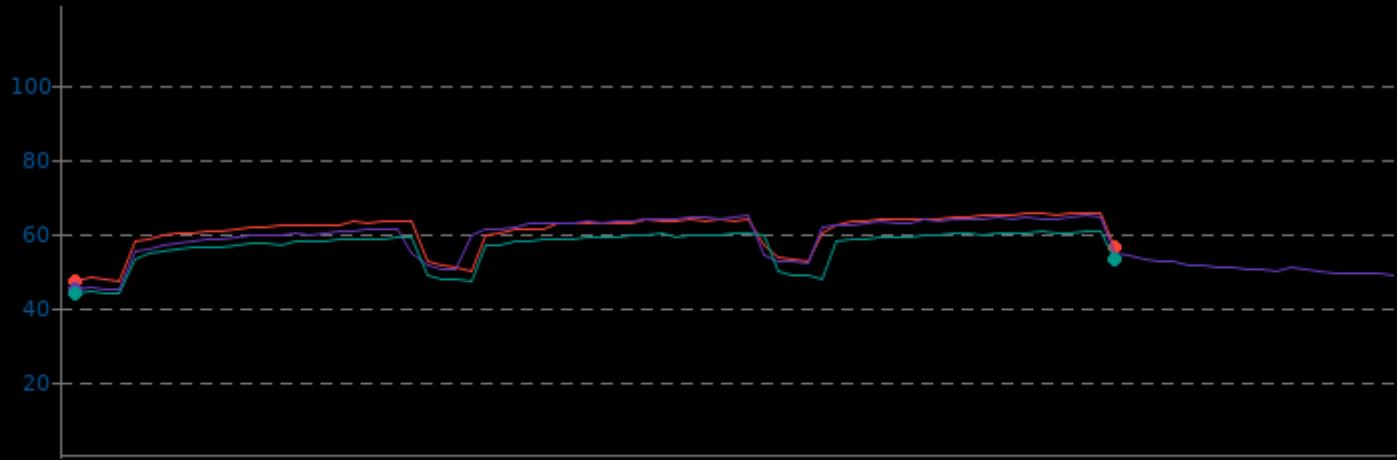
1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

CPU Temperature Monitor

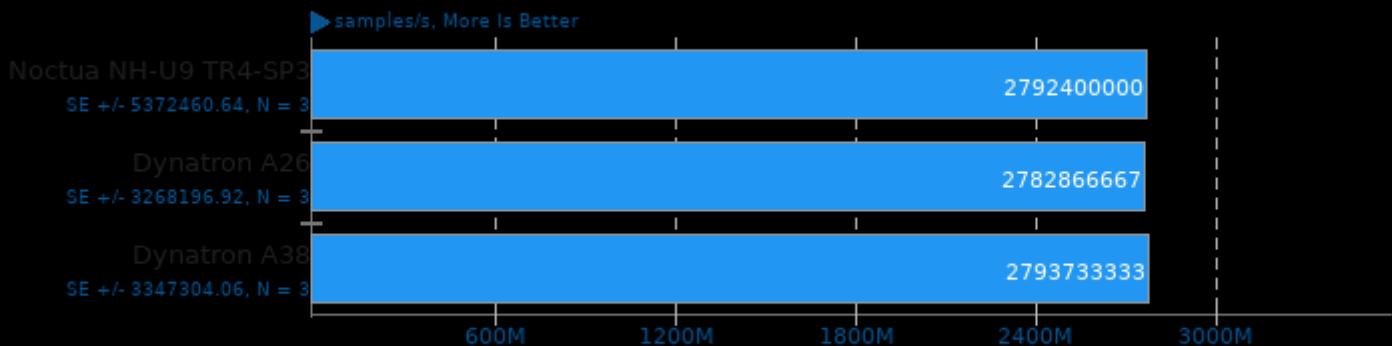
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	47.0	60.6	65.5
Dynatron A26	44.8	57.9	64.8
Dynatron A38	43.8	56.4	60.5

▼ Celsius, Fewer Is Better



Liquid-DSP 2021.01.31

Threads: 64 - Buffer Length: 256 - Filter Length: 57



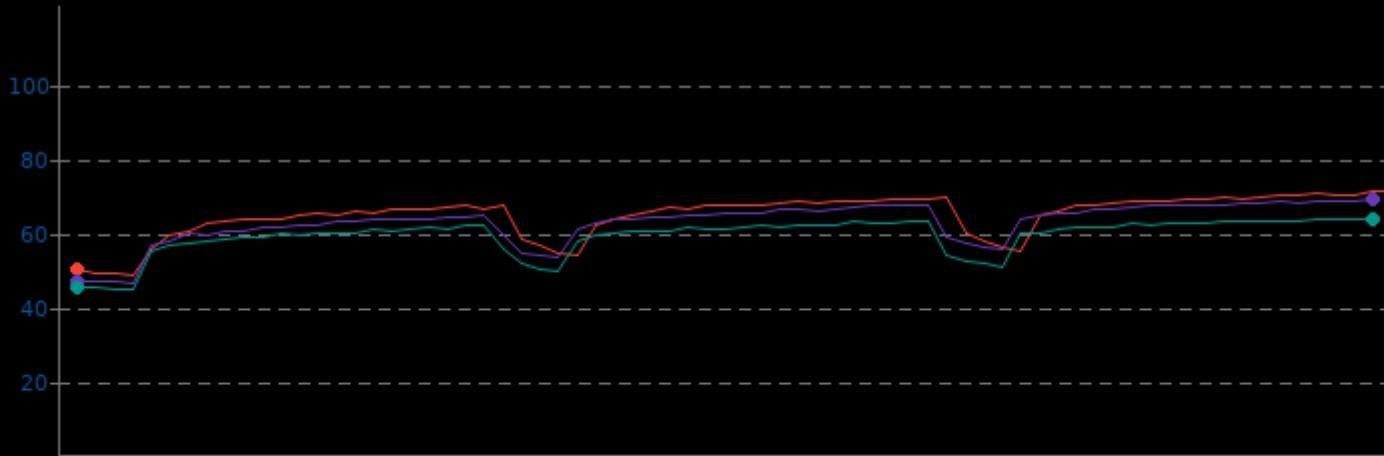
1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

CPU Temperature Monitor

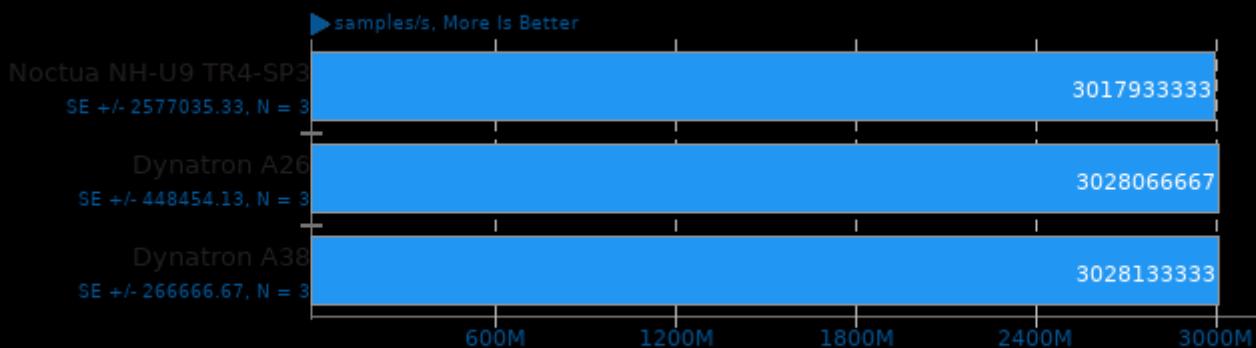
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	49.0	64.8	71.3
Dynatron A26	46.8	62.9	69.0
Dynatron A38	45.0	59.3	63.8

▼ Celsius, Fewer Is Better



Liquid-DSP 2021.01.31

Threads: 128 - Buffer Length: 256 - Filter Length: 57



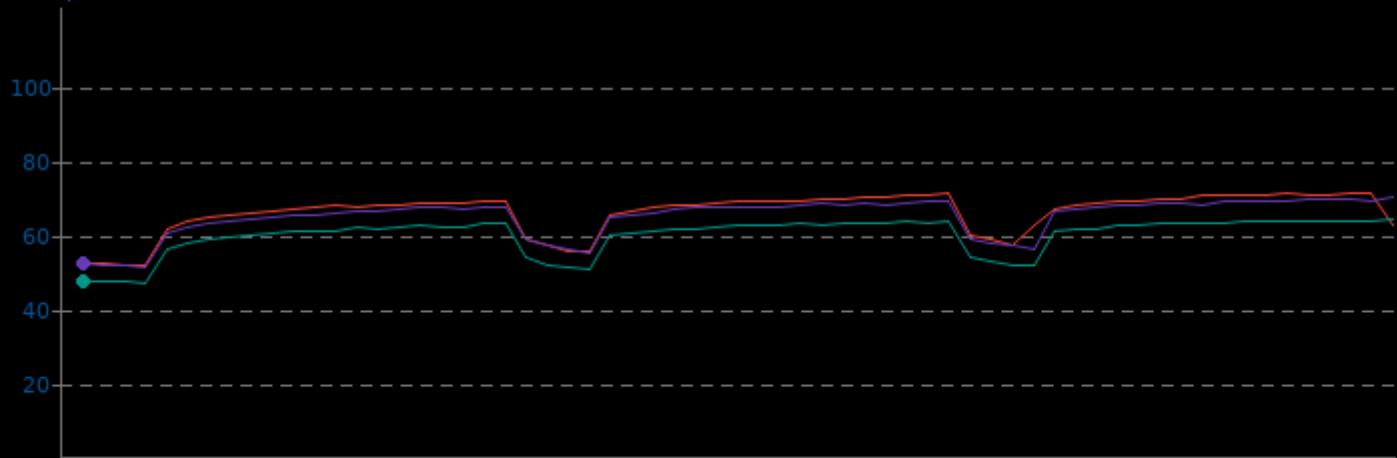
1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 2021.01.31

CPU Temperature Monitor

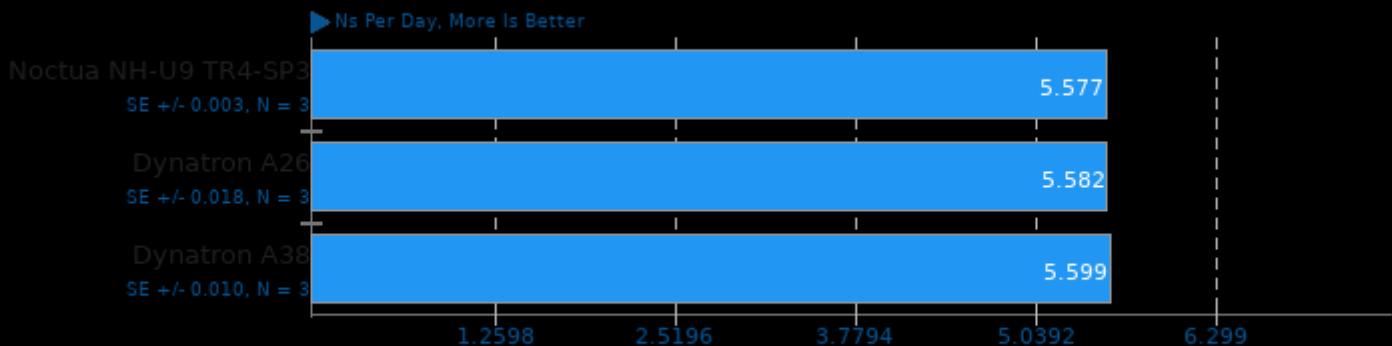
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	52.0	66.1	71.3
Dynatron A26	51.5	65.0	70.0
Dynatron A38	47.3	59.9	64.3

▼ Celsius, Fewer Is Better



GROMACS 2021

Input: water_GMX50_bare

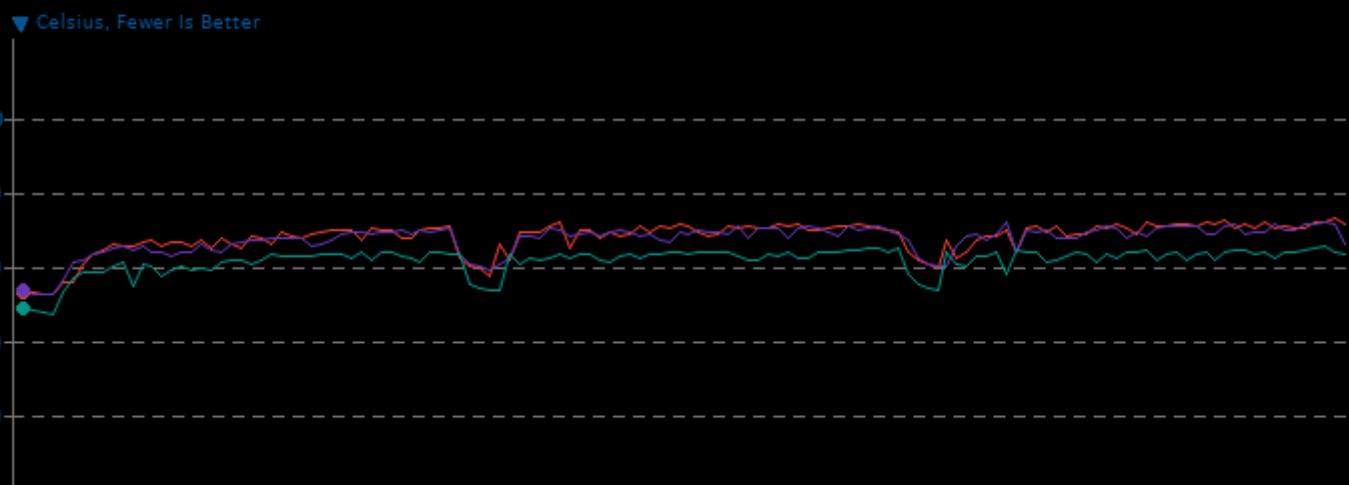


1. (CXX) g++ options: -O3 -pthread

GROMACS 2021

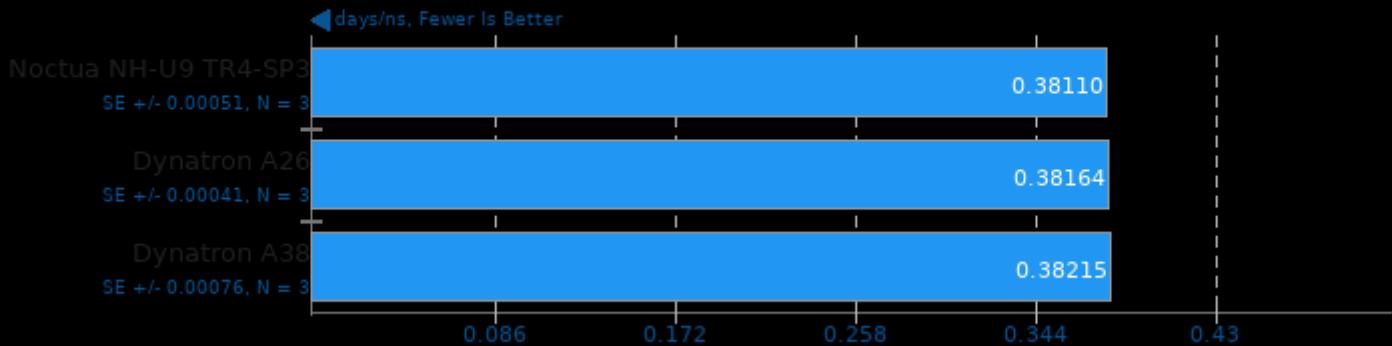
CPU Temperature Monitor

	Min	Avg	Max
Noctua NH-U9 TR4-SP3	52.5	67.7	72.8
Dynatron A26	52.5	67.1	71.8
Dynatron A38	47.3	61.4	65.5



NAMD 2.14

ATPase Simulation - 327,506 Atoms

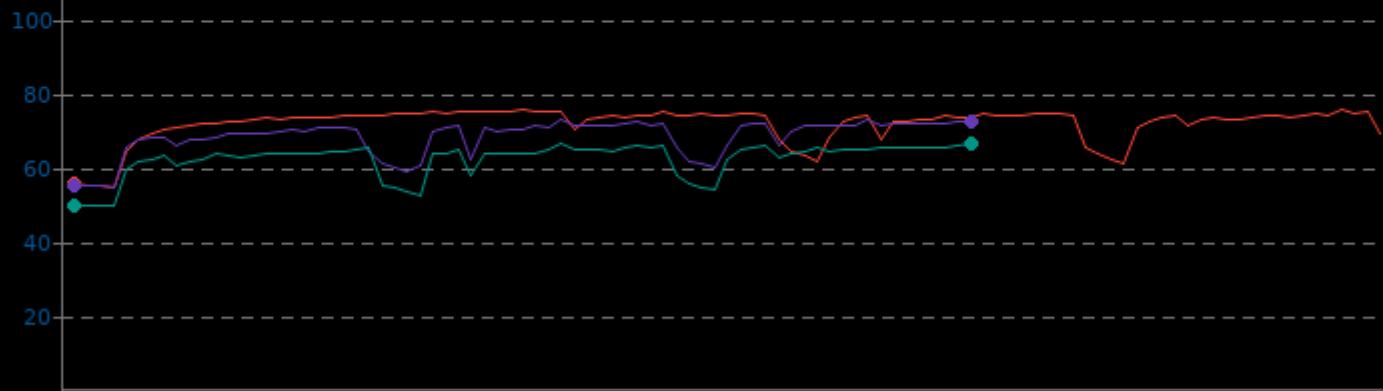


NAMD 2.14

CPU Temperature Monitor

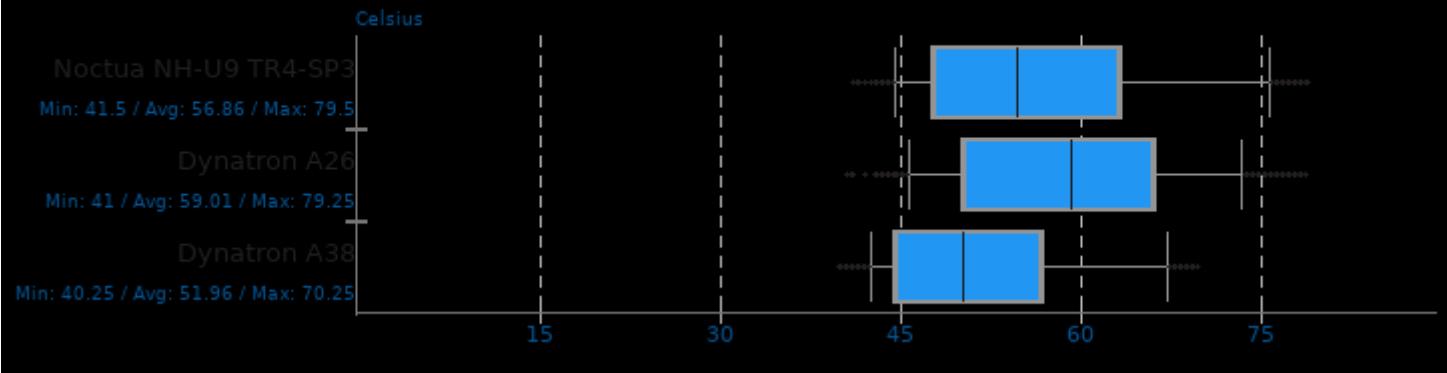
	Min	Avg	Max
Noctua NH-U9 TR4-SP3	54.8	71.7	75.5
Dynatron A26	54.8	68.2	72.8
Dynatron A38	49.8	62.2	66.5

▼ Celsius, Fewer Is Better



CPU Temperature Monitor

Phoronix Test Suite System Monitoring

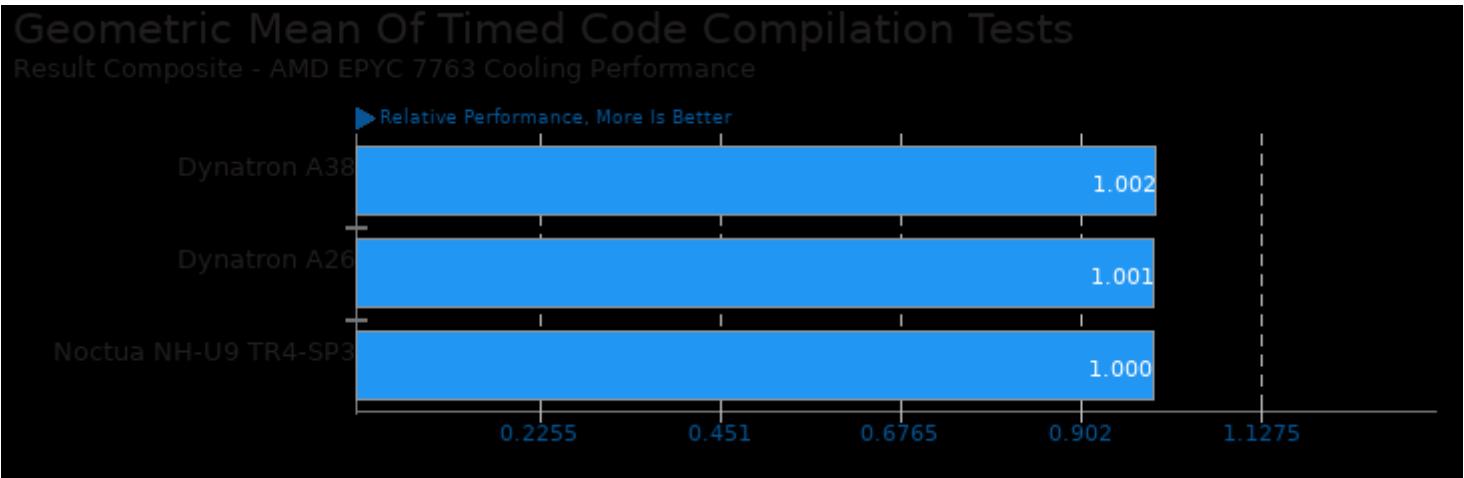


AMD EPYC 7763 Cooling Performance

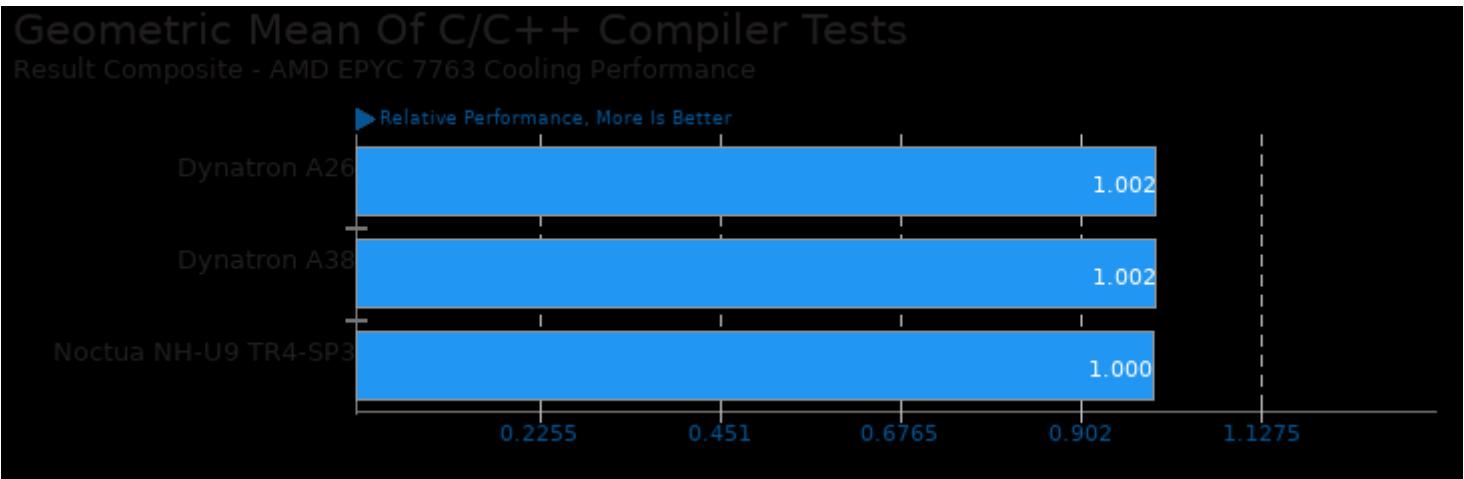
These geometric means are based upon test groupings / test suites for this result file.



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



Geometric mean based upon tests: pts/build-apache, pts/build-linux-kernel, pts/build-gdb, pts/build-erlang, pts/build-nodejs and pts/build-mesa

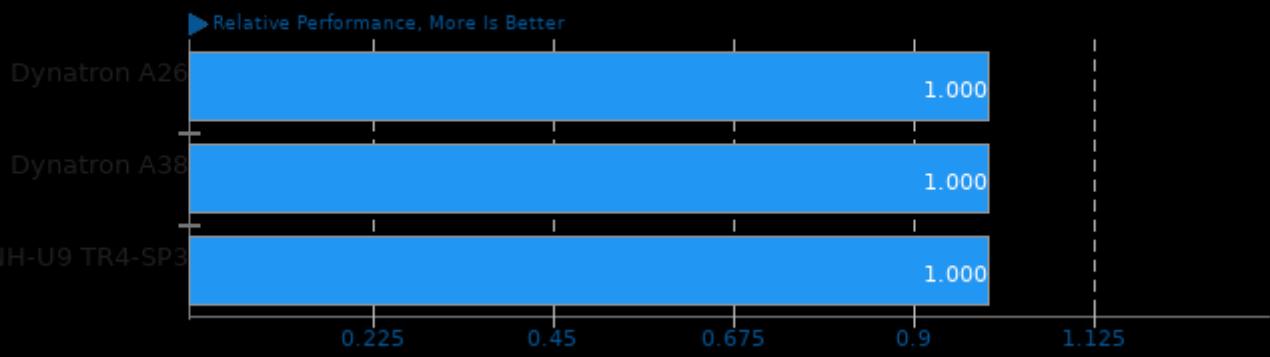


Geometric mean based upon tests: pts/stockfish, pts/aom-av1, pts/svt-av1, pts/svt-vp9, pts/gromacs, pts/build-gdb and pts/build-apache

AMD EPYC 7763 Cooling Performance

Geometric Mean Of CPU Massive Tests

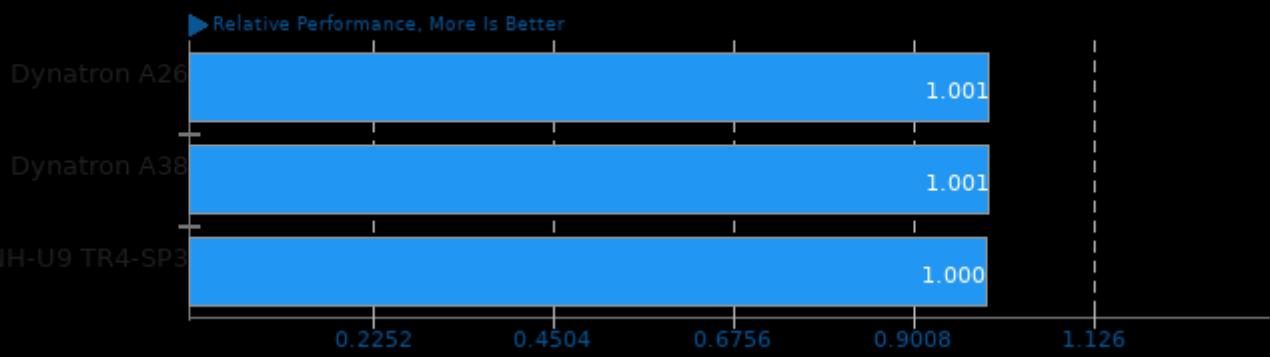
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/build-apache, pts/build-linux-kernel, pts/svt-av1, pts/svt-hevc, pts/svt-vp9, pts/onnednn, pts/namd, pts/stockfish, pts/v-ray and pts/blender

Geometric Mean Of Creator Workloads Tests

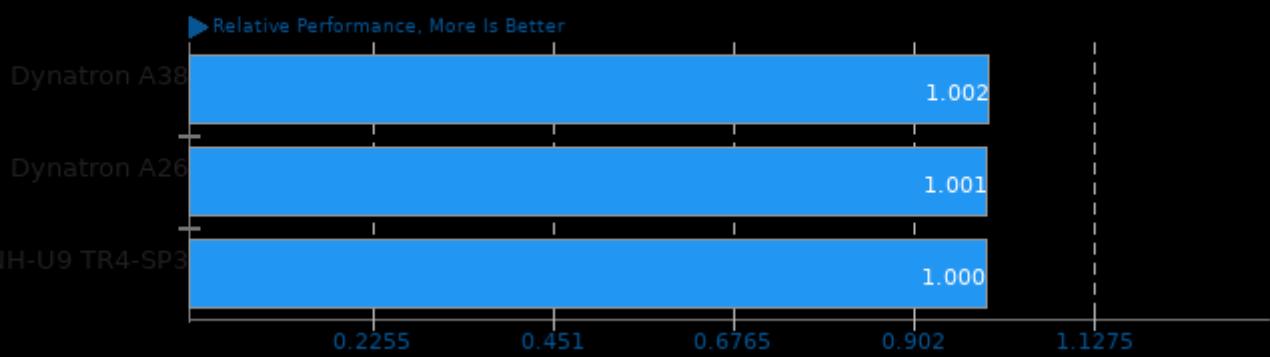
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/blender, pts/v-ray, pts/indigobench, pts/svt-vp9, pts/svt-hevc, pts/aom-av1, pts/svt-av1, pts/onnednn, pts/astcenc and system/openscad

Geometric Mean Of Encoding Tests

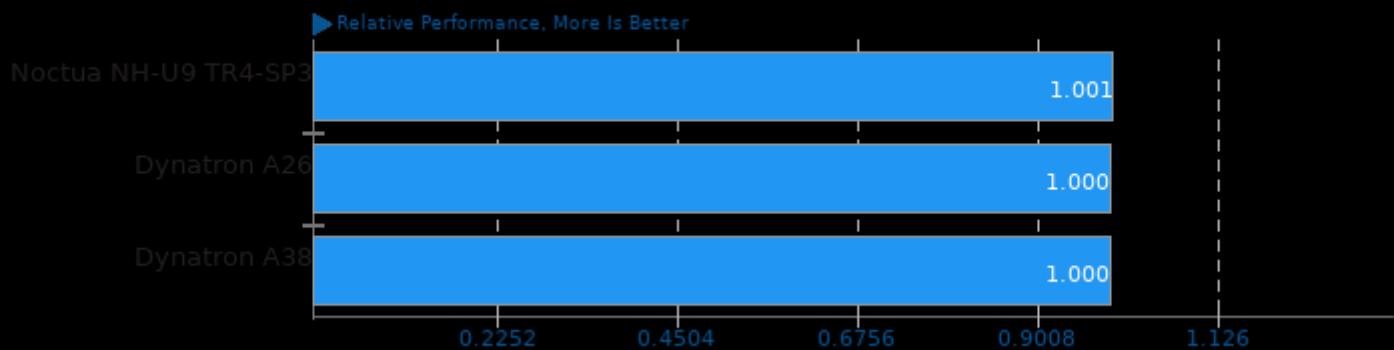
Result Composite - AMD EPYC 7763 Cooling Performance



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

Geometric Mean Of Game Development Tests

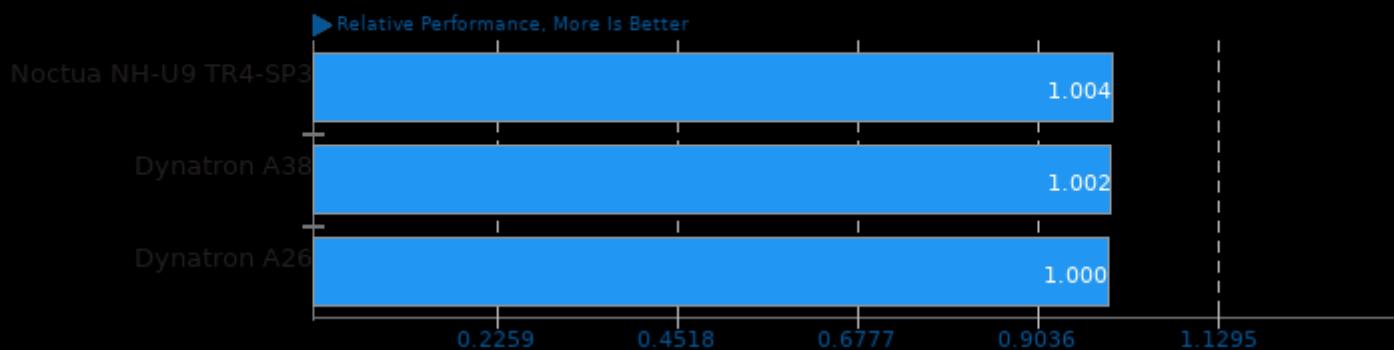
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/astcenc and pts/blender

Geometric Mean Of HPC - High Performance Computing Tests

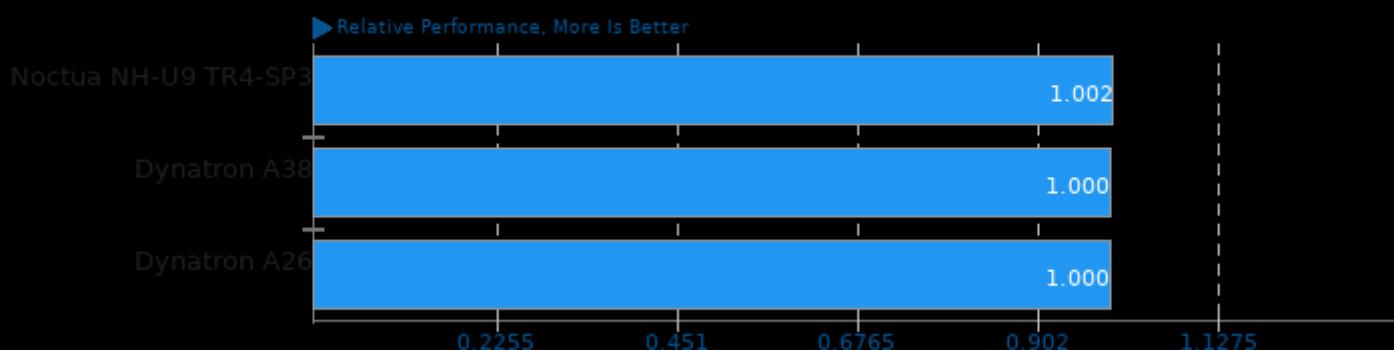
Result Composite - AMD EPYC 7763 Cooling Performance



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

Geometric Mean Of Machine Learning Tests

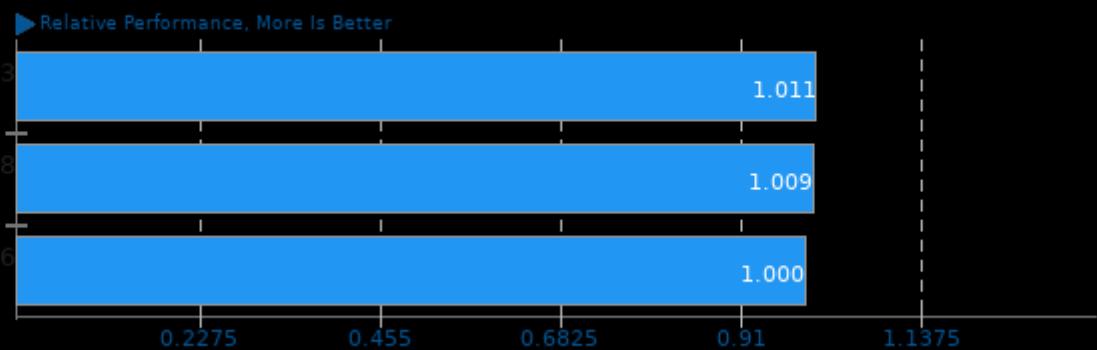
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/mnn and pts/onnednn

Geometric Mean Of Molecular Dynamics Tests

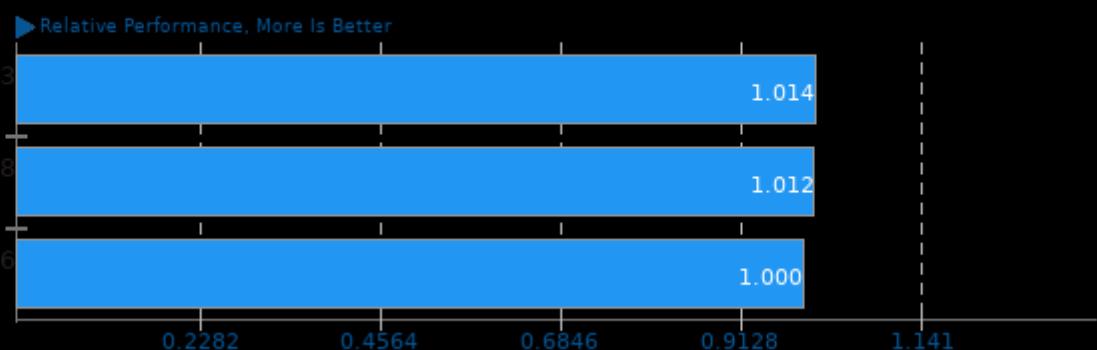
Result Composite - AMD EPYC 7763 Cooling Performance



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

Geometric Mean Of MPI Benchmarks Tests

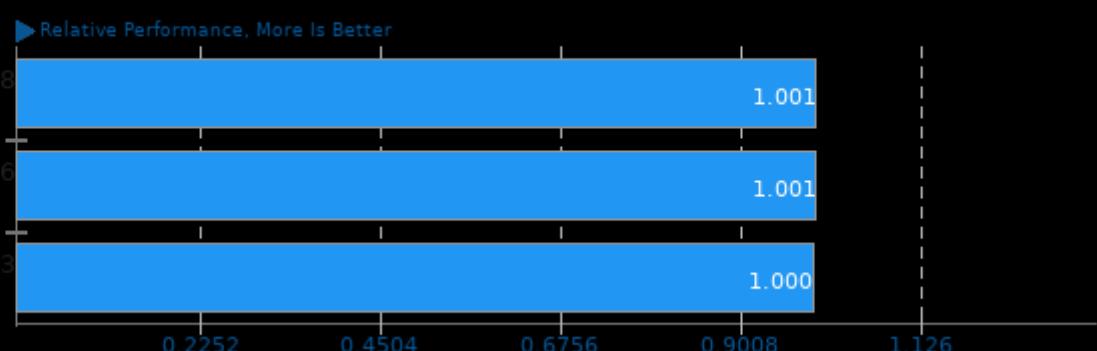
Result Composite - AMD EPYC 7763 Cooling Performance



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

Geometric Mean Of Multi-Core Tests

Result Composite - AMD EPYC 7763 Cooling Performance

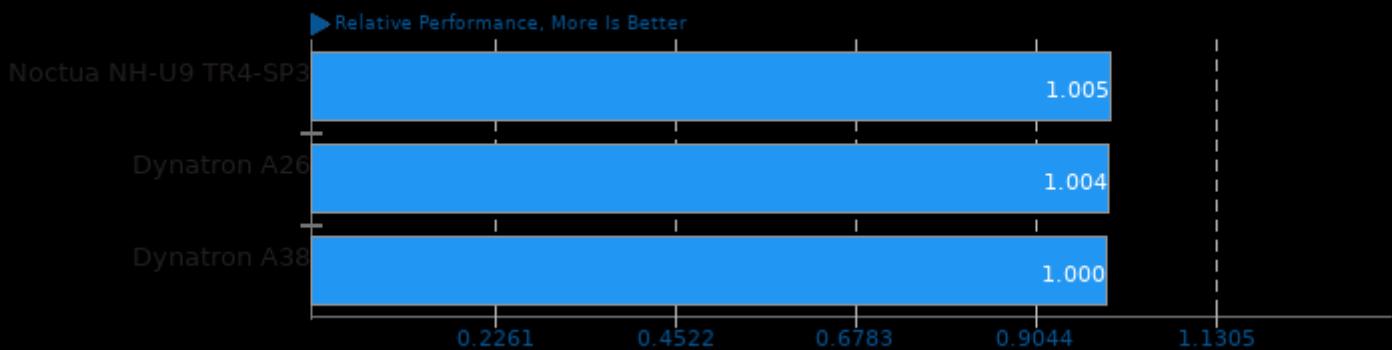


Geometric mean based upon tests: pts/blender, pts/stockfish, pts/svt-vp9, pts/svt-hevc, pts/aom-av1, pts/svt-av1, pts/namd, pts/onnednn, pts/gromacs, pts/build-apache, pts/build-linux-kernel, pts/build-gdb, pts/build-erlang, pts/build-nodejs, pts/build-mesa, pts/v-ray and pts/indigobench

AMD EPYC 7763 Cooling Performance

Geometric Mean Of NVIDIA GPU Compute Tests

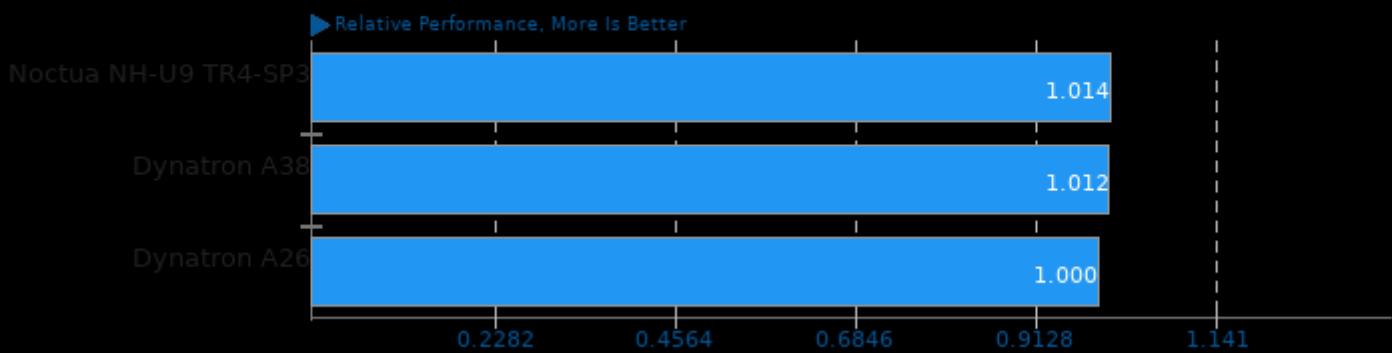
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/gromacs, pts/viennacl, pts/indigobench, pts/v-ray and pts/blender

Geometric Mean Of OpenMPI Tests

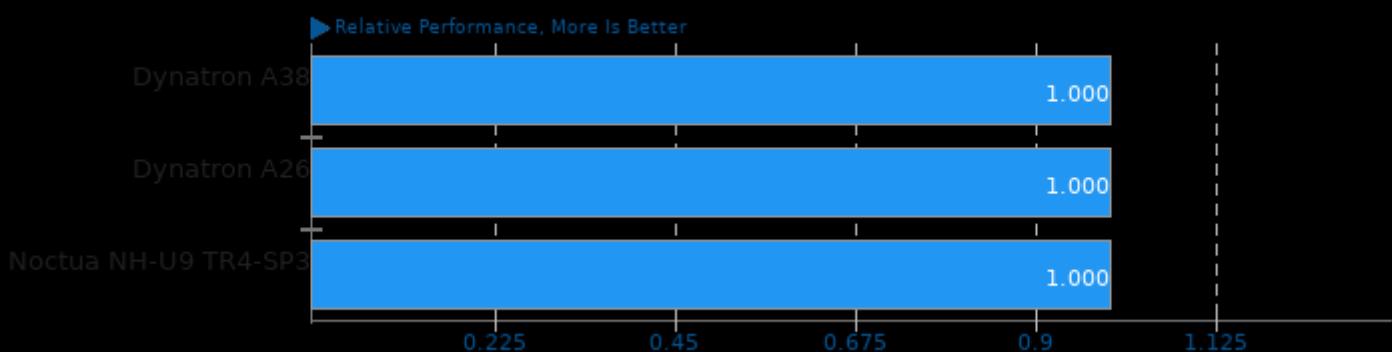
Result Composite - AMD EPYC 7763 Cooling Performance



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

Geometric Mean Of Programmer / Developer System Benchmarks Tests

Result Composite - AMD EPYC 7763 Cooling Performance

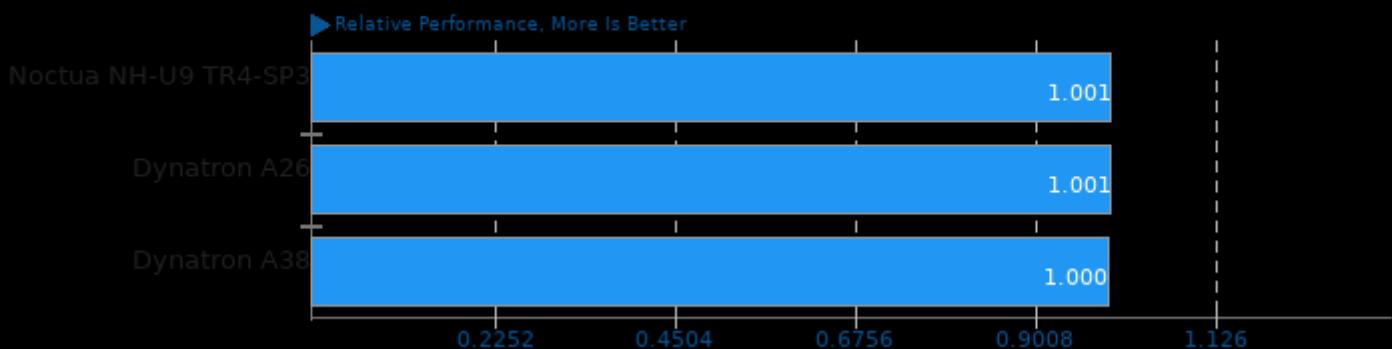


Geometric mean based upon tests: pts/simdjson, pts/build-apache, pts/build-linux-kernel, pts/build-gdb, pts/build-erlang, pts/build-nodejs and pts/build-mesa

AMD EPYC 7763 Cooling Performance

Geometric Mean Of Python Tests

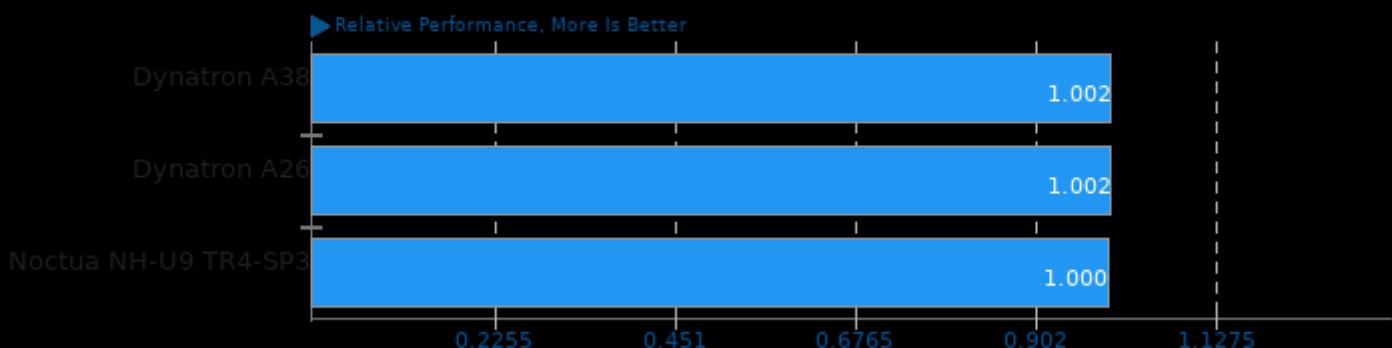
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/build-mesa, pts/build-nodejs and system/gnuradio

Geometric Mean Of Renderers Tests

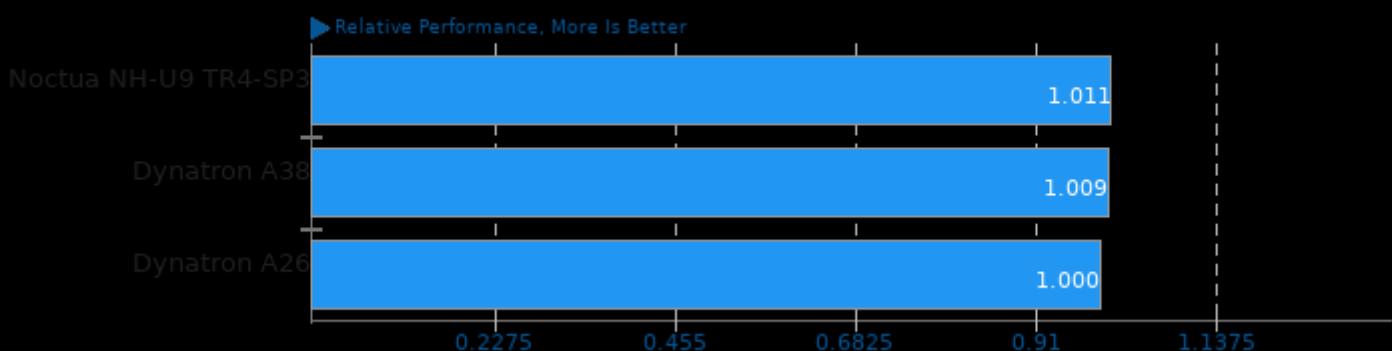
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/blender, pts/v-ray and pts/indigobench

Geometric Mean Of Scientific Computing Tests

Result Composite - AMD EPYC 7763 Cooling Performance

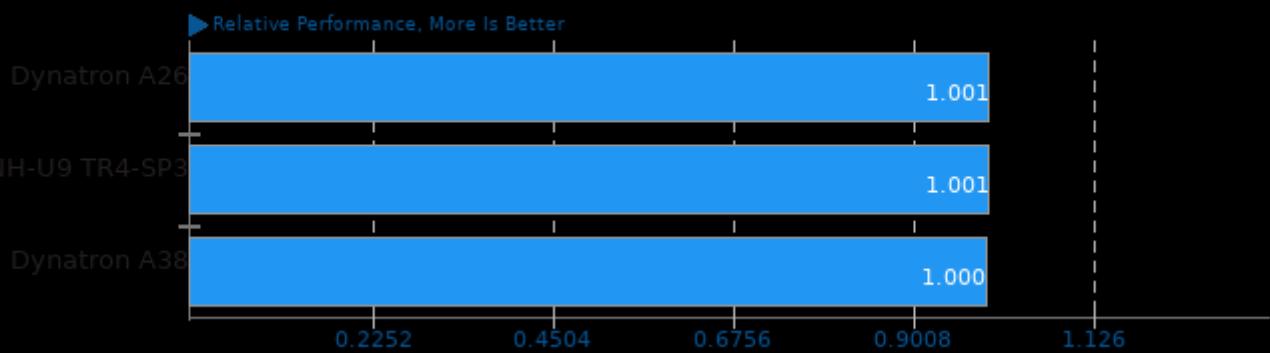


Geometric mean based upon tests: pts/namd, pts/gromacs and pts/incompact3d

AMD EPYC 7763 Cooling Performance

Geometric Mean Of Software Defined Radio Tests

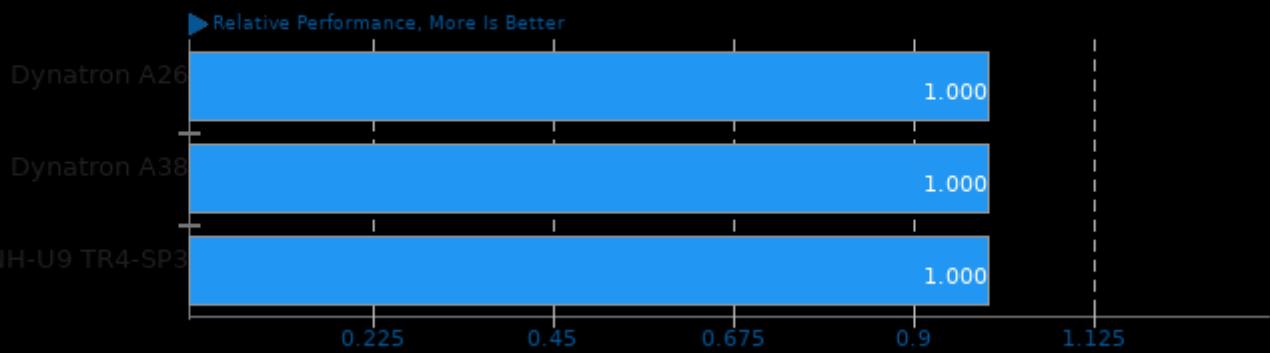
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/liquid-dsp, pts/srslte, pts/luaradio and system/gnuradio

Geometric Mean Of Server CPU Tests

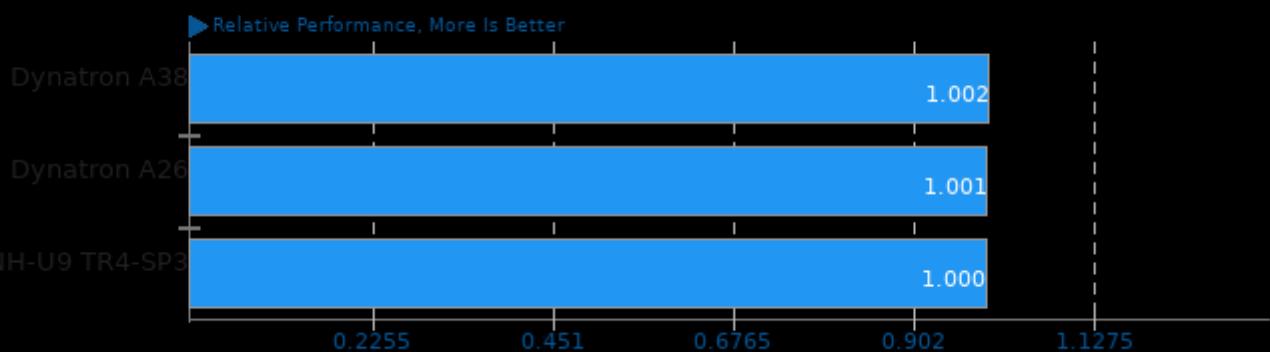
Result Composite - AMD EPYC 7763 Cooling Performance



Geometric mean based upon tests: pts/namd, pts/onednn, pts/svt-av1, pts/svt-hevc, pts/svt-vp9, pts/stockfish, pts/build-linux-kernel and pts/blender

Geometric Mean Of Video Encoding Tests

Result Composite - AMD EPYC 7763 Cooling Performance



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:05.