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OnLogic Helix 500 Linux benchmarks

OnLogic Helix 500 benchmarks by Michael Larabel.

Automated Executive Summary

OnLogic Helix 500 had the most wins, coming in first place for 76% of the tests.

Based on the geometric mean of all complete results, the fastest (OnLogic Helix 500) was 1.171x the speed of the slowest (OnLogic Karbon 700).

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

CLOMP (Static OMP Speedup) at 2.034x
oneDNN (Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU) at 1.885x
ASKAP (Test: tConvolve OpenMP - Gridding) at 1.87x
oneDNN (Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU) at 1.815x
oneDNN (Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU) at 1.807x
HPC Challenge (Test / Class: Random Ring Bandwidth) at 1.799x
OpenFOAM (Input: Motorbike 30M) at 1.762x
ASKAP (Test: Hogbom Clean OpenMP) at 1.76x
Algebraic Multi-Grid Benchmark at 1.748x
NAS Parallel Benchmarks (Test / Class: MG.C) at 1.717x.

Test Systems:

OnLogic Helix 500

Processor: Intel Core i7-10700T @ 4.50GHz (8 Cores / 16 Threads), Motherboard: Logic Supply RXM-181 (Z01-0002A026 BIOS), Chipset: Intel Comet Lake PCH, Memory: 32GB, Disk: 256GB TS256GMTS800, Graphics: Intel UHD 630 3GB (1200MHz), Audio: Realtek ALC233, Monitor: DELL P2415Q, Network: Intel I219-LM + Intel I210

OS: Ubuntu 20.10, Kernel: 5.8.0-41-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-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
Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe0 - Thermald 2.3
Java Notes: OpenJDK Runtime Environment (build 11.0.9.1+1-Ubuntu-0ubuntu1.20.10)
Python Notes: Python 3.8.6
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

OnLogic Karbon 700

Processor: Intel Xeon E-2278GEL @ 3.90GHz (8 Cores / 16 Threads), Motherboard: Logic Supply RXM-181 (Z01-0001A027 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16GB, Disk: 512GB TS512GMTE510T, Graphics: Intel UHD P630 3GB (1150MHz), Audio: Realtek ALC233, Monitor: DELL P2415Q, Network: Intel I219-LM + 2 x Intel I210

OS: Ubuntu 20.10, Kernel: 5.8.0-41-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: intel, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-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
Disk Notes: NONE / errors=remount-ro,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xde - Thermald 2.3
Java Notes: OpenJDK Runtime Environment (build 11.0.9.1+1-Ubuntu-0ubuntu1.20.10)
Python Notes: Python 3.8.6
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Mitigation of TSX disabled + tsx_async_abort: Mitigation of TSX disabled

	OnLogic Helix 500	OnLogic Karbon 700

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WebP2 Image Encode - Q.1.C.E.5 (sec)	**20.392**	**21.395**
Normalized	100%	95.31%
Standard Deviation	4%	3%
ASKAP - tConvolve MPI - Degridding (Mpix/sec)	**1679**	**1288**
Normalized	100%	76.72%
Standard Deviation	2.4%	0.3%
ASKAP - tConvolve MPI - Gridding (Mpix/sec)	**1834**	**1168**
Normalized	100%	63.69%
Standard Deviation	2.6%	0.3%
ASKAP - tConvolve OpenMP - Gridding (Million Grid Points/sec)	**1272**	**680.389**
Normalized	100%	53.47%
Standard Deviation	0.5%	0.4%
ASKAP - H.C.O (Iterations/sec)	**184.389**	**104.786**
Normalized	100%	56.83%
Standard Deviation	0.1%	0.4%
NAS Parallel Benchmarks - FT.C (Mop/s)	**11017**	**7383**
Normalized	100%	67.02%
Standard Deviation	1.6%	0.2%
NAS Parallel Benchmarks - LU.C (Mop/s)	**21135**	**15484**
Normalized	100%	73.26%
Standard Deviation	2.1%	0.2%
NAS Parallel Benchmarks - MG.C (Mop/s)	**9748**	**5678**
Normalized	100%	58.25%
Standard Deviation	0.7%	0.4%
NAS Parallel Benchmarks - CG.C (Mop/s)	**4511**	**2903**
Normalized	100%	64.36%
Standard Deviation	1%	0.1%
lzbench - Zstd 1 - Compression (MB/s)	**459**	**453**
Normalized	100%	98.69%
lzbench - Zstd 1 - Decompression (MB/s)	**1563**	**1611**
Normalized	97.02%	100%
Standard Deviation		0.1%
lzbench - Zstd 8 - Compression (MB/s)	**80**	**81**
Normalized	98.77%	100%
lzbench - Zstd 8 - Decompression (MB/s)	**1683**	**1738**
Normalized	96.84%	100%
Standard Deviation	0.5%	0.5%
lzbench - Brotli 0 - Compression (MB/s)	**421**	**420**
Normalized	100%	99.76%
Standard Deviation		0.2%
lzbench - Brotli 0 - Decompression (MB/s)	**576**	**562**
Normalized	100%	97.57%
Standard Deviation	0.1%	
lzbench - Crush 0 - Decompression (MB/s)	**456**	**450**
Normalized	100%	98.68%
FinanceBench - Bonds OpenMP (ms)	**78160**	**70482**
Normalized	90.18%	100%
Standard Deviation	1.7%	2.1%
FinanceBench - Repo OpenMP (ms)	**55140**	**49773**
Normalized	90.27%	100%
Standard Deviation	1.9%	0.6%
GnuPG - 2.7.S.F.E (sec)	**73.925**	**72.714**
Normalized	98.36%	100%
Standard Deviation	2.2%	1.6%

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Cpuminer-Opt - T.S.2.O (kH/s)	**63503**	**61289**
Normalized	100%	96.51%
Standard Deviation	0.8%	10.4%
QuantLib (MFLOPS)	**2089**	**2182**
Normalized	95.76%	100%
Standard Deviation	2.4%	1.4%
Etcpak - ETC1 (Mpx/s)	**285.568**	**298.346**
Normalized	95.72%	100%
Standard Deviation	0.3%	0.4%
Etcpak - ETC1 + Dithering (Mpx/s)	**266.700**	**280.579**
Normalized	95.05%	100%
Standard Deviation	0.7%	0.1%
Etcpak - ETC2 (Mpx/s)	**158.318**	**165.029**
Normalized	95.93%	100%
Standard Deviation	0.2%	0.2%
Etcpak - DXT1 (Mpx/s)	**1146**	**1211**
Normalized	94.6%	100%
Standard Deviation	0.3%	0.1%
ONNX Runtime - yolov4 - OpenMP CPU	**272**	**263**
Normalized	100%	96.69%
Standard Deviation	0.7%	0.7%
ONNX Runtime - fcn-resnet101-11 - OpenMP CPU (Inferences/min)	**43**	**45**
Normalized	95.56%	100%
Standard Deviation	1.3%	0.6%
ONNX Runtime - shufflenet-v2-10 - OpenMP CPU (Inferences/min)	**12412**	**14173**
Normalized	87.57%	100%
Standard Deviation	1.1%	0.6%
ONNX Runtime - super-resolution-10 - OpenMP CPU (Inferences/min)	**2839**	**3293**
Normalized	86.21%	100%
Standard Deviation	1.6%	0.3%
ONNX Runtime - bertsquad-10 - OpenMP CPU (Inferences/min)	**382**	**400**
Normalized	95.5%	100%
Standard Deviation	1.1%	0.5%
Google SynthMark - VoiceMark_100 (Voices)	**590.243**	**616.100**
Normalized	95.8%	100%
Standard Deviation	0%	0.2%
rav1e - 10 (FPS)	**3.189**	**3.164**
Normalized	100%	99.22%
Standard Deviation	0.8%	0.4%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein (ns/day)	**5.421**	**4.896**
Normalized	100%	90.32%
Standard Deviation	3.3%	4.4%
Algebraic Multi-Grid Benchmark (Figure Of Merit)	**213962927**	**122416800**
Normalized	100%	57.21%
Standard Deviation	2.4%	0%
OpenFOAM - Motorbike 30M (sec)	**263.49**	**464.34**
Normalized	100%	56.75%
Standard Deviation	0.5%	0.2%
dav1d - S.N.1 (FPS)	**496.82**	**438.06**

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Normalized	100%	88.17%
Standard Deviation	0.9%	0.1%
dav1d - Summer Nature 4K (FPS)	**128.88**	**102.30**
Normalized	100%	79.38%
Standard Deviation	2.4%	0.4%
dav1d - Chimera 1080p (FPS)	**553.32**	**456.52**
Normalized	100%	82.51%
Standard Deviation	2.4%	0.2%
VKMark - 1920 x 1080 (VKMark Score)	**833**	**513**
Normalized	100%	61.58%
Standard Deviation	0.4%	0.4%
GLmark2 - 1920 x 1080 (Score)	**849**	**525**
Normalized	100%	61.84%
oneDNN - C.B.S.A - f32 - CPU (ms)	**17.6683**	**31.9318**
Normalized	100%	55.33%
Standard Deviation	0.3%	0.2%
oneDNN - IP Shapes 3D - f32 - CPU (ms)	**8.81906**	**16.6276**
Normalized	100%	53.04%
Standard Deviation	1.5%	0.6%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	**3.79616**	**6.88996**
Normalized	100%	55.1%
Standard Deviation	1%	0.7%
CLOMP - Static OMP Speedup (Speedup)	**5.9**	**2.9**
Normalized	100%	49.15%
Standard Deviation	4%	3%
NCNN - CPU - mobilenet (ms)	**25.95**	**27.52**
Normalized	100%	94.3%
Standard Deviation	1.2%	0.1%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	**6.47**	**7.79**
Normalized	100%	83.06%
Standard Deviation	2.5%	0.9%
NCNN - CPU - efficientnet-b0 (ms)	**9.41**	**10.06**
Normalized	100%	93.54%
Standard Deviation	3.1%	0.6%
NCNN - CPU - googlenet (ms)	**19.18**	**22.06**
Normalized	100%	86.94%
Standard Deviation	0.1%	2.5%
NCNN - CPU - vgg16 (ms)	**68.42**	**116.92**
Normalized	100%	58.52%
Standard Deviation	0.1%	0.2%
NCNN - CPU - resnet18 (ms)	**18.17**	**24.18**
Normalized	100%	75.14%
Standard Deviation	0.2%	0.2%
NCNN - CPU - alexnet (ms)	**15.31**	**21.08**
Normalized	100%	72.63%
Standard Deviation	0.8%	0.4%
NCNN - CPU - resnet50 (ms)	**36.39**	**43.37**
Normalized	100%	83.91%
Standard Deviation	0.9%	0.3%
NCNN - CPU - yolov4-tiny (ms)	**35.02**	**40.74**
Normalized	100%	85.96%
Standard Deviation	1.9%	0.2%
NCNN - CPU - squeezenet_ssd (ms)	**26.80**	**28.56**
Normalized	100%	93.84%
Standard Deviation	0.7%	0.1%

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TNN - CPU - MobileNet v2 (ms)	**366.518**	**368.053**
Normalized	100%	99.58%
Standard Deviation	0.2%	0.2%
simdjson - PartialTweets (GB/s)	**0.65**	**0.6**
Normalized	100%	92.31%
Standard Deviation	0%	0%
simdjson - LargeRand (GB/s)	**0.38**	**0.37**
Normalized	100%	97.37%
Standard Deviation	0%	0%
simdjson - Kostya (GB/s)	**0.59**	**0.48**
Normalized	100%	81.36%
Standard Deviation	0%	0%
simdjson - DistinctUserID (GB/s)	**0.67**	**0.61**
Normalized	100%	91.04%
Standard Deviation	0%	0%
SQLite Speedtest - Timed Time - Size 1,000 (sec)	**63.361**	**61.284**
Normalized	96.72%	100%
Standard Deviation	0.2%	0.2%
Timed HMMer Search - P.D.S (sec)	**123.573**	**131.315**
Normalized	100%	94.1%
Standard Deviation	0.1%	0%
HPC Challenge - R.R.B (GB/s)	**1.70442**	**0.94729**
Normalized	100%	55.58%
Standard Deviation	1.7%	0.6%
GROMACS - Water Benchmark (Ns/Day)	**0.640**	**0.518**
Normalized	100%	80.94%
Standard Deviation	0.5%	0.8%
Embree - Pathtracer ISPC - Asian Dragon (FPS)	**9.4193**	**8.9213**
Normalized	100%	94.71%
Standard Deviation	2.4%	0.9%
Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)	**8.4878**	**7.9607**
Normalized	100%	93.79%
Standard Deviation	1.8%	0.4%
ASTC Encoder - Fast (sec)	**6.83**	**7.12**
Normalized	100%	95.93%
Standard Deviation	1.6%	0.2%
WebP Image Encode - Q.1.L (Encode Time - sec)	**19.703**	**20.246**
Normalized	100%	97.32%
Standard Deviation	0.1%	0%
WebP Image Encode - Q.1.L.H.C (Encode Time - sec)	**41.117**	**43.409**
Normalized	100%	94.72%
Standard Deviation	0.1%	0.1%
AI Benchmark Alpha - D.I.S (Score)	**751**	**740**
Normalized	100%	98.54%
AI Benchmark Alpha - D.T.S (Score)	**857**	**684**
Normalized	100%	79.81%
AI Benchmark Alpha - Device AI Score (Score)	**1608**	**1424**
Normalized	100%	88.56%
Waifu2x-NCNN Vulkan - 2x - 3 - Yes (sec)	**70.533**	**79.264**
Normalized	100%	88.98%
Standard Deviation	1%	0.3%
Waifu2x-NCNN Vulkan - 2x - 3 - No (sec)	**9.693**	**10.765**
Normalized	100%	90.04%
Standard Deviation	0.1%	0.1%
RealSR-NCNN - 4x - Yes (sec)	**1442**	**1762**

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Normalized	100%	81.82%
Standard Deviation	0%	0%
RealSR-NCNN - 4x - No (sec)	**182.998**	**223.166**
Normalized	100%	82%
Standard Deviation	0%	0%
DeepSpeech - CPU (sec)	**78.40240**	**115.72795**
Normalized	100%	67.75%
Standard Deviation	0.9%	0.8%
InfluxDB - 4 - 10000 - 2,5000,1 - 10000 (val/sec)	**1118525**	**1061688**
Normalized	100%	94.92%
Standard Deviation	0.8%	3%
LibRaw - P.P.B (Mpix/sec)	**28.35**	**26.91**
Normalized	100%	94.92%
Standard Deviation	1.8%	0.4%
Unpacking Firefox - firefox-84.0.source.tar.xz (sec)	**20.722**	**21.947**
Normalized	100%	94.42%
Standard Deviation	0.4%	5.1%
LevelDB - Seq Fill (MB/s)	**32.9**	**33.2**
Normalized	99.1%	100%
Standard Deviation	2.2%	6%
LevelDB - Seq Fill (us/Op)	**53.895**	**53.437**
Normalized	99.15%	100%
Standard Deviation	2.2%	6.3%
LevelDB - Rand Fill (MB/s)	**33.6**	**27.6**
Normalized	100%	82.14%
Standard Deviation	2.5%	18.5%
LevelDB - Rand Delete (us/Op)	**53.394**	**48.851**
Normalized	91.49%	100%
Standard Deviation	1.3%	0.9%
LevelDB - Hot Read (us/Op)	**9.381**	**10.365**
Normalized	100%	90.51%
Standard Deviation	5%	4.8%
LevelDB - Seek Rand (us/Op)	**12.591**	**14.420**
Normalized	100%	87.32%
Standard Deviation	4.2%	2.9%

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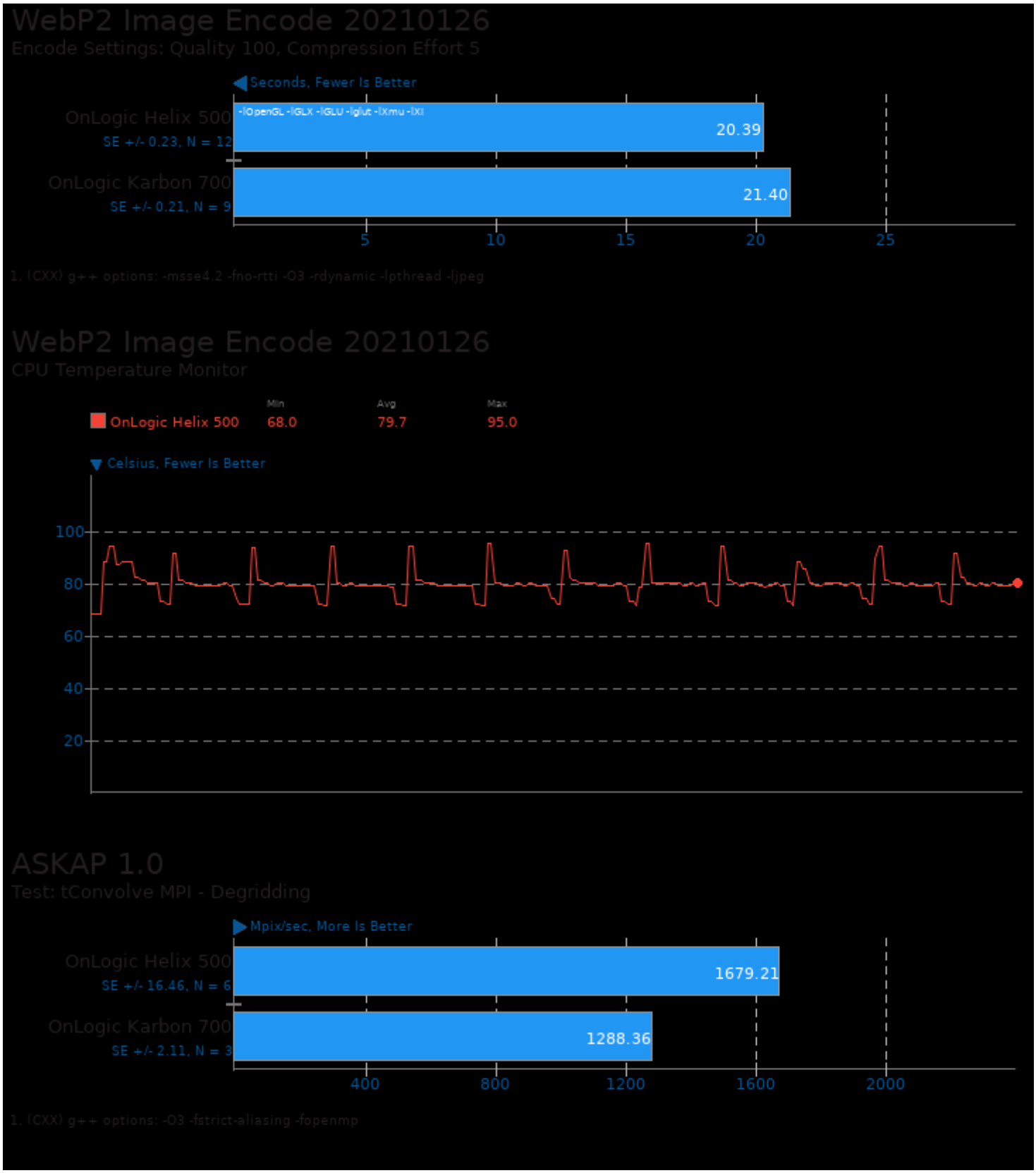

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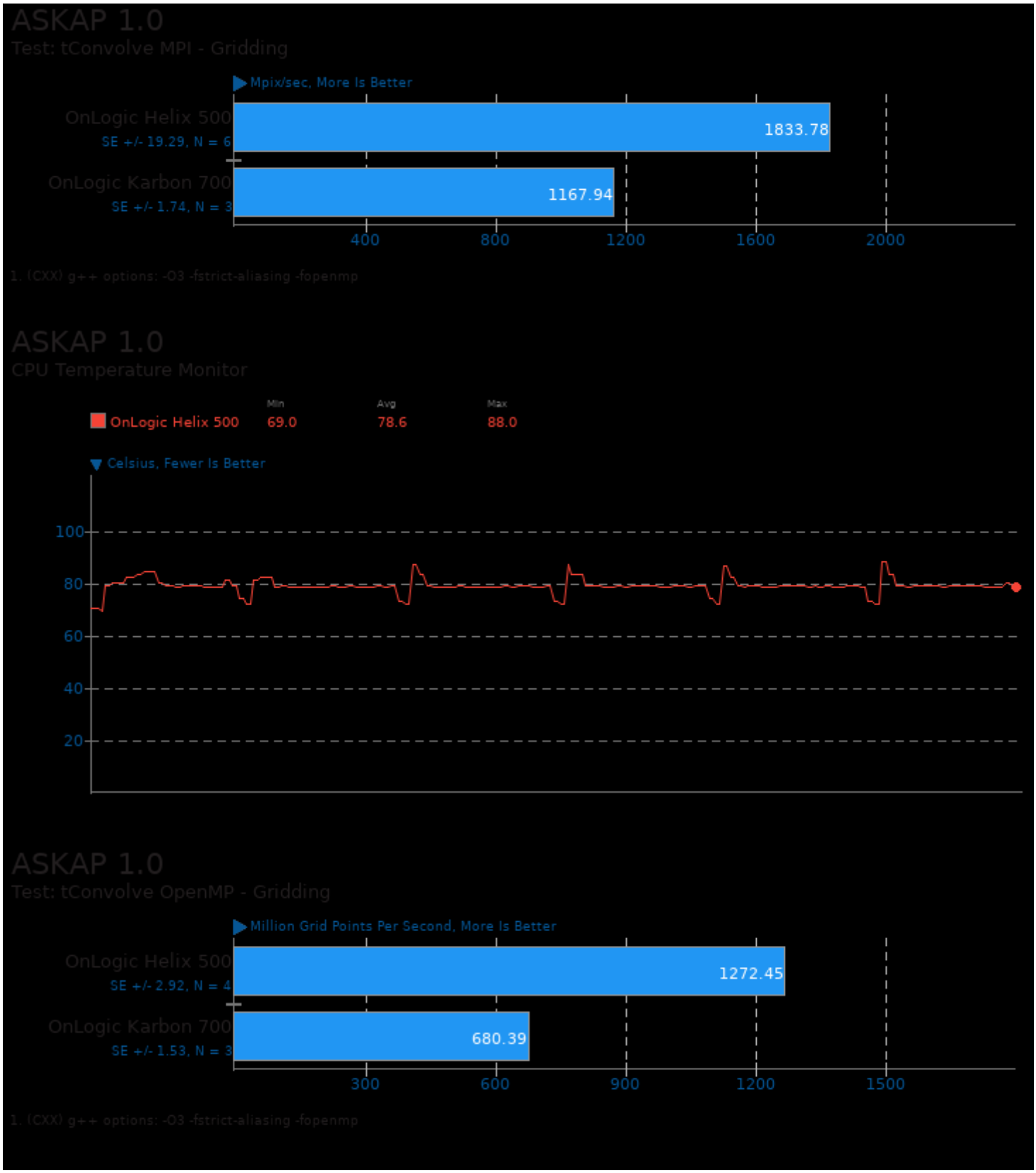

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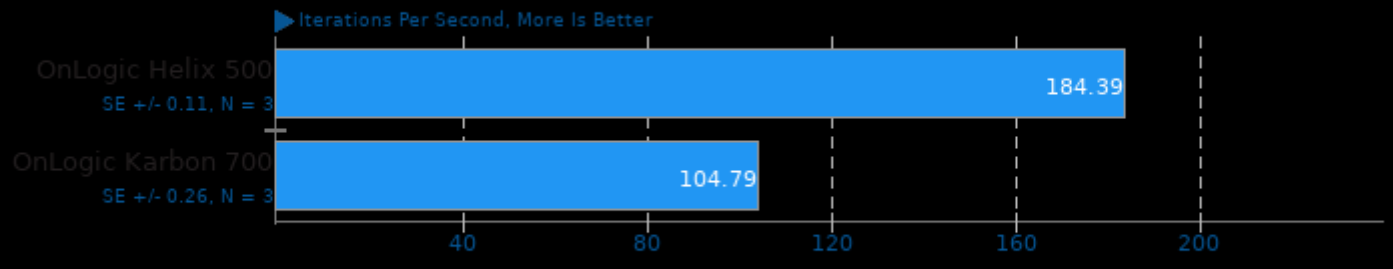
ASKAP 1.0

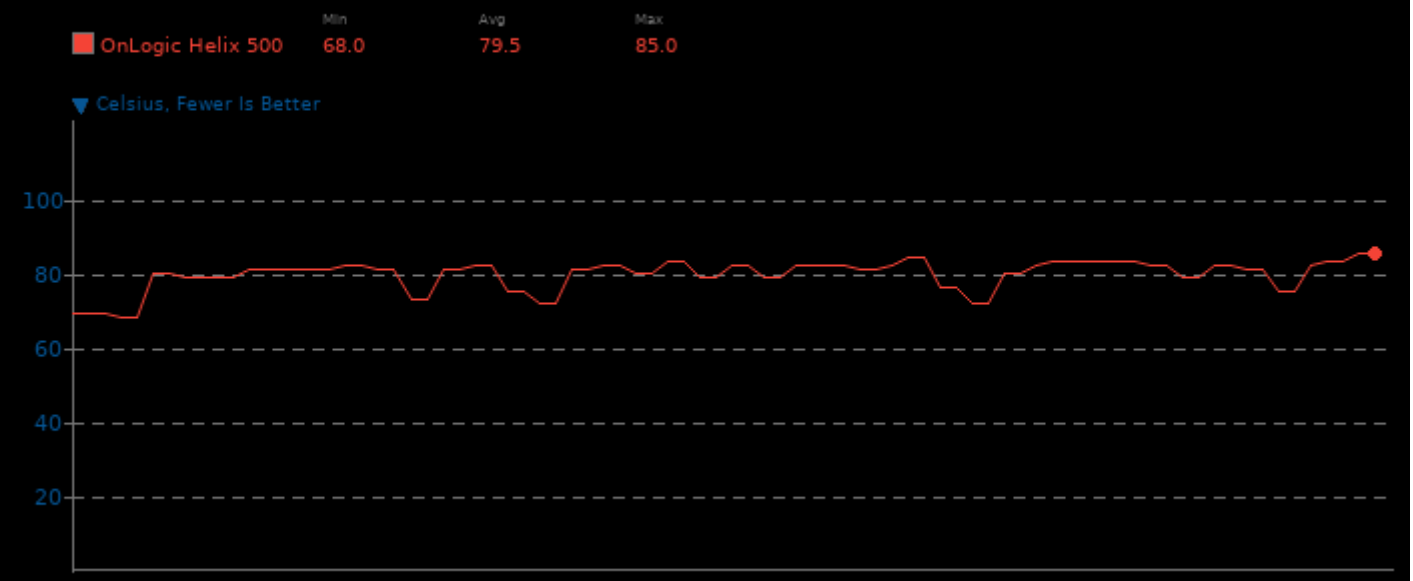
Test: Hogbom Clean OpenMP



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

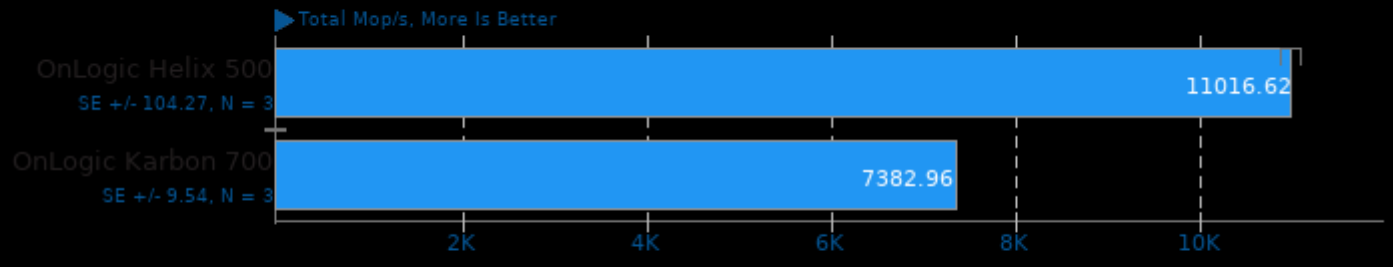
ASKAP 1.0

CPU Temperature Monitor



NAS Parallel Benchmarks 3.4

Test / Class: FT.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent -levent_pthreads -luti

2. Open MPI 4.0.3

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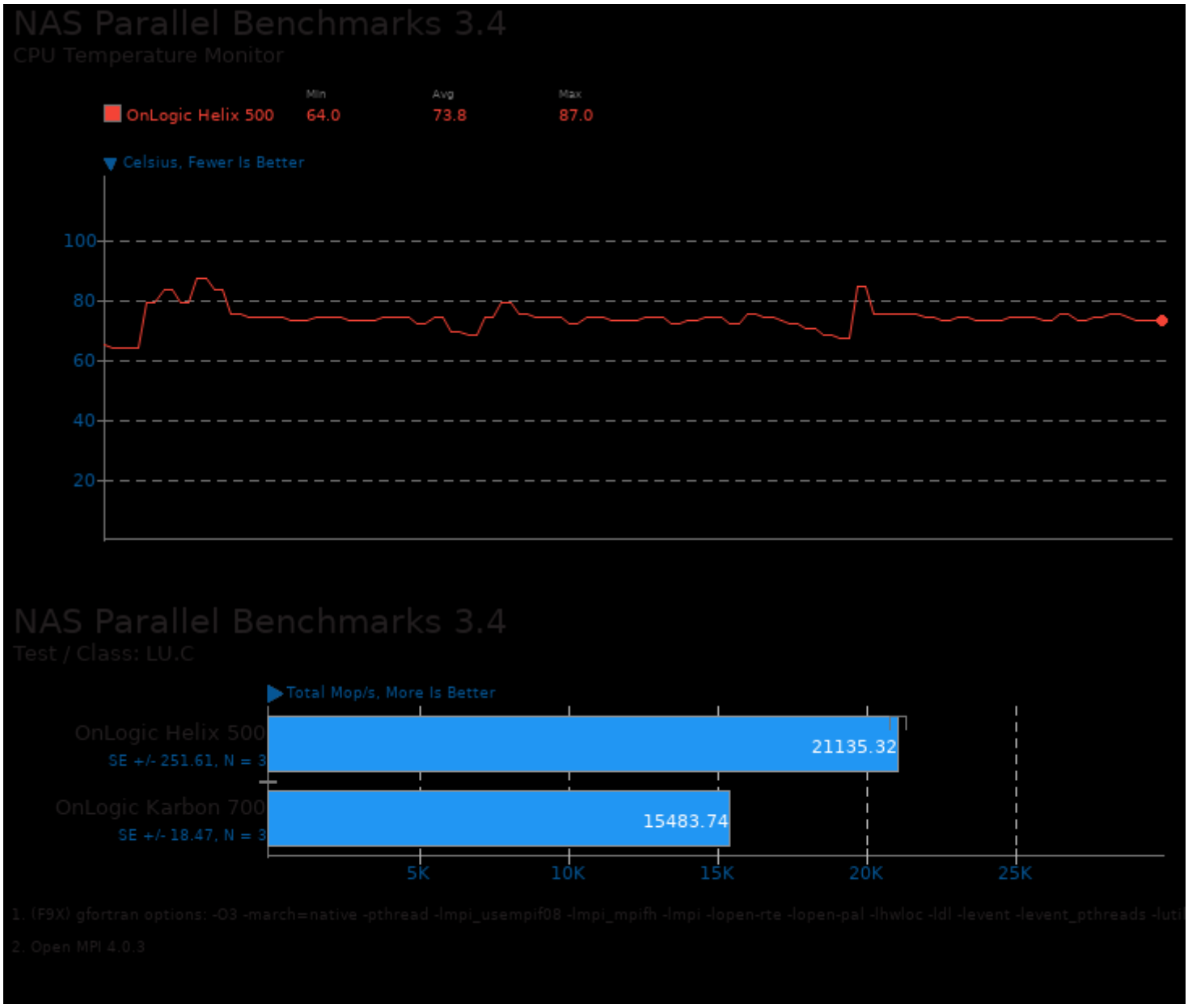
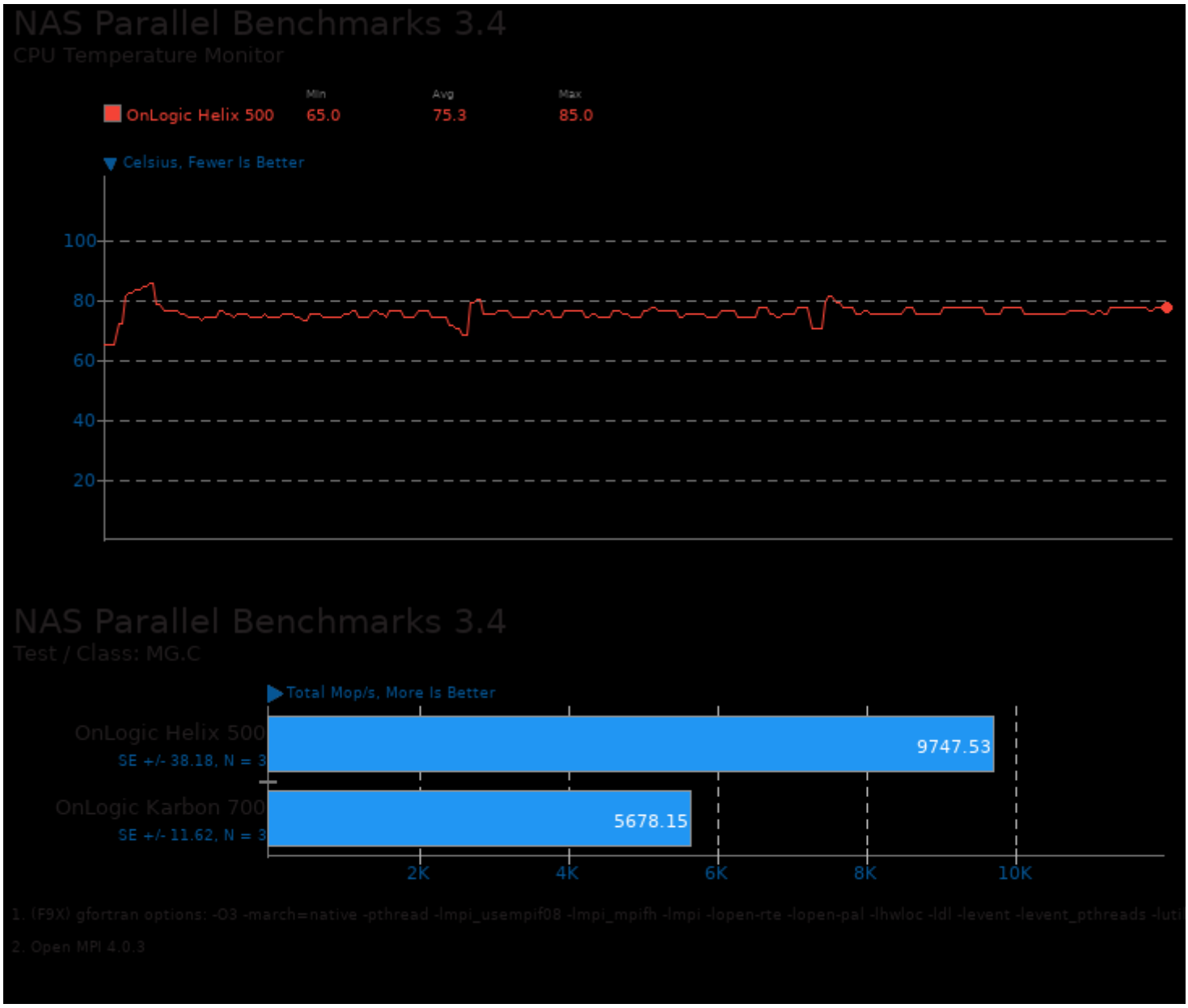
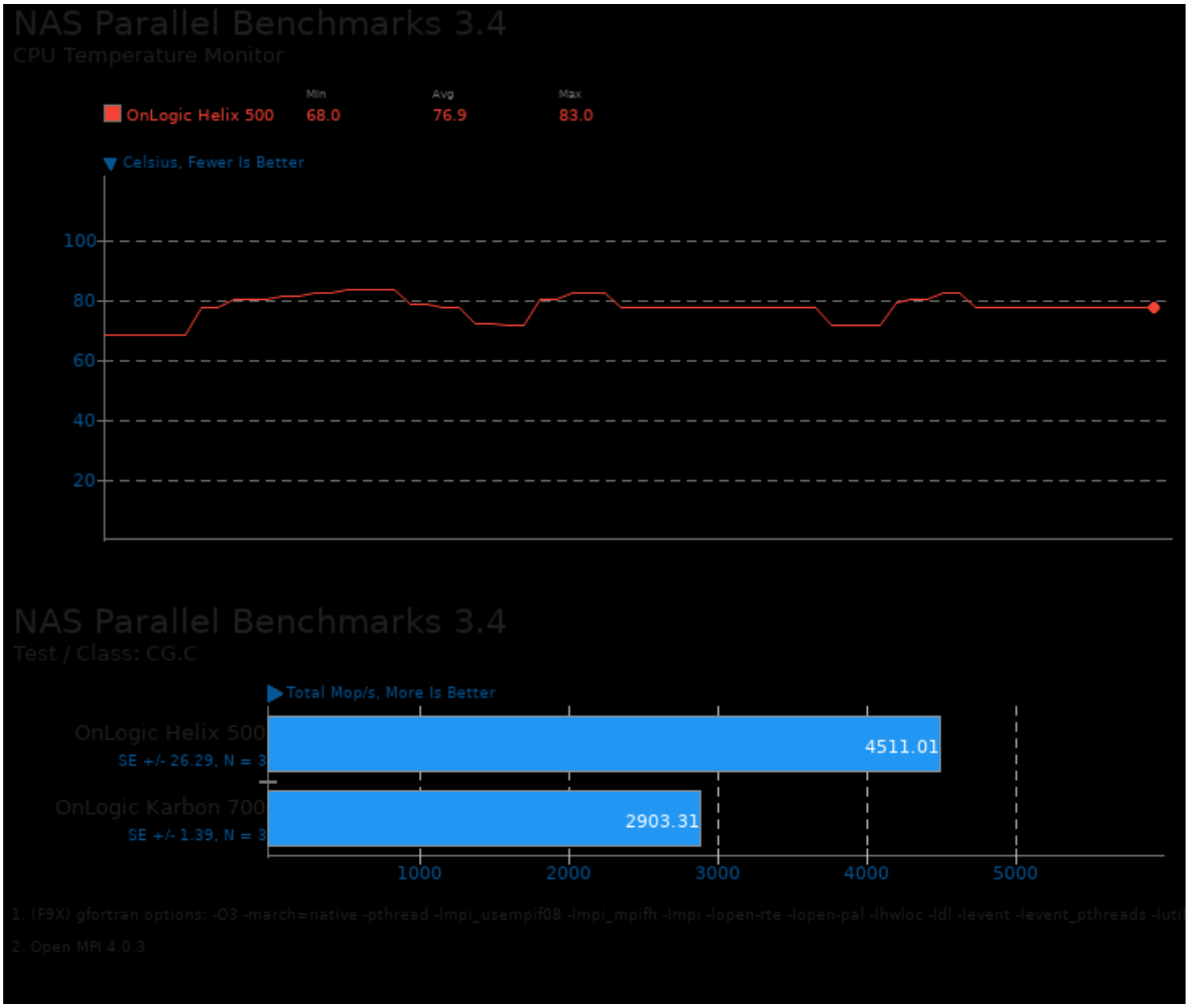


OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



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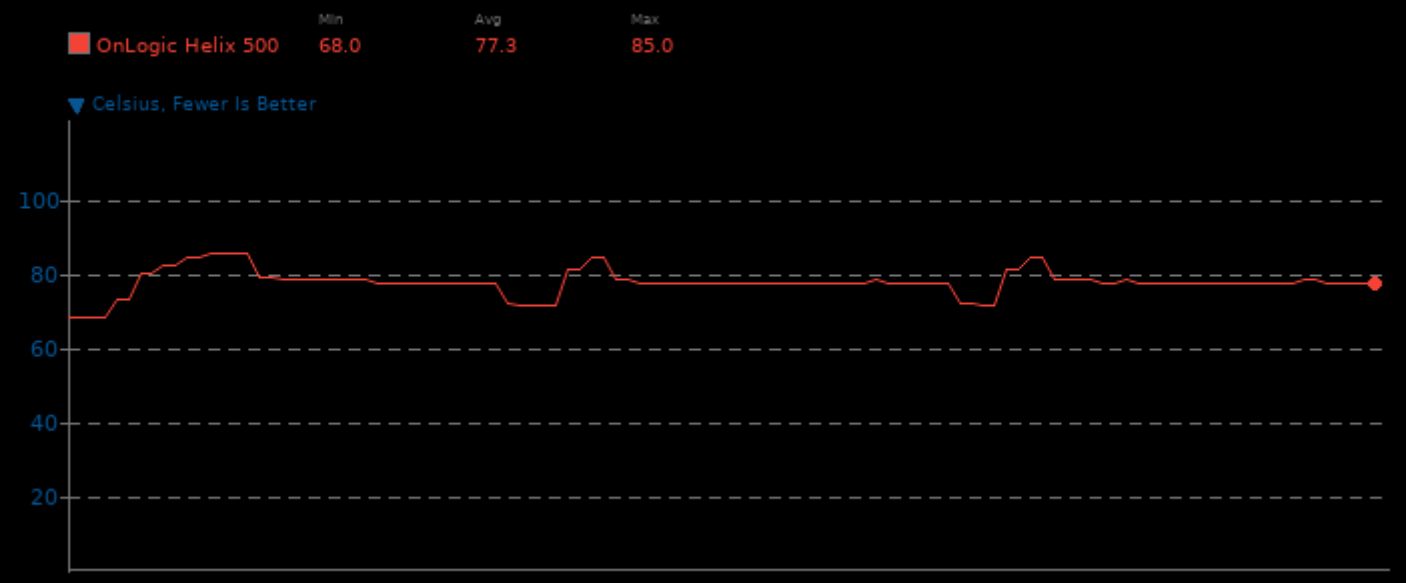
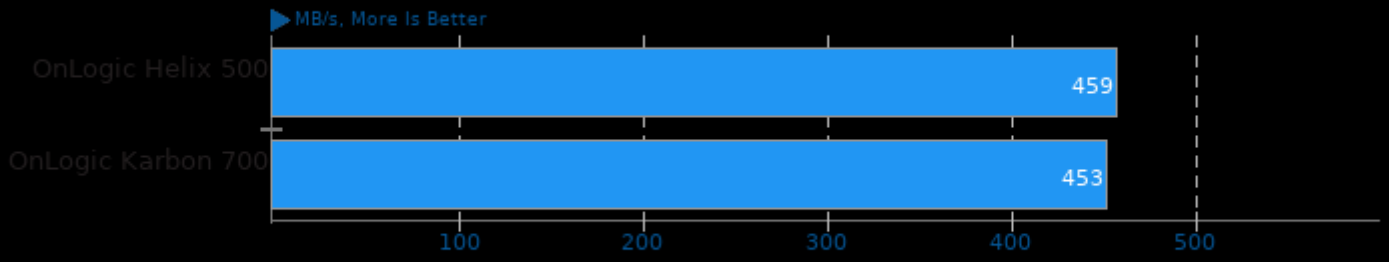
NAS Parallel Benchmarks 3.4

CPU Temperature Monitor



lzbench 1.8

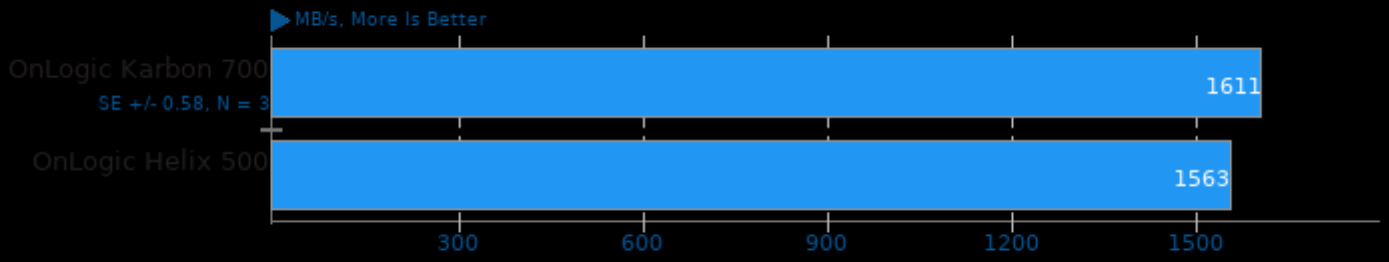
Test: Zstd 1 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

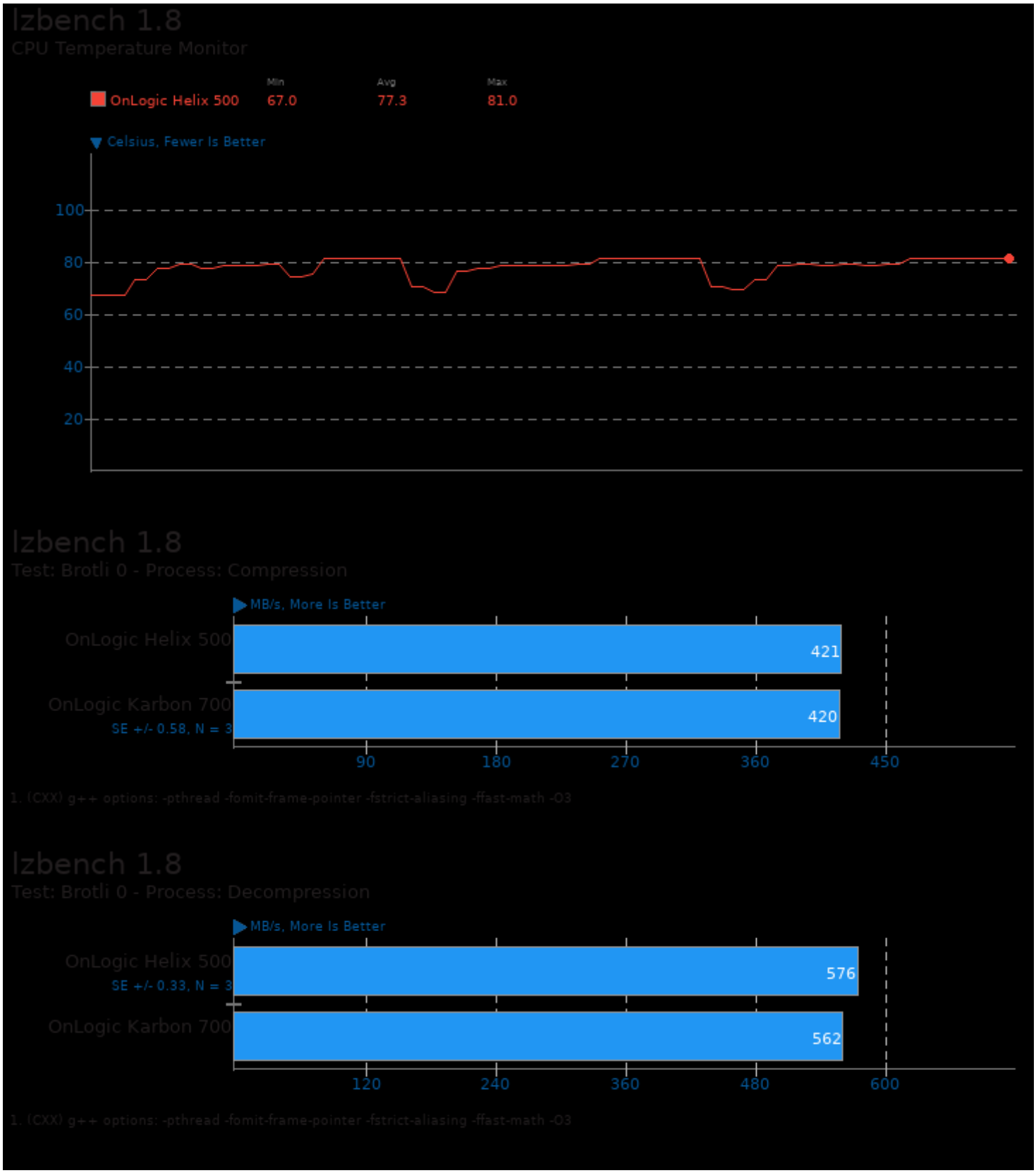
Test: Zstd 1 - Process: Decompression



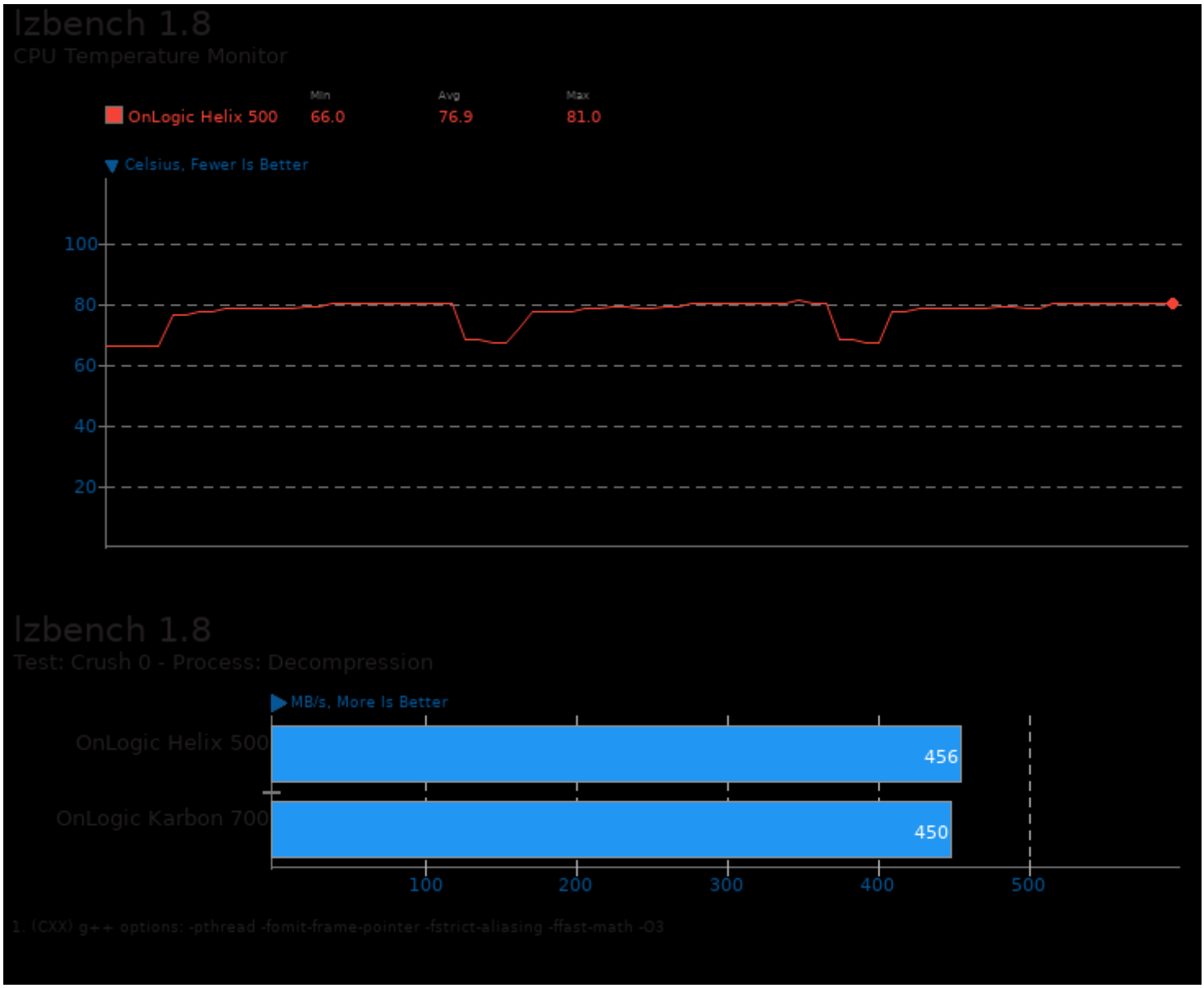
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

OnLogic Helix 500 Linux benchmarks

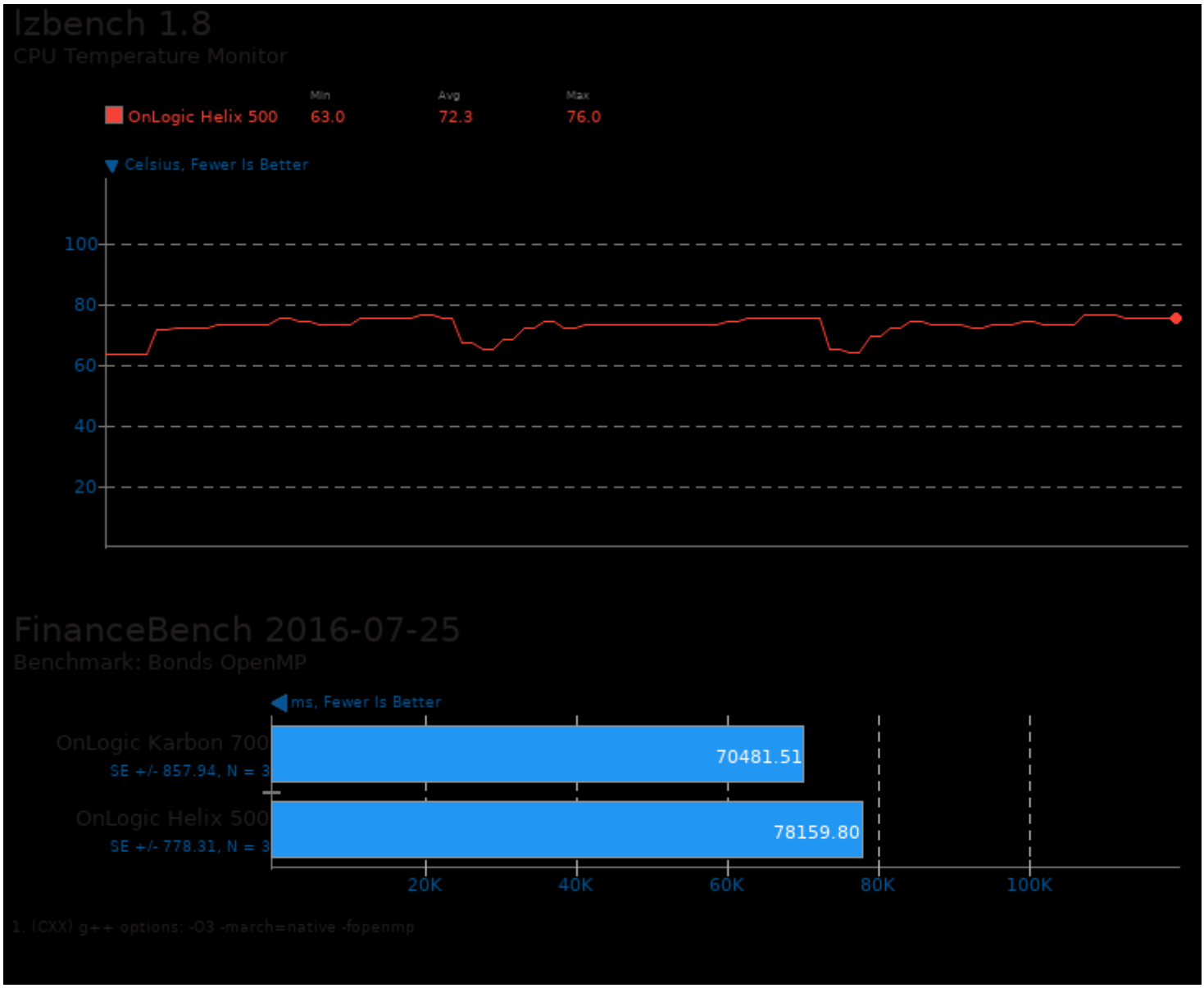
OnLogic Helix 500 Linux benchmarks



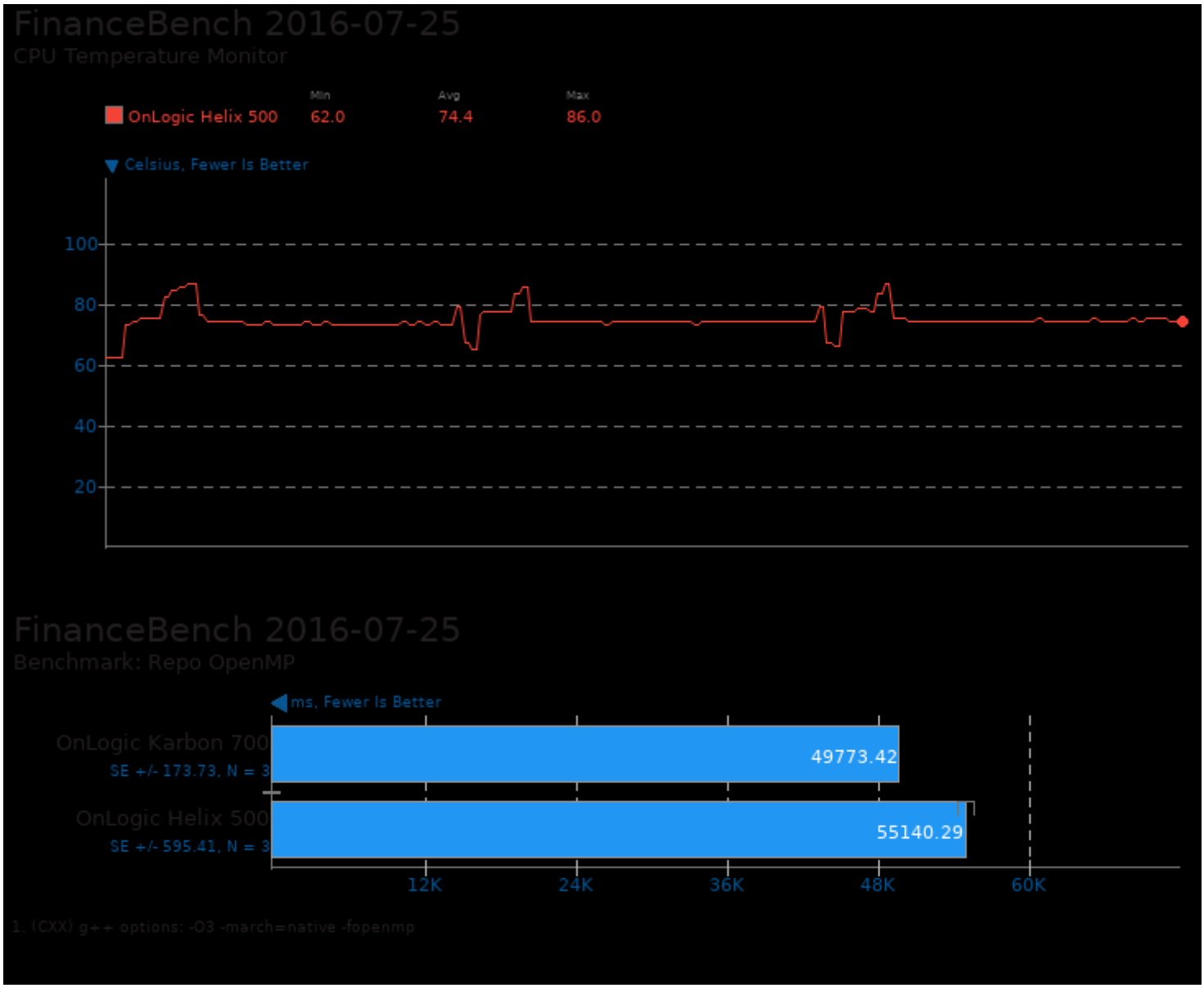
OnLogic Helix 500 Linux benchmarks



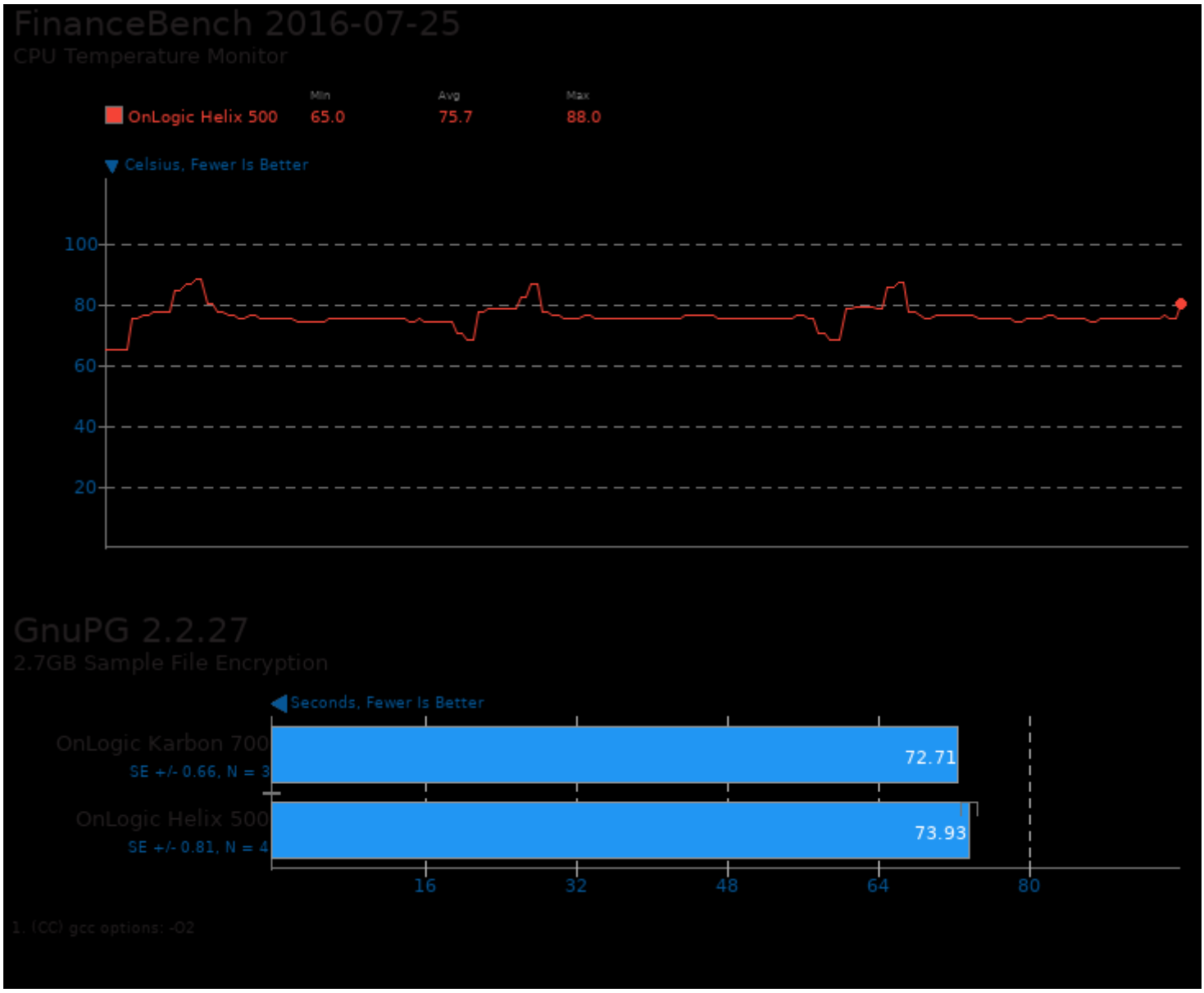
OnLogic Helix 500 Linux benchmarks



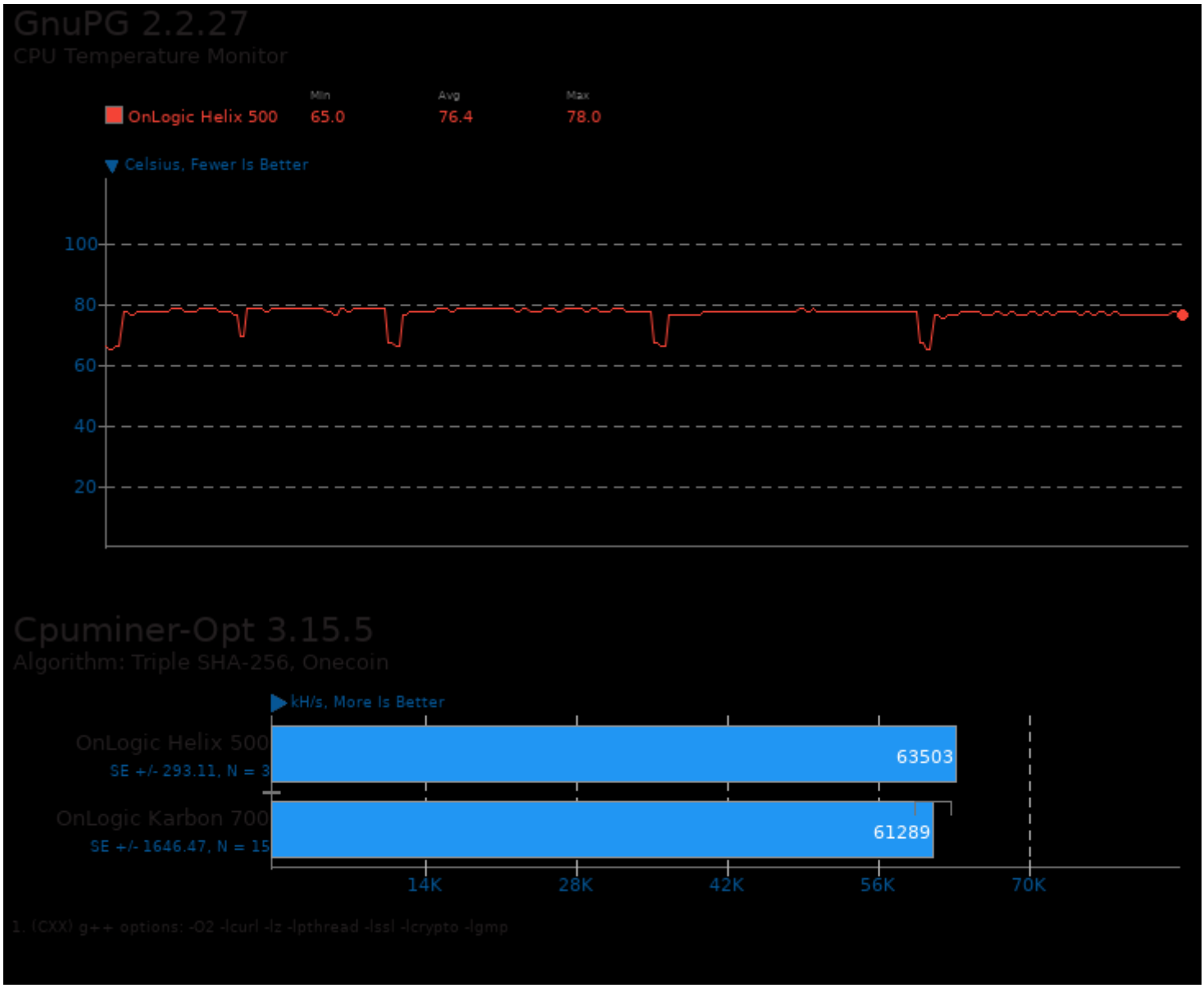
OnLogic Helix 500 Linux benchmarks



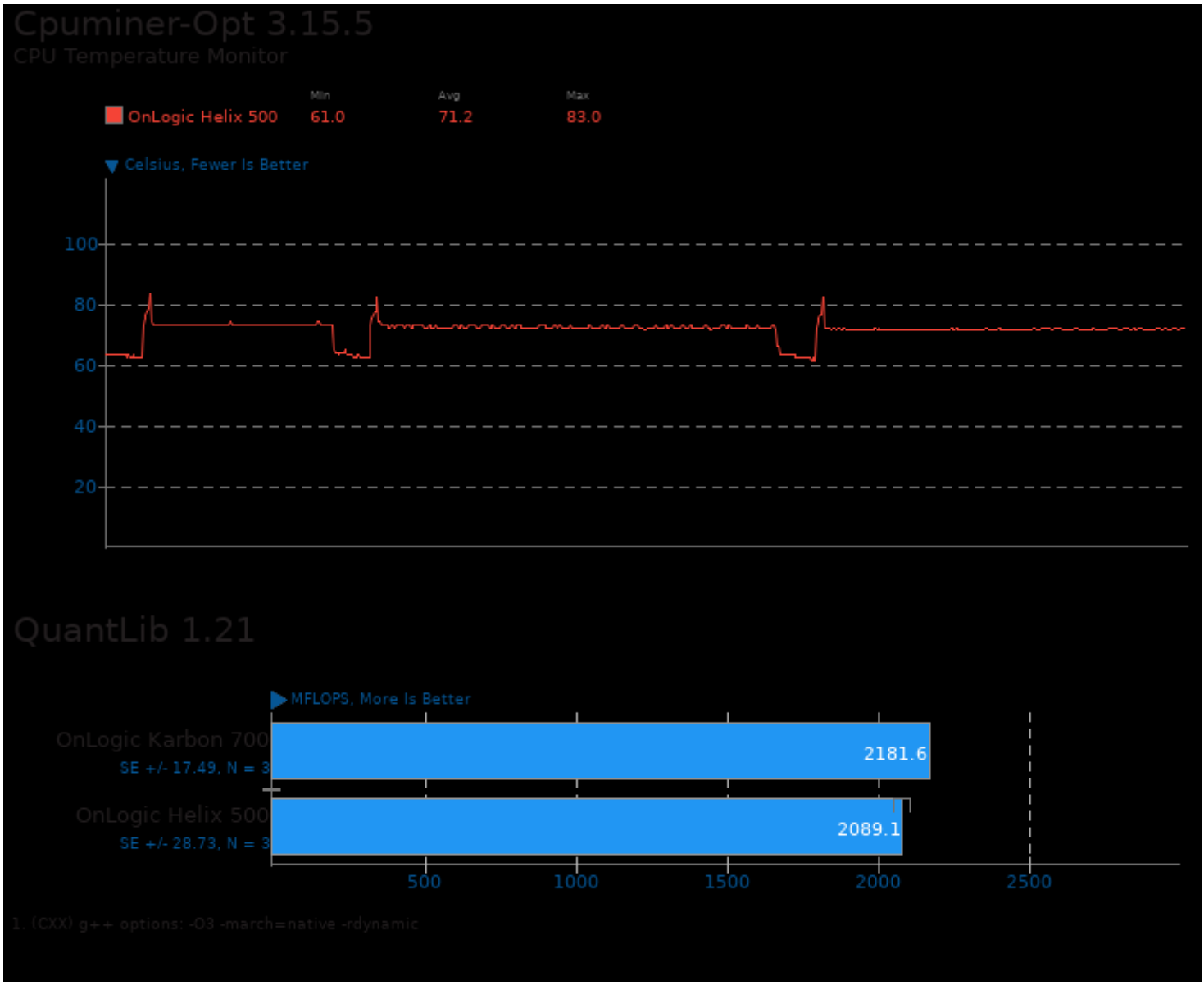
OnLogic Helix 500 Linux benchmarks



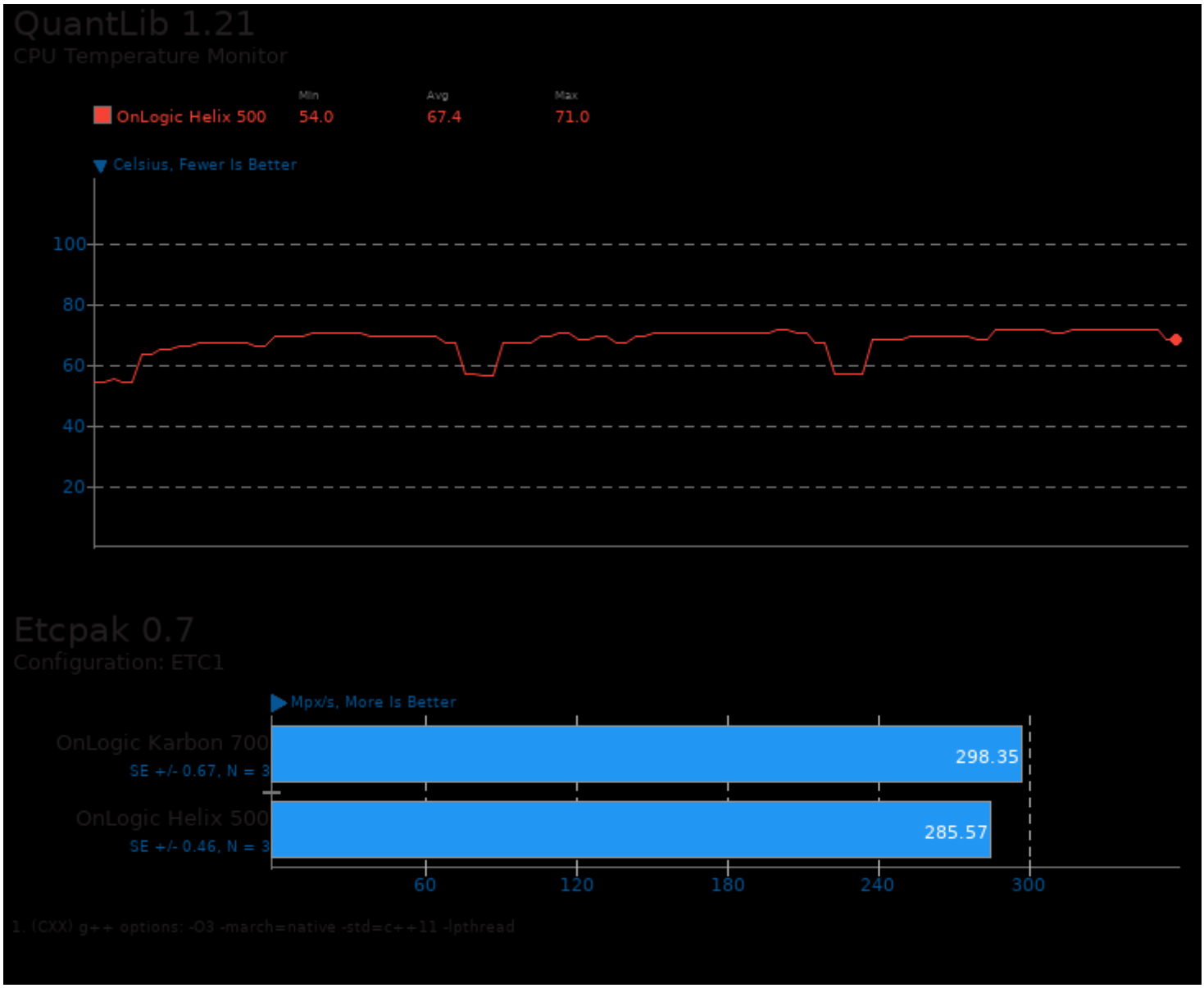
OnLogic Helix 500 Linux benchmarks



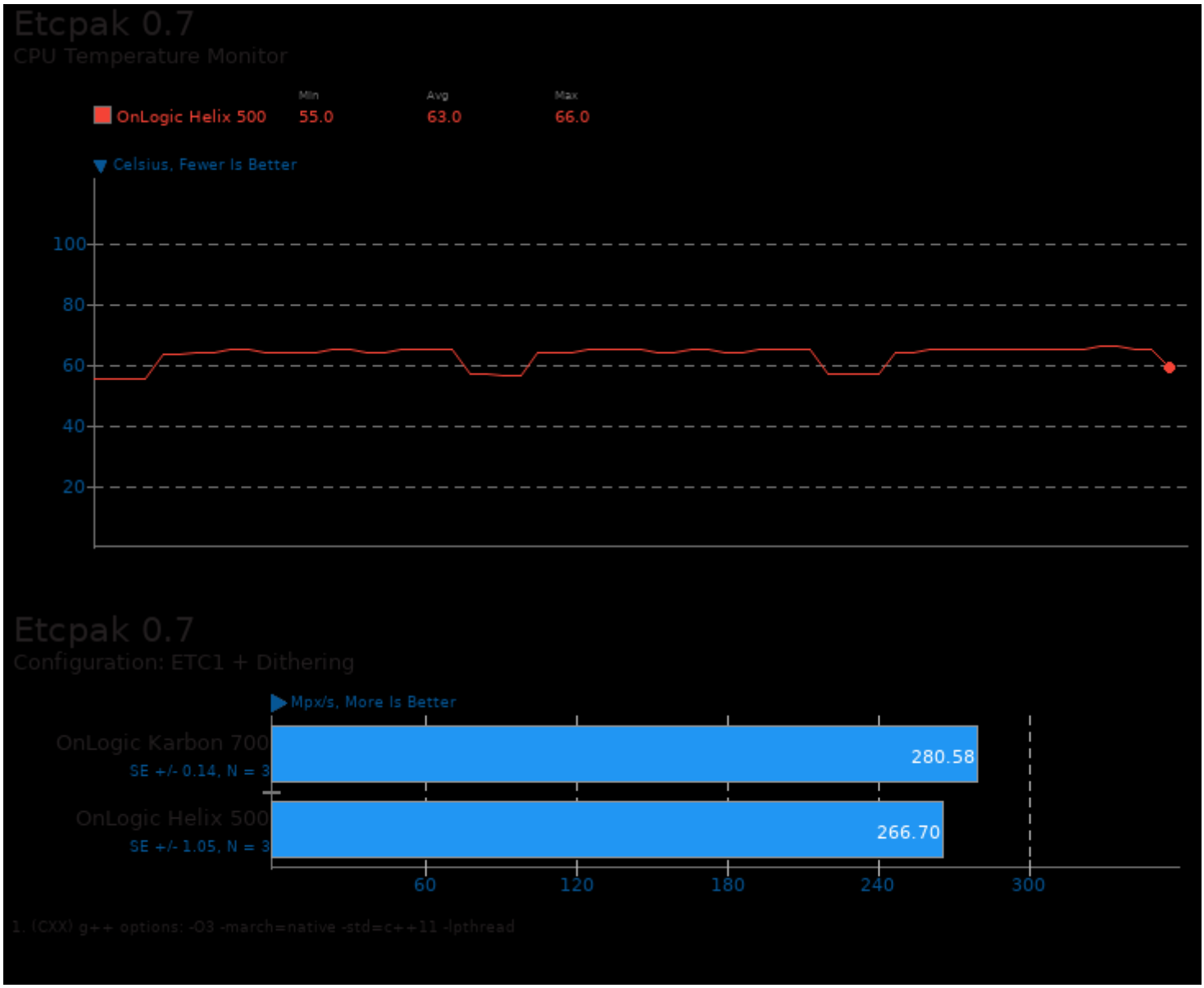
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



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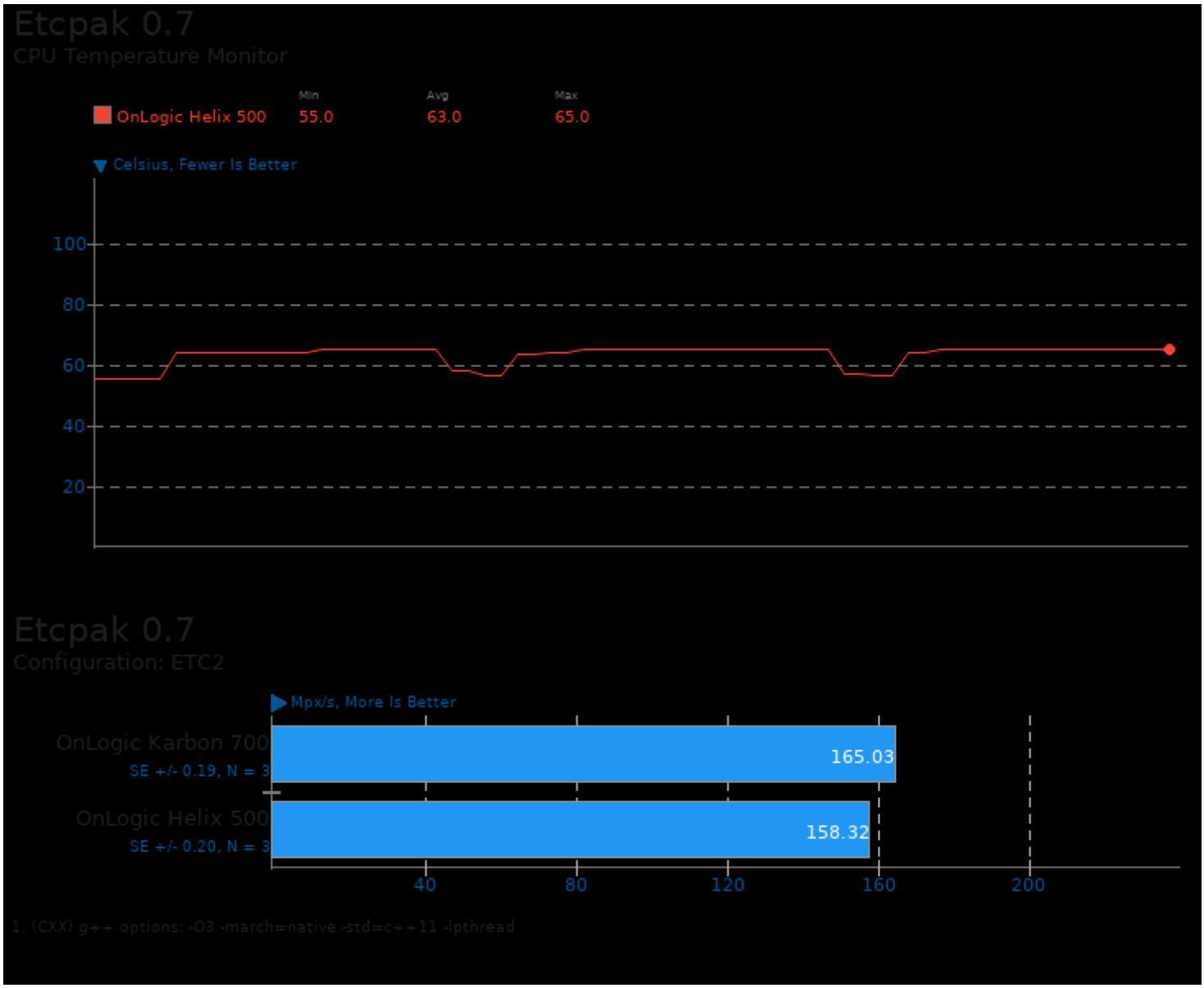
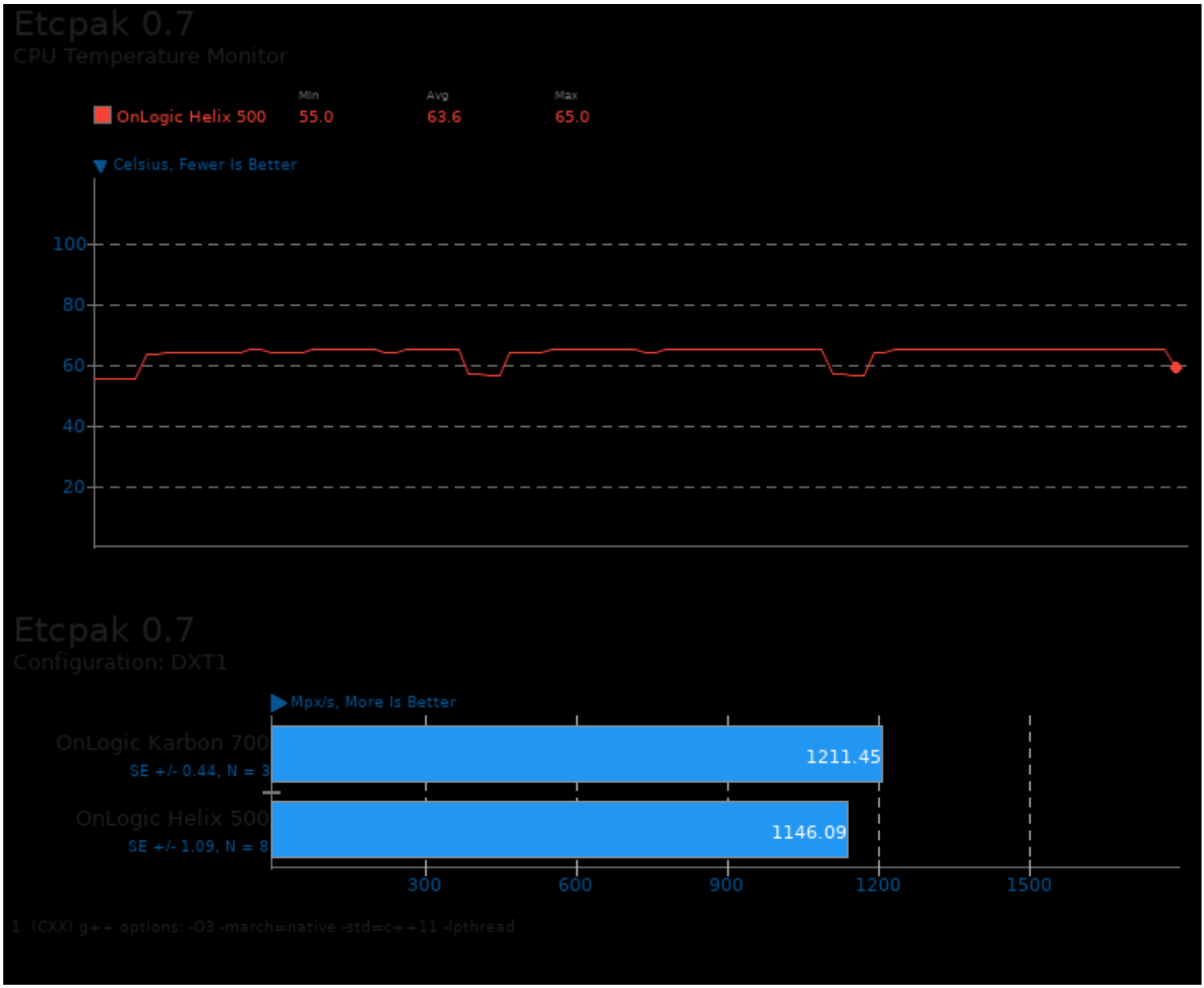
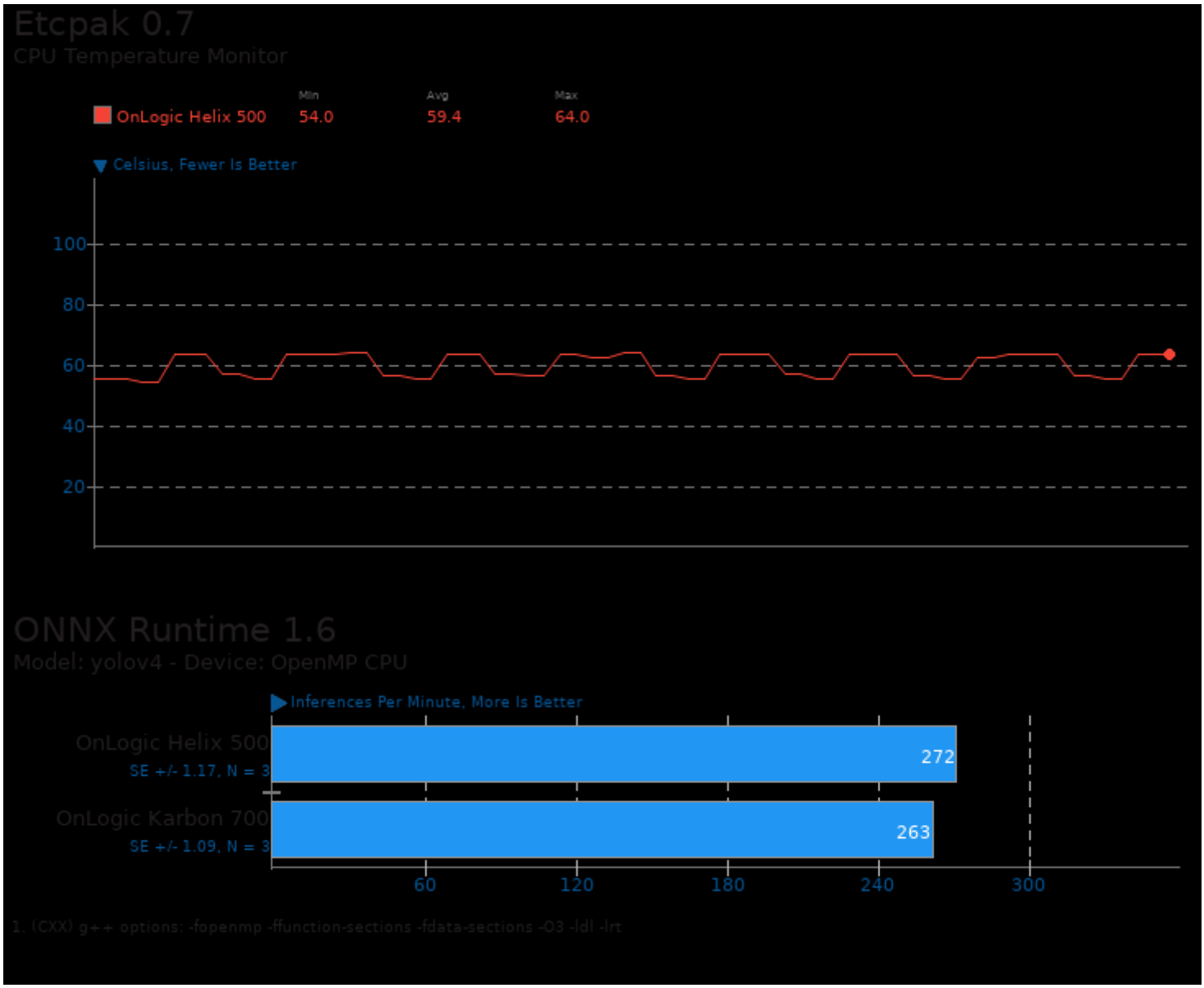


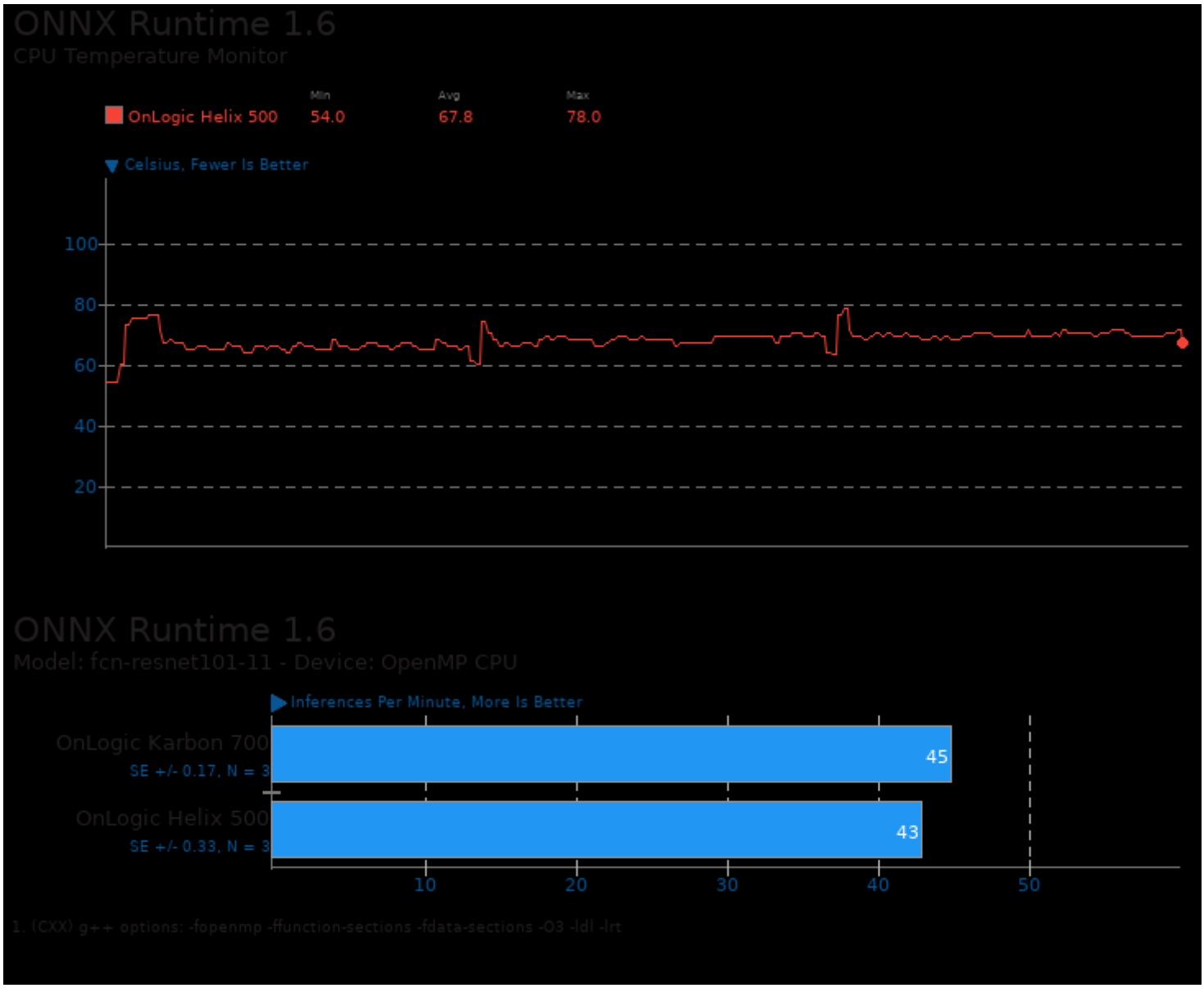
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



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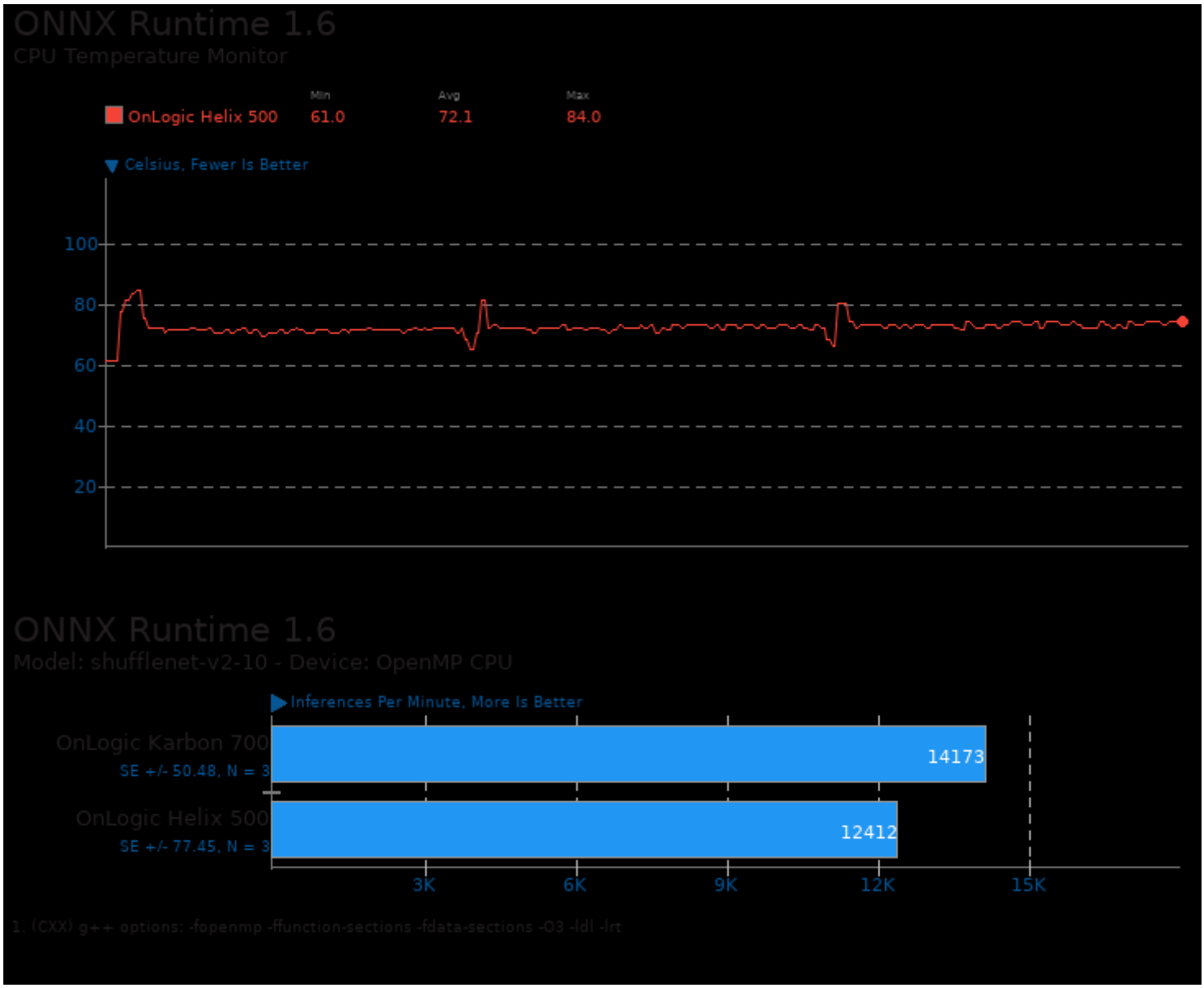
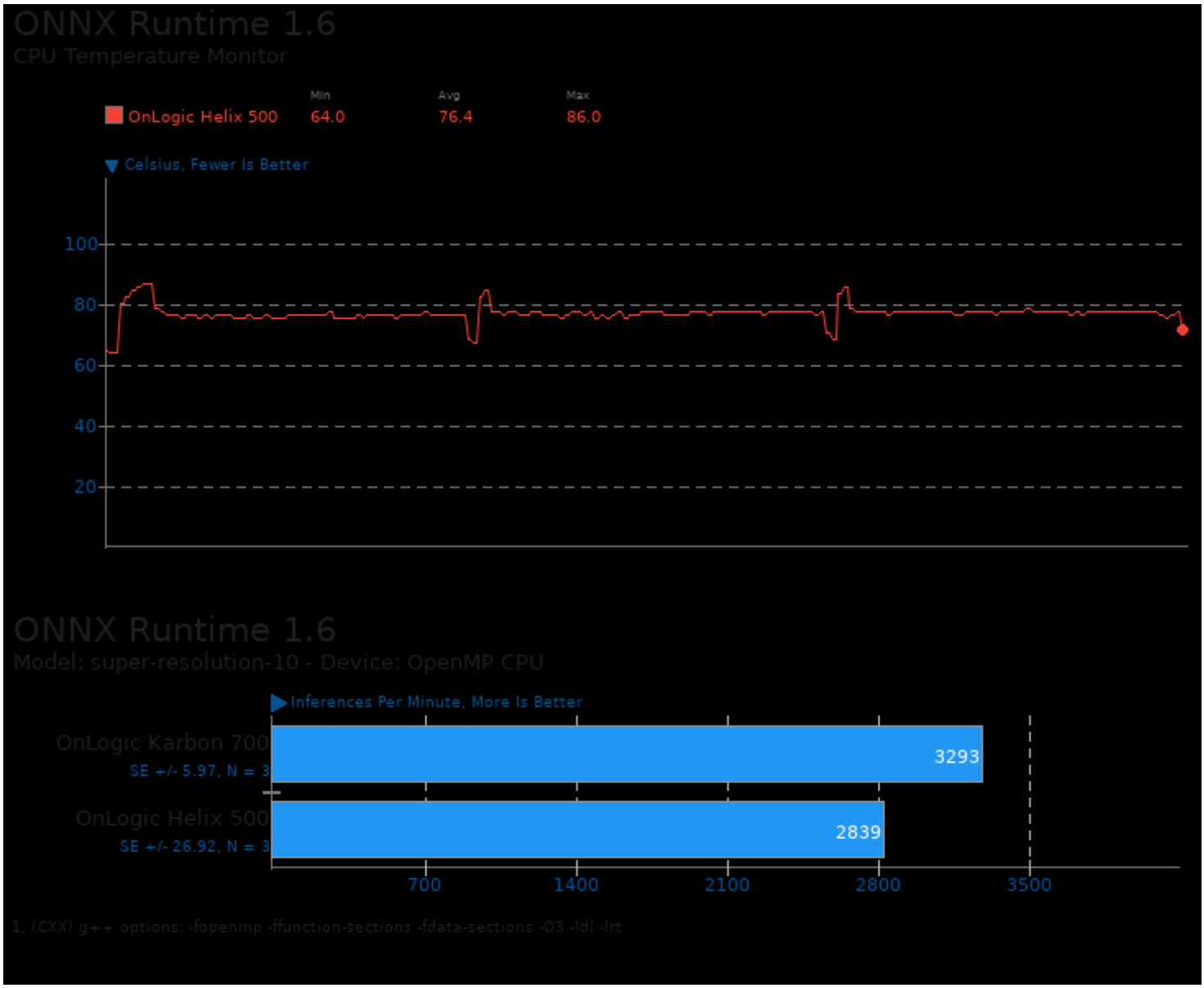
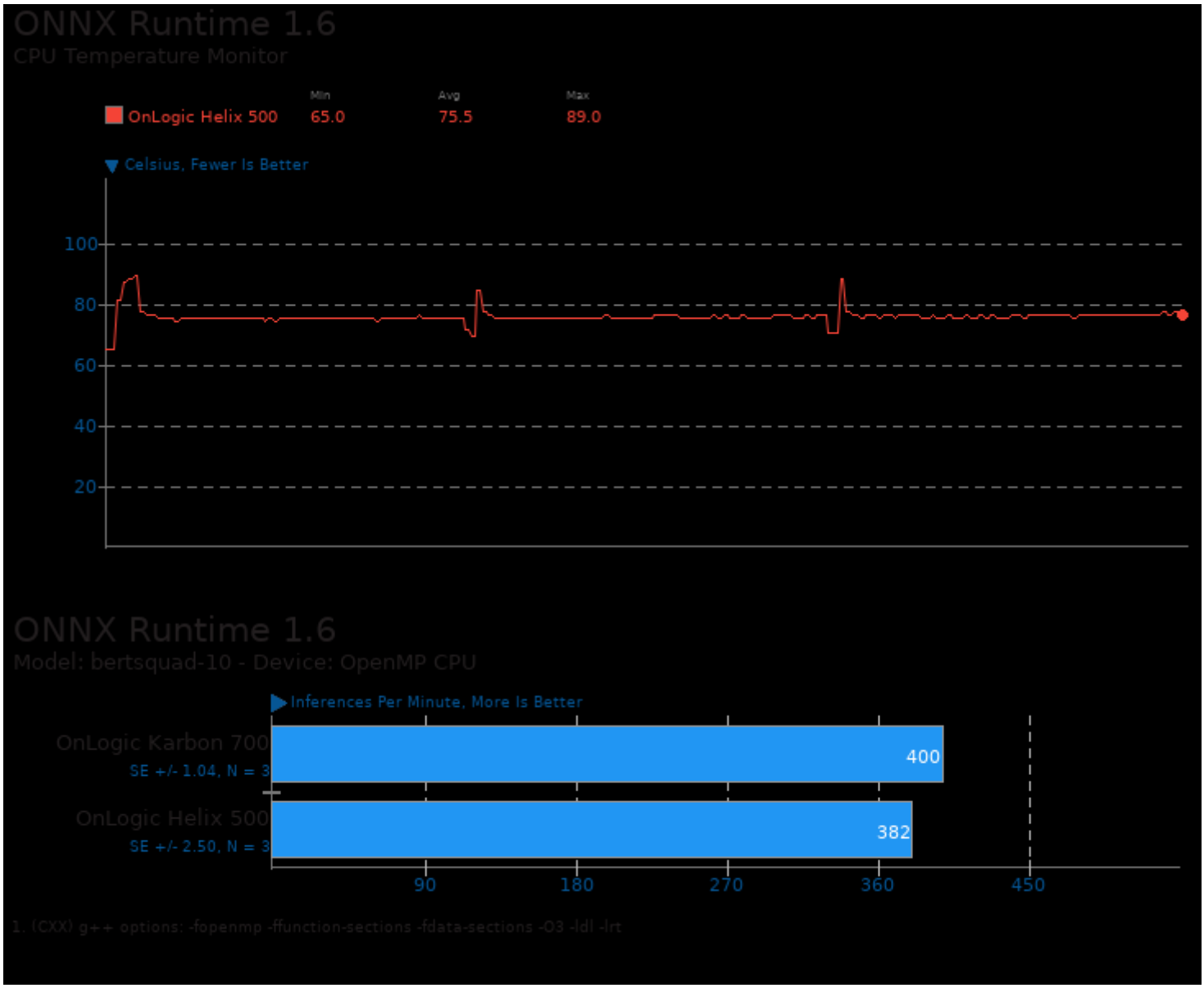


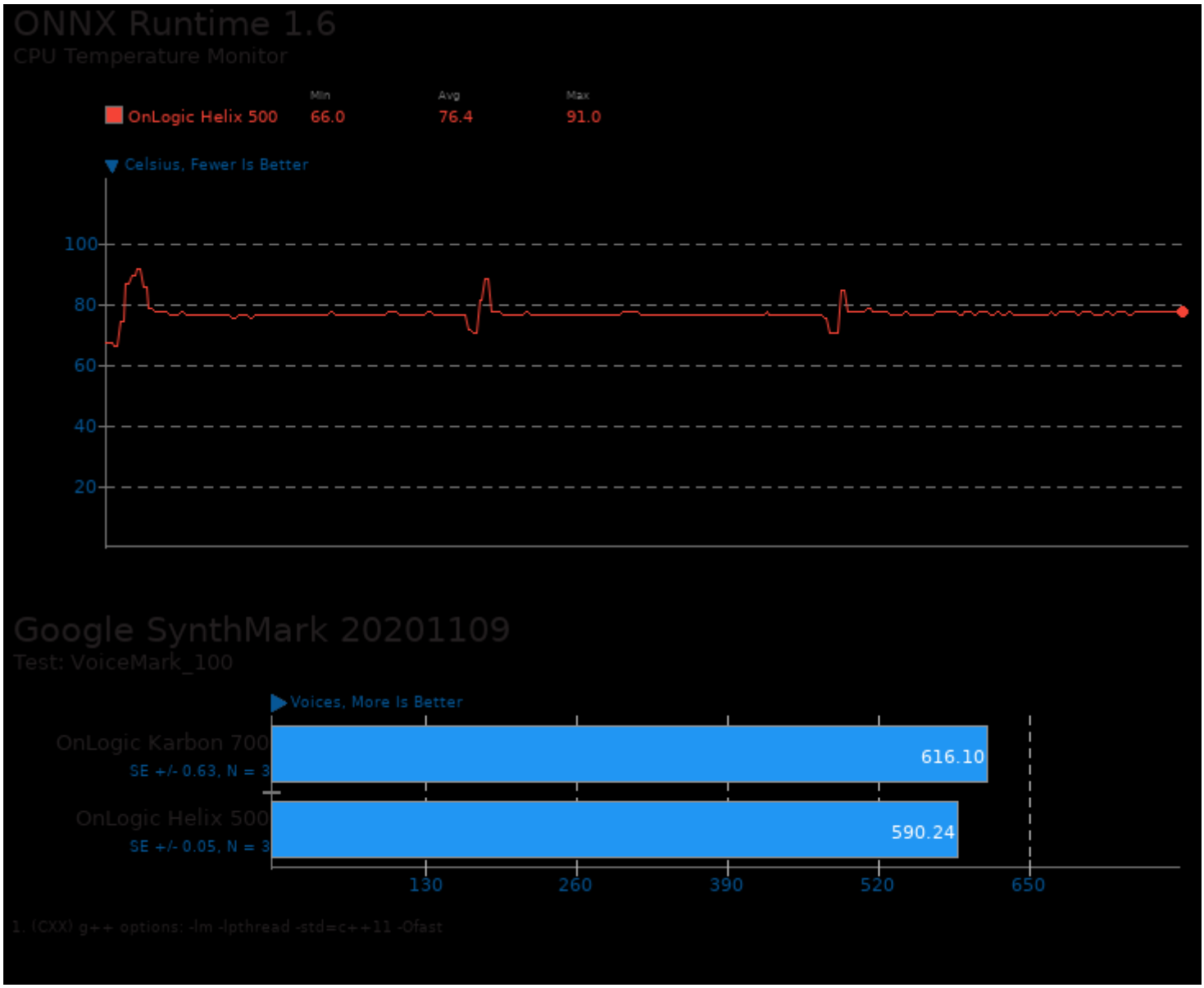
OnLogic Helix 500 Linux benchmarks



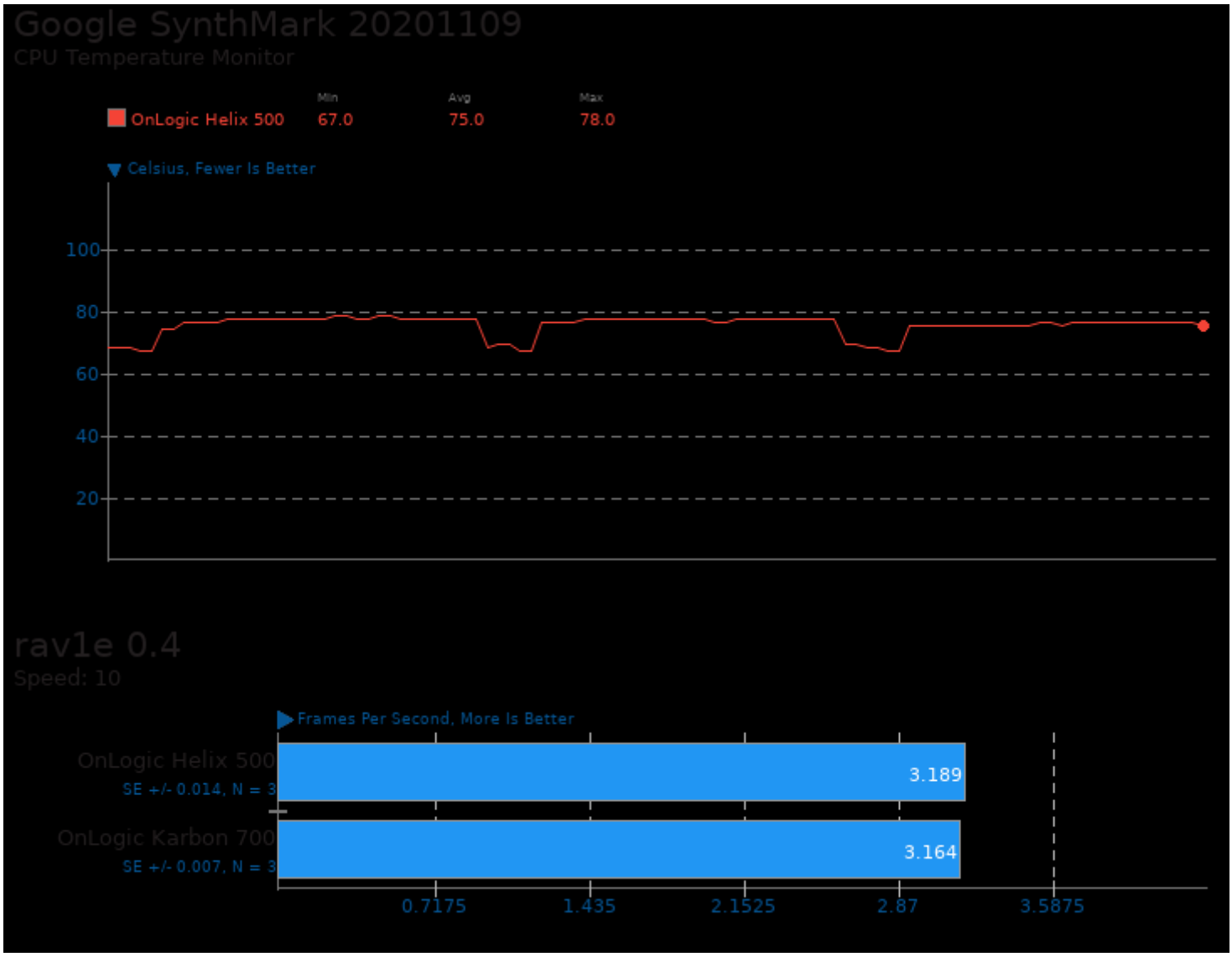
OnLogic Helix 500 Linux benchmarks



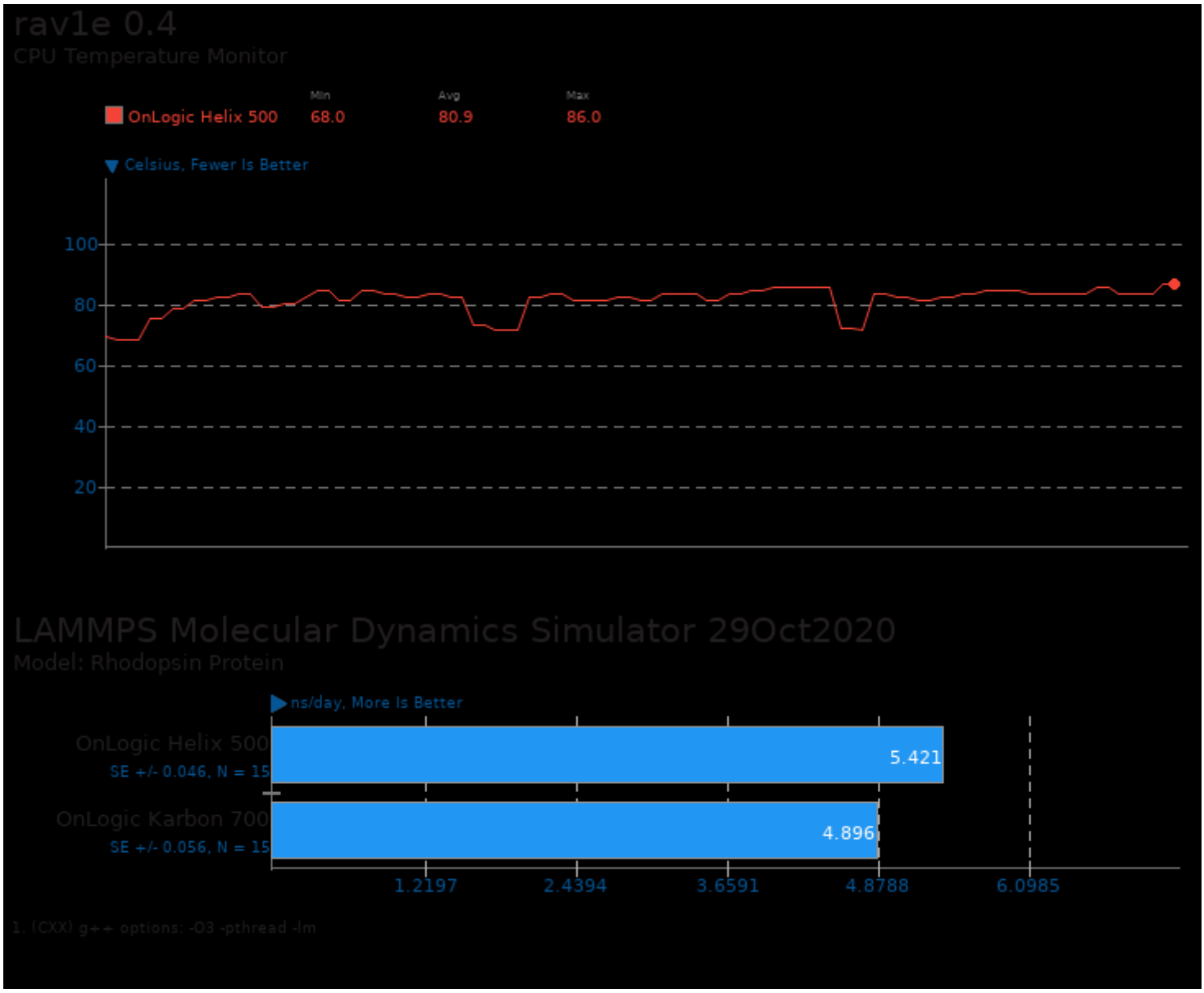
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



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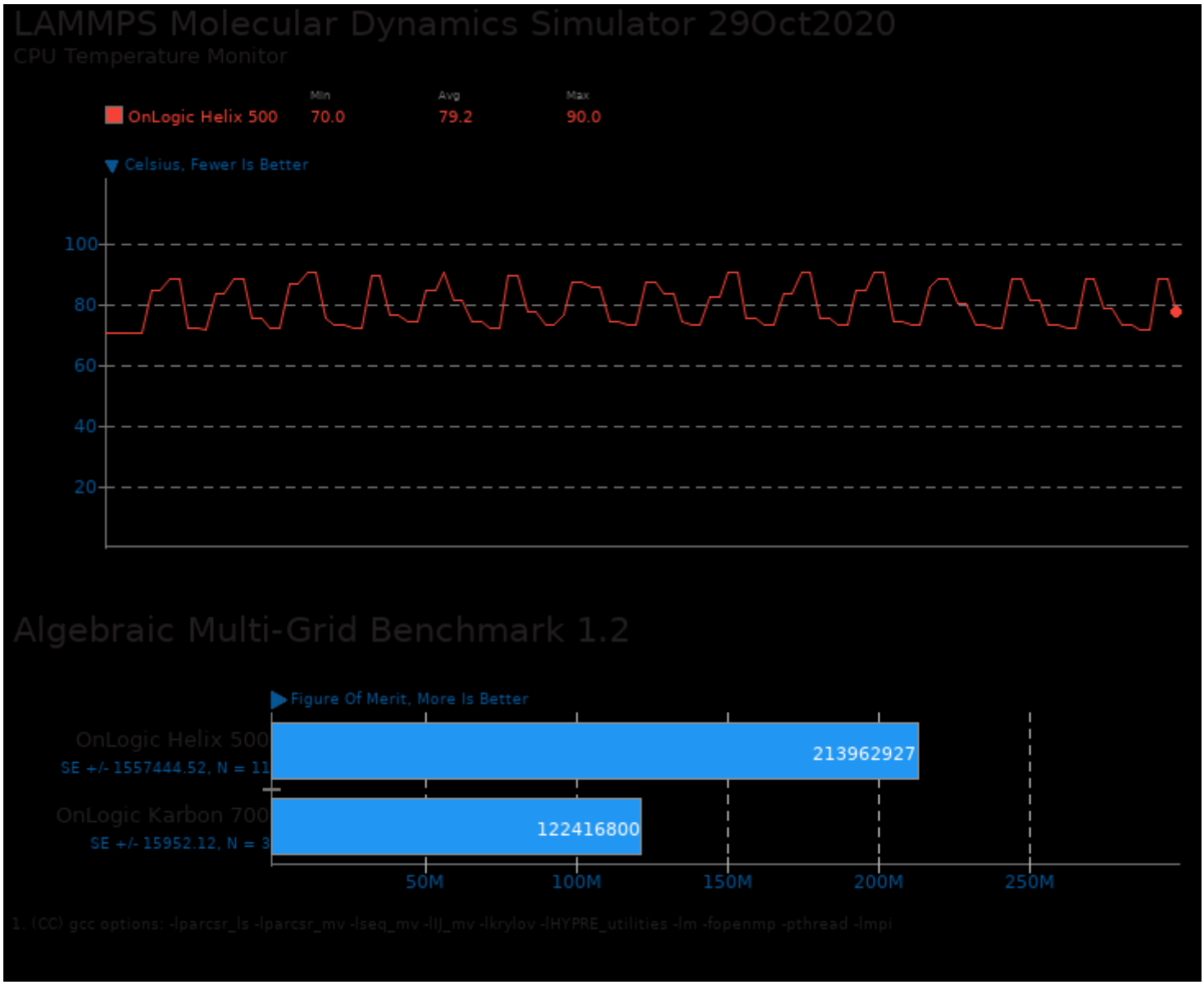

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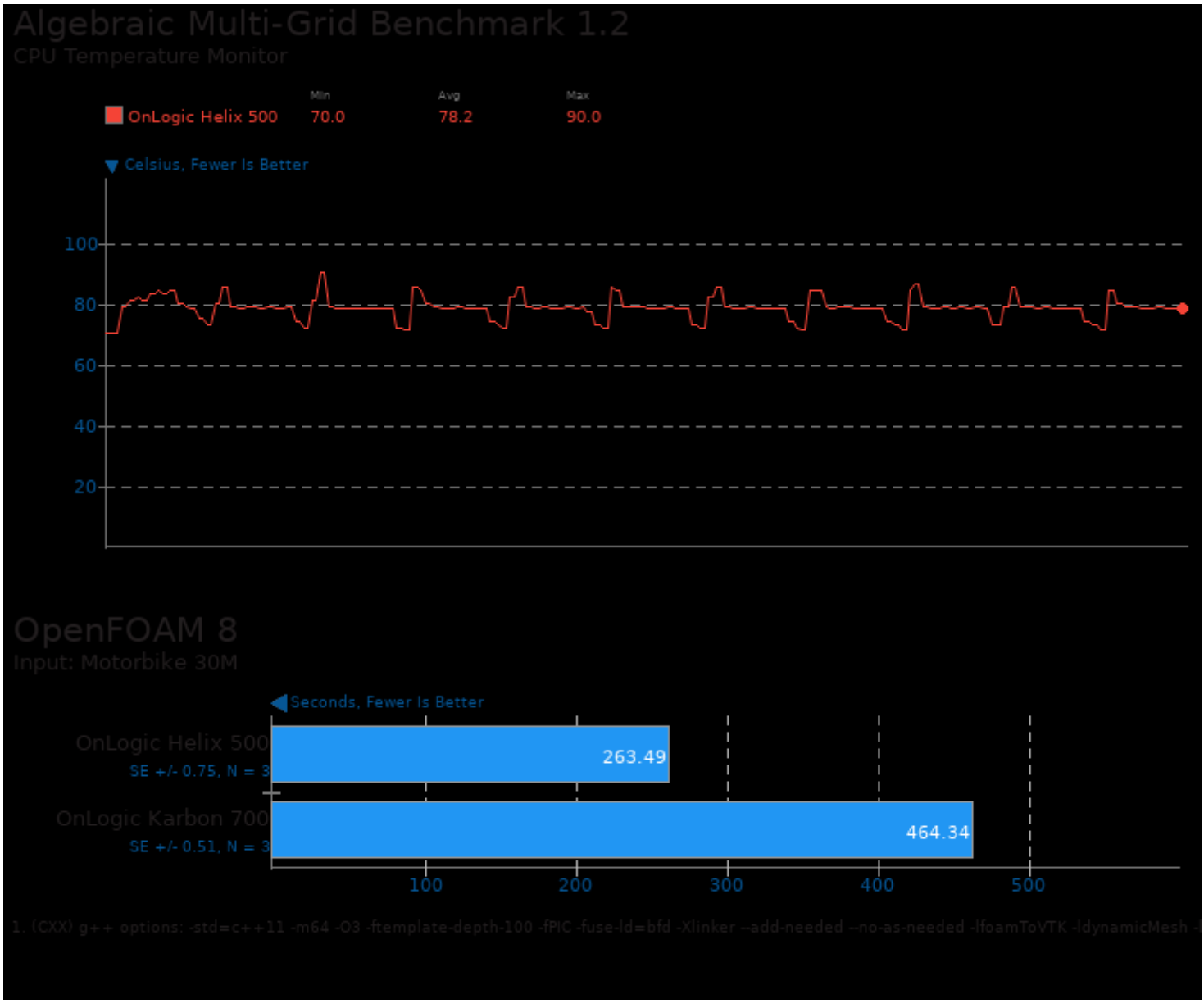

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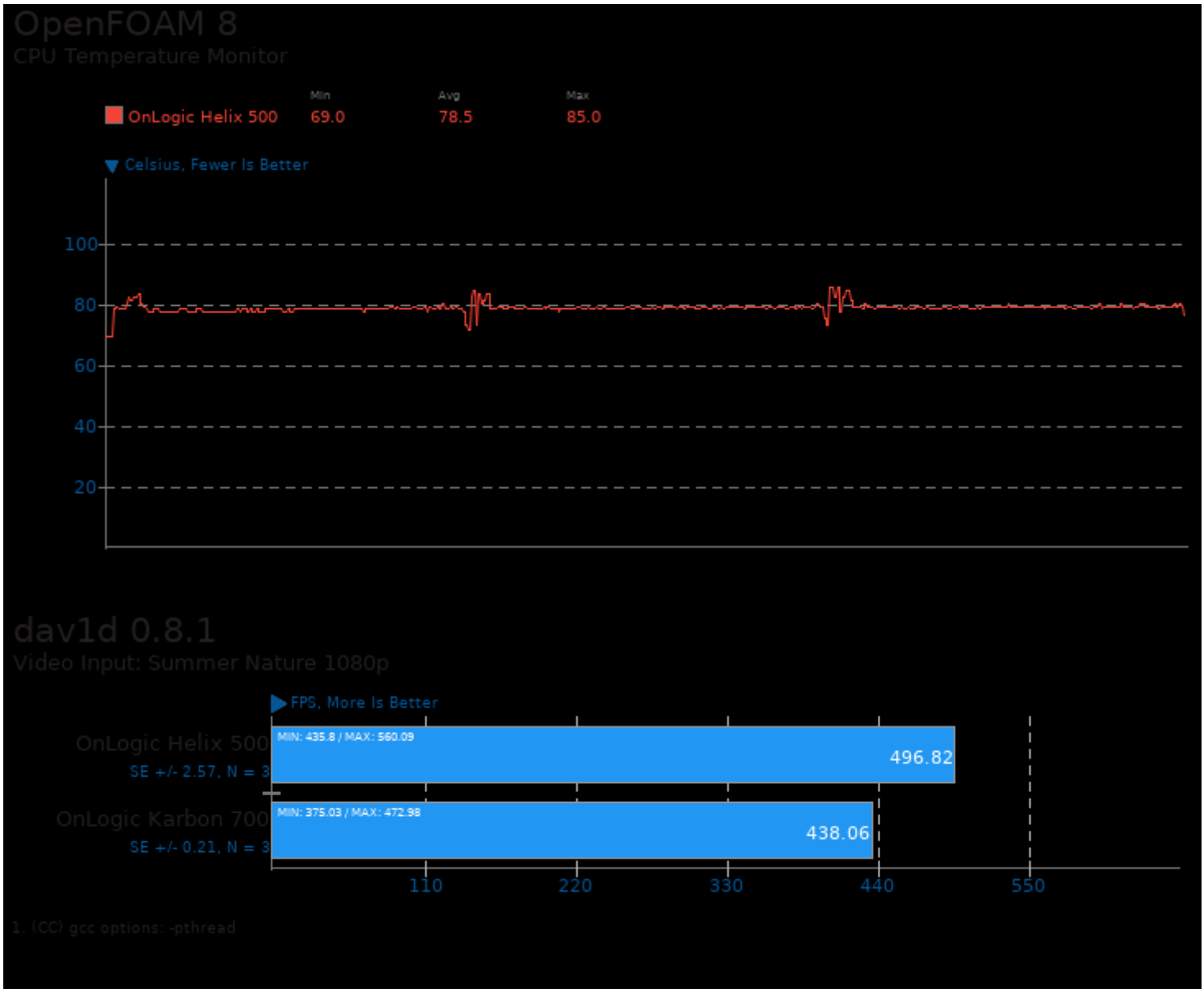

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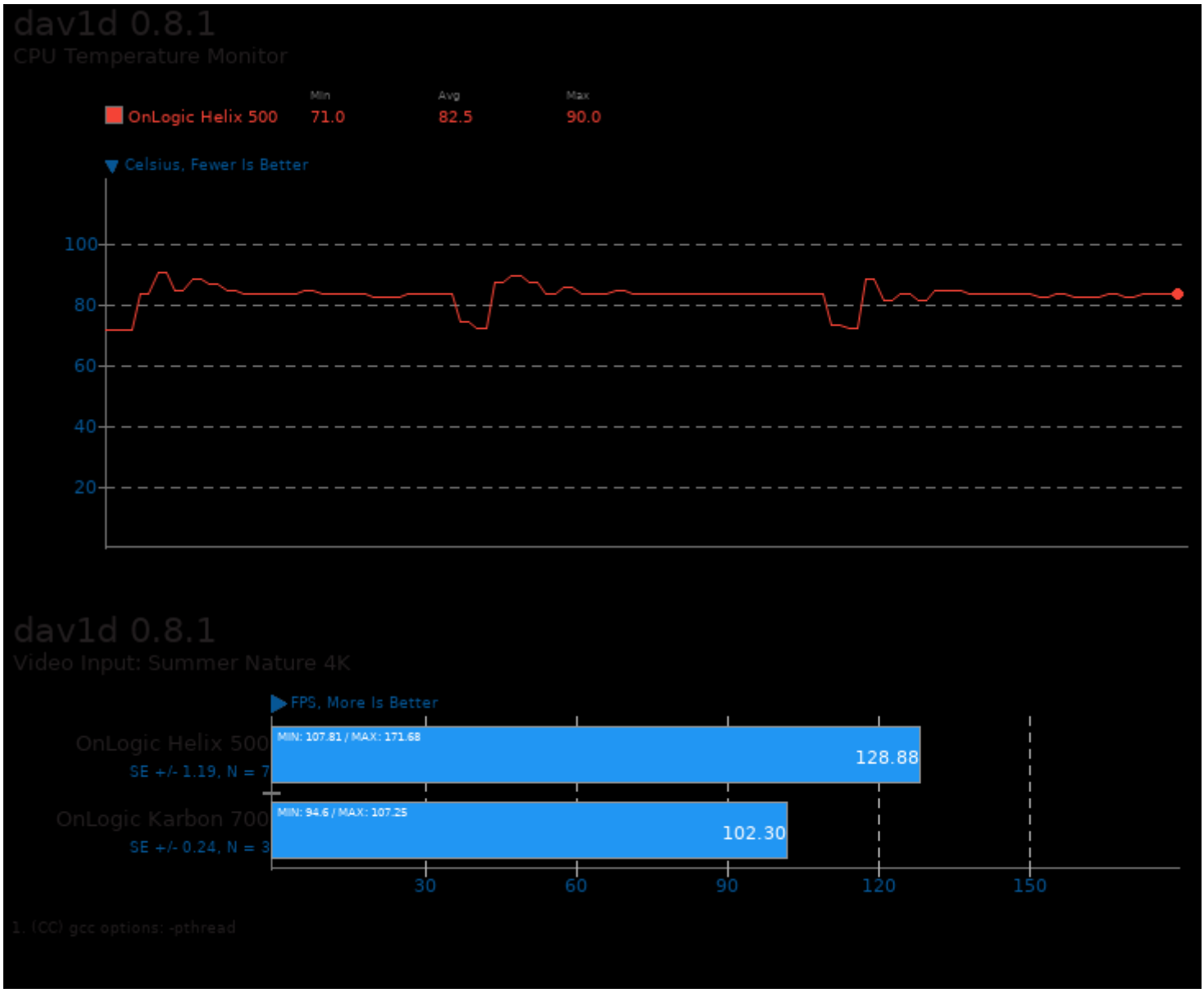

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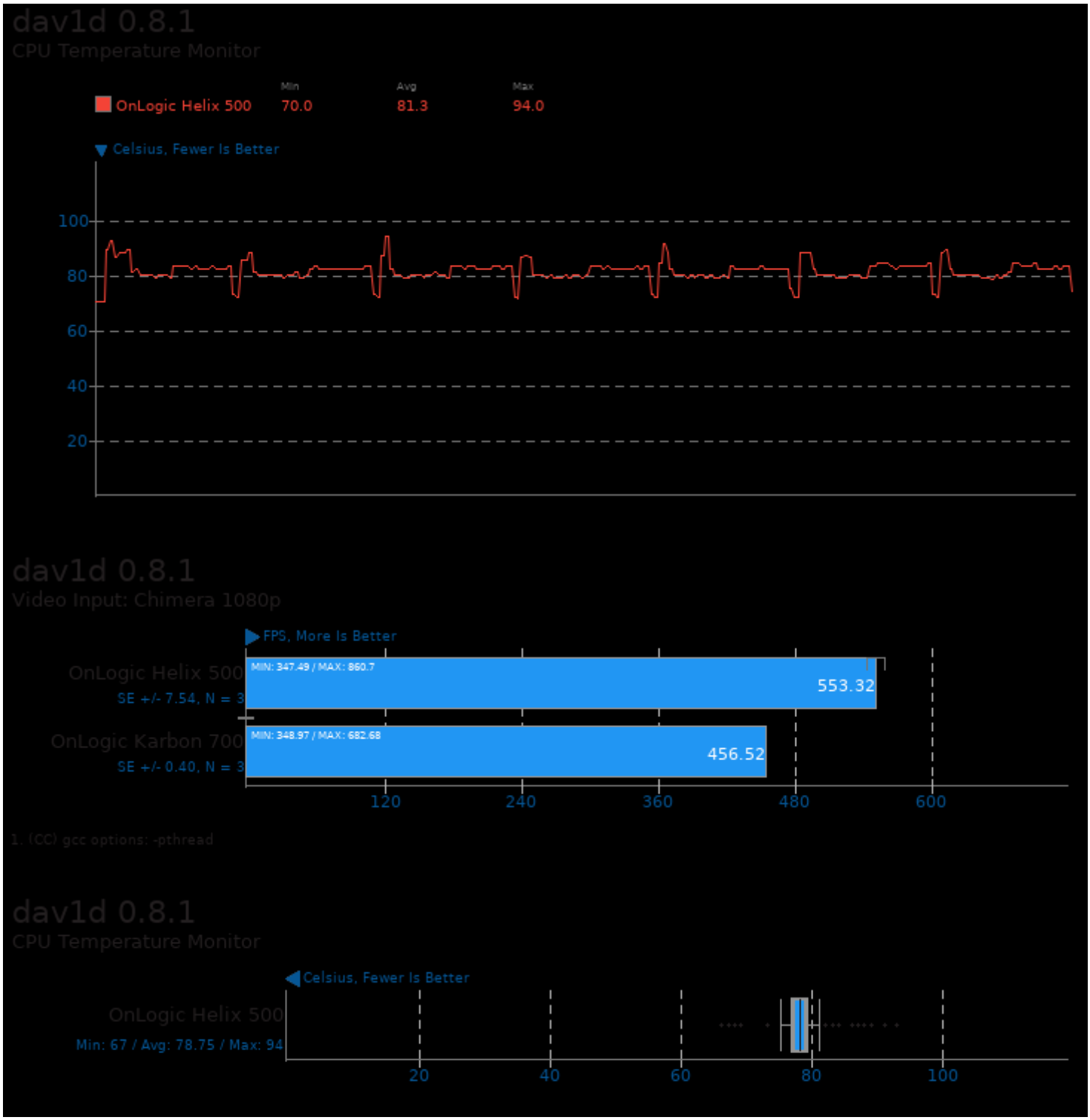
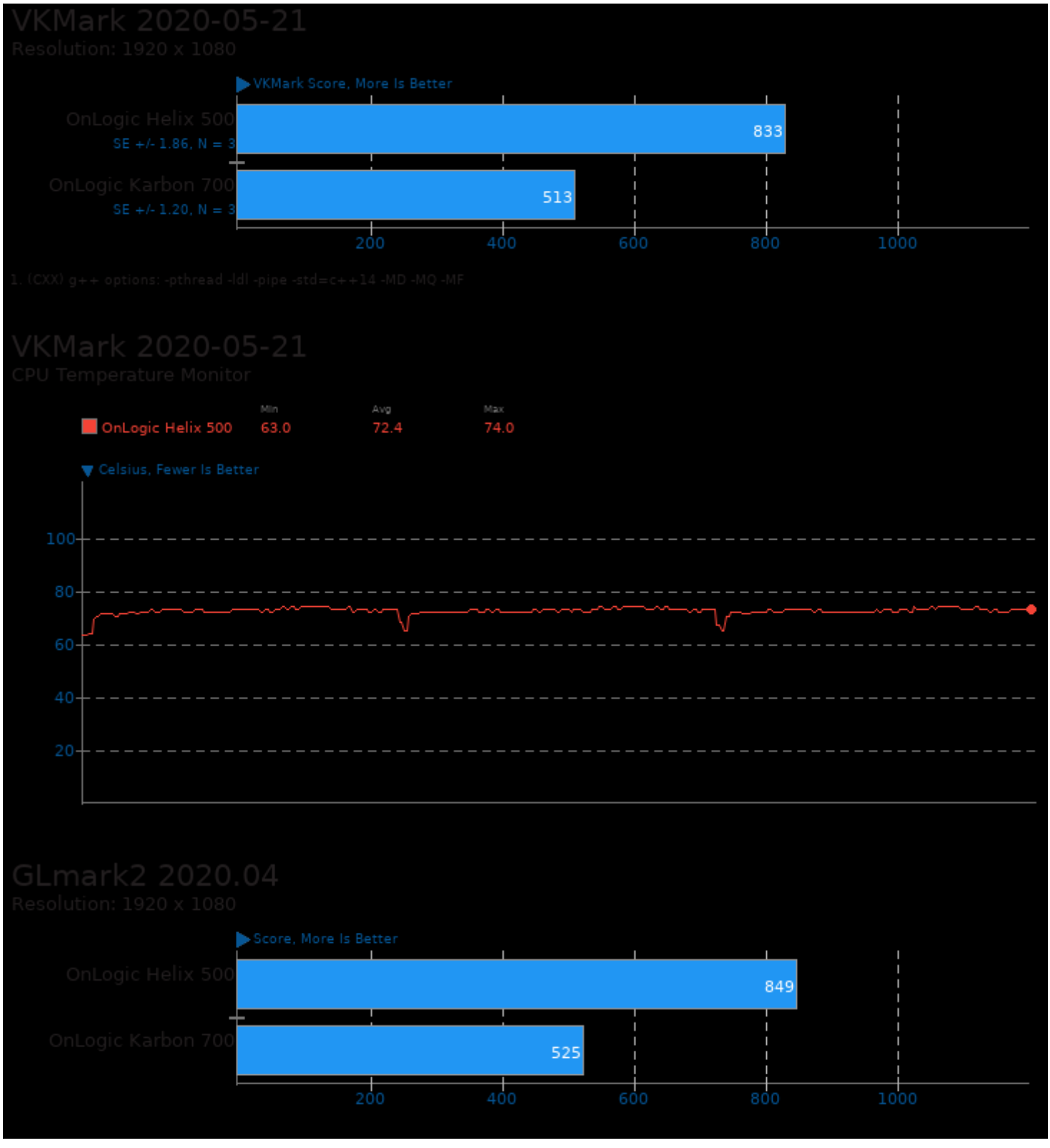
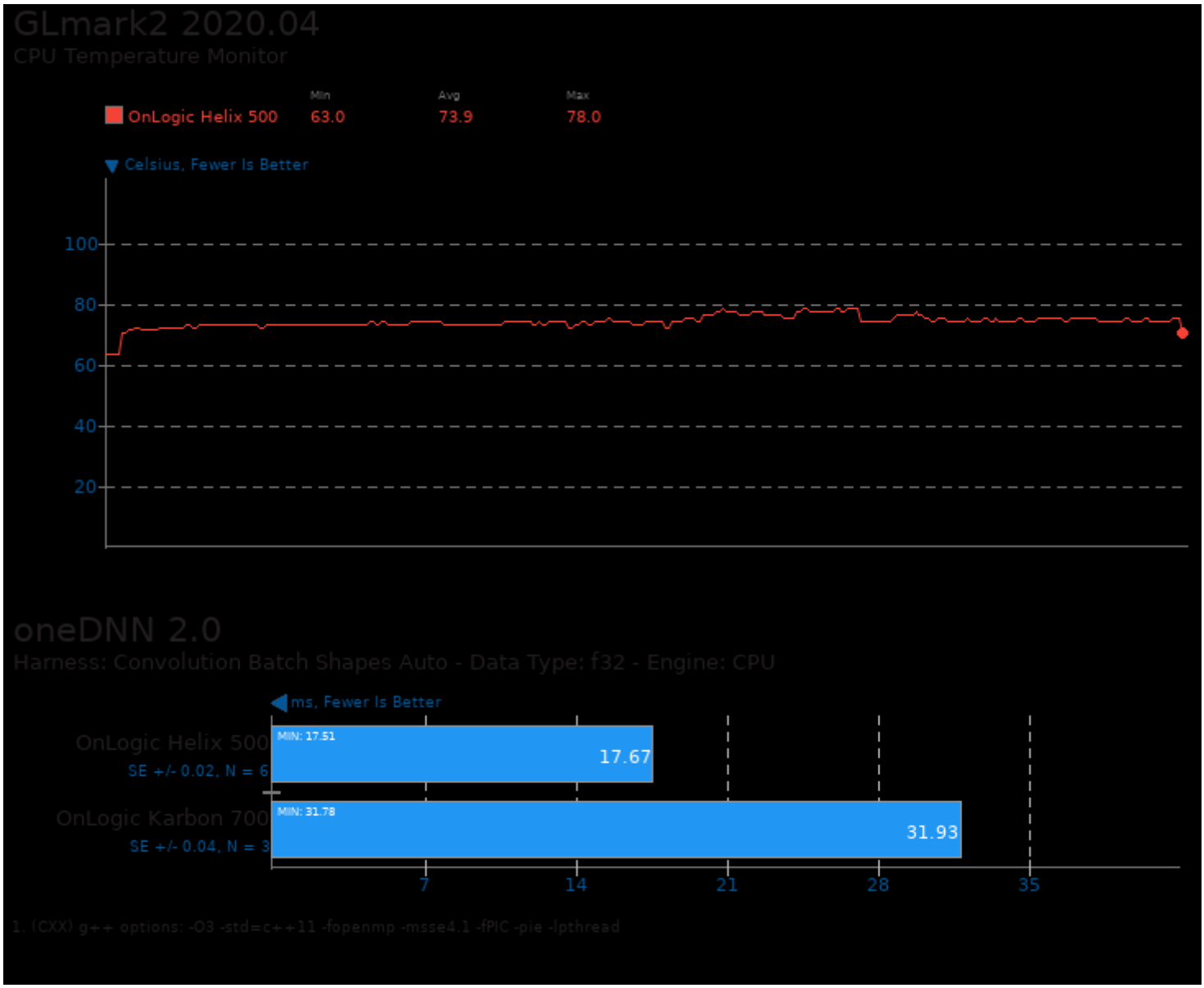


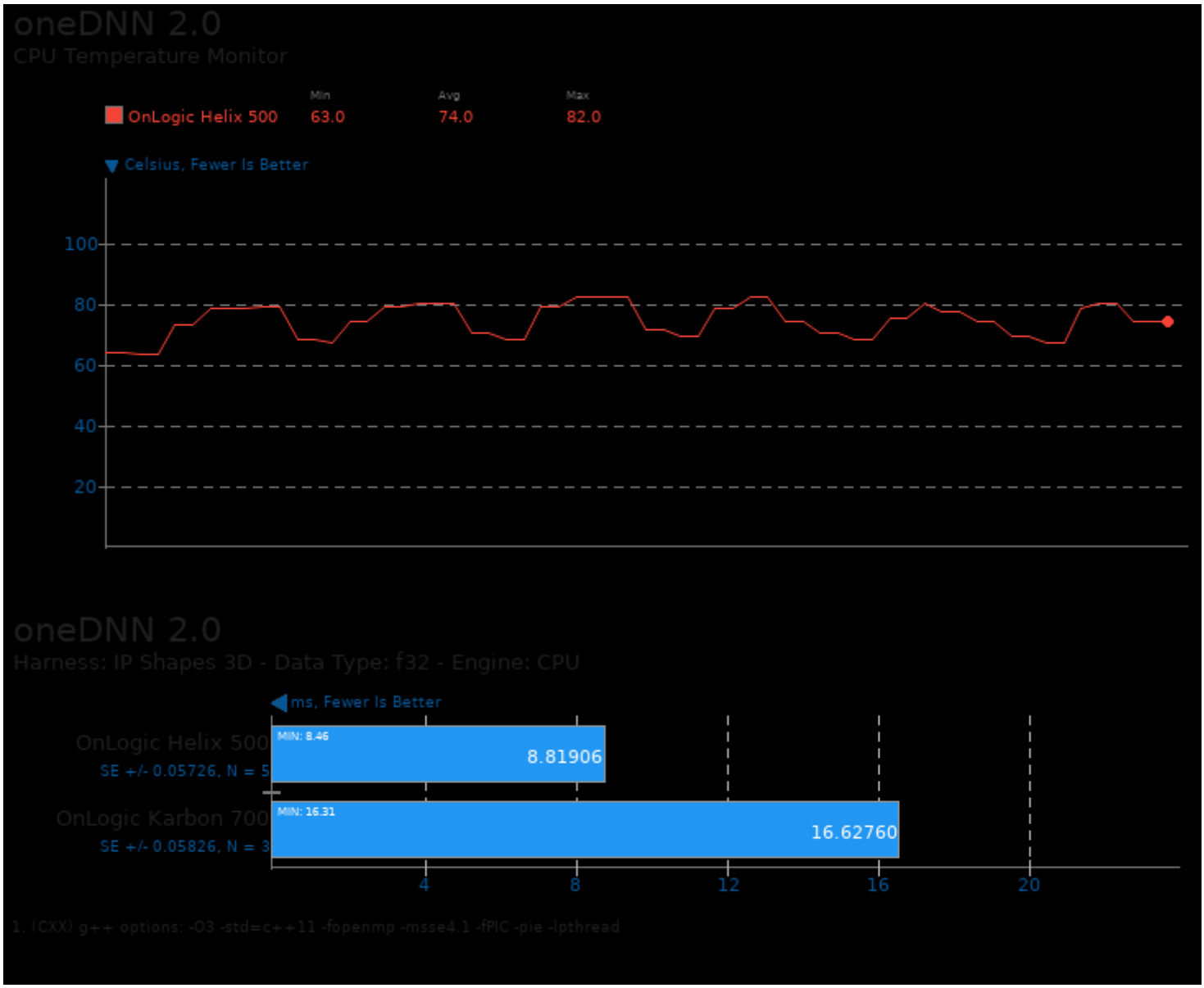
OnLogic Helix 500 Linux benchmarks



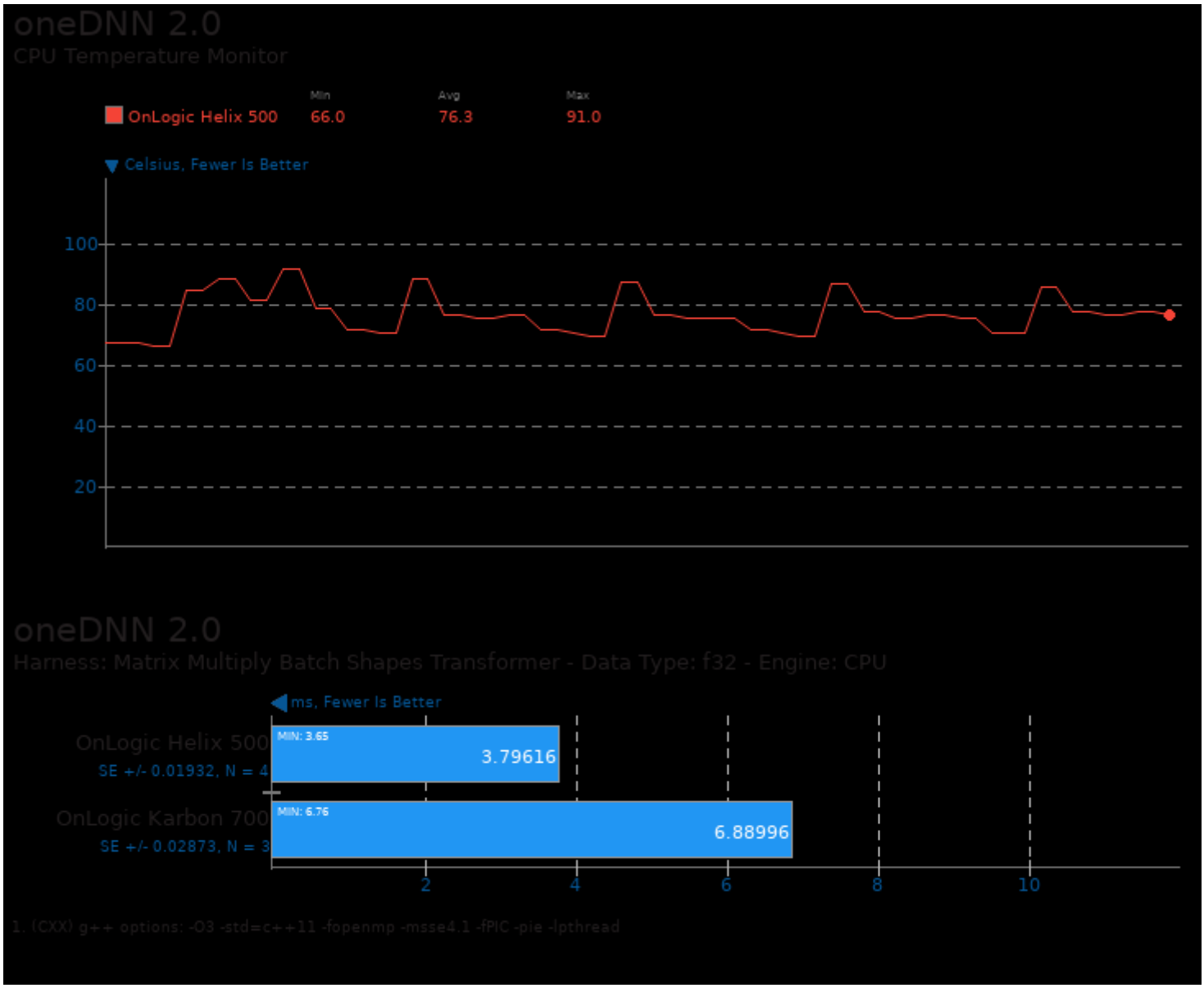
OnLogic Helix 500 Linux benchmarks



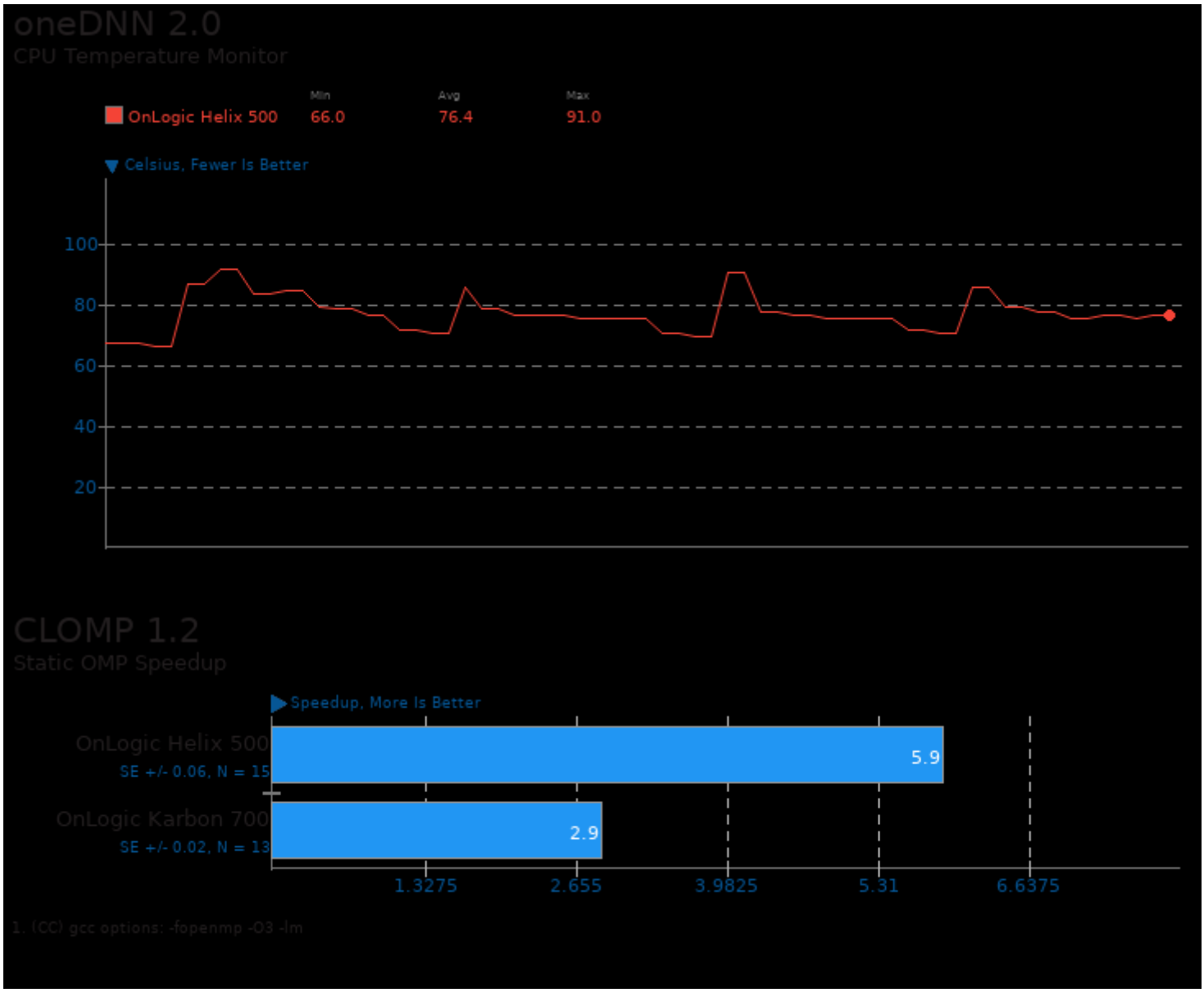
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



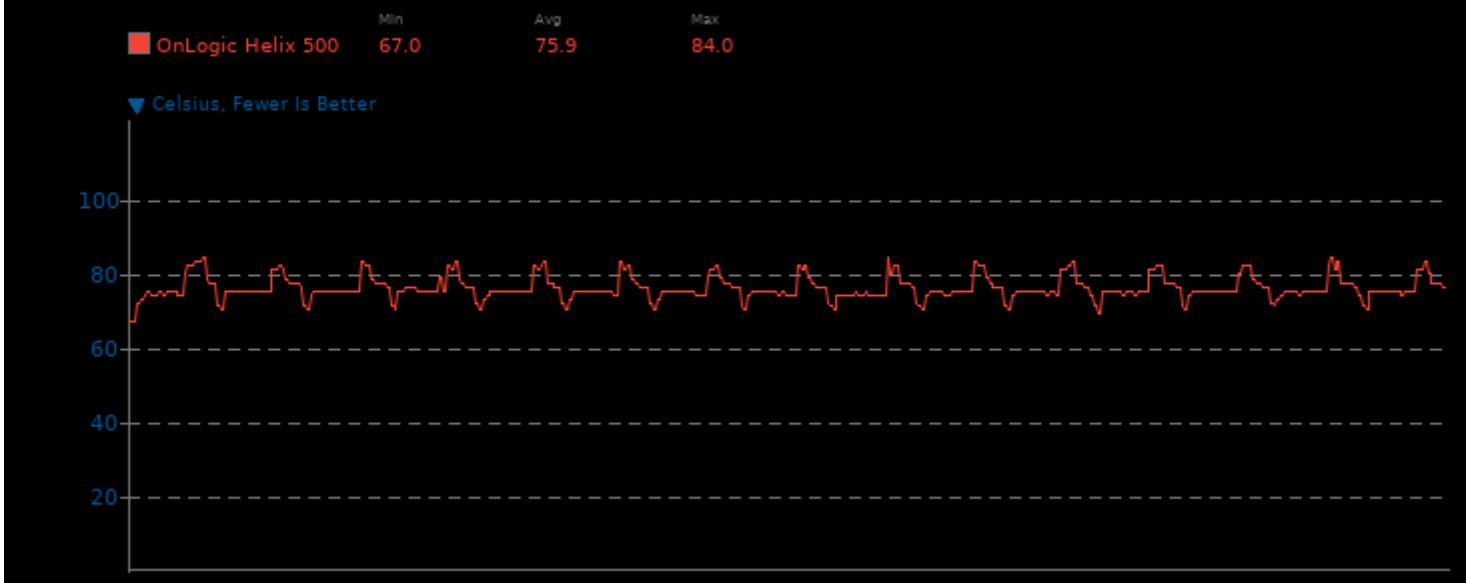
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks

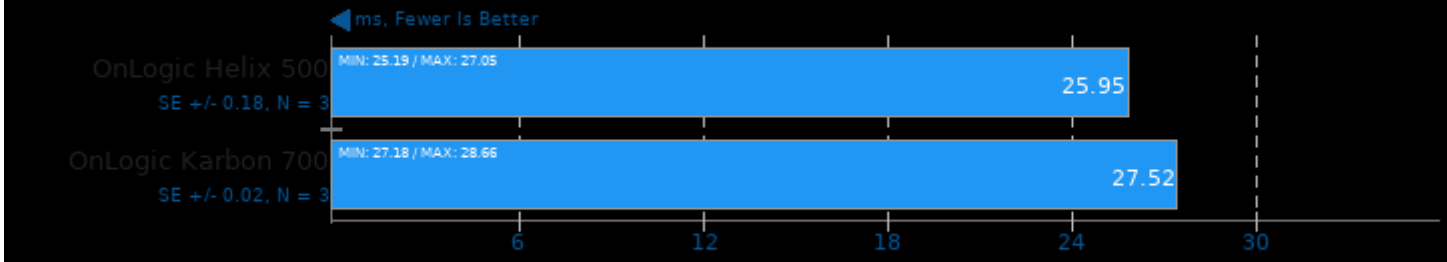
CLOMP 1.2

CPU Temperature Monitor



NCNN 20201218

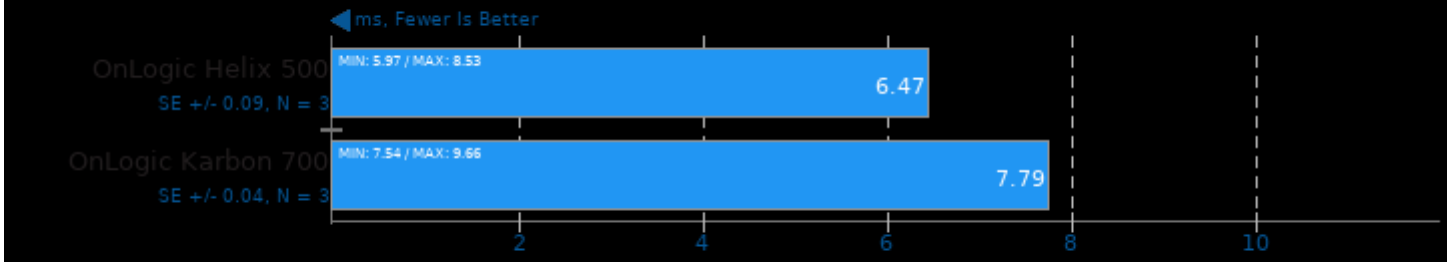
Target: CPU - Model: mobilenet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

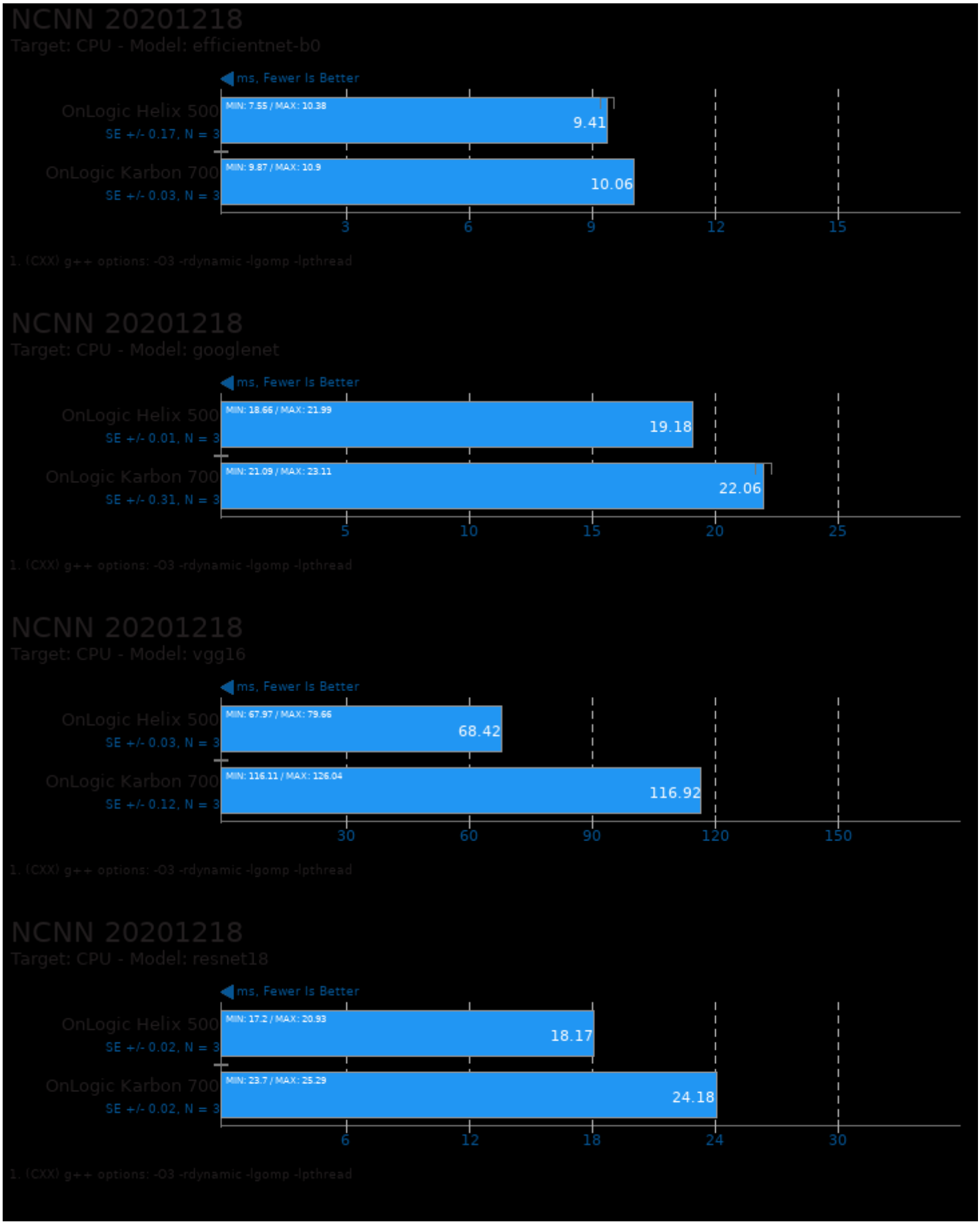
NCNN 20201218

Target: CPU-v2-v2 - Model: mobilenet-v2

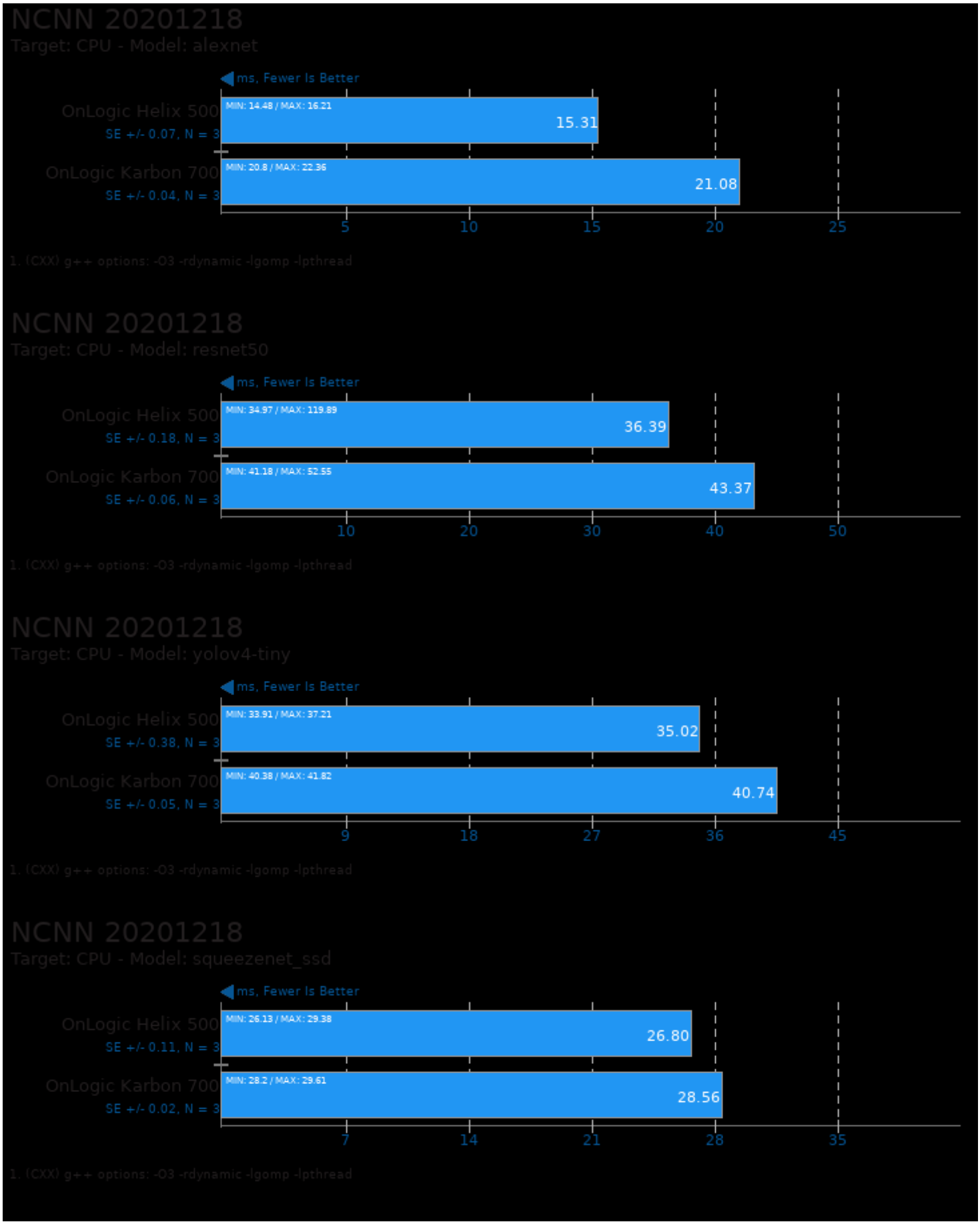


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

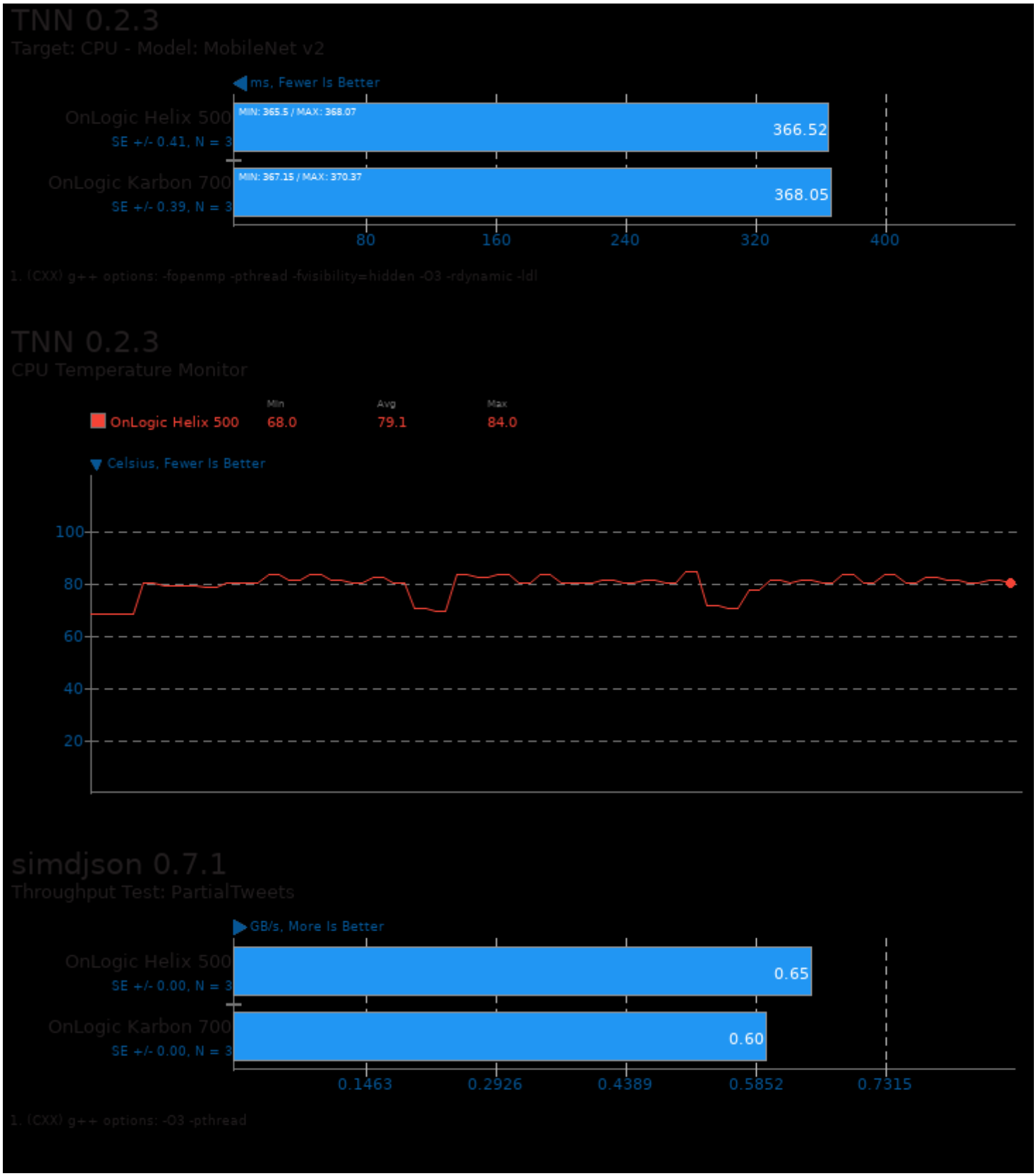
OnLogic Helix 500 Linux benchmarks



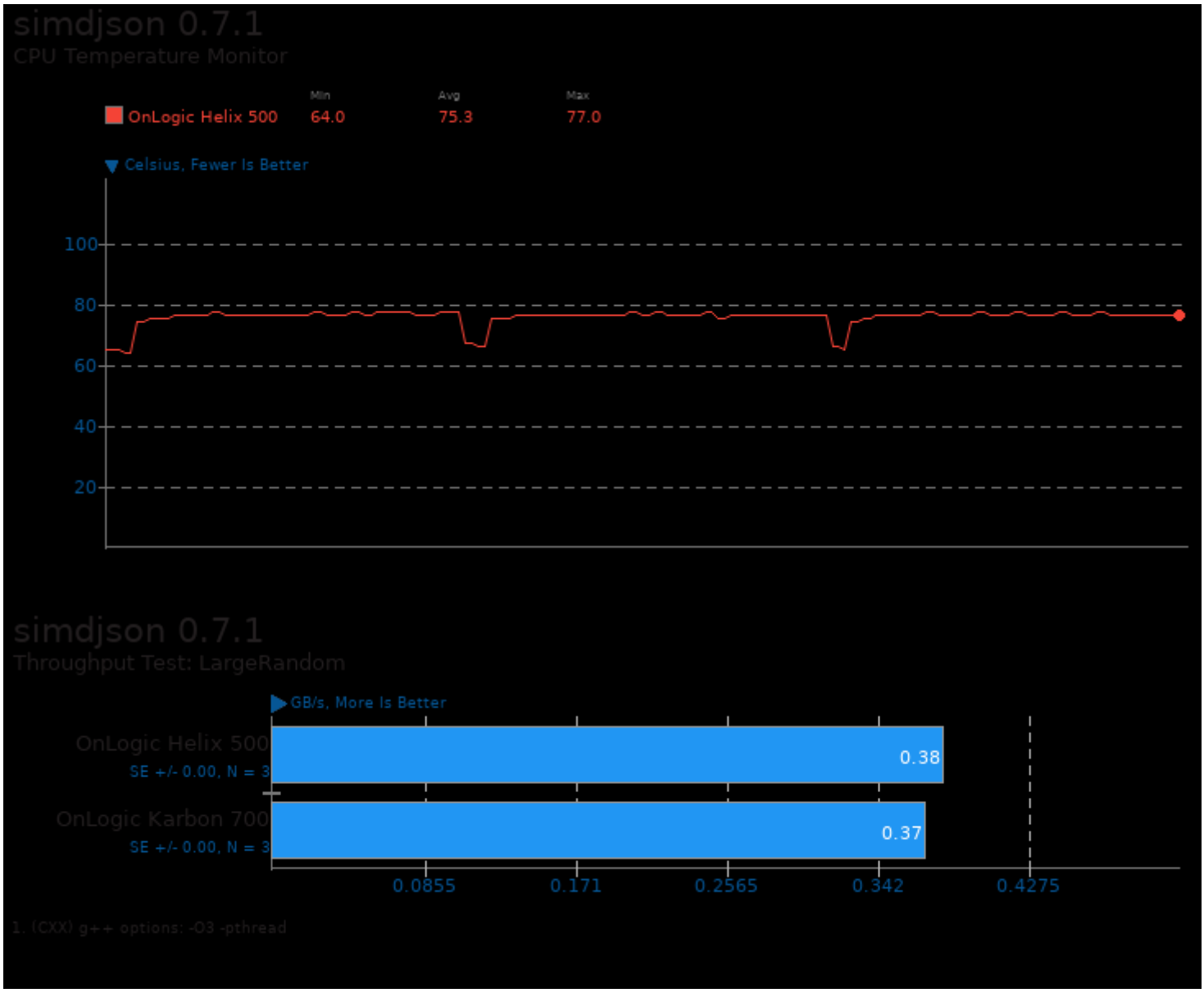
OnLogic Helix 500 Linux benchmarks



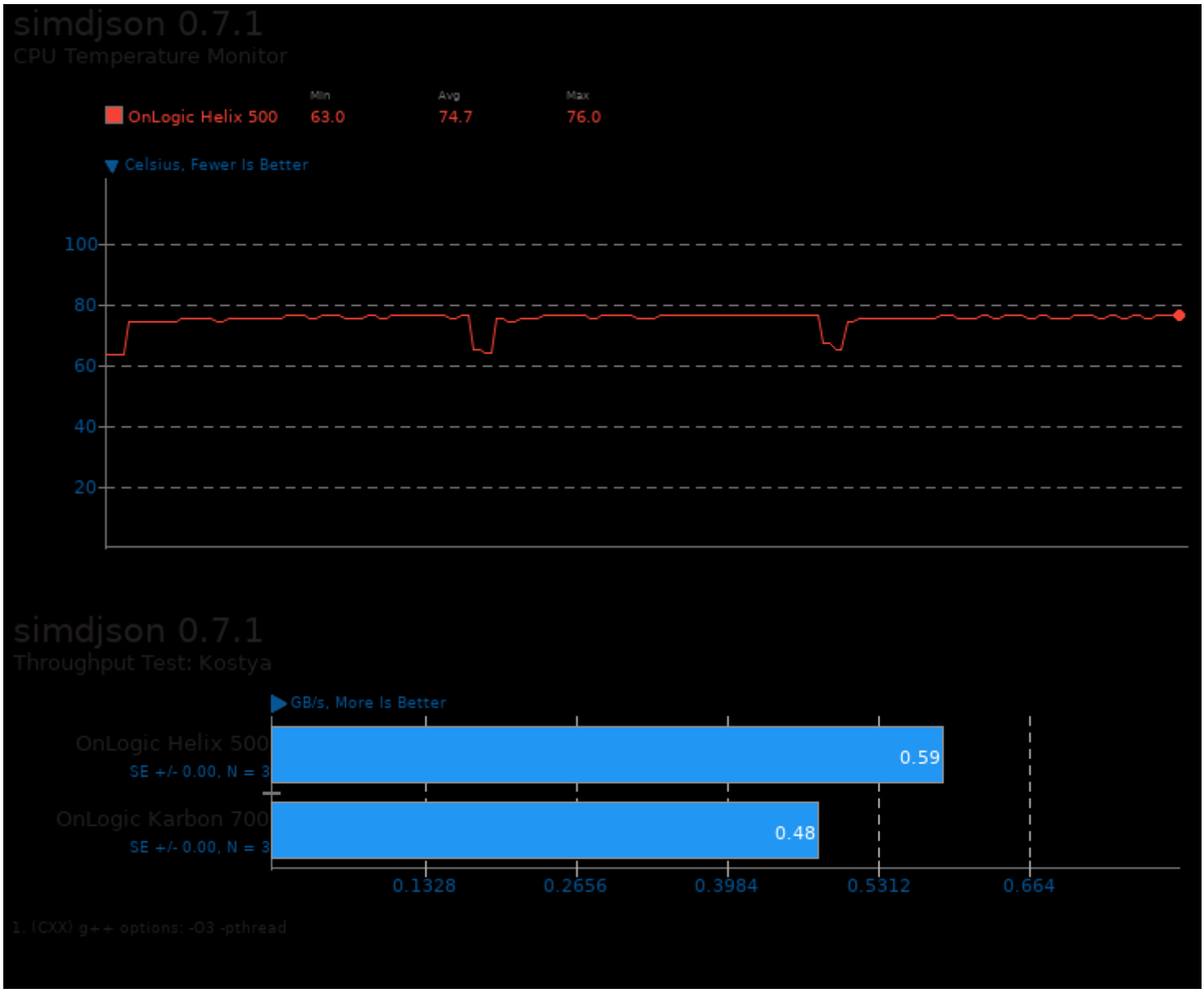
OnLogic Helix 500 Linux benchmarks



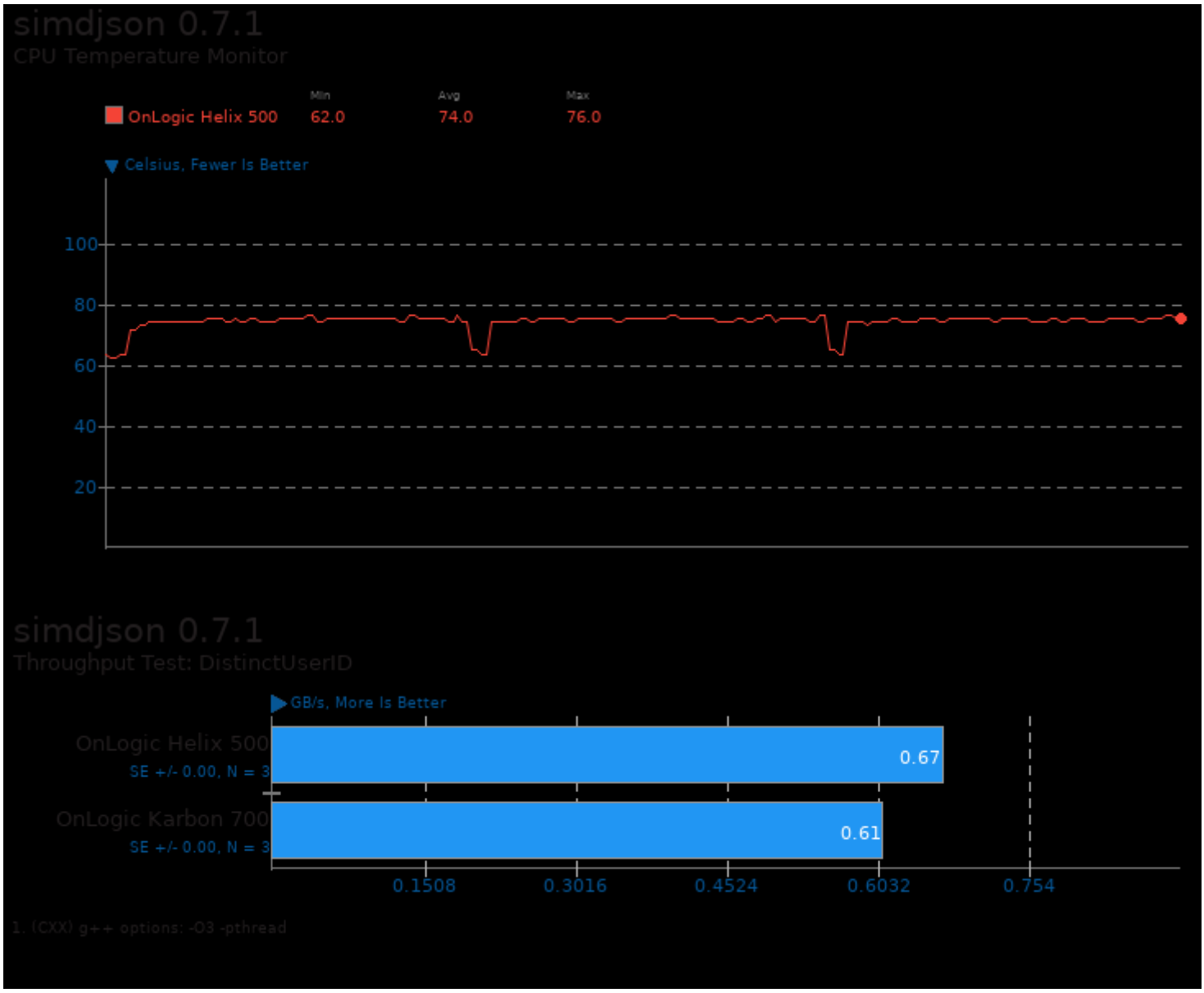
OnLogic Helix 500 Linux benchmarks



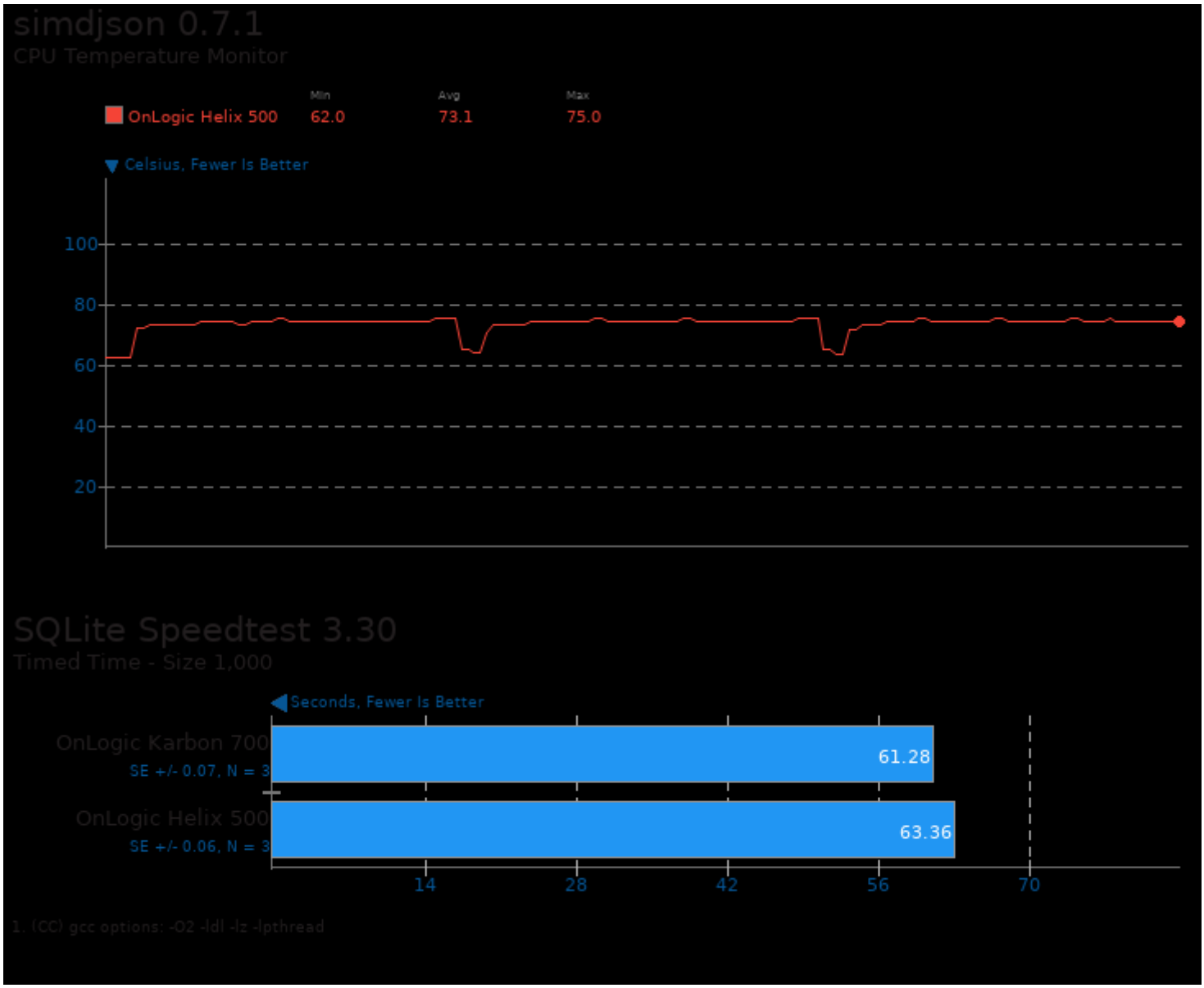
OnLogic Helix 500 Linux benchmarks



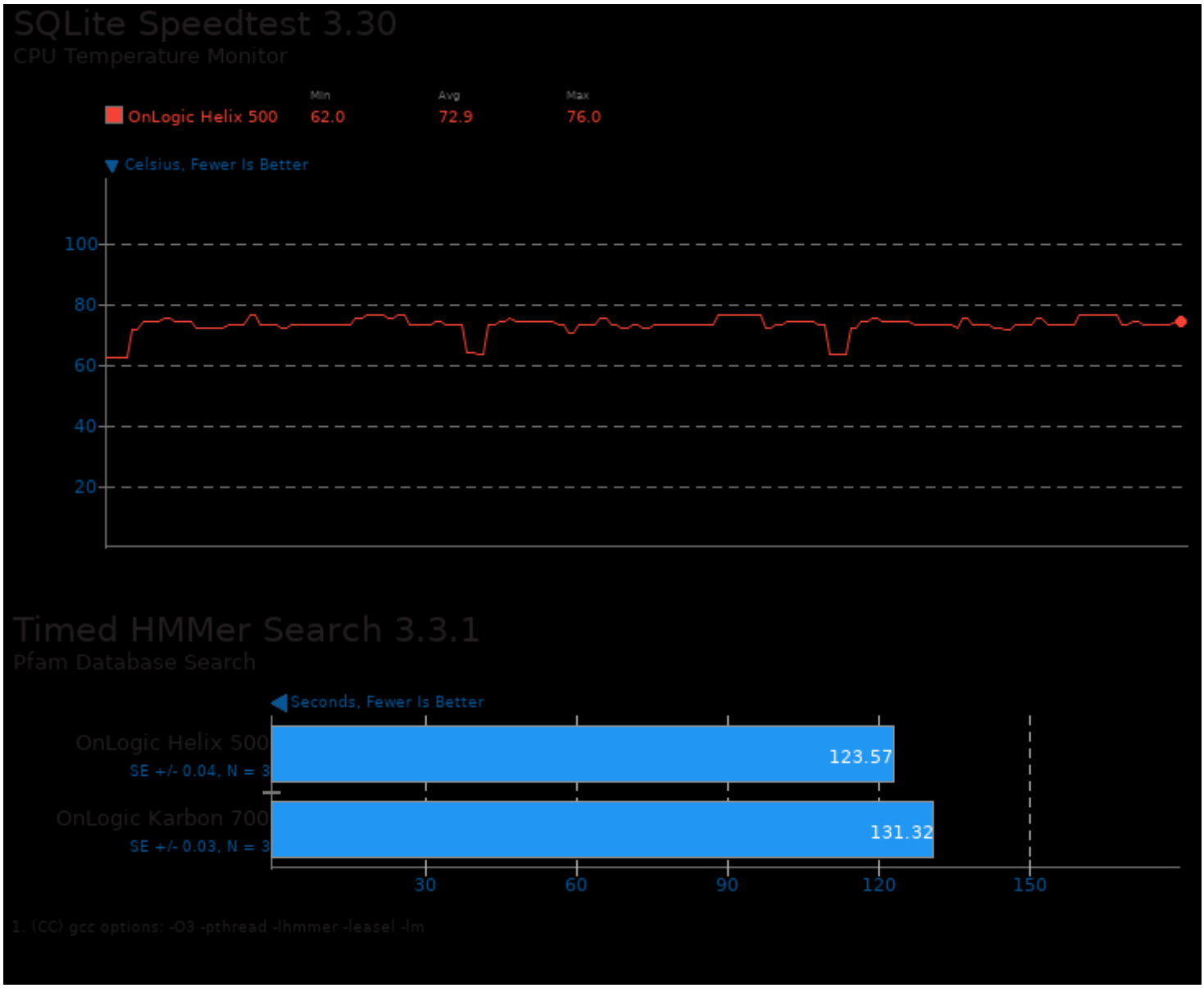
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



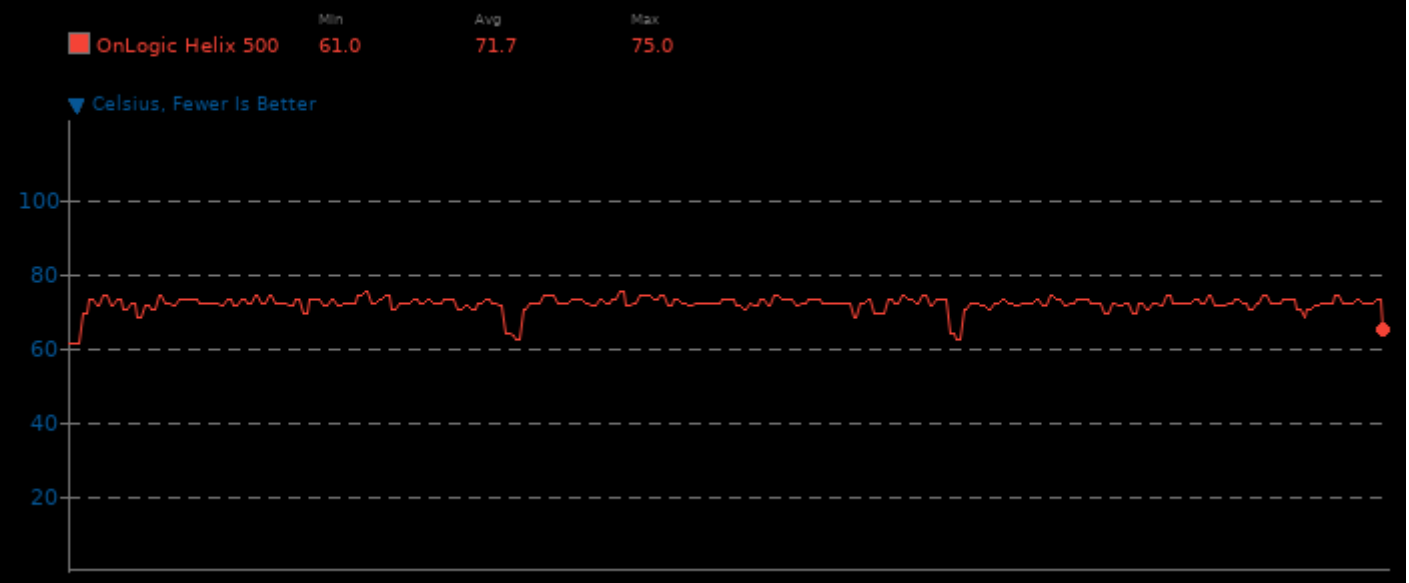
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks

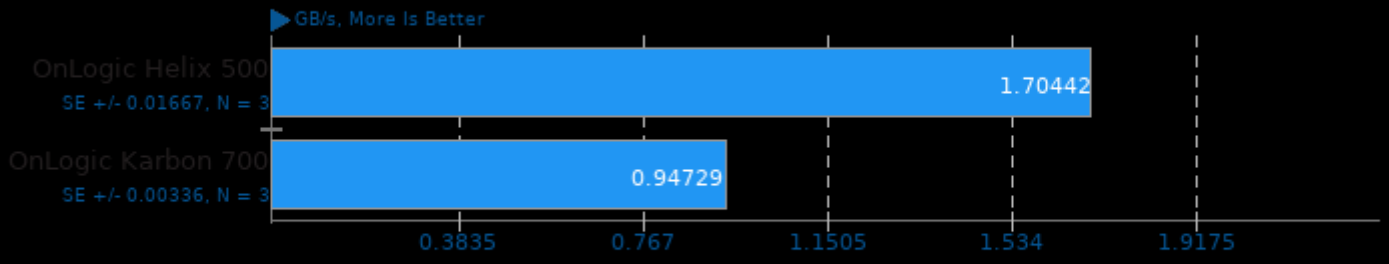
Timed HMMer Search 3.3.1

CPU Temperature Monitor



HPC Challenge 1.5.0

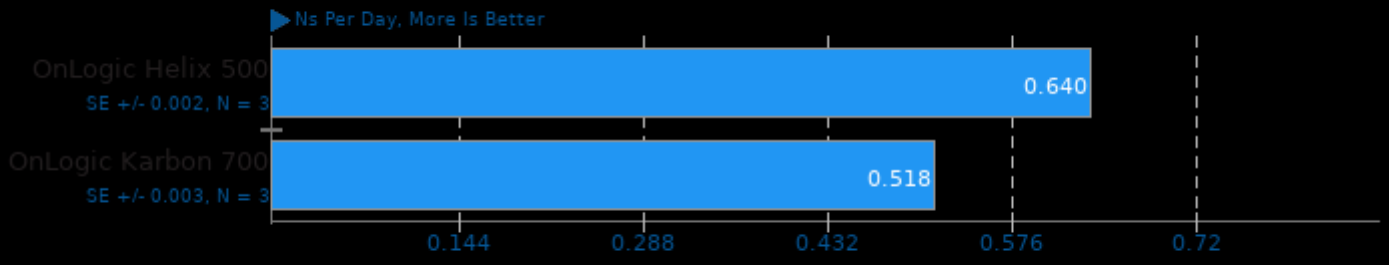
Test / Class: Random Ring Bandwidth



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops
2. ATLAS + Open MPI 4.0.3

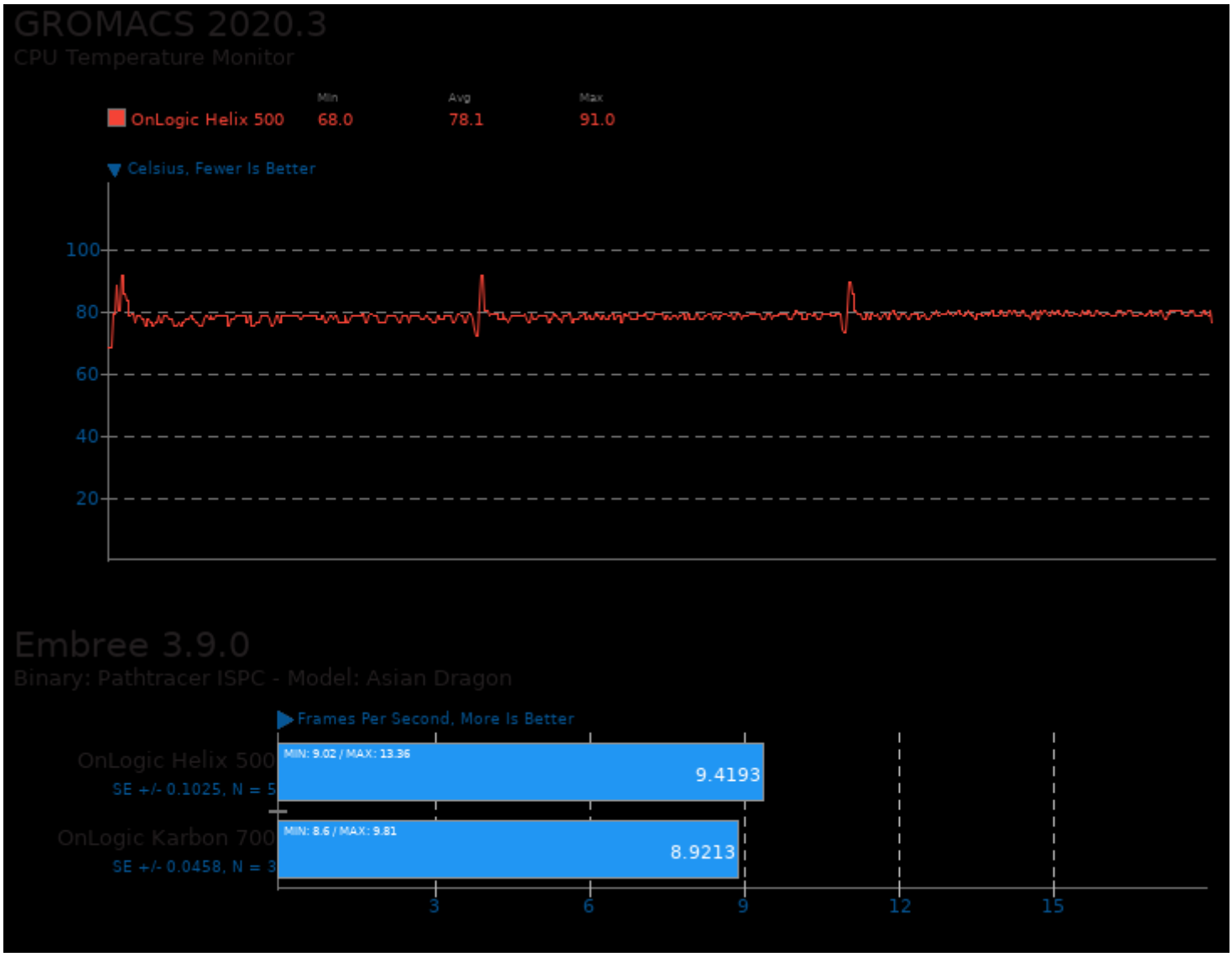
GROMACS 2020.3

Water Benchmark

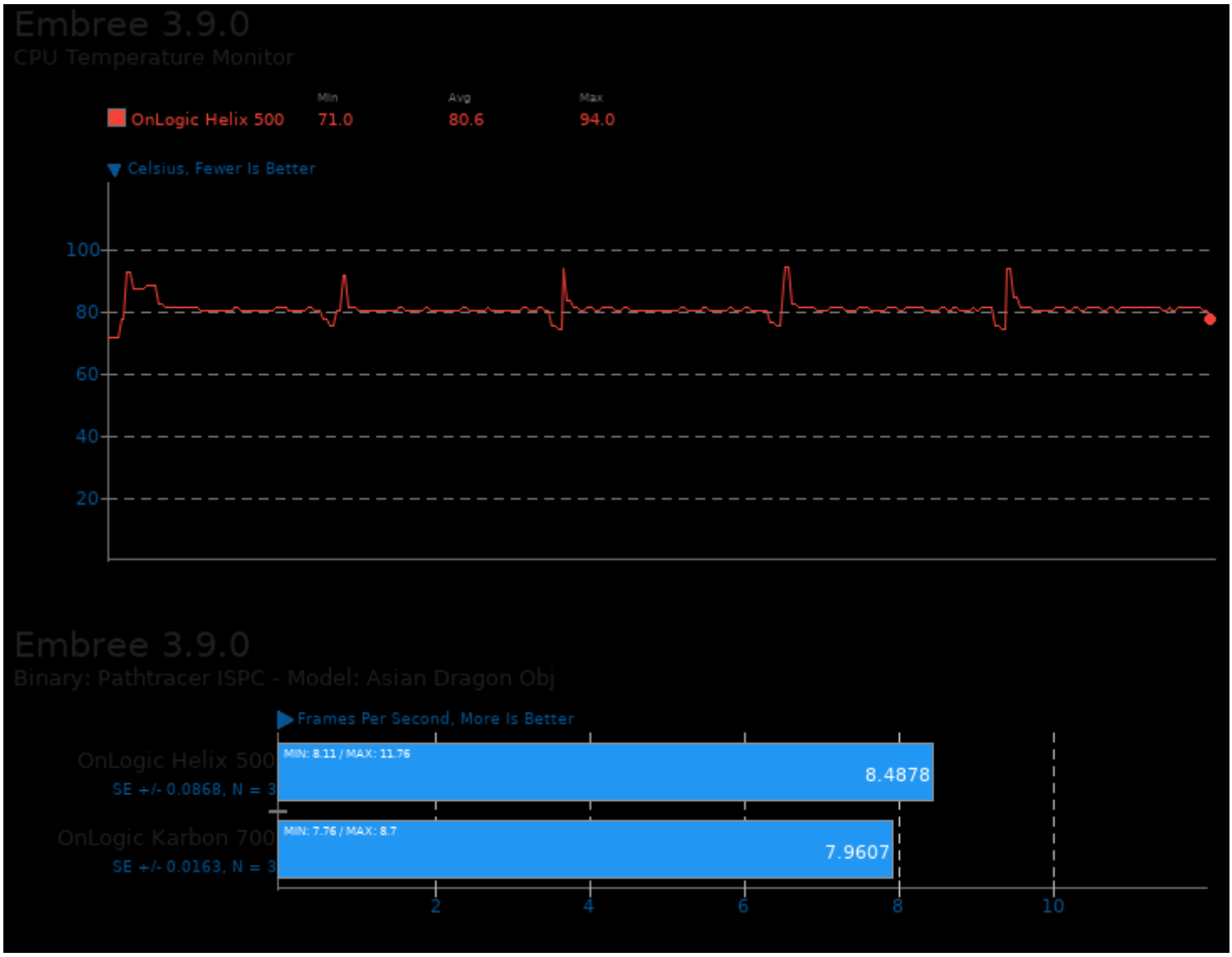


1. (CXX) g++ options: -O3 -pthread -lrt -lpthread -lm

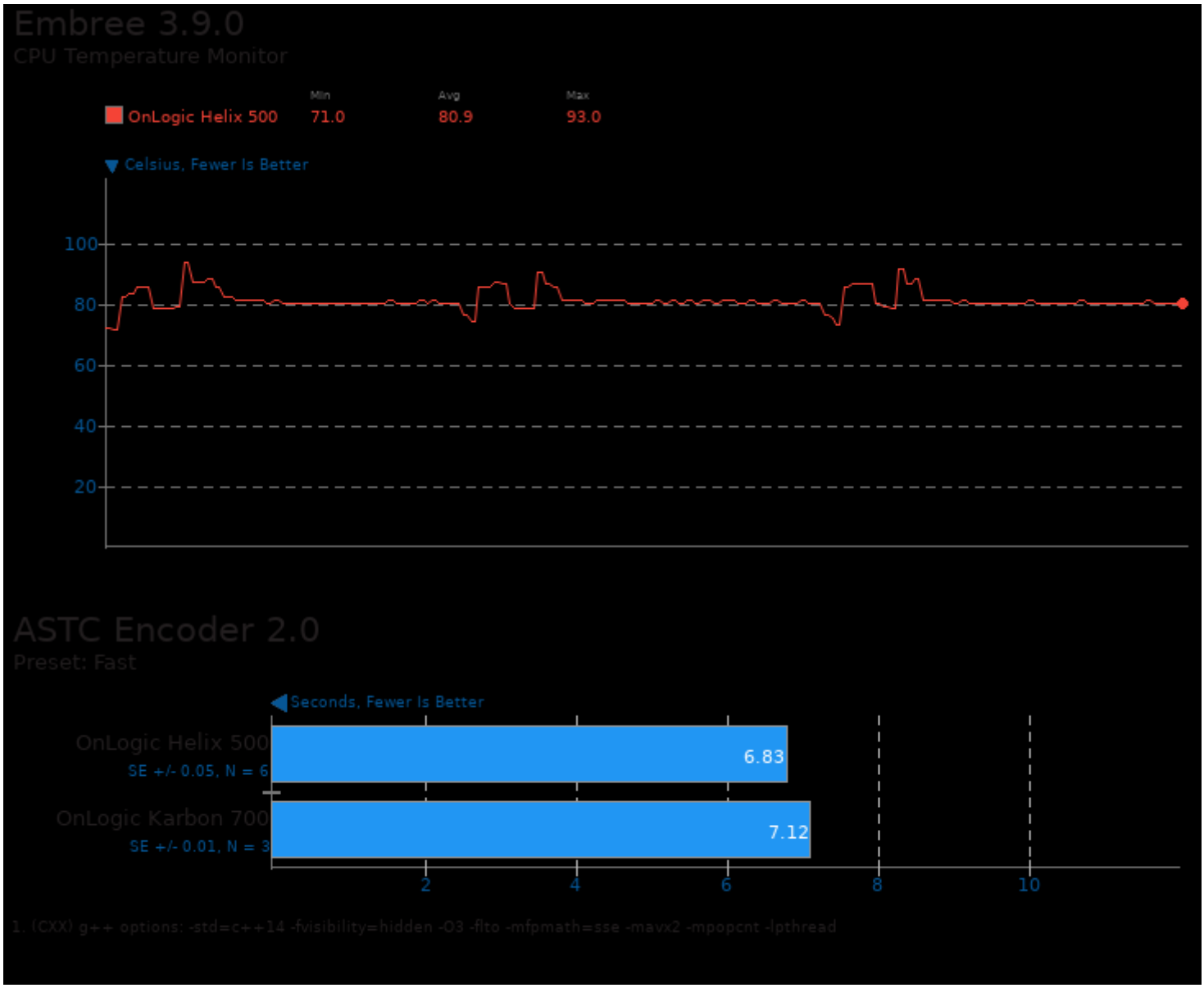
OnLogic Helix 500 Linux benchmarks



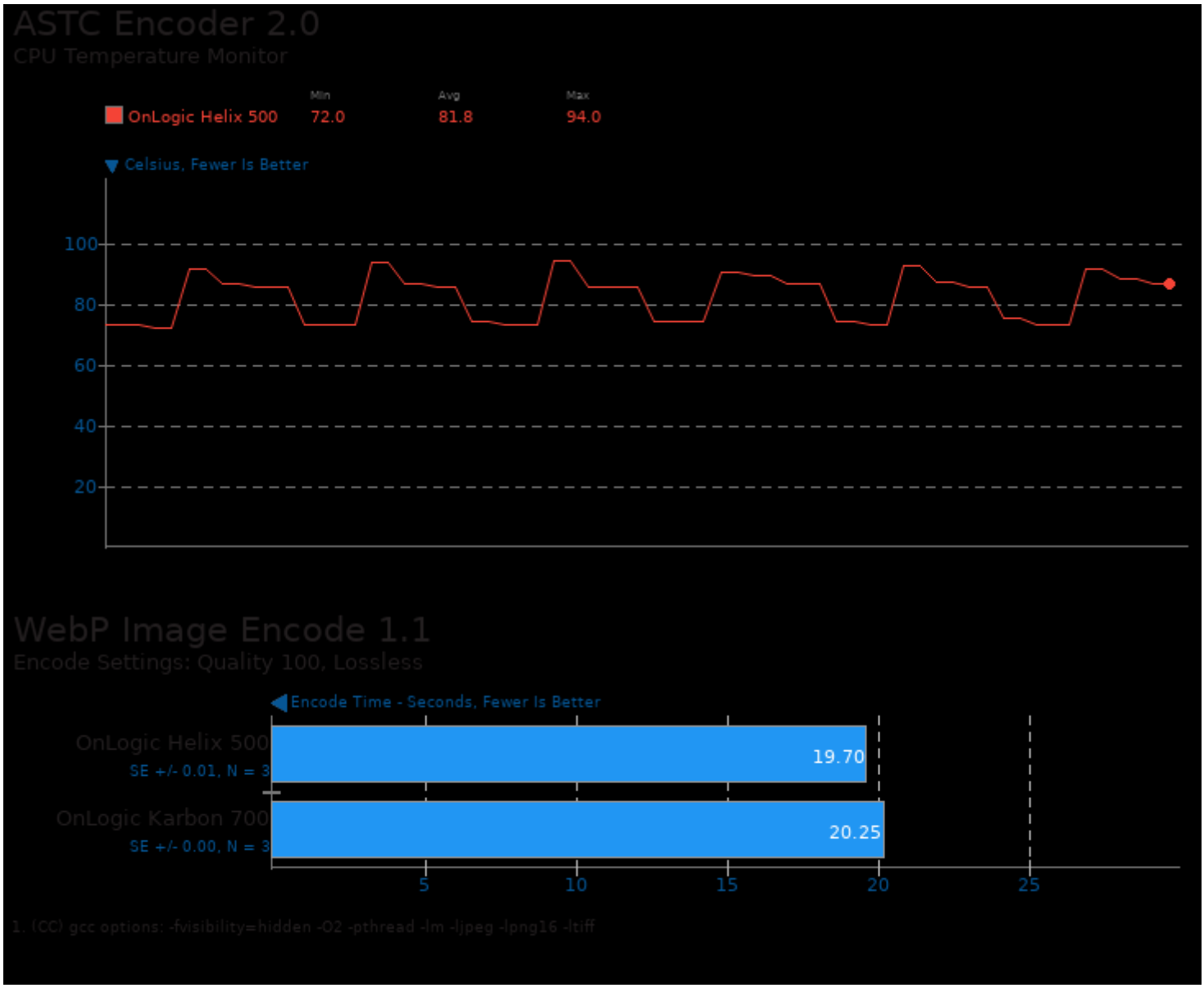
OnLogic Helix 500 Linux benchmarks



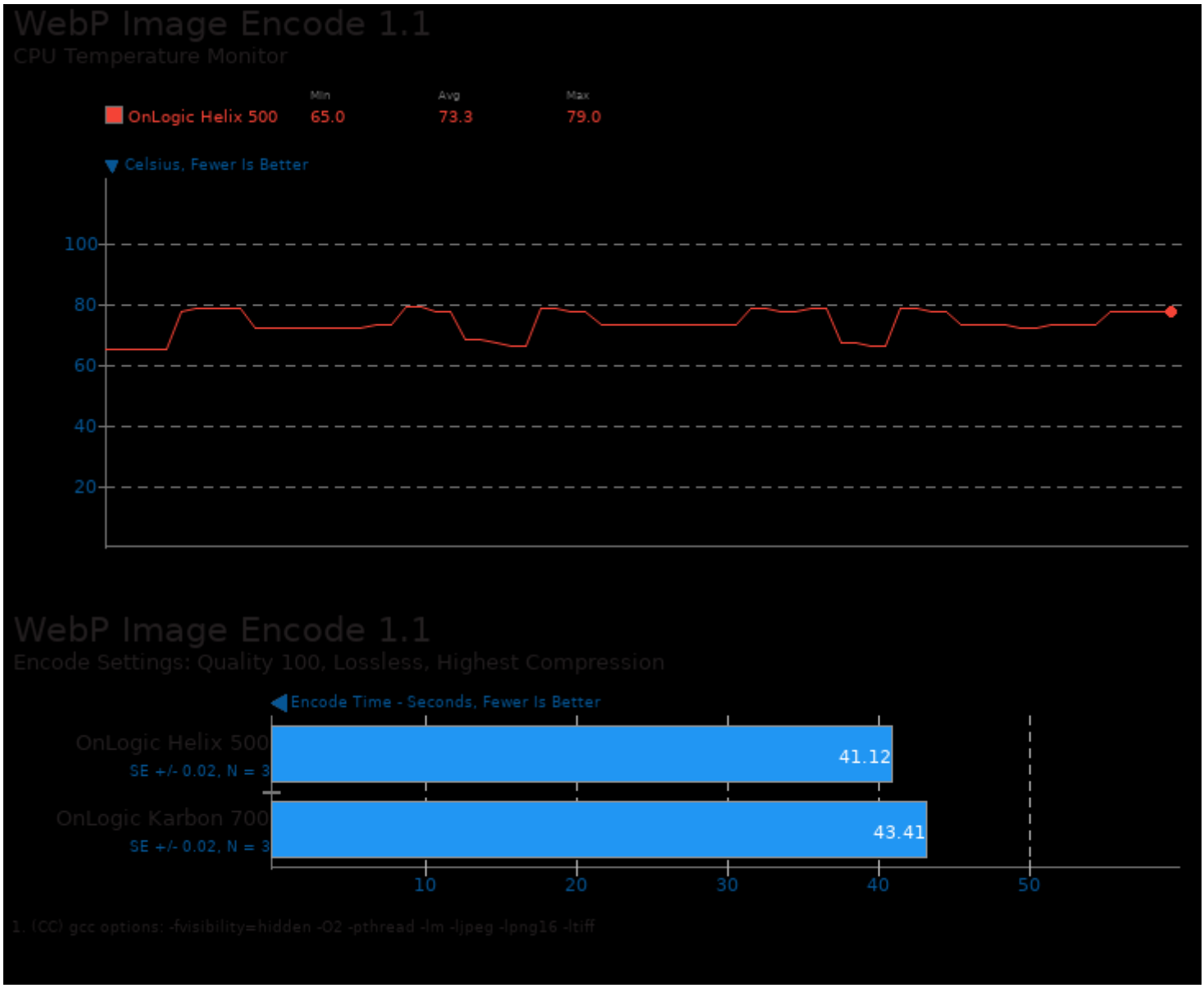
OnLogic Helix 500 Linux benchmarks



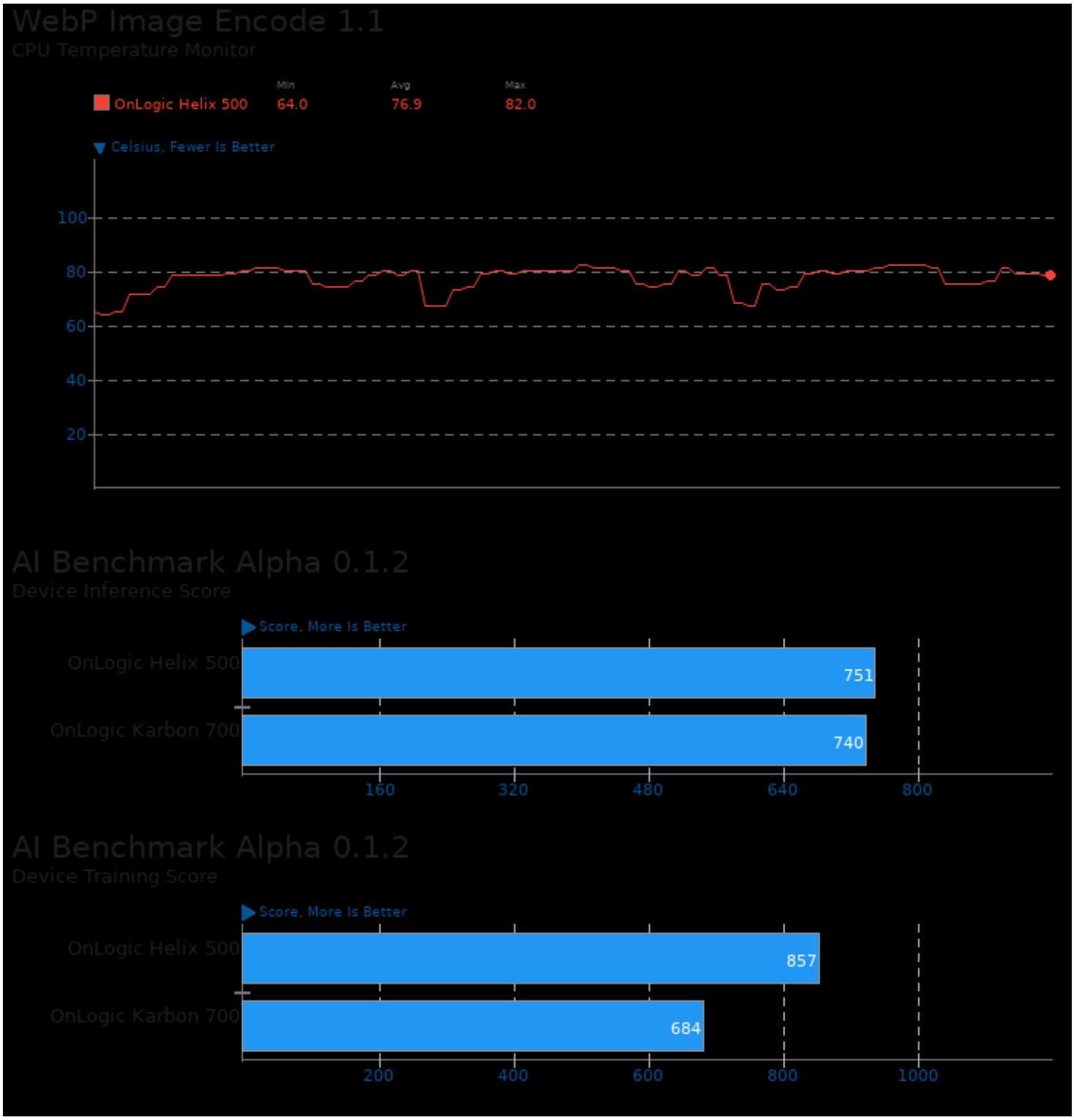
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



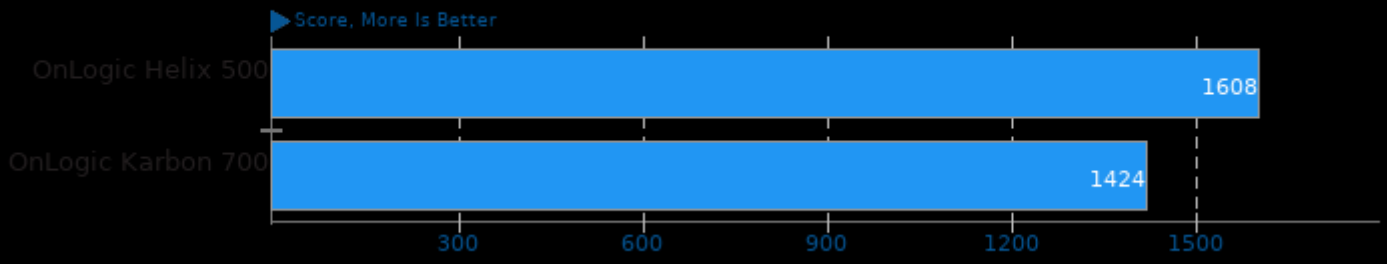
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks

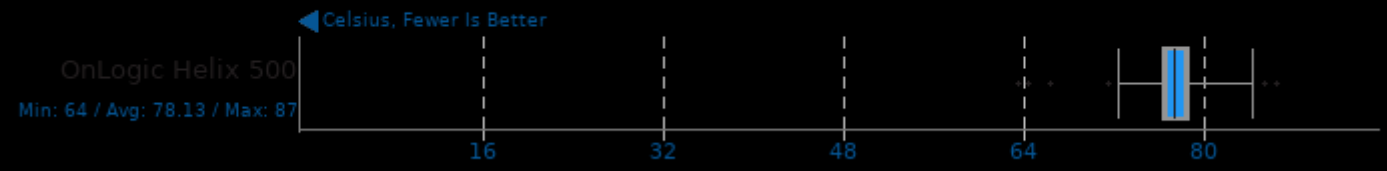
AI Benchmark Alpha 0.1.2

Device AI Score



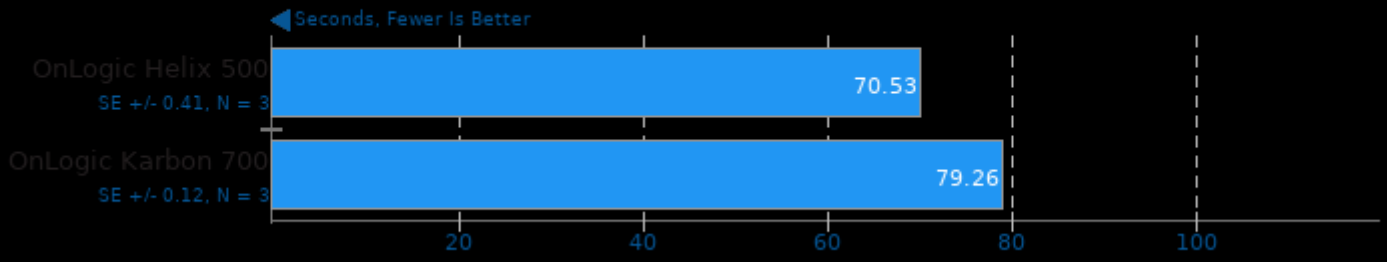
AI Benchmark Alpha 0.1.2

CPU Temperature Monitor



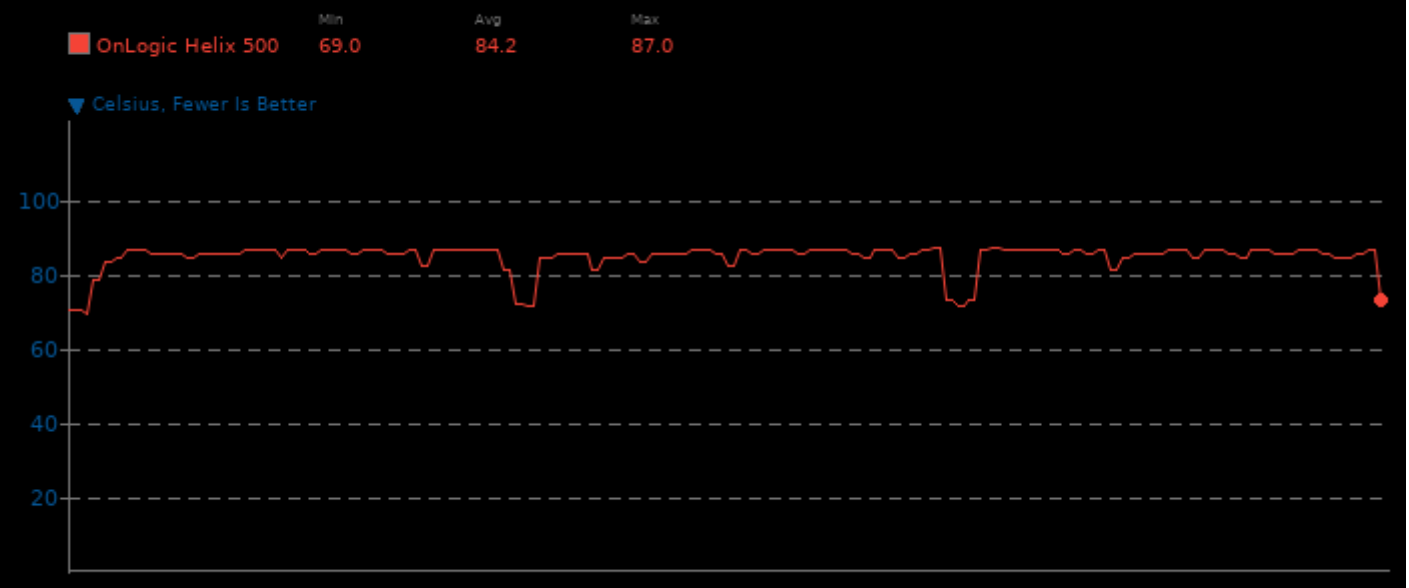
Waifu2x-NCNN Vulkan 20200818

Scale: 2x - Denoise: 3 - TAA: Yes

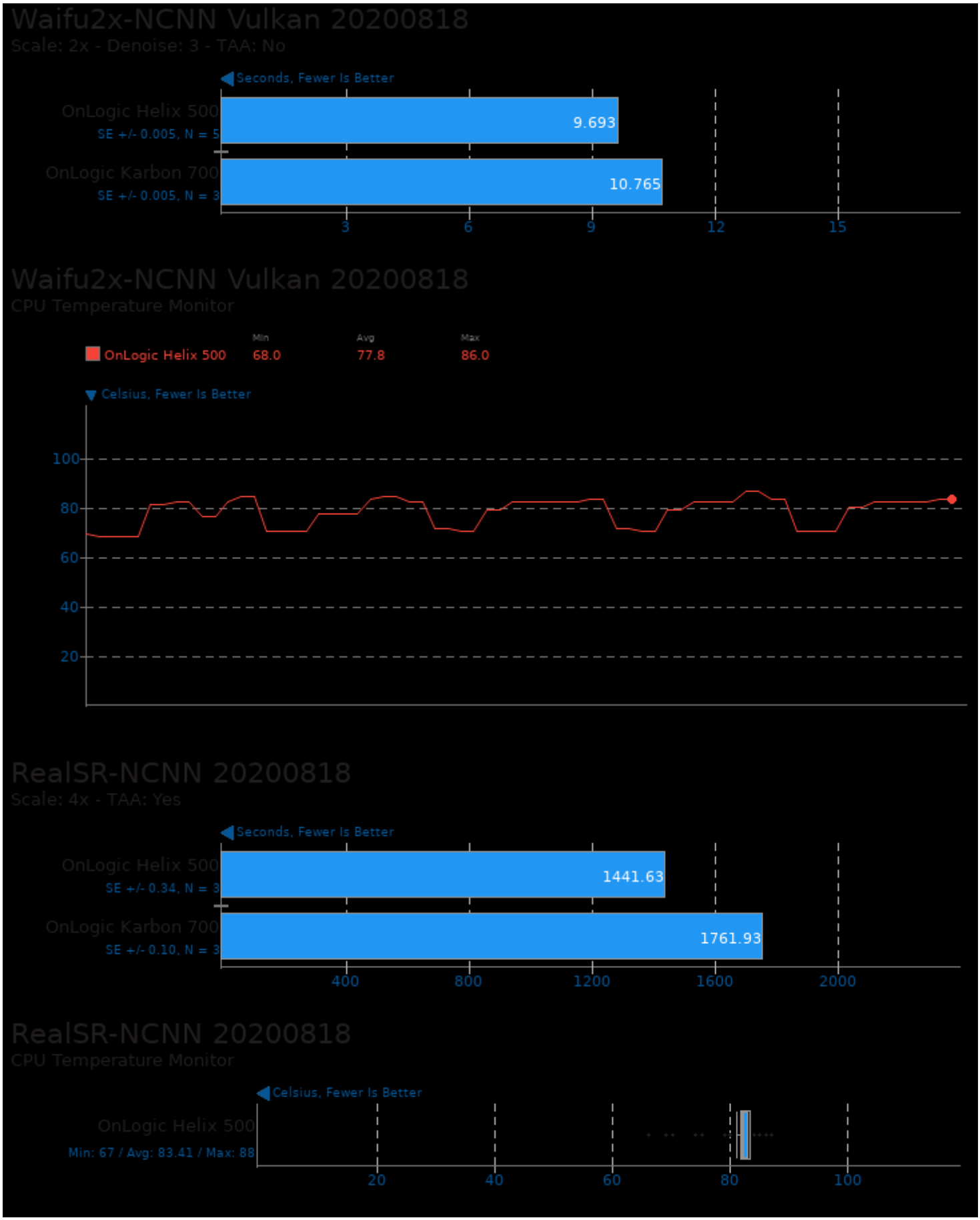


Waifu2x-NCNN Vulkan 20200818

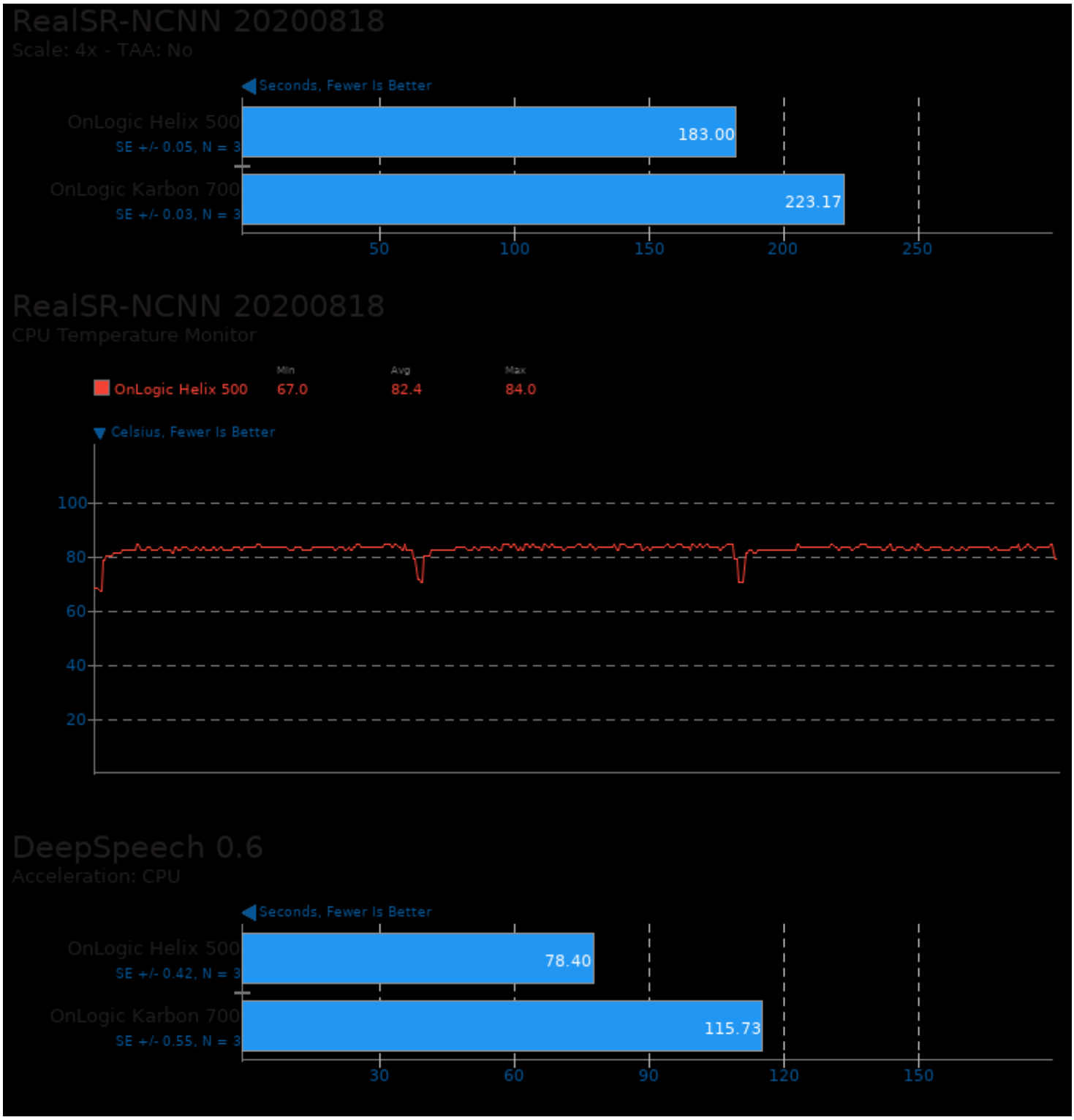
CPU Temperature Monitor



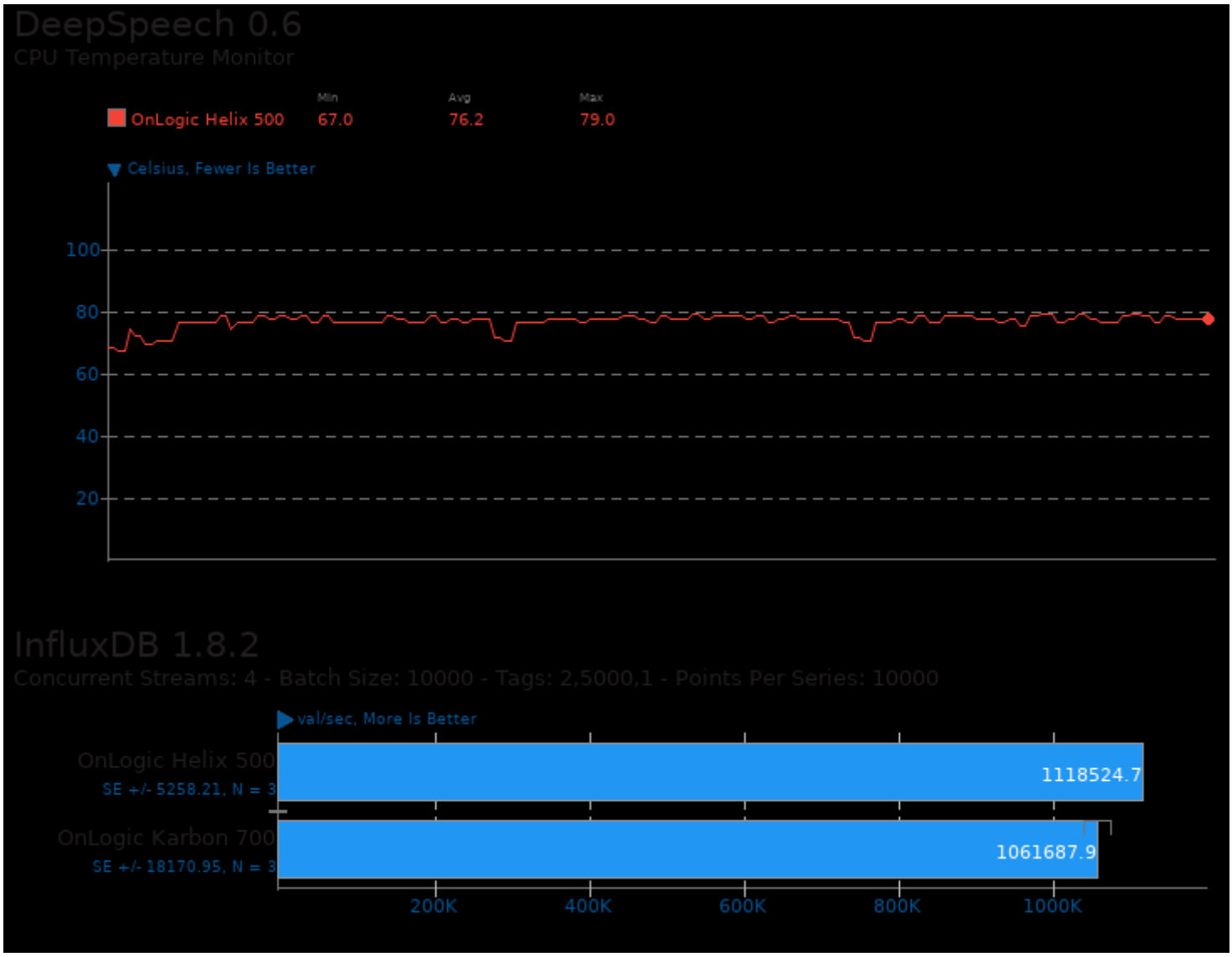
OnLogic Helix 500 Linux benchmarks



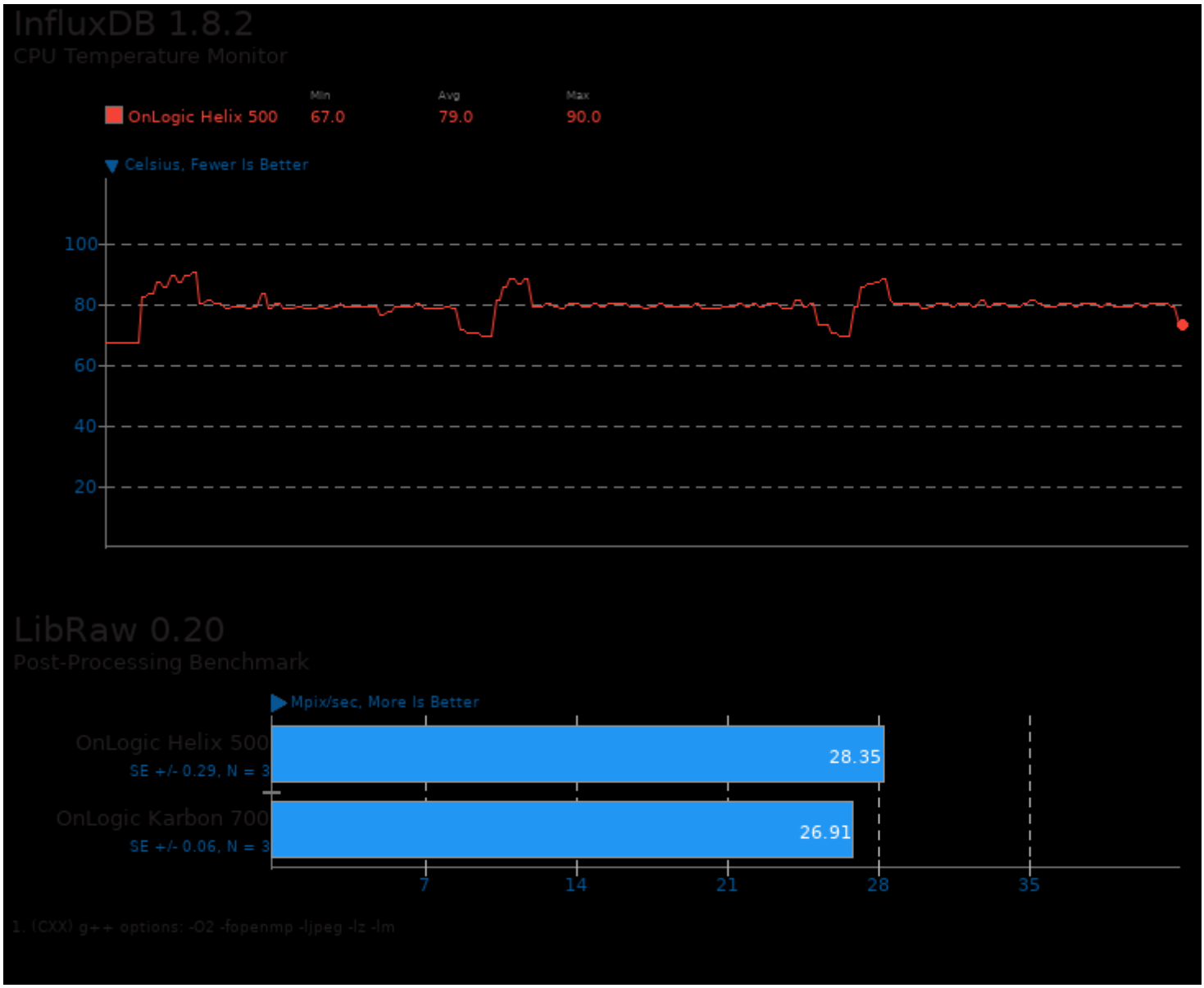
OnLogic Helix 500 Linux benchmarks



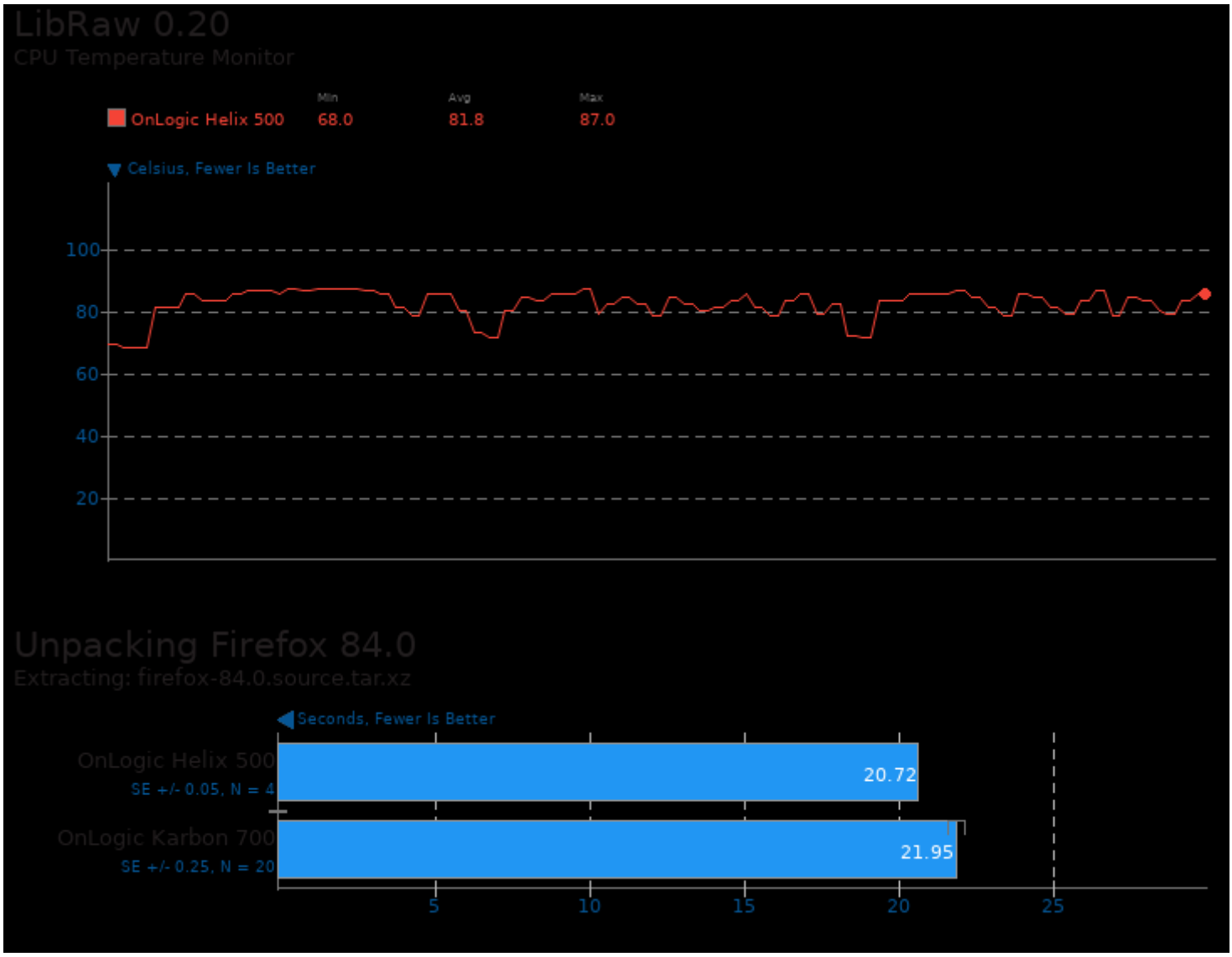
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks

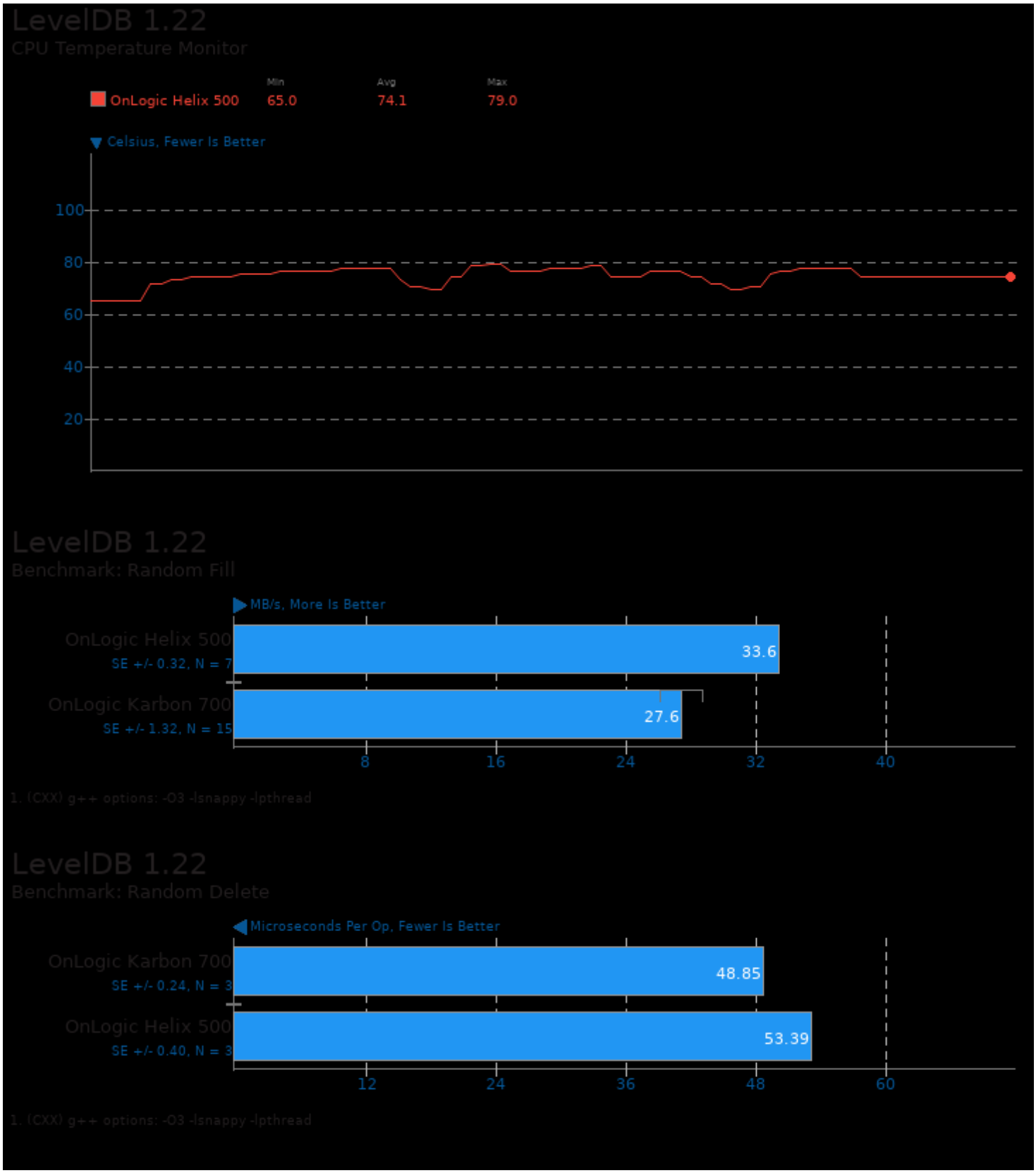


OnLogic Helix 500 Linux benchmarks

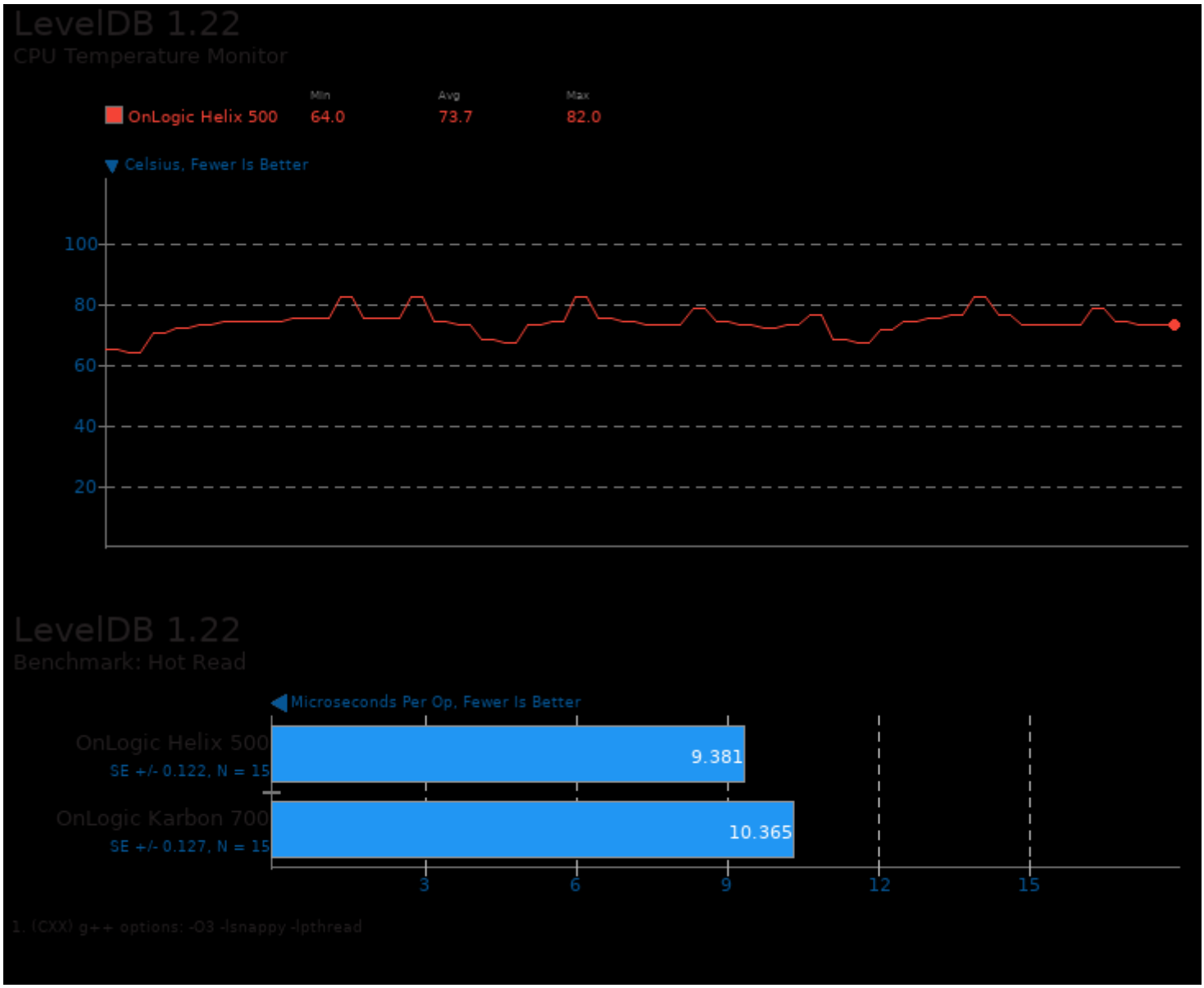


OnLogic Helix 500 Linux benchmarks

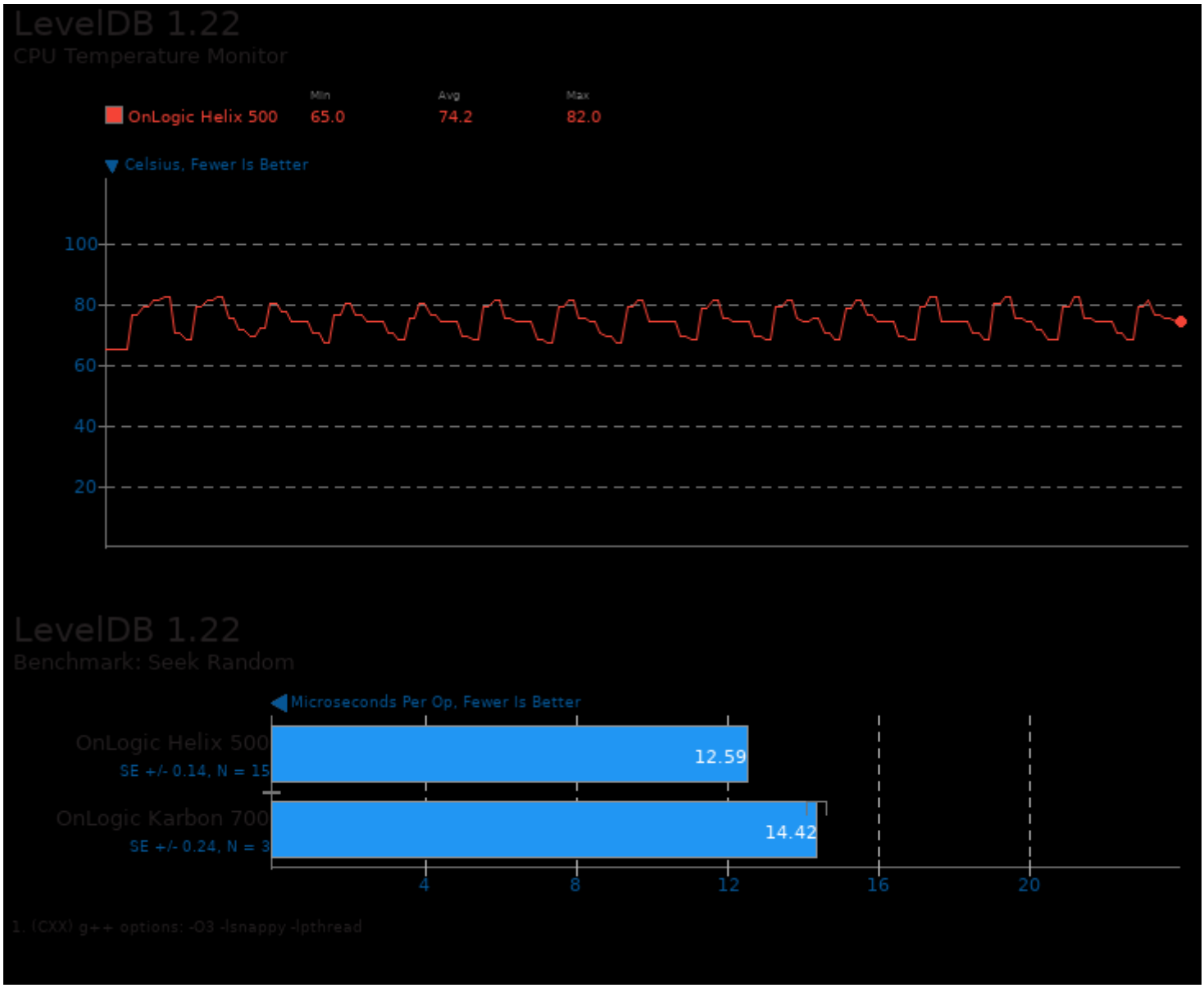
OnLogic Helix 500 Linux benchmarks



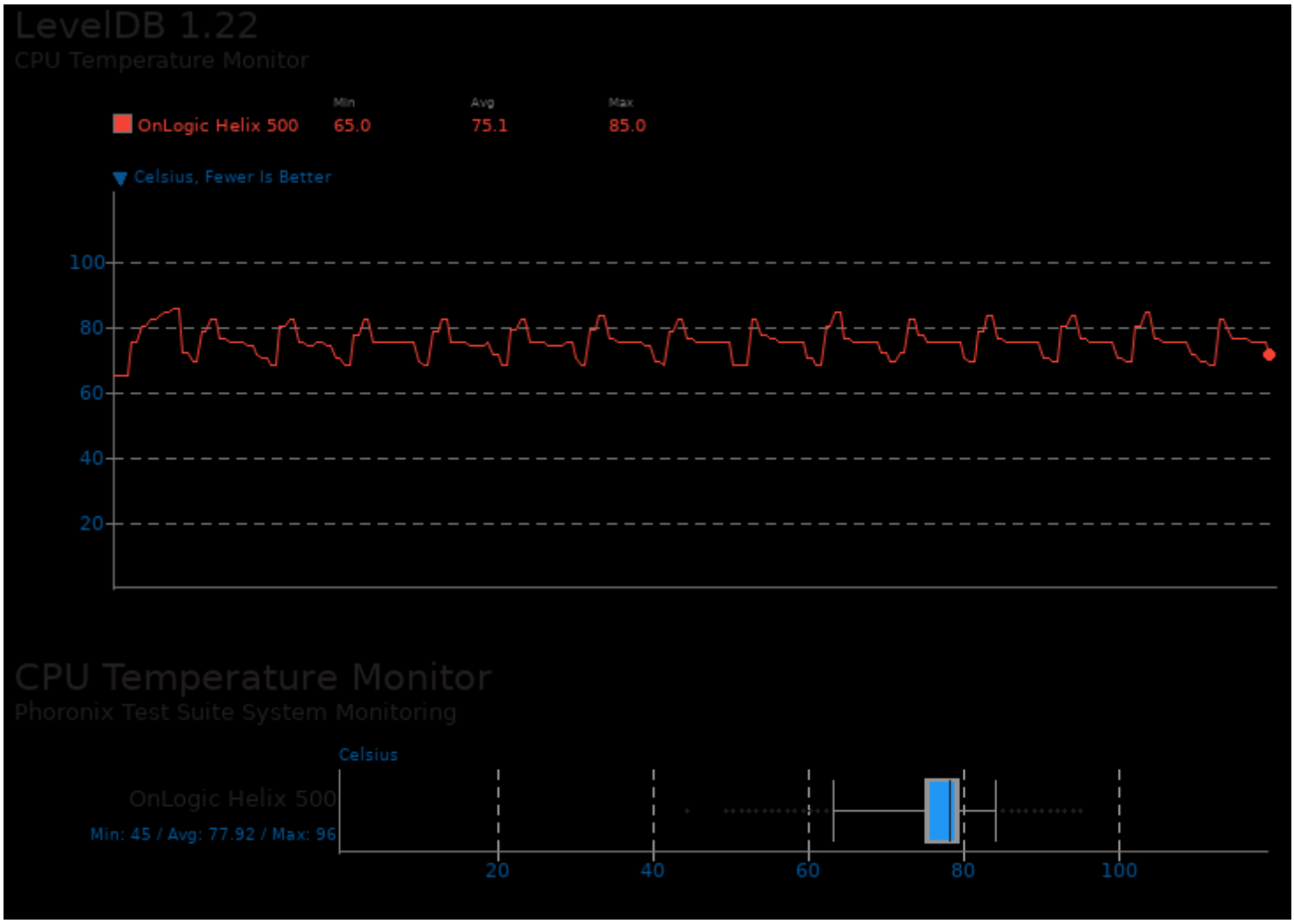
OnLogic Helix 500 Linux benchmarks



OnLogic Helix 500 Linux benchmarks



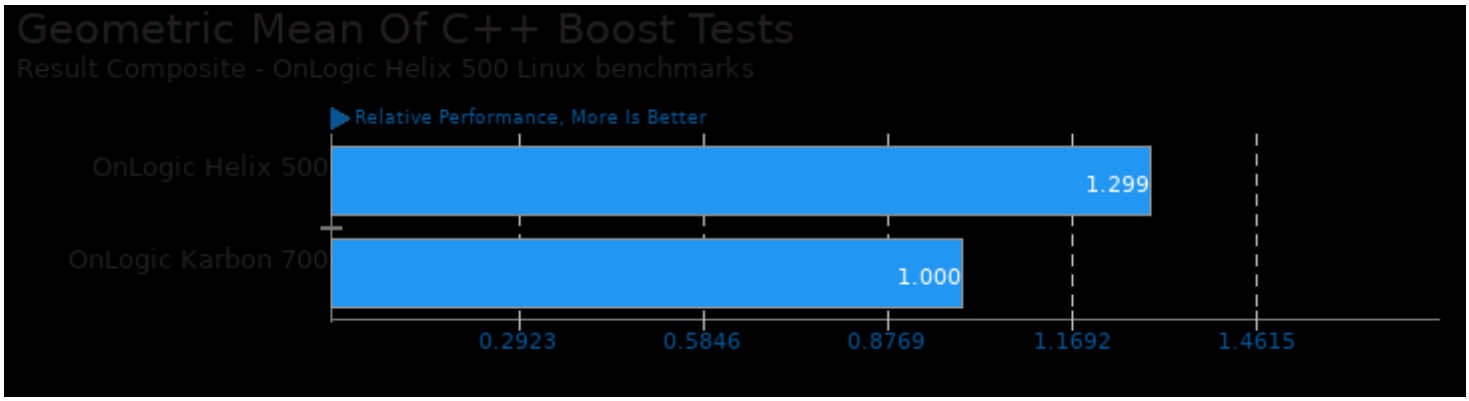
OnLogic Helix 500 Linux benchmarks



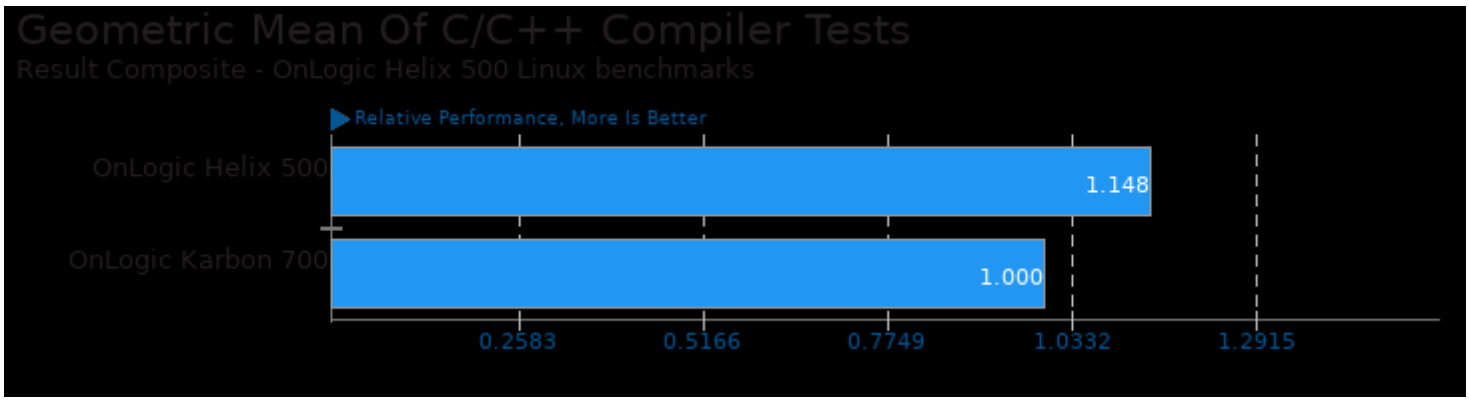
OnLogic Helix 500 Linux benchmarks

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

Geometric mean based upon tests: pts/dav1d and pts/rav1e



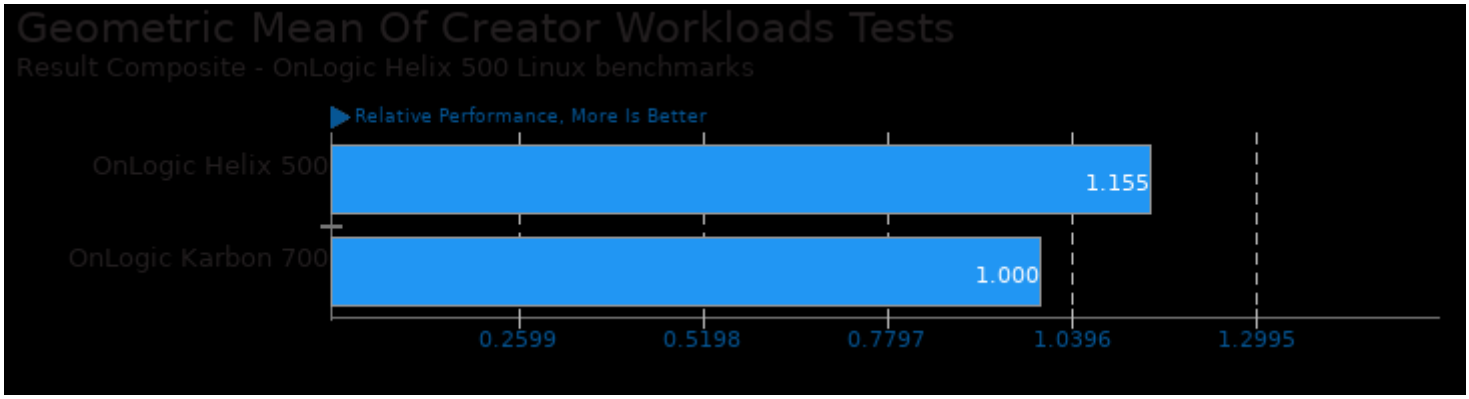
Geometric mean based upon tests: pts/quantlib and pts/openfoam



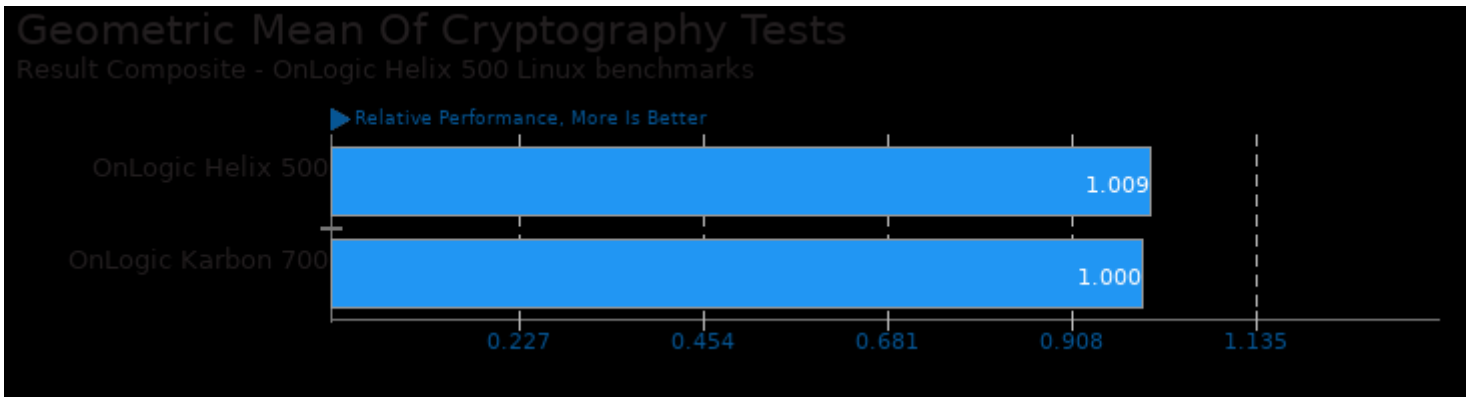
Geometric mean based upon tests: pts/hmmer, pts/sqlite-speedtest, pts/dav1d, pts/clomp, pts/lammps, pts/gromacs and pts/leveldb

OnLogic Helix 500 Linux benchmarks

Geometric mean based upon tests: pts/dav1d, pts/hmmer, pts/hpcc, pts/lammps, pts/lzbench, pts/onednn, pts/npb, pts/clomp and pts/cpuminer-opt

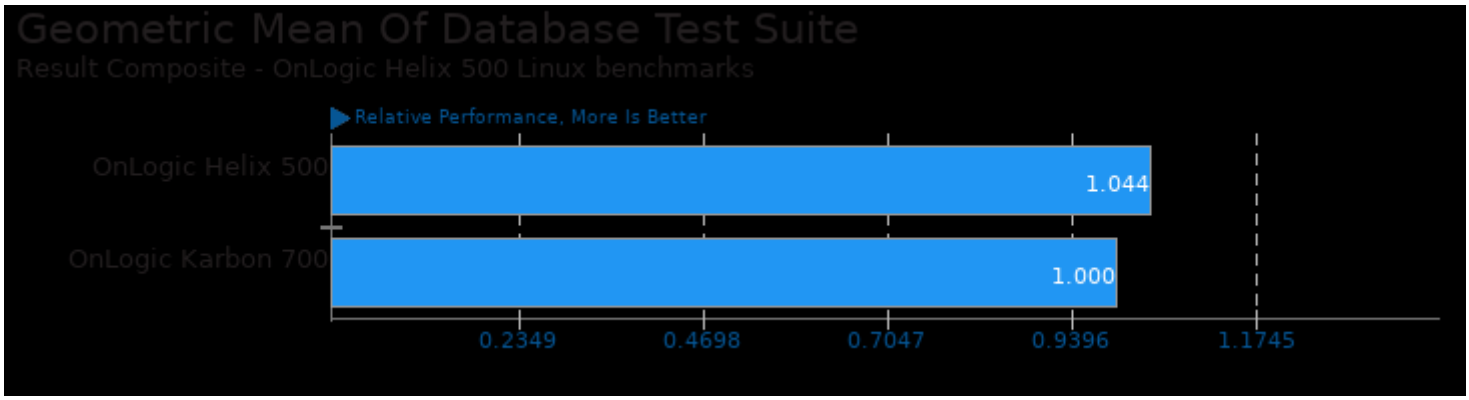


Geometric mean based upon tests: pts/dav1d, pts/rav1e, pts/libraw, pts/webp, pts/webp2, pts/embree, pts/onednn, pts/astcenc, pts/etcpak, pts/deepspeech and pts/synthmark

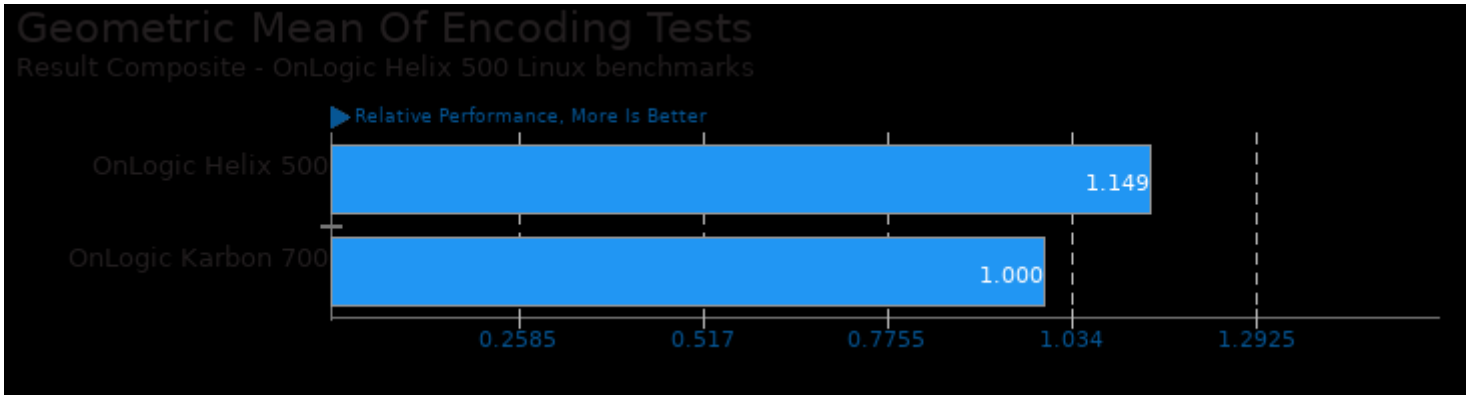


Geometric mean based upon tests: pts/gnupg and pts/cpuminer-opt

OnLogic Helix 500 Linux benchmarks

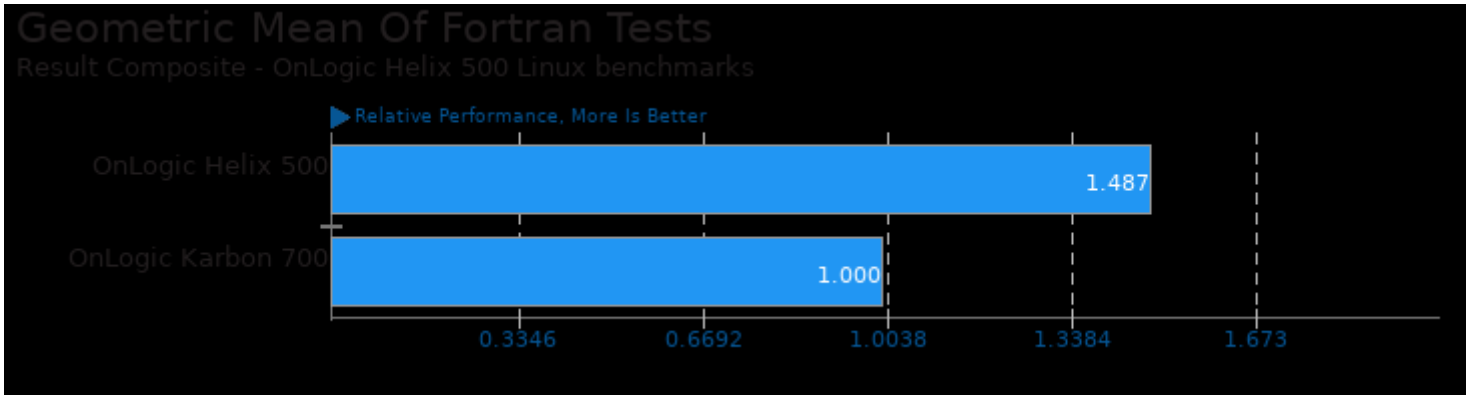


Geometric mean based upon tests: pts/sqlite-speedtest, pts/leveldb and pts/influxdb



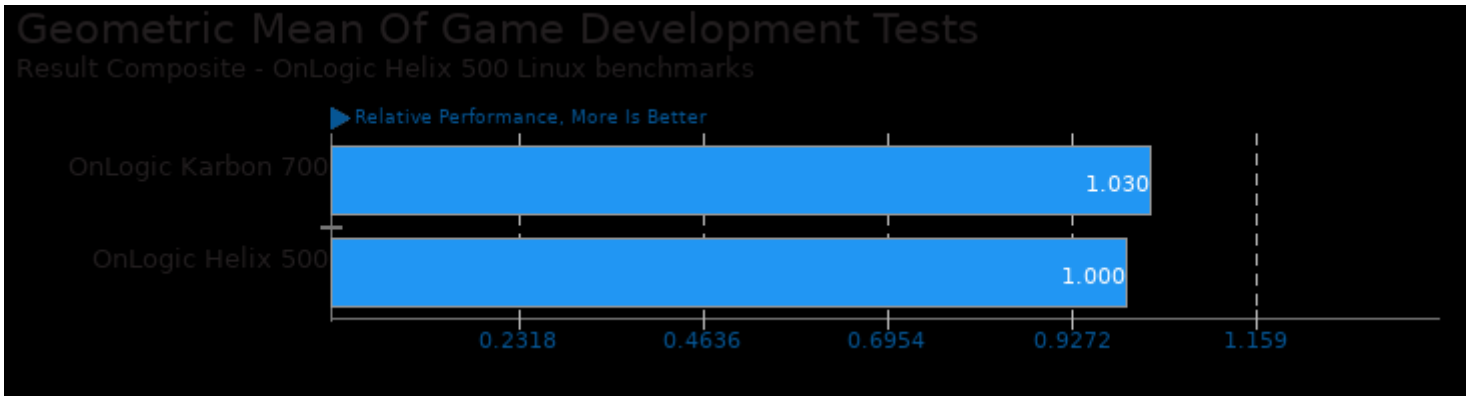
Geometric mean based upon tests: pts/dav1d and pts/rav1e

Geometric mean based upon tests: pts/financebench and pts/quantlib

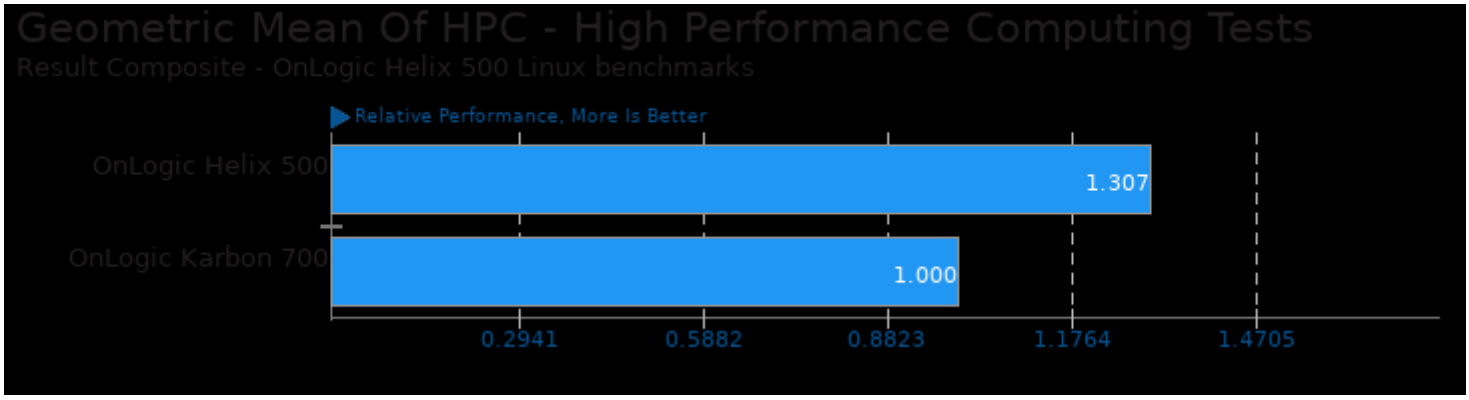


Geometric mean based upon tests: pts/npb, pts/lammps and pts/hpcc

OnLogic Helix 500 Linux benchmarks

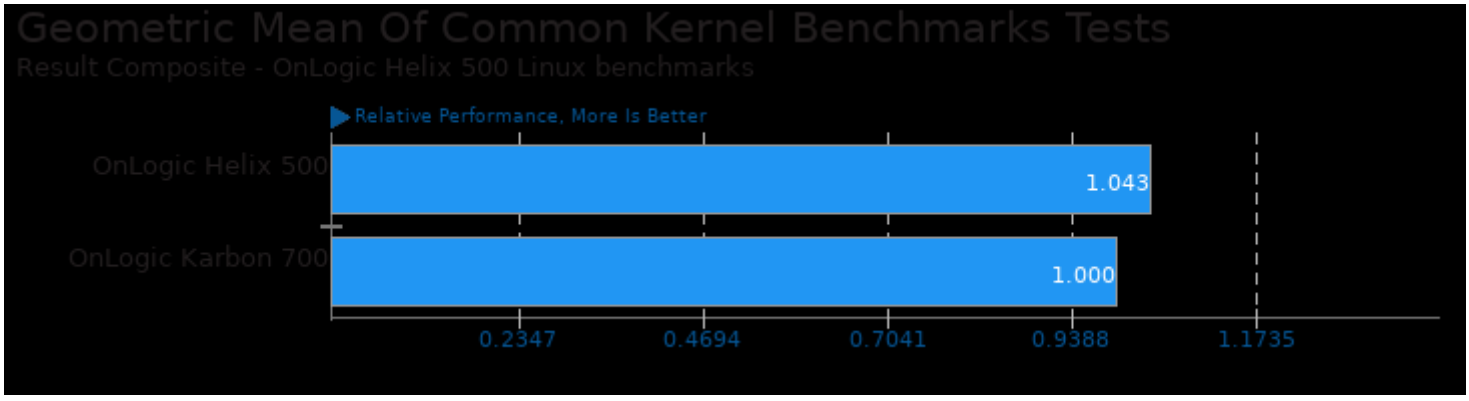


Geometric mean based upon tests: pts/astcenc and pts/etcpak



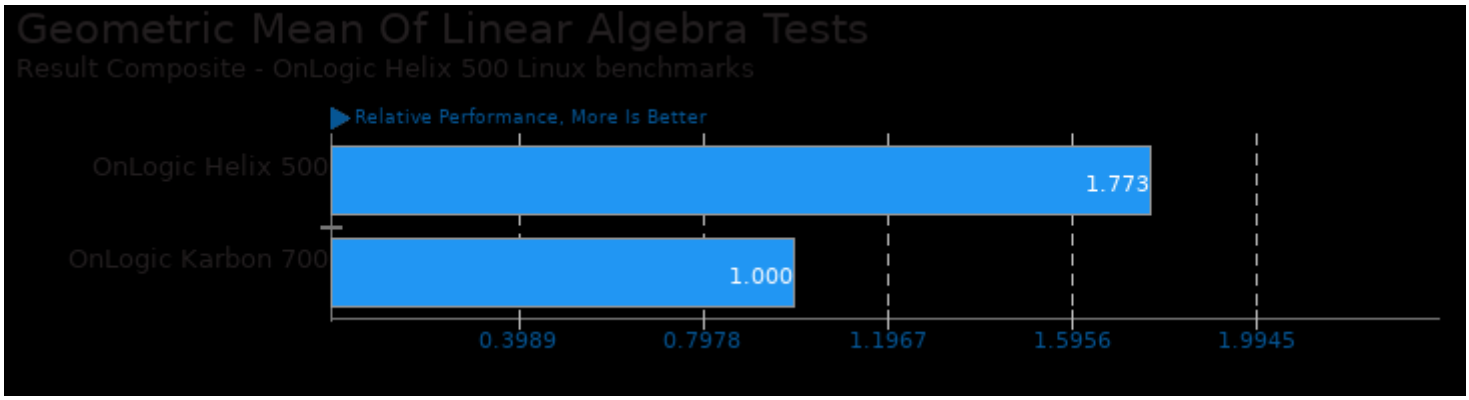
Geometric mean based upon tests: pts/npb, pts/hpcc, pts/askap, pts/amg, pts/gromacs, pts/lammps, pts/openfoam, pts/hmmer, pts/ncnn, pts/tnn, pts/ai-benchmark, pts/deepspeech, pts/onednn and pts/onnx

Geometric mean based upon tests: pts/libraw, pts/webp and pts/webp2

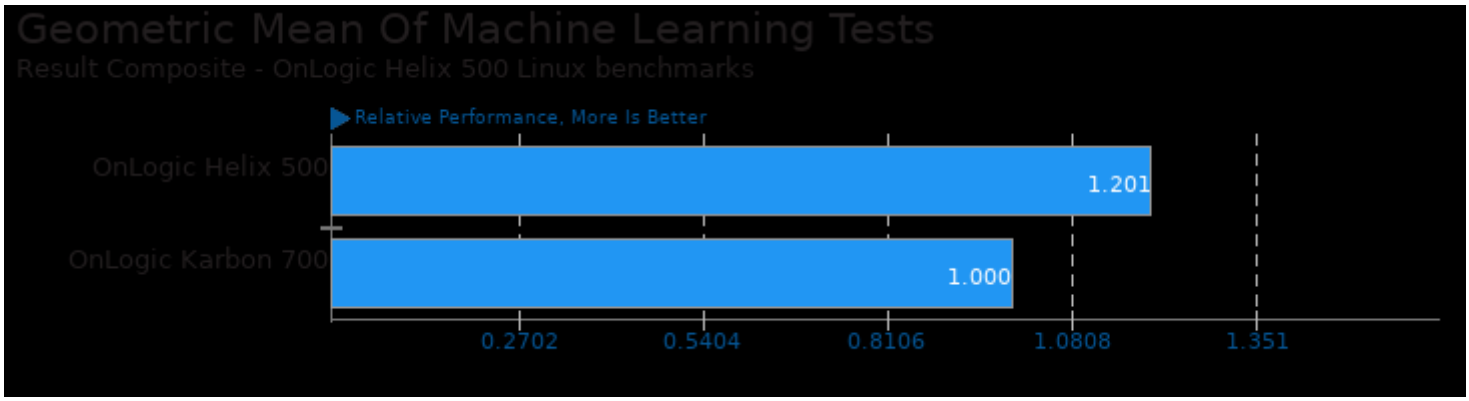


OnLogic Helix 500 Linux benchmarks

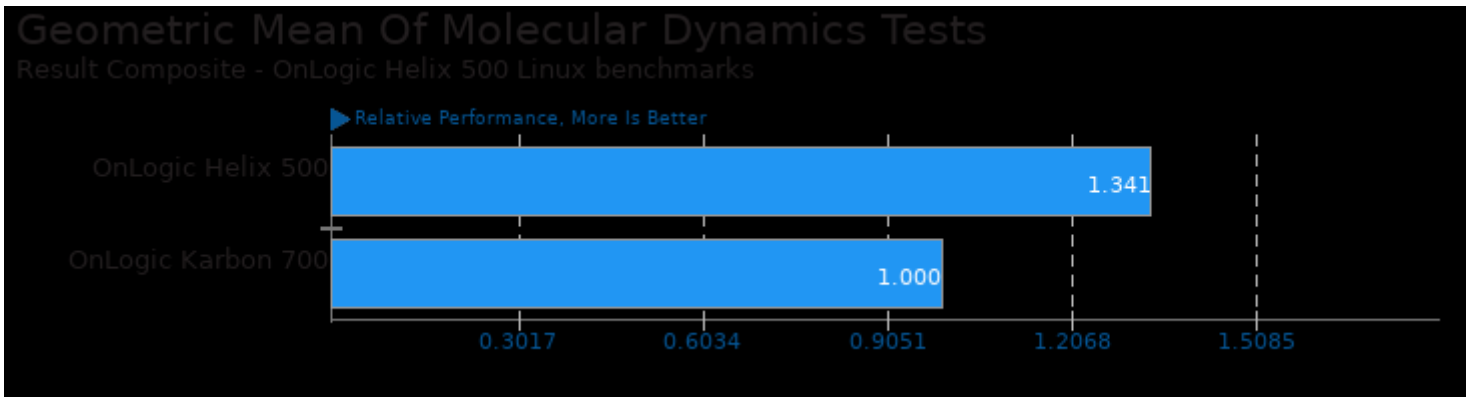
Geometric mean based upon tests: pts/sqlite-speedtest and pts/leveldb



Geometric mean based upon tests: pts/amg and pts/hpcc

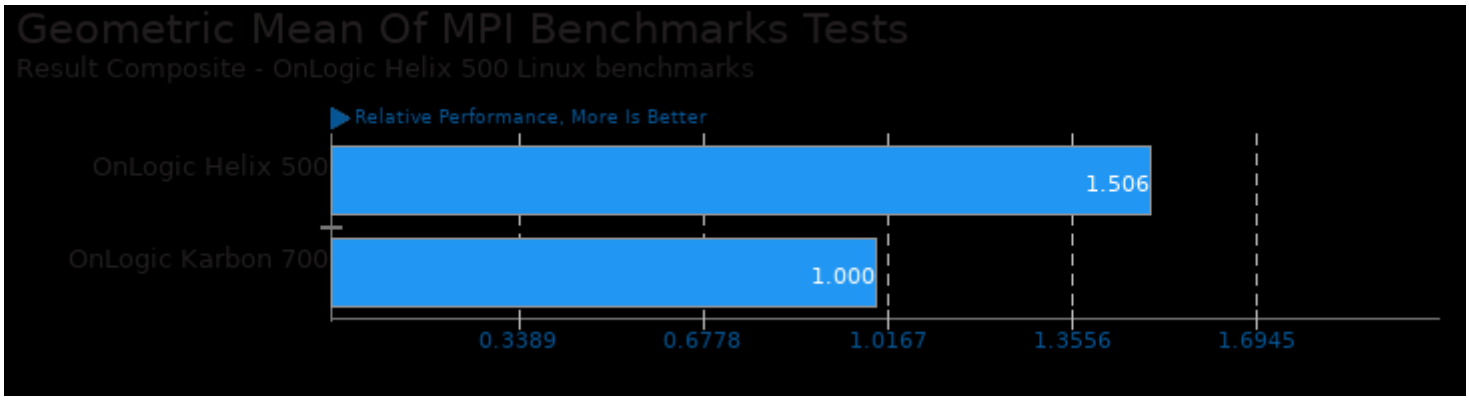


Geometric mean based upon tests: pts/ncnn, pts/tnn, pts/ai-benchmark, pts/deepspeech, pts/onednn and pts/onnx

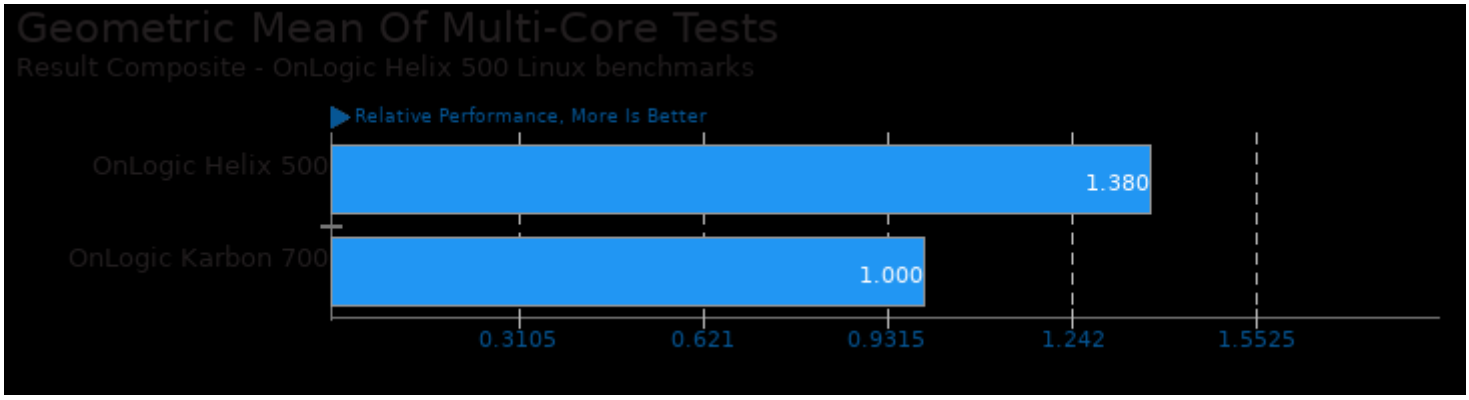


Geometric mean based upon tests: pts/gromacs, pts/lammps and pts/openfoam

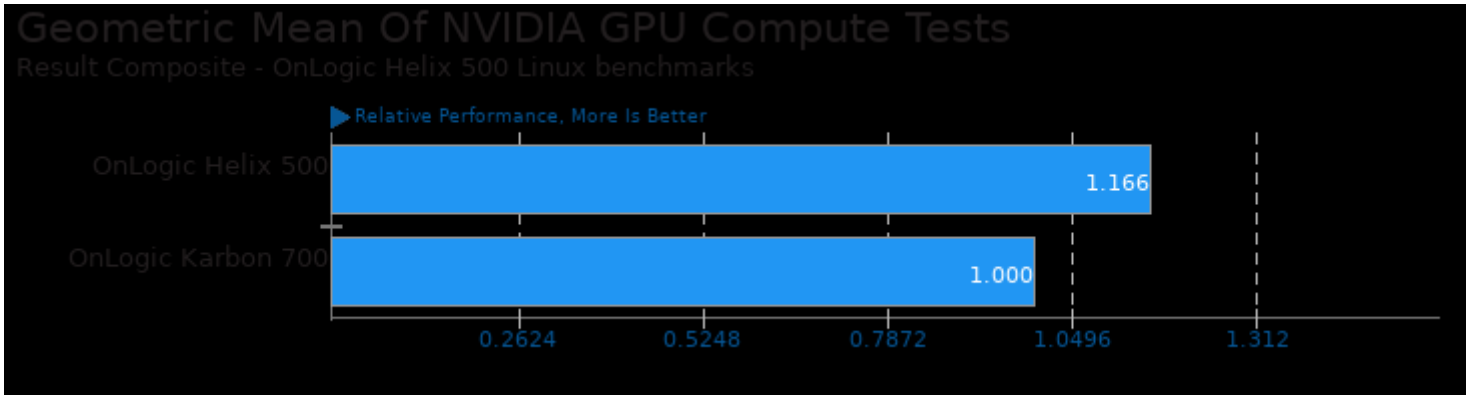
OnLogic Helix 500 Linux benchmarks



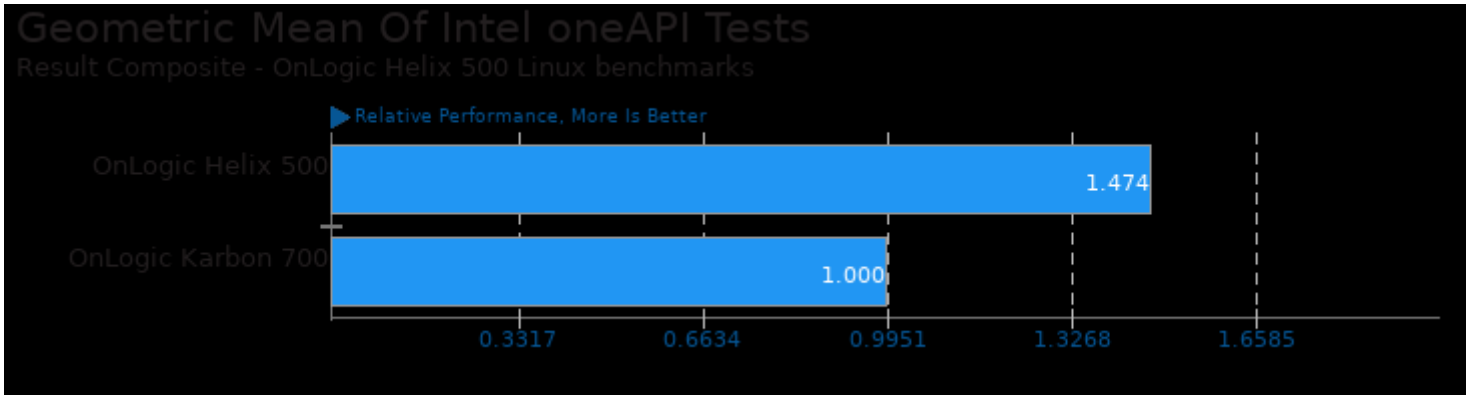
Geometric mean based upon tests: pts/askap, pts/lammps, pts/hpcc, pts/gromacs and pts/npb



Geometric mean based upon tests: pts/cpuminer-opt, pts/askap, pts/dav1d, pts/rav1e, pts/npb, pts/onednn, pts/lammps, pts/gromacs and pts/embree

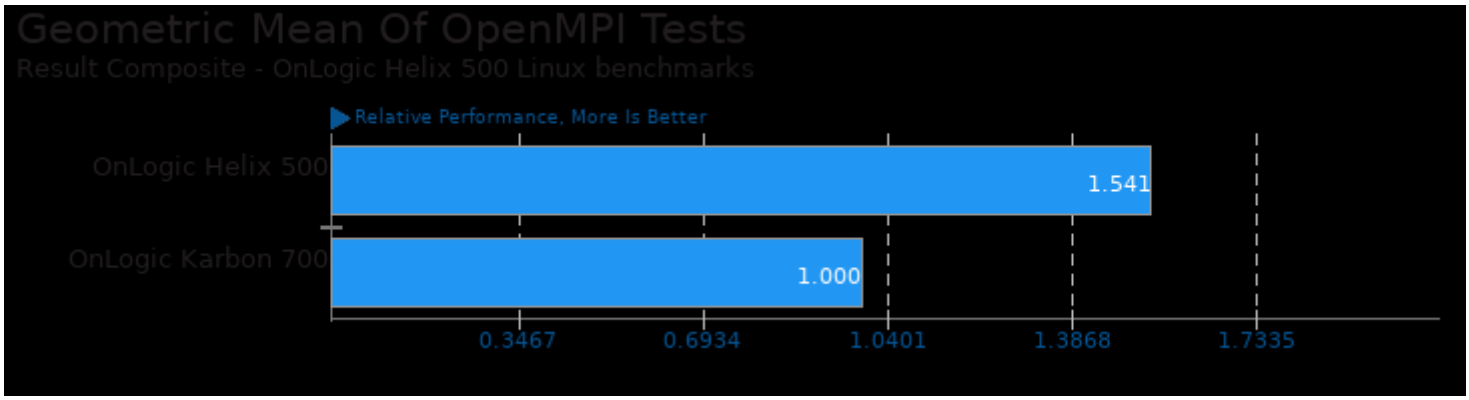


Geometric mean based upon tests: pts/gromacs, pts/financebench, pts/ncnn, pts/realsr-ncnn and pts/waifu2x-ncnn

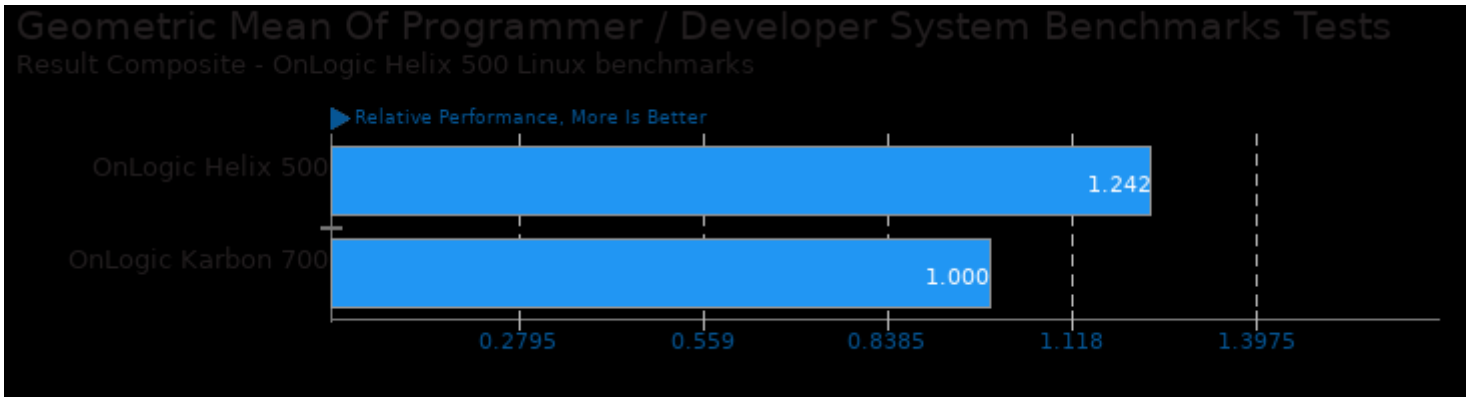


OnLogic Helix 500 Linux benchmarks

Geometric mean based upon tests: pts/embree and pts/onednn

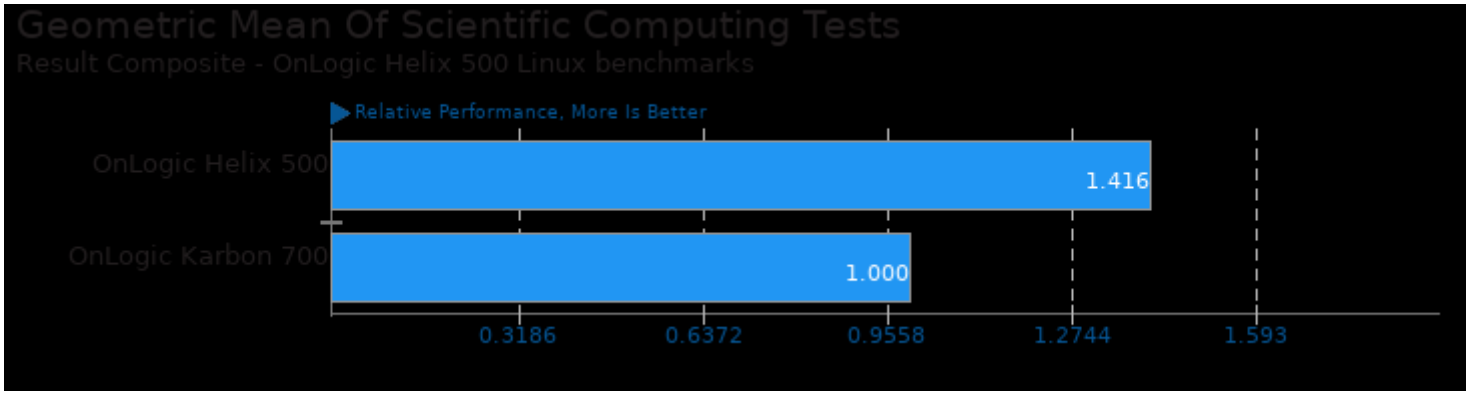


Geometric mean based upon tests: pts/askap, pts/npb, pts/lammps, pts/amg, pts/openfoam, pts/hpcc and pts/gromacs



Geometric mean based upon tests: pts/simdjson, pts/sqlite-speedtest, pts/amg and pts/hpcc

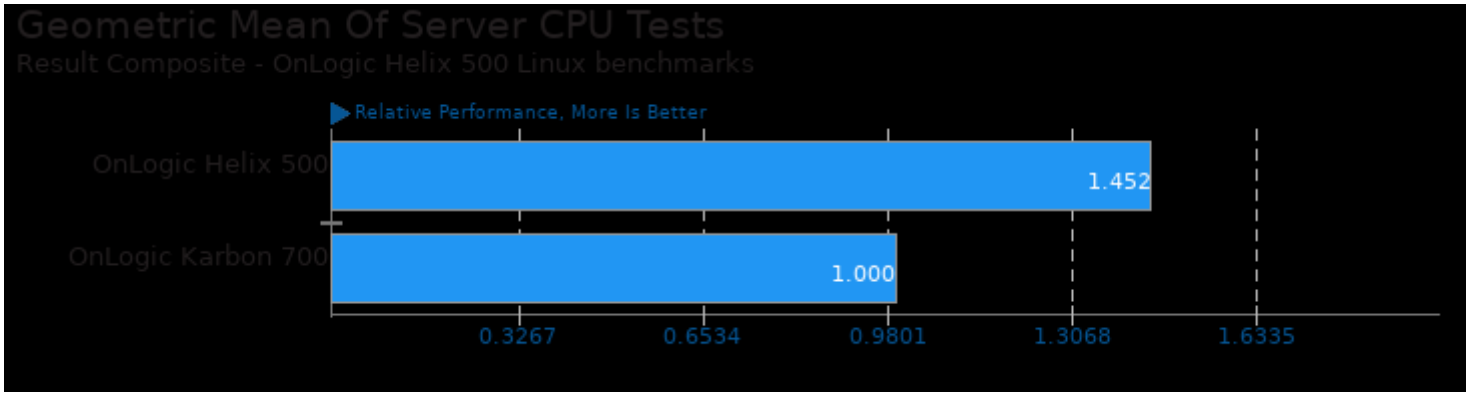
Geometric mean based upon tests: pts/onnx, pts/glmark2 and pts/ai-benchmark



OnLogic Helix 500 Linux benchmarks

Geometric mean based upon tests: pts/amg, pts/hpcc, pts/gromacs, pts/lammps, pts/openfoam and pts/hmmer

Geometric mean based upon tests: pts/simdjson, pts/sqlite-speedtest, pts/leveldb and pts/influxdb



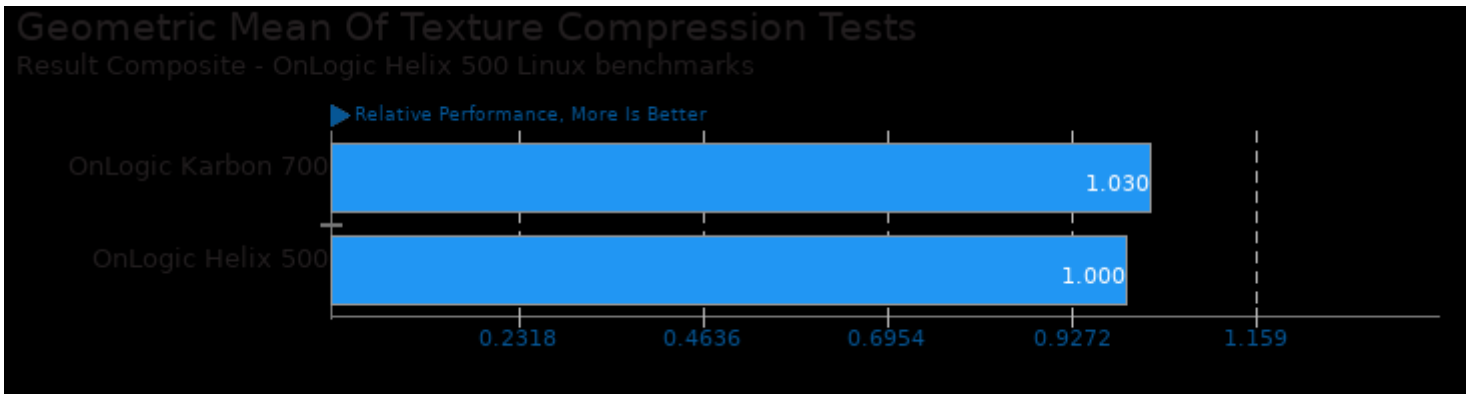
Geometric mean based upon tests: pts/npb, pts/onednn, pts/dav1d and pts/cpuminer-opt

Geometric mean based upon tests: pts/lzbench, pts/deepspeech and pts/gnupg

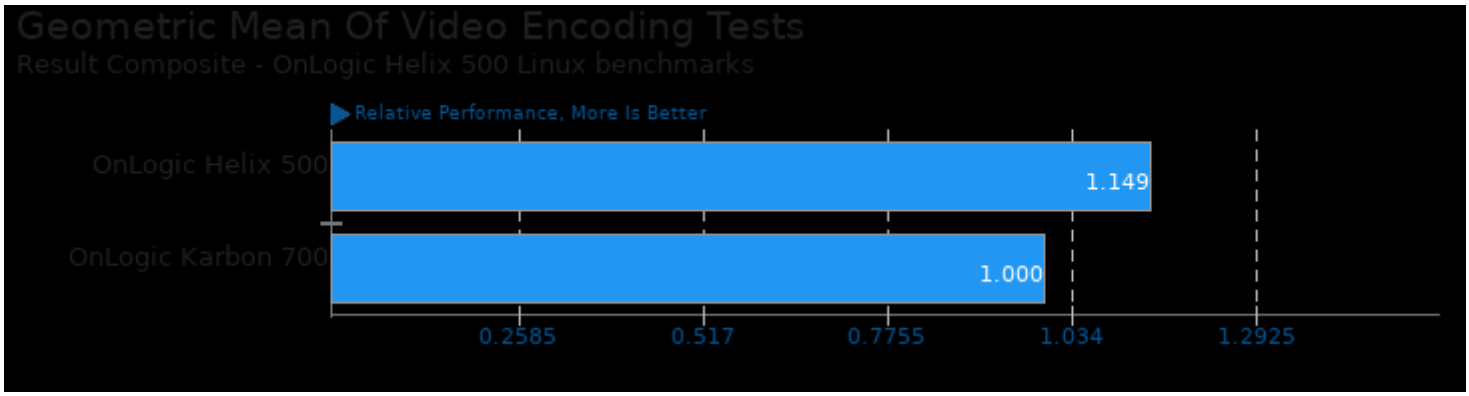
OnLogic Helix 500 Linux benchmarks

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

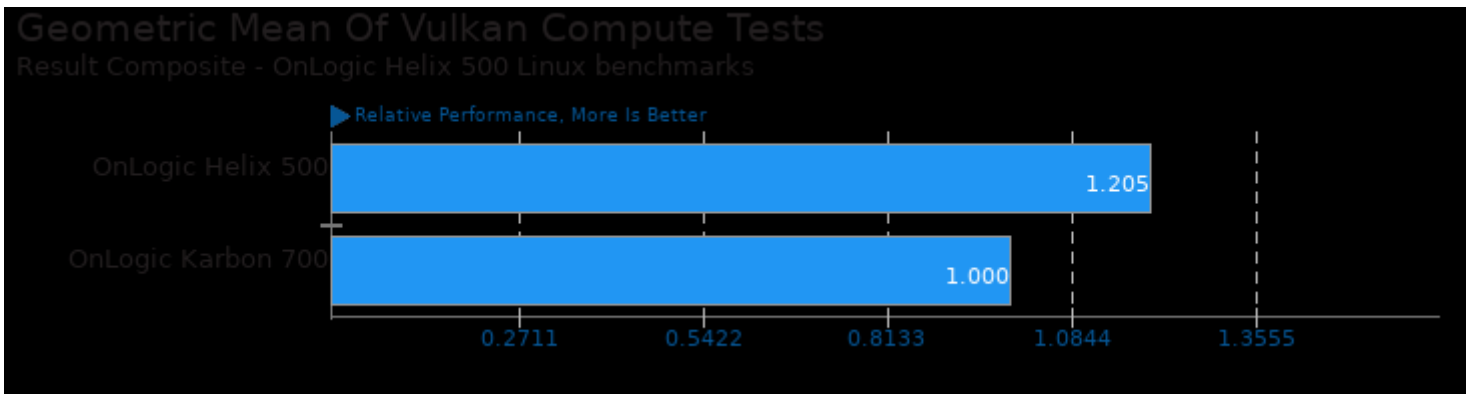
Geometric mean based upon tests: pts/deepspeech and pts/synthmark



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



Geometric mean based upon tests: pts/dav1d and pts/rav1e



OnLogic Helix 500 Linux benchmarks

Geometric mean based upon tests: pts/ncnn, pts/realsr-ncnn and pts/waifu2x-ncnn

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:40.