


**www.phoronix-test-suite.com**

# Jetson TX2 CUDA CPU Monitor

Testing for a future article on Phoronix.

**Automated Executive Summary**

*Jetson TX2 Max-P had the most wins, coming in first place for 53% of the tests.*

*Based on the geometric mean of all complete results, the fastest (Jetson TX2 Max-Q) was 1.329x the speed of the slowest (Jetson TX2 Max-P).*

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

*CUDA Mini-Nbody (GPU Power Consumption Monitor) at 44.928x*
*SHOC Scalable HeterOgeneous Computing (GPU Power Consumption Monitor) at 39.954x*
*Caffe (GPU Power Consumption Monitor) at 27.967x*
*SHOC Scalable HeterOgeneous Computing (GPU Power Consumption Monitor) at 22.993x*
*Caffe (GPU Power Consumption Monitor) at 20.98x*
*ASKAP tConvolveCuda (GPU Power Consumption Monitor) at 15.484x*
*SHOC Scalable HeterOgeneous Computing (GPU Power Consumption Monitor) at 12.993x*
*CUDA Mini-Nbody (CPU Power Consumption Monitor) at 11.484x*
*SHOC Scalable HeterOgeneous Computing (GPU Power Consumption Monitor) at 10.497x*
*ASKAP tConvolveCuda (CPU Power Consumption Monitor) at 7.503x.*

# Jetson TX2 CUDA CPU Monitor

## Test Systems:

### Jetson TX2 Max-Q

### Jetson TX2 Max-P

Processor: ARMv8 rev 3 @ 1.27GHz (6 Cores), Motherboard: quill, Memory: 8192MB, Disk: 31GB 032G34, Graphics: GP10B (nvgpu)/

OS: Ubuntu 16.04, Kernel: 4.4.15-tegra (aarch64), Desktop: Unity 7.4.0, Display Server: X Server 1.18.3, Display Driver: NVIDIA 27.1.0, OpenGL: 4.5.0, Vulkan: 1.0.8, Compiler: GCC 5.4.0 20160609 + CUDA 8.0, File-System: ext4, Screen Resolution: 3840x2160

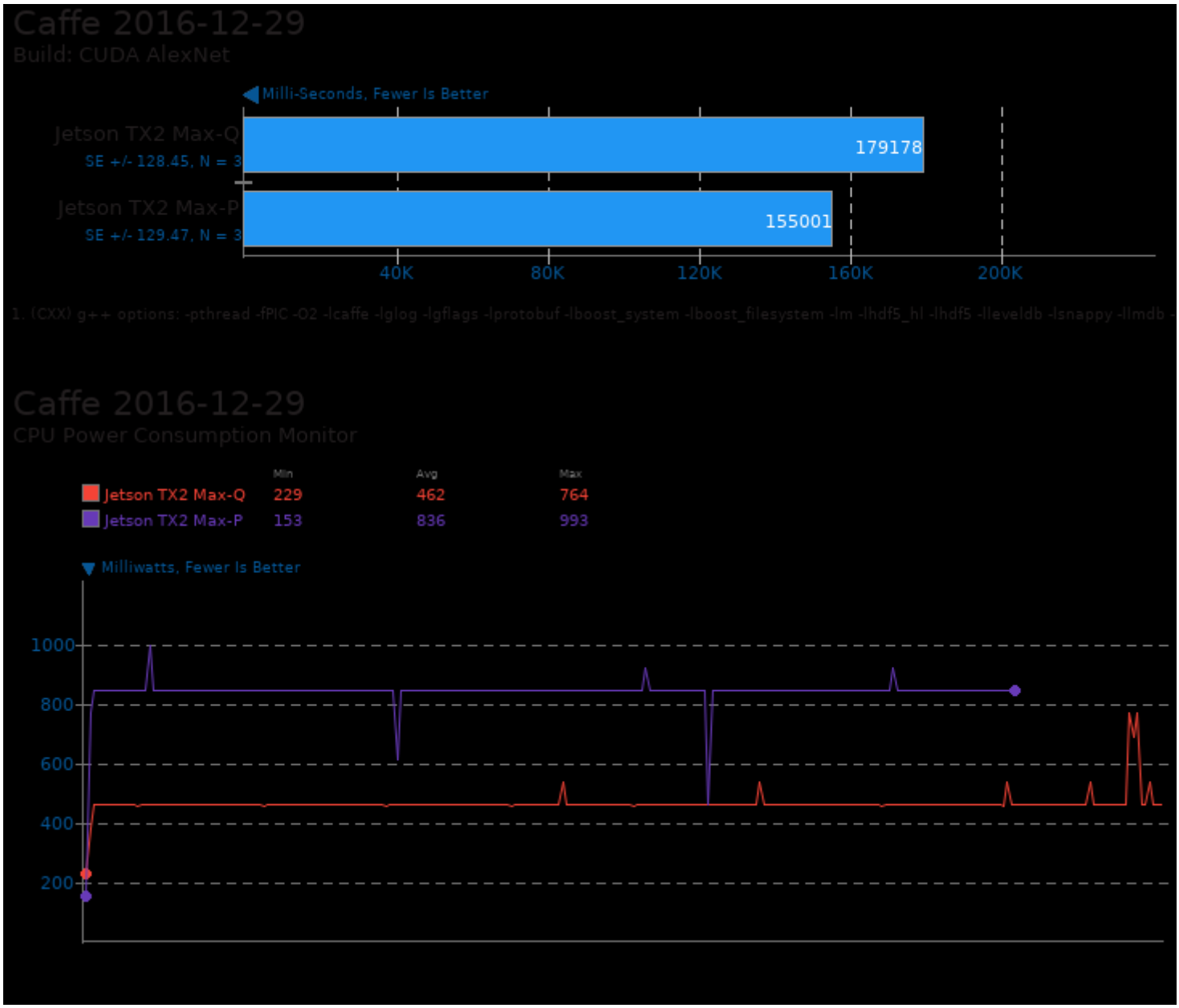
Compiler Notes: --build=aarch64-linux-gnu --disable-browser-plugin --disable-libquadmath --disable-werror --enable-checking=release --enable-clocale=gnu --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --target=aarch64-linux-gnu --with-arch-directory=aarch64 --with-default-libstdcxx-abi=new -v
Processor Notes: Scaling Governor: tegra_cpufreq schedutil

| | Jetson TX2 Max-Q | Jetson TX2 Max-P |
|---|---|---|
| **Caffe - CUDA AlexNet (ms)** | **179178** | **155001** |
| **Normalized** | 86.51% | 100% |
| **Standard Deviation** | 0.1% | 0.1% |
| **Caffe - CUDA Googlenet (ms)** | **378644** | **322535** |
| **Normalized** | 85.18% | 100% |
| **Standard Deviation** | 0.1% | 0.1% |
| **ASKAP tConvolveCuda - Gridding (Million Grid Points/sec)** | **838.16** | **309.96** |
| **Normalized** | 100% | 36.98% |
| **Standard Deviation** | 0.2% | 0% |
| **ASKAP tConvolveCuda - Degridding (Million Grid Points/sec)** | **1421** | **390.24** |
| **Normalized** | 100% | 27.46% |
| **Standard Deviation** | 0.3% | 1.1% |
| **CUDA Mini-Nbody - Original (sec)** | **548.31** | **528.00** |
| **Normalized** | 96.3% | 100% |
| **Standard Deviation** | 0.1% | 0.8% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - Bus Speed Download (GB/s)** | **15.37** | **15.15** |
| **Normalized** | 100% | 98.57% |
| **Standard Deviation** | 0.6% | 1.2% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - Bus Speed Readback (GB/s)** | **15.54** | **15.26** |
| **Normalized** | 100% | 98.2% |
| **Standard Deviation** | 0.8% | 0.3% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - Max SP Flops (GFLOPS)** | **429.53** | **559.08** |
| **Normalized** | 76.83% | 100% |
| **Standard Deviation** | 0% | 0.4% |

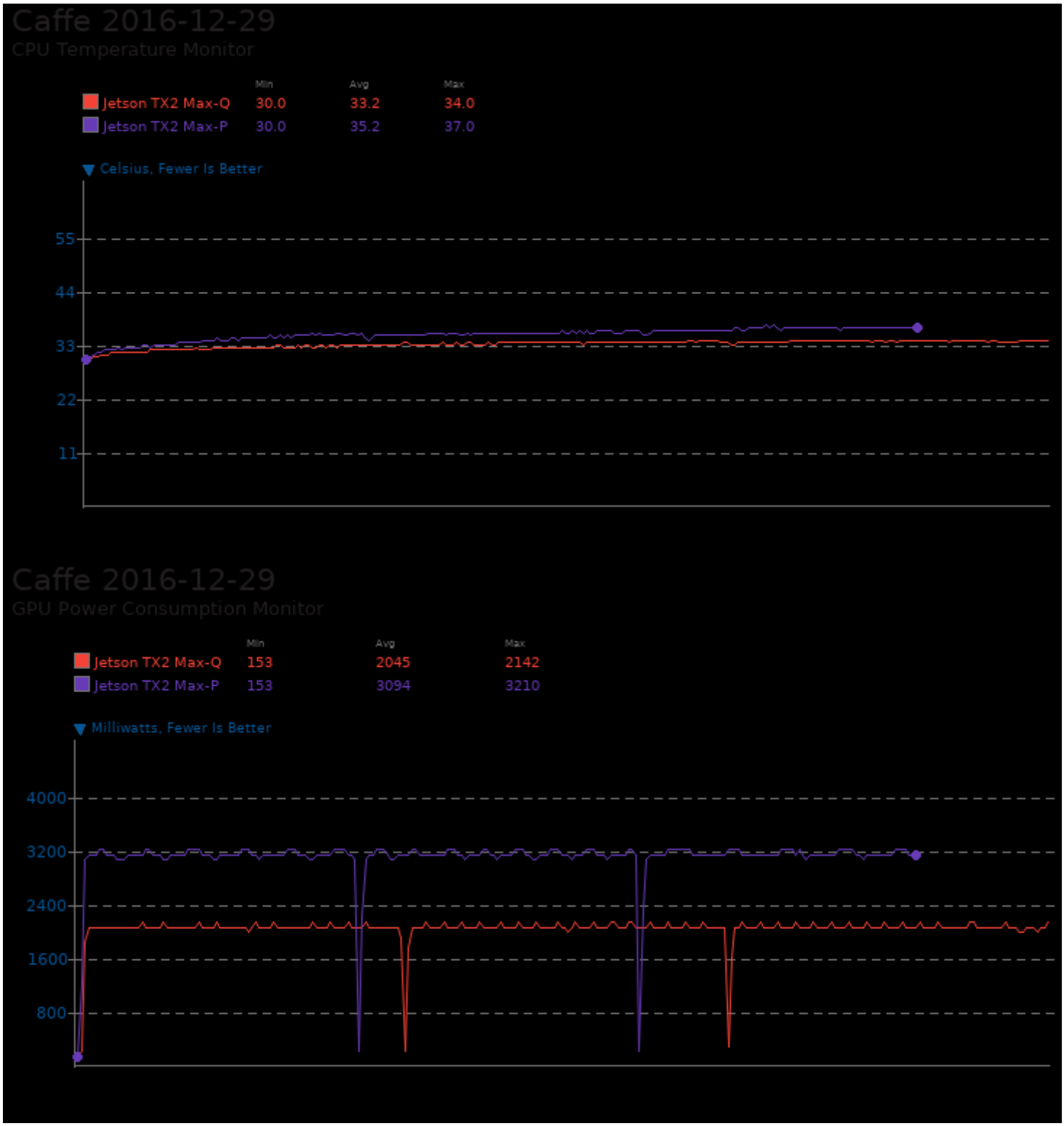
# Jetson TX2 CUDA CPU Monitor

| | | |
|---|---|---|
| **SHOC Scalable HeterOgeneous Computing - CUDA - T.R.B (GB/s)** | **52.46** | **69.32** |
| **Normalized** | 75.68% | 100% |
| **Standard Deviation** | 4.5% | 5.8% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - FFT SP (GFLOPS)** | **59.64** | **9.80** |
| **Normalized** | 100% | 16.43% |
| **Standard Deviation** | 0% | 0% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - MD5 Hash (GHash/s)** | **0.67** | **0.87** |
| **Normalized** | 77.01% | 100% |
| **Standard Deviation** | 0% | 0% |
| **SHOC Scalable HeterOgeneous Computing - CUDA - Triad (GB/s)** | **9.60** | **3.46** |
| **Normalized** | 100% | 36.04% |
| **Standard Deviation** | 0.3% | 29.5% |
| **FFTW - Stock - 2D FFT Size 128 (Mflops)** | **1156** | **1567** |
| **Normalized** | 73.79% | 100% |
| **Standard Deviation** | 0.9% | 2.8% |

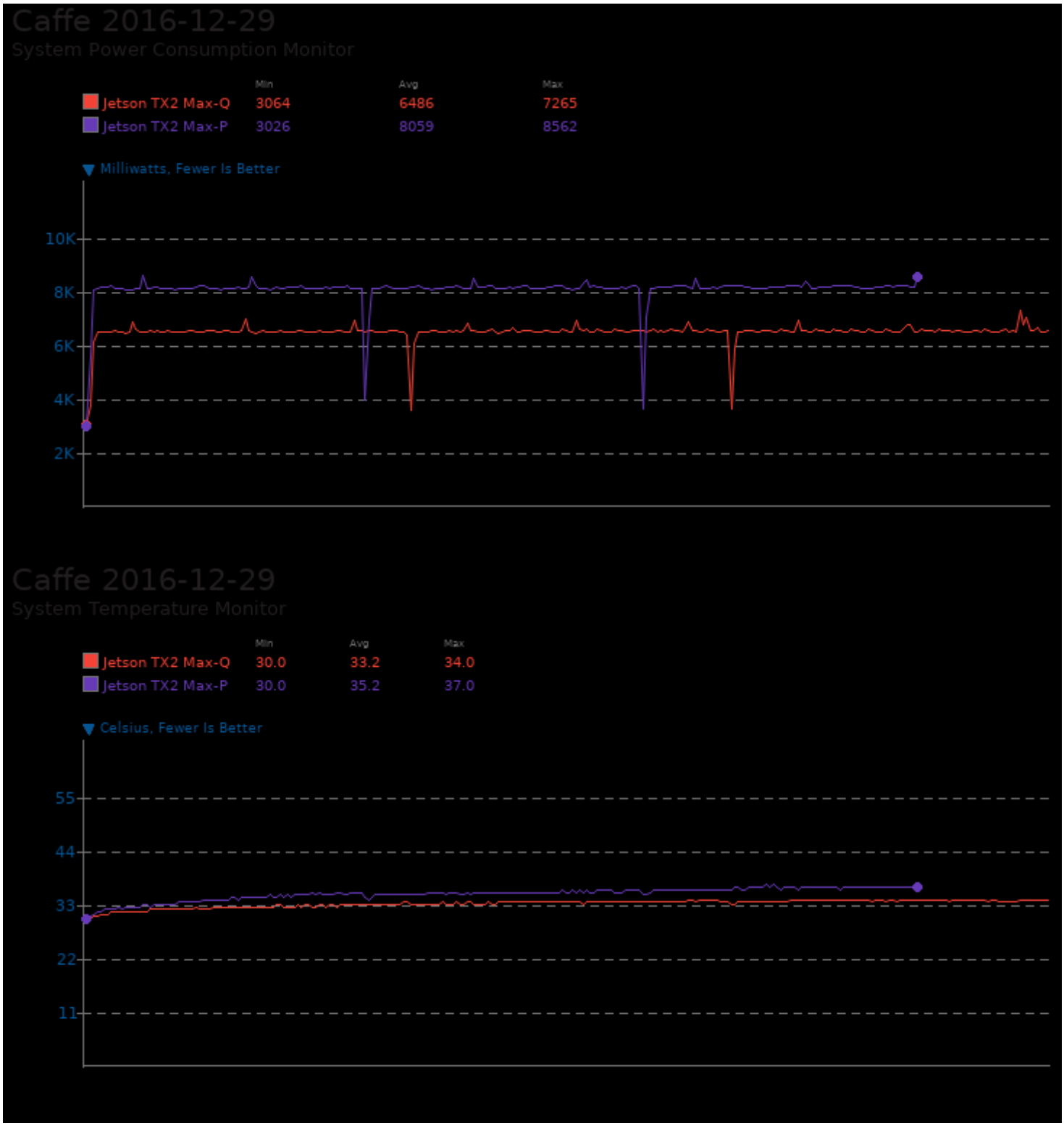
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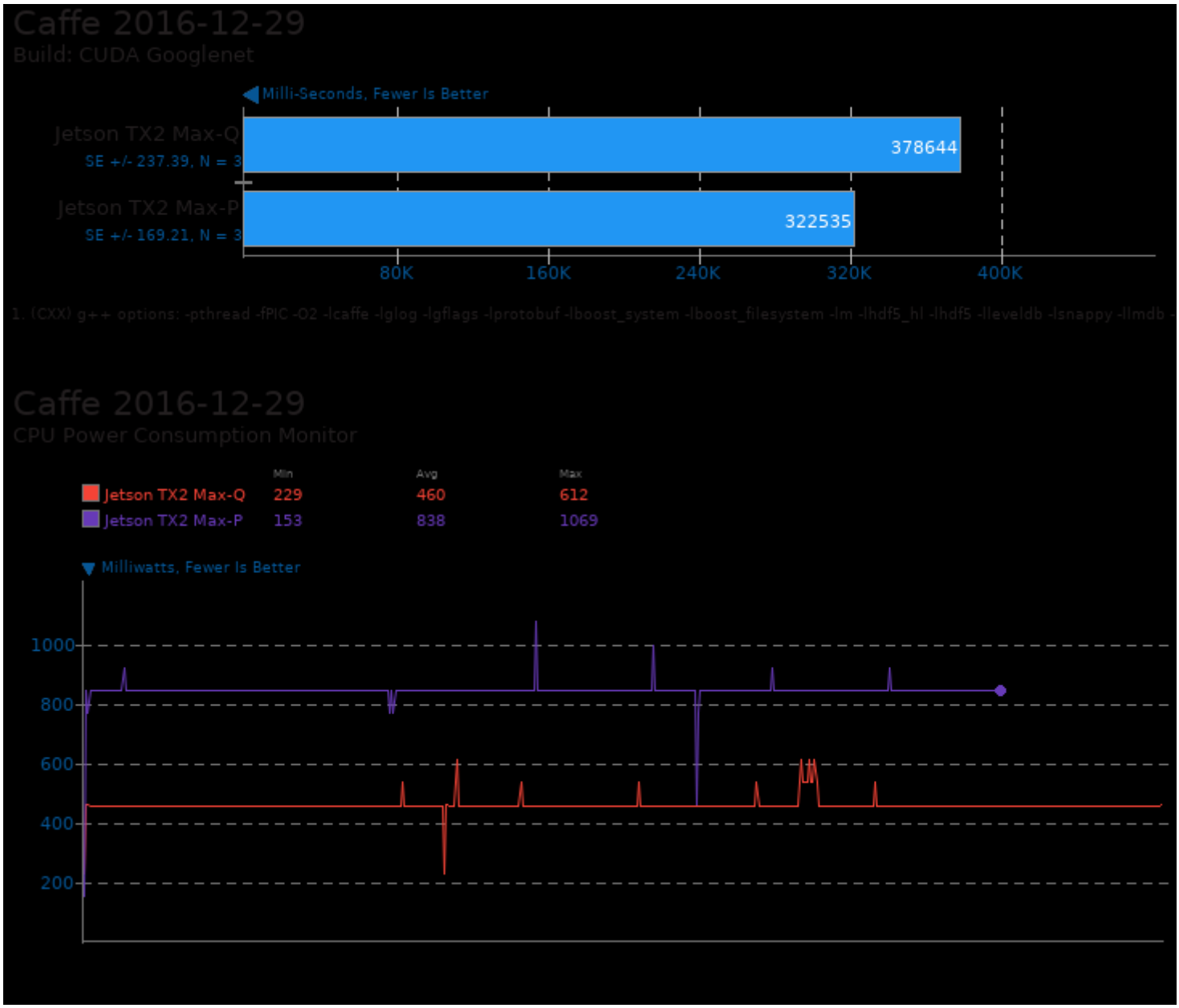
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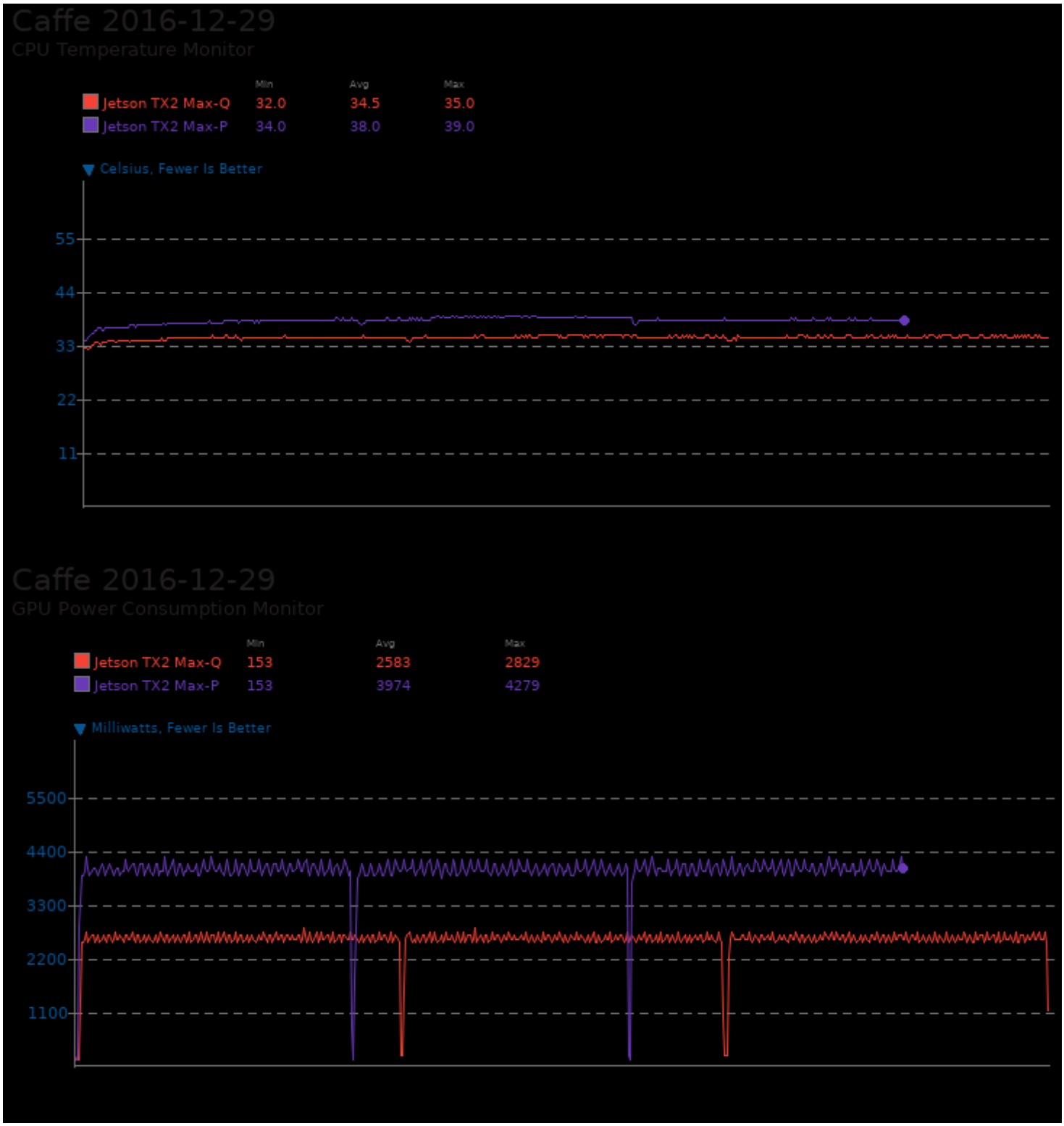
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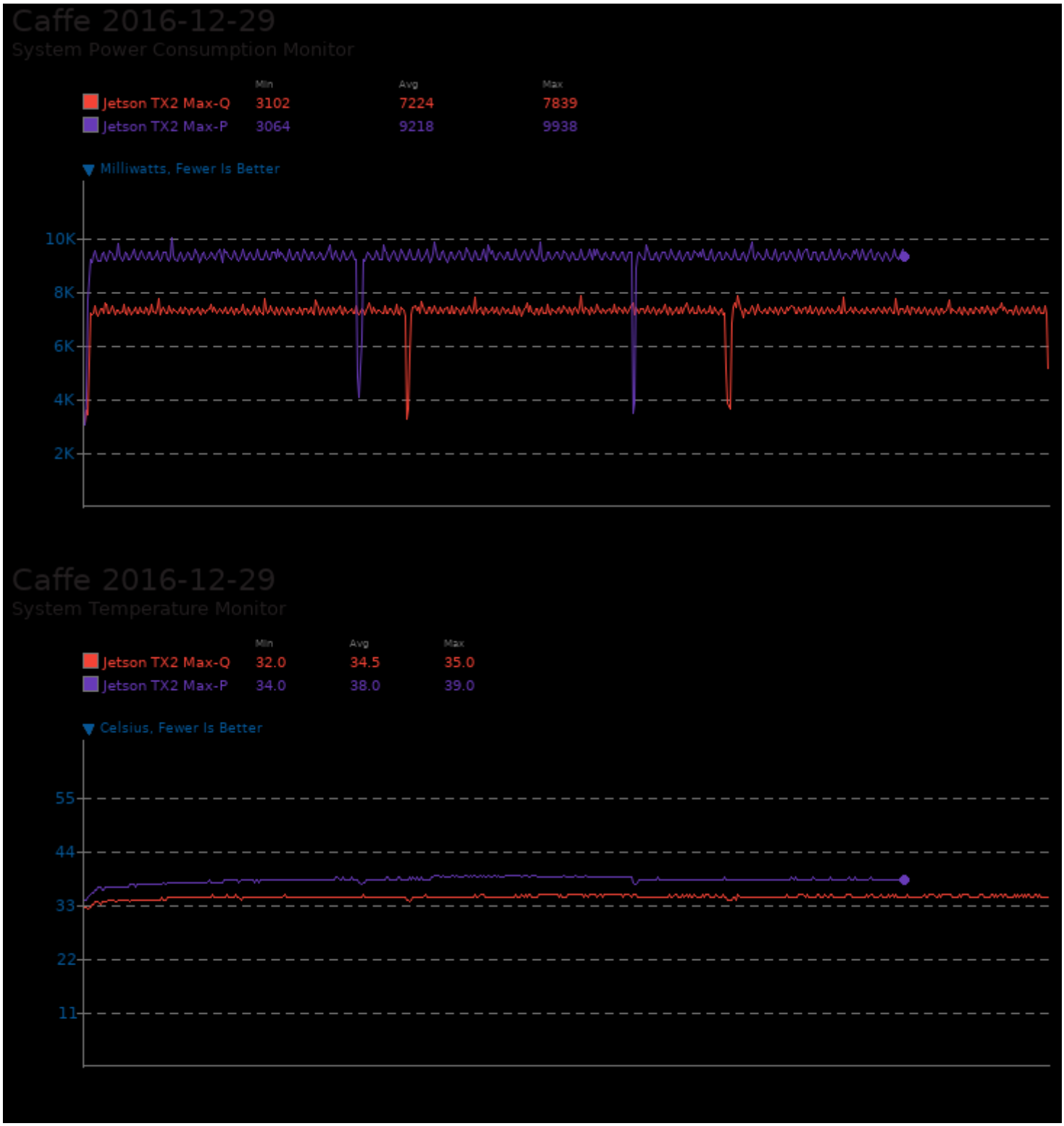
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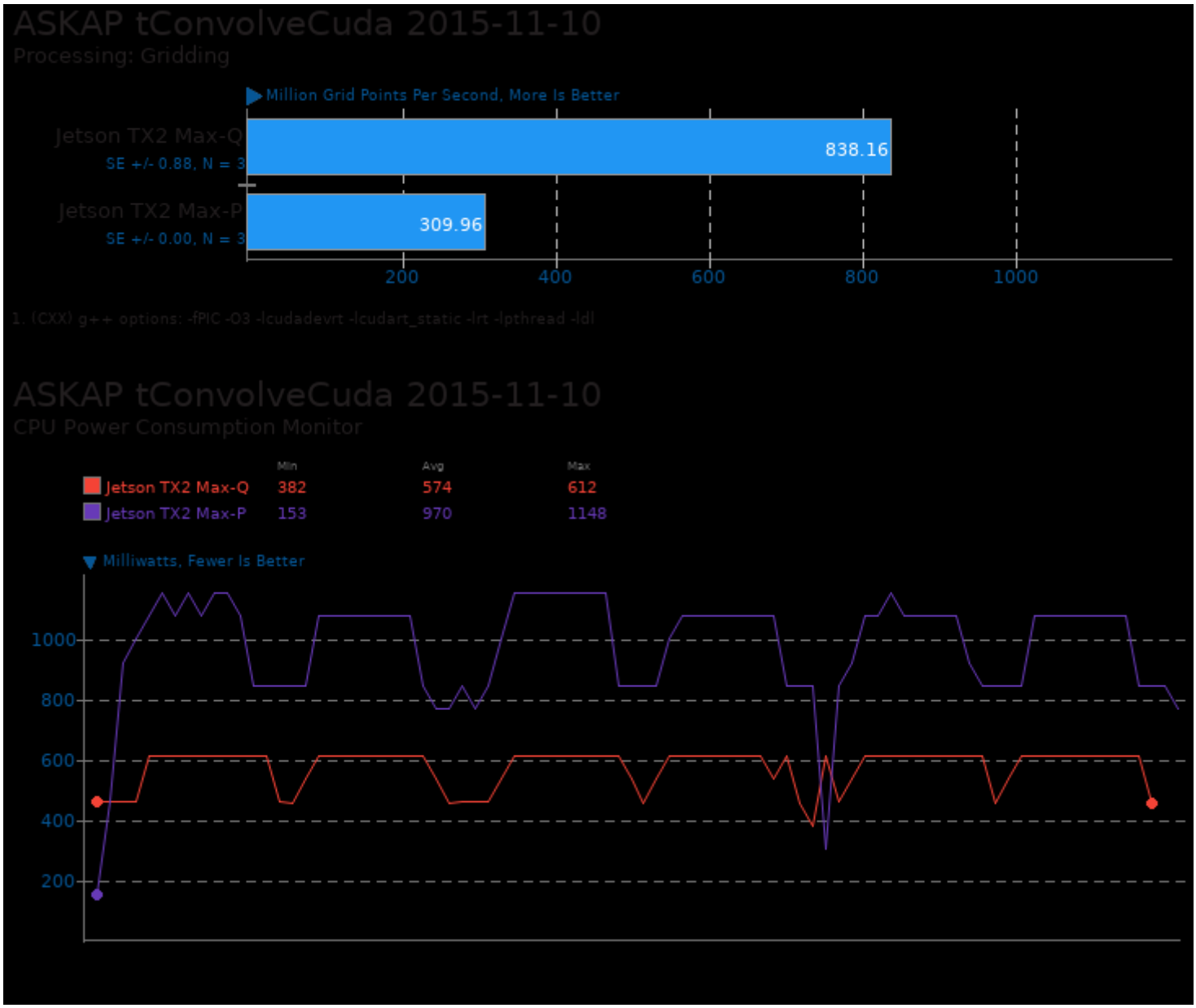
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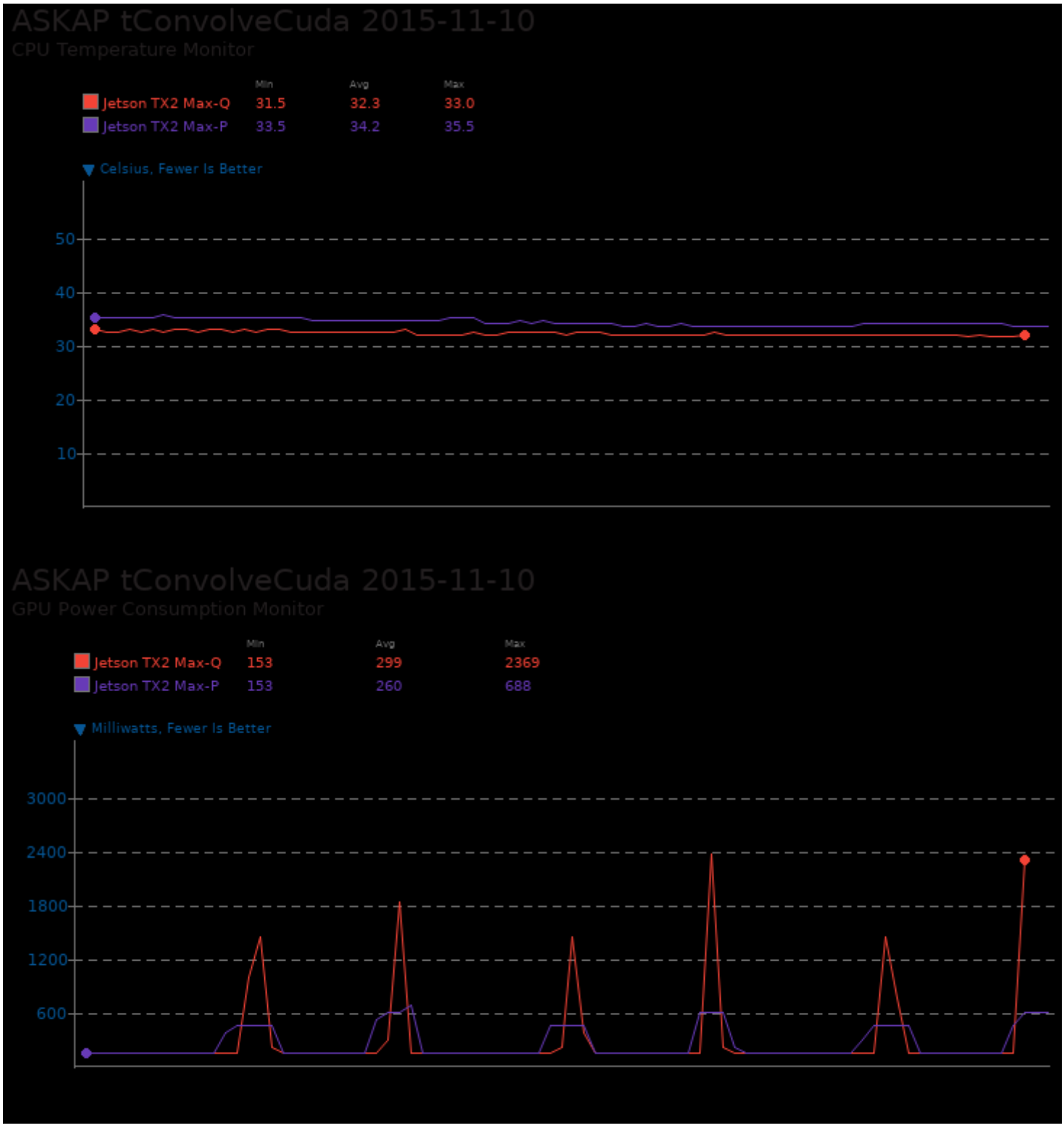
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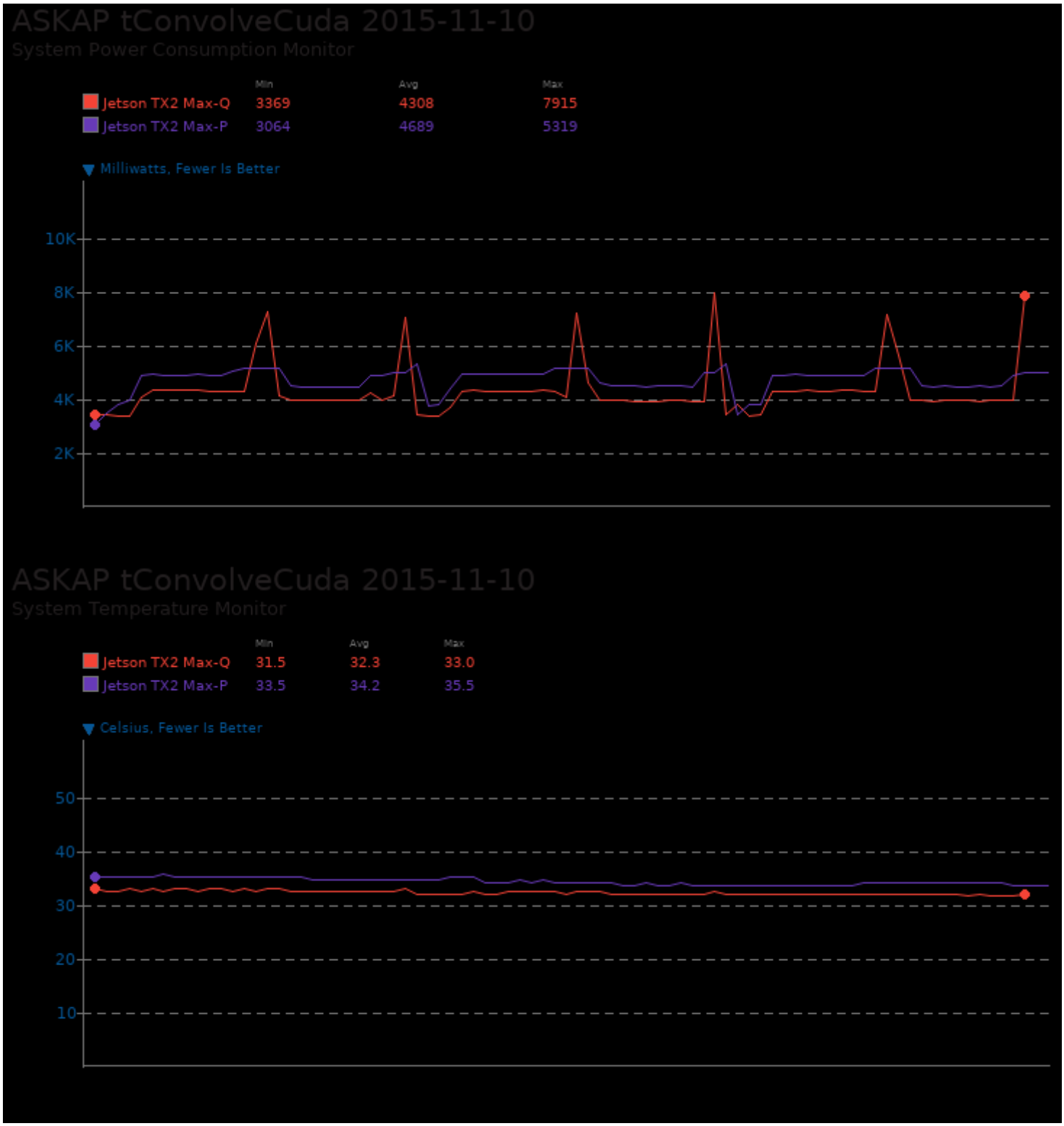
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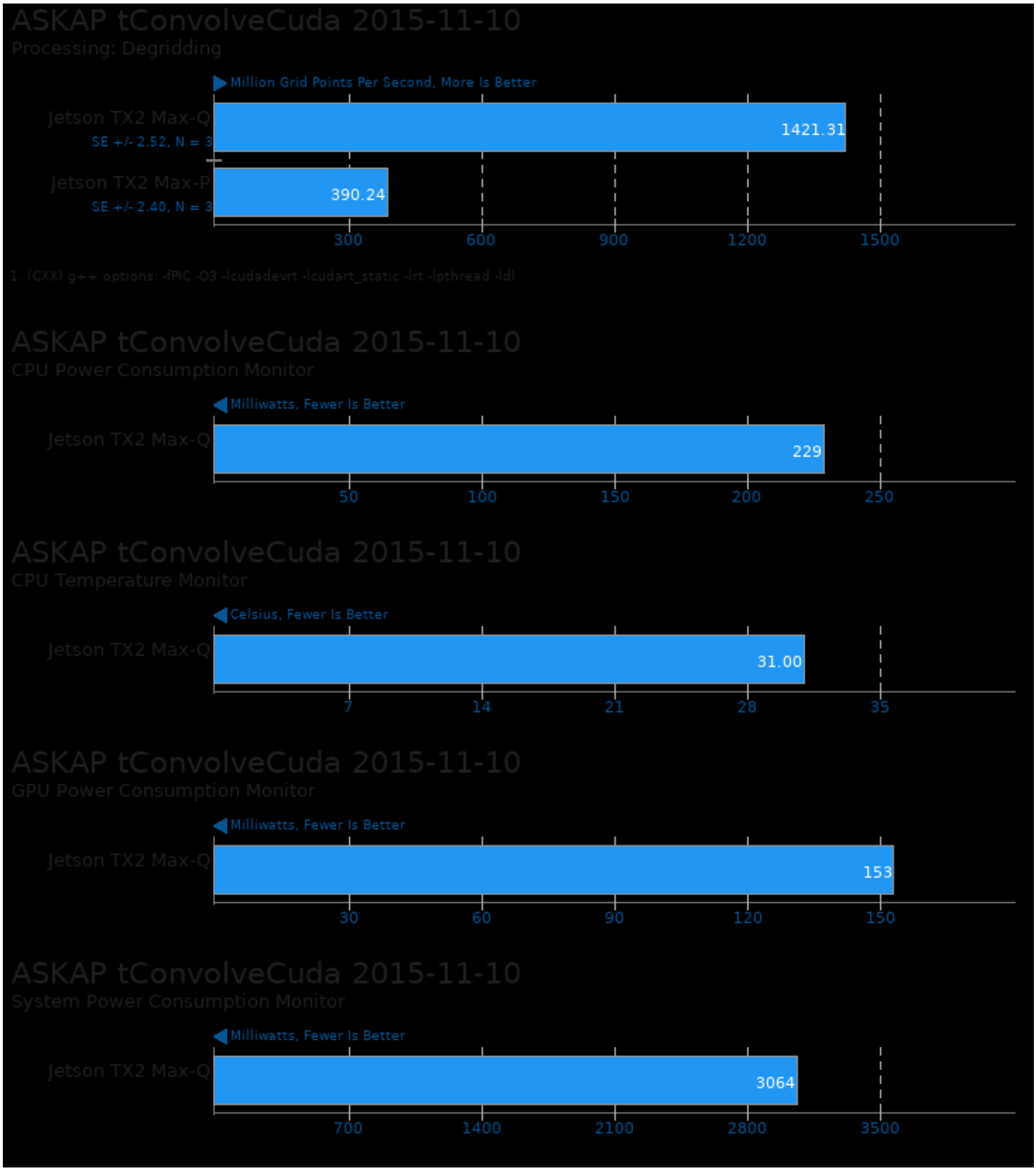
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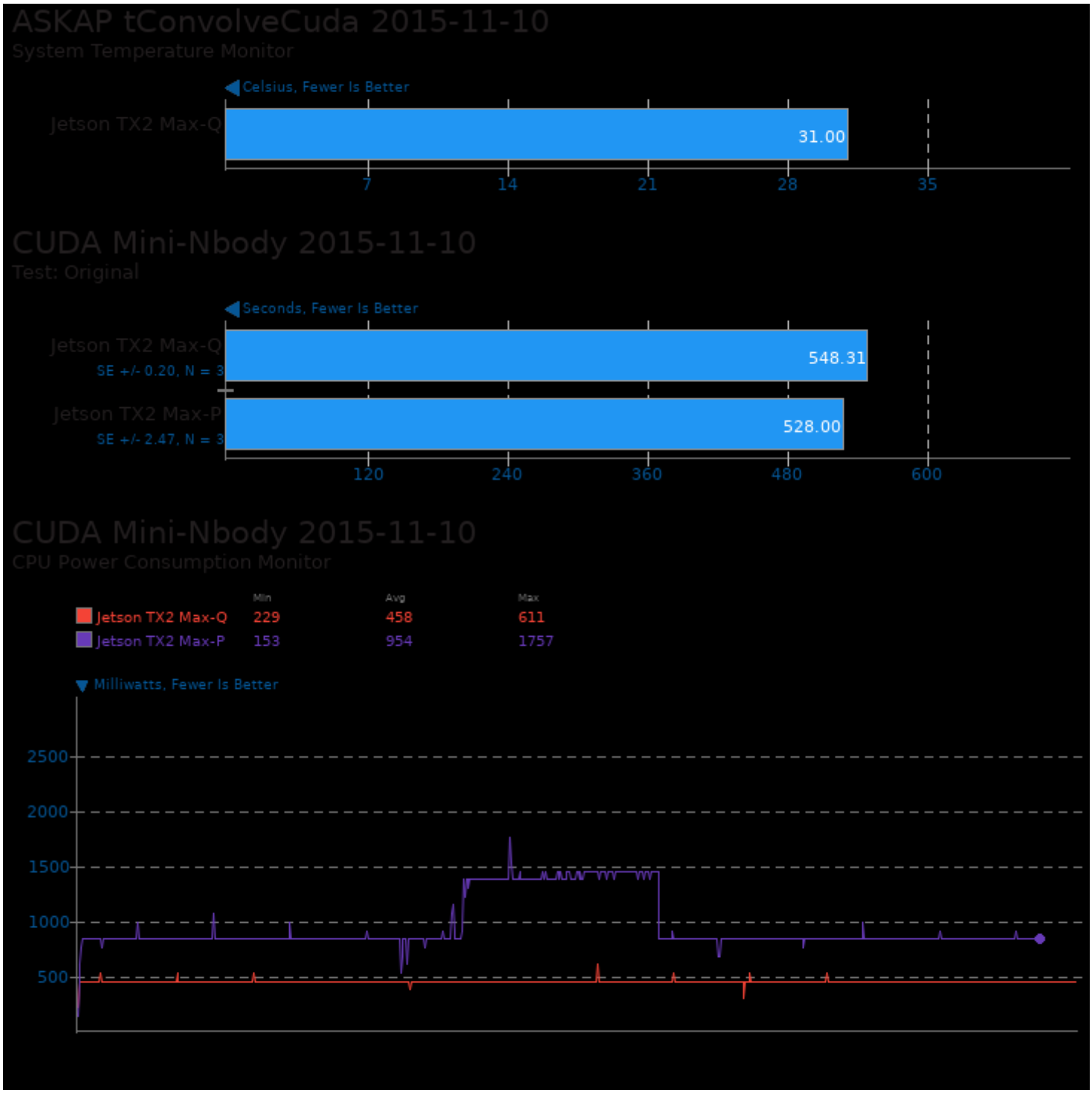
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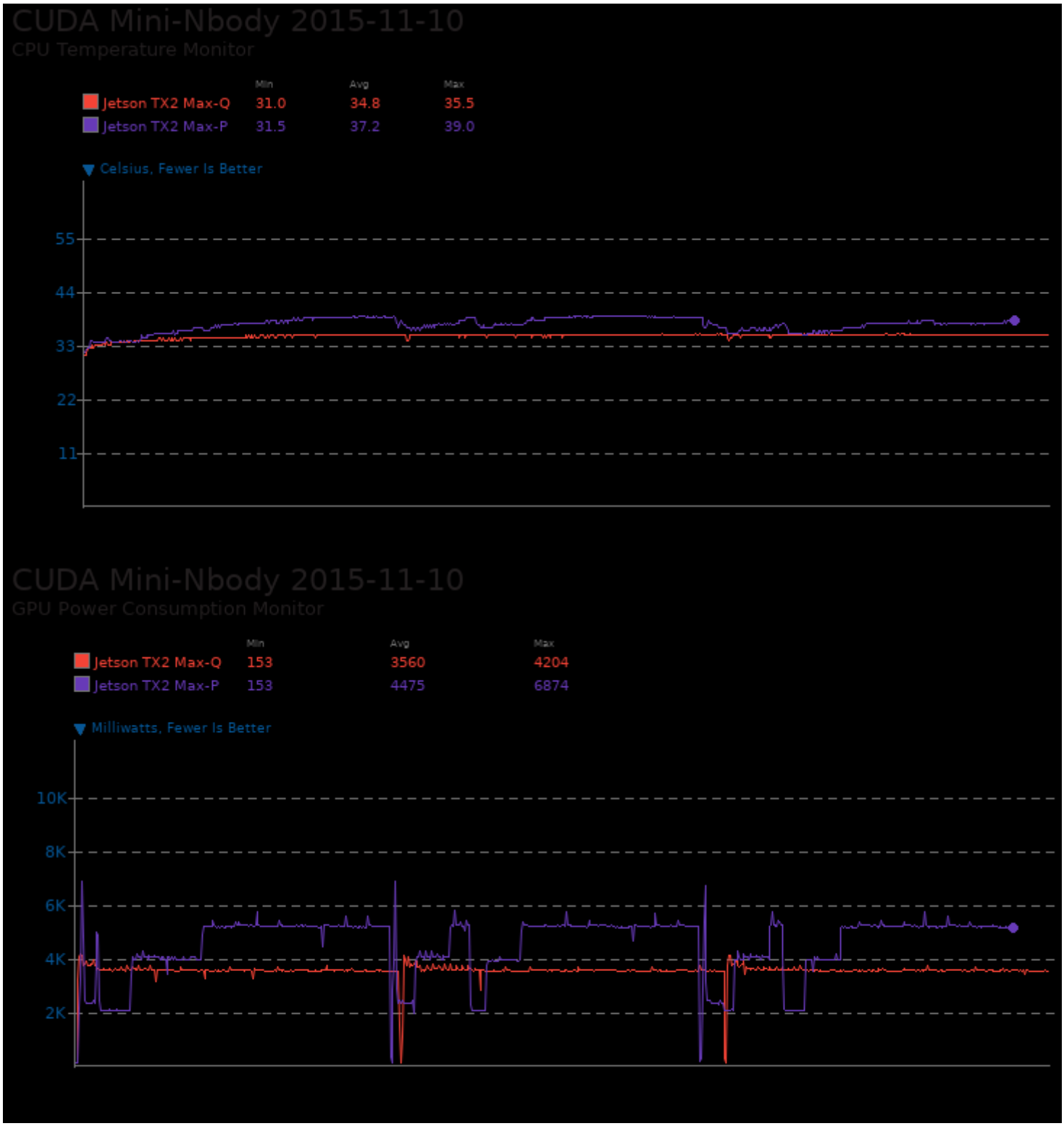
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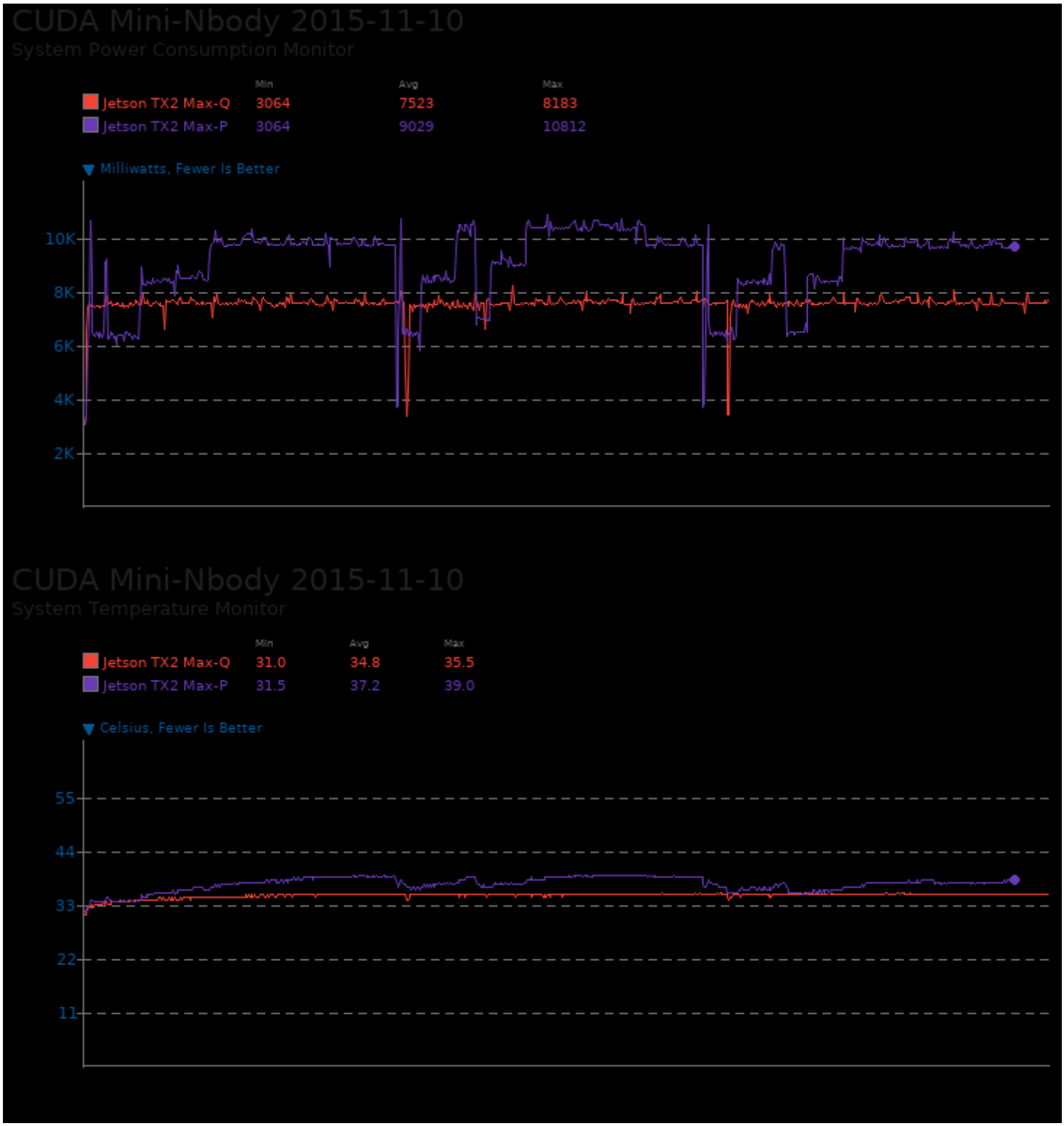
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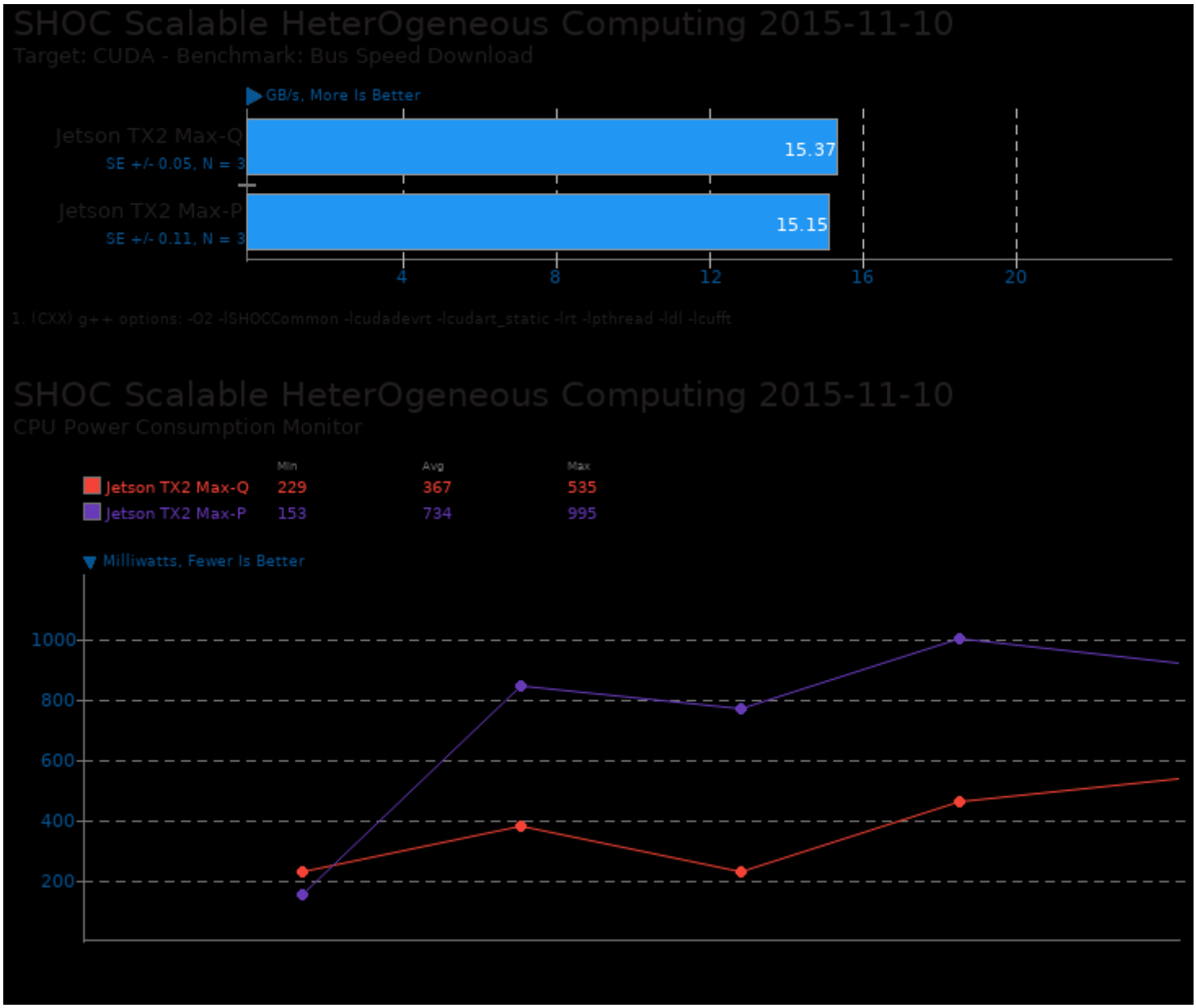
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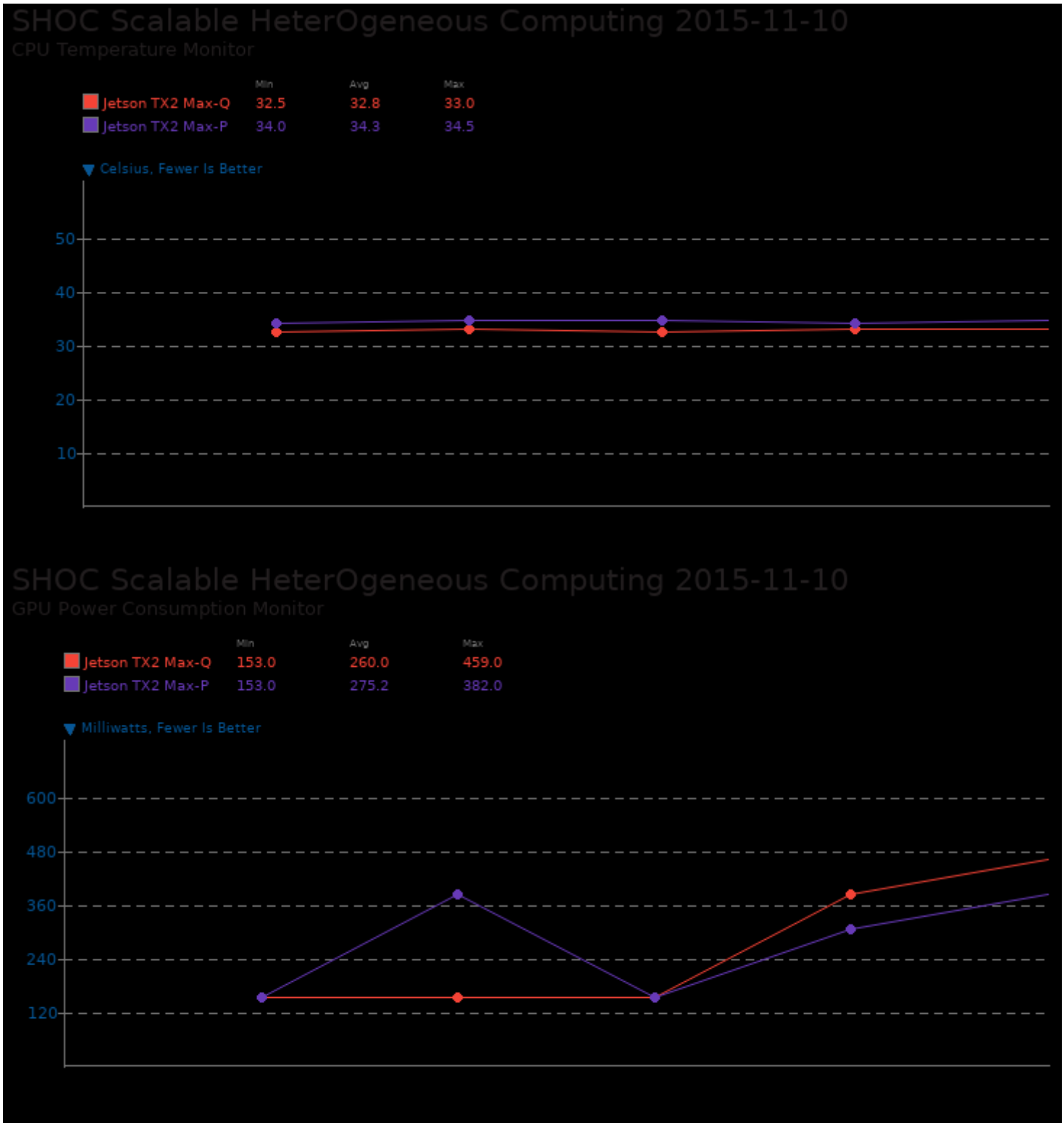
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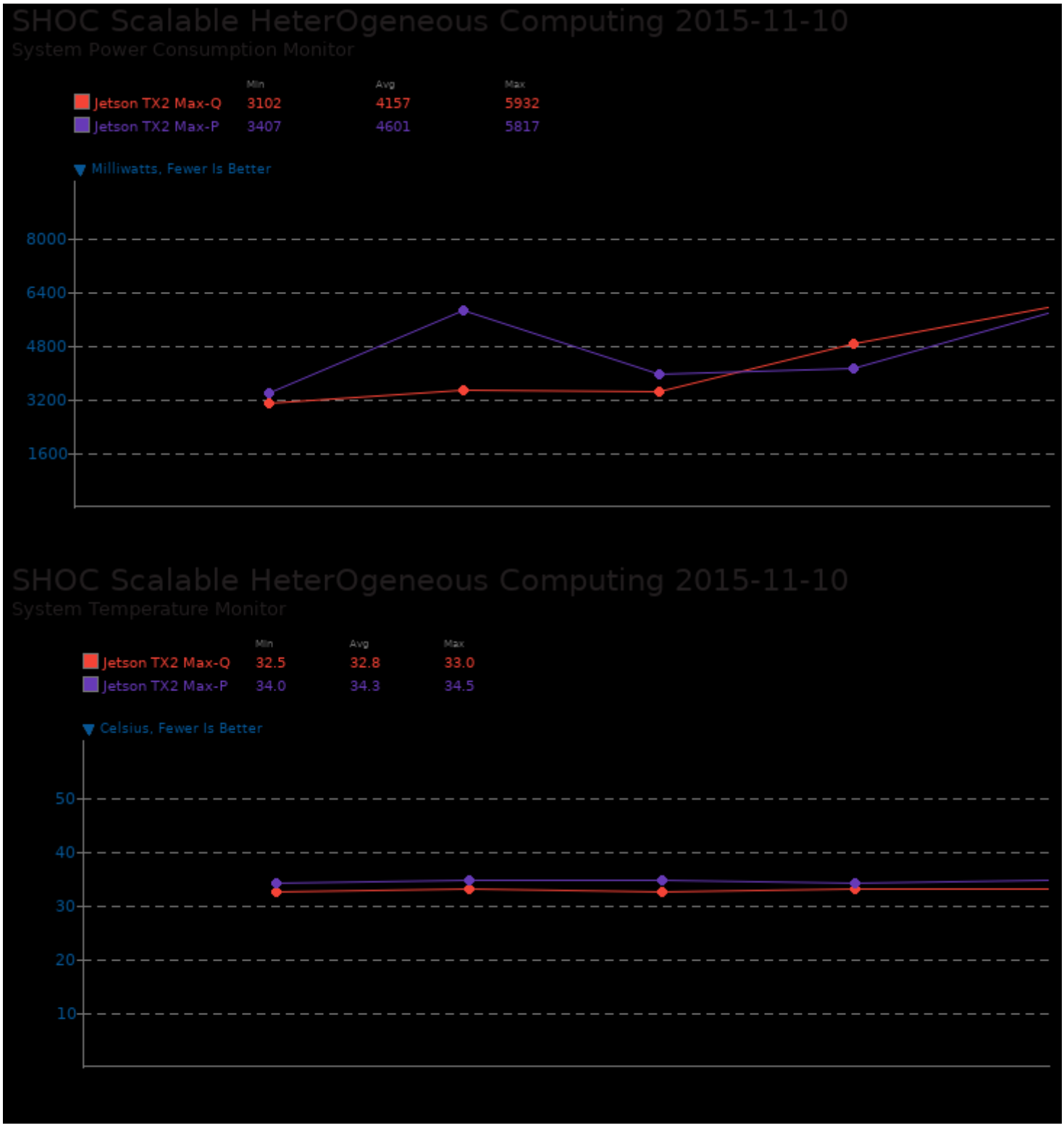
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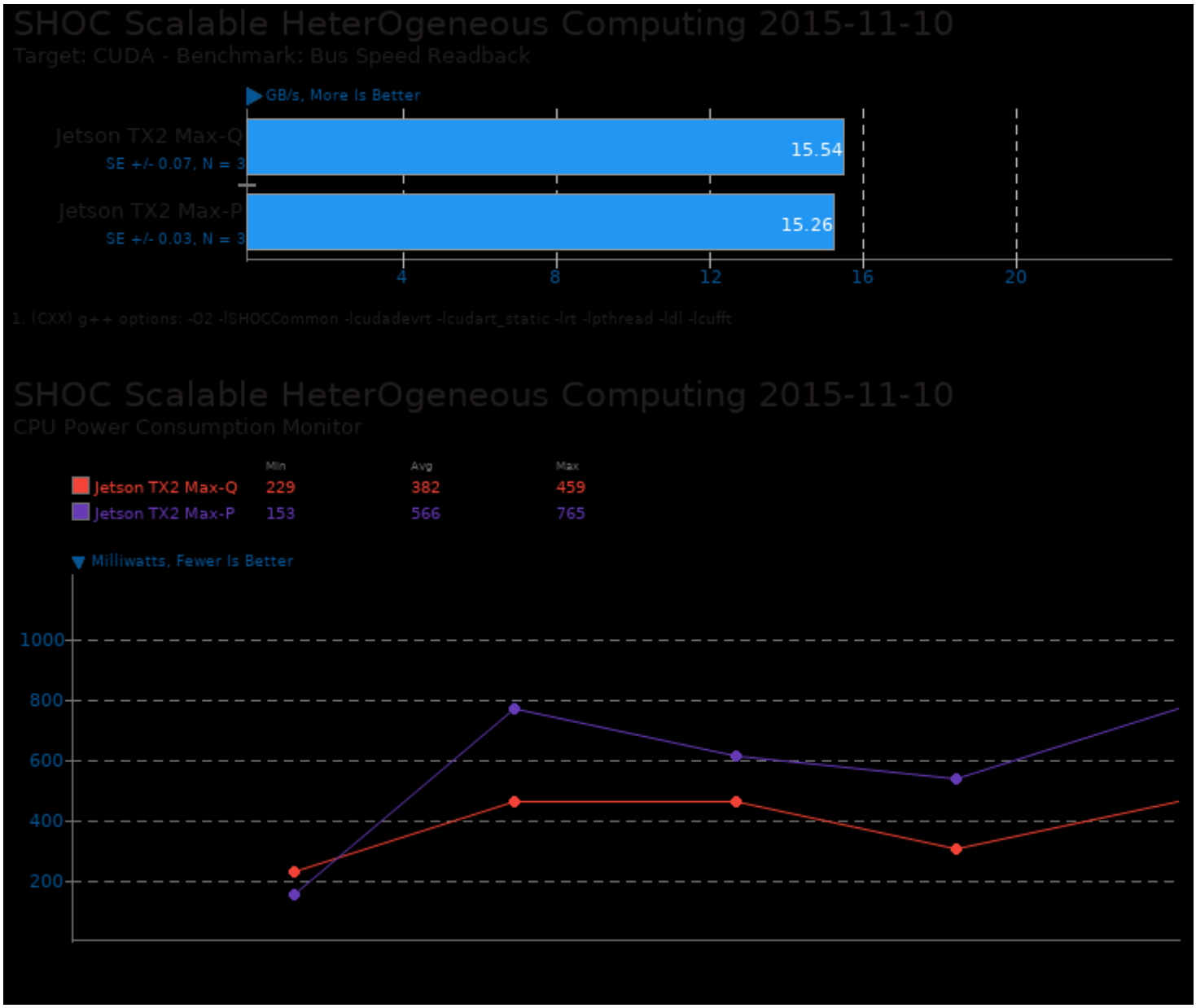
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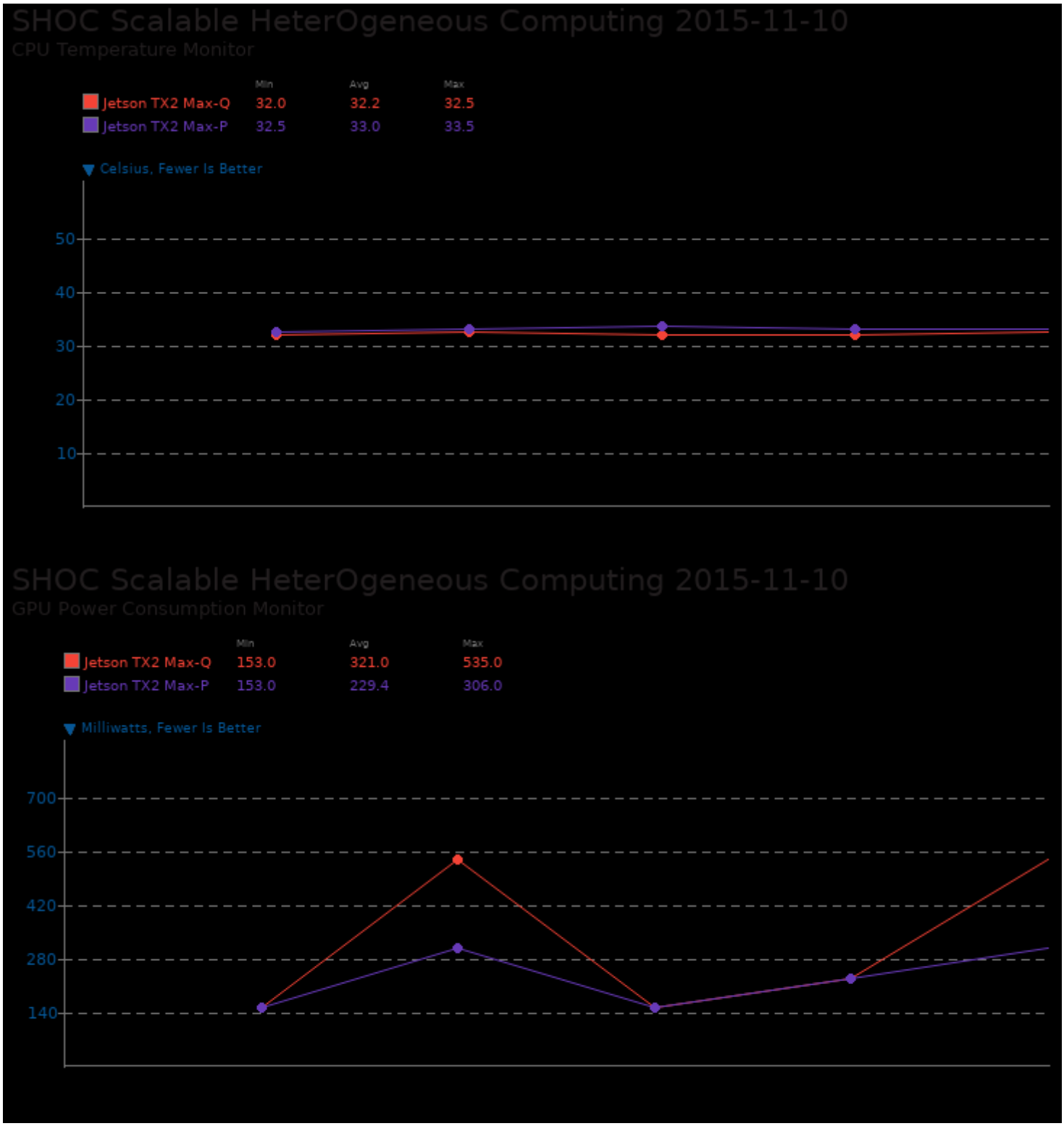
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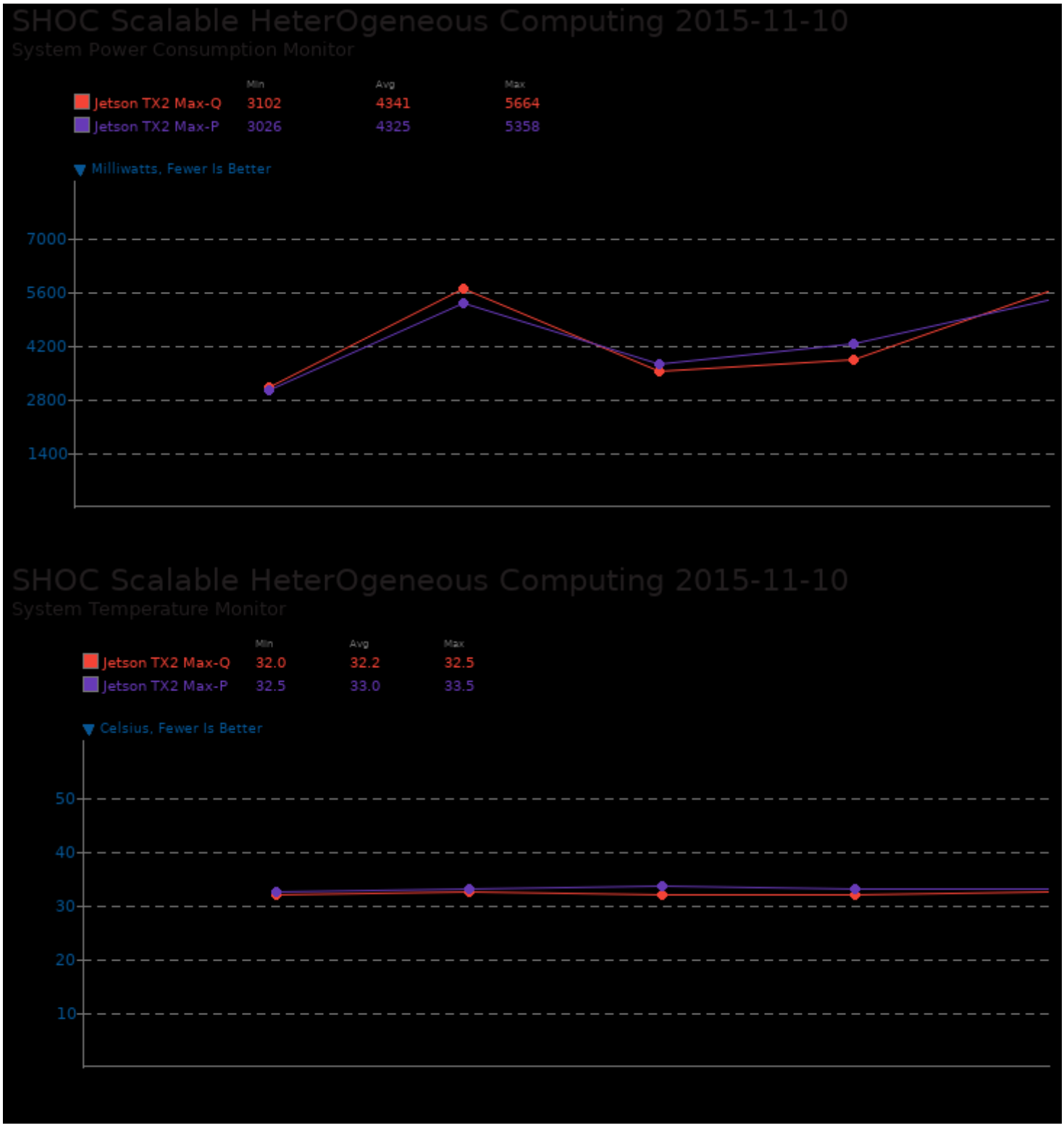
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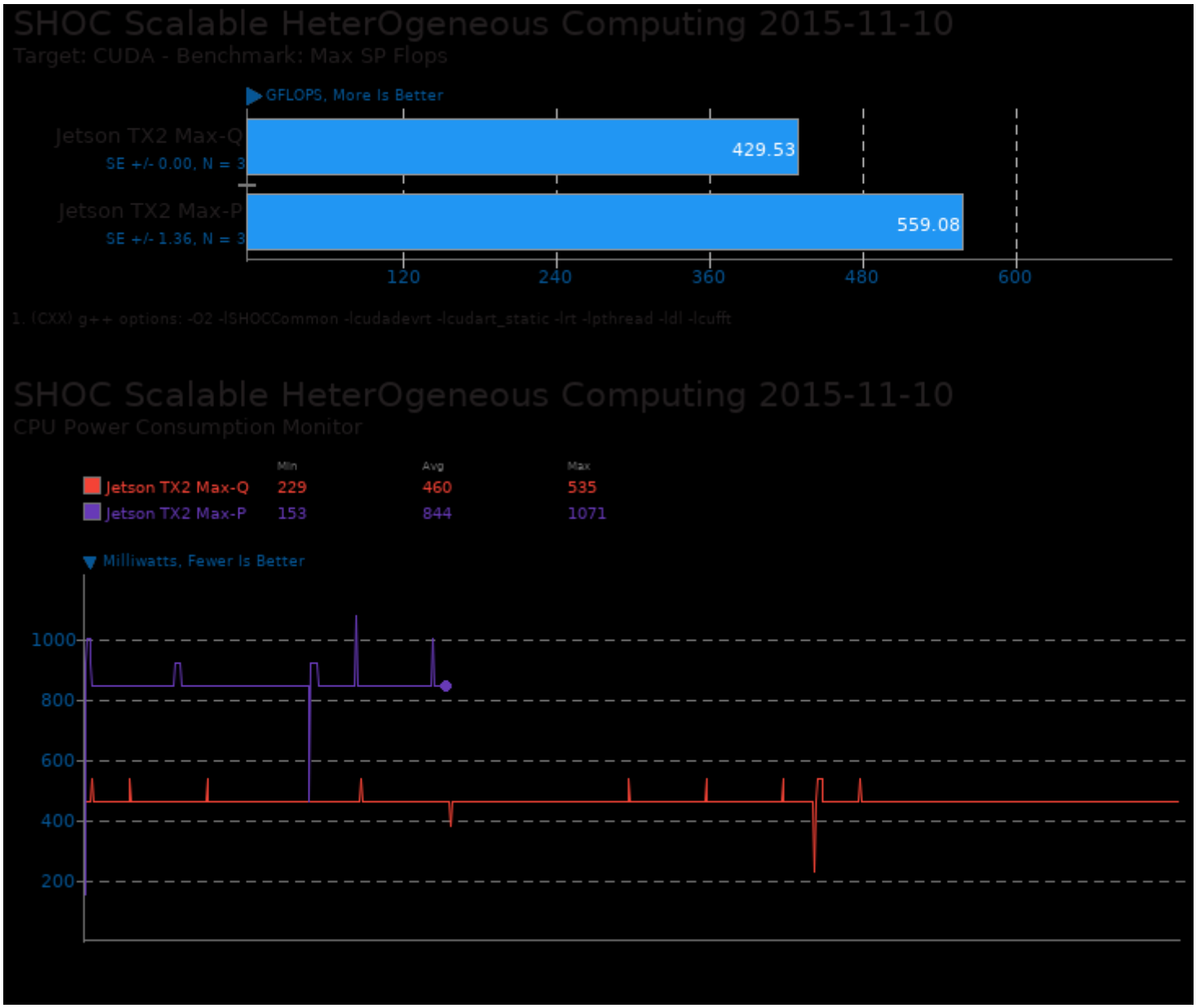
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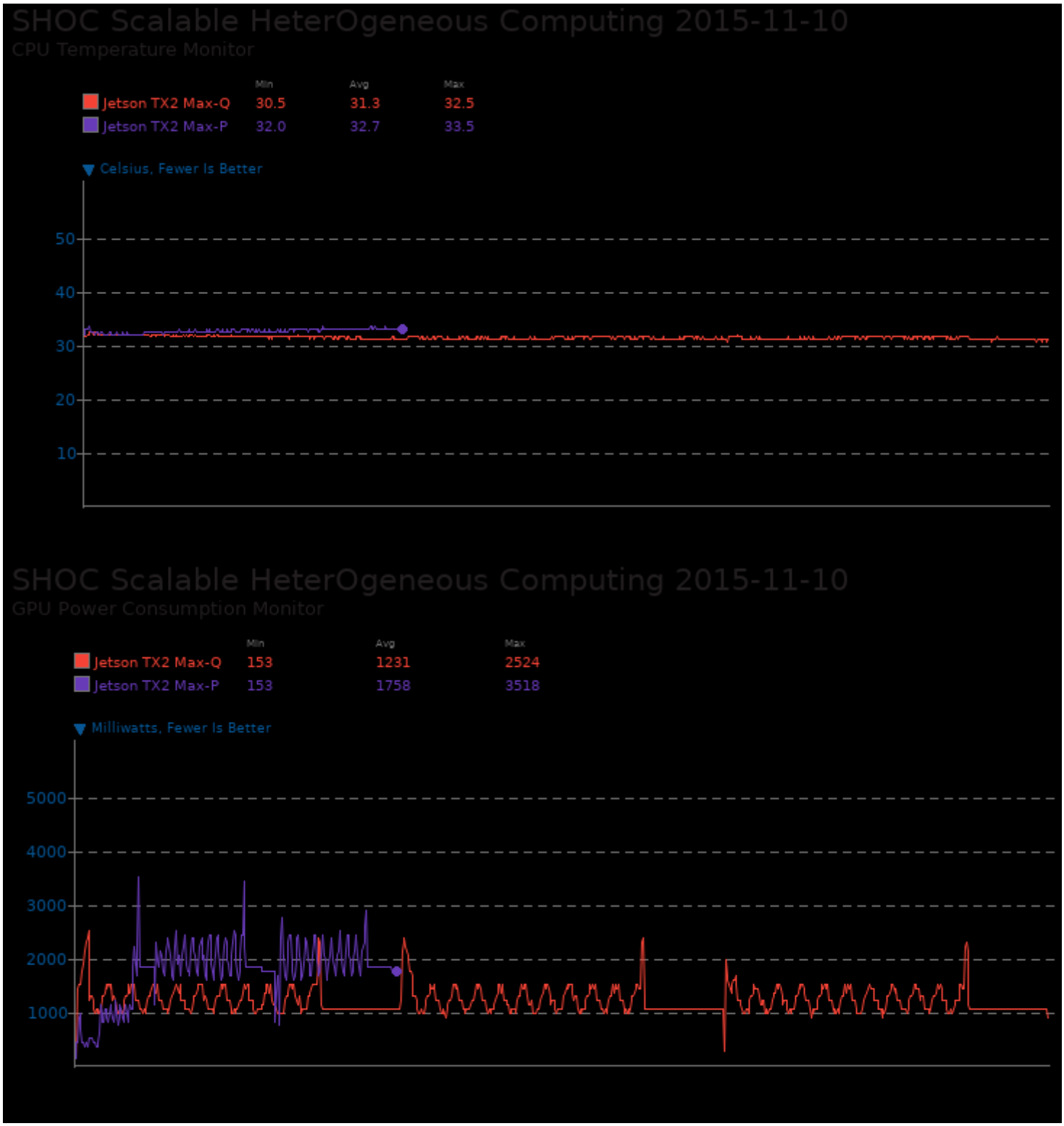
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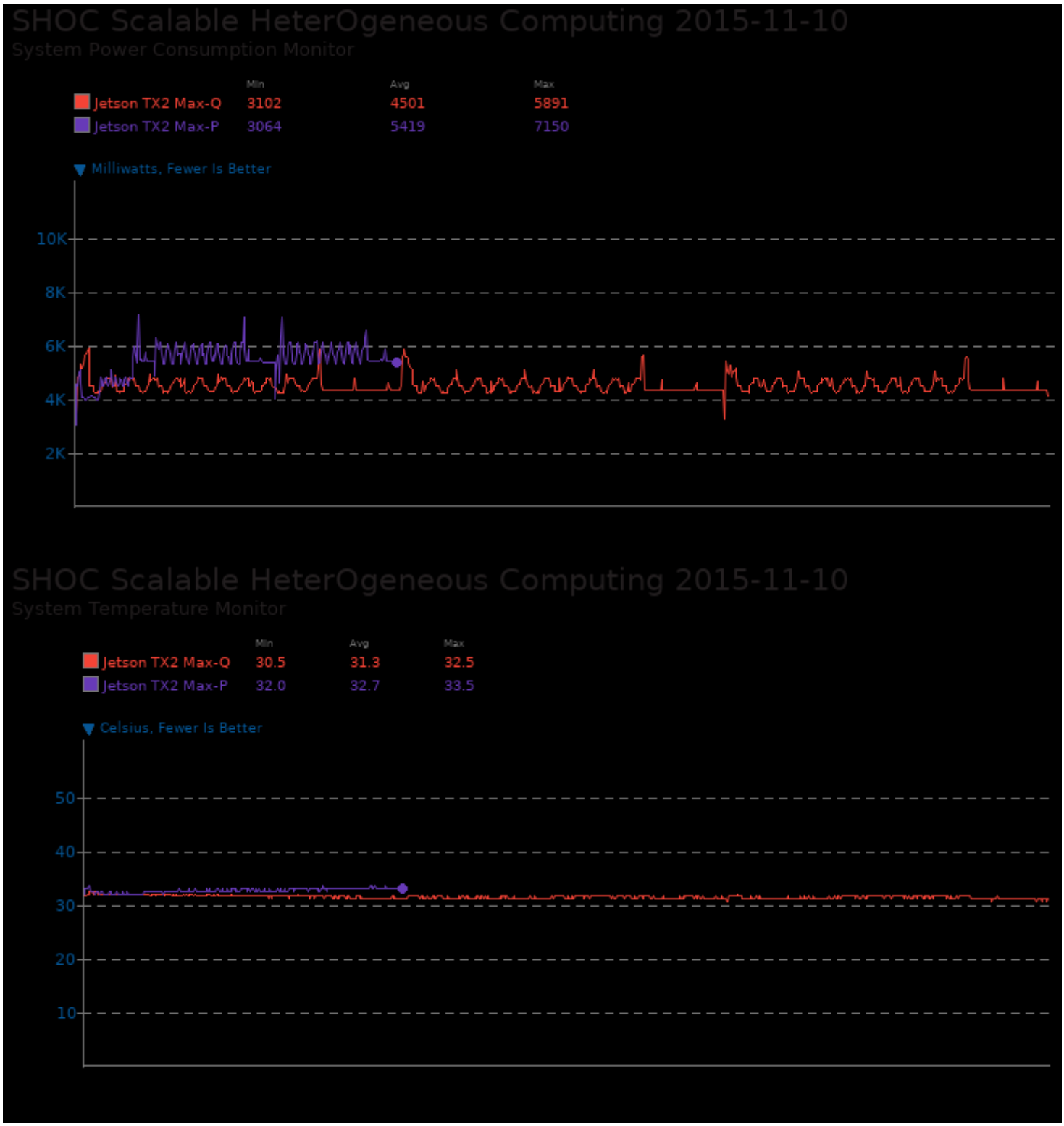
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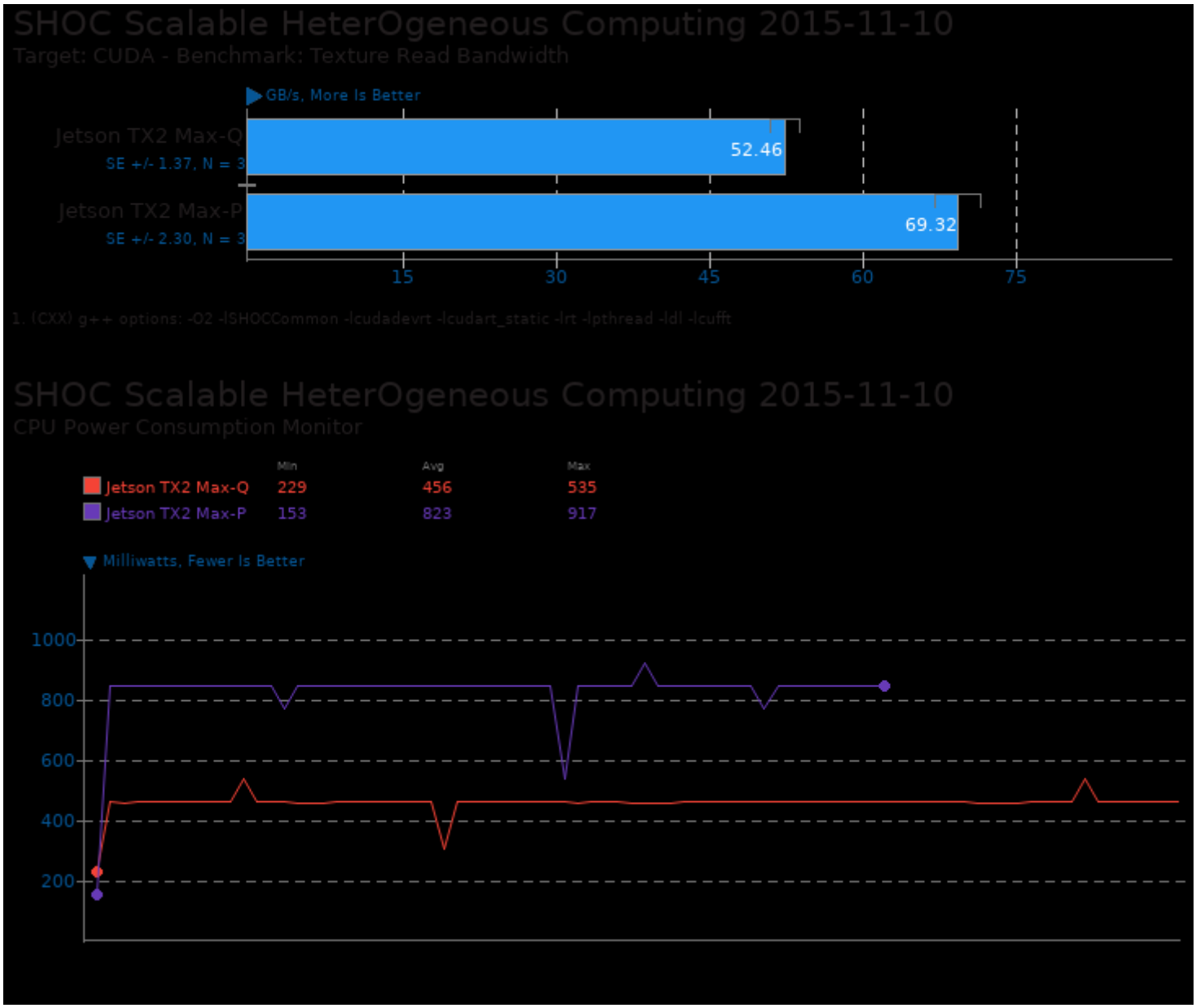
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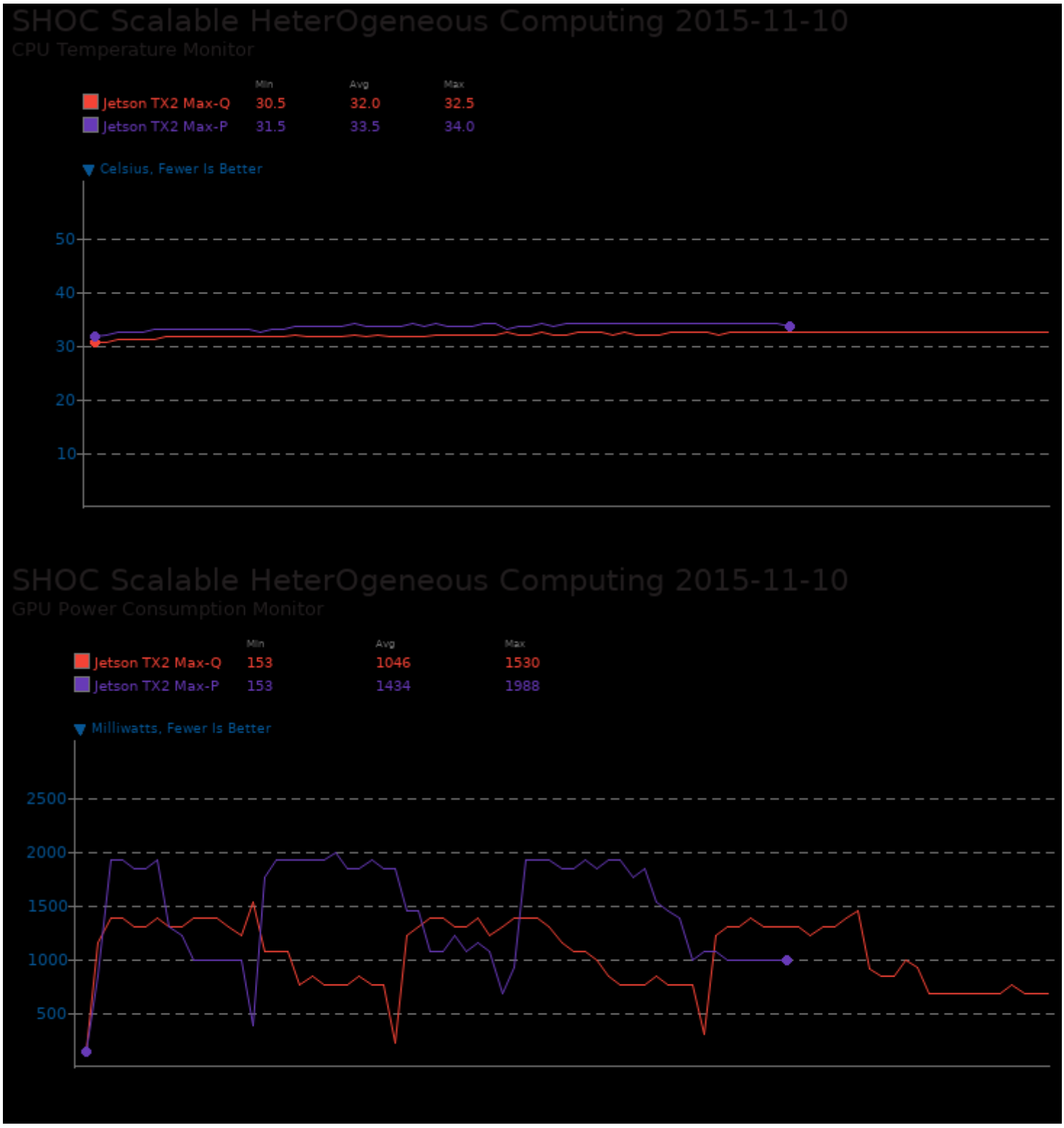
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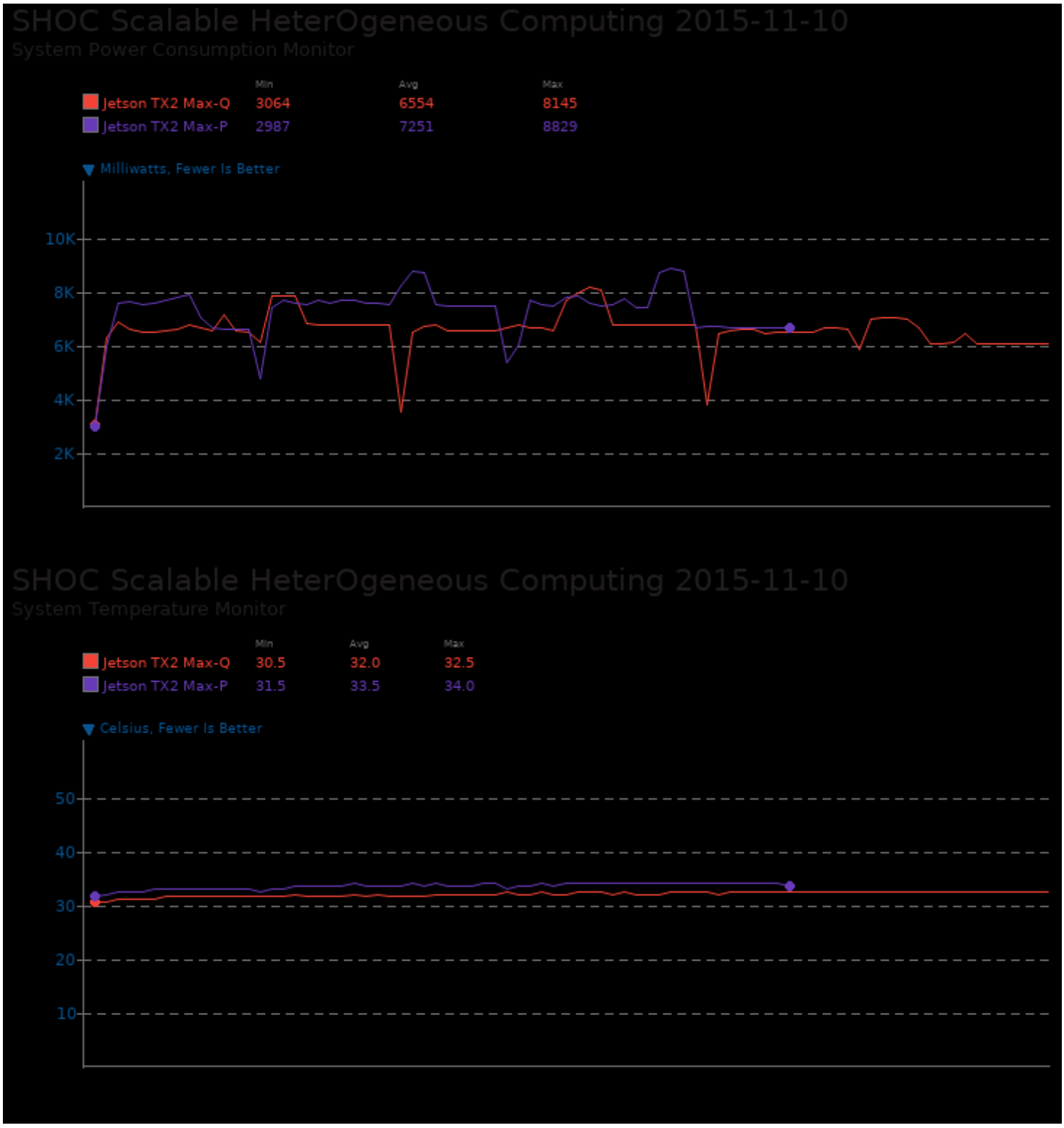
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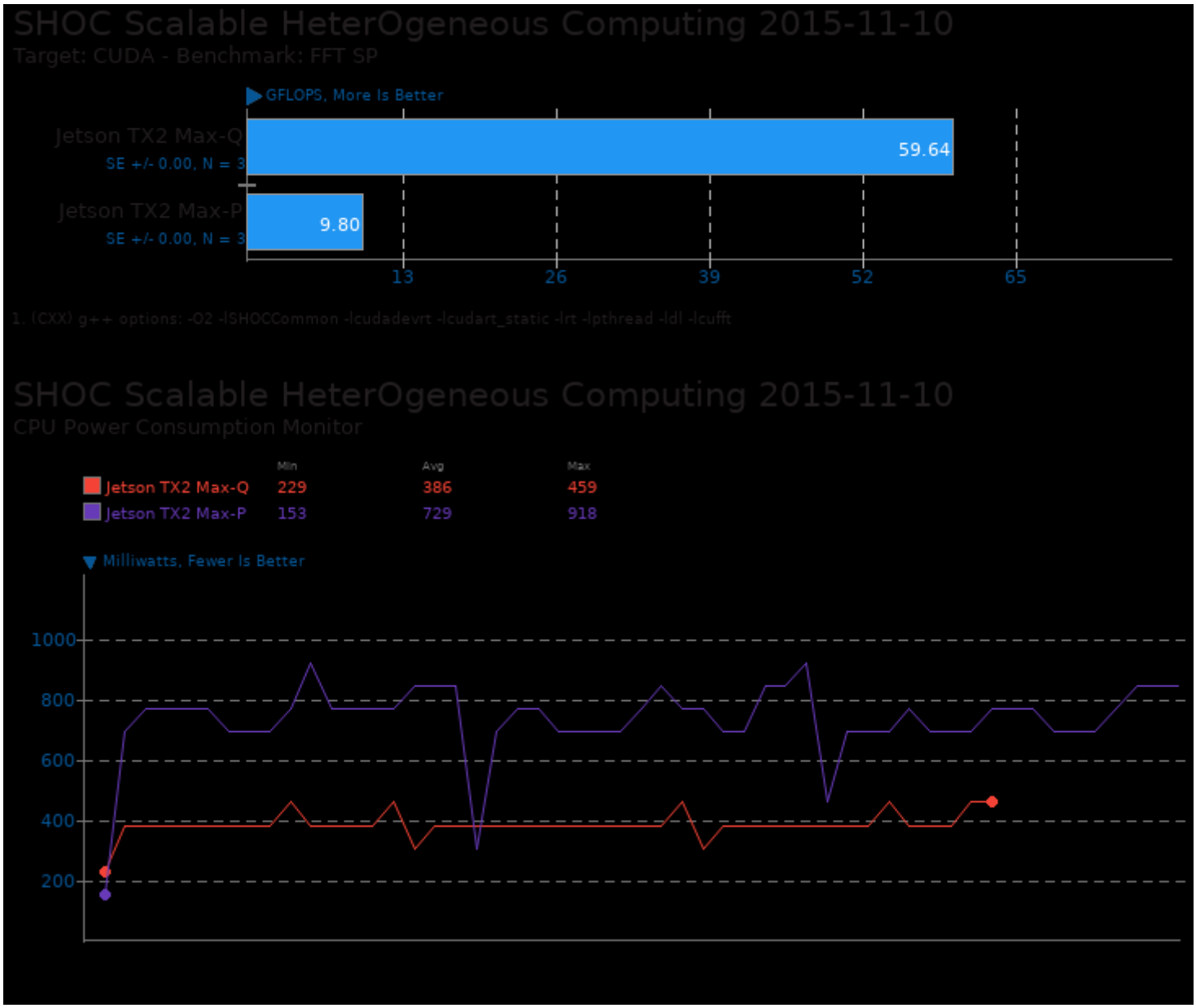
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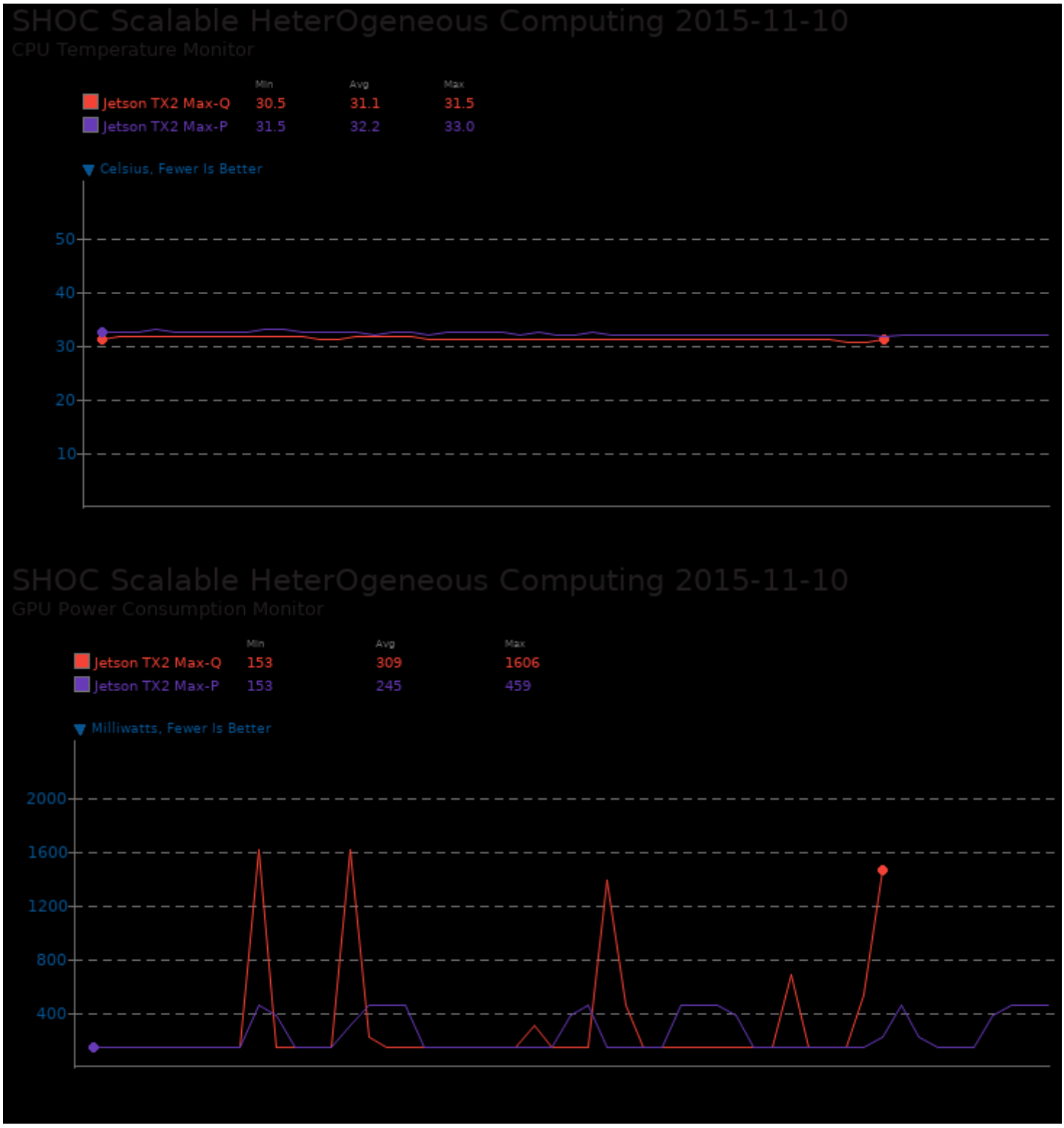
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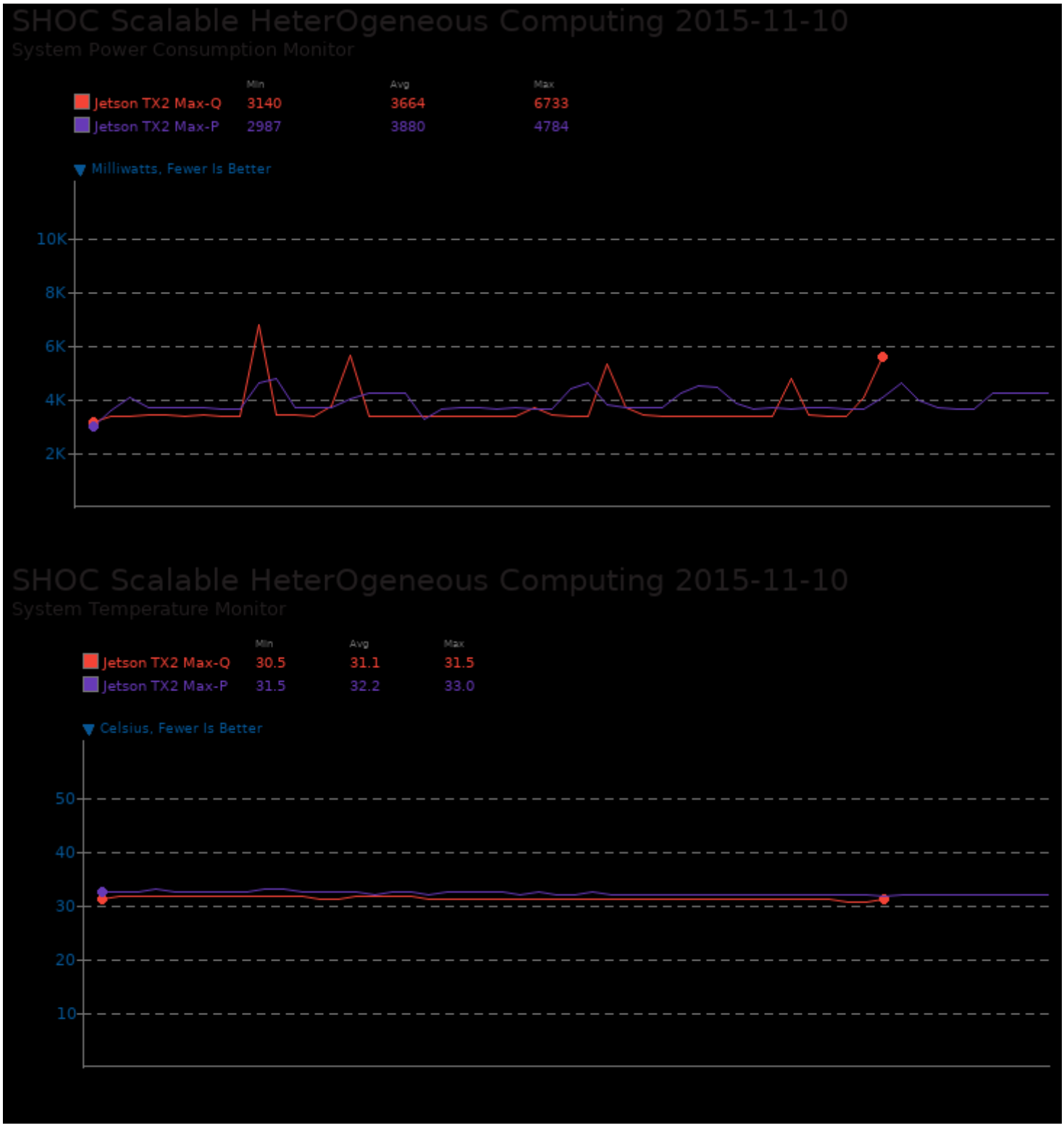
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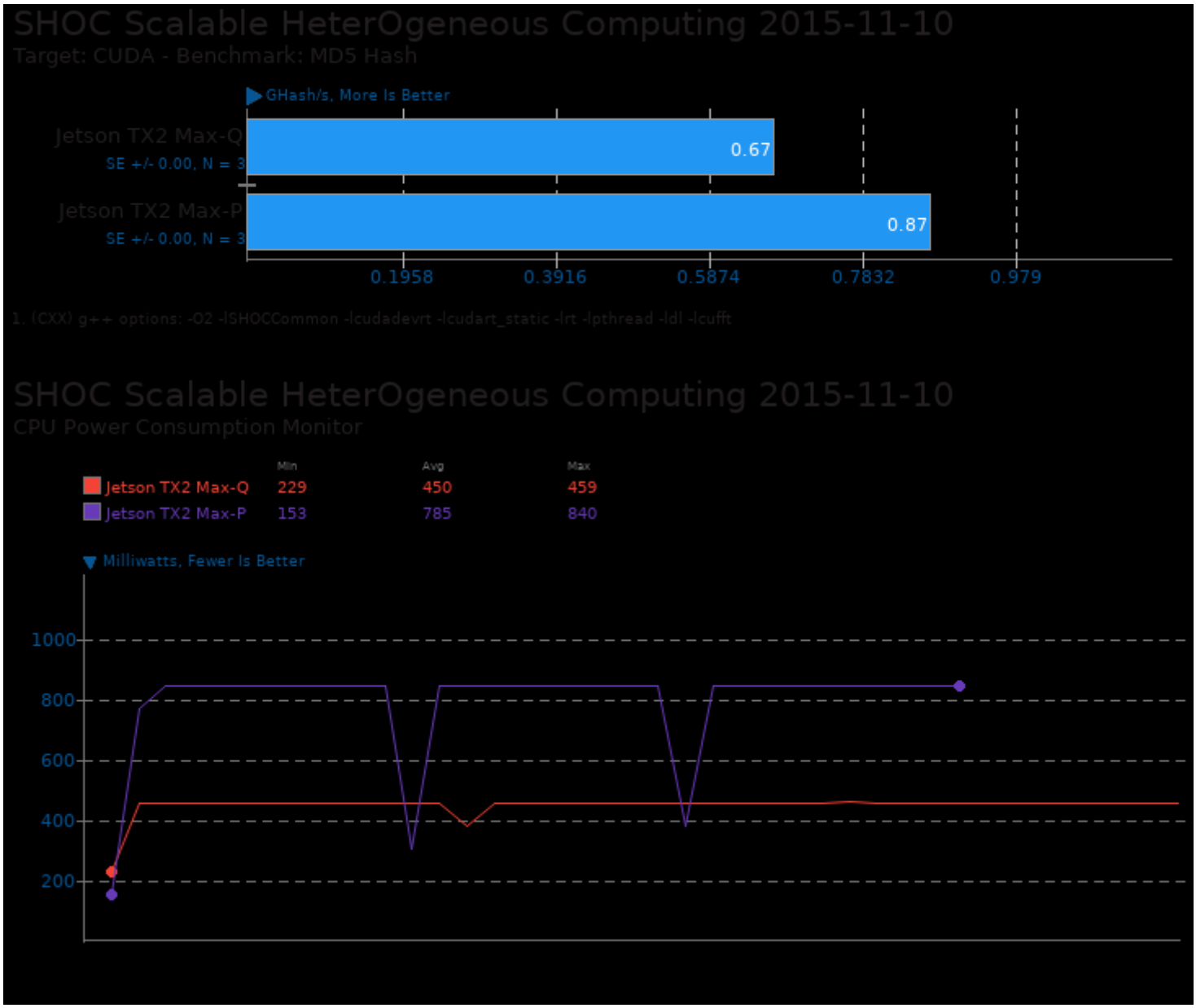
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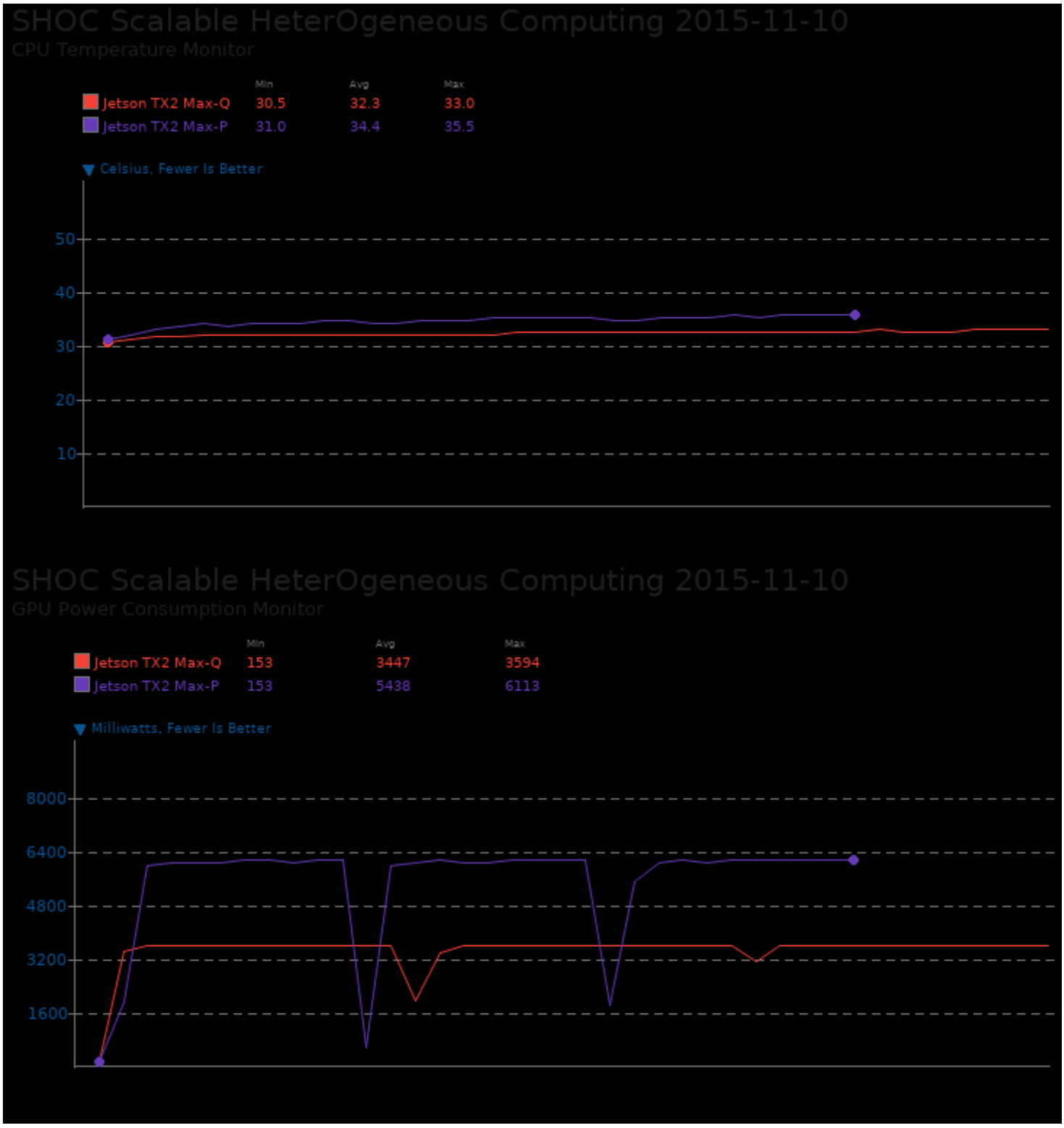
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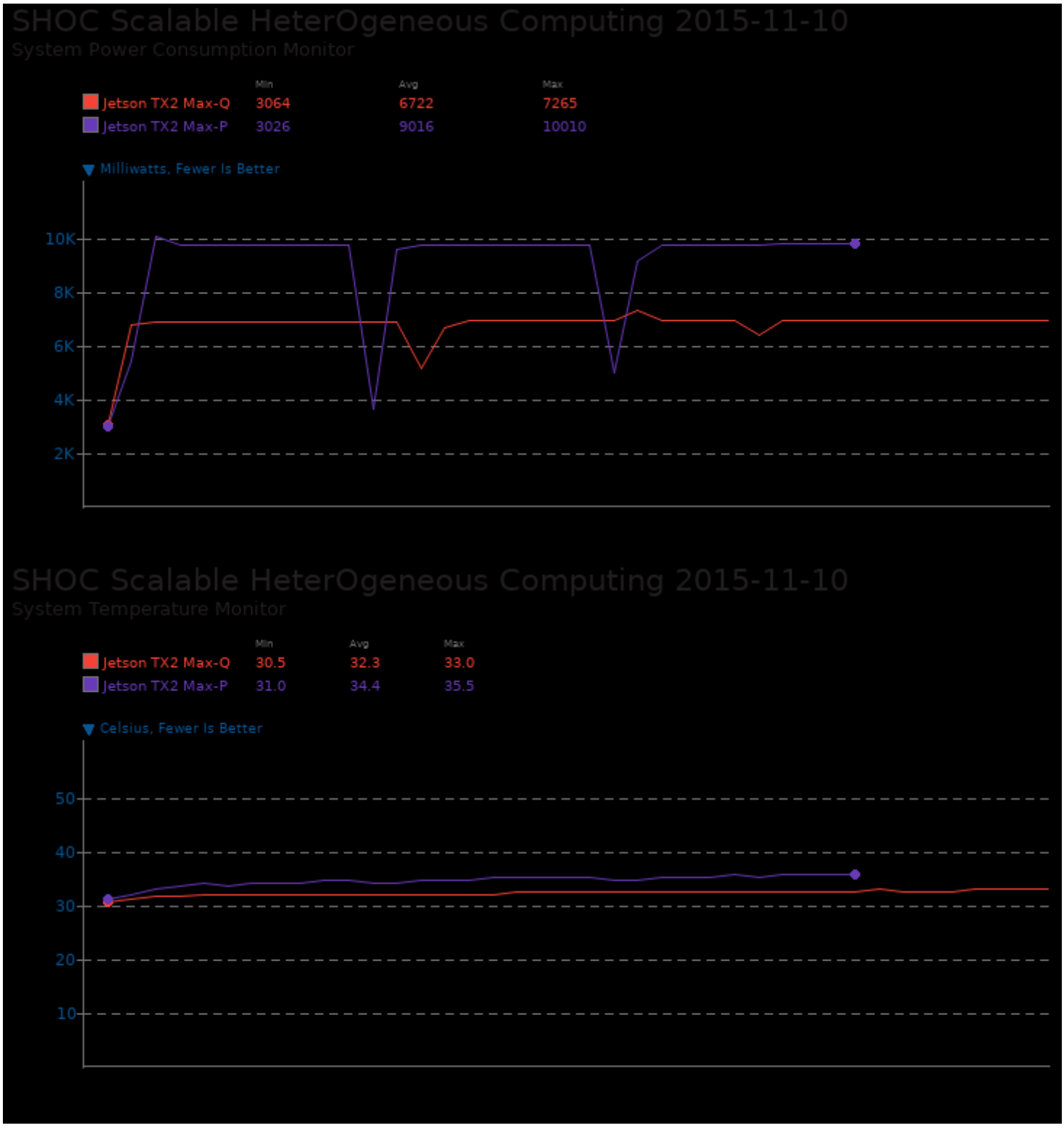
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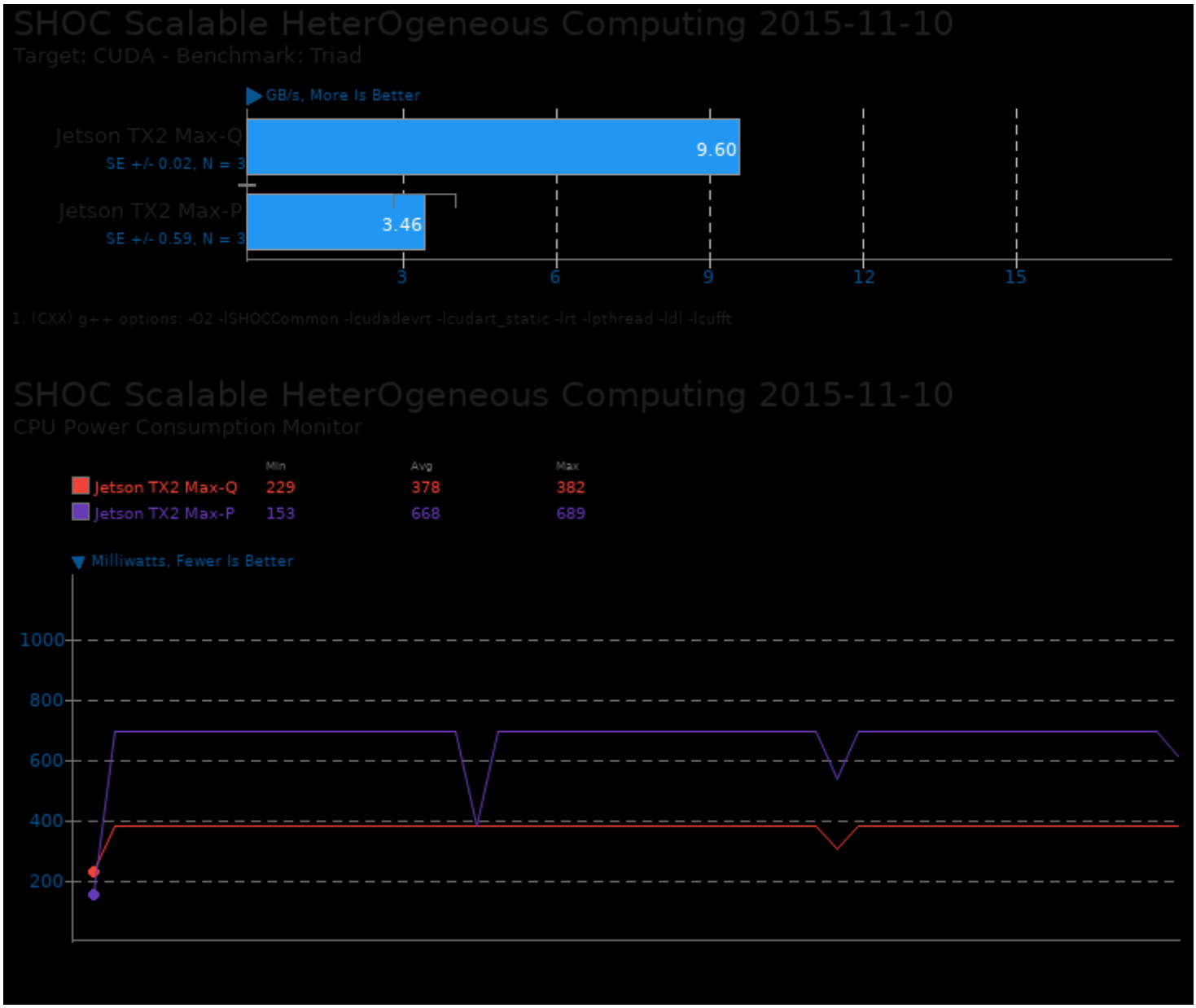
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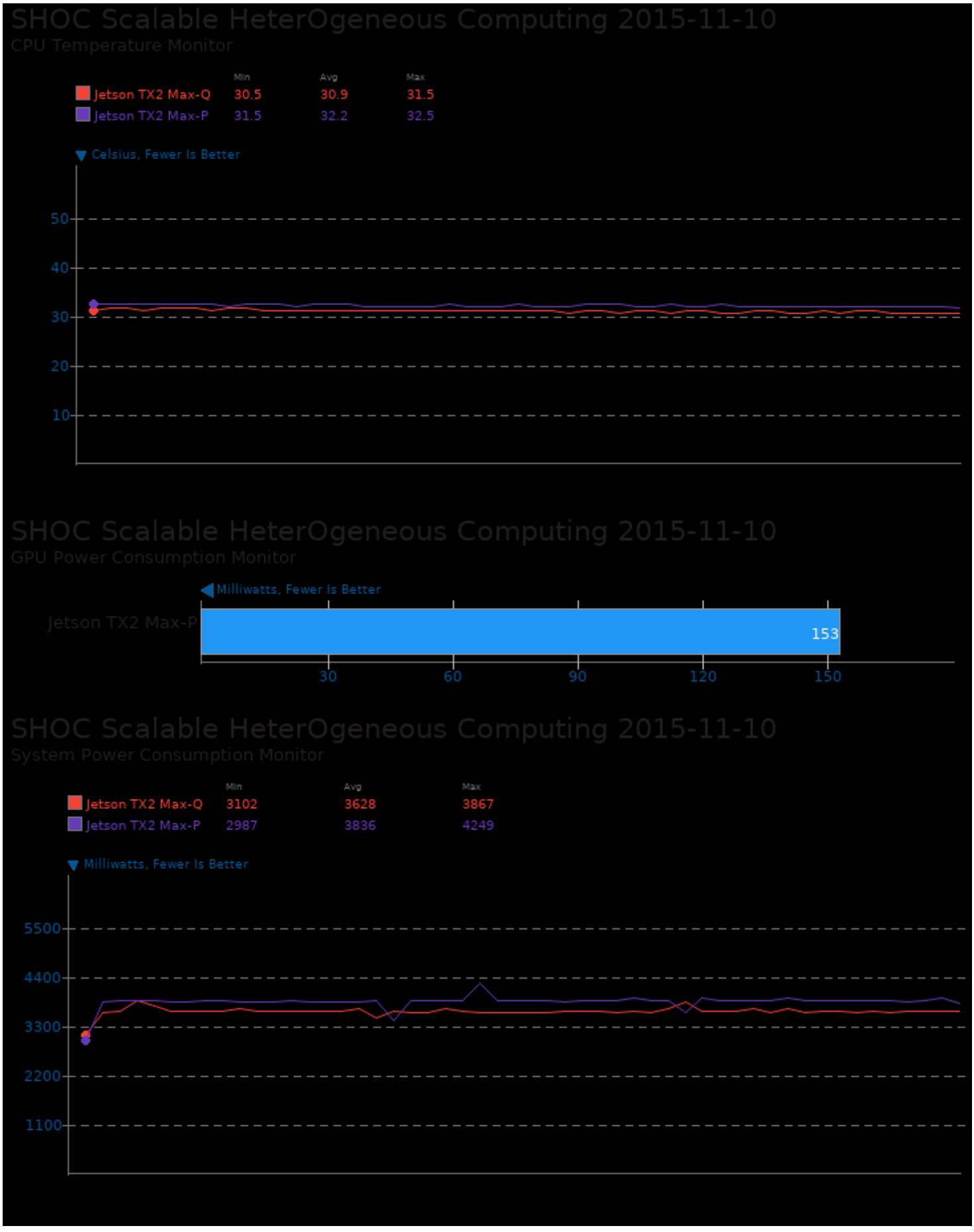
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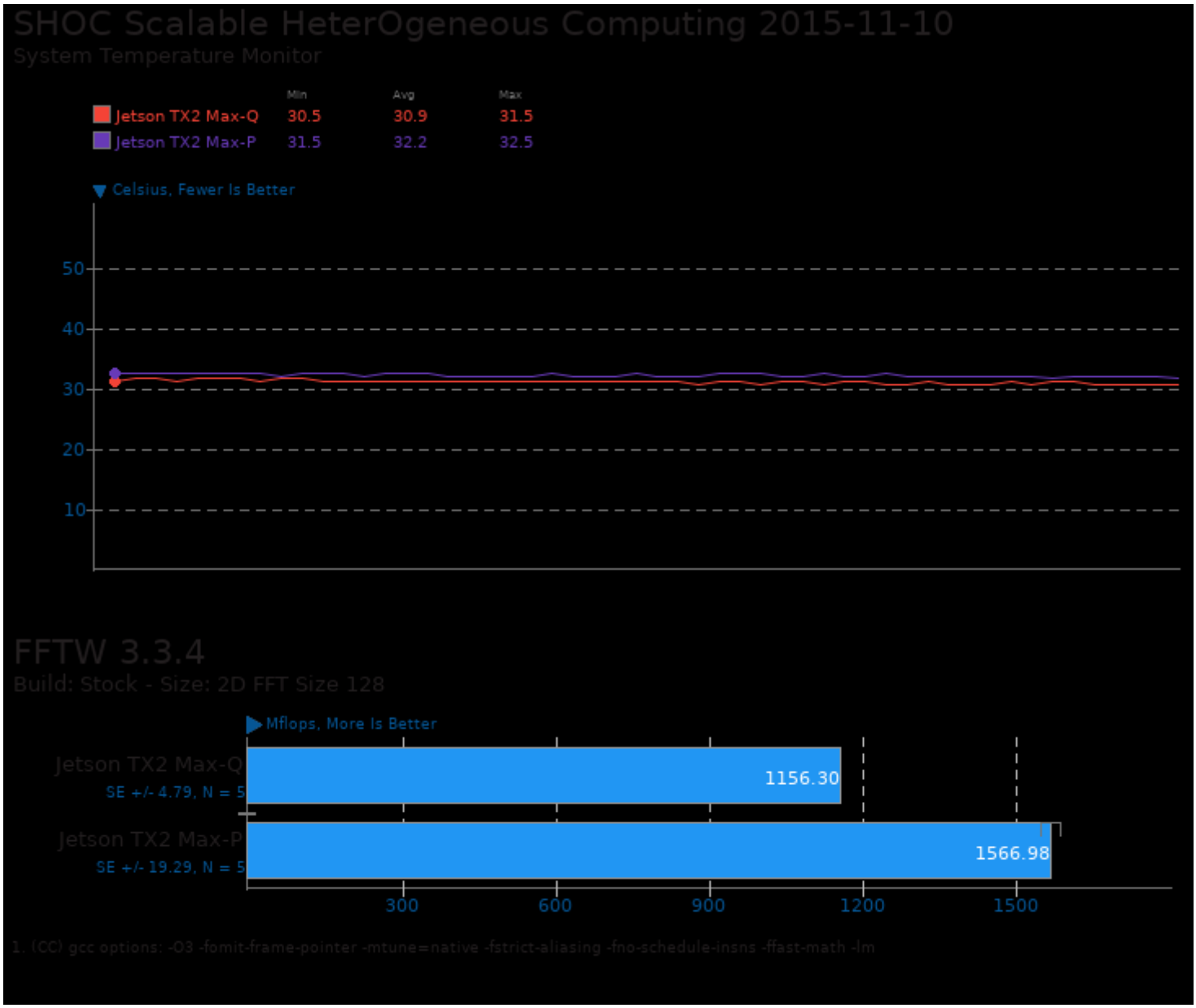
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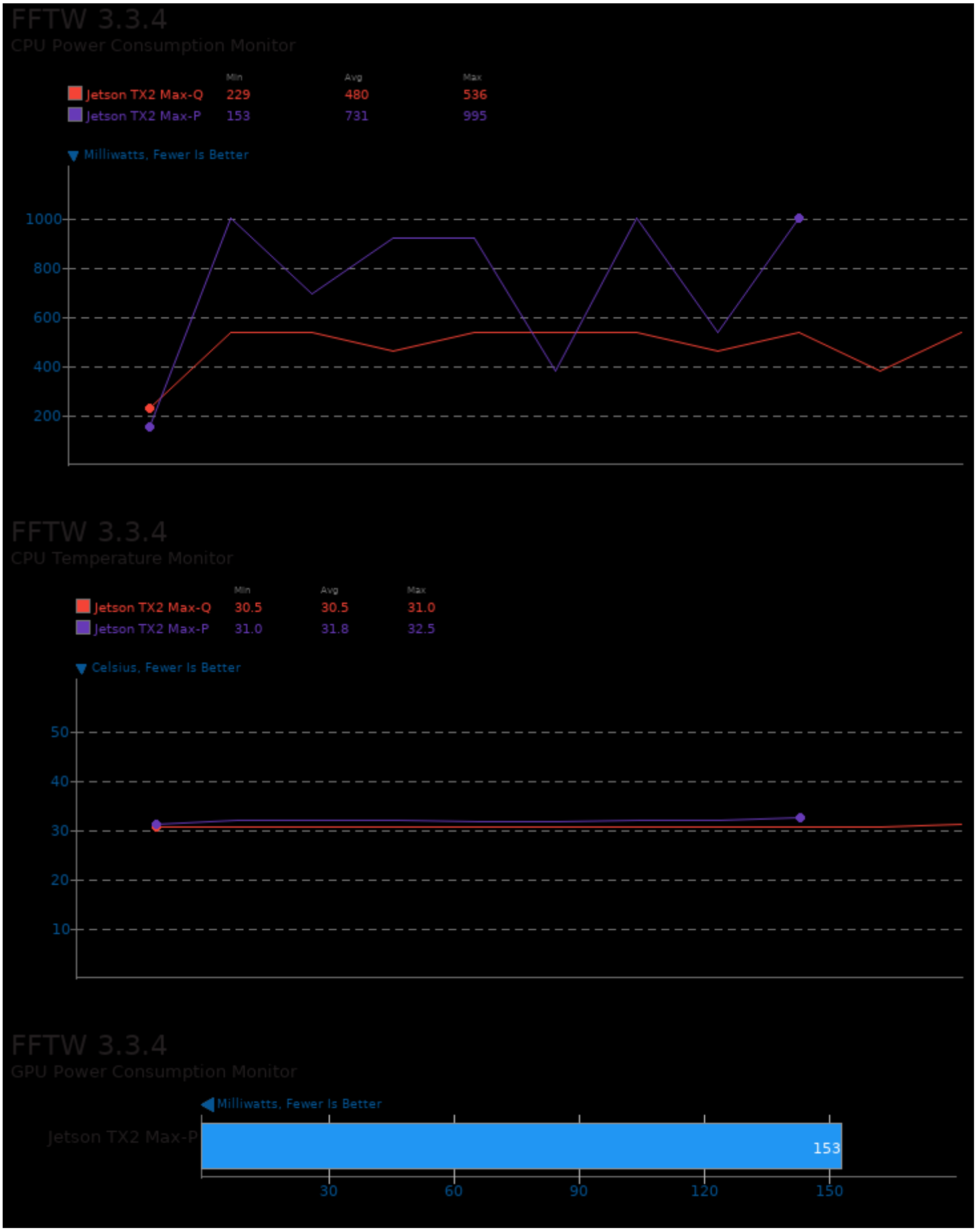
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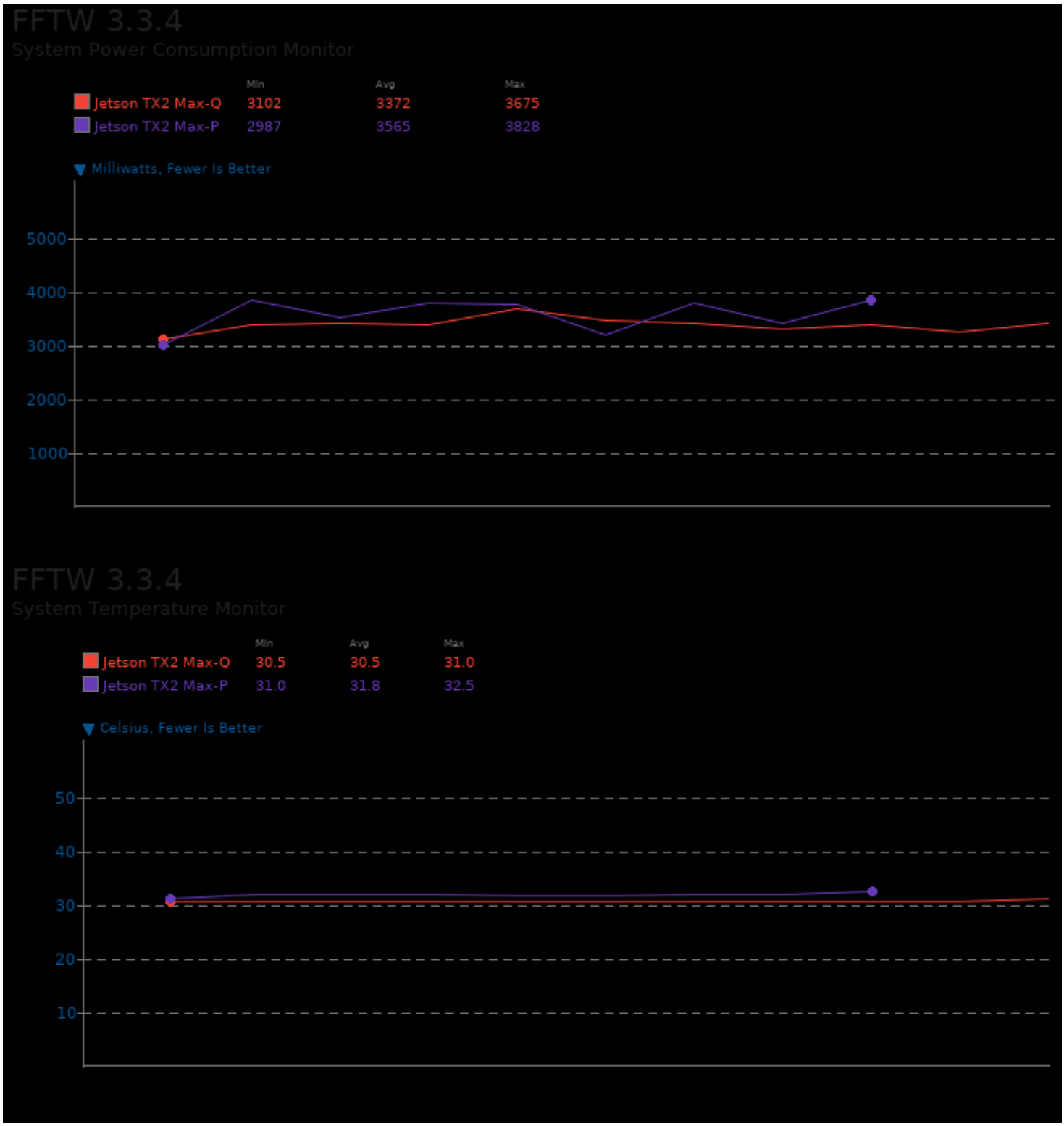
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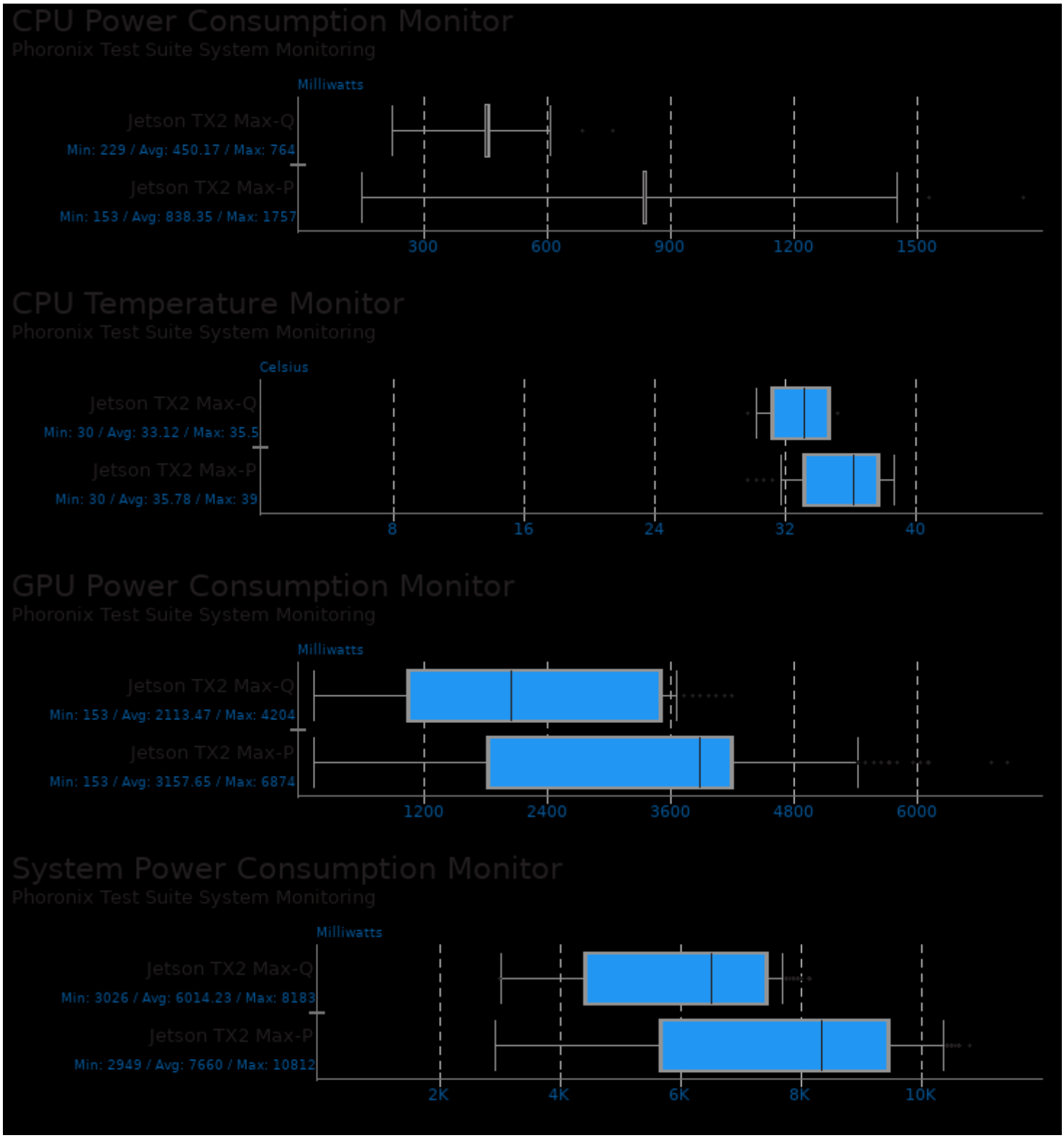
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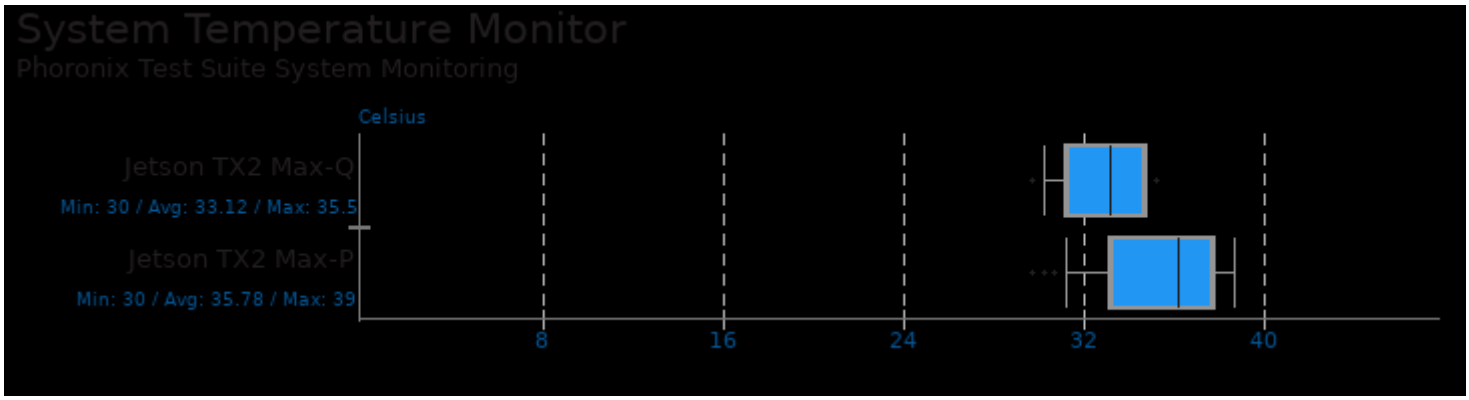
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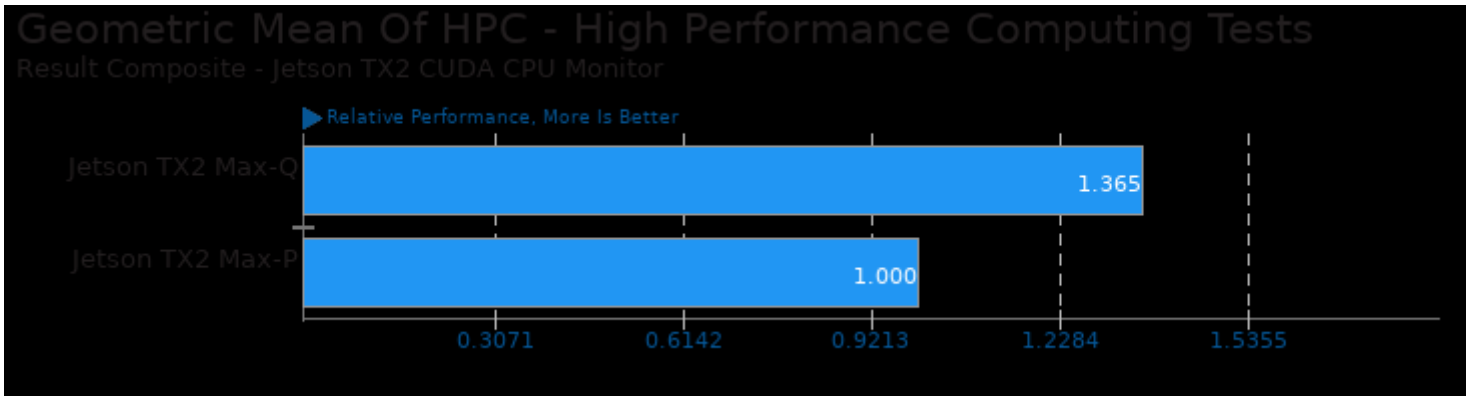


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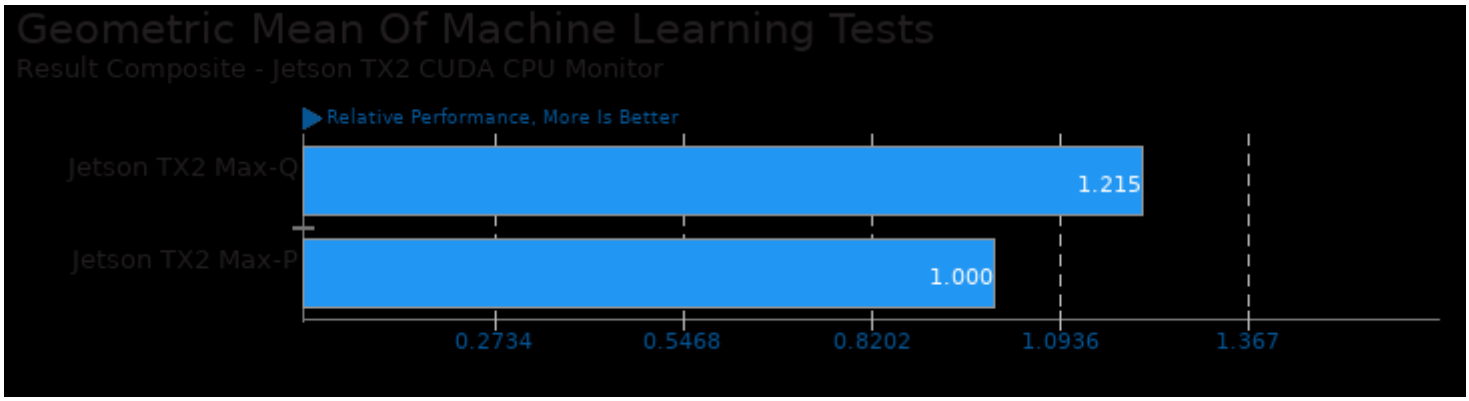


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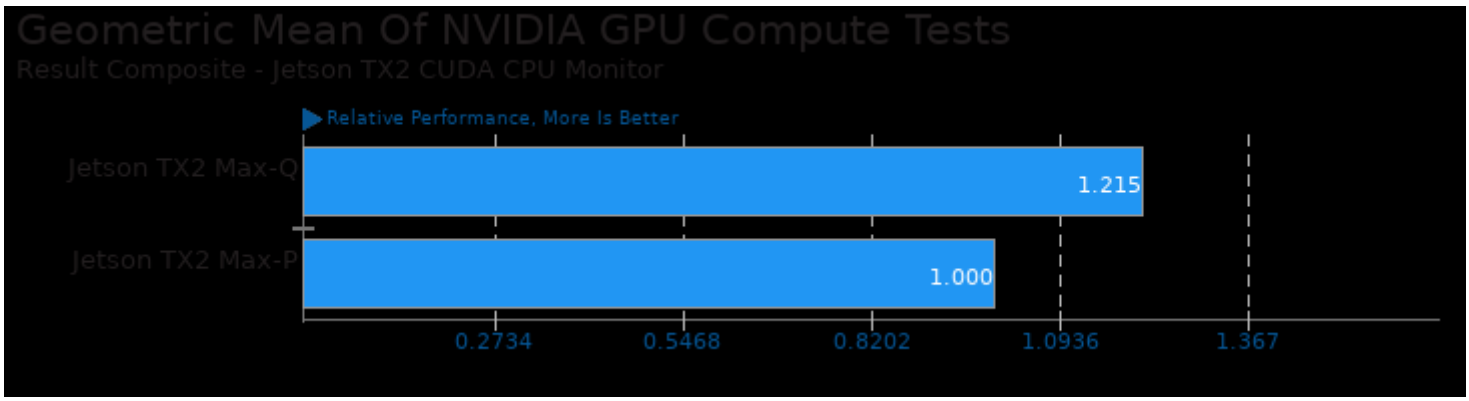
These geometric means are based upon test groupings / test suites for this result file.




Geometric mean based upon tests: pts/askap, pts/fftw, pts/caffe and pts/shoc




Geometric mean based upon tests: pts/caffe and pts/shoc




Geometric mean based upon tests: pts/shoc and pts/caffe

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 11:02.*