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AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks

AMD Ryzen 2000 series Linux benchmarks on Ubuntu against Intel Core i5 Core i7 Coffeelake CPUs. Tests by Michael Larabel for a future article.

Automated Executive Summary

1 had the most wins, coming in first place for 83% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 3.783x the speed of the slowest (Core i5 6400).

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

Tesseract (Resolution: 1920 x 1080) at 38.819x
Rodinia (Test: OpenMP LavaMD) at 11.784x
asmFish (1024 Hash Memory, 26 Depth) at 8.984x
Rodinia (Test: OpenMP CFD Solver) at 8.313x
POV-Ray (Trace Time) at 7.402x
TTSIOD 3D Renderer (Phong Rendering With Soft-Shadow Mapping) at 7.362x
Xonotic (Resolution: 3840 x 2160 - Effects Quality: Low) at 6.696x
LAME MP3 Encoding (WAV To MP3) at 5.261x
Tesseract (System Power Consumption Monitor) at 5.244x

Blender (Blend File: Barbershop - Compute: CPU-Only) at 4.805x.

Test Systems:

Core i5 8400

Processor: Intel Core i5-8400 @ 4.00GHz (6 Cores), Motherboard: MSI Z370M MORTAR (MS-7B54) v1.0 (1.20 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: Samsung SSD 950 PRO 256GB, Graphics: Intel UHD 630 3072MB (1050MHz), Audio: Realtek ALC892, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: modesetting 1.19.6, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA, Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: intel_pstate performance
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW Protection

Core i7 8700K

Processor: Intel Core i7-8700K @ 4.70GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0607 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline Protection

Ryzen 7 1700

Processor: AMD Ryzen 7 1700 Eight-Core @ 3.00GHz (8 Cores / 16 Threads), Motherboard: MSI B350 TOMAHAWK (MS-7A34) v1.0 (1.H0 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 7 1800X

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 5 2400G

Processor: AMD Ryzen 5 2400G @ 3.60GHz (4 Cores / 8 Threads), Motherboard: ASUS PRIME B350M-E (4011 BIOS), Chipset: AMD Device 15d0, Memory: 16384MB, Disk: Samsung SSD 950 PRO 256GB, Graphics: ASUS AMD Radeon Vega 8 Mobile 1024MB, Audio: AMD Device 15de, Monitor: DELL P2415Q, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: modesetting 1.19.6, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 5 2600

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 5 2600X

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 7 2700

Processor: AMD Ryzen 7 2700 Eight-Core @ 3.20GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Ryzen 7 2700X

Processor: AMD Ryzen 7 2700X Eight-Core @ 3.70GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Monitor: DELL P2415Q, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64) 20180513, Desktop: GNOME Shell 3.28.1, Display Driver: amdgpu 18.0.99, OpenGL: 4.5 Mesa 18.2.0-devel- padoka PPA (LLVM 7.0.0), Compiler: GCC 8.1.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes: CXXFLAGS=-O3-march=native CFLAGS=-O3-march=native
Compiler Notes: --disable-multilib --enable-checking=release
Processor Notes: Scaling Governor: acpi-cpufreq performance
Graphics Notes: GLAMOR
Python Notes: Python 2.7.15rc1 + Python 3.6.5
Security Notes: __user pointer sanitization + Full AMD retpoline IBPB Protection

Core i5 6400

Processor: Intel Core i5-6400 @ 3.30GHz (4 Cores), Motherboard: Gigabyte H170-HD3-CF (F22e BIOS), Chipset: Intel Xeon E3-1200 v5/E3-1500, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 512GB SPCC Solid State + 4001GB Seagate ST4000DM004-2CV1 + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: Realtek ALC887-VD, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.1.19-300.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.0.8 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: intel_pstate powersave
Security Notes: SELinux + KPTI + __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + SSB disabled via prctl and seccomp + PTE Inversion; VMX: conditional cache flushes SMT disabled

Ryzen 5 2600 32Gb

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F40 BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 512GB SPCC Solid State + 4001GB Seagate ST4000DM004-2CV1 + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.2.5-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.3 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Security Notes: SELinux + __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

Mi R5 2600

mio3

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F40 BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.2.13-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.6 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42d BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840 + 500GB My Passport 0730 + 63GB USB DISK 3.0 + 123GB Ultra Fit + 1000GB External USB 3.0 + 4GB DT Mini Fun G2, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.2.17-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.7 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio3

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42d BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.2.18-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.7 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio43200xmp

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42d BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.5-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.7 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio53200xmp

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42d BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.6-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.7 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio63200xmp42g

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42g BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX

470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.7-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.7 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio73200xmp42g

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F42g BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840 + 2GB Seagate STORE N GO, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.8-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.8 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio83200xmp50a

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50a BIOS), Chipset: AMD Family 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840 + 2GB Seagate STORE N GO, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.11-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.8 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq ondemand
Graphics Notes: GLAMOR
Security Notes: SELinux + usercopy/swapgs barriers and __user pointer sanitization + Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + SSB disabled via prctl and seccomp

masmio93200xmp50a

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50a BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.11-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server

1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.8 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

masmio103200xmp50aoc4000

Processor: AMD Ryzen 5 2600 Six-Core @ 4.00GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50a BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 30, Kernel: 5.3.11-200.fc30.x86_64 (x86_64), Desktop: KDE Plasma 5.15.5, Display Server: X Server 1.20.5, Display Driver: modesetting 1.20.5, OpenGL: 4.5 Mesa 19.1.8 (LLVM 8.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

masmio111.7v

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50 BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 31, Kernel: 5.4.8-200.fc31.x86_64 (x86_64), Desktop: KDE Plasma 5.17.5, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.8 (LLVM 9.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

masmio12.2933

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50 BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 31, Kernel: 5.4.17-200.fc31.x86_64 (x86_64), Desktop: KDE Plasma 5.17.5, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.8 (LLVM 9.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

mascastigo

masmio13.2933

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F50 BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 31, Kernel: 5.5.17-200.fc31.x86_64 (x86_64), Desktop: KDE Plasma 5.17.5, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.8 (LLVM 9.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

masmio14.3200.F51

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F51f BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + 120GB Samsung SSD 840, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR928X

OS: Fedora 31, Kernel: 5.5.17-200.fc31.x86_64 (x86_64), Desktop: KDE Plasma 5.17.5, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, OpenGL: 4.5 Mesa 19.2.8 (LLVM 9.0.0), File-System: ext4, Screen Resolution: 1920x1080

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

masmio15.3200.F52

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: Gigabyte B450 AORUS M (F52 BIOS), Chipset: AMD 17h, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 480GB KINGSTON SA400S3 + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + T-FORCE 250GB, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Intel 8260

OS: Fedora 33, Kernel: 5.9.16-200.fc33.x86_64 (x86_64), Desktop: KDE Plasma 5.20.4, Display Server: X Server 1.20.10, Display Driver: modesetting 1.20.10, OpenGL: 4.6 Mesa 20.2.6 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: Clang 11.0.0, File-System: ext4, Screen Resolution: 1920x1080

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

Ryzen 7 3700X

Processor: AMD Ryzen 7 3700X 8-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: Gigabyte B450 AORUS M (F52 BIOS), Chipset: AMD Starship/Matisse, Memory: 32768MB, Disk: Samsung SSD 960 EVO 250GB + 480GB KINGSTON SA400S3 + 4001GB Seagate ST4000DM004-2CV1 + 512GB SPCC Solid State + T-FORCE 250GB, Graphics: Sapphire AMD Radeon RX 470/480/570/570X/580/580X/590 4GB (1284/1750MHz), Audio: AMD Ellesmere HDMI Audio, Monitor: HP 25x, Network: Realtek RTL8111/8168/8411 + Intel 8260

OS: Fedora 33, Kernel: 5.11.21-200.fc33.x86_64 (x86_64), Desktop: KDE Plasma 5.20.5, Display Server: X Server 1.20.11, Display Driver: modesetting 1.20.11, OpenGL: 4.6 Mesa 20.3.5 (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: Clang 11.0.0, File-System: ext4, Screen Resolution: 1920x1080

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

1

Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: Gigabyte X570 AORUS PRO (F33 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: Samsung SSD 980 PRO 250GB + 1000GB Hitachi HDS72101 + 2000GB Western Digital WD20EARX-00P + 120GB Samsung SSD 850 + 4001GB USB 3.0 device + 500GB PSSD T7, Graphics: AMD Radeon RX 6800/6800 XT / 6900 16GB (2575/1000MHz), Audio: ATI Generic, Monitor: EI491CR, Network: Intel I211

OS: Arch rolling, Kernel: 5.12.7-nitrous-fire+ (x86_64), Desktop: KDE Plasma 5.22.0, Display Server: X Server 1.20.11 + Wayland, OpenGL: 4.6 Mesa 21.2.0-devel (git-baf4b05aad) (LLVM 12.0.0), Vulkan: 1.2.177, Compiler: GCC 11.1.0 + Clang 12.0.0 + LLVM 12.0.0, File-System: f2fs, Screen Resolution: 3840x1080

Kernel Notes: amdgpu.ppfeaturemask=0xffffffff - Transparent Huge Pages: always
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa201009
Graphics Notes: GLAMOR
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: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

	Core i5 8400	Core i7 8700K	Ryzen 7 1700	Ryzen 7 1800X	Ryzen 5 2400G	Ryzen 5 2600	Ryzen 5 2600X	Ryzen 7 2700	Ryzen 7 2700X	Core i5 6400	Ryzen 5 2600 32Gb	MiR 5 2600	mio3	masmio	masmio3	masmio4 3200 xmp	masmio5 3200 xmp	masmio6 3200 xmp4 2g	masmio7 3200 xmp4 2g	masmio8 3200 xmp5 0a	masmio9 3200 xmp5 0a	masmio10 3200 xmp5 0a oc 4000	masmio11 .7v	masmio12. 2933	mascasti go	masmio13. 2933	masmio14. 3200 .F51	masmio15. 3200 .F52	Ryzen 7 3700X	1
Tesseract - 1920 x 1080 (FPS)	620	381	423	442	479	436	488	139	147	315	314	349	338	343	344	352	354	346	348.86	412.71	378.91	366.25	**25.31**	381.43	383.59	423.48	491.00	**982.5094**	
Normalized	63.1%	38.78%	43.05%	44.99%	48.75%	44.38%	49.67%	14.15%	14.96%	32.06%	31.96%	35.52%	34.4%	34.91%	35.01%	35.83%	36.03%	35.22%	35.51%	42.01%	38.57%	37.28%	2.58%	38.82%	39.04%	43.1%	49.97%	100%	
Standard Deviation	2.6%	0.9%	0.6%	3.9%	1.6%	2.1%	4.1%	2%	0.3%	2%	2.3%	1.1%	1.3%	0.2%	0.9%	1.1%	1.2%	1.1%	3.3%	1.7%	2.7%	2%	2.9%	0.8%	2.3%	2.4%	1.2%	0.5%	
Tesseract - 1920 x 1080 (FPS/Watt)	**2.79**	**2.38**	2.46	2.48	2.45	2.45	2.54																						
Normalized	100%	85.3%	88.17%	88.89%	87.81%	87.81%	91.04%																						
Xonotic - 3840 x 2160 - Low (FPS)	446	334	383	387	429	381	443	141	144	375	373	391	380	392	390	391	389	389	389.29	395.50	399.40	394.94	**107.33**	397.08	398.10	415.74	513.66	**718.697208 2**	
Normalized	62.06%	46.47%	53.29%	53.85%	59.69%	53.01%	61.64%	19.62%	20.04%	52.18%	51.9%	54.4%	52.87%	54.54%	54.26%	54.4%	54.13%	54.13%	54.17%	55.03%	55.57%	54.95%	14.93%	55.25%	55.39%	57.85%	71.47%	100%	
Standard Deviation	0.9%	1.7%	0.6%	1.7%	1.4%	0.5%	0.8%	0%	0%	0.9%	1.3%	1.2%	0.9%	0.6%	0.8%	1.3%	0.3%	0.8%	0.2%	0.9%	0.7%	1%	1.4%	0.9%	0.1%	0.4%	2.4%	2.4%	

Xonotic - 3840 x 2160 - Low (FPS/Watt)		**3.80**	**2.68**	2.77		3.05	3.20	3.06	2.92																						
Normalized		10%	70.53%	72.89%		80.26%	84.21%	80.53%	76.84%																						
Blender - Barbershop - CPU-Only	20 83	12 93	14 27	12 56	**25 02**	16 40	14 93	13 03	11 52		16 07	16 16	16 04	15 99	16 82	16 02	15 96	16 05	16 06	16 01	16 00	15 05	16 06	16 19	22 18	16 22	16 11	15 90	10 63	**52 0.69**
Normalized	25%	40.27%	36.49%	41.46%	20.81%	31.75%	34.88%	39.96%	45.2%		32.4%	32.22%	32.46%	32.56%	30.96%	32.5%	32.62%	32.44%	32.42%	32.52%	32.55%	34.61%	32.42%	32.16%	23.47%	32.1%	32.31%	32.75%	48.97%	10%
Rodinia - OpenMP CFD Solver (sec)	35.9 8	29.04	34.92	28.52	45.91	32.70	31.17	29.28	27.22	**10 5.79**	30.52	31.11	30.75	30.98	35.65	30.62	30.73	30.63	30.77	30.77	30.75	29.28	31.00	31.93	83.0	31.8	31.12	30.3	25.8	**12.726**
Normalized	35.37	43.82	36.44	44.62	27.72	38.92	40.83	43.46	46.75	12.03	41.7%	40.91	41.39	41.08	35.7%	41.56	41.41	41.51	41.41	41.44	41.39	43.45	41.01	39.88	15.28	40.02	40.89	42%	50.54	10%
Standard Deviation	0.1%	0.1%	5.1%	0.5%	0.5%	0.2%	0.3%	0.5%	0.5%	2.8%	0.2%	0.3%	0.1%	0.2%	1.4%	0.1%	0.1%	0.3%	0.2%	0.3%	0%	0.4%	0.5%	0.1%	0.6%	0.2%	0.2%	0.2%	0.2%	0.6%
Rodinia - OpenMP LavaMD (sec)	13 97	10 3.19	89 .2	**17 6.09**	12 2.64	10 9.94	97 .07	83 .40	13 5.00	43 .71	43 .2	43 .1	43 .7	43 .3	43 .5	43 .4	43 .6	43 .5	43 .5	43 .5	43 .2	40 .7	43 .5	43 .7	55 1.3	43 .4	43 .6	44 .2	33 .6	**14 .943**
Normalized	11.48	15.35	14.48	16.75	8.49%	12.18	13.59	15.39	17.92	11.07	34.19	34.57	34.66	34.19	34.44	34.34	34.42	34.27	34.35	34.34	34.31	37.17	34.16	34.35	26.82	34.41	34.22	33.75	44.39	10%
Standard Deviation	0.3%	0.5%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	1.5%	0.4%	0.1%	0.1%	0.8%	0.1%	0.3%	0.4%	0.2%	0.4%	0.1%	0.5%	0.1%	0.3%	0.4%	1%	0.1%	0.2%	0.3%	0.2%	0.2%

Timed Linux Kernel Compilation - Time To Compile	112.25	80.9	94.71	84.32	159.98	104.66	94.85	87.45	77.00
Normalized	68.6%	95.07%	81.3%	91.32%	48.13%	73.57%	81.18%	88.05%	100%
Standard Deviation	1.1%	1.3%	1.6%	1.4%	1.1%	1.3%	1.3%	1.7%	1.5%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	273	409	341	391	244	318	348	388	442	116	289	281	280	290	276	291	291	290	290	290	291.23	338.44	288.48	284.67	159.08	285.95	286.23	335.44	488.56	853.985
Normalized	31.97%	47.89%	39.93%	45.79%	28.57%	37.24%	40.75%	45.43%	51.76%	13.58%	33.84%	32.9%	32.79%	33.96%	32.32%	34.08%	34.08%	33.96%	33.96%	33.96%	34.1%	39.63%	33.78%	33.33%	18.63%	33.48%	33.52%	39.28%	57.21%	100%
Standard Deviation	0.5%	0.3%	1.3%	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%	1%	0.2%	0.3%	0.9%	0.2%	0.2%	0.2%	0.2%	0.4%	0.3%	0.4%	0.1%	0.1%	0.6%	1%	1%	0.2%	0.3%	0.2%	1.3%	0.5%
asmFish - 1.H.M. 2.D (Nodes/s)	15913660	22073906	21184155	23944265	12275091	18320983	20447076	22936792	25796792	60670	18835281	18441361	18704970	18549772	17867203	18707958	18080449	18634063	18250650	18731050	18877710	19340340	18798806	18258498	12399985	18799039	18437961	18704214	27520020	54666074
Normalized	29.12%	41.6%	38.53%	43.81%	22.77%	33.53%	36.96%	41.48%	47.18%	11.13%	33.57%	33.74%	33.69%	34.5%	32.67%	34.15%	34.4%	34.07%	33.85%	34.16%	34.55%	36.37%	34.37%	34.01%	23.77%	34.39%	33.61%	34.65%	51.1%	100%
Standard Deviation	0.9%	0.3%	0.9%	2.1%	1%	1.3%	2.4%	1.9%	1.7%	3.3%	1%	1.2%	0.2%	0.2%	2.4%	0.8%	1%	1%	1.3%	0.3%	1.4%	1%	1.9%	0.5%	0.3%	0.9%	0.1%	1.1%	2.2%	0.9%

asmFish - 1.H.M. 2.D (Nodes/s/Watt)		14 06 79	12 88	12 01		11 79 41	11 07 24	15 05 47	12 57 82																					
Normalized		93.45%	85.58%	79.79%		78.34%	73.55%	10 0%	83.55%																					
Stockfish - Total Time (ms)	30 39	26 52	39 70	36 07	36 53	36 35	34 09	35 55	32 94	42 43	36 44	37 91	37 66	36 41	36 78	36 23	36 38	36 50	36 44	36 46	37 29	35 44	36 13	36 59	41 63	36 31	36 41	34 94	28 65	20 94
Normalized	68.9%	78.96%	52.75%	58.05%	57.32%	57.61%	61.43%	58.9%	63.57%	49.35%	57.46%	55.24%	55.6%	57.51%	56.93%	57.8%	57.56%	57.37%	57.46%	57.43%	56.15%	59.09%	57.96%	57.23%	50.3%	57.67%	57.51%	59.93%	73.09%	10 0%
Standard Deviation	0.1%	0.4%		0.4%	0.1%	0.1%	0.2%	0.7%	0.6%	0.1%		1.2%	0.8%	1%	0.4%	0.6%	0.6%	0.9%	0.4%		0.1%	0.8%	0.2%	0.4%	2.3%	0.3%	0.8%	0.4%	2.9%	0.6%
OpenSSL - R.4.b.P (Signs/sec)	16 45	19 80	13 82	15 95	81 2	11 64	13 00	14 73	17 25	72 7	12 02	12 07	12 08	12 09	12 09	12 09	12 09	12 09	12 09	12 08	12 09	12 91								
Normalized	83.08%	10 0%	69.8%	80.56%	41.01%	58.79%	65.66%	74.39%	87.12%	36.72%	60.71%	60.96%	61.01%	61.06%	61.06%	61.06%	61.06%	61.06%	61.06%	61.01%	61.05%	65.18%								
Standard Deviation	2.7%	0%	0%	0%	0.2%	0%	0.3%	0.3%	0%	8.2%	0.1%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0%								
OpenSSL - R.4.b.P (Signs/sec/Watt)		14 .3 5	10 .1 0	10 .0 4		9. 11	7. 86	11 .4 8	9. 24																					
Normalized		10 0%	70.38%	69.97%		63.48%	54.77%	80 %	64.39%																					

AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks

POV-Ray - Trace Time (sec)	88.67	61.93	64.28	56.24	10803.1	72.81	65.47	58.08	49.87	19706.1	74.01	74.03	74.07	73.76	73.65	74.02	73.52	73.89	73.79	73.99	74.03	68.76	72.81	71.99	93.25	71.94	72.55	76.05	50.59	26.6 21
Normalized	30.02%	42.99%	41.41%	47.33%	24.64%	36.56%	40.66%	45.84%	53.38%	13.51%	35.97%	35.83%	35.94%	36.09%	36.15%	35.96%	36.21%	36.03%	36.01%	35.99%	35.83%	38.76%	36.88%	37%	28.54%	37%	36.67%	35.03%	52.62%	10 0%
Standard Deviation	0%	0.1%	0.2%	0%	0.2%	0.1%	0.1%	0.1%	0.2%	0.5%	0.1%	0%	0.1%	0.1%	0.1%	0.1%	0.3%	0.5%	0.2%	0.3%	0.1%	0.6%	0.1%	0.2%	2.9%	0.2%	0.6%	2.2%	0.3%	1.9%
7-Zip Compression - C.S.T (MIPS)	27	40	33	37	19	31	33	37	40	12	32	31	31	32	30	33	33	33	32	33	32	34	33	32	22	32	33			
	83751	87759	75454	51455	18838	31307	51507	26747	37404	31218	61696	55785	37500	82000	43000	11033	03404	11819	94730	09933	72595	58555	05550	25033	33121	44929	13307			
Normalized	68.10%	0%	82.57%	91.77%	46.94%	76.6%	81.97%	91.16%	98.76%	30.13%	79.61%	77.19%	76.74%	80.29%	74.44%	81%	80.45%	81%	80.6%	80.95%	80.05%	84.6%	80.86%	78.89%	54.63%	79.38%	81.06%			
Standard Deviation	0.2%	1%	0.5%	0.1%	0.7%	0.3%	0.6%	1.2%	0.5%	1.8%	0.5%	0.9%	0.1%	0.2%	0.8%	0.4%	0.2%	0.4%	0.7%	0.9%	0.8%	1.4%	1.1%	1%	1.3%	0.6%	0.7%			
7-Zip Compression - C.S.T (MIPS/Watt)		28	23	23		22	20	28	25																					
		9.10	2.18	6.64		6.96	8.45	2.69	0.93																					
Normalized		10 0%	80.31	81.85		78.51	72.1%	97.78	86.8%																					
GNU MPC - M.P.B (Global Score)	96	11 03 3	70	77	74	74	80	77	82			74	75	74	75	75	75	75	75	75	77	75	75	66	74	75	75	80	11 93 3	
	30		27	27	97	80	17	73	47			33	33	90	57	60	47	43	50	47	40	63	00	67	87	00	40	63		
Normalized	80.7%	92.46	58.89	64.75	62.83	62.68	67.18	65.14	69.11			62.29	63.13	62.77	63.33	63.35	63.24	63.21	63.27	63.24	64.86	63.38	62.85	55.87	62.74	62.85	63.19	67.57	10 0%	
Standard Deviation		0.5%	0.2%	0.7%	0.1%	0.4%	0.4%	0.3%	0.3%			0.2%	0.4%	0.1%	0.2%		0.2%	0.2%	0.4%	0.1%	0.1%	0.3%	0.2%	1.2%	0.3%	0.1%	0.1%	2.6%	1.3%	

AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks

GNU MPC - M.P.B (Global Score/ Watt)		11 6.66	69 .03	71 .36		72 .57	76 .92	73 .98	83 .89																					
Normalized		10%	59.17%	61.17%		62.21%	65.94%	63.42%	71.91%																					
Fhourstones - C.C.4.S (Kpos	14 36 6	16 13 0	11 79 6	13 05 1	12 79 3	13 08 3	13 83 6	13 34 2	14 05 3	10 76 0	11 98 7	12 09 3	12 16 4	12 12 1	11 52 4	12 10 4	12 10 2	12 04 0	12 04 9	12 07 9	12 13 8	12 33 8	12 15 3	11 81 9	11 19 3	11 82 8	12 07 2	11 75 1	13 69 2	21 40 8
Normalized	67.1%	75.34%	55.1%	60.96%	59.76%	61.11%	64.63%	62.32%	65.64%	50.26%	55.99%	56.49%	56.82%	56.62%	53.83%	56.54%	56.53%	56.24%	56.28%	56.42%	56.7%	57.63%	56.77%	55.21%	52.28%	55.25%	56.39%	54.89%	63.96%	10 0%
Standard Deviation	0.8%	0.4%	0.2%	0.4%	0.5%	0.2%	0.3%	0.2%	0.5%	3.1%	0.2%	0.3%	0.7%	0.2%	0.3%	0.4%	0.1%	0%	0.4%	0.1%	0.5%	0.5%	0.5%	0%	0.7%	0.5%	0.1%	1.1%	1.7%	0.1%
Fhourstones - C.C.4.S (Kpos / sec/W		18 1.78	11 8.88	12 4.60		13 7.43	13 7.10	13 3.08	13 4.41																					
Normalized		10%	65.4%	68.54%		75.6%	75.42%	73.21%	73.94%																					
TSCP - A.C.P (Nodes/s)	12 88 07 0	14 89 40 4	97 59 02	10 74 07 0	10 38 03 0	10 32 20 4	11 24 05 3	10 75 74 0	11 54 67 4	98 57 08	10 57 16 6	10 54 32 4	10 56 34 5	10 59 59 6	10 59 19 0	10 59 59 6	10 58 37 5	10 59 59 8	10 58 78 6	10 58 78 3	10 24 00 0	10 87 20 6	10 58 37 5	10 59 59 6	98 11 17	10 59 59 6	10 59 59 6	10 19 20 7	11 58 46 0	20 20 56 6
Normalized	63.75%	73.71%	48.3%	53.16%	51.37%	51.08%	55.63%	53.24%	57.15%	48.78%	52.32%	52.18%	52.28%	52.44%	52.42%	52.44%	52.38%	52.44%	52.4%	52.44%	50.68%	53.81%	52.38%	52.44%	48.56%	52.44%	52.44%	50.44%	57.33%	10 0%
Standard Deviation	0.1%	0.3%	0.7%	0.3%	0.2%	0.4%	0.4%	0.1%	0.2%	3.5%	0.4%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	0.2%		0.1%	0.1%	0.1%	2.2%	0.1%	0.1%	0.2%	2%	0.8%

AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks

Timed PHP Compilation - Time To Compile	69.4	56.4	83.5	73.4	10 6.	78.3	72.0	75.0	66.9	18 0.	73.4	75.5	76.6	73.1	79.8	72.7	73.0	73.0	72.7	72.6	73.3	69.9	73.3	74.9	10 4.	77.9	75.6	79.8	57.6	46.0
	3	2	9	1	24	6	8	4	5	81	5	1	7	7	0	6	1	6	4	2	5	9	1	8	68	3	7	1	4	27
Normalized	66.29%	81.58%	55.06%	62.7%	43.32%	58.74%	63.86%	61.34%	68.75%	25.46%	62.66%	60.95%	60.03%	62.9%	57.68%	63.26%	63.04%	63%	63.28%	63.38%	62.75%	65.76%	62.78%	61.39%	43.97%	59.06%	60.83%	57.67%	79.85%	10 0%
Standard Deviation	0.3%	0.5%	0.6%	0.3%	0.7%	0.7%	0.4%	1.4%	1%	3.4%	0.6%	1%	0.6%	1%	1.5%	1.1%	1.1%	0.7%	0.6%	0.8%	1.5%	0.7%	0.3%	0.6%	1.1%	0.8%	0.3%	0.1%	2.2%	0.3%
AOBench - 2048 x 2048 - Total Time (sec)	39.19	34.02	44.38	40.4	42.1	42.2	39.19	41.0	38.19	45.9	37.86	38.64	38.66	37.97	38.12	37.98	38.00	37.90	38.09	38.09	37.97	37.70	37.80	37.85	44.22	37.75	38.59	37.66	34.60	28.63
Normalized	73.14%	84.25%	64.59%	70.88%	68.05%	68.05%	73.14%	69.91%	75.05%	62.32%	75.71%	73.8%	73.57%	75.49%	75.19%	75.47%	75.43%	75.27%	75.45%	75.25%	75.45%	77.32%	75.83%	75.73%	63.95%	75.73%	74.66%	77.34%	82.84%	10 0%
Standard Deviation	0.4%	0.5%	0.5%	0.8%	0.7%	0.8%	0.2%	0.6%	0.3%	0.6%	0.7%	0.1%	0.5%	0%	0.2%	0.1%	0.1%	0%	0%	0.2%	0%	0.1%	0%	0.2%	2.2%	0.1%	1.2%	0.1%	1.9%	1.1%
FLAC Audio Encoding - WAV To FLAC (sec)	8.53	7.44	11.13	10.2	10.7	10.4	9.72	10.1	9.45	12.35	10.11	10.18	10.21	9.94	9.98	10.13	10.03	9.98	9.99	10.02	10.21	9.91	9.98	10.05	11.54	10.05	10.15	10.12	9.09	5.62 5
Normalized	65.94%	75.6%	50.54	56.14	53.72	54.09	57.87	55.64	59.52	45.55	55.64	55.8%	55.09	56.59	56.36	55.53	56.08	56.36	56.31	56.14	55.09	56.76	56.36	55.97	47.51	55.97	55.42	55.58	61.88	10 0%
Standard Deviation	0.3%	0.3%	0.5%	0.4%	0.4%	0.1%	0.2%	0.4%	0.4%	2.1%	0.3%	0.5%	3.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.4%	0.2%	1.4%	0.5%	0.5%	0.3%	1.8%	0.6%	0.2%	0.6%	2.3%	4%

AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks

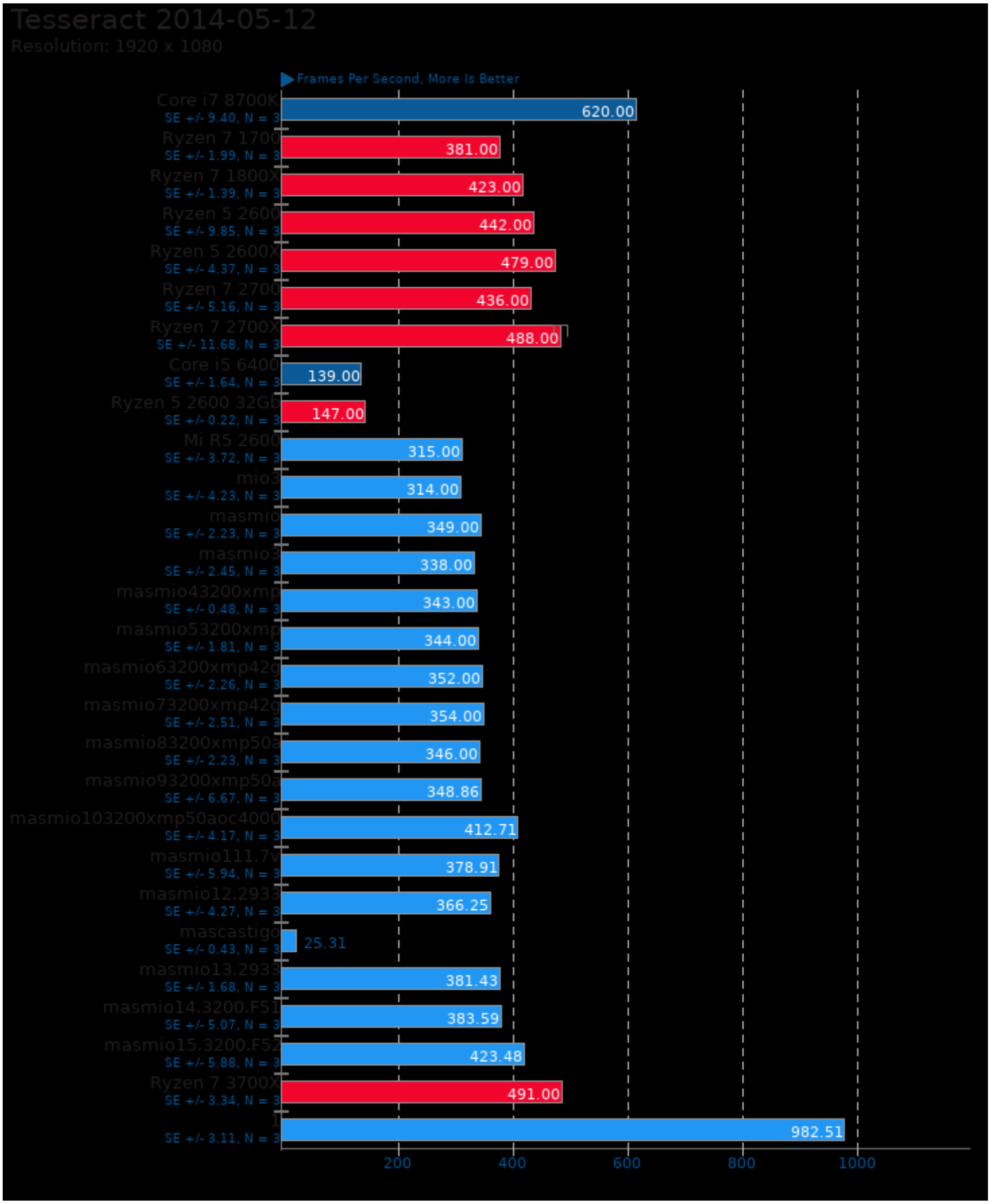
LAME MP3 Encoding - WAV To MP3 (sec)	9.04	7.90	9.32	8.43	8.75	8.74	8.09	8.44	7.90	41.56	34.32	34.39	34.36	34.31	34.56	34.30	34.27	34.32	34.28	34.28	34.30	33.34	34.32	34.31	38.96	34.33	34.39	34.36	28.78	20.350
Normalized	87.39%	10	84.76%	93.71%	90.29%	90.39%	97.65%	93.6%	10	19.01%	23.02%	22.97%	22.99%	23.03%	22.86%	23.03%	23.05%	23.02%	23.05%	23.05%	23.03%	23.62%	23.02%	23.03%	20.28%	23.01%	22.97%	22.81%	27.45%	38.82%
Standard Deviation	0.1%	0.2%	0.2%	0.6%	1.2%	0.2%	0.1%	0.5%	0.2%	3.2%	0%	0.1%	0%	0.1%	0.8%	0.2%	0.1%	0.1%	0.1%	0%	0.1%	0.1%	0.1%	0.1%	1%	0.2%	0.3%	0.1%	2.5%	0.3%
F1 2017 - Performance / Cost - 1920 x 1080 - Low - Off (FPS/		0.48	0.40	0.39		0.56	0.51	0.38	0.38																					
Normalized		85.71%	71.43%	69.64%		10	91.07%	67.86%	67.86%																					
Tesseract - Performance / Cost - 1920 x 1080 (FPS/		1.89	1.54	1.39		2.34	2.15	1.51	1.50																					
Normalized		80.77%	65.81%	59.4%		10	91.88%	64.53%	64.1%																					

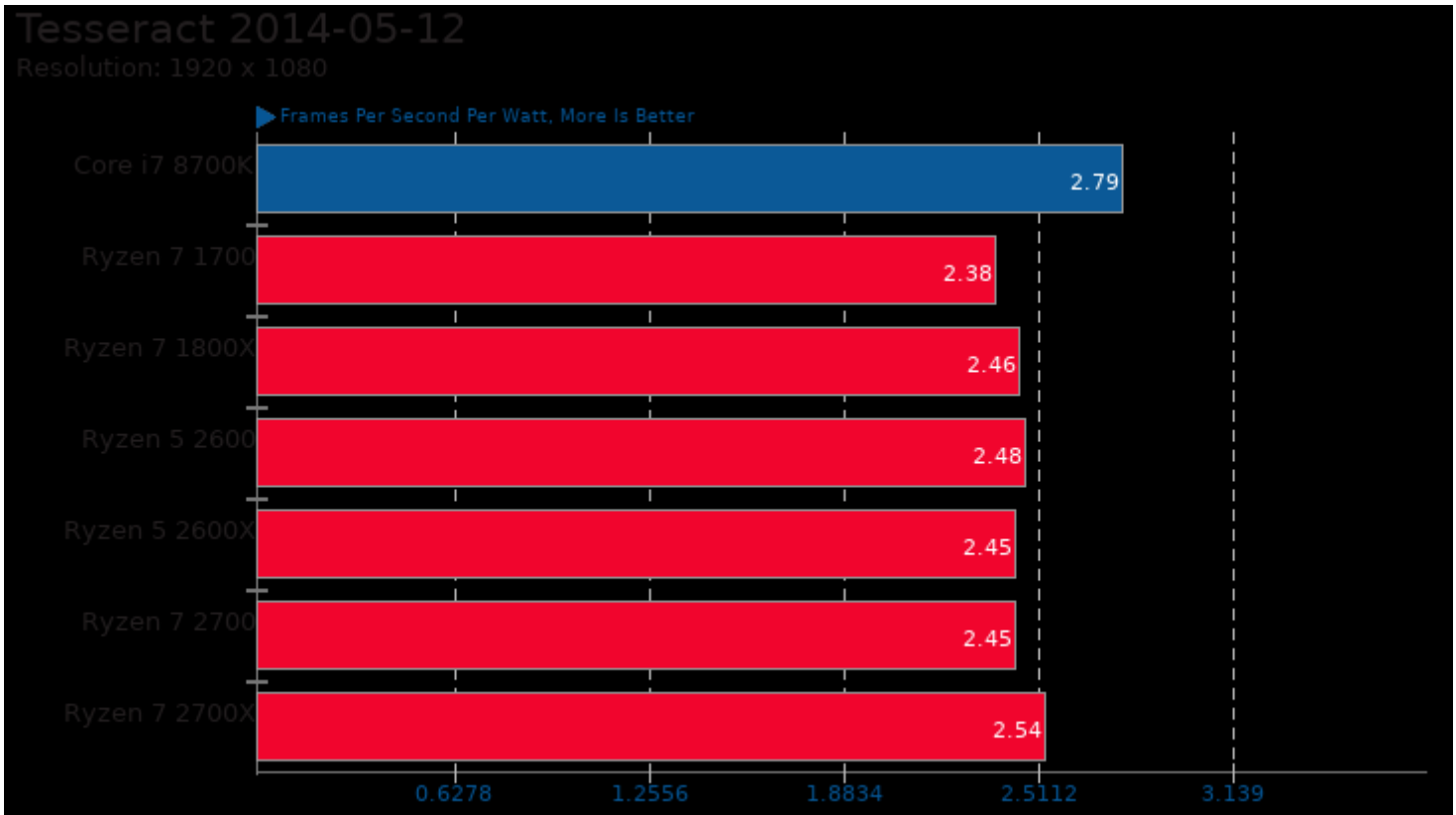
Xonotic - Performance / Cost - 3840 x 2160 - Low (FPS/		1.36	1.35	**1.26**		**2.05**	1.92	1.32	1.36
Normalized		66.34%	65.85%	61.46%		100%	93.66%	64.39%	66.34%
Blender - Performance / Cost - Barbershop - CPU-Only (sec x	37.28 02	**42.42 12**	35.24 94	38.19 49	40.03 79	**30.98 77**	33.29 19	37.65 99	37.44 85
Normalized	83.12%	73.05%	87.91%	81.13%	77.4%	100%	93.08%	82.28%	82.75%

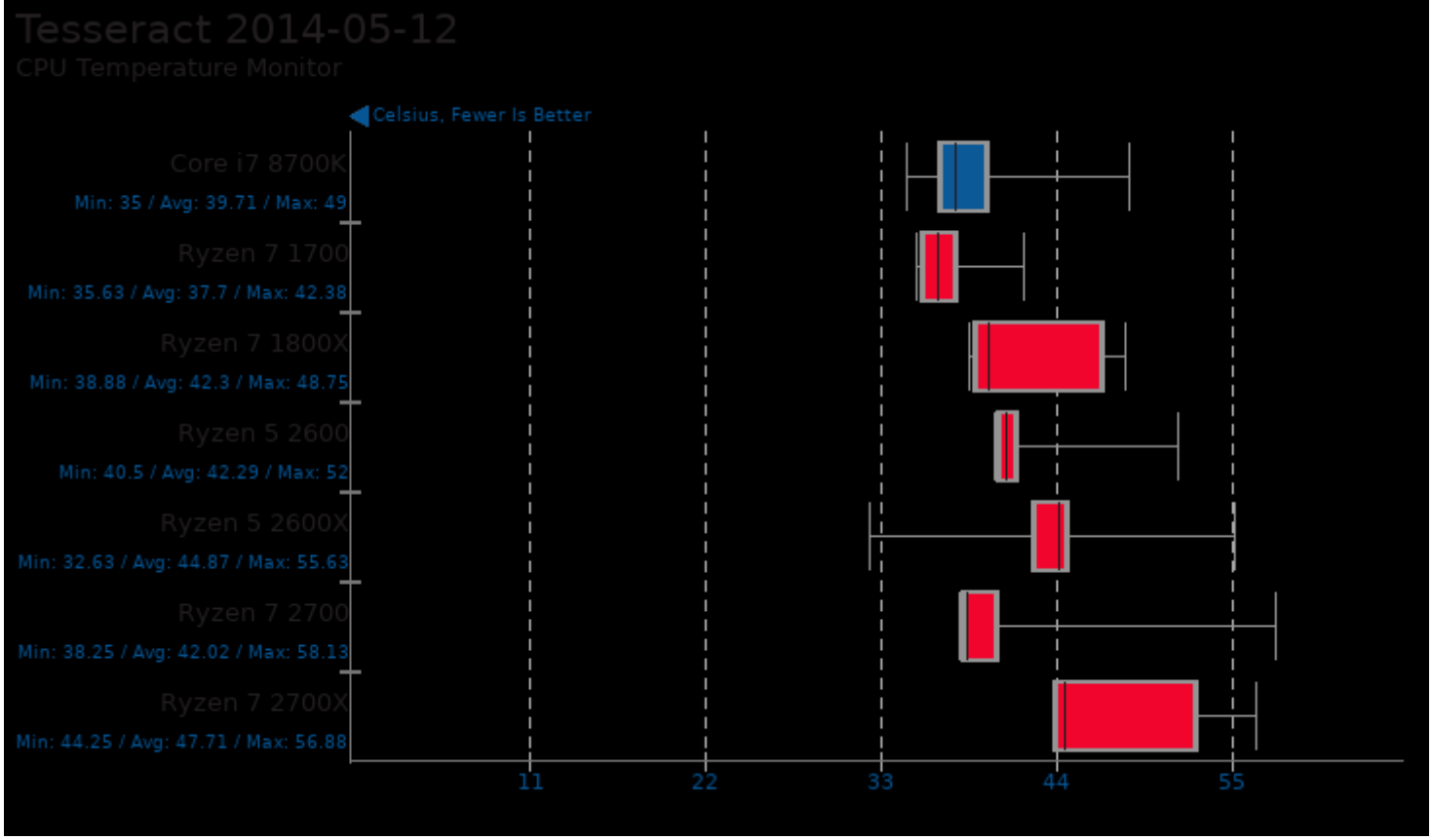
Timed Linux Kernel Compilation - Performance / Cost - Time To Compile (sec	2009	**2656**	2339	2563	2597	**1978**	2115	2527	2502
Normalized	98.45%	74.46%	84.56%	77.17%	77.28%	100%	93.52%	78.27%	79.04%
asmFish - Performance / Cost - 1.H.M. 2.D (Nodes/s/Dollar)	8891	**6932**	8527	7877	7807	**9695**	9060	7847	7936
Normalized	91.69%	71.49%	87.93%	81.23%	80.23%	100%	93.43%	80.92%	81.84%

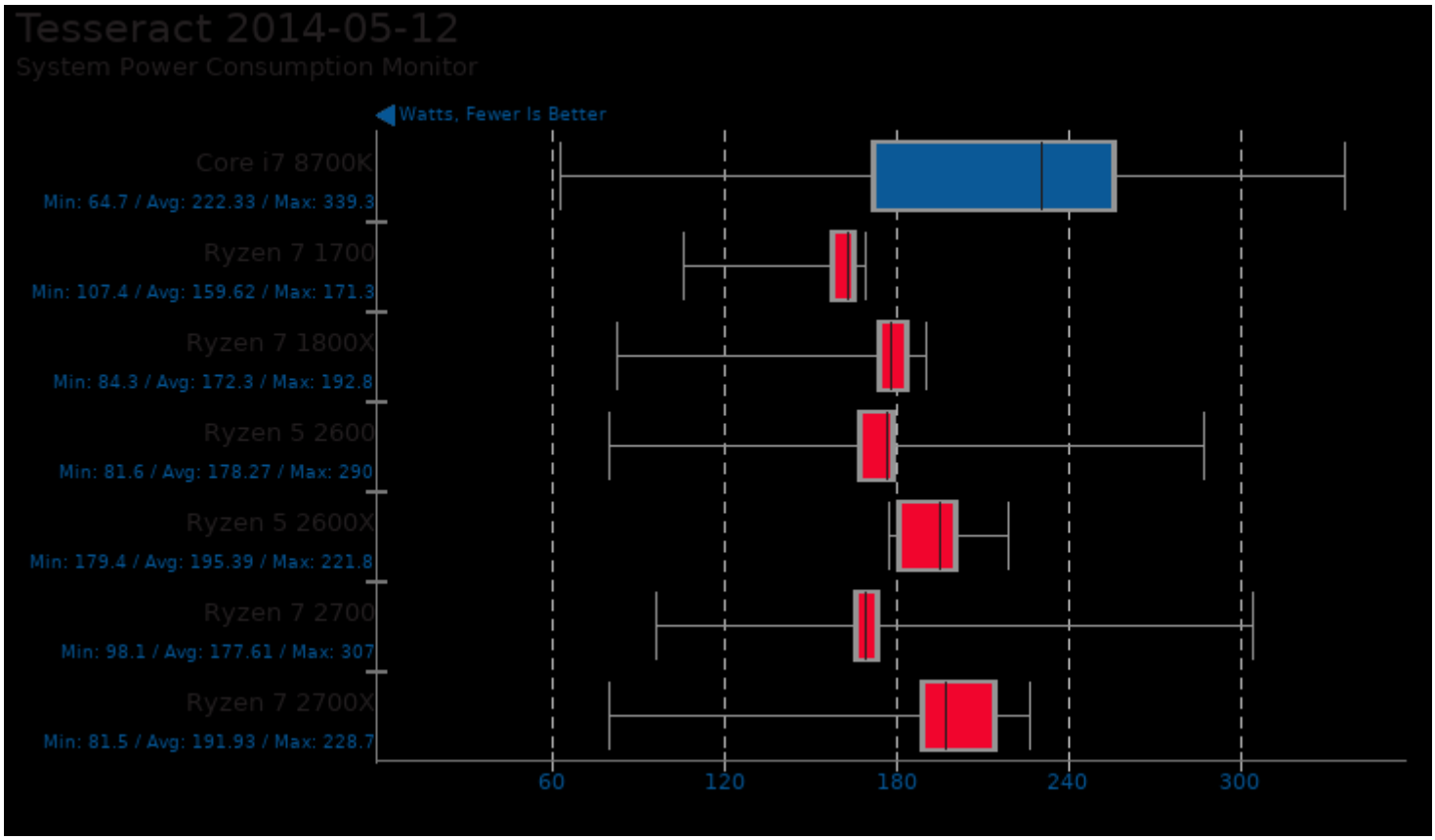
OpenSSL - Performance / Cost - R.4.b.P (Signs/sec/Dollar)	9.19	6.04	5.59	5.25	5.08	6.16	5.83	5.10	5.31
Normalized	100%	65.72%	60.83%	57.13%	55.28%	67.03%	63.44%	55.5%	57.78%
POV-Ray - Performance / Cost - Trace Time (sec x Dollar	15 87 2	20 31 3	15 87 7	17 09 7	17 28 5	13 76 1	14 60 0	16 78 5	16 20 8
Normalized	86.7%	67.75%	86.67%	80.49%	79.61%	100%	94.26%	81.98%	84.9%
7-Zip Compression - Performance / Cost - C.S.T (MIPS/Dollar	15 5.51	12 4.63	13 6.66	12 3.40	11 9.93	16 5.68	15 0.27	12 8.95	12 4.23
Normalized	93.86%	75.22%	82.48%	74.48%	72.39%	100%	90.7%	77.83%	74.98%

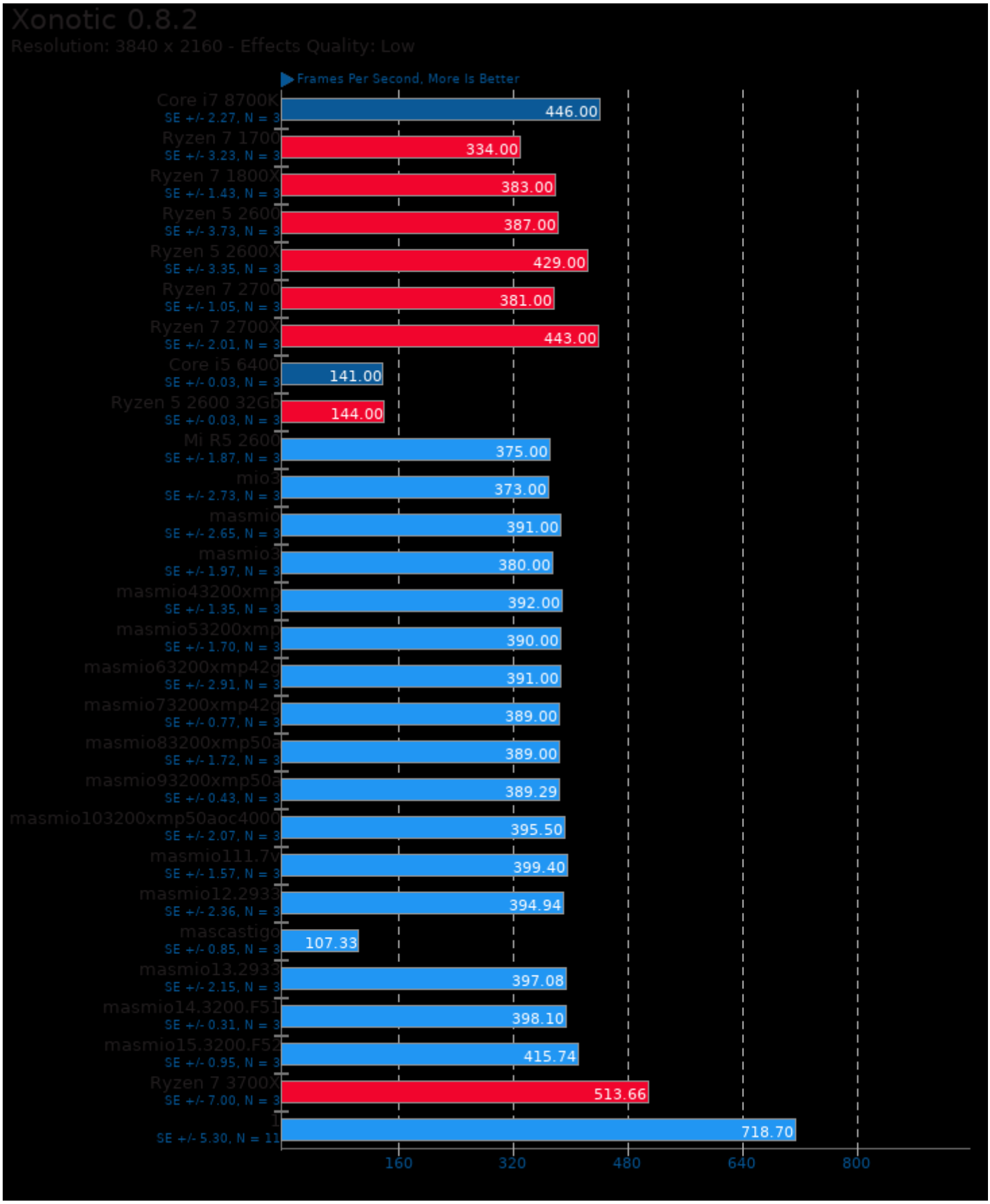
GNU MPC - Performance / Cost - M.P.B (Global Score/ Dollar	53.80	33.64	28.45	25.42	46.86	39.58	35.95	26.90	25.38
Normalized	100%	62.53%	52.88%	47.25%	87.1%	73.57%	66.82%	50%	47.17%
Fhourstones - Performance / Cost - C.C.4.S (Kpos / sec/D	80.26	49.18	47.76	42.93	79.95	69.22	62.05	46.17	43.24
Normalized	100%	61.28%	59.51%	53.49%	99.61%	86.24%	77.31%	57.53%	53.87%

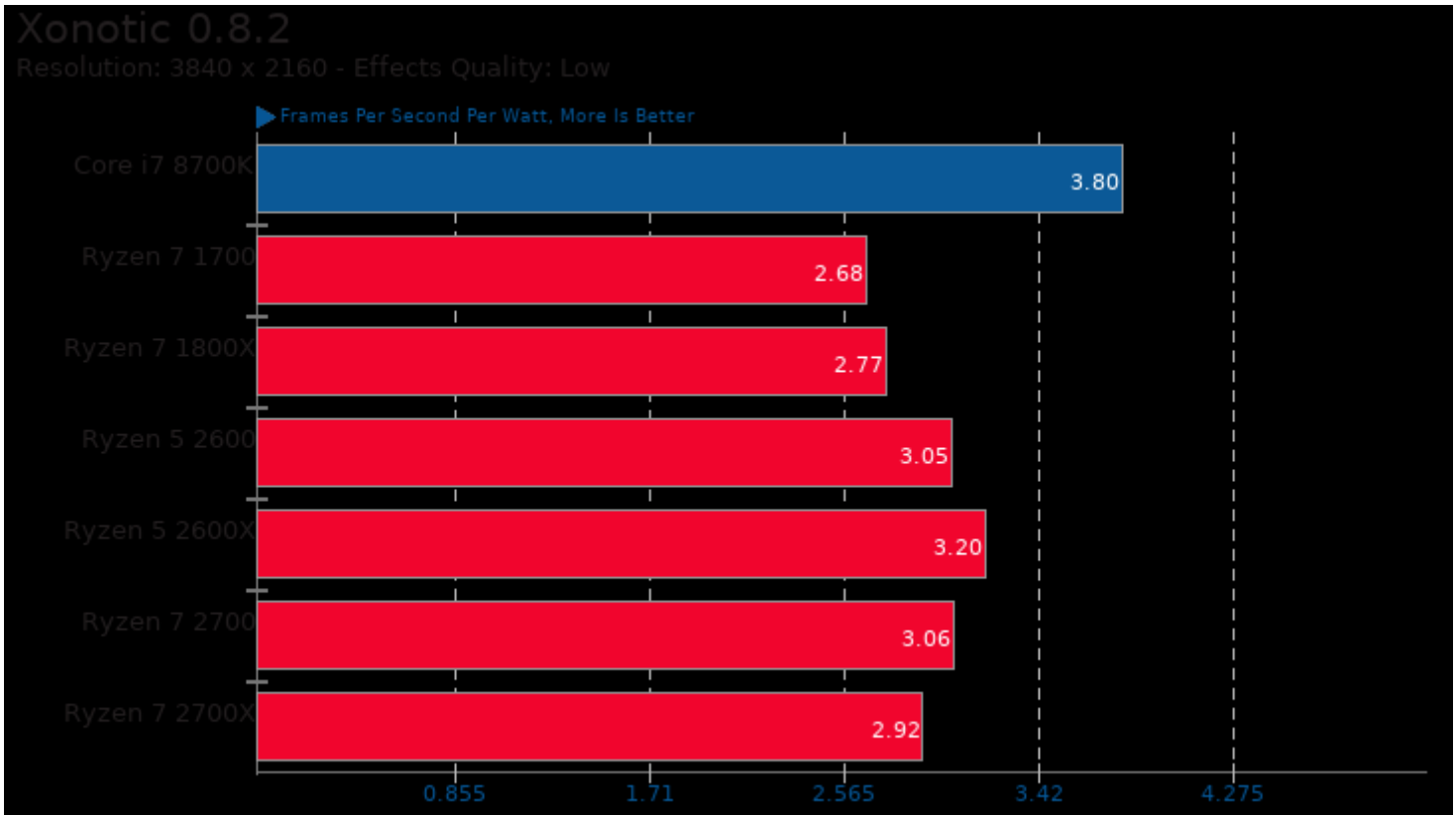

Tesseract 2014-05-12
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Core i7 8700K
SE +/- 9.40, N = 3
620.00
Ryzen 7 1700
SE +/- 1.99, N = 3
381.00
Ryzen 7 1800X
SE +/- 1.39, N = 3
423.00
Ryzen 5 2600
SE +/- 9.85, N = 3
442.00
Ryzen 5 2600X
SE +/- 4.37, N = 3
479.00
Ryzen 7 2700
SE +/- 5.16, N = 3
436.00
Ryzen 7 2700X
SE +/- 11.68, N = 3
488.00
Core i5 6400
SE +/- 1.64, N = 3
139.00
Ryzen 5 2600 32GB
SE +/- 0.22, N = 3
147.00
Mi R5 2600
SE +/- 3.72, N = 3
315.00
mio3
SE +/- 4.23, N = 3
314.00
masmio
SE +/- 2.23, N = 3
349.00
masmio3
SE +/- 2.45, N = 3
338.00
masmio43200xmp
SE +/- 0.48, N = 3
343.00
masmio53200xmp
SE +/- 1.81, N = 3
344.00
masmio63200xmp420
SE +/- 2.26, N = 3
352.00
masmio73200xmp420
SE +/- 2.51, N = 3
354.00
masmio83200xmp50a
SE +/- 2.23, N = 3
346.00
masmio93200xmp50a
SE +/- 6.67, N = 3
348.86
masmio103200xmp50aoc4000
SE +/- 4.17, N = 3
412.71
masmio111.7v
SE +/- 5.94, N = 3
378.91
masmio12.2933
SE +/- 4.27, N = 3
366.25
mascastigo
SE +/- 0.43, N = 3
25.31
masmio13.2933
SE +/- 1.68, N = 3
381.43
masmio14.3200.F51
SE +/- 5.07, N = 3
383.59
masmio15.3200.F52
SE +/- 5.88, N = 3
423.48
Ryzen 7 3700X
SE +/- 3.34, N = 3
491.00
SE +/- 3.11, N = 3
982.51
200
400
600
800
1000

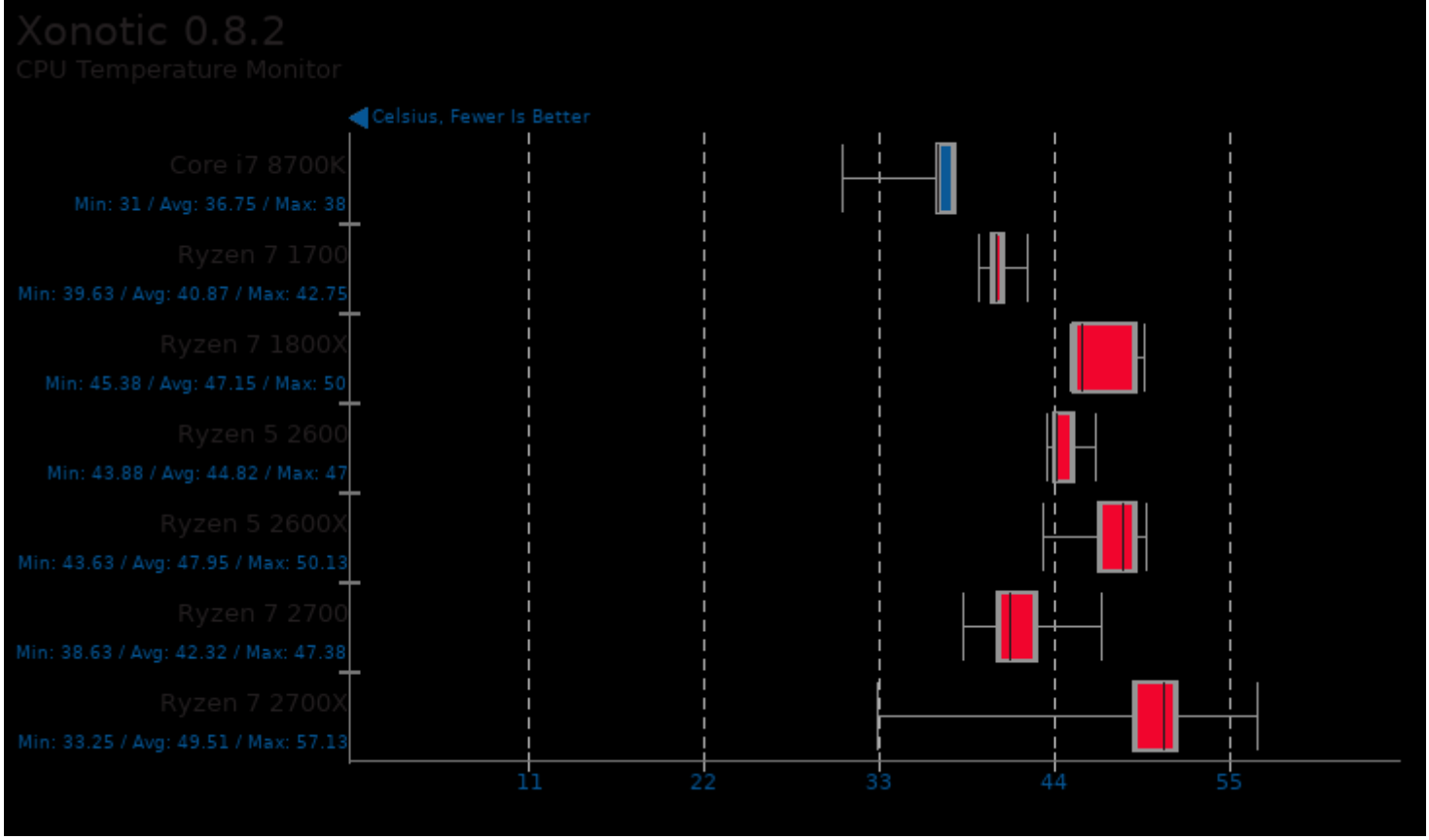

Tesseract 2014-05-12
Resolution: 1920 x 1080
Frames Per Second Per Watt, More Is Better
Core i7 8700K
2.79
Ryzen 7 1700
2.38
Ryzen 7 1800X
2.46
Ryzen 5 2600
2.48
Ryzen 5 2600X
2.45
Ryzen 7 2700
2.45
Ryzen 7 2700X
2.54
0.6278
1.2556
1.8834
2.5112
3.139

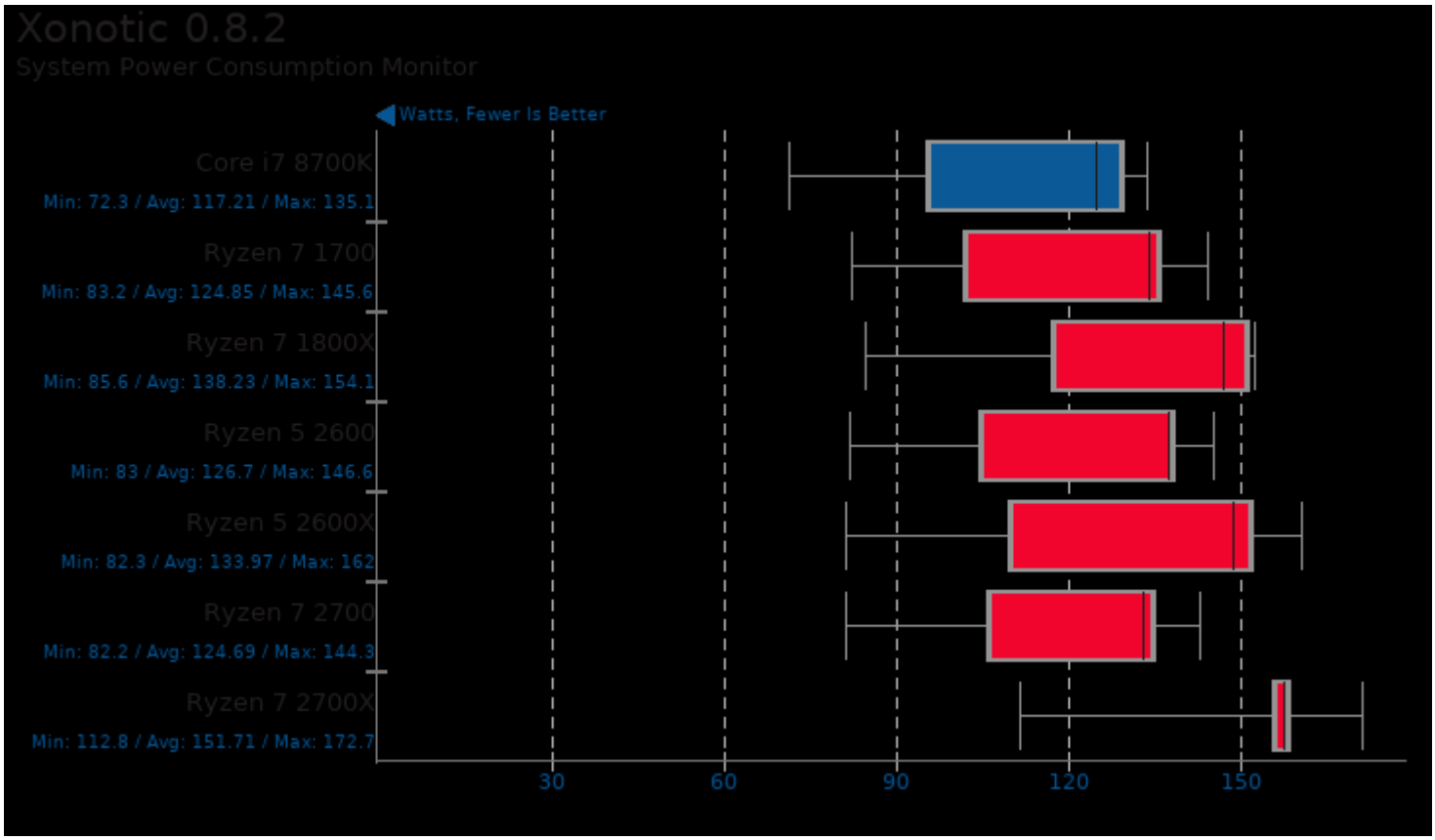

Tesseract 2014-05-12
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 35 / Avg: 39.71 / Max: 49
Ryzen 7 1700
Min: 35.63 / Avg: 37.7 / Max: 42.38
Ryzen 7 1800X
Min: 38.88 / Avg: 42.3 / Max: 48.75
Ryzen 5 2600
Min: 40.5 / Avg: 42.29 / Max: 52
Ryzen 5 2600X
Min: 32.63 / Avg: 44.87 / Max: 55.63
Ryzen 7 2700
Min: 38.25 / Avg: 42.02 / Max: 58.13
Ryzen 7 2700X
Min: 44.25 / Avg: 47.71 / Max: 56.88
11
22
33
44
55

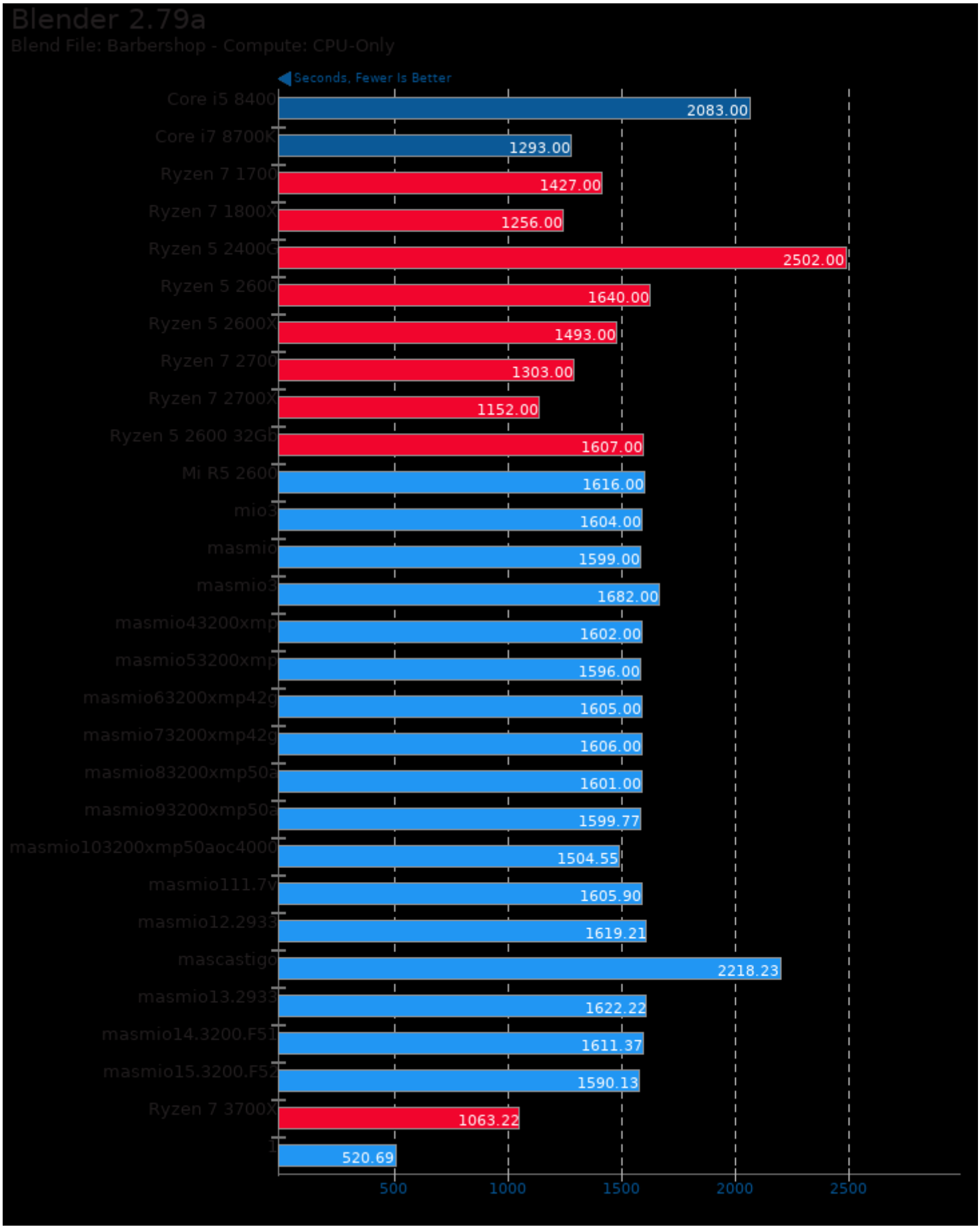

Tesseract 2014-05-12
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 64.7 / Avg: 222.33 / Max: 339.3
Ryzen 7 1700
Min: 107.4 / Avg: 159.62 / Max: 171.3
Ryzen 7 1800X
Min: 84.3 / Avg: 172.3 / Max: 192.8
Ryzen 5 2600
Min: 81.6 / Avg: 178.27 / Max: 290
Ryzen 5 2600X
Min: 179.4 / Avg: 195.39 / Max: 221.8
Ryzen 7 2700
Min: 98.1 / Avg: 177.61 / Max: 307
Ryzen 7 2700X
Min: 81.5 / Avg: 191.93 / Max: 228.7
60
120
180
240
300

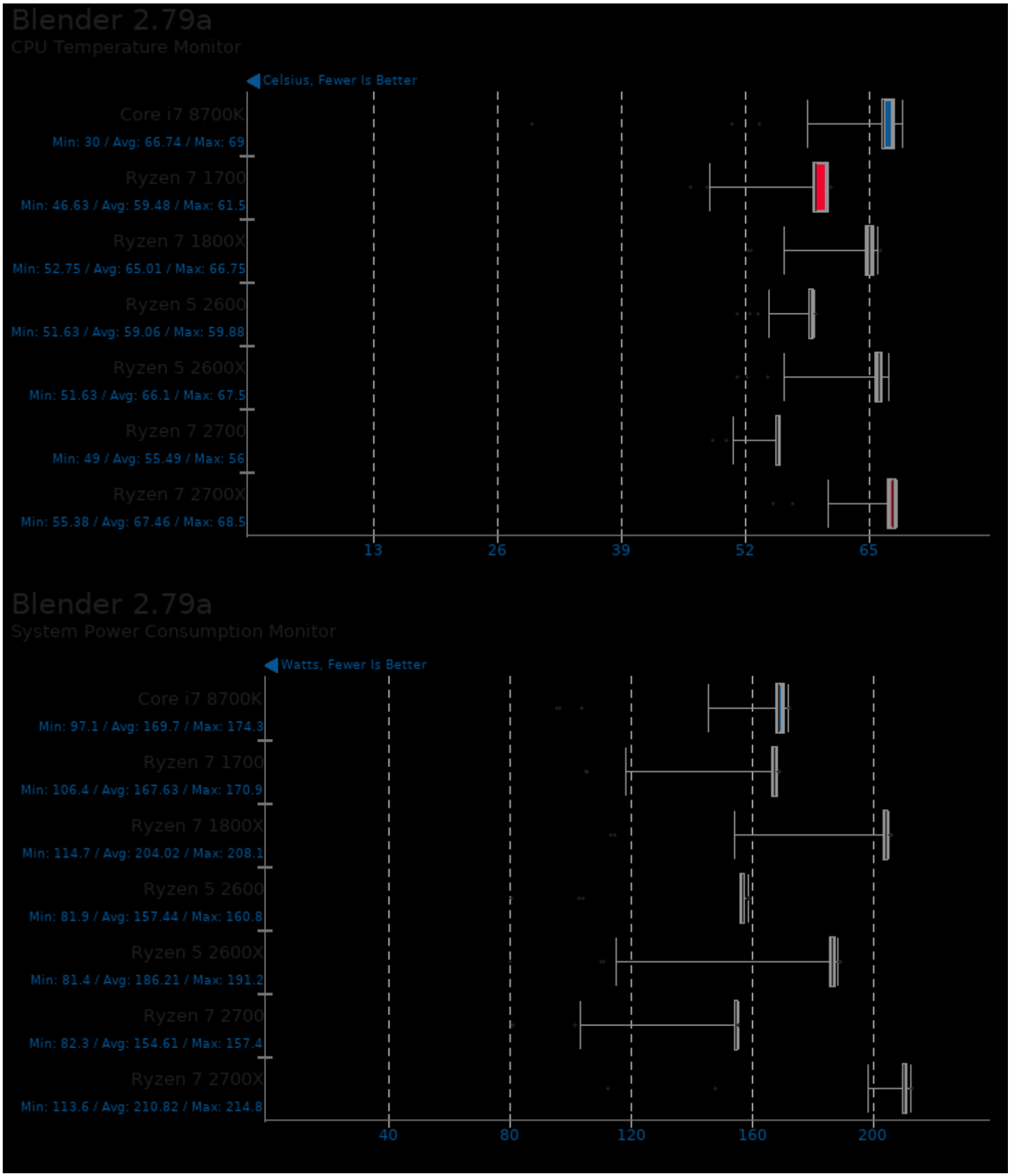

Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Low
Frames Per Second, More Is Better
Core i7 8700K
SE +/- 2.27, N = 3
446.00
Ryzen 7 1700
SE +/- 3.23, N = 3
334.00
Ryzen 7 1800X
SE +/- 1.43, N = 3
383.00
Ryzen 5 2600
SE +/- 3.73, N = 3
387.00
Ryzen 5 2600X
SE +/- 3.35, N = 3
429.00
Ryzen 7 2700
SE +/- 1.05, N = 3
381.00
Ryzen 7 2700X
SE +/- 2.01, N = 3
443.00
Core i5 6400
SE +/- 0.03, N = 3
141.00
Ryzen 5 2600 32GB
SE +/- 0.03, N = 3
144.00
Mi R5 2600
SE +/- 1.87, N = 3
375.00
mio3
SE +/- 2.73, N = 3
373.00
masmio
SE +/- 2.65, N = 3
391.00
masmio3
SE +/- 1.97, N = 3
380.00
masmio43200xmp
SE +/- 1.35, N = 3
392.00
masmio53200xmp
SE +/- 1.70, N = 3
390.00
masmio63200xmp420
SE +/- 2.91, N = 3
391.00
masmio73200xmp420
SE +/- 0.77, N = 3
389.00
masmio83200xmp50a
SE +/- 1.72, N = 3
389.00
masmio93200xmp50a
SE +/- 0.43, N = 3
389.29
masmio103200xmp50aoc4000
SE +/- 2.07, N = 3
395.50
masmio111.7v
SE +/- 1.57, N = 3
399.40
masmio12.2933
SE +/- 2.36, N = 3
394.94
mascastigo
SE +/- 0.85, N = 3
107.33
masmio13.2933
SE +/- 2.15, N = 3
397.08
masmio14.3200.F51
SE +/- 0.31, N = 3
398.10
masmio15.3200.F52
SE +/- 0.95, N = 3
415.74
Ryzen 7 3700X
SE +/- 7.00, N = 3
513.66
SE +/- 5.30, N = 11
718.70
160
320
480
640
800

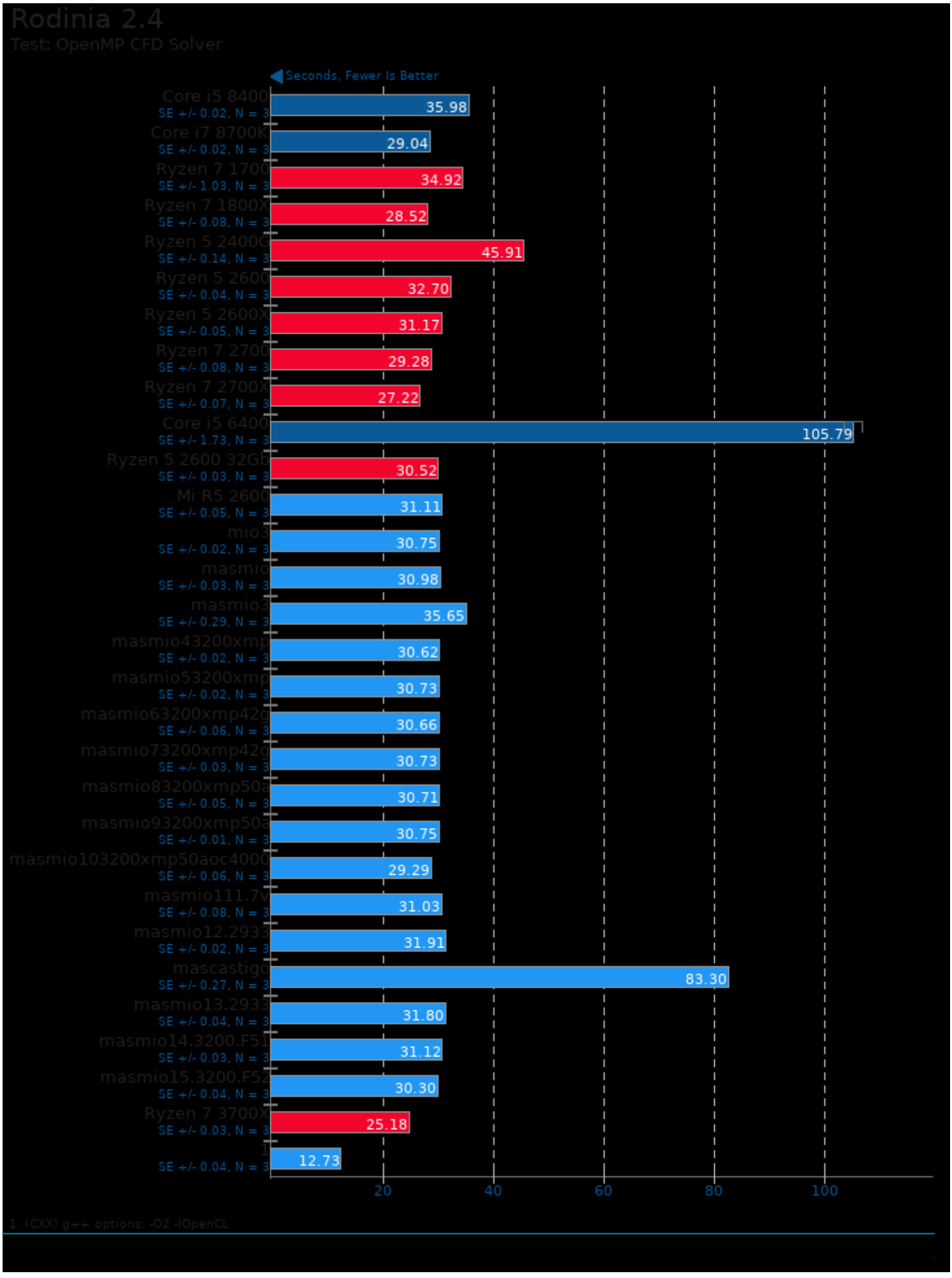

Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Low
Frames Per Second Per Watt, More Is Better
Core i7 8700K
3.80
Ryzen 7 1700
2.68
Ryzen 7 1800X
2.77
Ryzen 5 2600
3.05
Ryzen 5 2600X
3.20
Ryzen 7 2700
3.06
Ryzen 7 2700X
2.92
0.855
1.71
2.565
3.42
4.275

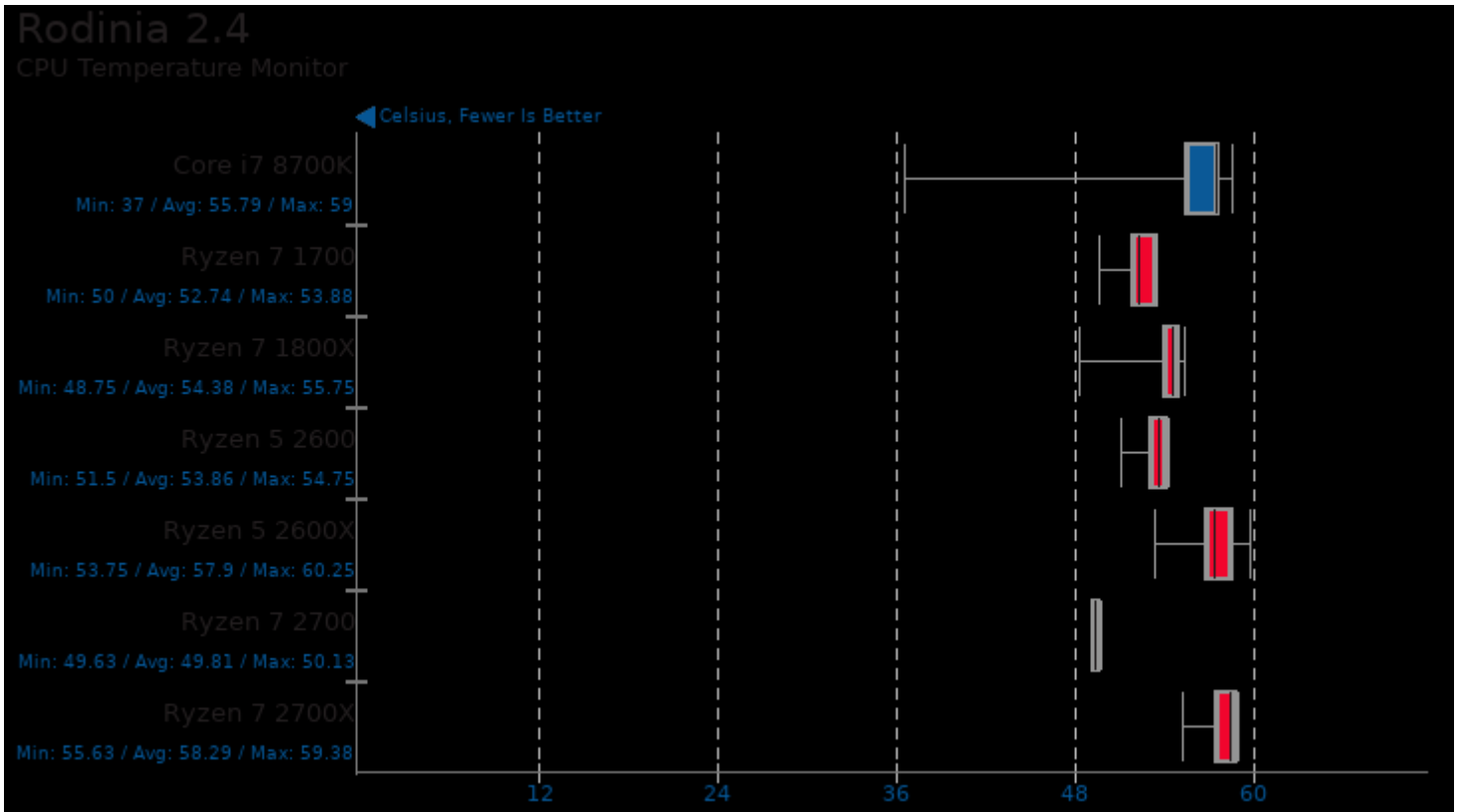

Xonotic 0.8.2
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 31 / Avg: 36.75 / Max: 38
Ryzen 7 1700
Min: 39.63 / Avg: 40.87 / Max: 42.75
Ryzen 7 1800X
Min: 45.38 / Avg: 47.15 / Max: 50
Ryzen 5 2600
Min: 43.88 / Avg: 44.82 / Max: 47
Ryzen 5 2600X
Min: 43.63 / Avg: 47.95 / Max: 50.13
Ryzen 7 2700
Min: 38.63 / Avg: 42.32 / Max: 47.38
Ryzen 7 2700X
Min: 33.25 / Avg: 49.51 / Max: 57.13
11
22
33
44
55

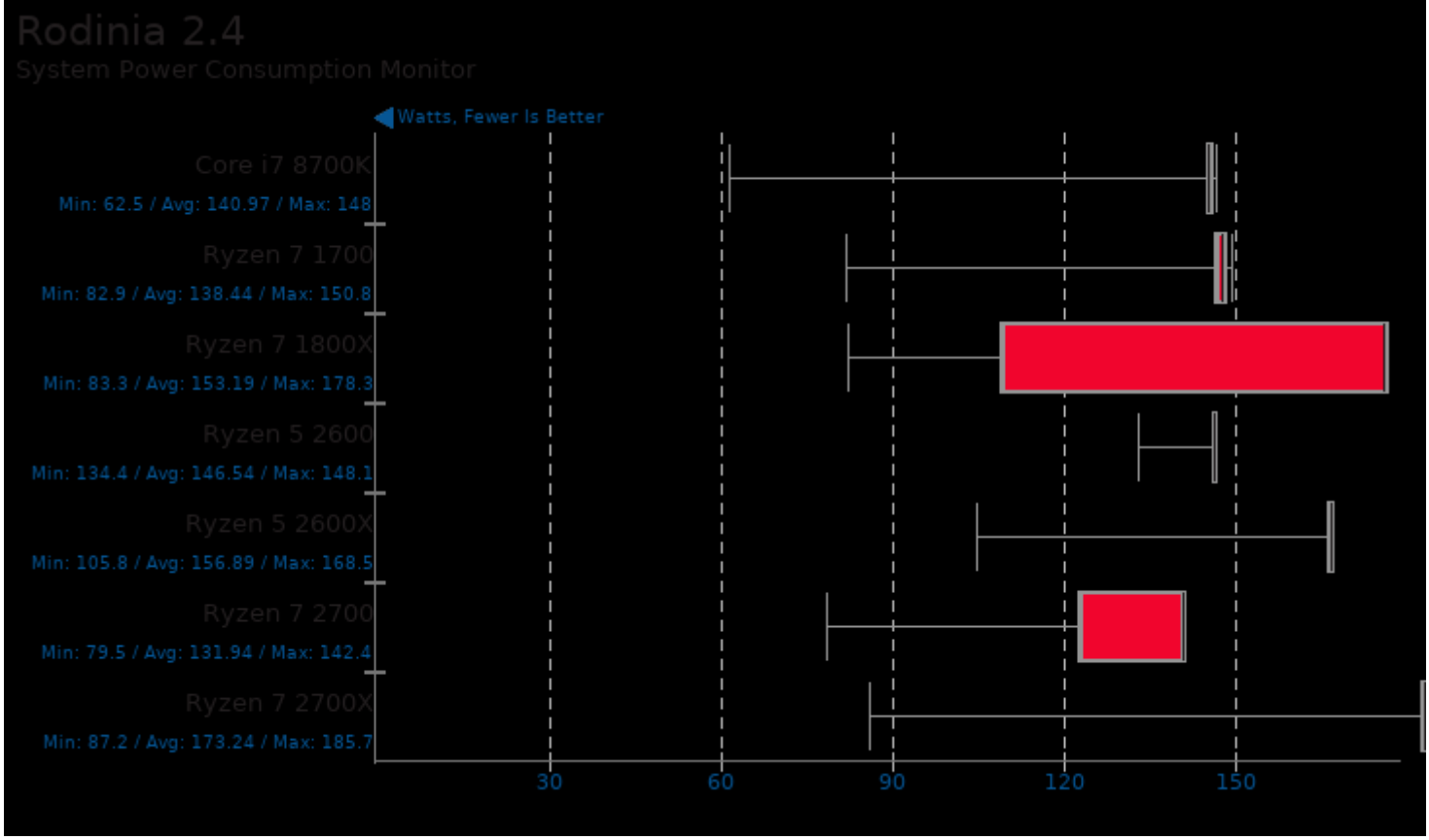

Xonotic 0.8.2
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 72.3 / Avg: 117.21 / Max: 135.1
Ryzen 7 1700
Min: 83.2 / Avg: 124.85 / Max: 145.6
Ryzen 7 1800X
Min: 85.6 / Avg: 138.23 / Max: 154.1
Ryzen 5 2600
Min: 83 / Avg: 126.7 / Max: 146.6
Ryzen 5 2600X
Min: 82.3 / Avg: 133.97 / Max: 162
Ryzen 7 2700
Min: 82.2 / Avg: 124.69 / Max: 144.3
Ryzen 7 2700X
Min: 112.8 / Avg: 151.71 / Max: 172.7
30
60
90
120
150

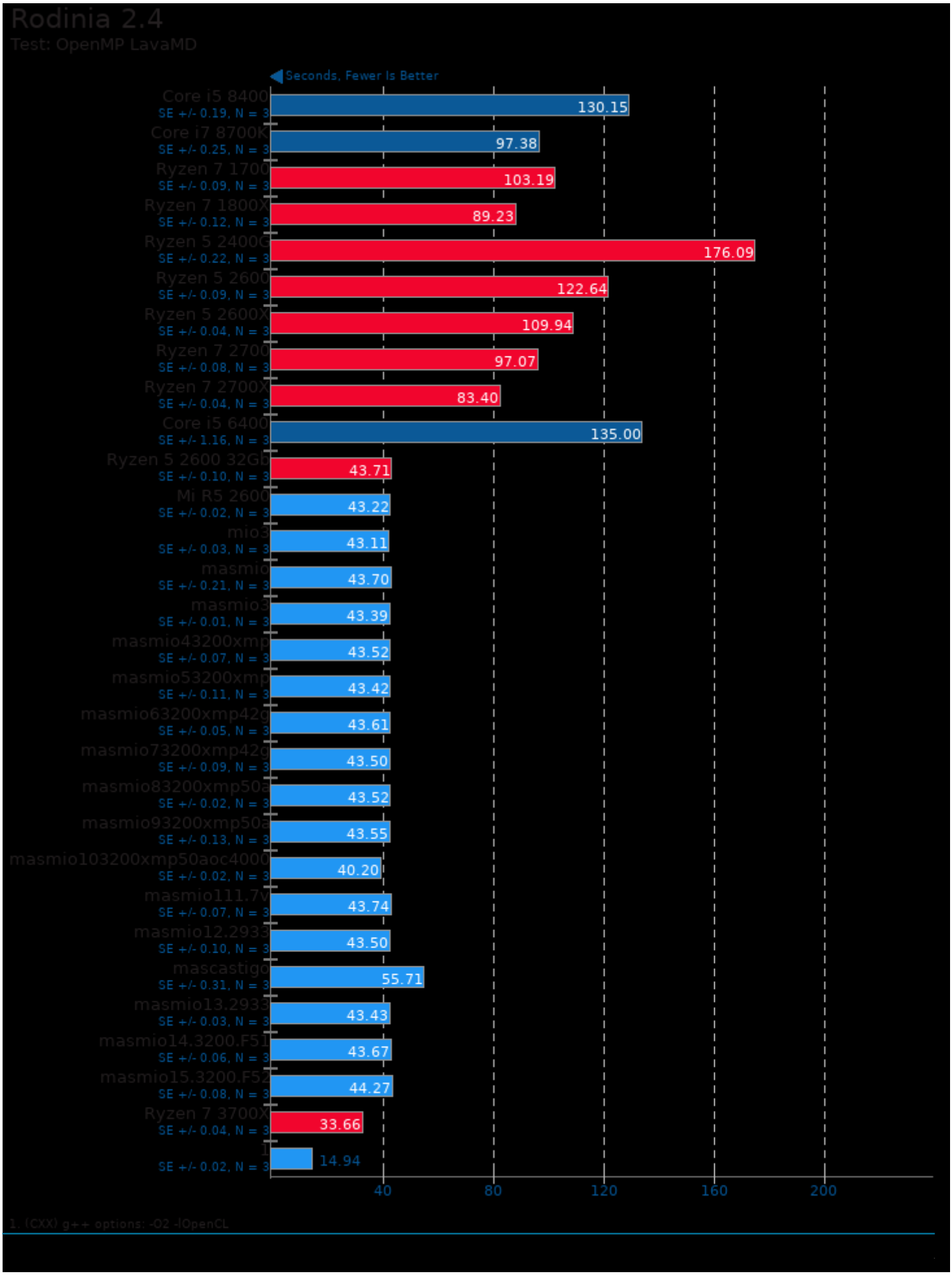

Blender 2.79a
Blend File: Barbershop - Compute: CPU-Only
Seconds, Fewer Is Better
Core i5 8400
2083.00
Core i7 8700K
1293.00
Ryzen 7 1700
1427.00
Ryzen 7 1800X
1256.00
Ryzen 5 2400G
2502.00
Ryzen 5 2600
1640.00
Ryzen 5 2600X
1493.00
Ryzen 7 2700
1303.00
Ryzen 7 2700X
1152.00
Ryzen 5 2600 32GB
1607.00
Mi R5 2600
1616.00
mio3
1604.00
masmio
1599.00
masmio3
1682.00
masmio43200xmp
1602.00
masmio53200xmp
1596.00
masmio63200xmp42
1605.00
masmio73200xmp42
1606.00
masmio83200xmp50a
1601.00
masmio93200xmp50a
1599.77
masmio103200xmp50aoc4000
1504.55
masmio111.7
1605.90
masmio12.2933
1619.21
mascastigo
2218.23
masmio13.2933
1622.22
masmio14.3200.F51
1611.37
masmio15.3200.F52
1590.13
Ryzen 7 3700X
1063.22
520.69
500
1000
1500
2000
2500

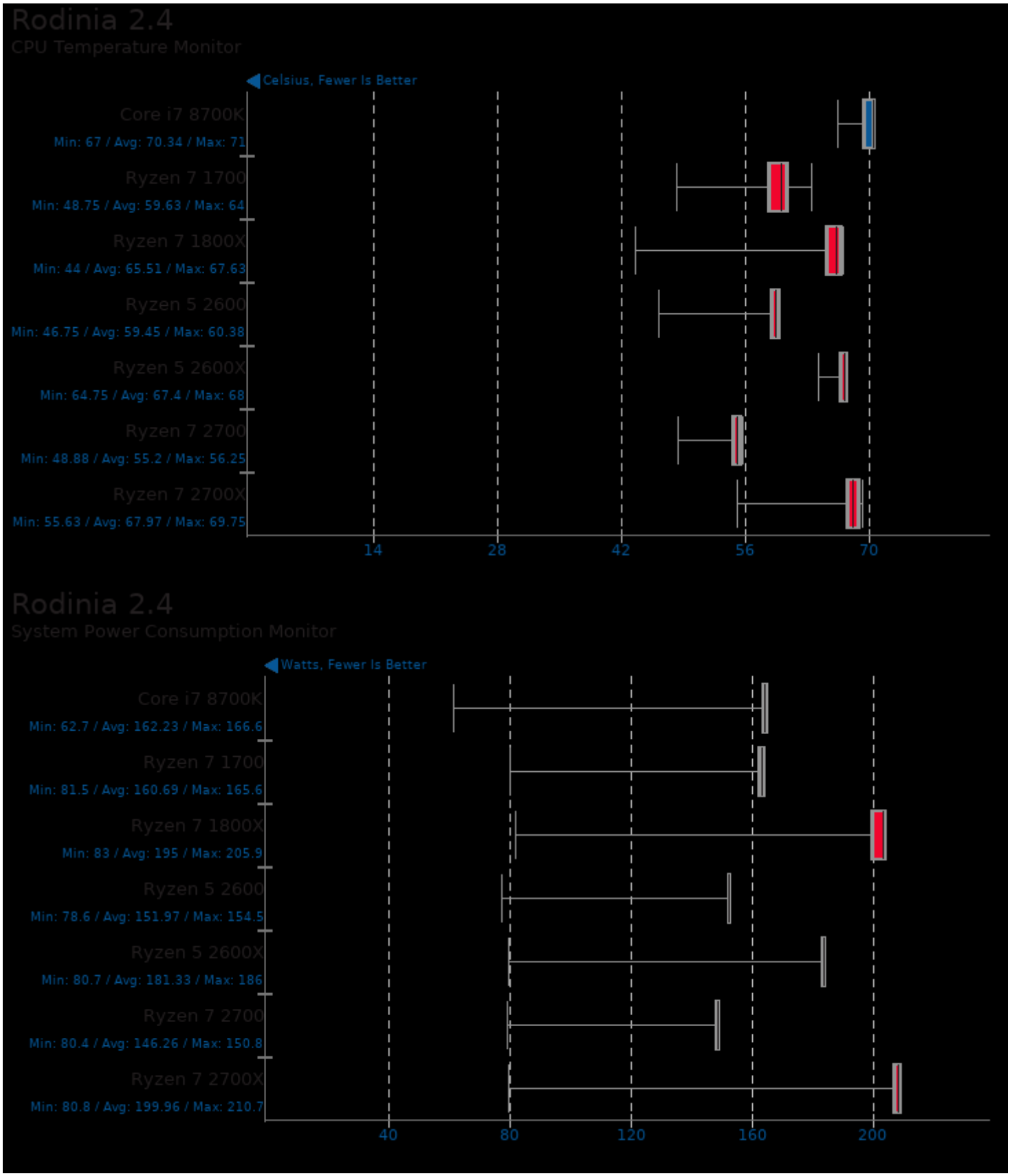

Blender 2.79a
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 30 / Avg: 66.74 / Max: 69
Ryzen 7 1700
Min: 46.63 / Avg: 59.48 / Max: 61.5
Ryzen 7 1800X
Min: 52.75 / Avg: 65.01 / Max: 66.75
Ryzen 5 2600
Min: 51.63 / Avg: 59.06 / Max: 59.88
Ryzen 5 2600X
Min: 51.63 / Avg: 66.1 / Max: 67.5
Ryzen 7 2700
Min: 49 / Avg: 55.49 / Max: 56
Ryzen 7 2700X
Min: 55.38 / Avg: 67.46 / Max: 68.5
13
26
39
52
65
Blender 2.79a
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 97.1 / Avg: 169.7 / Max: 174.3
Ryzen 7 1700
Min: 106.4 / Avg: 167.63 / Max: 170.9
Ryzen 7 1800X
Min: 114.7 / Avg: 204.02 / Max: 208.1
Ryzen 5 2600
Min: 81.9 / Avg: 157.44 / Max: 160.8
Ryzen 5 2600X
Min: 81.4 / Avg: 186.21 / Max: 191.2
Ryzen 7 2700
Min: 82.3 / Avg: 154.61 / Max: 157.4
Ryzen 7 2700X
Min: 113.6 / Avg: 210.82 / Max: 214.8
40
80
120
160
200

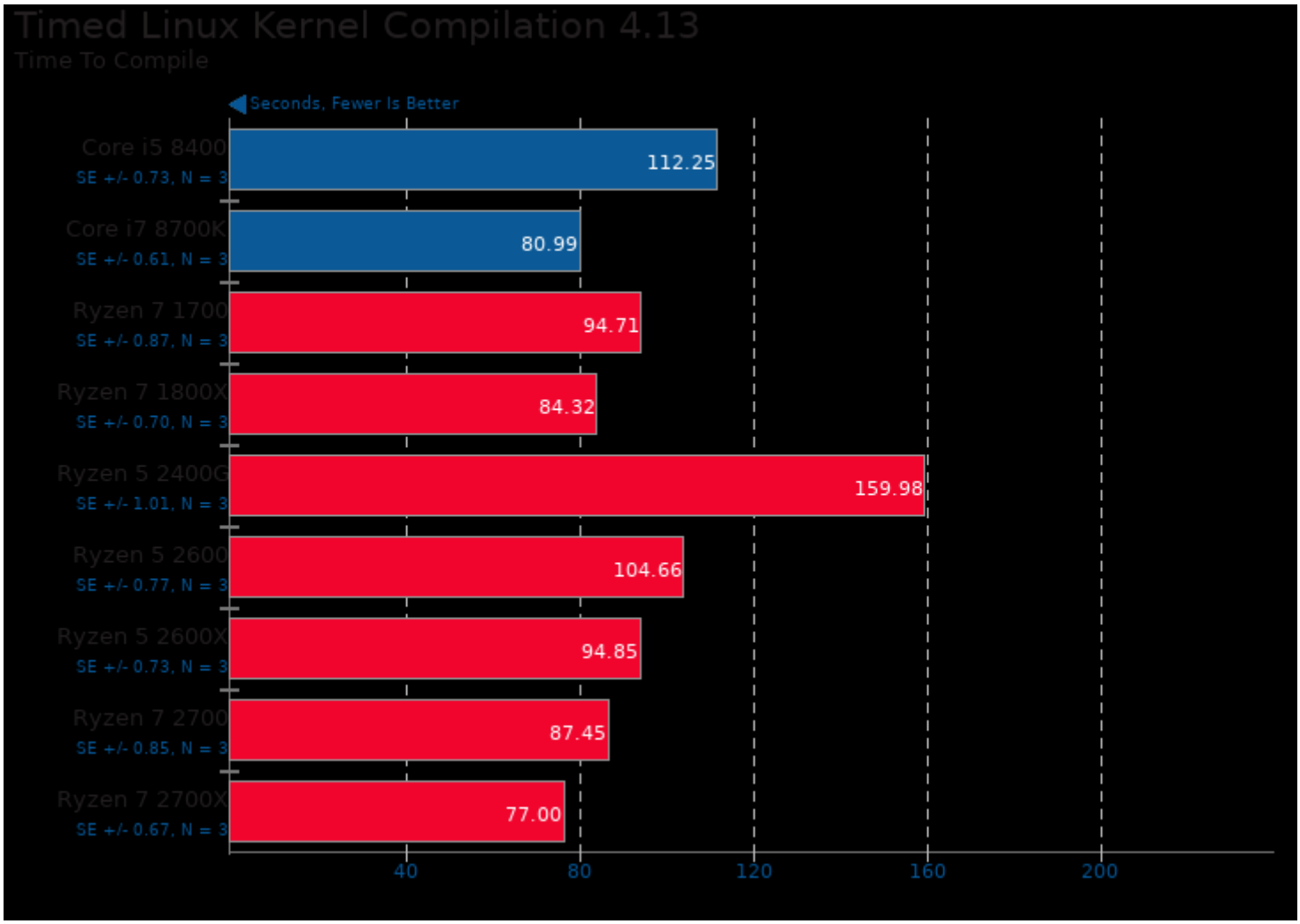

Rodinia 2.4
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.02, N = 3
35.98
Core i7 8700K
SE +/- 0.02, N = 3
29.04
Ryzen 7 1700
SE +/- 1.03, N = 3
34.92
Ryzen 7 1800X
SE +/- 0.08, N = 3
28.52
Ryzen 5 2400G
SE +/- 0.14, N = 3
45.91
Ryzen 5 2600
SE +/- 0.04, N = 3
32.70
Ryzen 5 2600X
SE +/- 0.05, N = 3
31.17
Ryzen 7 2700
SE +/- 0.08, N = 3
29.28
Ryzen 7 2700X
SE +/- 0.07, N = 3
27.22
Core i5 6400
SE +/- 1.73, N = 3
105.79
Ryzen 5 2600 32GB
SE +/- 0.03, N = 3
30.52
Mi R5 2600
SE +/- 0.05, N = 3
31.11
mio3
SE +/- 0.02, N = 3
30.75
masmio
SE +/- 0.03, N = 3
30.98
masmio3
SE +/- 0.29, N = 3
35.65
masmio43200xmp
SE +/- 0.02, N = 3
30.62
masmio53200xmp
SE +/- 0.02, N = 3
30.73
masmio63200xmp420
SE +/- 0.06, N = 3
30.66
masmio73200xmp420
SE +/- 0.03, N = 3
30.73
masmio83200xmp50a
SE +/- 0.05, N = 3
30.71
masmio93200xmp50a
SE +/- 0.01, N = 3
30.75
masmio103200xmp50aoc4000
SE +/- 0.06, N = 3
29.29
masmio111.7V
SE +/- 0.08, N = 3
31.03
masmio12.2933
SE +/- 0.02, N = 3
31.91
mascastig0
SE +/- 0.27, N = 3
83.30
masmio13.2933
SE +/- 0.04, N = 3
31.80
masmio14.3200.F51
SE +/- 0.03, N = 3
31.12
masmio15.3200.F52
SE +/- 0.04, N = 3
30.30
Ryzen 7 3700X
SE +/- 0.03, N = 3
25.18
1
SE +/- 0.04, N = 3
12.73
20
40
60
80
100
1. (CXX) g++ options: -O2 -lOpenCL

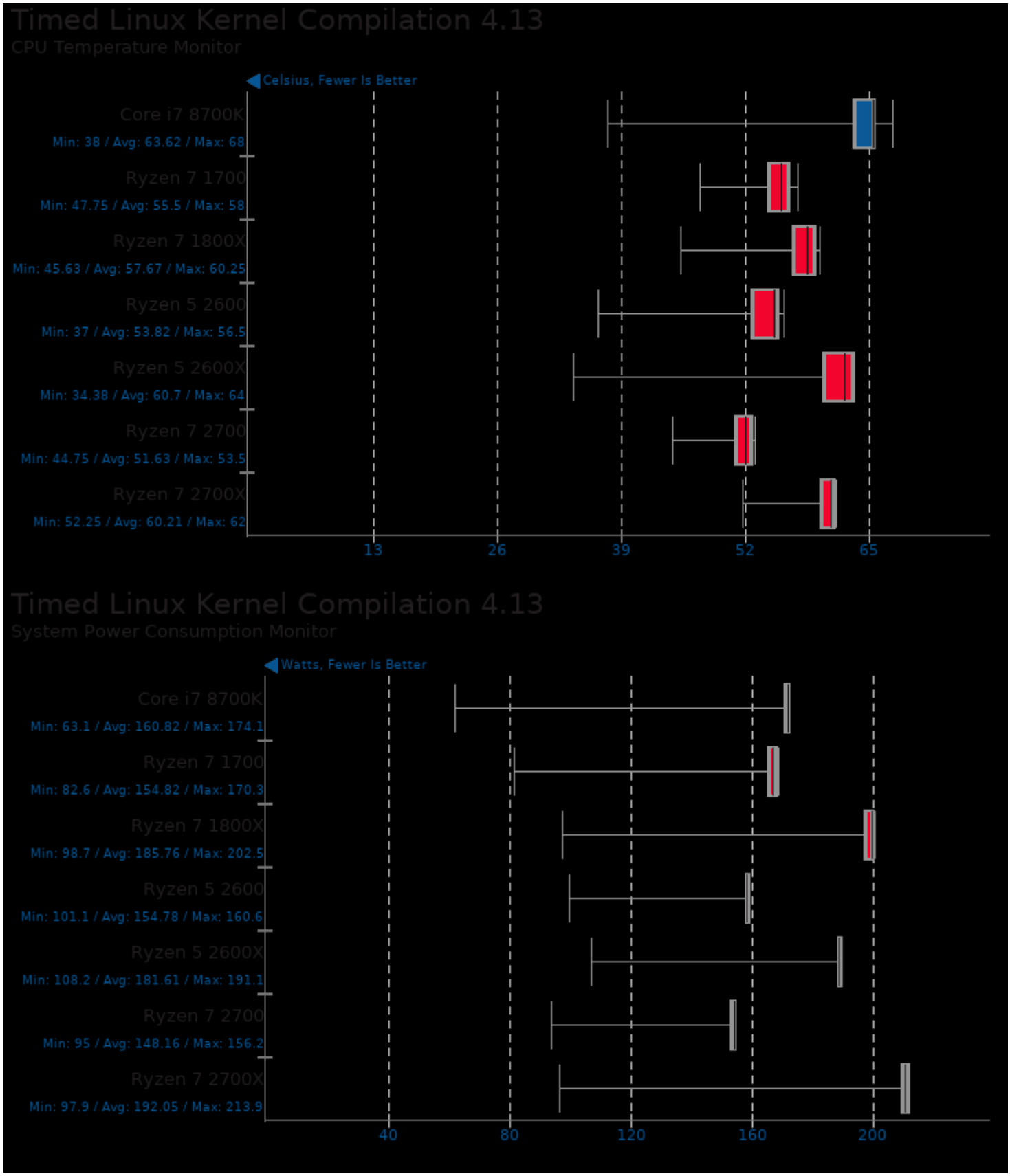

Rodinia 2.4
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 37 / Avg: 55.79 / Max: 59
Ryzen 7 1700
Min: 50 / Avg: 52.74 / Max: 53.88
Ryzen 7 1800X
Min: 48.75 / Avg: 54.38 / Max: 55.75
Ryzen 5 2600
Min: 51.5 / Avg: 53.86 / Max: 54.75
Ryzen 5 2600X
Min: 53.75 / Avg: 57.9 / Max: 60.25
Ryzen 7 2700
Min: 49.63 / Avg: 49.81 / Max: 50.13
Ryzen 7 2700X
Min: 55.63 / Avg: 58.29 / Max: 59.38
12
24
36
48
60

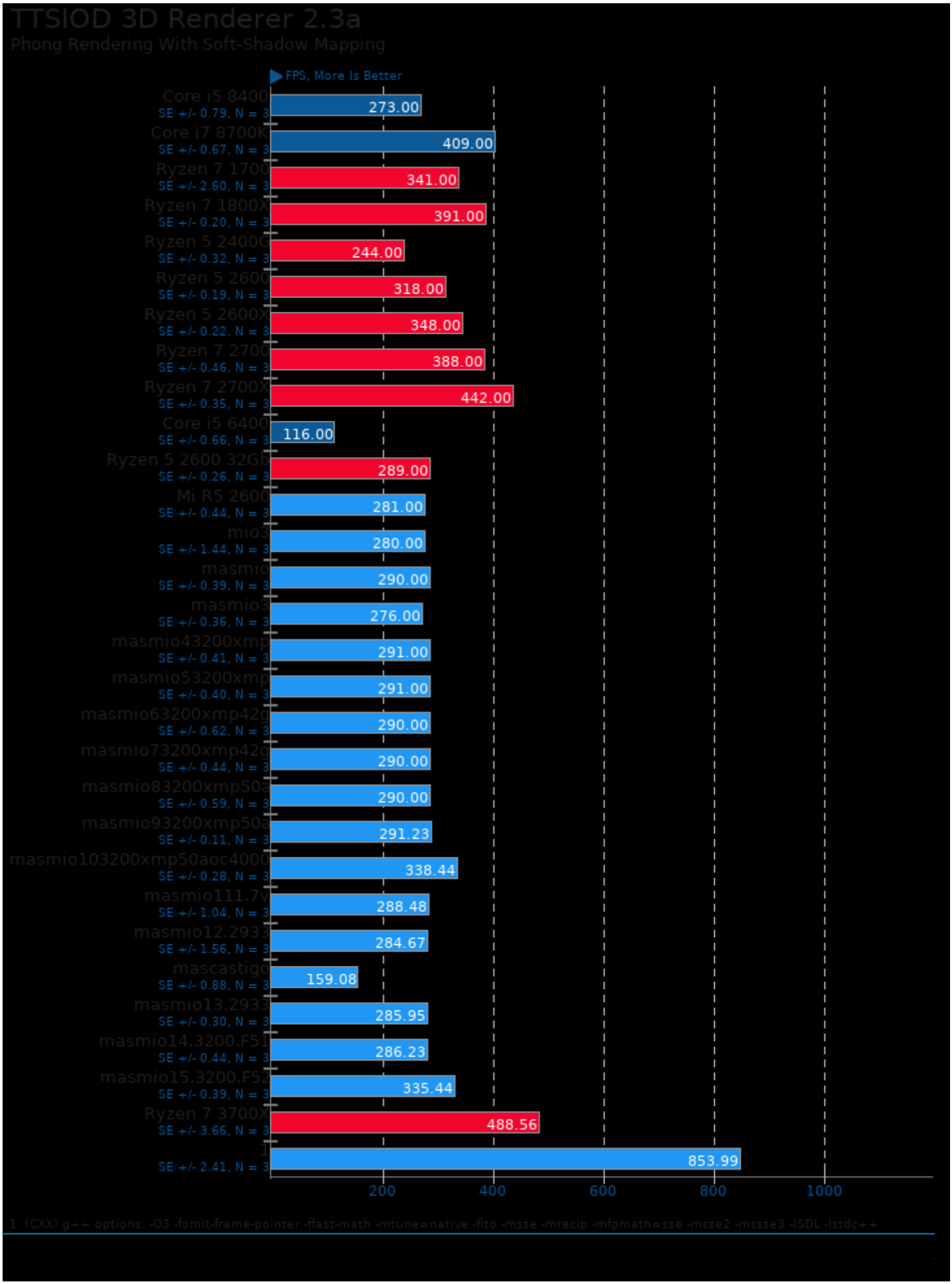

Rodinia 2.4
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.5 / Avg: 140.97 / Max: 148
Ryzen 7 1700
Min: 82.9 / Avg: 138.44 / Max: 150.8
Ryzen 7 1800X
Min: 83.3 / Avg: 153.19 / Max: 178.3
Ryzen 5 2600
Min: 134.4 / Avg: 146.54 / Max: 148.1
Ryzen 5 2600X
Min: 105.8 / Avg: 156.89 / Max: 168.5
Ryzen 7 2700
Min: 79.5 / Avg: 131.94 / Max: 142.4
Ryzen 7 2700X
Min: 87.2 / Avg: 173.24 / Max: 185.7
30
60
90
120
150

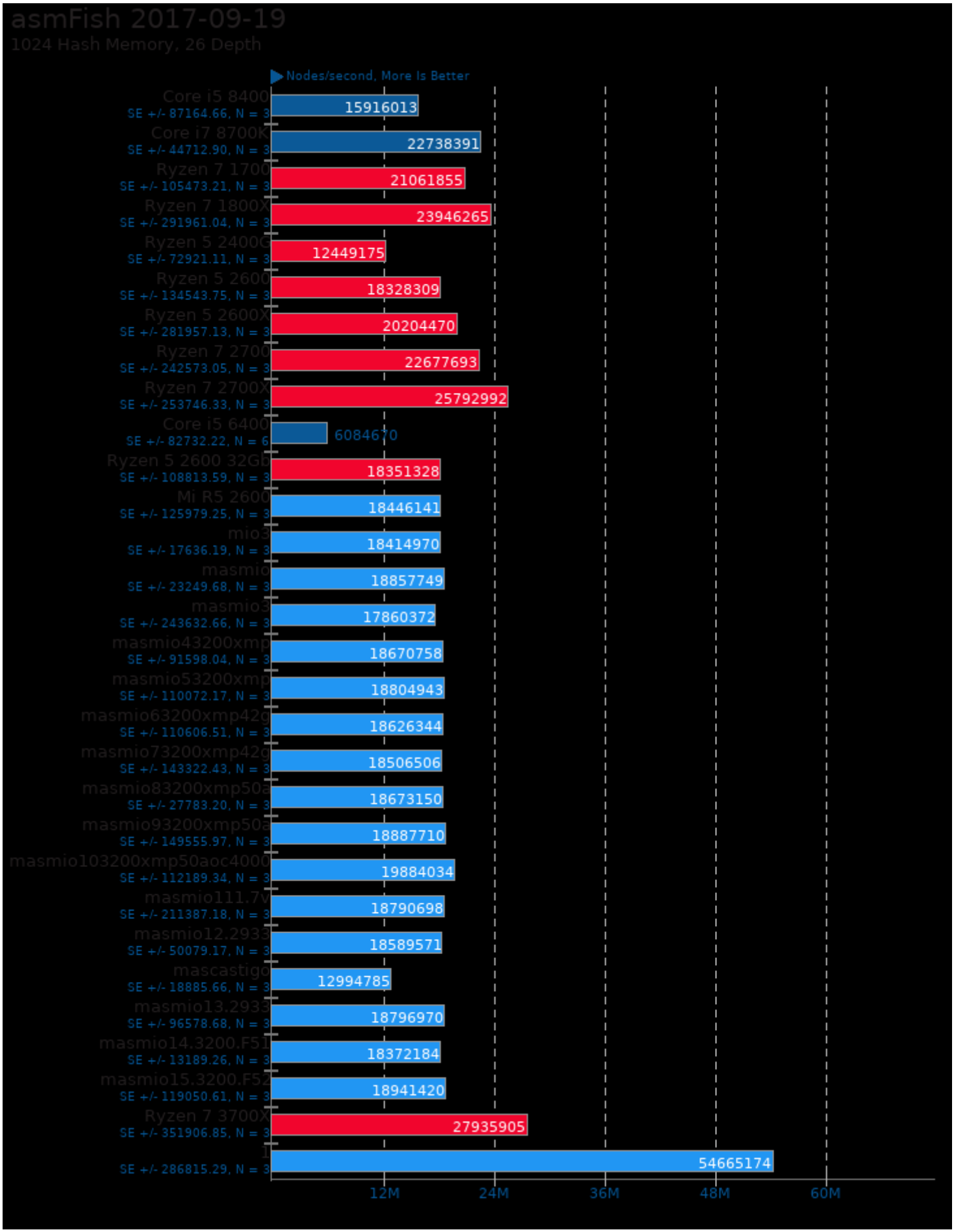

Rodinia 2.4
Test: OpenMP LavaMD
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.19, N = 3
130.15
Core i7 8700K
SE +/- 0.25, N = 3
97.38
Ryzen 7 1700
SE +/- 0.09, N = 3
103.19
Ryzen 7 1800X
SE +/- 0.12, N = 3
89.23
Ryzen 5 2400G
SE +/- 0.22, N = 3
176.09
Ryzen 5 2600
SE +/- 0.09, N = 3
122.64
Ryzen 5 2600X
SE +/- 0.04, N = 3
109.94
Ryzen 7 2700
SE +/- 0.08, N = 3
97.07
Ryzen 7 2700X
SE +/- 0.04, N = 3
83.40
Core i5 6400
SE +/- 1.16, N = 3
135.00
Ryzen 5 2600 32GB
SE +/- 0.10, N = 3
43.71
Mi R5 2600
SE +/- 0.02, N = 3
43.22
mio3
SE +/- 0.03, N = 3
43.11
masmio
SE +/- 0.21, N = 3
43.70
masmio3
SE +/- 0.01, N = 3
43.39
masmio43200xmp
SE +/- 0.07, N = 3
43.52
masmio53200xmp
SE +/- 0.11, N = 3
43.42
masmio63200xmp420
SE +/- 0.05, N = 3
43.61
masmio73200xmp420
SE +/- 0.09, N = 3
43.50
masmio83200xmp50a
SE +/- 0.02, N = 3
43.52
masmio93200xmp50a
SE +/- 0.13, N = 3
43.55
masmio103200xmp50aoc4000
SE +/- 0.02, N = 3
40.20
masmio111.7V
SE +/- 0.07, N = 3
43.74
masmio12.2933
SE +/- 0.10, N = 3
43.50
mascastig0
SE +/- 0.31, N = 3
55.71
masmio13.2933
SE +/- 0.03, N = 3
43.43
masmio14.3200.F51
SE +/- 0.06, N = 3
43.67
masmio15.3200.F52
SE +/- 0.08, N = 3
44.27
Ryzen 7 3700X
SE +/- 0.04, N = 3
33.66
SE +/- 0.02, N = 3
14.94
40
80
120
160
200
1. (CXX) g++ options: -O2 -lOpenCL

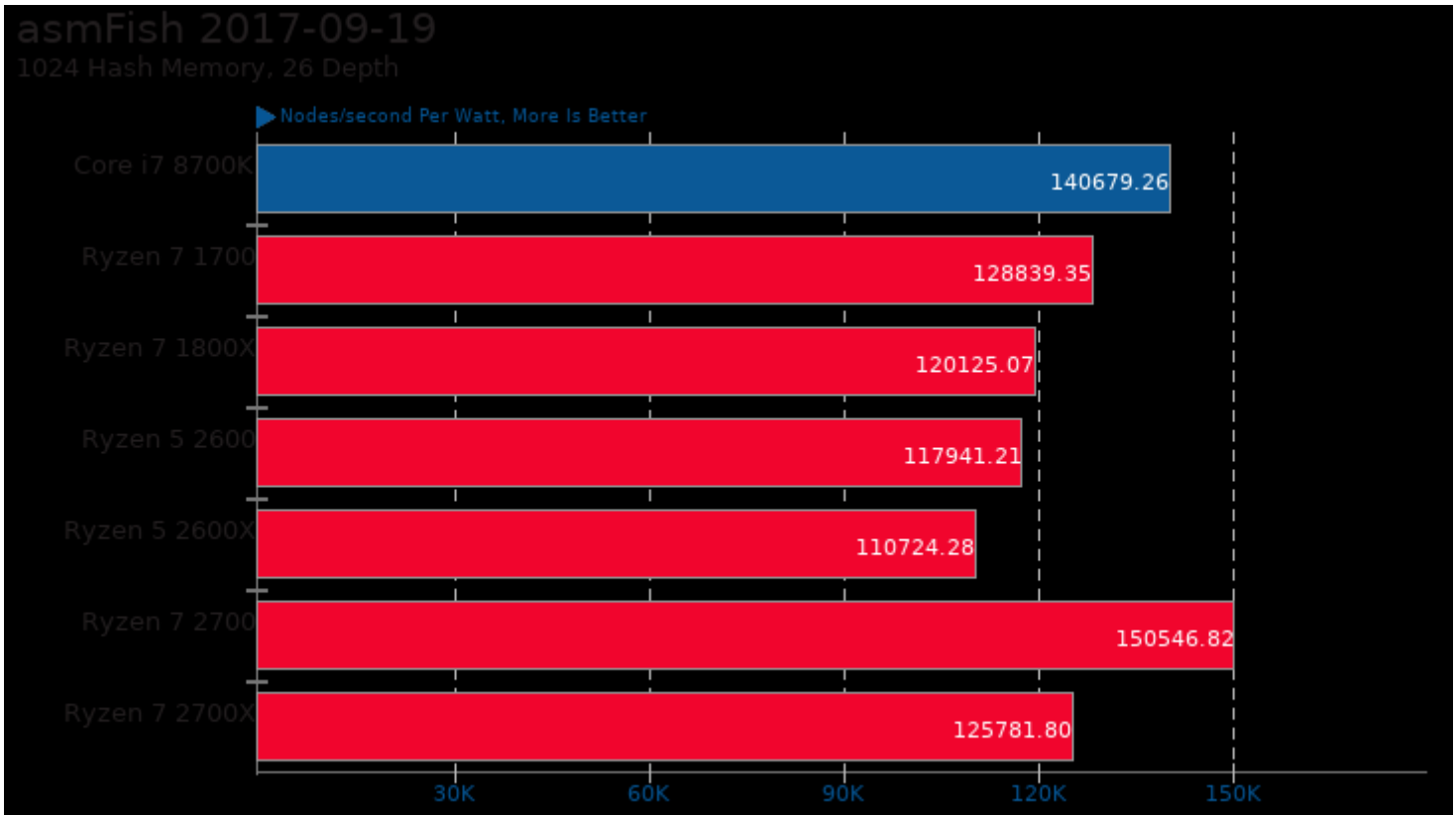

Rodinia 2.4
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 67 / Avg: 70.34 / Max: 71
Ryzen 7 1700
Min: 48.75 / Avg: 59.63 / Max: 64
Ryzen 7 1800X
Min: 44 / Avg: 65.51 / Max: 67.63
Ryzen 5 2600
Min: 46.75 / Avg: 59.45 / Max: 60.38
Ryzen 5 2600X
Min: 64.75 / Avg: 67.4 / Max: 68
Ryzen 7 2700
Min: 48.88 / Avg: 55.2 / Max: 56.25
Ryzen 7 2700X
Min: 55.63 / Avg: 67.97 / Max: 69.75
14
28
42
56
70
Rodinia 2.4
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.7 / Avg: 162.23 / Max: 166.6
Ryzen 7 1700
Min: 81.5 / Avg: 160.69 / Max: 165.6
Ryzen 7 1800X
Min: 83 / Avg: 195 / Max: 205.9
Ryzen 5 2600
Min: 78.6 / Avg: 151.97 / Max: 154.5
Ryzen 5 2600X
Min: 80.7 / Avg: 181.33 / Max: 186
Ryzen 7 2700
Min: 80.4 / Avg: 146.26 / Max: 150.8
Ryzen 7 2700X
Min: 80.8 / Avg: 199.96 / Max: 210.7
40
80
120
160
200

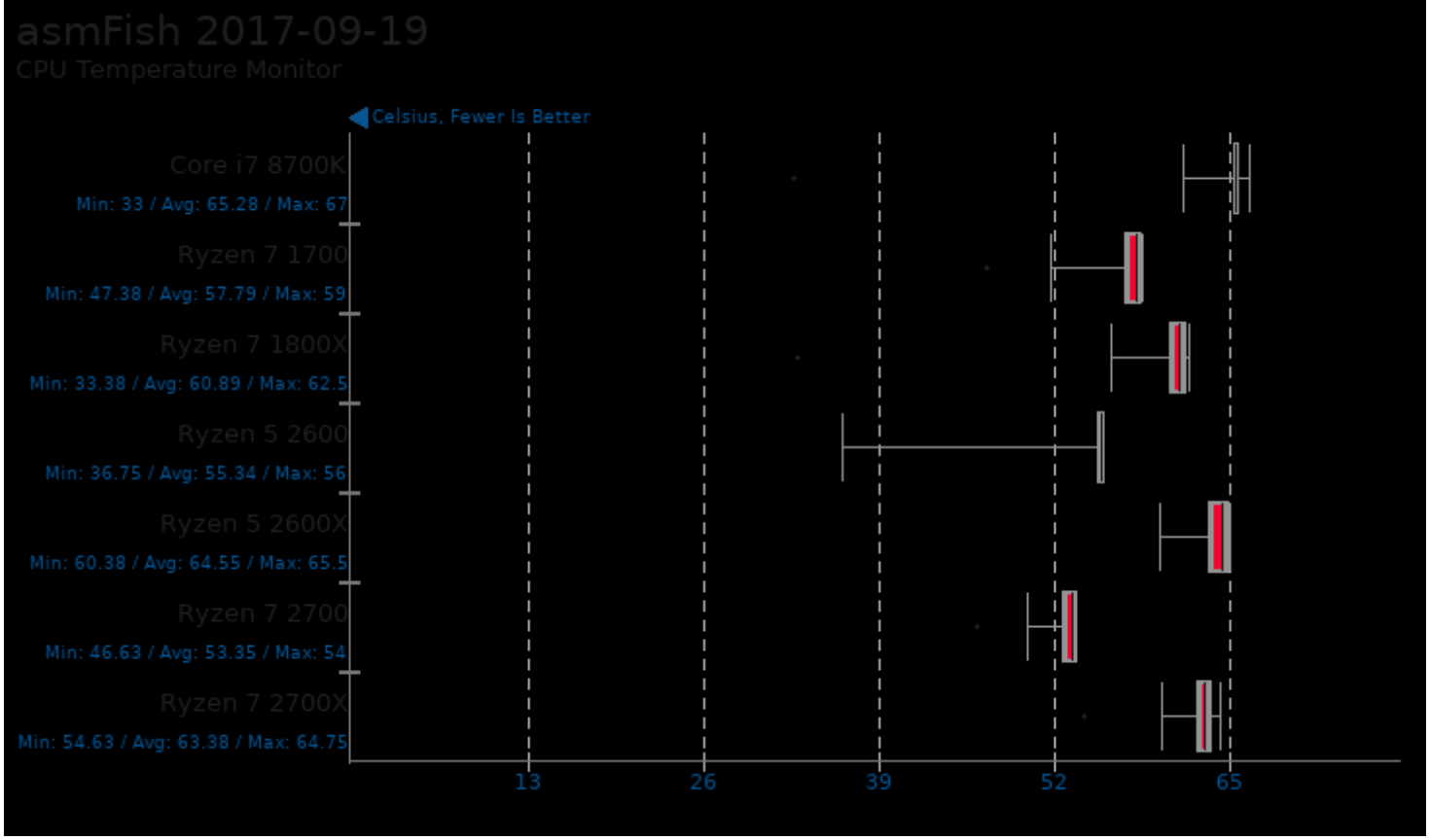

Timed Linux Kernel Compilation 4.13
Time To Compile
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.73, N = 3
112.25
Core i7 8700K
SE +/- 0.61, N = 3
80.99
Ryzen 7 1700
SE +/- 0.87, N = 3
94.71
Ryzen 7 1800X
SE +/- 0.70, N = 3
84.32
Ryzen 5 2400G
SE +/- 1.01, N = 3
159.98
Ryzen 5 2600
SE +/- 0.77, N = 3
104.66
Ryzen 5 2600X
SE +/- 0.73, N = 3
94.85
Ryzen 7 2700
SE +/- 0.85, N = 3
87.45
Ryzen 7 2700X
SE +/- 0.67, N = 3
77.00
40
80
120
160
200

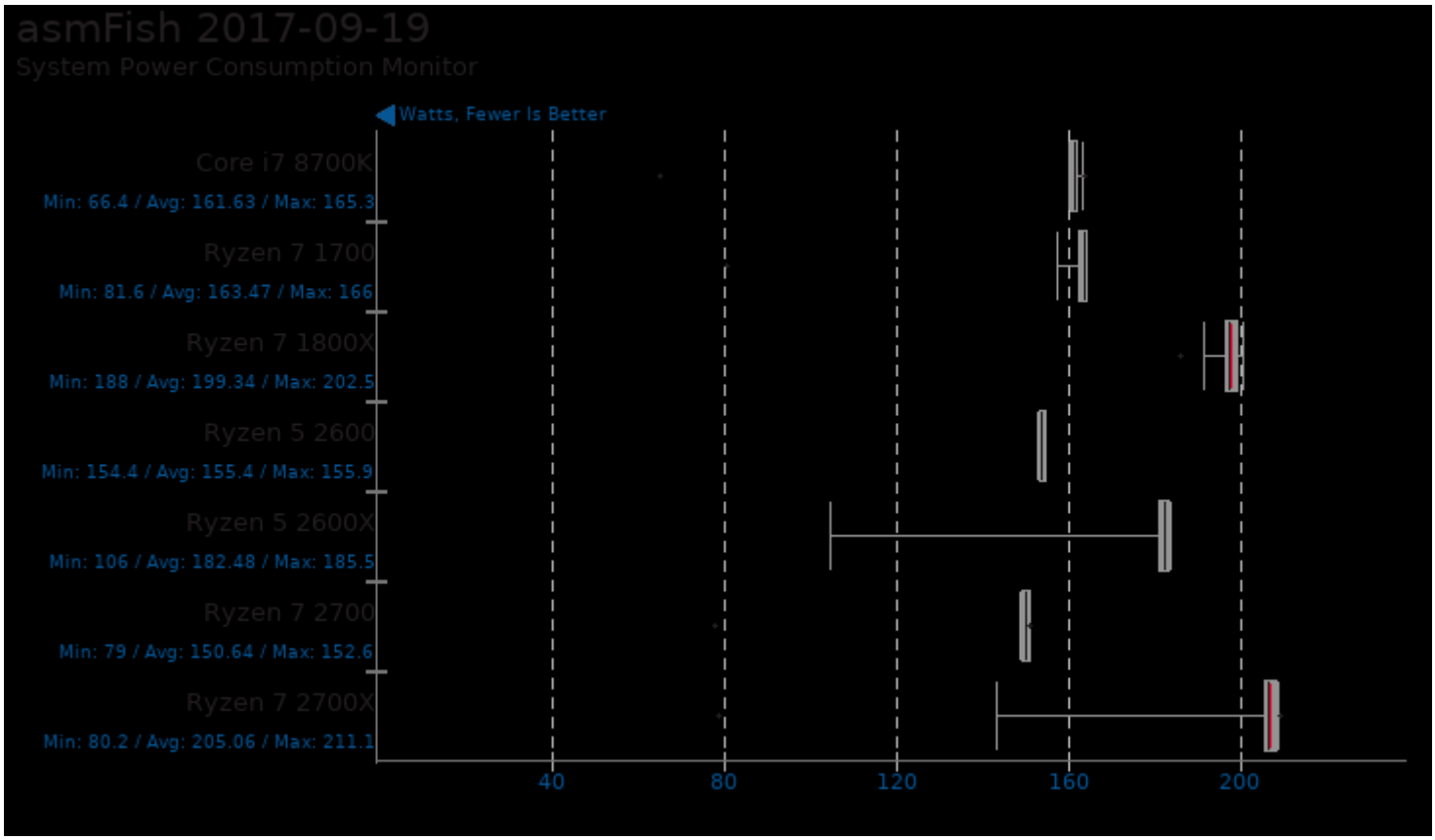

Timed Linux Kernel Compilation 4.13
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 38 / Avg: 63.62 / Max: 68
Ryzen 7 1700
Min: 47.75 / Avg: 55.5 / Max: 58
Ryzen 7 1800X
Min: 45.63 / Avg: 57.67 / Max: 60.25
Ryzen 5 2600
Min: 37 / Avg: 53.82 / Max: 56.5
Ryzen 5 2600X
Min: 34.38 / Avg: 60.7 / Max: 64
Ryzen 7 2700
Min: 44.75 / Avg: 51.63 / Max: 53.5
Ryzen 7 2700X
Min: 52.25 / Avg: 60.21 / Max: 62
13
26
39
52
65
Timed Linux Kernel Compilation 4.13
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 63.1 / Avg: 160.82 / Max: 174.1
Ryzen 7 1700
Min: 82.6 / Avg: 154.82 / Max: 170.3
Ryzen 7 1800X
Min: 98.7 / Avg: 185.76 / Max: 202.5
Ryzen 5 2600
Min: 101.1 / Avg: 154.78 / Max: 160.6
Ryzen 5 2600X
Min: 108.2 / Avg: 181.61 / Max: 191.1
Ryzen 7 2700
Min: 95 / Avg: 148.16 / Max: 156.2
Ryzen 7 2700X
Min: 97.9 / Avg: 192.05 / Max: 213.9
40
80
120
160
200

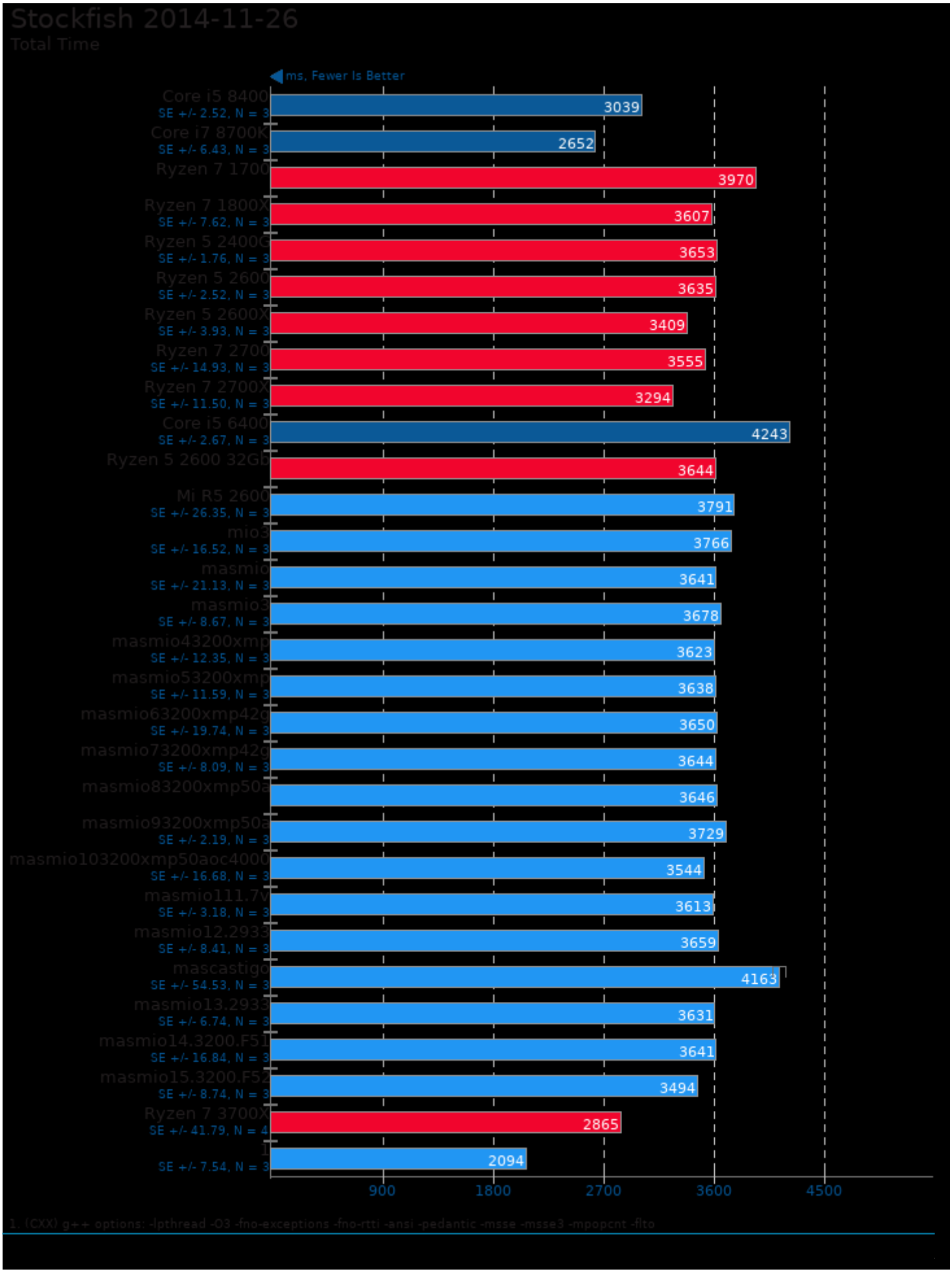

TTSIOD 3D Renderer 2.3a
Phong Rendering With Soft-Shadow Mapping
FPS, More Is Better
Core i5 8400
SE +/- 0.79, N = 3
273.00
Core i7 8700K
SE +/- 0.67, N = 3
409.00
Ryzen 7 1700
SE +/- 2.60, N = 3
341.00
Ryzen 7 1800X
SE +/- 0.20, N = 3
391.00
Ryzen 5 2400G
SE +/- 0.32, N = 3
244.00
Ryzen 5 2600
SE +/- 0.19, N = 3
318.00
Ryzen 5 2600X
SE +/- 0.22, N = 3
348.00
Ryzen 7 2700
SE +/- 0.46, N = 3
388.00
Ryzen 7 2700X
SE +/- 0.35, N = 3
442.00
Core i5 6400
SE +/- 0.66, N = 3
116.00
Ryzen 5 2600 32GB
SE +/- 0.26, N = 3
289.00
Mi R5 2600
SE +/- 0.44, N = 3
281.00
mio3
SE +/- 1.44, N = 3
280.00
masmio
SE +/- 0.39, N = 3
290.00
masmio3
SE +/- 0.36, N = 3
276.00
masmio43200xmp
SE +/- 0.41, N = 3
291.00
masmio53200xmp
SE +/- 0.40, N = 3
291.00
masmio63200xmp420
SE +/- 0.62, N = 3
290.00
masmio73200xmp420
SE +/- 0.44, N = 3
290.00
masmio83200xmp50a
SE +/- 0.59, N = 3
290.00
masmio93200xmp50a
SE +/- 0.11, N = 3
291.23
masmio103200xmp50aoc4000
SE +/- 0.28, N = 3
338.44
masmio111.7V
SE +/- 1.04, N = 3
288.48
masmio12.2933
SE +/- 1.56, N = 3
284.67
mascastig0
SE +/- 0.88, N = 3
159.08
masmio13.2933
SE +/- 0.30, N = 3
285.95
masmio14.3200.F51
SE +/- 0.44, N = 3
286.23
masmio15.3200.F52
SE +/- 0.39, N = 3
335.44
Ryzen 7 3700X
SE +/- 3.66, N = 3
488.56
1
SE +/- 2.41, N = 3
853.99
200
400
600
800
1000
1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -flto -msse -mrecip -mfpmath=sse -msse2 -mssse3 -lSDL -lstdc++

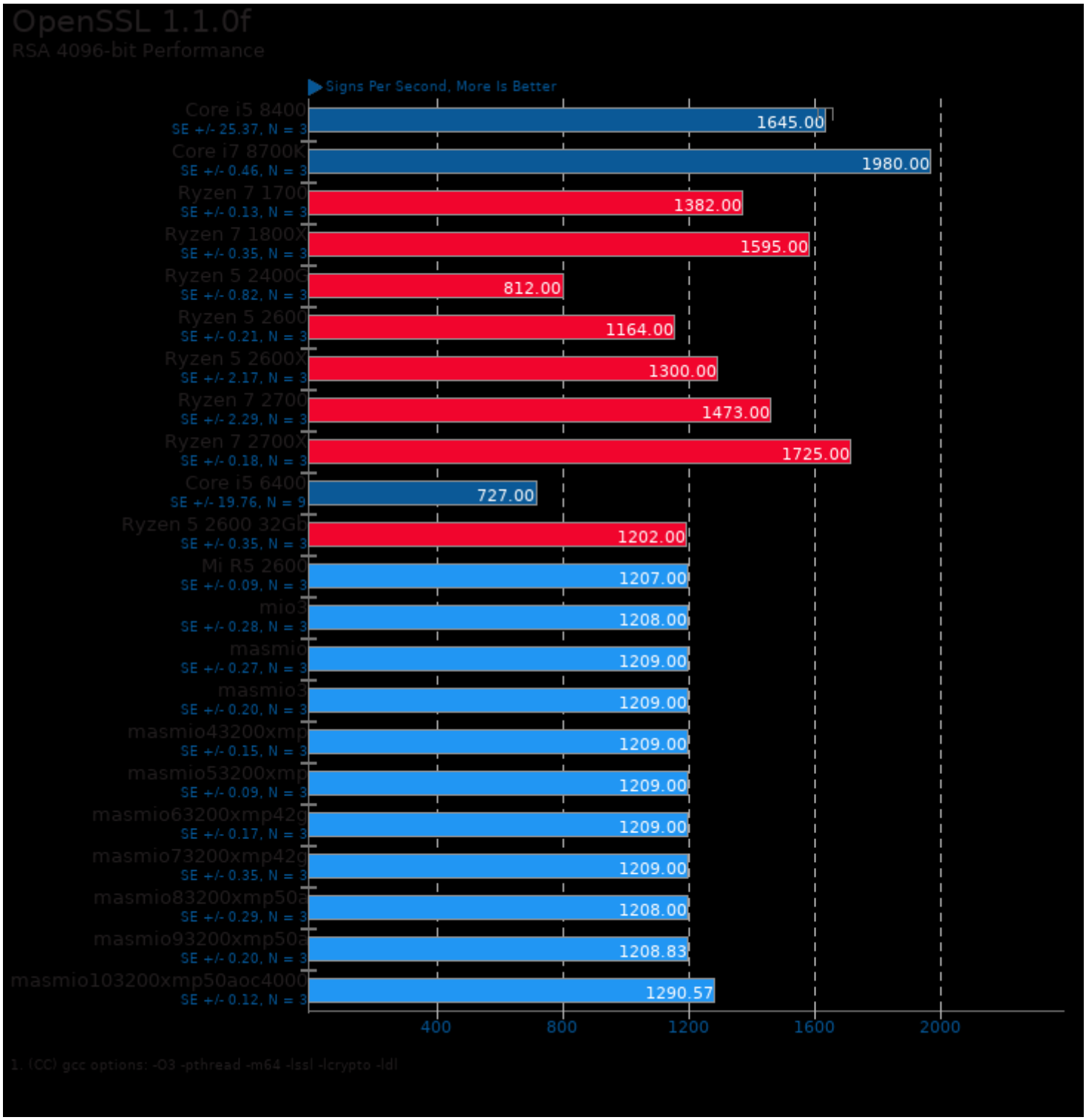

asmFish 2017-09-19
1024 Hash Memory, 26 Depth
Nodes/second, More Is Better
Core i5 8400
SE +/- 87164.66, N = 3
15916013
Core i7 8700K
SE +/- 44712.90, N = 3
22738391
Ryzen 7 1700
SE +/- 105473.21, N = 3
21061855
Ryzen 7 1800X
SE +/- 291961.04, N = 3
23946265
Ryzen 5 2400G
SE +/- 72921.11, N = 3
12449175
Ryzen 5 2600
SE +/- 134543.75, N = 3
18328309
Ryzen 5 2600X
SE +/- 281957.13, N = 3
20204470
Ryzen 7 2700
SE +/- 242573.05, N = 3
22677693
Ryzen 7 2700X
SE +/- 253746.33, N = 3
25792992
Core i5 6400
SE +/- 82732.22, N = 6
6084670
Ryzen 5 2600 32GB
SE +/- 108813.59, N = 3
18351328
Mi R5 2600
SE +/- 125979.25, N = 3
18446141
mio3
SE +/- 17636.19, N = 3
18414970
masmi0
SE +/- 23249.68, N = 3
18857749
masmio3
SE +/- 243632.66, N = 3
17860372
masmio43200xmp
SE +/- 91598.04, N = 3
18670758
masmio53200xmp
SE +/- 110072.17, N = 3
18804943
masmio63200xmp420
SE +/- 110606.51, N = 3
18626344
masmio73200xmp420
SE +/- 143322.43, N = 3
18506506
masmio83200xmp50a
SE +/- 27783.20, N = 3
18673150
masmio93200xmp50a
SE +/- 149555.97, N = 3
18887710
masmio103200xmp50aoc4000
SE +/- 112189.34, N = 3
19884034
masmio111.7v
SE +/- 211387.18, N = 3
18790698
masmio12.2933
SE +/- 50079.17, N = 3
18589571
mascastig0
SE +/- 18885.66, N = 3
12994785
masmio13.2933
SE +/- 96578.68, N = 3
18796970
masmio14.3200.F51
SE +/- 13189.26, N = 3
18372184
masmio15.3200.F52
SE +/- 119050.61, N = 3
18941420
Ryzen 7 3700X
SE +/- 351906.85, N = 3
27935905
SE +/- 286815.29, N = 3
54665174
12M
24M
36M
48M
60M

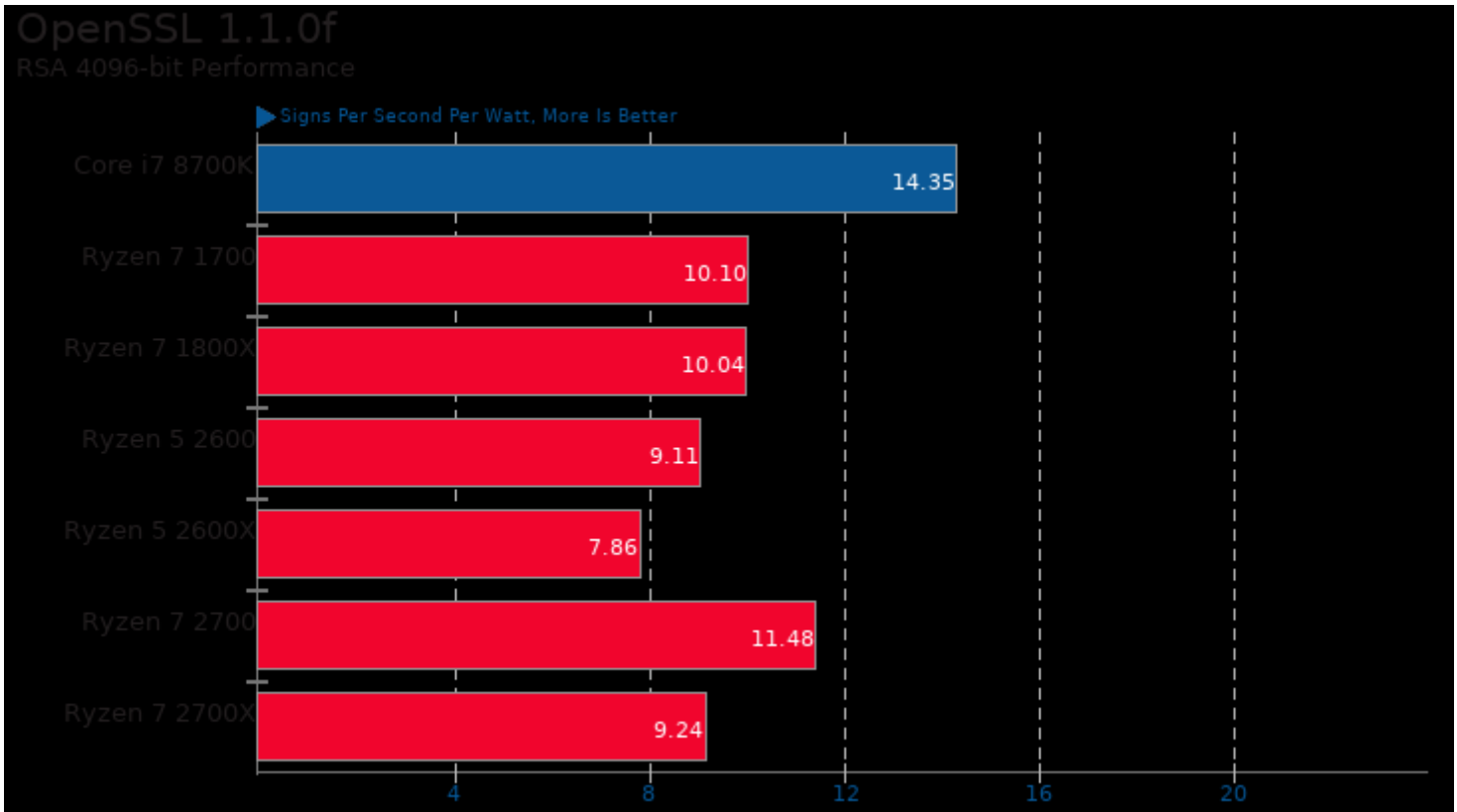

asmFish 2017-09-19
1024 Hash Memory, 26 Depth
Nodes/second Per Watt, More Is Better
Core i7 8700K
140679.26
Ryzen 7 1700
128839.35
Ryzen 7 1800X
120125.07
Ryzen 5 2600
117941.21
Ryzen 5 2600X
110724.28
Ryzen 7 2700
150546.82
Ryzen 7 2700X
125781.80
30K
60K
90K
120K
150K

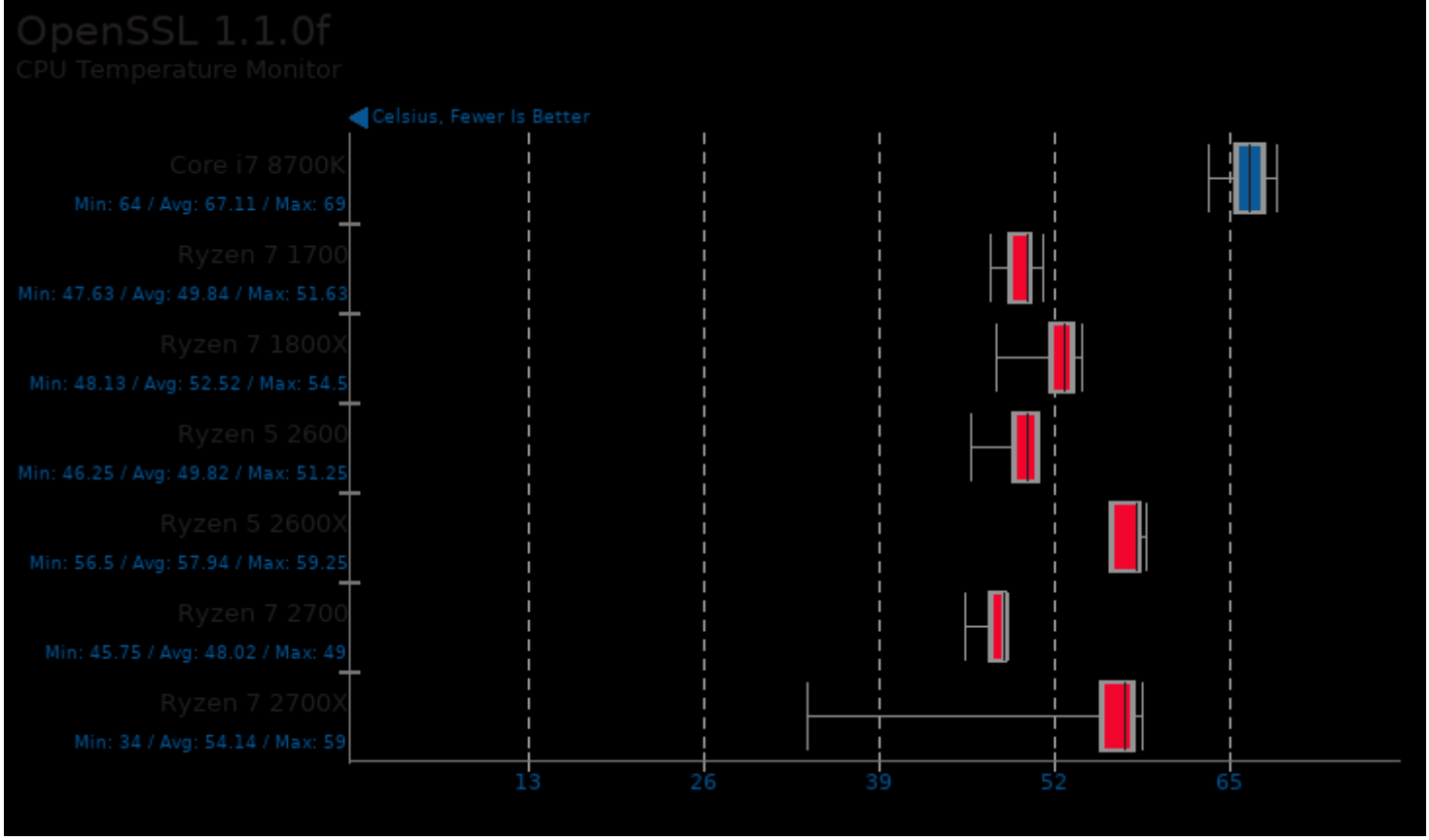

asmFish 2017-09-19
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 33 / Avg: 65.28 / Max: 67
Ryzen 7 1700
Min: 47.38 / Avg: 57.79 / Max: 59
Ryzen 7 1800X
Min: 33.38 / Avg: 60.89 / Max: 62.5
Ryzen 5 2600
Min: 36.75 / Avg: 55.34 / Max: 56
Ryzen 5 2600X
Min: 60.38 / Avg: 64.55 / Max: 65.5
Ryzen 7 2700
Min: 46.63 / Avg: 53.35 / Max: 54
Ryzen 7 2700X
Min: 54.63 / Avg: 63.38 / Max: 64.75
13
26
39
52
65

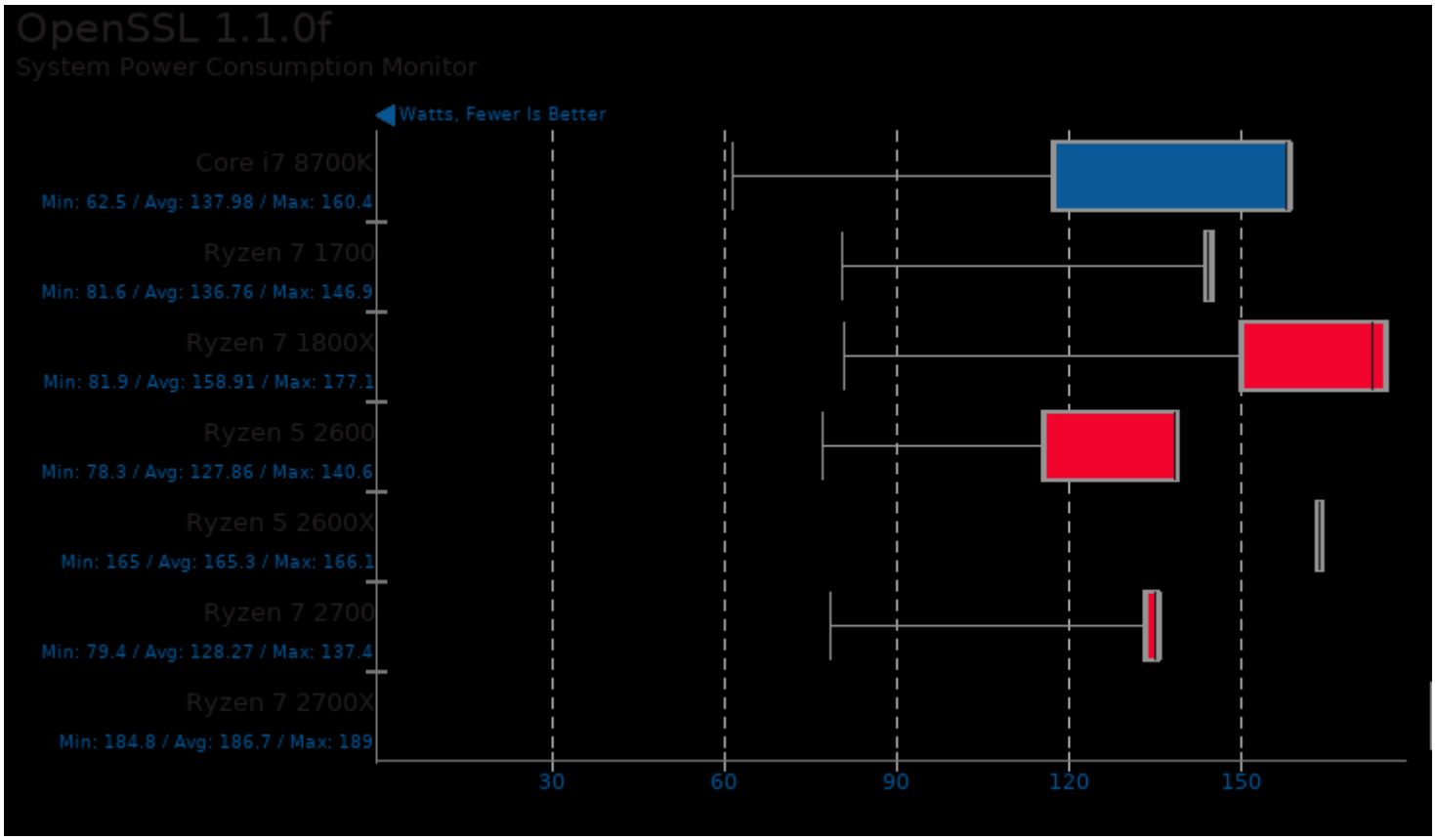

asmFish 2017-09-19
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 66.4 / Avg: 161.63 / Max: 165.3
Ryzen 7 1700
Min: 81.6 / Avg: 163.47 / Max: 166
Ryzen 7 1800X
Min: 188 / Avg: 199.34 / Max: 202.5
Ryzen 5 2600
Min: 154.4 / Avg: 155.4 / Max: 155.9
Ryzen 5 2600X
Min: 106 / Avg: 182.48 / Max: 185.5
Ryzen 7 2700
Min: 79 / Avg: 150.64 / Max: 152.6
Ryzen 7 2700X
Min: 80.2 / Avg: 205.06 / Max: 211.1
40
80
120
160
200

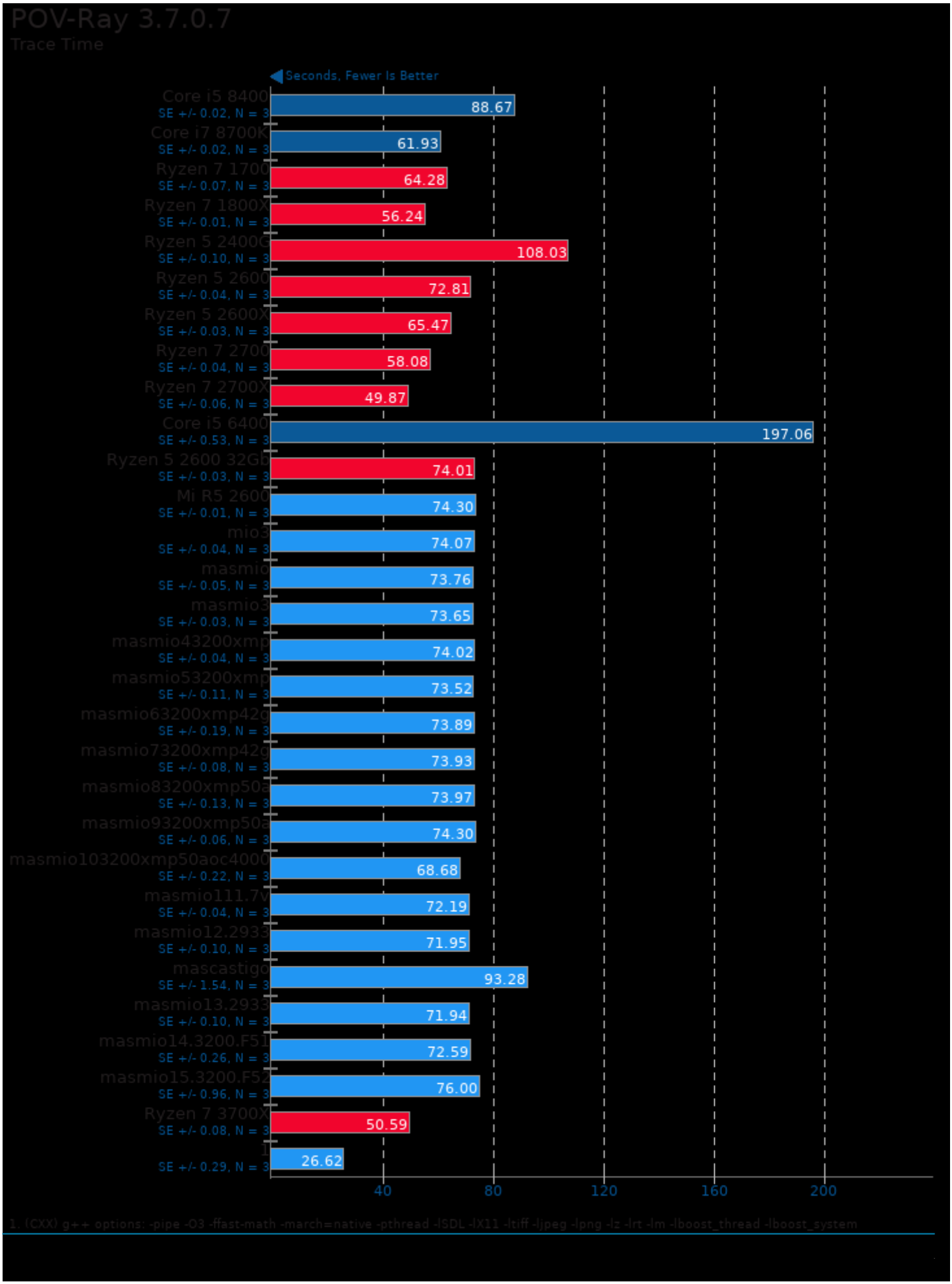

Stockfish 2014-11-26
Total Time
ms, Fewer Is Better
Core i5 8400
SE +/- 2.52, N = 3
3039
Core i7 8700K
SE +/- 6.43, N = 3
2652
Ryzen 7 1700
3970
Ryzen 7 1800X
SE +/- 7.62, N = 3
3607
Ryzen 5 2400G
SE +/- 1.76, N = 3
3653
Ryzen 5 2600
SE +/- 2.52, N = 3
3635
Ryzen 5 2600X
SE +/- 3.93, N = 3
3409
Ryzen 7 2700
SE +/- 14.93, N = 3
3555
Ryzen 7 2700X
SE +/- 11.50, N = 3
3294
Core i5 6400
SE +/- 2.67, N = 3
4243
Ryzen 5 2600 32GB
3644
Mi R5 2600
SE +/- 26.35, N = 3
3791
mio3
SE +/- 16.52, N = 3
3766
masmi0
SE +/- 21.13, N = 3
3641
masmio3
SE +/- 8.67, N = 3
3678
masmio43200xmp
SE +/- 12.35, N = 3
3623
masmio53200xmp
SE +/- 11.59, N = 3
3638
masmio63200xmp420
SE +/- 19.74, N = 3
3650
masmio73200xmp420
SE +/- 8.09, N = 3
3644
masmio83200xmp50a
3646
masmio93200xmp50a
SE +/- 2.19, N = 3
3729
masmio103200xmp50aoc4000
SE +/- 16.68, N = 3
3544
masmio111.7v
SE +/- 3.18, N = 3
3613
masmio12.2933
SE +/- 8.41, N = 3
3659
mascastig0
SE +/- 54.53, N = 3
4163
masmio13.2933
SE +/- 6.74, N = 3
3631
masmio14.3200.F51
SE +/- 16.84, N = 3
3641
masmio15.3200.F52
SE +/- 8.74, N = 3
3494
Ryzen 7 3700X
SE +/- 41.79, N = 4
2865
SE +/- 7.54, N = 3
2094
900
1800
2700
3600
4500
1. (CXX) g++ options: -lpthread -O3 -fno-exceptions -fno-rtti -ansi -pedantic -msse -msse3 -mpopcnt -flto

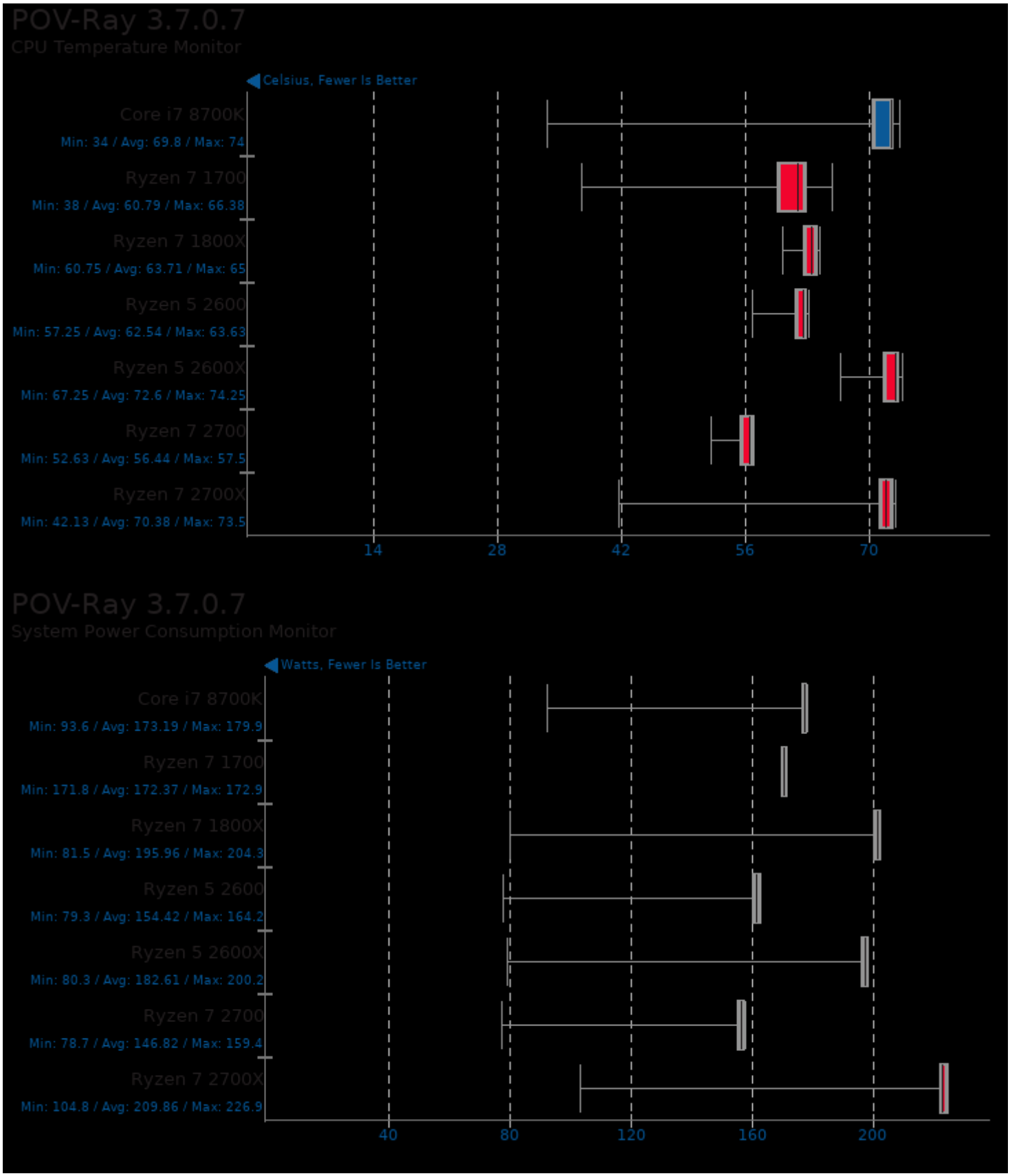

OpenSSL 1.1.0f
RSA 4096-bit Performance
Signs Per Second, More Is Better
Core i5 8400
SE +/- 25.37, N = 3
1645.00
Core i7 8700K
SE +/- 0.46, N = 3
1980.00
Ryzen 7 1700
SE +/- 0.13, N = 3
1382.00
Ryzen 7 1800X
SE +/- 0.35, N = 3
1595.00
Ryzen 5 2400G
SE +/- 0.82, N = 3
812.00
Ryzen 5 2600
SE +/- 0.21, N = 3
1164.00
Ryzen 5 2600X
SE +/- 2.17, N = 3
1300.00
Ryzen 7 2700
SE +/- 2.29, N = 3
1473.00
Ryzen 7 2700X
SE +/- 0.18, N = 3
1725.00
Core i5 6400
SE +/- 19.76, N = 9
727.00
Ryzen 5 2600 32GB
SE +/- 0.35, N = 3
1202.00
Mi R5 2600
SE +/- 0.09, N = 3
1207.00
mio3
SE +/- 0.28, N = 3
1208.00
masmio
SE +/- 0.27, N = 3
1209.00
masmio3
SE +/- 0.20, N = 3
1209.00
masmio43200xmp
SE +/- 0.15, N = 3
1209.00
masmio53200xmp
SE +/- 0.09, N = 3
1209.00
masmio63200xmp420
SE +/- 0.17, N = 3
1209.00
masmio73200xmp420
SE +/- 0.35, N = 3
1209.00
masmio83200xmp50a
SE +/- 0.29, N = 3
1208.00
masmio93200xmp50a
SE +/- 0.20, N = 3
1208.83
masmio103200xmp50aoc4000
SE +/- 0.12, N = 3
1290.57
400
800
1200
1600
2000
1. (CC) gcc options: -O3 -pthread -m64 -lssl -lcrypto -ldl

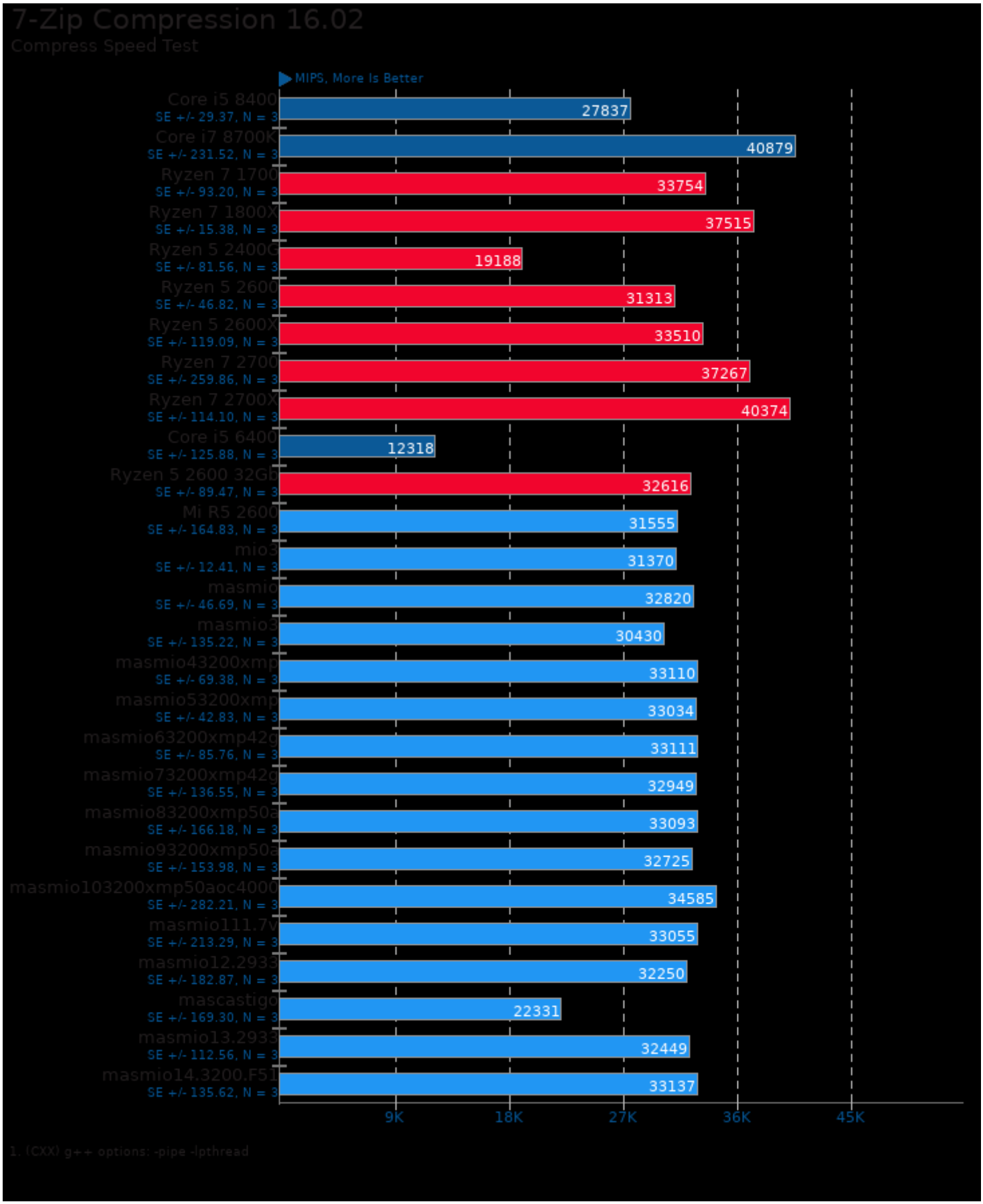

OpenSSL 1.1.0f
RSA 4096-bit Performance
Signs Per Second Per Watt, More Is Better
Core i7 8700K
14.35
Ryzen 7 1700
10.10
Ryzen 7 1800X
10.04
Ryzen 5 2600
9.11
Ryzen 5 2600X
7.86
Ryzen 7 2700
11.48
Ryzen 7 2700X
9.24
4
8
12
16
20

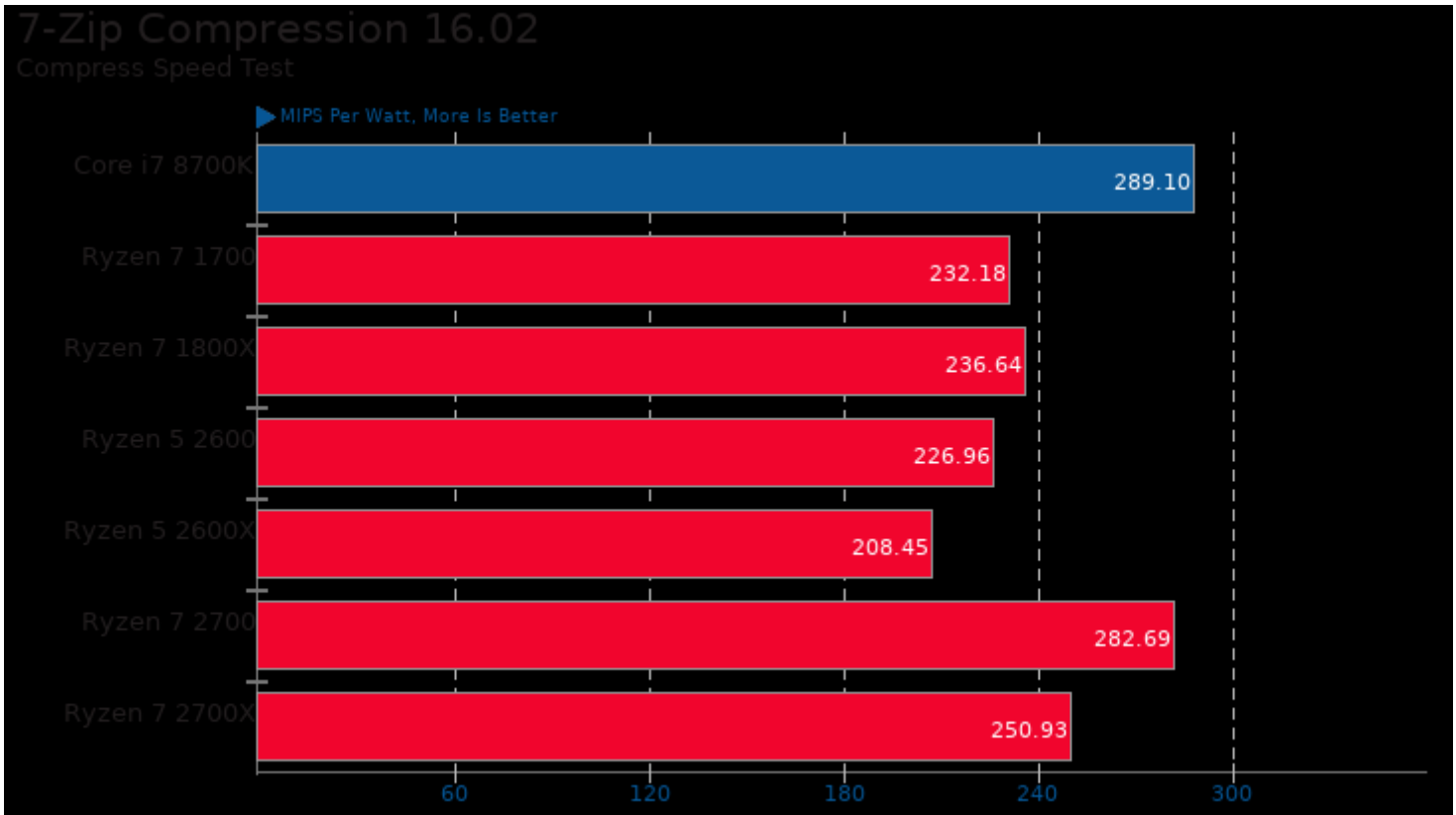

OpenSSL 1.1.0f
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 64 / Avg: 67.11 / Max: 69
Ryzen 7 1700
Min: 47.63 / Avg: 49.84 / Max: 51.63
Ryzen 7 1800X
Min: 48.13 / Avg: 52.52 / Max: 54.5
Ryzen 5 2600
Min: 46.25 / Avg: 49.82 / Max: 51.25
Ryzen 5 2600X
Min: 56.5 / Avg: 57.94 / Max: 59.25
Ryzen 7 2700
Min: 45.75 / Avg: 48.02 / Max: 49
Ryzen 7 2700X
Min: 34 / Avg: 54.14 / Max: 59
13
26
39
52
65

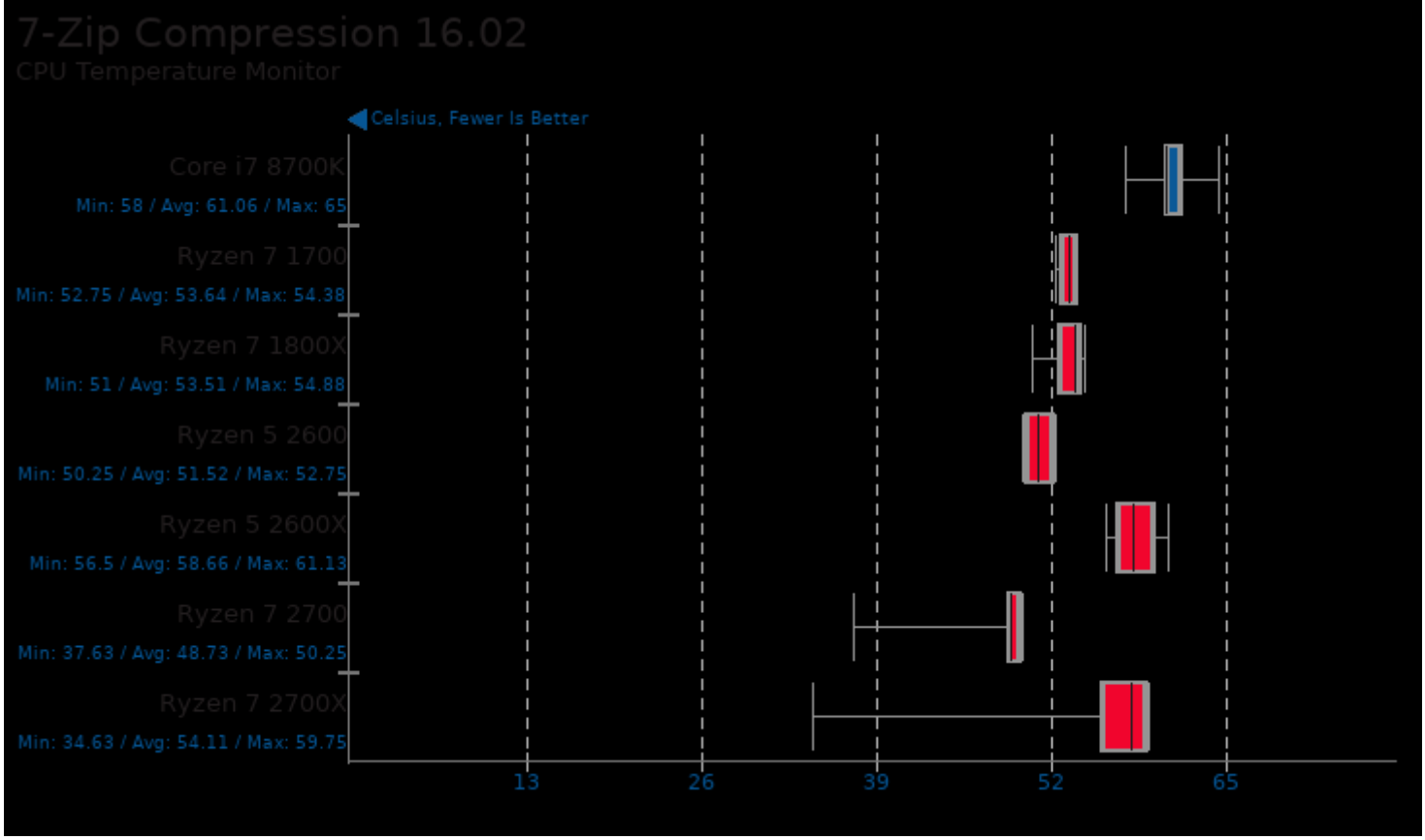

OpenSSL 1.1.0f
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.5 / Avg: 137.98 / Max: 160.4
Ryzen 7 1700
Min: 81.6 / Avg: 136.76 / Max: 146.9
Ryzen 7 1800X
Min: 81.9 / Avg: 158.91 / Max: 177.1
Ryzen 5 2600
Min: 78.3 / Avg: 127.86 / Max: 140.6
Ryzen 5 2600X
Min: 165 / Avg: 165.3 / Max: 166.1
Ryzen 7 2700
Min: 79.4 / Avg: 128.27 / Max: 137.4
Ryzen 7 2700X
Min: 184.8 / Avg: 186.7 / Max: 189
30
60
90
120
150

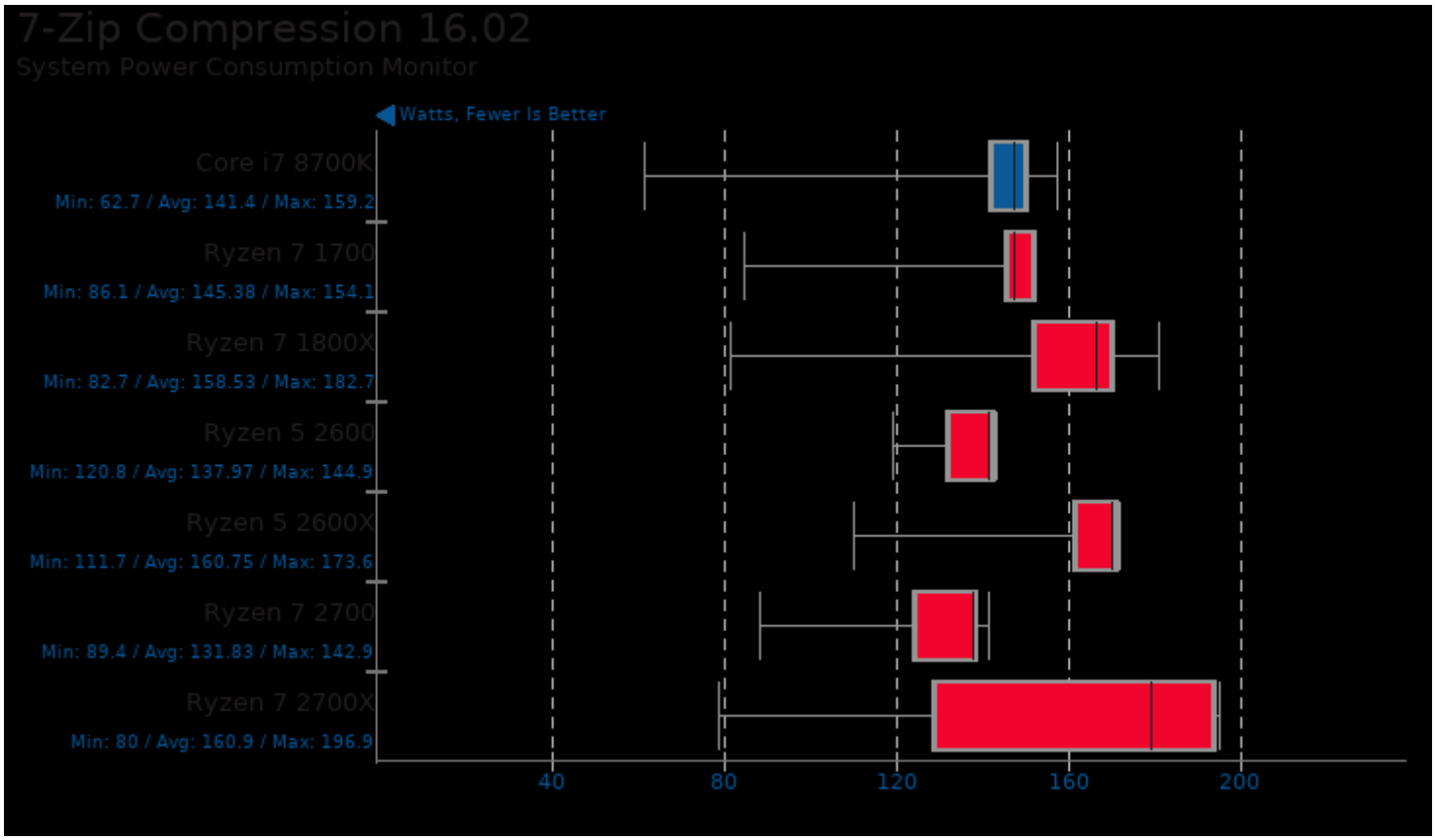

POV-Ray 3.7.0.7
Trace Time
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.02, N = 3
88.67
Core i7 8700K
SE +/- 0.02, N = 3
61.93
Ryzen 7 1700
SE +/- 0.07, N = 3
64.28
Ryzen 7 1800X
SE +/- 0.01, N = 3
56.24
Ryzen 5 2400G
SE +/- 0.10, N = 3
108.03
Ryzen 5 2600
SE +/- 0.04, N = 3
72.81
Ryzen 5 2600X
SE +/- 0.03, N = 3
65.47
Ryzen 7 2700
SE +/- 0.04, N = 3
58.08
Ryzen 7 2700X
SE +/- 0.06, N = 3
49.87
Core i5 6400
SE +/- 0.53, N = 3
197.06
Ryzen 5 2600 32GB
SE +/- 0.03, N = 3
74.01
Mi R5 2600
SE +/- 0.01, N = 3
74.30
mio3
SE +/- 0.04, N = 3
74.07
masmio
SE +/- 0.05, N = 3
73.76
masmio3
SE +/- 0.03, N = 3
73.65
masmio43200xmp
SE +/- 0.04, N = 3
74.02
masmio53200xmp
SE +/- 0.11, N = 3
73.52
masmio63200xmp420
SE +/- 0.19, N = 3
73.89
masmio73200xmp420
SE +/- 0.08, N = 3
73.93
masmio83200xmp50a
SE +/- 0.13, N = 3
73.97
masmio93200xmp50a
SE +/- 0.06, N = 3
74.30
masmio103200xmp50aoc4000
SE +/- 0.22, N = 3
68.68
masmio111.7v
SE +/- 0.04, N = 3
72.19
masmio12.2933
SE +/- 0.10, N = 3
71.95
mascastig0
SE +/- 1.54, N = 3
93.28
masmio13.2933
SE +/- 0.10, N = 3
71.94
masmio14.3200.F51
SE +/- 0.26, N = 3
72.59
masmio15.3200.F52
SE +/- 0.96, N = 3
76.00
Ryzen 7 3700X
SE +/- 0.08, N = 3
50.59
1
SE +/- 0.29, N = 3
26.62
40
80
120
160
200
1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSDL -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

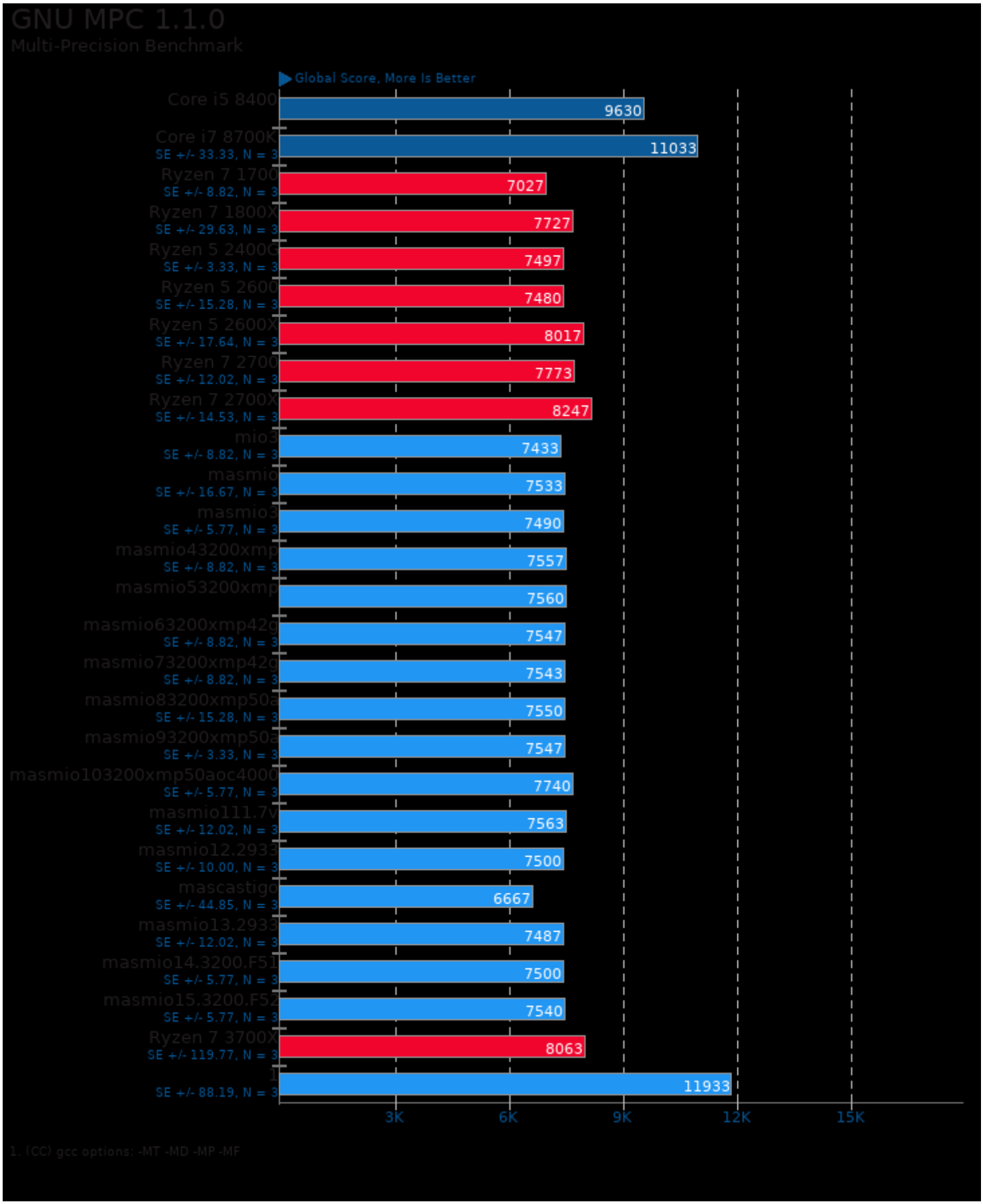

POV-Ray 3.7.0.7
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 34 / Avg: 69.8 / Max: 74
Ryzen 7 1700
Min: 38 / Avg: 60.79 / Max: 66.38
Ryzen 7 1800X
Min: 60.75 / Avg: 63.71 / Max: 65
Ryzen 5 2600
Min: 57.25 / Avg: 62.54 / Max: 63.63
Ryzen 5 2600X
Min: 67.25 / Avg: 72.6 / Max: 74.25
Ryzen 7 2700
Min: 52.63 / Avg: 56.44 / Max: 57.5
Ryzen 7 2700X
Min: 42.13 / Avg: 70.38 / Max: 73.5
14
28
42
56
70
POV-Ray 3.7.0.7
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 93.6 / Avg: 173.19 / Max: 179.9
Ryzen 7 1700
Min: 171.8 / Avg: 172.37 / Max: 172.9
Ryzen 7 1800X
Min: 81.5 / Avg: 195.96 / Max: 204.3
Ryzen 5 2600
Min: 79.3 / Avg: 154.42 / Max: 164.2
Ryzen 5 2600X
Min: 80.3 / Avg: 182.61 / Max: 200.2
Ryzen 7 2700
Min: 78.7 / Avg: 146.82 / Max: 159.4
Ryzen 7 2700X
Min: 104.8 / Avg: 209.86 / Max: 226.9
40
80
120
160
200

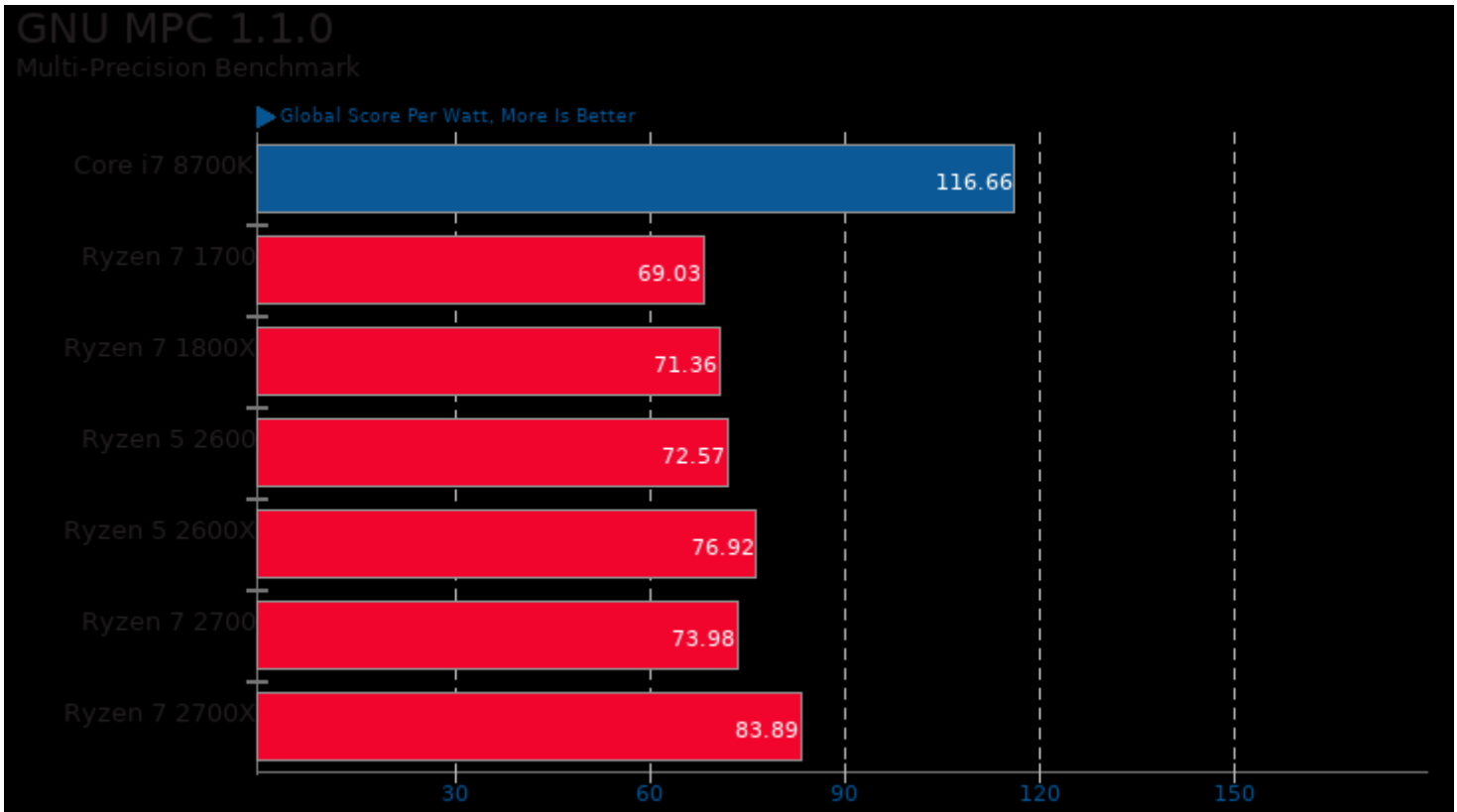

7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
Core i5 8400
SE +/- 29.37, N = 3
27837
Core i7 8700K
SE +/- 231.52, N = 3
40879
Ryzen 7 1700
SE +/- 93.20, N = 3
33754
Ryzen 7 1800X
SE +/- 15.38, N = 3
37515
Ryzen 5 2400G
SE +/- 81.56, N = 3
19188
Ryzen 5 2600
SE +/- 46.82, N = 3
31313
Ryzen 5 2600X
SE +/- 119.09, N = 3
33510
Ryzen 7 2700
SE +/- 259.86, N = 3
37267
Ryzen 7 2700X
SE +/- 114.10, N = 3
40374
Core i5 6400
SE +/- 125.88, N = 3
12318
Ryzen 5 2600 32GB
SE +/- 89.47, N = 3
32616
Mi R5 2600
SE +/- 164.83, N = 3
31555
mio3
SE +/- 12.41, N = 3
31370
masmio
SE +/- 46.69, N = 3
32820
masmio3
SE +/- 135.22, N = 3
30430
masmio43200xmp
SE +/- 69.38, N = 3
33110
masmio53200xmp
SE +/- 42.83, N = 3
33034
masmio63200xmp420
SE +/- 85.76, N = 3
33111
masmio73200xmp420
SE +/- 136.55, N = 3
32949
masmio83200xmp50a
SE +/- 166.18, N = 3
33093
masmio93200xmp50a
SE +/- 153.98, N = 3
32725
masmio103200xmp50aoc4000
SE +/- 282.21, N = 3
34585
masmio111.7v
SE +/- 213.29, N = 3
33055
masmio12.2933
SE +/- 182.87, N = 3
32250
mascastig0
SE +/- 169.30, N = 3
22331
masmio13.2933
SE +/- 112.56, N = 3
32449
masmio14.3200.F51
SE +/- 135.62, N = 3
33137
9K
18K
27K
36K
45K
1. (CXX) g++ options: -pipe -lpthread

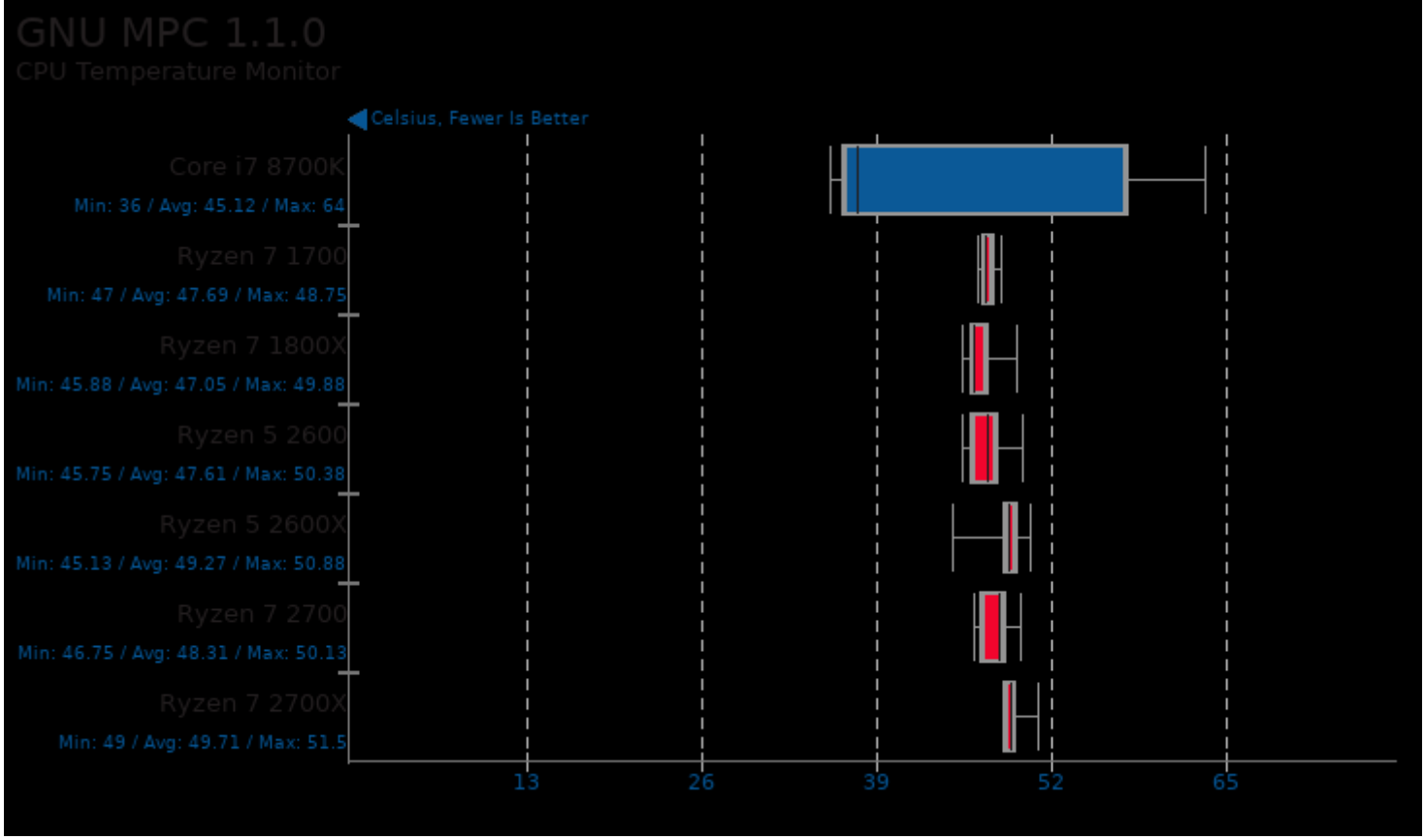

7-Zip Compression 16.02
Compress Speed Test
MIPS Per Watt, More Is Better
Core i7 8700K
289.10
Ryzen 7 1700
232.18
Ryzen 7 1800X
236.64
Ryzen 5 2600
226.96
Ryzen 5 2600X
208.45
Ryzen 7 2700
282.69
Ryzen 7 2700X
250.93
60
120
180
240
300

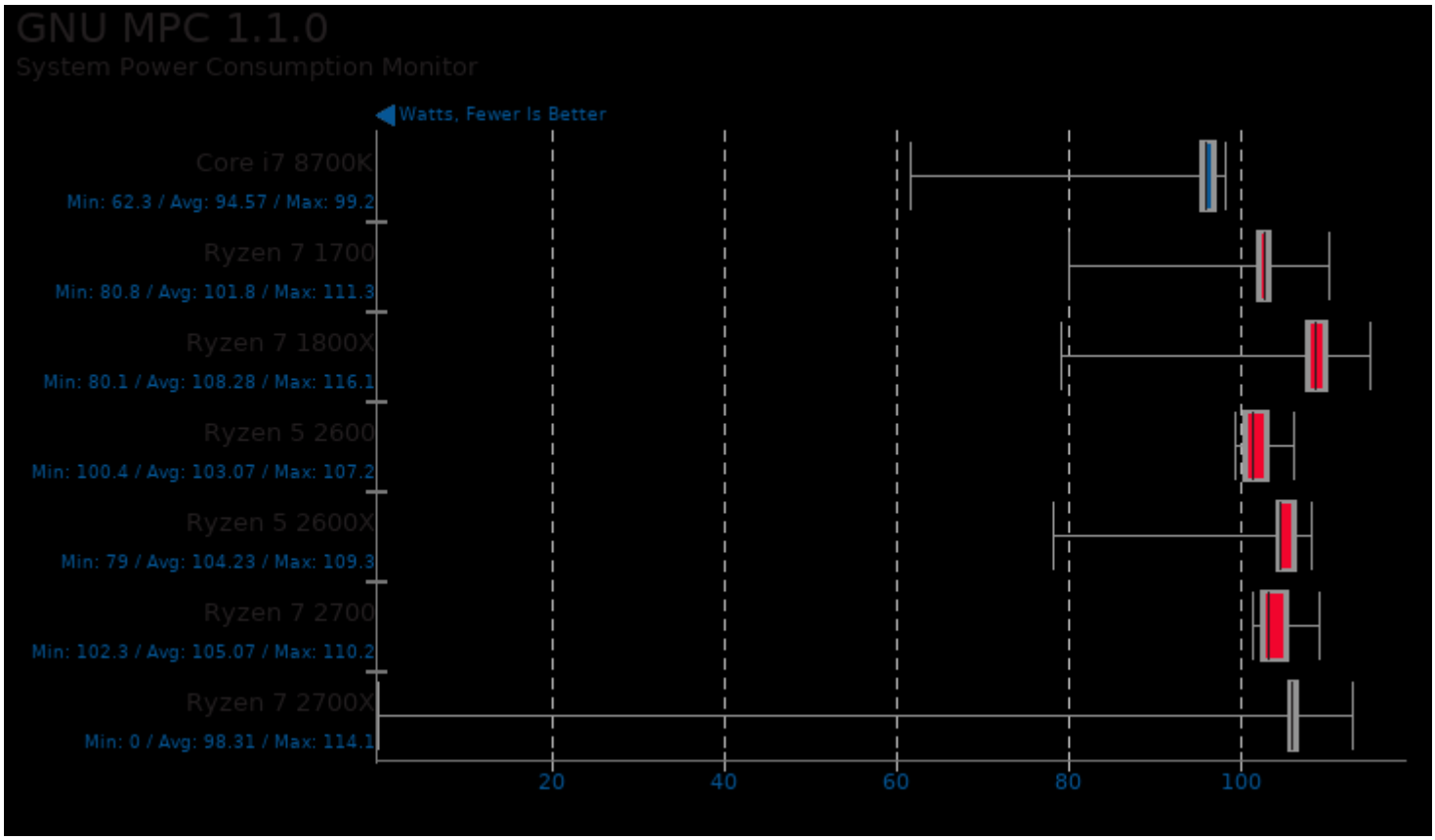

7-Zip Compression 16.02
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 58 / Avg: 61.06 / Max: 65
Ryzen 7 1700
Min: 52.75 / Avg: 53.64 / Max: 54.38
Ryzen 7 1800X
Min: 51 / Avg: 53.51 / Max: 54.88
Ryzen 5 2600
Min: 50.25 / Avg: 51.52 / Max: 52.75
Ryzen 5 2600X
Min: 56.5 / Avg: 58.66 / Max: 61.13
Ryzen 7 2700
Min: 37.63 / Avg: 48.73 / Max: 50.25
Ryzen 7 2700X
Min: 34.63 / Avg: 54.11 / Max: 59.75
13
26
39
52
65

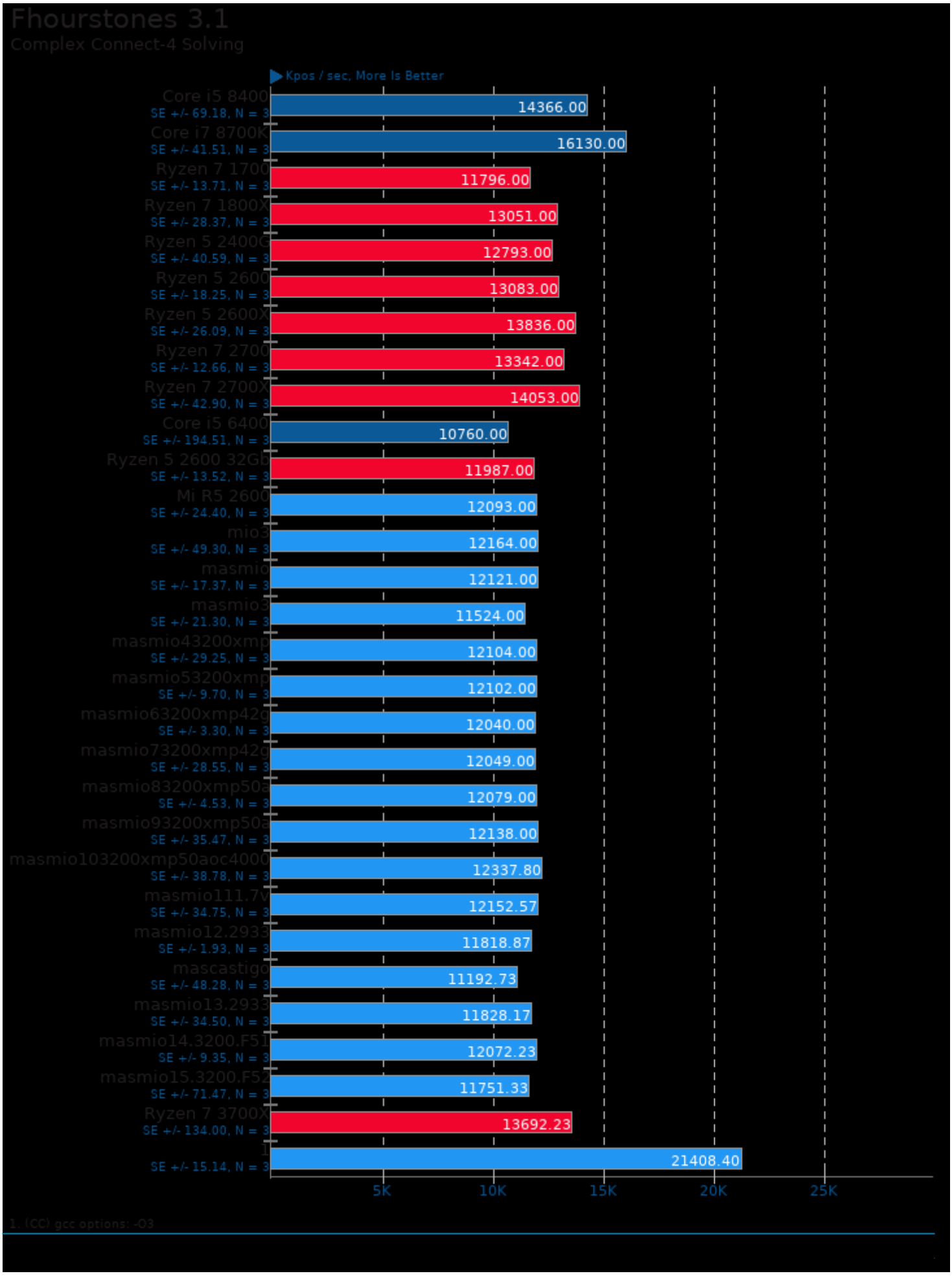

7-Zip Compression 16.02
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.7 / Avg: 141.4 / Max: 159.2
Ryzen 7 1700
Min: 86.1 / Avg: 145.38 / Max: 154.1
Ryzen 7 1800X
Min: 82.7 / Avg: 158.53 / Max: 182.7
Ryzen 5 2600
Min: 120.8 / Avg: 137.97 / Max: 144.9
Ryzen 5 2600X
Min: 111.7 / Avg: 160.75 / Max: 173.6
Ryzen 7 2700
Min: 89.4 / Avg: 131.83 / Max: 142.9
Ryzen 7 2700X
Min: 80 / Avg: 160.9 / Max: 196.9
40
80
120
160
200

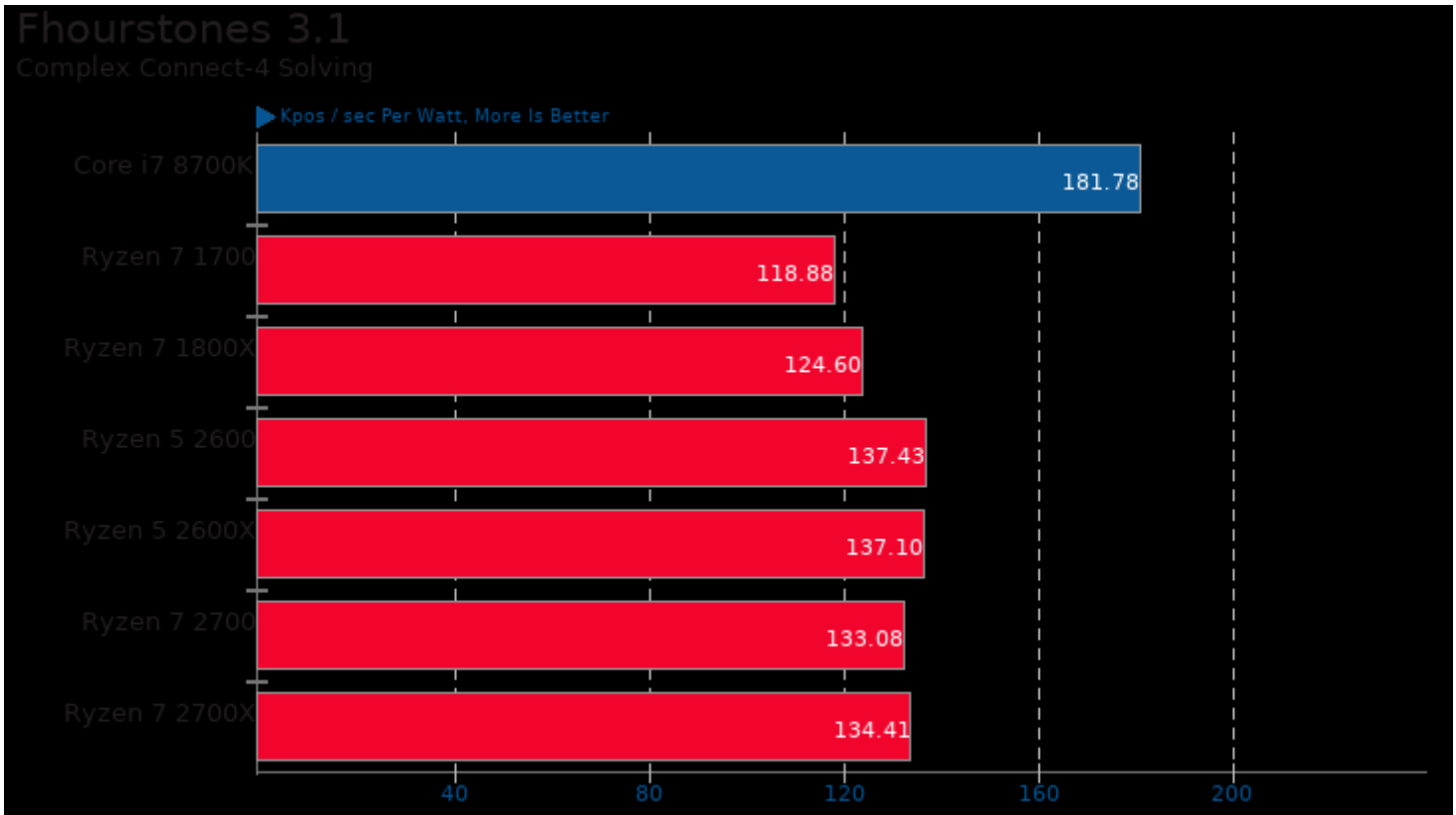

GNU MPC 1.1.0
Multi-Precision Benchmark
Global Score, More Is Better
Core i5 8400
9630
Core i7 8700K
SE +/- 33.33, N = 3
11033
Ryzen 7 1700
SE +/- 8.82, N = 3
7027
Ryzen 7 1800X
SE +/- 29.63, N = 3
7727
Ryzen 5 2400G
SE +/- 3.33, N = 3
7497
Ryzen 5 2600
SE +/- 15.28, N = 3
7480
Ryzen 5 2600X
SE +/- 17.64, N = 3
8017
Ryzen 7 2700
SE +/- 12.02, N = 3
7773
Ryzen 7 2700X
SE +/- 14.53, N = 3
8247
mio3
SE +/- 8.82, N = 3
7433
masmio
SE +/- 16.67, N = 3
7533
masmio3
SE +/- 5.77, N = 3
7490
masmio43200xmp
SE +/- 8.82, N = 3
7557
masmio53200xmp
7560
masmio63200xmp420
SE +/- 8.82, N = 3
7547
masmio73200xmp420
SE +/- 8.82, N = 3
7543
masmio83200xmp50a
SE +/- 15.28, N = 3
7550
masmio93200xmp50a
SE +/- 3.33, N = 3
7547
masmio103200xmp50aoc4000
SE +/- 5.77, N = 3
7740
masmio111.7V
SE +/- 12.02, N = 3
7563
masmio12.2933
SE +/- 10.00, N = 3
7500
mascastigo
SE +/- 44.85, N = 3
6667
masmio13.2933
SE +/- 12.02, N = 3
7487
masmio14.3200.F51
SE +/- 5.77, N = 3
7500
masmio15.3200.F52
SE +/- 5.77, N = 3
7540
Ryzen 7 3700X
SE +/- 119.77, N = 3
8063
SE +/- 88.19, N = 3
11933
3K
6K
9K
12K
15K
1. (CC) gcc options: -MT -MD -MP -MF

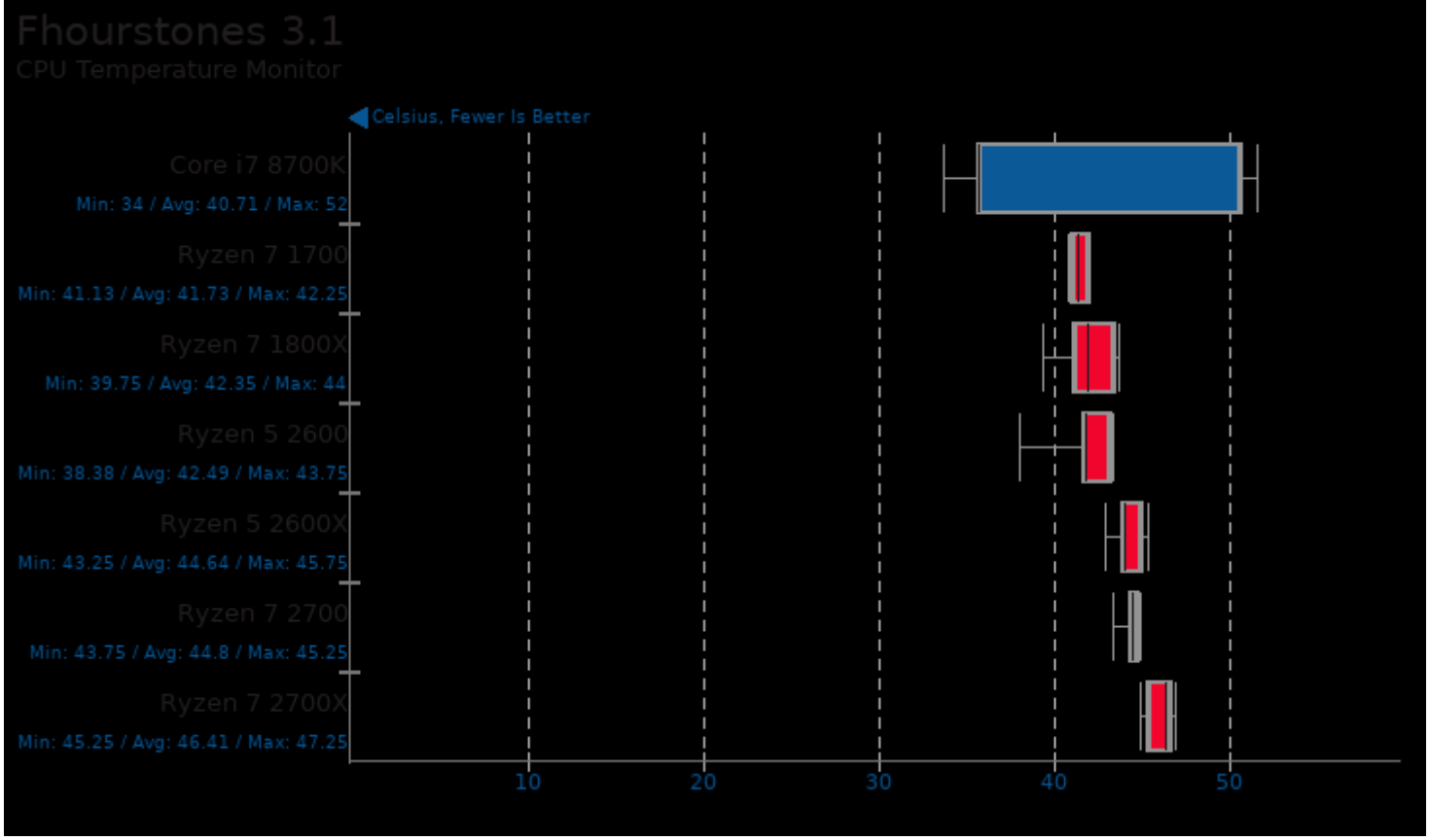

GNU MPC 1.1.0
Multi-Precision Benchmark
Global Score Per Watt, More Is Better
Core i7 8700K
116.66
Ryzen 7 1700
69.03
Ryzen 7 1800X
71.36
Ryzen 5 2600
72.57
Ryzen 5 2600X
76.92
Ryzen 7 2700
73.98
Ryzen 7 2700X
83.89
30
60
90
120
150

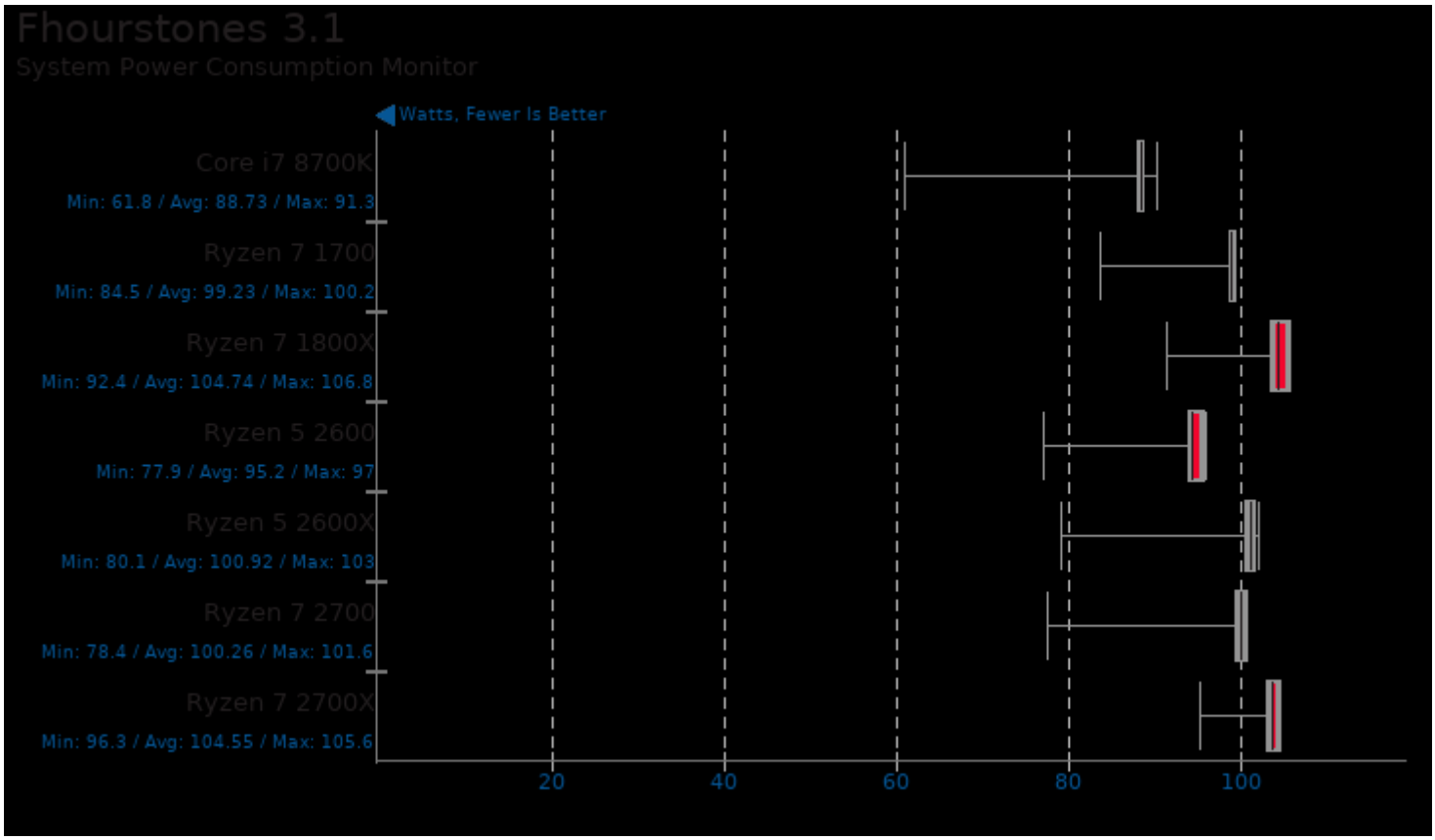

GNU MPC 1.1.0
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 36 / Avg: 45.12 / Max: 64
Ryzen 7 1700
Min: 47 / Avg: 47.69 / Max: 48.75
Ryzen 7 1800X
Min: 45.88 / Avg: 47.05 / Max: 49.88
Ryzen 5 2600
Min: 45.75 / Avg: 47.61 / Max: 50.38
Ryzen 5 2600X
Min: 45.13 / Avg: 49.27 / Max: 50.88
Ryzen 7 2700
Min: 46.75 / Avg: 48.31 / Max: 50.13
Ryzen 7 2700X
Min: 49 / Avg: 49.71 / Max: 51.5
13
26
39
52
65

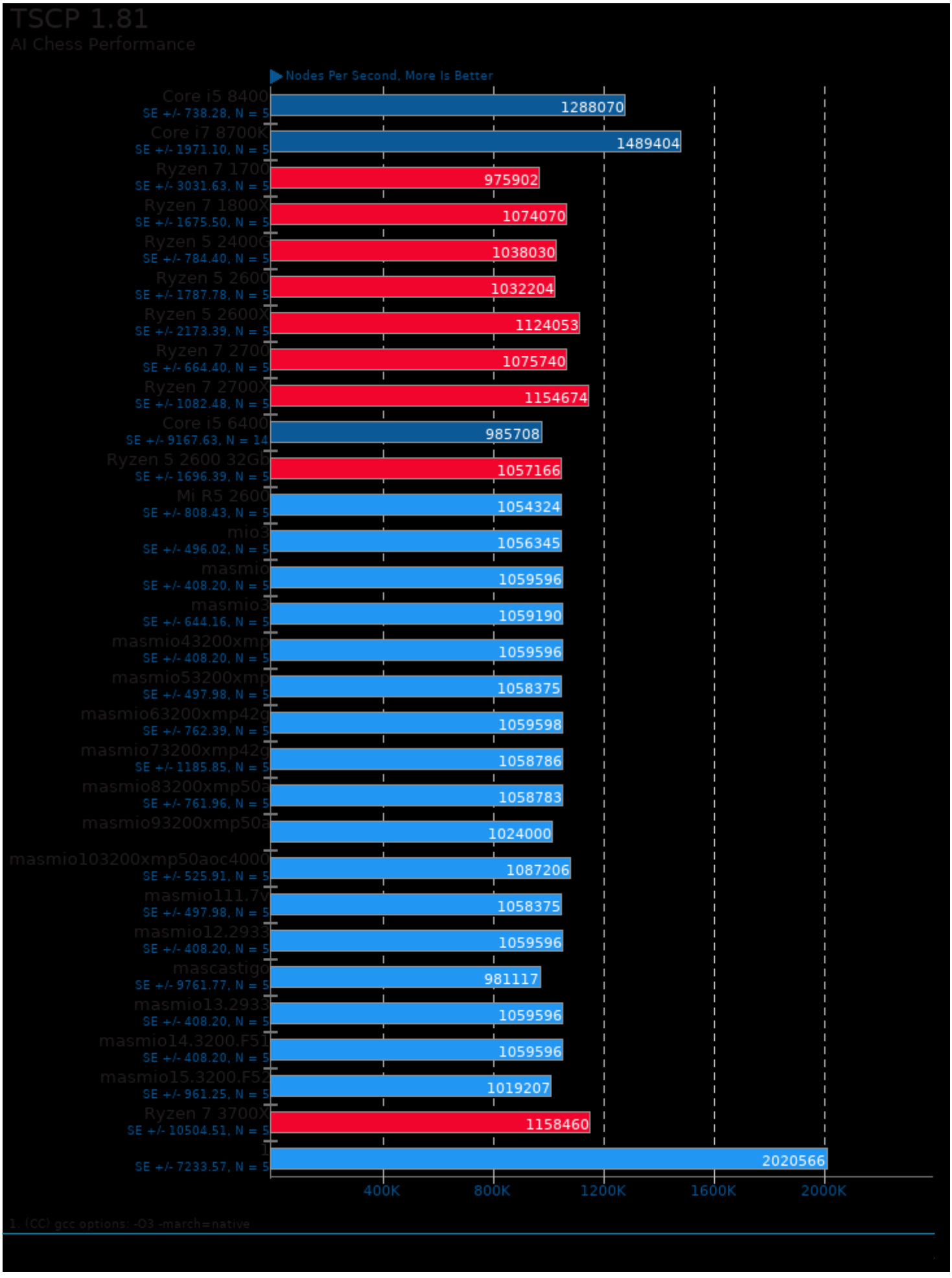

GNU MPC 1.1.0
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.3 / Avg: 94.57 / Max: 99.2
Ryzen 7 1700
Min: 80.8 / Avg: 101.8 / Max: 111.3
Ryzen 7 1800X
Min: 80.1 / Avg: 108.28 / Max: 116.1
Ryzen 5 2600
Min: 100.4 / Avg: 103.07 / Max: 107.2
Ryzen 5 2600X
Min: 79 / Avg: 104.23 / Max: 109.3
Ryzen 7 2700
Min: 102.3 / Avg: 105.07 / Max: 110.2
Ryzen 7 2700X
Min: 0 / Avg: 98.31 / Max: 114.1
20
40
60
80
100

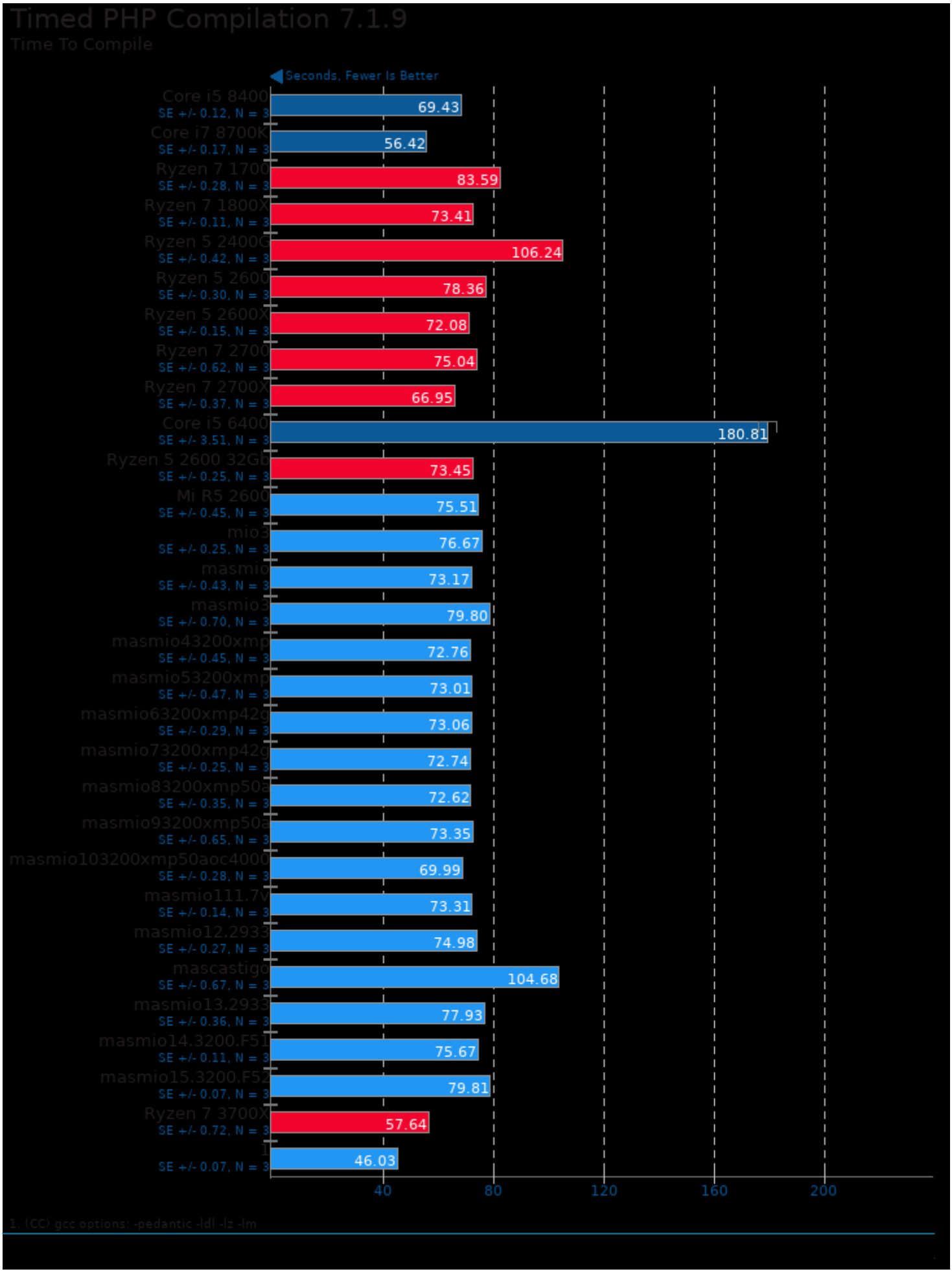

Fhourstones 3.1
Complex Connect-4 Solving
Kpos / sec, More Is Better
Core i5 8400
SE +/- 69.18, N = 3
14366.00
Core i7 8700K
SE +/- 41.51, N = 3
16130.00
Ryzen 7 1700
SE +/- 13.71, N = 3
11796.00
Ryzen 7 1800X
SE +/- 28.37, N = 3
13051.00
Ryzen 5 2400G
SE +/- 40.59, N = 3
12793.00
Ryzen 5 2600
SE +/- 18.25, N = 3
13083.00
Ryzen 5 2600X
SE +/- 26.09, N = 3
13836.00
Ryzen 7 2700
SE +/- 12.66, N = 3
13342.00
Ryzen 7 2700X
SE +/- 42.90, N = 3
14053.00
Core i5 6400
SE +/- 194.51, N = 3
10760.00
Ryzen 5 2600 32GB
SE +/- 13.52, N = 3
11987.00
Mi R5 2600
SE +/- 24.40, N = 3
12093.00
mio3
SE +/- 49.30, N = 3
12164.00
masmio
SE +/- 17.37, N = 3
12121.00
masmio3
SE +/- 21.30, N = 3
11524.00
masmio43200xmp
SE +/- 29.25, N = 3
12104.00
masmio53200xmp
SE +/- 9.70, N = 3
12102.00
masmio63200xmp420
SE +/- 3.30, N = 3
12040.00
masmio73200xmp420
SE +/- 28.55, N = 3
12049.00
masmio83200xmp50a
SE +/- 4.53, N = 3
12079.00
masmio93200xmp50a
SE +/- 35.47, N = 3
12138.00
masmio103200xmp50aoc4000
SE +/- 38.78, N = 3
12337.80
masmio111.7V
SE +/- 34.75, N = 3
12152.57
masmio12.2933
SE +/- 1.93, N = 3
11818.87
mascastig0
SE +/- 48.28, N = 3
11192.73
masmio13.2933
SE +/- 34.50, N = 3
11828.17
masmio14.3200.F51
SE +/- 9.35, N = 3
12072.23
masmio15.3200.F52
SE +/- 71.47, N = 3
11751.33
Ryzen 7 3700X
SE +/- 134.00, N = 3
13692.23
1
SE +/- 15.14, N = 3
21408.40
5K
10K
15K
20K
25K
1: (CC) gcc options: -O3

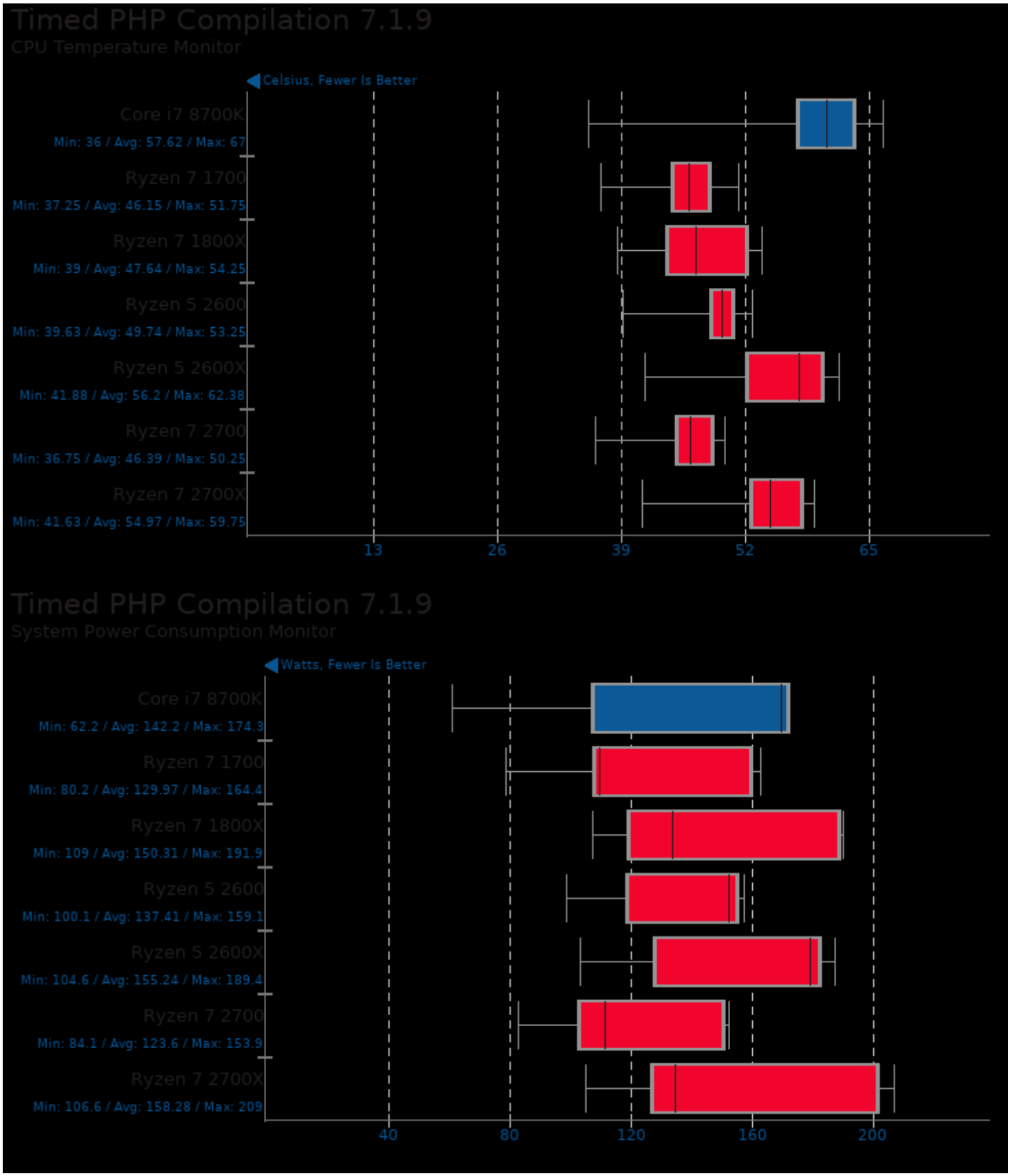

Fhourstones 3.1
Complex Connect-4 Solving
Kpos / sec Per Watt, More Is Better
Core i7 8700K
181.78
Ryzen 7 1700
118.88
Ryzen 7 1800X
124.60
Ryzen 5 2600
137.43
Ryzen 5 2600X
137.10
Ryzen 7 2700
133.08
Ryzen 7 2700X
134.41
40
80
120
160
200

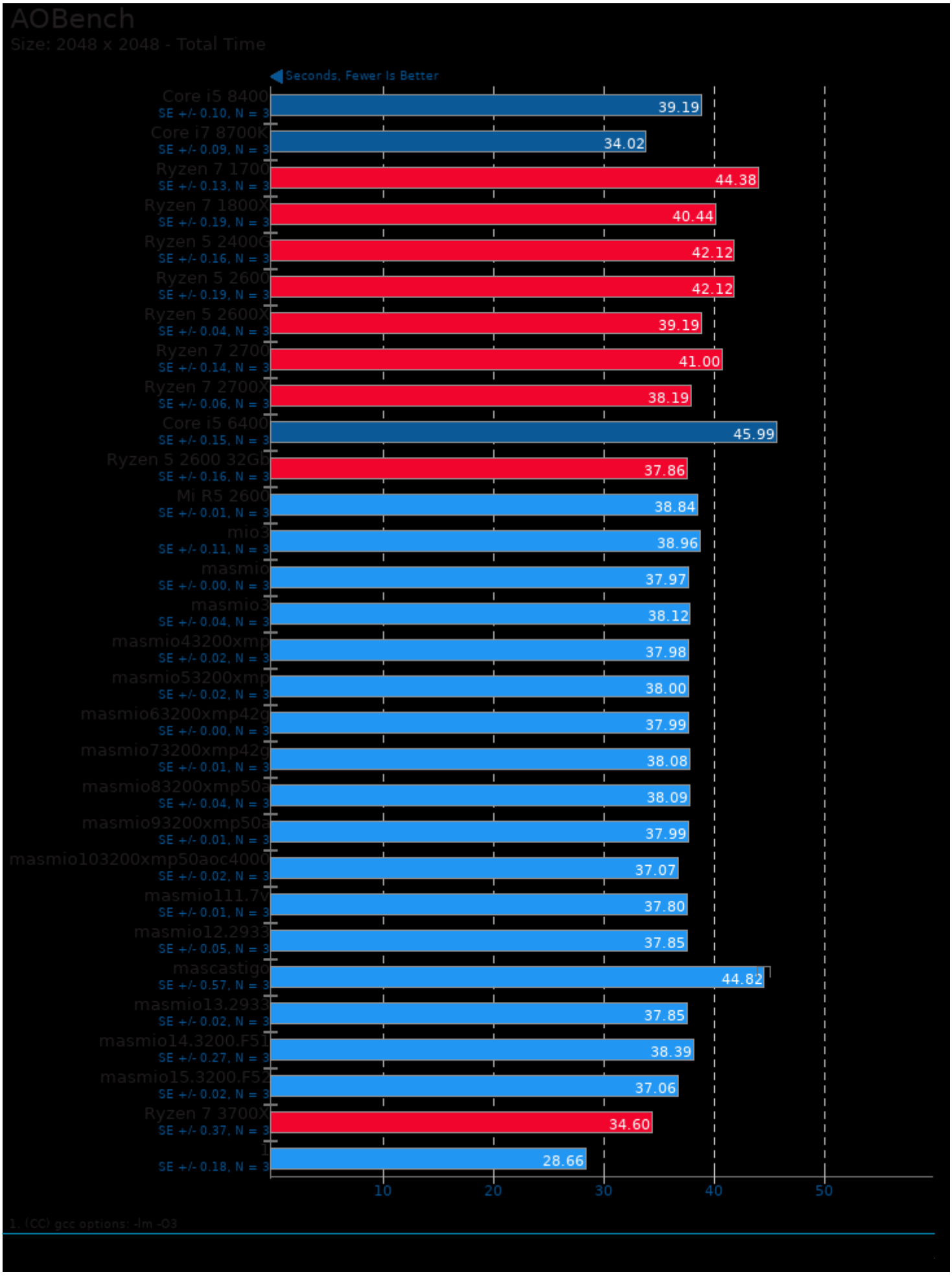

Fhourstones 3.1
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 34 / Avg: 40.71 / Max: 52
Ryzen 7 1700
Min: 41.13 / Avg: 41.73 / Max: 42.25
Ryzen 7 1800X
Min: 39.75 / Avg: 42.35 / Max: 44
Ryzen 5 2600
Min: 38.38 / Avg: 42.49 / Max: 43.75
Ryzen 5 2600X
Min: 43.25 / Avg: 44.64 / Max: 45.75
Ryzen 7 2700
Min: 43.75 / Avg: 44.8 / Max: 45.25
Ryzen 7 2700X
Min: 45.25 / Avg: 46.41 / Max: 47.25
10
20
30
40
50

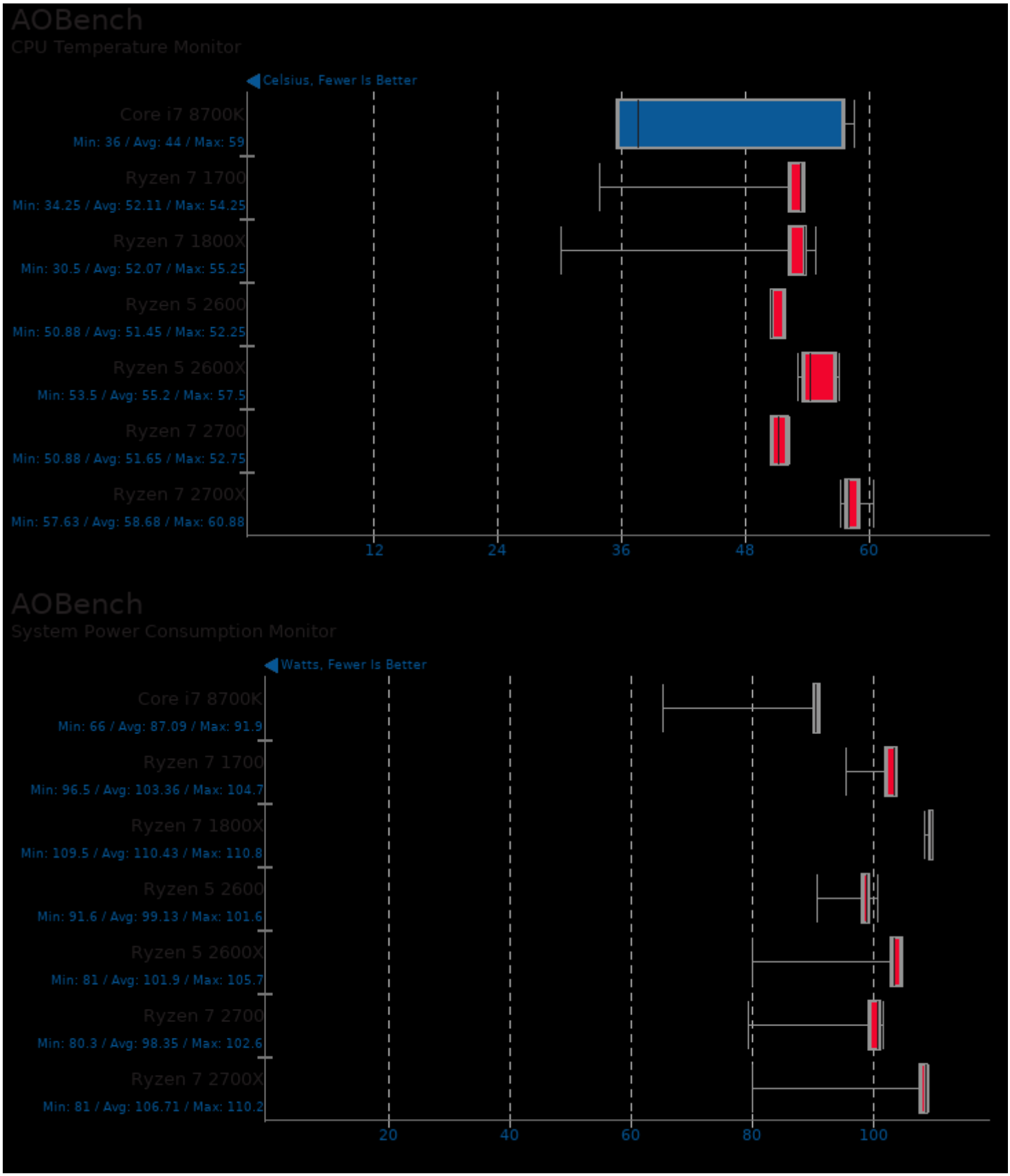

Fhourstones 3.1
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 61.8 / Avg: 88.73 / Max: 91.3
Ryzen 7 1700
Min: 84.5 / Avg: 99.23 / Max: 100.2
Ryzen 7 1800X
Min: 92.4 / Avg: 104.74 / Max: 106.8
Ryzen 5 2600
Min: 77.9 / Avg: 95.2 / Max: 97
Ryzen 5 2600X
Min: 80.1 / Avg: 100.92 / Max: 103
Ryzen 7 2700
Min: 78.4 / Avg: 100.26 / Max: 101.6
Ryzen 7 2700X
Min: 96.3 / Avg: 104.55 / Max: 105.6
20
40
60
80
100

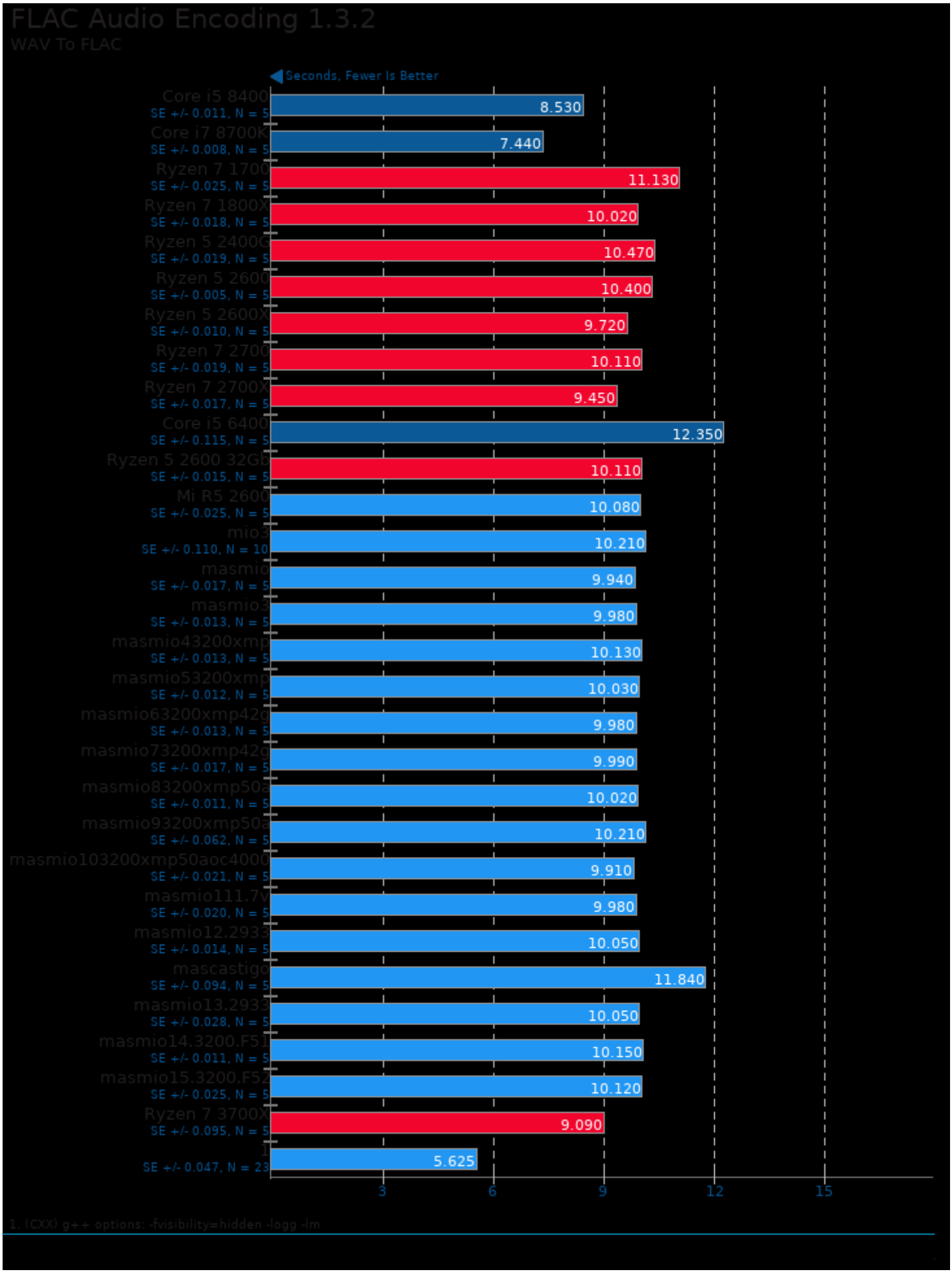

TSCP 1.81
AI Chess Performance
Nodes Per Second, More Is Better
Core i5 8400
SE +/- 738.28, N = 5
1288070
Core i7 8700K
SE +/- 1971.10, N = 5
1489404
Ryzen 7 1700
SE +/- 3031.63, N = 5
975902
Ryzen 7 1800X
SE +/- 1675.50, N = 5
1074070
Ryzen 5 2400G
SE +/- 784.40, N = 5
1038030
Ryzen 5 2600
SE +/- 1787.78, N = 5
1032204
Ryzen 5 2600X
SE +/- 2173.39, N = 5
1124053
Ryzen 7 2700
SE +/- 664.40, N = 5
1075740
Ryzen 7 2700X
SE +/- 1082.48, N = 5
1154674
Core i5 6400
SE +/- 9167.63, N = 14
985708
Ryzen 5 2600 32GB
SE +/- 1696.39, N = 5
1057166
Mi R5 2600
SE +/- 808.43, N = 5
1054324
mio3
SE +/- 496.02, N = 5
1056345
masmio
SE +/- 408.20, N = 5
1059596
masmio3
SE +/- 644.16, N = 5
1059190
masmio43200xmp
SE +/- 408.20, N = 5
1059596
masmio53200xmp
SE +/- 497.98, N = 5
1058375
masmio63200xmp420
SE +/- 762.39, N = 5
1059598
masmio73200xmp420
SE +/- 1185.85, N = 5
1058786
masmio83200xmp50a
SE +/- 761.96, N = 5
1058783
masmio93200xmp50a
1024000
masmio103200xmp50aoc4000
SE +/- 525.91, N = 5
1087206
masmio111.7v
SE +/- 497.98, N = 5
1058375
masmio12.2933
SE +/- 408.20, N = 5
1059596
mascastig0
SE +/- 9761.77, N = 5
981117
masmio13.2933
SE +/- 408.20, N = 5
1059596
masmio14.3200.F51
SE +/- 408.20, N = 5
1059596
masmio15.3200.F52
SE +/- 961.25, N = 5
1019207
Ryzen 7 3700X
SE +/- 10504.51, N = 5
1158460
SE +/- 7233.57, N = 5
2020566
400K
800K
1200K
1600K
2000K
1. (CC) gcc options: -O3 -march=native

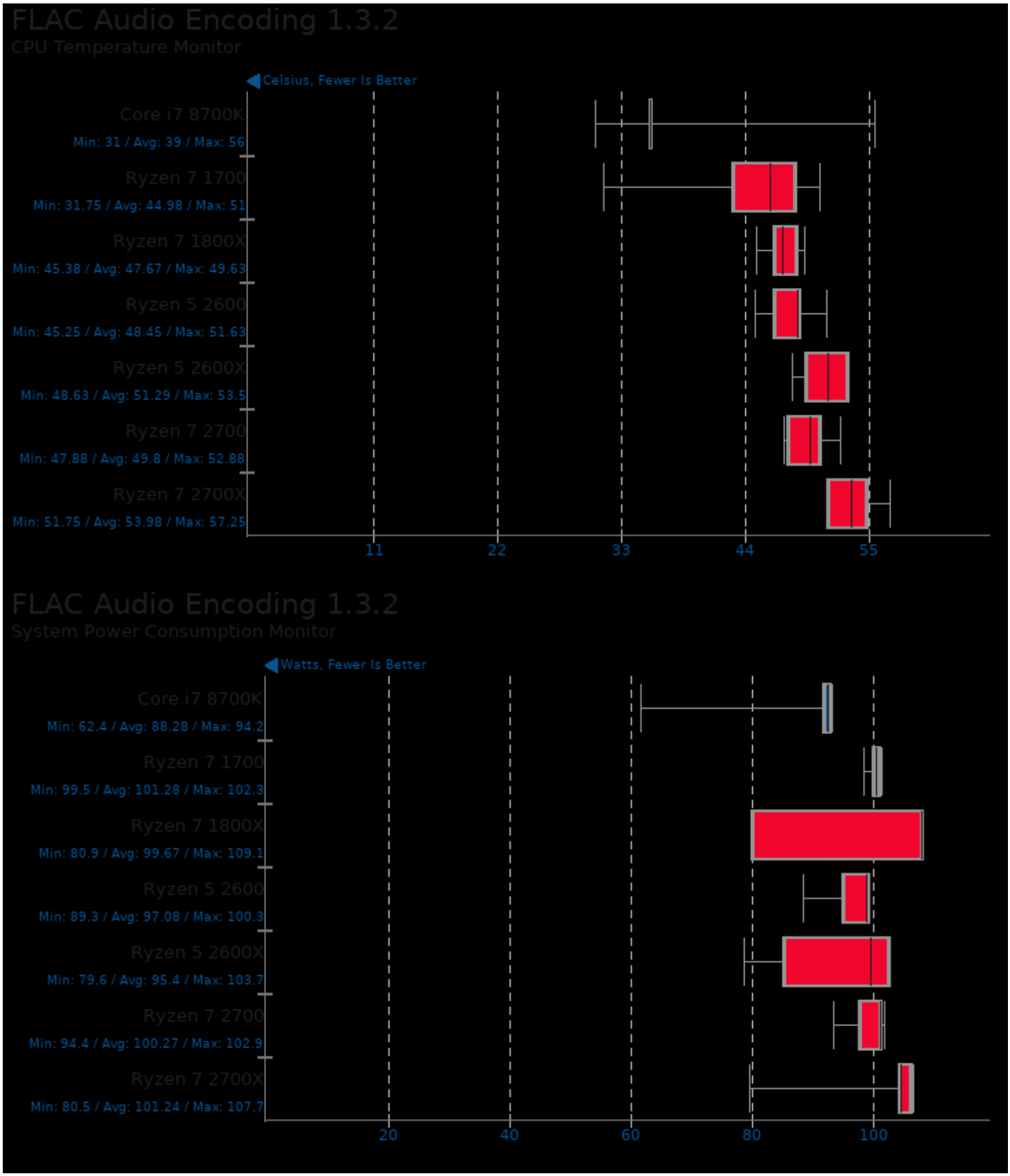

Timed PHP Compilation 7.1.9
Time To Compile
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.12, N = 3
69.43
Core i7 8700K
SE +/- 0.17, N = 3
56.42
Ryzen 7 1700
SE +/- 0.28, N = 3
83.59
Ryzen 7 1800X
SE +/- 0.11, N = 3
73.41
Ryzen 5 2400G
SE +/- 0.42, N = 3
106.24
Ryzen 5 2600
SE +/- 0.30, N = 3
78.36
Ryzen 5 2600X
SE +/- 0.15, N = 3
72.08
Ryzen 7 2700
SE +/- 0.62, N = 3
75.04
Ryzen 7 2700X
SE +/- 0.37, N = 3
66.95
Core i5 6400
SE +/- 3.51, N = 3
180.81
Ryzen 5 2600 32GB
SE +/- 0.25, N = 3
73.45
Mi R5 2600
SE +/- 0.45, N = 3
75.51
mio3
SE +/- 0.25, N = 3
76.67
masmio
SE +/- 0.43, N = 3
73.17
masmio3
SE +/- 0.70, N = 3
79.80
masmio43200xmp
SE +/- 0.45, N = 3
72.76
masmio53200xmp
SE +/- 0.47, N = 3
73.01
masmio63200xmp420
SE +/- 0.29, N = 3
73.06
masmio73200xmp420
SE +/- 0.25, N = 3
72.74
masmio83200xmp50a
SE +/- 0.35, N = 3
72.62
masmio93200xmp50a
SE +/- 0.65, N = 3
73.35
masmio103200xmp50aoc4000
SE +/- 0.28, N = 3
69.99
masmio111.7v
SE +/- 0.14, N = 3
73.31
masmio12.2933
SE +/- 0.27, N = 3
74.98
mascastig0
SE +/- 0.67, N = 3
104.68
masmio13.2933
SE +/- 0.36, N = 3
77.93
masmio14.3200.F51
SE +/- 0.11, N = 3
75.67
masmio15.3200.F52
SE +/- 0.07, N = 3
79.81
Ryzen 7 3700X
SE +/- 0.72, N = 3
57.64
1
SE +/- 0.07, N = 3
46.03
40
80
120
160
200
1. (CC) gcc options: -pedantic -ldl -lz -lm

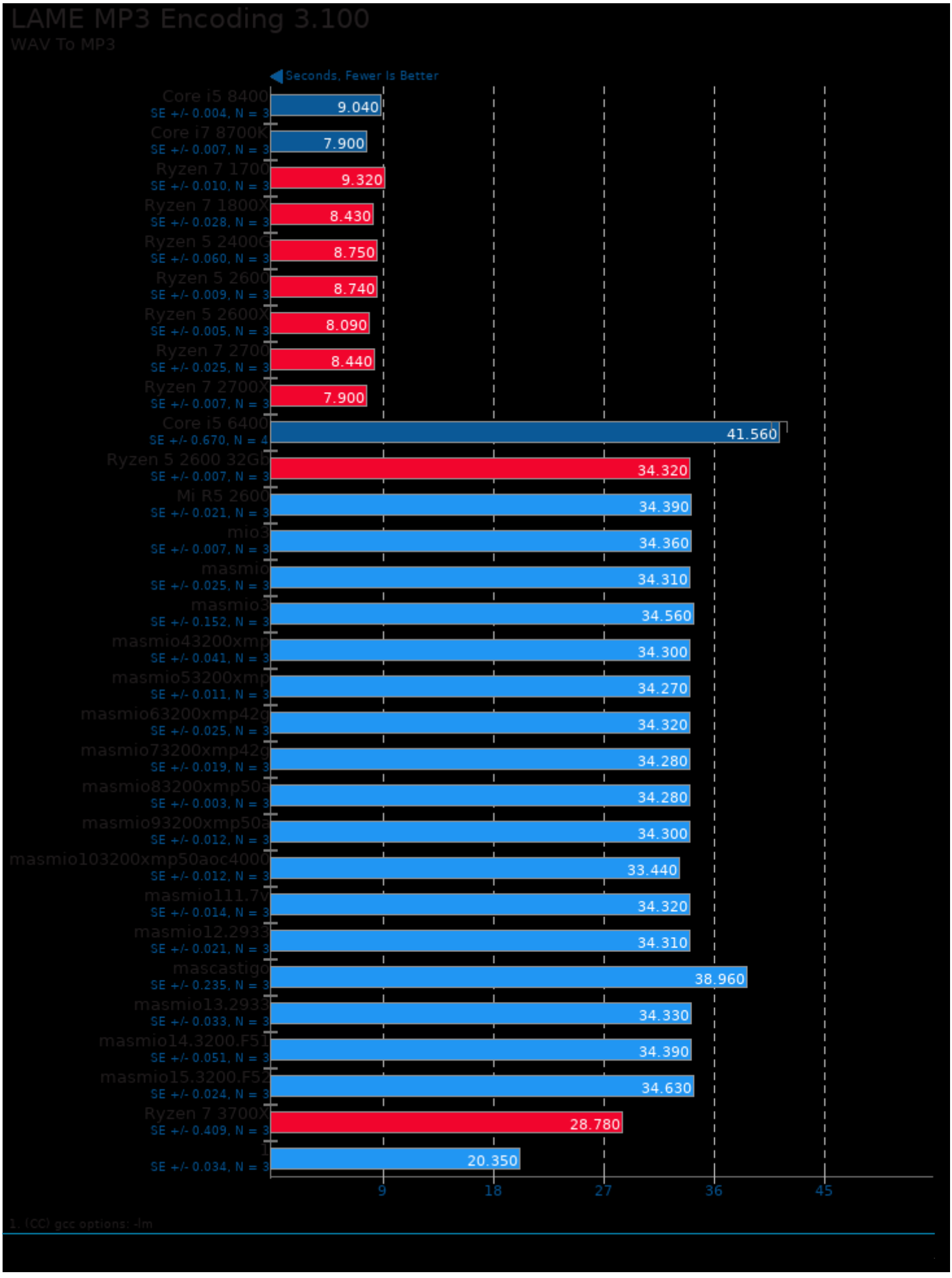

Timed PHP Compilation 7.1.9
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 36 / Avg: 57.62 / Max: 67
Ryzen 7 1700
Min: 37.25 / Avg: 46.15 / Max: 51.75
Ryzen 7 1800X
Min: 39 / Avg: 47.64 / Max: 54.25
Ryzen 5 2600
Min: 39.63 / Avg: 49.74 / Max: 53.25
Ryzen 5 2600X
Min: 41.88 / Avg: 56.2 / Max: 62.38
Ryzen 7 2700
Min: 36.75 / Avg: 46.39 / Max: 50.25
Ryzen 7 2700X
Min: 41.63 / Avg: 54.97 / Max: 59.75
13
26
39
52
65
Timed PHP Compilation 7.1.9
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.2 / Avg: 142.2 / Max: 174.3
Ryzen 7 1700
Min: 80.2 / Avg: 129.97 / Max: 164.4
Ryzen 7 1800X
Min: 109 / Avg: 150.31 / Max: 191.9
Ryzen 5 2600
Min: 100.1 / Avg: 137.41 / Max: 159.1
Ryzen 5 2600X
Min: 104.6 / Avg: 155.24 / Max: 189.4
Ryzen 7 2700
Min: 84.1 / Avg: 123.6 / Max: 153.9
Ryzen 7 2700X
Min: 106.6 / Avg: 158.28 / Max: 209
40
80
120
160
200

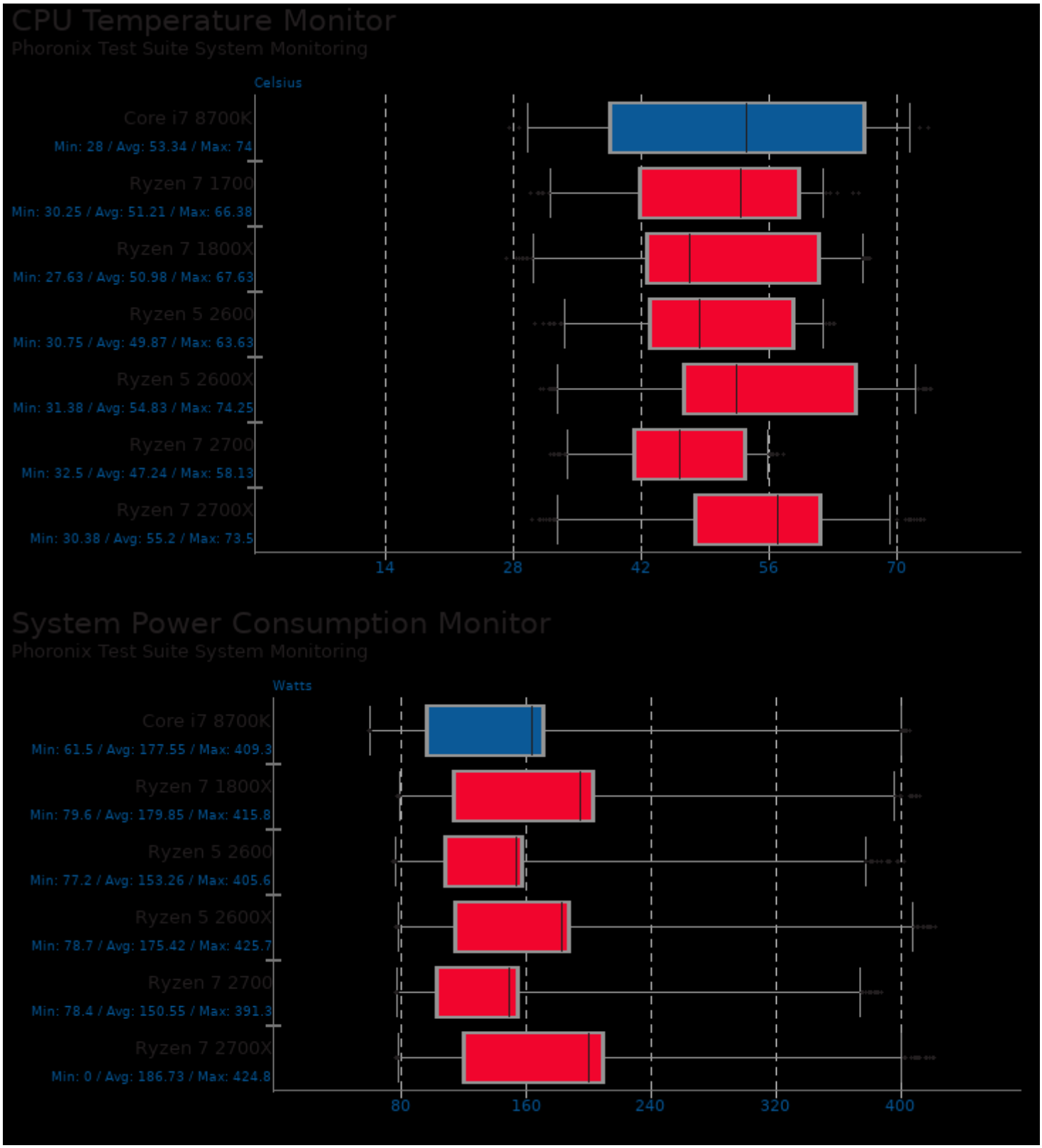

AOBench
Size: 2048 x 2048 - Total Time
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.10, N = 3
39.19
Core i7 8700K
SE +/- 0.09, N = 3
34.02
Ryzen 7 1700
SE +/- 0.13, N = 3
44.38
Ryzen 7 1800X
SE +/- 0.19, N = 3
40.44
Ryzen 5 2400G
SE +/- 0.16, N = 3
42.12
Ryzen 5 2600
SE +/- 0.19, N = 3
42.12
Ryzen 5 2600X
SE +/- 0.04, N = 3
39.19
Ryzen 7 2700
SE +/- 0.14, N = 3
41.00
Ryzen 7 2700X
SE +/- 0.06, N = 3
38.19
Core i5 6400
SE +/- 0.15, N = 3
45.99
Ryzen 5 2600 32GB
SE +/- 0.16, N = 3
37.86
Mi R5 2600
SE +/- 0.01, N = 3
38.84
mio3
SE +/- 0.11, N = 3
38.96
masmio
SE +/- 0.00, N = 3
37.97
masmio3
SE +/- 0.04, N = 3
38.12
masmio43200xmp
SE +/- 0.02, N = 3
37.98
masmio53200xmp
SE +/- 0.02, N = 3
38.00
masmio63200xmp420
SE +/- 0.00, N = 3
37.99
masmio73200xmp420
SE +/- 0.01, N = 3
38.08
masmio83200xmp50a
SE +/- 0.04, N = 3
38.09
masmio93200xmp50a
SE +/- 0.01, N = 3
37.99
masmio103200xmp50aoc4000
SE +/- 0.02, N = 3
37.07
masmio111.7v
SE +/- 0.01, N = 3
37.80
masmio12.2933
SE +/- 0.05, N = 3
37.85
mascastig0
SE +/- 0.57, N = 3
44.82
masmio13.2933
SE +/- 0.02, N = 3
37.85
masmio14.3200.F51
SE +/- 0.27, N = 3
38.39
masmio15.3200.F52
SE +/- 0.02, N = 3
37.06
Ryzen 7 3700X
SE +/- 0.37, N = 3
34.60
1
SE +/- 0.18, N = 3
28.66
10
20
30
40
50
1. (CC) gcc options: -lm -O3

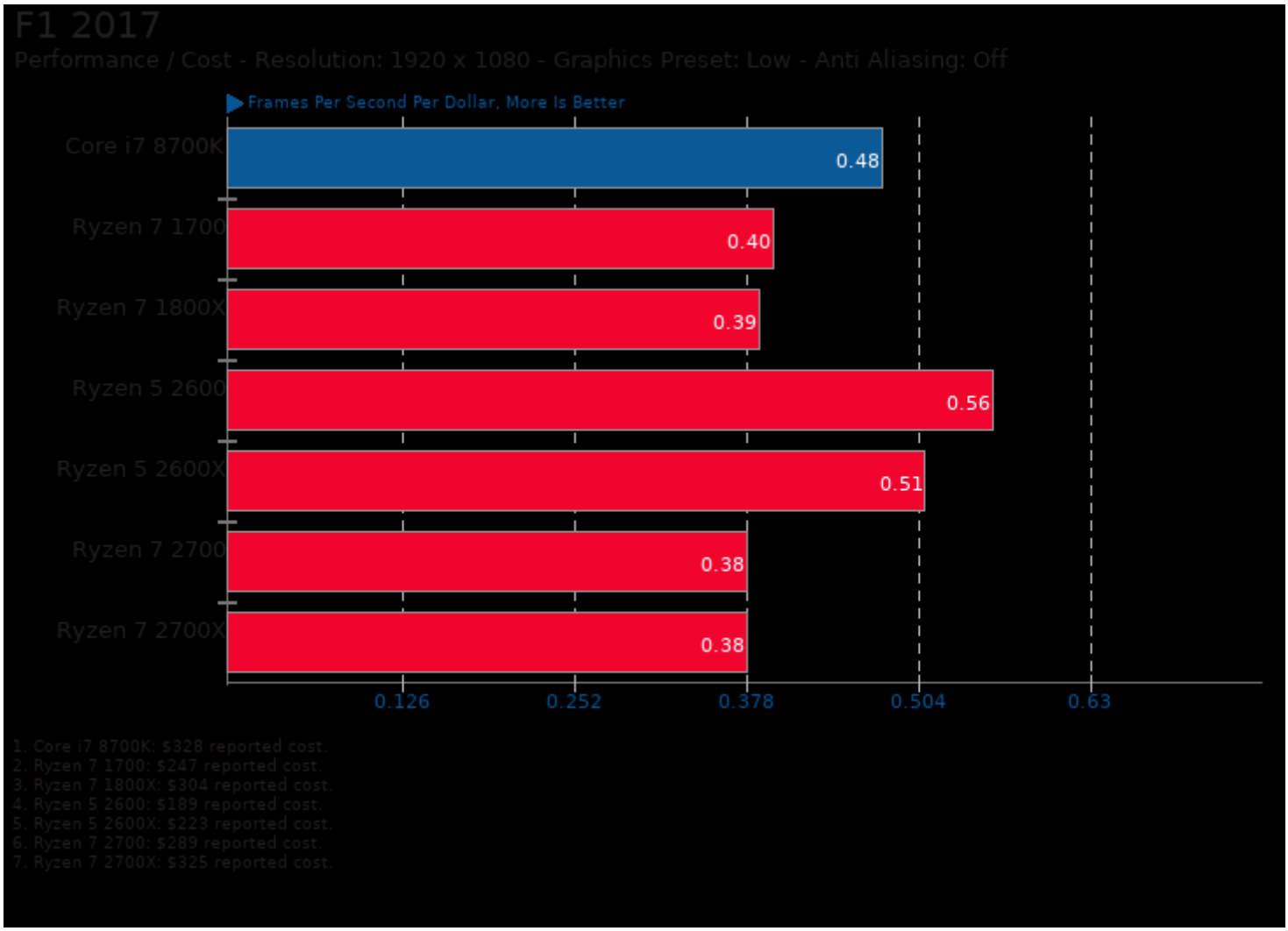

AOBench
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 36 / Avg: 44 / Max: 59
Ryzen 7 1700
Min: 34.25 / Avg: 52.11 / Max: 54.25
Ryzen 7 1800X
Min: 30.5 / Avg: 52.07 / Max: 55.25
Ryzen 5 2600
Min: 50.88 / Avg: 51.45 / Max: 52.25
Ryzen 5 2600X
Min: 53.5 / Avg: 55.2 / Max: 57.5
Ryzen 7 2700
Min: 50.88 / Avg: 51.65 / Max: 52.75
Ryzen 7 2700X
Min: 57.63 / Avg: 58.68 / Max: 60.88
12
24
36
48
60
AOBench
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 66 / Avg: 87.09 / Max: 91.9
Ryzen 7 1700
Min: 96.5 / Avg: 103.36 / Max: 104.7
Ryzen 7 1800X
Min: 109.5 / Avg: 110.43 / Max: 110.8
Ryzen 5 2600
Min: 91.6 / Avg: 99.13 / Max: 101.6
Ryzen 5 2600X
Min: 81 / Avg: 101.9 / Max: 105.7
Ryzen 7 2700
Min: 80.3 / Avg: 98.35 / Max: 102.6
Ryzen 7 2700X
Min: 81 / Avg: 106.71 / Max: 110.2
20
40
60
80
100

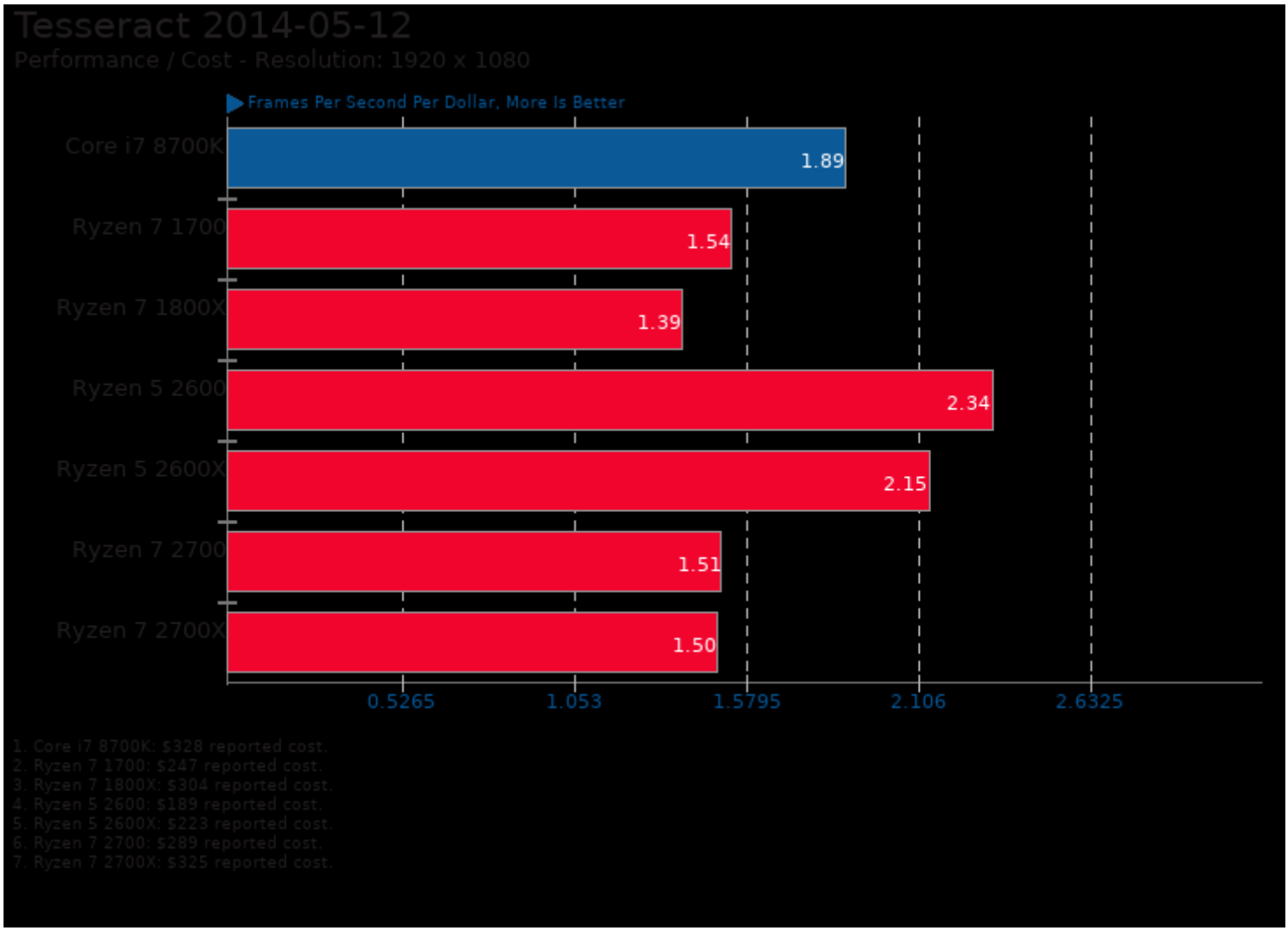

FLAC Audio Encoding 1.3.2
WAV To FLAC
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.011, N = 5
8.530
Core i7 8700K
SE +/- 0.008, N = 5
7.440
Ryzen 7 1700
SE +/- 0.025, N = 5
11.130
Ryzen 7 1800X
SE +/- 0.018, N = 5
10.020
Ryzen 5 2400G
SE +/- 0.019, N = 5
10.470
Ryzen 5 2600
SE +/- 0.005, N = 5
10.400
Ryzen 5 2600X
SE +/- 0.010, N = 5
9.720
Ryzen 7 2700
SE +/- 0.019, N = 5
10.110
Ryzen 7 2700X
SE +/- 0.017, N = 5
9.450
Core i5 6400
SE +/- 0.115, N = 5
12.350
Ryzen 5 2600 32GB
SE +/- 0.015, N = 5
10.110
Mi R5 2600
SE +/- 0.025, N = 5
10.080
mio3
SE +/- 0.110, N = 10
10.210
masmio
SE +/- 0.017, N = 5
9.940
masmio3
SE +/- 0.013, N = 5
9.980
masmio43200xmp
SE +/- 0.013, N = 5
10.130
masmio53200xmp
SE +/- 0.012, N = 5
10.030
masmio63200xmp420
SE +/- 0.013, N = 5
9.980
masmio73200xmp420
SE +/- 0.017, N = 5
9.990
masmio83200xmp50a
SE +/- 0.011, N = 5
10.020
masmio93200xmp50a
SE +/- 0.062, N = 5
10.210
masmio103200xmp50aoc4000
SE +/- 0.021, N = 5
9.910
masmio111.7v
SE +/- 0.020, N = 5
9.980
masmio12.2933
SE +/- 0.014, N = 5
10.050
mascastig0
SE +/- 0.094, N = 5
11.840
masmio13.2933
SE +/- 0.028, N = 5
10.050
masmio14.3200.F51
SE +/- 0.011, N = 5
10.150
masmio15.3200.F52
SE +/- 0.025, N = 5
10.120
Ryzen 7 3700X
SE +/- 0.095, N = 5
9.090
1
SE +/- 0.047, N = 23
5.625
3
6
9
12
15
1. (CXX) g++ options: -fvisibility=hidden -logg -lm

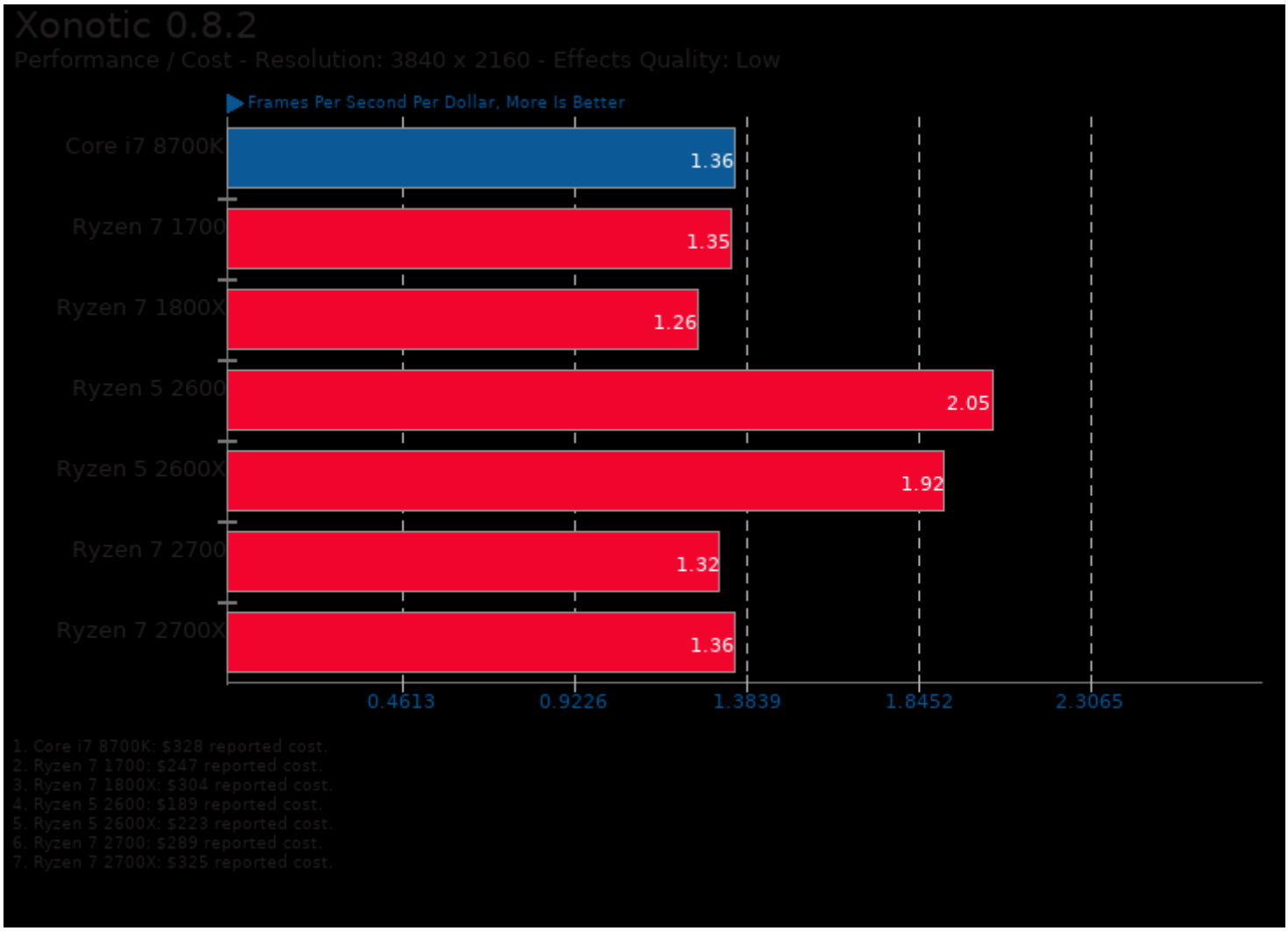

FLAC Audio Encoding 1.3.2
CPU Temperature Monitor
Celsius, Fewer Is Better
Core i7 8700K
Min: 31 / Avg: 39 / Max: 56
Ryzen 7 1700
Min: 31.75 / Avg: 44.98 / Max: 51
Ryzen 7 1800X
Min: 45.38 / Avg: 47.67 / Max: 49.63
Ryzen 5 2600
Min: 45.25 / Avg: 48.45 / Max: 51.63
Ryzen 5 2600X
Min: 48.63 / Avg: 51.29 / Max: 53.5
Ryzen 7 2700
Min: 47.88 / Avg: 49.8 / Max: 52.88
Ryzen 7 2700X
Min: 51.75 / Avg: 53.98 / Max: 57.25
11
22
33
44
55
FLAC Audio Encoding 1.3.2
System Power Consumption Monitor
Watts, Fewer Is Better
Core i7 8700K
Min: 62.4 / Avg: 88.28 / Max: 94.2
Ryzen 7 1700
Min: 99.5 / Avg: 101.28 / Max: 102.3
Ryzen 7 1800X
Min: 80.9 / Avg: 99.67 / Max: 109.1
Ryzen 5 2600
Min: 89.3 / Avg: 97.08 / Max: 100.3
Ryzen 5 2600X
Min: 79.6 / Avg: 95.4 / Max: 103.7
Ryzen 7 2700
Min: 94.4 / Avg: 100.27 / Max: 102.9
Ryzen 7 2700X
Min: 80.5 / Avg: 101.24 / Max: 107.7
20
40
60
80
100

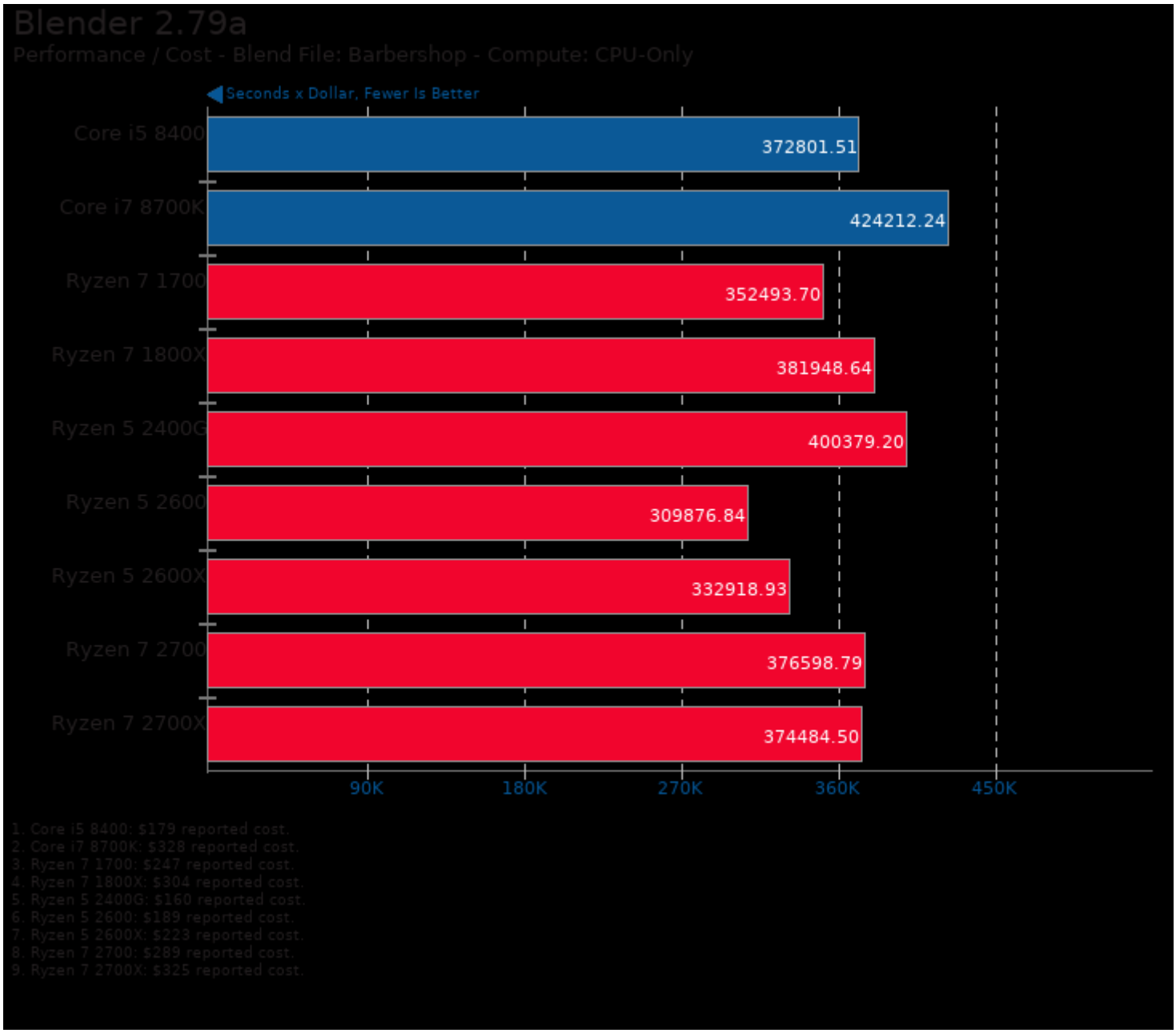

LAME MP3 Encoding 3.100
WAV To MP3
Seconds, Fewer Is Better
Core i5 8400
SE +/- 0.004, N = 3
9.040
Core i7 8700K
SE +/- 0.007, N = 3
7.900
Ryzen 7 1700
SE +/- 0.010, N = 3
9.320
Ryzen 7 1800X
SE +/- 0.028, N = 3
8.430
Ryzen 5 2400G
SE +/- 0.060, N = 3
8.750
Ryzen 5 2600
SE +/- 0.009, N = 3
8.740
Ryzen 5 2600X
SE +/- 0.005, N = 3
8.090
Ryzen 7 2700
SE +/- 0.025, N = 3
8.440
Ryzen 7 2700X
SE +/- 0.007, N = 3
7.900
Core i5 6400
SE +/- 0.670, N = 4
41.560
Ryzen 5 2600 32GB
SE +/- 0.007, N = 3
34.320
Mi R5 2600
SE +/- 0.021, N = 3
34.390
mio3
SE +/- 0.007, N = 3
34.360
masmi0
SE +/- 0.025, N = 3
34.310
masmio3
SE +/- 0.152, N = 3
34.560
masmio43200xmp
SE +/- 0.041, N = 3
34.300
masmio53200xmp
SE +/- 0.011, N = 3
34.270
masmio63200xmp420
SE +/- 0.025, N = 3
34.320
masmio73200xmp420
SE +/- 0.019, N = 3
34.280
masmio83200xmp50a
SE +/- 0.003, N = 3
34.280
masmio93200xmp50a
SE +/- 0.012, N = 3
34.300
masmio103200xmp50aoc4000
SE +/- 0.012, N = 3
33.440
masmio111.7v
SE +/- 0.014, N = 3
34.320
masmio12.2933
SE +/- 0.021, N = 3
34.310
mascastig0
SE +/- 0.235, N = 3
38.960
masmio13.2933
SE +/- 0.033, N = 3
34.330
masmio14.3200.F51
SE +/- 0.051, N = 3
34.390
masmio15.3200.F52
SE +/- 0.024, N = 3
34.630
Ryzen 7 3700X
SE +/- 0.409, N = 3
28.780
1
SE +/- 0.034, N = 3
20.350
9
18
27
36
45
1. (CC) gcc options: -lm

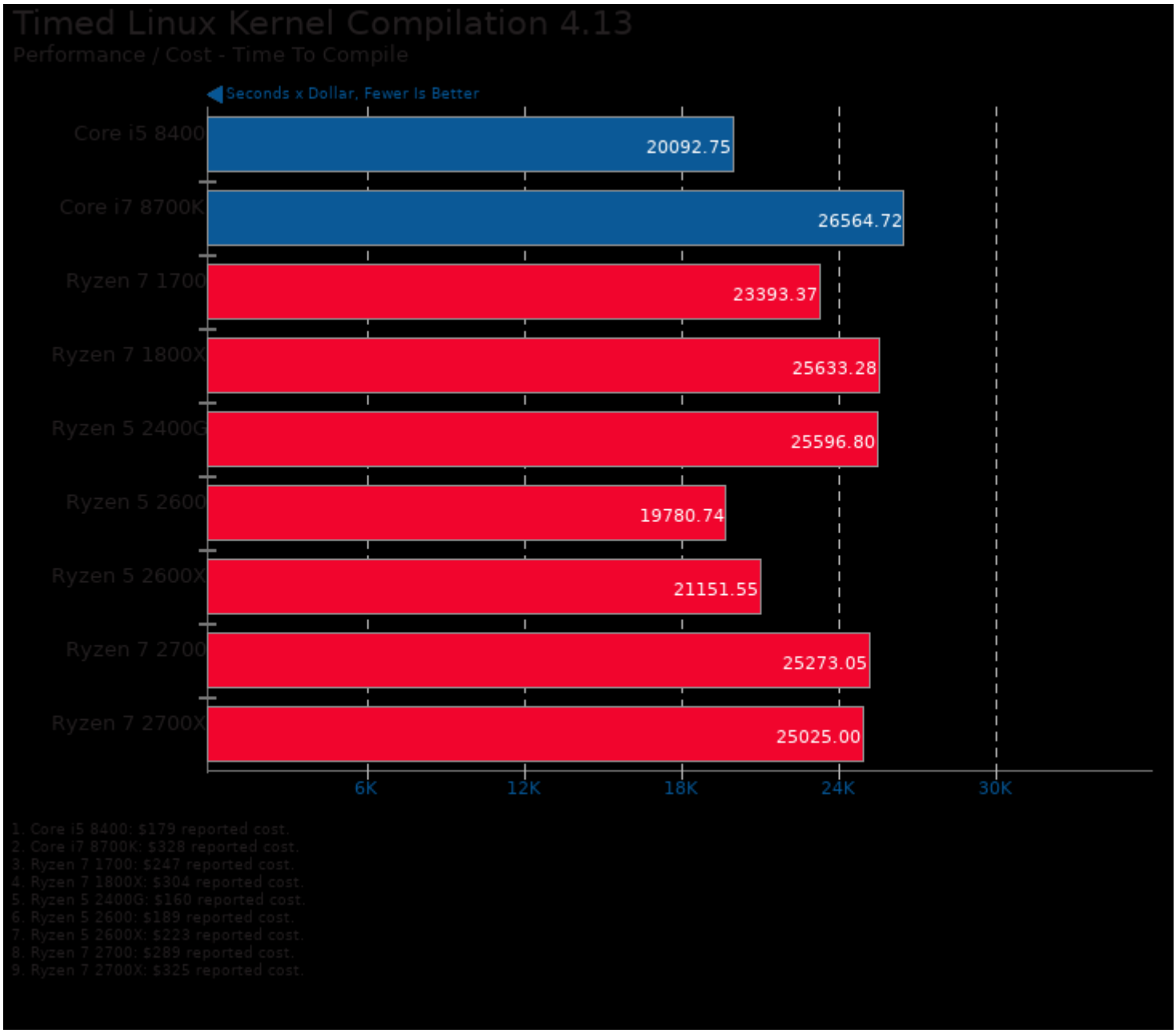

CPU Temperature Monitor
Phoronix Test Suite System Monitoring
Celsius
Core i7 8700K
Min: 28 / Avg: 53.34 / Max: 74
Ryzen 7 1700
Min: 30.25 / Avg: 51.21 / Max: 66.38
Ryzen 7 1800X
Min: 27.63 / Avg: 50.98 / Max: 67.63
Ryzen 5 2600
Min: 30.75 / Avg: 49.87 / Max: 63.63
Ryzen 5 2600X
Min: 31.38 / Avg: 54.83 / Max: 74.25
Ryzen 7 2700
Min: 32.5 / Avg: 47.24 / Max: 58.13
Ryzen 7 2700X
Min: 30.38 / Avg: 55.2 / Max: 73.5
14
28
42
56
70
System Power Consumption Monitor
Phoronix Test Suite System Monitoring
Watts
Core i7 8700K
Min: 61.5 / Avg: 177.55 / Max: 409.3
Ryzen 7 1800X
Min: 79.6 / Avg: 179.85 / Max: 415.8
Ryzen 5 2600
Min: 77.2 / Avg: 153.26 / Max: 405.6
Ryzen 5 2600X
Min: 78.7 / Avg: 175.42 / Max: 425.7
Ryzen 7 2700
Min: 78.4 / Avg: 150.55 / Max: 391.3
Ryzen 7 2700X
Min: 0 / Avg: 186.73 / Max: 424.8
80
160
240
320
400

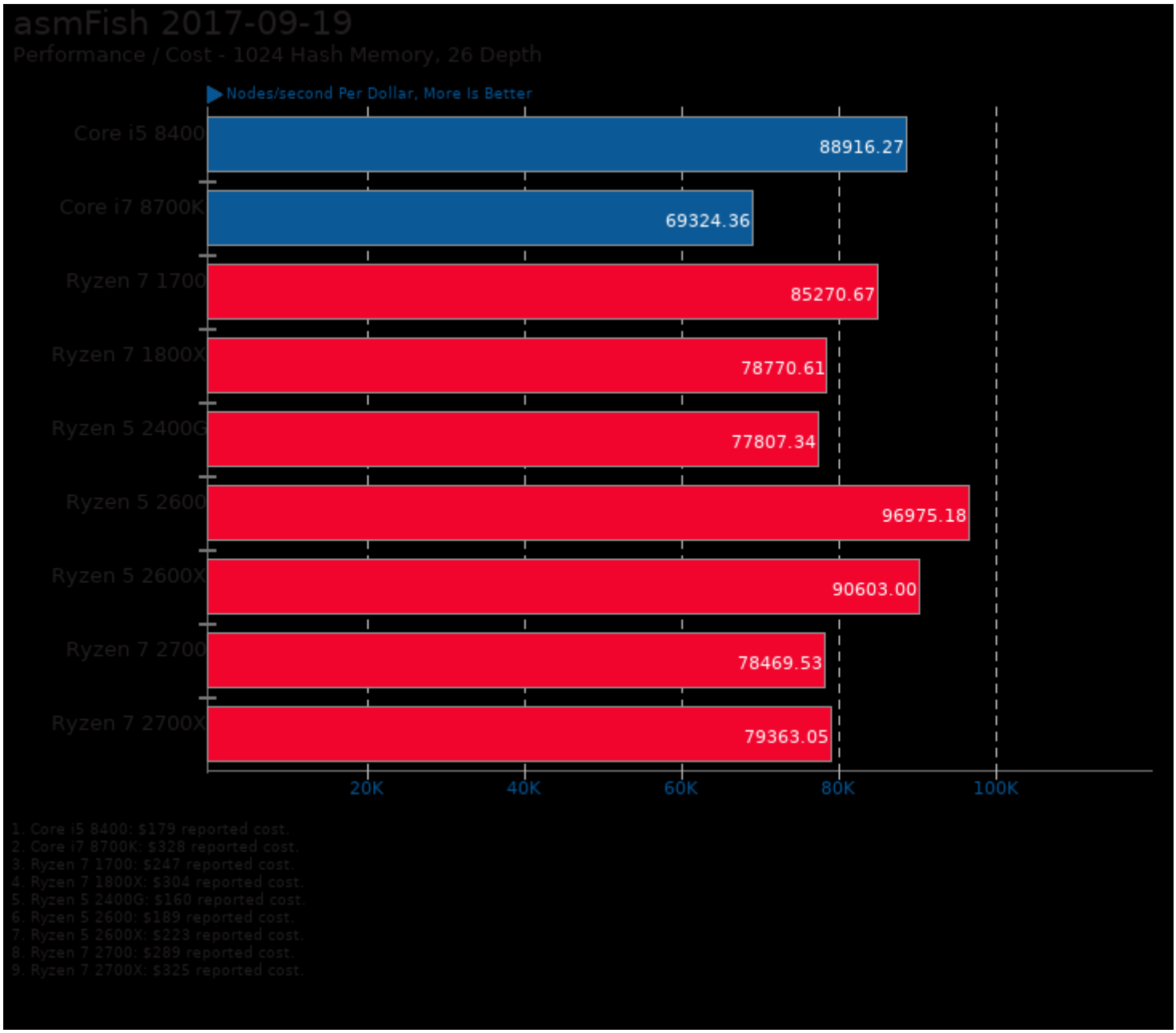

F1 2017
Performance / Cost - Resolution: 1920 x 1080 - Graphics Preset: Low - Anti Aliasing: Off
Frames Per Second Per Dollar, More Is Better
Core i7 8700K
0.48
Ryzen 7 1700
0.40
Ryzen 7 1800X
0.39
Ryzen 5 2600
0.56
Ryzen 5 2600X
0.51
Ryzen 7 2700
0.38
Ryzen 7 2700X
0.38
0.126
0.252
0.378
0.504
0.63
1. Core i7 8700K: $328 reported cost.
2. Ryzen 7 1700: $247 reported cost.
3. Ryzen 7 1800X: $304 reported cost.
4. Ryzen 5 2600: $189 reported cost.
5. Ryzen 5 2600X: $223 reported cost.
6. Ryzen 7 2700: $289 reported cost.
7. Ryzen 7 2700X: $325 reported cost.

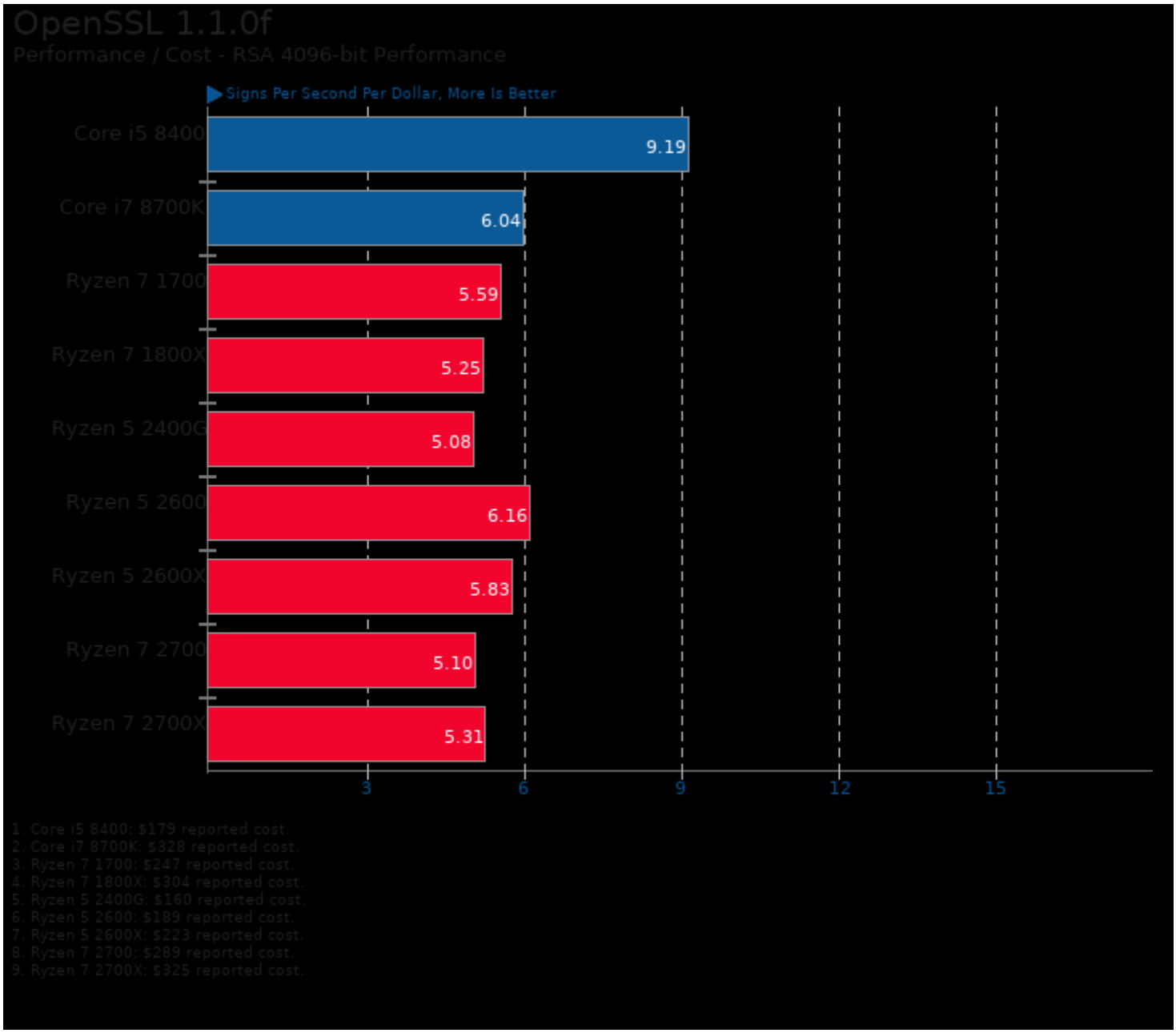

Tesseract 2014-05-12
Performance / Cost - Resolution: 1920 x 1080
Frames Per Second Per Dollar, More Is Better
Core i7 8700K
1.89
Ryzen 7 1700
1.54
Ryzen 7 1800X
1.39
Ryzen 5 2600
2.34
Ryzen 5 2600X
2.15
Ryzen 7 2700
1.51
Ryzen 7 2700X
1.50
0.5265
1.053
1.5795
2.106
2.6325
1. Core i7 8700K: $328 reported cost.
2. Ryzen 7 1700: $247 reported cost.
3. Ryzen 7 1800X: $304 reported cost.
4. Ryzen 5 2600: $189 reported cost.
5. Ryzen 5 2600X: $223 reported cost.
6. Ryzen 7 2700: $289 reported cost.
7. Ryzen 7 2700X: $325 reported cost.

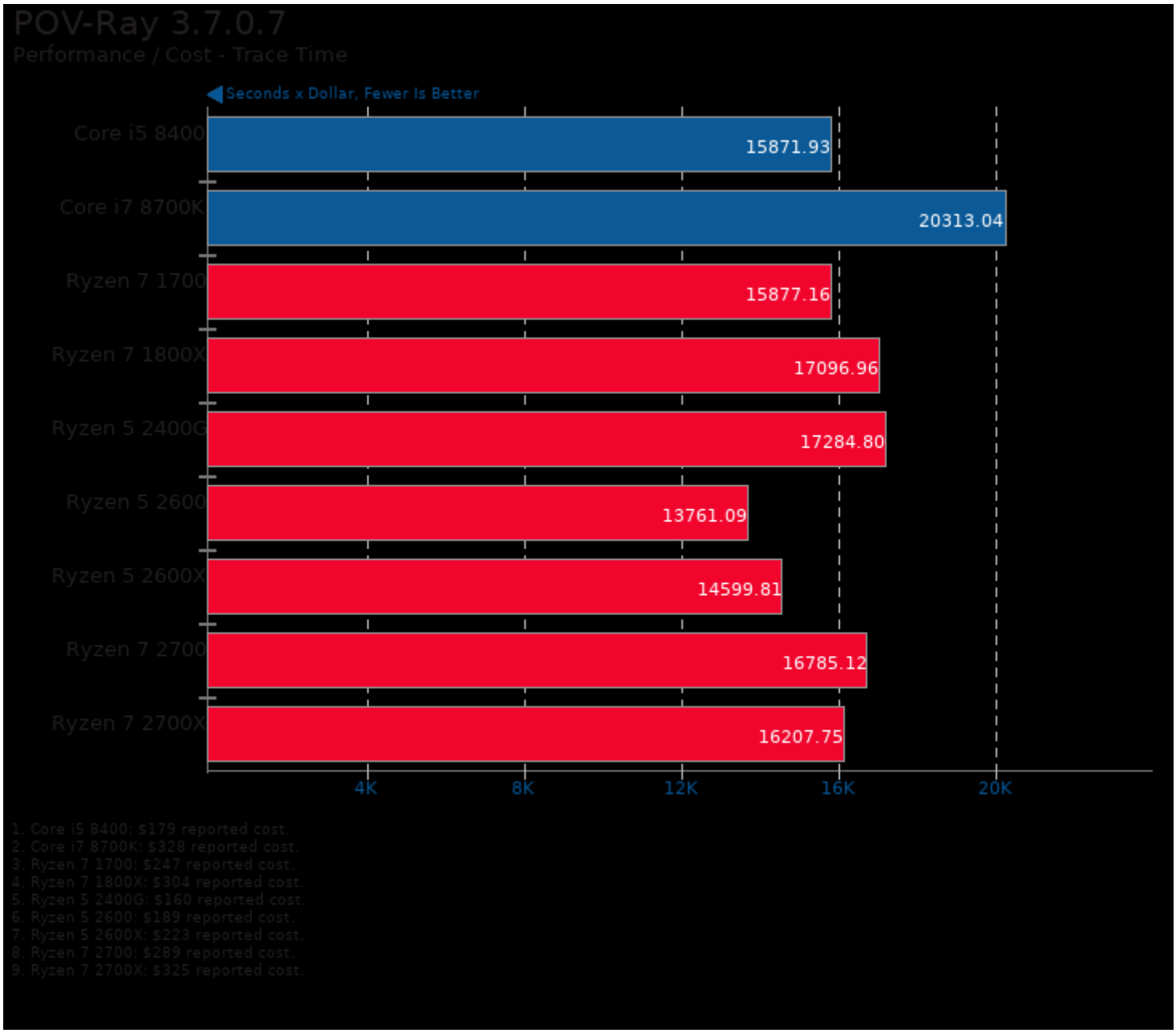

Xonotic 0.8.2
Performance / Cost - Resolution: 3840 x 2160 - Effects Quality: Low
Frames Per Second Per Dollar, More Is Better
Core i7 8700K
1.36
Ryzen 7 1700
1.35
Ryzen 7 1800X
1.26
Ryzen 5 2600
2.05
Ryzen 5 2600X
1.92
Ryzen 7 2700
1.32
Ryzen 7 2700X
1.36
0.4613
0.9226
1.3839
1.8452
2.3065
1. Core i7 8700K: $328 reported cost.
2. Ryzen 7 1700: $247 reported cost.
3. Ryzen 7 1800X: $304 reported cost.
4. Ryzen 5 2600: $189 reported cost.
5. Ryzen 5 2600X: $223 reported cost.
6. Ryzen 7 2700: $289 reported cost.
7. Ryzen 7 2700X: $325 reported cost.

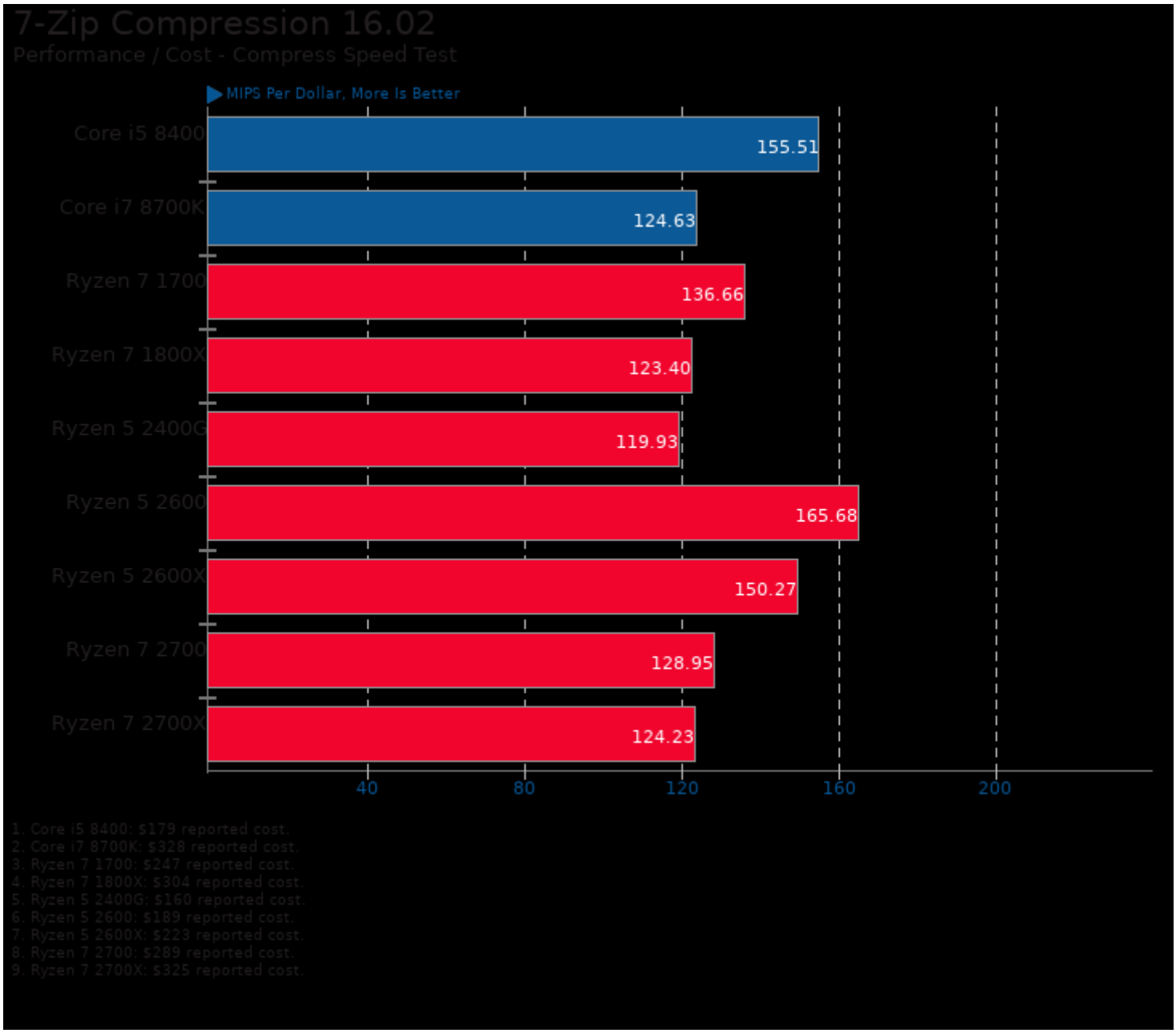

Blender 2.79a
Performance / Cost - Blend File: Barbershop - Compute: CPU-Only
Seconds x Dollar, Fewer Is Better
Core i5 8400
372801.51
Core i7 8700K
424212.24
Ryzen 7 1700
352493.70
Ryzen 7 1800X
381948.64
Ryzen 5 2400G
400379.20
Ryzen 5 2600
309876.84
Ryzen 5 2600X
332918.93
Ryzen 7 2700
376598.79
Ryzen 7 2700X
374484.50
90K
180K
270K
360K
450K
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.

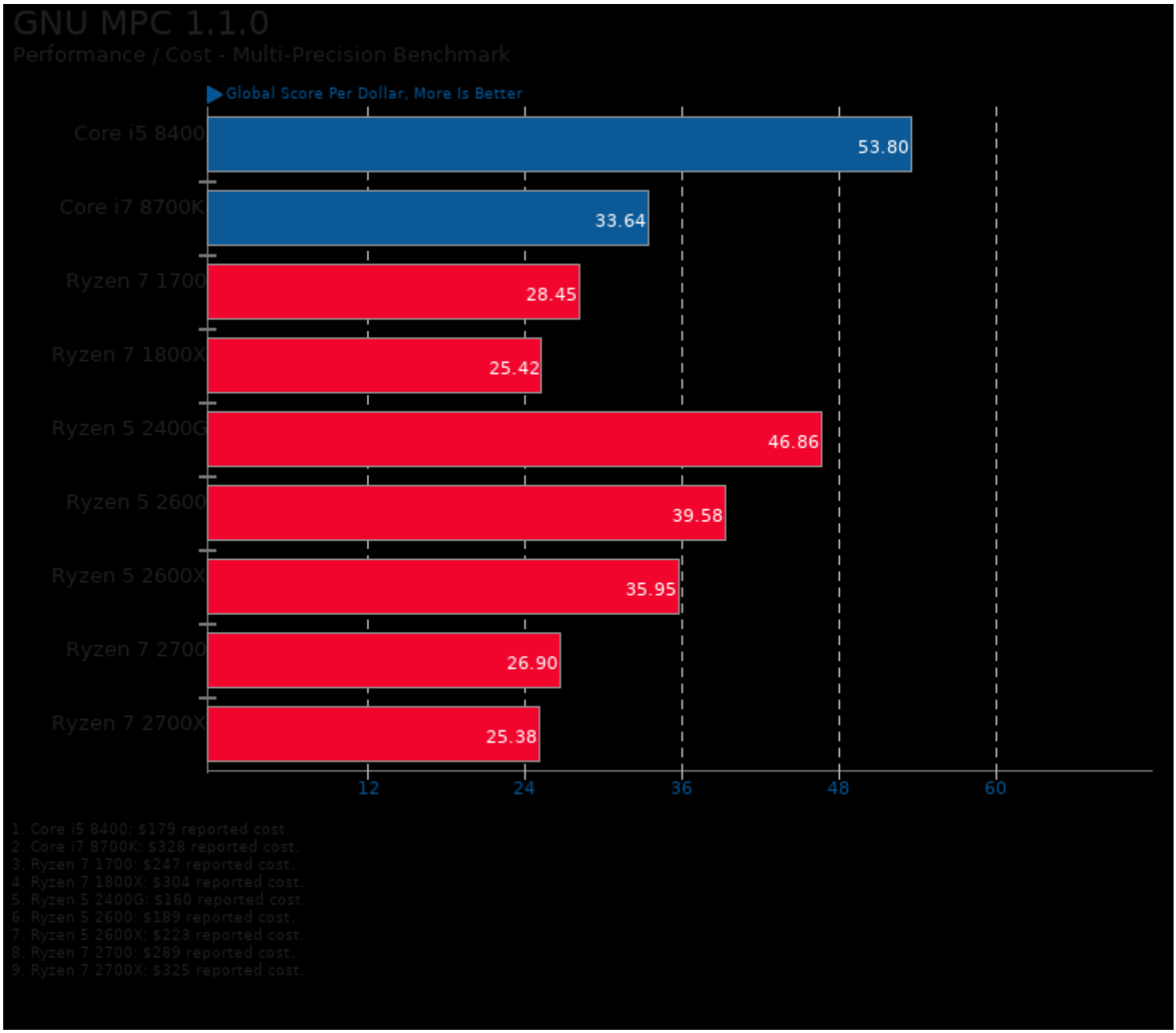

Timed Linux Kernel Compilation 4.13
Performance / Cost - Time To Compile
Seconds x Dollar, Fewer Is Better
Core i5 8400
20092.75
Core i7 8700K
26564.72
Ryzen 7 1700
23393.37
Ryzen 7 1800X
25633.28
Ryzen 5 2400G
25596.80
Ryzen 5 2600
19780.74
Ryzen 5 2600X
21151.55
Ryzen 7 2700
25273.05
Ryzen 7 2700X
25025.00
6K
12K
18K
24K
30K
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.

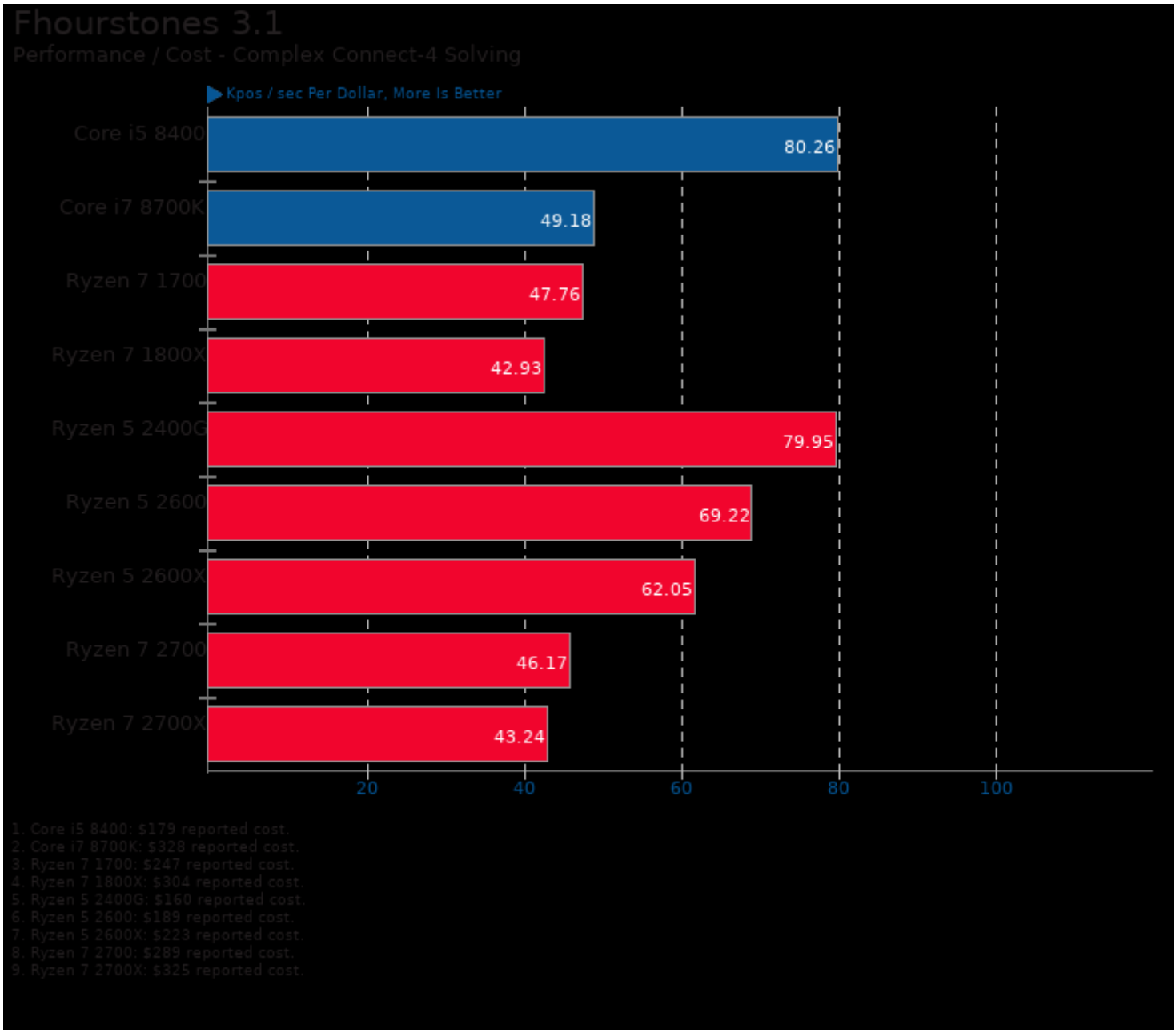

asmFish 2017-09-19
Performance / Cost - 1024 Hash Memory, 26 Depth
Nodes/second Per Dollar, More Is Better
Core i5 8400
88916.27
Core i7 8700K
69324.36
Ryzen 7 1700
85270.67
Ryzen 7 1800X
78770.61
Ryzen 5 2400G
77807.34
Ryzen 5 2600
96975.18
Ryzen 5 2600X
90603.00
Ryzen 7 2700
78469.53
Ryzen 7 2700X
79363.05
20K
40K
60K
80K
100K
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.


OpenSSL 1.1.0f
Performance / Cost - RSA 4096-bit Performance
Signs Per Second Per Dollar, More Is Better
Core i5 8400
9.19
Core i7 8700K
6.04
Ryzen 7 1700
5.59
Ryzen 7 1800X
5.25
Ryzen 5 2400G
5.08
Ryzen 5 2600
6.16
Ryzen 5 2600X
5.83
Ryzen 7 2700
5.10
Ryzen 7 2700X
5.31
3
6
9
12
15
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.

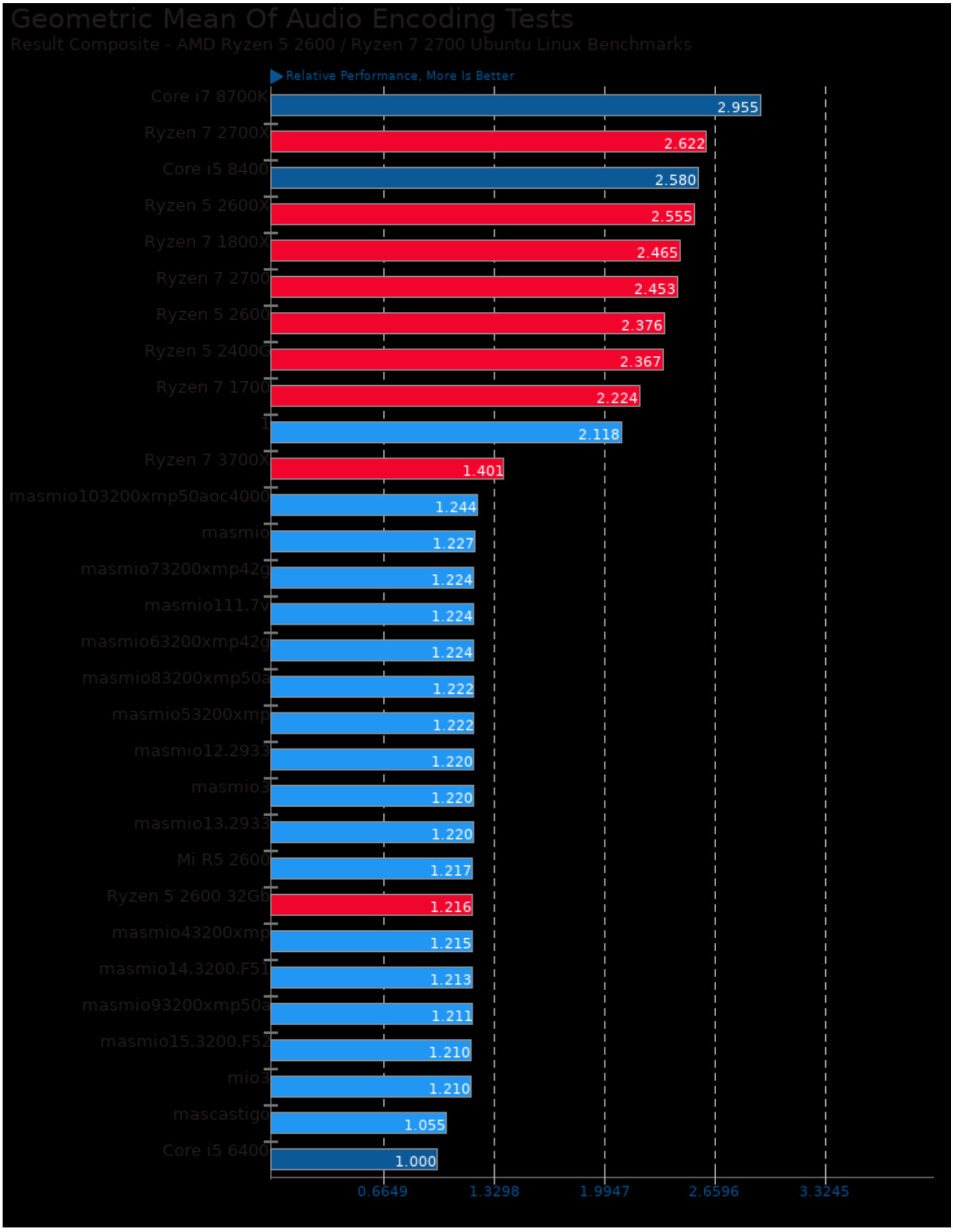

POV-Ray 3.7.0.7
Performance / Cost - Trace Time
Seconds x Dollar, Fewer Is Better
Core i5 8400
15871.93
Core i7 8700K
20313.04
Ryzen 7 1700
15877.16
Ryzen 7 1800X
17096.96
Ryzen 5 2400G
17284.80
Ryzen 5 2600
13761.09
Ryzen 5 2600X
14599.81
Ryzen 7 2700
16785.12
Ryzen 7 2700X
16207.75
4K
8K
12K
16K
20K
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.


7-Zip Compression 16.02
Performance / Cost - Compress Speed Test
MIPS Per Dollar, More Is Better
Core i5 8400
155.51
Core i7 8700K
124.63
Ryzen 7 1700
136.66
Ryzen 7 1800X
123.40
Ryzen 5 2400G
119.93
Ryzen 5 2600
165.68
Ryzen 5 2600X
150.27
Ryzen 7 2700
128.95
Ryzen 7 2700X
124.23
40
80
120
160
200
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.

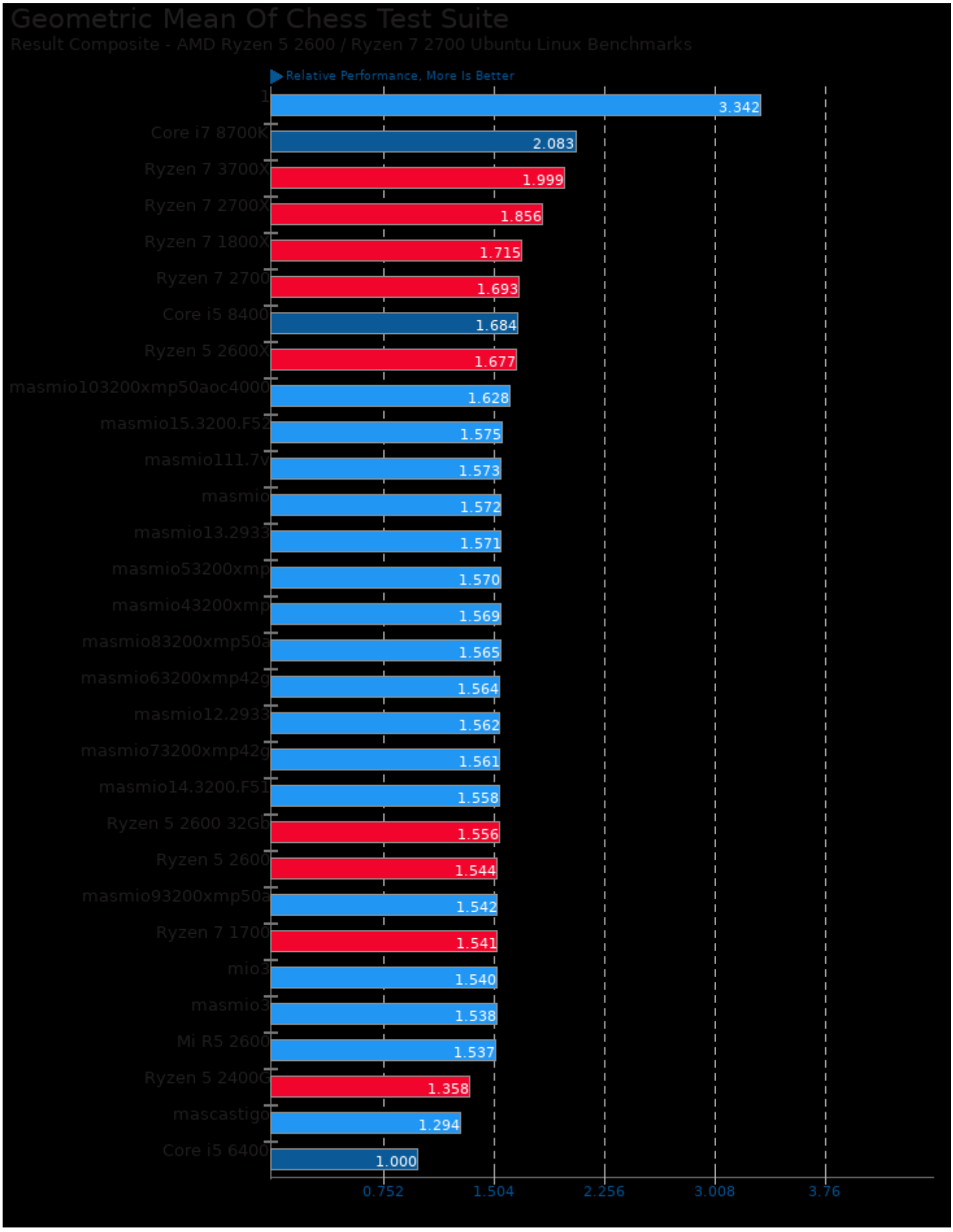

GNU MPC 1.1.0
Performance / Cost - Multi-Precision Benchmark
Global Score Per Dollar, More Is Better
Core i5 8400
53.80
Core i7 8700K
33.64
Ryzen 7 1700
28.45
Ryzen 7 1800X
25.42
Ryzen 5 2400G
46.86
Ryzen 5 2600
39.58
Ryzen 5 2600X
35.95
Ryzen 7 2700
26.90
Ryzen 7 2700X
25.38
12
24
36
48
60
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.


Fhourstones 3.1
Performance / Cost - Complex Connect-4 Solving
Kpos / sec Per Dollar, More Is Better
Core i5 8400
80.26
Core i7 8700K
49.18
Ryzen 7 1700
47.76
Ryzen 7 1800X
42.93
Ryzen 5 2400G
79.95
Ryzen 5 2600
69.22
Ryzen 5 2600X
62.05
Ryzen 7 2700
46.17
Ryzen 7 2700X
43.24
20
40
60
80
100
1. Core i5 8400: $179 reported cost.
2. Core i7 8700K: $328 reported cost.
3. Ryzen 7 1700: $247 reported cost.
4. Ryzen 7 1800X: $304 reported cost.
5. Ryzen 5 2400G: $160 reported cost.
6. Ryzen 5 2600: $189 reported cost.
7. Ryzen 5 2600X: $223 reported cost.
8. Ryzen 7 2700: $289 reported cost.
9. Ryzen 7 2700X: $325 reported cost.

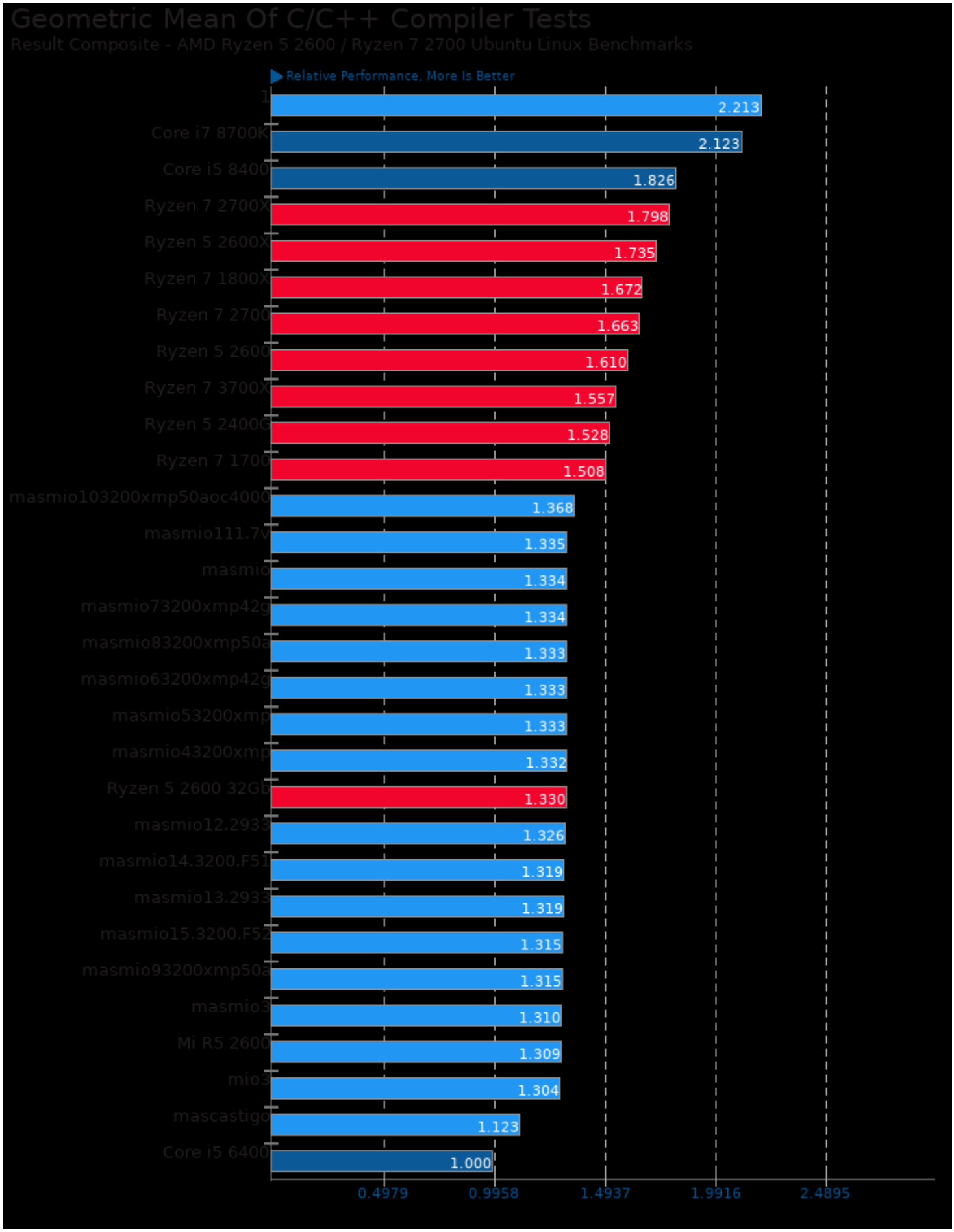
These geometric means are based upon test groupings / test suites for this result file.


Geometric Mean Of Audio Encoding Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
Core i7 8700K
Ryzen 7 2700X
Core i5 8400
Ryzen 5 2600X
Ryzen 7 1800X
Ryzen 7 2700
Ryzen 5 2600
Ryzen 5 2400G
Ryzen 7 1700
Ryzen 7 3700X
masmio103200xmp50aoc4000
masmio73200xmp42
masmio111.7
masmio63200xmp42
masmio83200xmp50a
masmio53200xmp
masmio12.2933
masmio3
masmio13.2933
Mi R5 2600
Ryzen 5 2600 32GB
masmio43200xmp
masmio14.3200.F51
masmio93200xmp50a
masmio15.3200.F52
mio3
mascastig
Core i5 6400
2.955
2.622
2.580
2.555
2.465
2.453
2.376
2.367
2.224
2.118
1.401
1.244
1.227
1.224
1.224
1.224
1.222
1.222
1.220
1.220
1.220
1.217
1.216
1.215
1.213
1.211
1.210
1.210
1.055
1.000
0.6649
1.3298
1.9947
2.6596
3.3245

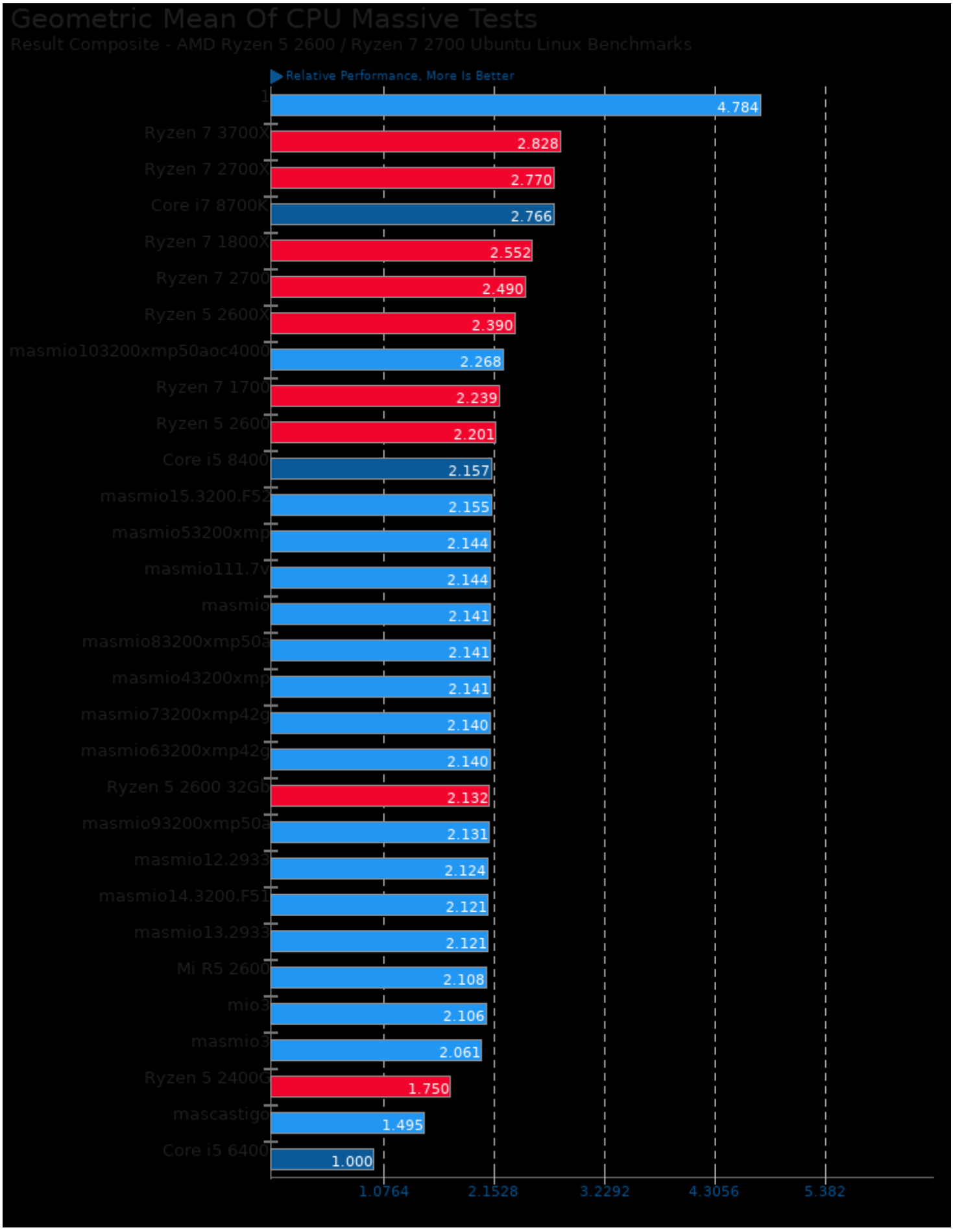
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac


Geometric Mean Of Chess Test Suite
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
3.342
Core i7 8700K
2.083
Ryzen 7 3700X
1.999
Ryzen 7 2700X
1.856
Ryzen 7 1800X
1.715
Ryzen 7 2700
1.693
Core i5 8400
1.684
Ryzen 5 2600X
1.677
masmio103200xmp50aoc4000
1.628
masmio15.3200.F52
1.575
masmio111.7
1.573
masmio
1.572
masmio13.2933
1.571
masmio53200xmp
1.570
masmio43200xmp
1.569
masmio83200xmp50a
1.565
masmio63200xmp42
1.564
masmio12.2933
1.562
masmio73200xmp42
1.561
masmio14.3200.F51
1.558
Ryzen 5 2600 32GB
1.556
Ryzen 5 2600
1.544
masmio93200xmp50a
1.542
Ryzen 7 1700
1.541
mio3
1.540
masmio3
1.538
Mi R5 2600
1.537
Ryzen 5 2400G
1.358
mascastigo
1.294
Core i5 6400
1.000
0.752
1.504
2.256
3.008
3.76

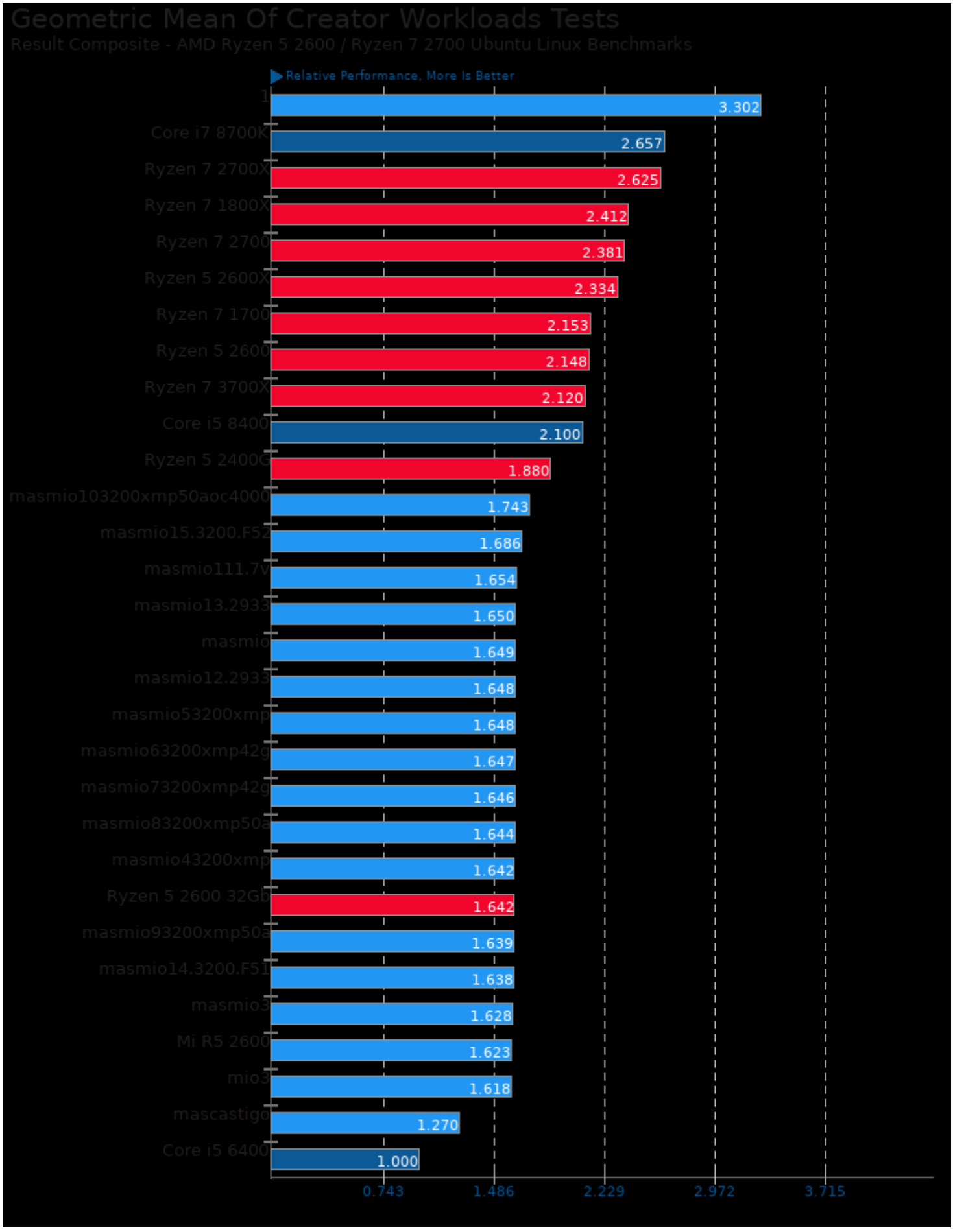
Geometric mean based upon tests: pts/tscp, pts/stockfish and pts/asmfish


Geometric Mean Of C/C++ Compiler Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
2.213
2.123
1.826
1.798
1.735
1.672
1.663
1.610
1.557
1.528
1.508
1.368
1.335
1.334
1.334
1.333
1.333
1.333
1.332
1.330
1.326
1.319
1.319
1.315
1.315
1.310
1.309
1.304
1.123
1.000
0.4979
0.9958
1.4937
1.9916
2.4895

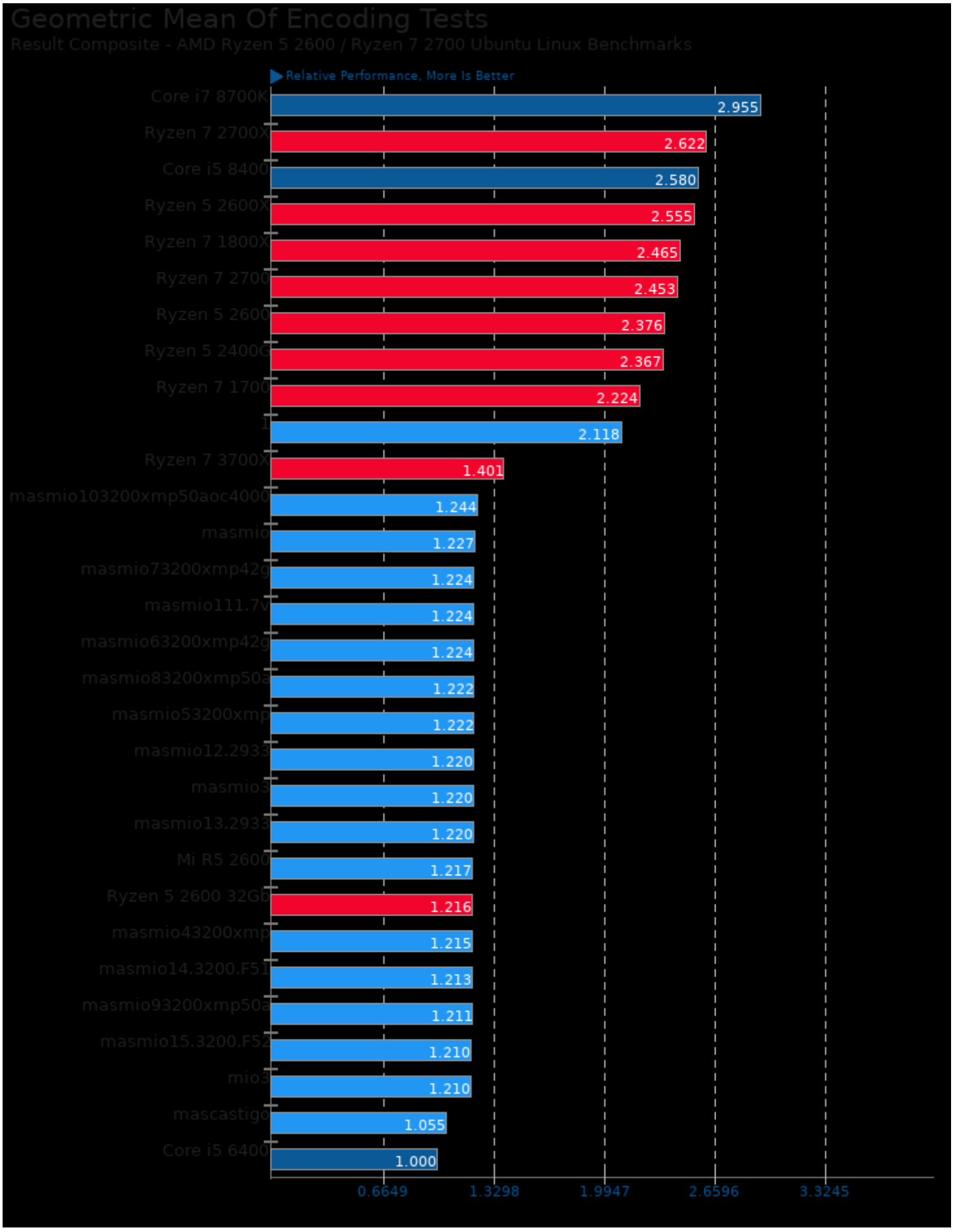
Geometric mean based upon tests: pts/aobench, pts/tscp, pts/stockfish, pts/build-php, pts/compress-7zip, pts/encode-mp3, pts/encode-flac and pts/openssl


Geometric Mean Of CPU Massive Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
4.784
Ryzen 7 3700X
2.828
Ryzen 7 2700X
2.770
Core i7 8700K
2.766
Ryzen 7 1800X
2.552
Ryzen 7 2700
2.490
Ryzen 5 2600X
2.390
masmio103200xmp50aoc4000
2.268
Ryzen 7 1700
2.239
Ryzen 5 2600
2.201
Core i5 8400
2.157
masmio15.3200.F52
2.155
masmio53200xmp
2.144
masmio111.7V
2.144
masmi
2.141
masmio83200xmp50a
2.141
masmio43200xmp
2.141
masmio73200xmp42
2.140
masmio63200xmp42
2.140
Ryzen 5 2600 32GB
2.132
masmio93200xmp50a
2.131
masmio12.2933
2.124
masmio14.3200.F51
2.121
masmio13.2933
2.121
Mi R5 2600
2.108
mio3
2.106
masmio3
2.061
Ryzen 5 2400G
1.750
mascastigo
1.495
Core i5 6400
1.000
1.0764
2.1528
3.2292
4.3056
5.382

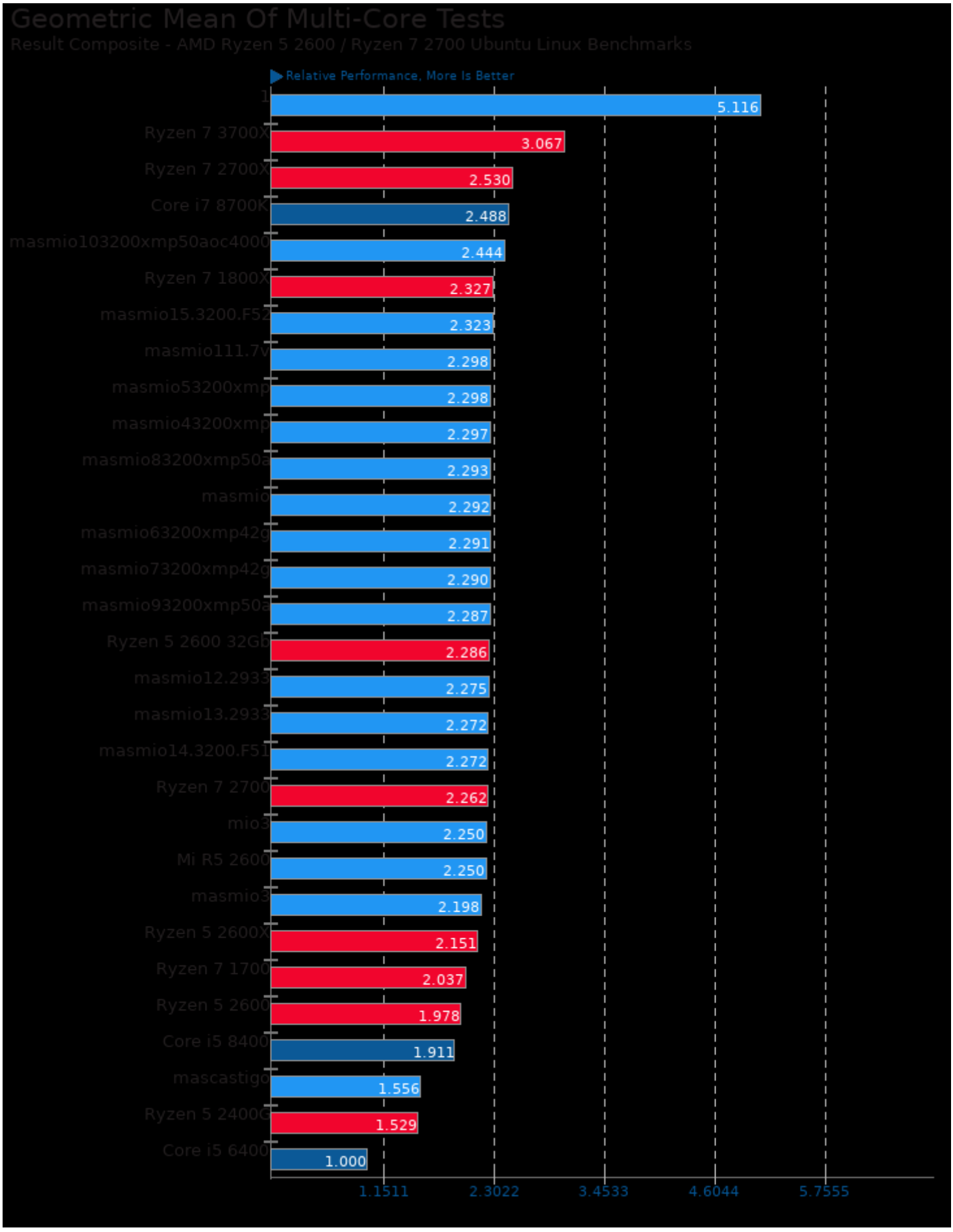
Geometric mean based upon tests: pts/asmfish, pts/build-linux-kernel, pts/build-php, pts/compress-7zip, pts/encode-flac, pts/encode-mp3, pts/openssl, pts/povray, pts/rodinia, pts/stockfish, pts/ttsiod-renderer and pts/blender


Geometric Mean Of Creator Workloads Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
3.302
2.657
2.625
2.412
2.381
2.334
2.153
2.148
2.120
2.100
1.880
1.743
1.686
1.654
1.650
1.649
1.648
1.648
1.647
1.646
1.644
1.642
1.642
1.639
1.638
1.628
1.623
1.618
1.270
1.000
Core i7 8700K
Ryzen 7 2700X
Ryzen 7 1800X
Ryzen 7 2700
Ryzen 5 2600X
Ryzen 7 1700
Ryzen 5 2600
Ryzen 7 3700X
Core i5 8400
Ryzen 5 2400G
masmio103200xmp50aoc4000
masmio15.3200.F52
masmio111.7V
masmio13.2933
masmio
masmio12.2933
masmio53200xmp
masmio63200xmp42
masmio73200xmp42
masmio83200xmp50a
masmio43200xmp
Ryzen 5 2600 32GB
masmio93200xmp50a
masmio14.3200.F51
masmio3
Mi R5 2600
mio3
mascastigo
Core i5 6400
0.743
1.486
2.229
2.972
3.715

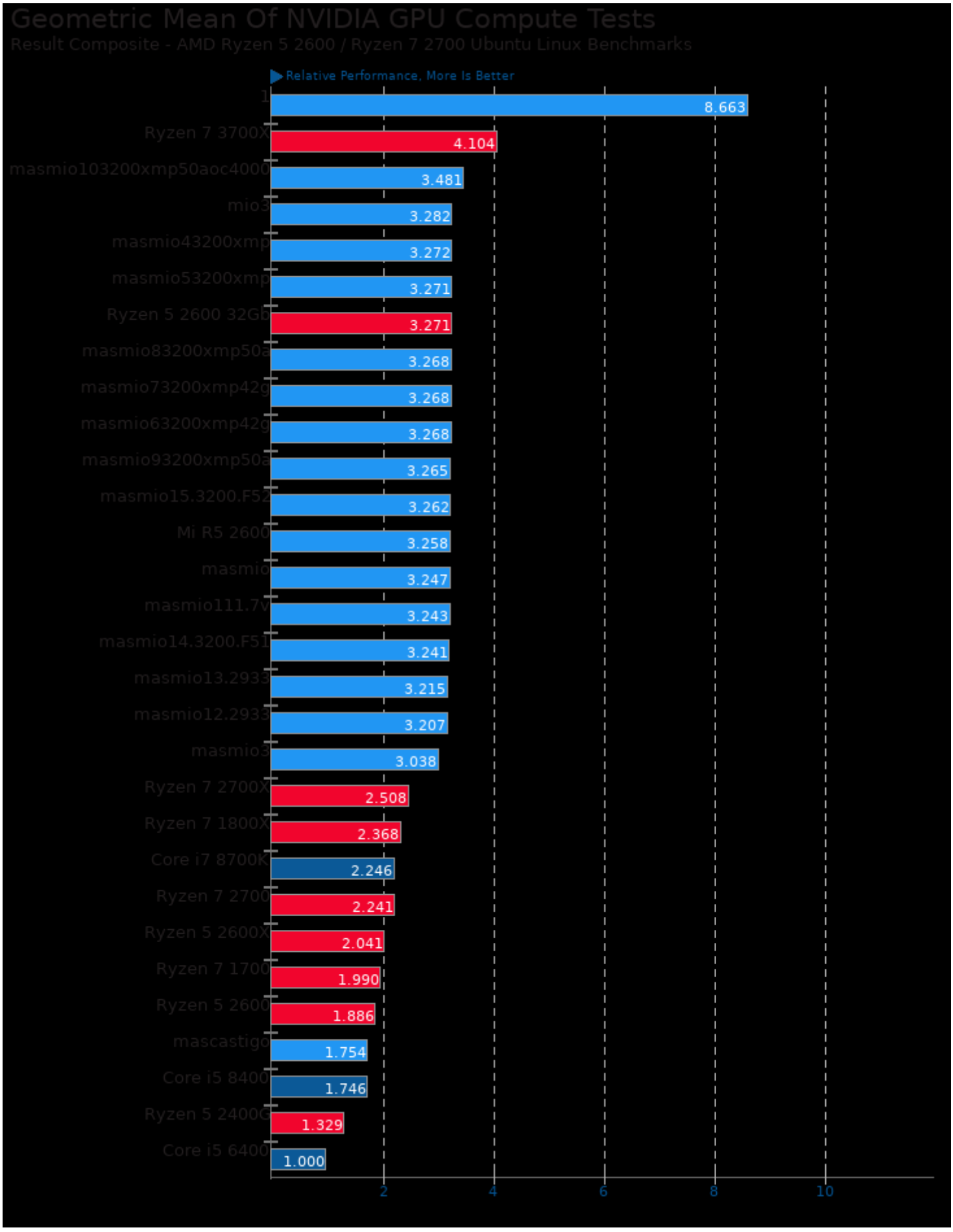
Geometric mean based upon tests: pts/povray, pts/blender, pts/aobench, pts/ttsiod-renderer, pts/encode-mp3 and pts/encode-flac


Geometric Mean Of Encoding Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
Core i7 8700K
Ryzen 7 2700X
Core i5 8400
Ryzen 5 2600X
Ryzen 7 1800X
Ryzen 7 2700
Ryzen 5 2600
Ryzen 5 2400G
Ryzen 7 1700
Ryzen 7 3700X
masmio103200xmp50aoc4000
masmio73200xmp42
masmio111.7
masmio63200xmp42
masmio83200xmp50a
masmio53200xmp
masmio12.2933
masmio3
masmio13.2933
Mi R5 2600
Ryzen 5 2600 32GB
masmio43200xmp
masmio14.3200.F51
masmio93200xmp50a
masmio15.3200.F52
mio3
mascastig
Core i5 6400
2.955
2.622
2.580
2.555
2.465
2.453
2.376
2.367
2.224
2.118
1.401
1.244
1.227
1.224
1.224
1.224
1.222
1.222
1.220
1.220
1.220
1.217
1.216
1.215
1.213
1.211
1.210
1.210
1.055
1.000
0.6649
1.3298
1.9947
2.6596
3.3245

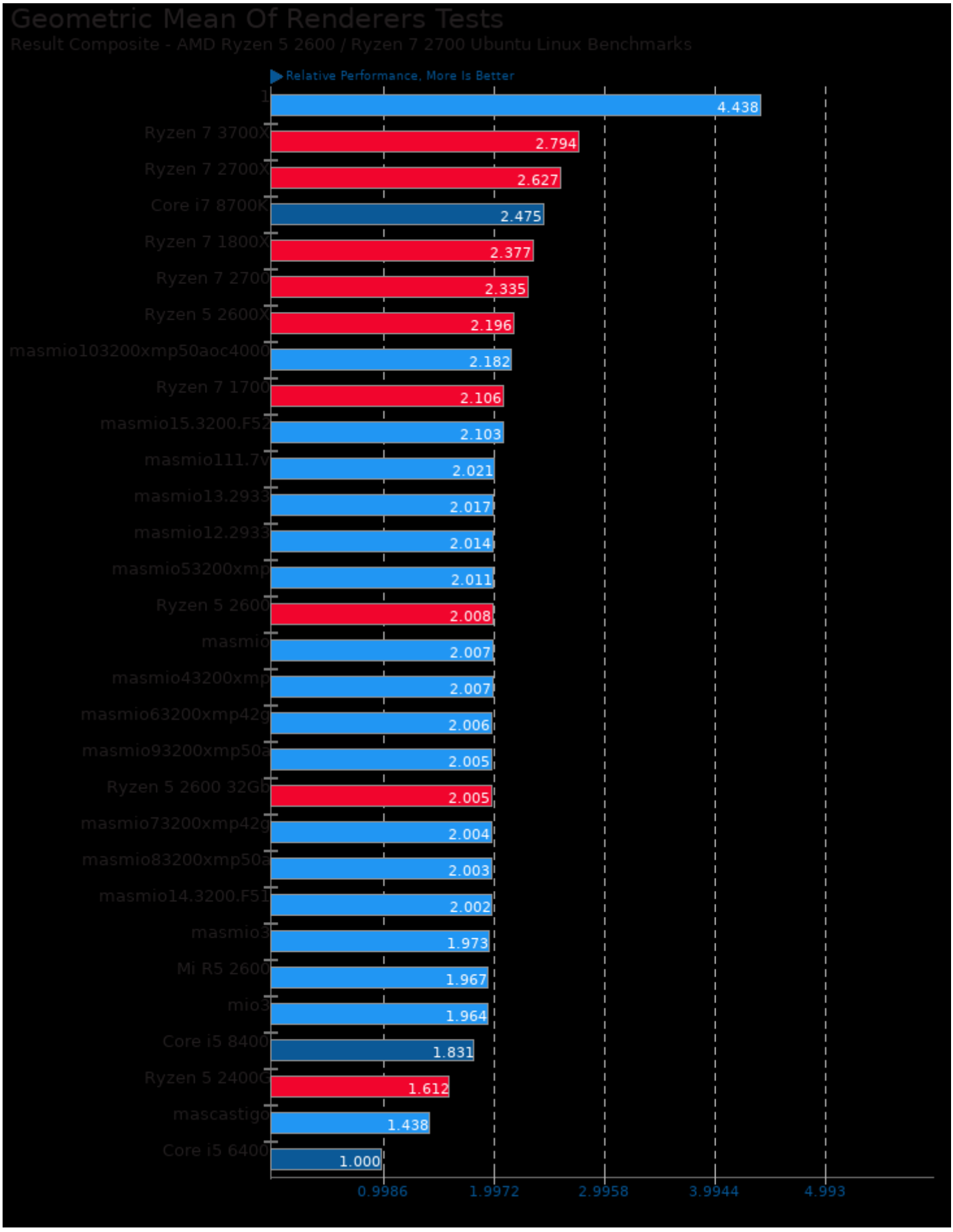
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac


Geometric Mean Of Multi-Core Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
5.116
Ryzen 7 3700X
3.067
Ryzen 7 2700X
2.530
Core i7 8700K
2.488
masmio103200xmp50aoc4000
2.444
Ryzen 7 1800X
2.327
masmio15.3200.F52
2.323
masmio111.7V
2.298
masmio53200xmp
2.298
masmio43200xmp
2.297
masmio83200xmp50a
2.293
masmio
2.292
masmio63200xmp420
2.291
masmio73200xmp420
2.290
masmio93200xmp50a
2.287
Ryzen 5 2600 32GB
2.286
masmio12.2933
2.275
masmio13.2933
2.272
masmio14.3200.F51
2.272
Ryzen 7 2700
2.262
mio3
2.250
Mi R5 2600
2.250
masmio3
2.198
Ryzen 5 2600X
2.151
Ryzen 7 1700
2.037
Ryzen 5 2600
1.978
Core i5 8400
1.911
mascastigo
1.556
Ryzen 5 2400G
1.529
Core i5 6400
1.000
1.1511
2.3022
3.4533
4.6044
5.7555

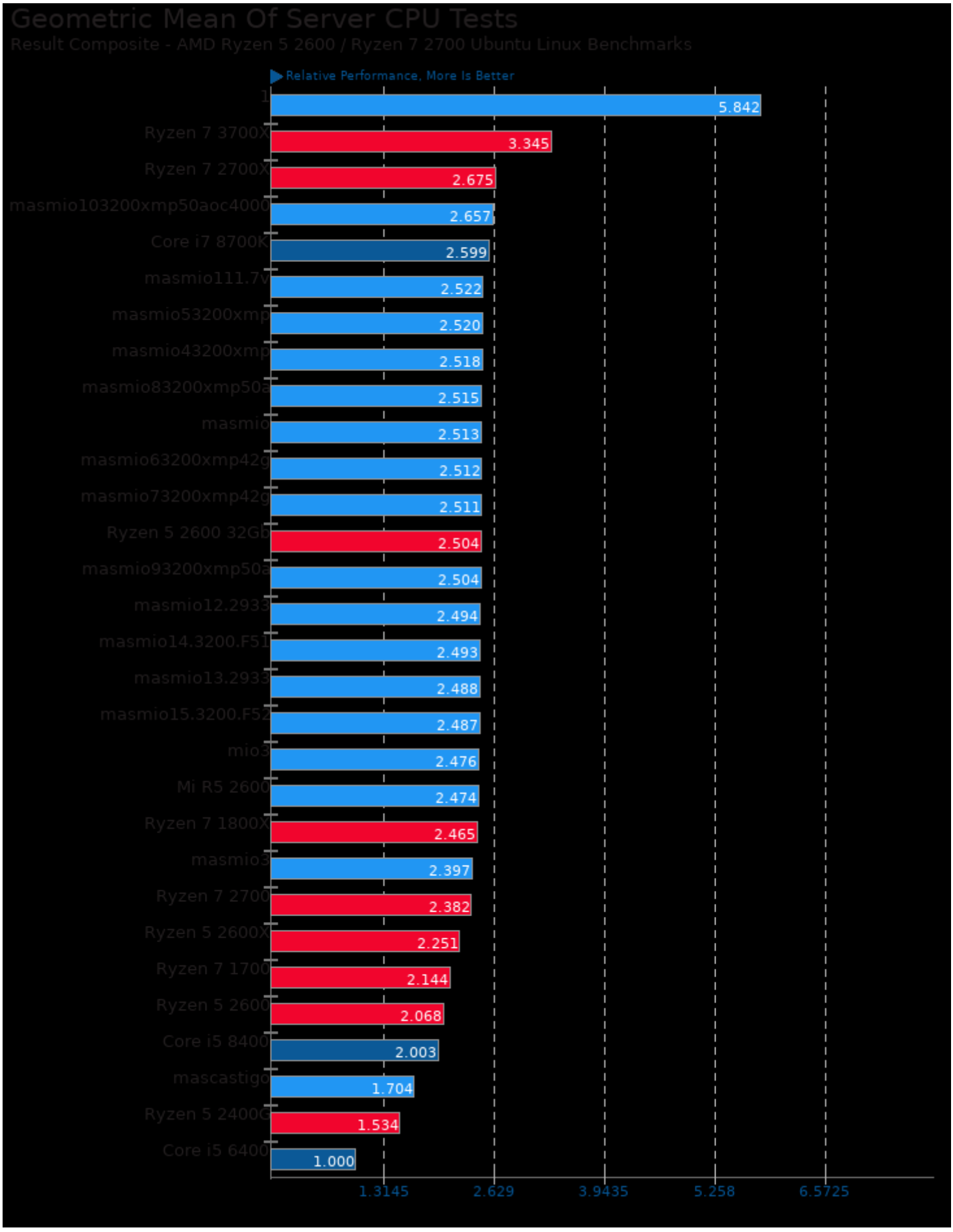
Geometric mean based upon tests: pts/blender, pts/povray, pts/stockfish, pts/rodinia, pts/asmfish, pts/compress-7zip, pts/build-php, pts/build-linux-kernel, pts/aobench and pts/ttsiod-renderer


Geometric Mean Of NVIDIA GPU Compute Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
8.663
Ryzen 7 3700X
4.104
masmio103200xmp50aoc4000
3.481
mio3
3.282
masmio43200xmp
3.272
masmio53200xmp
3.271
Ryzen 5 2600 32GB
3.271
masmio83200xmp50a
3.268
masmio73200xmp42g
3.268
masmio63200xmp42g
3.268
masmio93200xmp50a
3.265
masmio15.3200.F52
3.262
Mi R5 2600
3.258
masmio
3.247
masmio111.7V
3.243
masmio14.3200.F51
3.241
masmio13.2933
3.215
masmio12.2933
3.207
masmio3
3.038
Ryzen 7 2700X
2.508
Ryzen 7 1800X
2.368
Core i7 8700K
2.246
Ryzen 7 2700
2.241
Ryzen 5 2600X
2.041
Ryzen 7 1700
1.990
Ryzen 5 2600
1.886
mascastig0
1.754
Core i5 8400
1.746
Ryzen 5 2400G
1.329
Core i5 6400
1.000
2
4
6
8
10

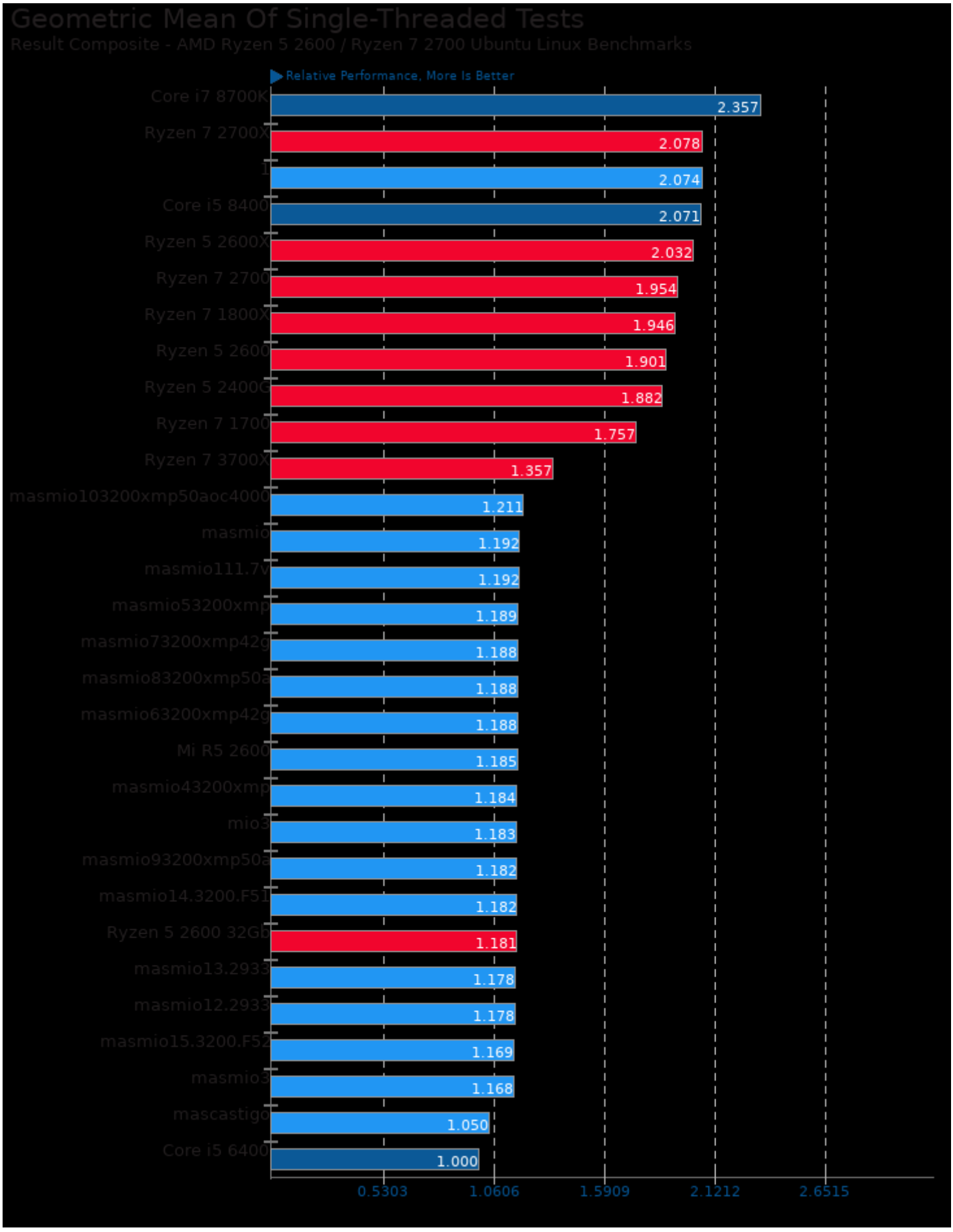
Geometric mean based upon tests: pts/rodinia and pts/blender


Geometric Mean Of Renderers Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
4.438
Ryzen 7 3700X
2.794
Ryzen 7 2700X
2.627
Core i7 8700K
2.475
Ryzen 7 1800X
2.377
Ryzen 7 2700
2.335
Ryzen 5 2600X
2.196
masmio103200xmp50aoc4000
2.182
Ryzen 7 1700
2.106
masmio15.3200.F52
2.103
masmio111.7V
2.021
masmio13.2933
2.017
masmio12.2933
2.014
masmio53200xmp
2.011
Ryzen 5 2600
2.008
masmio
2.007
masmio43200xmp
2.007
masmio63200xmp420
2.006
masmio93200xmp50a
2.005
Ryzen 5 2600 32GB
2.005
masmio73200xmp420
2.004
masmio83200xmp50a
2.003
masmio14.3200.F51
2.002
masmio3
1.973
Mi R5 2600
1.967
mio3
1.964
Core i5 8400
1.831
Ryzen 5 2400G
1.612
mascastigo
1.438
Core i5 6400
1.000
0.9986
1.9972
2.9958
3.9944
4.993

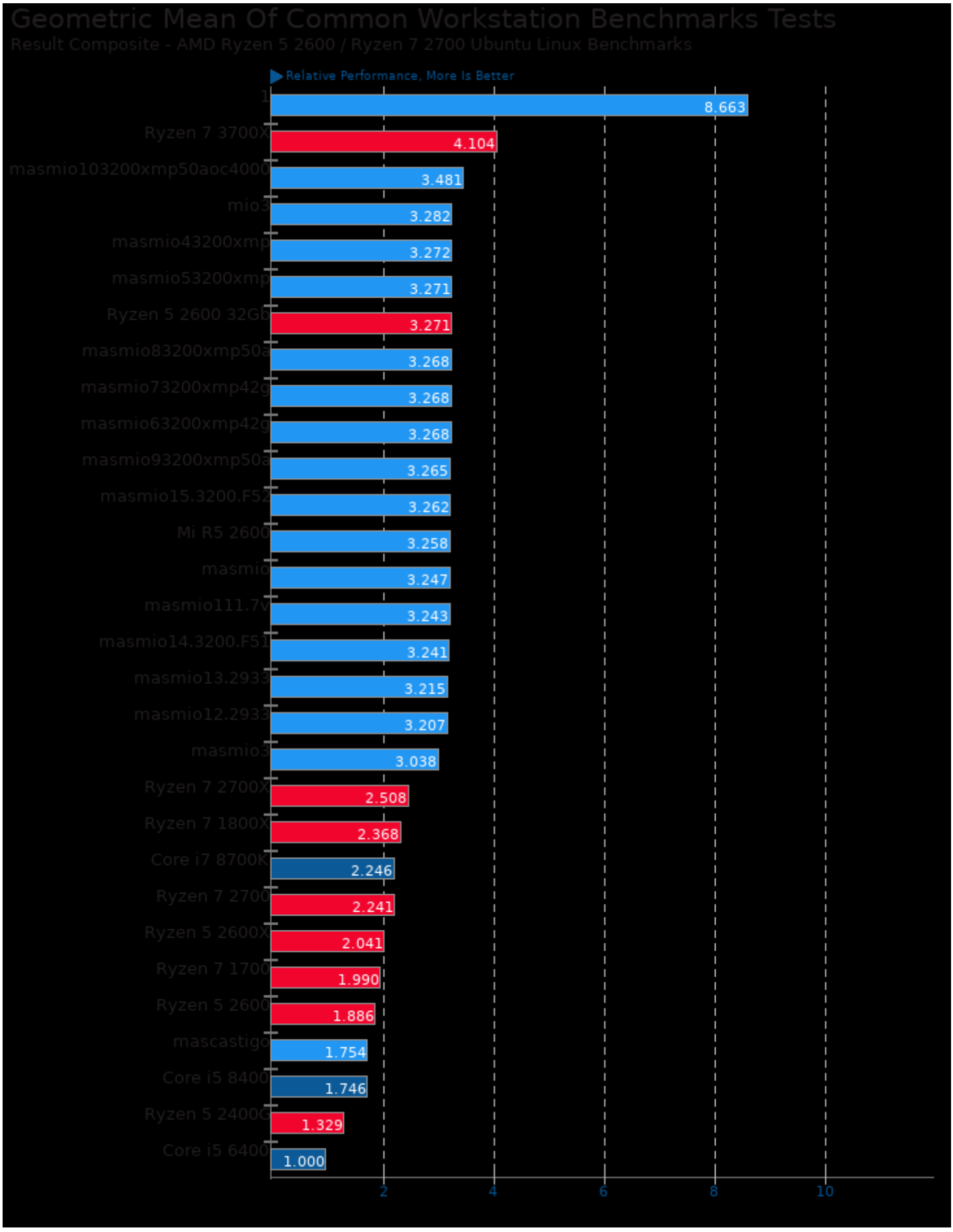
Geometric mean based upon tests: pts/povray, pts/blender, pts/aobench and pts/ttsiod-renderer


Geometric Mean Of Server CPU Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
5.842
3.345
2.675
2.657
2.599
2.522
2.520
2.518
2.515
2.513
2.512
2.511
2.504
2.504
2.494
2.493
2.488
2.487
2.476
2.474
2.465
2.397
2.382
2.251
2.144
2.068
2.003
1.704
1.534
1.000
1.3145
2.629
3.9435
5.258
6.5725

Geometric mean based upon tests: pts/rodinia, pts/compress-7zip, pts/stockfish, pts/asmfish, pts/build-linux-kernel, pts/build-php, pts/povray, pts/openssl and pts/blender


Geometric Mean Of Single-Threaded Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
Core i7 8700K
Ryzen 7 2700X
Core i5 8400
Ryzen 5 2600X
Ryzen 7 2700
Ryzen 7 1800X
Ryzen 5 2600
Ryzen 5 2400G
Ryzen 7 1700
Ryzen 7 3700X
masmio103200xmp50aoc4000
masmio
masmio111.7V
masmio53200xmp
masmio73200xmp42
masmio83200xmp50a
masmio63200xmp42
Mi R5 2600
masmio43200xmp
mio3
masmio93200xmp50a
masmio14.3200.F51
Ryzen 5 2600 32GB
masmio13.2933
masmio12.2933
masmio15.3200.F52
masmio3
mascastigo
Core i5 6400
2.357
2.078
2.074
2.071
2.032
1.954
1.946
1.901
1.882
1.757
1.357
1.211
1.192
1.192
1.189
1.188
1.188
1.188
1.185
1.184
1.183
1.182
1.182
1.181
1.178
1.178
1.169
1.168
1.050
1.000
0.5303
1.0606
1.5909
2.1212
2.6515

Geometric mean based upon tests: pts/fhourstones, pts/encode-flac and pts/encode-mp3


Geometric Mean Of Common Workstation Benchmarks Tests
Result Composite - AMD Ryzen 5 2600 / Ryzen 7 2700 Ubuntu Linux Benchmarks
Relative Performance, More Is Better
8.663
Ryzen 7 3700X
4.104
masmio103200xmp50aoc4000
3.481
mio3
3.282
masmio43200xmp
3.272
masmio53200xmp
3.271
Ryzen 5 2600 32GB
3.271
masmio83200xmp50a
3.268
masmio73200xmp42g
3.268
masmio63200xmp42g
3.268
masmio93200xmp50a
3.265
masmio15.3200.F52
3.262
Mi R5 2600
3.258
masmio
3.247
masmio111.7V
3.243
masmio14.3200.F51
3.241
masmio13.2933
3.215
masmio12.2933
3.207
masmio3
3.038
Ryzen 7 2700X
2.508
Ryzen 7 1800X
2.368
Core i7 8700K
2.246
Ryzen 7 2700
2.241
Ryzen 5 2600X
2.041
Ryzen 7 1700
1.990
Ryzen 5 2600
1.886
mascastig0
1.754
Core i5 8400
1.746
Ryzen 5 2400G
1.329
Core i5 6400
1.000
2
4
6
8
10

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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 04:06.