Phoronix Test Suite

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fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

AMD FX-8350 Eight-Core testing with a ASUS M5A97 R2.0 and NVIDIA GeForce GTX 1080 8192MB on Ubuntu 17.04 via the Phoronix Test Suite.

1700x_stock: AMD Ryzen 7 1700X Eight-Core testing with a MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0 and NVIDIA GeForce GTX 1080 16128MB on Ubuntu 17.04 via the Phoronix Test Suite.

1700oc37: AMD Ryzen 7 1700 Eight-Core testing with a MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0 and NVIDIA GeForce GTX 1080 16128MB on Ubuntu 17.04 via the Phoronix Test Suite.

r5_1600X: AMD Ryzen 5 1600X Six-Core testing with a MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0 and NVIDIA GeForce GTX 1080 8192MB on Ubuntu 17.04 via the Phoronix Test Suite.

r51500x: AMD Ryzen 5 1500X testing with a MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0 and NVIDIA GeForce GTX 1080 8192MB on Ubuntu 17.04 via the Phoronix Test Suite.

6700kv2: Intel Core i7-6700K testing with a ASUS Z170I PRO GAMING and Sapphire AMD Radeon RX 470/480 8192MB on Ubuntu 17.04 via the Phoronix Test Suite.

2c: AMD Ryzen 7 1800X Eight-Core testing with a MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0 and NVIDIA GeForce GTX 1080 8192MB on Ubuntu 17.04 via the Phoronix Test Suite.

Automated Executive Summary

Intel Core i7-6700K had the most wins, coming in first place for 45% of the tests.

Based on the geometric mean of all complete results, the fastest (AMD Ryzen 7 1800X Eight-Core) was 1.777x the speed of the slowest (AMD FX-8350 Eight-Core). AMD Ryzen 7 1700X Eight-Core was 0.996x the speed of AMD Ryzen 7 1800X Eight-Core, AMD Ryzen 5 1600X Six-Core was 0.933x the speed of AMD Ryzen 7 1700X Eight-Core, AMD Ryzen 7 1700 Eight-Core was 0.975x the speed of AMD Ryzen 5 1600X Six-Core, Intel Core i7-6700K was 0.94x the speed of AMD Ryzen 7 1700 Eight-Core, AMD Ryzen 5 1500X was 0.902x the speed of Intel Core i7-6700K, AMD FX-8350 Eight-Core was 0.732x the speed of AMD Ryzen 5 1500X.

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

Primesieve (1e12 Prime Number Generation) at 4.637x
ebizzy (Phoronix Test Suite v7.0.1) at 4.414x
Himeno Benchmark (Poisson Pressure Solver) at 3.762x
Perl Benchmarks (Test: Interpreter) at 3.559x
C-Ray (Total Time) at 3.329x
FFTW (Build: Float + SSE - Size: 2D FFT Size 4096) at 3.109x
Tachyon (Total Time) at 3.074x
CacheBench (Test: Read / Modify / Write) at 2.994x
Smallpt (Global Illumination Renderer; 100 Samples) at 2.486x
Bork File Encrypter (File Encryption Time) at 2.465x.

Test Systems:

AMD FX-8350 Eight-Core

Processor: AMD FX-8350 Eight-Core @ 4.01GHz (8 Cores), Motherboard: ASUS M5A97 R2.0, Chipset: AMD RD9x0/RX980, Memory: 16384MB, Disk: 2000GB Western Digital WD20PURX-64P + 2 x VisionTek 120GB, Graphics: NVIDIA GeForce GTX 1080 8192MB (193/5005MHz), Audio: Realtek ALC887-VD, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 17.04, Kernel: 4.10.0-13-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: NVIDIA 375.39, OpenGL: 4.5.0, Vulkan: 1.0.24, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
OpenCL Notes: GPU Compute Cores: 2560
System Notes: GPU Compute Cores: 2560.

AMD Ryzen 7 1700X Eight-Core

Processor: AMD Ryzen 7 1700X Eight-Core @ 3.40GHz (16 Cores), Motherboard: MSI X370 XPOWER GAMING

TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 512GB TOSHIBA-RD400, Graphics: LLVMpipe, Audio: NVIDIA GP104 HD Audio, Monitor: PLE2483H, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.11.0-041100rc5-generic (x86_64) 20170403, Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: nouveau 1.0.13, OpenGL: 3.3 Mesa 17.0.3 Gallium 0.4 (LLVM 4.0 128 bits), Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_ALWAYS_SOFTWARE=1
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

1700X: AMD Ryzen 7 1700X Eight-Core

Processor: AMD Ryzen 7 1700X Eight-Core @ 3.90GHz (16 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 512GB TOSHIBA-RD400, Graphics: LLVMpipe, Audio: NVIDIA GP104 HD Audio, Monitor: PLE2483H, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.11.0-041100rc5-generic (x86_64) 20170403, Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: nouveau 1.0.13, OpenGL: 3.3 Mesa 17.0.3 Gallium 0.4 (LLVM 4.0 128 bits), Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_ALWAYS_SOFTWARE=1
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

AMD Ryzen 7 1700 Eight-Core

Processor: AMD Ryzen 7 1700 Eight-Core @ 3.70GHz (16 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 512GB TOSHIBA-RD400, Graphics: LLVMpipe, Audio: NVIDIA GP104 HD Audio, Monitor: PLE2483H, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.11.0-041100rc5-generic (x86_64) 20170403, Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: nouveau 1.0.14, OpenGL: 3.3 Mesa 17.0.3 Gallium 0.4 (LLVM 4.0 128 bits), Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_ALWAYS_SOFTWARE=1
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v

1700stock: AMD Ryzen 7 1700 Eight-Core

Processor: AMD Ryzen 7 1700 Eight-Core @ 3.00GHz (16 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 512GB TOSHIBA-RD400, Graphics: LLVMpipe, Audio: NVIDIA GP104 HD Audio, Monitor: PLE2483H, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.11.0-041100rc5-generic (x86_64) 20170403, Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: nouveau 1.0.13, OpenGL: 3.3 Mesa 17.0.3 Gallium 0.4 (LLVM 4.0 128 bits), Compiler:

GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Environment Notes: LIBGL_ALWAYS_SOFTWARE=1
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

AMD Ryzen 5 1600X Six-Core

Processor: AMD Ryzen 5 1600X Six-Core @ 4.03GHz (12 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 2 x VisionTek 120GB + 2000GB Western Digital WD20PURX-64P + 512GB TOSHIBA-RD400, Graphics: NVIDIA GeForce GTX 1080 8192MB (56/5005MHz), Audio: NVIDIA GP104 HD Audio, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.10.9-041009-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: NVIDIA 375.39, OpenGL: 4.5.0, Vulkan: 1.0.24, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
OpenCL Notes: GPU Compute Cores: 2560
System Notes: GPU Compute Cores: 2560.

AMD Ryzen 5 1500X

Processor: AMD Ryzen 5 1500X @ 3.80GHz (8 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 2 x VisionTek 120GB + 2000GB Western Digital WD20PURX-64P + 512GB TOSHIBA-RD400, Graphics: NVIDIA GeForce GTX 1080 8192MB (663/5005MHz), Audio: NVIDIA GP104 HD Audio, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.10.9-041009-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.19.3, Display Driver: NVIDIA 375.39, OpenGL: 4.5.0, Vulkan: 1.0.24, Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
OpenCL Notes: GPU Compute Cores: 2560
System Notes: GPU Compute Cores: 2560.

Intel Core i7-6700K

Processor: Intel Core i7-6700K @ 4.20GHz (8 Cores), Motherboard: ASUS Z170I PRO GAMING, Chipset: Intel Skylake, Memory: 16384MB, Disk: 750GB Samsung SSD 840 + 250GB Samsung SSD 840 + 2000GB Seagate ST2000DM001-1CH1 + 512GB SAMSUNG MZHPV512, Graphics: Sapphire AMD Radeon RX 470/480 8192MB, Audio: Realtek ALC1150, Monitor: PLE2483H, Network: Intel Connection + Qualcomm Atheros QCA6174 802.11ac Wireless

OS: Ubuntu 17.04, Kernel: 4.10.0-13-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: modesetting 1.18.4, OpenGL: 4.5 Mesa 17.0.3 Gallium 0.4 (LLVM 4.0.0), Compiler: GCC 6.3.0 20170406, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: intel_pstate powersave

AMD Ryzen 7 1800X Eight-Core

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.90GHz (16 Cores), Motherboard: MSI X370 XPOWER GAMING TITANIUM (MS-7A31) v1.0, Chipset: AMD Device 1450, Memory: 16384MB, Disk: 2 x VisionTek 120GB + 2000GB Western Digital WD20PURX-64P + 512GB TOSHIBA-RD400, Graphics: NVIDIA GeForce GTX 1080 8192MB (118/5005MHz), Audio: NVIDIA GP104 HD Audio, Network: Intel I211 Gigabit Connection

OS: Ubuntu 17.04, Kernel: 4.10.5-041005-generic (x86_64), Desktop: Unity 7.5.0, Display Server: X Server 1.18.4, Display Driver: NVIDIA 375.39, OpenGL: 4.5.0, Vulkan: 1.0.24, Compiler: GCC 6.3.0 20170221, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
OpenCL Notes: GPU Compute Cores: 2560
System Notes: GPU Compute Cores: 2560.

	AMD FX-8350 Eight-Core	AMD Ryzen 7 1700X Eight-Core	1700X: AMD Ryzen 7 1700X Eight-Core	AMD Ryzen 7 1700 Eight-Core	1700stock: AMD Ryzen 7 1700 Eight-Core	AMD Ryzen 5 1600X Six-Core	AMD Ryzen 5 1500X	Intel Core i7-6700K	AMD Ryzen 7 1800X Eight-Core
Primesieve - 1.P.N.G (sec)	166.64	35.98		44.39		46.58	73.87	69.13	35.94
Normalized	21.57%	99.89%		80.96%		77.16%	48.65%	51.99%	100%
Standard Deviation	0%	0.2%		0.2%		0.5%	0.3%	0.2%	0.4%
ebizzy - P.T.S.v.0.1 (Records/s)	132768	586047		389600		441636	305499	242739	
Normalized	22.65%	100%		66.48%		75.36%	52.13%	41.42%	
Standard Deviation	1.7%	1.1%		1.8%		9.5%	3.4%	0.4%	
Himeno Benchmark - P.P.S (MFLOPS)	684.68	1138		1085		1169	1107	2576	1136
Normalized	26.58%	44.17%		42.11%		45.36%	42.98%	100%	44.12%
Standard Deviation	0.2%	0.1%		0.9%		0.2%	0.1%	0.2%	0.2%
Perl Benchmarks - Interpreter (seconds)	0.00133330	0.00133238		0.00194018		0.00133980	0.00174965	0.00280792	0.00134482
Normalized	59.17%	59.21%		40.66%		58.88%	45.09%	28.09%	58.66%
Standard Deviation	0.1%	0.2%		0.3%		0.5%	1.4%	1.9%	0.3%

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C-Ray - Total Time (sec)	25.10	7.54	9.22	9.74	15.46	19.07	7.76
Normalized	30.04%	100%	81.78%	77.41%	48.77%	39.54%	97.16%
Standard Deviation	0.1%	0.1%	0.2%	0.1%	0.2%	0%	0.2%
FFTW - Float + SSE - 2D FFT Size 4096 (Mflops)	5126	11933	11808	12822	12043	15935	12508
Normalized	32.17%	74.89%	74.1%	80.46%	75.58%	100%	78.49%
Standard Deviation	0.8%	1.3%	1%	0.3%	0.4%	3.7%	0.9%
Tachyon - Total Time (sec)	17.86	5.81	7.14	7.48	11.85	10.82	5.81
Normalized	32.53%	100%	81.37%	77.67%	49.03%	53.7%	100%
Standard Deviation	0.5%	0.1%	0.8%	0.2%	0.2%	0.3%	0.1%
CacheBench - R.M.W (MB/s)	20798	25762	25064	27356	26010	9138	26277
Normalized	76.03%	94.17%	91.62%	100%	95.08%	33.4%	96.05%
Standard Deviation	2.2%	0.7%	0.6%	0.8%	0.5%	0.1%	0.2%
Smallpt - G.I.R.1.S (sec)	87	35	43	46	73	69	36
Normalized	40.23%	100%	81.4%	76.09%	47.95%	50.72%	97.22%
Standard Deviation			1.3%				
Bork File Encrypter - F.E.T (sec)	18.02	10.14	10.72	9.93	10.64	7.31	9.95
Normalized	40.57%	72.09%	68.19%	73.62%	68.7%	100%	73.47%
Standard Deviation	8.1%	2%	0.9%	1.4%	0.3%	4.7%	0.9%
FFTW - Stock - 2D FFT Size 4096 (Mflops)	2452	5401	5233	5503	5297	5726	5338
Normalized	42.82%	94.32%	91.39%	96.1%	92.51%	100%	93.22%
Standard Deviation	2.1%	0.7%	0.9%	0.9%	0.4%	0.3%	0.8%
Java SciMark - Composite (Mflops)	1229	2723	2620	2822	2644	2361	2719
Normalized	43.56%	96.47%	92.81%	100%	93.69%	83.66%	96.32%
Standard Deviation	0.4%	0.2%	2%	0.5%	0.8%	0.8%	0.8%
N-Queens - Elapsed Time (sec)	35.25	16.23	19.81	20.95	33.28	35.72	16.23
Normalized	46.04%	100%	81.93%	77.47%	48.77%	45.44%	100%
Standard Deviation	0%	0%	0.1%	0%	0%	0.3%	0%
Timed Linux Kernel Compilation - Time To Compile (sec)	167.60	77.59	90.30	93.51	137.65	116.41	77.03
Normalized	45.96%	99.28%	85.3%	82.38%	55.96%	66.17%	100%
Standard Deviation	1.2%	1.8%	1.8%	1.8%	1.3%	1%	2.1%
GraphicsMagick - Sharpen (Iterations/min)	105	189	174	176	143	88	188
Normalized	55.56%	100%	92.06%	93.12%	75.66%	46.56%	99.47%
Standard Deviation		0.3%	0.3%	0.3%			0.3%

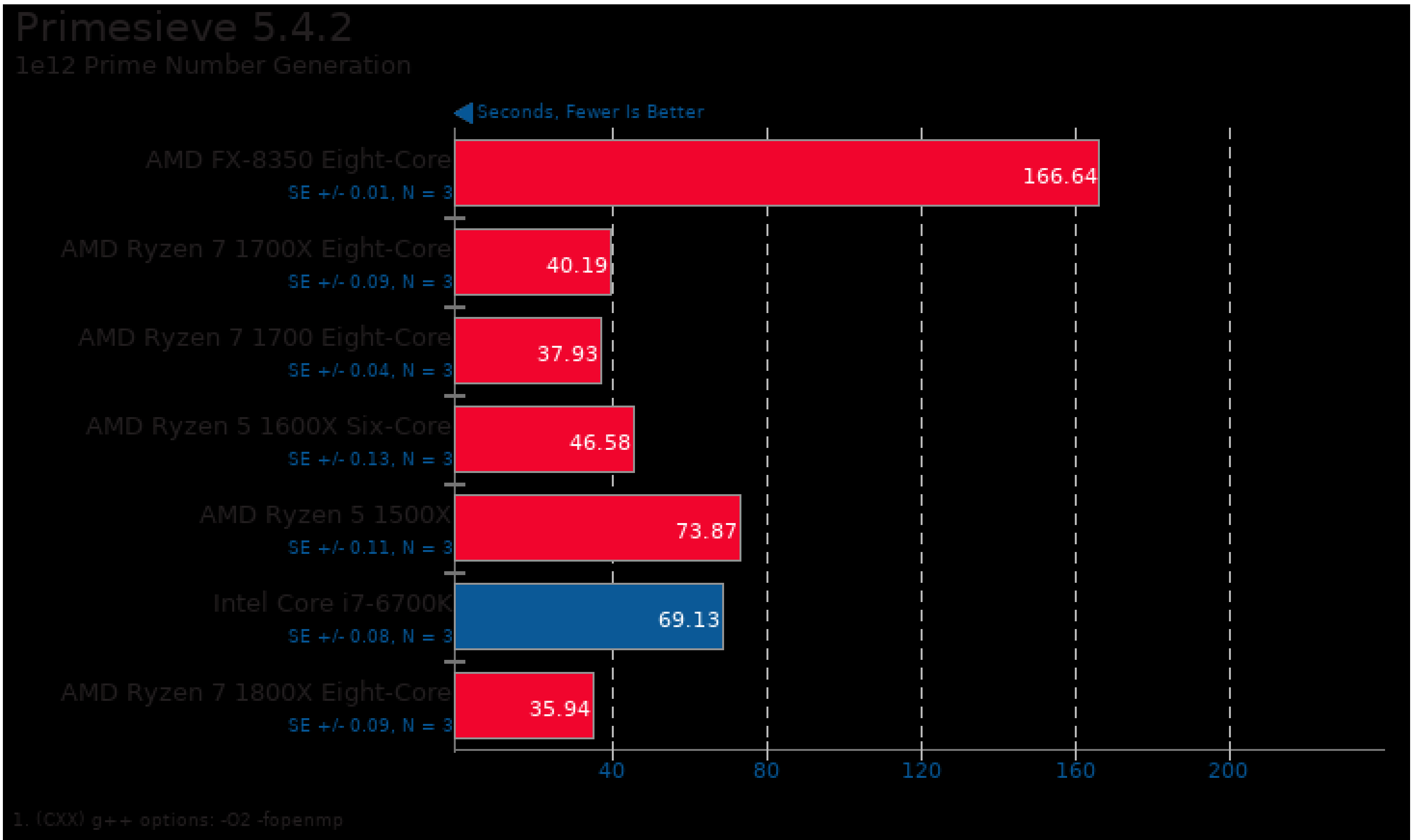
Timed MPlayer Compilation - Time To Compile (sec)	53.56	25.68	29.45	29.47	41.47	36.11	26.01
Normalized	47.95%	100%	87.2%	87.14%	61.92%	71.12%	98.73%
Standard Deviation	1.7%	1.3%	2.1%	1.6%	1.6%	1.8%	1.6%
John The Ripper - Blowfish (Real C/S)	7038	13574	11147	10485	6565	7792	13575
Normalized	51.85%	99.99%	82.11%	77.24%	48.36%	57.4%	100%
Standard Deviation	0.1%	0.2%	0.1%	0.3%	1.1%	0.1%	0.1%
Parallel BZIP2 Compression - 2.F.C (sec)	9.46	4.75	5.44	5.66	8.00	8.36	4.76
Normalized	50.21%	100%	87.32%	83.92%	59.38%	56.82%	99.79%
Standard Deviation	3.4%	1%	0.3%	1.5%	1.6%	0.3%	1.3%
Perl Benchmarks - Pod2html (seconds)	0.238913 77	0.164817 68	0.171059 96	0.163117 43	0.168201 65	0.123295 72	0.164403 45
Normalized	51.61%	74.81%	72.08%	75.59%	73.3%	100%	75%
Standard Deviation	2%	0.4%	1.4%	0.8%	0.4%	1%	0.7%
Timed HMMer Search - P.D.S (sec)	13.82	7.85	9.21	8.15	9.96	7.45	7.74
Normalized	51.88%	91.34%	77.85%	87.98%	71.99%	96.24%	92.64%
Standard Deviation	1.2%	1.3%	3.4%	1.6%	0.9%	0.5%	1.1%
Sudokut - Total Time (sec)	20.69	15.40	16.46	14.95	16.01	10.88	15.60
Normalized	52.59%	70.65%	66.1%	72.78%	67.96%	100%	69.74%
Standard Deviation	0.3%	0.2%	0.2%	0.3%	0.1%	0.1%	0.3%
SciMark - D.L.M.F (Mflops)	1798	3077	3240	3399	3246	3161	3355
Normalized	52.89%	90.51%	95.32%	100%	95.5%	92.99%	98.7%
Standard Deviation	3.9%	0.7%	0.9%	0.5%	0.6%	0.9%	1.1%
TSCP - A.C.P (Nodes/s)	682333	1060011	1009134	1087214	1026045	1275546	1057576
Normalized	53.49%	83.1%	79.11%	85.24%	80.44%	100%	82.91%
Standard Deviation	0.2%	0.3%	0.4%	0.3%	0.3%	0.3%	0.4%
7-Zip Compression - C.S.T (MIPS)	20594	36190	32576	28118	19643	25347	35891
Normalized	56.91%	100%	90.01%	77.7%	54.28%	70.04%	99.17%
Standard Deviation	0.8%	1.1%	0.4%	2.1%	1.5%	1.1%	1.1%
Numpy Benchmark - P.T.S.v.0.1 (Nanoseconds)	10122545	7589225	7748719	7208215	7589082	5529978	
Normalized	54.63%	72.87%	71.37%	76.72%	72.87%	100%	
Timed ImageMagick Compilation - Time To Compile (sec)	90.92	51.13	54.96	55.31	68.65	50.63	51.35
Normalized	55.69%	99.02%	92.12%	91.54%	73.75%	100%	98.6%
Standard Deviation	0.4%	0.2%	0.5%	0.1%	0.5%	0.5%	0.5%
GMPbench - Total Time (GMPbench Score)	2774	4777	4590	4931	4649	4951	4794
Normalized	56.03%	96.49%	92.71%	99.59%	93.89%	100%	96.83%

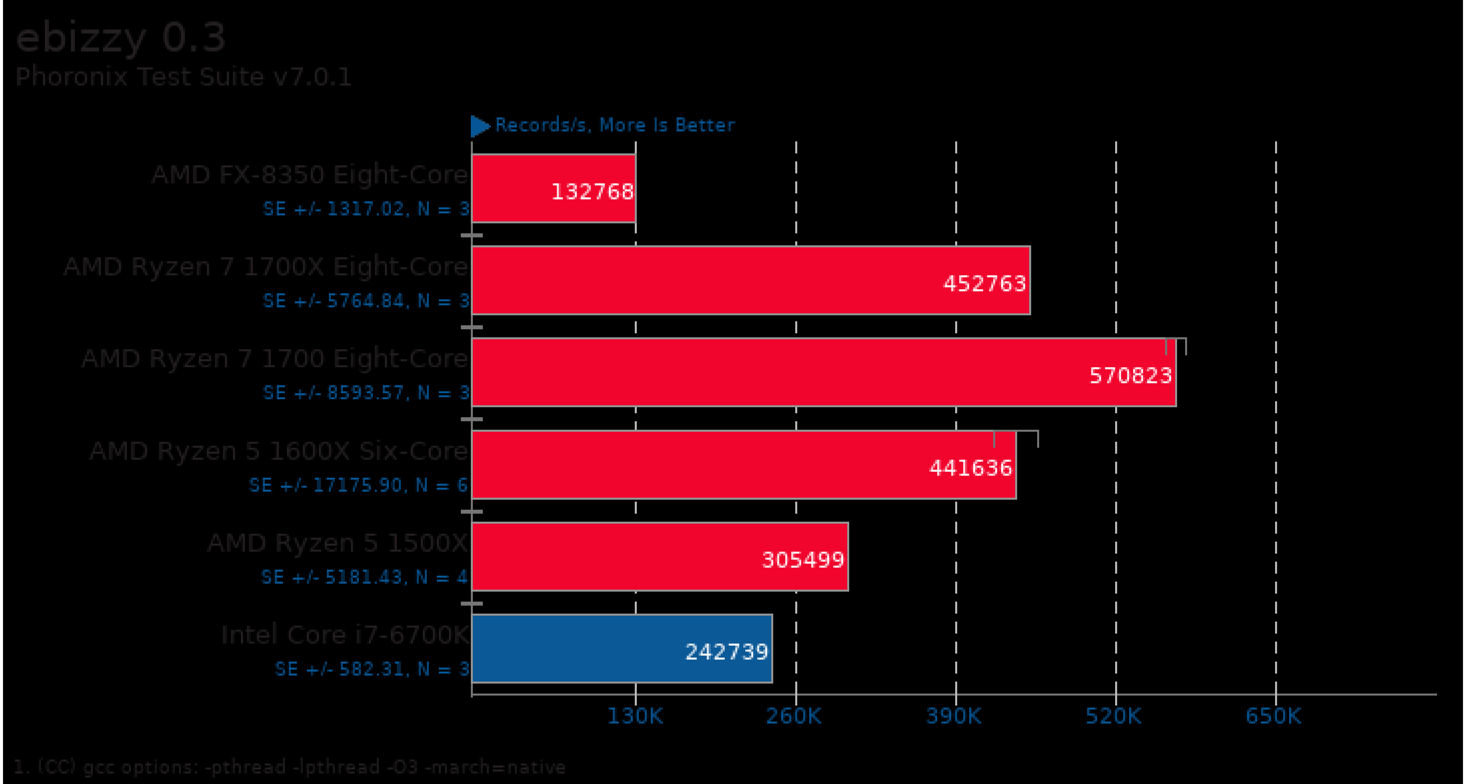
fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

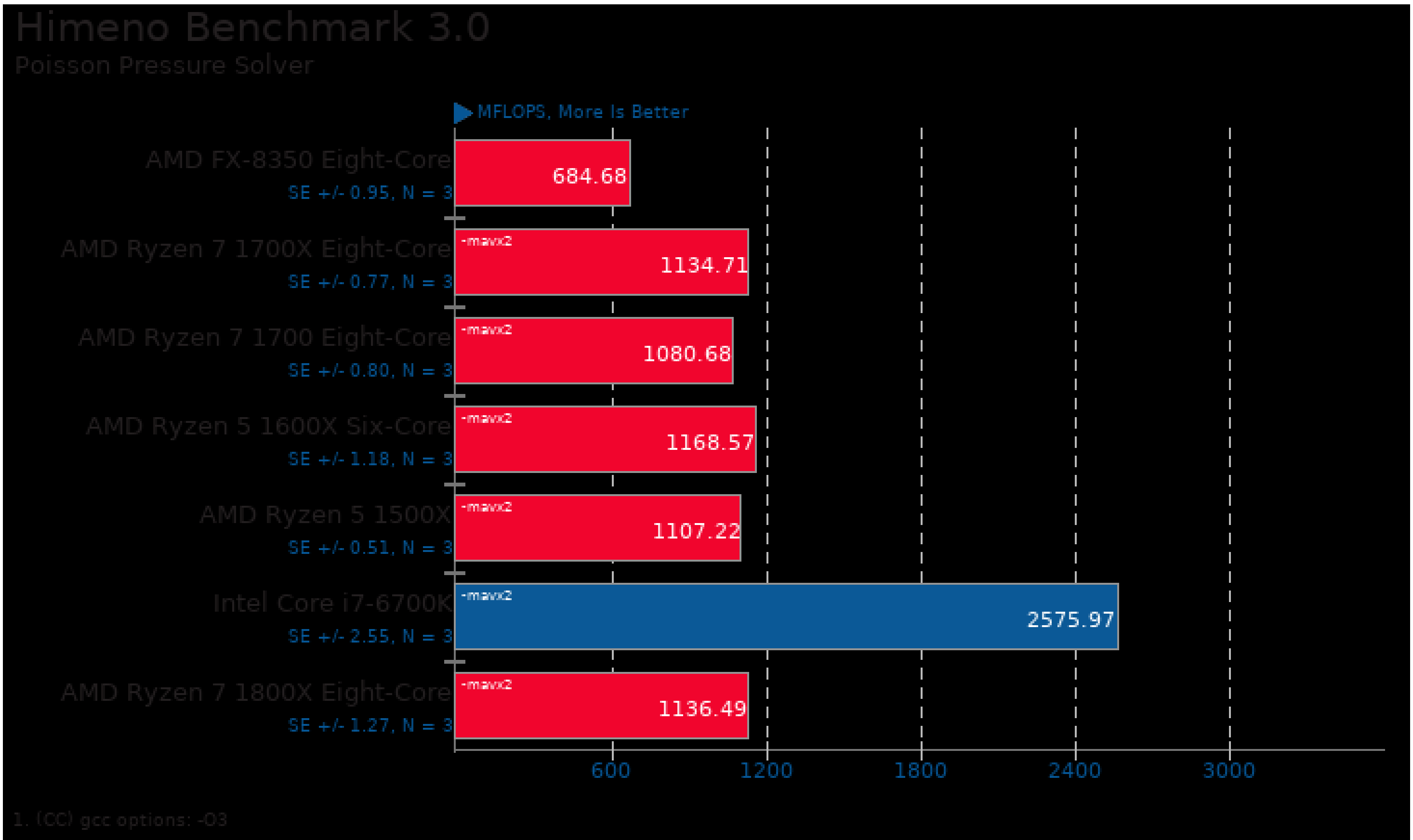
OpenSSL - R.4.b.P (Signs/sec)		**1205**		988.00				**717.93**	
Normalized		100%		81.96%				59.56%	
Standard Deviation		0.1%		0.1%				0%	
BLAKE2 - P.T.S.v.0.1 (Cycles/Byte)	10.21	**10.34**		8.26		**10.34**	10.32	**6.30**	
Normalized	61.7%	60.93%		76.27%		60.93%	61.05%	100%	
Standard Deviation	0%	0%		0%		0%	0%	0%	
Timed PHP Compilation - Time To Compile (sec)	**33.68**	**20.63**		22.57		21.33	27.38	22.57	20.76
Normalized	61.25%	100%		91.4%		96.72%	75.35%	91.4%	99.37%
Standard Deviation	0.3%	0.7%		0.2%		0.1%	0.9%	0.1%	0.3%
dcraw - R.T.P.I.C (sec)	**72.92**	47.22		49.24		45.74	48.49	**44.83**	47.40
Normalized	61.48%	94.94%		91.04%		98.01%	92.45%	100%	94.58%
Standard Deviation	0.2%	0.1%		0.3%		0%	0%	0.2%	0.2%
Sample Pi Program - P.T.S.v.0.1 (sec)	**4.95**							**3.06**	
Normalized	61.82%							100%	
Standard Deviation	0%							3.3%	
Crafty - Elapsed Time (sec)	**105.58**	74.80		78.13		72.82	77.68	**66.44**	75.58
Normalized	62.93%	88.82%		85.04%		91.24%	85.53%	100%	87.91%
Standard Deviation	0%	0.2%		0.4%		0.3%	0.3%	0.1%	0.2%
LZMA Compression - 2.F.C (sec)	**384.44**	289.93		300.76		284.54	304.22	**244.33**	290.02
Normalized	63.55%	84.27%		81.24%		85.87%	80.31%	100%	84.25%
Standard Deviation	0.2%	0.1%		0.1%		0.1%	0.1%	0.3%	0.1%
Stockfish - Total Time (ms)	**5211**	3769		3970		3671	3870	**3328**	3770
Normalized	63.86%	88.3%		83.83%		90.66%	85.99%	100%	88.28%
Standard Deviation	0.2%	0.2%		0.3%		0.4%	0.2%	0.1%	0.5%
Fhourstones - C.C.4.S (Kpos / sec)	**9266**	11379		11009		11362	10755	**14087**	11398
Normalized	65.77%	80.77%		78.15%		80.66%	76.35%	100%	80.91%
Standard Deviation	0.2%	0.3%		0.4%		0.8%	0.6%	0.2%	0%
Gzip Compression - 2.F.C (sec)	**14.16**	10.55		11.18		10.24	11.00	**9.96**	10.53
Normalized	70.34%	94.41%		89.09%		97.27%	90.55%	100%	94.59%
Standard Deviation	0.1%	0.7%		0.7%		0.5%	0.3%	0%	0%
eSpeak Speech Engine - T.T.S.S				**3.06**				**4.31**	
Normalized				100%				71%	
Standard Deviation				1.6%				3.4%	
Timed MAFFT Alignment - M.S.A (sec)						3.31	**4.45**	4.11	**3.16**
Normalized						95.47%	71.01%	76.89%	100%
Standard Deviation						4.3%	4.9%	5.8%	1.5%

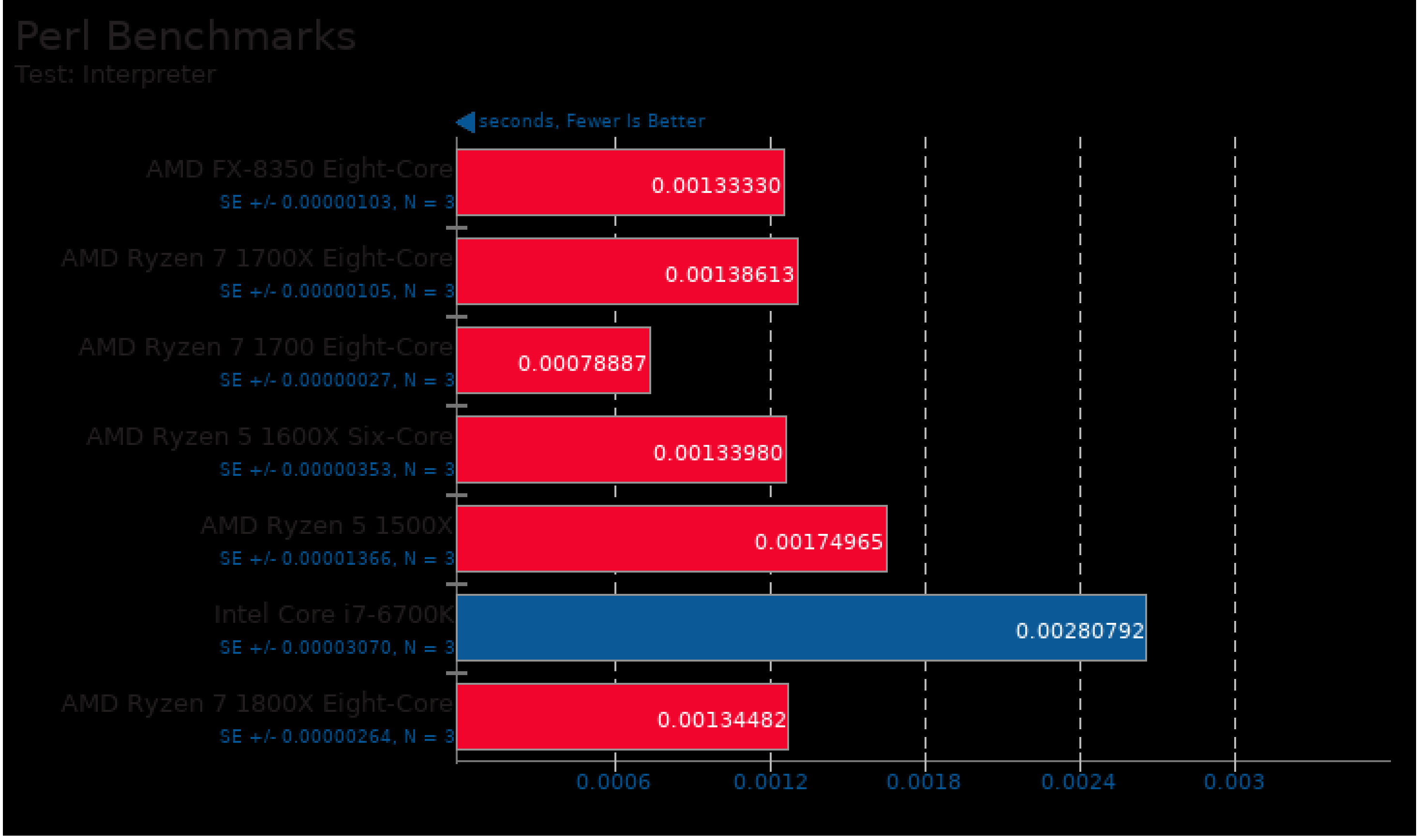
fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

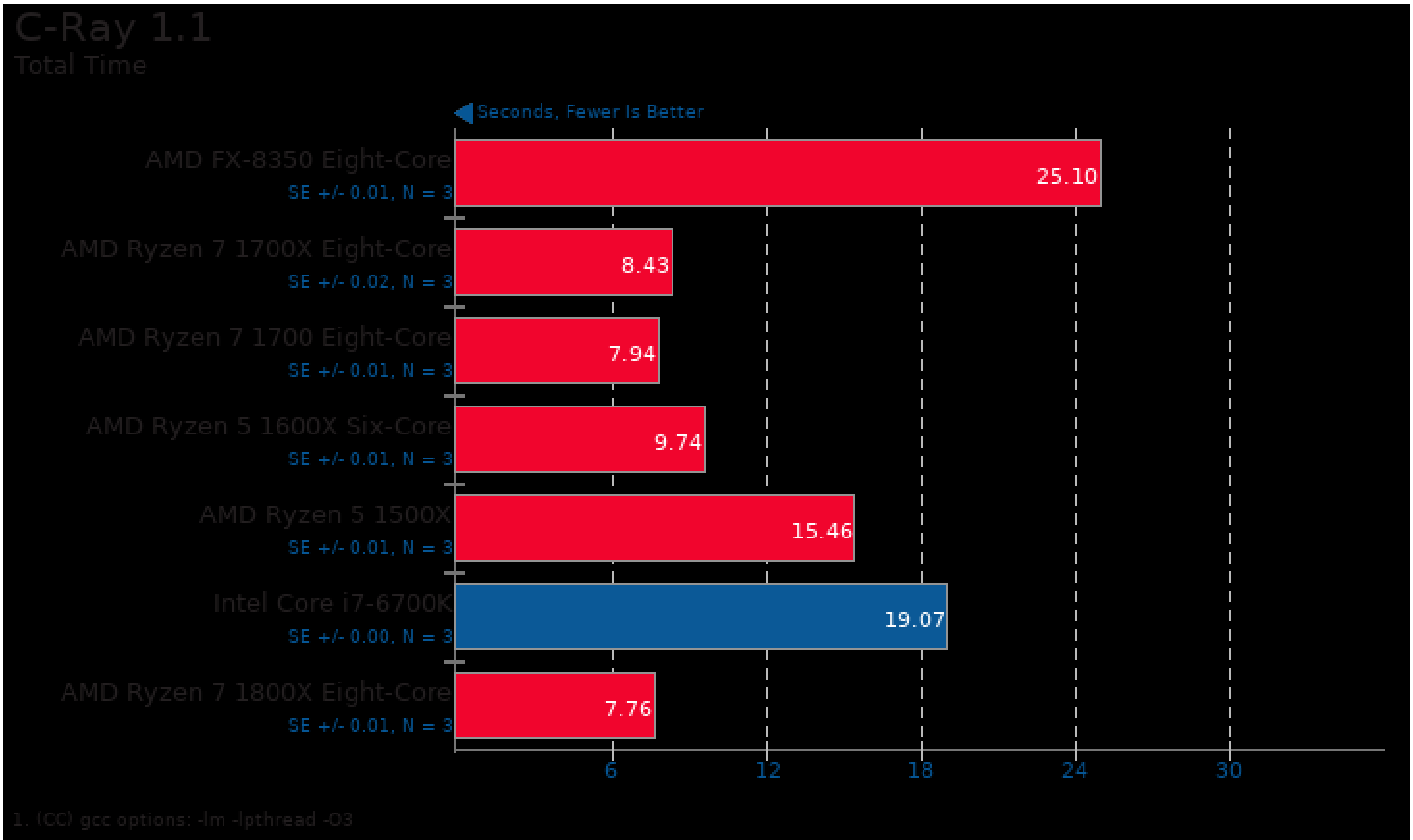
Multichase Pointer Chaser - 1.A.2.B.S.4.T (ns)	90.87	103.80	104.40	105.67	**108.93**	**90.00**	102.47
Normalized	99.04%	86.71%	86.21%	85.17%	82.62%	100%	87.83%
Standard Deviation	0%	1.5%	1.9%	1.3%	0.1%	0%	0.1%
Mencoder - AVI To LAVC (sec)							18.89
Standard Deviation							0.3%
FFmpeg - H.2.H.T.N.D (sec)							13.07
Standard Deviation							1.7%
Timed Apache Compilation - Time To Compile (sec)							26.20
Standard Deviation							0.4%
ebizzy - P.T.S.v.0.0 (Records/s)							565453
Standard Deviation							1.9%
VP8 libvpx Encoding - vpxenc (FPS)							1.10
Standard Deviation							0.5%
Numpy Benchmark - P.T.S.v.0.0 (Nanoseconds)							7459871
BLAKE2 - P.T.S.v.0.0 (Cycles/Byte)							10.34
Standard Deviation							0%
BYTE Unix Benchmark - F.P.A (LPS)	1	1	1	1	1	1	1
PolyBench-C - C.C (sec)	3.44						
Standard Deviation	0%						
Timed MrBayes Analysis - P.P.A	**15.77**				15.69	**10.50**	
Normalized	66.58%				66.92%	100%	
Standard Deviation	4.8%				5.3%	7.5%	
CLOMP - Static OMP Speedup (Speedup)	**2.78**	4.86	4.57	3.35	3.01	5.04	**5.23**
Normalized	53.15%	92.93%	87.38%	64.05%	57.55%	96.37%	100%
Standard Deviation	4.7%	16.9%	7%	9.8%	1.9%	1%	3.2%

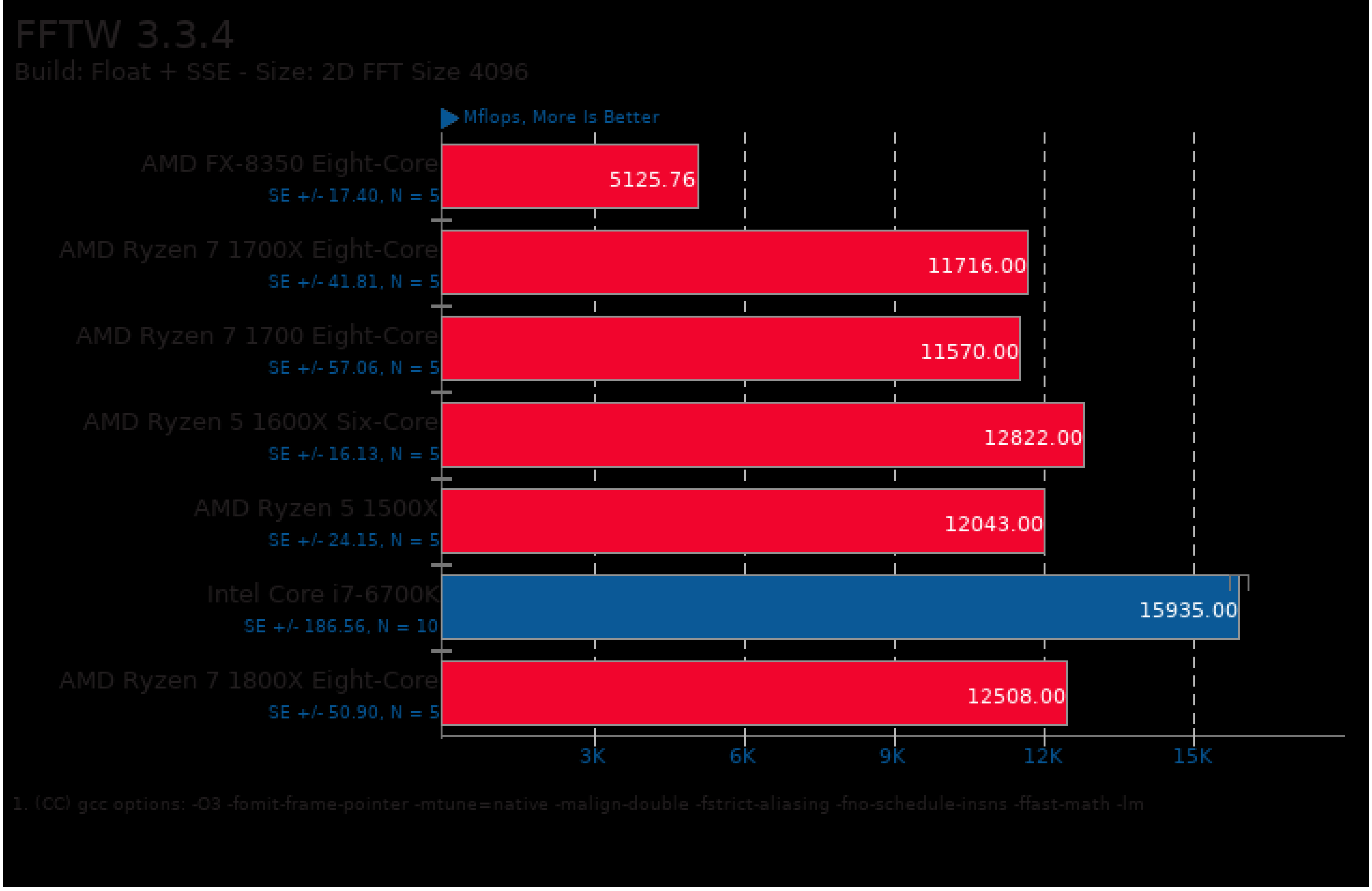

Primesieve 5.4.2
1e12 Prime Number Generation
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.01, N = 3
166.64
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.09, N = 3
40.19
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.04, N = 3
37.93
AMD Ryzen 5 1600X Six-Core
SE +/- 0.13, N = 3
46.58
AMD Ryzen 5 1500X
SE +/- 0.11, N = 3
73.87
Intel Core i7-6700K
SE +/- 0.08, N = 3
69.13
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.09, N = 3
35.94
40
80
120
160
200
1. (CXX) g++ options: -O2 -fopenmp

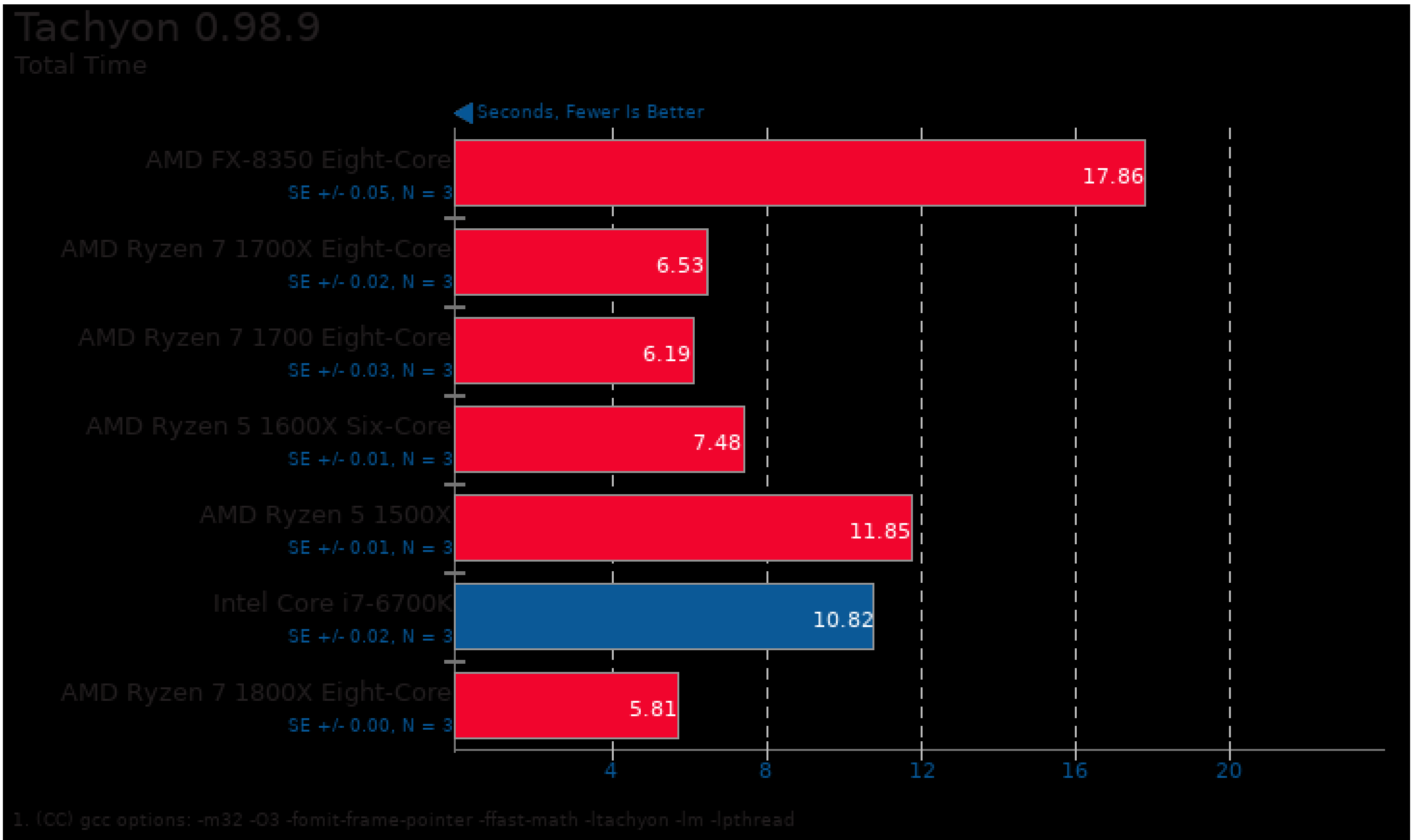

ebizzy 0.3
Phoronix Test Suite v7.0.1
Records/s, More Is Better
AMD FX-8350 Eight-Core
SE +/- 1317.02, N = 3
132768
AMD Ryzen 7 1700X Eight-Core
SE +/- 5764.84, N = 3
452763
AMD Ryzen 7 1700 Eight-Core
SE +/- 8593.57, N = 3
570823
AMD Ryzen 5 1600X Six-Core
SE +/- 17175.90, N = 6
441636
AMD Ryzen 5 1500X
SE +/- 5181.43, N = 4
305499
Intel Core i7-6700K
SE +/- 582.31, N = 3
242739
130K
260K
390K
520K
650K
1. (CC) gcc options: -pthread -lpthread -O3 -march=native

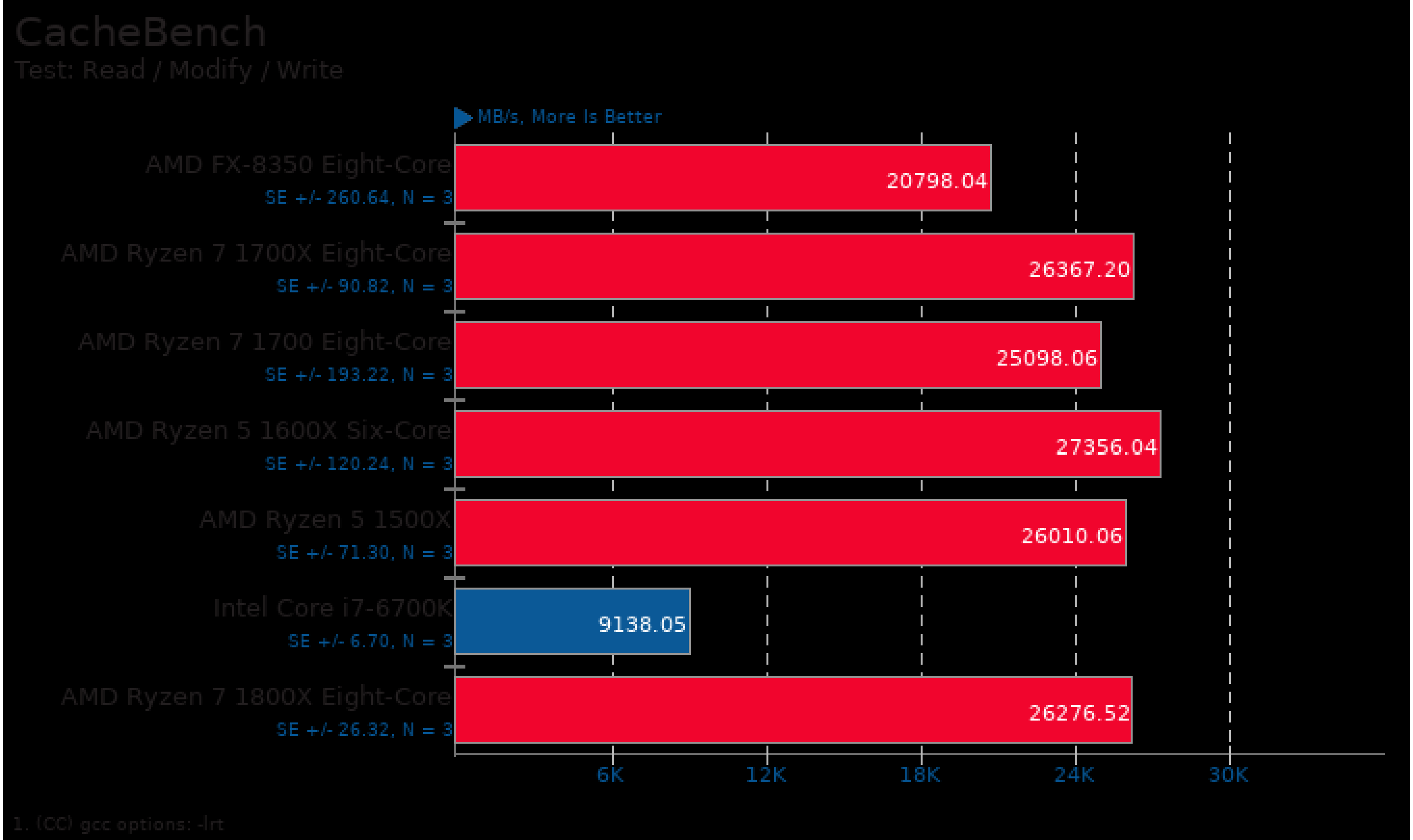

Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
AMD FX-8350 Eight-Core
SE +/- 0.95, N = 3
684.68
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.77, N = 3
-mavx2
1134.71
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.80, N = 3
-mavx2
1080.68
AMD Ryzen 5 1600X Six-Core
SE +/- 1.18, N = 3
-mavx2
1168.57
AMD Ryzen 5 1500X
SE +/- 0.51, N = 3
-mavx2
1107.22
Intel Core i7-6700K
SE +/- 2.55, N = 3
-mavx2
2575.97
AMD Ryzen 7 1800X Eight-Core
SE +/- 1.27, N = 3
-mavx2
1136.49
600
1200
1800
2400
3000
1. (CC) gcc options: -O3

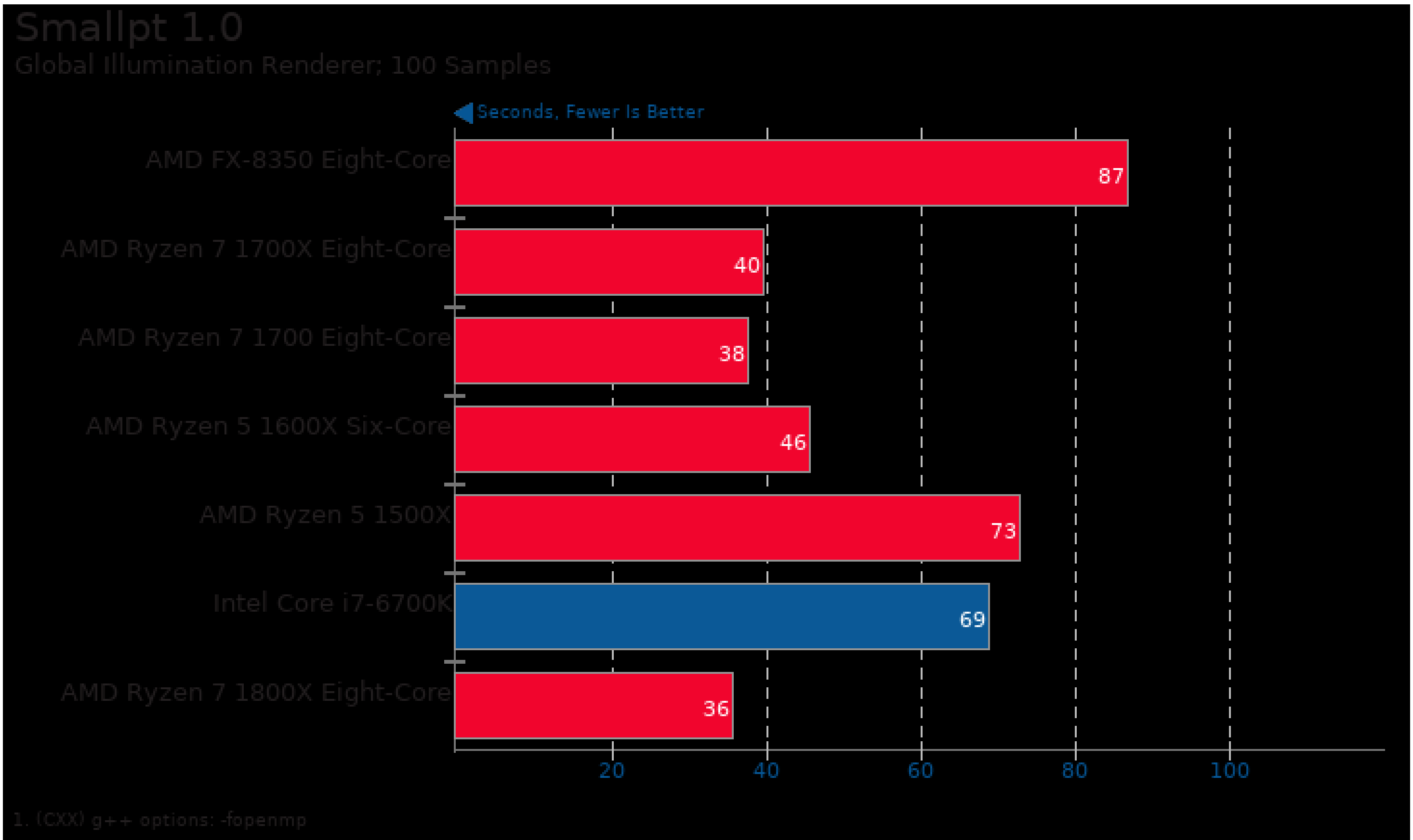

Perl Benchmarks
Test: Interpreter
seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.00000103, N = 3
0.00133330
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.00000105, N = 3
0.00138613
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.00000027, N = 3
0.00078887
AMD Ryzen 5 1600X Six-Core
SE +/- 0.00000353, N = 3
0.00133980
AMD Ryzen 5 1500X
SE +/- 0.00001366, N = 3
0.00174965
Intel Core i7-6700K
SE +/- 0.00003070, N = 3
0.00280792
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.00000264, N = 3
0.00134482
0.0006
0.0012
0.0018
0.0024
0.003

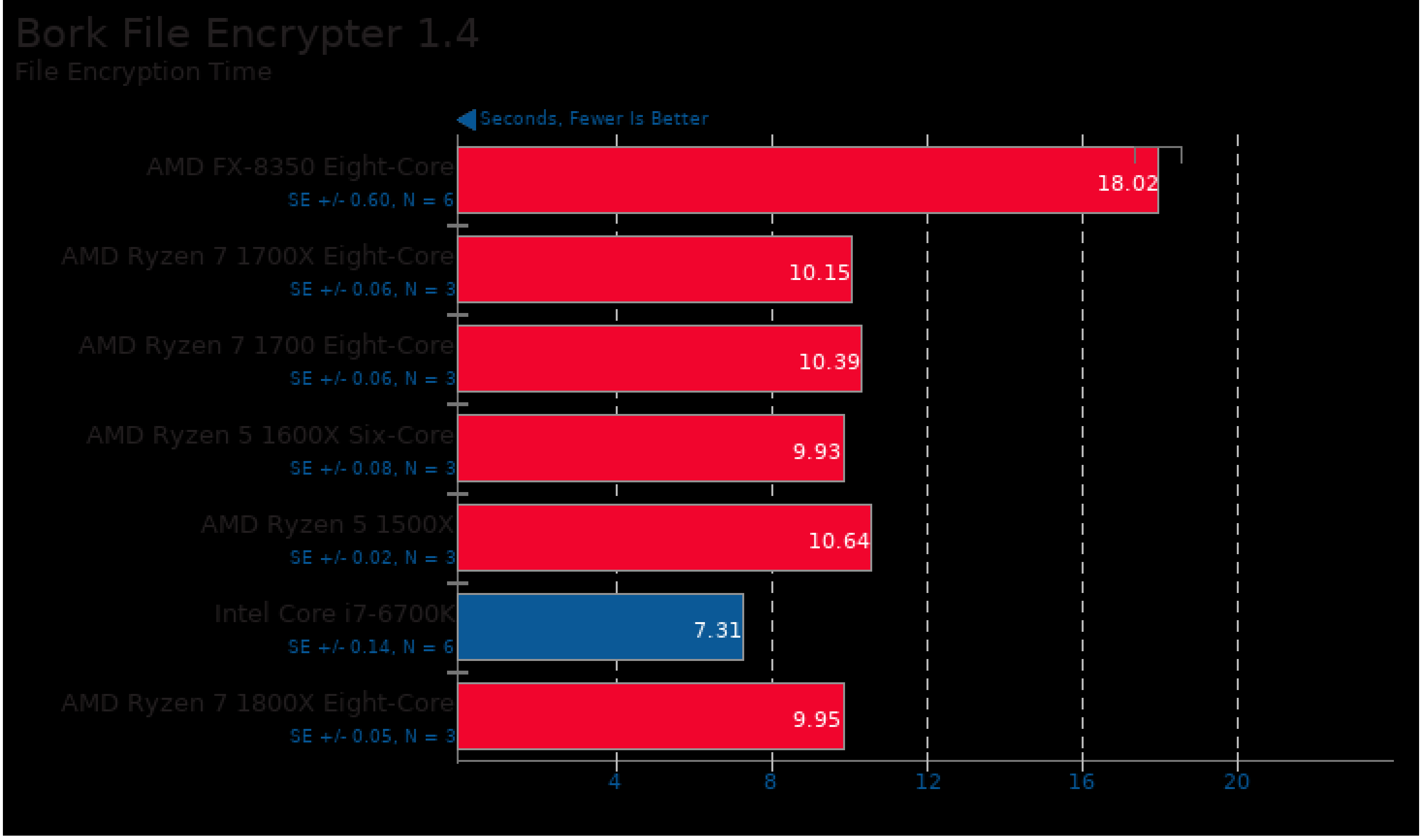

C-Ray 1.1
Total Time
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.01, N = 3
25.10
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.02, N = 3
8.43
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.01, N = 3
7.94
AMD Ryzen 5 1600X Six-Core
SE +/- 0.01, N = 3
9.74
AMD Ryzen 5 1500X
SE +/- 0.01, N = 3
15.46
Intel Core i7-6700K
SE +/- 0.00, N = 3
19.07
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.01, N = 3
7.76
6
12
18
24
30
1. (CC) gcc options: -lm -lpthread -O3

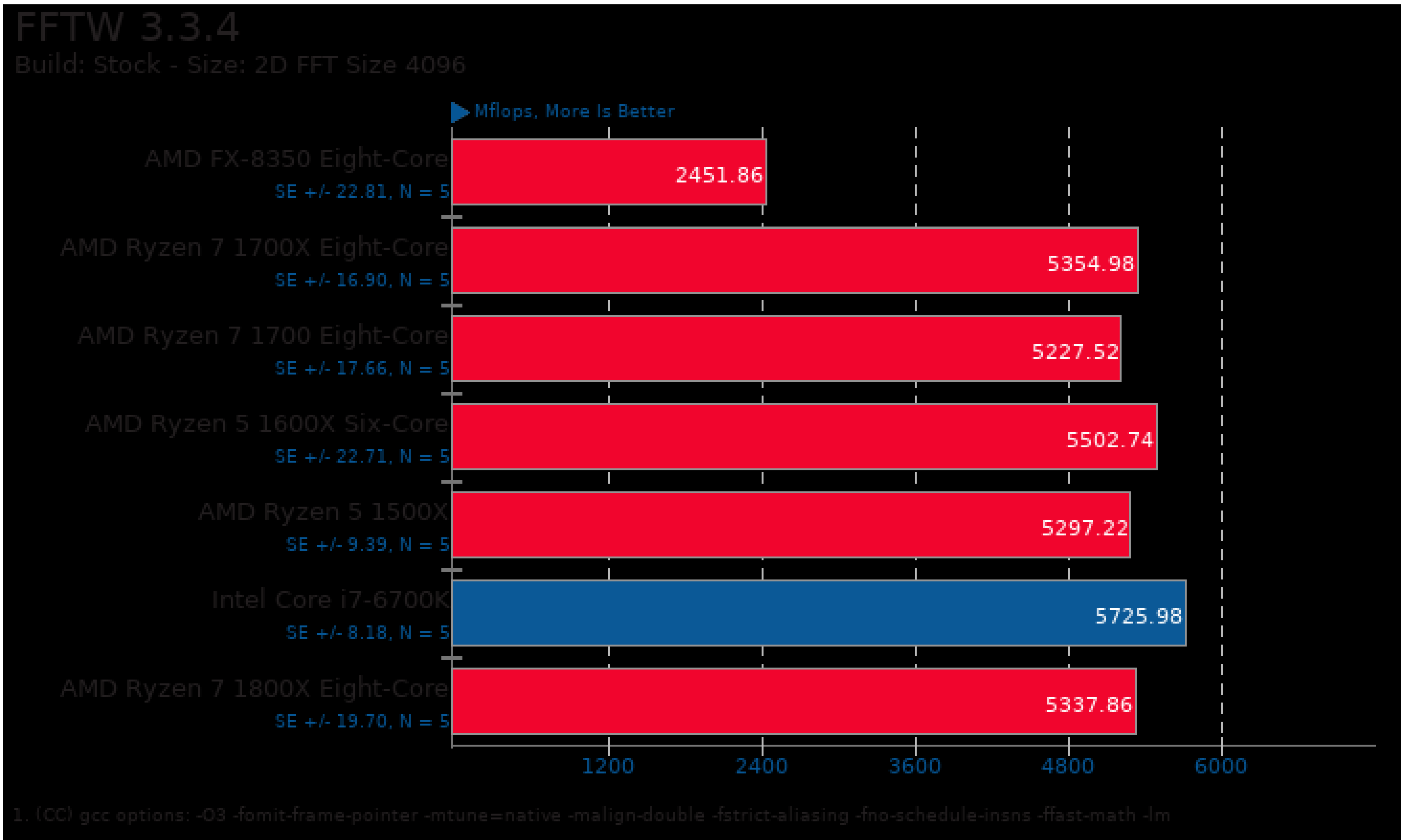

FFTW 3.3.4
Build: Float + SSE - Size: 2D FFT Size 4096
Mflops, More Is Better
AMD FX-8350 Eight-Core
SE +/- 17.40, N = 5
5125.76
AMD Ryzen 7 1700X Eight-Core
SE +/- 41.81, N = 5
11716.00
AMD Ryzen 7 1700 Eight-Core
SE +/- 57.06, N = 5
11570.00
AMD Ryzen 5 1600X Six-Core
SE +/- 16.13, N = 5
12822.00
AMD Ryzen 5 1500X
SE +/- 24.15, N = 5
12043.00
Intel Core i7-6700K
SE +/- 186.56, N = 10
15935.00
AMD Ryzen 7 1800X Eight-Core
SE +/- 50.90, N = 5
12508.00
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

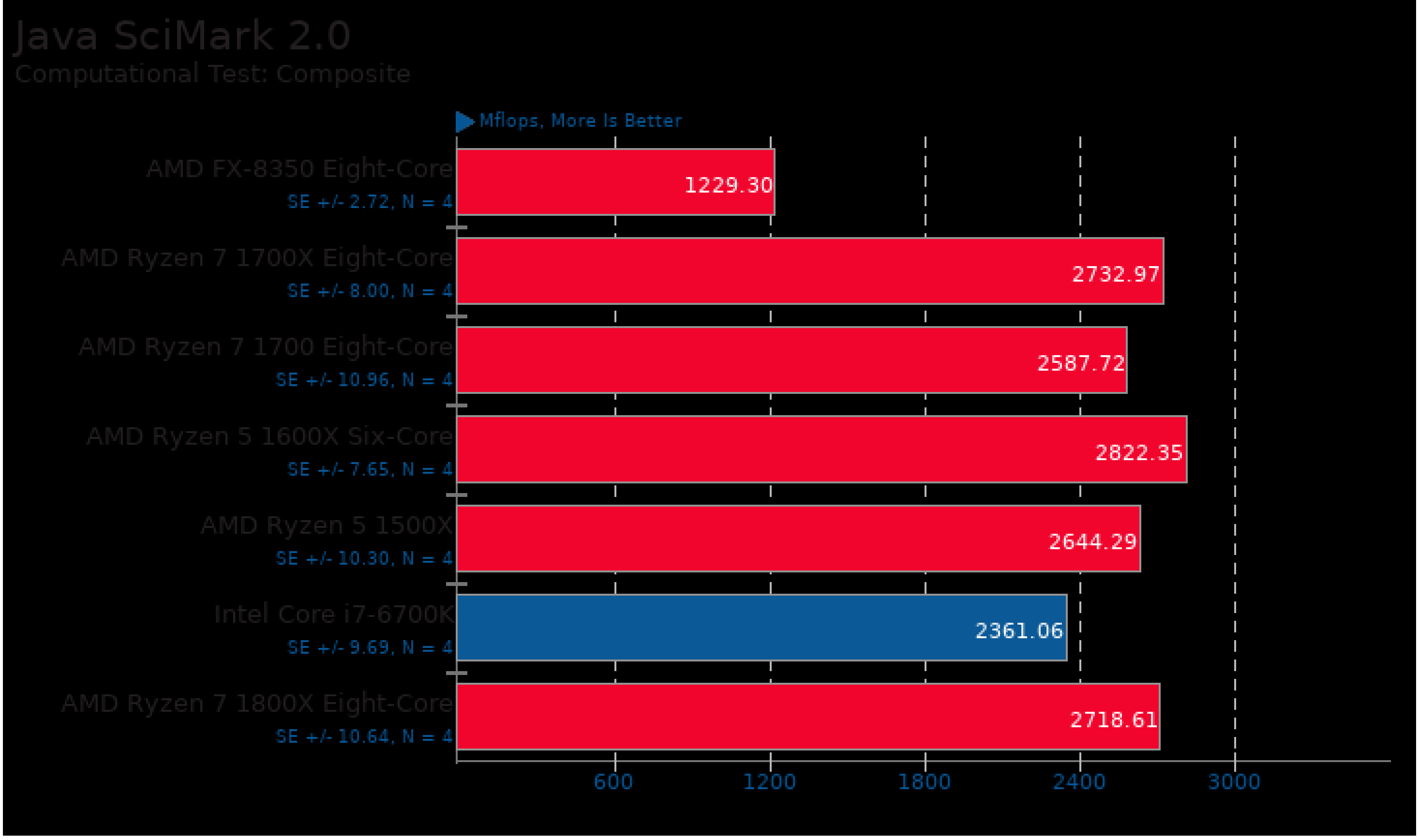

Tachyon 0.98.9
Total Time
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.05, N = 3
17.86
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.02, N = 3
6.53
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.03, N = 3
6.19
AMD Ryzen 5 1600X Six-Core
SE +/- 0.01, N = 3
7.48
AMD Ryzen 5 1500X
SE +/- 0.01, N = 3
11.85
Intel Core i7-6700K
SE +/- 0.02, N = 3
10.82
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.00, N = 3
5.81
4
8
12
16
20
1. (CC) gcc options: -m32 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

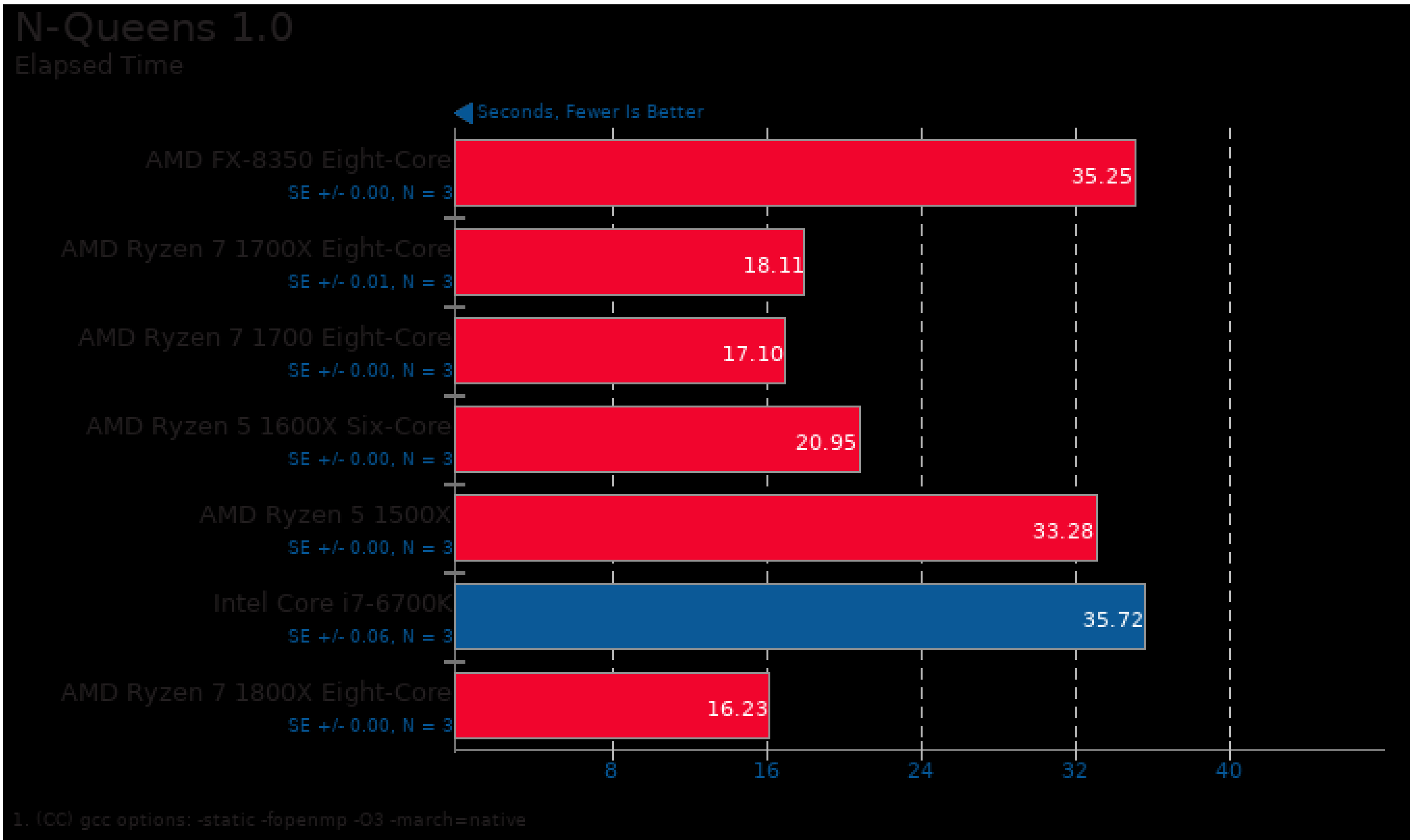

CacheBench
Test: Read / Modify / Write
MB/s, More Is Better
AMD FX-8350 Eight-Core
SE +/- 260.64, N = 3
20798.04
AMD Ryzen 7 1700X Eight-Core
SE +/- 90.82, N = 3
26367.20
AMD Ryzen 7 1700 Eight-Core
SE +/- 193.22, N = 3
25098.06
AMD Ryzen 5 1600X Six-Core
SE +/- 120.24, N = 3
27356.04
AMD Ryzen 5 1500X
SE +/- 71.30, N = 3
26010.06
Intel Core i7-6700K
SE +/- 6.70, N = 3
9138.05
AMD Ryzen 7 1800X Eight-Core
SE +/- 26.32, N = 3
26276.52
6K
12K
18K
24K
30K
1. (CC) gcc options: -lrt

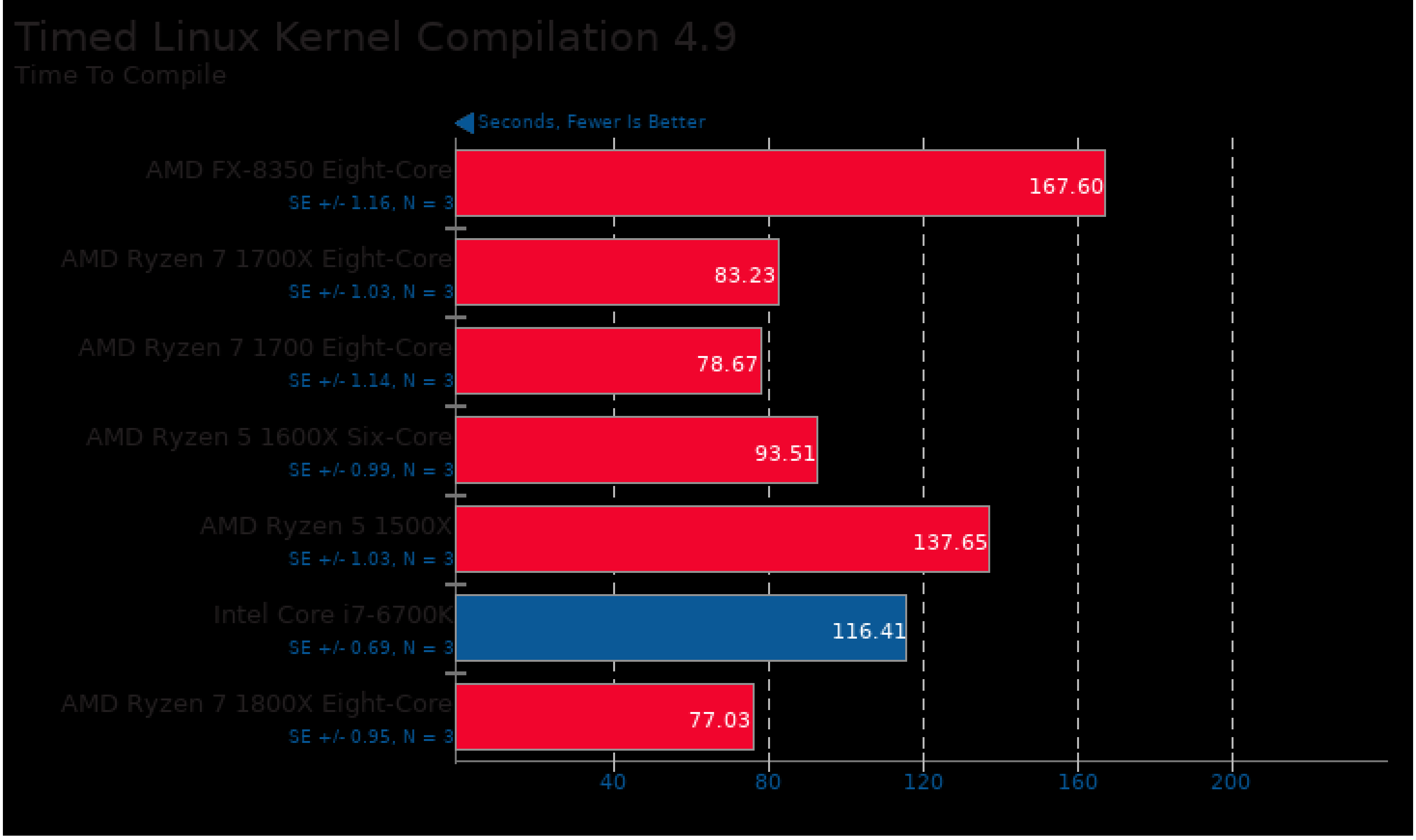

Smallpt 1.0
Global Illumination Renderer; 100 Samples
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
87
AMD Ryzen 7 1700X Eight-Core
40
AMD Ryzen 7 1700 Eight-Core
38
AMD Ryzen 5 1600X Six-Core
46
AMD Ryzen 5 1500X
73
Intel Core i7-6700K
69
AMD Ryzen 7 1800X Eight-Core
36
20
40
60
80
100
1. (CXX) g++ options: -fopenmp

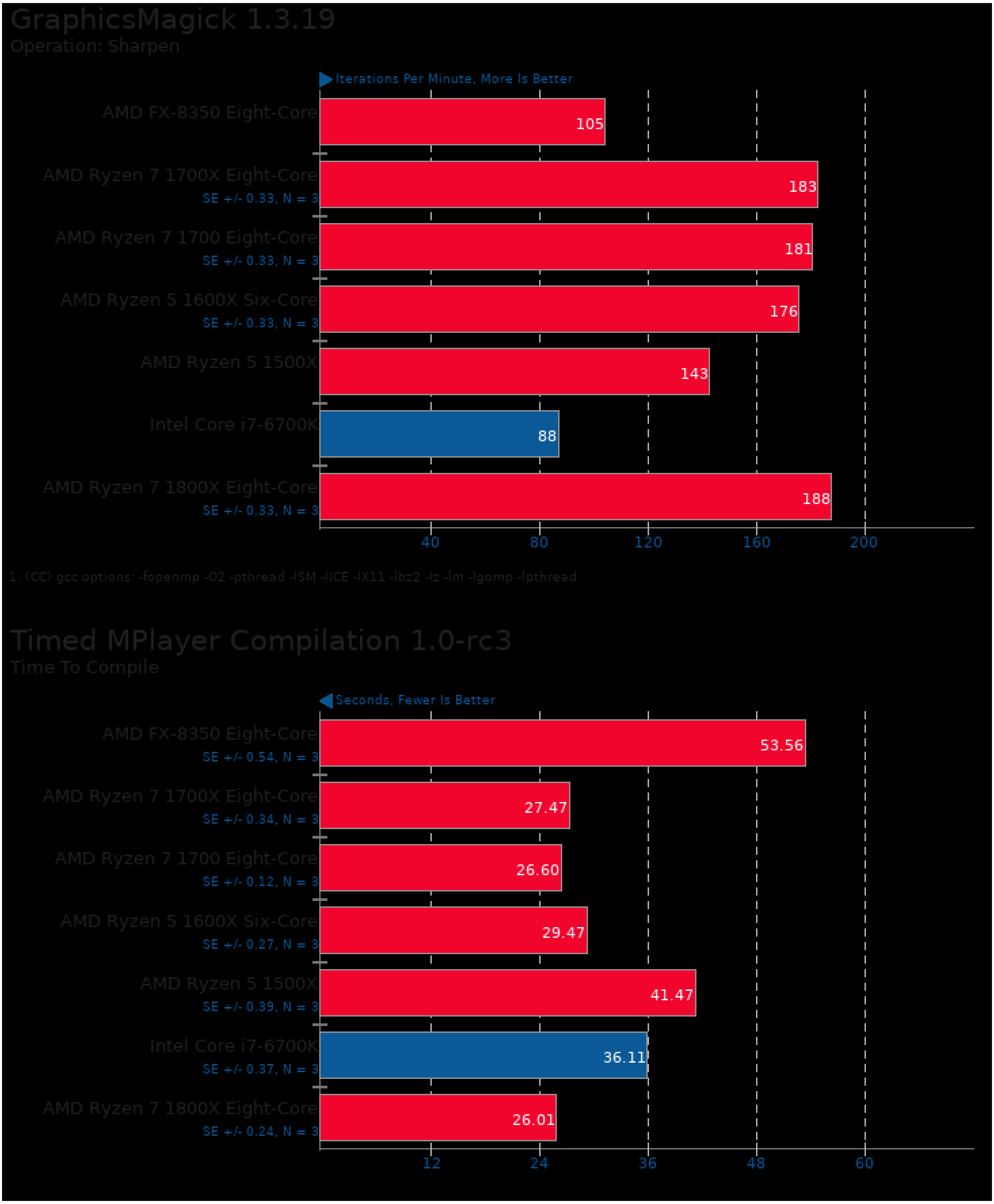

Bork File Encrypter 1.4
File Encryption Time
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.60, N = 6
18.02
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.06, N = 3
10.15
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.06, N = 3
10.39
AMD Ryzen 5 1600X Six-Core
SE +/- 0.08, N = 3
9.93
AMD Ryzen 5 1500X
SE +/- 0.02, N = 3
10.64
Intel Core i7-6700K
SE +/- 0.14, N = 6
7.31
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.05, N = 3
9.95
4
8
12
16
20


FFTW 3.3.4
Build: Stock - Size: 2D FFT Size 4096
Mflops, More Is Better
AMD FX-8350 Eight-Core
SE +/- 22.81, N = 5
2451.86
AMD Ryzen 7 1700X Eight-Core
SE +/- 16.90, N = 5
5354.98
AMD Ryzen 7 1700 Eight-Core
SE +/- 17.66, N = 5
5227.52
AMD Ryzen 5 1600X Six-Core
SE +/- 22.71, N = 5
5502.74
AMD Ryzen 5 1500X
SE +/- 9.39, N = 5
5297.22
Intel Core i7-6700K
SE +/- 8.18, N = 5
5725.98
AMD Ryzen 7 1800X Eight-Core
SE +/- 19.70, N = 5
5337.86
1200
2400
3600
4800
6000
1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

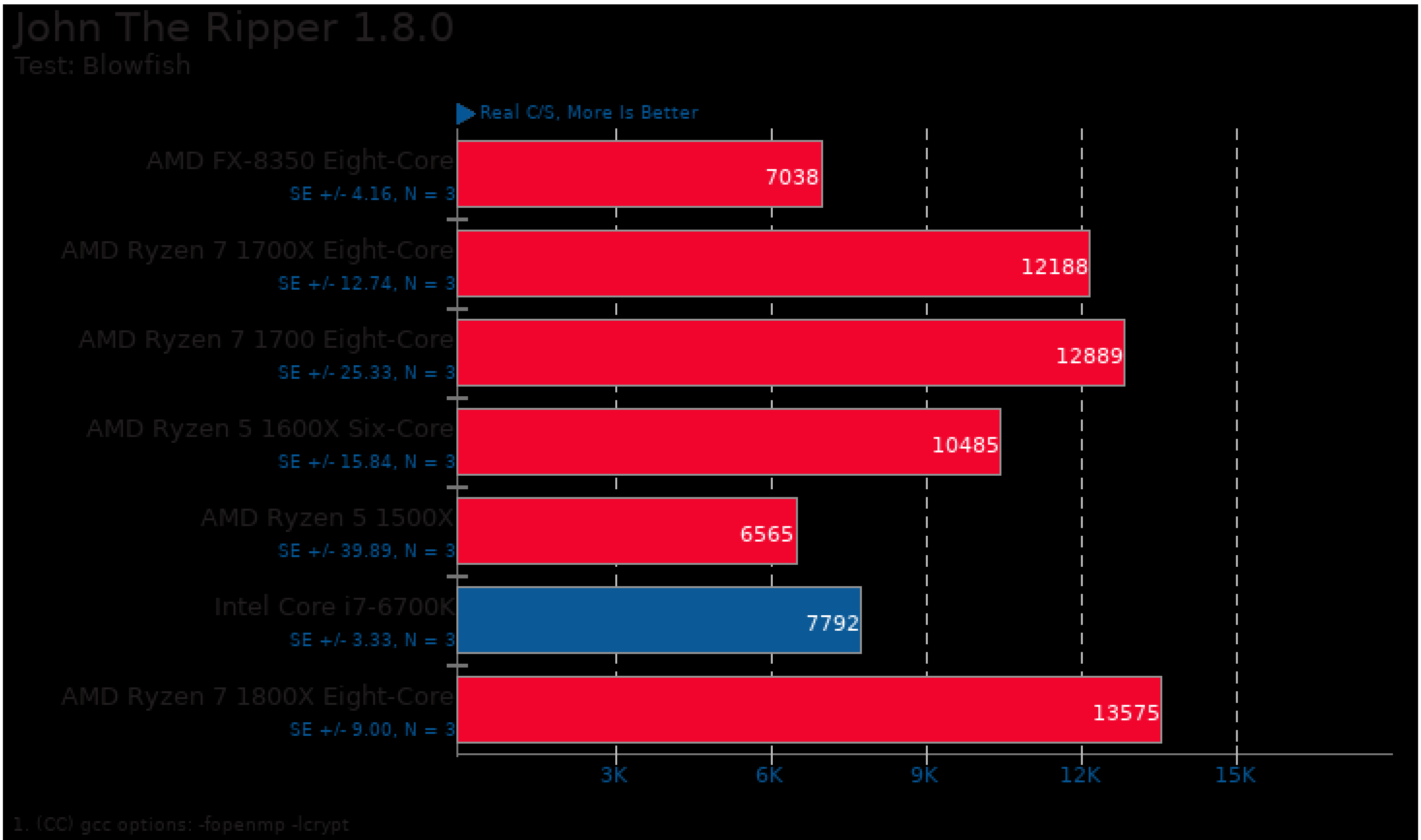

Java SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
AMD FX-8350 Eight-Core
SE +/- 2.72, N = 4
1229.30
AMD Ryzen 7 1700X Eight-Core
SE +/- 8.00, N = 4
2732.97
AMD Ryzen 7 1700 Eight-Core
SE +/- 10.96, N = 4
2587.72
AMD Ryzen 5 1600X Six-Core
SE +/- 7.65, N = 4
2822.35
AMD Ryzen 5 1500X
SE +/- 10.30, N = 4
2644.29
Intel Core i7-6700K
SE +/- 9.69, N = 4
2361.06
AMD Ryzen 7 1800X Eight-Core
SE +/- 10.64, N = 4
2718.61
600
1200
1800
2400
3000

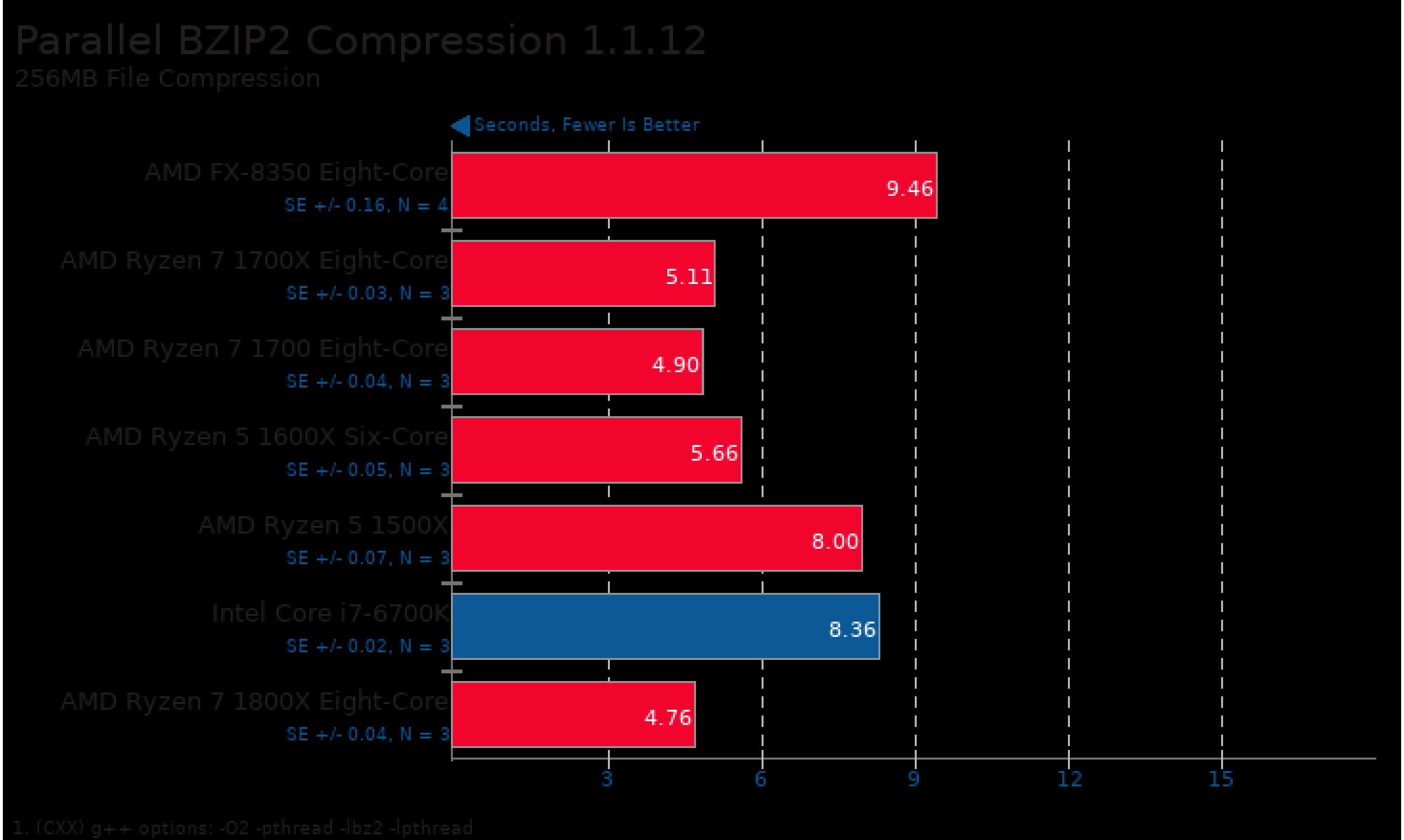

N-Queens 1.0
Elapsed Time
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.00, N = 3
35.25
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.01, N = 3
18.11
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.00, N = 3
17.10
AMD Ryzen 5 1600X Six-Core
SE +/- 0.00, N = 3
20.95
AMD Ryzen 5 1500X
SE +/- 0.00, N = 3
33.28
Intel Core i7-6700K
SE +/- 0.06, N = 3
35.72
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.00, N = 3
16.23
8
16
24
32
40
1. (CC) gcc options: -static -fopenmp -O3 -march=native


Timed Linux Kernel Compilation 4.9
Time To Compile
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 1.16, N = 3
167.60
AMD Ryzen 7 1700X Eight-Core
SE +/- 1.03, N = 3
83.23
AMD Ryzen 7 1700 Eight-Core
SE +/- 1.14, N = 3
78.67
AMD Ryzen 5 1600X Six-Core
SE +/- 0.99, N = 3
93.51
AMD Ryzen 5 1500X
SE +/- 1.03, N = 3
137.65
Intel Core i7-6700K
SE +/- 0.69, N = 3
116.41
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.95, N = 3
77.03
40
80
120
160
200

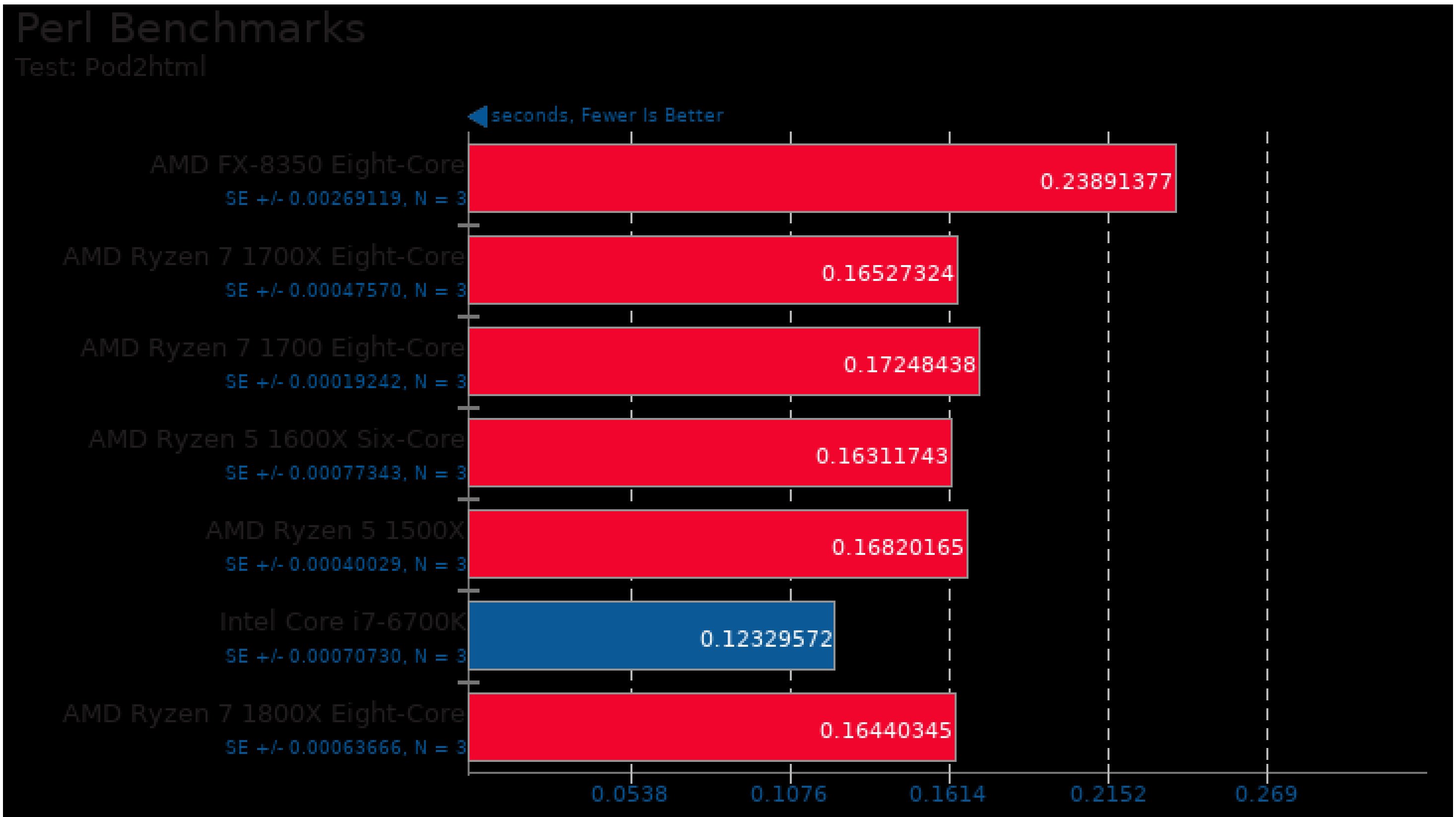

GraphicsMagick 1.3.19
Operation: Sharpen
Iterations Per Minute, More Is Better
AMD FX-8350 Eight-Core
105
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.33, N = 3
183
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.33, N = 3
181
AMD Ryzen 5 1600X Six-Core
SE +/- 0.33, N = 3
176
AMD Ryzen 5 1500X
143
Intel Core i7-6700K
88
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.33, N = 3
188
40
80
120
160
200
1. (CC) gcc options: -fopenmp -O2 -pthread -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread
Timed MPlayer Compilation 1.0-rc3
Time To Compile
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.54, N = 3
53.56
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.34, N = 3
27.47
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.12, N = 3
26.60
AMD Ryzen 5 1600X Six-Core
SE +/- 0.27, N = 3
29.47
AMD Ryzen 5 1500X
SE +/- 0.39, N = 3
41.47
Intel Core i7-6700K
SE +/- 0.37, N = 3
36.11
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.24, N = 3
26.01
12
24
36
48
60

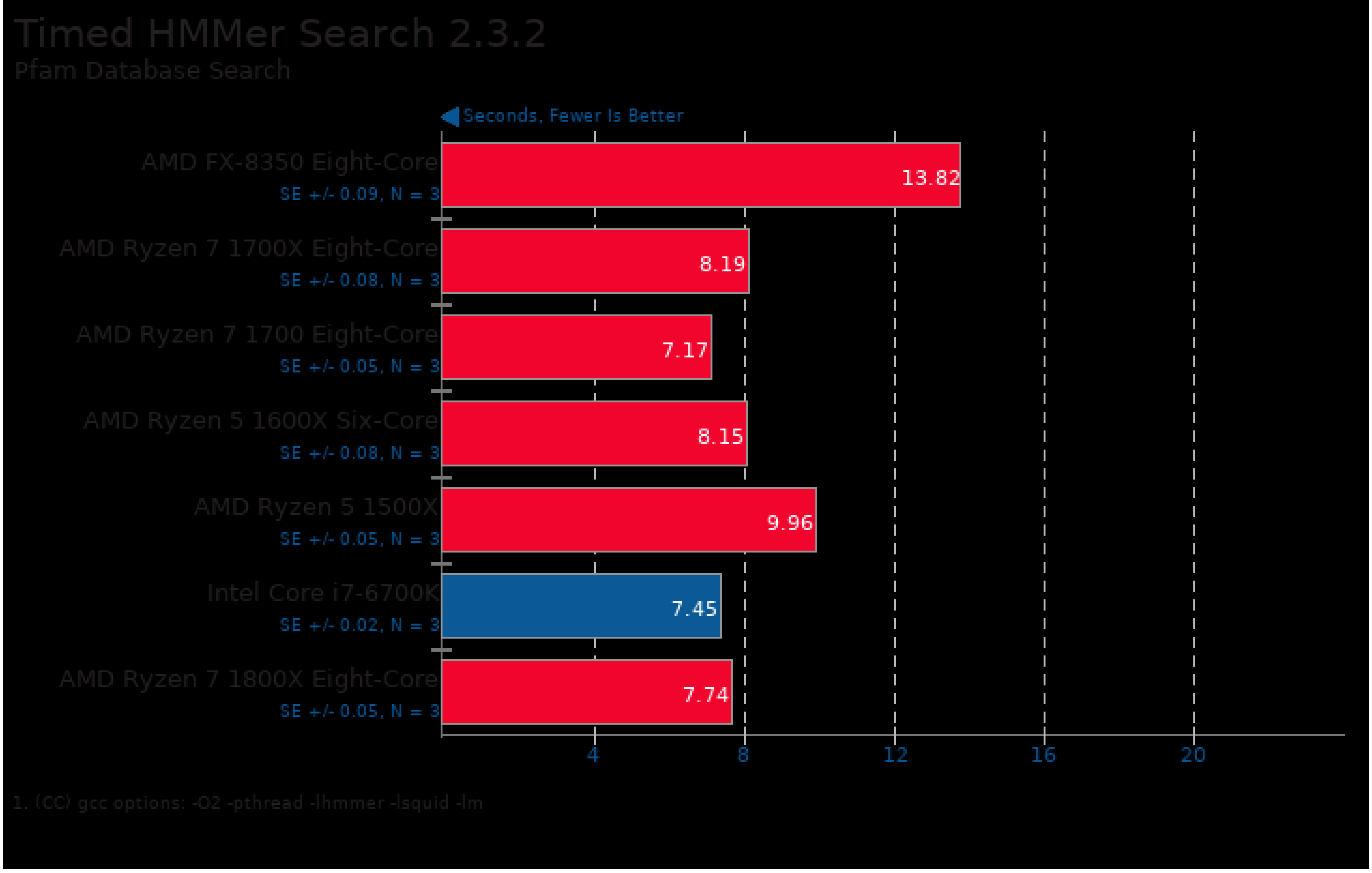
fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c



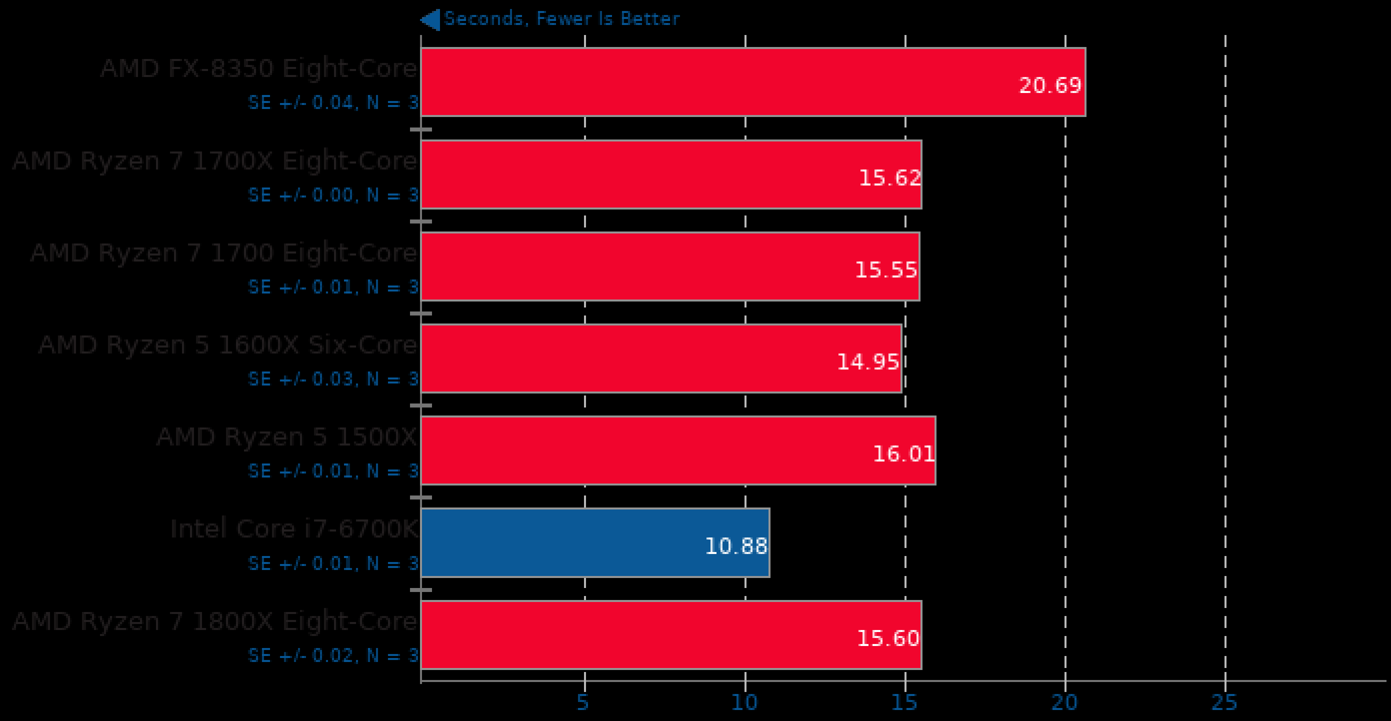


fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

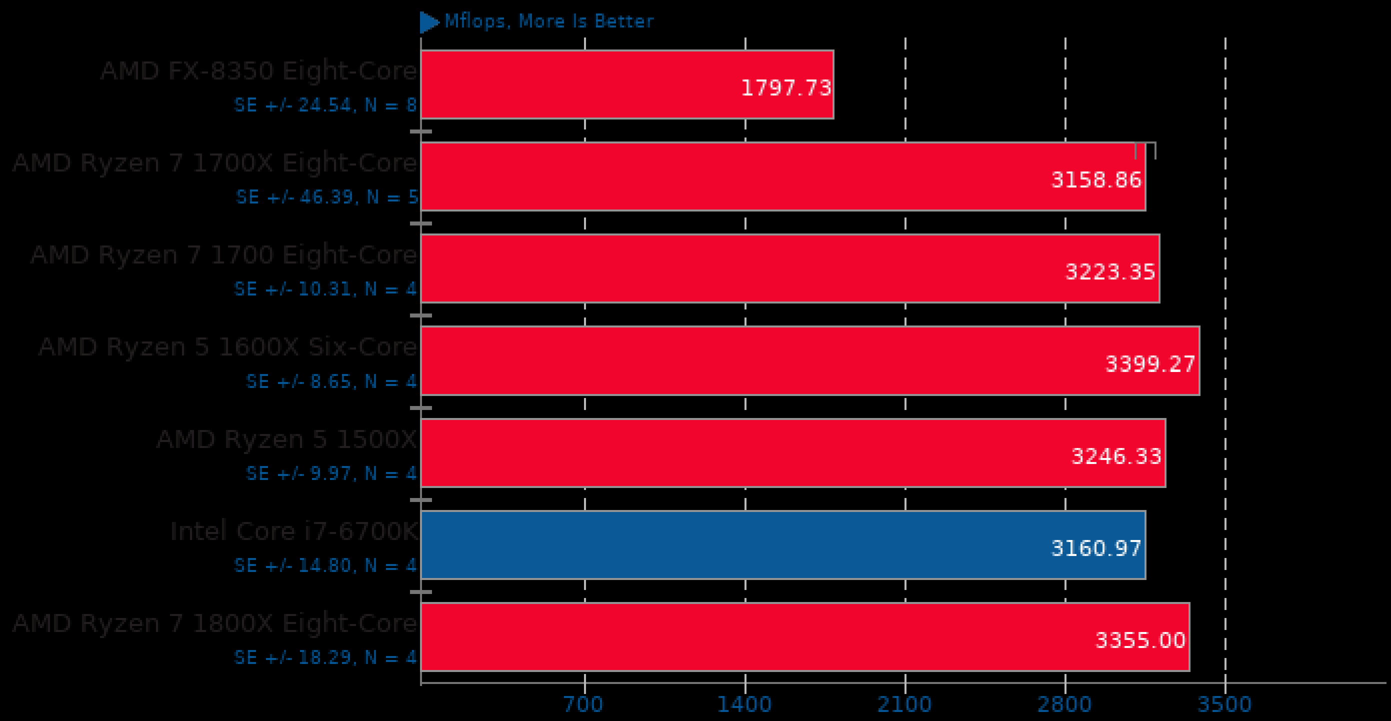




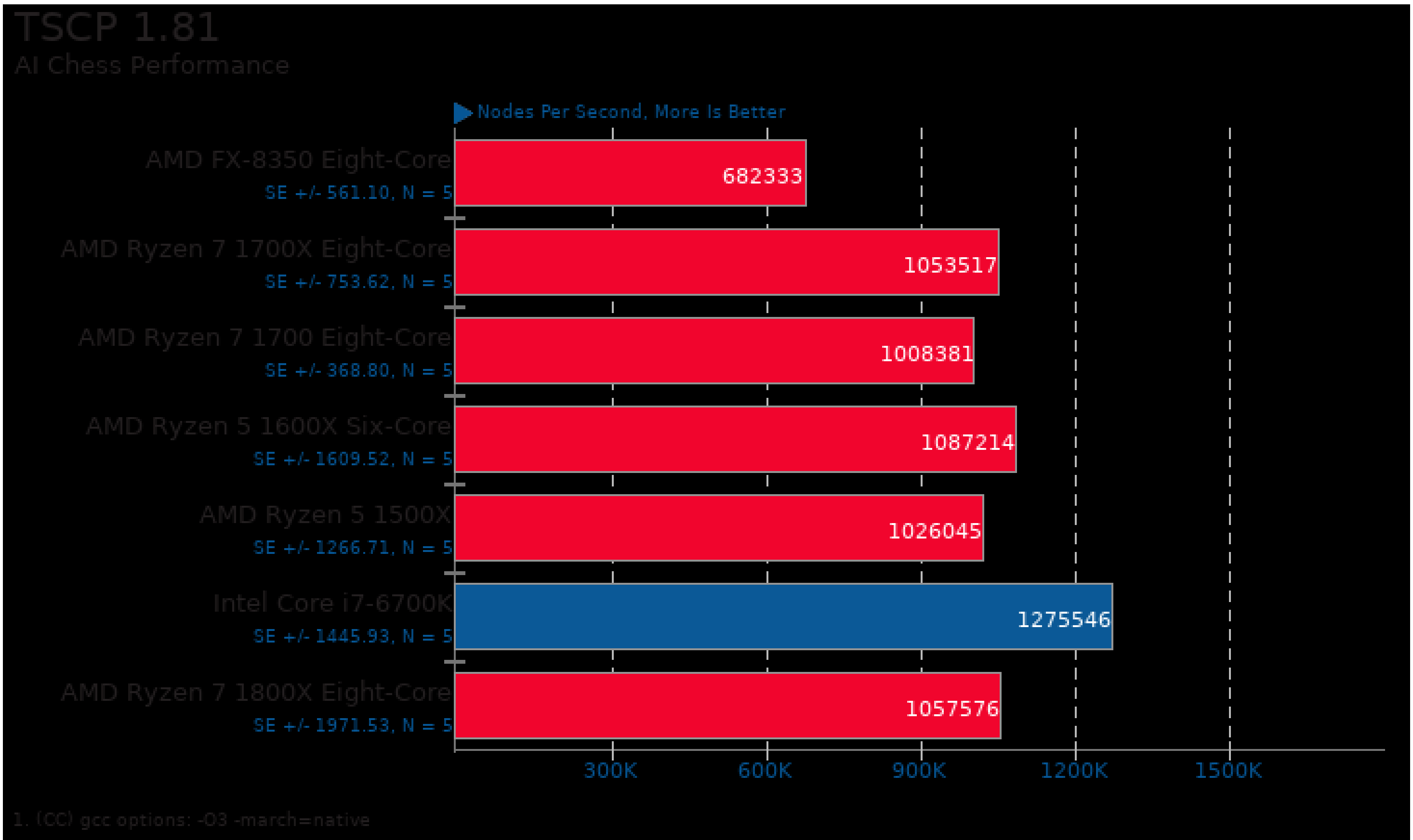
Sudokut 0.4
Total Time

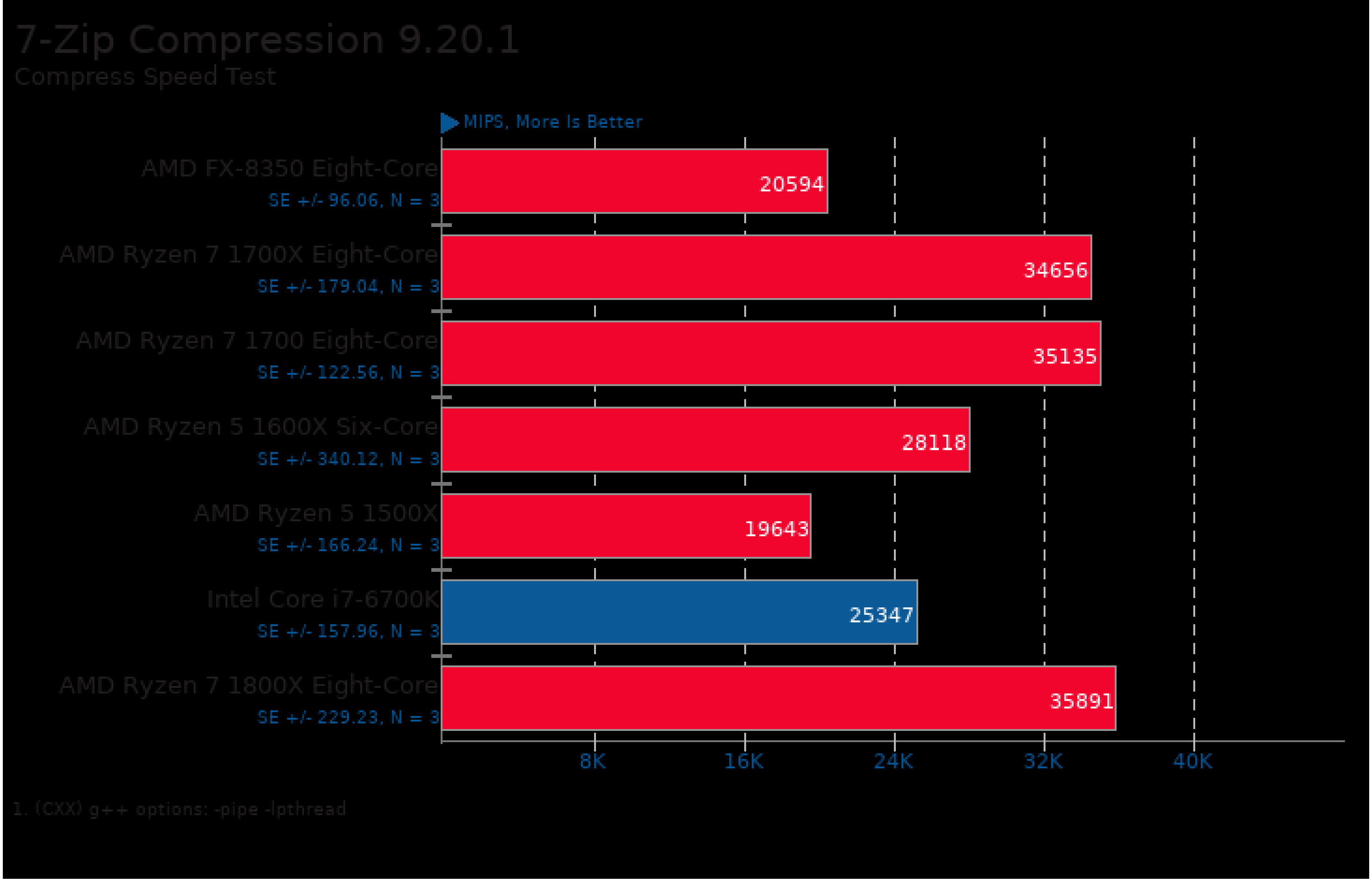


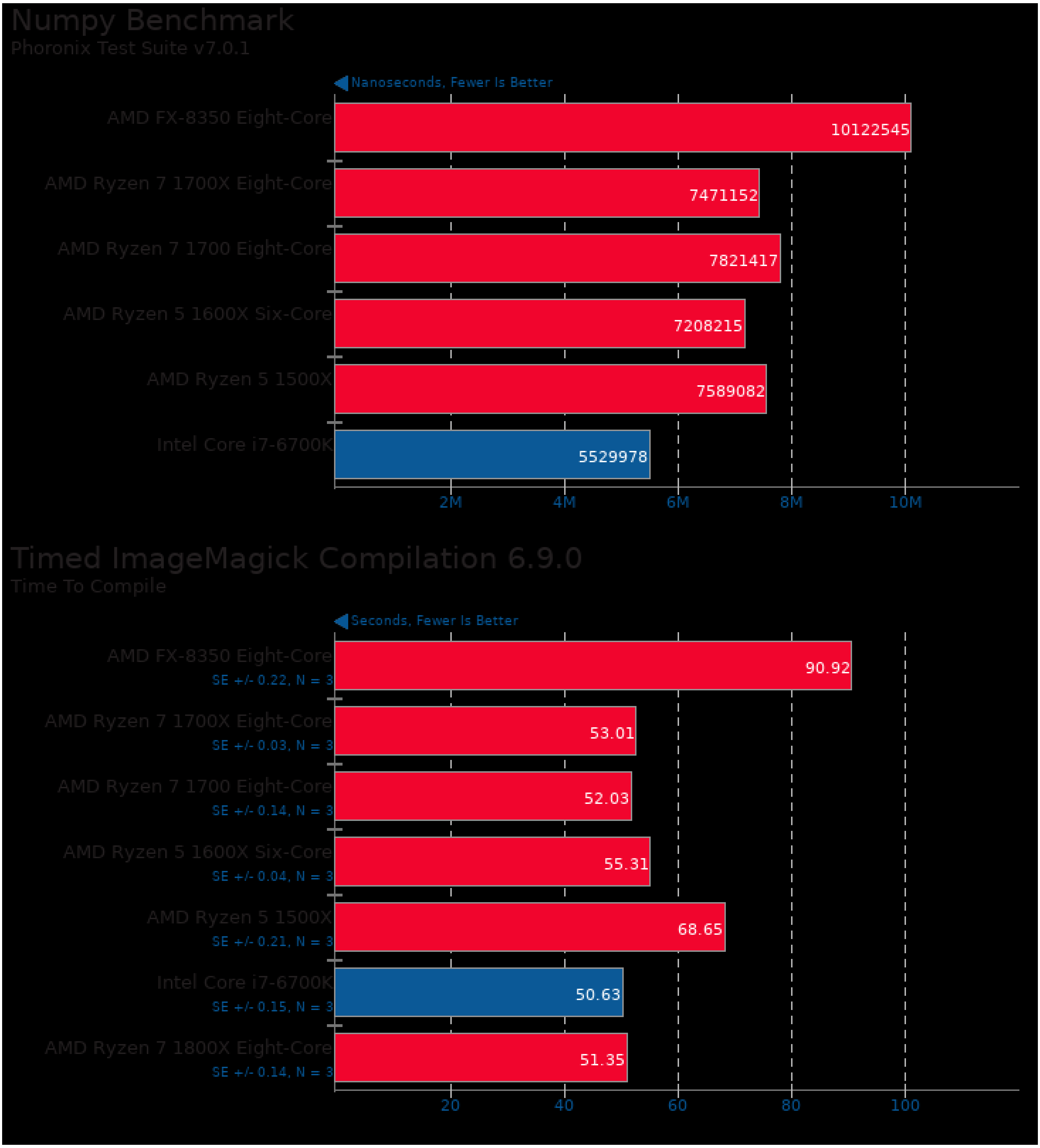
SciMark 2.0
Computational Test: Dense LU Matrix Factorization

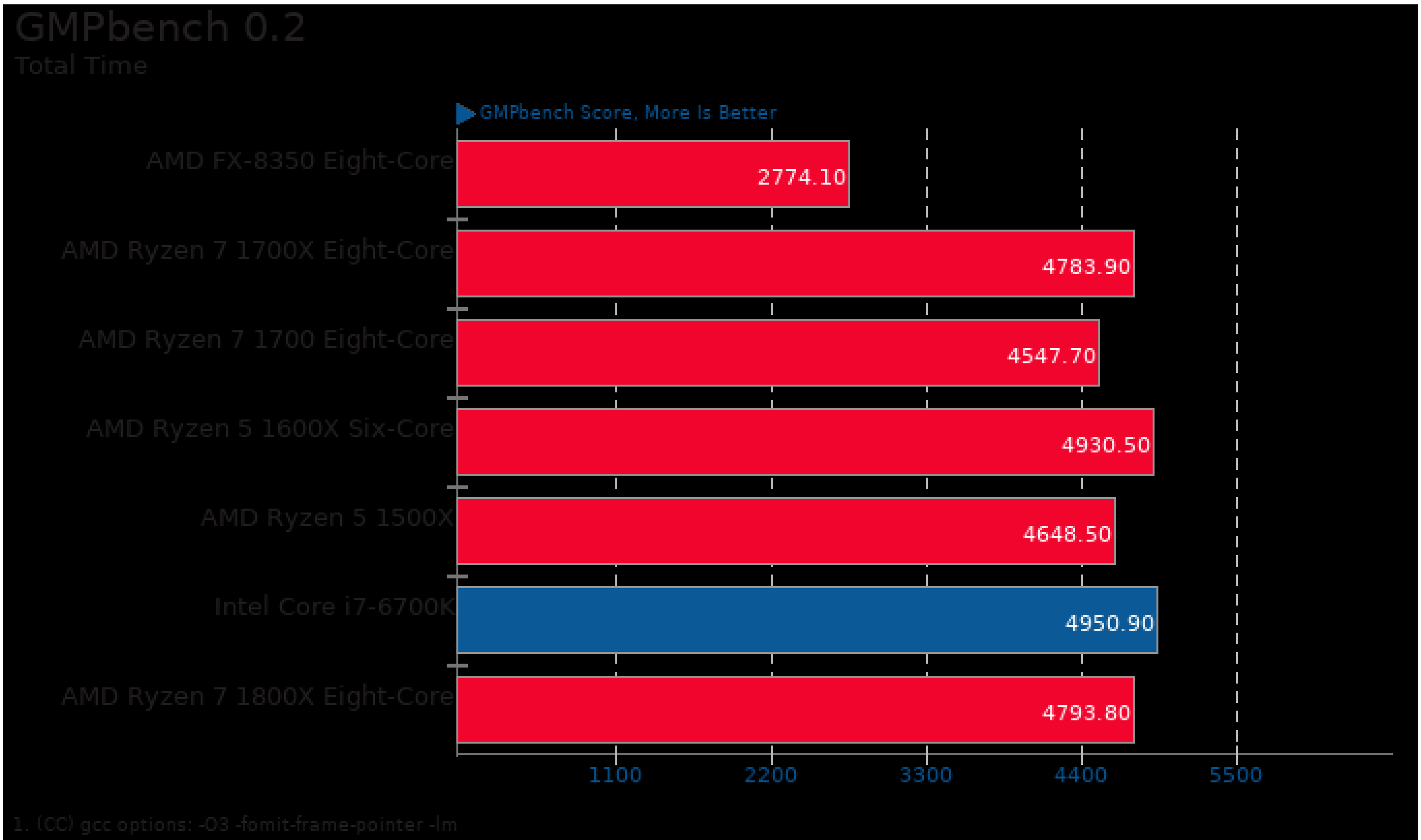


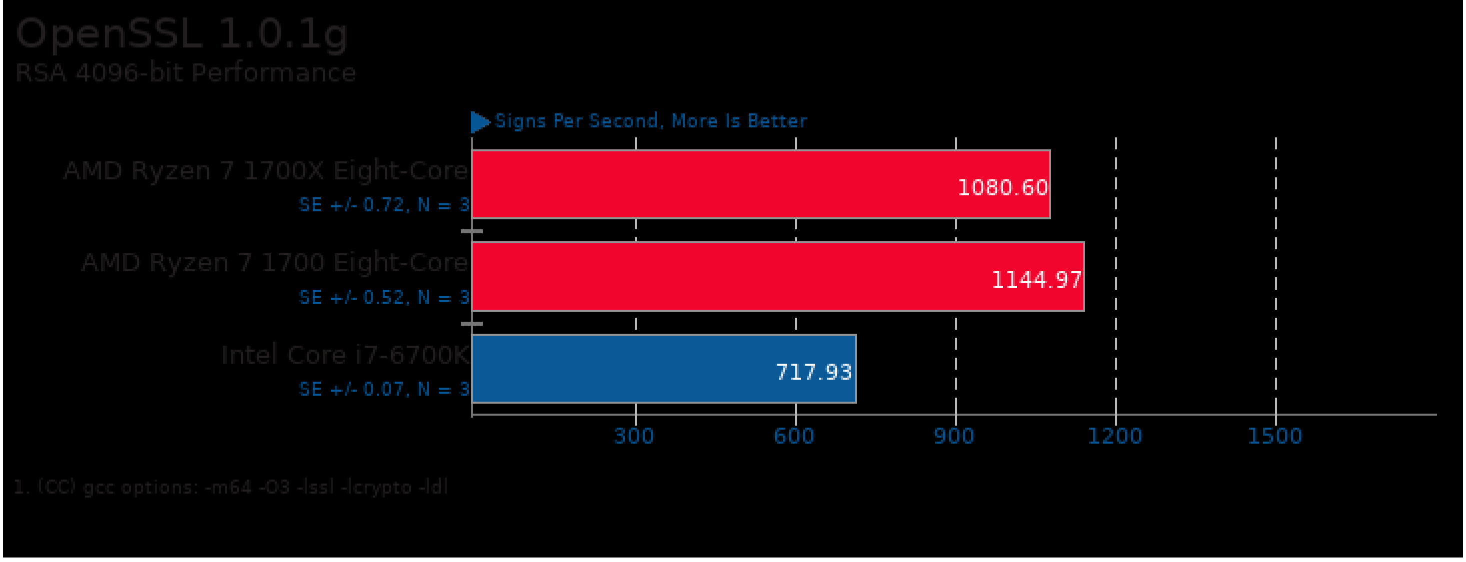
1. (CC) gcc options: -lm

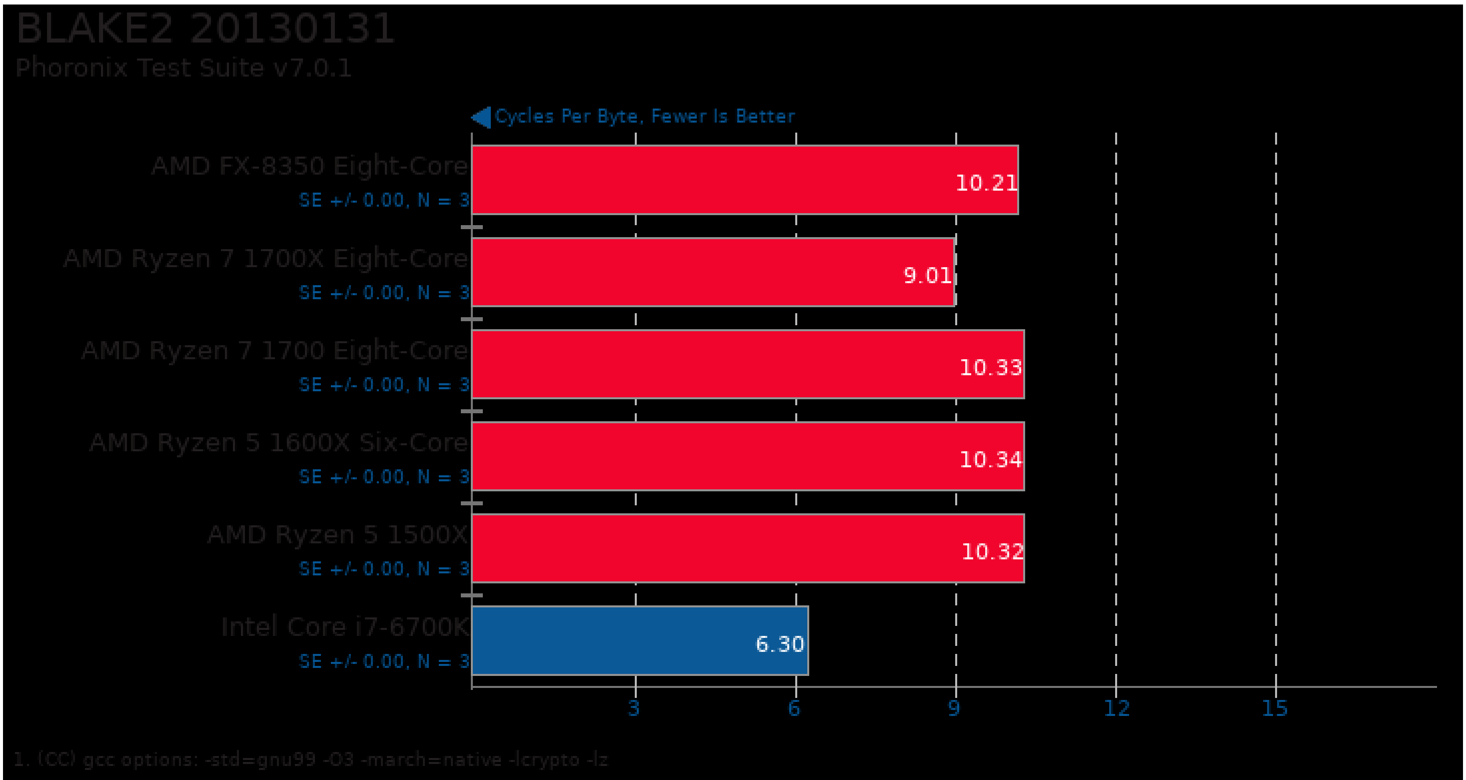

TSCP 1.81
AI Chess Performance
Nodes Per Second, More Is Better
AMD FX-8350 Eight-Core
SE +/- 561.10, N = 5
682333
AMD Ryzen 7 1700X Eight-Core
SE +/- 753.62, N = 5
1053517
AMD Ryzen 7 1700 Eight-Core
SE +/- 368.80, N = 5
1008381
AMD Ryzen 5 1600X Six-Core
SE +/- 1609.52, N = 5
1087214
AMD Ryzen 5 1500X
SE +/- 1266.71, N = 5
1026045
Intel Core i7-6700K
SE +/- 1445.93, N = 5
1275546
AMD Ryzen 7 1800X Eight-Core
SE +/- 1971.53, N = 5
1057576
300K
600K
900K
1200K
1500K
1. (CC) gcc options: -O3 -march=native


7-Zip Compression 9.20.1
Compress Speed Test
MIPS, More Is Better
AMD FX-8350 Eight-Core
SE +/- 96.06, N = 3
20594
AMD Ryzen 7 1700X Eight-Core
SE +/- 179.04, N = 3
34656
AMD Ryzen 7 1700 Eight-Core
SE +/- 122.56, N = 3
35135
AMD Ryzen 5 1600X Six-Core
SE +/- 340.12, N = 3
28118
AMD Ryzen 5 1500X
SE +/- 166.24, N = 3
19643
Intel Core i7-6700K
SE +/- 157.96, N = 3
25347
AMD Ryzen 7 1800X Eight-Core
SE +/- 229.23, N = 3
35891
8K
16K
24K
32K
40K
1. (CXX) g++ options: -pipe -lpthread

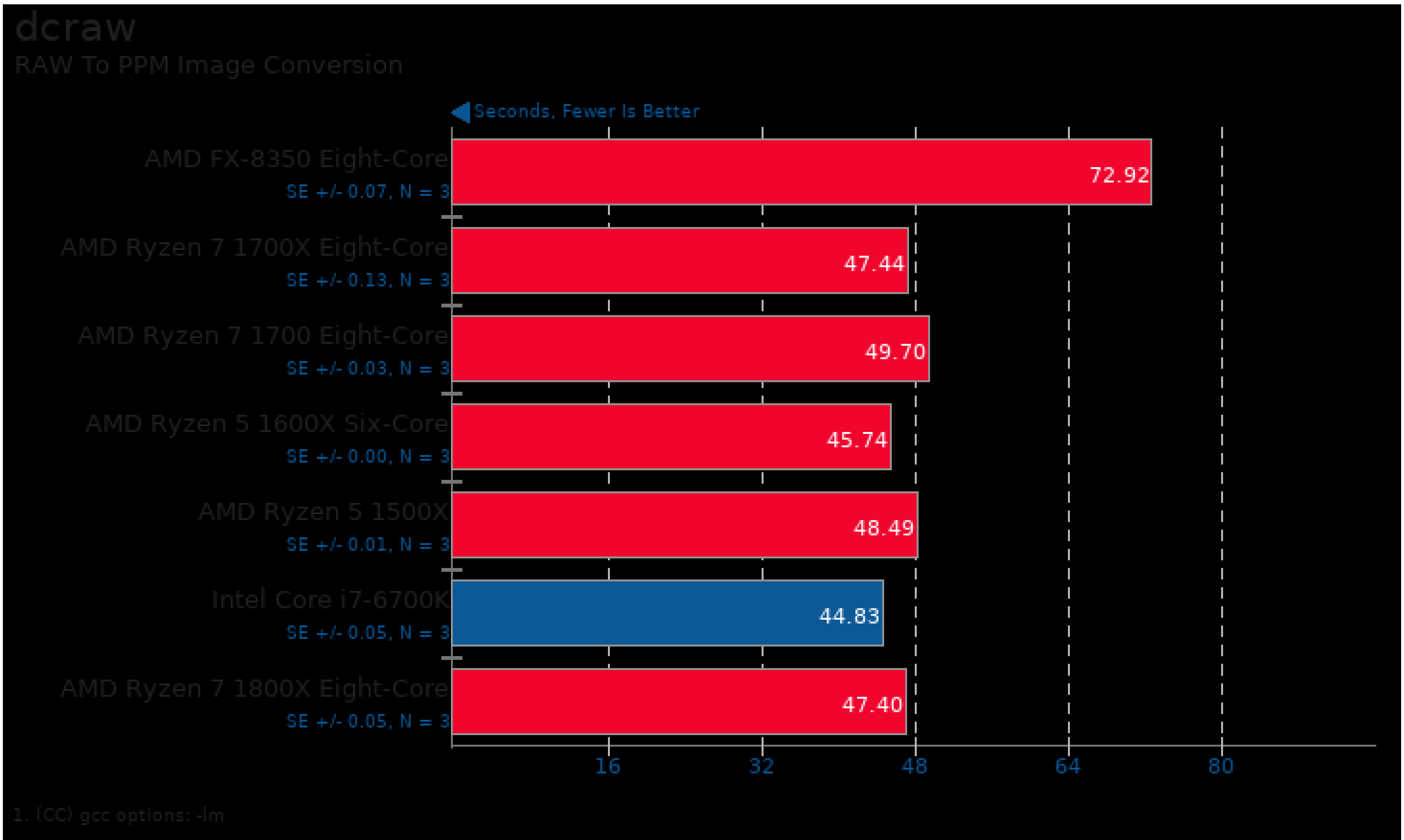

Numpy Benchmark
Phoronix Test Suite v7.0.1
Nanoseconds, Fewer Is Better
AMD FX-8350 Eight-Core
10122545
AMD Ryzen 7 1700X Eight-Core
7471152
AMD Ryzen 7 1700 Eight-Core
7821417
AMD Ryzen 5 1600X Six-Core
7208215
AMD Ryzen 5 1500X
7589082
Intel Core i7-6700K
5529978
2M
4M
6M
8M
10M
Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.22, N = 3
90.92
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.03, N = 3
53.01
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.14, N = 3
52.03
AMD Ryzen 5 1600X Six-Core
SE +/- 0.04, N = 3
55.31
AMD Ryzen 5 1500X
SE +/- 0.21, N = 3
68.65
Intel Core i7-6700K
SE +/- 0.15, N = 3
50.63
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.14, N = 3
51.35
20
40
60
80
100

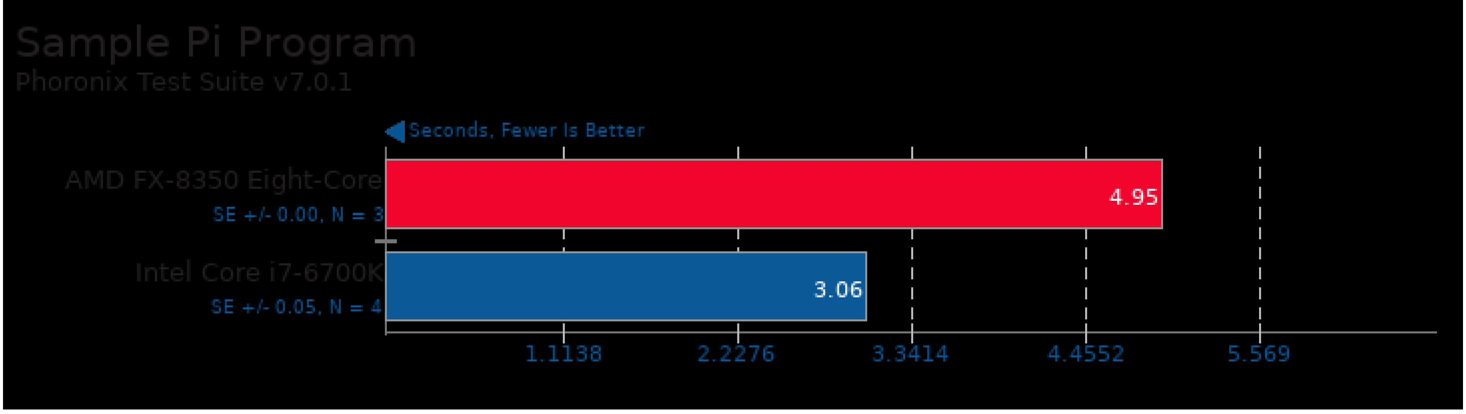

GMPbench 0.2
Total Time
GMPbench Score, More Is Better
AMD FX-8350 Eight-Core
2774.10
AMD Ryzen 7 1700X Eight-Core
4783.90
AMD Ryzen 7 1700 Eight-Core
4547.70
AMD Ryzen 5 1600X Six-Core
4930.50
AMD Ryzen 5 1500X
4648.50
Intel Core i7-6700K
4950.90
AMD Ryzen 7 1800X Eight-Core
4793.80
1100
2200
3300
4400
5500
1. (CC) gcc options: -O3 -fomit-frame-pointer -lm

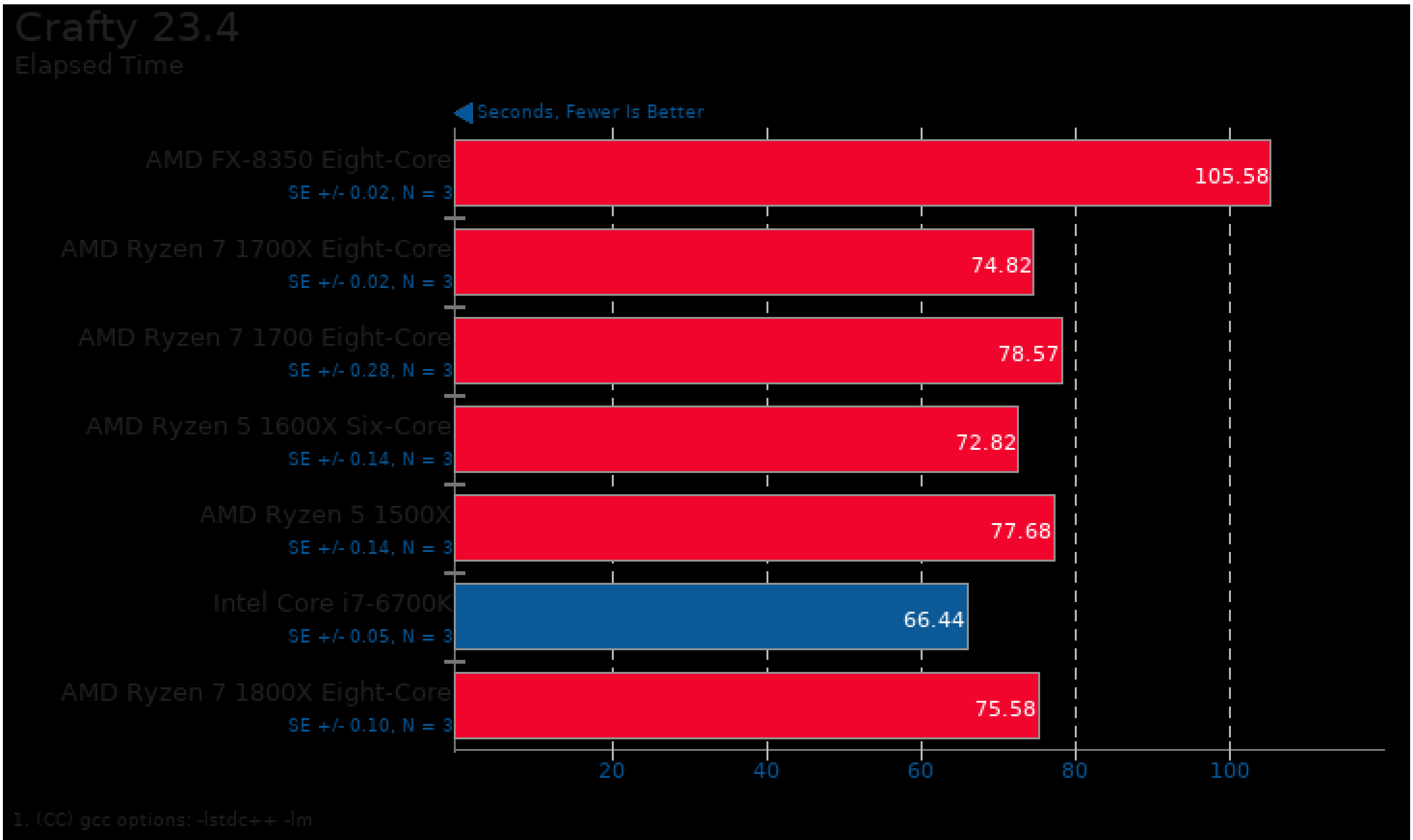

OpenSSL 1.0.1g
RSA 4096-bit Performance
Signs Per Second, More Is Better
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.72, N = 3
1080.60
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.52, N = 3
1144.97
Intel Core i7-6700K
SE +/- 0.07, N = 3
717.93
300
600
900
1200
1500
1. (CC) gcc options: -m64 -O3 -lssl -lcrypto -ldl

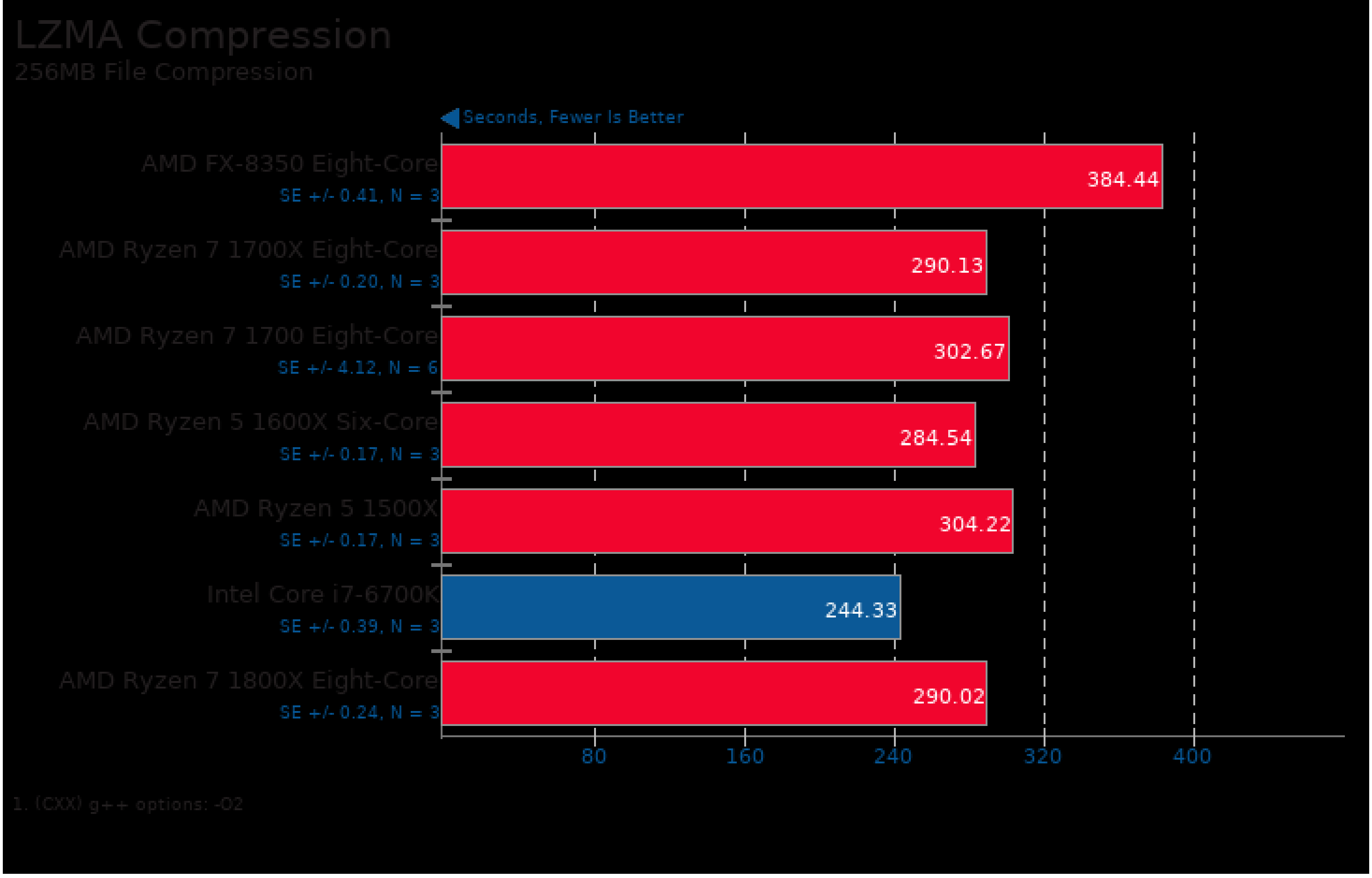

BLAKE2 20130131
Phoronix Test Suite v7.0.1
Cycles Per Byte, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.00, N = 3
10.21
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.00, N = 3
9.01
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.00, N = 3
10.33
AMD Ryzen 5 1600X Six-Core
SE +/- 0.00, N = 3
10.34
AMD Ryzen 5 1500X
SE +/- 0.00, N = 3
10.32
Intel Core i7-6700K
SE +/- 0.00, N = 3
6.30
3
6
9
12
15
1. (CC) gcc options: -std=gnu99 -O3 -march=native -lcrypto -lz

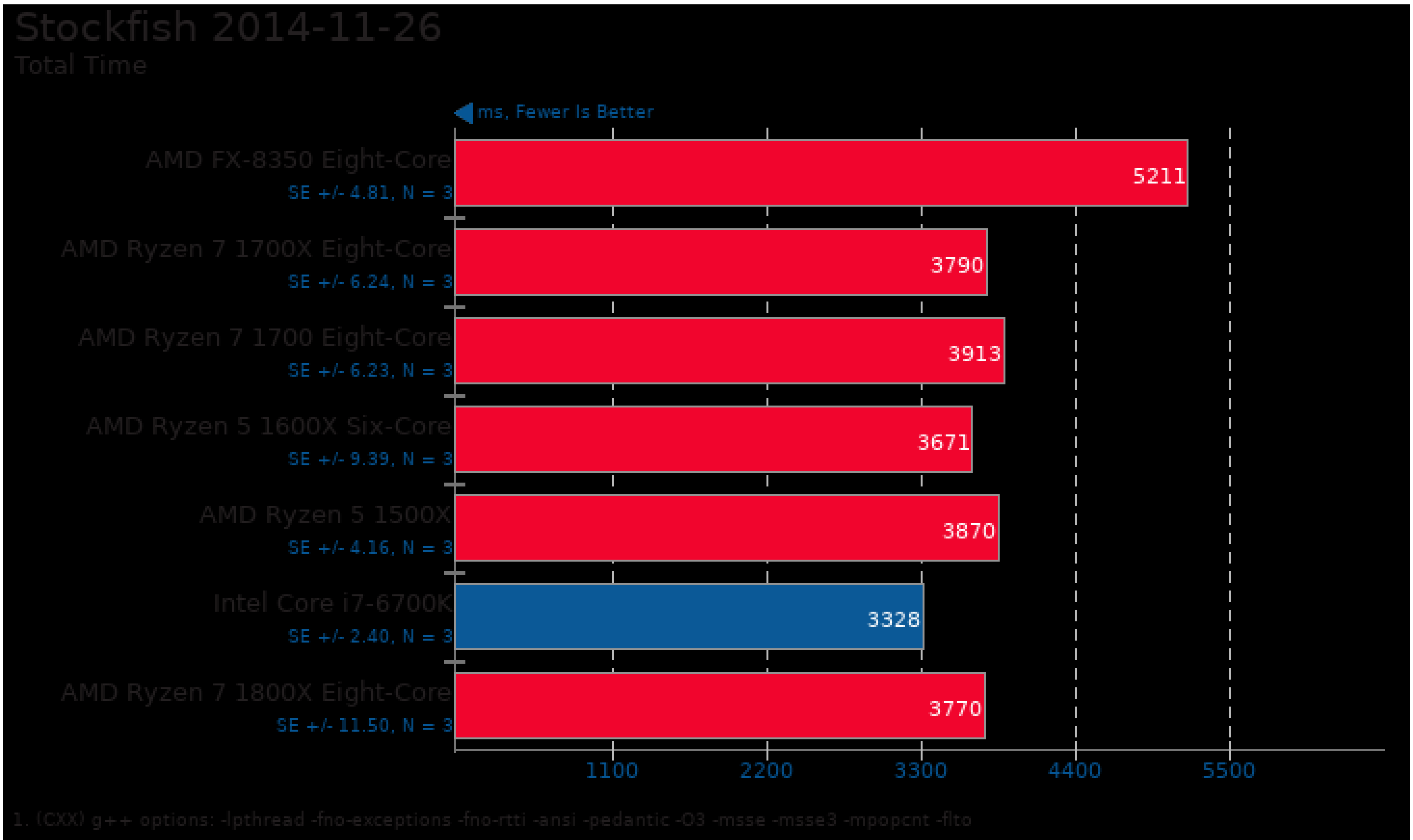

Timed PHP Compilation 5.2.9
Time To Compile
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.05, N = 3
33.68
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.07, N = 3
21.30
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.02, N = 3
20.79
AMD Ryzen 5 1600X Six-Core
SE +/- 0.01, N = 3
21.33
AMD Ryzen 5 1500X
SE +/- 0.14, N = 3
27.38
Intel Core i7-6700K
SE +/- 0.02, N = 3
22.57
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.04, N = 3
20.76
8
16
24
32
40
1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm

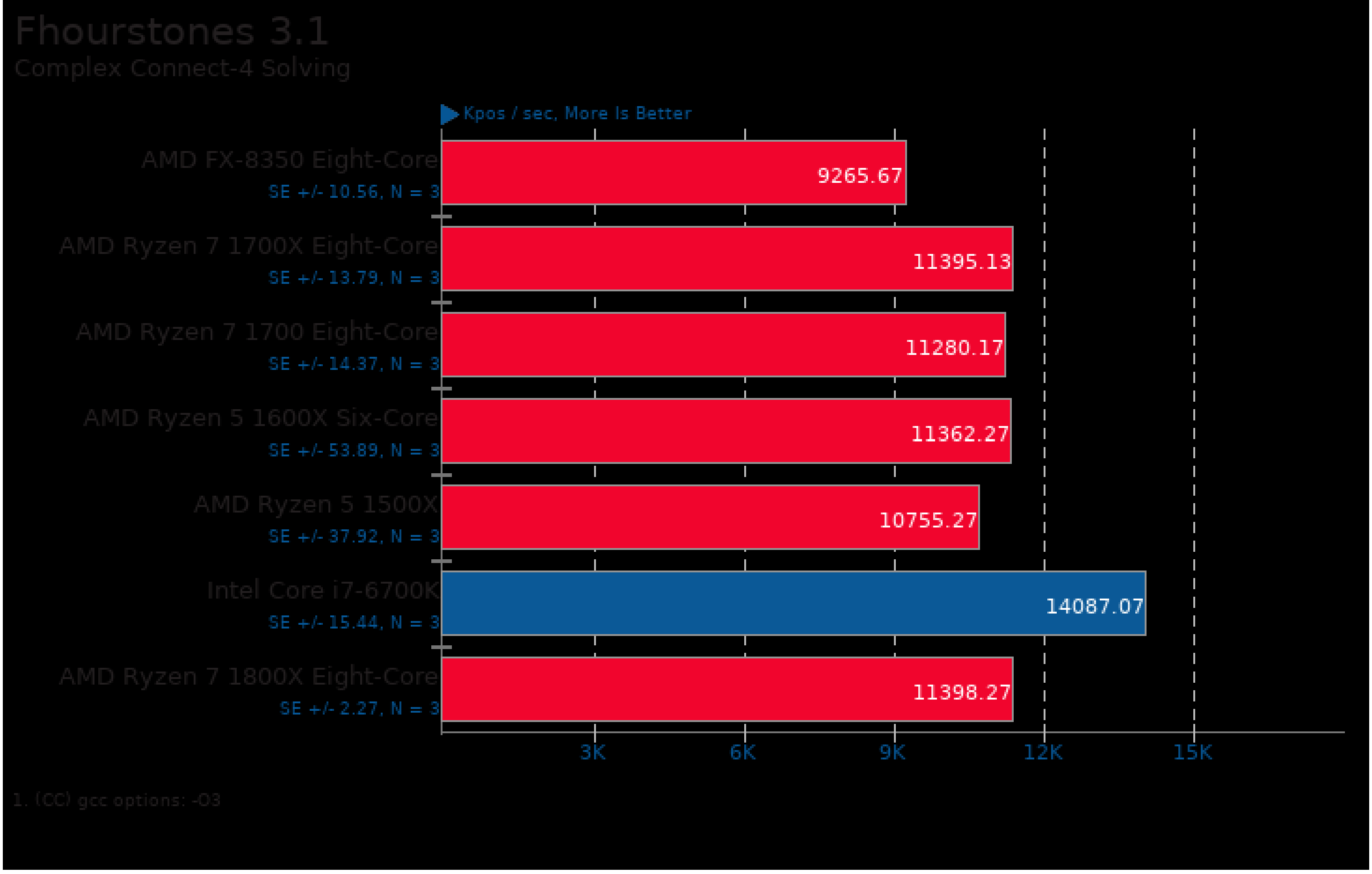

dcraw
RAW To PPM Image Conversion
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.07, N = 3
72.92
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.13, N = 3
47.44
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.03, N = 3
49.70
AMD Ryzen 5 1600X Six-Core
SE +/- 0.00, N = 3
45.74
AMD Ryzen 5 1500X
SE +/- 0.01, N = 3
48.49
Intel Core i7-6700K
SE +/- 0.05, N = 3
44.83
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.05, N = 3
47.40
16
32
48
64
80
1. (CC) gcc options: -lm


Sample Pi Program
Phoronix Test Suite v7.0.1
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.00, N = 3
4.95
Intel Core i7-6700K
SE +/- 0.05, N = 4
3.06
1.1138
2.2276
3.3414
4.4552
5.569

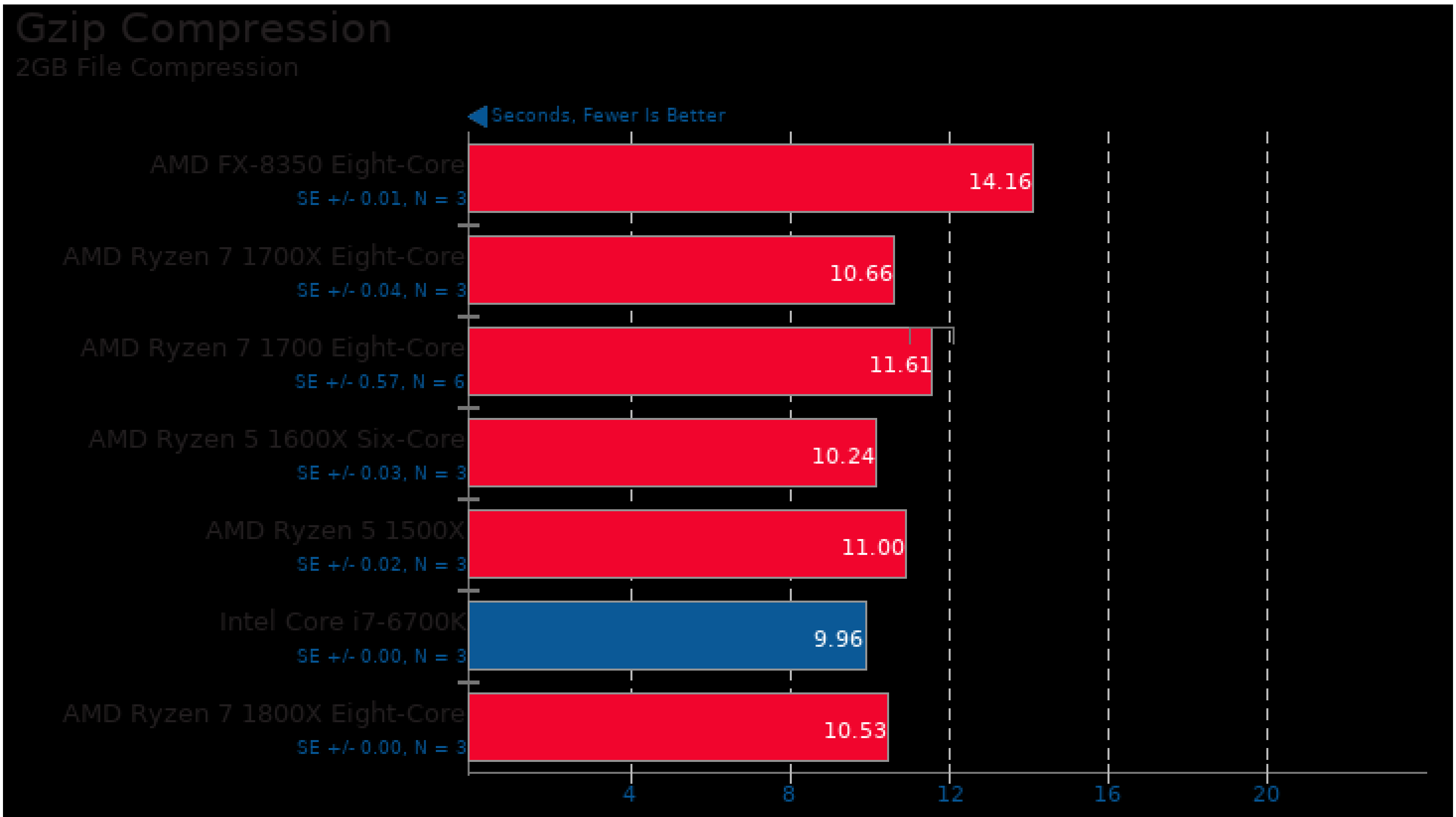

Crafty 23.4
Elapsed Time
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.02, N = 3
105.58
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.02, N = 3
74.82
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.28, N = 3
78.57
AMD Ryzen 5 1600X Six-Core
SE +/- 0.14, N = 3
72.82
AMD Ryzen 5 1500X
SE +/- 0.14, N = 3
77.68
Intel Core i7-6700K
SE +/- 0.05, N = 3
66.44
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.10, N = 3
75.58
20
40
60
80
100
1. (CC) gcc options: -lstdc++ -lm

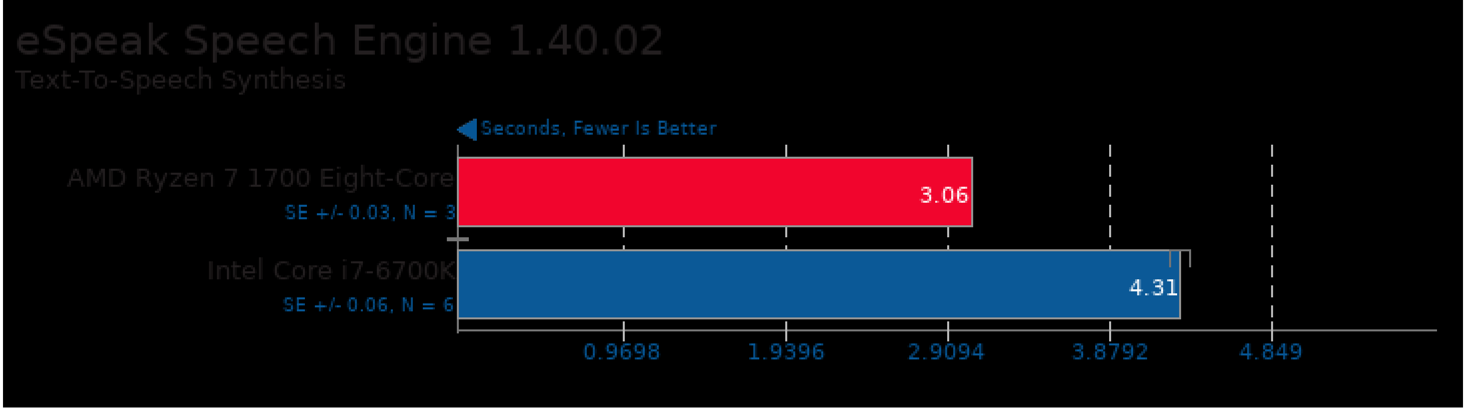

LZMA Compression
256MB File Compression
Seconds, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.41, N = 3
384.44
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.20, N = 3
290.13
AMD Ryzen 7 1700 Eight-Core
SE +/- 4.12, N = 6
302.67
AMD Ryzen 5 1600X Six-Core
SE +/- 0.17, N = 3
284.54
AMD Ryzen 5 1500X
SE +/- 0.17, N = 3
304.22
Intel Core i7-6700K
SE +/- 0.39, N = 3
244.33
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.24, N = 3
290.02
80
160
240
320
400
1. (CXX) g++ options: -O2

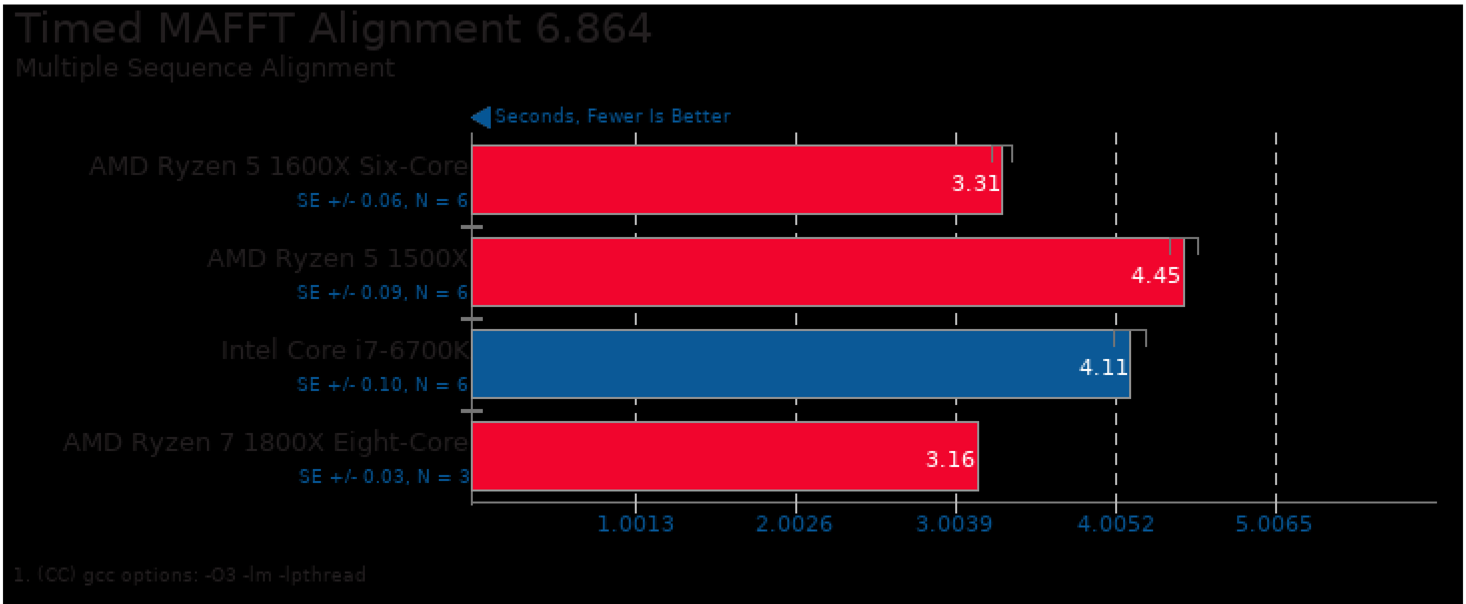

Stockfish 2014-11-26
Total Time
ms, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 4.81, N = 3
5211
AMD Ryzen 7 1700X Eight-Core
SE +/- 6.24, N = 3
3790
AMD Ryzen 7 1700 Eight-Core
SE +/- 6.23, N = 3
3913
AMD Ryzen 5 1600X Six-Core
SE +/- 9.39, N = 3
3671
AMD Ryzen 5 1500X
SE +/- 4.16, N = 3
3870
Intel Core i7-6700K
SE +/- 2.40, N = 3
3328
AMD Ryzen 7 1800X Eight-Core
SE +/- 11.50, N = 3
3770
1100
2200
3300
4400
5500
1. (CXX) g++ options: -lpthread -fno-exceptions -fno-rtti -ansi -pedantic -O3 -msse -msse3 -mpopcnt -flto

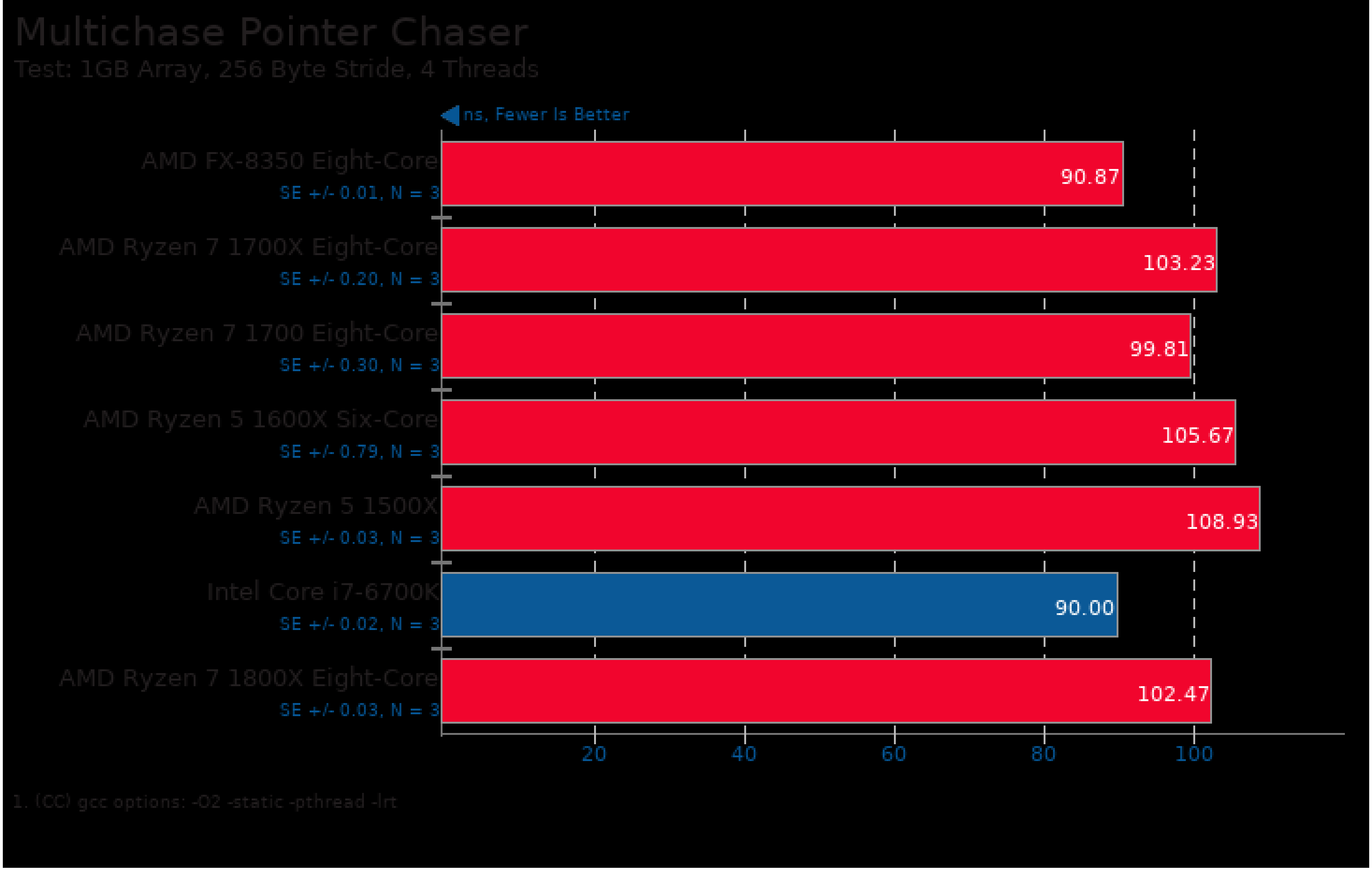

Fhourstones 3.1
Complex Connect-4 Solving
Kpos / sec, More Is Better
AMD FX-8350 Eight-Core
SE +/- 10.56, N = 3
9265.67
AMD Ryzen 7 1700X Eight-Core
SE +/- 13.79, N = 3
11395.13
AMD Ryzen 7 1700 Eight-Core
SE +/- 14.37, N = 3
11280.17
AMD Ryzen 5 1600X Six-Core
SE +/- 53.89, N = 3
11362.27
AMD Ryzen 5 1500X
SE +/- 37.92, N = 3
10755.27
Intel Core i7-6700K
SE +/- 15.44, N = 3
14087.07
AMD Ryzen 7 1800X Eight-Core
SE +/- 2.27, N = 3
11398.27
3K
6K
9K
12K
15K
1. (CC) gcc options: -O3

fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

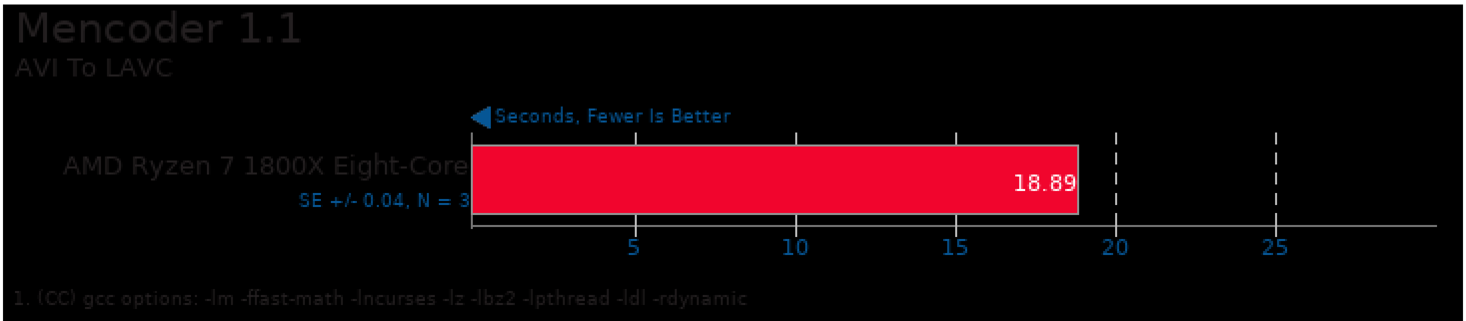


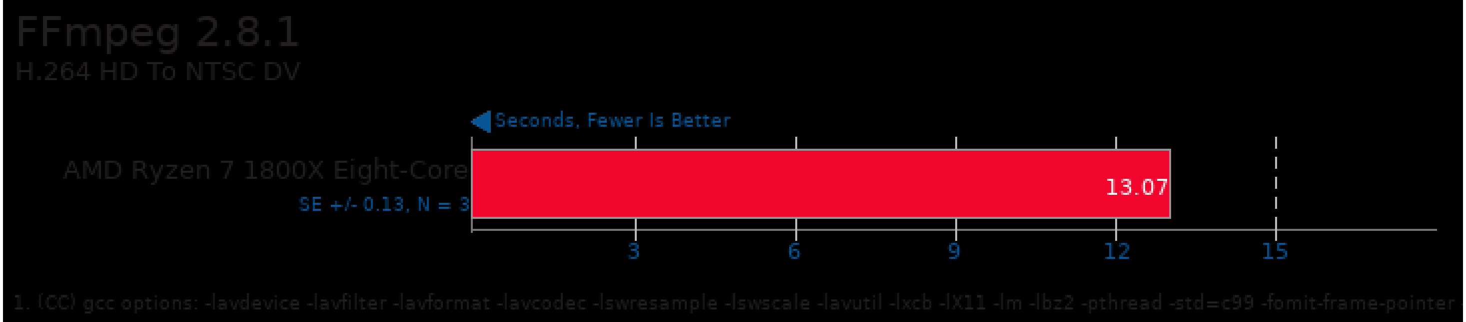


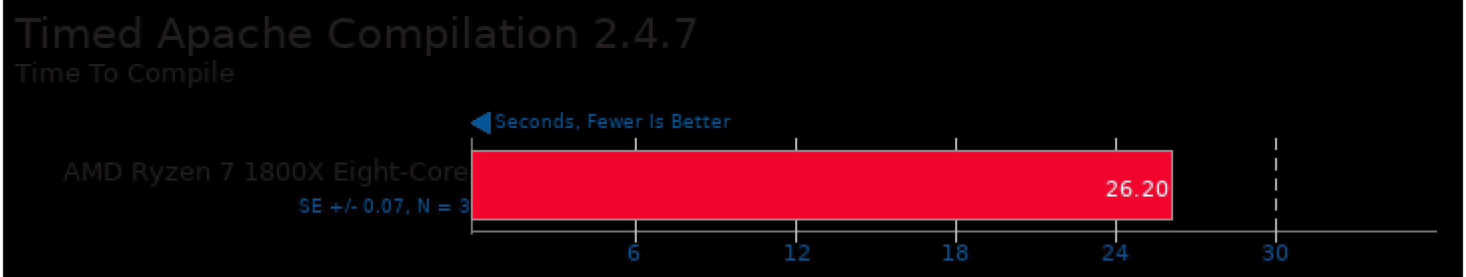

Timed MAFFT Alignment 6.864
Multiple Sequence Alignment
Seconds, Fewer Is Better
AMD Ryzen 5 1600X Six-Core
SE +/- 0.06, N = 6
3.31
AMD Ryzen 5 1500X
SE +/- 0.09, N = 6
4.45
Intel Core i7-6700K
SE +/- 0.10, N = 6
4.11
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.03, N = 3
3.16
1.0013
2.0026
3.0039
4.0052
5.0065
1. (CC) gcc options: -O3 -lm -lpthread

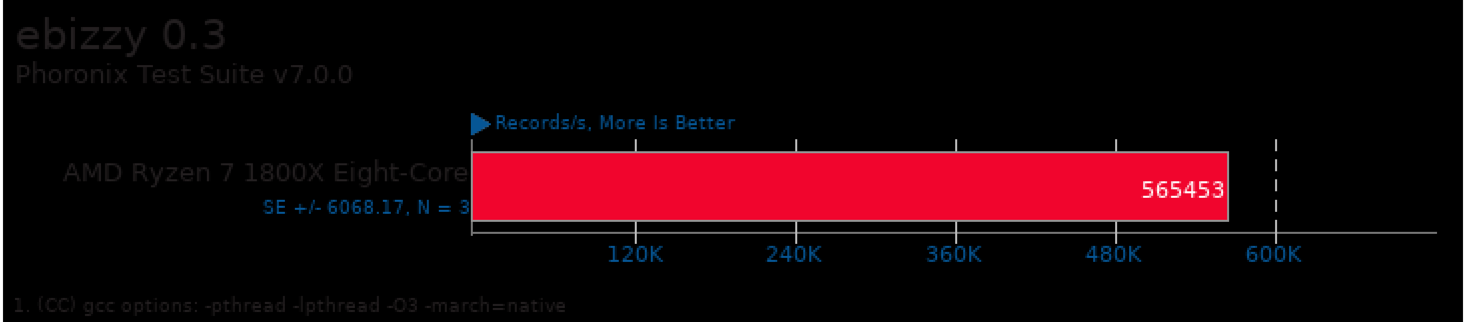

Multichase Pointer Chaser
Test: 1GB Array, 256 Byte Stride, 4 Threads
ns, Fewer Is Better
AMD FX-8350 Eight-Core
SE +/- 0.01, N = 3
90.87
AMD Ryzen 7 1700X Eight-Core
SE +/- 0.20, N = 3
103.23
AMD Ryzen 7 1700 Eight-Core
SE +/- 0.30, N = 3
99.81
AMD Ryzen 5 1600X Six-Core
SE +/- 0.79, N = 3
105.67
AMD Ryzen 5 1500X
SE +/- 0.03, N = 3
108.93
Intel Core i7-6700K
SE +/- 0.02, N = 3
90.00
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.03, N = 3
102.47
20
40
60
80
100
1. (CC) gcc options: -O2 -static -pthread -lrt

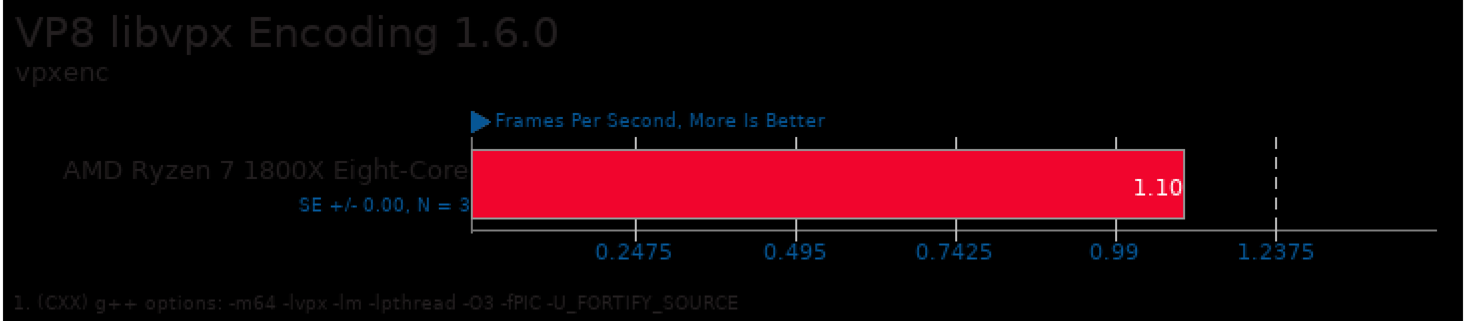
fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c












Numpy Benchmark
Phoronix Test Suite v7.0.0
Nanoseconds, Fewer Is Better
AMD Ryzen 7 1800X Eight-Core
7459871
1.6M
3.2M
4.8M
6.4M
8M
BLAKE2 20130131
Phoronix Test Suite v7.0.0
Cycles Per Byte, Fewer Is Better
AMD Ryzen 7 1800X Eight-Core
SE +/- 0.00, N = 3
10.34
3
6
9
12
15
1. (CC) gcc options: -std=gnu99 -O3 -march=native -lcrypto -lz
BYTE Unix Benchmark 3.6
Computational Test: Floating-Point Arithmetic
LPS, More Is Better
AMD FX-8350 Eight-Core
1
AMD Ryzen 7 1700X Eight-Core
1
AMD Ryzen 7 1700 Eight-Core
1
AMD Ryzen 5 1600X Six-Core
1
AMD Ryzen 5 1500X
1
Intel Core i7-6700K
1
AMD Ryzen 7 1800X Eight-Core
1
0.225
0.45
0.675
0.9
1.125

fx8350, 1700x_stock, 1700oc37, 1700stock, r5_1600X, r51500x, 6700kv2, 2c

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 07:23.