www.phoronix-test-suite.com

ryzen

Intel Core i7-2630QM testing with a ASUS G73Sw v1.0 (G73Sw.205 BIOS) and ASUS NVIDIA GeForce GTX 460M 2GB on ManjaroLinux 21.0.6 via the Phoronix Test Suite.

Automated Executive Summary

ryzen manjaro had the most wins, coming in first place for 68% of the tests.

Based on the geometric mean of all complete results, the fastest (ryzen manjaro) was 2.865x the speed of the slowest (asusko). ryzen vmware was 0.889x the speed of ryzen manjaro, tigerbomb was 0.9x the speed of ryzen vmware, kabybomb was 0.793x the speed of tigerbomb, asusko was 0.55x the speed of kabybomb.

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

Aircrack-ng at 14.104x
x264 (H.264 Video Encoding) at 9.284x
Coremark (CoreMark Size 666 - Iterations Per Second) at 7.682x
7-Zip Compression (Compress Speed Test) at 7.272x
x265 (Video Input: Bosphorus 1080p) at 6.376x
dav1d (Video Input: Summer Nature 1080p) at 6.28x
Parallel BZIP2 Compression (256MB File Compression) at 6.077x
FFTE (N=256, 3D Complex FFT Routine) at 5.677x

PolyBench-C (Test: Covariance Computation) at 5.03x
glibc bench (Benchmark: sqrt) at 4.615x.

Test Systems:

ryzen vmware

Processor: AMD Ryzen 9 5900X 12-Core (24 Cores), Motherboard: Intel 440BX (VMW71.00V.16722896.B64.2008100651 BIOS), Chipset: Intel 440BX/ZX/DX, Memory: 64GB, Disk: 86GB VMware Virtual S, Graphics: VMware SVGA II, Audio: Ensoniq ES1371/ES1373, Network: Intel 82545EM

OS: Arch rolling, Kernel: 5.12.10-arch1-1 (x86_64), Display Server: X Server 1.20.9, Compiler: GCC 11.1.0, File-System: btrfs, Screen Resolution: 1176x885, System Layer: VMware

Kernel Notes: Transparent Huge Pages: madvise
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: CPU Microcode: 0xa201016
Java Notes: OpenJDK Runtime Environment (build 11.0.11+9)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

ryzen manjaro

Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: MSI MAG B550 TOMAHAWK (MS-7C91) v2.0 (A.71 BIOS), Chipset: AMD Starship/Matisse, Memory: 126GB, Disk: 1024GB ADATA SX8200PNP + 1024GB INTEL SSDPEKNW010T8 + 4001GB Seagate ST4000DM000-1F21 + 4001GB Seagate ST4000DM005-2DP1 + 960GB Patriot Burst + 2 x 2000GB CT2000MX500SSD1, Graphics: eVGA NVIDIA GeForce RTX 3080 10GB, Audio: NVIDIA GA102 HD Audio, Monitor: BenQ GW2765, Network: Realtek RTL8111/8168/8411 + Realtek RTL8125 2.5GbE

OS: ManjaroLinux 21.0.6, Kernel: 5.12.11-1-MANJARO (x86_64), Desktop: Cinnamon 5.0.2, Display Server: X Server 1.20.11, Display Driver: NVIDIA 465.31, OpenGL: 4.6.0, Compiler: GCC 11.1.0 + Clang 12.0.0, File-System: btrfs, Screen Resolution: 2560x1440

Kernel Notes: Transparent Huge Pages: madvise
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 performance (Boost: Enabled) - CPU Microcode: 0xa201016
Java Notes: OpenJDK Runtime Environment (build 1.8.0_292-b10)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

tigerbomb

Processor: Intel Core i7-1165G7 @ 4.70GHz (4 Cores / 8 Threads), Motherboard: Intel NUC11TNBi7

(TNTGL357.0056.2021.0513.1618 BIOS), Chipset: Intel Tiger Lake-LP, Memory: 64GB, Disk: 512GB SAMSUNG MZVLB512HAJQ-000H1, Graphics: Intel Xe TGL GT2 3GB (1300MHz), Audio: Intel Tiger Lake-LP Smart Sound Audio, Monitor: SAMSUNG, Network: Intel I225-LM + Intel Wi-Fi 6 AX201

OS: ManjaroLinux 21.0.6, Kernel: 5.12.11-1-MANJARO (x86_64), Desktop: Cinnamon 5.0.2, Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.1.2, Compiler: GCC 11.1.0, File-System: btrfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
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: intel_pstate performance - CPU Microcode: 0x88
Java Notes: OpenJDK Runtime Environment (build 1.8.0_292-b10)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

kabybomb

Processor: Intel Core i7-8650U @ 4.20GHz (4 Cores / 8 Threads), Motherboard: Intel NUC7i7DNB (DNKBLi7v.86A.0073.2021.0414.1709 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 32GB, Disk: 525GB Crucial CT525MX3, Graphics: Intel UHD 620 KBL GT2 3GB (1150MHz), Audio: Intel Sunrise Point-LP HD Audio, Monitor: SAMSUNG, Network: Intel I219-LM + Intel 8265 / 8275

OS: ManjaroLinux 21.0.6, Kernel: 5.12.12-1-MANJARO (x86_64), Desktop: Cinnamon 5.0.2, Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.1.2, Compiler: GCC 11.1.0 + Clang 12.0.0, File-System: btrfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
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: intel_pstate powersave - CPU Microcode: 0xea
Java Notes: OpenJDK Runtime Environment (build 1.8.0_292-b10)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: vulnerable + mds: Vulnerable; SMT vulnerable + meltdown: Vulnerable + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Vulnerable + tsx_async_abort: Vulnerable

asusko

Processor: Intel Core i7-2630QM @ 2.90GHz (4 Cores / 8 Threads), Motherboard: ASUS G73Sw v1.0 (G73Sw.205 BIOS), Chipset: Intel 2nd Generation Core DRAM, Memory: 28GB, Disk: 240GB KINGSTON SH103S3 + 250GB Samsung SSD 840, Graphics: ASUS NVIDIA GeForce GTX 460M 2GB, Audio: Realtek ALC269VB, Network: Qualcomm Atheros AR9462

OS: ManjaroLinux 21.0.6, Kernel: 5.12.12-1-MANJARO (x86_64), Desktop: Cinnamon 5.0.2, Display Server: X Server 1.20.11, Display Driver: NVIDIA 390.143, OpenGL: 4.6.0, Compiler: GCC 11.1.0, File-System: btrfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
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: intel_cpufreq schedutil - CPU Microcode: 0x2f
Java Notes: OpenJDK Runtime Environment (build 1.8.0_292-b10)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: vulnerable + mds: Vulnerable; SMT vulnerable + meltdown:

ryzen

Vulnerable + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

	ryzen vmware	ryzen manjaro	tigerbomb	kabybomb	asusko
CloverLeaf - L.E.H (sec)	107.39	**90.94**	154.94	201.19	**445.75**
Normalized	84.68%	100%	58.69%	45.2%	20.4%
Standard Deviation	10.7%	0.1%	3.1%	0.3%	0.1%
PolyBench-C - C.C (sec)	5.773		**3.145**	5.535	**15.818**
Normalized	54.48%		100%	56.82%	19.88%
Standard Deviation	0.5%		4.8%	0.1%	5.8%
PolyBench-C - C.C (sec)	5.666		**3.080**	5.561	**15.244**
Normalized	54.36%		100%	55.39%	20.2%
Standard Deviation	2.2%		6.5%	0.2%	0.4%
lzbench - XZ 0 - Compression (MB/s)	50	**55**	51	40	**24**
Normalized	90.91%	100%	92.73%	72.73%	43.64%
Standard Deviation	13.4%	1.1%	1.1%	0%	0%
lzbench - XZ 0 - Decompression (MB/s)	175	**177**	139	113	**74**
Normalized	98.87%	100%	78.53%	63.84%	41.81%
Standard Deviation	0.3%	0.9%	0.4%	0.5%	0%
lzbench - Zstd 1 - Compression (MB/s)	686	**688**	608	487	**271**
Normalized	99.71%	100%	88.37%	70.78%	39.39%
Standard Deviation	0.3%	0.5%	0.3%	0.2%	0.2%
lzbench - Zstd 1 - Decompression (MB/s)	**2341**	2338	2107	1650	**929**
Normalized	100%	99.87%	90%	70.48%	39.68%
Standard Deviation	0.2%	0.7%	0.2%	0.5%	0.3%
lzbench - Zstd 8 - Compression (MB/s)	109	**128**	122	86	**51**
Normalized	85.16%	100%	95.31%	67.19%	39.84%
Standard Deviation	14.2%	1.6%	0.5%	0.7%	1.1%
lzbench - Zstd 8 - Decompression (MB/s)	**2591**	2567	2217	1775	**1009**
Normalized	100%	99.07%	85.57%	68.51%	38.94%
Standard Deviation	0.2%	0.5%	0.1%	0.4%	0.1%
lzbench - Crush 0 - Compression (MB/s)	131	**169**	120	94	**53**
Normalized	77.51%	100%	71.01%	55.62%	31.36%
Standard Deviation	14.5%	1.7%	0.5%	1.8%	1.1%
lzbench - Crush 0 - Decompression (MB/s)	**714**	**714**	562	492	**336**
Normalized	100%	100%	78.71%	68.91%	47.06%
Standard Deviation	0.2%	0.4%	0.2%	0.3%	0.2%
lzbench - Brotli 0 - Compression (MB/s)	494	**640**	567	436	**277**
Normalized	77.19%	100%	88.59%	68.13%	43.28%
Standard Deviation	23.5%	0.1%	0.4%	0.2%	0.2%

lzbench - Brotli 0 - Decompression (MB/s)	760	**832**	727	598	**373**
Normalized	91.35%	100%	87.38%	71.88%	44.83%
Standard Deviation	9.5%	0.4%	0.8%	0.2%	0%
lzbench - Brotli 2 - Compression (MB/s)	193	**273**	240	183	**111**
Normalized	70.7%	100%	87.91%	67.03%	40.66%
Standard Deviation	25.5%	0.4%	0.2%	0%	0.5%
lzbench - Brotli 2 - Decompression (MB/s)	878	**998**	881	691	**438**
Normalized	87.98%	100%	88.28%	69.24%	43.89%
Standard Deviation	0.1%	0.1%	1%	0.2%	1.2%
lzbench - Libdeflate 1 - Compression (MB/s)	187	**341**	287	227	**131**
Normalized	54.84%	100%	84.16%	66.57%	38.42%
Standard Deviation	11.9%	0.2%	0.2%	0.3%	0.4%
lzbench - Libdeflate 1 - Decompression (MB/s)	1542	**1638**	1301	1143	**601**
Normalized	94.14%	100%	79.43%	69.78%	36.69%
Standard Deviation	0%	0.1%	0.1%	0.4%	0.2%
FFTE - N.2.3.C.F.R (MFLOPS)	55961	**58152**	30071	20631	**10244**
Normalized	96.23%	100%	51.71%	35.48%	17.62%
Standard Deviation	0.5%	0.2%	0.4%	0.8%	0.4%
Timed HMMer Search - P.D.S (sec)	128.328	**88.315**	119.011	156.032	**261.477**
Normalized	68.82%	100%	74.21%	56.6%	33.78%
Standard Deviation	1.4%	0.3%	0.1%	0.7%	0.2%
Timed MAFFT Alignment - M.S.A - LSU RNA (sec)	14.151	**6.850**	8.709	12.370	**22.515**
Normalized	48.41%	100%	78.65%	55.38%	30.42%
Standard Deviation	17.5%	0.2%	0.6%	0.3%	1.3%
Java SciMark - Composite	3081	**4109**	3012	2247	**1419**
Normalized	74.98%	100%	73.3%	54.67%	34.54%
Standard Deviation	5.4%	0.9%	1.2%	2.3%	0.5%
Java SciMark - Monte Carlo (Mflops)	**1992**	1974	1138	1019	**643.30**
Normalized	100%	99.1%	57.13%	51.17%	32.3%
Standard Deviation	0.2%	2.8%	0.3%	0.2%	2.7%
Java SciMark - F.F.T (Mflops)	2000	**2413**	1937	1399	**808.81**
Normalized	82.88%	100%	80.25%	57.98%	33.51%
Standard Deviation	47.7%	6.9%	0.7%	0.1%	2.5%
Java SciMark - S.M.M (Mflops)	2792	**4095**	3002	1958	**1321**
Normalized	68.2%	100%	73.32%	47.81%	32.25%
Standard Deviation	4.7%	1.3%	0.2%	0.2%	0.1%
Java SciMark - D.L.M.F (Mflops)	6297	**9997**	7171	5396	**3218**
Normalized	62.99%	100%	71.73%	53.97%	32.19%
Standard Deviation	10.1%	0.5%	2.5%	5.4%	0.6%
Java SciMark - J.S.O.R (Mflops)	**2325**	2069	1813	1503	**1106**
Normalized	100%	88.99%	77.96%	64.66%	47.57%
Standard Deviation	0.1%	0%	1.7%	0.3%	0.2%
Bork File Encrypter - F.E.T (sec)	8.876	**6.610**	9.261	7.086	**16.279**
Normalized	74.47%	100%	71.37%	93.28%	40.6%
Standard Deviation	38.5%	0.2%	1.6%	1.6%	2%
LuaJIT - Composite (Mflops)	1892	**2013**	1749	1397	**793.59**

Normalized	93.99%	100%	86.89%	69.41%	39.42%
Standard Deviation	0.2%	0.1%	1.4%	0.2%	0.3%
LuaJIT - Monte Carlo (Mflops)	586.97	**610.69**	604.42	496.02	**326.85**
Normalized	96.12%	100%	98.97%	81.22%	53.52%
Standard Deviation	0.2%	0.5%	0.4%	0.5%	2.8%
LuaJIT - F.F.T (Mflops)	496.79	**528.62**	522.00	360.85	**183.89**
Normalized	93.98%	100%	98.75%	68.26%	34.79%
Standard Deviation	0.3%	0.2%	0.3%	1%	1.9%
LuaJIT - S.M.M (Mflops)	1488	**1770**	1732	1180	**778.74**
Normalized	84.09%	100%	97.84%	66.65%	44%
Standard Deviation	0.3%	0.1%	4.4%	0.9%	0.1%
LuaJIT - D.L.M.F (Mflops)	4416	**4658**	4158	3416	**1555**
Normalized	94.81%	100%	89.28%	73.33%	33.38%
Standard Deviation	0.6%	0.2%	1.3%	0.2%	0.2%
LuaJIT - J.S.O.R (Mflops)	2473	**2498**	1729	1534	**1124**
Normalized	98.97%	100%	69.21%	61.41%	44.98%
Standard Deviation	0%	0%	0.1%	0.8%	0.2%
SciMark - Composite (Mflops)	734.74	**906.49**	697.75	618.15	**375.94**
Normalized	81.05%	100%	76.97%	68.19%	41.47%
Standard Deviation	15.1%	0.2%	5.3%	0.2%	0.2%
SciMark - Monte Carlo (Mflops)	116.96	199.22	**219.71**	140.37	**90.88**
Normalized	53.23%	90.67%	100%	63.89%	41.36%
Standard Deviation	0.2%	0.3%	0.1%	0.2%	1.2%
SciMark - F.F.T (Mflops)	447.21	**546.71**	289.04	191.30	**126.05**
Normalized	81.8%	100%	52.87%	34.99%	23.06%
Standard Deviation	28.3%	0.4%	2.5%	0.8%	0.3%
SciMark - S.M.M (Mflops)	**850.51**	848.94	829.52	692.60	**418.28**
Normalized	100%	99.82%	97.53%	81.43%	49.18%
Standard Deviation	0.1%	0.4%	0.2%	0.3%	0.4%
SciMark - D.L.M.F (Mflops)	1028	**1537**	845.79	911.69	**515.85**
Normalized	66.86%	100%	55.01%	59.3%	33.55%
Standard Deviation	52.4%	0.3%	21.5%	0%	0.1%
SciMark - J.S.O.R (Mflops)	1231	**1400**	1305	1155	**728.62**
Normalized	87.93%	100%	93.18%	82.48%	52.04%
Standard Deviation	1.6%	0%	0.9%	0.2%	0%
Botan - KASUMI (MiB/s)	117.572	**117.670**	94.678	91.364	**52.204**
Normalized	99.92%	100%	80.46%	77.64%	44.36%
Standard Deviation	0.1%	0.3%	0.4%	0.1%	0.2%
Botan - KASUMI - Decrypt	**113.299**	112.997	91.702	89.182	**49.766**
Normalized	100%	99.73%	80.94%	78.71%	43.92%
Standard Deviation	0.2%	0.2%	0.4%	0.1%	0.4%
Botan - AES-256 (MiB/s)	7562	7581	**7634**	3978	**1777**
Normalized	99.06%	99.3%	100%	52.11%	23.28%
Standard Deviation	0.4%	0.1%	0.4%	0.1%	0.1%
Botan - AES-256 - Decrypt	7574	7636	**7690**	3973	**1773**
Normalized	98.5%	99.31%	100%	51.67%	23.06%
Standard Deviation	0.2%	0%	0.4%	0.1%	0.1%
Botan - Twofish (MiB/s)	430.959	**431.321**	329.534	330.414	**168.110**
Normalized	99.92%	100%	76.4%	76.61%	38.98%
Standard Deviation	1.8%	0.8%	0.8%	0.1%	0.1%
Botan - Twofish - Decrypt (MiB/s)	428.197	**436.124**	330.629	329.009	**163.151**
Normalized	98.18%	100%	75.81%	75.44%	37.41%
Standard Deviation	2.8%	0.8%	0.7%	0.2%	0.1%
Botan - Blowfish (MiB/s)	502.878	**528.601**	396.719	400.058	**197.700**
Normalized	95.13%	100%	75.05%	75.68%	37.4%

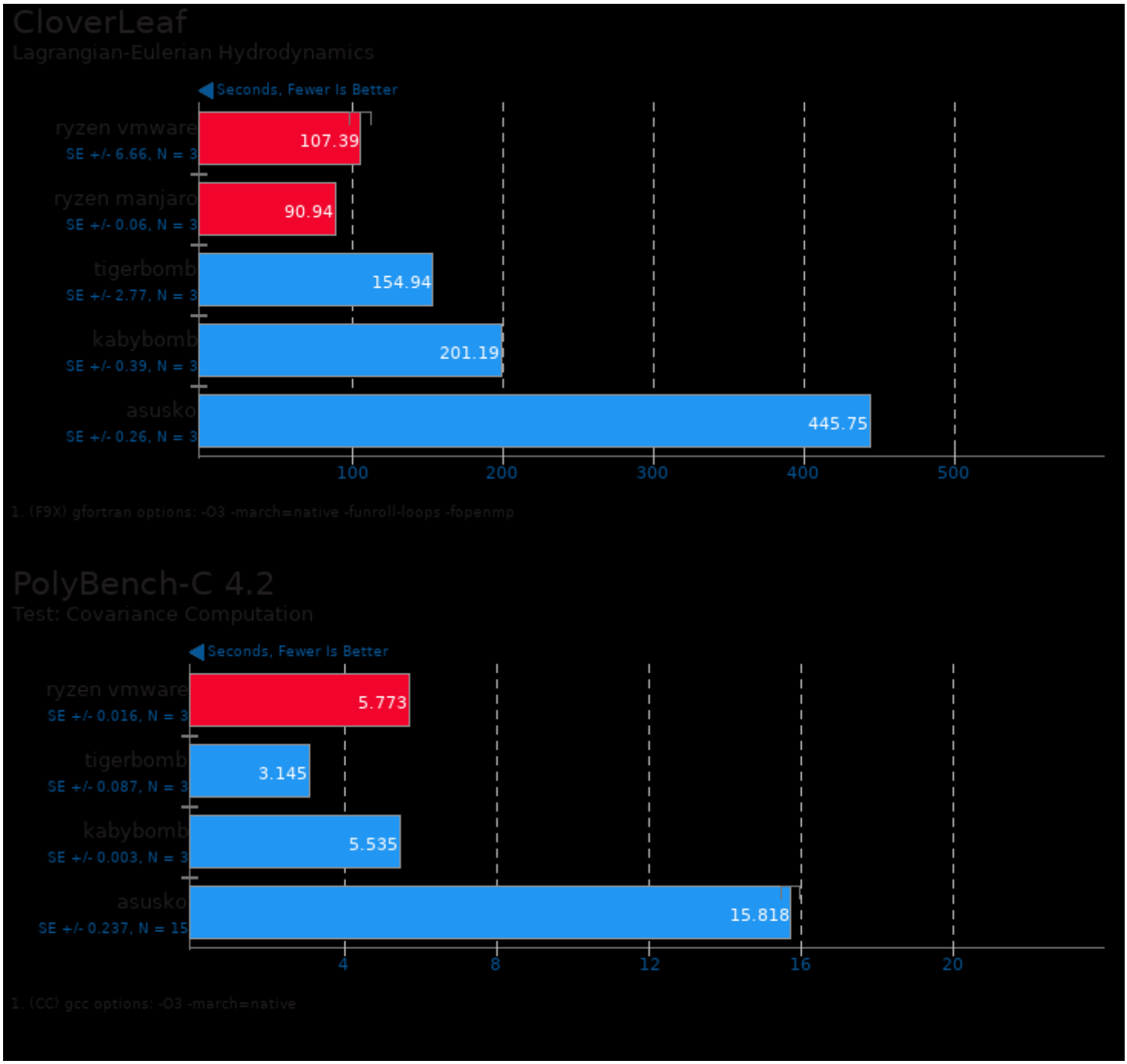
Standard Deviation	3.6%	0.1%	0.2%	0.2%	0.5%
Botan - Blowfish - Decrypt	497.884	**526.450**	392.132	393.315	**197.574**
Normalized	94.57%	100%	74.49%	74.71%	37.53%
Standard Deviation	2.3%	0.1%	1%	0.2%	0.2%
Botan - CAST-256 (MiB/s)	173.852	**174.874**	145.370	137.089	**76.212**
Normalized	99.42%	100%	83.13%	78.39%	43.58%
Standard Deviation	0.2%	0.4%	0.4%	0.4%	0.3%
Botan - CAST-256 - Decrypt (MiB/s)	174.056	**174.777**	145.636	137.212	**76.276**
Normalized	99.59%	100%	83.33%	78.51%	43.64%
Standard Deviation	0.3%	0.4%	0.6%	0.1%	0.2%
Botan - ChaCha20Poly1305 (MiB/s)	**1000**	990.266	956.974	756.501	**305.749**
Normalized	100%	99%	95.67%	75.63%	30.57%
Standard Deviation	0.1%	0.5%	0.3%	1.1%	0.2%
Botan - ChaCha20Poly1305 - Decrypt (MiB/s)	**983.754**	971.160	948.275	745.194	**303.641**
Normalized	100%	98.72%	96.39%	75.75%	30.87%
Standard Deviation	0.1%	0.4%	0.2%	2.2%	0.2%
TSCP - A.C.P (Nodes/s)	**2020523**	2013083	1652006	1229427	**784590**
Normalized	100%	99.63%	81.76%	60.85%	38.83%
Standard Deviation	0.6%	0.2%	0.2%	0.4%	0.3%
dav1d - S.N.1 (FPS)	813.99	**926.17**	386.16	294.93	**147.48**
Normalized	87.89%	100%	41.69%	31.84%	15.92%
Standard Deviation	0.4%	0.4%	0.2%	0.3%	0.3%
x264 - H.2.V.E (FPS)	170.63	**187.36**	51.17	36.77	**20.18**
Normalized	91.07%	100%	27.31%	19.63%	10.77%
Standard Deviation	0.1%	1.1%	1.9%	0.8%	1.9%
x265 - Bosphorus 1080p (FPS)	85.22	**87.35**	38.37	27.61	**13.70**
Normalized	97.56%	100%	43.93%	31.61%	15.68%
Standard Deviation	0.7%	1.1%	3.9%	0.1%	1.6%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	**680863**	679031	174008	130694	**88633**
Normalized	100%	99.73%	25.56%	19.2%	13.02%
Standard Deviation	0.2%	0.5%	0.2%	0.9%	0.1%
Himeno Benchmark - P.P.S (MFLOPS)	4216	**5370**	5345	3273	**2185**
Normalized	78.51%	100%	99.55%	60.96%	40.7%
Standard Deviation	4.9%	3.8%	0.6%	0.4%	0.3%
7-Zip Compression - C.S.T	87943	**102080**	29272	21418	**14038**
Normalized	86.15%	100%	28.68%	20.98%	13.75%
Standard Deviation	0.2%	0.2%	0.6%	2.1%	0.8%
Swet - Average (Operations/sec)	867185556	**1137690354**	793416169	715106400	**431675084**
Normalized	76.22%	100%	69.74%	62.86%	37.94%
Standard Deviation	1%	0.6%	0.3%	1.8%	1.4%
Parallel BZIP2 Compression - 2.F.C (sec)	**2.257**		7.108	9.335	**13.716**
Normalized	100%		31.75%	24.18%	16.46%
Standard Deviation	0.3%		1.7%	1.7%	2.1%
Bullet Physics Engine - 3000 Fall (sec)	2.86143	**2.674918**	3.123245		**7.110315**
Normalized	93.48%	100%	85.65%		37.62%
Standard Deviation	5.4%	0%	0.8%		0.8%

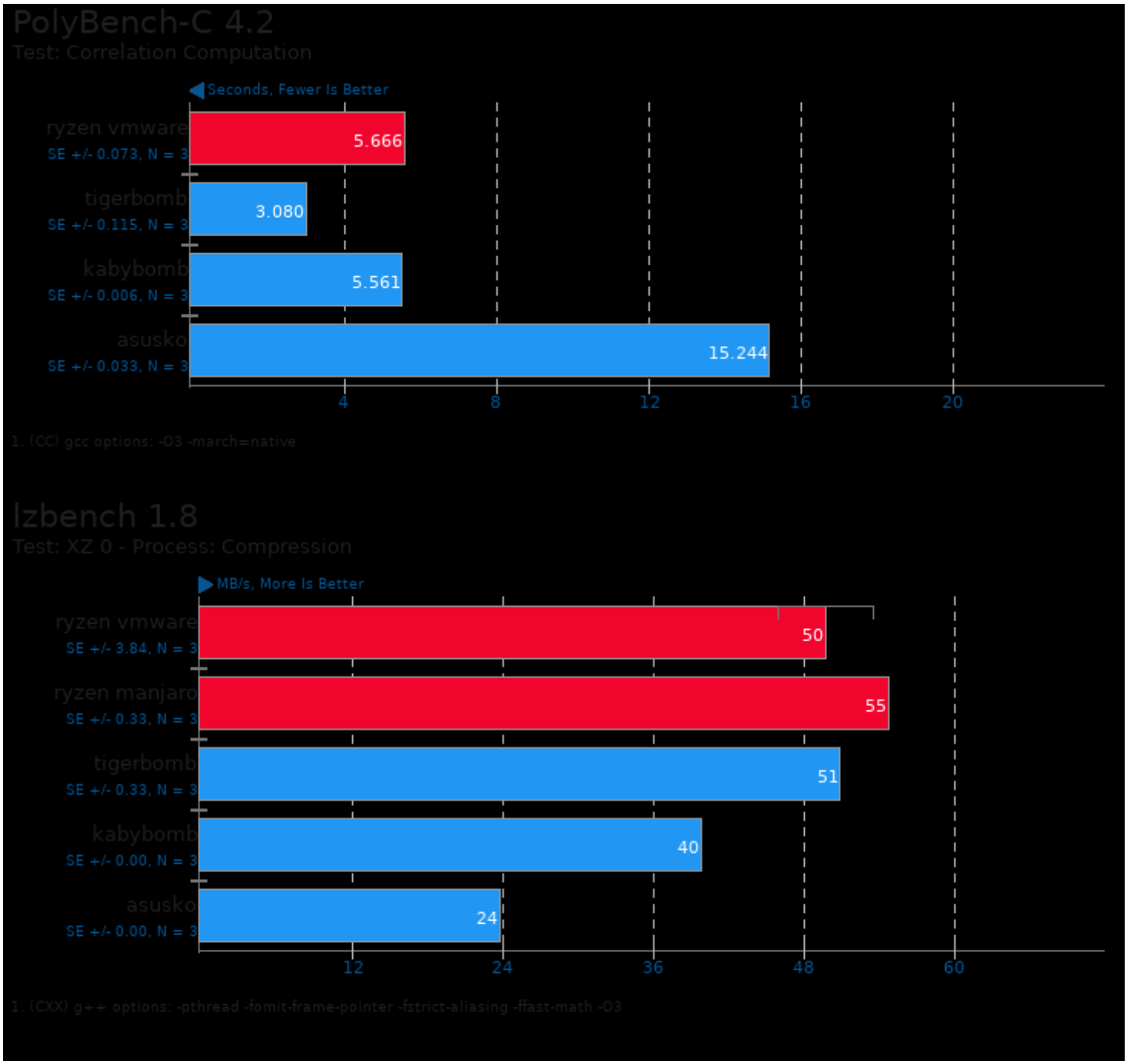
ryzen

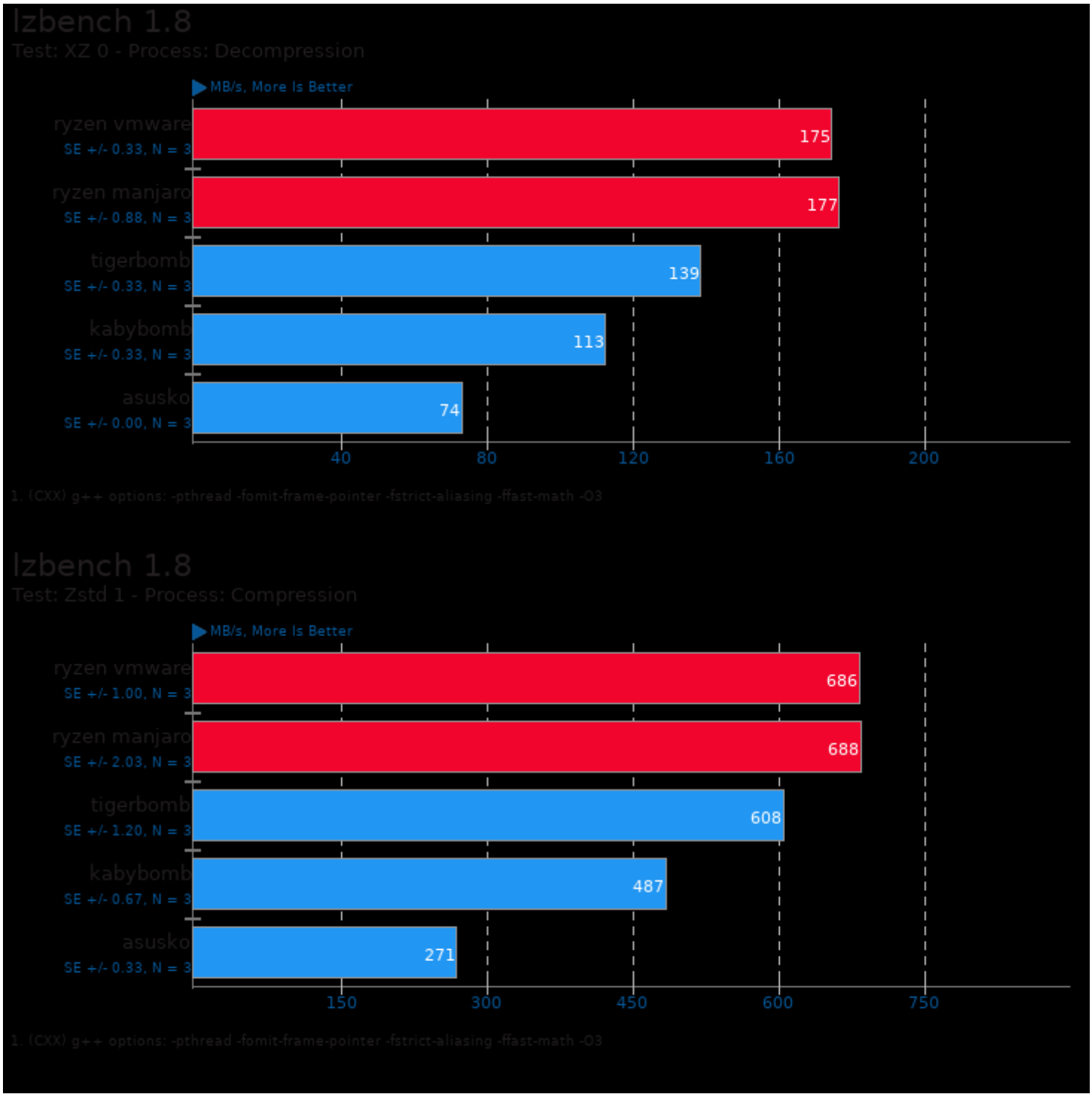
Bullet Physics Engine - 1000 Stack (sec)	3.397069	**3.283612**	3.646767		**8.343604**
Normalized	96.66%	100%	90.04%		39.35%
Standard Deviation	3.5%	0.1%	0.5%		0.3%
Bullet Physics Engine - 1000 Convex (sec)	3.046435	**2.923287**	3.494797		**8.153381**
Normalized	95.96%	100%	83.65%		35.85%
Standard Deviation	3.1%	0.2%	0.6%		0.4%
Bullet Physics Engine - 136 Ragdolls (sec)	1.842695	**1.748024**	1.957212		**4.746472**
Normalized	94.86%	100%	89.31%		36.83%
Standard Deviation	5.5%	0%	0.3%		2%
Bullet Physics Engine - Prim Trimesh (sec)	0.690433	**0.658662**	0.714912		**1.508498**
Normalized	95.4%	100%	92.13%		43.66%
Standard Deviation	4.8%	0%	0.8%		0.6%
Bullet Physics Engine - Convex Trimesh (sec)	0.785933	**0.755915**	0.878443		**1.900722**
Normalized	96.18%	100%	86.05%		39.77%
Standard Deviation	3.8%	0.3%	2.8%		1%
Cython Benchmark - N-Queens (sec)	33.731	**15.915**	18.584	22.987	**41.019**
Normalized	47.18%	100%	85.64%	69.23%	38.8%
Standard Deviation	3.9%	0.1%	0.1%	0.6%	0.8%
eSpeak-NG Speech Engine - T.T.S.S (sec)	23.183	**20.437**	27.319	28.372	**56.283**
Normalized	88.16%	100%	74.81%	72.03%	36.31%
Standard Deviation	4.9%	1.3%	2.1%	1.1%	0.9%
FFmpeg - H.2.H.T.N.D (sec)	4.408	**4.057**	5.038	6.442	**10.556**
Normalized	92.04%	100%	80.53%	62.98%	38.43%
Standard Deviation	0.3%	1.2%	6%	1.2%	1.2%
Mencoder - AVI To LAVC (sec)	12.653				
Standard Deviation	5%				
Aircrack-ng (k/s)	66544	**67286**	16316	12412	**4771**
Normalized	98.9%	100%	24.25%	18.45%	7.09%
Standard Deviation	0.2%	0.2%	0.1%	1.1%	0%
glibc bench - cos (nanoseconds)	34.7727	34.7368	**33.9884**	48.0597	**83.7105**
Normalized	97.74%	97.85%	100%	70.72%	40.6%
Standard Deviation	0%	0.1%	0.8%	0.8%	0%
glibc bench - exp (nanoseconds)	4.29539	4.47529	**3.94797**	5.40897	**13.0448**
Normalized	91.91%	88.22%	100%	72.99%	30.26%
Standard Deviation	0.6%	1.3%	1.2%	0.1%	0.1%
glibc bench - ffs (nanoseconds)	2.39543	2.34778	**1.44789**	1.84618	**3.40076**
Normalized	60.44%	61.67%	100%	78.43%	42.58%
Standard Deviation	0.1%	0.2%	0.5%	0.2%	0%
glibc bench - sin (nanoseconds)	34.2985	34.3210	**34.0024**	47.0639	**82.9370**
Normalized	99.14%	99.07%	100%	72.25%	41%
Standard Deviation	0.1%	0%	2.4%	0%	0.1%
glibc bench - log2	4.79505	**4.39004**	6.07831	7.41363	**14.9603**
Normalized	91.55%	100%	72.22%	59.22%	29.34%
Standard Deviation	0.1%	0.4%	0.5%	0.1%	0.4%
glibc bench - modf	2.39672	2.35093	**1.53472**	2.08685	**4.11134**
Normalized	64.03%	65.28%	100%	73.54%	37.33%
Standard Deviation	0.1%	0.3%	0.6%	0.1%	0.3%

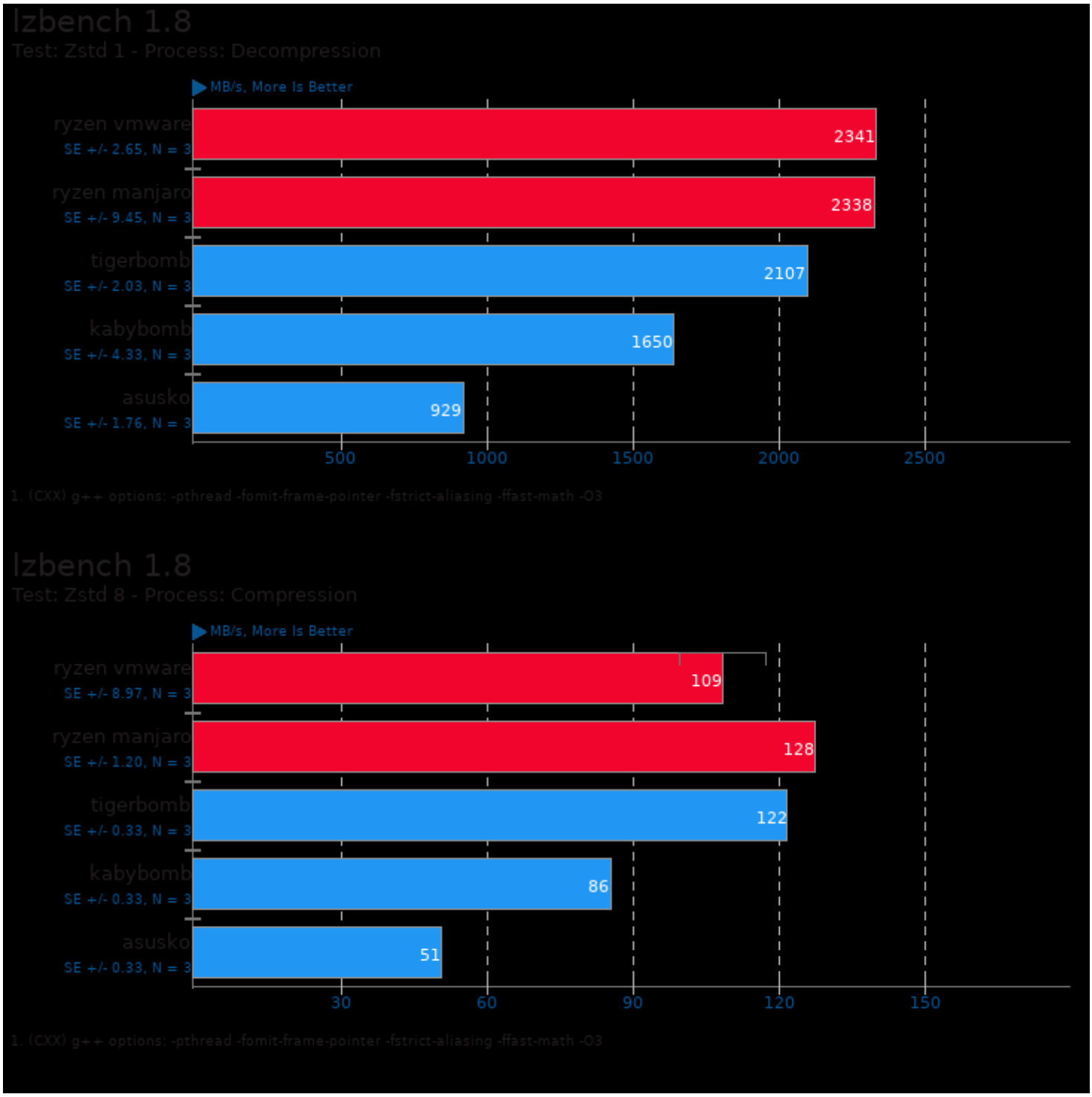
ryzen

glibc bench - sinh	6.91209	6.84033	**6.39559**	9.10574	**19.2148**
Normalized	92.53%	93.5%	100%	70.24%	33.28%
Standard Deviation	1%	0.1%	1.9%	0.3%	0.2%
glibc bench - sqrt (nanoseconds)	2.33712	2.32521	**1.44816**	1.86096	**6.68389**
Normalized	61.96%	62.28%	100%	77.82%	21.67%
Standard Deviation	4.2%	0%	0.4%	1%	0.2%
glibc bench - tanh	8.35672	**8.26959**	8.64333	12.8875	**26.5353**
Normalized	98.96%	100%	95.68%	64.17%	31.16%
Standard Deviation	0.1%	0.6%	0.4%	0.2%	0.1%
glibc bench - asinh	**6.09428**	6.12683	6.97796	10.0409	**24.6170**
Normalized	100%	99.47%	87.34%	60.69%	24.76%
Standard Deviation	0.7%	0.6%	0.1%	0%	0.2%
glibc bench - atanh	7.87058	**7.77575**	9.56644	11.6555	**25.6671**
Normalized	98.8%	100%	81.28%	66.71%	30.29%
Standard Deviation	0.5%	0.8%	0.1%	0%	0.1%
glibc bench - ffsll (nanoseconds)	2.14519	2.14599	**1.23069**	1.60875	**3.40526**
Normalized	57.37%	57.35%	100%	76.5%	36.14%
Standard Deviation	3.7%	0%	0.5%	0.1%	0%
glibc bench - sincos	9.83196	**9.75163**	10.7141	15.4406	**29.0525**
Normalized	99.18%	100%	91.02%	63.16%	33.57%
Standard Deviation	0.1%	0.3%	0.6%	1.9%	0.2%
glibc bench - pthread_once (nanoseconds)	2.12701	2.14446	**1.22615**	1.61140	**3.05306**
Normalized	57.65%	57.18%	100%	76.09%	40.16%
Standard Deviation	4.1%	0%	0.6%	0.2%	0.1%
Multichase Pointer Chaser - 2.A.2.B.S (ns)	64.404	**54.082**	**78.174**	60.937	72.465
Normalized	83.97%	100%	69.18%	88.75%	74.63%
Standard Deviation	4.2%	2.3%	0.1%	3.1%	2.5%

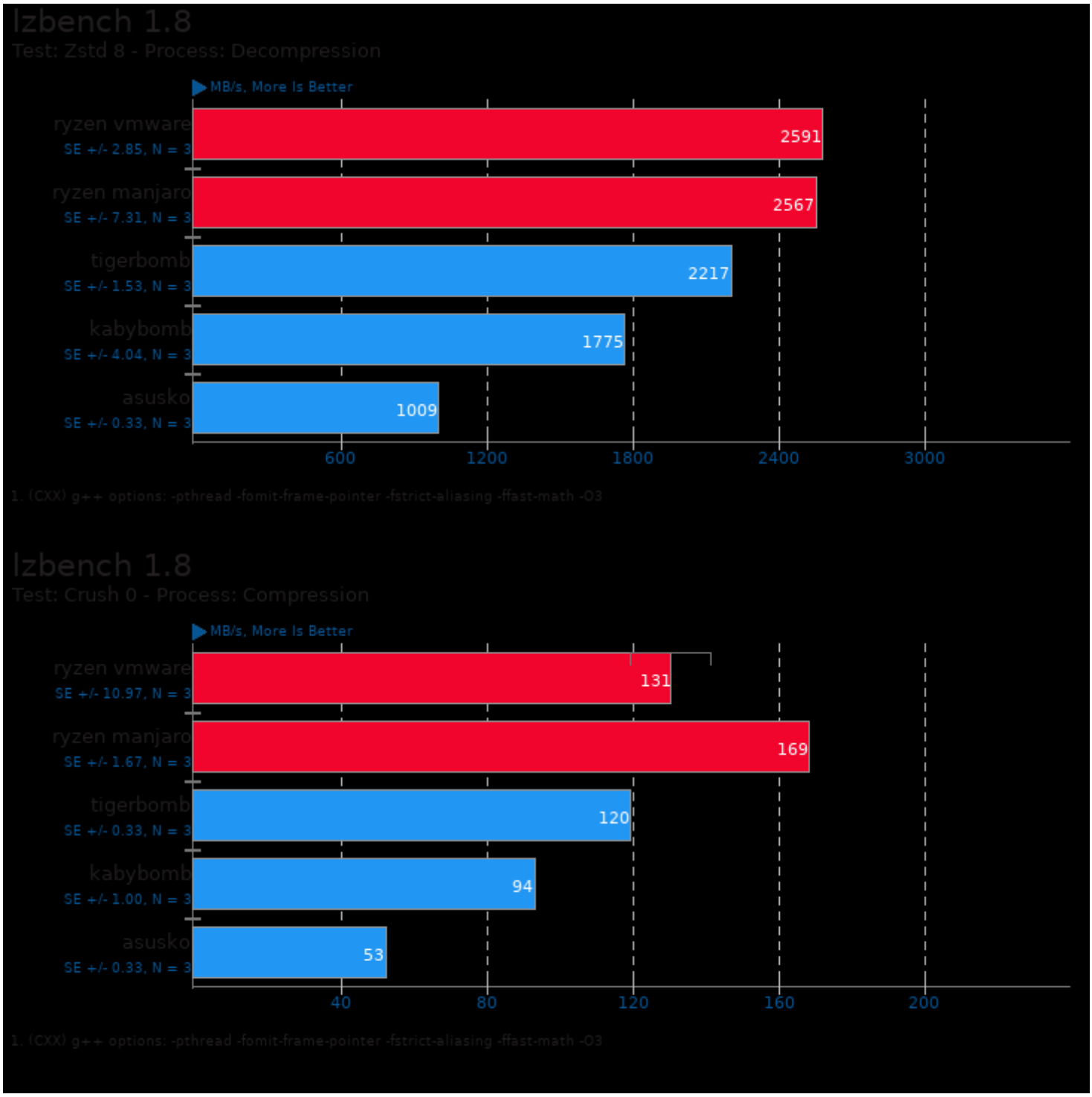

CloverLeaf
Lagrangian-Eulerian Hydrodynamics
Seconds, Fewer Is Better
ryzen vmware
SE +/- 6.66, N = 3
107.39
ryzen manjaro
SE +/- 0.06, N = 3
90.94
tigerbomb
SE +/- 2.77, N = 3
154.94
kabybomb
SE +/- 0.39, N = 3
201.19
asusko
SE +/- 0.26, N = 3
445.75
100
200
300
400
500
1. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp
PolyBench-C 4.2
Test: Covariance Computation
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.016, N = 3
5.773
tigerbomb
SE +/- 0.087, N = 3
3.145
kabybomb
SE +/- 0.003, N = 3
5.535
asusko
SE +/- 0.237, N = 15
15.818
4
8
12
16
20
1. (CC) gcc options: -O3 -march=native


PolyBench-C 4.2
Test: Correlation Computation
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.073, N = 3
5.666
tigerbomb
SE +/- 0.115, N = 3
3.080
kabybomb
SE +/- 0.006, N = 3
5.561
asusko
SE +/- 0.033, N = 3
15.244
4
8
12
16
20
1. (CC) gcc options: -O3 -march=native
lzbench 1.8
Test: XZ 0 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 3.84, N = 3
50
ryzen manjaro
SE +/- 0.33, N = 3
55
tigerbomb
SE +/- 0.33, N = 3
51
kabybomb
SE +/- 0.00, N = 3
40
asusko
SE +/- 0.00, N = 3
24
12
24
36
48
60
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

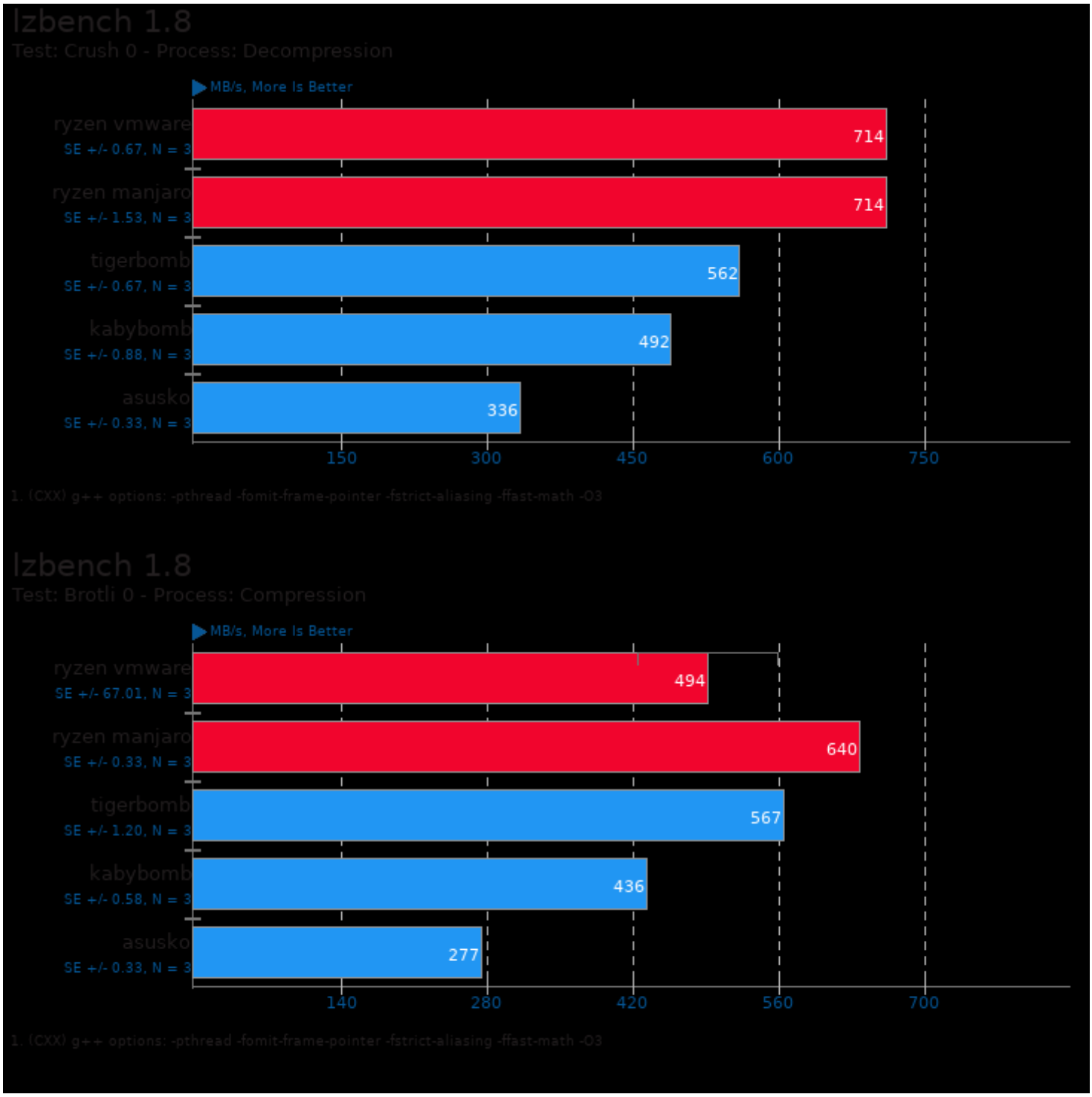

lzbench 1.8
Test: XZ 0 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 0.33, N = 3
175
ryzen manjaro
SE +/- 0.88, N = 3
177
tigerbomb
SE +/- 0.33, N = 3
139
kabybomb
SE +/- 0.33, N = 3
113
asusko
SE +/- 0.00, N = 3
74
40
80
120
160
200
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3
lzbench 1.8
Test: Zstd 1 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 1.00, N = 3
686
ryzen manjaro
SE +/- 2.03, N = 3
688
tigerbomb
SE +/- 1.20, N = 3
608
kabybomb
SE +/- 0.67, N = 3
487
asusko
SE +/- 0.33, N = 3
271
150
300
450
600
750
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

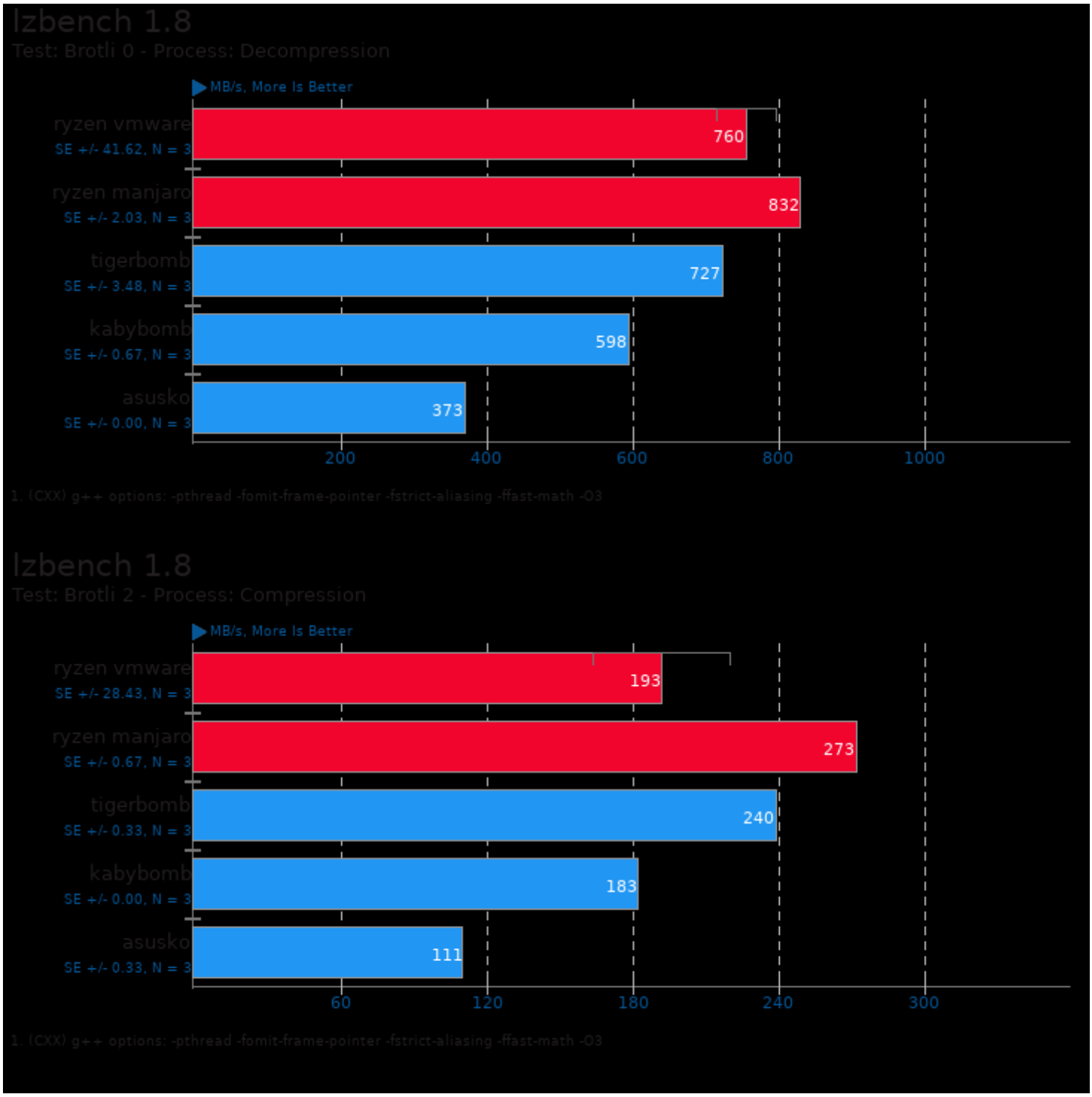

lzbench 1.8
Test: Zstd 1 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 2.65, N = 3
2341
ryzen manjaro
SE +/- 9.45, N = 3
2338
tigerbomb
SE +/- 2.03, N = 3
2107
kabybomb
SE +/- 4.33, N = 3
1650
asusko
SE +/- 1.76, N = 3
929
500
1000
1500
2000
2500
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8
Test: Zstd 8 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 8.97, N = 3
109
ryzen manjaro
SE +/- 1.20, N = 3
128
tigerbomb
SE +/- 0.33, N = 3
122
kabybomb
SE +/- 0.33, N = 3
86
asusko
SE +/- 0.33, N = 3
51
30
60
90
120
150
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

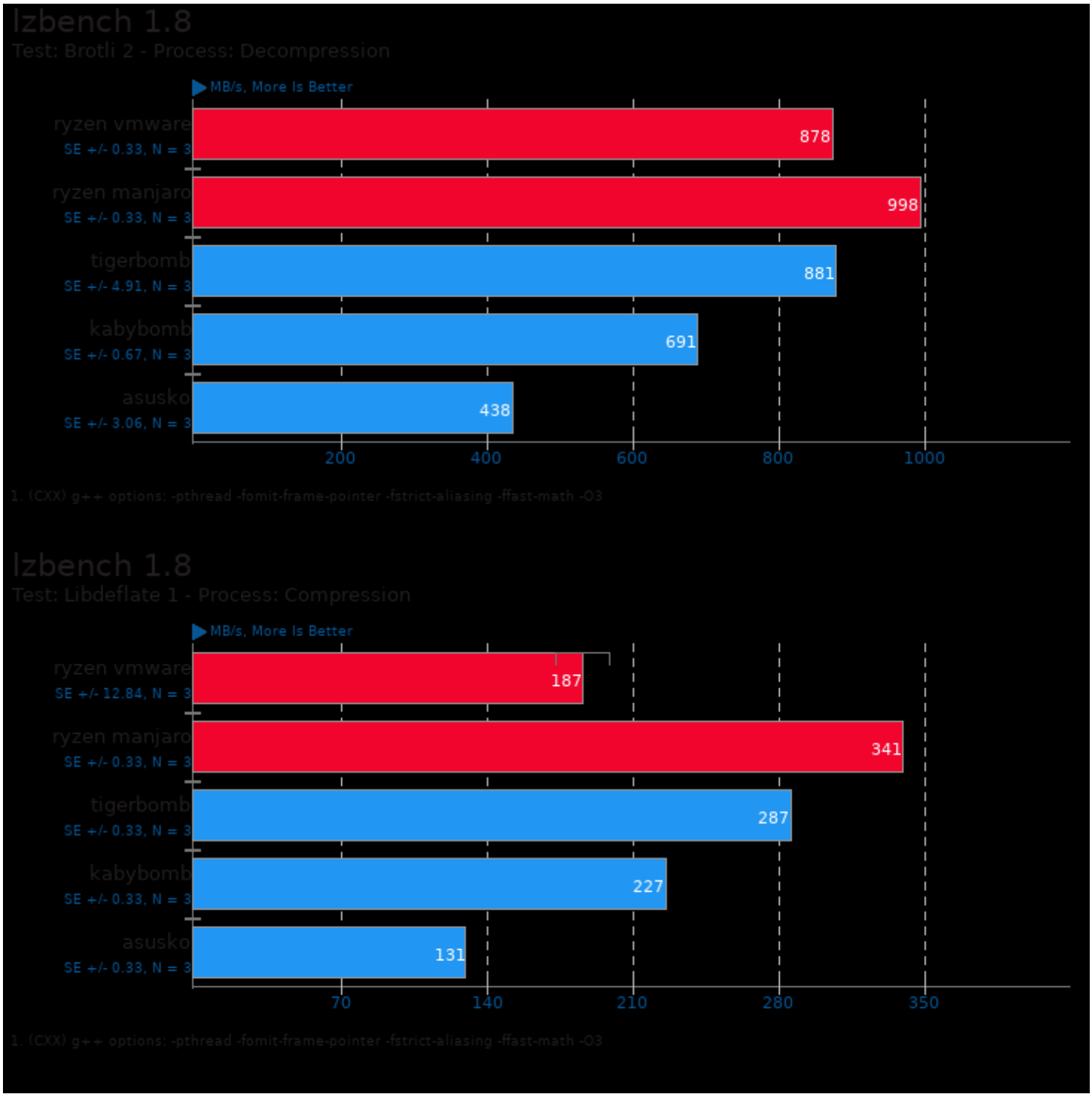

lzbench 1.8
Test: Zstd 8 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 2.85, N = 3
2591
ryzen manjaro
SE +/- 7.31, N = 3
2567
tigerbomb
SE +/- 1.53, N = 3
2217
kabybomb
SE +/- 4.04, N = 3
1775
asusko
SE +/- 0.33, N = 3
1009
600
1200
1800
2400
3000
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

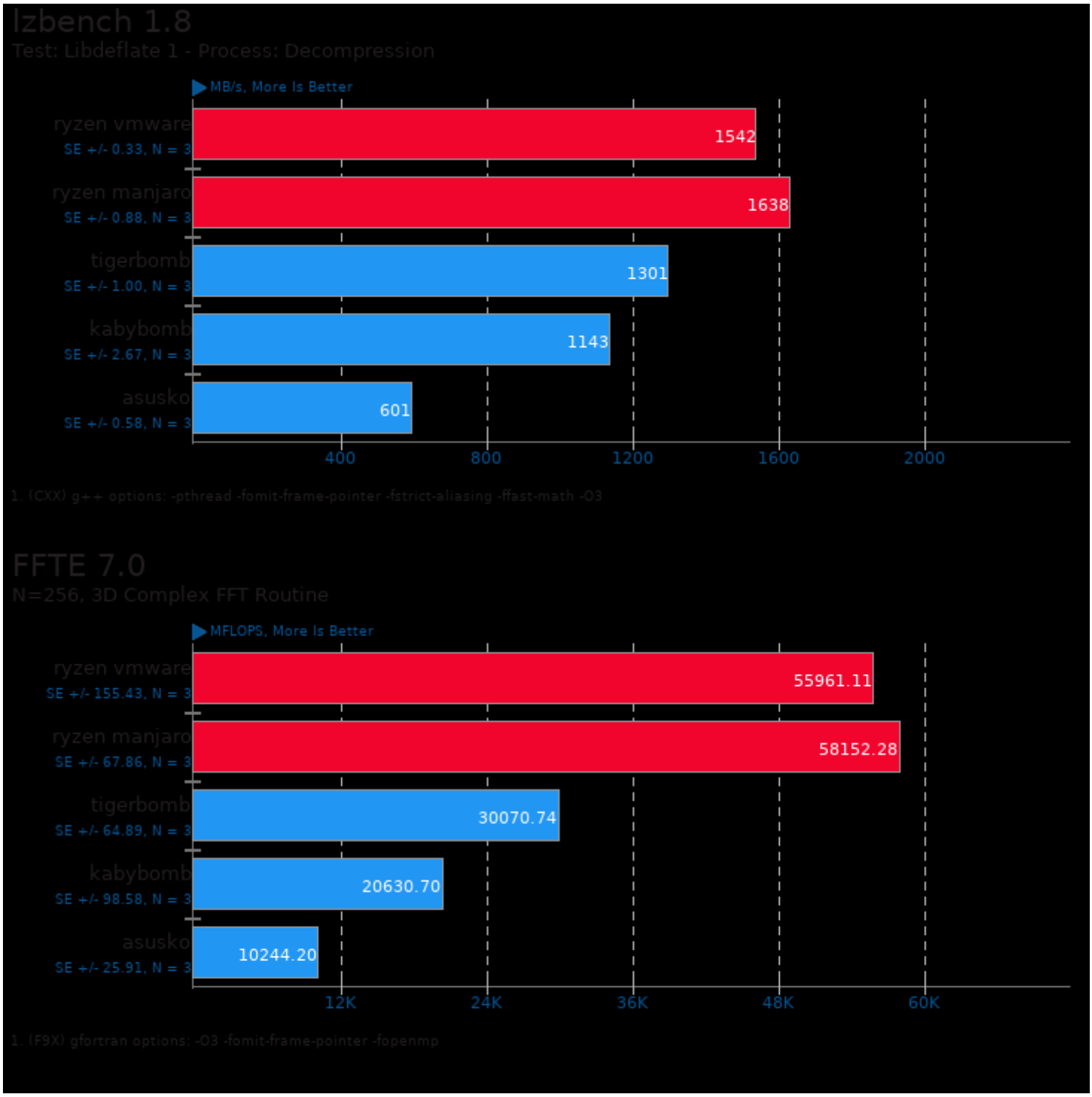
lzbench 1.8
Test: Crush 0 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 10.97, N = 3
131
ryzen manjaro
SE +/- 1.67, N = 3
169
tigerbomb
SE +/- 0.33, N = 3
120
kabybomb
SE +/- 1.00, N = 3
94
asusko
SE +/- 0.33, N = 3
53
40
80
120
160
200
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

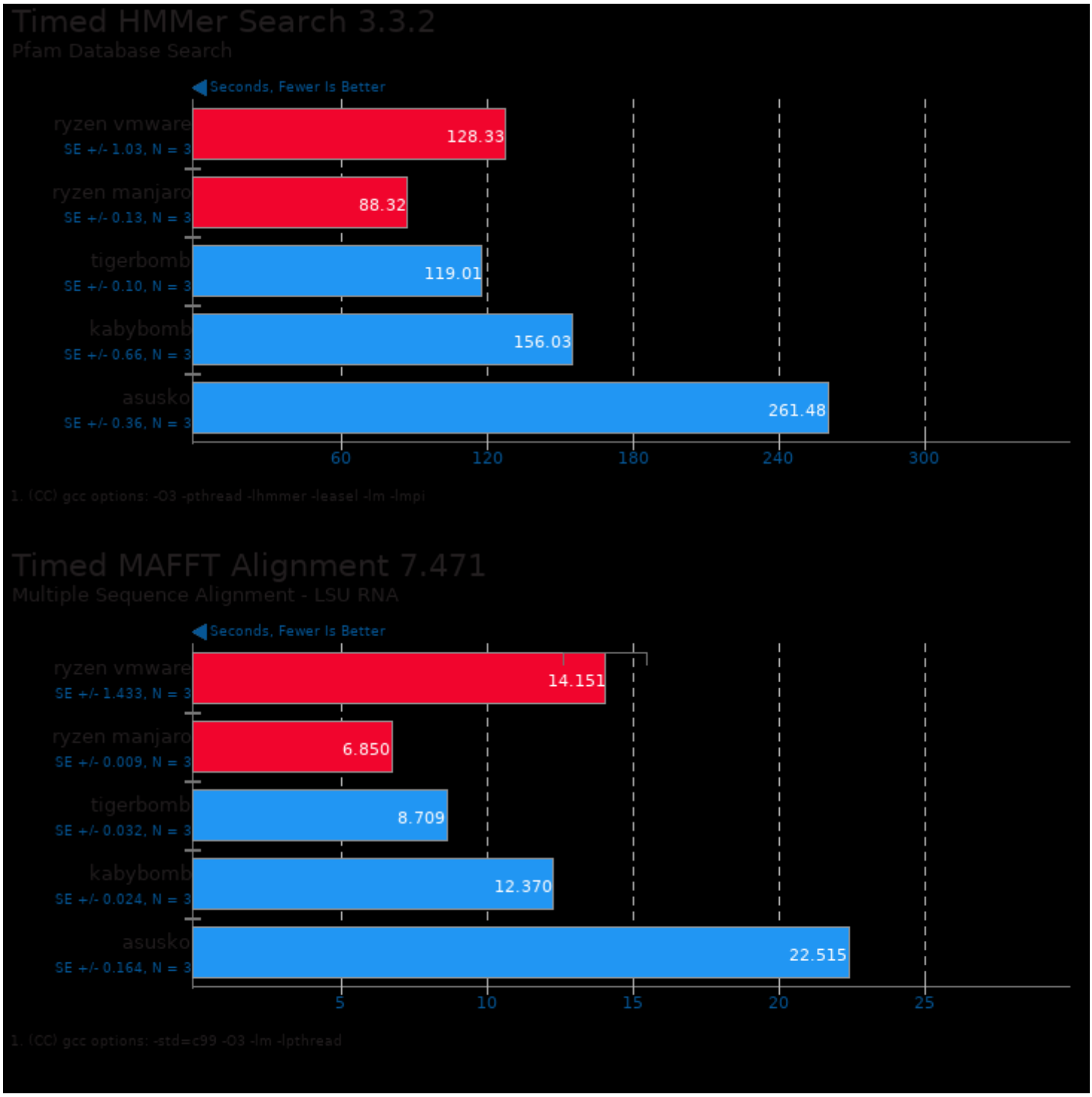

lzbench 1.8
Test: Crush 0 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 0.67, N = 3
714
ryzen manjaro
SE +/- 1.53, N = 3
714
tigerbomb
SE +/- 0.67, N = 3
562
kabybomb
SE +/- 0.88, N = 3
492
asusko
SE +/- 0.33, N = 3
336
150
300
450
600
750
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3
lzbench 1.8
Test: Brotli 0 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 67.01, N = 3
494
ryzen manjaro
SE +/- 0.33, N = 3
640
tigerbomb
SE +/- 1.20, N = 3
567
kabybomb
SE +/- 0.58, N = 3
436
asusko
SE +/- 0.33, N = 3
277
140
280
420
560
700
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

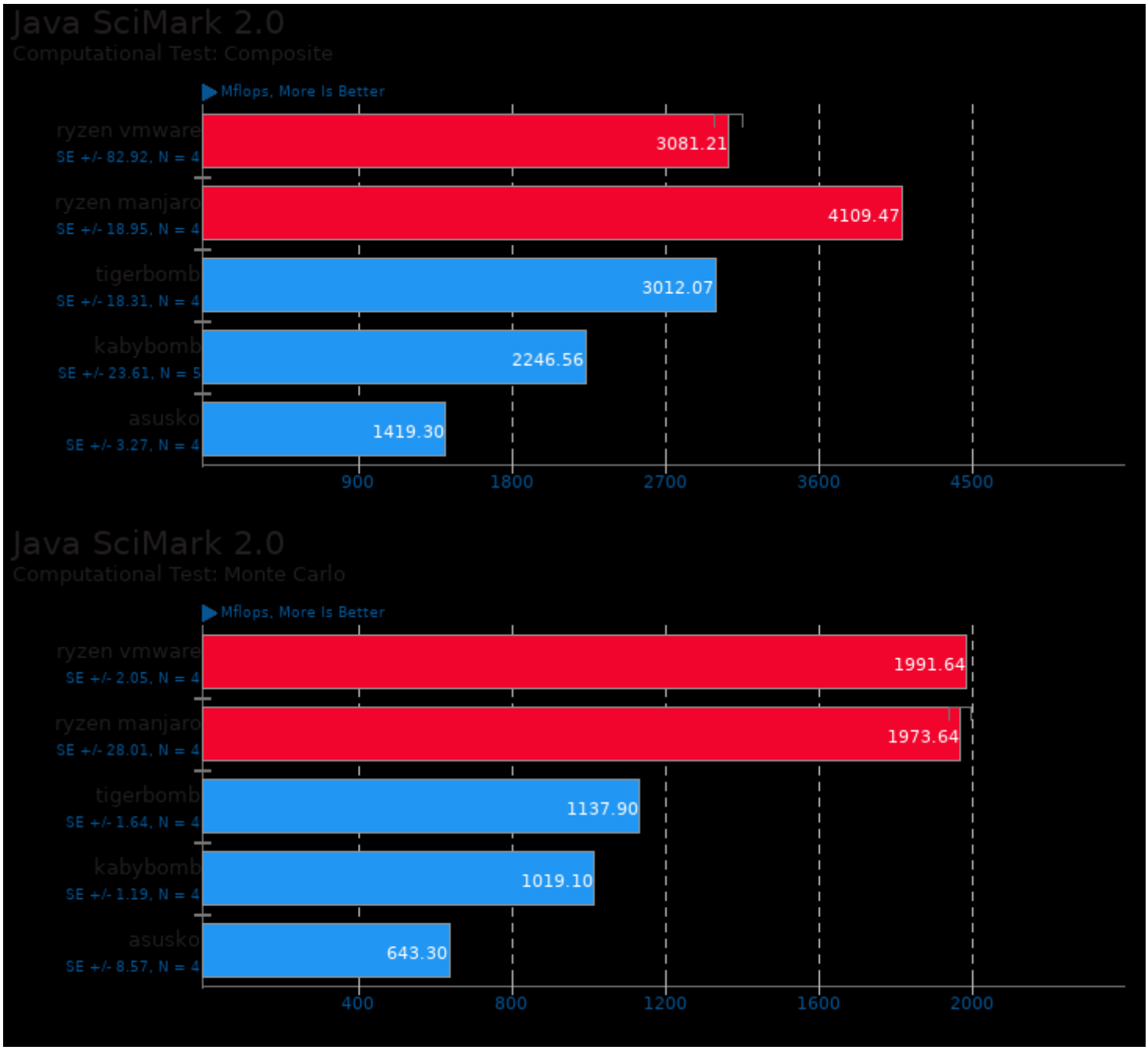

lzbench 1.8
Test: Brotli 0 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 41.62, N = 3
760
ryzen manjaro
SE +/- 2.03, N = 3
832
tigerbomb
SE +/- 3.48, N = 3
727
kabybomb
SE +/- 0.67, N = 3
598
asusko
SE +/- 0.00, N = 3
373
200
400
600
800
1000
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

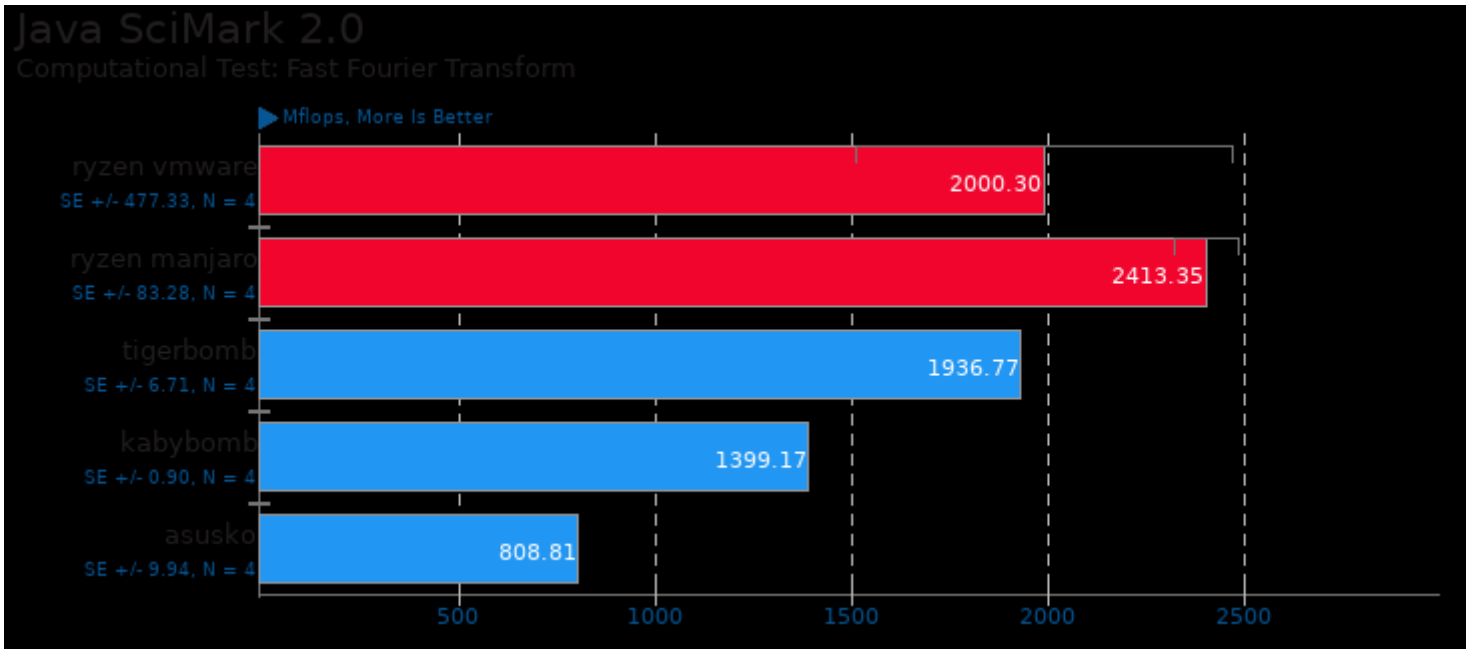
lzbench 1.8
Test: Brotli 2 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 28.43, N = 3
193
ryzen manjaro
SE +/- 0.67, N = 3
273
tigerbomb
SE +/- 0.33, N = 3
240
kabybomb
SE +/- 0.00, N = 3
183
asusko
SE +/- 0.33, N = 3
111
60
120
180
240
300
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

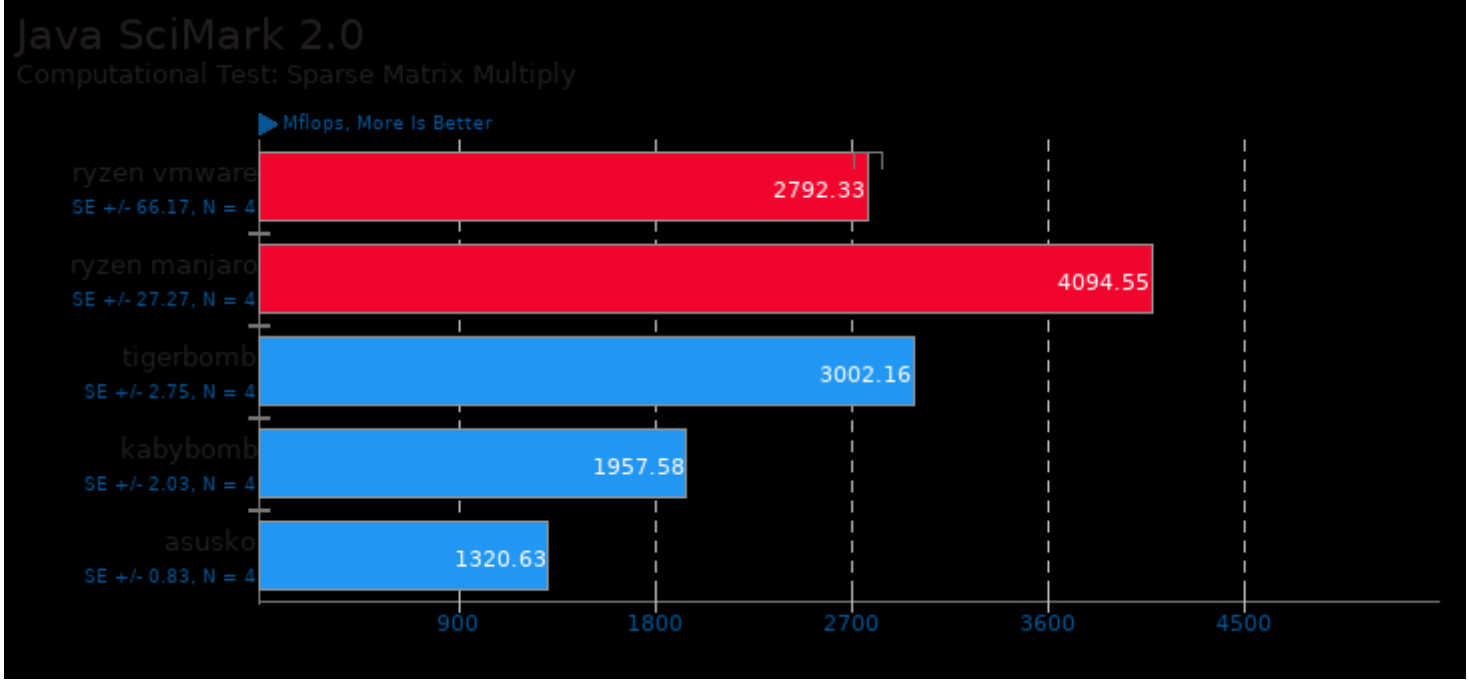

lzbench 1.8
Test: Brotli 2 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 0.33, N = 3
878
ryzen manjaro
SE +/- 0.33, N = 3
998
tigerbomb
SE +/- 4.91, N = 3
881
kabybomb
SE +/- 0.67, N = 3
691
asusko
SE +/- 3.06, N = 3
438
200
400
600
800
1000
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3
lzbench 1.8
Test: Libdeflate 1 - Process: Compression
MB/s, More Is Better
ryzen vmware
SE +/- 12.84, N = 3
187
ryzen manjaro
SE +/- 0.33, N = 3
341
tigerbomb
SE +/- 0.33, N = 3
287
kabybomb
SE +/- 0.33, N = 3
227
asusko
SE +/- 0.33, N = 3
131
70
140
210
280
350
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3


lzbench 1.8
Test: Libdeflate 1 - Process: Decompression
MB/s, More Is Better
ryzen vmware
SE +/- 0.33, N = 3
1542
ryzen manjaro
SE +/- 0.88, N = 3
1638
tigerbomb
SE +/- 1.00, N = 3
1301
kabybomb
SE +/- 2.67, N = 3
1143
asusko
SE +/- 0.58, N = 3
601
400
800
1200
1600
2000
1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3
FFTE 7.0
N=256, 3D Complex FFT Routine
MFLOPS, More Is Better
ryzen vmware
SE +/- 155.43, N = 3
55961.11
ryzen manjaro
SE +/- 67.86, N = 3
58152.28
tigerbomb
SE +/- 64.89, N = 3
30070.74
kabybomb
SE +/- 98.58, N = 3
20630.70
asusko
SE +/- 25.91, N = 3
10244.20
12K
24K
36K
48K
60K
1. (F9X) gfortran options: -O3 -fomit-frame-pointer -fopenmp

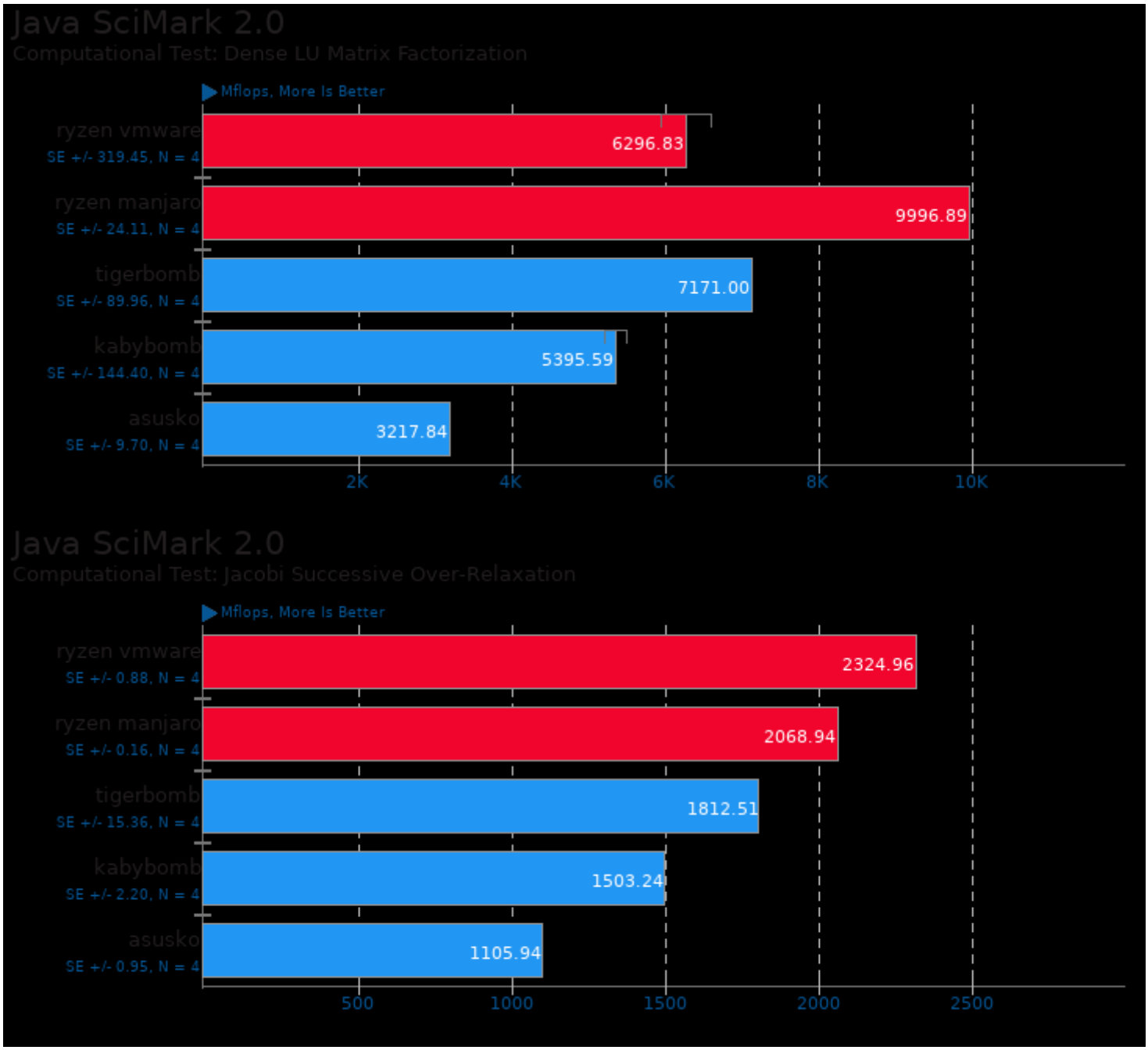

Timed HMMer Search 3.3.2
Pfam Database Search
Seconds, Fewer Is Better
ryzen vmware
SE +/- 1.03, N = 3
128.33
ryzen manjaro
SE +/- 0.13, N = 3
88.32
tigerbomb
SE +/- 0.10, N = 3
119.01
kabybomb
SE +/- 0.66, N = 3
156.03
asusko
SE +/- 0.36, N = 3
261.48
60
120
180
240
300
1. (CC) gcc options: -O3 -pthread -lhmmer -leasel -lm -lmpi
Timed MAFFT Alignment 7.471
Multiple Sequence Alignment - LSU RNA
Seconds, Fewer Is Better
ryzen vmware
SE +/- 1.433, N = 3
14.151
ryzen manjaro
SE +/- 0.009, N = 3
6.850
tigerbomb
SE +/- 0.032, N = 3
8.709
kabybomb
SE +/- 0.024, N = 3
12.370
asusko
SE +/- 0.164, N = 3
22.515
5
10
15
20
25
1. (CC) gcc options: -std=c99 -O3 -lm -lpthread

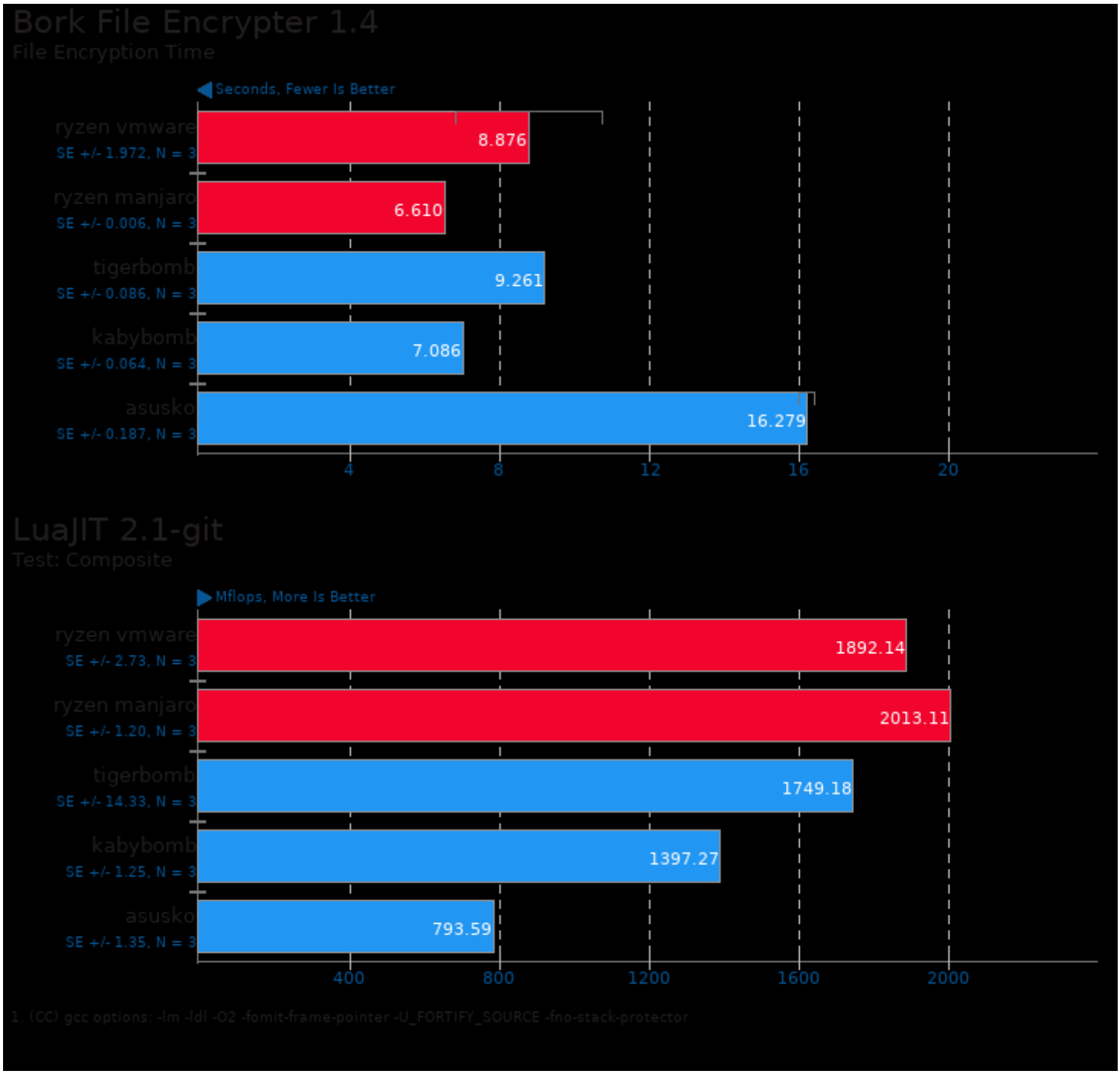

Java SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
ryzen vmware
SE +/- 82.92, N = 4
3081.21
ryzen manjaro
SE +/- 18.95, N = 4
4109.47
tigerbomb
SE +/- 18.31, N = 4
3012.07
kabybomb
SE +/- 23.61, N = 5
2246.56
asusko
SE +/- 3.27, N = 4
1419.30
900
1800
2700
3600
4500
Java SciMark 2.0
Computational Test: Monte Carlo
Mflops, More Is Better
ryzen vmware
SE +/- 2.05, N = 4
1991.64
ryzen manjaro
SE +/- 28.01, N = 4
1973.64
tigerbomb
SE +/- 1.64, N = 4
1137.90
kabybomb
SE +/- 1.19, N = 4
1019.10
asusko
SE +/- 8.57, N = 4
643.30
400
800
1200
1600
2000

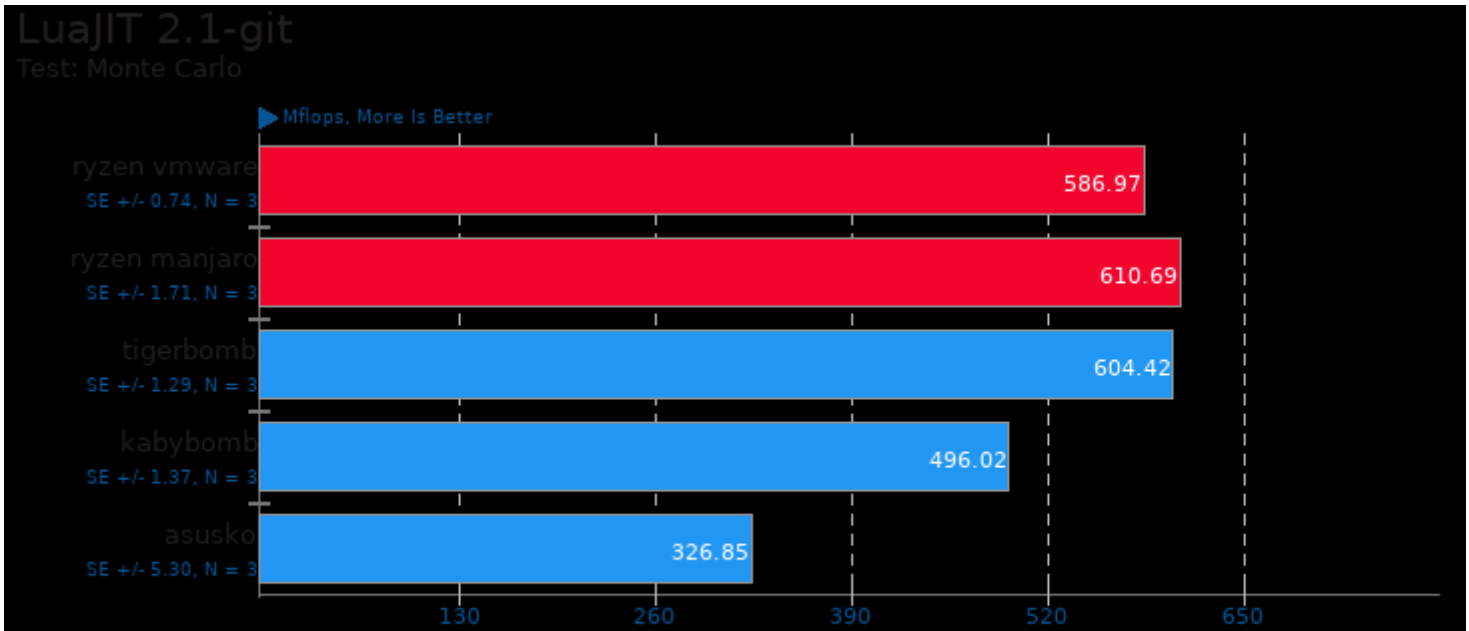

Java SciMark 2.0
Computational Test: Fast Fourier Transform
Mflops, More Is Better
ryzen vmware
SE +/- 477.33, N = 4
2000.30
ryzen manjaro
SE +/- 83.28, N = 4
2413.35
tigerbomb
SE +/- 6.71, N = 4
1936.77
kabybomb
SE +/- 0.90, N = 4
1399.17
asusko
SE +/- 9.94, N = 4
808.81
500
1000
1500
2000
2500

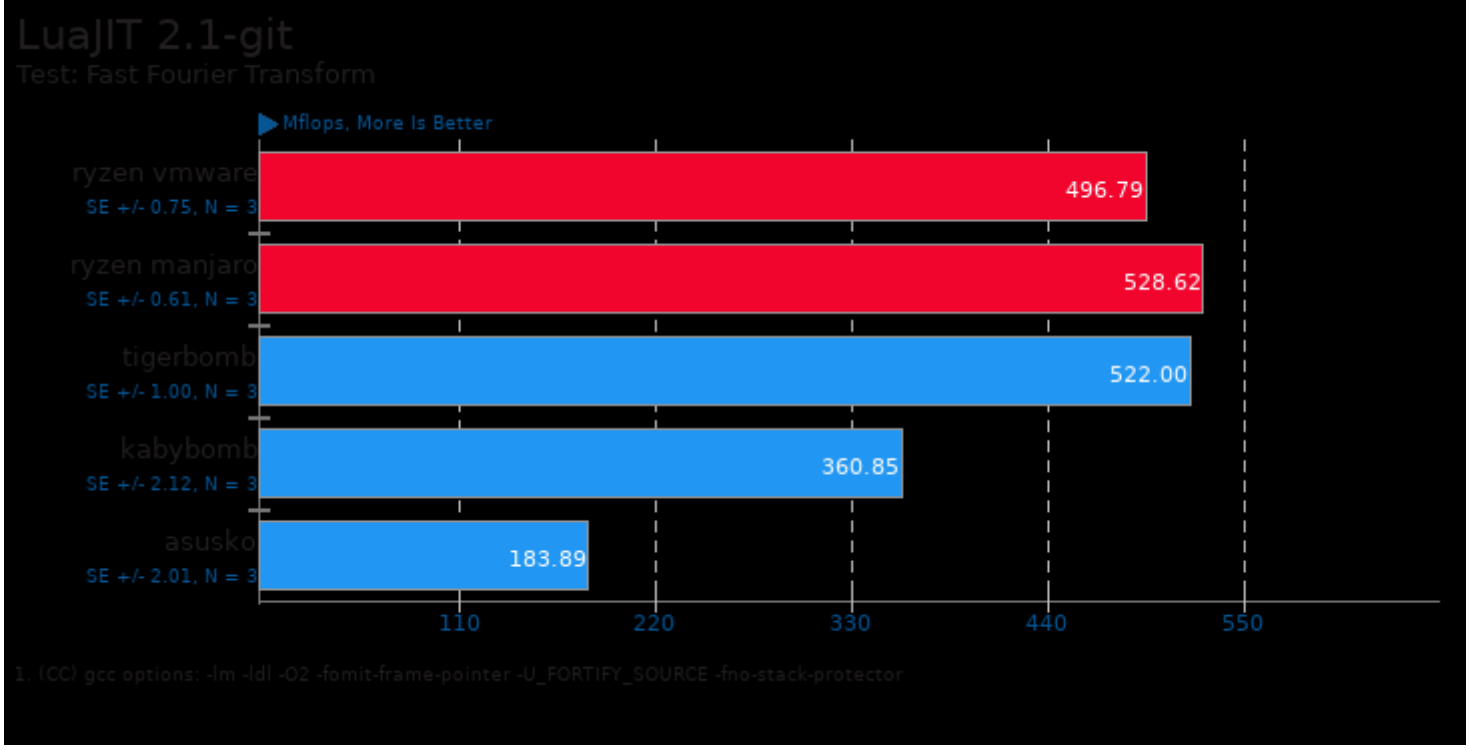

Java SciMark 2.0
Computational Test: Sparse Matrix Multiply
Mflops, More Is Better
ryzen vmware
SE +/- 66.17, N = 4
2792.33
ryzen manjaro
SE +/- 27.27, N = 4
4094.55
tigerbomb
SE +/- 2.75, N = 4
3002.16
kabybomb
SE +/- 2.03, N = 4
1957.58
asusko
SE +/- 0.83, N = 4
1320.63
900
1800
2700
3600
4500

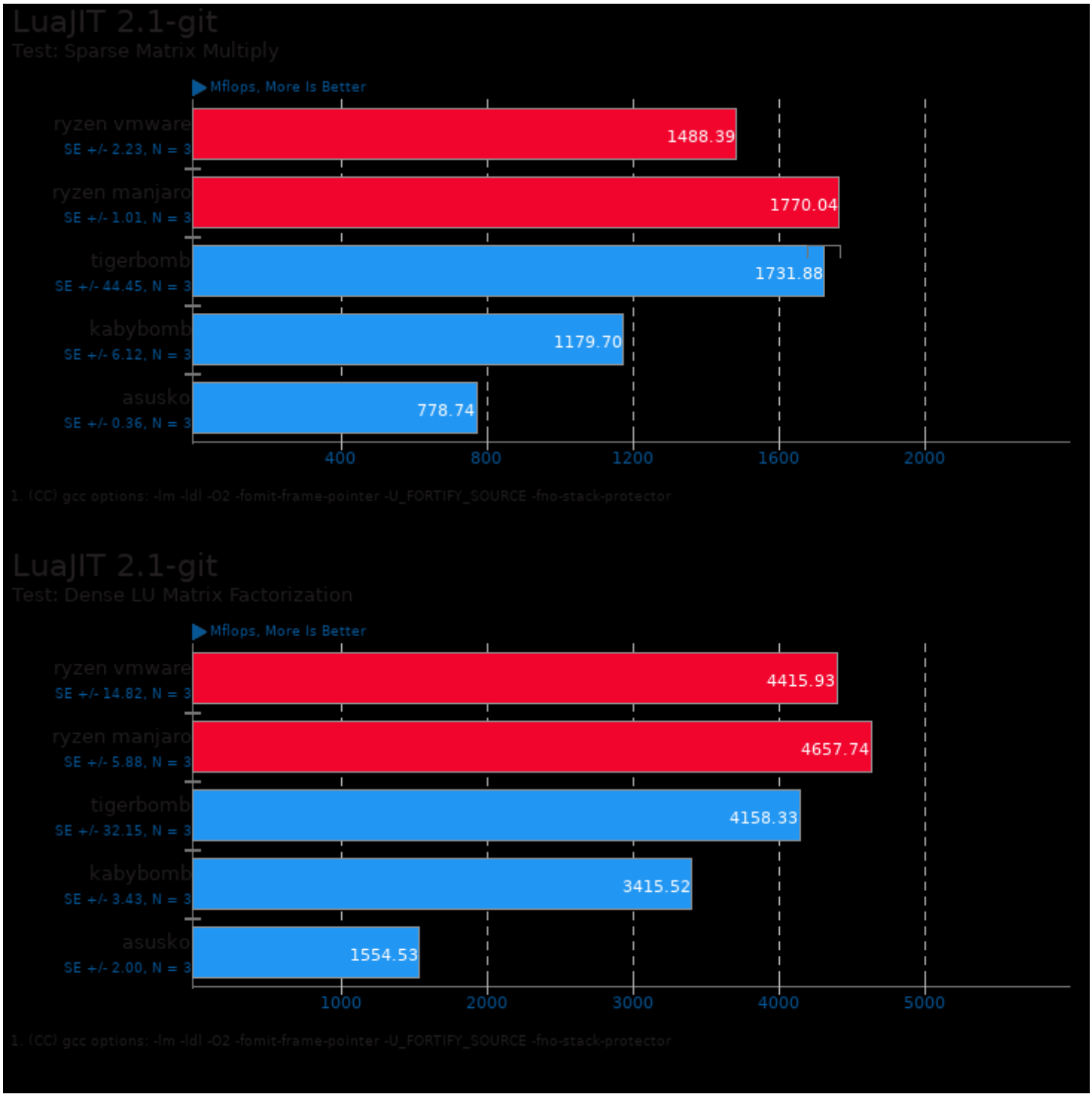
ryzen

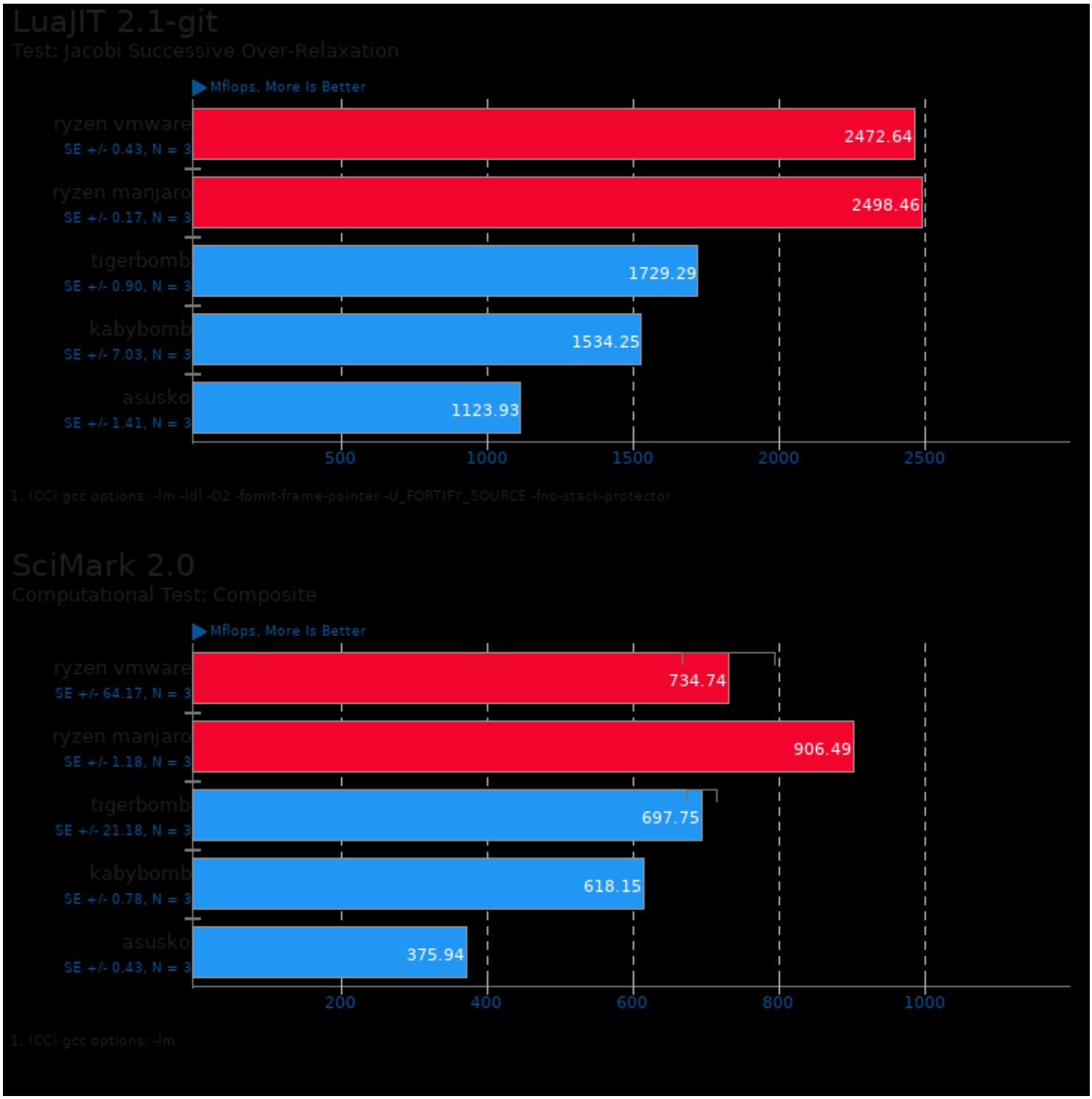

Java SciMark 2.0
Computational Test: Dense LU Matrix Factorization
Mflops, More Is Better
ryzen vmware
SE +/- 319.45, N = 4
6296.83
ryzen manjaro
SE +/- 24.11, N = 4
9996.89
tigerbomb
SE +/- 89.96, N = 4
7171.00
kabybomb
SE +/- 144.40, N = 4
5395.59
asusko
SE +/- 9.70, N = 4
3217.84
2K
4K
6K
8K
10K
Java SciMark 2.0
Computational Test: Jacobi Successive Over-Relaxation
Mflops, More Is Better
ryzen vmware
SE +/- 0.88, N = 4
2324.96
ryzen manjaro
SE +/- 0.16, N = 4
2068.94
tigerbomb
SE +/- 15.36, N = 4
1812.51
kabybomb
SE +/- 2.20, N = 4
1503.24
asusko
SE +/- 0.95, N = 4
1105.94
500
1000
1500
2000
2500


Bork File Encrypter 1.4
File Encryption Time
Seconds, Fewer Is Better
ryzen vmware
SE +/- 1.972, N = 3
8.876
ryzen manjaro
SE +/- 0.006, N = 3
6.610
tigerbomb
SE +/- 0.086, N = 3
9.261
kabybomb
SE +/- 0.064, N = 3
7.086
asusko
SE +/- 0.187, N = 3
16.279
4
8
12
16
20
LuaJIT 2.1-git
Test: Composite
Mflops, More Is Better
ryzen vmware
SE +/- 2.73, N = 3
1892.14
ryzen manjaro
SE +/- 1.20, N = 3
2013.11
tigerbomb
SE +/- 14.33, N = 3
1749.18
kabybomb
SE +/- 1.25, N = 3
1397.27
asusko
SE +/- 1.35, N = 3
793.59
400
800
1200
1600
2000
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

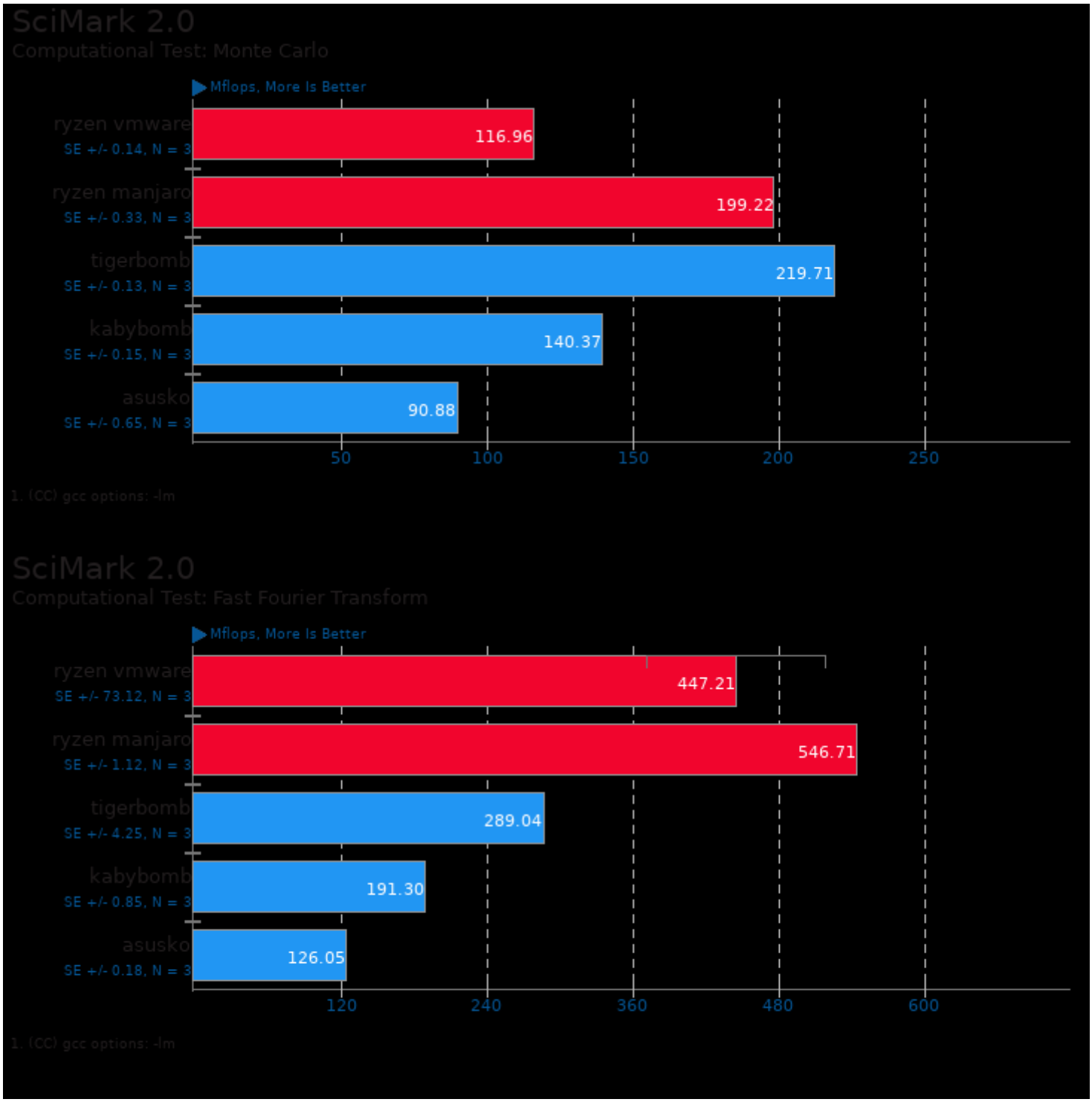

LuaJIT 2.1-git
Test: Monte Carlo
Mflops, More Is Better
ryzen vmware
SE +/- 0.74, N = 3
586.97
ryzen manjaro
SE +/- 1.71, N = 3
610.69
tigerbomb
SE +/- 1.29, N = 3
604.42
kabybomb
SE +/- 1.37, N = 3
496.02
asusko
SE +/- 5.30, N = 3
326.85
130
260
390
520
650
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

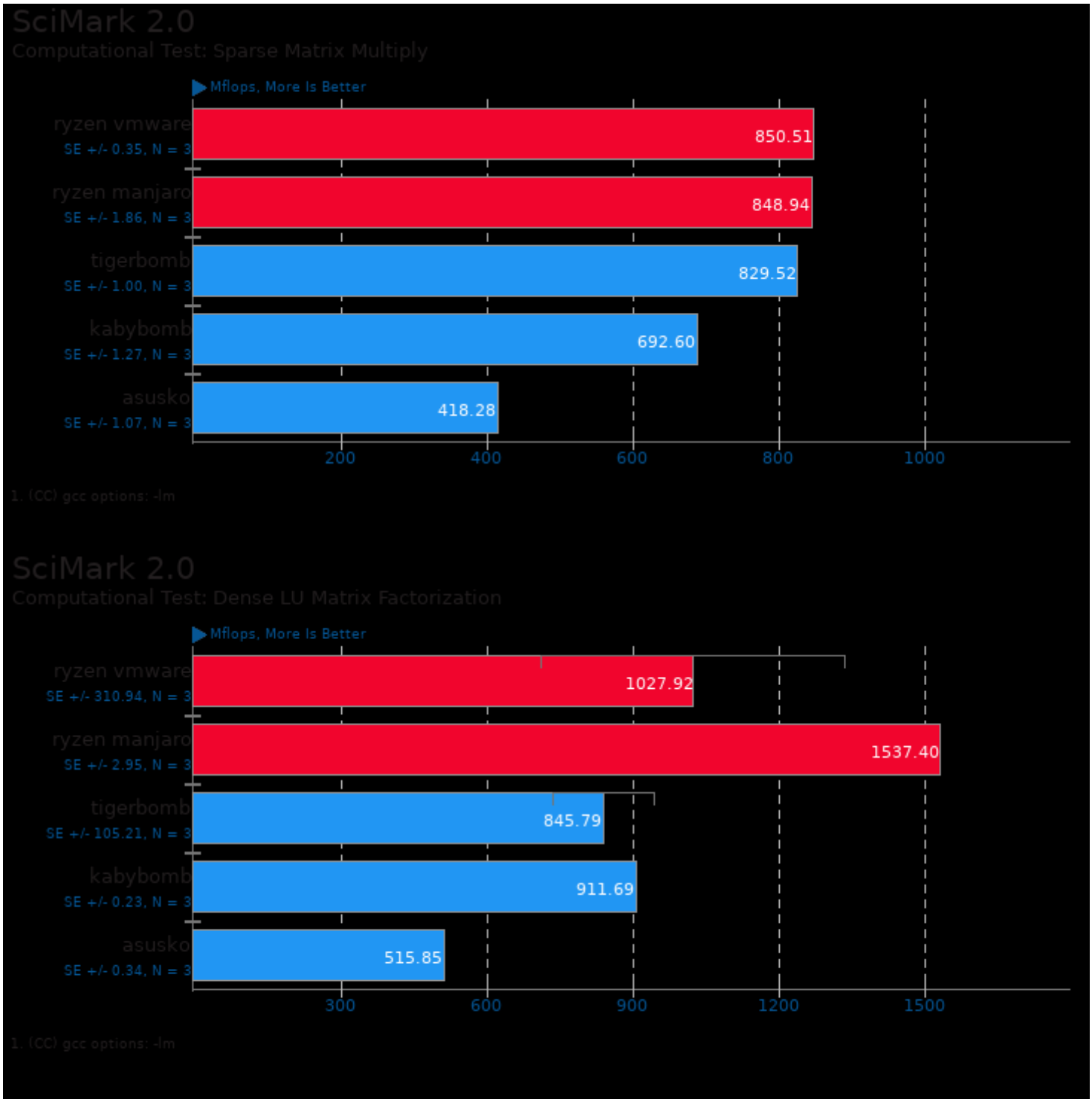

LuaJIT 2.1-git
Test: Fast Fourier Transform
Mflops, More Is Better
ryzen vmware
SE +/- 0.75, N = 3
496.79
ryzen manjaro
SE +/- 0.61, N = 3
528.62
tigerbomb
SE +/- 1.00, N = 3
522.00
kabybomb
SE +/- 2.12, N = 3
360.85
asusko
SE +/- 2.01, N = 3
183.89
110
220
330
440
550
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

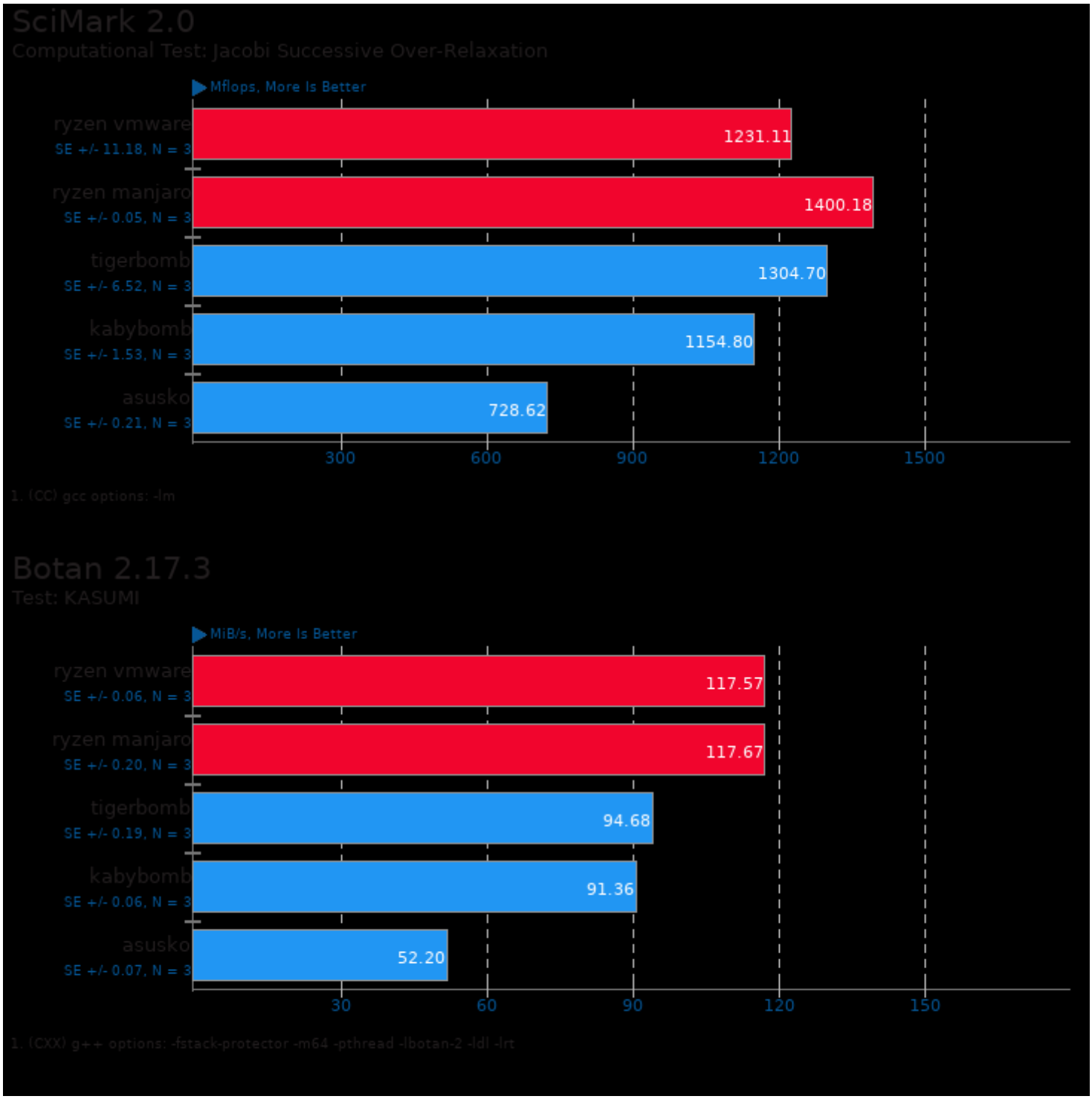

LuaJIT 2.1-git
Test: Sparse Matrix Multiply
Mflops, More Is Better
ryzen vmware
SE +/- 2.23, N = 3
1488.39
ryzen manjaro
SE +/- 1.01, N = 3
1770.04
tigerbomb
SE +/- 44.45, N = 3
1731.88
kabybomb
SE +/- 6.12, N = 3
1179.70
asusko
SE +/- 0.36, N = 3
778.74
400
800
1200
1600
2000
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector
LuaJIT 2.1-git
Test: Dense LU Matrix Factorization
Mflops, More Is Better
ryzen vmware
SE +/- 14.82, N = 3
4415.93
ryzen manjaro
SE +/- 5.88, N = 3
4657.74
tigerbomb
SE +/- 32.15, N = 3
4158.33
kabybomb
SE +/- 3.43, N = 3
3415.52
asusko
SE +/- 2.00, N = 3
1554.53
1000
2000
3000
4000
5000
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

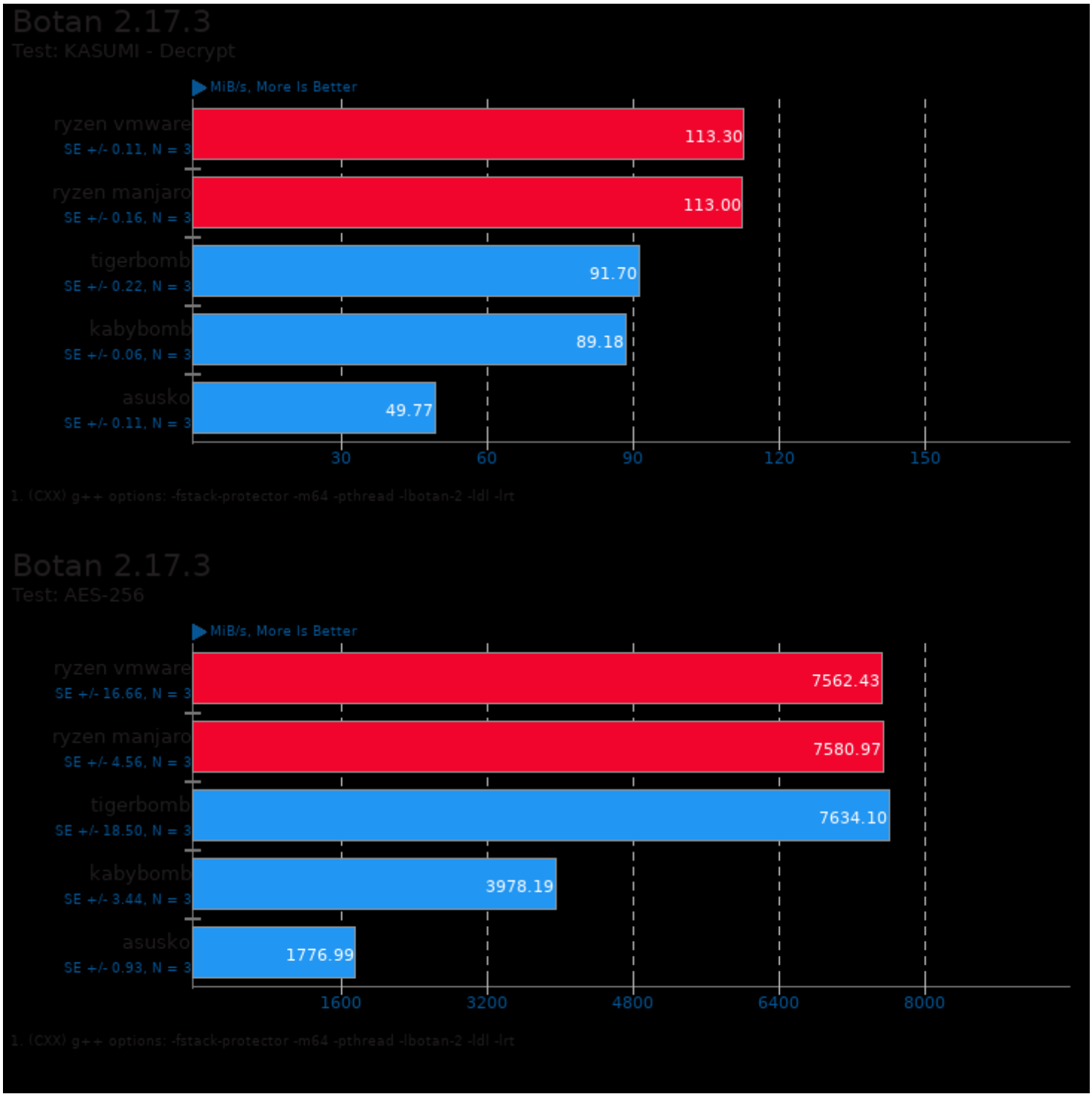

LuaJIT 2.1-git
Test: Jacobi Successive Over-Relaxation
Mflops, More Is Better
ryzen vmware
SE +/- 0.43, N = 3
2472.64
ryzen manjaro
SE +/- 0.17, N = 3
2498.46
tigerbomb
SE +/- 0.90, N = 3
1729.29
kabybomb
SE +/- 7.03, N = 3
1534.25
asusko
SE +/- 1.41, N = 3
1123.93
500
1000
1500
2000
2500
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

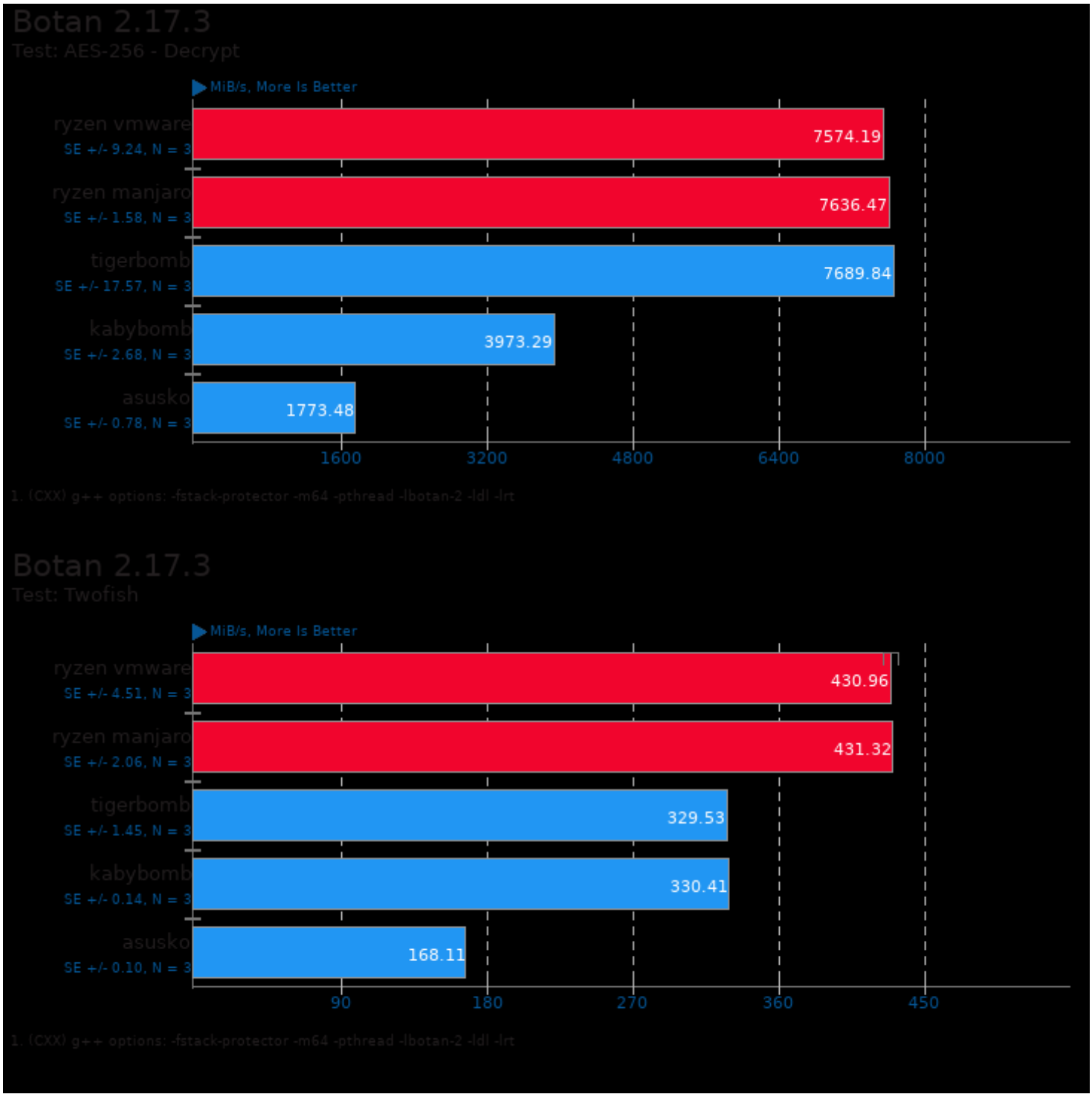
SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
ryzen vmware
SE +/- 64.17, N = 3
734.74
ryzen manjaro
SE +/- 1.18, N = 3
906.49
tigerbomb
SE +/- 21.18, N = 3
697.75
kabybomb
SE +/- 0.78, N = 3
618.15
asusko
SE +/- 0.43, N = 3
375.94
200
400
600
800
1000
1. (CC) gcc options: -lm

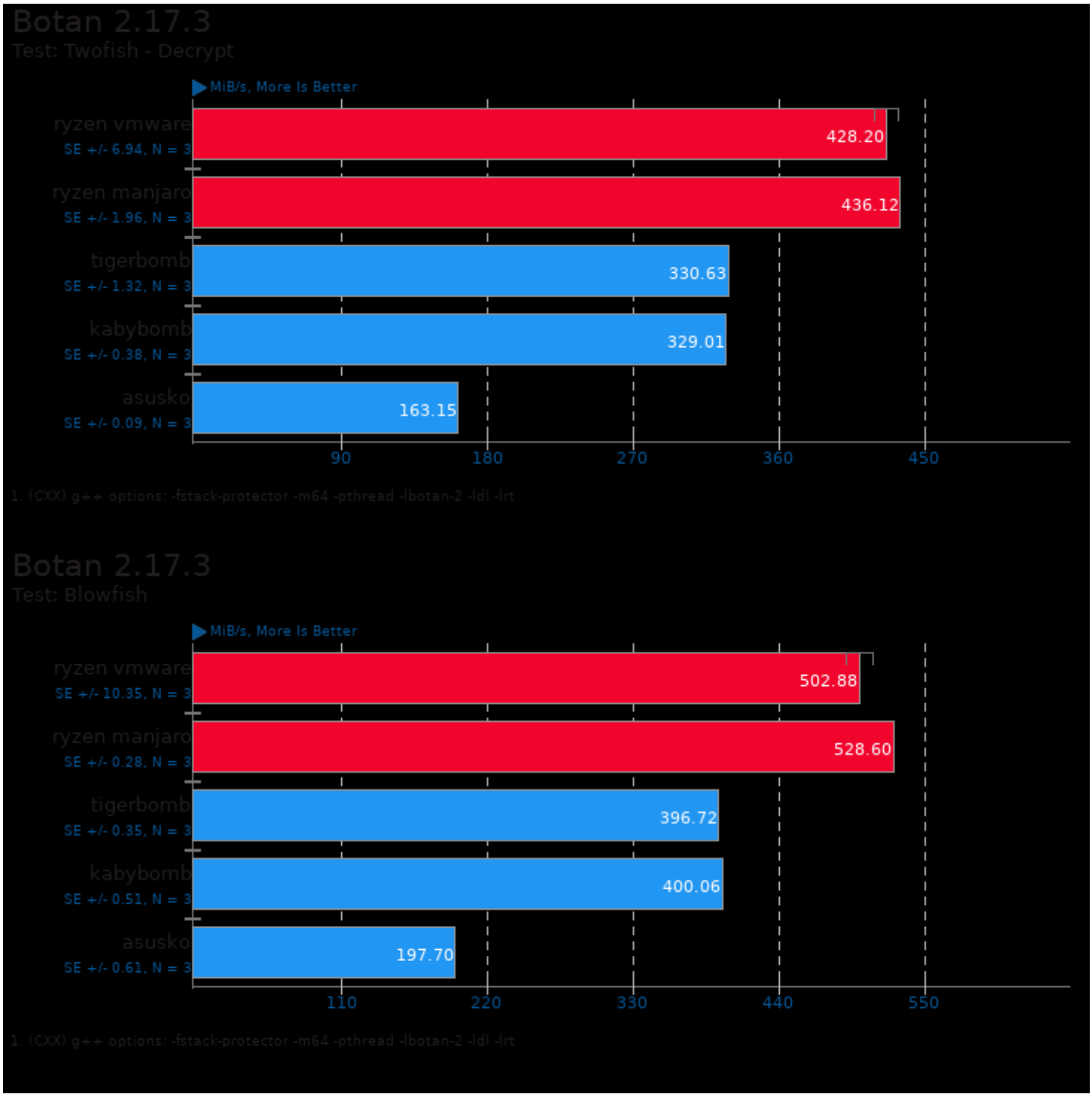

SciMark 2.0
Computational Test: Monte Carlo
Mflops, More Is Better
ryzen vmware
SE +/- 0.14, N = 3
116.96
ryzen manjaro
SE +/- 0.33, N = 3
199.22
tigerbomb
SE +/- 0.13, N = 3
219.71
kabybomb
SE +/- 0.15, N = 3
140.37
asusko
SE +/- 0.65, N = 3
90.88
50
100
150
200
250
1. (CC) gcc options: -lm
SciMark 2.0
Computational Test: Fast Fourier Transform
Mflops, More Is Better
ryzen vmware
SE +/- 73.12, N = 3
447.21
ryzen manjaro
SE +/- 1.12, N = 3
546.71
tigerbomb
SE +/- 4.25, N = 3
289.04
kabybomb
SE +/- 0.85, N = 3
191.30
asusko
SE +/- 0.18, N = 3
126.05
120
240
360
480
600
1. (CC) gcc options: -lm


SciMark 2.0
Computational Test: Sparse Matrix Multiply
Mflops, More Is Better
ryzen vmware
SE +/- 0.35, N = 3
850.51
ryzen manjaro
SE +/- 1.86, N = 3
848.94
tigerbomb
SE +/- 1.00, N = 3
829.52
kabybomb
SE +/- 1.27, N = 3
692.60
asusko
SE +/- 1.07, N = 3
418.28
200
400
600
800
1000
1. (CC) gcc options: -lm
SciMark 2.0
Computational Test: Dense LU Matrix Factorization
Mflops, More Is Better
ryzen vmware
SE +/- 310.94, N = 3
1027.92
ryzen manjaro
SE +/- 2.95, N = 3
1537.40
tigerbomb
SE +/- 105.21, N = 3
845.79
kabybomb
SE +/- 0.23, N = 3
911.69
asusko
SE +/- 0.34, N = 3
515.85
300
600
900
1200
1500
1. (CC) gcc options: -lm

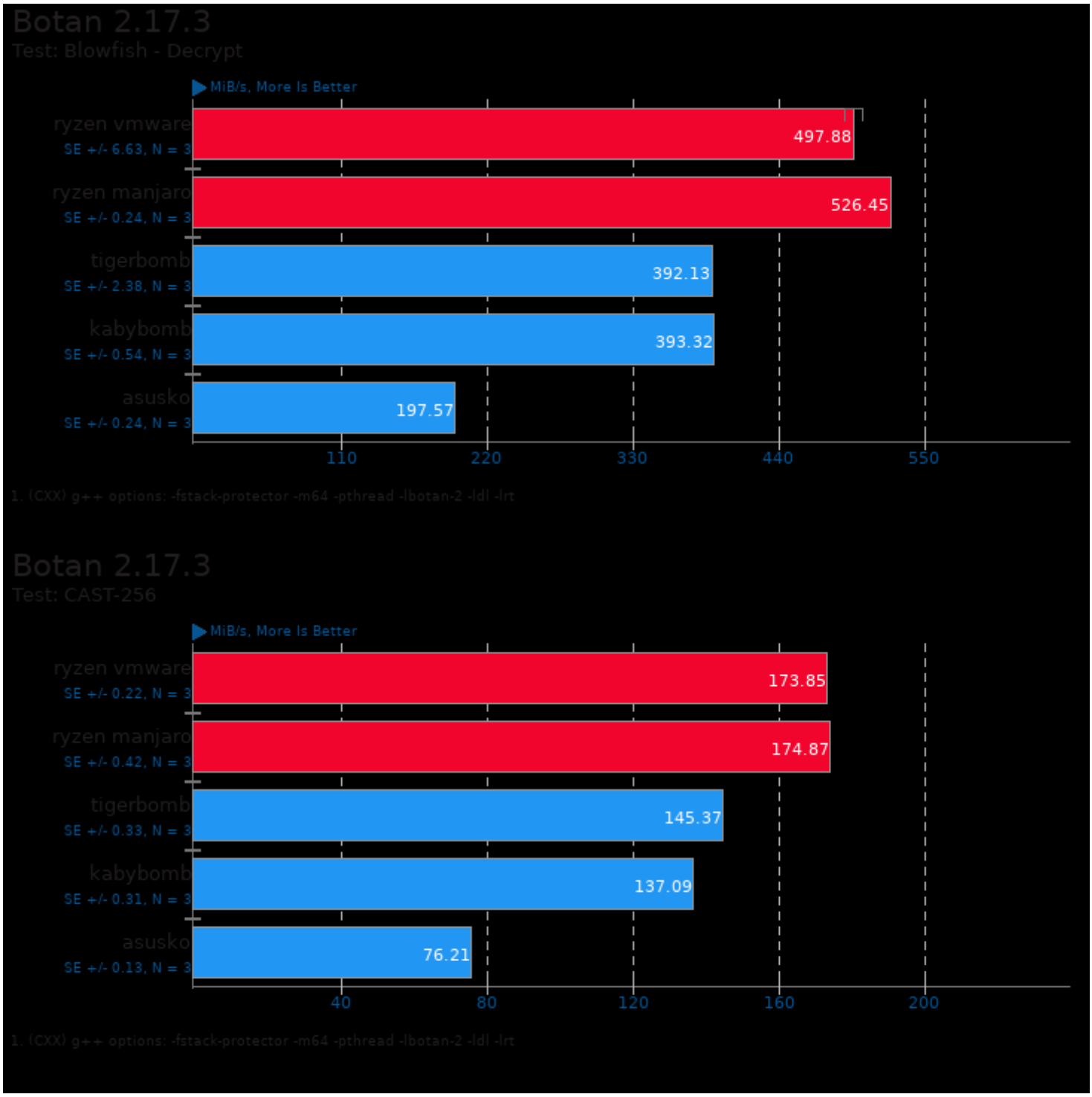

SciMark 2.0
Computational Test: Jacobi Successive Over-Relaxation
Mflops, More Is Better
ryzen vmware
SE +/- 11.18, N = 3
1231.11
ryzen manjaro
SE +/- 0.05, N = 3
1400.18
tigerbomb
SE +/- 6.52, N = 3
1304.70
kabybomb
SE +/- 1.53, N = 3
1154.80
asusko
SE +/- 0.21, N = 3
728.62
300
600
900
1200
1500
1. (CC) gcc options: -lm
Botan 2.17.3
Test: KASUMI
MiB/s, More Is Better
ryzen vmware
SE +/- 0.06, N = 3
117.57
ryzen manjaro
SE +/- 0.20, N = 3
117.67
tigerbomb
SE +/- 0.19, N = 3
94.68
kabybomb
SE +/- 0.06, N = 3
91.36
asusko
SE +/- 0.07, N = 3
52.20
30
60
90
120
150
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

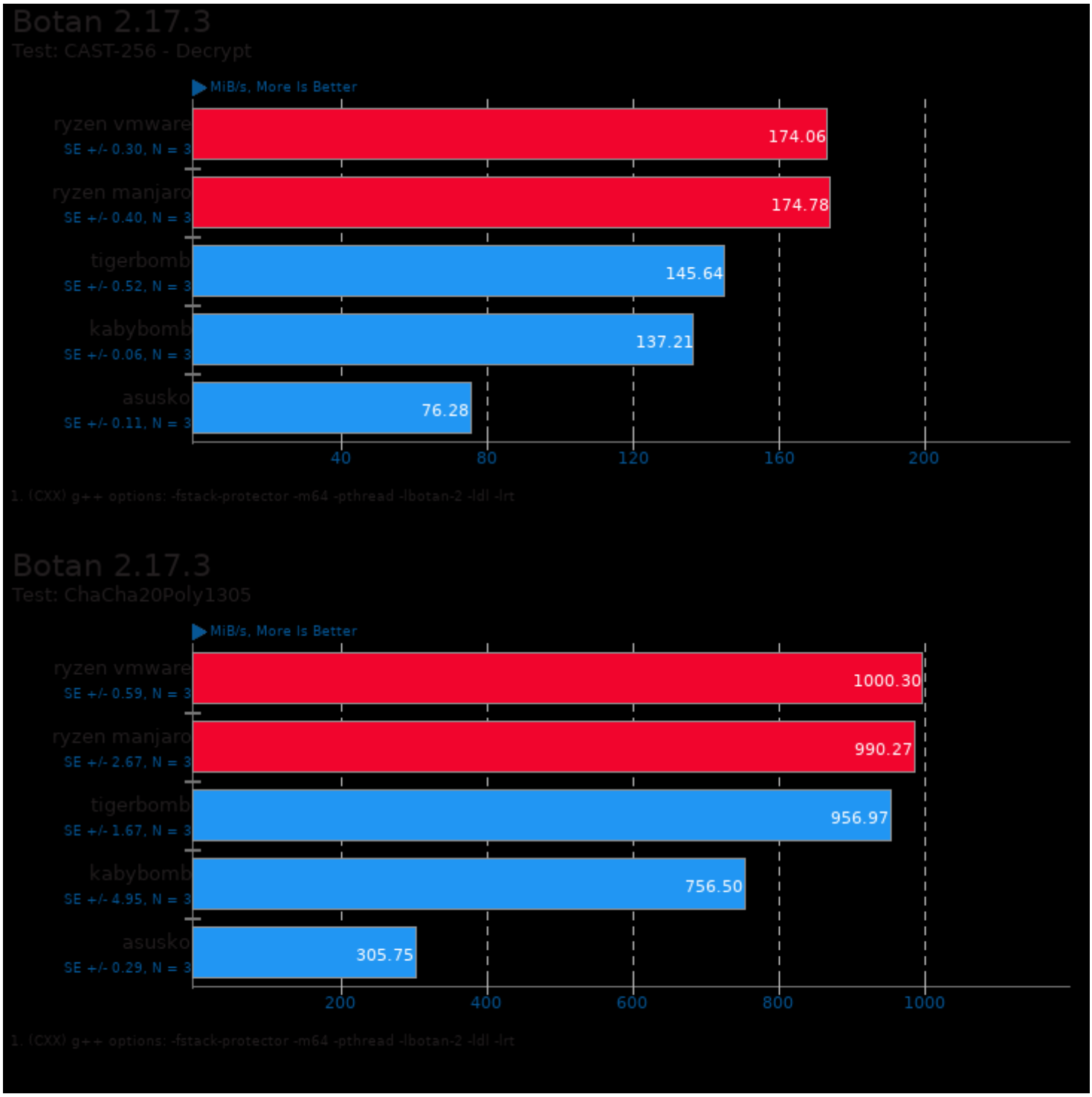

Botan 2.17.3
Test: KASUMI - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 0.11, N = 3
113.30
ryzen manjaro
SE +/- 0.16, N = 3
113.00
tigerbomb
SE +/- 0.22, N = 3
91.70
kabybomb
SE +/- 0.06, N = 3
89.18
asusko
SE +/- 0.11, N = 3
49.77
30
60
90
120
150
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: AES-256
MiB/s, More Is Better
ryzen vmware
SE +/- 16.66, N = 3
7562.43
ryzen manjaro
SE +/- 4.56, N = 3
7580.97
tigerbomb
SE +/- 18.50, N = 3
7634.10
kabybomb
SE +/- 3.44, N = 3
3978.19
asusko
SE +/- 0.93, N = 3
1776.99
1600
3200
4800
6400
8000
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt


Botan 2.17.3
Test: AES-256 - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 9.24, N = 3
7574.19
ryzen manjaro
SE +/- 1.58, N = 3
7636.47
tigerbomb
SE +/- 17.57, N = 3
7689.84
kabybomb
SE +/- 2.68, N = 3
3973.29
asusko
SE +/- 0.78, N = 3
1773.48
1600
3200
4800
6400
8000
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: Twofish
MiB/s, More Is Better
ryzen vmware
SE +/- 4.51, N = 3
430.96
ryzen manjaro
SE +/- 2.06, N = 3
431.32
tigerbomb
SE +/- 1.45, N = 3
329.53
kabybomb
SE +/- 0.14, N = 3
330.41
asusko
SE +/- 0.10, N = 3
168.11
90
180
270
360
450
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

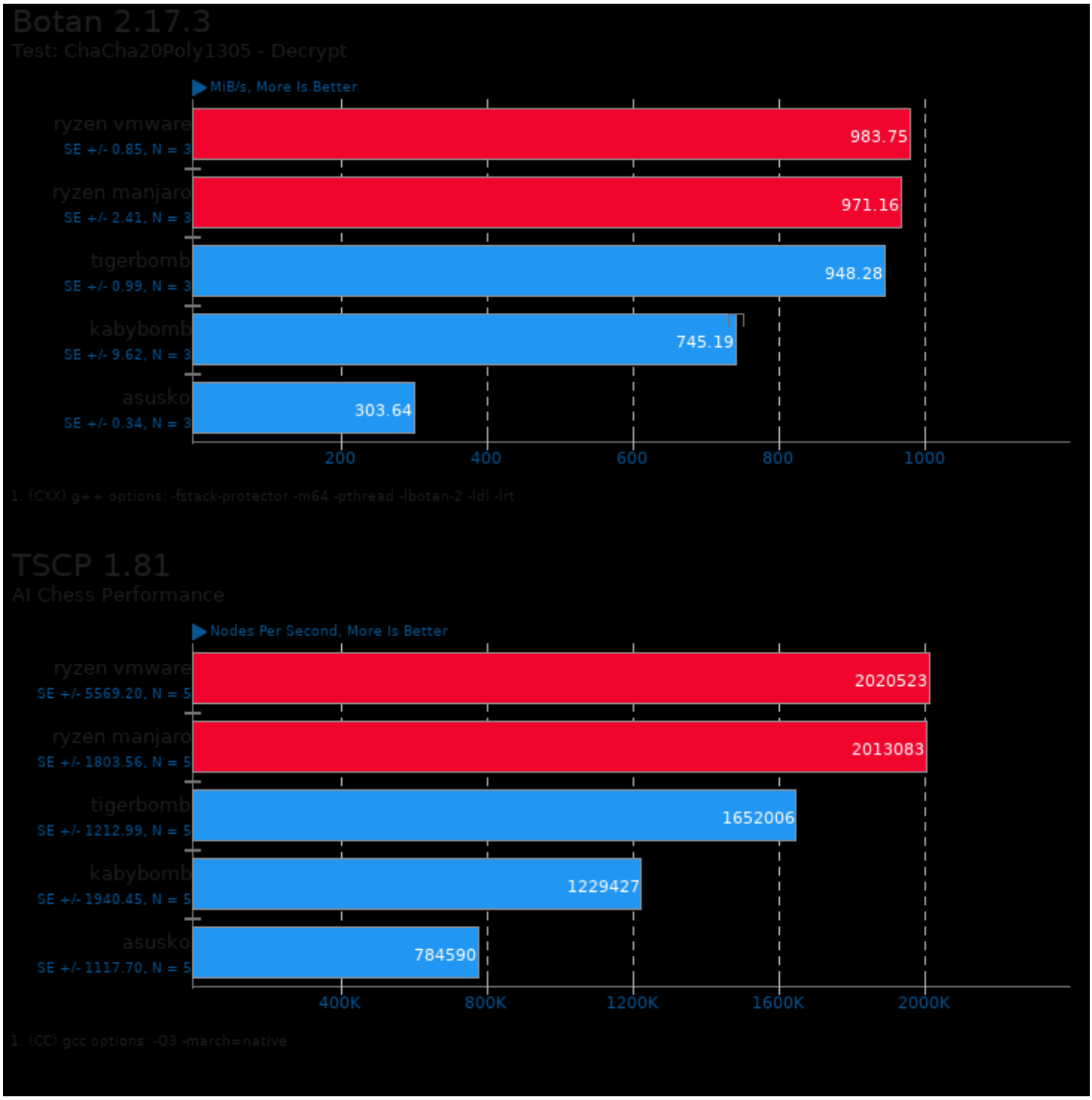

Botan 2.17.3
Test: Twofish - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 6.94, N = 3
428.20
ryzen manjaro
SE +/- 1.96, N = 3
436.12
tigerbomb
SE +/- 1.32, N = 3
330.63
kabybomb
SE +/- 0.38, N = 3
329.01
asusko
SE +/- 0.09, N = 3
163.15
90
180
270
360
450
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

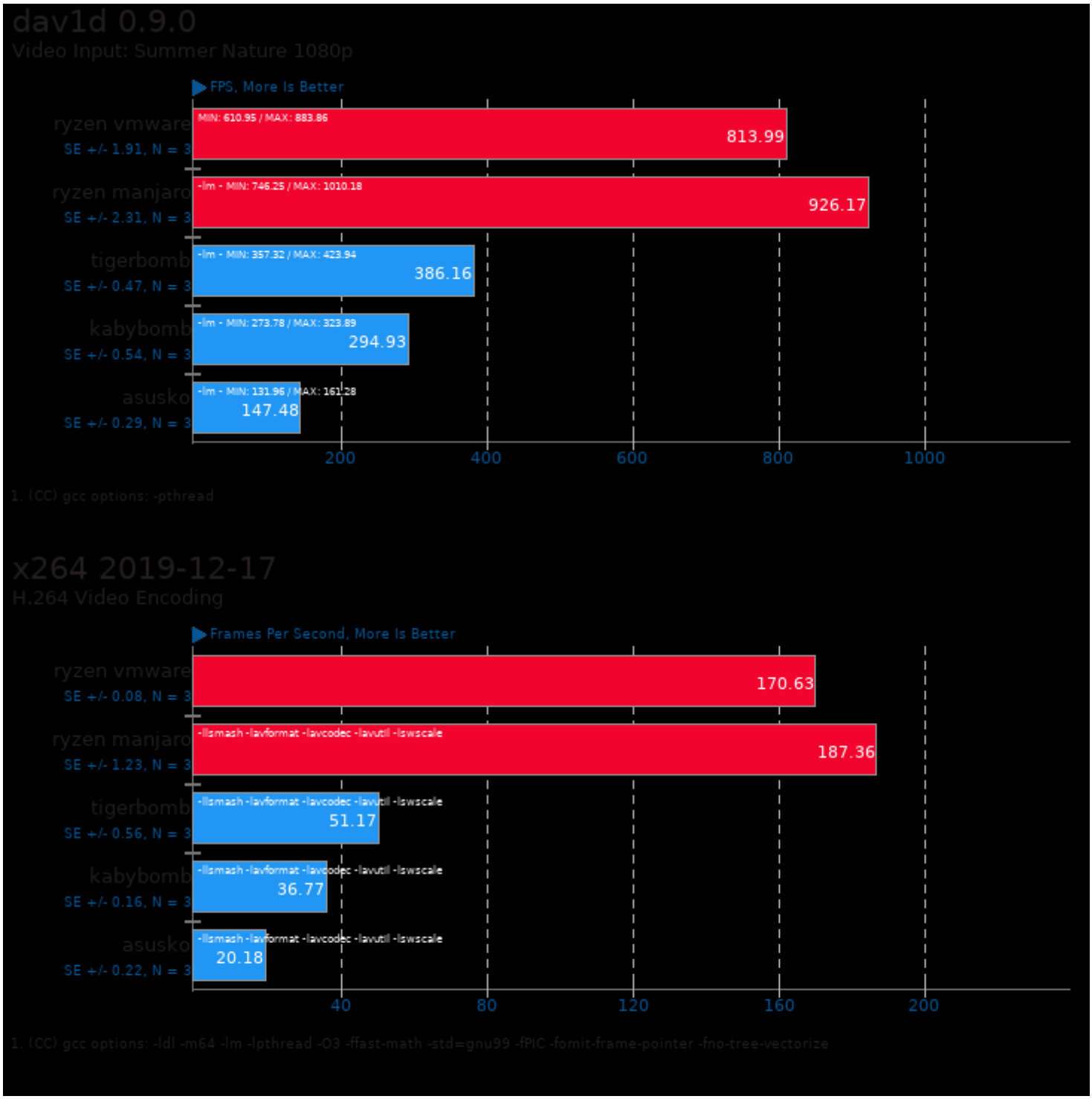
Botan 2.17.3
Test: Blowfish
MiB/s, More Is Better
ryzen vmware
SE +/- 10.35, N = 3
502.88
ryzen manjaro
SE +/- 0.28, N = 3
528.60
tigerbomb
SE +/- 0.35, N = 3
396.72
kabybomb
SE +/- 0.51, N = 3
400.06
asusko
SE +/- 0.61, N = 3
197.70
110
220
330
440
550
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

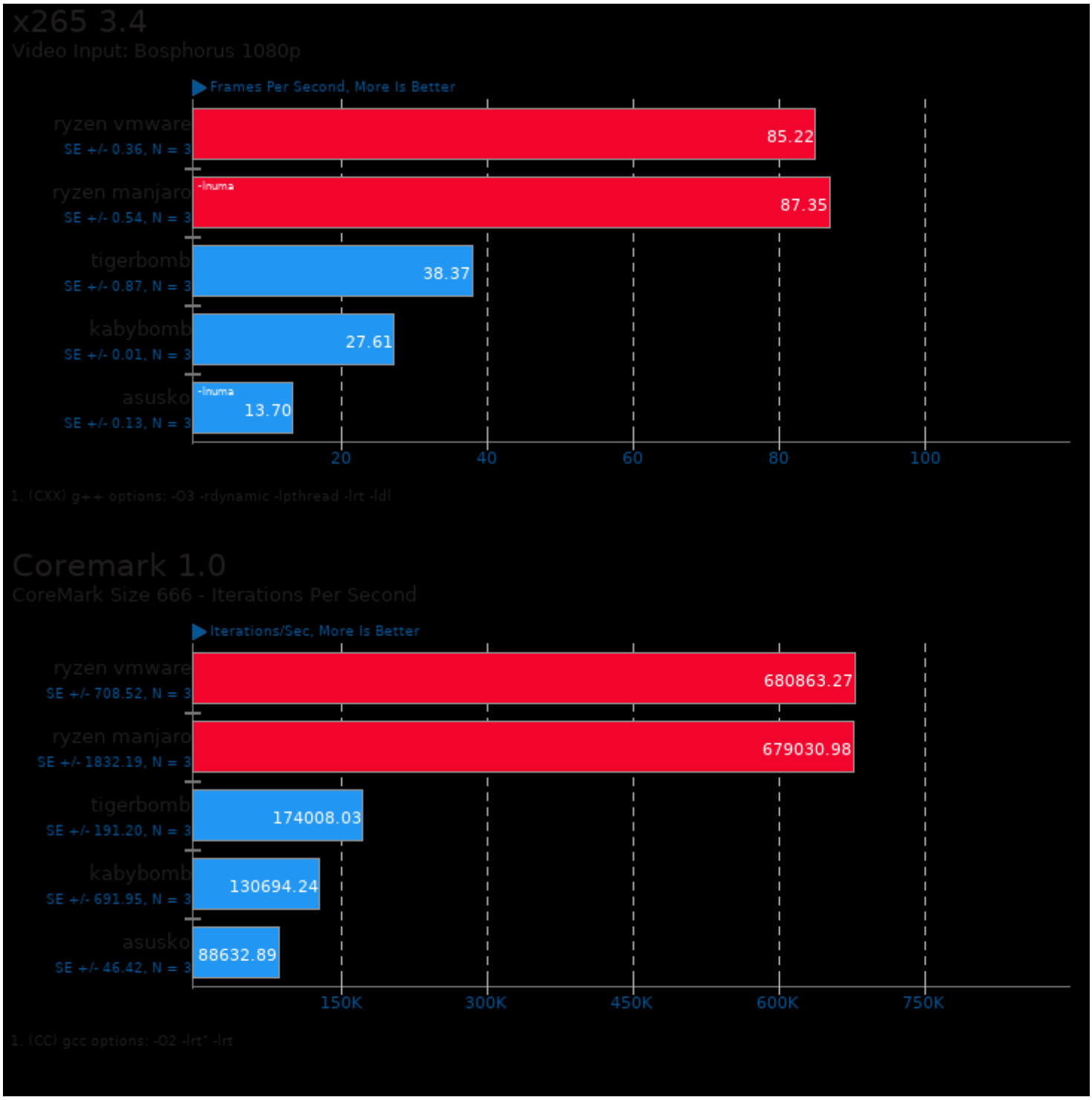

Botan 2.17.3
Test: Blowfish - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 6.63, N = 3
497.88
ryzen manjaro
SE +/- 0.24, N = 3
526.45
tigerbomb
SE +/- 2.38, N = 3
392.13
kabybomb
SE +/- 0.54, N = 3
393.32
asusko
SE +/- 0.24, N = 3
197.57
110
220
330
440
550
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
Botan 2.17.3
Test: CAST-256
MiB/s, More Is Better
ryzen vmware
SE +/- 0.22, N = 3
173.85
ryzen manjaro
SE +/- 0.42, N = 3
174.87
tigerbomb
SE +/- 0.33, N = 3
145.37
kabybomb
SE +/- 0.31, N = 3
137.09
asusko
SE +/- 0.13, N = 3
76.21
40
80
120
160
200
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

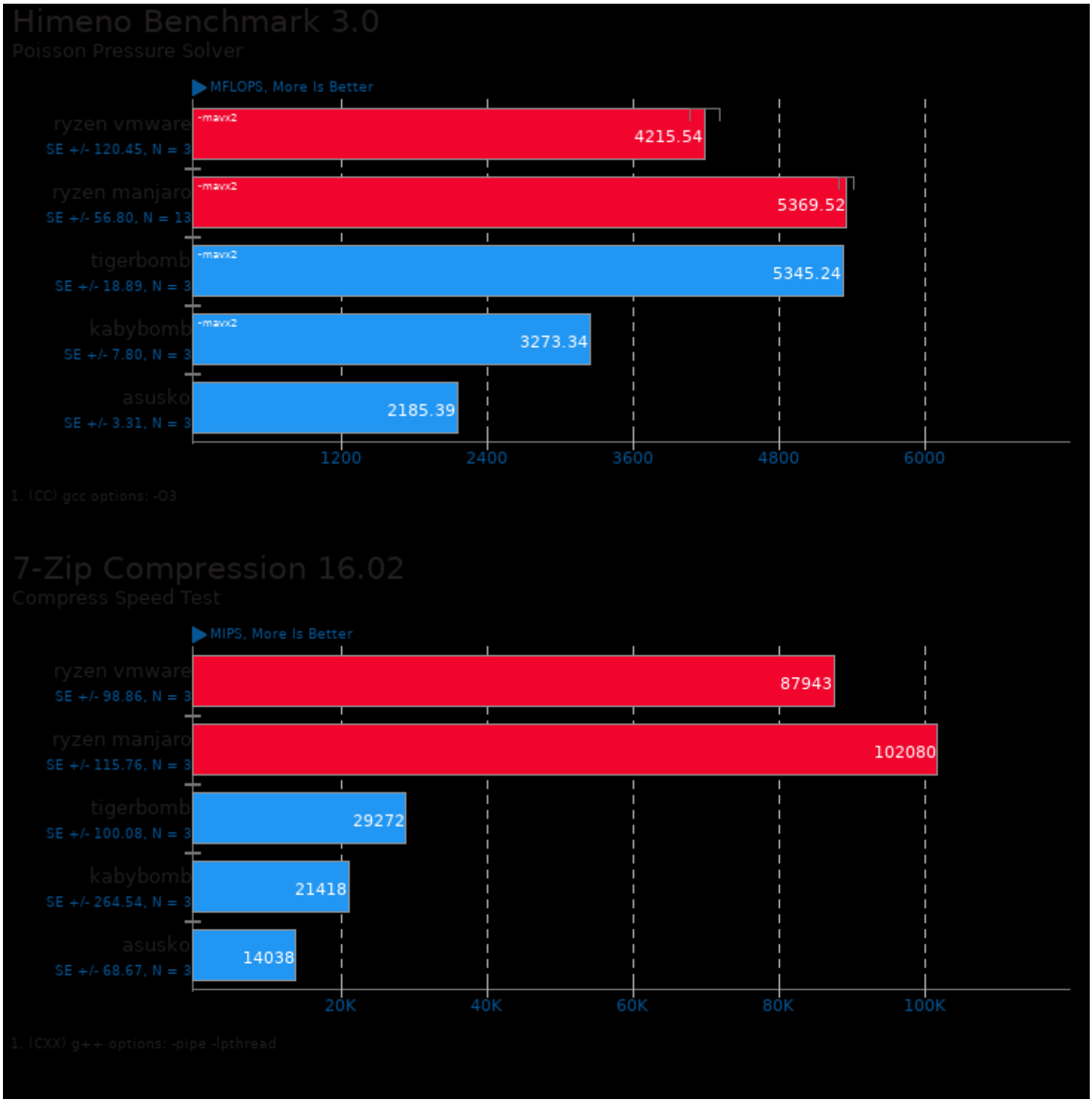

Botan 2.17.3
Test: CAST-256 - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 0.30, N = 3
174.06
ryzen manjaro
SE +/- 0.40, N = 3
174.78
tigerbomb
SE +/- 0.52, N = 3
145.64
kabybomb
SE +/- 0.06, N = 3
137.21
asusko
SE +/- 0.11, N = 3
76.28
40
80
120
160
200
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

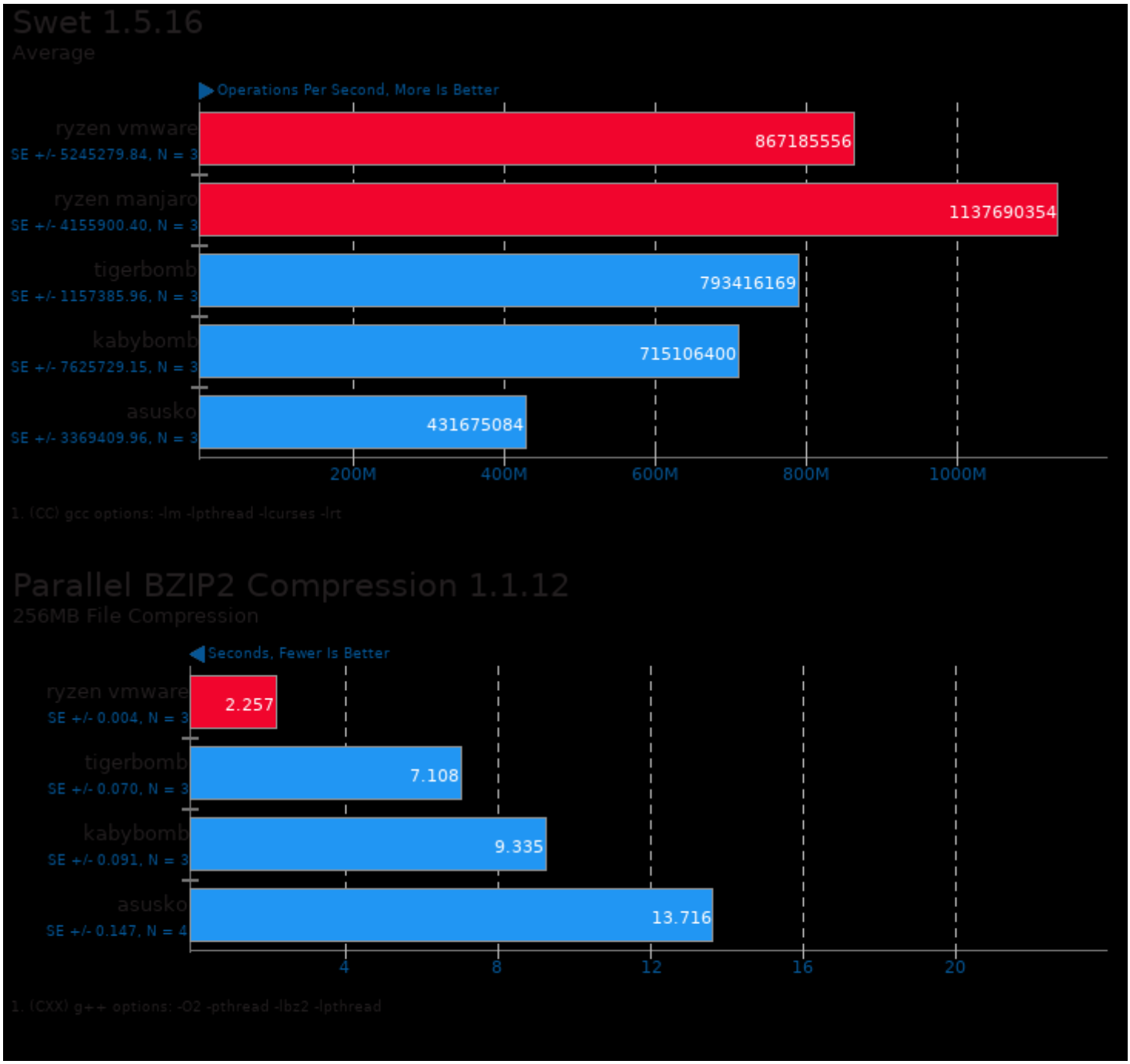
Botan 2.17.3
Test: ChaCha20Poly1305
MiB/s, More Is Better
ryzen vmware
SE +/- 0.59, N = 3
1000.30
ryzen manjaro
SE +/- 2.67, N = 3
990.27
tigerbomb
SE +/- 1.67, N = 3
956.97
kabybomb
SE +/- 4.95, N = 3
756.50
asusko
SE +/- 0.29, N = 3
305.75
200
400
600
800
1000
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

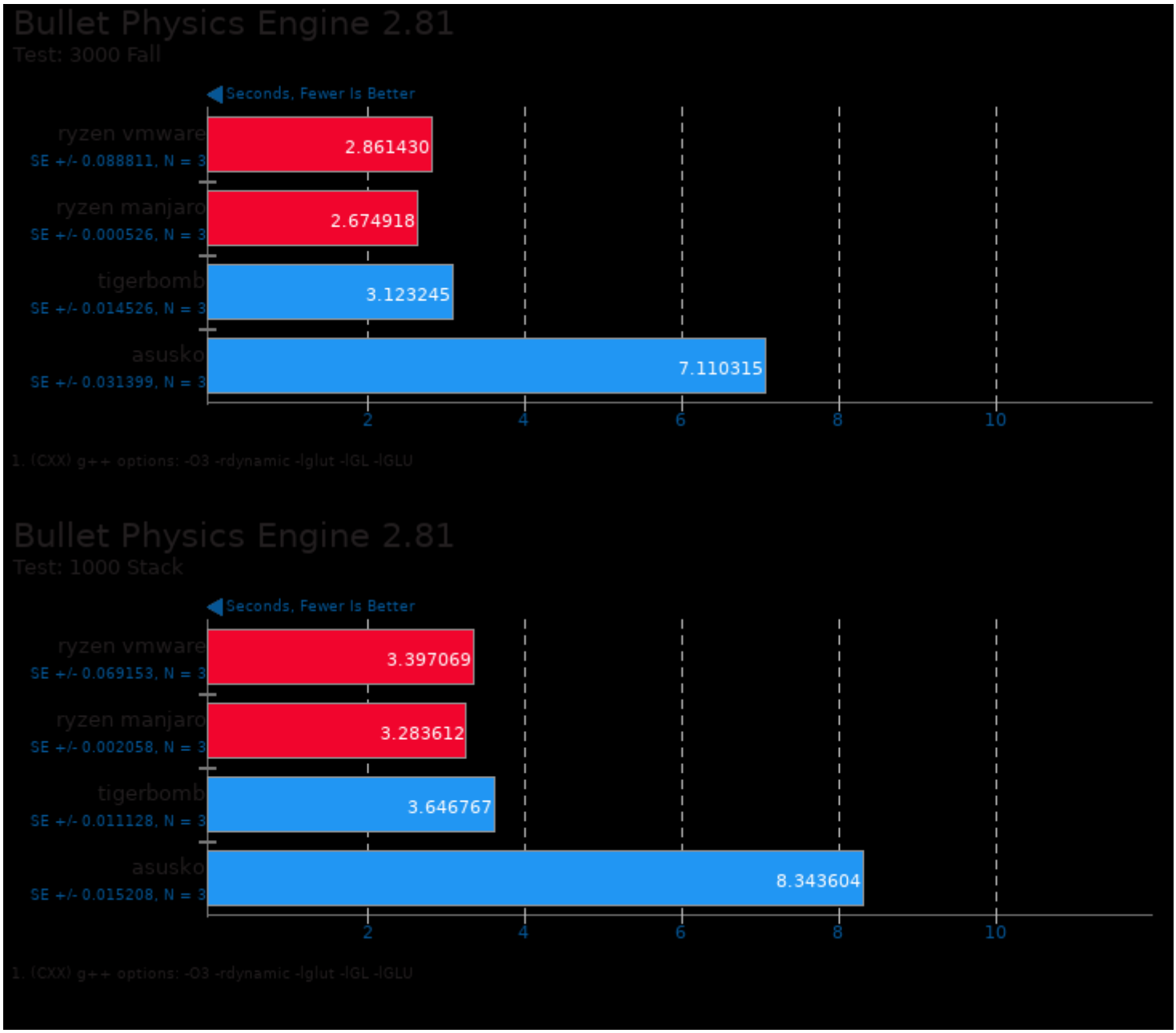

Botan 2.17.3
Test: ChaCha20Poly1305 - Decrypt
MiB/s, More Is Better
ryzen vmware
SE +/- 0.85, N = 3
983.75
ryzen manjaro
SE +/- 2.41, N = 3
971.16
tigerbomb
SE +/- 0.99, N = 3
948.28
kabybomb
SE +/- 9.62, N = 3
745.19
asusko
SE +/- 0.34, N = 3
303.64
200
400
600
800
1000
1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt
TSCP 1.81
AI Chess Performance
Nodes Per Second, More Is Better
ryzen vmware
SE +/- 5569.20, N = 5
2020523
ryzen manjaro
SE +/- 1803.56, N = 5
2013083
tigerbomb
SE +/- 1212.99, N = 5
1652006
kabybomb
SE +/- 1940.45, N = 5
1229427
asusko
SE +/- 1117.70, N = 5
784590
400K
800K
1200K
1600K
2000K
1. (CC) gcc options: -O3 -march=native

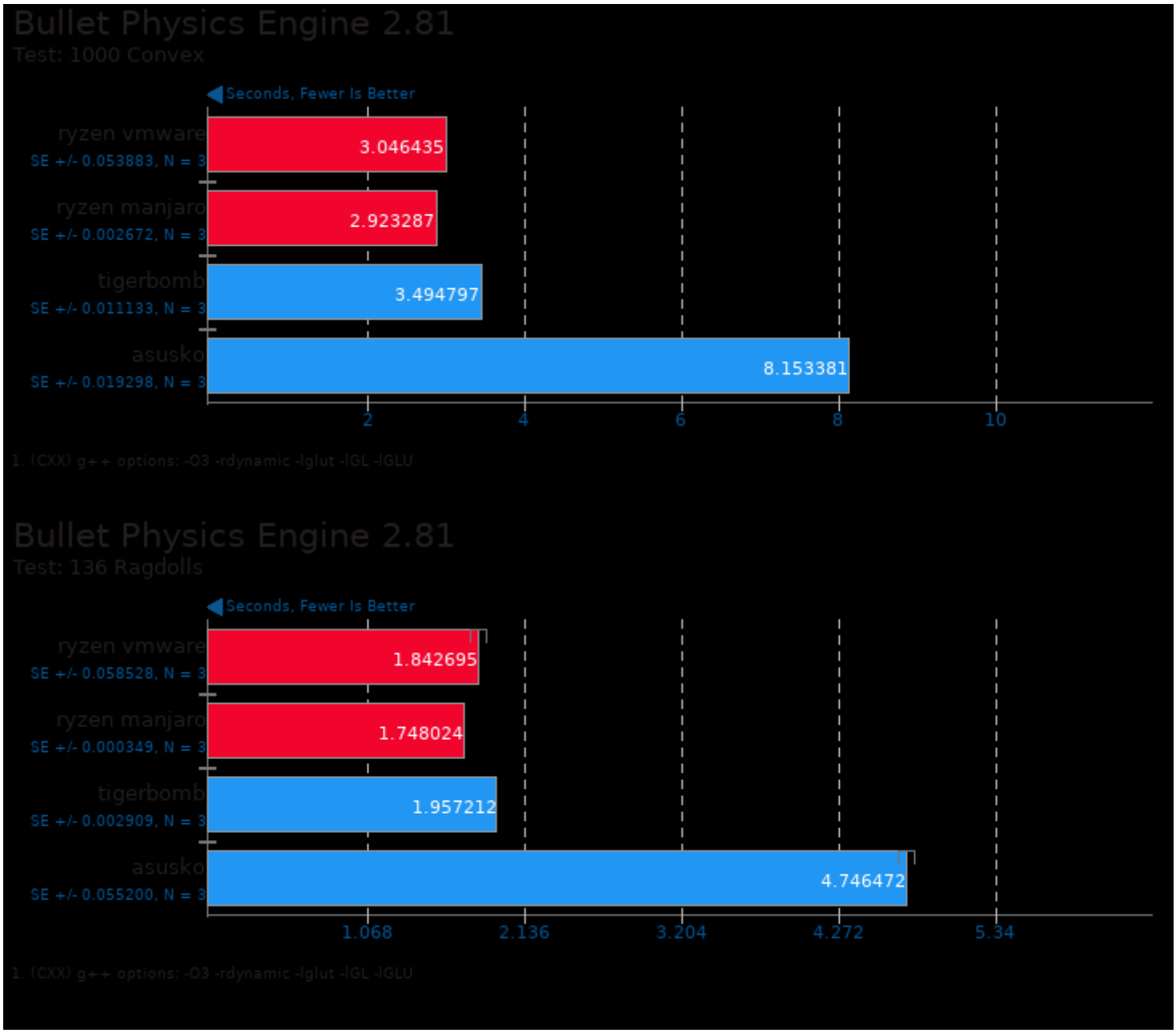

dav1d 0.9.0
Video Input: Summer Nature 1080p
FPS, More Is Better
ryzen vmware
SE +/- 1.91, N = 3
MIN: 610.95 / MAX: 883.86
813.99
ryzen manjaro
SE +/- 2.31, N = 3
-lm - MIN: 746.25 / MAX: 1010.18
926.17
tigerbomb
SE +/- 0.47, N = 3
-lm - MIN: 357.32 / MAX: 423.94
386.16
kabybomb
SE +/- 0.54, N = 3
-lm - MIN: 273.78 / MAX: 323.89
294.93
asusko
SE +/- 0.29, N = 3
-lm - MIN: 131.96 / MAX: 161.28
147.48
200
400
600
800
1000
1. (CC) gcc options: -pthread
x264 2019-12-17
H.264 Video Encoding
Frames Per Second, More Is Better
ryzen vmware
SE +/- 0.08, N = 3
170.63
ryzen manjaro
SE +/- 1.23, N = 3
-llsmash -lavformat -lavcodec -lavutil -lswscale
187.36
tigerbomb
SE +/- 0.56, N = 3
-llsmash -lavformat -lavcodec -lavutil -lswscale
51.17
kabybomb
SE +/- 0.16, N = 3
-llsmash -lavformat -lavcodec -lavutil -lswscale
36.77
asusko
SE +/- 0.22, N = 3
-llsmash -lavformat -lavcodec -lavutil -lswscale
20.18
40
80
120
160
200
1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -ffast-math -std=gnu99 -fPIC -fomit-frame-pointer -fno-tree-vectorize

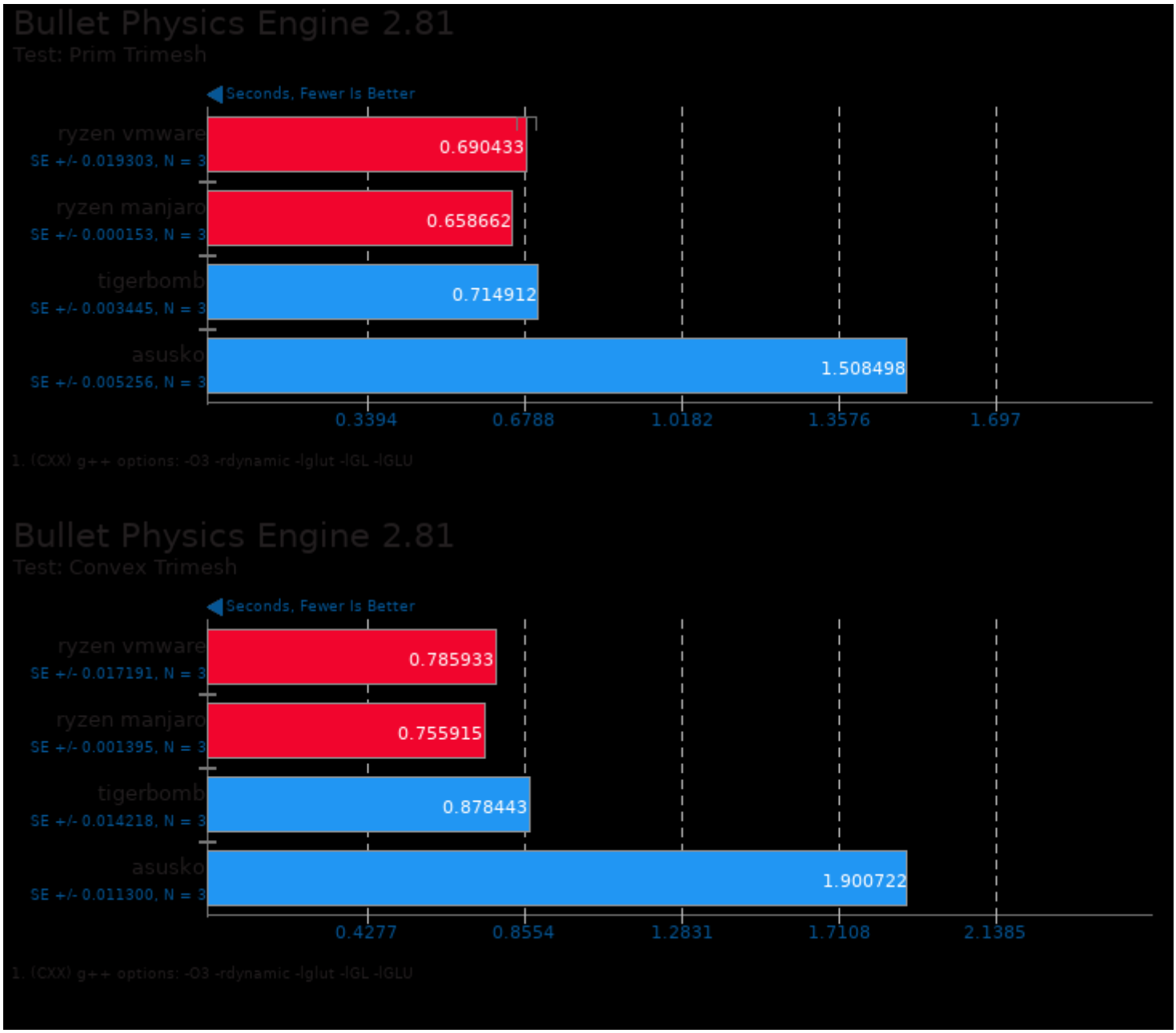

x265 3.4
Video Input: Bosphorus 1080p
Frames Per Second, More Is Better
ryzen vmware
SE +/- 0.36, N = 3
85.22
ryzen manjaro
SE +/- 0.54, N = 3
-lnuma
87.35
tigerbomb
SE +/- 0.87, N = 3
38.37
kabybomb
SE +/- 0.01, N = 3
27.61
asusko
SE +/- 0.13, N = 3
-lnuma
13.70
20
40
60
80
100
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl
Coremark 1.0
CoreMark Size 666 - Iterations Per Second
Iterations/Sec, More Is Better
ryzen vmware
SE +/- 708.52, N = 3
680863.27
ryzen manjaro
SE +/- 1832.19, N = 3
679030.98
tigerbomb
SE +/- 191.20, N = 3
174008.03
kabybomb
SE +/- 691.95, N = 3
130694.24
asusko
SE +/- 46.42, N = 3
88632.89
150K
300K
450K
600K
750K
1. (CC) gcc options: -O2 -lrt" -lrt

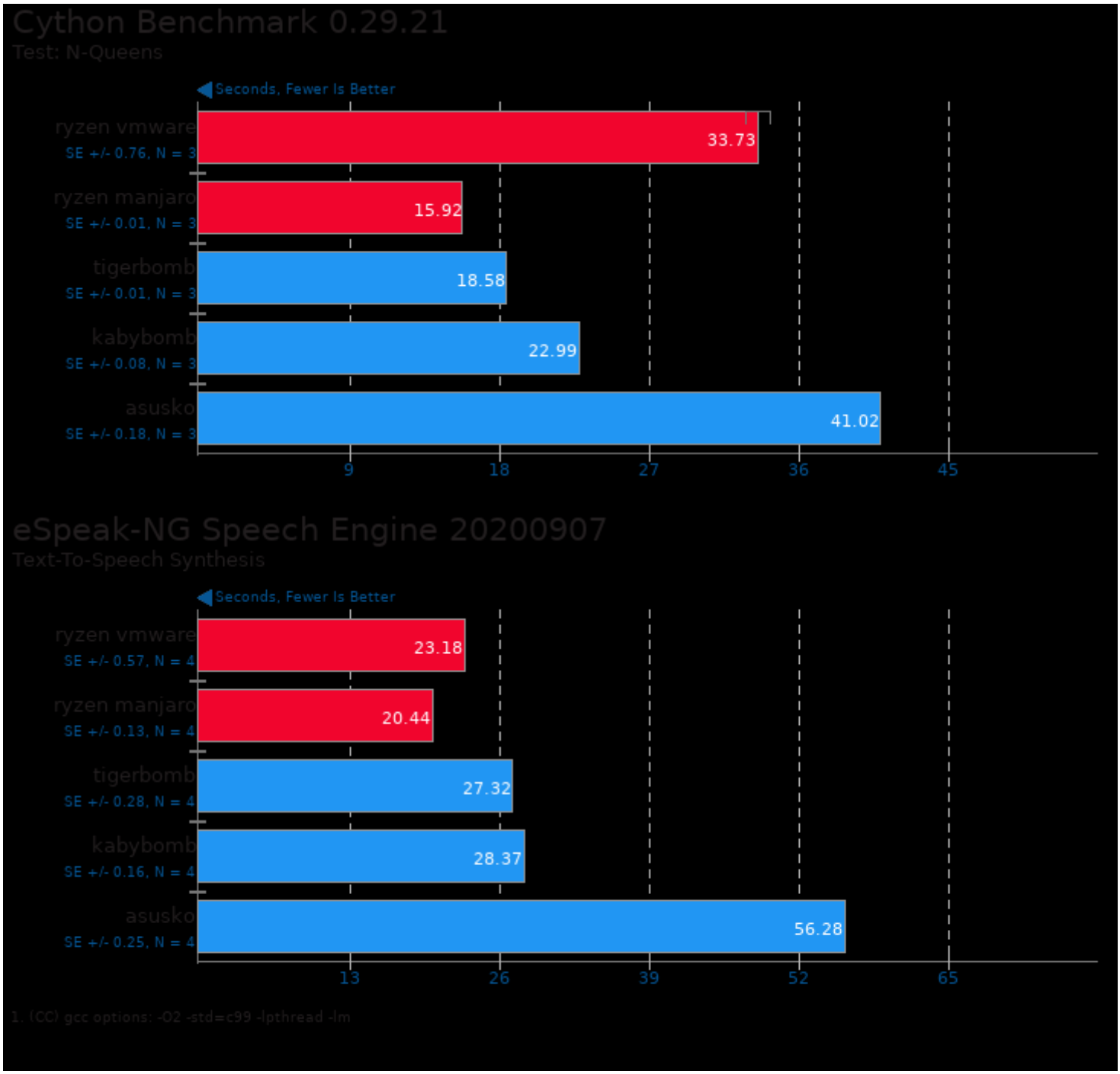

Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
ryzen vmware
SE +/- 120.45, N = 3
-mavx2
4215.54
ryzen manjaro
SE +/- 56.80, N = 13
-mavx2
5369.52
tigerbomb
SE +/- 18.89, N = 3
-mavx2
5345.24
kabybomb
SE +/- 7.80, N = 3
-mavx2
3273.34
asusko
SE +/- 3.31, N = 3
2185.39
1200
2400
3600
4800
6000
1. (CC) gcc options: -O3
7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
ryzen vmware
SE +/- 98.86, N = 3
87943
ryzen manjaro
SE +/- 115.76, N = 3
102080
tigerbomb
SE +/- 100.08, N = 3
29272
kabybomb
SE +/- 264.54, N = 3
21418
asusko
SE +/- 68.67, N = 3
14038
20K
40K
60K
80K
100K
1. (CXX) g++ options: -pipe -lpthread

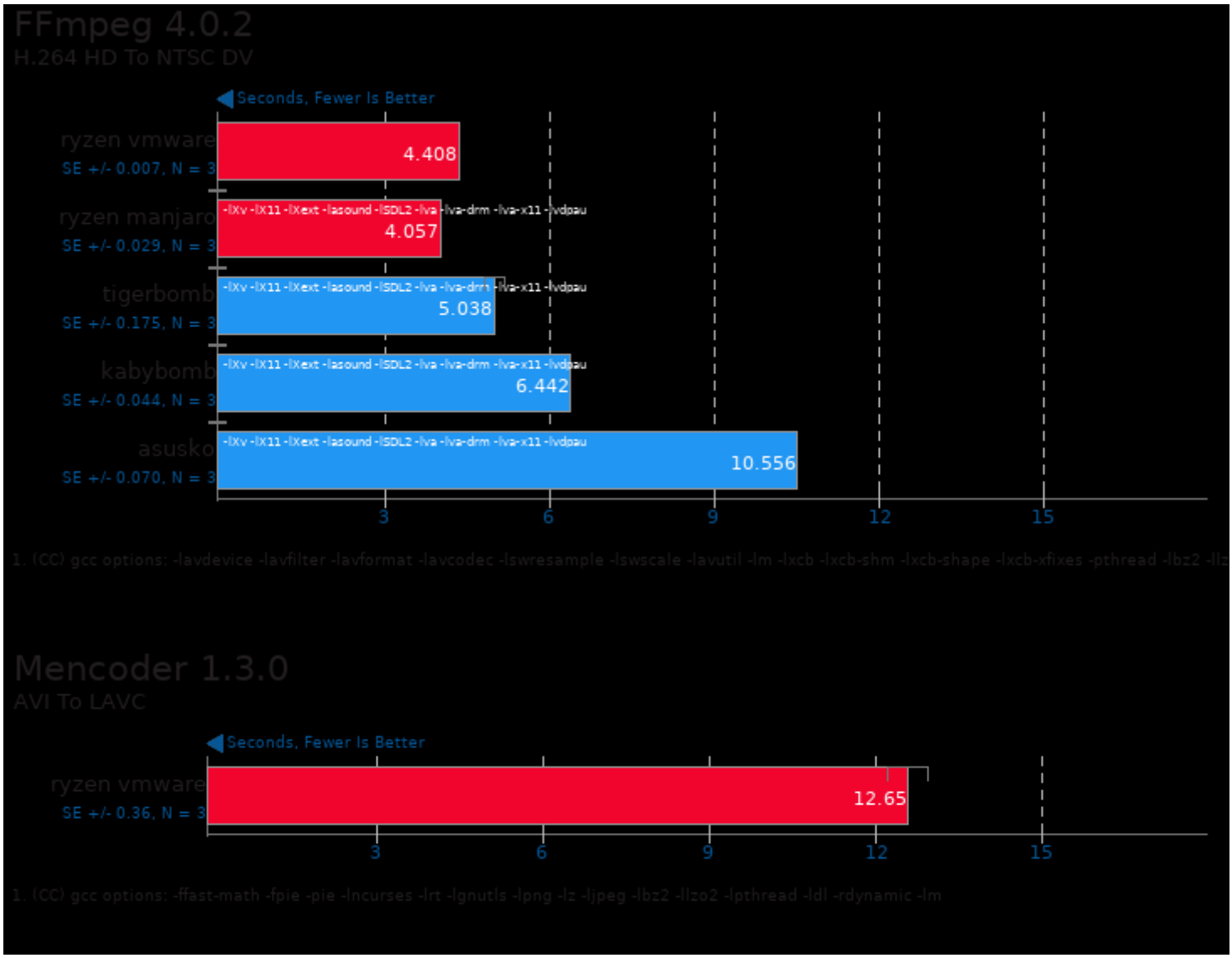

Swet 1.5.16
Average
Operations Per Second, More Is Better
ryzen vmware
SE +/- 5245279.84, N = 3
867185556
ryzen manjaro
SE +/- 4155900.40, N = 3
1137690354
tigerbomb
SE +/- 1157385.96, N = 3
793416169
kabybomb
SE +/- 7625729.15, N = 3
715106400
asusko
SE +/- 3369409.96, N = 3
431675084
200M
400M
600M
800M
1000M
1. (CC) gcc options: -lm -lpthread -lcurses -lrt
Parallel BZIP2 Compression 1.1.12
256MB File Compression
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.004, N = 3
2.257
tigerbomb
SE +/- 0.070, N = 3
7.108
kabybomb
SE +/- 0.091, N = 3
9.335
asusko
SE +/- 0.147, N = 4
13.716
4
8
12
16
20
1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

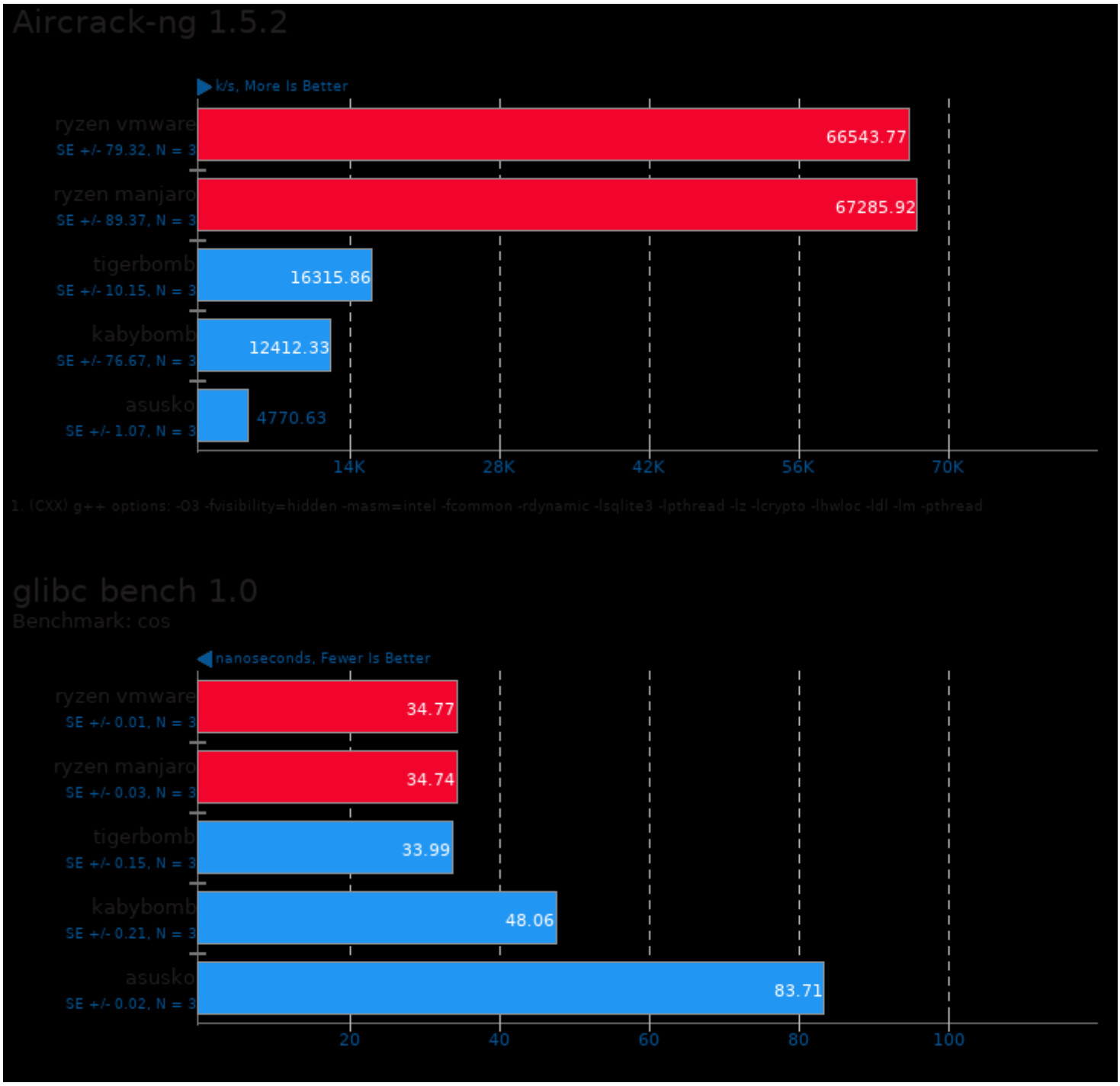

Bullet Physics Engine 2.81
Test: 3000 Fall
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.088811, N = 3
2.861430
ryzen manjaro
SE +/- 0.000526, N = 3
2.674918
tigerbomb
SE +/- 0.014526, N = 3
3.123245
asusko
SE +/- 0.031399, N = 3
7.110315
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU
Bullet Physics Engine 2.81
Test: 1000 Stack
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.069153, N = 3
3.397069
ryzen manjaro
SE +/- 0.002058, N = 3
3.283612
tigerbomb
SE +/- 0.011128, N = 3
3.646767
asusko
SE +/- 0.015208, N = 3
8.343604
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

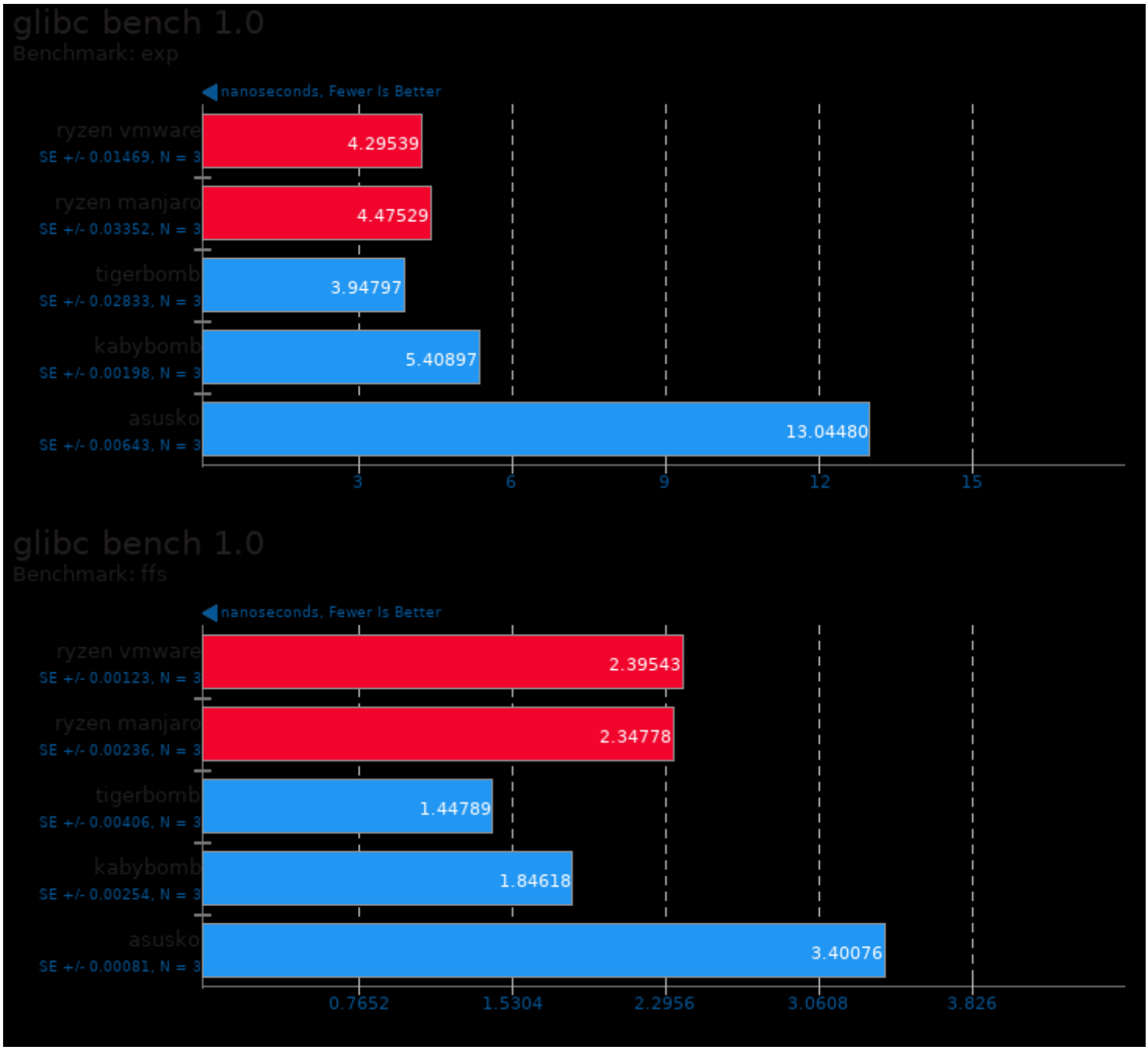

Bullet Physics Engine 2.81
Test: 1000 Convex
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.053883, N = 3
3.046435
ryzen manjaro
SE +/- 0.002672, N = 3
2.923287
tigerbomb
SE +/- 0.011133, N = 3
3.494797
asusko
SE +/- 0.019298, N = 3
8.153381
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU
Bullet Physics Engine 2.81
Test: 136 Ragdolls
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.058528, N = 3
1.842695
ryzen manjaro
SE +/- 0.000349, N = 3
1.748024
tigerbomb
SE +/- 0.002909, N = 3
1.957212
asusko
SE +/- 0.055200, N = 3
4.746472
1.068
2.136
3.204
4.272
5.34
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU


Bullet Physics Engine 2.81
Test: Prim Trimesh
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.019303, N = 3
0.690433
ryzen manjaro
SE +/- 0.000153, N = 3
0.658662
tigerbomb
SE +/- 0.003445, N = 3
0.714912
asusko
SE +/- 0.005256, N = 3
1.508498
0.3394
0.6788
1.0182
1.3576
1.697
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU
Bullet Physics Engine 2.81
Test: Convex Trimesh
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.017191, N = 3
0.785933
ryzen manjaro
SE +/- 0.001395, N = 3
0.755915
tigerbomb
SE +/- 0.014218, N = 3
0.878443
asusko
SE +/- 0.011300, N = 3
1.900722
0.4277
0.8554
1.2831
1.7108
2.1385
1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

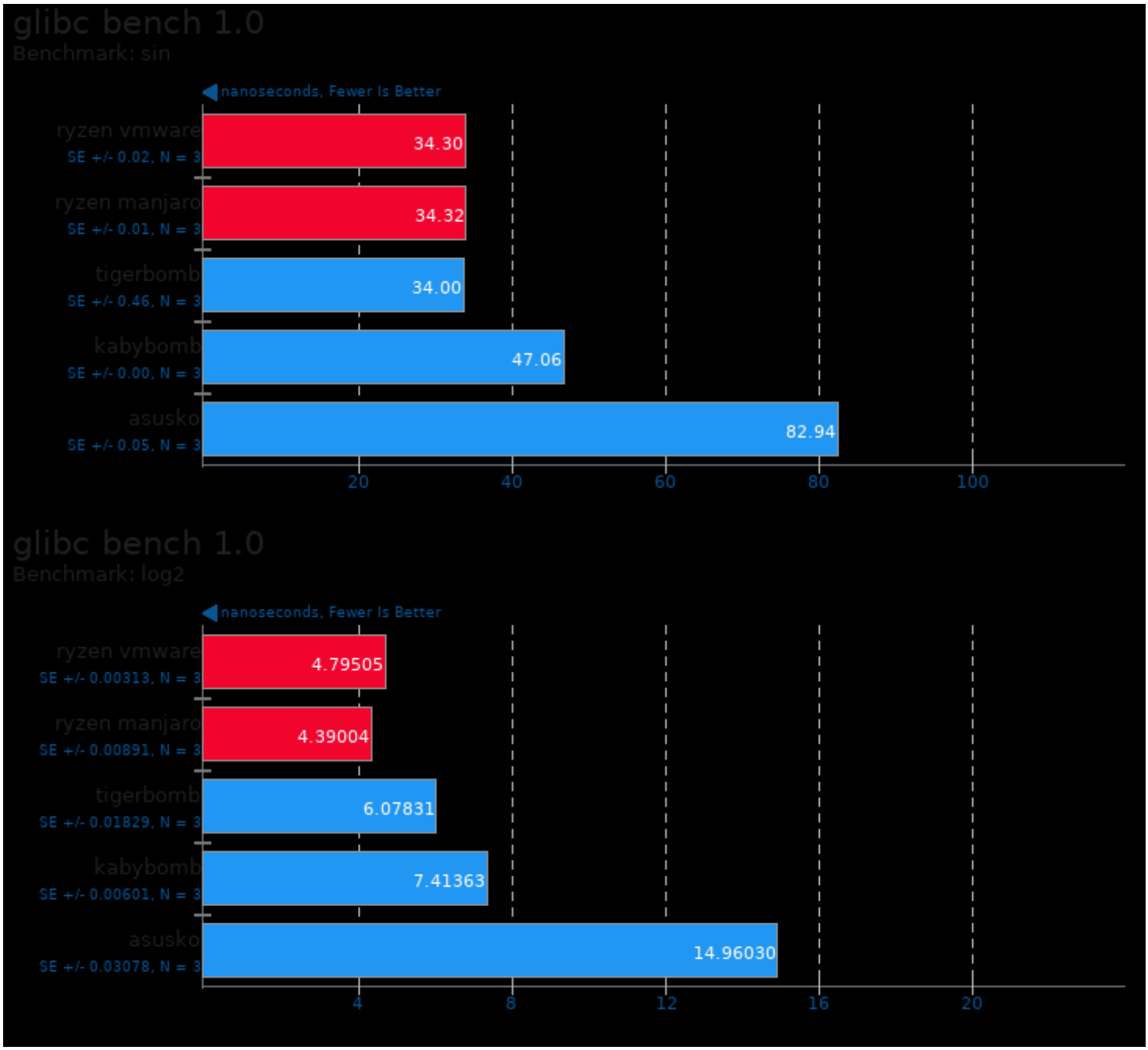

Cython Benchmark 0.29.21
Test: N-Queens
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.76, N = 3
33.73
ryzen manjaro
SE +/- 0.01, N = 3
15.92
tigerbomb
SE +/- 0.01, N = 3
18.58
kabybomb
SE +/- 0.08, N = 3
22.99
asusko
SE +/- 0.18, N = 3
41.02
9
18
27
36
45
eSpeak-NG Speech Engine 20200907
Text-To-Speech Synthesis
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.57, N = 4
23.18
ryzen manjaro
SE +/- 0.13, N = 4
20.44
tigerbomb
SE +/- 0.28, N = 4
27.32
kabybomb
SE +/- 0.16, N = 4
28.37
asusko
SE +/- 0.25, N = 4
56.28
13
26
39
52
65
1. (CC) gcc options: -O2 -std=c99 -lpthread -lm


FFmpeg 4.0.2
H.264 HD To NTSC DV
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.007, N = 3
4.408
ryzen manjaro
SE +/- 0.029, N = 3
-lXv -lX11 -lXext -lasound -lSDL2 -lva -lva-drm -lva-x11 -lvdpau
4.057
tigerbomb
SE +/- 0.175, N = 3
-lXv -lX11 -lXext -lasound -lSDL2 -lva -lva-drm -lva-x11 -lvdpau
5.038
kabybomb
SE +/- 0.044, N = 3
-lXv -lX11 -lXext -lasound -lSDL2 -lva -lva-drm -lva-x11 -lvdpau
6.442
asusko
SE +/- 0.070, N = 3
-lXv -lX11 -lXext -lasound -lSDL2 -lva -lva-drm -lva-x11 -lvdpau
10.556
3
6
9
12
15
1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lm -lxcb -lxcb-shm -lxcb-shape -lxcb-xfixes -pthread -lbz2 -ll
Mencoder 1.3.0
AVI To LAVC
Seconds, Fewer Is Better
ryzen vmware
SE +/- 0.36, N = 3
12.65
3
6
9
12
15
1. (CC) gcc options: -ffast-math -fpie -pie -lncurses -lrt -lgnutls -lpng -lz -ljpeg -lbz2 -llzo2 -lpthread -ldl -rdynamic -lm

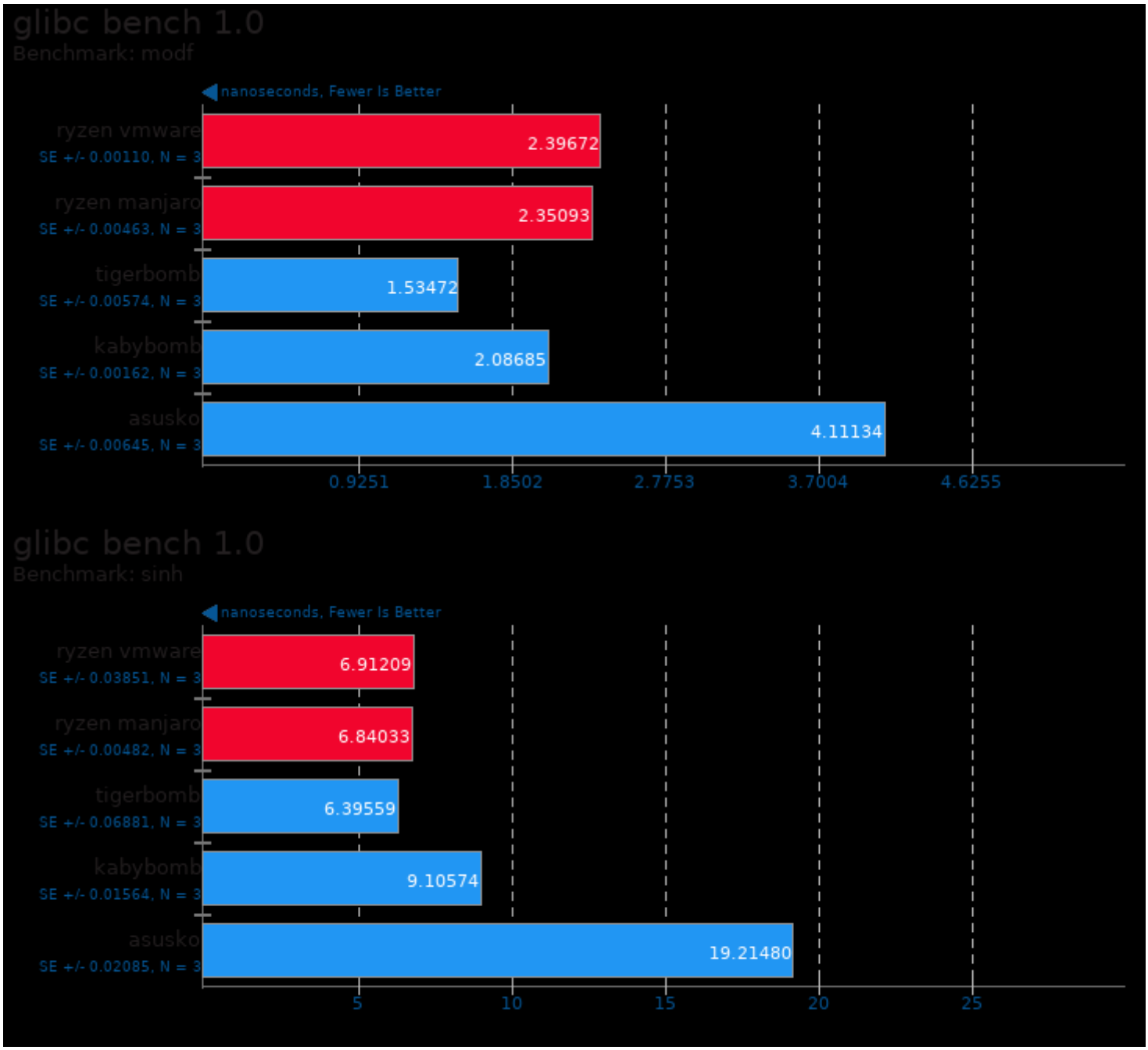

Aircrack-ng 1.5.2
k/s, More Is Better
ryzen vmware
SE +/- 79.32, N = 3
66543.77
ryzen manjaro
SE +/- 89.37, N = 3
67285.92
tigerbomb
SE +/- 10.15, N = 3
16315.86
kabybomb
SE +/- 76.67, N = 3
12412.33
asusko
SE +/- 1.07, N = 3
4770.63
14K
28K
42K
56K
70K
1. (CXX) g++ options: -O3 -fvisibility=hidden -masm=intel -fcommon -rdynamic -lsqlite3 -lpthread -lz -lcrypto -lhwloc -ldl -lm -pthread
glibc bench 1.0
Benchmark: cos
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.01, N = 3
34.77
ryzen manjaro
SE +/- 0.03, N = 3
34.74
tigerbomb
SE +/- 0.15, N = 3
33.99
kabybomb
SE +/- 0.21, N = 3
48.06
asusko
SE +/- 0.02, N = 3
83.71
20
40
60
80
100


glibc bench 1.0
Benchmark: exp
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.01469, N = 3
4.29539
ryzen manjaro
SE +/- 0.03352, N = 3
4.47529
tigerbomb
SE +/- 0.02833, N = 3
3.94797
kabybomb
SE +/- 0.00198, N = 3
5.40897
asusko
SE +/- 0.00643, N = 3
13.04480
3
6
9
12
15
glibc bench 1.0
Benchmark: ffs
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.00123, N = 3
2.39543
ryzen manjaro
SE +/- 0.00236, N = 3
2.34778
tigerbomb
SE +/- 0.00406, N = 3
1.44789
kabybomb
SE +/- 0.00254, N = 3
1.84618
asusko
SE +/- 0.00081, N = 3
3.40076
0.7652
1.5304
2.2956
3.0608
3.826

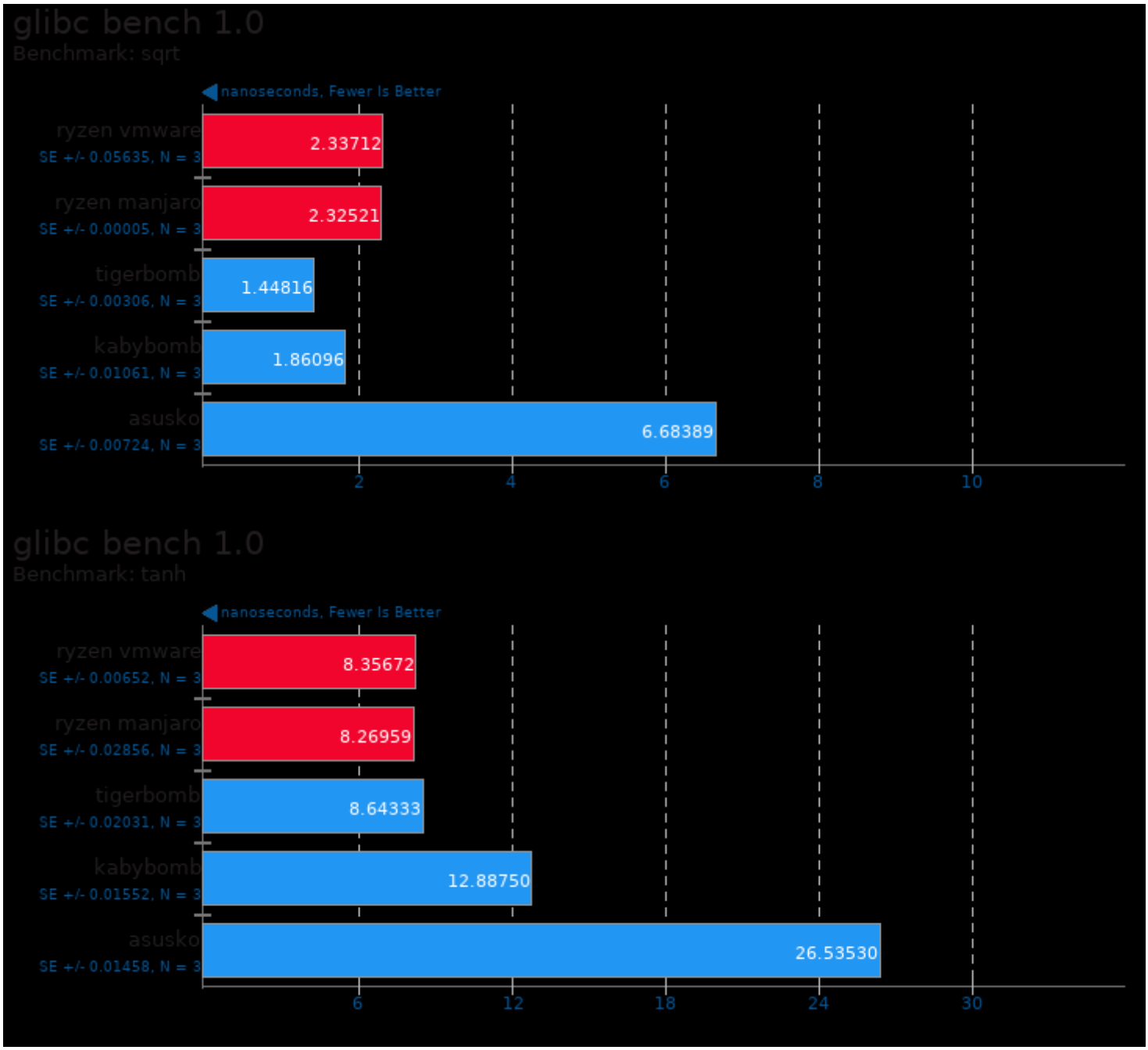
ryzen


glibc bench 1.0
Benchmark: sin
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.02, N = 3
34.30
ryzen manjaro
SE +/- 0.01, N = 3
34.32
tigerbomb
SE +/- 0.46, N = 3
34.00
kabybomb
SE +/- 0.00, N = 3
47.06
asusko
SE +/- 0.05, N = 3
82.94
20
40
60
80
100
glibc bench 1.0
Benchmark: log2
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.00313, N = 3
4.79505
ryzen manjaro
SE +/- 0.00891, N = 3
4.39004
tigerbomb
SE +/- 0.01829, N = 3
6.07831
kabybomb
SE +/- 0.00601, N = 3
7.41363
asusko
SE +/- 0.03078, N = 3
14.96030
4
8
12
16
20

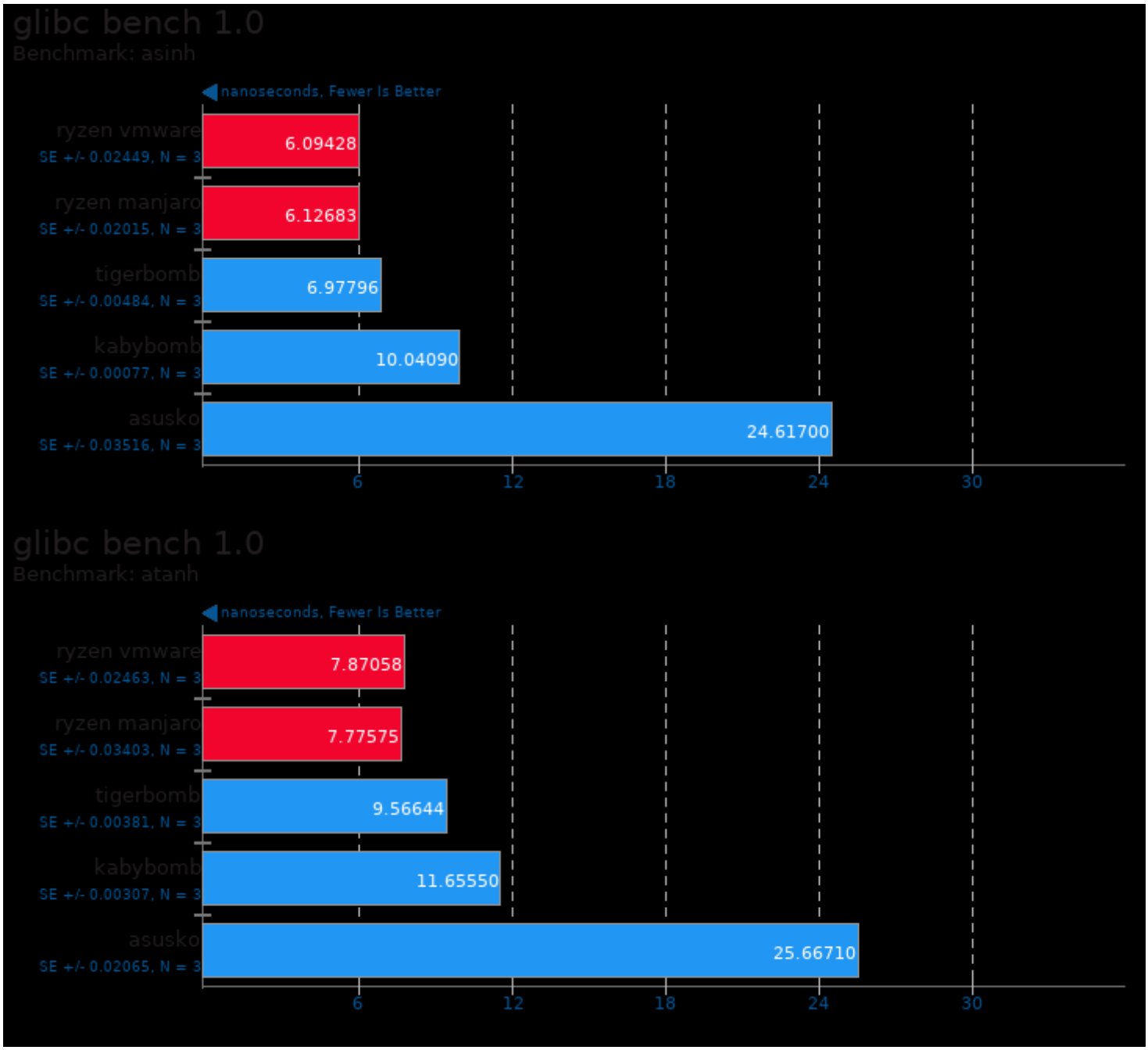
ryzen

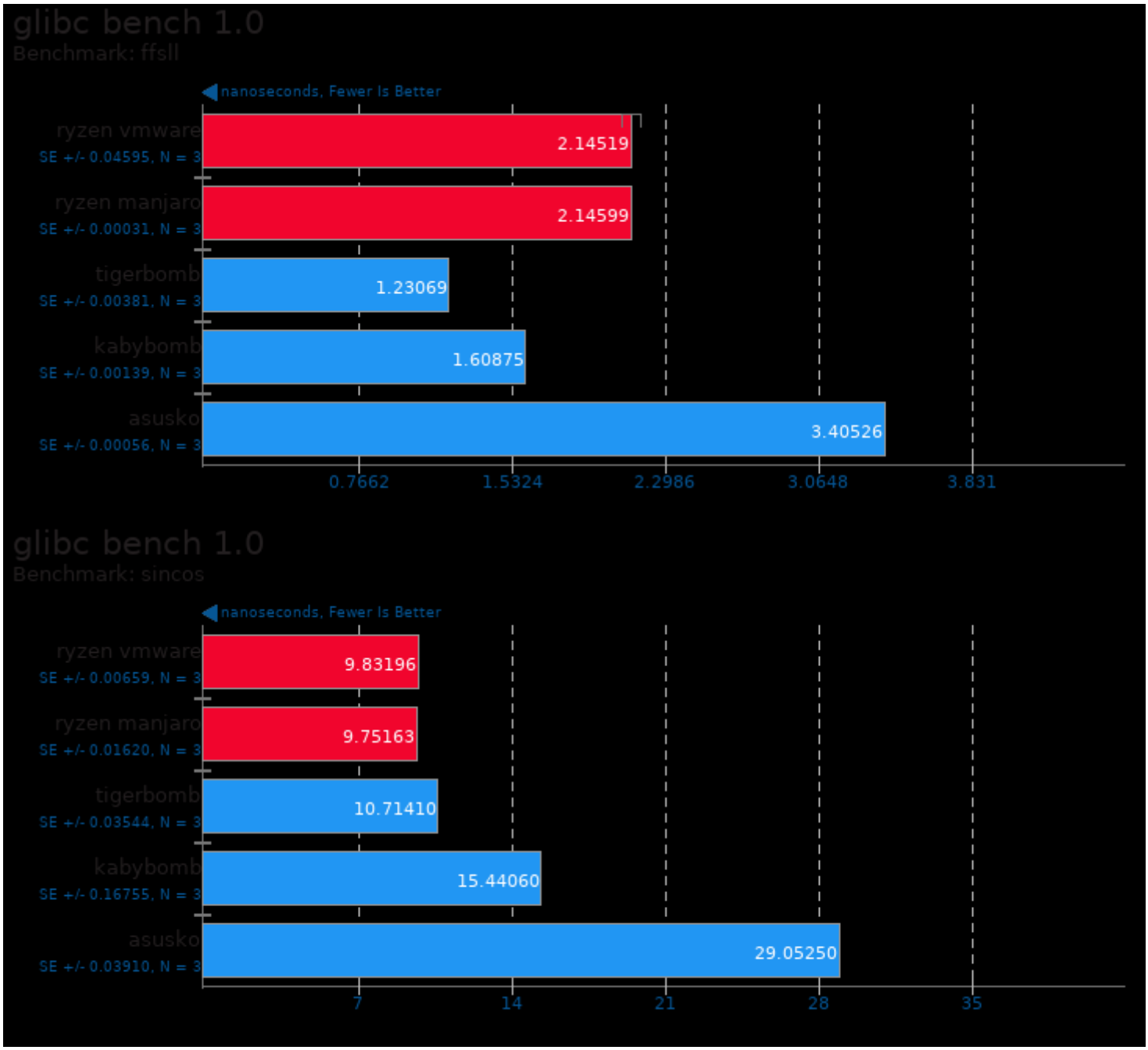

glibc bench 1.0
Benchmark: modf
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.00110, N = 3
2.39672
ryzen manjaro
SE +/- 0.00463, N = 3
2.35093
tigerbomb
SE +/- 0.00574, N = 3
1.53472
kabybomb
SE +/- 0.00162, N = 3
2.08685
asusko
SE +/- 0.00645, N = 3
4.11134
0.9251
1.8502
2.7753
3.7004
4.6255
glibc bench 1.0
Benchmark: sinh
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.03851, N = 3
6.91209
ryzen manjaro
SE +/- 0.00482, N = 3
6.84033
tigerbomb
SE +/- 0.06881, N = 3
6.39559
kabybomb
SE +/- 0.01564, N = 3
9.10574
asusko
SE +/- 0.02085, N = 3
19.21480
5
10
15
20
25

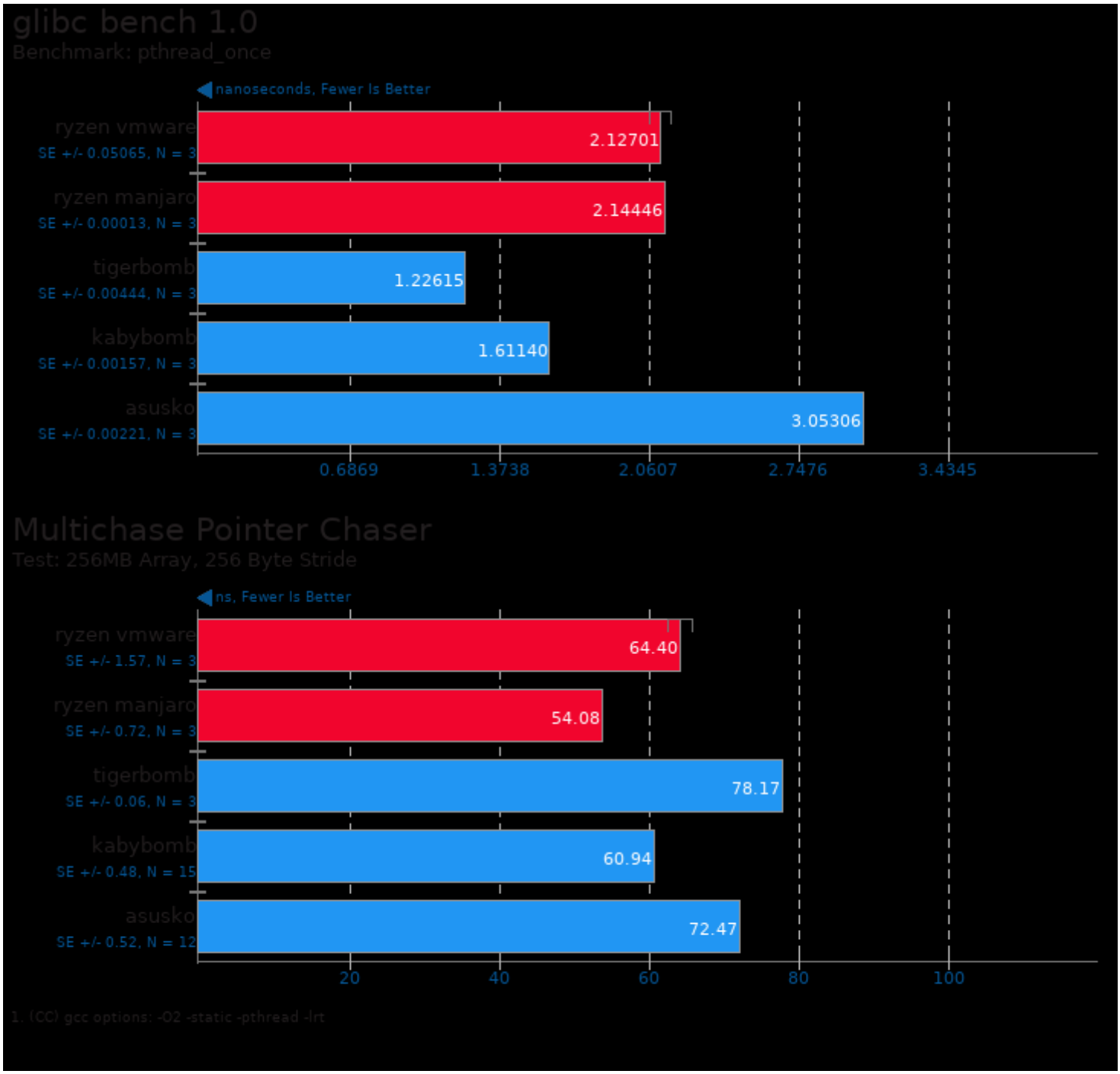
ryzen


glibc bench 1.0
Benchmark: sqrt
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.05635, N = 3
2.33712
ryzen manjaro
SE +/- 0.00005, N = 3
2.32521
tigerbomb
SE +/- 0.00306, N = 3
1.44816
kabybomb
SE +/- 0.01061, N = 3
1.86096
asusko
SE +/- 0.00724, N = 3
6.68389
2
4
6
8
10
glibc bench 1.0
Benchmark: tanh
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.00652, N = 3
8.35672
ryzen manjaro
SE +/- 0.02856, N = 3
8.26959
tigerbomb
SE +/- 0.02031, N = 3
8.64333
kabybomb
SE +/- 0.01552, N = 3
12.88750
asusko
SE +/- 0.01458, N = 3
26.53530
6
12
18
24
30

ryzen

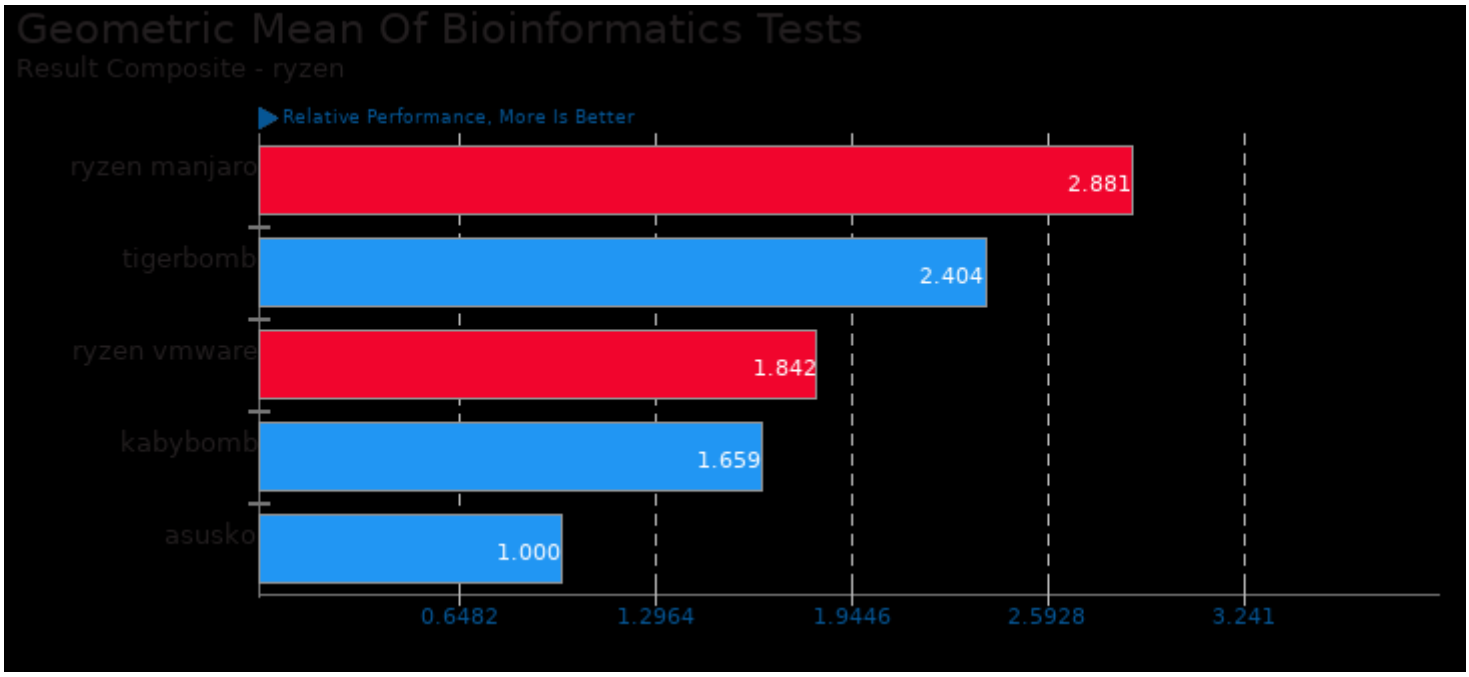

glibc bench 1.0
Benchmark: asinh
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.02449, N = 3
6.09428
ryzen manjaro
SE +/- 0.02015, N = 3
6.12683
tigerbomb
SE +/- 0.00484, N = 3
6.97796
kabybomb
SE +/- 0.00077, N = 3
10.04090
asusko
SE +/- 0.03516, N = 3
24.61700
6
12
18
24
30
glibc bench 1.0
Benchmark: atanh
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.02463, N = 3
7.87058
ryzen manjaro
SE +/- 0.03403, N = 3
7.77575
tigerbomb
SE +/- 0.00381, N = 3
9.56644
kabybomb
SE +/- 0.00307, N = 3
11.65550
asusko
SE +/- 0.02065, N = 3
25.66710
6
12
18
24
30


glibc bench 1.0
Benchmark: ffsll
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.04595, N = 3
2.14519
ryzen manjaro
SE +/- 0.00031, N = 3
2.14599
tigerbomb
SE +/- 0.00381, N = 3
1.23069
kabybomb
SE +/- 0.00139, N = 3
1.60875
asusko
SE +/- 0.00056, N = 3
3.40526
0.7662
1.5324
2.2986
3.0648
3.831
glibc bench 1.0
Benchmark: sincos
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.00659, N = 3
9.83196
ryzen manjaro
SE +/- 0.01620, N = 3
9.75163
tigerbomb
SE +/- 0.03544, N = 3
10.71410
kabybomb
SE +/- 0.16755, N = 3
15.44060
asusko
SE +/- 0.03910, N = 3
29.05250
7
14
21
28
35

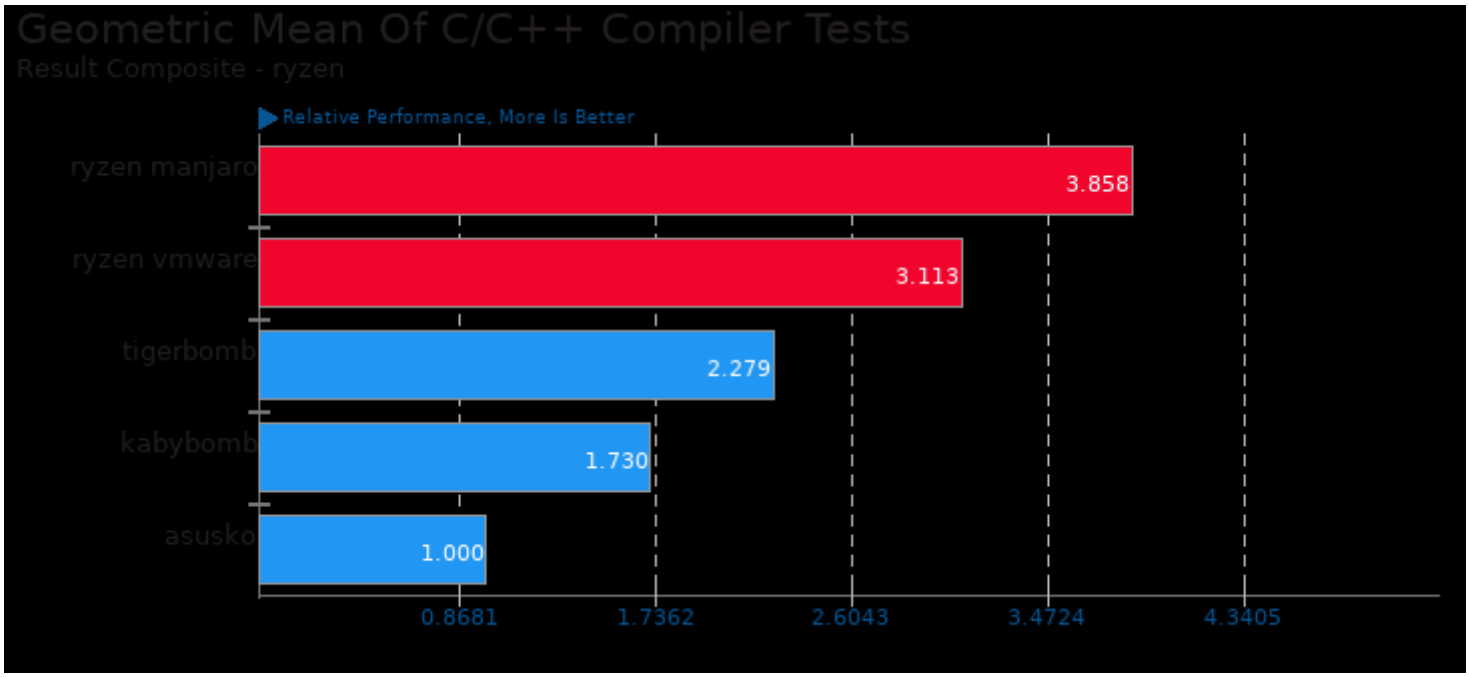

glibc bench 1.0
Benchmark: pthread_once
nanoseconds, Fewer Is Better
ryzen vmware
SE +/- 0.05065, N = 3
2.12701
ryzen manjaro
SE +/- 0.00013, N = 3
2.14446
tigerbomb
SE +/- 0.00444, N = 3
1.22615
kabybomb
SE +/- 0.00157, N = 3
1.61140
asusko
SE +/- 0.00221, N = 3
3.05306
0.6869
1.3738
2.0607
2.7476
3.4345
Multichase Pointer Chaser
Test: 256MB Array, 256 Byte Stride
ns, Fewer Is Better
ryzen vmware
SE +/- 1.57, N = 3
64.40
ryzen manjaro
SE +/- 0.72, N = 3
54.08
tigerbomb
SE +/- 0.06, N = 3
78.17
kabybomb
SE +/- 0.48, N = 15
60.94
asusko
SE +/- 0.52, N = 12
72.47
20
40
60
80
100
1. (CC) gcc options: -O2 -static -pthread -lrt

ryzen

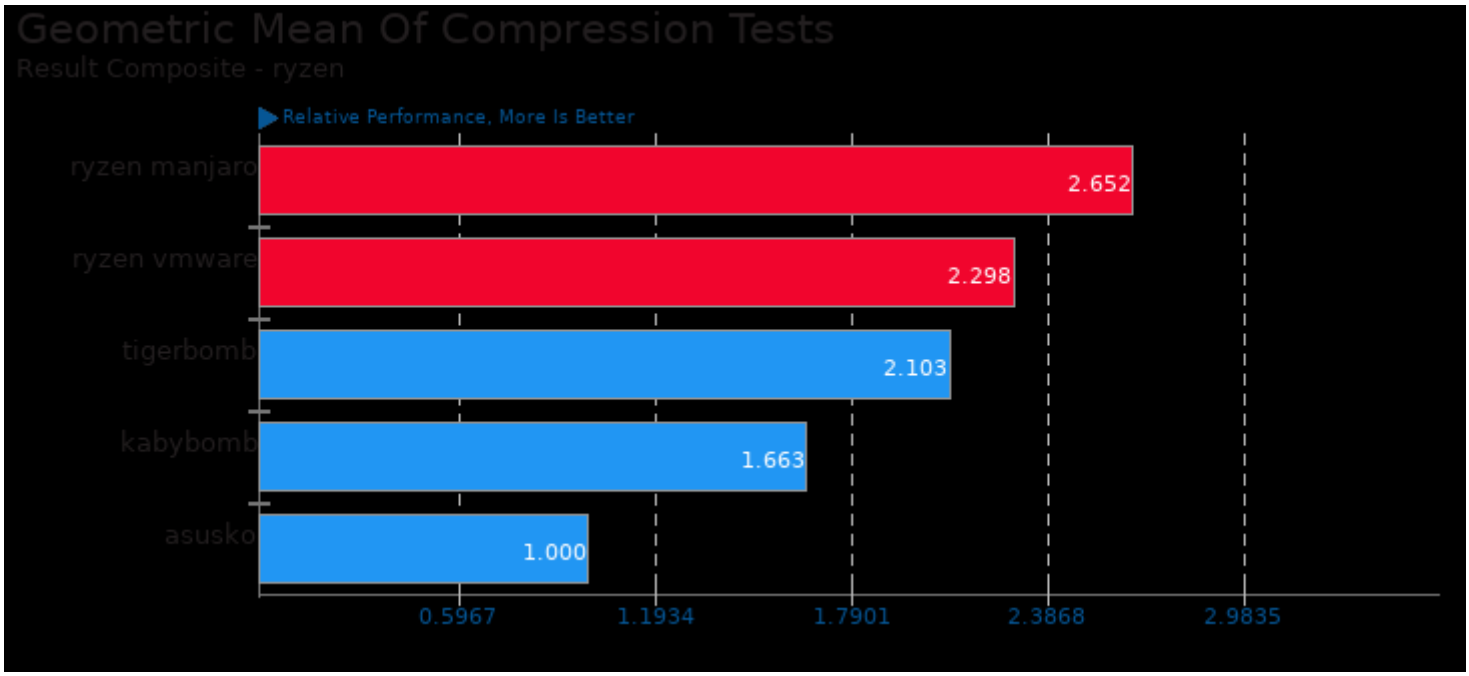
These geometric means are based upon test groupings / test suites for this result file.



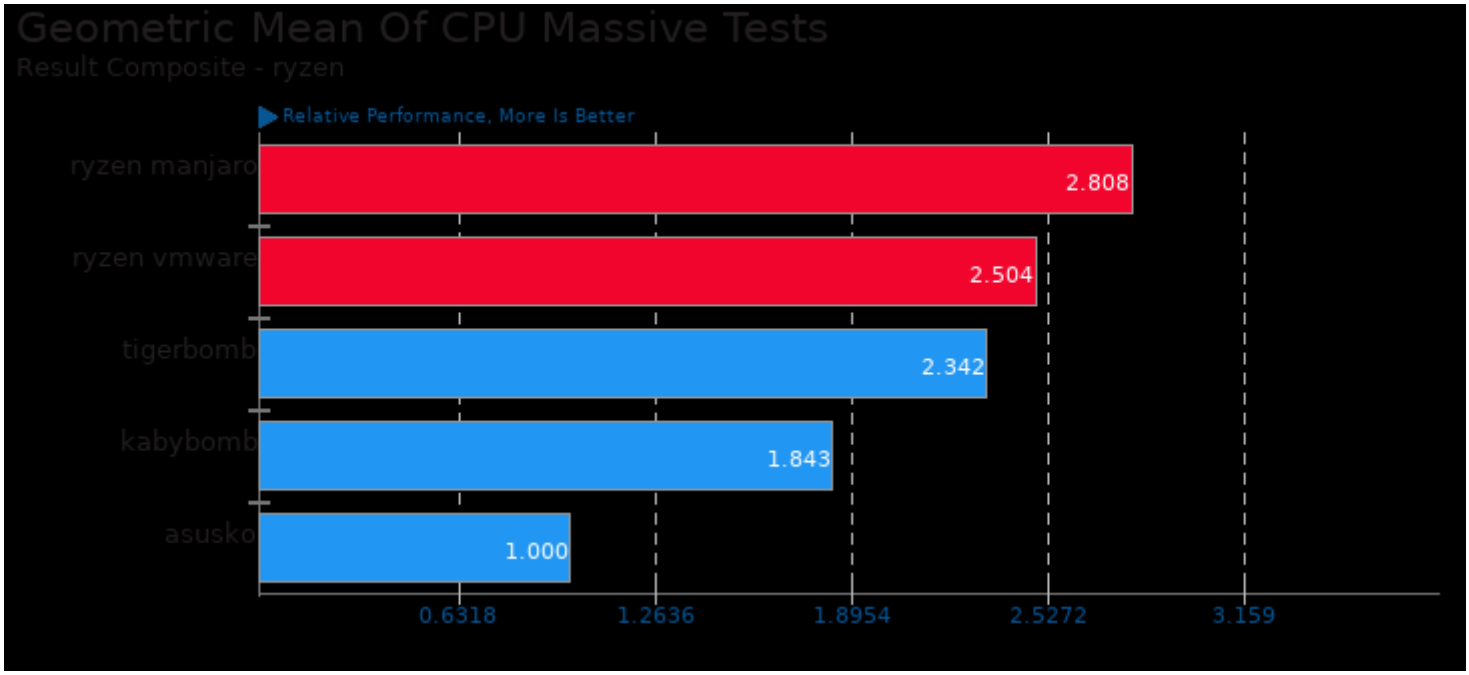
Geometric mean based upon tests: pts/himeno, pts/hmmer and pts/mafft



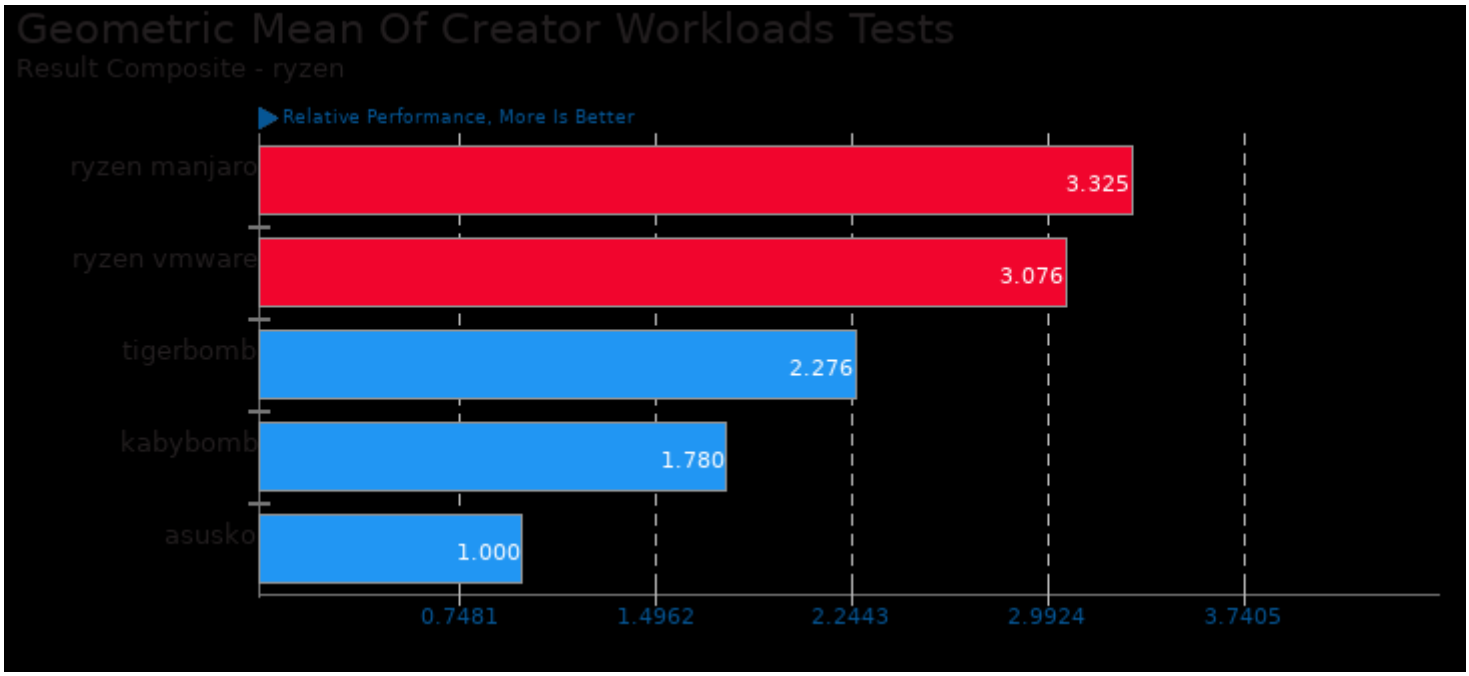
Geometric mean based upon tests: pts/mafft, pts/scimark2, pts/tscp, pts/himeno, pts/hmmer, pts/bullet, pts/compress-7zip, pts/dav1d, pts/x264, pts/x265 and pts/aircrack-ng



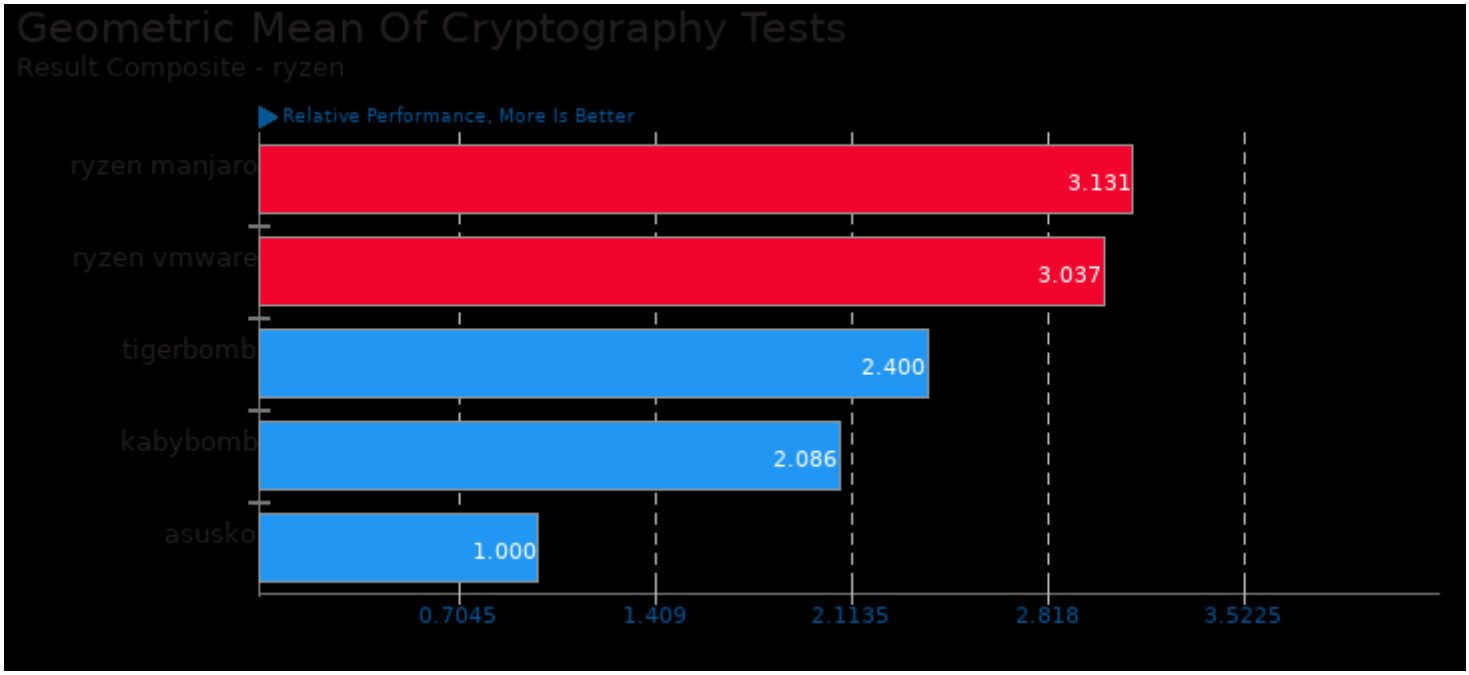
Geometric mean based upon tests: pts/compress-7zip, pts/compress-pbzip2 and pts/lzbench



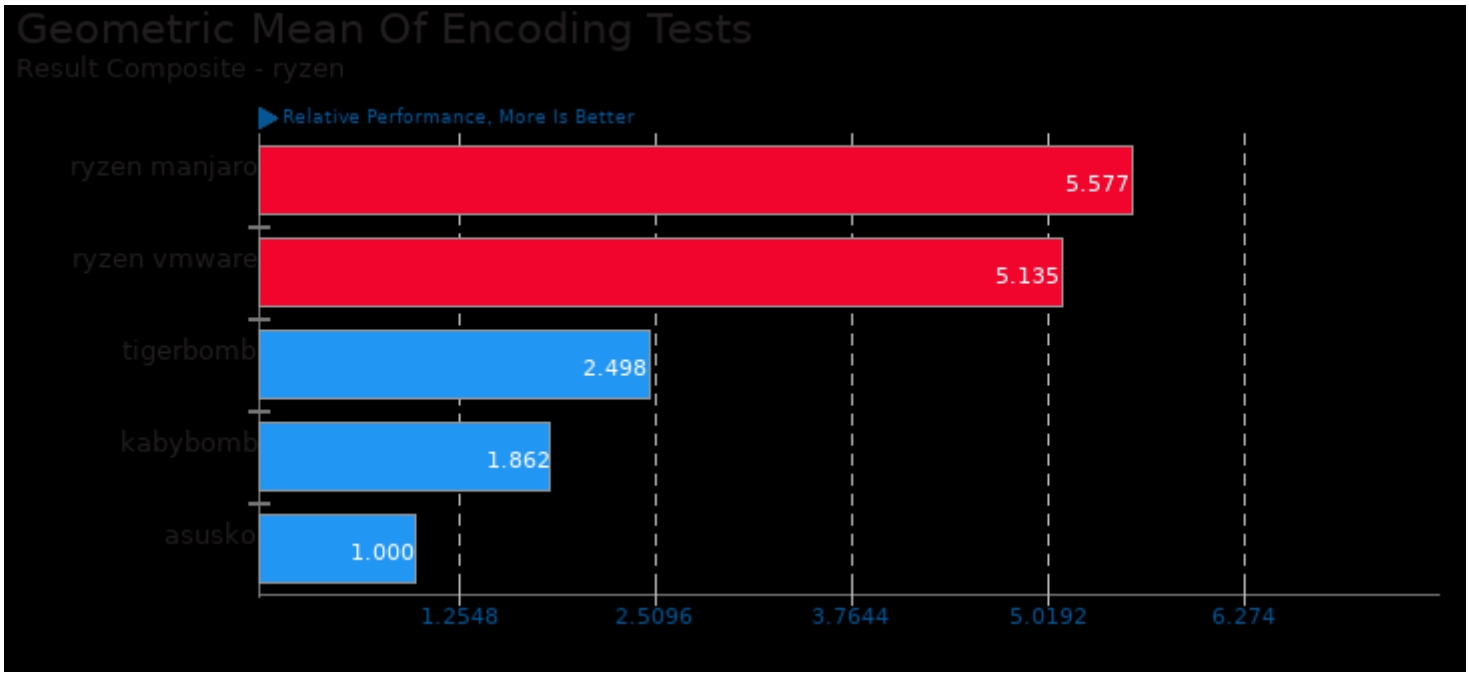
Geometric mean based upon tests: pts/cloverleaf, pts/compress-7zip, pts/compress-pbzip2, pts/cython-bench, pts/dav1d, pts/x264, pts/x265, pts/glibc-bench, pts/himeno, pts/hmmer, pts/java-scimark2, pts/lzbench, pts/mafft, pts/multichase, pts/swet and pts/botan



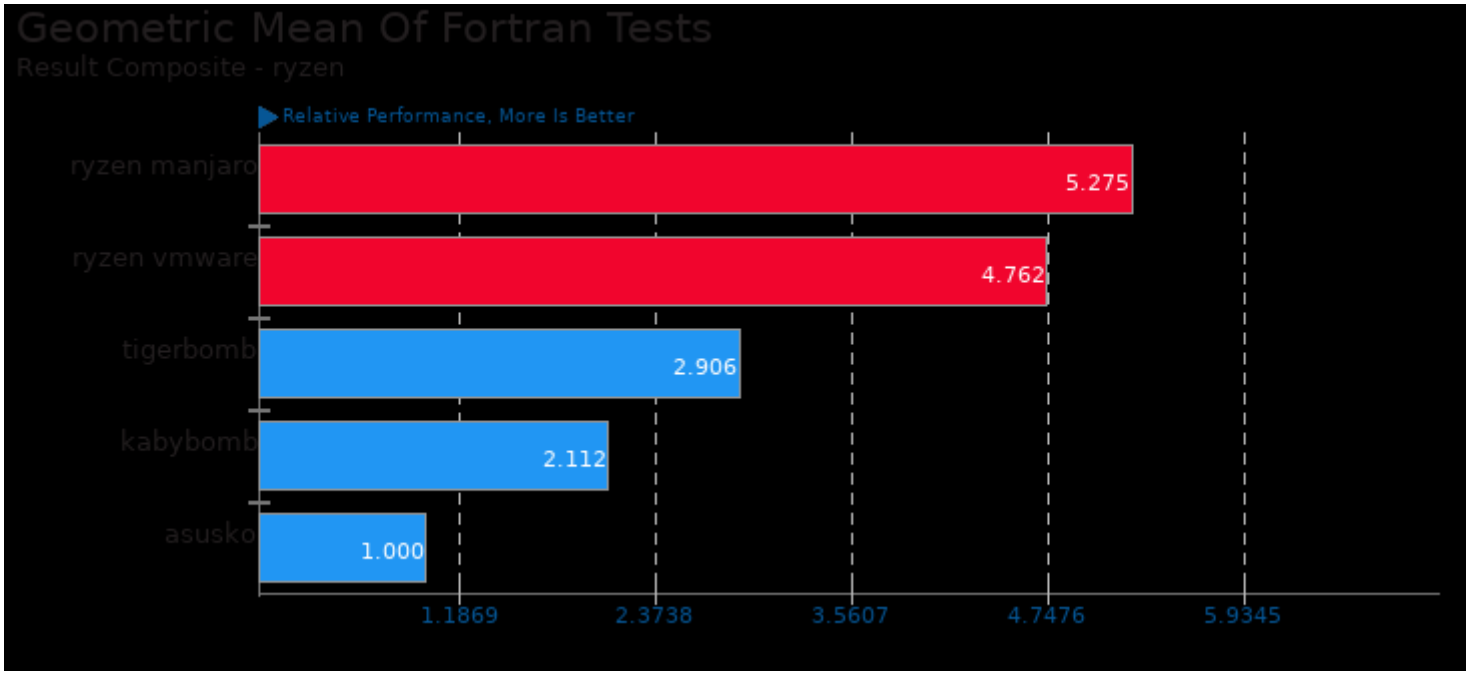
Geometric mean based upon tests: pts/x264, pts/x265, pts/ffmpeg, pts/dav1d, pts/luajit and pts/espeak



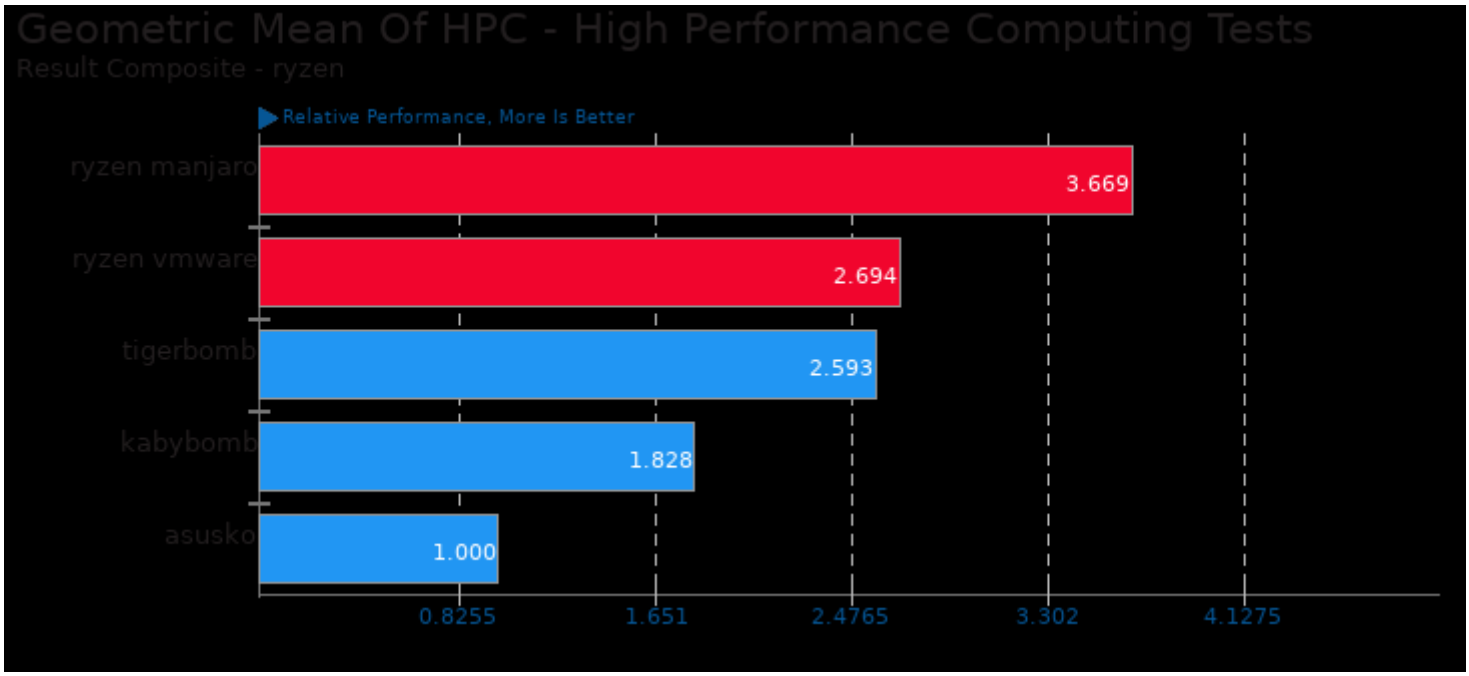
Geometric mean based upon tests: pts/botan, pts/bork and pts/aircrack-ng



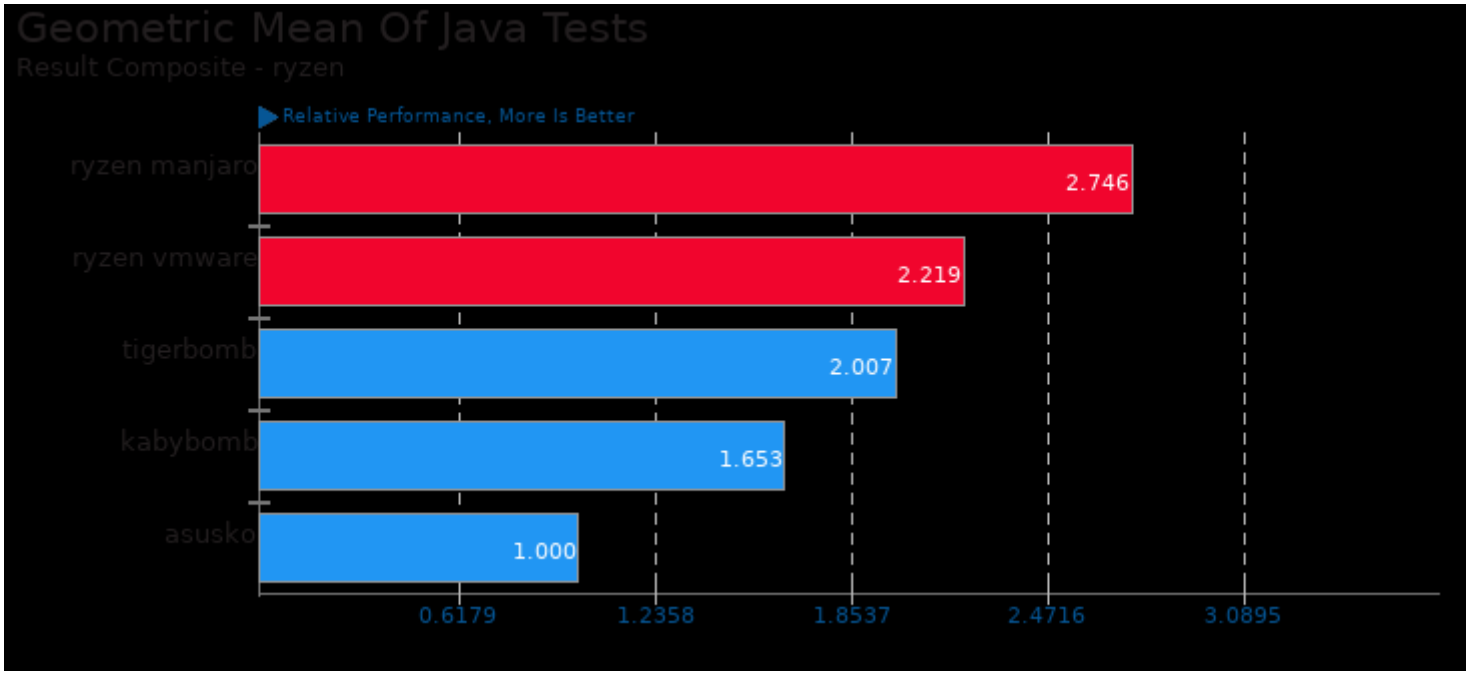
Geometric mean based upon tests: pts/x264, pts/x265, pts/ffmpeg and pts/dav1d



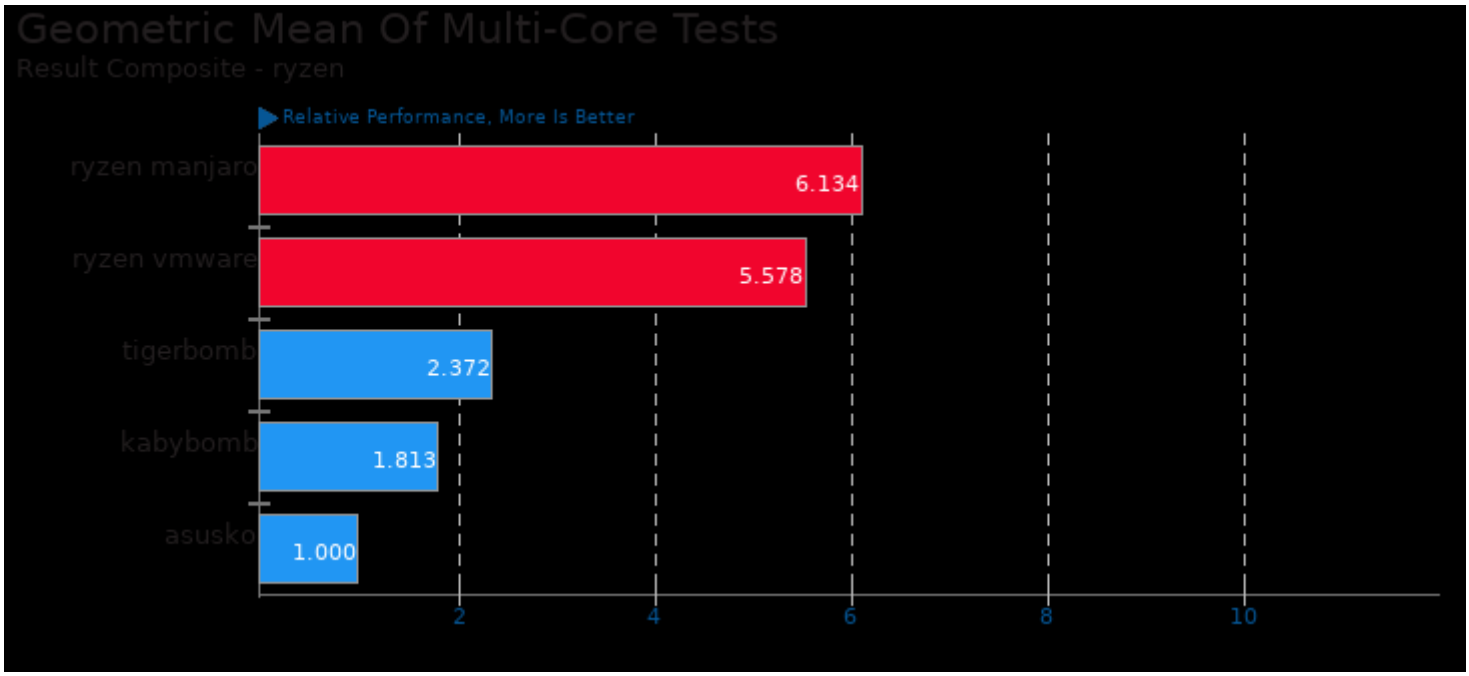
Geometric mean based upon tests: pts/cloverleaf and pts/ffte



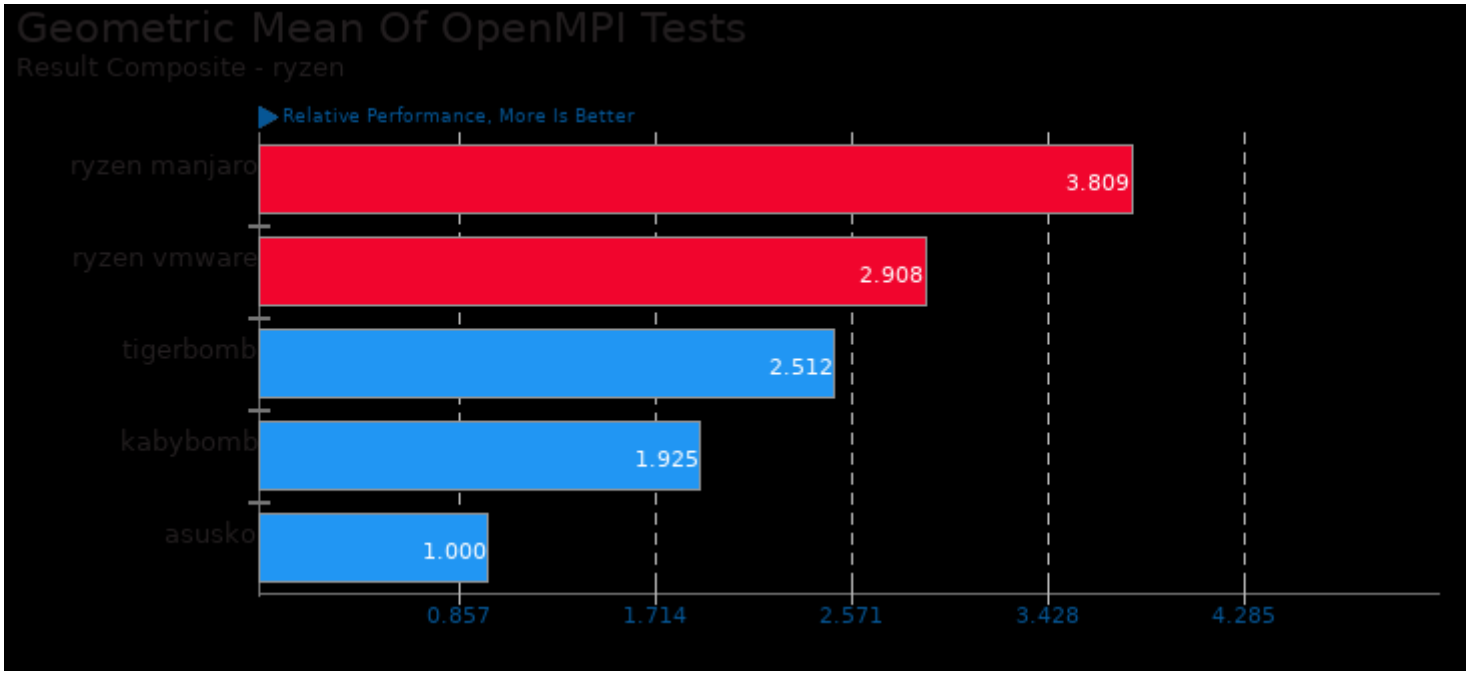
Geometric mean based upon tests: pts/ffte, pts/cloverleaf, pts/himeno, pts/hmmer and pts/mafft



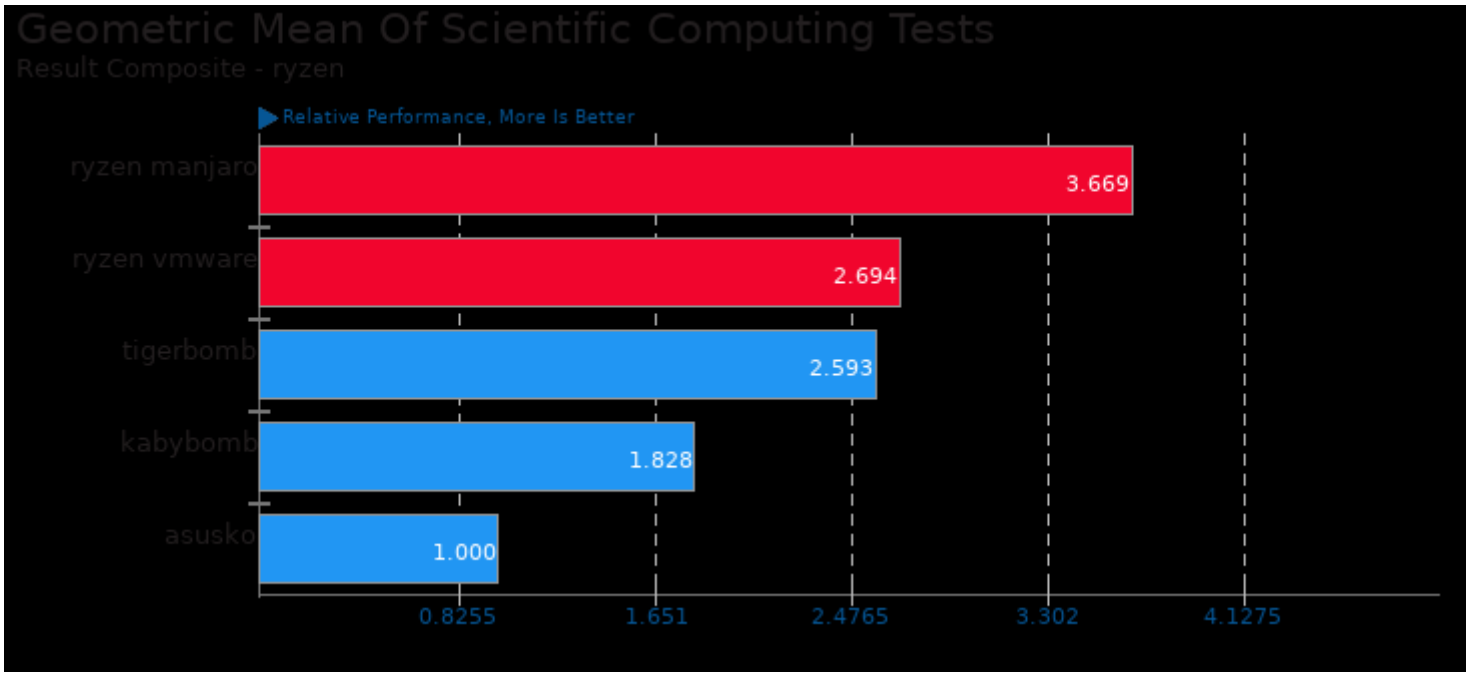
Geometric mean based upon tests: pts/bork and pts/java-scimark2



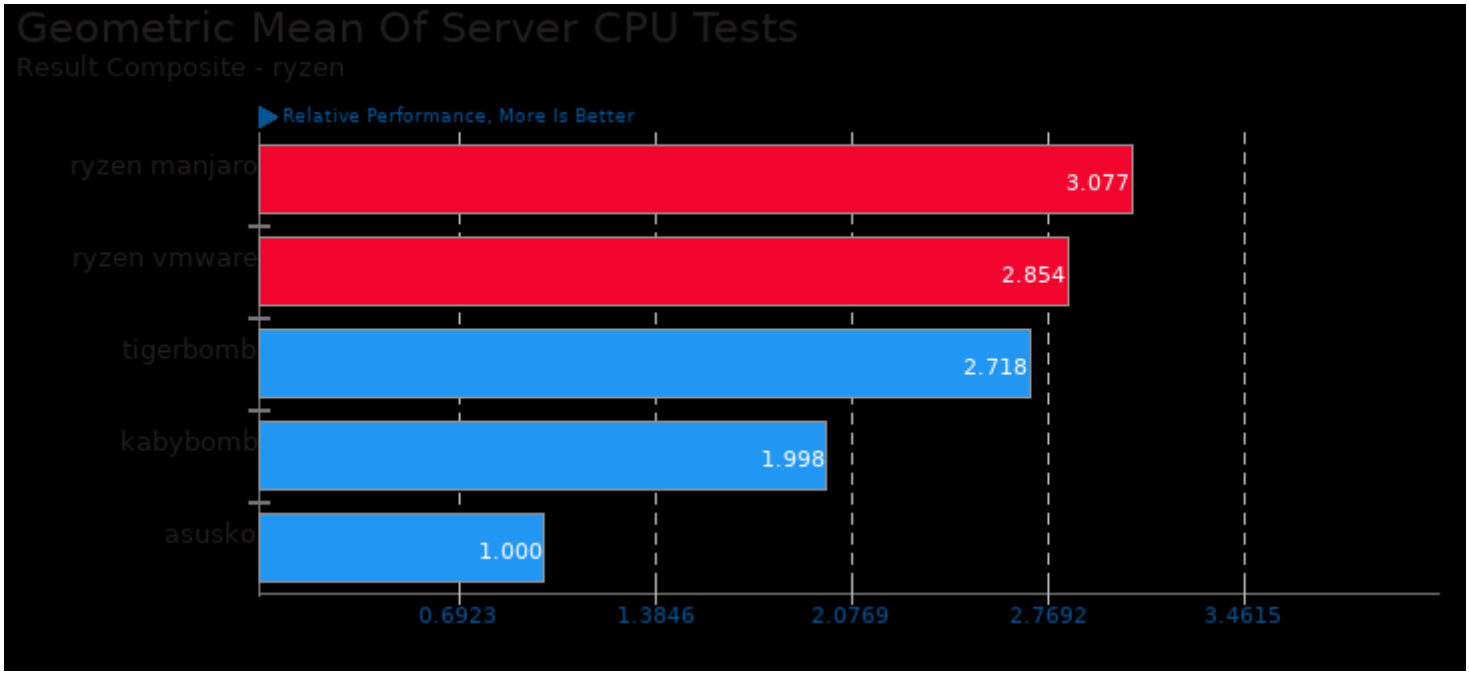
Geometric mean based upon tests: pts/coremark, pts/aircrack-ng, pts/x264, pts/x265, pts/ffmpeg, pts/dav1d, pts/swet, pts/compress-7zip and pts/compress-pbzip2



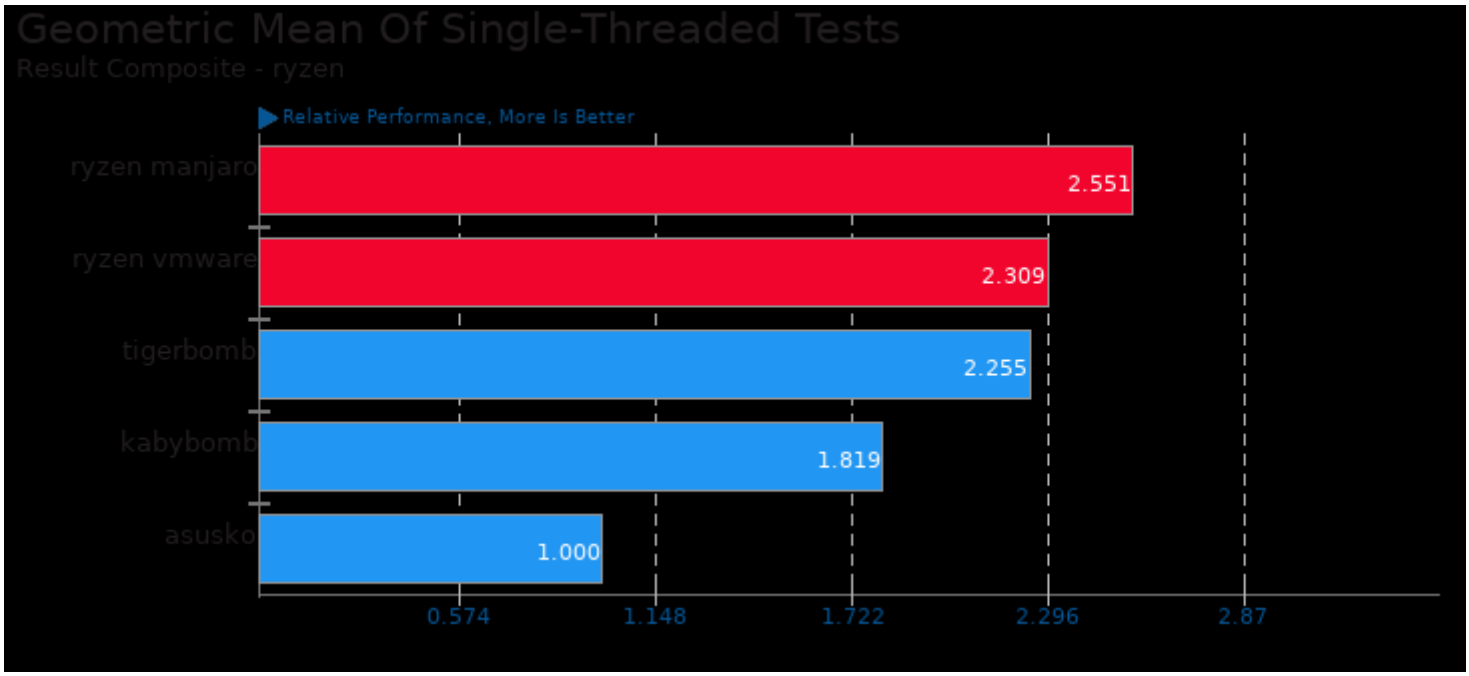
Geometric mean based upon tests: pts/cloverleaf and pts/hmmer



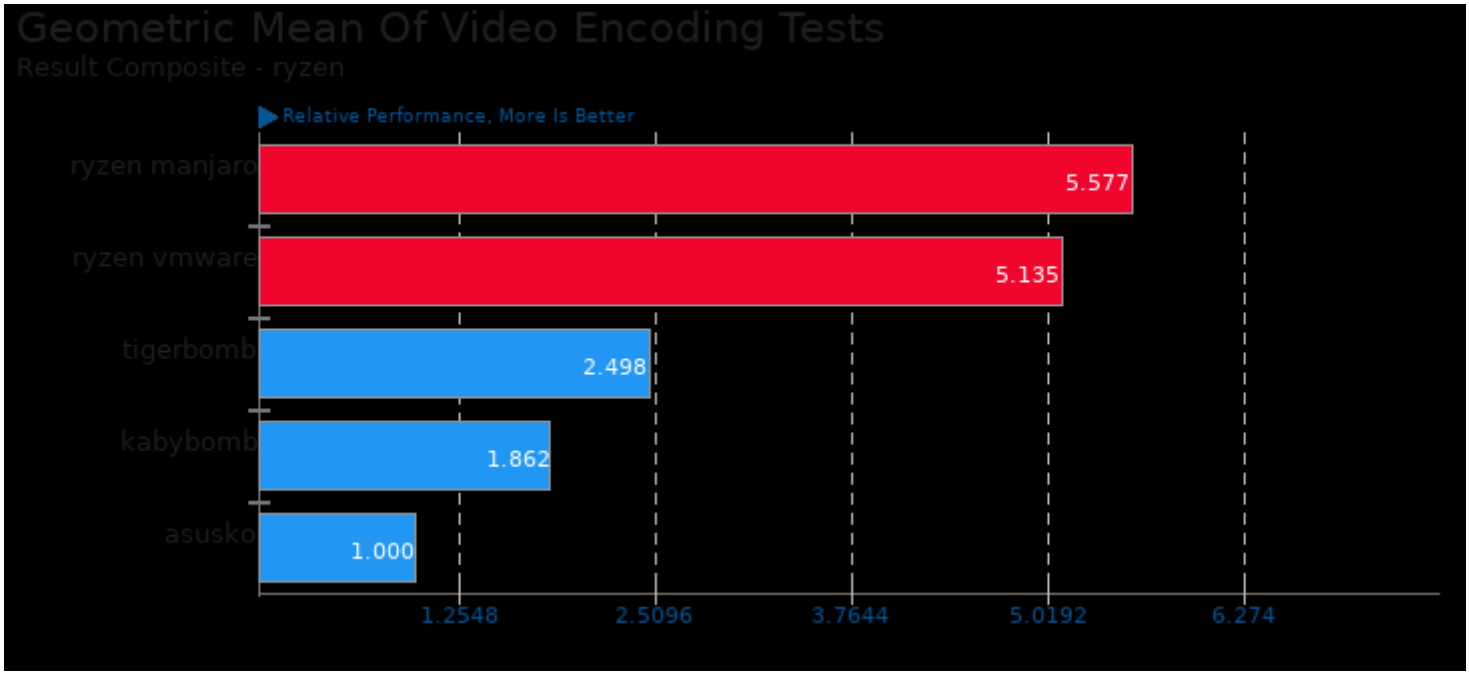
Geometric mean based upon tests: pts/ffte, pts/cloverleaf, pts/himeno, pts/hmmer and pts/mafft



Geometric mean based upon tests: pts/x264, pts/x265, pts/dav1d, pts/himeno, pts/compress-7zip, pts/glibc-bench and pts/cython-bench

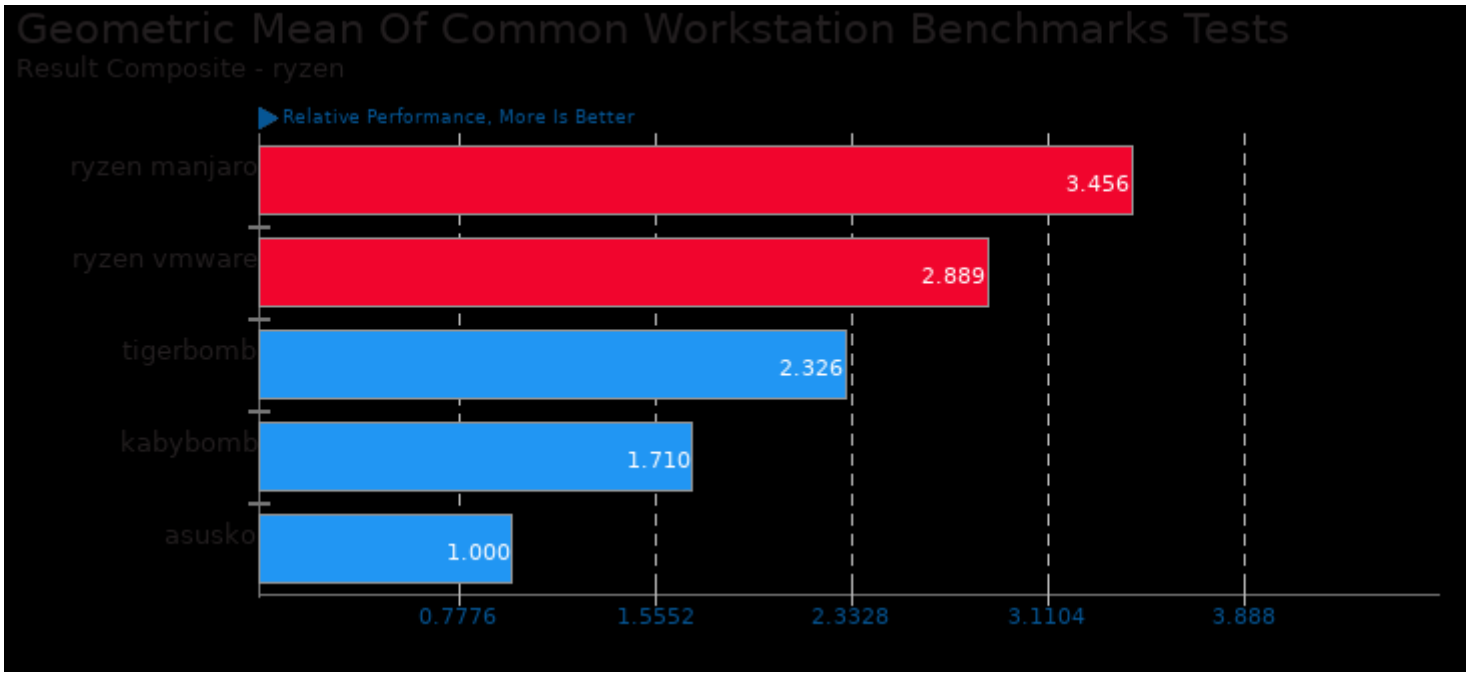


Geometric mean based upon tests: pts/polybench-c, pts/lzbench, pts/java-scimark2, pts/bork, pts/luajit, pts/scimark2, pts/botan, pts/swet, pts/espeak, pts/glibc-bench and pts/multichase



Geometric mean based upon tests: pts/x264, pts/x265, pts/ffmpeg and pts/dav1d

ryzen



Geometric mean based upon tests: pts/himeno, pts/x265 and pts/swet

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 21:01.