

www.phoronix-test-suite.com

epyc 72F3 oktober

AMD EPYC 72F3 8-Core testing with a Supermicro H12SSL-i v1.01 (2.0 BIOS) and ASPEED on Ubuntu 21.04 via the Phoronix Test Suite.

Automated Executive Summary

AMD EPYC 72F3 had the most wins, coming in first place for 41% of the tests.

Based on the geometric mean of all complete results, the fastest (EPYC 72F3) was 1.077x the speed of the slowest (72F3 EPYC). AMD EPYC 72F3 was 0.995x the speed of EPYC 72F3, AMD 72F3 was 0.97x the speed of AMD EPYC 72F3, 72F3 EPYC was 0.962x the speed of AMD 72F3.

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

PostgreSQL pgbench (Scaling Factor: 100 - Clients: 50 - Mode: Read Write) at 2.694x
PostgreSQL pgbench (Scaling Factor: 100 - Clients: 50 - Mode: Read Write - Average Latency) at 2.694x
PostgreSQL pgbench (Scaling Factor: 100 - Clients: 1 - Mode: Read Write - Average Latency) at 2.462x
PostgreSQL pgbench (Scaling Factor: 100 - Clients: 1 - Mode: Read Write) at 2.462x
PostgreSQL pgbench (Scaling Factor: 100 - Clients: 100 - Mode: Read Write) at 2.345x
PostgreSQL pgbench (Scaling Factor: 100 - Clients: 100 - Mode: Read Write - Average Latency) at 2.344x
PostgreSQL pgbench (Scaling Factor: 1000 - Clients: 1 - Mode: Read Write) at 1.755x
PostgreSQL pgbench (Scaling Factor: 1000 - Clients: 1 - Mode: Read Write - Average Latency) at 1.754x

PostgreSQL pgbench (Scaling Factor: 1 - Clients: 1 - Mode: Read Write) at 1.499x
PostgreSQL pgbench (Scaling Factor: 1 - Clients: 1 - Mode: Read Write - Average Latency) at 1.498x.

Test Systems:

AMD EPYC 72F3

EPYC 72F3

AMD 72F3

72F3 EPYC

Processor: AMD EPYC 72F3 8-Core @ 3.70GHz (8 Cores / 16 Threads), Motherboard: Supermicro H12SSL-i v1.01 (2.0 BIOS), Chipset: AMD Starship/Matisse, Memory: 126GB, Disk: 1000GB Corsair Force MP600, Graphics: ASPEED, Monitor: VE228, Network: 2 x Broadcom NetXtreme BCM5720 2-port PCIe

OS: Ubuntu 21.04, Kernel: 5.14.0-rc7-amd-pstate-phx (x86_64) 20210909, Desktop: GNOME Shell 3.38.4, Display Server: X Server, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/usr, hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa001119
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 IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	AMD EPYC 72F3	EPYC 72F3	AMD 72F3	72F3 EPYC
Cpuminer-Opt - Magi (kH/s)	**457.04**	**454.20**	456.03	454.68
Normalized	100%	99.38%	99.78%	99.48%
Standard Deviation		0.4%		
Cpuminer-Opt - x25x (kH/s)	**301.58**	**312.11**	304.08	303.09
Normalized	96.63%	100%	97.43%	97.11%
Standard Deviation		2.3%		
Cpuminer-Opt - Deepcoin (kH/s)	8677	8670	**8731**	**8643**
Normalized	99.38%	99.3%	100%	99%
Standard Deviation		0.2%		
Cpuminer-Opt - Ringcoin (kH/s)	**1701**	1661	**1659**	1673
Normalized	100%	97.65%	97.54%	98.35%
Standard Deviation		0.7%		

epyc 72F3 oktober

Cpuminer-Opt - Blake-2 S (kH/s)	**384480**	**380963**	381860	381070
Normalized	100%	99.09%	99.32%	99.11%
Standard Deviation		0.8%		
Cpuminer-Opt - Garlicoin (kH/s)	2159	**2167**	2163	**2158**
Normalized	99.64%	100%	99.82%	99.62%
Standard Deviation		0.8%		
Cpuminer-Opt - Skeincoin (kH/s)	78390	**78697**	**77380**	78620
Normalized	99.61%	100%	98.33%	99.9%
Standard Deviation		1.4%		
Cpuminer-Opt - Myriad-Groestl (kH/s)	**10470**	**9476**	10370	9755
Normalized	100%	90.5%	99.04%	93.17%
Standard Deviation		9%		
Cpuminer-Opt - LBC, LBRY Credits (kH/s)	27010	27003	**26550**	**27020**
Normalized	99.96%	99.94%	98.26%	100%
Standard Deviation		0.4%		
Cpuminer-Opt - Q.S.2.P (kH/s)	78050	**77410**	78070	**78470**
Normalized	99.46%	98.65%	99.49%	100%
Cpuminer-Opt - T.S.2.O (kH/s)	**190450**	186440	**185790**	186510
Normalized	100%	97.89%	97.55%	97.93%
PostgreSQL pgbench - 1 - 1 - Read Only (TPS)	**28622**	28032	**27294**	28172
Normalized	100%	97.94%	95.36%	98.43%
PostgreSQL pgbench - 1 - 1 - Read Write (TPS)	**1524**	1517	**1017**	1120
Normalized	100%	99.54%	66.73%	73.49%
PostgreSQL pgbench - 1 - 50 - Read Only (TPS)	**254604**	**252375**	253065	253531
Normalized	100%	99.12%	99.4%	99.58%
PostgreSQL pgbench - 1 - 100 - Read Only (TPS)	**274006**	275023	**276535**	274056
Normalized	99.09%	99.45%	100%	99.1%
PostgreSQL pgbench - 1 - 250 - Read Only (TPS)	300681	**303549**	**300193**	302397
Normalized	99.06%	100%	98.89%	99.62%
PostgreSQL pgbench - 1 - 50 - Read Write (TPS)	**1264**	1252	**961**	1012
Normalized	100%	99.05%	76.03%	80.06%
PostgreSQL pgbench - 1 - 500 - Read Only (TPS)	301421	301077	**299443**	**303067**
Normalized	99.46%	99.34%	98.8%	100%
PostgreSQL pgbench - 100 - 1 - Read Only (TPS)	26159	**26151**	26760	**27109**
Normalized	96.5%	96.47%	98.71%	100%
PostgreSQL pgbench - 1 - 100 - Read Write (TPS)	**1064**	**789**	1056	949
Normalized	100%	74.15%	99.25%	89.19%
PostgreSQL pgbench - 1 - 250 - Read Write (TPS)	**722**	700	684	**678**
Normalized	100%	96.95%	94.74%	93.91%

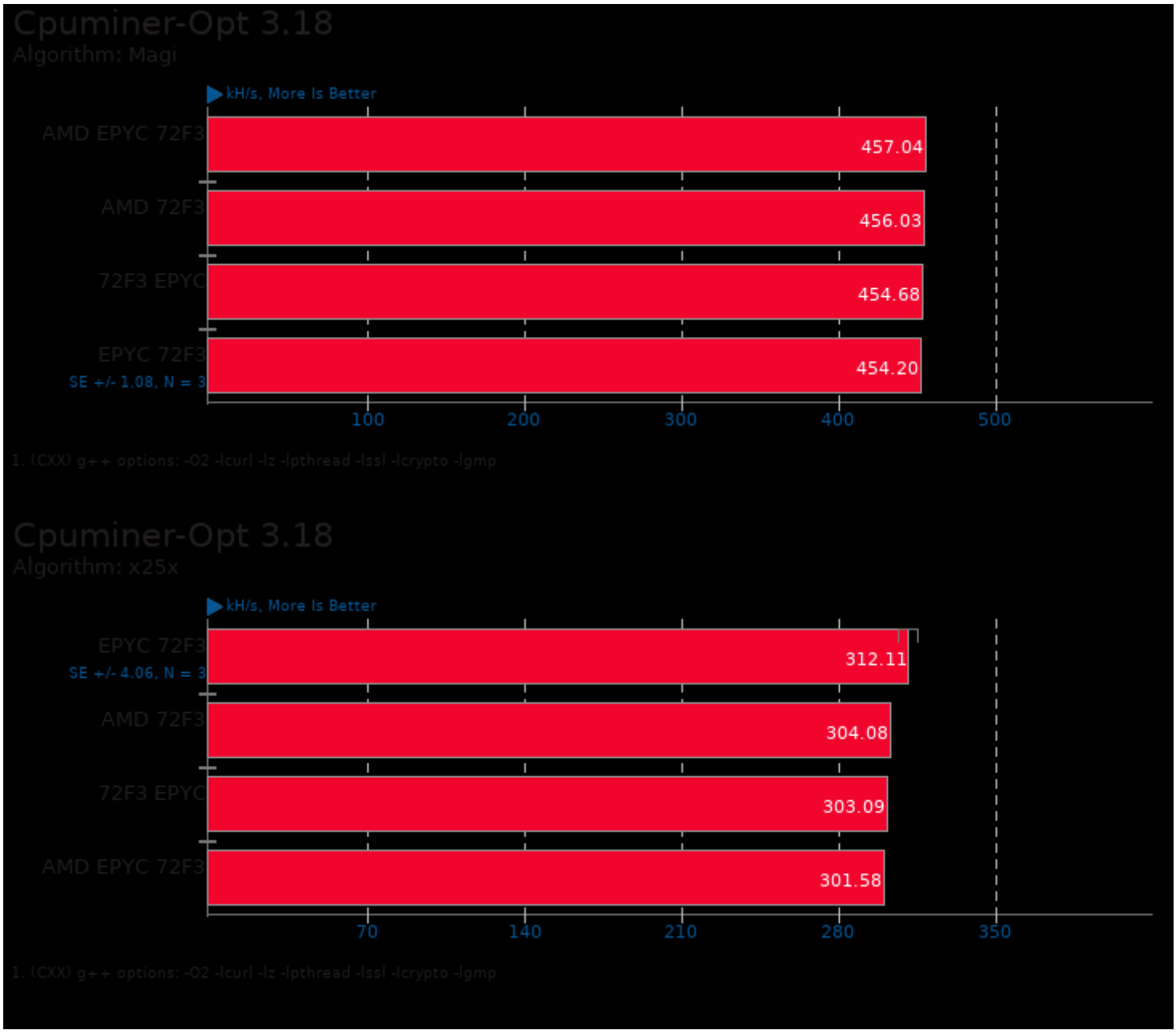
PostgreSQL pgbench - 1 - 500 - Read Write (TPS)	427	**347**	**453**	372
Normalized	94.26%	76.6%	100%	82.12%
PostgreSQL pgbench - 100 - 1 - Read Write (TPS)	**1536**	708	853	**624**
Normalized	100%	46.09%	55.53%	40.63%
PostgreSQL pgbench - 100 - 50 - Read Only (TPS)	242177	**237268**	241844	**244025**
Normalized	99.24%	97.23%	99.11%	100%
PostgreSQL pgbench - 1000 - 1 - Read Only (TPS)	22860	**23193**	23033	**22501**
Normalized	98.56%	100%	99.31%	97.02%
PostgreSQL pgbench - 100 - 100 - Read Only (TPS)	**262327**	260999	262192	**259003**
Normalized	100%	99.49%	99.95%	98.73%
PostgreSQL pgbench - 100 - 250 - Read Only (TPS)	**283505**	**280562**	282154	282906
Normalized	100%	98.96%	99.52%	99.79%
PostgreSQL pgbench - 100 - 50 - Read Write (TPS)	**7938**	**21387**	13476	8086
Normalized	37.12%	100%	63.01%	37.81%
PostgreSQL pgbench - 100 - 500 - Read Only (TPS)	278534	**280356**	277869	**273088**
Normalized	99.35%	100%	99.11%	97.41%
PostgreSQL pgbench - 1000 - 1 - Read Write (TPS)	**379**	**665**	386	381
Normalized	56.99%	100%	58.05%	57.29%
PostgreSQL pgbench - 1000 - 50 - Read Only (TPS)	**224092**	225146		**226095**
Normalized	99.11%	99.58%		100%
PostgreSQL pgbench - 100 - 100 - Read Write (TPS)	**9887**	**23181**		18506
Normalized	42.65%	100%		79.83%
PostgreSQL pgbench - 100 - 250 - Read Write (TPS)	12777	**16274**		**12210**
Normalized	78.51%	100%		75.03%
PostgreSQL pgbench - 100 - 500 - Read Write (TPS)	12088	**12612**		**12054**
Normalized	95.85%	100%		95.58%
PostgreSQL pgbench - 1000 - 100 - Read Only (TPS)	**231970**	**226300**		227598
Normalized	100%	97.56%		98.12%
PostgreSQL pgbench - 1000 - 250 - Read Only (TPS)	**230231**	229966		**229379**
Normalized	100%	99.88%		99.63%
PostgreSQL pgbench - 1000 - 50 - Read Write (TPS)	**6893**	**7248**		7179
Normalized	95.1%	100%		99.05%
PostgreSQL pgbench - 1000 - 500 - Read Only (TPS)	237676	**238186**		**236076**
Normalized	99.79%	100%		99.11%

PostgreSQL pgbench - 1000 - 100 - Read Write (TPS)	**10021**	**11622**		11189
Normalized	86.22%	100%		96.27%
PostgreSQL pgbench - 1000 - 250 - Read Write (TPS)	**14906**	14553		**13524**
Normalized	100%	97.63%		90.73%
PostgreSQL pgbench - 1000 - 500 - Read Write (TPS)	12862	**12387**		**13024**
Normalized	98.76%	95.11%		100%
PostgreSQL pgbench - 1 - 1 - Read Only - Average Latency (ms)	**0.035**	0.036	**0.037**	**0.035**
Normalized	100%	97.22%	94.59%	100%
PostgreSQL pgbench - 1 - 1 - Read Write - Average Latency (ms)	**0.656**	0.659	**0.983**	0.893
Normalized	100%	99.54%	66.73%	73.46%
PostgreSQL pgbench - 1 - 50 - Read Only - Average Latency (ms)	**0.196**	**0.198**	**0.198**	0.197
Normalized	100%	98.99%	98.99%	99.49%
PostgreSQL pgbench - 1 - 100 - Read Only - Average Latency (ms)	**0.365**	0.364	**0.362**	**0.365**
Normalized	99.18%	99.45%	100%	99.18%
PostgreSQL pgbench - 1 - 250 - Read Only - Average Latency (ms)	0.831	**0.824**	**0.833**	0.827
Normalized	99.16%	100%	98.92%	99.64%
PostgreSQL pgbench - 1 - 50 - Read Write - Average Latency (ms)	**39.551**	39.922	**52.006**	49.43
Normalized	100%	99.07%	76.05%	80.01%
PostgreSQL pgbench - 1 - 500 - Read Only - Average Latency (ms)	1.659	1.661	**1.67**	**1.65**
Normalized	99.46%	99.34%	98.8%	100%
PostgreSQL pgbench - 100 - 1 - Read Only - Average Latency (ms)	**0.038**	**0.038**	**0.037**	**0.037**
Normalized	97.37%	97.37%	100%	100%
PostgreSQL pgbench - 1 - 100 - Read Write - Average Latency (ms)	**94.028**	**126.764**	94.67	105.42
Normalized	100%	74.18%	99.32%	89.19%
PostgreSQL pgbench - 1 - 250 - Read Write - Average Latency (ms)	**346.315**	357.298	365.385	**368.7**
Normalized	100%	96.93%	94.78%	93.93%
PostgreSQL pgbench - 1 - 500 - Read Write - Average Latency (ms)	1171	**1443**	**1103**	1343
Normalized	94.21%	76.48%	100%	82.12%
PostgreSQL pgbench - 100 - 1 - Read Write - Average Latency (ms)	**0.651**	1.412	1.172	**1.603**
Normalized	100%	46.1%	55.55%	40.61%
PostgreSQL pgbench - 100 - 50 - Read Only - Average Latency (ms)	0.206	**0.211**	0.207	**0.205**
Normalized	99.51%	97.16%	99.03%	100%
PostgreSQL pgbench - 1000 - 1 - Read Only - Average Latency (ms)	**0.044**	**0.043**	**0.043**	**0.044**
Normalized	97.73%	100%	100%	97.73%

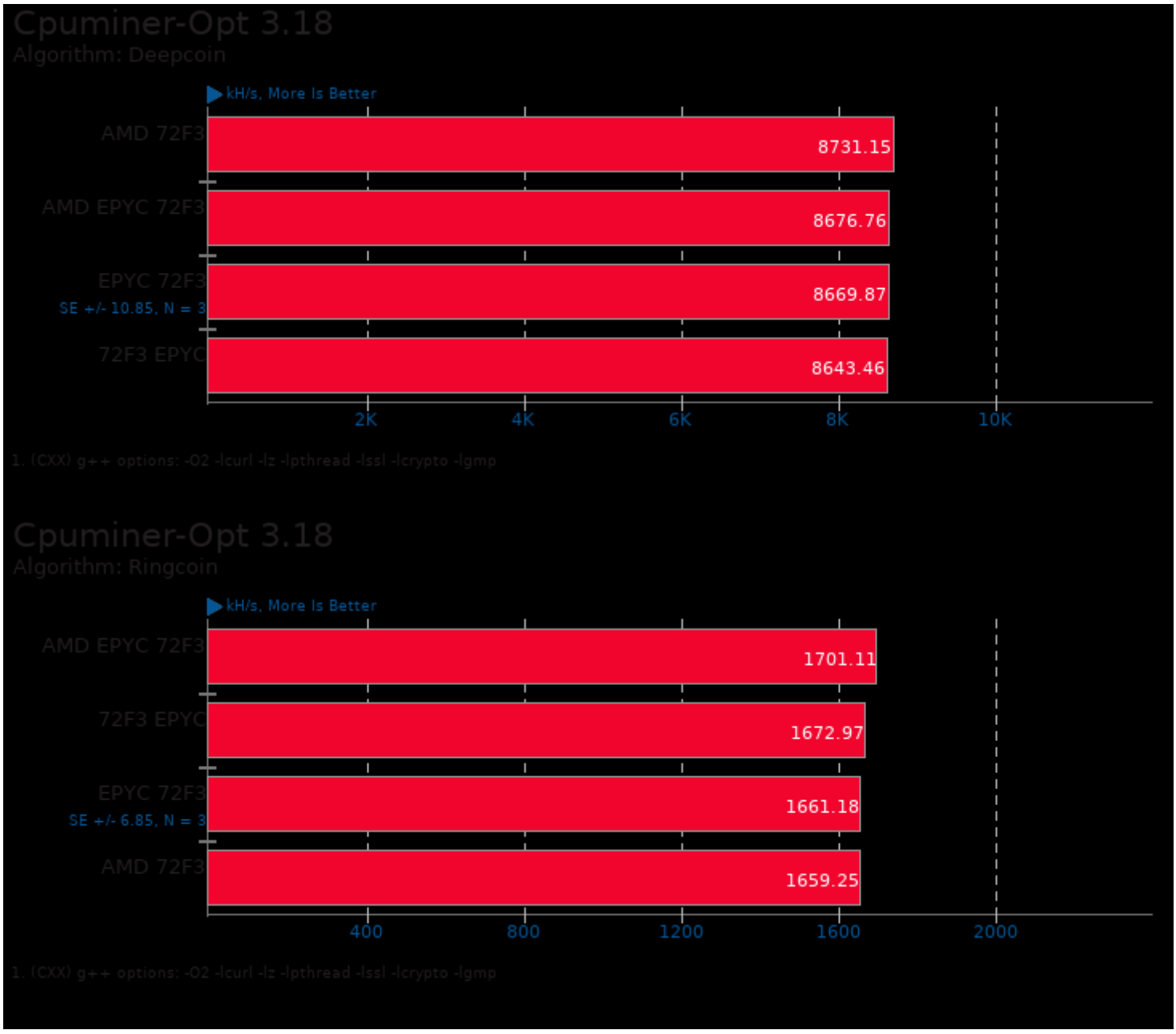
PostgreSQL pgbench - 100 - 100 - Read Only - Average Latency (ms)	0.381	0.383	0.381	0.386
Normalized	100%	99.48%	100%	98.7%
PostgreSQL pgbench - 100 - 250 - Read Only - Average Latency (ms)	0.882	0.891	0.886	0.884
Normalized	100%	98.99%	99.55%	99.77%
PostgreSQL pgbench - 100 - 50 - Read Write - Average Latency (ms)	6.299	2.338	3.71	6.184
Normalized	37.12%	100%	63.02%	37.81%
PostgreSQL pgbench - 100 - 500 - Read Only - Average Latency (ms)	1.795	1.783	1.799	1.831
Normalized	99.33%	100%	99.11%	97.38%
PostgreSQL pgbench - 1000 - 1 - Read Write - Average Latency (ms)	2.638	1.504	2.591	2.627
Normalized	57.01%	100%	58.05%	57.25%
PostgreSQL pgbench - 1000 - 50 - Read Only - Average Latency (ms)	0.223	0.222		0.221
Normalized	99.1%	99.55%		100%
PostgreSQL pgbench - 100 - 100 - Read Write - Average Latency (ms)	10.114	4.314		5.404
Normalized	42.65%	100%		79.83%
PostgreSQL pgbench - 100 - 250 - Read Write - Average Latency (ms)	19.567	15.362		20.475
Normalized	78.51%	100%		75.03%
PostgreSQL pgbench - 100 - 500 - Read Write - Average Latency (ms)	41.364	39.645		41.481
Normalized	95.84%	100%		95.57%
PostgreSQL pgbench - 1000 - 100 - Read Only - Average Latency (ms)	0.431	0.442		0.439
Normalized	100%	97.51%		98.18%
PostgreSQL pgbench - 1000 - 250 - Read Only - Average Latency (ms)	1.086	1.087		1.09
Normalized	100%	99.91%		99.63%
PostgreSQL pgbench - 1000 - 50 - Read Write - Average Latency (ms)	7.254	6.898		6.965
Normalized	95.09%	100%		99.04%
PostgreSQL pgbench - 1000 - 500 - Read Only - Average Latency (ms)	2.104	2.099		2.118
Normalized	99.76%	100%		99.1%
PostgreSQL pgbench - 1000 - 100 - Read Write - Average Latency (ms)	9.979	8.604		8.937
Normalized	86.22%	100%		96.27%
PostgreSQL pgbench - 1000 - 250 - Read Write - Average Latency (ms)	16.772	17.178		18.485
Normalized	100%	97.64%		90.73%
PostgreSQL pgbench - 1000 - 500 - Read Write - Average Latency (ms)	38.873	40.364		38.392
Normalized	98.76%	95.11%		100%
Timed LLVM Compilation - Ninja (sec)	552.6	552.934	555.387	555.022
Normalized	100%	99.94%	99.5%	99.56%
Standard Deviation		0%		

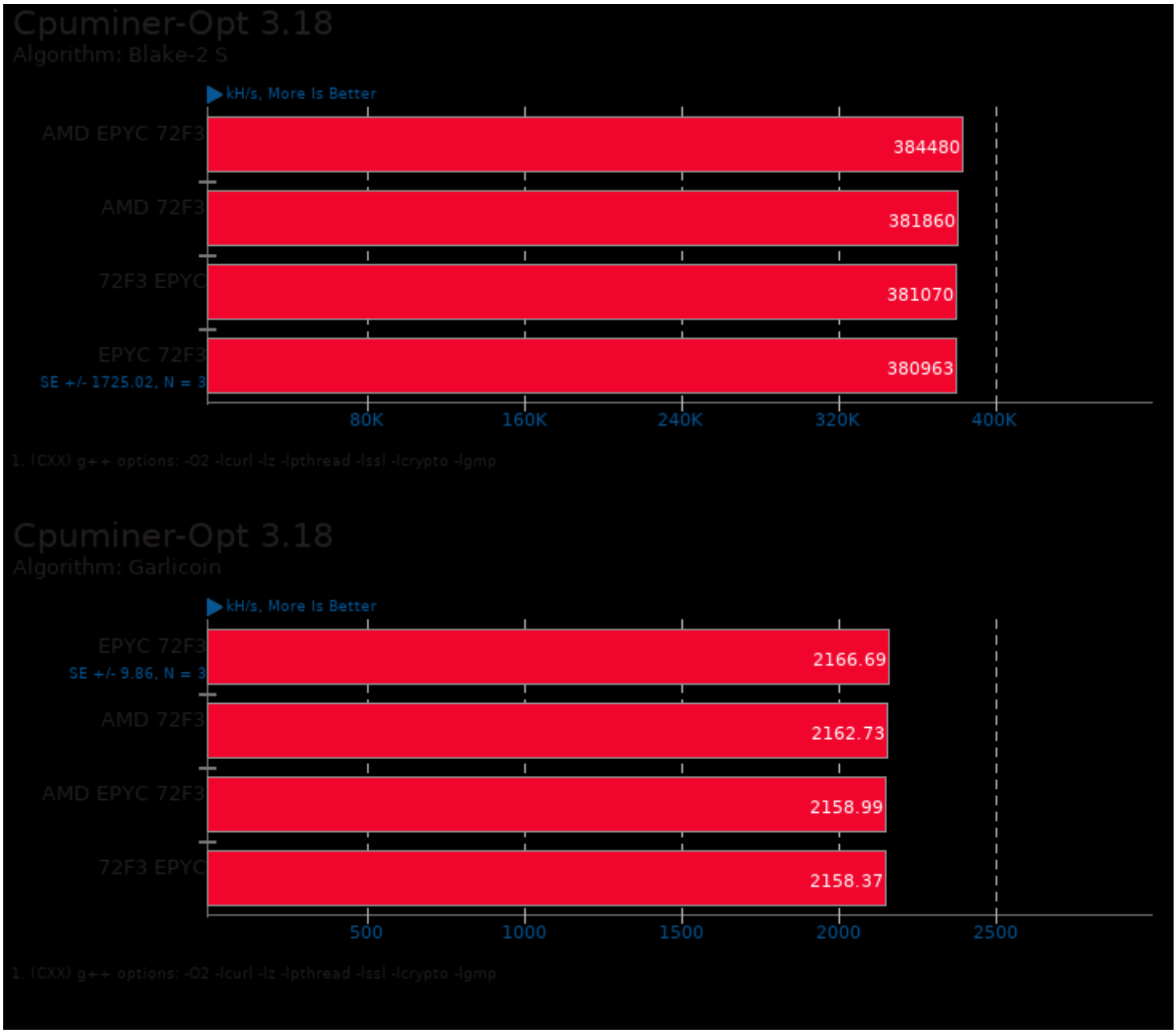
epyc 72F3 oktober

Timed LLVM Compilation - Unix Makefiles (sec)	**577.966**	576.315	**573.54**	576.905
Normalized	99.23%	99.52%	100%	99.42%
Standard Deviation		0.5%		
FLAC Audio Encoding - WAV To FLAC (sec)	**13.792**	**13.827**	13.822	13.826
Normalized	100%	99.75%	99.78%	99.75%
Standard Deviation		0.1%		

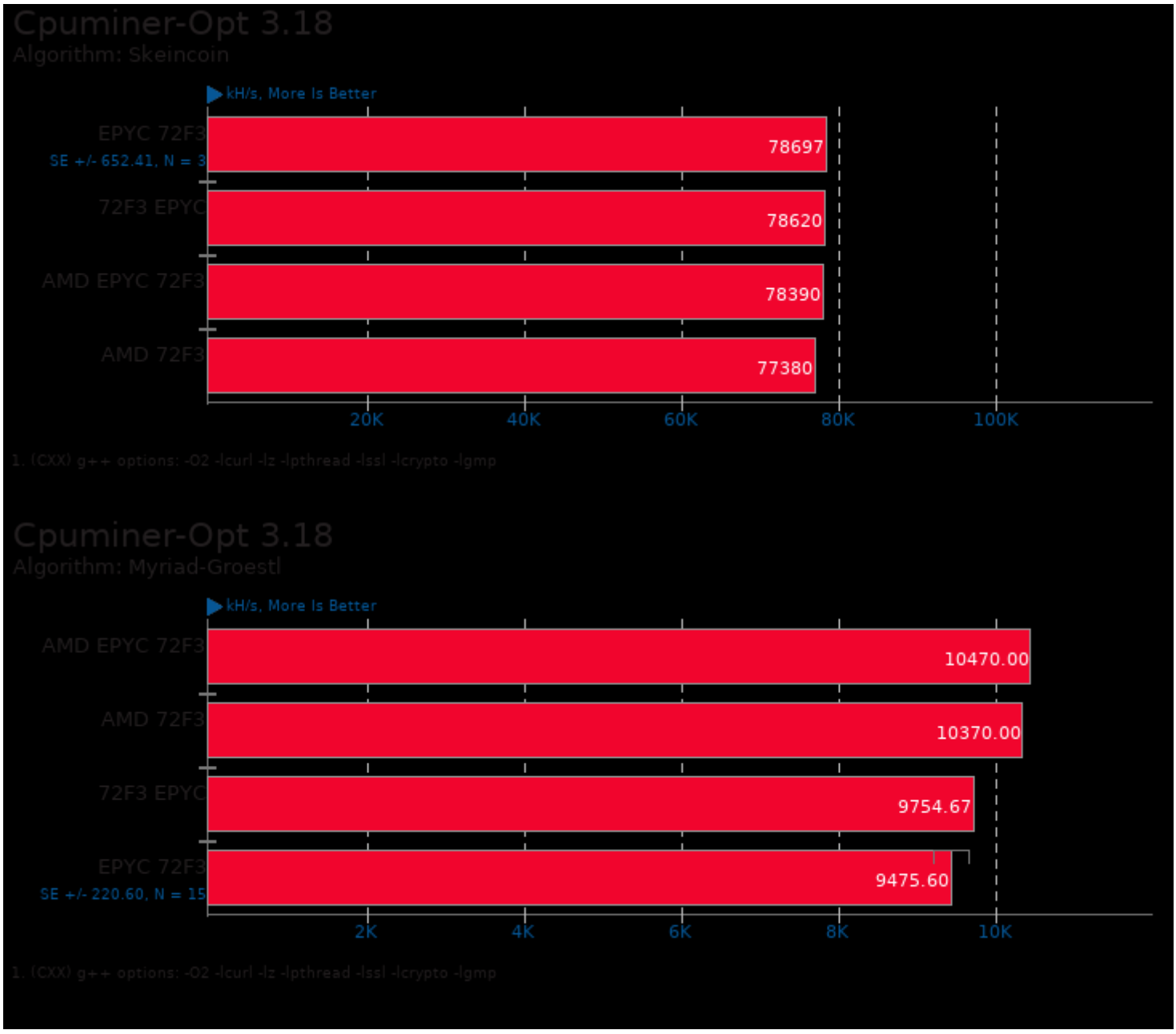

Cpuminer-Opt 3.18
Algorithm: Magi
kH/s, More Is Better
AMD EPYC 72F3
457.04
AMD 72F3
456.03
72F3 EPYC
454.68
EPYC 72F3
454.20
SE +/- 1.08, N = 3
100
200
300
400
500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: x25x
kH/s, More Is Better
EPYC 72F3
312.11
SE +/- 4.06, N = 3
AMD 72F3
304.08
72F3 EPYC
303.09
AMD EPYC 72F3
301.58
70
140
210
280
350
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

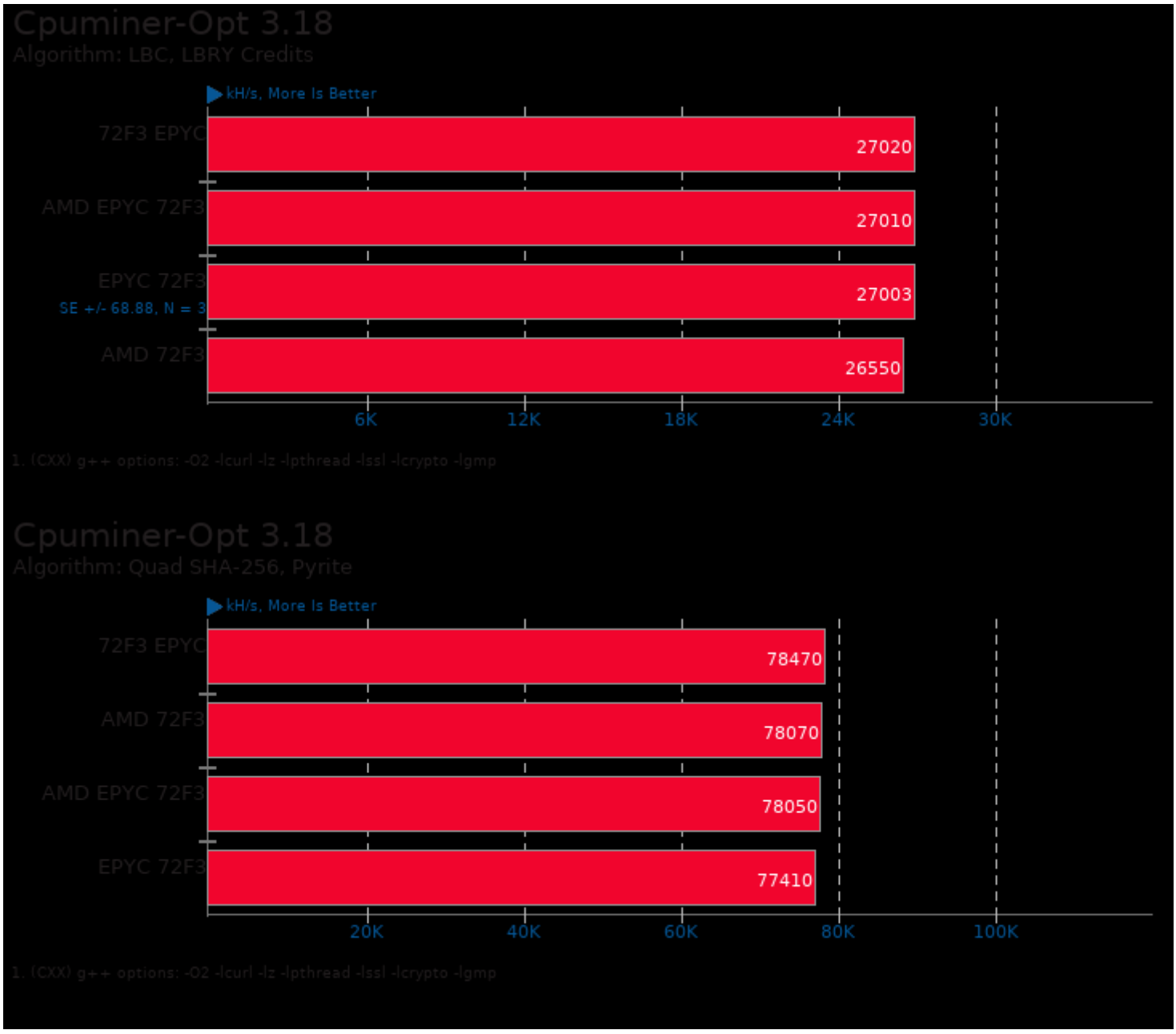
epyc 72F3 oktober

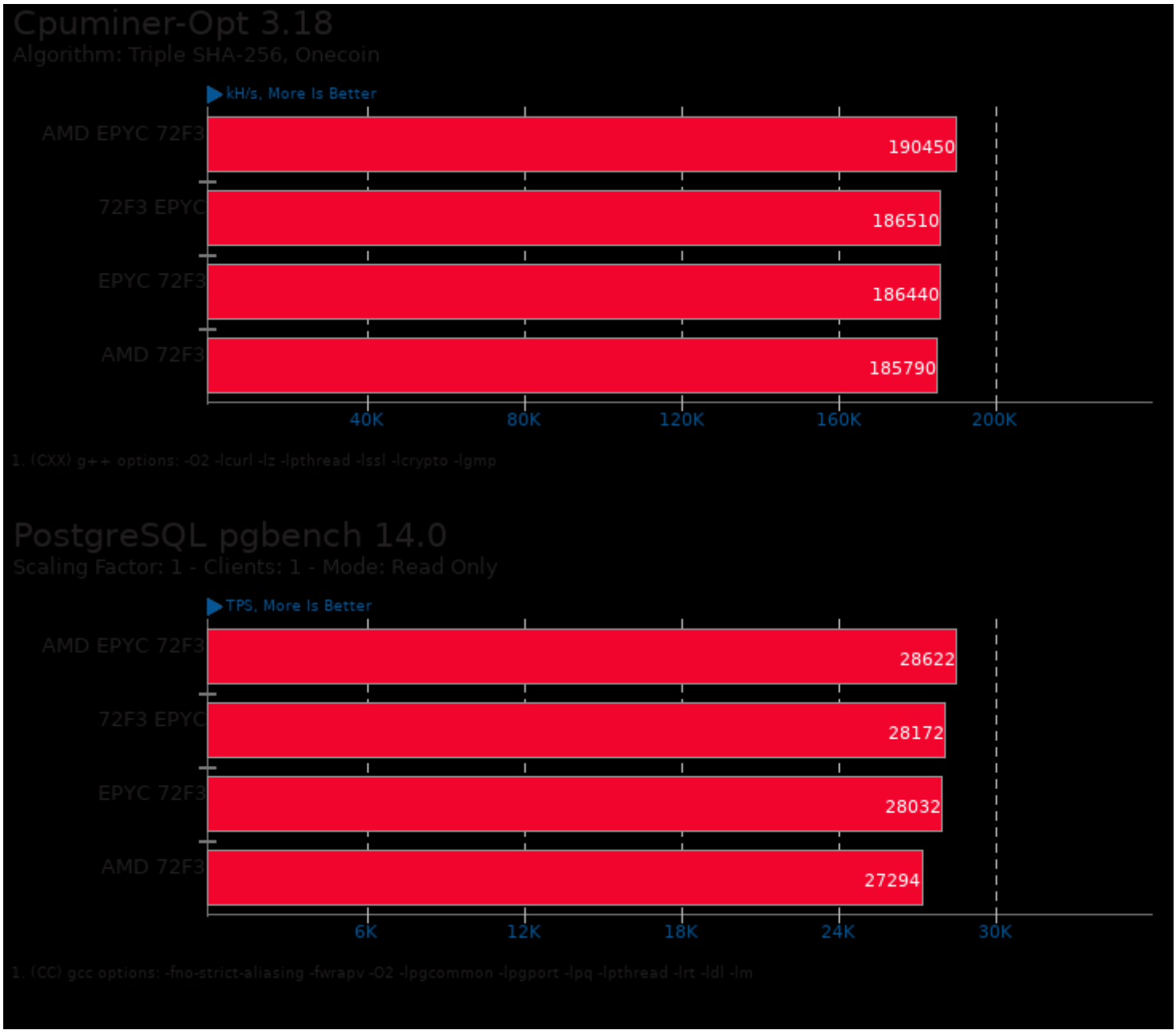


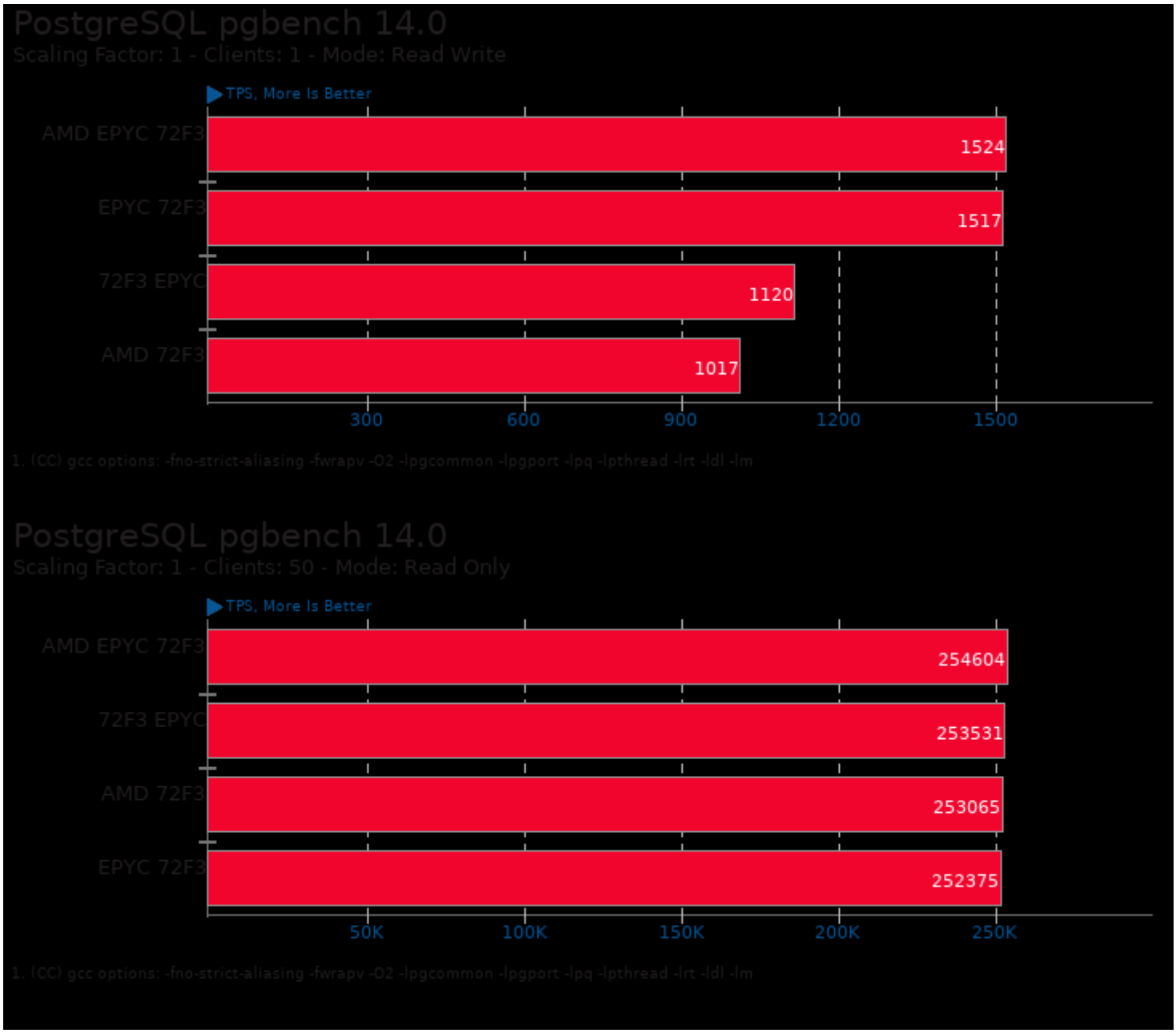

Cpuminer-Opt 3.18
Algorithm: Blake-2 S
kH/s, More Is Better
AMD EPYC 72F3
384480
AMD 72F3
381860
72F3 EPYC
381070
EPYC 72F3
380963
SE +/- 1725.02, N = 3
80K
160K
240K
320K
400K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Garlicoin
kH/s, More Is Better
EPYC 72F3
2166.69
SE +/- 9.86, N = 3
AMD 72F3
2162.73
AMD EPYC 72F3
2158.99
72F3 EPYC
2158.37
500
1000
1500
2000
2500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

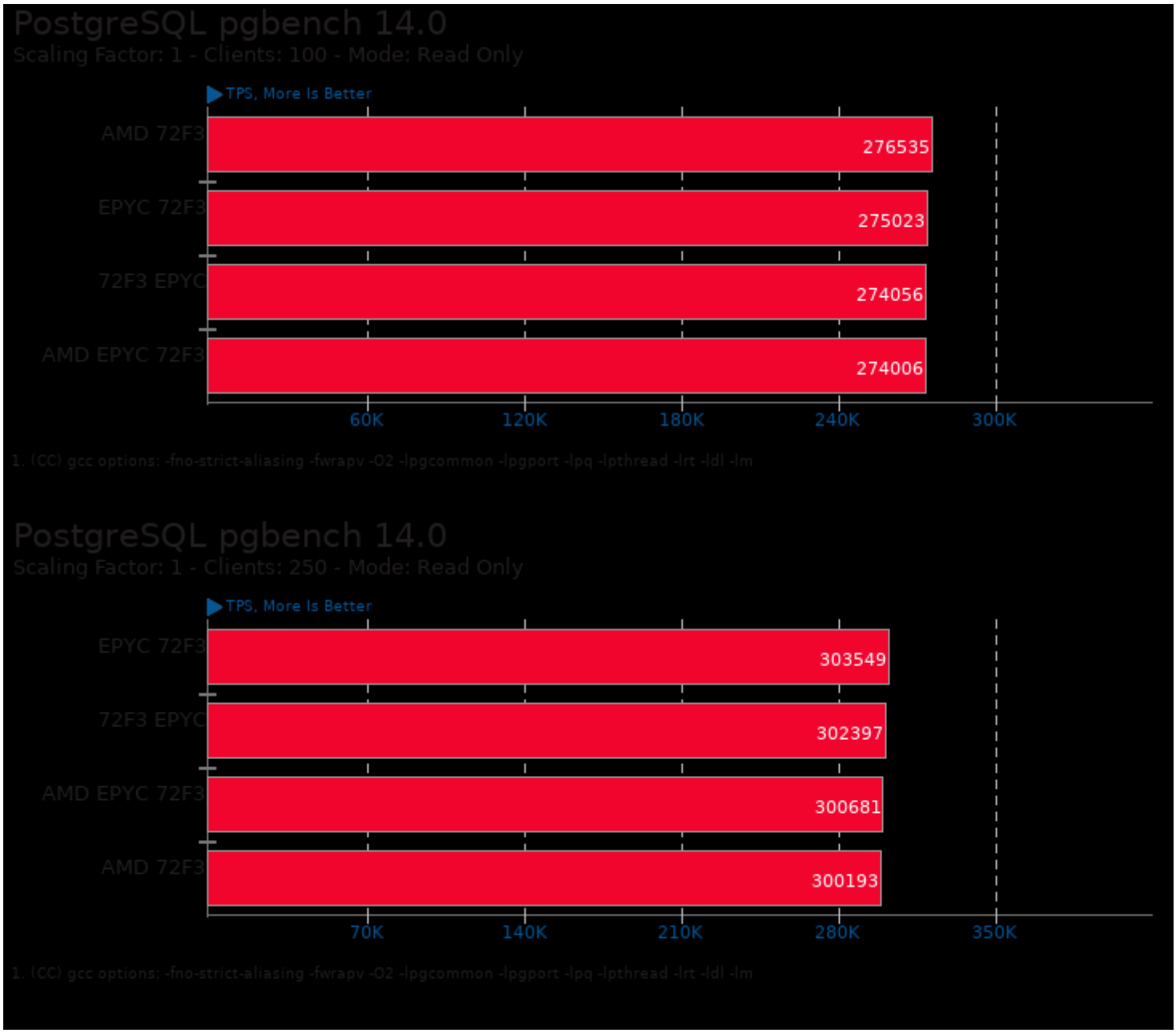
epyc 72F3 oktober

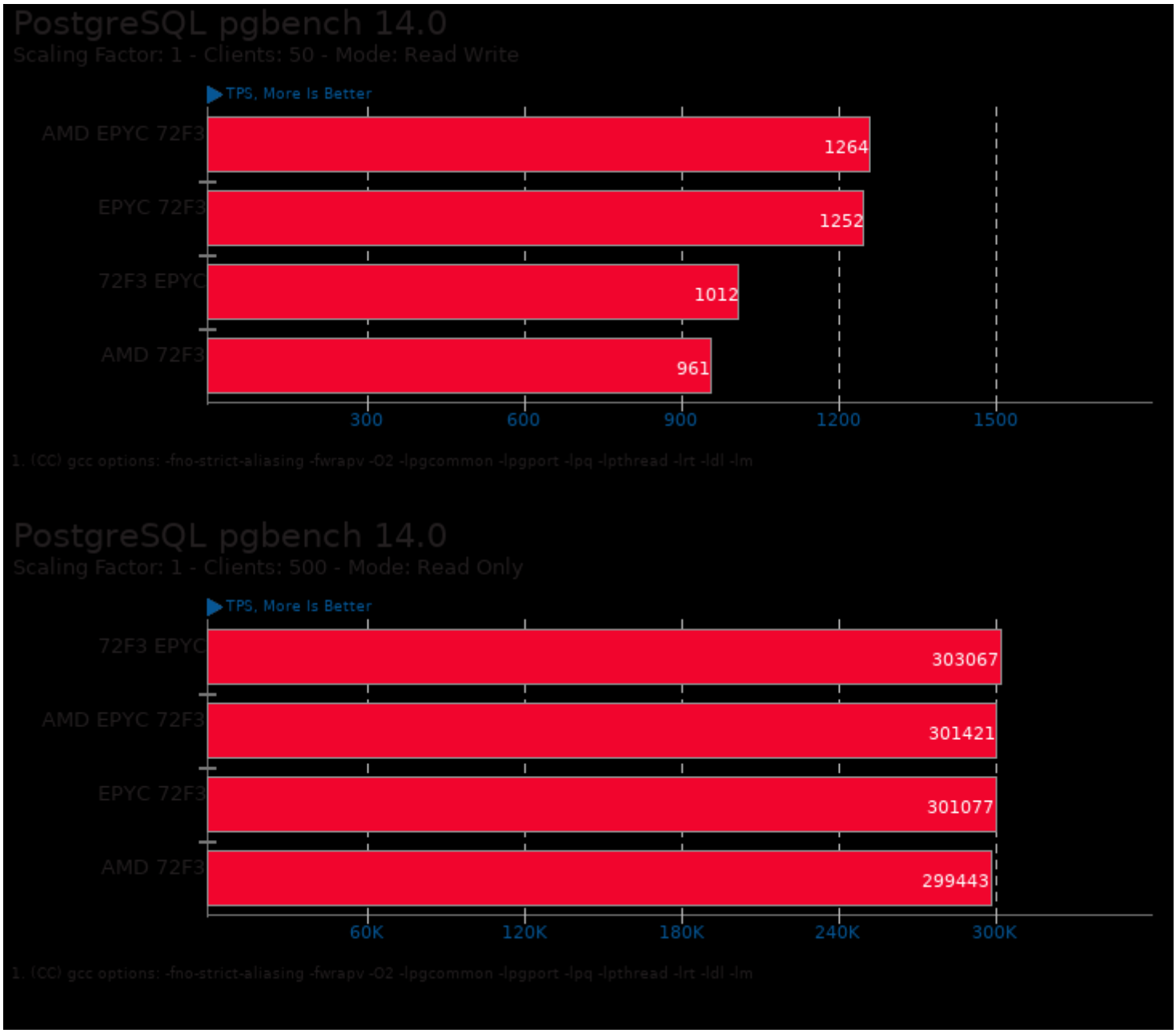


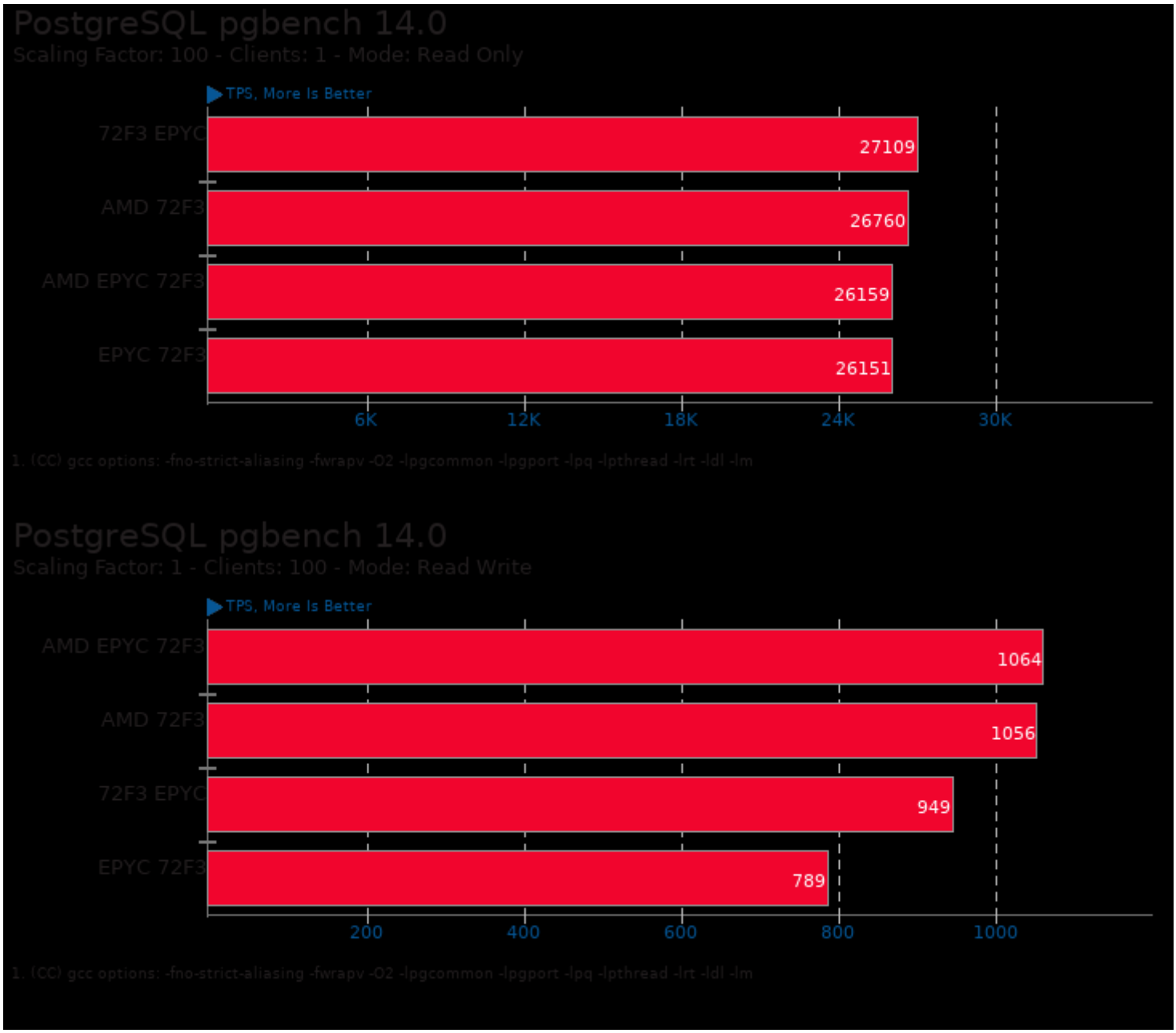

Cpuminer-Opt 3.18
Algorithm: LBC, LBRY Credits
kH/s, More Is Better
72F3 EPYC
AMD EPYC 72F3
EPYC 72F3
SE +/- 68.88, N = 3
AMD 72F3
27020
27010
27003
26550
6K
12K
18K
24K
30K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Quad SHA-256, Pyrite
kH/s, More Is Better
72F3 EPYC
AMD 72F3
AMD EPYC 72F3
EPYC 72F3
78470
78070
78050
77410
20K
40K
60K
80K
100K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

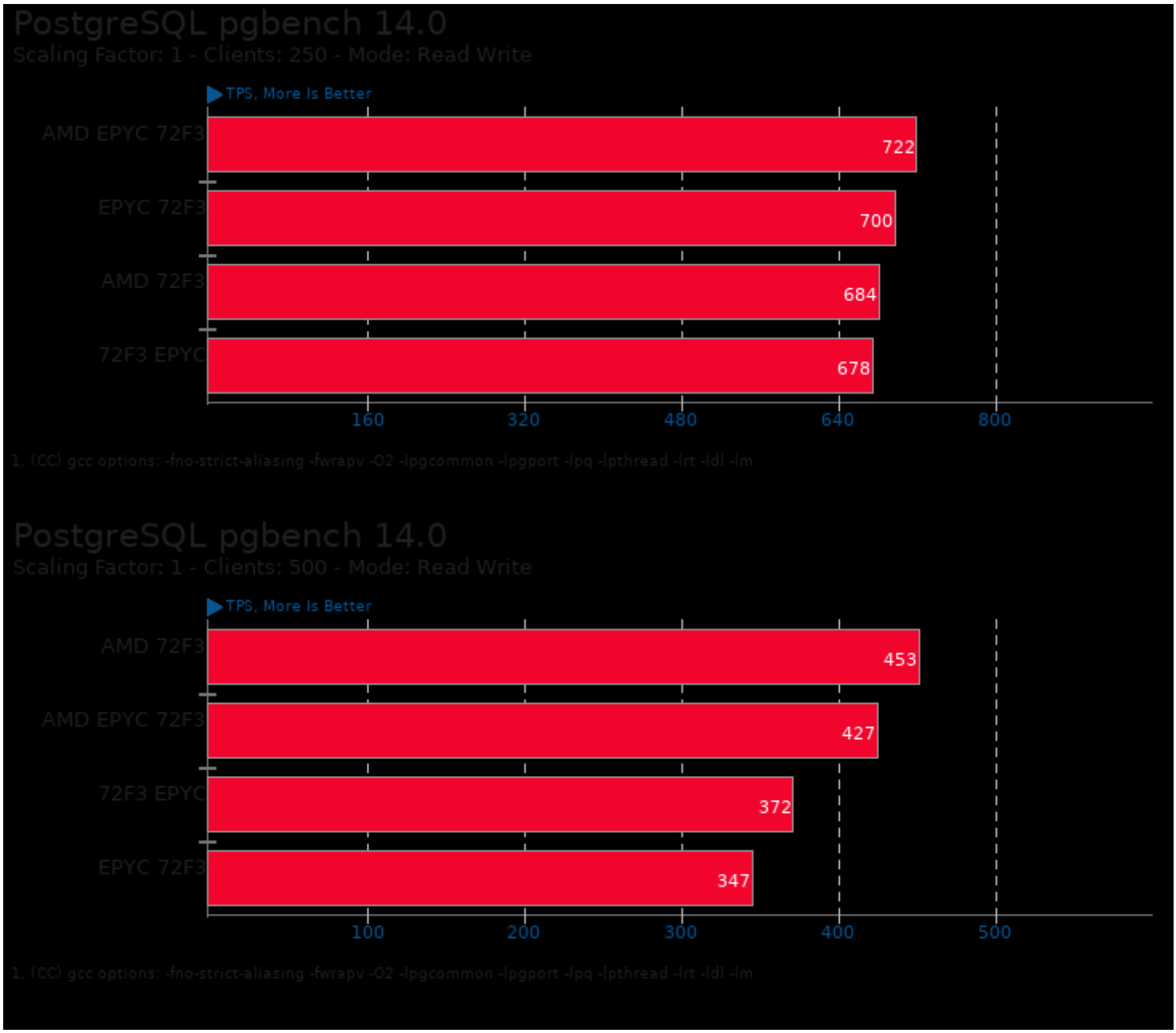

Cpuminer-Opt 3.18
Algorithm: Triple SHA-256, Onecoin
kH/s, More Is Better
AMD EPYC 72F3
190450
72F3 EPYC
186510
EPYC 72F3
186440
AMD 72F3
185790
40K
80K
120K
160K
200K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 1 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
28622
72F3 EPYC
28172
EPYC 72F3
28032
AMD 72F3
27294
6K
12K
18K
24K
30K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 1 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
EPYC 72F3
72F3 EPYC
AMD 72F3
1524
1517
1120
1017
300
600
900
1200
1500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
72F3 EPYC
AMD 72F3
EPYC 72F3
254604
253531
253065
252375
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

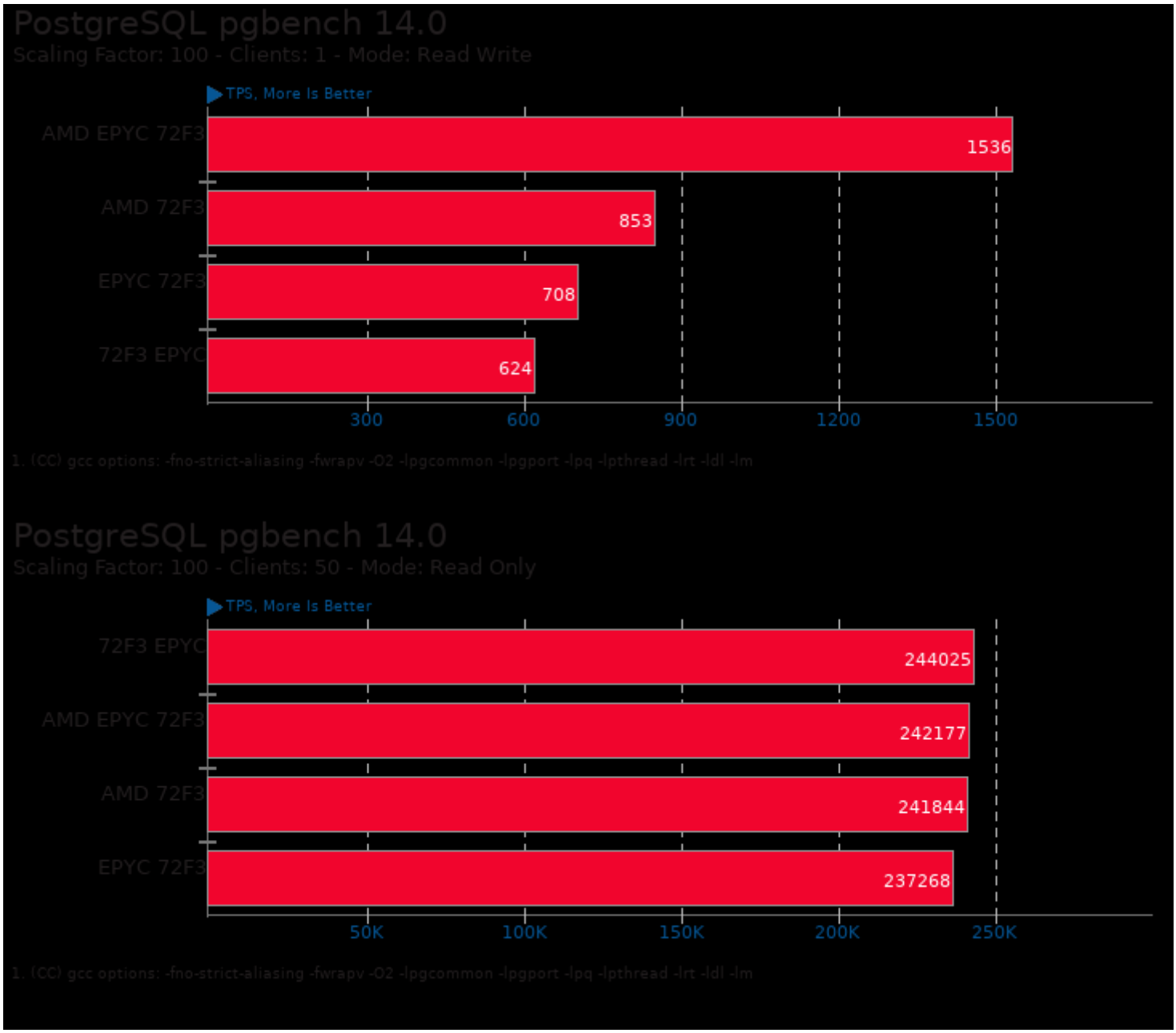

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only
TPS, More Is Better
AMD 72F3
276535
EPYC 72F3
275023
72F3 EPYC
274056
AMD EPYC 72F3
274006
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Only
TPS, More Is Better
EPYC 72F3
303549
72F3 EPYC
302397
AMD EPYC 72F3
300681
AMD 72F3
300193
70K
140K
210K
280K
350K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

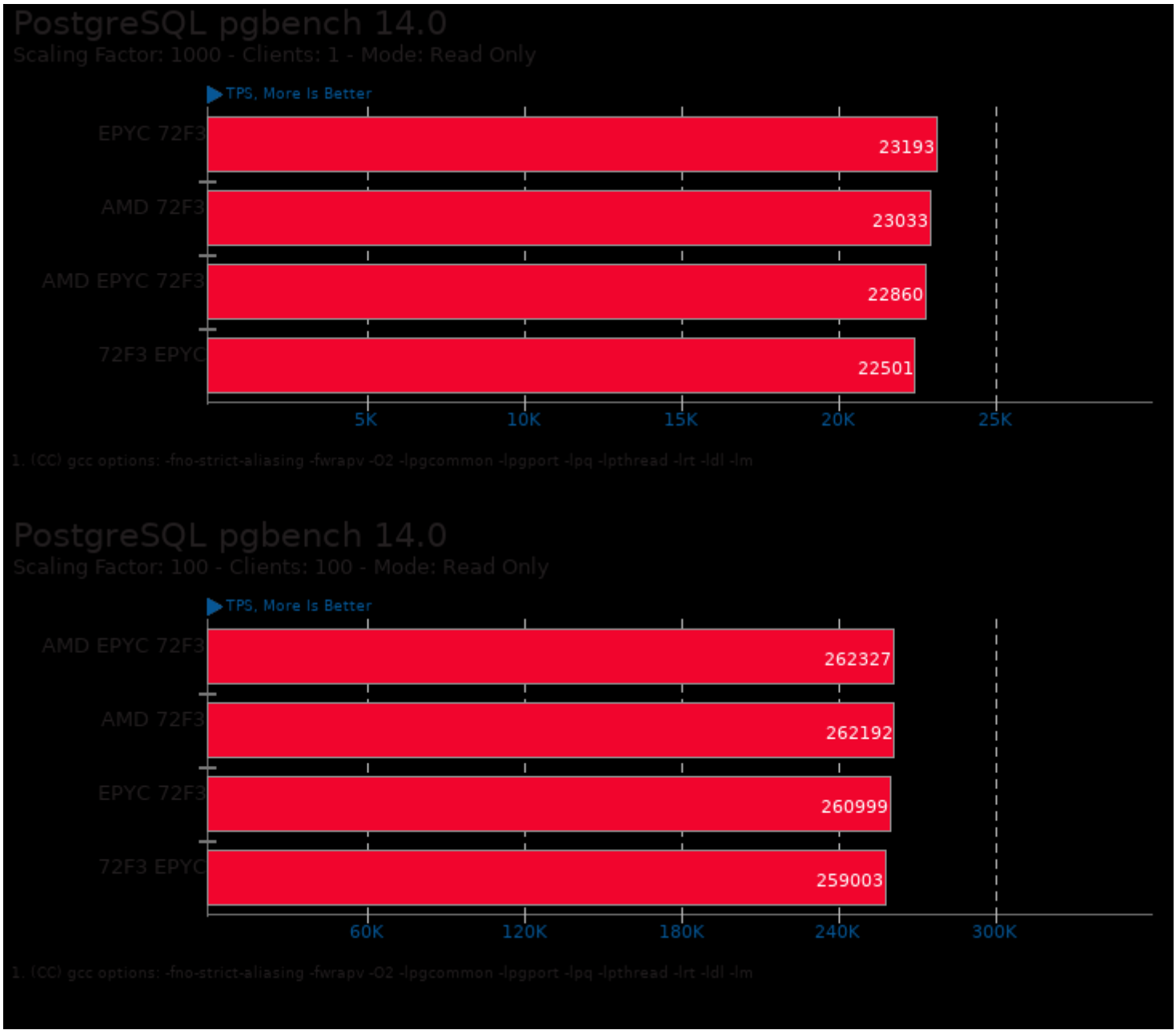

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
1264
EPYC 72F3
1252
72F3 EPYC
1012
AMD 72F3
961
300
600
900
1200
1500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 500 - Mode: Read Only
TPS, More Is Better
72F3 EPYC
303067
AMD EPYC 72F3
301421
EPYC 72F3
301077
AMD 72F3
299443
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

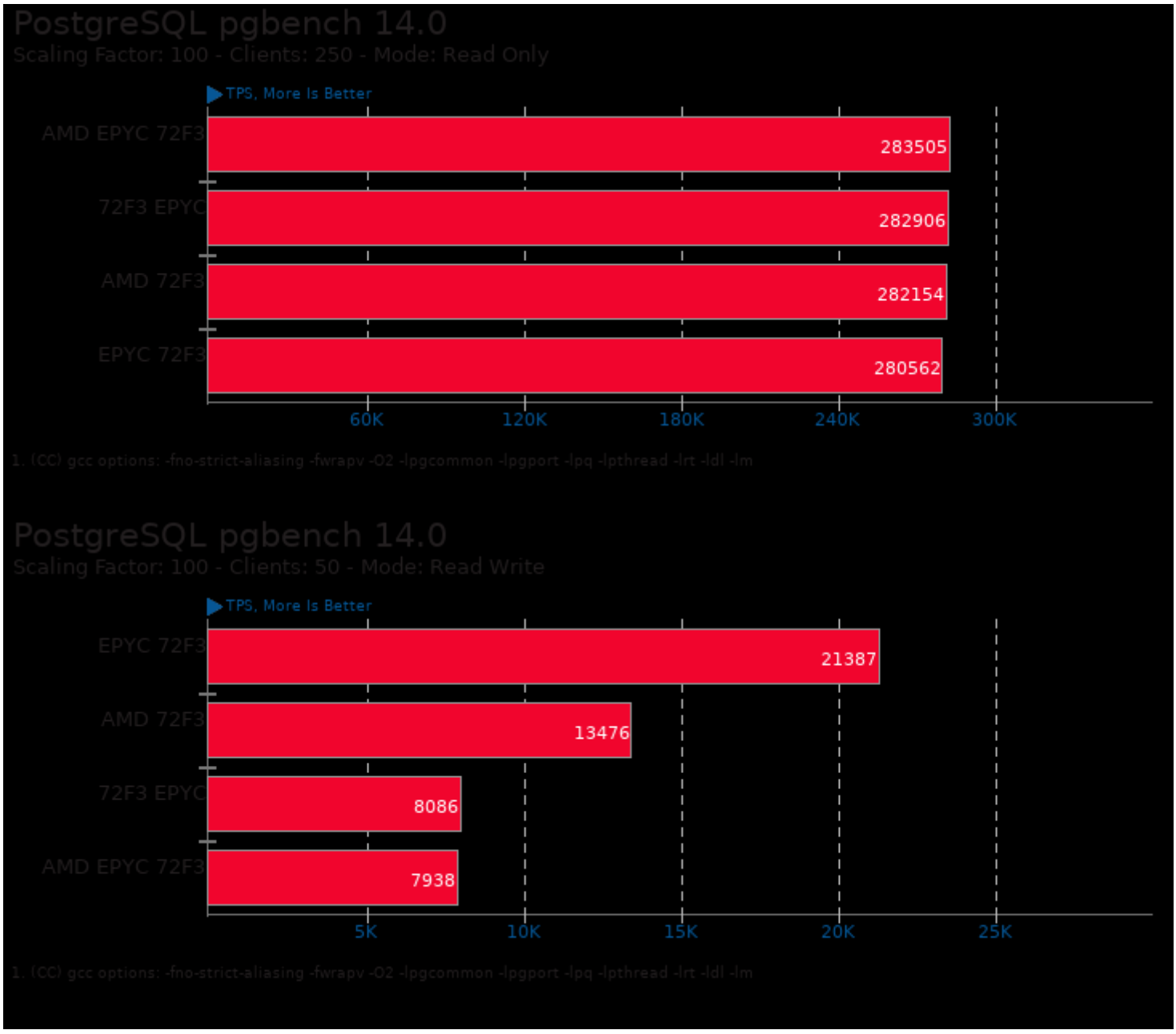

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 1 - Mode: Read Only
TPS, More Is Better
72F3 EPYC
AMD 72F3
AMD EPYC 72F3
EPYC 72F3
27109
26760
26159
26151
6K
12K
18K
24K
30K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
AMD 72F3
72F3 EPYC
EPYC 72F3
1064
1056
949
789
200
400
600
800
1000
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

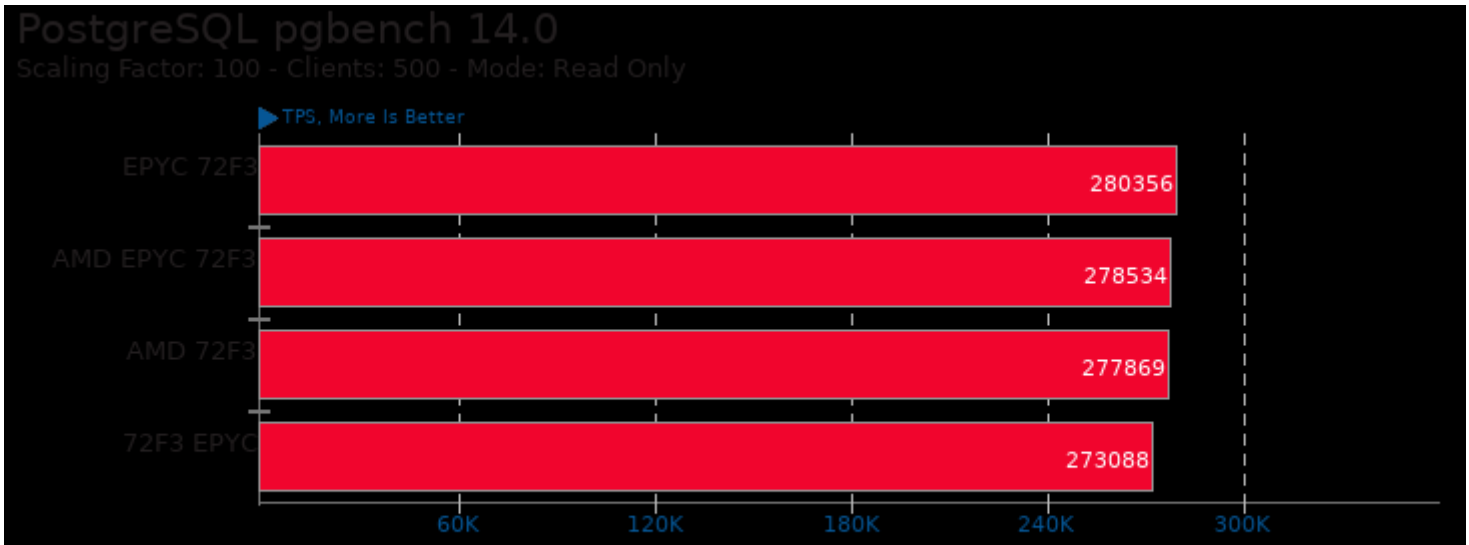

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
722
EPYC 72F3
700
AMD 72F3
684
72F3 EPYC
678
160
320
480
640
800
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

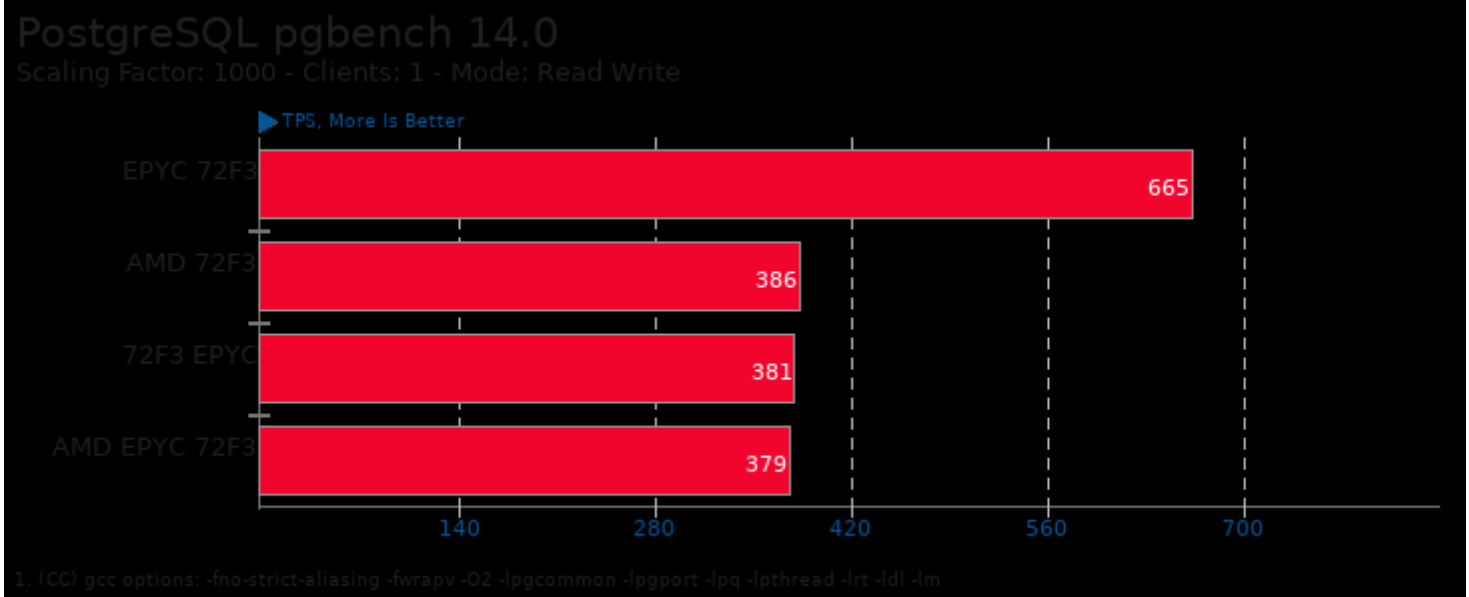
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 500 - Mode: Read Write
TPS, More Is Better
AMD 72F3
453
AMD EPYC 72F3
427
72F3 EPYC
372
EPYC 72F3
347
100
200
300
400
500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

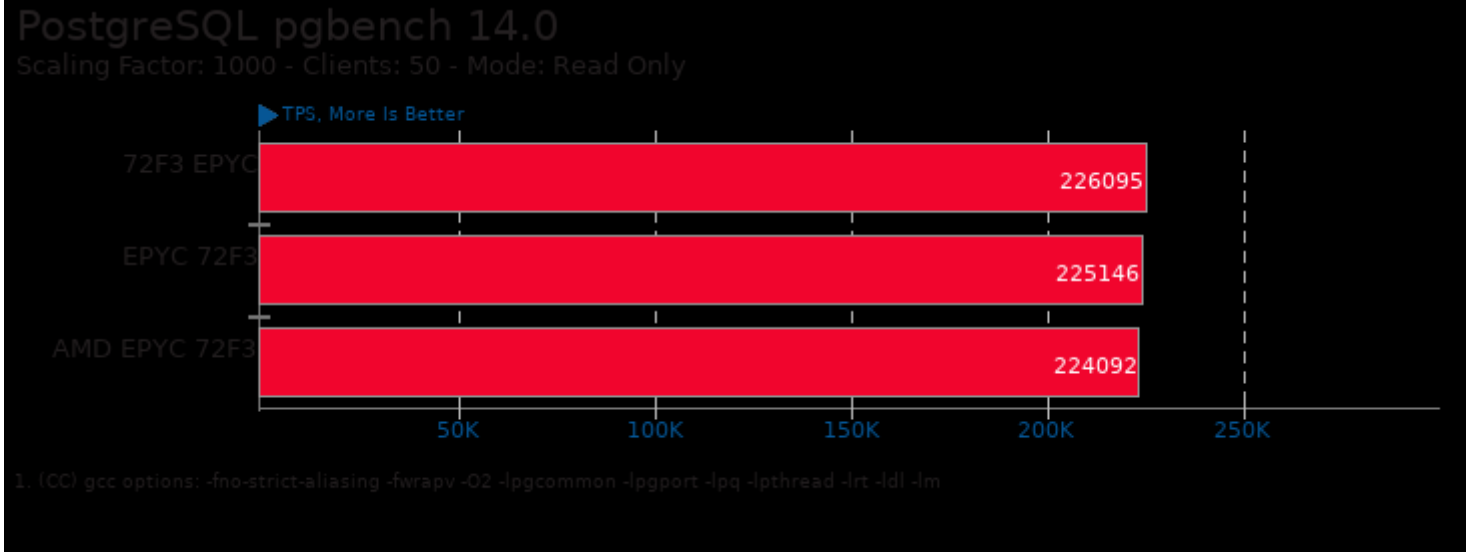

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 1 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
1536
AMD 72F3
853
EPYC 72F3
708
72F3 EPYC
624
300
600
900
1200
1500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only
TPS, More Is Better
72F3 EPYC
244025
AMD EPYC 72F3
242177
AMD 72F3
241844
EPYC 72F3
237268
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

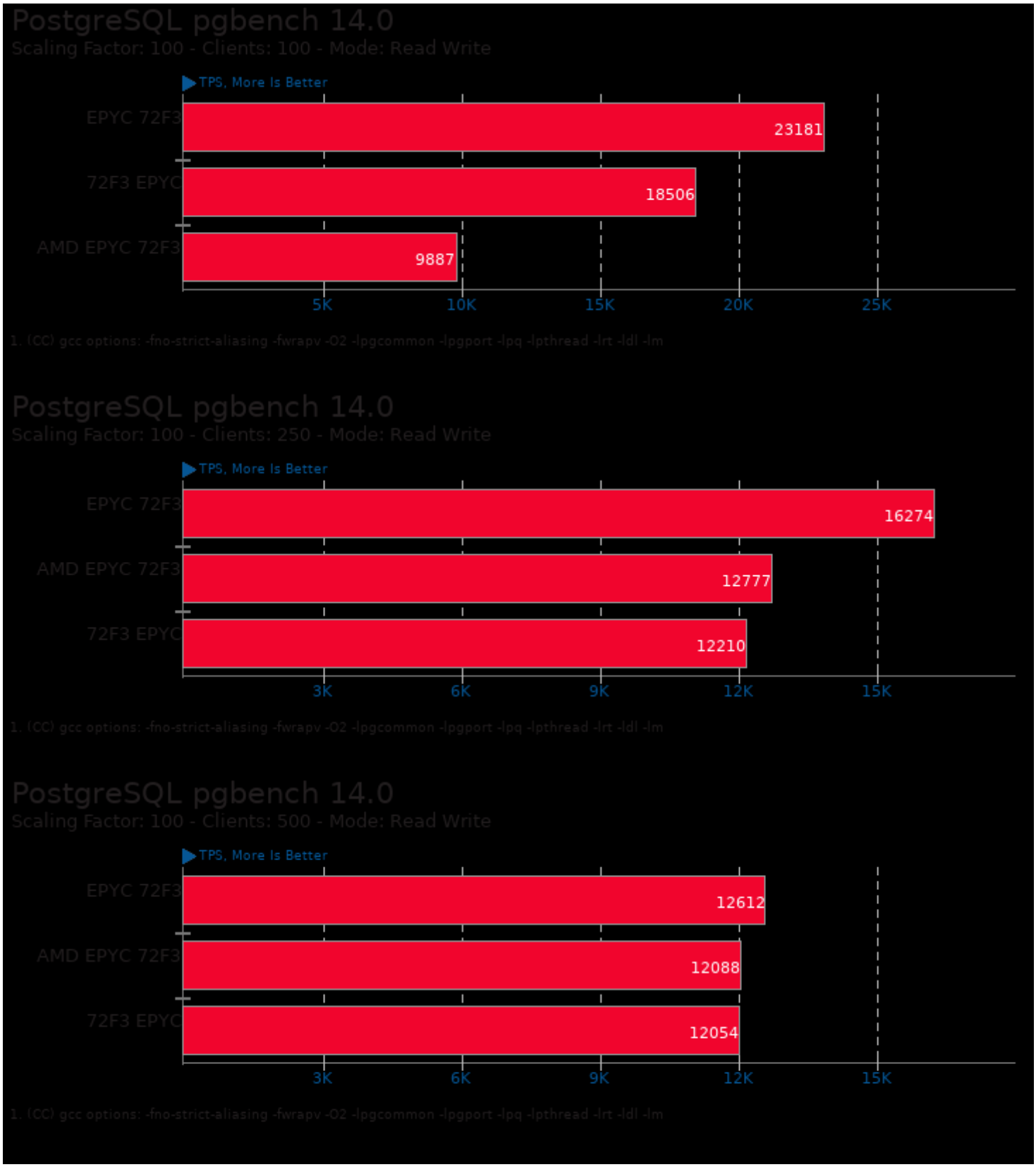

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only
TPS, More Is Better
EPYC 72F3
23193
AMD 72F3
23033
AMD EPYC 72F3
22860
72F3 EPYC
22501
5K
10K
15K
20K
25K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
262327
AMD 72F3
262192
EPYC 72F3
260999
72F3 EPYC
259003
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

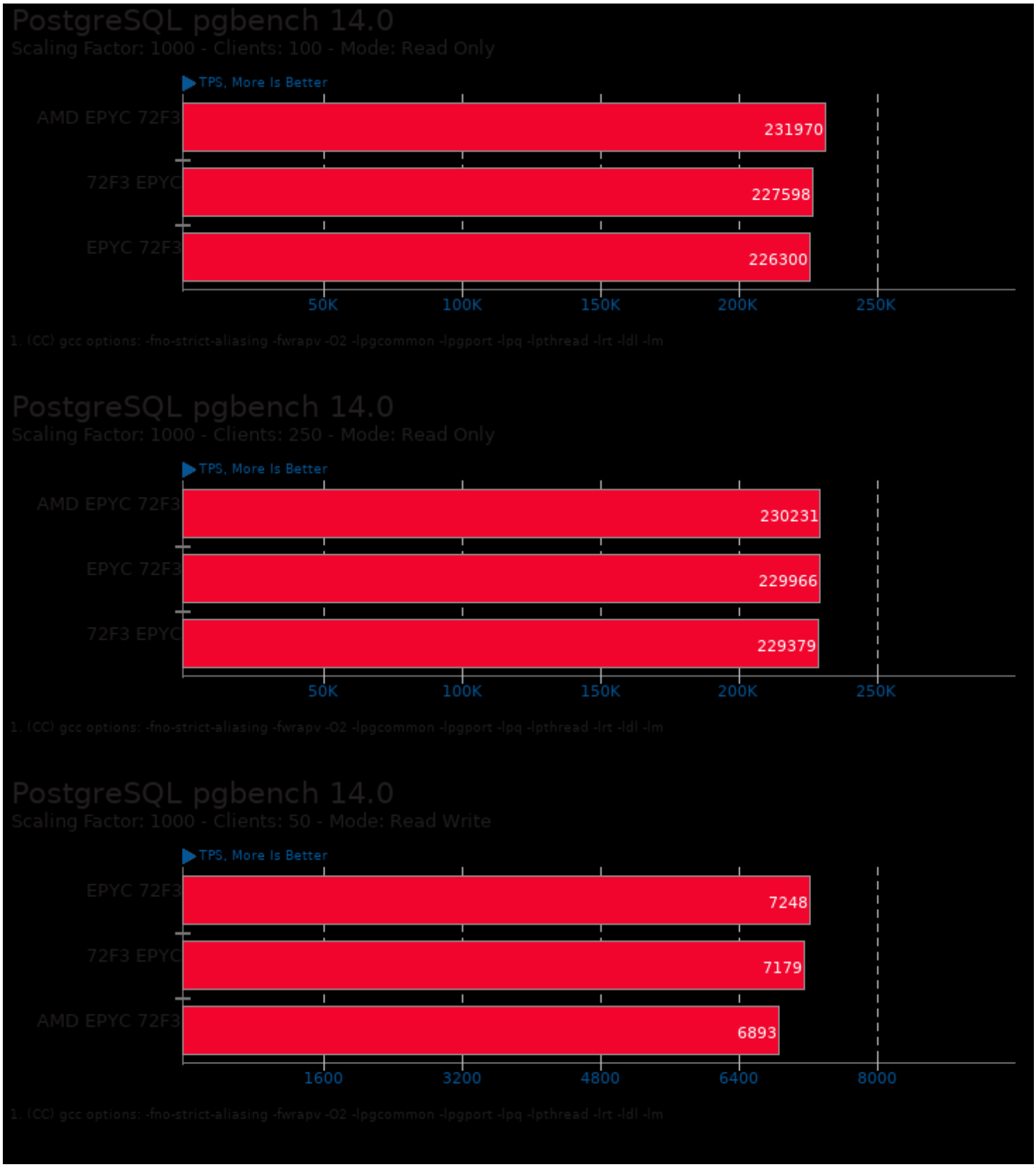

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
283505
72F3 EPYC
282906
AMD 72F3
282154
EPYC 72F3
280562
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
21387
AMD 72F3
13476
72F3 EPYC
8086
AMD EPYC 72F3
7938
5K
10K
15K
20K
25K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

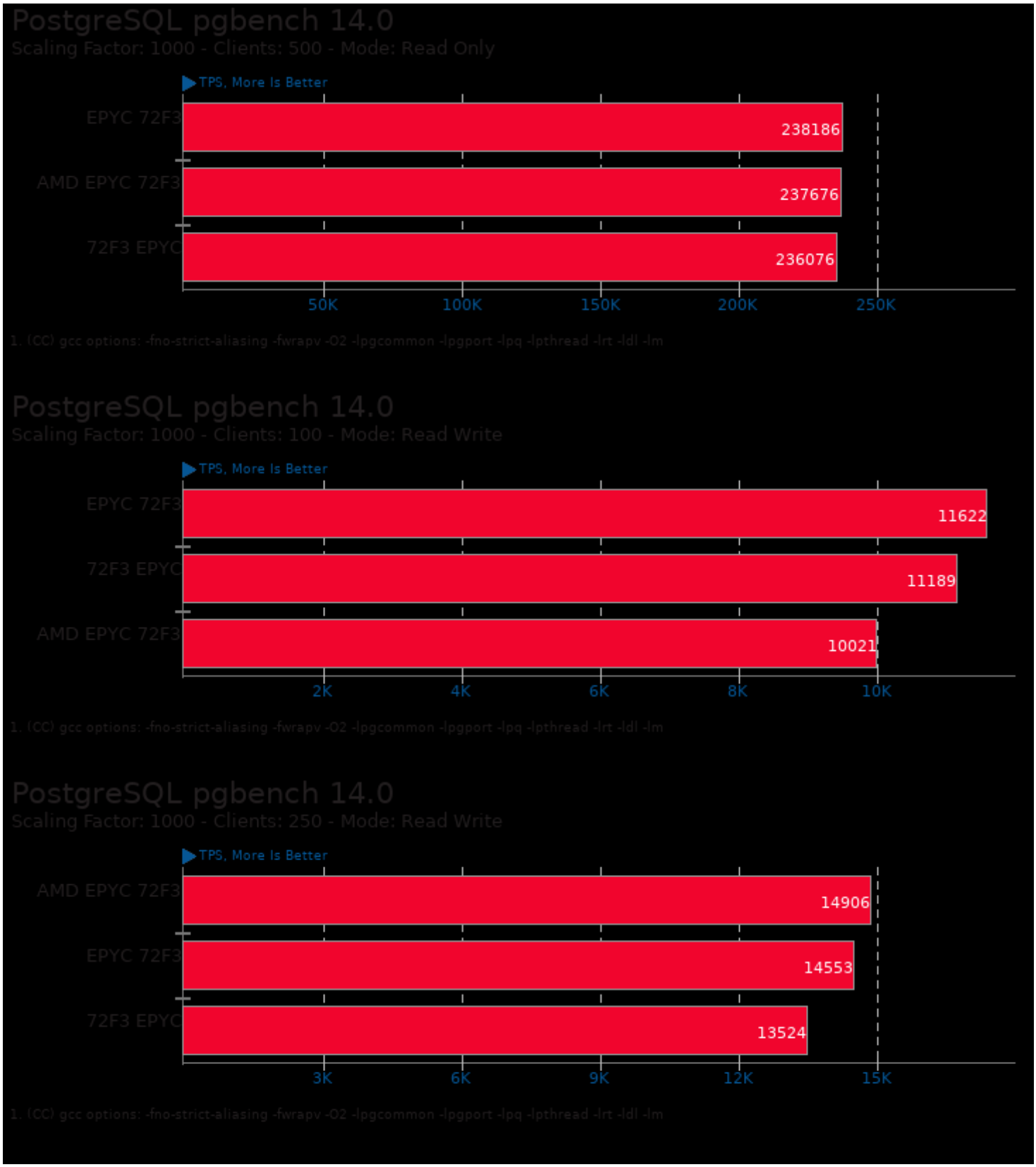

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 500 - Mode: Read Only
TPS, More Is Better
EPYC 72F3
AMD EPYC 72F3
AMD 72F3
72F3 EPYC
280356
278534
277869
273088
60K
120K
180K
240K
300K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

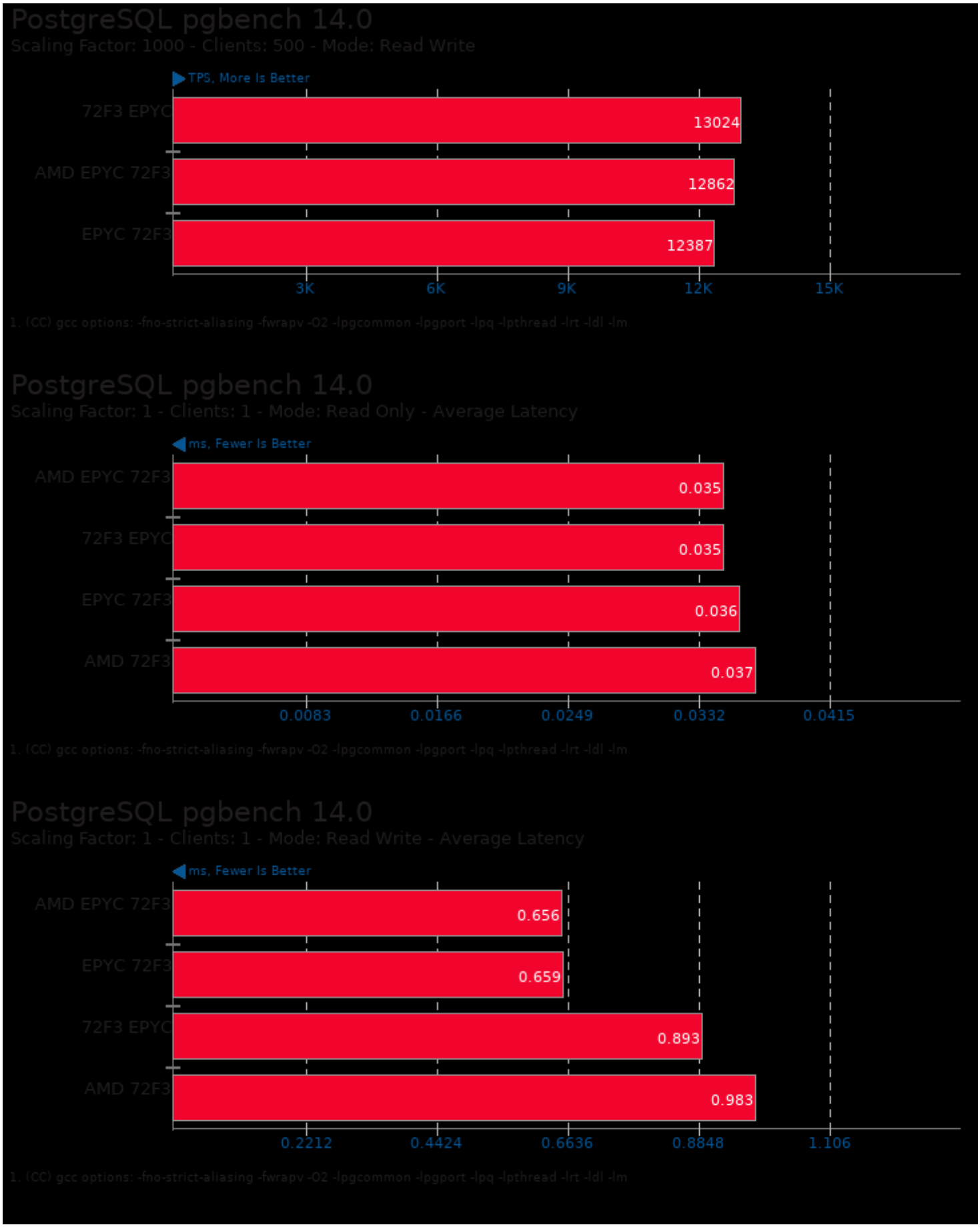

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
AMD 72F3
72F3 EPYC
AMD EPYC 72F3
665
386
381
379
140
280
420
560
700
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

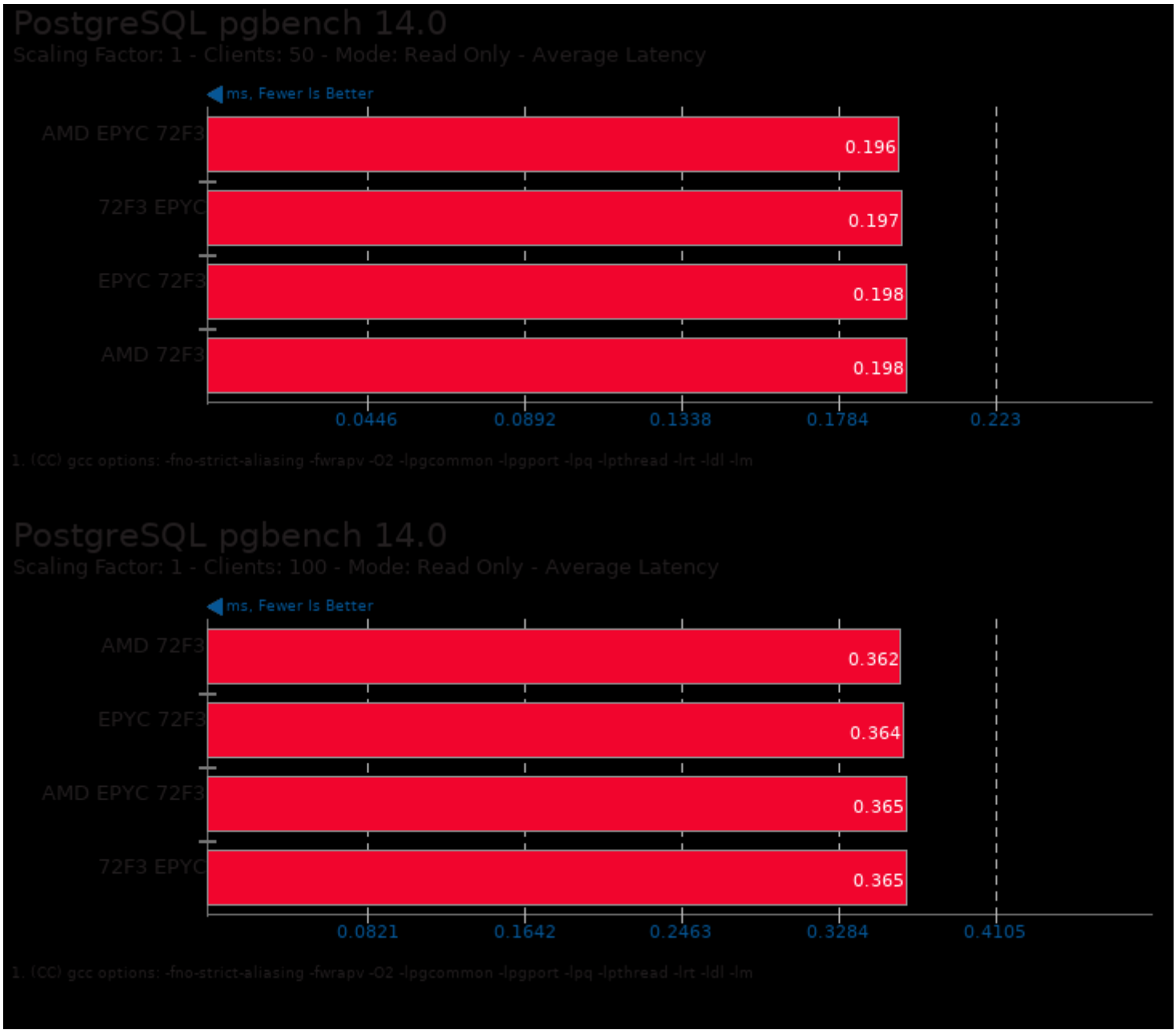

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only
TPS, More Is Better
72F3 EPYC
EPYC 72F3
AMD EPYC 72F3
226095
225146
224092
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

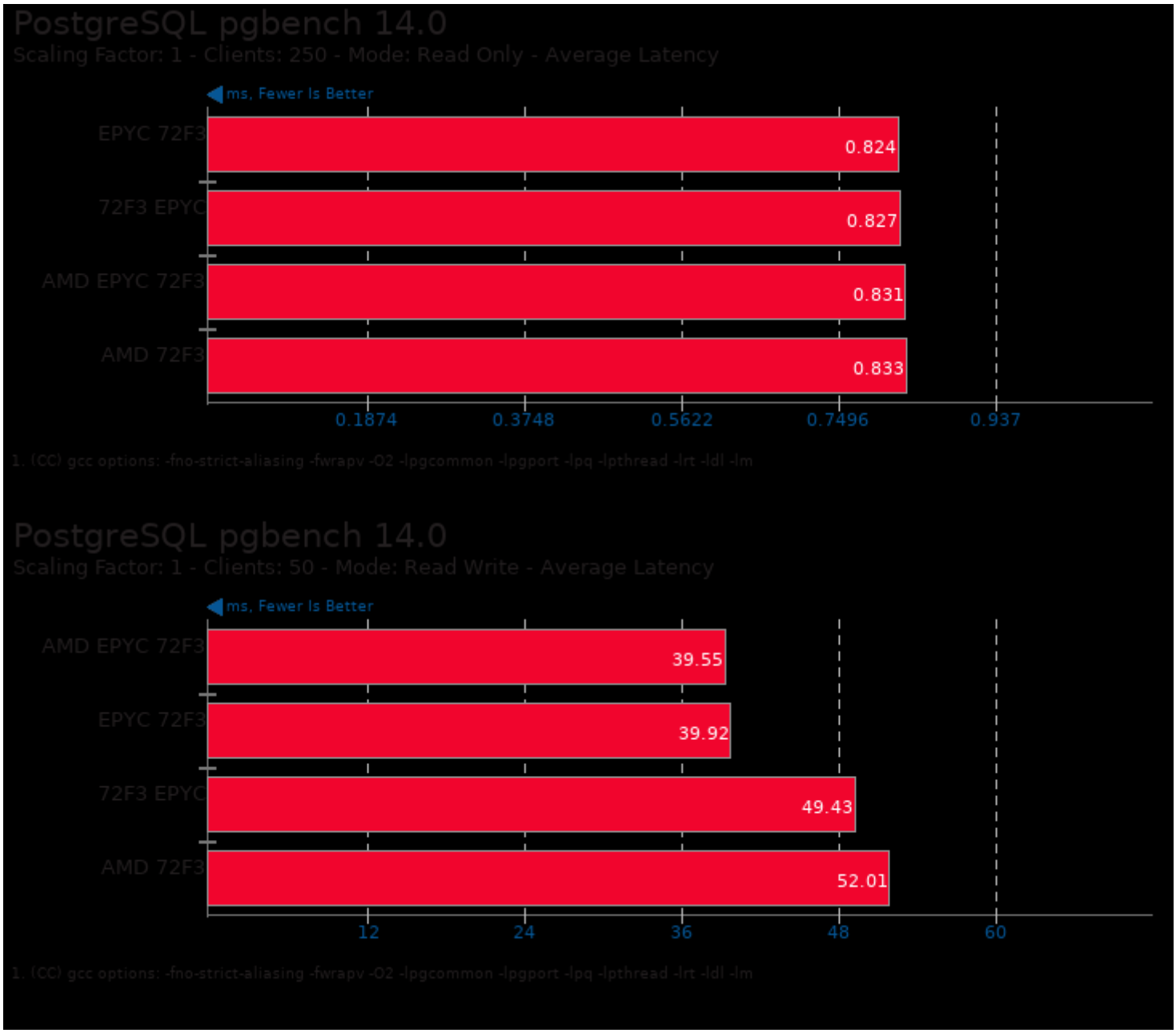

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
72F3 EPYC
AMD EPYC 72F3
23181
18506
9887
5K
10K
15K
20K
25K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
16274
12777
12210
3K
6K
9K
12K
15K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 500 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
12612
12088
12054
3K
6K
9K
12K
15K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

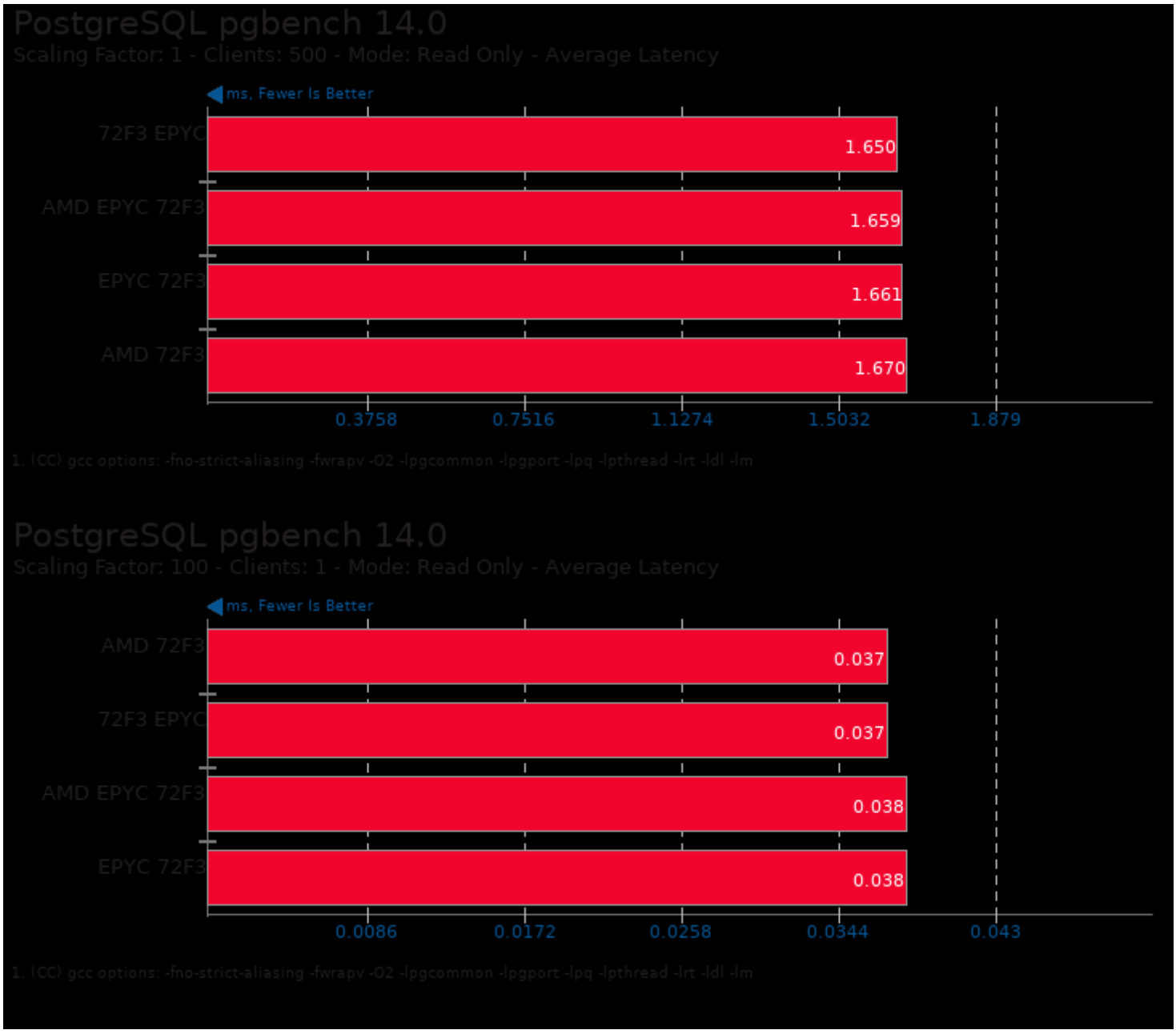

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
231970
72F3 EPYC
227598
EPYC 72F3
226300
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 250 - Mode: Read Only
TPS, More Is Better
AMD EPYC 72F3
230231
EPYC 72F3
229966
72F3 EPYC
229379
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
7248
72F3 EPYC
7179
AMD EPYC 72F3
6893
1600
3200
4800
6400
8000
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

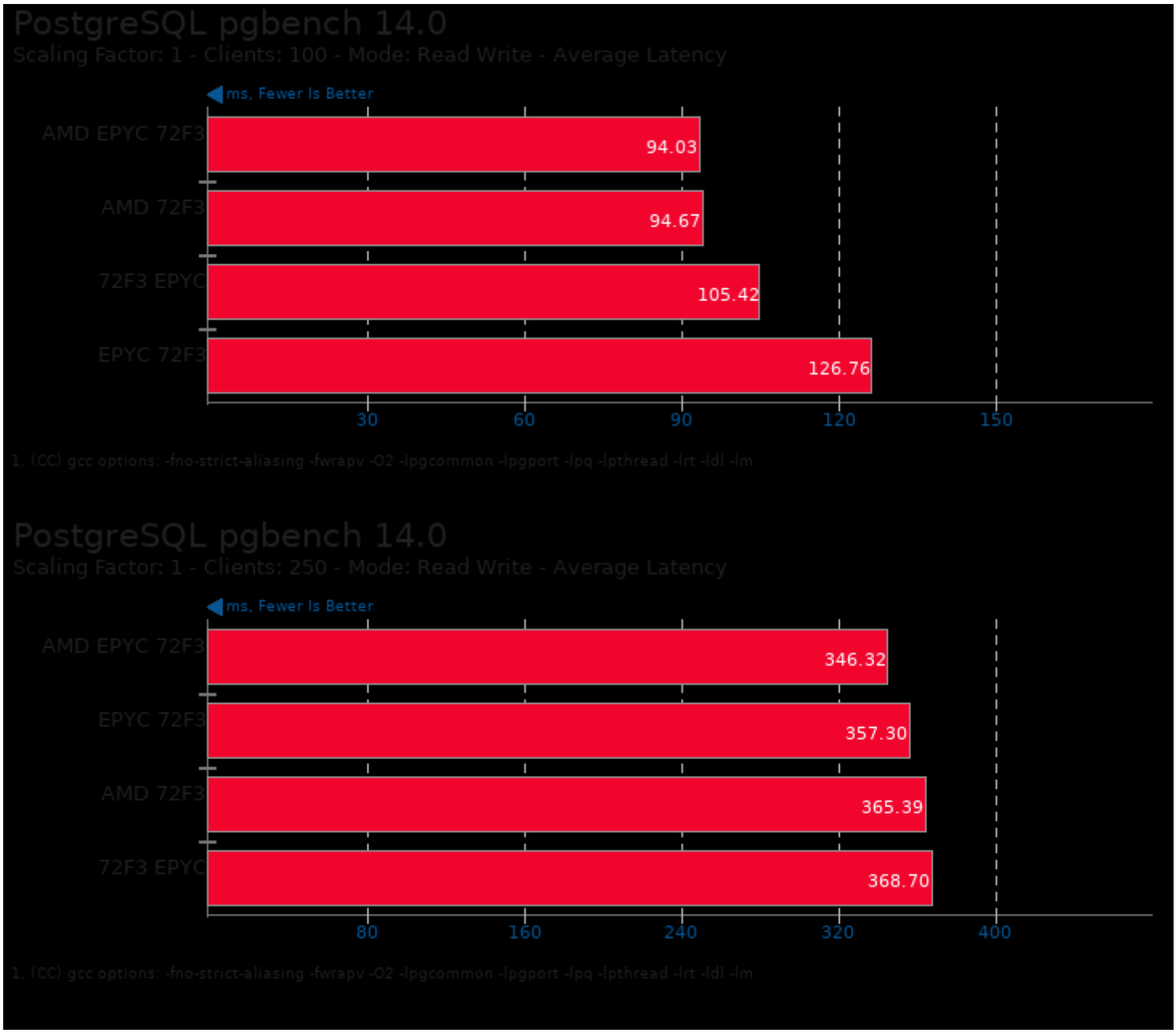

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 500 - Mode: Read Only
TPS, More Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
238186
237676
236076
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write
TPS, More Is Better
EPYC 72F3
72F3 EPYC
AMD EPYC 72F3
11622
11189
10021
2K
4K
6K
8K
10K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 250 - Mode: Read Write
TPS, More Is Better
AMD EPYC 72F3
EPYC 72F3
72F3 EPYC
14906
14553
13524
3K
6K
9K
12K
15K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

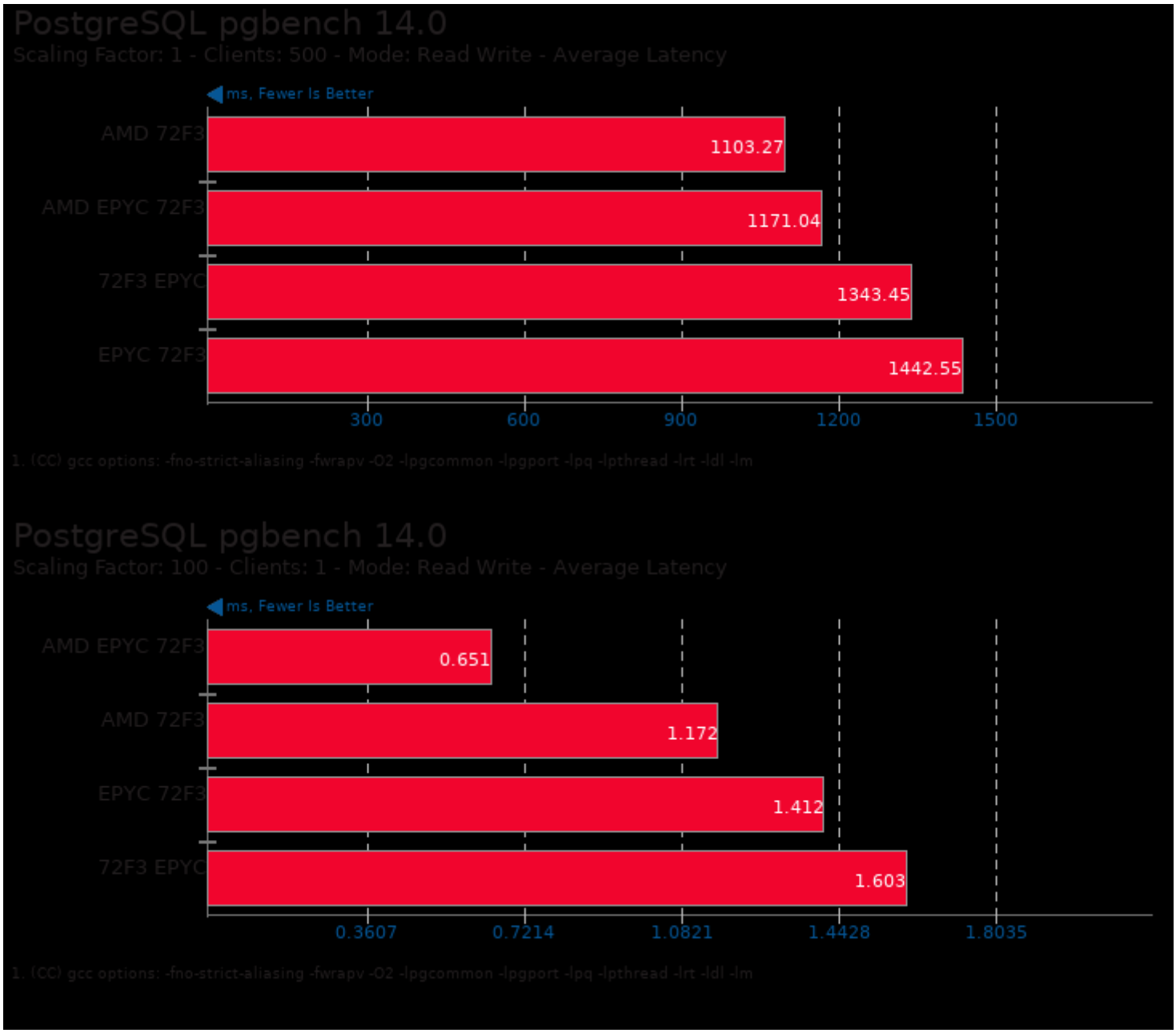

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 500 - Mode: Read Write
TPS, More Is Better
72F3 EPYC
13024
AMD EPYC 72F3
12862
EPYC 72F3
12387
3K
6K
9K
12K
15K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 1 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
0.035
72F3 EPYC
0.035
EPYC 72F3
0.036
AMD 72F3
0.037
0.0083
0.0166
0.0249
0.0332
0.0415
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 1 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
0.656
EPYC 72F3
0.659
72F3 EPYC
0.893
AMD 72F3
0.983
0.2212
0.4424
0.6636
0.8848
1.106
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

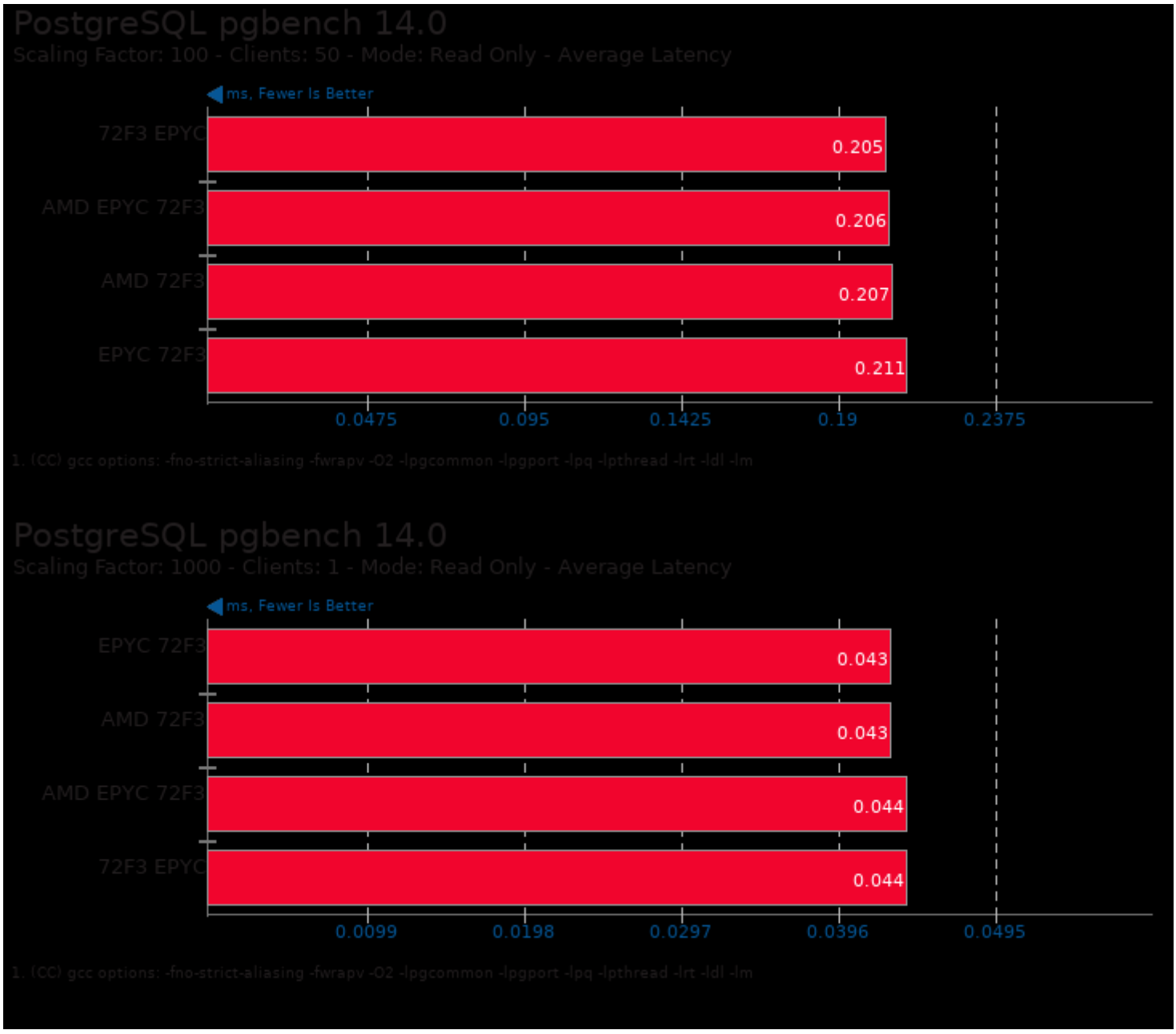

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
0.196
72F3 EPYC
0.197
EPYC 72F3
0.198
AMD 72F3
0.198
0.0446
0.0892
0.1338
0.1784
0.223
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD 72F3
0.362
EPYC 72F3
0.364
AMD EPYC 72F3
0.365
72F3 EPYC
0.365
0.0821
0.1642
0.2463
0.3284
0.4105
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

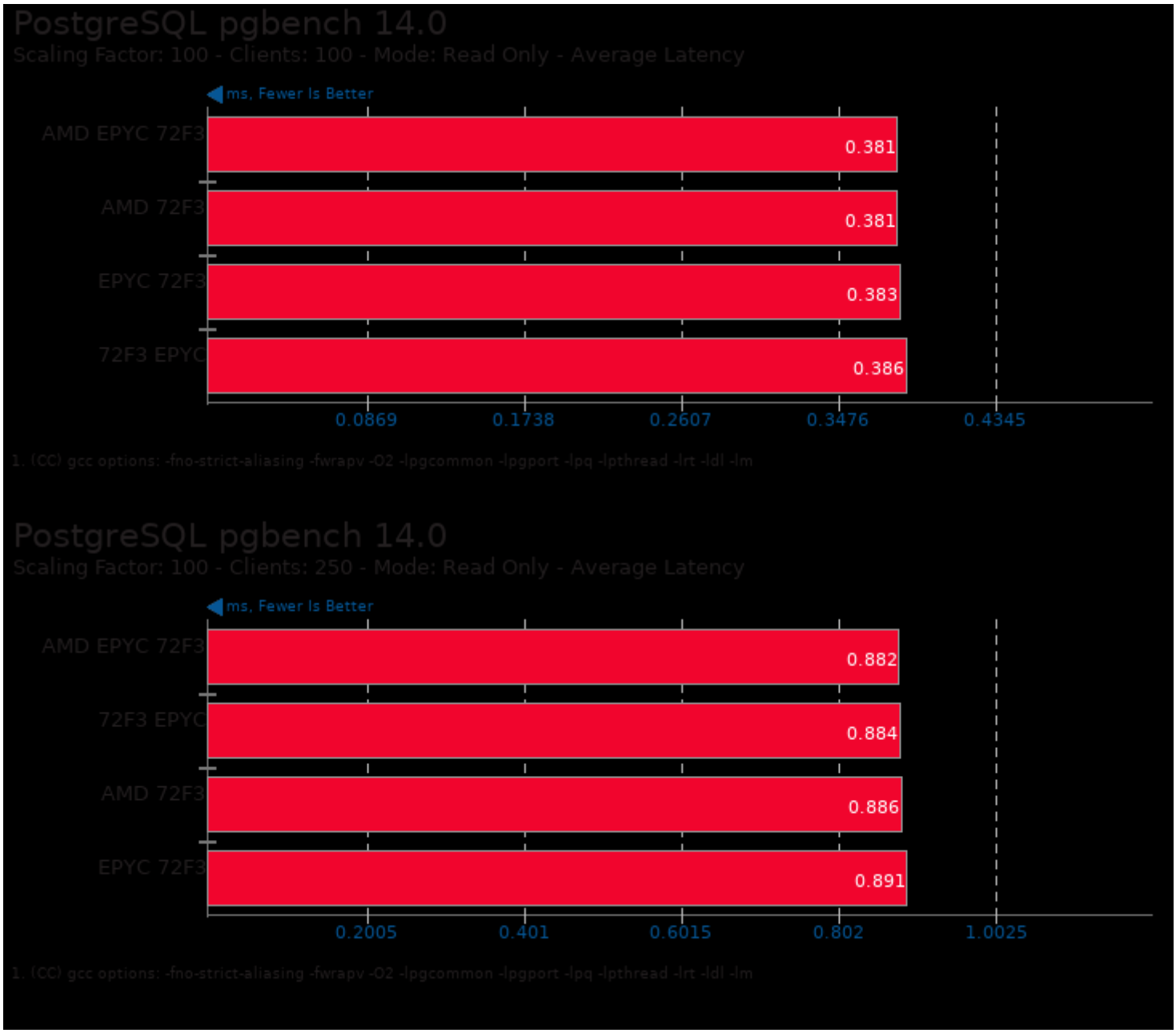

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Only - Average Latency
ms, Fewer Is Better
EPYC 72F3
72F3 EPYC
AMD EPYC 72F3
AMD 72F3
0.824
0.827
0.831
0.833
0.1874
0.3748
0.5622
0.7496
0.937
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
EPYC 72F3
72F3 EPYC
AMD 72F3
39.55
39.92
49.43
52.01
12
24
36
48
60
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

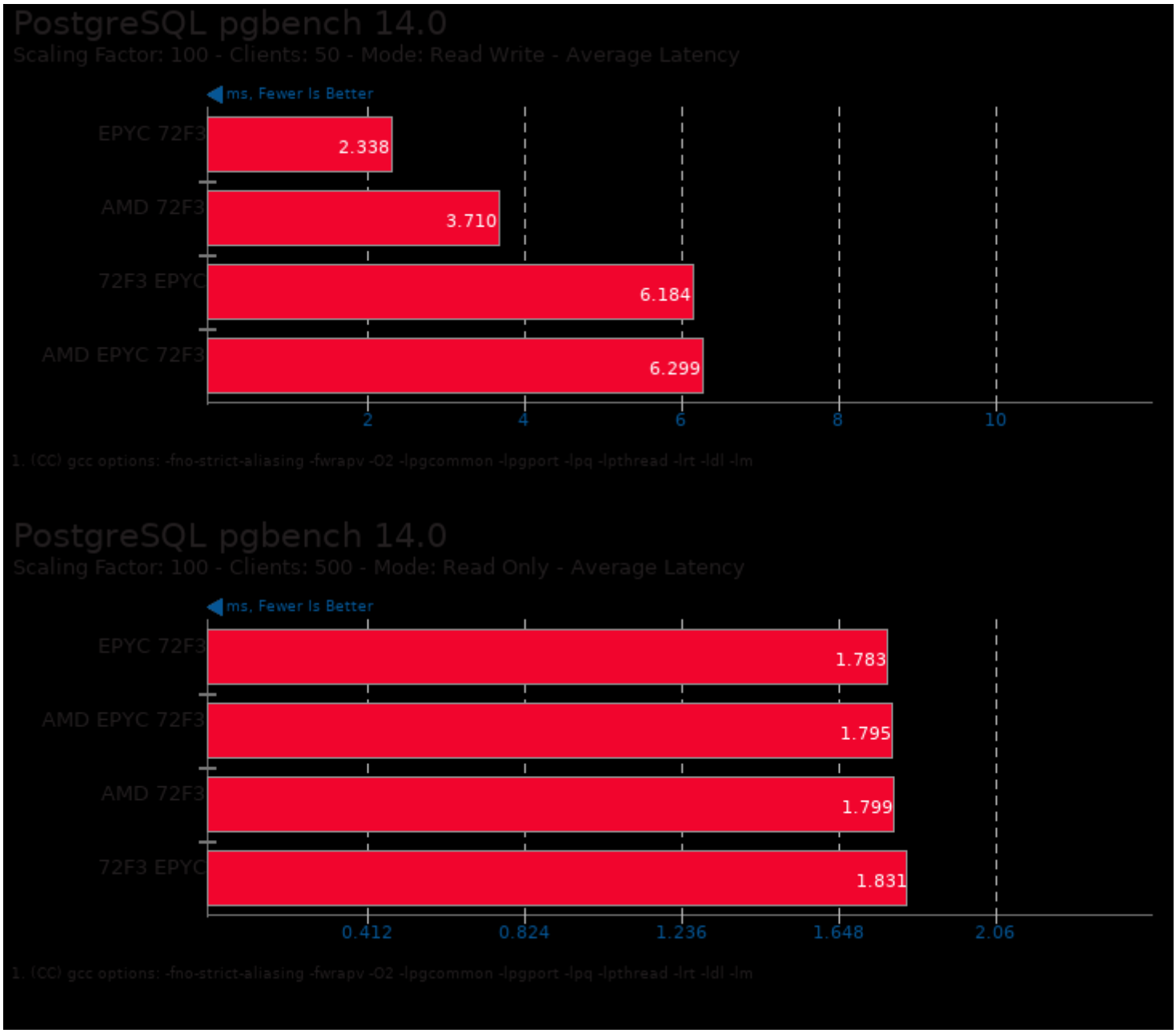

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 500 - Mode: Read Only - Average Latency
ms, Fewer Is Better
72F3 EPYC
AMD EPYC 72F3
EPYC 72F3
AMD 72F3
1.650
1.659
1.661
1.670
0.3758
0.7516
1.1274
1.5032
1.879
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 1 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD 72F3
72F3 EPYC
AMD EPYC 72F3
EPYC 72F3
0.037
0.037
0.038
0.038
0.0086
0.0172
0.0258
0.0344
0.043
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

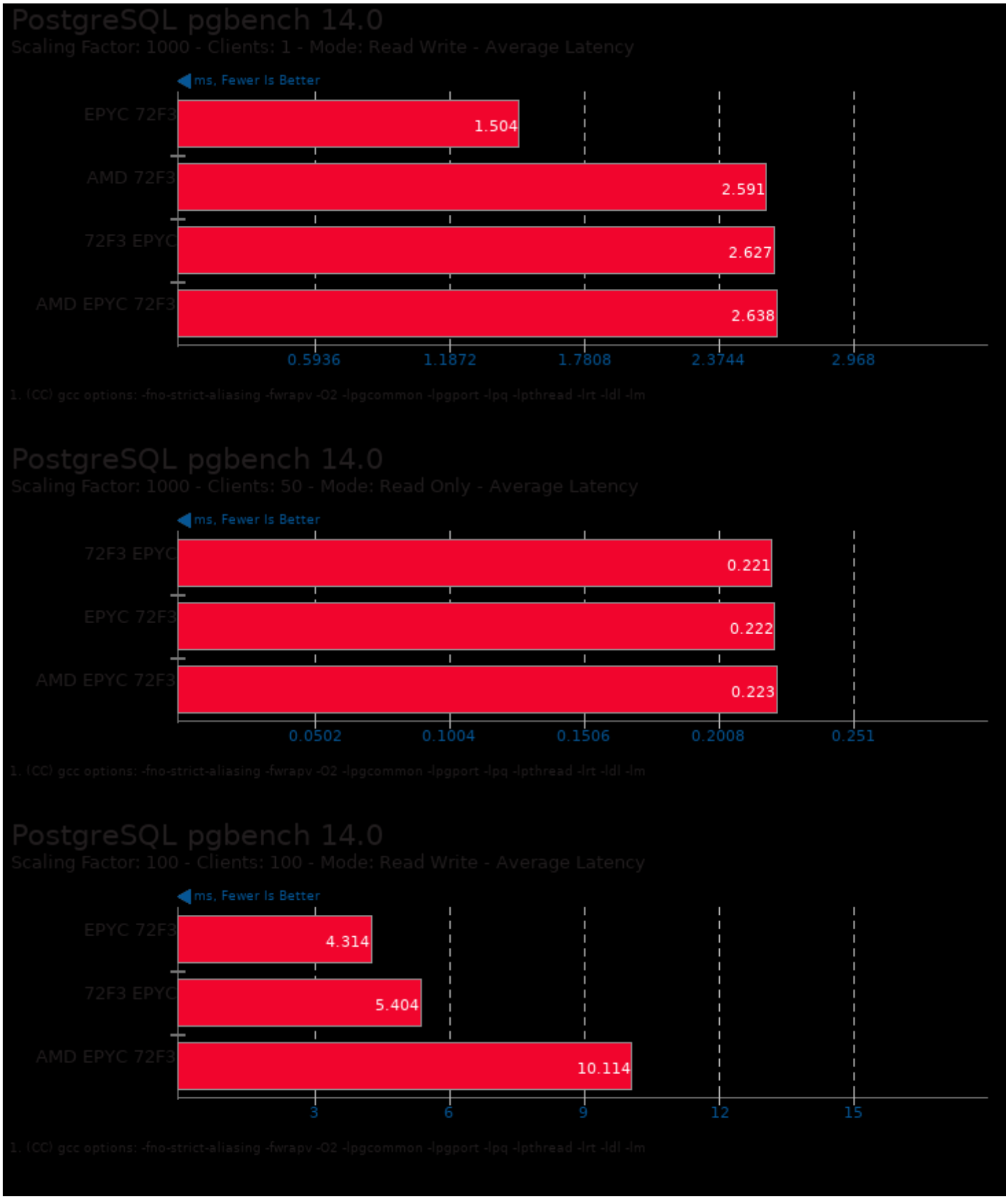

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 100 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
94.03
AMD 72F3
94.67
72F3 EPYC
105.42
EPYC 72F3
126.76
30
60
90
120
150
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 250 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
346.32
EPYC 72F3
357.30
AMD 72F3
365.39
72F3 EPYC
368.70
80
160
240
320
400
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

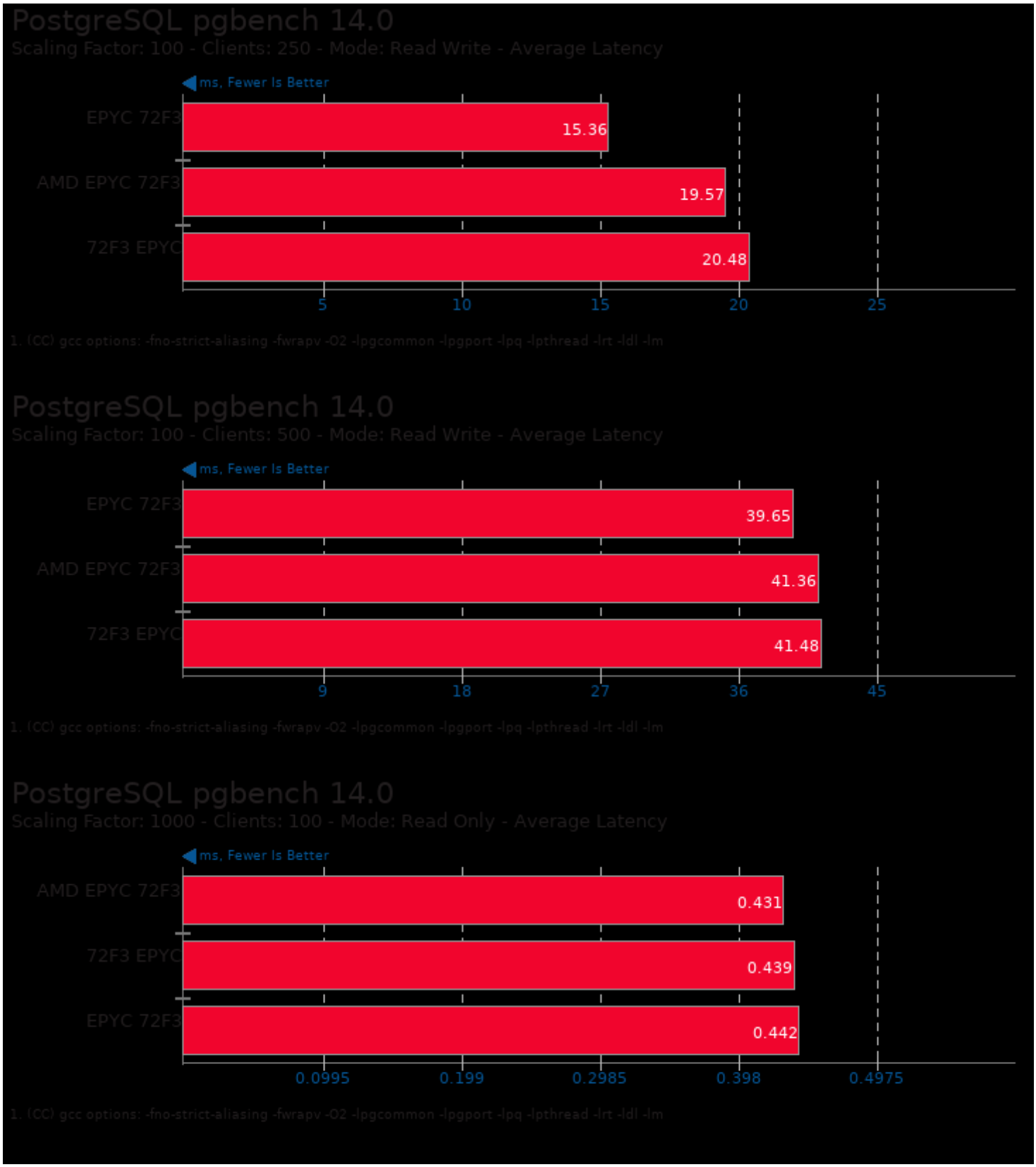

PostgreSQL pgbench 14.0
Scaling Factor: 1 - Clients: 500 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD 72F3
1103.27
AMD EPYC 72F3
1171.04
72F3 EPYC
1343.45
EPYC 72F3
1442.55
300
600
900
1200
1500
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 1 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
0.651
AMD 72F3
1.172
EPYC 72F3
1.412
72F3 EPYC
1.603
0.3607
0.7214
1.0821
1.4428
1.8035
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

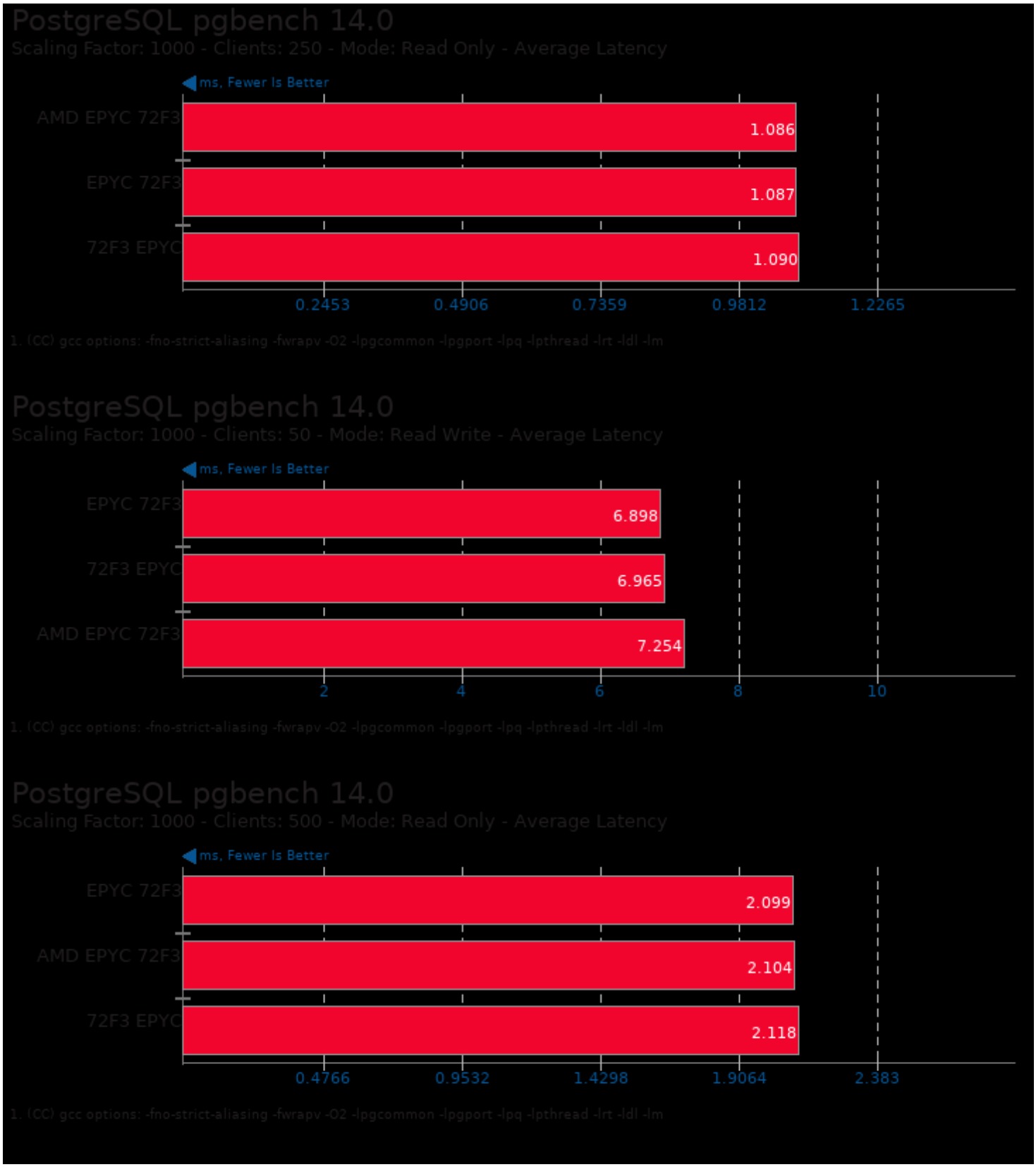

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
72F3 EPYC
AMD EPYC 72F3
AMD 72F3
EPYC 72F3
0.205
0.206
0.207
0.211
0.0475
0.095
0.1425
0.19
0.2375
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Only - Average Latency
ms, Fewer Is Better
EPYC 72F3
AMD 72F3
AMD EPYC 72F3
72F3 EPYC
0.043
0.043
0.044
0.044
0.0099
0.0198
0.0297
0.0396
0.0495
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

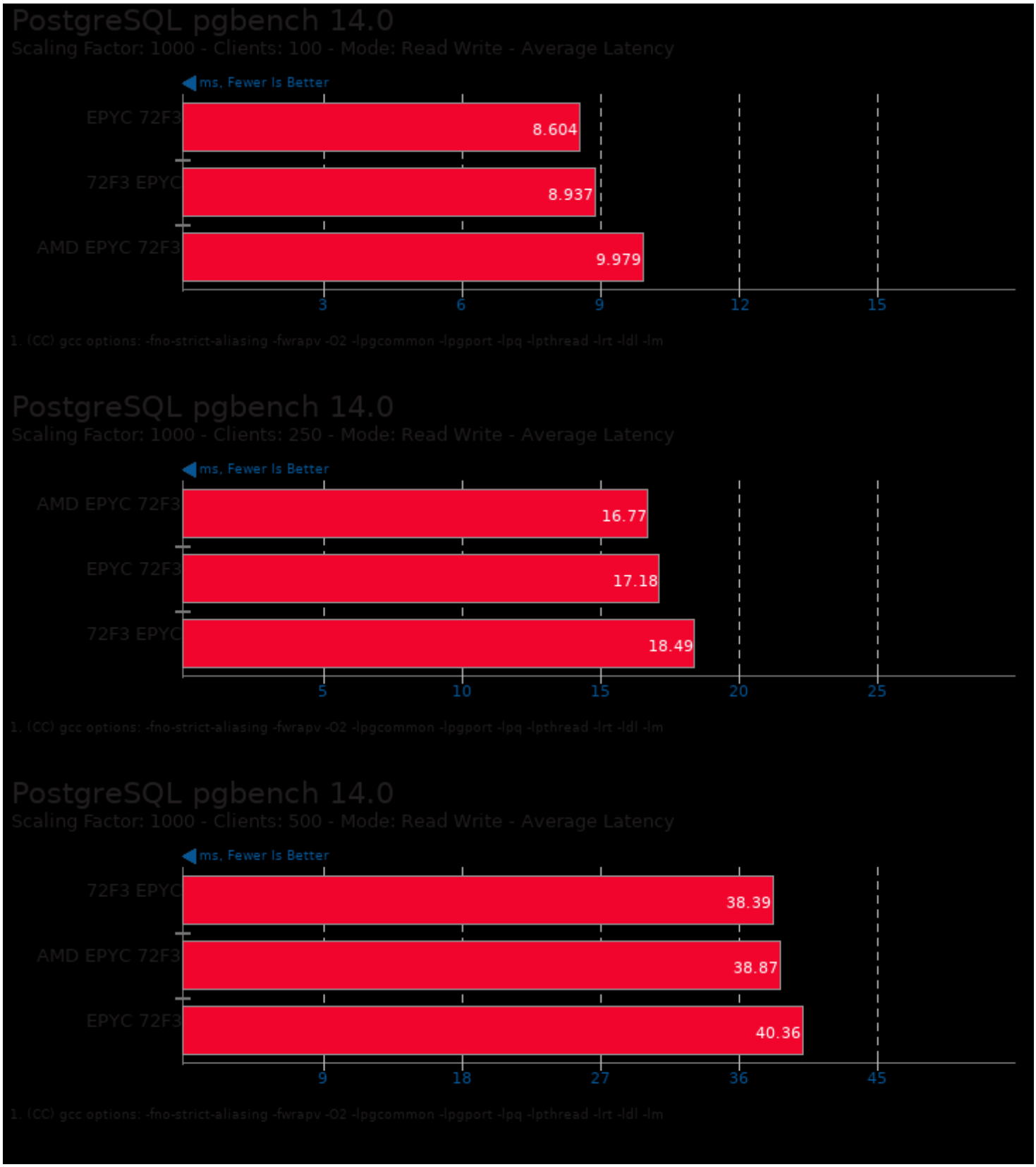

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
AMD 72F3
EPYC 72F3
72F3 EPYC
0.381
0.381
0.383
0.386
0.0869
0.1738
0.2607
0.3476
0.4345
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
72F3 EPYC
AMD 72F3
EPYC 72F3
0.882
0.884
0.886
0.891
0.2005
0.401
0.6015
0.802
1.0025
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

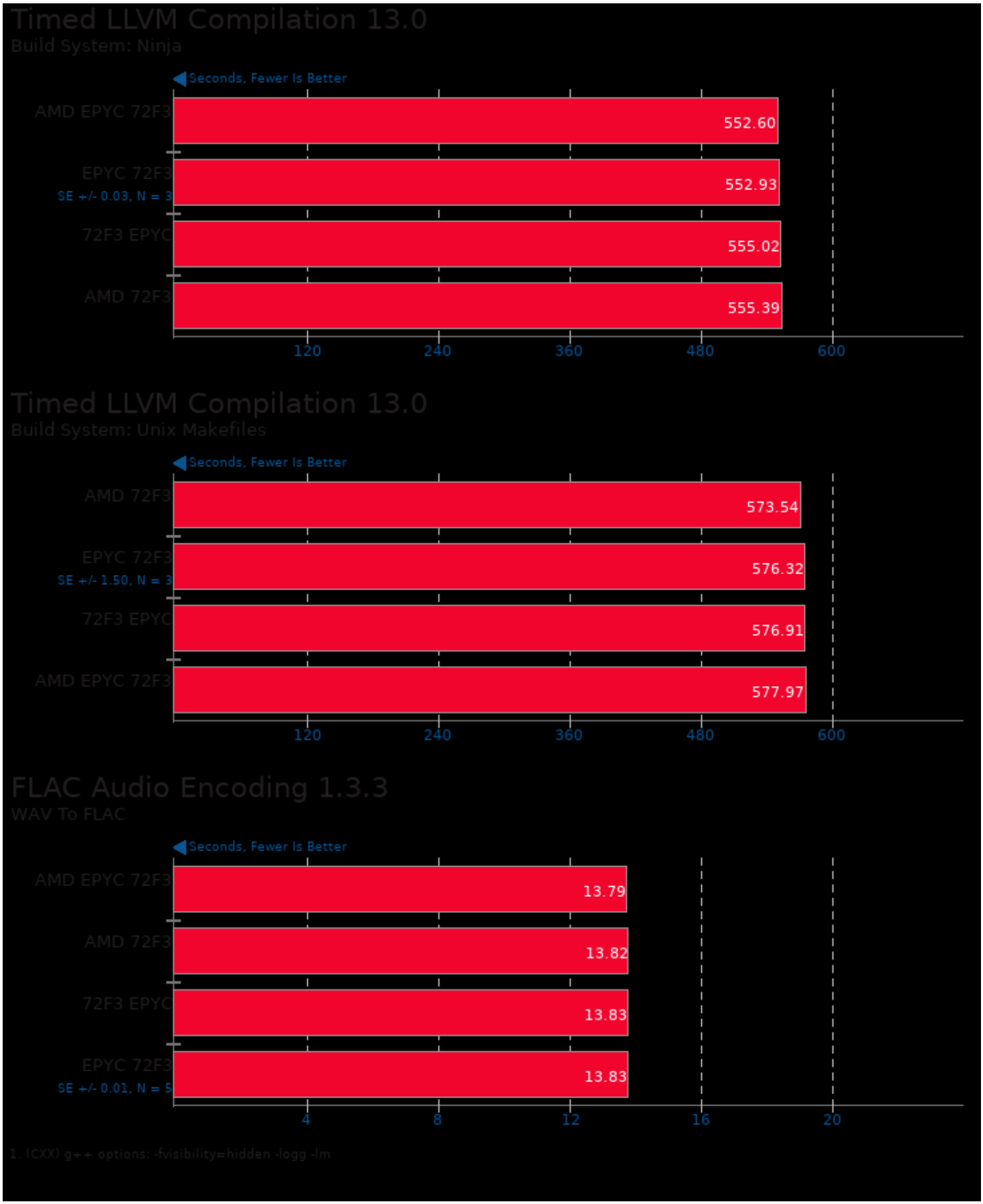

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
2.338
AMD 72F3
3.710
72F3 EPYC
6.184
AMD EPYC 72F3
6.299
2
4
6
8
10
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 500 - Mode: Read Only - Average Latency
ms, Fewer Is Better
EPYC 72F3
1.783
AMD EPYC 72F3
1.795
AMD 72F3
1.799
72F3 EPYC
1.831
0.412
0.824
1.236
1.648
2.06
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 1 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
1.504
AMD 72F3
2.591
72F3 EPYC
2.627
AMD EPYC 72F3
2.638
0.5936
1.1872
1.7808
2.3744
2.968
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Only - Average Latency
ms, Fewer Is Better
72F3 EPYC
0.221
EPYC 72F3
0.222
AMD EPYC 72F3
0.223
0.0502
0.1004
0.1506
0.2008
0.251
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 100 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
4.314
72F3 EPYC
5.404
AMD EPYC 72F3
10.114
3
6
9
12
15
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

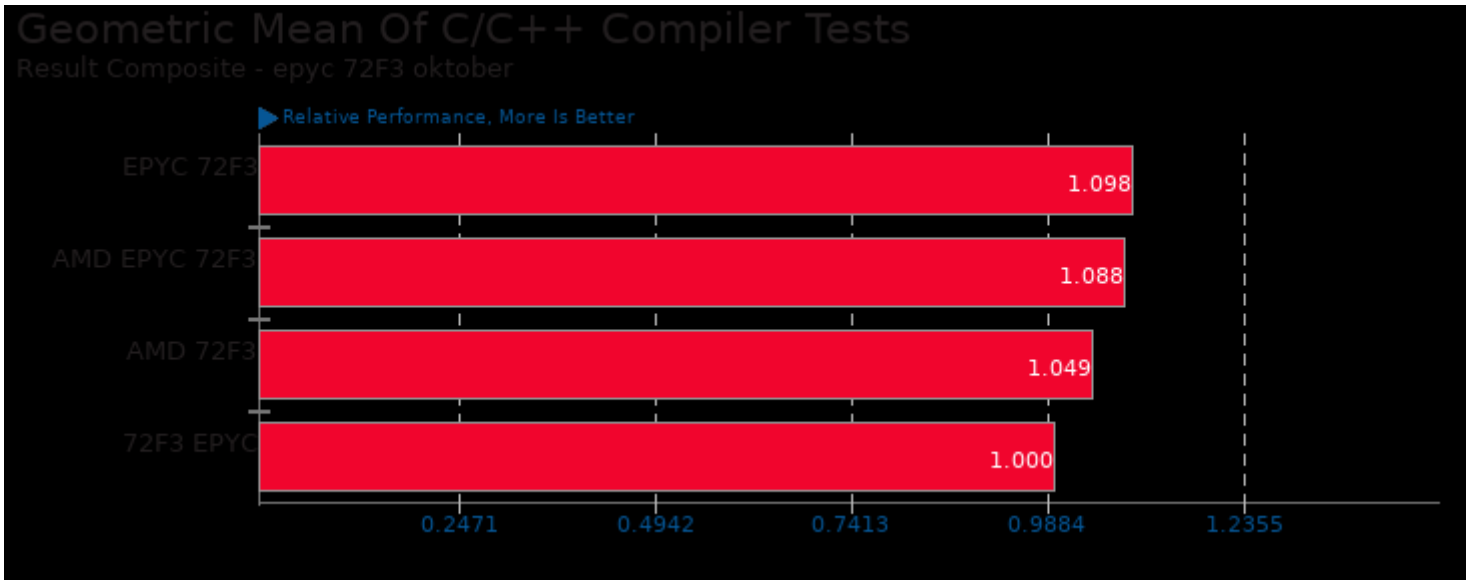

PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 250 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
15.36
19.57
20.48
5
10
15
20
25
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 100 - Clients: 500 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
39.65
41.36
41.48
9
18
27
36
45
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
72F3 EPYC
EPYC 72F3
0.431
0.439
0.442
0.0995
0.199
0.2985
0.398
0.4975
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 250 - Mode: Read Only - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
EPYC 72F3
72F3 EPYC
1.086
1.087
1.090
0.2453
0.4906
0.7359
0.9812
1.2265
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 50 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
72F3 EPYC
AMD EPYC 72F3
6.898
6.965
7.254
2
4
6
8
10
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 500 - Mode: Read Only - Average Latency
ms, Fewer Is Better
EPYC 72F3
AMD EPYC 72F3
72F3 EPYC
2.099
2.104
2.118
0.4766
0.9532
1.4298
1.9064
2.383
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm

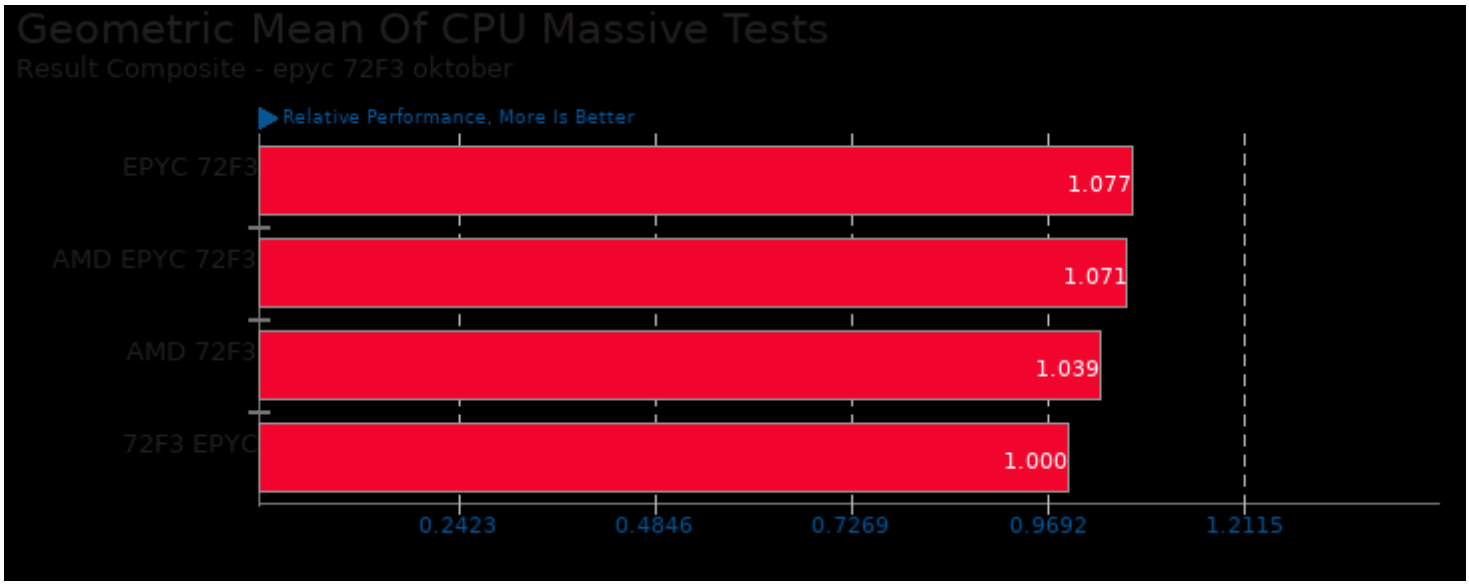

PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 100 - Mode: Read Write - Average Latency
ms, Fewer Is Better
EPYC 72F3
8.604
72F3 EPYC
8.937
AMD EPYC 72F3
9.979
3
6
9
12
15
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 250 - Mode: Read Write - Average Latency
ms, Fewer Is Better
AMD EPYC 72F3
16.77
EPYC 72F3
17.18
72F3 EPYC
18.49
5
10
15
20
25
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm
PostgreSQL pgbench 14.0
Scaling Factor: 1000 - Clients: 500 - Mode: Read Write - Average Latency
ms, Fewer Is Better
72F3 EPYC
38.39
AMD EPYC 72F3
38.87
EPYC 72F3
40.36
9
18
27
36
45
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -lpthread -lrt -ldl -lm


Timed LLVM Compilation 13.0
Build System: Ninja
Seconds, Fewer Is Better
AMD EPYC 72F3
552.60
EPYC 72F3
SE +/- 0.03, N = 3
552.93
72F3 EPYC
555.02
AMD 72F3
555.39
120
240
360
480
600
Timed LLVM Compilation 13.0
Build System: Unix Makefiles
Seconds, Fewer Is Better
AMD 72F3
573.54
EPYC 72F3
SE +/- 1.50, N = 3
576.32
72F3 EPYC
576.91
AMD EPYC 72F3
577.97
120
240
360
480
600
FLAC Audio Encoding 1.3.3
WAV To FLAC
Seconds, Fewer Is Better
AMD EPYC 72F3
13.79
AMD 72F3
13.82
72F3 EPYC
13.83
EPYC 72F3
SE +/- 0.01, N = 5
13.83
4
8
12
16
20
1. (CXX) g++ options: -fvisibility=hidden -logg -lm

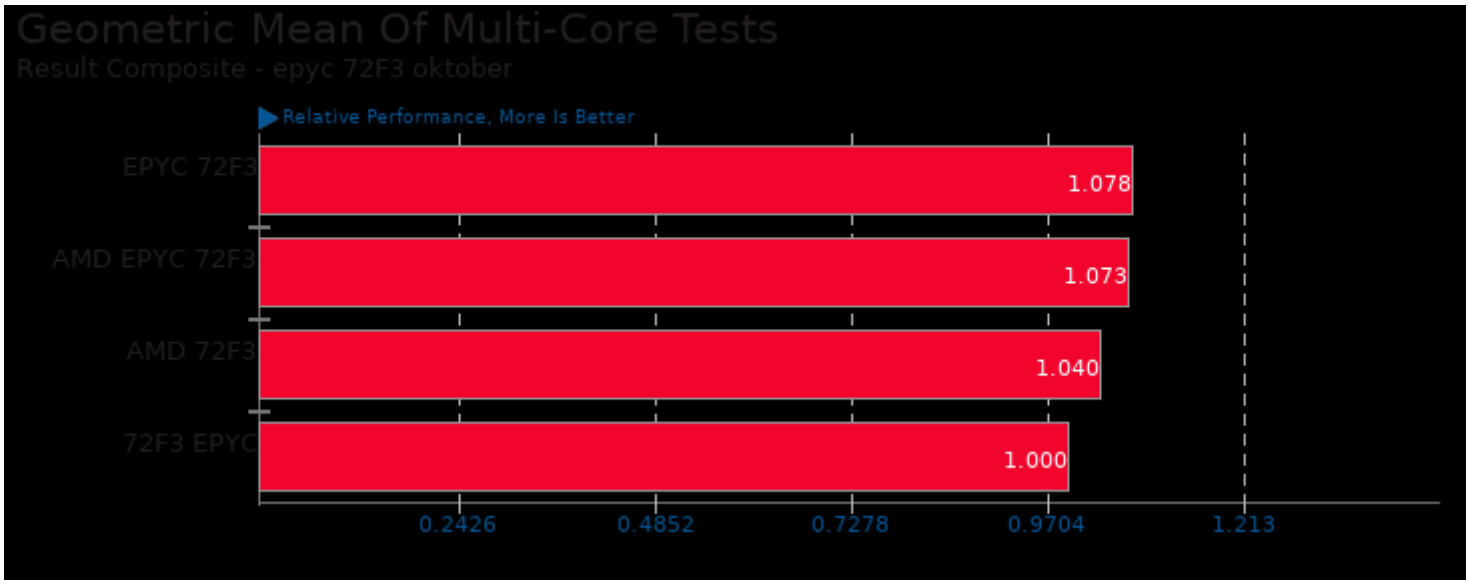
These geometric means are based upon test groupings / test suites for this result file.



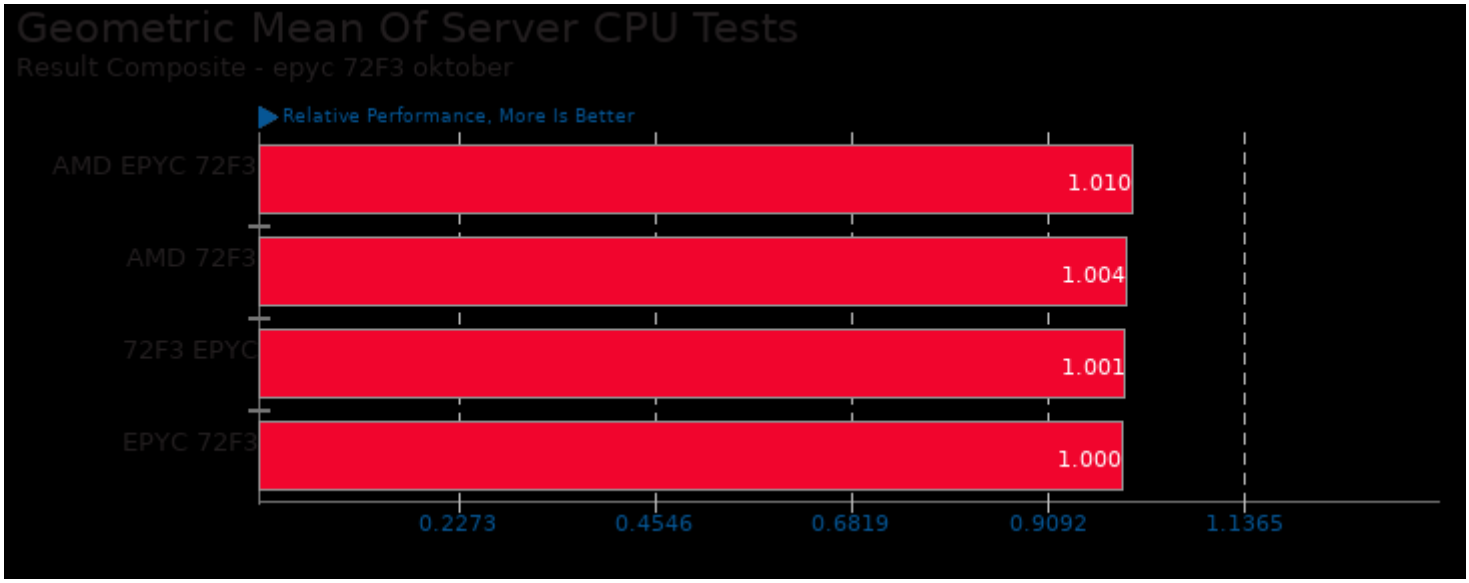
Geometric mean based upon tests: pts/build-llvm, pts/encode-flac and pts/pgbench



Geometric mean based upon tests: pts/build-llvm, pts/encode-flac, pts/pgbench and pts/cpuminer-opt



Geometric mean based upon tests: pts/cpuminer-opt, pts/build-llvm and pts/pgbench



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 21:09.