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FT-S2500*2-testcpu

Phytium FT-2000+/64 testing with a Byosoft FT2000+ (1.0.30 BIOS) and llvmpipe on Kylin Linux Advanced Server V10 via the Phoronix Test Suite.

Automated Executive Summary

S2500 had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (FT-2000+/64) was 1.025x the speed of the slowest (S2500). ft-2000+/64vsft-S2500/64 was 1x the speed of FT-2000+/64 and S2500 was 0.976x the speed of ft-2000+/64vsft-S2500/64.

Test Systems:

S2500

Processor: Phytium S2500/64 C00 @ 2.10GHz (128 Cores), Motherboard: ZD-TECH KL4.26.UEFI.S.024.210617.D, Memory: 2 x 16384 MB DDR4-2400MT/s Samsung DDR4-, Disk: 960GB SAMSUNG MZ7LH960 + 31GB DataTraveler

3.0, Graphics: llvmpipe, Monitor: BenQ GL2055, Network: 4 x Intel I350

OS: Kylin Linux Advanced Server V10, Kernel: 4.19.90-23.17.v2101.ky10.aarch64 (aarch64) 20211101, Desktop: MATE, Display Server: X Server 1.20.8, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 7.3.0, File-System: xfs, Screen Resolution: 1600x900

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: ft2500_freq performance
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Mitigation of PTI + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Not affected + srbds: Not affected + tsx_async_abort: Not affected

ft-2000+/64vsft-S2500/64

FT-2000+/64

Processor: Phytium FT-2000+/64 (64 Cores), Motherboard: Byosoft FT2000+ (1.0.30 BIOS), Memory: 8 x 16 GB DDR4-2666MT/s Micron 9ASF2G72PZ-3G2B1, Disk: 240GB SAMSUNG MZ7LH240, Graphics: llvmpipe, Monitor: BenQ GL2055, Network: 4 x Intel I350

OS: Kylin Linux Advanced Server V10, Kernel: 4.19.90-23.4.v2101.ky10.aarch64 (aarch64) 20210303, Desktop: MATE, Display Server: X Server 1.20.6, OpenGL: 3.3 Mesa 18.3.6 (LLVM 7.0 128 bits), Compiler: GCC 7.3.0, File-System: xfs, Screen Resolution: 1600x900

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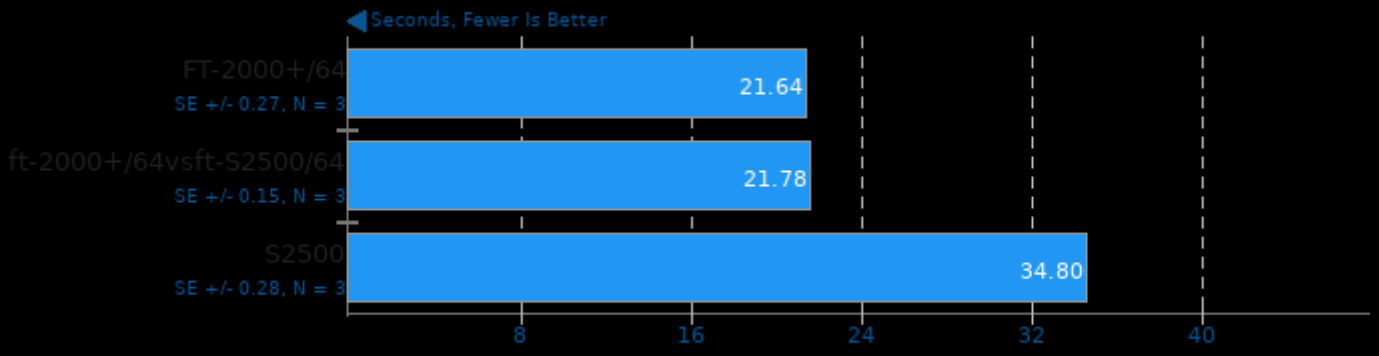
	S2500	ft-2000+/64vsft-S2500/64	FT-2000+/64
Timed MAFFT Alignment - M.S.A - LSU RNA (sec)	**34.795**	21.781	**21.641**
Normalized	62.2%	99.36%	100%
Standard Deviation	1.4%	1.2%	2.1%
GNU GMP GMPbench - Total Time (GMPbench Score)	**1273**	1422	**1423**
Normalized	89.44%	99.92%	100%
John The Ripper - Blowfish (Real C/S)	**7258**	**26830**	25711
Normalized	27.05%	100%	95.83%
Standard Deviation	86.3%	9.6%	13.7%
John The Ripper - MD5 (Real C/S)	**486055**	**693284**	689971
Normalized	70.11%	100%	99.52%
Standard Deviation	13.1%	1.6%	2.2%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	**1289647**	776340	**763380**
Normalized	100%	60.2%	59.19%
Standard Deviation	5.1%	0.6%	2.1%
Timed GCC Compilation - Time To Compile (sec)	**3168**	**2532**	2532
Normalized	79.93%	100%	99.99%
Standard Deviation	2.5%	0.5%	0.2%

FT-S2500*2-testcpu

Timed Linux Kernel Compilation - Time To Compile (sec)	**428.904**	**207.038**	207.156
Normalized	48.27%	100%	99.94%
Standard Deviation	1.2%	1.1%	1%
C-Ray - Total Time - 4.1.R.P.P (sec)	**17.014**	**27.965**	27.072
Normalized	100%	60.84%	62.85%
Standard Deviation	3.4%	2%	2.5%
OpenSSL - SHA256 (byte/s)	**17249841555**	**9368328123**	9417702613
Normalized	100%	54.31%	54.6%
Standard Deviation	24.6%	0.9%	0%
OpenSSL - RSA4096 (sign/s)	**2966**	**2226**	2258
Normalized	100%	75.04%	76.13%
Standard Deviation	14%	0.4%	0%
OpenSSL - RSA4096 (verify/s)	**218160**	**153039**	153833
Normalized	100%	70.15%	70.51%
Standard Deviation	7.2%	0.9%	0%
Sysbench - CPU (Events/sec)	**272780**	**143663**	144007
Normalized	100%	52.67%	52.79%
Standard Deviation	0.1%	0.4%	0.6%

Timed MAFFT Alignment 7.471

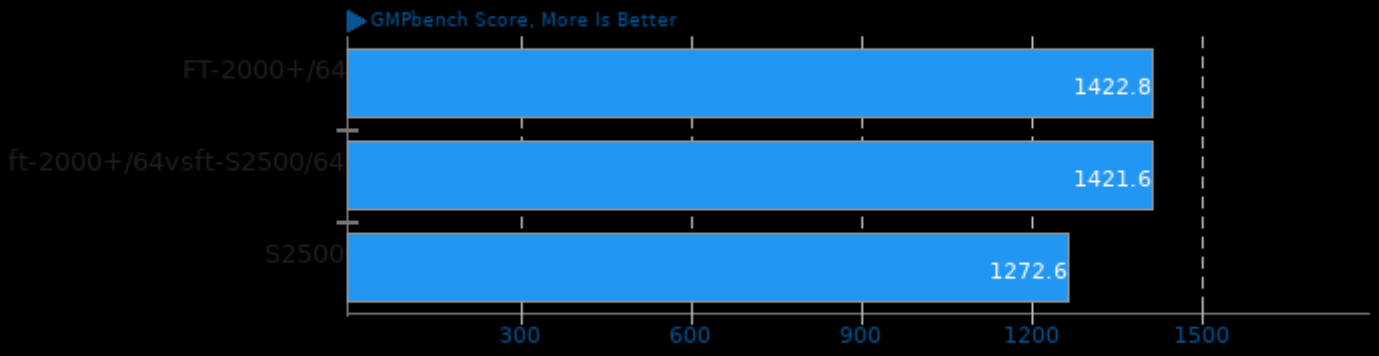
Multiple Sequence Alignment - LSU RNA



1. (CC) gcc options: -std=c99 -O3 -lm -lpthread

GNU GMP GMPbench 6.2.1

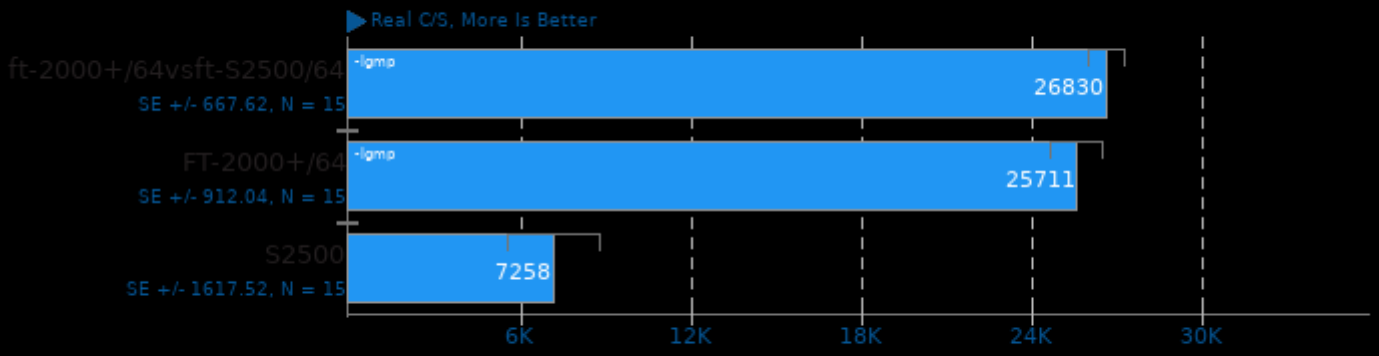
Total Time



1. (CC) gcc options: -O3 -fomit-frame-pointer -lm

John The Ripper 1.9.0-jumbo-1

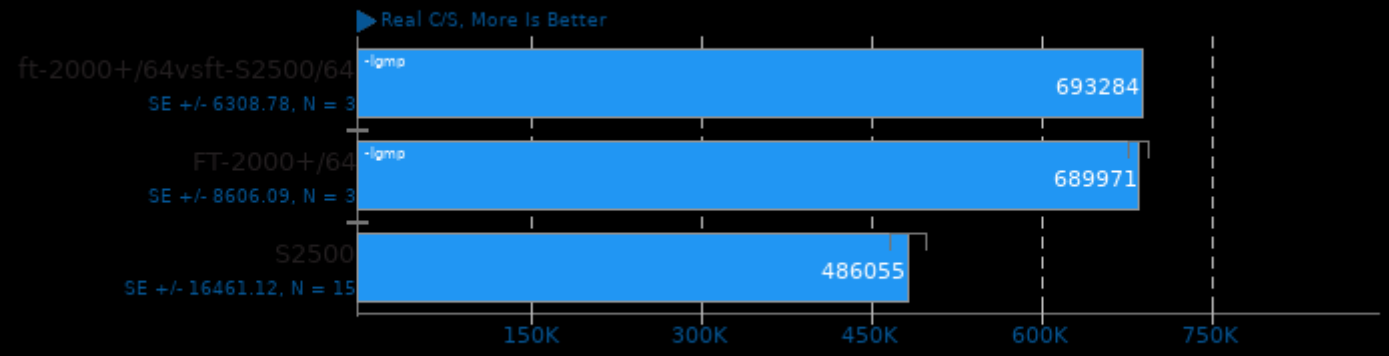
Test: Blowfish



1. (CC) gcc options: -lssl -lcrypto -fopenmp -pthread -lm -lz -ldl -lcrypt -lbz2

John The Ripper 1.9.0-jumbo-1

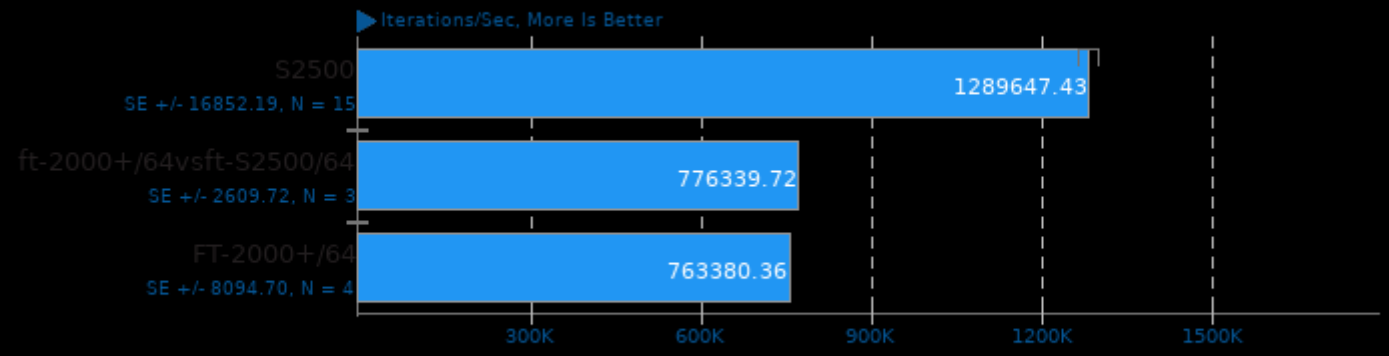
Test: MD5



1. (CC) gcc options: -lssl -lcrypto -fopenmp -pthread -lm -lz -ldl -lcrypt -lbz2

Coremark 1.0

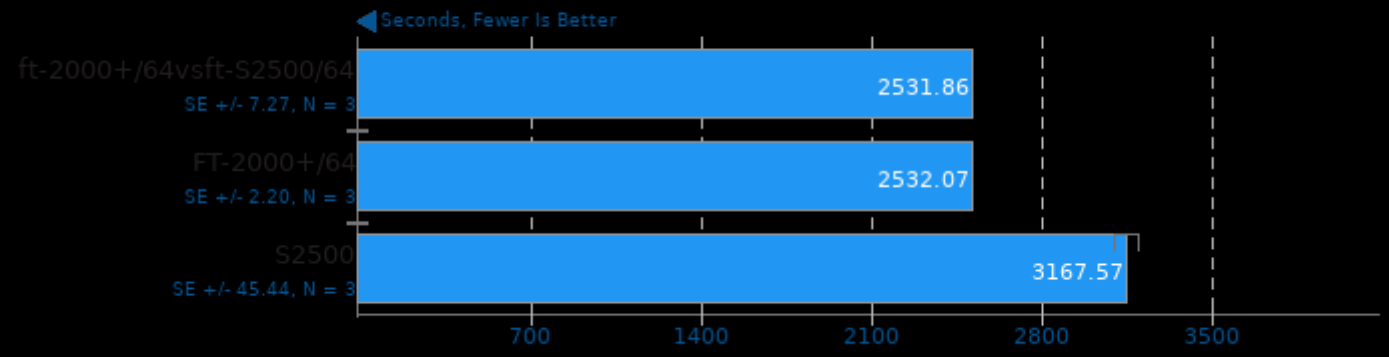
CoreMark Size 666 - Iterations Per Second

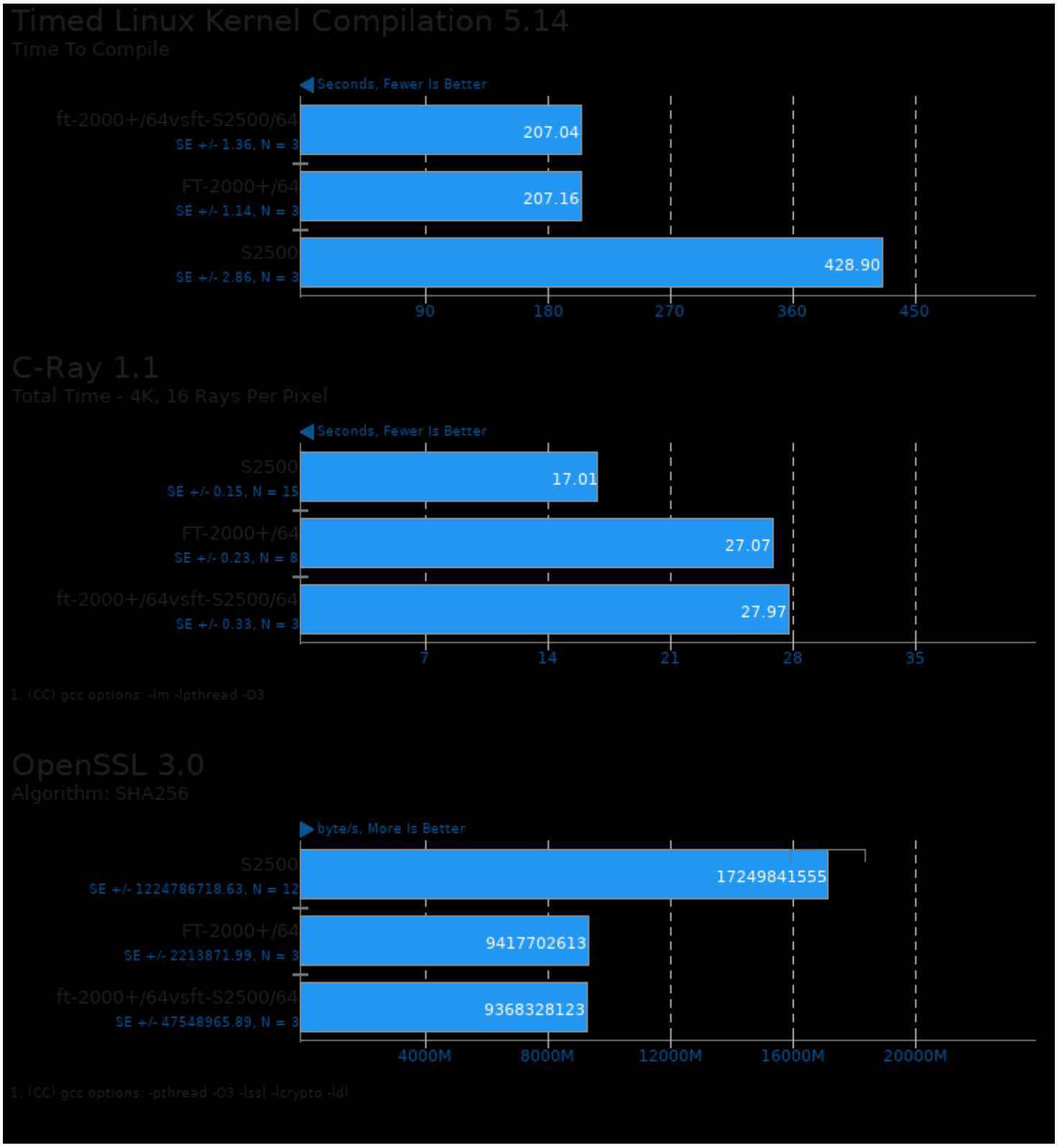


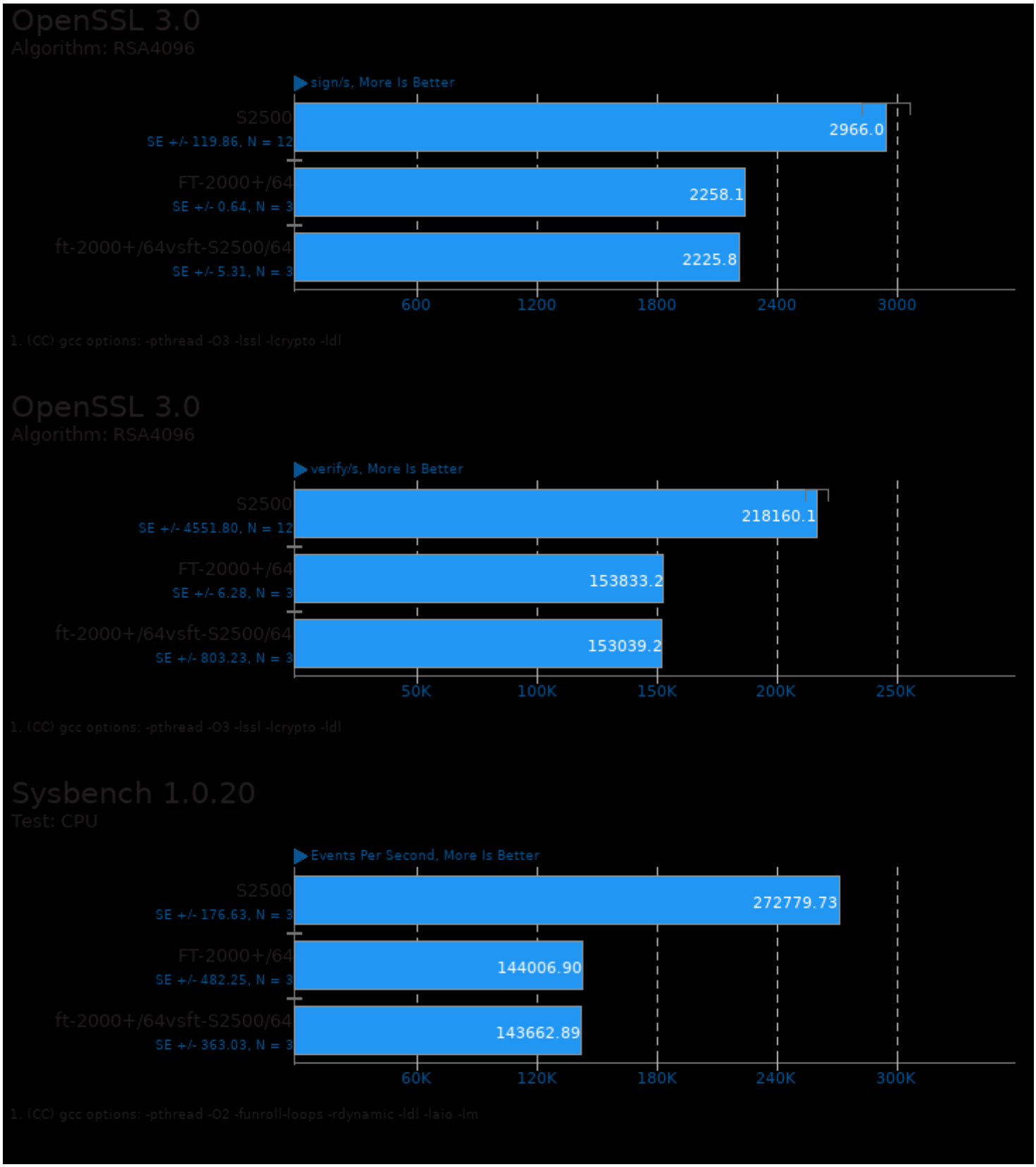
1. (CC) gcc options: -O2 -lrt" -lrt

Timed GCC Compilation 11.2.0

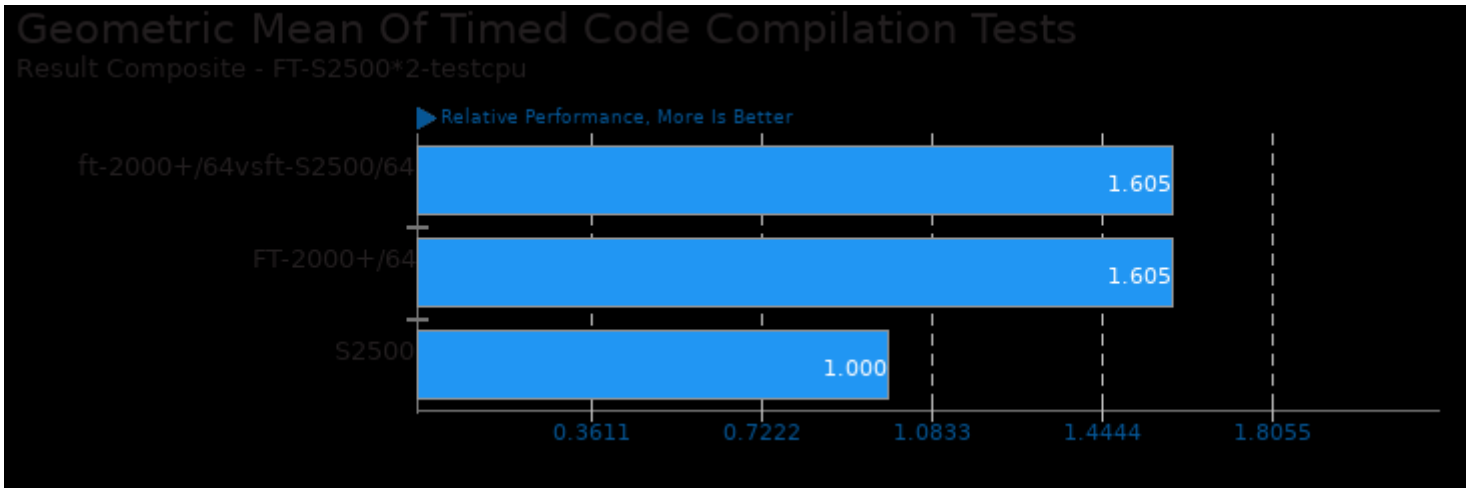
Time To Compile



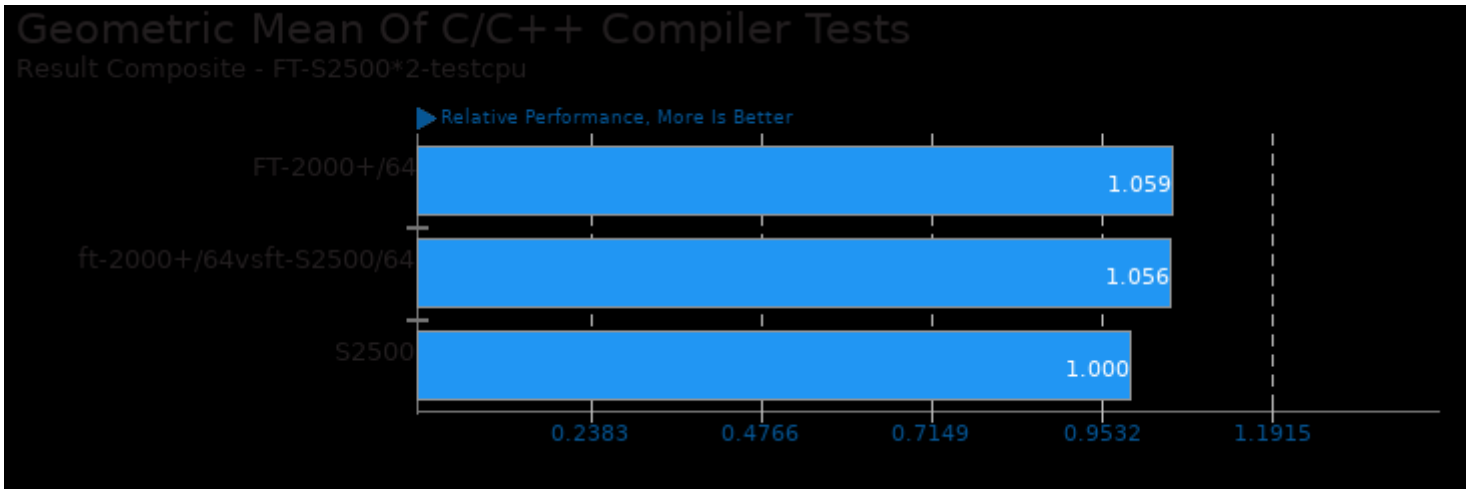

Timed Linux Kernel Compilation 5.14
Time To Compile
Seconds, Fewer Is Better
ft-2000+/64vsft-S2500/64
SE +/- 1.36, N = 3
207.04
FT-2000+/64
SE +/- 1.14, N = 3
207.16
S2500
SE +/- 2.86, N = 3
428.90
90
180
270
360
450
C-Ray 1.1
Total Time - 4K, 16 Rays Per Pixel
Seconds, Fewer Is Better
S2500
SE +/- 0.15, N = 15
17.01
FT-2000+/64
SE +/- 0.23, N = 8
27.07
ft-2000+/64vsft-S2500/64
SE +/- 0.33, N = 3
27.97
7
14
21
28
35
1. (CC) gcc options: -lm -lpthread -O3
OpenSSL 3.0
Algorithm: SHA256
byte/s, More Is Better
S2500
SE +/- 1224786718.63, N = 12
17249841555
FT-2000+/64
SE +/- 2213871.99, N = 3
9417702613
ft-2000+/64vsft-S2500/64
SE +/- 47548965.89, N = 3
9368328123
4000M
8000M
12000M
16000M
20000M
1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl


OpenSSL 3.0
Algorithm: RSA4096
sign/s, More Is Better
S2500
SE +/- 119.86, N = 12
2966.0
FT-2000+/64
SE +/- 0.64, N = 3
2258.1
ft-2000+/64vsft-S2500/64
SE +/- 5.31, N = 3
2225.8
600
1200
1800
2400
3000
1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl
OpenSSL 3.0
Algorithm: RSA4096
verify/s, More Is Better
S2500
SE +/- 4551.80, N = 12
218160.1
FT-2000+/64
SE +/- 6.28, N = 3
153833.2
ft-2000+/64vsft-S2500/64
SE +/- 803.23, N = 3
153039.2
50K
100K
150K
200K
250K
1. (CC) gcc options: -pthread -O3 -lssl -lcrypto -ldl
Sysbench 1.0.20
Test: CPU
Events Per Second, More Is Better
S2500
SE +/- 176.63, N = 3
272779.73
FT-2000+/64
SE +/- 482.25, N = 3
144006.90
ft-2000+/64vsft-S2500/64
SE +/- 363.03, N = 3
143662.89
60K
120K
180K
240K
300K
1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

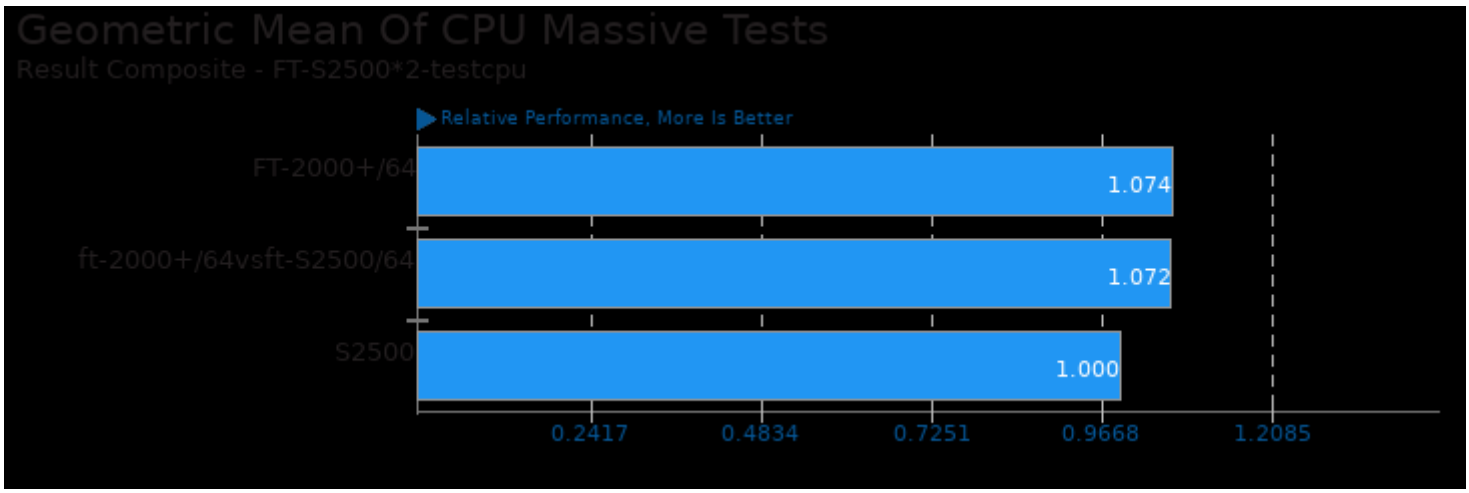
These geometric means are based upon test groupings / test suites for this result file.



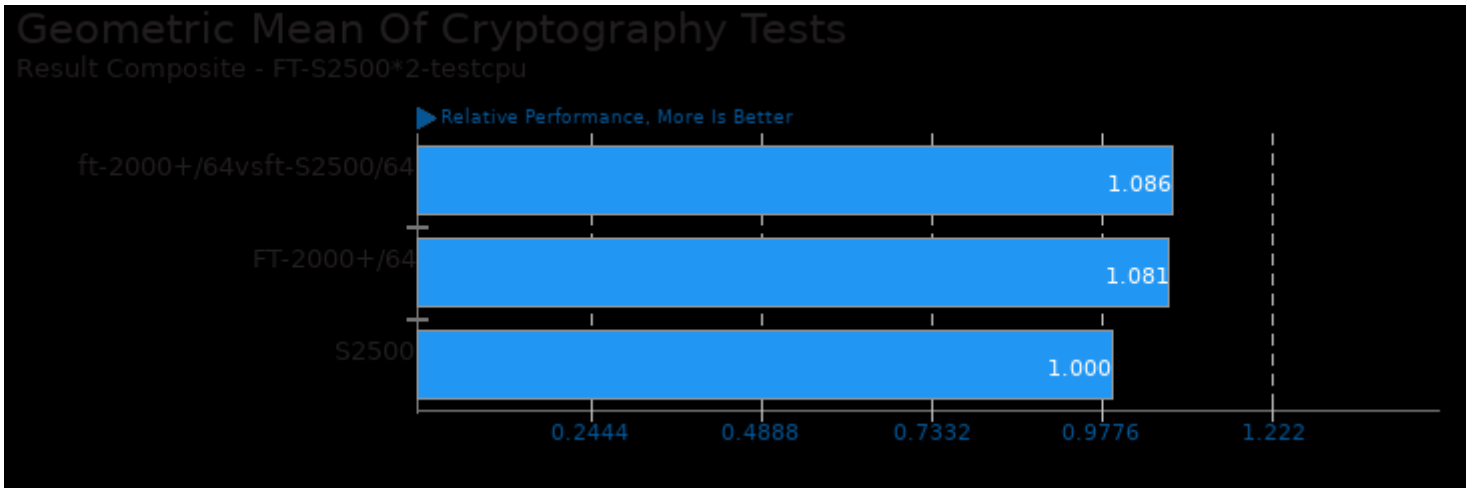
Geometric mean based upon tests: pts/build-linux-kernel and pts/build-gcc



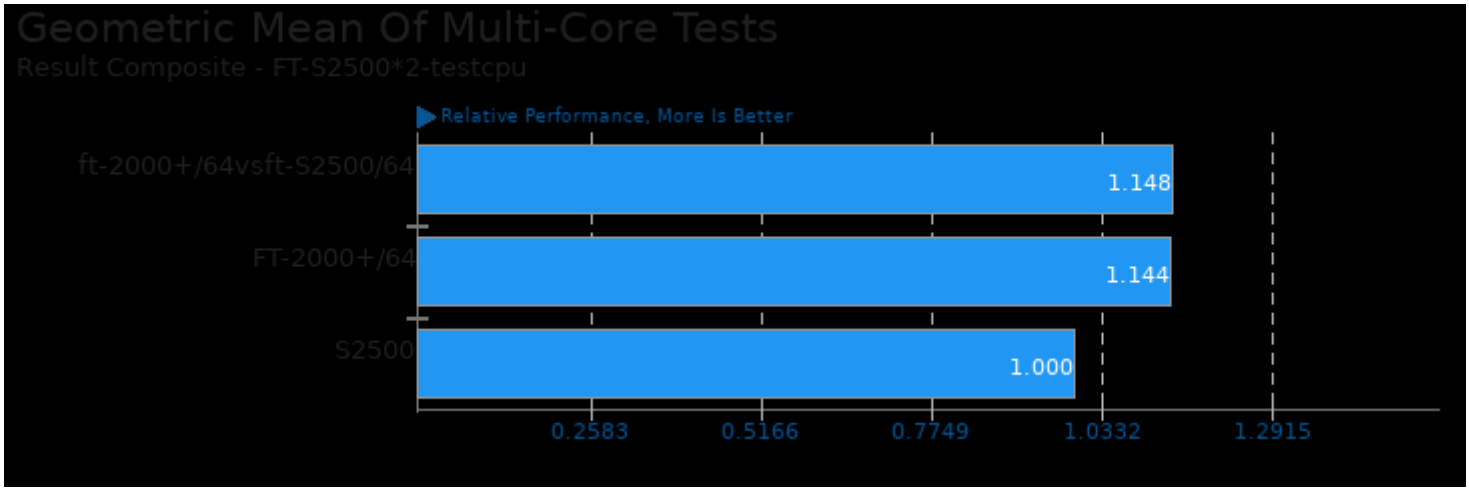
Geometric mean based upon tests: pts/mafft, pts/c-ray, pts/john-the-ripper and pts/openssl



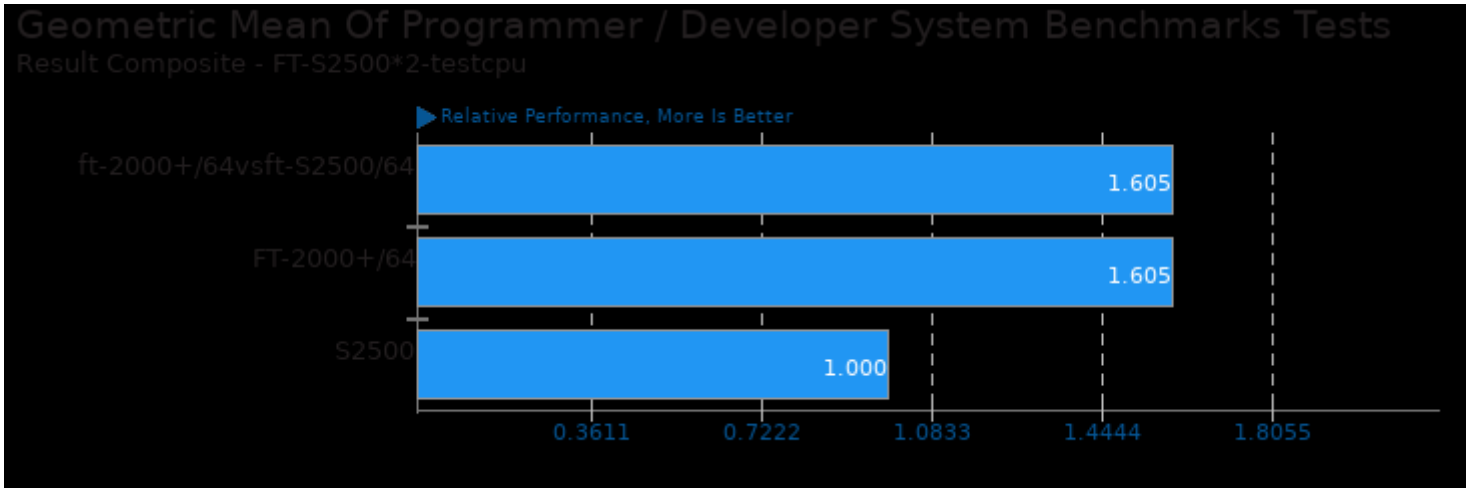
Geometric mean based upon tests: pts/build-gcc, pts/build-linux-kernel, pts/c-ray, pts/john-the-ripper, pts/openssl, pts/mafft and pts/sysbench



Geometric mean based upon tests: pts/openssl and pts/john-the-ripper

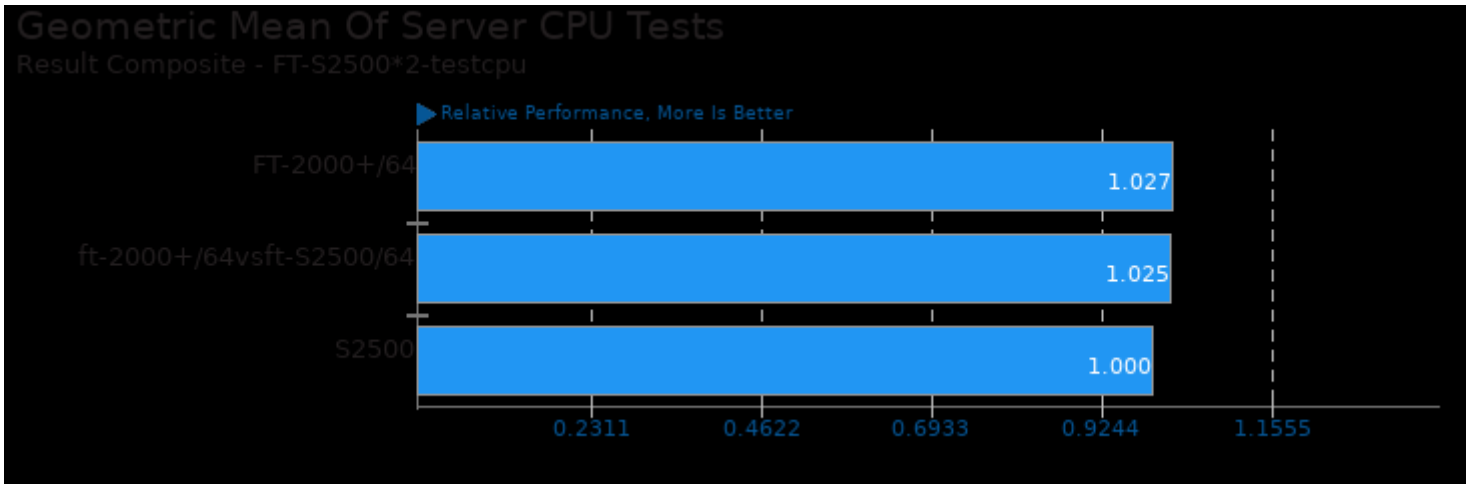


Geometric mean based upon tests: pts/sysbench, pts/c-ray, pts/coremark, pts/john-the-ripper, pts/build-linux-kernel and pts/build-gcc



Geometric mean based upon tests: pts/build-linux-kernel and pts/build-gcc

FT-S2500*2-testcpu



Geometric mean based upon tests: pts/john-the-ripper, pts/build-gcc, pts/build-linux-kernel, pts/c-ray, pts/openssl and pts/sysbench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 07:10.