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truenasjune2022

Xen HVM domU 4.13 testing on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

TrueNAS Core 13 ZFS

Processor: AMD Ryzen 5 5600G (8 Cores), Motherboard: Xen HVM domU v4.13, Chipset: Intel 440FX 82441FX PMC, Memory: 4096MB, Disk: 29GB, Graphics: bochs-drmdrmfb

OS: Ubuntu 20.04, Kernel: 5.4.0-120-generic (x86_64), Vulkan: 1.1.182, Compiler: GCC 9.4.0, File-System: ext4, Screen Resolution: 1024x768, System Layer: Xen HVM domU 4.13

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-Av3uEd/gcc-9-9.4.0/debian/tmp-nvptx/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-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: CPU Microcode: 0xa50000b
Disk Mount Options Notes: relatime,rw

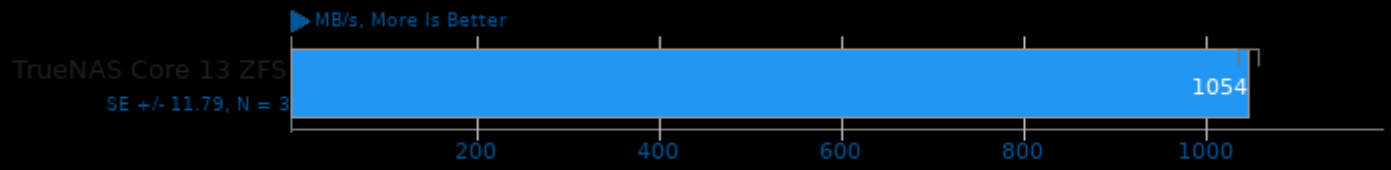
Disk Details Notes: Block Size: 4096
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	TrueNAS Core 13 ZFS
Flexible IO Tester - Rand Read - Linux AIO - No - No - 1MB (MB/s)	1054
Standard Deviation	1.9%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 1MB (IOPS)	1051
Standard Deviation	2%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 4KB (MB/s)	355
Flexible IO Tester - Rand Read - Linux AIO - No - No - 4KB (IOPS)	90833
Standard Deviation	1.1%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 8KB (MB/s)	728
Standard Deviation	0.8%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 8KB (IOPS)	93167
Standard Deviation	0.8%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 1MB (MB/s)	802
Standard Deviation	16.8%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 1MB (IOPS)	799
Standard Deviation	16.8%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 4KB (MB/s)	244
Standard Deviation	13.4%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 4KB (IOPS)	62580
Standard Deviation	13.4%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 8KB (MB/s)	430
Standard Deviation	12%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 8KB (IOPS)	54993
Standard Deviation	12%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 128KB (MB/s)	1094
Standard Deviation	1.3%
Flexible IO Tester - Rand Read - Linux AIO - No - No - 128KB (IOPS)	8748
Standard Deviation	1.3%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 128KB (MB/s)	951
Standard Deviation	6.4%
Flexible IO Tester - Rand Write - Linux AIO - No - No - 128KB (IOPS)	7600
Standard Deviation	6.4%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 1MB (MB/s)	1082
Standard Deviation	1.3%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 1MB (IOPS)	1079
Standard Deviation	1.3%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 4KB (MB/s)	622
Standard Deviation	2.3%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 4KB (IOPS)	159000
Standard Deviation	2.3%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 8KB (MB/s)	976
Standard Deviation	2.3%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 8KB (IOPS)	125000
Standard Deviation	2.5%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 1MB (MB/s)	669.0

Standard Deviation	35.9%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 1MB (IOPS)	665
Standard Deviation	36.1%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 4KB (MB/s)	527
Standard Deviation	1.6%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 4KB (IOPS)	134667
Standard Deviation	1.7%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 8KB (MB/s)	631
Standard Deviation	10.6%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 8KB (IOPS)	80725
Standard Deviation	10.5%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 128KB (MB/s)	1070
Standard Deviation	0.4%
Flexible IO Tester - Seq Read - Linux AIO - No - No - 128KB (IOPS)	8554
Standard Deviation	0.4%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 128KB (MB/s)	795
Standard Deviation	10.1%
Flexible IO Tester - Seq Write - Linux AIO - No - No - 128KB (IOPS)	6356
Standard Deviation	10.1%

Flexible IO Tester 3.29

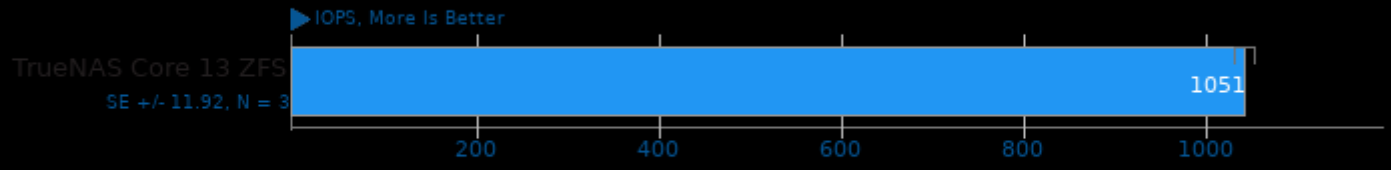
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 1MB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native

Flexible IO Tester 3.29

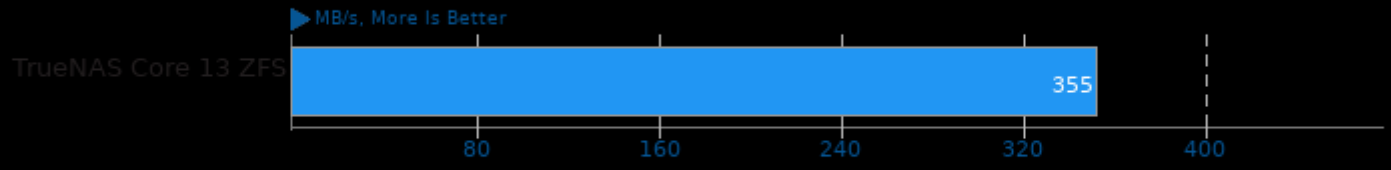
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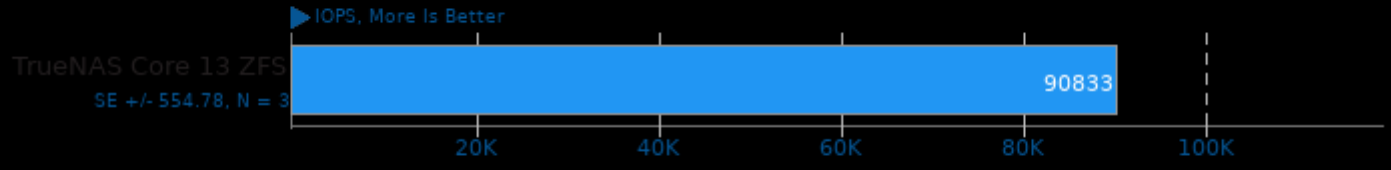
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native

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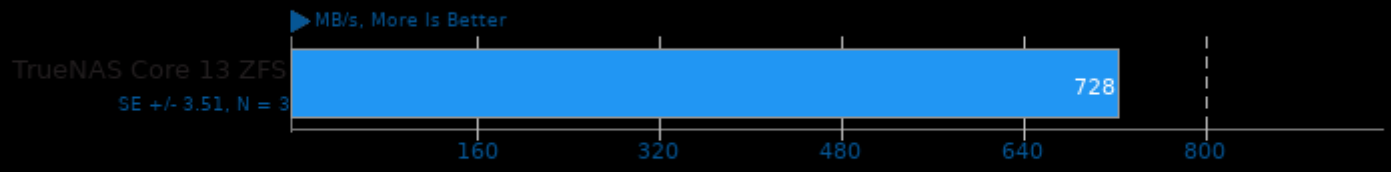
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



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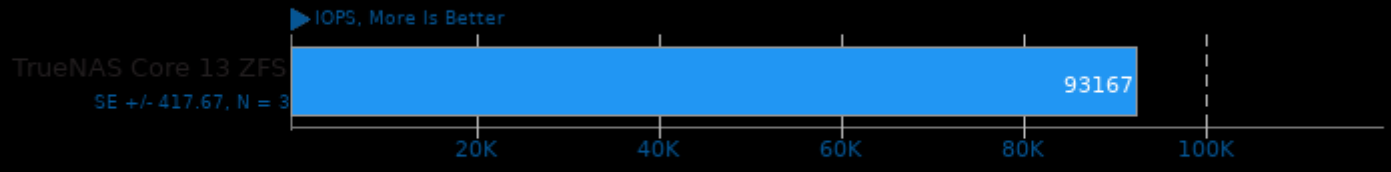
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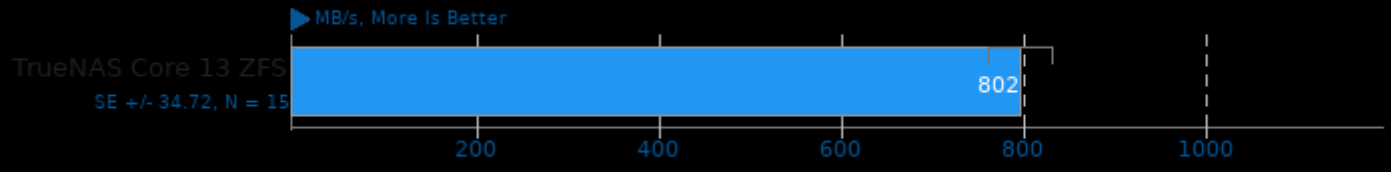
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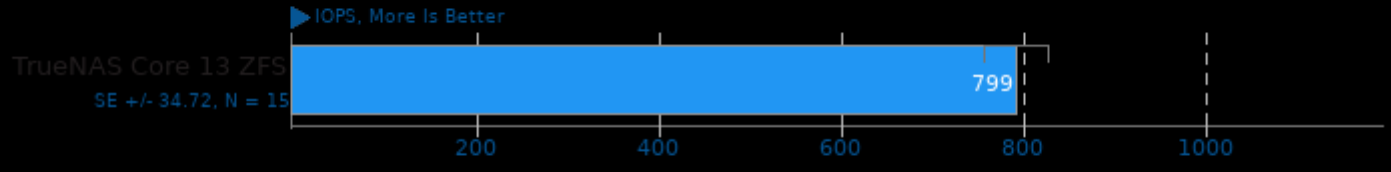
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 1MB - Disk Target: Default Test Directory



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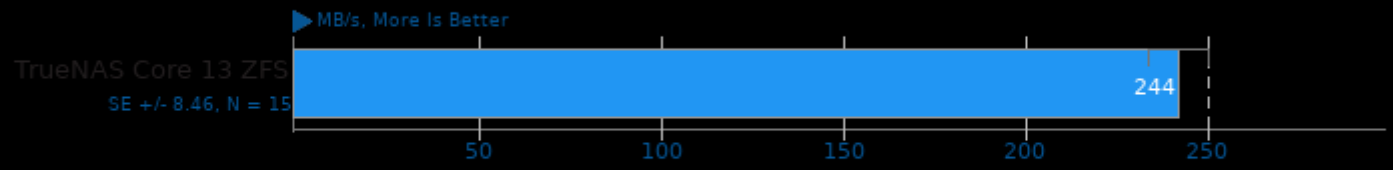
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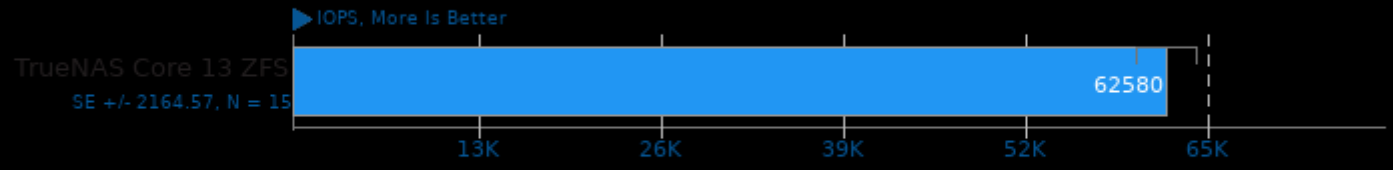
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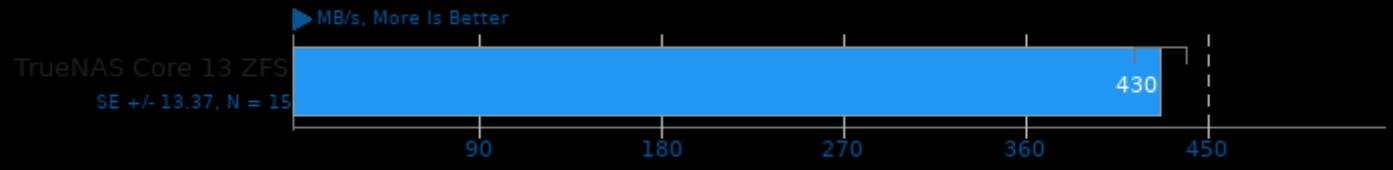
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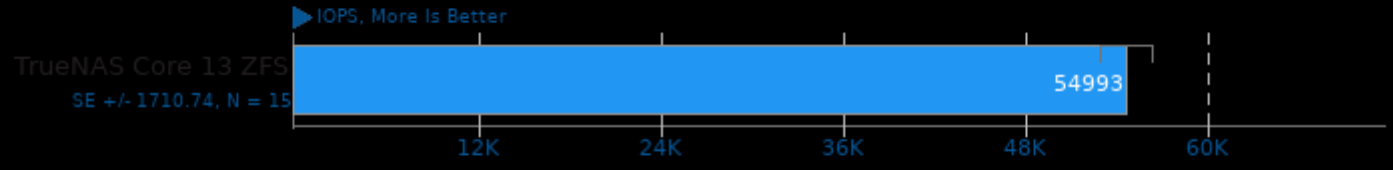
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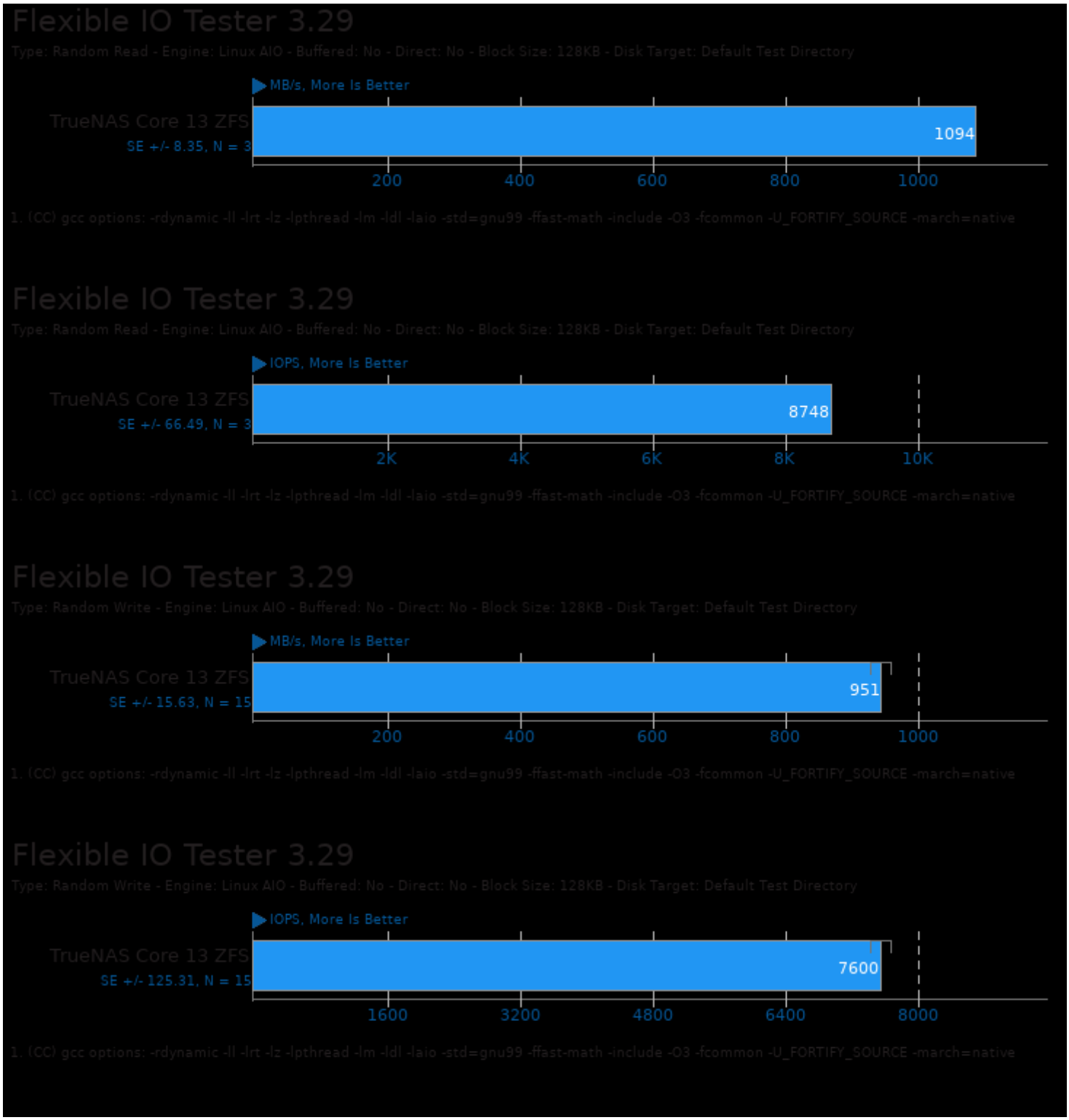
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Flexible IO Tester 3.29

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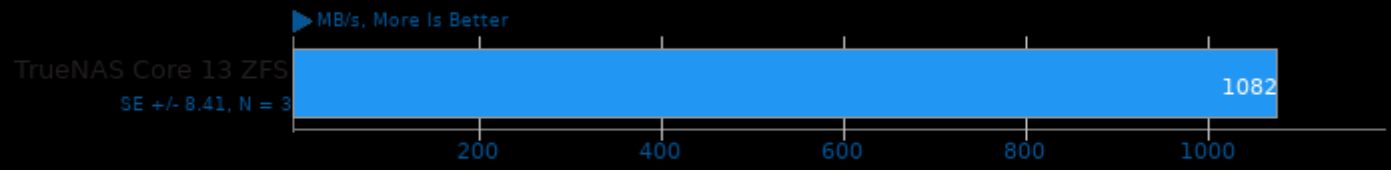


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Flexible IO Tester 3.29
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 128KB - Disk Target: Default Test Directory
MB/s, More Is Better
TrueNAS Core 13 ZFS
SE +/- 8.35, N = 3
1094
200
400
600
800
1000
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native
Flexible IO Tester 3.29
Type: Random Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 128KB - Disk Target: Default Test Directory
IOPS, More Is Better
TrueNAS Core 13 ZFS
SE +/- 66.49, N = 3
8748
2K
4K
6K
8K
10K
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native
Flexible IO Tester 3.29
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 128KB - Disk Target: Default Test Directory
MB/s, More Is Better
TrueNAS Core 13 ZFS
SE +/- 15.63, N = 15
951
200
400
600
800
1000
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native
Flexible IO Tester 3.29
Type: Random Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 128KB - Disk Target: Default Test Directory
IOPS, More Is Better
TrueNAS Core 13 ZFS
SE +/- 125.31, N = 15
7600
1600
3200
4800
6400
8000
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native

Flexible IO Tester 3.29

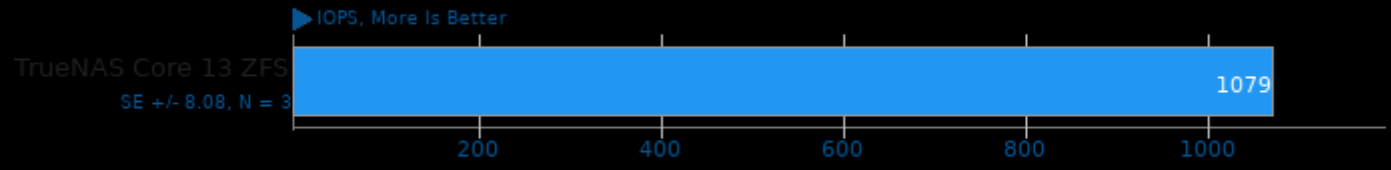
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 1MB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native

Flexible IO Tester 3.29

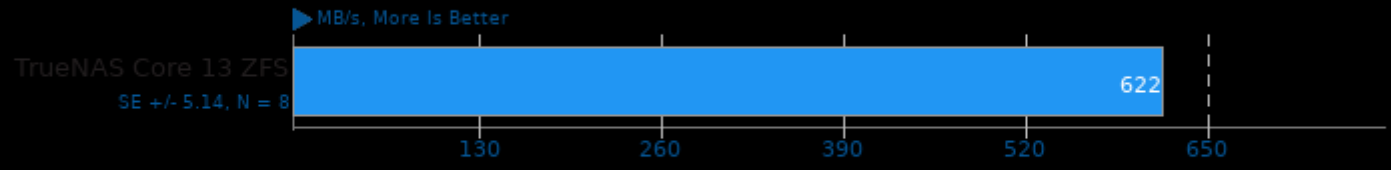
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 1MB - Disk Target: Default Test Directory



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Flexible IO Tester 3.29

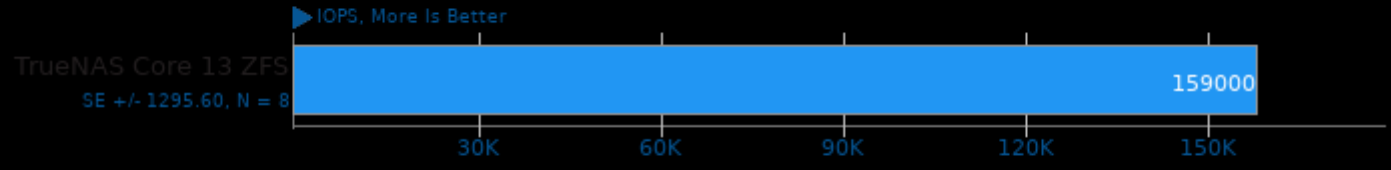
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory



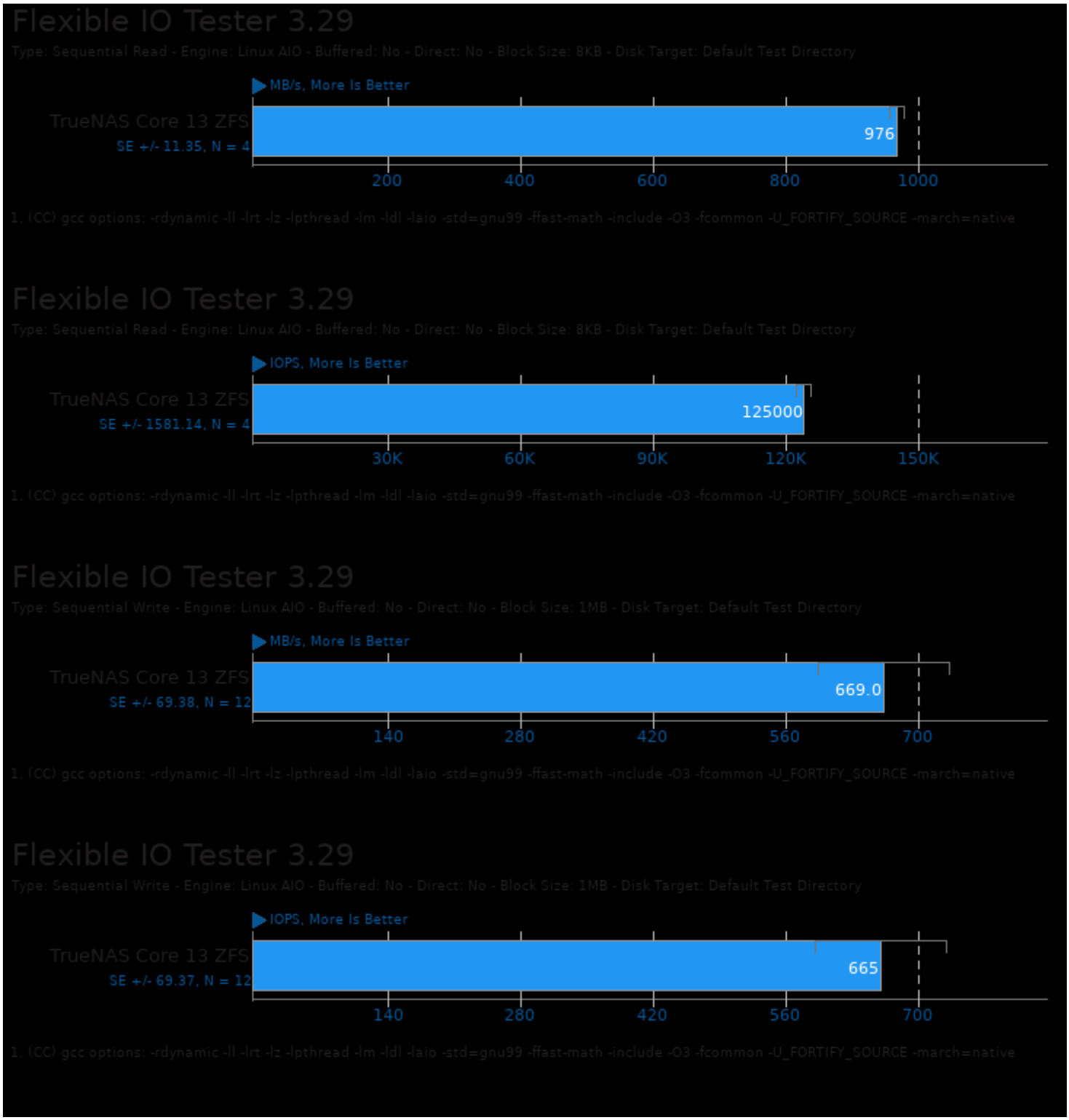
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Flexible IO Tester 3.29

Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 4KB - Disk Target: Default Test Directory

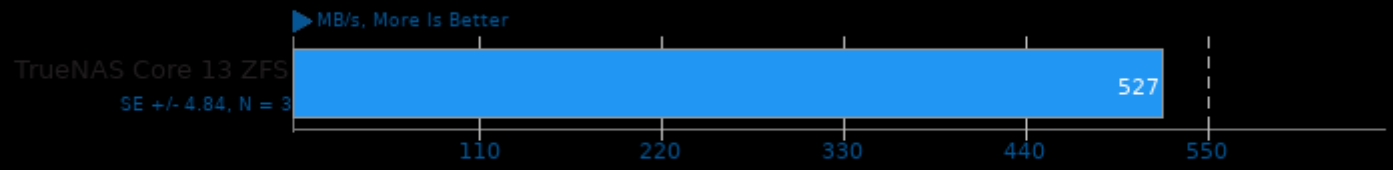


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Flexible IO Tester 3.29
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 8KB - Disk Target: Default Test Directory
MB/s, More Is Better
TrueNAS Core 13 ZFS
SE +/- 11.35, N = 4
976
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Flexible IO Tester 3.29
Type: Sequential Read - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 8KB - Disk Target: Default Test Directory
IOPS, More Is Better
TrueNAS Core 13 ZFS
SE +/- 1581.14, N = 4
125000
30K
60K
90K
120K
150K
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native
Flexible IO Tester 3.29
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 1MB - Disk Target: Default Test Directory
MB/s, More Is Better
TrueNAS Core 13 ZFS
SE +/- 69.38, N = 12
669.0
140
280
420
560
700
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native
Flexible IO Tester 3.29
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IOPS, More Is Better
TrueNAS Core 13 ZFS
SE +/- 69.37, N = 12
665
140
280
420
560
700
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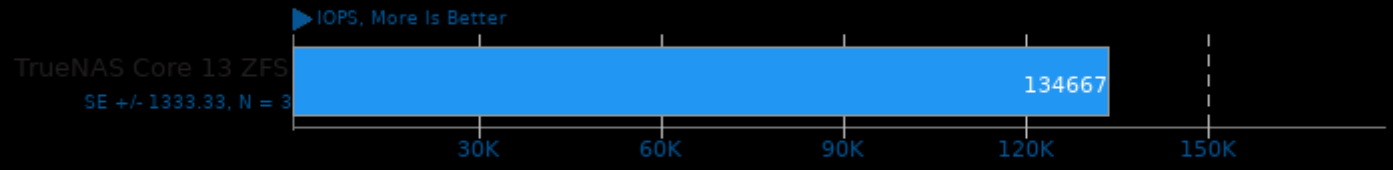
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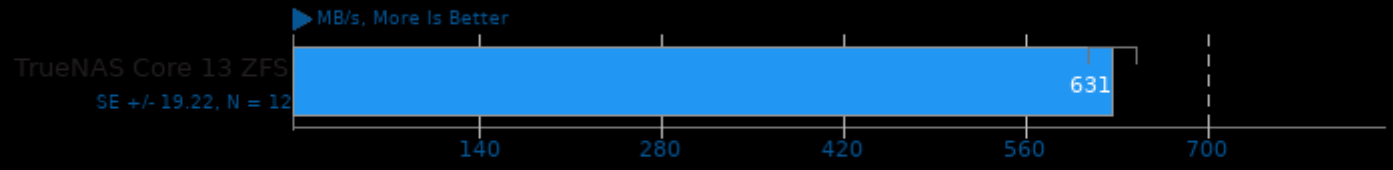
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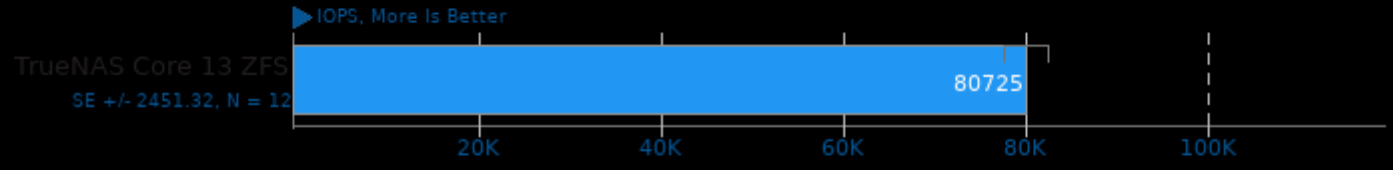
Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 8KB - Disk Target: Default Test Directory



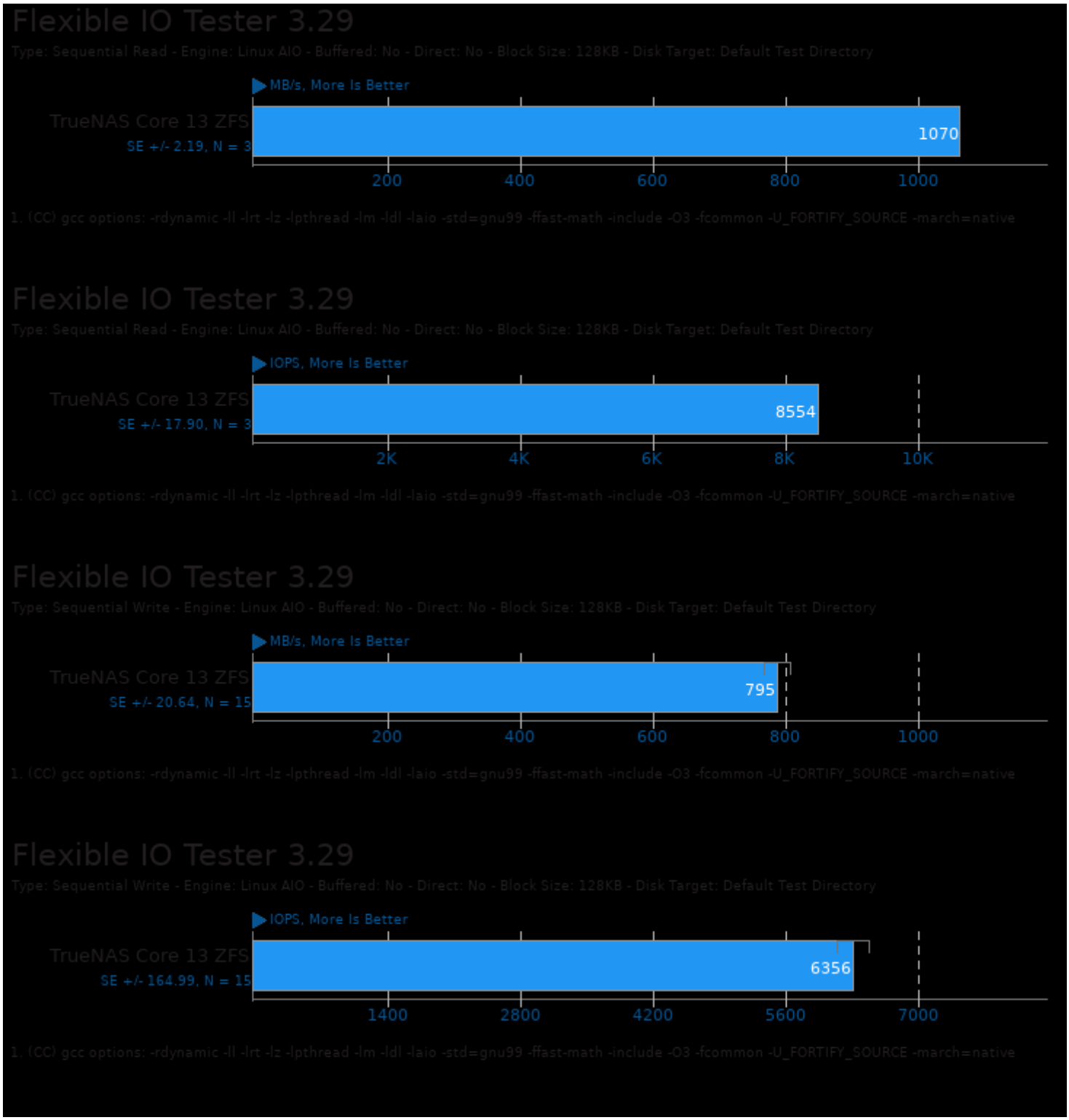
1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native

Flexible IO Tester 3.29

Type: Sequential Write - Engine: Linux AIO - Buffered: No - Direct: No - Block Size: 8KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -ll -lrt -lz -lpthread -lm -ldl -laio -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE -march=native



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 07:45.