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## Icelake Crypt

Intel Core i7-1065G7 testing with a Dell 06CDVY (1.0.9 BIOS) and Intel Iris Plus G7 3GB on Ubuntu 20.10 via the Phoronix Test Suite.

### Automated Executive Summary

*3 had the most wins, coming in first place for 47% of the tests.*

*Based on the geometric mean of all complete results, the fastest (3) was 1.006x the speed of the slowest (2). 1 was 0.995x the speed of 3 and 2 was 0.999x the speed of 1.*

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

*FinanceBench (Benchmark: Repo OpenMP) at 1.024x*

*FinanceBench (Benchmark: Bonds OpenMP) at 1.022x*

*Izbench (Test: Zstd 8 - Process: Decompression) at 1.021x*

*Izbench (Test: Crush 0 - Process: Compression) at 1.02x*

*Izbench (Test: Brotli 0 - Process: Decompression) at 1.013x*

*Cython Benchmark (Test: N-Queens) at 1.013x*

*Izbench (Test: Zstd 1 - Process: Decompression) at 1.011x*

*Izbench (Test: Brotli 2 - Process: Decompression) at 1.011x*

*Izbench (Test: Zstd 8 - Process: Compression) at 1.01x*

Izbench (Test: Crush 0 - Process: Decompression) at 1.004x.

## Test Systems:

**1**

**2**

**3**

Processor: Intel Core i7-1065G7 @ 3.90GHz (4 Cores / 8 Threads), Motherboard: Dell 06CDVY (1.0.9 BIOS), Chipset: Intel Device 34ef, Memory: 16GB, Disk: Toshiba KBG40ZPZ512G NVMe 512GB, Graphics: Intel Iris Plus G7 3GB (1100MHz), Audio: Realtek ALC289, Network: Intel Killer Wi-Fi 6 AX1650i 160MHz

OS: Ubuntu 20.10, Kernel: 5.8.0-38-generic (x86\_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.6 Mesa 20.2.1, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1200

```
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,objc++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug
--enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc-auto
--enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/us
r,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: Scaling Governor: intel\_pstate powersave - CPU Microcode: 0xa0 - ThermoID 2.3

Python Notes: Python 3.8.6

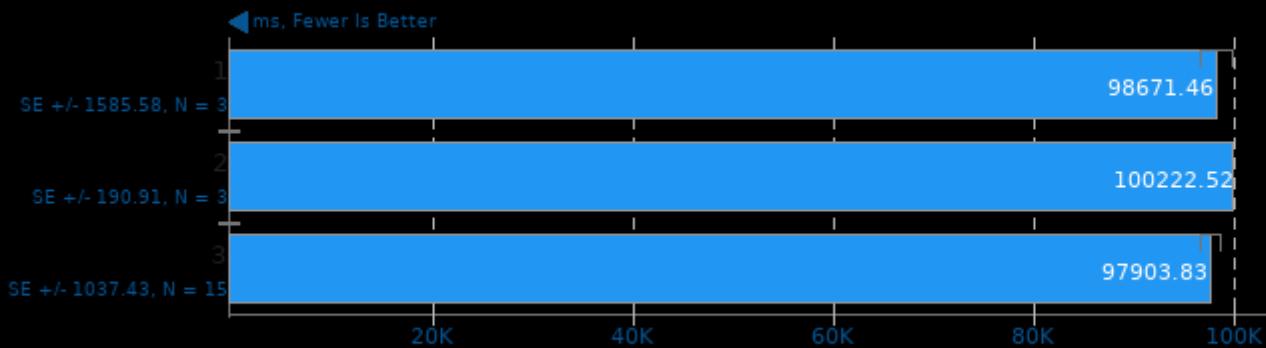
Security Notes: itlb\_multihit: KVM: Mitigation of VMX disabled + I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Enhanced IBRS IPB: conditional RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

	<b>1</b>	<b>2</b>	<b>3</b>
<b>FinanceBench - Repo OpenMP (ms)</b>	98671	<b>100223</b>	<b>97904</b>
Normalized	99.22%	97.69%	100%
Standard Deviation	2.8%	0.3%	4.1%
<b>Gcrypt Library (sec)</b>	235.070	<b>235.486</b>	<b>234.509</b>
Normalized	99.76%	99.59%	100%
Standard Deviation	0.1%	0%	0.5%
<b>FinanceBench - Bonds OpenMP (ms)</b>	138813	<b>140891</b>	<b>137803</b>
Normalized	99.27%	97.81%	100%
Standard Deviation	0.5%	1.4%	1.1%
<b>Izbench - XZ 0 - Decompression (MB/s)</b>	115	115	115
<b>Izbench - XZ 0 - Compression (MB/s)</b>	42	42	42
<b>Izbench - Zstd 8 - Decompression (MB/s)</b>	<b>1915</b>	1917	<b>1956</b>
Normalized	97.9%	98.01%	100%
Standard Deviation	0.8%	0.5%	0.5%

<b>Izbench - Zstd 8 - Compression (MB/s)</b>	<b>100</b>	<b>99</b>	<b>99</b>
Normalized	100%	99%	99%
<b>Izbench - Crush 0 - Decompression (MB/s)</b>	<b>467</b>	<b>469</b>	<b>469</b>
Normalized	99.57%	100%	100%
Standard Deviation		0.2%	0.2%
<b>Izbench - Crush 0 - Compression (MB/s)</b>	<b>101</b>	<b>103</b>	<b>102</b>
Normalized	98.06%	100%	99.03%
Standard Deviation			1.1%
<b>Izbench - Brotli 2 - Decompression (MB/s)</b>	<b>722</b>	<b>725</b>	<b>730</b>
Normalized	98.9%	99.32%	100%
Standard Deviation	1%	0.6%	0.5%
<b>Izbench - Brotli 2 - Compression (MB/s)</b>	<b>195</b>	<b>195</b>	<b>195</b>
<b>Cython Benchmark - N-Queens (sec)</b>	<b>24.544</b>	<b>24.670</b>	<b>24.362</b>
Normalized	99.26%	98.75%	100%
Standard Deviation	0.6%	0.5%	0.7%
<b>Izbench - Brotli 0 - Decompression (MB/s)</b>	<b>596</b>	<b>595</b>	<b>603</b>
Normalized	98.84%	98.67%	100%
Standard Deviation	0.4%	0.3%	0.3%
<b>Izbench - Brotli 0 - Compression (MB/s)</b>	<b>478</b>	<b>477</b>	<b>478</b>
Normalized	100%	99.79%	100%
Standard Deviation	0.1%		0.2%
<b>Izbench - Zstd 1 - Decompression (MB/s)</b>	<b>1774</b>	<b>1774</b>	<b>1794</b>
Normalized	98.89%	98.89%	100%
Standard Deviation		0.3%	0.2%
<b>Izbench - Zstd 1 - Compression (MB/s)</b>	<b>513</b>	<b>512</b>	<b>513</b>
Normalized	100%	99.81%	100%
Standard Deviation	0.1%	0.2%	
<b>Izbench - Libdeflate 1 - Compression (MB/s)</b>	<b>252</b>	<b>252</b>	<b>251</b>
Normalized	100%	100%	99.6%
Standard Deviation	0.2%		

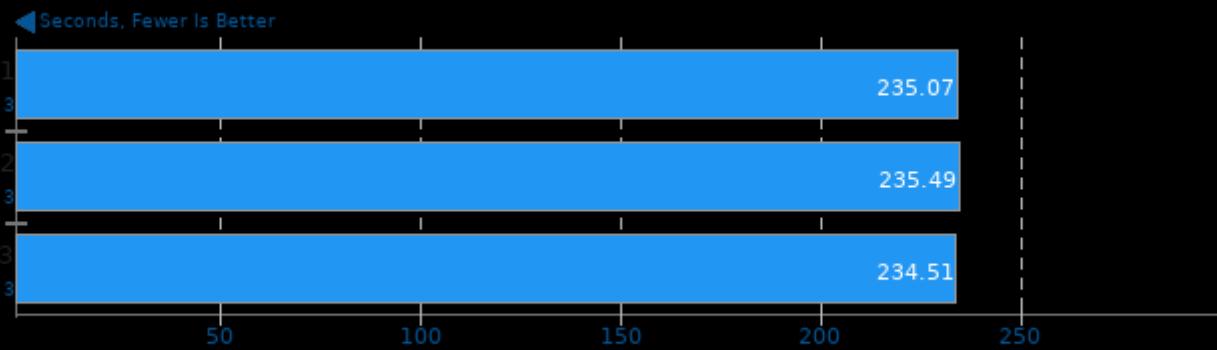
## FinanceBench 2016-07-25

Benchmark: Repo OpenMP



1. (CXX) g++ options: -O3 -march=native -fopenmp

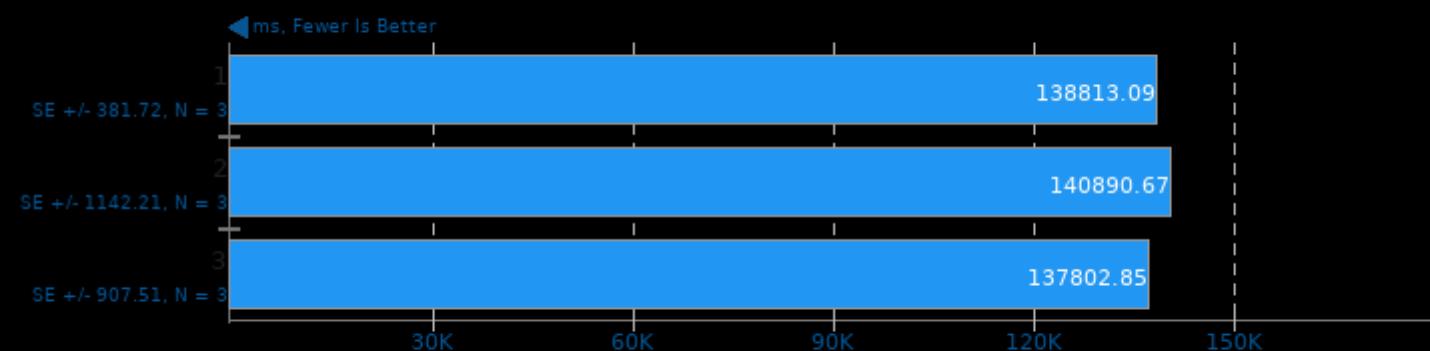
## Gcrypt Library 1.9



1. (CC) gcc options: -O2 -fvisibility=hidden -lgpg-error

## FinanceBench 2016-07-25

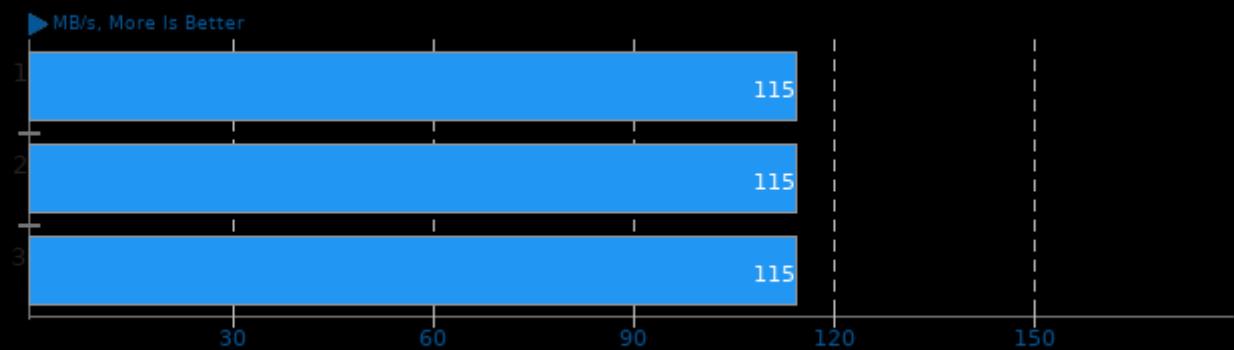
Benchmark: Bonds OpenMP



1. (CXX) g++ options: -O3 -march=native -fopenmp

## Izbench 1.8

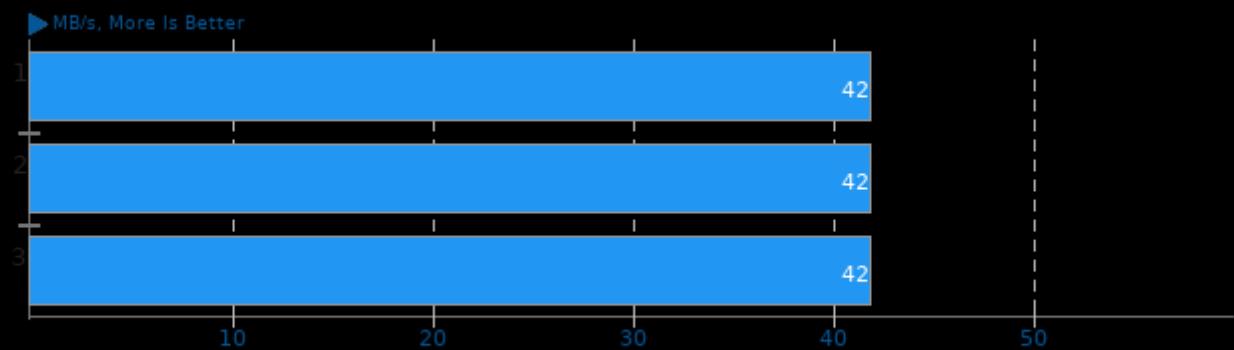
Test: XZ 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

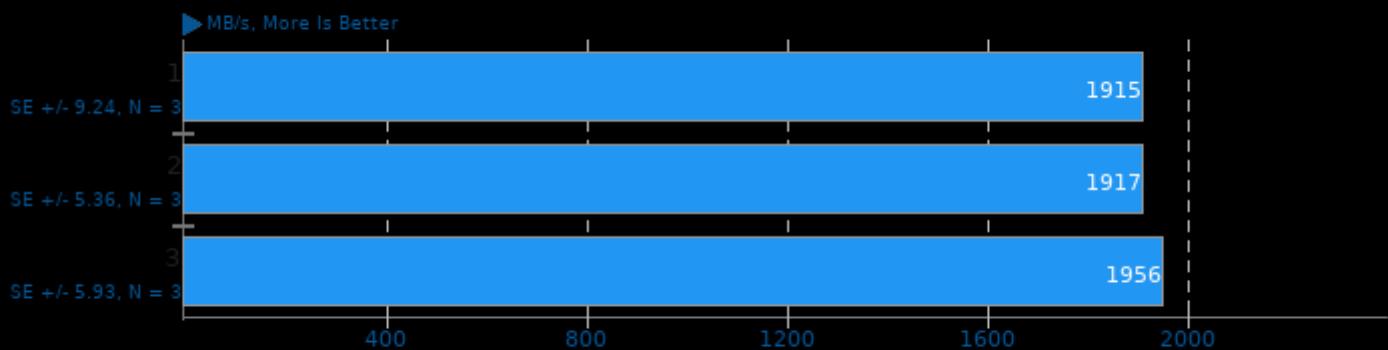
Test: XZ 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

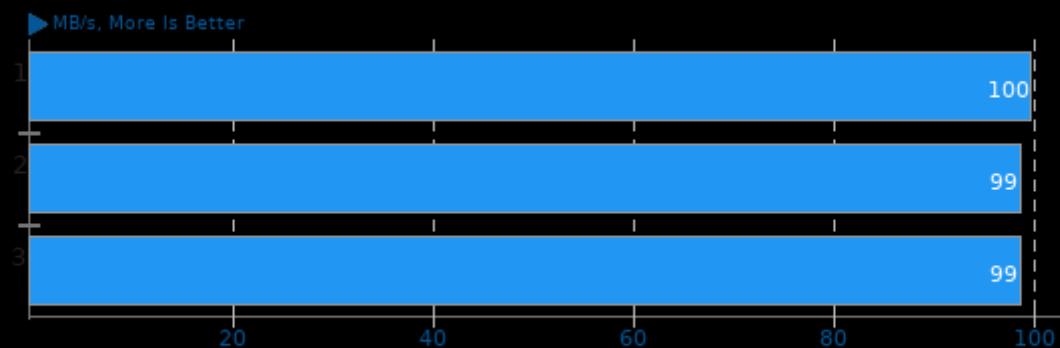
Test: Zstd 8 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

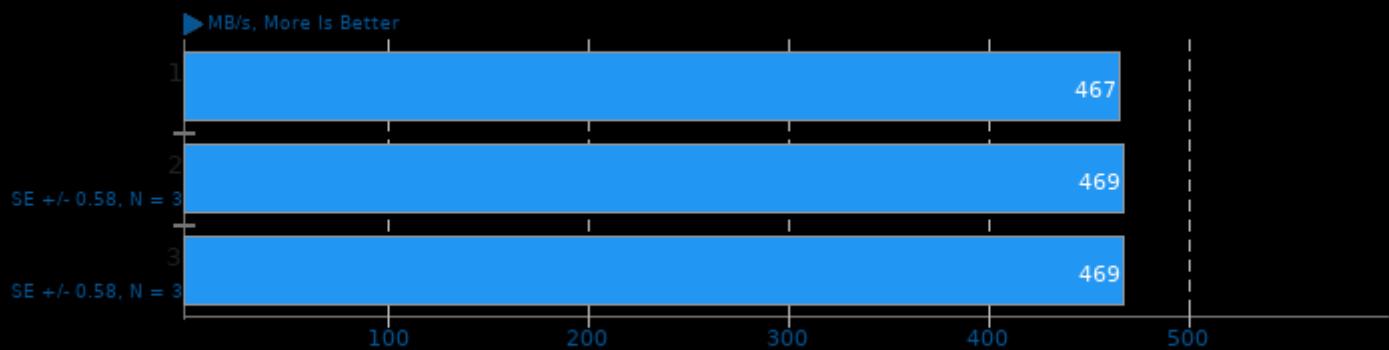
Test: Zstd 8 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

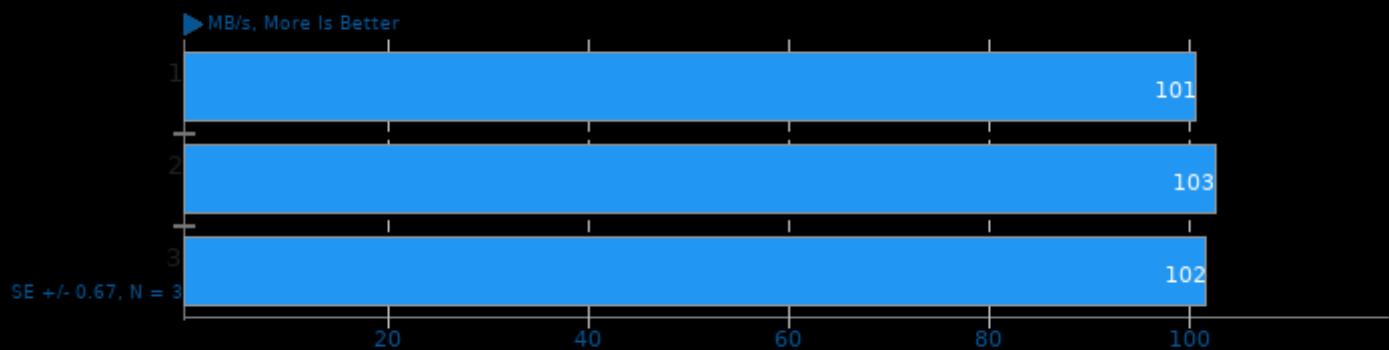
Test: Crush 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

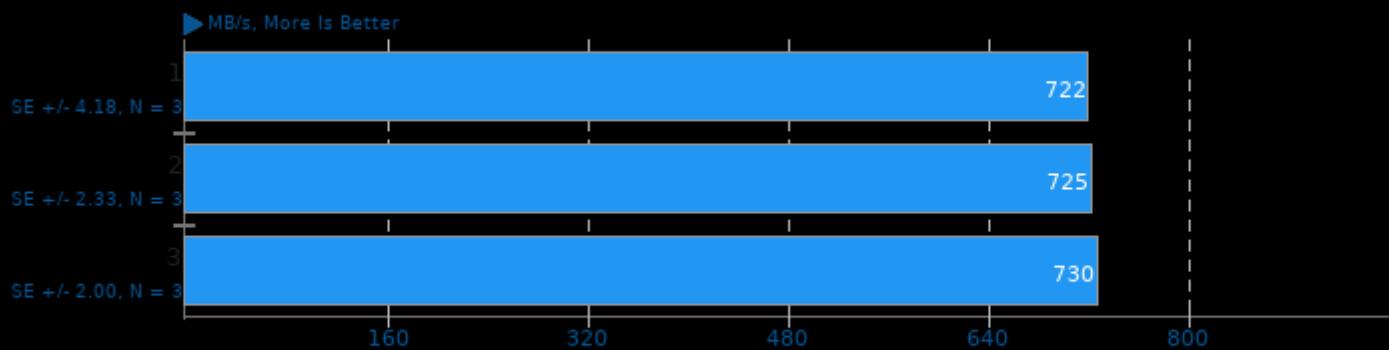
Test: Crush 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

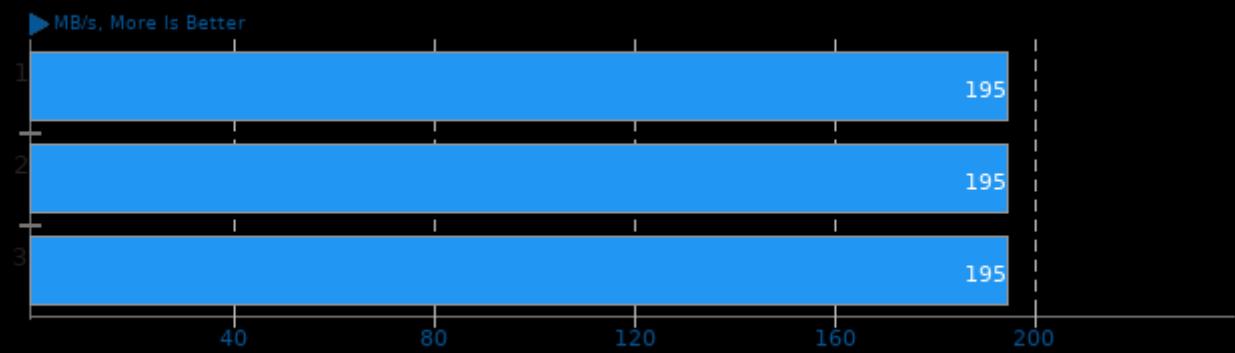
Test: Brotli 2 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

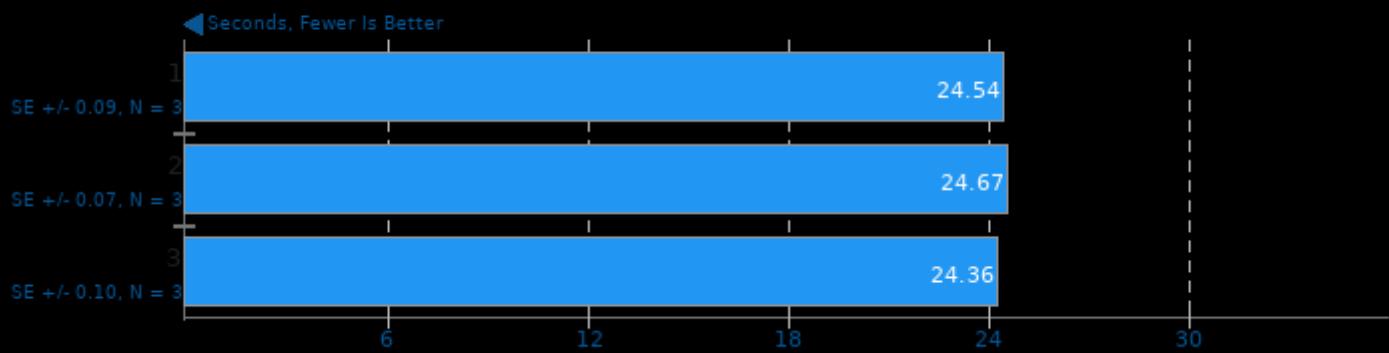
Test: Brotli 2 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

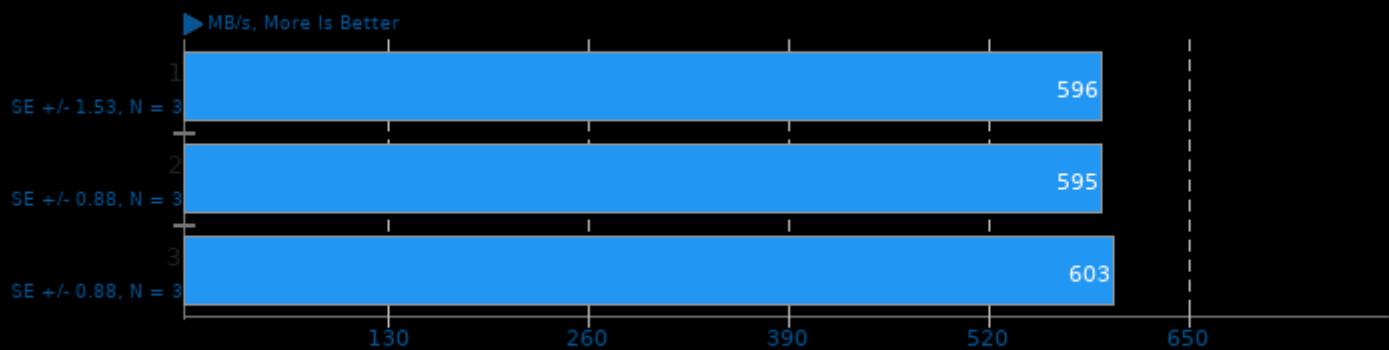
## Cython Benchmark 0.29.21

Test: N-Queens



## Izbench 1.8

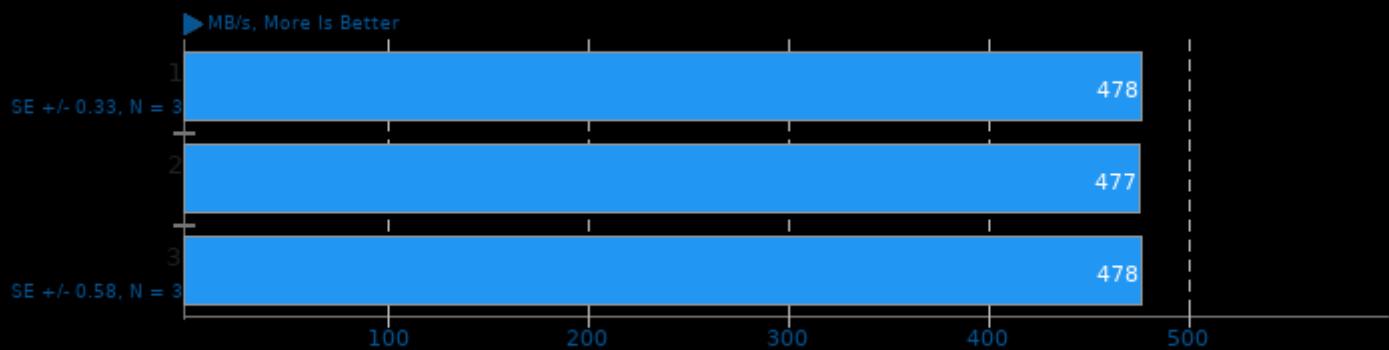
Test: Brotli 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

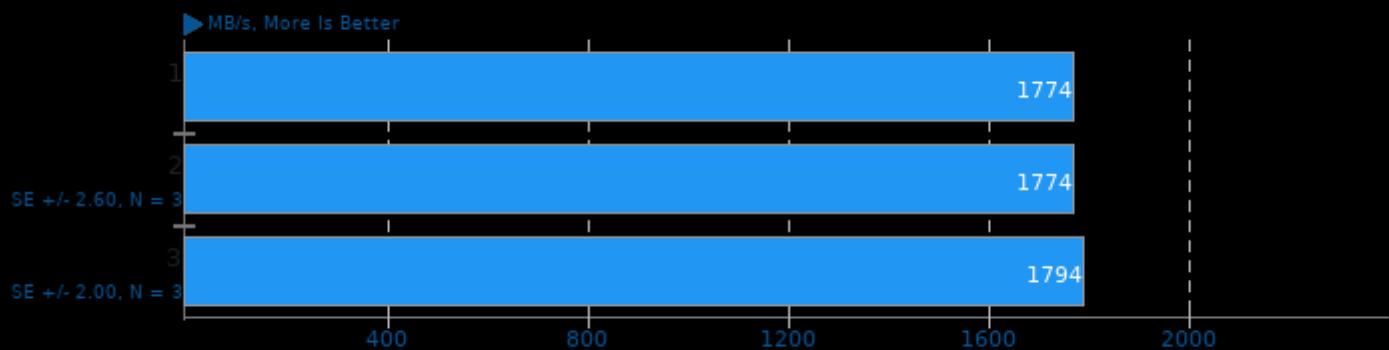
Test: Brotli 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

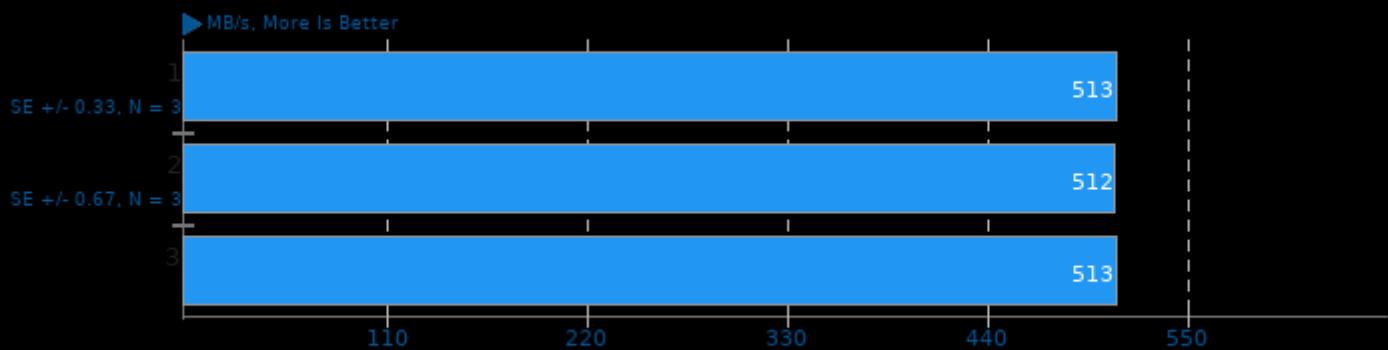
Test: Zstd 1 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

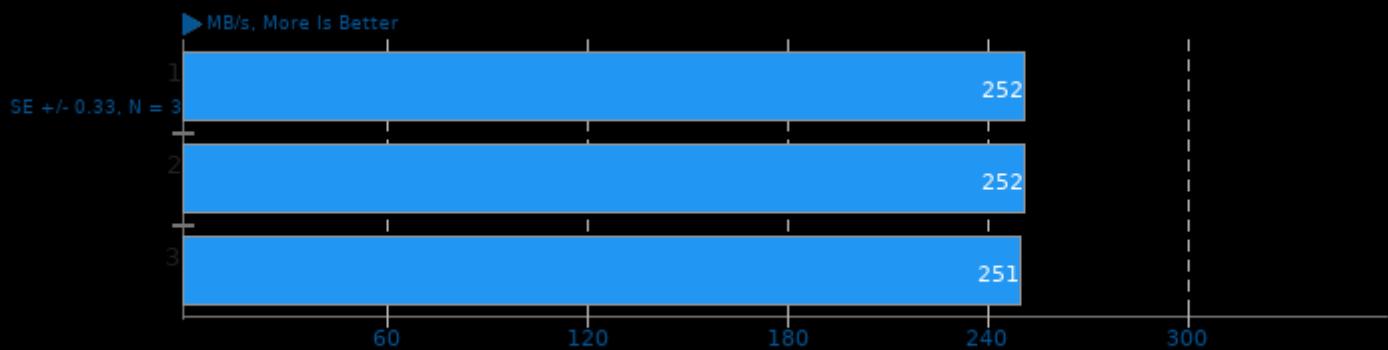
Test: Zstd 1 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

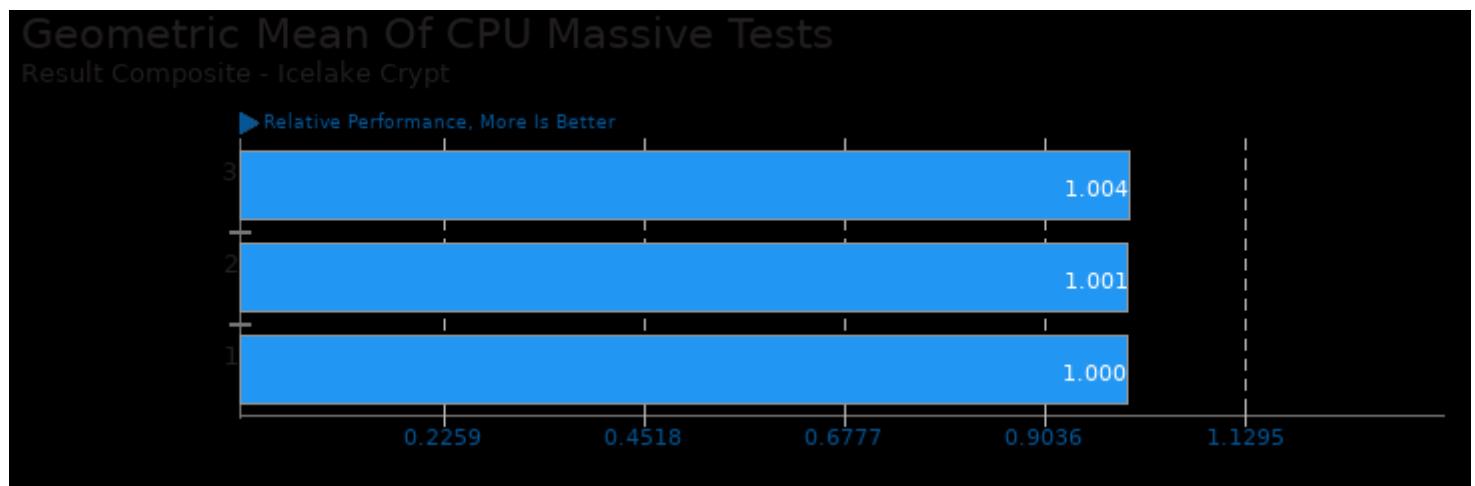
## Izbench 1.8

Test: Libdeflate 1 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

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



Geometric mean based upon tests: pts/cython-bench and pts/lzbench

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:43.*