



## memory-32gb

Intel Core i7-11800H testing with a Dell 0836K6 (1.8.2 BIOS) and NVIDIA GeForce RTX 3060 Laptop GPU 6GB on Ubuntu 21.10 via the Phoronix Test Suite.

### Test Systems:

#### memory-32gb

#### memory-32gb-2

Processor: Intel Core i7-11800H @ 2.30GHz (8 Cores / 16 Threads), Motherboard: Dell 0836K6 (1.8.2 BIOS), Chipset: Intel Tiger Lake-H, Memory: 32GB, Disk: IM2P33F3A NVMe ADATA 512GB + 8002GB Expansion Desk, Graphics: NVIDIA GeForce RTX 3060 Laptop GPU 6GB, Audio: Intel Tiger Lake-H HD Audio, Monitor: U32J59x, Network: Realtek Device 2600 + Intel Tiger Lake PCH CNVi WiFi

OS: Ubuntu 21.10, Kernel: 5.15.13-051513-generic (x86\_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.13, Display Driver: NVIDIA 495.46, OpenGL: 4.6.0, OpenCL: OpenCL 3.0 CUDA 11.5.103, Vulkan: 1.2.186, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 4480x1440

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86\_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-gcn/usr --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: intel\_pstate performance (EPP: performance) - CPU Microcode: 0x2c - Thermald 2.4.6

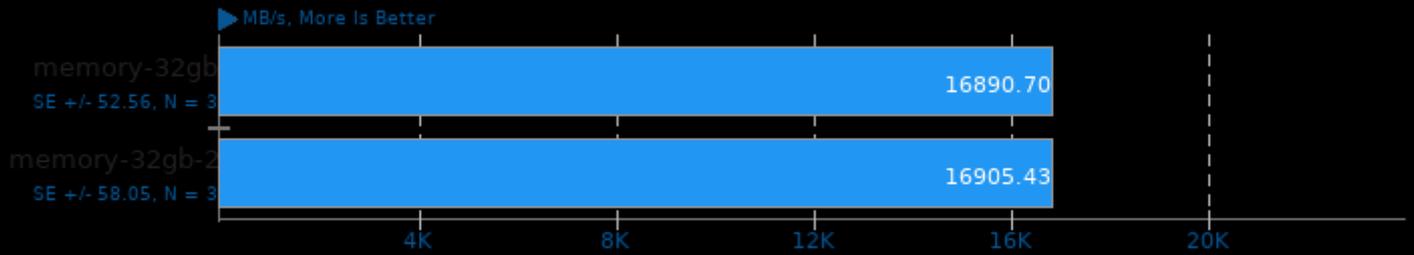
Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swaps barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx\_async\_abort: Not affected

	memory-32gb	memory-32gb-2
<b>RAMspeed SMP - Add - Integer (MB/s)</b>	<b>16891</b>	<b>16905</b>
Normalized	99.91%	100%
Standard Deviation	0.5%	0.6%
<b>RAMspeed SMP - Copy - Integer (MB/s)</b>	<b>15242</b>	<b>15490</b>
Normalized	98.4%	100%
Standard Deviation	0.1%	0.3%
<b>RAMspeed SMP - Scale - Integer (MB/s)</b>	<b>15138</b>	<b>15490</b>
Normalized	97.73%	100%
Standard Deviation	0.1%	0.5%
<b>RAMspeed SMP - Triad - Integer (MB/s)</b>	<b>16714</b>	<b>16971</b>
Normalized	98.49%	100%
Standard Deviation	0.3%	0.3%
<b>RAMspeed SMP - Average - Integer (MB/s)</b>	<b>15951</b>	<b>16230</b>
Normalized	98.28%	100%
Standard Deviation	0.3%	0.3%
<b>RAMspeed SMP - Add - Floating Point (MB/s)</b>	<b>16664</b>	<b>16903</b>
Normalized	98.58%	100%
Standard Deviation	0.1%	0.2%
<b>RAMspeed SMP - Copy - Floating Point (MB/s)</b>	<b>15072</b>	<b>15496</b>
Normalized	97.27%	100%
Standard Deviation	1.4%	0.3%
<b>RAMspeed SMP - Scale - Floating Point (MB/s)</b>		15386
Standard Deviation		0.3%
<b>RAMspeed SMP - Triad - Floating Point (MB/s)</b>		16923
Standard Deviation		0.2%
<b>RAMspeed SMP - Average - Floating Point (MB/s)</b>		16168
Standard Deviation		0.1%
<b>Stream - Copy (MB/s)</b>		19082
Standard Deviation		0.1%
<b>Stream - Scale (MB/s)</b>		13538
Standard Deviation		0.1%
<b>Stream - Triad (MB/s)</b>		14824
Standard Deviation		0.1%
<b>Stream - Add (MB/s)</b>		14900
Standard Deviation		0.1%
<b>Tinymembench - Standard Memcpy (MB/s)</b>		14488
Standard Deviation		0.6%
<b>Tinymembench - Standard Memset (MB/s)</b>		23068
Standard Deviation		0.4%

<b>MBW - Memory Copy - 1024 MiB (MiB/s)</b>	9666
Standard Deviation	2.2%
<b>MBW - M.C.F.B.S - 1024 MiB (MiB/s)</b>	9330
Standard Deviation	2.3%
<b>t-test1 - 1 (sec)</b>	18.600
Standard Deviation	15.3%
<b>t-test1 - 2 (sec)</b>	6.779
Standard Deviation	19.9%
<b>CacheBench - Read Cache (MB/s)</b>	4127
Standard Deviation	4.4%
<b>CacheBench - Write Cache (MB/s)</b>	29308
Standard Deviation	4.8%

### RAMspeed SMP 3.5.0

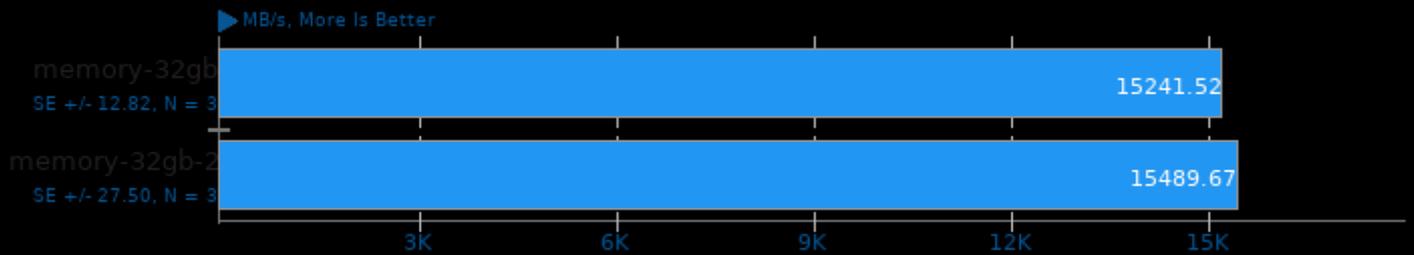
Type: Add - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

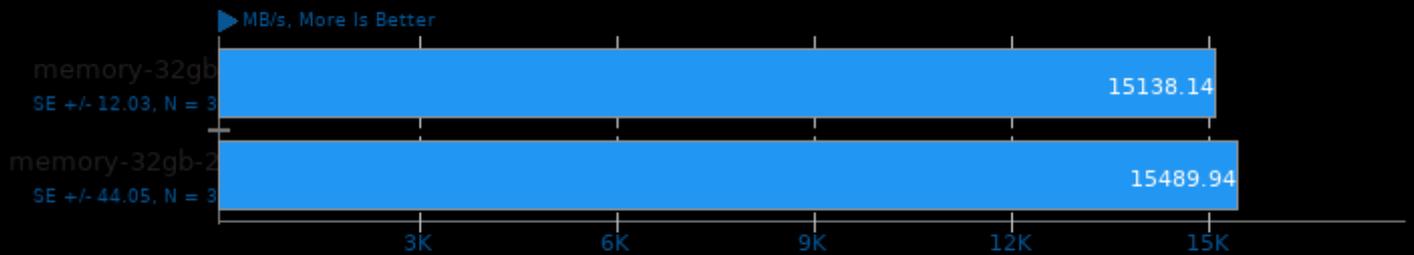
Type: Copy - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

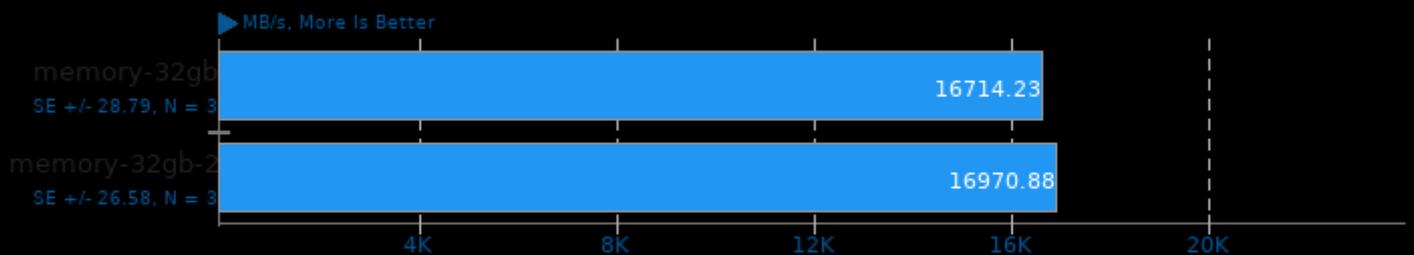
Type: Scale - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

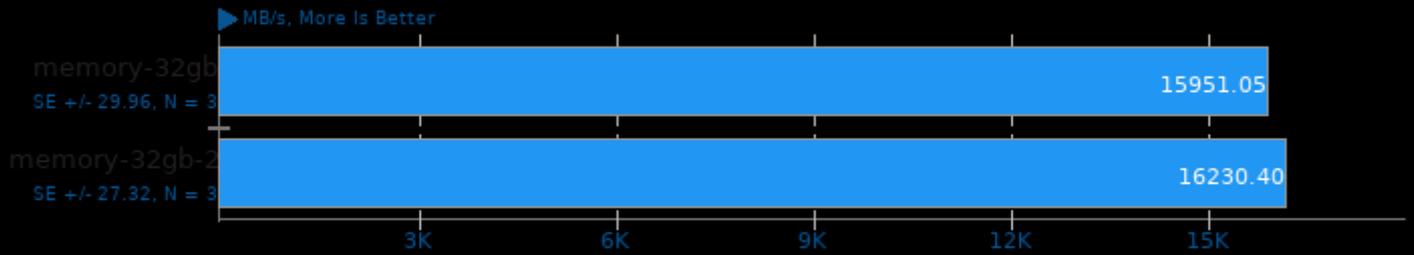
Type: Triad - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

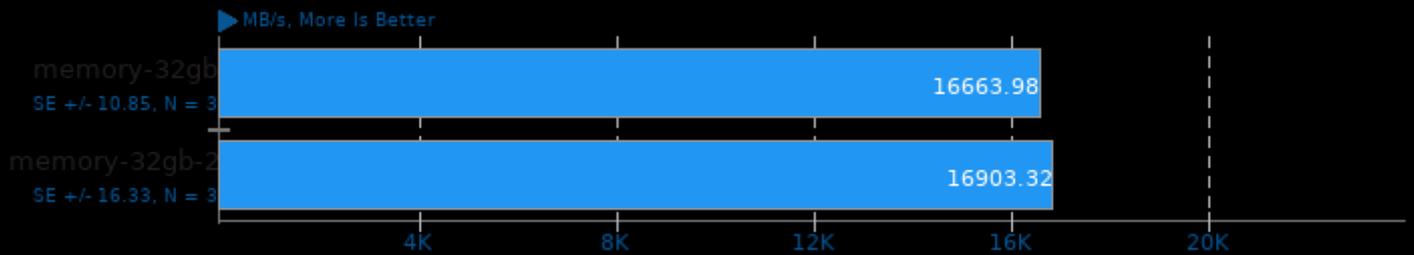
Type: Average - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

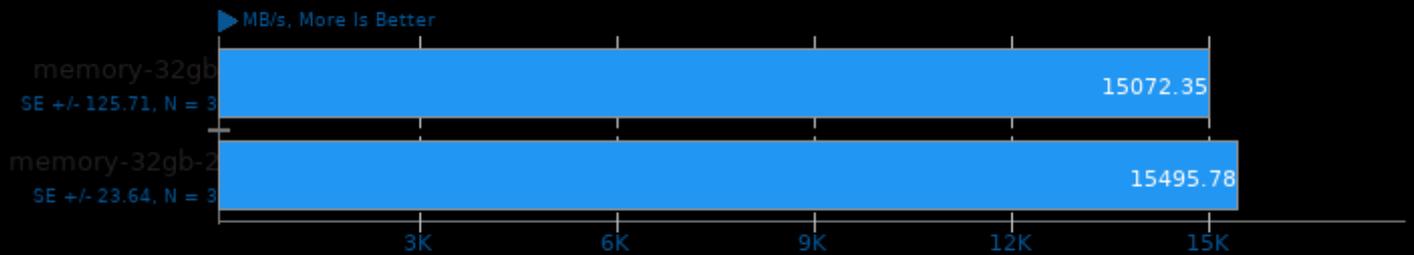
Type: Add - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

Type: Copy - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

Type: Scale - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

Type: Triad - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

### RAMspeed SMP 3.5.0

Type: Average - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

### Stream 2013-01-17

Type: Copy



1. (CC) gcc options: -O3 -march=native -fopenmp

### Stream 2013-01-17

Type: Scale



1. (CC) gcc options: -O3 -march=native -fopenmp

### Stream 2013-01-17

Type: Triad



1. (CC) gcc options: -O3 -march=native -fopenmp

### Stream 2013-01-17

Type: Add



1. (CC) gcc options: -O3 -march=native -fopenmp

### Tinymembench 2018-05-28

Standard Memcpy



1. (CC) gcc options: -O2 -lm

### Tinymembench 2018-05-28

Standard Memset



1. (CC) gcc options: -O2 -lm

### MBW 2018-09-08

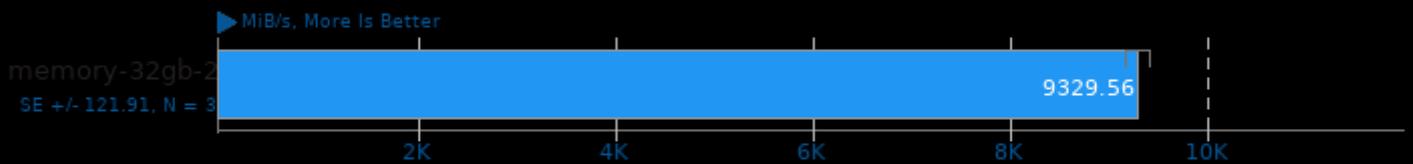
Test: Memory Copy - Array Size: 1024 MiB



1. (CC) gcc options: -O3 -march=native

### MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB



1. (CC) gcc options: -O3 -march=native

### t-test1 2017-01-13

Threads: 1



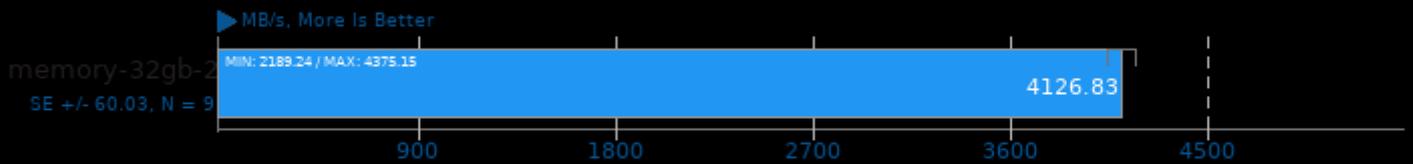
### t-test1 2017-01-13

Threads: 2



### CacheBench

Read Cache



### CacheBench

Write Cache



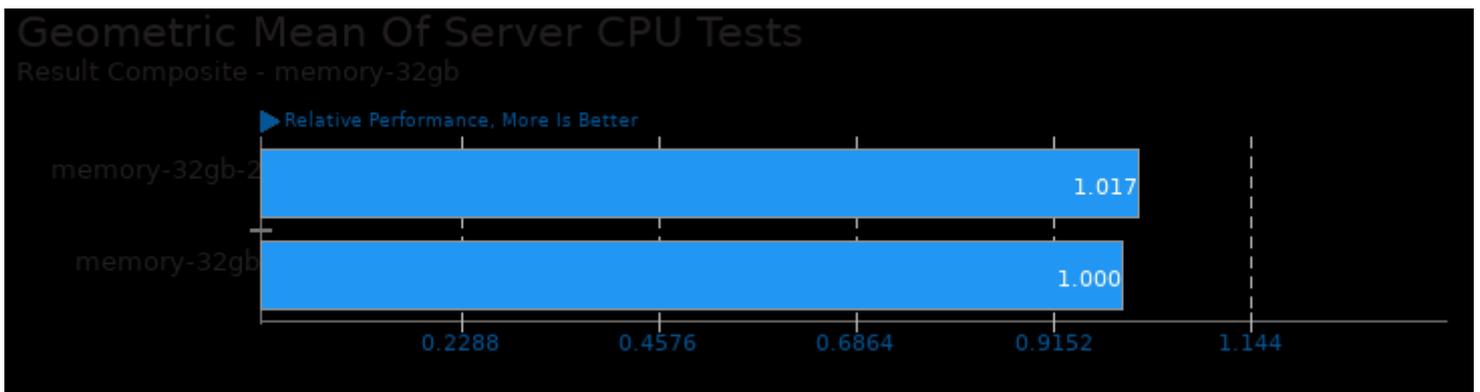
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/cachebench, pts/mbw, pts/ramspeed, pts/stream, pts/t-test1 and pts/tinymembench



Geometric mean based upon tests: pts/ramspeed, pts/stream, pts/t-test1, pts/cachebench, pts/tinymembench and pts/mbw



Geometric mean based upon tests: pts/ramspeed and pts/stream

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 09:12.