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# Oracle-640-TunedBBU-LPDisabled-RUN7

Testing-Oracle-Linux-on-a-Dell-640-The-tuned-adm-profile-is-xran-bbu-Logical-Processors-are-disabled

## Test Systems:

### Oracle-640-TunedBBU-LPDisabled-RUN7---07-31-2021_03-33-09

Processor: Intel Xeon Gold 5218 @ 3.90GHz (16 Cores), Motherboard: Dell 0H28RR (2.11.2 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 8 x GB DDR4-3200MT/s HMA81GR7CJR8N-XN, Disk: 4000GB PERC H730P Mini, Graphics: Matrox G200eW3, Network: 2 x Mellanox MT27710 + 2 x Intel I350

OS: Oracle Linux Server 8.4, Kernel: 5.4.17-2102.202.5.el8uek.x86_64 (x86_64), Compiler: GCC 8.4.1 20200928, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: never
Compiler Notes: --build=x86_64-redhat-linux --disable-libmpx --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel / Block Size: 4096
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0x5003102

# Oracle-640-TunedBBU-LPDisabled-RUN7

Security Notes: SELinux + itlb_multihit: KVM: Mitigation of Split huge pages + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

| | Oracle-640-TunedBBU-LPDisabled-RUN7---07-31-2021_03-33-09 |
|---|---|
| **Intel Memory Latency Checker - Max Bandwidth - Stream-Triad Like (MB/s)** | 72245 |
| **Standard Deviation** | 0% |
| **Intel Memory Latency Checker - Max Bandwidth - 1:1 Reads-Writes (MB/s)** | 63644 |
| **Standard Deviation** | 0.1% |
| **Intel Memory Latency Checker - Max Bandwidth - 2:1 Reads-Writes (MB/s)** | 69228 |
| **Standard Deviation** | 0.1% |
| **Intel Memory Latency Checker - Max Bandwidth - 3:1 Reads-Writes (MB/s)** | 70966 |
| **Standard Deviation** | 0.2% |
| **Intel Memory Latency Checker - Max Bandwidth - All Reads (MB/s)** | 79272 |
| **Standard Deviation** | 0% |
| **CacheBench - R.M.W (MB/s)** | 20769 |
| **Standard Deviation** | 0% |
| **CacheBench - Write (MB/s)** | 19488 |
| **Standard Deviation** | 0% |
| **CacheBench - Read (MB/s)** | 2364 |
| **Standard Deviation** | 0% |
| **MBW - M.C.F.B.S - 8192 MiB (MiB/s)** | 7649 |
| **Standard Deviation** | 0.9% |
| **Core-Latency - A.L.B.C.C (ns)** | 212.089 |
| **MBW - Memory Copy - 8192 MiB (MiB/s)** | 8728 |
| **Standard Deviation** | 0.2% |
| **Sysbench - CPU (Events/sec)** | 15807 |
| **Standard Deviation** | 0% |
| **RAMspeed SMP - Add - Floating Point (MB/s)** | 27877 |
| **Standard Deviation** | 0.7% |
| **RAMspeed SMP - Triad - Floating Point (MB/s)** | 27822 |
| **Standard Deviation** | 0.7% |
| **RAMspeed SMP - Copy - Floating Point (MB/s)** | 28757 |
| **Standard Deviation** | 0.6% |
| **RAMspeed SMP - Add - Integer (MB/s)** | 28757 |
| **Standard Deviation** | 0.8% |
| **RAMspeed SMP - Average - Floating Point (MB/s)** | 27921 |
| **Standard Deviation** | 0.1% |
| **RAMspeed SMP - Scale - Integer (MB/s)** | 27104 |
| **Standard Deviation** | 0.5% |
| **RAMspeed SMP - Scale - Floating Point (MB/s)** | 27044 |
| **Standard Deviation** | 0.2% |
| **RAMspeed SMP - Triad - Integer (MB/s)** | 27657 |
| **Standard Deviation** | 0.7% |

| | |
|---|---|
| **pmbench - 1 - 50% (us - Page Latency)** | 0.0892 |
| **Standard Deviation** | 0.2% |
| **pmbench - 16 - 8.R.2.W (us - Page Latency)** | 0.1098 |
| **Standard Deviation** | 0.4% |
| **pmbench - 4 - 8.R.2.W (us - Page Latency)** | 0.1091 |
| **Standard Deviation** | 0.1% |
| **pmbench - 1 - 8.R.2.W (us - Page Latency)** | 0.1091 |
| **Standard Deviation** | 0.1% |
| **pmbench - 1 - 100% Writes (us - Page Latency)** | 0.0502 |
| **Standard Deviation** | 0% |
| **pmbench - 4 - 50% (us - Page Latency)** | 0.0906 |
| **Standard Deviation** | 0.2% |
| **pmbench - 16 - 50% (us - Page Latency)** | 0.0904 |
| **Standard Deviation** | 0.7% |
| **RAMspeed SMP - Copy - Integer (MB/s)** | 28855 |
| **Standard Deviation** | 0.2% |
| **pmbench - 4 - 100% Writes (us - Page Latency)** | 0.0502 |
| **Standard Deviation** | 0.2% |
| **pmbench - 1 - 100% Reads (us - Page Latency)** | 0.0494 |
| **Standard Deviation** | 0.1% |
| **pmbench - 16 - 100% Writes (us - Page Latency)** | 0.0503 |
| **Standard Deviation** | 0.1% |
| **pmbench - 4 - 100% Reads (us - Page Latency)** | 0.0494 |
| **Standard Deviation** | 0.1% |
| **pmbench - 16 - 100% Reads (us - Page Latency)** | 0.0495 |
| **Standard Deviation** | 0% |
| **RAMspeed SMP - Average - Integer (MB/s)** | 28240 |
| **Standard Deviation** | 0% |
| **MBW - M.C.F.B.S - 4096 MiB (MiB/s)** | 7872 |
| **Standard Deviation** | 1% |
| **MBW - Memory Copy - 4096 MiB (MiB/s)** | 8876 |
| **Standard Deviation** | 0.6% |
| **Stream - Copy (MB/s)** | 60784 |
| **Standard Deviation** | 0.1% |
| **Intel Memory Latency Checker - P.I.B - Stream-Triad Like (MB/s)** | 66430 |
| **Standard Deviation** | 0% |
| **Intel Memory Latency Checker - P.I.B - 1:1 Reads-Writes (MB/s)** | 63571 |
| **Standard Deviation** | 0.2% |
| **Intel Memory Latency Checker - P.I.B - 2:1 Reads-Writes (MB/s)** | 69333 |
| **Standard Deviation** | 0.1% |
| **Intel Memory Latency Checker - P.I.B - 3:1 Reads-Writes (MB/s)** | 70782 |
| **Standard Deviation** | 0.2% |
| **Intel Memory Latency Checker - P.I.B - All Reads (MB/s)** | 78375 |
| **Standard Deviation** | 0% |
| **IOzone - 4Kb - 512MB - Write Performance (MB/s)** | 51.30 |
| **Standard Deviation** | 1.6% |
| **MBW - M.C.F.B.S - 1024 MiB (MiB/s)** | 8255 |
| **Standard Deviation** | 0.3% |
| **MBW - Memory Copy - 1024 MiB (MiB/s)** | 8969 |
| **Standard Deviation** | 0.1% |
| **Intel Memory Latency Checker - Idle Latency (ns)** | 68.4 |
| **Standard Deviation** | 0% |
| **MBW - M.C.F.B.S - 512 MiB (MiB/s)** | 8385 |

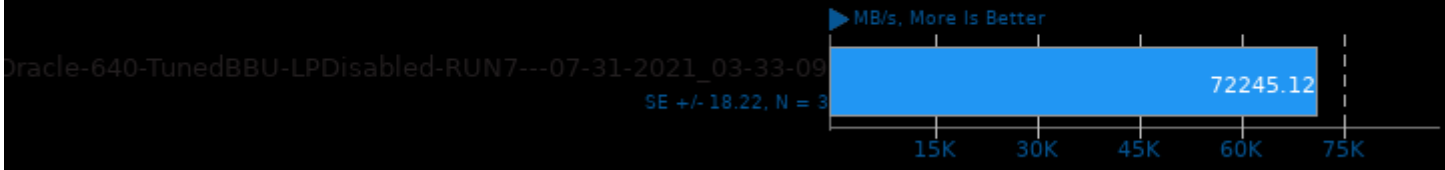
# Oracle-640-TunedBBU-LPDisabled-RUN7

| | |
|---|---|
| **Standard Deviation** | 0.1% |
| **MBW - Memory Copy - 512 MiB (MiB/s)** | 9006 |
| **Standard Deviation** | 0.1% |
| **MBW - M.C.F.B.S - 128 MiB (MiB/s)** | 8602 |
| **Standard Deviation** | 0.1% |
| **MBW - Memory Copy - 128 MiB (MiB/s)** | 9221 |
| **Standard Deviation** | 0.1% |
| **Stream - Add (MB/s)** | 52526 |
| **Standard Deviation** | 0.2% |
| **Stream - Triad (MB/s)** | 53284 |
| **Standard Deviation** | 0.1% |
| **Stream - Scale (MB/s)** | 46887 |
| **Standard Deviation** | 0.2% |

# Oracle-640-TunedBBU-LPDisabled-RUN7

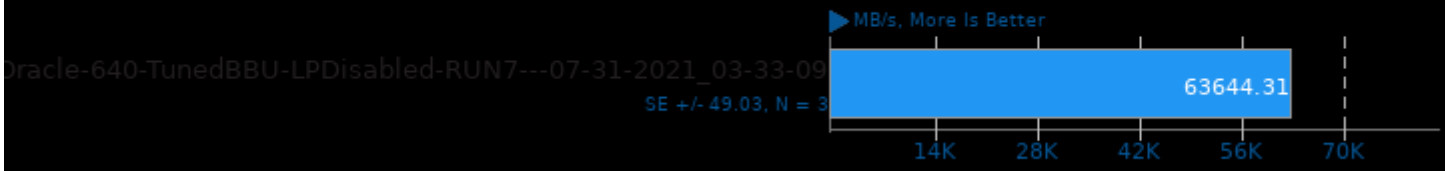
## Intel Memory Latency Checker

Test: Max Bandwidth - Stream-Triad Like



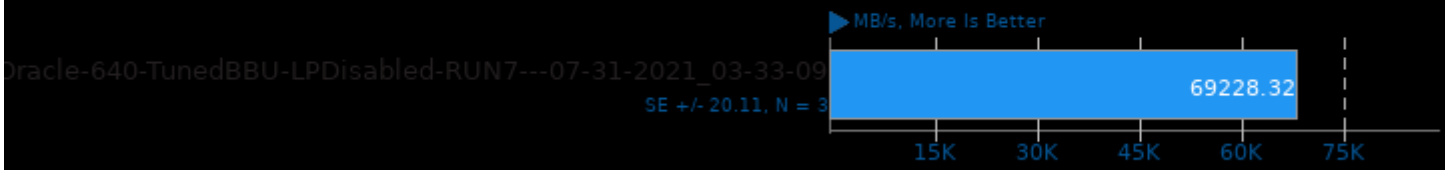

## Intel Memory Latency Checker

Test: Max Bandwidth - 1:1 Reads-Writes



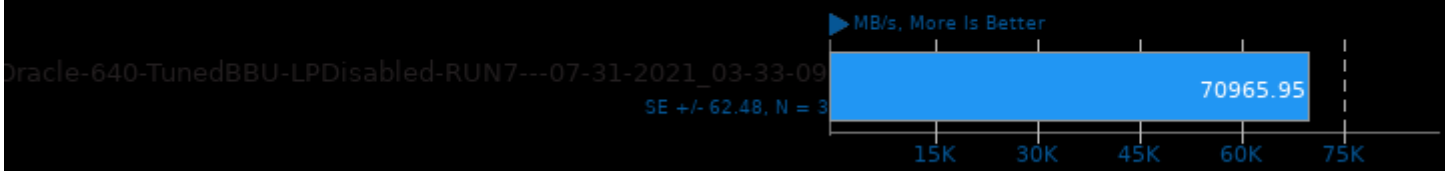

## Intel Memory Latency Checker

Test: Max Bandwidth - 2:1 Reads-Writes



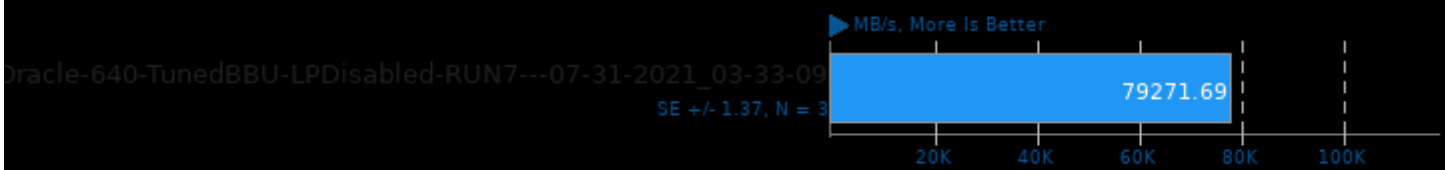

## Intel Memory Latency Checker

Test: Max Bandwidth - 3:1 Reads-Writes



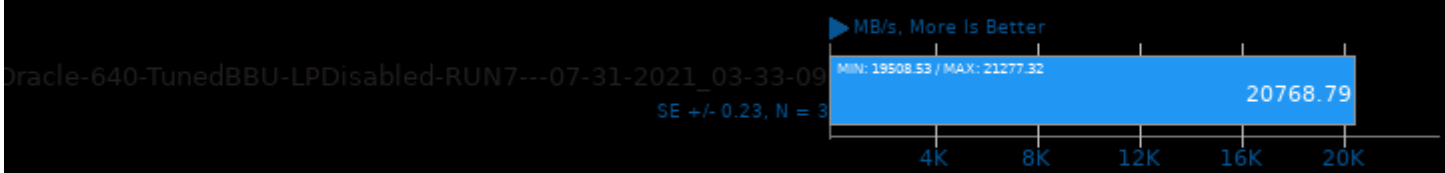

## Intel Memory Latency Checker

Test: Max Bandwidth - All Reads




## CacheBench

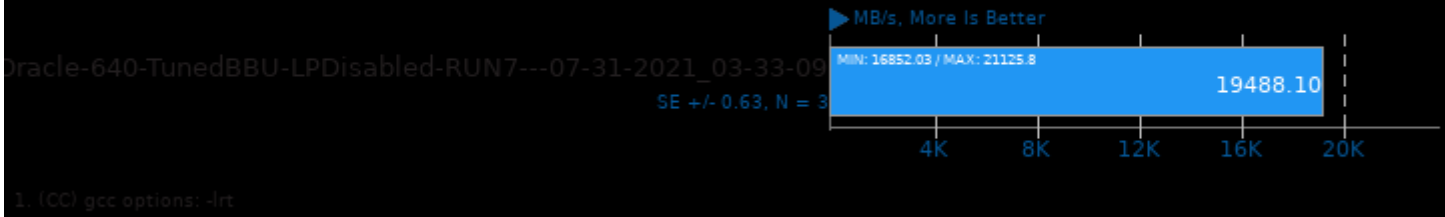
Test: Read / Modify / Write




1. (CC) gcc options: -lrt

## CacheBench

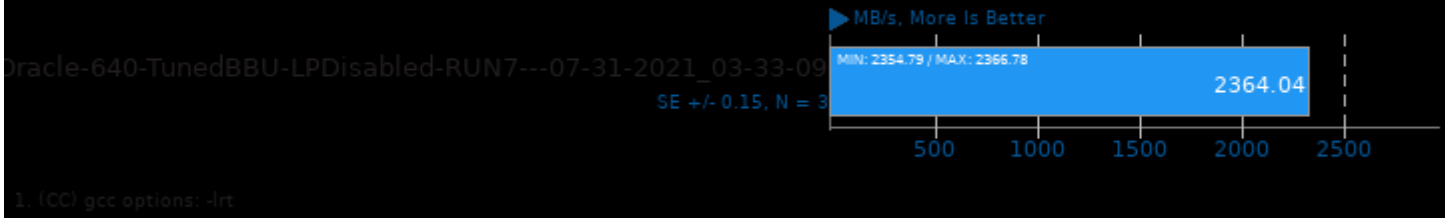
Test: Write




1. (CC) gcc options: -lrt

## CacheBench

Test: Read




1. (CC) gcc options: -lrt

## MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 8192 MiB




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

## Core-Latency

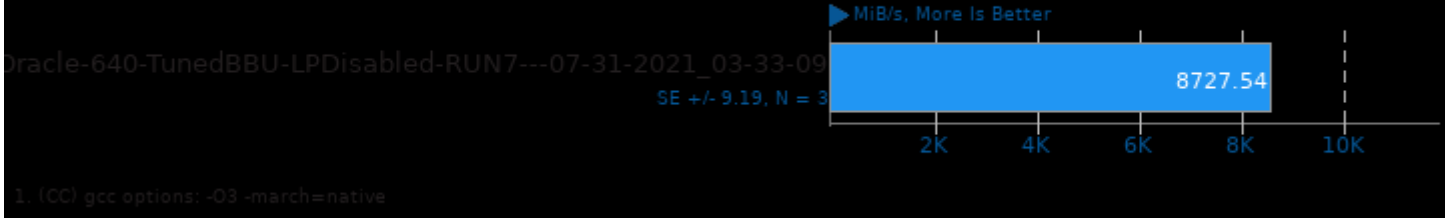
Average Latency Between CPU Cores




1. (CXX) g++ options: -std=c++11 -pthread -O3

## MBW 2018-09-08

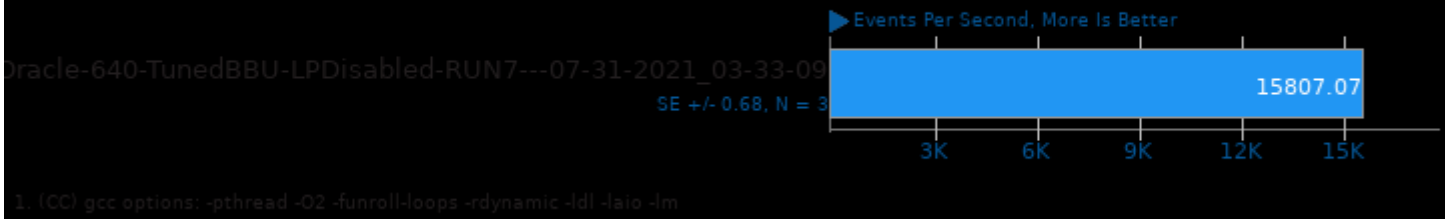
Test: Memory Copy - Array Size: 8192 MiB




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

## Sysbench 1.0.20

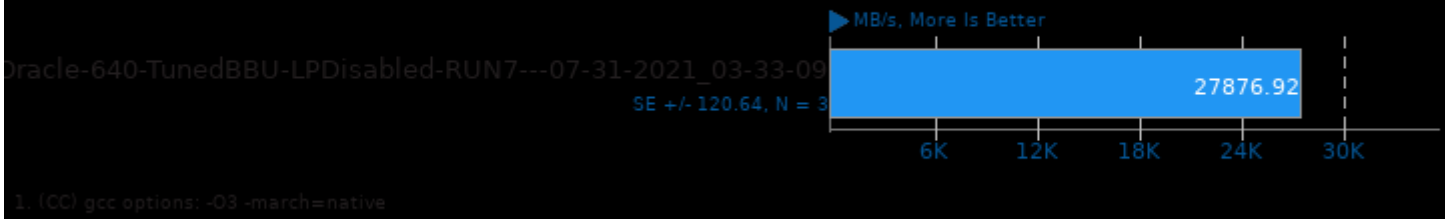
Test: CPU




1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

## RAMspeed SMP 3.5.0

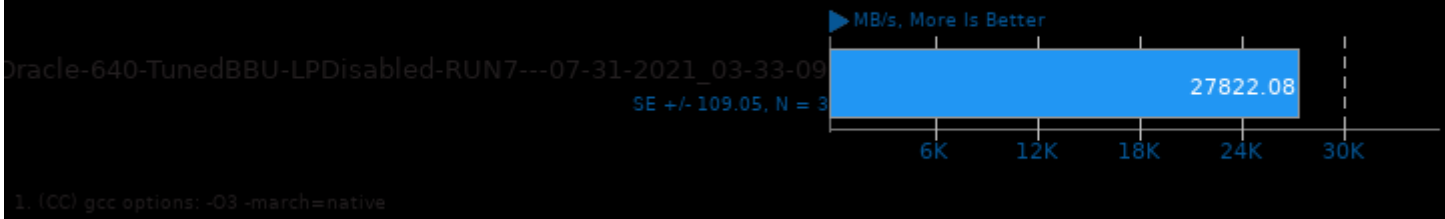
Type: Add - Benchmark: Floating Point




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

## RAMspeed SMP 3.5.0

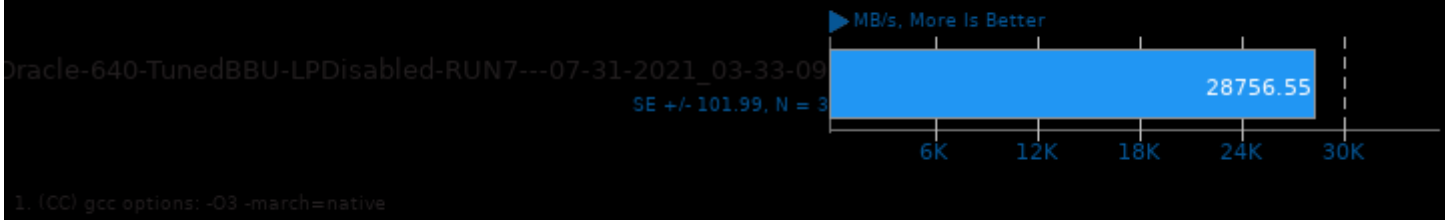
Type: Triad - Benchmark: Floating Point




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

## RAMspeed SMP 3.5.0

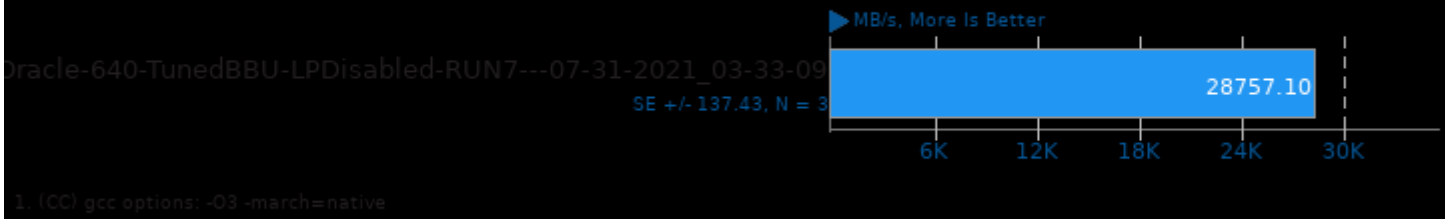
Type: Copy - Benchmark: Floating Point




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

## RAMspeed SMP 3.5.0

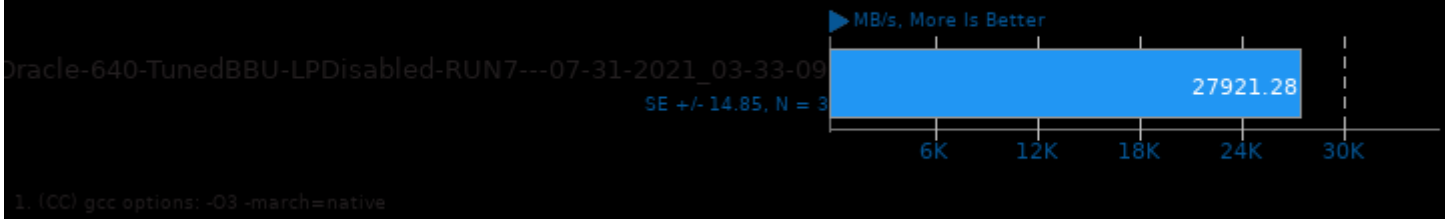
Type: Add - Benchmark: Integer




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

## RAMspeed SMP 3.5.0

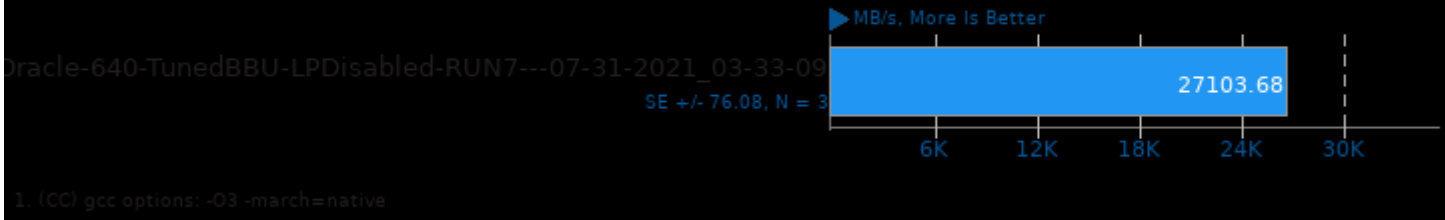
Type: Average - Benchmark: Floating Point




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

## RAMspeed SMP 3.5.0

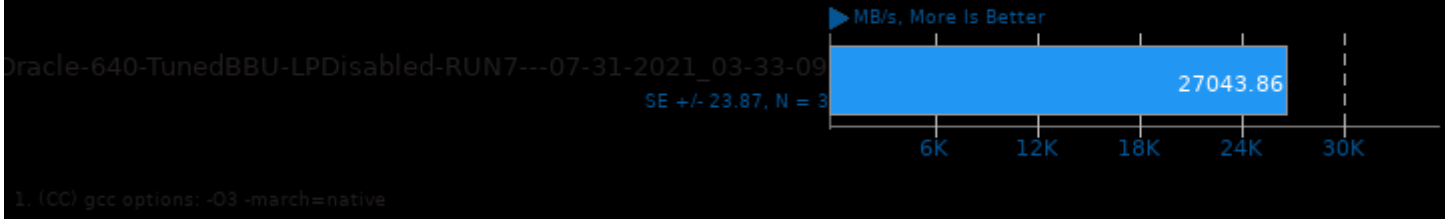
Type: Scale - Benchmark: Integer




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

## RAMspeed SMP 3.5.0

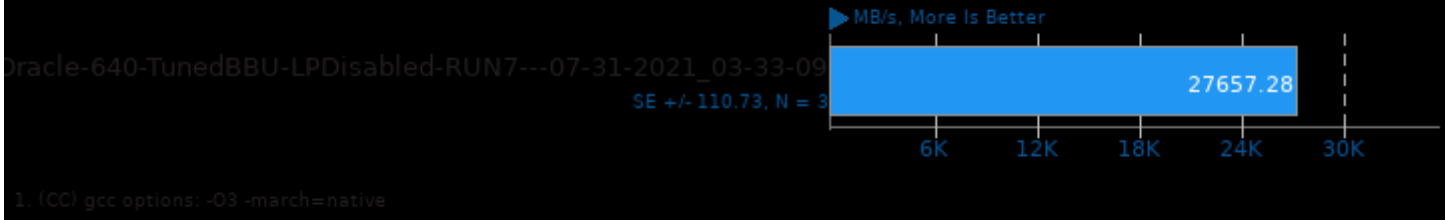
Type: Scale - Benchmark: Floating Point




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

## RAMspeed SMP 3.5.0

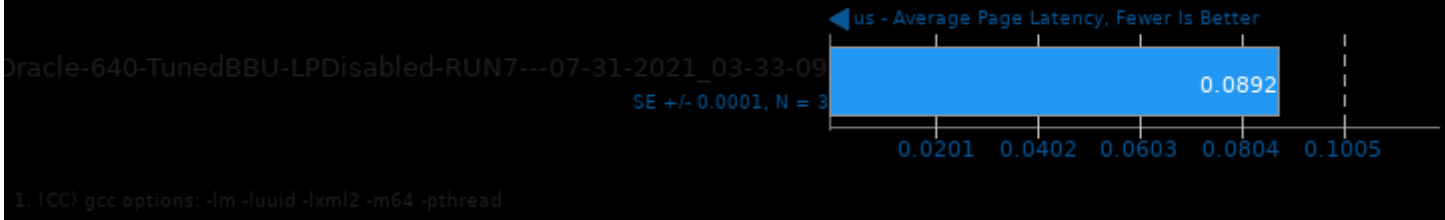
Type: Triad - Benchmark: Integer




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

## pmbench

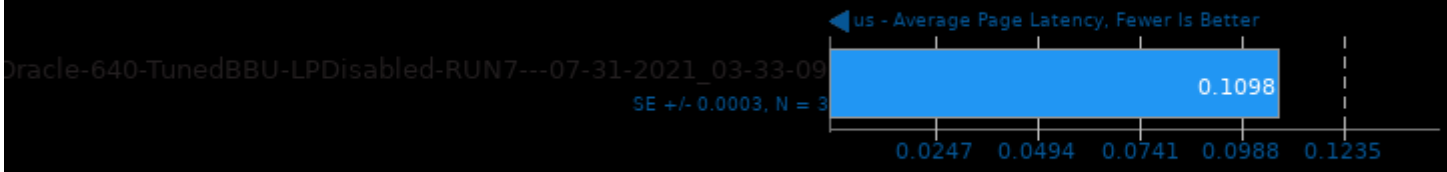
Concurrent Worker Threads: 1 - Read-Write Ratio: 50%




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

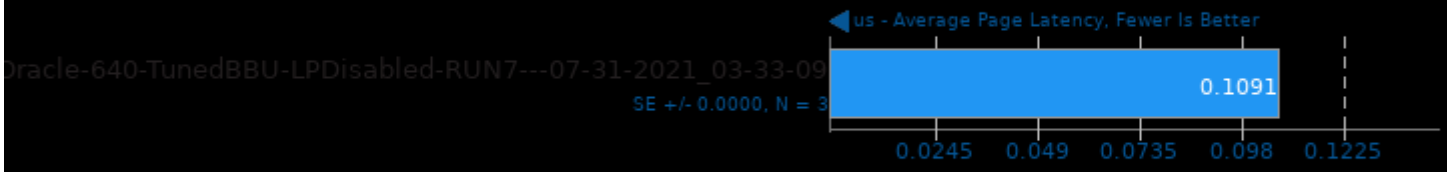
Concurrent Worker Threads: 16 - Read-Write Ratio: 80% Reads 20% Writes




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

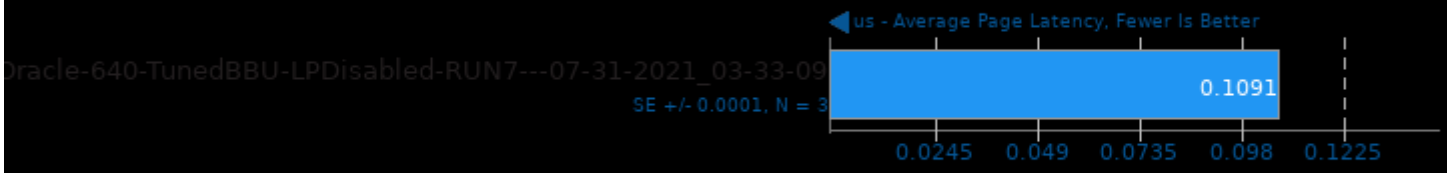
Concurrent Worker Threads: 4 - Read-Write Ratio: 80% Reads 20% Writes




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

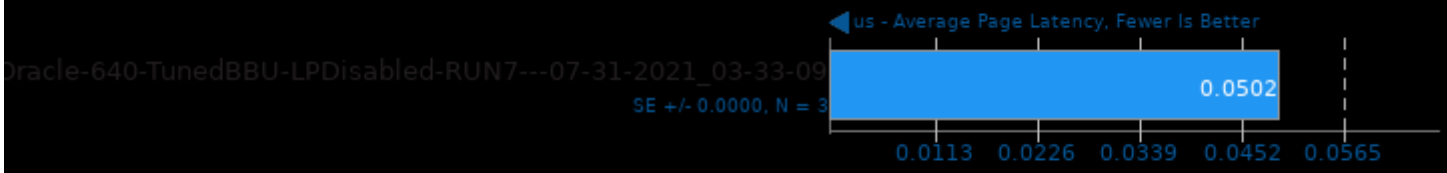
Concurrent Worker Threads: 1 - Read-Write Ratio: 80% Reads 20% Writes




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

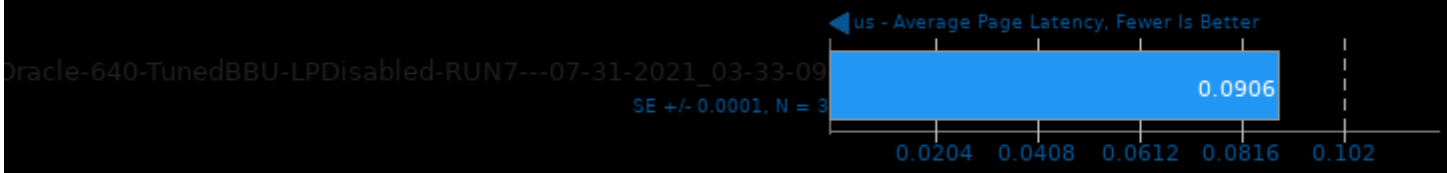
Concurrent Worker Threads: 1 - Read-Write Ratio: 100% Writes




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

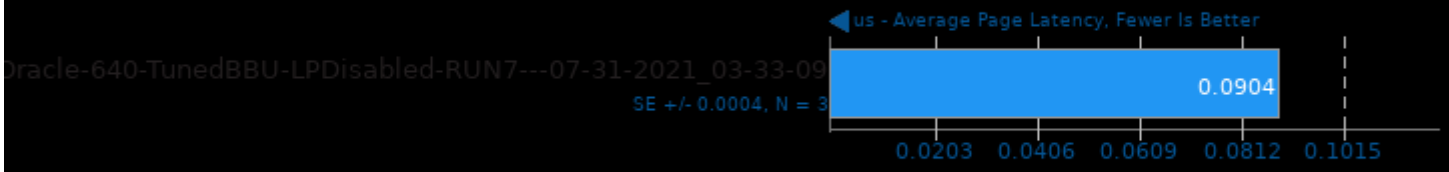
Concurrent Worker Threads: 4 - Read-Write Ratio: 50%




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

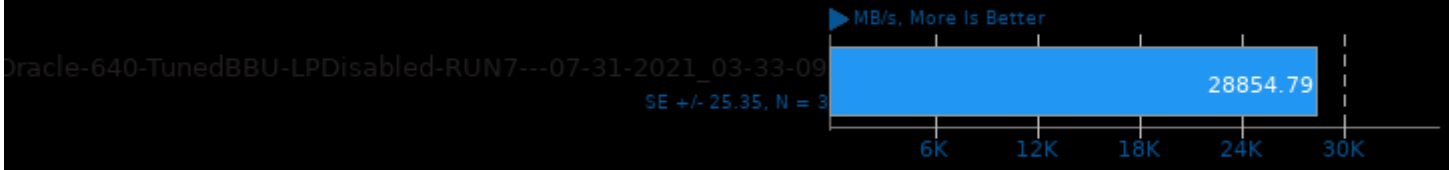
Concurrent Worker Threads: 16 - Read-Write Ratio: 50%




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## RAMspeed SMP 3.5.0

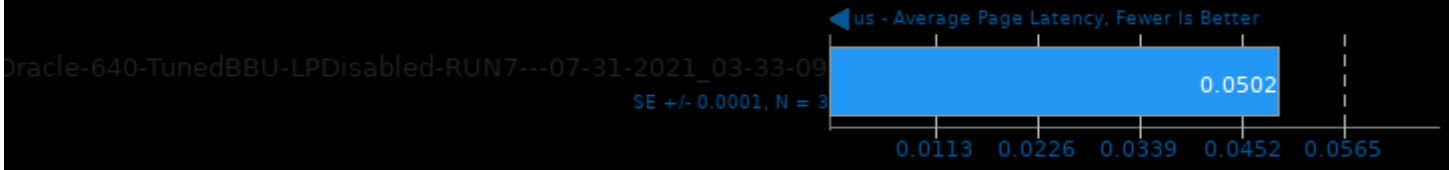
Type: Copy - Benchmark: Integer




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

## pmbench

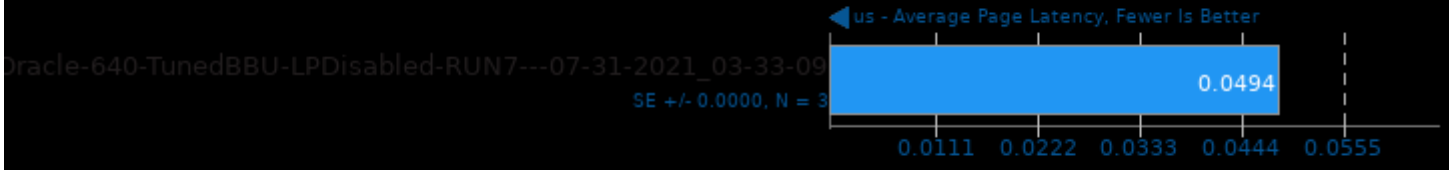
Concurrent Worker Threads: 4 - Read-Write Ratio: 100% Writes




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

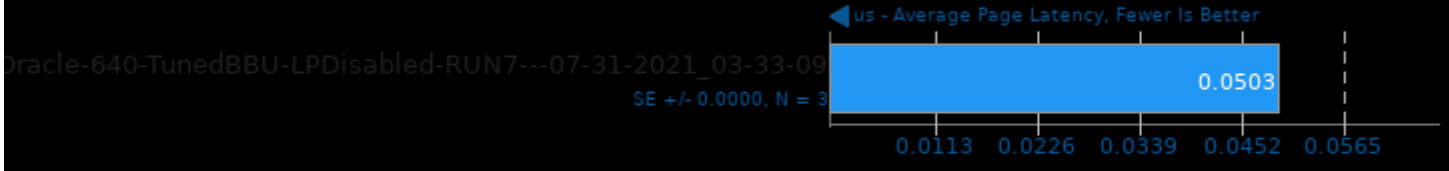
Concurrent Worker Threads: 1 - Read-Write Ratio: 100% Reads




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

Concurrent Worker Threads: 16 - Read-Write Ratio: 100% Writes

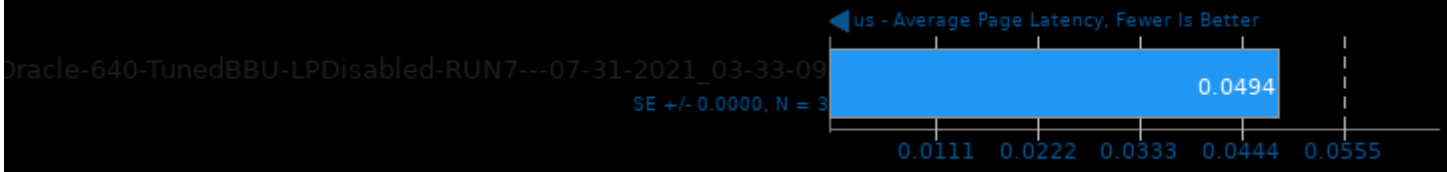



1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

# Oracle-640-TunedBBU-LPDisabled-RUN7

## pmbench

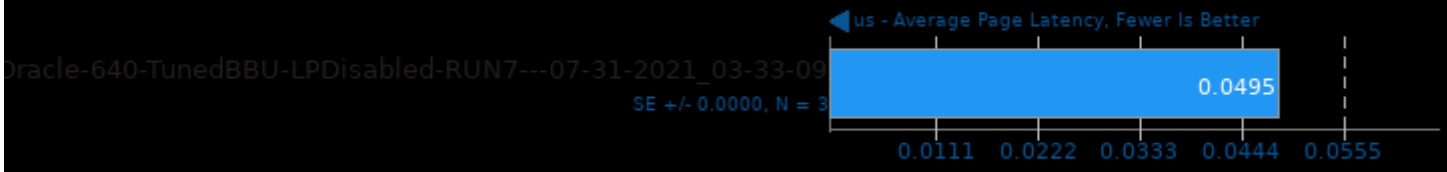
Concurrent Worker Threads: 4 - Read-Write Ratio: 100% Reads




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## pmbench

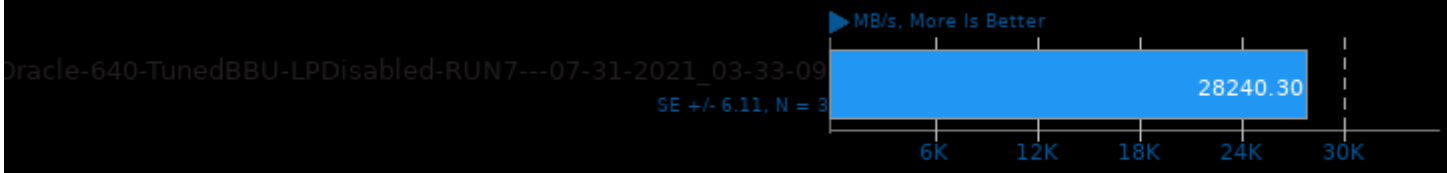
Concurrent Worker Threads: 16 - Read-Write Ratio: 100% Reads




1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

## RAMspeed SMP 3.5.0

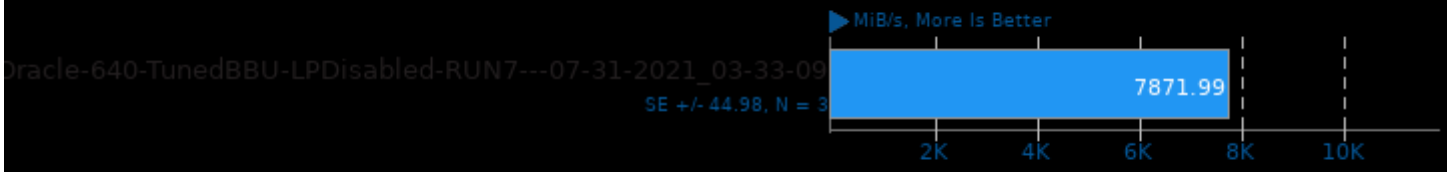
Type: Average - Benchmark: Integer




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

## MBW 2018-09-08

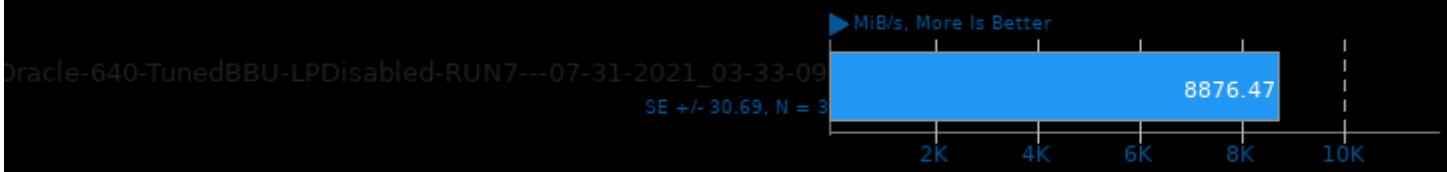
Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB




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

## MBW 2018-09-08

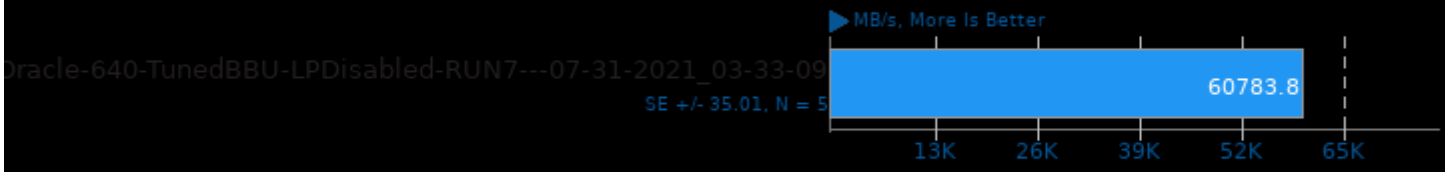
Test: Memory Copy - Array Size: 4096 MiB




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

## Stream 2013-01-17

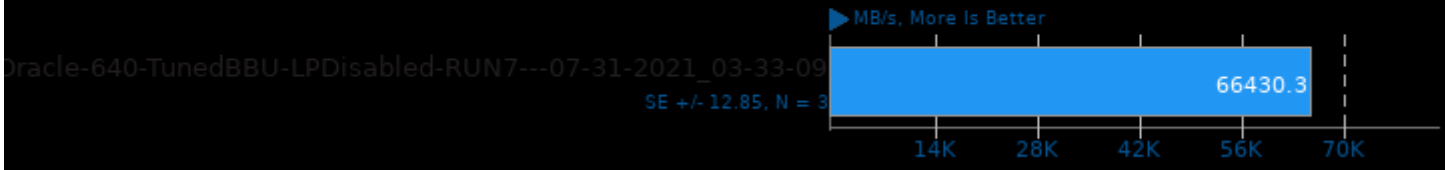
Type: Copy




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

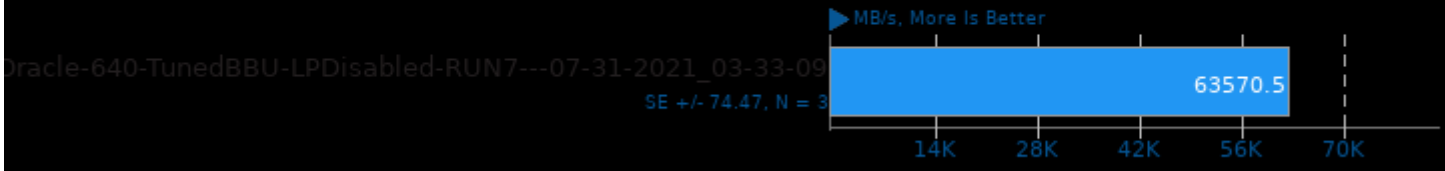
## Intel Memory Latency Checker

Test: Peak Injection Bandwidth - Stream-Triad Like



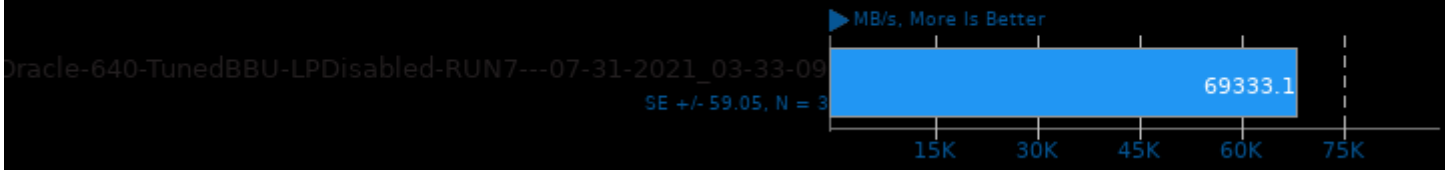

## Intel Memory Latency Checker

Test: Peak Injection Bandwidth - 1:1 Reads-Writes



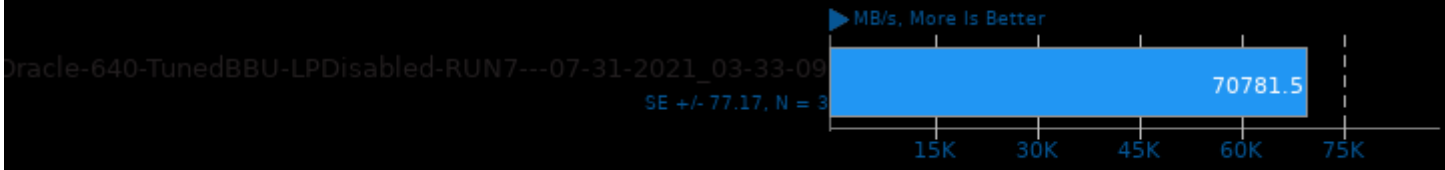

## Intel Memory Latency Checker

Test: Peak Injection Bandwidth - 2:1 Reads-Writes



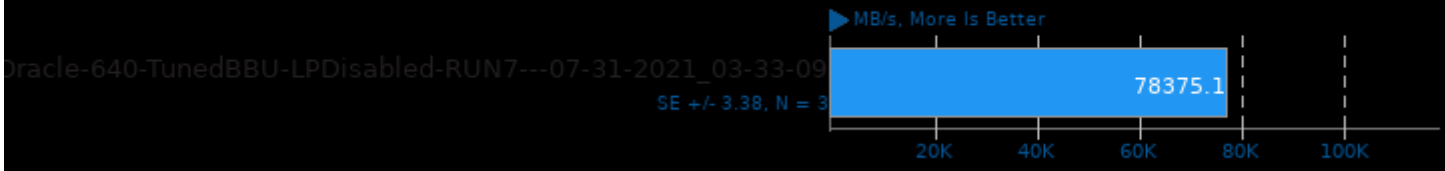

## Intel Memory Latency Checker

Test: Peak Injection Bandwidth - 3:1 Reads-Writes




## Intel Memory Latency Checker

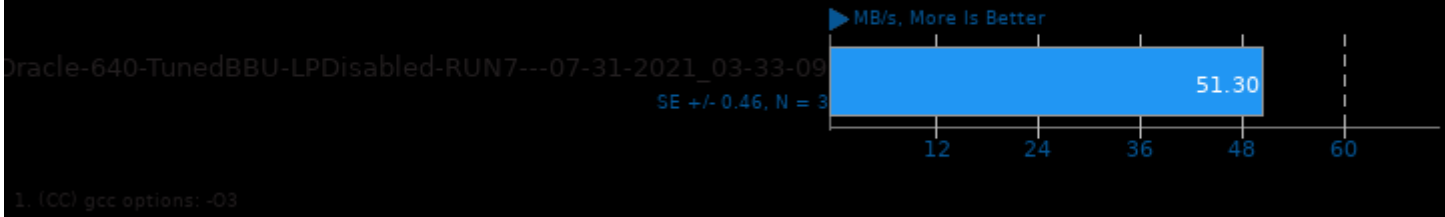
Test: Peak Injection Bandwidth - All Reads



# Oracle-640-TunedBBU-LPDisabled-RUN7

## IOzone 3.465

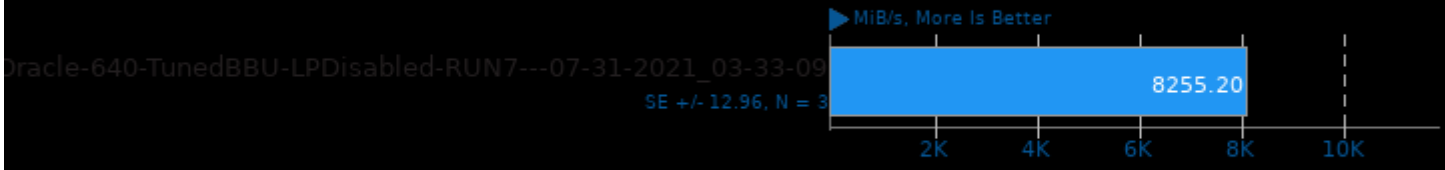
Record Size: 4Kb - File Size: 512MB - Disk Test: Write Performance




1. (CC) gcc options: -O3

## MBW 2018-09-08

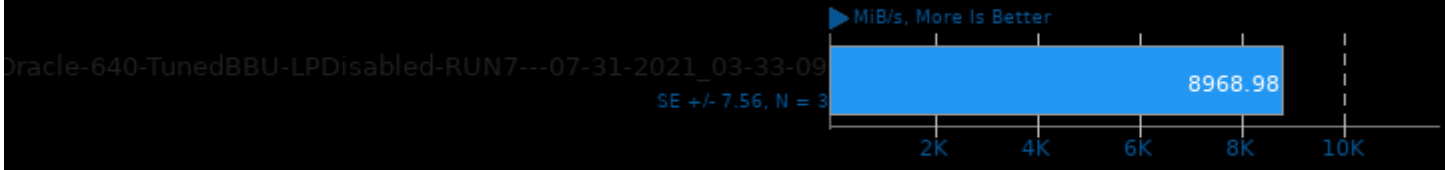
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB




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

## MBW 2018-09-08

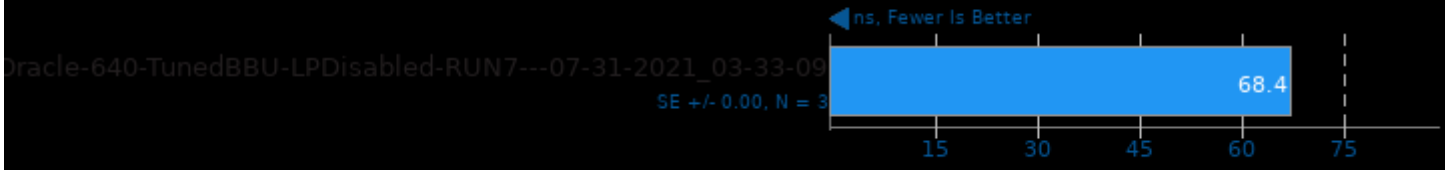
Test: Memory Copy - Array Size: 1024 MiB




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

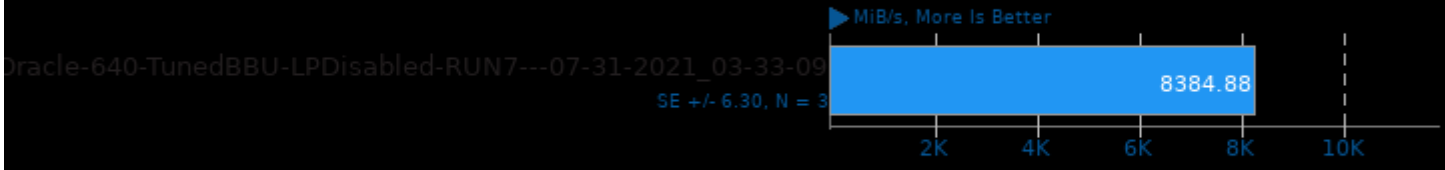
## Intel Memory Latency Checker

Test: Idle Latency




## MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 512 MiB

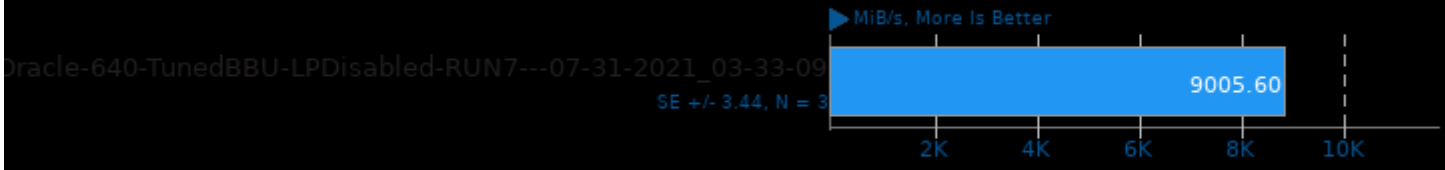



1. (CC) gcc options: -O3 -march=native

# Oracle-640-TunedBBU-LPDisabled-RUN7

## MBW 2018-09-08

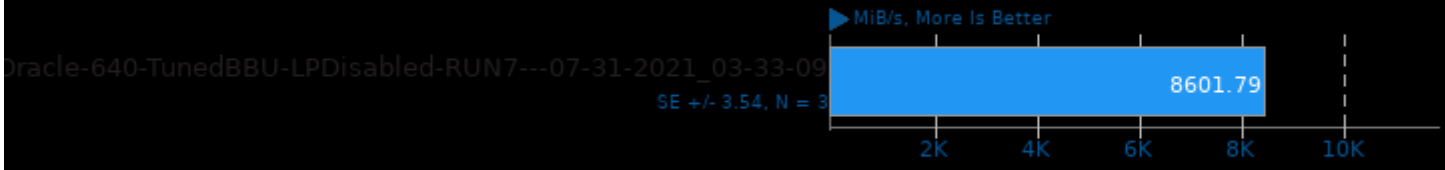
Test: Memory Copy - Array Size: 512 MiB




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

## MBW 2018-09-08

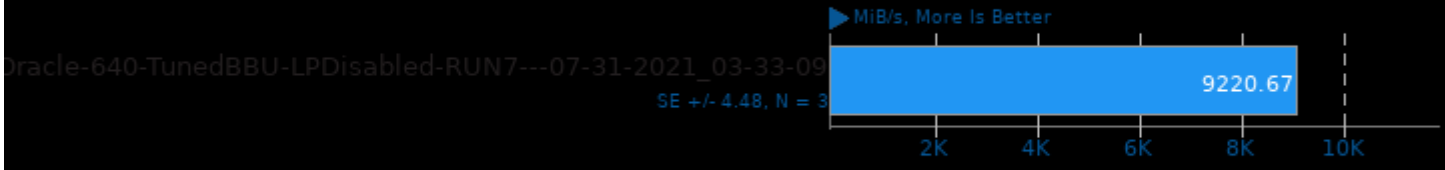
Test: Memory Copy, Fixed Block Size - Array Size: 128 MiB




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

## MBW 2018-09-08

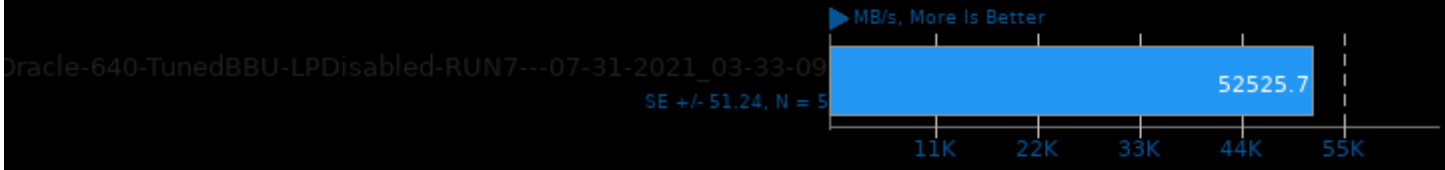
Test: Memory Copy - Array Size: 128 MiB




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

## Stream 2013-01-17

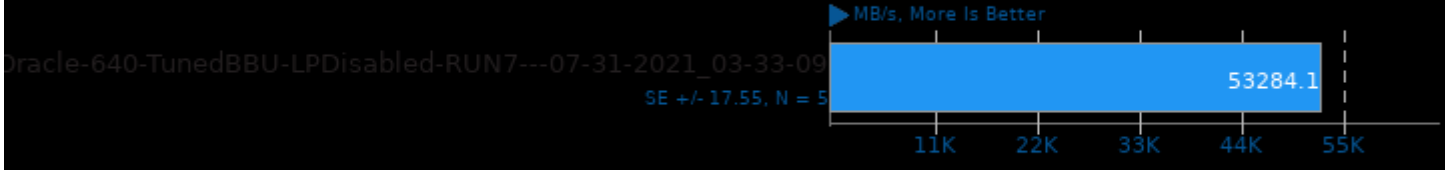
Type: Add




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

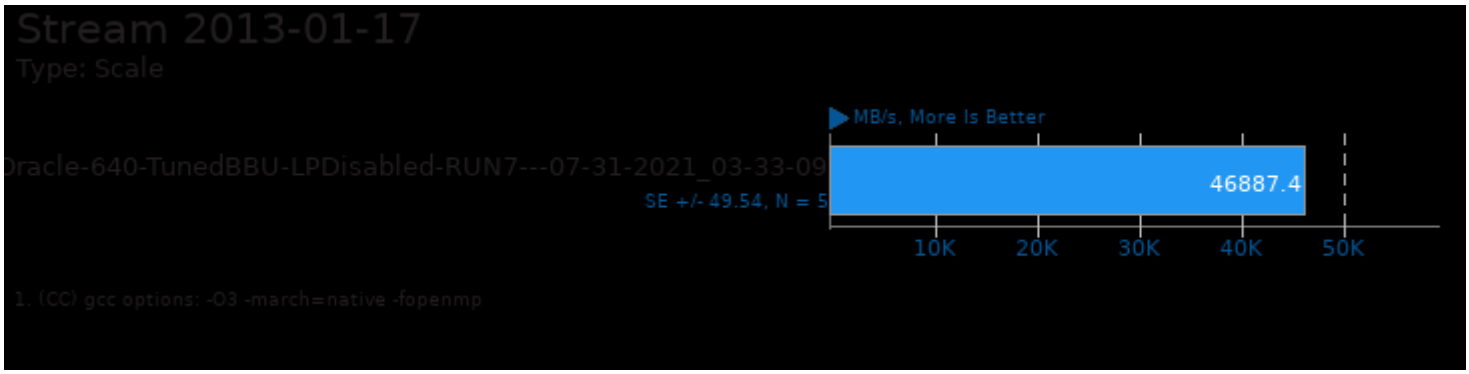
## Stream 2013-01-17

Type: Triad




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

# Oracle-640-TunedBBU-LPDisabled-RUN7




*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 07:58.*