



2 x AMD EPYC 7742 64-Core preliminary test

Preliminary test of 2 x AMD EPYC 7742 64-Core on Ubuntu 19.04 for ServerNews. More info at <https://servernews.ru/991860/>

This file was automatically generated via the Phoronix Test Suite benchmarking software.

Test Systems:

2 x AMD EPYC 7742

Processor: 2 x AMD EPYC 7742 64-Core @ 2.25GHz (128 Cores / 256 Threads), Motherboard: AMD DAYTONA_X (RDY1001C BIOS), Chipset: AMD Device 1480, Memory: 516096MB, Disk: 6 x 3841GB Micron_9300_MTFDHAL3T8TDP + 256GB Micron_1100_MTFD, Graphics: ASPEED, Network: 2 x Mellanox MT27710

OS: Ubuntu 19.04, Kernel: 5.0.0-21-generic (x86_64), Compiler: GCC 8.3.0, File-System: xfs, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --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 --with-tune=generic --without-cuda-driver -v
 Processor Notes: Scaling Governor: acpi-cpufreq performance

Security Notes: l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling

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High Performance Conjugate Gradient: (GFLOP/s)	0.30
HPC Challenge: Test / Class: G-HPL (GFLOPS)	269.65433
HPC Challenge: Test / Class: G-Ffte (GFLOPS)	48.69790
HPC Challenge: Test / Class: G-Ffte (GFLOP/s)	48.69790
HPC Challenge: Test / Class: EP-STREAM Triad (GB/s)	1.66941
HPC Challenge: Test / Class: G-Random Access (GUP/s)	0.33000
Coremark: CoreMark Size 666 - Iterations Per Second (Iterations/Sec)	3700179.97
GNU MPC: Multi-Precision Benchmark (Global Score)	7163
Y-Cruncher: Calculating 500M Pi Digits (Seconds)	11.57
FFTW: Build: Stock - Size: 2D FFT Size 4096 (Mflops)	5239.63
FFTW: Build: Float + SSE - Size: 2D FFT Size 4096 (Mflops)	18186
NAS Parallel Benchmarks: Test / Class: LU.A (Total Mop/s)	46558.03
Rodinia: Test: OpenMP LavaMD (Seconds)	4.50
Rodinia: Test: OpenMP CFD Solver (Seconds)	8.90
NAMD: ATPase Simulation - 327,506 Atoms (days/ns)	0.26476
Stockfish: Total Time (Nodes Per Second)	236474655
asmFish: 1024 Hash Memory, 26 Depth (Nodes/second)	237632499
Stream: Type: Copy (MB/s)	182592.38
Stream: Type: Scale (MB/s)	177759.10
Stream: Type: Triad (MB/s)	192716.66
Stream: Type: Add (MB/s)	190583.12
RAMspeed SMP: Integer Add (MB/s)	47636.82
RAMspeed SMP: Integer Copy (MB/s)	41366.91
RAMspeed SMP: Integer Scale (MB/s)	37626.29

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RAMspeed SMP: Floating-Point Add (MB/s)	46725.41
Tinymembench: Standard Memcpy (MB/s)	8110.47
Tinymembench: Standard Memset (MB/s)	13458.63
MBW: Test: Memory Copy - Array Size: 1024 MiB (MiB/s)	15478.89
MBW: Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB (MiB/s)	9026.04
CacheBench: Read Cache (MB/s)	2348.93
CacheBench: Write Cache (MB/s)	24574.85
Timed GCC Compilation: Time To Compile (Seconds)	612.05
Timed LLVM Compilation: Time To Compile (Seconds)	79.41
Timed Linux Kernel Compilation: Time To Compile (Seconds)	14.93
Blender: Blend File: Barbershop - Compute: CPU-Only (Seconds)	146.03
POV-Ray: Trace Time (Seconds)	8.32
C-Ray: Total Time - 4K, 16 Rays Per Pixel (Seconds)	6.30
Sunflow Rendering System: Global Illumination + Image Synthesis (Seconds)	0.70
Tachyon: Total Time (Seconds)	0.87
Radiance Benchmark: Test: Serial (Seconds)	699.16
Radiance Benchmark: Test: SMP Parallel (Seconds)	210.81
Smallpt: Global Illumination Renderer; 128 Samples (Seconds)	3.53
Sysbench: Test: CPU (Events Per Second)	204343.95
Sysbench: Test: Memory (Events Per Second)	4889449.00
OSBench: Test: Create Files (us Per Event)	32.48
OSBench: Test: Create Threads (us Per Event)	32.27
OSBench: Test: Launch Programs (us Per Event)	76.65
OSBench: Test: Create Processes (us Per Event)	42.31
OSBench: Test: Memory Allocations (Ns Per Event)	95.66
ctx_clock: Context Switch Time (Clocks)	135
Loopback TCP Network Performance: Time To Transfer 10GB Via Loopback (Seconds)	11.54
Socketperf: Test: Throughput (Messages Per Second)	492047
Socketperf: Test: Latency Ping Pong (usec)	2.59
Socketperf: Test: Latency Under Load (usec)	17.83
x264: H.264 Video Encoding (Frames Per Second)	193
x265: H.265 1080p Video Encoding (Frames Per Second)	58.85
SVT-AV1: 1080p 8-bit YUV To AV1 Video Encode (Frames Per Second)	106.41
SVT-HEVC: 1080p 8-bit YUV To HEVC Video Encode (Frames Per Second)	431.87
SVT-VP9: 1080p 8-bit YUV To VP9 Video Encode (Frames Per Second)	293.15
VP9 libvpx Encoding: vpxenc VP9 1080p Video Encode (Frames Per Second)	242.78
dav1d: Video Input: Summer Nature 4K (Seconds)	9.82
dav1d: Video Input: Summer Nature 1080p (Seconds)	3.73
FLAC Audio Encoding: WAV To FLAC (Seconds)	9.83
LAME MP3 Encoding: WAV To MP3 (Seconds)	32.71
Mencoder: AVI To LAVC (Seconds)	19.87
SQLite: Timed SQLite Insertions (Seconds)	2.85
MariaDB: Clients: 64 (Queries Per Second)	1100
Redis: Test: LPOP (Requests Per Second)	2732618.58
Redis: Test: SADD (Requests Per Second)	2028046.79
Redis: Test: LPUSH (Requests Per Second)	1467339.02
Redis: Test: GET (Requests Per Second)	2535664.70
Redis: Test: SET (Requests Per Second)	1661320.73
Memcached mcperf: Method: Add (Operations Per Second)	46011.01

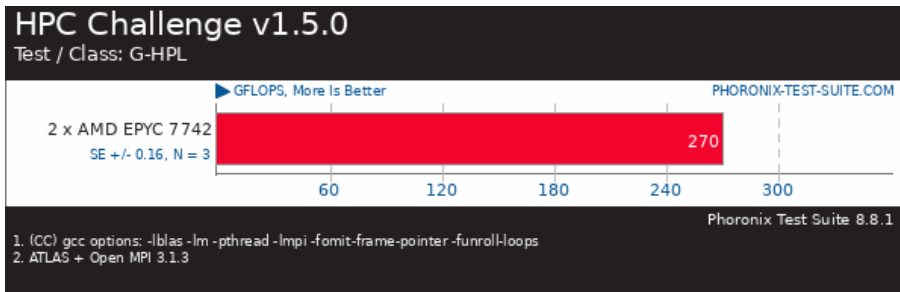
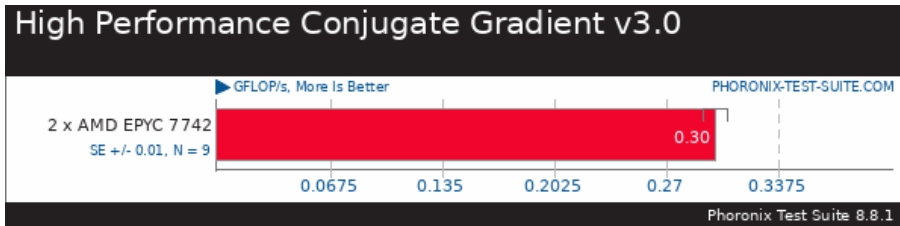
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Memcached mcp perf: Method: Get (Operations Per Second)	70379.43
Memcached mcp perf: Method: Set (Operations Per Second)	46022.84
Memcached mcp perf: Method: Append (Operations Per Second)	51565.31
Memcached mcp perf: Method: Delete (Operations Per Second)	65307.63
Memcached mcp perf: Method: Prepend (Operations Per Second)	48484.87
Memcached mcp perf: Method: Replace (Operations Per Second)	48684.12
NGINX Benchmark: Static Web Page Serving (Requests Per Second)	25637.91
Apache Benchmark: Static Web Page Serving (Requests Per Second)	27564.18
Apache Siege: Concurrent Users: 250 (Transactions Per Second)	39550.26
Node.js Octane Benchmark: (Score)	38833
PHPBench: PHP Benchmark Suite (Score)	501755
OpenSSL: RSA 4096-bit Performance (Signs Per Second)	24724.13
RAR Compression: Linux Source Tree Archiving To RAR (Seconds)	70.85
7-Zip Compression: Compress Speed Test (MIPS)	373978
Gzip Compression: Linux Source Tree Archiving To .tar.gz (Seconds)	41.06
XZ Compression: Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9 (Seconds)	28.84
Zstd Compression: Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19 (Seconds)	10.84
Java SciMark: FFT Performance (Mflops)	1637.18
Java SciMark: SOR Performance (Mflops)	1528.87
Java SciMark: Composite Performance (Mflops)	2460.18
Java SciMark: Monte Carlo Performance (Mflops)	1354.35
DaCapo Benchmark: Java Test: H2 (msec)	5462
DaCapo Benchmark: Java Test: Jython (msec)	4993
DaCapo Benchmark: Java Test: Tradebeans (msec)	5007
Dbench: Client Count: 1 (MB/s)	789.48
Dbench: Client Count: 6 (MB/s)	2344.40
Dbench: Client Count: 12 (MB/s)	3729.45
Dbench: Client Count: 48 (MB/s)	5853.84
Dbench: Client Count: 128 (MB/s)	5915.13
Dbench: Client Count: 256 (MB/s)	5674.12
PostMark: Disk Transaction Performance (TPS)	7076
Botan: Test: KASUMI - Encrypt (MiB/s)	79.13
Botan: Test: KASUMI - Decrypt (MiB/s)	76.41
Botan: Test: AES-256 - Encrypt (MiB/s)	4716.66
Botan: Test: AES-256 - Decrypt (MiB/s)	4741.64
Botan: Test: Twofish - Encrypt (MiB/s)	303.85
Botan: Test: Twofish - Decrypt (MiB/s)	304.22
Botan: Test: Blowfish - Encrypt (MiB/s)	234.36
Botan: Test: Blowfish - Decrypt (MiB/s)	231.27
Botan: Test: CAST-256 - Encrypt (MiB/s)	122.00
Botan: Test: CAST-256 - Decrypt (MiB/s)	121.91
Bork File Encrypter: File Encryption Time (Seconds)	9.98
John The Ripper: Test: Blowfish (Real C/S)	184099
Cpuminer-Opt: Algorithm: m7m (kH/s - Hash Speed)	4435.80
Cpuminer-Opt: Algorithm: deep (kH/s - Hash Speed)	80710
Cpuminer-Opt: Algorithm: lbry (kH/s - Hash Speed)	244913
Cpuminer-Opt: Algorithm: skein (kH/s - Hash Speed)	284587

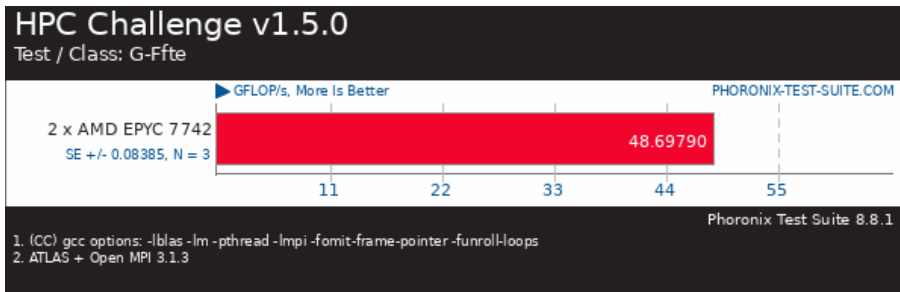
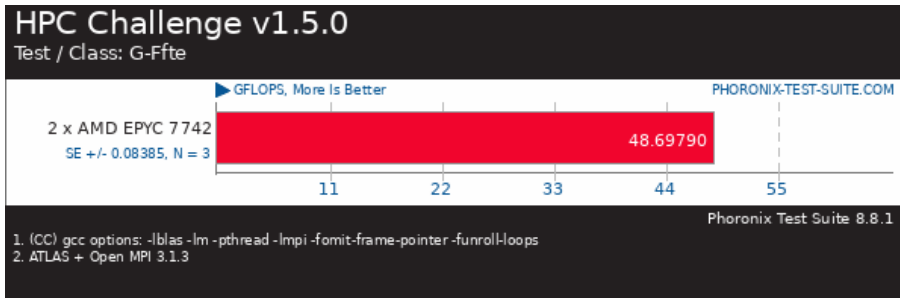
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Cpuminer-Opt: Algorithm: myr-gr (kH/s - Hash Speed)	4740.52
Cpuminer-Opt: Algorithm: sha256t (kH/s - Hash Speed)	520860
MKL-DNN: Harness: IP Batch All - Data Type: f32 (ms)	91.95
MKL-DNN: Harness: Convolution Batch conv_all - Data Type: f32 (ms)	398.27
MKL-DNN: Harness: Deconvolution Batch deconv_all - Data Type: f32 (ms)	2713.78
MKL-DNN: Harness: IP Batch All - Data Type: u8s8u8s32 (ms)	681.09
MKL-DNN: Harness: Convolution Batch conv_all - Data Type: u8s8u8s32 (ms)	18066.67
MKL-DNN: Harness: Deconvolution Batch deconv_all - Data Type: u8s8u8s32 (ms)	13870.87

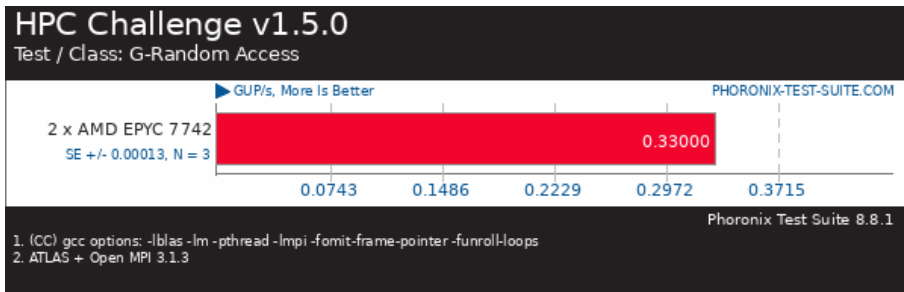
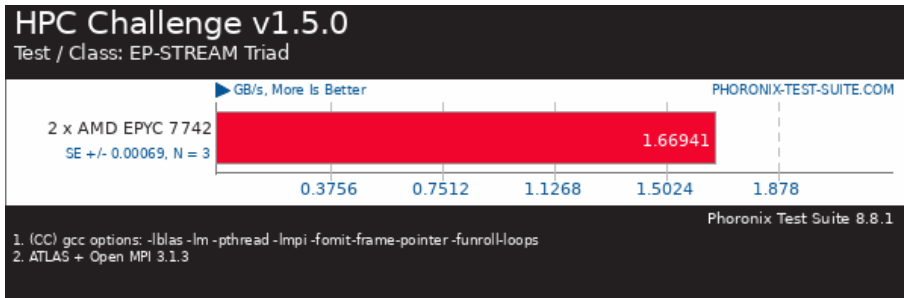
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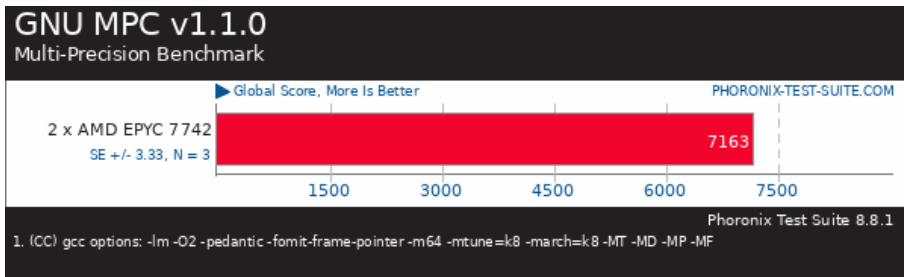
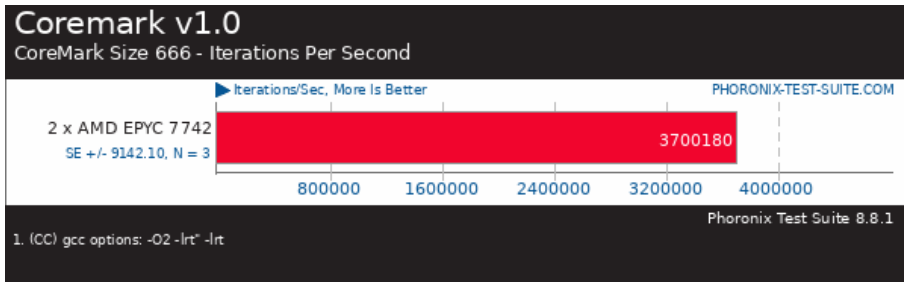
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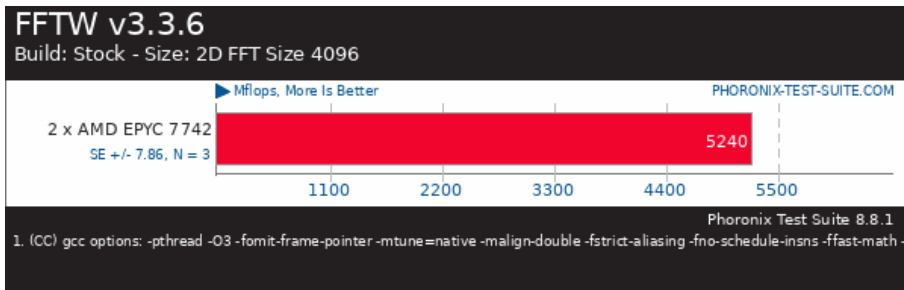
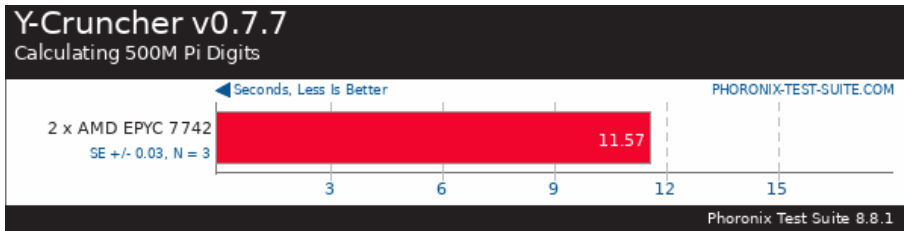
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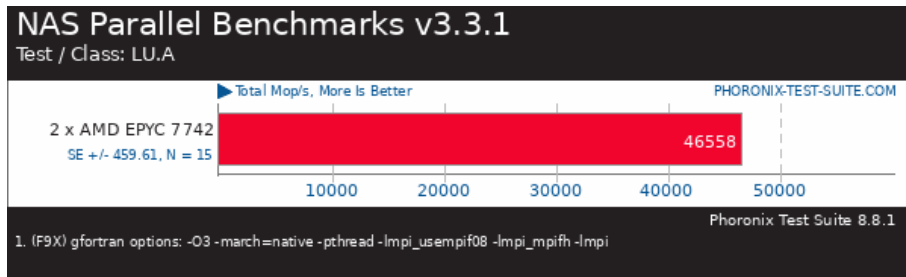
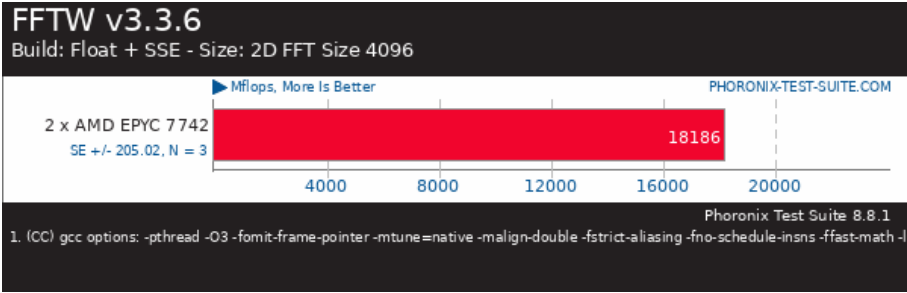
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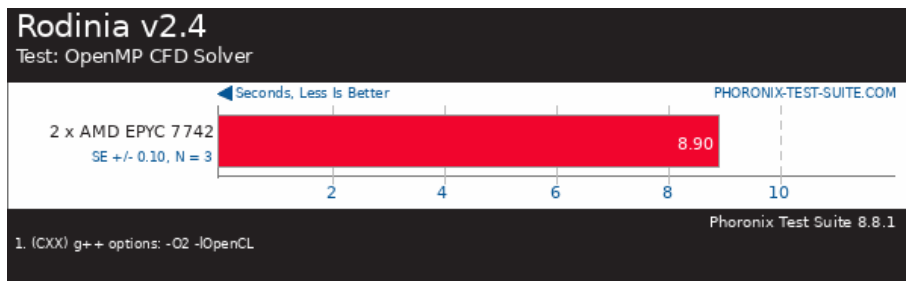
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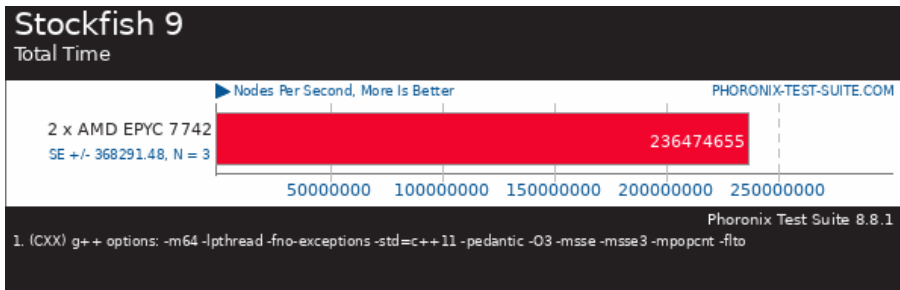
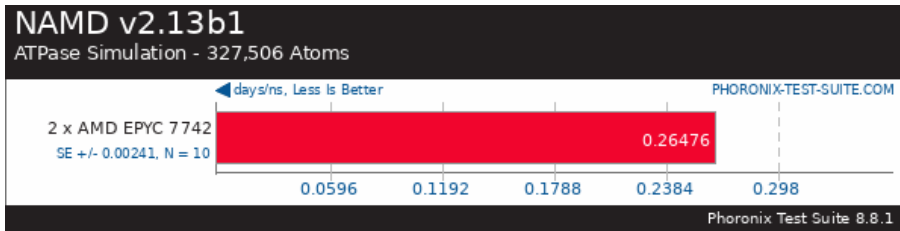
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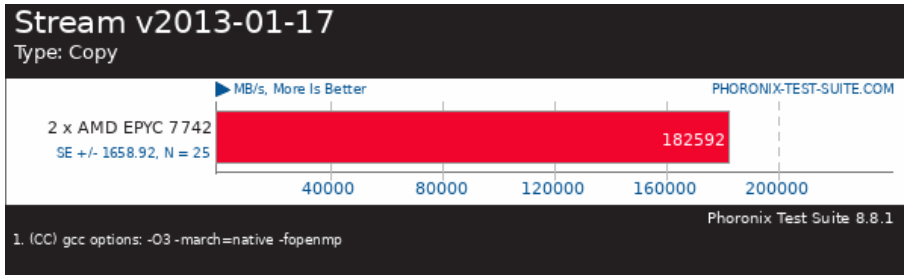
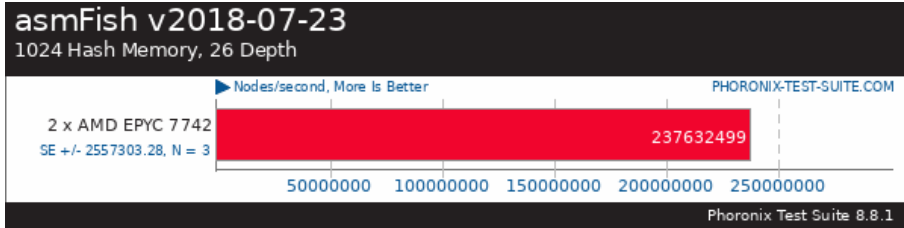
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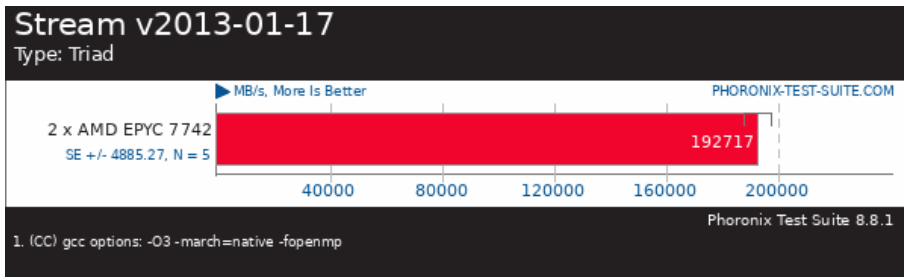
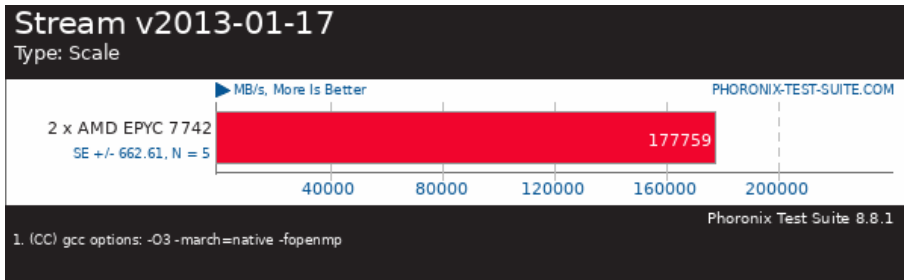
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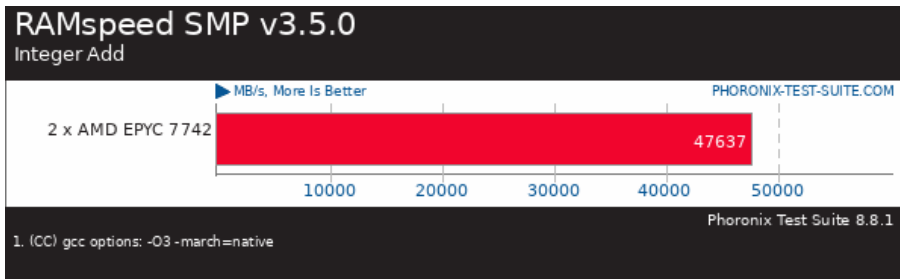
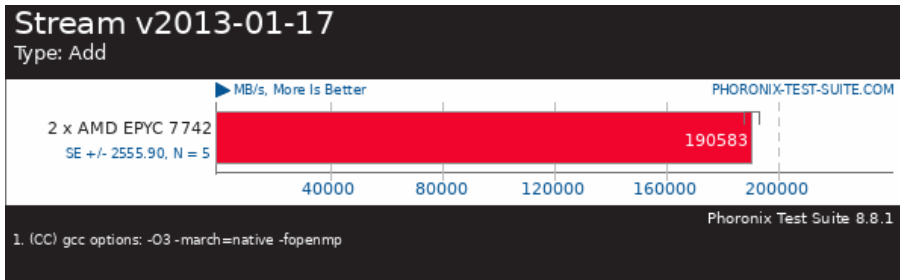
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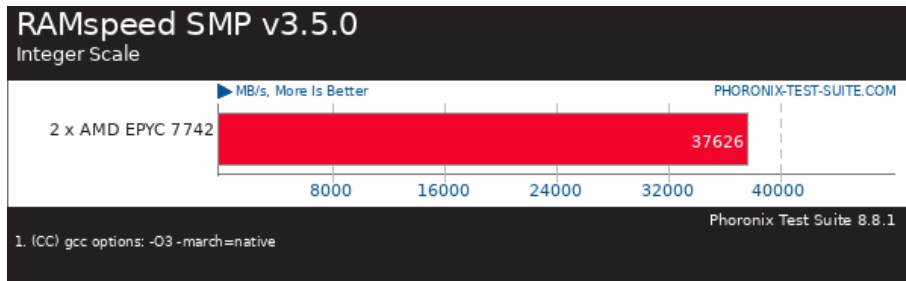
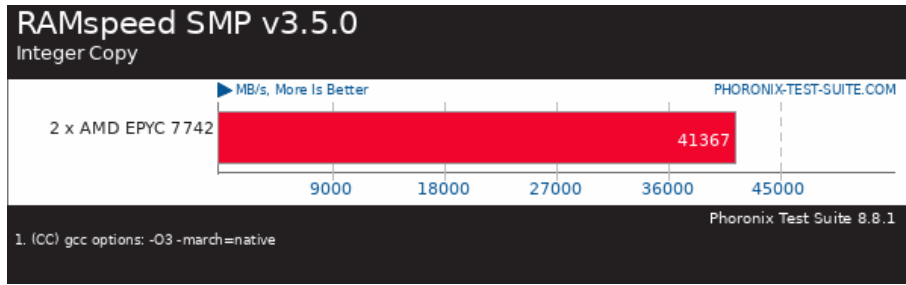
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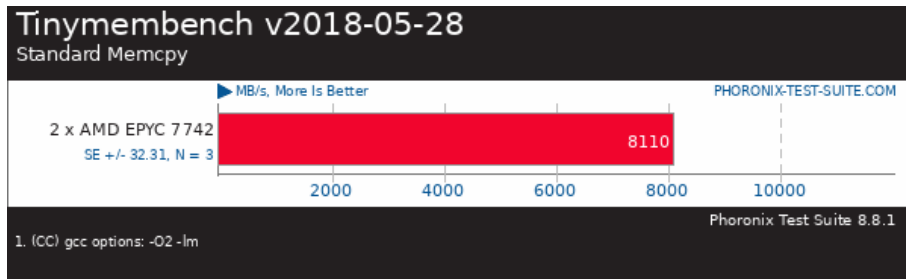
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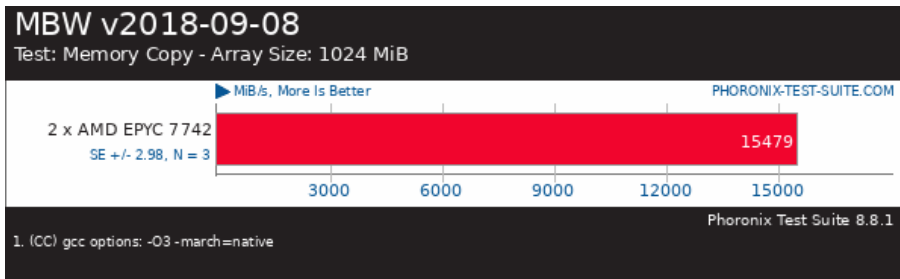
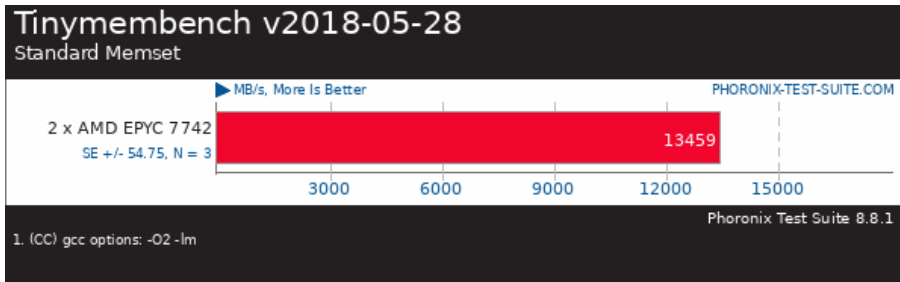
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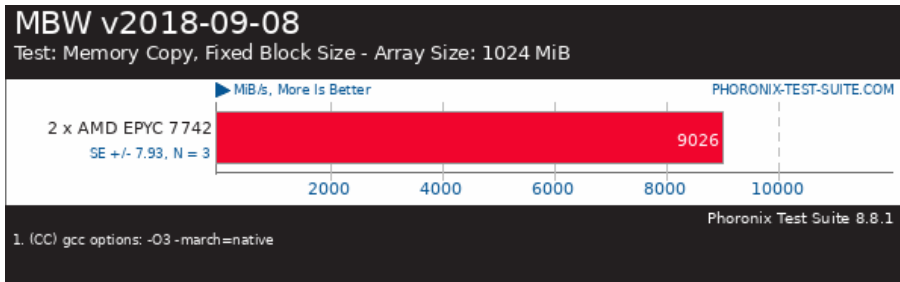
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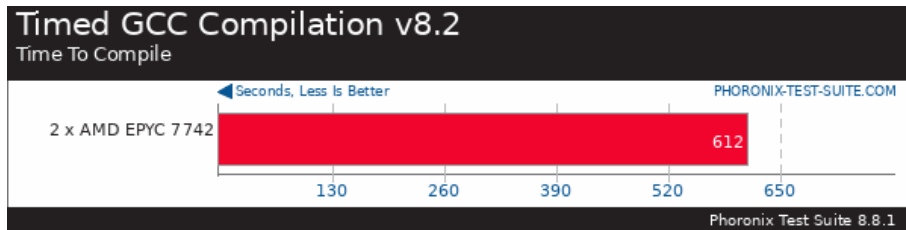
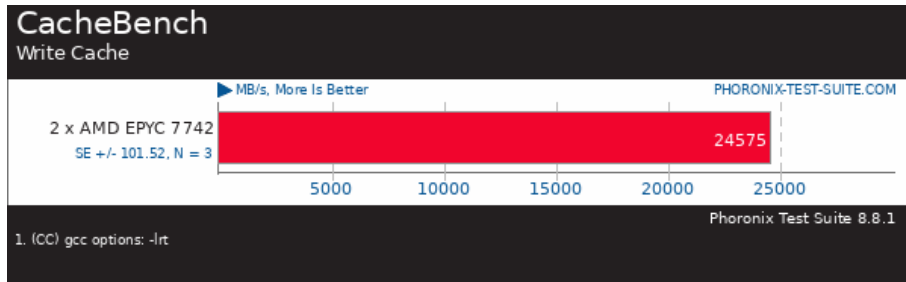
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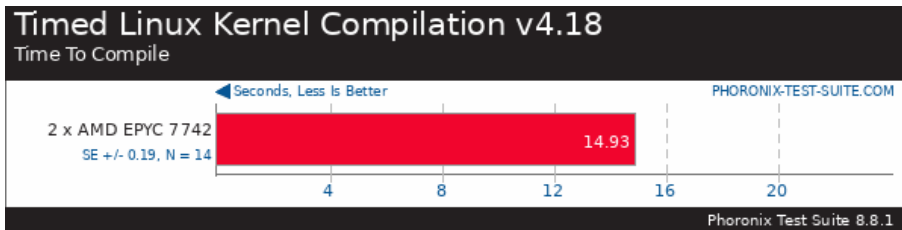
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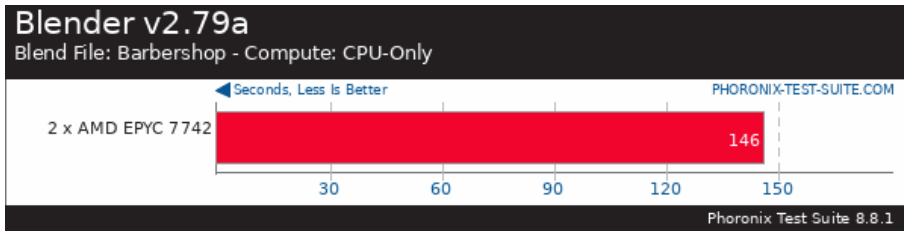
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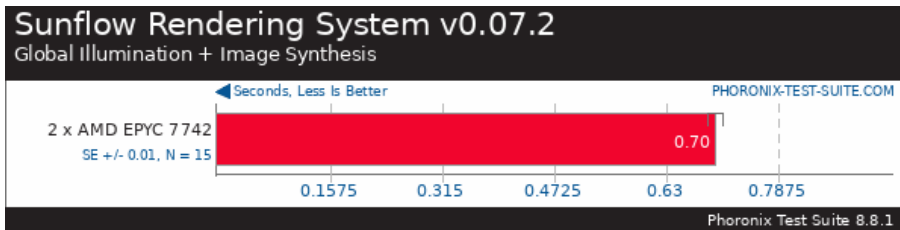
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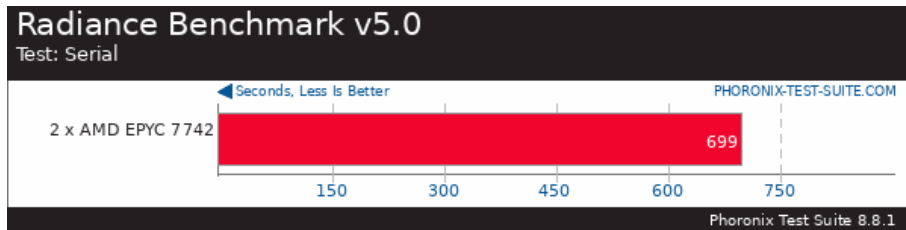
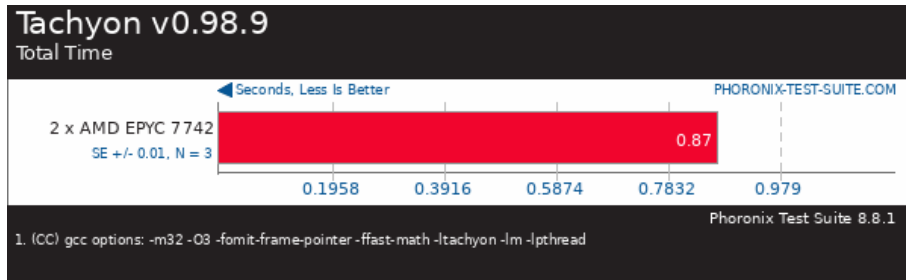
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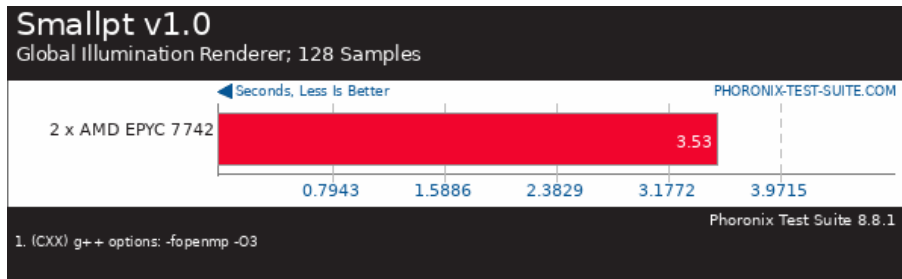
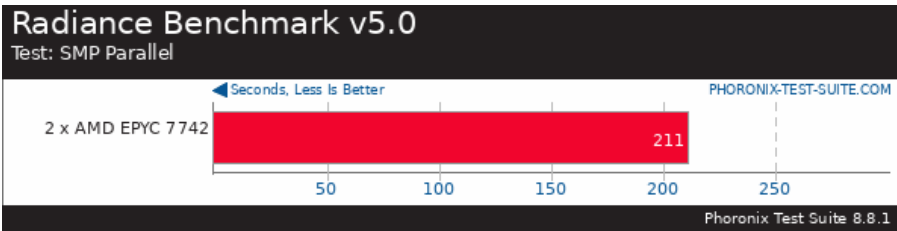
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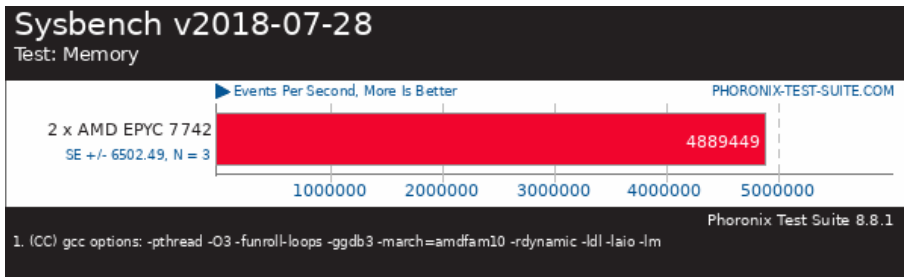
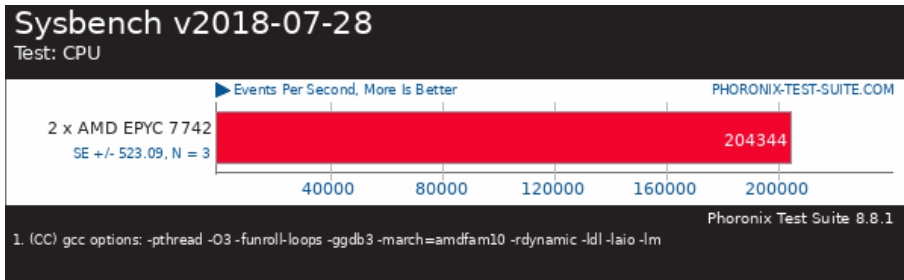
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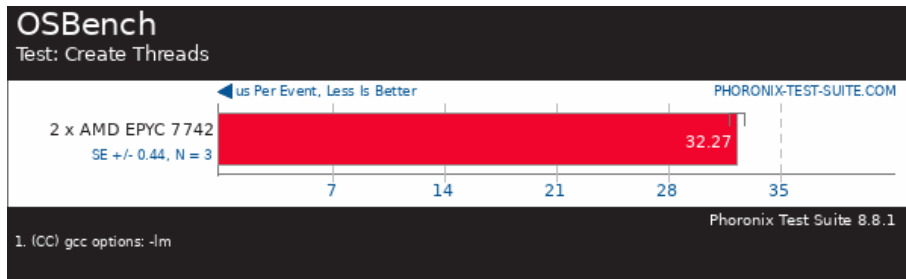
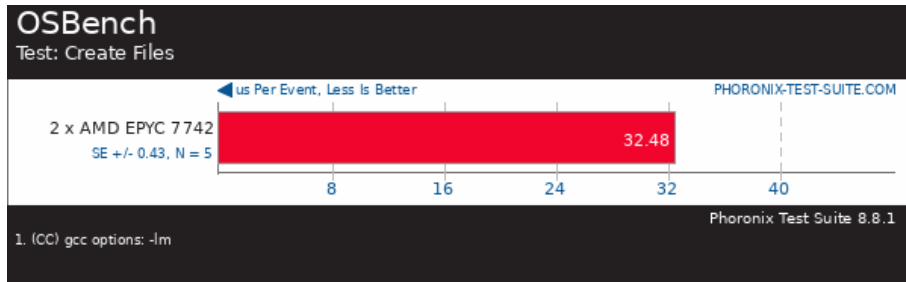
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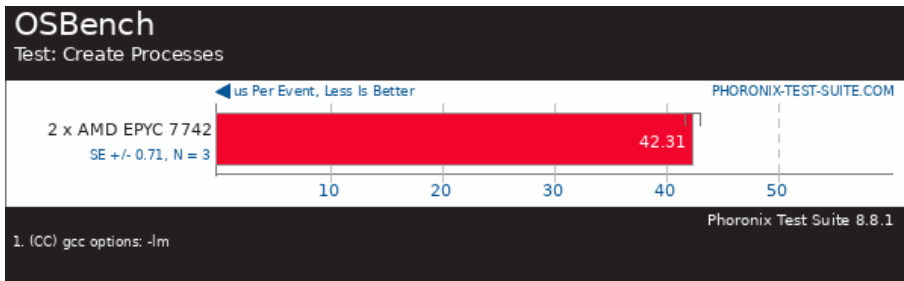
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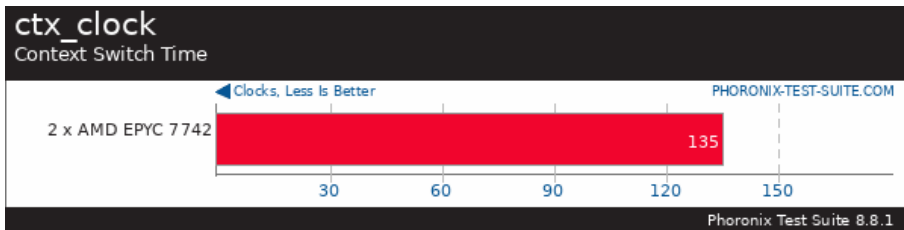
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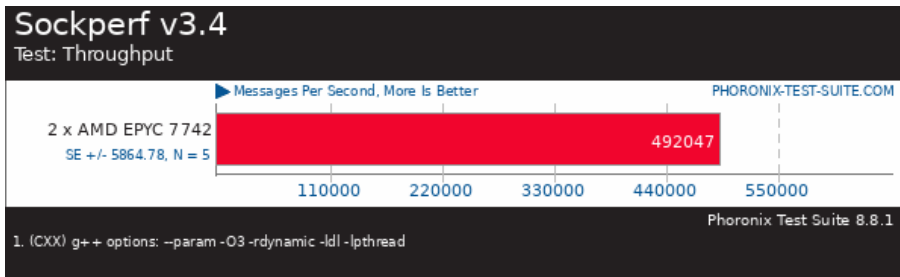
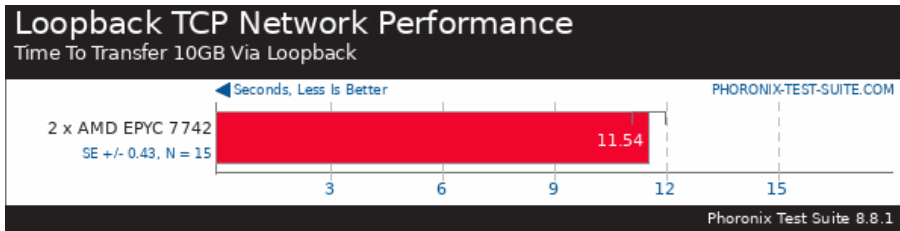
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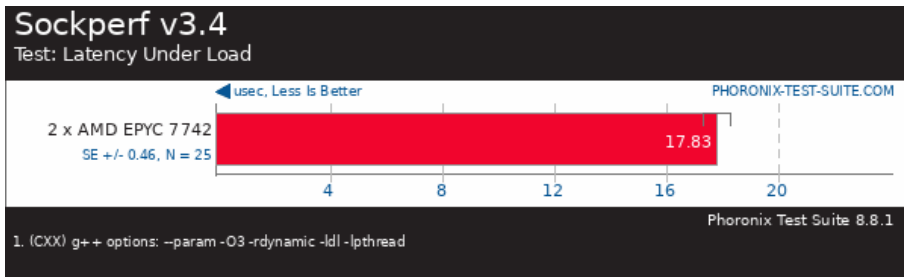
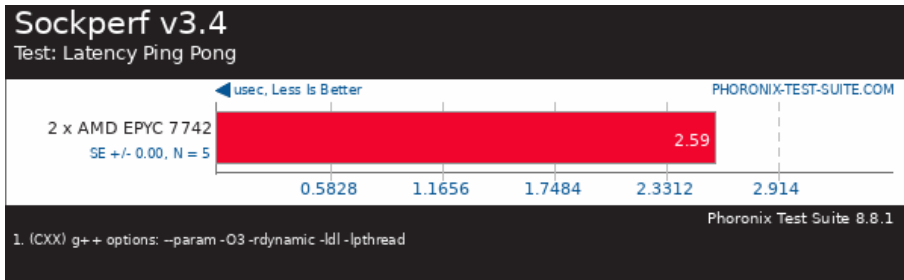
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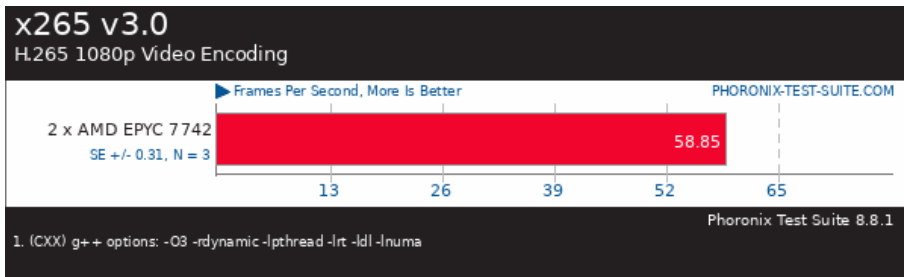
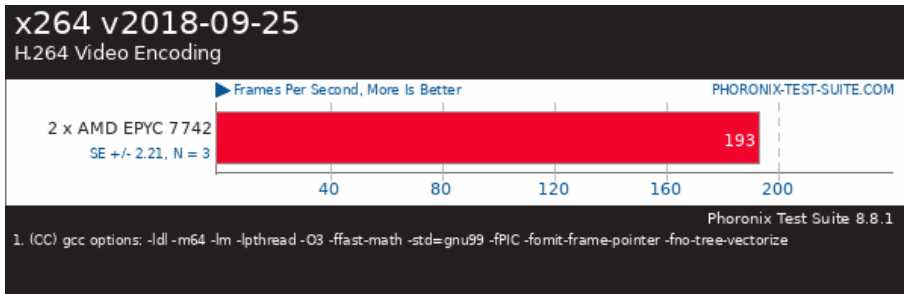
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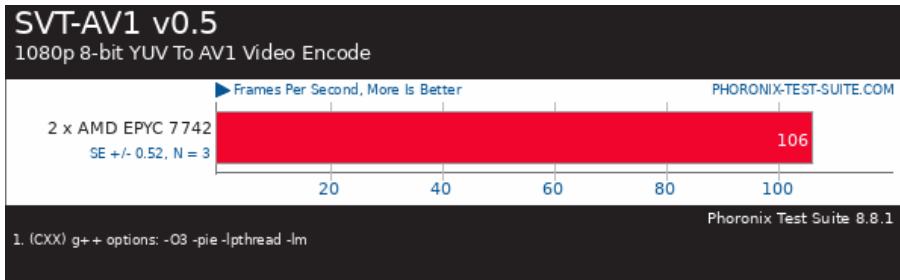
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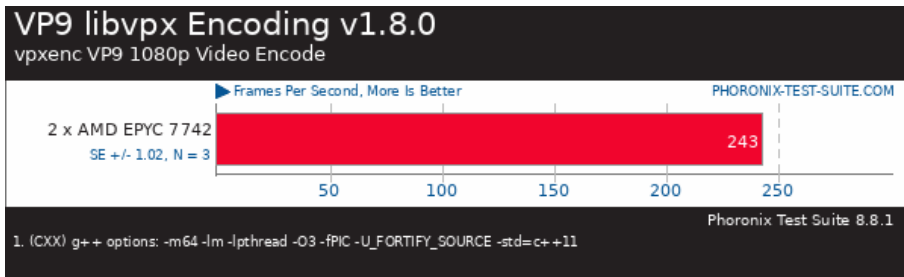
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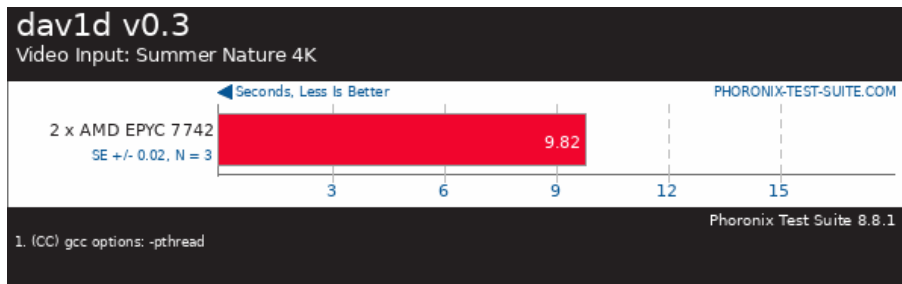
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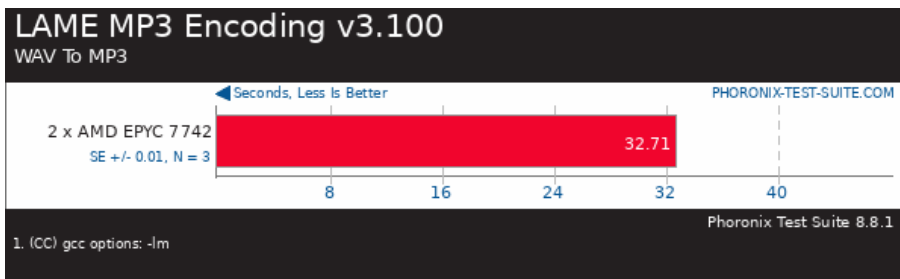
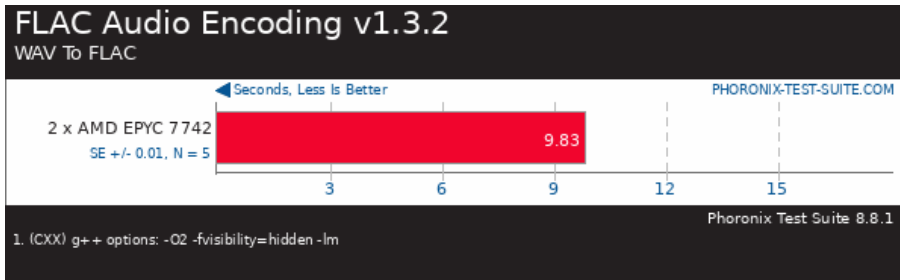
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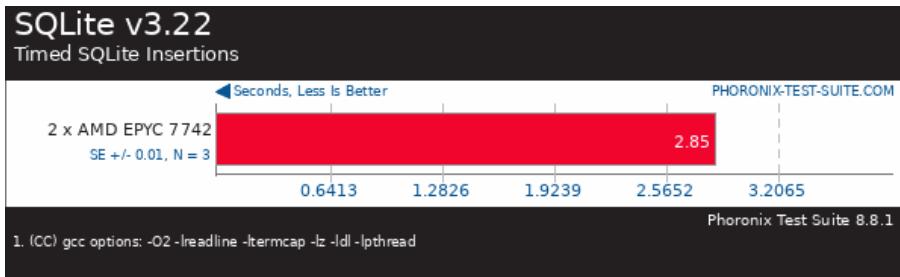
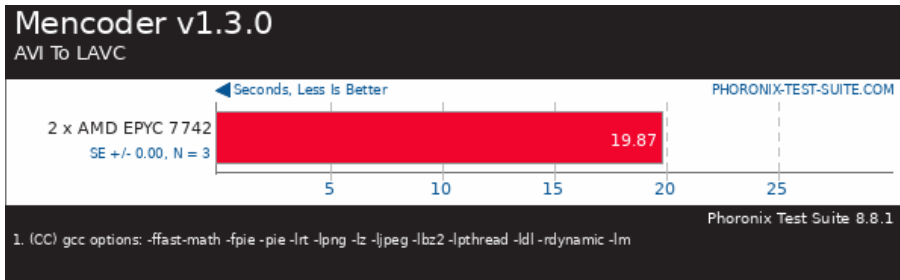
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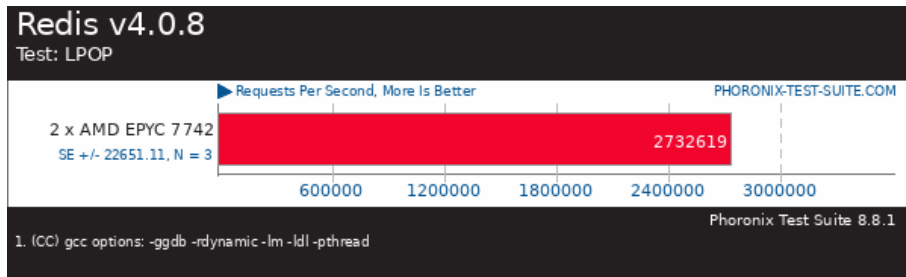
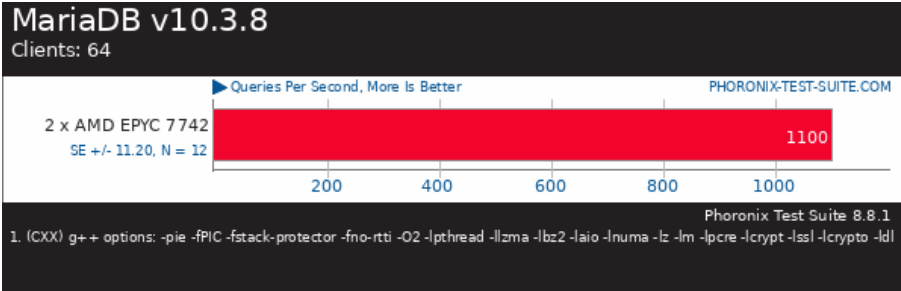
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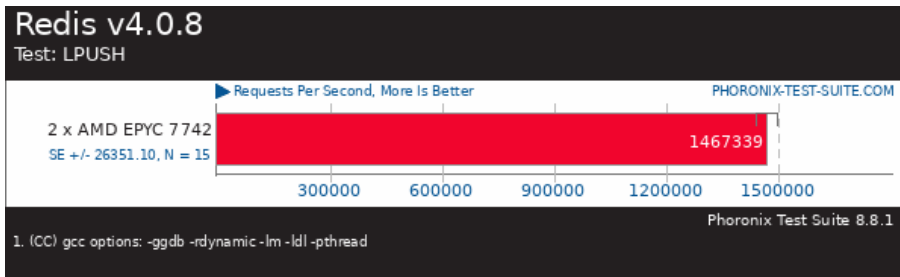
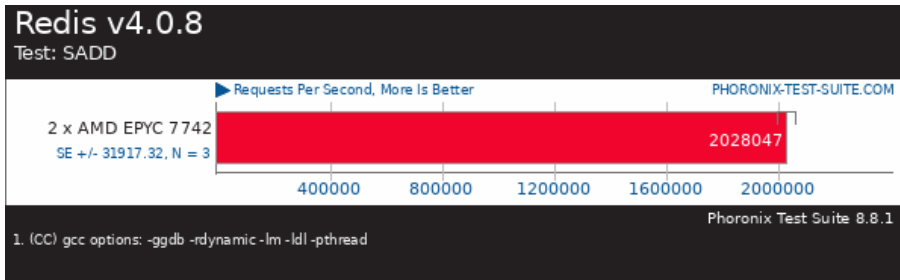
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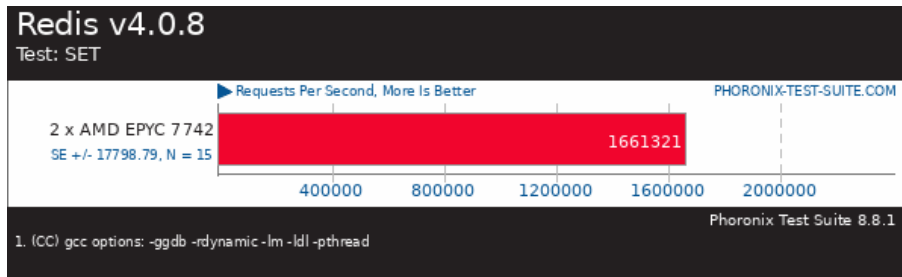
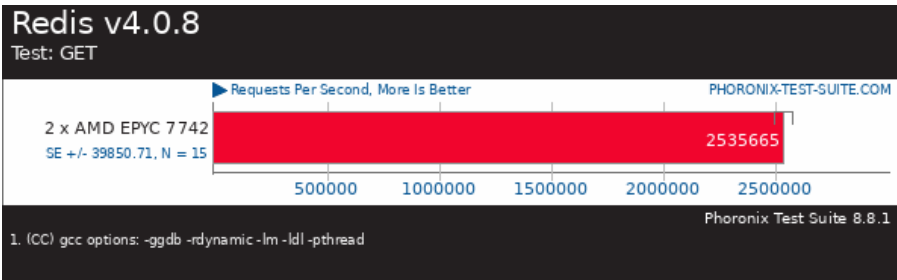
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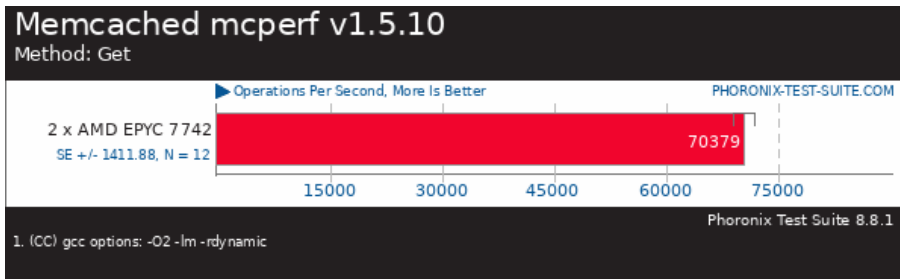
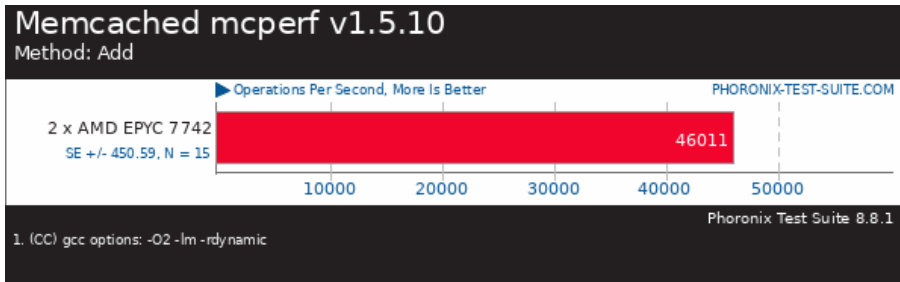
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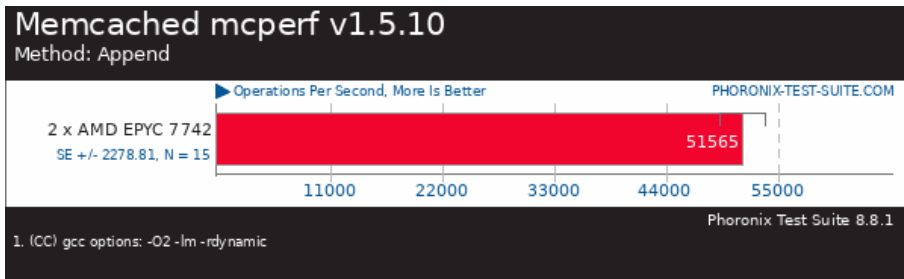
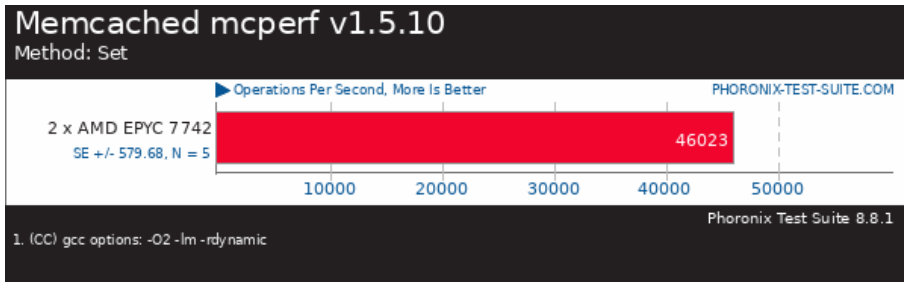
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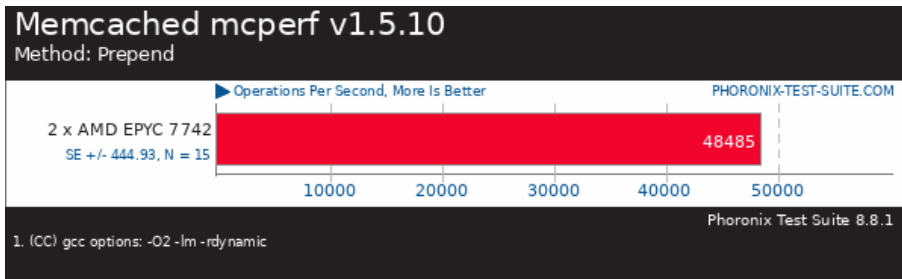
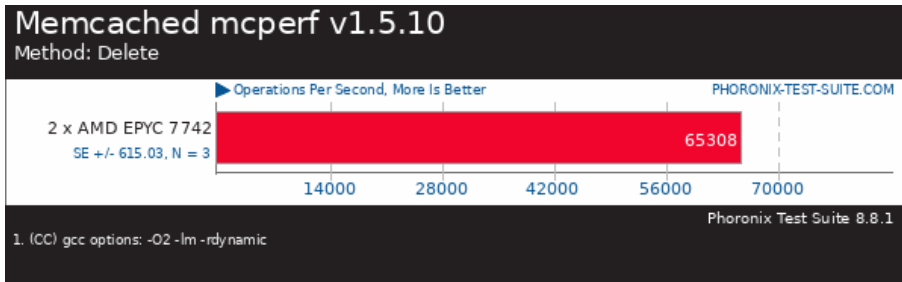
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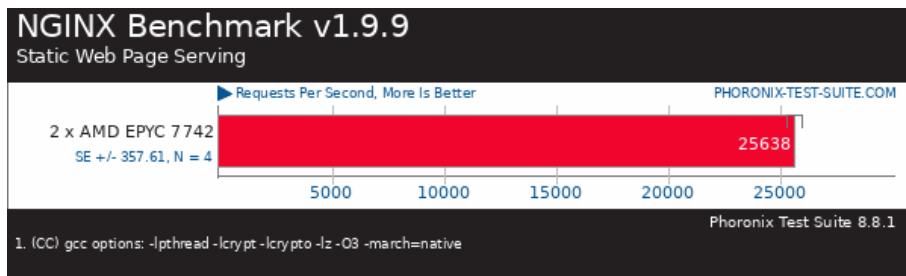
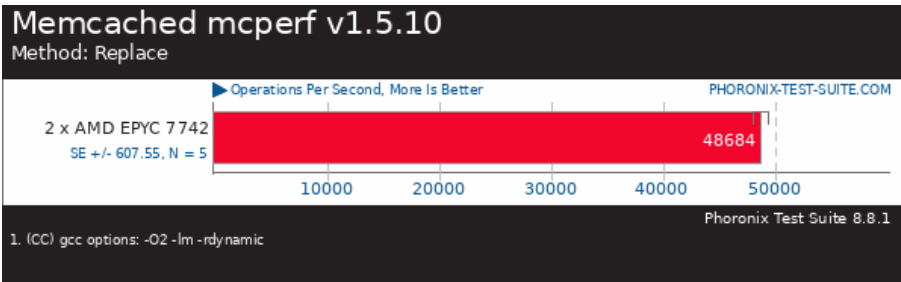
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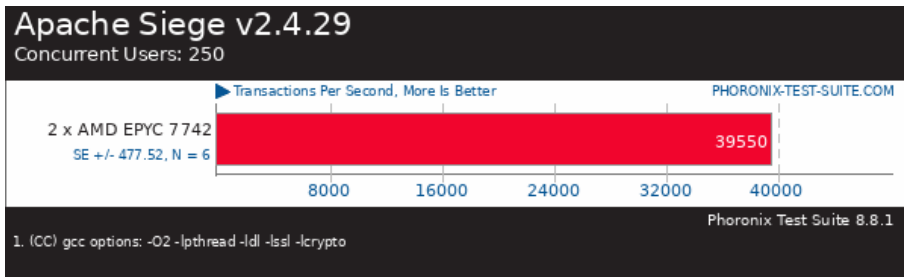
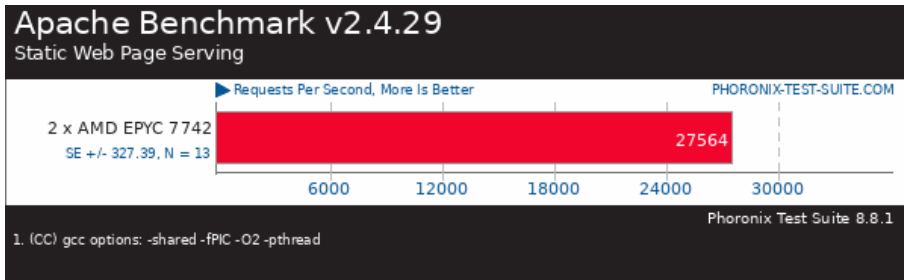
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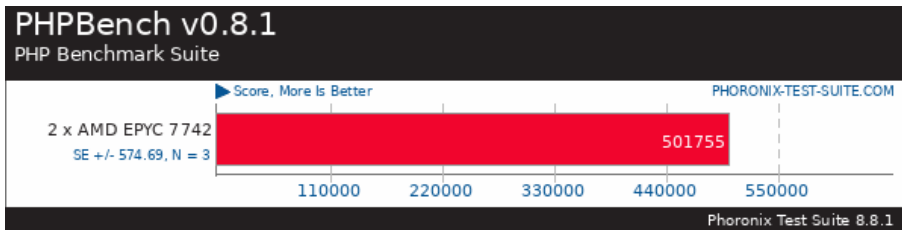
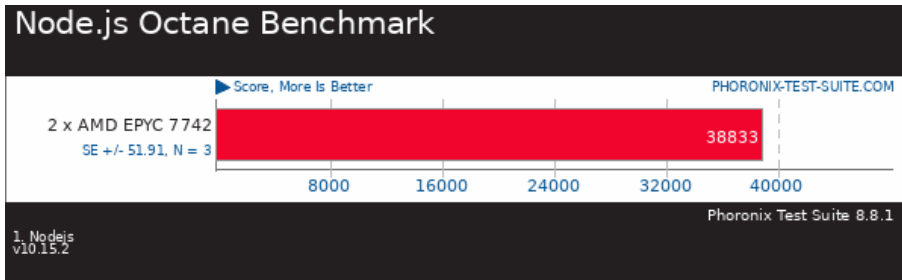
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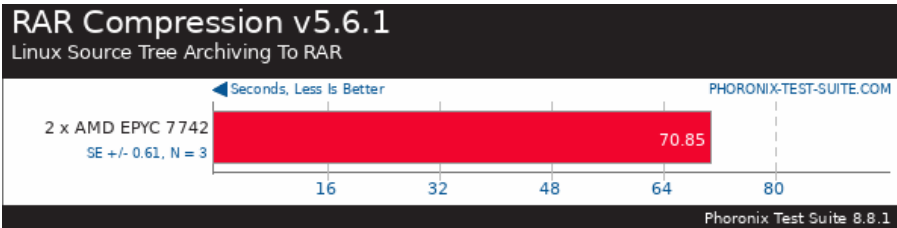
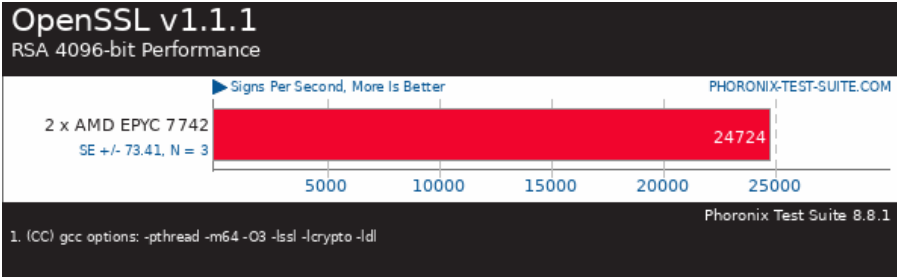
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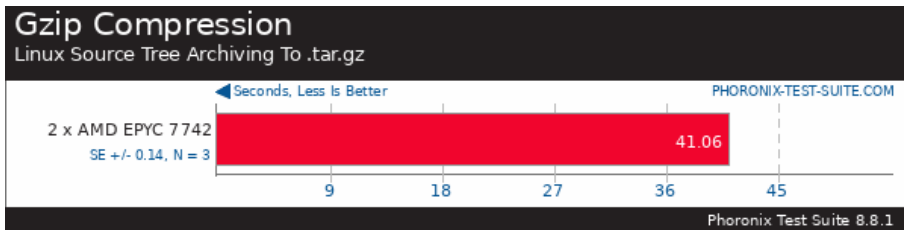
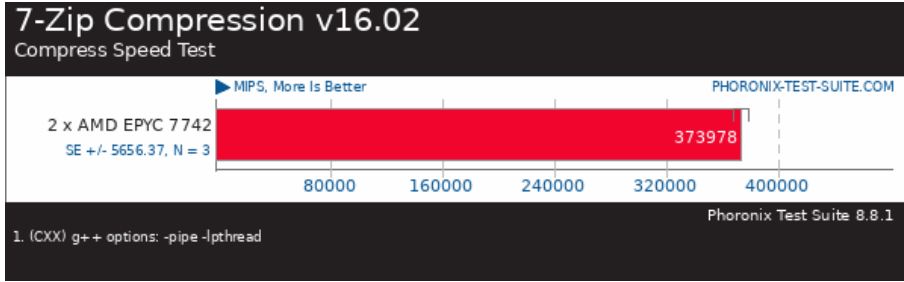
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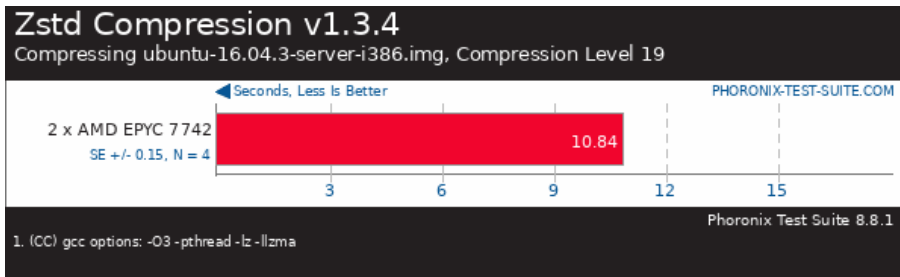
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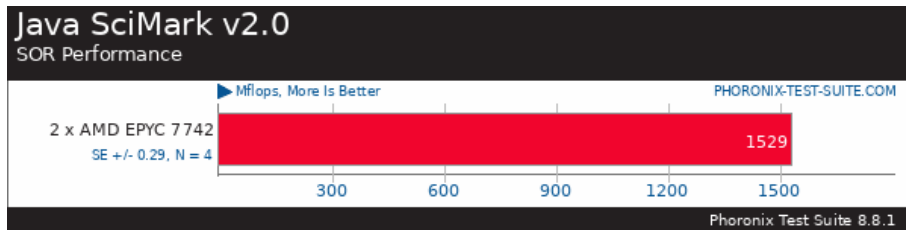
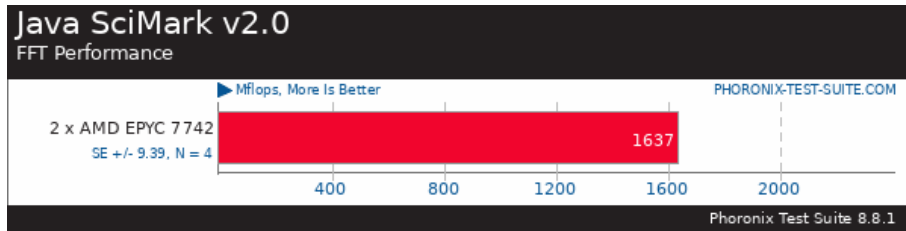
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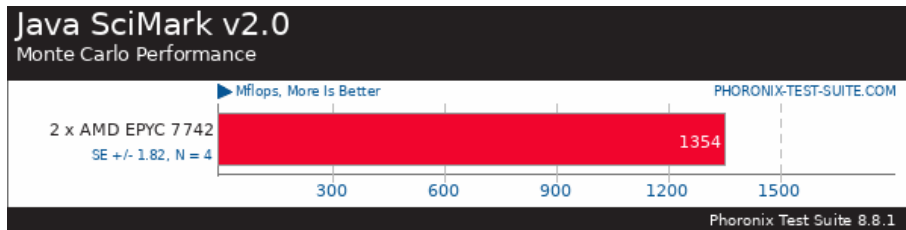
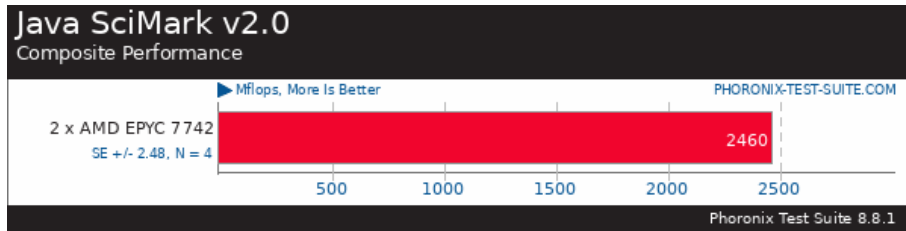
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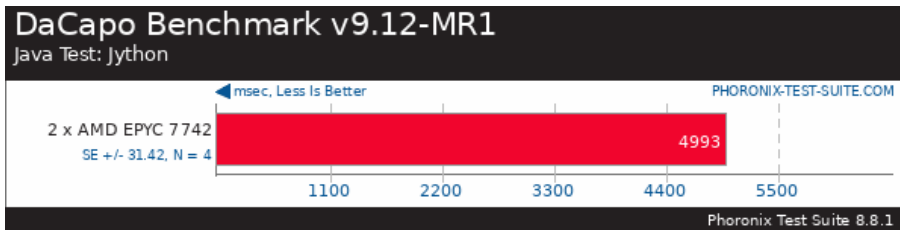
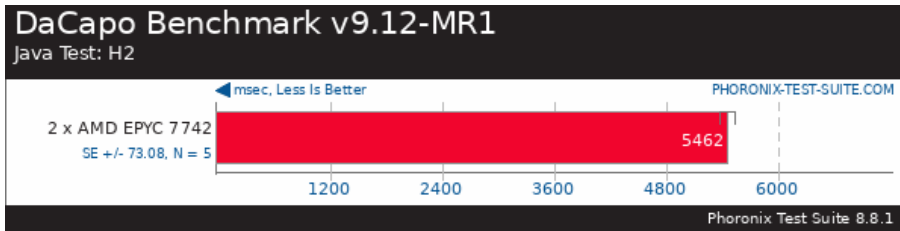
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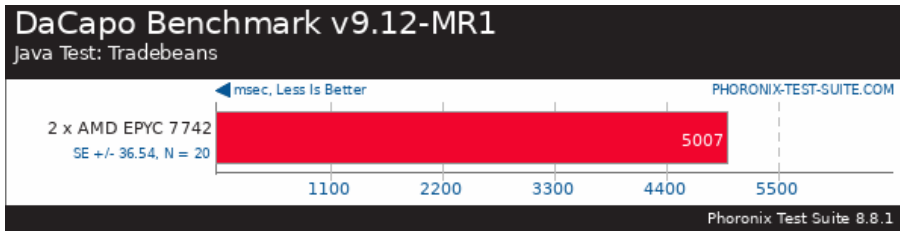
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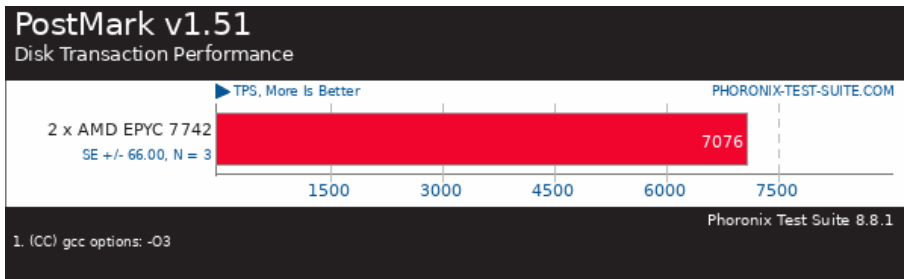
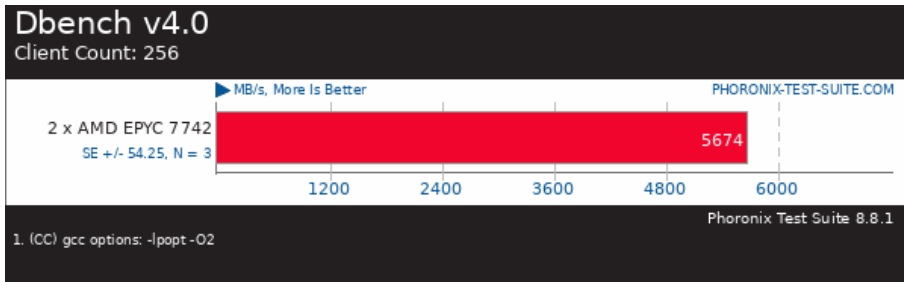
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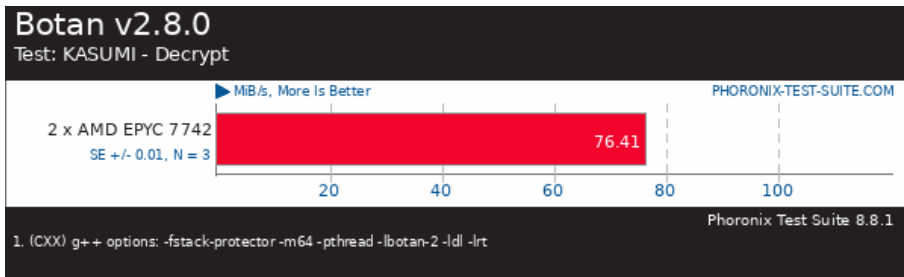
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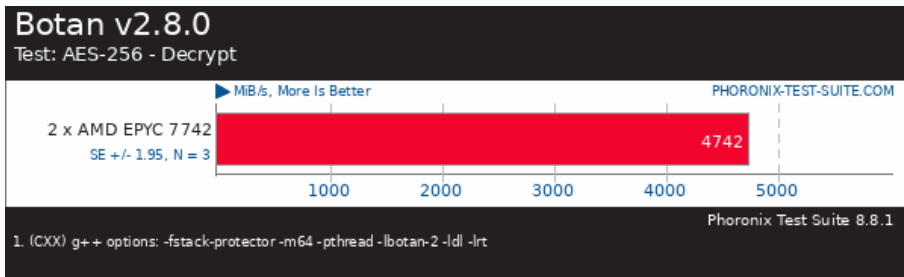
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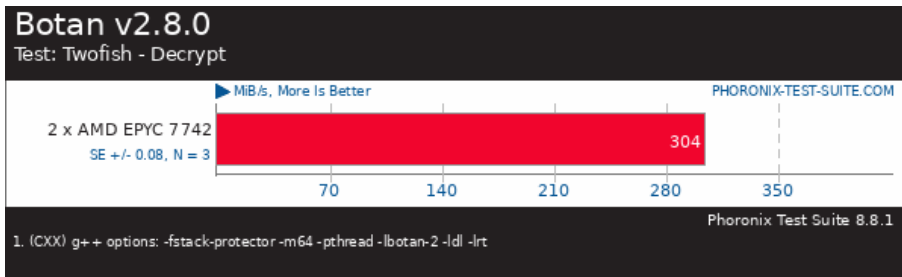
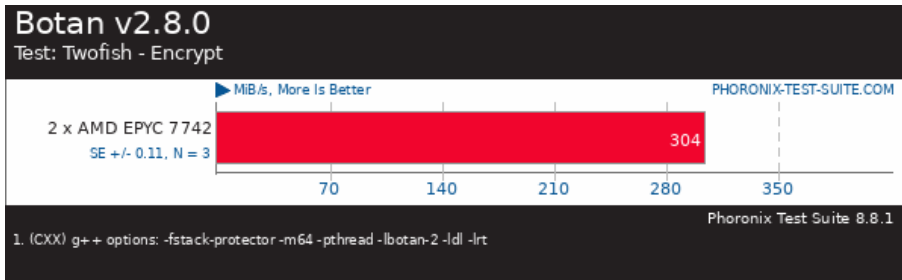
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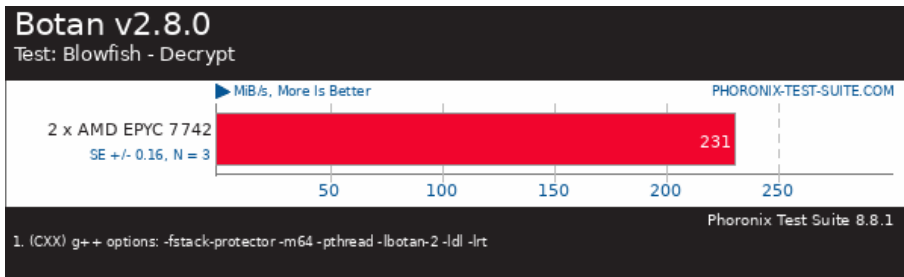
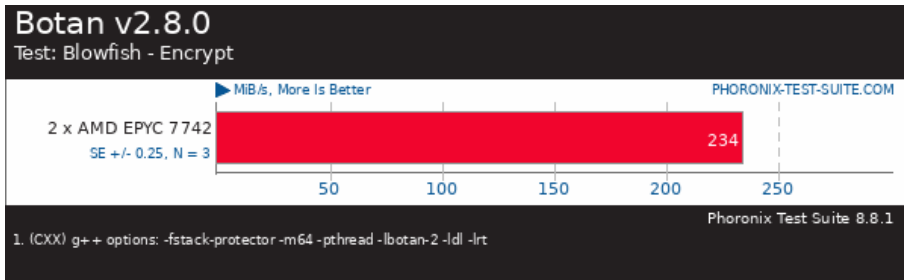
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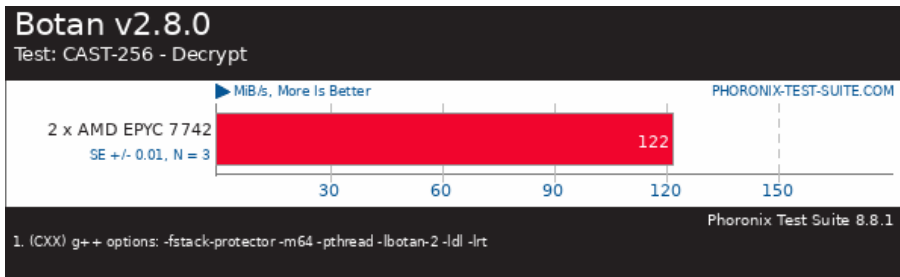
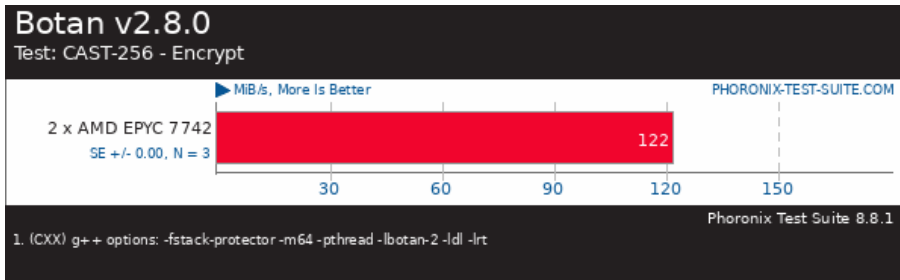
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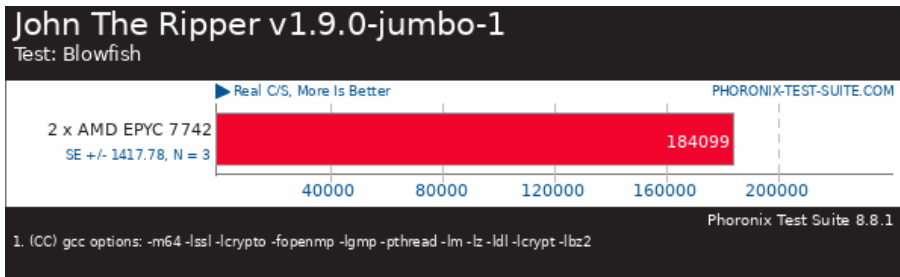
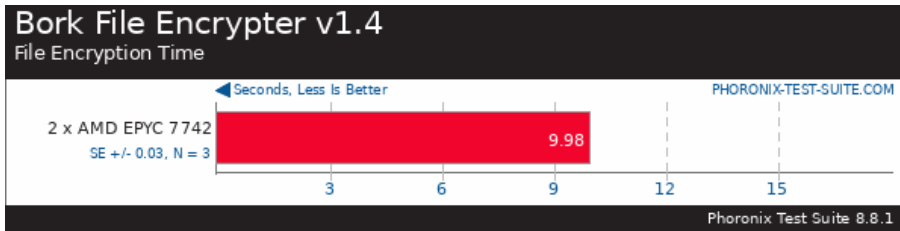
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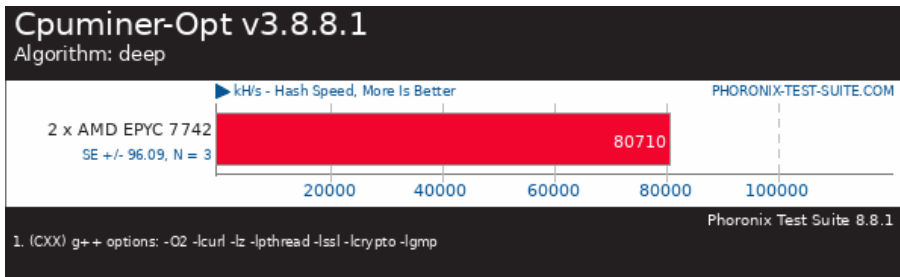
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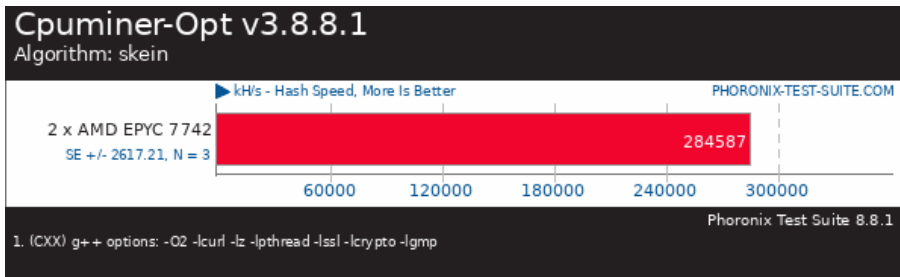
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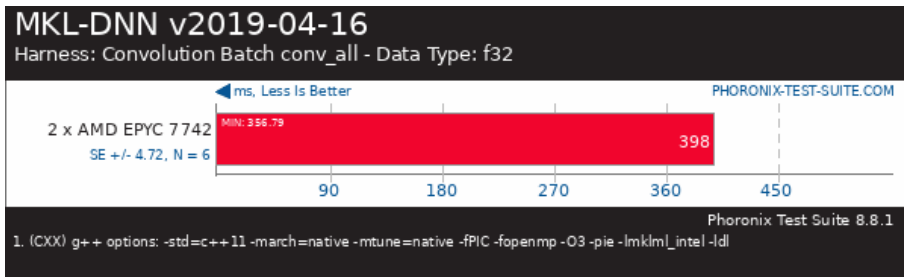
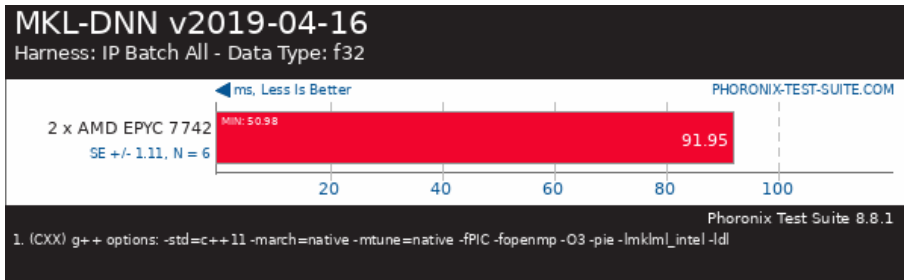
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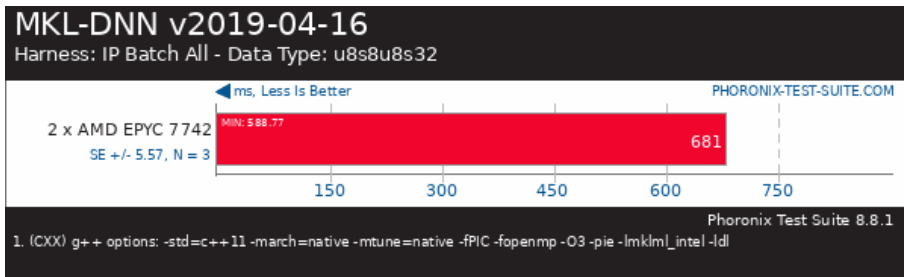
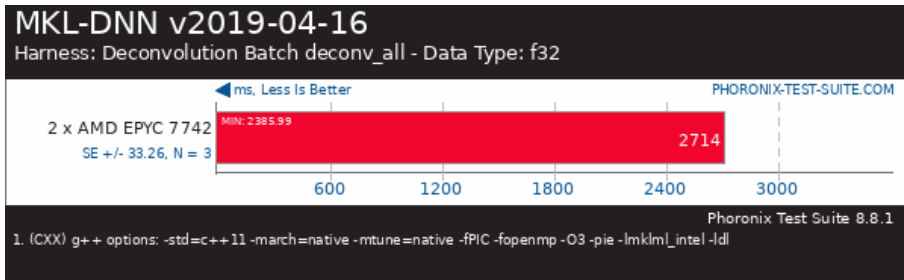
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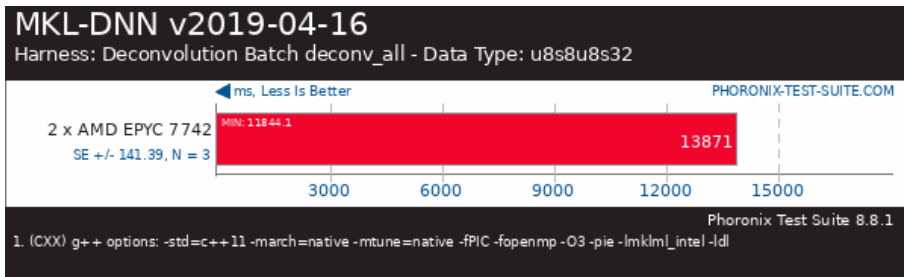
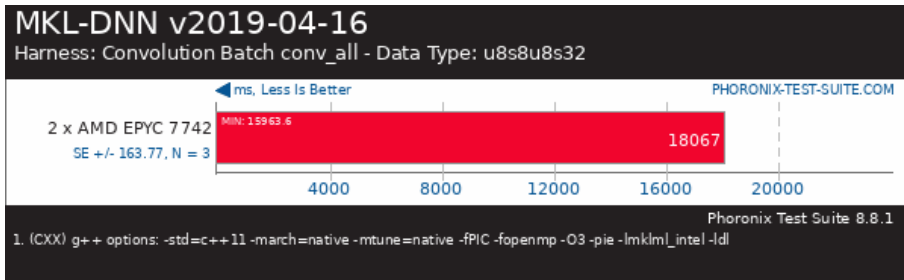
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