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lslabs-ls-3a3k-15ghz

Loongson-3A3000 V0.9 FPU V0.1 testing with a Unknown and AMD Radeon HD 7470/8470 / R5 235 OEM 1024MB on Loongnix 1.0 via the Phoronix Test Suite.

Automated Executive Summary

Loongson-3A3000 V0.9 FPU V0.1 had the most wins, coming in first place for 75% of the tests.

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

Timed MrBayes Analysis (Primate Phylogeny Analysis) at 2.914x
Timed HMMer Search (Pfam Database Search) at 1.943x
NAS Parallel Benchmarks (Test / Class: FT.B) at 1.475x
Timed MAFFT Alignment (Multiple Sequence Alignment) at 1.189x
Parallel BZIP2 Compression (256MB File Compression) at 1.072x
Minion (Benchmark: Solitaire) at 1.06x
GraphicsMagick (HWB Color Space) at 1.047x
Ogg Encoding (WAV To Ogg) at 1.039x
Stream (Type: Copy) at 1.035x
C-Ray (Total Time) at 1.035x.

Test Systems:

pts/bork

Loongson-3A3000 V0.9 FPU V0.1

pts/hmmer

pts/minion

pts/n-queens

Processor: Loongson-3A3000 V0.9 FPU V0.1 (4 Cores), Motherboard: Unknown, Chipset: AMD RS780 + SB7x0/SB8x0/SB9x0, Memory: 8192MB, Disk: 128GB LITEON IT LCH-12 + 1000GB Seagate ST1000DM010-2EP1, Graphics: LLVMpipe, Audio: Realtek ALC662 rev1, Monitor: DELL U2312HM, Network: Realtek RTL8111/8168/8411

OS: Loongnix 1.0, Kernel: 3.10.84-15.fc21.loongson.mips64el (mips64), Display Server: X Server 1.16.1, Display Driver: radeon 7.5.99, OpenGL: 2.1 Mesa 11.1.0 (git-525f3c2) Gallium 0.4 (LLVM 3.7 128 bits), File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=mips64el-redhat-linux --disable-libgcj --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,objc,obj-c++,fortran,go,lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch=loongson3a --with-long-double-128
System Notes: SELinux: Enabled.

LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek RTL8111

Processor: Loongson-3A3000 V0.9 FPU V0.1 (4 Cores), Motherboard: Unknown, Chipset: AMD RS780 + SB7x0/SB8x0/SB9x0, Memory: 8192MB, Disk: 128GB LITEON IT LCH-12 + 1000GB Seagate ST1000DM010-2EP1, Graphics: AMD Radeon HD 7470/8470 / R5 235 OEM 1024MB, Audio: Realtek ALC662 rev1, Monitor: LEN LT2024wH, Network: Realtek RTL8111/8168/8411

OS: Loongnix 1.0, Kernel: 3.10.84-15.fc21.loongson.mips64el (mips64), Desktop: MATE 1.8.1, Display Server: X Server 1.16.1, Display Driver: radeon 7.5.99, OpenGL: 3.3 Mesa 11.1.0 (git-525f3c2) Gallium 0.4 (LLVM 3.7.0), Compiler: Clang 3.7.0 + LLVM 3.7.0, File-System: ext4, Screen Resolution: 1600x900

Compiler Notes: --build=mips64el-redhat-linux --disable-libgcj --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,objc,obj-c++,fortran,go,lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch=loongson3a --with-long-double-128
Disk Notes: CFQ / data=ordered,relatime,rw
Graphics Notes: EXA
System Notes: Python 2.7.8. SELinux: Enabled.

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	pts/bork	Loongson-3A 3000 V0.9 FPU V0.1	pts/hmmer	pts/minion	pts/n-queens	LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek
Bork File Encrypter - F.E.T (sec)	**70.15**					**68.14**
Normalized	97.13%					100%
Standard Deviation	0.2%					
x264 - H.2.V.E (FPS)		4.94				
Standard Deviation		0.6%				
Timed HMMer Search - P.D.S (sec)		**52.28**	**101.58**			52.29
Normalized		100%	51.47%			99.98%
Standard Deviation			1.6%			
Minion - Graceful (sec)				237.32		
Standard Deviation				0.9%		
Minion - Solitaire (sec)				**421.36**		**397.41**
Normalized				94.32%		100%
Standard Deviation				1.2%		
Minion - Quasigroup (sec)				**476.12**		**469.29**
Normalized				98.57%		100%
Standard Deviation				0.1%		
N-Queens - Elapsed Time (sec)					**266.45**	**214.48**
Normalized					80.5%	100%
Standard Deviation					17.8%	
lzbench - XZ 0 - Compression (MB/s)		1.82				
Standard Deviation		3.1%				
lzbench - XZ 0 - Decompression (MB/s)		28				
lzbench - Zstd 1 - Compression (MB/s)		24				
lzbench - Zstd 1 - Decompression (MB/s)		191				
lzbench - Brotli 0 - Compression (MB/s)		38				
lzbench - Brotli 0 - Decompression (MB/s)		91				
Standard Deviation		5.4%				
lzbench - Libdeflate 1 - Compression (MB/s)		28				
lzbench - Libdeflate 1 - Decompression (MB/s)		95				
Standard Deviation		3.4%				
Stream - Copy (MB/s)		**11210**				**11598**
Normalized		96.65%				100%
Standard Deviation		0.6%				
Stream - Scale (MB/s)		**11024**				**11300**
Normalized		97.56%				100%
Standard Deviation		0.9%				

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Stream - Triad (MB/s)	**10374**	**10253**
Normalized	100%	98.84%
Standard Deviation	0.4%	
Stream - Add (MB/s)	**10605**	**10569**
Normalized	100%	99.66%
Standard Deviation	1.2%	
NAS Parallel Benchmarks - LU.A (Mop/s)	**3761**	**3758**
Normalized	100%	99.92%
Standard Deviation	1.1%	
Timed MAFFT Alignment - M.S.A (sec)	**25.63**	**21.56**
Normalized	84.12%	100%
Standard Deviation	3.4%	
TSCP - A.C.P (Nodes/s)	**251382**	**251382**
Normalized	100%	100%
Standard Deviation	0.1%	
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	**29.60**	**29.91**
Normalized	98.96%	100%
Standard Deviation	0.9%	
x264 - H.2.V.E (FPS)	1.02	1.02
Standard Deviation	0%	
GraphicsMagick - HWB Color Space (Iterations/min)	**43**	**45**
Normalized	95.56%	100%
Standard Deviation	1.3%	
GraphicsMagick - L.A.T (Iterations/min)	35	35
GraphicsMagick - Sharpen (Iterations/min)	33	33
GraphicsMagick - Resizing (Iterations/min)	**39**	**40**
Normalized	97.5%	100%
Himeno Benchmark - P.P.S (MFLOPS)	**223.50**	**222.74**
Normalized	100%	99.66%
Standard Deviation	0.3%	
7-Zip Compression - C.S.T (MIPS)	**3569**	**3565**
Normalized	99.86%	99.75%
Standard Deviation	0.2%	
C-Ray - Total Time (sec)	**82.31**	**85.16**
Normalized	100%	96.65%
Standard Deviation	1.8%	
Parallel BZIP2 Compression - 2.F.C (sec)	**50.80**	49.05
Normalized	93.31%	96.64%
Standard Deviation	2.5%	
POV-Ray - Trace Time (sec)	867.73	
Standard Deviation	1.1%	
Smallpt - G.I.R.1.S (sec)	**916**	**921**
Normalized	100%	99.46%

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Standard Deviation	0.4%	
FLAC Audio Encoding - WAV To FLAC (sec)	249.77	249.48
Normalized	99.88%	100%
Standard Deviation	0%	
LAME MP3 Encoding - WAV To MP3 (sec)	350.34	349.84
Normalized	99.74%	99.89%
Standard Deviation	0.1%	
FFmpeg - H.2.H.T.N.D (sec)	130.30	131.32
Normalized	100%	99.22%
Standard Deviation	0.3%	
Apache Benchmark - S.W.P.S (Reqs/sec)	4210	4201
Normalized	100%	99.79%
Standard Deviation	0%	
NAS Parallel Benchmarks - BT.A (Mop/s)	991.42	
NAS Parallel Benchmarks - EP.C (Mop/s)	27.97	
NAS Parallel Benchmarks - FT.A (Mop/s)	1163	
NAS Parallel Benchmarks - FT.B (Mop/s)	1509	2226
Normalized	67.8%	100%
NAS Parallel Benchmarks - LU.C (Mop/s)	2049	
NAS Parallel Benchmarks - SP.A (Mop/s)	405.52	
Monkey Audio Encoding - WAV To APE (sec)	102.86	103.22
Normalized	100%	99.65%
Ogg Encoding - WAV To Ogg (sec)	31.67	32.90
Normalized	100%	96.26%
WavPack Audio Encoding - WAV To WavPack (sec)	40.06	40.20
Normalized	100%	99.65%
Timed Apache Compilation - Time To Compile (sec)	163.58	163.34
Normalized	99.54%	99.68%
Standard Deviation	0.9%	1.2%
Timed ImageMagick Compilation - Time To Compile (sec)	387.57	388.05
Normalized	100%	99.88%
Standard Deviation	0.3%	0.3%

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Timed Linux Kernel Compilation - Time To Compile (sec)	**682.60**	**683.45**
Normalized	100%	99.88%
Standard Deviation	0.9%	1%
Timed MPlayer Compilation - Time To Compile (sec)	**8.04**	**8.14**
Normalized	100%	98.77%
Standard Deviation	1.6%	1.9%
Timed PHP Compilation - Time To Compile (sec)	**549.24**	**548.70**
Normalized	99.9%	100%
Standard Deviation	0.3%	0.1%
Timed MrBayes Analysis - P.P.A (sec)	**1824**	**626.18**
Normalized	34.32%	100%
GNU GMP GMPbench - Total Time (GMPbench Score)	**730.81**	**731.20**
Normalized	99.95%	100%
Fhourstones - C.C.4.S (Kpos / sec)	**3831**	**3831**
Normalized	100%	99.99%
BYTE Unix Benchmark - Dhrystone 2 (LPS)	**5268888**	**5385324**
Normalized	97.84%	100%
SciMark - Composite	**39.26**	**39.28**
Normalized	99.95%	100%
Open FMM Nero2D - Total Time (sec)	**885.00**	**884.81**
Normalized	99.98%	100%
GraphicsMagick - Sharpen (Iterations/min)	33	
GraphicsMagick - Resizing (Iterations/min)	40	40
GraphicsMagick - HWB Color Space (Iterations/min)	45	45
Gzip Compression - L.S.T.A.T.t.g (sec)	**164.48**	**165.16**
Normalized	100%	99.59%
LZMA Compression - 2.F.C (sec)	**1029**	**1013**
Normalized	98.47%	100%
dcraw - R.T.P.I.C (sec)	**437.58**	**437.22**
Normalized	99.92%	100%
Minion - Solitaire (sec)	**397.92**	**397.87**
Normalized	99.99%	100%
Sudokut - Total Time (sec)	**64.20**	**64.15**
Normalized	99.92%	100%
SQLite - T.S.I (sec)		701.04
SQLite - D.T.D (sec)		644.81
FS-Mark - 1.F.1.S (Files/s)		19

Dbench - 12 Clients (MB/s)	36.78
Dbench - 48 Clients (MB/s)	66.81
Dbench - 128 Clients (MB/s)	81.47
Dbench - 1 (MB/s)	10.05
Dbench - 6 (MB/s)	24.03
Dbench - 12 (MB/s)	37.15
Dbench - 48 (MB/s)	63.25
Dbench - 128 (MB/s)	81.80
Dbench - 1 Client (MB/s)	10.08
Dbench - 1 Clients (MB/s)	10.08
Threaded I/O Tester - 64MB Read - 32 Threads (MB/s)	2245
Threaded I/O Tester - 64MB Write - 32 Threads (MB/s)	0.57
Threaded I/O Tester - 64MB Rand Read - 32 Threads (MB/s)	30526
Threaded I/O Tester - 64MB Rand Write - 32 Threads (MB/s)	7.88
Threaded I/O Tester - Read - 64MB - 32 (MB/s)	2220
Threaded I/O Tester - Write - 64MB - 32 (MB/s)	0.57
Threaded I/O Tester - Rand Read - 64MB - 32 (MB/s)	30599
Threaded I/O Tester - Rand Write - 64MB - 32 (MB/s)	7.94
Compile Bench - Compile (MB/s)	140.19
Compile Bench - Initial Create (MB/s)	56.65
Compile Bench - Read Compiled Tree (MB/s)	215.96
Unpacking The Linux Kernel - linux-4.15.tar.xz (sec)	25.10
PostMark - D.T.P (TPS)	912
Standard Deviation	0.3%
JXRenderMark - 12pt Text LCD - 128x128 (Operations/sec)	3602
JXRenderMark - L.G.B - 128x128 (Operations/sec)	460.72
JXRenderMark - T.B.B - 128x128 (Operations/sec)	8383
Java 2D Microbenchmark - Text Rendering (Units/sec)	1445

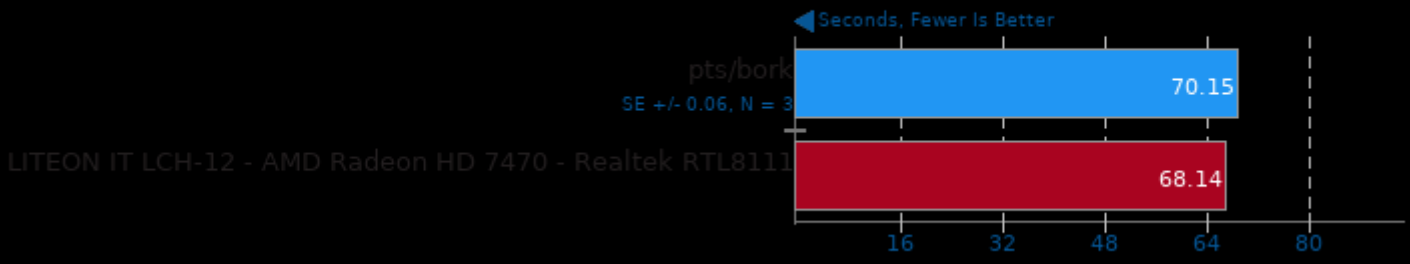
Java 2D Microbenchmark - Vector Graphics (Units/sec)	313771
GtkPerf - GtkComboBox	117.06
GtkPerf - GtkRadioButton	46.93
GtkPerf - GtkDrawingArea - Pixbufs (sec)	19.74
RAMspeed SMP - Integer Add (MB/s)	9622
RAMspeed SMP - Integer Copy (MB/s)	6780
RAMspeed SMP - Integer Scale (MB/s)	7035
RAMspeed SMP - Floating-Point Add (MB/s)	9611
Stream - Add (MB/s)	10569
Stream - Copy (MB/s)	11598
Stream - Scale (MB/s)	11300
Loopback TCP Network Performance - T.T.T.1.V.L (sec)	3.05
NAS Parallel Benchmarks - EP.B (Mop/s)	37.05
NAS Parallel Benchmarks - MG.B (Mop/s)	3070
Java SciMark - FFT Performance (Mflops)	347.04
Java SciMark - SOR Performance (Mflops)	327.49
Java SciMark - C.P (Mflops)	439.78
Java SciMark - M.C.P	185.32
BYTE Unix Benchmark - Integer Arithmetic (LPS)	1
CacheBench - Read Cache (MB/s)	2283
CacheBench - Write Cache (MB/s)	5603
Numpy Benchmark - P.T.S.v.2.0 (Nanoseconds)	33057537
GraphicsMagick - L.A.T (Iterations/min)	35
PBZIP2 Compression - 2.F.C (sec)	46.93
eSpeak Speech Engine - T.T.S.S (sec)	193.50
GnuPG - 2.F.E (sec)	105.78
Mencoder - AVI To LAVC	231.62
GnuPG - L.4.3.P.F.E (sec)	77.08
Standard Deviation	0.7%

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OpenSSL - R.4.b.P	96.30
Redis - SET (Reqs/sec)	128320
PyBench - T.F.A.T.T (Milliseconds)	9649
NGINX Benchmark - S.W.P.S (Reqs/sec)	4283
PHPBench - P.B.S (Score)	31505

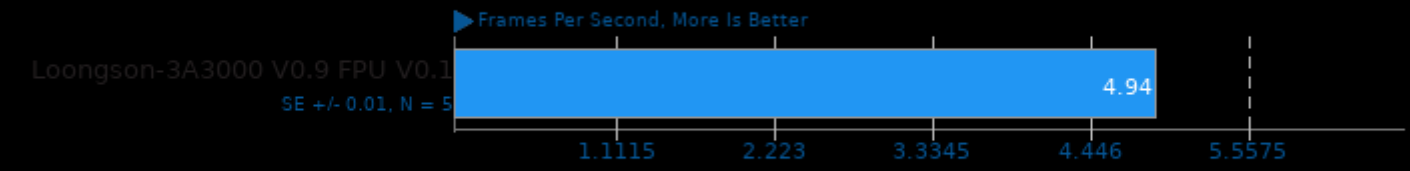
Bork File Encrypter 1.4

File Encryption Time



x264 2017-05-19

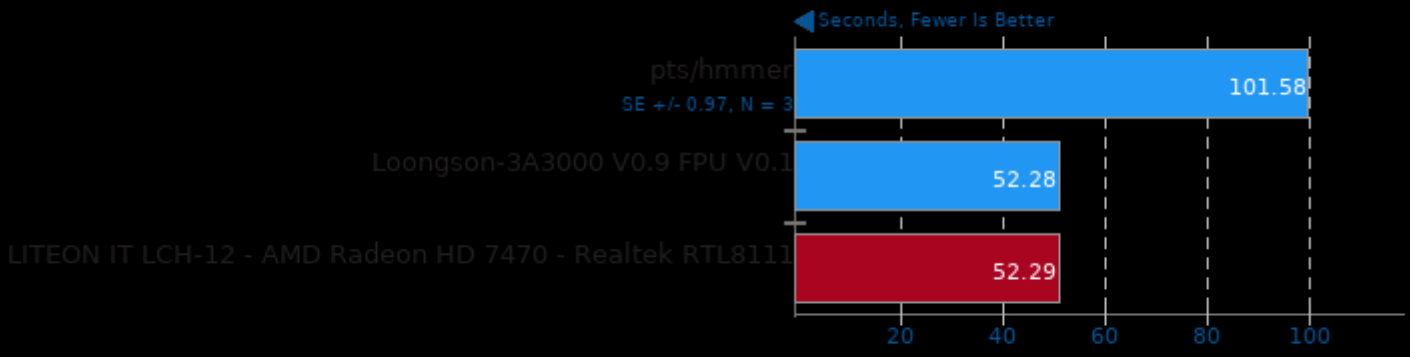
H.264 Video Encoding



1. (CC) gcc options: -ldl -lm -lpthread -O3 -ffast-math -std=gnu99 -fomit-frame-pointer -fno-tree-vectorize

Timed HMMer Search 2.3.2

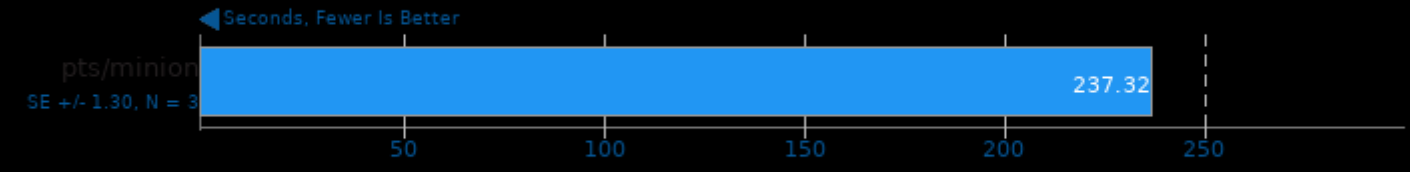
Pfam Database Search



1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm

Minion 1.8

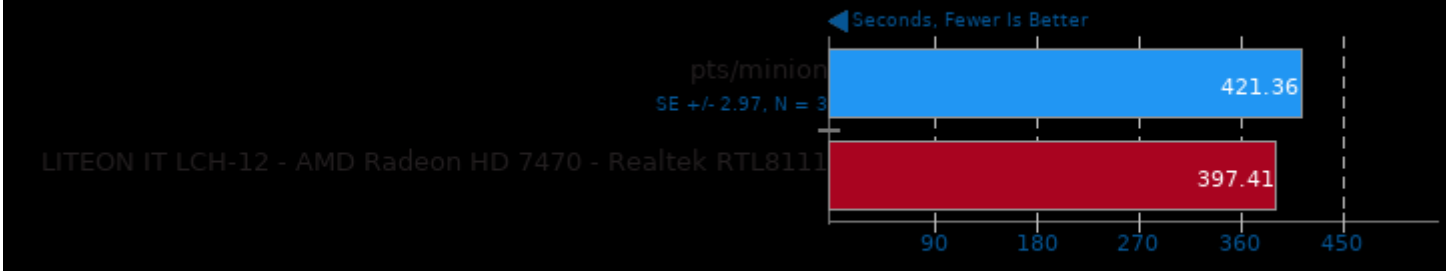
Benchmark: Graceful



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Minion 1.8

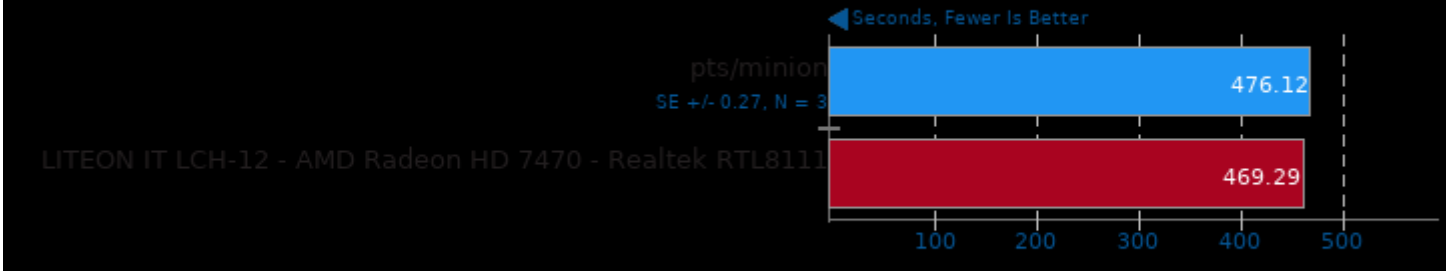
Benchmark: Solitaire



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Minion 1.8

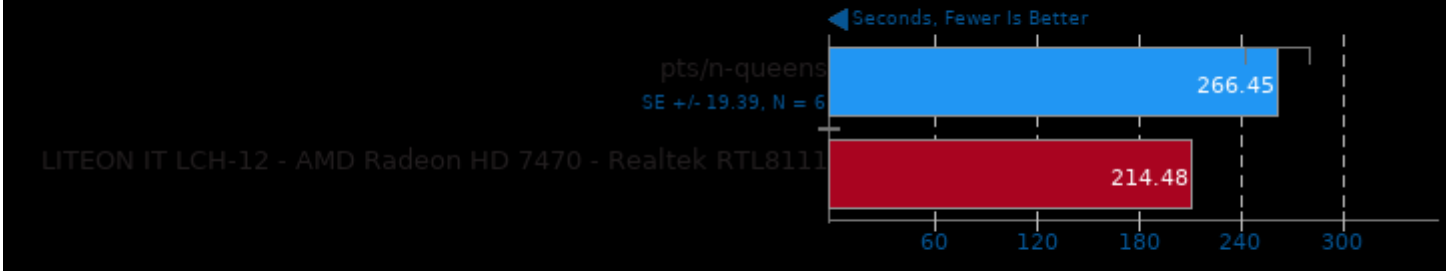
Benchmark: Quasigroup



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

N-Queens 1.0

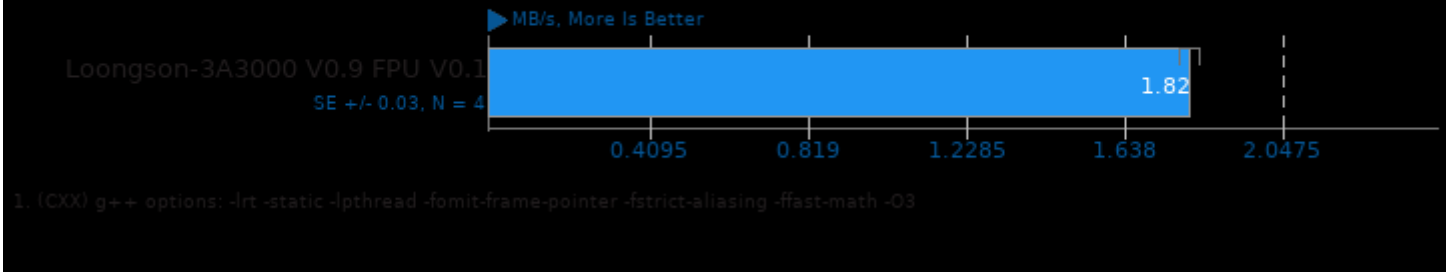
Elapsed Time



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

lzbench 2017-08-08

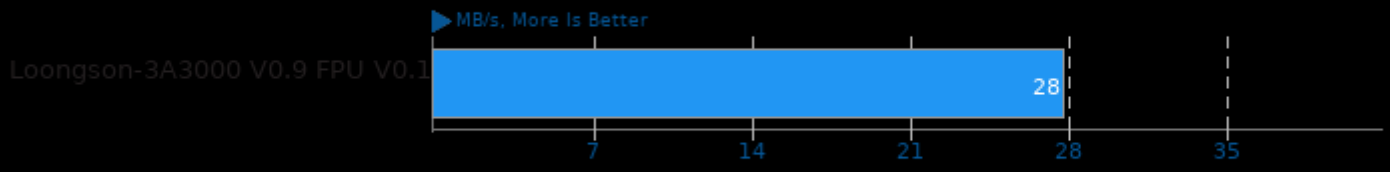
Test: XZ 0 - Process: Compression



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

lzbench 2017-08-08

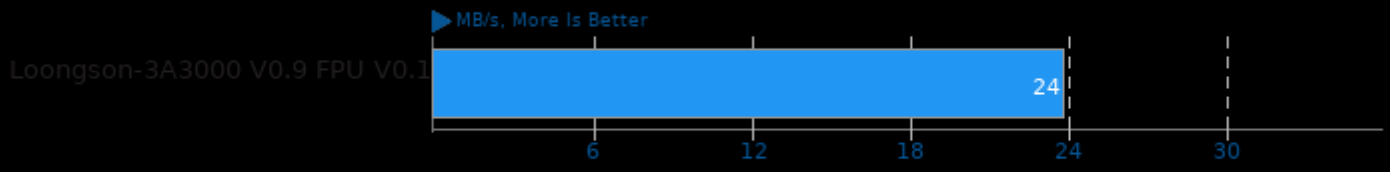
Test: XZ 0 - Process: Decompression



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

lzbench 2017-08-08

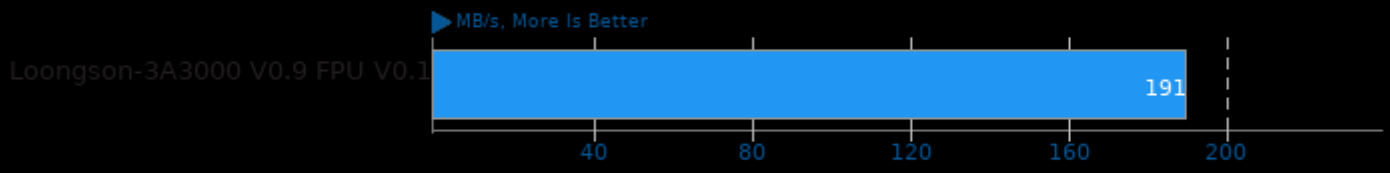
Test: Zstd 1 - Process: Compression



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

lzbench 2017-08-08

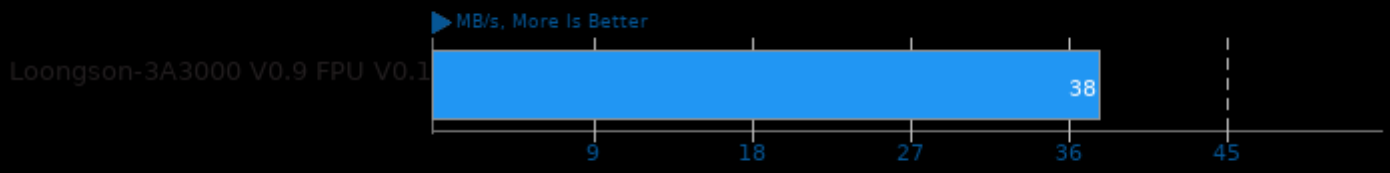
Test: Zstd 1 - Process: Decompression



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

lzbench 2017-08-08

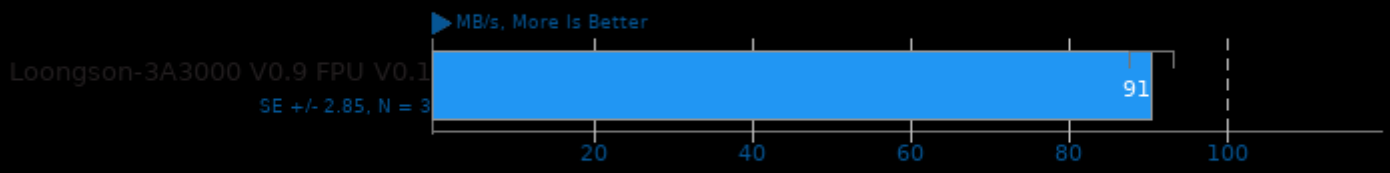
Test: Brotli 0 - Process: Compression



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

lzbench 2017-08-08

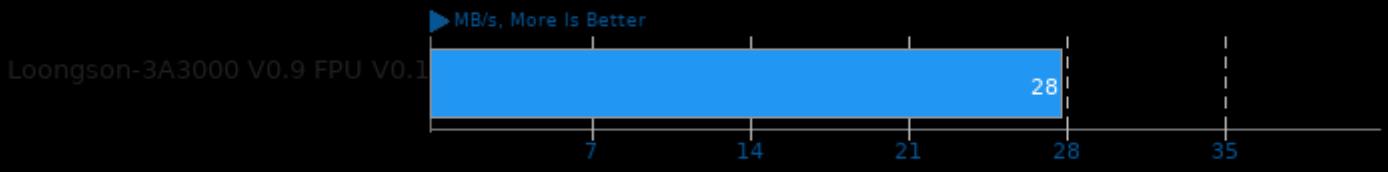
Test: Brotli 0 - Process: Decompression



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

lzbench 2017-08-08

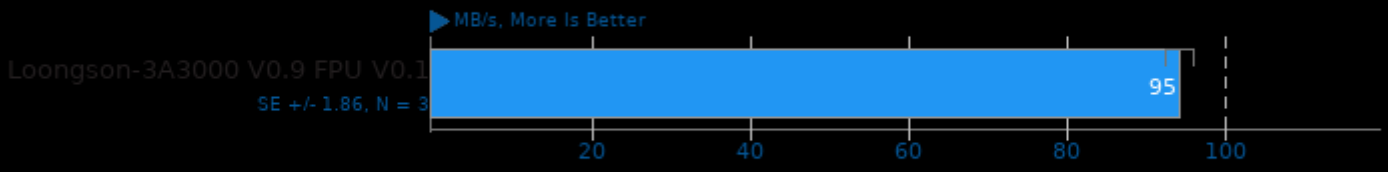
Test: Libdeflate 1 - Process: Compression



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

lzbench 2017-08-08

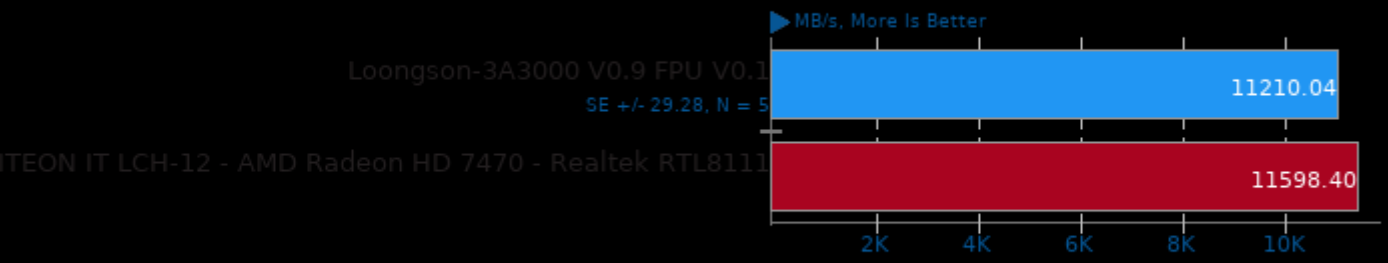
Test: Libdeflate 1 - Process: Decompression



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

Stream 2013-01-17

Type: Copy



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

Stream 2013-01-17

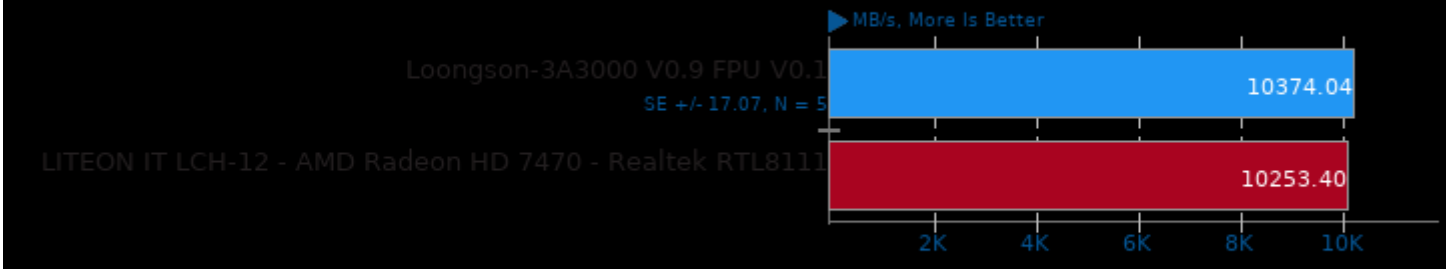
Type: Scale



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

Stream 2013-01-17

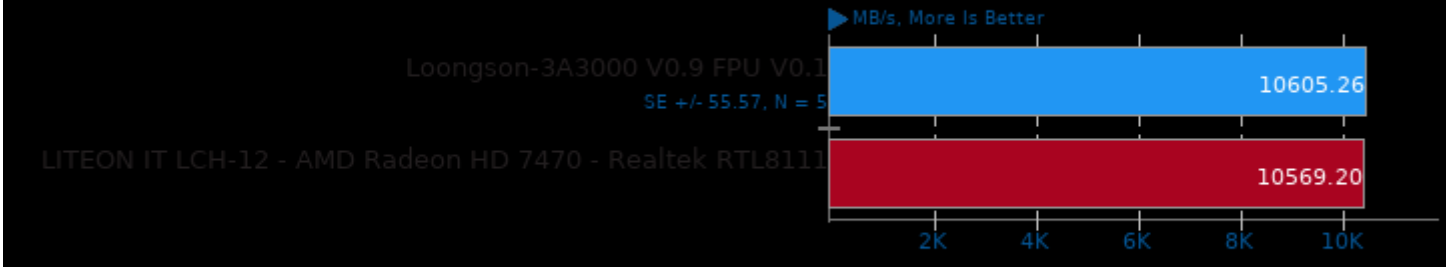
Type: Triad



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

Stream 2013-01-17

Type: Add



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

NAS Parallel Benchmarks 3.3

Test / Class: LU.A



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Loongson-3A3000 V0.9 FPU V0.1: Open MPI 1.8.3
3. LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek RTL8111: Open MPI 1.10.7

Timed MAFFT Alignment 7.392

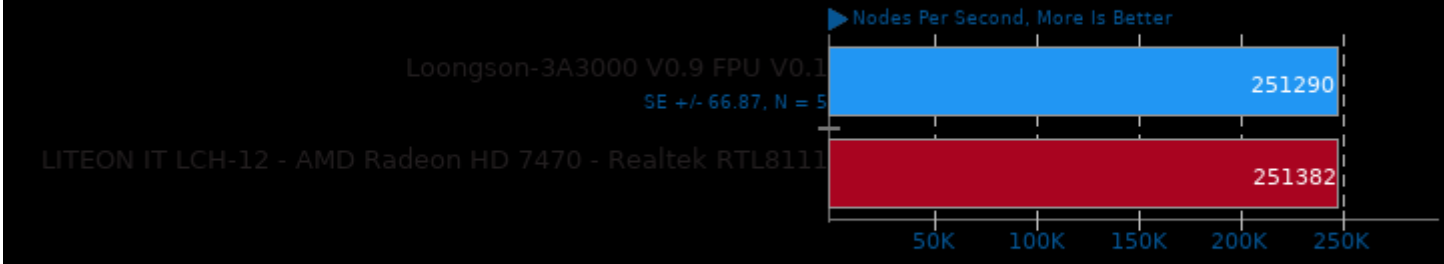
Multiple Sequence Alignment



1. (CC) gcc options: -std=c99 -O3 -lm -lpthread

TSCP 1.81

AI Chess Performance



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

TTSIOD 3D Renderer 2.3a

Phong Rendering With Soft-Shadow Mapping

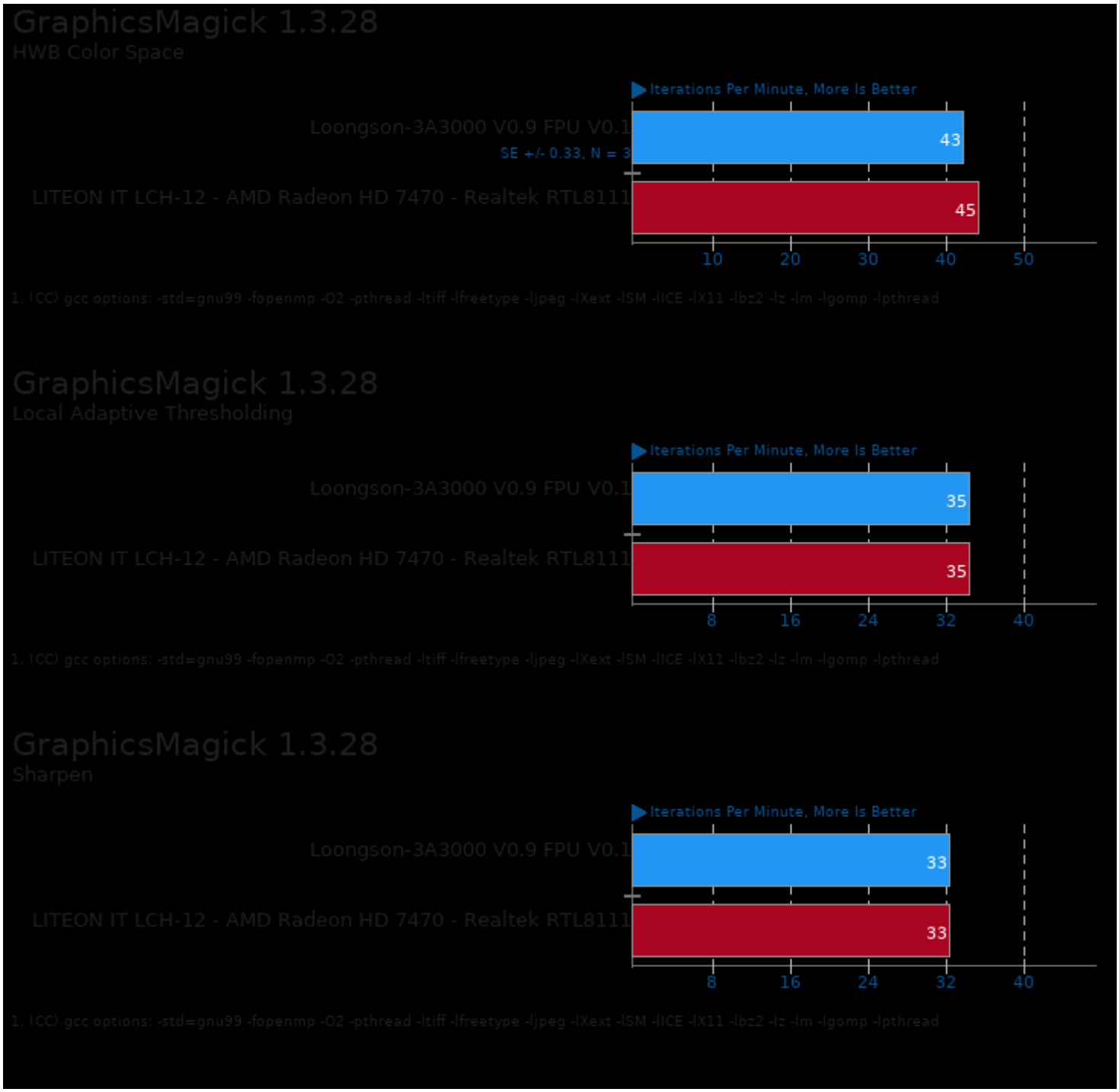


1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -flto -lSDL -lpthread -lstdc++

x264 2018-02-05

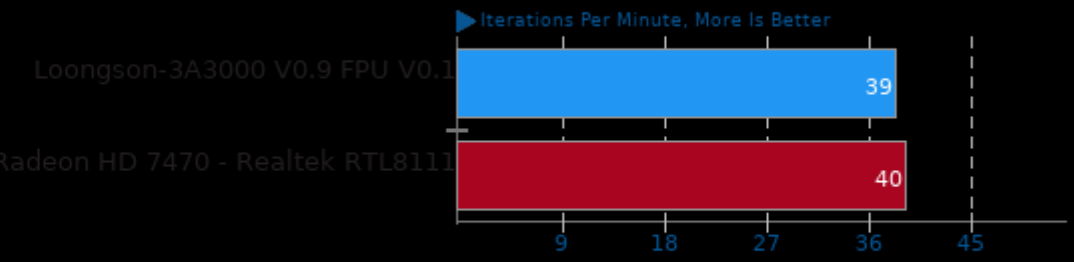
H.264 Video Encoding




GraphicsMagick 1.3.28
HWB Color Space
Iterations Per Minute, More Is Better
Loongson-3A3000 V0.9 FPU V0.1
SE +/- 0.33, N = 3
LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek RTL8111
43
45
10
20
30
40
50
1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread
GraphicsMagick 1.3.28
Local Adaptive Thresholding
Iterations Per Minute, More Is Better
Loongson-3A3000 V0.9 FPU V0.1
LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek RTL8111
35
35
8
16
24
32
40
1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread
GraphicsMagick 1.3.28
Sharpen
Iterations Per Minute, More Is Better
Loongson-3A3000 V0.9 FPU V0.1
LITEON IT LCH-12 - AMD Radeon HD 7470 - Realtek RTL8111
33
33
8
16
24
32
40
1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

GraphicsMagick 1.3.28

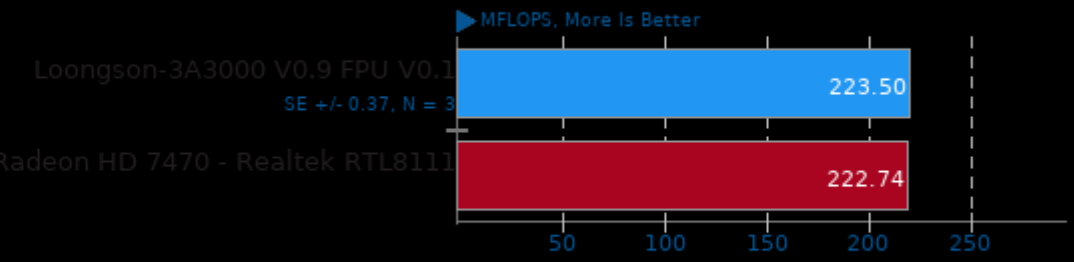
Resizing



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

Himeno Benchmark 3.0

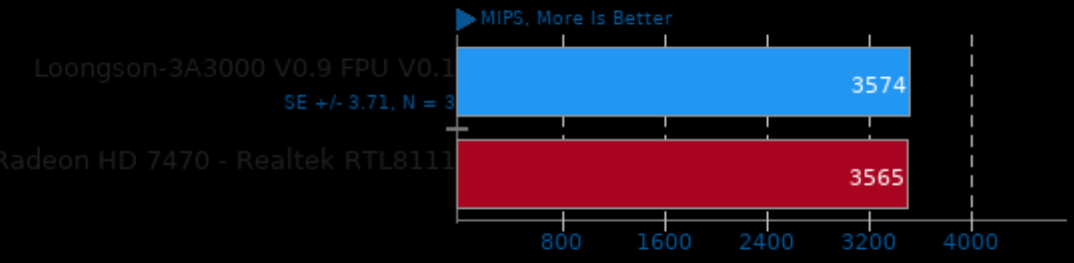
Poisson Pressure Solver



1. (CC) gcc options: -O3

7-Zip Compression 16.02

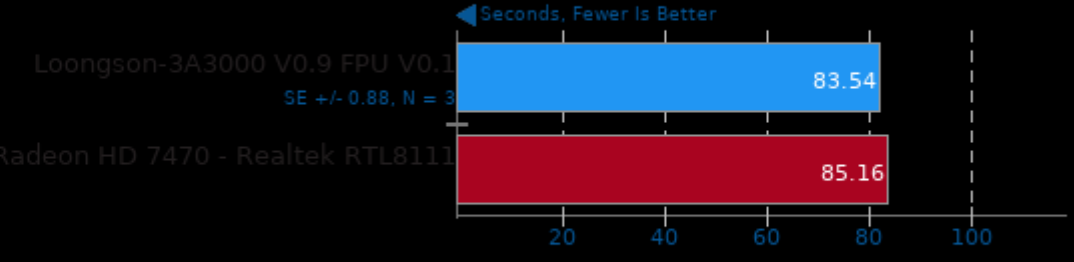
Compress Speed Test



1. (CXX) g++ options: -pipe -lpthread

C-Ray 1.1

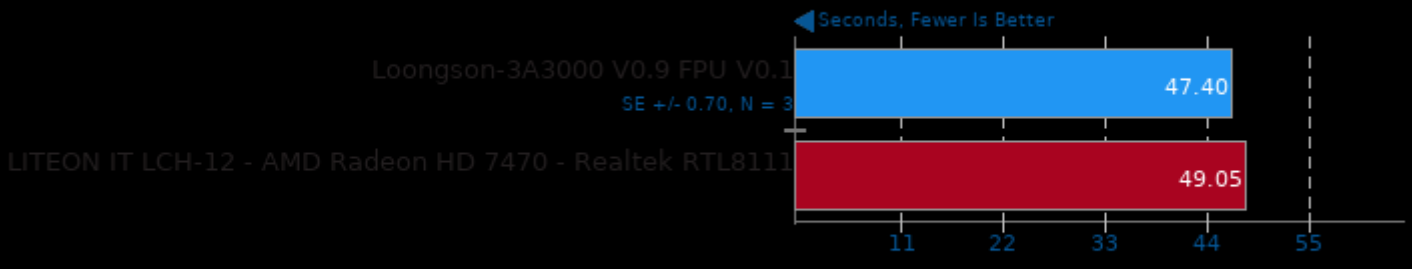
Total Time



1. (CC) gcc options: -lm -lpthread -O3

Parallel BZIP2 Compression 1.1.12

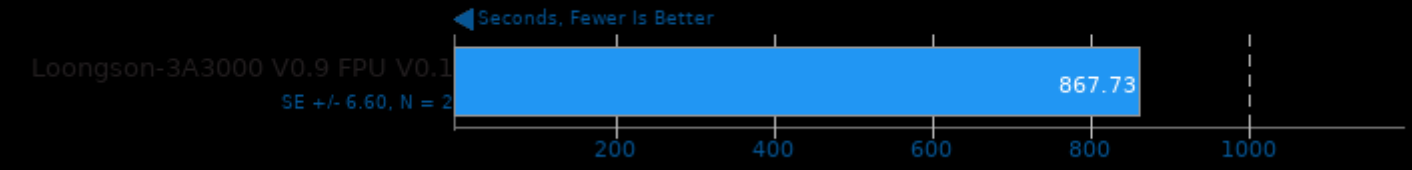
256MB File Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

POV-Ray 3.7.0.7

Trace Time



Smallpt 1.0

Global Illumination Renderer; 100 Samples



1. (CXX) g++ options: -fopenmp

FLAC Audio Encoding 1.3.2

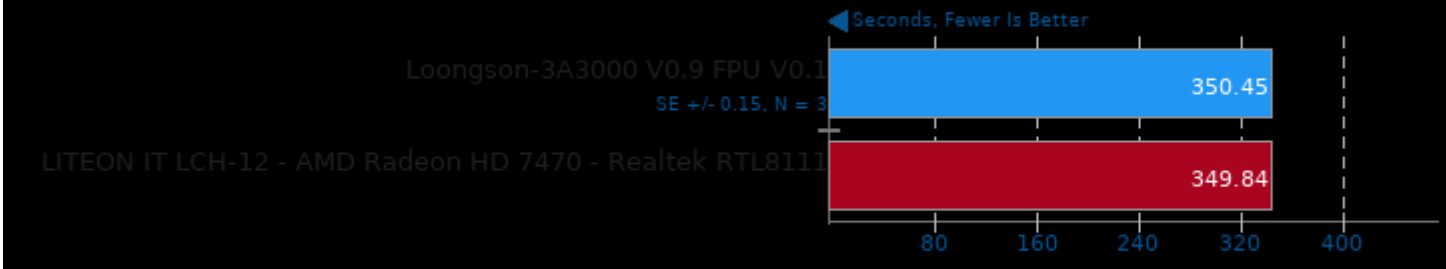
WAV To FLAC



1. (CXX) g++ options: -O2 -fvisibility=hidden -lm

LAME MP3 Encoding 3.100

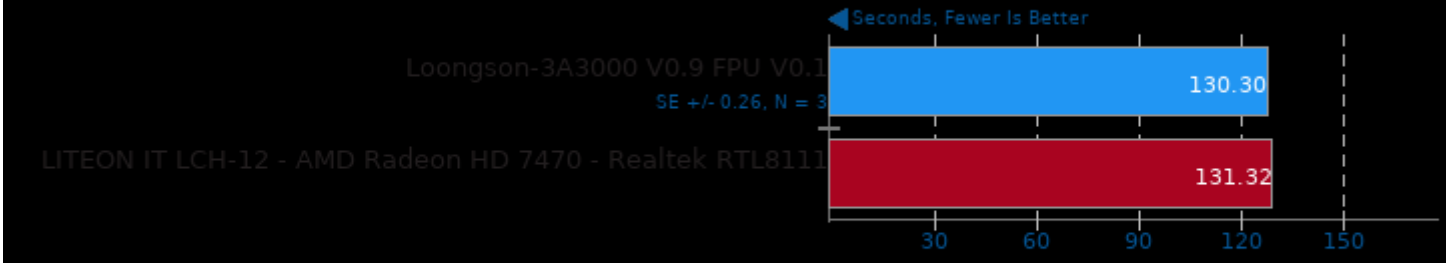
WAV To MP3



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

FFmpeg 3.4.1

H.264 HD To NTSC DV



1. (CC) gcc options: -mips64r2 -march=loongson3a -mhard-float -mfp64 -mdsp -mdspr2 -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale

Apache Benchmark 2.4.29

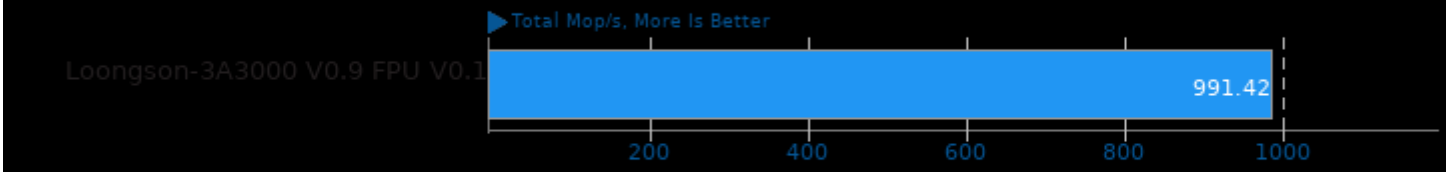
Static Web Page Serving



1. (CC) gcc options: -shared -fPIC -O2 -pthread

NAS Parallel Benchmarks 3.3

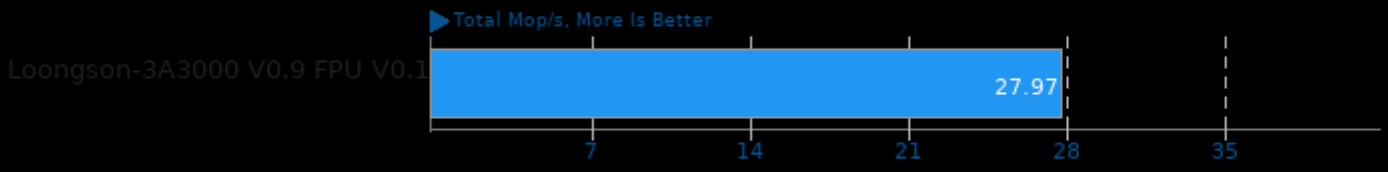
Test / Class: BT.A



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

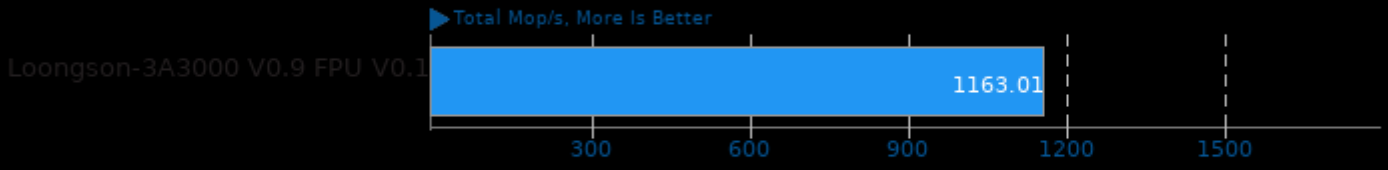
Test / Class: EP.C



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

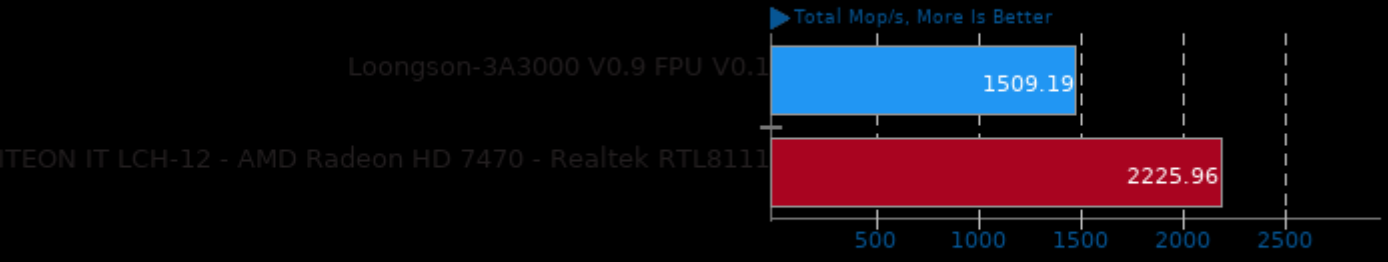
Test / Class: FT.A



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

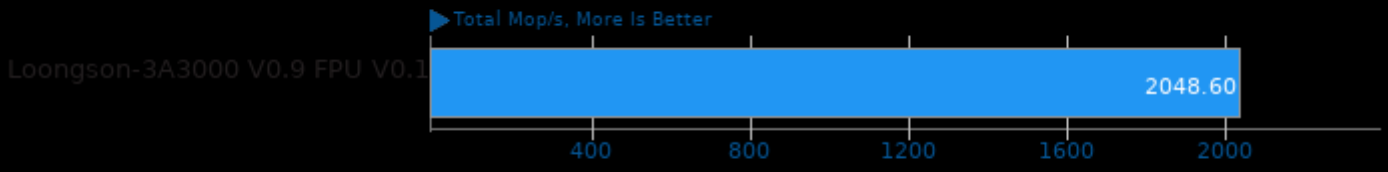
Test / Class: FT.B



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

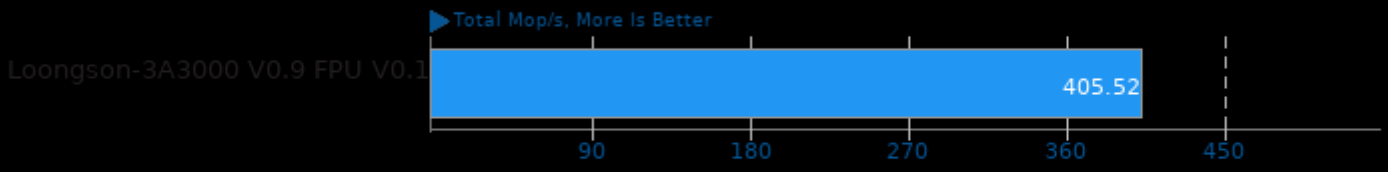
Test / Class: LU.C



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

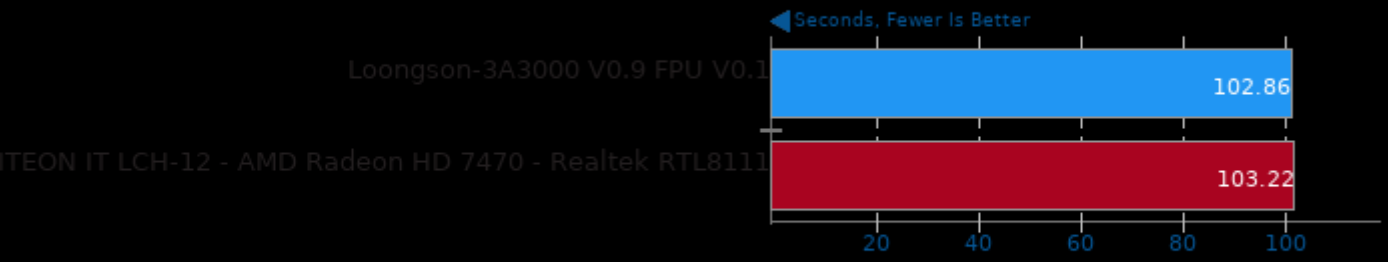
Test / Class: SP.A



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

Monkey Audio Encoding 3.99u4b5s6

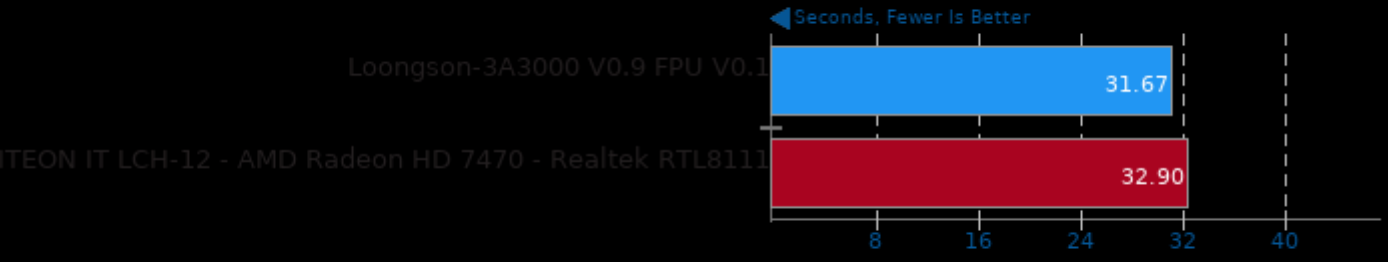
WAV To APE



1. (CXX) g++ options: -O3 -pedantic

Ogg Encoding 1.3.3

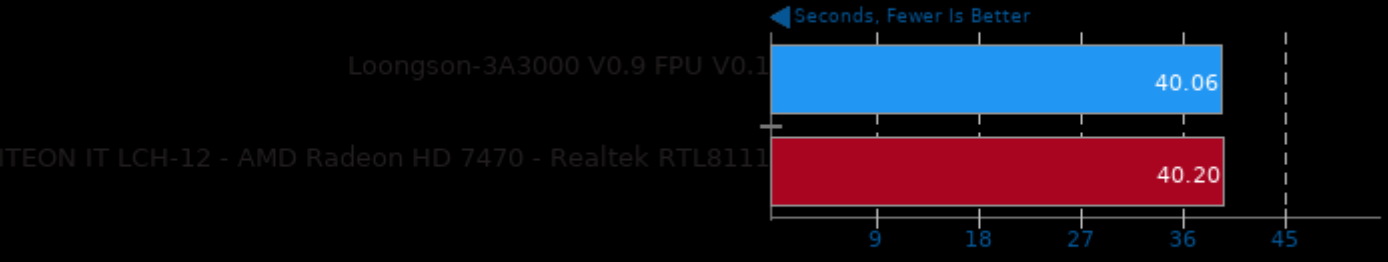
WAV To Ogg



1. (CC) gcc options: -O2 -ffast-math -fsigned-char -lvorbis -logg

WavPack Audio Encoding 5.1

WAV To WavPack



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

Timed Apache Compilation 2.4.7

Time To Compile



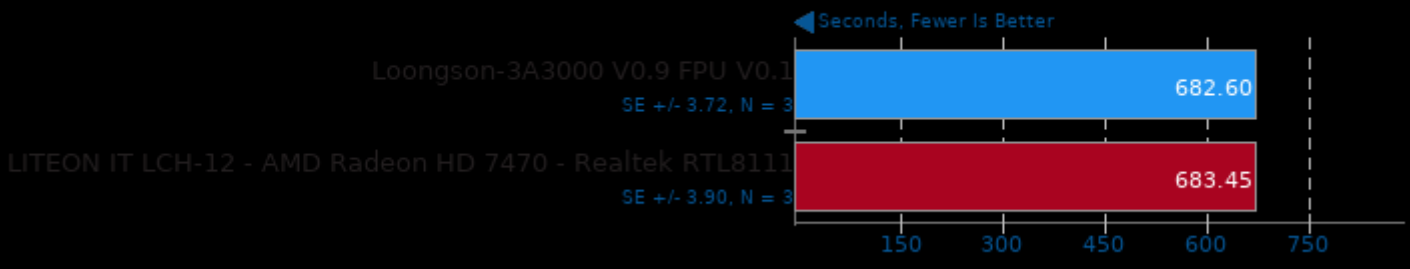
Timed ImageMagick Compilation 6.9.0

Time To Compile



Timed Linux Kernel Compilation 4.13

Time To Compile



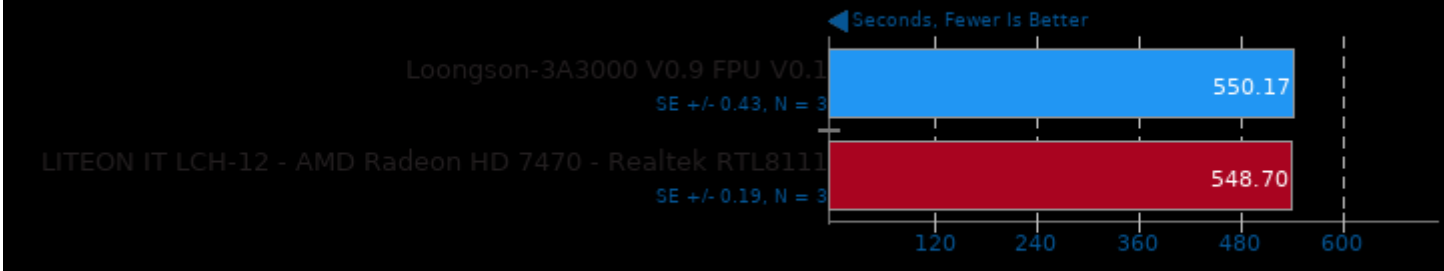
Timed MPlayer Compilation 1.0-rc3

Time To Compile



Timed PHP Compilation 7.1.9

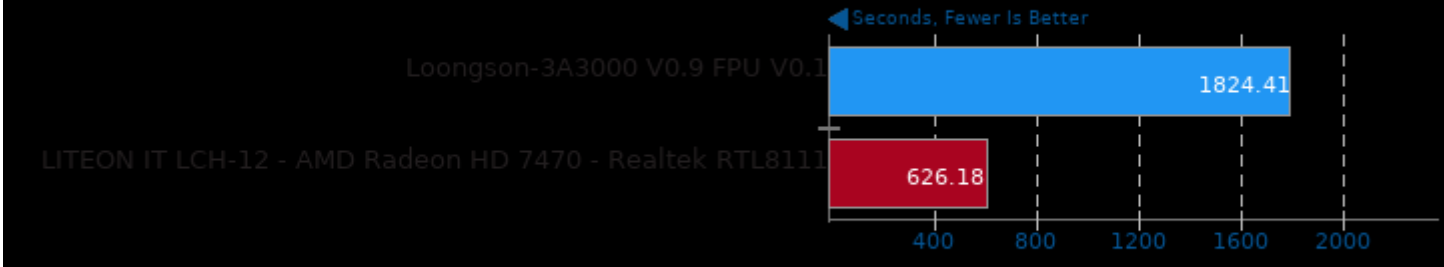
Time To Compile



1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm

Timed MrBayes Analysis 3.1.2

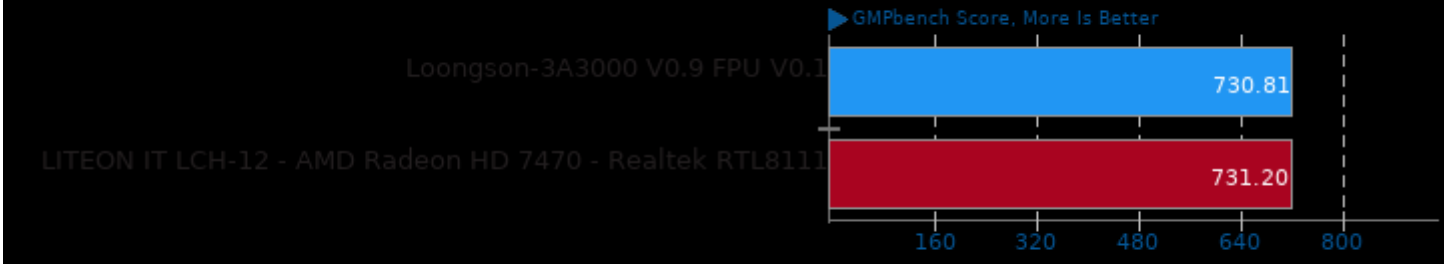
Primate Phylogeny Analysis



1. (CC) gcc options: -O3 -lm -pthread -lmpi

GNU GMP GMPbench 6.1.2

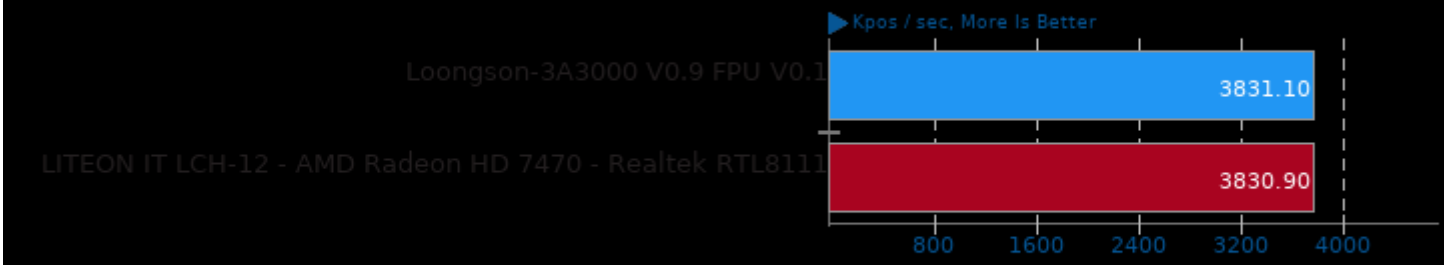
Total Time



1. (CC) gcc options: -O3 -fomit-frame-pointer -lm

Fhourstones 3.1

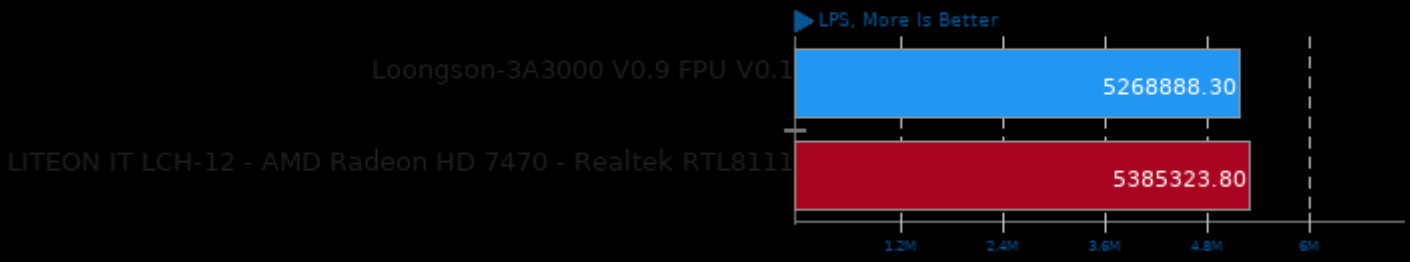
Complex Connect-4 Solving



1. (CC) gcc options: -O3

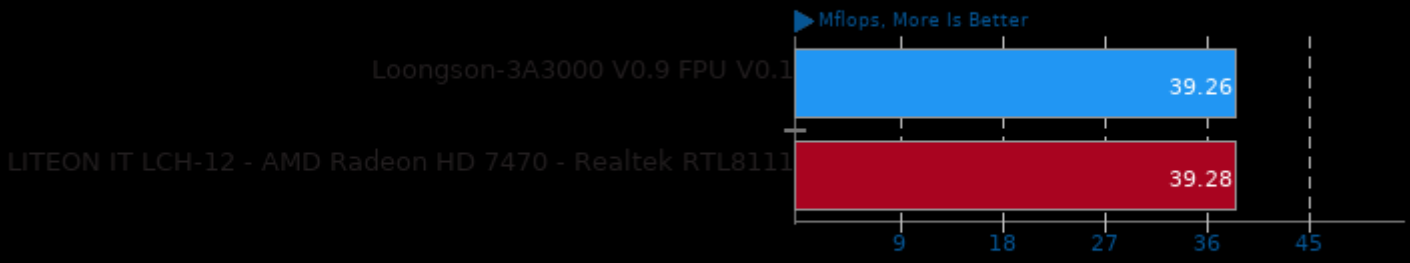
BYTE Unix Benchmark 3.6

Dhrystone 2



SciMark 2.0

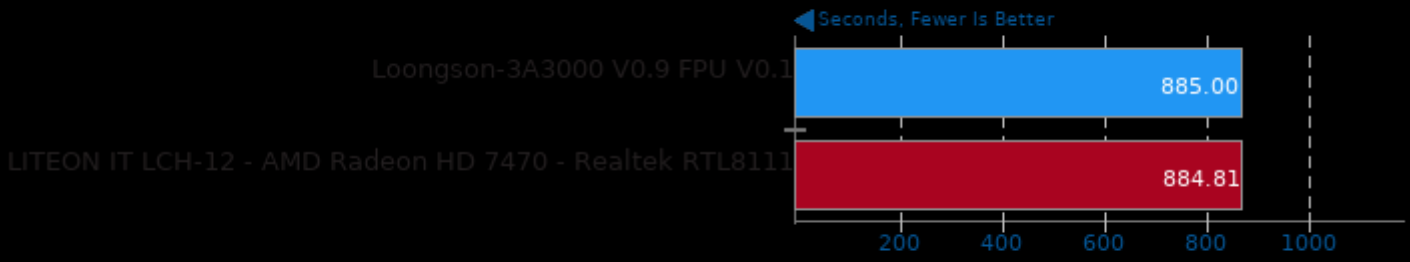
Composite



1. (CC) gcc options: -lm

Open FMM Nero2D 2.0.2

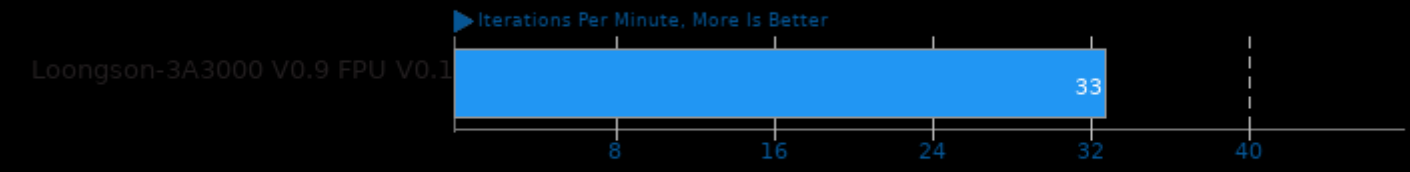
Total Time



1. (CXX) g++ options: -O2 -lfftw3 -llapack -lblas -lgfortran -lm -pthread -lmpi_cxx -lmpi

GraphicsMagick 1.3.28

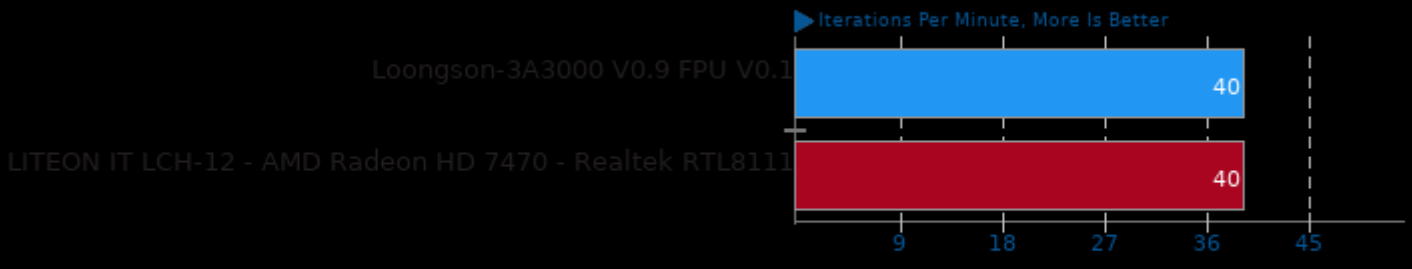
Operation: Sharpen



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

GraphicsMagick 1.3.28

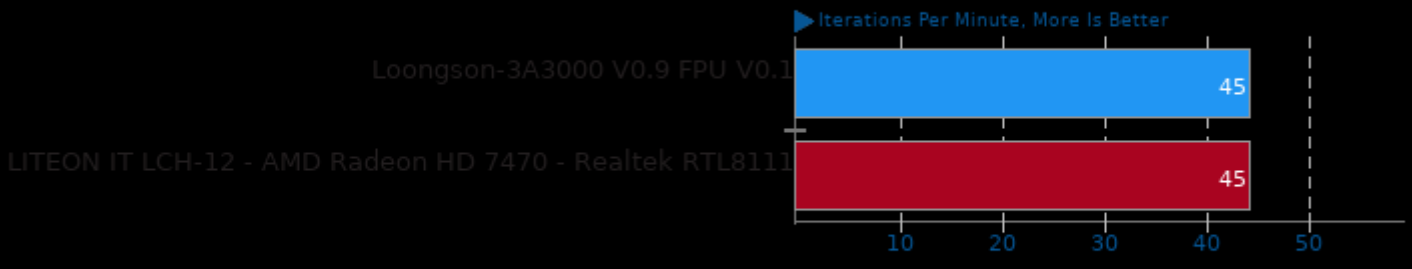
Operation: Resizing



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

GraphicsMagick 1.3.28

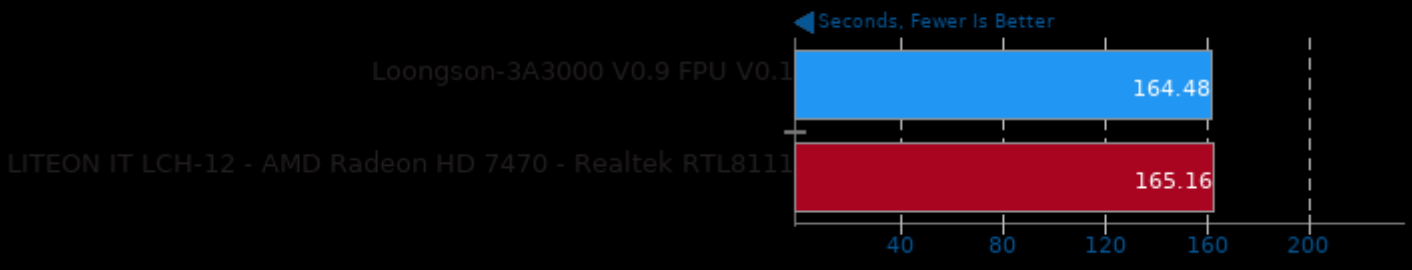
Operation: HWB Color Space



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

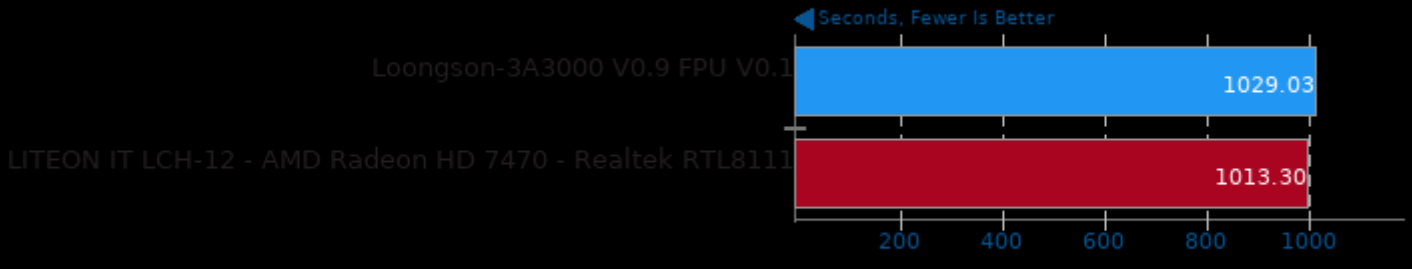
Gzip Compression

Linux Source Tree Archiving To .tar.gz



LZMA Compression

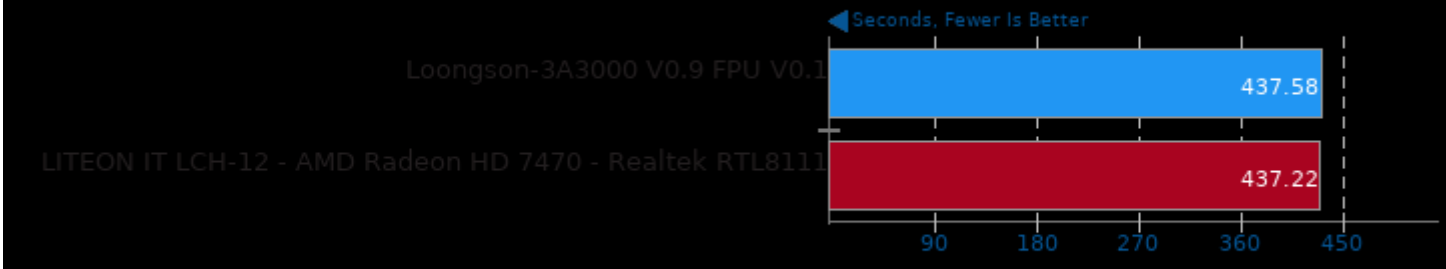
256MB File Compression



1. (CXX) g++ options: -O2

dcraw

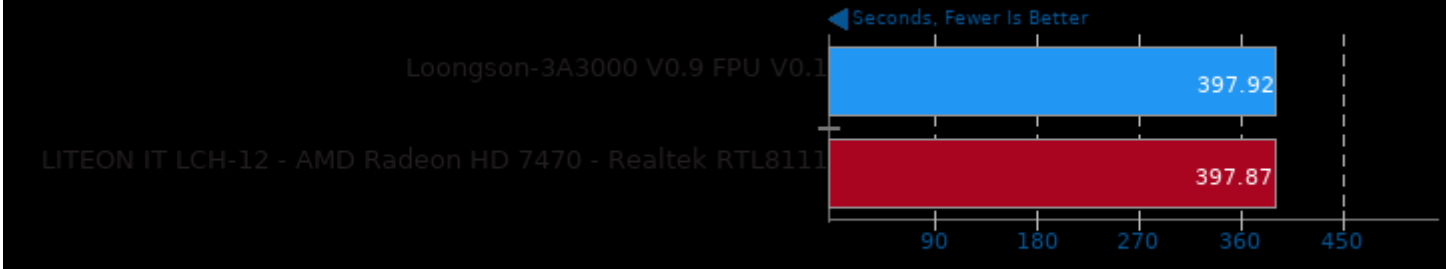
RAW To PPM Image Conversion



1. (CC) gcc options: -lm

Minion 1.8

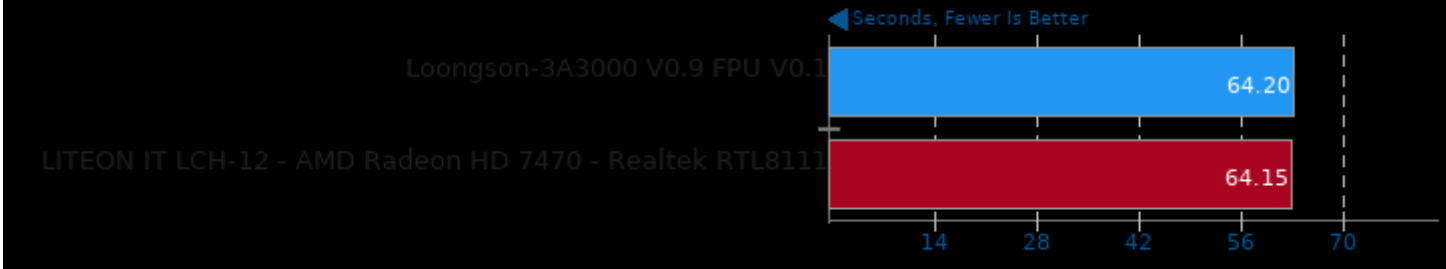
Solitaire



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Sudokut 0.4

Total Time



SQLite 3.22

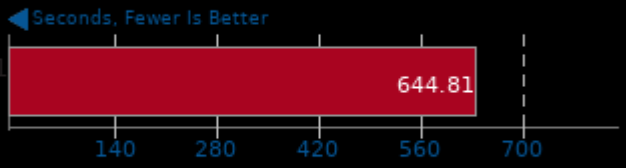
Timed SQLite Insertions



1. (CC) gcc options: -O2 -lz -ldl -lpthread

SQLite 3.22

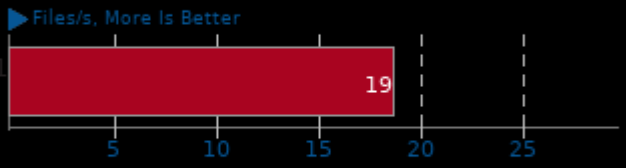
Test Target: Default Test Directory



1. (CC) gcc options: -O2 -lz -ldl -lpthread

FS-Mark 3.3

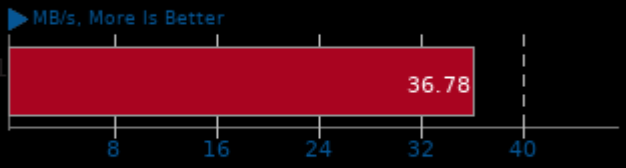
1000 Files, 1MB Size



1. (CC) gcc options: -static

Dbench 4.0

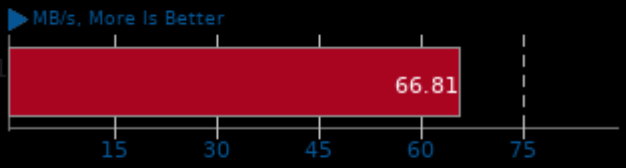
12 Clients



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

Dbench 4.0

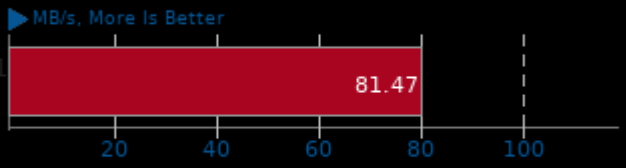
48 Clients



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

Dbench 4.0

128 Clients



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

Dbench 4.0
Client Count: 1



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

Dbench 4.0
Client Count: 6



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

Dbench 4.0
Client Count: 12



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

Dbench 4.0
Client Count: 48



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

Dbench 4.0
Client Count: 128



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

Dbench 4.0

1 Client



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

Dbench 4.0

1 Clients



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

Threaded I/O Tester 20170503

64MB Read - 32 Threads



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

64MB Write - 32 Threads



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

64MB Random Read - 32 Threads



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

64MB Random Write - 32 Threads



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

Test: Read - Size Per Thread: 64MB - Thread Count: 32



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

Test: Write - Size Per Thread: 64MB - Thread Count: 32



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

Test: Random Read - Size Per Thread: 64MB - Thread Count: 32



1. (CC) gcc options: -O2

Threaded I/O Tester 20170503

Test: Random Write - Size Per Thread: 64MB - Thread Count: 32



1. (CC) gcc options: -O2

lslabs-ls-3a3k-15ghz

Compile Bench 0.6

Test: Compile



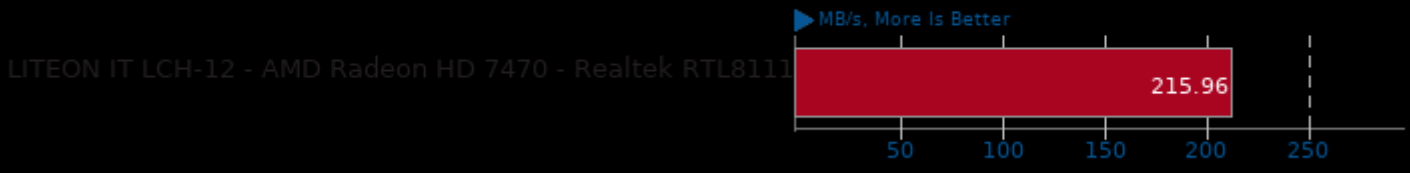
Compile Bench 0.6

Test: Initial Create



Compile Bench 0.6

Test: Read Compiled Tree



Unpacking The Linux Kernel

linux-4.15.tar.xz



PostMark 1.51

Disk Transaction Performance



1. (CC) gcc options: -O3

JXRenderMark 1.0.1

12pt Text LCD - Size: 128x128



1. (CC) gcc options: -lX11 -lXrender

JXRenderMark 1.0.1

Linear Gradient Blend - Size: 128x128



1. (CC) gcc options: -lX11 -lXrender

JXRenderMark 1.0.1

Transformed Blit Bilinear - Size: 128x128



1. (CC) gcc options: -lX11 -lXrender

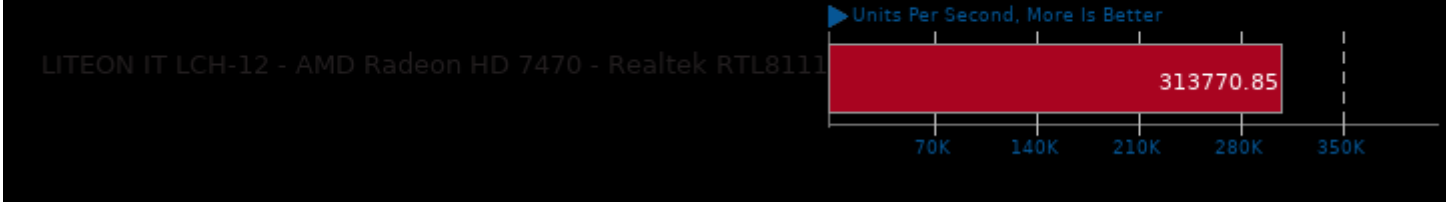
Java 2D Microbenchmark 1.0

Text Rendering



Java 2D Microbenchmark 1.0

Vector Graphics



GtkPerf 0.40

GtkComboBox



1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lcairo -lgdk_pixbuf-2.

GtkPerf 0.40

GtkRadioButton



1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lcairo -lgdk_pixbuf-2.

GtkPerf 0.40

GtkDrawingArea - Pixbufs



1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lcairo -lgdk_pixbuf-2.

RAMspeed SMP 3.5.0

Integer Add



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

RAMspeed SMP 3.5.0

Integer Copy



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

RAMspeed SMP 3.5.0

Integer Scale



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

RAMspeed SMP 3.5.0

Floating-Point Add



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

Stream 2013-01-17

Add



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

Stream 2013-01-17

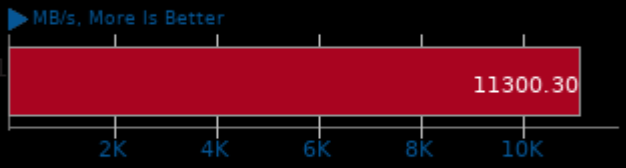
Copy



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

Stream 2013-01-17

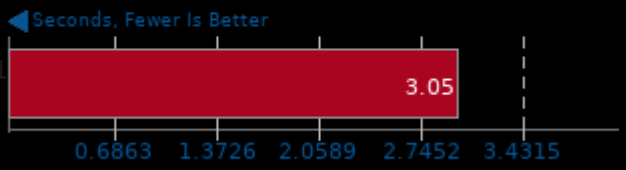
Scale



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

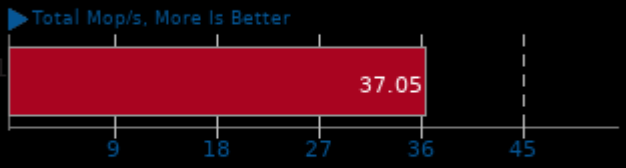
Loopback TCP Network Performance

Time To Transfer 10GB Via Loopback



NAS Parallel Benchmarks 3.3

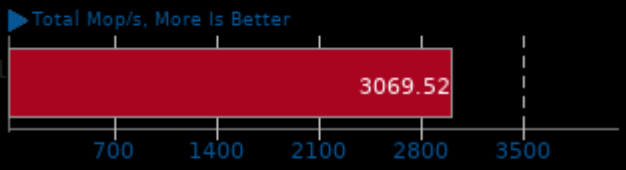
Test / Class: EP.B



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

NAS Parallel Benchmarks 3.3

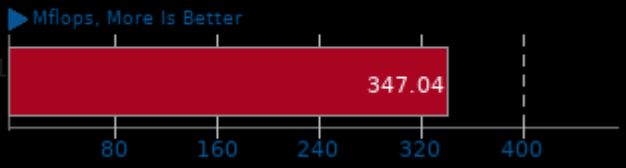
Test / Class: MG.B



1. (F9X) gfortran options: -O3 -mips64r2 -Ofast -march=loongson3a -funroll-loops -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 1.10.7

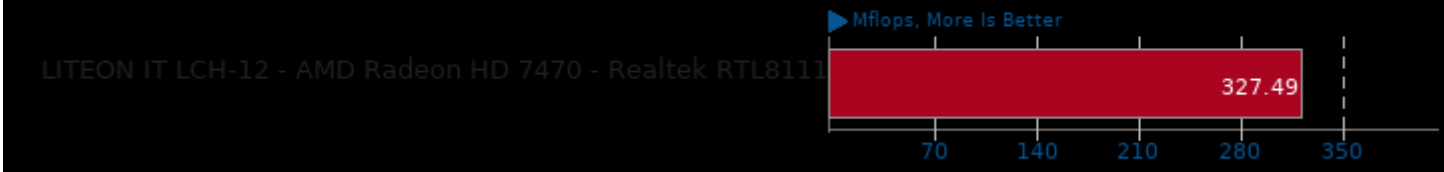
Java SciMark 2.0

FFT Performance

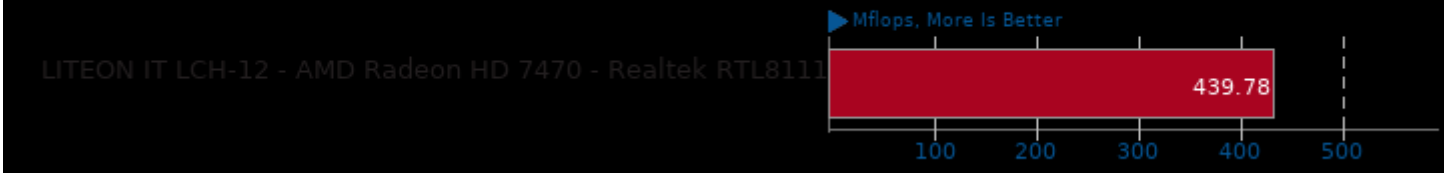


lslabs-ls-3a3k-15ghz

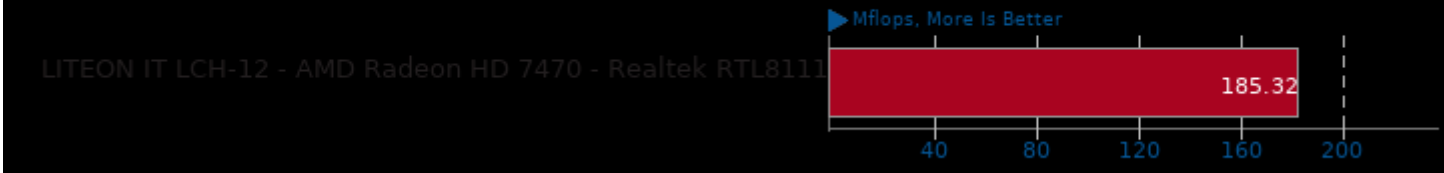
Java SciMark 2.0
SOR Performance



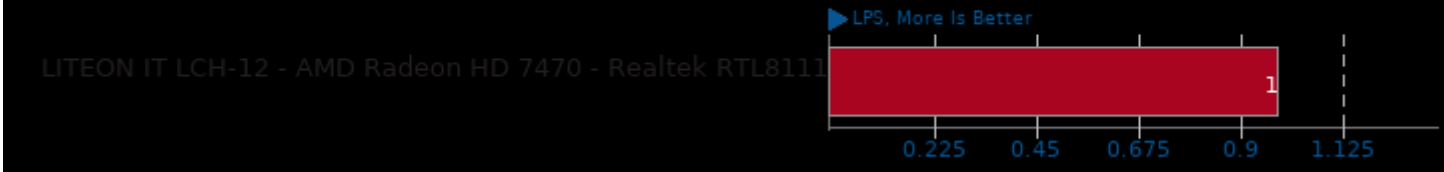
Java SciMark 2.0
Composite Performance



Java SciMark 2.0
Monte Carlo Performance



BYTE Unix Benchmark 3.6
Integer Arithmetic



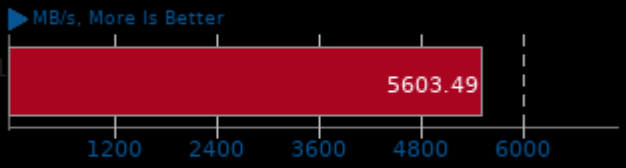
CacheBench
Read Cache



1. (CC) gcc options: -lrt

CacheBench

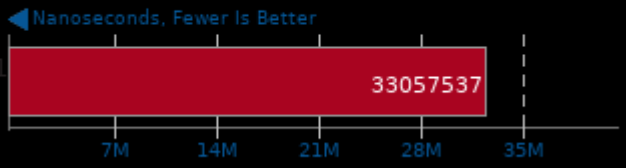
Write Cache



1. (CC) gcc options: -lrt

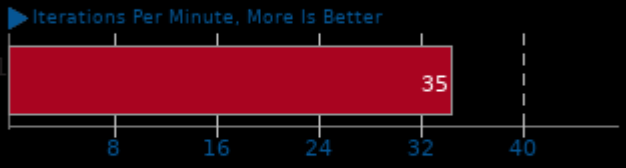
Numpy Benchmark

Phoronix Test Suite v7.2.0



GraphicsMagick 1.3.28

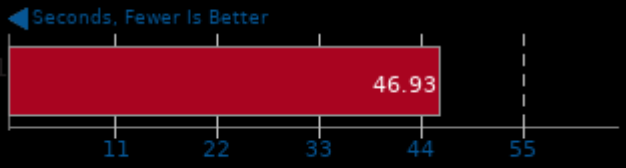
Operation: Local Adaptive Thresholding



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lbz2 -lz -lm -lgomp -lpthread

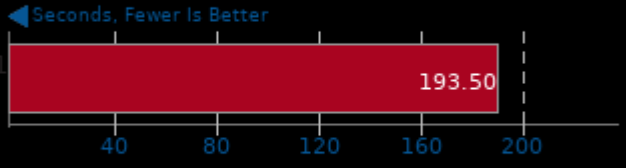
PBZIP2 Compression 1.1.12

256MB File Compression



eSpeak Speech Engine 1.48.04

Text-To-Speech Synthesis



1. (CXX) g++ options: -lstdc++ -lespeak -O2 -fpic -fvisibility=hidden -pedantic -fno-exceptions

GnuPG 1.4.22

2GB File Encryption



1. (CC) gcc options: -O2 -MT -MD -MP -MF

Mencoder 1.3.0

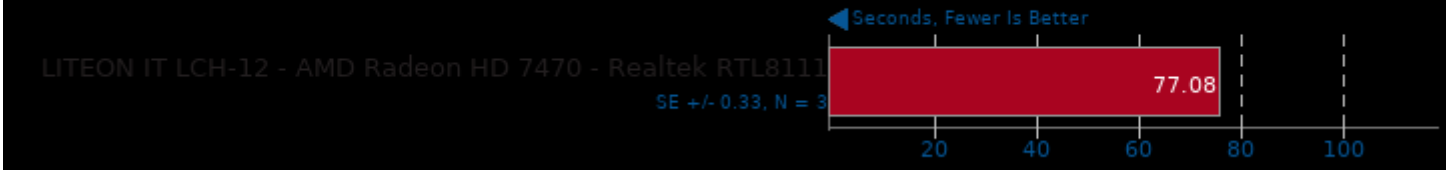
AVI To LAVC



1. (CC) gcc options: -ffast-math -lncurses -lrt -lpng -lz -ljpeg -lasound -ldl -lpthread -lfreetype -lfontconfig -lbz2 -rdynamic -lm

GnuPG

Linux 4.3 Package File Encryption



OpenSSL 1.0.1j-fips

RSA 4096-bit Performance

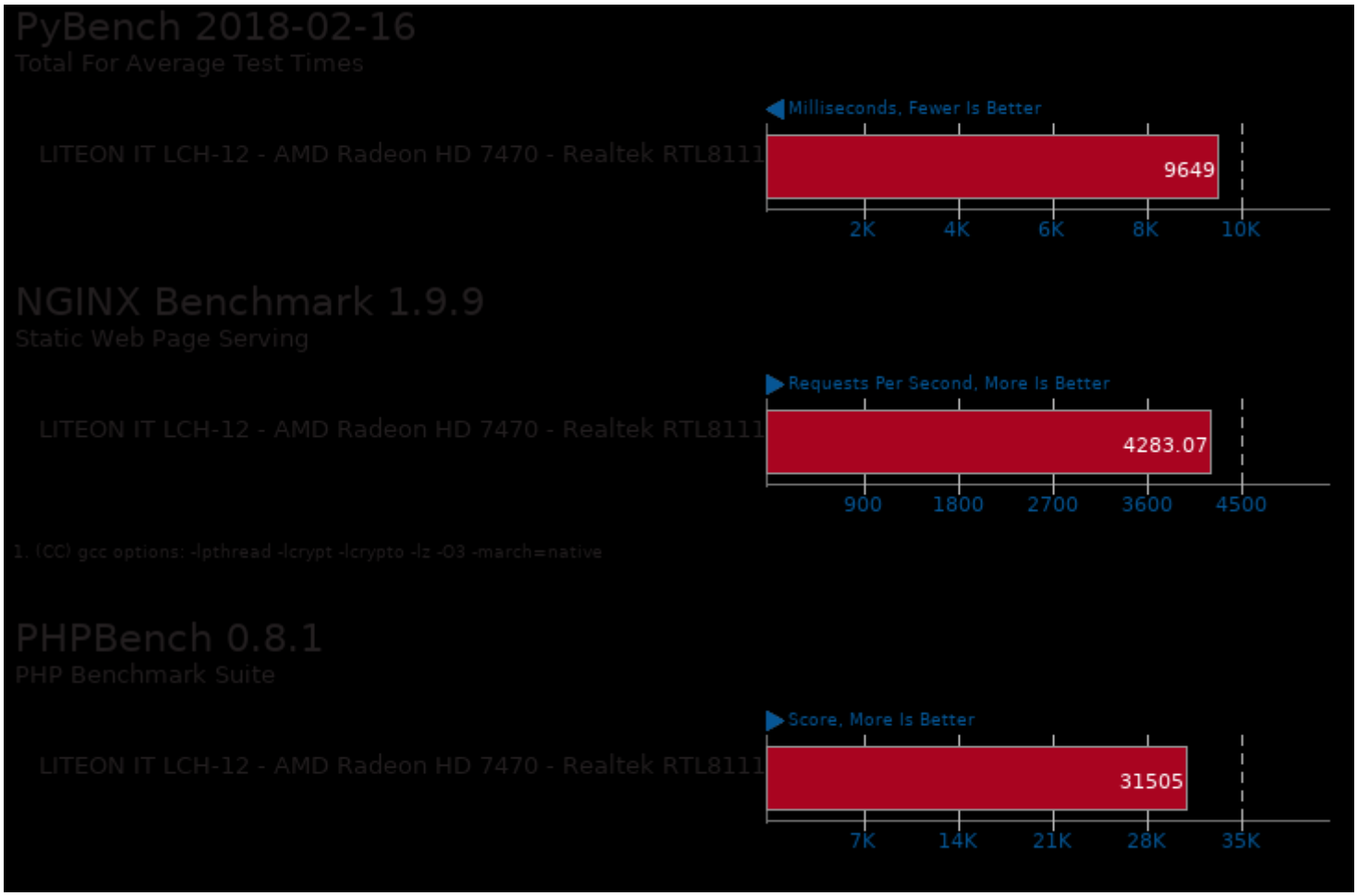


Redis 4.0.8

Test: SET



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 20:57.