


www.phoronix-test-suite.com

# bfk3dn

MIPS P5600 V3.0 FPU V2.0 testing on Debian 9.3 via the Phoronix Test Suite.

## Test Systems:

### MIPS P5600 V3.0 FPU V2.0

### MIPS P5600 V3.0 FPU V2.0 - - Baikal-T1 BFK3

### KINGSTON SNV425S

Processor: MIPS P5600 V3.0 FPU V2.0 (2 Cores), Motherboard: Baikal-T1 BFK3 evaluation board, Memory: 2048MB, Disk: 64GB KINGSTON SNV425S

OS: Debian 9.3, Kernel: 4.4.100-bfk3 (mips), Compiler: GCC 6.3.0 20170516 + Clang 3.8.1-24 + LLVM 3.8.1, File-System: ext4

Compiler Notes: --build=mipsel-linux-gnu --disable-browser-plugin --disable-libitm --disable-libquadmath --disable-libsanitizer --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home

# bfk3dn

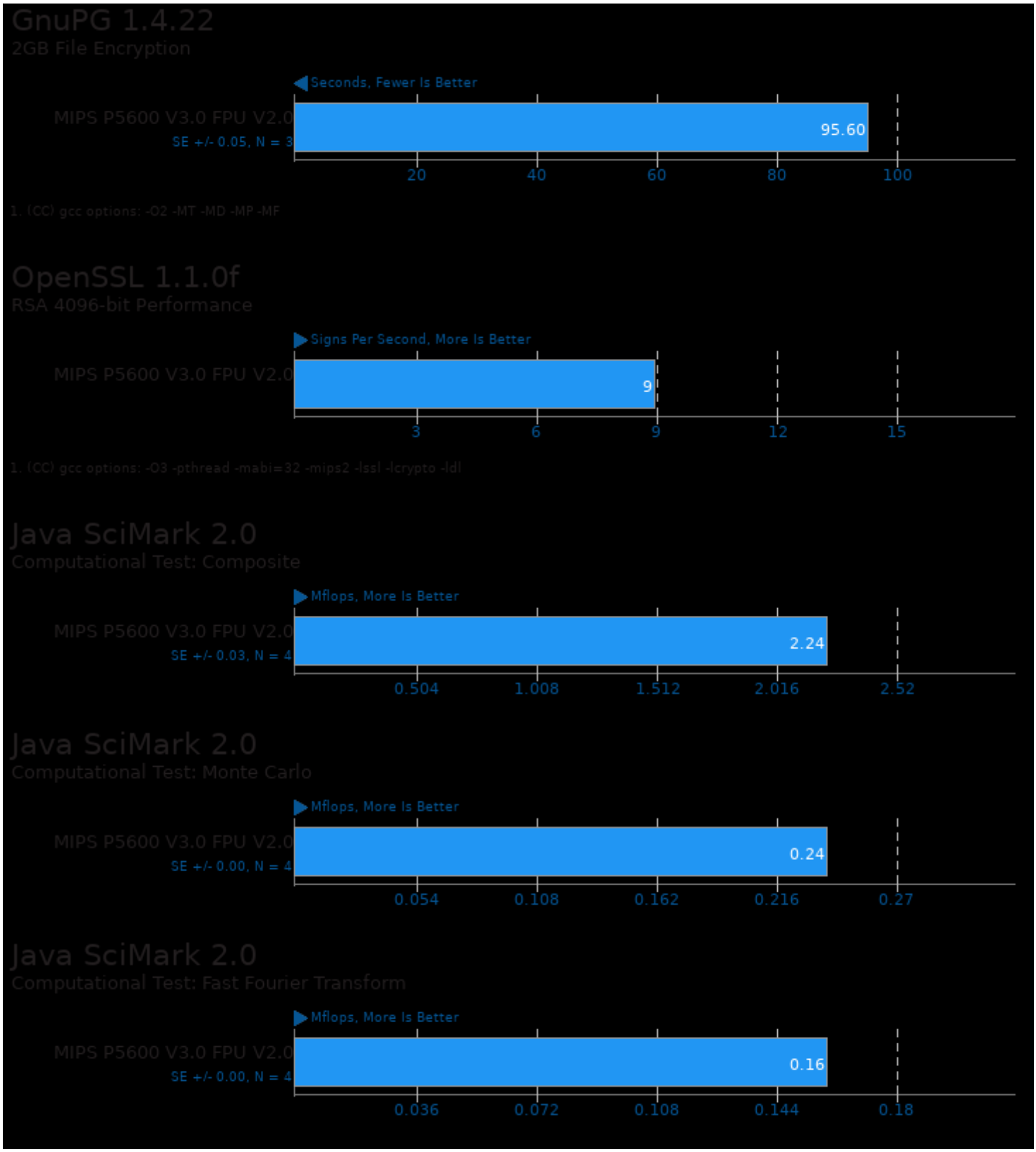
--enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-plugin --enable-shared --enable-targets=all --enable-threads=posix --host=mipsel-linux-gnu --program-prefix=mipsel-linux-gnu- --target=mipsel-linux-gnu --with-arch-32=mips32r2 --with-arch-64=mips64r2 --with-arch-directory=mips --with-default-libstdcxx-abi=new --with-fp-32=xx --with-lxc1-sxc1=no --with-madd4=no -v
Disk Notes: CFQ / data=ordered,relatime,rw

| | MIPS P5600 V3.0 FPU V2.0 | MIPS P5600 V3.0 FPU V2.0 - - Baikal-T1 BFK3 | KINGSTON SNV425S |
|---|---|---|---|
| **GnuPG - 2.F.E (sec)** | 95.60 | | |
| **Standard Deviation** | 0.1% | | |
| **OpenSSL - R.4.b.P (Signs/sec)** | 9 | | |
| **Java SciMark - Composite (Mflops)** | 2.24 | | |
| **Standard Deviation** | 2.2% | | |
| **Java SciMark - Monte Carlo (Mflops)** | 0.24 | | |
| **Standard Deviation** | 0.3% | | |
| **Java SciMark - F.F.T (Mflops)** | 0.16 | | |
| **Standard Deviation** | 0.4% | | |
| **Java SciMark - S.M.M (Mflops)** | 0.19 | | |
| **Standard Deviation** | 0.3% | | |
| **Java SciMark - D.L.M.F (Mflops)** | 7.45 | | |
| **Standard Deviation** | 3.3% | | |
| **Java SciMark - J.S.O.R (Mflops)** | 3.14 | | |
| **Standard Deviation** | 0.3% | | |
| **7-Zip Compression - C.S.T (MIPS)** | 1262 | | |
| **Standard Deviation** | 0.7% | | |
| **LAME MP3 Encoding - WAV To MP3 (sec)** | 358.77 | | |
| **Standard Deviation** | 1.4% | | |
| **Ogg Encoding - WAV To Ogg (sec)** | 49.07 | | |
| **Standard Deviation** | 1.6% | | |
| **FLAC Audio Encoding - WAV To FLAC (sec)** | 253.82 | | |
| **Standard Deviation** | 0.2% | | |
| **WavPack Audio Encoding - WAV To WavPack (sec)** | 53.20 | | |
| **Standard Deviation** | 1.2% | | |
| **Timed PHP Compilation - Time To Compile (sec)** | 1733 | | |
| **Standard Deviation** | 0.5% | | |
| **Timed MPlayer Compilation - Time To Compile (sec)** | 21.69 | | |
| **Standard Deviation** | 1.9% | | |
| **Apache Benchmark - S.W.P.S (Reqs/sec)** | | 1959 | |
| **Standard Deviation** | | 0.7% | |
| **PostMark - D.T.P (TPS)** | | | 102 |
| **Standard Deviation** | | | 10.6% |
| **IOzone - 1MB - 2GB - Read Performance (MB/s)** | 209.88 | | |
| **Standard Deviation** | 1% | | |

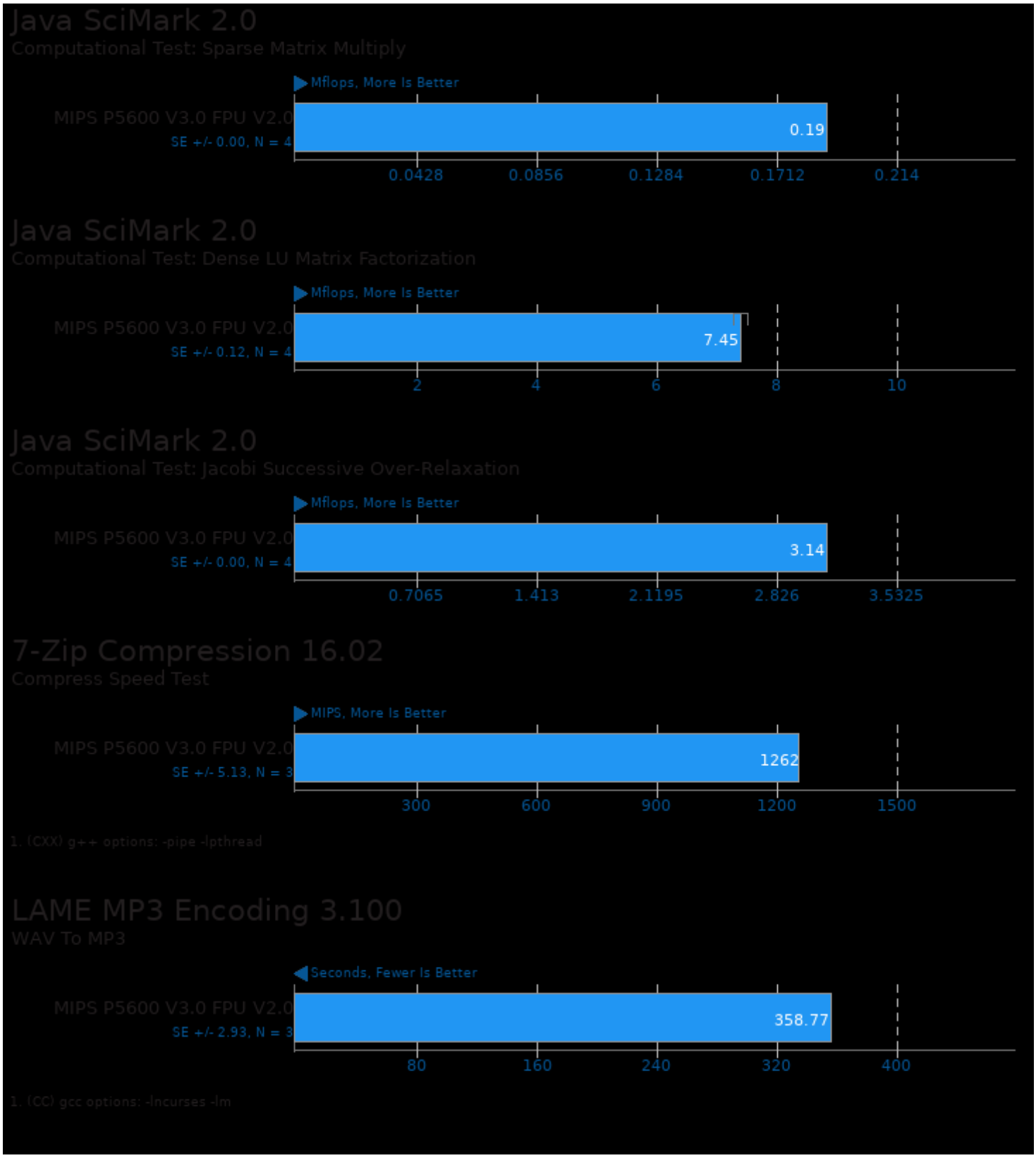
# bfk3dn

| | |
|---|---|
| **IOzone - 1MB - 4GB - Read Performance (MB/s)** | 211.71 |
| **Standard Deviation** | 0.2% |
| **IOzone - 1MB - 8GB - Read Performance (MB/s)** | 210.90 |
| **Standard Deviation** | 0.3% |
| **IOzone - 4Kb - 2GB - Read Performance** | 210.86 |
| **Standard Deviation** | 0.3% |
| **Bullet Physics Engine - Raytests (sec)** | 23.71 |
| **Standard Deviation** | 0.1% |
| **Bullet Physics Engine - 3000 Fall (sec)** | 58.92 |
| **Standard Deviation** | 0.3% |
| **Bullet Physics Engine - 1000 Stack (sec)** | 85.68 |
| **Standard Deviation** | 0.2% |
| **Bullet Physics Engine - 1000 Convex (sec)** | 43.92 |
| **Standard Deviation** | 0.3% |
| **Bullet Physics Engine - 136 Ragdolls (sec)** | 31.40 |
| **Standard Deviation** | 0.3% |
| **Bullet Physics Engine - Prim Trimesh (sec)** | 8.68 |
| **Standard Deviation** | 0.5% |
| **Bullet Physics Engine - Convex Trimesh** | 10.40 |
| **Standard Deviation** | 0.3% |
| **Himeno Benchmark - P.P.S (MFLOPS)** | 49.18 |
| **Standard Deviation** | 2.8% |
| **Timed MAFFT Alignment - M.S.A (sec)** | 50.87 |
| **Standard Deviation** | 1.6% |

# bfk3dn


GnuPG 1.4.22
2GB File Encryption
Seconds, Fewer Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.05, N = 3
95.60
20
40
60
80
100
1. (CC) gcc options: -O2 -MT -MD -MP -MF
OpenSSL 1.1.0f
RSA 4096-bit Performance
Signs Per Second, More Is Better
MIPS P5600 V3.0 FPU V2.0
9
3
6
9
12
15
1. (CC) gcc options: -O3 -pthread -mabi=32 -mips2 -lssl -lcrypto -ldl
Java SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.03, N = 4
2.24
0.504
1.008
1.512
2.016
2.52
Java SciMark 2.0
Computational Test: Monte Carlo
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.00, N = 4
0.24
0.054
0.108
0.162
0.216
0.27
Java SciMark 2.0
Computational Test: Fast Fourier Transform
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.00, N = 4
0.16
0.036
0.072
0.108
0.144
0.18

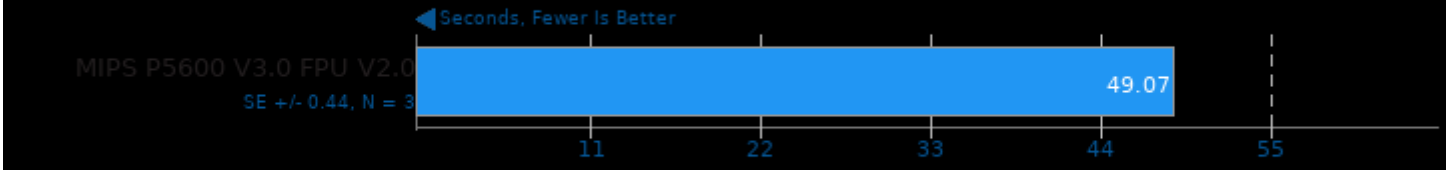
# bfk3dn


Java SciMark 2.0
Computational Test: Sparse Matrix Multiply
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.00, N = 4
0.19
0.0428
0.0856
0.1284
0.1712
0.214
Java SciMark 2.0
Computational Test: Dense LU Matrix Factorization
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.12, N = 4
7.45
2
4
6
8
10
Java SciMark 2.0
Computational Test: Jacobi Successive Over-Relaxation
Mflops, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 0.00, N = 4
3.14
0.7065
1.413
2.1195
2.826
3.5325
7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 5.13, N = 3
1262
300
600
900
1200
1500
1. (CXX) g++ options: -pipe -lpthread
LAME MP3 Encoding 3.100
WAV To MP3
Seconds, Fewer Is Better
MIPS P5600 V3.0 FPU V2.0
SE +/- 2.93, N = 3
358.77
80
160
240
320
400
1. (CC) gcc options: -lncurses -lm

# bfk3dn

## Ogg Encoding 1.3.3

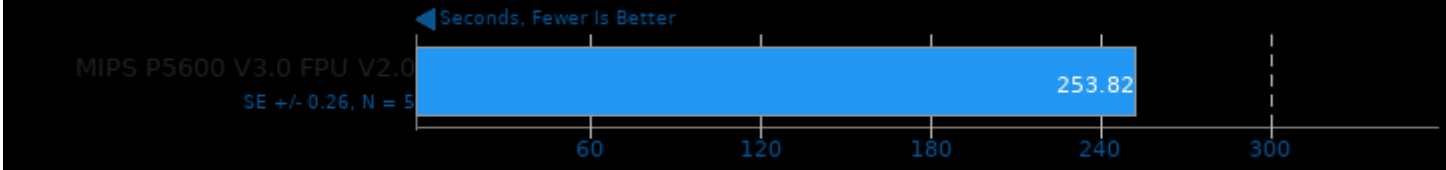
WAV To Ogg




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

## FLAC Audio Encoding 1.3.2

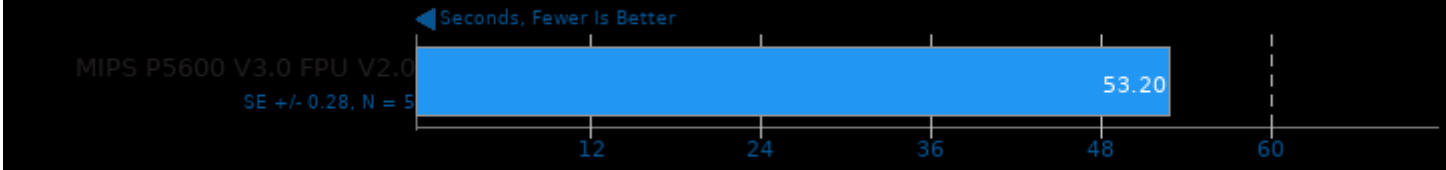
WAV To FLAC




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

## WavPack Audio Encoding 5.1

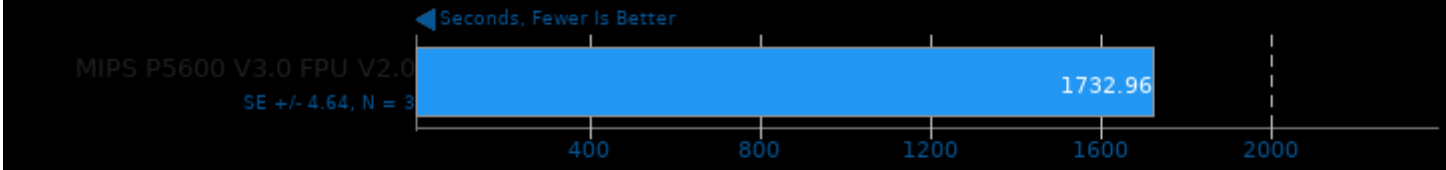
WAV To WavPack




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

## Timed PHP Compilation 7.1.9

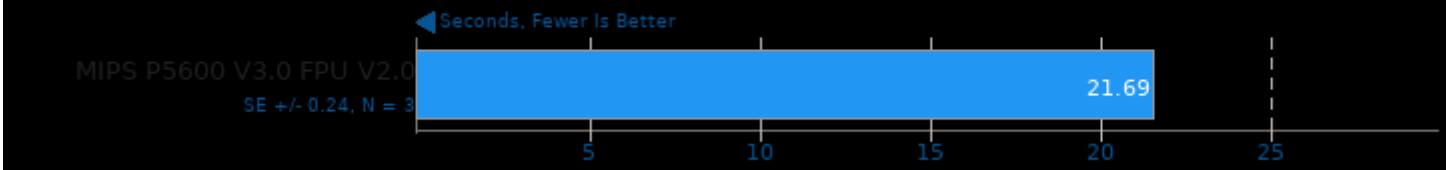
Time To Compile




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

## Timed MPlayer Compilation 1.0-rc3

Time To Compile



# bfk3dn

## Apache Benchmark 2.4.29

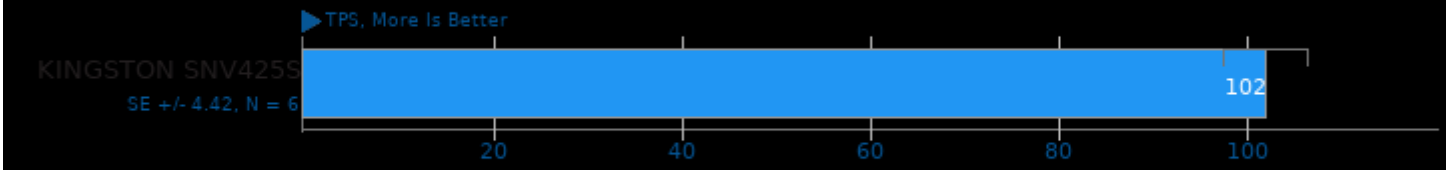
Static Web Page Serving




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

## PostMark 1.51

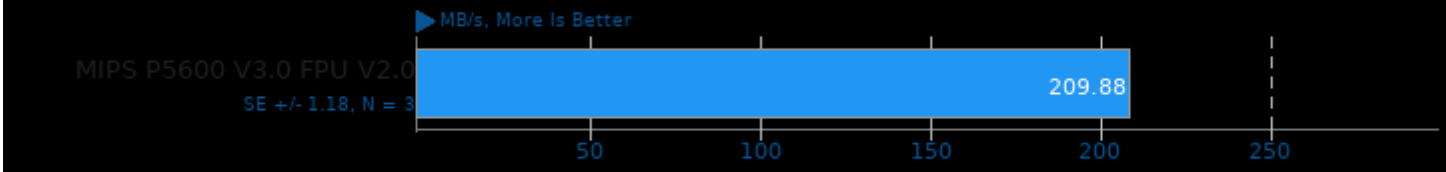
Disk Transaction Performance




1. (CC) gcc options: -O3

## IOzone 3.465

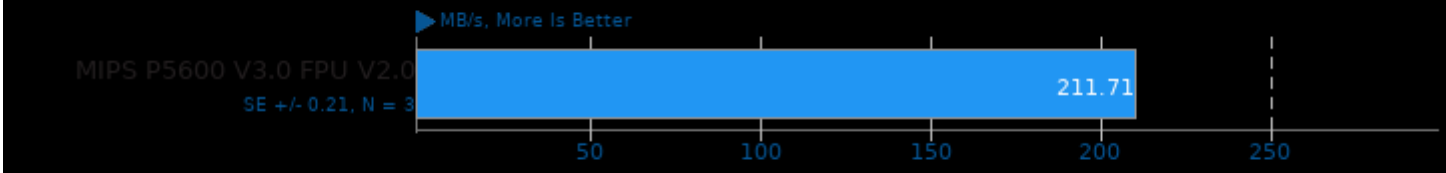
Record Size: 1MB - File Size: 2GB - Disk Test: Read Performance




1. (CC) gcc options: -O3

## IOzone 3.465

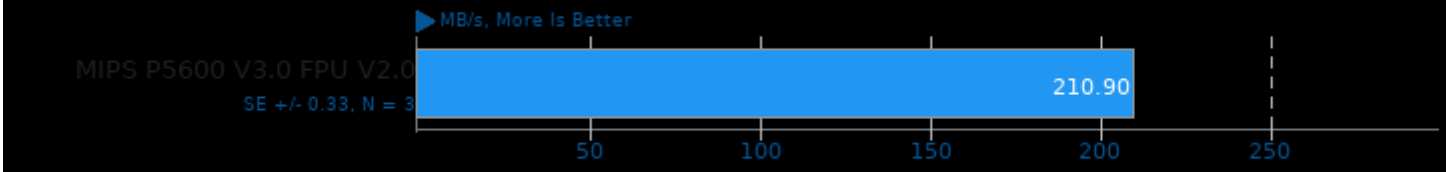
Record Size: 1MB - File Size: 4GB - Disk Test: Read Performance




1. (CC) gcc options: -O3

## IOzone 3.465

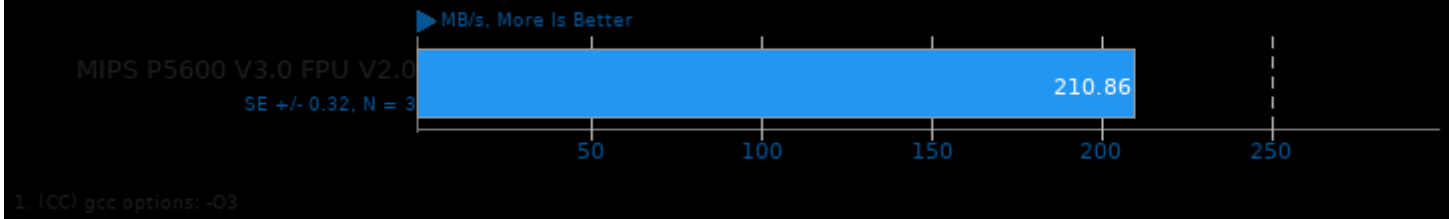
Record Size: 1MB - File Size: 8GB - Disk Test: Read Performance




1. (CC) gcc options: -O3

## IOzone 3.465

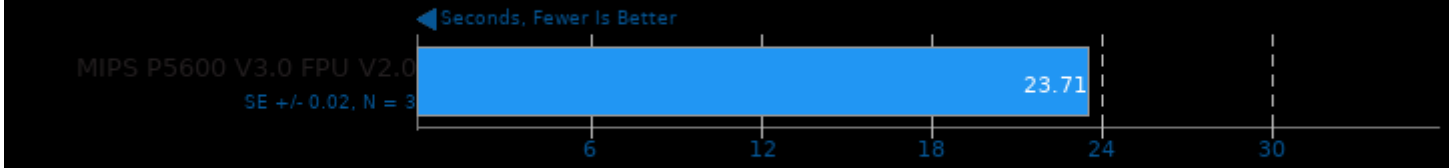
Record Size: 4Kb - File Size: 2GB - Disk Test: Read Performance




1. (CC) gcc options: -O3

## Bullet Physics Engine 2.81

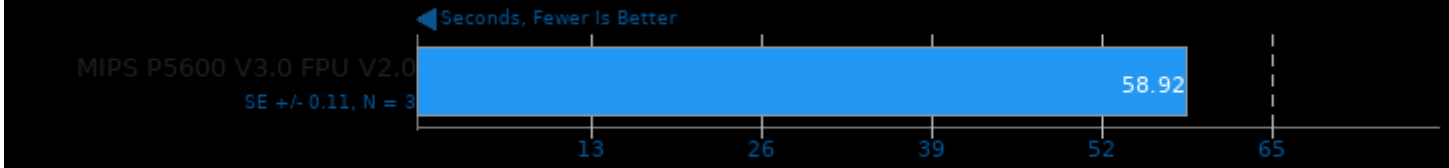
Test: Raytests




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

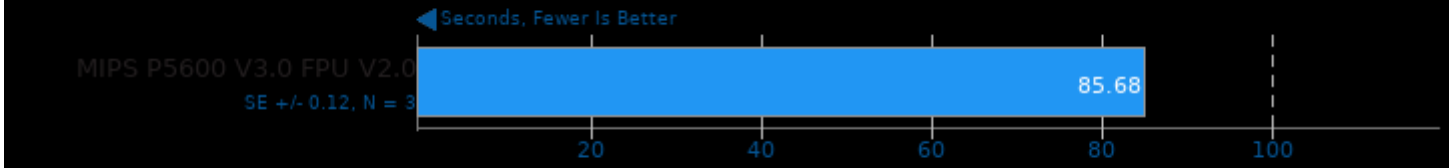
Test: 3000 Fall




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

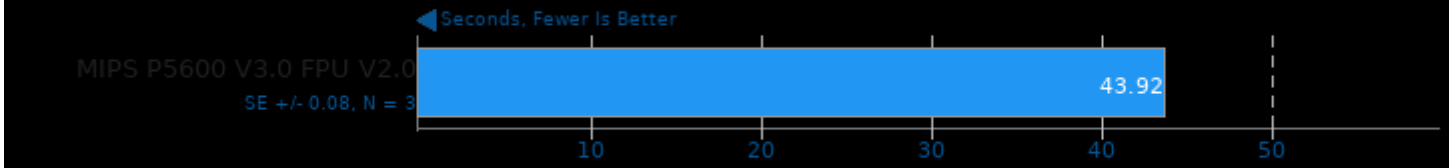
Test: 1000 Stack




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

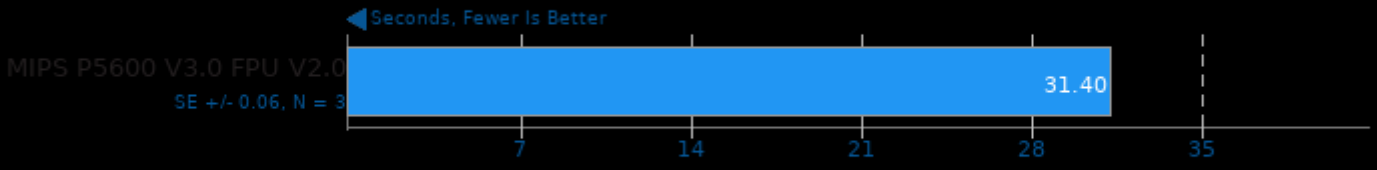
Test: 1000 Convex




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

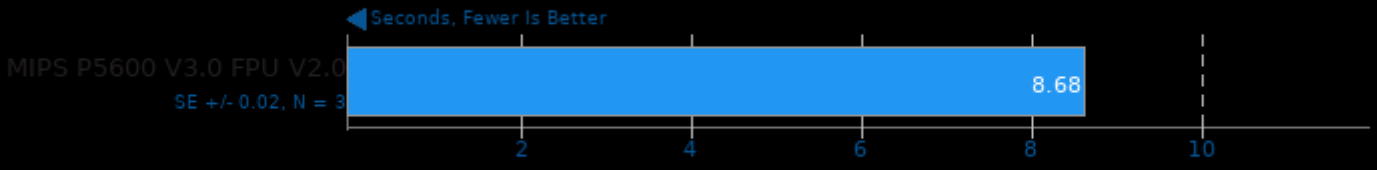
Test: 136 Ragdolls




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

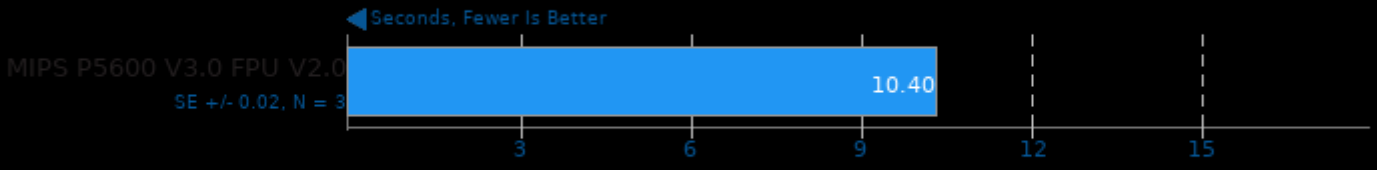
Test: Prim Trimesh




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Bullet Physics Engine 2.81

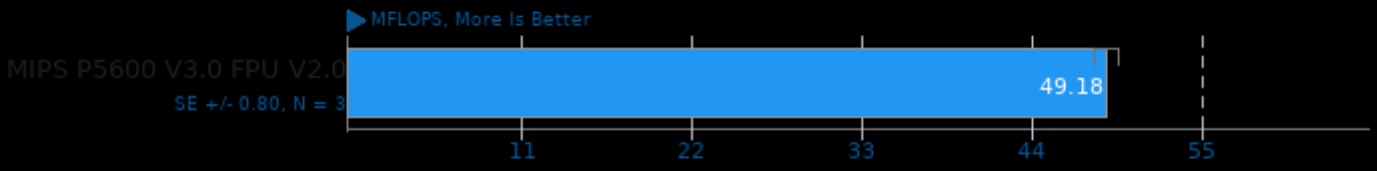
Test: Convex Trimesh




1. (CXX) g++ options: -O3 -rdynamic -lglut -lGL -lGLU

## Himeno Benchmark 3.0

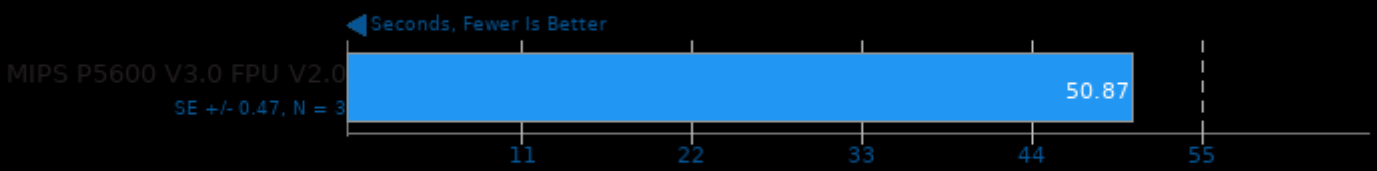
Poisson Pressure Solver




1. (CC) gcc options: -O3

## Timed MAFFT Alignment 7.392

Multiple Sequence Alignment




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

# bfk3dn

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 06:26.*