ASUSTek Computer Inc.

ASUS A88X-PRO Motherboard (AMD A10-7800 with Radeon R7 Graphics)

**SPECfp©2006 = 36.0**

**SPECfp_base2006 = 34.8**

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<td>482.sphinx3</td>
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</table>

**Hardware**

- **CPU Name:** AMD A10-7800
- **CPU Characteristics:** AMD Turbo CORE technology up to 3.90 GHz
- **CPU MHz:** 3500
- **FPU:** Integrated
- **CPU(s) enabled:** 4 cores, 1 chip, 4 cores/chip
- **CPU(s) orderable:** 1 chip
- **Primary Cache:** 192 KB I on chip per chip, 96 KB I shared / 2 cores; 16 KB D on chip per core
- **Secondary Cache:** 4 MB I+D on chip per chip, 2 MB shared / 2 cores

**Software**

- **Operating System:** Microsoft Windows 7 Ultimate 6.1.7601 Service Pack 1 Build 7601
- **Compiler:** C/C++: Version 16.0.0.110 of Intel C++ Studio XE for Windows;
  Fortran: Version 16.0.0.110 of Intel Fortran Studio XE for Windows;
- **Auto Parallel:** Yes

**Test sponsor:** Intel Corporation

**Test date:** Jul-2016

**Hardware Availability:** Jul-2014

**Software Availability:** Aug-2015

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Continued on next page
### Results Table

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### Compiler Invocation Notes

To compile these binaries, the Intel Compiler 16.0 was set up to generate 64-bit binaries with the command:
"psxevars.bat intel64" (shortcut provided in the Intel(r) Parallel Studio XE 2016 program folder)

### Platform Notes

Sysinfo program C:\SPEC16.0\Docs\sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 $$ \8787f7622badcf24e01c368b1db4377c
running on Clt1C872C5DF572 Sat Jul 2 10:40:37 2016

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
Continued on next page
ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)  
ASUS A88X-PRO Motherboard (AMD A10-7800 with Radeon R7 Graphics)  

SPECfp2006 = 36.0  
SPECfp_base2006 = 34.8

Platform Notes (Continued)

http://www.spec.org/cpu2006/Docs/config.html#sysinfo

Trying 'systeminfo'  
OS Name : Microsoft Windows 7 Ultimate  
OS Version : 6.1.7601 Service Pack 1 Build 7601  
System Manufacturer: System manufacturer  
System Model Name : System Product Name  
Processor(s) : 1 Processor(s) Installed.  
[01]: AMD64 Family 21 Model 48 Stepping 1 AuthenticAMD ~3500 Mhz  
BIOS Version : American Megatrends Inc. 2502, 12/11/2015  
Total Physical Memory: 7,108 MB

Component Notes

Tested systems can be used with Shin-G ATX case,  
PC Power and Cooling 1200W power supply

General Notes

450.soplex (base): "getline_test" src.alt was used.  
447.dealII (base): "max_prototype" src.alt was used.  
447.dealII (base): "cxx11_make_pair" src.alt was used.  
450.soplex (base): "getline_test" src.alt was used.  
447.dealII (base): "max_prototype" src.alt was used.  
447.dealII (base): "cxx11_make_pair" src.alt was used.  

OMP_NUM_THREADS set to number of processors cores  
KMP_AFFINITY set to granularity=fine,scatter  
Binaries compiled on a system with 1x Intel Xeon E5-2699 v3 CPU  
+ 64GB memory using Windows 8.1 Enterprise 64-bit


SPEC CFP2006 Result

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)
ASUS A88X-PRO Motherboard (AMD A10-7800 with
Radeon R7 Graphics)

SPECfp2006 = 36.0
SPECfp_base2006 = 34.8

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

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Base Compiler Invocation

C benchmarks:
icl -Qvc12 -Qstd=c99

C++ benchmarks:
icl -Qvc12

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc12 -Qstd=c99 ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64
416.game5: -DSPEC_CPU_P64
433.milc: -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -DSPEC_CPU_P64
436.cactusADM: -DSPEC_CPU_P64 -names:lowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
446.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
-DSPEC_CPU_BOOST_CONFIG_MSC_VER -DSPEC_NEED_ALGORITHM
450.soplex: -DSPEC_CPU_P64 -DSPEC_GETLINE_TEST
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -names:lowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:
/arch:AVX -Qipo -03 -Qprec-div -Qparallel -Qansi-alias
-Qopt-prefetch /F1000000000

C++ benchmarks:
/arch:AVX -Qipo -03 -Qprec-div -Qparallel -Qansi-alias
-Qopt-prefetch -Qcxx-features /F1000000000 shlW64M.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:
/arch:AVX -Qipo -03 -Qprec-div -Qparallel -Qansi-alias
-Qopt-prefetch /F1000000000

Test date: Jul-2016
Hardware Availability: Jul-2014
Software Availability: Aug-2015
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CPU2006 license: 13  
Test sponsor: Intel Corporation  
Tested by: Intel Corporation

Test date: Jul-2016  
Hardware Availability: Jul-2014  
Software Availability: Aug-2015

Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:
/arch:AVX -Qipo -O3 -Qprec-div -Qparallel -Qansi-alias  
-Qopt-prefetch /F1000000000

Peak Compiler Invocation

C benchmarks:
icl -Qvc12 -Qstd=c99

C++ benchmarks:
icl -Qvc12

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc12 -Qstd=c99 ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
433.milc: basepeak = yes
470.lbm: basepeak = yes
482.sphinx3: basepeak = yes

C++ benchmarks:
444.namd: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div -Oa /F1000000000 shlW64M.lib  
-link /FORCE:MULTIPLE

447.dealII: basepeak = yes
450.soplex: basepeak = yes

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**Peak Optimization Flags (Continued)**

```
453.povray: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) 
-Qtipo -O3 -Qprec-div- -Qunroll14 -Qansi-alias /F1000000000 shlw64M.lib -link /FORCE:MULTIPLE
```

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) 
-Qtipo -O3 -Qprec-div- -Qunroll12 -Qansi-alias /F1000000000

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) 
-Qtipo -O3 -Qprec-div- -Qunroll14 -Qauto -Qinline-calloc /F1000000000

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

445.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:

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