Intel Corporation

Intel DH87MC Motherboard (Intel Core i3-4340)

SPECint®_rate2006 = 114
SPECint_rate_base2006 = 109

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

Test date: Jun-2014
Hardware Availability: Sep-2013
Software Availability: Oct-2013

CPU Name: Intel Core i3-4340
CPU Characteristics: Integrated
CPU MHz: 3600
FPU: Integrated
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
CPU(s) orderable: 1 chip
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 4 MB I+D on chip per chip
Other Cache: None
Memory: 8 GB (2 x 4 GB 2Rx4 PC3-12800U-11)
Disk Subsystem: 1 TB Seagate SATA HDD, 7200 RPM
Other Hardware: None

Software
Operating System: Microsoft Windows 8.1 Pro 6.3.9600 N/A Build 9600
Compiler: C/C++: Version 14.0.1.139 of Intel C++ Studio XE for Windows;
Libraries: Version 16.00.30319.01 of Microsoft Visual Studio 2010 Professional SP1
Auto Parallel: No
File System: NTFS
System State: Default
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap Library Version 10.0 from http://www.microquill.com/
Intel Corporation

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**SPEC CINT2006 Result**

**SPECint_rate2006 = 114**

**SPECint_rate_base2006 = 109**

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<thead>
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<th>Test date:</th>
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### Results Table

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</tr>
</tbody>
</table>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

### Compiler Invocation Notes

To compile these binaries, the Intel Compiler 14.0 was set up to generate 32-bit binaries with the command: "ipsxe-comp-vars.bat ia32 vs2010" (shortcut provided in the Intel(r) Parallel Studio XE 2013 program folder)

### Submit Notes

Processes were bound to specific processors using the start command with the /affinity switch. The config file option 'submit' was used to generate the affinity mask for each process.

### Platform Notes

Trying 'systeminfo'
OS Name : Microsoft Windows 8.1 Pro
OS Version : 6.3.9600 N/A Build 9600
System Manufacturer: INTEL_
System Model : DH87MC_
Processor(s) : 1 Processor(s) Installed.

Continued on next page
Intel Corporation
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**SPECint_rate2006 = 114**
**SPECint_rate_base2006 = 109**

<table>
<thead>
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<th>Specification</th>
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**Platform Notes (Continued)**

[01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~3600 Mhz
Total Physical Memory: 7,862 MB

Trying 'wmic cpu get /value'
DeviceID : CPU0
L2CacheSize : 512
L3CacheSize : 4096
MaxClockSpeed : 3600
Name : Intel(R) Core(TM) i3-4340 CPU @ 3.60GHz
NumberOfCores : 2
NumberOfLogicalProcessors: 4

(End of data from sysinfo program)

**Component Notes**

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

**General Notes**

Binaries compiled on a system with 1x Intel Core i7-860 CPU
+ 8GB memory using Windows 7 Enterprise 64-bit

**Base Compiler Invocation**

- C benchmarks:
  
  icl -Qvc10 -Qstd=c99

- C++ benchmarks:

  icl -Qvc10

**Base Portability Flags**

- 403.gcc: -DSPEC_CPU_WIN32
- 464.h264ref: -DWIN32 -DSPEC_CPU_NO_INNTYPES
- 483.xalancbmk: -Qoption,cpp,-no_wchar_t_keyword

**Base Optimization Flags**

- C benchmarks:
  
  -QxCORE-AVX2 -Qipo -O3 -Qprec-div -Qopt-prefetch /F512000000

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Base Optimization Flags (Continued)

C++ benchmarks:
- QxCORE-AVX2
- Qipo -O3
- Qprec-div
- Qopt-prefetch
- Qcxx-features
/F512000000 shlw32M.lib
- link /FORCE:MULTIPLE

Peak Compiler Invocation

C benchmarks (except as noted below):
icl -Qvc10 -Qstd=c99

456.hmmer: C:\Program Files (x86)\Intel\Composer XE 2013 SP1\bin\intel64\icl.exe
458.sjeng: C:\Program Files (x86)\Intel\Composer XE 2013 SP1\bin\intel64\icl.exe
462.libquantum: C:\Program Files (x86)\Intel\Composer XE 2013 SP1\bin\intel64\icl.exe
-Cstd=c99

C++ benchmarks (except as noted below):
icl -Qvc10

473.astar: C:\Program Files (x86)\Intel\Composer XE 2013 SP1\bin\intel64\icl.exe

Peak Portability Flags

403.gcc: -DSPEC_CPU_WIN32
456.hmmer: -DSPEC_CPU_P64
458.sjeng: -DSPEC_CPU_P64
462.libquantum: -DSPEC_CPU_P64
464.h264ref: -DWIN32 -DSPEC_CPU_NO_INNTYPES
473.astar: -DSPEC_CPU_P64
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Peak Optimization Flags

C benchmarks:

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Peak Optimization Flags (Continued)

400.perlbench: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch /F512000000000 shlW32M.lib -link /FORCE:MULTIPLE

401.bzip2: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias /F5120000000

403.gcc: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch /F5120000000

429.mcf: basepeak = yes

445.gobmk: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O2 -Qprec-div- -Qansi-alias /F5120000000

456.hmmer: -Qauto-ilp32 -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch /F5120000000

458.sjeng: -Qauto-ilp32 -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qunroll4 /F5120000000

462.libquantum: -Qauto-ilp32 -QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F5120000000

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-ra-region-strategy=block /F512000000000 shlW32M.lib -link /FORCE:MULTIPLE

473.astar: -Qauto-ilp32 -QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000000 shlW64M.lib -link /FORCE:MULTIPLE

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

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Peak Other Flags (Continued)

456.hmmer: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-Link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

458.sjeng: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-Link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

462.libquantum: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-Link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

C++ benchmarks:

473.astar: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-Link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-Link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

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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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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