

# Intel Core i7-2600K specifications

## General information

|                                |   |
|--------------------------------|---|
| Type                           | <a href="#">CPU / Microprocessor</a>  |
| Market segment                 | Desktop   |
| Family                         | <a href="#">Intel Core i7</a>   |
| Model number <a href="#">?</a> | <a href="#">i7-2600K</a>  |
| CPU part numbers               | <ul style="list-style-type: none"> <li>• <b>CM8062300833908</b> is an OEM/tray microprocessor</li> <li>• <b>CM8062300833906</b> is an OEM/tray microprocessor</li> <li>• <b>BX80623I72600K</b> is a boxed processor with fan and heatsink (English version)</li> <li>• <b>BXC80623I72600K</b> is a boxed processor with fan and heatsink (Chinese version)</li> </ul> |

|   |   |
|---|---|
| <b>Frequency <a href="#">?</a></b>        | <b>3400 MHz</b>   |
| Maximum turbo frequency                   | 3800 MHz (1 core)<br>3700 MHz (2 cores)<br>3600 MHz (3 cores)<br>3500 MHz (4 cores)               |
| <b>Bus speed <a href="#">?</a></b>        | <b>5 GT/s DMI</b>   |
| <b>Clock multiplier <a href="#">?</a></b> | <b>34</b>   |
| Package                                   | 1155-land Flip-Chip Land Grid Array   |
| <b>Socket</b>                             | <b><a href="#">Socket 1155 / H2 / LGA1155</a></b>   |
| Size                                      | 1.48" x 1.48" / 3.75cm x 3.75cm   |
| Weight                                    | 0.9oz / 25.3g (CPU)<br>14.1oz / 399.1g (box)  |
| Fan/heatsink                              | E97378-001  |
| Introduction date                         | <a href="#">Jan 9, 2011</a>   |
| End-of-Life date                          | Last order date is March 29, 2013<br>Last shipment date for tray processors is September 27, 2013 |
| Price at introduction                     | \$317   |

|                                  |  |                         |                              |
|----------------------------------|--|-------------------------|------------------------------|
| S-spec numbers                   |  |                         |                              |
|                                  | <b>Part number</b>                     | <b>ES/QS processors</b> | <b>Production processors</b> |
|                                  |  | <a href="#">Q1EB</a>    | <a href="#">Q1HL</a>         |
|                                  |  |                         | <a href="#">SR00C</a>        |
| BX80623I72600K                   |  |                         | +                            |
| BXC80623I72600K                  |  |                         | +                            |
| CM8062300833906                  | +                                      |                         |                              |
| CM8062300833908                  |  | +                       | +                            |
| Architecture / Microarchitecture |  |                         |                              |
| Microarchitecture                | Sandy Bridge                           |                         |                              |
| Processor core <a href="#">?</a> | <a href="#">Sandy Bridge</a>           |                         |                              |
| Core steppings <a href="#">?</a> | D1 (Q1EB)<br>D2 (Q1HL, SR00C)          |                         |                              |
| Manufacturing process            | 0.032 micron High-K metal gate process |                         |                              |
| Die                              | 216mm <sup>2</sup>                     |                         |                              |
| <b>Data width</b>                | <b>64 bit</b>                          |                         |                              |
| <b>The number of CPU cores</b>   | <b>4</b>                               |                         |                              |
| <b>The number of threads</b>     | <b>8</b>                               |                         |                              |

|   |  |
|---|--|
| Floating Point Unit                             | Integrated   |
| Level 1 cache size <a href="#">?</a>            | 4 x 32 KB 8-way set associative instruction caches<br>4 x 32 KB 8-way set associative data caches  |
| <b>Level 2 cache size <a href="#">?</a></b>     | <b>4 x 256 KB 8-way set associative caches</b>   |
| <b>Level 3 cache size</b>                       | <b>8 MB 16-way set associative shared cache</b>  |
| Cache latency                                   | 4 (L1 cache)<br>11 (L2 cache)<br>25 (L3 cache)   |
| Physical memory                                 | 32 GB  |
| Multiprocessing                                 | Uniprocessor   |
| Extensions and Technologies                     | <ul style="list-style-type: none"> <li>• MMX instructions</li> <li>• SSE / Streaming SIMD Extensions</li> <li>• SSE2 / Streaming SIMD Extensions 2</li> <li>• SSE3 / Streaming SIMD Extensions 3</li> <li>• SSSE3 / Supplemental Streaming SIMD Extensions 3</li> <li>• SSE4 / SSE4.1 + SSE4.2 / Streaming SIMD Extensions 4 <a href="#">?</a></li> <li>• AES / Advanced Encryption Standard instructions</li> <li>• AVX / Advanced Vector Extensions</li> <li>• EM64T / Extended Memory 64 technology / Intel 64 <a href="#">?</a></li> <li>• NX / XD / Execute disable bit <a href="#">?</a></li> <li>• HT / Hyper-Threading technology <a href="#">?</a></li> <li>• TBT 2.0 / Turbo Boost technology 2.0 <a href="#">?</a></li> <li>• VT-x / Virtualization technology <a href="#">?</a></li> </ul> |
| Low power features                              | Enhanced SpeedStep technology <a href="#">?</a>  |
| Integrated peripherals / components             |  |
| Integrated graphics                             | GPU Type: HD 3000<br>Microarchitecture: Gen 6<br>Execution units: 12<br>Base frequency (MHz): 850<br>Maximum frequency (MHz): 1350<br>The number of supported displays: 2  |
| Memory controller                               | The number of controllers: 1<br>Memory channels: 2<br>Supported memory: DDR3-1066, DDR3-1333<br>Maximum memory bandwidth (GB/s): 21.3  |
| Other peripherals                               | <ul style="list-style-type: none"> <li>• Direct Media Interface 2.0</li> <li>• PCI Express 2.0 interface</li> </ul>  |
| Electrical / Thermal parameters                 |  |
| Maximum operating temperature <a href="#">?</a> | 72.6°C   |
| <b>Thermal Design Power <a href="#">?</a></b>   | <b>95 Watt</b>   |

Notes on Intel Core i7-2600K

- The processor has unlocked clock multiplier
- According to video driver release notes the GPU supports Intel Wireless Display feature
- The processor has the following security, data protection and/or software features: Intel Identity Protection technology.
- The CPU is compatible with Shader Model 4.1, along with DirectX 10.1 and OpenGL 3.1 APIs. OpenCL API is not supported.
  - The graphics unit has the following software features enabled: Intel Quick Sync Video, Insider, InTru 3D technology and Clear Video HD technology.