Make Your Small Business Powerful

The Intel® B85 Chipset and the 4th Generation Intel® Core™ Processors

Enhance your small business manageability and performance with the Intel® B85 chipset and the 4th generation Intel® Core™ processors.

Intel® Small Business Advantage

With the Intel® B85 chipset and the 4th generation Intel® Core™ processor family, small businesses are now enabled with Intel® Small Business Advantage (Intel® SBA). Intel® SBA provides small businesses with unique out-of-the-box security and productivity capabilities. Intel® SBA allows you to monitor critical software below the operating system level to ensure your PC remains secure.

Ensure your data is safe from theft by blocking unwanted USB devices (ex. flash drives) from being recognized on your PC. Providing small businesses with increased manageability, Intel® SBA allows small businesses to run virus scan and data backups after hours—even when the PC is off. PCs can also be configured to power on or off at set times in order to enable your small business with increased energy savings.

Smarter Performance

The combination of the Intel® B85 chipset and the 4th generation Intel® Core™ processors delivers increased desktop performance for an incredible PC experience. You’ll get maximum power for whatever you do, thanks to the combination of smart features such as Intel® Turbo Boost Technology 2.0 and Intel® Hyper-Threading Technology, which together activate full processing power exactly where and when you need it.

Increased Responsiveness

Intel® Smart Connect Technology enables instant access to your data by allowing your content to be refreshed in the standby power state—all while minimizing power consumption. In addition to faster boot and resume times, Intel® Rapid Start Technology provides energy efficiency without sacrificing user experience.

Improved Built-In Visuals

With smart performance and built-in 3-D visual and graphics support, the 4th generation Intel® Core™ processor family will add a new dimension to your PC experience. Intel® Quick Sync Video, our built-in hardware accelerator in all 4th generation Intel® Core™ processors, delivers astonishing video transcoding performance, enabling your PC to edit, burn, and share your content faster—without the need for added hardware. Intel® InTru™ 3D Technology delivers 3-D movie playback without hesitation or interruption. In addition to security and manageability,
the Intel® B85 chipset and the 4th generation Intel® Core™ processors enable Intel® Wireless Display (Intel® WiDi). Intel WiDi allows users to view content from their PC on a TV—wirelessly. Also, up to three independent displays are supported when the Intel B85 chipset is paired with the 4th generation Intel Core processor family.

**Faster, Lower Power Peripherals**

Platforms based on the Intel B85 chipset and the 4th generation Intel Core processors deliver must-have capabilities for small business platforms. The Intel B85 chipset integrates several capabilities to provide flexibility for connecting I/O devices. Integrated USB 3.0 support helps you connect faster to your digital life. The latest Intel® Rapid Storage Technology enables the full Serial ATA (SATA) interface speed of up to 6 Gb/s to support next-generation Solid State Drives (SSDs) and traditional Hard Disk Drives (HDDs). In addition, the Intel B85 chipset drives lower power through enhanced link power management of the Advanced Host Controller Interface (AHCI), enables easier expandability with support for native hot plug, and boosts boot and multitasking performance with Native Command Queuing (NCQ).

Intel® Rapid Recover Technology provides a fast, easy-to-use method for the end user to recover their data and return their system to an operational status.

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**Intel® B85 Chipset Block Diagram**

- **1x16 lanes PCI Express® 3.0 Graphics**
- **Three Independent Display Support**
- **8 x PCI Express® 2.0**
- **4 x USB 3.0 Ports, 12 x USB 2.0 Ports**
  - XHCI; USB Port Disable
- **Intel® Integrated 10/100/1000 MAC**
  - PCIe® x1
  - SM Bus
- **Intel® Ethernet Connection**
  - SM Bus
- **4th Generation Intel® Core™ Processors**
  - Processor Graphics
  - Intel® FDI
  - DMI 2.0
  - SPI
- **DDR3/3L Up to 1600 MHz**
  - Up to 5 Gb/s each x1
- **6 x SATA ports, eSATA; Port Disable**
  - SPI
- **Intel® High Definition Audio**
  - Intel® ME 9.0 Firmware and BIOS Support
  - Intel® Small Business Advantage
  - Intel® Identity Protection Technology
  - Intel® Rapid Storage Technology
  - Intel® Smart Connect Technology
  - Intel® Rapid Start Technology
  - Intel® Anti-Theft Technology
**Intel® B85 Chipset Features at a Glance**

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<tr>
<th>Features</th>
<th>Benefits</th>
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<tr>
<td>Support for the 4th generation Intel® Core™ processors</td>
<td>Supports the 4th generation Intel® Core™ processors with Intel® Turbo Boost Technology 2.0, Intel® Pentium® processors, and Intel® Celeron® processors.</td>
</tr>
<tr>
<td>Intel® Small Business Advantage (Intel® SBA)</td>
<td>Provides small businesses with out-of-the-box features to enhance the security and productivity of their small business.</td>
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<tr>
<td>Intel® Rapid Storage Technology</td>
<td>Supports SATA 6 Gb/s speeds. Support for external SATA (eSATA) enables the full SATA interface speed outside the chassis, up to 3 Gb/s.</td>
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<tr>
<td>Intel® Rapid Recover Technology</td>
<td>Intel's latest data protection technology provides a recovery point that can be used to quickly recover a system should a hard drive fail or if there is data corruption. The clone can also be mounted as a read-only volume to allow a user to recover individual files.</td>
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<tr>
<td>Intel® High Definition Audio</td>
<td>Integrated audio support enables premium digital surround sound and delivers advanced features such as multiple audio streams and jack re-tasking.</td>
</tr>
<tr>
<td>Intel® Smart Connect Technology</td>
<td>Provides faster application refresh by allowing applications to be updated in a low power state.</td>
</tr>
<tr>
<td>Intel® Rapid Start Technology</td>
<td>Allows quick system resumes from the hibernate state.</td>
</tr>
<tr>
<td>Universal Serial Bus 3.0</td>
<td>Integrated USB 3.0 support, provides greater enhancement in performance with a design data rate of up to 5 Gb/s with four USB 3.0 ports.</td>
</tr>
<tr>
<td>Universal Serial Bus 2.0</td>
<td>Hi-Speed USB 2.0 support with a design data rate of up to 480 Mb/s with up to twelve USB 2.0 ports.</td>
</tr>
<tr>
<td>Serial ATA (SATA) 6 Gb/s</td>
<td>Next-generation high-speed storage interface supporting up to 6 Gb/s transfer rates for optimal data access with up to four SATA ports.</td>
</tr>
<tr>
<td>Serial ATA (SATA) 3 Gb/s</td>
<td>Hi-speed storage interface supporting up to six SATA ports.</td>
</tr>
<tr>
<td>eSATA</td>
<td>SATA interface designed for use with external SATA devices. Provides a link for 3 Gb/s data speeds to eliminate bottlenecks found with current external storage solutions.</td>
</tr>
<tr>
<td>SATA Port Disable</td>
<td>Enables individual SATA ports to be enabled or disabled as needed. This feature provides added protection of data by preventing malicious removal or insertion of data through SATA ports. Especially targeted for eSATA ports.</td>
</tr>
<tr>
<td>PCI Express 2.0* Interface</td>
<td>Offers up to 5 GT/s for fast access to peripheral devices and networking with up to eight PCI Express* 2.0 x1 ports, configurable as x2, x4, and x8 depending on desktop motherboard designs.</td>
</tr>
<tr>
<td>USB Port Disable</td>
<td>Enables individual USB ports to be enabled or disabled as needed. This feature provides added protection of data by preventing malicious removal or insertion of data through USB ports.</td>
</tr>
<tr>
<td>Intel® Integrated 10/100/1000 MAC</td>
<td>Support for the Intel® Ethernet Connection I217-LM.</td>
</tr>
<tr>
<td>Green Technology</td>
<td>Manufactured with lead-free and halogen-free component packages.</td>
</tr>
</tbody>
</table>

1 Requires an Intel® Small Business Advantage-enabled system and proper configuration. Availability of features will depend upon the setup and configuration by your PC manufacturer. Consult your system manufacturer.

2 Requires a system with Intel® Turbo Boost Technology. Intel Turbo Boost Technology and Intel Turbo Boost Technology 2.0 are only available on select Intel® processors. Consult your PC manufacturer. Performance varies depending on hardware, software, and system configuration. For more information, visit http://www.intel.com/go/turbo

3 Requires a system with Intel® Turbo Boost Technology. Intel Turbo Boost Technology and Intel Turbo Boost Technology 2.0 are only available on select Intel® processors. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading

4 Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® wireless adapter, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

5 Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading

6 Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® wireless adapter, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

7 Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at http://www.intel.com/go/biv

8 Viewing stereo 3-D content requires 3-D glasses and a 3-D-capable display. Physical risk factors may be present when viewing 3-D material.

9 Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading

10 Intel® Rapid Storage Technology requires the computer have an Intel® RST-enabled Intel® chipset, RAID controller in the BIOS enabled and the Intel RST software driver installed. Please consult your system vendor for more information. The Intel® B85 chipset does not support RAID features.

11 DDR3L memory supported at 1.5V only.

12 Requires an Intel® HD Audio-enabled system. Consult your PC manufacturer for more information. Sound quality will depend on equipment and actual implementation. For more information about Intel® HD Audio, refer to http://www.intel.com/design/chipsets/hdaudio.htm

13 Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at http://www.intel.com/go/biv

14 Viewing stereo 3-D content requires 3-D glasses and a 3-D-capable display. Physical risk factors may be present when viewing 3-D material.

15 Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading

16 Intel® Rapid Storage Technology requires the computer have an Intel® RST-enabled Intel® chipset, RAID controller in the BIOS enabled and the Intel RST software driver installed. Please consult your system vendor for more information. The Intel® B85 chipset does not support RAID features.

17 DDR3L memory supported at 1.5V only.

18 Requires an Intel® HD Audio-enabled system. Consult your PC manufacturer for more information. Sound quality will depend on equipment and actual implementation. For more information about Intel® HD Audio, refer to http://www.intel.com/design/chipsets/hdaudio.htm

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