



Improve Video Quality with the PCI Express* x16 Graphics Interface

The Visual Digital Universe is Growing

Digital video content is becoming increasingly important in today's electronic universe. Content, applications and usage models are more and more demanding as new capabilities are added. As a result, no single aspect of the personal computing platform requires as much performance increase as the graphics interface.

PC users are exploring exciting new video capabilities today, and integrating these into their everyday lives. They are capturing personal events with digital video cameras, digitally recording favorite television programming with PVRs, playing the latest games, and watching high-definition digital video.



The revolutionary new PCI Express* x16 graphics interface, offered by the Intel® 915 and 925X Express chipsets, provides an ideal solution for these demanding usage models. The PCI Express x16 graphics interface delivers increased bandwidth and scalability, with up to four times the theoretical maximum bandwidth over previous generation AGP8X-based solutions. With up to 4 GB/s of peak bandwidth per direction, and up to 8 GB/s concurrent bandwidth, a platform configured with a PCI Express x16 graphics card can tackle the most demanding multimedia tasks.

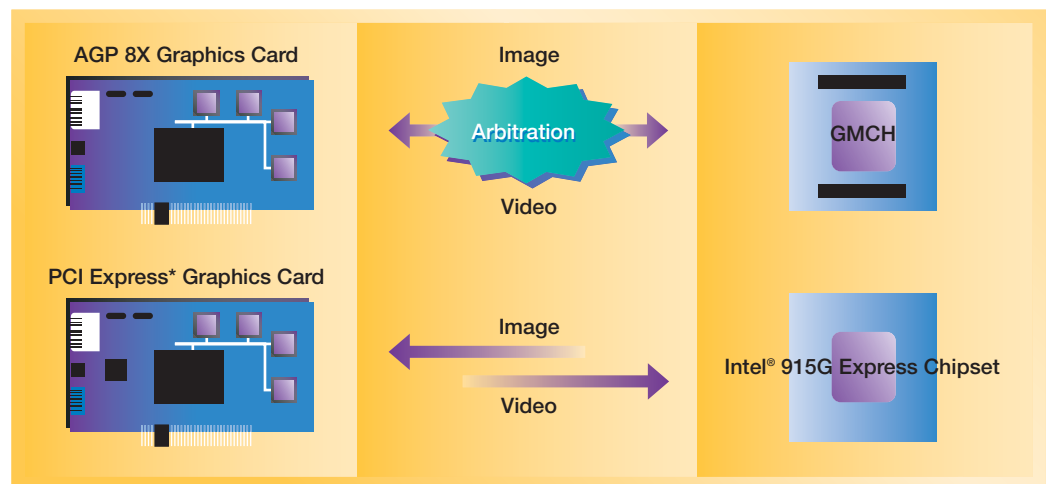


Figure 1: The Intel® 915G Express chipset with the PCI Express* x16 graphics interface

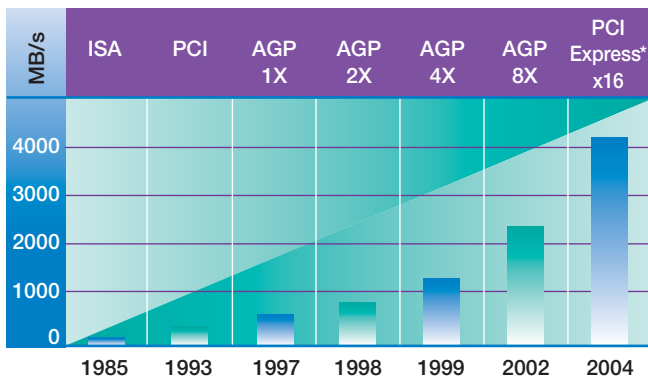


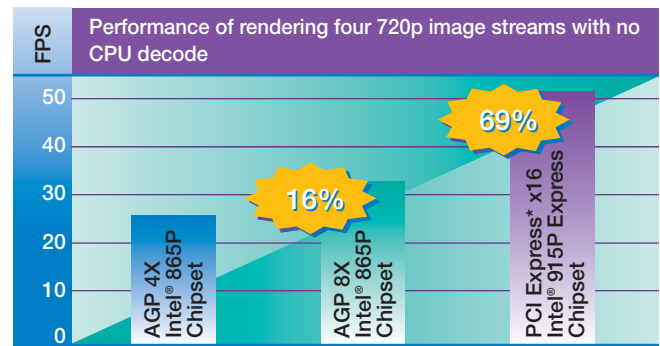
Figure 2: The PCI Express* x16 graphics interface delivers greater performance

A Better Gaming Experience

Photo-realistic images are expanding traditional multi-player online role-playing into a new era of immersive gaming. Life-like images bring the user into a new level of interactivity, further enhancing the overall gaming experience. The increased bandwidth and bidirectional data transfer capability in the PCI Express x16 graphics interface allow rapid video capture and editing, as well as stunning streaming video content to meet the increased requirements of your digital lifestyle. By enabling simultaneous use of both directions in the PCI Express x16 graphics link, video capture and editing can be accomplished seamlessly, resulting in 'glitchless' video streaming.

Enabling the Digital Home

As an industry initiative, the digital home movement is addressing the convergence of PCs and consumer electronic devices. The initiative is extending PC capabilities to distribute digital audio, photos, and video to consumers' suitably enabled TVs and stereos. These exciting new products and technologies make further use of the graphics interface between the chipset and graphics controller.



Rendering four 720p image streams as fast as possible

- No CPU decode
- Result copied to system memory

Figure 3: The PCI Express* x16 graphics interface enables faster rendering

Benchmark configuration data

Source: Intel. Configuration: **Intel® 865P Chipset Platform**—Intel® 865GBF Desktop Board, 2-GB DDR400 CL3-3-3, Intel® Chipset Software Installation Utility 5.01.1015, ATI® RADEON® 9600 Pro, ATI® CATALYST® 4.1; **Intel® 915P Express Chipset Platform**—Intel® 915P Express Chipset CRB, 2-GB DDR/400 CL3-3-3, Intel® Chipset Software Installation Utility 6.0.0.1003; **All Platforms**—Intel® Pentium® 4 Processor with HT Technology 3E GHz, Seagate® Barracuda® 7200 Serial ATA 120 GB, DirectX® 9.0b, Windows® XP Build 2600 SP1. Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel® products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance.

Better Graphics, Improved Performance

As uses for the common PC expand, PCI Express x16 graphics provide increased performance and scalability that meet increased demand for richer application content and improved graphical display. PCI Express x16 graphics is helping to support this exciting new, visually intense, computing environment by delivering the hardware and processing support required for the latest visual capabilities.

If you're looking for high-performance video and graphics, the revolutionary new Intel 915 and 925X Express chipset family and high-performance PCI Express x16 graphics interface are the right choice for the discriminating digital home owner and business power user.

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Printed in USA 0404/PDF/MS/DN



Order Number: 301501-001