

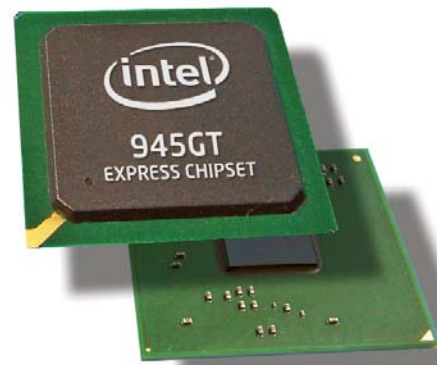


Intel® 945GT Express Chipset Delivers Low Power Performance for Desktop Platforms

Innovative features enable Intel® Core™ Duo Processor-based platforms

The Intel® 945GT Express Chipset, combined with the Intel® Core™ Duo M processor, delivers innovative features and new benefits for both home and business at low power consumption. These features provide enhanced manageability, security and responsiveness to meet evolving business needs.

The Intel 945GT Express Chipset offers outstanding system performance through high-bandwidth interfaces such as PCI Express*, Serial ATA*, and Hi-Speed USB* 2.0, and the enhanced Intel® Gen 3.5 integrated graphics controller.



PCI Express

The PCI Express architecture enables increased bi-directional bandwidth to the graphics and I/O interfaces. With theoretical bandwidth of up to 4 GB/s per direction, the PCI Express x16 graphics port can provide more than three and a half times the graphics bandwidth over previous high performance discrete graphics solutions.

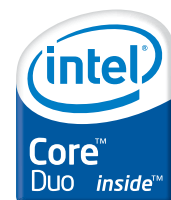
Memory Architecture

To support faster memory, increased graphics requirements, and I/O bandwidth, the Intel 945GT Express Chipset incorporates an updated Memory Controller Hub (MCH) backbone architecture. This new design includes wider internal data buses that support dual-channel DDR2 memory technology at 667 MHz for greater platform performance and memory flexibility. Intel® Flex Memory Technology facilitates easier upgrades by allowing different memory sizes to be populated and remain in dual-channel mode.

Intel Gen 3.5 Integrated Graphics

The Intel 945GT Express Chipset also features enhanced Intel® Gen3.5 integrated graphics. The graphics core enhances the user experience with faster graphics, improved Microsoft DirectX* 9.0 3D performance, and smoother video playback than Intel's previous graphics core, without requiring a separate graphics card.. Built-in support for consumer electronic displays allows users to plug into native high-definition displays and output to 720p or 1080i resolutions.

Combined with the Intel high-performance dual-channel memory interface, this graphics core can deliver significant performance over previous Intel chipsets, incorporating a 400MHz core clock with enhanced modes for widescreen flat panels, and optimized 3D. The Intel 945GT Express Chipset supports TV-Out and both ADD2 and Media Expansion Cards (MECs)¹, allowing a user to take advantage of several video output options (DVI, Component, Composite and LVDS) in a single-card solution.



Intel® I/O Controller Hub (Intel® ICH7m-DH)

The Intel 945GT Express Chipset integrates Intel® High Definition Audio² (Intel® HD Audio) enabling premium home theater sound and delivering advanced features such as multiple audio streams and jack re-tasking.

The Intel 945GT Express Chipset also elevates storage performance with next-generation Serial ATA (SATA) and enhancements to Intel® Matrix Storage Technology³. This chipset has two integrated SATA ports for transfer rates up to 3 Gb/s (300 MB/s) to SATA hard drives or optical devices. Support for RAID 0 and 1 allows for different RAID capabilities that address specific needs and usages. For example, critical data can be stored on one array designed for high reliability, while performance-intensive applications like games can reside on a separate array designed for maximized performance. The Advanced Host Controller Interface (AHCI) provides native hot plug and boosts performance with Native Command Queuing (NCQ) for faster boot times and file transfers. The Intel 945GT Express Chipset also implements Intel® Quick Resume Technology for use of the instant on/off features as part of the Intel® ViiV™ Technology capabilities.

Feature	Benefit
667/533 MHz System Bus	Supports Intel® Core™ Duo processor in the 478-pin Micro FCPGA and 479-ball Micro FCPGA packages, with scalability for future processor innovations.
PCI Express*	The PCI Express x16 graphics delivers greater than 3.5 times the bandwidth over the traditional AGP 8X interface and supports the latest high-performance graphics cards. The PCI Express x1 I/O ports offer up to 3.5 times the bandwidth over traditional PCI architecture, delivering faster access to peripheral devices and networking. Integrated audio support for new consumer electronic formats, increased audio quality, and multiple audio streaming capability for premium digital sound.
Intel® Gen 3.5 Integrated Graphics	Delivers richer visual color and picture clarity without the need for additional graphics cards. Also supports TV Out, LVDS, CRT and SDVO for increased flexibility, allowing users to maximize the Digital Entertainment experience.
Intel® High Definition Audio	Integrated audio support enables premium home theater sound and delivers advanced features such as multiple audio streams and jack re-tasking. The Dolby* PC Entertainment Experience is available exclusively on systems with Intel High Definition Audio.
Intel® Matrix Storage Technology	Provides quicker access to digital photo, video/data files with RAID 0, and data protection against a hard disk drive failure with RAID 1.
Serial ATA (SATA) 3Gbps	High speed storage improves transfer rate for improved data access
Dual-Channel DDR2 Memory Support	Delivers up to 10.7 GB/s of bandwidth and 4 GB memory addressability for faster system responsiveness and support of 64-bit computing.
Intel® Flex Memory Technology	Facilitates easier upgrades by allowing different memory sizes to be populated and remain in dual-channel mode.

For more information, visit the Intel Web site:

www.intel.com/products/desktop/chipsets

¹ Media Expansion Cards (MEC) are provided by third party manufacturers.

² Intel® High Definition Audio requires a system with an Intel® Express Chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on the codec, drivers and speakers.

³ Intel® Matrix Storage Technology requires a motherboard with the Intel® 82801GR (ICH7R) or Intel 82801GHM (ICH7M-DH) I/O Controller Hub System. The system must also have the RAID controller in the BIOS enabled and the Intel Matrix Storage Technology software driver installed. Please consult your system vendor for more information.

* Other names and brands may be claimed as the property of others.

