



# Putting Technology in Play

Taking the Gaming Experience  
to the Next Level

# Maximize the Gaming Experience

From slot machines and network-based gaming to lottery terminals and arcade games, Intel provides the building blocks you need to create compelling user experiences.





Many game platforms are moving from 2-D to immersive 3-D graphics that create compelling user experiences and keep players coming back for more. The combination of larger displays and components with Intel® integrated graphics lets you enhance visual impact and fun, while keeping platform costs down.

Intel's embedded processors and chipsets provide the combination of low power and high performance needed to take gaming to the next level, enabling you to keep your games a step ahead. Game platforms based on cost-effective Intel® building blocks provide the flexibility you need to integrate multiple functions on one board, while supporting compact form factors and quiet, reliable fanless designs.

Look to Intel for a broad range of high-performance, low-power embedded-lifecycle processors backed by a development infrastructure you can rely on, including

leading third-party vendors in the Intel® Communications Alliance.

Intel's modular, standards-based building blocks provide you with the performance headroom, reliability and manageability to create compelling gaming solutions that deliver non-stop fun and excitement.

**When you are ready to take user experiences to the next level, Intel gives you the power to change the game.**



# Intel® Technologies are Changing the Game

Intel's intensive R&D program drives non-stop development of new generations of embedded processors and chipsets.

## Power your next gaming innovation with Intel's embedded technologies

### Multi-Core Processors

Intel's industry-leading process technology provides the foundation for multi-core processors, an architecture where multiple microprocessor cores are integrated onto a single chip. This technology enables Intel to design innovative features, including virtualization and security, into new generations of silicon products. Intel process technology ultimately provides you with improved functionality and flexibility in energy-efficient computing platforms.

### Energy-Efficient Performance

Multiple high-performance execution cores with intelligent power management features deliver optimized energy-efficient performance. Micro-architectural enhancements accelerate processing-intensive tasks such as audio/video processing, image processing and 3-D graphics. In addition, Intel's advanced thermal management system delivers precise acoustic control for quieter, cooler and thinner system designs. Intel® processors with Enhanced Intel SpeedStep® Technology enable high-performance demand-based switching.

### Integrated Graphics

Intel® chipsets provide superior integrated graphics with outstanding memory performance and high speed I/O. These highly integrated embedded building blocks support

present and future mainstream memory technologies and next-generation I/O capability including PCI Express\* and Intel® High Definition Audio. Intel® Graphics Media Accelerator technology provides superior graphics in an integrated package.

### Intel® I/O Acceleration Technology

Improving server application response and I/O performance and reliability is important in today's gaming systems. Intel® I/O Acceleration Technology (Intel® I/OAT) moves network data more efficiently through Intel® Xeon® processor-based servers for improved application responsiveness across different operating systems. Intel I/OAT addresses the server I/O bottleneck problem without requiring any modification of existing or future applications.

### Intel® Active Management Technology


Intel® Active Management Technology (Intel® AMT) promotes improved asset management, reduced downtime and helps minimize maintenance calls. Using built-in platform capabilities and popular third-party management and security applications, Intel AMT improves the ability of IT managers to discover, heal and protect vital networked computing assets.

### Intel® Virtualization Technology

With Intel® Virtualization Technology, hardware resources can be divided and allocated among multiple independent operating system environments, allowing multiple 'virtual' platforms to exist within a single hardware platform. Virtualization enables one machine to run multiple operating systems concurrently, supporting gaming and accounting applications at the same time.

### Trusted Platform Module

The Trusted Platform Module is a third-party platform component designed to industry standards that enhances security by providing a protected space for key operations and critical tasks. Using both hardware and software, the module protects encryption and signature keys at their most vulnerable stage, when the keys are being used unencrypted in plain-text form.

A group of young women are dancing at a party. The background is filled with warm, golden bokeh lights. The women are smiling and clapping. One woman in the foreground is wearing a red top with a white lace waistband and a ring. Another woman to her left is wearing a brown top with floral patterns. A third woman in the background is wearing a green shirt.

# Embedded Lifecycle Building Blocks for Gaming

Intel provides embedded lifecycle processors, tools, software and technologies that can help you meet stringent platform requirements.

## Deliver cost-effective gaming solutions while meeting your time-to-market goals

### Intel® Architecture-Based Processors

At the forefront of innovations including multi-core processing and 65 nanometer process technology, Intel® Architecture-based Processors help manufacturers optimize size, weight and power. Intel processors and chipsets provide high-bandwidth I/O interfaces including PCI Express graphics, Serial ATA and Gigabit Ethernet while maintaining support for legacy I/O technologies. Intel® Architecture-based Processors also support the proven IA-32 code base and development environment, which is compatible with open-source operating systems and familiar to generations of software engineers and programmers.

### Intel® Network Infrastructure Processors

Based on programmable microengines, Intel® XScale® technology and a software portability framework, Intel® network processors offer robust packet handling performance, flexibility, ease-of-use and reusability required for networked gaming systems. The programmability of Intel® network infrastructure processors makes them an excellent choice for security and networked applications.

### Intel® PXA Processor Family

Intel® PXA processors are the silicon building blocks of choice for handheld and wireless devices. These highly integrated processors combine robust applications processing, low power consumption and integrated multimedia capabilities.

### Intel® Flash Memory

Intel® Flash Memory solutions are offered with a wide range of densities, packaging, high-performance access times, multiple security modes and low-power options. Intel Flash Memory software helps reduce reliance on volatile memory options, helps eliminate redundant memory components and enables you to take advantage of remaining storage for data beyond the operating system.

Gaming is evolving rapidly, and you need to design with the future in mind. Intel embedded lifecycle product lines can help you keep your options open.



Long-life product support



Scalability of platforms



Breadth of roadmap options



Variety of price points for different applications

A man in a light-colored, vertically striped suit jacket and dark sunglasses is smiling broadly, looking upwards and to the right. His right hand is raised, with fingers slightly curled. The background is a blurred scene of warm, golden lights, possibly from a building or street at night, creating a bokeh effect. The overall mood is positive and aspirational.

# Modularity is the Name of the Game

The COM Express and ETX standards are part of the Embedded Computing Small Form Factors (ECSFF) supported by Intel and members of the Intel® Communications Alliance.





**Small form factors:  
big benefits for gaming**

- + Industry standard embedded computing small form factors
- + Faster time to market, control over form-fit-function in space constrained platforms, reduced development cost and low total cost of ownership through scalability
- + Transition from legacy implementations to PCI Express, PCI Express Graphics, Serial ATA, Serial DVO and LVDS
- + Support for legacy-free and legacy implementations

## Embedded small form factors for lower cost, legacy-free solutions

### COM Express

COM Express is a PICMG\* standard form factor designed to enable the embedded industry to move from legacy parallel interfaces such as PCI and AGP to the latest serial differential signaling technology including PCI Express, SATA, Serial DVO and LVDS.

By building on the widely accepted Computer on Module approach, COM Express allows you to reduce time-to-market and achieve a balance of form, fit, function and product lifecycle cost. COM Express delivers a high performance-density ratio with Intel's new embedded processors and chipsets with integrated PCI Express and Serial ATA support.

### ETX

The Embedded Technology extended (ETX) form factor enables embedded product designers to create a single baseboard that can accept a variety of ETX modules. This approach helps to eliminate cabling and can reduce platform development costs compared to custom single-board computer designs.

ETX lets you use a single baseboard to support a range of modules that support a variety of peripheral functions, including serial and parallel ports and network interfaces. The platform modularity lets you design a range of gaming systems and implement future capabilities based on consistent platform architecture.

## The Intel® Communications Alliance

**Working with the Intel® Communications Alliance members and their validated hardware and software solutions provides you with a single point of entry to a trusted supply line and a variety of choices.**

Because they understand the value of modularity, Intel Communications Alliance member companies have the expertise to deliver high-volume embedded computing, communications and interconnect solutions for the gaming industry.

Teaming with the members of the alliance, Intel supports provide leadership in embedded standards, significant investments in R&D and a broad array of silicon, board, chassis and software product offerings. By working with Intel Communications Alliance member companies, you benefit from innovation, best-in-class products, economies of scale and extensive R&D investments.

Visit us online to learn how Intel building blocks for gaming can help you maximize the user experience, by putting technology in play.

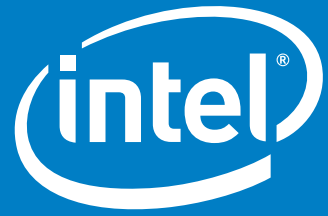




# Putting Technology in Play

Visit us online today, and ask your Intel representative for more details about Intel embedded solutions for gaming. When you are ready to take user experiences to the next level, Intel gives you the power to change the game.

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