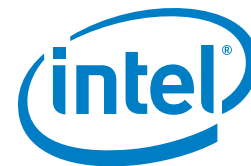


PRODUCT BRIEF

Intel® P55 Express Chipset

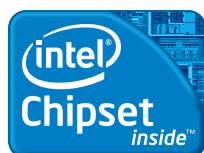
Performance and Mainstream Desktop



Intel® P55 Express Chipset

A revolutionary transformation in Intel chipset architecture

Desktop PC platforms based on the Intel® P55 Express Chipset, combined with the Intel® Core™ i7-800 and Core™ i5-700 processor series, create intelligent performance for faster multi-tasking, digital media creation and gaming.



The Intel® P55 Express Chipset

The Intel® P55 Express Chipset continues to push innovation with a new architecture designed to deliver the quality and performance needed for faster multitasking, digital media creation, and gaming. The Intel P55 Express Chipset achieves incredible performance by supporting the latest Intel® Core™ i7-800^Δ and Core™ i5-700^Δ processors, the latest Intel® Extreme Tuning Utility (Intel® XTU), and industry-leading I/O technologies.

Revolutionary Single-Chip Architecture with Enhanced Chipset Capabilities.

The Intel P55 Express Chipset introduces a new generation of chipsets with a single chip replacing the traditional two-chip approach. The repartition of the processor and chipset into two devices enables performance and system improvements over previous generations.

- PC platforms based on the Intel P55 Express Chipset use up to 50 percent less power than the previous-generation platforms.
- Smaller form factors are possible, because the Intel P55 Express Chipset footprint is 65 percent smaller than the previous-generation platforms.
- The Intel P55 Express Chipset provides expanded I/O device ports for advanced usage models, to take advantage of modern peripheral devices.

Intel® Matrix Storage Technology (MST)¹

- When using one or multiple hard drives, users can take advantage of enhanced

performance and lower power consumption. When using more than one drive, users have additional protection against data loss caused by hard drive failures.

- Valuable digital memories are protected against a hard drive failure when the system is configured for any one of three fault-tolerant RAID levels: RAID 1, RAID 5, and RAID 10. By seamlessly storing copies of data on one or more additional hard drives, any hard drive can fail without data loss or system downtime. When the failed drive is removed and a replacement installed, data fault tolerance is easily restored.
- Intel® MST provides benefits to users with a single hard drive. Using Advanced Host Controller Interface (AHCI), storage performance is improved through Native Command Queuing (NCQ).
- Native support for external SATA* ports (eSATA), combined with Intel MST, provides the flexibility to add an external drive for increased data storage with up to six times faster performance than USB* 2.0 or IEEE 1394 400². Support for eSATA also enables the full SATA interface speed of up to 3 Gb/s outside the chassis.

Intel® Rapid Recovery Technology

With the ability to instantly boot from a clone hard drive, Intel® Rapid Recovery Technology provides a fast, easy-to-use method for data recovery and return to operation.

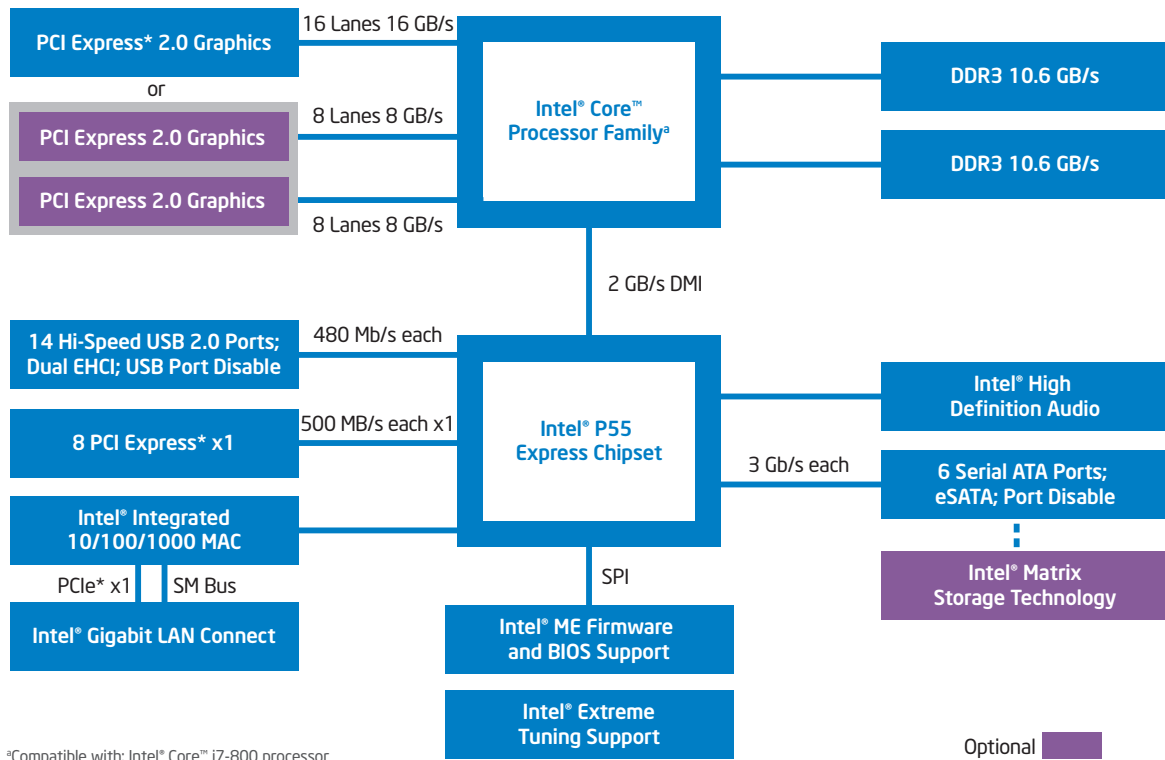


Figure 1. Intel® P55 Express Chipset Platform Block Diagram

Intel® P55 Express Chipset Features at a Glance

Features	Benefits
Intel® Matrix Storage Technology ¹	<ul style="list-style-type: none"> With additional hard drives added, provides quicker access to digital photo, video and data files with RAID 0, 5, and 10, and greater data protection against a hard disk drive failure with RAID 1, 5, and 10. Support for external SATA* (eSATA) enables the full SATA interface speed outside the chassis, up to 3 Gb/s.
Intel® Rapid Recovery Technology	<ul style="list-style-type: none"> 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 data become corrupt. The hard drive clone can also be mounted as a read-only volume to allow recovery of individual files.
Intel® High Definition Audio ³	<ul style="list-style-type: none"> Integrated audio support enables premium digital surround sound and delivers advanced features such as multiple audio streams and jack re-tasking.
Intel® Management Engine Ignition Firmware support	<ul style="list-style-type: none"> Provides essential platform functionality such as clock maintenance and thermal reporting.
Universal Serial Bus (USB*)	<ul style="list-style-type: none"> Hi-Speed USB 2.0 provides greater performance enhancement with a design data rate of up to 480 megabits per second (Mbps) with up to 14 USB 2.0 ports.
USB 2.0 Rate Matching Hub	<ul style="list-style-type: none"> Enables lower power requirements and manages the transition of the communication data rate from the high speed of the host controller to the lower speed of USB full-speed /low-speed devices.
Serial ATA (SATA) 3 Gb/s	<ul style="list-style-type: none"> High-speed storage interface supports faster transfer rate for improved data access with up to 6 SATA ports.
eSATA	<ul style="list-style-type: none"> 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.
SATA Port Disable	<ul style="list-style-type: none"> Enables individual SATA ports to be enabled or disabled as needed. Provides added protection of data by preventing malicious removal or insertion of data through SATA ports. Especially targeted for eSATA ports.
USB Port Disable	<ul style="list-style-type: none"> Enables individual USB ports to be enabled or disabled as needed. Provides added protection of data by preventing malicious removal or insertion of data through USB ports.
PCI Express* Interface	<ul style="list-style-type: none"> Offers up to 2.5 GT/s for fast access to peripheral devices and networking with up to 8 PCI Express 2.0 x1 ports, configurable as x2 and x4 depending on motherboard designs.
Intel® Integrated 10/100/1000 MAC	<ul style="list-style-type: none"> Support for the Intel® 82578DC Gigabit Network Connection.
Green Technology	<ul style="list-style-type: none"> Manufactured with lead-free and halogen-free component packages.

For more information, visit www.intel.com/products/desktop/chipsets

^Δ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

¹ Intel® Matrix Storage Technology requires the computer have an Intel MST-enabled Intel chipset, RAID controller in the BIOS enabled and the Intel Matrix Storage Technology software driver installed. Please consult your system vendor for more information.

² Performance based on interface speed and data transfer rate specifications for eSATA, USB 2.0 and IEEE 1394 400.

³ Intel® High Definition Audio requires a system with an appropriate Intel chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers and speakers. For more information about Intel® HD audio, refer to www.intel.com.

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