



Intel® X79 Express Chipset for 2nd Generation Intel® Core™ i7 Processors for LGA 2011 Socket

Highest performing desktop platform for extreme gamers and demanding enthusiasts

Desktop PC platforms based on the Intel® X79 Express chipset, combined with the latest 32nm 2nd generation Intel® Core™ i7 processor family on the LGA 2011 socket, drive breakthrough gaming and digital media content creation performance with state-of-the-art technology transitions targeting extreme gamers and demanding enthusiasts.



Breakthrough Performance

The Intel® X79 Express chipset continues to push innovation with capabilities designed to deliver quality, performance and headroom.

The combination of the Intel® X79 Express chipset and 2nd generation Intel® Core™ i7 processor family on the LGA 2011 socket delivers the highest desktop performance. You will get maximum power for whatever you do, thanks to the combination of the smart features like Intel® Turbo Boost Technology 2.0; Intel® Hyper-Threading Technology² and Intel® Smart Cache size, which together provide full processing power exactly when you need it.

Unlocked Flexibility and Freedom

The Intel X79 Express chipset enables the performance tuning features of unlocked Intel Core i7 processors in the LGA 2011 socket, allowing the user to change the processor core multipliers and DDR3 memory ratios to customize the performance experience of the platform. Combined with the latest Intel® Extreme Tuning Utility, performance tuning is now easier than ever. Achieve extreme performance with the flexibility to set your high-end system specs just the way you like.

The Intel X79 Express chipset Delivers the Latest Platform Features for Superb System Performance

Platforms based on the Intel X79 Express chipset deliver the must-have capabilities and performance for enthusiasts and integrates several capabilities to provide flexibility for connecting I/O devices. Intel® Rapid Storage Technology enterprise³ 3.0 (Intel® RSTe 3.0) 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).

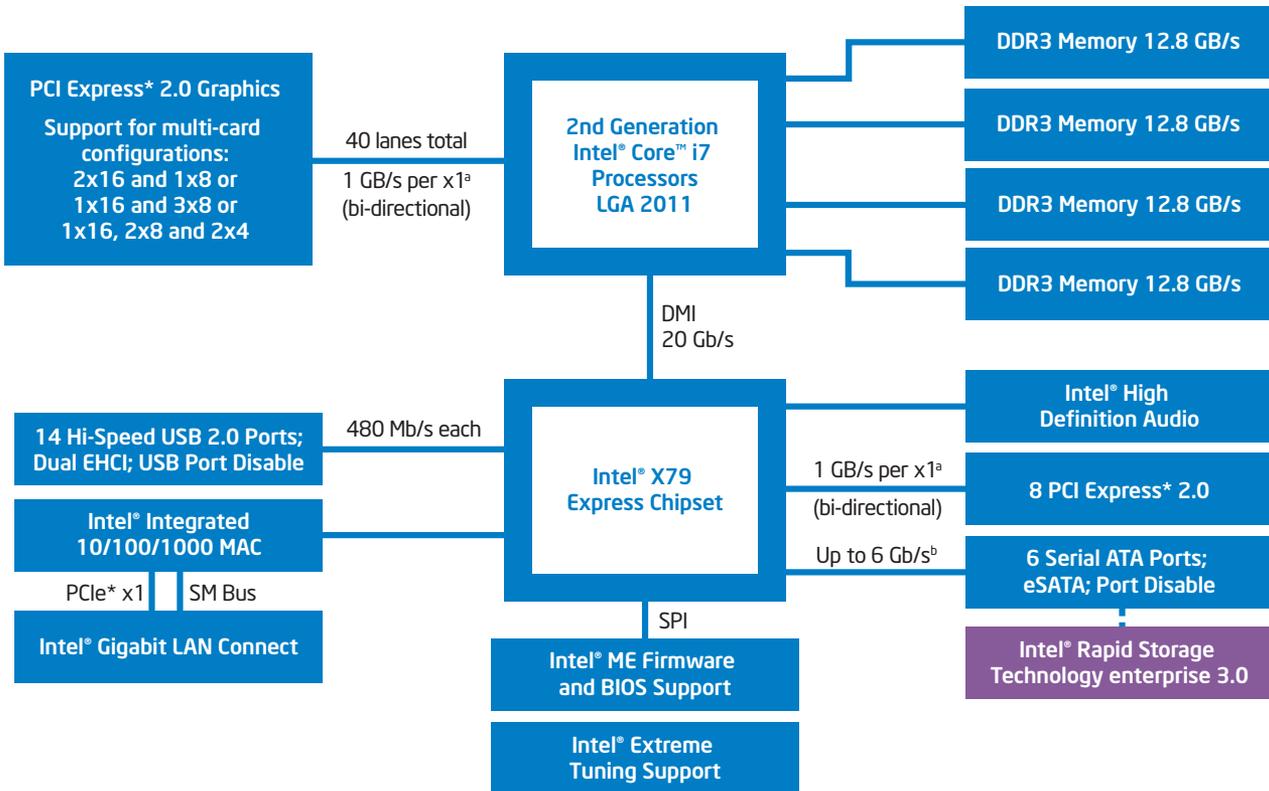
Intel RSTe 3.0 offers new levels of protection, performance and expandability for high-end desktop platforms. Whether using one or multiple SDD- or HDD-based drives, users can take advantage of enhanced performance and lower power consumption. When using more than one drive, the user can have added protection against data loss in the event of a hard drive failure.

Intel® Identity Protection Technology

Intel® Identity Protection Technology⁴ (Intel® IPT) provides a simple way for websites and organizations to validate that a user is logging in from a trusted PC, protecting your account against remote takeover even if your username and password have been phished.

- Identity protection for consumers doing online operations (e-banking, e-gaming, e-finance, etc.)
- Strong authentication for small business applications (remote access VPN, SaaS, etc.)
- Existing eco-system of 800+ consumer-facing websites and businesses supporting Intel IPT worldwide today (PayPal, eBay, etc.)

Intel® X79 Express Chipset Block Diagram



^aTheoretical maximum bandwidth.

^bAll SATA ports capable of 3 Gb/s. 2 ports capable of 6 Gb/s.

Optional

Intel® X79 Express Chipset Features at a Glance

Features	Benefits
Support for 2nd Generation Intel® Core™ i7 processor family in LGA 2011 socket	<ul style="list-style-type: none"> Support for Intel® Core™ i7 processor family in LGA 2011 socket only.
Intel® Rapid Storage Technology enterprise ³ 3.0	<ul style="list-style-type: none"> With additional Solid State Drives or Hard Disk Drives added, provides quicker access to digital photo, video and data files with RAID 0, 5 and 10, and greater data protection against a drive failure with RAID 1, 5, 10.
Intel® Identity Protection Technology ⁴	<ul style="list-style-type: none"> Intel® Identity Protection Technology (Intel® IPT) provides a simple way for websites and organizations to validate that a user is logging in from a trusted PC, protecting your account against remote takeover even if your username and password have been phished.
PCI Express* 2.0 Interface	<ul style="list-style-type: none"> Offers up to 5 GT/s for fast access to peripheral devices and networking with up to 8 PCI Express 2.0 x1 ports, configurable as 2 x1s and 1 x4 depending on motherboard designs.
Intel® High Definition Audio ⁵	<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.
Universal Serial Bus (USB)	<ul style="list-style-type: none"> Hi-speed USB 2.0 provides greater enhancement in performance with a design data rate of up to 480 megabits per second (Mbps) with up to 14 USB 2.0 ports.
Serial ATA (SATA) 6 Gb/s ⁶	<ul style="list-style-type: none"> Next-generation high-speed storage interface supporting up to 6 Gb/s transfer rates for optimal data access with up to 2 SATA ports.
Serial ATA (SATA) 3 Gb/s	<ul style="list-style-type: none"> High-speed storage interface supporting up to 4 SATA ports.
eSATA	<ul style="list-style-type: none"> SATA interface designed for use with external SATA devices. It 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. This feature 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. This feature provides added protection of data by preventing malicious removal or insertion of data through USB ports.
Intel® Integrated 10/100/1000 MAC	<ul style="list-style-type: none"> Support for the Intel® Gigabit Network Connection.
Green Technology	<ul style="list-style-type: none"> Manufactured with lead-free and halogen-free component packages.

For more information, visit the Intel Web site: www.intel.com/products/desktop/chipsets

¹ Requires a system with Intel® Turbo Boost Technology capability. Intel Turbo Boost Technology 2.0 is the next generation of Turbo Boost Technology and is only available on 2nd gen Intel® Core™ processors. Consult your PC manufacturer. Performance varies depending on hardware, software, and system configuration. For more information, visit <http://www.intel.com/technology/turboboost>.

² Requires an Intel® HT Technology enabled system, check with your PC manufacturer. Performance will vary depending on the specific hardware and software used. Not available on Intel® Core™ i5-750. For more information including details on which processors support HT Technology, visit <http://www.intel.com/info/hyperthreading>.

³ Intel® Rapid Storage Technology enterprise requires the computer have an Intel® RSTe-enabled Intel chipset, RAID controller in the BIOS enabled and the Intel Rapid Storage Technology enterprise software driver installed. Please consult your system vendor for more information.

⁴ No system can provide absolute security under all conditions. Requires an enabled chipset, BIOS, firmware and software and a website that uses an Intel® IPT Service Provider's Intel IPT solution. Consult your system manufacturer and Service Provider for availability and functionality. Intel assumes no liability for lost or stolen data and/or any other damages resulting thereof.

⁵ 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 <http://www.intel.com>.

⁶ Performance based on interface speed and data transfer rate specifications for eSATA, USB 2.0 and IEEE 1394.

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