



The Intel® Desktop Board D955XBK Extreme Series based on the Intel® D955X Express Chipset.

For high-end gamers and power users

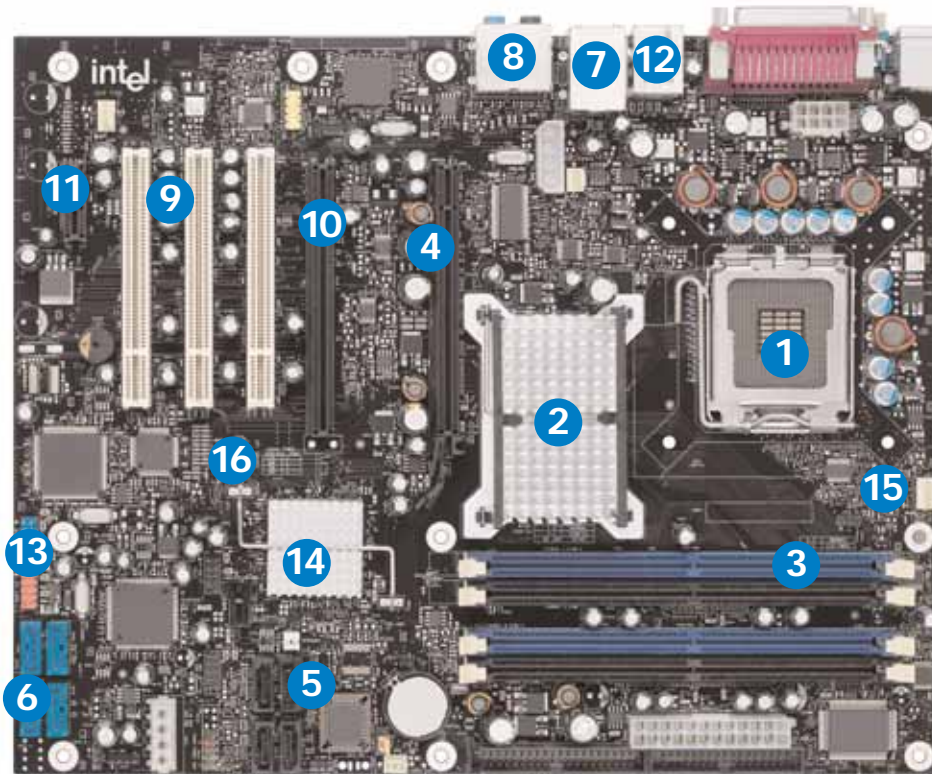
Harnessing the advanced computing power of the Intel® Pentium® processor Extreme Edition supporting Hyper-threading Technology¹ and dual-core processing, the new Intel® Desktop Board D955XBK is optimized to deliver new levels of performance that are essential for the needs of power users and advanced gamers alike.

Based on the Intel® 955X Express Chipset featuring Intel's advanced performance architecture, the Intel Desktop Board D955XBK brings new levels of performance to the desktop by combining support for dual-core processing, Intel® Extended Memory 64-bit Technology² (Intel® EM64T), Intel® Memory Pipeline Technology, a 1066 MHz system bus, dual-channel DDR2 667 memory, PCI Express* x16 graphics, and native SATA (3.0 Gbps) RAID with Native Command Queuing (NCQ). Enhanced connectivity is provided via eight Hi-Speed USB 2.0* ports, 1394a and 1394b (up to 800 Mbps), and Intel® PRO 10/100/1000 Network Connection.

The Desktop Board D955XBK showcases one of the most advanced integrated audio solutions to be found on an Intel® desktop board. Intel® High Definition Audio provides the sound quality foundation enabling a 24-bit/192 kHz capable audio solution with support for 7.1 channel surround sound.

The Intel Desktop Board D955XBK includes many advanced accessories to help in integration as well as system appearance and usage. Included in the boxed product only will be a 3.5" front panel I/O bay with Intel® High Definition Audio connectors, 1394b and 1394a connectors, and a USB 2.0 connector. Also included are a back-panel USB 2.0 connector (2 ports), UV lighted floppy, SATA, and ATA 100/66 cables, back-panel and board I/O stickers and a quick reference guide for easier integration.





Features and Benefits

Intel® Desktop Board D955XBK

- 1 **Supports the Intel® Pentium® processor Extreme Edition:** featuring Intel dual-core processing and 800 MHz system bus in the LGA775 package with Hyper-Threading Technology¹ and Intel® EM64T² support. Also supports Intel® Pentium® D and Intel® Pentium® 4 processors.
- 2 **Supports Intel® 955X Express Chipset:** with ICH7-R Controller Hub.
- 3 **Dual-channel DDR2 667 SDRAM memory support:** Four DIMM sockets designed to support up to 8 GB³ of DDR2 667 SDRAM memory (also supports DDR2 533/400 memory).
- 4 **PCI Express* x16 graphics interface:** PCI Express* bus provides enhanced bandwidth for next-generation graphics card technology and future headroom.
- 5 **SATA (3.0 Gbps) headers:** Flexible support for SATA (3.0 Gbps) (4 ports) storage devices with support for RAID 0, 1, 10, 5 and matrix RAID.
- 6 **SATA (1.5 Gbps) headers:** Four additional SATA ports via discrete RAID controller for additional flexibility (RAID 0, 1, 10).
- 7 **Integrated Intel® PRO 10/100/1000 LAN solution:** Gigabit LAN connector for enhanced network connectivity and stability.
- 8 **Intel® High Definition Audio and Intel® Audio Studio PRO:** Combines Intel® High Definition Audio hardware with Dolby* and Sonic Focus* audio refinements to help deliver premium 7.1 surround sound audio (header for front-panel audio ports). Includes S/PDIF out via coax/optical.
- 9 **Three PCI connectors:** Expansion slots for custom system configurations and future add-in card upgrades.
- 10 **One PCI Express utility connector:** Flexible PCIe x16 connector electrically routed to support PCIe x4 bandwidth.
- 11 **One PCI Express x1 connector:** Expansion capabilities for the industry's latest add-card technology.
- 12 **Eight Hi-Speed USB 2.0* ports:** Four rear ports and headers for four additional front/rear-panel USB ports.
- 13 **Three 1394 ports:** One rear-panel port (1394a) and two configurable 1394a or 1394b headers for additional front/rear-panel ports. 1394b offering up to 800 Mbps bandwidth while 1394a offers up to 400 Mbps.
- 14 **Intel® Matrix Storage Technology:** Supporting RAID 1, 0, 10, 5 and Intel® Matrix RAID Technology.
- 15 **Intel® Precision Cooling Technology:** Enables advanced fan speed control to help keep system cool and improve noise levels.
- 16 **Intel® Rapid BIOS Boot:** Helps reduce BIOS boot time for quicker system access.

Intel® Desktop Boards D955XBK

Customize your system to take advantage of the latest digital technologies in the home and office with Intel® desktop boards based on the Intel® 955X Express Chipset



The Intel® Desktop Board D955XBK is designed to showcase the latest performance architecture in the Intel® Pentium® processor Extreme Edition. This platform delivers outstanding system performance through high-bandwidth interface support such as dual-channel DDR2 667/533 memory, 1066 MHz system bus and enhanced memory support via Intel® EM64T² and an 8GB³ maximum memory support.

Boxed Intel® Desktop Board D955XBK Extreme Series includes:

- Intel® Desktop Board D955XBK
- ATX 2.2 compliant I/O shield
- Front panel I/O with audio, 1394b/a support, and USB 2.0
- UV lighted Floppy, SATA, and ATA 100/66 cables
- Board and back panel I/O layout stickers
- Intel® Desktop Board D955XBK Quick Reference
- Floppy for Intel® Matrix Storage Technology RAID driver
- Floppy for third-party RAID driver
- Intel® Express Installer Driver CD and Software DVD
- 2x2 to 2x4 power adapter

Software includes:

- Ncsoft City of Heroes* full game title (available via Internet download)
- Intel® Desktop Utilities⁴
- Intel® Audio Studio Pro⁵
- Intel® Desktop Control Center (Internet download)
- InterVideo® Home Theater Silver
- InterVideo® MediaOne® Silver
- Musicmatch Jukebox*
- Jasc® Paint Shop Photo Album 5: Starter Edition
- NTI CD-Maker*
- Norton® Internet Security 2005
- Norton® AntiVirus
- Farstone RestoreIT!® Gold
- Farstone Gamedrive*
- Yahoo!® Toolbar with Anti-spy
- Kaspersky® AntiVirus Business Optimal (Russian only)
- ABBYY® Lingvo 9.0 (Russian only)
- Kingsoft® WPS Office Storm (Chinese only)
- Kingsoft® PowerWord® 2005 (Chinese only)
- Kingsoft® AntiVirus 2005 (Chinese only)

Technical Specifications

Processor

Processors Supported

- Intel® Pentium® processor Extreme Edition supporting Hyper-Threading Technology¹ with 1066 MHz or 800 MHz system bus in the LGA775 Package. Also supports Intel® Pentium® D, Pentium® 4, and Pentium® 4 Extreme Edition processors carrying the platform compatibly guides of 05B, 05A, 04B or 04A.

Chipset

Intel® 955X Express Chipset

- Designed to support up to 8 GB³ of system memory using DDR2 667/533 SDRAM; supports non-ECC and ECC memory
- Intel® Matrix Storage Technology supporting (RAID 0,1,10, 5 and Matrix RAID)
- PCI Express* x16 graphics support

Intel® ICH7-R I/O Controller Hub

- Ultra ATA 100/66
- Four SATA (3.0 Gbps) ports
- Intel® PRO 10/100/1000 Gigabit LAN network connection

I/O Features

Integrated super I/O LPC bus controller:

- One PCI Express* Utility connector (physical x16 connector with x4 bandwidth)
- Three PCI local bus connectors
- One PCI Express x1 connector
- Designed for PC2001

USB 2.0

Integrated Intel® ICH7-R controllers:

- Four back-panel ports
- Four additional ports (via 2 headers and included front/rear-panel cards)

Audio

Intel® Audio Studio Pro

- Intel® High Definition Audio with Dolby* and Sonic Focus*
- 7.1 (8 channel) output
- S/PDIF out via coax/optical

Firmware Hub

System BIOS

- 8 Mb Flash EEPROM with Intel® BIOS featuring Plug and Play, IDE drive auto-configure
- Advanced configuration and power interface V1.0b, DMI 2.0, multilingual support

Intel® Rapid BIOS Boot

- Optimized POST for faster access to PC from power on

Intel® Precision Cooling Technology

- Advanced thermal management system dynamically adjusts fan speeds to keep system cool and improve noise levels

System Memory

Memory Capacity

- Four 240-pin DIMM connectors supporting up to four double-sided DIMMs

Memory Types

- DDR2 667/533 SDRAM memory support
- ECC and non-ECC memory support

Memory Modes

- Dual or single-channel operation support

Memory Voltage

- 1.8V

Hardware Management

- Processor fan speed control
- System chassis fan speed control
- Voltage and temperature sensing
- Fan sensor inputs used to monitor fan activity
- Power management support for ACPI 1.0b

Wake Up From Network

- Wired for Management (WfM) 2.0-compatible
- Support for system wake up using an add-in network interface card with remote wake-up capability or integrated LAN

Expansion Capabilities

- Three PCI bus add-in card connectors
- One PCI Express x1 bus add-in card connector
- One PCI Express Utility connector
- One PCI Express x16 graphics connector

Jumpers and Front-panel Connectors

Jumpers

- Single configuration jumper design
- Jumper access for BIOS maintenance mode

Front-panel Connectors

- Reset, HD LED, Power LEDs, power on/off
- Two configurable front/rear-panel 1394a/b headers
- Intel® High Definition Audio front-panel audio header

Mechanical

Board Style

- Desktop Board D955XBK – ATX 2.03-compliant

Board Size

- Desktop Board D955XBK – 9.6" x 12"

Baseboard Power Requirements

- ATX12V

Environment Operating Temperature

- 0° C to +55° C

Storage Temperature

- -40° C to +70° C

Regulations

Safety Regulations

U.S. and Canada: UL 1950, Third edition – CAN/CSA C22.2 No. 950-95 with recognized U.S. and Canadian component marks

Europe: Nemko certified to EN 60950

International: Nemko certified to IEC 60950 (CB report with CB certificate)

EMC Regulations (tested in representative chassis)

U.S.: FCC Part 15, Class B

U.S.: FCC Part 15, Class B open-chassis (cover off) testing

Canada: ICES-003, Class B

Europe: EMC directive 89/336/EEC; EN 55022:1998, Class B; EN 55024:1998

Australia/New Zealand: AS/NZS 3548, Class B

Taiwan: CNS 13438, Class B

International: CISPR 22:1997, Class B

Power requirements vary. Complies with US CRF via EN55022 +6 db in system configurations with an open chassis and EU Directive 89/336/EEC and use via EN55022 and EN50082-1 in a representative chassis

Product Family	Intel® Desktop Board D955XBK
Form Factor	ATX
Product Code/UPC	BOXD55XBKLR/00735858174695
10-pack Product Code/UPC	BLKD955XBKLR/00735858174701 KD955XBKLRPAK10
Processor Support	Intel® Pentium® Extreme Edition, Pentium® 4 Extreme Edition, Pentium® D processor, and Pentium® 4 processors in the LGA775 package
Platform Compatibility Guide	05A, 05B, 04A, 04B
Supported FSB	1066 MHz/800 MHz
Chipset	Intel® 955X Express Chipset
Supports HT Technology	Yes
Graphics Connector	PCI Express* x16
Memory Support	DDR2 667/533 SDRAM 4 slots, dual-channel (8GB Max)
Expansion Slots	1 PCI Express* Utility (x16 connector, x4 bandwidth), 1 PCI Express x1, 3 PCI
Audio	Intel® High Definition Audio: Full 7.1 surround sound support and Intel® Audio Studio PRO with Sonic Focus* Technology
USB Ports	Hi-Speed USB* 2.0, 4 back ports/4 ports via 2 internal headers
1394	1 1394a back port, 2 configurable 1394a/b headers
Storage	4 SATA ports (3.0 Gbps), 4 SATA ports (1.5 Gbps)
RAID	Intel® Matrix Storage Technology supporting RAID 1, 0, 10, 5, and NCQ
On-board LAN	Intel® PRO 10/100/1000 Network Connection
TPM	No
Lead Free	Yes board only
Software	<ul style="list-style-type: none"> • Ncsoft City of Heroes* full game title available via download • Intel® Desktop Utilities⁴ • Intel® Audio Studio Pro⁵ • Intel® Desktop Control Center (Internet download) • InterVideo® Home Theater Silver • InterVideo® MediaOne® Silver • Musicmatch Jukebox* • Jasc® Paint Shop Photo Album 5: Starter Edition • NTI CD-Maker* • Norton® Internet Security 2005 • Norton® AntiVirus • Farstone Restore!T!® Gold • Farstone Gamedrive* • Yahoo!® Toolbar with Anti-spy • Kaspersky® AntiVirus Business Optimal (Russian only) • ABBYY® Lingvo 9.0 (Russian only) • Kingsoft® WPS Office Storm (Chinese only) • Kingsoft® PowerWord® 2005 (Chinese only) • Kingsoft® AntiVirus 2005 (Chinese only)
Intel® Advanced BIOS	<ul style="list-style-type: none"> • Intel® Platform Innovation Framework for the Extensible Firmware Interface (EFI) • Intel® Rapid BIOS Boot • Intel® Precision Cooling Technology • Intel® Express BIOS Update • Digital signature technology • Fault tolerant flashing • Multiple language support
Warranty	3-year limited warranty

Ordering Information: See Intel's Web site at www.intel.com
For the most current product information available,
visit Intel's Web site at: developer.intel.com/design/motherbd

1. Hyper-Threading Technology requires a computer system with an Intel® Pentium® 4 processor supporting Hyper-Threading Technology and an HT Technology enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you use. See www.intel.com/info/hyperthreading for more information including details on which processors support HT Technology.
2. Intel® Extended Memory 64 Technology (Intel® EM64T) requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. See www.intel.com/info/em64t for more information including details on which processors support Intel EM64T or consult with your system vendor for more information.
3. Desktop Boards D955XBK and D955XCS were designed to support up to 8-GB total system memory. For more information about the latest list of tested memory, refer to the Intel World Wide Web site at: <http://support.intel.com/support/motherboards/desktop/>
4. Intel® Desktop Utilities includes: hardware monitoring, Diskeeper® Lite defragmentation, NTI Backup Now®, StressTest®, Symantec® Security Check.
5. Intel® Audio Studio combines Intel® High Definition Audio hardware with Dolby and Sonic focus® audio refinements.

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