The High-Definition Platform for the highest requirements

The spread of HD-compatible flat screens is continuing. In this Mini-PC Barebone you will find your ideal partner to digitally transfer images and sound at the highest quality through the HDMI interface. This Mini-PC made of aluminium easily meets the highest of standards in the playback of films on Blu-ray media and the Intel G45 Express chipset enables the use of the latest Multi-Core processors. Away from the high-definition playback, this platform can also be used to run very routine applications at maximum speed.

XPC Barebone SG45H7

Note: optical drive sold separately. Images for illustration purposes only.

Feature Highlight

H7 chassis	• Black aluminum chassis • Drive bays: 1x 5.25“, 2x 3.5“
Chipset	• Intel G45 Express + ICH10
Graphics	• Intel GMA X4500HD, DirectX 10, SM 4.0 • Supports up to 384MB shared memory • Output: VGA and HDMI (HDCP, 1080p)
CPU	• Socket 775 • Supports Intel Core 2 Quad/Extreme/Duo, Pentium Dual-Core, Celeron 4xx Supports 45 und 65nm CPUs • Supports 1333, 1066 and 800MHz FSB • Shuttle I.C.E. Heat-pipe cooling system •
Slots	• 1x PCI-Express x16 (v2.0), 1x PCI Unterstützt dualslot graphics cards
Memory	• Supports 4x DDR2-667/800 • Up to 16 GBytes total size
Drive connectors	• 3x SATA (internal) • 3x External SATA (1x front, 2x rear) • 1x IDE ATA 133, 1x floppy disk drive
Other connectors	• 7.1-ch HD-audio, SPDIF output • Firewire, GigaBit LAN • USB 2.0 (2x front, 4x rear, 4x onboard)
Power supply	• 300 Watt mini power supply (80 PLUS)
Application	• Home-Media

Prduct ID: SG45H7
UPC (see bar code)

8 11686 00265 9

max. 4x 4GB = 16GB

intel P45 EXPRESS CHIPSET

intel Core 2 Quad

intel Core 2 Duo

intel Core 2 Extreme

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Shuttle XPC Barebone SG45H7 – Special Product Features

New H7 chassis with enhance expansion ability

The new H7 chassis dimensions have grown slightly in contrast to the previous G-Series adding various of welcome improvements to the Shuttle XPC Barebone SG45H7. The larger power supply fan of 5cm in size helps to cut down on noise level even more also providing a better thermal efficiency for the entire system. The rear side now features two perforations for parallel port and/or PS/2 expansion. The front panel sports an eSATA port for instant access to an external hard disk. With a renewed mainboard layout, the SG45H7 is capable of running dual-slot graphics cards and up to four memory modules with a max. capacity of 16GB.

Supports Quadcore, 1333 MHz FSB and 45nm processors

This Shuttle product supports the Intel® Core™2 Duo and Intel® Core™2 Quad processors with up to 1333 MHz front side bus and the new power-saving 45nm technology. Multi core brings multi power!

Integrated Cooling Engine (I.C.E.)

Shuttle's XPCs offer the power of a desktop PC in a form factor one-third the size. In order to ensure proper airflow inside a smaller unit, more advanced cooling technologies have been developed and implemented in the Shuttle XPC. Shuttle's industry-leading I.C.E. heatpipe technology delivers efficient cooling and is exceptionally quiet.

Built-in Intel GMA X4500HD Graphics Engine

The next-generation Intel® Graphics Media Accelerator X4500HD (Intel® GMA X4500HD) includes built-in support for full 1080p high-definition video playback, including Blu-ray disc movies. This powerful video engine provides users with a rich, new media experience to deliver smooth HD playback without the need for add-in video cards or decoders. Intel® GMA X4500HD comes with Intel® Clear Video Technology, a combination of video processing hardware and software technologies designed to enhance the visual experience. In addition to video, the optimized 3D graphics engine supports DirectX 10, Shader Model 4.0 and OpenGL 2.0 and delivers the performance and compatibility you need for entertaining, everyday gameplay for the most popular game titles.

DVI-to-HDMI adapter cable included

Dual View Technology with HDMI (DVI) and VGA

Dual View technology offers multiple display support on up to two separate monitors. This improves the capabilities and productivity of the user by allowing them to spread multiple windows over two monitors and view them simultaneously. The integrated Intel graphics processor delivers best-in-class 3D performance and leading graphics compatibility to play top games the way they are meant to be played.

PCI-Express V2.0 for high-performance graphics cards

The Shuttle XPC Barebone SG45H7 is equipped with one PCI-Express x16 Version 2.0 slot delivering a bandwidth of up to 16GB/s, twice the speed of PCI-E 1.0, thus providing plenty of potential for the newest graphics cards. It is downward compatible, allowing use for most of the

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present graphics cards as well.

Supports large dualslot graphics cards

The Shuttle XPC Barebone SG45H7 surpports large dual-slot graphics cards like ATI Radeon HD4870 or NVIDIA Geforce GTX280 which occupy two slots. Please note, that in this case you cannot use the PCI slot for another expansion card.

80 PLUS® Certified Power Supplies

The 80 PLUS® performance specification requires power supplies in computers and servers to be 80% or greater energy-efficient. The Shuttle XPC Barebone SG45H7 features a powerful 300W power supply with 80 PLUS® validation as standard. The new power supplies of the H7 chassis series use a 50mm cooling fan providing the same airflow, but spins slower than previous 40mm models to make the system run even more quietly.

Supports up to 16GB of memory

This Shuttle XPC supports up to 16GB DDR2-800 memory which is ideal for workstations powered by 64-bit operating systems, enabling users to take full advantage of high-performance configurations.

New Era of All-Solid Capacitor Shuttle Mainboards

By using all-solid capacitors Shuttle mainboards provide industry leading stability, reliability and longevity for PC gaming and entertainment systems. The average lifespan for a solid capacitor is more than six times greater than the more common and less expensive electrolytic capacitors.

External Serial ATA ports on front and back panel

In addition to the two eSATA ports at the back panel, the SG45H7 also comes with one eSATA at the front panel for plugging in high-speed external hard-drives. The eSATA interface is up to three times faster than the USB 2.0 standard.

Supports Windows Vista Premium

Breathtaking Windows Aero™ 3D visual interface and a host of groundbreaking new features, Windows® Vista™ Premium promises to deliver a streamlined computing experience designed to fundamentally change how users view, find and organize their digital information.

Shuttle XPC Accessory

Shuttle offers a wide variety of accessories for XPC barebones and complete systems such as WLAN modules or expansion kits. The XPC carrying bag is also a popular accessory - it is the ideal solution for LAN party gamers and business people, who need to transport their XPC.

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Shuttle XPC Barebone SG45H7 Specifications

Chassis	H7-type aluminum chassis, color: black storage bays: 1 x 5.25", 2 x 3.5" (1 internal) stealthed drive doors Dimensions: 32.5 x 20.8 x 18.9 cm (LWH), Weight: 3.6 kg net / 5.0 kg gross
Mainboard	Shuttle FG45, Shuttle form factor, proprietary design for XPC SG45H7 Chipset: Intel G45 Express (MCH) + ICH10 (I/O Conroller Hub) Solid Capacitors for excellent heat resistance for enhanced system durability
Power Supply	300 Watt mini PSU, AC input voltage: 100~240V 80 PLUS® certified (80% or greater energy-efficient) Active PFC circuit (Power Factor Correction) Dimension: 190 x 82 x 43 mm (LWH)
Processor Support	Socket 775 supports Intel processors with Core Technology Supports 1333, 1066 or 800MHz front side bus (not 533MHz) Supports Intel Core 2 Quad, Core 2 Duo, Pentium Dual-Core, Celeron Dual-Core, Celeron 4xx Supports 65nm and 45nm processors Please refer the support list for detailed processor support information. Mainboard BIOS supports Dynamic Overclock *) **)
Processor Cooling	Shuttle I.C.E. (Integrated Cooling Engine) advanced I.C.E. Heatpipe technology, linear controlled 92mm fan SilentX cooling and noise reduction technology with Active Airflow
Memory Support	4 x 240 pin slots, supports Dual Channel supports DDR2-667/800 SDRAM memory max. 4 GB per DIMM, up to a total size of 16 GB
Integrated graphics	Intel® Graphics Media Accelerator (GMA) X4500HD 256-bit 3D engine with a powerful 400MHz core Supports full 1080p high-definition video playback including Blu-ray disc movies Supports Intel® Clear Video Technology Supports MS DirectX 10, Shader Model 4.0 and OpenGL 2.0 Supports Dynamic Video Memory Technology 3.0 (DVMT) Supports up to 384MB of video memory (Shared memory) Analog VGA and digital HDMI connector in the back panel HDMI supports HDCP (High Definition Content Protection) HDMI-to-DVI-Adapter included
Expansion Slots	1x PCI-Express v2.0 slot Supports Dual-slot (double-width) graphics cards 1x PCI 32 bit slot
8-channel Audio	7.1 channel High Definition Audio with Realtek ALC888 codec analog: line-out (8-ch), line-in, microphone, CD-in, AUX digital: optical S/PDIF-out

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Gigabit-LAN Controller	Marvell 88E8056 Ethernet network controller With PCI Express interface IEEE 802.3u 1000Base-T compliant Supports 10 / 100 / 1.000 MBit/s operation Supports Wake-on-LAN
Firewire-Controller	IEEE1394 Firewire controller TI TSB43AB22A Complies with 1394 OHCI specification revision 1.0 1x 6pin Firewire connector at the backpanel Supports 400Mb/s, 200Mb/s, 100Mb/s data transfer rate
Drive connectors	Serial-ATA II, 3 Gb/s (300 MB/s) bandwidth 3x internal (SATA) plus 3x external (eSATA) 1x IDE ATA 100 drives 1x floppy disk drive
Front panel connectors	Microphone Headphone (Line-out) 2x USB 2.0 External Serial ATA Hotplug (eSATA) Power button Reset button Power indicator (blue LED) HDD indicator (orange LED)
Back panel connectors	HDMI (digital video out, DVI via adapter) D-Sub VGA (analog video out) 4x USB 2.0, Firewire (6 pin), GigaBit LAN (RJ45) 2x External Serial ATA Hotplug (eSATA) 8-ch Audio line-out (2x rear/front, bass/center, surround/back) Audio Line-in, Digital Audio: optical S/PDIF output Clear CMOS button
Optional Back panel connectors	Wireless LAN Antenna (Perforation for PN20) PS/2 Mouse & Keyboard (Perforation for PS10) Parallel port (Perforation for PC8)
Other connectors	6x USB 2.0 (three sets with 2x5 pins) 2x fan connectors (4 pins and 3 pins) Headers for PS/2 mouse and PS/2 keyboard
Accessories	Multilanguage XPC Installation Guide (En, De, Fr, Es, TC, Jp) XPC 32/64bit Driver CDROM for Windows XP/Vista Data cables: floppy, PATA, SATA, eSATA (PATA/SATA preinstalled) HDMI-to-DVI-Adapter Power Cord, Screws, Heatsink Compound

***) Overclocking Warning**
Please note there is a certain risk involved with overclocking, including adjusting the setting in the BIOS or using third-party overclocking tools. Overclocking may affect your system stability or even cause damage of the components and devices of your system. It is done at your own risk and expense. Shuttle cannot be held responsible for possible damage caused by overclocking.
**) Dynamic Overclocking Technology (D.O.C.)
This is the overclocking function in the BIOS Setup, which is designed to detect the load balance of CPU while running programs, and to adjust the best CPU frequency automatically. When the mainboard detects CPU is running programs, it will speed up CPU automatically to make the program run smoothly and faster. When the CPU is temporarily suspending or staying in the low load balance, it will restore the default settings instead.

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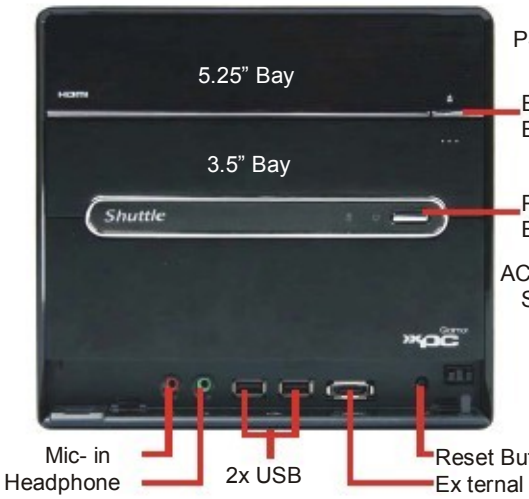
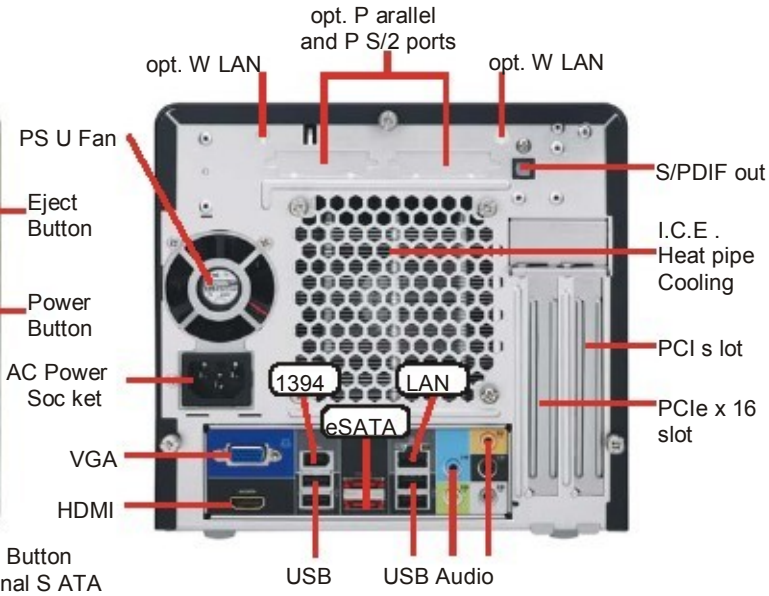
Shuttle XPC Barebone SG45H7 – Connectors and Components

Front Panel

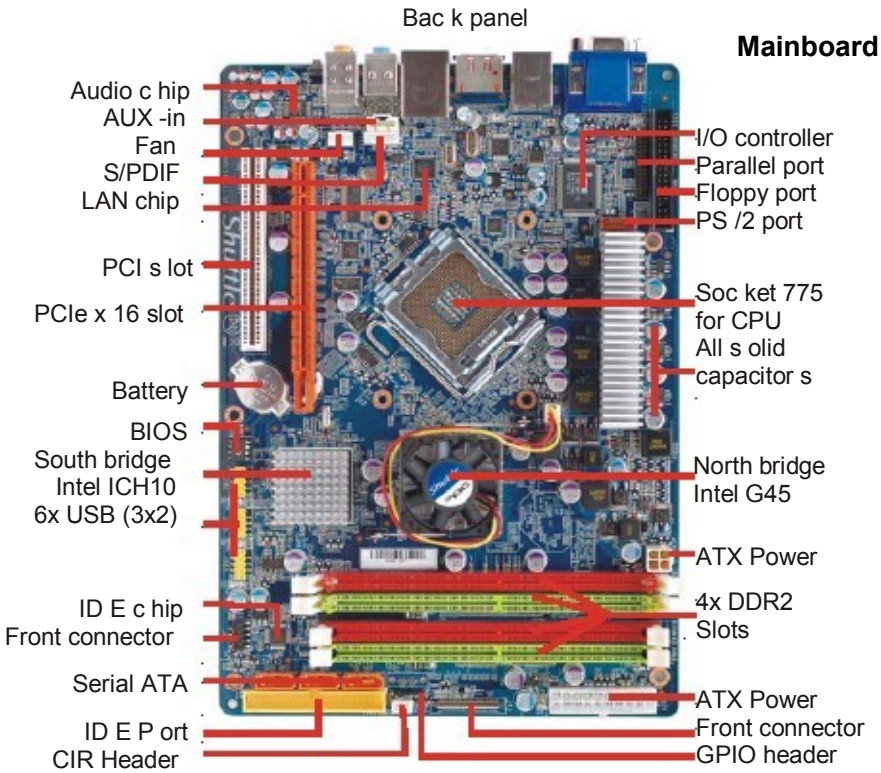


Back Panel



Bac k panel

Mainboard



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