

The fastest XPC model in the family now comes with USB 3.0 & SATA 6 Gbit/s

The Shuttle XPC H7 5820P complete system features the fastest Intel Core i7 processors in the world, up to 16 GB DDR3 RAM and powerful 3D graphics cards. On request we'll also fit your new Mini-PC powerpack with a solid state drive (SSD) or create several Terabytes of memory capacity in the small case. The H7 5820P also has two Gigabit network cards to allow you to share this massive data store with others. And with our 24-month Pick-up-and-Return-Service and free Hotline, you're guaranteed expert assistance at all times.

Feature Highlights

| | |
|---------------------|---|
| Basis | <ul style="list-style-type: none"> Based on the XPC Barebone H7 5820P |
| H7 chassis | <ul style="list-style-type: none"> Black aluminium chassis Drive bays: 1x 5.25", 2x 3.5" |
| Chipset | <ul style="list-style-type: none"> Intel X58 Express + ICH10R |
| Processor | <ul style="list-style-type: none"> Intel® Core™ i7, Socket 1366 With Quad-Core or Hexa-Core Shuttle I.C.E. Heatpipe cooling |
| Memory | <ul style="list-style-type: none"> Up to 16 GB DDR3-1333 |
| Graphics | <ul style="list-style-type: none"> One PCI-Express x16 graphics card From AMD/ATI or NVIDIA Supports powerful dual slot cards |
| Storage | <ul style="list-style-type: none"> DVD writer or Blu-ray combo/writer Up to two 3.5" drives: hard disks or SSDs |
| Connectors | <ul style="list-style-type: none"> 7.1-ch HD-audio with S/PDIF output Dual GigaBit LAN (supports Teaming) 2x USB 3.0 (front) 10x USB 2.0 (1x front, 8x rear, 1x onb.) 2x External SATA (1x front, 1x rear) One front USB is combined with eSATA |
| Power supply | <ul style="list-style-type: none"> 500 Watt mini power supply 80 PLUS Bronze compliant 6 and 6+2 pin graphics power |
| Warranty | <ul style="list-style-type: none"> 24 Months Pick-Up-And-Return Service |
| Application | <ul style="list-style-type: none"> Performance |

XPC System H7 5820P



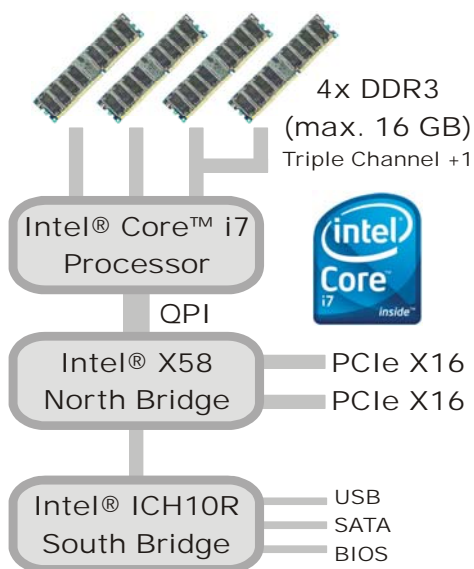
Images for illustration purposes only.

Shuttle XPC H7 5820P –Product Features



The H7 chassis design: a clean and modern look

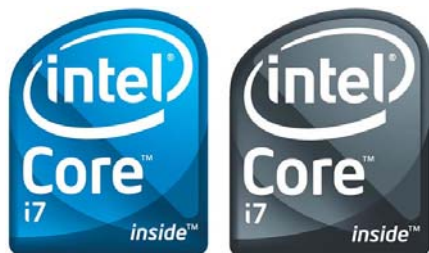
Shuttle has always placed great emphasis on the interior and exterior aesthetics of the XPC, with the belief that a good blend of style and form factor allows the XPC to be attractive, versatile, and work well in almost any environment. The chassis and case cover are made of aluminium and come with a sleek brushed metal front fascia. The drives and front panel connectors are elegantly hidden by drive doors for superior style and visual appeal..



Based on new Intel Nehalem architecture

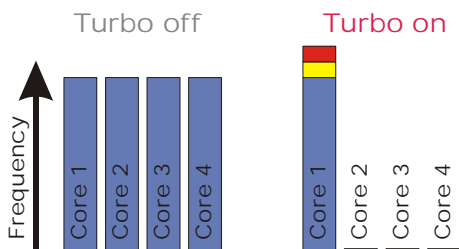
The Shuttle XPC H7 5820P is based on the new core microarchitecture, codenamed Nehalem that brings some major changes not only to the processor architecture, but also the system architecture. These are most significant changes:

- The memory controller has moved from the chipset to the processor and features a triple channel DDR3 interface.
- The Intel® QuickPath Interconnect (QPI) replaces the legacy front side bus between processor and chipset.



With Intel Core i7 processors (Socket 1366)

The Shuttle XPC H7 5820P comes with an Intel® Core™ i7 processor which has a native quad- or six-core design where all CPU cores sit on the same silicon die and share a massive level 3 cache. In addition, each core supports Hyper-threading enabling these processors to process eight or twelve threads simultaneously making them even more powerful and more efficient at multi-tasking than other CPUs.



Built-in overlocking "Turbo" mode

Originally introduced on mobile Penryn, Turbo mode increases the operating frequency of the processor, if conditions allow for the CPU to run at a higher frequency. Each Nehalem can run its four cores at up to 133MHz higher than its stock frequency (e.g. 3.33GHz in case of the 3.2GHz 965 model). Alternatively, if only one core is active, it can run at up to 266MHz higher than its stock speed (3.46GHz up from 3.2GHz). Benchmarks show an increase of the overall performance by 2% to 7%, if Turbo mode is enabled in the BIOS setup.



Integrated Cooling Engine (I.C.E.)

Shuttle XPCs offer the performance of a desktop PC at a third of the size. In order to ensure proper airflow inside such a small case, 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.



USB 3.0 Superspeed

The Shuttle XPC H7 5820P sports two USB 3.0 ports at the front panel and eight USB 2.0 ports at the back panel. USB 3.0 achieves a maximum data rate of up to 5.0Gbps (640MBytes/sec), which is ten times faster than USB 2.0. USB 3.0 is fully compatible to USB 2.0, but not USB 1.1. At first sight USB 3.0 connectors seem no different to USB 2.0 connectors, USB 3.0 connectors have five more pins placed deep inside the connector cover. USB 2.0 can provide a maximum of 500 mA to the USB device while it's 900 mA for USB 3.0. which is particularly important for portable hard drives. USB 3.0 also comes with better power saving options, so your USB powered devices will consume less when idle.



SATA 3.0 with up to 6 Gbit/s speed

The Shuttle XPC H7 5820P has two onboard Serial ATA ports Revision 3.0 delivering super-fast 6Gbps link speeds for twice the data transfer rates of SATA Revision 2.0 (3 Gbps). A move from SATA 3 Gbit/s to SATA 6 Gbit/s allows the new generation of Solid-State Drives (SSDs) to work at their full speed. As for standard hard disks (HDDs), reading times from their built-in DRAM cache will be faster too..



Supports Dual-Slot Graphics Cards

Despite the small housing, the Shuttle XPC H7 5820P is capable of running dual-slot (double-height) PCI Express graphics cards. Please refer to the support list on global.shuttle.com for detailed support information.



Supports up to 16GB of DDR3 memory

The Shuttle XPC H7 5820P supports up to 16GB DDR3-1333 memory which is ideal for workstations powered by 64-bit operating systems, enabling users to take full advantage of high-performance configurations.



500W power supply with 80 PLUS BRONZE logo

The Shuttle XPC H7 5820P is equipped with a rock-stable 500W power supply which has been tested with the latest graphics cards and powerful Core i7 processors. Its 80 Plus Bronze logo indicates that it provides more than 82/85/82% of energy efficiency at 20/50/100% of rated load which reduces energy consumption and increases the computer's reliability.



Reasonably low power consumption

Despite its punch-packing performance, the Shuttle XPC H7 5820P keeps power draw at a reasonable level. With Intel's 6-Core processor, Core i7 980X at 3.33GHz, ATI Radeon HD5870, 6GB DDR3 RAM, DVD writer, SSD and Windows 7 it only consumes 101W in idle mode and 252W under full load.



External Serial ATA ports on front and back panel

In addition to the eSATA port at the back panel, the H7 5820P also comes with one eSATA port at the front panel for plugging in high-speed external hard-drives. The eSATA interface is up to three times faster than USB 2.0.



eSATA with External Power

The back panel provides two external Serial ATA ports and a power port. The included cables make it a snap to connect two external hard drive to the XPC. An eSATA interface is up to six times faster than USB 2.0/Firewire.



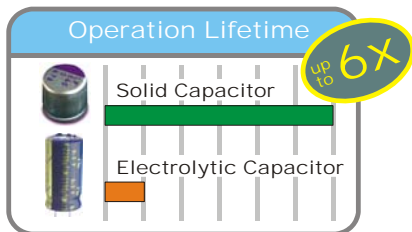
Dual Gigabit LAN with Teaming Support

This Shuttle XPC also features two high-speed Gigabit LAN ports. The teaming function allows for grouping both available network adapters together to work as one single adapter - a method to set up a virtual LAN. The benefit of this approach is to enable load balancing and failover.



HD Audio capabilities

The Shuttle XPC H7 5820P supports 7.1 channel audio via four analog stereo audio ports or the optical S/PDIF out.



Solid Capacitors

By using all-solid capacitors (except the audio part) Shuttle mainboards are long-life and provide industry leading stability and reliability. The average lifespan of one solid capacitor is more than six times greater than the more common and less expensive electrolytic capacitors.

Shuttle XPC H7 5820P Specifications

| | |
|-------------------------|---|
| <i>Basis</i> | This system is based on Shuttle XPC Barebone SX58H7 Pro |
| <i>Chassis</i> | H7-type aluminum chassis, color: black Storage bays: 1 x 5.25", 2 x 3.5" (1 external) Stealthed drive doors Dimensions: 32.6 x 20.8 x 18.9/19.6 cm (LWH) without/with rubber feed Volume: 12.8 litres |
| <i>Mainboard</i> | Mainboard FX58 Pro, Shuttle form factor, proprietary design for SX58H7 Pro Chipset: Intel X58 Express (codenamed Tylersburg) + ICH10R (I/O Controller Hub) Solid Capacitors for excellent heat resistance and enhanced system durability, much better than aluminum electrolytic capacitors |
| <i>Processor</i> | Intel® Core™ i7 processor with Socket 1366 Supports Core-i7-900 series Quad- and Hexa-core processors |
| <i>Heatpipe</i> | Heatpipe processor cooling: Shuttle Integrated Cooling Engine (I.C.E.) with efficient heat-pipe technology |
| <i>Memory</i> | Up to 16 GB DDR3-1333 standard desktop memory in 4 x 240 pin DIMM slots |
| <i>Optical drive</i> | DVD writer or Blu-ray combo/writer (5.25") |
| <i>3.5" storage</i> | Configurable with one or two 3.5" hard drive disks or SSDs |
| <i>Graphics card</i> | AMD/ATI or NVIDIA PCI-Express x16 graphics card Supports Dual-slot (double-width) graphics cards. |
| <i>8-channel audio</i> | 7.1 channel High Definition Audio with Realtek ALC888 codec Analog audio: line-out (8-ch), line-in, microphone, Audio AUX-in (onboard) Digital audio: optical S/PDIF output |
| <i>Dual Gigabit LAN</i> | 2x RJ45 connectors supports Teaming-Mode**) Realtek 8111E Ethernet network controller IEEE 802.3u 1000Base-T compliant Supports 10 / 100 / 1.000 MBit/s operation Supports Wake-on-LAN |

| | |
|------------------------|---|
| <i>Front panel</i> | <p>Microphone Headphone (Line-out) 2x USB 3.0 eSATA / USB 2.0 combo port Power button Reset button Power LED indicator HDD LED indicator</p> |
| <i>Back panel</i> | <p>8x USB 2.0 2x GigaBit LAN (RJ45) 1x External Serial ATA Hotplug (eSATA) Power connector for eSATA hard disks (incl. cable) 8-ch Audio line-out (2x front, 2x rear, bass/center, surround/back) Audio Line-in Digital audio: optical S/PDIF output Clear CMOS button</p> |
| <i>Power supply</i> | <p>500 Watt mini PSU, AC input voltage: 100~240V 80PLUS Bronze certified (> 82/85/82% energy efficiency at 20/50/100% load) Active PFC circuit (Power Factor Correction)</p> |
| <i>Further options</i> | <p>Further configuration options: It is possible to modify certain components of this configuration. Please refer to the "Shuttle Systems Configurator".</p> |
| <i>Warranty</i> | <p>24 Months Pick-Up-And-Return Service</p> |
| <i>Conformity</i> | <p>This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE-mark approves the conformity by the EU-guidelines: - EMV-guideline 89/336/EWG electromagnetic tolerance - LVD-guideline 73/23/EWG use of electric devices within certain voltage-limits</p> |

***) Overclocking Warning**

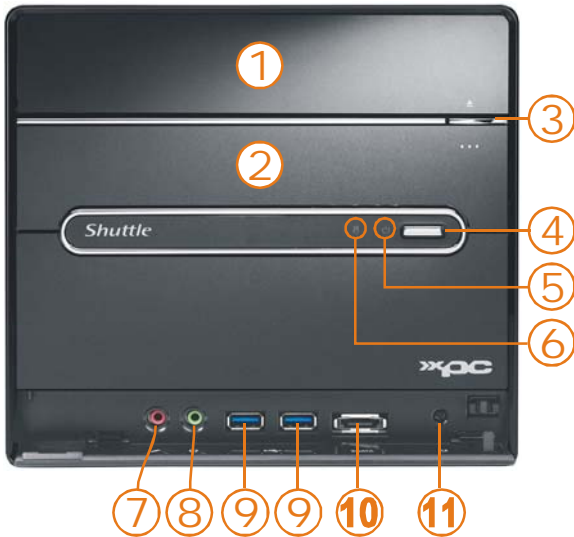
Please note there is a certain risk involved with overclocking, including adjusting the setting in the BIOS or using third-party overclocking tools. Overclocking may affect your system stability or even cause damage of the components and devices of your system. It is done at your own risk and expense. Shuttle cannot be held responsible for possible damage caused by overclocking.

*****) Teaming Mode**

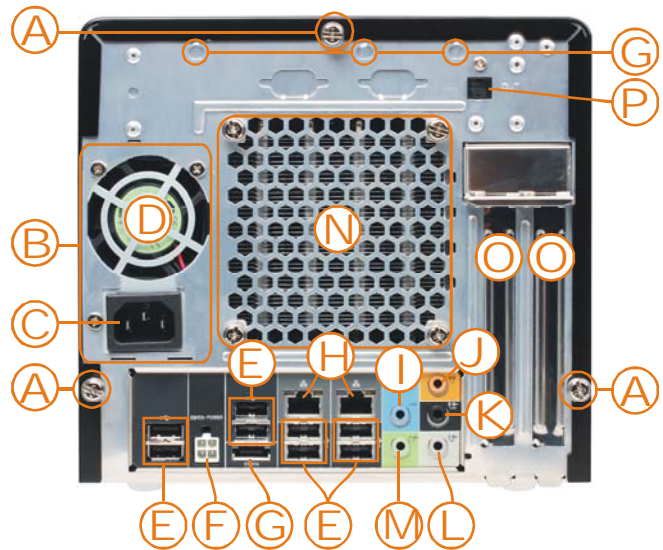
The teaming function allows for grouping both available network adapters together to work as one single adapter - a method to set up virtual LAN. The benefit of this approach is to enable load balancing and failover.

Shuttle XPC H7 5820P – Connectors and Components

Front Panel



Back Panel



- 1 5.25" bay for optical drive
- 2 3.5" bay
- 3 Eject button
- 4 Power switch
- 5 Power LED
- 6 Hard disk LED
- 7 Microphone input
- 8 Headphone output
- 9 USB 2.0 port
- 10 eSATA+USB combo port
- 11 Reset Button

- A Three thumbscrews
- B Power supply (PSU)
- C AC power socket
- D Power supply fan
- E 8x USB 2.0 ports
- F Power output for eSATA
- G eSATA port
- H Dual Gigabit LAN

- I Audio Line-in
- J Audio Center/Bass
- K Audio Surround-Back
- L Audio Surround-Side
- M Audio Surround-Front
- N Heat-pipe cooling fan
- O 2x PCIe X16 slots
- P Optical S/PDIF output

Back Panel

Mainboard

