Slim PC

Barebone X535V4

Fanless 1-litre PC suitable for 24/7 operation

The XS35V4 is the new model of Shuttle's successful XS35 series. This fanless Slim PC barebone with energy-efficient Intel Celeron J1900 Quad Core processor is suitable for building of particularly slim nettops with drives and operating system, as well as for purely network-based applications in client/server environments. The integrated graphics is based on Intel's powerful Gen 7 HD graphics (similar like Ivy Bridge) supporting hardware acceration for FullHD video encoding/decoding. The XS35V4 comes completely fanless which helps cut down on operating noise and expensive servicing as there are no moving parts in the machine. Equipped with the relevant hard drives or SSDs, the XS35V4 is suitable for continuous 24/7 operation.

Chassis	 Slim 1.5 litre chassis Dimensions: 25.2 x 16.2 x 3.85 cm Hole for the Kensington Lock Optional: VESA75/100 mounting kit PV01
Operating system	 Without operating system Compatible with Windows 8 / 8.1 64 bit
CPU	Intel Celeron J1900, Quad Core (2 GHz)
Graphics	 Integrated Intel Gen 7 Graphics Supports DX11 and 1080p Full-HD Video
Memory	 1x SO-DIMM socket (204 pins) Max. size: 8 GB DDR3L-1333 (1.35V) Supports DDR3L-1600 at 1333 MHz
Storage	 Supports one 2.5" SATA hard disk or SSD Supports one optical slimline drive (install a second 2.5" drive in the ODD bay with the optional accessory PHD2N) With SD card reader (SD/SDHC/SDXC)
Connectors and WLAN	 3 video ports: HDMI, DisplayPort, D-Sub 1x USB 3.0, 4x USB 2.0 2x Audio (mic, head phone) Gigabit-LAN, WLAN 802.11 b/g/n
Power supply	• External 40 W fanless power adapter
Applications	Office, Home Media, Digital Signage

Feature Highlights

Images are only for illustration purposes. The optical drive is not included. Shuttle Order-No. PEB-X\$35U401



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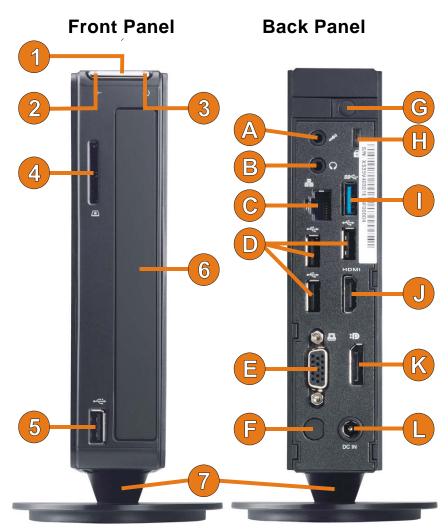
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Shuttle Barebone XS35V4 - Connectors

- 1 Power button
- 2 Power LED
- 3 Hard disk LED
- 4 SD card reader
- 5 USB 2.0 connector
- 6 Bay for the optical slimline drive *)
- 7 Vertical stand

- A Microphone input
- **B** Head phone output (Line out)
- C Gigabit LAN connector (RJ45)
- D 3x USB 2.0 connectors
- E D-Sub/VGA connector
- F Perforation for optional connector
- G One screw to open the chassis
- H Hole for the Kensington-Lock

*) Note: The optical drive is not included.

- I USB 3.0 connectorJ HDMI connector
- **K** DisplayPort connector
- L DC input for the
 - power adapter



Warning:

Please make sure the system is always placed upright using either its stand or the optional VESA mount. Ventilation holes must not be blocked to ensure sufficient cooling.

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Preliminary

Shuttle Barebone XS35V4 Specifications

Fanless and silent	Completely fanless, no fan noise at all Passive cooling through convective heat transfer Perfect to be used in noise-sensitive environments Fanless means less dust and thus virtually maintenance-free Warning: Please make sure the system is always placed upright using either its stand or the optional VESA mount. Ventilation holes must not be blocked to ensure sufficient cooling
Chassis	Dimensions without Stand: 25.2 x 16.2 x 3.85 cm (DxHxW) = 1.57 L Hole for the Kensington Lock at the back panel Optional accessory: 75mm and 100mm VESA mounting kit (PV01)
Operation System	This system comes without operating system. Currently, it is compatible with Windows 8 / 8.1 at 64 Bit
Processor	Intel Celeron J1900, Quad Core CPU clock frequency: 2.00 GHz, max. Turbo frequency: 2.42 GHz Silvermont architecture, Bay Trail-D platform, 22nm structure CPU cores/Threads: 4/4 Cache: 2 MB Thermal Design Power (TDP): 10W SOC design with integrated graphics processor
Integrated Graphics	The Graphics Processing Unit (GPU) is integrated into the processor Intel HD graphics gen 7, graphics frequency: 688~854 MHz Supports DirectX 11.0, OpenGL 4.0, OpenCL 1.2, HDCP 1.3 (Blu-ray) Execution Units (EU): 4 Three video outputs: - HDMI: max. 1920x1200 resolution @ 60Hz - Display Port: max. 2560x1600 resolution @ 60Hz - D-Sub (VGA): max. 1920x1200 resolution @ 60Hz Dual display: supports max. two independent displays Full hardware acceleration: - for decode: H.264, MPEG2, MVC, VC-1, VP8, MJPEG - for encode: H.264, MPEG2, MVC
BIOS	AMI BIOS in a 8Mbit Flash ROM supports PnP, ACPI 3.0 Supports Power fail resume / AC power on state / always on / always off Supports Wake-on-LAN (WOL) from S3, S3, S5 ACPI states Supports Unified Extensible Firmware Interface (UEFI) Supports boot up from external flash memory cards

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Memory	1x SO-DIMM slot with 204 pins Supports one module DDR3L-1333 (PC3-10600) at 1.35V Maximum capacity: 8 GB DDR3L-1600 is supported at DDR3L-1333 clock rate <u>Caution:</u> This mainboard does only support 1.35V DDR3L memory modules. Note: DDR3L has a lower operation voltage compared to DDR3
Optical drive (opt.)	Support an optical DVD or Blu-ray slim-line drive Serial ATA interface, 12.7 mm height, Slimline SATA connector
Hard disk drive or SSD	Supports one Serial ATA hard disk (5400 / 7200 rpm) or one SATA SSD drive in 6.35cm/2.5" format Serial ATA II Interface with up to 300 MB/s transfer speed Supports a drive with max. 9.5 mm height Supports Unified Extensible Firmware Interface (UEFI)
Integrated Audio	Realtek ALC269 Audio Codec with Azalia and D3 mode support Two analog audio connectors (3.5mm): 1) Line out (head phone) 2) microphone input
Card Reader	Integrated card reader supports SD, SDHC and SDXC memory flash cards
Wired Network	RJ45 connector supports Gigabit LAN at 10/100/1000 Mbit/sec. Network controller Realtek RTL8411 Supports Wake-on-LAN (WOL) from S3, S3, S5 ACPI states
Wireless Network	Half-size Mini PCIe card with RTL8188EE chip Supports IEEE 802.11b/g/n, max. 150Mbps up-/downstream Security: WPA/WPA2(-PSK), WEP 64/128bit, IEEE 802.11x/i
Connectors	HDMI digital video and audio output Display Port digital video and audio output D-Sub/ VGA analog video output (15 pin) 1x USB 3.0 (rear) 4x USB 2.0 (1x front, 3x rear) Gigabit network (LAN, RJ45) Audio Line-out (head phone) Microphone input SD card reader (front) DC input for the external power adapter Perforation for TV antenna (diameter: 9 mm)
Internal USB connector	Internal USB 2.0 Type-A connector for USB dongle (e.g. memory stick, 3G stick, DVB-T stick, etc.) Supports boot from internal USB memory stick.
LEDs and buttons	Power button Power LED (blue)

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Power supply	External 40W AC/DC power adapter (fanless), 19V / 2.1A AC Input: 100~240V AC, 50~60Hz Automatic voltage adjust Dimensions: 89.5 x 37 x 26.5 mm (LWH) DC Connector: 5.5/2.5mm (outer/inner diameter)
Optional accessories	Optional Accessories - VESA mount made of metal (PV01) - Adapter for second 2.5" drive instead of optical drive (PHD2N)
24/7 nonstop operation	This device is approved for 24/7 permanent operation. Requirements: - Free circulation of air amongst the PC must be guaranteed. - Ventilation holes must be clear. - If a hard disk is installed, this must also be approved for permanent operation by its manufacturer (max. one hard disk)
Environ- mental spec.	Operating temperature range: 0~35°C Relative humidity range: 10~90% (non-condensing)
Certification and Compliance	 EMI: CE, FCC, BSMI, C-Tick, CCC Safety: CB, BSMI, ETL Other compliances: RoHS, Eup Lot6 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



Internal USB connector

The Shuttle Barebone XS35V4 features an internal USB 2.0 Type-A connector supporting a variety of USB sticks like flash memory, 3G function, DVB-T TV tuner and other. The chassis also provides a perforation for an external antenna.

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Shuttle XS35/XS36 Series – History

XS35 Series Supports Slimline-DVD drive XS36 Series Supports two serial ports



Model	Graphics	Graphics output	USB 3.0	сом	WOL	ODD [4]	Processor	Memory	LAN
XS35	Intel GMA3150	D-Sub	-	-	-	Yes	Atom D510 (1.66 GHz)	Max. 2GB DDR2-800 [6] 1x SO-DIMM	100
XS35 <mark>GT</mark>	NVIDIA ION2	D-Sub, HDMI	-	-	-	Yes			
XS35 <mark>V2</mark>	Intel GMA3150	D-Sub	-	-	-	Yes	Atom D525 (1.80 GHz)	Max. 4GB DDR3-800 <mark>[6]</mark> 1x SO-DIMM	Giga
XS35 <mark>GT V2</mark>	NVIDIA ION2	D-Sub, HDMI	-	-	-	Yes			
XS35 <mark>GTA V2</mark>	ATI Mobility	D-Sub, HDMI	-	-	-	Yes			
	Rad. HD 5430								
XS35 <mark>GS V2</mark>	ATI Radeon HD 7410M	D-Sub, HDMI	-	-	-	Yes			
XS35 <mark>V3(L)</mark>	Intel GMA3650 [2]	D-Sub, HDMI	-	-	Yes [3]	Yes	Atom D2700 (2.13 GHz) Atom D2550 (1.86 GHz) [5]	Max. 4GB DDR3-1066 [6] 2x SO-DIMM	Giga
XS35GTA V3 XS35GS V3 [1]	ATI Radeon HD 7410M	D-Sub, HDMI	-	-	Yes [3]	Yes			
XS36V	Intel GMA3650 [2]	D-Sub, HDMI, DVI	-	2x	Yes [3]	-			
XS35 <mark>GS V3L</mark>	ATI Radeon HD 7410M/7450[7]	D-Sub, HDMI	-	-	Yes [3]	Yes			
XS36 <mark>VL</mark>	Intel GMA3650 [2]	D-Sub, HDMI, DVI	-	2x	Yes [3]	-			
X\$35V4	Intel HD Gen. 7 [9]	D-Sub, HDMI, DP	Yes	-	Yes [3]	Yes	Celeron J1900 (2.0 GHz)	Max. 8GB DDR3L-1333 1x SO-DIMM	Giga
XS36V4	Intel HD Gen. 7 [9]	D-Sub, HDMI, DP	Yes	2x [8]	Yes <mark>[3]</mark>	-			

[1] XS35GTAV3 is also called XS35GS V3 outside EU.

[2] Intel offers sophisticated graphics driver for the integrated Intel GMA3650 graphics only for Windows 7 32 bit.

[3] Supports Wake-on-LAN (WOL), Power fail resume (always on/off) and Resume by RTC Alarm

[4] "ODD" means 5.25" bay for an optical drive in slim-line format

[5] In 2012, Intel phased out the Atom D2700 processor and introduced the D2550 as its successor.

[6] DDR3-1333 is supported at DDR3-1066 or DDR3-800 clock rate, respectively.

[7] X\$35G\$V3L: in the beginning of 2014, the GPU was updated from HD 7410M to HD 7450.

[8] XS36V4 provides two serial RS232 ports which both support 0V/5V/12V. The upper port is switchable to RS422 / RS485.

[9] Only Windows 8/8.1 64 bit is supported when the product was launched in May 2014. Other versions may follow later.