Fanless 1-litre PC suitable for 24/7 operation

The XS36V4 is the new model of Shuttle's successful XS36 series. The device has thickness of only 36 mm and completely fanless - in combination with a SSD drive it is quiet, virtually maintenance free and approved for reliable 24/7 non-stop operation. The energy-efficient Intel Celeron J1900 Quad Core processor with powerful graphics engine is suitable for a wide range of software applications including FullHD video encoding/decoding. Three monitor ports (HDMI, DisplayPort, D-Sub/VGA) allow a flexible choice of up to two display. In addition to USB 3.0, card reader, Gigabit-LAN, Wifi it also offers two RS-232 interfaces for professional applications (e.g. device control). Thanks to its multi-functional features It is an ideal plattform for professional applications like digital signage, POS, automation, office PC or media PC.

Barebone **XS36V4**
Slim PC

nonstop 24/7

Fanless

Feature Highlights
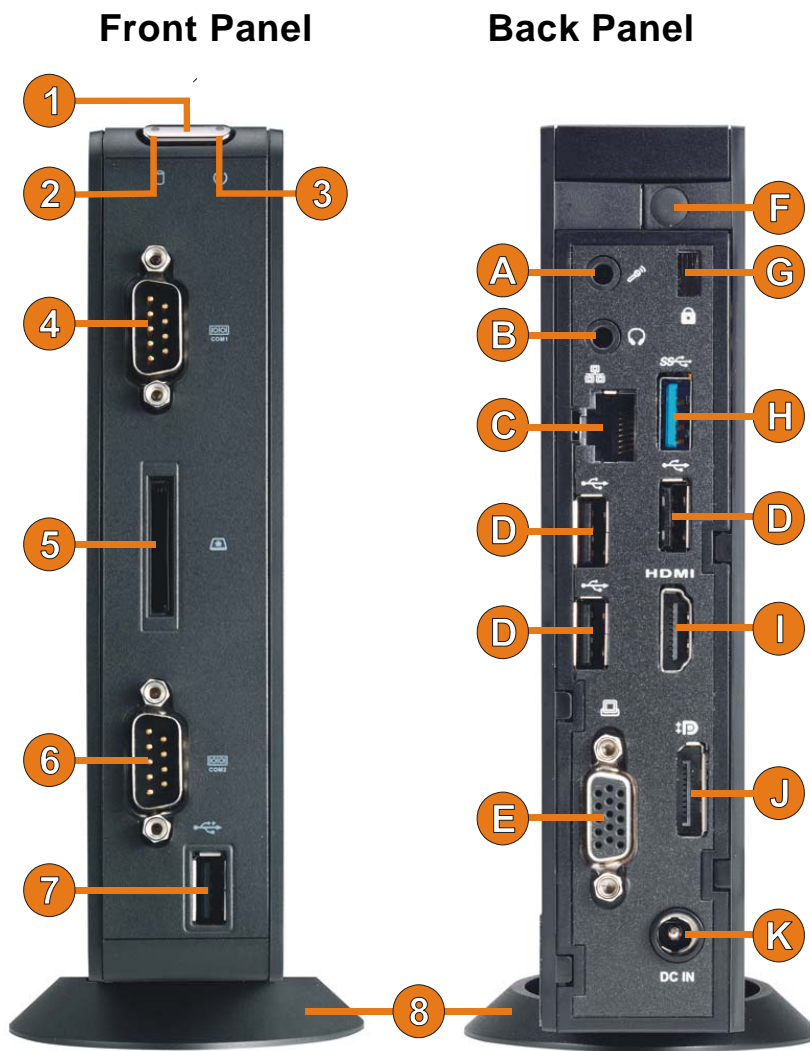
Chassis	• Slim 1.15 litre chassis • Dimensions: 20 x 16 x 3.6 cm • Hole for the Kensington Lock • Optional VESA mount (PV03)
Operating system	• Without operating system • Compatible with Windows 8 / 8.1 64 bit
CPU	• Intel Celeron J1900, Quad Core (2 GHz)
Graphics	• Integrated Intel Gen 7 Graphics • Supports 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 • With SD card reader
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 • 2x serial ports (RS232)
Power supply	• External 40 W fanless power adapter
Applications	• Office, POS, automation, digital signage

Images are only for illustration purposes.
Shuttle Order-No. PEB-XS36V401

8 11686 00650 3

Shuttle Barebone XS36V4 – Connectors

Front Panel   Back Panel

1	Power button	A	Microphone input	I	HDMI connector
2	Power LED	B	Head phone output (Line out)	J	DisplayPort connector
3	Hard disk LED	C	Gigabit LAN connector (RJ45)	K	DC input for the
4	Serial Ports 1 (RS232/422/485)	D	3x USB connectors		power adapter
5	SD card reader	E	D-Sub/VGA connector		
6	Serial Ports 2 (RS232)	F	One screw to open the chassis		
7	USB 2.0 connector	G	Hole for the Kensington-Loc		
8	Vertical stand	H	USB 3.0 connector		

Warning:
Please make sure the system is always placed upright using either its stand or the optional VESA mount (PV03). Ventilation holes must not be blocked to ensure sufficient cooling.

Shuttle Barebone XS36V4 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 (PV03). Ventilation holes must not be blocked to ensure sufficient cooling.
Chassis	Dimensions without Stand: 20 x 16 x 3.6 cm (DxHxW) = 1.15 litres Hole for the Kensington Lock at the back panel Optional accessory: 75mm and 100mm VESA mounting kit (PV03)
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

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 Caution: This mainboard does only support 1.35V DDR3L memory modules. Note: DDR3L has a lower operation voltage compared to DDR3
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
LEDs and buttons	Power button Power LED (blue)
Front Panel connectors	2x RS232 serial ports (supports 5V/12V auxiliary voltage, the upper port is switchable to RS422 / RS485) 1x USB 2.0 SD card reader (front)
Back Panel connectors	HDMI digital video and audio output DisplayPort digital video and audio output D-Sub/ VGA analog video output (15 pin) 1x USB 3.0 3x USB 2.0 Gigabit network (LAN, RJ45) Audio Line-out (head phone) Microphone input DC input for the external power adapter

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	VESA mount made of metal (PV03)
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)
Environmental 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

Shuttle XS35/XS36 Series – History

XS35 Series
Supports Slimline-DVD drive

XS36 Series
Supports two serial ports

Model	Graphics	Graphics output	USB 3.0	COM	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
XS35GT	NVIDIA ION2	D-Sub, HDMI	-	-	-	Yes			
XS35V2	Intel GMA3150	D-Sub	-	-	-	Yes	Atom D525 (1.80 GHz)	Max. 4GB DDR3-800 [6] 1x SO-DIMM	Giga
XS35GT V2	NVIDIA ION2	D-Sub, HDMI	-	-	-	Yes			
XS35GTA V2	ATI Mobility Rad. HD 5430	D-Sub, HDMI	-	-	-	Yes			
XS35GS V2	ATI Radeon HD 7410M	D-Sub, HDMI	-	-	-	Yes			
XS35V3(L)	Intel GMA3650 [2]	D-Sub, HDMI	-	-	Yes [3]	Yes	Atom D2700 (2.13 GHz)	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]	-			
XS35GS V3L	ATI Radeon HD 7410M/7450[7]	D-Sub, HDMI	-	-	Yes [3]	Yes	Atom D2550 (1.86 GHz) [5]		
XS36VL	Intel GMA3650 [2]	D-Sub, HDMI, DVI	-	2x	Yes [3]	-			
XS35V4	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 [3]	-			

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

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

[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] XS35GSV3L: 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 <u>Windows 8/8.1 64 bit</u> is supported when the product was launched in May 2014. Other versions may follow later.