

All-in-one PC for unconventional applications

Shuttle's All-in-One PC X50V3L is powered by Intel's Atom D2550 processor, codenamed "Cedarview". The smaller architecture of 32 nm helps improve on power consumption and computing power. The X50V3L is completely passively cooled and therefore is virtually noiseless. Doing away with any fans means there is one less element that may need repairing or servicing. If an SSD drive is installed in the X50V3L, the entire machine has no moving parts at all – ideal for maximum reliability.

Shuttle All-in-One PC **X50V3L Black** **Barebone**



Touchscreen



Dual Core



Fanless

Feature Highlights

All-in-one Design	<ul style="list-style-type: none"> • All-in-One PC Barebone platform with resistive touchscreen • Small: 391 x 327 x 42 mm (WHL) • Stand can also be used as a handle • 100mm VESA mount capable • External, fanless power supply (40W)
Display & Graphics	<ul style="list-style-type: none"> • 39.6cm (15.6") resistive touchscreen with 1366x768 resolution • Integrated graphics (GMA3650, DX9) • HDMI + D-Sub/VGA Video output
CPU & Chipset	<ul style="list-style-type: none"> • CPU: Intel ATOM D2550 Dual Core 1.86 GHz • Chipset: NM10 (Platform Controller Hub)
Storage (not included)	<ul style="list-style-type: none"> • Supports DDR3-1066 (or higher) 2x 204 pin SO-DIMM slots, total max. 4GB • Supports 1x 6,35cm/2,5" SATA hard disk / SSD
Operating System	<ul style="list-style-type: none"> • Operating system not included, compatible with Windows 7 and POSReady 7, 32 Bit only
Connectivity	<ul style="list-style-type: none"> • HDMI, D-Sub, 4x USB, Microphone-in, Line-out • Gigabit LAN, Wireless LAN (n) • Optional: 2x RS232, 1x LPT (PCL69)
Built-in	<ul style="list-style-type: none"> • SD card reader • 2.0 Megapixel webcam • 2x 2W speakers • Electret Condenser Microphone
Power Supply	<ul style="list-style-type: none"> • 40W, fanless, Energy Star 5 compliant
Warranty	<ul style="list-style-type: none"> • 24 months Bring-in Service



Images for illustration purposes only.



Shuttle X50V3L Barebone - Product Features

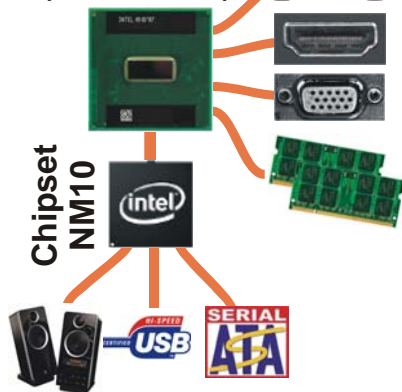


All applications at your fingertips

The innovative touchscreen technology delivers the simplest operation possible and makes the screen the centre of action. Its high-quality design lets you control the whole range of multimedia - music, movies, video playback and web browsers start by just touching the screen.

Atom D2550

Dual Core
(Cedarview-D)

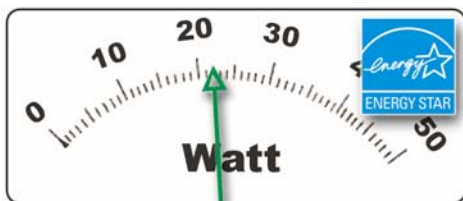


Atom D2550 processor integrates the graphics core

Shuttle X50V3L is equipped with Intel's Atom processor D2550, codenamed Cedarview. It brings both the graphics core with HDMI and D-Sub ports and the memory controller on-die which helps reduce the thermal output and memory latency. The CPU is connected to the Southbridge NM10.

Dual Core. Do more.

Shuttle's all-in-one PC banks on the embedded Intel Atom D2550 Dual Core processor which boosts system productivity, particularly with regards to multi-threaded applications.



Power saving

The new X50V3L version is equipped with an Intel Atom D2550 Dual Core processor and eco-friendly ENERGY STAR 5.0 qualified power adapter that consumes about 20~27 Watt (with 4GB RAM, 500GB hard disk) only.

What does "Barebone" mean?

The Shuttle X50V3L Barebone is targeted at hardware experts seeking to build a complete system according to their individual requirements. Most of the components is yet built in, just the following hardware is required to be installed by the purchaser in this case:

- One 6.35cm/2.5" Serial ATA hard disk or SSD
- One or two DDR3-1066/1333 SO-DIMM memory modules (204 pins)
- Optional: USB keyboard and USB mouse
- Windows 7 (32 Bit) operating system



All-in-one PC

Your complete PC system with many components already built in comes in just one single device! This includes the webcam, microphone, mainboard, display, touchscreen input interface, wireless LAN module and speakers. Helps you save on space, looks simply stylish, reduces cable clutter.



HDMI and D-Sub/VGA Port

The digital HDMI port or the analog D-Sub/VGA port can be used to connect a secondary external LCD display or a beamer to the PC. The integrated graphics unit supports both clone mode and extended mode.



Built-In Webcam and Microphone

The built-in 2.0 mega pixel webcam and microphone makes it easy to take pictures or stream live images from across the internet – and connect in real-time with friends, family, and colleagues.



Slim and chic

Designed as space-savers, this 15.6 inch all-in-one desktop PC only measures 3.6cm in depth.



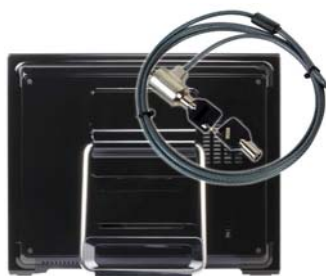
Fanless - as quiet as 22dBA

The Shuttle X50V3L features a cooling system that combines an integrated heatsink with thermal pads - and removes the fan. As an additional benefit, it's not only quiet but also dust-free.



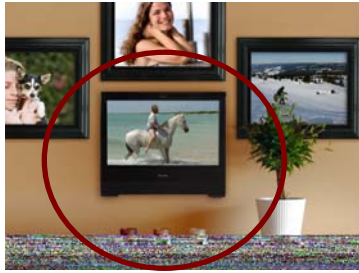
Carrying handle

Cleverly, the stand can be pulled upwards to serve as a handle making the X50V3L easy to move and carry around.



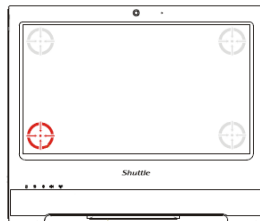
Kensington Lock

This is a small, metal-reinforced hole as part of an anti-theft system. (The lock and cable are not included.)



VESA mounting

The stand on the rear can easily be removed to unveil four VESA mounting screw holes that can be used for mounting arms and other mounting devices from a variety of manufacturers.



4 Point Touch Screen Calibration

The X50V3L features a precise touchscreen input device. This can easily be calibrated with the eGalax touch software by just pointing on each corner of the screen using the stylus pen. With this four-point calibration, you can use demanding graphical user interfaces (GUI) that require precise cursor control to properly activate small icons, buttons, scroll bars, etc.



Optional serial and parallel legacy ports

Legacy ports are widely popular among industrial applications. Thus, the X50V3L optionally provides one parallel and two serial ports on the back panel (Accessory PLC69).



Tiny power adapter

The external 40W power adapter is virtually noiseless and can easily be hidden behind the desk thanks to its tiny dimensions.

Dimensions: 89.5 x 37 x 26.5 mm (LWH) = 88ml



24/7 nonstop operation

The Shuttle All-in-One PC X50V3L is officially approved for 24/7 permanent operation. Thanks to its low power consumption and completely passively cooling, this PC runs highly reliable making it perfectly suitable for digital signage and POI/POS applications.

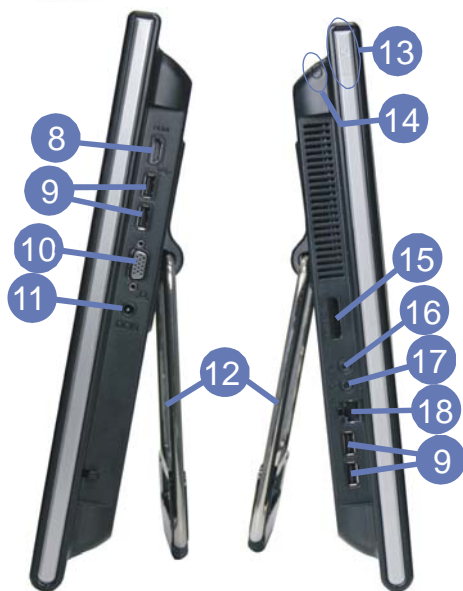
Conditions for permanent use:

- Ambient temperature while under load: 5-35°C
- Air humidity while under load: 10-80% (not condensing)
- 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.

Shuttle X50V3L Barebone Overview (Connectors, buttons, etc.)



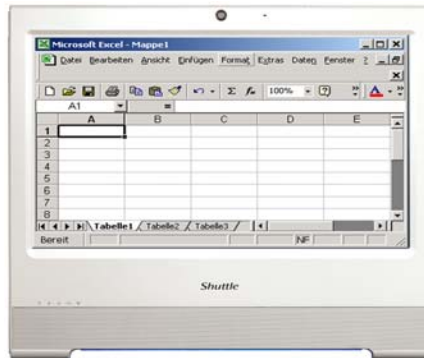
- 1 Touchscreen LCD display
- 2 Webcam
- 3 Microphone
- 4 Power on LED
- 5 Hard disk LED
- 6 Wireless LAN LED (Wifi)
- 7 Stereo speakers
- 8 HDMI video output
- 9 4x USB 2.0 connectors
- 10 D-Sub VGA video output
- 11 DC-input for power adapter
- 12 Stand (handle)
- 13 Power on button
- 14 Stylus pen with holder
- 15 Card reader
- 16 Microphone input
- 17 Audio line out (head phone)
- 18 RJ45 Gigabit LAN connector
- 19 Kensington lock hole
- 20 Vesa mount
- 21 2x COM, 1x Par. Ports (optional accessory PCL69)



Shuttle X50V3L Barebone – Range of Applications



Entertainment
Music, Movies,
Photo gallery, TV*
*) TV tuner USB stick
required



Work
Banking, Shopping,
Office, Stock trading



Control
Surveillance,
Home Automation,
Control device



P.O.S.
Point of sales



Education
In schools, at home,
for children and adults



Communication
Email, VoIP, Messenger,
Blog, Video Conferencing



Digital Signage
Visual advertising,
entertainment, displaying
information in public areas

Shuttle X50V3L Barebone Black – Specifications

<i>Fanless and silent</i>	<p>Passive cooling, no fan noise at all</p> <p>Perfect to be used in noise-sensitive environments</p> <p>Fanless, dust-free and thus virtually maintenance-free</p>
<i>Chassis</i>	<p>Colour: black, matt / non-glossy</p> <p>Dimensions: 391.3 x 327 x 42 mm (WxHxL)</p> <p>100mm VESA mount capable</p> <p>Mounting hole for Kensington lock</p> <p>Weight: 2.93 kg net, 4.2 kg gross</p>
<i>Operating system</i>	<p>This system comes without operating system.</p> <p>It is compatible with the 32 bit version of Windows 7 and Windows Embedded POSReady 7</p>
<i>Touch-screen</i>	<p>Touchscreen function support fingertip input</p> <p>Resistance and single touch technology</p> <p>Including stylus pen for the touchscreen</p>
<i>39.6cm (15.6-inch) display</i>	<p>39.6cm/15.6" LCD display, ratio: 16:9 wide screen panel</p> <p>Resolution: 1366x768 = 1.05 Megapixels</p> <p>Backlight unit: High power LED</p>
<i>Processor</i>	<p>Intel Dual Core Atom processor D2550 (Codename: Cedarview)</p> <p>Intel Hyper-Threading technology: 2-threads per core</p> <p>32 nm manufacturing process, Micro-FCBGA11 package</p> <p>Intel 64 architecture, Core clock: 1.86 GHz</p> <p>L2 Cache: 1024kB , TDP: max. 10W</p> <p>Supports SSE2, SSE3, SSSE3, Execute Disable Bit</p> <p>Integrated North Bridge with controller for memory and graphics</p> <p>Passive cooling without any fan</p>
<i>Integrated Graphics</i>	<p>The Graphics Processing Unit (GPU) is integrated into the processor</p> <p>Intel GMA 3650, Graphics Base Frequency: 640 MHz, supports DirectX 9</p> <p>Maximum shared memory: 8MB pre-allocated plus 384MB Video Memory Technology (DVMT)</p> <p>Two video outputs: HDMI v1.3 and D-Sub (VGA)</p> <p>Supports dual display in clone or extended model</p>
<i>Chipset</i>	<p>Intel® NM10 Express Chipset</p> <p>Platform Controller Hub (PCH), Code name: Tiger Point</p>
<i>BIOS</i>	<p>AMI BIOS in a 8Mbit Flash ROM supports PnP, ACPI 2.0</p> <p>Supports Power fail resume / AC power on state / always on / always off</p> <p>Supports Wake-on-LAN (WOL) from S3, S3, S5 ACPI states</p> <p>Supports Unified Extensible Firmware Interface (UEFI) [1]</p>

<i>Memory</i>	<p>2x SO-DIMM slots with 204 pins</p> <p>Supports two modules DDR3-1066 (PC3-8500)</p> <p>DDR3-1333 is supported at DDR3-1066 clock rate</p> <p>Supported maximum capacity: 4 GB</p>
<i>Hard disk or SSD</i>	<p>Supports one Serial ATA hard disk (max. 5400 rpm)</p> <p>or one SATA SSD drive in 6.35cm/2.5" format</p> <p>The SATA 2.0 interface supports up to 300MB/s data transfer speed</p> <p>Supports a drive with up to 12.5 mm height</p> <p>Supports Unified Extensible Firmware Interface (UEFI) [1]</p>
<i>Card reader</i>	<p>Integrated card reader supports SD, SDHC and SDXC memory flash cards</p>
<i>Webcam</i>	<p>Integrated Webcam module with 2.0 Megapixel (1600x1200) resolution</p>
<i>Microphone Speakers</i>	<p>Front panel with integrated Electret Condenser Microphone and</p> <p>2x 2W speakers</p>
<i>Integrated Audio</i>	<p>IDT92HD81 Audio Codec with Azalia support</p> <p>Two analog audio connectors (3.5mm):</p> <ol style="list-style-type: none"> 1) Line out (head phone) 2) microphone input <p>Digital Audio is supported via the HDMI port.</p>
<i>Wired Network</i>	<p>RJ45 connector supports Gigabit LAN at 10/100/1000 Mbit/sec.</p> <p>Network controller Realtek RTL8411</p> <p>Supports Wake-on-LAN (WOL) from S3, S3, S5 ACPI states</p>
<i>Wireless LAN (Wifi)</i>	<p>Supports IEEE 802.11b/g/n, max. 150Mbps up-/downstream</p> <p>Security: WPA/WPA2(-PSK), WEP 64/128bit, IEEE 802.11x/i</p> <p>Half size Mini-PCIe-Card</p>
<i>Connectors</i>	<p>HDMI 1.3 (supports digital video and digital audio)</p> <p>VGA connector (D-Sub 15 pol., analog)</p> <p>4x USB 2.0 (2x left side, 2x right side)</p> <p>Network (LAN, RJ45)</p> <p>Audio Line-out (head phone)</p> <p>Microphone input</p> <p>DC input for external power adapter</p> <p>optional: 2x COM, 1xLPT (Accessory: PCL69)</p>
<i>LEDs and buttons</i>	<p>Power button</p> <p>Power LED (blue)</p> <p>Hard disk LED (orange)</p> <p>Wireless-LAN / Wifi LED (green)</p>

<i>Power adapter</i>	<p>External 40W AC/DC power adapter (fanless)</p> <p>Energy Star 5 compliant</p> <p>AC Input: 100~240V AC, 50~60Hz</p> <p>DC Output: 19V DC, max. 2.1A</p> <p>Dimensions: 27 x 37 x 90 mm</p> <p>DC Connector: 5.5/2.5mm (outer/inner diameter)</p>
<i>Included Accessories</i>	<p>Quick Guide</p> <p>Driver DVD</p> <p>40W Power Adapter</p> <p>Power cord</p>
<i>Optional Accessories</i>	<p>COM/LPT adapter module PCL69: 1x parallel and 2x serial (RS-232)</p> <p>Carrying bag PF55</p>
<i>24/7 nonstop operation</i>	<p>This device is approved for 24/7 permanent operation.</p> <p>Requirements:</p> <ul style="list-style-type: none"> - 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)
<i>Certifications</i>	<p>EMI: CE, FCC, BSMI, C-Tick, CCC</p> <p>Safety: CB, BSMI, ETL</p> <p>Other compliances: RoHS, Eup Lot6</p>
<i>Environment</i>	<p>Operating temperature: 0~35°C</p> <p>Humidity: 10~90%</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:</p> <ul style="list-style-type: none"> - EMV-guideline 89/336/EEG electromagnetic tolerance - LVD-guideline 73/23/EEG use of electric devices within certain voltage-limits

Shuttle X 50 Barebone Series – Product Comparison

Model ->	X50	X50V2	X50V2 Plus	X50V3	X50V3L
Lifetime	05/2009 ~ 03/2010	01/2010 ~ 05/2011	04/2011 ~ Q4/2013	Q2/2012 - Q4/2012	Q1/2013 - ???
Atom Processor	Atom 330 1.6 GHz TDP=8W	Atom D510 1.66 GHz TDP=15W	Atom D525 1.8 GHz TDP=13W	Atom D2700 [1] 2.13 GHz TDP=10W	Atom D2550 [1] 1.86 GHz TDP=10W
BIOS Version	Award	AMI	AMI	AMI	
Integr. Graphics	GMA950, DX9	GMA3150, DX9	GMA3150, DX9	GMA3650, DX9 [2]	
Cooling	With fan	Passive	Passive	Passive	
North Bridge	Intel 945GC (22W)	-	-	-	
South Bridge	Intel ICH7 (3.3W)	Intel NM10 (2.5W)	Intel NM10 (2.5W)	Intel NM10 (2.5W)	
Memory	Max. 2x2GB DDR2-667/533 200 pin SO-DIMMs	Max. 2x2GB DDR2-800/667 200 pin SO-DIMMs	Max. 2x2GB DDR3-800/667 [3] 204 pin SO-DIMMs	Max. 2x2 or 1x4GB DDR3-1066/800 [3] 204 pin SO-DIMMs	
Webcam	1.3 MP	1.3 MP	2.0 MP	2.0 MP	
Display Backlight	CCFL	LED	LED	LED	
Connectors	D-Sub VGA 5x USB 2.0 RJ45 (Gigabit) 3x Audio Card reader	D-Sub VGA 4x USB 2.0 RJ45 (10/100) 2x Audio Card reader 2x RS232 1x LPT (parallel)	D-Sub VGA 4x USB 2.0 RJ45 (10/100) 2x Audio Card reader	HDMI 1.3 D-Sub VGA 4x USB 2.0 RJ45 (Gigabit) 2x Audio Card reader	
COM/LPT port	Not available	Included	Optional (PCL68)	Optional (PCL69)	
Power consumption (Idle/Full)	39~52W	19~22W	19~22W	20~27W	
Power Adapter	65W	40W	40W	40W	
Hardware control Webcam, WLAN...	Two buttons	Control AP Software	Control AP Software	BIOS setting	
Chassis / Dimensions	Glossy surface 39.13 x 32.7 x 3.6 cm	Glossy surface 39.13 x 32.7 x 3.6 cm	Glossy surface 39.13 x 32.7 x 3.6 cm	Non-Glossy surface 39.13 x 32.7 x 4.2 cm	
Back cover with embossed Shuttle-Logo?	Yes	Yes	Yes	No	
Light bar at the bottom	Yes	Yes	Yes	No	
UPC Barcode	White: 811686007593 Black: 811686002925	COM/LPT enclosed: White: 811686003076 Black: 811686003083 COM/LPT built-in: White: 811686003113 Black: 811686003090	White: 811686003434 Black: 811686003441	X50V3: White: 811686003885 Black: 811686003878 X50V3L: White: 811686004271 Black: 811686004264	

[1] In 2012, Intel phased out the Atom D2700 processor and introduced the D2550 as its successor. This new model comes with a slightly reduced clock rate, while any other features are maintained.

[2] Intel offers sophisticated graphics driver for the integrated Intel GMA3650 graphics only for Windows 7 32 bit. Linux can be used in standard mode without video and 3D acceleration. (date Oct. 2012)

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