### All-in-One Touchscreen PC with Linux

The Shuttle X 5020VA Plus is an all-in-one PC boasting a 39.6cm (15.6inch) touchscreen LCD powered by Intel's dual core Atom processor D525. This system is equipped with 2GB DDR3 memory, 250GB hard disk and OpenSUSE Linux operation system. Equipped with Intel's integrated graphics, it provides generous performance for daily computing with internet and office applications. A 2.0MP webcam, built-in speakers, card reader, WLAN and other features leave nothing you could ask for. Have any applications start up quickly by just touching the screen for working most swiftly and conveniently. This computer also provides serial and parallel ports for certain professional applications.

Feature Highlight		
All-in-one design	<ul> <li>Fully configured stylish PC platform</li> <li>Small: 391 x 327 x 36 mm (WHL)</li> <li>Stand can also be used as a handle</li> <li>External, fanless power supply (40W)</li> </ul>	
Display & Graphics	<ul> <li>39.6cm (15.6") touchscreen (1366x768)</li> <li>Integrated graphics (GMA3150, DX9)</li> <li>VGA Video output (Extended Mode)</li> </ul>	
CPU & Chipset	CPU: Intel ATOM D525 Dual Core , 1.8GHz Chipset: NM10 (Plattform Controller Hub)	
Memory & Storage	<ul><li>2GB DDR3 SO-DIMM memory</li><li>250GB SATA hard disk (6.35cm/2.5")</li></ul>	
Operating system	OpenSUSE Linux, powered by Novell	
Connectivity	<ul> <li>4x USB, Audio: Mic, Line-out</li> <li>LAN connector, Wireless LAN (draft-n)</li> <li>2x RS232 (serial), 1x LPT (parallel)</li> </ul>	
Built-in	<ul> <li>SD card reader</li> <li>2.0 Megapixel webcam</li> <li>2x 2W speakers</li> <li>Electret Condenser Microphone</li> <li>100mm VESA mount capable</li> <li>Light bar at the bottom</li> </ul>	
Power Supply	• 40W, fanless, Energy Star 5 compliant	
Warranty	24 months Bring-in Service	

Images for illustration purposes only. Product name: X 5020VA PLUS White Order number: PAV-X502PVA1



# Shuttle All-in-One PC **X5020VAPlus** White







**Dual Core** 

**Fanless** 

Linux







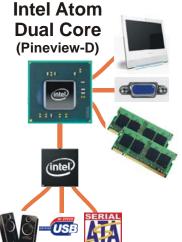
# 22011 by Shuttle Computer Handels GmbH (Germany). All information subject to change without notice. Pictures for illustration purposes only.

## All-in-One PC X 5020VA PLUS - Special 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.

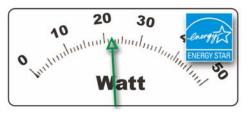


### New Atom processor integrates the graphics core

Shuttle X 5020VA PLUS is equipped with Intels Atom processor D525, codenamed Pineview. It brings both the memory controller and graphics core on-die which helps to reduce the thermal output and memory latency. The CPU is connected to the Southbridge NM10, codenamed Tiger Point.

### Dual Core. Do more.

The vast majority of the existing netbooks and all-in-one PCs with an Intel Atom CPU use the Single Core version. In contrast to this, Shuttle's all-in-one PC stands out from the crowd with its embedded Intel Atom D510 Dual Core processor, which is boosting the productivity of the PC system, particularly with regards to multithreaded applications.



### Power saving

The new X 5020VA PLUS version equipped with Intel Atom D525 Dual-Core processor and eco-friendly ENERGY STAR 5.0 qualified power adapter consumes about 22 Watt in full load mode, which is approximately half as much as with the first X50 version with Atom 330 processor and 945GC chipset.



### 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. Saves you more space, looks simply stylish, less wiring.



### **VGA Port**

This VGA port can be used to connect a secondary external LCD display or beamer to the PC.



### **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 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 X 5020VA PLUS features a cooling system that combines an integrated heat-sink with thermal pads - and removes the fan. As an added benefit, it's not only quiet but also dust-free.



### Carrying handle

Cleverly, the stand can be pulled up to serve as a handle - easy to move and light to carry with one hand.



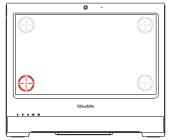
### **Kensington Lock**

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



### **VESA** mounting

The stand on the rear can easily be removed unveiling 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 X 5020VA PLUS features a precise touch screen input device. This can easily be calibrated just by pointing four times with the stylus pen on the screen. 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.



### Serial and parallel legacy ports

Legacy ports are still a requirement for certain industrial applications. Thus, X 5020VA PLUS provides one parallel and two serial ports at the back panel.



### 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:  $89.5 \times 37 \times 26.5 \text{ mm (LWH)} = 88 \text{ml}$ 

# Shuttle X 5020VA PLUS 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 Light bar
- 9 Card reader
- 10 4 USB connectors
- 11 LAN connector
- 12 Microphone input
- 13 Audio line out (head phone)
- 14 VGA video output
- 15 Stand (handle)
- 16 Power on button
- 17 Stylus pen with holder
- 18 DC-input for power supply
- 19 Kensington lock hole
- 20 Vesa mount
- 21 2x COM, 1x Par. Ports (optional accessory PCL68)





# Shuttle X 5020VA PLUS – 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 X 5020VA PLUS White – Specifications
Chassis	Color: white Dimensions: 391.3 x 327 x 36 mm (WxHxL), Weight: 3.6 kg 100mm VESA mount capable Mounting hole for Kensington lock Light bar at the bottom
Operating system	OpenSUSE Linux, powered by Novell
Touch- screen	Touchscreen function support fingertip input Resistance and single touch technology Including stylus pen for the touchscreen
39.6cm (15.6-inch) display	39.6cm/15.6" LCD display, ratio: 16:9 wide screen panel Resolution: 1366x768 = 1.05 Megapixels Adjustable Backlight: CCFL (Cold cathode fluorescent lamp)
Processor	Intel Dual Core Atom processor D525 (Codename: Pineview-D) 45nm manufacturing process, FCBGA559 Intel Hyper-Threading technology: 2-threads per core Intel 64 architecture, Core clock: 1.8 GHz L2 Cache: 1024kB, TDP: max. 13W Integrated North Bridge with controller for memory and graphics
South bridge	Intel® NM10 Platform Controller Hub (PCH), Codename: Tiger Point
BIOS	AMI BIOS in a 8Mb Flash ROM supports PnP, ACPI 3.0 Supports external USB flash memory card boot up
Memory	2GB DDR3 memory, SO-DIMM module with 204 pins, maximum capacity: 4GB
Storage	250GB Serial ATA hard disk drive in 6.35cm/2.5" format
Card reader	Integrated card reader supports SD, SDHC and SDXC memory flash cards
Webcam	Integrated Webcam module  Max. Resolution: 2.0 Megapixel (1600x1200 UXGA)
Audio Microphone Speakers	IDT92HD81 Audio Codec with Azalia support, two analog audio connectors (3.5mm):  1) Line out (head phone)  2) microphone input  Front panel with integrated Electret Condenser Microphone and 2x 2W speakers

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Integrated graphics	The Graphics Processing Unit (GPU) is integrated into the processor Intel GMA 3150, 400MHz render clock frequency Intel Dynamic Vidieo Memory Technology 4.0 (DVMT 4.0) Share system memory max. 256MB Supports DirectX 9 and 2D/3D instruction set, Pixel Shader 2.0 MPEG2 hardware acceleration Intel Clear Video / ProcAmp technology allows user adjustment of hue, saturation, brightness and contrast Two display ports:  - Digital LVDS channel supports up to 1366*768, 18bpp resolution - Analog RGB supports up to 2048*1536, 60Hz resolution - Supports Extended Desktop Mode and Clone Mode
LAN	JMicron JMC261 single-chip PCIe Fast Ethernet combo Card Reader Host controller IEEE 802.3u 100Base-T specification compliant Supports 10/100 MBit/s operation Supports S3 Wake-on-LAN (WOL) feature
Wireless LAN (Wifi)	Supports 802.11 b/g and draft-n Mini PCIe x1 card
Connectors	VGA connector (D-Sub 15 pol., analog)  4x USB 2.0 (2x left side, 2x right side)  Netzwerk (RJ45)  Audio Line-out (head phone)  Microphone input  DC input for power supply  2x serial ports (9 pins)  1x parallel ports (25 pins)
LED's and buttons	Power button Power LED (blue) Hard disk LED (orange) Wireless-LAN / Wifi LED (green)
Power supply	Externes 40W Netzteil (lüfterlos), Abmessungen: 27 x 37 x 90 mm Energy Star 5 konform Eingang (Wechselspannung): 100-240V AC, 50-60Hz Ausgang: 19V DC, max. 2,1A
Certifi- cations	Safety certifications: TÜV, CB, BSMI EMI certifications: CE, FCC, BSMI, R&TT Other certifications: RoHS, Energy Star 5
Environment	Operating temperature: 0~35°C, Humidity: 0~60%
Included Accessories	40W Power Adapter Power cord
Warranty	24 Months Pick-Up-And-Return Service