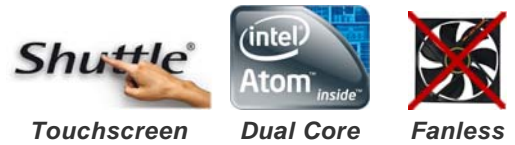## The energy saver with touchscreen

The new generation of Shuttle's All-in-One PCs are real energy savers. Thanks to Intel's new dual-core Atom D510 processor, energy consumption of the X 5020T could be reduced by 50 per cent. Its fanless chassis which is completely passively cooled makes sure the machine runs whisper quiet wherever it is used. Inputs can be made easily and conveniently as usual touching either its 15.6 inch display or using the included stylus. Also on board is a card reader, fast Ethernet, wifi, webcam, a set of built-in speakers and microphone. New to the array of connectors is one parallel and two serial interfaces at the rear of the PC for special applications. At the same time the X 5020T can be configured to meet individual requirements.

Shuttle All-in-One PC
X 5020T

Touchscreen   **Dual Core**   **Fanless**

Feature Highlight

Intel Pineview-D

All-in-one design	• Full featured stylish PC platform • Small: 391 x 327 x 36 mm (WHL) • Stand can also be used as a handle • External, fanless power supply (40W)
CPU & Chipset	• CPU: Intel ATOM D510 Dual Core Codename: Pineview-D (1,66 GHz) • Chipset: NM10 (Plattform Controller Hub)
Storage	• With 1~4 GB DDR2-667/800 Memory • With one SATA hard disk or SSD drive (2.5")
Operating system	• Windows 7 or Windows Vista
Display & Graphics	• 39.6cm (15.6") touchscreen (1366x768) • Integrated graphics (GMA3150, DX9) • VGA Video output (Extended Mode)
Connectivity	• 4x USB, Audio: Mic, Line-out • LAN connector, Wireless LAN (draft-n) • Legacy ports: 2x serial, 1x parallel
Built-in	• SD card reader • 1.3 Megapixel webcam • 2x 2W speakers, Microphone • 100mm VESA mount capable • Light bar at the bottom
Power Supply	• 40W, fanless, Energy Star 5 compliant
Warranty	• 24 months Pick-up-and-Return Service

Images for illustration purposes only.

Shuttle X 50V2-Series – Product Overview (Europe)

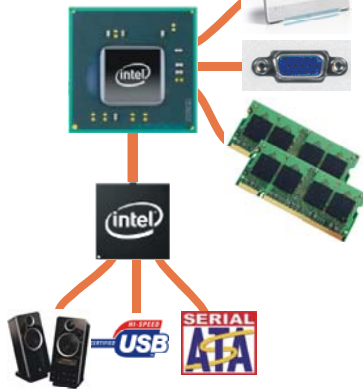| Name	Operating System	Hard disk	Memory	Ser/Par Port	Barcode Number
Barebone **X50V2**	None	None	None	Included as accessory	White: 811686003076 Black: 811686003083
				Built in	White: 811686003113 Black: 811686003090
System **X 5020T**	Configurable	Configurable	Configurable	Built in	White: - Black: -
System **X 5020TA**	Windows 7 Home Premium	250 GB	2 GB	Built in	White: 4046047102068 Black: 4046047102075
System **X50X2A**	None	250 GB	2 GB	Built in	White: 4046047102082 Black: 4046047102099
System **X502VA**	Linux openSuSe	250 GB	2 GB	Built in	White: 4046047102105 Black: 4046047102112

Shuttle X 5020T - 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.

Intel Atom Dual Core (Pineview-D)

New Atom processor integrates the graphics core

Shuttle X 5020T is equipped with Intels new Atom processor, 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 5020T version equipped with Intel Atom D510 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 previous Atom platform with Atom 330 processor and 945GC chipset (X 5000T).

VGA Port

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

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.

Built-In Webcam and Microphone

The built-in 1.3 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 5020T 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.
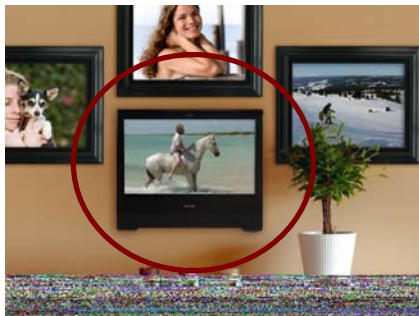
Carrying handle

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.)
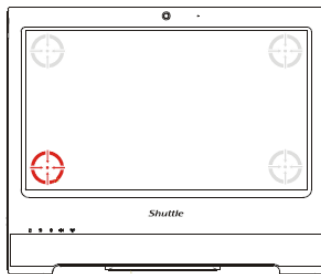

VESA mounting

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.

Control AP Software

Click the „ControlAP"-Button and you can configure the following items with your fingers on the touchscreen:

- Screen brightness
- Lght bar brightness
- Wireless LAN On/Off
- Web camera On/Off
- Configuration of LCD and external VGA screen

4 Point Touch Screen Calibration

The Shuttle X 5020T 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 5020T provides one parallel and two serial ports at the back panel. (European version)

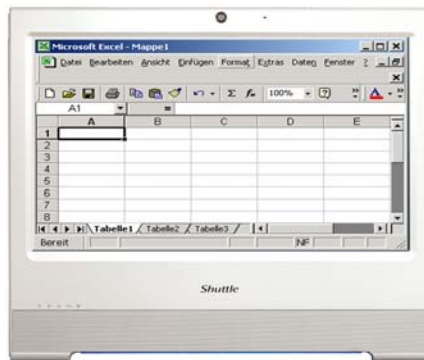# Shuttle X 5020T Overview (Connectors, buttons, etc.)

#	
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
20	Vesa mount
21	2x COM, 1x Par. Ports

Shuttle X 5020T – 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 5020T – Specifications

Chassis	Color: white or black Dimensions: 391.3 x 327 x 36 mm (WxHxL) 100mm VESA mount capable Mounting hole for Kensington lock Light bar at the bottom
Operating system	Windows 7 Home Premium / Professional Windows Vista Home Basic / Home Premium
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 D510 **(Codename: Pineview-D)** 45nm manufacturing process, FCBGA559 Intel Hyper-Threading technology: 2-threads per core Intel 64 architecture, Core clock: 1.66GHz, L2 Cache: 1024kB , TDP: max. 15W 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	1~4 GB DDR2-667/800 SO-DIMM memory *)
Hard disk drives	Built-in Serial ATA hard disk or SATA SSD drive in 6.35cm/2.5" format
Card reader	Integrated card reader supports SD, SDHC and SDXC memory flash cards
Webcam	Integrated Webcam module with 1.3 Megapixel resolution
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

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 2x Serial ports, Parallel port **DC input for power supply**
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
Certifications	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%
Warranty	24 months Pick-up-and-Return Service (PUR)

*) System resources and hardware (such as PCI and PCI Express) require physical memory address locations that can reduce available addressable system memory. This could result in a reduction of as much as 1 GB or more of physical addressable memory being available to the operation system and applications, depending on the system configuration and operation system.